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





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Accreditation No.: SCS 0108

Client

**PC Test** 

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

BNV 19

Calibration date:

June 19, 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

Calibrated by:

Lelf Klysner

Laboratory Technician

Approved by:

Katja Pokovic

Technical Manager

Issued: June 20, 2019

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

#### **Calibration Laboratory of**

Schmid & Partner
Engineering AG
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Glossary:

TSL NORMx,y,z tissue simulating liquid sensitivity in free space

ConvF DCP sensitivity in TSL / NORMx,y,z diode compression point

CF

crest factor (1/duty\_cycle) of the RF signal modulation dependent linearization parameters

A, B, C, D Polarization φ

φ rotation around probe axis

Polarization 9

If the state of th

i.e.,  $\vartheta = 0$  is normal to probe axis

Connector Angle

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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).

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7409

**Basic Calibration Parameters** 

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (µV/(V/m) <sup>2</sup> ) <sup>A</sup>	0.38	0.33	0.38	± 10.1 %
DCP (mV) <sup>B</sup>	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 <sup>E</sup> (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		
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		
	1	Z	0.26	60.00	3.66		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		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		Υ	2.15	69.30	16.63		150.0		
		Z	1.92	66.86	15.11		150.0	l	
10396-	64-QAM Waveform, 100 kHz	X	1.88	65.71	16.62	3.01	150.0	± 3.3 %	± 9.6 %
AAA		Υ	2.51	70.30	18.83		150.0		
		Z	1.94	66.57	18.18		150.0		
10399-	64-QAM Waveform, 40 MHz	Х	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	1	
		Z	4.60	65.42	15.52		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%.

<sup>&</sup>lt;sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-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.

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# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7409

**Sensor Model Parameters** 

	C1 fF	C2 fF	α V⁻¹	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	Т6
X	15.1	114.89	36.52	2.59	0.12	4.98	0.18	0.16	1.00
Y	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

#### **Other Probe Parameters**

Triangular
40.5
enabled
disabled
337 mm
10 mm
9 mm
2.5 mm
1 mm
1 mm
1 mm
1.4 mm

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7409

#### Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (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 %

<sup>&</sup>lt;sup>c</sup> 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

F At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) 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 ( $\epsilon$  and  $\sigma$ ) is restricted to  $\pm$  5%. The uncertainty is the RSS of the ConyF uncertainty for indicated target tissue parameters.

the ConvF uncertainty for indicated target tissue parameters.

Galpha/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.

### DASY/EASY - Parameters of Probe: EX3DV4 - SN:7409

#### Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (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 %

<sup>&</sup>lt;sup>C</sup> 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.

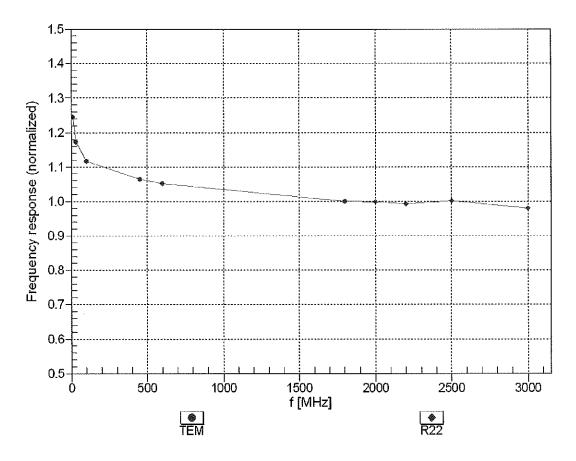
F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to

<sup>&</sup>lt;sup>b</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) 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 ( $\epsilon$  and  $\sigma$ ) 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.

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)



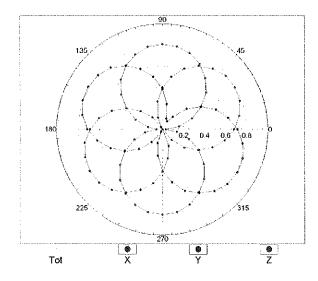
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

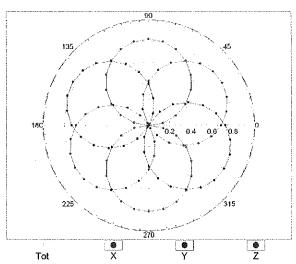
EX3DV4-SN:7409

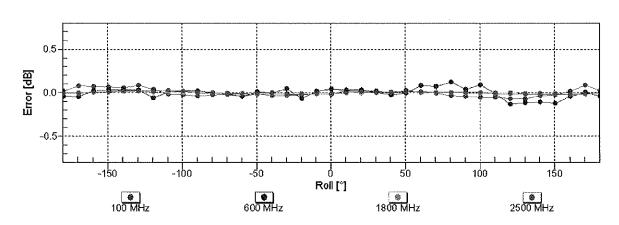
# Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

f=600 MHz,TEM

f=1800 MHz,R22



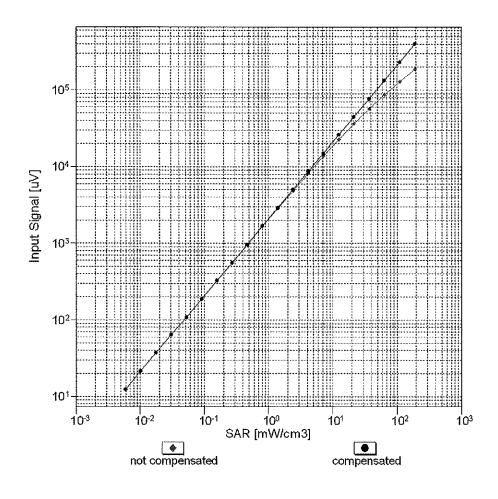


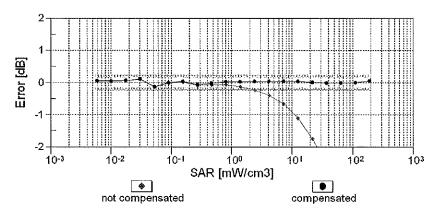


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

# Dynamic Range f(SAR<sub>head</sub>)

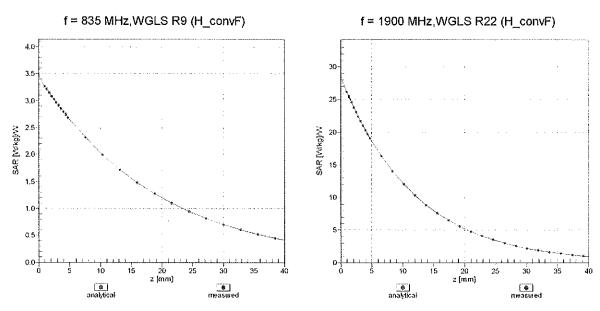
(TEM cell , f<sub>eval</sub>= 1900 MHz)



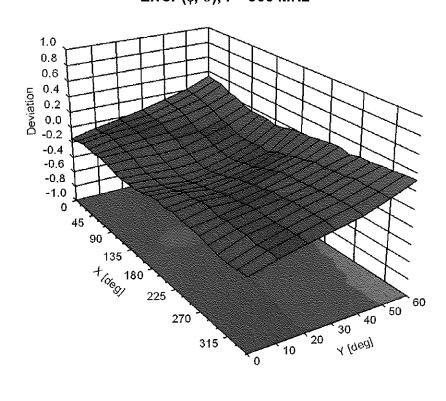


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

## **Conversion Factor Assessment**



# Deviation from Isotropy in Liquid Error ( $\phi$ , $\vartheta$ ), f = 900 MHz



## **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	±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	± 9.6 %
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 %
10002	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% NB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% NB, 20 MHz, 10-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% NB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% NB, 20 MHz, 10-QAM)	LTE-TDD	10.01	± 9.6 %
10103	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %
10100	LONG	LILIDO (OCTOMIN, 10070 ND, 10 MIRE, QLON)	1 -1-100	0.00	1 2 3.0 /0

10110   CAG	40400	1010	LITE EDD (OG EDAM JOSA) ED JOSA (OG EDAM)	1	T	
10111	10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
10119	1	<del></del>				
10113   CAG   LTE-FDD (SC-PDMA, 100% RB, 5 MHz, 64-CAM)   LTE-FDD   6.622   ±9.6 %   10115   CAC   LEEE 802.11 n (HT Greenfield, 13.5 Mbps, 16-CAM)   WLAN   8.10   ±9.6 %   10115   CAC   LEEE 802.11 n (HT Greenfield, 13.5 Mbps, 16-CAM)   WLAN   8.10   ±9.6 %   10117   CAC   LEEE 802.11 n (HT Greenfield, 13.5 Mbps, 64-CAM)   WLAN   8.10   ±9.6 %   10117   CAC   LEEE 802.11 n (HT Mixed, 13.5 Mbps, 16-CAM)   WLAN   8.07   ±9.6 %   10118   CAC   LEEE 802.11 n (HT Mixed, 13.5 Mbps, 16-CAM)   WLAN   8.07   ±9.6 %   10119   CAC   LEEE 802.11 n (HT Mixed, 13.5 Mbps, 64-CAM)   WLAN   8.10   ±9.6 %   10119   CAC   LEEE 802.11 n (HT Mixed, 13.5 Mbps, 64-CAM)   WLAN   8.13   ±9.6 %   101140   CAE   LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 20-SK)   LTE-FDD (SC-FDMA, 100% RB, 14 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-CAM)   LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 10 CAM)   LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 10 CAM)   LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 10 CAM)   LTE-FDD						
10114   CAC   IEEE 802.11n (HT Greenfield, 13 Mbps, BPSK)						
10116   CAC   IEEE 802.11n (HT Greenfield, 135 Mbps, 64-CAM)					6.62	
10116   CAC   IEEE 802.11n (HT Greenfield, 135 Mipps, 84-CAM)	···			WLAN		
10117   CAC   IEEE 802.1 In (HT Mixed, 318 Mbps, 8FSK)	10115	CAC		WLAN	8.46	± 9.6 %
10118   CAC   IEEE 802.11n (HT Mixed, 81 Mbps, 16-CAM)	10116			WLAN	8.15	
10119	10117	CAC		WLAN	8.07	± 9.6 %
10119	10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10140   CAE   LTE-FDD (SC-FDMA, 100%; RB, 15 MHz, 16-CAMM)	10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	
10141   CAE   LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-CAM)	10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	
10142   CAE   LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-DAM)	10141	CAE				
10144	10142					
10144   CAE   LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-OAM)		CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)			
10146   CAF   ITE-FDD (SC-FDMA, 100% RB, 14 MHz, QFSK)					<del> </del>	
10146		·				******************************
10147   CAF   LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)					<del></del>	
10149   CAE   LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)				*	<del></del>	
10150   CAE   LTE-FDD (SC-FDMA, 50% RB, 20 MHz, GPSK)   LTE-FDD   9.28 ± 9.6 %   10151   CAG   LTE-TDD (SC-FDMA, 50% RB, 20 MHz, GPSK)   LTE-TDD   9.28 ± 9.6 %   10153   CAG   LTE-TDD (SC-FDMA, 50% RB, 20 MHz, GPSK)   LTE-TDD   9.28 ± 9.6 %   10153   CAG   LTE-TDD (SC-FDMA, 50% RB, 20 MHz, GPSK)   LTE-FDD   9.92 ± 9.6 %   10154   CAG   LTE-FDD (SC-FDMA, 50% RB, 20 MHz, GPSK)   LTE-FDD   5.76 ± 9.6 %   10155   CAG   LTE-FDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-FDD   5.76 ± 9.6 %   10155   CAG   LTE-FDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-FDD   5.76 ± 9.6 %   10156   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, GPSK)   LTE-FDD   5.79 ± 9.6 %   10157   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, GPSK)   LTE-FDD   6.43 ± 9.6 %   10158   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, GPSK)   LTE-FDD   6.49 ± 9.6 %   10158   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, GPSK)   LTE-FDD   6.49 ± 9.6 %   10158   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, GPSK)   LTE-FDD   6.56 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-FDD   6.56 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-FDD   6.56 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-FDD   6.58 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-FDD   6.43 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-FDD   6.58 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-FDD   6.58 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GPSK)   LTE-FDD   6.58 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GPSK)   LTE-FDD   6.57 ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GPSK)   LTE-FDD   6.51 ± 9.6 %   10170   CAE   LTE-FDD (SC-FDMA, 18 B, 20 MHz, GPSK)   LTE-FDD   6.52 ± 9.6 %   10170   CAE   LTE-FDD (SC-FDMA, 18 B, 20 MHz, GPSK)   LTE-FDD   6.52 ± 9.6 %   10170   CAE   LTE-FDD (SC-FDMA, 18 B, 20 MHz, GPSK)   LTE-FDD   6.52 ± 9.6 %   10170   CAG   LTE-FDD (SC-FDMA, 18 B, 20 MHz, GPSK)   LTE-FDD   6.52 ± 9.6 %   10170   CAG   LTE-FDD (SC-F					<del></del>	
10151   CAG   LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)   LTE-TDD   9.28   ± 9.6 %   10152   CAG   LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)   LTE-TDD   9.92   ± 9.8 %   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, 0PSK)   LTE-FDD   5.75   ± 9.6 %   10155   CAG   LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 0PSK)   LTE-FDD   6.45   ± 9.6 %   10156   CAG   LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 0PSK)   LTE-FDD   6.49   ± 9.6 %   10156   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 0PSK)   LTE-FDD   5.79   ± 9.6 %   10157   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 10-QAM)   LTE-FDD   6.49   ± 9.6 %   10158   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 10-QAM)   LTE-FDD   6.49   ± 9.6 %   10159   CAG   LTE-FDD (SC-FDMA, 50% RB, 50 MHz, 10-QAM)   LTE-FDD   6.60   ± 9.6 %   10159   CAG   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10161   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10162   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 04-QAM)   LTE-FDD   6.43   ± 9.6 %   10166   CAF   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 04-QAM)   LTE-FDD   6.49   ± 9.6 %   10166   CAF   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM)   LTE-FDD   6.40   ± 9.6 %   10167   CAF   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10167   CAF   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM)   LTE-FDD   6.73   ± 9.6 %   10169   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM)   LTE-FDD   6.73   ± 9.6 %   10169   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, 04-QAM)   LTE-FDD   6.21   ± 9.6 %   10172   CAG   LTE-FDD (SC-FDMA, 17 RB, 20 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10174   CAG   LTE-FDD (SC-FDMA, 17 RB, 20 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10174   CAG   LTE-FDD (SC-FDMA, 17 RB, 20 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10176   CAG   LTE-FDD (SC-FDMA, 17 RB, 20 MHz, 04-QAM)   LTE-FDD   6.50   ± 9.6 %   10176   CAG   L		·				
10152						
10153	)					
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   5.79   ± 9.6 %   10157   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, 10 MHz, 46-QAM)   LTE-FDD   6.62   ± 9.6 %   10159   CAG   LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 46-QAM)   LTE-FDD   6.56   ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QS-CM)   LTE-FDD   6.56   ± 9.6 %   10160   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QS-CM)   LTE-FDD   6.56   ± 9.6 %   10162   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GS-CM)   LTE-FDD   6.43   ± 9.6 %   10162   CAE   LTE-FDD (SC-FDMA, 50% RB, 15 MHz, GS-CM)   LTE-FDD   6.58   ± 9.6 %   10162   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GS-CM)   LTE-FDD   6.58   ± 9.6 %   10167   CAF   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GS-CM)   LTE-FDD   6.58   ± 9.6 %   10167   CAF   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GS-CM)   LTE-FDD   6.21   ± 9.6 %   10168   CAF   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GS-CM)   LTE-FDD   6.21   ± 9.6 %   10169   CAE   LTE-FDD (SC-FDMA, 50% RB, 14 MHz, GS-CM)   LTE-FDD   6.21   ± 9.6 %   10170   CAE   LTE-FDD (SC-FDMA, 16R, 20 MHz, QPSK)   LTE-FDD   6.79   ± 9.6 %   10170   CAE   LTE-FDD (SC-FDMA, 18R, 20 MHz, GS-CM)   LTE-FDD   6.52   ± 9.6 %   10170   CAE   LTE-FDD (SC-FDMA, 18R, 20 MHz, QPSK)   LTE-FDD   6.52   ± 9.6 %   10171   CAE   LTE-FDD (SC-FDMA, 18R, 20 MHz, QPSK)   LTE-FDD   9.41   ± 9.6 %   10173   CAG   LTE-FDD (SC-FDMA, 18R, 20 MHz, QPSK)   LTE-FDD   9.42   ± 9.6 %   10173   CAG   LTE-FDD (SC-FDMA, 18R, 20 MHz, QPSK)   LTE-FDD   9.45   ± 9.6 %   10173   CAG   LTE-FDD (SC-FDMA, 18R, 20 MHz, QPSK)   LTE-FDD   9.572   ± 9.6 %   10176   CAG   LTE-FDD (SC-FDMA, 18R, 20 MHz, QPSK)   LTE-FDD   5.72   ± 9.6 %   10178   CAG   LTE-FDD (SC-FDMA, 18R, 30 MHz, QPSK)   LTE-FDD   6.50   ± 9.6 %   10180   CAG   LTE-FDD (SC-FDMA, 18R, 30 MHz, GS-CMM)   LTE-FDD						
10155						
10166   CAG						······································
10167						
10158						
10159						
10160					4	
10161   CAE						
10162   CAE						
10166						± 9.6 %
10167		<del>}</del>			6.58	± 9.6 %
10168				LTE-FDD	5.46	± 9.6 %
10169				LTE-FDD		± 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, GPSK)   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   5.72   ± 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, QPSK)   LTE-FDD   5.73   ± 9.6 %   10178   CAG   LTE-FDD (SC-FDMA, 1 RB, 5 MHz, GPAM)   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   CAG   LTE-FDD (SC-FDMA, 1 RB, 5 MHz, GPAM)   LTE-FDD   6.50   ± 9.6 %   10180   CAG   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, QPSK)   LTE-FDD   5.72   ± 9.6 %   10183   AAD   LTE-FDD (SC-FDMA, 1 RB, 15 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10183   AAD   LTE-FDD (SC-FDMA, 1 RB, 15 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10184   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)   LTE-FDD   6.50   ± 9.6 %   10185   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10186   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)   LTE-FDD   6.50   ± 9.6 %   10187   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10187   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10186   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10187   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10189   CAE   LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10189   CAE   LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, GPSK)   LTE-FDD   6.50   ± 9.6 %   10199   CAE   LTE-FDD		CAF		LTE-FDD	6.79	± 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, 16-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, 10 MHz, QPSK)   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, QPSK)   LTE-FDD   5.73   ±9.6 %   10179   CAG   LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)   LTE-FDD   6.52   ±9.6 %   10180   CAG   LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   LTE-FDD   6.50   ±9.6 %   10180   CAG   LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)   LTE-FDD   6.50   ±9.6 %   10181   CAE   LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)   LTE-FDD   6.50   ±9.6 %   10182   CAE   LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)   LTE-FDD   6.50   ±9.6 %   10182   CAE   LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)   LTE-FDD   5.72   ±9.6 %   10183   AAD   LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)   LTE-FDD   5.72   ±9.6 %   10184   CAE   LTE-FDD (SC-FDMA, 1 RB, 15 MHz, G4-QAM)   LTE-FDD   6.50   ±9.6 %   10185   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)   LTE-FDD   5.73   ±9.6 %   10186   AAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, G4-QAM)   LTE-FDD   5.73   ±9.6 %   10186   AAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, G4-QAM)   LTE-FDD   5.73   ±9.6 %   10188   CAF   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, G4-QAM)   LTE-FDD   5.73   ±9.6 %   10188   CAF   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, G4-QAM)   LTE-FDD   5.73   ±9.6 %   10189   AAF   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, G4-QAM)   LTE-FDD   5.73   ±9.6 %   10189   CAC   LEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   LTE-FDD   5.73   ±9.6 %   10199   CAC   LEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   WLAN   8.12   ±9.6 %   10199   CAC   LEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   WLAN   8.10   ±9.6 %   10199   CAC   LEE 802.1	10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10172	10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10173		AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	± 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, 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, 5 MHz, 64-QAM)   LTE-FDD   6.50   ± 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, G4-QAM)   LTE-FDD   6.50   ± 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, 16-QAM)   LTE-FDD   6.50   ± 9.6 %   10185   CAE   LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)   LTE-FDD   6.50   ± 9.6 %   10186   AAE   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, QPSK)   LTE-FDD   6.50   ± 9.6 %   10187   CAF   LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)   LTE-FDD   6.50   ± 9.6 %   10189   AAF   LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)   LTE-FDD   6.50   ± 9.6 %   10189   AAF   LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, G4-QAM)   LTE-FDD   6.50   ± 9.6 %   10189   AAF   LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, G4-QAM)   LTE-FDD   6.50   ± 9.6 %   10193   CAC   IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   WLAN   8.12   ± 9.6 %   10195   CAC   IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   WLAN   8.12   ± 9.6 %   10195   CAC   IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)   WLAN   8.13   ± 9.6 %   10196   CAC   IEEE 802.11n (HT Mixed, 6.5 Mbps, G4-QAM)   WLAN   8.27   ± 9.6 %   10198   CAC   IEEE 802.11n (HT Mixed, 6.5 Mbps, G4-QAM)   WLAN   8.27	10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±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, 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         ± 9.6 %           10180         CAG         LTE-FDD (SC-FDMA, 1 RB, 15 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, 64-QAM)         LTE-FDD         6.50         ± 9.6 %           10183         AAD         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)         LTE-FDD         6.50         ± 9.6 %           10184         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         LTE-FDD	10173	CAG				
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, 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         ± 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, G4-QAM)         LTE-FDD         5.72         ± 9.6 %           10182         CAE         LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)         LTE-FDD         6.52         ± 9.6 %           10183         AAD         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         LTE-FDD         6.50         ± 9.6 %           10184         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         LTE-FDD         5.73         ± 9.6 %           10185         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         LTE-FDD	10174	CAG		LTE-TDD		
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         ± 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         ± 9.6 %           10183         AAD         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         LTE-FDD         6.50         ± 9.6 %           10184         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, GPSK)         LTE-FDD         5.73         ± 9.6 %           10185         CAE         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	10175	CAG				
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         ± 9.6 %           10180         CAG         LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)         LTE-FDD         6.50         ± 9.6 %           10181         CAE         LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 0PSK)         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, 3 MHz, 0PSK)         LTE-FDD         6.52         ± 9.6 %           10184         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 0PSK)         LTE-FDD         5.73         ± 9.6 %           10185         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 0PSK)         LTE-FDD         6.51         ± 9.6 %           10186         AAE         LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 0PSK)         LTE-FDD         6.50         ± 9.6 %           10187         CAF         LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 0PSK)         LTE-FDD	10176	·				
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         ± 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         ± 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, 15 MHz, 64-QAM)         LTE-FDD         5.73         ± 9.6 %           10185         CAE         LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-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, 64-QAM)         LTE-FDD         5.73         ± 9.6 %           10188         CAF         LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)         LTE-FD						
10179         CAG         LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)         LTE-FDD         6.50         ± 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         ± 9.6 %           10183         AAD         LTE-FDD (SC-FDMA, 1 RB, 3 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, 1.4 MHz, QPSK)         LTE-FDD         5.73         ± 9.6 %           10187         CAF         LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)         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 %           10193         CAC         IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)         WLAN						
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         ± 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						
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 %           10195         CAC         IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)						
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         6.52         ± 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, 65 Mbps, 64-QAM)         WLAN         8.12         ± 9.6 %           10196         CAC         IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)         W						
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, 65 Mbps, 64-QAM)         WLAN         8.12         ± 9.6 %           10196         CAC         IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)         WLAN         8.10         ± 9.6 %           10198         CAC         IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)         WLA						
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, 65 Mbps, 64-QAM)         WLAN         8.12         ± 9.6 %           10195         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)         WLAN<					***************************************	
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, 65 Mbps, 64-QAM)         WLAN         8.12         ± 9.6 %           10195         CAC         IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)         WLAN         8.10         ± 9.6 %           10196         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 %						
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, 6.5 Mbps, 64-QAM)         WLAN         8.21         ± 9.6 %           10196         CAC         IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)         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)         WLAN         8.27         ± 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, 39 Mbps, 16-QAM)         WLAN         8.10         ± 9.6 %           10197         CAC         IEEE 802.11n (HT Mixed, 39 Mbps, 64-QAM)         WLAN         8.13         ± 9.6 %           10198         CAC         IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)         WLAN         8.27         ± 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         8.13         ± 9.6 %           10198         CAC         IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)         WLAN         8.27         ± 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         8.13         ± 9.6 %           10198         CAC         IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)         WLAN         8.27         ± 9.6 %					<del></del>	
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         8.13         ± 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 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 %					8.10	
					8.13	
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 %

