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





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# Client PC Test Certificate No: EX3-3914\_Feb18 CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3914
Calibration procedure(s)	QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v4, QA CAL-23.v5, BN 2018 QA CAL-25.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	February 14, 2018
This calibration certificate doc	uments 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.)	Schodulad Calibertia
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Scheduled Calibration
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Apr-18 Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	 Dec-18
	<u> </u>		
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-17)	In house check: Oct-18

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	-1 - 1/-
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Approved by:	Katja Pokovic	Technical Manager	0011
			Crong
			Issued: February 14, 2018
This calibration certificate	e shall not be reproduced except in fu	without written approval of the labo	pratory.

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

## Calibration is Performed According to the Following Standards:

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

## Methods Applied and Interpretation of Parameters:

- NORMx, y, z: Assessed for E-field polarization 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 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 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).

# Probe EX3DV4

## SN:3914

Manufactured: December 18, 2012 Calibrated: February 14, 2018

Calibrated for DASY/EASY Systems (Note: non-compatible with DASY2 system!)

### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.47	0.41	0.44	± 10.1 %
	98.1	103.5	99.1	

## **Modulation Calibration Parameters**

UID	Communication System Name		A dB	B dBõV	с	D dB	VR mV	Unc <sup>±</sup> (k=2)
0		X	0.0	0.0	1.0	0.00	157.3	±3.5 %
		Y	0.0	0.0	1.0		143.4	
		Z	0.0	0.0	1.0		153.1	_

Note: For details on UID parameters see Appendix.

#### Sensor Model Parameters

	C1 fF	C2 fF	α V <sup>-1</sup>	T1 ms.V⁻²	T2 ms.V⁻¹	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	<b>T6</b>
<u> </u>	44,52	338.7	36.78	11.30	0.699	5.054	0.000	0.544	1.006
<u>Y</u>	43.63	317.9	34.18	13.04	0.623	5.031	2.000	0.164	1.007
Z	41.48	314.2	36.51	10.96	0.847	5.054	0.251	0.494	1.008

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

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)
6	55.5	0.75	21.06	21.06	21.06	0.00	1.00	± 13.3 %
13	55.5	0.75	17.97	17.97	17.97	0.00	1.00	± 13.3 %
750	41.9	0.89	10.18	10.18	10.18	0.58	0.80	± 12.0 %
835	41.5	0.90	9.70	9.70	9.70	0.52	0.80	± 12.0 %
1750_	40.1	1.37	8.34	8.34	8.34	0.40	0.80	± 12.0 %
1900	40.0	1.40	7.98	7.98	7.98	0.41	0.84	± 12.0 %
2300	39.5	1.67	7.58	7.58	7.58	0.37	0.87	± 12.0 %
2450	39.2	1.80	7.26	7.26	7.26	0.43	0.84	± 12.0 %
2600	39.0	1.96	7.04	7.04	7.04	0.29	0.86	± 12.0 %
3500	37.9	2.91	6.99	6.99	6.99	0.25	1.20	<b>± 13</b> .1 %
3700	37.7	3.12	6.72	6.72	6.72	0.23	1.20	± 13.1 %
5250	35.9	4.71	5.41	5.41	5.41	0.30	1.80	± 13.1 %
5600	35.5	5.07	4.79	4.79	4.79	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.78	4.78	4.78	0.40	1.80	± 13.1 %

## Calibration Parameter Determined in Head Tissue Simulating Media

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

<sup>r</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. <sup>6</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 frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

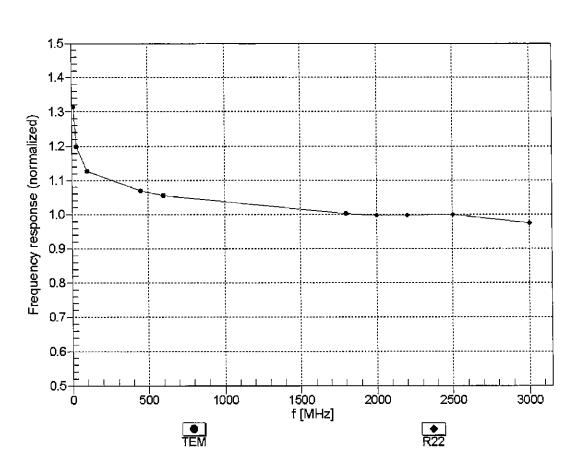
f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	9.75	9.75	9.75	0.47	0.80	± 12.0 %
835	55.2	0.97	9.57	9.57	9.57	0.44	0.89	± 12.0 %
1750	53.4	1.49	7.91	7.91	7.91	0.37	0.80	± 12.0 %
1900	53.3	1.52	7.62	7.62	7.62	0.29	1.01	± 12.0 %
2300	52.9	1.81	7.46	7.46	7.46	0.40	0.88	<u>± 12.0 %</u>
2450	52.7	1.95	7.39	7.39	7.39	0.39	0.86	± 12.0 %
2600	52.5	2.16	7.05	7.05	7.05	0.28	1.05	± 12.0 %
3500	51.3	3.31	6.81	6.81	6.81	0.30	1.25	± 13.1 %
3700	51.0	3.55	6.64	6.64	6.64	0.30	1.25	± 13.1 %
5250	48.9	5.36	4.81	4.81	4.81	0.35	1.90	± 13.1 %
5600	48.5	5.77	4.09	4.09	4.09	0.40	1.90	± 13.1 %
5750	48.3	5.94	4.22	4.22	4.22	0.40	1.90	± 13.1 %

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

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

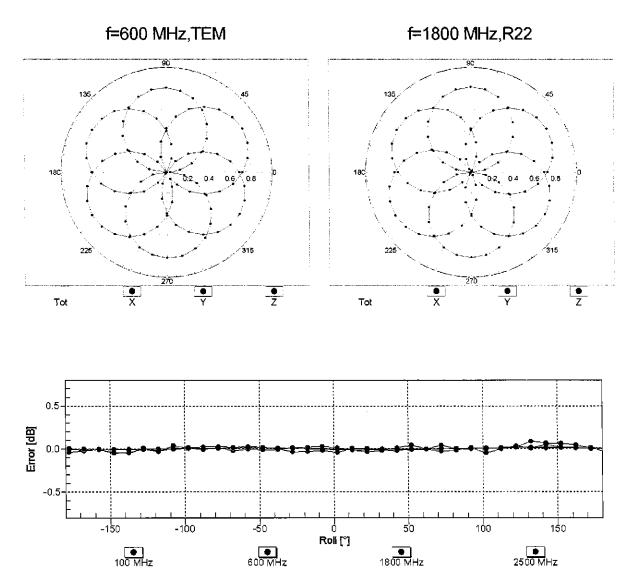
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to  $\pm$  10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted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

<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 frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



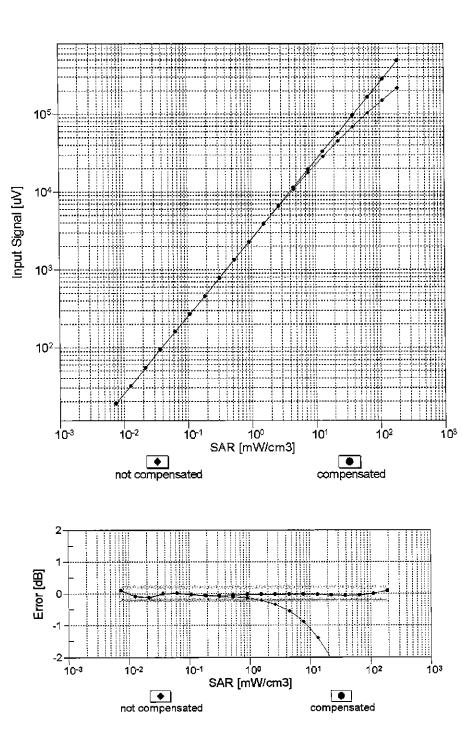
## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

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



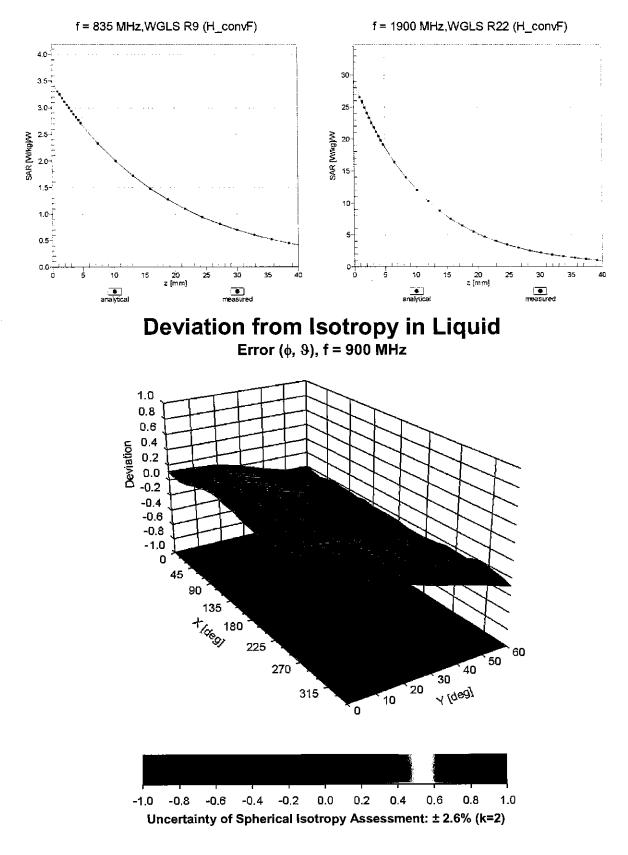
## Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

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**

## **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	132.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overail 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

## Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dBõV	C	D dB	VR mV	Max Unc <sup>E</sup>
0	CW	X	0.00	0.00	1.00	0.00	4570	(k=2)
		Ϋ́	0.00	0.00	1.00	0.00	157.3	± 3.5 %
		Z	0.00	0.00	1.00	<u> </u>	<u>143.4</u> 153.1	+
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	2.02	63.97	9.10	10.00	20.0	± 9.6 %
		<u> </u>	2.59	66.85	10.84		20.0	<u> </u>
10011-	UMTS-FDD (WCDMA)	Z	2.31	65.14	9.98		20.0	T
CAB		X	0.89	66.39	14.20	0.00	150.0	± 9.6 %
		<u>Y</u>	1.06	68.74	16.01		150.0	†
10012-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1	Z	0.90	66.80	14.44		150.0	
CAB	Mbps)	X	1.06	63.38	14.79	0.41	150.0	± 9.6 %
		Ý	1.17	64.37	15.54		150.0	T
10013-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z	1.07	63.61	14.94		150.0	
CAB	OFDM, 6 Mbps)	X	4.75	66.53	16.97	1.46	150.0	± 9.6 %
·		Y	4.80	66.78	17.02		150.0	
10021-	GSM-FDD (TDMA, GMSK)	<u>Z</u>	4.73	66.65	17.01		150.0	
DAC			100.00	110.09	25.45	9.39	50.0	± 9.6 %
		<u>Y</u>	100.00	112.00	26.43		50.0	
10023-	GPRS-FDD (TDMA, GMSK, TN 0)	Z	100.00	111.93	26.50		50.0	
DAC		X	100.00	109.83	25.39	9.57	50.0	± 9.6 %
		Y	100.00	111.69	26.33		50.0	
10024-	GPRS-FDD (TDMA, GMSK, TN 0-1)	<u>Z</u>	100.00	111.63	26.42		50.0	
DAC		X	100.00	107.43	23.14	6.56	60.0	± 9.6 %
		Y	100.00	110.61	24.77		60.0	
10025-	EDGE-FDD (TDMA, 8PSK, TN 0)		100.00	109.57	24.26		60.0	
DAC		X	4.03	68.96	25.05	12.57	50.0	± 9.6 %
		Y Z	5.30	77.15	29.41		50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	4.06 8.87	68.52 91.28	24.65 32.17	9.56	50.0 60.0	± 9.6 %
		Y	10.08					
		z z	8.65	94.25	33.27	<u> </u>	60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	90.32 105.82	31.77 21.66	4.80	60.0 80.0	± 9.6 %
		Y	100.00	111.09	24.24			
		z	100.00	108.42	24.24		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	x	100.00	104.11	20.26	3.55	80.0 100.0	± 9.6 %
		Ϋ́	100.00	112.84	24.34	·	100.0	
		Ż	100.00	107.37	21.76		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	5.57	80.93	27.02	7.80	80.0	±9.6 %
		Y	6.11	82.68	27.69		80.0	
10000		Z	5.53	80.55	26.85		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	104.99	21.59	5.30	70.0	± 9.6 %
		Y	100.00	109.04	23.62		70.0	
1000 /		Z	100.00	107.17	22.68		70.0	<u> </u>
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	0.46	62.47	6.17	1.88	100.0	± 9.6 %
		Ý	100.00	111.97	22.67		100.0	
	<b>_</b>	Z	100.00	95.35	15.52		100.0	

- 10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	0.19	60.00	3.78	1.17	100.0	± 9.6 %
		Y	100.00	120.03	24.95		100.0	_
		Z	0.19	60.00	4.15		100.0	
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	13.55	95.45	24.90	5.30	70.0	± 9.6 %
		Y	18.76	100.49	26.60		7 <u>0.0</u>	
		Z	13.36	94.67	24.55	_	70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	х	2.70	75.51	16.71	1.88	100.0	± 9.6 %
		Y	4.49	82.47	19.70		100.0	
		Ζ	2.90	76.09	16.70		100.0	
10035- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Х	1.71	70.85	14.56	1.17	100.0	±9.6 %
		Y	2.70	76.95	17.56		100.0	
		Z	1.78	71.24	14.48		100.0	
10036- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	22.62	103.29	27.18	5.30	70.0	± 9.6 %
<u> </u>		Y	32.35	108.98	28.96		70.0	
		Z	21.86	102.15	26.73		70.0	
10037- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	2.48	74.51	16.30	1.88	100.0	± 9.6 %
		Y	3.96	80.90	19.14		100.0	
		Z	2.61	74.90	16.23		100.0	
10038- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	1.74	71.34	14.88	1.17	100.0	±9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	2.75	77.52	17.90		100.0	
		Z	1 <u>.82</u>	71.77	14.82		100.0	
10039- CAB	CDMA2000 (1xRTT, RC1)	X	1.34	68.49	13.13	0.00	150.0	± 9.6 %
		Y	2.27	75.66	16.89		<u>150</u> .0	
		Z	1.29	68.35	12.80		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	34.99	94.66	19.93	7.78	50.0	±9.6 %
		Y	100.00	108.11	23.89		50.0	
		Z	100.00	107.01	23.40		50.0	
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	×	0.17	126.30	3.13	0.00	150.0	±9.6 %
		Y	0.00	107.81	5.46		150.0	
		Z	0.15	126.17	2.27		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	10.11	79.88	18.52	13.80	25.0	±9.6 %
		Y	23.48	91.75	22.45		25.0	
		Z	12.25	82.71	19.92		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	11.72	83.69	18.67	10.79	40.0	± 9.6 %
ļ		Y	40.84	100.05	23.71		40.0	<b>.</b>
		Z	15.78	87.97	20.48	ļ	40.0	
10056- CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	18.86	95.31	25.05	9.03	50.0	± 9.6 %
L		Y	26.98	101.35	27.04	<u> </u>	50.0	
		Z	17.19	93.67	24.60		50.0	
10058- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	4.30	76.01	24.21	6.55	100.0	± 9.6 %
		Y	4.66	77.31	24.71		100.0	
·		Z	4.30	75.85	24.15	<u> </u>	100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.10	64.51	15.41	0.61	110.0	± 9.6 %
		Y	1.22	65.59	16.19		110.0	
		Z	1.11	64.78	15.58		110.0	
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	40.70	121.16	30.62	1.30	110.0	±9.6 %
		Y	100.00	138.01	35.59		110.0	
		Z	76.47	130.66	32.92		110.0	

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10061- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	2.97	81.68	22.34	2.04	110.0	± 9.6 %
		Y	3.52	84.01	23.42	<u> </u>	110.0	<u>+-</u>
10062-		Z	3.16	82.63	22.73		110.0	
CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.54	66.50	16.38	0.49	100.0	± 9.6 %
<u></u>		<u>Y</u>	4.60	66.81	16.49		100.0	
10063-		Z	4.51	66.59	16.41		100.0	<u> </u>
CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.56	66.59	16.48	0.72	100.0	± 9.6 %
		Y	4.62	66.89	16.58		100.0	+
40004		Z	4.53	66.70	16.52		100.0	+
10064- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.84	66.85	16.71	0.86	100.0	± 9.6 %
		Y	4.89	67.12	16.79		100.0	
10065-		Ž	4.80	66.93	16.74		100.0	
CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.71	66.74	16.80	1.21	100.0	± 9.6 %
		Y	4.76	67.01	16.87		100.0	
40000		Z	4.67	66.83	16.83	<u> </u>	100.0	<u> </u>
10066- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.72	66.77	16.97	1.46	100.0	± 9.6 %
		Y	4.77	67.02	17.03		100.0	<u>├-·                                    </u>
40007		Z	4.69	66.86	17.00		100.0	┝───-
10067- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.02	66.97	17.43	2.04	100.0	± 9.6 %
		Y	5.06	67.18	17.45		100.0	·
		Z	4.99	67.10	17.47		100.0	
10068- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.06	66.99	17.64	2.55	100.0	±9.6 %
		Y	5.10	67.19	17.65	·	100.0	<u> </u>
		Z	5.03	67.09	17.67		100.0	<u> </u>
10069- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.14	67.01	17.83	2.67	100.0	± 9.6 %
		Y	5.18	67.19	17.83		100.0	
		Z	5.11	67.11	17.86		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.84	66.62	17.27	1.99	100.0	± 9.6 %
		† Y †	4.89	66.85	17.31		100.0	<u> </u>
		Z	4.83	66.75	17.32		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.82	66.93	17.48	2.30	100.0	± 9.6 %
		Y	4.86	67.16	17.51		100.0	
		Z	4.80	67.06	17.53			
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	x	4.88	67.11	17.81	2.83	<u>100.0</u> 100.0	± 9.6 %
		Y	4.92	67.32	17.83		100.0	
		Ż	4.87	67.25	17.87		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.87	67.01	17.95	3.30	100.0	±9.6 %
		Y	4.91	67.22	17.97		100.0	
		z i	4.87	67.19	18.02		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	4.90	67.11	18.25	3.82	90.0	± 9.6 %
		Y	4.95	67.32	18.26		90.0	
			4.91	67.27	18.31		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	x	4.92	66.92	18.38	4.15	90.0	± 9.6 %
		Y	4.97	67.13	18.38		90.0	
		Z	4.94	67.11	18.46		90.0	
10077- CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	4.95	66.99	18.48	4.30	90.0	± 9.6 %
<u></u>	· · · · · · · · · · · · · · · · · · ·	Y	5.00	67.21	18.49			
		TI	9.00	07.21	0.49	1	90.0	

10081-	CDMA2000 (1xRTT, RC3)	x	0.61	63.26	9.90	0.00	150.0	± 9.6 %
CAB		Y	0.87	67.43	13.01		150.0	
		Z	0.87	63.10	9.56		150.0	_
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	X	2.50	65.17	5.97	4.77	80.0	±9.6 %
		Y	0.75	60.00	4.55		80.0	
		Z	0.72	60.00	4.31		80.0	
10090- DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	107.54	23.21	6.56	60.0	±9.6 %
		Y	100.00	110.64	24.80		60.0	
		Ζ	100.00	109.67	24.33		60.0	
10097- CAB	UMTS-FDD (HSDPA)	x	1.69	67.19	15.08	0.00	150.0	±9.6 %
_	· · · · · · · · · · · · · · · · · · ·	Y	1.88	68.79	16.18		150.0	
		Z	1.71	67.59	15.23	0.00	150.0	
10098- CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.65	67.13	15.04	0.00	150.0	±9.6 %
		Y	1.84	68.75	16.15	-	150.0	
40000		Z	1.67	67.53	15.19	0.50	150.0	+0.00
10099- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	8.93	91.41	32.21	9.56	60.0	±9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	10.16	94.39_	33.31		60.0	
40405		Z	8.70	90.44	31.80	0.00	60.0	1000
10100- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	2.94	69.72	16.26	0.00	150.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y Z	<u>3.18</u> 2.94	71.08	17.07		150.0 150.0	
10101- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.09	69.89 67.13	16.39 15.64	0.00	150.0	± 9.6 %
		Y	3.21	67.85	16.08		150.0	
		z	3.07	67.21	15.70		150.0	
10102- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	x	3.20	67.14	15.76	0.00	150.0	± 9.6 %
		Y	3.32	67.82	16.17		150.0	
		Ζ	3.18	67.23	15.82		150.0	-
10103- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	×	5.93	75.11	20.17	3.98	65.0	± 9.6 %
		Y	6.63	76.82	20.78		65.0	
		Z	5.91	75.14	20.21		65.0	
10104- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	5.89	73.03	20.08	3.98	65.0	± 9.6 %
		Y	6.25	73.91	20.36		65.0	
	<u> </u>	Z	5.90	73.09	20.11	<u> </u>	65.0	
10105- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	5.51	71.58	19.75	3.98	65.0	± 9.6 %
		Y	6.10	73.31	20.41		65.0	
10108-	LTE-FDD (SC-FDMA, 100% RB, 10	Z X	5.86 2.55	72.81 69.01	20.30 16.09	0.00	65.0 150.0	± 9.6 %
CAE	MHz, QPSK)	Y	0.75	70.00	10 00		150.0	
	+		2.75	70.30	16.89	+	150.0	+••••
10109-	LTE-FDD (SC-FDMA, 100% RB, 10	Z	2.54 2.74	69.20 66.99	16.22	0.00	150.0	± 9.6 %
CAE	MHz, 16-QAM)	^   Y				0.00		± 5.0 %
		Z	2.87 2.72	67.79	16.01 15.56	+	150.0	
10110- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.04	68.09	15.59	0.00	150.0	± 9.6 %
		Y	2.23	69.47	16.51		150.0	
		z	2.03	68.32	15.72	1	150.0	
10111- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.46	67.87	15.72	0.00	150.0	± 9.6 %
	1 · - ••• ••••	_	+					+
		ΙY	2.64	69.03	16.47		150.0	

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10112- CAE	LTE-FDD (SC-FDMA, 100% RB, 10	X	2.87	67.02	15.59	0.00	150.0	± 9.6 %
	MHz, 64-QAM)	+			<u> </u>			
		<u>  Y</u>	3.00	67.79	16.07		150.0	
10113-	LTE-FDD (SC-FDMA, 100% RB, 5 MHz,	Z	2.85	67.16	15.65		150.0	
CAE	64-QAM)		2.61	68.07	15.89	0.00	150.0	± 9.6 %
		Y	2.79	69.17	16.59		150.0	
10114-	IEEE 802.11n (HT Greenfield, 13.5	Z	2.61	68.36	15.98		150.0	
CAC	Mbps, BPSK)	X	5.01	67.03	16.34	0.00	150.0	± 9.6 %
		<u>Y</u>	5.06	67.33	16.45		150.0	
10115-	IEEE 802.11n (HT Greenfield, 81 Mbps,	Z	4.97	67.05	16.35		150.0	
CAC	16-QAM)	X	5.27	67.10	16.38	0.00	150.0	± 9.6 %
		Y	5.32	67.38	16.48		150.0	
10116-	IEEE 802.11n (HT Greenfield, 135 Mbps,	Ż	5.22	67.11	16.39	<u>_</u>	150.0	
CAC	64-QAM)	×	5.09	67.20	16.35	0.00	150.0	± 9.6 %
		<u>Y</u>	5.14	67.50	16.46	_	150.0	
10117-	IEEE 802.11n (HT Mixed, 13.5 Mbps,	Z	5.06	67.23	16.37		150.0	
CAC	BPSK)	X	4.97	66.87	16.27	0.00	150.0	± 9.6 %
		Y	5.03	67.20	16.40		150.0	
10118-	IEEE 802 11p /LIT Mined 04 Mines 40	Z	4.94	66.93	16.31		150.0	
CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X	5.35	67.31	16.50	0.00	150.0	± 9.6 %
		Y	5.39	67.55	16.57		150.0	
10119-		Z	5.30	67.32	16.50		150.0	
CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64- QAM)	X	5.08	67.16	16.34	0.00	150.0	± 9.6 %
		Y	5.12	67.45	16.45		150.0	
40440		Z	5.04	67.20	16.36		150.0	
10140- CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.23	67.13	15.67	0.00	150.0	± 9.6 %
		Y	3.35	67.82	16.08		150.0	<u>├</u> ────┤
		Z _	3.21	67.22	15.73		150.0	
10141- CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.36	67.28	15.87	0.00	150.0	± 9.6 %
		Y	3.48	67.94	16.26		150.0	
		Z	3.34	67.38	15.93		150.0	
10142- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	1.80	67.92	15.04	0.00	150.0	± 9.6 %
		_Y [	2.02	69.71	16.23		150.0	
10110		Z	1.78	68.19	15.11		150.0	
10143- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.28	68.33	15.13	0.00	150.0	±9.6 %
<u> </u>		Y	2.56	70.16	16.27		150.0	
10111		Z	2.27	68.61	15.13		150.0	
10144- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.03	65.81	13.36	0.00	150.0	± 9.6 %
	<u> </u>	Y	2.22	67.14	14.29		150.0	
10145		_Z	1.98	65.83	13.22		150.0	
10145- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	×	0.92	62.55	9.46	0.00	150.0	±9.6 %
		Y	1.17	65.32	11.54		150.0	
10146		Z	0.84	61.98	8.80		150.0	
10146- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, <u>16-QAM)</u>	x	1.39	62.93	9.23	0.00	150.0	±9.6 %
		Y	1.99	66.57	11.19		150.0	
40447		Z	1.31	62.53	8.72		150.0	
10147- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	1.52	63.83	9.83	0.00	150.0	±9.6 %
		Y	2.52	69.22	12.51		150.0	
		z	1.42	63.36	9.28		150.0	

10149- CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.75	67.05	15.55	0.00	150.0	± 9.6 %
		Y	2.88	67.86	16.07		150.0	
		Z	2.73	67.18	15.62		150.0	
10150- CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	2.88	67.08	15.63	0.00	150.0	± 9.6 %
		Υ	3.01	67.85	16.12		150.0	
		Ζ	2.86	67.22	15.70		150.0	
10151- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	х	6.32	77.90	21.36	3.98	65.0	± 9.6 %
		Y	6.91	79.14	21.77		65.0	
		Ζ	6.41	78.22	21.50		65.0	
10152- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	5.42	72.95	19.71	3.98	65.0	± 9.6 %
		Ŷ	5.78	73.88	20.03		65.0	
		_Z	5.43	73.04	19.72		65.0	
10153- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	×	5.81	74.06	20.59	3.98	65.0	± 9.6 %
		Y	6.20	74.97	20.87		65.0	
		Ζ	5.84	74.21	20.62		65.0	
10154- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz,   QPSK)	х	2.09	68.53	15.87	0.00	150.0	±9.6 %
		Y	2.29	69.96	16.81		150.0	
		Ζ	2.08	68.78	15.99		150.0	
10155- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.46	67.89	15.74	0.00	150.0	± 9.6 %
		Y	2.64	69.05	16.49		150.0	
		Ζ	2.46	68.18	15.84		150.0	
10156- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.63	67.76	14.61	0.00	150.0	±9.6 %
		Y	1.89	69.98	16.07		150.0	
		Ζ	1.61	67.98	14.61		150.0	
10157- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	Х	1.84	66.10	13.16	0.00	150.0	± 9.6 %
		Y	2.08	67.93	14.40		150.0	
		Z	1.79	66.07	12.96		150.0	
10158- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	Х	2.62	68.14	15.95	0.00	150.0	± 9.6 %
		Y	2.80	69.25	16.65		150.0	
		Ζ	2.62	68.44	16.04		150.0	
10159- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	Х	1.94	66.53	13.44	0.00	150.0	± 9.6 %
		Y	2.21	68.50	14.73		150.0	
		Z	1.88	66.49	13.23		150.0	
10160- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.59	68.31	15.97	0.00	150.0	± 9.6 %
		Ϋ́	2.73	69.19	16.57		150.0	
L		Z	2.58	68.51	16.08		150.0	
10161- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.77	67.03	15.54	0.00	150.0	± 9.6 %
		Y	2.91	67.84	16.05		150.0	
		Z	2.75	67.18	15.60		150.0	
10162- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	2.88	67.21	15.67	0.00	150.0	± 9.6 %
		Y	3.02	68.01	16.17		150.0	1
		Z	2.86	67.38	15.74		150.0	
10166- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.37	69.04	18.77	3.01	150.0	± 9.6 %
		Y	3.72	71.09	19.82		150.0	
					19.11	1	150.0	1
		Z	3.38	09.03	1 13.11		1 100.0	1
10167- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.04	69.53 71.49	19.00	3.01	150.0	± 9.6 %
	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	-				3.01		± 9.6 %

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10168-	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz,	x	4.56	74.09	20.53	3.01	150.0	± 9.6 %
	64-QAM)	<u> </u>						//
		Υ -	5.99	79.40	22.74		150.0	
10169-		Z	4.72	75.27	21.13		150.0	
CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	2.74	67.94	18.26	3.01	150.0	± 9.6 %
		Y	3.25	71.55	20.05		150.0	
10170		Ż	2.77	68.38	18.59		150.0	
10170- CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	3.65	73.29	20.42	3.01	150.0	± 9.6 %
		Y	6.00	83.03	24.31	· · · ·	150.0	<u>†-</u>
40474		Z	3.81	74.44	21.04		150.0	
10171- AAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	2.98	69.09	17.51	3.01	150.0	±9.6 %
		Y	4.17	75.40	20.24		150.0	· · · · ·
40470		Z	3.05	69.77	17.92		150.0	<u> </u>
10172- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	6.26	85.95	26.48	6.02	65.0	± 9.6 %
		Y	13.49	101.43	31.66	i	65.0	
		Z	6.07	85.72	26.58	·	65.0	
10173- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	11.36	93.09	26.93	6.02	65.0	± 9.6 %
		Y	61.90	122.46	34.86		65.0	
		Ζ	13.00	96.00	28.02	<u> </u>	65.0	
10174- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	8.36	86.77	24.30	6.02	65.0	± 9.6 %
		Y	35.10	110.72	31.17		65.0	
		Z	8.86	88.32	24.99		65.0	
10175- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.71	67.63	18.00	3.01	150.0	± 9.6 %
		Y	3.19	71.11	19.75		150.0	
		Z	2.74	68.04	18.32		150.0	
10176- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	3.66	73.32	20.43	3.01	150.0	± 9.6 %
		Y	6.01	83.07	24.33		150.0	
		Z	3.81	74.46	21.05		150.0	
10177- CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.73	67.78	18.10	3.01	150.0	± 9.6 %
		Y	3.23	71.31	19.86		150.0	
		Z	2.76	68.20	18.41		150.0	
10178- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	3.63	73.10	20.31	3.01	150.0	± 9.6 %
		Y	5.90	82.67	24.15		150.0	
		Z	3.78	74.24	20.93		150.0	
10179- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.28	71.01	18.80	3.01	150.0	± 9.6 %
		Y	4.94	78.87	22.07		150.0	
		Z	3.38	71.91	19.31		150.0	
10180- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	2.98	69.03	17.47	3.01	150.0	±9.6 %
		Ý	4.15	75.28	20.17		150.0	
<u>_</u>		Z	3.04	69.71	17.88		150.0	
10181- CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.73	67.76	18.09	3.01	150.0	± 9.6 %
		Y	3.22	71.29	19.85		150.0	
		Z	2.75	68.18	18.41		150.0	
10182- CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	3.62	73.08	20.30	3.01	150.0	± 9.6 %
		Y	5.88	82.63	24.13		150.0	
		Z	3.77	74.21	20.92		150.0	
10183- AAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	2.97	69.01	17.46	3.01	150.0	± 9.6 %
		Y	4.14	75.24	20.16		150.0	
		Z	3.04	69.68	17.87		150.0	

V.

CAD         QPS           10185- CAD         LTE- QAM           10186- AAD         LTE- QAM           10186- AAD         LTE- QAM           10187- CAE         QPS           10187- CAE         LTE QPS           10188- CAE         LTE AAE           10188- CAE         LTE AAE           10189- AAE         LTE 64-0           10193- CAC         IEEI CAC           10194- CAC         IEEI CAC           10195- CAC         IEEI CAC           10195- CAC         IEE CAC           10196- CAC         IEE CAC           10197- CAC         IEE CAC           10197- CAC         IEE CAC	E-FDD (SC-FDMA, 1 RB, 3 MHz, 16- AM) E-FDD (SC-FDMA, 1 RB, 3 MHz, 64-	X Y Z X Y Z X Y Z X Y Z X Y Z X Y Z X Y Z X Y Z X Y Z Z X Y Z Z X Y Z Z Z Z Z Z Z Z Z Z Z Z Z	2.74 3.24 2.77 3.64 5.93 3.79 2.99 4.16 3.05 2.75 3.25 2.75 3.25 2.78 3.76 6.30	67.80 71.35 68.22 73.15 82.75 74.29 69.07 75.34 69.75 67.86 71.43 68.29 73.83	18.11         19.88         18.43         20.34         24.19         20.96         17.49         20.20         17.90         18.18         19.96	3.01 3.01 3.01 3.01 3.01	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	± 9.6 % ± 9.6 % ± 9.6 %
CAD         QAM           10186-         LTE           AAD         QAM           10186-         LTE           QAM         -           10187-         LTE           CAE         QPS           10188-         LTE           CAE         16-0           10188-         LTE           CAE         16-0           10189-         LTE           AAE         64-0           10193-         IEEI           CAC         BPS           10194-         IEEI           CAC         64-0           10195-         IEEI           CAC         64-0           10195-         IEEI           CAC         BPS           10195-         IEEI           CAC         BPS           10195-         IEEI           CAC         BPS           10196-         IEE           CAC         BPS           10197-         IEE           CAC         QAI	AM) E-FDD (SC-FDMA, 1 RB, 3 MHz, 64- AM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, G-QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	Z X Z X Y Z X Y Z X Y Z Z Z	2.77 3.64 5.93 3.79 2.99 4.16 3.05 2.75 3.25 2.78 3.76	68.22           73.15           82.75           74.29           69.07           75.34           69.75           67.86           71.43           68.29	18.43           20.34           24.19           20.96           17.49           20.20           17.90           18.18           19.96	3.01	150.0 150.0 150.0 150.0 150.0 150.0 150.0	±9.6 %
CAD         QAM           10186-         LTE           AAD         QAM           10186-         LTE           AAD         QAM           10187-         LTE           CAE         QPS           10188-         LTE           CAE         16-0           10188-         LTE           CAE         16-0           10193-         IEEI           CAC         BPS           10194-         IEEI           CAC         64-0           10195-         IEEI           CAC         64-0           10196-         IEEI           CAC         BPS           10197-         IEEI           CAC         BPS           10197-         IEEI           CAC         GAL	AM) E-FDD (SC-FDMA, 1 RB, 3 MHz, 64- AM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, G-QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	X Y Z X Y Z X Y Z X Y Z	3.64         5.93         3.79         2.99         4.16         3.05         2.75         3.25         2.78         3.76	73.15 82.75 74.29 69.07 75.34 69.75 67.86 71.43 68.29	20.34 24.19 20.96 17.49 20.20 17.90 18.18 19.96	3.01	150.0 150.0 150.0 150.0 150.0 150.0	±9.6 %
CAD         QAM           10186-         LTE           AAD         QAM           10186-         LTE           AAD         QAM           10187-         LTE           CAE         10           10188-         LTE           CAE         16-0           10188-         LTE           CAE         16-0           10189-         LTE           AAE         64-0           10193-         IEEI           CAC         16-0           10194-         IEEI           CAC         64-0           10195-         IEE           CAC         64-0           10195-         IEE           CAC         BPS           10196-         IEE           CAC         BPS           10197-         IEE           CAC         QAI	AM) E-FDD (SC-FDMA, 1 RB, 3 MHz, 64- AM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, G-QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	Y Z X Y Z X Y Z X Y Z	5.93 3.79 2.99 4.16 3.05 2.75 3.25 2.78 3.76	82.75 74.29 69.07 75.34 69.75 67.86 71.43 68.29	20.34 24.19 20.96 17.49 20.20 17.90 18.18 19.96	3.01	150.0 150.0 150.0 150.0 150.0	±9.6 %
AAD         QAM           10187-         LTE           CAE         QPS           10188-         LTE           CAE         16-0           10188-         LTE           CAE         16-0           10188-         LTE           CAE         64-0           10193-         IEEI           CAC         BPS           10194-         IEEI           CAC         64-0           10195-         IEE           CAC         64-0           10196-         IEE           CAC         BPS           10197-         IEE           CAC         QAI	AM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, G-QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	Z X Y Z X Y Z X Y Z	3.79 2.99 4.16 3.05 2.75 3.25 2.78 3.76	74.29 69.07 75.34 69.75 67.86 71.43 68.29	20.96 17.49 20.20 17.90 18.18 19.96		150.0 150.0 150.0 150.0	
AAD         QAM           10187-         LTE           CAE         QPS           10188-         LTE           CAE         16-0           10188-         LTE           CAE         16-0           10188-         LTE           CAE         64-0           10193-         IEEI           CAC         16-0           10193-         IEEI           CAC         16-0           10194-         IEEI           CAC         64-0           10195-         IEE           CAC         64-0           10197-         IEE           CAC         AAC           10197-         IEE           CAC         QAI	AM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, G-QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	X Y Z X Y Z X Y Z	2.99 4.16 3.05 2.75 3.25 2.78 3.76	69.07 75.34 69.75 67.86 71.43 68.29	17.49 20.20 17.90 18.18 19.96		150.0 150.0 150.0	
AAD         QAM           10187-         LTE           CAE         QPS           10188-         LTE           CAE         16-0           10188-         LTE           CAE         16-0           10188-         LTE           CAE         64-0           10193-         IEEI           CAC         16-0           10193-         IEEI           CAC         16-0           10194-         IEEI           CAC         64-0           10195-         IEE           CAC         64-0           10197-         IEE           CAC         AAC           10197-         IEE           CAC         QAI	AM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, G-QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	X Y Z X Y Z X Y Z	2.99 4.16 3.05 2.75 3.25 2.78 3.76	69.07 75.34 69.75 67.86 71.43 68.29	17.49 20.20 17.90 18.18 19.96		150.0 150.0 150.0	
CAE QPS 10188- CAE 16-C 10189- AAE 64-C 10193- IEE AAE 64-C 10193- IEE CAC 8PS 10195- IEE CAC 64-C 10196- IEE CAC 8PS 10196- IEE CAC 8PS	PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, -QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	Z X Y Z X Y Z	3.05 2.75 3.25 2.78 3.76	69.75 67.86 71.43 68.29	17.90 18.18 19.96	3.01	150.0	+0.0 %
CAE QPS 10188- LTE CAE 16-C 10189- LTE AAE 64-C 10193- IEEI CAC BPS 10194- IEEI CAC 16-C 10195- IEE CAC 64-C 10195- IEE CAC BPS 10196- IEE CAC QAI 10197- IEE CAC QAI	PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, -QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	X Z X Y Z	3.05 2.75 3.25 2.78 3.76	69.75 67.86 71.43 68.29	17.90 18.18 19.96	3.01		+0.6.0/
CAE QPS 10188- LTE CAE 16-C 10189- LTE AAE 64-C 10193- IEEI CAC BPS 10194- IEEI CAC 16-C 10195- IEE CAC 64-C 10195- IEE CAC BPS 10196- IEE CAC QAI 10197- IEE CAC QAI	PSK) E-FDD (SC-FDMA, 1 RB, 1.4 MHz, -QAM) E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	X Z X Y Z	2.75 3.25 2.78 3.76	71.43 68.29	18.18 19.96	3.01		+000/
CAE 16-C	E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	Z X Y Z	2.78 3.76	68.29			. 1	±9.6 %
CAE 16-C 10189- AAE 64-C 10193- CAC BPS 10194- 10194- CAC 16-C 10195- 10195- CAC BPS 10196- CAC BPS 10196- CAC QAI 10197- IEE CAC QAI	E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	X Y Z	3.76				150.0	
CAE 16-C 10189- AAE 64-C 10193- CAC BPS 10194- 10194- CAC 16-C 10195- 10195- CAC BPS 10196- CAC BPS 10196- CAC QAI 10197- IEE	E-FDD (SC-FDMA, 1 RB, 1.4 MHz,	Y Z			18.51		150.0	
AAE 64-0 10193- IEEI CAC BPS 10194- IEEI CAC 16-0 10195- IEEI CAC 64-0 10196- IEEI CAC BPS 10196- IEEI CAC BPS 10197- IEE CAC QAI		Z	6.30		20.74	3.01	150.0	± 9.6 %
AAE 64-0 10193- IEEI CAC BPS 10194- IEEI CAC 16-0 10195- IEEI CAC 64-0 10196- IEEI CAC BPS 10196- IEEI CAC BPS 10197- IEE CAC QAI		Z	0.00	84.02	24.77		150.0	
AAE 64-0 10193- IEEI CAC BPS 10194- IEEI CAC 16-0 10195- IEEI CAC 64-0 10195- IEEI CAC 84-0 10196- IEEI CAC BPS 10197- IEE CAC QAI			3.92	75.04	21.38		150.0	
10193- CAC BPS 10194- CAC 16-0 10195- CAC 64-0 10195- CAC 64-0 10196- CAC BPS 10197- IEE CAC QAI	· · · · · · · · · · · · · · · · · · ·	X	3.05	69.47	17.77	3.01	150.0	± 9.6 %
CAC BPS 10194- IEEI CAC 16-0 10195- IEEI CAC 64-0 10196- IEEI CAC BPS 10197- IEE CAC QAI 10197- IEE		Y	4.32	76.05	20.59		150.0	
CAC BPS 10194- IEEI CAC 16-0 10195- IEEI CAC 64-0 10196- IEEI CAC BPS 10197- IEE CAC QAI 10197- IEE		Z	3.12	70.18	18.19		150.0	
10194- CAC 16-0 10195- CAC 64-0 10196- CAC BPS 10196- CAC BPS 10197- IEE CAC QAI	EE 802.11n (HT Greenfield, 6.5 Mbps, PSK)	X	4.39	66.44	16.00	0.00	150.0	± 9.6 %
CAC 16-0 10195- IEE CAC 64-0 10196- IEE CAC BPS 10197- IEE CAC QAI		Y	4.46	66.83	16.18		150.0	
CAC 16-0 10195- IEE CAC 64-0 10196- IEE CAC BPS 10197- IEE CAC QAI		Z	4.36	66.53	16.02		150.0	
10195- IEE CAC 64-0 10196- IEE CAC BPS 10197- IEE CAC QAI	EE 802.11n (HT Greenfield, 39 Mbps, S-QAM)	X	4.55	66.74	16.13	0.00	150.0	± 9.6 %
CAC 64-0 10196- IEE CAC BPS 10197- IEE CAC QAI 0		Y	4.63	67.12	16.30		150.0	
CAC 64-0 10196- IEE CAC BPS 10197- IEE CAC QAI 0		Z	4.51	66.81	16.16		150.0	
10196- IEE CAC BPS 10197- IEE CAC QAI	EE 802.11n (HT Greenfield, 65 Mbps, I-QAM)	X	4.59	66.77	16.15	0.00	150.0	± 9.6 %
CAC BPS 10197- IEE CAC QAI		Y	4.67	67.15	16.32		150.0	
CAC BPS 10197- IEE CAC QAI		Z	4.55	66.84	16.18		150.0	
10197- IEE CAC QAI	EE 802.11n (HT Mixed, 6.5 Mbps, PSK)	Х	4.39	66.48	16.01	0.00	150.0	± 9.6 %
		Y	4.46	66.87	16.19	-	150.0	
		Ż	4.35	66.57	16.03		150.0	<u> </u>
	EE 802.11n (HT Mixed, 39 Mbps, 16-	x	4.56	66.75	16.14	0.00	150.0	± 9.6 %
10198- IEE		Y	4.64	67.14	16.31		150.0	<u> </u>
10198- IEE		Z	4.53	66.83	16.17		150.0	
	EE 802.11n (HT Mixed, 65 Mbps, 64- AM)	X	4.59	66.78	16.16	0.00	150.0	± 9.6 %
		Y	4.67	67.16	16.33		150.0	
		Z	4.55	66.85	16.19		150.0	
	EE 802.11n (HT Mixed, 7.2 Mbps, PSK)	X	4.34	66.50	15.97	0.00	150.0	±9.6 %
		Y	4.41	66.90	16.15		150.0	
		Z	4.30	66.59	15.99	-	150.0	
	EE 802.11n (HT Mixed, 43.3 Mbps, 16-	X	4.56	66.72	16.13	0.00	150.0	± 9.6 %
	AM)	Y	4.63	67.10	16.30		150.0	
		Z	4.52	66.79	16.15		150.0	1
		X	4.60	66.71	16.14	0.00	150.0	± 9.6 %
			4.67	67.09	16.31		150.0	<u> </u>
	AM) EE 802.11n (HT Mixed, 72.2 Mbps, 64-	Y	4.56	66.79	16.17		150.0	
	AM) EE 802.11n (HT Mixed, 72.2 Mbps, 64-			66.87	16.27	0.00	150.0	± 9.6 %
	AM) EEE 802.11n (HT Mixed, 72.2 Mbps, 64- AM) EEE 802.11n (HT Mixed, 15 Mbps,	Y Z X	4.94	00.07			1	
	AM) EEE 802.11n (HT Mixed, 72.2 Mbps, 64- AM)	Z	4.94 5.00	67.20	16.40		150.0	<u>.</u>

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10223- CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16- QAM)	X	5.26	67.15	16.43	0.00	150.0	± 9.6 %
		Ŧγ	5.29	67.39	10 54	<u> </u>		
		† <u>-</u>	5.29	67.16	16.51	<u> </u>	150.0	
10224-	IEEE 802.11n (HT Mixed, 150 Mbps, 64-	<u>x</u>	4.98		16.44	L	150.0	
CAC	QAM)			66.98	16.25	0.00	150.0	± 9.6 %
		<u> </u>	5.05	67.32	16.38		150.0	
10225-	UMTS-FDD (HSPA+)	Z	4.95	67.03	16.28		150.0	
CAB		X	2.65	65.82	14.94	0.00	150.0	± 9.6 %
		Y	2.77	66.54	15.42		150.0	
10226-	LTE TOD (00 FDU ) ( TE )	Z	2.63	65.96	14.93		150.0	
	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	12.29	94.61	27.52	6.02	65.0	± 9.6 %
		Y	76.74	126.49	35.96		65.0	
4000-		Z	14.23	97.75	28.67		65.0	<u> </u>
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	11.60	92.16	26.09	6.02	65.0	± 9.6 %
		Y	58.51	119.10	33.33		65.0	<u>+                                     </u>
		Z	13.58	95.42	27.28	<u>-</u>	65.0	<del> </del>
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	8.07	91.29	28.44	6.02	65.0	± 9.6 %
		Y	14.98	103.75	32.45		65.0	
		Z	8.37	92.43	29.01	<u> </u>	65.0	
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	11.46	93.21	26.98	6.02	65.0	± 9.6 %
		Ŷ	62.74	122.68	34.92		65.0	
		Z	13.11	96.13	28.07		65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	10.78	90.84	25.59	6.02	65.0	± 9.6 %
		Y	48.68	115.84	32.42		05.0	
		Z	12.46	93.85	26.71		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	7.66	90.18	27.97	6.02	65.0 65.0	± 9.6 %
		Y	13.86	102.08	31.86			
		z	7.92	91.24			65.0	
10232- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-	X	11.44	93.19	28.52 26.97	6.02	65.0 65.0	± 9.6 %
	QAM)							
	·	Y	62.67	122.68	34.92		65.0	
10000		Z	<u>1</u> 3.08	96.11	28.07		65.0	
10233- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	10.75	90.81	25.58	6.02	65.0	± 9.6 %
		Y	48.50	115.79	32.41		65.0	
			12.42	93.82	26.70		65.0	
10234- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	7.34	89.19	27.51	6.02	65.0	± 9.6 %
		Y	12.98	100.59	31.27		65.0	
		Z	7.57	90.21	28.04		65.0	
10235- 	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	11.45	93.23	26.99	6.02	65.0	± 9.6 %
·		Y	63.03	122.79	34.95		65.0	
		Z	13.11	96.15	28.08		65.0	
10236- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	10.87	90.96	25.62	6.02	65.0	± 9.6 %
		Ý 	49.65	116.13	32.49		65.0	
10237-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz.	Z	12.57	93.99	26.75		65.0	
CAD	QPSK)	X	7.67	90.24	28.00	6.02	65.0	±9.6 %
	<u> </u>	Y	13.91	102.19	31.90		65.0	
10000		Z	7.93	91.30	28.54		65.0	
10238- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	11.41	93.16	26.96	6.02	65.0	± 9.6 %
· ·		Y	62.56	122.66	34.91		65.0	
		Z	13.06	96.08	28.06		65.0	

			40.70		05.57		65.0	100%
10239- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	Х	10.72	90.78	25.57	6.02	65.0	±9.6 %
	·····	Y	48.29	115.74	32.40		65.0	
		Ζ	12.38	93.78	26.69		65.0	
10240- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	7.65	90.20	27.98	6.02	65.0	±9.6 %
		Y	13.86	102. <u>14</u>	31.88		65.0	
		Ζ	7.91	91.26	28.53		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	7.49	79.94	24.73	6.98	65.0	±9.6 %
		Y	9.15	84.52	26.53		65.0	
		Z	7.78	81.10	25.24		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	×	6.76	77.82	23.76	6.98	65.0	±9.6 %
		Y	8.56	83.16	25.93		65.0	
		Ζ_	7.57	80.56	24.94		65.0	
10243- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	5.55	74.73	23.33	6.98	65.0	±9.6 %
		<u>Y</u>	6.44	78.27	24.91		65.0	
		Z	5.56	75.03	23.50		65.0	
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	4.91	73.06	16.84	3.98	65.0	±9.6 %
		<u>Y</u>	6.23	76.34	18.14		65.0	
		Z	4.96	73.17	16.71		65.0	
10245- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	×	4.78	72.39	16.50	3.98	65.0	± 9.6 %
		Y	5.96	75.43	17.72		65.0	
		Z	4.79	72.41	16.32		65.0	
10246- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	х	4.86	76.58	18.54	3.98	65.0	± 9.6 %
		Ŷ	5.74	78.81	19.49		65.0	
		Z	4.75	76.10	18.16		65.0	
10247- CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	4.54	72.63	17.68	3.98	65.0	± 9.6 %
		Y	5.00	73.89	18.23		65.0	
		Z	4.50	72.44	17.41		65.0	
10248- CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	4.51	72.01	17.39	3.98	65.0	± 9.6 %
		Y	4.93	73.18	17.90		65.0	
		Z	4.45	71.77	17.09		65.0	
10249- CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	6.38	81.20	21.41	3.98	65.0	± 9.6 %
		Y	7.34	83.11	22.13		65.0	
		Z	6.46	81.34	21.34		65.0	
10250- CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	5.54	75.67	20.83	3.98	65.0	± 9.6 %
		Y	5.99	76.71	21.17		65.0	
		Z	5.60	75.87	20.83		65.0	
10251- CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	5.22	73.28	19.41	3.98	65.0	± 9.6 %
		Y	5.60	74.26	19.76		65.0	
		Z	5.22	73.35	19.34		65.0	
10252- CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	6.60	81.03	22.49	3.98	65.0	±9.6 %
		Y	7.35	82.49	22.99	<u> </u>	65.0	
		Z	6.74	81.46	22.63		65.0	
10253- CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	×	5.32	72.45	19.46	3.98	65.0	± 9.6 %
		Y	5.67	73.38	19.78		65.0	
		Z	5.34	72.58	19.46		65.0	
10254- CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	5.67	73.46	20.23	3.98	65.0	± 9.6 %
		Y	6.04	74.36	20.52	İ	65.0	
		Z	5.70	73.62	20.25		65.0	

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10255-		<del></del>						uary 14, 20 <sup>-</sup>
CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)		6.00	77.17	21.28	3.98	65.0	± 9.6 %
		Y	6.54	78.36	21.67		65.0	
10256-		<u>Z</u>	6.09	77.51	21.41		65.0	<u>+</u>
CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	3.55	68.31	13.56	3.98	65.0	± 9.6 %
		Y	4.31	70.70	14.63		65.0	+·
40057		Z	3.47	67.95	13.18		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	3.46	67.65	13.15	3.98	65.0	± 9.6 %
<u> </u>		Y	4.12	69.78	14.12	<u> </u>	65.0	
10050		Z	3.37	67.24	12.73		65.0	<u> </u>
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	3.31	70.56	15.03	3.98	65.0	± 9.6 %
		Y	3.93	72.68	16.08		65.0	+ <u>-</u> -
40050		Z	3.14	69.68	14.40	<u> </u>	65.0	+
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	4.95	73.85	18.86	3.98	65.0	± 9.6 %
		Y	5.40	75.01	19.32		65.0	+
10000		Z	4.95	73.84	18.70	<u>_</u>	65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	4.97	73.54	18.73	3.98	65.0	± 9.6 %
<u> </u>		Y	5.40	74.66	19.18		65.0	
10004		Z	4.96	73.50	18.55		65.0	
10261- _CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	6.09	80.15	21.50	3.98	65.0	± 9.6 %
		Y	6.88	81.79	22.11		65.0	
		Z	6.20	80.42	21.51		65.0	<u> </u>
10262- CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	5.53	75.60	20.77	3.98	65.0	± 9.6 %
		Ŷ	5.97	76.64	21.12		65.0	
		Z	5.58	75.79	20.77		65.0	
10263- CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	5.21	73.26	19.40	3.98	65.0	± 9.6 %
		TY	5.59	74.24	19.76		65.0	
		Z	5.21	73.32	19.33		65.0	+
10264- CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	6.52	80.79	22.38	3.98	65.0	± 9.6 %
		Y	7.26	82.25	22.87		65.0	
		Z	6.65	81.20	22.51		65.0	
10265- CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	5.42	72.95	19.72	3.98	65.0	± 9.6 %
		Ý	5.78	73.89	20.03		65.0	
		Z	5.43	73.04	19.72		65.0	
10266- CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	5.81	74.04	20.57	3.98	65.0	± 9.6 %
		Y	6.19	74.96	20.86		65.0	
		Z	5.84	74.19	20.60		65.0	<u>-</u>
10267- <u>CA</u> D	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	6.31	77.85	21.33	3.98	65.0	± 9.6 %
		Y	6.90	79.09	21.75		65.0	<u> </u>
		Z	<u>6.</u> 39	78.16	21.48		65.0	
10268- CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.05	72.91	20.14	3.98	65.0	±9.6 %
	ļ	Y	6.40	73.76	20.40		65.0	
10000		Z	6.06	73.00	20.17		65.0	
10269- CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	6.03	72.50	20.01	3.98	65.0	± 9.6 %
	<u></u>	Y	6.37	73.34	20.27		65.0	
10070		Z	6.05	72.60	20.04		65.0	·
10270- CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	6.14	75.03	20.36	3.98	65.0	± 9.6 %
<u> </u>		Y	6.59	76.06	20.69		65.0	

10274-	UMTS-FDD (HSUPA, Subtest 5, 3GPP	Х	2.45	66.18	14.83	0.00	150.0	±9.6 %
CAB	Rel8.10)						( == ,	
	-	<u>Y</u>	2.58	67.05	15.42		150.0	
10075		Z	2.44	66.39	14.86	0.00	150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	x	1.45	67.15	14.79	0.00	150.0	± 9.6 %
		Y	1.65	68.98	<u>16.07</u>		150.0	
		Z	1.46	67.49	14.94		150.0	
10277- CAA	PHS (QPSK)	×	2.05	60.99	6.61	9.03	50.0	± 9.6 %
		Y	2.14	61.42	6.98		50.0	
		Z	2.15	61.21	6.84		50.0	
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	х	3.88	69.24	13.58	9.03	50.0	± 9.6 %
		Y	4.38	71.00	14.54		50.0	· · ·
		Z	3.84	68.69	13.30		50.0	
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	Х	4.00	69.55	13.78	9.03	50.0	± 9.6 %
		<u>Y</u>	4.51	71.31	14.73		50.0	
		Ζ	3.94	68.96	13.47		50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	X	1.07	65.69	11.52	0.00	150.0	± 9.6 %
		Y	1.53	70.26	14.37		150.0	
		Z	1.01	65.37	11.10		150.0	
10291- AAB	CDMA2000, RC3, SO55, Full Rate	X	0.60	63.10	9.79	0.00	150.0	±9.6 %
		Y	0.85	67.12	12.84		150.0	
		Z	0.57	62.93	9.45		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	X	0.74	66.24	11.75	0.00	150.0	± 9.6 %
		Y	1.46	75.17	16.76		150.0	
		Z	0.73	66.36	11.54		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	Х	1.24	72.67	15.10	0.00	150.0	± 9.6 %
		Y	5.17	93.05	23.35		150.0	
		Ζ	1.42	74.33	15.45		150.0	
10295- AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	Х	9.92	85.20	23.12	9.03	50.0	± 9.6 %
		Y	9.50	84.91	23.23		50.0	1
		Ζ	10.83	86.02	23.20		50.0	
10297- AAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.57	69.12	16.16	0.00	150.0	± 9.6 %
		Y	2.77	70.42	16.97		150.0	
		Z	2.55	69.32	16.30		150.0	
10298- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.27	65.66	12.33	0.00	150.0	± 9.6 %
		Y	1.58	68.64	14.32	1	150.0	1
		Z	1.21	65.43	11.98	İ	150.0	-
10299- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	2.00	66.49	12.18	0.00	150.0	± 9.6 %
		Y	3.31	72.57	14.96	1	150.0	1
		Z	1.99	66.70	12.06		150.0	1
10300- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.58	63.09	9.74	0.00	150.0	± 9.6 %
		Y	1.99	65.54	11.08	+	150.0	
		Z	1.51	62.92	9.42		150.0	
10301- AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.69	65.76	17.48	4.17	50.0	± 9.6 %
		Y	4.64	65.55	17.37	<u> </u>	50.0	
		Ż	4.67	65.93	17.49		50.0	1
10302-	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.09	65.93	17.93	4.96	50.0	± 9.6 %
IAAA								
	10Mi 12, QF3K, FUSC, 3 CTRL symbols)	Y	5.12	66.18	18.09	+	50.0	-

