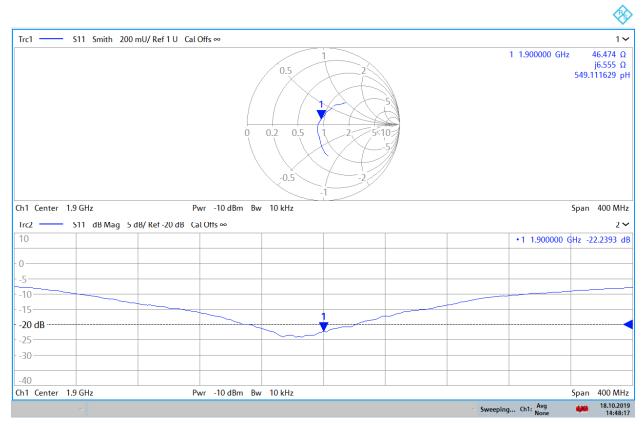
Impedance & Return-Loss Measurement Plot for Body TSL



14:48:18 18.10.2019

Object:	Date Issued:	Page 4 of 4
D1900V2 – SN: 5d080	10/18/2019	Fage 4 01 4

Calibration Laboratory of Schmid & Partner **Engineering AG** Zeughausstrasse 43, 8004 Zurich, Switzerland

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S Swiss Calibration Service

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Accreditation No.: SCS 0108

PC Test Client

Certificate N				

CALIBRATION CERTIFICATE				
Object	D1900V2 - SN:5d148			
Calibration procedure(s)	QA CAL-05.v11 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz			
Calibration date:	12NV 13-01-19			
This calibration certificate docu The measurements and the un	ments the traceability to national standards, which realize the physical units of measurements (SI). certainties with confidence probability are given on the following pages and are part of the certificate.			
All calibrations have been cond	lucted in the closed laboratory facility: environment temperature (22 \pm 3)°C and humidity < 70%.			
Calibration Equipment used (M	&TE critical for calibration)			

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	31-Dec-18 (No. EX3-7349_Dec18)	Dec-19
DAE4	SN: 601	04-Oct-18 (No. DAE4-601_Oct18)	Oct-19
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	07-Oct-15 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19
	Name	Function	Signature
Calibrated by:	Manu Seltz	Laboratory Technician	and i
Approved by	14 D B 1 1	<u></u>	
Approved by:	Katja Pokovic	Technical Manager	J. C.U.S
			Issued: February 21, 2019
This calibration certificate shall not	be reproduced except in	full without written approval of the laboratory	

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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S Swiss Calibration Service

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Glossary:

TSL	tissue simulating liquid
IOL	U
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Accreditation No.: SCS 0108

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.9 ± 6 %	1.38 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition		
SAR measured	250 mW input power	9.65 W/kg	
SAR for nominal Head TSL parameters	normalized to 1W	39.1 W/kg ± 17.0 % (k=2)	
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition		
SAR measured	250 mW input power	5.05 W/kg	

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.6 ± 6 %	1.47 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.56 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	39.1 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.05 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	20.5 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.8 Ω + 6.8 jΩ
Return Loss	- 23.2 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.4 Ω + 7.8 jΩ
Return Loss	- 21.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	
	1.170 ns
	1370115

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
	JEAG

DASY5 Validation Report for Head TSL

Date: 21.02.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d148

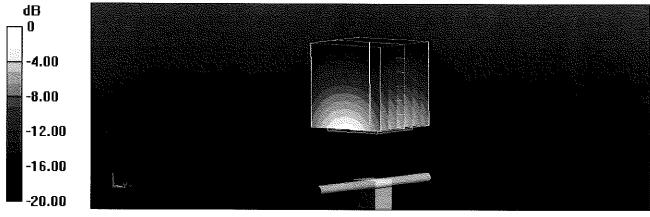
Communication System: UID 0 - CW; Frequency: 1900 MHz Medium parameters used: f = 1900 MHz; $\sigma = 1.38$ S/m; $\varepsilon_r = 40.9$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.26, 8.26, 8.26) @ 1900 MHz; Calibrated: 31.12.2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 109.4 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 17.8 W/kg **SAR(1 g) = 9.65 W/kg; SAR(10 g) = 5.05 W/kg** Maximum value of SAR (measured) = 15.0 W/kg



0 dB = 15.0 W/kg = 11.76 dBW/kg

Impedance Measurement Plot for Head TSL

<u>File Viev</u>	v <u>C</u> hannel Sw <u>e</u> e	ep Calibration <u>T</u> r	ace <u>S</u> cale M <u>a</u> r	'ker S <u>y</u> stem <u>Wi</u> ni	dow Help	
Ch1::	Ch 1 Awg = 20 Start 1.70000 GHz				1.900000 GHz 573.82 pH 1.900000 GHz	51.822 Ω 6.8503 Ω 69.458 mU 71.260 °
10.00 5.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00 -40.00 Ch1: 5	Ch 1 Avg = 20 3tart 1.70000 GHz				1.900000 GHz	-23.166 dB
Status	CH 1: <u>811</u>	C*-	1-Port	Avg=20 Delay		Stop 2.10000 GHz

DASY5 Validation Report for Body TSL

Date: 21.02.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d148

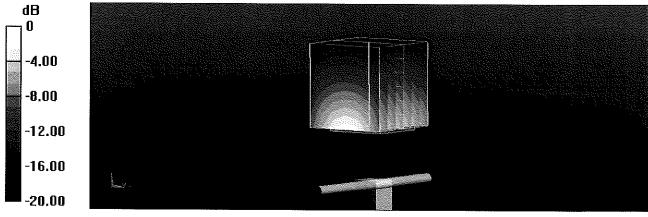
Communication System: UID 0 - CW; Frequency: 1900 MHz Medium parameters used: f = 1900 MHz; $\sigma = 1.47$ S/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.23, 8.23, 8.23) @ 1900 MHz; Calibrated: 31.12.2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 103.7 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 17.0 W/kg SAR(1 g) = 9.56 W/kg; SAR(10 g) = 5.05 W/kg Maximum value of SAR (measured) = 14.4 W/kg



0 dB = 14.4 W/kg = 11.58 dBW/kg

Impedance Measurement Plot for Body TSL

File	View	<u>C</u> hannel	Sweep	Calibration	<u>Trace</u> <u>S</u> c.	ale M <u>a</u> rker	System	Window	Help			
		Ch1Avg=				XXX			1.900000 G 652.32 1.900000 G	pН	48.446 Ω 7.7874 Ω 80.412 mU 96.762 °	
		rt 1.70000 (-4			s	top 2,10000 GHz	
10.0	no 16	THE REAL PROPERTY OF THE PROPERTY OF THE REAL PROPE	7			Contraction of the second s		The second se	The second s			
5.0 0.0 -5.0 -10. -15. -20. -25. -30. -35. -40. (Ch 1 Awg = rt 1.70000 c	20 3Hz				>				-21.894 dB	

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S Swiss Calibration Service

Accreditation No.: SCS 0108

Certificate No: D1900V2-5d149_Oct18

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Client PC Test

CALIBRATION CI	ERITIEICATE		
Object	D1900V2-SN:50	1149	
Calibration procedure(s)	QA CAL-05.v10 Calibration proce	dure for dipole validation kits ab	
Calibration date:	October 23, 2018)	BNV 10-30-2018 BNV 10-20-201
	•	onal standards, which realize the physical ur robability are given on the following pages a	nits of measurements (SI).
Calibration Equipment used (M&TE		ry facility: environment temperature (22 \pm 3)°	G and numidity < 70%.
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	30-Dec-17 (No. EX3-7349_Dec17)	Dec-18
DAE4	SN: 601	04-Oct-18 (No. DAE4-601_Oct18)	Oct-19
Secondary Standards	ID#	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19
	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	Q=
Approved by:	Katja Pokovic	Technical Manager	I CAG
This calibration cartificate shall not	he reproduced event in	full without written approval of the laborator	Issued: October 23, 2018

Calibration Laboratory of

Schmid & Partner **Engineering AG** Zeughausstrasse 43, 8004 Zurich, Switzerland





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S Swiss Calibration Service

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Glossarv:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole • positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. • No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power. •
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the • nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Accreditation No.: SCS 0108

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.3 ± 6 %	1.40 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.80 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	39.3 W/kg ± 17.0 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
or a realized over to one (to g) of field to E	condition	
SAR measured	250 mW input power	5.11 W/kg

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.9 ± 6 %	1.47 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.68 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	39.4 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.11 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	20.7 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.9 Ω + 6.3 jΩ
Return Loss	- 23.4 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.5 Ω + 8.2 jΩ
Return Loss	- 21.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.193 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	March 11, 2011

DASY5 Validation Report for Head TSL

Date: 23.10.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d149

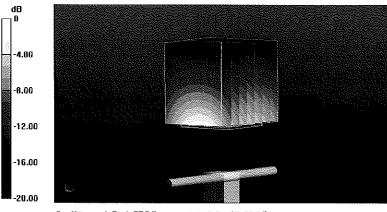
Communication System: UID 0 - CW; Frequency: 1900 MHz Medium parameters used: f = 1900 MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 40.3$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.18, 8.18, 8.18) @ 1900 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

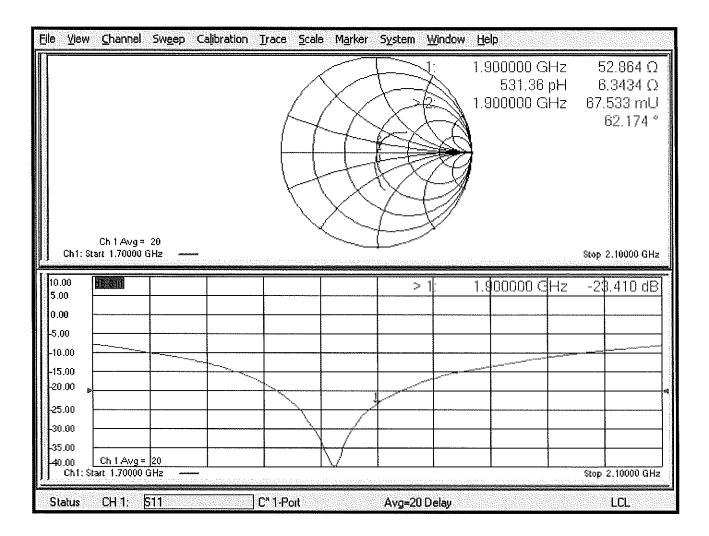
Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 110.0 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 18.5 W/kg **SAR(1 g) = 9.8 W/kg; SAR(10 g) = 5.11 W/kg** Maximum value of SAR (measured) = 15.4 W/kg



0 dB = 15.4 W/kg = 11.88 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 23.10.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d149

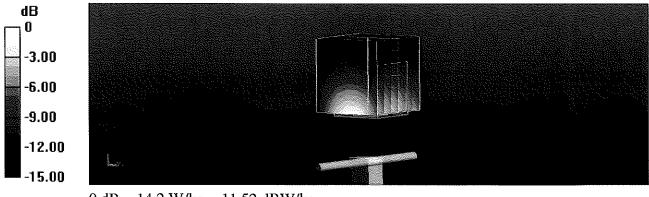
Communication System: UID 0 - CW; Frequency: 1900 MHz Medium parameters used: f = 1900 MHz; σ = 1.47 S/m; ϵ_r = 52.9; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.15, 8.15, 8.15) @ 1900 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 103.1 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 17.5 W/kg SAR(1 g) = 9.68 W/kg; SAR(10 g) = 5.11 W/kg Maximum value of SAR (measured) = 14.2 W/kg



0 dB = 14.2 W/kg = 11.52 dBW/kg

Impedance Measurement Plot for Body TSL

<u>File V</u> iew	<u>Channel Swe</u> ep (Calibration <u>T</u> race <u>S</u> cale M	arker System <u>W</u> indow <u>H</u> elp	
	Ch 1 Avg = 20		1: 1.90000 684. 1.900000	48 pH - 8.1713 Ω
Ch1: S	itart 1.70000 GHz			Stop 2.10000 GHz
10.00 5.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00 -40.00 Ch1: S	Ch 1 Avg = 20 tart 1.70000 GHz			CGHz -21.519 dB
Status	CH11: 511	C* 1-Port	Avg=20 Delay	LCL



PCTEST ENGINEERING LABORATORY, INC. 7185 Oakland Mills Road, Columbia, MD 21046 USA

Tel. +1.410.290.6652 / Fax +1.410.290.6654 http://www.pctest.com



Certification of Calibration

Object

D1900V2 - SN:5d149

Calibration procedure(s) Procedure for Calibration Extension for SAR Dipoles.

Extended Calibration date: October 18, 2019

Description: SAR Validation Dipole at 1900 MHz.

Calibration Equipment used:

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Control Company	4040	Therm./Clock/Humidity Monitor	6/29/2019	Biennial	6/29/2021	192291470
Control Company	4352	Ultra Long Stem Thermometer	8/2/2018	Biennial	8/2/2020	181334684
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	433971
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	7/2/2019	Annual	7/2/2020	MY53401181
Rohde & Schwarz	ZNLE6	Vector Network Analyzer	10/11/2019	Annual	10/11/2020	101307
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
SPEAG	DAKS-3.5	Portable Dielectric Assessment Kit	8/13/2019	Annual	8/13/2020	1041
Anritsu	MA2411B	Pulse Power Sensor	8/14/2019	Annual	8/14/2020	1315051
Anritsu	MA2411B	Pulse Power Sensor	8/8/2019	Annual	8/8/2020	1339008
Anritsu	ML2495A	Power Meter	11/20/2018	Annual	11/20/2019	1039008
Agilent	N5182A	MXG Vector Signal Generator	8/19/2019	Annual	8/19/2020	MY47420837
Seekonk	NC-100	Torque Wrench	5/9/2018	Biennial	5/9/2020	22217
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
MiniCircuits	ZHDC-16-63-S+	Bidirectional Coupler	CBT	N/A	CBT	N/A
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	3914
SPEAG	EX3DV4	SAR Probe	5/16/2019	Annual	5/16/2020	7406
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/8/2019	Annual	5/8/2020	859
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/14/2019	Annual	2/14/2020	1272

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path.

Measurement Uncertainty = $\pm 23\%$ (k=2)

	Name	Function	Signature
Calibrated By:	Brodie Halbfoster	Team Lead Engineer	BRODIE HALBFOSTER
Approved By:	Kaitlin O'Keefe	Senior Technical Manager	XOK

Object:	Date Issued:	Dogo 1 of 4
D1900V2 – SN: 5d149	10/18/2019	Page 1 of 4

DIPOLE CALIBRATION EXTENSION

Per KDB 865664 D01, calibration intervals of up to three years may be considered for reference dipoles when it is demonstrated that the SAR target, impedance and return loss of a dipole have remained stable according to the following requirements:

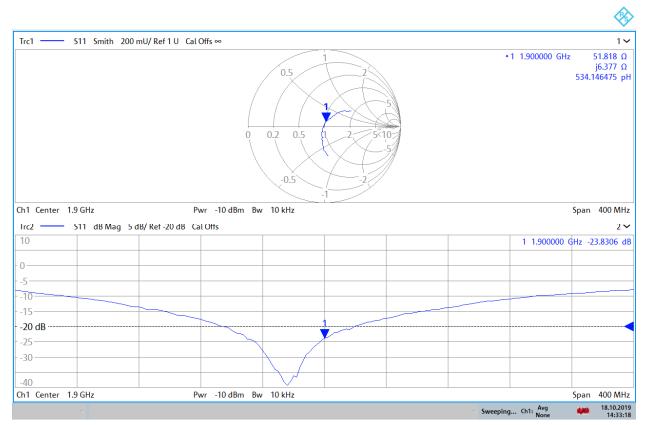
- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance does not deviate more than 5Ω from the previous measurement.

The following dipole was checked to pass the above 3 requirements to have 2-year calibration period from the calibration date:

Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Head (1g) W/kg @ 20.0 dBm	Measured Head SAR (1g) W/kg @ 20.0 dBm	(96)	Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	Measured Head SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)	Certificate Impedance Head (Ohm) Real	Measured Impedance Head (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Head (Ohm) Imaginary	Measured Impedance Head (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Head (dB)	Measured Return Loss Head (dB)	Deviation (%)	PASS/FAIL
10/23/2018	10/18/2019	1.193	3.93	4.24	7.89%	2.05	2.18	6.34%	52.9	51.8	1.1	6.3	6.4	0.1	-23.4	-23.8	-1.80%	Pass
		Certificate	Certificate	Measured		Certificate	Measured		Certificate	Measured		Certificate	Measured					
Calibration Date	Extension Date	Electrical Delay (ns)	SAR Target Body (1g) W/kg @ 20.0 dBm	Body SAR (1g)	(0/)	SAR Target Body (10g) W/kg @ 20.0 dBm		Deviation 10g (%)		Impedance Body (Ohm) Real	Difference (Ohm) Real	Impedance	Impedance Body (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Body (dB)	Measured Return Loss Body (dB)	Deviation (%)	PASS/FAIL

Object:	Date Issued:	Page 2 of 4
D1900V2 – SN: 5d149	10/18/2019	raye 2 014

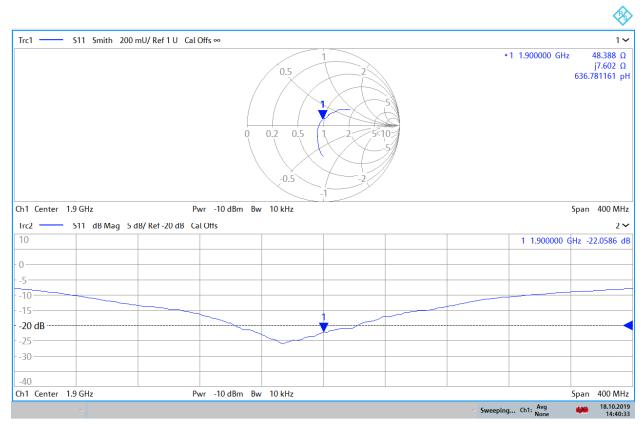
Impedance & Return-Loss Measurement Plot for Head TSL



14:33:19 18.10.2019

Object:	Date Issued:	Page 3 of 4
D1900V2 – SN: 5d149	10/18/2019	Fage 5 01 4

Impedance & Return-Loss Measurement Plot for Body TSL



14:40:34 18.10.2019

Object:	Date Issued:	Dage 4 of 4
D1900V2 – SN: 5d149	10/18/2019	Page 4 of 4

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Accreditation No.: SCS 0108

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Certificate No: D2450V2-719_Aug19

CALIBRATION CERTIFICATE

Object	D2450V2 - SN:7	19	
Calibration procedure(s)	QA CAL-05.v11 Calibration Proce	dure for SAR Validation Sources b	etween 0.7-3 GHz
Calibration date:	August 14, 2019		BNW 68 20 20 9
		onal standards, which realize the physical units or robability are given on the following pages and a	
All calibrations have been conducte	ed in the closed laborato	ry facility: environment temperature (22 \pm 3)°C a	nd humidity < 70%.
Calibration Equipment used (M&TE	E critical for calibration)		
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-19 (No. 217-02894)	Apr-20
Type-N mismatch combination	SN: 5047,2 / 06327	04-Apr-19 (No. 217-02895)	Apr-20
Reference Probe EX3DV4	SN: 7349	29-May-19 (No. EX3-7349_May19)	May-20
DAE4	SN: 601	30-Apr-19 (No. DAE4-601_Apr19)	Apr-20
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19
Calibrated by:	Name Claudio Leubler	Function Laboratory Technician	Signature
Approved by:	Katja Pokovic	Technical Manager	tills
This calibration certificate shall not	be reproduced except in	full without written approval of the laboratory.	Issued: August 15, 2019

Calibration Laboratory of

Schmid & Partner **Engineering AG** Zeughausstrasse 43, 8004 Zurich, Switzerland





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Glossarv:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. • No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna • connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Accreditation No.: SCS 0108

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.8 ± 6 %	1.83 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.5 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	53.1 W/kg ± 17.0 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.25 W/kg

SAR measured	250 mW input power	6.25 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.7 W/kg ± 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1 .95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	50.8 ± 6 %	2.01 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.0 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	50.8 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.09 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	24.0 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.6 Ω + 5.6 jΩ
Return Loss	- 23.2 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	51.0 Ω + 8.4 jΩ
Return Loss	- 21.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction) 1.150 ns	

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG

DASY5 Validation Report for Head TSL

Date: 14.08.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:719

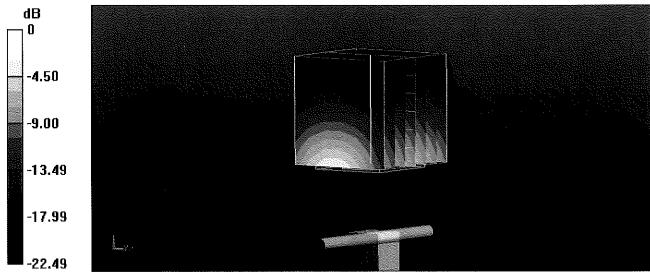
Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 1.83 S/m; ϵ_r = 37.8; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(7.9, 7.9, 7.9) @ 2450 MHz; Calibrated: 29.05.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

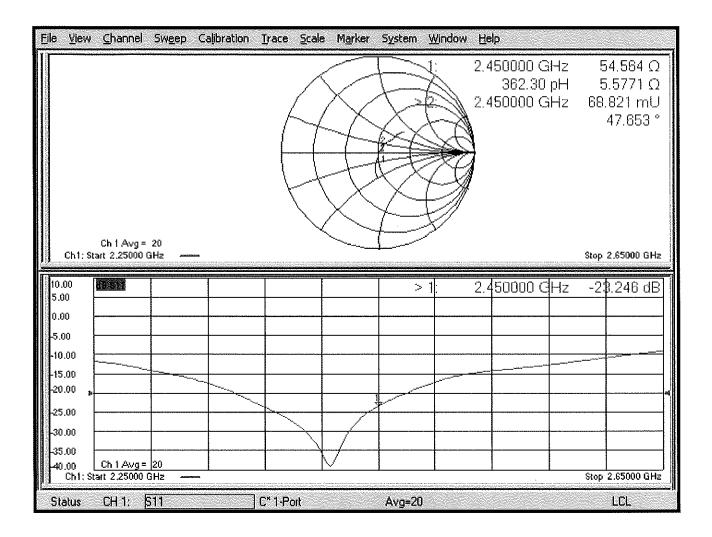
Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 117.1 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 26.6 W/kg SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.25 W/kg Maximum value of SAR (measured) = 21.8 W/kg



0 dB = 21.8 W/kg = 13.38 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 14.08.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:719

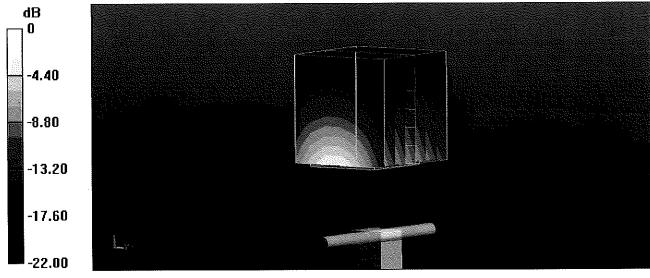
Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 2.01 S/m; ϵ_r = 50.8; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(7.94, 7.94, 7.94) @ 2450 MHz; Calibrated: 29.05.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 105.2 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 25.6 W/kg **SAR(1 g) = 13 W/kg; SAR(10 g) = 6.09 W/kg** Maximum value of SAR (measured) = 20.0 W/kg



0 dB = 20.0 W/kg = 13.01 dBW/kg

Impedance Measurement Plot for Body TSL

<u>File V</u> iew	<u>C</u> hannel Sv	v <u>e</u> ep Calibratio	n <u>T</u> race <u>S</u> cale	Marker S <u>y</u> s	tem <u>W</u> indo	ow <u>H</u> elp			
Ch1: 3t2	Ch 1 Avg = 20 art 2.25000 GHz		A				0000 GHz 546.95 pH 0000 GHz	8 83. ,	1.000 Ω .4196 Ω 658 mU 78.464 °
	olouhe/weight duitestarie tugegotten ge	***************************************							
10.00					> 1;	2.45	60000 GHz	-2	.550 dB
10.00 5.00 0.00					> 1;	2.45	60000 GHz	-2	.550 dB
5.00 - 0.00 - -5.00 -					> 1;	2.45	0000 GHz	-2	.550 dB
5.00 - Q,00 -					> 1:	2.45	0000 GHz	-2	.550 dB
5.00 - 0.00 - -5.00 - -18.00 - -15.00 -					> 1:	2.45	0000 GHz	-2	.550 dB
5.00 - 0.00 - -5.00 - -10.00 - -15.00 -					> 1:	2.45	0000 GHz	-2	.550 dB
5.00 0.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00					> 1:	2.45	0000 GHz	-2	.550 dB
5.00 0.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00	Ch 1 Avg = 20 rart 2.25000 GHz				> 1:	2.45	0000 GHz		.550 dB

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SSchweizerlacher KallbrierdienstCService sulsse d'étalonnageSServizio svizzero di taraturaSSwiss Calibration Service

Accreditation No.: SCS 0108

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Client PC Test

AI

Certificate No: D2450V2-797_Sep17

Calibration date:	September 11, 20 s the traceability to nation inties with confidence put d in the closed laborator	dure for dipole validation kits about 017 onal standards, which realize the physical un robability are given on the following pages are the physical unterpresent temperature (22 ± 3) of the following states of the physical s	10/03/2017 Extended PNV J/20/2018 Ills of measurements (SI). Ind are part of the certificate. Extended
This calibration certificate documents The measurements and the uncertain All calibrations have been conducted	s the traceability to nationate the second state of the second seco	ional standards, which realize the physical un robability are given on the following pages ar	
The measurements and the uncertain All calibrations have been conducted	nties with confidence p I in the closed laborator	robability are given on the following pages ar	
		ry facility: environment temperature (22 \pm 3)°4	10/1/190
Calibration Equipment used (M&TE c	critical for calibration)		
Primary Standards	1D #	Cal Date (Certificate No.)	Scheduled Calibration
ower meler NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
ower sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
ower sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
eference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
ype-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
eference Probe EX3DV4	SN: 7349	31-May-17 (No. EX3-7349_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18
econdary Standards	ID#	Check Date (in house)	Scheduled Check
ower meter EPM-442A	SN: GB37480704	07-Oot-15 (In house check Oct-16)	In house check: Oct-18
1	SN: US37292783	07-Oct-15 (In house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092917	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
•	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Vetwork Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17
	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	Mart
		·····	
Approved by:	Katja Pokovic	Technical Manager	Cliff
	, [.]	· · · · ·	

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Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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- S Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossarv:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters;

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the ٠ nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.8 ± 6 %	1.86 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.5 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.7 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.28 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.8 W/kg ± 16.5 % (k=2)

à

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	51.9 ± 6 %	2.04 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	18. 18. us ut	

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.1 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	51.1 W/kg ± 17.0 % (k≃2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.14 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	24.2 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.8 Ω + 7.4 jΩ
Return Loss	- 21.9 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	49.7 Ω + 9.1 jΩ
Return Loss	- 20.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.152 ns	

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	January 24, 2006

DASY5 Validation Report for Head TSL

Date: 11.09.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 797

Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 1.86 S/m; ϵ_r = 37.8; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.12, 8.12, 8.12); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

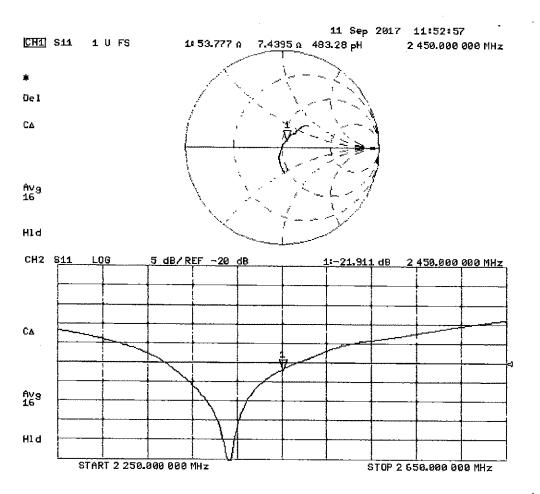
Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 113.5 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 26.9 W/kg SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.28 W/kg Maximum value of SAR (measured) = 21.6 W/kg



0 dB = 21.6 W/kg = 13.34 dBW/kg

Impedance Measurement Plot for Head TSL



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DASY5 Validation Report for Body TSL

Date: 11.09.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 797

Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 2.04 S/m; ϵ_r = 51.9; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

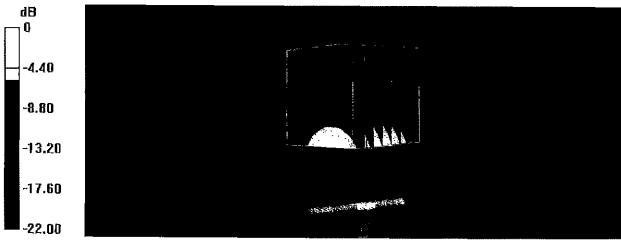
DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.1, 8.1, 8.1); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

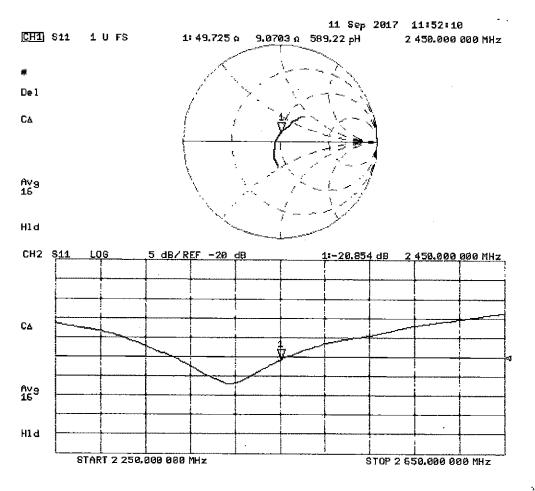
Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 105.4 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 25.6 W/kg SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.14 W/kg

Maximum value of SAR (measured) = 20.3 W/kg



 $0 \, dB = 20.3 \, W/kg = 13.07 \, dBW/kg$

Impedance Measurement Plot for Body TSL



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. PCTEST ENGINEERING LABORATORY, INC.

18855 Adams Ct, Morgan Hill, CA 95037 USA Tel. +1.410.290.6652 / Fax +1.410.290.6654 http://www.pctest.com



Certification of Calibration

Object

PCTEST

D2450V2 - SN: 797

Calibration procedure(s) Procedure for Calibration Extension for SAR Dipoles.

Extended Calibration date: September 11, 2018

Description:

SAR Validation Dipole at 2450 MHz.

Calibration Equipment used:

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Control Company	4040	Therm./Clock/Humidity Monitor	3/31/2017	Biennial	3/31/2019	170232394
Control Company	4352	Ultra Long Stem Thermometer	5/2/2017	Biennial	5/2/2019	170330156
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	433971
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Keysight	7720	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	6/4/2018	Annual	6/4/2019	MY53401181
Agilent	8753ES	S-Parameter Vector Network Analyzer	8/30/2018	Annuai	8/30/2019	MY40003841
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	СВТ	N/A
SPEAG	DAK-3,5	Dielectric Assessment Kit	5/15/2018	Annual	5/15/2019	1070
SPEAG	EX3DV4	SAR Probe	7/20/2018	Annual	7/20/2019	7410
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2018	Annual	7/11/2019	1322
SPEAG	ES3DV3	SAR Probe	3/13/2018	Annual	3/13/2019	3319
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/7/2018	Annual	3/7/2019	1368
Anritsu	MA2411B	Puise Power Sensor	3/2/2018	Annual	3/2/2019	1207364
Anritsu	MA24118	Puise Power Sensor	3/2/2018	Annual	3/2/2019	1339018
Anritsu	ML2495A	Power Meter	10/22/2017	Annuəl	10/22/2018	1328004
Aglient	N5182A	MXG Vector Signal Generator	4/18/2018	Annual	4/18/2019	MY47420800
Seekonk	NC-100	Torque Wrench	7/11/2018	Annual	7/11/2019	N/A
MiniCircuits	VLF-6000+	Low Pass Filter	C8T	N/A	CBT	N/A
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	CBT	N/A	СВТ	N/A

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path.

Measurement Uncertainty = $\pm 23\%$ (k=2)

	Name	Function	Signature
Calibrated By:	Brodie Halbfoster	Team Lead Engineer	BRODIE HALBFOSTER
Approved By:	Kaitlin O'Keefe	Senior Technical Manager	3KOK-

Object:	Date Issued:	Page 1 of 4
D2450V2 – SN: 797	09/11/2018	

DIPOLE CALIBRATION EXTENSION

Per KDB 865664 D01, calibration intervals of up to three years may be considered for reference dipoles when it is demonstrated that the SAR target, impedance and return loss of a dipole have remained stable according to the following requirements:

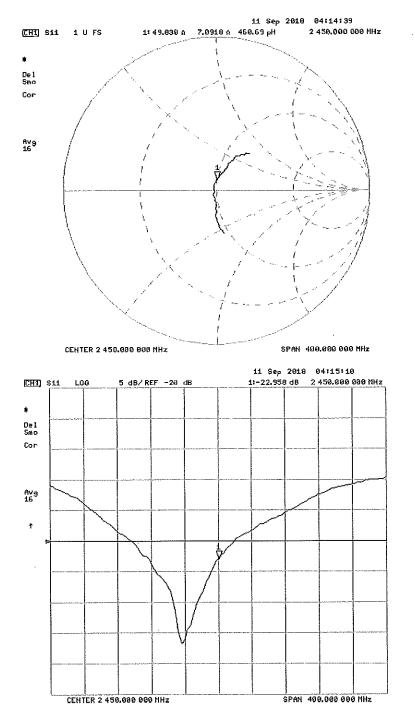
- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance does not deviate more than 5Ω from the previous measurement.

The following dipole was checked to pass the above 3 requirements to have 2-year calibration period from the calibration date:

Calibration Date	Extension Date		Certificate SAR Target Head (1g) W/kg @ 20.0 dBm			Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	Head SAR		Certificate Impedance Head (Ohm) Real		Difference (Ohm) Real		Measured Impedance Head (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Head (dB)	Measured Return Loss Head (dB)	Deviation (%)	PASS/FAIL
9/11/2017	9/11/2018	1.152	5.27	5.52	4.74%	2.48	2.54	2.42%	53.8	49.8	4	7.4	7.1	0.3	-21.9	-23	-4.80%	PASS

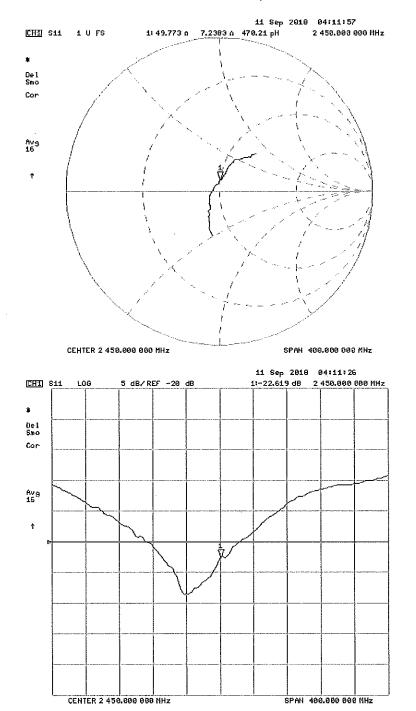
Calibration Date	Extension Date		Certificate SAR Target Body (1g) W/kg @ 20.0 dBm			Certificate SAR Target Body (10g) W/kg @ 20.0 dBm	(10a) W/ka @	Deviation 10g (%)	Certificate Impedance Body (Ohm) Real	Measured Impedance Body (Ohm) Real		Certificate Impedance Body (Ohm) Imaginary		Difference (Ohm) Imaginary	Certificate Return Loss Body (dB)	Measured Return Loss Body (dB)	Deviation (%)	PASS/FAIL
9/11/2017	9/11/2018	1.152	5.11	5.17	1.17%	2.42	2.37	-2.07%	49.7	49.8	0.1	9.1	7.2	1.9	-20.9	-22.6	-8.20%	PASS

Object:	Date Issued:	Dego 2 of 4
D2450V2 – SN: 797	09/11/2018	Page 2 of 4



Impedance & Return-Loss Measurement Plot for Head TSL

Object:	Date Issued:	Page 3 of 4
D2450V2 SN: 797	09/11/2018	



Impedance & Return-Loss Measurement Plot for Body TSL

Object:	Date Issued:	Page 4 of 4
D2450V2 – SN: 797	09/11/2018	



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Tel. +1.410.290.6652 / Fax +1.410.290.6654 http://www.pctest.com



Certification of Calibration

Object

D2450V2 - SN: 797

Calibration procedure(s) Procedure for Calibration Extension for SAR Dipoles.

September 9, 2019

Extended Calibration date:

Description:

SAR Validation Dipole at 2450 MHz.

Calibration Equipment used:

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	8753ES	S-Parameter Network Analyzer	10/2/2018	Annual	10/2/2019	US39170118
Agilent	N5182A	MXG Vector Signal Generator	6/27/2019	Annual	6/27/2020	US46240505
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	343972
Anritsu	ML2495A	Power Meter	10/21/2018	Annual	10/21/2019	941001
Anritsu	MA2411B	Pulse Power Sensor	10/30/2018	Annual	10/30/2019	1207470
Anritsu	MA2411B	Pulse Power Sensor	11/20/2018	Annual	11/20/2019	1339007
Control Company	4040	Temperature / Humidity Monitor	2/28/2018	Biennial	2/28/2020	150761911
Control Company	4352	Ultra Long Stem Thermometer	2/28/2018	Biennial	2/28/2020	170330160
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	7/2/2019	Annual	7/2/2020	MY53401181
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	NC-100	Torque Wrench	5/23/2018	Biennial	5/23/2020	N/A
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	7417
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/13/2019	Annual	2/13/2020	665
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1323
SPEAG	DAK-3.5	Dielectric Assessment Kit	9/11/2018	Annual	9/11/2019	1091

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path.