10221 CAC   IEEE 802.111 (HT MIRRO, 25.2 Mbps, 84-0AM)	10000		TEEE COO AL AUTHUR STOCKE AS CALLS		0.40	
10222   CAC   IEEE 802.11n (HT Mixed, 15 Mbps, BFSK)	10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10224   CAC   IEEE 802.11n (IT Mixed, 90 Mbps, 16-QAM)	*****					
10225   CAC   IEEE 892.11n (HT Mixed, 150 Mbps, 64-QAM)   WCDMA   5.91 st 95 %   10228   CAA   LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)   LTE-TDD   9.49   ± 9.6 %   10228   CAA   LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 26-YM)   LTE-TDD   9.49   ± 9.6 %   10228   CAA   LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 26-YM)   LTE-TDD   9.22   ± 9.6 %   10228   CAC   LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 26-YM)   LTE-TDD   9.22   ± 9.6 %   10229   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 26-YM)   LTE-TDD   9.22   ± 9.6 %   10230   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 26-YM)   LTE-TDD   10.25   ± 9.6 %   10231   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 26-YM)   LTE-TDD   10.25   ± 9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 26-YM)   LTE-TDD   9.48   ± 9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 26-YM)   LTE-TDD   9.48   ± 9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 26-YM)   LTE-TDD   9.21   ± 9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 26-YM)   LTE-TDD   9.21   ± 9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   9.21   ± 9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   10.25   ± 9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   10.25   ± 9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   10.25   ± 9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   9.48   ± 9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   9.24   ± 9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   9.25   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   9.26   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 26-YM)   LTE-TDD   9.26   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 5 MR, 1 MHz, 26-YM)   LTE-TDD   9.26   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 5 MR, 1 MHz, 26-YM)   LTE-TDD   9.26   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 5 MR, 8, 1 MHz, 16-YM)   LTE-TDD   9.26   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 5 MR, 8, 1 MHz, 16-YM)   LTE-TDD   9.26   ± 9.6 %						
10225   CAB   UMIS-FDD (HSPA1)   WCDMA   5.97   ± 9.6 %   10227   CAA   LTE-LTD (SC-FDMA, 1 RB, 1.4 MHz, 16-CAM)   LTE-LTD   10.26   ± 9.6 %   10228   CAA   LTE-LTD (SC-FDMA, 1 RB, 1.4 MHz, 64-CAM)   LTE-LTD   10.26   ± 9.6 %   10229   CAC   LTE-LTD (SC-FDMA, 1 RB, 1.4 MHz, 64-CAM)   LTE-LTD   10.26   ± 9.6 %   10229   CAC   LTE-LTD (SC-FDMA, 1 RB, 3 MHz, 16-CAM)   LTE-LTD   9.48   ± 9.6 %   10221   CAC   LTE-LTD (SC-FDMA, 1 RB, 3 MHz, 16-CAM)   LTE-LTD   9.48   ± 9.6 %   10221   CAC   LTE-LTD (SC-FDMA, 1 RB, 3 MHz, 6-CAM)   LTE-LTD   9.19   ± 9.6 %   10221   CAC   LTE-LTD (SC-FDMA, 1 RB, 5 MHz, 6-CAM)   LTE-LTD   9.19   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 5 MHz, 6-CAM)   LTE-LTD   9.19   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 5 MHz, 6-CAM)   LTE-LTD   10.25   ± 9.6 %   10224   CAF   LTE-LTD (SC-FDMA, 1 RB, 5 MHz, 6-CAM)   LTE-LTD   10.25   ± 9.6 %   10225   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 16-CAM)   LTE-LTD   9.48   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 16-CAM)   LTE-LTD   9.48   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 16-CAM)   LTE-LTD   9.24   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-LTD   9.21   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-LTD   9.21   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-LTD   9.21   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-LTD   9.21   ± 9.6 %   10223   CAF   LTE-LTD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-LTD   9.22   ± 9.6 %   10224   CAA   LTE-LTD (SC-FDMA, 5 MR, 1 MHz, 64-CAM)   LTE-LTD   9.25   ± 9.6 %   10224   CAA   LTE-LTD (SC-FDMA, 5 MR, 1 MHz, 64-CAM)   LTE-LTD   9.26   ± 9.6 %   10224   CAA   LTE-LTD (SC-FDMA, 5 MR, 1 MHz, 64-CAM)   LTE-LTD   9.26   ± 9.6 %   10224   CAA   LTE-LTD (SC-FDMA, 5 MR, 8 MHz, 64-CAM)   LTE-LTD   9.26   ± 9.6 %   10224   CAF   LTE-LTD (SC-FDMA, 5 MR, 8 MHz, 64-CAM)   LTE-LTD   9.20   ± 9.6 %   10224   CAF   LTE-LTD (SC-FDMA, 5 MR, 8 MHz, 64-CAM)   LTE-LTD   9.20   ± 9.6 %   10224   CAF		,				
10226   CAA   LTE-TDD (SC-FDMA, 1 RB. 1.4 MHz, 46-CAM)   LTE-TDD   9.49   ±9.6 %   10228   CAA   LTE-TDD (SC-FDMA, 1 RB. 1.4 MHz, 46-CAM)   LTE-TDD   9.22   ±9.6 %   10228   CAA   LTE-TDD (SC-FDMA, 1 RB. 1.4 MHz, 46-CAM)   LTE-TDD   9.22   ±9.6 %   10230   CAC   LTE-TDD (SC-FDMA, 1 RB. 3 MHz, 16-CAM)   LTE-TDD   10.25   ±9.6 %   10230   CAC   LTE-TDD (SC-FDMA, 1 RB. 3 MHz, 26-CAM)   LTE-TDD   10.25   ±9.6 %   10231   CAC   LTE-TDD (SC-FDMA, 1 RB. 3 MHz, 26-CAM)   LTE-TDD   10.25   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB. 5 MHz, 16-CAM)   LTE-TDD   9.48   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB. 5 MHz, 26-CAM)   LTE-TDD   9.48   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB. 5 MHz, 26-CAM)   LTE-TDD   9.21   ±9.6 %   10233   CAF   LTE-TDD (SC-FDMA, 1 RB. 5 MHz, 20-CAM)   LTE-TDD   9.21   ±9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 1 RB. 10 MHz, 20-CAM)   LTE-TDD   9.21   ±9.6 %   10235   CAF   LTE-TDD (SC-FDMA, 1 RB. 10 MHz, 20-CAM)   LTE-TDD   9.21   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 10 MHz, 20-CAM)   LTE-TDD   10.25   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 10 MHz, 20-CAM)   LTE-TDD   10.25   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 10 MHz, 20-CAM)   LTE-TDD   10.25   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 10 MHz, 20-CAM)   LTE-TDD   10.25   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 15 MHz, 20-CAM)   LTE-TDD   10.25   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 15 MHz, 20-CAM)   LTE-TDD   9.24   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 15 MHz, 20-CAM)   LTE-TDD   9.26   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB. 15 MHz, 20-CAM)   LTE-TDD   9.26   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 50% RB, 1 A MHz, 10-CAM)   LTE-TDD   9.27   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 50% RB, 1 A MHz, 10-CAM)   LTE-TDD   9.26   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 50% RB, 1 A MHz, 10-CAM)   LTE-TDD   9.26   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 10-CAM)   LTE-TDD   9.26   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 10-CAM)   LTE-T		<del></del>				
1022F   CAA						
10228   CAA   LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, GPSK)   LTE-TDD   9.22   ±9.6 %   10230   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-CAM)   LTE-TDD   10.25   ±9.6 %   10231   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-CAM)   LTE-TDD   10.25   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 2 GPSK)   LTE-TDD   10.25   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-CAM)   LTE-TDD   9.48   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-CAM)   LTE-TDD   9.48   ±9.6 %   10233   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 6 PSK)   LTE-TDD   9.21   ±9.6 %   10235   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 1 GPSK)   LTE-TDD   9.21   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 6 PSK)   LTE-TDD   9.21   ±9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 6 PSK)   LTE-TDD   10.25   ±9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-TDD   10.25   ±9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-TDD   10.25   ±9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-TDD   9.48   ±9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-TDD   9.21   ±9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 2 GPSK)   LTE-TDD   9.21   ±9.6 %   10240   CAF   LTE-TDD (SC-FDMA, 5 MB, 1 MHz, 1 GPSK)   LTE-TDD   9.21   ±9.6 %   10241   CAA   LTE-TDD (SC-FDMA, 5 MB, 1 MHz, 1 GPSK)   LTE-TDD   9.21   ±9.6 %   10241   CAA   LTE-TDD (SC-FDMA, 5 MB, 1 MHz, 1 GPSK)   LTE-TDD   9.21   ±9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 5 MB, 1 MHz, 1 GPSK)   LTE-TDD   9.86   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 5 MB, 1 MHz, 1 GPSK)   LTE-TDD   9.86   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 5 MB, 8 MHz, 1 GPSK)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 5 MB, 8 MHz, 1 GPSK)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 5 MB, 8 MHz, 1 GPSK)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 5 MB, 8 MHz, 6 GAM)   LTE-TDD   10.16   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 5 MB, 8 MHz, 6 GAM)   LTE-TDD   10.16   ±9.6 %   10244   CAC						
10229   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-CAM)   LTE-TDD   9.48   ±9.6 %   10231   CAC   LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 2 G-SK)   LTE-TDD   9.19   ±9.6 %   10231   CAC   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 2 G-SK)   LTE-TDD   9.19   ±9.6 %   10232   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 2 G-CAM)   LTE-TDD   9.48   ±9.6 %   10233   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 2 G-CAM)   LTE-TDD   10.25   ±9.6 %   10233   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 2 G-CAM)   LTE-TDD   10.25   ±9.6 %   10235   CAF   LTE-TDD (SC-FDMA, 1 RB, 1 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10237   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10237   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-CAM)   LTE-TDD   9.48   ±9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-CAM)   LTE-TDD   9.21   ±9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-CAM)   LTE-TDD   9.28   ±9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-CAM)   LTE-TDD   9.21   ±9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 1 MHz, 16-CAM)   LTE-TDD   9.21   ±9.6 %   10242   CAA   LTE-LDD (SC-FDMA, 50% RB, 1 MHz, 16-CAM)   LTE-TDD   9.80   ±9.6 %   10244   CAC   LTE-LDD (SC-FDMA, 50% RB, 3 MHz, 16-CAM)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-LDD (SC-FDMA, 50% RB, 3 MHz, 16-CAM)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-LDD (SC-FDMA, 50% RB, 3 MHz, 16-CAM)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-LDD (SC-FDMA, 50% RB, 5 MHz, 64-CAM)   LTE-TDD   10.06   ±9.6 %   10244   CAC   LTE-LDD (SC-FDMA, 50% RB, 5 MHz, 64-CAM)   LTE-TDD   9.30   ±9.6 %   10244   CAF   LTE-LDD (SC-FDMA, 50% RB, 5 MHz, 64-CAM)   LTE-TDD   9.40   ±9.6 %   10246   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-CAM)   LTE-TDD						
10231   CAC		CAC				
10233   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-OAM)   LTE-TDD   9.48   ± 9.6 %   10234   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-OAM)   LTE-TDD   9.21   ± 9.8 %   10234   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-OAM)   LTE-TDD   9.21   ± 9.8 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-OAM)   LTE-TDD   9.21   ± 9.8 %   10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-OAM)   LTE-TDD   10.25   ± 9.8 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-OAM)   LTE-TDD   10.25   ± 9.8 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 16 MHz, 64-OAM)   LTE-TDD   10.25   ± 9.8 %   10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 16 MHz, 64-OAM)   LTE-TDD   9.48   ± 9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 16 MHz, 64-OAM)   LTE-TDD   10.25   ± 9.8 %   10240   CAF   LTE-TDD (SC-FDMA, 1 RB, 16 MHz, 64-OAM)   LTE-TDD   10.25   ± 9.8 %   10241   CAA   LTE-TDD (SC-FDMA, 50% RB, 1 4 MHz, 64-OAM)   LTE-TDD   9.21   ± 9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 1 4 MHz, 64-OAM)   LTE-TDD   9.82   ± 9.6 %   10243   CAA   LTE-TDD (SC-FDMA, 50% RB, 1 4 MHz, 64-OAM)   LTE-TDD   9.86   ± 9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 1 4 MHz, 64-OAM)   LTE-TDD   9.46   ± 9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   9.46   ± 9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   10.06   ± 9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   10.06   ± 9.6 %   10245   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   10.06   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   10.06   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-OAM)   LTE-TDD   10.06   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-OAM)   LTE-TDD   10.09   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-OAM)   LTE-TDD   9.91   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-OAM)   LTE-TDD   9.91   ± 9.6 %   10245   CAF   LTE-TDD (SC-FDMA, 50% RB, 16 MHz, 64-OAM)   LTE-TDD   9.91   ± 9.6 %   10265   CAF   LTE-TDD	10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234   CAF   LTE-TDD   (SC-FDMA, 1 RB, 5 MHz, QPSK)   LTE-TDD   9.21   19.8 %   10235   CAF   LTE-TDD   (SC-FDMA, 1 RB, 1 MHz, 16-QAM)   LTE-TDD   9.48   19.8 %   10236   CAF   LTE-TDD   (SC-FDMA, 1 RB, 1 0 MHz, 16-QAM)   LTE-TDD   9.48   19.8 %   10237   CAF   LTE-TDD   (SC-FDMA, 1 RB, 1 0 MHz, 16-QAM)   LTE-TDD   9.48   19.8 %   10237   CAF   LTE-TDD   (SC-FDMA, 1 RB, 1 0 MHz, QFSK)   LTE-TDD   9.21   19.8 %   10238   CAF   LTE-TDD   (SC-FDMA, 1 RB, 1 0 MHz, QFSK)   LTE-TDD   9.21   19.8 %   10239   CAF   LTE-TDD   (SC-FDMA, 1 RB, 15 MHz, 64-QAM)   LTE-TDD   10.25   19.8 %   10240   CAF   LTE-TDD   (SC-FDMA, 1 RB, 15 MHz, QFSK)   LTE-TDD   10.25   19.8 %   10240   CAF   LTE-TDD   (SC-FDMA, 1 RB, 15 MHz, QFSK)   LTE-TDD   10.25   19.8 %   10241   CAA   LTE-TDD   (SC-FDMA, 50% RB, 1 4 MHz, 16-QAM)   LTE-TDD   9.82   19.8 %   10242   CAA   LTE-TDD   (SC-FDMA, 50% RB, 1 4 MHz, QFSK)   LTE-TDD   9.8 & 19.6 %   10244   CAA   LTE-TDD   (SC-FDMA, 50% RB, 1 4 MHz, QFSK)   LTE-TDD   9.8 & 19.6 %   10244   CAA   LTE-TDD   (SC-FDMA, 50% RB, 1 3 MHz, QFSK)   LTE-TDD   9.8 & 19.6 %   10244   CAC   LTE-TDD   (SC-FDMA, 50% RB, 3 MHz, QFSK)   LTE-TDD   10.06   19.8 %   10246   CAC   LTE-TDD   (SC-FDMA, 50% RB, 3 MHz, QFSK)   LTE-TDD   10.06   19.8 %   10246   CAC   LTE-TDD   (SC-FDMA, 50% RB, 3 MHz, QFSK)   LTE-TDD   10.06   19.8 %   10246   CAC   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.90   19.8 %   10246   CAC   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10246   CAC   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10246   CAC   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10246   CAF   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10247   CAF   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10249   CAF   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10249   CAF   LTE-TDD   (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.91   19.8 %   10249   CAF   LTE-TDD   SC-FDMA, 50% R	10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10234		CAF		LTE-TDD	9.48	
10236   CAF						
10239   CAF		<del></del>	- · · · · · · · · · · · · · · · · · · ·			
10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 6P-SK)   LTE-TDD   9.21   ± 9.6 %   10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-OAM)   LTE-TDD   9.48   ± 9.6 %   10240   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-OAM)   LTE-TDD   9.48   ± 9.6 %   10241   CAA   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)   LTE-TDD   9.21   ± 9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-OAM)   LTE-TDD   9.82   ± 9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-OAM)   LTE-TDD   9.86   ± 9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-OAM)   LTE-TDD   9.46   ± 9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   9.46   ± 9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)   LTE-TDD   10.08   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, GPSK)   LTE-TDD   10.09   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, GPSK)   LTE-TDD   10.09   ± 9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-OAM)   LTE-TDD   10.09   ± 9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-OAM)   LTE-TDD   10.09   ± 9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 04-OAM)   LTE-TDD   10.09   ± 9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 04-OAM)   LTE-TDD   10.09   ± 9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 04-OAM)   LTE-TDD   10.09   ± 9.6 %   10250   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 04-OAM)   LTE-TDD   9.91   ± 9.6 %   10251   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 04-OAM)   LTE-TDD   9.91   ± 9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 04-OAM)   LTE-TDD   9.10		-		ļ		
10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)		<del></del>		···		
10239   CAF		•				
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, 14 MHz, 16-QAM)   LTE-TDD   9,82   ±9.6 %   10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 14 MHz, 64-QAM)   LTE-TDD   9,86   ±9.6 %   10243   CAA   LTE-TDD (SC-FDMA, 50% RB, 14 MHz, QPSK)   LTE-TDD   9,86   ±9.6 %   10244   CAA   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, QPSK)   LTE-TDD   10,06   ±9.6 %   10245   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)   LTE-TDD   9,90   ±9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)   LTE-TDD   9,90   ±9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, GA-QAM)   LTE-TDD   9,91   ±9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, GA-QAM)   LTE-TDD   10,09   ±9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, GPSK)   LTE-TDD   9,29   ±9.8 %   10250   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, GPSK)   LTE-TDD   9,29   ±9.8 %   10250   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, GPSK)   LTE-TDD   9,29   ±9.6 %   10251   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   10,17   ±9.6 %   10252   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   10,17   ±9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   10,17   ±9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   10,17   ±9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GA-QAM)   LTE-TDD   10,14   ±9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GA-QAM)   LTE-TDD   10,14   ±9.6 %   10255   CAA   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GA-QAM)   LTE-TDD   10,14   ±9.6 %   10255   CAA   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GA-QAM)   LTE-TDD   10,14   ±9.6 %   10255   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, GPSK)   LTE-TDD   10,14   ±9.6 %   10255   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, GPSK)   LTE-TDD   10,16   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, GA-QAM)   LTE-TDD   9.90   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, GA		<del>.                                      </del>				
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, QFSK)   LTE-TDD   9.86   ±9.6 %   10243   CAA   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   9.86   ±9.6 %   10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   10.06   ±9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   10.06   ±9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   10.06   ±9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   9.30   ±9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   9.30   ±9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   LTE-TDD   10.09   ±9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   LTE-TDD   10.09   ±9.6 %   10250   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   LTE-TDD   9.29   ±9.6 %   10251   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   LTE-TDD   9.21   ±9.6 %   10252   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   LTE-TDD   9.21   ±9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   LTE-TDD   9.20   ±9.6 %   10254   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   LTE-TDD   9.90   ±9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   LTE-TDD   9.90   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 16-QAM)   LTE-TDD   9.90   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 16-QAM)   LTE-TDD   9.90   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, 16-QAM)   LTE-TDD   9.90   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)   LTE-TDD   9.90   ±9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)   LTE-TDD   9.90   ±9.6 %   10256   CAC   LTE-TDD (SC-FDMA, 100% RB, 16 MHz, QPSK)   LTE-TDD   9.90   ±9.6 %   10266   CAC   LTE-TDD (SC-FDMA, 100% RB, 16 MHz, QPSK)   LTE-TDD   9.91   ±9.6 %   10266   CAC   LTE-TDD (SC-FDMA, 100% RB, 16 MHz, QPSK)   LTE-TDD   9.91   ±9.6 %   10266   CAF   LTE-TDD (SC-FDMA, 10						
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 %   10245   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   10.06   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)   LTE-TDD   10.06   ± 9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)   LTE-TDD   10.06   ± 9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)   LTE-TDD   9.30   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)   LTE-TDD   9.91   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)   LTE-TDD   9.91   ± 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, GPSK)   LTE-TDD   9.21   ± 9.6 %   10251   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   9.21   ± 9.6 %   10252   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   9.24   ± 9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)   LTE-TDD   9.24   ± 9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 16 MHz, GPSK)   LTE-TDD   9.24   ± 9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 16 MHz, GPSK)   LTE-TDD   9.24   ± 9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-TDD   10.14   ± 9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)   LTE-TDD   10.14   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, GPSK)   LTE-TDD   9.20   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, GPSK)   LTE-TDD   9.20   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, GPSK)   LTE-TDD   9.34   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, GPSK)   LTE-TDD   9.97   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, GPSK)   LTE-TDD   9.98   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, GPSK)   LTE-TDD   9.98   ± 9.6 %   10256   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, GPSK)   LTE-TDD   9.99   ± 9.6 %   10256   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MH		<del></del>		······································		
10243   CAA   LTE-TDD (SC-FDMA, 50% RB, 14 MHz, QPSK)   LTE-TDD   9.46   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   10.06   ± 9.6 %   10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   LTE-TDD   10.06   ± 9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)   LTE-TDD   9.30   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   LTE-TDD   9.30   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   LTE-TDD   9.30   ± 9.6 %   10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-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   9.29   ± 9.6 %   10251   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   LTE-TDD   9.29   ± 9.6 %   10252   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)   LTE-TDD   9.20   ± 9.6 %   10252   CAF   LTE-TDD (SC-FDMA, 50% RB, 16 MHz, QPSK)   LTE-TDD   9.20   ± 9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   LTE-TDD   9.90   ± 9.6 %   10254   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   LTE-TDD   9.90   ± 9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)   LTE-TDD   10.14   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)   LTE-TDD   10.14   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)   LTE-TDD   9.90   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)   LTE-TDD   9.90   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)   LTE-TDD   9.90   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   LTE-TDD   9.96   ± 9.6 %   10256   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   LTE-TDD   9.96   ± 9.6 %   10256   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   LTE-TDD   9.96   ± 9.6 %   10256   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   LTE-TDD   9.98   ± 9.6 %   10256   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   LTE-TDD   9.98   ± 9.6 %   10256   CAF   LTE-TDD (						
10244		<del></del>				
10245   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   LTE-TDD   10.06   ± 9.6 %   10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)   LTE-TDD   9.30   ± 9.6 %   10248   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, 16-QAM)   LTE-TDD   10.09   ± 9.6 %   10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   10.09   ± 9.6 %   10250   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QFSK)   LTE-TDD   9.81   ± 9.6 %   10251   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, 04-QAM)   LTE-TDD   9.24   ± 9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QFSK)   LTE-TDD   9.90   ± 9.6 %   10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QFSK)   LTE-TDD   9.90   ± 9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QFSK)   LTE-TDD   10.14   ± 9.6 %   10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QFSK)   LTE-TDD   9.20   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 18-QAM)   LTE-TDD   9.96   ± 9.6 %   10256   CAA   LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, B-QAM)   LTE-TDD   9.96   ± 9.6 %   10259   CAC   LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, B-QAM)   LTE-TDD   9.96   ± 9.6 %   10259   CAC   LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, B-QAM)   LTE-TDD   9.98   ± 9.6 %   10259   CAC   LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, B-QAM)   LTE-TDD   9.98   ± 9.6 %   10260   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QFSK)   LTE-TDD   9.99   ± 9.6 %   10260   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QFSK)   LTE-TDD   9.99   ± 9.6 %   10260   CAC   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QFSK)   LTE-TDD   9.99   ± 9.6 %   10260   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QFSK)   LTE-TDD   9.24   ± 9.6 %   10260   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QFSK)   LTE-TDD   9.23   ± 9.6 %   10260   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QFSK)   LTE-TDD   9.20   ± 9.6 %   10260   CAF   LTE-TDD (S						
10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)						
10247   CAF				***************************************		
10259		CAF		LTE-TDD	9.91	
10250	10248	CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10251   CAF		CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)			
10252   CAF						
10253						
10254   CAF		1			******	
10255   CAF		1				
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, 16-QAM)   LTE-TDD   9.97   ± 9.6 %   10261   CAC   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)   LTE-TDD   9.97   ± 9.6 %   10262   CAF   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   9.23   ± 9.6 %   10263   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   LTE-TDD   9.23   ± 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   9.23   ± 9.6 %   10266   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)   LTE-TDD   9.23   ± 9.6 %   10266   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)   LTE-TDD   10.07   ± 9.6 %   10266   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)   LTE-TDD   10.07   ± 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, 16-QAM)   LTE-TDD   10.06   ± 9.6 %   10270   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)   LTE-TDD   10.06   ± 9.6 %   10270   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)   LTE-TDD   10.06   ± 9.6 %   10271   CAB   UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   WCDMA   4.87   ± 9.6 %   10272   CAA   PHS (QPSK)   LTE-TDD   9.58   ± 9.6 %   10273   CAA   PHS (QPSK)   LTE-TDD   9.58   ± 9.6 %   10273   CAA   PHS (QPSK)   LTE-TDD   10.13   ± 9.6 %   10273   CAA   PHS (QPSK)   LTE-TDD   10.6 %   10274   CAB   CDMA2000, RC1, SO55, Full Rate   CDMA2000   3.50   ± 9.6 %						
10257						
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   9.24   ±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, 64-QAM)   LTE-TDD   10.16   ±9.6 %   10265   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)   LTE-TDD   9.23   ±9.6 %   10266   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, QPSK)   LTE-TDD   9.92   ±9.6 %   10267   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)   LTE-TDD   10.07   ±9.6 %   10268   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)   LTE-TDD   9.30   ±9.6 %   10269   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, GPSK)   LTE-TDD   10.06   ±9.6 %   10269   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, GPSK)   LTE-TDD   10.13   ±9.6 %   10270   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)   LTE-TDD   10.13   ±9.6 %   10271   CAB   UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   WCDMA   4.87   ±9.6 %   10272   CAA   PHS (QPSK)   LTE-TDD   9.58   ±9.6 %   10273   CAA   PHS (QPSK)   SW 884MHz, Rolloff 0.5)   PHS   11.81   ±9.6 %   10279   CAA   PHS (QPSK)   SW 884MHz, Rolloff 0.5)   PHS   11.81   ±9.6 %   10279   CAA   PHS (QPSK, BW 884MHz, Rolloff 0.5)   PHS   11.81   ±9.6 %   10290   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.39   ±9.6 %   10291   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ±9.6 %   10292   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ±9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ±9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   12.49   ±9.6 %   10298   AAD   LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)						
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   9.24   ± 9.6 %   10263   CAF   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   LTE-TDD   9.83   ± 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, 64-QAM)   LTE-TDD   9.23   ± 9.6 %   10266   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)   LTE-TDD   9.92   ± 9.6 %   10266   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)   LTE-TDD   10.07   ± 9.6 %   10268   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   9.30   ± 9.6 %   10269   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)   LTE-TDD   10.06   ± 9.6 %   10270   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)   LTE-TDD   10.13   ± 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 %   10276   CAA   PHS (QPSK)   Subtest 5, 3GPP Rel8.4)   WCDMA   3.96   ± 9.6 %   10278   CAA   PHS (QPSK)   Subtest 5, 3GPP Rel8.4)   WCDMA   3.96   ± 9.6 %   10279   CAA   PHS (QPSK)   Subtest 5, 3GPP Rel8.4)   WCDMA   3.96   ± 9.6 %   10291   AAB   CDMA2000, RC1, SO55, Full Rate   CDMA2000   3.91   ± 9.6 %   10292   AAB   CDMA2000, RC3, SO55, Full Rate   CDMA2000   3.96   ± 9.6 %   10293   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ± 9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ± 9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ± 9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ± 9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ± 9.6 %   10295   AAB						
10260						
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   9.92   ±9.6 %   10267   CAF   LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)   LTE-TDD   10.07   ±9.6 %   10268   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)   LTE-TDD   10.06   ±9.6 %   10269   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)   LTE-TDD   10.06   ±9.6 %   10270   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, G4-QAM)   LTE-TDD   10.13   ±9.6 %   10270   CAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)   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 Rel8.10)   WCDMA   3.96   ±9.6 %   10277   CAA   PHS (QPSK)   PHS   11.81   ±9.6 %   10279   CAA   PHS (QPSK, BW 884MHz, Rolloff 0.5)   PHS   11.81   ±9.6 %   10290   AAB   CDMA2000, RC1, SO55, Full Rate   CDMA2000   3.91   ±9.6 %   10291   AAB   CDMA2000, RC3, SO55, Full Rate   CDMA2000   3.91   ±9.6 %   10292   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ±9.6 %   10295   AAB   CDMA2000, RC3, SO35, Full Rate   CDMA2000   3.50   ±9.6 %   10295   AAB   CDMA2000, RC3, SO3, Full Rate   CDMA2000   12.49   ±9.6 %   10295   AAB   CDMA2000, RC3, SO3, Full Rate   CDMA2000   12.49   ±9.6 %   10295   AAB   CDMA2000, RC3, SO3, Full Rate   CDMA2000   12.49   ±9.6 %   10295   AAB   CDMA2000, RC3, SO3, Full Rate   CDMA2000   12.49   ±9.6 %   10295   AAB   CDMA2000, RC3, SO3, Full Rate   CDMA2000   12.49   ±9.6 %   10295   AAB   CDMA2000, RC3, SO3, Full Rate   CDMA2000   12.49   ±9.6 %   10295						***************************************
10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QÁM)         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, 16-QAM)         LTE-TDD         10.07         ± 9.6 %           10267         CAF         LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)         LTE-TDD         10.07         ± 9.6 %           10268         CAF         LTE-TDD (SC-FDMA, 100% RB, 15 MHz, GPSK)         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, GPSK)         LTE-TDD         10.13         ± 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						
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, 15 MHz, 16-QAM)         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         10.13         ± 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 %           10278         CAA         PHS (QPSK, BW 884MHz, Rolloff 0.5) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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 %           10270         CAF         LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)         LTE-TDD         9.58         ± 9.6 %           10270         CAF         LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)         LTE-TDD         9.58         ± 9.6 %           10271         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)         WB 84MHz, Rol						
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 %           10290         AAB         CDMA2000, RC1, SO55, Full Rate         CDMA2000         3.91         ± 9.6 %           10291         AAB         CDMA2000, RC3, SO55, Full Rate         CDMA2000         3.39 <t< td=""><td></td><td>CAF</td><td></td><td>LTE-TDD</td><td></td><td>± 9.6 %</td></t<>		CAF		LTE-TDD		± 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, SO32, Full Rate         CDMA2000         3.50         ± 9.6 % </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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, SO32, Full Rate         CDMA2000         3.39         ± 9.6 %           10292         AAB         CDMA2000, RC3, SO3, Full Rate         CDMA2000         3.50         ± 9.6 % </td <td></td> <td></td> <td></td> <td></td> <td>***************************************</td> <td></td>					***************************************	
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, SO3, Full Rate         CDMA2000         3.50         ± 9.6 %           10293         AAB         CDMA2000, RC3, SO3, Full Rate         CDMA2000         3.50         ± 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, SO3, Full Rate         CDMA2000         3.50         ± 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 %						
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 %						
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 %						
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 %		_	· · · · · · · · · · · · · · · · · · ·			
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 %						
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 %		**************************************				
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 %						
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 %				<del></del>		
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 %						
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 %				<del></del>		
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 %		<del>,</del> ———				<del></del>
10298 AAD LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK) LTE-FDD 5.72 ± 9.6 %		<del></del>	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000		± 9.6 %
10299   AAD   LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-FDD   6.39   ± 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	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	IÉEE 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	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 %
	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10434		LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10435	AAF	Subframe=2,3,4,7,8,9)			
10435 10447	AAD	Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10435 10447 10448	AAD AAD	Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD LTE-FDD	7.53	± 9.6 % ± 9.6 %
10435 10447	AAD	Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD		

