

中国认可 国际互认 校准 CALIBRATION CNAS L0570

Certificate No: 24J02Z000333

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Client : Em

Emtek(Shenzhen)

# **CALIBRATION CERTIFICATE**

Object

DAE4 - SN: 1418

Calibration Procedure(s)

FF-Z11-002-01 Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: May 17, 2024

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# C	al Date(Calibrated by, Certificate No.)	) Scheduled Calibration			
Process Calibrator 753	1971018	12-Jun-23 (CTTL, No.J23X05436)	Jun-24			
Calibrated by:	Name Yu Zongying	Function SAR Test Engineer	Signature			
Reviewed by:	Lin Jun	SAR Test Engineer	-nAj-			
Approved by:	Qi Dianyuan	SAR Project Leader	àa			
Issued: May 22, 2024 This calibration certificate shall not be reproduced except in full without written approval of the laboratory.						





Glossary: DAE Connector angle

data acquisition electronics information used in DASY system to align probe sensor X to the robot coordinate system.

### Methods Applied and Interpretation of Parameters:

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.





#### DC Voltage Measurement

A/D - Converter Resolution nominal

Callbration Factors	x	Y	Z
High Range	404.110 ± 0.15% (k=2)	404.652 ± 0.15% (k=2)	404.331 ± 0.15% (k=2)
Low Range	3.98934 ± 0.7% (k=2)	4.00118 ± 0.7% (k=2)	$3.97707 \pm 0.7\%$ (k=2)

#### **Connector Angle**

Connector Angle to be used in DASY system	153° ± 1 °
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## **CALIBRATION CERTIFICATE**

Object	EX3DV4 - SN : 3970
Calibration Procedure(s)	FF-Z11-004-02 Calibration Procedures for Dosimetric E-field Probes
Calibration date:	June 25, 2024
This calibration Certificate documen measurements and the uncertainties	ts the traceability to national standards, which realize the physical units of measurements(SI). The s 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(Calibrated by, Certificate No.) Scher	duled Calibration
Power Meter NRP2	106277	19-Oct-23(CTTL, No.J23X11026)	Oct-24
Power sensor NRP8S	104291	19-Oct-23(CTTL, No.J23X11026)	Oct-24
Power sensor NRP8S	104292	19-Oct-23(CTTL, No.J23X11026)	Oct-24
Reference 10dBAttenuator	18N50W-10dB	19-Jan-23(CTTL, No.J23X00212)	Jan-25
Reference 20dBAttenuator	18N50W-20dB	19-Jan-23(CTTL, No.J23X00211)	Jan-25
Reference Probe EX3DV4	SN 7464	22-Jan-24(SPEAG, No.EX-7464_Jan2	4) Jan-25
DAE4	SN 1555	24-Aug-23(SPEAG, No.DAE4-1555_A	ug23) Aug-24
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	) Scheduled Calibration
SignalGenerator MG3700A	6201052605	12-Jun-24(CTTL, No.24J02X005419)	Jun-25
SignalGenerator APSIN26G	181-33A6D0700-19	59 26-Mar-24(CTTL, No.24J02X002468)	Mar-25
Network Analyzer E5071C	MY46110673	25-Dec-23(CTTL, No.J23X13425)	Dec-24
Reference 10dBAttenuator	BT0520	11-May-23(CTTL, No.J23X04061)	May-25
Reference 20dBAttenuator	BT0267	11-May-23(CTTL, No.J23X04062)	May-25
OCP DAK-12	SN 1174	25-Oct-23(SPEAG, No.OCP-DAK12-1	174_Oct23) Oct-24
N	lame Fu	Inction Sign	ature
Calibrated by:	Yu Zongying	SAR Test Engineer	ent
Reviewed by:	Lin Jun S	AR Test Engineer	with
Approved by:	Qi Dianyuan	SAR Project Leader	2002
		Issued	: June 30, 2024
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#### Glossary:

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

#### Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization θ=0 (f≤900MHz in TEM-cell; f>1800MHz: waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E<sup>2</sup> -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 (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; VRx, y, z:A,B,C 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≤800MHz) and inside waveguide using analytical field distributions based on power measurements for f >800MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued 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±50MHz to±100MHz.
- 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: 3970

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc ( <i>k</i> =2)
Norm(µV/(V/m)²) <sup>A</sup>	0.49	0.64	0.26	±10.0%
DCP(mV) <sup>B</sup>	101.7	105.3	95.9	

#### **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> ( <i>k</i> =2)
0	cw	Х	0.0	0.0	1.0	0.00	176.1	±2.5%	±4.7%
		Y	0.0	0.0	1.0		208.9		
		Z	0.0	0.0	1.0		113.5		
10352-AAA	Pulse Waveform (200Hz, 10%)	Х	3.61	69.20	11.63		60	±4.9%	±9.6%
		Y	1.82	60.64	6.31	10.00	60		
		Z	20.00	89.35	19.49		60		
10353-AAA	Pulse Waveform (200Hz, 20%)	Х	2.84	68.66	10.52		80	±2.9%	±9.6%
		Y	1.30	60.00	5.21	6.99	80		
		Z	20.00	89.59	18.36		80		
10354-AAA	Pulse Waveform (200Hz, 40%)	Х	1.40	65.49	8.21		95	±1.5%	±9.6%
		Y	0.83	60.00	4.51	3.98	95		
	and the second sec	Z	20.00	87.80	16.02		95		
10355-AAA	Pulse Waveform (200Hz, 60%)	Х	0.40	60.31	4.91		120	±1.1%	±9.6%
		Y	0.53	60.00	3.88	2.22	120		
		Z	0.74	64.52	7.48		120		
10387-AAA	QPSK Waveform, 1 MHz	Х	1.51	65.05	13.73		150	±2.7%	±9.6%
		Y	1.21	63.96	12.08	1.00	150		
		Z	1.55	63.71	13.16		150		
10388-AAA	QPSK Waveform, 10 MHz	Х	2.09	67.22	14.80		150	±1.3%	±9.6%
		Y	1.79	65.77	13.81	0.00	150		
		Z	1.93	64.93	13.50	C	150		
10396-AAA	64-QAM Waveform, 100 kHz	Х	2.85	71.32	19.71		150	±0.6%	±9.6%
		Y	2.34	68.88	18.48	3.01	150		
		Z	2.77	69.71	18.90		150		
10414-AAA	WLAN CCDF, 64-QAM, 40MHz	Х	4.77	65.54	15.32		150	±4.3%	±9.6%
		Y	4.59	65.74	15.27	0.00	150		
		Z	4.58	64.04	14.54		150		

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 Page 5).

<sup>&</sup>lt;sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>&</sup>lt;sup>E</sup> Uncertainly 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: 3970

### **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
х	44.44	331.98	35.35	13.52	0.00	5.06	0.65	0.24	1.02
Y	30.18	223.33	34.60	19.76	0.00	4.91	0.63	0.12	1.02
Z	55.03	429.98	38.05	11.96	0.01	5.10	0.56	0.29	1.02

### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	161.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm





## DASY/EASY – Parameters of Probe: EX3DV4 – SN:3970

	Relative	Conductivity		0	Com E Z	AlphaG	Depth <sup>G</sup>	Unct.
f [MHz] <sup>C</sup>	Permittivity <sup>F</sup>	(S/m) <sup>⊧</sup>	ConvF X	CONVF Y	CONVF Z	Alpha	(mm)	( <i>k</i> =2)
750	41.9	0.89	10.52	10.52	10.52	0.17	1.30	±12.7%
835	41.5	0.90	10.22	10.22	10.22	0.15	1.37	±12.7%
900	41.5	0.97	10.15	10.15	10.15	0.16	1.36	±12.7%
1750	40.1	1.37	8.87	8.87	8.87	0.25	1.08	±12.7%
1900	40.0	1.40	8.52	8.52	8.52	0.28	0.98	±12.7%
2300	39.5	1.67	8.25	8.25	8.25	0.65	0.68	±12.7%
2450	39.2	1.80	7.94	7.94	7.94	0.47	0.83	±12.7%
2600	39.0	1.96	7.80	7.80	7.80	0.65	0.69	±12.7%
3500	37.9	2.91	7.20	7.20	7.20	0.39	1.06	±13.9%
3700	37.7	3.12	7.05	7.05	7.05	0.39	1.08	±13.9%
3900	37.5	3.32	6.95	6.95	6.95	0.35	1.35	±13.9%
4100	37.2	3.53	6.90	6.90	6.90	0.40	1.15	±13.9%
4200	37.1	3.63	6.80	6.80	6.80	0.35	1.35	±13.9%
4400	36.9	3.84	6.69	6.69	6.69	0.35	1.35	±13.9%
4600	36.7	4.04	6.57	6.57	6.57	0.35	1.53	±13.9%
4800	36.4	4.25	6.60	6.60	6.60	0.45	1.25	±13.9%
4950	36.3	4.40	6.35	6.35	6.35	0.45	1.25	±13.9%
5250	35.9	4.71	5.76	5.76	5.76	0.40	1.50	±13.9%
5600	35.5	5.07	5.16	5.16	5.16	0.45	1.40	±13.9%
5750	35.4	5.22	5.26	5.26	5.26	0.40	1.55	±13.9%