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10303-	IEEE 802.16e WiMAX (31:15, 5ms,							uary 14, 20 <sup>.</sup>
AAA	10MHz, 64QAM, PUSC)	X	4.84	65.58	17.76	4.96	50.0	± 9.6 %
·		Y	4.88	65.83	17.92		50.0	+
10304-	IEEE 802 10- WIMAN (00 10 -	Z	4.85	65.84	17.81		50.0	
<u>AAA</u>	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.65	65.44	17.26	4.17	50.0	± 9.6 %
		Y	4.69	65.73	17.44		50.0	
40005		Z	4.65	65.69	17.31		50.0	
10305- AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.44	68.14	19.56	6.02	35.0	± 9.6 %
		Y	4.41	68.01	19.60		35.0	
40000		Z	4.62	69.17	19.86		35.0	
10306- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.68	66.85	19.08	6.02	35.0	± 9.6 %
		Y	4.67	66.81	19.12		35.0	
40007		Z	4.77	67.53	19.30		35.0	+
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.59	67.04	19.05	6.02	35.0	± 9.6 %
		Ϋ́	4.58	66.99	19.09	<u> </u>	35.0	+
10000		Z	4.69	67.75	19.27	<u> </u>	35.0	<del> </del>
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.57	67.28	19.21	6.02	35.0	± 9.6 %
		Y	4.56	67.23	19.25		35.0	
10000		Z	4.69	68.04	19.45		35.0	<u> </u>
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.73	67.04	19.22	6.02	35.0	± 9.6 %
		Y	4.72	66.99	19.24		35.0	
		Z	4.82	67.69	19.42		35.0	<u> </u>
10310- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.63	66.94	19.07	6.02	35.0	± 9.6 %
		Y	4.63	66.90	19.11		35.0	·
		Z	4.74	67.65	19.30		35.0	
10311- AAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	2.92	68.38	15.85	0.00	150.0	± 9.6 %
		Y	3.14	69.67	16.60		150.0	<u> </u>
		Z	2.91	68.56	15.97		150.0	<u> </u>
10313- AAA	iDEN 1:3	X	2.95	70.69	14.66	6.99	70.0	± 9.6 %
		Y	3.98	74.43	16.48		70.0	<u>  -</u>
		Z	3.15	71.48	15.14		70.0	
1031 <b>4</b> - AAA	iDEN 1:6	X	5.04	79.92	21.00	10.00	30.0	± 9.6 %
		Y	6.78	84.92	23.16		30.0	
		Z	5.73	81.64	21.73		30.0	<u> </u>
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	0.97	63.25	14.68	0.17	150.0	± 9.6 %
		Y	1.08	64.33	15.52		150.0	
		Z	0.98	63.49	14.85		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	X	4.44	66.48	16.13	0.17	150.0	± 9.6 %
		Ý	4.51	66.82	16.27		150.0	
10047		Z	4.41	66.56	16.16		150.0	
10317- AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.44	66.48	16.13	0.17	150.0	± 9.6 %
<u> </u>		Y	4.51	66.82	16.27		150.0	
0400		Z	4.41	66.56	16.16		150.0	
10400- \AD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.53	66.78	16.11	0.00	150.0	± 9.6 %
		Y	4.61	67.15	16.28	·	150.0	
		Z	4.49	66.84	16.14		150.0	
0401- \AD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.27	67.03	16.34	0.00	150.0	± 9.6 %
		Y	5.28	67.17	16.36		150.0	

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10402-	IEEE 802.11ac WiFi (80MHz, 64-QAM,	Х	5.50	67.24	16.31	0.00	150.0	±9.6 %
AAD	99pc duty cycle)							
		Y	5.56	67.57	16.43		150.0	
		<u>Z</u>	5.47	67.27	16.33		150.0	
10403- AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.07	65.69	11.52	0.00	115.0	±9.6 %
-		Υ	1.53	70.26	14.37		115.0	
-		Z	1.01	65.37	11.10		115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.07	65.69	11.52	0.00	115.0	± 9.6 %
		Y	1.53	70.26	14.37		115.0	
		Z	1.01	65.37	11.10		115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	23.46	102.23	25.39	0.00	100.0	± 9.6 %
		Y	100.00	115.29	27.21		100.0	
		Z	100.00	120.73	29.57		100.0	
10410- AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	55.06	113.36	27.76	3.23	80.0	± 9.6 %
		Y	100.00	120.25	29.20		80.0	
		Z	100.00	122.59	30.17		80.0	
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	0.91	62.47	14.11	0.00	150.0	± 9.6 %
		Y	1.00	63.52	14.99		150.0	
		Z	0.91	62.68	14.27		150.0	
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	X	4.39	66.47	16.07	0.00	150.0	± 9.6 %
		Y	4.46	66.85	16.24		150.0	
		Z	4.36	66.56	16.10		150.0	
10417- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	x	4.39	66.47	16.07	0.00	150.0	± 9.6 %
		Y	4.46	66.85	16.24		150.0	
		Z	4.36	66.56	16.10		150.0	
10418- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.38	66.64	16.10	0.00	150.0	± 9.6 %
		Y	4.46	67.04	16.28		150.0	
		Z	4.35	66.74	16.14		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.40	66.59	16.10	0.00	150.0	± 9.6 %
		Y	4.48	66.98	16.27		150.0	
		Z	4.37	66.68	16.13		150.0	
10422- AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.51	66.58	16.11	0.00	150.0	±9.6 %
		Y	4.59	66.96	16.28		150.0	
		Z	4.48	66.67	<b>1</b> 6.14		150.0	
10423- AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.67	66.88	16.22	0.00	150.0	±9.6 %
		Y	4.74	67.25	16.38		150.0	
		Z	4.62	66.95	16.24		150.0	
1042 <b>4</b> - AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.59	66.83	16.19	0.00	150.0	± 9.6 %
		Y	4.67	67.21	16.36		150.0	
		Z	4.55	66.90	16.22		150.0	
10425- AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.20	67.12	16.39	0.00	150.0	± 9.6 %
		Y	5.25	67.39	16.48		150.0	
		Z	5.17	67.16	16.41		150.0	
10426- AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.23	67.21	16.43	0.00	150.0	± 9.6 %
		Y	5.26	67.44	16.50		150.0	Í
[		Z	5.19	67.25	16.45		150.0	

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10427- AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)		5.23	67.14	16.39	0.00	150.0	± 9.6 %
		Y	5.27	67.40	16.48	<b>—</b>	150.0	
10430-		Z	5.18	67.14	16.40		150.0	
AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.20	71.33	18.23	0.00	150.0	± 9.6 %
		Y	4.38	72.12	18.67		150.0	
10431-		Z	4.24	71.88	18.40		150.0	
	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.04	67.01	16.00	0.00	150.0	± 9.6 %
· · · · · ·		Ŷ	4.14	67.47	16.25		150.0	
10432-	TE-EDD (OEDMA 45 MUL E THE C	Z	4.00	67.12	16.01		150.0	
AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.35	66.89	16.12	0.00	150.0	± 9.6 %
		Y	4.44	67.29	16.32		150.0	
10433-	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	Z	4.31	66.97	16.15		150.0	
AAB		X	4.61	66.86	16.21	0.00	150.0	± 9.6 %
		<u> </u>	4.68	67.24	16.38		150.0	
10434-	W-CDMA (BS Test Model 1, 64 DPCH)	Z	4.57	66.94	16.24		150.0	
AAA		X	4.31	72.22	18.13	0.00	150.0	± 9.6 %
		Ý	4.57	73.29	18.72		150.0	
10435-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz,	Z	4.37	72.83	18.28		150.0	
AAC	QPSK, UL Subframe=2,3,4,7,8,9)	X	46.38	110.94	27.14	3.23	80.0	± 9.6 %
		Y.	100.00	119.98	29.08		80.0	
10447- AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	Z X	100.00 3.31	122.32 66.87	30.05 15.09	0.00	80.0 150.0	± 9.6 %
		Y						
			3.44	67.57	15.54	<u></u>	150.0	
10448- AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	Z X	3.26 3.89	66.97 66.79	15.03 15.86	0.00	150.0 150.0	± 9.6 %
		Y						
		Z	<u>3.98</u> 3.85	67.27	16.12		150.0	
10449-	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1,	X	4.17	66.90	15.88		150.0	
AAB	Cliping 44%)	Y		66.71	16.01	0.00	150.0	± 9.6 %
			4.26	67.14	16.23		<u>15</u> 0.0	
10450-	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1,	<u>_Z</u>	4.14	66.80	16.04		150.0	
AAB	Clipping 44%)	X Y	4.38	66.63	16.06	0.00	150.0	± 9.6 %
		Z	4.46	67.03	16.25		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	<u>4.35</u> 3.16	66.71 66.87	<u>16.09</u> 14.55	0.00	150.0 150.0	± 9.6 %
		Y	3.31	67.71	15.09		150.0	<u> </u>
		z	3.09	66.88	14.41		150.0	
10456- \AB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.10	67.71	16.58	0.00	150.0 150.0	± 9.6 %
		Y	6.13	67.95	16.63		150.0	
		Z	6.10	67.81	16.63		150.0	
0457- \AA	UMTS-FDD (DC-HSDPA)	X	3.68	65.12	15.78	0.00	150.0	± 9.6 %
		Y	3.75	65.52	15.96		150.0	
0.00		Z	3.67	65.23	15.81		150.0	·
10458- \AA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.88	71.11	17.24	0.00	150.0	±9.6 %
		Y	4.15	72.36	17.96		150.0	
0450		_Z	3.88	71.47	17.22		150.0	
0459- \AA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	5.03	68.93	18.26	0.00	150.0	±9.6 %
		Y	5.12	69.27	18.40		150.0	
		Z	5.02	69.28	18.31		150.0	

10460-	UMTS-FDD (WCDMA, AMR)	X	0.76	67.21	14.98	0,00	150.0	± 9.6 %
AAA								
		Y	0.95	70.10	<u>17.17</u>		150.0	
		Z	0.78	67.84	15.35		150.0	
10461- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	100.00	124.22	31.05	3.29	80.0	± 9.6 %
		Y	100.00	126.59	32.12		80.0	<u> </u>
		Z	100.00	126.67	32.13		80.0	
10462- 	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	1.13	62.20	9.29	3.23	80.0	±9.6 %
		Y	1.76	66.14	10.65	<u>+</u>	80.0	
		Z	1.32	63.88	10.13		80.0	100
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.67	3.23	80.0	±9.6 %
		Y	0.95	60.52	7.63		80.0	
		Z	0.89	60.00	7.73		80.0	
10464- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	х	47.59	111.65	27.34	3.23	80.0	± 9.6 %
		Y	100.00	123.29	30.45		80.0	
		Z	100.00	123.26	30.40		80.0	
10465- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	Х	1.05	61.52	8.89	3.23	80.0	± 9.6 %
		_ <u>Y</u>	1.46	64.47	9.90		80.0	. <u> </u>
		Z	1.18	62.83	9.59		80.0	
10466- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	×	0.91	60.00	7.62	3.23	80.0	± 9.6 %
		Y	0.90	60.08	7.36		80.0	
		Z	0.89	60.00	7.68		80.0	
10467- AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	72.09	117.06	28.59	3.23	80.0	±9.6 %
		Y	100.00	123. <u>66</u>	30.60		80.0	
		Z	100.00	123.63	30.56		80.0	
10468- AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	1.07	61.70	9.00	3.23	80.0	± 9.6 %
		Y	1.53	64.89	10.09		80.0	
		Z	1.22	63.12	9.74		80.0	1
10469- AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.62	3.23	80.0	± 9.6 %
		Y	0.90	60.09	7.36		80.0	
		Z	0.89	60.00	7.68		80.0	
10470- AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	74.02	117.39	28.66	3.23	80.0	± 9.6 %
		Y	100.00	123.68	30.61		80.0	
		Z	100.00	123.65	30.56		80.0	
10471- AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	1.07	61.65	8.96	3.23	80.0	± 9.6 %
		Y	1.51	64.78	10.03		80.0	
		Z	1.21	63.05	9.70		80.0	
10472- AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.61	3.23	80.0	± 9.6 %
		Y	0.89	60.04	7.32		80.0	
		Z	0.89	60.00	7.66		80.0	
10473- AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	72.58	117.11	28.59	3.23	80.0	± 9.6 %
		Y	100.00	123.64	30.59		80.0	
		Z	100.00	123.61	30.54		80.0	
10474- AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	1.06	61.62	8.95	3.23	80.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	1.50	64.73	10.01		80.0	
-		Ż	1.20	63.02	9.68		80.0	
10475- AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.61	3.23	80.0	± 9.6 %
		Y	0.89	60.02	7.32		80.0	
		Z	0.89	60.00	7.66	-i -	80.0.	

10477- AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	1.04	61.46	8.85	3.23	80.0	± 9.6 %
		Y	1.44					
		$\frac{1}{z}$		64.36	9.83		80.0	
10478-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-	†ź	1.17	62.77	9.54	<u> </u>	80.0	
AAC	QAM, UL Subframe=2,3,4,7,8,9)		0.91	60.00	7.60	3.23	80.0	± 9.6 %
		Y	0.89	60.00	7.29		80.0	
10479-	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,	Z	0.89	60.00	7.65		80.0	+
AAA	QPSK, UL Subframe=2,3,4,7,8,9)	X	8.21	87.49	22.94	3.23	80.0	± 9.6 %
		<u>Y</u>	20.18	101.14	27.13		80.0	
10480-	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,	Z	18.46	99.74	26.54		80.0	
AAA	16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.14	76.02	17.14	3.23	80.0	± 9.6 %
		Y	17.56	91.22	21.83		80.0	
10481-		Z	8.18	81.93	19.01		80.0	+
	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	3.78	71.70	15.15	3.23	80.0	± 9.6 %
		Y	9.36	82.53	18.82	<u> </u>	80.0	<u>+</u>
10482-		Z	4.98	75.18	16.32		80.0	<u>├~~</u>
AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.35	69.25	15.02	2.23	80.0	± 9.6 %
		Ý	3.01	72.46	16.59	<u> </u>	80.0	†·
10400		Z	2.33	69.25	14.80	<del></del>	80.0	<del> </del>
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.09	69.06	14.42	2.23	80.0	± 9.6 %
		Y	4.90	74.92	16.84		80.0	
10101		Z	3.31	69.99	14.61		80.0	· · · · · · · · · · · · · · · · · · ·
10484- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.93	68.12	14.03	2.23	80.0	± 9.6 %
		Y	4.36	73.23	16.22		80.0	
		Z	3.05	68.75	14.10		80.0	<b> </b>
10485- AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	x	2.95	72.33	17.49	2.23	80.0	± 9.6 %
		Y	3.47	74.53	18.53		80.0	
10 100		Z	3.08	73.09	17.68		80.0	
10486- AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.76	67.89	15.02	2.23	80.0	± 9.6 %
		Y	3.16	69.70	15.94		80.0	<u> </u>
		Z	2.75	68.00	14.88		80.0	
10487- AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.75	67.50	14.83	2.23	80.0	± 9.6 %
		Y	3.13	69.21	15.71		80.0	
<u></u>		Z	2.74	67.55	14.66		80.0	<u> </u>
10488- AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.27	71.87	18.23	2.23	80.0	± 9.6 %
	·	Y	3.61	73.22	18.84		80.0	
		_z	3.35	72.44	18.47		80.0	
10489- AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.21	68.44	16.77	2.23	80.0	± 9.6 %
		Y	3.45	69.44	17.24		80.0	
10.10		Ζ	3.25	68.82	16.89		80.0	
10490- \AC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.29	68.29	16.72	2.23	80.0	± 9.6 %
	·	Y	3.53	69.24	17.16		80.0	
0404		Z	3.33	68.65	16.82		80.0	
10491- AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	3.51	70.39	17.81	2.23	80.0	± 9.6 %
		Y	3.78	71.45	18.28		80.0	
		Z	3.55	70.76	17.99		80.0	
10492-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.56	67.76	16.86	2.23	80.0	±9.6 %
<u>4AC</u>	10 dr un, OL OUDITAINE=2,5,4,7,0,8)			1				
4AC		Y Z	3.76	68.54	17.20		80.0	

BACC         64-QAM, UL Subframe-2.3.4,7,8-9)         Y         3.82         68.40         17.14         80.0           10494         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X         3.79         71.83         18.26         2.23         80.0         ± 9.6 %           AAC         GPSK, UL Subframe-2.3.4,7,8.9)         Y         4.13         73.06         18.79         2.23         80.0         ± 9.6 %           Composition         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X         3.65         77.23         18.46         80.0         ± 9.6 %           AAC         16-GAM, UL Subframe-2.3.4,7,8.9)         Y         3.79         68.11         17.70         80.0         ± 9.6 %           AAC         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X         3.67         67.87         17.00         2.23         80.0         ± 9.6 %           AAC         G-GAM, UL Subframe-2.3.4,7.8.9)         Y         3.86         66.62         17.31         80.0         ± 9.6 %           AAA         MHz, OPSK, UL Subframe-2.3.4,7.8.9)         Y         1.32         60.00         8.33         2.23         80.0         ± 9.6 %           AAA         MHz, OPSK, UL Subframe-2.3.4,7.8.9)         Y         1.92         66.55         12.95         80.0         ± 9.6 %									
Y         3.82         68.40         17.14         60.0           10494         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.79         71.83         18.26         2.23         80.0         ± 9.5 %           AAC         QPSK, UL Subframe=2.3.4.7.8.9)         Y         4.13         73.06         18.79         80.0         ± 9.5 %           10495         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.59         68.11         17.00         2.23         80.0         ± 9.6 %           AAC         16-QAM, UL Subframe=2.3.4.7.8.9)         Y         3.79         68.91         17.40         80.0         ± 9.6 %           AAC         16-QAM, UL Subframe=2.3.4.7.8.9)         Y         3.81         68.36         17.17         80.0         ± 9.6 %           AAC         H=QAM, UL Subframe=2.3.4.7.8.9)         Y         1.356         62.71         10.54         80.0         ± 9.6 %           AAA         MHz, QPSK, UL Subframe=2.3.4.7.8.9)         Y         1.52         62.71         10.54         80.0         ± 9.6 %           AAA         MHz, QPSK, UL Subframe=2.3.4.7.8.9)         Y         1.56         60.00         8.33         2.23         80.0         ± 9.6 %           AAA <td< td=""><td>10493-</td><td>LTE-TDD (SC-FDMA, 50% RB, 15 MHz,</td><td>Х</td><td>3.62</td><td>67.64</td><td>16.82</td><td>2.23</td><td>80.0</td><td>±9.6 %</td></td<>	10493-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz,	Х	3.62	67.64	16.82	2.23	80.0	±9.6 %
LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X         3.79         71.83         19.26         2.23         80.0         ± 9.6 %           AAC         GPSK, UL Subframe=2.3.4.7.8.9)         Y         4.13         73.00         18.79         2.23         80.0         ± 9.6 %           L1945         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X         3.59         68.11         17.00         2.23         80.0         ± 8.6 %           AAC         16-GAM, UL Subframe=2.3.4.7.8.9)         Y         3.79         68.31         17.40         80.0         2.38.0           AAC         16-GAM, UL Subframe=2.3.4.7.8.9)         Y         3.86         68.62         17.31         80.0         2.8.6 %           AAC         CFDMA, 50% RB, 20 MHz, X         3.67         67.87         17.10         80.0         2.8.6 %           AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.45         68.41         11.17         2.23         80.0         2.0.5         80.0         2.1.35         60.00         8.33         2.23         80.0         2.4.9.6 %         AAA         1.28         60.00         8.33         2.23         80.0         2.4.9.6 %         AAA         1.225         60.00         8.01         80.0         2.23         80.0	AAC	64-QAM, UL Subframe=2,3,4,7,8,9)							
T0494         LTE-TDD (SC-FDMA, 50%, FB, 20 MHz, AAC         X         3.79         71.83         18.26         2.23         80.0         ± 9.6 %           AAC         GPSK, UL Subframe=2.3.4.7.8.9)         Y         4.13         , 73.06         18.79         80.0         10.0         10.0         12.0         80.0         10.0         10.0         12.0         80.0         10.0         12.0         80.0         10.0         12.0         80.0         12.0<	-								
AAC         OPSK, UL Subframe=2,3,4,7,8,9)         Y         4.13         73.06         18.79         50.0           10495.         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.69         68.11         17.06         2.23         80.0         2 9.6 %           10495.         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.67         67.87         17.00         2.23         80.0         2 9.6 %           10496.         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.67         67.87         17.00         2.23         80.0         2 9.6 %           10496.         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         3.86         66.62         17.31         80.0         2 9.6 %           AAA         MHz, QPSK, UL Subframe=2.3.4, 7.8.9)         Y         1.35         66.61         12.65         80.0         2         9.0.0         2         1.35         62.71         10.54         80.0         2         9.6 %         3.33         2.23         80.0         2         9.6 %         3.33         2.23         80.0         2         9.6 %         3.33         2.23         80.0         2         9.6 %         3.33         2.23         80.0         2         9.6 %         3.33         2.23 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1007</td>									1007
Z         3.85         72.23         18.46         90.0           10495.         ITE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.59         68.91         17.17         80.0         ± 9.6 %           10496.         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         X         3.67         67.87         17.00         2.23         80.0         ± 9.6 %           10496.         LTE-TDD (SC-FDMA, 10% RB, 1.4 AAC         X         3.67         67.87         17.00         2.23         80.0         ± 9.6 %           10497.         LTE-TDD (SC-FDMA, 100% RB, 1.4 AAA         X         1.45         63.41         11.17         2.23         80.0         ± 9.6 %           AAA         MHz, QPSK, UL Subframe=2.3.4.7.8.9)         Y         1.92         66.56         12.95         80.0         ± 9.6 %           AAA         MHz, GOAM, UL Subframe=2.3.4.7.8.9)         Y         1.38         60.00         8.33         2.23         80.0         ± 9.6 %           10494.         LTE-TDD (SC-FDMA, 100% RB, 1.4 AAA         X         1.28         60.00         8.31         80.0         ± 9.6 %           10494.         LTE-TDD (SC-FDMA, 100% RB, 1.4 AAA         X         1.30         60.00         8.19         2.23         80.0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>_</td><td>2.23</td><td></td><td>± 9.6 %</td></td<>						_	2.23		± 9.6 %
10495.       LTE-TDD (SC-FDMA, 60% RB, 20 MHz, X       3.69       68.11       17.06       2.23       80.0       ± 9.6 %         AAC       Z       3.61       66.91       17.40       80.0       ± 9.6 %         10496.       LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X       3.67       67.87       17.00       2.23       80.0       ± 9.6 %         AAC       64-QAM, UL Subframe-2.3.4.7.8.9)       Y       3.86       68.62       17.31       80.0       ± 9.6 %         AAA       MHz, QPSK, UL Subframe-2.3.4.7.8.9)       Y       1.45       63.41       11.17       2.23       80.0       ± 9.6 %         AAA       MHz, QPSK, UL Subframe-2.3.4.7.8.9)       Y       1.92       66.56       12.95       80.0       ± 9.6 %         AAA       MHz, CPSK, UL Subframe-2.3.4.7.8.9)       Y       1.92       66.56       12.95       80.0       ± 9.6 %         AAA       MHz, 16-OAM, UL       X       1.28       60.00       8.31       80.0       ± 9.6 %         AAA       MHz, 64-OAM, UL       X       1.30       60.00       8.19       80.0       ± 9.6 %         AAA       MHz, 64-OAM, UL       X       1.30       60.00       8.19       80.0       ± 9.6 %									
AAC         16-QAM, UL Subframe=2.3.4.7.8.9)         Y         3.79         68.91         17.40         90.0           10496- AAC         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         3.61         68.82         17.31         90.0         2.3.61         68.91         17.40         90.0           10496- AAC         LTE-TDD (SC-FDMA, 100% RB, 14         X         3.67         67.87         17.00         2.23         80.0         ±9.6 %           AAA         MHz, QPSK, UL Subframe=2.3.4.7.8.9)         Y         1.35         66.56         12.95         80.0         ±8.0           AAA         MHz, QPSK, UL Subframe=2.3.4.7.8.9)         Y         1.92         66.56         12.95         80.0         ±9.6 %           AAA         MHz, 16-QAM, UL Subframe=2.3.4.7.8.9)         Y         1.58         60.00         8.33         2.23         80.0         ±9.6 %           AAA         MHz, 64-QAM, UL Subframe=2.3.4.7.8.9)         Y         1.36         60.00         8.19         2.23         80.0         ±9.6 %           AAA         MHz, 64-QAM, UL Subframe=2.3.4.7.8.9)         Y         1.36         60.00         8.19         2.23         80.0         ±9.6 %           AAA         MHz, 64-QAM, UL Subframe=2.3.4.7.8.9)         Y <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
Z         3.61         68.36         17.77         80.0           10436- AAC         LTE-TDD (SC-FDMA, 50% RB, 20 MHz, AAC         3.67         67.87         17.00         2.23         80.0         ± 9.6 % AAC           10497- LTE-TDD (SC-FDMA, 100% RB, 1.4         X         3.86         68.62         17.31         80.0         ± 9.6 % AAC           AAA         MHz, QPSK, UL Subframe=2.3.4.7,8.9)         Y         1.92         68.56         12.95         80.0           10498- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.28         60.00         8.33         2.23         80.0         ± 9.6 %           10498- LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.28         60.00         8.19         2.23         80.0         ± 9.6 %           AAA         MHz, 16-QAM, UL Subframe=2,3.4,7.8.9)         Y         1.38         60.59         8.91         80.0         ± 9.6 %           AAA         MHz, 64-QAM, UL Subframe=2,3.4,7.8.9)         Y         1.38         60.00         8.49         80.0         ± 9.6 %           AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         Y         1.33         60.00         7.67         80.0         ± 9.6 %           AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA <td< td=""><td></td><td></td><td>Х</td><td></td><td></td><td></td><td>2.23</td><td></td><td>± 9.6 %</td></td<>			Х				2.23		± 9.6 %
10496.       LTE-TDD (SC-FDMA, 50% RB, 20 MHz, X       3.67       67.87       17.00       2.23       80.0       ± 9.6 %         AAC       Z       3.69       68.11       17.10       80.0       10407         LTE-TDD (SC-FDMA, 100% RB, 1.4       X       1.45       63.41       11.17       2.23       80.0       ± 9.6 %         AAA       MHz, OPSK, UL Subframe=2,3.4.7,8.9)       Y       1.92       66.56       12.95       80.0       ± 9.6 %         10497-       LTE-TDD (SC-FDMA, 100% RB, 1.4       X       1.45       66.71       10.64       80.0       ± 9.6 %         AAA       MHz, 16-QAM, UL       Y       1.38       60.00       8.33       2.23       80.0       ± 9.6 %         Subframe=2,3.4, 7.8.9)       Y       1.38       60.00       8.01       80.0       ± 9.6 %         AAA       MHz, 64-QAM, UL       X       1.28       60.00       8.14       80.0       ± 9.6 %         Subframe=2,3.4, 7.8,9)       Y       1.33       60.08       8.49       80.0       ± 9.6 %         AAA       MHz, 64-QAM, ML       X       1.30       60.00       8.19       2.23       80.0       ± 9.6 %         AAA       OPSK, UL Subframe=2,3.4,7.8.									
AAC         64-QAM, UL Subframe=2.3.4.7,8.9)         Y         3.86         68.62         17.31         80.0           10497-         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.45         63.41         11.17         2.23         80.0         ± 9.6 %           AAA         MHz, OPSK, UL Subframe=2.3.4.7,8.9)         Y         1.92         66.56         12.95         80.0         ± 9.6 %           AAA         MHz, OPSK, UL Subframe=2.3.4,7.8.9)         Y         1.32         60.00         8.33         2.23         80.0         ± 9.6 %           AAA         MHz, 16-OAM, UL         Subframe=2,3.4,7.8.9)         Y         1.38         60.59         8.91         30.0         ± 9.6 %           AAA         MHz, 16-OAM, UL         Subframe=2,3.4,7.8.9)         Y         1.38         60.00         8.11         80.0         1.96 %           I0499-         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.30         60.00         8.19         80.0         2.127         60.00         7.87         80.0         1.96 %           AAA         MHz, 64-QAM, UL         Subframe=2,3.4,7.8.9)         Y         3.46         73.67         16.54         80.0         2.3         80.0         2.23         80.0         2.96 %									
Image: Constraint of the image is a state of the image							2.23		±9.6 %
10497- AAA         ITE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         1.45         63.41         11.17         2.23         80.0         ± 9.6 %           10498- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.92         66.56         12.95         80.0         ± 9.6 %           10498- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.38         60.00         8.31         2.23         80.0         ± 9.6 %           10499- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.38         60.00         8.19         2.23         80.0         ± 9.6 %           10500- DOSK, UL Subframe=2,3,4,7,8,9)         Y         1.33         60.06         8.49         80.0         ± 9.6 %           AAA         DPSK, UL Subframe=2,3,4,7,8,9)         Y         1.33         60.06         8.49         80.0         ± 9.6 %           AAA         DPSK, UL Subframe=2,3,4,7,8,9)         Y         3.46         73.67         80.0         ± 9.6 %           AAA         145-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           AAA									
AAA         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         1.92         66.56         12.95         80.0           1049e.         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.26         60.00         8.33         2.23         80.0         ± 9.6 %           AAA         MHz, 16-CAM, UL         Subframe=2,3,4,7,8,9)         Y         1.38         60.00         8.01         80.0         ± 9.6 %           AAA         MHz, 16-CAM, UL         Z         1.25         60.00         8.01         80.0         ± 9.6 %           10499-         LTE-TDD (SC-FDMA, 100% RB, 1.4         X         1.30         60.00         8.19         2.23         80.0         ± 9.6 %           AAA         MHz, 64-CAM, UL         Subframe=2,3,4,7,8,9)         Y         1.33         60.08         8.49         80.0         1         56.0         1.57         80.0         ± 9.6 %           AAA         GPSK, UL Subframe=2,3.4,7,8,9)         Y         3.16         72.64         17.94         80.0         1.57         80.0         ± 9.6 %           AAA         6-QAM, UL Subframe=2,3.4,7,8,9)         Y         3.31         69.74         16.50         80.0         1.578         80.0         1.557         80.0         1.56 %			Z	3.69					
Z         1.35         62.71         10.54         80.0           10496- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 Subframe=2,3,4,7,8,9)         X         1.28         60.00         8.33         2.23         80.0 $\pm$ 9.6 %           10499- AAA         X         1.25         60.00         8.01         80.0         2.23         80.0 $\pm$ 9.6 %           10499- AAA         TE-TDD (SC-FDMA, 100% RB, 1.4 AAA         X         1.30         60.00         8.19         2.23         80.0 $\pm$ 9.6 %           10500- CO         TE-TDD (SC-FDMA, 100% RB, 3MHz, AAA         X         1.33         60.08         8.49         80.0 $=$ 9.6 %           10500- CO         TE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.04         71.93         17.72         2.23         80.0 $=$ 9.6 %           10501- CO         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         2.96         66.33         15.79         2.23         80.0 $=$ 9.6 %           10501- LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         Y         3.31         69.74         16.55         80.0 $=$ 2.3.01         86.16         15.65         2.23         80.0 $=$ 9.6 %			X	1.45	63.41		2.23	_	±9.6 %
10498- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         1.28         60.00         8.33         2.23         80.0         ± 9.6 %           10499- LAPS         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.38         60.00         8.01         80.0         ± 9.6 %           AAA         MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.33         60.00         8.19         2.23         80.0         ± 9.6 %           AAA         MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.33         60.00         8.19         2.23         80.0         ± 9.6 %           AAA         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.36         73.67         18.54         80.0         2.23         80.0         ± 9.6 %           AAA         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.36         73.67         18.54         80.0         2.33         15.79         2.23         80.0         ± 9.6 %           AAA         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0         2.30         168.63         15.79         2.23         80.0         ± 9.6 %           AAA         16-QAM, UL Subframe=2,3,4,7,8,9)<	_		Y	1.92	66.56			80.0	
AAA         MHz, 16-QAM, UL         No.         Au           Subframe=2,3,4,7,8,9)         Y         1.38         60.59         8.91         80.0           Id99-         ITE-TDD (SC-FDMA, 100% RB, 1.4         X         1.30         60.00         8.01         80.0         ± 9.6 %           AAA         Subframe=2,3,4,7,8,9)         Y         1.33         60.08         8.49         80.0         ± 9.6 %           IO500-         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, X         3.04         71.93         17.72         2.23         80.0         ± 9.6 %           AAA         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.46         73.67         18.54         80.0         ± 9.6 %           AAA         IEE-TDD (SC-FDMA, 100% RB, 3 MHz, X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           AAA         16-OAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0         ± 9.6 %           AAA         16-OAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         68.16         15.65         2.23         80.0         ± 9.6 %           AAA         16-OAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         68.16         15.65								<u> </u>	
Y         1.38         60.69         8.91         60.0           10499- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL         X         1.30         60.00         8.19         2.23         60.0 $\pm 9.6 \%$ 10500- AAA         Subframe=2,3,4,7,8,9)         Y         1.33         60.00         7.87         80.0 $\pm 9.6 \%$ 10500- AAA         CF-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.04         71.93         17.72         2.23         80.0 $\pm 9.6 \%$ AAA         GPSK, UL Subframe=2,3,4,7,8,9)         Y         3.46         73.67         18.54         80.0 $\pm 9.6 \%$ AAA         GPSK, UL Subframe=2,3,4,7,8,9)         Y         3.46         73.67         18.54         80.0 $\pm 9.6 \%$ AAA         G-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0 $\pm 9.6 \%$ AAA         G-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         16.35         80.0 $\pm 9.6 \%$ AAA         G-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         16.35         80.0 $\pm 9.6 \%$ <		MHz, 16-QAM, UL	X	1.28	60.00	8.33	2.23	80.0	± 9.6 %
10499- AAA         LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         X         1.30         60.00         8.19         2.23         80.0         ± 9.6 %           10500- AAA         C         1.27         60.00         7.87         80.0         ±         9.6 %           10500- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.04         71.93         17.72         2.23         80.0         ±         9.6 %           10500- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.04         71.93         17.72         2.23         80.0         ±         9.6 %           10501- LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.96         68.33         15.79         2.23         80.0         ±         9.6 %           2         3.01         68.63         15.79         80.0         1         9.6 %           AAA         64-QAM, UL Subframe=2,3.4.7.8.9)         Y         3.36         68.16         15.65         2.23         80.0         ±         9.6 %           AAA         64-QAM, UL Subframe=2,3.4.7.8.9)         Y         3.36         69.55         16.35         80.0         2.23         80.0         ±         9.6 %           AAC			Y	1.38	60.59	8.91		80.0	
AAA         MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         Y         1.33         60.08         8.49         80.0           10500- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.04         71.93         17.72         2.23         80.0         ± 9.6 %           AAA         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.46         73.67         16.54         80.0           10501- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           AAA         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0           10502- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.03         68.16         15.65         2.23         80.0         ± 9.6 %           AAA         4-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.74         16.50         80.0         19.6 %           AAA         4-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.74         16.55         2.00         2.3         80.0         19.6 %           AAC         CPSK, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.74         16.50         80.0 <td></td> <td></td> <td>Z</td> <td>1.25</td> <td>60.00</td> <td>8.01</td> <td></td> <td>80.0</td> <td></td>			Z	1.25	60.00	8.01		80.0	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		MHz, 64-QAM, UL	X	1.30	60.00	8.19	2.23	80.0	± 9.6 %
10500- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         X         3.04         71.93         17.72         2.23         80.0         ± 9.6 %           10501- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.46         73.67         18.54         80.0         ± 9.6 %           10501- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           10502- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.01         68.63         15.79         80.0         2.23         80.0         ± 9.6 %           10502- AAA         Ge-QAM, UL Subframe=2,3.4,7.8,9)         Y         3.36         69.55         16.35         80.0         2.23         80.0         ± 9.6 %           10503- C         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, AAC         Y         3.36         69.55         16.35         80.0         2.305         68.42         15.63         80.0         2.306         68.42         15.63         80.0         2.306         68.42         15.63         80.0         2.306         68.42         15.63         80.0         2.306         16.842         16.66         2.23         80.0				1.33	60.08	8.49		80.0	
AAA         QPSK, UL Subframe=2,3,4,7,8,9         Y         3.46         73.67         18.54         80.0           10501-         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           AAA         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0           10502-         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, AAA         X         3.03         68.16         15.65         2.23         80.0         ± 9.6 %           10502-         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         16.35         80.0         ± 9.6 %           AAA         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         16.35         80.0         ± 9.6 %           AAC         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         18.12         2.23         80.0         ± 9.6 %           AAC         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.56         73.00         18.74         80.0         ± 9.6 %           AAC         IE-TDD (SC-FDMA, 100% RB, 5 MHz, AAC         X         3.19         68.33         16.71         2.23 <td></td> <td></td> <td>Z</td> <td></td> <td>60.00</td> <td>7.87</td> <td></td> <td>80.0</td> <td></td>			Z		60.00	7.87		80.0	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			X	3.04	71.93		2.23	80.0	±9.6 %
10501- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           AAA         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0			Y	3.46	73.67	18.54		80.0	
10501- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         2.98         68.33         15.79         2.23         80.0         ± 9.6 %           AAA         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.31         69.74         16.50         80.0			Z	3.15	72.64	17.94		80.0	
Y         3.31         69.74         16.50         80.0           10502- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         X         3.03         68.16         15.65         2.23         80.0         ±9.6 %           10502- AAA         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         16.35         80.0         ±9.6 %           10503- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.56         73.00         18.74         80.0         ±9.6 %           AAC         Intervent         Y         3.56         73.00         18.74         80.0         ±9.6 %           AAC         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.56         73.00         18.74         80.0         ±9.6 %           AAC         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.43         69.33         17.17         80.0         ±9.6 %           AAC         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.43         69.33         17.17         80.0         ±9.6 %           AAC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         68.14         17.10         80.0         ±9.6 %           AAC         64-QAM					68.33	15.79	2.23	80.0	± 9.6 %
10502- AAA         LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         X         3.03         68.16         15.65         2.23         80.0         ± 9.6 %           Interval         Y         3.36         69.55         16.35         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         80.0         10.00         10.00         80.0         10.00         80.0         10.0			Υ	3.31	69.74	16.50		80.0	
AAA         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.36         69.55         16.35         80.0           10503- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         X         3.23         71.65         18.12         2.23         80.0         ±9.6 %           10503- AAC         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.56         73.00         18.74         80.0           10504- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, AAC         X         3.19         68.33         16.71         2.23         80.0         ±9.6 %           10504- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, AAC         X         3.19         68.33         16.71         2.23         80.0         ±9.6 %           10505- AAC         G4-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.43         69.33         17.17         80.0           10505- AAC         G4-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0           10505- AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0         ±9.6 %           AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0			Z	3.01	68.63	15.79	_		
Y         3.36         69.55         16.35         80.0           10503- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         X         3.23         71.65         18.12         2.23         80.0         ± 9.6 %           10503- AAC         QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.56         73.00         18.74         80.0         ± 9.6 %           10504- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         3.19         68.33         16.71         2.23         80.0         ± 9.6 %           2         3.23         68.71         16.82         80.0         ± 9.6 %           3.43         69.33         17.17         80.0         ± 9.6 %           4AC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.43         69.33         17.17         80.0           10505- AAC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0         ± 9.6 %           4AC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0         ± 9.6 %           AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.76         71.67         18.18			X	3.03	68.16	15.65	2.23	80.0	± 9.6 %
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			Y	3.36	69.55	16.35		80.0	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		·					<u> </u>		
Y         3.56         73.00         18.74         80.0           10504- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         3.19         68.33         16.71         2.23         80.0         ± 9.6 %           AAC         16-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.43         69.33         17.17         80.0         ± 9.6 %           AAC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.43         69.33         17.17         80.0         ± 9.6 %           AAC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.23         68.71         16.82         80.0         ± 9.6 %           AAC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0         ± 9.6 %           AAC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0         ± 9.6 %           AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         3.76         71.67         18.18         2.23         80.0         ± 9.6 %           AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         4.10         72.90         18.71         80.0         ± 9.6 %           AAC							2.23		±9.6 %
10504- AAC       LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)       X       3.19       68.33       16.71       2.23       80.0       ± 9.6 %         Image: Constraint of the system of the									
AAC       16-QAM, UL Subframe=2,3,4,7,8,9)       Y       3.43       69.33       17.17       80.0         2       3.23       68.71       16.82       80.0       10505-       LTE-TDD (SC-FDMA, 100% RB, 5 MHz, AC       X       3.27       68.19       16.66       2.23       80.0       ± 9.6 %         AAC       64-QAM, UL Subframe=2,3,4,7,8,9)       Y       3.51       69.14       17.10       80.0       ± 9.6 %         AAC       64-QAM, UL Subframe=2,3,4,7,8,9)       Y       3.51       69.14       17.10       80.0       ± 9.6 %         AAC       MLz, QPSK, UL Subframe=2,3,4,7,8,9)       Y       3.51       69.14       17.10       80.0       ± 9.6 %         AAC       MHz, QPSK, UL Subframe=2,3,4,7,8,9)       Y       3.76       71.67       18.18       2.23       80.0       ± 9.6 %         AAC       MHz, QPSK, UL Subframe=2,3,4,7,8,9)       Y       4.10       72.90       18.71       80.0       ± 9.6 %         AAC       MHz, GPSK, UL Subframe=2,3,4,7,8,9)       Y       3.81       72.07       18.38       80.0       ± 9.6 %         AAC       MHz, 16-QAM, UL       Y       3.78       68.84       17.02       2.23       80.0       ± 9.6 %         AAC </td <td></td> <td></td> <td></td> <td></td> <td>72.21</td> <td>18.35</td> <td></td> <td></td> <td></td>					72.21	18.35			
Z         3.23         68.71         16.82         80.0           10505- AAC         LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)         X         3.27         68.19         16.66         2.23         80.0         ± 9.6 %           AC         64-QAM, UL Subframe=2,3,4,7,8,9)         Y         3.51         69.14         17.10         80.0			X	3.19	68.33		2.23		±9.6 %
10505- AAC       LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)       X       3.27       68.19       16.66       2.23       80.0       ± 9.6 %         X       3.51       69.14       17.10       80.0       2       3.31       68.54       16.75       80.0       10.0         X       3.27       3.31       68.54       16.75       80.0       10.0       10.0       10.0       10.0       80.0       10.0					69.33				
10505- AAC       LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)       X       3.27       68.19       16.66       2.23       80.0       ± 9.6 %         Y       3.51       69.14       17.10       80.0       10506-       2.23       80.0       ± 9.6 %         10506- AAC       LTE-TDD (SC-FDMA, 100% RB, 10 AAC       X       3.76       71.67       18.18       2.23       80.0       ± 9.6 %         10506- AAC       MHz, QPSK, UL Subframe=2,3,4,7,8,9)       Y       4.10       72.90       18.71       80.0       ± 9.6 %         AAC       MHz, QPSK, UL Subframe=2,3,4,7,8,9)       Y       4.10       72.90       18.71       80.0       ± 9.6 %         AAC       MHz, QPSK, UL Subframe=2,3,4,7,8,9)       Y       3.81       72.07       18.38       80.0         10507- AAC       MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)       Y       3.78       68.84       17.36       80.0       ± 9.6 %			Z	3.23	68.71	16.82		80.0	
Z         3.31         68.54         16.75         80.0           10506- AAC         LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         X         3.76         71.67         18.18         2.23         80.0         ± 9.6 %           V         4.10         72.90         18.71         80.0         10507-         10507-         LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         3.57         68.04         17.02         2.23         80.0         ± 9.6 %           Y         3.78         68.84         17.36         80.0         ± 9.6 %							2.23	_	± 9.6 %
10506- AAC         LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)         X         3.76         71.67         18.18         2.23         80.0         ± 9.6 %           AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         4.10         72.90         18.71         80.0         ± 9.6 %           Image: Comparison of the system of the s							_		
AAC         MHz, QPSK, UL Subframe=2,3,4,7,8,9)         Y         4.10         72.90         18.71         80.0           Image: Marked Control of Contreleadore Contrelation of Contrelating control of Control of Cont									<u> </u>
Z         3.81         72.07         18.38         80.0           10507- AAC         LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         3.57         68.04         17.02         2.23         80.0         ± 9.6 %           Y         3.78         68.84         17.36         80.0         ± 9.6 %							2.23		± 9.6 %
10507- AAC         LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         3.57         68.04         17.02         2.23         80.0         ± 9.6 %           Y         3.78         68.84         17.36         80.0         ± 9.6 %									
10507- AAC         LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)         X         3.57         68.04         17.02         2.23         80.0         ± 9.6 %           Y         3.78         68.84         17.36         80.0         ± 9.6 %			Z						
Y 3.78 68.84 17.36 80.0	1	MHz, 16-QAM, UL	X				2.23	80.0	±9.6 %
			Z	3.59	68.29	17.13		80.0	

10508- AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.65	67.79	16.95	2.23	80.0	± 9.6 %
		Ŷ	3.85	68.55	17.26	┼━──-	80.0	+
		Z	3.67	68.04	17.05		80.0	+
10509- AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.11	70.47	17.03	2.23	80.0	± 9.6 %
		Y	4.41	71.52	18.16	+	80.0	<u> </u>
		Z	4.14	70.76	17.87	<u> </u>	80.0	- <u>                                     </u>
10510- AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.05	67.79	17.05	2.23	80.0	± 9.6 %
		Ŷ	4.24	68.50	17.33		80.0	+
10.0.0		Z	4.06	67.96	17.14		80.0	<u>+</u>
10511- AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.11	67.57	17.00	2.23	80.0	± 9.6 %
		Y	4.30	68.25	17.26	† <b>-</b>	80.0	+
40540		Z	4.12	67.74	17.08	<u> </u>	80.0	+
10512- AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.27	71.92	18.15	2.23	80.0	± 9.6 %
		Y	4.64	73.17	18.68		80.0	+
10513-		Ż	4.32	72.22	18.32	i —	80.0	<u>+</u>
AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.94	68.01	17.14	2.23	80.0	± 9.6 %
		Y	4.13	68.75	17.43		80.0	
10514-		Z	3.95	68.18	17.23		80.0	
AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.97	67.63	17.03	2.23	80.0	± 9.6 %
		Y	4.15	68.33	17.30		80.0	
40545		Z	3.98	67.79	17.12		80.0	<u> </u>
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.87	62.63	14.14	0.00	150.0	±9.6 %
		Y	0.97	63.74	15.08		150.0	
10516-	1555 802 115 WE 0 1 011 /5000 5-5	Z	0.87	62.85	14.30		150.0	
AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.49	69.66	15.70	0.00	150.0	± 9.6 %
		<u>Y</u>	0.68	73.95	19.23		150.0	
10517-		Z	0.52	70.86	16.45		150.0	
	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.71	64.33	14.51	0.00	150.0	± 9.6 %
		Y	0.83	66.01	15.95		150.0	
10518-		Z	0.72	<u>64</u> .67	14.76		150.0	
AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.38	66.55	16.05	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.46	66.94	16.23		150.0	
10519-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12	Z	4.35	66.64	16.08	·	150.0	
4AB	Mbps, 99pc duty cycle)	X	4.55	66.77	16.16	0.00	150.0	± 9.6 %
		Y	4.62	67.14	16.33		150.0	
10520-		Z	4.51	66.84	16.19		150.0	
AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.40	66.71	16.07	0.00	150.0	± 9.6 %
	<u> </u>	Y.	4.48	67.10	16.26		150.0	
10521-		Z	4.37	66.78	16.10		150.0	
	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.34	66.70	16.06	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.42	67.10	16.25		150.0	
10522-		Z	4.30	66.76	16.08		150.0	
AA <u>B</u>	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.40	66.82	16.16	0.00	150.0	±9.6 %
	<u> </u>	Ý	4.48	67.21	16.34		150.0	
	1	Z	4.36	66.90	16.19		150.0	

10523-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48	X	4.29	66.70	16.01	0.00	150.0	± 9.6 %
AAB	Mbps, 99pc duty cycle)		4.23	00.10		0.00		10.0 %
		Y	4.37	67.12	16.22		150.0	
		Z	4.26	66.81	16.06		150.0	
10524- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.34	66.74	16.12	0.00	150.0	± 9.6 %
		Y	4.42	67.13	16.31		150.0	
		Z	4.30	66.82	16.16		1 <u>50.0</u>	
10525- AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.34	65.80	15.73	0.00	150.0	± 9.6 %
		Y	4.43	66.22	15.92		150.0	
		Z	4.32	65.90	15.77		150.0	
10526- AAB	IEEE 802.11ac WiFi (20MHz, MCS1, _99pc duty cycle)	X	4.50	66.14	15.86	0.00	150.0	±9.6 %
		Y	4 <u>.58</u>	66.55	16.05		150.0	
		Z	4.46	66.22	15.90		150.0	
10527- AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.42	66.09	15.80	0.00	150.0	± 9.6 %
		Ϋ́	4.50	66.52	16.00		150.0	
		Z	4.38	66.18	15.84		150.0	
10528- AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	Х	4.44	66.11	15.83	0.00	150.0	± 9.6 %
		Y	4.52	66.53	16.03		150.0	
l		Z	4.40	66.19	15.87		150.0	
10529- AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	Х	4.44	66.11	15.83	0.00	150.0	± 9.6 %
		Ϋ́	4.52	66.53	16.03		150.0	
		Z	4.40	66.19	15.87		150.0	
10531- AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.42	66.18	15.83	0.00	150.0	± 9.6 %
		Y	4.50	66.61	16.03		150.0	
		Z	4.37	66.25	15.86		150.0	
10532- AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.29	66.04	15.76	0.00	150.0	± 9.6 %
		Y	4.37	66.48	15.97		150.0	
		Z	4.25	66.11	15.79		150.0	
10533- AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.44	66.17	15.83	0.00	150.0	± 9.6 %
		Y	4.53	66.60	16.03		150.0	
		Z	4.41	66.26	15.87		150.0	
10534- AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	4.98	66.20	15.91	0.00	150.0	±9.6 %
		Y	5.05	66.57	16.06		150.0	
		Z	4.95	66.26	15.95		150.0	
10535- AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.05	66.39	16.00	0.00	150.0	±9.6 %
		Y	5.11	66.72	16.13		150.0	
		Z	5.01	66.43	16.03		150.0	
10536- AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	4.92	66.34	15.95	0.00	150.0	± 9.6 %
		Y	4.99	66.70	16.10		150.0	
		Z	4.89	66.40	15.99		150.0	-
10537- AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	4.98	66.30	15.94	0.00	150.0	± 9.6 %
		Y	5.04	66.66	16.08		150.0	
		Z	4.95	66.35	15.97	ļ	150.0	
10538- AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.06	66.31	15.98	0.00	150.0	± 9.6 %
		Y	5.12	66.65	16.12	<u> </u>	150.0	
		Z	5.02	66.35	16.01		150.0	
10540- AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	4.99	66.30	16.00	0.00	150.0	± 9.6 %
		Y	5.05	66.64	16.13		150.0	1
		Z	4.95	66.33	16.02		150.0	1

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10541-								uary 14, 201
AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	4.97	66.19	15.93	0.00	150.0	± 9.6 %
		Y	5.03	66.55	16.07	<u> </u>	150.0	
10542-		<u>Z</u>	4.93	66.22	15.95		150.0	
AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.12	66.28	15.99	0.00	150.0	±9.6 %
		Ý	5.19	66.62	16.12		150.0	+
10543-		Z	5.09	66.32	16.02		150.0	<u>+</u>
AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.19	66.29	16.02	0.00	150.0	± 9.6 %
		<u>Y</u>	5.25	66.63	16.15		150.0	
10544-		Z	5.15	66.34	16.05		150.0	
AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.31	66.31	15.91	0.00	150.0	± 9.6 %
		<u>Y</u>	5.37	66.66	16.05		150.0	
10545-	IEEE 802.11ac WiFi (80MHz, MCS1,	Z	5.28	66.35	15.94		150.0	
AAB	99pc duty cycle)	X	5.50	66.75	16.09	0.00	150.0	± 9.6 %
		- Y	5.54	67.02	16.18		150.0	
10546-	IEEE 802.11ac WiFi (80MHz, MCS2,	Z	5.47	66.79	16.11		150.0	
<u>AAB</u>	99pc duty cycle)	×	5.36	66.48	15.97	0.00	150.0	± 9.6 %
		Y	5.42	66.83	16.10		150.0	
10547-	IEEE 802.11ac WiFi (80MHz, MCS3,	<u>Z</u>	5.33	66.50	15.98		150.0	
	99pc duty cycle)	X	5.43	66.54	15.99	0.00	150.0	± 9.6 %
		<u>Y</u>	5.49	66.87	16.11	_	150.0	
10548-	IEEE 802.11ac WiFi (80MHz, MCS4,	Z	5.40	66.57	16.01		150.0	
<u>AAB</u>	99pc duty cycle)	X	5.66	67.42	16.40	0.00	150.0	± 9.6 %
	+	Y	5.65	67.55	16.42		150.0	
10550-		_ Z	5.60	67.37	16.38		150.0	
AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.40	66.56	16.02	0.00	150.0	± 9.6 %
		Ý	5.45	66.87	16.13		150.0	
10551-		Z	5.37	66.62	<u>16.05</u>		150.0	
AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.39	66.55	15.97	0.00	150.0	± 9.6 %
		Y	5.45	66.88	16.09		150.0	
10552-		Z	5.35	66.53	15.97		150.0	
AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.32	66.38	15.89	0.00	150.0	±9.6%
	<u> </u>	<u>Y</u>	5.38	66.76	16.04		150.0	
10553-		- <u>Z</u>	5.29	66.43	15.92		150.0	
AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	×	5.39	66.39	15.93	0.00	150.0	± 9.6 %
	<u> </u>	Y	5.45	66.75	16.07		150.0	
10551		Z	5.36	66.42	15.95		150.0	
10554- \AC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.72	66.67	16.01	0.00	150.0	± 9.6 %
	<u> </u>	Ý	5.77	67.00	16.12		150.0	
10555-		Z	5.70	66.69	16.02		150.0	
AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	5.84	66.96	16.13	0.00	150.0	± 9.6 %
		Y	5.88	67.25	16.23		150.0	
10556-		Z	5.81	66.97	16.14		150.0	
AC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	5.87	67.02	16.15	0.00	150.0	± 9.6 %
		Y	5.91	67.31	16.25		150.0	
0557			5.84	67.04	16.17		150.0	
10557- AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	5.83	66.90	16.11	0.00	150.0	±9.6 %
		Y	5.87	67.22	16.22		150.0	
		Z	5.80	66.91	16.13		150.0	

10558- AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	5.87	67.06	16.20	0.00	150.0	± 9.6 %
		Y	5.91	67.36	16.31		150.0	
	· · · · · · · · · · · · · · · · · · ·	z	5.83	67.06	16.21		150.0	
10560- AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	x	5.86	66.91	16.17	0.00	150.0	±9.6 %
		Y	5.92	67.23	16.28		150.0	
		Z	5.83	66.92	16.18		150.0	
10561-	IEEE 802.11ac WiFi (160MHz, MCS7,	x	5.80	66.89	16.20	0.00	150.0	±9.6 %
AAC	99pc duty cycle)	Y	5.84	67.19	16.30		150.0	_
					16.30		150.0	
		Z	5.77	66.91	16.21	0.00	150.0	± 9.6 %
10562- AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	5.89	67.20		0.00	-	± 9.0 %
		Y	5.93	67.48	16.44		150.0	
		Z	5.84 _	67.16	16.34		150.0	
10563- AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.00	67.15	16.29	0.00	150.0	± 9.6 %
		Y	6.02	67.38	16.35		150.0	
_		Z	5.93	67.06	16.25		150.0	
10564- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	X	4.70	66.60	16.19	0.46	150.0	± 9.6 %
<u>/////\</u>		Ŷ	4.77	66.96	16.34		150.0	
		z	4.67	66.68	16.22		150.0	
10565-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	X	4.92	67.06	16.53	0.46	150.0	± 9.6 %
	OFDM, 12 Mbps, 99pc duty cycle)					0.40		± 0.0 %
		≺	4.99	67.39	16.67		150.0	
		Z	4.88	67.12	16.55		150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	4.75	66.88	16.33	0.46	150.0	± 9.6 %
		Y	4.82	67.22	16.47		150.0	
		Z	4.71	66.94	16.35		150.0	i
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	Х	4.79	67.31	16.72	0.46	150.0	± 9.6 %
7000		Y	4.86	67.67	16.87		150.0	
	<u> </u>	Ż	4.75	67.38	16.75		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	X	4.66	66.64	16.08	0.46	150.0	± 9.6 %
7000		Y	4.73	66.98	16.23		150.0	
		Z	4.62	66.69	16.09		150.0	
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	4.76	67.45	16.81	0.46	150.0	± 9.6 %
~~~		Y	4.83	67.82	16.96		150.0	
		- <u>-</u>	4.73	67.57	16.86		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	X	4.78	67.26	16.71	0.46	150.0	± 9.6 %
~~~		Ŷ	4.85	67.62	16.86		150.0	
		Z	4.85	67.35	16.75		150.0	
10571-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.05	63.78	14.98	0.46	130.0	± 9.6 %
AAA		Y	1.16	64.84	15.77		130.0	
	·	Z		64.03	15.14		130.0	
10572-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2		1.06	64.03		- 0.46	130.0	± 9.6 %
AAA	Mbps, 90pc duty cycle)				15.34	0.46		1 9.0 %
<u> </u>		Y	1.17	65.47	16.16		130.0	
L		Z	1.07	64.63	15.52		130.0	
10573- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	1.81	84.33	21.65	0.46	130.0	± 9.6 %
		Y	2.93	92.85	25.80		130.0	
		Z	2.19	87.52	22.91		130.0	
10574- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.15	70.21	18.29	0.46	130.0	± 9.6 %
		Ŷ	1.33	72.12	19.55	1	130.0	
		Z	1.19	70.90	18.68	·· <del>  ·</del> · · · · · · · · · · · · · · · · · ·	130.0	1
L		<u> </u>	1 1.19	1 70.90	00.00	1	1 120.0	1

10575-					<u> </u>			
_AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 90pc duty cycle)	X	4.49	66.39	16.24	0.46	130.0	± 9.6 %
		Y	4.55	66.72	16.36		130.0	
		Z	4.46	66.48	16.26	· · · -	130.0	
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.51	66.57	16.31	0.46	130.0	± 9.6 %
		Y	4.58	66.91	16.44		130.0	
		Z	4.48	66.67	16.34		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	X	4.70	66.85	16.48	0.46	130.0	± 9.6 %
		Y	4.77	67.17	16.60		130.0	
		Z	4.67	66.93	16.51		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	x	4.60	67.01	16.59	0.46	130.0	± 9.6 %
		Y	4.67	67.35	16.72		130.0	
		Z	4.57	67.10	16.62		130.0	+
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.36	66.21	15.83	0.46	130.0	± 9.6 %
		Y	4.42	66.54	15.97		130.0	
		Ż	4.32	66.26	15.84	<u> </u>	130.0	
10580- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.40	66.27	15.86	0.46	130.0	±9.6 %
		Y	4.46	66.59	16.00		130.0	
		Z	4.36	66.33	15.88	<u> </u>	130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	X	4.50	67.05	16.53	0.46	130.0	± 9.6 %
		Y	4.57	67.39	16.67		130.0	
		Z	4.47	67.15	16.57		130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.29	65.96	15.60	0.46	130.0	± 9.6 %
		Y	4.35	66.28	15.74		130.0	
		Z	4.25	66.00	15.61		130.0	
10583- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.49	66.39	16.24	0.46	130.0	± 9.6 %
		Y	4.55	66.72	16.36		130.0	
		z	4.46	66.48	16.26		130.0	
10584- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.51	66.57	16.31	0.46	130.0	± 9.6 %
		Y	4.58	66.91	16.44		130.0	<u> </u>
		z	4.48	66.67	16.34		130.0	
10585- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.70	66.85	16.48	0.46	130.0	± 9.6 %
		Y	4.77	67.17	16.60		130.0	
		z	4.67	66.93	16.51		130.0	
10586- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	Ī	4.60	67.01	16.59	0.46	130.0	± 9.6 %
		Y	4.67	67.35	16.72		130.0	
		ż i	4.57	67.10	16.62		130.0	<u> </u>
10587- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4,36	66.21	15.83	0.46	130.0	± 9.6 %
		Y	4.42	66.54	15.97		130.0	
		Z	4.32	66.26	15.84		130.0	
10588- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.40	66.27	15.86	0.46	130.0	± 9.6 %
		Y	4.46	66.59	16.00	•	130.0	
		Z	4.36	66.33	15.88		130.0	
10589- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.50	67.05	16.53	0.46	130.0	±9.6 %
		Y	4.57	67.39	16.67		130.0	
		Z	4.47	67.15	16.57		130.0	
10590- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	×	4.29	65.96	15.60	0.46	130.0	±9.6 %
		Y	4.35	66.28	15.74		130.0	
			7.00	00.20	10.74		30.0	