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 Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
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 %

10492   AAE						
10494   AAF	10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.41	± 9.6 %
10494	10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL.	LTE-TDD	8.55	± 9.6 %
10496	10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10496	10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.37	± 9.6 %
10497	10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10498	10497	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL	LTE-TDD	7.67	± 9.6 %
10499	10498	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.40	± 9.6 %
10500	10499	AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL	LTE-TDD	8.68	± 9.6 %
10501   AAB   LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL   LTE-TDD   8.44   ± 9.6 %   Subframe=2,3,47,8,9	10500	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL	LTE-TDD	7.67	± 9.6 %
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)   10503   AAE   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL   LTE-TDD   7.72   ± 9.6 % Subframe=2,3.4,7,8,9)   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)   10505   AAE   LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL   LTE-TDD   8.54   ± 9.6 % Subframe=2,3.4,7,8,9)   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 % Subframe=2,3.4,7,8,9)   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)   10509   AAE   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL   LTE-TDD   7.99   ± 9.6 % Subframe=2,3.4,7,8,9)   10510   AAE   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL   LTE-TDD   7.99   ± 9.6 % Subframe=2,3.4,7,8,9)   10511   AAE   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, G4-QAM, UL   LTE-TDD   8.49   ± 9.6 % Subframe=2,3.4,7,8,9)   10512   AAF   LTE-TDD (SC-FDMA, 100% RB, 15 MHz, G4-QAM, UL   LTE-TDD   8.51   ± 9.6 % Subframe=2,3.4,7,8,9)   10513   AAF   LTE-TDD (SC-FDMA, 100% RB, 20 MHz, G4-QAM, UL   LTE-TDD   8.51   ± 9.6 % Subframe=2,3.4,7,8,9)   10514   AAE   LTE-TDD (SC-FDMA, 100% RB, 20 MHz, G4-QAM, UL   LTE-TDD   8.51   ± 9.6 % Subframe=2,3.4,7,8,9)   10513   AAF   LTE-TDD (SC-FDMA, 100% RB, 20 MHz, G4-QAM, UL   LTE-TDD   8.45   ± 9.6 % Subframe=2,3.4,7,8,9)   10514   AAF   LTE-TDD (SC-FDMA, 100% RB, 20 MHz, G4-QAM, UL   LTE-TDD   8.45   ± 9.6 % Subframe=2,3.4,7,8,9)   10515   AAA   LEEE 602.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)   WLAN   1.58   ± 9.6 %   10517   AAA   LEEE 602.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)   WLAN   1.58   ± 9.6 %   10518   AAB   LEEE 802.11a/h WiFi 5 GHz (OFDM, 14 Mbps, 99pc duty cycle)   WLAN   1.58   ± 9.6 %   10520   AAB   LEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)   WLAN   8.23   ± 9	10501	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.44	± 9.6 %
10503	10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.52	± 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   Subf	10503	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL	LTE-TDD	7.72	± 9.6 %
10505   AAE	10504	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
10506	10505	AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10507	10506	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10508	10507	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.36	± 9.6 %
10509	10508	AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.55	± 9.6 %
10510	10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL	LTE-TDD	7.99	± 9.6 %
10511	10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.49	± 9.6 %
10512	10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.51	± 9.6 %
Subframe=2,3,4,7,8,9	10512	AAF		LTE-TDD	7.74	± 9.6 %
10514	10513	AAF		LTE-TDD	8.42	± 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         8.42	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, 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         8.42	10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 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 %           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, MCS2, 99pc duty cycle)         WLAN         8.21         ± 9.6	10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 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, 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, MCS3, 99pc duty cycle)         WLAN         8.36         ± 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, 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 %					<del>-}</del>	
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 %         10531       AAB       IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)       WLAN       8.43       ± 9.6 %         10532       AAB       IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)					•	
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 %           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 %						
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 %						
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 %						
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 %			IEEE 802 11a/h WiFi 5 GHz (OEDM 48 Mbps, 90ps duty cycle)			
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 %						
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 %						
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 %					·	
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 %						
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 %						
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 %						
10532 AAB IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle) WLAN 8.29 ± 9.6 %						
10533   AAB   IEEE 802.11ac Wihi (20MHz, MCS8, 99pc duty cycle)   WLAN   8.38   ± 9.6 %				WLAN		
10534 AAB IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle) WLAN 8.45 ± 9.6 %		AAB	i ⊫⊫⊨ συΖ.11ac wi⊦i (4uMHz, MCSU, 99pc duty cycle)	I WLAN	ı 8.45	L ± 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	
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN		± 9.6 %
10546	AAB			8.55	± 9.6 %
10546	_	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
	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		
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)		8.73	± 9.6 %
			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)			
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	8.37	± 9.6 %
		cycle)			
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	WLAN	8.10	± 9.6 %
	' " " '	cycle)		0	
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	± 9.6 %
	1.00.	cycle)	77 1	0.00	20.070
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10571	AAA	IEEE 802,11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10572	· <del>[ · · · · · · · · · · · · · · · · · ·</del>				
	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	±96%
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty	WLAN	8.59	± 9.6 %
	<u> </u>	cycle)			
10576	AAA	IEEE 802.11g WiFl 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty	WLAN	8.60	± 9.6 %
	ļ	cycle)			
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty	WLAN	8.70	± 9.6 %
		cycle)			
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty	WLAN	8.49	± 9.6 %
		cycle)		ł	
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty	WLAN	8.36	± 9.6 %
		cycle)			
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty	WLAN	8.76	± 9.6 %
1.222	'	cycle)	1	""	
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN	8.35	± 9.6 %
1.0001	1,,,,	cycle)	V / I	0.00	20.0 %
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
10002	1000	, , , , , , , , , , , , , , , , , , , ,	VVLAN	0.07	1 3.0 %
10583	AAD	cycle)	MI AN	0 50	+060/
	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	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 %
10587	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	± 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	± 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 %
10607	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	
10621	AAB		WLAN		± 9.6 %
		IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)		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, MCS0, 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		CDMA2000 (1x Advanced)	CDMA2000	3.45	±9.6 %
10070	ΔΔΔ				T 3.0 /0
10652	AAA			***********	
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10652 10653 10654				***********	

10859   AAA   Pulse Waveform (2019Hz, 1995)   Test   5.00   2.50   5.00   1.50   5.0	10655	TAAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	1060/
196860			Pulse Waveform (200Hz, 10%)	·		±9.6%
19686				·{		
10662		·		<del></del>		
10620   AAA   Bluetonth Low Energy   Bluetonth Low Energy   10671   AAA   Bleet B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   9.09   ±9.6 %   10673   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   9.09   ±9.6 %   10673   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.76   ±9.6 %   10673   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.76   ±9.6 %   10674   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.76   ±9.6 %   10675   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.76   ±9.6 %   10676   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.73   ±9.6 %   10677   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.73   ±9.6 %   10678   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.73   ±9.6 %   10679   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.73   ±9.6 %   10679   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.89   ±9.6 %   10680   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.89   ±9.6 %   10681   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.89   ±9.6 %   10681   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.89   ±9.6 %   10682   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.60   ±9.6 %   10683   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.62   ±9.6 %   10684   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.62   ±9.6 %   10684   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.62   ±9.6 %   10686   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.65   ±9.6 %   10688   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.65   ±9.6 %   10688   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.65   ±9.6 %   10688   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.65   ±9.6 %   10688   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.65   ±9.6 %   10688   AAA   EEE B02.11ax (20MHz, MCSI, 90pc duty cycle)   WLAN   8.65						
10672	10662	AAA				
10872	10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10674   AAA   IEEE 802.11ax (ZOMHz, MCS3, 9)pc duty cycle)	$\overline{}$	AAA		WLAN	9.09	± 9.6 %
10675			IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)			
10676   AAA   IEEE 802.11ax (ZOMHz, MCSS, 90pc duty cycle)						
10676						
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10879					-	
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10687						
10689	10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN		
10690						± 9.6 %
10691						± 9.6 %
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10700	***	<del></del>				
10701   AAA   IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	1	,				
10702						
10703   AAA   IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)						
10704   AAA   IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	10703	AAA				
10705	10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)		8.56	
10707   AAA   IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)			IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)			
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 (80MHz, MCS1, 90pc duty	10706	AAA		WLAN	8.66	±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         8.33         ± 9.6 %           10715         AAA         IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)         WLAN         8.45         ± 9.6 %           10715         AAA         IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)         WLAN         8.45         ± 9.6 %           10716         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 %           10720         AAA         IEEE 802.11ax (80MHz, MCS0, 90pc duty						
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 %           10729         AAA         IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)         WLAN         8.81         ± 9.6 %           10720         AAA         IEEE 802.11ax (80MHz, MCS2, 90pc duty						
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, MCS2, 90pc duty cycle)         WLAN         8.76         ± 9.6 %           10722         AAA         IEEE 802.11ax (80MHz, MCS4, 90pc duty						
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, MCS3, 90pc duty cycle)       WLAN       8.76       ± 9.6 %         10723       AAA       IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)       WLAN       8.70       ± 9.6 %         10724		·			<del></del>	
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         8.76         ± 9.6 %           10721         AAA         IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)         WLAN         8.76         ± 9.6 %           10723         AAA         IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)         WLAN         8.70         ± 9.6 %           10724         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty						***************************************
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       8.76       ± 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       8.75       ± 9.6 %         10723       AAA       IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)       WLAN       8.70       ± 9.6 %         10724       AAA       IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)       WLAN       8.74       ± 9.6 %         10726						
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         8.76         ± 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         8.75         ± 9.6 %           10723         AAA         IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)         WLAN         8.70         ± 9.6 %           10724         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)         WLAN         8.74         ± 9.6 %           10726         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty						
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         8.76         ± 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         8.75         ± 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 %           10725         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)         WLAN         8.74         ± 9.6 %           10726         AAA         IEEE 802.11ax (80MHz, MCS7, 90pc duty						
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         8.76         ± 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 %           10725         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)         WLAN         8.74         ± 9.6 %           10726         AAA         IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)         WLAN         8.72         ± 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       8.76       ± 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 %         10725       AAA       IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)       WLAN       8.74       ± 9.6 %         10726       AAA       IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)       WLAN       8.72       ± 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 %         10725       AAA       IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)       WLAN       8.74       ± 9.6 %         10726       AAA       IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)       WLAN       8.72       ± 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 %         10725       AAA       IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)       WLAN       8.74       ± 9.6 %         10726       AAA       IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)       WLAN       8.72       ± 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 %         10725       AAA       IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)       WLAN       8.74       ± 9.6 %         10726       AAA       IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)       WLAN       8.72       ± 9.6 %	10720					
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 %           10725         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)         WLAN         8.74         ± 9.6 %           10726         AAA         IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)         WLAN         8.72         ± 9.6 %	10721				8.76	
10724       AAA       IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)       WLAN       8.90       ± 9.6 %         10725       AAA       IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)       WLAN       8.74       ± 9.6 %         10726       AAA       IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)       WLAN       8.72       ± 9.6 %						± 9.6 %
10725         AAA         IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)         WLAN         8.74         ± 9.6 %           10726         AAA         IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)         WLAN         8.72         ± 9.6 %					<del></del>	
10726 AAA IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle) WLAN 8.72 ± 9.6 %						
TU/2/   AAA   IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)   WLAN   8.66   ± 9.6 %						
	10/2/	LAAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	± 9.6 %

10-00			~ <del>-</del>	T	
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 %

<sup>&</sup>lt;sup>E</sup> 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





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

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Client

**PC Test** 

Accreditation No.: SCS 0108

Certificate No: EX3-7417\_Feb19

C

## **CALIBRATION CERTIFICATE**

Object

EX3DV4 - SN:7417

Calibration procedure(s)

QA CAL-D1 (2) QA CAL-25 VS, QA CAL-25 V7 Calibration procedure for dosimetric E-field probes

12-96-20

Calibration date:

February 19, 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	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: Claudio Leubler Laboratory Technician

Approved by: Katja Pokovic Technical Manager

Issued: February 20, 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
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 NORMx,y,z tissue simulating liquid sensitivity in free space

ConvF DCP sensitivity in TSL / NORMx,y,z diode compression point

CF A, B, C, D crest factor (1/duty\_cycle) of the RF signal 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., 9 = 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).

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7417

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) <sup>2</sup> ) <sup>A</sup>	0.54	0.43	0.53	± 10.1 %
DCP (mV) <sup>8</sup>	98.7	97.4	100.4	

**Calibration Results for Modulation Response** 

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max dev.	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1,00	0.00	144.6	± 3.3 %	± 4.7 %
		Y	0.00	0.00	1.00		149.7		
		Z	0.00	0.00	1.00		143.1		
10352-	Pulse Waveform (200Hz, 10%)	X	15.00	88.38	19.65	10.00	60.0	± 3.3 %	± 9.6 %
AAA		Y	4.33	71.38	13.30		60.0		
		Z	7.40	77.44	14.95		60.0		
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	92.19	20.43	6.99	80.0	± 2.2 %	± 9.6 %
AAA		Y	5.53	76.01	13.64		80.0		ļ
		Z	15.00	85.74	16.43		80.0		
10354-	Pulse Waveform (200Hz, 40%)	Х	15.00	107.68	26.54	3.98	95.0	± 1.3 %	± 9.6 %
AAA		Y	9.05	79.53	12.66		95.0		
	***	Z	15.00	90.71	17.41		95.0		
10355-	Pulse Waveform (200Hz, 60%)	Х	15.00	127.17	33.83	2.22	120.0	± 1.2 %	± 9.6 %
AAA		Y	0.26	60.00	4.45		120.0		
		Z	15.00	99.84	20.30		120.0		
10387-	QPSK Waveform, 1 MHz	X	0.56	60.62	7.74	0.00	150.0	± 3.6 %	± 9.6 %
AAA		Y	0.42	60.00	4.69		150.0		
		Z	0.44	60.00	5.48		150.0		
10388-	QPSK Waveform, 10 MHz	X	2.27	69.09	16.46	0.00	150.0	± 1.3 %	± 9.6 %
AAA		Y	1.94	67.43	15.43		150.0	1	
		Z	2.06	68.27	16.05		150.0	]	
10396-	64-QAM Waveform, 100 kHz	X	3.15	72.71	19.95	3.01	150.0	± 2.5 %	± 9.6 %
AAA		Y	2.04	67.08	18.19	]	150.0		
		Z	2.07	66.03	16.88		150.0		
10399-	64-QAM Waveform, 40 MHz	Х	3.52	67.53	16.10	0.00	150.0	± 2.4 %	± 9.6 %
AAA		Y	3.32	66.83	15.68	1	150.0		
		Z	3.38	67.15	15.89	]	150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.80	65.90	15.74	0.00	150.0	± 4.4 %	± 9.6 %
AAA		Y	4.58	65.58	15.59	1	150.0	1	
		Z	4.60	65.76	15.65	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.

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# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7417

**Sensor Model Parameters** 

	C1 fF	C2 fF	α V⁻¹	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V⁻¹	Т6
X	37.6	279.10	35.33	9.45	0.00	5.09	1.69	0.14	1.01
Υ	29.6	227.60	37.50	5.19	0.43	5.04	0.00	0.16	1.01
Z	28.8	214.34	35.37	6.91	0.00	5.04	0.00	0.24	1.00

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	120.5
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

February 19, 2019 EX3DV4-SN:7417

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7417

#### Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	41.9	0.89	10.36	10.36	10.36	0.54	0.99	± 12.0 %
835	41.5	0.90	10.07	10.07	10.07	0.48	0.84	± 12.0 %
1750	40.1	1.37	8.39	8.39	8.39	0.38	0.85	± 12.0 %
1900	40.0	1.40	8.11	8.11	8.11	0.39	0.84	± 12.0 %
2300	39.5	1.67	7.73	7.73	7.73	0.30	0.93	± 12.0 %
2450	39.2	1.80	7.46	7.46	7.46	0.39	0.95	± 12.0 %
2600	39.0	1.96	7.17	7.17	7.17	0.31	1.05	± 12.0 %

<sup>&</sup>lt;sup>c</sup> 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 released 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.

Galpha/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.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7417

#### Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	10.35	10.35	10.35	0.63	0.84	± 12.0 %
835	55.2	0.97	10.11	10.11	10.11	0.43	0.84	± 12.0 %
1750	53.4	1.49	8,21	8.21	8.21	0.43	0.88	± 12.0 %
1900	53.3	1.52	7.86	7.86	7.86	0.43	0.87	± 12.0 %
2300	52.9	1.81	7.64	7.64	7.64	0.41	0.93	± 12.0 %
2450	52.7	1.95	7.51	7.51	7.51	0.40	0.95	± 12.0 %
2600	52.5	2.16	7.37	7.37	7.37	0.33	1.05	± 12.0 %

<sup>&</sup>lt;sup>c</sup> 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.

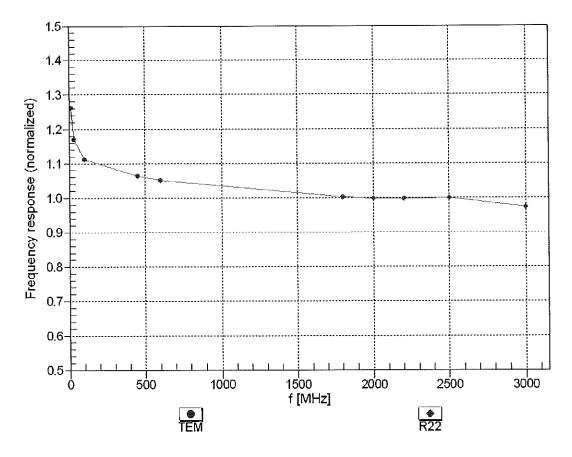
F At frequencies below 3 GHz the validity of these pages of the convF assessed at 1 and 1

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.

<sup>&</sup>lt;sup>G</sup> 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.

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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)

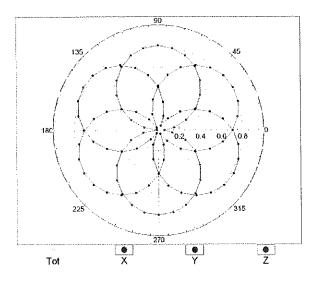
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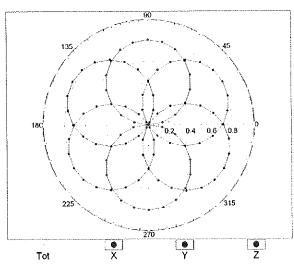
# Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

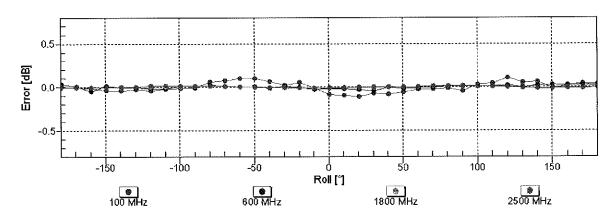


1Hz.TEM

f=1800 MHz,R22

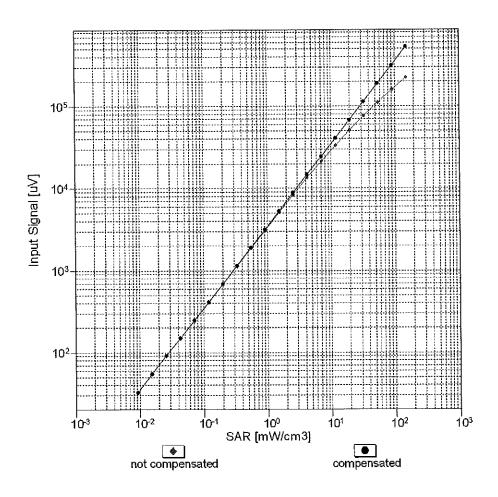


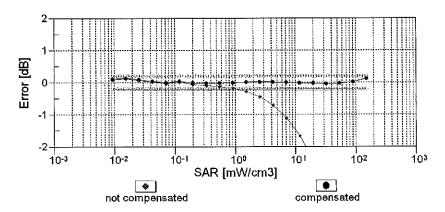




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

# Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)

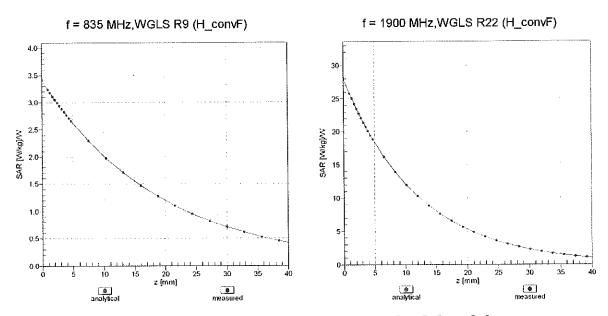




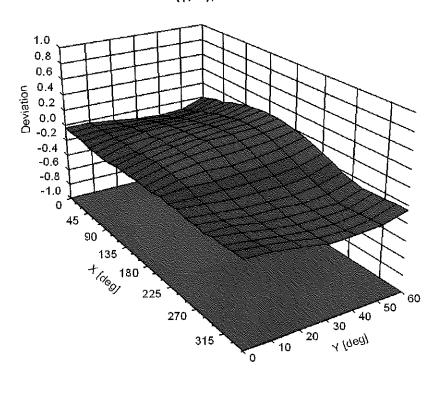
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

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## **Conversion Factor Assessment**



Deviation from Isotropy in Liquid Error ( $\phi$ ,  $\vartheta$ ), f = 900 MHz



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# **Appendix: Modulation Calibration Parameters**

UID	Rev	Communication System Name	Group	PAR	Unc⁵
0	<del>                                     </del>	OM		(dB)	(k=2)
10010	- CAA	CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA) IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WCDMA	2.91	± 9.6 %
10012	CAB		WLAN	1.87	±9.6%
10013	DAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) GSM-FDD (TDMA, GMSK)	WLAN	9.46	± 9.6 %
10021	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.39	±9.6%
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM GSM	6.56	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	9.55 4.80	±9.6%
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6 % ±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	±9.6 %
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 10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.77	±9.6%
10076	CAB		WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) CDMA2000 (1xRTT, RC3)	WLAN CDMA2000	11.00 3.97	±9.6%
10081	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS		±9.6%
10002	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	4.77 6.56	± 9.6 % ± 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 %
		LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6 %
	CAG				
10104 10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %

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		175 FDD (00 FD144 4000/ FD5 40 144)	LTE EDD	0.40	+069/
10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD LTE-FDD	6.43 5.75	± 9.6 % ± 9.6 %
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	6.44	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)			± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59 6.62	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	8.10	±9.6 %
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN WLAN		±9.6 %
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)		8.46	
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 WLAN	8.07	± 9.6 %
10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)		8.59	±9.6 % ±9.6 %
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	
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 (SC-FDMA, 1 RB, 10 MHz, QPSK)	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	±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	± 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 %
10193	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 %
10196	CAC	IEEE 802.11n (HT Mixed, 0.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10197	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10219	CAC	IEEE 802.11n (HT Mixed, 05 Mibps, 04 G/M/)	WLAN	8.03	± 9.6 %
10218	1040	TILLE OUZ. FIT (FT MIXOU, F.Z. MOPO, DT ON)		1	