### Calibration Parameter Determined in Head Tissue Simulating Media

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

<sup>F</sup> At frequency up to 6 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<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  $\pm$  1% for frequencies below 3 GHz and below  $\pm$  2% for the 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: ±7.4% (k=2)





# Receiving Pattern (Φ), θ=0°

f=600 MHz, TEM

f=1800 MHz, R22









Uncertainty of Axial Isotropy Assessment: ±1.2% (k=2)











### **Conversion Factor Assessment**

f=750 MHz,WGLS R9(H\_convF)

f=1750 MHz,WGLS R22(H\_convF)



## **Deviation from Isotropy in Liquid**



Uncertainty of Spherical Isotropy Assessment: ±3.2% (k=2)





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

UID	Rev	Communication System Name	Group	PAR	UncE
				(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	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802 11g WiFi 2 4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-EDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAC	UMTS-EDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	DAC	UMTS-EDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10090	CAC	EDGE-EDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAC	LTE-EDD (SC-EDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %





10102	CAP	ITE EDD (SC-EDMA 100% BB 20 MHz 64-OAM)	LTE-FDD	6.60	± 9.6 %
10102	DAC	LTE TOD (SC FDMA, 100% PB, 20 MHz, 04 G/M)	LTE-TDD	9.29	±9.6 %
10103	DAC	LTE-TOD (SC-FDMA, 100% RD, 20 MHz, QFSR)	ITE-TDD	9.97	+9.6 %
10104	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 10-QAM)		10.01	+96%
10105	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHZ, 64-QAM)		5.80	+96%
10108	CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHZ, QPSK)		6.43	+96%
10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHZ, 16-QAM)		5.75	+96%
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)		6.44	+ 9.6 %
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)		6.50	+ 0.6 %
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)		0.09	± 9.0 %
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)		0.02	± 9.0 %
10114	CAG	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.0 %
10115	CAG	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	± 9.6 %
10116	CAG	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	± 9.6 %
10117	CAG	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
10140	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
10141	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	± 9.6 %
10142	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10143	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
10144	CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6%
10145	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
10146	CAC	LTE-EDD (SC-EDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6 %
10140	CAC	LTE-EDD (SC-EDMA 100% RB 14 MHz 64-QAM)	LTE-FDD	6.72	± 9.6 %
10147	CAE	LTE-FDD (SC-FDMA, 1007) TRD, 1.4 MIL2, 01 QAM)	LTE-FDD	6.42	± 9.6 %
10149	CAE	LTE EDD (SC EDMA, 50% RB, 20 MHz, 10 G MM)	LTE-FDD	6.60	± 9.6 %
10150	CAE	LTE TDD (SC FDMA, 50% PB 20 MHz, OPSK)	ITE-TDD	9.28	±9.6%
10151	CAE	LTE TDD (SC FDMA, 50% PB 20 MHz, 16-0AM)	LTE-TDD	9.92	± 9.6 %
10152	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 10-QAM)	ITE-TDD	10.05	+9.6 %
10153	CAE	LTE-TDD (SC-FDIMA, 50% RB, 20 MHz, 04-0AM)	ITE-EDD	5.75	+9.6%
10154	CAF	LIE-FDD (SC-FDMA, 50% RB, 10 MHz, QFSK)	ITE-EDD	6.43	+96%
10155	CAF	LIE-FDD (SC-FDIMA, 50% RB, 10 MHZ, 10-QAM)	ITE-EDD	5.79	+9.6%
10156	CAF			6.49	+96%
10157	CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHZ, 10-QAM)		6.62	+96%
10158	CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHZ, 64-QAM)		6.56	+96%
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHZ, 64-QAM)		5.82	+96%
10160	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)		6.43	+96%
10161	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)		6.59	+0.6%
10162	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)		0.00	± 9.0 %
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)		0.40	± 9.0 %
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LIE-FDD	0.21	± 9.0 %
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)		6.79	± 9.0 %
10169	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)		5.73	19.0%
10170	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)		0.52	± 9.0 %
10171	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LIE-FDD	6.49	± 9.0 %
10172	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10173	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10174	CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10175	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10176	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10177	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10178	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10179	AAE	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	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6%
10182	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10183	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz. 64-QAM)	LTE-FDD	6.50	± 9.6 %
10184	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185	CAL	LTE-EDD (SC-EDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	CAG	LTE-EDD (SC-EDMA, 1 RB, 3 MHz, 64-OAM)	LTE-FDD	6.50	± 9.6 %
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10197	CAG	ITE EDD (SC-EDMA 1 RB 14 MHz OPSK)	LTE-FDD	5.73	±9.6 %
10107	CAG	LTE EDD (SC EDMA 1 PB 14 MHz 16-OAM)	LTE-FDD	6.52	± 9.6 %
10100	CAG	LTE EDD (SC EDMA, 1 RB, 1.4 MHz, 64-OAM)	ITE-FDD	6.50	±9.6 %
10189	CAE	LIE-FUD (SC-FUMA, IRD, 1.4 MIRZ, 04-QAM)	WIAN	8.09	+9.6%
10193	CAE	IEEE 802.1111 (HT Greenfield, 0.5 Mbps, BFSK)	WLAN	8.12	+96%
10194	AAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 10-QAM)	WLAN	8.21	+96%
10195	CAE	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)		8 10	+96%
10196	CAE	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)		8.13	+96%
10197	AAE	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)		8.27	+ 9.6 %
10198	CAF	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)		0.27	+ 9.6 %
10219	CAF	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	VVLAIN	0.03	± 9.0 %
10220	AAF	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)		0.13	± 9.0 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	VVLAN	0.27	19.0 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	0.00	± 9.0 %
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	± 9.6 %
10225	CAD	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	DAC	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	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10240	CAB	LTE-TDD (SC-EDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10241	CAD	LTE-TDD (SC-EDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10242	CAD	LTE-TOD (SC-EDMA, 50% RB, 1.4 MHz, OPSK)	LTE-TDD	9.46	±9.6 %
10240	CAD	LTE-TOD (SC-EDMA 50% RB 3 MHz 16-QAM)	LTE-TDD	10.06	± 9.6 %
10244	CAG	LTE-TDD (SC-EDMA 50% RB 3 MHz 64-QAM)	LTE-TDD	10.06	± 9.6 %
10245	CAG	LTE-TOD (SC-EDMA 50% RB 3 MHz QPSK)	LTE-TDD	9.30	± 9.6 %
10240	CAG	LTE-TDD (SC-EDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	± 9.6 %
10247	CAG	LITE-TOD (SC-EDMA 50% RB 5 MHz, 64-QAM)	LTE-TDD	10.09	± 9.6 %
10240	CAG	LTE-TOD (SC-EDMA 50% RB 5 MHz, OPSK)	LTE-TDD	9.29	±9.6 %
10249	CAG	LTE-TOD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	± 9.6 %
10250	CAE	LTE-TDD (SC-EDMA 50% RB 10 MHz 64-0AM)	LTE-TDD	10.17	± 9.6 %
10251	CAF	LITE_TOD (SC_EDMA 50% RB 10 MHz OPSK)	LTE-TDD	9.24	±9.6%
10252	CAF	LTE-TOD (SC-EDMA 50% RB 15 MHz 16-0AM)	LTE-TDD	9.90	± 9.6 %
10255	CAP	LTE-TDD (SC-EDMA 50% RB 15 MHz 64-0AM)	LTE-TDD	10.14	± 9.6 %
10254	CAB	LITE TOD (SC-EDMA 50% RB 15 MHz OPSK)	ITE-TDD	9,20	± 9.6 %
10255	CAB	LTE-TOD (SC-EDMA 100% RB 1 4 MHz 16-0AM)	LTE-TDD	9.96	± 9.6 %
10250	CAD	LTE TOD (SC EDMA 100% RB 14 MHz 64-0AM)	ITE-TDD	10.08	± 9.6 %
10257	CAD	LTE TOD (SC EDMA 100% PB 1 / MHz OPSK)	ITE-TOD	9.34	± 9.6 %
10258	CAD	LIE-TOD (SC-FDIVIA, 100% RB 3 MH+ 16.0AM)	LTE-TDD	9.98	+9.6 %
10259	CAD	LTE TOD (SC EDMA 100% RB 3 MHz, 10-QAM)	ITE-TDD	9.97	+9.6%
10260	CAG	LIE-IDD (SC-FDWA, 100% RD, 3 WITZ, 04-0(AW)	LTE-TOD	9.24	+9.6%
10261	CAG	LIE-IDD (SC-FDWA, 100% RD, 3 WITZ, QFSK)	LTE-TDD	9.83	+9.6%
10262	CAG	LIE-IDD (SC-FDWA, 100% KB, 3 WITZ, 10-QAW)	LTE-TOD	10.16	+96%
10263	CAG	LIE-IDD (SC-FDIMA, 100% RD, 3 MITZ, 04-QAM)	LTE-TOD	9.23	+96%
10264	CAG	LIE-IDD (SC-FDMA, 100% KB, 5 MHZ, QFSK)		0.20	+96%
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHZ, 10-QAM)		10.07	+96%
10266	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHZ, 64-QAM)		0.07	+ 9 6 %
10267	CAF	LIE-IDD (SC-FDMA, 100% RB, 10 MHZ, QPSK)		10.06	10.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)		10.06	± 9.0 %