Measurement Uncertainty = $\pm 23\%$ (k=2)

	Name	Function	Signature
Calibrated By:	Brodie Halbfoster	Team Lead Engineer	BRODIE HALBFOSTER
Approved By:	Kaitlin O'Keefe	Senior Technical Manager	ROK

Object:	Date Issued:	Daga 1 of 4
D2450V2 – SN: 797	09/9/2019	Page 1 of 4

DIPOLE CALIBRATION EXTENSION

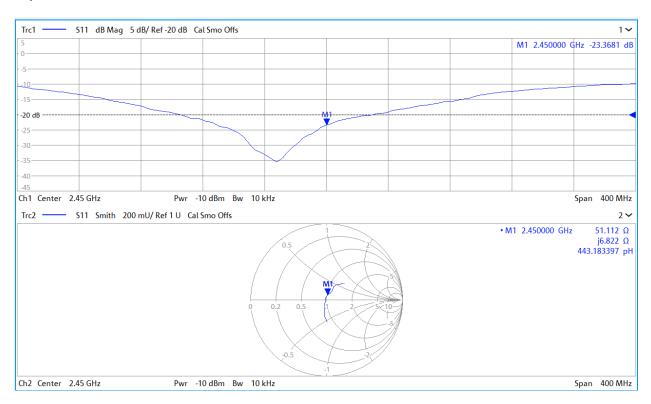
Per KDB 865664 D01, calibration intervals of up to three years may be considered for reference dipoles when it is demonstrated that the SAR target, impedance and return loss of a dipole have remained stable according to the following requirements:

- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance does not deviate more than 5Ω from the previous measurement.

The following dipole was checked to pass the above 3 requirements to have 2-year calibration period from the calibration date:

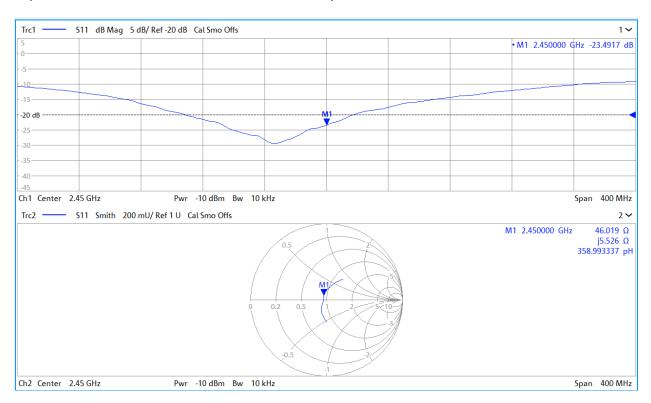
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Head (1g) W/kg @ 20.0 dBm	Measured Head SAR (1g) W/kg @ 20.0 dBm	(96)	Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	Measured Head SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)	Certificate Impedance Head (Ohm) Real	Measured Impedance Head (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Head (Ohm) Imaginary	Measured Impedance Head (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Head (dB)	Measured Return Loss Head (dB)	Deviation (%)	PASS/FAIL
9/11/2017	9/9/2019	1.152	5.27	5.19	-1.52%	2.48	2.41	-2.82%	53.8	51.1	2.7	7.4	6.8	0.6	-21.9	-23.4	-6.70%	PASS
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Body (1g) W/kg @ 20.0 dBm	Measured Body SAR (1g) W/kg @ 20.0 dBm	(0/)	Certificate SAR Target Body (10g) W/kg @ 20.0 dBm	(40-) 10/0	Deviation 10g (%)	Certificate Impedance Body (Ohm) Real	Measured Impedance Body (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Body (Ohm) Imaginary	Measured Impedance Body (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Body (dB)	Measured Return Loss Body (dB)	Deviation (%)	PASS/FAIL
9/11/2017	9/9/2019	1.152	5.11	5.17	1.17%	2.42	2.38	-1.65%	49.7	46	3.7	9.1	5.5	3.6	-20.9	-23.5	-12.40%	PASS

Object:	Date Issued:	Dogo 2 of 4
D2450V2 – SN: 797	09/9/2019	Page 2 of 4



Impedance & Return-Loss Measurement Plot for Head TSL

Object:	Date Issued:	Dogo 2 of 4
D2450V2 – SN: 797	09/9/2019	Page 3 of 4



Impedance & Return-Loss Measurement Plot for Body TSL

Object:	Date Issued:	Dogo 4 of 4
D2450V2 – SN: 797	09/9/2019	Page 4 of 4

Calibration Laboratory of

PC Test

Client

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura

S Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Certificate No: D2450V2-981_Aug18

CALIBRATION CERTIFICATE

Object	D2450V2 - SN:98	31. · · ·	
Calibration procedure(s)	QA CAL-05.v10	·	
	Calibration proce	dure for dipole validation kits ab	ove 700 MHz
		· · · · · · · · · · · · · · · · · · ·	BNV 09-26/2012 BNV 08/10/201
	••••	the second s	09-06/2012
Calibration date:	August 16, 2018	· · · · · · ·	01-01-
			RNV
This calibration certificate docume	nts the traceability to pati	onal standards, which realize the physical un	08/10/24
The measurements and the uncert	ainties with contidence p	robobility or given an the falls in	
	andes with competice p	robability are given on the following pages a	nd are part of the certificate.
All calibrations have been conduct	and for the second s	-	
An canonations have been conduct	ed in the closed laborator	y facility: environment temperature (22 \pm 3)°	C and humidity < 70%.
Calibration Equipment used (M&TE	E critical for calibration)		
	1		
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	30-Dec-17 (No. EX3-7349_Dec17)	Dec-18
DAE4	SN: 601	26-Oct-17 (No. DAE4-601_Oct17)	Oct-18
	•		
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18 In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-17)	In house check: Oct-18
			In nouse check, Ock-18
	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
	- 		Sel The
	•••••••••••••••••••••••••••••••••••••••	•	TIT
Approved by:	Katja Pokovic	Technical Manager	111
			Coldan 1
	•	· · ·	
			included Automation Constant
			Issued: August 23, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst

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Servizio svizzero di taratura

S Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossarv:

TSL ConvF N/A	tissue simulating liquid sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5.0 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.7 ± 6 %	1.86 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.4 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.3 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.20 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.4 W/kg ± 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	51.8 ± 6 %	2.02 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.0 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	50.9 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.11 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	24.2 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	55.0 Ω + 2.3 jΩ
Return Loss	- 25.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	50.2 Ω + 4.7 jΩ
Return Loss	- 26.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.162 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG	
Manufactured on	December 30, 2014	

Appendix (Additional assessments outside the scope of SCS 0108)

Measurement Conditions

DASY system configuration, as far as not given on page 1 and 3.

Phantom		
Filantom	SAM Head Phantom	For usage with cSAR3DV2-R/L
		TO USAGE WILL COARSDYZ-R/L

SAR result with SAM Head (Top)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.6 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	54.0 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.33 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	25.2 W/kg ± 16.9 % (k=2)

SAR result with SAM Head (Mouth)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.6 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	54.0 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.35 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	25.3 W/kg ± 16.9 % (k=2)

SAR result with SAM Head (Neck)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	12.9 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	51.2 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.11 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.4 W/kg ± 16.9 % (k=2)

SAR result with SAM Head (Ear)

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	8.74 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	34.7 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	17.5 W/kg ± 16.9 % (k=2)

DASY5 Validation Report for Head TSL

Date: 13.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:981

Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 1.86 S/m; ϵ_r = 37.7; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

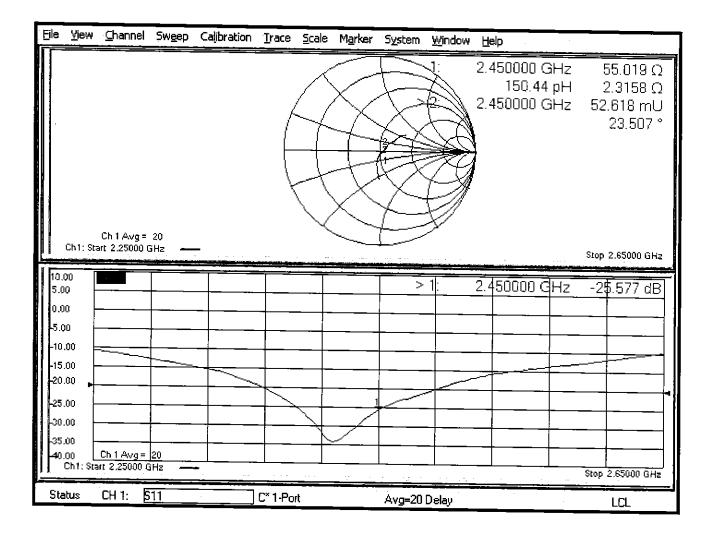
- Probe: EX3DV4 SN7349; ConvF(7.88, 7.88, 7.88) @ 2450 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 116.6 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 26.7 W/kg SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.2 W/kg Maximum value of SAR (measured) = 22.1 W/kg



0 dB = 22.1 W/kg = 13.44 dBW/kg



DASY5 Validation Report for Body TSL

Date: 13.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:981

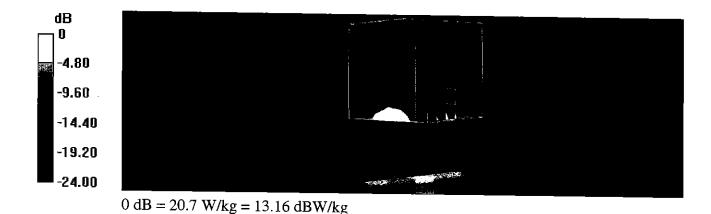
Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 2.02 S/m; ϵ_r = 51.8; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

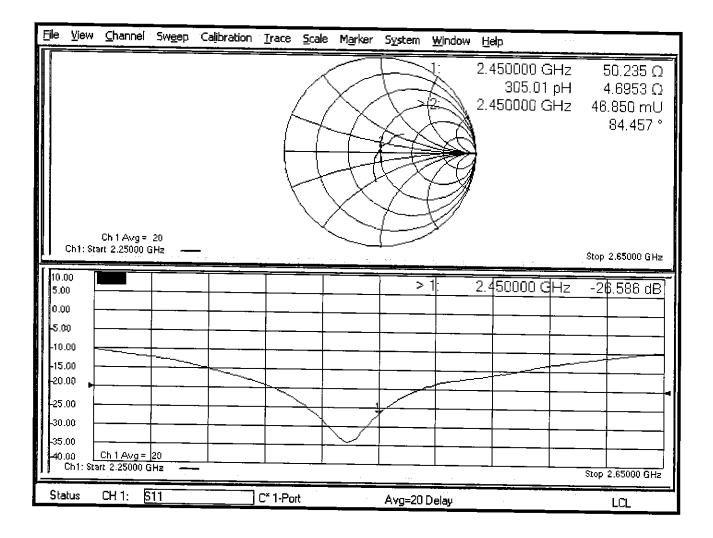
- Probe: EX3DV4 SN7349; ConvF(8.01, 8.01, 8.01) @ 2450 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 107.0 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 25.3 W/kg SAR(1 g) = 13 W/kg; SAR(10 g) = 6.11 W/kg Maximum value of SAR (measured) = 20.7 W/kg



Impedance Measurement Plot for Body TSL



Date: 16.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:981

Communication System: UID 0 - CW ; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; σ = 1.85 S/m; ϵ_r = 40.2; ρ = 1000 kg/m³ Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

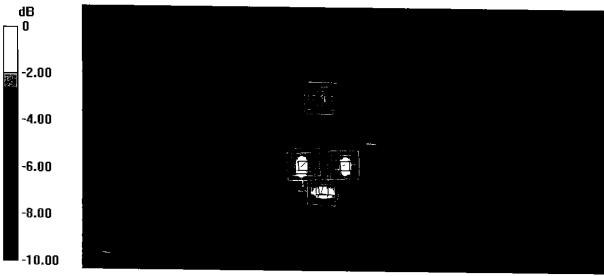
- Probe: EX3DV4 SN7349; ConvF(7.88, 7.88, 7.88) @ 2450 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: SAM Head
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

SAM Head Top/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 116.2 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 26.4 W/kg SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.33 W/kg Maximum value of SAR (measured) = 22.0 W/kg

SAM Head Mouth/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 116.9 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 26.3 W/kg SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.35 W/kg Maximum value of SAR (measured) = 21.7 W/kg

SAM Head Neck/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 112.0 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 24.1 W/kg SAR(1 g) = 12.9 W/kg; SAR(10 g) = 6.11 W/kg Maximum value of SAR (measured) = 20.5 W/kg

SAM Head Ear/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 91.03 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 15.8 W/kg SAR(1 g) = 8.74 W/kg; SAR(10 g) = 4.4 W/kg Maximum value of SAR (measured) = 13.5 W/kg



0 dB = 22.0 W/kg = 13.42 dBW/kg



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Certification of Calibration

Object

D2450V2 - SN: 981

08/09/2019

Calibration procedure(s)

Procedure for Calibration Extension for SAR Dipoles.

Calibration date:

Description:

SAR Validation Dipole at 2450 MHz.

Calibration Equipment used:

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	8753ES	S-Parameter Network Analyzer	10/2/2018	Annual	10/2/2019	US39170118
Agilent	N5182A	MXG Vector Signal Generator	6/27/2019	Annual	6/27/2020	US46240505
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	343972
Anritsu	ML2495A	Power Meter	10/21/2018	Annual	10/21/2019	941001
Anritsu	MA2411B	Pulse Power Sensor	10/30/2018	Annual	10/30/2019	1207470
Anritsu	MA2411B	Pulse Power Sensor	11/20/2018	Annual	11/20/2019	1339007
Control Company	4040	Temperature / Humidity Monitor	2/28/2018	Biennial	2/28/2020	150761911
Control Company	4352	Ultra Long Stem Thermometer	2/28/2018	Biennial	2/28/2020	170330160
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	7/2/2019	Annual	7/2/2020	MY53401181
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	NC-100	Torque Wrench	5/23/2018	Biennial	5/23/2020	N/A
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	7417
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/13/2019	Annual	2/13/2020	665
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1323
SPEAG	DAK-3.5	Dielectric Assessment Kit	9/11/2018	Annual	9/11/2019	1091

Measurement Uncertainty = ±23% (k=2)

	Name	Function	Signature
Calibrated By:	Brodie Halbfoster	Test Engineer	BRODIE HALBFOSTER
Approved By:	Kaitlin O'Keefe	Senior Technical Manager	ROK

Object:	Date Issued:	Page 1 of 4
D2450V2 – SN: 981	08/09/2019	Page 1 of 4

DIPOLE CALIBRATION EXTENSION

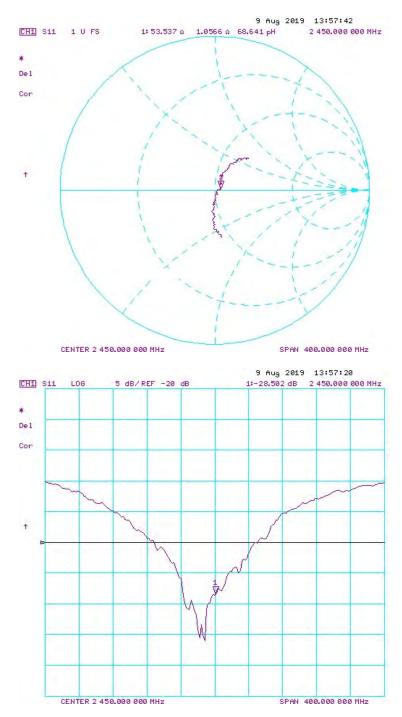
Per KDB 865664 D01, calibration intervals of up to three years may be considered for reference dipoles when it is demonstrated that the SAR target, impedance and return loss of a dipole have remained stable according to the following requirements:

- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance does not deviate more than 5Ω from the previous measurement.

The following dipole was checked to pass the above 3 requirements to have 2-year calibration period from the calibration date:

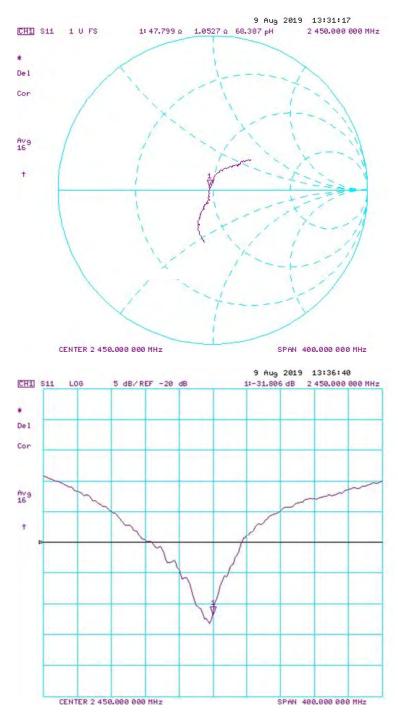
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Head (1g) W/kg @ 20.0 dBm	ubiii	(%)	dBm	(10g) W/kg @ 20.0 dBm		Head (Ohm) Real	Measured Impedance Head (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Head (Ohm) Imaginary	Measured Impedance Head (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Head (dB)	Head (dB)	Deviation (%)	
8/16/2018	8/9/2019	1.162	5.23	5.53	5.74%	2.44	2.56	4.92%	55	53.5	1.5	2.3	1.1	1.2	-25.6	-28.5	-11.30%	PASS
Calibration Date	Extension Date	Certificate Electrical Delay (ns)		Measured Body SAR (1g) W/kg @ 20.0 dBm	Deviation 1g (%)	Certificate SAR Target Body (10g) W/kg @ 20.0 dBm	Measured Body SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)	Certificate Impedance Body (Ohm) Real	Measured Impedance Body (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Body (Ohm) Imaginary	Measured Impedance Body (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Body (dB)	Measured Return Loss Body (dB)	Deviation (%)	PASS/FAIL
8/16/2018	8/9/2019	1.162	5.09	4.98	-2.16%	2.42	2.28	-5.79%	50.2	47.8	2.4	4.7	1.1	3.6	-26.6	-31.8	-19.60%	PASS

Object:	Date Issued:	Page 2 of 4	
D2450V2 – SN: 981	08/09/2019	Page 2 of 4	



Impedance & Return-Loss Measurement Plot for Head TSL

Object:	Date Issued:	Daga 2 of 4
D2450V2 – SN: 981	08/09/2019	Page 3 of 4



Impedance & Return-Loss Measurement Plot for Body TSL

Object:	Date Issued:	Dage 4 of 4	
D2450V2 – SN: 981	08/09/2019	Page 4 of 4	

Calibration Laboratory Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich				C	Schweizerischer Kalibrierdienst Service suïsse d'étalonnage Servizio svizzero di taratura Swiss Callbration Service	
Accredited by the Swiss Accreditat The Swiss Accreditation Service Multilateral Agreement for the re	is one of the signatorie	s to the EA certificates		Acc	reditation No.: SCS 0108	
Client PC Test			Certificate	No:	D2600V2=1004_Apr18	
CAMERATIONIC	FRIEGAT					
Object	D2600V2-SN:10	004				
Calibration procedure(s)	OP CAL OBJETO Cellipitor fince	A STOLED AN OWNER	imen ille d		BN ^{-/}	018
Calibration date:	April 11, 2018				BM BM	018 Extended -20-2019
This calibration certificate docume The measurements and the uncert All calibrations have been conduct	ternaes wan contidence pr	obability are given on the	following pages :	and :	of measurements (SI). are part of the certificate.	
Calibration Equipment used (M&T)	E critical for calibration)					
Primary Standards	ID #	Cal Date (Certificate No	• `		• · · · · · · ·	
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-026			Scheduled Calibration	
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-026			Apr-19	
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-026			Apr-19	
Reference 20 dB Attenuator	SN: 5058 (20K)	04-Apr-18 (No. 217-026			Apr-19	
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-026			Apr-19	
Reference Probe EX3DV4	SN: 7349	30-Dec-17 (No. EX3-73			Apr-19	
DAE4	SN: 601	26-Oct-17 (No. DAE4-6			Dec-18 Oct-18	
Secondary Standards	ID #	Check Date (in house)			`	
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house che			Scheduled Check	
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house che			In house check: Oct-18	
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house che			In house check: Oct-18	
RF generator R&S SMT-06	SN: 100972				In house check: Oct-18	
Network Analyzer HP 8753E	SN: US37390585	15-Jun-15 (in house cho			In house check: Oct-18	
		18-Oct-01 (in house che	eck Oct-17)		In house check: Oct-18	
Calibrated by:	Name Michael Weber	Function Laboratory	Technician		Signature	
Approved by:	Katja Pokovic	Technical N	Aanager		fl ll g	· ·
This calibration certificate shall not	be reproduced except in f	ull without written approva	al of the laborator	ŋ.	issued: April 12, 2018	

Certificate No: D2600V2-1004_Apr18

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





S

Schweizerischer Kalibrierdienst

- C Service suisse d'étalonnage
 - Servizio svizzero di taratura
- S Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.8 ± 6 %	2.03 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition			
SAR measured	250 mW input power	14.3 W/kg		
SAR for nominal Head TSL parameters	normalized to 1W	55.9 W/kg ± 17.0 % (k=2)		
	F	······································		
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition			
SAR measured	250 mW input power	6.35 W/kg		
SAR for nominal Head TSL parameters	normalized to 1W	25.1 W/kg ± 16.5 % (k=2)		

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity		
Nominal Body TSL parameters	22.0 °C	52.5	2.16 mho/m		
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.1 ± 6 %	2.19 mho/m ± 6 %		
Body TSL temperature change during test	< 0.5 °C		,		

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.8 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	54.8 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.20 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	24.7 W/kg ± 16.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	47.7 Ω - 5.7 jΩ
Return Loss	- 24.1 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.0 Ω - 3.8 jΩ
Return Loss	- 24.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	A I I I I I I I I I I
	1.149 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 23, 2006

DASY5 Validation Report for Head TSL

Date: 11.04.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN: 1004

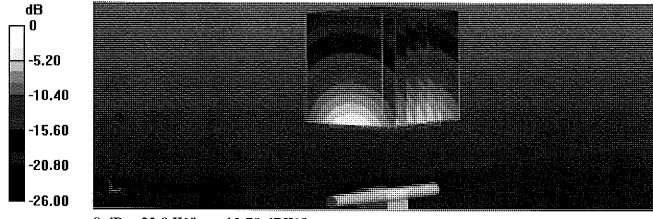
Communication System: UID 0 - CW; Frequency: 2600 MHz Medium parameters used: f = 2600 MHz; $\sigma = 2.03$ S/m; $\epsilon_r = 37.8$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

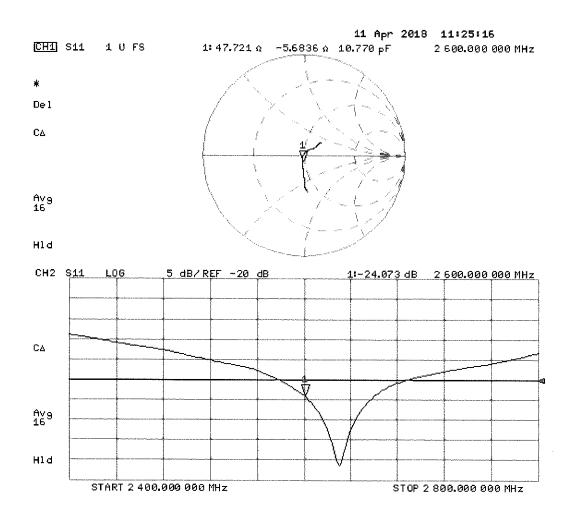
- Probe: EX3DV4 SN7349; ConvF(7.7, 7.7, 7.7); Calibrated: 30.12.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 118.5 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 28.6 W/kg **SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.35 W/kg** Maximum value of SAR (measured) = 23.9 W/kg



0 dB = 23.9 W/kg = 13.78 dBW/kg



DASY5 Validation Report for Body TSL

Date: 11.04.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN: 1004

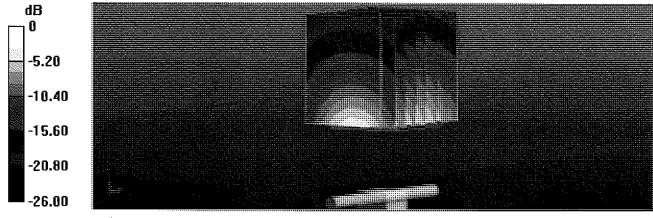
Communication System: UID 0 - CW; Frequency: 2600 MHz Medium parameters used: f = 2600 MHz; σ = 2.19 S/m; ϵ_r = 52.1; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

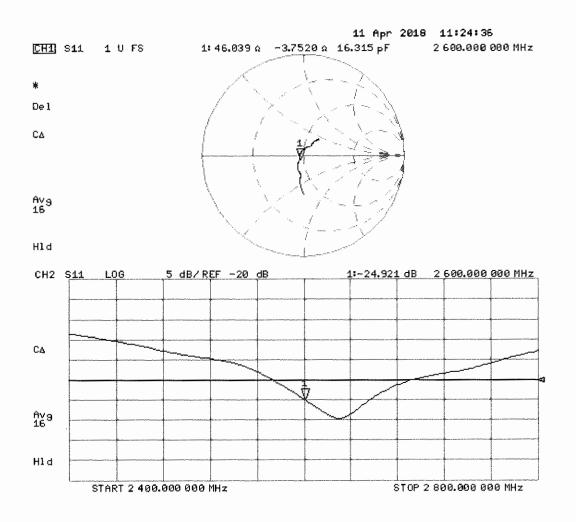
- Probe: EX3DV4 SN7349; ConvF(7.81, 7.81, 7.81); Calibrated: 30.12.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 108.5 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 28.3 W/kg SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.2 W/kg Maximum value of SAR (measured) = 22.9 W/kg



0 dB = 22.9 W/kg = 13.60 dBW/kg





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http://www.pctest.com



Certification of Calibration

Object

D2600V2 - SN: 1004

Calibration procedure(s) Procedure for Calibration Extension for SAR Dipoles.

Extension Calibration date: 4/11/2019

Description:

SAR Validation Dipole at 2600 MHz.

Calibration Equipment used:

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	8753ES	S-Parameter Network Analyzer	3/11/2019	Annual	3/11/2020	US39170122
Agilent	N5182A	MXG Vector Signal Generator	4/18/2018	Annual	4/18/2019	MY47420800
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	433971
Anritsu	MA2411B	Pulse Power Sensor	11/20/2018	Annual	11/20/2019	1027293
Anritsu	MA2411B	Pulse Power Sensor	10/30/2018	Annual	10/30/2019	1126066
Anritsu	ML2495A	Power Meter	10/21/2018	Annual	10/21/2019	941001
Control Company	4040	Therm./ Clock/ Humidity Monitor	10/9/2018	Biennial	10/9/2020	181647811
Control Company 4352		Ultra Long Stem Thermometer	5/2/2017	Biennial	5/2/2019	170330156
Keysight 772D		Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	6/4/2018	Annual	6/4/2019	MY53401181
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
Mini-Circuits	ts BW-N20W5+ DC to 18 GHz Precision Fixed 20		CBT	N/A	CBT	N/A
Narda 4772-3 Attenuator (3dB)		Attenuator (3dB)	CBT	N/A	CBT	9406
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Seekonk	NC-100	Torque Wrench	7/11/2018	Annual	7/11/2019	N/A
SPEAG	EX3DV4	SAR Probe	6/25/2018	Annual	6/25/2019	7409
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/18/2018	Annual	6/18/2019	1334
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/13/2019	Annual	2/13/2020	665
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	7417
SPEAG	DAK-3.5	Dielectric Assessment Kit	9/11/2018	Annual	9/11/2019	1091

Measurement Uncertainty = $\pm 23\%$ (k=2)

	Name	Function	Signature
Calibrated By:	Brodie Halbfoster	Test Engineer	BRODIE HALBFOSTER
Approved By:	Kaitlin O'Keefe	Senior Technical Manager	XOK-

Object:	Date Issued:	Page 1 of 4
D2600V2 – SN: 1004	04/11/2019	Fage 1014

DIPOLE CALIBRATION EXTENSION

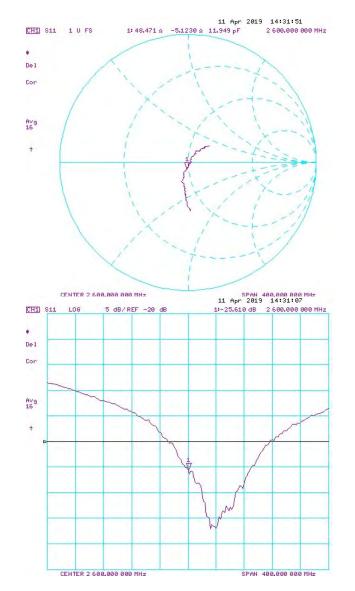
Per KDB 865664 D01, calibration intervals of up to three years may be considered for reference dipoles when it is demonstrated that the SAR target, impedance and return loss of a dipole have remained stable according to the following requirements:

- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance does not deviate more than 5Ω from the previous measurement.

The following dipole was checked to pass the above 3 requirements to have 2-year calibration period from the calibration date:

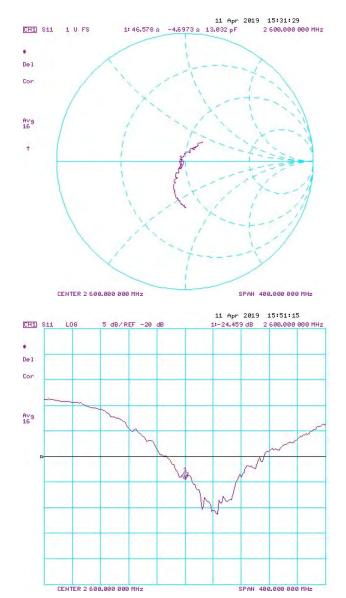
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Head (1g) W/kg @ 20.0 dBm	Measured Head SAR (1g) W/kg @ 20.0 dBm	(0/)	Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	Measured Head SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)	Certificate Impedance Head (Ohm) Real	Measured Impedance Head (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Head (Ohm) Imaginary	Measured Impedance Head (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Head (dB)	Measured Return Loss Head (dB)	Deviation (%)	PASS/FAIL
4/11/2018	4/11/2019	1.149	5.59	5.51	-1.43%	2.51	2.47	-1.59%	47.7	48.5	0.8	-5.7	-5.1	0.6	-24.1	-25.6	-6.30%	PASS
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Body (1g) W/kg @ 20.0 dBm	Measured Body SAR (1g) W/kg @ 20.0 dBm	(0/)	Certificate SAR Target Body (10g) W/kg @ 20.0 dBm	Measured Body SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)	Certificate Impedance Body (Ohm) Real	Measured Impedance Body (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Body (Ohm) Imaginary	Measured Impedance Body (Ohm) Imaginary	Difference (Ohm) Imaginary	Certificate Return Loss Body (dB)	Measured Return Loss Body (dB)	Deviation (%)	PASS/FAIL
4/11/2018	4/11/2019	1.149	5.48	5.65	3.10%	2.47	2.48	0.40%	46	46.6	0.6	-3.8	-4.7	0.9	-24.9	-24.5	1.80%	PASS

Object:	Date Issued:	Page 2 of 4
D2600V2 – SN: 1004	04/11/2019	



Impedance & Return-Loss Measurement Plot for Head TSL

Object:	Date Issued:	Page 3 of 4
D2600V2 – SN: 1004	04/11/2019	



Impedance & Return-Loss Measurement Plot for Body TSL

Object:	Date Issued:	Page 4 of 4
D2600V2 – SN: 1004	04/11/2019	

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Client

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Accreditation No.: SCS 0108

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Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Certificate No: D2600V2-1064_Jun19

CALIBRATION CERTIFICATE

Object	D2600V2 - SN:10)E/	
	D200072-011.11		
			BNV 07/81/2019
Calibration procedure(s)	QA CAL-05.v11		17/81/2014
		dure for SAR Validation Source	
	Culibration 11000	Care for CAIT validation bedice.	S Detween 0.7-0 On Z
	I		
Calibration date:	June 14, 2019		
		onal standards, which realize the physical u	
The measurements and the uncerta	ainties with confidence p	robability are given on the following pages a	nd are part of the certificate.
All calibrations have been conducte	ed in the closed laborato	ry facility: environment temperature (22 \pm 3)°	°C and humidity < 70%.
Calibration Equipment used (M&TE	critical for calibration)		
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-19 (No. 217-02894)	Apr-20
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-19 (No. 217-02895)	Apr-20
Reference Probe EX3DV4	SN: 7349	29-May-19 (No. EX3-7349_May19)	May-20
DAE4	SN: 601	30-Apr-19 (No. DAE4-601_Apr19)	Apr-20
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19
	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	1111 -
			MINE
			Milling The second seco
Approved by:	Katja Pokovic	Technical Manager	2111
		.	tell-
	an a		
			Issued: June 20, 2019
This calibration cortificate shall not	he reproduced event in	full without written approval of the laborator	,
The canonation centricate shall not	se reproduced except in	nui minoui writteri appioval ol tre laborator	y.

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Glossarv:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end • of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.3 ± 6 %	2.03 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	14.9 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	58.1 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.59 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	26.0 W/kg ± 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.5	2.16 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	50.5 ± 6 %	2.22 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	14.2 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	55.6 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.33 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	25.0 W/kg ± 16.5 % (k=2)

,

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.8 Ω - 6.9 jΩ
Return Loss	- 23.2 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.6 Ω - 4.4 jΩ
Return Loss	- 24.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.151 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 14.06.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1064

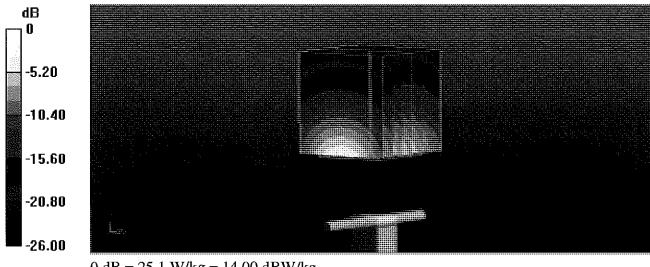
Communication System: UID 0 - CW; Frequency: 2600 MHz Medium parameters used: f = 2600 MHz; σ = 2.03 S/m; ϵ_r = 37.3; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(7.69, 7.69, 7.69) @ 2600 MHz; Calibrated: 29.05.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 120.9 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 30.2 W/kg **SAR(1 g) = 14.9 W/kg; SAR(10 g) = 6.59 W/kg** Maximum value of SAR (measured) = 25.1 W/kg



Impedance Measurement Plot for Head TSL

File View	<u>C</u> hannel Sw <u>e</u> ep	o Ca <u>l</u> ibration <u>T</u>	race <u>S</u> cale I	M <u>a</u> rker S <u>y</u> stem	<u>W</u> indow <u>H</u> elp		
			X		A)0000 GHz 8.8630 pF)0000 GHz	49.847 Ω -6.9066 Ω 69.025 mU -87.316 °
Chi:S	Ch 1 Avg = 20 Start 2.40000 GHz						Stop 2.80000 GHz
10.00 5.00 -5.00 -10.00 -15.00 -20.00 -25.00 -35.00 -35.00 -40.00 -Ch1: S	Ch 1 Avg = 20 Start 2,40000 GHz =						-23.220 dB
Status	CH 1: 511	C	1-Port	Avg=20 [)elay		LCL

DASY5 Validation Report for Body TSL

Date: 14.06.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1064

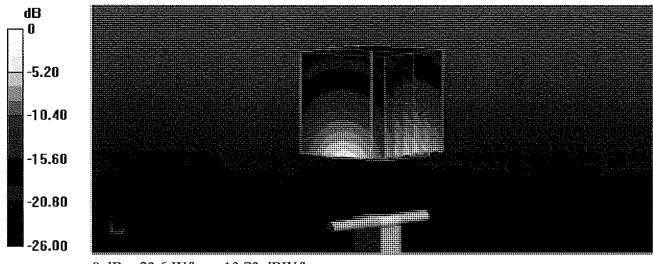
Communication System: UID 0 - CW; Frequency: 2600 MHz Medium parameters used: f = 2600 MHz; $\sigma = 2.22$ S/m; $\varepsilon_r = 50.5$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(7.8, 7.8, 7.8) @ 2600 MHz; Calibrated: 29.05.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mmReference Value = 110.6 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 28.9 W/kg SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.33 W/kg Maximum value of SAR (measured) = 23.6 W/kg



0 dB = 23.6 W/kg = 13.73 dBW/kg

Impedance Measurement Plot for Body TSL

File	View	<u>C</u> hannel	Sw <u>e</u> ep	Calibration	<u>T</u> race <u>S</u> cal	e M <u>a</u> rker	S <u>v</u> stem <u>W</u> ir	ndow <u>H</u>	elp		
		Ch 1 Avg =	20						600000 GHz 14.009 pF 600000 GHz	-4.3 56.9	645 Ω 1696 Ω 44 mU 24.93 °
	Ch1: St	art 2.40000								Stop 2.8	80000 GHz
10. 5.0		ALE AND					> 1;	2.	\$00000 dHz	-74 (391 dB
-30 -35 -40	00 00. 00. 00. 00. 00.	<u>Ch 1 Avg =</u> art 2.40000	20 3Hz —								

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PC Test Client

Certificate No: EX3-3914_Feb19

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3914
Calibration procedure(s)	GA CAL-01 v9, QA DAL-12 v9, QA GAL-14 v5, QA GAL-23 v5, GA CAL-25 v7 Galbration procedure for dosimetric Eriteic probes
Calibration date:	February 19, 2019 02-26-2019
This calibration certificate docume	nts the traceability to national standards, which realize the physical units of measurements (SI).

The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
		<u> </u>	- tee-
Approved by:	Katja Pokovic	Technical Manager	alle
			Issued: February 20, 2019
This calibration certificate	e shall not be reproduced except in	full without written approval of the labora	atory.