10221   CAC   IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)			_		040 1555 000 44 (1554) 4 40 041	10000
10222	9.6 %			WLAN	CAC   IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	
10223   CAC   IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	9.6 %	7	{	WLAN		
10224   CAC	9.6 %	6	1 8	WLAN	CAC   IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	
10224   CAC	9.6 %	8	1 8	WLAN	CAC IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	10223
10225   CAB   UMTS-FDD (HSPA+)   10226   CAA   LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)   LTE-TDD   9.49   ± 9.	9.6 %				CAC IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	10224
10228	9.6 %					10225
10227	0.60/					
10228						
10229	9.6 %		_			
10230	9.6 %				1 1 1	
10231   CAC	9.6 %	8		LTE-TDD	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
10232   CAF	9.6 %	25	1	LTE-TDD	CAC LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	
10232   CAF	9.6 %	9	7	LTE-TDD	CAC LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	
10233	9.6 %	8	1	LTE-TDD	CAF LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	10232
10234   CAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)   LTE-TDD   9.21   ±9.     10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   LTE-TDD   9.48   ±9.     10236   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   LTE-TDD   10.25   ±9.     10237   CAF   LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)   LTE-TDD   9.21   ±9.     10238   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   LTE-TDD   9.48   ±9.     10239   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   LTE-TDD   10.25   ±9.     10240   CAF   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)   LTE-TDD   9.21   ±9.     10241   CAA   LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)   LTE-TDD   9.82   ±9.     10242   CAA   LTE-TDD (SC-FDMA, 50% RB, 1 A MHz, QPSK)   LTE-TDD   9.86   ±9.     10243   CAA   LTE-TDD (SC-FDMA, 50% RB, 1 A MHz, QPSK)   LTE-TDD   9.86   ±9.     10244   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   9.46   ±9.     10245   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   9.46   ±9.     10246   CAC   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   LTE-TDD   10.06   ±9.     10247   CAF   LTE-TDD (SC-FDMA, 50% RB, 3 MHz, G4-QAM)   LTE-TDD   9.30   ±9.     10248   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10249   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10250   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10251   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10252   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.91   ±9.     10253   CAF   LTE-TDD (SC-FDMA, 50% RB, 5 MHz, G4-QAM)   LTE-TDD   9.90   ±9.     10254   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, G4-QAM)   LTE-TDD   9.90   ±9.     10255   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, G4-QAM)   LTE-TDD   9.90   ±9.     10256   CAF   LTE-TDD (SC-FDMA, 50% RB, 10 MHz, G4-QAM)   LTE-TDD   9.90   ±9.     10257	9.6 %				CAF LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	10233
10235   CAF	9.6 %				CAE LTE-TDD (SC-FDMA 1 RB 5 MHz OPSK)	
10236   CAF					CAE LTE-TOD (SC-EDMA 1 RB 10 MHz 16-OAM)	
10237   CAF			<del></del>			
10238   CAF	9.6 %		<del>-</del>			
10239   CAF	9.6 %					
10240	9.6 %			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
10241   CAA   LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)   LTE-TDD   9.82 ± 9.	9.6 %	25 _	1	LTE-TDD		
10241   CAA	: 9.6 %	1		LTE-TDD		
10242         CAA         LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)         LTE-TDD         9.86         ± 9.           10243         CAA         LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)         LTE-TDD         9.46         ± 9.           10244         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)         LTE-TDD         10.06         ± 9.           10245         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)         LTE-TDD         10.06         ± 9.           10246         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)         LTE-TDD         9.00         ± 9.           10247         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)         LTE-TDD         9.91         ± 9.           10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)         LTE-TDD <t< td=""><td>9.6 %</td><td>2</td><td>- 5</td><td>LTE-TDD</td><td>CAA   LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)</td><td>10241</td></t<>	9.6 %	2	- 5	LTE-TDD	CAA   LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	10241
10243         CAA         LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)         LTE-TDD         9.46         ± 9.           10244         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)         LTE-TDD         10.06         ± 9.           10245         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)         LTE-TDD         10.06         ± 9.           10246         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)         LTE-TDD         9.30         ± 9.           10247         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)         LTE-TDD         9.91         ± 9.           10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD	9.6 %				CAA LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	10242
10244         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)         LTE-TDD         10.06         ± 9.           10245         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)         LTE-TDD         10.06         ± 9.           10246         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)         LTE-TDD         9.30         ± 9.           10247         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)         LTE-TDD         9.91         ± 9.           10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, GPSK)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, G4-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 14 MHz, 64-QAM)         LTE-TDD	9.6 %					10243
10245         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)         LTE-TDD         10.06         ± 9.           10246         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)         LTE-TDD         9.30         ± 9.           10247         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)         LTE-TDD         9.91         ± 9.           10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)         LTE-TDD         9.90         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 100% RB, 14 MHz, QPSK)         LTE-TDD <t< td=""><td></td><td></td><td>_</td><td></td><td></td><td></td></t<>			_			
10246         CAC         LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)         LTE-TDD         9.30         ± 9.           10247         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)         LTE-TDD         9.91         ± 9.           10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD			~~~~~			
10247         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)         LTE-TDD         9.91         ± 9.           10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 14 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD			_	<del></del>		
10248         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)         LTE-TDD         10.09         ± 9.           10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.34         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD	9.6 %					
10249         CAF         LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         LTE-TDD         9.29         ± 9.           10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, GPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, G4-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.34         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD <td>9.6 %</td> <td>_</td> <td></td> <td></td> <td></td> <td></td>	9.6 %	_				
10250         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)         LTE-TDD         9.81         ± 9.           10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.97         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD	9.6 %	)9	1		\(\frac{1}{2} = \frac{1}{2} =	
10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.97         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.24         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD	9.6 %	9	9	LTE-TDD	CAF LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	
10251         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)         LTE-TDD         10.17         ± 9.           10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.97         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.24         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD	9.6 %	1	1	LTE-TDD	CAF LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	10250
10252         CAF         LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, GPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD <td>9.6 %</td> <td>····</td> <td></td> <td></td> <td></td> <td>10251</td>	9.6 %	····				10251
10253         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)         LTE-TDD         9.90         ± 9.           10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD<	9.6 %	_	_			
10254         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)         LTE-TDD         10.14         ± 9.           10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.						
10255         CAF         LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)         LTE-TDD         9.20         ± 9.           10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.						
10256         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)         LTE-TDD         9.96         ± 9.           10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.			_			
10257         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)         LTE-TDD         10.08         ± 9.           10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %		_			
10258         CAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)         LTE-TDD         9.34         ± 9.           10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %					
10259         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)         LTE-TDD         9.98         ± 9.           10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %					
10260         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)         LTE-TDD         9.97         ± 9.           10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %	4	9	LTE-TDD		
10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %	8	(	LTE-TDD	CAC LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	10259
10261         CAC         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)         LTE-TDD         9.24         ± 9.           10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %	7	1	LTE-TDD	CAC LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	10260
10262         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)         LTE-TDD         9.83         ± 9.           10263         CAF         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)         LTE-TDD         10.16         ± 9.	9.6 %		~~~~~			10261
10263 CAF LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM) LTE-TDD 10.16 ± 9.	9.6 %		_			
			_			
1 NVO4   UAC     1 C*11/1/13/2C1MA NUM CO 3 MOV UESSI - 1 C-11/1 - 1 C-11/1 - 1 C/5 - # C			_			
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	96%				, , , , , , , , , , , , , , , , , , ,	
	9.6 %					
	9.6 %				AAB CDMA2000, RC3, SO32, Full Rate	10292
	9.6 %					
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	9.6 %		_		AAD LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)  AAD LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	10298
10299   AAD   LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	∞1 D 7/o	<b>9</b>	1	LTE-FDD	AAD   LIE-FUD (OC-FUNA, 30% KB, 3 MITZ, TO-WAM)	こしたびひ

10200	A A D	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10300 10301	AAD AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10301	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL	WIMAX	12.57	± 9.6 %
10302	AAA	symbols)	771171171	12.01	20.0 %
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)			
10306	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18	WiMAX	14.67	± 9.6 %
		symbols)			
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18	WiMAX	14.49	±9.6%
		symbols)	14014437	44.40	
10308	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX WiMAX	14.46 14.58	± 9.6 % ± 9.6 %
10309	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18	VVIIVIAA	14.56	I 9.0 %
10310	AAA	symbols) IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18	WiMAX	14.57	± 9.6 %
10310	~~~	symbols)	VVIIVIEOC	14,07	20.0 /
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 6.27	± 9.6 % ± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic WLAN	8.37	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle) IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10401 10402	AAD AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10402	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	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%
101.10	′ ′ ′′	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 %
	1	Long preambule)	WLAN	p 40	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle,	VYLAN	8.19	± 9.0 70
40400	A	Short preambule)	WLAN	8.32	± 9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.40	± 9.6 %
10424 10425	AAB AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 04-QAM)	WLAN	8.41	± 9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 350 Mbps, 16 day)	WLAN	8.41	± 9.6 %
10427	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 %
	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
			WCDMA	8.60	± 9.6 %
10433 10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)			
10433		LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10433 10434	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD		
10433 10434	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.56	± 9.6 %
10433 10434 10435 10447 10448	AAA AAF AAD AAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD LTE-FDD	7.56 7.53	± 9.6 % ± 9.6 %
10433 10434 10435	AAA AAF AAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.56	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.50	1069/
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	7.59 8.63	± 9.6 % ± 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%
		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	A A D	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 %
10466	A A D	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL	LTE TOO	0 57	
10400	AAB	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	LTE-TDD	7.82	± 9.6 %
10401	^^L	Subframe=2,3,4,7,8,9)	LIE-IDD	1.02	19.0%
10468	AAE	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	2 0.0 %
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)		0.00	
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 %
		Subframe=2,3,4,7,8,9)		***************************************	
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10474	A A F	Subframe=2,3,4,7,8,9)	1 TT TOD	0.00	
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10475	AAE	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6 %
10475	/-V-\L	Subframe=2,3,4,7,8,9)	LIE-IDD	0.57	1 9.0 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
(511)	' "	Subframe=2,3,4,7,8,9)		0.02	20.070
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 %
		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 %
40.400		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 %
10483	AAB	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	0.00	1060/
10403	\	Subframe=2,3,4,7,8,9)	L12-100	8.39	± 9.6 %
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	± 9.6 %
10404	7010	Subframe=2,3,4,7,8,9)	LIE-IDD	0.71	1 5.0 /0
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)		,,,,,	2 5,6 76
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)			
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)			
10488	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL	LTE-TDD	7.70	± 9.6 %
	<u> </u>	Subframe=2,3,4,7,8,9)			<u> </u>
10489	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
40400	A A F	Subframe=2,3,4,7,8,9)	LTETOO	0.54	1000
10490	AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.54	±9.6%
10491	AAE	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10431	\ \^c	Subframe=2,3,4,7,8,9)	LIC-IDD	1.14	1 2.0 70
i	I	GGD  GHO 2,0,7,1,0,0/	1	L	<u> </u>

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			1	1 244 1	
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	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	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 %
10495	AAF	Subframe=2,3,4,7,8,9)		0.07	0.0 /0
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
		Subframe=2,3,4,7,8,9)		7.07	. 0 0 0/
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	LTE-TDD	8.40	± 9.6 %
	,	Subframe=2,3,4,7,8,9)			
10499	AAA	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 %
10000	AAB	Subframe=2,3,4,7,8,9)	12-100	1.07	20.0 %
10501	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8.44	±9.6%
		Subframe=2,3,4,7,8,9)			
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	LTE-TDD	7.72	±9.6%
10000	, , , , _	Subframe=2,3,4,7,8,9)			
10504	AAE	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 %
10000	AAE	Subframe=2,3,4,7,8,9)	CIE-IDD	0.04	1.0.0 /0
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 %
10000	/ / / /	Subframe=2,3,4,7,8,9)			
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL	LTE-TDD	7.99	± 9.6 %
40540		Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.49	±9.6%
10510	AAE	Subframe=2,3,4,7,8,9)	LIE-IDD	0.43	0.0 /6
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.51	± 9.6 %
		Subframe=2,3,4,7,8,9)			
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10513	AAF	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.42	±9.6 %
10010	1,00	Subframe=2,3,4,7,8,9)			
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
40545		Subframe=2,3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10515 10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 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 WLAN	8.12 7.97	± 9.6 % ± 9.6 %
10521 10522	AAB	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)	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 10527	AAB AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN WLAN	8.42 8.21	± 9.6 % ± 9.6 %
10527	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 WLAN	8.29 8.38	± 9.6 % ± 9.6 %
10533 10534	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle) IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10004	מראין	The observation of the Control of the object			

10535	I A A D	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	140 451	0.45	1000
10536	AAB		WLAN	8.45	± 9.6 %
10537		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 %
10536	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 %
	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)			
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 cycle)	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 %
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	1.98	± 9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty	WLAN	8.59	± 9.6 %
10576	AAA	cycle)   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	WLAN	8.76	± 9.6 %
10581	AAA	cycle) IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	WLAN	8.35	± 9.6 %
10582	AAA	cycle)   IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
10583	AAB	cycle) 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, 6 Wibps, 90pc duty cycle)	WLAN	8.60	±9.6 %
10585	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Wbps, 90pc duty cycle)	WLAN	8.70	±9.6 %
10585	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 %
10587	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN		± 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	± 9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
3			WLAN		
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)		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, MCS1, 30pc 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 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
		IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	
10625	AAB				±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 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±9.6 %
10638	AAC	IEEE 802.11ac WIFI (160MHz, MCS2, 90pc duty cycle)	WLAN		±9.6 %
				8.85	
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 %
1000	1,2,5	1 1 (01 bits ( 10 tits 12) 1 tit 011) 011pping 70)		0.00	0.0 /0

EX3DV4~ SN:7417

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 %

<sup>&</sup>lt;sup>E</sup> 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

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

**PC Test** 

Certificate No: EX3-7538\_May19

S

CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:7538

1/20/10

Calibration procedure(s)

QA CAL-01.v9, 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  $\pm$  3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

ID	Cal Date (Certificate No.)	Scheduled Calibration
SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
SN: 103244		Apr-20
SN: 103245		Apr-20
SN: S5277 (20x)		Apr-20
SN: 660		Dec-19
SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
ID	Check Date (in house)	Scheduled Check
SN: GB41293874		In house check: Jun-20
SN: MY41498087		In house check: Jun-20
SN: 000110210	· · · · · · · · · · · · · · · · · · ·	In house check: Jun-20
SN: US3642U01700	1	In house check: Jun-20
SN: US41080477		In house check: Oct-19
	SN: 104778 SN: 103244 SN: 103245 SN: S5277 (20x) SN: 660 SN: 3013 ID SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700	SN: 104778 03-Apr-19 (No. 217-02892/02893) SN: 103244 03-Apr-19 (No. 217-02892) SN: 103245 03-Apr-19 (No. 217-02893) SN: S5277 (20x) 04-Apr-19 (No. 217-02894) SN: 660 19-Dec-18 (No. DAE4-660_Dec18) SN: 3013 31-Dec-18 (No. ES3-3013_Dec18)  ID Check Date (in house) SN: GB41293874 06-Apr-16 (in house check Jun-18) SN: MY41498087 06-Apr-16 (in house check Jun-18) SN: 000110210 06-Apr-16 (in house check Jun-18) SN: US3642U01700 04-Aug-99 (in house check Jun-18)

Calibrated by:

Name
Function
Signature

Manu Seitz
Laboratory Technician

Approved by:

Katja Pokovic
Technical Manager

Issued: May 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
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Swiss Calibration Service

Accreditation No.: SCS 0108

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Glossary:

TSL NORMx,y,z tissue simulating liquid sensitivity in free space

ConvF DCP sensitivity in TSL / NORMx,y,z diode compression point

CF

crest factor (1/duty\_cycle) of the RF signal modulation dependent linearization parameters

A, B, C, D Polarization ω

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., 9 = 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).

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7538

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) <sup>2</sup> ) <sup>A</sup>	0.61	0.47	0.62	± 10.1 %
DCP (mV) <sup>B</sup>	98.8	98.5	101.3	

Calibration Results for Modulation Response

OID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Max dev.	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	155.2	± 3.0 %	± 4.7 %
		Y	0.00	0.00	1.00		137.9	20.0 70	
		Z	0.00	0.00	1.00		155.8		
10352-	Pulse Waveform (200Hz, 10%)	X	15.00	88.04	20.18	10.00	60.0	± 3.0 %	± 9.6 %
AAA		Υ	15.00	90.19	21.39	1	60.0	1	= 0.0 %
		Z	15.00	88.18	20.24		60.0		
10353-	Pulse Waveform (200Hz, 20%)	X	15.00	88.45	19.13	6.99	80.0	± 1.6 %	± 9.6 %
AAA		Y	15.00	91.70	21.05	1	80.0	//	20.0 %
		Z	15.00	89.12	19.45	1	80.0		
10354-	Pulse Waveform (200Hz, 40%)	Х	15.00	88.58	17.59	3.98	95.0	± 1.1 %	± 9.6 %
AAA		Υ	15.00	94.84	21.19	1	95.0		- 0.0 /0
		Z	15.00	89.93	18.24	1	95.0		
10355-	Pulse Waveform (200Hz, 60%)	X	15.00	86.39	15.08	2.22	120.0	± 1.2 %	± 9.6 %
AAA		Y	15.00	105.53	24.85		120.0	1.2 70	2 0.0 %
		Z	15.00	88.42	16.02		120.0		İ
10387-	QPSK Waveform, 1 MHz	X	0.62	60.57	7.83	0.00	150.0	± 2.8 %	± 9.6 %
AAA		Υ	0.80	62.61	10.33		150.0	2.0 /8	2 0.0 70
		Z	0.58	60.38	7.49	1	150.0		
10388-	QPSK Waveform, 10 MHz	Х	2.13	67.36	15.14	0.00	150.0	± 1.1 %	± 9.6 %
AAA		Υ	2.28	68.19	15.85	1	150.0	,	2 0.0 %
		Z	2.15	67.77	15.44		150.0		
10396-	64-QAM Waveform, 100 kHz	X	2.91	69.44	18.28	3.01	150.0	± 0.8 %	± 9.6 %
AAA		Y	3.20	71.32	19.14		150.0	_ 0.0 /0	_ 0.0 /0
		Ζ	2.90	69.50	18.32		150.0		
10399-	64-QAM Waveform, 40 MHz	Х	3.48	66.95	15.60	0.00	150.0	± 1.9 %	± 9.6 %
AAA		Υ	3.54	67.12	15.83		150.0		/0
·		Z	3.50	67.18	15.77		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	Х	4.92	65.80	15.63	0.00	150.0	± 3.9 %	± 9.6 %
AAA	Taxana	Y	4.92	65,59	15.57		150.0		70
		Z	4.88	65,83	15.67		150.0	į	

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%.

<sup>&</sup>lt;sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>&</sup>lt;sup>B</sup> 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.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7538

#### **Sensor Model Parameters**

	C1 fF	C2 fF	α V <sup>-1</sup>	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	Т6
X	46.5	359.24	37.65	15.76	0.50	5.10	0.00	0.57	1.01
Υ	51.3	388.10	36.40	16.50	0.29	5.10	1.26	0.35	1.01
Z	43.5	334.60	37.33	14.65	0.48	5.10	0.00	0.56	1.01

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	13.9
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

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### DASY/EASY - Parameters of Probe: EX3DV4 - SN:7538

#### Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	41.9	0.89	10.68	10.68	10.68	0.38	0.86	± 12.0 %
835	41.5	0.90	10.30	10.30	10.30	0.31	0.98	± 12.0 %
1750	40.1	1.37	8.67	8.67	8.67	0.35	0.90	± 12.0 %
1900	40.0	1.40	8.32	8.32	8.32	0.32	0.90	± 12.0 %
2300	39.5	1.67	7.79	7.79	7.79	0.37	0.87	± 12.0 %
2450	39.2	1.80	7.41	7.41	7.41	0.30	0.87	± 12.0 %
2600	39.0	1.96	7.20	7.20	7.20	0.27	0.97	± 12.0 %

<sup>&</sup>lt;sup>c</sup> 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.

<sup>6</sup> 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.

the ConvF uncertainty for indicated target tissue parameters.

Galpha/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.

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7538

#### Calibration Parameter Determined in Body Tissue Simulating Media

			,			- aia		
f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	10.11	10.11	10.11	0.38	0.86	± 12.0 %
835	55.2	0.97	9.85	9.85	9.85	0.31	0.98	± 12.0 %
1750	53.4	1.49	8.52	8.52	8.52	0.37	0.93	± 12.0 %
1900	53.3	1.52	8.08	8.08	8.08	0.31	0,99	± 12.0 %
2300	52.9	1.81	7.73	7.73	7.73	0.36	0.90	± 12.0 %
2450	52.7	1.95	7.66	7.66	7,66	0.31	0.87	± 12.0 %
2600	52.5	2.16	7.36	7.36	7.36	0.28	0.99	± 12.0 %

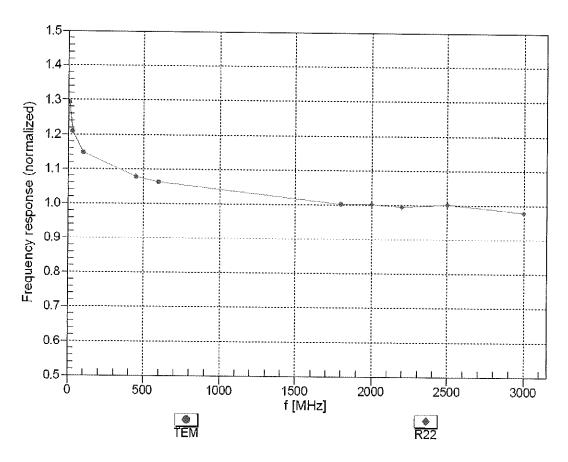
<sup>&</sup>lt;sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessed 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.

Galpha/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.

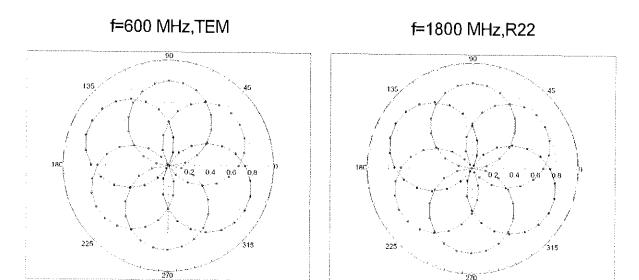
## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



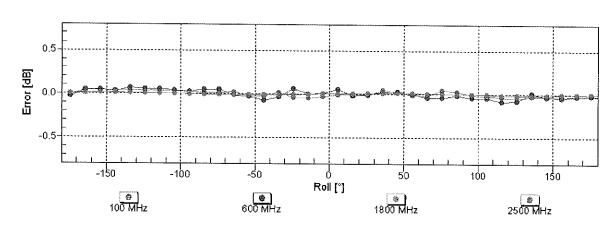
Uncertainty of Frequency Response of E-field:  $\pm$  6.3% (k=2)

Tot

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

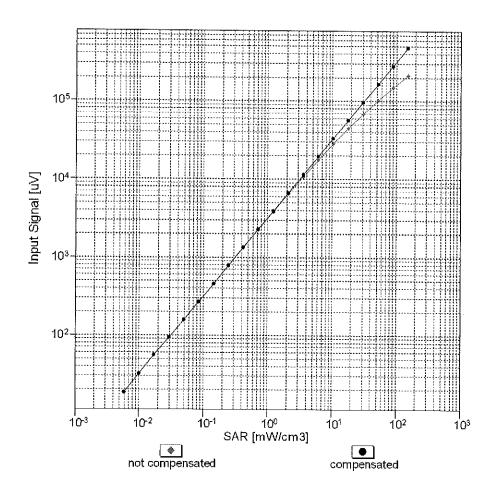


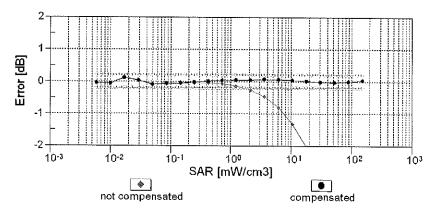
Tot



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

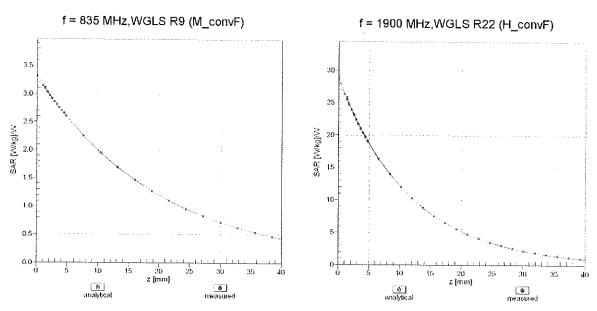
# Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)



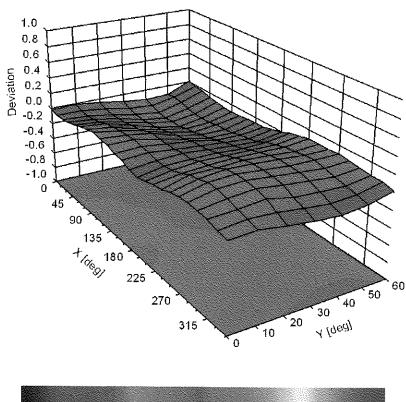


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

## **Conversion Factor Assessment**



Deviation from Isotropy in Liquid Error (φ, θ), f = 900 MHz



### **Appendix: Modulation Calibration Parameters**

UID	Rev	Communication System Name	Group	PAR	Unc <sup>E</sup>
0		CW	cw	(dB) 0.00	(k=2) ± 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 10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)  IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN WLAN	9.00 9.38	±9.6 % ±9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	10.12	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB		WLAN	9.83	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 3 MiDps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 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 %

10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	TITETO	T 0 40	1000
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	6.43	± 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)  LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	5.75	± 9.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)		6.44	± 9.6 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD LTE-FDD	6.59 6.62	± 9.6 %
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)			± 9.6 %
10115	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, 16-QAM)	WLAN WLAN	8.10 8.46	± 9.6 % ± 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 10166	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
10166		LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6%
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6%
10169	CAF CAE	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, QPSK)	LTE-FDD	5.73	±96%
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM) LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.52	± 9.6 %
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)  LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	6.49	± 9.6 %
10172	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, 16-QAM)	LTE-TDD	9.48	±9.6%
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)  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 %
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD LTE-FDD	6.52	±9.6 %
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	5.73 6.52	±9.6%
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 % ± 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	±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	8.13	± 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	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 %
10235 10236	CAF CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD LTE-TDD	9.48 10.25	± 9.6 % ± 9.6 %
10236	CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM) LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10237	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 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAA	LTE-TDD (SC-FDMA, 710, 10 MHz, 47 SN)	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-TOD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255 10256	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)  LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD LTE-TDD	9.20 9.96	± 9.6 % ± 9.6 %
10256	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, 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 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277 10278	CAA	PHS (QPSK) PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS PHS	11.81	± 9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	11.81 12.18	± 9.6 % ± 9.6 %
10279	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	±9.6 %
10290	AAB	CDMA2000, RC1, SO35, Full Rate  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 %
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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)	VVIIVIOX	12.57	1 3.0 /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 %
	1	symbols)	VVIIVICA	13.24	£ 9.0 %
10306	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18	WiMAX	14.67	± 9.6 %
	1	symbols)	VVIIVII	14.07	1 3.0 %
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18	WIMAX	14.49	± 9.6 %
		symbols)	V 4 11 V 17 V 1	147.443	1 3.0 %
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 %
		symbols)	***************************************	147.00	20.0 %
10310	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18	WiMAX	14.57	± 9.6 %
ļ		symbols)		14,07	2.0.0 /0
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%)	·		
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic Generic	10.00	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	6.99	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)		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 %
10390	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%
10400	AAD	IFFE 902 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	AAB	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	<del></del>	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	±9.6%
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	±9.6 %
10400	AAB AAF	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 %
10414	AAA	Subframe=2,3,4,7,8,9, Subframe Conf=4)		0.814	
10414	·}	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 %
		IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10417 10418	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6%
10410	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,	10/1 021	0.40	
10413	~~~		WLAN	8.19	± 9.6 %
		Short preambule)			
10422	ΔΔΡ	Short preambule)  IEEE 802 11n (HT Greenfield, 7.2 Mbps, RPSK)	10/1 0.51	0.00	1000
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8,47	± 9.6 %
10423 10424	AAB AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN WLAN	8,47 8,40	±9.6 % ±9.6 %
10423 10424 10425	AAB AAB AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN WLAN WLAN	8.47 8.40 8.41	± 9.6 % ± 9.6 % ± 9.6 %
10423 10424 10425 10426	AAB AAB AAB AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN WLAN WLAN	8.47 8.40 8.41 8.45	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427	AAB AAB AAB AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN WLAN WLAN WLAN WLAN	8.47 8.40 8.41 8.45 8.41	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430	AAB AAB AAB AAB AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 702.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEF 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN WLAN WLAN WLAN WLAN LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431	AAB AAB AAB AAB AAB AAD AAD	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	WLAN WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432	AAB AAB AAB AAB AAB AAB AAD AAD AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	WLAN WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34	± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433	AAB AAB AAB AAB AAB AAD AAD AAC AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433 10434	AAB AAB AAB AAB AAB AAD AAD AAC AAC AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) W-CDMA (BS Test Model 1, 64 DPCH)	WLAN WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD LTE-FDD WCDMA	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34 8.34 8.60	± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433	AAB AAB AAB AAB AAB AAD AAD AAC AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) W-CDMA (BS Test Model 1, 64 DPCH) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL	WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34 8.34	± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433 10434 10435	AAB AAB AAB AAB AAD AAD AAC AAC AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) W-CDMA (BS Test Model 1, 64 DPCH) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD LTE-FDD WCDMA LTE-TDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34 8.34 8.60	± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433 10434 10435	AAB AAB AAB AAB AAD AAD AAC AAC AAA AAF	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) W-CDMA (BS Test Model 1, 64 DPCH) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD WCDMA LTE-FDD LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34 8.34 8.60	± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433 10434 10435	AAB AAB AAB AAB AAD AAD AAC AAC AAA AAF AAD	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) W-CDMA (BS Test Model 1, 64 DPCH) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD WCDMA LTE-FDD LTE-FDD LTE-FDD WCDMA LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34 8.34 8.60 7.82	± 9.6 % ± 9.6 %
10423 10424 10425 10426 10427 10430 10431 10432 10433 10434 10435	AAB AAB AAB AAB AAD AAD AAC AAC AAA AAF	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK) IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1) LTE-FDD (OFDMA, 10 MHz, E-TM 3.1) LTE-FDD (OFDMA, 15 MHz, E-TM 3.1) LTE-FDD (OFDMA, 20 MHz, E-TM 3.1) W-CDMA (BS Test Model 1, 64 DPCH) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	WLAN WLAN WLAN WLAN LTE-FDD LTE-FDD LTE-FDD WCDMA LTE-FDD LTE-FDD	8.47 8.40 8.41 8.45 8.41 8.28 8.38 8.34 8.34 8.60 7.82	± 9.6 % ± 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%
10462	AAA	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 %
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 %
	<u> </u>	Subframe=2,3,4,7,8,9)			
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	LTE-TDD	7.82	± 9.6 %
10468	AAE	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10469	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.56	± 9.6 %
10470	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL	LTE-TDD	7.82	± 9.6 %
10471		Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
	AAE	Subframe=2,3,4,7,8,9)			
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	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 %
	<u> </u>	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL	LTE-TDD	8,39	± 9.6 %
10483	AAB	Subframe=2,3,4,7,8,9)			
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	LTE-TDD	7,70	± 9.6 %
10489	AAE	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
10490	AAE	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
		Subframe=2,3,4,7,8,9)		774	
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 %