10260	CAR	TE-TOD (SC-EDMA 100% BB 15 MHz 64-OAM)	ITE-TDD	10.13	+9.6 %
10209	CAD	LTE TOD (SC EDMA, 100% RB, 15 MHz, OPSK)	LTE-TDD	9.58	+96%
10270	CAD	LINTE EDD (JC-FDIVIA, 100% KB, 15 WITZ, QFSK)	WCDMA	4.87	+96%
10274	CAB	UMTS-FDD (HSUPA, Subject 5, 3GPP Relo. 10)	WCDMA	2.06	+06%
10275	CAD	UMTS-FDD (HSUPA, Sublest 5, 3GPP Rel8.4)	DUC	11 01	+06%
10277	CAD	PHS (QPSK)	PHO	11.01	± 9.0 %
10278	CAD	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.01	± 9.6 %
10279	CAG	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	± 9.6 %
10290	CAG	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	CAG	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	CAG	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	CAG	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	CAG	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	± 9.6 %
10297	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %
10300	CAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	CAC	IEEE 802,16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WiMAX	12.03	± 9.6 %
10302	CAB	IFEE 802,16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)	WiMAX	12.57	± 9.6 %
10303	CAB	IEEE 802 16e WIMAX (31:15 5ms 10MHz 64QAM PUSC)	WIMAX	12.52	± 9.6 %
10304	CAA	IEEE 802 16e WIMAX (29:18 5ms 10MHz 640AM PUSC)	WIMAX	11.86	+9.6 %
10305	CAA	IEEE 802.16e WIMAX (21:15, 10ms, 10MHz, 640AM, PUSC)	WIMAX	15.24	+9.6 %
10305	CAA	IEEE 802.16e WIMAX (31.13, 10ms, 10MHz, 640AM, PUSC)	WIMAX	14 67	+96%
10300	AAD	IEEE 802.16e WINAX (20.10, 10ms, 10MHz, 040AW, 1000)	WIMAX	1/ /0	+96%
10307	AAD	IEEE 002.100 WINAA (29.10, 10ms, 10MHz, QFSK, F030)		14.46	+ 9.6 %
10308	AAB	IEEE 802.166 WIMAX (29:18, 10ms, 10MHz, 16QAM, POSC)		14.40	± 9.0 %
10309	AAB	IEEE 802.166 WIMAX (29:18, 10ms, 10MHz, 16QAW, AWC 2X3)		14.00	± 9.0 %
10310	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3	VVIIVIAX	14.57	± 9.0 %
10311	AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LIE-FDD	6.06	± 9.6 %
10313	AAD	IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAD	IDEN 1:6	IDEN	13.48	± 9.6 %
10315	AAD	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)	WLAN	1.71	± 9.6 %
10316	AAD	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)	WLAN	8.36	± 9.6 %
10317	AAA	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)	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 dc)	WLAN	8.37	± 9.6 %
10401	ΔΔΔ	IEEE 802 11ac WiFi (40MHz 64-QAM 99pc dc)	WLAN	8.60	± 9.6 %
10402	ΔΔΔ	IEEE 802 11ac WiFi (80MHz, 64-QAM, 90pc dc)	WLAN	8.53	+ 9.6 %
10402	AAP	CDMA2000 $(1xE)/-DO Rev 0)$	CDMA2000	3.76	+9.6%
10403	AAP		CDMA2000	3.77	+96%
10404	AAD		CDMA2000	5.22	+96%
10400	AAD	LTE TOD (20 EDMA 1 DD 10 MHz ODCK 11 Cub-2 2 4 7 9 0)		7.82	+96%
10410	AAA	LIE-TUD (30-FDIVIA, I KD, IU IVITZ, QFSK, UL SUD-2,3,4,7,6,9)	Conorio	9.54	+06%
10414	AAA			1 54	10.60/
10415	AAA	IEEE 802.11D WIFI 2.4 GHZ (DSSS, 1 Midps, 99pc dc)		1.04	19.0%
10416	AAA	IEEE 802.11g WIFI 2.4 GHZ (ERP-OFDM, 6 Mbps, 99pc dc)		0.23	± 9.0 %
10417	AAA	IEEE 802.11a/h WIFI 5 GHz (OFDM, 6 Mbps, 99pc dc)	WLAN	8.23	± 9.0 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)	WLAN	8.19	± 9.6 %
10422	AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAE	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAE	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±9.6%
10426	AAE	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	AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6%
10432	AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAG	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10447	AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAA	LTE-EDD (OEDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %
10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10453	AAC	Validation (Square, 10ms, 1ms)	Test	10.00	± 9.6 %
10456	AAC	IEEE 802.11ac WiFi (160MHz. 64-QAM. 99pc dc)	WLAN	8.63	± 9.6 %
10457	AAC	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAC	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAC	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAC	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.30	± 9.6 %
10463	AAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10467	AAA	ITE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10469	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10470	AAD	LTE-TDD (SC-EDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10471	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10472	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10473	AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10474	AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10475	AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10477	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10478	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.18	± 9.6 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10482	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.71	± 9.6 %
10483	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)	LTE-TDD	8.39	± 9.6 %
10484	AAB	LTE-TDD (SC-FDMA, 50% RB. 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.47	± 9.6 %
10485	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.59	± 9.6 %
10486	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.38	± 9.6 %
10487	AAC	LTE-TDD (SC-FDMA, 50% RB. 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.60	± 9.6 %
10488	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.70	± 9.6 %
10480	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	±9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10401	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10492	AAF	I TE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.41	± 9.6 %
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-OAM, UL Sub)	LTE-TDD	8.55	± 9.6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.37	± 9.6 %
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	±9.6 %
10497	AAF	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10498	AAF	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.40	± 9.6 %
10499	AAC	I TE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.68	± 9.6 %
10500	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10501	AAF	LTE-TDD (SC-FDMA, 100% RB. 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.44	± 9.6 %
10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.52	± 9.6 %