10591- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.64	66.47	16.35	0.46	130.0	± 9.6 %
		Y	4.70	66.79	16.47		130.0	
	· ·	Z	4.61	66.56	16.38		130.0	
10592- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	4.78	66.80	16.49	0.46	130.0	± 9.6 %
		Y	4.84	67.11	16.60		130.0	
		Z	4.75	66.87	16.51		130.0	
10593- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.70	66.68	16.35	0.46	130.0	± 9.6 %
		Y	4.76	67.00	16.47		130.0	
		Z	4.66	66.75	16.37		130.0	
10594- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.76	66.86	16.52	0.46	130.0	±9.6 %
		Y	4.82	67.18	16.63		130.0	
		Z	4.72	66.94	16.54		130.0	
10595- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.72	66.81	16.41	0.46	130.0	± 9.6 %
		Y	4.78	67.13	16.53		130.0	
		Z	4.68	66.89	16.44		130.0	
10596- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.66	66.80	16.40	0.46	130.0	± 9.6 %
		Y	4.72	67.12	16.53		130.0	
		Z	4.62	66.87	16.43		130.0	
10597- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.60	66.68	16.27	0.46	130.0	± 9.6 %
		Y	4.67	67.01	16.40		130.0	
		Z	4.57	66.74	16.29		130.0	
10598- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.59	66.93	16.55	0.46	130.0	± 9.6 %
		Y	4.66	67.26	16.68		130.0	
		Z	4.56	67.00	16.58		130.0	
10599- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.32	67.00	16.59	0.46	130.0	± 9.6 %
		Y	5.34	67.19	16.62		130.0	
		Z	5.28	67.04	16.61		130.0	
10600- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.45	67.42	16.77	0.46	130.0	± 9.6 %
		Y	5.44	67.51	16.75		130.0	
		Z	5.41	67.45	16.79		130.0	
10601- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.34	67.16	16.66	0.46	130.0	±9.6 %
		Y	5.36	67.35	16.69		130.0	
	· · · · · · · · · · · · · · · · · · ·	Z	5.30	67.21	16.68		130.0	
10602- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.45	67.27	16.63	0.46	130.0	± 9.6 %
		Y	5.48	67.47	16.67		130.0	
		Z	5.43	67.37	16.68		130.0	
10603- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	x	5.52	67.55	16.90	0.46	130.0	± 9.6 %
		Y	5.54	67.72	16.93		130.0	
		Z	5.50	67.66	16.96		130.0	
10604- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.38	67.16	16.70	0.46	130.0	± 9.6 %
		Ý	5.41	67.36	16.73	1	_130.0	
		Z	5.38	67.32	16.78		130.0	
10605- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.44	67.34	16.78	0.46	130.0	± 9.6 %
		Y	5.45	67.47	16.78		130.0	
		Z	5.41	67.37	16.80		130.0	
10606- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.17	66.57	16.25	0.46	130.0	± 9.6 %
		Y	5.21	66.82	16.32	-	130.0	-
	· · · · · · · · · · · · · · · · · · ·	Z	5.14	66.65	16.29	4	130.0	

10607- AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	_ x	4.48	65.79	15.98	0.46	130.0	± 9.6 %
					<u> </u>		<u> </u>	L
	·		4.55	66.14	16.12		130.0	
10608-		Z	4.46	<u>65.</u> 89	16.02		130.0	
AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.65	66.17	16.14	0.46	130.0	± 9.6 %
		Y	4.72	66.52	16.28		130.0	
		Z	4.61	66.26	16.18		130.0	
10609- AAB	IEEE 802.11ac WiFI (20MHz, MCS2, 90pc duty cycle)	X	4.54	66.00	15.96	0.46	130.0	± 9.6 %
		Y	4.61	66.36	16.11		130.0	
		Z	4.51	66.08	15.99		130.0	<u> </u>
10610- AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.59	66.17	16.14	0.46	130.0	± 9.6 %
		Y	4.66	66.53	16.28		130.0	
		Z	4.56	66.26	16.17		130.0	
10611- AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.51	65.97	15.97	0.46	130.0	± 9.6 %
		Y	4.57	66.32	16.12		130.0	
		Z	4.47	66.05	16.01	<u>-</u>	130.0	
10612- AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.51	66.11	16.01	0.46	130.0	± 9.6 %
		Y	4.58	66.46	16.16	— <u> </u>	130.0	
		Z	4.47	66.19	16.05		130.0	<u> </u>
10613- AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.51	65.96	15.88	0.46	130.0	± 9.6 %
		Y	4.57	66.31	16.02		130.0	
		Z	4.46	66.02	15.90		130.0	
10614- AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.46	66.18	16.13	0.46	130.0	± 9.6 %
		Ý	4.53	66.55	16.29		130.0	
		Z	4.43	66.26	16.17		130.0	
10615- AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.50	65.78	15.73	0.46	130.0	± 9.6 %
		Y	4.57	66.13	15.88		130.0	
		Z	4.46	65.86	15.76		130.0	
10616- AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.13	66.23	16.19	0.46	130.0	± 9.6 %
		Y	5.18	66.52	16.28		130.0	
		Ž	5.10	66.28	16.22		130.0	
10617- AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.21	66.44	16.26	0.46	130.0	± 9.6 %
		Y	5.24	66.68	16.33		130.0	
		Z	5.17	66.48	16.29		130.0	
10618- AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.09	66.44	16.28	0.46	130.0	± 9.6 %
		Y	5.14	66.73	16.37		130.0	
100.0		Z	5.07	66.51	16.32		130.0	
10619- AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.10	66.22	16.10	0.46	130.0	± 9.6 %
	<u> </u>	Y_	5.14	66.49	16.19		130.0	
		Z	5.07	66.27	16.13		130.0	
10620- AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.19	66.25	16.17	0.46	130.0	± 9.6 %
		Y	5.23	66.52	16.25		130.0	
1000 1		<u>Z</u>	5.15	66.30	16.20		130.0	
10621- AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	×	5.20	66.42	16.38	0.46	130.0	± 9.6 %
		Y	5.25	66.70	16.46		130.0	
1		Z	5.17	66.46	16.41		130.0	
10622- AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.21	66.59	16.46	0.46	130.0	± 9.6 %
		Y	5.25	66.84	16.53		130.0	
		Z	5.16	66.58				

10623- AAB								
	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.08	66.07	16.06	0.46	130.0	±9.6 %
		Y	5.13	66.35	16.15		130.0	
		Z	5.04	66.08	16.07		130.0	
10624- AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.27	66.29	16.24	0.46	130.0	±9.6 %
		Y	5.32	66.55	16.31		130.0	
		Z	5.24	66.33	16.26		130.0	
10625- AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.56	67.05	16.67	0.46	130.0	± 9.6 %
		Y	5.57	67.20	16.69	1	130.0	
		Z	5.45	66.85	16.58		130.0	
10626-	IEEE 802.11ac WiFi (80MHz, MCS0,	X	5.45	66.29	16.56	0.46	130.0	±9.6 %
AAB	90pc duty cycle)					0.40		19.0 %
		Y	5.49	66.58	16.24		130.0	
		Z	5.42	66.33	16.18		130.0	
10627- AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.69	66.90	16.42	0.46	130.0	± 9.6 %
		Y	5.70	67.08	16.45		130.0	
		Z	5.66	66.94	16.45		130.0	
	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.46	66.33	16.07	0.46	130.0	±9.6 %
		Y	5.50	66.60	16.14		130.0	
		Z	5.42	66.33	16.07		130.0	
10629- AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.54	66.41	16.10	0.46	130.0	± 9.6 %
<u>,,,,</u>		Y	5.57	66.66	16.17		130.0	
		z	5.51	66.44	16.12		130.0	
10630-	IEEE 802.11ac WiFi (80MHz, MCS4,	X	5.93	67.80	16.79	0.46	130.0	± 9.6 %
	90pc duty cycle)					0.40		1 9.0 %
	· · · · · · · · · · · · · · · · · · ·	Y	5.86	67.72	16.70		130.0	
40004		Z	5.85	67.67	16.74		130.0	
10631- AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.84	67.65	16.92	0.46	130.0	± 9.6 %
		Y	5.86	67.82	1 <u>6.9</u> 4		130.0	
		Z	5.79	67.61	16.91		130.0	
10632- AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.66	66.99	16.61	0.46	130.0	± 9.6 %
		Y	5.68	67.19	16.65		130.0	
		Z	5.64	67.07	16.66		130.0	
10633- AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.53	66.52	16.20	0.46	130.0	± 9.6 %
		- Y	5.57	66.82	16.28		130.0	
	· · · · · · · · · · · · · · · · · · ·	Ż	5.50	66.56	16.22		130.0	
10634- AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.51	66.55	16.27	0.46	130.0	± 9.6 %
		Y	5.56	66.86	16.37		130.0	
		Z	5.48	66.58	16.29	<u> </u>	130.0	
10635- AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.38	65.83	15.63	0.46	130.0	± 9.6 %
		Y	5.42	66.12	15.72	-	130.0	+
		Z	5.34	65.82	15.63		130.0	
10636-	IEEE 802.11ac WiFi (160MHz, MCS0,	X	5.87			0.46		+0-0 %
AAC	90pc duty cycle)			66.66	16.24	0.46	130.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	5.90	66.93	16.31	<u> </u>	130.0	
			5.85	66.69	16.27	<u> </u>	130.0	
				1 67 OF	16/2	0.46	130.0	
10637- AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	x_	6.02	67.05	16.42	0.40		± 9.6 %
10637-		Y	6.04	67.05	16.42		130.0	± 9.6 %
10637- AAC	90pc duty cycle)							± 9.6 %
10637- AAC 10638-	90pc duty cycle)	Y	6.04	67.25	16.46	0.46	130.0	± 9.6 %
10637- AAC	90pc duty cycle)	Y Z	6.04 5.99	67.25 67.06	16.46 16.43		130.0 130.0	

10639-	IEEE 802.11ac WiFi (160MHz, MCS3,		En					ruary 14, 2(
AAC	90pc duty cycle)		( 5.99	66.94	16.39	0.46	130.0	± 9.6 %
		Y		67.20	16.45		130.0	<u> </u>
10640-		Z	5.96	66.96	16.40		130.0	
AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)		5.99	66.93	16.32	0.46	130.0	± 9.6 9
		Y		67.17	16.38	+	130.0	
10641-		Z		66.93	16.33		130.0	
AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.05	66.90	16.33	0.46	130.0	± 9.6 %
		Y		67.10	16.36	+	130.0	
10642-	IEEE 802.11ac WiFi (160MHz, MCS6,	Z		66.93	16.35		130.0	
AAC	90pc duty cycle)	X		67.13	16.62	0.46	130.0	± 9.6 %
		- <u>Y</u>		67.39	16.68	† <b>-</b>	130.0	<u> </u>
10643-	IEEE 802.11ac WiFi (160MHz, MCS7,	Z		67.15	16.64		130.0	<u> </u>
AAC 90pc duty cycle)	90pc duty cycle)	X		66.82	16.35	0.46	130.0	± 9.6 %
		<u> </u>		67.04	16.40		130.0	+
10644-	IEEE 802.11ac WiFi (160MHz, MCS8,	Z		66.84	16.37		130.0	<u>+</u>
AAC 90pc duty	90pc duty cycle)			67.19	16.56	0.46	130.0	± 9.6 %
		$- \overline{Y}$	6.06	67.41	16.60		130.0	<u> </u>
10645-	IEEE 802.11ac WiFi (160MHz, MCS9,	Z	5.99	67.13	16.53		130.0	
AAC	90pc duty cycle)	X	6.20	67.30	16.58	0.46	130.0	± 9.6 %
		Ŷ	6.18	67.42	16.57		130.0	
10646-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz,	- <u>Z</u>	6.12	67.19	16.53		130.0	
AAD	QPSK, UL Subframe=2,7)		13.97	103.27	34.96	9.30	60.0	± 9.6 %
		Y	20.81	112.89	38.12		60.0	
10647-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz,	<u>Z</u>	13.67	103.09	35.06		60.0	
AAC	QPSK, UL Subframe=2,7)		12.30	101.10	34.41	9.30	60.0	± 9.6 %
		<u>Y</u> Z	17.37	109.51	37.26		60.0	
10648-	CDMA2000 (1x Advanced)		12.00	100.85	34.49		60.0	
1AA			0.49	61.28	8.20	0.00	150.0	± 9.6 %
		- Y	0.65	63.85	10.60		150.0	
0652-	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1,	Z	0.46	61.03	7.80		150.0	
AB	Clipping 44%)	X	3.40	66.41	16.15	2.23	80.0	± 9.6 %
			3.58	67.18	16.52		80.0	
0653- AB	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	3.42 3.94	66.69 65.81	16.22 16.40	2.23	80.0 80.0	± 9.6 %
		Υ Υ	4.08	66.40	16.64			
		ż	3.94	66.00	16.64 16.46		80.0	
0654- AB	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	3.93	65.47	16.46	2.23	80.0 80.0	± 9.6 %
		Y	4.06	66.03	16.64			
0655		Z	3.94	65.63	16.48		<u>    80.0    </u> 80.0	
0655- AB	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	3.99	65.43	16.46	2.23	80.0	±9.6 %
		Y	4.13	65.99	16.67	+	80.0	
0658-	Pulso Mountain (0001)	Ζ	4.01	65.58	16.52		80.0	
AA	Pulse Waveform (200Hz, 10%)	X	7.13	77.36	16.21	10.00	50.0	±9.6 %
		Y	16.32	87.94	19.95		50.0	
0659-	Pulse Wayoform (00011- 0001)	Z	9.11	80.61	17.72		50.0	
4A	Pulse Waveform (200Hz, 20%)	X	35.68	94.53	19.76	6.99	60.0	±9.6 %
		Ý	100.00	107.23	23.45			
		z	100.00	106.51	_23.43		60.0	

10660-	Pulse Waveform (200Hz, 40%)	X	100.00	100.10	18.83	3.98	80.0	±9.6 %
AAA			100.00	106,47	21.86		80.0	
		Ż	100.00	102.58	20.01		80.0	
10661-	Pulse Waveform (200Hz, 60%)	X	1.25	67.33	8.37	2.22	100.0	± 9.6 %
AAA		Ý	100.00	108.17	21.47		100.0	
		Z	100.00	96.28	16.23		100.0	
10662-	Pulse Waveform (200Hz, 80%)	x	0.30	60.00	2.55	0.97	120.0	± 9.6 %
<u>AAA</u>	- <u> </u>		100.00	113.09	21.91		120.0	
<u> </u>		Z	0.20	60.00	3.18		120.0	

<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.

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





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S Swiss Calibration Service

Accreditation No.: SCS 0108

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

Client PC Test

Certificate No: EX3-7308\_Aug17

## **CALIBRATION CERTIFICATE**

Object

EX3DV4 - SN:7308

Calibration procedure(s)

QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes

Calibration date:

August 16, 2017

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-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. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	31-Dec-16 (No. ES3-3013_Dec16)	Dec-17
DAE4	SN: 660	7-Dec-16 (No. DAE4-660_Dec16)	Dec-17
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibreted by:	Leif Klysner	Laboratory Technician	NIII IIII.
			4 mig
Approved by:	Kalja Pokovic	Technical Manager	A H
			Issued: August 16, 2017
This calibration certificat	e shall not be reproduced except in f	ull without written approval of the lab	ioratory.

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



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

# Probe EX3DV4

## SN:7308

Manufactured: Calibrated:

March 11, 2014 August 16, 2017

Calibrated for DASY/EASY Systems (Note: non-compatible with DASY2 system!)

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (µV/(V/m) <sup>2</sup> ) <sup>A</sup>	0.49	0.60	0.44	± 10.1 %
DCP (mV) <sup>B</sup>	97.0	91.7	98.5	

#### **Modulation Calibration Parameters**

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc <sup>⊨</sup> (k=2)
0	CW	X	0.0	0.0	1.0	0.00	134.5	±3.3 %
		Y	0.0	0.0	1.0		130.8	
		Z	0.0	0.0	1.0		149.9	

Note: For details on UID parameters see Appendix.

#### **Sensor Model Parameters**

	C1 fF	C2 fF	α V <sup>-1</sup>	T1 ms.V <sup>-2</sup>	T2 ms.V⁻¹	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	Т6
X	46.65	351.1	36.16	14.68	0.000	5.088	0.834	0.399	1.005
Y	52.88	402.1	36.74	19.55	0.309	5.100	0.477	0.605	1.007
Z	36.70	273.3	35.48	9.322	0.000	5.034	0.373	0.314	1.002

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

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)
5250	35.9	4.71	5.25	5.25	5.25	0.35	1.80	± 13.1 %
5600	35.5	5.07	4.83	4.83	4.83	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.11	5.11	5.11	0.40	1.80	± 13.1 %

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

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

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) 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 ( $\epsilon$  and  $\sigma$ ) 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. <sup>6</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 frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

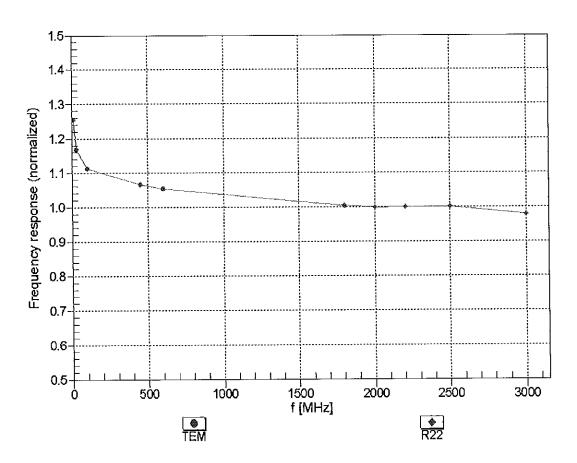
f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	10.39	10.39	10.39	0.54	0.85	± 12.0 %
835	55.2	0.97	10.21	10.21	10.21	0.47	0.84	± 12.0 %
1750	53.4	1.49	8.24	8.24	8.24	0.41	0.84	± 12.0 %
1900	53.3	1.52	7.96	7.96	7.96	0.37	0.80	± 12.0 %
2300	52.9	1.81	7.77	7.77	7.77	0.39	0.86	± 12.0 %
2450	52.7	1.95	7.66	7.66	7.66	0.35	0.85	± 12.0 %
2600	52.5	2.16	7.46	7.46	7.46	0.31	0.95	± 12.0 %
5250	48.9	5.36	4.84	4.84	4.84	0.35	1.90	± 13.1 %
5600	48.5	5.77	4.23	4.23	4.23	0.40	1.90	± 13.1 %
5750	48.3	5.94	4.50	4.50	4.50	0.40	1.90	± 13.1 %

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

<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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

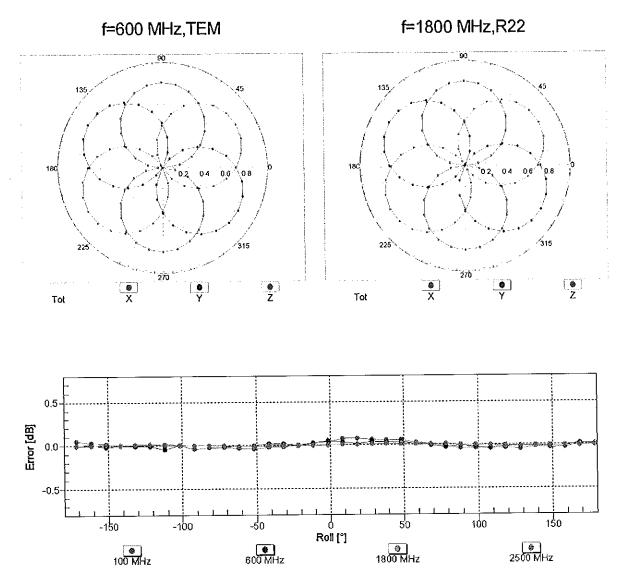
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. 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

<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.



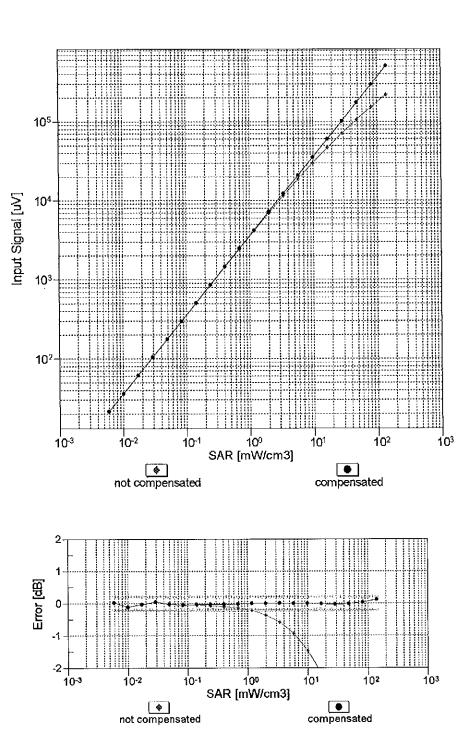
## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

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



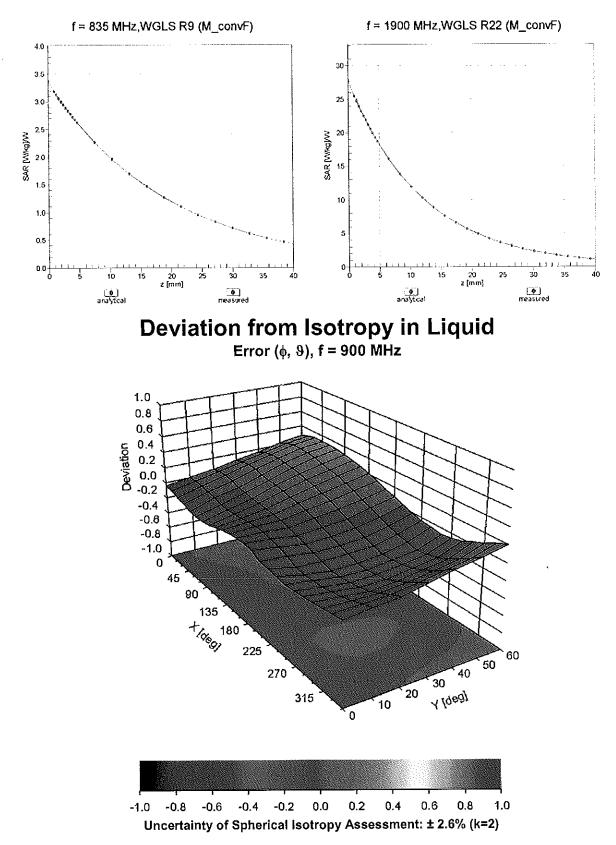
## Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

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**

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	108.4
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

#### Appendix: Modulation Calibration Parameters

ŪID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc <sup>E</sup> (k=2)
0	CW	Х	0.00	0.00	1.00	0.00	134.5	± 3.3 %
		Y	0.00	0.00	1.00		130.8	
10010-	SAR Validation (Square, 100ms, 10ms)	Z X	0.00 2.82	0.00 69.38	1.00 11.47	10.00	149.9 20.0	± 9.6 %
CAA	SAR Valuation (Square, 100ms, 10ms)	^	2.02	09.30	11.47	10.00	20.0	19.0 %
		Y	8.85	81.60	16.75		20.0	
		Ζ	1.57	63.55	8.34		20.0	
10011- CAB	UMTS-FDD (WCDMA)	X	1.10	68.34	15.94	0.00	150.0	±9.6 %
		Y	1.03	66.61	14.91		150.0	
10012-	IEEE 802.11b WiFI 2.4 GHz (DSSS, 1	Z X	1.05 1.19	68.21 64.20	15.74 15.65	0.41	150.0 150.0	±9.6 %
CAB	Mbps)			63.83	15.05	0.41	150.0	19.0 %
		Y Z	1.20 1.16	63.83	15.29		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	4.89	66.77	17.26	1.46	150.0	± 9.6 %
		Y	4.97	66.66	17.21		150.0	
		Z	4.71	66.76	17.06		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	100.00	115.21	27.27	9.39	50.0	± 9.6 %
		Y	100.00	118.99	29.62		50.0	
40000		Z	100.00	108.16	23.75	0.57	50.0	10.000
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	114.49	26.98 29.46	9.57	50.0 50.0	± 9.6 %
		Y Z	100.00 100.00	118.59 107.44	29.46		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	117.36	27.41	6.56	60.0	± 9.6 %
		Y	100.00	118.20	28.43		60.0	
		Z	100.00	109.72	23.49		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	9.43	102.43	43.37	12.57	50.0	± 9.6 %
		Y	5.76	81.81	33.21		50.0	
10000		ZX	6.64 12.23	89.92 103.58	37.39 38.33	9.56	50.0 60.0	±9.6 %
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	Y	12.23	103.58	37.54	9.00	60.0	19.0 %
		Z	6.87	89.09	32.73		60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	121.12	28.38	4.80	80.0	± 9.6 %
		Y	100.00	119.35	28.26		80.0	
		Z	100.00	113.58	24.47		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	×	100.00	126.40	29.97	3.55	100.0	± 9.6 %
		Y	100.00	121.68	28.61		100.0	
40000		ZX	100.00 6.36	119.83 85.88	26.46	7.80	80.0	± 9.6 %
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	^ Y	7.77	88.44	30.18	7.00	80.0	I 9.0 %
		Z	4.37	77.58	26.51		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	116.71	26.74	5.30	70.0	± 9.6 %
		Y	100.00	116.86	27.45		70.0	
		Z	100.00	108.46	22.53		70.0	1
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	130.68	30.26	1.88	100.0	± 9.6 %
ļ		Y	100.00	122.76	27.68		100.0	
		Z	100.00	121.33	25.72	<u> </u>	100.0	l

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10032-	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	146.47	35.43	1.17	100.0	± 9.6 %
CAA							100.0	20.0 %
		Y	100.00	130.05	29.64		100.0	
10033-	IEEE 902 46 4 Divelocity (DIVA DODDIV	Z	100.00	142.38	32.95		100.0	
CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	100.00	133.81	36.67	5.30	70.0	± 9.6 %
		Y	100.00	132.56	36.57		70.0	
10034-	1555 202 45 4 Pluste - 4 (Pl/4 Popol)	Z	18.79	102.95	27.19		70.0	
CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	7.76	92.37	23.91	1.88	100.0	± 9.6 %
		Y	6.00	87.65	22.68		100.0	
10035-		Z	3.22	78.87	18.00		100.0	
CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	3.37	81.04	19.87	1.17	100.0	± 9.6 %
		Y	2.89	77.85	18.94		100.0	
10036-	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Z	2.06	74.00	15.93		100.0	
CAA	TEEE 002.15.1 Bidelooin (8-DPSK, DH1)	X	100.00	134.35	36.91	5.30	70.0	± 9.6 %
		Y	100.00	133.01	36.79		70.0	
10037-	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)		38.41	113.99	30.14	L	70.0	
CAA	1222 602.15.1 Bidelooth (8-DPSK, DH3)	X	6.72	90.40	23.29	1.88	100.0	± 9.6 %
		<u>Y</u>	5.52	86.51	22.28		100.0	
10038-		Z	2.77	77.09	17.35		100.0	
	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	3.40	81.53	20.18	1.17	100.0	± 9.6 %
		Y	2.93	78.34	19.24		100.0	
10039-	CDMA2000 (1xRTT, RC1)	Z	2.07	74.35	16.21		100.0	
CAB		X	2.05	73.74	16.48	0.00	150.0	±9.6 %
		Y	1.78	70.97	15.59		150.0	
10042-	IS 54 / IS 426 FOD (TDMA/FDM DU/	Z	1.68	71.87	14.68		150.0	
CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	100.00	111.92	25.18	7.78	50.0	± 9.6 %
·		Y	100.00	114.62	26.97		50.0	· · · · · · · · · · · · · · · · · · ·
10044-	IS-91/EIA/TIA-553 FDD (FDMA, FM)	Z	100.00	105.38	21.87		50.0	
CAA	13-91/EIA/TIA-555 FDD (FDMA, FM)	X	0.00	97.13	0.41	0.00	150.0	± 9.6 %
·		Y	0.00	93.19	1.28		150.0	
10048-	DECT (TOD TONA (CDLL OFOUL T	Z	<u>    0</u> .01	94.96	0.54		150.0	
CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	100.00	111.98	26.96	13.80	25.0	±9.6 %
		Y	100.00	121.05	31.60		25.0	······································
10049-	DECT (TOD TOMA/EDM OFOX D	Ζ	34.07	91.91	20.28		25.0	
CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	1284.72	142.21	32.21	10.79	40.0	±9.6 %
		Y	100.00	117.51	29.18		40.0	
10056-	LIMTS TOD (TD SCDMA 4 20 Mars)	Z	145.96	109.32	23.74		40.0	
CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	Х	100.00	128.20	35.15	9.03	50.0	± 9.6 %
		Y	100.00	128.83	35.96		50.0	
10058-	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	Z	100.00	122.10	31.77		50.0	
DAC		X	4.71	78.88	26.31	6.55	100.0	±9.6 %
		Y	5.67	81.33	26.92		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	Z X	<u>3.54</u> 1.24	<u>73.15</u> 65.47	23.60 16.42	0.61	100.0 110.0	±9.6 %
		Y	1.27	65.00	10.40			
		Z	1.17	65.23	16.10		110.0	
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	<u>64.77</u> 144.38	15.84 38.50	1.30	<u>110.0</u> 110.0	± 9.6 %
		Y	100.00	138.88	26.40		410 -	
		Z	13.09		36.40		110.0	
		<u> </u>	10.09	112.30	30.84		110.0	

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10061- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	X	4.05	88.33	25.97	2.04	110.0	± 9.6 %
000	Mbps)	Y	4.75	88.86	25.68		440.0	
		Z	2.16	77.73	25.68		110.0 110.0	
10062- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.69	66.76	16.65	0.49	100.0	±9.6 %
		Y	4.76	66,60	16.58		100.0	
		Z	4.53	66.78	16.51		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.71	66.86	16.76	0.72	100.0	± 9.6 %
		Y	4.78	66.72	16.70		100.0	
		Z	4.54	66.86	16.60		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.99	67.12	16.99	0.86	100.0	± 9.6 %
		Y	5.09	67.02	16.95		100.0	
		Z	4.78	67.06	16.80		100.0	
10065- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.86	67.02	17.11	1.21	100.0	±9.6 %
		Y	4.96	66.95	17.08		100.0	
40000		Z	4.65	66.90	16.87		100.0	
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.88	67.05	17.29	1.46	100.0	±9.6 %
		Y	4.99	66.99	17.27		100.0	
40007		Z	4.65	66.88	17.02	0.04	100.0	100%
10067- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X Y	5.16	67.22	17.75	2.04	100.0	± 9.6 %
			5.27	67.12	17.71		100.0	1
10068- CAB	IEEE 802.11a/h WIFI 5 GHz (OFDM, 48 Mbps)	Z X	4.93 5.20	67.13 67.26	17.49 17.98	2.55	100.0 100.0	± 9.6 %
0/10		Y	5.34	67.28	18.00		100.0	
		Z	4.95	67.02	17.64		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.28	67.26	18.18	2.67	100.0	± 9.6 %
•,		Y	5.42	67.23	18.17		100.0	<u> </u>
		Z	5.02	67.05	17.83		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.98	66.86	17.58	1.99	100.0	± 9.6 %
		Y	5.07	66.77	17.55		100.0	
		Z	4.79	66.80	17.35	1	100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.95	67.19	17.81	2.30	100.0	± 9.6 %
		Y	5.06	67.16	17.80		100.0	
		Z	4.74	67.03	17.53		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.00	67.34	18.16	2.83	100.0	± 9.6 %
		Y	5.12	67.33	18.16	<u> </u>	100.0	
		Z	4.79	67.17	17.85		100.0	
10074- CAB	IEEE 802.11g WIFI 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.97	67.20	18.31	3.30	100.0	± 9.6 %
		Y	5.10	67.22	18.33		100.0	
		Z	4.78	67.07	17.99		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.00	67.30	18.63	3.82	90.0	± 9.6 %
		Y	<u>5.15</u>	67.40	18.70		90.0	
		Z	4.78	67.05	18.23		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.00	67.05	18.74	4.15	90.0	± 9.6 %
		Y	5.14	67.12	18.78		90.0	ļ
		Z	4.81	66.90	18.39	1	90.0	
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.02	67.11	18.84	4.30	90.0	± 9.6 %
		Y	5.16	67.16	18.87		90.0	- <b> </b>
		Z	4.84	66.97	18.50		90.0	

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10081- CAB	CDMA2000 (1xRTT, RC3)	X	0.91	67.10	13.23	0.00	150.0	± 9.6 %
		Ϋ́	0.87	65.55	12.69	<u> </u>	150.0	+
		Z	0.76	65.80	11.60	·	150.0	
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	X	0.67	60.00	4.34	4.77	80.0	± 9.6 %
		Y	0.83	60.00	4.98		80.0	<u> </u>
40000		Z	1.32	62.68	4.53	-	80.0	-
10090- DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	117.37	27.43	6.56	60.0	± 9.6 %
		<u> </u>	100.00	118.23	28.46		60.0	
10097-	UMTS-FDD (HSDPA)	Z	100.00	109.70	23.50	ļ	60.0	
CAB		X Y	1.89	68.18	16.03	0.00	150.0	± 9.6 %
			1.82	67.06	15.47		150.0	
10098-	UMTS-FDD (HSUPA, Subtest 2)	$\frac{z}{x}$	1.87	68.73	15.97		150.0	L
CAB			1.85	68.15	16.01	0.00	150.0	± 9.6 %
		Z	1.78 1.83	67.01	15.43		150.0	ļ
10099-	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	1.83	68.68 103.93	15.95		150.0	
DAC					38.44	9.56	60.0	± 9.6 %
		- <u>Y</u> Z	14.05	103.81	37.62		60.0	
10100-	LTE-FDD (SC-FDMA, 100% RB, 20	$\frac{2}{X}$	6.94 3.20	89.30	32.81	0.00	60.0	
CAD	MHz, QPSK)	Ŷ	3.15	70.68	16.98	0.00	150.0	± 9.6 %
		Z		69.96	16.53		150.0	
10101-	LTE-FDD (SC-FDMA, 100% RB, 20	X	3.05 3.27	70.44	16.91		150.0	
CAD	MHz, 16-QAM)			67.67	16.10	0.00	150.0	± 9.6 %
		Y	3.29	67.34	15.87		150.0	
10102- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	Z X	<u>3.15</u> 3.37	67.56 67.61	16.02 16.17	0.00	150.0 150.0	± 9.6 %
		Y	3.39			· · · · · · · · · · · · · · · · · · ·		
		Z	3.39	67.30	15.96	•	150.0	
10103- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.70	67.54 77.76	<u>16.10</u> 21.71	3.98	150.0 65.0	± 9.6 %
0/10		+						
•		Y	7.25	78.01	21.66		65.0	
10104-	LTE-TDD (SC-FDMA, 100% RB, 20	Z	5.31	74.49	20.24		65.0	
CAD	MHz, 16-QAM)	X	6.39	74.88	21.30	3.98	65.0	± 9.6 %
		Y .	7.01	75.63	21.49		65.0	
10105-	LTE-TDD (SC-FDMA, 100% RB, 20	Z	5.41	72.53	20.08		65.0	
CAD	MHz, 64-QAM)		5.93	73.22	20.87	3.98	65.0	±9.6 %
		Y	6.37	73.62	20.93		65.0	
10108- CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Z X	4.98 2.79	70.66 69.92	19.52 16.81	0.00	65.0 150.0	± 9.6 %
		Y	2.76	69,17	10.0-			
		z	2.63	69.76	16.35		150.0	
10109-	LTE-FDD (SC-FDMA, 100% RB, 10	X	2.03	67.55	16.75	0.00	150.0	
CAE	MHz, 16-QAM)	Y			16.01	0.00	150.0	± 9.6 %
· · ·	<u> </u>	$\frac{r}{Z}$	2.94	67.14	15.76		150.0	
10110- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.80 2.27	67.54 69.10	15.90 16.46	0.00	150.0 150.0	± 9.6 %
		† <sub>Y</sub> †	2.25	68.23	15.96		150.0	
		Z	2.13	69.06	16.32		150.0	
		1		0			150.0	
10111- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.65	68.45	16.32	0.00	150.0	±9.6 %
	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)		2.65	68.45 67.76	16.32	0.00	150.0 150.0	±9.6 %

10112-	LTE-FDD (SC-FDMA, 100% RB, 10		3.05	67.53	16.06	0.00	150.0	±9.6 %
CAE	MHz, 64-QAM)	1	0.00	07.00	10.00	0.00	100.0	1 3.0 %
		Y	3.07	67.13	15.82		150.0	
		Z	2.92	67.58	15.97		150.0	
10113- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.80	68.56	16.43	0.00	150.0	± 9.6 %
		Y	2.80	67.90	16.13		150.0	
		Z	2.69	68.93	16.32		150.0	
10114- CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.15	67.26	16.54	0.00	150.0	± 9.6 %
		Y	5.19	67.08	16.42		150.0	
		Z	4.99	67.20	16.47		150.0	
10115- CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.43	67.37	16.60	0.00	150.0	± 9.6 %
		Y	5.52	67.34	16.56		150.0	
10110		Z	5.24	67.27	16.51	0.00	150.0	1000
10116- CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.24	67.44	16.56	0.00	150.0	± 9.6 %
		Y	5.30	67.32	16.46		150.0	
10117		Z	5.08	67.39	16.50	A 66	150.0	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.11	67.11	16.48	0.00	150.0	± 9.6 %
		Y	5.16	66.99	16.39	l	150.0	ļ
		Z	4.99	67.15	16.47	L	150.0	
10118- CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X	5.51	67.58	16.71	0.00	150.0	± 9.6 %
		Y	5.61	67.54	16.67		150.0	
		Z	5.31	67.44	16.61		150.0	
10119- CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64- QAM)	X	5.22	67.40	16.54	0.00	150.0	± 9.6 %
		Y	5.27	67.25	16.44		150.0	
		Z	5.07	67.38	16.51		150.0	
10140- CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.41	67.63	16.10	0.00	150.0	± 9.6 %
		Y	3.43	67.31	15.88		150.0	
		Z	3.28	67.57	16.02		150.0	
10141- CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.53	67.71	16.25	0.00	150.0	± 9.6 %
		Y	3.55	67.40	16.05		150.0	
		Z	3.40	67.71	16.20		150.0	
10142- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	2.05	69.21	16.15	0.00	150.0	± 9.6 %
		Y	2.02	68.14	15.65		150.0	
		Ζ	1.90	69.18	15.79		150.0	
10143- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.53	69.32	16.06	0.00	150.0	± 9.6 %
		Y	2.50	68.40	15.76		150.0	
		Z	2.39	69.52	15.59	1	150.0	
10144- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.28	66.94	14.41	0.00	150.0	± 9.6 %
		Y	2.31	66.41	14.31		150.0	L
		Z	2.06	66.49	13.57	1	150.0	
10145- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.26	65.57	12.06	0.00	150.0	± 9.6 %
		Y	1.33	65.51	12.47		150.0	1
		Z	0.90	62.72	9.31		150.0	ļ
10146- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	1.87	65.71	11.26	0.00	150.0	± 9.6 %
		Y	2.34	67.84	13.03		150.0	
		Z	1.05	60.97	7.27		150.0	
10147- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	2.17	67.47	12.23	0.00	150.0	± 9.6 %
		Y	2.79	70.16	14.23		150.0	
		Z	1.11	61.38	7.60		150.0	1

10149- CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.93	67.61	16.06	0.00	150.0	± 9.6 %
		Y	2.95	67.20	15.81	+	150.0	<u> </u>
		Ż	2.81	67.60	15.95		150.0	
10150- CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.06	67.58	16.10	0.00	150.0	± 9.6 %
		Ý	3.08	67.18	15.86		150.0	
		Z	2.93	67.64	16.01		150.0	+
10151- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	7.47	81.50	23.31	3.98	65.0	± 9.6 %
		Y	8.13	81.64	23.19		65.0	<u> </u>
		Z	5.82	78.02	21.74	·	65.0	·
10152- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	5.96	75.09	21.13	3.98	65.0	± 9.6 %
		Y	6.59	75.82	21.34		65.0	
(		Z	4.95	72.53	19.69		65.0	
10153- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	6.33	76.00	21.87	3.98	65.0	± 9.6 %
		Y	6.98	76.72	22.08		65.0	<u> </u>
40454		Z	5.31	73.57	20.52		65.0	<u> </u>
10154- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.32	69.50	16.70	0.00	150.0	± 9.6 %
		Y	2.30	68.63	16.21		150.0	F
40425		Z	2.17	69.43	16.55	· · ·	150.0	
10155- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.65	68.47	16.34	0.00	150.0	± 9.6 %
		Y	2,64	67.77	16.01		150.0	<u> </u>
		Z	2.55	68.82	16.23	·	150.0	
10156- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.90	69.38	15.98	0.00	150.0	±9.6 %
		Y	1.87	68.22	15.49	· · · · · · · · · · · · · · · · · · ·	150.0	· · · · · · · · · · · · · · · · · · ·
		Z	1.73	69.10	15.35		150.0	
10157- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.13	67.61	14.49	0.00	150.0	±9.6 %
		Ý	2.14	66.94	14.37		150.0	·
10100		Z	1.88	66.88	13.39	····	150.0	· · · · · · · · · · · · · · · · · · ·
10158- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.80	68.62	16.48	0.00	150.0	± 9.6 %
		Y	2.80	67.95	16.18		150.0	
40450		Z	2.70	69.02	16.37		150.0	
10159- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.24	68.05	14.76	0.00	150.0	± 9.6 %
		Y	2.25	67.38	14.65		150.0	
40400		Z	1.97	67.26	13.62	-··.	150.0	
10160- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.79	68.96	16.56	0.00	150.0	± 9.6 %
		Y	2.78	68.29	16.16		150.0	
10101		Z	2.67	69.03	16.52		150.0	
10161- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.95	67.54	16.03	0.00	150.0	±9.6 %
		Y	2.97	67.10	15.79		150.0	
10160		<u>Z</u>	2.82	67.63	15.91		150.0	
10162- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.06	67.69	16.14	0.00	150.0	± 9.6 %
		Y	3.08	67.22	15.89		150.0	
10160		Z	2.94	67.84	16.05		150.0	
10166- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.60	69.71	19.22	3.01	150.0	± 9.6 %
		Y	3.76	69.53	19.10	· ,	150.0	
40407		Z	3.14	68.43	18.52		150.0	
10167- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.49	72.92	19.79	3.01	150.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	14	1 - 1					
		Y	4.71	72.48	19.58		150.0	

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10168- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	x	4.99	75.19	21.10	3.01	150.0	±9.6 %
	04-QAW)	Y	5.19	74.57	20.82		150.0	
		Z	4.03	73.14	20.02		150.0	
10169- CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	x	3.02	69.31	19.06	3.01	150.0	± 9.6 %
		Y	3.27	69.70	19.15		150.0	
		Z	2.51	66.78	17.76		150.0	
10170- CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	4.24	75.66	21.52	3.01	150.0	± 9.6 %
		Y	4.60	75.59	21.37		150.0	
		Z	3.08	71.28	19.66		150.0	
10171- AAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	3.48	71.52	18.79	3.01	150.0	± 9.6 %
		Y	3.80	71.54	18.73		150.0	
		Z	2.62	68.04	17.18		150.0	
10172- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	9.86	97.03	31.31	6.02	65.0	± 9.6 %
		Y	11.94	97.60	31.03		65.0	
		Z	3.49	77.54	23.86		65.0	
10173- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	35.90	116.24	34.55	6.02	65.0	± 9.6 %
		Y	33.36	111.72	33.12		65.0	
		Z	6.56	87.15	25.45	0.07	65.0	1000
10174- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	21.48	105.16	30.85	6.02	65.0	±9.6 %
		Y	20.65	101.59	29.68		65.0	
		Z	4.70	80.63	22.56		65.0	
10175- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.98	69.02	18.83	3.01	150.0	± 9.6 %
		Y	3.23	69.39	18.90		150.0	
		Z	2.49	66.55	17.55		150.0	
10176- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	4.24	75.68	21.53	3.01	150.0	± 9.6 %
		Y	4.61	75.61	21.38	<u> </u>	150.0	
		Z	3.09	71.30	19.67		150.0	
10177- CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	3.01	69.16	18.92	3.01	150.0	± 9.6 %
		Y	3.26	69.54	19.00		150.0	
		Z	2.50	66.65	17.62		150.0	
10178- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	4.21	75.48	21.42	3.01	150.0	± 9.6 %
		Y	4.56	75.38	21.26		150.0	
		Z	3.07	71.19	19.60		150.0	
10179- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.83	73.49	20.03	3.01	150.0	± 9.6 %
		Y	4.16	73.42	19.91		150.0	<u>+</u>
		Z	2.83	69.59	18.31		150.0	
10180- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	3.47	71.46	18.75	3.01	150.0	± 9.6 %
		Y	3.79	71.47	18.68		150.0	<b>_</b>
		Z	2.62	68.01	17.15	-	150.0	
10181- CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	3.00	69.14	18.91	3.01	150.0	± 9.6 %
		Y	3.26	69.52	18.99		150.0	ļ
		Z	2.50	66.64	17.62		150.0	100%
10182- CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	4.20	75.46	21.41	3.01	150.0	± 9.6 %
		Y	4.55	75.36	21.25		150.0	<b>_</b>
		Z	3.07	71.17	19.59		150.0	
10183- AAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	3.46	71.44	18.74	3.01	150.0	± 9.6 %
		Y	3.78	71.45	18.67		150.0	
<u> </u>		Z	2.62	68.00	17.14	1	150.0	· · · · · · · · · · · · · · · · · · ·

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10184- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	3.01	69.18	18.93	3.01	150.0	± 9.6 %
		Y	3.27	69.56	19.01	<u> </u>	150.0	<u> </u>
		Ż	2.51	66.67	17.63	· · · · ·		<u> </u>
10185- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	4.22	75.53	21.45	3.01	<u> </u>	± 9.6 %
······		Y	4.57	75.42	21.28		150.0	+
		Z	3.08	71.23	19.63	· · · · · ·	150.0	
10186- AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	3.48	71.51	18.77	3.01	150.0	± 9.6 %
		Y	3.80	71.51	18.70		150.0	
10/0-		Z	2.63	68.05	17.17		150.0	<u> </u>
10187- CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	3.02	69.24	19.00	3.01	150.0	± 9.6 %
		Y	3.28	69.61	19.07		150.0	
40400		Z	2.52	66.73	17.71		150.0	
10188- CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	4.35	76.17	21.80	3.01	150.0	± 9.6 %
		Y	4.72	76.08	21.65		150.0	
10400		<u>Z</u>	3.15	71.69	19.93		150.0	† — —
10189- AAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	3.56	71.93	19.04	3.01	150.0	± 9.6 %
		Y	3.88	71.93	18.97		150.0	
10193-		Z	2.67	68.37	17.41	-	150.0	
CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.54	66.68	16.24	0.00	150.0	± 9.6 %
		<u>Y</u>	4.59	66.47	16.13		150.0	
40404		Z	4.40	66.85	16.19		150.0	
10194- CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.70	66.99	16.36	0.00	150.0	± 9.6 %
		Y	4.77	66.80	16.26		150.0	
10/05		Z	4.55	67.09	16.33		150.0	
10195- CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.74	67.02	16.38	0.00	150.0	± 9.6 %
		Y	4.81	66.83	16.27		150.0	·
10100		Z	4.58	67.11	16.34		150.0	
10196- CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.54	66.74	16.25	0.00	150.0	± 9.6 %
<u> </u>		Y	4.60	66.55	16.16		150.0	
10407		Z	4.39	66.85	16.19		150.0	
10197- CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16- QAM)	X	4.72	67.01	16.37	0.00	150.0	± 9.6 %
		Y	4.78	66.83	16.27		150.0	
10100		Ζ.	4.56	67.10	16.33		150.0	
10198- CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64- QAM)	_X	4.75	67.04	16.39	0.00	150.0	± 9.6 %
		Y	4.81	66.85	16.28		150.0	
10210		Z	4.58	67.11	16.34		150.0	
10219- CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	х	4.49	66.76	16.22	0.00	150.0	± 9.6 %
		Y	4.55	66.56	16.12		150.0	
10220-	1555 902 44- (1)T MUL 10 211	Z	4.34	66.89	16.16		150.0	
CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16- QAM)	X	4.71	66.98	16.36	0.00	150.0	± 9.6 %
		Y	4.78	66.81	16.26		150.0	
10221- CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64- QAM)	Z X	<u>4.55</u> 4.75	67.06 66.96	16.32 16.37	0.00	150.0 150.0	± 9.6 %
		-,,-						
		Y	4.82	66.78	16.27		150.0	
10222-	IEEE 802.11n (HT Mixed, 15 Mbps,	_ <u>Z</u>	4.59	67.05	16.33		150.0	
CAB	BPSK)	X	5.08	67.12	16.48	0.00	150.0	±9.6 %
		Y	5.14	67.00	16.39		150.0	
		Z	4.96	67.13	16.45		150.0	

10223- CAB	IEEE 802.11n (HT Mixed, 90 Mbps, 16- QAM)	X	5.38	67.33	16.60	0.00	150.0	± 9.6 %
		Y	5.45	67.20	16.51		150.0	
		Ż	5.23	67.33	16.56		150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64- QAM)	X	5.13	67.23	16.46	0.00	150.0	± 9.6 %
		Y	5.19	67.11	16.37		150.0	
		Z	4.99	67.25	16.44		150.0	
10225- CAB	UMTS-FDD (HSPA+)	Х	2.82	66.29	15.44	0.00	150.0	± 9.6 %
		Y	2.85	65.89	15.31		150.0	
		Z	2.69	66.42	15.13		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	40.58	118.73	35.31	6.02	65.0	±9.6 %
		Y	36.88	113.76	33.77		65.0	
		Z	6.94	88.26	25.92		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	36.33	114.29	33.35	6.02	65.0	± 9.6 %
		Υ	31.30	108.87	31.78		65.0	
		Z	6.95	87.06	24.80		65.0	
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	х	13.65	104.05	33.59	6.02	65.0	±9.6 %
		Y	18.81	107.23	34.08		65.0	
		Z	4.50	82.80	25.97		65.0	
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	36.18	116.36	34.59	6.02	65.0	± 9.6 %
		Y	33.58	111.82	33.15		65.0	
		Z	6.61	87.25	25.49		65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	32.38	112.10	32.69	6.02	65.0	± 9.6 %
		Y	28.70	107.19	31.24		65.0	
		Z	6.54	85.97	24.36		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	12.84	102.68	33.09	6.02	65.0	± 9.6 %
		Y	17.62	105.78	33.56		65.0	
		Z	4.35	82.09	25.62		65.0	
10232- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	36.15	116.36	34.59	6.02	65.0	± 9.6 %
		Y	33.55	111.82	33.15		65.0	
		Z	6.59	87.23	25.48		65.0	
10233- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	32.28	112.07	32.68	6.02	65.0	±9.6 %
		Y	28.65	107.18	31.24		65.0	
		Z	6.52	85.93	24.35		65.0	
10234- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	12.22	101.47	32.58	6.02	65.0	± 9.6 %
		Y	16.65	104.42	33.04		65.0	ļ
		Z	4.24	81.51	25.28		65.0	
10235- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	36.31	116.46	34.62	6.02	65.0	± 9.6 %
		Y	33.66	111.90	33.18	1	65.0	
		Z	6.60	87.26	25.49		65.0	
10236- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	33.06	112.44	32.77	6.02	65.0	± 9.6 %
		Y	29.12	107.43	31.30		65.0	
]		Z	6.60	86.11	24.40	1	65.0	
10237- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	12.90	102.82	33.13	6.02	65.0	± 9.6 %
		Y	17.72	105.93	33.61		65.0	1
		Z	4.35	82.12	25.64		65.0	
10238- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	36.09	116.34	34.59	6.02	65.0	± 9.6 %
		Υ	33.52	111.82	33.15		65.0	
<u> </u>		Ż	6.58	87.20	25.47		65.0	1

10239- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	32.17	112.03	32.67	6.02	65.0	± 9.6 %
		Y	28.59	107.16	31.23		- 05.0	<u> </u>
		Ż	6.49	85.89	24.34	+	<u>65.0</u> 65.0	
10240- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	12.85	102.75	33.11	6.02	65.0	± 9.6 %
		Y	17.65	105.86	33.59	T	65.0	
10241-		Z	4.34	82.09	25.63		65.0	<u> </u>
CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	8.52	83.40	26.72	6.98	65.0	± 9.6 %
		Y	9.34	83.46	26.63		65.0	
10242-	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,	Z	6.49	79.39	24.77		65.0	1
CAA	64-QAM)		7.72	81.29	25.79	6.98	65.0	± 9.6 %
		Y	8.22	80.66	25.42		65.0	
10243-	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,	Z	5.72	76.85	23.63		65.0	
CAA	QPSK)	X	5.95	76.72	24.82	6.98	65.0	±9.6 %
		Y	6.41	76.67	24.65		65.0	
10244-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	ZX	4.75	73.34	22.98	<u> </u>	65.0	
CAB	16-QAM)		6.67	78.45	19.67	3.98	65.0	± 9.6 %
		Y Z	8.20	80.91	21.14		65.0	
10245-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	$\frac{2}{x}$	3.50 6.39	69.23	14.35		65.0	
CAB	64-QAM)	Y Y	7.92	77.48 80.07	19.23	3.98	65.0	± 9.6 %
		Ż	3.42	68.65	20.76		65.0	
10246-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	X	8.15	85.97	14.03 22.95		65.0	
CAB	QPSK)	Y	9.24			3.98	65.0	± 9.6 %
		Z	<u>9.24</u> 4.03	86.80	23.49		65.0	
10247- CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	<u>4.03</u> 5.50	75.23 76.42	<u>17.77</u> 20.00	3.98	<u>65.0</u> 65.0	± 9.6 %
		Y	6.26	77.49	20.66			<u> </u>
		Ż	3.95	71.61	16.94		65.0	ŀ
10248- CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	x	5.40	75.54	19.60	3.98	65.0 65.0	± 9.6 %
		Ŷ	6.16	76.66	20.28		65.0	
10010		Ζ	3.89	70.88	16.59		65.0	· · · · · · · · · · · · · · · · · · ·
10249- CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	9.66	89.43	25.19	3.98	65.0	± 9.6 %
		Y	10.35	89.11	25.13		65.0	<u> </u>
10250-		Z	5.64	80.91	21.33		65.0	
CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	6.21	78.20	22.44	3.98	65.0	± 9.6 %
		Y	6.93	79.00	22.73		65.0	
0251-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	Z	4.95	74.96	20.57		65.0	
CAD	64-QAM)	X	5.85	75.76	21.03	3.98	65.0	±9.6 %
		Y	6.49	76.44	21.31		65.0	
0252-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	Z	4.69	72.73	19.17	]	65.0	
CAD	QPSK)	X	8.41	86.24	25.10	3.98	65.0	± 9.6 %
		Y Z	9.13	86.11	24.91		65.0	
0253- CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	<u>x</u>	5.95 5.81	81.04 74.45	22.79 20.83	3.98	65.0 65.0	± 9.6 %
		Y	6.39	75 44	04.07			
		Z	4.88	75.11	21.05		65.0	
0254- L	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	6.16	72.13 75.32	19.42 21.51	3.98	<u>65.0</u> 65.0	± 9.6 %
AD 6								- 0.0 %
AD		Y	6.77	75.99	21.73	+	65.0	·

10255- CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	x	6.96	80.42	23.12	3.98	65.0	± 9.6 %
		Y	7.59	80.64	23.06	1	65.0	
		Z	5.51	77.21	21.58		65.0	
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	4.89	73.41	16.49	3.98	65.0	± 9.6 %
		Y	6.68	77.30	18.76		65.0	
		Z	2.46	64.75	10.88		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	×	4.63	72.26	15.89	3.98	65.0	± 9.6 %
		Y	6.35	76.13	18.19		65.0	
		Z	2.42	64.27	10.52		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	5.50	79.01	19.45	3.98	65.0	± 9.6 %
		Y	7.01	81.77	20.90		65.0	
		Z	2.56	68.30	13.54		65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	5.80	77.14	20.90	3.98	65.0	± 9.6 %
		Y	6.53	78.01	21.38		65.0	
		Z	4.38	73.08	18.36		65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	5.78	76.67	20.70	3.98	65.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	6.51	77.60	21.22		65.0	
		Z	4.39	72.73	18.19	0.00	65.0	100%
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	8.27	86.47	24.62	3.98	65.0	± 9.6 %
		Y	9.00	86.40	24.57		65.0	1
10262-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z X	5.46 6.19	80.05 78.15	21.57 22.39	3.98	65.0 65.0	± 9.6 %
CAD	16-QAM)	Y	0.00	78.95	22.69		65.0	
		Z	6.92 4.94	74.88	20.51		65.0	
10263- CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	<u>4.54</u> 5.84	75.72	21.02	3.98	65.0	± 9.6 %
		Y	6.48	76.42	21.31	- ··	65.0	
····		Z	4.68	72.71	19.16		65.0	
10264- CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	8.30	85.98	24.99	3.98	65.0	± 9.6 %
		Y	9.03	85.88	24.80		65.0	-
		Z	5.88	80.81	22.67		65.0	
10265- CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	5.96	75.09	21.13	3.98	65.0	± 9.6 %
		Y	6.59	75.82	21.35		65.0	ļ
		Z	4.95	72.53	19.70		65.0	
10266- CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	6.33	75.99	21.86	3.98	65.0	± 9.6 %
		Y	6.97	76.70	22.07	<u> </u>	65.0	ļ
		Z	5.31	73.56	20.51		65.0	
10267- CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	7.45	81.44	23.28	3.98	65.0	± 9.6 %
		Y	8.11	81.58	23.17		65.0	
		Z	5.81	77.97	21.72	1	65.0	1000
10268- CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.50	74.59	21.27	3.98	65.0	± 9.6 %
		Y	7.11	75.29	21.47	<u> </u>	65.0	
		Z	5.58	72.49	20.14	1	65.0	1000
10269- CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	6.45	74.07	21.10	3.98	65.0	± 9.6 %
		Y	7.04	74.76	21.30	<u> </u>	65.0	<u> </u>
		Z	5.59	72.11	20.01		65.0	1 1 0 0 1
10270- CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	6.83	77.38	21.77	3.98	65.0	± 9.6 %
		Y	7.44	77.78	21.79		65.0	
		Z	5.71	75.01	20.64		65.0	

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.62	66.75	15.42	0.00	150.0	± 9.6 %
		Y	2.61	66.15	15.17		150.0	<u> </u>
		Z	2.54	67.07	15.23	<u> </u>	150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.67	68.55	15.99	0.00	150.0	± 9.6 %
		Y	1.61	67.31	15.31	<u>                                      </u>	150.0	
40077		Z	1.61	68.63	15.84	1	150.0	<u> </u>
10277- CAA	PHS (QPSK)	X	1.74	60.91	6.37	9.03	50.0	± 9.6 %
		Y	2.31	62.75	8.24		50.0	
10278-		<u>Z</u>	1.34	59.32	4.61		50.0	1
<u>CAA</u>	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	9.23	83.71	19.86	9.03	50.0	± 9.6 %
·		<u>Y</u>	16.13	92.59	23.80		50.0	
10279-	PHS (QPSK, BW 884MHz, Rolloff 0.38)	Z	2.80	66.68	11.50		50.0	
CAA		X	9.55	84.14	20.09	9.03	50.0	± 9.6 %
·		<u>Y</u>	16.22	92.62	23.87		50.0	·
10290-	CDMA2000, RC1, SO55, Full Rate	Z	2.90	67.01	11.74		50.0	
AAB		X	1.55	69.78	14.51	0.00	150.0	± 9.6 %
<u> </u>		√ ≺	1.48	68.23	14.09	L	150.0	
10291-	CDMA2000, RC3, SO55, Full Rate	Z	1.19	67.52	12.47		150.0	
AAB		X	0.89	66.83	13.08	0.00	150.0	± 9.6 %
·		Y	0.85	65.35	12.57		150.0	
10292-	CDMA2000, RC3, SO32, Full Rate	Z	0.74	65.55	11.46		150.0	
AAB		X	1.27	72.61	16.13	0.00	150.0	± 9.6 %
		Y	1.03	68.80	14.67		150.0	
10293-	CDMA2000, RC3, SO3, Full Rate	Z	1.20	72.32	14.93		150.0	
AAB		X	2.34	81.60	20.09	0.00	150.0	± 9.6 %
		Y	1.43	73.64	17.27		150.0	
10295-	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	Z X	3.93	87.90	20.92		150.0	
AAB			16.32	98.49	29.02	9.03	50.0	± 9.6 %
		Y Z	11.98	92.39	27.58		50.0	
10297-	LTE-FDD (SC-FDMA, 50% RB, 20 MHz,	X	18.77	96.90	26.52		50.0	
AAC	QPSK)	Y	2.80	70.02	16.88	0.00	150.0	±9.6%
		Z	2.77	69.27	16.41		150.0	
10298- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	2.65 1.62	69.87 68.28	16.82 14.44	0.00	150.0 150.0	±9.6 %
		Y	1.62	67.40	14.00			· · · · · · · · · · · · · · · · · · ·
		z	1.32	66.56	14.26 12.71		150.0	
10299- \AC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	2.59	69.34	14.00	0.00	<u>150.0</u> 150.0	± 9.6 %
		T Y	2.92	70.30	15.01	··	150.0	
000-		z	1.54	64.05	10.22		150.0	
10300- \AC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.92	64.86	11.14	0.00	150.0	± 9.6 %
		Y	2.24	65.95	12.27		150.0	
0204		Z	1.26	61.60	8.20		150.0	
0301- \AA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.85	66.06	17.86	4.17	50.0	± 9.6 %
		Y	4.97	65.84	17.76		50.0	
0302-		Z	4.42	65.27	17.23		50.0	·
10302- NAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.22	66.19	18.31	4.96	50.0	± 9.6 %
		N.C.	E 00					
		Y Z	5.38	66.17	18.31	1	50.0	