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	LTE-TDD	8.55	± 9.6 %
10494	AAF	Subframe=2,3,4,7,8,9)  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	AAA	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	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 %
10511	AAE	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL			
10512	AAF	Subframe=2,3,4,7,8,9)  LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL	LTE-TDD	8.51	± 9.6 %
10512		Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
	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		
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)		8.39	±9.6 %
10521	AAB	IEEE ROS 110/h WIELE CHT (OFDM OAMET - COTTAIN )	WLAN	8.12	± 9.6 %
		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		
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)		8.36	± 9.6 %
10531	AAB	IFFE 802 11ac MIFE (20MHz, MOSS, 00pc duty cycle)	WLAN	8.36	± 9.6 %
10531		IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	WLAN	8.43	± 9.6 %
	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	± 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 %
	<b>.</b>	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)			
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty	WLAN	8,37	± 9.6 %
		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 %
		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 %
,	1	cycle)	1,12,11,	5.70	20.070
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty	WLAN	8.49	± 9.6 %
10010	7001	cycle)	WEAT .	0.43	2 3.0 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty	WLAN	8.36	± 9.6 %
10013	1,200	cycle)	**LAIN	0.50	- 5.0 /
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty	WLAN	0.76	± 9.6 %
10000	1 ~~~	cycle)	VVLAVIA	8.76	T 9.0 %
10501		IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty	MAII ANI	0.25	+069/
10581	AAA	, , , , ,	WLAN	8,35	± 9.6 %
40500		cycle)	14/1 A N I	0.07	1000
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
10-0-	<b>-</b>	cycle)	1471 451		1
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 8.36	± 9.6 % ± 9.6 %

10988   AAB     IEEE 802:114n WHI 5 GHz, (OFDM, 48 Mbps, 90pc duty cycle)   WILAN   8.76   ±9.6 %   10989   AAB   IEEE 802:114n WHI 5 GHz, (OFDM, 48 Mbps, 90pc duty cycle)   WILAN   8.67   ±9.6 %   10991   AAB   IEEE 802:114n WHI 5 GHz, (OFDM, 54 Mbps, 90pc duty cycle)   WILAN   8.67   ±9.6 %   10991   AAB   IEEE 802:111n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.67   ±9.6 %   10992   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.67   ±9.6 %   10993   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.67   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.74   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.74   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.74   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.74   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.77   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.77   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.77   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WILAN   8.78   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)   WILAN   8.79   ±9.6 %   10994   AAB   IEEE 802:11n (WIMP, MCS3, 90pc duty cycle						
10589   AAB   EEE 802.118/h WIF1 5 GHz (OFEM), 44 Mbps, 90pc duty cycle)   WLAN   8.67   9.6 %   10590   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS0, 90pc duty cycle)   WLAN   8.67   9.6 %   10592   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS0, 90pc duty cycle)   WLAN   8.79   9.6 %   10593   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS2, 90pc duty cycle)   WLAN   8.79   9.6 %   10593   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS2, 90pc duty cycle)   WLAN   8.74   9.6 %   10593   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS2, 90pc duty cycle)   WLAN   8.74   9.6 %   10595   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS2, 90pc duty cycle)   WLAN   8.74   9.6 %   10595   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS4, 90pc duty cycle)   WLAN   8.74   9.6 %   10595   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS4, 90pc duty cycle)   WLAN   8.74   9.6 %   10595   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS5, 90pc duty cycle)   WLAN   8.77   9.6 %   10599   AAB   EEE 802.111 (HT Mixed, 20MHz, MCS5, 90pc duty cycle)   WLAN   8.77   9.6 %   10599   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS5, 90pc duty cycle)   WLAN   8.78   9.6 %   10599   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS5, 90pc duty cycle)   WLAN   8.79   9.6 %   10599   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.88   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.88   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.82   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.82   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.82   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.87   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.87   9.8 %   10590   AAB   EEE 802.111 (HT Mixed, 40MHz, MCS1, 90pc duty cycle)   WLAN   8.87   9.8 %   10590   AAB   EEE 802.111 (WMHz, MCS1, 90pc duty cycle)   WLAN   8.87   9.8 %   10590   AAB   EEE 802.111 (WMHz, MCS1, 90pc dut	10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.67   2.9.6 %   10592   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.63   9.6 %   10592   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.64   9.8 %   10594   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.74   2.9.6 %   10594   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.74   2.9.6 %   10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.74   2.9.6 %   10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.74   2.9.6 %   10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.71   2.9.6 %   10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.75   2.9.6 %   10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10599   AAB   EEE 802.116 / Hr Mired, 20MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10590   AAB   EEE 802.116 / Hr Mired, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   2.9.6 %   10590   AAB   EEE 802.116 WH MIRED, WESS, 90pc duty cycle)   WLAN   8.71   2.9.6 %   10590   AAB   EEE 802.116 WH MIRED, WESS, 90pc duty cycle)   WLAN   8.82   2.9.6 %   10590   AAB   EEE 802.116 WH MIRED, WESS, 90pc duty cycle)   WLAN   8.82   2.9.6 %   10590	10589	AAB		WLAN		
10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WLAN   8.79   9.6 %   10993   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WLAN   8.79   9.6 %   10994   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WLAN   8.74   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WLAN   8.74   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)   WLAN   8.74   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)   WLAN   8.71   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)   WLAN   8.72   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)   WLAN   8.72   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)   WLAN   8.70   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)   WLAN   8.70   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.70   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.82   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.90   9.9 6 %   10999   AAB   EEE 802.11n (HT Mixed, 40MHz, MCS9, 90pc duty cycle)   WLAN   8.9 6 %   10999   AAB   EEE 802.11a WHT (MWHz, MCS9, 90pc duty cycle)   WLAN   8.9 6 %   10999   AAB   EEE 802.11a WHT (MWHz, MCS9, 90pc duty cycle)   WLAN   8.9 6 %   10999   AAB   EEE 802.11a WHT (MWHz, MCS9, 90pc duty cycle)   WLAN   8.8 1   9.9 6 %   10999   AAB   EEE 802.11ac WHT (MWHz, MCS9, 90pc duty cycle)   WLAN   8.8 1   9.9 6 %   10999   AAB   EEE 802.11ac WHT (MWHz, MCS9, 90pc						
10592			IEEE 602.1 Tant WIFTS GHZ (OFDIVI, 54 Wipps, 90pc duty cycle)			
10592			IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
19594   AAB	10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6 %
10594   AAB	10593	AAB			-	
10998   AAB			IEEE 902.11% (IT Mixed, 20MHz, MOO2, 90pc duty cycle)			
10599	· · · · · · · · · · · · · · · · · · ·		IEEE OUZ. I III (FIT WIXED, ZUIVIFIZ, WICSS, 9Upc duty cycle)			
10598		_	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10598	10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	
10599	10597	AAR	IEEE 802 11n (HT Mixed, 20MHz, MCS6, 90nc duty cyclo)			
10999   AAB			IEEE 902 44n (FT Mixed, 20MHz, MCC7, 00= daty cycle)			
19690			IEEE 602, I III (HT MIXEG, 2018HZ, MCS7, 90pc auty cycle)			
10801   AAB			IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10801   AAB     EEE 802.11n (LT Mixed, 40MHz, MCS3, 90pc duly cycle)   WLAN   8.82   ± 9.6 %   10803   AAB     EEE 802.11n (LT Mixed, 40MHz, MCS3, 90pc duly cycle)   WLAN   9.03   ± 9.6 %   10803   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS6, 90pc duly cycle)   WLAN   9.03   ± 9.6 %   10804   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS6, 90pc duly cycle)   WLAN   8.76   ± 9.6 %   10805   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS6, 90pc duly cycle)   WLAN   8.97   ± 9.6 %   10806   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS6, 90pc duly cycle)   WLAN   8.97   ± 9.6 %   10807   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS6, 90pc duly cycle)   WLAN   8.97   ± 9.6 %   10807   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS7, 90pc duly cycle)   WLAN   8.77   ± 9.6 %   10808   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS7, 90pc duly cycle)   WLAN   8.77   ± 9.6 %   10809   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS1, 90pc duly cycle)   WLAN   8.77   ± 9.6 %   10809   AAB   EEE 802.11n (LT Mixed, 40MHz, MCS1, 90pc duly cycle)   WLAN   8.77   ± 9.6 %   108010   AAB   EEE 802.11n (LT WIFL)   EEE 802.11n (WIFL)   EEE 80	10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8 88	
19602   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCS3, 30pc duly cycle)   WLAN   8.94   ±9.6 %, 19604   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCS4, 30pc duly cycle)   WLAN   9.03   ±9.6 %, 19604   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCS5, 30pc duly cycle)   WLAN   8.76   ±9.5 %, 19605   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCS5, 30pc duly cycle)   WLAN   8.97   ±9.6 %, 19605   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCS5, 30pc duly cycle)   WLAN   8.97   ±9.6 %, 19605   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCS5, 30pc duly cycle)   WLAN   8.64   ±9.6 %, 19606   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.64   ±9.6 %, 19606   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.64   ±9.6 %, 19606   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.77   ±9.6 %, 19606   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.77   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.77   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.78   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.78   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.70   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.70   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.70   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (20MHz, MCS1, 90pc duly cycle)   WLAN   8.59   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (40MHz, MCS1, 90pc duly cycle)   WLAN   8.59   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (40MHz, MCS1, 90pc duly cycle)   WLAN   8.82   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (40MHz, MCS1, 90pc duly cycle)   WLAN   8.82   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (40MHz, MCS1, 90pc duly cycle)   WLAN   8.81   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (40MHz, MCS2, 90pc duly cycle)   WLAN   8.81   ±9.6 %, 19611   AAB   IEEE 802.11n (WFI (40MHz, MCS2, 90pc duly cycle)   WLAN   8.81   ±9.6 %, 19622   AAB	10601	AAB	IEEE 802 11n (HT Mixed, 40MHz, MCS2, 90nc duty cycle)			
19803   AAB			IEEE 002 44n (HT Mixed, 40MHz, MCC2, 00pc duty cycle)			
19604   AAB     EEE 802.11n (HT Mixed, 40MHz, MCSS, 90pc duty cycle)   WLAN   8.76   ± 9.6 %, 19606   AAB     EEE 802.11n (HT Mixed, 40MHz, MCSS, 90pc duty cycle)   WLAN   8.97   ± 9.6 %, 19606   AAB     EEE 802.11n (HT Mixed, 40MHz, MCSS, 90pc duty cycle)   WLAN   8.82   ± 9.6 %, 19606   AAB     EEE 802.11n (HT Mixed, 40MHz, MCSS, 90pc duty cycle)   WLAN   8.64   ± 9.6 %, 19606   AAB     EEE 802.11n (HT Mixed, 40MHz, MCSS, 90pc duty cycle)   WLAN   8.64   ± 9.6 %, 19606   AAB     EEE 802.11n (WFI (20MHz, MCSI, 90pc duty cycle)   WLAN   8.67   ± 9.6 %, 19606   AAB     EEE 802.11n (WFI (20MHz, MCSI, 90pc duty cycle)   WLAN   8.77   ± 9.6 %, 19606   AAB			IEEE 602.1111 (HT Mixed, 40MHZ, MCS3, 90pc duty cycle)			
19804   AAB	<del>}</del>		IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
19605   AAB   IEEE 802.11n (HT Mixed, 40MHz, MCSF, 90pc duty cycle)   WLAN   8.97   ± 9.6 %   19607   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.64   ± 9.6 %   19607   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.67   ± 9.6 %   19608   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.67   ± 9.6 %   19609   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.77   ± 9.6 %   19610   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.77   ± 9.6 %   19611   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.70   ± 9.6 %   19612   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.70   ± 9.6 %   19612   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.77   ± 9.6 %   19614   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.77   ± 9.6 %   19614   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.59   ± 9.6 %   19614   AAB   IEEE 802.11n c WiFi (20MHz, MCSF, 90pc duty cycle)   WLAN   8.59   ± 9.6 %   19616   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.82   ± 9.6 %   19616   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.82   ± 9.6 %   19617   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.82   ± 9.6 %   19617   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.82   ± 9.6 %   19617   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.85   ± 9.6 %   19620   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.59   ± 9.6 %   19620   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   19620   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   19626   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   19626   AAB   IEEE 802.11nc WiFi (40MHz, MCSF, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   19626   AAB   IEEE 802.11nc WiFi (80MHz, MCSF, 90	10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	+96%
10606	10605	AAB	IEEE 802 11n (HT Mixed 40MHz MCS6, 90nc duty cycle)			
10607   AAB   IEEE 802.11ac WiFi (20MHz, MCSI, 90pc duly cycle)   WLAN   8.64   £ 9.6 %   10608   AAB   IEEE 802.11ac WiFi (20MHz, MCSI, 90pc duly cycle)   WLAN   8.77   £ 9.6 %   10610   AAB   IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duly cycle)   WLAN   8.77   £ 9.6 %   10610   AAB   IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duly cycle)   WLAN   8.78   £ 9.6 %   10611   AAB   IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duly cycle)   WLAN   8.70   £ 9.6 %   10612   AAB   IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duly cycle)   WLAN   8.70   £ 9.6 %   10612   AAB   IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duly cycle)   WLAN   8.77   £ 9.6 %   10614   AAB   IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duly cycle)   WLAN   8.77   £ 9.6 %   10614   AAB   IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duly cycle)   WLAN   8.59   £ 9.6 %   10615   AAB   IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duly cycle)   WLAN   8.82   £ 9.6 %   10616   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.82   £ 9.6 %   10617   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.82   £ 9.6 %   10617   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.81   £ 9.6 %   10619   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.81   £ 9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.81   £ 9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.86   £ 9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.86   £ 9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.86   £ 9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.86   £ 9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duly cycle)   WLAN   8.86   £ 9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duly cycle)   WLAN   8.87   £ 9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duly cycle)   WLAN   8.89   £ 9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duly cycle)		<del></del>	IEEE 902.11n (UT Mixed, 10MHz, MCC7, 00pc duty cycle)			
10608			TEEE 802.1111 (H1 Mixed, 40MHz, MCS7, 90pc duty cycle)			
1969  AAB   IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)   WLAN   8,77   ± 9,6 %   10610   AAB   IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)   WLAN   8,78   ± 9,6 %   10610   AAB   IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)   WLAN   8,78   ± 9,6 %   10611   AAB   IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)   WLAN   8,77   ± 9,6 %   10613   AAB   IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)   WLAN   8,77   ± 9,6 %   10613   AAB   IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)   WLAN   8,79   ± 9,6 %   10613   AAB   IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)   WLAN   8,59   ± 9,6 %   10614   AAB   IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)   WLAN   8,59   ± 9,6 %   10615   AAB   IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)   WLAN   8,59   ± 9,6 %   10616   AAB   IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)   WLAN   8,82   ± 9,6 %   10617   AAB   IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)   WLAN   8,82   ± 9,6 %   10617   AAB   IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)   WLAN   8,81   ± 9,6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)   WLAN   8,86   ± 9,6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,86   ± 9,6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,86   ± 9,6 %   10621   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,87   ± 9,6 %   10622   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,87   ± 9,6 %   10624   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,88   ± 9,6 %   10624   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,88   ± 9,6 %   10625   AAB   IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)   WLAN   8,88   ± 9,6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)   WLAN   8,89   ± 9,6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8,89   ± 9,6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)				WLAN	8.64	± 9.6 %
10609   AAB   IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)   WLAN   8.76   ±9.6 %   10610   AAB   IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)   WLAN   8.76   ±9.6 %   10612   AAB   IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)   WLAN   8.77   ±9.6 %   10612   AAB   IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)   WLAN   8.77   ±9.6 %   10614   AAB   IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)   WLAN   8.94   ±9.6 %   10614   AAB   IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)   WLAN   8.59   ±9.6 %   10614   AAB   IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)   WLAN   8.52   ±9.6 %   10616   AAB   IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)   WLAN   8.82   ±9.6 %   10617   AAB   IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)   WLAN   8.82   ±9.6 %   10617   AAB   IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)   WLAN   8.81   ±9.6 %   10619   AAB   IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)   WLAN   8.85   ±9.6 %   10619   AAB   IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)   WLAN   8.85   ±9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)   WLAN   8.86   ±9.6 %   10620   AAB   IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)   WLAN   8.87   ±9.6 %   10622   AAB   IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)   WLAN   8.87   ±9.6 %   10622   AAB   IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)   WLAN   8.87   ±9.6 %   10622   AAB   IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)   WLAN   8.87   ±9.6 %   10622   AAB   IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)   WLAN   8.87   ±9.6 %   10623   AAB   IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)   WLAN   8.88   ±9.6 %   10623   AAB   IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)   WLAN   8.88   ±9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.89   ±9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.88   ±9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.81   ±9.6 %	10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN		
10610   AAB   IEEE 802.11ac WIFI (20MHz, MCS3, 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, MCS5, 90pc duty cycle)   WLAN   8.77   ± 9.6 %   10613   AAB   IEEE 802.11ac WIFI (20MHz, MCS5, 90pc duty cycle)   WLAN   8.59   ± 9.6 %   10614   AAB   IEEE 802.11ac WIFI (20MHz, MCS5, 90pc duty cycle)   WLAN   8.59   ± 9.6 %   10615   AAB   IEEE 802.11ac WIFI (20MHz, MCS6, 90pc duty cycle)   WLAN   8.62   ± 9.6 %   10616   AAB   IEEE 802.11ac WIFI (20MHz, MCS6, 90pc duty cycle)   WLAN   8.62   ± 9.6 %   10616   AAB   IEEE 802.11ac WIFI (20MHz, MCS6, 90pc duty cycle)   WLAN   8.62   ± 9.6 %   10618   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.61   ± 9.6 %   10618   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.61   ± 9.6 %   10618   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10620   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10620   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.67   ± 9.6 %   10622   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.67   ± 9.6 %   10622   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.67   ± 9.6 %   10622   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10624   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10625   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (40MHz, MCS6, 90pc duty cycle)   WLAN   8.69   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)	10609				·	
10611			IEEE 802 1100 MIEI (20MHz, MOC2, 0050 duty cycle)		<del>-</del>	
10612					1	
10612   AAB   IEEE 802.11ac WIFI (20MHz, MCSS, 90pc duty cycle)   WLAN   8.77   ± 9.6 %   10614   AAB   IEEE 802.11ac WIFI (20MHz, MCSS, 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, MCS9, 90pc duty cycle)   WLAN   8.82   ± 9.6 %   10617   AAB   IEEE 802.11ac WIFI (40MHz, MCS9, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10618   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   8.86   ± 9.6 %   10620   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   10620   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   10622   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.87   ± 9.6 %   10622   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.66   ± 9.6 %   10623   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10624   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.68   ± 9.6 %   10625   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10628   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10628   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10633   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10633   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)			IEEE 802.11ac WIFI (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10613	10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	
10614	10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)		·	
10615		<del></del>				
10616   AAB	Ş		TEEE OUZ. Frac WIFT (20WIHZ, MICS7, 90pc duty cycle)			
10617			IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 %
10617	10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	
10618	10617	AAR	IEEE 802 11ac WiEi (40MHz, MCS1, 90pc duty cycle)			
10619						
10620			IEEE 002.11ac WIFI (40MHz, MCSZ, 90pc duty cycle)			
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, MCS7, 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, MCS9, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10627   AAB   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10628   AAB   IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10628   AAB   IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)   WLAN   8.71   ± 9.6 %   10630   AAB   IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)   WLAN   8.85   ± 9.6 %   10630   AAB   IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)   WLAN   8.85   ± 9.6 %   10631   AAB   IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)   WLAN   8.72   ± 9.6 %   10631   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.72   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.80   ± 9.6 %   10635   AAB   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.80   ± 9.6 %   10640   AAC   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10641   AAC   IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)   WLAN   8.85   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)   WLAN   8.85   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycl			IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 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   8.96   ± 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 (40MHz, MCS9, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WIFI (80MHz, MCS1, 90pc duty cycle)   WLAN   8.88   ± 9.6 %   10627   AAB   IEEE 802.11ac WIFI (80MHz, MCS2, 90pc duty cycle)   WLAN   8.88   ± 9.6 %   10628   AAB   IEEE 802.11ac WIFI (80MHz, MCS2, 90pc duty cycle)   WLAN   8.71   ± 9.6 %   10630   AAB   IEEE 802.11ac WIFI (80MHz, MCS3, 90pc duty cycle)   WLAN   8.72   ± 9.6 %   10631   AAB   IEEE 802.11ac WIFI (80MHz, MCS5, 90pc duty cycle)   WLAN   8.72   ± 9.6 %   10631   AAB   IEEE 802.11ac WIFI (80MHz, MCS5, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10633   AAB   IEEE 802.11ac WIFI (80MHz, MCS5, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10633   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10634   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10634   AAB   IEEE 802.11ac WIFI (80MHz, MCS6, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAB   IEEE 802.11ac WIFI (80MHz, MCS9, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10634   AAB   IEEE 802.11ac WIFI (80MHz, MCS9, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10634   AAB   IEEE 802.11ac WIFI (80MHz, MCS9, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAC   IEEE 802.11ac WIFI (160MHz, MCS9, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10640   AAC   IEEE 802.11ac WIFI (160MHz, MCS9, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10644   AAC   IEEE 802.11ac WIFI (160MHz, MCS9, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10644   AAC   IEEE 802.11ac WIFI (160MHz, MCS9, 90pc duty cyc		AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10622	10621	AAB			·	
10624   AAB   IEEE 802.11ac WiFi (40MHz, MCSR, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10625   AAB   IEEE 802.11ac WiFi (40MHz, MCSR, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)   WLAN   8.96   ± 9.6 %   10626   AAB   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10627   AAB   IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)   WLAN   8.83   ± 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, MCS2, 90pc duty cycle)   WLAN   8.75   ± 9.6 %   10630   AAB   IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)   WLAN   8.72   ± 9.6 %   10631   AAB   IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)   WLAN   8.72   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.80   ± 9.6 %   10636   AAC   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10637   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   8.86   ± 9.6 %   10640   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.98   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.98   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.98   ± 9.6 %   10646   AAF   LTE-TDD (SC-FDMA, 1 RB, 5 Mtz, QPSK, UL Sub			IEEE 802 11ac WiEi (40MHz, MCS6, 00pc duty cyclo)		<del></del>	
10624			LIEEE 902.44 - NEE: (40MH, MOOZ, 90) - Liee Color			
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   8.72   ± 9.6 %   10631   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10632   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.74   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10635   AAB   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.80   ± 9.6 %   10636   AAC   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.83   ± 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, MCS0, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10638   AAC   IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10640   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   8.98   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.98   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10645   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10646   AAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)   LTE-TDD   11.96   ± 9.6 %   10646   AAF   LTE-TDD (SC-FDMA, 1 RB, 2 MHz, QPS				WLAN	8.82	± 9.6 %
10625		AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 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   8.71   ±9.6 %   10630   AAB   IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)   WLAN   8.72   ±9.6 %   10631   AAB   IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)   WLAN   8.72   ±9.6 %   10632   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.81   ±9.6 %   10632   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.81   ±9.6 %   10632   AAB   IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   WLAN   8.83   ±9.6 %   10634   AAB   IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)   WLAN   8.80   ±9.6 %   10635   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 %   10638   AAC   IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)   WLAN   8.83   ±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, MCS3, 90pc duty cycle)   WLAN   8.98   ±9.6 %   10642   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.98   ±9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.99   ±9.6 %   10646   AAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)   LTE-TDD   11.96   ±9.6 %   10646   AAF   LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)   LTE-TDD   11.96   ±9.6 %   10645   AAD   LTE-TDD (OFDMA, 1 RHz, QPSK, UL Subframe=2,7)   LTE-TDD   11.96   ±9.6 %   10645   AAD   LTE-TDD (OFDMA, 1 RHz, CTM 3.1, Clipping 44%)   L	10625	AAB	IEEE 802,11ac WiFi (40MHz, MCS9, 90nc duty cycle)			
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   8.72   ± 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, MCS5, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10633   AAB   IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10634   AAB   IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)   WLAN   8.80   ± 9.6 %   10635   AAB   IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)   WLAN   8.80   ± 9.6 %   10636   AAC   IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   WLAN   8.81   ± 9.6 %   10636   AAC   IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)   WLAN   8.83   ± 9.6 %   10636   AAC   IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)   WLAN   8.79   ± 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, MCS3, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10640   AAC   IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)   WLAN   8.86   ± 9.6 %   10641   AAC   IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)   WLAN   8.98   ± 9.6 %   10642   AAC   IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10645   AAC   IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10646   AAC   IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10646   AAC   IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10646   AAC   IEEE 802.11ac WiFi (160Mtz, MCS6, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10647   AAC   IEEE 802.11ac WiFi (160Mtz, MCS6, 90pc			IEEE 802 1130 WiEi (80MHz, MCS0, 00pg duty gyala)		†~··	
10628			IEEE 002.1 fac will (0010112, WC30, 30pc duty cycle)			
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, MCS9, 90pc duty cycle)         WLAN         8.83         ± 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, MCS9, 90pc duty cycle)         WLAN         8.83         ± 9.6 %           10637         AAC         IEEE 802.11ac WiFi (160MHz, MCS1, 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 <td></td> <td></td> <td>IEEE 802.11ac WIFI (80MHz, MCS1, 90pc duty cycle)</td> <td></td> <td>8.88</td> <td>± 9.6 %</td>			IEEE 802.11ac WIFI (80MHz, MCS1, 90pc duty cycle)		8.88	± 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, MCS5, 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, MCS9, 90pc duty cycle)         WLAN         8.81         ± 9.6 %           10637         AAC         IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)         WLAN         8.85         ± 9.6 %           10638         AAC         IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)         WLAN         8.85         ± 9.6 %           10640         AAC <td></td> <td>LAAB</td> <td>IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)</td> <td>WLAN</td> <td>8.71</td> <td>± 9.6 %</td>		LAAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10630	10629	AAB				
10631			IEEE 802 11ac WiEi (80MHz, MCS4, 00pp duty availa)			
10632						
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         8.79         ±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         8.86         ±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					8.81	±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         8.79         ± 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         8.86         ± 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 (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	
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, MCS6, 90pc duty cycle)   WLAN   9.06   ± 9.6 %   10644   AAC   IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)   WLAN   9.05   ± 9.6 %   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   11.96   ± 9.6 %   10648   AAA   LTE-TDD (SC-FDMA, 1 RB, 20 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)   LTE-TDD   11.96   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   6.91   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 1 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   7.42   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 1 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   7.42   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 1 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   7.42   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 1 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   7.42   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 1 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   7.42   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA, 1 MHz, E-TM 3.1, Clipping 44%)   LTE-TDD   7.42   ± 9.6 %   10653   AAD   LTE-TDD (OFDMA	10633	AAB				
10635						
10636						
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, MCS9, 90pc duty cycle)         WLAN         9.05         ± 9.6 %           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         11.96         ± 9.6 %           10647						± 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, MCS7, 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         9.05         ± 9.6 %           10646         AAF         LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)         LTE-TDD         11.96         ± 9.6 %           10648			IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 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, MCS7, 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 <td></td> <td>AAC</td> <td>IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)</td> <td></td> <td></td> <td></td>		AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)			
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, MCS9, 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 %           10652         AAD         LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         LTE-TDD         6.91         ± 9.6 %           10653 <td>10638</td> <td></td> <td>IEEE 802,11ac WiFi (160MHz, MCS2, 90pc duty cycle)</td> <td></td> <td></td> <td></td>	10638		IEEE 802,11ac WiFi (160MHz, MCS2, 90pc duty cycle)			
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         9.05         ± 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, 10 MHz, E-TM 3.1, Clipping 44%)         LTE-TDD         7.42         ± 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         7.42         ± 9.6 %           10653         AAD         LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)         LTE-TDD         7.42         ± 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         7.42         ± 9.6 %           10653         AAD         LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)         LTE-TDD         7.42         ± 9.6 %			IEEE 802.11ac WiFi (160MHz, MCS4, 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, 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 %			IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)			
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 %	10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)			
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 %			IEEE 802 11ac WiEi (160MHz, MCS7, 90pc duty oyolo)			
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 %			IEEE 002.1140 WITH (TOOMIE, MOOT, SUPERING CYCIE)			
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 %			IEEE 80∠.11ac WiFi (160MHz, MCS8, 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         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 %			IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN		
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 %	10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, OPSK, III, Subframe=2.7)		~~	
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 %						
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 %						
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 %				CDMA2000	3.45	± 9.6 %
10653 AAD LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%) LTE-TDD 7.42 ± 9.6 %			LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)			
40054 AAD LITE TOD (CEDIA (CEDIA)	10653	AAD				
1.000   1.000			TTE-TDD (OEDMA 15 MHz E-TM 3.1 Clipping 44%)			
			2.12 1.23 (Of Diviri, 10 Willias, E-1W 3.1, Olipping 44.76)	LIE-IDD	0,90	± 9.6 %