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Glossary: tissue simulating liquid TSL sensitivity in free space NORMx,y,z sensitivity in TSL / NORMx,y,z ConvF diode compression point DCP crest factor (1/duty_cycle) of the RF signal CF A, B, C, D modulation dependent linearization parameters φ rotation around probe axis Polarization ϕ 9 rotation around an axis that is in the plane normal to probe axis (at measurement center), Polarization 9 i.e., $\vartheta = 0$ is normal to probe axis

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR*: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z*; *Bx,y,z*; *Cx,y,z*; *Dx,y,z*; *VRx,y,z*: *A*, *B*, *C*, *D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.46	0.41	0.44	± 10.1 %
DCP (mV) ^B	98.0	104.4	100.8	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	135.8	± 3.3 %	± 4.7 %
		Y	0.00	0.00	1.00		149.1		
		Z	0.00	0.00	1.00		130.4		
10352-	Pulse Waveform (200Hz, 10%)	X	11.50	82.25	17.46	10.00	60.0	±2.9 %	± 9.6 %
AAA		Y	13.06	84.85	18.88		60.0		
		Z	15.00	85.74	19.04		60.0		
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	85.61	17.12	6.99	80.0	± 1.7 %	± 9.6 %
AAA		Y	15.00	87.20	18.40		80.0		
		Z	15.00	86.88	18.11		80.0		
10354-	Pulse Waveform (200Hz, 40%)	X	15.00	85.07	15.18	3.98	95.0	± 1.1 %	± 9.6 %
AAA		Y	15.00	89.57	18.09		95.0		
		Z	15.00	87.22	16.52		95.0		
10355-	Pulse Waveform (200Hz, 60%)	X	0.82	65.05	7.38	2.22	120.0	± 1.2 %	± 9.6 %
AAA		Y	15.00	94.17	19.03		120.0		
		Z	15.00	84.14	13.59		120.0		
10387-	QPSK Waveform, 1 MHz	Х	0.56	60.35	7.26	0.00	150.0	± 2.8 %	± 9.6 %
AAA		Y	0.80	64.04	10.54		150.0]	
		Z	0.51	60.00	6.79		150.0		
10388-	QPSK Waveform, 10 MHz	Х	2.18	68.24	15.67	0.00	150.0	± 1.2 %	± 9.6 %
AAA		Y	2.41	70.06	16.91		150.0		
		Z	2.04	67.38	15.28		150.0		
10396-	64-QAM Waveform, 100 kHz	X	2.71	69.05	18.06	3.01	150.0	± 0.7 %	± 9.6 %
AAA		Y	3.50	74.05	20.22		150.0		
		Z	2.76	69.32	18.16		150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.50	67.38	15.86	0.00	150.0	± 2.2 %	± 9.6 %
AAA		Υ	3.57	67.89	16.25		150.0]	
		Z	3.38	66.82	15.58		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.87	65.94	15.72	0.00	150.0	± 4.2 %	± 9.6 %
AAA		Y	4.84	65.99	15.74		150.0	1	
		Z	4.71	65.47	15.46		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6). ^B Numerical linearization parameter: uncertainty not required. ^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V⁻¹	T3 ms	T4 V⁻²	T5 V ⁻¹	Т6
Х	42.5	324.17	36.82	9.95	0.55	5.06	0.00	0.49	1.01
Y	42.9	310.45	33.81	12.34	0.63	5.02	2.00	0.15	1.01
Z	39.7	301.66	36.55	9.75	0.75	5.05	0.45	0.44	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	0.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm
	1

f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
6	55.5	0.75	21.24	21.24	21.24	0.00	1.00	± 13.3 %
13	55.5	0.75	18.06	18.06	18.06	0.00	1.00	± 13.3 %
750	41.9	0.89	10.00	10.00	10.00	0.54	0.82	± 12.0 %
835	41.5	0.90	9.50	9.50	9.50	0.50	0.86	± 12.0 %
1750	40.1	1.37	8.16	8.16	8.16	0.41	0.80	± 12.0 %
1900	40.0	1.40	7.80	7.80	7.80	0.40	0.84	± 12.0 %
2300	39.5	1.67	7.44	7.44	7.44	0.37	0.84	± 12.0 %
2450	39.2	1.80	7.13	7.13	7.13	0.39	0.86	± 12.0 %
2600	39.0	1.96	7.11	7.11	7.11	0.39	0.89	± 12.0 %
3500	37.9	2.91	6.99	6.99	6.99	0.25	1.20	± 13.1 %
3700	37.7	3.12	6.75	6.75	6.75	0.25	1.20	± 13.1 %
5250	35.9	4.71	5.19	5.19	5.19	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.73	4.73	4.73	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.90	4.90	4.90	0.40	1.80	± 13.1 %

Calibration Parameter Determined in Head Tissue Simulating Media

^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

the ConvF uncertainty for indicated target tissue parameters. ^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

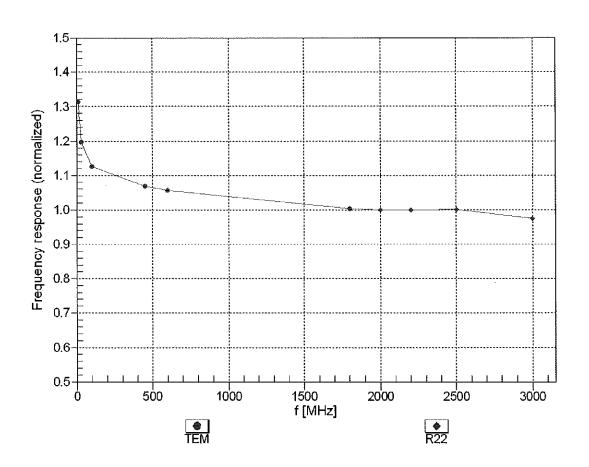
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.73	9.73	9.73	0.54	0.84	± 12.0 %
835	55.2	0.97	9.46	9.46	9.46	0.50	0.80	± 12.0 %
1750	53.4	1.49	7.89	7.89	7.89	0.38	0.84	± 12.0 %
1900	53.3	1.52	7.60	7.60	7.60	0.29	1.03	± 12.0 %
2300	52.9	1.81	7.43	7.43	7.43	0.38	0.84	± 12.0 %
2450	52.7	1.95	7.34	7.34	7.34	0.33	0.87	± 12.0 %
2600	52.5	2.16	7.15	7.15	7.15	0.26	0.97	± 12.0 %
3500	51.3	3.31	6.88	6.88	6.88	0.25	1.15	± 13.1 %
3700	51.0	3.55	6.58	6.58	6.58	0.30	1.15	± 13.1 %
5250	48.9	5.36	4.61	4.61	4.61	0.50	1,90	± 13.1 %
5600	48.5	5.77	3.92	3.92	3.92	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.05	4.05	4.05	0.50	1,90	± 13.1 %

Calibration Parameter Determined in Body Tissue Simulating Media

^c Frequency validity above 300 MHz of \pm 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to \pm 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is \pm 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to \pm 110 MHz.

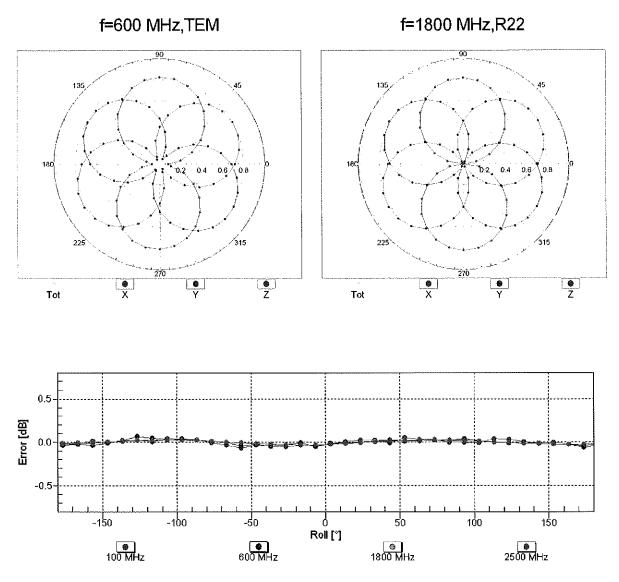
^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

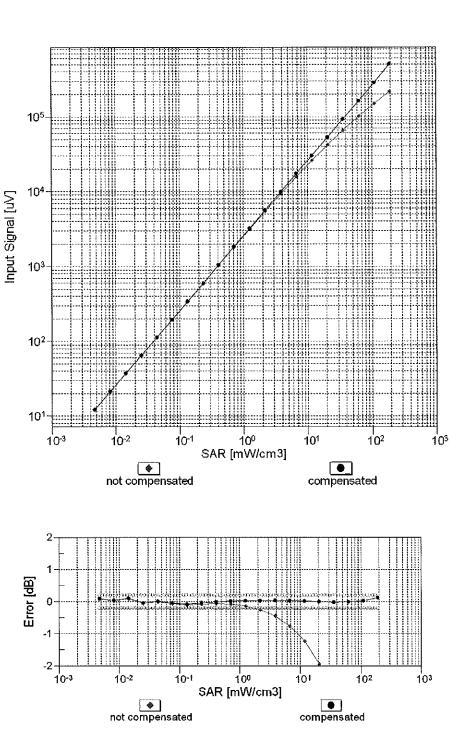
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)



Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

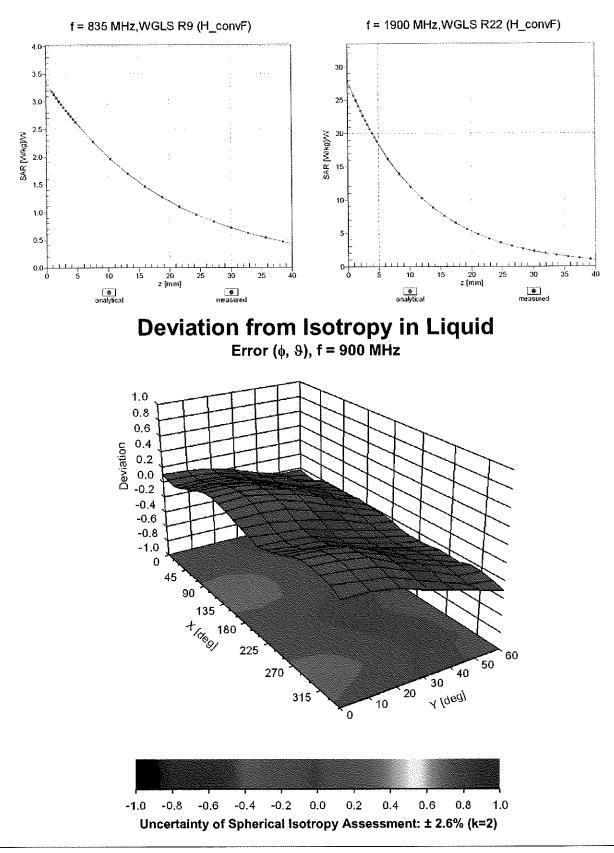
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

February 19, 2019



Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)

Uncertainty of Linearity Assessment: ± 0.6% (k=2)



Conversion Factor Assessment

EX3DV4-SN:3914

Appendix: Modulation Calibration Parameters

UID	Rev Communication System Name		Group	PAR (dB)	Unc ^E (k=2)
0		CW	CW	0.00	±4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9,55	±9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	±9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	$\pm 9.6\%$
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10000	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10042	CAB	IS-91/EIA/TIA-553 FDD (FDMA, FMA-DQF3K, Flamate)	AMPS	0.00	$\pm 9.6\%$
10044	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10048		DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10049		UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	$\pm 9.6\%$
10058	DAC				
10058		EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM WLAN	6.52	±9.6%
10059		IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)		2.12	± 9.6 %
	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6%
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6%
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6%
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	±9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	±9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10105					

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10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6%
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6%
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8,46	±9.6%
10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6 %
10117	CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6 %
10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6 %
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6 %
10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6 %
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6 %
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6 %
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6 %
10145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6 %
10151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6%
10152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6 %
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	± 9.6 %
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6 %
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6 %
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6 %
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	± 9.6 %
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	± 9.6 %
10167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6 %
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6 %
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 9.6 %
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAG		LTE-FDD	5.72	±9.6 %
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	$\pm 9.6\%$
10180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	$\pm 9.6\%$
10183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9,6%
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185		LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	$\pm 9.6\%$
10187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194		IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6%
10196		IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10198	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	$\pm 9.6\%$
10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %

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10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6 %
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.6 %
10226	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6 %
10227	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6 %
10228	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6 %
10229	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	±9.6%
10232	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10233	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10234	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6%
10235	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10236	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10237	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10241	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242		LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6 %
10243		LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6 %
10245	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.6 %
10246	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6 %
10247	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6 %
10248	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6 %
10249	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10250	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6 %
10252	CAF CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253		LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	±9.6 %
10255	CAF CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.20	± 9.6 %
10257	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 10-QAM)	LTE-TDD	9.96	±9.6 % ±9.6 %
10257	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD LTE-TDD	10.08 9.34	± 9.6 % ± 9.6 %
10259	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.94	$\pm 9.6\%$ $\pm 9.6\%$
10255	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.96	±9.6 %
10260	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.97	$\pm 9.6\%$
10261	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD		
10202	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83 10.16	±9.6 % ±9.6 %
10264	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	$\pm 9.6\%$
10265	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.00	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	±9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6 %
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %

10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	±9.6 %
10301	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	±9.6 %
10302	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WIMAX	12.57	± 9.6 %
10303	ААА	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WiMAX	15.24	± 9.6 %
10306	ААА	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	WIMAX	14.67	± 9.6 %
10307	ААА	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	WIMAX	14.49	± 9.6 %
10308	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WIMAX	14.46	± 9.6 %
10309	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	WIMAX	14.58	± 9.6 %
10310	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	WIMAX	14.57	± 9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	±9.6 %
10313	AAA	IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAA	iDEN 1:6	IDEN	13.48	±9.6%
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	±9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	±9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	±9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	±9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %
10410	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	± 9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	WLAN	8.19	± 9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426		IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)		8.41 8.28	$\pm 9.6\%$
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD		± 9.6 % ± 9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38 8.34	± 9.6 %
10432 10433	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
	AAC	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10434 10435	AAA AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
<u>10459</u> 10460		CDMA2000 (1xEV-DO, Rev. B, 3 carriers) UMTS-FDD (WCDMA, AMR)	CDMA2000	8.25	± 9.6 %
10460	AAA	LTE-TDD (WCDMA, AMR)	UCDMA	2.39 7.82	± 9.6 %
10401		Subframe=2,3,4,7,8,9)	LIE-IDD	1.02	± 9.6 %
10462	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.30	± 9.6 %
10463	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
10464	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10465	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10466	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10467	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6 %
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10472	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10477	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,2,4,7,8,0)	LTE-TDD	8.32	± 9.6 %
10478	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,2,4,7,8,0)	LTE-TDD	8.57	± 9.6 %
10479	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10480	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.18	± 9.6 %
10481	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
10482	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL	LTE-TDD	7.71	± 9.6 %
10483	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.39	± 9.6 %
10484	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	± 9.6 %
10485	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL	LTE-TDD	7.59	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10486	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	± 9.6 %
10487	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	± 9.6 %
10488	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	± 9.6 %
10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10490	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
		Subframe=2,3,4,7,8,9)		L	

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10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.6 %
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	± 9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10495	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.37	± 9.6 %
10496	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10497	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.67	± 9.6 %
10498	ААА	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.40	± 9.6 %
10499	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.68	± 9.6 %
10500	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL	LTE-TDD	7.67	± 9.6 %
10501	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.44	±9.6 %
10502	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.52	±9.6 %
10503	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL	LTE-TDD	7.72	±9.6 %
10504	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
10505	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10506	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10507	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.36	±9.6 %
10508	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.55	± 9.6 %
10509	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,2,4,7,8,9)	LTE-TDD	7.99	± 9.6 %
10510	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	± 9.6 %
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	± 9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	± 9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10518	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10519	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8,45	± 9.6 %
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	± 9.6 %
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10527	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN	8.21	± 9.6 %
10528	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10531	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10532	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10533	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.45	± 9.6 %

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10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6%
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6 %
10540	AAB	IEEE 802.11ac WiFI (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	±9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	******	±9.6%
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)		8.49	±9.6%
10550	AAB		WLAN	8.37	± 9.6 %
		IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	±96%
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	±9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WIFI (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty	WLAN	8.25	± 9.6 %
10004	1001		W LAIN	0.25	1.9.0 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty	WLAN	0.45	+0.6.9/
10000		cvcle)	WLAN	8.45	±9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty	WLAN	0.42	
10500			WLAN	8.13	± 9.6 %
10567			34/1 441		
10007	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty	WLAN	8.00	± 9.6 %
40500					
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	8.37	± 9.6 %
40700		cycle)			
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	WLAN	8.10	± 9.6 %
		cycle)			
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	±9.6 %
		cycle)			
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty	WLAN	8.59	±9.6 %
	1	cycle)			
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty	WLAN	8.60	±96%
-		cycle)			
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty	WLAN	8.70	± 9.6 %
		cycle)	y a best bit 1		0.0 /0
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty	WLAN	8.49	± 9.6 %
			116/11	0.40	± 0.0 /0
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty	WLAN	8.36	± 9.6 %
10010	1,004	cvcle)		0.30	
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty	WLAN	8.76	± 9.6 %
10000	1.0.01	cvcle)	VVL/N	0.70	± 9.0 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN	8.35	± 9.6 %
10001	10004		WLAN	0.30	19.0 %
10500		Cycle)	10/1 0.8.1		1000
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
40500	+				
10583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6 %
	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10585					
10585 10586 10587	AAB AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN WLAN	8.49	± 9.6 % ± 9.6 %

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10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	<u>± 9.6 %</u>
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	±9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	±9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	±9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WIFI (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	± 9.6 %
10619	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10635	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10639		IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.98	± 9.6 %
	AAC	IEEE 802.11ac WiFI (160MHz, MCS4, 90pc duty cycle)	WLAN	9.06	$\pm 9.6\%$
10641	AAC AAC	IEEE 802.11ac WiFI (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	± 9.6 %
		IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10643	AAC		WLAN	9.05	$\pm 9.6\%$
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	$\pm 9.6\%$
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)			
10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	$\pm 9.6\%$
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	$\pm 9.6\%$
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	$\pm 9.6\%$
10653	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	$\pm 9.6\%$
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6,96	± 9.6 %

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10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA

Multilateral Agreement for the recognition of calibration certificates

Client PC Test

Certificate No: EX3-7308_Aug19

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7308					
Calibration procedure(s)	QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes					
	BAI					
Calibration date:	August 16, 2019 08-30-2010	Ĩ				
This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.						
All calibrations have been con	ducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}$ C and humidity < 70%.					

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Арг-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
			Yek
Approved by:	Katja Pokovic	Technical Manager	ANIL-
,			ALL US
-			Issued: August 17, 2019
l This calibration cortificate	e shall not be reproduced except in full	without written anoroval of the lab	oratory

Calibration Laboratory of

Schmid & Partner **Engineering AG** Zeughausstrasse 43, 8004 Zurich, Switzerland



Schweizerischer Kalibrierdienst S

Service suisse d'étalonnage

Accreditation No.: SCS 0108

- С Servizio svizzero di taratura S
- Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 8	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $\vartheta = 0$ is normal to probe axis
i	to the relative the DAOV suctains to all an analysis appears V to the relation ordinate system.

information used in DASY system to align probe sensor X to the robot coordinate system **Connector Angle**

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx, y, z: Assessed for E-field polarization $\vartheta = 0$ (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,v,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax, y, z; Bx, y, z; Cx, y, z; Dx, y, z; VRx, y, z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, y, z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMX (no uncertainty required).

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	0.49	0.59	0.44	± 10.1 %
DCP (mV) ^B	100.2	95.2	99.6	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	C	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	163.2	± 2.7 %	± 4.7 %
U	000	Y	0.00	0.00	1.00		158.0		
		Z	0.00	0.00	1.00		156.0		
10352-	Pulse Waveform (200Hz, 10%)	X	15.00	87.65	19.50	10.00	60.0	± 3.0 %	±9.6 %
AAA		Y	15.00	87.63	19.80		60.0		
,		Z	15.00	85.44	18.12		60.0		
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	90.96	19.99	6.99	80.0	± 1.9 %	± 9.6 %
AAA		Y	15.00	90.06	19.63		80.0		
,		Z	15.00	87.16	17.63		80.0		
10354-	Pulse Waveform (200Hz, 40%)	X	15.00	98.78	22.36	3.98	95.0	± 1.4 %	± 9.6 %
AAA		Y	15.00	93.68	19.62		95.0		
		Z	15.00	93.44	19.14		95.0		
10355- Pulse Waveform (2	Pulse Waveform (200Hz, 60%)	X	15.00	116.73	29.23	2.22	120.0	± 1.7 %	± 9.6 %
AAA		Y	15.00	91.04	16.59		120.0		
		Z	15.00	110.36	25,36		120.0		
10387-	QPSK Waveform, 1 MHz	X	1.31	69.49	13.82	0.00	150.0	± 3.0 %	± 9.6 %
AAA		Y	1.10	67.48	12.38		150.0		
		Z	0.62	61.98	8.52		150.0		
10388-	QPSK Waveform, 10 MHz	X	2.80	72.34	18.09	0.00	150.0	± 1.8 %	± 9.6 %
AAA		Y	2.95	73.48	18.66	-	150.0	1	
		Z	2.53	71.44	17.69		150.0		ļ
10396-	64-QAM Waveform, 100 kHz	X	3.37	73.39	20.27	3.01	150.0	± 1.2 %	± 9.6 %
AAA		Y	3.51	74.17	21.30		150.0		
		Z	3.52	75.75	21.34		150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.69	68.31	16.63	0.00	150.0	± 1.8 %	± 9.6 %
AAA		Y	3.81	68.87	17.06	4	150.0	4	
		Z	3.62	68.32	16.59		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.93	65.97	15.89	0.00	150.0	± 3.9 %	± 9.6 %
AAA		Y	5.11	66.50	16.37	4	150.0	4	
		Z	4.86	66.27	16.01		150.0	1	

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).

^B Numerical linearization parameter: uncertainty not required. ^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V ^{~1}	T3 ms	T4 V ^{∽2}	T5 V⁻¹	Т6
X	49.8	370.85	35.61	10.75	0.21	5.08	0.98	0.32	1.01
$\hat{\nabla}$	51.6	405.23	39.25	10.28	0.51	5.10	0.00	0.57	1.01
7	38.4	284.05	35.17	7.94	0.25	5.05	2.00	0.06	1.01

Sensor Model Parameters

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	106.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	10.20	10.20	10.20	0.50	0.80	± 12.0 %
835	41.5	0.90	9.87	9.87	9.87	0.47	0.86	± 12.0 %
1750	40.1	1.37	8.50	8.50	8.50	0.31	0.85	± 12.0 %
1900	40.0	1.40	8.17	8.17	8.17	0.28	0.85	± 12.0 %
2300	39.5	1.67	7.74	7.74	7.74	0.26	0.97	± 12.0 %
2450	39.2	1.80	7.38	7.38	7.38	0.35	0.87	± 12.0 %
2600	39.0	1.96	7.18	7.18	7.18	0.31	0.94	± 12.0 %

Calibration Parameter Determined in Head Tissue Simulating Media

^c Frequency validity above 300 MHz of \pm 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to \pm 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is \pm 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to \pm 110 MHz. ^c At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvE uncertainty for indicated target tissue parameters.

the ConvF uncertainty for indicated target tissue parameters. ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

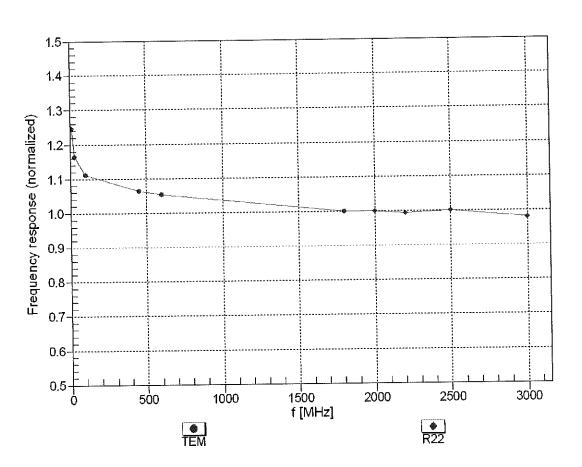
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	Conv F X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	10.59	10.59	10.59	0.35	1.01	± 12.0 %
835	55.2	0.97	10.43	10,43	10.43	0.50	0.85	± 12.0 %
1750	53.4	1.49	8.25	8.25	8.25	0.37	0.85	± 12.0 %
1900	53.3	1.52	7.87	7.87	7.87	0.36	0.85	± 12.0 %
2300	52.9	1.81	7.75	7.75	7.75	0.40	0.87	± 12.0 %
2450	52.7	1.95	7.46	7.46	7.46	0.36	0.88	± 12.0 %
2600	52.5	2.16	7.37	7.37	7.37	0.30	0.95	± 12.0 %

Calibration Parameter Determined in Body Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz. F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to

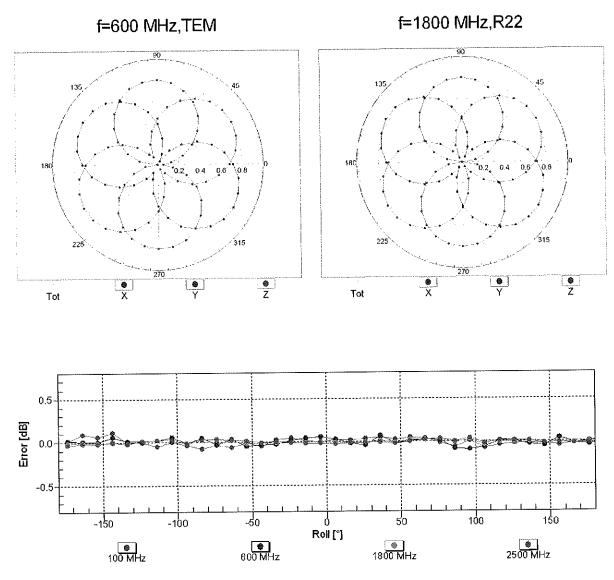
The values below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to 1 10% in induct compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip

diameter from the boundary.



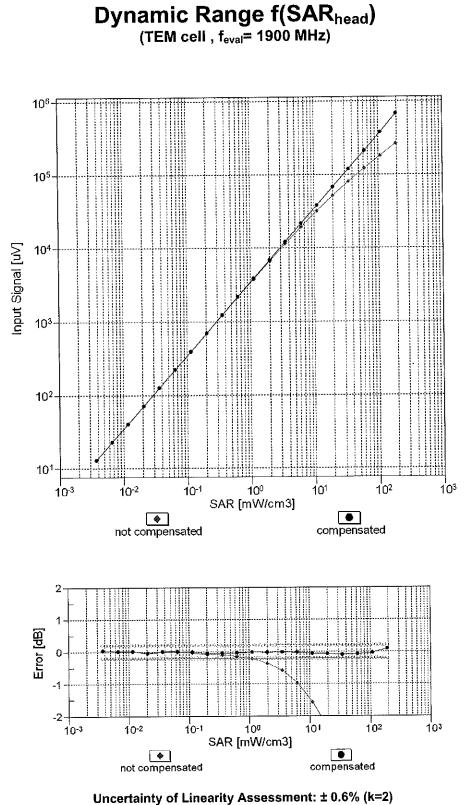
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

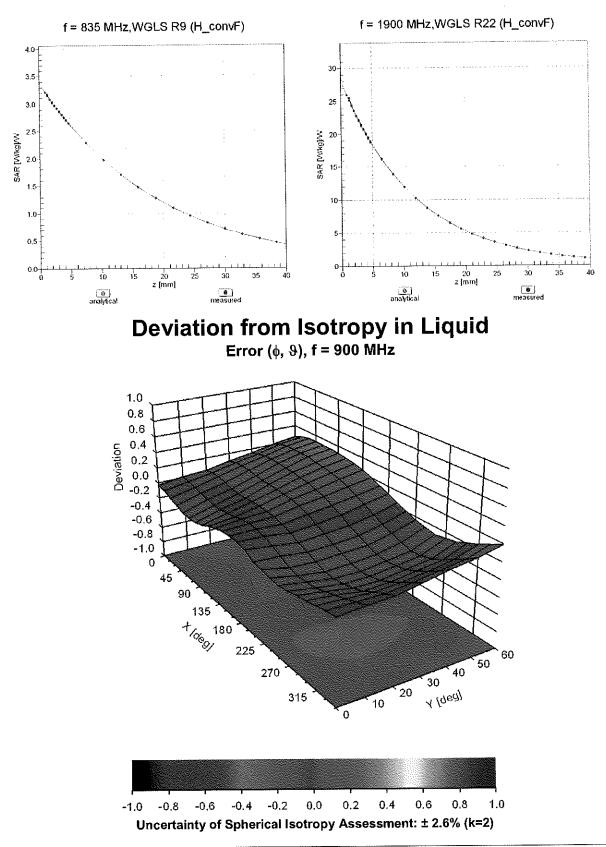
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)



Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)





Conversion Factor Assessment

Appendix: Modulation Calibration Parameters

UID Rev Communication System		Communication System Name	Group	PAR (dB)	Unc ^E (k=2)
0		CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9,46	±9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6%
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	±9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00 9.38	± 9.6 % ± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN WLAN	9.30	$\pm 9.6\%$
10067	CAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	$\pm 9.6\%$
10069		IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps) IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 WiDps)	WLAN	9.62	± 9.6 %
10072	CAB CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)		9.94	± 9.6 %
10073		IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	10.30	± 9.6 %
10074		IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.30	± 9.6 %
10075		IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 30 Mbps)	WLAN	10.94	± 9.6 %
10076	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	11.00	± 9.6 %
10077	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10081	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10082	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10090	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10097	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10099	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10102	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10103	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %
				0.00	1

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10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6%
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6%
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6%
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6%
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.6%
10226	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9,49	±9.6 %
10227	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6%
10228	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6%
10229	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10230	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10231	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	±9.6 %
10232	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10233	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10234	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10235	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10236	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10237	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9,21	±9.6%
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6%
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±96%
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	±96%
10242	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6 %
10243	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	±9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6%
10245	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.6%
10246	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6 %
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9,91	±9.6 %
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6 %
10251	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6 %
10252	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	±9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	±9.6 %
10260	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.6%
10261	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	± 9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
1 40060				40.00	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10269 10270	CAF CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD LTE-TDD	10.13 9.58	± 9.6 % ± 9.6 %
10269 10270 10274	CAF CAF CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	LTE-TDD LTE-TDD WCDMA	10.13 9.58 4.87	± 9.6 % ± 9.6 % ± 9.6 %
10269 10270 10274 10275	CAF CAF CAB CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	LTE-TDD LTE-TDD WCDMA WCDMA	10.13 9.58 4.87 3.96	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10269 10270 10274 10275 10277	CAF CAF CAB CAB CAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK)	LTE-TDD LTE-TDD WCDMA WCDMA PHS	10.13 9.58 4.87 3.96 11.81	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10269 10270 10274 10275 10277 10278	CAF CAF CAB CAB CAA CAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5)	LTE-TDD LTE-TDD WCDMA WCDMA PHS PHS	10.13 9.58 4.87 3.96 11.81 11.81	$\begin{array}{c} \pm \ 9.6 \ \% \\ \pm \ 9.6 \ \% \end{array}$
10269 10270 10274 10275 10277 10278 10279	CAF CAB CAB CAA CAA CAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38)	LTE-TDD LTE-TDD WCDMA WCDMA PHS PHS PHS PHS	10.13 9.58 4.87 3.96 11.81 11.81 12.18	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290	CAF CAB CAB CAA CAA CAA CAA CAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate	LTE-TDD LTE-TDD WCDMA WCDMA PHS PHS PHS CDMA2000	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290 10291	CAF CAB CAB CAA CAA CAA CAA AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate	LTE-TDD LTE-TDD WCDMA WCDMA PHS PHS PHS CDMA2000 CDMA2000	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91 3.46	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290 10291 10292	CAF CAB CAB CAA CAA CAA CAA AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate	LTE-TDD LTE-TDD WCDMA WCDMA PHS PHS CDMA2000 CDMA2000 CDMA2000	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91 3.46 3.39	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290 10291 10292 10293	CAF CAB CAB CAA CAA CAA CAA AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO3, Full Rate	LTE-TDD LTE-TDD WCDMA WCDMA PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91 3.46 3.39 3.50	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290 10291 10293 10295	CAF CAB CAB CAA CAA CAA CAA AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO35, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC1, SO3, Full Rate CDMA2000, RC1, SO3, Full Rate	LTE-TDD LTE-TDD WCDMA PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000 CDMA2000	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91 3.46 3.39 3.50 12.49	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290 10291 10292 10293 10295	CAF CAB CAB CAA CAA CAA CAA AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO3, Full Rate CDMA2000, RC1, SO3, 1/8th Rate 25 fr. LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD LTE-TDD WCDMA PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000 CDMA2000 LTE-FDD	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91 3.46 3.39 3.50 12.49 5.81	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10269 10270 10274 10275 10277 10278 10279 10290 10291 10292 10293 10295	CAF CAB CAB CAA CAA CAA CAA AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10) UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4) PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO35, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC1, SO3, Full Rate CDMA2000, RC1, SO3, Full Rate	LTE-TDD LTE-TDD WCDMA PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000 CDMA2000	10.13 9.58 4.87 3.96 11.81 11.81 12.18 3.91 3.46 3.39 3.50 12.49	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459		CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460 10461		UMTS-FDD (WCDMA, AMR)		2.39	± 9.6 %
10401	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10462	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.30	± 9.6 %
10102	1,0,0	Subframe=2,3,4,7,8,9)		0.00	1 3.0 %
10463	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10464	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL	LTE-TDD	7.82	±9.6 %
		Subframe=2,3,4,7,8,9)			
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.32	±9.6 %
40400	-	Subframe=2,3,4,7,8,9)			
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframa 2 2 4 7 8 0)	LTE-TDD	8.57	± 9.6 %
10467	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10407		Subframe=2,3,4,7,8,9)		1.02	19.0 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9,6 %
10100	, , , ,	Subframe=2,3,4,7,8,9)		0.02	1 0,0 %
10469	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10470	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10471	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10.170		Subframe=2,3,4,7,8,9)			
10472	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10470		Subframe=2,3,4,7,8,9)		1.02	19.0 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
40470		Subframe=2,3,4,7,8,9)		0.57	
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10479	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10475	1,010	Subframe=2,3,4,7,8,9)		1.14	1 0.0 %
10480	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.18	±9.6%
		Subframe=2,3,4,7,8,9)			
10481	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10482	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL	LTE-TDD	7.71	± 9.6 %
40400	440	Subframe=2,3,4,7,8,9)		0.00	
10483	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.39	± 9.6 %
10484	AAC	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	± 9.6 %
10404	740	Subframe=2,3,4,7,8,9)		0.47	1 9.0 %
10485	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL	LTE-TDD	7.59	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10486	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.38	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10487	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.60	± 9.6 %
10100	1	Subframe=2,3,4,7,8,9)		L	
10488	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL	LTE-TDD	7.70	± 9.6 %
10400	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL		0.24	+0.00/
10489	AAF	Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10700	1	Subframe=2,3,4,7,8,9)		0.04	- 5.5 %
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
		Subframe=2,3,4,7,8,9)	1		

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10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	± 9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8,65	±9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8,49	± 9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN		
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)		8.50	± 9.6 %
10553	AAB		WLAN	8.42	± 9.6 %
10555		IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
)	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	±9.6%
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8,69	±9.6%
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty	WLAN	8.25	± 9.6 %
		cvcle)	**C/ 44	0.20	1 2 0.0 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty	WLAN	8.45	± 9.6 %
10000	1000	cycle)		0.45	1. 5.0 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty	WLAN	8.13	± 9.6 %
10000	1001		VALCAIN	0.15	± 9.0 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty	WLAN	8.00	± 9.6 %
10007		cycle)	VVLAN	0.00	19.0%
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	0.27	1000
10300	1000	cvcle)	WLAN	8.37	± 9.6 %
10569					1000
10269		IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	WLAN	8.10	±9.6 %
40570					
10570	AAA	IEEE 802.11g WiFI 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	± 9.6 %
L		cycle)			
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty	WLAN	8.59	± 9.6 %
		cycle)			
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty	WLAN	8.60	± 9.6 %
		cycle)			
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty	WLAN	8.70	± 9.6 %
		cycle)		0.10	0.0 /0
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty	WLAN	8.49	± 9.6 %
	,	cycle)		0.40	3.0 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty	WLAN	8.36	± 9.6 %
	1,0,04			0.30	
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty	WLAN	8.76	± 9.6 %
10000	1000	cycle)	VY L/MN	0.70	1 3.0 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN	0.05	+060/
10001			VVLAIN	8.35	± 9.6 %
10500	A A A			0.07	
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
40505		IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10583	AAB				
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
10584 10585	AAB AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.60 8.70	± 9.6 %
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)			

.