10303- AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	4.96	65.79	18.13	4.96	50.0	± 9.6 %
		Y	5.14	65.84	18.17		50.0	
		z	4.61	65.34	17.65		50.0	
10304- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.78	65.69	17.62	4.17	50.0	±9.6 %
	1000112, 0400 00, 10007	Y	4.94	65.66	17.62		50.0	
		z	4.45	65.35	17.22		50.0	
10305- AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.24	66.91	19.40	6.02	35.0	± 9.6 %
		Y	4.54	67.57	19.86		35.0	
		Ż	3.84	65.89	18.29		35.0	
10306- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.62	66.22	19.11	6.02	35.0	±9.6 %
		Y	4.86	66.59	19.39		35.0	
		Z	4.26	65.53	18.31		35.0	
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.50	66.31	19.05	6.02	35.0	± 9.6 %
		Y	4.77	66.81	19.39		35.0	
		Z	4.12	65.47	18.17		35.0	
10308- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.47	66.49	19.18	6.02	35.0	± 9.6 %
		Y	4.73	66.98	19.51		35.0	
		Z	4.09	65.63	18.30		35.0	
10309- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.68	66.45	19.27	6.02	35.0	±9.6 %
		Y	4.93	66.86	19.56		35.0	
		Z	4.28	65.63	18.41		35.0	
10310- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.56	66.25	19.08	6.02	35.0	± 9.6 %
		Y	4.81	66.65	19.36		35.0	
		Z	4.20	65.54	18.28		35.0	
10311- AAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.16	69.26	16.50	0.00	150.0	± 9.6 %
		Y	3.13	68.60	16.08		150.0	
		Z	3.01	69.09	16.45		150.0	
10313- AAA	iDEN 1:3	X	8.00	86.23	21.34	6.99	70.0	± 9.6 %
		Y	8.53	85.21	20.95		70.0	
		Z	3.31	75.28	17.31		70.0	
10314- AAA	IDEN 1:6	X	12.68	100.31	29.33	10.00	30.0	± 9.6 %
		Y	13.31	98.73	28.67		30.0	
		Z	5.19	85.23	24.17		30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	Х	1.10	64.07	15.53	0.17	150.0	± 9.6 %
		Y	1.10	63.56	15.08		150.0	
		Z	1.08	63.95	15.31		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	X	4.59	66.75	16.41	0.17	150.0	± 9.6 %
• • •		Υ	4.66	66.58	16.32		150.0	
		Z	4.43	66.78	16.29		150.0	
10317- AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duly cycle)	X	4.59	66.75	16.41	0.17	150.0	± 9.6 %
		Y	4.66	66.58	16.32		150.0	
		Z	4.43	66.78	16.29	L	150.0	ļ
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	Х	4.69	67.06	16.37	0.00	150.0	± 9.6 %
		Y	4.77	66.86	16.25		150.0	
		Z	4.51	67.11	16.31		150.0	_
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	Х	5.41	67.26	16.54	0.00	150.0	± 9.6 %
						1		1
		Y Z	5.45	67.06	16.42		150.0	

10402- AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.65	67.49	16.51	0.00	150.0	± 9.6 %
		Y	5.72	67.40	40.45	·	1	L
		Z		67.43	16.45		150.0	<u> </u>
10403-	CDMA2000 (1xEV-DO, Rev. 0)	X	5.51	67.47	16.48		150.0	
AAB			1.55	69.78	14.51	0.00	115.0	± 9.6 %
		Y	1.48	68.23	14.09		115.0	
40404		Z	1.19	67.52	12.47		115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.55	69.78	14.51	0.00	115.0	±9.6 %
		Y	1.48	68.23	14.09		115.0	]
40400		Z	1.19	67.52	12.47		115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	120.41	29.76	0.00	100.0	± 9.6 %
		Ϋ́	19.72	99.25	25.38		100.0	
		Z	22.86	100.95	24.14		100.0	
10410- AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	125.71	31.88	3.23	80.0	± 9.6 %
		Y	100.00	124.16	31.78		80.0	· · · ·
		Z	8.15	91.76	22.46		80.0	·
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.03	63.26	14.92	0.00	150.0	± 9.6 %
		Y	1.02	62.63	14.41		150.0	<u> </u>
		Z	1.03	63.39	14.88		150.0	1
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	X	4.54	66.72	16.31	0.00	150.0	±9.6 %
		Y	4.59	66.51	16.19		150.0	
		Z	4.40	66.84	16.26		150.0	
10417- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.54	66.72	16.31	0.00	150.0	± 9.6 %
		ΤΥ	4.59	66.51	16.19		150.0	
		Z	4.40	66.84	16.26		150.0	·
10418- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.53	66.89	16.33	0.00	150.0	± 9.6 %
		Y	4.58	66.66	16.20		150.0	
		Z	4.40	67.05	16.32		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.55	66.83	16.33	0.00	150.0	± 9.6 %
		Y	4.60	66.61	16.21		150.0	
		Z	4.41	66.98	16.30		150.0	
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.66	66.83	16.34	0.00	150.0	±9.6 %
		Y	4.72	66.62	16.23	· · ·	150.0	
		Z	4.52	66.95	16.31		150.0	
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.82	67.13	16.45	0.00	150.0	± 9.6 %
		Y	4.90	66.96	16.35		150.0	
		Ż	4.65	67.21	16.40		150.0	
10424- AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.75	67.09	16.43	0.00	150.0	± 9.6 %
		Y	4.82	66.90	16.32		150.0	
		z	4.58	67.17	16.38			
10425- AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.35	67.37	16.60	0.00	150.0 150.0	± 9.6 %
		TY 1	5.42	67.27	16.52		150.0	······
		z	5.19	67.35			150.0	· · · · · · · · · · · · · · · · · · ·
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.36	67.42	16.55 16.62	0.00	150.0 150.0	± 9.6 %
		Y	5.42	67.07	10.00		150 -	
		Z		67.27	16.52		150.0	
	<u> </u>	L <u>4</u>	5.21	67.42	16.58		150.0	

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10427- AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	Х	5.37	67.38	16.60	0.00	150.0	±9.6 %
		Y	5.43	67.25	16.50		150.0	
		z	5.18	67.23	16.48		150.0	
10430- AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.24	70.83	18.17	0.00	150.0	± 9.6 %
		Y	4.26	70.25	18.02		150.0	
		Z	4.20	71.89	18.27		150.0	
10431- AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.21	67.30	16.30	0.00	150.0	±9.6 %
		Y	4.28	67.03	16.19		150.0	
		Z	4.03	67.45	16.18		150.0	
10432- AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.51	67.15	16.38	0.00	150.0	± 9.6 %
		Y	4.58	66.93	16.27		150.0	
		Z	4.34	67.27	16.32		150.0	
10433- AAB	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	Х	4.76	67.12	16.45	0.00	150.0	± 9.6 %
		Y	4.83	66.94	16.34		150.0	
		Ζ	4.59	67.20	16.40		150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.34	71.72	18.14	0.00	150.0	± 9.6 %
		Y	4.35	71.03	17.99		150.0	
		Z	4.31	72.81	18.12		150.0	
10435- AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	125.48	31.77	3.23	80.0	±9.6 %
		Y	100.00	123.97	31.69		80.0	
		Z	7.63	90.76	22.11		80.0	
10447- AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	Х	3.51	67.35	15.60	0.00	150.0	±9.6 %
		Y	3.58	66.99	15.55	1	150.0	
		Z	3.28	67.36	15.16		150.0	
10448- AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.06	67.09	16.17	0.00	150.0	±9.6 %
		Y	4.12	66.80	16.05		150.0	
		Z	3.89	67.25	16.05		150.0	
10449- AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.33	66.98	16.28	0.00	150.0	± 9.6 %
		Y	4.39	66.75	16.16		150.0	
		Z	4.18	67.10	16.22		150.0	l
10450- AAB	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.53	66.89	16.30	0.00	150.0	± 9.6 %
		Y	4.58	66.69	16.19		150.0	· · · · · · · · · · · · · · · · · · ·
		Z	4.39	66.98	16.26		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.39	67.51	15.20	0.00	150.0	± 9.6 %
		Y	3.48	67.19	15.21		150.0	ļ
		Z	3.10	67.22	14.48	<u> </u>	150.0	L
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.22	67.91	16.74	0.00	150.0	± 9.6 %
		Y	6.28	67.83	16.68		150.0	<u> </u>
		Z	6.11	67.90	16.72	1	150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	X	3.80	65.37	16.02	0.00	150.0	± 9.6 %
		Y	3.83	65.15	15.90	1	150.0	<u> </u>
		Z	3.74	65.57	15.99	1	150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.21	66.83	14.57	0.00	150.0	± 9.6 %
		- Y	3.31	66.55	14.68	<u> </u>	150.0	1
		Z	2.82	66.01	13.39	_	150.0	
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.29	65.14	15.57	0.00	150.0	± 9.6 %
		Y	4.36	64.71	15.51		150.0	
		Z	4.04	65.27	15.07		150.0	

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10460- AAA	UMTS-FDD (WCDMA, AMR)	X	0.96	69.26	16.86	0.00	150.0	± 9.6 %
-		Y Z	0.88	67.02	15.53		150.0	
10461-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,		100.00	69.35	16.76		150.0	
AAA	QPSK, UL Subframe=2,3,4,7,8,9)			131.25	34.47	3.29	80.0	± 9.6 %
		-  <u>Y</u>	100.00	128.59	33.89		80.0	
10462-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	Z	3.16	81.29	20.28	l	80.0	
AAA	16-QAM, UL Subframe=2,3,4,7,8,9)	Y	18.15	90.54	19.55	3.23	80.0	± 9.6 %
			100.00 0.71	110.06	25.23	·	80.0	
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.32	60.00 68.92	7.72	3.23	80.0 80.0	± 9.6 %
		Ý	12.78	85.50	18.46	<u>                                      </u>	80.0	1
		Z	0.72	60.00	7.06		80.0	·}
10464- AAA		X	100.00	128.50	33.02	3.23	80.0	± 9.6 %
		Y	100.00	126.31	32.66		80.0	
10465-		Z	2.43	77.27	18.20		80.0	<u> </u>
10465- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	7.48	81.44	16.98	3.23	80.0	± 9.6 %
		Y	53.06	102.63	23.42		80.0	
10466-		<u>Z</u>	0.71	60.00	7.65		80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	1.86	66.75	11.37	3.23	80.0	± 9.6 %
·		Y	7.10	79.26	16.56		80.0	
10467-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz,	Z	0.72	60.00	7.01		80.0	
AAC	QPSK, UL Subframe=2,3,4,7,8,9)		100.00	128.82	33.16	3.23	80.0	± 9.6 %
		Y	100.00	126.57	32.78		80.0	
10468-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-	Z	2.60	78.29	18.60		80.0	
AAC	QAM, UL Subframe=2,3,4,7,8,9)	X	9.21	83.60	17.62	3.23	80.0	± 9.6 %
		Y	76.07	106.68	24.37		80.0	
10469-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-	Z	0.70	60.00	7.67		80.0	
AAC	QAM, UL Subframe=2,3,4,7,8,9)	X	1.87	66.82	11.40	3.23	80.0	± 9.6 %
		Y	7.22	79.45	16.62		80.0	
10470-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz,	Z	0.72	60.00	7.01		80.0	
AAC	QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	128.87	33.17	3.23	80.0	± 9.6 %
·		Y	100.00	126.61	32.79		80.0	
10471-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-	<u> </u>	2.61	78.33	18.61		80.0	
AAC	QAM, UL Subframe=2,3,4,7,8,9)		9.03	83.37	17.54	3.23	80.0	±9.6 %
		Y Z	75.72	106.57	24.32		80.0	
10472- \AC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	1.85	60.00 66.72	7.66 11.34	3.23	80.0 80.0	± 9.6 %
		Y	7.17	79.36	16.58		80.0	
		Z	0.72	60.00	6.99		80.0	
10473- \AC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	128.83	33.15	3.23	80.0	± 9.6 %
		Y	100.00	126.57	32.77		80.0	
0474-		Ζ	2.60	78.28	18.59		80.0	
10474- \AC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	8.86	83.19	17.49	3.23	80.0	± 9.6 %
		Y	73.20	106.22	24.25		80.0	
0475-	TE-TOD (SC EDMA 4 DD 45 MILL ST	Z	0.70	60.00	7.66		80.0	
	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	1.84	66.67	11.33	3.23	80.0	± 9.6 %
		Y	7.07	79.22	16.54		80.0	
	1 d	Z	0.72	60.00	6.99			

10477- AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	х	7.55	81.52	16.98	3.23	80.0	± 9.6 %
		Y	56.45	103.26	23.54		80.0	
		Z	0.70	60.00	7.63		80.0	
10478- AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	1.82	66.56	11.27	3.23	80.0	± 9.6 %
		Y	6.95	79.03	16.47		80.0	
		Z	0.72	60.00	6.98		80.0	
10479- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	х	10.99	93.23	25.61	3.23	80.0	±9.6 %
···· ·· ··· · ···· · ····		Y	9.79	90.18	24.96		80.0	
		Z	4.54	80.48	20.41		80.0	
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	12.16	88.23	21.88	3.23	80.0	± 9.6 %
. <u></u>		Y	11.98	87.55	22.28		80.0	
10101		Z	2.88	70.37	14.48	0.00	80.0	1000
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.71	82.91	19.80	3.23	80.0	±9.6 %
		Y	9.82	84.02	20.80		80.0	
40400		Z	2.18	66.77	12.57	0.00	80.0	± 9.6 %
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.05	77.33	19.19	2.23	80.0	± 9.0 %
		Y	4.17	76.68	19.19		80.0	
10100		Z	2.07	68.66	14.58	0.00	80.0	+06%
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.93	75.57	17.70	2.23	80.0	± 9.6 %
		Y	6.34	78.50	19.36		80.0	
10484-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X	1.80 4.47	63.38 74.01	11.04	2.23	80.0 80.0	± 9.6 %
AAA	64-QAW, OL Subhame-2,3,4,7,0,9)	Y	5.79	76.98	18.82		80.0	
		Z	1.76	62.89	10.79		80.0	
10485- AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.05	77.49	20.34	2.23	80.0	± 9.6 %
<u></u>		Y	4.20	76.76	20.09		80.0	
		Z	2.71	72.24	17.50		80.0	1
10486- AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.54	71.63	17.34	2.23	80.0	± 9.6 %
		Y	3.76	71.58	17.54		80.0	
		Z	2.51	67.51	14.60		80.0	
10487- AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.49	71.03	17.07	2.23	80.0	± 9.6 %
		Y	3.74	71.08	17.31		80.0	1
		Z	2.49	67.04	14.35		80.0	
10488- AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.92	74.84	20.03	2.23	80.0	± 9.6 %
[		Y	4.21	74.77	19.87	<u> </u>	80.0	1
		Z	2.99	71.49	18.31		80.0	
10489- AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.58	70.14	18.01	2.23	80.0	± 9.6 %
		Y	3.82	70.22	18.04		80.0	
		Z	3.03	68.36	16.75	1	80.0	
10490- AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.66	69.89	17.90	2.23	80.0	± 9.6 %
		Y	3.90	69.97	17.95	<b>.</b>	80.0	
	-	Z	3.10	68.21	16.67		80.0	
10491- AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	4.00	72.50	19.16	2.23	80.0	± 9.6 %
		Y	4.28	72.62	19.08		80.0	
		Z	3.25	70.05	17.90		80.0	
10492- AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.86	68.99	17.79	2.23	80.0	± 9.6 %
		Y	4.11	69.18	17.85		80.0	
1		Z	3.37	67.61	16.86		80.0	1

10493- AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.92	68.82	17.72	2.23	80.0	±9.6 %
		Y	4.17	69.02	17.78	<u> </u>	000	
		Ż	3.43	67.50	16.80	<u> </u>	80.0	
10494- AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.43	74.41	19.78	2.23	80.0 80.0	± 9.6 %
		Y	4.75	74.52	19.68		80.0	+
		Z	3.49	71.39	18.37	<u> </u>	80.0	
10495- AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.90	69.39	18.01	2.23	80.0	± 9.6 %
		Y	4.16	69.65	18.06		80.0	
40.400		Z	3.39	67.86	17.06	· · · · · · · · · · · · · · · · · · ·	80.0	·
10496- AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.97	69.05	17.88	2.23	80.0	± 9.6 %
		Y	4.22	69.30	17.94		80.0	1
10407		Z	3.47	67.65	16.99		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	2.87	72.14	16.05	2.23	80.0	± 9.6 %
		Y	3.23	72.92	16.83		80.0	
10498-		Z	1.19	62.14	10.12		80.0	1
AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.73	63.11	10.85	2.23	80.0	± 9.6 %
		Y	2.27	65.45	12.56		80.0	†
10100		Z	1.15	60.00	7.68		80.0	<u> </u>
10499- AAA 	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.65	62.30	10.28	2.23	80.0	± 9.6 %
		Ϋ́	2.18	64.69	12.05		80.0	·
		Z	1.17	60.00	7.51		80.0	
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	3.87	75.87	20.03	2.23	80.0	± 9.6 %
		Y	4.07	75.40	19.81		80.0	
40504		Z	2.80	71.83	17.80		80.0	i
10501- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.57	71.05	17.60	2.23	80.0	± 9.6 %
		<u>Y</u>	3.78	70.97	17.70		80.0	
10500		Z	2.79	68.23	15.59		80.0	
10502- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.61	70.84	17.44	2.23	80.0	± 9.6 %
		Y	3.84	70.79	17.56		80.0	
10500		Z	2.82	68.03	15.41		80.0	
10503- AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.87	74.62	19.92	2.23	80.0	± 9.6 %
		Y	4.15	74.55	19.77		80.0	
10504-		Z	2.95	71.29	18.21		80.0	
AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.57	70.04	17.95	2.23	80.0	± 9.6 %
		Y	3.80	70.13	17.99		80.0	
10505- \AC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X	3.01 3.64	68.26 69.79	<u>16.69</u> 17.85	2.23	80.0 80.0	± 9.6 %
		Y	3.88	69.88	17.00			
		Z	3.09	68.12	17.89		80.0	
0506- AC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.39	74.26	16.62 19.71	2.23	80.0 80.0	±9.6 %
		Y	4.71	74.37	19.61		80.0	
0507		Z	3.46	71.26	18.30		80.0	
10507- AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	x	3.89	69.33	17.97	2.23	80.0	±9.6 %
		Y Z	4.14	69.59	18.03		80.0	

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10508- AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.95	68.98	17.84	2.23	80.0	± 9.6 %
		Υ	4.21	69.23	17.90		80.0	
		Ζ	3.46	67.59	16.95		80.0	
10509- AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	x	4.62	72.40	18.91	2.23	80.0	± 9.6 %
		Y	4.92	72.59	18.86		80.0	
		Z	3.86	70.20	17.85		80.0	
10510- AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	x	4.34	68.87	17.84	2.23	80.0	±9.6 %
		Y	4.61	69.18	17.91		80.0	
		Z	3.85	67.53	17.06		80.0	
10511- AAC	LTE-TDD (SC-FDMÄ, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	4.39	68.57	17.74	2.23	80.0	±9.6 %
		Y	4.65	68.86	17.81		80.0	
		Z	3.92	67.35	17.00		80.0	
10512- AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	4.95	74.43	19.59	2.23	80.0	± 9.6 %
		Υ	5.29	74.60	19.52		80.0	
		Z	3.97	71.52	18.28		80.0	
10513- AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	x	4.24	69.19	17.98	2.23	80.0	± 9.6 %
		Y	4.52	69.55	18.06		80.0	
		Z	3.73	67.67	17.13		80.0	
10514- AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.25	68.69	17.82	2.23	80.0	± 9.6 %
		Y	4.51	69.03	17.90		80.0	
		Z	3.78	67.33	17.02		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	Х	0.99	63.46	15.00	0.00	150.0	±9.6 %
		Y	0.98	62.78	14.45		150.0	
		Z	0.99	63.59	14.96		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.69	72.54	18.63	0.00	150.0	± 9.6 %
		Y	0.56	68.11	16.08		150.0	<b> </b>
		Z	0.67	72.15	18.45	0.00	150.0	100%
10517- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.85	65.62	15.80	0.00	150.0	± 9.6 %
		Y	0.82	64.42	14.91		150.0	
10518- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	Z X	0.84 4.53	65.62 66.80	15.72 16.29	0.00	150.0	± 9.6 %
-7001		Y	4.59	66.58	16.17		150.0	
		Z	4.39	66.94	16.26		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.71	67.02	16.40	0.00	150.0	± 9.6 %
		Y	4.78	66.84	16.30	1	150.0	ļ
		Z	4.54	67.11	16.34		150.0	
10520- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.56	66.98	16.32	0.00	150.0	± 9.6 %
		Y	4.63	66.80	16.22		150.0	
10521-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24	Z X	4.40 4.49	67.05 66.97	<u>16.26</u> 16.31	0.00	150.0 150.0	± 9.6 %
AAA	Mbps, 99pc duty cycle)	Y	4.56	66.79	16.20		150.0	┨ ────
		Z	4.33	67.02	16.25	1	150.0	
10522-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.56	67.08	16.40	0.00	150.0	± 9.6 %
1 8 8 8				1		1		
AAA	Mibps, sope daty eyeley	Y	4.62	66.86	16.28	-	150.0	

10523- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.44	66.96	16.26	0.00	150.0	± 9.6 %
		Y	4.50	66.72	16.12	<u> </u>	150.0	
40504		Z	4.31	67.14	16.26		150.0	
10524- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.50	67.00	16.37	0.00	150.0	± 9.6 %
		Y	4.57	66.78	16.25	<u> </u>	150.0	+
40505		Z	4.33	67.10	16.33	·	150.0	+
10525- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.49	66.06	15.96	0.00	150.0	± 9.6 %
		Y	4.54	65.82	15.83		150.0	· · · · · · · · · · · · · · · · · · ·
10526-		Z	4.36	66.21	15.95		150.0	
AAA 99pc duty cycle)	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.65	66.41	16.10	0.00	150.0	± 9.6 %
		Y	4.72	66.20	15.98		150.0	
10527-		Z	4.49	66.49	16.07		150.0	<u> </u>
AAA	JEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.58	66.37	16.05	0.00	150.0	± 9.6 %
		Y	4.64	66.16	15.92		150.0	
10528-		Z	4.42	66.47	16.01		150.0	T — —
AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.59	66.39	16.08	0.00	150.0	± 9.6 %
		Y	4.65	66.18	15.96		150.0	i
10529-		Z	4.43	66.48	16.04		150.0	1
10529- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.59	66.39	16.08	0.00	150.0	± 9.6 %
		Y	4.65	66.18	15.96	·	150.0	
10531-		Z	4.43	66.48	16.04		150.0	
AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.58	66.48	16.09	0.00	150.0	± 9.6 %
<u> </u>		Y	4.65	66.29	15.97		150.0	<u> </u>
10520		Z	4.40	66.51	16.02		150.0	
10532- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.44	66.34	16.02	0.00	150.0	± 9.6 %
		Y	4.51	66.14	15.90		150.0	
10533-		Z	4.28	66.37	15.96		150.0	
AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.60	66.44	16.07	0.00	150.0	±9.6%
		Y	4.66	66.22	15.94		150.0	
0000		Z	4.44	66.56	16.05		150.0	
10534- \AA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.13	66.46	16.12	0.00	150.0	± 9.6 %
		Y	5.19	66.32	16.03	·	150.0	
0535-		Z	4.99	66.46	16.09		150.0	
10535- NAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.20	66.64	16.21	0.00	150.0	±9.6 %
		Y	5.25	66.49	16.10		150.0	
0536-		Z	5.03	66.59	16.15		150.0	
10536- IAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.07	66.60	16.17	0.00	150.0	± 9.6 %
		Y	5.12	66.44	16.06		150.0	
0537-		Z	4.92	66.60	16.13		150.0	
AA	IEEE 802.11ac WIFI (40MHz, MCS3, 99pc duty cycle)	X	5.12	66.56	16.15	0.00	150.0	± 9.6 %
		Y	5.18	66.41	16.05		150.0	
0538-		Z	4.98	66.58	16.13		150.0	
AA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	Х	5.21	66.56	16.19	0.00	150.0	± 9.6 %
	<u> </u>	Y	5.28	66.45	16.11	—— <u> </u>	150.0	
0540-		z	5.05	66.54	16.15		150.0	
0540- .AA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.14	66.58	16.22	0.00	150.0	± 9.6 %
	<u> </u>	Y	5.20	66.45	16.12		150.0	
·····		Z	4.98	00.70	10.12		10000	

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10541-	IEEE 802.11ac WiFi (40MHz, MCS7,	X	5.12	66.46	16.14	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	+					456.6	
		Y	5.18	66.32	16.05		150.0	
10510		Z	4.96	66.43	16.09		150.0	
10542- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.27	66.53	16.19	0.00	150.0	±9.6 %
		Y	5.33	66.40	16.10		150.0	
		Z	5.12	66.52	16.15		150.0	
10543- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.34	66.55	16.23	0.00	150.0	±9.6 %
		Y	5.41	66.44	16.14		150.0	
	1	Z	5.19	66.58	16.21		150.0	
10544- AAA	IEEE 802.11ac WIFi (80MHz, MCS0, 99pc duty cycle)	X	5.45	66.57	16.12	0.00	150.0	±9.6 %
		Y	5.49	66.44	16.03		150.0	
		Z	5.33	66.54	16.08	:	150.0	
10545- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.64	66.98	16.28	0.00	150.0	±9.6 %
		Y	5.69	66.86	16.18		150.0	
		Z	5.50	66.96	16.25		150.0	
10546- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.50	66.75	16.18	0.00	150.0	± 9.6 %
		TY 1	5.56	66.68	16.11		150.0	
		Z	5.36	66.66	16.11		150.0	
10547- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.57	66.80	16.19	0.00	150.0	±9.6 %
		Y	5.64	66.72	16.12		150.0	
		Z	5.44	66.76	16.16		150.0	
10548- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	x	5.80	67.67	16.61	0.00	150.0	± 9.6 %
MAA		Τ Υ	5.91	67.72	16.59		150.0	
		z	5.58	67.38	16.44		150.0	
10550-	IEEE 802.11ac WiFi (80MHz, MCS6,	X	5.54	66.80	16.21	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	Y	5.59	66.67	16.11		150.0	
		Z	5.42	66.83	16.21		150.0	<u> </u>
40554		X	5.54	66.82	16.18	0.00	150.0	± 9.6 %
10551- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)				<u> </u>	0.00		1. 5.0 %
· · · ·		Y	5.59	66.72	16.10		150.0	· ···-
		Z	5.36	66.63	16.07	0.00	150.0	100%
10552- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	Х	5.46	66.64	16.10	0.00	150.0	± 9.6 %
		Y	5.51	66.51	16.00		150.0	<u> </u>
		Z	5.34	66.66	16.08		150.0	
10553- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.54	66.66	16.14	0.00	150.0	± 9.6 %
		Y	5.59	66.56	16.06	ļ	150.0	I
		Z	5.39	66.61	16.09		150.0	,`
10554- AAB	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.86	66.92	16.20	0.00	150.0	± 9.6 %
		Y	5.89	66.81	16.12		150.0	ļ
		Z	5.75	66.87	16.15	L	150.0	<u> </u>
10555- AAB	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	5.98	67.22	16.33	0.00	150.0	± 9.6 %
		Y	6.03	67.12	16.25		150.0	
1		Z	5.84	67.10	16.25		150.0	
10556- AAB	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	6.00	67.27	16.35	0.00	150.0	± 9.6 %
10.00		Y	6.05	67.16	16.27		150.0	
		Z	5.88	67.20	16.30		150.0	
10557-	IEEE 802.11ac WiFi (160MHz, MCS3,	X	5.96	67.16	16.31	0.00	150.0	± 9.6 %
AAB								
AAB	99pc duty cycle)	Υ	6.02	67.08	16.25		150.0	

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10558-	IEEE 802.11ac WiFi (160MHz, MCS4,	X	6.01	67.90	16 14	0.00		
AAB	99pc duty cycle)		0.01	67.32	16.41	0.00	150.0	± 9.6 %
		Y	6.07	67.25	16.34	- [	150.0	
40500		Z	5.85	67.15	16.31		150.0	
10560- AAB	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.01	67.17	16.37	0.00	150.0	± 9.6 %
		<u>Y</u>	6.06	67.10	16.31		150.0	1
10561-		Z	5.87	67.07	16.30	T	150.0	
AAB	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.93	67.15	16.40	0.00	150.0	± 9.6 %
		Y	5.98	67.06	16.32		150.0	
10562-	IEEE 802.11ac WiFi (160MHz, MCS8,	Z	5.80	67.05	16.32		150.0	
AAB	99pc duty cycle)		6.04	67.49	16.57	0.00	150.0	± 9.6 %
			6.12	67.48	16.53	L	150.0	
10563-	IEEE 802.11ac WiFi (160MHz, MCS9,	$\frac{2}{x}$	5.85 6.18	67.23	16.41	L	150.0	
AAB	99pc duty cycle)			67.55	16.56	0.00	150.0	± 9.6 %
		Y Z	6.43	68.00	16.75		150.0	
10564-	IEEE 802.11g WiFi 2.4 GHz (DSSS-		5.95 4.86	67.17	16.35		150.0	
AAA	OFDM, 9 Mbps, 99pc duty cycle)		4.86	66.88	16.45	0.46	150.0	± 9.6 %
·····		Z	4.92	66.69	16.36	<u> </u>	150.0	
10565-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	X	5.08	66.96 67.30	16.39 16.76		150.0	ļ
<u>AAA</u>	OFDM, 12 Mbps, 99pc duty cycle)	Y	5.16	67.15		0.46	150.0	± 9.6 %
		z	4.90	67.15	16.67	<u> </u>	150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	4.91	67.15	<u>16.69</u> 16.58	0.46	150.0 150.0	± 9.6 %
		Y	4.99	67.00	16.50		150.0	
		Z	4.74	67.18	16.50		150.0	
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	4.94	67.52	16.92	0.46	150.0	±9.6 %
		Ý	5.01	67.38	16.84		150.0	·
10568-		Z	4.77	67.57	16.87		150.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	X	4.83	66.96	16.38	0.46	150.0	± 9.6 %
		Y	4.90	66.77	16.27		150.0	· ·
10560			4.63	66.92	16.25		150.0	
10569- \AA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	4.90	67.63	17.00	0.46	150.0	± 9.6 %
		Y	4.96	67.44	16.88		150.0	
0570-		Z	4.75	67.78	17.00		150.0	
AA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	X	4.93	67.48	16.92	0.46	150.0	±9.6 %
		Y	5.00	67.29	16.82		150.0	
0571-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1	Z	4.76	67.58	16.89		150.0	
	Mbps, 90pc duty cycle)	X	1.18	64.69	15.93	0.46	130.0	±9.6 %
	<u> </u>	Y	1.20	64.37	15.58		130.0	
0572-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2	ZX	1.13	64.22	15.49		130.0	
AA	Mbps, 90pc duty cycle)		1.19	65.27	16.29	0.46	130.0	± 9.6 %
		Y	1.21	64.91	15.92		130.0	
0573-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5	ZX	1.14	64.74	15.83		130.0	
AA	Mbps, 90pc duty cycle)	Y	2.77	92.16	26.12	0.46	130.0	± 9.6 %
		z	1.86	83.27	22.47		130.0	
0574-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	$\frac{2}{x}$	1.57	83.20	23.00		130.0	
AA	Mbps, 90pc duty cycle)	Y -	1.31	71.26	19.39	0.46	130.0	± 9.6 %
		Z	1.31	70.26	18.63		130.0	
		1 4 1	1.20	70.00	18.67	1	130.0	