10695   AAA   Pulse Waveform (200Hz, 10%)   Test   1,0,00   2,9,6,%	10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10659						
10860						
10961				<del></del>		
19852						
10670						
19671	~~~			···		
10872					<del></del>	
10673						
19674						
19875						
10676						
10677						
10678		í –				
19679   AAA						
10880						
10681					<del></del>	
10682						
10683						
10684						
10885					<del></del>	
10686			IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)			
10687			IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)			
10688						
10688						
10690		AAA				
10691					^	
10692		AAA				
10693	10692	<del></del>				
10694	10693	AAA				
10695	10694	AAA				
10696	10695	AAA				
10697	10696	AAA			8.91	
10698	10697	AAA				
10699	10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)			
10700	10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8,82	
10701   AAA   IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN		
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         8.66         ± 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         8.32         ± 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         8.29         ± 9.6 %           10712         AAA         IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)         WLAN         8.33         ± 9.6 %           10713         AAA         IEEE 802.11ax (40MHz, MCS6, 99pc duty		AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	± 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, MCS3, 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, MCS9, 99pc duty	10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	
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, MCS01, 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         8.39         ± 9.6 %           10711         AAA         IEEE 802.11ax (40MHz, MCS3, 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, MCS9, 99pc duty	10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN		± 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, MCS3, 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         8.26         ± 9.6 %           10714         AAA         IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)         WLAN         8.26         ± 9.6 %           10715         AAA         IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)         WLAN         8.45         ± 9.6 %           10716         AAA         IEEE 802.11ax (40MHz, MCS10, 99pc duty		AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	± 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, MCS9, 99pc duty cycle)         WLAN         8.45         ± 9.6 %           10716         AAA         IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)         WLAN         8.30         ± 9.6 %           10718         AAA         IEEE 802.11ax (80MHz, MCS11, 99pc duty		AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	
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 (80MHz, MCS10, 90pc duty	10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	± 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         8.48         ± 9.6 %           10717         AAA         IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)         WLAN         8.24         ± 9.6 %           10718         AAA         IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)         WLAN         8.81         ± 9.6 %           10720         AAA         IEEE 802.11ax (80MHz, MCS3, 90pc duty		AAA		WLAN	8.32	± 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 (80MHz, MCS11, 99pc duty cycle)       WLAN       8.24       ± 9.6 %         10720       AAA       IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)       WLAN       8.87       ± 9.6 %         10721       AAA       IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)       WLAN       8.76       ± 9.6 %         10723		ļ			8.55	
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, MCS2, 90pc duty cycle)         WLAN         8.76         ± 9.6 %           10721         AAA         IEEE 802.11ax (80MHz, MCS3, 90pc duty						± 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 %         10724						± 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					··	
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       8.76       ± 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 %						
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       8.70       ± 9.6 %		<del></del>				
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       8.76       ± 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 %						
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 %						
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 %			IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)			
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 %						
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 %						
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 %		<del>}</del>				
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 %						
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 %						
10724 AAA IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle) WLAN 8.90 ± 9.6 %						
I tomor ) AAA I Immm pooliti (ookii) iimma oo						
10725 AAA IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle) WLAN 8.74 ± 9.6 %						
10726 AAA IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle) WLAN 8.72 ± 9.6 %						
10727 AAA IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle) WLAN 8.66 ± 9.6 %	1 10/2/	<u> </u>	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	_ WLAN	8.66	± 9.6 %

10729	10700					·
10730	10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	± 9.6 %
10731   AAA   IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)		1				± 9.6 %
10732	<b></b>				<del>                                     </del>	± 9.6 %
10733		-			8.42	±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, MCS7, 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         8.42         ± 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         8.49         ± 9.6           10742         AAA         IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)         WLAN         8.43         ± 9.6           10743         AAA         IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)         WLAN         8.43         ± 9.6           10743         AAA         IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)		<u> </u>			8.46	±9.6%
10735				WLAN	8.40	± 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, MCS1, 90pc duty cycle)         WLAN         8.94         ± 9.6           10744         AAA         IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)         WLAN         8.93         ± 9.6           10745         AAA         IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)         WLAN         8.93         ± 9.6           10746         AAA         IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)				WLAN	8.25	±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         9.11         ± 9.6           10746         AAA         IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)         WLAN         9.04         ± 9.6           10748         AAA         IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)					8.33	± 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, MCS1, 90pc duty cycle)         WLAN         8.94         ± 9.6           10743         AAA         IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)         WLAN         8.94         ± 9.6           10744         AAA         IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)         WLAN         8.93         ± 9.6           10745         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         8.93         ± 9.6           10749         AAA         IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)				WLAN	8.27	±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         9.91         ± 9.6           10746         AAA         IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)         WLAN         9.04         ± 9.6           10747         AAA         IEEE 802.11ax (160MHz, MCS4, 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, MCS8, 90pc duty cycle)			IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	±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         8.93         ± 9.6           10748         AAA         IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)         WLAN         8.93         ± 9.6           10750         AAA         IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)         WLAN         8.79         ± 9.6           10751         AAA         IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)					8.42	± 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         9.04         ± 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           10750         AAA         IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)         WLAN         8.79         ± 9.6           10751         AAA         IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)         WLAN         8.81         ± 9.6           10752         AAA         IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle) <td></td> <td></td> <td></td> <td>WLAN</td> <td>8.29</td> <td>± 9.6 %</td>				WLAN	8.29	± 9.6 %
10742		····	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	± 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         8.87         ± 9.6           10751         AAA         IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)         WLAN         8.81         ± 9.6           10752         AAA         IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)         WLAN         8.81         ± 9.6           10754         AAA         IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle) </td <td></td> <td><del></del></td> <td></td> <td>WLAN</td> <td>8.40</td> <td>±9.6%</td>		<del></del>		WLAN	8.40	±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, MCS10, 90pc duty cycle)         WLAN         8.81         ± 9.6           10753         AAA         IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)         WLAN         8.94         ± 9.6           10755         AAA         IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle) </td <td></td> <td>1</td> <td></td> <td>WLAN</td> <td>8.43</td> <td>± 9.6 %</td>		1		WLAN	8.43	± 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         8.94         ± 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) </td <td></td> <td>AAA</td> <td>IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)</td> <td>WLAN</td> <td>8.94</td> <td>± 9.6 %</td>		AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	± 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) </td <td></td> <td></td> <td></td> <td>WLAN</td> <td>9.16</td> <td>± 9.6 %</td>				WLAN	9.16	± 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		ļ	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 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         8.64         ± 9.6				WLAN	9.11	±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         8.64         ± 9.6				WLAN	9.04	±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			IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	± 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		AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±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				WLAN	8.79	± 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				WLAN	8.82	±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		AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 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				WLAN	9.00	± 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		AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	± 9.6 %
1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		AAA		WLAN	8.64	± 9.6 %
			IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6%
		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	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 %
10700   111   1777   177	10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)			±9.6%
	10761	AAA				± 9.6 %
10762 AAA IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle) WLAN 8.49 ± 9.6	10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)			± 9.6 %
10-00	10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)		1	±9.6%
10764 AAA IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle) WLAN 8.54 ± 9.6		AAA			<del></del>	±9.6%
10765 AAA IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle) WLAN 8.54 ± 9.6		AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)		<del> </del>	± 9.6 %
	10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)			± 9.6 %

<sup>&</sup>lt;sup>E</sup> 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





S 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

Client

**PC Test** 

Certificate No: D1750V2-1150\_Oct18

#### CALIBRATION CERTIFICATE

Object

D1750V2 - SN:1150

Calibration procedure(s)

QA CAL-05.v10

Calibration procedure for dipole validation kits above 700 MHz

BN/ 1013012018

Calibration date:

October 22, 2018

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	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 Agitent 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	11111
-			11.102
			eren anna e e e e e e e e e e e e e e e e
Approved by:	Katja Pokovic	Technical Manager	

Issued: October 22, 2018

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#### **Calibration Laboratory of**

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





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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

#### 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:**

Certificate No: D1750V2-1150\_Oct18

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	1750 MHz ± 1 MHz	

**Head TSL parameters**The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.8 ± 6 %	1.33 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

#### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.02 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	36.5 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.76 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.2 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	53.4	1.49 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.5 ± 6 %	1.46 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

#### SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.04 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	36.6 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	4.82 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	19.4 W/kg ± 16.5 % (k=2)

Page 3 of 8 Certificate No: D1750V2-1150\_Oct18

#### Appendix (Additional assessments outside the scope of SCS 0108)

#### **Antenna Parameters with Head TSL**

Impedance, transformed to feed point	50.9 Ω - 0.4 jΩ
Return Loss	- 40.1 dB

#### **Antenna Parameters with Body TSL**

Impedance, transformed to feed point	46.6 Ω - 0.1 jΩ
Return Loss	- 29.2 dB

#### **General Antenna Parameters and Design**

Electrical Delay (one direction)	1.217 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	April 10, 2015

Certificate No: D1750V2-1150\_Oct18

#### **DASY5 Validation Report for Head TSL**

Date: 22.10.2018

Test Laboratory: SPEAG, Zurich, Switzerland

#### DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1150

Communication System: UID 0 - CW; Frequency: 1750 MHz

Medium parameters used: f = 1750 MHz;  $\sigma = 1.33 \text{ S/m}$ ;  $\varepsilon_r = 38.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

#### DASY52 Configuration:

Probe: EX3DV4 - SN7349; ConvF(8.5, 8.5, 8.5) @ 1750 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:

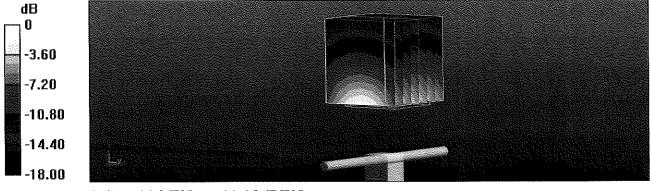
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 108.1 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 16.7 W/kg

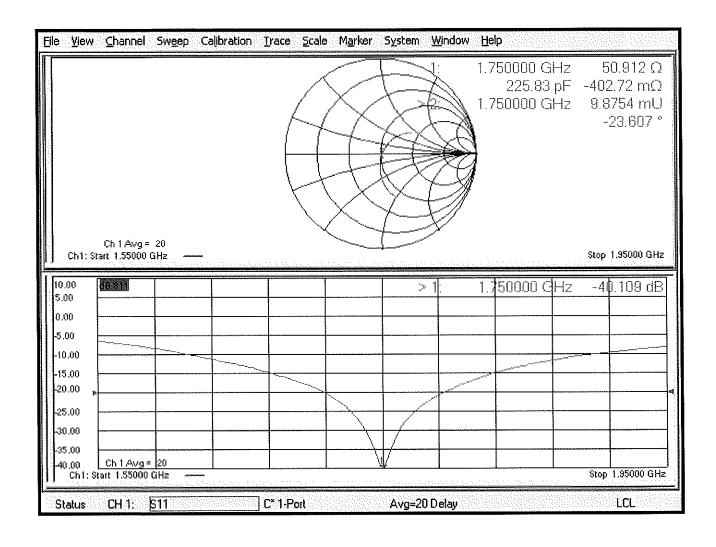
SAR(1 g) = 9.02 W/kg; SAR(10 g) = 4.76 W/kg

Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg = 11.46 dBW/kg

#### Impedance Measurement Plot for Head TSL



#### **DASY5 Validation Report for Body TSL**

Date: 22.10.2018

Test Laboratory: SPEAG, Zurich, Switzerland

#### DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1150

Communication System: UID 0 - CW; Frequency: 1750 MHz

Medium parameters used: f = 1750 MHz;  $\sigma = 1.46 \text{ S/m}$ ;  $\varepsilon_r = 53.5$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

#### DASY52 Configuration:

• Probe: EX3DV4 - SN7349; ConvF(8.35, 8.35, 8.35) @ 1750 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:

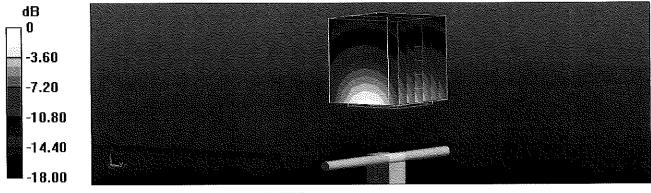
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 102.1 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 16.0 W/kg

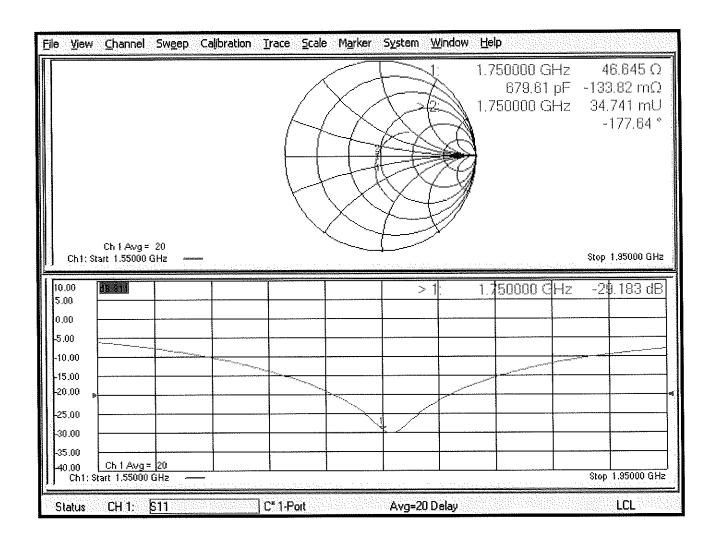
SAR(1 g) = 9.04 W/kg; SAR(10 g) = 4.82 W/kg

Maximum value of SAR (measured) = 13.6 W/kg



0 dB = 13.6 W/kg = 11.34 dBW/kg

#### Impedance Measurement Plot for Body TSL



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





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CALIBRATION CERTIFICATE

Accreditation No.: SCS 0108

Issued: May 23, 2018

Client

**PC** Test

Certificate No: D1765V2-1008\_May18

	D1765V2 - SN:1	008	
Calibration procedure(s)	QA CAL-05.v10 Calibration proce	edure for dipole validation kits ab	OVE 700 MHz 7/16/2018 BNV 05/2012
Calibration date:	May 23, 2018		BN 05/2012
This calibration certificate docum The measurements and the unce	ents the traceability to nat rtainties with confidence p	ional standards, which realize the physical ur probability are given on the following pages ar	nits of measurements (SI). nd are part of the certificate.
All calibrations have been conduc	cted in the closed laborato	ory facility: environment temperature (22 ± 3)°	C and humidity < 70%.
Calibration Equipment used (M&7	ΓE critical for calibration)		
Primary Standards	iD#	Cal Date (Certificate No.)	Scheduled Calibration
ower meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
ower sensor NRP-Z91	SN: 104778 SN: 103244	04-Apr-18 (No. 217-02672/02673) 04-Apr-18 (No. 217-02672)	Apr-19 Apr-19
Power sensor NRP-Z91 Power sensor NRP-Z91			Apr-19
Power sensor NRP-Z91 Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19 Apr-19
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator	SN: 103244 SN: 103245	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673)	Apr-19 Apr-19 Apr-19
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination	SN: 103244 SN: 103245 SN: 5058 (20k)	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683)	Apr-19 Apr-19 Apr-19 Apr-19
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682)	Apr-19 Apr-19 Apr-19
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Recondary Standards	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17) Check Date (in house)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18 Scheduled Check
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Recondary Standards Power meter EPM-442A	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter EPM-442A Power sensor HP 8481A	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601 ID #	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17) Check Date (in house) 07-Oct-15 (in house check Oct-16)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18 Scheduled Check In house check: Oct-18 In house check: Oct-18
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4  Secondary Standards Power meter EPM-442A Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601 ID # SN: GB374B0704 SN: US37292783	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17)  Check Date (in house) 07-Oct-15 (in house check Oct-16) 07-Oct-15 (in house check Oct-16)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18 Scheduled Check In house check: Oct-18
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter EPM-442A Power sensor HP 8481A RF generator R&S SMT-06	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601 ID # SN: GB37480704 SN: US37292783 SN: MY41092317	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17)  Check Date (in house) 07-Oct-15 (in house check Oct-16) 07-Oct-15 (in house check Oct-16) 07-Oct-15 (in house check Oct-16)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18 Scheduled Check In house check: Oct-18 In house check: Oct-18 In house check: Oct-18
Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter EPM-442A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer HP 8753E	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601  ID # SN: GB37480704 SN: US37292783 SN: MY41092317 SN: 100972 SN: US37390585  Name	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17)  Check Date (in house) 07-Oct-15 (in house check Oct-16) 07-Oct-15 (in house check Oct-16) 15-Jun-15 (in house check Oct-16) 15-Jun-15 (in house check Oct-16) 18-Oct-01 (in house check Oct-17)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18 Scheduled Check In house check: Oct-18
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4  Secondary Standards Power meter EPM-442A Power sensor HP 8481A RF generator R&S SMT-06	SN: 103244 SN: 103245 SN: 5058 (20k) SN: 5047.2 / 06327 SN: 7349 SN: 601  ID #  SN: GB37480704 SN: US37292783 SN: MY41092317 SN: 100972 SN: US37390585	04-Apr-18 (No. 217-02672) 04-Apr-18 (No. 217-02673) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02682) 04-Apr-18 (No. 217-02683) 30-Dec-17 (No. EX3-7349_Dec17) 26-Oct-17 (No. DAE4-601_Oct17)  Check Date (in house) 07-Oct-15 (in house check Oct-16) 07-Oct-15 (in house check Oct-16) 15-Jun-15 (in house check Oct-16) 18-Oct-01 (in house check Oct-17)	Apr-19 Apr-19 Apr-19 Apr-19 Dec-18 Oct-18  Scheduled Check In house check: Oct-18

Certificate No: D1765V2-1008\_May18

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#### 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%.

Certificate No: D1765V2-1008\_May18 Page 2 of 11

#### **Measurement Conditions**

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

DASY Version	DASY5	V52,10.1
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	1750 MHz ± 1 MHz	

#### **Head TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permitti∨ity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.0 ± 6 %	1.34 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

#### **SAR** result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	8.94 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	36.2 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.71 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.0 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	53.4	1.49 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.2 ± 6 %	1.46 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

#### **SAR** result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.21 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	37.4 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	4.92 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	19.9 W/kg ± 16.5 % (k=2)

Certificate No: D1765V2-1008\_May18 Page 3 of 11

#### Appendix (Additional assessments outside the scope of SCS 0108)

#### **Antenna Parameters with Head TSL**

Impedance, transformed to feed point	47.7 Ω - 6.5 jΩ
Return Loss	- 23.0 dB

#### **Antenna Parameters with Body TSL**

Impedance, transformed to feed point	43.3 Ω - 6.0 jΩ
Return Loss	- 20.3 dB

#### **General Antenna Parameters and Design**

Electrical Delay (one direction)	1.210 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	October 06, 2005

Certificate No: D1765V2-1008\_May18 Page 4 of 11

#### Appendix (Additional assessments outside the scope of SCS 0108)

#### **Measurement Conditions**

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

#### SAR result with SAM Head (Top)

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.26 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	37.4 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.95 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.9 W/kg ± 16.9 % (k=2)

#### SAR result with SAM Head (Mouth)

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.47 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	38.2 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.06 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	20.4 W/kg ± 16.9 % (k=2)

#### SAR result with SAM Head (Neck)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.26 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	37.4 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.02 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	20.2 W/kg ± 16.9 % (k=2)

#### SAR result with SAM Head (Ear)

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	<b>7</b> .12 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	28.7 W/kg ± 17.5 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.01 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	16.1 W/kg ± 16.9 % (k=2)

Certificate No: D1765V2-1008\_May18 Page 5 of 11

### **DASY5 Validation Report for Head TSL**

Date: 15.05.2018

Test Laboratory: SPEAG, Zurich, Switzerland

## DUT: Dipole 1765 MHz; Type: D1765V2; Serial: D1765V2 - SN:1008

Communication System: UID 0 - CW; Frequency: 1750 MHz

Medium parameters used: f = 1750 MHz;  $\sigma = 1.34 \text{ S/m}$ ;  $\varepsilon_r = 39$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

### DASY52 Configuration:

• Probe: EX3DV4 - SN7349; ConvF(8.5, 8.5, 8.5) @ 1750 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:

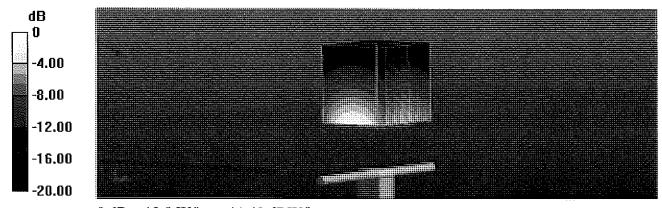
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 106.6 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 16.4 W/kg

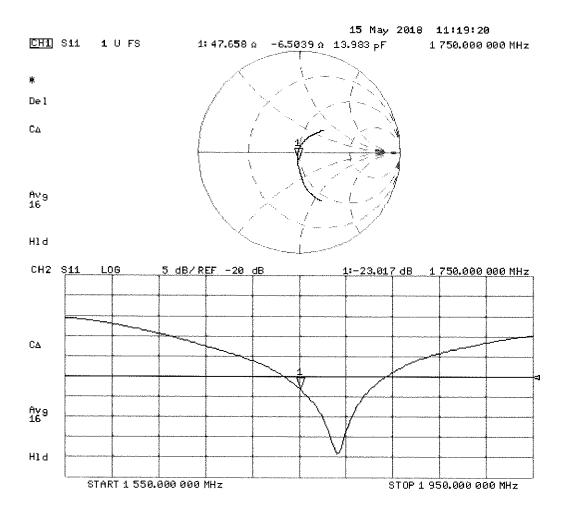
SAR(1 g) = 8.94 W/kg; SAR(10 g) = 4.71 W/kg

Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg = 11.40 dBW/kg

# Impedance Measurement Plot for Head TSL



### **DASY5 Validation Report for Body TSL**

Date: 15.05.2018

Test Laboratory: SPEAG, Zurich, Switzerland

#### DUT: Dipole 1765 MHz; Type: D1765V2; Serial: D1765V2 - SN:1008

Communication System: UID 0 - CW; Frequency: 1750 MHz

Medium parameters used: f = 1750 MHz;  $\sigma = 1.46 \text{ S/m}$ ;  $\varepsilon_r = 53.2$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

#### DASY52 Configuration:

Probe: EX3DV4 - SN7349; ConvF(8.35, 8.35, 8.35) @ 1750 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:

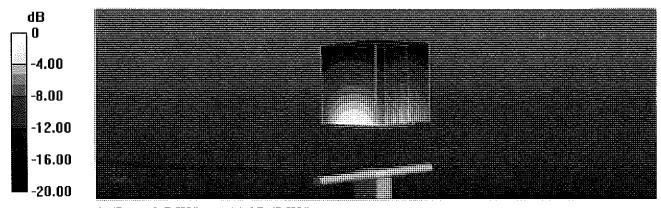
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 102.4 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 16.1 W/kg

SAR(1 g) = 9.21 W/kg; SAR(10 g) = 4.92 W/kg

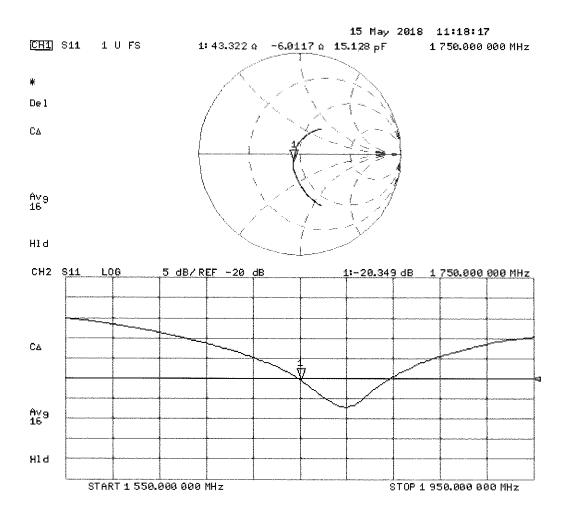
Maximum value of SAR (measured) = 13.7 W/kg



0 dB = 13.7 W/kg = 11.37 dBW/kg

Certificate No: D1765V2-1008\_May18 Page 8 of 11

# Impedance Measurement Plot for Body TSL



### **DASY5 Validation Report for SAM Head**

Date: 23.05.2018

Test Laboratory: SPEAG, Zurich, Switzerland

## DUT: Dipole 1765 MHz; Type: D1765V2; Serial: D1765V2 - SN:1008

Communication System: UID 0 - CW; Frequency: 1750 MHz

Medium parameters used: f = 1750 MHz;  $\sigma = 1.37 \text{ S/m}$ ;  $\varepsilon_r = 41.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

#### DASY52 Configuration:

• Probe: EX3DV4 - SN7349; ConvF(8.5, 8.5, 8.5) @ 1750 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 = 105.8 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 9.26 W/kg; SAR(10 g) = 4.95 W/kg