10503	AAR	LTE-TDD (SC-EDMA, 100% RB, 5 MHz, OPSK, UL Sub)	LTE-TDD	7.72	±9.6 %
10503	AAB	LTE-TDD (SC-EDMA, 100% RB, 5 MHz, 16-OAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10504	AAC	LTE-TDD (SC-EDMA 100% RB 5 MHz 64-OAM UL Sub)	LTE-TDD	8.54	± 9.6 %
10505	AAC	LTE-TOD (SC-EDMA 100% RB 10 MHz OPSK LIL Sub)	LTE-TDD	7.74	± 9.6 %
10500	AAC	LTE TOD (SC EDMA, 100% PB 10 MHz, 16-OAM 11 Sub)	LTE-TDD	8.36	± 9.6 %
10507	AAC	LTE TOD (SC FDMA, 100% RB, 10 MHz, 10-QAM, 02 OUD)	LTE-TDD	8.55	+9.6%
10508	AAF	LTE-TOD (SC-FDMA, 100% RB, 10 MHZ, 04-QAM, 02 Sub)		7 99	+96%
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHZ, QPSK, 0L Sub)		8.49	+96%
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)		8.51	+96%
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL SUD)		7.74	+ 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL SUD)		0.42	+06%
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)		0.42	± 9.0 %
10514	AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)		0.40	± 9.0 %
10515	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)	WLAN	1.58	± 9.0 %
10516	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WLAN	1.57	± 9.6 %
10517	AAF	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10518	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10519	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)	WLAN	8.39	± 9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)	WLAN	8.08	± 9.6 %
10524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)	WLAN	8.27	± 9.6 %
10525	AAC	IEEE 802 11ac WiFi (20MHz, MCS0, 99pc dc)	WLAN	8.36	± 9.6 %
10526	AAF	IEEE 802 11ac WiFi (20MHz, MCS1, 99pc dc)	WLAN	8.42	± 9.6 %
10520	AAF	IEEE 802 11ac WiFi (20MHz, MCS2, 99pc dc)	WLAN	8.21	± 9.6 %
10527		IEEE 802 11ac WiFi (20MHz, MCS3, 99pc dc)	WLAN	8.36	± 9.6 %
10520	AAF	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)	WLAN	8.36	±9.6 %
10529	AAF	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)	WLAN	8.43	± 9.6 %
10531	AAF	IEEE 802.11ac WiFi (20MHz, MCSC, 90pc dc)	WLAN	8.29	±9.6 %
10532	AAF	IEEE 802.11ac WiFi (20MHz, MCS7, 35pc dc)	WIAN	8.38	+9.6%
10535	AAE	IEEE 802.11ac WiFi (20MHz, MCS0, 95pc dc)	WIAN	8.45	+9.6%
10534	AAE	IEEE 802.11ac WIFI (40MHz, MCS0, 99pc dc)	WLAN	8.45	+9.6%
10535	AAE	IEEE 802.11ac WIFI (40MHz, MCS1, 99pc dc)	WLAN	8.32	+96%
10536	AAF	IEEE 002.11ac WIFI (40MHz, MCS2, 99pc dc)	WLAN	8.44	+96%
10537	AAF	IEEE 802.11ac WIFI (40MHz, MCS3, 99pc dc)	WLAN	8.54	+96%
10538	AAF	IEEE 802.11ac WIFI (40MHz, WCS4, 99pc dc)	WLAN	8.39	+96%
10540	AAA	IEEE 802.11ac WIFI (40MHz, MCS6, 99pc ac)	WLAN	8.46	+96%
10541	AAA	TEEE 802.11ac WIFI (40MHz, MCS7, 99pc dc)		8.65	+96%
10542	AAA	IEEE 802.11ac WIFI (40MHz, MCS8, 99pc dc)		9.65	+0.6%
10543	AAC	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)		0.00	19.0 %
10544	AAC	IEEE 802.11ac WIFI (80MHz, MCS0, 99pc dc)		0.47	+0.6%
10545	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)		0.00	± 9.0 %
10546	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)		0.35	19.0%
10547	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)	VVLAN	8.49	± 9.0 %
10548	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)	WLAN	8.37	± 9.0 %
10550	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)	WLAN	8.38	± 9.0 %
10551	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)	WLAN	8.50	± 9.6 %
10552	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)	WLAN	8.42	± 9.6 %
10553	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802,11ac WiFi (160MHz, MCS8, 99pc dc)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)	WLAN	8.77	± 9.6 %
10564	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM. 9 Mbps. 99pc dc)	WLAN	8.25	±9.6 %
10565	AAC	IEEE 802 11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
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10566	AAC	IFFF 802,11g WiFi 2,4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc)	WLAN	8.13	± 9.6 %
10567	AAC	IEEE 802 11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)	WLAN	8.00	± 9.6 %
10568	AAC	IEEE 802 11g WiFi 2 4 GHz (DSSS-OEDM, 36 Mbps, 99pc dc)	WLAN	8.37	±9.6 %
10560	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OEDM 48 Mbps, 99pc dc)	WLAN	8.10	± 9.6 %
10509	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OEDM, 10 Mbps, 00pc dc)	WLAN	8.30	± 9.6 %
10570	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS 1 Mbps, 90nc dc)	WLAN	1.99	± 9.6 %
10571	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)	WLAN	1.99	± 9.6 %
10572	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 6000 dc)	WLAN	1.98	± 9.6 %
10575	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS_11 Mbps, 00pc dc)	WLAN	1.98	± 9.6 %
10574	AAC	IEEE 802.110 WIF12.4 GHz (DSSS, OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
105/5	AAC	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 0 Mbps, 50pc dc)	WIAN	8.60	+9.6%
10576	AAC	IEEE 002.11g WIFI 2.4 GHz (DSSS-OF DM, 5 Mbps, 50pc dc)	WIAN	8.70	+9.6%
10577	AAC	IEEE 002.11g WIFI 2.4 GHz (DSSS-OF DM, 12 Mbps, 30pc dc)	WIAN	8.49	+9.6%
10578	AAD	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)	WI AN	8.36	+96%
10579	AAD	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 24 Mbps, 50pc dc)	WLAN	8.76	+9.6%
10580	AAD	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 30 Mbps, 90pc dc)	WIAN	8.35	+96%
10581	AAD	IEEE 802.11g WIFI 2.4 GHZ (DSSS-OFDW, 46 Mbps, 90pc dc)		8.67	+9.6%
10582	AAD	IEEE 802.11g WIFI 2.4 GHZ (DSSS-OFDW, 54 Mbps, 90pc dc)		8.59	+96%
10583	AAD	IEEE 802.11a/n WIFI 5 GHZ (OFDM, 6 Mbps, 90pc dc)	WLAN	8.60	+96%
10584	AAD	IEEE 802.11a/n WIFI 5 GHZ (OFDM, 9 Mbps, 90pc dc)		8 70	+9.6%
10585	AAD	IEEE 802.11a/h WIFI 5 GHZ (OFDM, 12 Mbps, 90pc dc)		8.49	+96%
10586	AAD	IEEE 802.11a/n WIFI 5 GHZ (OFDM, 18 Mbps, 90pc dc)		8 36	+96%
10587	AAA	IEEE 802.11a/n WIFI 5 GHZ (OFDM, 24 Mbps, 90pc dc)		8.76	+96%
10588	AAA	IEEE 802.11a/n WIFI 5 GHZ (OFDM, 36 Mbps, 90pc dc)		8 35	+96%
10589	AAA	IEEE 802.11a/n WIFI 5 GHZ (OFDM, 48 Mbps, 90pc dc)		8.67	+96%
10590	AAA			8.63	+96%
10591	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)		8 70	+96%
10592	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)		8.64	+96%
10593	AAA			8 74	+96%
10594	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)		8 74	+96%
10595	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)		8.71	+96%
10596	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)	WLAN	8.72	+9.6%
10597	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)	WIAN	8.50	+9.6%
10598	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 30pc dc)	WIAN	8.79	+9.6%
10099	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 30pc dc)	WLAN	8.88	±9.6 %
10000	AAA	IEEE 802.11n (ITT Mixed, 40MHz, MCS1, 00pc dc)	WLAN	8.82	± 9.6 %
10001	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)	WLAN	8.94	± 9.6 %
10602		IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)	WLAN	9.03	±9.6%
10603		IEEE 802.11n (IT Mixed, 40MHz, MCS5, 90pc dc)	WLAN	8.76	±9.6%
10605		IEEE 802.11n (IT Mixed, 40MHz, MCS6, 90pc dc)	WLAN	8.97	± 9.6 %
10005	AAA	IEEE 802.11n (ITT Mixed, 40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10000	AAC	IEEE 802.11n (11 Mixed, 40M12, MCS1, 00pc dc)	WLAN	8.64	± 9.6 %
10609	AAC	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)	WLAN	8.77	± 9.6 %
10600	AAC	IEEE 802 11ac WiFi (20MHz, MCS2, 90pc dc)	WLAN	8.57	± 9.6 %
10610	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)	WLAN	8.78	± 9.6 %
10611	AAC	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10612	AAC	IEEE 802 11ac WiFi (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10012	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)	WLAN	8.94	± 9.6 %
10614	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)	WLAN	8.59	± 9.6 %
10615	AAC	IEEE 802 11ac WiFi (20MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10616	AAC	IEEE 802 11ac WiFi (40MHz, MCS0, 90pc dc)	WLAN	8.82	± 9.6 %
10617	AAC	IEEE 802 11ac WiFi (40MHz, MCS1, 90pc dc)	WLAN	8.81	± 9.6 %
10619	AAC	IEEE 802 11ac WiFi (40MHz, MCS2, 90pc dc)	WLAN	8.58	± 9.6 %
10610	AAC	IEEE 802 11ac WiFi (40MHz, MCS3, 90pc dc)	WLAN	8.86	± 9.6 %
10620	AAC	IEEE 802 11ac WiFi (40MHz, MCS4, 90pc dc)	WLAN	8.87	± 9.6 %
10621	AAC	IEEE 802 11ac WiFi (40MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10622	AAC	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)	WLAN	8.68	± 9.6 %
10623	AAC	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10624	AAC	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)	WLAN	8.96	± 9.6 %