10055				1	
10655		LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±9.6%
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	±96%
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	±9.6%
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6%
10661		Pulse Waveform (200Hz, 60%)	Test	2.22	±9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	±9.6%
10670	AAA	Bluetooth Low Energy	Bluetooth	2,19	±9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	± 9.6 %
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±9.6%
10673	AAA AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±9.6%
		IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8,74	±9.6%
10675	AAA AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8,90	±9.6%
10677	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle) IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±9.6%
10681	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN WLAN	8.62	$\pm 9.6\%$
10683	AAA	IEEE 802.11ax (20MHz, MCS) 1, 90pc duty cycle)	WLAN	8.83	$\pm 9.6\%$
10684	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42 8.26	$\pm 9.6\%$
10685	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.20	±9.6 % ±9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.28	$\pm 9.6\%$ $\pm 9.6\%$
10687	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.45	$\pm 9.6\%$
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	±9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6%
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6%
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6%
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	±9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6%
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	±9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.33	±9.6%
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	±9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.30	±9.6 %
10717		IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10718		IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	±9.6 %
10719		IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	±9.6%
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN WLAN	8.87	±9.6%
10721 10722	AAA AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN WLAN	8.76	±9.6%
10722	AAA AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.6%
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle) IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.70	$\pm 9.6\%$
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.90 8.74	± 9.6 % ± 9.6 %
10725	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.72	±9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	± 9.6 %
10121	1,004		VY Lof 11 N	0.00	

10783	AAA	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1	8.31	± 9.6 %
10784		5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	TDD 5G NR FR1	8.29	± 9.6 %
		· ·	TDD		
10785	AAA	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10786	AAA	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10787	AAA	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	± 9.6 %
10788	AAA	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10789	AAA	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10790	AAA	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10791	AAA	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1	7.83	± 9.6 %
10792	AAA	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	TDD 5G NR FR1 TDD	7.92	± 9.6 %
10793	AAA	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	± 9.6 %
10794	AAA	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1	7.82	± 9.6 %
10795		5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.84	± 9.6 %
10796	AAA	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.82	± 9.6 %
10797	AAA	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	8.01	± 9.6 %
10798	AAA	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	TDD 5G NR FR1 TDD	7.89	± 9,6 %
10799	AAA	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10801	AAA	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAA	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAA	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10805	AAA	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1	8.34	± 9.6 %
10806	AAA	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	TDD 5G NR FR1 TDD	8,37	± 9.6 %
10809	AAA	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAA	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAA	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAA	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAA	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAA	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1	8.33	± 9.6 %
10820	AAA	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAA	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAA	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAA	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAA	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %

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August 16, 2019

10871	AAA	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAA	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAA	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAA	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6 %
10875	AAA	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAA	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	± 9.6 %
10877	AAA	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	AAA	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6 %
10879	AAA	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAA	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10886	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAA	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAA	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAA	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAA	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAA	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAA	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %

^e Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland BC MRA



S Schweizerischer Kalibrierdienst C Service suisse d'étalonnage Servizio svizzero di taratura

Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Client PC Test

Certificate No: EX3-7357_Apr19

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7357	
Calibration procedure(s)	QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes	۹
Calibration date:	April 24, 2019	
	nents the traceability to national standards, which realize the physical units of measurements (SI). ertainties with confidence probability are given on the following pages and are part of the certificate.	

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	AV K (-
			10 16 30
			Issued: April 24, 2019
This calibration certificate	e shall not be reproduced except in full	without written approval of the labo	pratory.

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





S Schweizerischer Kalibrierdienst

- C Service suisse d'étalonnage
- Servizio svizzero di taratura
- Swiss Calibration Service

Accreditation No.: SCS 0108

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivitý in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 9	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DACV surface to all successive and the surgery of the state of

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz; R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx, y, z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, y, z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	0.37	0.48	0.41	± 10.1 %
DCP (mV) ^B	87.5	101.0	95.2	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	Х	0.00	0.00	1.00	0.00	175.5	± 2.7 %	± 4.7 %
		Y	0.00	0.00	1.00		162.7		
		Z	0.00	0.00	1.00		160.1	1	
10352-	Pulse Waveform (200Hz, 10%)	X	1.63	60.99	8.59	10.00	60.0	± 3.2 %	± 9.6 %
AAA		Y	15.00	88.78	20,10		60.0	1	
		Z	1.92	62,77	9.39	1	60.0	1	
10353-	Pulse Waveform (200Hz, 20%)	X	1.28	62.05	7.66	6.99	80.0	± 2,1 %	± 9.6 %
AAA		Y	15.00	92.12	20,60		80.0	1	
		Z	1.44	63.37	8.24		80.0	1	
10354-	Pulse Waveform (200Hz, 40%)	X	0.53	60.00	5.08	3.98	95.0	± 1.2 %	± 9.6 %
AAA		Y	15.00	98.74	22,38		95.0	1	
		Z	0.50	60.00	4.96		95.0	1	
10355-	Pulse Waveform (200Hz, 60%)	X	0.34	60.00	3.46	2.22	120.0	± 1.3 %	± 9.6 %
AAA		Y	15.00	122.09	31.59		120.0	1	
		Z	0.32	60.00	3.17		120.0		
10387-	QPSK Waveform, 1 MHz	X	0.47	60.00	5.85	0.00	150.0	± 3.4 %	±9.6 %
AAA		Y	0.84	63.60	10,73		150.0	1	
		Z	0.47	60.00	5.64		150.0	1	
10388-	QPSK Waveform, 10 MHz	X	2.22	69.17	16.45	0.00	150.0	± 1.2 %	± 9.6 %
AAA		Y	2.39	69.28	16.48		150.0	1	
		Z	2.05	67.86	15.44		150.0	1	
10396-	64-QAM Waveform, 100 kHz	X	1.74	66.32	18.65	3.01	150.0	± 6.4 %	±9.6 %
AAA		Y	3.21	72.13	19.45		150.0	1	
		Z	2.50	68.64	18.00		150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.50	67.46	16.21	0.00	150.0	± 2.5 %	± 9.6 %
AAA		Y	3.59	67.57	16.11		150.0		
		Z	3.40	67.11	15.75		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.79	65.80	15.93	0.00	150.0	±4.6 %	± 9.6 %
AAA		Y	4.92	65.80	15.71		150.0		
		Z	4.73	65.72	15.66	1	150.0	Ì]

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

 ^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).
 ^B Numerical linearization parameter: uncertainty not required.
 ^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V⁻¹	T3 ms	T4 V⁻²	T5 V ⁻¹	Т6
Х	37.3	299.85	40.64	5.98	0.77	5.00	0.00	0.00	1.02
Y	48.9	366.83	35.90	10.43	0.11	5.09	1.58	0.24	1.01
Z	37.8	294.77	38.42	5.12	0.55	5.04	0.00	0.43	1.01

Sensor Model Parameters

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	14.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
64	54.2	0.75	14.77	14.77	14.77	0.00	1.00	± 13.3 %
750	41.9	0.89	10.26	10.26	10.26	0.45	0.95	± 12.0 %
835	41.5	0.90	9.91	9.91	9.91	0.53	0.85	± 12.0 %
1750	40.1	1.37	8.69	8.69	8.69	0.35	0.80	± 12.0 %
1900	40.0	1.40	8.26	8.26	8.26	0.33	0.84	± 12.0 %
2300	39.5	1.67	7.70	7.70	7.70	0.33	0.85	± 12.0 %
2450	39.2	1.80	7.57	7.57	7.57	0.39	0.85	± 12.0 %
2600	39.0	1.96	7.31	7.31	7.31	0.40	0.80	± 12.0 %
5250	35.9	4.71	5.45	5.45	5.45	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.85	4.85	4.85	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.06	5.06	5.06	0.40	1.80	± 13.1 %

Calibration Parameter Determined in Head Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz. ^F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to

⁶ At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

^o Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

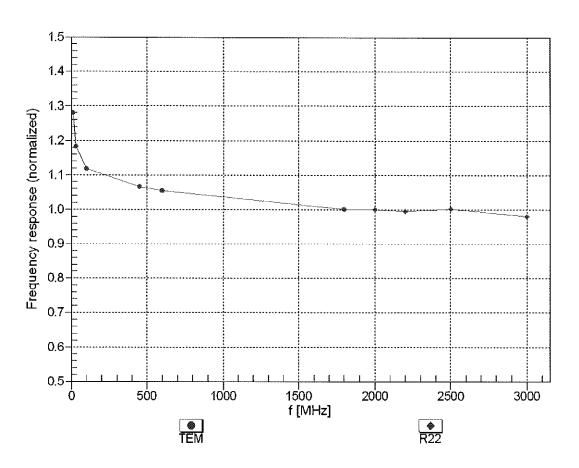
f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	10.19	10.19	10.19	0.37	0.96	± 12.0 %
835	55.2	0.97	9.95	9.95	9.95	0.47	0.80	± 12.0 %
1750	53.4	1.49	8.26	8.26	8.26	0.35	0.85	± 12.0 %
1900	53.3	1.52	7.93	7.93	7.93	0.32	0.90	± 12.0 %
2300	52.9	1.81	7.72	7.72	7.72	0.30	0.85	± 12.0 %
2450	52.7	1.95	7.59	7.59	7.59	0.35	0.86	± 12.0 %
2600	52.5	2.16	7.39	7.39	7.39	0.32	0.89	± 12.0 %
5250	48.9	5.36	4.61	4.61	4.61	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.03	4.03	4.03	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.15	4.15	4.15	0.50	1.90	± 13.1 %

Calibration Parameter Determined in Body Tissue Simulating Media

^c Frequency validity above 300 MHz of \pm 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to \pm 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is \pm 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to \pm 110 MHz.

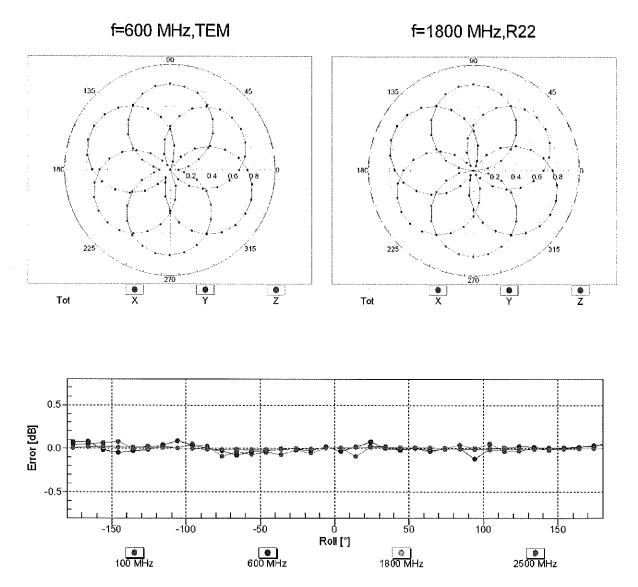
At frequencies below 3 GHz, the validity of tissue parameters (c and o) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (c and o) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



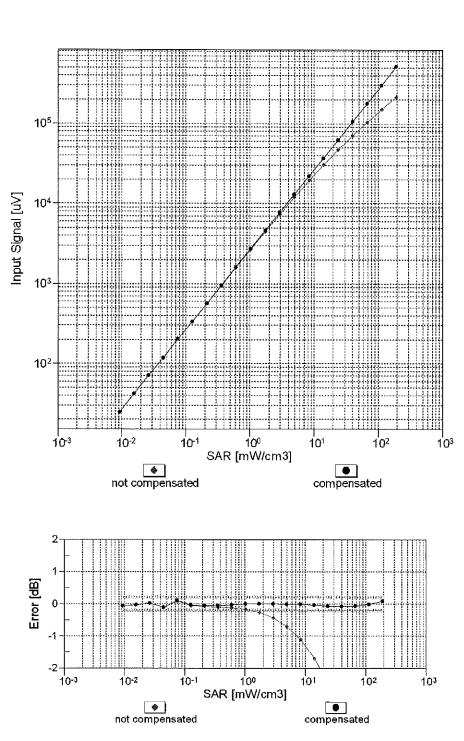
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)



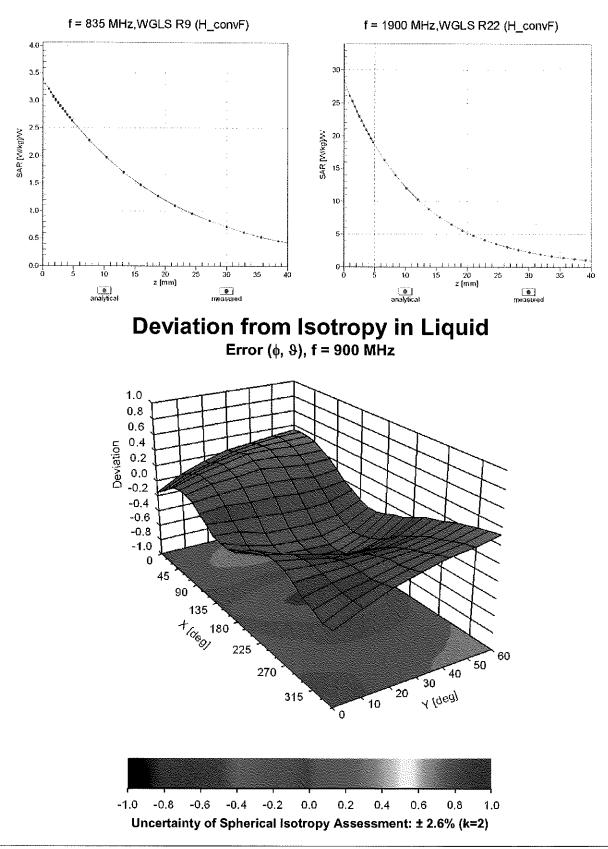
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)



Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)

Uncertainty of Linearity Assessment: ± 0.6% (k=2)



Conversion Factor Assessment

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR	Unc ^E
				(dB)	(k=2)
0		CW	CW	0.00	±4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA WLAN	2.91 1.87	± 9.6 % ± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	9.46	
10013 10021	CAB DAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) GSM-FDD (TDMA, GMSK)	GSM	9.46	±9.6 % ±9.6 %
10021	DAC	GPRS-FDD (TDMA, GMSK) GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.59	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0) GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10024	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	±9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037		IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	±9.6%
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth CDMA2000	4.10	±9.6 % ±9.6 %
10039 10042	CAB CAB	CDMA2000 (1xRTT, RC1) IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	4.57 7.78	±9.6 %
10042	CAB	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10044	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	±9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	$\pm 9.6\%$
10069		IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)		10.56	$\pm 9.6\%$
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps) IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN WLAN	9.83 9.62	±9.6 % ±9.6 %
10072	CAB CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	10.30	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6 %
	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %

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10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117	CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD		
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	6.53	± 9.6 %
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)		5.73	± 9.6 %
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 10-QAM)	LTE-FDD	6.35	± 9.6 %
10145	CAE	LTE-FDD (SC-FDMA, 100% RD, 3 MHZ, 04-QAM)	LTE-FDD	6.65	±9.6 %
10145		LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6 %
		LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6 %
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	± 9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6%
10151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	± 9.6 %
10152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6 %
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6 %
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9,6 %
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	± 9.6 %
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	± 9.6 %
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6,43	± 9.6 %
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	± 9.6 %
10167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	± 9.6 %
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)			± 9.6 %
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.21	± 9.6 %
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	9.48	± 9.6 %
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	10.25	± 9.6 %
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	5.72	± 9.6 %
10170	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	6.52	± 9.6 %
10177	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 10-QAM)	LTE-FDD	5.73	±9.6%
10178	CAG		LTE-FDD	6.52	± 9.6 %
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6 %
		LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6 %
10181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6 %
10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6 %
10183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6 %
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10185	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6%
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194	CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 %
10196	CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.10	± 9.6 %
10198	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6 %
10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN		
		service, in the more by the more by the the service of the service		8.03	± 9.6 %

10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6 %
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA ·	5.97	±9.6 %
10226	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6 %
10227	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6 %
10228	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6 %
10229	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9,48	±9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9,19	± 9.6 %
10232	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6%
10234	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6%
10235					± 9.6 %
	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	
10237	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10241	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6 %
10243	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6%
10245	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6 %
10247	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6 %
10248	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6 %
10249	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10250	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6 %
10252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 10-QAM)	LTE-TDD	10.08	± 9.6 %
10257	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 04-0400)	LTE-TDD	9.34	± 9.6 %
			LTE-TDD	9.98	± 9.6 %
10259	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)			
10260	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	<u>±9.6%</u>
10262	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	$\pm 9.6\%$
10263	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10291	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.50	± 9.6 %
10293	AAB	CDMA2000, RC3, SO3, Pull Rate CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	$\pm 9.6\%$
			LTE-FDD	5.81	$\pm 9.6\%$
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)			
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	$\pm 9.6\%$
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %

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10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL	WIMAX	12.57	± 9.6 %
		symbols)		12.01	1 3.0 %
10303	AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15	WIMAX	15.24	± 9.6 %
		symbols)		13.24	1 9.0 %
10306	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18	WIMAX	14.67	± 9.6 %
	1	symbols)	V V 11 V 1/ / / /	14.07	1. 5.0 %
10307	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18	WIMAX	14.49	± 9.6 %
	1	symbols)		14.43	1.5.0 %
10308	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WIMAX	14.46	± 9.6 %
10309	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18	WIMAX	14.58	± 9.6 %
10000		symbols)		14.00	± 9.0 %
10310		IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18	WIMAX	14.57	± 9.6 %
		symbols)		14.57	± 9.0 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	+06%
10313	AAA	IDEN 1:3	IDEN	6.06	± 9.6 %
10314	AAA	iDEN 1:6		10.51	± 9.6 %
10315	AAB		IDEN	13.48	± 9.6 %
10315		IEEE 802.11b WIFI 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	± 9.6 %
	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz			
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10399	AAD		Generic	6.27	± 9.6 %
		IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	±9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	±9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9.6 %
10410	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9, Subframe Conf=4)			
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	±9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle,	WLAN	8.14	± 9.6 %
		Long preambule)	**	0.14	1 3.0 78
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle,	WLAN	8.19	± 9.6 %
		Short preambule)	** == / \ \	0,19	
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	0 22	+060/
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)		8.32	±9.6%
10424	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424		EEE 902.110 (IT Oreenlield, 72.2 Wops, 04-QAW)	WLAN	8.40	±9.6%
	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±9.6%
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8,41	±9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	±9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9)	_,_,00	1.52	10.070
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9,6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)			
10449	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD LTE-FDD	7.53	±9.6%
				7.51	±9.6 %
10449	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10451	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	±96%
10461	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.82	±9.6 %
		Subframe=2,3,4,7,8,9)			
10462	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.30	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10463	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.56	±9.6 %
		Subframe=2,3,4,7,8,9)			
10464	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
40405		Subframe=2,3,4,7,8,9)		0.00	± 9.6 %
10465	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	19.0%
10466	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10400		Subframe=2,3,4,7,8,9)	C1C-100	0.07	10.0 %
10467	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
	/	Subframe=2,3,4,7,8,9)			
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.56	±9.6 %
		Subframe=2,3,4,7,8,9)			
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
40.470		Subframe=2,3,4,7,8,9)		0.57	100%
10472	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10473	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10475		Subframe=2,3,4,7,8,9)		1.02	1 0.0 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10-11-1	1,0,0	Subframe=2,3,4,7,8,9)			
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
	ļ	Subframe=2,3,4,7,8,9)			
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
	+	Subframe=2,3,4,7,8,9)			100%
10479	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.74	±9.6 %
10480		Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.18	± 9.6 %
10460	AAA	Subframe=2,3,4,7,8,9)		0.10	1 9.0 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
10401		Subframe=2,3,4,7,8,9)			
10482	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL	LTE-TDD	7.71	± 9.6 %
	1	Subframe=2.3.4.7.8.9)			
10483	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.39	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	±9.6 %
		Subframe=2,3,4,7,8,9)			
10485	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL	LTE-TDD	7.59	± 9.6 %
10400		Subframe=2,3,4,7,8,9)		0.00	± 9.6 %
10486	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.38	I 9.0 %
40407		Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.60	± 9.6 %
10487	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHZ, 64-QAM, 0L Subframe=2,3,4,7,8,9)		0.00	± 9.0 %
10488	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL	LTE-TDD	7.70	± 9.6 %
10400	,~~L	Subframe=2,3,4,7,8,9)			_ 0.0 /0
10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10490	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
	1	Subframe=2,3,4,7,8,9)	1	1	1

EX3DV4-- SN:7357

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April 24, 2019

10492 AVE LIFE-TDD 8.41 ± 9.6 % 10493 AAE LIFE-TDD 8.51 347.8 % 10444 AAF LIFE-TDD 8.55 ± 9.6 % 10444 AAF LIFE-TDD 8.57 ± 9.6 % 10444 AAF LIFE-TDD 8.57 ± 9.6 % 10445 AAF LIFE-TDD 8.52 ± 9.6 % 10446 AAF LIFE-TDD 8.52 ± 9.6 % 10447 AAA LIFE-TDD 8.54 ± 9.6 % 10447 AAA LIFE-TDD 8.54 ± 9.6 % 10448 AAA LIFE-TDD 8.64 HHz, 20-QAM, UL LIFE-TDD 8.64 10449 AAA LIFE-TDD 8.64 ± 9.6 % ± 9.6 % 10500 AAE LIFE-TDD 8.64 ± 9.6 % ± 9.6 % 10501 AAE LIFE-TDD 6.62 ± 9.6 % ± 9.6 % 10502 AAE LIFE-TDD 6.62 ± 9.6 % ± 9.6 %						
10483 AAE LITE-TDD 8.56 ± 9.6 % 10494 AAF LITE-TDD 8.56 ± 9.6 % 10494 AAF LITE-TDD 7.74 ± 9.6 % 10495 AAF LITE-TDD 8.77 ± 9.6 % 10495 AAF LITE-TDD 8.37 ± 9.6 % 10496 AAF LITE-TDD 8.37 ± 9.6 % 10497 AAA LITE-TDD 8.64 ± 9.6 % 10497 AAA LITE-TDD 8.64 ± 9.6 % 10498 AAA LITE-TDD 8.64 ± 9.6 % 10499 AAA LITE-TDD 8.66 ± 9.6 % 10499 AAA LITE-TDD 8.66 ± 9.6 % 10491 AAB LITE-TDD 8.66 ± 9.6 % 10501 AAB LITE-TDD 8.67 ± 9.6 % 10502 AAB LITE-TDD 8.74 ± 9.6 % 10502 AAB LITE-TDD 8.74 ± 9.6 %	10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.41	± 9.6 %
Subframe-2,3,4,7,8,9) LTE-TDD 7.74 4.9.6 % 10494 AF LTE-TDD 6,7.74 4.9.6 % 10495 AF LTE-TDD 6,7.74 4.9.6 % 10495 AF LTE-TDD 6,7.74 4.9.6 % 10496 AF LTE-TDD 6,5.74 1.9.6 % 10497 AA LTE-TDD 6,5.74 1.9.6 % 10498 AA LTE-TDD 6,5.74 1.9.6 % 10498 AA LTE-TDD 6,5.64 1.9.6 % 10498 AA LTE-TDD 6,6.67 1.9.6 % 10499 AA LTE-TDD 6,6.67 1.9.6 % 10500 AAB LTE-TDD 6,6.67 1.9.6 % 10501 AAB LTE-TDD 6,6.7 1.9.6 % 10502 AAB LTE-TDD 6,7.67 1.9.6 % 10503 AAE LTE-TDD 6,7.67 1.9.6 % 10504 AAE LTE-TDD 6,7.67 1.9.6 % <t< td=""><td>10493</td><td>AAE</td><td>LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL</td><td>LTE-TDD</td><td>8.55</td><td>± 9.6 %</td></t<>	10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.55	± 9.6 %
Subframe=2,3,4,7,8,9 Number 2,3,4,7,8,9 10495 AAF TE-TDD (Sc-FDMA, 50% RB, 20 MHz, 16-QAM, UL LTE-TDD (Sc-FDMA, 50% RB, 20 MHz, 64-QAM, UL LTE-TDD (Sc-FDMA, 100% RB, 14 MHz, 0FSK, UL LTE-TDD (Sc-FDMA, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD (Sc-FDMA, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD (Sc-FDMA, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD (Sc-FDMA, 100% RB, 34 MHz, QPSK, UL LTE-TDD (Sc-FDMA, 100% RB, 54 MHz, QPSK, UL LTE-TDD (Sc-FDMA, 100% RB, 10 MHz, 16-QAM, UL<						
10486 AAF LTE-TDD 8.37 ± 9.6 % 10486 AAF LTE-TDD 8.57 ± 9.6 % 10486 AAF LTE-TDD 8.54 ± 9.6 % 10487 AAA LTE-TDD 8.54 ± 9.6 % 10487 AAA LTE-TDD 8.54 ± 9.6 % 10488 AAA LTE-TDD 7.67 ± 9.6 % 10489 AAA LTE-TDD 8.40 ± 9.6 % 10499 AAA LTE-TDD 8.60 ± 9.6 % 10499 AAA LTE-TDD 8.64 ± 9.6 % 10499 AAA LTE-TDD 8.64 ± 9.6 % 10491 AAA LTE-TDD (5C-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD 7.67 ± 9.6 % 10501 AAB LTE-TDD (5C-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD 8.62 ± 9.6 % 10504 AAB LTE-TDD (5C-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 7.72 ± 9.6 % 10505 AAE LTE-TDD (5C-FDMA, 100% RB, 5 MHz, 64-Q	10494			LTE-TDD	7.74	± 9.6 %
Subframe=2,3,4,7,9.9 LTE-TDD 6.54 29.6 % 10496 AF LTE-TDD (SC-FDM, 50% RB, 20 MHz, 64-0AM, UL LTE-TDD 7.67 29.6 % 10497 AA LTE-TDD (SC-FDM, 100% RB, 14 MHz, QPSK, UL LTE-TDD 7.67 29.6 % 10498 AA LTE-TDD (SC-FDM, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD 8.66 29.6 % 10499 AA LTE-TDD (SC-FDM, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD 7.67 29.6 % 10500 AB LTE-TDD (SC-FDM, 100% RB, 3 MHz, QPSK, UL LTE-TDD 7.67 29.6 % 10501 AB LTE-TDD (SC-FDM, 100% RB, 3 MHz, GA-QAM, UL LTE-TDD 8.44 29.6 % 10502 AB LTE-TDD (SC-FDM, 100% RB, 3 MHz, GA-QAM, UL LTE-TDD 7.72 2.9.6 % 10503 AE LTE-TDD (SC-FDM, 100% RB, 5 MHz, GPSK, UL LTE-TDD 7.72 2.9.6 % 10504 AE LTE-TDD (SC-FDM, 100% RB, 5 MHz, GA-QAM, UL LTE-TDD 8.51 ± 9.6 % 10505 AE LTE-TDD (SC-FDM, 100% RB, 5 MHz, GA-QAM, UL LTE-TDD 8.54 ± 9.6 %	10495	AAF		I TE-TDD	8.37	+96%
Studierame:2,3,4,7,8,9 Number of the second se			Subframe=2,3,4,7,8,9)			
10447 AAA LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK, UL LTE-TDD 7.67 ± 9.6 % 10488 AAA LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD 8.40 ± 9.6 % 10499 AAA LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 04-QAM, UL LTE-TDD 8.68 ± 9.6 % 10500 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL LTE-TDD 7.67 ± 9.6 % 10501 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL LTE-TDD 8.44 ± 9.6 % 10502 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL LTE-TDD 8.52 ± 9.6 % 10503 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD 8.31 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD 8.54 ± 9.6 % 10505 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 8.54 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 04-QAM, UL LTE-TDD 8.54 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA,	10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
Subframe23.47.8.9) The Top Car FDMA, 100% RB, 14 MHz, 16-QAM, UL LTE-TDD 8.40 ± 9.6 % 10499 AAA LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 64-QAM, UL LTE-TDD 8.68 ± 9.6 % 10500 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 0PSK, UL LTE-TDD 8.68 ± 9.6 % 10500 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 0PSK, UL LTE-TDD 8.44 ± 9.6 % 10501 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD 8.42 ± 9.6 % 10502 AAB LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.52 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 7.72 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.31 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 8.54 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100	10497				7.67	+96%
Image: Subframe:2,3,4,7,8,9) Image: Subframe:2,3,4,7,8,9) 10499 AAA LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 64-QAM, UL LTE-TDD 8.68 ±9.6 % 10500 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL LTE-TDD 8.44 ±9.6 % 10501 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL LTE-TDD 8.44 ±9.6 % 10502 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 44-QAM, UL LTE-TDD 8.42 ±9.6 % 10503 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 20-SK, UL LTE-TDD 7.72 ±9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.31 ±9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ±9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL LTE-TDD 7.74 ±9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL LTE-TDD 8.55 ±9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.55			Subframe=2,3,4,7,8,9)		1.01	. 3.0 /0
10499 AAA LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 0F-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL Subframe-2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-Q	10498	AAA		LTE-TDD	8.40	± 9.6 %
Subframe=2,34,7,8,9 Charlenge Charlenge <thcharlenge< th=""></thcharlenge<>	10499				8.68	+96%
Subframe=2,3,4,7,8,9 Term of the state of t			Subframe=2,3,4,7,8,9)	LIL-IDD	0.00	1 3.0 70
10501 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL LTE-TDD 8.44 ± 9.6 % 10502 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD 8.52 ± 9.6 % 10503 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD 7.72 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.31 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ± 9.6 % 10505 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL LTE-TDD 7.74 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL LTE-TDD 8.36 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0FSK, UL LTE-TDD 8.55 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL LTE-TDD 8.55 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL LTE-TDD 7.99 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA	10500	AAB		LTE-TDD	7.67	±9.6 %
Subframe=2,3,4,7,8,9 China Line China Line China Line China Line China Line 10502 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD 8.52 ± 9.6 % 10503 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD 7.72 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.31 ± 9.6 % 10505 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL LTE-TDD 8.49 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL	10501	AAR			0.44	
10502 AAB LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL LTE-TDD 8.52 ± 9.6 % 10503 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD 7.72 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.31 ± 9.6 % 10505 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 8.36 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL LTE-TDD 8.56 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL LTE-TDD 8.51 ± 9.6 % 10511 AAE LTE-TDD (10001	1000			8.44	±9.0 %
10503 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL LTE-TDD 7.72 ± 9.6 % 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.31 ± 9.6 % 10505 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 8.54 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.35 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0CAM, UL LTE-TDD 7.99 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.51 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL LTE-TDD 8.51 ± 9.6 % 10511 AAE LTE-TDD (SC-	10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.52	± 9.6 %
Subframe=2,3,4,7,8,9) Intervent Intervent Intervent Intervent 10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.31 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 7.74 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.35 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 0PSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,	10503				7 70	1000
10504 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL LTE-TDD 8.31 ± 9.6 % 10505 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 8.36 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL LTE-TDD 7.99 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.51 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL LTE-TDD 8.51 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.45 ± 9.6 % 10511 AAF LTE-TDD	10505		Subframe=2,3,4,7,8,9)	LIE-IDD	1.12	±9.6 %
10505 AAE LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL LTE-TDD 8.54 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 7.99 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.42 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL LTE-TDD 8.42 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.45 ± 9.6 %	10504	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
Subframe=2,3,4,7,8,9) LTE-TDD C.7.4 ± 9.6 % 10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 7.99 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.51 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.42 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD <td>10505</td> <td></td> <td></td> <td></td> <td>0.54</td> <td></td>	10505				0.54	
10506 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 0PSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-Q	10000				8.54	±9.6%
10507 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL LTE-TDD 8.36 ± 9.6 % 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL LTE-TDD 8.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 7.99 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 04-QAM, UL LTE-TDD 8.51 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 04-QAM, UL LTE-TDD 8.45 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.45 ± 9.6 % 10514 AAF LTE-TDD	10506	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
Subframe=2,3,4,7,8,9) LTE-TDD Stab LTE-TDD Stab 10508 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL LTE-TDD 8.55 ±9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL LTE-TDD 7.99 ±9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL LTE-TDD 8.49 ±9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.49 ±9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.51 ±9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 0PSK, UL LTE-TDD 7.74 ±9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL LTE-TDD 8.42 ±9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.45 ±9.6 % 10515 AAA LEE 802.11b WiF1 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ±9.6 % 10516 AAA LEE 802.11b WiF1 2.4 GHz (DSSS, 5.5 Mbps, 99pc dut	10507					
10508 AAE LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 6.55 ± 9.6 % 10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.51 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11a/h WiFi 5 GHz (O	10007		Subframe=2,3,4,7,8,9)	LIE-IDD	8.36	±9.6%
10509 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 7.99 ± 9.6 % 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.51 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 7.74 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 M	10508	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.55	±9.6 %
Subframe=2,3,4,7,8,9 LTE-TDD R.0 LTE-TDD R.0 LTE-TDD 10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL LTE-TDD 8.51 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL LTE-TDD 7.74 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.45 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL LTE-TDD 8.45 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802	10500				7.00	
10510 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.49 ± 9.6 % 10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.51 ± 9.6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 7.74 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA LEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.32 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 14 Mbps, 99pc duty	10000		Subframe=2,3,4,7,8,9)		7.99	± 9.6 %
10511 AAE LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.51 ± 9,6 % 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 7.74 ± 9,6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9,6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9,6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9,6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.58 ± 9,6 % 10517 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mpps, 99pc duty cycle) WLAN 1.58 ± 9,6 % 10516 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.23 ± 9,6 % 10517 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 14 Mbps, 99pc duty cycle) WLAN 8.23 ± 9,6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) <td>10510</td> <td>AAE</td> <td>LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL</td> <td>LTE-TDD</td> <td>8.49</td> <td>±9.6 %</td>	10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.49	±9.6 %
Subframe=2,3,4,7,8,9) LTE-TDD Control 10512 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD 7.74 ± 9.6 % 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAB IEEE 802.11a/n WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.33 ± 9.6 % 10520 AAB IEEE 802.11a/n WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/n WiFi 5 GHz (OFDM, 34 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 <td>10511</td> <td></td> <td></td> <td></td> <td>0.54</td> <td></td>	10511				0.54	
Subframe=2,3,4,7,8,9) Interaction Interaction Interaction 10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 44 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % <	10011				8.51	±9.6%
10513 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.42 ± 9.6 % 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10517 AAA IEEE 802.11a/h WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.06 ½ ± 9.6 % 10524 AAB <td>10512</td> <td>AAF</td> <td></td> <td>LTE-TDD</td> <td>7.74</td> <td>± 9.6 %</td>	10512	AAF		LTE-TDD	7.74	± 9.6 %
Subframe=2,3,4,7,8,9) LTE-TDD LTE-TDD LTE-TDD 10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.57 ± 9.6 % 10517 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 34 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10524 </td <td>10513</td> <td></td> <td></td> <td></td> <td>0.40</td> <td></td>	10513				0.40	
10514 AAF LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD 8.45 ± 9.6 % 10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.57 ± 9.6 % 10517 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10510 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10524 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN <t< td=""><td>10010</td><td>1 / 1 / 1</td><td></td><td></td><td>8.42</td><td>± 9.6 %</td></t<>	10010	1 / 1 / 1			8.42	± 9.6 %
10515 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.57 ± 9.6 % 10517 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10519 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10524 AAB IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) WLAN 8.27 <	10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
10516 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) WLAN 1.57 ± 9.6 % 10517 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10519 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10524 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.27 ± 9.6 % 10526 AAB IEEE 802.11ac W	10515				1.50	
10517 AAA IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) WLAN 1.58 ± 9.6 % 10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10519 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10524 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.27 ± 9.6 % 10525 AAB IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10526 AAB IEEE 802.11ac WiFi (20MHz			IEEE 802.110 WIFI 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)			
10518 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) WLAN 8.23 ± 9.6 % 10519 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) WLAN 8.39 ± 9.6 % 10520 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) WLAN 8.12 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10524 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10525 AAB IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10526 AAB IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) WLAN 8.42 ± 9.6 % 10527 AAB IEEE 802.11ac WiFi (20MHz, MCS3, 9			IEEE 802.11b Wir 12.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)		·	j
10519AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)WLAN8.12 $\pm 9.6 \%$ 10520AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)WLAN8.12 $\pm 9.6 \%$ 10521AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)WLAN8.12 $\pm 9.6 \%$ 10522AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)WLAN8.45 $\pm 9.6 \%$ 10522AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)WLAN8.45 $\pm 9.6 \%$ 10523AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)WLAN8.08 $\pm 9.6 \%$ 10524AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)WLAN8.27 $\pm 9.6 \%$ 10525AABIEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)WLAN8.36 $\pm 9.6 \%$ 10526AABIEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)WLAN8.42 $\pm 9.6 \%$ 10527AABIEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)WLAN8.42 $\pm 9.6 \%$ 10528AABIEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)WLAN8.36 $\pm 9.6 \%$ 10529AABIEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)WLAN8.36 $\pm 9.6 \%$ 10531AABIEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)WLAN8.43 $\pm 9.6 \%$ 10532AABIEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)WLAN8.43 $\pm 9.6 \%$ 10533AABIEEE 802.11ac WiFi (20						
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10521 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) WLAN 7.97 ± 9.6 % 10522 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) WLAN 8.45 ± 9.6 % 10523 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) WLAN 8.08 ± 9.6 % 10524 AAB IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.27 ± 9.6 % 10525 AAB IEEE 802.11a/h WiFi 20MHz, MCS0, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10526 AAB IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) WLAN 8.42 ± 9.6 % 10527 AAB IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) WLAN 8.21 ± 9.6 % 10528 AAB IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10529 AAB IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)			IEEE 802.11a/II WIFI 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)			
10522AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)WLAN7.511.5110523AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)WLAN 8.45 ± 9.6 %10524AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)WLAN 8.08 ± 9.6 %10524AABIEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)WLAN 8.27 ± 9.6 %10525AABIEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)WLAN 8.36 ± 9.6 %10526AABIEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)WLAN 8.42 ± 9.6 %10527AABIEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)WLAN 8.42 ± 9.6 %10528AABIEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)WLAN 8.36 ± 9.6 %10529AABIEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)WLAN 8.36 ± 9.6 %10529AABIEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)WLAN 8.36 ± 9.6 %10531AABIEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)WLAN 8.43 ± 9.6 %10532AABIEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)WLAN 8.43 ± 9.6 %10533AABIEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)WLAN 8.29 ± 9.6 %10533AABIEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)WLAN 8.38 ± 9.6 %			IEEE 802 11 a/1 WIFTS GHZ (OFDIM, TO WIDDS, 990C GULY CYCIE)			
10523AABIEEE 802.11a/n WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)WLAN8.08 $\pm 9.6\%$ 10524AABIEEE 802.11a/n WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)WLAN8.08 $\pm 9.6\%$ 10525AABIEEE 802.11a/n WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)WLAN8.27 $\pm 9.6\%$ 10526AABIEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)WLAN8.36 $\pm 9.6\%$ 10526AABIEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)WLAN8.42 $\pm 9.6\%$ 10527AABIEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)WLAN8.21 $\pm 9.6\%$ 10528AABIEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)WLAN8.36 $\pm 9.6\%$ 10529AABIEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)WLAN8.36 $\pm 9.6\%$ 10531AABIEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)WLAN8.43 $\pm 9.6\%$ 10532AABIEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)WLAN8.43 $\pm 9.6\%$ 10533AABIEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)WLAN8.29 $\pm 9.6\%$ 10533AABIEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)WLAN8.38 $\pm 9.6\%$			IEEE 802.11a/it WIFLS GHZ (OFDM, 24 Mbps, 99pc duty cycle)			
10524 AAB IEEE 802.11a/n WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) WLAN 8.27 ± 9.6 % 10525 AAB IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) WLAN 8.27 ± 9.6 % 10526 AAB IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10526 AAB IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) WLAN 8.42 ± 9.6 % 10527 AAB IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) WLAN 8.21 ± 9.6 % 10528 AAB IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10529 AAB IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 A						
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10526 AAB IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) WLAN 8.42 ± 9.6 % 10527 AAB IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) WLAN 8.42 ± 9.6 % 10528 AAB IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) WLAN 8.21 ± 9.6 % 10529 AAB IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %						
10527 AAB IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) WLAN 8.21 ± 9.6 % 10528 AAB IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10529 AAB IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %						
10528 AAB IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10529 AAB IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %			IEEE 802 11ac WiFi (20MHz, MCS2, 90pc duty cycle)			
10529 AAB IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) WLAN 8.36 ± 9.6 % 10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %			IFEE 802.11ac Will (20MHz, WOS2, 9900 duty cycle)			
10531 AAB IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle) WLAN 8.43 ± 9.6 % 10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %						
10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 % 10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %						
10533 AAB IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) WLAN 8.38 ± 9.6 %			IFEE 802 11ac WiFi (20MHz, MCS7, 99pc duty cycle)			· · · · · · · · · · · · · · · · · · ·
			IEEE 802.11ac WiFi (20MHz, MCOS, 99pc duty cycle)			
		1				
		1	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	WLAN	8.38	±9.6 %