Maximum value of SAR (measured) = 13.9 W/kg

#### SAM/Head/Mouth/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.2 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 16.6 W/kg

SAR(1 g) = 9.47 W/kg; SAR(10 g) = 5.06 W/kg

Maximum value of SAR (measured) = 13.7 W/kg

#### SAM/Head/Neck/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.7 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 15.8 W/kg

SAR(1 g) = 9.26 W/kg; SAR(10 g) = 5.02 W/kg

Maximum value of SAR (measured) = 13.8 W/kg

#### SAM/Head/Ear/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

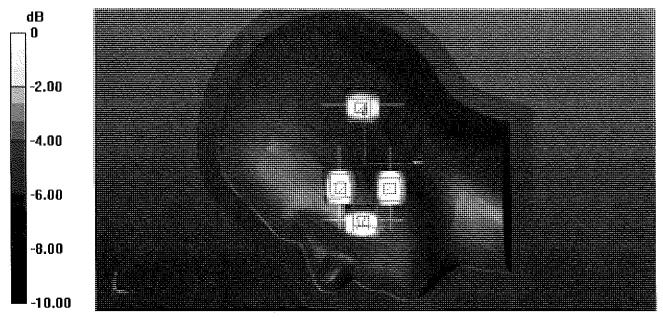
Reference Value = 90.46 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 11.8 W/kg

SAR(1 g) = 7.12 W/kg; SAR(10 g) = 4.01 W/kg

Maximum value of SAR (measured) = 10.3 W/kg

Certificate No: D1765V2-1008\_May18



0 dB = 10.3 W/kg = 10.13 dBW/kg

# 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 D1765V2 – SN: 1008

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

Extension Calibration date: 5/17/2019

Description: SAR Validation Dipole at 1750 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	11/28/2018	Annual	11/28/2019	MY47420603
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	6/6/2018	Biennial	6/6/2020	181334678
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	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	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
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	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	3914
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/14/2019	Annual	2/14/2020	1272
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	20K

Object:	Date Issued:	Page 1 of 4
D1765V2 – SN: 1008	05/17/2019	rage 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:

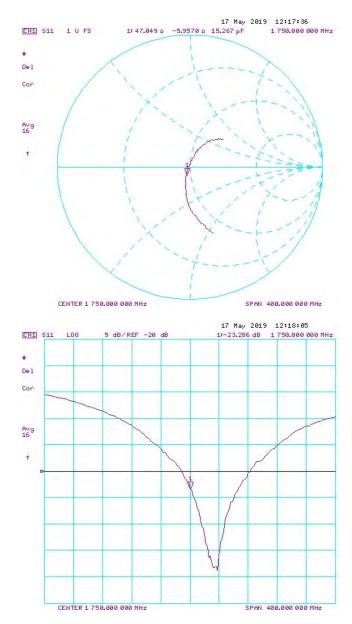
- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance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

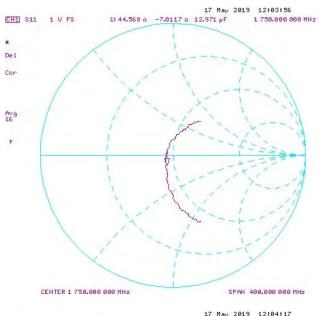
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Head (1g) W/kg @ 20.0 dBm	W/kg @ 20.0	(94)	Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	Measured Head SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)		Measured Impedance Head (Ohm) Real	Difference (Ohm) Real	Certificate 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
5/23/2019	5/17/2019	1.21	3.62	3.63	0.28%	1.9	1.92	1.05%	47.7	47	0.7	-6.5	-6	0.5	-23	-23.3	-1.20%	PASS
Calibration Date	Extension Date	Certificate Electrical Delay (ns)	Certificate SAR Target Body (1g) W/kg @ 20.0 dBm	W/kg @ 20.0	(%)	Certificate SAR Target Body (10g) W/kg @ 20.0 dBm	Measured Body SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)		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
5/23/2019	5/17/2019	1.21	3.74	3.95	5.61%	1.99	2.08	4.52%	43.3	44.6	1.3	-6	-7	1	-20.3	-20.5	-0.90%	PASS

Object:	Date Issued:	Page 2 of 4	
D1765V2 – SN: 1008	05/17/2019	Fage 2 01 4	

#### Impedance & Return-Loss Measurement Plot for Head TSL



## Impedance & Return-Loss Measurement Plot for Body TSL





# **Calibration Laboratory of** Schmid & Partner

**Engineering AG** Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst S Service suisse d'étalonnage C 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: D1900V2-5d080\_Oct18

# CALIBRATION CERTIFICATE

D1900V2 - SN:5d080 Object

Calibration procedure(s)

QA CAL-05.v10

Calibration procedure for dipole validation kits above 700 MHz

Calibration date:

October 23, 2018

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	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	1-1/-
			TE WI
Approved by:	Katja Pokovic	Technical Manager	an a

Issued: October 23, 2018

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

Certificate No: D1900V2-5d080\_Oct18

Page 1 of 8

### **Calibration Laboratory of**

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





S 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

#### 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%.

Certificate No: D1900V2-5d080\_Oct18 Page 2 of 8

### **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	40 to 10	

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.93 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	39.8 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.18 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	20.7 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	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 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.62 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	39.2 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.09 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	20.6 W/kg ± 16.5 % (k=2)

Certificate No: D1900V2-5d080\_Oct18

# Appendix (Additional assessments outside the scope of SCS 0108)

#### **Antenna Parameters with Head TSL**

Impedance, transformed to feed point	52.5 Ω + 7.9 jΩ
Return Loss	- 21.8 dB

## **Antenna Parameters with Body TSL**

Impedance, transformed to feed point	48.1 Ω + 8.1 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	June 28, 2006

Certificate No: D1900V2-5d080\_Oct18

### **DASY5 Validation Report for Head TSL**

Date: 23.10.2018

Test Laboratory: SPEAG, Zurich, Switzerland

### DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d080

Communication System: UID 0 - CW; Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz;  $\sigma = 1.4 \text{ S/m}$ ;  $\varepsilon_r = 40.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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:

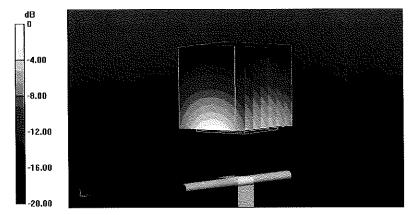
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 110.0 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 18.7 W/kg

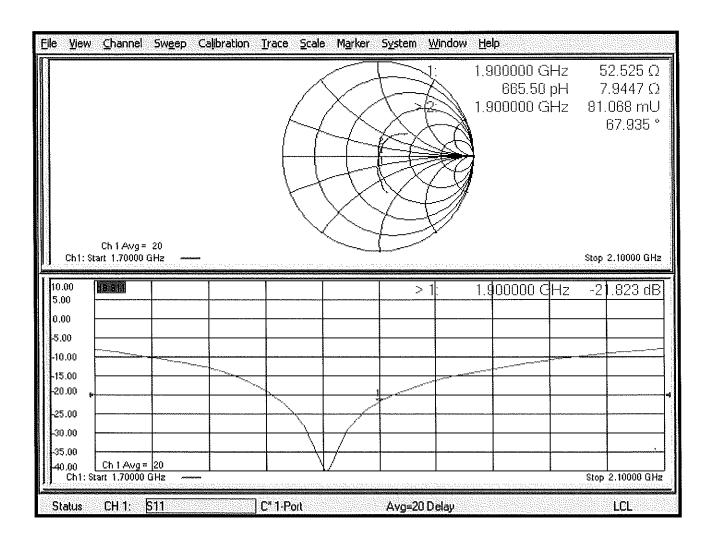
SAR(1 g) = 9.93 W/kg; SAR(10 g) = 5.18 W/kg

Maximum value of SAR (measured) = 15.6 W/kg



0 dB = 15.6 W/kg = 11.93 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:5d080

Communication System: UID 0 - CW; Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz;  $\sigma = 1.47 \text{ S/m}$ ;  $\varepsilon_r = 52.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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:

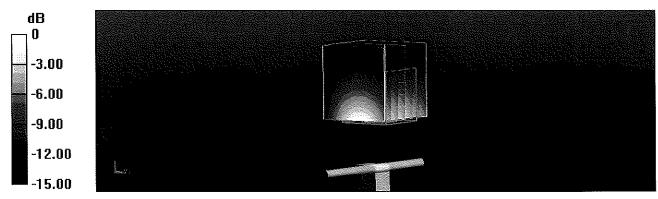
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 99.86 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 17.3 W/kg

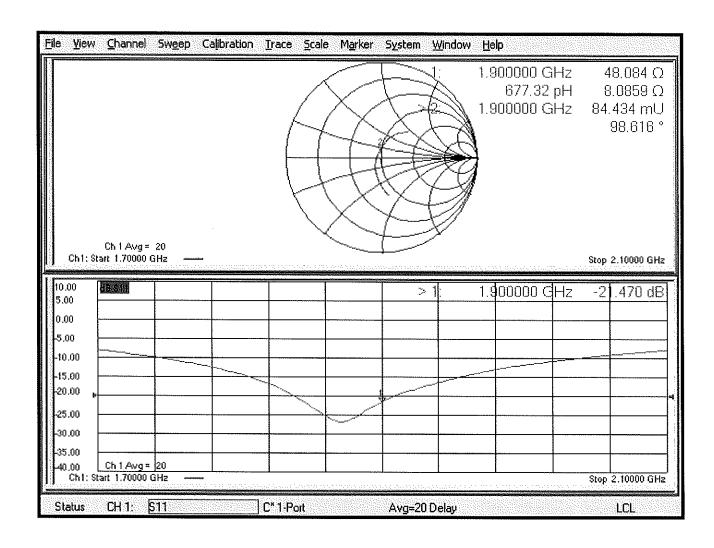
SAR(1 g) = 9.62 W/kg; SAR(10 g) = 5.09 W/kg

Maximum value of SAR (measured) = 14.1 W/kg



0 dB = 14.1 W/kg = 11.49 dBW/kg

# Impedance Measurement Plot for Body TSL



## **Calibration Laboratory of**

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





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Servizio svizzero di taratura
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

**PC Test** 

Certificate No: D1900V2-5d148\_Feb19

# 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:

February 21, 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  $\pm$  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	ارتصا
			THE PLANT
	The second control of the second seco		7/ 8
Approved by:	Katja Pokovic	Technical Manager	37111
[			16-4-16- 1

Issued: February 21, 2019

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Engineering AG
Zeughausstrasse 43, 8004 Zurlch, Switzerland





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Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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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%.

Certificate No: D1900V2-5d148\_Feb19

Page 2 of 8

### **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 <sup>3</sup> (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 <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.05 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	20.4 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	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 <sup>3</sup> (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 <sup>3</sup> (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)	4.470
Licettical Delay (offe direction)	1.170 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
	0, 2, 13

## **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;  $\sigma = 1.38 \text{ S/m}$ ;  $\varepsilon_r = 40.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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:

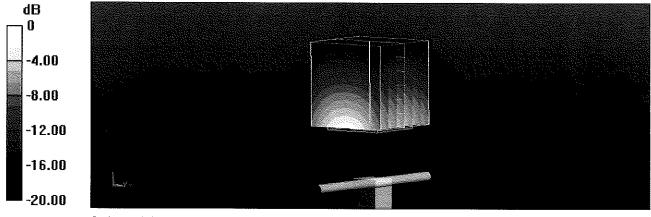
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 109.4 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 17.8 W/kg

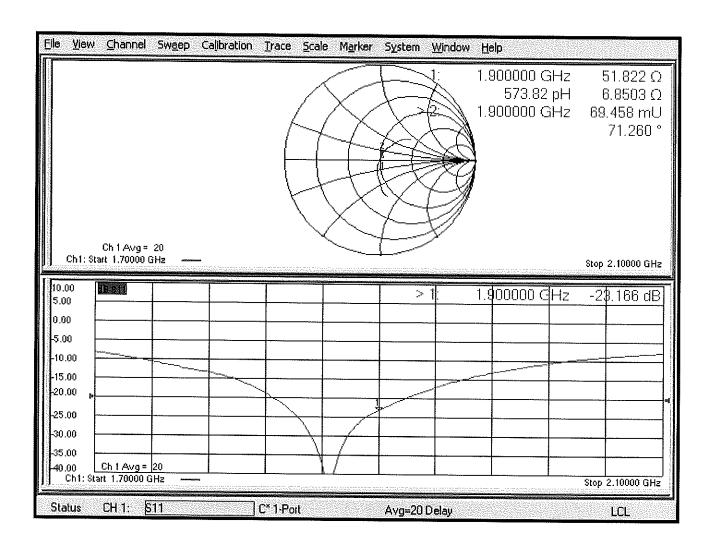
SAR(1 g) = 9.65 W/kg; SAR(10 g) = 5.05 W/kg

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



### **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;  $\sigma = 1.47 \text{ S/m}$ ;  $\varepsilon_r = 53.6$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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:

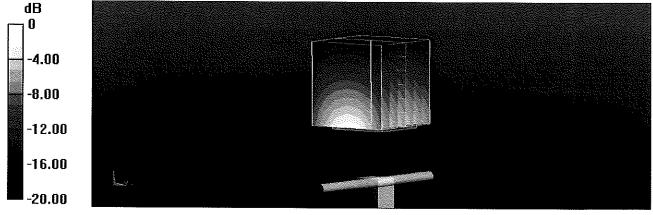
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 103.7 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 17.0 W/kg

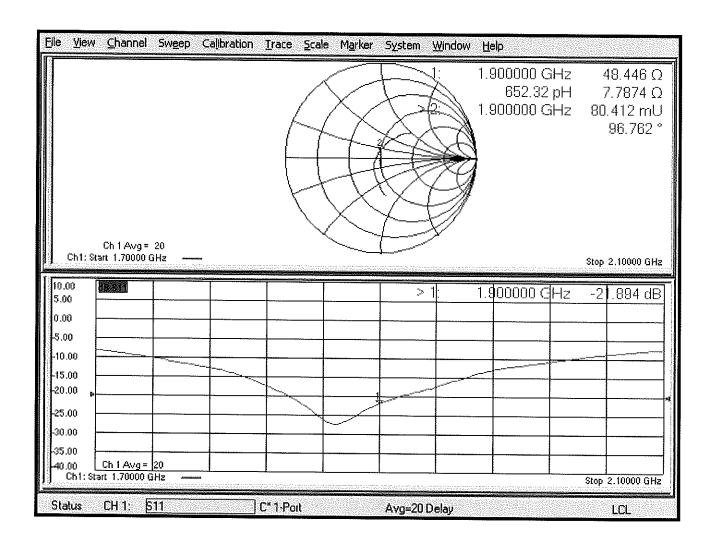
SAR(1 g) = 9.56 W/kg; SAR(10 g) = 5.05 W/kg

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



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Client

**PC Test** 

Certificate No: D1900V2-5d149\_Oct18

# **CALIBRATION CERTIFICATE**

Object D1900V2 - SN:5d149

Calibration procedure(s) QA CAL-05.v10

Calibration procedure for dipole validation kits above 700 MHz

Calibration date: October 23, 2018 (0-30 - 201)

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	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	1
Approved by:	Katja Pokovic	Technical Manager	00111
			1616 165

Issued: October 23, 2018

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### Glossary:

TSL

tissue simulating liquid

ConvF N/A sensitivity in TSL / NORM x,y,z

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	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		N. A. L. N.

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (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 <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.11 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	20.5 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	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 <sup>3</sup> (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 <sup>3</sup> (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	

Certificate No: D1900V2-5d149\_Oct18

# **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;  $\sigma = 1.4 \text{ S/m}$ ;  $\varepsilon_r = 40.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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:

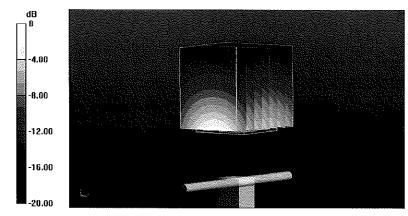
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 110.0 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 18.5 W/kg

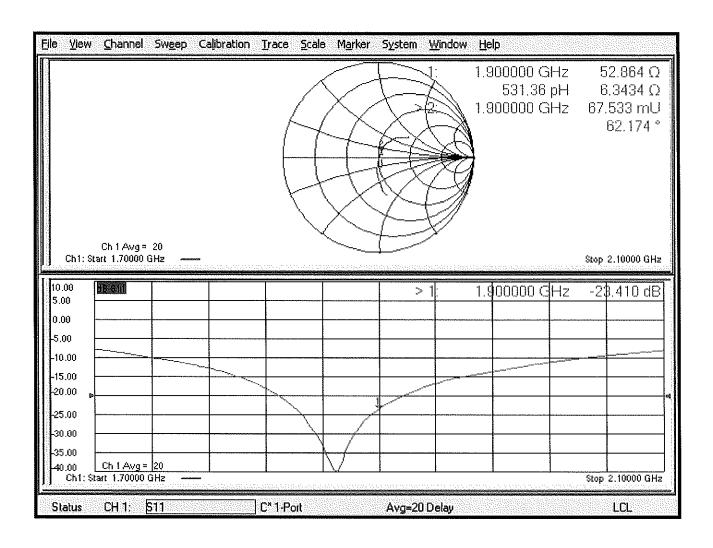
SAR(1 g) = 9.8 W/kg; SAR(10 g) = 5.11 W/kg

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;  $\sigma = 1.47 \text{ S/m}$ ;  $\varepsilon_r = 52.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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:

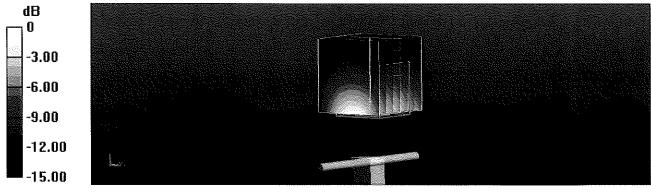
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 103.1 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 17.5 W/kg

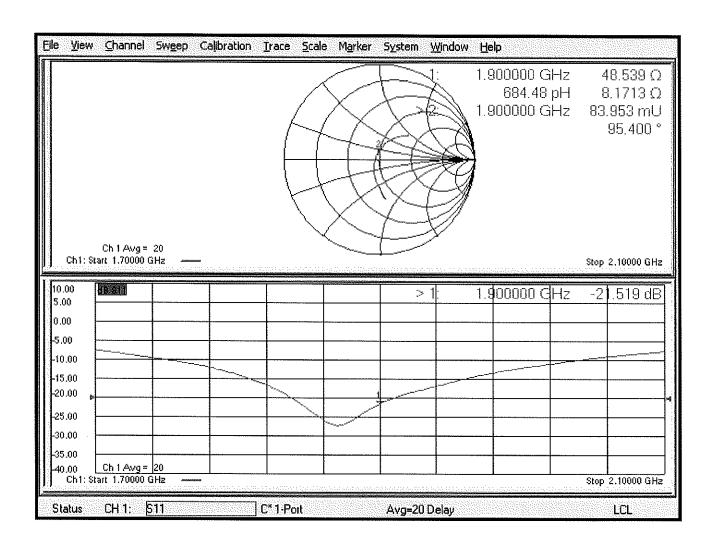
SAR(1 g) = 9.68 W/kg; SAR(10 g) = 5.11 W/kg

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



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





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Accreditation No.: SCS 0108

Client

**PC Test** 

Certificate No: D2300V2-1073\_Aug18

# **CALIBRATION CERTIFICATE**

Object

D2300V2 - SN:1073

Calibration procedure(s)

QA CAL-05.v10

Calibration procedure for dipole validation kits above 700 MHz

BN 2018

Calibration date:

August 13, 2018

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  $(22 \pm 3)^{\circ}$ 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	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 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)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	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
	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
	to the second second second		17.10×2
Approved by:	Katja Pokovic	Technical Manager	27101
	Section 1995 and 1995		Jex des

Issued: August 13, 2018

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

Certificate No: D2300V2-1073\_Aug18

Page 1 of 8

## **Calibration Laboratory of**

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





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S wiss 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

Accreditation No.: SCS 0108

#### 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	V52.10.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2300 MHz ± 1 MHz	

# **Head TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.5	1.67 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.2 ± 6 %	1.70 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

# **SAR result with Head TSL**

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	12.5 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	49.2 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.02 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.8 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	52.9	1.81 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.2 ± 6 %	1.85 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

# SAR result with Body TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.1 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	47.7 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.86 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	23.2 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	50.1 Ω - 5.2 jΩ
Return Loss	- 25.7 dB

# Antenna Parameters with Body TSL

Impedance, transformed to feed point	45.5 Ω - 4.1 jΩ
Return Loss	- 23.9 dB

# **General Antenna Parameters and Design**

Electrical Delay (one direction)	
Licetical Delay (one direction)	1.171 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	November 16, 2015	

Certificate No: D2300V2-1073\_Aug18

# **DASY5 Validation Report for Head TSL**

Date: 13.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1073

Communication System: UID 0 - CW; Frequency: 2300 MHz

Medium parameters used: f = 2300 MHz;  $\sigma = 1.7$  S/m;  $\epsilon_r = 38.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

### DASY52 Configuration:

Probe: EX3DV4 - SN7349; ConvF(8.08, 8.08, 8.08) @ 2300 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=5mm

Reference Value = 115.9 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 24.1 W/kg

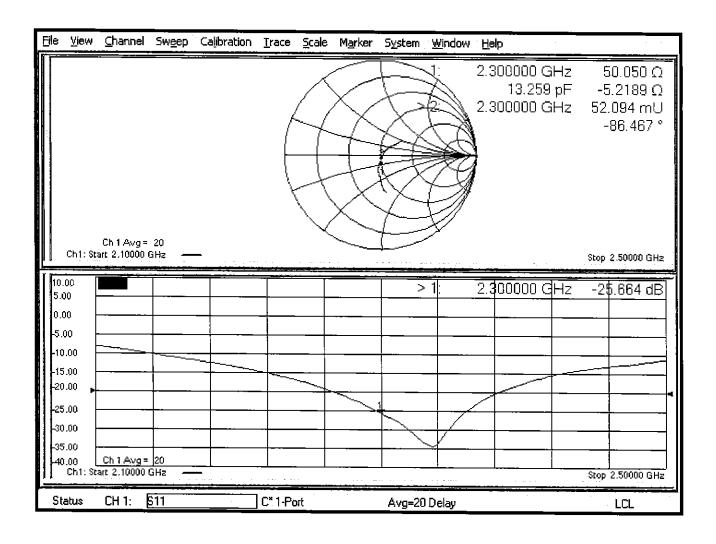
SAR(1 g) = 12.5 W/kg; SAR(10 g) = 6.02 W/kg

Maximum value of SAR (measured) = 20.2 W/kg



0 dB = 20.2 W/kg = 13.05 dBW/kg

# Impedance Measurement Plot for Head TSL



### **DASY5 Validation Report for Body TSL**

Date: 13.08.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1073

Communication System: UID 0 - CW; Frequency: 2300 MHz

Medium parameters used: f = 2300 MHz;  $\sigma = 1.85$  S/m;  $\epsilon_r = 52.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

### DASY52 Configuration:

Probe: EX3DV4 - SN7349; ConvF(8.08, 8.08, 8.08) @ 2300 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:

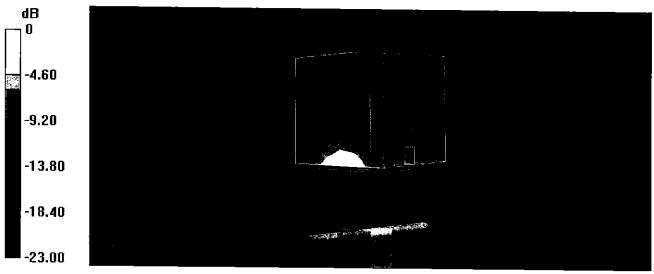
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 107.5 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 22.9 W/kg

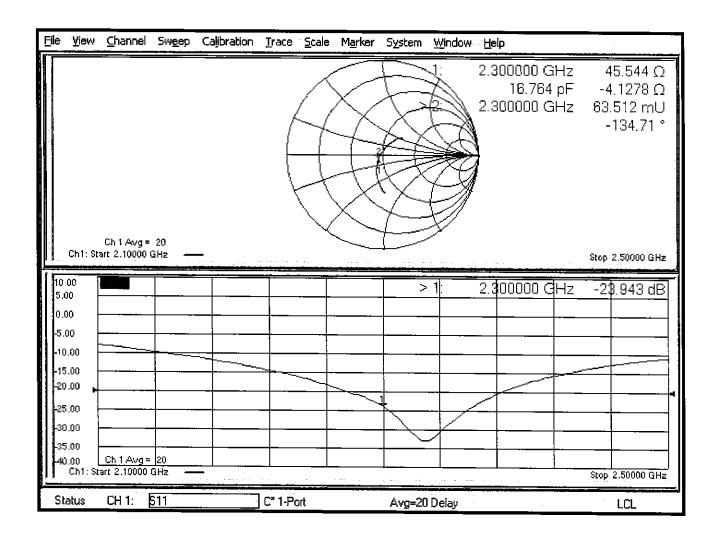
SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.86 W/kg

Maximum value of SAR (measured) = 19.1 W/kg



0 dB = 19.1 W/kg = 12.81 dBW/kg

# Impedance Measurement Plot for Body TSL



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





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Accreditation No.: SCS 0108

Client

**PC Test** 

Certificate No: D2450V2-719\_Aug17

### CALIBRATION CERTIFICATE

Object

D2450V2 - SN:719

Calibration procedure(s)

QA CAL-05.v9

Calibration procedure for dipole validation kits above 700 MHz

8/27/1

Extended

Calibration date:

August 17, 2017 (1994) (1994) (1994) (1994)

811912018

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  $\pm$  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-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN; 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference 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
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)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	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 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	H.Helses
Approved by:	Katja Pokovic	* « Technical Manager	

Issued: August 17, 2017

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# Calibration Laboratory of

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Accreditation No.: SCS 0108

### 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%.

Certificate No: D2450V2-719\_Aug17

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### **Measurement Conditions**

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

DASY Version	DASY5	<b>V</b> 52.10.0
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  1.80 mho/m  1.86 mho/m ± 6 %	
Nominal Head TSL parameters	22.0 °C	39.2		
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.8 ± 6 %		
Head TSL temperature change during test	< 0.5 °C			

### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	51.9 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.15 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.3 W/kg ± 16.5 % (k=2)

# **Body TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity 1.95 mho/m	
Nominal Body TSL parameters	22.0 °C	52.7		
Measured Body TSL parameters	(22.0 ± 0.2) °C	51.9 ± 6 %	2.03 mho/m ± 6 %	
Body TSL temperature change during test	< 0.5 °C			

# **SAR result with Body TSL**

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.8 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	50.1 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.00 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	23.7 W/kg ± 16.5 % (k=2)

Certificate No: D2450V2-719\_Aug17

# Appendix (Additional assessments outside the scope of SCS 0108)

### **Antenna Parameters with Head TSL**

Impedance, transformed to feed point	$55.7 \Omega + 7.0 j\Omega$
Return Loss	- 21.4 dB

### Antenna Parameters with Body TSL

Impedance, transformed to feed point	51.4 Ω + 8.1 jΩ
Return Loss	- 21.8 dB

### General Antenna Parameters and Design

Electrical Delay (one direction)	1.150 ns
	<u> </u>

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	September 10, 2002

### **DASY5 Validation Report for Head TSL**

Date: 17.08.2017

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;  $\sigma = 1.86$  S/m;  $\epsilon_r = 37.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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:

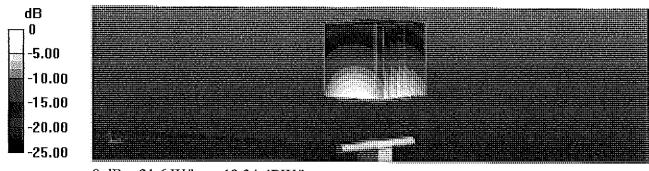
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.8 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 26.9 W/kg

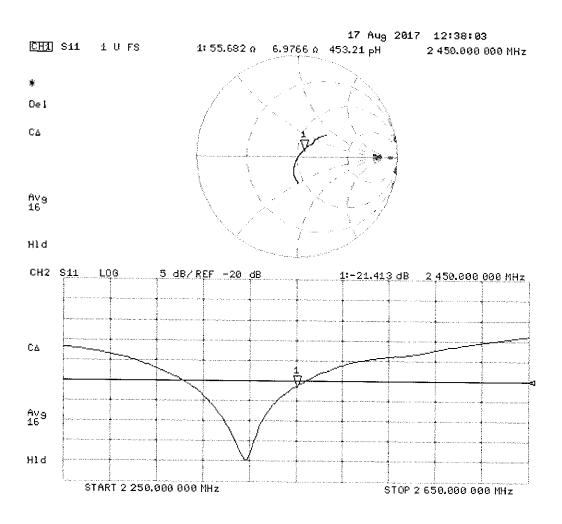
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.15 W/kg

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



# **DASY5 Validation Report for Body TSL**

Date: 17.08.2017

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;  $\sigma = 2.03$  S/m;  $\varepsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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:

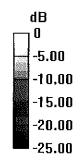
Measurement grid: dx=5mm, dy=5mm, dz=5mm

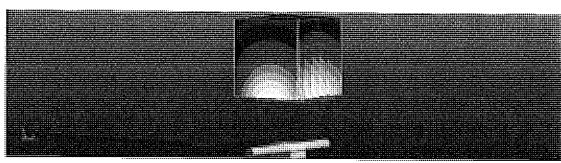
Reference Value = 103.0 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 25.2 W/kg

SAR(1 g) = 12.8 W/kg; SAR(10 g) = 6 W/kg

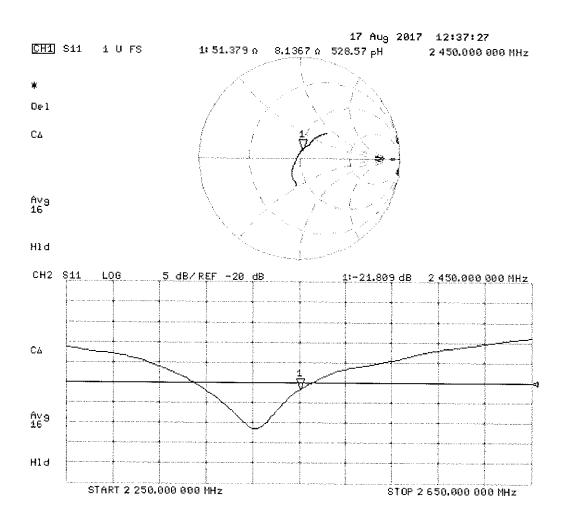
Maximum value of SAR (measured) = 19.8 W/kg





0 dB = 19.8 W/kg = 12.97 dBW/kg

# Impedance Measurement Plot for Body TSL



### 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 D2450V2 – SN: 719

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

Extended Calibration date: 08/09/2018

Description: SAR Validation Dipole at 2450 MHz.