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10575-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	x	4.64	66.67	16.51	0.46	130.0	± 9.6 %
AAA	OFDM, 6 Mbps, 90pc duty cycle)							
		Y	4.71	66.50	16.43		130.0	
10570	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z	4.47	66.69	16.39	0.40	130.0	1000
10576- AAA	OFDM, 9 Mbps, 90pc duty cycle)	X	4.66	66.83	16.58	0.46	130.0	± 9.6 %
		Y	4.73	66.66	16.49		130.0	
40577		Z	4.50	66.89	16.47	0.40	130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	X	4.86	67.11	16.74	0.46	130.0	± 9.6 %
		Y	4.94	66.97	16.66		130.0	
10578-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z X	4.67 4.76	67.12 67.25	16.61 16.83	0.46	130.0 130.0	± 9.6 %
AAA	OFDM, 18 Mbps, 90pc duty cycle)	Y	4.84	67.12	16.76		130.0	
		Z	4.64	67.12	16.70		130.0	
10579-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	X	4.57	66.57	16.12	0.46	130.0	± 9.6 %
AAA	OFDM, 24 Mbps, 90pc duty cycle)					0.40		1 3.0 70
		Y	4.61	66.44	16.10		130.0	
40500		Z	4.33	66.48	15.99	0.46	130.0	+000
10580- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.57	66.63	16.21	0.46	130.0	± 9.6 %
		Y	4.66	66.47	16.12		130.0	
40704		Z	4.36	66.53	16.01	0.40	130.0	1000
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	X	4.65	67.30	16.78	0.46	130.0	± 9.6 %
		Y	4.73	67.15	16.70		130.0	
		Z	4.48	67.34	16.69		130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.47	66.35	15.97	0.46	130.0	± 9.6 %
		Y	4.56	66.21	15.89		130.0	
		Z	4.26	66.25	15.78		130.0	
10583- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.64	66.67	16.51	0.46	130.0	±9.6 %
		Y	4.71	66.50	16.43		130.0	
		Z	4.47	66.69	16.39		130.0	
10584- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.66	66.83	16.58	0.46	130.0	± 9.6 %
		Y	4.73	66.66	16.49		130.0	
		Z	4.50	66.89	16.47		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	Х	4.86	67.11	16.74	0.46	130.0	± 9.6 %
<u></u>		Y	4.94	66.97	16.66		130.0	
		Z	4.67	67.12	16.61		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.76	67.25	16.83	0.46	130.0	± 9.6 %
		Y	4.84	67.12	16.76		130.0	
		Z	4.57	67.26	16.72		130.0	
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.52	66.57	16.17	0.46	130.0	± 9.6 %
1		Y	4.61	66.44	16.10		130.0	1
		Z	4.33	66.48	15.99		130.0	
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.57	66.63	16.21	0.46	130.0	± 9.6 %
		Y	4.66	66.47	16.12		130.0	
		Ζ	4.36	66.53	16.01		130.0	
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.65	67.30	16.78	0.46	130.0	± 9.6 %
		Y	4.73	67.15	16.70		130.0	
		Z	4.48	67.34	16.69		130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.47	66.35	15.97	0.46	130.0	± 9.6 %
~~~\	mopo, copo daty cycle/	Y	4.56	66.21	15.89	1	130.0	1
		Z	4.26	66.25	15.78	-	130.0	·†

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10591- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.79	66.72	16.61	0.46	130.0	± 9.6 %
		Y	4.86	66.57	16.53		130.0	+
		Z	4.63	66.78	16.50	·	130.0	<u> </u>
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	x	4.94	67.05	16.74	0.46	130.0	± 9.6 %
		Y	5.02	66.91	16.66		130.0	1
		Z	4.75	67.07	16.63		130.0	†•••••••
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.86	66.96	16.62	0.46	130.0	± 9.6 %
		Y	4.94	66.83	16.55		130.0	1
		Z	4.67	66.95	16.49		130.0	· ···
10594- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.91	67.12	16.77	0.46	130.0	± 9.6 %
·		Y	5.00	66.98	16.70		130.0	
40505		Z	4.72	67.12	16.65		130.0	
10595- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.88	67.08	16.67	0.46	130.0	± 9.6 %
		Y	4.96	66.94	16.59		130.0	
40505		Z	4.69	67.10	16.56		130.0	1
10596- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.82	67.08	16.68	0.46	130.0	± 9.6 %
		Y	4.90	66.94	16.60	· · ·	130.0	
		Z	4.62	67.07	16.55		130.0	<u> </u>
10597- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.77	66.98	16.56	0.46	130.0	± 9.6 %
		Y	4.85	66.85	16.49	·	130.0	
		Z	4.57	66.94	16.41		130.0	
10598- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.75	67.19	16.80	0.46	130.0	± 9.6 %
		Y	4.83	67.08	16.74		130.0	ł · · · · · · · · · · · · · · · · · · ·
		Z	4.56	67.16	16.67		130.0	
10599- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.46	67.23	16.81	0.46	130.0	±9.6 %
		Y	5.53	67.13	16.74		130.0	
		Z	5.31	67.22	16.74		130.0	
10600- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.59	67.67	17.00	0.46	130.0	±9.6 %
		Y	5.69	67.62	16.95		130.0	
		Z	5.40	67.56	16.88		130.0	·
10601- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.48	67.41	16.88	0.46	130.0	± 9.6 %
		Y	5.56	67.33	16.83		130.0	
		Z	5.31	67.36	16.79		130.0	
10602- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.59	67.49	16.85	0.46	130.0	±9.6 %
		Y	5.65	67.34	16.75		130.0	
10000		Z	5.41	67.42	16.75		130.0	· · · · · · · · · · · · · · · · · · ·
10603- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.65	67.74	17.10	0.46	130.0	± 9.6 %
		Y	5.74	67.66	17.04		130.0	
40001		Z	5.48	67.71	17.02		130.0	·
10604- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.49	67.31	16.87	0.46	130.0	± 9.6 %
		Y	5.53	67.10	16.74		130.0	· ·
		Z	5.37	67.37	16.83		130.0	
10605- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.58	67.57	17.01	0.46	130.0	± 9.6 %
		Y	5.65	67.44	16.92		130.0	
		Z	5.40	67.46	16.88		130.0	
10606- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.32	66.88	16.52	0.46	130.0	±9.6 %
		Y	5.42	66.88	16.50		130.0	

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10607- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.63	66.06	16.24	0.46	130.0	± 9.6 %
		Y	4.69	65.87	16.14		130.0	
		Z	4.48	66.14	16.16		130.0	· · ·
10608- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.81	66.46	16.41	0.46	130.0	± 9.6 %
		Y	4.89	66.28	16.31		130.0	
		Z	4.62	66.47	16.30		130.0	
10609- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.70	66.31	16.25	0.46	130.0	±9.6 %
		Y	4.78	66.14	16.15		130.0	
		Z	4.52	66.31	16.13		130.0	
10610- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.75	66.46	16.40	0.46	130.0	± 9.6 %
		ΙΥ	4.83	66.29	16.31		130.0	
		Z	4.57	66.47	16.29		130.0	
10611- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.67	66.27	16.25	0.46	130.0	±9.6 %
		Y	4.74	66.11	16.17		130.0	
		Z	4.48	66.27	16.14		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.68	66.43	16.31	0.46	130.0	± 9.6 %
		Y	4.76	66.26	16.21		130.0	
		Z	4.47	66.40	16.18		130.0	
10613- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.68	66.30	16.19	0.46	130.0	±9.6 %
		Y	4.76	66.16	16.10		130.0	
		Z	4.47	66.22	16.03		130.0	
10614- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.62	66.47	16.40	0.46	130.0	±9.6 %
		Y	4.70	66.33	16.32		130.0	
		Z	4.44	66.44	16.27		130.0	
10615- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.67	66.12	16.05	0.46	130.0	± 9.6 %
		Y	4.75	65.95	15.95		130.0	
		Z	4.48	66.11	15.92		130.0	
10616- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.28	66.50	16.42	0.46	130.0	± 9.6 %
	, , , , ,	Y	5.35	66.40	16.35	1	130.0	
		Z	5.12	66.44	16.33		130.0	
10617- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.35	66.70	16.50	0.46	130.0	± 9.6 %
		Y	5.42	66.55	16.40		130.0	
		Z	5.16	66.57	16.37		130.0	
10618- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.24	66.70	16.51	0.46	130.0	± 9.6 %
		Y	5.30	66.57	16.42	1	130.0	
		Z	5.08	66.64	16.42		130.0	
10619- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.25	66.50	16.35	0.46	130.0	± 9.6 %
		Y	5.33	66.41	16.28		130.0	
		Z	5.09	66.45	16.26		130.0	
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	×	5.34	66.53	16.41	0.46	130.0	± 9.6 %
		Y	5.42	66.46	16.35		130.0	
		Z	5.16	66.45	16.31		130.0	
10621- AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.34	66.65	16.59	0.46	130.0	± 9.6 %
		Y	5.41	66.55	16.51		130.0	
		Z	5.17	66.56	16.48		130.0	
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.35	66.81	16.66	0.46	130.0	± 9.6 %
		Y	5.42	66.71	16.59		130.0	
		Z	5.16	66.65	16.52		130.0	1

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10623- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.23	66.36	16.32	0.46	130.0	± 9.6 %
		Y	5.30	66.25	16.24	<u>+</u>	130.0	+
		Z	5.05	66.22	16.17	<u> </u>	130.0	-{
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.42	66.55	16.47	0.46	130.0	± 9.6 %
		Y	5.50	66.45	16.40	· · ·	130.0	1
(000		Z	5.25	66.47	16.36		130.0	1
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.75	67.41	16.95	0.46	130.0	± 9.6 %
		Y	5.89	67.51	16.98		130.0	
10626-		Z	5.34	66.63	16.50		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.59	66.56	16.38	0.46	130.0	± 9.6 %
		Y	5.64	66.46	16.31		130.0	
10627-	IEEE 802.11ac WiFi (80MHz, MCS1,	Z	5.45	66.47	16.28		130.0	
AAA	90pc duty cycle)	X	5.82	67.13	16.63	0.46	130.0	± 9.6 %
······································		Y	5.88	67.03	16.55		130.0	
10628-		Z	5.67	67.05	16.54		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.61	66.64	16.32	0.46	130.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	5.68	66.59	16.27		130.0	
10629-		Z	5.44	66.46	16.18		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.69	66.69	16.34	0.46	130.0	± 9.6 %
		Y	5.78	66.69	16.31		130.0	
10630-	IEEE 802.11ac WiFi (80MHz, MCS4,	Z	5.54	66.62	16.26		130.0	
AAA	90pc duty cycle)	X	6.09	68.10	17.05	0.46	130.0	± 9.6 %
		Y	6.25	68.29	17.11		130.0	
10631-		Z	5.78	67.54	16.72		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.99	67.90	17.13	0.46	130.0	± 9.6 %
		Y	6.12	67.99	17.15		130.0	
10632-		Z	5.75	67.56	16.92		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.79	67.18	16.78	0.46	130.0	± 9.6 %
		Y	5.85	67.07	16.70		130.0	
10000		Z	5.67	67.21	16.76		130.0	
10633- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.68	66.80	16.43	0.46	130.0	± 9.6 %
		Ý	5.74	66.74	16.37		130.0	
10001		Z	5.48	66.57	16.27		130.0	
10634- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.66	66.82	16.49	0.46	130.0	± 9.6 %
		Y	5.73	66.76	16.44		130.0	
10625		Z	5.50	66.72	16.40		130.0	
10635- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.54	66.19	15.93	0.46	130.0	± 9.6 %
· · · · · · · · · · · · · · · · · · ·		Y	5.62	66.14	_ 15.87		130.0	
10636-		Z	5.36	66.00	15.77		130.0	
AAB	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.00	66.92	16.46	0.46	130.0	±9.6 %
		Y	6.05	66.85	16.41		130.0	
10637-		Z	5.88	66.82	16.36		130.0	
AAB	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.16	67.31	16.64	0.46	130.0	± 9.6 %
		Y	6.21	67.23	16.58		130.0	
0620		<u>Z</u>	6.00	67.12	16.50		130.0	
10638- AAB	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.16	67.28	16.60	0.46	130.0	± 9.6 %
		Y	6.21	67.20	16.54		400.0	
		z		01.20 1	10.54		130.0	

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10639-	IEEE 802.11ac WiFi (160MHz, MCS3,	X	6.13	67.21	16.61	0.46	130.0	± 9.6 %
AAB	90pc duty cycle)							
		Y	6.20	67.17	16.57		130.0	
10010		Z	5.98	67.06	16.49		130.0	
10640- AAB	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.13	67.23	16.57	0.46	130.0	±9.6 %
		Y	6.21	67.21	16.53		130.0	
		Z	5.95	66.98	16.40		130.0	
10641- AAB	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.19	67.17	16.55	0.46	130.0	± 9.6 %
		Y	6.24	67.06	16.48		130.0	
		Z	6.04	67.04	16.44		130.0	
10642- AAB	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.22	67.37	16.82	0.46	130.0	±9.6 %
		Y	6.28	67.33	16.77		130.0	
		Z	6.06	67.23	16.70		130.0	
10643- AAB	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.06	67.09	16.58	0.46	130.0	± 9.6 %
		Y	6.12	67.02	16.52		130.0	
		Z	5.91	66.93	16.45		130.0	
10644- AAB	IEEE 802.11ac WIFi (160MHz, MCS8, 90pc duty cycle)	X	6.20	67.52	16.82	0.46	130.0	± 9.6 %
		Y	6.31	67.59	16.83		130.0	
		Z	5.97	67.13	16.57		130.0	
10645- AAB	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.41	67.77	16.91	0.46	130.0	± 9.6 %
		Y	6.76	68.49	17.23		130.0	
		Z	6.10	67.18	16.56		130.0	
10646- AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	32.54	128.38	44.23	9.30	60.0	±9.6 %
		Y	33.21	124.21	42.28		60.0	
		Z	8.58	97.27	34.21		60.0	
10647- AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	24.86	122.50	42.74	9.30	60.0	± 9.6 %
		Y	27.83	120.75	41.46		60.0	-
		Z	7.33	94.04	33.20		60.0	
10648- AAA	CDMA2000 (1x Advanced)	X	0.71	63.99	11.07	0.00	150.0	±9.6 %
		Y :	0.72	63.38	11.01		150.0	
		Z	0.57	62.72	9.40		150.0	
10652- AAB	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.64	67.29	16.91	2.23	80.0	± 9.6 %
		Y	3.79	67.25	16.93		80.0	
		Z	3.31	66.63	16.20		80.0	
10653- AAB	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	4.13	66.44	16.95	2.23	80.0	± 9.6 %
		Y	4.30	66.53	16.99		80.0	
		Z	3.84	65.89	16.44		80.0	
10654- AAB	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.11	66.04	16.93	2.23	80.0	± 9.6 %
		Y	4.26	66.17	16.97		80.0	1
		Z	3.86	65.50	16.46		80.0	
10655- AAB	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.17	66.02	16.96	2.23	80.0	± 9.6 %
<u> </u>		Y	4.32	66.18	17.01		80.0	
		Z	3.93	65.42	16.50		80.0	

<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.

#### Calibration Laboratory of

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



SSchweizerischer KallbrierdienstCService suisse d'étalonnageSServizio svizzero di taraturaSwiss Calibration Service

Issued: April 18, 2017

Accreditation No.: SCS 0108

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

PC Test Client

Certificate No: EX3-7406\_Apr17

CALIBRATION	CERTIFICATE		
Object	EX3DV4 - SN:7406	<b>)</b>	
Calibration procedure(s)		CAL-12.v9, QA CAL-23.v5, QA ure for dosimetric E-field probes	CAL-25.V6 BNN 5-3-2017
			5-3-2017
Calibration date:	April 18, 2017		
		al standards, which realize the physical units obability are given on the following pages and a	
The measurements and the unc	enainties with confidence pro-	ability are given on the following pages and c	ne part of the continuate.
All calibrations have been condu	ucted in the closed laboratory f	facility: environment temperature (22 ± 3)°C a	nd humidity < 70%.
Calibration Equipment used (M8	TE critical for calibration)		
Primary Standards		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. 217-02525)	Apr-18
Reference 20 dB Attenualor	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	31-Dec-16 (No. ES3-3013_Dec16)	Dec-17
DAE4	SN: 660	7-Dec-16 (No. DAE4-660_Dec16)	Dec-17
Secondary Standards		Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18 In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Oct-17
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	
	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	Milles -
Approved by:	Katja Pokovic	Technical Manager	10M

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

#### **Calibration Laboratory of** Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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Service suisse d'étalonnage С

Accreditation No.: SCS 0108

- Servizio svizzero di taratura S
- Swiss Calibration Service

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#### Glossarv:

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

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

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

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
  b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close
- proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- IEC 62209-2. "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices c) used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### Methods Applied and Interpretation of Parameters:

- NORMx.v.z: Assessed for E-field polarization  $\vartheta = 0$  (f  $\leq 900$  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 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 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).

# Probe EX3DV4

## SN:7406

Manufactured: November 24, 2015 Calibrated: April 18, 2017 April 18, 2017

Calibrated for DASY/EASY Systems (Note: non-compatible with DASY2 system!)

#### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.47	0.42	0.45	± 10.1 %
DCP (mV) <sup>B</sup>	99.5	98.3	95.1	

#### **Modulation Calibration Parameters**

UID	Communication System Name		Α	В	C	D	VR	Unc <sup>E</sup>
			dB	dBõV		dB	mV	(k=2)
0	CW	X	0.0	0.0	1.0	0.00	138.9	±2.5 %
		Y	0.0	0.0	1.0		129.6	
		Z	0.0	0.0	1.0		128.2	

Note: For details on UID parameters see Appendix.

#### Sensor Model Parameters

	C1	C2	α	T1	T2	Т3	T4	T5	T6
	fF	fF	V <sup>−1</sup>	ms.V⁻²	ms.V⁻¹	ms	V <sup>-2</sup>	V-1	
Х	48.83	366.9	<b>3</b> 6.13	15.06	1.101	4.968	0.251	0.437	1.003
Y	19.57	145.7	35.6	3.888	0.704	4.934	0	0.021	1.004
Z	45.42	343.9	36.58	10.69	0.846	4.98	0	0.36	1.004

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

<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.

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)
600	42.7	0.88	10.42	10.42	10.42	0.10	1.20	± 13.3 %
750	41.9	0.89	10.26	10.26	10.26	0.52	0.80	± 12.0 %
835	41.5	0.90	9.97	9.97	9.97	0.53	0.81	± 12.0_%
1750	40.1	1.37	8.88	8.88	8.88	0.42	0.80	± 12.0 %
1900	40.0	1.40	8.40	8.40	8.40	0.26	0.87	± 12.0 %
2300	39.5	1.67	8.04	8.04	8.04	0.25	0.80	± 12.0 %
2450	39.2	1.80	7.68	7.68	7.68	0.38	0.80	± 12.0 %
2600	39.0	1.96	7.44	7.44	7.44	0.40	0.83	± 12.0 %

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

<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. Above 5 GHz frequency validity can be extended to ± 110 MHz. <sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) 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 ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. 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 ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

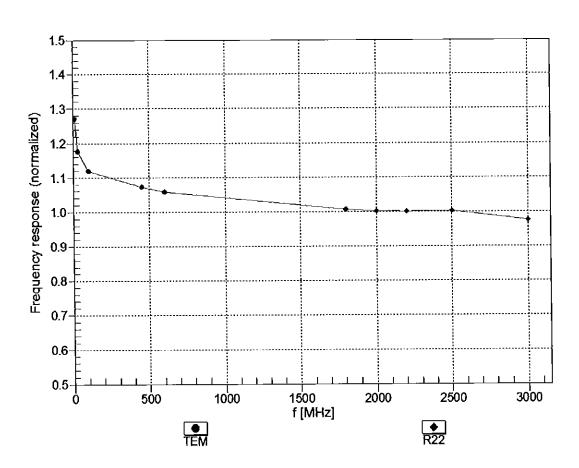
f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
600	56.1	0.95	10.82	10.82	10.82	0.10	1.20	± 13.3 %
750	55.5	0.96	9,90	9.90	9.90	0.51	0.83	± 12.0 %
835	55.2	0.97	9.77	9.77	9.77	0.46	0.80	± 12.0 %
1750	53.4	1.49	8.08	8.08	8.08	0.41	0.85	± 12.0 %
1900	53.3	1.52	7.81	7.81	7.81	0.44	0.80	± 12.0 %
2300	52.9	1.81	7.65	7.65	7.65	0.38	0.84	± 12.0 %
2450	52.7	1.95	7.60	7.60	7.60	0.33	0.89	± 12.0 %
2600	52.5	2.16	7.31	7.31	7.31	0.31	0.94	± 12.0 %

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

<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. Above 5 GHz frequency validity can be extended to ± 110 MHz. <sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to

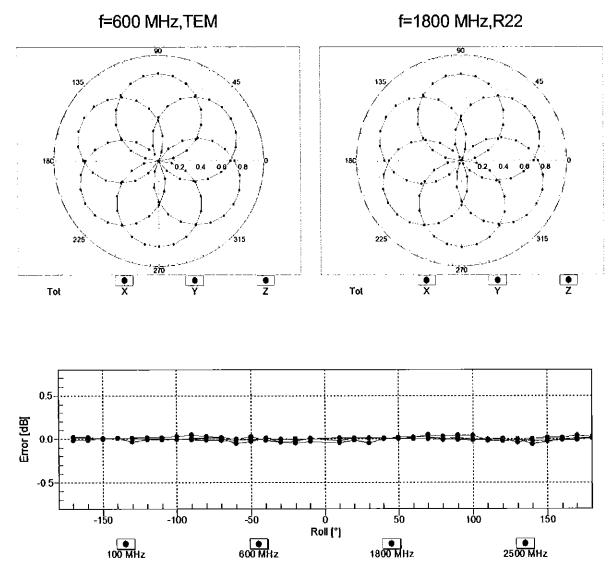
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. 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

<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 frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



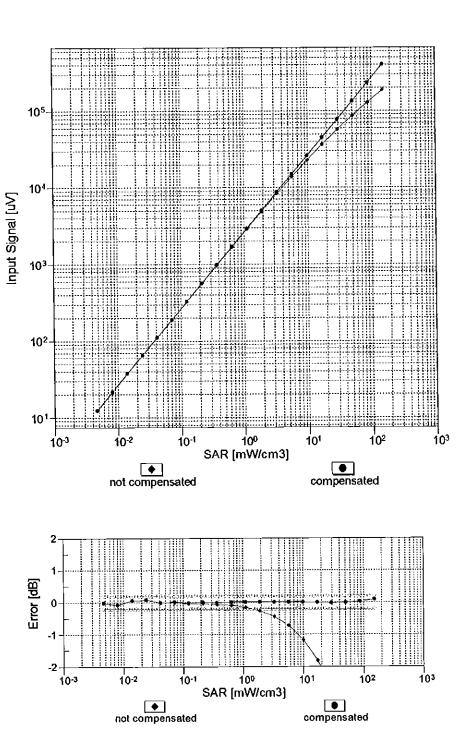
### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

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



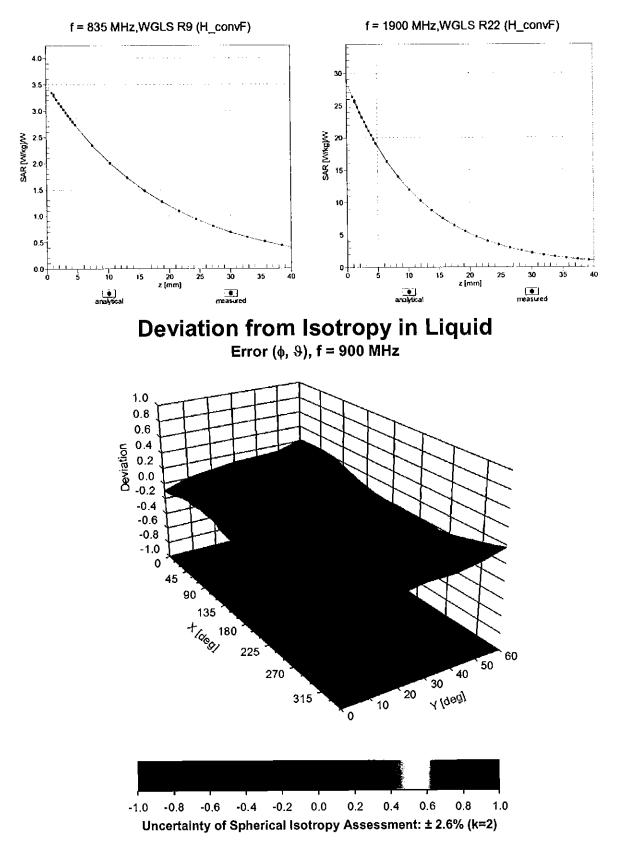
## Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

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**

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	0
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

#### April 18, 2017

#### EX3DV4-SN:7406

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

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	138.9	± 2.5 %
		Y	0.00	0.00	1.00		129.6	
		Z	0.00	0.00	1.00		128.2	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	2.73	66.22	10.89	10.00	20.0	± 9.6 %
		Y	2.50	65.91	10.39		20.0	
		Z	2.53	65.90	10.54		20.0	
10011- CAB	UMTS-FDD (WCDMA)	х	1.16	69.53	16.71	0.00	150.0	± 9.6 %
		Y	1.55	76.79	19.47		150.0	
10010		Z	1.09	68.24	15.96	0.44	150.0	
10012- CAB	IEEE 802.11b WIFi 2.4 GHz (DSSS, 1 Mbps)	X	1.21	64.38	15.70	0.41	150.0	±9.6 %
		Y	1.20	65.37	16.13		150.0	
40040		Z	1.18	63.82	15.33 16.98	1.46	150.0 150.0	± 9.6 %
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	4.87	66.56		1.40		±9.0 %
		Y	4.34	67.27	16.96		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	Z X	4,83 9.99	66.50 82.36	16.95 18.50	9.39	150.0 50.0	± 9.6 %
		Y	13.63	85.86	18.88		50.0	
		z	18.22	90.00	20.60		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	8.49	80.16	17.78	9.57	50.0	±9.6 %
		Y	7.32	78.16	16.31		50.0	
		Ζ	12.47	85.19	19.17		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	Х	18.19	89.55	19.31	6.56	60.0	±9.6 %
		Y	100.00	107.67	23.01		60.0	
		Z	100.00	108.36	23.76		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	Х	5.54	75.78	27.74	12.57	50.0	± 9.6 %
		Y	8.76	92.32	36.08		50.0	
		Z	4.44	70.37	25.26	0.50	50.0 60.0	1069/
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	9.90	90.96	31.21	9.56	60.0	± 9.6 %
		Y Z	5.70 7.85	81.99 86.95	30.11		60.0	
10027-	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	106.69	22.59	4.80	80.0	± 9.6 %
DAC		Y	100.00	110.45	23.34	<u> </u>	80.0	<u> </u>
	· · · · · · · · · · · · · · · ·	z	100.00	108.23	22.93		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	107.01	22.11	3.55	100.0	± 9.6 %
		Y	100.00	117.41	25.54	1	100.0	
		Z	100.00	109.42	22.79		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	6.41	81.80	26.70	7.80	80.0	± 9.6 %
		Y	3.86	73.74	24.21		80.0	
10030-	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Z X	5.17 13.75	78.18 86.21	25.56 17.68	5.30	80.0	± 9.6 %
CAA			0.11	00.70	45.00		70.0	<u> </u>
		Y	8.41	82.76	15.88		70.0	
10031-	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Z X	100.00 100.00	106.60 106.42	22.49 20.68	1.88	100.0	± 9.6 %
		Y	100.00	120.98	25.51	1	100.0	1
		z	100.00	108.89	21.35	+	100.0	1

10032-	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	113.18	22.62	1.17	100.0	± 9.6 %
		<u> </u>	ļ					
<u> </u>		Y	100.00	160.14	39.75		100.0	
10033-	IEEE 802 15 1 Plustoath (Pl/4 DODCK	Z	100.00	117.70	24.05	l	100.0	
	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	6.02	81.27	20.17	5.30	70.0	± 9.6 %
		Y	2.18	67.67	12.00		70.0	
10034-		Z	5.24	80.63	20.08		70.0	
CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	2.82	75.11	17.10	1.88	100.0	± 9.6 %
	+	Y	0.75	61.82	7.32		100.0	
10035-	IEEE 802.15.1 Bluetooth (PI/4-DQPSK,	Z	2.29	73.13	16.28		100.0	
CAA	DH5)	X X	2.17	73.18	16.32	1.17	100.0	± 9.6 %
		Y	0.59	61.24	6.75		100.0	
10036-	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Z	1.79	71.19	15.39		100.0	
CAA		X	7.12	83.90	21.15	5.30	70.0	± 9.6 %
	<u> </u>	Y	2.26	68.25	12.32		70.0	
10037-		Z	6.24	83.43	21.13		70.0	
CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	2.66	74.41	16.79	1.88	100.0	± 9.6 %
		<u>Y</u>	0.71	61.41	7.10		100.0	
10038-	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Z	2.15	72.41	15.96	l	100.0	
CAA		X	2.20	73.62	16.61	1.17	100.0	± 9.6 %
		<u>Y</u>	0.60	61.36	6.93		100.0	
10039-		Z	1.80	71.51	15.64		100.0	
CAB	CDMA2000 (1xRTT, RC1)	X	2.76	78.09	18.48	0.00	150.0	± 9.6 %
		Y	0.37	60.00	5.64		150.0	
40040		Ζ	2.22	74.97	16.93		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	7.43	78.80	16.12	7.78	50.0	± 9.6 %
		Y	8.26	80.71	16.15		50.0	
100(1		Z	12.01	84.59	17.75		50.0	
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	100.49	0.10	0.00	150.0	± 9.6 %
		Y	0.04	60.00	50.13		150.0	
		Z	0.00	96.59	0.05		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	6.27	73.35	16.78	13.80	25.0	± 9.6 %
		Y	5.47	69.78	14.42		25.0	
40040		Z	7.09	74.59	16.89		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	6.62	76.07	16.59	10.79	40.0	± 9.6 %
	+	Y	5.50	73.13	14.63		40.0	
40050		Z	7.47	77.74	16.92		40.0	<u> </u>
10056- CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	8.73	81.97	20.70	9.03	50.0	± 9.6 %
		Y	5.30	74.02	15.71		50.0	<b>—</b> ——–
40050		Z	9.70	84.35	21.49		50.0	
10058- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	4.93	77.02	24.10	6.55	100.0	±9.6 %
		Y	3.18	70.36	21.96		100.0	
40050		Z	4.10	73.99	23.08		100.0	·
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	х	1.26	65.49	16.19	0.61	110.0	± 9.6 %
		Y	1.20	65.95	16.36		110.0	<u> </u>
40000		Z	1.20	64.67	15.74		110.0	
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	13.21	104.87	27.26	1.30	110.0	± 9.6 %
		Y	4.90	96.93	26.57		110.0	<b>├───</b> ── <b> </b>
		Z	4.52	91.43	23.95		110.0	

10061-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	X	2.92	78.86	20.97	2.04	110.0	±9.6 %
CAB	Mbps)							
		Y	1.70	73.25	19.05		110.0	
10062-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6	<u>Z</u>	2.19	75.27	19.88	0.10	110.0	
CAB	Mbps)	X	4.70	66.68	16.55	0.49	100.0	± 9.6 %
		<u> </u>	4.18	67.42	16.56		100.0	
		Z	4.65	66.61	16.51		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.70	66.73	16.62	0.72	100.0	± 9.6 %
_		Y	4.18	67.49	16.63		100.0	
		Z	4.66	66.66	16.57		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.99	66.98	16.82	0.86	100.0	± 9.6 %
		Y	4.36	67.60	16.75		100.0	
		Z	4.94	66.90	16.78		100.0	
10065- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.85	66.84	16.87	1.21	100.0	±9.6 %
		Y	4.23	67.25	16.71		100.0	
		Z	4.80	66.75	16.83		100.0	
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.86	66.83	16.99	1.46	100.0	± 9.6 %
		Y	4.21	67.08	16.71		100.0	
		Z	4.80	66.72	_ 16.95		100.0	
10067- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.14	66.93	17.36	2.04	100.0	±9.6 %
		Ý	4.40	67.10	16.99		100.0	
		Z	5.08	66.86	17.34		100.0	
10068- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.19	66.98	17.55	2.55	100.0	±9.6 %
		Υ	4.52	67.37	17.35		100.0	
		Z	5.12	66.84	17.50		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.27	66.95	17.72	2.67	100.0	±9.6 %
		Y	4.52	67.17	17.38	ĺ	100.0	
		Z	5.20	66.85	17.69		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.96	66.60	17.22	1.99	100.0	± 9.6 %
	······································	TT	4.44	67.29	17.20		100.0	
		Z	4.91	66.53	17.19		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	Х	4.94	66.90	17.40	2.30	100.0	± 9.6 %
		Υ	4.35	67.27	17.25		100.0	
		Z	4.87	66.79	17.36	l i	100.0	1
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	4.99	67.03	17.67	2.83	100.0	± 9.6 %
		Y	4.41	67.49	17.58		100.0	
		Z	4.92	66.90	17.63		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.97	66.91	17.78	3.30	100.0	± 9.6 %
		Y	4.49	67.70	17.84		100.0	
		Z	4.90	66.77	17.74		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.02	67.05	18.08	3.82	90.0	± 9.6 %
		Y	4.55	67.83	18.12		90.0	
		Z	4.94	66.85	18.01		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.03	66.84	18.17	4.15	90.0	± 9.6 %
		Y	4.61	67.72	18.28		90.0	
		Z	4.95	66.65	18.12		90.0	
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.06	66.90	18.26	4.30	90.0	± 9.6 %
		Y	4.65	67.85	18.42		90.0	
		Ż	4.98	66.71	18.21		90.0	1

10081- CAB	CDMA2000 (1xRTT, RC3)	x	1.05	69.26	14.55	0.00	150.0	±9.6%
		Y	0.28	60.00	5.33		150.0	
		z	0.92	67.44	13.36	· · ·	150.0	<u> </u>
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	х	0.52	58.22	3.69	4.77	80.0	± 9.6 %
		Y	0.41	56.78	1.87		80.0	
		Z	0.54	57.53	2.88		80.0	
10090- DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	17.35	89.03	19.19	6.56	60.0	± 9.6 %
		Y	100.00	107.61	23.00		60.0	
40007		Z	100.00	108.37	23.77		60.0	
10097- CAB	UMTS-FDD (HSDPA)	X	1.96	68.94	16.57	0.00	150.0	± 9.6 %
		Y	2.57	76.20	18.23		150.0	
10098-		Z	1.90	68.41	16.17	0.00	150.0	
CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1,92	68.91	16.54	0.00	150.0	± 9.6 %
		Y	2.54	76.26	18.30		150.0	
10099-		Z	1.86	68.36	16.14		150.0	
DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	9.94	91.01	31.21	9.56	60.0	± 9.6 %
		Y	5.73	82.09	28.86		60.0	
10100-		Z	7.90	87.03	30.13	0.0	60.0	
CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.32	71.40	17.37	0.00	150.0	± 9.6 %
		Y	2.95	71.83	18.07		150.0	
40404		Z	3.20	70.72	17.06		150.0	
10101- CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	x	3.33	67.99	16.32	0.00	150.0	± 9.6 %
		Y	3.00	68.42	16.63	_	<u>15</u> 0.0	
		Z	3.27	67.68			150.0	
10102- CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.43	67.94	16.40	0.00	150.0	± 9.6 %
		Y	3.10	68.46	16.71		150.0	
		z	3.37	67.66	16.24		150.0	
10103- CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.02	73.90	19.30	3.98	65.0	±9.6 %
		Y	4.68	73.18	19.41		65.0	
		Z	5.62	73.49	19.33		65.0	
10104- CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	6.42	73.34	19.91	3.98	65.0	± 9.6 %
		Y	4.72	70.79	18.81		65.0	
		Z	5.88	72.35	19.63		65.0	
10105- CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	6.34	73.01	20.09	3.98	65.0	± 9.6 %
		Y	4.65	70.25	18.83		65.0	
		Z	<u>5.51</u>	70.92	19.28		65.0	
10108- CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	×	2.90	70.63	17.22	0.00	150.0	± 9.6 %
		Ý	2.58	72.09	18.15		150.0	
		Z	2.79	69.99	16.90		150.0	
10109- CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	2.99	67.94	16.29	0.00	150.0	± 9.6 %
		Y	2.69	69.27	16.60		150.0	
		Z	2.93	67.61	16.08		150.0	
10110- CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	2.37	69.82	16.91	0.00	150.0	± 9.6 %
		Y	2.17	72.66	17.66		150.0	
		Z	2.27	69.17	16.53		150.0	
10111- CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	х	2.75	69.14	16.80	0.00	150.0	± 9.6 %
		Y	2.72	72.65	17.00		150.0	
		Z	2.68	68.77	16.52	İ	150.0	

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10112- CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	3.11	67.90	16.33	0.00	150.0	±9.6 %
		Y	2.81	69.41	16.67		150.0	<u> </u>
10113- CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	Z X	3.05 2.91	<u>67.61</u> 69.24	1 <u>6.14</u> 16.90	0.00	150.0 150.0	±9.6 %
		τ <sub>γ</sub> Ι	2.80	72.45	16.91		150.0	
		Z	2.83	68.91	16.64		150.0	
10114- CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.18	67.36	16.63	0.00	150.0	±9.6 %
		Y	4.69	67.54	16.80		150.0	
	· · · · · · · · · · · · · · · · · · ·	Z	5.15	67.30	16.59		150.0	
10115- CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.48	67.50	16.70	0.00	150.0	± 9.6 %
·		Y	4.94	67.76	16.85		150.0	
		Z	5.42	67.37	16.64		150.0	
10116- CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.28	67.57	16.65	0.00	150.0	±9.6 %
		Y T	4.76	67.79	16.84		150.0	
		Z	5.24	67.47	16.61		150.0	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.14	67.22	16.57	0.00	150.0	± 9.6 %
		Y	4.68	67.44	16.77		150.0	
		Z	5.11	67.13	16.53		150.0	
10118- CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X	5.56	67.71	16.81	0.00	150.0	± 9.6 %
		Y	4.92	67.65	16.80		150.0	
-		Z	5.51	67.59	16.75		150.0	
10119- CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64- QAM)	X	5.26	67.51	16.64	0.00	150.0	± 9.6 %
-		Y	4.75	67.71	16.81		150.0	
		Z	5.23	67.43	16.60		150.0	
10140- CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.47	67.94	16.32	0.00	150.0	± 9.6 %
		Y	3.08	68.53	16.60		150.0	
		Z	3.41	67.65	16.15		150.0	
10141- CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.59	68.02	16.48	0.00	150.0	± 9.6 %
		İΥ	3.23	68.87	16.85		150.0	
		Z	3.53	67.77	16.33		150.0	
10142- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	2.17	70.14	16.75	0.00	150.0	± 9.6 %
		Y	1.93	72.39	15.85		150.0	
		Z	2.06	69.38	16.26		150.0	· · · · · · · · · · · · · · · · · · ·
10143- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.69	70.39	16.77	0.00	150.0	± 9.6 %
		Y	1.77	67.88	12.65		150.0	
		Z	2.58	69.83	16.31		150.0	
10144- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.37	67.50	14.86	0.00	150.0	± 9.6 %
		Y	1.24	63.02	9.52		150.0	
		Z	2.27	66.99	14.42		150.0	
10145- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.43	67.32	13.24	0.00	150.0	± 9.6 %
		Y	0.41	60.00	4.04		150.0	
		Z	1.25	65.61	11.99		150.0	
10146- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	1.83	65.71	11.47	0.00	150.0	± 9.6 %
		Y	19.01	355.37	40.53		150.0	
		Z	1.52	64.01	10.27		150.0	
10147- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	2.14	67.65	12.55	0.00	150.0	± 9.6 %
		Y	123.11	63.95	2.67		150.0	
		Z	1.70	65.34	11.08		150.0	

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10149- CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.00	68.01	16.34	0.00	150.0	± 9.6 %
		Y	2.71	69.38	16.67		150.0	·
		Z	2.94	67.68	16.14	t	150.0	-
10150- CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.12	67.96	16.38	0.00	150.0	± 9.6 %
		Y	2.83	69.51	16.73		150.0	
40454			3.06	67.68	16.19		150.0	
10151- CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	×	6.55	76.73	20.51	3.98	65.0	± 9.6 %
		Y	4.65	75.11	19.92		65.0	
10152-		Z	5.91	75.87	20.37		65.0	
CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	5.92	73.14	19.51	3.98	65.0	± 9.6 %
		Y	4.14	70.22	17.64		65.0	
10153-	LTE-TDD (SC-FDMA, 50% RB, 20 MHz,	Z	5.38	72.11	19.20		65.0	
CAC	64-QAM)	X	6.32	74.15	20.32	3.98	65.0	± 9.6 %
		Y	4.49	71.52	18.62		65.0	
10154-	LTE-FDD (SC-FDMA, 50% RB, 10 MHz,	Z X	5.75	73.14	20.03	- <u>-</u>	65.0	L
CAD	QPSK)	Y	2.44	70.37	17.23	0.00	150.0	± 9.6 %
			2.24	73.24	17.96		150.0	<u> </u>
10155-	LTE-FDD (SC-FDMA, 50% RB, 10 MHz,	Z X	2.32	69.67	16.83		150.0	
CAD	16-QAM)	Y	2.75	69.15	16.81	0.00	150.0	± 9.6 %
	<u> </u>	Z	2.68	72.83	17.10		150.0	
10156-	LTE-FDD (SC-FDMA, 50% RB, 5 MHz,	X	2.05	70.60	16.53	- 0.00	150.0	
CAD	QPSK)	Y	1.46			0.00	150.0	± 9.6 %
_		Z	1.92	69.42 69.63	13.50		150.0	<u> </u>
10157- CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.25	69.63	<u>16.11</u> 15.12	0.00	<u>150.0</u> 150.0	± 9.6 %
		ΤΥ	0.93	61.53	7.91	_	150.0	
		Z	2.13	67.76	14.53		150.0	
10158- CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.91	69.31	16.96	0.00	150.0	± 9.6 %
		ΓY	2.84	72.68	17.03		150.0	
		Z	2.84	68.99	16.70	_	150.0	
10159- CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.39	69.07	15.47	0.00	150.0	± 9.6 %
		Y	0.94	61.44	7.84		150.0	
10400		Z	2.25	68.30	14.85	_	150.0	
10160- CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.87	69.48	16.90	0.00	150.0	± 9.6 %
		<u> </u>	2.53	71.06	17.44		150.0	
10161-	LTE-FDD (SC-FDMA, 50% RB, 15 MHz,	Z	2.80	69.08	16.66		150.0	
CAC	16-QAM)	X	3.02	67.94	16.33	0.00	150.0	± 9.6 %
	<u>+</u>	Y	2.72	69.68	16.46		150.0	
10162-	LTE-FDD (SC-FDMA, 50% RB, 15 MHz,	Z	2.96	<u>67.65</u>	16.13		150.0	
CAC	64-QAM)	X	3.13	68.07	16.43	0.00	150.0	± 9.6 %
	<u> </u>		2.84	70.03	16.63	_	150.0	
10166- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	Z X	<u>3.07</u> 3.48	67.8 <u>1</u> 69.00	<u>16.24</u> 18.84	3.01	150.0 150.0	± 9.6 %
		Y	2.37	66.02	18.17		150.0	<b>_</b>
		z	3.30	68.39	18.62		150.0	
10167- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.17	71.58	19.19	3.01	150.0 150.0	± 9.6 %
		Y	2.29	67.15	18.12		150.0	
		Ż	3.79	70.56	18.83		150.0	
			0.10	10.00	10.03		150.0	

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10168- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	4.66	74.00	20.63	3.01	150.0	± 9.6 %
· · P		Y	2.48	69.25	19.67		150.0	
		z	4.22	72.96	20.30		150.0	
10169- CAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	2.83	68.21	18.52	3.01	150.0	± 9.6 %
		Y	1.98	64.24	17.28		150.0	
		Z	2.57	66.84	17.97		150.0	
10170- CAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	3.78	73.87	20.84	3.01	150.0	±9.6 %
		Y	1.95	66.56	18.68		150.0	
		Z	3.16	71.49	20.02		150.0	-
10171- AAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	3.08	69.63	17.94	3.01	150.0	±9.6 %
		Y	1.72	64.21	_16.34		150.0	
		Z	2.64	67.80	17.26		150.0	
10172- CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	5.42	80.62	23.60	6.02	65.0	±9.6 %
		Y	2.15	69.85	20.42		65.0	
		Z	4.45	78.76	23.36		65.0	
10173- CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	8.97	86.28	23.79	6.02	65.0	± 9.6 %
		Y	2.26	72.00	19.72		65.0	
		Z	6.61	83.59	23.38		65.0	
10174- CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	7.82	83.09	22.18	6.02	65.0	± 9.6 %
		Y	1.97	69.58	18.06		65.0	
		Z	5.22	78.89	21.15		65.0	
10175- CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.79	67.90	18.26	3.01	150.0	±9.6 %
		Y	1.97	64.07	17.08		150.0	
		Z	2.54	66.56	17.72	_	150.0	
10176- CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	3.78	73.89	20.85	3.01	150.0	± 9.6 %
		Y	1.95	66.57	18.69		150.0	
		Z	3.16	71.52	20.03		150.0	
10177- CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.82	68.06	18.36	3.01	150.0	± 9.6 %
		Y	1.98	64.12	17.12		150.0	
		Z	2.56	66.70	17.81		150.0	
10178- CAD	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	3.74	73.65	20.71	3.01	150.0	± 9.6 %
		Y	1.95	66.53	18.65		150.0	
		Z	3.13	71.32	19.91		150.0	
10179- CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.39	71.59	19.23	3.01	150.0	±9.6 %
		Y	1.82	65.39	17.45		150.0	
		Z	2.87	69.52	18.50		150.0	
10180- CAD	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	3.08	69.55	17.88	3.01	150.0	± 9.6 %
		Y	1.72	64.21	16.33		150.0	
		Z	2.64	67.75	17.21		150.0	
10181- CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.81	68.04	18.35	3.01	150.0	± 9.6 %
		Y	1.97	64.11	17.12		150.0	<u> </u>
		Z	2.56	66.68	17.80	<u> </u>	150.0	
10182- CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	3.73	73.62	20.70	3.01	150.0	±9.6 %
		Y	1.95	66.51	18.64		150.0	
		Z	3.13	71.29	19.90		150.0	L
10183- AAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	3.07	69.53	17.87	3.01	150.0	± 9.6 %
		Y	1.72	64.19	16.32		150.0	
		Z	2.64	67.72	17.20		150.0	

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10184- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	2.82	68.08	18.37	3.01	150.0	± 9.6 %
		Y	1.98	64.13	17.13		150.0	
		Z	2.56	66.72	17.83		150.0	
10185- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	3.75	73.70	20.74	3.01	150.0	± 9.6 %
		Y	1.96	66.56	18.67		150.0	
		Z	3.14	71.36	19.94		150.0	
10186- AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	3.09	69.60	17.91	3.01	150.0	± 9.6 %
		Y	1.73	64.23	16.35		150.0	
10187-		Z	2.65	67.78	17.23		150.0	
CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	2.83	68.13	18.43	3.01	150.0	± 9.6 %
		Y	1.99	64.22	17.23		150.0	
10188-		Z	2.57	66.77	17.89		150.0	
CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	3.88	74.41	21.15	3.01	150.0	± 9.6 %
		Y	1.98	66.86	18.93		150.0	
10189-		<u>Z</u>	3.23	71.97	20.32		150.0	
AAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	3.15	70.02	18.19	3.01	150.0	± 9.6 %
	+	Y	1.74	64.44	16.55		150.0	
10193-	IEEE 802.11n (HT Greenfield, 6.5 Mbps,	Z	2.70	68.15	17.50		150.0	
CAB	BPSK)	X	4.57	66.79	16.35	0.00	150.0	± 9.6 %
		Y	4.14	67.99	16.59		150.0	
10194-	IEEE 802.11n (HT Greenfield, 39 Mbps,	Z	4.54	66.72	16.28		150.0	
<u>CAB</u>	16-QAM)	X	4.75	67.11	16.47	0.00	150.0	±9.6 %
		Y	4.22	68.00	16.68		150.0	
10195-		Z	4.70	67.02	16.41		150.0	
CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.79	67.14	16.49	0.00	150.0	± 9.6 %
	<u>+                                    </u>	Y	4.23	67.92	16.65		150.0	
10196-		Z	4.74	67.05	16.43		150.0	
CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.58	66.86	16.37	0.00	150.0	± 9.6 %
		Y	4.11	67.92	16.54		150.0	
10197-		Z	4.54	66.78	<u>16.3</u> 0		150.0	
CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16- QAM)	×	4.76	67.13	16.48	0.00	150.0	±9.6 %
		Y	4.23	68.00	16. <u>6</u> 9		150.0	
10100		Z	4.71	67.04	16.42		150.0	
10198- CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64- QAM)	X	4.79	67.15	16.50	0.00	150.0	± 9.6 %
		Y	4.22	67.91	16.64		150.0	
10219-		Z	4.74	67.07	16.44		150.0	
CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.53	66.88	16.34	0.00	150.0	± 9.6 %
		Y	4.08	68.06	16.58		150.0	
10220-		Z	4.49	66.80	16.27		150.0	
CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16- QAM)	X	4.76	67.10	16.47	0.00	150.0	± 9.6 %
		Y	4.22	67.96	16.67	-	150.0	
10221-	IEEE 902 11p (IIT Mixed 70.0 Mixed 04	Z	4.71	67.01	16.41		150.0	
CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64- QAM)	X	4.80	67.08	16.48	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.25	67.92	16.65		150.0	
10222-	IFEE 802 11p /UT Minod 45 Minor	Z	4.75	67.00	16.42		150.0	
<u>CAB</u>	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.12	67.23	16.57	0.00	150.0	± 9.6 %
	<u>+</u>	Y	4.67	67.48	16.77		150.0	
		Ζ	5.09	<u>67.</u> 14	16.52		150.0	

10223-	IEEE 802.11n (HT Mixed, 90 Mbps, 16-	X	5.42	67.42	16.68	0.00	150.0	± 9.6 %
CAB	QAM)	Y	4.05	07.57	40.77		450.0	
	+		4.85	67.57	16.77		150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64- QAM)	Z X	<u>5.40</u> 5.17	67.40 67.35	16.67 16.56	0.00	<u>150.0</u> 150.0	± 9.6 %
		T	4.71	67.68	16.79		150.0	
		z	5.13	67.25	16.51		150.0	
10225- CAB	UMTS-FDD (HSPA+)	×	2.87	66.58	15.73	0.00	150.0	± 9.6 %
		Y	2.38	67.09	13.98		150.0	
		Z	2.82	66.38	15.50		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	9.50	87.34	24.24	6.02	65.0	± 9.6 %
		_ Y _	2.34	72.67	20.10		65.0	
		Z	6.98	84.60	23.83		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	8.72	84.77	22.80	6.02	65.0	± 9.6 %
		Y	2.21	71.55	18.95		65.0	
		Z	6.78	83.00	22.65		65.0	
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	7.70	87.24	26.02	6.02	65.0	± 9.6 %
		Y	2.35	71.63	21.26		65.0	
		Z	5.43	82.72	24.92		65.0	
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	9.03	86.38	23.83	6.02	65.0	± 9.6 %
		Y	2.27	72.06	19.75		65.0	
		Z	6.67	83.69	_23.42		65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	8.29	83.90	22.43	6.02	65.0	± 9.6 %
		Y	2.13	70.90	18.60		65.0	
		Z	6.44	82.12	22.26		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	7.38	86.38	25.64	6.02	65.0	± 9.6 %
		Y	2.30	71.12	20.95		65.0	
		Z	5.24	81.97	24.56		65.0	
10232- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	9.02	86.36	23.83	6.02	65.0	± 9.6 %
		Y	2.27	72.05	19.75		65.0	
		Z	6.65	83.67	23.41		65.0	
10233- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	8.28	83.89	22.42	6.02	65.0	± 9.6 %
		Y	2.13	70.87	18.59		65.0	
		Z	6.43	82.09	22.25		65.0	
10234- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	7.10	85.54	25.23	6.02	65.0	± 9.6 %
		Y	2.26	70.79	20.68		65.0	
		Z	5.08	81.30	24.19		65.0	
10235- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	9.02	86.38	23.84	6.02	65.0	± 9.6 %
		Y	2.27	72.05	19.76		65.0	ļ
		Z	6.65	83.69	23.42		65.0	
10236- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	8.34	83.99	22.45	6.02	65.0	± 9.6 %
		Y	2.15	70.97	18.63		65.0	ļ
		Z	6.48	82.21	22.28		65.0	 
10237- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	7.38	86.43	25.66	6.02	65.0	± 9.6 %
		Y	2.30	71.11	20.95		65.0	L
		Z	5.24	82.00	24.57		65.0	
10238- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	9.00	86.33	23.82	6.02	65.0	± 9.6 %
		Y	2.26	72.03	19.74		65.0	
		Z	6.63	83.64	23.40		65.0	

10239- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	8.25	83.86	22.41	6.02	65.0	± 9.6 %
		Y	2.13	70.85	18.59		65.0	1
		Ż	6.41	82.06	22.24		65.0	
10240- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	7.36	86.38	25.64	6.02	65.0	± 9.6 %
		Y	2.30	71.11	20.95		65.0	
	·	Ζ	5.22	81.96	24.56		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	×	7.65	78.90	23.86	6.98	65.0	± 9.6 %
		Y	4.15	74.63	23.03		65.0	
		Ζ	6.65	77.23	23.41		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	х	7.40	78.25	23.51	6.98	65.0	± 9.6 %
		Y	3.84	73.21	22.33		65.0	
		Z	6.07	75.38	22.52		65.0	
10243- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	6.13	75.50	23.22	6.98	65.0	± 9.6 %
·		Y	3.68	71.24	22.18		65.0	
		Z	5.17	72.72	22.17		65.0	
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	×	4.96	71.78	16.23	3.98	65.0	± 9.6 %
		Y	1.47	60.59	6.86		65.0	
1001		<u>Z</u>	4.27	70.57	15.63		65.0	
10245- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	×	4.90	71.39	16.01	3.98	65.0	± 9.6 %
		Y	1.47	60.48	6.73		65.0	
		Z	4.22	70.14	15.39		65.0	
10246- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	×	4.94	75.03	17.94	3.98	65.0	± 9.6 %
		Y	1.46	62.04	8.51		65.0	
		Z	4.23	73.72	17.40		65.0	
10247- CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	4.94	72.43	17.57	3.98	65.0	± 9.6 %
		Y	2.10	63.24	9.90		65.0	
		Z	4.38	71.34	17.07		65.0	
10248- CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	4.96	72.03	17.39	3.98	65.0	± 9.6 %
		Y	2.10	62.93	9.72		65.0	
		Z	4.40	70.92	16.87		65.0	
10249- CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	6.07	78.35	20.13	3.98	65.0	± 9.6 %
		Y	2.33	67.19	12.94		65.0	
		Z	5.28	77.21	19.80		65.0	
10250- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	5.95	75.24	20.37	3.98	65.0	±9.6%
		Y	3.82	70.93	16.95		65.0	
		Z	5.33	74.14	20.02		65.0	
10251- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	5.69	73.28	19.20	3.98	65.0	± 9.6 %
		Y	3.45	68.36	15.25		65.0	
		Z	5.13	72.25	18.83		65.0	
10252- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	×	6.58	78.88	21.28	3.98	65.0	± 9.6 %
		Y	4.11	75.12	18.99		65.0	
		Z	5.80	77.80	21.07		65.0	
10253- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	×	5.80	72.65	19.29	3.98	65.0	± 9.6 %
		Y	4.01	69.64	16.98		65.0	•
		Z	5.29	71.67	18.98		65.0	
10254- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	6.17	73.58	20.02	3.98	65.0	± 9.6 %
		Y	4.31	70.68	17.76		65.0	1
		Z	5.63	72.60	19.71		65.0	1

10255-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz,	X	6.29	76.23	20.52	3.98	65.0	± 9.6 %
CAC	QPSK)	Y		74.07	40.40			
			4.41	74.27	19.43		65.0	
10256-	LTE-TDD (SC-FDMA, 100% RB, 1.4	Z	5.67	75.30	20.34		65.0	
CAA	MHz, 16-QAM)	X	3.88	68.28	13.63	3.98	65.0	± 9.6 %
		Y	1.05	58.86	4.54		65.0	
40057		Z	3.28	66.95	12.85		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	3.85	67.85	13.35	3.98	65.0	±9.6 %
		Y	1.05	58.75	4.36		65.0	
40050		Z	3.25	66.51	12.54		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	3.78	70.85	15.35	3.98	65.0	± 9.6 %
		Y	1.11	60.00	5.99		65.0	
		Z	3.18	69.35	14.58		65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	5.33	73.49	18.59	3.98	65.0	± 9.6 %
		Y	2.60	65.55	12,14		65.0	
		Z	4.76	72.43	18.16		65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	5.38	73.29	18.52	3.98	65.0	±9.6 %
		Y	2.62	65.36	12.01		65.0	
		Z	4.80	72.23	18.08		65.0	
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	6.02	77.89	20.37	3.98	65.0	± 9.6 %
		Y	2.87	69.70	14.96		65.0	
		Z	5.26	76.76	20.06		65.0	
10262- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	5.94	75.19	20.32	3.98	65.0	± 9.6 %
		Y	3.80	70.83	16.88		65.0	
		Ż	5.32	74.09	19.98		65.0	
10263- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	5.68	73.26	19.19	3.98	65.0	± 9.6 %
0/10		Y	3.45	68.35	15.24		65.0	
		z	5.12	72.23	18.82		65.0	
10264- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	6.52	78.70	21.19	3.98	65.0	± 9.6 %
		Ι γ Ι	4.06	74.89	18.86		65.0	
		Ż	5.75	77.62	20.97		65.0	
10265- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	5.92	73.14	19.52	3.98	65.0	± 9.6 %
0/10		Y	4.14	70.23	17.64		65.0	
		Z	5.38	72.12	19.20		65.0	
10266- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	6.31	74.13	20.31	3.98	65.0	± 9.6 %
		Y	4.49	71.50	18.60	-	65.0	
	1	Ż	5.75	73.12	20.02	ĺ	65.0	
10267- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	6.54	76.70	20.49	3.98	65.0	±9.6 %
		Y	4.64	75.05	19.89		65.0	
		Ż	5.90	75.83	20.35		65.0	1
10268- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.58	73,24	19.99	3.98	65.0	± 9.6 %
		Y	4.89	71.06	18.92		65.0	
40000		Z	6.05	72.29	19.72	0.00	65.0	1000
10269- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	6.56	72.88	19.90	3.98	65.0	± 9.6 %
		Y	4.96	70.94	18.86		65.0	
		Z	6.05	71.95	19.63		65.0	
10270-	LTE-TDD (SC-FDMA, 100% RB, 15	X	6.52	74.64	19.85	3.98	65.0	± 9.6 %
CAC	MHz, QPSK)	1 1		1				
		Y	4.97 5.98	73.67	19.72		65.0	

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.66	67.03	15.70	0.00	150.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	2.34	68.55	14.63		150.0	
		Ż	2.62	66.83	15.48		150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.75	69.41	16.56	0.00	150.0	± 9.6 %
		Y	2.02	74.91	18.12		150.0	
		Ζ	1.67	68.59	16.06		150.0	
10277- CAA	PHS (QPSK)	X	2.57	62.13	7.82	9.03	50.0	± 9.6 %
		Y	1.60	59.68	4.94		50.0	
		Z	2.26	61.44	7.11		50.0	
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	4.26	69.41	14.02	9.03	50.0	± 9.6 %
		Y	2.29	61.84	7.55		50.0	
		Ζ	3.87	68.64	13.41		50.0	
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	Х	4.37	69.66	14.18	9.03	50.0	± 9.6 %
		Y	2.31	61.88	7.61		50.0	
		Ζ	3.97	68.90	13.58		50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	Х	1.85	72.31	15.88	0.00	150.0	± 9.6 %
		Y	0.36	60.00	5.29		150.0	
		Z	1.58	70.17	14.63		150.0	
10291- AAB	CDMA2000, RC3, SO55, Full Rate	Х	1.02	68.88	14.36	0.00	150.0	± 9.6 %
		Y	0.28	60.00	5.31		150.0	
		Z	0.90	67.15	13.20		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	X	1.80	77.95	18.61	0.00	150.0	± 9.6 %
		. Y	0.38	62.69	7.21		150.0	
		Z	1.39	74.03	16.69		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	X	5.83	95.82	25.10	0.00	150.0	± 9.6 %
		Y	100.00	107.50	20.43		150.0	
		Z	3.54	87.74	22.15		150.0	
10295- AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	х	7.34	78.85	20.80	9.03	50.0	± 9.6 %
		Y	17.07	85.10	19.02		50.0	
		Z	7.80	80.40	21.29		50.0	
10297- AAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.92	70.76	17.30	0.00	150.0	± 9.6 %
		Ý	2.60	72.27	18.25		150.0	
		Z	2.80	70.10	16.98		150.0	
10298- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.81	69.98	15.49	0.00	150.0	± 9.6 %
	·	Y	0.52	60.00	6.04		150.0	
		Z	1.63	68.52	14.51		150.0	
10299- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	2.47	68.97	14.03	0.00	150.0	± 9.6 %
		Y	0.58	60.00	4.73		150.0	
		Z	2.10	67.38	13.05		150.0	
10300- 	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.87	64.64	11.20	0.00	150.0	± 9.6 %
		Y	0.56	60.00	4.04		150.0	
		Z	1.64	63.62	10.41		150.0	
10301- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.64	64.99	17.32	4.17	50.0	± 9.6 %
		Y	3.97	66.09	16.87		50.0	
		Z	4.63	65.19	17.38		50.0	
10302- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.19	65.93	18.20	4.96	50.0	± 9.6 %
		Y	4.41	66.55	17.60		50.0	
		Z	5.08	65.68	18.02	1	50.0	

10303- AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	4.95	65.59	18.05	4.96	50.0	± 9.6 %
		T Y	4.26	66.62	17.49		50.0	
		Ż	4.83	65.30	17.84		50.0	·
10304- AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.75	65.47	17.56	4.17	50.0	±9.6 %
		Y	4.05	66.34	16.93		50.0	
		Z	4.65	65.23	17.38		50.0	
10305- AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.49	67.73	19.78	6.02	35.0	±9.6 %
		Y	3.71	67.28	16.67		35.0	
		Z	4.28	66.94	19.23		35.0	
10306- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.75	66.48	19.22	6.02	35.0	±9.6 %
		Y	4.04	67.06	17.49		35.0	
40007		Z	4.60	65.99	18.86		35.0	
10307- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.67	66.74	19.24	6.02	35.0	±9.6 %
		<u>Y</u>	3.93	66.99	17.33		35.0	
10000		Z	4.50	66.15	18.83		35.0	
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.65	66.96	19.39	6.02	35.0	± 9.6 %
	·	Y	3.96	67.42	17.62		35.0	
10309-		Z	4.47	66.34	18.96	0.00	35.0	
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.80	66.69	19.36	6.02	35.0	± 9.6 %
		Y	4.07	67.23	17.68		35.0	
40040		Z	4.64	66.17	18.98		35.0	
10310- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.70	66.58	19.22	6.02	35.0	± 9.6 %
		<u>Y</u>	4.03	67.27	17.61		35.0	
40044		Z	4.55	66.06	18.84		35.0	
10311- AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.29	69.98	16.90	0.00	150.0	± 9.6 %
		Y	2.90	70.63	17.62		150.0	
10010		Z	3.17	69.35	16.60		150.0	
10313- AAA	iDEN 1:3	X	3.28	70.39	14.65	6.99	70.0	± 9.6 %
	·	Y	2.53	71.17	15.80		70.0	
40044		Z	2.85	70.12	14.78	40.00	70.0	
10314- AAA	iDEN 1:6	X	4.28	75.46	19.37	10.00	30.0	± 9.6 %
	·	Y	4.79	80.62	22.06		30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1	Z X	4.09 1.12	76.26 64.41	<u>19.99</u> 15.77	0.17	30.0 150.0	± 9.6 %
1770	Mbps, 96pc duty cycle)	Y	1.15	65.92	16.47		150.0	
		Z	1.10	63.89	15.39	<u> </u>	150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	X	4.61	66.72	16.37	0.17	150.0	± 9.6 %
		Y	4.09	67.47	16.39		150.0	
		z	4.56	66.65	16.32		150.0	
10317- AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.61	66.72	16.37	0.17	150.0	± 9.6 %
		Y	4.09	67.47	16.39		150.0	
		Z	4.56	66.65	16.32		150.0	
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.74	67.15	16.46	0.00	150.0	± 9.6 %
		Y	4.09	67.65	16.48		150.0	
		Z	4.69	67.06	16.40		150.0	
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.44	67.31	16.60	0.00	150.0	± 9.6 %
		Y	4.84	67.31	16.60	1	150.0	
		Z	5.42	67.27	16.57		150.0	

10402-	IEEE 802.11ac WIFi (80MHz, 64-QAM,	X	5.69	67.61	16.60	0.00	150.0	± 9.6 %
AAC	99pc duty cycle)						ļ	
		Ύ	5.24	67.76	16.80		150.0	
10403-		Z	5.65	67.50	16.56		150.0	
AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.85	72.31	15.88	0.00	115.0	±9.6 %
		Y	0.36	60.00	5.29		115.0	
		Z	1.58	70.17	14.63		115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.85	72.31	15.88	0.00	115.0	± 9.6 %
		Y	0.36	60.00	5.29		115.0	
		Z	1.58	<u>70.17</u>	14.63		115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	53.12	115.17	29.24	0.00	100.0	± 9.6 %
		Y	100.00	124.65	27.76		100.0	
		Z	28.83	109.13	27.97		100.0	
10410- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.68	83.50	19.17	3.23	80.0	± 9.6 %
		Y	1.37	73.33	16.57		80.0	
		Z	5.13	82.70	19.33		80.0	
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.04	63.68	15.36	0.00	150.0	± 9.6 %
		Y	1.11	65.66	16.32		150.0	
		Z	1.04	63.32	15.03		150.0	
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	X	4.58	66.83	16.42	0.00	150.0	± 9.6 %
		Y	4.11	67.78	16.58		150.0	
		Ζ	4.54	66.76	16.35		150.0	
10417- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	Х	4.58	66.83	16.42	0.00	150.0	± 9.6 %
		Y	4.11	67.78	16.58		150.0	
		Z	4.54	66.76	16.35		150.0	
10418- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.57	67.00	16.44	0.00	150.0	±9.6 %
		Y	4.09	68.01	16.69		150.0	
		Z	4.53	66.93	16.39		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.59	66.94	16.44	0.00	150.0	± 9.6 %
		Y	4.11	67.93	16.65		150.0	
		Ζ	4.55	66.87	16.38		150.0	
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.71	66.93	16.45	0.00	150.0	± 9.6 %
		Y	4.19	67.82	16.64		150.0	
		Z	4.66	66.86	16.39		150.0	
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.87	67.25	16.56	0.00	150.0	± 9.6 %
		Y	4.27	68.04	16.70	_	150.0	
		Z	4.82	67.16	16.50		150.0	
10424- AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.79	67.20	16.54	0.00	150.0	± 9.6 %
		Y	4.21	67.94	16.67		150.0	
		Z	4.74	67.12	16.47		150.0	
10425- AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.39	67.48	16.69	0.00	150.0	± 9.6 %
		Y	4.86	67.72	16.85		150.0	
		Z	5.35	67.38	16.64		150.0	
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps,	X	5.40	67.51	16.70	0.00	150.0	±9.6 %
	10-QAM)							
AAA	16-QAM)	Y	4.89	67.85	16.91		150.0	

10427- AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.41	67.49	16.68	0.00	150.0	± 9.6 %
		Y	4.87	67.71	16.83		150.0	
		Ż	5.37	67.41	16.64		150.0	
10430- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.48	71.93	18.89	0.00	150.0	± 9.6 %
		Y	5.16	77.88	19.19		150.0	
		Z	4.43	71.96	18.79		150.0	
10431- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.27	67.46	16.46	0.00	150.0	± 9.6 %
		Y	3.63	68.54	16.11		150.0	
		Z	4.21	67.36	16.35		150.0	
10432- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.56	67.28	16.50	0.00	150.0	± 9.6 %
		Υ	3.98	68.25	16.55		150.0	
40.400		Z	4.51	67.19	16.43		150.0	
10433- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.81	67.24	16.56	0.00	150.0	± 9.6 %
		Y	4.24	68.00	16.70		150.0	
10434-		Z	4.76	67.15	16.49	0.00	150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.67	73.09	18.99	0.00	150.0	± 9.6 %
·	·	Y	4.20	74.62	16.81		150.0	
10435-		Z	4.61	73.09	18.84	0.00	150.0	10.00
AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.37	82.80	18.90	3.23	80.0	± 9.6 %
		Y	1.33	72.76	16.26		80.0	
40447		Z	4.91	82.00	19.05		80.0	
10447- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.58	67.63	15.88	0.00	150.0	± 9.6 %
		Y	2.52	66.35	12.95		150.0	
		Z	3.50	67.43	15.64		150.0	
10448- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.11	67.25	16.33	0.00	150.0	± 9.6 %
		Y	3.54	68.41	16.05		150.0	
40440		Z	4.05	67.14	16.22		150.0	
10449- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.38	67.12	16.41	0.00	150.0	±9.6 %
		Y	3.87	68.13	16.50		150.0	
40450		Z	4.33	67.03	16.33		150.0	
10450- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X Y	4.57	67.02	16.42 16.59	0.00	150.0	± 9.6 %
		-		66.93	16.35		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	Z X	4.53 3.49	67.88	15.53	0.00	150.0	± 9.6 %
		Y	2.00	64.08	10.79		150.0	
		Z	3.38	67.58	15.21		150.0	
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.26	68.00	16.81	0.00	150.0	± 9.6 %
		Y	6.16	68.95	17.43		150.0	
		Z	6.24	67.94	16.79		150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	X	3.82	65.46	16.13	0.00	150.0	± 9.6 %
		Y	3.61	66.92	16.42		150.0	
		Z	3.81	65.40	16.06		150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.29	67.12	14.89	0.00	150.0	± 9.6 %
		Y	1.44	60.53	7.42		150.0	
		Z	3.18	66.78	14.49		150.0	
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.43	65.51	15.86	0.00	150.0	±9.6 %
		Y	2.62	61.35	10.29		150.0	
		Z	4.37	65.53	15.72		150.0	

10460-	UMTS-FDD (WCDMA, AMR)	X	1.04	71.02	17.96	0.00	150.0	± 9.6 %
		Y	1.96	84.00	22.92		150.0	
10461-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	Z X	0.97 3.48	69.34 77.15	<u>16.98</u> 17.91	3.29	150.0 80.0	± 9.6 %
AAA	QPSK, UL Subframe=2,3,4,7,8,9)		0.40	11.10	17.31	5.25	00.0	19.0 %
		Y	0.97	69.25	15.91		80.0	
		Ζ	2.58	75.48	17.77		80.0	
10462- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	1.03	60.33	8.14	3.23	80.0	± 9.6 %
		Y	0.21	55.42	3.53		80.0	
		Ż	0.84	60.00	7.93		80.0	
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	1.01	60.00	7.51	3.23	80.0	± 9.6 %
		Y	28.36	203.22	3.05		80.0	
		Z	0.86	60.00	7.39		80.0	
10464- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.64	73.32	15.98	3.23	80.0	± 9.6 %
		Y	0.75	66.12	13.77		80.0	
		Ζ	2.03	72.11	15.91		80.0	
10465- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	х	0.99	60.00	7.91	3.23	80.0	± 9.6 %
		Y	29.96	194.97	5.15		80.0	
10100		_Z	0.84	60.00	7.86		80.0	
10466- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	×	1.01	60.00	7.46	3.23	80.0	± 9.6 %
		Y	30.98	196.96	1.83		80.0	
10467		Z	0.86	60.00	7.34	0.00	80.0	
10467- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.77	73.96	16.25	3.23	80.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	0.77	66.65	14.10		80.0	
10468-		Z X	2.12	72.73	16.19	0.00	80.0	
AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)		0.99	60.08	7.96	3.23	80.0	±9.6 %
		Y	0.21	55.39	3.50		80.0	
10469-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-	Z X	0.84	60.00 60.00	7.88 7.46	2.00	80.0	
AAB	QAM, UL Subframe=2,3,4,7,8,9)					3.23	80.0	± 9.6 %
		Y	30.66	197.41	1.31		80.0	
10470		Z	0.86	60.00	7.34	0.00	80.0	
10470- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.76	73.94	16.23	3.23	80.0	± 9.6 %
	- <u> </u>	Y	0.77	66.67	14.10		80.0	
10471- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	2,11 0.99	72.72 60.05	<u>16.18</u> 7.93	3.23	80.0 80.0	± 9.6 %
	Gravi, OL GUDITATTE-2,3,4,7,0,7)	Y	29.34	196.18	6.49		80.0	·
	· · · · · · · · · · · · · · · · · · ·	Z	0.84	60.00	7.87	<u> </u>	80.0	
10472- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	x	1.01	60.00	7.45	3.23	80.0	± 9.6 %
		Y	30.49	197.73	1.27		80.0	
		Z	0.86	60.00	7.33		80.0	
10473- AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.76	73.90	16.22	3.23	80.0	± 9.6 %
		Y	0.77	66.63	14.08		80.0	
10.17		Z	2.11	72.69	16.16		80.0	
10474- AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	0.99	60.03	7.93	3.23	80.0	± 9.6 %
		Y	29.25	196.25	6.42		80.0	
10475		Z	0.84	60.00	7.87	0.00	80.0	
10475- AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	×	1.01	60.00	7.45	3.23	80.0	± 9.6 %
		Y	30.47	197.62	1.42		80.0	
		Z	0.86	60.00	7.33		80.0	

10477- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	0.98	60.00	7.89	3.23	80.0	± 9.6 %
		Y	29.49	195.72	5.56		80.0	
		Z	0.84	60.00	7.84		80.0	
10478- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	1.01	60.00	7.44	3.23	80.0	± 9.6 %
		Y	30.62	197.39	1.80		80.0	
		Z	0.86	60.00	7.32		80.0	
10479- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	3.88	74.90	18.39	3.23	80.0	± 9.6 %
		Y	2.49	77.92	19.26		80.0	
10100		Z	3.49	74.59	18.40		80.0	
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.37	69.78	14.78	3.23	80.0	± 9.6 %
		Y	0.68	60.27	8.31		80.0	- · · ·
40404		Z	2.92	69.11	14.47		80.0	
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.92	67.65	13.55	3.23	80.0	± 9.6 %
		Y	0.66	60.00	7.51		80.0	
40400		Z	2.50	66.84	13.14	0.00	80.0	
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.52	68.86	15.13	2.23	80.0	± 9.6 %
		Y_	0.83	60.00	6.91		80.0	
10483-		Z	2.14	67.39	14.41		80.0	
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.86	67.07	13.71	2,23	80.0	± 9.6 %
		Y	1.05	60.00	5.62		80.0	
10404		Z	2.44	65.81	13.01	0.00	80.0	
10484- 	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.80	66.60	13.51	2.23	80.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	1.07	60.00	5.60		80.0	
10108		Z	2.40	65.34	12.79		80.0	
10485- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.96	70.85	16.91	2.23	80.0	± 9.6 %
		Y	1.17	62.58	10.56		80.0	
		Z	2.58	69.54	16.39		80.0	
10486- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.96	67.72	15.13	2.23	80.0	± 9.6 %
		Y.	1.13	60.00	7.87		80.0	
		Z	2.66	66.76	14.61		80.0	
10487- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.97	67.43	14.99	2.23	80.0	± 9.6 %
		Y	1.16	60.00	7.81		80.0	
10488-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	Z X	2.67 3.38	66.49 70.90	14.47 17.67	2.23	80.0 80.0	± 9.6 %
AAB	QPSK, UL Subframe=2,3,4,7,8,9)	<u> </u>				ļ		
		Y	2.25	69.00	16.17		80.0	ļ. <b>.</b>
		Z	3.02	69.76	17.29		80.0	
10489- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.39	68.12	16.57	2.23	80.0	± 9.6 %
		Y	2.32	66.16	14.18	ļ	80.0	ļ
		Z	3.13	67.37	16.26	-	80.0	
10490- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.49	68.02	16.54	2.23	80.0	± 9.6 %
	1	Y	2.33	65.79	13.96		80.0	
		Z	3.23	67.30	16.25		80.0	
10491- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.68	69.90	17.42	2.23	80.0	± 9.6 %
		Y	2.62	68.57	16.67		80.0	· ·
		Z	3.36	68.97	17.13	<u> </u>	80.0	
10492- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.77	67.68	16.72	2.23	80.0	± 9.6 %
		Y	2.84	66.78	15.53		80.0	
		Z	3.53	67.02	16.47		80.0	

10493- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.84	67.59	16.70	2.23	80.0	±9.6 %
		Y	2.87	66.60	15.40		80.0	
		Z	3.60	66.95	16.45		80.0	
10494- AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.93	71.14	17.78	2.23	80.0	± 9.6 %
		Y	2.77	69.47	17.23		80.0	
		Z	3.56	70.11	17.48		80.0	
10495- AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.80	68.03	16.89	2.23	80.0	± 9.6 %
		Y	2.91	67.12	16.06		80.0	
		Z	3.55	67.32	16.64		80.0	
10496- AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.89	67.83	16.85	2.23	80.0	± 9.6 %
		Y	2.99	66.99	16.00		80.0	
		Z	3.64	67.16	16.61		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.81	64.83	12.37	2.23	80.0	± 9.6 %
		Y	0.97	60.00	4.80		80.0	
		Z	1.52	63.38	11.47		80.0	
10498- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.56	60.98	9.46	2.23	80.0	± 9.6 %
		Y	19.60	209.65	15.97		80.0	
		Z	1.35	60.00	8.64		80.0	
10499- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.53	60.58	9.11	2.23	80.0	± 9.6 %
		Y	17.31	229.94	5.52		80.0	
		Z	1.37	60.00	8.51		80.0	1
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.10	70.67	17.16	2.23	80.0	± 9.6 %
		Y	1.60	65.48	12.91		80.0	
		Z	2.73	69.49	16.71		80.0	
10501- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.16	67.97	15.73	2.23	80.0	± 9.6 %
		Y	1.34	60.72	9.33		80.0	
		Z	2.88	67.15	15.31		80.0	
10502- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.22	67.87	15.63	2,23	80.0	± 9.6 %
		Y	1.33	60.43	9.07		80.0	-
		Z	2.93	67.06	15.21		80.0	
10503- AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.34	70.72	17.57	2.23	80.0	± 9.6 %
		Y	2.22	68.78	16.06		80.0	
		Z	2.98	69.59	17.20		80.0	
10504- AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.37	68.03	16.51	2.23	80.0	± 9.6 %
		· · · T	0.00	1 00 04	44.00		80.0	
		Y	2.30	66.01	14.09			
		Y Z	<u>2.30</u> 3.11	67.28	16.20		80.0	
10505- AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X	3.11 3.47	67.28 67.93	16.20 16.49	2.23	80.0 80.0	± 9.6 %
10505-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z	3.11	67.28	16.20	2.23		± 9.6 %
10505-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X Y Z	3.11 3.47	67.28 67.93	16.20 16.49	2.23	80.0	± 9.6 %
10505-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z X Y Z X	3.11 3.47 2.31 3.21 3.90	67.28 67.93 65.66 67.21 71.01	16.20 16.49 13.87 16.19 17.71	2.23	80.0 80.0 80.0 80.0	± 9.6 %
10505- AAB 10506-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X Y Z X Y	3.11 3.47 2.31 3.21 3.90 2.75	67.28 67.93 65.66 67.21 71.01 69.34	16.20 16.49 13.87 16.19 17.71 17.15		80.0 80.0 80.0	
10505- AAB 10506-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Z X Y Z X	3.11 3.47 2.31 3.21 3.90	67.28 67.93 65.66 67.21 71.01	16.20 16.49 13.87 16.19 17.71		80.0 80.0 80.0 80.0	
10505- AAB 10506-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL	Z X Y Z X Y	3.11 3.47 2.31 3.21 3.90 2.75	67.28 67.93 65.66 67.21 71.01 69.34	16.20 16.49 13.87 16.19 17.71 17.15		80.0 80.0 80.0 80.0 - 80.0	
10505- AAB 10506- AAB 10507-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10	Z X Z Z X Y Z	3.11 3.47 2.31 3.21 3.90 2.75 3.53	67.28 67.93 65.66 67.21 71.01 69.34 69.98	16.20 16.49 13.87 16.19 17.71 17.15 17.41	2.23	80.0 80.0 80.0 80.0 80.0 80.0 80.0	± 9.6 %

10508- AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.87	67.76	16.81	2.23	80.0	± 9.6 %
		Y	2.97	66.90	15.95		80.0	
		Z	3.63	67.09	16.57		80.0	
10509- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.29	70.13	17.39	2.23	80.0	±9.6 %
		Ŷ	3.19	68.68	17.10		80.0	
		Z	3.96	69.31	17.16		80.0	
10510- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	4.29	67.87	16.94	2.23	80.0	± 9.6 %
		Y	3.35	66.74	16.37		80.0	
		Z	4.04	67.22	16.73		80.0	
10511- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.35	67.67	16.90	2.23	80.0	± 9.6 %
		Y	3.43	66.67	16.35		80.0	
		Z	4.11	67.05	16.70		80.0	
10512- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.41	71.37	17.74	2.23	80.0	± 9.6 %
		Y	3.20	69.31	17.29		80.0	
		Z	4.03	70.41	17.47		80.0	
10513- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	4.17	68.08	17.01	2.23	80.0	± 9.6 %
		Y	3.27	66.70	16.44		80.0	
10514- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X	3.92 4.20	67.38 67.73	16.78 16.93	2.23	80.0 80.0	± 9.6 %
	Subirame=2,3,4,7,6,9)	Y	3.34	66.53	16.38		80.0	
		Z	<u> </u>	67.07	16.71		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	1.01	63.92	15.46	0.00	150.0	± 9.6 %
7001		Y	1.07	66.05	16.52		150.0	
		Ż	1.00	63.52	15.11		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.80	76.03	20.57	0.00	150.0	± 9.6 %
		Y	1.63	90.26	26.95		150.0	
		Z	0.67	72.14	18.59		150.0	
10517- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.88	66.52	16.52	0.00	150.0	± 9.6 %
		Y	0.99	69.72	18.29		150.0	
10518- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	Z X	0.86 4.57	65.67 66.91	15.91 16.40	0.00	<u>150.0</u> 150.0	± 9.6 %
		Y	4.10	67.98	16.63		150.0	
	··· · · · · · · · · · · · · · · · · ·	Ż	4.53	66.84	16.34		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.75	67.14	16.51	0.00	150.0	± 9.6 %
		Y	4.20	68.09	16.69		150.0	
		Z	4.70	67.05	16.44		150.0	
10520- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.61	67.11	16.44	0.00	150.0	± 9.6 %
		Y	4.07	67.97	16.60		150.0	<b> </b>
10521- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	Z X	4.56 4.54	67.01 67.11	16.37 16.43	0.00	150.0 150.0	± 9.6 %
1111		Y	4.00	67.83	16.53		150.0	
		z	4.49	67.00	16.36	<u>+-</u>	150.0	
10522- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.60	67.20	16.52	0.00	150.0	± 9.6 %
		Y	4.00	67.82	16.53	I	150.0	
		Z	4.55	67.12	16.45		150.0	

								•
10523- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.49	67.08	16.37	0.00	150.0	± 9.6 %
		Y	4.01	68.16	16.68		150.0	1
		Z	4.44	67.01	16.31		150.0	
10524- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.54	67.12	16.48	0.00	150.0	± 9.6 %
		Y	3.97	67.92	16.63		150.0	
		Z	4.49	67.03	16.42		150.0	
10525- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.54	66.18	16.08	0.00	150.0	± 9.6 %
	·	Y	4.09	67.26	16.38		150.0	
		Z	4.50	66.10	16.02		150.0	
10526- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.71	66.55	16.22	0.00	150.0	± 9.6 %
		Y	4.14	67.37	16.43		150.0	
		Z	4.65	66.45	16.16		150.0	
10527- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duly cycle)	X	4.63	66.51	16.17	0.00	150.0	± 9.6 %
		Y.	4.11	67.44	16.42		150.0	
		Z	4.58	66.41	16.10		150.0	
10528- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.64	66.53	16.20	0.00	150.0	± 9.6 %
	·	Y	4.10	67.35	16.39		150.0	
		Z	4.59	66.42	16.13		150.0	
10529- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.64	66.53	16.20	0.00	150.0	± 9.6 %
		Y	4.10	67.35	16.39		150.0	
		Z	4.59	66.42	16.13		150.0	
10531- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.64	66.64	16.22	0.00	150.0	± 9.6 %
		Y	4.06	67.36	16.37		150.0	
		Z	4.58	66.51	16.14	• -	150.0	
10532- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.50	66.50	16.16	0.00	150.0	± 9.6 %
_		Y.	3.98	67.28	16.33		150.0	
		Z	4.44	66.37	16.07		150.0	
10533- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.65	66.58	16.19	0.00	150.0	± 9.6 %
		Y	4.11	67.58	16.46		150.0	
		Z	4.60	66.49	16.13		150.0	
10534- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.17	66.59	16.23	0.00	150.0	± 9.6 %
		Y	4.70	66.96	16.45		150.0	
		Z	5.13	66.48	16.18		150.0	<u> </u>
10535- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.24	66.77	16.31	0.00	150.0	± 9.6 %
		Y	4.70	67.00	16.48		150.0	
		Ż	5.20	66.68	16.26		150.0	
10536- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.11	66.73	16.27	0.00	150.0	± 9.6 %
		Y	4.62	67.02	16.47		150.0	
		Z	5.07	66.63	16.22		150.0	
10537- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.17	66.69	16.25	0.00	150.0	± 9.6 %
		Y	4.71	67.16	16.55		150.0	
10520		Z	5.13	66.59	16.20		150.0	
10538- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.26	66.70	16.30	0.00	150.0	± 9.6 %
	+	Y	4.72	66.92	16.45		150.0	
40515		Z	5.21	66.59	16.24		150.0	
10540- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.19	66.73	16.33	0.00	150.0	±9.6 %
		Ϋ́	4.66	66.87	16.46		150.0	
		Z	5.14	66.60	16.27		150.0	

10541- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.16	66.59	16.25	0.00	150.0	± 9.6 %
7991		Y	4.67	66.90	16.44	<u> </u>	150.0	
		z	5.12	66.48	16.19		150.0	
10542- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.31	66.65	16.29	0.00	150.0	±9.6%
		Y	4.80	66.97	16.49		150.0	
		Z	5.27	66.55	16.25		150.0	
10543- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.39	66.68	16.33	0.00	150.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	4.85	67.01	16.54		150.0	
40544		Z	5.34	66.57	16.28		150.0	
10544- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duly cycle)	X	5.48	66.68	16.21	0.00	150.0	± 9.6 %
<u> </u>		Υ Υ	5.09	66.77	16.36		150.0	
10545-	IEEE 802.11ac WiFi (80MHz, MCS1,	Z	5.46	66.59	16.17		150.0	
<u>AAA</u>	99pc duty cycle)	X	5.68	67.10	16.37	0.00	150.0	±9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	5.20	67.11	16.51		150.0	
10546-		Z	5.65	67.02	16.33	0.00	150.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.55	66.89	16.28	0.00	150.0	± 9.6 %
		Y	5.10	66.84	16.37		150.0	
10547-	IEEE 802.11ac WiFi (80MHz, MCS3,	Z	5.51	66.77	16.22	0.00	150.0	
AAA	99pc duty cycle)	X	5.62	66.93	16.29	0.00	150.0	±9.6%
		Y	5.22	67.15	16.53		150.0	
10548-		Z	5.58	66.82	16.24	0.00	150.0	
AAA	IEEE 802.11ac WIFi (80MHz, MCS4, 99pc duty cycle)	X	5.87	67.85	16.72	0.00	150.0	± 9.6 %
		Y	5.13	67.04	16.46		150.0	
40550		Z	5.82	67.71	16.65		150.0	
10550- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.58	66.91	16.30	0.00	150.0	±9.6 %
		Y	5.24	67.42	16.68		150.0	
10551-			5.55	66.83	16.27	0.00	150.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.58	66.96	16.28	0.00	150.0	± 9.6 %
		Y -	5.07	66.77	16.33		150.0	
10552- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	Z X	5.54 5.50	66.84 66.76	16.2 <u>3</u> 16.19	0.00	150.0 150.0	± 9.6 %
1001		Y	5.09	66.99	16.43		150.0	
		z	5.47	66.66	16.15		150.0	
10553- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.58	66.78	16.23	0.00	150.0	± 9.6 %
		Y	5.11	66.82	16.35		150.0	
		Z	5.54	66.67	16.18		150.0	
10554- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.89	67.03	16.29	0.00	150.0	± 9.6 %
		Y	5.55	66.98	16.39		150.0	
		Z	5.87	66.94	16.25		150.0	
10555- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.02	67.33	16.41	0.00	150.0	± 9.6 %
		Y	5.61	67.17	16.48		150.0	
		Z	5.99	67.24	16.37		150.0	
10556- AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duly cycle)	X	6.04	67.38	16.43	0.00	150.0	± 9.6 %
		Y	5.65	67.28	16.52		150.0	
		Z	6.02	67.29	16.39		150.0	
10557- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duly cycle)	X	6.01	67.28	16.40	0.00	150.0	± 9.6 %
		Y	5.60	67.14	16.47		150.0	
		Z	5.97	67.17	16.35		150.0	

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10558- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.05	67.44	16.50	0.00	150.0	± 9.6 %
		Y	5.55	67.02	16.43		150.0	
		Z	6.02	67.33	16.43		150.0	
10560- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.05	67.29	16.46	0.00	150.0	± 9.6 %
		Y	5.59	67.02	16.46		150.0	
		Z	6.01	67.17	16.41		150.0	
10561- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.97	67.26	16.48	0.00	150.0	± 9.6 %
		Y	5.53	66.98	16.46		150.0	
		Z	5.94	67.16	16.44		150.0	
10562- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.09	67.63	16.67	0.00	150.0	± 9.6 %
		Y	5.59	67.19	16.57		150.0	
40500		Z	6.05	67.48	16.60		150.0	
10563- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duly cycle)	X	6.29	67.85	16.73	0.00	150.0	±9.6 %
· · ·		Y	5.86	67.78	16.84		150.0	
40501		Z	6.16	67.47	16.55		150.0	
10564- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	X	4.89	66.92	16.50	0.46	150.0	±9.6 %
		Y	4.37	67.73	16.65		150.0	
40505		Z	4.84	66.85	16.44		150.0	
10565- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 99pc duty cycle)	X	5.12	67.38	16.83	0.46	150.0	±9.6 %
		Y	4.53	68.17	16.98		150.0	
		Ž	5.07	67.30	16.78		150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	4.95	67.23	16.64	0.46	150.0	± 9.6 %
		Y	4.37	67.89	16.75		150.0	
		Z	4.90	67.13	16.58		150.0	
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	4.98	67.65	17.02	0.46	150.0	± 9.6 %
		Y	4.44	68.37	17.19		150.0	
		Z	4.94	67.56	16.97		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	X	4.85	66.96	16.38	0.46	150.0	±9.6 %
		Y	4.20	67.26	16.25		150.0	
		Z	4.80	66.87	16.32		150.0	
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	4.94	67.75	17.08	0.46	150.0	± 9.6 %
		Y	4.45	68.76	17.43		150.0	
		Z	4.90	67.68	17.04		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	X	4.98	67.59	17.02	0.46	150.0	± 9.6 %
		<u> Y</u>	4.39	68.33	17.21		150.0	l
40554		Z	4.93	67.52	16.97		150.0	L
10571- 	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.19	64.81	15.85	0.46	130.0	± 9.6 %
		Y	1.17	65.59	16.16		130.0	L
10575		Z	1.15	64.12	15.44		130.0	
10572- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.21	65.43	16.24	0.46	130.0	± 9.6 %
		Ý	1.18	66.27	16.61		130.0	
105-5		Z	1.17	64.67	15.80		130.0	
10573- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	2.73	90.43	24.99	0.46	130.0	± 9.6 %
		Υ	2.86	95.55	28.03		130.0	
		Z	1.51	81.07	21.85		130.0	
10574- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duly cycle)	X	1.39	72.10	19.60	0.46	130.0	± 9.6 %
		Y	1.35	73.36	20.46		130.0	
		Z	1.26	70.26	18.73	1	130.0	t

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10575-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	X	4.65	66.62	16.45	0.46	130.0	± 9.6 %
	OFDM, 6 Mbps, 90pc duty cycle)					0.40	100.0	± 0.0 %
		Y	4.13	67.33	16.45		130.0	
10576-		Z	4.61	66.55	16.40		130.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.68	66.80	16.53	0.46	130.0	± 9.6 %
		Y	4.17	67.68	16.63		130.0	
10577-		Z	4.64	66.73	16.48		130.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	X	4.88	67.09	16.70	0.46	130.0	± 9.6 %
		Y	4.28	67.86	16.75		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	Z X	4.83	67.01 67.27	16.65 16.82	0.46	130.0 130.0	± 9.6 %
	or bin, to hipps, sope duty cycle)	Y	4.22	68.05	16.92		130.0	
		z	4.73	67.18	16.92		130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.53	66.48	16.08	0.46	130.0	± 9.6 %
		Y	3.91	66.80	15.89		130.0	
		Z	4.48	66.37	16.01	-	130.0	
10580- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.58	66.51	16.09	0.46	130.0	± 9.6 %
		Y	3.89	66.66	15.78		130.0	
		Z	4.53	66.42	16.03		130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	X	4.68	67.30	16.76	0.46	130.0	±9.6 %
		Y	4.14	68.18	16.94		130.0	
10500		Z	4.63	67.21	16.71		130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duly cycle)	X	4.47	66.23	15.85	0.46	130.0	±9.6 %
		Y	3.80	66.45	15.61		130.0	
10500		Z	4.42	66.12	15.78		130.0	
10583- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.65	66.62	16.45	0.46	130.0	± 9.6 %
		Y	4.13	67.33	16.45		<u>130.</u> 0	
40504		Z	4.61	66.55	16.40		130.0	
10584- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.68	66.80	16.53	0.46	130.0	±9.6 %
		Y	4.17	67.68	16.63		130.0	
40505		Z	4.64	66.73	16.48		130.0	
10585- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.88	67.09	16.70	0.46	130.0	± 9.6 %
		Y	4.28	67.86	16.75		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	Z X	<u>4.83</u> 4.78	67.01 67.27	16.65 16.82	0.46	130.0 130.0	± 9.6 %
		Y	4.22	68.05	16.92		130.0	
		z	4.73	67.18	16.77		130.0	·
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.53	66.48	16.08	0.46	130.0	±9.6 %
		Y	3.91	66.80	15.89		130.0	
		Z	4.48	66.37	16.01		130.0	
10588- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.58	66.51	16.09	0.46	130.0	± 9.6 %
· · ·		Y	3.89	66.66	15.78		130.0	
40500		Z	4.53	66.42	16.03		130.0	
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.68	67.30	16.76	0.46	130.0	±9.6 %
		<u>Y</u>	4.14	68.18	16.94		130.0	
10500		Z	4.63	67.21	16.71	-	130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	×	4.47	66.23	15.85	0.46	130.0	± 9.6 %
		Y	3.80	66.45	15.61		130.0	
_		Z	4.42	66.12	15.78		130.0	

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10591-	IEEE 802.11n (HT Mixed, 20MHz,	X	4.80	66.69	16.56	0.46	130.0	± 9.6 %
AAA	MCS0, 90pc duly cycle)	-	1.00	0= 15				
		Y	4.29	67.48	16.65		130.0	
40500		Z	4.76	66.62	16.52		130.0	
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duly cycle)	X	4.96	67.02	16.69	0.46	130.0	± 9.6 %
		Y	4.35	67.66	16.74		130.0	
		Z	4.91	66.95	16.65		130.0	
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.87	66.92	16.57	0.46	130.0	± 9.6 %
		Y	4.28	67.58	16.60		130.0	
		Z	4.82	66.84	16.52		130.0	
10594- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.93	67.10	16.73	0.46	130.0	± 9.6 %
		Y	4.32	67.69	16.75		130.0	
		Z	4.88	67.02	16.68		130.0	
10595- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.90	67.04	16.62	0.46	130.0	±9.6 %
		Y	4.28	67.67	16.66		130.0	
		Z	4.85	66.97	16.57		130.0	
10596- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.83	67.04	16.62	0.46	130.0	± 9.6 %
		Y	4.19	67.48	16.58		130.0	
		Z	4.78	66.95	16.57		130.0	
10597- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.78	66.93	16.50	0.46	130.0	± 9.6 %
		Y	4.17	67.42	16.44		130.0	
		Z	4.73	66.84	16.44		130.0	
10598- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.77	67.20	16.78	0.46	130.0	± 9.6 %
		Y	4.23	67.87	16.85		130.0	<u> </u>
		Z	4.72	67.09	16.72		130.0	
10599- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.48	67.23	16.77	0.46	130.0	±9.6 %
		Y	5.11	68.05	17.18		130.0	
		Z	5.44	67.15	16.74		130.0	
10600- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.60	67.61	16.93	0.46	130.0	± 9.6 %
		Y	5.02	67.79	17.02		130.0	
		Z	5.57	67.57	16.91		130.0	
10601- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.49	67.38	16.83	0.46	130.0	± 9.6 %
		Y	4.99	67.77	17.04		130.0	
		Ż	5.46	67.31	16.81		130.0	· · · ·
10602- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duly cycle)	X	5.59	67.40	16.75	0.46	130.0	±9.6 %
		Y	5.00	67.54	16.84		130.0	
		Ż	5.57	67.40	16.76		130.0	
10603- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.67	67.72	17.05	0.46	130.0	± 9.6 %
		Y	5.02	67.69	17.07		130.0	1
	· · · · ·	Ż	5.64	67.68	17.04		130.0	· ·
10604- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duly cycle)	X	5.49	67.21	16.78	0.46	130.0	± 9.6 %
· · ·		Y	5.00	67.56	16.96		130.0	1
		Ż	5.49	67.27	16.82		130.0	1
10605- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.59	67.50	16.92	0.46	130.0	± 9.6 %
		Y	4.95	67.41	16.89		130.0	<b> </b>
	·	Ż	5.56	67.47	16.92	1	130.0	
						+ - <del></del>		1
10606- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duly cycle)	X	5.33	66.83	16.44	0.46	130.0	± 9.6 %
10606- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duly cycle)		5.33 4.96	66.83 67.58	16.44 16.81	0.46	130.0	± 9.6 %

10607-	IEEE 802.11ac WiFi (20MHz, MCS0,	ТхТ	4.64	66.02	16.19	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)			CONDE	10.10	0.40	100.0	10.070
		Y	4.16	66.91	16.36		130.0	
		Z	4.60	65.95	16.15		130.0	
10608- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.83	66.42	16.36	0.46	130.0	± 9.6 %
		Y	4.22	67.08	16.44		130.0	
		Z	4.78	66.34	16.31		130.0	
10609- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.71	66.26	16.19	0.46	130.0	± 9.6 %
		Y Y	4.14	66.94	<u>16.27</u>		130.0	
40040		Z	4.67	66.17	16.14		130.0	
10610- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.77	66.42	16.36	0.46	130.0	± 9.6 %
		Y	4.18	67.09	16.43		130.0	
		Z	4.72	66.34	16.31		130.0	
10611- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	×	4.68	66.22	16.20	0.46	130.0	± 9.6 %
		Y	<u>4.10</u>	<u>66.8</u> 7	16.26		130.0	
4004-		Z	4.63	66.13	16.14		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	×	4.69	66.36	16.23	0.46	130.0	± 9.6 %
		Y	4.03	66.77	16.18		130.0	
		Z	4.63	66.26	16.18		130.0	
10613- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.69	66.24	16.12	0.46	130.0	± 9.6 %
		Y	4.05	66.68	16.06		130.0	
		Z	4.63	66.13	16.05		130.0	
10614- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.64	66.46	16.37	0.46	130.0	± 9.6 %
		Y	4.09	67.10	16.44		130.0	
		Z	4.59	66.36	16.31		130.0	
10615- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.68	66.02	15.96	0.46	130.0	± 9.6 %
		Y	4.06	66.66	15.97		130.0	
		Z	4.62	65.94	15.90	-	130.0	
10616- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.29	66.48	16.38	0.46	130.0	± 9.6 %
		Y	4.78	66.74	16.52		130.0	
		Z	5.26	66.40	16.35		130.0	
10617- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.36	66.65	16.44	0.46	130.0	± 9.6 %
		Y	4.78	66.75	16.51		130.0	
		Z	5.33	66.60	16.42		130.0	
10618- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.25	66.67	16.46	0.46	130.0	± 9.6 %
		Y	4.72	66.85	16.58		130.0	
		Z	5.21	66.61	16.44		130.0	i
10619- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.26	66.46	16.29	0.46	130.0	± 9.6 %
		Y	4.77	66.81	16.49		130.0	
		Z	5.22	66.38	16.26		130.0	
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.35	66.50	16.36	0.46	130.0	± 9.6 %
		Y	4.78	66.60	16.41		130.0	
		Z	5.31	66.41	16.33		130.0	
10621- AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.35	66.65	16.56	0.46	130.0	± 9.6 %
		Y	4.83	66.85	16.68		130.0	
		_ Z	5.32	66.59	16.54		130.0	
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duly cycle)	X	5.37	66.81	16.63	0.46	130.0	± 9.6 %
		Y	4.79	66.84	16.68		130.0	
		Z	5.33	66.74	16.61	l	130.0	

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10623- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.24	66.32	16.25	0.46	130.0	± 9.6 %
		Y	4.72	66.50	16.34		130.0	
		z	5.20	66.24	16.22		130.0	
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.43	66.52	16.42	0.46	130.0	± 9.6 %
		Y	4.88	66.72	16.52		130.0	
		Z	5.40	66.45	16.39		130.0	
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.79	67.47	16.94	0.46	130.0	± 9.6 %
		Y	5.00	67.06	16.76		130.0	
		Z	5.70	67.26	16.85		130.0	
10626- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.59	66.53	16.33	0.46	130.0	± 9.6 %
		Y	5.18	66.57	16.44		130.0	
40007		Z	5.56	66.46	16.31		130.0	
10627- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duly cycle)	X	5.83	67.09	16.57	0.46	130.0	± 9.6 %
		Y	5.32	67.03	16.66		130.0	
40000		Z	5.81	67.05	16.57		130.0	<u> </u>
10628- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.62	66.61	16.26	0.46	130.0	± 9.6 %
		Y	5.14	66.45	16.28		130.0	
40600		Z	5.58	66.50	16.22		130.0	
10629- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.69	66.66	16.28	0.46	130.0	± 9.6 %
		Y	5.30	66.90	16.51		130.0	
40000		Z	5.66	66.57	16.25		130.0	
10630- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.12	68.14	17.02	0.46	130.0	± 9.6 %
		Ý	5.23	66.85	16.50		130.0	
		Z	6.06	67.97	16.95		130.0	
10631- AAA	IEEE 802.11ac WIFi (80MHz, MCS5, 90pc duty cycle)	X	6.03	67.99	17.15	0.46	130.0	±9.6 %
		Y	5.35	67.44	17.00		130.0	
	· · · · · · · · · · · · · · · · · · ·	Z	5.98	67.84	17.09		130.0	
10632- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.80	67.18	16.76	0.46	130.0	± 9.6 %
		Y	5.50	67.84	17.20		130.0	
		Z	<u>5.</u> 78	67.15	16.76		130.0	
10633- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duly cycle)	X	5.68	66.78	16.38	0.46	130.0	±9.6 %
		Y	<u>5.16</u>	66.59	16.40		130.0	
		Z	5.65	66.69	16.35		130.0	
10634- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.67	66.82	16.47	0.46	130.0	±9.6 %
		Y	5.24	66.99	16.65		130.0	
		Z	5.63	66.72	16.43		130.0	
10635- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.54	66.10	15.82	0.46	130.0	± 9.6 %
		Y	5.01	65.92	15.79		130.0	
		Ζ	5.50	65.99	15.78		130.0	
10636- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.00	66.89	16.41	0.46	130.0	± 9.6 %
		Y	5.65	66.81	16.48		130.0	
1000-		Z	5.98	66.82	16.39	<u> </u>	130.0	
10637- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.16	67.27	16.58	0.46	130.0	±9.6 %
		Y	5.75	67.13	16.64		<u>1</u> 30.0	
		Z	6.14	67.21	16.57		130.0	
10638- AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duly cycle)	X	6.15	67.24	16.55	0.46	130.0	±9.6 %
		Ý	<u>5.76</u>	67.17	16.64		130.0	
		Z	6.13	67.17	16.53		130.0	

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10639- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.13	67.20	16.57	0.46	130.0	± 9.6 %
		Y	5.71	67.01	16.60		130.0	·
		Z	6.11	67.11	16.54	<u> </u>	130.0	
10640- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.13	67.19	16.51	0.46	130.0	± 9.6 %
		Y	5.60	66.69	16.38		130.0	
		Z	6.11	67.10	16.47		130.0	· · · ·
10641- AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duly cycle)	X	6.18	67.10	16.48	0.46	130.0	± 9.6 %
		Y	5.73	66.87	16.49		130.0	
		Z	6.17	67.05	16.47		130.0	
10642- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.23	67.38	16.79	0.46	130.0	± 9.6 %
		Y	5.75	67.07	16.76		130.0	
		Z	6.20	67.30	16.77		130.0	
10643- 	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	Х	6.06	67.04	16.51	0.46	130.0	± 9.6 %
		Y	5.58	66.67	16.43		130.0	
·		Z	6.04	66.97	16.50		130.0	
10644- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.22	67.52	16.78	0.46	130.0	± 9.6 %
		Y	5.68	67.01	16.62		130.0	
		Z	6.17	67.37	16.71		130.0	
10645- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.52	68.03	16.98	0.46	130.0	± 9.6 %
		Y	6.07	67.95	17.07		130.0	
		Z	6.34	67.53	16.76		130.0	
10646- AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	13.12	97.57	31.83	9.30	60.0	± 9.6 %
··		Y	3.90	78.39	26.30		60.0	
		Z	9.88	93.63	31.05		60.0	
10647- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	12.04	96.40	31.56	9.30	60.0	±9.6 %
		Y	3.54	76.66	25.68		60.0	
		Z	8.93	92.04	30.63		60.0	
10648- AAA	CDMA2000 (1x Advanced)	X	0.77	65.21	11.99	0.00	150.0	± 9.6 %
		Y	0.27	60.00	4.67		150.0	
		Z	0.71	64.17	11.12		150.0	

<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.

## 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

2017

Accreditation No.: SCS 0108

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

PC Test Client

Certificate No: EX3-7410\_Jul17

<u>Calie</u>	<b>BRATION</b>	CERTIFIC	ATE

EX3DV4 - SN:7410

July 17, 2017

Calibration procedure(s)

QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes

Calibration date:

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-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. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	31-Dec-16 (No. ES3-3013_Dec16)	Dec-17
DAE4	SN: 660	7-Dec-16 (No. DAE4-660_Dec16)	Dec-17
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-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:	Jeton Kastrati		Laboratory Technician C	q=0-
Approved by:	Kalja Pokovic		Technical Manager	Relly
This calibration certificat	e shall not be reoroduced exc	cept in full without	it written approval of the labor:	Issued: July 17, 2017

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



S Schweizerischer Kalibrierdienst

- C Service suisse d'étalonnage
- S Servizio svizzero di taratura
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# Glossary:TSLtissue simulating liquidNORMx,y,zsensitivity in free spaceConvFsensitivity in TSL / NORMx,y,zDCPdiode compression point

CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization 9	9 rotation around an axis that is in the plane normal to probe axis (at measurement center),
•	i.e., $\vartheta = 0$ is normal to probe axis

Connector Angle information used in 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 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 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).

## Probe EX3DV4

## SN:7410

Calibrated:

Manufactured: November 24, 2015 July 17, 2017

Calibrated for DASY/EASY Systems (Note: non-compatible with DASY2 system!)

## **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
<u>Norm (μV/(V/m)²)^</u>	0.40	0.46	0.43	± 10.1 %
DCP (mV) <sup>B</sup>	95.4	94.7	91.2	

## **Modulation Calibration Parameters**

UID	Communication System Name		Α	В	с	D	VR	Unc <sup>E</sup>
			dB	dBõV		dB	mV	(k=2)
0	CW	X	0.0	0.0	1.0	0.00	130.7	±3.5 %
		Y	0.0	0.0	1.0		146.7	
		Z	0.0	0.0	1.0		132.5	

Note: For details on UID parameters see Appendix.

## **Sensor Model Parameters**

	C1 fF	C2 fF	α V <sup>-1</sup>	T1 ms.V <sup>-2</sup>	T2 ms.V⁻¹	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	T6
X	41.43	313.6	36.54	8.525	0.381	5.024	0.000	0.467	1.003
Y	<u>41.67</u>	315.5	36.57	10.32	0.000	5.055	0.334	0.426	1.004
Z	51.58	393.9	37.05	11.42	0.427	5.066	0.000	0.561	1.006

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

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	10.60	10.60	10.60	0.53	0.80	± 12.0 %			
835	41.5	0.90	10.08	10.08	10.08	0.41	0.98	± 12.0 %			
1750	40.1	1.37	8.66	8.66	8.66	0.41	0.82	± 12.0 %			
1900	40.0	1.40	8.37	8.37	8.37	0.28	1.19	± 12.0 %			
2300	39.5	1.67	8.02	8.02	8.02	0.35	0.80	± 12.0 %			
2450	39.2	1.80	7.68	7.68	7.68	0.33	0.89	± 12.0 %			
2600	39.0	1.96	7.42	7.42	7.42	0.40	0.80	± 12.0 %			

## Calibration Parameter Determined in Head Tissue Simulating Media

<sup>c</sup> Frequency validity above 300 MHz of  $\pm$  100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to  $\pm$  50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is  $\pm$  10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to  $\pm$  110 MHz. <sup>F</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 ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. <sup>6</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.

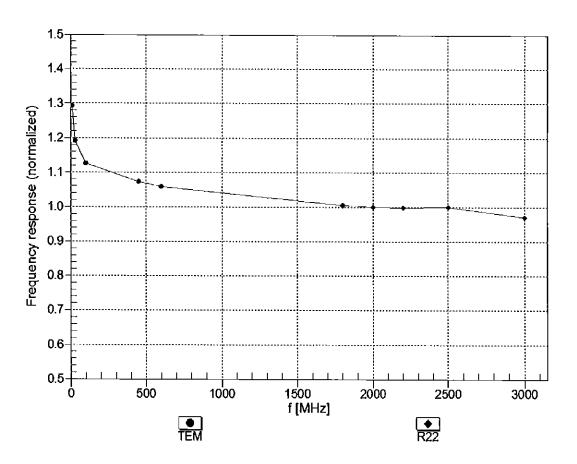
f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	10.19	10.19	10.19	0.33	1.02	± 12.0 %
835	55.2	0.97	9.95	9.95	9.95	0.50	0.80	± 12.0 %
1750	53.4	1.49	8.32	8.32	8.32	0.39	0.86	± 12.0 %
1900	53.3	1.52	7.98	7.98	7.98	0.44	0.86	± 12.0 %
2300	52.9	1.81	7.85	7.85	7.85	0.44	0.84	± 12.0 %
2450	52.7	1.95	7.69	7.69	7.69	0.37	0.89	± 12.0 %
2600	52.5	2.16	7.43	7.43	7.43	0.28	0.99	± 12.0 %

## Calibration Parameter Determined in Body Tissue Simulating Media

<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. Above 5 GHz frequency validity can be extended to ± 110 MHz. F At frequencies below 3 GHz, the validity of tissue parameters ( $\varepsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to

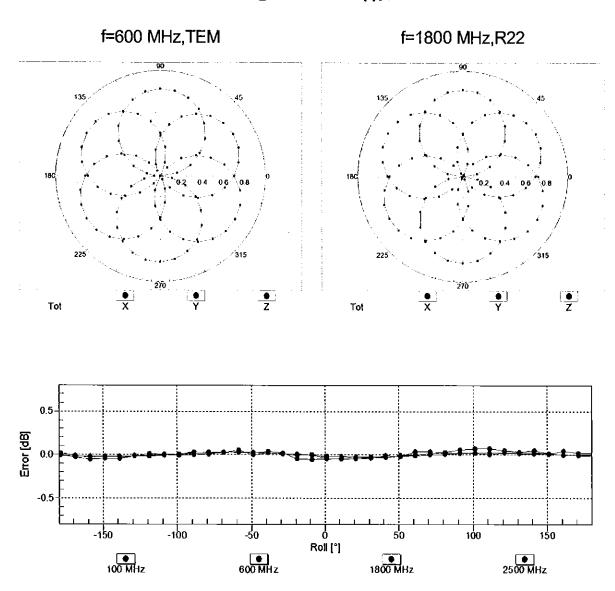
<sup>6</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted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

<sup>6</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 frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.



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

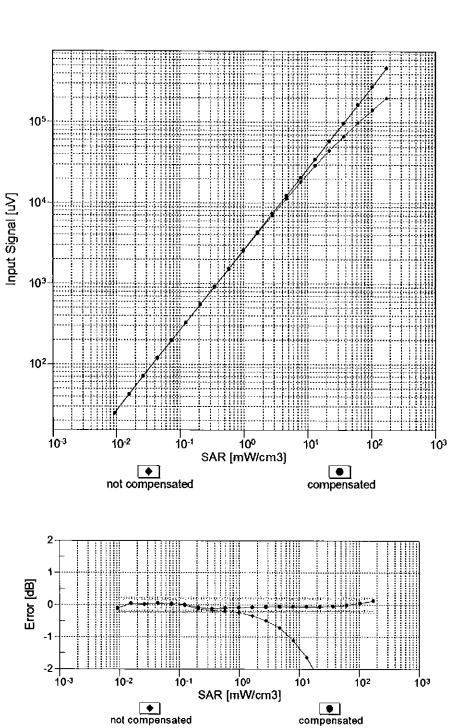
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)



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

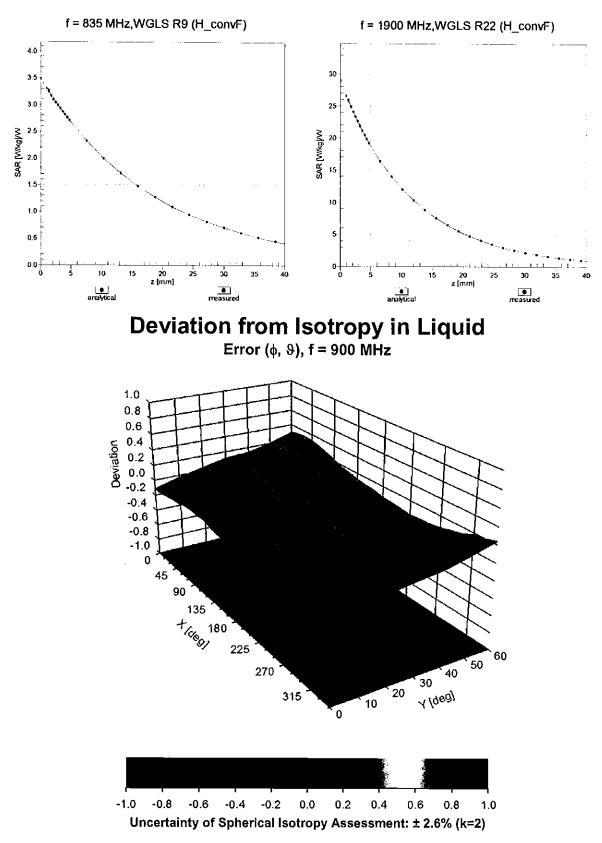
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

July 17, 2017



## 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**

## **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	1.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

## Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	130.7	± 3.5 %
		Y Z	0.00	0.00	1.00		146.7 132.5	
10010-	SAR Validation (Square, 100ms, 10ms)	<u> </u>	0.00 2.07	0.00 65.38	9.86	10.00	20.0	±9.6 %
CAA	OAR Validation (Oquare, Tooms, Toms)		2.07	00.00	0.00	10.00	20.0	2010 /0
		Y	1.71	64.71	9.07	_	20.0	
		Ζ	3.44	71.14	12.92		20.0	
10011- CAB	UMTS-FDD (WCDMA)	X	1.05	67.82	15.62	0.00	150.0	± 9.6 %
		Y Z	<u>1.11</u> 1.02	68.91 66.59	16.28 14.94		150.0 150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.16	63.70	15.28	0.41	150.0	± 9.6 %
		Y	1.18	64.10	15.65		150.0	
		Ζ	1.17	63.41	15.09		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	4.78	66.61	17.05	1.46	150.0	± 9.6 %
		Y Z	4.80	66.74	17.21		150.0 150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	4.93 100.00	66.52 111.37	<u>17.11</u> 25.72	9.39	50.0	± 9.6 %
		Y	100.00	111.58	25.35		50.0	
		Ζ	100.00	117.02	28.59		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	110.83	25.53	9.57	50.0	±9.6 %
		Y Z	1707.76 100.00	<u>142.54</u> 116.46	31.32 28.39		50.0 50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	111.84	24.81	6.56	60.0	±9.6 %
0/10		Y	100.00	114.48	25.68		60.0	
		Z	100.00	118.35	28.09		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	3.46	65.17	23.20	12.57	50.0	± 9.6 %
		Y Z	5.27	82.06 65.78	33.95 23.81		50.0 50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	<u>3.61</u> 6.19	83.69	29.67	9.56	60.0	± 9.6 %
		Y	7.27	90.43	33.46		60.0	[
		Z	7.46	87.49	31.34		60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	114.23	25.06	4.80	80.0 80.0	± 9.6 %
		Y Z	100.00	119.65 121.09	27.19 28.48	<u> </u>	80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	118.39	26.12	3.55	100.0	±9.6 %
		Y	100.00	127.35	29.74		100.0	
		Z	100.00	125.00	29.42		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)		4.31	75.70	25.15	7.80	80.0	± 9.6 %
L		Y Z	4.62 5.10	78.76 78.80	26.60		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	110.42	23.70	5.30	70.0	± 9.6 %
		Y	100.00	113.76	24.95		70.0	
1000		Z	100.00	117.44	27.22	1 00	70.0	± 9.6 %
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X Y	100.00	118.50	24.77 30.37	1.88	100.0	± 9.0 %
L			100.00	126.29	28.44	+	100.0	+

10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	133.47	29.67	1.17	100.0	± 9.6 %
		Y	100.00	157.48				<u> </u>
		Z	100.00	136.04	<u>38.89</u> 31.29		100.0	<u> </u>
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	x	8.66	91.15	24.16	5.30	100.0 70.0	± 9.6 %
		Y	61.92	124.81	33.89		70.0	+
10001		Z	18.44	105.53	29.79		70.0	<u> </u>
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	2.66	76.47	17.66	1.88	100.0	± 9.6 %
		Y	4.91	85.76	21.28		100.0	
10035-	IEEE 802.15.1 Bluetooth (PI/4-DQPSK,	Z	3.14	79.12	19.77		100.0	
	DH5)	X	1.87	72.76	15.96	1.17	100.0	± 9.6 %
		Z	2.71	78.22	18.36		100.0	I
10036-	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	$\frac{2}{x}$	2.01 12.89	73.50	17.25		100.0	
CAA		Y	12.09	97.56 133.04	26.18	5.30	70.0	± 9.6 %
		Z	33.52		35.90		70.0	<u> </u>
10037-	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	2.40	115.95	32.67	4.00	70.0	<u> </u>
CAA		^ 	4.17	75.20	17.16	1.88	100.0	± 9.6 %
		Z	<u>4.17</u> 2.91	83.65	20.57		100.0	L
10038-	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)		1.89	78.15 73.11	19.38	4 4	100.0	<u> </u>
CAA		Y	2.73	78.67	16.24 18.67	1.17	100.0	± 9.6 %
		Ż	2.03	73.85			100.0	
10039-	CDMA2000 (1xRTT, RC1)	X	1.93	73.30	17.51 15.79		100.0	
CAB		Y	2.16			0.00	150.0	± 9.6 %
		Z	1.82	74.82	16.50		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	100.00	71.39 108.18	15.74 23.51	7.78	150.0 50.0	± 9.6 %
		Y	100.00	108.75	23.44		50.0	
		Ż	100.00	113.77	26.32			
1004 <b>4-</b> CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	97.63	1.20	0.00	50.0 150.0	±9.6 %
		Y	0.00	97.90	0.75		150.0	
		Z	0.00	95.09	2.63		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	29.38	92.85	22.01	13.80	25.0	±9.6%
		Y	100.00	106.19	24.33	·	25.0	
40040		Z	100.00	113.54	28.60		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)		92.32	108.50	25.07	10.79	40.0	± 9.6 %
	<u>                                     </u>	Y	100.00	108.13	24.14		40.0	
10056-		Z	100.00	114.66	27.93		40.0	
CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	28.80	103.53	27.62	9.03	50.0	± 9.6 %
		Y	100.00	125.87	33.73		50.0	
10058-	EDCE EDD (TDMA CDOIL THE	Z	90.56	125.80	34.77		50.0	
DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	×	3.55	72.15	22.79	6.55	100.0	± 9.6 %
	t————	Y	3.72	74.09	24.21		100.0	
10059-	IEEE 802 11h WIEL2 4 OLI- (DDDDD - 2	Z	4.11	74.59	23.97		100.0	
CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.17	64.52	15.76	0.61	110.0	±9.6 %
	<u>+</u>	Y	1.20	65.09	16.25		110.0	
10060-	IEEE 802 11h W/EL 2 4 01 - (2000	Z	1.19	64.38	15.68		110.0	
CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	5.38	97.28	26.54	1.30	110.0	± 9.6 %
		YZ	<u>94.12</u> 7.25	145.74	39.06		110.0	
				100.99	27.69			

10061- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	2.03	75.84	20.79	2.04	110.0	± 9.6 %
		Y	2.53	80.86	23.32		110.0	
		Z	2.46	78.49	22.05		110.0	
10062- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.60	66.68	16.54	0.49	100.0	±9.6 %
		Y	4.62	66.77	16.65		100.0	
		Z	4.74	66.54	16.54		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.61	66.74	16.62	0.72	100.0	±9.6 %
		Y	4.63	66.85	16.75		100.0	
		Z	4.75	66.63	16.64		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.88	66.97	16.83	0.86	100.0	±9.6 %
		Y	4.90	67.08	16.96		100.0	
		Z	5.06	66.93	16.89		100.0	
10065- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.74	66.82	16.90	1.21	100.0	± 9.6 %
		Y	4.76	66.95	17.05		10 <u>0.0</u>	
		Z	4.91	66.81	16.98		100.0	
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.74	66.80	17.04	1.46	100.0	± 9.6 %
		Y	4.77	66.94	17.21		100.0	
		Z	4.93	66.83	17.15		100.0	
10067- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.03	66.98	17.46	2.04	100.0	± 9.6 %
		Y	5.05	67.14	17.66		100.0	
		Z	5.21	66.94	17.57		100.0	
10068- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.05	66.91	17.63	2.55	100.0	± 9.6 %
		Y	5.07	67.08	17.84		100.0	
		Z	5.27	67.04	17.82		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.12	66.93	17.81	2.67	100.0	± 9.6 %
		Υ	5.15	67.10	18.04		100.0	
		Z	5.34	66.99	17.99		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.86	66.65	17.32	1.99	100.0	± 9.6 %
		Y	4.89	66.79	17.50		100.0	
		Z	5.01	66.60	17.41		100.0	<u> </u>
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.82	66.89	17.50	2.30	100.0	± 9.6 %
		ΤΥ.	4.84	67.05	17.70		100.0	
		Z	4.99	66.92	17.63		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	4.86	67.00	17.79	2.83	100.0	± 9.6 %
		Y	4.89	67.17	18.02		100.0	L
		Z	5.04	67.03	17.94	L	100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.85	66.87	17.91	3.30	100.0	± 9.6 %
		Y	4.86	67.04	18.15	L	100.0	<u> </u>
		Z	5.01	66.88	18.08		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	4.86	66.89	18.16	3.82	90.0	± 9.6 %
		ŢΥ	4.87	67.06	18.42	<b>_</b>	90.0	ļ
		Z	5.04	67.00	18.40	<u> </u>	90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	4.88	66.70	18.29	4.15	90.0	± 9.6 %
		Y	4.89	66.85	18.55		90.0	ļ
		Z	5.03	66.71	18.47	<u> </u>	90.0	L
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	4.91	66.76	18.38	4.30	90.0	± 9.6 %
<u> </u>		Y	4.91	66.91	18.65		90.0	
		Z	5.05	66.76	18.56		90.0	

10081- CAB	CDMA2000 (1xRTT, RC3)	X	0.83	66.43	12.40	0.00	150.0	± 9.6 %
		Y	0.90	67.40	10.00	┣──-		<u> </u>
			0.90	67.46 65.72	13.02	<u> </u>	150.0	<u> </u>
10082-	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-	$\frac{1}{x}$	0.60	60.00	<u>12.74</u> 4.03	4 77	150.0	
CAB	DQPSK, Fullrate)		0.00	00.00	4.03	4.77	80.0	± 9.6 %
·		Y	1.74	63.67	4.99	<u> </u>	80.0	+
40000		Z	0.50	57.10	2.51	+	80.0	+
10090-	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	111.84	24.82	6.56	60.0	± 9.6 %
DAC	<u> </u>					0.00	00.0	1 2 3.0 %
	+	Y	100.00	114.47	25.69	<u> </u>	60.0	<u> </u>
10097-		Z	100.00	118.36	28.12		60.0	·
CAB	UMTS-FDD (HSDPA)	X	1.87	68.36	15.98	0.00	150.0	± 9.6 %
		Y	1.00					
		- <u> </u>	<u>1.92</u> 1.83	68.79	16.27		150.0	[
10098-	UMTS-FDD (HSUPA, Subtest 2)	- <u>-</u> -	1.83	67.16	15.53		150.0	L
CAB		^	1.03	68.30	15.96	0.00	150.0	± 9.6 %
		Y	1.88	68.76	16.25	ł	150.0	┼───
10099-		Z	1.79	67.10	15.49	<u> </u>	150.0	<u> </u>
DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	6.23	83.81	29.72	9.56	60.0	± 9.6 %
		Y	7.34	90.66	22 54		+	<u> </u>
			7.51	90.66 87.64	<u>33.54</u> 31.39	┝───	60.0	I
10100-	LTE-FDD (SC-FDMA, 100% RB, 20	$\frac{1}{x}$	3.10	70.42	<u>31.39</u> 16.91	0.00	60.0	
CAC	MHz, QPSK)		0.10	10.42	10.91	0.00	150.0	± 9.6 %
		Y	3.17	70.79	17.14		150.0	<u> </u>
10101-		Z	3.14	69.95	16.56		150.0	<u> </u>
CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.21	67.53	16.05	0.00	150.0	± 9.6 %
		Y	3.24	67.71	40.40			
		z -	3.24	67,33	16.18 15.89		150.0	
10102-	LTE-FDD (SC-FDMA, 100% RB, 20	X	3.31	67.53	16.15	0.00	150.0 150.0	+0.0
CAC	MHz, 64-QAM)			01.00	10.10	0.00	150.0	± 9.6 %
	+	Y	3.34	67.67	16.26		150.0	
10103-		Z	3.39	67.31	16.00		150.0	
CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	5.23	73.47	19.72	3.98	65.0	± 9.6 %
		Τ <sub>Υ</sub>	5.84	75.95	- 04 04			
		Ż	5.88	74.83	21.01		65.0	
10104-	LTE-TDD (SC-FDMA, 100% RB, 20	X	5.46	71.98	20.39 19.77		65.0	
CAC	MHz, 16-QAM)		0.40	71.50	19.77	3.98	65.0	± 9.6 %
		Y	5.63	73.01	20.49		65.0	
0105-		Z	6.00	73.07	20.39		65.0	
CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	5.42	71.61	19.91	3.98	65.0	± 9.6 %
								_ +. • /0
		Y	5.43	72.06	20.36		65.0	
0108-	LTE-FDD (SC-FDMA, 100% RB, 10	Z X	<u>5.47</u> 2.70	71.05	19.77		65.0	
<u>CAD</u>	MHz, QPSK)		2.70	69.72	16.76	0.00	150.0	± 9.6 %
		† <sub>₹</sub> †	2.76	70.10	16.99		-150 0	
0.46-		Ż	2.75	69.19	16.39		150.0	
0109-	LTE-FDD (SC-FDMA, 100% RB, 10	TX	2.86	67.48	15.96	0.00	<u>150.0</u> 150.0	+0.04
AD	MHz, 16-QAM)				10.00	0.00	150.0	± 9.6 %
		ΓΥ	2.89	67.67	16.11		150.0	
0110-	TE-EDD (SC EDMA 4000/ DD ELT	Z	2.94	67.16	15.80		150.0	
AD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.18	68.93	16.34	0.00	150.0	± 9.6 %
		Y	2.24	69.40	16.63		450.0	
		z	2.24	68.24	15.99		150.0	
0111-	LTE-FDD (SC-FDMA, 100% RB, 5 MHz,		2.61	68.71	16.36	0.00	150.0	1000
AD	16-QAM)				10.00	0.00	150.0	± 9.6 %
		Y	2.63	68.84	16.47		150.0	
		Z	2.65	67.91				

40440								
10112- CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	2.99	67.52	16.03	0.00	150.0	± 9.6 %
		Y	3.01	67.67	16.15		150.0	
		Z	3.06	67.16	15.86		150.0	
10113- CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.77	68.89	16.50	0.00	150.0	±9.6 %
		Y	2.78	68.97	16.58		150.0	
		Z	2.81	68.06	16.24		150.0	
10114- CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.09	67.23	16.55	0.00	150.0	±9.6 %
		Y	5.10	67.28	16.60		150.0	
		Z	5.19	67.11	16.46		150.0	
10115- CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.34	67.29	16.58	0.00	150.0	± 9.6 %
		Y	5.35	67.33	16.63		150.0	
		Z	5.51	67.33	16.58		150.0	
10116- CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.18	67.42	16.57	0.00	150.0	± 9.6 %
		Y	5.19	67.47	16.62		150.0	
		Z	5.30	67.34	16.50		150.0	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.06	67.11	16.50	0.00	150.0	± 9.6 %
		Y	5.07	67.16	16.56		150.0	
		Z	5.16	66.99	16.42	<b>.</b>	150.0	
10118- CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X	5.42	67.49	16.69	0.00	150.0	± 9.6 %
		Y	5.44	67.54	16.74		150.0	
		Z	5.60	67.55	16.70		150.0	
10119- CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64- QAM)	X	5.16	67.38	16.56	0.00	150.0	± 9.6 %
		Y	5.17	67.43	16.62		150.0	
		Z	5.27	67.27	16.48		150.0	
10140- CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.34	67.53	16.06	0.00	150.0	±9.6 %
		Y	3.37	67.68	16.18		150.0	
		Z	3.42	67.31	15.91		150.0	
10141- CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.47	67.67	16.25	0.00	150.0	± 9.6 %
		Y	3.49	67.79	16.35		150.0	
		Z	3.55	67.42	16.09		150.0	
10142- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	1.97	69.09	15.95	0.00	150.0	± 9.6 %
		Y	2.03	69.63	16.28		150.0	
		Z	2.02	68.20	15.69		150.0	ļ
10143- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.49	69.65	15.98	0.00	150.0	±9.6 %
		Y	2.52	69.83	16.12	┣ ──	150.0	↓
		Z	2.51	68.62	15.86		150.0	
10144- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	×	2.16	66.67	13.99	0.00	150.0	± 9.6 %
		Y	2.21	66.99	14.22	I	150.0	<u> </u>
		Z	2.30	66.43	14.30		150.0	
10145- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.07	64.11	10.67	0.00	150.0	± 9.6 %
		<u>Y</u>	1.11	64.57	11.01		150.0	<u> </u>
		Z	1.31	65.51	12.40	1	150.0	
10146- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	1.34	62.65	9.02	0.00	150.0	± 9.6 %
		Y	1.43	63.27	9.42		150.0	ļ
		Z	2.01	66.35	12.18		150.0	
10147- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	1.45	63.47	9.57	0.00	150.0	± 9.6 %
		Y	1.57	64.27	10.06		150.0	
		Z	2.34	68.34	13.28		150.0	

10149- CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.87	67.55	16.01	0.00	150.0	± 9.6 %
		Ϋ́	2.90	67.73	16.15	<u> </u>	150.0	╆╴─────
		Z	2.95	67,22	15.84	<u> </u>	150.0	╆╴───-
10150- CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.00	67.58	16.08	0.00	150.0	± 9.6 %
		Y	3.02	67.73	16.20		150.0	1
		Z	3.07	67.21	15.90		150.0	
10151- CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	×	5.65	76.57	21.08	3.98	65.0	± 9.6 %
		Y	<u>6.17</u>	78.83	22.29		65.0	
10152-		Z	6.35	77.82	21.74		65.0	
CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	4.98	71.84	19.37	3.98	65.0	± 9.6 %
	·	Y	5.18	73.09	20.20		65.0	
10153-		Z	5.53	73.00	20.11		65.0	
CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	5.35	72.93	20.23	3.98	65.0	± 9.6 %
		Y	5.53	74.06	20.99		65.0	
10154-		<u>Z</u>	5.88	73.94	20.90		65.0	
CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.24	69.40	16.63	0.00	150.0	± 9.6 %
		Y	2.29	69.81	16.88		150.0	
10155-		Z	2.29	68.69	16.27		150.0	<u> </u>
CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	×	2.62	68.74	16.38	0.00	150.0	± 9.6 %
	<u> </u>	Y	2.64	68.87	16.49		150.0	
10156-		Z	2.65	67.91	16.11		150.0	F
CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	Х	1.81	69.21	15.68	0.00	150.0	± 9.6 %
	<u> </u>	Y	1.88	69.80	16.04		150.0	i
10157-		Z	1.87	68.31	15.53		150.0	
CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.01	67.27	13.98	0.00	150.0	±9.6 %
		Y	2.06	67.66	14.24		150.0	
10158-		Z	2.13	67.00	14.37		150.0	
CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.78	68.97	16.55	0.00	150.0	± 9.6 %
	<u> </u>	Y	2.79	69.05	16.63		150.0	
		Z	2.81	68.12	16.28		150.0	
10159- CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.12	67.76	14.27	0.00	150.0	±9.6%
		Y	2.17	68.10	14.50		150.0	
10100		Z	2.25	67.49	14.68		150.0	
10160- CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.73	68.96	16.55	0.00	150.0	± 9.6 %
	<u> </u>	Y	2.78	69.27	16.76		150.0	
10161-		Z	2.78	68.34	16.22		150.0	
CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.89	67.56	16.00	0.00	150.0	± 9.6 %
<u> </u>	<u> </u>	Y	2.92	67.72	16.12		150.0	
10162-		Z	2.97	67.14	15.84		150.0	
CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.00	67.76	16.13	0.00	150.0	± 9.6 %
	<u>+</u>	Y	3.03	67.89	16.24		150.0	
10166-		Ζ	3.08	67.27	15.94		150.0	
CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	Х	3.29	68.55	18.62	3.01	150.0	± 9.6 %
		Y	3.39	69.14	19.00		150.0	
10167-		Z	3.56	68.77	18.74		150.0	
CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	x	3.85	70.83	18.84	3.01	150.0	±9.6 %
		Y	4.06	71.87	19.39		150.0	
		Z						

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10168- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	x	4.31	73.34	20.36	3.01	150.0	± 9.6 %
		Y	4.51	74.19	20.77		150.0	
		Z	4.72	73.40	20.38		150.0	
10169- CAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	2.65	67.07	17.95	3.01	150.0	± 9.6 %
		Y	2.76	67.90	18.46		150.0	
		Z	2.95	68.18	18.47		150.0	
10170- CAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	3.35	71.83	19.98	3.01	150.0	± 9.6 %
		Y	3.58	73.08	20.56		150.0	
		Ζ	3.90	73.37	20.58		150.0	
10171- AAC	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	2.80	68.11	17.24	3.01	150.0	±9.6 %
		Y	3.01	69.49	17.99		150.0	
		Z	3.23	69.44	17.85		150.0	
10172- CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	3.65	76.31	22.99	6.02	65.0	±9.6 %
		Y	5.48	85.89	27.40		65.0	
		Z	5.55	83.03	25.87	L	65.0	
10173- CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	6.66	85.15	24.55	6.02	65.0	± 9.6 %
		Y	10.56	95.03	28.43		65.0	
		Z	12.26	94.72	28.10		65.0	
10174- CAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	4.93	79.32	21.92	6.02	65.0	±9.6 %
		Y	8.98	90.91	26.48		65.0	
		Z	8.81	87.78	25.30		65.0	
10175- CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.62	66.79	17.70	3.01	150.0	±9.6 %
		Y	2.73	67.64	18.24		150.0	
		Z	2.91	67.87	18.21		150.0	
10176- CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	3.35	71.86	19.99	3.01	150.0	± 9.6 %
		Y	3.58	73.10	20.58		150.0	
		Z	3.90	73.39	20.59		150.0	
10177- CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.64	66.92	17.79	3.01	150.0	± 9.6 %
		Y	2.75	67.76	18.31		150.0	
		Z	2.94	68.03	18.32		150.0	
10178- CAD	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	3.33	71.68	19.88	3.01	150.0	±9.6 %
		Y	3.56	72.95	20.49		150.0	
		Z	3.86	73.15	20.45		150.0	
10179- CAD	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.04	69.83	18.46	3.01	150.0	±9.6 %
		Y	3.27	71.21	19.16		150.0	
		Z	3.53	71.24	19.06		150.0	