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10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6 %
10536	AAB	IEEE 802.11ac WIFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6 %
10537	AAB	IEEE 802.11ac WIFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	±9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	±9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	±9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	±9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	±9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	±9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	±9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WIFI (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564		IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty	WLAN	8.25	± 9.6 %
10004		cycle)	VVL/KIN	0.25	1 9.0 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty	WLAN	8.45	± 9.6 %
10000	1 1111	cvcle)	VVLAIN	0.45	1 5.0 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty	WLAN	8.13	± 9.6 %
10000	1000	cycle)	VVL/AIN	0.15	1 5.0 %
10567		IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty	WLAN	8.00	± 9.6 %
10007			VVLAN	0.00	19.0 %
10568		cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	8.37	± 9.6 %
10000			WLAN	0.37	I 9.0 %
40500		cycle)		0.10	+069/
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	WLAN	8.10	± 9.6 %
40570					1069
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	± 9.6 %
40574			WLAN	1.00	100%
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)			
10572				1.99	± 9.6 %
	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN WLAN	1.99 1.98	± 9.6 % ± 9.6 %
10574	AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN WLAN WLAN	1.99 1.98 1.98	± 9.6 % ± 9.6 % ± 9.6 %
	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty	WLAN WLAN	1.99 1.98	± 9.6 % ± 9.6 %
10574 10575	AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59	$\begin{array}{r} \pm \ 9.6 \ \% \\ \pm \ 9.6 \ \% \end{array}$
10574	AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty	WLAN WLAN WLAN	1.99 1.98 1.98	± 9.6 % ± 9.6 % ± 9.6 %
10574 10575 10576	AAA AAA AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60	$\begin{array}{r} \pm 9.6 \% \\ \end{array}$
10574 10575	AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty	WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59	$\begin{array}{r} \pm \ 9.6 \ \% \\ \pm \ 9.6 \ \% \end{array}$
10574 10575 10576 10577	AAA AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576	AAA AAA AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60	$\begin{array}{r} \pm 9.6 \% \\ \end{array}$
10574 10575 10576 10577 10578	AAA AAA AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577	AAA AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578	AAA AAA AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty	WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580 10581	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76 8.35	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580 10581	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76 8.35	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580 10581	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76 8.35	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580 10581	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580 10581 10582 10583	AAA AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67 8.59	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10574 10575 10576 10577 10578 10579 10580 10581 10582 10583	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	1.99 1.98 1.98 8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67 8.59	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$

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10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFI (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10615	AAB	IEEE 802.11ac WiFI (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	± 9.6 %
10619	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9,6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFI (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WIFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10633	AAB	IEEE 802.11ac WIFI (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8,98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN		±9.6%
10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	9.11	$\pm 9.6\%$
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)		11.96	$\pm 9.6\%$
10648	AAA	CDMA2000 (1x Advanced)	LTE-TDD	11.96	±9.6 %
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	CDMA2000	3.45	±9.6%
10653	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±96%
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±9.6%
	r + 15-2		LTE-TDD	6.96	± 9.6 %

1007-	T-				
10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	±9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	±9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6 %
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	±9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	±9.6 %
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	± 9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6 %
10684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	±9.6%
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	8.55	±9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	±9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	±9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	±9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±96%
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	± 9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	± 9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	± 9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	$\pm 9.6\%$
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.30	±9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	$\pm 9.6\%$
10718	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	$\pm 9.6\%$
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS0, 30pc duty cycle)	WLAN	8.87	± 9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN		
10722	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)		8.55	±9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	$\pm 9.6\%$
10724	AAA	IEEE 802.11ax (80MHz, MCSS, 90pc duty cycle)	WLAN MILAN	8.90	± 9.6 %
10725	AAA		WLAN	8.74	±9.6%
10726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10/2/	A	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6 %

10729 AAA IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle) WLAN 8.64 ± 10730 AAA IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle) WLAN 8.67 ± 10731 AAA IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle) WLAN 8.42 ± 10732 AAA IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle) WLAN 8.46 ±	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10730 AAA IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle) WLAN 8.67 ± 10731 AAA IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle) WLAN 8.42 ± 10732 AAA IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle) WLAN 8.46 ±	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10731 AAA IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle) WLAN 8.42 1 10732 AAA IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle) WLAN 8.46 1	29.6 % 29.6 % 29.6 % 29.6 %
10732 AAA IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle) WLAN 8.46 ±	± 9.6 % ± 9.6 % ± 9.6 %
	± 9.6 % ± 9.6 %
	:9.6 %
10733 AAA IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle) WLAN 8.40 ±	
10734 AAA IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle) WLAN 8.25 ±	
10735 AAA IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle) WLAN 8.33 ±	±9.6 %)
10736 AAA IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle) WLAN 8.27 d	£ 9.6 %
10737 AAA IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle) WLAN 8.36 ±	t 9.6 %
	£ 9.6 %
10739 AAA IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle) WLAN 8.29	£ 9.6 %
	£ 9.6 %
10741 AAA IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle) WLAN 8.40 d	£ 9.6 %
10742 AAA IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle) WLAN 8.43 4	£9.6 %
10743 AAA IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle) WLAN 8.94 ±	£ 9.6 %
10744 AAA IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle) WLAN 9.16	£ 9.6 %
10745 AAA IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle) WLAN 8.93 ±	£ 9.6 %
	£9.6 %
10747 AAA IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle) WLAN 9.04 ±	£ 9.6 %
10748 AAA IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle) WLAN 8.93 4	£9.6 %
10749 AAA IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle) WLAN 8.90 ±	£ 9.6 %
10750 AAA IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle) WLAN 8.79 ±	£ 9.6 %
10751 AAA IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle) WLAN 8.82 ±	£ 9.6 %
10752 AAA IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle) WLAN 8.81 4	£ 9.6 %
10753 AAA IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle) WLAN 9.00 3	£ 9.6 %
10754 AAA IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle) WLAN 8.94 4	£9.6 %
10755 AAA IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle) WLAN 8.64 ±	£9.6 %
10756 AAA IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle) WLAN 8.77 ±	±9.6 %
10757 AAA IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle) WLAN 8.77 4	± 9.6 %
10758 AAA IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle) WLAN 8.69 3	£ 9.6 %
	± 9.6 %
10760 AAA IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle) WLAN 8.49	± 9.6 %
10761 AAA IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle) WLAN 8.58	± 9.6 %
10762 AAA IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle) WLAN 8.49	± 9.6 %
10763 AAA IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle) WLAN 8.53	± 9.6 %
10764 AAA IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle) WLAN 8.54 ±	± 9.6 %
	± 9.6 %
10766 AAA IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle) WLAN 8.51	± 9.6 %

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

BN 2019

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

PC Test Client

Certif						

CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:7406

Calibration procedure(s)

QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes

Calibration date:

May 16, 2019

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check; Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A SN: US41080477		31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
:			Millese
Approved by:	Katja Pokovic	Technical Manager	Carra
			Aut
			Issued: May 16, 2019
This calibration certificate	shall not be reproduced except in full	without written approval of the lab	oratory.

Calibration Laboratory of Schmid & Partner **Engineering AG** Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst S

- Service suisse d'étalonnage Ċ
- Servizio svizzero di taratura S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: SCS 0108

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates Glossarv:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 9	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement
- Techniques", June 2013 IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handb) held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices C) used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization $\vartheta = 0$ (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, y, z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.46	0.43	0.45	± 10.1 %
DCP (mV) ^B	102.8	102.2	100.4	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	C	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	182.0	± 2.7 %	± 4.7 %
		Y	0.00	0.00	1.00	0.00	172.4	- 2.1 70	1 4.1 70
		Z	0.00	0.00	1.00		174.6	1	
10352-	Pulse Waveform (200Hz, 10%)	X	6.76	76.02	14.93	10.00	60.0	± 2,7 %	± 9.6 %
AAA		Y	6.25	75.48	14.76		60.0		1 2 0.0 70
		Z	15.00	84.32	17.62		60.0	-	
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	85.05	16.36	6.99	80.0	± 1.9 %	± 9.6 %
AAA		Y	15.00	85.57	16.70		80.0		- 0.0 /0
		Z	15.00	85.96	16.90	1	80.0		
10354-	Pulse Waveform (200Hz, 40%)	X	15.00	83.48	13.87	3.98	95.0	± 1.3 %	± 9.6 %
AAA		Y	15.00	88.48	16.53		95.0		- 0.0 %
		Z	15.00	85.80	15.05		95.0	1	
10355-	Pulse Waveform (200Hz, 60%)	Х	0.28	60.00	4.49	2.22	120.0	± 1.3 %	± 9.6 %
AAA		Y	15.00	95.23	18.20		120.0	,•	
		Z	0.39	62.12	5.82	İ	120.0		
10387-	QPSK Waveform, 1 MHz	X	0.46	60.00	5.77	0.00	150.0	± 3.7 %	± 9.6 %
AAA		Y	14.25	443.18	61,66		150.0		
		Z	0.48	60.00	6.06	1	150.0		
10388-	QPSK Waveform, 10 MHz	Х	2.03	67.70	15.44	0.00	150.0	± 1.2 %	± 9.6 %
AAA		Y	2.30	72.35	18.27		150.0		
		Z	2.07	67.89	15.68		150.0		
10396-	64-QAM Waveform, 100 kHz	X	2.49	68.06	17.57	3.01	150.0	± 1.6 %	± 9.6 %
AAA		Y	1.98	66.67	17.49		150.0		
		Z	2.52	68.32	17.86		150.0		
10399-	64-QAM Waveform, 40 MHz	Х	3.39	67.06	15.71	0.00	150.0	± 2.2 %	±9.6 %
AAA		Y	3.39	68.23	16.67		150.0		
1		Z	3.40	67.01	15.79		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	Х	4.70	65.74	15.61	0.00	150.0	± 4.1 %	± 9.6 %
AAA		Υ	4.47	66.54	16.20		150.0		
		Z	4.70	65.63	15.63		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).

^B Numerical linearization parameter: uncertainty not required. ^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the

	C1 fF	C2 fF	α V ¹	T1 ms.V ⁻²	T2 ms.V ^{~1}	T3 ms	T4 V⁻²	T5 V ⁻¹	T6
<u>X</u>	34.8	265.14	36.82	6.17	0.37	5.06	0.00	0.44	1.01
Υ	19.8	147.90	35.69	7.11	0.37	5.03	0.00	0.19	1.00
Z	35.4	271.85	37.42	5.60	0.38	5.06	0.15	0.41	1.00

Sensor Model Parameters

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	27.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
30	55.0	0.75	16.10	16.10	16.10	0.00	1.00	± 13.3 %
750	41.9	0.89	10.26	10.26	10.26	0.44	0.93	± 12.0 %
835	41.5	0.90	9.78	9.78	9.78	0.44	0.91	± 12.0 %
1750	40.1	1.37	8.57	8.57	8.57	0.39	0.80	± 12.0 %
1900	40.0	1.40	8.18	8.18	8.18	0.39	0.80	± 12.0 %
2300	39.5	1.67	8.06	8.06	8.06	0.33	0.87	± 12.0 %
2450	39.2	1.80	7.67	7.67	7.67	0.37	0.87	± 12.0 %
2600	39.0	1.96	7.44	7.44	7.44	0.40	0.88	± 12.0 %
5250	35.9	4.71	5.54	5.54	5.54	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.94	4.94	4.94	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.23	5.23	5.23	0.40	1.80	± 13.1 %

Calibration Parameter Determined in Head Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to \pm 110 MHz. ^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to

measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of

the ConvF uncertainty for indicated target tissue parameters. ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

				,				
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	10.05	10.05	10.05	0.50	0.80	± 12.0 %
835	55.2	0.97	9.78	9.78	9.78	0.40	0.93	± 12.0 %
1750	53.4	1.49	8.13	8.13	8.13	0.43	0.80	± 12.0 %
1900	53.3	1.52	7.95	7.95	7.95	0.38	0.85	± 12.0 %
2300	52.9	1.81	7.76	7.76	7.76	0.44	0.85	± 12.0 %
2450	52.7	1.95	7.54	7.54	7.54	0.37	0.88	± 12.0 %
2600	52.5	2.16	7.47	7.47	7.47	0.25	1.05	± 12.0 %
5250	48.9	5.36	5.08	5.08	5.08	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.37	4.37	4.37	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.53	4.53	4.53	0.50	1.90	± 13.1 %

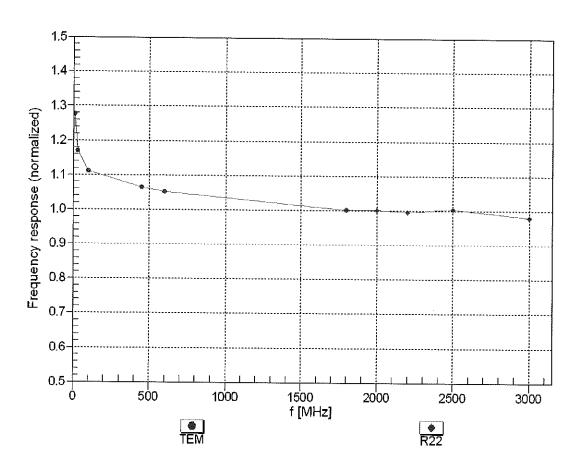
Calibration Parameter Determined in Body Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

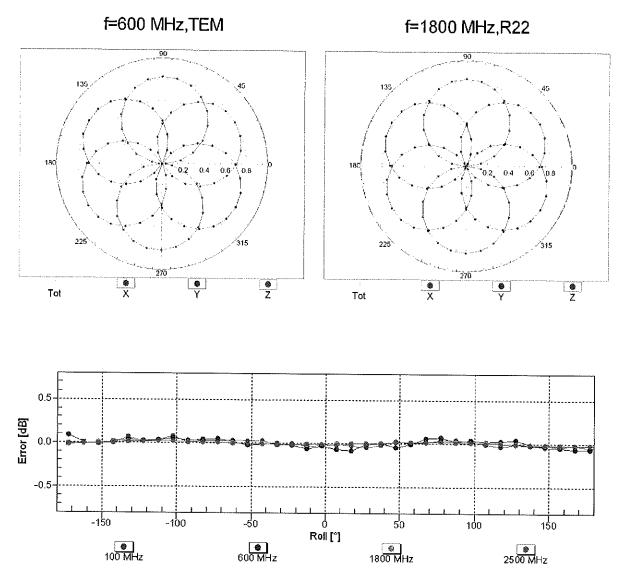
the ConvF uncertainty for indicated target tissue parameters. ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than \pm 1% for frequencies below 3 GHz and below \pm 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

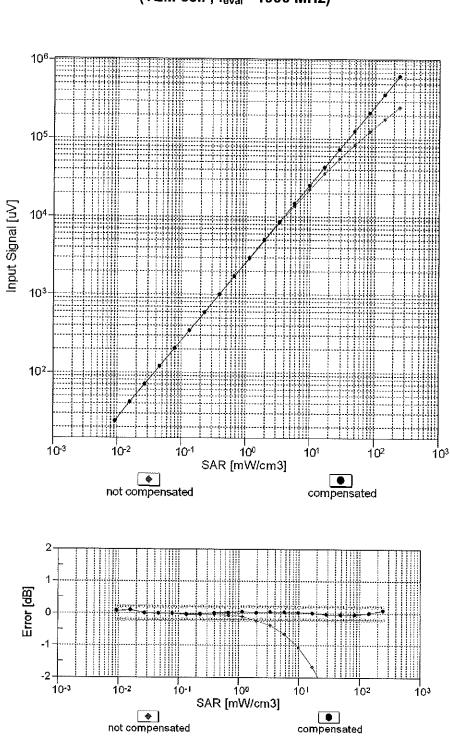
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)



Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

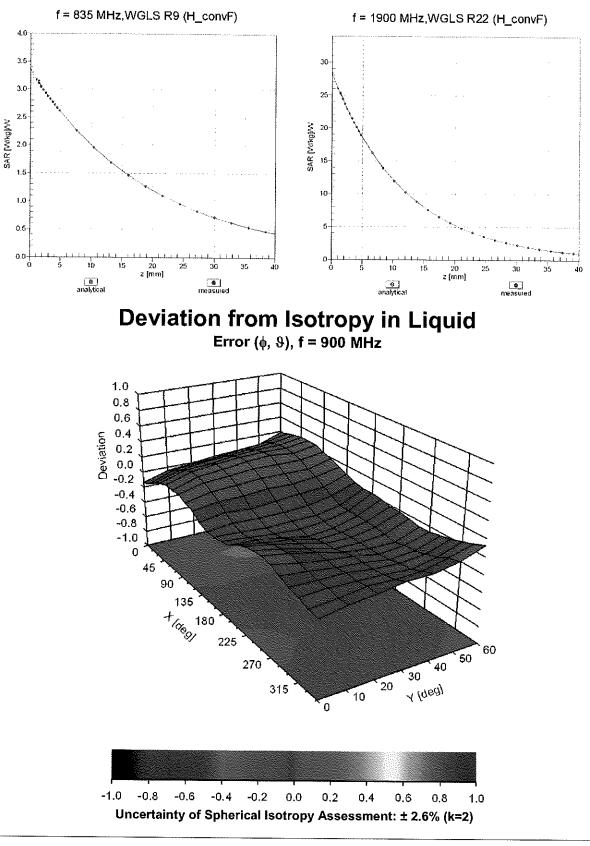
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)

Uncertainty of Linearity Assessment: ± 0.6% (k=2)



Conversion Factor Assessment

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name		PAR	Unct
				(dB)	(k=2)
0		CW	CW	0.00	±4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30 1.87	± 9.6 % ± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth		$\pm 9.6\%$ $\pm 9.6\%$
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5) IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth Bluetooth	1.16 7.74	± 9.6 %
10033			Bluetooth	4.53	± 9.6 %
10034		IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3) IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10035 10036	CAA CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	8.01	± 9.6 %
10036		IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	4.77	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10038	CAA	CDMA2000 (1xRTT, RC1)	CDMA2000	4.10	$\pm 9.6\%$
10039	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10042	CAB	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10044	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10040	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6 %
10063	CAC	IEEE 802.11a/h WIFI 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9,83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)		9.62	$\pm 9.6\%$
10073		IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 18 Mbps)		9.94	$\pm 9.6\%$
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	$\pm 9.6\%$
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN WLAN	10.77 10.94	± 9.6 % ± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN WLAN	11.00	$\pm 9.6\%$ $\pm 9.6\%$
10077	CAB CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10082	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10090	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10097	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10102	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
		LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10105	CAG				

10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN		
10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)		8.46	± 9.6 %
10117	CAC	IEEE 002.11n (HT Greenmeid, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117		IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6 %
10141		LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	± 9.6 %
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	± 9.6 %
10145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD		
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)		6.72	± 9.6 %
10150	CAE	LTE-EDD (SC-EDMA, 50% RB, 20 MHz, 10-QAM)	LTE-FDD	6.42	± 9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10151		LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	± 9.6 %
	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	± 9.6 %
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	± 9.6 %
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD		
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	1	5.82	± 9.6 %
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.43	± 9.6 %
10166	CAF		LTE-FDD	6.58	±9.6 %
10167		LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6 %
	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	± 9.6 %
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 9.6 %
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)			±9.6%
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	6.52	± 9.6 %
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	5.73	±96%
	CAG		LTE-FDD	6.52	± 9.6 %
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6 %
		LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6 %
10181					±9.6 %
10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	
40400	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	5.72 6.52	± 9.6 %
	CAE AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.52	± 9.6 %
10184	CAE AAD CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD LTE-FDD	6.52 6.50	± 9.6 % ± 9.6 %
10184 10185	CAE AAD CAE CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD LTE-FDD LTE-FDD	6.52 6.50 5.73	<u>± 9.6 %</u> <u>± 9.6 %</u> ± 9.6 %
10184 10185	CAE AAD CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD	6.52 6.50 5.73 6.51	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10184 10185 10186	CAE AAD CAE CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD	6.52 6.50 5.73 6.51 6.50	$\begin{array}{r} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187	CAE AAD CAE CAE AAE CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD	6.52 6.50 5.73 6.51 6.50 5.73	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188	CAE AAD CAE CAE AAE CAF CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD	6.52 6.50 5.73 6.51 6.50 5.73 6.52	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10189	CAE AAD CAE CAE AAE CAF CAF AAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10189 10193	CAE AAD CAE CAE AAE CAF CAF AAF CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD WLAN	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50 8.09	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10189 10193 10194	CAE AAD CAE CAE AAE CAF CAF AAF CAC CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD WLAN WLAN	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50 8.09 8.12	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10189 10193 10194 10195	CAE AAD CAE CAE AAE CAF CAF AAF CAC CAC CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD WLAN WLAN	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50 8.09	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10189 10193 10194 10195 10196	CAE AAD CAE CAE AAE CAF CAF AAF CAC CAC CAC CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1 MHz, 0PSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 0PSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD WLAN WLAN	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50 8.09 8.12	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10193 10194 10195 10196 10197	CAE AAD CAE CAE AAE CAF CAF CAC CAC CAC CAC CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD WLAN WLAN	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50 8.09 8.12 8.21	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10184 10185 10186 10187 10188 10193 10193 10194 10195 10196 10197 10198	CAE AAD CAE CAE AAE CAF CAF AAF CAC CAC CAC CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD (SC-FDMA, 1 RB, 1 MHz, 0PSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 0PSK) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD LTE-FDD WLAN WLAN WLAN	6.52 6.50 5.73 6.51 6.50 5.73 6.52 6.50 8.09 8.12 8.21 8.21 8.10	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$

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10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 %
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6 %
10227	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6 %
10228	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6 %
10229	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10233	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9,21	± 9.6 %
10241		LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	±9.6 %
10241	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10242	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10243		LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 4(-SR)	LTE-TDD	10.06	± 9.6 %
10244	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 10-QAM)	LTE-TDD	10.06	± 9.6 %
		LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10246	CAC		LTE-TDD	9.91	± 9.6 %
10247	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	10.09	± 9.6 %
10248	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)		a contraction of the second	$\pm 9.6\%$
10249	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	
10250	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257		LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 %
10260	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.6 %
10261	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.6 %
10263	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	±9.6 %
10265	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.6 %
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
					± 9.6 %
		UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	
10275	CAB		PHS	11.81	± 9.6 %
10275 10277	CAB CAA	PHS (QPSK)			
10275 10277 10278	CAB CAA CAA	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS PHS	11.81 11.81	± 9.6 % ± 9.6 %
10275 10277 10278 10279	CAB CAA CAA CAA	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS PHS PHS	11.81 11.81 12.18	± 9.6 % ± 9.6 % ± 9.6 %
10275 10277 10278 10279 10290	CAB CAA CAA CAA AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate	PHS PHS PHS CDMA2000	11.81 11.81 12.18 3.91	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10275 10277 10278 10279 10290 10291	CAB CAA CAA CAA AAB AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate	PHS PHS CDMA2000 CDMA2000	11.81 11.81 12.18 3.91 3.46	$\begin{array}{r} \pm \ 9.6 \ \% \\ \pm \ 9.6 \ \% \end{array}$
10275 10277 10278 10279 10290 10291 10292	CAB CAA CAA CAA AAB AAB AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate	PHS PHS CDMA2000 CDMA2000 CDMA2000	11.81 11.81 12.18 3.91 3.46 3.39	$\begin{array}{c} \pm \ 9.6 \ \% \\ \pm \ 9.6 \ \% \end{array}$
10275 10277 10278 10279 10290 10291 10292 10293	CAB CAA CAA CAA AAB AAB AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO32, Full Rate	PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000	11.81 11.81 12.18 3.91 3.46 3.39 3.50	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10275 10277 10278 10279 10290 10291 10292 10293 10295	CAB CAA CAA CAA AAB AAB AAB AAB AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO3, Full Rate	PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000 CDMA2000	11.81 11.81 12.18 3.91 3.46 3.39 3.50 12.49	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10275 10277 10278 10279 10290 10291 10292 10293 10295 10297	CAB CAA CAA CAA AAB AAB AAB AAB AAB AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO3, Full Rate LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000 CDMA2000 LTE-FDD	11.81 11.81 12.18 3.91 3.46 3.39 3.50 12.49 5.81	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10275 10277 10278 10279 10290 10291 10292 10293 10295	CAB CAA CAA CAA AAB AAB AAB AAB AAB	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5) PHS (QPSK, BW 884MHz, Rolloff 0.38) CDMA2000, RC1, SO55, Full Rate CDMA2000, RC3, SO55, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO32, Full Rate CDMA2000, RC3, SO3, Full Rate	PHS PHS CDMA2000 CDMA2000 CDMA2000 CDMA2000 CDMA2000	11.81 11.81 12.18 3.91 3.46 3.39 3.50 12.49	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$

10200					
10300 10301	AAD AAA	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10302		IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10002	1 ~~~~	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WIMAX	12.57	± 9.6 %
10303	AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	10/10.0.0	40.50	
10304	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX WIMAX	12.52	± 9.6 %
10305	AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15	WIMAX	11.86	± 9.6 %
		symbols)		15.24	± 9.6 %
10306	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18	WIMAX	14.67	± 9.6 %
		symbols)		14.07	1 9.0 %
10307	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18	WIMAX	14.49	± 9.6 %
		symbols)		1	± 0.0 /0
10308	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WIMAX	14.46	±9.6 %
10309	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18	WIMAX	14.58	± 9.6 %
10010	+	symbols)			
10310	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18	WIMAX	14.57	± 9.6 %
10044		symbols)			
10311 10313	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313		IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAA	IDEN 1:6	IDEN	13.48	± 9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	± 9.6 %
10317	AAC	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10352	AAA	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle) Pulse Waveform (200Hz, 10%)	WLAN	8.36	±9.6 %
10353	AAA	Pulse Waveform (200Hz, 10%) Pulse Waveform (200Hz, 20%)	Generic	10.00	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 20%) Pulse Waveform (200Hz, 40%)	Generic	6.99	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	2.22	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	0.97	±9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.10	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	5.22	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WIFi (20MHz, 64-QAM, 99pc duty cycle)	Generic	6.27	± 9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	WLAN CDMA2000	8.53	± 9,6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000 CDMA2000	3.76	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate		3.77	± 9.6 %
10410	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	CDMA2000 LTE-TDD	5.22 7.82	± 9.6 %
		Subframe=2,3,4,7,8,9, Subframe Conf=4)		1.02	±9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	±9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	$\pm 9.6\%$
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle,	WLAN	8.14	± 9.6 %
		Long preambule)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.14	10.070
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle,	WLAN	8.19	±9.6 %
1010-		Short preambule)			, 3
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433 10434	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10430	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10447	AAD	Subframe=2,3,4,7,8,9)			
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	±9.6 %
10443	~~~	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	±9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
40460		Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.30	± 9.6 %
10462	AAA	Subframe=2,3,4,7,8,9)		0.50	± 9.0 %
10463	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
10400		Subframe=2,3,4,7,8,9)		0.00	20.070
10464	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10404	1,0,00	Subframe=2,3,4,7,8,9)			
10465	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10100		Subframe=2,3,4,7,8,9)			
10466	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10467	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL	LTE-TDD	7.82	±9.6 %
		Subframe=2,3,4,7,8,9)			5
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
	<u> </u>	Subframe=2,3,4,7,8,9)		0.00	
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
40470	-	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10472	AAE	Subframe=2,3,4,7,8,9)		0,07	1 9.0 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10475		Subframe=2,3,4,7,8,9)		1.02	1 2 0.0 /0
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			1
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10479	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10.100		Subframe=2,3,4,7,8,9)		0.40	
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.18	± 9.6 %
10494	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
10481		Subframe=2,3,4,7,8,9)		0.40	± 9.0 %
10482	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL	LTE-TDD	7.71	± 9.6 %
10402	700	Subframe=2,3,4,7,8,9)			_ 0.0 %
10483	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.39	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10485	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL	LTE-TDD	7.59	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10486	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.38	± 9.6 %
	_	Subframe=2,3,4,7,8,9)		ļ	
	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.60	± 9.6 %
10487		Subframe=2,3,4,7,8,9)			1000
	–	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL	LTE-TDD	7.70	± 9.6 %
10487	AAE	0.0 + 6 = 0.0 + 7.0 = 0		1	1
10488		Subframe=2,3,4,7,8,9)		0.24	+060/
	AAE AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
10488 10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)			
10488		LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL	LTE-TDD LTE-TDD	8.31 8.54	± 9.6 % ± 9.6 %
10488 10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)			

10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	± 9.6 %
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	± 9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	± 9.6 %
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10497	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	± 9.6 %
10498	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	± 9.6 %
10499	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	± 9.6 %
10500	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6 %
10501	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	± 9.6 %
10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	± 9.6 %
10503	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	± 9.6 %
10504	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10505	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6 %
10506	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10507	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	± 9.6 %
10508	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	± 9.6 %
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.99	± 9.6 %
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	± 9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	± 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	± 9.6 %
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6 %
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	± 9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6 %
10518	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6 %
10519	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	±9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6 %
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	± 9.6 %
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	WLAN	8.42	±9.6 %
10527	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN	8.21	± 9.6 %
10528	AAB	IEEE 802.11ac WIFi (20MHz, MCS3, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10531	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10532	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10533	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)			
10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.38	±9.6 %

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10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6%
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN WLAN	8.54 8.39	± 9.6 % ± 9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10542 10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle) IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10543	AAB AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.47	±9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
10540	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	±9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	±9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty	WLAN	8.25	± 9.6 %
		cycle)			
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty	WLAN	8.45	± 9.6 %
		cycle)			
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty	WLAN	8.13	± 9.6 %
		cycle)			
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty	WLAN	8.00	± 9.6 %
		cycle)			1000
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	8.37	± 9.6 %
10500			WLAN	8.10	± 9.6 %
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	VYLAN	0.10	1 9.0 %
10570	AAA	cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	± 9.6 %
10570		cycle)		0.00	20.0 /0
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN		± 9.6 %
			I VVLPNN	1 1.90	1 2 0 0 70
10575		IEEE 802 11g WiEi 2 4 GHz (DSSS-OEDM, 6 Mbps, 90pc duty		<u>1.98</u> 8.59	
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty	WLAN		± 9.6 %
	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)			
10575 10576		IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty	WLAN	8.59	± 9.6 %
10576	ААА ААА	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN WLAN WLAN	8.59 8.60	± 9.6 % ± 9.6 % ± 9.6 %
10576	ААА ААА	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty	WLAN WLAN	8.59 8.60	± 9.6 % ± 9.6 %
10576 10577	AAA AAA AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577	AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN WLAN WLAN	8.59 8.60 8.70	± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579	AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578	AAA AAA AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty	WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580	AAA AAA AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579	AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580 10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580	AAA AAA AAA AAA AAA AAA AAA AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580 10581 10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580 10581 10582 10583	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67 8.59	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580 10581 10582 10583 10584	AAA AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) IEEE 802.11g WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67 8.59 8.60	± 9.6 % ± 9.6 %
10576 10577 10578 10579 10580 10581 10582 10583	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)IEEE 802.11g WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.59 8.60 8.70 8.49 8.36 8.76 8.35 8.67 8.59	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %

40500	1 4 4 5				
10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10613	AAB	IEEE 802.11ac WIFI (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	± 9.6 %
10619	AAB	IEEE 802.11ac WIFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	$\pm 9.6\%$
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	<u>±9.6 %</u> ±9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN		
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.81	$\pm 9.6\%$
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.83	$\pm 9.6\%$
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)		8.80	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN WLAN	8.81	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.83	±9.6%
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	8.98	±9.6%
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±9.6 %
10646	AAF	TE-TOD (SC-EDMA 1 PB 5 MHz ODOK HILO HILO HI	WLAN	9.11	± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6 %
10648	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) CDMA2000 (1x Advanced)	LTE-TDD	11.96	±9.6 %
10652	AAA		CDMA2000	3.45	±9.6 %
10653	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10654	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%) LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
		$rac{1}{1}$	LTE-TDD	6.96	± 9.6 %

10055		LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)		7.04	1060/
10655 10658	AAE AAA	Pulse Waveform (200Hz, 10%)	LTE-TDD Test	7.21	± 9.6 % ± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6,99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 20%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 40%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	± 9.6 %
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	±9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	± 9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	±9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10694		IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	± 9.6 %
10695 10696	AAA AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle) IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN WLAN	8.78 8.91	± 9.6 % ± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	± 9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	± 9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	± 9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.30	± 9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10718	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	± 9.6 %
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10721	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)	WLAN	8.55	± 9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.90	± 9.6 %
- AOZOE	1 A A A	IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10725	AAA				1000
10725 10726 10727	AAA AAA	IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle) IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN WLAN	8.72 8.66	± 9.6 % ± 9.6 %

40700					
10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	± 9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	± 9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	± 9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	± 9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	± 9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	± 9.6 %

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland HAC MEA



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PC Test Client

Certificate No: EX3-7409_Jun19

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7409
Calibration procedure(s)	QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes
Calibration date:	June 19, 2019
	uments the traceability to national standards, which realize the physical units of measurements (SI). ncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	Carall
			sig plg-
Approved by:	Katja Pokovic	Technical Manager	ANK .
			100 15
			Issued: June 20, 2019
This calibration certificate	e shall not be reproduced except in fu	II without written approval of the labo	pratory.