Calibration Equipment used:

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	E4438C	ESG Vector Signal Generator	3/24/2017	Biennial	3/24/2019	MY42082385
Agilent	8753ES	S-Parameter Network Analyzer	9/14/2017	Annual	9/14/2018	US39170118
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	433971
Anritsu	ML2495A	Power Meter	11/28/2017	Annual	11/28/2018	1039008
Anritsu	MA2411B	Pulse Power Sensor	3/2/2018	Annual	3/2/2019	1207364
Anritsu	MA2411B	Pulse Power Sensor	11/15/2017	Annual	11/15/2018	1339007
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
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
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	PE5011-1	Torque Wrench	7/19/2017	Biennial	7/19/2019	N/A
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/7/2018	Annual	3/7/2019	1368
SPEAG	DAE4	Dasy Data Acquisition Electronics	8/9/2017	Annual	8/9/2018	1323
SPEAG	DAK-3.5	Dielectric Assessment Kit	9/12/2017	Annual	9/12/2018	1091
SPEAG	ES3DV3	SAR Probe	3/13/2018	Annual	3/13/2019	3319
SPEAG	ES3DV3	SAR Probe	8/14/2017	Annual	8/14/2018	3332

### 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	20K

Object:	Date Issued:	Daga 4 of 4
D2450V2 - SN: 719	08/09/2018	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:

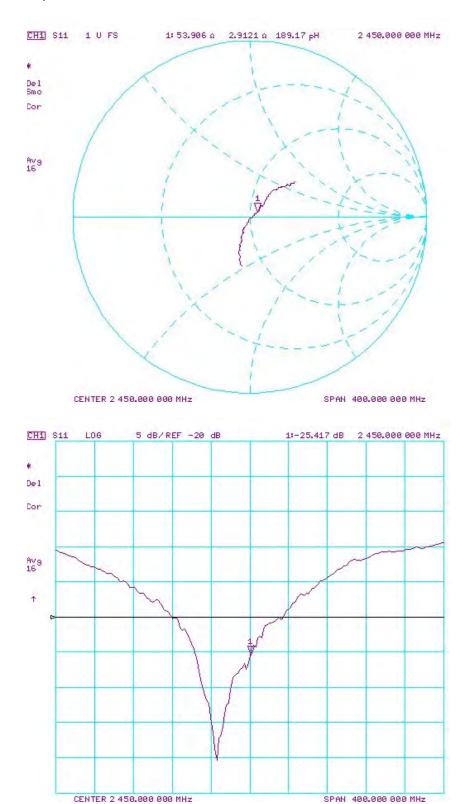
- 1. The measured SAR does not deviate more than 10% from the target on the calibration certificate.
- 2. The return-loss does not deviate more than 20% from the previous measurement and meets the required 20dB minimum return-loss requirement.
- 3. The measurement of real or imaginary parts of impedance does not deviate more than  $5\Omega$  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)		Measured Head SAR (1g) W/kg @ 20.0 dBm	(9/.)	Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	(10a) W/ka @	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
8/17/2017	8/9/2018	1.150	5.19	5.46	5.20%	2.43	2.51	3.29%	55.7	53.9	1.8	7.0	2.9	4.1	-21.4	-25.4	-18.70%	PASS
Calibration Date	Extension Date	Certificate Electrical Delay (ns)		Measured Body SAR (1g) W/kg @ 20.0 dBm	(9/)	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	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
8/17/2017	8/9/2018	1.150	5.01	5.19	3.59%	2.37	2.38	0.42%	51.4	50.2	1.2	8.1	5.9	2.2	-21.8	-24.6	-12.80%	PASS

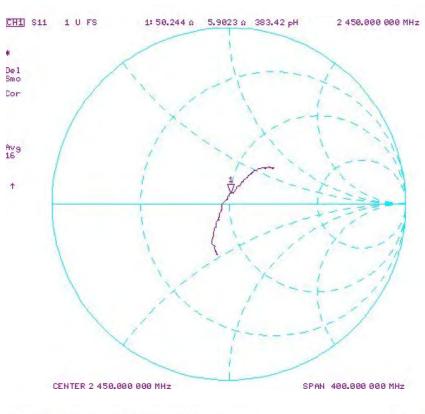
Object:	Date Issued:	Dogo 2 of 4
D2450V2 – SN: 719	08/09/2018	Page 2 of 4

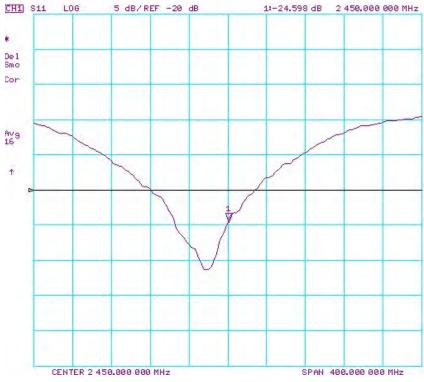
### Impedance & Return-Loss Measurement Plot for Head TSL



Object:	Date Issued:	Dogo 2 of 4
D2450V2 – SN: 719	08/09/2018	Page 3 of 4

# Impedance & Return-Loss Measurement Plot for Body TSL





Object:	Date Issued:	Dogo 4 of 4
D2450V2 – SN: 719	08/09/2018	Page 4 of 4

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





Schweizerischer Kallbrierdienst 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 Accreditation No.: SCS 0108

**PC Test** 

Certificate No: D2450V2-797\_Sep17

# **CALIBRATION CERTIFICATE**

Object

D2450V2 - SN:797

Calibration procedure(s)

QA CAL-05.v9

Calibration procedure for dipole validation kits above 700 MHz

Calibration date:

September 11, 2017

700 MHz 360 17 10/03/2019 Extended PMV J/20/2018

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  $(22 \pm 3)$ °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-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047,2 / 08327	07-Apr-17 (No. 217-02529)	Apr-18
Reference 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
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)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-08	SN: 100972	15-Jun-15 (in house check Oct-16)	in house check: Oct-18
Network 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	MULCO
			11110X
Approved by:	Kalja Pokovic	Technical Manager	Il M
		· · · · · · · · · · · · · · · · · · ·	10-00

Issued: September 11, 2017

Certificate No: D2450V2-797\_Sep17

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





Schweizerlscher Kalibrierdienst S Service suisse d'étalonnage C 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

### Glossarv:

TSL

tissue simulating liquid

ConvF

sensitivity in TSL / NORM x,v,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	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 <sup>3</sup> (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 <sup>3</sup> (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	Military and	

## SAR result with Body TSL

SAR averaged over 1 cm³ (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 <sup>3</sup> (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

	<u>,</u>
I Floatrical Delay (one direction)	l 1.152 ns l
Electrical Delay (one direction)	I 1.152 ns I
	*******

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

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### **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;  $\sigma = 1.86$  S/m;  $\varepsilon_r = 37.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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=5mm

Reference Value = 113.5 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 26.9 W/kg

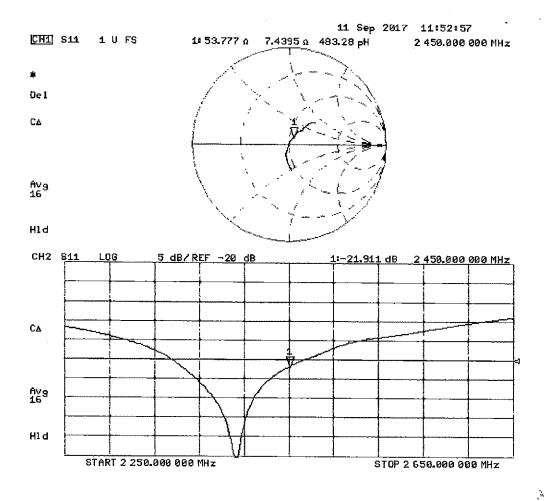
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.28 W/kg

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



### **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;  $\sigma = 2.04$  S/m;  $\epsilon_r = 51.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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:

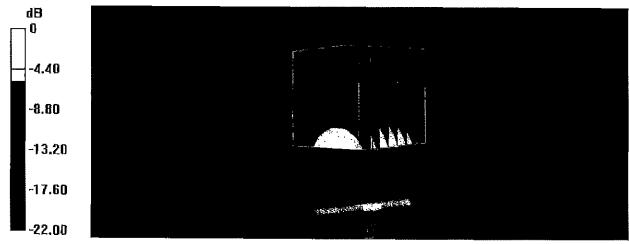
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.4 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 25.6 W/kg

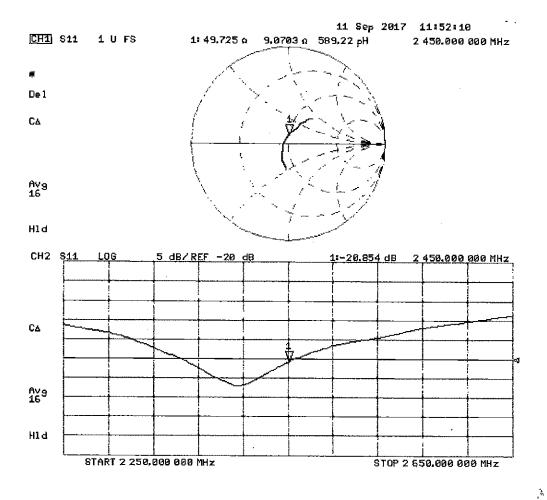
SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.14 W/kg

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



# 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

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	Annuai	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	CBT	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	Pulse Power Sensor	3/2/2018	Annual	3/2/2019	1207364							
Anritsu	MA2411B	Puise Power Sensor	3/2/2018	Annual	3/2/2019	1339018							
Anritsu	ML2495A	Power Meter	10/22/2017	Annual	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	CBT	N/A	СВТ	N/A							
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	СВТ	N/A	CBT	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	BAOPTE HALBFOSTER
Approved By:	Kaitlin O'Keefe	Senior Technical Manager	20K

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  $5\Omega$  from the previous measurement.

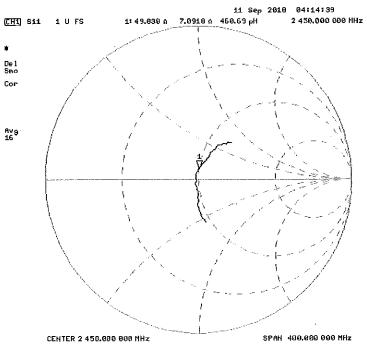
The following dipole was checked to pass the above 3 requirements to have 2-year calibration period from the calibration date:

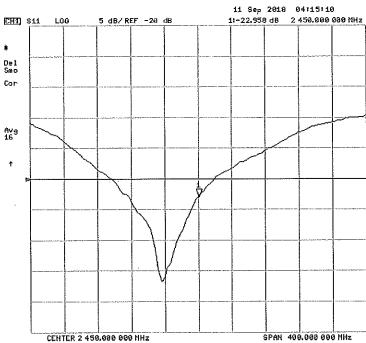
Calibration Date	Extension Date		Certificate SAR Target Head (1g) W/kg @ 20.0 dBm	Measured Head SAR (1g)	Deviation 1g (%)	Certificate SAR Target Head (10g) W/kg @ 20.0 dBm	Measured Head SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)	Certificate Impedance Head (Ohm) Real	Measured Impedance Head (Ohm) Real	Difference (Ohm) Real	Certificate Impedance Head (Ohm) Imaginary	Measured Impedance Head (Ohm) Imaginary	(Ohm)	Certificate Return Loss Head (dB)	Measured Return Loss Head (dB)		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 Electrical Delay (ns)	Certificate SAR Target Body (1g) W/kg @ 20.0 dBm	Body SAR (1g)	(%)	Certificate SAR Target Body (10g) W/kg @ 20.0 dBm	Measured Body SAR (10g) W/kg @ 20.0 dBm	Deviation 10g (%)		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
ſ	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:	Page 2 of 4
D2450V2 – SN: 797	09/11/2018	Fage 2 01 4

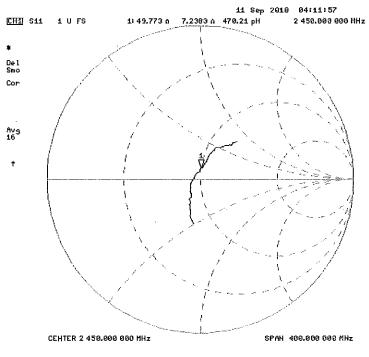
### Impedance & Return-Loss Measurement Plot for Head TSL

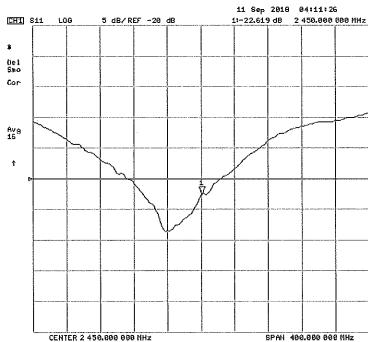




Object:	Date Issued:	Page 3 of 4
D2450V2 SN: 797	09/11/2018	r ago o or r

### Impedance & Return-Loss Measurement Plot for Body TSL





Object:	Date Issued:	Page 4 of 4	ĺ
D2450V2 - SN: 797	09/11/2018	l age 4 of 4	

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





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The Swiss Accreditation Service is one of the signatories to the EA

Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

**PC Test** 

Certificate No: D5GHzV2-1057\_Jan18

# **CALIBRATION CERTIFICATE**

Object

D5GHzV2 - SN:1057

Calibration procedure(s)

QA CAL-22,v2

Calibration procedure for dipole validation kits between 3-6 GHz

Calibration date:

January 16, 2018

1-25-2018

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.

BU 06 (2019

All calibrations have been conducted 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-17 (No. 217-02521/02522)	Apr-1B
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Atlenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 3503	30-Dec-17 (No. EX3-3503_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)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	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 HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-17)	In house check: Oct-18

Calibrated by:

Name Leif Klysner Function Laboratory Technician

Approved by:

Katja Pokovic

Technical Manager

Issued: January 18, 2018

Sionature

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Certificate No: D5GHzV2-1057\_Jan18

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### **Calibration Laboratory of**

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Schweizerischer Kalibrierdienst Service sulsse 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

### 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 V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0  mm, dz = 1.4  mm	Graded Ratio = 1.4 (Z direction)
Frequency	5200 MHz ± 1 MHz 5250 MHz ± 1 MHz 5600 MHz ± 1 MHz 5750 MHz ± 1 MHz 5800 MHz ± 1 MHz	

# Head TSL parameters at 5250 MHz The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	36.2 ± 6 %	4.55 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

# SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.91 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	79.2 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.28 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.8 W/kg ± 19.5 % (k=2)

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# Head TSL parameters at 5600 MHz The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.8 ± 6 %	4.90 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

### SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.41 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	84.1 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.0 W/kg ± 19.5 % (k=2)

# Head TSL parameters at 5750 MHz The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.5 ± 6 %	5.06 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

### SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.06 <b>W</b> /kg
SAR for nominal Head TSL parameters	normalized to 1W	80.5 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.30 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.0 W/kg ± 19.5 % (k=2)

# Body TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	49.0	5.30 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.3 ± 6 %	5.41 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

# SAR result with Body TSL at 5200 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.36 <b>W</b> /kg
SAR for nominal Body TSL parameters	normalized to 1W	73.1 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.06 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	20.4 W/kg ± 19.5 % (k=2)

# Body TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.9	5.36 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.2 ± 6 %	5.48 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

# SAR result with Body TSL at 5250 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.64 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	75.9 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.13 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	21.1 W/kg ± 19.5 % (k=2)

# Body TSL parameters at 5600 MHz The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.5	5.77 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.6 ± 6 %	5.94 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

# SAR result with Body TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	8.05 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	79.9 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.25 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	22.3 W/kg ± 19.5 % (k=2)

# **Body TSL parameters at 5750 MHz**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.3	5.94 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.3 ± 6 %	6.15 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

# SAR result with Body TSL at 5750 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.72 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	76.7 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.14 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	21.2 W/kg ± 19.5 % (k=2)

# Body TSL parameters at 5800 MHz The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.2	6.00 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.2 ± 6 %	6.22 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C		

# SAR result with Body TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.68 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	76.3 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.13 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	21.1 W/kg ± 19.5 % (k=2)

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### Appendix (Additional assessments outside the scope of SCS 0108)

### Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	50.0 Ω - 5.5 jΩ
Return Loss	- 25.2 dB

#### Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	54.7 Ω - 2.1 jΩ
Return Loss	- 26.2 dB

### Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	$52.7 \Omega + 0.0 j\Omega$
Return Loss	- 31.5 dB

### Antenna Parameters with Body TSL at 5200 MHz

Impedance, transformed to feed point	49.3 Ω - 6.7 jΩ
Return Loss	- 23.4 dB

### Antenna Parameters with Body TSL at 5250 MHz

Impedance, transformed to feed point	48.4 Ω - 3.9 jΩ
Return Loss	- 27.4 dB

### Antenna Parameters with Body TSL at 5600 MHz

Impedance, transformed to feed point	55.3 Ω - 1.6 jΩ
Return Loss	- 25.6 dB

### Antenna Parameters with Body TSL at 5750 MHz

Impedance, transformed to feed point	52.6 Ω + 1.1 jΩ
Return Loss	- 31.2 dB

## Antenna Parameters with Body TSL at 5800 MHz

Impedance, transformed to feed point	51.8 Ω - 0.4 jΩ
Return Loss	- 34.9 dB

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### **General Antenna Parameters and Design**

Electrical Delay (one direction)	1.203 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	November 27, 2006

# Appendix (Additional assessments outside the scope of SCS 0108)

# **Measurement Conditions (f=5200 MHz)**

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

Phantom SAM Head Phantom For usage with cSAR3DV	2-R/L
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# SAR result with SAM Head (Top)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.24 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	82.6 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.35 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.6 W/kg ± 19.9 % (k=2)

### SAR result with SAM Head (Mouth)

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.54 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	85.6 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.37 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.7 W/kg ± 19.9 % (k=2)

# SAR result with SAM Head (Neck)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.14 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.6 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.37 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.7 W/kg ± 19.9 % (k=2)

# SAR result with SAM Head (Ear)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	5.16 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	51.7 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	1.76 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	17.7 W/kg ± 19.9 % (k=2)

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# Measurement Conditions (f=5800 MHz)

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

Phantom	SAM Head Phantom	For usage with cSAR3DV2-R/L
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# SAR result with SAM Head (Top)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.62 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	86.3 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.41 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.1 W/kg ± 19.9 % (k=2)

### SAR result with SAM Head (Mouth)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.88 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	88.9 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.44 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.4 W/kg ± 19.9 % (k=2)

# SAR result with SAM Head (Neck)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.33 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	83.4 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.35 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.5 W/kg ± 19.9 % (k=2)

# SAR result with SAM Head (Ear)

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	5.68 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	56.8 W/kg ± 20.3 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	1.89 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	18.9 W/kg ± 19.9 % (k=2)

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### **DASY5 Validation Report for Head TSL**

Date: 11.01.2018

Test Laboratory: SPEAG, Zurich, Switzerland

### DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1057

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz

Medium parameters used: f = 5250 MHz;  $\sigma = 4.55$  S/m;  $\varepsilon_r = 36.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>, Medium parameters used: f = 5600 MHz;  $\sigma = 4.9$  S/m;  $\varepsilon_r = 35.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>, Medium parameters used: f = 5750 MHz;  $\sigma = 5.06$  S/m;  $\varepsilon_r = 35.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

### **DASY52 Configuration:**

- Probe: EX3DV4 SN3503; ConvF(5.51, 5.51, 5.51); Calibrated: 30.12.2017, ConvF(5.05, 5.05, 5.05); Calibrated: 30.12.2017, ConvF(4.98, 4.98, 4.98); Calibrated: 30.12.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601 modified; 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=100mW, dist=10mm, f=5250 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 72.54 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 27.5 W/kg

SAR(1 g) = 7.91 W/kg; SAR(10 g) = 2.28 W/kg

Maximum value of SAR (measured) = 17.7 W/kg

### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 72.77 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 32.2 W/kg

SAR(1 g) = 8.41 W/kg; SAR(10 g) = 2.4 W/kg

Maximum value of SAR (measured) = 19.7 W/kg

### Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.93 V/m; Power Drift = -0.09 dB

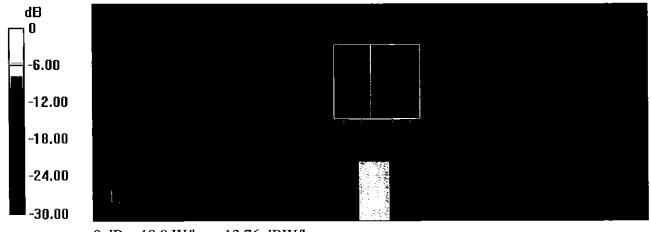
Peak SAR (extrapolated) = 31.4 W/kg

SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.3 W/kg

Maximum value of SAR (measured) = 18.9 W/kg

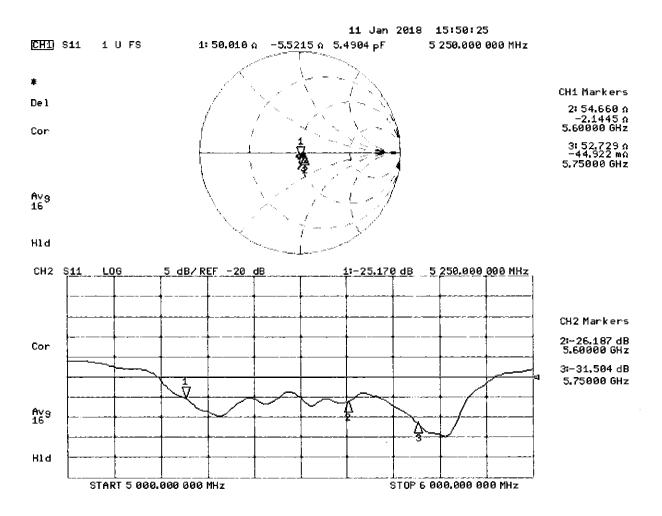
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0 dB = 18.9 W/kg = 12.76 dBW/kg

# Impedance Measurement Plot for Head TSL



### **DASY5 Validation Report for Body TSL**

Date: 10.01.2018

Test Laboratory: SPEAG, Zurich, Switzerland

# DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1057

Communication System: UID 0 - CW; Frequency: 5200 MHz, Frequency: 5250 MHz, Frequency: 5600

MHz, Frequency: 5750 MHz, Frequency: 5800 MHz

Medium parameters used: f = 5200 MHz;  $\sigma = 5.41 \text{ S/m}$ ;  $\varepsilon_r = 47.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Medium parameters used: f = 5250 MHz;  $\sigma = 5.48 \text{ S/m}$ ;  $\varepsilon_r = 47.2$ ;  $\rho = 1000 \text{ kg/m}^3$ ,

Medium parameters used: f = 5600 MHz;  $\sigma = 5.94 \text{ S/m}$ ;  $\varepsilon_r = 46.6$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Medium parameters used: f = 5750 MHz;  $\sigma = 6.15 \text{ S/m}$ ;  $\varepsilon_r = 46.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Medium parameters used: f = 5800 MHz;  $\sigma = 6.22 \text{ S/m}$ ;  $\varepsilon_r = 46.2$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

### **DASY52 Configuration:**

- Probe: EX3DV4 SN3503; ConvF(5.35, 5.35, 5.35); Calibrated: 30.12.2017, ConvF(5.26, 5.26, 5.26); Calibrated: 30.12.2017, ConvF(4.65, 4.65, 4.65); Calibrated: 30.12.2017, ConvF(4.57, 4.57, 4.57); Calibrated: 30.12.2017, ConvF(4.53, 4.53, 4.53); 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=100mW, dist=10mm, f=5200 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.05 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 27.6 W/kg

SAR(1 g) = 7.36 W/kg; SAR(10 g) = 2.06 W/kg

Maximum value of SAR (measured) = 17.1 W/kg

# Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 64.53 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 29.4 W/kg

SAR(1 g) = 7.64 W/kg; SAR(10 g) = 2.13 W/kg

Maximum value of SAR (measured) = 17.9 W/kg