10180- CAD	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	2.79	68.06	17.20	3.01	150.0	±9.6 %
		Y	3.00	69.44	17.95		150.0	
		Z	3.23	69.37	17.80		150.0	
10181- CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.64	66.91	17.79	3.01	150.0	± 9.6 %
		Y	2.74	67.75	18.31		150.0	
		Z	2.93	68.01	18.31		150.0	
10182- CAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	3.32	71.66	19.87	3.01	150.0	± 9.6 %
		Y	3.55	72.93	20.48		150.0	
<u>}</u>		Z	3.85	73.13	20.44		150.0	
10183- AAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	2.79	68.04	17.19	3.01	150.0	± 9.6 %
		ŤΥ	3.00	69.42	17.94		150.0	1
⊢ <u>···</u>		Ż	3.22	69.35	17.79	1	150.0	<b>I</b>

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10184- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	×	2.65	66.95	17.81	3.01	150.0	± 9.6 %
		Y	2.75	67.79	18.33	<u> </u>	150.0	+
		Z	2.95	68.05	18.33	<u> </u>	150.0	
10185- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	3.34	71.72	19.91	3.01	150.0	± 9.6 %
		Y	3.57	72.99	20.51	<u> </u>	150.0	
		Z	3.87	73.20	20.48		150.0	+
10186- AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	2.80	68.09	17.22	3.01	150.0	± 9.6 %
	+	Y	3.01	69.48	17.97		150.0	
10187-		Z	3.23	69.41	17.82		150.0	<u> </u>
CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	2.66	67.00	17.88	3.01	150.0	±9.6 %
		Y	2.76	67.84	18.40		150.0	
10188-		Z	2.95	68.09	18.39		150.0	
CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)		3.43	72.31	20.28	3.01	150.0	± 9.6 %
	<u> </u>	Y	3.66	73.53	20.84		150.0	
10189-		Z	4.00	73.86	20.87		150.0	
AAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	2.85	68.45	17.48	3.01	150.0	± 9.6 %
		Y	3.07	69.84	18.22		150.0	
10193-		<u>Z</u>	3.30	69.81	18.09		150.0	<u> </u>
CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.48	66.73	16.24	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.49	66.78	16.30		150.0	
10194-		Z	4.58	66.49	16.16		150.0	
CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.63	67.01	16.37	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.65	67.06	16.43		150.0	
10195-		Z	4.76	66.82	16.28		150.0	<u> </u>
CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.67	67.04	16.38	0.00	150.0	± 9.6 %
		Y	4.69	67.09	16.44		150.0	
10196-		Z	4.80	66.85	16.30		150.0	<u>†                                    </u>
CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.47	66.77	16.24	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.48	66.82	16.30		150.0	<u> </u>
10107		Z	4.59	66.56	16.19		150.0	<u>                                     </u>
10197- CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16- QAM)	X	4.64	67.02	16.38	0.00	150.0	± 9.6 %
		Y	4.66	67.08	16.44	· · · · ·	150.0	
10198-		Z	4.78	66.84	16.30		150.0	
CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64- QAM)	X	4.67	67.05	16.39	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.68	67.10	16.45		150.0	
10219-		Z	4.81	66.86	16.31		150.0	
CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	×	4.42	66.79	16.21	0.00	150.0	± 9.6 %
		Y	4.44	66.84	16.27		150.0	
10220-		Z	4.54	66.57	16.15		150.0	
CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16- QAM)	X	4.64	66.99	16.36	0.00	150.0	± 9.6 %
		Y	4.65	67.04	16.42		150.0	
0221-		Z	4.77	66.82	16.29		150.0	
CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64- QAM)	×	4.68	66.98	16.38	0.00	150.0	± 9.6 %
		Y	4.69	67.03	16.44		150.0	
0000		Z	4.81	66.80	16.30		150.0	
0222- CAB	IEEE 802.11n (HT Mixed, 15 Mbps,	X	5.03	67.11	16.49	0.00	150.0	± 9.6 %
	BPSK)			1	1	I		
CAB	<u>BPSK)</u>	Y	5.04	67.15	16.55		150.0	

10223-	IEEE 802.11n (HT Mixed, 90 Mbps, 16-	X	5.33	67.33	16.62	0.00	150.0	± 9.6 %
CAB	QAM)					0.00		10.0 /8
		Y	5.34	67.38	16.68	-	150.0	
10001		Z	5.45	67.21	16.54		150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64- QAM)	×	5.07	67.22	16.48	0.00	150.0	± 9.6 %
		Y	5.09	67.26	16.53	-	150.0	
		Z	5.18	67.11	16.40		150.0	]
10225- CAB	UMTS-FDD (HSPA+)	Х	2.76	66.33	15.32	0.00	150.0	± 9.6 %
		Y	2.78	66.46	15.44		150.0	
		Z	2.85	65.93	15.34		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	7.05	86.26	25.03	6.02	65.0	± 9.6 %
<u> </u>		Y	11.33	96.43	28.97		65.0	
		Z	13.18	96.17	28.66		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	7.07	85.23	24.04	6.02	65.0	± 9.6 %
		Y	11.45	95.09	27.83		65.0	
		Z	12.76	94.16	27.40		65.0	
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	4.84	82.15	25.37	6.02	65.0	± 9.6 %
		Y	6.17	88.64	28.46		65.0	
		Z	7.76	90.12	28.51		65.0	
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	6.71	85.26	24.59	6.02	65.0	± 9.6 %
		Y	10.65	95.13	28.47		65.0	
		Z	12.36	94.84	28.14		65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	6.68	84.20	23.61	6.02	65.0	± 9.6 %
		Y	10.65	93.73	27.33		65.0	
		Z	11.94	92.89	26.92		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	4.67	81.40	24.99	6.02	65.0	± 9.6 %
		Y	5.94	87.77	28.07		65.0	
		Z	7.43	89.17	28.10		65.0	
10232- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	6.69	85.24	24.58	6.02	65.0	± 9.6 %
		Y	10.63	95.12	28.47		65.0	ľ
		Z	12.34	94.82	28.14		65.0	
10233- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	6.66	84.17	23.60	6.02	65.0	± 9.6 %
		Y	10.62	93.69	27.32		65.0	
		Z	11.91	92.86	26.91	i	65.0	1
10234- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	4.54	80.75	24.63	6.02	65.0	± 9.6 %
		Y	5.76	87.05	27.69		65.0	
		Z	7.17	88.32	27.68		65.0	
10235- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	6.69	85.26	24.59	6.02	65.0	± 9.6 %
		Ý	10.64	95.16	28.48		65.0	
		Z	12.35	94.85	28.15		65.0	
10236- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	×	6.73	84.30	23.64	6.02	65.0	± 9.6 %
		Y	10.78	93.91	27.38		65.0	
		Z	12.05	93.03	26.96		65.0	
10237- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.67	81.42	25.00	6.02	65.0	± 9.6 %
		Y	5.94	87.83	28.10		65.0	
		Z	7.43	89.21	28.12		65.0	
10238- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	6.68	85.21	24.57	6.02	65.0	± 9.6 %
<i>Q,</i> (Q		Y	10.60	95.09	28.46	1	65.0	<u> </u>
	1	Ż	12.31	94.79	28.13	1	65.0	1

10239- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz,		6.64	84.13	23.58	6.02	65.0	± 9.6 %
	64-QAM)	Y						
			10.57 11.87	93.64 92.82	27.30	<u> </u>	65.0	
10240- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	4.66	81.38	26.90 24.99	6.02	65.0 65.0	± 9.6 %
		Y-	5.92	87.78	28.08		65 0	
		Ż	7.41	89.16	28.00		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	<u> </u>	6.49	77.69	23.88	6.98	65.0 65.0	± 9.6 %
		Y	7.06	80.22	25.34	<u> </u>	65.0	
		Z	7.33	78.75	24.61		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	5.69	74.96	22.63	6.98	65.0	± 9.6 %
		Y	6.72	79.20	24.84		65.0	
40040		Ζ	6.48	76.10	23.39		65.0	<u> </u>
10243- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	Х	5.22	73.93	23.04	6.98	65.0	± 9.6 %
		Y	5.37	75.23	24.06		65.0	
40044		Z	5.30	72.76	22.72		65.0	<u> </u>
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	4.03	70.70	15.63	3.98	65.0	± 9.6 %
	+	Y	4.63	73.27	17.01		65.0	
10245-		Z	5.80	76.12	19.17		65.0	
CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	3.94	70.12	15.32	3.98	65.0	± 9.6 %
	+	Y	4.47	72.48	16.60		65.0	<u> </u>
10246-		Z	5.67	75.49	18.85		65.0	
CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	4.17	75.16	18.15	3.98	65.0	± 9.6 %
	<u>+</u>	Y	5.29	79.64	20.23		65.0	
10247-		Z	5.81	80.17	21.10		65.0	F
CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	4.10	71.58	17.29	3.98	65.0	± 9.6 %
	+	Y	4.43	73.43	18.37		65.0	1
10248-		Z	4.92	74.07	19.21		65.0	
CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	4.07	70.96	16.98	3.98	65.0	± 9.6 %
		<u>Y</u>	4.37	72.65	17.99		65.0	[
10249-		Z	4.90	73.42	18.88		65.0	
CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	5.33	79.24	20.92	3.98	65.0	± 9.6 %
	+	Y	6.73	84.01	23.05		65.0	
10250-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	Z	6.62	82.34	22.76		65.0	
	16-QAM)	X	4.99	74.32	20.40	3.98	65.0	± 9.6 %
	+	Y	5.24	75.79	21.30		65.0	
0251- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	Z X	5.59 4.75	75.60 72.14	21.35 19.02	3.98	65.0 65.0	± 9.6 %
							_	
<u> </u>	·	Y	4.99	73.56	19.92		65.0	
0252-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	Z	5.35	73.44	20.02		65.0	
CAC	QPSK)	X	5.62	79.05	22.01	3.98	65.0	± 9.6 %
	<u> </u>	Y Z	6.48	82.42	23.65		65.0	
0253- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	<u>×</u>	<u>6.49</u> 4.91	<u>80.72</u> 71.43	22.96 19.12	3.98	65.0 65.0	±9.6 %
		Y	5.09	72.60	10.00			
		Z	5.40	72.60 72.41	19.93		65.0	
10254-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	5.23	72.40	19.86 19.88	3.98	<u>65.0</u> 65.0	± 9.6 %
<u>AC</u>								
CAC		Y	5.41	73.49	20.63		65.0	

10255- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	5.37	75.82	20.95	3.98	65.0	± 9.6 %
-		Y	5.81	77.90	22.11		65.0	
		Z	5.98	76.90	21.60		65.0	
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	2.95	66.44	12.43	3.98	65.0	±9.6 %
		Y	3.25	68.14	13.47		65.0	
		Z	4.63	72.57	16.66		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	2.90	65.89	12.05	3.98	65.0	±9.6 %
		Y	3.14	67.36	12.98		65.0	
		Z	4.49	71.73	16.18		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	2.90	69.51	14.64	3.98	65.0	± 9.6 %
		Y	3.44	72.54	16.25		65.0	
-		Z	4.52	75.89	18.60		65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	4.46	72.72	18.47	3.98	65.0	± 9.6 %
		Y	4.78	74.47	19.50		65.0	
		Z	5.19	74.62	19.97		65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	4.49	72.43	18.33	3.98	65.0	± 9.6 %
		Y	4.79	74.08	19.32		65.0	
		Z	5.22	74.34	19.84		65.0	
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	5.17	78.27	21.02	3.98	65.0	± 9.6 %
		Y	6.16	82.12	22.85		65.0	
		Z	6.14	80.53	22.44		65.0	
10262- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	4.98	74.25	20.35	3.98	65.0	± 9.6 %
		Υ	5.23	75.73	21.26		65.0	
		Z	5.58	75.55	21.31		65.0	
10263- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	4.74	72.12	19.01	3.98	65.0	± 9.6 %
		Y	4.98	73.53	19.91		65.0	
		Z	5.34	73.42	20.01		65.0	
10264- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	5.56	78.83	21.90	3.98	65.0	± 9.6 %
		Y	6.41	82.18	23.54		65.0	
		Z	6.42	80.51	22.86		65.0	
10265- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	4.98	71.84	19.37	3.98	65.0	± 9.6 %
		Y	5.18	73.09	20.20		65.0	
		Z	5.53	73.00	20.12		65.0	
10266- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	5.34	72.91	20.22	3.98	65.0	± 9.6 %
		Y	5.53	74.04	20.98		65.0	
		Z	5.88	73.92	20.89		65.0	
10267- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	5.64	76.53	21.06	3.98	65.0	± 9.6 %
		Y	6.16	78.78	22.27		65.0	
		Z	6.34	77.78	21.72		65.0	
10268- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	5.63	71.94	19.85	3.98	65.0	± 9.6 %
		Y	5.78	72.88	20.51		65.0	
		Z	6.14	72.88	20.41	L	65.0	
10269- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	5.64	71.57	19.72	3.98	65.0	± 9.6 %
		Y	5.77	72.45	20.36		65.0	
		Z	6.12	72.44	20.27		65.0	
10270- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	5.66	74.09	20.17	3.98	65.0	± 9.6 %
		ΤY	5.94	75.48	21.01	1	65.0	
		Z	6.22	75.05	20.69	1	65.0	

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	x	2.58	66.84	15.32	0.00	150.0	±9.6 %
		Y	2.61	67.05	15.49	+	150.0	+
		Z	2.61	66.19	15.19	<u> </u>	150.0	╀────
10275- CAB	UMTS-FDD (HSUPA, Sublest 5, 3GPP Rel8.4)	X	1.62	68.33	15.81	0.00	150.0	± 9.6 %
		Y	1.68	69.01	16.23		150.0	<u> </u>
4007-		Z	1.61	67.33	15.34		150.0	+
10277- CAA	PHS (QPSK)	X	1.71	60.26	5.85	9.03	50.0	± 9.6 %
		Y	1.46	60.00	5.35		50.0	<u> </u>
40070		Z	2.08	61.87	7.57		50.0	<u>+</u>
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	3.48	68.77	13.21	9.03	50.0	± 9.6 %
	<u> </u>	Y	3.86	71.42	14.38		50.0	
10279-		Z	7.61	81.06	19.61		50.0	<u> </u>
CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	3.59	69.09	13.42	9.03	50.0	± 9.6 %
		Y	4.03	71.88	14.65		50.0	<u> </u>
10000		Z	7.80	81.31	19.76		50.0	1
10290- CDMA2000, RC1, SO55 AAB	CDMA2000, RC1, SO55, Full Rate	X	1.38	68.75	13.54	0.00	150.0	± 9.6 %
	+	Y_	1.49	69.81	14.11		150.0	1
10001		Z	1.48	68.40	14.11		150.0	┢───-
10291- AAB	CDMA2000, RC3, SO55, Full Rate	X	0.81	66.18	12.25	0.00	150.0	± 9.6 %
		Y	0.88	67.15	12.85		150.0	<u> </u>
40000		Z	0.85	65.51	12.62		150.0	<u>                                     </u>
10292- AAB	CDMA2000, RC3, SO32, Full Rate	X	1.25	72.63	15.60	0.00	150.0	± 9.6 %
		Y -	1.48	75.02	16.70		150.0	
		Z	1.05	69.24	14.85		150.0	<u> </u> -
10293- AAB	CDMA2000, RC3, SO3, Full Rate	X	3.55	87.18	21.36	0.00	150.0	± 9.6 %
		Y	4.57	90.90	22.67		150.0	<u> </u>
4000		Z	1.55	74.98	17.80		150.0	
10295- AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	10.90	87.79	24.10	9.03	50.0	± 9.6 %
		Y	17.38	97.96	27.91		50.0	
		Z	9.27	86.92	25.25		50.0	
10297- AAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.71	69.84	16.83	0.00	150.0	± 9.6 %
		LΥ	2.77	70.21	17.06		150.0	
		Z	2.77	69.29	16.46		150.0	
10298- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.47	67.49	13.62	0.00	150.0	±9.6 %
		Y	1.54	68.13	14.02		150.0	
0000		Z	1.61	67.49	14.26		150.0	
10299- \AC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	1.91	66.04	11.93	0.00	150.0	± 9.6 %
	<u> </u>	Y	2.08	67.06	12.49		150.0	
0300-		Z	2.55	68.88	14.29		150.0	
10300- \AC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	x	1.52	62.84	9.56	0.00	150.0	± 9.6 %
	<u> </u>	Y	1.60	63.32	9.89		150.0	
0304		Z	2.01	64.97	11.67		150.0	
0301- VAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.49	64.94	17.15	4.17	50.0	± 9.6 %
		Y	4.51	65.12	17.33		50.0	
		Z	4.77	65.09	17.35		50.0	
0000								
	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	x	4.98	65.58	17.87	4.96	50.0	± 9.6 %
10302- \AA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)					4.96		±9.6 %

10303-	IEEE 802.16e WIMAX (31:15, 5ms,	X	4.72	65.17	17.66	4.96	50.0	± 9.6 %
ΑΑΑ	10MHz, 64QAM, PUSC)	Y	4.76	65.39	17.86		50.0	
		Z	4.76	65.24	17.83		50.0	
10304- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.56	65.16	17.23	4.17	50.0	± 9.6 %
		Y	4.60	65.38	17.42		50.0	
		Z	4.79	65.14	17.34		50.0	
10305- AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.06	66.26	18.68	6.02	35.0	± 9.6 %
		Y	3.98	66.05	18.73		35.0	
10306- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	Z X	4.32 4.43	66.47 65.65	19.19 18.52	6.02	35.0 35.0	± 9.6 %
		Y	4.40	65.62	18.63		35.0	
		Ż	4.69	65.80	18.88		35.0	
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.31	65.69	18.43	6.02	35.0	± 9.6 %
		Y	4.27	65.62	18.52		35.0	
		Z	4.59	65.95	18.85		35.0	
10308- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.28	65.86	18.56	6.02	35.0	±9.6 %
	1	Y	4.24	65.78	18.65		35.0	
10200		Z	4.55	66.08	18.95	6.00	35.0	1060/
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X Y	4.47	65.79	18.63	6.02	35.0 35.0	±9.6 %
	· · · · · · · · · · · · · · · · · · ·	Z	4.44	65.78 66.03	18.76 19.03		35.0	
10310- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.38	65.69	18.49	6.02	35.0	± 9.6 %
		Y	4.34	65.63	18.59		35.0	
		Z	4.64	65.84	18.85		35.0	
10311- AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.08	69.08	16.47	0.00	150.0	±9.6 %
		Y	3.14	69.40	16.66		150.0	
		Z	3.12	68.62	16.13		150.0	
10313- AAA	iDEN 1:3	X	2.89	72.65	16.29	6.99	70.0	± 9.6 %
		Y Z	4.19 4.02	78.79 76.71	18.89 18.18		70.0	
10314- AAA	iDEN 1:6	X	5.30	83.78	23.47	10.00	30.0	± 9.6 %
		ΤΥ	6.55	89.94	26.15		30.0	
		Z	6.97	88.50	25.50		30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.08	63.77	15.30	0.17	150.0	± 9.6 %
		Y	1.10	64.11	15.62		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	Z X	1.08 4.51	63 <u>.32</u> 66.68	14.99 16.32	0.17	150.0 150.0	± 9.6 %
		Τ <u>γ</u>	4.53	66.78	16.42		150.0	<u> </u>
		Ż	4.64	66.54	16.30		150.0	
10317- AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.51	66.68	16.32	0.17	150.0	± 9.6 %
		Y	4.53	66.78	16.42	ļ	150.0	
10105		Z	4.64	66.54	16.30	0.00	150.0	
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.61	67.03	16.35	0.00	150.0	± 9.6 %
		Y	4.63	67.11	16.42	<u> </u>	150.0	
10401-	IEEE 802.11ac WiFi (40MHz, 64-QAM,	Z	4.76 5.34	66.86 67.18	16.27 16.51	0.00	150.0 150.0	± 9.6 %
AAC	99pc duty cycle)	Y	5.34	67.16	16.59		150.0	1 9.0 %
		Z	5.36	67.09	16.39	1	150.0	<b>!</b>

10402-	IEEE 802.11ac WiFi (80MHz, 64-QAM,	X	5.59	67.45	16.52	0.00	150.0	± 9.6 %
AAC	99pc duty cycle)	<u> </u>						
		Y_	5.60	67.49	16.57		150.0	
10403-	CDMA2000 (1xEV-DO, Rev. 0)	Z	5.71	67.42	16.48		150.0	
AAB		X	1.38	68.75	13.54	0.00	115.0	± 9.6 %
	<u> </u>	Y	1.49	69.81	14 11		115.0	
10404-		Z	1.48	68.40	14.11		115.0	
AAB	CDMA2000 (1xEV-DO, Rev. A)		1.38	68.75	13.54	0.00	115.0	± 9.6 %
		<u>Y</u>	1.49	<u>69.81</u>	14.11		115.0	
10406-	CDMA2000, RC3, SO32, SCH0, Full	Z	1.48	68.40	14.11		115.0	
AAB	Rate	X	17.35	99.43	24.90	0.00	100.0	± 9.6 %
		Y	63.25	115.82	28.80		100.0	
10410-		Z	11.61	93.88	24.12		100.0	
AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	8.36	91.25	22.62	3.23	80.0	± 9.6 %
	·	Y	100.00	127.16	32.13		80.0	
10415-		Z	100.00	125.70	32.09		80.0	
AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.03	63.22	14.88	0.00	150.0	± 9.6 %
	<u> </u>	Y	1.04	63.49	15.13		150.0	
10416-		Z	1.02	62.64	14.46		150.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duly cycle)	X	4.48	66.75	16.31	0.00	150.0	±9.6 %
	<u>+</u>	Y	4.49	66.81	16.37		150.0	1
10417-		Z	4.59	66.53	16.22		150.0	
AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.48	66.75	16.31	0.00	150.0	± 9.6 %
	· <u>                                     </u>	<u> </u>	4.49	66.81	16.37		150.0	
10418-		Z	4.59	66.53	16.22		150.0	
AAA 	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.47	66.94	16.35	0.00	150.0	±9.6 %
		L Υ ]	4.48	67.00	16.41	·	150.0	
10419-		Z	4.58	66.68	16.24		150.0	
AAA 	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.49	66.88	16.34	0.00	150.0	± 9.6 %
·		Y	4.50	66.93	16.40		150.0	
40400		Z	4.60	66.63	16.24		150.0	L
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.60	66.86	16.35	0.00	150.0	± 9.6 %
		Y	4.61	66.91	16.41	<u> </u>	150.0	<u> </u>
10.400		Z	4.72	66.64	16.26		150.0	
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.74	67.14	16.45	0.00	150.0	± 9.6 %
		Y	4.76	67.20	16.51		150.0	
10404		Z	4.89	66.97	16.38		150.0	
10424- AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.67	67.10	16.43	0.00	150.0	± 9.6 %
	<u>+</u>	Y	4.68	67.15	16.49		150.0	
10405		Z	4.81	66.91	16.35		150.0	
10425- AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.29	67.34	16.60	0.00	150.0	± 9.6 %
		Y	5.30	67.39	16.66		150.0	
10426		Z	5.42	67.29	16.55		150.0	
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.31	67.43	16.64	0.00	150.0	± 9.6 %
		Y Z	5.32	67.48	16.70	———	150.0	

10427-	LEEE 902 11p / LT Crossfield 150 Mbrs		5.00		40.50	0.00	450 0	
AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.30	67.32	16.58	0.00	150.0	± 9.6 %
		Y	5.31	67.37	16.64		150.0	
40400		Z	5.44	67.28	16.54		150.0	·
10430- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.41	72.30	18.78	0.00	150.0	± 9.6 %
		Ý	4.28	71.61	18.44		150.0	
		Z	4.35	_ 70.84	18.35		150.0	
10431- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.12	67.35	16.27	0.00	150.0	±9.6 %
		Y	4.14	67.43	16.34		150.0	
		Z	4.27	67.06	16.22		150.0	
10432- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.43	67.18	16.37	0.00	150.0	± 9.6 %
		<u>Y</u> .	4.45	67.24	16.44		150.0	
		Z	4.58	66.95	16.29		150.0	
10433- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	×	4.69	67.13	16.45	0.00	150.0	±9.6 %
		Y	4.70	67.18	16.51		150.0	
10/0/		Z	4.82	66.95	16.37		150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.58	73.43	18.77	0.00	150.0	± 9.6 %
		Y	4.41	72.61	18.39		150.0	
40407		Z	4.46	71.72	18.35	0.00	150.0	1004
10435- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.84	90.24	22.26	3.23	80.0	±9.6 %
		Y	100.00	126.90	32.00		80.0	
		Z	100.00	125.48	31.98		80.0	
10447- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.40	67.35	15.41	0.00	150.0	±9.6 %
		Y	3.42	67.47	15.52		150.0	
		Z	3.56	67.03	15.56		150.0	
10448- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	3.98	67.14	16.14	0.00	150.0	±9.6 %
		Y	4.00	67.22	16.21		150.0	
· _		Z	4.11	66.83	16.08		150.0	
10449- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	×	4.26	67.02	16.27	0.00	150.0	± 9.6 %
		Y	4.28	67.08	16.34		150.0	
		Z	4.38	66.77	16.19		150.0	
10450- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.47	66.91	16.31	0.00	150.0	± 9.6 %
		<u>Y</u>	4.48	66.96	16.37		150.0	
		Z	4.58	66.71	16.22		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.25	67.38	14.88	0.00	150.0	± 9.6 %
		Y	3.28	67.53	15.01		150.0	
		Z	3.46	67.22	15.21		150.0	
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.22	67.99	16.81	0.00	150.0	± 9.6 %
		Y	6.22	68.02	16.86		150.0	
		Z	6.28	67.84	16.71		150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	X	3.78	65.43	16.02	0.00	150.0	± 9.6 %
		Y	3.79	65.48	16.08		150.0	
		Z	3.83	65.16	15.92	0.00	150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.02	66.44	14.01	0.00	150.0	± 9.6 %
		Y	3.06	66.64	14.18		150.0	<u> </u>
		Z	3.28	66.54	14.63	L	150.0	
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	×	4.18	65.23	15.36	0.00	150.0	± 9.6 %
		Y	4.18	<u>65.21</u>	15.41	ļ	150.0	
		Z	4.47	65.25	15.75		150.0	

10460-	UMTS-FDD (WCDMA, AMR)	X	0.93	68.87	16.62	0.00	150.0	± 9.6 %
_AAA		_						
		Υ Υ	1.00	70.16	17.38		150.0	
10461-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	<u>Z</u>	0.88	67.06	15.60	l	150.0	L
	QPSK, UL Subframe=2,3,4,7,8,9)	X Y	4.32	84.19	21.37	3.29	80.0	± 9.6 %
	<u> </u>		46.98	120.39	31.74	<u> </u>	80.0	
10462-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	Z	70.92	123.84	32.55		80.0	
AAA	16-QAM, UL Subframe=2,3,4,7,8,9)	Ŷ	1.50	61.17 66.22	8.92	3.23	80.0	± 9.6 %
		$\frac{1}{Z}$	4.18	75.74	<u>11.48</u> 15.77	<u> </u>	80.0	╞╴───-
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	x	0.83	60.00	7.74	3.23	80.0	± 9.6 %
		Y	0.90	60.95	8.47		80.0	<u> </u>
10101		Z	1.89	66.55	11.77		80.0	†
10464- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.27	79.79	19.27	3.23	80.0	± 9.6 %
		Y	44.63	117.13	30.10		80.0	
10465-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-	Z	63.16	119.86	30.88		80.0	
<u>AAA</u>	QAM, UL Subframe=2,3,4,7,8,9)	X	0.88	60.65	8.58	3.23	80.0	± 9.6 %
		Υ Υ	1.28	64.64	10.73		80.0	
10466-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-	Z	2.98	72.01	14.38		80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)		0.83	60.00	7.69	3.23	80.0	± 9.6 %
		$\frac{1}{Z}$	1.66	60.44 65.17	8.16		80.0	┝───-
10467- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.54	80.96	<u>11.12</u> 19.70	3.23	80.0 80.0	±9.6 %
		Y	60.93	121.68	31.18		80.0	
		Z	84.88	124.19	31.89		80.0	
10468- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	0.89	60.80	8.68	3.23	80.0	± 9.6 %
	<u> </u>	Y	1.33	65.06	10.94		80.0	<u> </u>
10469-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-	Z	3.21	72.86	14.71		80.0	
AAB	QAM, UL Subframe=2,3,4,7,8,9)	X	0.83	60.00	7.69	3.23	80.0	± 9.6 %
		Y	0.85	60.46	8.17		80.0	
10470-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz,	Z	1.66	65.20	11.14		80.0	
AAB	QPSK, UL Subframe=2,3,4,7,8,9)	X	3.54	80.99	19.71	3.23	80.0	± 9.6 %
	<u> </u>	Y 7	63.11	122.20	31.29		80.0	
10471-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-	Z X	86.48	124.48	31.95		80.0	
AAB	QAM, UL Subframe=2,3,4,7,8,9)	X Y	0.88	60.76	8.65	3.23	80.0	±9.6%
		Z	<u>1.32</u> 3.18	64.98	10.89		80.0	
10472- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	0.83	72.76 60.00	14.66 7.68	3.23	80.0 80.0	± 9.6 %
		Y	0.84	60.42	8.13		80.0	
		Ζ	1.65	65.15	11.10		80.0	
10473- AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.52	80.93	19.68	3.23	80.0	± 9.6 %
		Y	62.71	122.07	31.26		80.0	
10474-	TE-TOD (SC EDMA ( DD (CL))	Z	85.93	124.36	31.91		80.0	
AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	0.88	60.74	8.64	3.23	80.0	± 9.6 %
		Y	1.31	64.94	10.87		80.0	
10475-	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-	Z	3.15	72.67	14.63		80.0	
AAB	QAM, UL Subframe=2,3,4,7,8,9)	X	0.83	60.00	7.68	3.23	80.0	± 9.6 %
		Y	0.84	60.40	8.12		80.0	
		Z	1.64	65.11	11.08		80.0	

10477-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-	x	0.87	60.61	8.55	3.23	80.0	± 9.6 %
AAB	QAM, UL Subframe=2,3,4,7,8,9)	Y	1.27	64.59	10.69		80.0	
		Z	2.97	71.99	14.36		80.0	
10478- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	0.83	60.00	7.67	3.23	80.0	± 9.6 %
10.0		Y	0.84	60.37	8.09		80.0	
	- ··	Z	1.63	65.04	11.04		80.0	
10479- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	x	4.53	79.52	20.39	3.23	80.0	± 9.6 %
		Y	7.80	88.47	23.78		80.0	
		Ζ	5.78	82.49	22.28		80.0	-
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.53	72.09	15.68	3.23	80.0	± 9.6 %
		Y	6.36	79.96	18.76		80.0	
		Z	6.52	79.72	19.55		80.0	
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.81	68.83	13.98	3.23	80.0	± 9.6 %
		Y	4.53	74.98	16.60		<u>8</u> 0.0	
		Z	5.48	76.73	18.13		80.0	
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.20	68.90	15.09	2.23	80.0	± 9.6 %
		Y	2.93	73.22	17.16		80.0	
		Z	2.97	72.34	17.43		80.0	
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	2.35	65.97	12.90	2.23	80.0	±9.6 %
		Y	3.02	69.40	14.64		80.0	
		Z	4.23	73.30	17.24		80.0	
-10484- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.28	65.32	12.60	2.23	80.0	± 9.6 %
		Y	2.83	68.32	14.18		80.0	
		Z	3.99	72.23	16.81		80.0	
10485- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.68	71.36	17.35	2.23	80.0	± 9.6 %
		Y	3.27	74.89	19.08		80.0	
		Z	3.17	72.95	18.56	<u> </u>	80.0	
10486- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.64	67.61	15.00	2.23	80.0	± 9.6 %
		Ι Y	2.99	69.69	16.14	<u> </u>	80.0	
		Z	3.15	69.34	16.51		80.0	
10487- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.64	67.21	14.79	2.23	80.0	±9.6 %
		Y	2.96	<u>69.13</u>	15.87		80.0	
10488-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	<u>Z</u>   X	3.15 3.00	68.96 70.76	16.33 18.02	2.23	80.0 80.0	± 9.6 %
AAB	QPSK, UL Subframe=2,3,4,7,8,9)	Υ	3.34	72.92	19.20	<u> </u>	80.0	
·		Z	3.34	72.92	19.20	1	80.0	<u> </u>
10489- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.42	67.95	16.69	2.23	80.0	± 9.6 %
		Y	3.24	69.09	17.42	1	80.0	
		Z	3.37	68.53	17.27		80.0	
10490- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.16	67.82	16.63	2.23	80.0	± 9.6 %
<u> </u>		Y	3.32	68.90	17.33		80.0	
		Z	3.47	68.38	17.21		80.0	
10491- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.29	69.57	17.67	2.23	80.0	± 9.6 %
<u> </u>		Y	3.53	71.04	18.54		80.0	
t		Z	3.67	70.46	18.17		80.0	
10492- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.43	67.31	16.78	2.23	80.0	± 9.6 %
		Y	3.55	68.11	17.34		80.0	
·		Z	3.72	67.80	17.20		80.0	1

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10493- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.50	67.21	16.74	2.23	80.0	± 9.6 %
		Y	3.62	67.97	17.27		80.0	
10494-		Z	3.79	67.69	17.16		80.0	+
AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.52	70.87	18.10	2.23	80.0	± 9.6 %
	<u>+</u>	Y	3.84	72.64	19.08	1	80.0	+
10495-		Z	3.98	72.03	18.67		80.0	
AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.45	67.59	16.97	2.23	80.0	± 9.6 %
		Y	3.58	68.42	17.54		80.0	
10496-	LTE-TDD (SC-FDMA, 50% RB, 20 MHz,	Z	3.75	68.20	17.40		80.0	
AAB	64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.54	67.39	16.91	2.23	80.0	± 9.6 %
		Υ <u></u>	3.65	68.15	17.44		80.0	
10497-	LTE-TDD (SC-FDMA, 100% RB, 1.4	Z	3.83	67.94	17.32		80.0	
AAA	MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.43	63.58	11.40	2.23	80.0	± 9.6 %
		Y	1.80	66.67	13.09		80.0	
10498-	LTE-TDD (SC-FDMA, 100% RB, 1.4	Z	2.27	68.74	14.99	<u> </u>	80.0	
AAA		x	1.24	60.00	8.33	2.23	80.0	± 9.6 %
		Y	1.23	60.00	8.51		80.0	<u> </u>
10100		Ζ	1.81	63.14	11.27		80.0	╉─────
10499- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.26	60.00	8.18	2.23	80.0	± 9.6 %
		Y	1.24	60.00	8.34		80.0	├───
		Z	1.76	62.56	10.83		80.0	┟────
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.78	70.93	17.56	2.23	80.0	±9.6%
		Y	3.23	73.75	19.01		80.0	—  —
40504		Z	3.21	72.13	18.47		80.0	<b>+</b>
10501- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.86	67.97	15.75	2.23	80.0	± 9.6 %
		Y	3.13	69.65	16.71		80.0	
10502-		Z	3.25	69.01	16.80		80.0	
AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	2.90	67.83	15.61	2.23	80.0	± 9.6 %
		LY_	<u>3.1</u> 8	69.45	16.55		80.0	
10503-		<u>Z</u>	<u>3.31</u>	68.90	16.69		80.0	
AB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.96	70.56	17.92	2.23	80.0	± 9.6 %
		Y	3.29	72.71	19.10		80.0	
0504-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z	3.38	71.68	18.59		80.0	
<u>AB</u>	16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.05	67.84	16.62	2.23	80.0	± 9.6 %
	<u> </u>	Y	3.22	69.00	17.36		80.0	
0505-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z	3.35	68.44	17.21		80.0	
AB	64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.14	67.73	16.57	2.23	80.0	± 9.6 %
		Y	3.31	68.81	17.27		80.0	
0506-	LTE-TDD (SC-FDMA, 100% RB, 10	Z	3.45	68.28	17.16		80.0	
	MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.49	70.73	18.03	2.23	80.0	± 9.6 %
		Y	3.81	72.49	19.00		80.0	
0507-	LTE-TDD (SC-FDMA, 100% RB, 10	Z	3.95	71.88	18.59		80.0	
АВ —————	MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.44	67.53	16.93	2.23	80.0	± 9.6 %
	I T	Y	2 50	00.00				
		z	<u>3.56</u> 3.73	68.36	17.50	1	80.0	

10508- AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	3.53	67.32	16.87	2.23	80.0	± 9.6 %
		Y	3.64	68.08	17.40		80.0	
		Z	3.82	67.87	17.27		80.0	
10509- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	3.90	69.82	17.65	2.23	80.0	± 9.6 %
		Y	4.14	71.06	18.38		80.0	
		Z	4.30	70.72	18.09		80.0	
10510- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	3.92	67.34	16.97	2.23	80.0	± 9.6 %
		Y	4.03	67.99	17.44		80.0	
		Z	4.22	67.93	17.34		80.0	
10511- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.99	67.15	16.93	2.23	80.0	± 9.6 %
		Y	4.09	67.75	17.36		80.0	
		<u>Z</u>	4.28	67.68	17.27		80.0	
10512- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.00	71.09	18.05	2.23	80.0	± 9.6 %
		Y	4.33	72.71	18.93		80.0	
		Z	4.49	72.31	18.60		80.0	
10513- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	3.80	67.50	17.05	2.23	80.0	± 9.6 %
		Y	3.92	68.21	17.54		80.0	
10514- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL	Z X	4.11 3.85	68.20 67.16	17.45 16.95	2.23	80.0 80.0	± 9.6 %
	Subframe=2,3,4,7,8,9)	Y	3.95	67.80	17.41		80.0	
		Z	4.13	67.78	17.32		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.99	63.41	14.95	0.00	150.0	± 9.6 %
,		Y	1.00	63.71	15.22		150.0	
_		Z	0.98	62.80	14.50		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duly cycle)	X	0.63	71.18	17.99	0.00	150.0	± 9.6 %
		Y	0.75	74.25	19.60		150.0	
		Z	0.56	68.07	16.15		150.0	
10517- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.84	65.39	15.66	0.00	150.0	± 9.6 %
		Y	0.87	66.03	16.14		150.0	
10518- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	Z X	<u>0.82</u> 4.47	64.43 66.84	14.97 16.30	0.00	150.0 150.0	± 9.6 %
		Y	4.48	66.90	16.36		150.0	
		Z	4.58	66.60	16.20		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.63	67.03	16.39	0.00	150.0	± 9.6 %
		Y	4.64	67.09	16.46		150.0	
		Z	4.77	66.85	16.33		150.0	
10520- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.49	66.98	16.32	0.00	150.0	± 9.6 %
		Y Z	4.50	67.04 66.81	16.38 16.25		150.0 150.0	
10521- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.62 4.42	66.97	16.25	0.00	150.0	± 9.6 %
		Y	4.43	67.03	16.37		150.0	
		Z	4.55	66.80	16.23		150.0	
10522- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.48	67.10	16.40	0.00	150.0	± 9.6 %
		Y	4.49	67.16	16.47	L	150.0	
[		Z	4.61	66.88	16.31_		150.0	

10523-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48		4.38	67.02	16.28	0.00	150.0	
AAA	Mbps, 99pc duty cycle)					0.00		± 9.6 %
		Y	4.40	67.08	16.35		150.0	
10524-		Z	4.49	66.74	16.15		150.0	
AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.42	67.02	16.37	0.00	150.0	± 9.6 %
	- <u> </u>	<u>Y</u>	4.44	67.08	16.44		150.0	
40505		Z	4.56	66.80	16.28		150.0	
10525- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.44	66.11	15.98	0.00	150.0	± 9.6 %
		Y	4.45	66.16	16.04		150.0	
40500		Z	4.54	65.84	15.87		150.0	
10526- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.58	66.42	16.11	0.00	150.0	± 9.6 %
	·	Y	<u>4.59</u>	66.48	16.17		150.0	
10527-		Z	<u>4.71</u>	66.22	16.01		150.0	
AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duły cycle)	X	4.51	66.39	16.05	0.00	150.0	± 9.6 %
		Y	4.52	66.45	16.12		150.0	
10528-		Z	4.63	66.17	15.95		150.0	<u> </u>
10528- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.52	66.40	16.08	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.54	66.46	16.15		150.0	<u> </u>
10529-		Z	4.65	66.19	15.99		150.0	F
AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.52	66.40	16.08	0.00	150.0	± 9.6 %
		Y	4.54	66.46	16.15		150.0	
10504		Z	4.65	66.19	15.99		150.0	
10531- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.50	66.46	16.08	0.00	150.0	±9.6 %
		Y	4.51	66.53	16.14		150.0	
<u></u>		Z	4.64	66.30	16.00		150.0	<u> </u>
10532- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.37	66.32	16.01	0.00	150.0	±9.6%
		Y	4.39	66.39	16.08		150.0	
40500		Z	4.50	66.15	15.93		150.0	
10533- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.53	66.48	16.08	0.00	150.0	± 9.6 %
		Υ	4.54	66.54	16.15		150.0	
		Z	4.66	66.23	15.97		150.0	
10534- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.07	66.45	16.14	0.00	150.0	± 9.6 %
	<u> </u>	Y	5.09	66.50	16.19		150.0	
10505		Z	<u>5</u> .19	66.33	16.06		150.0	
10535- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.13	66.62	16.22	0.00	150.0	±9.6 %
	<u> </u>	Y	5.14	66.67	16.27		150.0	
0500		Z	5.25	66.51	16.14		150.0	
10536- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.01	66.59	16.19	0.00	150.0	± 9.6 %
		Y	5.03	66.64	16.24		150.0	
0527		Z	5.12	66.45	16.09		150.0	
10537- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.07	66.55	16.17	0.00	150.0	± 9.6 %
		Y	5.08	66.59	16.22		150.0	
0520		Z	5.18	66.42	16.08		150.0	
10538- \AA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	Х	5.14	66.54	16.20	0.00	150.0	± 9.6 %
	<u> </u>	Y	5.15	66.59	16.25		150.0	
0540		Z	5.27	66.46	16.14		150.0	
10540- \AA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.07	66.52	16.21	0.00	150.0	± 9.6 %
		Y	5.08	66.57	16.26			
		Z	5.20	00.07 1	10.20		150.0	

10541- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	х	5.05	66.41	16.14	0.00	150.0	±9.6 %
		Y	5.06	66.46	16.20		150.0	
		Z	5.17	66.33	16.08		150.0	
10542- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.21	66.51	16.21	0.00	150.0	±9.6 %
,		Y	5.22	66.55	16.26		150.0	
		Z	5.33	66.41	16.13		150.0	
10543- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	x	5.27	66.52	16.24	0.00	150.0	± 9.6 %
		Y	5.28	66.56	16.29		150.0	
		Z	5.41	66.45	16.18		150.0	
10544- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.40	66.53	16.13	0.00	150.0	± 9.6 %
		Y	5.42	66.58	16.18		15 <u>0.0</u>	
		Z	5.49	66.45	16.06		150.0	
10545- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.59	66.98	16.30	0.00	150.0	± 9.6 %
		Y	5.60	67.03	16.36		150.0	
		Z	5.69	66.88	16.22		150.0	
10546- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duly cycle)	X	5.45	66.68	16.17	0.00	150.0	± 9.6 %
		Y	5.46	66.73	16.22		150.0	
		Z	5.56	66.67	16.13		150.0	
10547- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.52	66.76	16.20	0.00	150.0	± 9.6 %
		Y	5.53	66.80	16.25		150.0	
		Ζ	5.63	66.71	16.14		150.0	
10548- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.72	67.56	16.57	0.00	150.0	±9.6 %
		Y	5.74	67.62	16.64		150.0	
		Z	5.92	67.73	16.62		150.0	
10550- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.50	66.81	16.24	0.00	150.0	±9.6 %
		Y	5.51	66.85	16.30		150.0	
		Z	5.59	66.68	16.14		150.0	
10551- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.47	66.72	16.16	0.00	150.0	± 9.6 %
		Y	5.48	66.77	16.22		150.0	l
		Z	5.59	66.72	16.13		150.0	
10552- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.41	66.62	16.12	0.00	150.0	± 9.6 %
		Y	5.42	66.66	16.16		150.0	<b> </b>
10553-	IEEE 802.11ac WiFi (80MHz, MCS9,	Z X	<u>5.50</u> 5.48	<u>66.51</u> 66.60	<u>16.03</u> 16.14	0.00	<u>150.0</u> 150.0	± 9.6 %
AAA	99pc duty cycle)	Y	5.49	66.65	16.19	<u> </u>	150.0	
<u> </u>			5.59	66.56	16.08	1	150.0	<u> </u>
10554- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.82	66.88	16.21	0.00	150.0	± 9.6 %
<u> </u>		Y	5.83	66.92	16.26		150.0	
		Z	5.90	66.82	16.15		150.0	
10555- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	5.94	67.15	16.33	0.00	150.0	± 9.6 %
<u> </u>		Y	5.95	67.20	16.38		150.0	L
		Z	6.03	67.13	16.28		150.0	ļ
10556- AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duly cycle)	X	5.96	67.23	16.36	0.00	150.0	± 9.6 %
		Y	5.98	67.27	16.41		150.0	ļ
		Z	6.05	67.17	16.30		150.0	<u> </u>
10557- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	5.92	67.10	16.31	0.00	150.0	± 9.6 %
<u> </u>		Y	5.93	67.14	16.36		150.0	
<u> </u>		Z	6.02	67.08	16.27	1	150.0	

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10558- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	5.96	67.24	16.39	0.00	150.0	± 9.6 %
		- <del>  Y</del> -	5.97	67.29		+	+	∔
		- <u>'</u>	6.07		16.45	<u> </u>	150.0	
10560- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	5.95	67.25 67.10	16.37 16.36	0.00	<u>150.0</u> 150.0	± 9.6 %
		Υ	5.97	67.14	16.41		150.0	
		Z	6.06	67.09	16.33	<u>+</u>	150.0	+
10561- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.89	67.09	16.39	0.00	150.0	± 9.6 %
		<u> </u>	5.90	67.14	16.45		150.0	+
10562-		Z	5.99	67.06	16.35		150.0	+
<u>AAA</u>	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	5.97	67.34	16.52	0.00	150.0	± 9.6 %
		<u> </u>	5.98	67.39	16.57		150.0	
10563-	IEEE 1602.11ac WiFi (160MHz, MCS9,	Z	6.12	67.47	16.55		150.0	
AAA	99pc duty cycle)	X	6.05	67.24	16.43	0.00	150.0	± 9.6 %
	+	Y	6.06	67.29	16.49		150.0	
10564-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z	6.41	67.91	16.73		150.0	
AAA	OFDM, 9 Mbps, 99pc duty cycle)	X	4.78	66.85	16.41	0.46	150.0	± 9.6 %
	+	<u>Y</u>	4.80	66.93	16.49		150.0	
10565-	IEEE 802.11g WiFi 2.4 GHz (DSSS-		4.91	66.67	16.35		150.0	
AAA	OFDM, 12 Mbps, 99pc duty cycle)	Y	4.99 5.01	67.29	16.74	0.46	150.0	± 9.6 %
		Z	5.14	67.35	16.80		150.0	L
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	4.83	67.15 67.11	16.69 16.54	0.46	150.0 150.0	± 9.6 %
		TY-	4.84	67.40	40.00			
		z	4.98	67.18 66.99	16.62		150.0	<u> </u>
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	4.87	67.55	16.50 16.94	0.46	150.0 150.0	± 9.6 %
		Y	4.87	67.57	16.98		450.0	
		Ż	5.01	67.40	16.98		150.0	
10568- AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	X	4.73	66.85	16.28	0.46	150.0 150.0	± 9.6 %
		TY	4.75	66.97	16.39		150.0	
		Z	4.88	66.73	16.25		150.0	<u> </u>
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	4.84	67.72	17.05	0.46	150.0	± 9.6 %
	<u> </u>	Y	4.85	67.73	17.08		150.0	·
0570-		Z	4.96	67.48	16.93		150.0	
AA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	X	4.86	67.53	16.95	0.46	150.0	±9.6 %
	<u> </u>	Y	4.87	67.55	16.99		150.0	
0571-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1	Z	5.00	67.32	16.86		150.0	
	Mbps, 90pc duty cycle)	X	1.13	63.98	15.42	0.46	130.0	± 9.6 %
		Y	1.15	64.46	15.85		130.0	
0572-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2	ZX	1.15	63.75	15.28	]	130.0	
AA	Mbps, 90pc duty cycle)		1.14	64.53	15.78	0.46	130.0	± 9.6 %
	<u> </u>	Y	1.16	65.03	16.22		130.0	
0573-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5	Z	1.16	64.27	15.61	1	130.0	
<u>AA</u>	Mbps, 90pc duty cycle)	X	1.37	80.51	21.92	0.46	130.0	±9.6 %
		Y	2.18	89.24	25.44		130.0	
0574-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	Z X	1.24	77.68	20.60		130.0	
AA	Mbps, 90pc duly cycle)		1.21	70.03	18.74	0.46	130.0	± 9.6 %
		Z	1.26	70.93	19.36		130.0	
			1.21	69.23	18.24		130.0	

10575-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	x	4.55	66.59	16.41	0.46	130.0	± 9.6 %
AAA	OFDM, 6 Mbps, 90pc duty cycle)			•••••		0110	100.0	20.0 /0
		Y	4.57	66.69	16.52		130.0	
40570		Z	4.69	66.45	16.40		_130.0	
10576- AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.58	66.78	16.50	0.46	130.0	± 9.6 %
		Y	4.60	66.87	16.60		130.0	
		Z	4.71	66.62	16.47		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	X	4.76	67.04	16.65	0.46	130.0	±9.6 %
		Y	4.78	67.12	16.75		130.0	
(		Z	4.92	66.93	16.65		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	4.67	67.21	16.78	0.46	130.0	± 9.6 %
		Y	4.68	67.27	16.85		130.0	
40570		Z	4.82	67.09	16.76	0.40	130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.41	66.37	16.00	0.46	130.0	± 9.6 %
		Y	4.44	66.52	16.15		130.0	
40500		Z	4.58	66.34	16.04	0.40	130.0	
10580- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.45	66.43	16.02	0.46	130.0	± 9.6 %
		Y	4.49	66.59	16.18		130.0	
10001		Z	4.62	66.36	16.05		130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	X	4.57	67.26	16.72	0.46	130.0	± 9.6 %
		Y	4.58	67.33	16.82		130.0	
40500		Z	4.71	67.12	16.69		130.0	100%
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.34	66.11	15.76	0.46	130.0	± 9.6 %
		Y	4.38	66.30	15.94		130.0	
		Z	4.52	66.09	15.82		130.0	
10583- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.55	66.59	16.41	0.46	130.0	± 9.6 %
	-	Y	4.57	66.69	16.52		130.0	
		<u>Z</u>	4.69	66.45	16.40		130.0	
10584- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.58	66.78	16.50	0.46	130.0	± 9.6 %
		Υ	4.60	66.87	16.60		130.0	ļ
		Z	4.71	66.62	16.47		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duly cycle)	X	4.76	67.04	16.65	0.46	130.0	± 9.6 %
		Υ	4.78	67.12	16.75	L	130.0	
10586-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18	Z X	<u>4.92</u> 4.67	66.93 67.21	16.65 16.78	0.46	130.0 130.0	± 9.6 %
AAA	Mbps, 90pc duty cycle)	Y	4.68	67.27	16.85		130.0	
			4.82	67.09	16.65		130.0	ł ·
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duly cycle)	X	4.41	66.37	16.00	0.46	130.0	± 9.6 %
		Y	4.44	66.52	16.15		130.0	1
		Ż	4.58	66.34	16.04	1	130.0	<u> </u>
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.45	66.43	16.02	0.46	130.0	± 9.6 %
		Y	4.49	66.59	16.18		130.0	
		Z	4.62	66.36	16.05		130.0	
10589- AAA	IEEE 802.11a/h WiFl 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.57	67.26	16.72	0.46	130.0	± 9.6 %
-		Y	4.58	67.33	16.82		130.0	
		Z	4.71	67.12	16.69		130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.34	66.11	15.76	0.46	130.0	± 9.6 %
		Y	4.38	66.30	15.94	Ť	130.0	
		Z	4.52	66.09	15.82		130.0	1

AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.71	66.67	16.53	0.46	130.0	± 9.6 %
		- Y	4.73	66.75	16.62	+	120.0	<del> </del> _
		Z	4.84	66.53	16.51	+	130.0	
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duly cycle)	X	4.84	66.99	16.66	0.46	<u>130.0</u> 130.0	± 9.6 %
		Y	4.86	67.07	16.75	1	130.0	<u>+</u>
40500		Z	5.00	66.87	16.64	<u> </u>	130.0	+
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.76	66.86	16.52	0.46	130.0	± 9.6 %
		Y	4.78	66.96	16.62		130.0	T
10594-		Z	4.92	66.77	16.52		130.0	<u> </u>
AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.82	67.05	16.69	0.46	130.0	± 9.6 %
	- <u> </u>	<u> </u>	4.84	67.13	16.78		130.0	
10595-		Z	4.97	66.94	16.68		130.0	
AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.78	67.01	16.59	0.46	130.0	± 9.6 %
	+		4.80	67.10	16.69		130.0	
10596-		<u> </u>	4.94	66.89	16.57		130.0	
AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)		4.71	66.98	16.58	0.46	130.0	± 9.6 %
	+	_ <u>  Y</u> _	4.73	67.08	16.69		130.0	
10597-	IEEE 802.11n (HT Mixed, 20MHz,	Z	4.87	66.88	16.57		130.0	T
	MCS6, 90pc duty cycle)	X	4.66	66.85	16.44	0.46	130.0	± 9.6 %
	<u> </u>	Y	4.69	66.96	16.56		130.0	T
10598-		Z	4.82	66.78	16.45		130.0	
AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.65	67.11	16.73	0.46	130.0	± 9.6 %
	+	- Y	4.67	67.18	<u>16.8</u> 1		130.0	— —
10599-		Z	4.81	67.03	16.73		130.0	F
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.39	67.16	16.75	0.46	130.0	± 9.6 %
		<u>Y</u>	5.40	67.23	16.84		130.0	·
10600-		Z	5.52	67.11	16.73		130.0	1
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.51	67.57	16.93	0.46	130.0	± 9.6 %
	<u>+</u>	Y	5.53	67.67	17.03		130.0	
10601-		<u> </u>	5.67	67.58	16.94		130.0	
4AA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.40	67.32	16.82	0.46	130.0	± 9.6 %
	— — — — — — — —	Y	5.42	67.41	16.92		130.0	
10602-		<u>Z</u>	5.55	67.30	16.82		130.0	
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duly cycle)	X	5.53	67.48	16.82	0.46	130.0	± 9.6 %
	<u> </u>	Y	5.55	67.58	16.92		130.0	
10603-		Z	5.64	67.31	16.73	·	130.0	
AA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.60	67.77	17.10	0.46	130.0	± 9.6 %
		Y	5.62	67.84	17.19		130.0	
0604-	IEEE 802.11n (HT Mixed, 40MHz,	Z	5.72	67.63	17.03		130.0	
\AA	MCS5, 90pc duty cycle)	X	5.48	67.44	16.92	0.46	130.0	±9.6 %
	<u> </u>	<u> </u>	5.50	67.51	17.01		130.0	
0605-		Z	5.52	67.07	16.74		130.0	
VAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.51	67.48	16.93	0.46	130.0	± 9.6 %
		Y	5.53	67.59	17.04		130.0	
		Z	5.64	67.42	16.91		130.0	
0606	IEEE 802.11n (HT Mixed, 40MHz,	X	5.24	66.77	16.43	0.46	130.0	± 9.6 %
	MCS7, 90pc duty cycle)				ľ	ł		- 0.0 /0
0606- \AA	MCS7, 90pc duty cycle)	Y Z	5.27	66.88	16.54		130.0	

10607-	IEEE 802.11ac WiFi (20MHz, MCS0,	X	4.56	66.02	16.17	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)							
		Y	4.58	66.11	16.27		130.0	
40000		Z	4.68	65.84	16.13	0.10	130.0	
10608- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.71	66.38	16.33	0.46	130.0	±9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	4.74	66.48	16.43		130.0	
40000		Z	4.87	66.25	16.30	0.40	130.0	1000
10609- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.60	66.21	16.15	0.46	130.0	±9.6 %
		Y	4.63	66.32	16.26		130.0	<u> </u>
10610- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	Z X	4.75 4.66	66.09 66.38	16.13 16.32	0.46	130.0 130.0	± 9.6 %
		Y	4.68	66.48	16.42	_	130.0	
		Z	4.81	66.25	16.30		130.0	
10611- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.57	66.17	16.16	0.46	130.0	± 9.6 %
		Y	4.59	66.28	16.27	_	130.0	
		Z	4.72	66.06	16.14		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.57	66.31	16.20	0.46	130.0	±9.6 %
		Y	4.59	66.44	16.32		130.0	
10010		Z	4.73	66.20	16.18	0.40	130.0	100%
10613- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.56	66.14	16.05	0.46	130.0	± 9.6 %
		Y	4.59	66.27	16.18		130.0	
10014		Z	4.73	66.09 66.39	<u>16.06</u> 16.32	0.46	130.0 130.0	± 9.6 %
10614- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.53			0.46		19.0 %
		Y	4.55	66.47 66.29	<u>16.42</u> 16.31		130.0 130.0	
10615- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	Z X	4.68 4.56	65.98	15.91	0.46	130.0	± 9.6 %
<u> </u>		Y	4.59	66.13	16.05		130.0	
			4.72	65.87	15.91	<u> </u>	130.0	
10616- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.20	66.41	16.36	0.46	130.0	± 9.6 %
		Y	5.22	66.48	16.45		130.0	
		Z	5.34	66.37	16.34		130.0	
10617- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.27	66.60	16.43	0.46	130.0	± 9.6 %
		Y	5.29	66.69	16.53		130.0	
		Z	5.41	66.54	16.40	<u> </u>	130.0	
10618- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.17	66.64	16.47	0.46	130.0	± 9.6 %
		Y	5.19	66.72	16.55		130.0	
10619-	IEEE 802.11ac WiFi (40MHz, MCS3,	Z X	5.29 5.17	66.54 66.40	16.42 16.28	0.46	130.0 130.0	± 9.6 %
AAA	90pc duty cycle)	Y	5.19	66.49	16.38		130.0	<u>+</u>
		Z	5.19	66.37	16.38		130.0	
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duly cycle)	X	5.25	66.42	16.34	0.46	130.0	± 9.6 %
		Y	5.27	66.52	16.44		130.0	
		Z	5.40	66.41	16.34		130.0	
10621- AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.27	66.59	16.55	0.46	130.0	± 9.6 %
		Y	5.28	66.65	16.62		130.0	ļ
		Z	5.40	66.53	16.52		130.0	
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duly cycle)	X	5.27	66.70	16.60	0.46	130.0	± 9.6 %
		Y	5.28	66.78	16.68		130.0	
I		Z	5.41	66.70	16.60		130.0	

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10623- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.14	66.21	16.21	0.46	130.0	± 9.6 %
		- Y						
			5.16	66.31	16.32		130.0	
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	<u>5.28</u> 5.34	<u>66.20</u> 66.45	16.22 16.40	0.46	1 <u>30.0</u> 130.0	± 9.6 %
		-   Y	5.36	66.54	16.49	<u> </u>	130.0	
1000-		Z	5.48	66.42	16.39	<u>+</u>	130.0	
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.55	66.97	16.72	0.46	130.0	± 9.6 %
		Y	5.57	67.07	16.81	<u> </u>	130.0	
		Z	5.88	67.48	16.97	<u> </u>	130.0	
10626- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.53	66.46	16.32	0.46	130.0	± 9.6 %
		Y	5.54	66.54	16.40	† — -	130.0	+
40007		Z	5.63	66.43	16.30		130.0	+
10627- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duly cycle)	X	5.77	67.07	16.59	0.46	130.0	± 9.6 %
		Y	5.79	67.16	16.68	†	130.0	+
10620		Z	5.88	67.02	16.56	1	130.0	<u>†                                    </u>
10628- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.53	66.46	16.22	0.46	130.0	± 9.6 %
	+	<u> </u>	5.55	66.56	16.32		130.0	†—–
10629-		Z	5.67	66.54	16.25		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.62	66.57	16.27	0.46	130.0	± 9.6 %
	+	<u> </u>	5.64	66.67	16.37		130.0	<u> </u>
10630-		<u>Z</u>	5.76	66.64	16.29		130.0	
AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	5.96	67.80	16.88	0.46	130.0	± 9.6 %
	+	Y	5.98	67.92	17.00		130.0	
10631-		Z	6.25	68.26	17.09		130.0	
	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.89	67.74	17.06	0.46	130.0	± 9.6 %
	+	Y	5.91	67.78	17.11		130.0	F———
10632-	IEEE 802.11ac WiFi (80MHz, MCS6,		6.11	67.97	17.16		130.0	
444	90pc duty cycle)	X	5.75	67.20	16.81	0.46	130.0	± 9.6 %
	<u>+ — — — — —                           </u>	Y	5.76	67.24	16.86		130.0	
0633-		Z	5.85	67.08	16.73		130.0	
	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.60	66.69	16.37	0.46	130.0	± 9.6 %
	<u> </u>	Y	5.62	66.77	16.45		130.0	
0634-	IEEE 802.11ac WiFi (80MHz, MCS8,	Z	5.73	66.69	16.36		130.0	
AA	90pc duty cycle)	X	5.58	66.71	16.44	0.46	130.0	± 9.6 %
	<u> </u>	Y	5.60	66.78	16.51		130.0	
0635- AA	IEEE 802.11ac WiFi (80MHz, MCS9,	ZX	<u>5.72</u> 5.44	66.73 65.95	<u>16.44</u> 15.77	0.46	130.0 130.0	± 9.6 %
<u>. v</u> i	90pc duty cycle)		- <u></u>					_ 0.0 /0
			5.47	66.09	15.91		130.0	
0636-	IEEE 1602.11ac WiFi (160MHz, MCS0,	Z	5.60	66.05	15.82		130.0	
	90pc duty cycle}	X	5.96	66.83	16.41	0.46	130.0	±9.6 %
			5.97	66.90	16.49		130.0	
0637- AA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	Z X	<u>6.05</u> 6.10	<u>66.82</u> 67.19	<u>16.40</u> 16.58	0.46	130.0 130.0	± 9.6 %
		Y	6.12	67.27	16.60		100 5	
		Z	6.21	67.21	16.66		130.0	
0638- AA	IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.10	67.17	16.58 16.54	0.46	<u>130.0</u> 130.0	± 9.6 %
·		Y	6.12	67.25	16.63		400.0	
	·	Ż	6.21	67.17	16.53		130.0	
				01.11	10.04		130.0	

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10639- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.07	67.09	16.55	0.46	130.0	± 9.6 %
		Y	6.09	67.17	16.63	•	130.0	
		Z	6.19	67.14	16.56		130.0	
10640- AAA	1EEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.06	67.06	16.47	0.46	130.0	± 9.6 %
		Y	6.08	67.16	16.57		130.0	
		Z	6.19	67.15	16.51		130.0	
10641- AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.13	67.06	16.49	0.46	130.0	±9.6 %
		Y	6.15	67.15	16.59		130.0	
		Z	6.23	67.02	16.46		130.0	
10642- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.16	67.29	16.78	0.46	130.0	±9.6 %
		Y	6.17	67.34	16.84		130.0	
		Z	6.28	67.31	16.78		130.0	
10643- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.00	66.97	16.51	0.46	130.0	± 9.6 %
		Y	6.02	67.06	16.61		130.0	
		Z	6.11	66.97	16.50		130.0	
10644- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.09	67.26	16.67	0.46	130.0	± 9.6 %
		Y	6.12	67.36	16.77		130.0	
		Z	6.29	67.52	16.80		130.0	
10645- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.23	67.33	16.67	0.46	130.0	±9.6 %
		Y	6.26	67.42	16.77		130.0	
		Z	6.72	68.38	17.18		130.0	
10646- AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	7.97	91.85	31.39	9.30	60.0	± 9.6 %
		Y	11.74	104.28	36.86		60.0	
		Z	11.88	99.49	34.28		60.0	
10647- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subírame=2,7)	X	7.13	89.84	30.79	9.30	60.0	± 9.6 %
		Y	9.93	100.75	35.82		60.0	
		Z	10.62	97.47	33.72		60.0	
10648- AAA	CDMA2000 (1x Advanced)	X	0.64	63.39	10.24	0.00	150.0	± 9.6 %
		Y	0.67	63.88	10.62		150.0	
		Z	0.72	63.48	11.02		150.0	1

<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.

# APPENDIX D: SAR TISSUE SPECIFICATIONS

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- The probe was immersed in the tissue. The tissue was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- The complex relative permittivity ε' can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\varepsilon_{r}\varepsilon_{0}}{\left[\ln(b/a)\right]^{2}} \int_{a}^{b} \int_{a}^{b} \int_{0}^{\pi} \cos\phi' \frac{\exp\left[-j\omega r(\mu_{0}\varepsilon_{r}\varepsilon_{0})^{1/2}\right]}{r} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively,  $r^2 = \rho^2 + {\rho'}^2 - 2\rho\rho' \cos\phi'$ ,  $\omega$  is the angular frequency, and  $j = \sqrt{-1}$ .

		0011	positio		, Hoout	Equiva						
Frequency (MHz)	750	750	835	835	1750	1750	1900	1900	2450-2600	2450-2600	5200-5800	5200-5800
Tissue	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Ingredients (% by weight)												
Bactericide			0.1	0.1								
DGBE					47	31	44.92	29.44		26.7		
HEC	S		1	1								
NaCl	See page 2-3	See page 2	1.45	0.94	0.4	0.2	0.18	0.39	See page 4	0.1	See page 5	
Sucrose			57	44.9								
Polysorbate (Tween) 80												20
Water			40.45	53.06	52.6	68.8	54.9	70.17		73.2		80

 Table D-I

 Composition of the Tissue Equivalent Matter

	FCC ID: A3LSMJ737T	<u> PCTEST</u>	SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
	Test Dates:	DUT Type:			APPENDIX D:
	03/18/18 - 04/10/18	Portable Handset			Page 1 of 5
© 20 <sup>.</sup>	18 PCTEST Engineering Laboratory, I	Inc.			REV 20.09 M 03/16/2018

#### 2 Composition / Information on ingredients

The Item is composed of	the following ingredients:
H <sub>2</sub> O	Water, 35 – 58%
Sucrose	Sugar, white, refined, 40 – 60%
NaCl	Sodium Chloride, 0 – 6%
Hydroxyethyl-cellulose	Medium Viscosity (CAS# 9004-62-0), <0.3%
Preventol-D7	Preservative: aqueous preparation, (CAS# 55965-84-9), containing
	5-chloro-2-methyl-3(2H)-isothiazolone and 2-methyyl-3(2H)-isothiazolone
	0.1 – 0.7%
	Relevant for safety; Refer to the respective Safety Data Sheet*.

#### Figure D-1 Composition of 750 MHz Head and Body Tissue Equivalent Matter

**Note:** 750MHz liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

Zeughau Phone + info@sp	+41 44	245 97	00, Fax	< +41 4	14 245											
Meas	urem						0.552									
Item Na								SL750V2)								
Produc					5 AA (E	Batch:	170608-1)									
Manufa	acturer		SPEA	G		_										
	electric	parar		meas	ured u	using ca	librated D/	AK probe.								
Setup																
Validat	tion res	sults w	ere wi	thin ±	2.5% t	owards	the target	values of M	ethan	01.			_		_	_
T	Den															
Target	Parar	neters	an def	inod in	the I		28 and IEC	62209 com	nliand	e etano	larde					