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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 9	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.38	0.33	0.38	± 10.1 %
DCP (mV) ^B	95.8	101.8	100.3	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	135.5	± 3.5 %	±4.7 %
-		Y	0.00	0.00	1.00		129.2		
		Z	0.00	0.00	1.00		130.6		
10352-	Pulse Waveform (200Hz, 10%)	X	1.32	60.00	6.76	10.00	60.0	± 2.3 %	± 9.6 %
AAA		Y	2.29	64.91	9.64		60.0		
		Z	1,81	63.07	9.49		60.0	1	
10353-	Pulse Waveform (200Hz, 20%)	X	0.80	60.00	5.37	6.99	80.0	± 1.9 %	± 9.6 %
AAA		Y	1.45	64.56	8.47		80.0		
		Z	1.57	65.00	8.98		80.0		
10354-	Pulse Waveform (200Hz, 40%)	X	0.42	60.00	3.77	3.98	95.0	± 1.3 %	± 9.6 %
AAA		Y	0.88	64.90	7.60		95.0]	
		Z	0.42	60.00	5.26		95.0		
10355-	Pulse Waveform (200Hz, 60%)	X	0,16	179.15	25.80	2.22	120.0	± 1.4 %	± 9.6 %
AAA		Y	15.00	80.71	11.05		120.0		
		Z	0.26	60.00	3.66	1	120.0		
10387-	QPSK Waveform, 1 MHz	X	0.00	60.00	1.00	0.00	150.0	± 3.7 %	± 9.6 %
AAA		Y	0.42	60.00	5.25	1	150.0]	
		Z	0.44	60.00	5.03		150.0		
10388-	QPSK Waveform, 10 MHz	X	1.68	67.97	15.54	0.00	150.0	± 1.2 %	± 9.6 %
AAA		Y	2.15	69.30	16.63		150.0		
		Z	1.92	66.86	15.11		150.0		
10396-	64-QAM Waveform, 100 kHz	X	1.88	65.71	16.62	3.01	150.0	± 3.3 %	± 9.6 %
AAA		Y	2.51	70.30	18.83		150.0		
		Z	1.94	66.57	18.18]	150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.08	66.90	15.71	0.00	150.0	± 2.7 %	± 9.6 %
AAA		Y	3.43	67.58	16.15]	150.0		
		Z	3.31	66.58	15.55		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.19	66.11	15.73	0.00	150.0	± 4.7 %	± 9.6 %
AAA		Y	4.64	66.08	15.84		150.0	_	
		Z	4.60	65.42	15.52	1	150.0	1	

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

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^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6). ^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V⁻²	T2 ms.V ⁻¹	T3 ms	T4 V⁻²	T5 V⁻¹	Т6
X	15.1	114.89	36.52	2.59	0.12	4.98	0.18	0.16	1.00
- <u>Y</u>	27.6	203.75	34,94	3.93	0.05	4.99	1.59	0.00	1.00
Z	31.2	243.42	38.43	3.81	0.30	5.03	0.00	0.11	1.02

Sensor Model Parameters

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	40.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	9.96	9.96	9.96	0.50	0.81	± 12.0 %
835	41.5	0.90	9.70	9.70	9.70	0.40	0.94	± 12.0 %
1750	40.1	1.37	8.32	8.32	8.32	0.37	0.85	± 12.0 %
1900	40.0	1.40	8.01	8.01	8.01	0.35	0.85	± 12.0 %
2300	39.5	1.67	7.55	7.55	7.55	0.32	0.90	± 12.0 %
2450	39.2	1.80	7.30	7.30	7.30	0.39	0.90	± 12.0 %
2600	39.0	1.96	7.12	7.12	7.12	0.36	0.90	± 12.0 %
5250	35.9	4.71	5.20	5.20	5.20	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.80	4.80	4.80	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.78	4.78	4.78	0.40	1.80	± 13.1 %

Calibration Parameter Determined in Head Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

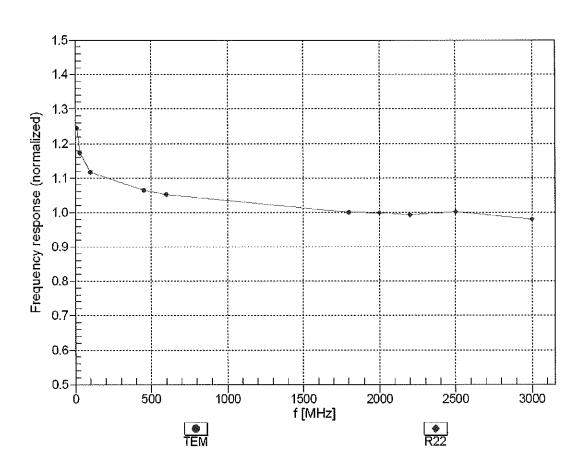
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.96	9.96	9.96	0.48	0.80	± 12.0 %
835	55.2	0.97	9.74	9.74	9.74	0.52	0.81	± 12.0 %
1750	53.4	1.49	7.85	7.85	7.85	0.35	0.85	± 12.0 %
1900	53.3	1.52	7.67	7.67	7.67	0.43	0.85	± 12.0 %
2300	52.9	1.81	7.41	7.41	7.41	0.39	0.90	± 12.0 %
2450	52.7	1.95	7.18	7.18	7.18	0.37	0.90	± 12.0 %
2600	52.5	2.16	7.18	7.18	7.18	0.38	0.90	± 12.0 %
5250	48.9	5.36	4.70	4.70	4.70	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.22	4.22	4.22	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.23	4.23	4.23	0.50	1.90	± 13.1 %

Calibration Parameter Determ	nined in Body	y Tissue Simulating N	/ledia
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^c Frequency validity above 300 MHz of \pm 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to \pm 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is \pm 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to \pm 110 MHz. ^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to

⁶ At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ⁶ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

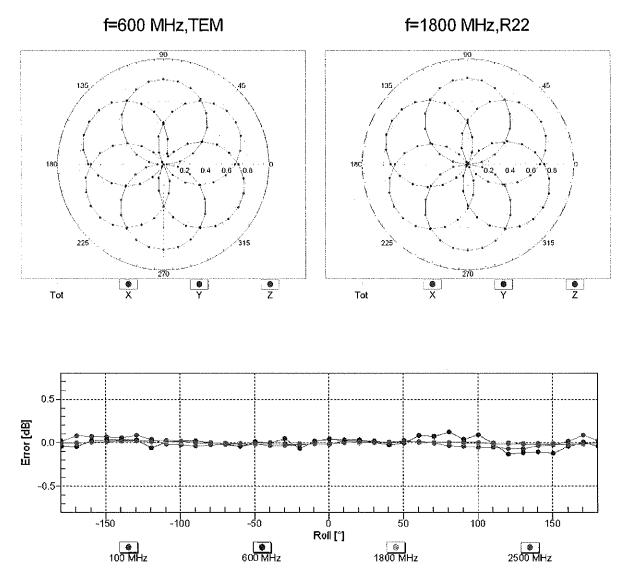
³ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than \pm 1% for frequencies below 3 GHz and below \pm 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

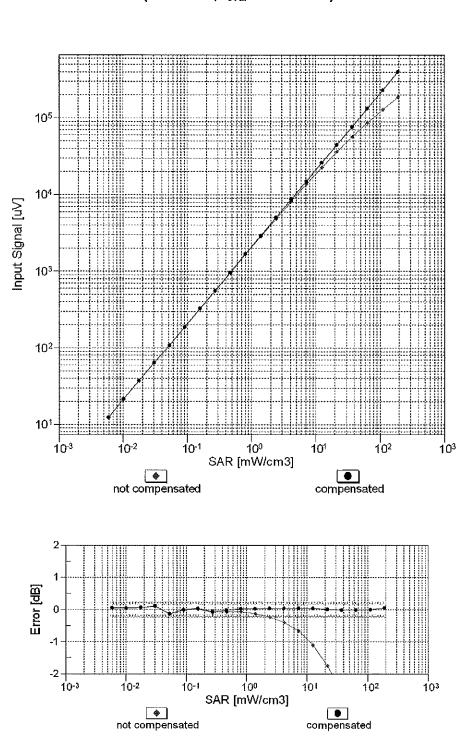
Certificate No: EX3-7409_Jun19



Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

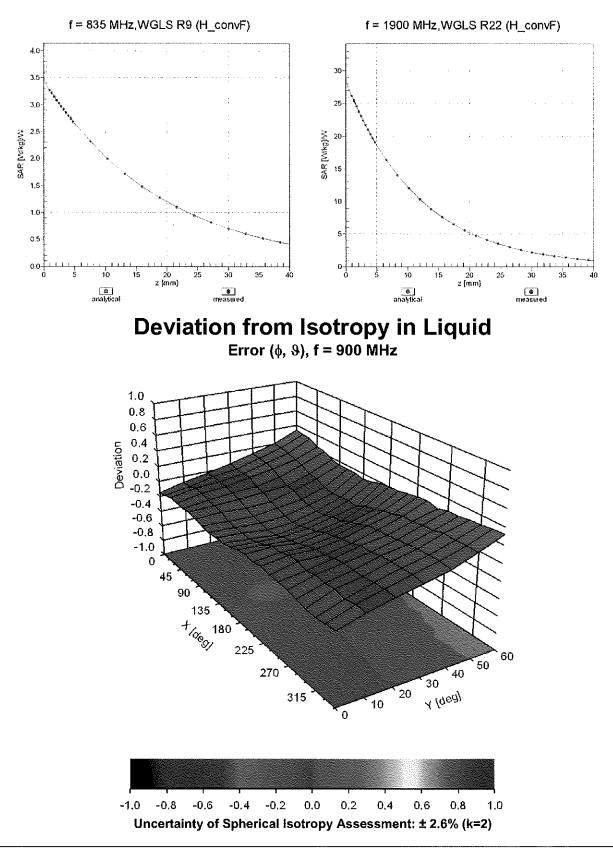
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

June 19, 2019



Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)

Uncertainty of Linearity Assessment: ± 0.6% (k=2)



Conversion Factor Assessment

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc [±] (k=2)
0		CW	CW	0.00	±4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	±9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6%
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6%
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6%
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6%
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037		IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	$\pm 9.6\%$
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.10	± 9.6 %
10039		IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)			
	CAB		AMPS	7.78	$\pm 9.6\%$
10044		IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056		UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058		EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6 %
10108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %

19109 CAG LTE-FDD (SC+FDMA, 100% RB, 5 MHz, 16-CAM) LTE-FDD 5.76 1905 19111 CAG LTE-FDD (SC+FDMA, 100% RB, 5 MHz, 16-CAM) LTE-FDD 6.58 1905 19112 CAG LTE-FDD (SC+FDMA, 100% RB, 10MHz, 46-CAM) LTE-FDD 6.59 1905 19113 CAG LTE-FDD (SC+FDMA, 100% RB, 10MHz, 46-CAM) LTE-FDD 6.52 1905 19114 CAG LTE-EDD (SC+FDMA, 100% RB, 10MHz, 46-CAM) WLAN 8.16 1905 19115 CAG LEEE 802.11n (HT Mixed, 135 Mbps, 16-CAM) WLAN 8.16 1905 19116 CAG LEEE 802.11n (HT Mixed, 138 Mbps, 16-CAM) WLAN 8.59 1905 19110 CAG LEEE 802.11n (HT Mixed, 138 Mbps, 16-CAM) WLAN 8.59 1905 19111 CAG LEEE 802.11n (HT Mixed, 138 Mbps, 16-CAM) UTE-FDD 6.43 1905 19112 CAG LEEE 802.11n (HT Mixed, 188, 15 MHz, 16-CAM) UTE-FDD 6.73 1905 19104 CAE						
19111 CAG LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-CAM) LTE-FDD 6.69 19.6 % 19112 CAG LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-CAM) LTE-FDD 6.69 19.6 % 19113 CAG LEEE 802.11n (HT Greenfield, 315 Mbps, 61-CAM) WLAN 8.10 19.6 % 19116 CAG LEEE 802.11n (HT Greenfield, 315 Mbps, 61-CAM) WLAN 8.15 19.6 % 19117 CAG LEEE 802.11n (HT Mixed, 135 Mbps, 61-CAM) WLAN 8.59 19.6 % 19118 CAG LEEE 802.11n (HT Mixed, 136 Mbps, 61-CAM) WLAN 8.59 19.6 % 19119 CAG LEEE 802.11n (HT Mixed, 136 Mbps, 61-CAM) WLAN 8.59 19.6 % 19140 CAE LTE-FDD (SC-FDMA, 100% KB, 15 MHz, 16-CAM) LTE-FDD 6.38 19.6 % 19141 CAE LTE-FDD (SC-FDMA, 100% KB, 15 MHz, 16-CAM) LTE-FDD 5.73 19.6 % 19142 CAE LTE-FDD (SC-FDMA, 100% KB, 13 MHz, 16-CAM) LTE-FDD 5.74 19.6 % 19142 CAE LTE-FDD (SC-FDMA, 100% KB, 13 MHz, 64-CAM)	10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10112 CAG LTE-FDD 6.62 9.6 % 10113 CAG LTE-FDD 6.62 9.6 % 10114 CAG LEEE B02.11n (HT creenfield, 13.5 Mbps, BPSK) WLAN 8.16 9.6 % 10115 CAG IEEE B02.11n (HT creenfield, 13.5 Mbps, BPSK) WLAN 8.16 9.9 6 % 10116 CAG IEEE B02.11n (HT isoed, 13.5 Mbps, BPSK) WLAN 8.07 1.9 6 % 10117 CAG IEEE B02.11n (HT isoed, 13.5 Mbps, BPSK) WLAN 8.19 9.8 6 % 10118 CAG IEEE B02.11n (HT isoed, 13.5 Mbps, BPSK) WLAN 8.19 9.8 6 % 10119 CAG IEEE B02.11n (HT isoed, 13.5 Mbps, BPSK) WLAN 8.19 9.6 % 10141 CAE LTE-FDD (SC-FDMA, 100% RB, 15 MHz, G+OAM) LTE-FDD 5.7 8 9.6 % 10141 CAE LTE-FDD (SC-FDMA, 100% RB, 14 MHz, G+OAM) LTE-FDD 5.7 8 9.6 % 10142 CAE LTE-FDD (SC-FDMA, 100% RB, 14 MHz, G+OAM) LTE-FDD 5.7 8 9.6 % 10144 CAE	1		LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)		5.75	± 9.6 %
10113 CAG LITE-FDD Sci PDA 1014 CAG 115 116					6.44	± 9.6 %
10114 CAC LEEE 802.11n (HT Greenfield, 31 Mbps, 16-QAM) WLAN 8.40 + 9.6 % 10116 CAC LEEE 802.11n (HT Greenfield, 31 Mbps, 16-QAM) WLAN 8.71 + 9.6 % 10116 CAC LEEE 802.11n (HT Greenfield, 135 Mbps, 16-QAM) WLAN 8.71 + 9.6 % 10117 CAC LEEE 802.11n (HT Maxel, 31 Mbps, 16-QAM) WLAN 8.73 + 9.6 % 10118 CAC LEEE 802.11n (HT Maxel, 31 Mbps, 16-QAM) WLAN 8.13 + 9.6 % 10140 CAE LTEF-DD (SC-FDMA, 100% RB, 15 MHz, 16-QAM) LTE-FDD (6.42 + 9.6 % 10141 CAE LTEF-DD (SC-FDMA, 100% RB, 3 MHz, 6-QAM) LTE-FDD (6.55 + 9.6 % 10142 CAE LTEF-DD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) LTE-FDD (6.65 + 9.6 % 10145 CAF LTEF-DD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-FDD (6.64 + 9.6 % 10146 CAF LTEF-DD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-FDD (6.64 + 9.6 % 10146 CAF LTEF-DD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-FDD (6.64 + 9.6 %			LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	
10116 CAC IEE 802.11n (HT Greenfiel, 31 Mbps, 16-CAM) WILAN 8.46 19.6 % 10117 CAC IEEE 802.11n (HT Mixed, 135 Mbps, 16-CAM) WILAN 8.07 19.6 % 10118 CAC IEEE 802.11n (HT Mixed, 135 Mbps, 64-CAM) WILAN 8.59 9.0 % 10119 CAC IEEE 802.11n (HT Mixed, 135 Mbps, 64-CAM) WILAN 8.51 9.8 % 10140 CAE ITE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-CAM) ITE-FDD (6.53 9.8 % 10141 CAE ITE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-CAM) ITE-FDD (6.53 9.8 % 10142 CAE ITE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-CAM) ITE-FDD (6.35 9.8 % 10144 CAE ITE-FDD (SC-FDMA, 100% RB, 1 AH MHz, 0-FSK) ITE-FDD (6.57 9.8 % 10146 CAF ITE-FDD (SC-FDMA, 100% RB, 1 AH MHz, 0-CAM) ITE-FDD (6.67 9.8 % 10146 CAF ITE-FDD (5C-FDMA, 50% RB, 20 MHz, 16-CAM) ITE-FDD (6.67 9.8 % 10146 CAF ITE-FDD (5C-FDMA, 50% RB, 20 MHz, 16-CAM) ITE-FDD (6.67 9.8 % 10146 <td< td=""><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td><td>LTE-FDD</td><td>6.62</td><td>± 9.6 %</td></td<>	· · · · · · · · · · · · · · · · · · ·			LTE-FDD	6.62	± 9.6 %
10110 CAC LEE 802.11n (HT Greenfield, 135 Mbps, 64-CAM) WUAN 8.15 19.6 % 10111 CAC LEEE 802.11n (HT Maxed, 81 Mbps, 16-CAM) WUAN 8.59 19.6 % 10119 CAC LEEE 802.11n (HT Maxed, 81 Mbps, 16-CAM) WUAN 8.15 19.6 % 10140 CAE LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-CAM) LTE-FDD (6.49 19.6 % 10141 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-CAM) LTE-FDD (6.5 B) 5.73 19.8 % 10142 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-CAM) LTE-FDD (6.5 B) 5.73 19.8 % 10144 CAE LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD (6.6 B) 5.76 19.8 % 10146 CAF LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD (6.6 B) 5.78 19.8 % 10147 CAF LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD (6.6 19.8 6 % 19.6 % 10142 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD (5.6 5 % 8 8 % 19.6 % 10145 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM)				WLAN	8.10	±9.6 %
10117 CAC LEEE 802.11n (HT Mixed, 13.5 Mbps, BF-SK) WUAN 8.07 19.8 % 10118 CAC LEEE 802.11n (HT Mixed, 135 Mbps, 84-OAM) WUAN 8.10 19.8 % 10140 CAC LEEE 802.11n (HT Mixed, 135 Mbps, 84-OAM) WTAN 8.13 19.8 % 10141 CAC LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 48-OAM) LTE-FDD 6.53 19.8 % 10142 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) LTE-FDD 6.53 19.8 % 10143 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) LTE-FDD 6.65 19.8 % 10144 CAE LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-OAM) LTE-FDD 6.64 19.8 % 10145 CAF LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-OAM) LTE-FDD 6.72 19.8 % 10146 CAF LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM) LTE-FDD 6.72 19.8 % 10147 CAF LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM) LTE-FDD 6.82 19.8 % 10147 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM)				WLAN	8.46	
10118 CAC LEEE 802.11n (HT Mixed, 81 Mbps, 16-CAM) WUAN 8:59 59.6% 10140 CAC LEEE 802.11n (HT Mixed, 13 Subps, 64-CAM) UTE-FDD 6:49 19.6% 10141 CAE LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-CAM) UTE-FDD 6:53 19.6% 10142 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 0PSK) UTE-FDD 6:35 19.6% 10142 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-CAM) UTE-FDD 6:36 19.6% 10144 CAE LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD 6:46 19.6% 10145 CAE LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-CAM) LTE-FDD 6:47 19.6% 10147 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD 6:42 19.6% 10150 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD 6:42 19.6% 10151 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD 6:49.6% 10152 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD <t< td=""><td>10116</td><td>CAC</td><td>IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)</td><td>WLAN</td><td>8.15</td><td>± 9.6 %</td></t<>	10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10119 CAC IEEE 802 11n (HT Mixed, 135 Mbps, 64-QAM) WLAN 8.13 8.96 % 10140 CAE LTE-FDD ISC-FDMA, 100% RB, 15 MHz, 46-QAM) LTE-FDD 6.53 8.96 % 10141 CAE LTE-FDD ISC-FDMA, 100% RB, 31 MHz, 46-QAM) LTE-FDD 6.53 8.96 % 10143 CAE LTE-FDD ISC-FDMA, 100% RB, 31 MHz, 46-QAM) LTE-FDD 6.65 2.86 % 10144 CAE LTE-FDD ISC-FDMA, 100% RB, 14 MHz, 46-QAM) LTE-FDD 6.61 2.86 % 10146 CAF LTE-FDD ISC-FDMA, 100% RB, 14 MHz, 46-QAM) LTE-FDD 6.42 2.96 % 10147 CAF LTE-FDD ISC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-FDD 6.42 2.96 % 10150 CAE LTE-FDD ISC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-FDD 6.42 2.96 % 10151 CAG LTE-FDD ISC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-FDD 5.62 % 9.66 % 10152 CAG LTE-FDD ISC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-FDD 5	10117	CAC		WLAN	8.07	± 9.6 %
10140 CAE LTE-FDD 6.6.49 ± 9.6 % 10141 CAE LTE-FDD 56.73 ± 9.6 % 10142 CAE LTE-FDD 56.73 ± 9.6 % 10143 CAE LTE-FDD 56.73 ± 9.6 % 10144 CAE LTE-FDD 56.73 ± 9.6 % 10144 CAE LTE-FDD 56.75 ± 9.8 % 10145 CAF LTE-FDD 56.75 ± 9.8 % 10146 CAF LTE-FDD 56.75 ± 9.8 % 10147 CAF LTE-FDD 56.75 ± 9.8 % 10147 CAF LTE-FDD 56.75 ± 9.8 % 10147 CAF LTE-FDD 56.75 ± 9.8 % 10145 CAG LTE-FDD 56.75 ± 9.6 % 10151 CAG LTE-FDD 56.75 ± 9.6 % 10152 CAG LTE-FDD 56.75 ± 9.6 % 10154 CAG LTE-FDD 56.75 ± 9.6 %	10118	CAC		WLAN	8.59	± 9.6 %
10141 CAE LTE-FDD 65.3 7.9 6.8 10142 CAE LTE-FDD 65.3 7.9 6.8 10142 CAE LTE-FDD 65.3 7.9 6.8 10143 CAE LTE-FDD 65.7 7.9 8.6 10144 CAE LTE-FDD 65.6 7.9 8.6 10146 CAF LTE-FDD 10.7 8.7 9.8 8.7 10146 CAF LTE-FDD 10.7 8.7 9.8 8.7 9.8 8.7 10147 CAF LTE-FDD 10.7 8.8 9.7 14.8 6.4 4.2 9.8 8.7 14.8 14.4 14.2 6.4 14.1 14.6 6.4 14.2 15.6 14.1 14.6 6.4 14.2 15.6 14.1 15.6 14.6 15.6 14.2 16.2 14.2 16.3 15.8 16.3 15.8 16.3 15.8 16.3 14.2 1	10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10141 CAE LTE-FDD 65.3 ± 9.6 % 10142 CAE LTE-FDD 55.3 ± 9.6 % 10143 CAE LTE-FDD 55.7 ± 9.6 % 10144 CAE LTE-FDD 55.7 ± 9.6 % 10145 CAF LTE-FDD 55.7 ± 9.6 % 10146 CAF LTE-FDD 55.7 ± 9.6 % 10147 CAF LTE-FDD 55.7 ± 9.6 % 10150 CAE LTE-FDD 56.7 ± 9.6 % 10151 CAG LTE-FDD 55.7 # 9.8 % 10152 CAG LTE-FDD 55.7 # 9.8 % 10153 CAG LTE-FDD 10.7 # 9.8 % 10154 CAG LTE-FDD 55.7 # 9.8 % <t< td=""><td>10140</td><td>CAE</td><td>LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)</td><td>LTE-FDD</td><td>6.49</td><td>± 9.6 %</td></t<>	10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10143 CAE LTE-FDD 57.3 \$ \$ 9.6 % 10143 CAE LTE-FDD 56.73 \$ \$ 9.6 % 10144 CAE LTE-FDD 56.75 \$ \$ 9.6 % 10144 CAE LTE-FDD 56.75 \$ \$ 9.6 % 10146 CAF LTE-FDD 56.75 \$ \$ 9.6 % 10146 CAF LTE-FDD 56.75 \$ \$ 9.6 % 10147 CAF LTE-FDD 56.71 \$ \$ 9.6 % 10148 CAF LTE-FDD 56.72 \$ \$ 9.6 % 10147 CAF LTE-FDD 56.72 \$ \$ 9.6 % 10150 CAB LTE-FDD 56.72 \$ \$ 9.6 % 10151 CAG LTE-FDD 56.72 \$ \$ 9.6 % 10152 CAG LTE-FDD 56.72 \$ \$ 9.6 % 10153 CAG LTE-FDD 56.72 \$ \$ 9.6 % 10154 CAG LTE-FDD 56.72 \$ \$ 9.6 % 10155 CAG LTE-FDD 56.72	10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)		6.53	
10143 CAE LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-CAM) LTE-FDD 6.85 ±9.6 % 10144 CAF LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-CAM) LTE-FDD 6.81 ±9.6 % 10146 CAF LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD 6.41 ±9.6 % 10147 CAF LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD 6.42 ±9.6 % 10149 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD 6.82 ±9.6 % 10150 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD 9.28 ±9.6 % 10151 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-CAM) LTE-FDD 9.28 ±9.6 % 10152 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 0FSK) LTE-FDD 6.60 ±9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 0FSK) LTE-FDD 6.62 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 0FSK) LTE-FDD 6.62 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-CAM)	10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD		
10144 CAE LTE-FDD (6.65 ±9.6 %) 10145 CAF LTE-FDD (6.77) (7.8) (7.8) 10146 CAF LTE-FDD (6.72) ±9.6 %) 10147 CAF LTE-FDD (6.72) ±9.6 %) 10147 CAF LTE-FDD (6.7-10) (6.7-10) 10149 CAE LTE-FDD (6.7-10) (6.7-10) 10150 CAE LTE-FDD (6.7-10)	10143	CAE				
10145 CAF LTE-FDD (5.76 ±9.6 %, 10146 CAF LTE-FDD (5.7-FDM, 100%, RB, 14 MHz, 16-CAM) LTE-FDD 6.41 ±9.6 %, 10147 CAF LTE-FDD (5.2-FDMA, 100%, RB, 14 MHz, 16-CAM) LTE-FDD 6.42 ±9.6 %, 10150 CAE LTE-FDD (5.2-FDMA, 50%, RB, 20 MHz, 16-CAM) LTE-FDD 6.60 ±9.6 %, 10151 CAG LTE-FDD (5.2-FDMA, 50%, RB, 20 MHz, 16-CAM) LTE-TDD 9.92 ±9.6 %, 10152 CAG LTE-TDD (5.2-FDMA, 50%, RB, 20 MHz, 0FSK) LTE-FDD 10.55 ±9.6 %, 10153 CAG LTE-FDD (5.2-FDMA, 50%, RB, 10 MHz, 16-CAM) LTE-FDD 6.43 ±9.6 %, 10155 CAG LTE-FDD (5.2-FDMA, 50%, RB, 10 MHz, 16-CAM) LTE-FDD 6.43 ±9.6 %, 10156 CAG LTE-FDD (5.2-FDMA, 50%, RB, 10 MHz, 16-CAM) LTE-FDD 6.49 ±9.6 %, 10156 CAG LTE-FDD (5.2-FDMA, 50%, RB, 10 MHz, 16-CAM) LTE-FDD 6.52 ±9.6 %,	10144	CAE			+·····	
10146 CAF LITE-FDD (6.41 19.6% 10147 CAF LITE-FDD (6.72) 19.6% 10149 CAE LITE-FDD (6.72) 19.6% 10149 CAE LITE-FDD (6.72) 19.6% 10150 CAE LITE-FDD (6.72) 19.6% 10151 CAG LITE-FDD (6.72) 19.6% 10152 CAG LITE-FDD (6.75) 19.6% 10153 CAG LITE-FDD (5.75) 19.6% 10154 CAG LITE-FDD (5.75) 19.6% 10155 CAG LITE-FDD (5.75) 19.6% 10156 CAG LITE-FDD (5.75) 19.6% 10157 CAG LITE-FDD (5.75) 19.6% 10158 CAG LITE-FDD (5.75) 19.6% 10159 CAG LITE-FDD (5.75) 19.6% 10159 CAG LITE-FDD (5.75) 19.6% <	10145	**************************************				
10147 CAF LTE-FDD 6S-72 ±9.6 % 10149 CAE LTE-FDD 6S-72 ±9.6 % 10150 CAE LTE-FDD SS-20 MHz, 0F-QAM) LTE-FDD 6.42 ±9.6 % 10151 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 0F-QAM) LTE-FDD 9.28 ±9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 0F-QAM) LTE-TDD 9.92 ±9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 0PSK) LTE-FDD 5.75 ±9.6 % 10154 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 0PSK) LTE-FDD 6.43 ±9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0FSK) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0FSK) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0FSK) LTE-FDD 6.82 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.82 ±9.6 % 10160 CAE<						
10149 CAE LTE-FDD 6.42 ± 9.6 % 10150 CAE LTE-FDD 6.40 ± 9.6 % 10151 CAG LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 0PSK) LTE-FDD 9.28 ± 9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-FDD 9.92 ± 9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-FDD 5.75 ± 9.6 % 10154 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 0PSK) LTE-FDD 5.75 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 0PSK) LTE-FDD 6.49 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 0PSK) LTE-FDD 6.62 ± 9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 0PSK) LTE-FDD 6.62 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 0PSK) LTE-FDD 6.62 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 16-QAM) LTE-FDD 6.64 ± 9.6 % 10					-	
10150 CAE LTE-FDD SC0 ± 9.6 % 10151 CAG LTE-TDD SC2-FDMA, 50% RB, 20 MHz, GPSK) LTE-TDD 9.28 ± 9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, G4-GAM) LTE-TDD 9.92 ± 9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, G4-GAM) LTE-TDD 9.92 ± 9.6 % 10154 CAG LTE-TDD (SC-FDMA, 50% RB, 50 MHz, G4-GAM) LTE-FDD 6.43 ± 9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, G4-GAM) LTE-FDD 6.43 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 16-GAM) LTE-FDD 6.42 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 16-GAM) LTE-FDD 6.56 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-GAM) LTE-FDD 6.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 64-GAM) LTE-FDD 6.84 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 64-GAM) LTE-FDD						
10151 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 0PSK) LTE-TDD 9.92 ± 9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-TDD 9.92 ± 9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 04-QAM) LTE-TDD 10.05 ± 9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 0-QAM) LTE-FDD 6.43 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0-QAM) LTE-FDD 6.49 ± 9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 % 10160 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 40-QAM) LTE-FDD 6.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 40-QAM) LTE-FDD 6.82 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0PSK) LTE-FDD 6.82 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 16-QAM)					4	
10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-TDD 9.92 ± 9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-TDD 5.7 ± 9.6 % 10154 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM) LTE-FDD 5.7 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 16-QAM) LTE-FDD 5.7 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 64-QAM) LTE-FDD 6.62 ± 9.6 % 10159 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.62 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.48 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.21 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.22						
10153 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, GPSK) LTE-TDD 10.05 ± 9.6 %, 10154 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, GPSK) LTE-FDD 5.75 ± 9.6 %, 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, GPSK) LTE-FDD 6.43 ± 9.6 %, 10167 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 %, 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 %, 10159 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 40-QAM) LTE-FDD 6.62 ± 9.6 %, 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 40-QAM) LTE-FDD 6.62 ± 9.6 %, 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0-QAM) LTE-FDD 6.43 ± 9.6 %, 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0-QAM) LTE-FDD 6.43 ± 9.6 %, 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0-QAM) LTE-FDD 6.73 ± 9.6 %, 10163 CAF LTE-FDD (SC-FDMA, 150% RB, 14 MHz, 0-						
10154 CAG LTE-FDD 5.75 ±9.6 %, 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.43 ±9.6 %, 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.49 ±9.6 %, 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, Q-QAM) LTE-FDD 6.62 ±9.6 %, 10159 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, Q-QAM) LTE-FDD 6.62 ±9.6 %, 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, Q-QAM) LTE-FDD 6.643 ±9.6 %, 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, Q-QAM) LTE-FDD 6.43 ±9.6 %, 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, Q-QAM) LTE-FDD 6.42 ±9.6 %, 10166 CAF LTE-FDD (SC-FDMA, 18, 20 MHz, 18-QAMM) LTE-FDD 6.72 ±9.6 %, 10168 CAF LTE-FDD (SC-FDMA, 17 RB, 20 MHz, Q-QAM) LTE-FDD 6.73 ±9.6 %, 10170 CAE LTE-FDD (SC-FDMA, 17 RB, 20 MHz, Q-QAM) LTE-FDD 6.52 ±9.6 %, 10171 CAE <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
10155 CAG LTE-FDD 6.43 ±9.6 %. 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.49 ±9.6 %. 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.62 ±9.6 %. 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM) LTE-FDD 6.62 ±9.6 %. 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.62 ±9.6 %. 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ±9.6 %. 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 5.46 ±9.6 %. 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GPSK) LTE-FDD 6.79 ±9.6 %. 10167 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GPSK) LTE-FDD 6.79 ±9.6 %. 10168 CAF LTE-FDD (SC-FDMA, 178.2 0MHz, G4-QAM) LTE-FDD 6.79 ±9.6 %. 10170<			LTE-EDD (SC-EDMA 50% RB 10 MHz OPSK)			
10156 CAG LTE-FDD S.79 ± 9.6 % 10157 CAG LTE-FDD S.79 ± 9.6 % 10158 CAG LTE-FDD S.49 ± 9.6 % 10158 CAG LTE-FDD S.49 ± 9.6 % 10159 CAG LTE-FDD S.C-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD S.62 ± 9.6 % 10160 CAE LTE-FDD S.C-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD S.64 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD S.64 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM) LTE-FDD S.73 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM) LTE-FDD S.73 ± 9.6 % 10169 CAE LTE-FDD (SC-FDMA, 10% AD MHz, 0PSK) LTE-FDD S.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1RB, 20 MHz, 16-QAM) LTE-FDD S.73 ± 9.6 % 10171 CAG LTE-FDD (SC-FDMA, 1RB, 20 MHz, 16-QAM)						
10157 CAG LTE-FDD SC-FDMA, 50% RB, 5 MHz, 16-OAM) LTE-FDD 6.49 ± 9.6 %. 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM) LTE-FDD 6.52 ± 9.6 %. 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM) LTE-FDD 5.82 ± 9.6 %. 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.43 ± 9.6 %. 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.46 ± 9.6 %. 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 64-QAM) LTE-FDD 6.46 ± 9.6 %. 10163 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0F-QAM) LTE-FDD 6.21 ± 9.6 %. 10168 CAF LTE-FDD (SC-FDMA, 18, 20 MHz, 64-QAM) LTE-FDD 6.79 ± 9.6 %. 10170 CAE LTE-FDD (SC-FDMA, 1RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 %. 10171 CAG LTE-TDD (SC-FDMA, 1RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 %. 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20						
10158 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM) LTE-FDD 6.62 ± 9.6 % 10159 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.56 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.43 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK) LTE-FDD 6.43 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK) LTE-FDD 6.79 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 1.4 NHz, 04-QAM) LTE-FDD 6.79 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1.78, 20 MHz, 04-QAM) LTE-FDD 6.79 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1.78, 20 MHz, 16-QAM) LTE-FDD 6.49 ± 9.6 % 10171 CAG LTE-TDD (SC-FDMA, 1.78, 20 MHz, 16-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1.78, 20 MHz, 16-QAM) LTE-FDD 5.72 ± 9.6 % 10175 CAG						
10159 CAG LTE-FDD 6.56 1 9.6 % 10160 CAE LTE-FDD SC FDMA, 50% RB, 15 MHz, QPSK) LTE-FDD 5.82 1 9.6 % 10161 CAE LTE-FDD SC-FDMA, 50% RB, 15 MHz, L6-QAM) LTE-FDD 6.43 1 9.6 % 10162 CAE LTE-FDD SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.46 1 9.6 % 10168 CAF LTE-FDD SC-FDMA, 50% RB, 14 MHz, 16-QAM) LTE-FDD 6.71 1 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 16-QAM) LTE-FDD 6.79 1 9.6 % 10169 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.79 1 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.49 1 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 9.48 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 20-SK) LTE-FDD 9.21 1 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz,						
10160 CAE LTE-FDD S.82 ± 9.6 % 10161 CAE LTE-FDD S.82 ± 9.6 % 10162 CAE LTE-FDD SC-FDMA, 50% RB, 15 MHz, 64-QAM) LTE-FDD 6.58 ± 9.6 % 10162 CAE LTE-FDD SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.546 ± 9.6 % 10163 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 64-QAM) LTE-FDD 6.71 ± 9.6 % 10169 CAF LTE-FDD (SC-FDMA, 18B, 20 MHz, 64-QAM) LTE-FDD 5.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1RB, 20 MHz, 64-QAM) LTE-FDD 6.52 ± 9.6 % 10171 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.21 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.22 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.21 ± 9.6 %		1				
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10162 CAE LTE-FDD 6.58 ± 9.6 % 10166 CAF LTE-FDD S.46 ± 9.6 % 10167 CAF LTE-FDD S.46 ± 9.6 % 10168 CAF LTE-FDD S.C-FDMA, 50% RB, 1.4 MHz, 16-QAM) LTE-FDD 6.79 ± 9.6 % 10168 CAF LTE-FDD S.C-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, GPGK) LTE-FDD 6.49 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, GPSK) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, GPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, GA-QAM) LTE-TDD 10.25 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, GA-QAM) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10177 CAG LTE-FDD (S						
10166 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK) LTE-FDD 5.46 19.6 % 10167 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) LTE-FDD 6.21 ±9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) LTE-FDD 6.79 ±9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.52 ±9.6 % 10171 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.49 ±9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.49 ±9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.48 ±9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 10.25 ±9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 10.25 ±9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.72 ±9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD						
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10168 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) LTE-FDD 6.79 ± 9.6 % 10169 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.21 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 0PSK) LTE-TDD 9.48 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 0PSK) LTE-TDD 9.48 ± 9.6 % 10174 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 0PSK) LTE-TDD 10.25 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 0PSK) LTE-FDD 5.73 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 0PSK) LTE-FDD 5.73 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 0PSK) LTE-FDD 5.73 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 0PSK) LTE-FDD 5.72 ± 9.6 % 10177 CAG LTE-FDD (S						
10169 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.48 ± 9.6 % 10174 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, G4-QAM) LTE-FDD 6.50 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 15 MHz, G4-QAM) LTE-FDD		\$				
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10185 CAE LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD 6.51 ± 9.6 % 10186 AAE LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10187 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10188 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD 6.50 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.11 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WL						
10186 AAE LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10187 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10188 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.11 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLA						
10187 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10188 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD 6.50 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.12 ± 9.6 % 10196 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.10 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 %						
10188 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, 64-QAM) WLAN 8.10 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, 16-QAM) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 %						
10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.10 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %						
10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.12 ± 9.6 % 10196 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %						
10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %						
10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %						
10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %				**************************************		
10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %						
10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %						± 9.6 %
					8.13	± 9.6 %
10219 CAC IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK) WLAN 8.03 ± 9.6 %					8.27	± 9.6 %
	10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6 %

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10220 CAC IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM) WL/	******	8.13	± 9.6 %
10221 CAC IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM) WL/		8.27	±9.6%
10222 CAC IEEE 802.11n (HT Mixed, 15 Mbps, BPSK) WL/		8.06	± 9.6 %
10223 CAC IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM) WL/		8.48	±9.6 %
10224 CAC IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) WL/		8.08	±9.6%
	DMA	5.97	±9.6 %
	E-TDD	9.49	± 9.6 %
	E-TDD	10.26	± 9.6 %
	-TDD	9.22	±9.6 %
	E-TDD	9.48	±9.6%
10230 CAC LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE	E-TDD	10.25	±9.6 %
10231 CAC LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE	E-TDD	9.19	±9.6 %
10232 CAF LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE	E-TDD	9.48	±9.6 %
10233 CAF LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) LTE	E-TDD	10.25	± 9.6 %
	E-TDD	9.21	± 9.6 %
	E-TDD	9.48	±9.6 %
	E-TDD	10.25	±9.6 %
	E-TDD	9.21	±9.6 %
	E-TDD	9.48	±9.6 %
	-TDD	10.25	±9.6 %
	E-TDD	9.21	± 9.6 %
	-TDD	9.82	± 9.6 %
	-TDD	9.86	±9.6 %
	E-TDD	9.46	±9.6 %
	E-TDD	10.06	±9.6 %
	E-TDD	10.06	± 9.6 %
	-TDD	9.30	± 9.6 %
	-TDD	9.91	± 9.6 %
	E-TDD	10.09	± 9.6 %
	E-TDD	9.29	±9.6 %
	E-TDD	9.81	± 9.6 %
	E-TDD	10.17	± 9.6 %
	E-TDD	9.24	± 9.6 %
	E-TDD	9.90	± 9.6 %
	E-TDD	10.14	± 9.6 %
	E-TDD	9.20	± 9.6 %
	E-TDD	9.96	± 9.6 %
	E-TDD	10.08	± 9.6 %
	E-TDD	9,34	± 9.6 %
	E-TDD	9.98	± 9.6 %
	E-TDD	9.97	± 9.6 %
	E-TDD	9.24	± 9.6 %
	E-TDD	9.24	± 9.6 %
	E-TDD	10.16	± 9.6 %
	E-TDD	9.23	± 9.6 %
	E-TDD	9.92	± 9.6 %
	E-TDD	10.07	± 9.6 %
	E-TDD	9.30	± 9.6 %
	E-TDD	10.06	± 9.6 %
	E-TDD	10.00	± 9.6 %
	E-TDD	9.58	± 9.6 %
		<u>9.56</u> 4.87	± 9.6 %
		3.96	± 9.6 %
		<u> </u>	± 9.6 %
		11.81	$\pm 9.6\%$
		12.18	$\pm 9.6\%$
	S MA2000	3.91	±9.6 %
······			
	MA2000	3.46	$\pm 9.6\%$
	MA2000	3.39	$\pm 9.6\%$
	MA2000	3.50	±9.6%
1 TUZMA LAAK EEDIMAZIDII KUT SUN UMD RAMZZA 75 M	MA2000	12.49	± 9.6 %
10297 AAD LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK) LTE	E-FDD	5.81	$\pm 9.6\%$
10297 AAD LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK) LTE 10298 AAD LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK) LTE	E-FDD E-FDD E-FDD	5.81 5.72 6.39	± 9.6 % ± 9.6 %