10005	AAC	IEEE 802 11co WiEi (40MHz MCS9 90pc dc)	WIAN	8.96	± 9.6 %
10625	AAC	IEEE 802.11ac WIFI (400Hz, MCS9, 90pc dc)	WIAN	8.83	+9.6%
10626	AAC	IEEE 802.11ac WIFI (80MHz, MCS4, 90pc dc)		8.88	+96%
10627	AAC			8 71	+96%
10628	AAC	IEEE 802.11ac WIFI (80MHz, MCS2, 90pc dc)		8.85	+96%
10629	AAC	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)		0.00	+ 9.6 %
10630	AAC	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)	VVLAIN	0.12	± 9.0 %
10631	AAC	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)	WLAN	0.01	± 9.0 %
10632	AAC	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10633	AAC	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)	WLAN	8.83	± 9.6 %
10634	AAC	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)	WLAN	8.80	± 9.6 %
10635	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802 11ac WiFi (160MHz, MCS7, 90pc dc)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802 11ac WiFi (160MHz, MCS8, 90pc dc)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802 11ac WiFi (160MHz, MCS9, 90pc dc)	WLAN	9.11	± 9.6 %
10646	AAC	LTE-TDD (SC-EDMA 1 RB 5 MHz OPSK UL Sub=2.7)	LTE-TDD	11.96	± 9.6 %
10647	AAC	LTE-TDD (SC-EDMA 1 RB 20 MHz OPSK UI Sub=27)	LTE-TDD	11.96	± 9.6 %
10047	AAC	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10048	AAC	LTE TOD (OEDMA 5 MHz E TM 2.1 Clipping 44%)	ITE-TDD	6.91	+9.6 %
10652	AAC	LTE-TOD (OFDMA, 5 MHZ, E-TM 5.1, Clipping $44\%$ )	ITE-TDD	7 42	+9.6%
10653	AAC	LTE-TOD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	+96%
10654	AAC	LTE-TOD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	+96%
10655	AAC		Toet	10.00	+96%
10658	AAC	Pulse Waveform (200Hz, 10%)	Test	6.00	+96%
10659	AAC	Pulse Waveform (200Hz, 20%)	Test	3.08	+96%
10660	AAC	Pulse Waveform (200Hz, 40%)	Test	2.30	+0.6%
10661	AAC	Pulse Waveform (200Hz, 60%)	Test	0.07	+0.6%
10662	AAC	Pulse Waveform (200Hz, 80%)	Diveteeth	0.97	19.0 %
10670	AAC	Bluetooth Low Energy	Bluetooth	2.19	± 9.0 %
10671	AAD	IEEE 802.11ax (20MHz, MCS0, 90pc dc)	VVLAN	9.09	± 9.0 %
10672	AAD	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	± 9.0 %
10673	AAD	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	± 9.6 %
10674	AAD	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	±9.6%
10675	AAD	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	± 9.6 %
10676	AAD	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10677	AAD	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	± 9.6 %
10678	AAD	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	± 9.6 %
10679	AAD	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	± 9.6 %
10680	AAD	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	± 9.6 %
10681	AAG	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	± 9.6 %
10682	AAF	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10684	AAC	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	± 9.6 %
10685	AAC	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10686	AAC	IEEE 802 11ax (20MHz, MCS3, 99pc dc)	WLAN	8.28	± 9.6 %
10687	AAE	IEEE 802 11ax (20MHz, MCS4, 99pc dc)	WLAN	8.45	±9.6%
10699	AAE	IEEE 802 11ax (20MHz, MCS5, 99pc dc)	WLAN	8.29	± 9.6 %
10000	AAD	IEEE 802 11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	±9.6 %
10009	AAD	IEEE 802 11ax (20MHz, MCS7, 99pc dc)	WLAN	8,29	± 9.6 %
10090	AAE	IEEE 802.11ax (2014112, 14037, 3500 dc)	WIAN	8.25	±9.6 %
10091	AAB	IEEE 002.11ax (2010Hz, 10000, 39pc dc)	WLAN	8.29	+9.6%
10692	AAA	IEEE 002.110x (2010172, 101039, 3900 00)	WIAN	8.25	+9.6%
10693	AAA	1 IEEE 002.118X (2010112, 1010510, 9900 00)	WLAN	8.57	+9.6%
10694	AAA			8 78	+96%
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	VILAIN	0.70	1 0.0 /0





				0.04	
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	± 9.6 %
10701	AAA	IFFF 802,11ax (40MHz, MCS6, 90pc dc)	WLAN	8.86	± 9.6 %
10702	ΔΔΔ	IEEE 802 11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	± 9.6 %
10702	ΔΔΔ	IEEE 802 11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10704	ΔΔΔ	IEEE 802 11ax (40MHz MCS9, 90pc dc)	WLAN	8.56	±9.6 %
10704		IEEE 802 11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	± 9.6 %
10705	AAC	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	±9.6 %
10700	AAC	IEEE 802.11ax (40MHz, MCS0, 99nc dc)	WLAN	8.32	±9.6 %
10708	AAC	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	±9.6 %
10700	AAC	IEEE 802.11ax (40MHz, MCS2, 99nc dc)	WLAN	8.33	±9.6 %
10703	AAC	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	±9.6 %
10710	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	±9.6 %
10712	AAC	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.67	±9.6 %
10712	AAC	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	±9.6 %
10713	AAC	IEEE 802.11ax (40MHz, MCS0, 35pc dc)	WLAN	8.26	± 9.6 %
10/14	AAC	IEEE 802.11ax (4010Hz, MCS7, 39pc dc)	WLAN	8.45	± 9.6 %
10/15	AAC	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.30	± 9.6 %
10/16	AAC	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.48	+9.6%
10/1/	AAC	IEEE 802.118X (40MHz, MCS10, 99pc 0c)	WLAN	8.24	+9.6%
10/18	AAC	IEEE 802.11ax (4010112, 10CS11, 9900 dc)	WLAN	8.81	+9.6%
10/19	AAC	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WIAN	8.87	+9.6%
10720	AAC	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WIAN	8.76	+9.6%
10721	AAC	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WLAN	8.55	+9.6%
10722	AAC	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.70	+9.6%
10723	AAC	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.90	+9.6%
10724	AAC	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	+9.6%
10/25	AAC	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WIAN	8.72	+9.6%
10720	AAC	IEEE 002.11ax (00MHz, MCS7, 30pc dc)	WLAN	8.66	± 9.6 %
10/2/	AAC	IEEE 802.11ax (80MHz, MCS8, 80pc dc)	WLAN	8.65	±9.6%
10720	AAC	IEEE 802.11ax (80MHz, MCS10, 90pc dc)	WLAN	8.64	± 9.6 %
10729	AAC	IEEE 802.11ax (80MHz, MCS11, 90pc dc)	WLAN	8.67	±9.6%
10730	AAC	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	±9.6%
10/31	AAC	IEEE 802.11ax (80MHz, MCS0, 95pc dc)	WLAN	8.46	±9.6%
10732	AAC	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WIAN	8.40	±9.6%
10733	AAC	IEEE 002.11ax (00MHz, MC02, 30pc dc)	WLAN	8.25	±9.6%
10734	AAC	IEEE 802.11ax (80MHz, MCS3, 95pc dc)	WIAN	8.33	±9.6 %
10735	AAC	IEEE 002.11ax (00MHz, MCS4, 35pc dc)	WIAN	8.27	+9.6%
10730	AAC	1EEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	± 9.6 %
10/3/	AAC	IEEE 002.11ax (00MHz, MCS0, 35pc dc)	WIAN	8.42	+9.6%
10/38	AAC	IEEE 002.11ax (00MHz, MCS7, 95pc dc)	WLAN	8.29	+9.6%
10739	AAC	IEEE 002.11ax (00MHz, MCS0, 99pc dc)	WLAN	8.48	+9.6%
10/40	AAC	IEEE 002.118X (0010172, 101039, 3900 00)	WLAN	8.40	+9.6%
10/41	AAC	IEEE 002.110x (0010102, 1010310, 9900 00)	WLAN	843	+9.6%
10/42	AAC	IEEE 002.118X (001017, 1010511, 3900 00)	WLAN	8 94	+9.6%
10/43	AAC	IEEE 802.11ax (160MHz, MCS1, 90pc dc)		9.16	+96%
10744	AAC	LEEE 002.110x (100MHz, MCS1, 9000 dc)	WLAN	8.93	+9.6%
10/45	AAC	IEEE 002.110X (100MITZ, MCO2, 9000 00)	WIAN	9 11	+96%
10/46	AAC	IEEE 002.110x (100MHz, MCS3, 9000 00)	WLAN	9.04	+9.6%
10/4/	AAC	IEEE 002.118x (1001/112, 1/1034, 3000 00)	WLAN	8.93	±9.6 %
10748	AAC	IEEE 002.110x (100MHz, MCS5, 9000 dc)	WLAN	8.90	+9.6%
10749	AAC	IEEE 002.11ax (100MHz, MCS0, 50pc dc)	WLAN	8.79	± 9.6 %
10750	AAC	IEEE 002.11ax (100MHz, MCS7, 50pc 00)	WIAN	8.82	+9.6%
10/51	AAC	IEEE 002.110x (100MHz, MCS0, 9000 dc)	WLAN	8.81	+9.6%
10752	AAC	IEEE 002.110x (100MHz, MCS3, 5000 dc)	WLAN	9.00	+9.6%
10753	AAC	IEEE 002.110x (100MHz, MCS10, 500C0C)	WIAN	8.94	+9.6%
10/04	AAU	1 EEE 002. 11ax (10010112, 100011, 3000 00)		0.01	





10755	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.64	± 9.6 %
10756	AAC	IEEE 802,11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	±9.6 %
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.77	± 9.6 %
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	8.69	± 9.6 %
10759	AAC	IEEE 802 11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	± 9.6 %
10760	AAC	IEEE 802 11ax (160MHz MCS5, 99pc dc)	WLAN	8.49	± 9.6 %
10761	AAC	IEEE 802 11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	± 9.6 %
10762	AAC	IEEE 802 11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	± 9.6 %
10762	AAC	IEEE 802 11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	± 9.6 %
10703	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	± 9.6 %
10765	AAC	IEEE 802,11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	± 9.6 %
10705	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	± 9.6 %
10767	AAC	SG NR (CP-OEDM 1 RB 5 MHz OPSK 15 kHz)	5G NR FR1 TDD	7.99	± 9.6 %
10768	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10760	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10703	AAC	5G NR (CP-OEDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10771	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10772	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QF GR, 10 MHz)	5G NR FR1 TDD	8.23	± 9.6 %
10772	AAC	50 NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 KHz)	5G NR FR1 TDD	8.03	+9.6 %
10//3	AAC	50 NR (CP-OFDM, 1 RB, 40 MHz, QFSK, 13 KHz)	5G NR FR1 TDD	8.02	+9.6 %
10//4	AAC	50 NR (CP-OFDM, TRB, 50 MHz, QF5R, 15 KHz)	5G NR FR1 TDD	8.31	+9.6 %
10//5	AAC	50 NR (CP-OFDM, 50% RB, 5 MHz, QF3K, 13 KHz)	5G NR FR1 TDD	8.30	+9.6 %
10//0	AAC	50 NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 KHz)	5G NR FR1 TDD	8.30	+9.6 %
10///	AAC	50 NR (CP-OFDM, 50% RD, 15 MITZ, QF5K, 15 KIZ)	5G NR FR1 TDD	8.34	+96%
10778	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QP5K, 15 KHz)	5G NR FR1 TDD	8.42	+96%
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QP5K, 15 KHz)	5G NR FR1 TDD	8.38	+96%
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 KHz)	5G NR FR1 TDD	8.38	+96%
10/81	AAC	50 NR (CP-OFDM, 50% RD, 40 MHz, QF5K, 15 KHz)	5G NR FR1 TDD	8.43	+96%
10782	AAC	50 NR (CP-OFDM, 50% RB, 50 MHz, QF5K, 15 KHz)	5G NR FR1 TDD	8.31	+96%
10/83	AAC	50 NR (CP-OFDM, 100% RB, 5 MHZ, QPSK, 15 KHZ)	5G NR FR1 TDD	8.29	+96%
10784	AAC	50 NR (CP-OFDM, 100% RD, 10 MHz, QFSK, 15 KHz)	5G NR FR1 TDD	8.40	+96%
10/85	AAC	50 NR (CP-OFDM, 100% RB, 15 MHz, QF5K, 15 KHz)	5G NR FR1 TDD	8.35	+9.6 %
10786	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 KHz)	5G NR FR1 TDD	8.44	+96%
10/8/	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QF5K, 15 KHz)	5G NR FR1 TDD	8.39	+9.6%
10/88	AAC	50 NR (CP-OFDM, 100% RB, 30 MHz, QFSK, 15 KHz)	5G NR FR1 TDD	8.37	+9.6%
10789	AAC	50 NR (CP-OFDM, 100% RB, 40 MHz, QFSK, 15 KHz)	5G NR FR1 TDD	8.39	+96%
10790	AAC	50 NR (CP-OFDIVI, 100% RD, 50 MITZ, QF5R, 15 K1Z)	5G NR FR1 TDD	7.83	+96%
10/91	AAC	SG NR (CP-OFDM, 1 RB, 3 MHZ, QPSK, 30 KHZ)	5G NR FR1 TDD	7.92	+96%
10/92	AAC	50 NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	7.95	+96%
10/93	AAC	SG NR (CP-OFDM, 1 RB, 15 MHz, QFSK, 30 KHz)	5G NR FR1 TDD	7.82	+96%
10794	AAC	50 NR (CP-OPDIN, 1 RB, 20 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	7.84	+96%
10/95	AAC	SG NR (CP-OFDM, 1 RB, 23 MHz, QFSK, 30 KHz)	5G NR FR1 TDD	7.82	+96%
10/96	AAC	SG NR (CP-OFDM, 1 RB, 30 MHz, QFSK, 30 KHz)	5G NR FR1 TDD	8.01	+96%
10/9/	AAC	SG NR (CP-OFDM, 1 RB, 40 MHz, QFSK, 30 KHz)	5G NR FR1 TDD	7.89	+96%
10798	AAC	SG NR (CP-OFDM, 1 RB, S0 MHz, QFSK, S0 KHz)	5G NR FR1 TDD	7.93	+96%
10/99	AAC	SG NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	7.80	+96%
10801	AAC	SG NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	7.87	+96%
10802	AAC	50 NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	7.07	+96%
10803	AAE		5G NR FR1 TDD	8.34	+96%
10805	AAD	50 NR (CP-OFDM, 50% RB, 10 MHz, QFSK, 30 KHz)	5G NR FR1 TDD	8 37	+96%
10806	AAD	50 NR (0F-0FDW, 50% RP 20 MHz OPSK 20 KHz)	5G NR FR1 TDD	8.34	+9.6%
10809	AAD	50 NR (07-0FDIVI, 30% RD, 30 MIHZ, QFSR, 30 KHZ)	5G NR FR1 TDD	8.34	+9.6 %
10010	AAD	50 NR (CP-OFDIVI, 50% RB, 40 MHz, QFSK, 50 KHz)	5G NR FR1 TDD	8.35	+9.6 %
10012	AAD	50 NR (CP-OFDIVI, 50% ND, 60 WHZ, QF5N, 50 KHZ)	5G NR FR1 TDD	8.35	± 9.6 %
10017	AAD	5C NR (CP-OFDM, 100% RB 10 MHz OPSK 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10010	AAD	5C NR (CP-OFDM, 100% RB 15 MHz OPSK 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10819	AAD	50 NR (CP-OFDM, 100% RB 20 MHz, OPSK 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAC	5G NR (CP-OFDM 100% RB 25 MHz OPSK 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
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10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAD	5G NR (CP-OEDM 100% RB 50 MHz OPSK 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAD	5G NR (CP-OEDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10023	AAD	50 NR (CP-OFDM, 100% RB, 00 MHz, QF OR, 00 KHz)	5G NR FR1 TDD	8.42	+9.6 %
10027	AAD	50 NR (CP-OFDM, 100% RB, 00 MHz, QF 50, 00 KHz)	5G NR FR1 TDD	8.43	+9.6 %
10020	AAE	50 NR (CP-OPDM, 100% RB, 30 MHz, QF 5R, 30 KHz)	5G NR FR1 TDD	8.40	+9.6 %
10829	AAD	50 NR (CP-OPDM, 100% RB, 100 MHZ, QPSK, 30 KHZ)	5G NR FR1 TDD	7.63	+96%
10830	AAD	50 NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 00 KHz)	5G NR FR1 TDD	7.73	+96%
10831	AAD	SG NR (CP-OFDM, T RB, TS MHZ, QPSK, 60 KHZ)	5C ND ED1 TDD	7.74	+96%
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHZ, QPSK, 60 KHZ)	50 NR FRI TDD	7.70	+ 9.6 %
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHZ, QPSK, 60 KHZ)	50 NR FRI TDD	7.75	+06%
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHZ, QPSK, 60 KHZ)	50 NR FRI TDD	7.70	19.0 %
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FRI TDD	7.70	± 9.0 %
10836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 KHz)	5G NR FRI TDD	7,00	± 9.0 %
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAD	5G NR (CP-OEDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAF	5G NR (CP-OEDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAD	5G NR (CP-OEDM 100% RB 100 MHz QPSK 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAD	5G NR (DET-s-OEDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAD	5G NR (DET-s-OEDM 100% BB 100 MHz OPSK 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DET-s-OEDM 1 RB 100 MHz OPSK 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870		5G NR (DET-s-OEDM 100% BB 100 MHz OPSK 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871		5G NR (DET-S-OEDM 1 RB 100 MHz 160AM 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872		5G NR (DET-S-OFDM, 110% RB 100 MHz 160AM 120 kHz)	5G NR FR2 TDD	6.52	±9.6 %
10072		50 NR (DET-S-OFDM, 188, 100 MHz, 640AM, 120 kHz)	5G NR FR2 TDD	6.61	+9.6 %
10073	AAD	5C NR (DFT-S-OFDM, 1100% RB 100 MHz 640AM 120 kHz)	5G NR FR2 TDD	6.65	+96%
10074	AAD	50 NR (DF1-5-0FDM, 100 / RB, 100 MHz, 040/MI, 120 KHz)	5G NR FR2 TDD	7.78	+96%
10075	AAD	50 NR (CP-OPDM, 1100% PR 100 MHz, QF 0R, 120 KHz)	5G NR FR2 TDD	8.39	+96%
10876	AAD	50 NR (CP-OFDM, 100% RB, 100 MHz, 160 AM, 120 KHz)	5G NR FR2 TDD	7.95	+96%
10077	AAD	50 NR (CP-OFDINI, I RD, 100 NICZ, 10QANN, 120 RCZ)	5G NR FR2 TDD	8.41	+96%
10878	AAD	50 NR (0P-0FDW, 100% RD, 100 WHZ, 100AW, 120 KHZ)	5G NR EP2 TOD	8.12	+96%
10879	AAD	50 NR (UP-UPDINI, I RD, 100 MIDZ, 04QAWI, 120 KRZ)	5G NR EP2 TOD	8 38	+96%
10880	AAD		5C ND ED2 TOD	5.75	+96%
10881	AAD	50 NR (DET - OEDM 100% DR 50 MHZ, QPSK, 120 KHZ)	5C NR EP2 TDD	5.06	+ 9 6 %
10882	AAD	50 NR (DET - OEDM 1 DR 50 MUE 400 MUE)	5C NP EPO TOD	6.57	+0.6 %
10883	AAD	DU NK (UFT-S-UFDM, 1 KB, 30 MHZ, 10QAM, 120 KHZ)	50 NR FR2 TDD	6.52	10.0 %
10884	AAD	DG NK (DFT-S-OFDM, 100% KB, 50 MHZ, 16QAM, 120 KHZ)	5C NR FR2 TDD	0.00	10.6 %
10885	AAD	DG NK (DFT-S-OFDM, 1 KB, 50 MHZ, 64QAM, 120 KHZ)	SC ND EDD TOD	0.01	10.6 0/
10886	AAD	50 NR (DFT-S-OFDM, 100% RB, 50 MHZ, 64QAM, 120 KHZ)	SO NR FRZ TDD	7.70	19.0%
10887	AAD	56 NR (CP-OFDM, 1 KB, 50 MHZ, QPSK, 120 KHZ)	SG NR FRZ TDD	1.10	19.0%
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 KHz)	SG NR FRZ TDD	0.35	19.0%
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 KHz)	SG NR FRZ TDD	0.02	19.0%
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 KHz)	SG NR FR2 TDD	0.40	± 9.0 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	0.13	± 9.0 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.0 %
10897	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.66	± 9.6 %
10898	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %





10800		5G NB (DET-s-OEDM 1 BB 15 MHz OPSK 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10099	AAD	5G NR (DFT-3-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10900	AAD	50 NR (DFT-S-OFDM, 1 RB, 25 MHz, QFOK, 30 KHz)	5G NR FR1 TDD	5.68	+9.6 %
10901	AAD	50 NR (DFT-S-OFDM, 1 RD, 20 MHz, QFSK, 30 KHz)	5G NR FR1 TDD	5.68	+96%
10902	AAD	SG NR (DFT-S-OFDM, TRB, 30 MHZ, QPSK, 30 KHZ)	5C NR FR1 TDD	5.68	+96%
10903	AAD	5G NR (DFT-S-OFDM, 1 RB, 40 MHz, QPSK, 30 KHz)	5C ND ED1 TDD	5.68	+ 9.6 %
10904	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 KHz)	SO ND FD1 TDD	5.00	106%
10905	AAD	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.00	± 9.0 %
10906	AAD	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5,00	± 9.0 %
10907	AAD	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	± 9.6 %
10908	AAD	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 IDD	5.93	± 9.6 %
10909	AAD	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	± 9.6 %
10910	AAD	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10911	AAD	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10912	AAD	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10913	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10914	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	± 9.6 %
10915	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10916	AAD	5G NR (DET-s-OEDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10017		5G NR (DET-s-OEDM 50% RB 100 MHz OPSK 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10019		5C NR (DET-s-OEDM, 100% RB, 5 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10910	AAD	5C NR (DET & OEDM, 100% RB, 10 MHz, QL OK, 00 KHz)	5G NR FR1 TDD	5.86	± 9.6 %
10919	AAD	50 NR (DET & OEDM, 100% RB, 15 MHz, OPSK, 30 KHz)	5G NR FR1 TDD	5.87	+9.6 %
10920	AAD	50 NR (DET & OEDM, 100% RB, 13 MHz, QESK, 30 KHz)	5G NR FR1 TDD	5.84	+9.6%
10921	AAD	5G NR (DFT-S-OFDM, 100% RB, 20 MHz, QPSK, 30 KHz)	5C NR ER1 TDD	5.82	+96%
10922	AAD	5G NR (DFT-s-OFDM, 100% RB, 25 MHZ, QPSK, 30 KHZ)	SC NR FRI TDD	5.84	+96%
10923	AAD	5G NR (DFT-s-OFDM, 100% RB, 30 MHZ, QPSK, 30 KHZ)	SO ND EDI TOD	5.04	10.0 %
10924	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.04	± 9.0 %
10925	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FRI TDD	5.95	± 9.0 %
10926	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10927	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5,94	± 9.6 %
10928	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10929	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10930	AAD	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10931	AAD	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10932	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10933	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10934	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10935	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9,6 %
10936	AAC	5G NR (DET-s-OEDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10037	AAR	5G NR (DET-s-OEDM, 50% RB, 10 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.77	± 9.6 %
10038	AAB	5G NR (DET-s-OEDM 50% RB 15 MHz OPSK 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10000		5G NR (DET-s-OEDM 50% RB 20 MHz OPSK 15 kHz)	5G NR FR1 FDD	5.82	± 9.6 %
10939		50 NR (DET_S-OEDM 50% RB 25 MHz OPSK 15 kHz)	5G NR FR1 FDD	5.89	± 9.6 %
10940	AAD	50 NR (DET & OEDM 50% PB 30 MHz OPSK 15 kHz)	5G NR FR1 FDD	5.83	+9.6 %
10941	AAB	50 NR (DET - OEDM 50% RD, 30 MITZ, GEOK, 13 KIZ)	5G NR FR1 FDD	5.85	+96%
10942	AAB	50 NR (DET - OEDM 50% RD 50 MHz, QESK, 15 KHz)	5G NR FR1 FDD	5.95	+9.6%
10943	AAB		5G NR EP1 EDD	5.81	+96%
10944	AAB	DO NK (UFT-S-UFDM, 100% KB, D MHZ, QPSK, 13 KHZ)	5G NP ED1 EDD	5.95	+96%
10945	AAB	5G NK (DFT-S-OFDM, 100% KB, 10 MHZ, QPSK, 15 KHZ)		5.00	+06%
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 KHz)	SG NR FRI FUU	5.03	± 9.0 %
10947	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 KHz)	SG NR FRI FUU	5.87	19.0 %
10948	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 KHz)	DG NR FRI FDD	5.94	I 9.0 %
10949	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10950	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10951	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	± 9.6 %
10952	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	± 9.6 %
10953	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	± 9.6 %
10954	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	± 9.6 %
10955	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	± 9.6 %
10956	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	± 9.6 %
10957	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	± 9.6 %





10958	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	± 9.6 %
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	± 9.6 %
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	± 9.6 %
10978	AAA	ULLA BDR	ULLA	1.16	± 9.6 %
10979	AAA	ULLA HDR4	ULLA	8.58	+9.6%
10980	AAA	ULLA HDR8	ULLA	10.32	+9.6 %
10981	AAA	ULLA HDRp4	ULLA	3.19	+9.6%
10982	AAA	ULLA HDRp8	ULLA	3.43	+96%
10983	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.31	+96%
10984	AAB	5G NR DL (CP-OEDM, TM 3.1, 50 MHz, 64-OAM, 15 kHz)	5G NR FR1 TDD	9.42	+96%
10985	AAC	5G NR DL (CP-OEDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	+96%
10986	AAB	5G NR DL (CP-OEDM, TM 3.1, 50 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	9.50	+96%
10987	AAC	5G NR DL (CP-OEDM, TM 3.1, 60 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	9.53	+96%
10988	AAB	5G NR DL (CP-OEDM, TM 3.1, 70 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	0.38	+96%
10989	AAC	5G NR DL (CP-OEDM, TM 3.1, 80 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	9.33	+96%
10990	AAB	5G NR DL (CP-OEDM, TM 3.1, 90 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	9.50	+96%
11003	AAA	5G NR DL (CP-OEDM, TM 3.1, 30 MHz, 64-OAM, 15 kHz)	5G NR FR1 TDD	10.24	+96%
11004	AAA	5G NR DL (CP-OEDM, TM 3.1, 30 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	10.24	+96%
11005	AAA	5G NR DL (CP-OEDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8 70	+96%
11006	AAA	5G NR DL (CP-OEDM, TM 3.1, 20 MHz, 64-OAM, 15 kHz)	5G NR FR1 FDD	8.55	+96%
11007	AAA	5G NR DL (CP-OEDM, TM 3.1, 40 MHz, 64-OAM, 15 kHz)	5G NR FR1 FDD	8.46	+96%
11008	AAA	5G NR DL (CP-OEDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.51	+96%
11009	ΔΔΔ	5G NR DL (CP-OEDM, TM 3.1, 25 MHz, 64-OAM, 30 kHz)	5G NR FR1 FDD	8.76	+96%
11010	ΔΔΔ	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.95	+96%
11011	ΔΔΔ	5G NR DL (CP-OEDM, TM 3.1, 40 MHz, 64-OAM, 30 kHz)	5G NR FR1 FDD	8.96	+96%
11012	AAA	5G NR DL (CP-OEDM, TM 3.1, 50 MHz, 64-OAM, 30 kHz)	5G NR FR1 FDD	8.68	+96%
11013	AAA	IEEE 802 11be (320MHz MCS1 99bc duty cycle)	WIAN	8.47	+96%
11014	ΔΔΔ	IEEE 802 11be (320MHz, MCS2, 99pc duty cycle)	WI AN	8.45	+96%
11015	AAA	IEEE 802 11be (320MHz, MCS3, 99pc duty cycle)	WIAN	8 44	+96%
11016	ΔΔΔ	IEEE 802 11be (320MHz, MCS4, 99pc duty cycle)		8 11	+ 9.6 %
11017	ΔΔΔ	IFEE 802 11be (320MHz, MCS5, 99pc duty cycle)		8.44	+ 9.6 %
11018		IEEE 802.11be (320MHz, MCS6, 99bc duty cycle)		9.40	19.0 %
11010		IEEE 802 11be (320MHz, MCS7, 99pc duty cycle)		0.40	± 9.0 %
11020		IEEE 002.11be (320MHz, MCS8, 90pc duity cycle)		9.29	+06%
11020		IEEE 802 11be (320MHz, MCS0, 99pc duty cycle)		0.21	10.6 %
11021		IEEE 002.11be (320MHz, MCS10, 99pc duty cycle)		0.40	106 %
11022		IEEE 802 11bo (320MHz, MCS11, 90bo duty cycle)		0.00	+0.6.0/
11023		IEEE 802 11be (320MHz, MCS12, 99pc duty cycle)		0.09	19.0%
11024		IEEE 802 11be (320MHz, MCS12, 9900 duty cycle)		0.42	± 9.0 %
11020		IEEE 802 11be (320MHz, MCS0, 99pc duty cycle)		0.37	19.0%
11020	AAA	TELE OVZ. The (SZUMITZ, MOSU, Sape duty cycle)	VVLAN	0.39	± 9.0 %