10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL	WIMAX	12.57	± 9.6 %
		symbols)			
10303	AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	Wimax	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.24	± 9.6 %
10306	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	WIMAX	14.67	± 9.6 %
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	WIMAX	14.49	± 9.6 %
10308	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WIMAX	14,46	±9.6 %
10309	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	Wimax	14.58	± 9.6 %
10310	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	WIMAX	14.57	± 9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	±9.6 %
10313	AAA	IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAA	IDEN 1:6	IDEN	13.48	±9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	± 9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	±9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10352 10353	AAA AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA AAA	Pulse Waveform (200Hz, 20%) Pulse Waveform (200Hz, 40%)	Generic Generic	6.99	$\pm 9.6\%$
10355	AAA	Pulse Waveform (200Hz, 60%)		3.98	$\pm 9.6\%$
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic Generic	2.22 0.97	±9.6 % ±9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	±9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9.6 %
10410	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	±9.6 %
		Subframe=2,3,4,7,8,9, Subframe Conf=4)	·····		
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	±9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418		IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle,	WLAN	8.14	± 9.6 %
10419	AAA	Short preambule)	WLAN	8.19	± 9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	±9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	±9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±9.6 %
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6%
10427 10430	AAB AAD	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6%
10433	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	LTE-FDD WCDMA	8.34	±9.6%
10434	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	LTE-TDD	8.60 7.82	± 9.6 % ± 9.6 %
		Subframe=2,3,4,7,8,9)			
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	±9.6 %
10449 10450	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6 %
10400	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	±9.6 %
10456	AAB	IEEE 802.11ac WIFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	±9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	±9.6 %
<u>10459</u> 10460	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAA AAA	UMTS-FDD (WCDMA, AMR) LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL	WCDMA LTE-TDD	2.39	±9.6 % ±9.6 %
10401		Subframe=2,3,4,7,8,9)	LICIDD	1.02	19.0 %
10462	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.30	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10463	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
10464	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL	LTE-TDD	7.82	1000
10404		Subframe=2,3,4,7,8,9)	LIE-IDD	7.82	± 9.6 %
10465	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.32	±9.6%
10100	1,2,0	Subframe=2,3,4,7,8,9)		0.02	10.0 %
10466	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10467	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
40400		Subframe=2,3,4,7,8,9)	5 AUGUI MAAA ANNAA DIMA, MAA,	0.00	
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
10400		Subframe=2,3,4,7,8,9)		0.00	1 0.0 %
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10472	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10473	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10415		Subframe=2,3,4,7,8,9)	LIC-IDD	1.02	1 9.0 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.32	±9.6 %
10478	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10470		Subframe=2,3,4,7,8,9)		0.57	1 9.0 %
10479	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8,18	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
10482	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL	LTE-TDD	7.71	± 9.6 %
10402		Subframe=2,3,4,7,8,9)		1.11	1 9.0 %
10483	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.39	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	±9.6 %
		Subframe=2,3,4,7,8,9)			
10485	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL	LTE-TDD	7.59	±9.6 %
10486		Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL	LTE-TDD	0.00	+069/
10400	AAE	Subframe=2,3,4,7,8,9)	LIE-IDD	8.38	± 9.6 %
10487	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.60	±9.6 %
		Subframe=2,3,4,7,8,9)		0.00	
10488	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL	LTE-TDD	7.70	±9.6 %
		Subframe=2,3,4,7,8,9)			
10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
		Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL			
40.455		I FIE TOD (SC-EDMA 50% RB 10 MHz 64-0AM HI	LTE-TDD	8.54	±9.6 %
10490	AAE				,.
10490	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %

10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.41	± 9,6 %
10493	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.55	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.37	±9.6 %
		Subframe=2,3,4,7,8,9)			
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.54	±9.6 %
10497	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.67	±9.6 %
	,,,,,,	Subframe=2,3,4,7,8,9)		1.07	10.0 %
10498	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.40	±9.6 %
10499	AAA	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.68	± 9.6 %
10400	/	Subframe=2,3,4,7,8,9)		0.00	1 0.0 %
10500	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL	LTE-TDD	7.67	±9.6 %
10501	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.44	± 9.6 %
10001		Subframe=2,3,4,7,8,9)		0.44	I9.070
10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.52	± 9.6 %
10503	0.0F	Subframe=2,3,4,7,8,9)			1000
10503	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.6 %
10504	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.31	±9.6 %
40505	<u></u>	Subframe=2,3,4,7,8,9)			
10505	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10506	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10507	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.36	±9.6 %
10508	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.55	±9.6 %
		Subframe=2,3,4,7,8,9)		0.00	20.0 /0
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL	LTE-TDD	7.99	±9.6 %
10510	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.49	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.51	±9.6 %
10512	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
		Subframe=2,3,4,7,8,9)		1.1-4	2.0.0 /0
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.42	±9.6 %
				1	
1051/		Subframe=2,3,4,7,8,9)			
10514	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	± 9.6 %
10515	AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	LTE-TDD WLAN	8.45 1.58	
10515 10516	AAA AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN	8.45 1.58 1.57	± 9.6 % ± 9.6 % ± 9.6 %
10515 10516 10517	AAA AAA AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN	8.45 1.58 1.57 1.58	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10515 10516 10517 10518	AAA AAA AAA AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10515 10516 10517 10518 10519	AAA AAA AAA AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10515 10516 10517 10518 10519 10520	AAA AAA AAA AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10515 10516 10517 10518 10519 10520 10521	AAA AAA AAA AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97	$\begin{array}{c} \pm \ 9.6 \ \% \\ \pm \ 9.6 \ \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522	AAA AAA AAA AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523	AAA AAA AAA AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523	AAA AAA AAA AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524 10525	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36 8.42	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524 10525 10526	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36 8.42	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524 10525 10526 10527	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36 8.42 8.36	$\begin{array}{c} \pm 9.6 \% \\ \pm 9.6 \% \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524 10525 10526 10527 10528 10529	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36 8.42 8.36	$\begin{array}{c} \pm \ 9.6 \ \% \\ \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524 10525 10526 10527 10528 10529	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36 8.42 8.36 8.42 8.36 8.36 8.36	$\begin{array}{c} \pm \ 9.6\ \% \\ \end{array}$
10515 10516 10517 10518 10519 10520 10521 10522 10523 10524 10525 10526 10527 10528 10529	AAA AAA AAB AAB AAB AAB AAB AAB AAB AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle) IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	UTE-TDD WLAN WLAN WLAN WLAN WLAN WLAN WLAN WLAN	8.45 1.58 1.57 1.58 8.23 8.39 8.12 7.97 8.45 8.08 8.27 8.36 8.42 8.36	$\begin{array}{c} \pm \ 9.6 \ \% \\ \end{array}$

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40207					
10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6%
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6%
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	±9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	±9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	±9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	±9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8,69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty	WLAN	8.25	± 9.6 %
		cycle)		0,20	
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty	WLAN	8.45	± 9.6 %
		cycle)		0.10	_ 0.0 /0
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty	WLAN	8.13	± 9.6 %
		cycle)		0.70	10.0 %
10567	ААА	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty	WLAN	8.00	± 9.6 %
	,	cycle)		0.00	20.070
10568	ААА	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	8.37	± 9.6 %
	,	cycle)		0.07	
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	WLAN	8.10	± 9.6 %
					20.0 /0
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	± 9.6 %
		cycle)	T T had to t	0.00	20.0 %
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 3.5 Mips, 90pc duty cycle)	WLAN	1.98	±9.6%
10574	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6 %
10010		cycle)	VV LPUN	0.59	1 3.0 %
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty	WLAN	8.60	± 9.6 %
10070	1000			0.00	1 3.0 %
10577	AAA	cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty	WLAN	8.70	± 9.6 %
10577			VVLAIN	0.70	19.0 %
10578		cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty	WLAN	04.0	1060
10070	AAA	cycle)	VVLAIN	8.49	± 9.6 %
40570	A A A		34/1-081	0.00	1069/
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty	WLAN	8.36	±9.6 %
10580	٨٨٨	cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty		0.70	± 9.6 %
10000	AAA		WLAN	8.76	19.0%
10504			14/1 4 5 1	0.05	
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN	8.35	± 9.6 %
40500	A A A	cycle)	10/1 0.51	0.07	+0.00
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
10500	445	cycle)		1 0 00	
10583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6%
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
10585	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10586	AAB AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN WLAN	8.49	± 9.6 % ± 9.6 %
10587		LIERE AUX TIG/D WHELD GET (CEDM. 24 Mbbs. 900c duty cycle)		8.36	1 + U K %

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10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	±9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	±9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	±9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	±9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	±9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	±9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	±9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	±9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±9.6%
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.59	±9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 %
10616	AAB	IEEE 802.11ac WIFI (40MHz, MCS0, 90pc duty cycle)	WLAN	8,82	±9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	±9.6%
10619	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±9.6 %
10632	AAB	IEEE 802.11ac WiFI (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	±9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±9.6 %
10645	AAC	IEEE 802.11ac WiFI (160MHz, MCS9, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6 %
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	±9.6 %
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±9.6 %
10653	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±9.6 %
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±9.6 %

Labelso AAKE LTE-TUD // 14 24.84 Labelso AAAA Pulse Waveform (2001+z, 20%) Test 10.00 4.9.6 % Labelso AAA Pulse Waveform (2001+z, 20%) Test 3.9.8 4.9.6 % Labelso AAA Pulse Waveform (2001+z, 20%) Test 3.9.8 4.9.6 % Labelso AAA Pulse Waveform (2001+z, 20%) Test 3.9.8 4.9.6 % Labelso AAA Pulse Waveform (2001+z, 20%) Test 3.9.7 4.9.6 % Labelso AAA Pulse Waveform (2001+z, 20%) Test 3.9.7 4.9.6 % Labelso Lisz (20011-z) Labelso S.9.6 duty cycle) WLAN 8.0.6 % Labelso Lisz (20011-z) Lisz (20011-z) S.9.6 duty cycle) WLAN 8.7.7 4.9.6 % L0773 AAA LEEE 802.1 tax (20014-z) CS6.9 Spoc duty cycle) WLAN 8.7.7 4.9.6 % L0777 AAA LEEE 802.1 tax (20014-z) CS6.9 Spoc duty cycle) WLAN 8.7.7 4.9.6 %	40055					
10669 AAA Pulse Waveform (2001z, 20%) Test 3.98 ± 9.6 % 10661 AAA Pulse Waveform (2001z, 60%) Test 2.22 ± 9.6 % 10662 AAA Pulse Waveform (2001z, 60%) Test 0.97 ± 9.6 % 10671 AAA Bluetooth Low Energy Bluetooth 2.1 ± 9.6 % 10672 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.70 ± 9.6 % 10673 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.70 ± 9.6 % 10674 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.70 ± 9.6 % 10676 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.77 ± 9.6 % 10676 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.73 ± 9.6 % 10677 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.73 ± 9.6 % 10678 AAA IEEE 802.11ax (2001tz, MCS0, Sopc duty cycle) WLAN 8.62 ± 9.6 %	10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10660 AAA Pulse Waveform (2001z, 20%). Test 3.28 ± 9.6 %. 10661 AAA Pulse Waveform (2001z, 20%). Test 0.22 ± 9.6 %. 10670 AAA Pulse Waveform (2001z, 20%). Test 0.23 ± 9.6 %. 10671 AAA IEEE B02.11ax (20M1z, MCS0, S0pc duty cycle) WLAN 9.6 %. 10671 AAA IEEE B02.11ax (20M1z, MCS3, S0pc duty cycle) WLAN 8.77 ± 9.6 %. 10673 AAA IEEE B02.11ax (20M1z, MCS3, S0pc duty cycle) WLAN 8.77 ± 9.6 %. 10676 AAA IEEE B02.11ax (20M1z, MCS3, S0pc duty cycle) WLAN 8.77 ± 9.6 %. 10677 AAA IEEE B02.11ax (20M1z, MCS4, S0pc duty cycle) WLAN 8.78 ± 9.6 %. 10677 AAA IEEE B02.11ax (20M1z, MCS1, S0pc duty cycle) WLAN 8.78 ± 9.6 %. 10678 AAA IEEE B02.11ax (20M1z, MCS1, S0pc duty cycle) WLAN 8.83 ± 9.6 %. 10680 AAA IEEE B02.11ax (20M1z, MCS1, S0pc duty cycle) WLAN 8.83						
10681 AAA Pulse Waveform (20014; 60%) Test 2.27 ± 9.6 % 10662 AAA Bluehodh. Low Energy Bluehodh 9.9 % 9.9 % 10671 AAA IEEE 602.11ax (20M14; MCS0, 90pc duly cycle) WLAN 9.0 % + 9.6 % 10672 AAA IEEE 802.11ax (20M14; MCS0, 90pc duly cycle) WLAN 8.76 + 9.6 % 10673 AAA IEEE 802.11ax (20M14; MCS0, 90pc duly cycle) WLAN 8.76 + 9.6 % 10674 AAA IEEE 802.11ax (20M14; MCS3, 90pc duly cycle) WLAN 8.77 + 9.6 % 10875 AAA IEEE 802.11ax (20M14; MCS3, 90pc duly cycle) WLAN 8.77 + 9.6 % 10976 AAA IEEE 802.11ax (20M14; MCS3, 90pc duly cycle) WLAN 8.78 + 9.6 % 10979 AAA IEEE 802.11ax (20M14; MCS1, 90pc duly cycle) WLAN 8.89 + 9.6 % 10881 AAA IEEE 802.11ax (20M14; MCS1, 90pc duly cycle) WLAN 8.82 + 9.6 % 10882 AAA IEEE 802.11ax (20M14; MCS1, 90pc duly cycle) WLAN		· · · · · · · · · · · · · · · · · · ·				
10662 AAA Pulse Waveform (2001b), 80%) Test 0.97 ± 9.65% 10670 AAA IEEE 802:11ax (200Hz, 80%) WiLAN 9.09 ± 9.65% 10071 AAA IEEE 802:11ax (200Hz, MCS1, 30pc duty cycle) WILAN 8.67 ± 9.65% 10073 AAA IEEE 802:11ax (200Hz, MCS1, 30pc duty cycle) WILAN 8.77 ± 9.65% 10073 AAA IEEE 802:11ax (200Hz, MCS3, 30pc duty cycle) WILAN 8.74 ± 9.65% 10075 AAA IEEE 802:11ax (200Hz, MCS3, 50pc duty cycle) WILAN 8.77 ± 9.65% 10076 AAA IEEE 802:11ax (200Hz, MCS3, 90pc duty cycle) WILAN 8.73 ± 9.65% 10077 AAA IEEE 802:11ax (200Hz, MCS3, 90pc duty cycle) WILAN 8.62 ± 9.65% 10678 AAA IEEE 802:11ax (200Hz, MCS1, 90pc duty cycle) WILAN 8.62 ± 9.65% 10680 AAA IEEE 802:11ax (200Hz, MCS1, 90pc duty cycle) WILAN 8.62 ± 9.65% 10681 AAA IEEE 802:11ax (200Hz, MCS1, 90pc duty cycle) WI	5					
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10726 AAA IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle) WLAN 8.72 ± 9.6 %						
10/2/ AAA IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle) WLAN 8.66 ± 9.6 %						
	10/27	AAA	LEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6%

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10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	±9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.33	±9.6 %
10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	±9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.42	±9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.29	±9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	±9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.40	±9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.43	±9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.6 %
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6 %
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	±9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	±9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	±9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	±9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	±9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.54	±9.6%
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	±9.6 %

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of

Client

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland

BC MRA



S Schweizerischer Kalibrierdienst
 Service suisse d'étalonnage
 Servizio svizzero di taratura
 Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

PC Test

Certificate No: EX3-7410_Jul19

Accreditation No.: SCS 0108

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7410
Calibration procedure(s)	QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes
Calibration date:	July 16, 2019
This calibration certificate doc The measurements and the ur	uments the traceability to national standards, which realize the physical units of measurements (SI). Incertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check; Oct-19

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	$\rightarrow - lb$
		ζ	-F-G-
Approved by:	Katja Pokovic	Technical Manager	V
			At 45
			Issued: July 16, 2019

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst

- C Service suisse d'étalonnage
 - S Servizio svizzero di taratura
 - Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 9	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is
 implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included
 in the stated uncertainty of ConvF.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	0.41	0.47	0.43	± 10.1 %
DCP (mV) ^B	95.0	98.5	98.3	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	C	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	143.3	± 3.3 %	± 4.7 %
		Y	0.00	0.00	1.00		136.3	1	
		Z	0.00	0.00	1.00		146.3	1	
10352-	Pulse Waveform (200Hz, 10%)	X	7.20	77.00	15.83	10.00	60.0	± 3.7 %	± 9,6 %
AAA		Y	15.00	89.41	20.45		60.0	1	
		Z	15.00	86.58	19,43		60.0	1	
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	85.70	17.13	6.99	80.0	± 2.7 %	± 9.6 %
AAA		Y	15.00	94.26	21.82		80.0	1	
		Z	15.00	87.46	18.36		80.0	1	
10354-	Pulse Waveform (200Hz, 40%)	X	15.00	84.98	15.02	3.98	95.0	± 1.4 %	± 9.6 %
AAA		Y	15.00	105.63	25.93	1	95.0	1	
		Z	15.00	86.91	16.30		95.0		
10355-	Pulse Waveform (200Hz, 60%)	X	0.58	63.48	6.70	2.22	120.0	± 1.4 %	±9.6 %
AAA		Y	15.00	128.91	35.05		120.0		
		Z	1.67	69.27	9.07		120.0		
10387-	QPSK Waveform, 1 MHz	X	0.58	60.52	7.75	0.00	150.0	± 2.7 %	±9.6 %
AAA		Y	1.10	67.31	12.60		150.0	1	
		Z	0.65	60.71	8.42		150.0		
10388-	QPSK Waveform, 10 MHz	X	2.25	68.70	16.13	0.00	150.0	± 1.1 %	± 9.6 %
AAA		Y	2.69	71.62	17.77		150.0		
		Z	2.10	66.95	14.95		150.0		
10396-	64-QAM Waveform, 100 kHz	X	2.85	69.56	18.52	3.01	150.0	±0.7 %	± 9.6 %
AAA		Y	3.27	72.43	19.82		150.0		
		Z	2.96	69.30	18.13		150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.51	67.28	15.99	0.00	150.0	± 2.2 %	± 9.6 %
AAA		Y	3.73	68.43	16.68		150.0		
		Z	3.45	66.65	15.48		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.86	65.74	15.76	0.00	150.0	± 4.2 %	± 9.6 %
AAA		Y	5.02	66.29	16.07		150.0		
		Z	4.91	65.47	15.50		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6). ^B Numerical linearization parameter: uncertainty not required. ^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Sensor Model Parameters

	C1 fF	C2 fF	a V ⁻¹	T1 ms.V ⁻²	T2 ms.V⁻¹	T3 ms	T4 V ⁻²	T5 V⁻1	Т6
Х	44.0	341.99	38.28	7.82	0.67	5.04	0.00	0.55	1.01
Y	48.3	362.63	36.17	12.06	0.12	5.10	0.87	0.38	1.01
Z	52.1	408.62	38.63	10.30	0.68	5.08	0.00	0.64	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	0.7
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

	J • • • •							
f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	9.95	9.95	9.95	0.69	0.80	± 12.0 %
835	41.5	0.90	9.88	9.88	9.88	0.51	0.80	± 12.0 %
1750	40.1	1.37	8.46	8.46	8.46	0.33	0.86	± 12.0 %
1900	40.0	1.40	8.11	8.11	8.11	0.35	0.86	± 12.0 %
2300	39.5	1.67	7.91	7.91	7.91	0.34	0.90	± 12.0 %
2450	39.2	1.80	7.47	7.47	7.47	0.37	0.90	± 12.0 %
2600	39.0	1.96	7.33	7.33	7.33	0.39	0.90	± 12.0 %
5250	35.9	4.71	5.46	5.46	5.46	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.85	4.85	4.85	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.05	5.05	5.05	0.40	1.80	± 13.1 %

Calibration Parameter Determined in Head Tissue Simulating Media

^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

 6 Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

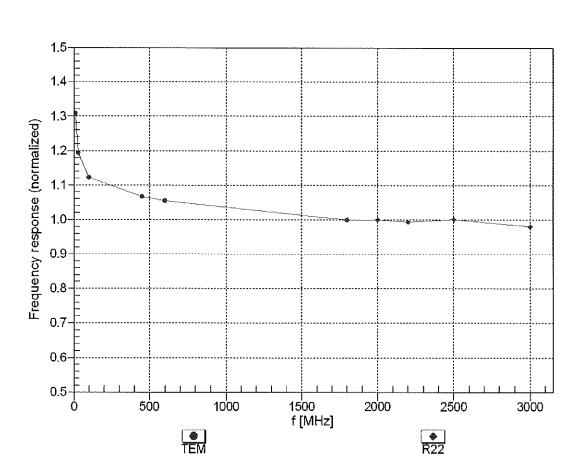
f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	10.01	10.01	10.01	0.48	0.84	± 12.0 %
835	55.2	0.97	9.79	9.79	9.79	0.48	0.80	± 12.0 %
1750	53.4	1.49	8.08	8.08	8.08	0.38	0.86	± 12.0 %
1900	53.3	1.52	7.78	7.78	7.78	0.42	0.86	± 12.0 %
2300	52.9	1.81	7.68	7.68	7.68	0.43	0.90	± 12.0 %
2450	52.7	1.95	7.44	7.44	7.44	0.33	0.90	± 12.0 %
2600	52.5	2.16	7.43	7.43	7.43	0.33	0.80	± 12.0 %
5250	48.9	5.36	4.95	4.95	4.95	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.42	4.42	4.42	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.60	4.60	4.60	0.50	1.90	± 13.1 %

Calibration Parameter Determined in Body Tissue Simulating Media

^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

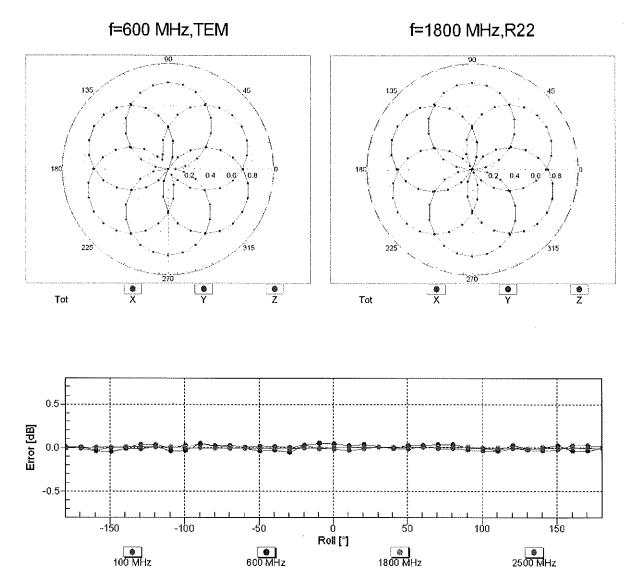
 6 Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than \pm 1% for frequencies below 3 GHz and below \pm 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

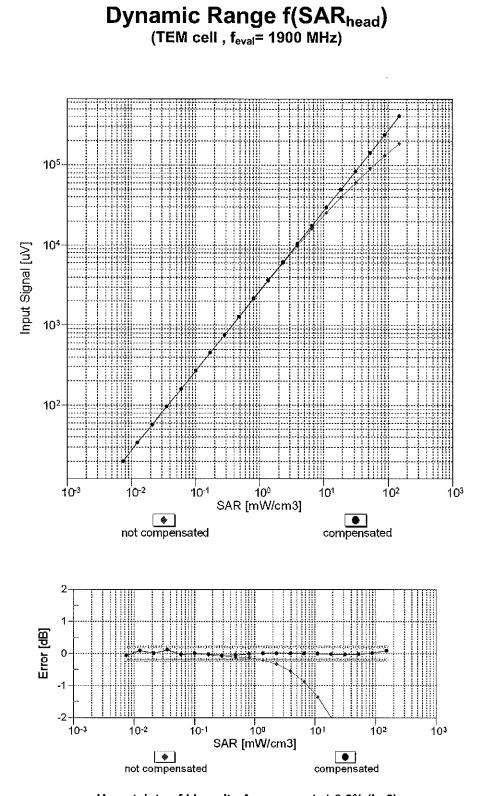
July 16, 2019



Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

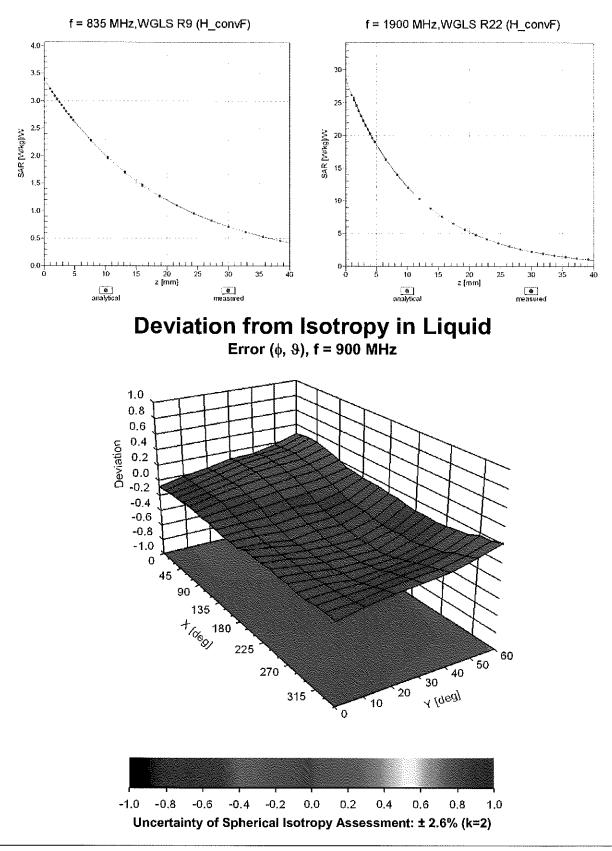
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: EX3-7410_Jul19



Conversion Factor Assessment

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR	Unc
		_		(dB)	(k=2)
0		CW	CW	0.00	±4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	±9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±96%
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	±9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10072	CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	±9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	±9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3,98	±9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10102	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
1 10104					
10104 10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %

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10110 CAG LTE-FDD 5.7.6 ±9.6 % 10111 CAG LTE-FDD 6.7.4 ±9.6 % 10112 CAG LTE-FDD 6.7.4 ±9.6 % 10112 CAG LTE-FDD 6.7.4 ±9.6 % 10112 CAG LTE-FDD 6.7.2 ±9.6 % 10114 CAC LEEE 602.11n (HT Greenfield, 318 Mbps, BP-SK) WLAN 8.4.6 ±9.6 % 10116 CAC LEEE 602.11n (HT Greenfield, 61 Mbps, 16-GAM) WLAN 8.4.6 ±9.6 % 10116 CAC LEEE 602.11n (HT Moxed, 61 Mbps, 16-GAM) WLAN 8.15 ±9.6 % 10116 CAC LEEE 602.11n (HT Moxed, 61 Mbps, 16-GAM) WLAN 8.15 ±9.6 % 10116 CAC LEEE 602.11n (HT Moxed, 61 Mbps, 16-GAM) UTE-FDD 6.63 ±9.6 % 10116 CAC LEEE 602.11n (HT Moxed, 61 Mbps, 16-GAM) LTE-FDD 6.73 ±9.6 % 10140 CAE LTE-FDD (SC-FDM, 100% RB, 16 MHz, 46-GAM) LTE-FDD 6.73 ±9.6 % 101	40100				-	
10111 CAG LTE-FDD 6.49 19.6 % 10112 CAG LTE-FDD (SC-FDMA, 100%, RB, 10 MHz, 64-OAM) LTE-FDD 6.59 19.6 % 10113 CAG LTE-FDD (SC-FDMA, 100%, RB, 10 MHz, 64-OAM) LTE-FDD 6.50 19.6 % 10114 CAG LTE-FDD (SC-FDMA, 100%, RB, 10 MHz, 64-OAM) WLAN 8.46 19.6 % 10115 CAG LEEE 602.11n (HT Greenfield, 31 Mbps, 64-OAM) WLAN 8.46 19.6 % 10117 CAG LEEE 602.11n (HT Mixed, 135 Mbps, 64-OAM) WLAN 8.69 19.6 % 10118 CAG LEEE 602.11n (HT Mixed, 135 Mbps, 64-OAM) WLAN 8.69 19.6 % 10140 CAE LTE-FDD (SC-FDMA, 100%, RB, 15 MHz, 16-OAM) UTE-FDD 6.41 19.6 % 10141 CAE LTE-FDD (SC-FDMA, 100%, RB, 13 MHz, 16-OAM) LTE-FDD 5.73 19.6 % 10142 CAE LTE-FDD (SC-FDMA, 100%, RB, 14 MHz, 16-OAM) LTE-FDD 6.74 19.6 % 10142 CAE LTE-FDD (SC-FDMA, 100%, RB, 14 MHz, 16-OAM) LTE-FDD 6.72	10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6 %
19112 CAG LTE-FDD 6.50 ±9.6 % 19113 CAG LTE-FDD 6.52 ±9.6 % 19114 CAG LEEE B02.1 fn (HT Greenfield, 13.6 Mbps, BPSK) WLAN 8.16 ±9.6 % 19115 CAG LEEE B02.1 fn (HT Greenfield, 13.6 Mbps, BP-CAM) WLAN 8.16 ±9.6 % 19116 CAC LEEE B02.1 fn (HT Meed, 81 Mbps, 16-CAM) WLAN 8.16 ±9.6 % 19116 CAC LEEE B02.1 fn (HT Meed, 81 Mbps, 16-CAM) WLAN 8.13 ±9.6 % 19116 CAC LEEE B02.1 fn (HT Meed, 81 Mbps, 16-CAM) WLAN 8.13 ±9.6 % 19116 CAC LEEE B02.1 fn (HT Meed, 81 Mbp, 16-CAM) WLAN 8.13 ±9.6 % 19147 CAE LTE-FDD (5C-FDMA, 100% RB, 15 MHz, 16-CAM) LTE-FDD 6.53 ±9.6 % 19147 CAE LTE-FDD (5C-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD 6.57 ±9.6 % 19144 CAE LTE-FDD (5C-FDMA, 100% RB, 14 MHz, 16-CAM) LTE-FDD 6.62 ±9.6 % 19144 CAE			LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)		5.75	± 9.6 %
10113 CAG LTE-FDD 672 1 = 6 + 70 10114 CAC LEEE 602.11n (HT Greenfeld, 13 Mbps, 16-CAM) WLAN 8.16 9.8 %, 10115 CAC LEEE 602.11n (HT Greenfeld, 13 Mbps, 16-CAM) WLAN 8.16 9.8 %, 10116 CAC LEEE 602.11n (HT Mseed, 135 Mbps, 18-CAM) WLAN 8.16 9.8 %, 10117 CAC LEEE 602.11n (HT Mseed, 135 Mbps, 18-CAM) WLAN 8.17 9.8 %, 10118 CAC LEEE 602.11n (HT Mseed, 135 Mbps, 18-CAM) WLAN 8.16 9.8 %, 10140 CAC LEEE 602.11n (HT Mseed, 135 Mbps, 18-CAM) WLAN 8.17 9.8 %, 10141 CAC LEEF 602.57DM, 100%, RB, 15 MHz, 16-CAM) LTE-FDD 6.53 19.6 %, 10142 CAE LTE-FDD (SC-FDM, 100%, RB, 15 MHz, 16-CAM) LTE-FDD 6.53 19.6 %, 10142 CAE LTE-FDD (SC-FDM, 100%, RB, 14 MHz, 16-CAM) LTE-FDD 6.36 19.6 %, 10142 CAE LTE-FDD (SC-FDM, 400%, RB, 14 MHz, 16-CAM) LTE-FDD 6.36 19.6 %		· • • • • • • • • • • • • • • • • • • •		LTE-FDD	6.44	± 9.6 %
10114 CAC EEEE 802.11n (HT Greenfield, 31 Mpps, BPSK) WLAN 8.40 19.85% 10115 CAC EEEE 802.11n (HT Greenfield, 31 Mpps, BC-OAM) WLAN 8.40 19.85% 10116 CAC EEEE 802.11n (HT Greenfield, 135 Mbps, BC-OAM) WLAN 8.07 2.96.5% 10116 CAC EEEE 802.11n (HT Mixed, 81 Mbps, 16-OAM) WLAN 8.13 2.96.5% 10116 CAC EEEE 802.11n (HT Mixed, 81 Mbps, 16-OAM) WLAN 8.13 2.96.5% 10140 CAC EEEE 802.11n (HT Mixed, 81 Mbps, 16-OAM) UTE+FDD 6.49 2.96.5% 10141 CAE LTE+FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) UTE+FDD 6.57 3.96.5% 10142 CAE LTE+FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) LTE+FDD 6.57 3.96.5% 10144 CAE LTE+FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) LTE+FDD 6.65 3.96.5% 10145 CAF LTE+FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM) LTE+FDD (SC-FDMA, 50% B.76 4.96.5% 10146 CAF LTE+FDD (SC-FDMA, 50% RB, 20 MHz,			LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)		6.59	± 9.6 %
10116 CAC LEEE 802.11n (HT Greenfield, 35 Mbps, 64-GAM) WLAN 8.14 2.88 % 10117 CAC LEEE 802.11n (HT Wared, 135 Mbps, 82-GAM) WLAN 8.13 2.86 % 10118 CAC LEEE 802.11n (HT Wared, 135 Mbps, 82-GAM) WLAN 8.13 2.86 % 10119 CAC LEEE 802.11n (HT Wared, 135 Mbps, 82-GAM) WLAN 8.13 2.86 % 10140 CAC LEEE 802.11n (HT Wared, 136 Mbps, 82-GAM) WLAN 8.13 2.86 % 10141 CAC LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-GAM) UTE-FDD 6.33 2.86 % 10143 CAE LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-GAM) UTE-FDD 6.36 4.98 % 10144 CAE LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 0FSK) LTE-FDD 6.76 4.98 % 4.98 % 10144 CAE LTE-FDD (SC-FDMA, 100% RB, 12 MHz, 16-GAM) LTE-FDD 6.71 3.98 % 4.98 % 10145 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-GAM) LTE-FDD 6.72 4.86 % 5.96 % 5.96 % 5.96 % 5			LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
10110 CAC LEE 802.11n (HT Greenfield, 135 Mbps, 84-CAM) WI AN 8.15 18.8 % 10117 CAC LEEE 802.11n (HT Mixed, 81 Mbps, 46-CAM) WI AN 8.59 13.8 % 10118 CAC LEEE 802.11n (HT Mixed, 81 Mbps, 46-CAM) WI AN 8.59 13.8 % 10140 CAE LTE-FDD (SC-FDMA, 100% FB; 15 MHz, 18-CAM) LTE-FDD (6.49 8.3 % 10141 CAE LTE-FDD (SC-FDMA, 100% FB; 15 MHz, 18-CAM) LTE-FDD (6.53 9.8 % 10142 CAE LTE-FDD (SC-FDMA, 100% FB; 14 MHz, 18-CAM) LTE-FDD (6.57 9.8 % 10144 CAE LTE-FDD (SC-FDMA, 100% FB; 14 MHz, 18-CAM) LTE-FDD (6.57 9.8 % 10145 CAF LTE-FDD (SC-FDMA, 100% FB; 14 MHz, 18-CAM) LTE-FDD (6.67 9.8 % 10147 CAF LTE-FDD (SC-FDMA, 100% FB; 14 MHz, 18-CAM) LTE-FDD (6.67 9.8 % 10147 CAF LTE-FDD (SC-FDMA, 100% FB; 14 MHz, 18-CAM) LTE-FDD (6.67 9.8 % 10147 CAF LTE-FDD (SC-FDMA, 50% FB; 20 MHz, 18-CAM) LTE-FDD (6.67 9.8 % 10160 CAE				WLAN	8.10	± 9.6 %
10112 CAC IEEE 802.11n (HT Mixed, 13.5 MBps, 8F-SA) WUAN 8.007 2.80 SK 10118 CAC IEEE 802.11n (HT Mixed, 136 Mbps, 64-OAM) WUAN 8.103 8.90 SK 10140 CAC IEEE 802.11n (HT Mixed, 136 Mbps, 64-OAM) ULAN 8.13 SK 10140 CAE ITE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-OAM) ITE-FDD 6.53 9.6 % 10141 CAE ITE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) ITE-FDD 6.53 9.6 % 10142 CAE ITE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) ITE-FDD 6.53 9.6 % 10144 CAE ITE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-OAM) ITE-FDD 6.65 9.6 % 10145 CAF ITE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-OAM) ITE-FDD 6.62 9.6 % 10147 CAF ITE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM) ITE-FDD 6.62 9.6 % 10147 CAF ITE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM) ITE-FDD 6.62 9.6 % 10147 CAF ITE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-OAM) ITE-FDD 6.62 9.6 % 10147 CAF ITE-FDD (SC-FDMA, 50% RB			IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10118 CAC IEEE 802.11n (HT Mixed, 81 Mbps, 16-CAM) WLAN 8.59 ± 9.6 % 10119 CAC IEEE 802.11n (HT Mixed, 135 Mbps, 64-CAM) LTE-FDD 6.40 ± 9.6 % 10141 CAE LTE-FDD (53C-FDM, 109% RB, 15 MHz, 16-CAM) LTE-FDD 6.53 ± 9.6 % 10142 CAE LTE-FDD (53C-FDM, 109% RB, 3 MHz, 26-CAM) LTE-FDD 6.53 ± 9.6 % 10143 CAE LTE-FDD (53C-FDM, 109% RB, 3 MHz, 26-CAM) LTE-FDD 6.65 ± 9.6 % 10144 CAE LTE-FDD (53C-FDM, 109% RB, 14 MHz, 0FSA) LTE-FDD 6.66 ± 9.6 % 10146 CAF LTE-FDD (53C-FDM, 109% RB, 14 MHz, 0FSA) LTE-FDD 6.62 ± 9.6 % 10147 CAF LTE-FDD (53C-FDM, 50% RB, 20 MHz, 0FAAM) LTE-FDD 6.62 ± 9.6 % 10150 CAG LTE-FDD (53C-FDM, 50% RB, 20 MHz, 0FAAM) LTE-FDD 6.62 ± 9.6 % 10151 CAG LTE-FDD (SC-FDM, 50% RB, 20 MHz, 0FAAM) LTE-FDD 9.62 ± 9.6 %	a second s		IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10118 CAC IEEE 802.11n (HT Mixed, 313 Mbps, 46-CAM) WLAN 8.59 ± 9.6 % 10119 CAC IEEE 802.11n (HT Mixed, 313 Mbps, 46-CAM) LTE-FDD 6.49 ± 9.6 % 10141 CAE LTE-FDD (5.57 ± 9.6 % 10142 CAE LTE-FDD (5.57 ± 9.6 % 10142 CAE LTE-FDD (5.57 ± 9.6 % 10142 CAE LTE-FDD (5.57 ± 9.6 % 10144 CAE LTE-FDD (5.57 ± 9.6 % 10144 CAE LTE-FDD (5.57 ± 9.6 % 10146 CAF LTE-FDD (5.67 MA, 50% RB, 20 MHz, 0°SK) LTE-FDD 6.41 ± 9.6 % 10147 CAF LTE-FDD (5.57 MA, 50% RB, 20 MHz, 0°SK) LTE-FDD 6.42 ± 9.6 % 10149 CAE LTE-FDD (5.67 MA, 50% RB, 20 MHz, 0°SK) LTE-FDD 6.42 ± 9.6 % 10147 CAE LTE-FDD (5.67 MA, 50% RB, 20 MHz, 0°SK) LTE-FDD 6.42 ± 9.6 % <tr< td=""><td>and the second s</td><td></td><td>IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)</td><td>WLAN</td><td>8.07</td><td></td></tr<>	and the second s		IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	
10119 CAC IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM) WLAN 8.13 ± 9.6 %. 10140 CAE LTE-FDD (6.57) ± 9.6 %. 10141 CAE LTE-FDD (6.53) ± 9.6 %. 10142 CAE LTE-FDD (6.53) ± 9.6 %. 10143 CAE LTE-FDD (6.53) ± 9.6 %. 10144 CAE LTE-FDD (6.56) ± 9.6 %. 10144 CAE LTE-FDD (6.56) ± 9.6 %. 10146 CAF LTE-FDD (6.57) ± 9.6 %. 10146 CAF LTE-FDD (6.52) ± 9.6 %. 10147 CAF LTE-FDD (6.52) ± 9.6 %. 10149 CAE LTE-FDD (6.52) ± 9.6 %. 10141 CAE LTE-FDD (6.22) ± 9.6 %. 10151 CAG LTE-FDD (6.22) ± 9.6 %. 10145 CAE LTE-FDD (6.72) ± 9.6 %. 10152 CAG		CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)			
10140 CAE LTE-FDD 66.49 ± 9 6 % 10141 CAE LTE-FDD 65.73 ± 9 6 % 10142 CAE LTE-FDD 65.73 ± 9 6 % 10143 CAE LTE-FDD 65.73 ± 9 6 % 10144 CAE LTE-FDD 65.73 ± 9 6 % 10144 CAE LTE-FDD 65.75 ± 9 6 % 10144 CAE LTE-FDD 65.75 ± 9 6 % 10146 CAF LTE-FDD 65.75 ± 9 6 % 10146 CAF LTE-FDD 10 7 % R8.14 MHz, 64-QAM) LTE-FDD 6.62 ± 9 6 % 10147 CAE LTE-FDD 10 7 % R8.14 MHz, 64-QAM) LTE-FDD 6.62 ± 9 6 % 10150 CAG LTE-FDD 10 7 % R8.20 MHz, 64-QAM) LTE-FDD 5.75 ± 9 6 % 10151 CAG LTE-FDD 10 7 % R8.20 MHz, 16-QAM) LTE-FDD 5.75 ± 9 6 % 10152 CAG LTE-FDD <td></td> <td>CAC</td> <td>IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)</td> <td></td> <td></td> <td></td>		CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)			
10141 CAE LTE-FDD 65.3 = 59.6% 10142 CAE LTE-FDD 65.3 = 59.6% 10143 CAE LTE-FDD 65.3 = 59.6% 10144 CAE LTE-FDD 65.3 # 96.% 10144 CAE LTE-FDD 65.65 # 96.% 10144 CAE LTE-FDD 65.76 ± 96.6% 10145 CAF LTE-FDD 65.76 ± 96.6% 10146 CAF LTE-FDD 65.72 ± 9.6 % 10147 CAF LTE-FDD (65.79M.A. 100% RB.1 4 MHz, 16-CAM) LTE-FDD 6.42 ± 9.6 % 10149 CAE LTE-FDD (65.79M.A. 50% RB.2 0 MHz, 16-CAM) LTE-FDD 6.42 ± 9.6 % 10151 CAG LTE-FDD (65.79M.A. 50% RB.2 0 MHz, 16-CAM) LTE-FDD 5.72 ± 9.6 % 10152 CAG LTE-FDD (65.79M.A. 50% RB.2 0 MHz, 16-CAM) LTE-FDD 5.73 ± 9.6 % 10156 CAG LTE-FDD (65.79M.A. 50% RB.2 0 M	10140	CAE				
10143 CAE LITE-FDD 5.73 # 9.9 % 10143 CAE LITE-FDD 65.73 # 9.9 % 10144 CAE LITE-FDD 65.65 # 9.6 % 10145 CAF LITE-FDD 65.76 # 9.6 % 10146 CAF LITE-FDD 65.76 # 9.6 % 10146 CAF LITE-FDD 65.77 # 9.6 % 10147 CAF LITE-FDD 65.72 # 9.6 % 10149 CAE LITE-FDD 65.72 # 9.6 % 10149 CAE LITE-FDD (65.70 M, 50% RB, 20 MHz, 04-CAM) LITE-FDD 6.62 # 9.6 % 10151 CAG LITE-FDD (65.70 M, 50% RB, 20 MHz, 16-CAM) LITE-FDD 9.02 # 9.6 % 10152 CAG LITE-FDD (65.70 M, 50% RB, 20 MHz, 16-CAM) LITE-FDD 10.05 & 9.6 % 10153 CAG LITE-FDD (65.70 M, 50% RB, 10 MHz, 20 FSK) LITE-FDD 5.79 & # 9.6 % 10155 CAG LITE-FDD (65.70 M, 50% RB, 5 MHz, 20 FSK)	10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)		· · · · · · · · · · · · · · · · · · ·	
10143 CAE LTE-FDD (56, 27) 10144 CAE LTE-FDD (56, 27) (57)	10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)			
10144 CAE LTE-FDD 6.65 9.9 % 10145 CAF LTE-FDD 65.76 ± 9.6 % 10146 CAF LTE-FDD 65.77 ± 9.6 % 10146 CAF LTE-FDD 65.77 ± 9.6 % 10147 CAF LTE-FDD 65.72 ± 9.6 % 10149 CAE LTE-FDD 65.72 ± 9.6 % 10160 CAE LTE-FDD (65.70 MA, 50% RB, 20 MHz, 16-QAM) LTE-FDD 6.60 ± 9.6 % 10151 CAG LTE-TDD (9.27 FDMA, 50% RB, 20 MHz, 40-QAM) LTE-TDD 9.92 ± 9.6 % 10152 CAG LTE-TDD (9.5C-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-FDD 6.75 ± 9.6 % 10153 CAG LTE-FDD (5C-FDMA, 50% RB, 50 MHz, QPSK) LTE-FDD 6.76 ± 9.6 % 10155 CAG LTE-FDD (5C-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.76 ± 9.6 % 10157 CAG LTE-FDD (5C-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.49 ± 9.6 %<	10143					
10146 CAF LTE-FDD (5.76 ±9.6 % 10146 CAF LTE-FDD (5.77 ±9.6 % 10147 CAF LTE-FDD (5.77 ±9.6 % 10149 CAF LTE-FDD (5.77 ±9.6 % 10149 CAF LTE-FDD (5.77 ±9.6 % 10151 CAG LTE-TDD (5.77 ±9.6 % 10152 CAG LTE-TDD (5.77 ±9.6 % 10153 CAG LTE-TDD (5.77 ±9.6 % 10154 CAG LTE-TDD (5.77 ±9.6 % 10155 CAG LTE-TDD (5.77 ±9.6 % 10156 CAG LTE-FDD (5.77 ±9.6 % 10156 CAG LTE-FDD (5.77 ±9.6 % 10157 CAG LTE-FDD (5.77 ±9.6 % 10157 CAG LTE-FDD (5.78 ±9.6 % 10156 CAG LTE-FDD (5.78 ±9.6 % <t< td=""><td>10144</td><td></td><td>LTE-FDD (SC-FDMA, 100% BB, 3 MHz, 64-OAM)</td><td></td><td></td><td></td></t<>	10144		LTE-FDD (SC-FDMA, 100% BB, 3 MHz, 64-OAM)			
10146 CAF LTE-FDD 65.7 12.8 7 10147 CAF LTE-FDD 65.7 12.8 6% 10149 CAE LTE-FDD 65.7 19.6 6% 11.6 6% 19.6 6% 10.6 19.6 6% 11.6 6% 19.6 6% 11.6 6% 19.6 6% 11.6 6% 19.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6 6% 11.6	10145		LTE-EDD (SC-EDMA 100% BB 14 MHz OPSK)			
10147 CAF LTE-FDD SC-FDMA, 100% RB, 14 MHz, 16-GAM) LTE-FDD 6.72 ±9.6 % 10149 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-GAM) LTE-FDD 6.42 ±9.6 % 10150 CAE LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-GAM) LTE-FDD 6.60 ±9.6 % 10151 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-GAM) LTE-FDD 9.28 ±9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-GAM) LTE-FDD 10.05 ±9.6 % 10154 CAG LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-GAM) LTE-FDD 5.76 ±9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0PSK) LTE-FDD 5.79 ±9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0PSK) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 0-GAM) LTE-FDD 6.42 ±9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 0-GAM) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% R						
10149 CAE LTE-FDD (SC-FDMA, 50%, RB, 20 MHz, 16-QAM) LTE-FDD 6.42 19.6 % 10150 CAE LTE-FDD (SC-FDMA, 50%, RB, 20 MHz, 04-QAM) LTE-FDD 6.60 ±9.6 % 10151 CAG LTE-TDD (SC-FDMA, 50%, RB, 20 MHz, 16-QAM) LTE-TDD 9.22 ±9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50%, RB, 20 MHz, 16-QAM) LTE-TDD 9.92 ±9.6 % 10154 CAG LTE-TDD (SC-FDMA, 50%, RB, 10 MHz, 04-QN) LTE-FDD 6.75 ±9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 04-QAM) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 04-QAM) LTE-FDD 6.62 ±9.6 % 10159 CAG LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 04-QAM) LTE-FDD 6.56 ±9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 04-QAM) LTE-FDD 6.56 ±9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50%, RB, 16 MHz, 04-QAM) LTE-FD						
10150 CAE LTE-FDD SC-FDMA, 50% RB, 20 MHz, GPSK) LTE-FDD 6.66 ± 9.6 % 10151 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, GCAM) LTE-TDD 9.28 ± 9.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, GCAM) LTE-TDD 10.05 ± 9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, G-GAM) LTE-TDD 10.05 ± 9.6 % 10154 CAG LTE-TDD (SC-FDMA, 50% RB, 50 MHz, G+GAM) LTE-FDD 5.75 ± 9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, G+GAM) LTE-FDD 6.43 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, G+GAM) LTE-FDD 6.42 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 50 MHz, G+GAM) LTE-FDD 6.62 ± 9.6 % 10169 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, G+GAM) LTE-FDD 6.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 10 MHz, G+GAM) LTE-FDD 6.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz,			TE-EDD (SC-EDMA, 100% RB, 20 MHz, 16 OAM)			
10151 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 60-AM) LTE-TDD 9.28 ±0.6 % 10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM) LTE-TDD 10.06 ±9.6 % 10154 CAG LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK) LTE-FDD 5.75 ±9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK) LTE-FDD 6.49 ±9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM) LTE-FDD 6.62 ±9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.62 ±9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 5.82 ±9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ±9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0PSK) LTE-FDD 6.48 ±9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0PSK) LTE-FDD 6.48 ±9.6 % 10162 CAE			TE-EDD (SC-EDMA 50% PP 20 MUL- CA CAMA	1 ·····		
10152 CAG LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM) LTE-TDD 9.92 ± 9.6 % 10153 CAG LTE-TDD (SC-FDMA, 50% RB, 10 MHz, Q-PSK) LTE-FDD 5.7 ± 9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, Q-PSK) LTE-FDD 5.7 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, Q-PSK) LTE-FDD 5.7 ± 9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, Q-PSK) LTE-FDD 5.6 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, Q-PSK) LTE-FDD 6.62 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, Q-GAM) LTE-FDD 6.62 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.48 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.48 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.73 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 17 KB, 20 MHz,			TE-TOD (00-10WA, 00% RD, 20 WH- 0000)			
10153 CAG LTE-TDD (SC-FDMA, 50%, RB, 20 MHz, 64-0AM) LTE-TDD 10.06 ±9.6 % 10154 CAG LTE-FDD (SC-FDMA, 50%, RB, 10 MHz, QPSK) LTE-FDD 6.75 ±9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50%, RB, 10 MHz, QPSK) LTE-FDD 6.43 ±9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50%, RB, 10 MHz, 16-QAM) LTE-FDD 6.43 ±9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50%, RB, 10 MHz, 64-QAM) LTE-FDD 6.62 ±9.6 % 10160 CAG LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 5.82 ±9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 6.63 ±9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 6.43 ±9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 6.43 ±9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, 0FSK) LTE-FDD 6.48 ±9.6 % 10162 CAF LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, 0FSK) <td></td> <td></td> <td>TETETED (SC EDMA 50% BB 20 MUL 40 CAME</td> <td></td> <td></td> <td></td>			TETETED (SC EDMA 50% BB 20 MUL 40 CAME			
10154 CAG LTE-FDD SC:FDMA, 50%, RB, 10 MHz, GPSK) LTE-FDD 5.75 ± 9.6 % 10155 CAG LTE-FDD (SC-FDMA, 50%, RB, 10 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10156 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 16-QAM) LTE-FDD 6.49 ± 9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 16-QAM) LTE-FDD 6.49 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 6.62 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 6.64 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 64-QAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, QPSK) LTE-FDD 6.44 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, GP-QAM) LTE-FDD 6.21 ± 9.6 % 10167 CAF LTE-FDD (SC-FDMA, 178, 20 MHz, 64-QAM) LTE-FDD 6.73 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50%,			LTE TOD (SO FDMA 50% RB, 20 MHZ, 16-QAM)			
10155 CAG LTE-FDD Sci 200, NHz, 16-QAM) LTE-FDD 6.43 ± 8.6 % 10156 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, QPSK) LTE-FDD 5.79 ± 9.6 % 10157 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 % 10159 CAG LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 16-QAM) LTE-FDD 6.62 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, 16-QAM) LTE-FDD 6.44 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, 16-QAM) LTE-FDD 6.74 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, 16-QAM) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 17 MB, 20 MHz, 16-QAM) LTE-FDD 6.73 ± 9.6 % 10171 CAG LTE-FDD (SC-FDMA, 17 RB, 20 MHz,						
10156 CAG LTE-FDD SC.FDMA, 50%, RB, 5 MHz, QPSK) LTE-FDD 5.79 ± 0.6 % 10157 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 16-QAM) LTE-FDD 6.49 ± 9.6 % 10158 CAG LTE-FDD (SC-FDMA, 50%, RB, 5 MHz, 64-QAM) LTE-FDD 6.62 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, QCAM) LTE-FDD 5.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50%, RB, 15 MHz, QCAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, QCSK) LTE-FDD 6.43 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, QCSK) LTE-FDD 6.42 ± 9.6 % 10167 CAE LTE-FDD (SC-FDMA, 50%, RB, 14 MHz, QCSK) LTE-FDD 6.79 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 10%, 20% RB, 14 MHz, QCSK) LTE-FDD 6.79 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 10%, 20 MHz, QCSK) LTE-FDD 6.73 ± 9.6 % 10171 CAE LTE-FDD (SC-FDMA, 17 B, 20 MHz,			LIE-FUD (SU-FUMA, SU% KB, 10 MHZ, QPSK)		and the second se	
10157 CAG LTE-FDD (SC-FDMA, 50% RB, 6 MHz, 16-QAM) LTE-FDD 6.49 13.06 % 10158 CAG LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM) LTE-FDD 6.62 19.6 % 10169 CAC LTE-FDD (SC-FDMA, 50% RB, 55 MHz, 26-QAM) LTE-FDD 6.56 19.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 26-QAM) LTE-FDD 6.58 19.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.58 19.6 % 10163 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 46-QAM) LTE-FDD 6.46 19.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 64-QAM) LTE-FDD 6.41 19.6 % 10169 CAE LTE-FDD (SC-FDMA, 10%, 20 MHz, 16-QAM) LTE-FDD 5.73 19.6 % 10170 CAE LTE-FDD (SC-FDMA, 178, 20 MHz, 64-QAM) LTE-FDD 6.52 19.6 % 10171 AAE LTE-FDD (SC-FDMA, 178, 20 MHz, 64-QAM) LTE-FDD 6.52 19.6 % 10172 CAG LTE-FDD (SC-FDMA, 178, 20 MHz, 64-QAM) LT			LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)			
10158 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM) LTE-FDD 6.62 ± 9.6 % 10159 CAG LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM) LTE-FDD 6.56 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0FSK) LTE-FDD 6.43 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 0FSK) LTE-FDD 6.79 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 18, 20 MHz, 16-QAM) LTE-FDD 6.79 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.52 ± 9.6 % 10171 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.21 ± 9.6 % 10176 CAG			LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)		5.79	
10159 CAG LTE-FDD 6.56 ± 9.6 % 10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK) LTE-FDD 5.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.21 ± 9.6 % 10169 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, QPSK) LTE-FDD 6.79 ± 9.6 % 10169 CAE LTE-FDD (SC-FDMA, 182, 20 MHz, 16-QAM) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10171 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.48 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.48 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 10 M			LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)		6.49	
10160 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK) LTE-FDD 5.82 ± 9.6 % 10161 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM) LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 04-QAM) LTE-FDD 6.54 ± 9.6 % 10166 CAF LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM) LTE-FDD 6.74 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 18B, 20 MHz, 04-QAM) LTE-FDD 6.71 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD 6.52 ± 9.6 % 10171 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD 9.21 ± 9.6 % 10173 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 9.21 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD			LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)		6.62	± 9.6 %
10161 CAE LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD 6.43 ± 9.6 % 10162 CAE LTE-FDD 6.58 ± 9.6 % 10166 CAF LTE-FDD (5.67) ± 9.6 % 10167 CAF LTE-FDD (5.67) ± 9.6 % 10168 CAF LTE-FDD (5.71) ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 178, 20 MHz, 0PSK) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 178, 20 MHz, 04-QAM) LTE-FDD 6.49 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 178, 20 MHz, 16-QAM) LTE-FDD 9.44 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 178, 20 MHz, 16-QAM) LTE-FDD 9.44 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 178, 20 MHz, 16-QAM) LTE-FDD 5.72 ± 9.6 % 10175 CAG LTE-FDD (SC-FDM			LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)		6.56	±9.6 %
10162 CAE LTE-FDD 6.53 ± 9.6 % 10166 CAF LTE-FDD 6.54 ± 9.6 % 10166 CAF LTE-FDD (5.46 ± 9.6 % 10167 CAF LTE-FDD (5.21 ± 9.6 % 10168 CAF LTE-FDD (5.21 ± 9.6 % 10168 CAF LTE-FDD (5.73 ± 9.6 % 10169 CAE LTE-FDD (5.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 9.48 ± 9.6 % 10173 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 9.48 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 5.72 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, G4-QAM) LTE-FDD				LTE-FDD	5.82	
10162 CAE LTE-FDD 6.58 ± 9.6 % 10166 CAF LTE-FDD 6.46 ± 9.6 % 10167 CAF LTE-FDD 6.46 ± 9.6 % 10168 CAF LTE-FDD 6.21 ± 9.6 % 10169 CAF LTE-FDD 6.79 ± 9.6 % 10169 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 6.44 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-TDD 10.25 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-FDD 5.72 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, GPSK) LTE-FDD 5.72 ± 9.6 % 10176				LTE-FDD	6.43	± 9.6 %
10166 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 0PSK) LTE-FDD 6.46 ± 9.6 % 10167 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) LTE-FDD 6.79 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) LTE-FDD 6.79 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.48 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.21 ± 9.6 % 10173 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.48 ± 9.6 % 10173 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD 9.48 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 04-QAM) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 5.72 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 5.73 ± 9.6 % 10178 CAG			LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	
10167 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) LTE-FDD 6.21 ± 9.6 % 10168 CAF LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) LTE-FDD 6.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 0PSK) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 9.21 ± 9.6 % 10174 CAG LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 04-QAM) LTE-FDD 9.22 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 6.52 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) LTE			LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD		
10168 CAF LTE-FDD (SC-FDMA, 10% RB, 1.4 MHz, 64-QAM) LTE-FDD 6.79 ± 9.6 % 10169 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10171 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-TDD 9.48 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10179 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10180 CAE LT		CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD		
10169 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, G4-QAM) LTE-TDD 9.48 ± 9.6 % 10174 CAG LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10177 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QAM) LTE-FDD 5.72 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QAM) LTE-FDD 6.52 ± 9.6 % 10179 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QAM) LTE-FDD 5.	10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD		
10170 CAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-TDD 9.48 ± 9.6 % 10174 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-TDD 9.48 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) LTE-FDD 6.52 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD 6.50 ± 9.6 % 10180 CAG LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10182 CAE LTE-FDD (S	10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	and the second se		
10171 AAE LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-FDD 6.49 ± 9.6 % 10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.48 ± 9.6 % 10174 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-TDD 10.25 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 6.52 ± 9.6 % 10179 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 6.50 ± 9.6 % 10180 CAE LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 6.52 ± 9.6 % 10181 CAE LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 04-QAM) LTE-FDD 6.52 ± 9.6 % 10183 AAD LTE	10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)			
10172 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) LTE-TDD 9.21 ± 9.6 % 10173 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-TDD 9.48 ± 9.6 % 10174 CAG LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM) LTE-TDD 10.25 ± 9.6 % 10175 CAG LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) LTE-FDD 5.72 ± 9.6 % 10176 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10177 CAI LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD 5.73 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) LTE-FDD 6.52 ± 9.6 % 10178 CAG LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 04-QAM) LTE-FDD 6.50 ± 9.6 % 10180 CAG LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 0PSK) LTE-FDD 6.50 ± 9.6 % 10181 CAE LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 0PSK) LTE-FDD 6.52 ± 9.6 % 10182 CAE LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 0PSK) LTE-FDD 6.52 ± 9.6 % 10182 CAE LTE-FDD	10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)			
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10184 CAE LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10185 CAE LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD 6.51 ± 9.6 % 10186 AAE LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM) LTE-FDD 6.51 ± 9.6 % 10187 CAF LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10188 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 5.73 ± 9.6 % 10188 CAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK) LTE-FDD 6.52 ± 9.6 % 10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLA						
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10189 AAF LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM) LTE-FDD 6.50 ± 9.6 % 10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.12 ± 9.6 % 10196 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.11 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, 64-QAM) WLAN 8.13 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 %			LTE-FUD (SU-FUMA, 1 KB, 1.4 MHz, QPSK)			the second se
10193 CAC IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK) WLAN 8.09 ± 9.6 % 10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.12 ± 9.6 % 10196 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			LTE-FDD (SC-FDMA, 1 KB, 1.4 MHz, 16-QAM)		******	
10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)			± 9.6 %
10194 CAC IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) WLAN 8.12 ± 9.6 % 10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)		8.09	±9.6 %
10195 CAC IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) WLAN 8.21 ± 9.6 % 10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN		
10196 CAC IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK) WLAN 8.10 ± 9.6 % 10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN		
10197 CAC IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM) WLAN 8.13 ± 9.6 % 10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)			
10198 CAC IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM) WLAN 8.27 ± 9.6 %			IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)			
			IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)			
	10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %

					
10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	$\pm 9.6\%$
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 % ± 9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	*****	8.08	
10225	CAB	UMTS-FDD (HSPA+)		5.97	± 9.6 %
10226	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6%
10227	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	<u>±9.6 %</u> ±9.6 %
10232	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48 10.25	
10233	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD		± 9.6 %
10234	CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6%
10235	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	$\pm 9.6\%$
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	$\pm 9.6\%$
10241	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	$\pm 9.6\%$
10245	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6%
10247	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6 %
10248	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10249	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10250	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10251	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	± 9.6 %
10257	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	± 9.6 %
10259	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	± 9.6 %
10260	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10262	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	$\pm 9.6\%$
10263	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	± 9.6 %
10264	CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9,23	± 9.6 %
10265	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	± 9.6 %
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	±9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	± 9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	±9.6%
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10000	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10295		LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10295	AAD				
	AAD AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK) LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD LTE-FDD	5.72 6.39	± 9.6 %

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10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WIMAX	12.57	± 9.6 %
10303	AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15	WIMAX	15.24	± 9.6 %
10306	AAA	symbols) IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18	WiMAX	14.67	± 9.6 %
10307	AAA	symbols) IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18	WIMAX	14.49	± 9.6 %
10308	AAA	symbols) IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	10/:00/	44.40	
10309	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, POSC)	WIMAX WIMAX	14.46 14.58	$\pm 9.6\%$
		symbols)	VVIIV/32	14.00	± 9.6 %
10310	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	WiMAX	14.57	± 9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAA	IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAA	IDEN 1:6	IDEN	13.48	± 9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	± 9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10317	AAC	IEEE 802.11a WIFI 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 9
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 9
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	±9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	±9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10401	AAD	IEEE 802.11ac WiFI (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %
10410	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
		Subframe=2,3,4,7,8,9, Subframe Conf=4)			
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	WLAN	8.19	± 9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±9.6%
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)			- 0.0 /

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	± 9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	±9.6%
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000 WCDMA	8.25 2.39	±9.6 % ±9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR) LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL		7.82	$\pm 9.6\%$ $\pm 9.6\%$
10461	AAA	Subframe=2,3,4,7,8,9)		1.02	1 3.0 %
10462	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	±9.6 %
10463	AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	± 9.6 %
10464	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7,82	±9.6 %
10465	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10466	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10467	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10468	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10469	AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	± 9.6 %
10470	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10471	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10472	AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2.3.4.7.8.9)	LTE-TDD	8.57	± 9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2.3.4.7.8.9)	LTE-TDD	7.82	± 9.6 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	± 9.6 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	± 9.6 %
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10479	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.6 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	± 9.6 %
10482	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	± 9.6 %
10483	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	± 9.6 %
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	± 9.6 %
10485	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	± 9.6 %
10486	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	± 9.6 %
10487	AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	± 9.6 %
10488	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2.3.4.7.8.9)	LTE-TDD	7.70	± 9.6 %
10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10490	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %

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10535 10536 10537 10538 10540 10541	AAB AAB AAB AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle) IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle) IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN WLAN WLAN	8.45 8.32	<u>±9.6 %</u> ±9.6 %
10537 10538 10540	AAB				
10538 10540				8.44	± 9.6 %
10540		IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.54	± 9.6 %
	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 95pc duty cycle)	WLAN	8.39	± 9.6 %
10041	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	± 9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8,35	± 9.6 %
10540	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8,49	± 9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac Will (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty	WLAN	8.25	± 9.6 %
10304	~~~	cvcle)	VVL/IN	0.20	1 2 3.0 /0
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	± 9.6 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	± 9.6 %
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cvcle)	WLAN	8.37	± 9.6 %
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	± 9.6 %
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	± 9.6 %
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	± 9.6 %
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN WLAN	8.70	<u>± 9.6 %</u> ± 9.6 %
10585 10586	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)			

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40500	1				
10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	$\pm 9.6\%$ $\pm 9.6\%$
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	$\pm 9.6\%$ $\pm 9.6\%$
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN		± 9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)		8.59	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10617	AAB		WLAN	8.82	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10619	AAB		WLAN	8.58	± 9.6 %
10620		IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9,6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±9.6 %
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	9.05	± 9.6 %
10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD		± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)		11.96	± 9.6 %
10648	AAA	CDMA2000 (1x Advanced)	LTE-TDD	11.96	± 9.6 %
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	CDMA2000	3.45	± 9.6 %
			LTE-TDD	6.91	± 9.6 %
	ΔΔΠ				
10653 10654	AAD AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%) LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD LTE-TDD	7.42 6.96	±9.6 % ±9.6 %

40055		LTE TOD (OEDMA, OO MILE E TMO 4 Offening 449()		7.04	
10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD Test	7.21	±9.6 % ±9.6 %
10658 10659	AAA	Pulse Waveform (200Hz, 10%) Pulse Waveform (200Hz, 20%)	Test	6.99	$\pm 9.6\%$
10659	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 40%)	Test	2.22	±9.6%
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	± 9.6 %
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6%
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6%
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	± 9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10684		IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	±9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	$\pm 9.6\%$
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	± 9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	± 9.6 % ± 9.6 %
10688		IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN WLAN	8.29	$\pm 9.6\%$ $\pm 9.6\%$
10689	AAA AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle) IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.55	$\pm 9.6\%$ $\pm 9.6\%$
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS3, 39pc duty cycle)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6 %
10695	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6%
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	± 9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10710		IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6%
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle) IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN WLAN	8.67	<u>± 9.6 %</u> ± 9.6 %
10713		IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.26	$\pm 9.6\%$
10714	AAA AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.30	± 9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.24	± 9.6 %
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10713	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN	8.87	± 9.6 %
1	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10721				8.55	± 9.6 %
10721		I LEEE 802.11ax (80MHZ, MCS3, 90DC QUIV CVCIE)	WLAN	1 0.00	
10722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle) IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10722 10723		IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle) IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle) IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN WLAN		
10722	AAA AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10722 10723 10724	AAA AAA AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle) IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN WLAN	8.70 8.90	± 9.6 % ± 9.6 %

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10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	± 9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	± 9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6 %
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	± 9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	±9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	±9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	±9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	± 9.6 %

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland Hac MRA



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Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

PC Test Client

Certificate No: EX3-7547_Jul19

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7547
Calibration procedure(s)	QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v7 Calibration procedure for dosimetric E-field probes
Calibration date:	July 15, 2019
	nts the traceability to national standards, which realize the physical units of measurements (SI). ainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted	ed in the closed laboratory facility: environment temperature (22 \pm 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Арг-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
			<u> </u>
Approved by:	Katja Pokovic	Technical Manager	Still
			Issued: July 16, 2019
This calibration certificate	e shall not be reproduced except in full	without written approval of the lab	oratory.

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Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 8	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
	i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization θ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below *ConvF*).
- NORM(f)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, y, z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Accreditation No.: SCS 0108

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.59	0.63	0.61	± 10.1 %
DCP (mV) ^B	98.4	100.8	101.2	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	157.4	± 3.0 %	± 4.7 %
		Y	0.00	0.00	1.00		159.4	1	
		Z	0.00	0.00	1.00		160.6	1	
10352-	Pulse Waveform (200Hz, 10%)	X	15.00	88.58	20.42	10.00	60.0	± 3.5 %	± 9.6 %
AAA		Y	15.00	89.45	20.46		60.0		
		Z	15.00	88.70	20.44		60.0		
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	89.81	19.82	6.99	80.0	±2.1 %	± 9.6 %
AAA		Y	15.00	91.92	20.74		80.0		
		Z	15.00	90.32	20.04		80.0		
10354-	Pulse Waveform (200Hz, 40%)	X	15.00	91.03	18.86	3.98	95.0	± 0.9 %	± 9.6 %
AAA		Y	15.00	96.09	21.49		95.0	1	
		Z	15.00	91.99	19.30]	95.0	1	
10355-	Pulse Waveform (200Hz, 60%)	X	15.00	90.53	17.16	2.22	120.0	± 1.0 %	± 9.6 %
AAA		Y	15.00	100.76	22.40		120.0		
		Z	15.00	92.09	17.89		120.0	1	
10387-	QPSK Waveform, 1 MHz	X	0.62	60.63	7.84	0.00	150.0	± 2.7 %	± 9.6 %
AAA		Y	0.55	60.00	7.54		150.0]	
		Z	0.56	60.00	7.41		150.0		
10388-	QPSK Waveform, 10 MHz	X	2.12	67.29	15.12	0.00	150.0	± 1.3 %	± 9.6 %
AAA		Y	2.04	66.92	15.14		150.0	1	
		Z	1.95	66.11	14.57		150.0]	
10396-	64-QAM Waveform, 100 kHz	X	2.72	68,69	17.94	3.01	150.0	± 1.0 %	± 9.6 %
AAA		Y	2.50	67.90	17.50		150.0		
		Z	2.48	67.31	17.30		150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.48	66.97	15.58	0.00	150.0	± 2.1 %	± 9.6 %
AAA		Y	3.38	66.64	15.46		150.0		
		Z	3.31	66.20	15.19		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.69	65.04	15.19	0.00	150.0	± 4.2 %	± 9.6 %
AAA		Y	4.71	65.39	15.34		150.0		
		Z	4.69	65.12	15.20		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6). ^B Numerical linearization parameter: uncertainty not required.

E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Sensor Model Parameters

	C1	C2	α	T1	T2	Т3	T4	T5	T6
	fF	fF	V ⁻¹	ms.V ⁻²	ms.V⁻¹	ms	V-2	V ⁻¹	
X	44.2	336.23	36.63	14.57	0.38	5.10	0.00	0.49	1.01
Y	39.2	289.50	34.84	14.48	0.00	5.10	0.68	0.28	1.01
Z	42.3	319.56	36.16	13.50	0.33	5.10	0.00	0.44	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-29.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	. 337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41. 9	0.89	10.00	10.00	10.00	0.60	0.80	± 12.0 %
835	41.5	0.90	9.59	9.59	9.5 9	0.60	0.81	± 12.0 %
1750	40.1	1.37	8.25	8.25	8.25	0.31	0.86	± 12.0 %
1900	40.0	1.40	7.85	7.85	7.85	0.37	0.86	± 12.0 %
2300	39.5	1.67	7.57	7.57	7.57	0.31	0.93	± 12.0 %
2450	39.2	1.80	7.17	7.17	7.17	0.36	0.93	± 12.0 %
2600	39.0	1.96	6.99	6.99	6.99	0.39	0.93	± 12.0 %

Calibration Parameter Determined in Head Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

⁶ At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. ^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

			-		-			
f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.81	9.81	9.81	0.49	0.80	± 12.0 %
835	55.2	0.97	9.57	9.57	9.57	0.47	0.80	± 12.0 %
1750	53.4	1.49	7.81	7.81	7.81	0.46	0.86	± 12.0 %
1900	53.3	1.52	7.53	7.53	7.53	0.34	0.86	± 12.0 %
2300	52.9	1.81	7.47	7.47	7.47	0.36	0.93	± 12.0 %
2450	52.7	1.95	7.30	7.30	7.30	0.34	0.93	± 12.0 %
2600	52.5	2.16	7.18	7.18	7.18	0.30	0.93	± 12.0 %

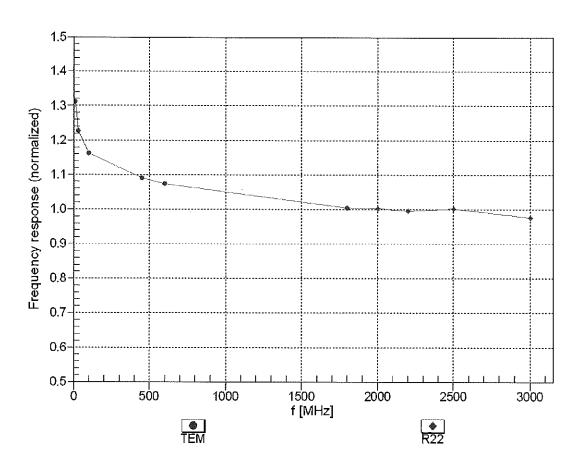
Calibration Parameter Determined in Body Tissue Simulating Media

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of

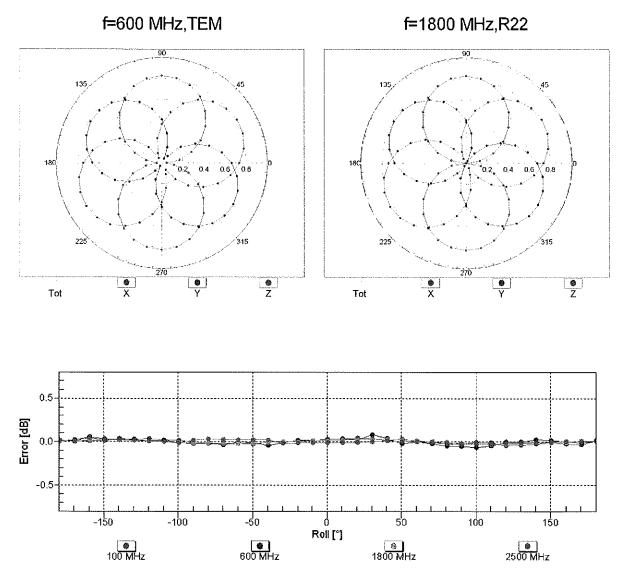
the ConvF uncertainty for indicated target tissue parameters. ⁹ Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

July 15, 2019



Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)



Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)