<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.



中国认可 国际互认 校准 CALIBRATION CNAS L0570

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Client

Emtek(Shenzhen)

Certificate No: 222

222-60037

### **CALIBRATION CERTIFICATE**

Object D5GHzV2 - SN: 1169

Calibration Procedure(s)

FF-211-003-01 Calibration Procedures for dipole validation kits

Calibration date:

February 19, 2025

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  $(22\pm3)^{\circ}C$  and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID#	Cal Date (Calibrated by, CertificateNo.)	Scheduled Calibration
Power Meter NRP2	106277	24-Sep-24 (CTTL, No.J21X08326)	Sep-29
Powersensor NRP8S	104291	24-Sep-24 (CTTL, No.J21X08326)	Sep-29
Reference Probe EX3DV4	SN 7307	27-May-24(SPEAG,No.EX3-7307_May21)	May-30
DAE4	SN 1556	22-Jan-25(CTTL-SPEAG,No.222-60007)	Jan-29
Secondary Standards	ID#	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	13-Jan-25 (CTTL, No. J22X00409)	Jan-23
Network Analyzer E5071C	MY46110673	14-Jan-25 (CTTL, No.J22X00406)	Jan-23

	Name	Function	Signature
Calibrated by: Reviewed by:	Zhao Jing	SAR TestEngineeri	tt
Approved by:	Qi Dianyuan	SAR Project Lea er	
Issued: February 24, 2025 This calibration certificate shall not be reproduced except infull without written approval of the laboratory.			

Certificate No: 222-60037

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#### Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORMx,y,z
N/A	notapplicableornotmeasured

#### Calibration is Performed According to the Following Standards:

- a) IEC/IEEE 62209-1528, "Measurement Procedure for The Assessment of Specific Absorption Rate of Human Exposure to Radio Frequency Fields from Hand-held and Body-mounted Wireless Communication Devices- Part 1528: Human Models, Instrumentation and Procedures (Frequency range of 4 MHz to 10 GHz)", October 2020
- b) KDB 865664,"SAR Measurement Requirements for 100 MHz to 6 GHz"

#### Additional Documentation:

c) 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 1ipole 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 L ss: These parameters are measured with the dipole positioned under the liquid filled pha tom. 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 requ;red.
- *Electrical Delay:* One-way delay betwieen the S A connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at t e stated antenn input power.
- SAR normalized: SAR as measured normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSLparameters: Tine measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measL Measurement multiplied by the cov Corresponds to a coverage probability	rement is rrage facto of approx	s stated as the standard uncertainty of or k=2, which for a normal distribution imately 95%.
Certificate No: 222-60037	Page 2 of 8	





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#### Measurement Conditions

DASY system confi1aurat1on, as far as not QIVen on oaae

DASY Version	DASY52	52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4  mm, dz = 1.4  mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz ± 1 MHz 5600 MHz ± 1 MHz 5i750 MHz ± 1 MHz	

#### Head TSL parameters at 5250MHz

The followm a parameters and calculations wer aool'1ed.

	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	35.3±6%	4.65 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

#### SAR result with Head TSL at 5250 MHz

SAR averaged over 1 $cm^3$ (1 g) of Head $TSL$	Condition	
SAR measured	250 mW input power	7.68 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	76.5 W/kg ± 244 % (Ir-2)
SAR averaged over 10 $cm^3$ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	2 .15 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.4 W/kg ± 24.2 % (k=2)





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#### Head TSL parameters at 5600MHz

The following parameters and calculations were acolied.

	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	34.7 ± 6 %	5.02 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

#### SAR result with Head TSL at 5600MHz

SAR averaged over 1 $cm^3$ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	7.91 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	78.7W/kg±24.4% (k=2)
SAR averaged over 10 $cm^3$ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.21 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.0 W/kg ± 24.2 % (k=2)

#### Head TSL parameters at 5750MHz

The following parameters and calculations were aoolied.

	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	34.5±6%	5.18 mho/m ±6 %
Head TSL temperature change during test	<1.0 °C		

#### SAR result with Head TSL at 5750MHz

SAR averaged over 1 $cm^3$ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	7.56 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	75.2 W/kg ± 244 % (k=2)
SAR averaged over 10 $cm^3$ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.11W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.0 W/kg ± 24.2 % (k=2)
		•





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#### Appendix (Additional assessments outside the scope of CNAS L0570)

#### Antenna Parameters with Head TSL at 5250MHz

Impedance, transformed to feed point	48.80-5.12j0	
Return Loss	- 25.5d8	

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

Impedance, transformed to feed point	55.40-0.92j0
Return Loss	- 25.7d8

#### Antenna Parameters with Head TSL at 5750MHz

Impedance, transformed to feed point	54.60- 3.79j0
Return Loss	- 24.8d8

#### General Antenna Parameters and Design

Electrical Delay (one direction)	1.112 ns	
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After long term use with 100W radiated power, only a slight warming of the dipole near the feed-point 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 feed-point may be damaged.

#### Additional EUT Data

Manufactured by

SPEAG





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**DASY5 Validation Report for Head TSL** Test Laboratory: CTTL, Beijing, China

Date: 2025-02-19

OUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1169 Communication System: CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz Duty Cycle: 1:1 Medium parameters used: f = 5250 MHz; a = 4.645 Sim; Er = 35.33; p = 1000 kglm<sup>3</sup> Medium parameters used: f = 5600 MHz; a = 5.02 Sim; Er = 34.74; p = 1000 kglm<sup>3</sup> Medium parameters used: f = 5750 MHz; a = 5.182 Sim; Er = 34.52; p = 1000 kglm<sup>3</sup> Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IECIANSI C63.19-2007) DASY5 Configuration:

- Probe: EX3DV4 SN7307; ConvF(5.69, 5.69, 5.69) @ 5250 MHz; ConvF(5.1, 5.1, 5.1) @ 5600 MHz; ConvF(5.05, 5.05, 5.05) @ 5750 MHz; Calibrated: 2024-05-27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2025-01-22
- Phantom: MFP\_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

**Dipole Calibration /Pin=100mW, d=10mm, f=5250 MHz/ZoomScan, dist=1.4mm (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 67.00 Vim; Power Drift = 0.05 dB Peak SAR (extrapolated) =  $32.3 \sqrt{fvlkg}$ 

SAR(1 g) = 7.68 W/kg; SAR(10 g) = 2.15 W/kg Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 64.1%

Maximum value of SAR (measured) = 18.3 Wg

#### Dipole Calibration /Pin=100mW ! d=10mm, f=560 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid:dx=4mm, dy=4mm, dz=1.4mm Reference Value = 66.60 in; Power Drift = 0.05 dB Peak SAR (extrapolated) = 36.8 W/kg SAR(1 g) = 7.91 W/kg; SAR(10 g) = 2.21 W/kg Smallest distance from peaks to all points 3 dB below = 7.2 mm Ratio of SAR at M2 to SAR at M1 = 60.8% Maximum value of SAR (measured) = 19.5 Wg





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Dipole Calibration /Pin=100mW, d=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 68.28 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 37.1 W/kg SAR(1 g) = 7.56 W/kg; SAR(10 g) = 2.11 W/kg Smallest distance from peaks to all points 3 dB below = 7.4 mm Ratio of SAR at M2 to SAR at M1 = 59% Maximum value of SAR (measured) = 19.0 W/kg



O dB = 19.0 W/kg = 12.79 dBW/kg





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#### **Impedance Measurement Plot for Head TSL**