Target	paran	leters	as dei	ineu ii	i ule it	LE IS		02203 001	plianc	e stand	arus.					
Ambier TSL Te Test D	empera ate	ature	22°C 20-Ju		it temp	eratur	(22 ± 3)°C	and humidit	/ ~ / 0	/0.						
TSL Te Test D Operat	empera ate tor onal lr ensity	nforma	22°C 20-Ju CL ation 1.212	n-17 g/cm <sup>5</sup>	3	beratur	(22 ± 3)°C									
TSL Te Test D Operat	empera ate tor onal lr ensity	nforma	22°C 20-Ju CL ation 1.212	n-17 g/cm <sup>5</sup>	3	beratur	22 ± 3)°C									
TSL Te Test D Operat	empera ate tor onal lr ensity	nforma pacity	22°C 20-Ju CL ation 1.212	g/cm <sup>2</sup> kJ/(kg	g*K)	Diff.to 1	arget [%]									
TSL Te Test D Operat	emperate tor onal li ensity eat-ca Measu e'	nforma pacity ired e"	22°C 20-Ju CL 1.212 3.006 sigma	g/cm <sup>3</sup> kJ/(kg Target eps	g*K) sigma	Diff.to 1 ∆-eps	arget [%] Δ-sigma	10.0 T								
TSL Te Test D Operat Additie TSL D TSL H f [MHz] 600	emperate tor onal li ensity eat-ca Measu e' 57.3	nforma pacity rred e'' 25.02	22°C 20-Ju CL 1.212 3.006 sigma 0.84	g/cm <sup>5</sup> kJ/(kg Target 56.1	g*K) sigma 0.95	Diff.to 1 Δ-eps 2.2	arget [%] Δ-sigma -12.2	10.0 % 7.5								
TSL Te Test D Operat Additi TSL D TSL H f [MHz] 600 625	emperate tor onal li ensity eat-ca Measu 6' 57.3 57.1	pacity rred 25.02 24.67	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86	g/cm <sup>S</sup> kJ/(kg Target eps 56.1 56.0	sigma 0.95 0.95	Diff.to 1 <b>Δ-ерз</b> 2.2 1.9	arget [%] <u>∆-sigma</u> -12.2 -10.1	10.0 % 7.5								
TSL Te Test D Operat Additie TSL D TSL H f(MHz) 600 625 650	emperate tor onal li ensity eat-ca Measu e' 57.3 57.1 56.8	nforma pacity red 25.02 24.67 24.32	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86 0.88	g/cm <sup>5</sup> kJ/(kg Target eps 56.1 56.0 55.9	sigma 0.95 0.95 0.96	Diff.to Т <u>А-ерs</u> 2.2 1.9 1.6	arget [%] <u>∆-sigma</u> -12.2 -10.1 -8.0	10.0 % 7.5 Åtyti 2.5 0.0			•					
TSL Te Test D Operat Additie TSL D TSL H f(MHz) 600 625 650 675	emperate tor onal li ensity eat-ca Measu e' 57.3 57.1 56.8 56.6	nforma pacity rred 25.02 24.67 24.32 24.02	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86 0.88 0.90	n-17 g/cm <sup>6</sup> kJ/(kg eps 56.1 56.0 55.9 55.8	sigma 0.95 0.95 0.96 0.96	Diff.to 1 <u>A-eps</u> 2.2 1.9 1.6 1.3	arget [%] <u>A-sigma</u> -12.2 -10.1 -8.0 -5.8	10.0 % 7.5 Åin 41 2.5 0.0 d -2.5								
TSL Test D Operat Addition TSL D TSL H f(MHz) 600 625 650 675 700	emperate tor onal line ensity eat-ca Measu e <sup>1</sup> 57.3 57.1 56.8 56.6 56.6 56.3	rred 25.02 24.67 24.32 24.02 23.71	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86 0.88 0.90 0.92	g/cm <sup>6</sup> kJ/(kg Target eps 56.1 56.0 55.9 55.8 55.7	sigma 0.95 0.95 0.96 0.96 0.96	Diff.to 7 <u>∆-eps</u> 2.2 1.9 1.6 1.3 1.1	arget [%] <u>A-sigma</u> -12.2 -10.1 -8.0 -5.8 -3.8	10.0 % 7.5 \$10,41 2.5 0.0		•••	•					
TSL Test D Operat Additie TSL D TSL H f(MHz) 600 625 650 675 700 725	emperate tor onal lr ensity eat-ca fr.3 57.3 57.1 56.8 56.6 56.3 56.1	pacity rred 25.02 24.67 24.32 24.02 23.71 23.48	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86 0.88 0.90 0.92 0.95	g/cm <sup>6</sup> kJ/(kg 56.1 56.0 55.9 55.8 55.7 55.6	sigma 0.95 0.95 0.96 0.96 0.96 0.96	Diff.to 1 <b>∆-eps</b> 2.2 1.9 1.6 1.3 1.1 0.8	arget [%] <b>A-sigma</b> -12.2 -10.1 -8.0 -5.8 -3.8 -1.5	10.0 ※ 7.5 - 公君 2.5 - 10.0 - 7.5 - - 10.0			•					
TSL Test D Operation TSL D TSL H f [MHz] 600 625 650 675 700 725 750	emperate tor onal lr ensity eat-ca for 57.3 57.1 56.8 56.6 56.3 56.1 55.9	pacity pacity 25.02 24.67 24.32 24.02 23.71 23.48 23.25	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86 0.88 0.90 0.92 0.95 0.97	g/cm <sup>6</sup> kJ/(kg Target eps 56.1 56.0 55.9 55.8 55.7	sigma 0.95 0.95 0.96 0.96 0.96	Diff.to 7 <u>∆-eps</u> 2.2 1.9 1.6 1.3 1.1	arget [%] <u>A-sigma</u> -12.2 -10.1 -8.0 -5.8 -3.8	10.0 7.5 Åty 41 min			750	800	850	900	950	10
TSL Test D Operate TSL D TSL D TSL H (MHz) 600 625 650 675 700 725 750 775	emperate tor ensity eat-ca for for for for for for for for for for	pacity rred 25.02 24.67 24.32 24.02 23.71 23.48	22°C 20-Ju CL 1.212 3.006 sigma 0.84 0.86 0.88 0.90 0.92 0.95	g/cm <sup>3</sup> kJ/(kg 56.1 56.0 55.9 55.8 55.7 55.6 <b>55.5</b>	sigma 0.95 0.95 0.96 0.96 0.96 0.96	Diff.to 1 <u>∆-eps</u> 2.2 1.9 1.6 1.3 1.1 0.8 0.6	arget [%] Δ-sigma -12.2 -10.1 -8.0 -5.8 -3.8 -1.5 0.7	10.0 ※ 7.5 - 公君 2.5 - 10.0 - 7.5 - - 10.0				800 Juency M		900	950	10
TSL Test D Operation TSL D TSL H f [MHz] 600 625 650 675 700 725 750	emperate tor onal lr ensity eat-ca for 57.3 57.1 56.8 56.6 56.3 56.1 55.9	pacity rred 25.02 24.67 24.32 24.02 23.71 23.48 23.25 23.04	22°C 20-Ju CL 1.212 3.006 0.84 0.86 0.88 0.90 0.92 0.95 0.97 0.99	n-17 g/cm <sup>3</sup> kJ/(kg 56.1 56.0 55.9 55.8 55.7 55.6 <b>55.5</b> 55.4	sigma 0.95 0.95 0.96 0.96 0.96 0.96 0.96 0.97	Diff.to 1 <u>∆-eps</u> 2.2 1.9 1.6 1.3 1.1 0.8 0.6 0.3	arget [%] ∆-sigma -12.2 -10.1 -8.0 -5.8 -3.8 -1.5 0.7 2.9	10.0 ※ 7.5 - 公君 2.5 - 10.0 - 7.5 - - 10.0						900	950	10
TSL Test D Operation TSL D TSL D TSL H f(MHz) 600 625 650 675 700 725 750 775 800	emperate tor ensity eat-ca for for for for for for for for for for	pacity rred 25.02 24.67 24.32 24.02 23.71 23.48 23.25 23.04 22.82	22°C 20-Ju CL 1.212 3.006 0.84 0.86 0.88 0.90 0.92 0.95 0.97 0.99 1.02	n-17 g/cm <sup>6</sup> kJ/(kg eps 56.1 56.0 55.9 55.8 55.7 55.6 <b>55.5</b> 55.4 55.4 55.3	sigma 0.95 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.97	Diff.to 1 ▲-eps 2.2 1.9 1.6 1.3 1.1 0.8 0.6 0.3 0.1	arget [%] ∆-sigma -12.2 -10.1 -8.0 -5.8 -1.5 0.7 2.9 5.0	10.0 ※ 7.5 - 公君 2.5 - 10.0 - 7.5 - - 10.0						900	950	100
TSL Test D Operation TSL D TSL D TSL H f [MH2] 600 625 650 675 700 725 750 775 800 825 838	emperate tor ensity eat-ca <u>eat-ca</u> <u>6</u> 57.3 57.1 56.8 56.6 56.3 56.1 <u>55.9</u> 55.6 55.4 55.4 55.2	nforma pacity 25.02 24.67 24.32 24.02 23.71 23.48 23.25 23.04 22.82 22.65	22°C 20-Ju CL 3100 1.212 3.006 5.5 5.5 5.5 0.84 0.86 0.88 0.90 0.92 0.95 0.97 0.99 1.02 1.04	n-17 g/cm <sup>3</sup> kJ/(kg eps 56.1 56.9 55.8 55.7 55.6 55.5 55.6 55.5 55.4 55.3 55.2	3 sigma 0.95 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.97 0.97	Diff.to <u>A-eps</u> 2.2 1.9 1.6 1.3 1.1 0.8 0.6 0.3 0.1 -0.1	arget [%] <u>A-sigma</u> -12.2 -10.1 -8.0 -5.8 -3.8 -3.8 -3.8 -3.8 -3.7 2.9 5.0 6.3	10.0 ₹ 75 5.0 10.0 ₹ 75 4 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0						900	950	10
TSL Terminal Content of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	emperate tor ensity eat-ca 57.3 57.1 56.8 56.6 56.3 56.1 55.9 55.6 55.4 55.2 55.1	red 25.02 24.67 24.32 24.02 23.71 23.48 23.25 23.04 22.82 22.65 22.56	22°C 20-Ju CL 3100 1.212 3.006 5500 0.84 0.86 0.88 0.90 0.92 0.95 0.97 0.99 1.02 1.04 1.05	n-17 g/cm <sup>3</sup> kJ/(kg eps 56.1 56.9 55.8 55.7 55.6 <b>55.5</b> 55.4 55.2 55.2	3 sigma 0.95 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.97 0.97 0.98 0.98	Diff.to 7 <b>A-eps</b> 2.2 1.9 1.6 1.3 1.1 0.8 <b>0.6</b> 0.3 0.1 -0.1 -0.3	arget [%] ▲-sigma -12.2 -10.1 -8.0 -5.8 -3.8 -1.5 0.7 2.9 5.0 6.3 6.9	10.0 2 7.5 2 5.0 2 5.0 2 5.0 3 5.0 - 7.5 - 10.0 2 7.5 - 10.0 2 7.5 - 10.0 - 2 5 - 10.0 - 2 7.5 - 2 7.5 - 2 7.5 - 3 5.0 - 3 5.0 - 4 7.5 - 5 5.0 -						900	950	10
TSL TO Test D Operat TSL D TSL D TSL H (MH2) 600 625 650 675 700 725 750 775 800 825 838 850	emperi ate tor onal li ensity eat-ca formation solution formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation formation	red 25.02 24.67 24.32 23.71 23.48 23.25 23.04 22.82 22.65 22.56 22.56 22.47	22°C 20-Ju 20-Ju 20-Ju 1.212 3.006 sigma 0.84 0.86 0.88 0.90 0.92 0.95 0.97 0.99 1.02 1.04 1.05 1.06	n-17 g/cm <sup>3</sup> kJ/(kg eps 56.1 56.0 55.9 55.8 55.7 55.6 55.4 55.2 55.2 55.2 55.2	3 sigma 0.95 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.98 0.97 0.98 0.98	Diff.to 1 <u>A-eps</u> 2.2 1.9 1.6 1.3 1.1 0.8 0.6 0.3 0.1 -0.3 -0.4	arget [%] <b>A-sigma</b> -12.2 -10.1 -8.0 -5.8 -3.8 -1.5 <b>0.7</b> 2.9 5.0 6.3 6.9 7.5	10.0 2 7.5 2 5.0 2 5.0 2 5.0 3 5.0 - 7.5 - 10.0 2 7.5 - 10.0 2 7.5 - 10.0 - 2 5 - 10.0 - 2 7.5 - 2 7.5 - 2 7.5 - 3 5.0 - 3 5.0 - 4 7.5 - 5 5.0 -						900	950	10
TSL T( Test D Operat TSL D TSL H (MHz) 600 625 650 675 700 725 750 775 800 825 838 850 855	emperi ate tor onal li ensity eat-ca fr.a 57.3 57.1 56.8 56.6 56.3 56.6 55.9 55.6 55.9 55.6 55.4 55.2 55.1 55.9 55.4 55.4 9 55.4 9 55.4 55.4	red 25.02 24.67 24.32 23.71 23.48 23.71 23.48 23.25 22.65 22.56 22.47 22.42	22°C 20-Ju 20-Ju 20-Ju 21-212 3.006 5 5 5 5 5 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 1.02 1.02 1.05 1.06 1.09	n-17 g/cm <sup>5</sup> kJ/(kg 56.1 56.0 55.9 55.8 55.7 55.6 55.7 55.6 55.7 55.2 55.2 55.2 55.2 55.2 55.2 55.2	3 sigma 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.98 0.99 0.98 0.99 1.02	Diff.to 1 <b>∆-eps</b> 2.2 1.9 1.6 1.3 1.1 0.8 0.6 0.3 0.1 -0.1 -0.3 0.4 -0.4 -0.4 -0.4	arget [%]           A-sigma           -12.2           -10.1           -8.0           -5.8           -3.8           -1.5           0.7           2.9           5.0           6.3           6.9           7.5           6.7	10.0 2 7.5 2 5.0 2 5.0 2 5.0 3 5.0 - 7.5 - 10.0 2 7.5 - 10.0 2 7.5 - 10.0 - 2 5 - 10.0 - 2 7.5 - 2 7.5 - 2 7.5 - 3 5.0 - 3 5.0 - 4 7.5 - 5 5.0 -						900	950	10
TSL T( Test D Operat Additii TSL D TSL H f(MH2) 600 625 650 675 700 725 750 775 800 825 838 850 825 838	emperi ate tor ensity eat-ca 57.3 57.1 56.8 56.6 55.3 55.6 55.4 55.9 55.6 55.4 55.2 55.1 54.9 54.7 54.5	red 25.02 24.67 24.32 23.71 23.48 23.25 23.04 22.82 22.56 22.56 22.56 22.54 22.24 22.21	22°C 20-Ju 20-Ju 21-212 3.0006 5 5 5 5 5 5 5 5 6 9 9 9 9 9 9 9 9 9 9	n-17 g/cm <sup>5</sup> kJ/(kg eps 56.1 55.9 55.8 55.7 55.6 55.7 55.5 55.4 55.2 55.2 55.2 55.2 55.2 55.2	sigma 0.95 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.98 0.99 0.98 0.99 1.02	Diff.to 1 <b>A-eps</b> 2.2 1.9 1.6 0.3 1.1 0.8 0.6 0.3 0.1 -0.1 -0.3 -0.4 -0.7 -0.9	arget [%] <u>A-sigma</u> -12.2 -10.1 -8.0 -5.8 -1.5 0.7 2.9 5.0 6.3 6.9 7.5 6.7 5.9	10.0 2 7.5 2 5.0 2 5.0 2 5.0 3 5.0 - 7.5 - 10.0 2 7.5 - 10.0 2 7.5 - 10.0 - 2 5 - 10.0 - 2 7.5 - 2 7.5 - 2 7.5 - 3 5.0 - 3 5.0 - 4 7.5 - 5 5.0 -						900	950	10
TSL Tr Test D Operal Additi TSL D TSL H f(MHz) 600 625 650 675 725 725 725 725 725 725 725 725 725 7	emperiate lor onal li ensity eat-ca 67.3 57.1 56.8 56.6 56.3 56.1 55.9 55.4 55.2 55.1 55.2 55.1 55.2 55.4 55.4 3	nforma pacity 25.02 24.67 24.32 24.32 24.32 24.32 23.43 23.25 22.34 22.85 22.65 22.47 22.34 22.21 22.24	22°C 20-Ju 20-Ju 20-Ju 20-Ju 20-Ju 3.006 sigma 0.84 0.86 0.88 0.90 0.92 0.92 0.97 1.02 1.04 1.05 1.06 1.09 1.02 1.04 1.02 1.04 1.02 1.04 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.11 1.14 1.14	n-17 g/cm <sup>3</sup> kJ/(kc eps 56.1 55.9 55.8 55.7 55.6 55.4 55.2 55.2 55.2 55.2 55.2 55.2 55.2	sigma 0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.97 0.97 0.97 0.97 0.97 0.97 1.02 1.02	Diff.to 1 <b>A-eps</b> 2.2 1.9 1.6 1.3 1.1 0.8 0.6 0.3 0.1 -0.1 -0.3 -0.4 -0.7 -0.9 -1.3	arget [%] <b>A-sigma</b> -12.2 -10.1 -8.0 -5.8 -3.8 -1.5 <b>0.7</b> 2.9 5.0 6.3 6.9 7.5 6.7 5.9 6.9	10.0 7.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20						900	950	10

#### Figure D-2 750MHz Body Tissue Equivalent Matter

FCC ID: A3LSMJ737T		SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
Test Dates:	DUT Type:			APPENDIX D:
03/18/18 - 04/10/18	Portable Handset			Page 2 of 5
18 PCTEST Engineering Labora	atory, Inc.			REV 20.09 M 03/16/2018

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Schmid & Partner Engineering AG	S	p	е	a	g	
and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se						

Zeughausstrasse 43, 8004 Zurich, Switzerland Phone +41 44 245 9700, Fax +41 44 245 9779 info@speag.com, http://www.speag.com

#### Measurement Certificate / Material Test

Item Name	Head Tissue Simulating Liquid (HSL750V2)	
Product No.	SL AAH 075 AA (Batch: 170612-4)	
Manufacturer	SPEAG	

Measurement Method TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation Validation results were within  $\pm 2.5\%$  towards the target values of Methanol.

Target Parameters Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

#### **Test Condition**

Ambient	Environment temperatur (22 $\pm$ 3)°C and humidity < 70%.
TSL Temperature	22°C
Test Date	20-Jun-17
Operator	CL

Additional Information TSL Density 1.284 g/cm<sup>3</sup> TSL Heat-capacity 2.701 kJ/(kg\*K)

	Measu	ured		Targe	t	Diff.to Target [%]		
f [MHz]	e'	e"	sigma	eps	sigma	∆-eps	∆-sigma	
600	45.6	22.97	0.77	42.7	0.88	6.7	-13.1	
625	45.2	22.73	0.79	42.6	0.88	6.2	-10.6	
650	44.9	22.49	0.81	42.5	0.89	5.6	-8.2	
675	44.5	22.27	0.84	42.3	0.89	5.1	-5.8	
700	44.2	22.05	0.86	42.2	0.89	4.6	-3.5	
725	43.8	21.88	0.88	42.1	0.89	4.2	-1.0	
750	43.5	21.72	0.91	41.9	0.89	3.8	1.4	
775	43.2	21.55	0.93	41.8	0.90	3.4	3.7	
800	42.9	21.38	0.95	41.7	0.90	2.9	6.0	
825	42.6	21.24	0.97	41.6	0.91	2.4	7.5	
838	42.5	21.17	0.99	41.5	0.91	2.2	8.2	
850	42.3	21.09	1.00	41.5	0.92	2.0	8.9	
875	42.0	20.98	1.02	41.5	0.94	1.2	8.3	
900	41.7	20.87	1.05	41.5	0.97	0.5	7.7	
925	41.5	20.76	1.07	41.5	0.98	0.0	8.7	
950	41.2	20.64	1.09	41.4	0.99	-0.6	9.7	
975	40.9	20.55	1.11	41.4	1.00	-1.1	10.9	
1000	40.6	20.46	1.14	41.3	1.01	-1.7	12.1	

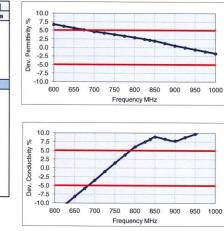


Figure D-3 750MHz Head Tissue Equivalent Matter

	FCC ID: A3LSMJ737T		SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
	Test Dates:	DUT Type:			APPENDIX D:
	03/18/18 - 04/10/18	Portable Handset			Page 3 of 5
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3 Composition / Info	ormation on in	ngredients
The Item is composed of t	he following ingre	edients:
Water	50 - 73 %	
Non-ionic detergents	25 - 50 %	polyoxyethylenesorbitan monolaurate
NaCl	0 - 2%	
Preservative	0.05 - 0.1%	6 Preventol-D7
Safety relevant ingredients	5:	
CAS-No. 55965-84-9	< 0.1 %	aqueous preparation, containing 5-chloro-2-methyl-3(2H)- isothiazolone and 2-methyyl-3(2H)-isothiazolone
CAS-No. 9005-64-5	<50 %	polyoxyethylenesorbitan monolaurate
According to international marked by symbols.	guidelines, the pr	roduct is not a dangerous mixture and therefore not required to be

#### Figure D-4 Composition of 2.4-2.6 GHz Head Tissue Equivalent Matter

**Note:** 2.4 GHz head liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

Schmic Zeugha Phone info@sp	usstras +41 44	ise 43, 245 9	8004 2 700, Fa	Zurich, ax +41	Switze 44 245	9779		<u>speag</u>
Meas	urem	nent	Certif	ficate	e / Ma	terial	Test	
ltern N Produc Manuf	ct No.	r		AH 19			<b>J Liquid (H</b> 170619-1)	IBBL1900-3800V3)
Measu TSL di				s mea	sured	using ca	alibrated D	AK probe.
Setup Validat			vere w	ithin ±	2.5%	towards	s the target	values of Methanol.
Target Target				fined i	n the I	EEE 15	28 and IEC	C 62209 compliance standards.
Test C Ambie	onditi							and humidity < 70%.
TSL T Test D Opera	ate	ature						
Additi TSL D	ensity		1.054	g/cm				
TSL H			3.389			Diff to T	areast 10/1	-
f (MHz)	Measu e'	e"	sigma	Targe eps	t sigma	Δ-eps	arget [%] Δ-sigma	10.0
1900	41.8	12.2	1.3	40.0	1.4	4.5	-8.2	* 7.5 -
1950	41.6	12.3	1.3	40.0	1.4	4.0	-4.6	5.0
2000 2050	41.4	12.4	1.4	40.0	1.4	3.6	-1.3 -0.9	kiy 5.0 2.5 0.0
2100	41.2	12.0	1.4	39.9	1.4	3.1	-0.9	
2150	40.9	12.8	1.5	39.7	1.5	2.9	-0.2	A -2.5
2200	40.7	12.9	1.6	39.6	1.6	2.7	0.2	-7.5
2250 2300	40.6	13.0	1.6	39.6 39.5	1.6	2.5	0.5	-10.0 1900 2100 2300 2500 2700 2900 3100 3300 3500 3700 3900
2350	40.4	13.3	1.7	39.5	1.7	2.3	1.5	
2400	40.0	13.4	1.8	39.3	1.8	1.8	2.1	Frequency MHz
2450	39.8	13.5	1.8	39.2	1.8	1.6	2.6	
2500	39.7 39.5	13.7 13.7	1.9	39.1 39.1	1.9	1.3	2.6 2.2	
2550	39.5	13.7	2.0	39.1	2.0	0.8	2.5	10.0
2650	39.1	14.0	2.1	38.9	2.0	0.5	2.6	7.5 5.0
2700	39.0	14.2	2.1	38.9	2.1	0.2	2.7	2.5
2750	38.7	14.3 14.4	2.2	38.8	2.1	-0.2	2.6	2.5 0.0 0.0 2.5 2.5
2800	38.4	14.5	2.2	38.8	2.2	-0.4	2.5	
2900	38.2	14.6	2.3	38.6	2.3	-1.0	2.6	-5.0
2950 3000	38.1	14.7 14.8	2.4	38.6	2.3	-1.3	2.6	-7.5
3000	37.9	14.8	2.5	38.5	2.4	-1.7	2.6	1900 2100 2300 2500 2700 2900 3100 3300 3500 3700 3900
3100	37.5	14.9	2.6	38.4	2.5	-2.3	2.8	Englisher Mile
3150	37.3	15.0	2.6	38.3	2.6	-2.6	2.9	Frequency MHz
3200 3250	37.1 37.0	15.1 15.1	2.7	38.3 38.2	2.6 2.7	-3.0 -3.3	2.9 3.0	
3250	36.8	15.2	2.7	38.2	2.7	-3.3	3.0	
3350	36.6	15.3	2.8	38.1	2.8	-3.9	3.2	
3400	36.4	15.3	2.9	38.0	2.8	-4.2	3.3	
3450 3500	36.3 36.1	15.4	3.0	38.0	2.9	-4.5	3.4	
3500	36.1	15.5	3.0	37.9	2.9	-4.8	3.5	
3600	35.8	15.6	3.1	37.8	3.0	-5.3	3.6	
3650	35.7	15.7	3.2	37.8	3.1	-5.6	3.7	
3700	35.5	15.7	3.2	37.7	3.1	-5.8	3.9	
3750 3800	35.4	15.8 15.9	3.3 3.4	37.6 37.6	3.2 3.2	-6.1 -6.3	3.9 4.1	

Figure D-5 2.4-2.6 GHz Head Tissue Equivalent Matter

	FCC ID: A3LSMJ737T		SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
	Test Dates:	DUT Type:			APPENDIX D:
	03/18/18 - 04/10/18	Portable Handset			Page 4 of 5
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### 2 Composition / Information on ingredients

#### Figure D-6

### Composition of 5 GHz Head Tissue Equivalent Matter

**Note:** 5GHz head liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

Zugitausitasse 43, 8003, Zuich, Switzerland, Prone 414, 424, 245, 9779, 8770, Fax, 414, 424, 59779, 877, 414, 424, 59779, 877, 414, 424, 59779, 877, 878, 778, 776, 776, 776, 776, 776	Schmic	i & Par	tner Er	nginee	ring A(	3			s p e a g			
Manufacturer         Head Tissue Simulating Liquid (HBBL3500-5800V5)           Product No.         SL AAH 502 AG (Batch: 170613-1)           Measurement Method         TSL delectric parameters measured using calibrated DAK probe.           Satup Validation         Target Parameters           Target Parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.         Target Parameters           Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.         Test Condition           Target parameters         Environment temperatur (22 ± 3)°C and humidity < 70%.	Phone	+41 44	245 9	700, F	ax +41	44 24	5 9779					
Product No. SL AAH 502 AG (Batch: 170613-1) Manufacturer SPEAG Measurement Wethod TSL delectric parameters measured using calibrated DAK probe. Satup Validation results were within ± 2.5% towards the target values of Methanol. Target Parameters as defined in the IEEE 1528 and IEC 62209 compliance standards. Target Parameters as defined in the IEEE 1528 and IEC 62209 compliance standards. Test Condition Target Parameters as defined in the IEEE 1528 and IEC 62209 compliance standards. Test Condition Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards. Test Condition Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards. Test Condition Test Consity 0.985 g/cm <sup>3</sup> TSL Temperature 22°C Test Date 20-Jun-17 Operator CL Additional Information TSL Density 0.385 kU/kg/kg) TSL Heat capacity 3.385 kU/kg/kg 3.383 kU/kg/kg 4.33 3000 386 1466 324 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 376 11468 344 97 44 12 - 35 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 375 1156 346 97 3.32 14 - 25 4000 376 11468 344 97 42 98 4000 376 11468 344 97 448 31 11 - 35 4000 376 11468 344 97 448 31 11 - 35 4000 375 1156 346 97 3.32 14 - 25 4000 386 1157 448 98 446 34 84 82 4000 376 1157 448 98 446 34 84 82 4000 386 11578 448 98 446 34 84 82 4000 386 11578 447 98 457 468 - 366 4000 386 11578 448 98 466 473 48 4000 386 11578 448 98 466 473 48 4000 386 11578 448 98 46	Meas	uren	nent	Certi	ficat	e/M	ateria	l Test				
Measurement Nethod           TSL dielectric parameters measured using calibrated DAK probe.           Setup Validation           Yalidation results were within ± 2.5% towards the target values of Methanol.           Target Parameters           Arbiton           The Source           Condition           Arbitonal Information           TSL Heat-capacity 3.388 kol/kg/rk)           TSL Heat-capacity 3.388 kol/kg/rk)           Measured         Target Organetics           TSL Heat-capacity 3.388 kol/kg/rk)           Mode 16:03         244 90.0           3000         88.1 14:06         316.0         37.3         3.0.0           3000         88.1 14:06         316.0         37.2         3.0.0.0         3.0.0           3000         88.1 14:06         316.0         37.2         3.0.0.0         3.0.0           3000         88.1 14:06         34.0         37.2         3.0.0.0         3.0.0         3.0.0         3.0.0         3.0.0 </td <td>Produc</td> <td>ct No.</td> <td></td> <td>SL A</td> <td>AH 50</td> <td>ue Sir 2 AG</td> <td>nulatin (Batch:</td> <td>g Liquid ( 170613-</td> <td>HBBL3500-5800V5) 1)</td> <td></td>	Produc	ct No.		SL A	AH 50	ue Sir 2 AG	nulatin (Batch:	g Liquid ( 170613-	HBBL3500-5800V5) 1)			
TSL clielectric parameters measured using calibrated DAK probe.         Validation         Validation results were within ± 2.5% towards the target values of Methanol.         Target Parameters         Target Parameters         Target Parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.         Test Condition         Test Condition         Test Condition         Test Condition         CL         Additional Information         TSL Density       0.985 g/cm <sup>3</sup> Target parameters         Target parameters         Target parameters         Target parameters         Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"         Target parameters         Target parameters         Target parameters         Target parameters         Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"         Colspan="2"					AG							
Setup Validation           Validation results were within ± 2.5% towards the target values of Methanol.           Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.           Test Condition           Robient Environment temperatur (22 ± 3)°C and humidity < 70%.           TSL Temperature 2°C           Test Date 20-Jun-17           Operator           CL           Additional Information           TSL Density 0.985 gfcm <sup>3</sup> TSL Heat-capacity 3.383 kJ/(kg*k)           Not 0.985 gfcm <sup>3</sup> TSL Heat-capacity 3.383 kJ/(kg*k)           Not 0.985 gfcm <sup>3</sup> State of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s					s mea	sured	using c	alibrated I	DAK probe.			
Target Parameters           Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.           Test Condition           Annbient         Environment temperatur (22 ± 3)°C and humidity < 70%.           Tist Temperature           C           Test Date         20-Unn-17           Operator         CL           Additional Information           Tist Density         0.985 g/cm³           Target parameters 280 d/kg 'k'           Measured         Target Opfilio Target (%)           Mass 11:03         2.84           Mass 11:15         11:0           Mass 11:3         0.97           Sign 0.82         13         0.95           Mass 11:3         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.         Test Condition         Ambient       Environment temperatur (22 ± 3)°C and humidity < 70%.         TSL Temperature       22°C         Test Date       20.0µn-17         Operator       CL         Additional Information         TSL Denesity       0.985 g/cm³         TSL bare.capacity 3.383 KJ/(kg*K)         Implicit as the standards         Mass difference         Target bare of the standards         3400 38.0       18.0       18.0       18.0         Mass difference       Target Diff.to Target (%)         3000 38.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0       18.0 <td>Validat</td> <td>tion re</td> <td>sults v</td> <td>vere w</td> <td>rithin ±</td> <td>2.5%</td> <td>toward</td> <td>s the targe</td> <td>at values of Methanol.</td> <td></td>	Validat	tion re	sults v	vere w	rithin ±	2.5%	toward	s the targe	at values of Methanol.			
Test Condition           Amblemit         Environment temperatur (22 ± 3)°C and humidity < 70%.           St. Lematruz 22°C           Center 20-Jun-17           Operator CL           Additional Information           Tist. Lenasity         0.985 grcm <sup>3</sup> Tist. Lenasity         0.985 grcm <sup>3</sup> Tist. Heat-capacity 3.383 kJ/(kg*k)           Molecular displane deps define           4000         386         1600         241         15           Molecular displane deps define           4000         383 KJ/(kg*k)           3000         82         14.0         1.0           3000         82         1.0         1.0         1.0         3.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0 <th <="" colspan="2" td=""><td></td><td></td><td></td><td></td><td>fined</td><td>n the</td><td>FFF 47</td><td>00 and 15</td><td>-0.00000</td><td></td></th>	<td></td> <td></td> <td></td> <td></td> <td>fined</td> <td>n the</td> <td>FFF 47</td> <td>00 and 15</td> <td>-0.00000</td> <td></td>						fined	n the	FFF 47	00 and 15	-0.00000	
Amblent         Environment temperatur (22 ± 3)°C and humidity < 70%.           TSL Temperature         22°C           Test Date         20-Jun-17           Operator         CL           Additional Information         Tist. Lensity         0.985 g/cm³           TSL Density         0.985 g/cm³           TSL Heat-capacity 3.383 kJ/(kg*k)         160         160           Modes         farget         Offito Target [%]           Modes         farget         Offito Target [%]           Mode         386         15:00         2.84         300         7.5           Mode         386         15:00         2.84         30.0         2.81         1.5         0.33           Mode         386         15:00         2.84         30.0         2.1         1.5         0.33           Mode         38.0         14.8         3.0         2.1         1.5         0.33         1.4         2.5           Mode         37.5         1.50         3.80         3.4         3.5         3.3         3.4         3.5         3.4           Mode         37.5         1.50         3.80         3.4         3.4         3.5         3.6         3.6         3.6				as ue	ineu	ii uie	EEE IS		C 62209 compliance standards.			
Test Date         20-Jun-17           Operator         CL           Additional Information         -           TSL Density         0.985 g/cm <sup>3</sup> TSL Heat-capacity         3.838 kJ/(kg*k)           1Mbd         e*           3000         386         1500         284           3000         386         1500         284         380         281           3000         386         1496         300         221         1.5         1.1           3000         387         1496         3.6         22         1.4         -2.6           3000         37.6         1.56         3.6         3.4         1.5         -3.3           4000         37.6         1.56         3.6         3.4         1.5         -3.3           4100         37.1         1.52         3.8         3.4         1.5         -3.3           4200         37.6         1.56         4.80         3.6         -3.6 <td>Ambie</td> <td>nt</td> <td></td> <td></td> <td>onme</td> <td>nt tem</td> <td>peratur</td> <td>(22 ± 3)°0</td> <td>C and humidity &lt; 70%.</td> <td></td>	Ambie	nt			onme	nt tem	peratur	(22 ± 3)°0	C and humidity < 70%.			
Additional Information         TSL Density       0.985 g/cm <sup>3</sup> TSL Heat-capacity       3.838 kJ/(kg*k)         IMmassured       Target       Diff.to Target [%]         3400       386       1502       284       380       281         3400       386       1502       284       380       281       1.5       0.13         3600       385       1498       300       37.8       3.02       1.3       0.5         3700       380       1498       3.03       37.8       3.02       1.4       0.5         3900       37.8       1.83       3.15       3.3       3.6       3.40       3.6         4000       37.6       1.60       3.60       37.6       3.22       1.4       0.5         37.0       3.02       1.3       3.6       3.4       3.6       3.4         4000       37.6       1.50       3.60       37.6       3.4       3.6       3.4         4000       37.1       1.52       3.9       3.6       3.4       3.6       3.4       3.6       3.4       3.6         4000       37.1       1.52       3.9       3.6       3.6       3.6			ature		un-17							
TSL Density 0.985 g/cm <sup>3</sup> TSL Heat-capacity 3.883 kJ/(kg <sup>+</sup> K)	Operat	tor		CL								
TSL Heat-capacity 3.383 kU/(kg*K)         Measured       Target       Diff.to Target (%)         Measured       Target       Diff.to Target (%)         000 386 11:00 2.94 30.0 77.8       digma deps deps deps deps deps deps deps deps			nform			3						
Measured         Target         Diff.to Target [%]           110Hz         e''         sigma         cps         sigma         sig			pacity									
Imma         ev         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         *         * <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td>Diff to 7</td> <td>Cargot [9/1</td> <td></td> <td></td>				_			Diff to 7	Cargot [9/1				
1-100       2-800       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       10.00       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80       2-80<		e'	e"		eps	sigma	∆-eps					
3800       3801       14.96       3.16       37.6       3.22       1.4       -1.9         3000       380       15.96       3.22       1.4       -1.9       3.2       3.2       1.4       -1.9         3000       380       15.96       3.22       1.4       -1.9       3.2       1.4       -1.9         3000       37.9       14.96       3.83       37.4       3.22       1.4       -1.9         3000       37.9       15.05       3.60       37.1       3.53       1.5       -2.8         4100       37.4       15.05       3.60       37.0       3.28       1.4       -1.5         4200       37.7       15.05       3.60       37.0       3.24       1.4       -1.5         4200       37.7       15.26       3.00       3.64       1.4       -1.5       -1.6         4200       37.0       15.26       4.00       3.64       4.25       1.0       -3.6         4800       36.1       15.3       4.14       3.64       4.40       9.6       -3.6         500       36.5       15.26       4.37       3.64       -6.6       -3.7         510						10101						
3800       3801       14.96       3.16       37.6       3.22       1.4       -1.9         3000       380       15.96       3.22       1.4       -1.9       3.2       3.2       1.4       -1.9         3000       380       15.96       3.22       1.4       -1.9       3.2       1.4       -1.9         3000       37.9       14.96       3.83       37.4       3.22       1.4       -1.9         3000       37.9       15.05       3.60       37.1       3.53       1.5       -2.8         4100       37.4       15.05       3.60       37.0       3.28       1.4       -1.5         4200       37.7       15.05       3.60       37.0       3.24       1.4       -1.5         4200       37.7       15.26       3.00       3.64       1.4       -1.5       -1.6         4200       37.0       15.26       4.00       3.64       4.25       1.0       -3.6         4800       36.1       15.3       4.14       3.64       4.40       9.6       -3.6         500       36.5       15.26       4.37       3.64       -6.6       -3.7         510	3600	38.3	14.98	3.00	37.8	3.02	1.3	-0.5	2.5	- 1		
3900     3800     14.9     3.24     37.5     3.22     1.4     -2.5       4000     37.6     1.58     3.83     3.43     1.5     -3.3       4000     37.6     1.58     3.83     3.74     1.5     -3.3       4000     37.6     1.58     3.63     3.71     1.3     -3.6       4000     37.4     1.51     3.70     3.53     3.11     -3.6       4000     37.4     1.51     3.70     3.63     1.3     -3.6       4000     37.4     1.58     3.83     3.44     1.4     -3.5       4000     37.4     1.58     3.83     3.44     1.4     -3.5       4000     37.1     1.58     3.83     3.44     1.1     -3.5       4000     38.1     1.53     4.14     1.2     -3.5       4000     38.1     1.58     4.43     3.1     1.4     -3.5       5000     38.5     1.53     4.40     3.1     1.4     -3.5       5000     38.5     1.54     4.30     1.1     -3.6       5000     38.5     1.54     4.30     1.1     -3.6       5000     38.5     1.54     4.38     36.1     4.56 <t< td=""><td></td><td></td><td>1 1100</td><td></td><td></td><td></td><td></td><td></td><td></td><td>~</td></t<>			1 1100							~		
4100       37.8       14.90       34.4       37.2       8.58       1.5       -3.2         4200       37.6       15.00       3.50       37.1       3.83       1.5       -3.2         4200       37.4       15.11       3.70       3.83       1.5       -3.6         3400       37.4       15.11       3.70       3.83       1.4       -3.5         4000       37.4       15.21       3.70       3.83       1.4       -3.5         4000       37.1       15.3       4.14       -3.5       -3.6       -3.7         4000       38.6       15.35       4.10       3.44       -3.6       -3.7         4000       36.7       15.35       4.14       -3.6       -3.6       -3.6         4000       36.5       1.43       3.43       1.1       -3.6       -3.6         5000       36.5       1.54.2       4.29       3.62       4.40       -3.6         5000       36.5       1.54.8       4.39       1.0       -3.6       -3.6         5000       36.5       1.54.8       4.39       3.6       -3.6       -3.6         5000       36.1       1.55       4.							1.4	-2.5	-5.0	- 1		
4200       37.6       15.00       35.0       37.1       3.6       3400       3900       4400       4900       5400       5900         4300       37.2       15.08       3.60       3.71       1.3       -3.6       3400       3900       4400       4900       5400       5900         4300       37.2       15.11       3.70       3.63       3.84       1.4       -3.5         4500       37.7       15.29       4.00       36.6       1.1       -3.5         4700       37.0       15.29       4.00       3.64       1.2       -3.4         4800       0.86       15.35       4.14       4.25       1.0       -3.6         5000       365       15.39       4.24       3.63       -3.6       -5.0         5000       365       15.34       4.43       3.64       -3.6       -5.0       -3.6         5100       8.64       15.84       4.39       3.64       -5.0       -3.6       -5.0         5000       36.1       15.55       4.58       35.0       4.60       0.7       -3.7         5000       36.1       15.56       4.83       3.66       -5.7       -3.												
4400 374 1511 3.70 369 3.84 1.4 3.5 4500 374 1521 5.10 3.80 6.8 3.94 1.1 3.5 4700 370 1529 4.00 366 4.14 1.2 3.4 4850 368 1535 4.13 36.4 4.25 1.0 3.4 4850 368 1535 4.13 36.4 4.25 1.0 3.4 4850 368 1536 4.13 34.4 36.4 4.20 1.1 3.6 4950 367 1529 4.00 36. 4.14 1.2 3.4 4850 368 1536 4.14 36.4 4.30 1.1 3.6 4950 367 1529 4.00 36.6 4.5 500 365 15.42 4.29 36.2 4.45 0.8 3.6 500 365 15.42 4.29 36.2 4.45 0.8 3.6 500 368 1530 4.48 4.3 36.1 4.55 0.8 3.6 500 368 1553 4.48 3.84 0.60 7.38 5200 362 1550 4.48 3.58 4.80 0.4 3.8 5200 361 1555 4.58 35.9 4.70 0.6 3.7 5500 381 1555 4.58 35.9 4.70 0.6 3.7 5500 381 1557 4.68 35.8 4.86 0.4 3.7 5500 353 1557 4.88 35.8 4.80 0.4 3.7 5500 354 1570 4.88 35.6 5.07 0.2 3.7 550 355 1570 4.88 35.6 5.07 0.2 3.7 550 355 1575 4.88 35.6 5.07 0.2 3.7 550 355 1575 4.88 35.6 7.02 3.37 550 356 1570 5.48 35.5 5.12 0.4 3.6 570 355 1577 4.98 35.5 5.12 0.4 3.6 570 355 1575 4.48 35.5 5.70 0.2 3.7 550 354 1576 5.48 35.5 5.70 0.3 3.7 550 354 1576 5.48 35.5 5.70 0.3 3.7 550 354 1576 5.48 35.5 5.70 0.3 3.7 550 354 1576 5.48 35.5 5.70 0.3 3.7 550 354 1576 5.48 35.5 5.70 0.3 3.7 550 354 1576 5.48 35.5 5.70 0.3 3.7	4200	37.6	15.00	3.50	37.1	3.63	1.3	-3.6	3400 3900 4400 4900 5400	5900		
4500         372         15.18         48.0         38.8         3.94         1.1         -3.5           4000         37.1         15.29         4.00         1.2         -3.5           4000         38.1         15.29         4.00         1.2         -3.5           4000         38.1         15.29         4.00         8.6         4.14         1.2         -3.4           4800         38.5         1.83         4.10         9.4         3.0         1.1         -3.6           4900         36.7         15.38         4.19         8.4         3.0         1.1         -3.6           4900         36.6         1.53         4.40         3.4         3.6         -3.6           5000         36.5         15.42         4.29         3.6         -3.6           5000         36.5         15.83         3.14         5.6         -3.6           5100         38.1         15.84         4.80         3.6         -3.6           5200         36.1         15.35         4.80         -3.6         -3.6           5200         36.1         15.56         4.80         -3.7         -3.7           5300 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Frequency MHz</td><td></td></t<>									Frequency MHz			
4700       370       1529       4.00       36.6       4.14       1.2       3.4         4800       36.8       15.35       4.10       6.4       4.25       1.0       3.4         4800       36.6       31.55       4.10       6.4       4.25       1.0       3.4         4800       36.6       35.5       4.10       3.4       3.4       3.4       3.4         4900       36.7       15.38       4.19       9.3       4.25       3.0       1.1       3.6         500       36.6       15.42       4.29       3.6       4.40       0.9       3.6         5000       36.6       15.43       4.38       4.40       0.9       3.6         5000       36.6       15.44       4.39       3.6       0.6       -3.6         5000       36.6       15.54       4.68       3.6       -3.6         5000       36.1       15.53       4.44       36.0       4.66       -3.7         5000       36.6       15.56       4.68       3.5       -3.7       -3.7         5000       35.6       15.70       4.88       4.86       4.7       -3.7         5000<					00.0	0.0.1						
No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No.         No. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10.0</td> <td></td>									10.0			
4860         486         15.35         4.14         36.4         4.30         1.1         -3.6           4860         36.8         15.39         4.24         36.3         4.35         1.0         -3.6           4860         36.8         15.39         4.24         36.3         4.40         0.9         -3.6           5000         36.5         15.42         4.29         36.2         4.50         0.9         -3.6           5100         36.4         15.46         4.39         36.0         4.60         0.7         -3.6           5200         36.1         15.55         4.53         3.64         -0.67         -3.6           5200         36.1         15.55         4.58         3.64         -0.67         -3.7           5300         36.1         15.55         4.53         3.56         5.07         0.2         -3.7           5500         35.1         15.57         4.80         3.56         5.07         0.2         -3.7           5500         35.6         15.77         4.86         5.07         0.2         -3.7           5500         35.6         15.76         4.83         5.07         0.2         -3.6												
5000         366         15.43         4.44         36.2         4.50         0.9         -3.6           5150         36.4         4.84         38.0         4.50         0.8         -7.5         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <td></td> <td></td> <td></td> <td>4.14</td> <td>36.4</td> <td>4.30</td> <td>1.1</td> <td>-3.6</td> <td></td> <td>-</td>				4.14	36.4	4.30	1.1	-3.6		-		
5000         366         15.43         4.44         36.2         4.50         0.9         -3.6           5150         36.4         4.84         38.0         4.50         0.8         -7.5         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> <td></td>									0.0			
5050         368         15.43         4.44         362         4.50         0.9         -3.6           5150         364         4.84         360         4.65         0.8         -1.65         -1.05           5150         363         15.84         4.39         8.14         4.55         0.8         -3.6           5150         363         15.84         4.49         36.0         4.60         0.7         -3.8           5200         361         15.53         4.58         35.9         4.71         0.5         -3.7           5300         361         15.55         4.58         35.9         4.71         0.6         -3.7           5400         359         15.57         4.68         3.68         -4.4         -3.7           5500         356         15.59         4.78         3.68         -4.4         -3.7           5500         35.5         15.17         4.88         35.6         5.07         0.2         -3.7           5500         35.6         15.70         4.93         35.5         5.17         0.2         -3.7           5600         35.6         15.70         4.93         3.57         0.3	5000	36.5	15.42	4.29	36.2				-2.5	~		
100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td>										-		
S200         S32         TSS0         4.48         S4.6         C.6         -3.8           S200         S21         15.53         4.54         S3.9         4.71         0.5         -3.6           S300         S4.1         15.53         4.54         S3.9         4.71         0.5         -3.6           S300         S4.1         15.53         4.54         S3.9         4.71         0.5         -3.7           S300         S4.0         15.57         4.63         S3.8         4.86         0.4         -3.7           S400         S30         15.59         4.73         3.57         4.86         0.4         -3.7           S500         S351         15.69         4.73         3.57         4.86         0.4         -3.7           S500         S351         15.69         4.73         3.57         4.86         0.4         -3.7           S500         S351         15.70         4.80         3.66         -3.7         -3.7           S500         S451         15.70         5.07         0.2         -3.7           S500         S45         15.70         2.43         -3.6           S700         S45		0011							-10.0			
2x00         36.1         15.34         4.34         4.71         0.5         3.55           3x00         36.1         15.54         4.68         3.47         0.05         3.55           3x00         36.1         15.56         4.68         3.7         3.7         3.67           3x00         3x5         15.56         4.68         3.8.         4.66         0.4         3.7           5x00         3x5         15.59         4.73         3.8.         4.66         0.4         3.7           5x00         3x5         15.59         4.73         3.57         4.86         0.4         3.7           5x00         3x5         15.59         4.73         3.57         4.91         0.6         -3.7           5x00         3x5         15.59         4.73         3.55         5.07         0.2         -3.7           5x00         3x6         15.70         4.93         3.55         5.71         0.4         -3.6           5x700         3x6         15.70         4.93         5.22         0.1         -3.4           5800         3x5         15.74         3.64         3.52         0.3         -3.4 <t< td=""><td></td><td>36.2</td><td>15.50</td><td></td><td></td><td>4.66</td><td>0.6</td><td>-3.8</td><td></td><td>3900</td></t<>		36.2	15.50			4.66	0.6	-3.8		3900		
S360         86.0         15.6         46.8         85.8         4.81         0.5         -3.7           5400         35.9         15.57         4.88         35.8         4.81         0.4         -3.7           5500         35.7         15.8         4.78         85.7         4.91         0.6         -3.7           5500         35.7         15.6         4.78         85.0         0.4         -3.7           5500         35.7         15.6         4.88         8.55         5.07         0.2         -3.7           5600         35.6         15.6         4.88         35.5         5.07         0.2         -3.7           5600         35.6         15.65         5.07         0.2         -3.7           5600         35.6         15.70         4.93         35.5         5.12         0.4         -3.6           5700         35.6         15.71         5.4         3.57         2.1         -3.6           5700         35.4         15.72         4.93         5.27         0.1         -3.4           5800         36.4         15.81         5.49         3.5         5.27         0.1         -3.4							1000					
5450         35.9         1.5.9         4.73         35.7         4.91         0.6         -3.7           5600         36.8         15.66         4.78         95.6         4.96         0.4         -3.7           5600         35.7         15.67         4.88         9.501         0.3         -3.7           5600         36.4         15.66         4.88         35.5         5.01         0.3         -3.7           5600         36.4         15.66         4.88         35.5         5.01         0.3         -3.7           5600         36.4         15.70         4.93         35.5         1.62         -3.7           5600         36.4         15.70         4.93         35.5         1.62         -3.7           5700         35.4         15.72         4.98         35.5         5.07         0.2         -3.7           5700         35.4         15.72         2.98         35.4         5.27         0.1         -3.4           5800         36.4         15.78         5.94         35.7         2.7         0.3         -3.7           5800         36.8         15.81         5.14         35.3         5.27         0.3<	5350	36.0	15.56	4.63	35.8	4.81	0.5	-3.7				
5500         35.8         15.61         47.8         35.6         4.4         -3.7           5500         35.7         15.66         4.88         35.5         5.01         0.3         -3.7           5600         35.6         15.66         4.88         35.5         5.70         0.2         -3.7           5600         35.6         15.66         4.88         35.5         5.17         0.2         -3.7           5600         35.6         15.70         4.93         35.5         5.12         0.4         -3.6           5700         35.5         15.72         4.93         35.5         5.17         0.2         -3.6           5750         35.4         15.78         5.04         35.4         5.22         0.1         -3.4           5800         35.4         15.78         5.04         35.4         5.22         0.1         -3.4           5800         35.6         15.15         14.03         5.34         0.0         -3.7												
5500         35.7         15.65         4.83         35.6         5.01         0.3         -3.7           5600         35.6         16.6         4.88         35.5         5.07         0.2         -3.7           5650         35.6         15.70         4.93         35.5         5.12         0.4         -3.6           5700         35.6         15.70         6.48         35.4         5.22         -1.         -3.4           5800         36.4         15.76         6.44         3.64         -2.2         -3.6           5700         35.4         15.70         6.44         3.64         -2.2         -3.6           5700         36.4         15.76         6.44         3.64         -2.2         -3.4           5800         36.3         15.78         5.09         5.32         1.5.4         -3.4           5800         36.5         15.4         1.5.44         5.34         0.3         -3.7												
5650         35.8         15.70         4.89         35.5         5.12         0.4         -3.6           5700         35.6         15.72         4.98         35.4         5.17         0.2         -3.6           5700         35.4         15.76         5.44         35.4         5.22         0.1         -3.4           6800         35.4         15.78         5.49         5.34         0.3         -3.4           6800         35.4         15.78         5.34         0.3         -3.7	5550	35.7	15.65		35.6							
5700         35.5         15.72         4.98         35.4         5.17         0.2         -3.6           5750         35.4         15.78         5.40         35.4         5.22         0.1         -3.4           5800         35.4         15.81         5.14         35.3         5.27         0.3         -3.4           5800         35.1         15.81         5.14         35.3         5.24         0.0         -3.7								1.200				
5800         35.4         15.78         5.09         35.3         5.27         0.3         -3.4           5850         35.3         15.81         5.14         35.3         5.34         0.0         -3.7												
5850 35.3 15.81 5.14 35.3 5.34 0.0 -3.7												

Figure D-7 5GHz Head Tissue Equivalent Matter

FCC ID: A3LSMJ737T		SAR EVALUATION REPORT	SAMSUNG	Approved by: Quality Manager
Test Dates:	DUT Type:			APPENDIX D:
03/18/18 - 04/10/18	Portable Handset			Page 5 of 5
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# APPENDIX E: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

	SAR System validation Summary – Ig													
SAR	FREQ.		PROBE	PROBE			COND.	PERM.	C	W VALIDATIO	N	M	D. VALIDATIO	N
SYSTEM	[MHz]	DATE	SN	TYPE	PROBE C	AL. POINT	(σ)	(ɛr)	SENSITIVITY	PROBE	PROBE	MOD.	DUTY	PAR
#										LINEARITY	ISOTROPY	TYPE	FACTOR	
Н	750	8/30/2017	7410	EX3DV4	750	Head	0.911	43.081	PASS	PASS	PASS	N/A	N/A	N/A
E	835	3/5/2018	3213	ES3DV3	835	Head	0.925	43.335	PASS	PASS	PASS	GMSK	PASS	N/A
Н	1750	8/30/2017	7410	EX3DV4	1750	Head	1.395	38.864	PASS	PASS	PASS	N/A	N/A	N/A
G	1900	8/31/2017	3332	ES3DV3	1900	Head	1.457	40.398	PASS	PASS	PASS	GMSK	PASS	N/A
G	2450	10/16/2017	3332	ES3DV3	2450	Head	1.880	38.615	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
G	2600	10/16/2017	3332	ES3DV3	2600	Head	2.051	38.039	PASS	PASS	PASS	TDD	PASS	N/A
н	5250	1/31/2018	3589	EX3DV4	5250	Head	4.516	36.066	PASS	PASS	PASS	OFDM	N/A	PASS
н	5600	1/31/2018	3589	EX3DV4	5600	Head	4.869	35.597	PASS	PASS	PASS	OFDM	N/A	PASS
Н	5750	1/31/2018	3589	EX3DV4	5750	Head	5.112	35.351	PASS	PASS	PASS	OFDM	N/A	PASS
I	750	3/6/2018	3287	ES3DV3	750	Body	0.951	56.970	PASS	PASS	PASS	N/A	N/A	N/A
E	835	3/16/2018	3213	ES3DV3	835	Body	0.968	53.713	PASS	PASS	PASS	GMSK	PASS	N/A
Н	1750	8/30/2017	7410	EX3DV4	1750	Body	1.532	51.024	PASS	PASS	PASS	N/A	N/A	N/A
I	1750	3/12/2018	3287	ES3DV3	1750	Body	1.462	52.350	PASS	PASS	PASS	N/A	N/A	N/A
J	1900	3/9/2018	3914	EX3DV4	1900	Body	1.533	53.731	PASS	PASS	PASS	GMSK	PASS	N/A
К	2450	5/3/2017	7406	EX3DV4	2450	Body	1.995	50.521	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
К	2450	4/3/2018	3319	ES3DV3	2450	Body	2.043	51.130	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
K	2600	5/3/2017	7406	EX3DV4	2600	Body	2.203	49.895	PASS	PASS	PASS	TDD	PASS	N/A
K	2600	4/3/2018	3319	ES3DV3	2600	Body	2.225	50.665	PASS	PASS	PASS	TDD	PASS	N/A
D	5250	10/24/2017	7308	EX3DV4	5250	Body	5.405	48.529	PASS	PASS	PASS	OFDM	N/A	PASS
D	5600	10/24/2017	7308	EX3DV4	5600	Body	5.910	47.818	PASS	PASS	PASS	OFDM	N/A	PASS
D	5750	10/24/2017	7308	EX3DV4	5750	Body	6.135	47.546	PASS	PASS	PASS	OFDM	N/A	PASS

 Table E-1

 SAR System Validation Summary – 1g

Table E-2 SAR System Validation Summary – 10g

SAR	FREQ.		PROBE	PROBE		0				PERM.	C	W VALIDATIO	N	M	OD. VALIDATIO	N
SYSTEM	[MHz]	DATE	SN	TYPE	PROBE C	AL. POINT	(σ)	(ɛr)	SENSITIVITY	PROBE	PROBE	MOD.	DUTY	PAR		
#			-				(-)	(-) (-) -	,	LINEARITY	ISOTROPY	TYPE	FACTOR			
н	1750	8/30/2017	7410	EX3DV4	1750	Body	1.532	51.024	PASS	PASS	PASS	N/A	N/A	N/A		
I	1750	3/12/2018	3287	ES3DV3	1750	Body	1.462	52.350	PASS	PASS	PASS	N/A	N/A	N/A		
J	1900	3/9/2018	3914	EX3DV4	1900	Body	1.533	53.731	PASS	PASS	PASS	GMSK	PASS	N/A		
D	5250	10/24/2017	7308	EX3DV4	5250	Body	5.405	48.529	PASS	PASS	PASS	OFDM	N/A	PASS		
D	5600	10/24/2017	7308	EX3DV4	5600	Body	5.910	47.818	PASS	PASS	PASS	OFDM	N/A	PASS		
D	5750	10/24/2017	7308	EX3DV4	5750	Body	6.135	47.546	PASS	PASS	PASS	OFDM	N/A	PASS		

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

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# APPENDIX G: POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process was divided into two parts: (1) evaluation of output power levels for individual or multiple triggering mechanisms and (2) evaluation of the triggering distances for proximity-based sensors.

## **1.1** Power Verification Procedure

The power verification was performed according to the following procedure:

- 1. A base station simulator was used to establish a conducted RF connection and the output power was monitored. The power measurements were confirmed to be within expected tolerances for all states before and after a power reduction mechanism was triggered.
- 2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.
- 3. Steps 1 and 2 were repeated for all individual power reduction mechanisms and combinations thereof. For the combination cases, one mechanism was switched to a 'triggered' state at a time; powers were confirmed to be within tolerances after each additional mechanism was activated.

# 1.2 Distance Verification Procedure

The distance verification procedure was performed according to the following procedure:

- 1. A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom.
- The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced, per KDB Publication 616217 D04v01r02 and FCC Guidance. Each applicable test position was evaluated. The distances were confirmed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.
- 3. Steps 1 and 2 were repeated for low, mid, and high bands, as appropriate (see note below Table G-2 for more details).
- 4. Steps 1 through 3 were repeated for all distance-based power reduction mechanisms.

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# **1.3 Main Antenna Verification Summary**

		C	onducted Power (dB	m)
Mechanism(s)	Mode/Band	Un-triggered	Mechanism #1	Mechanism #2
		(Max)	(Reduced)	(Reduced)
Hotspot On	UMTS B2	22.36	21.33	
Hotspot On	UMTS B4	23.15	22.22	
Hotspot On	LTE B2	22.57	21.55	
Hotspot On	LTE B4	23.75	22.81	
Hotspot On	LTE B66	23.68	22.76	
Grip	UMTS B2	22.36	21.35	
Grip	UMTS B4	23.15	22.25	
Grip	LTE B2	22.57	21.56	
Grip	LTE B4	23.68	22.8	
Grip	LTE B66	23.75	22.77	
Hotspot On, then Grip	UMTS B2	22.36	21.37	21.35
Hotspot On, then Grip	UMTS B4	23.15	22.23	22.22
Hotspot On, then Grip	LTE B2	22.57	21.56	21.53
Hotspot On, then Grip	LTE B4	23.68	22.77	22.78
Hotspot On, then Grip	LTE B66	23.75	22.74	22.74
Grip, then Hotspot On	UMTS B2	22.36	21.33	21.34
Grip, then Hotspot On	UMTS B4	23.15	22.23	22.23
Grip, then Hotspot On	LTE B2	22.57	21.56	21.55
Grip, then Hotspot On	LTE B4	23.68	22.8	22.81
Grip, then Hotspot On	LTE B66	23.75	22.75	22.74

# Table G-1Power Measurement Verification for Main Antenna

 Table G-2

 Distance Measurement Verification for Main Antenna

Mechanism(s)	Test Condition	Band	Distance Measu	urements (mm)	Minimum Distance per
wechanism(s)	Test collution	Ballu	Moving Toward	Moving Away	Manufacturer (mm)
Grip	Phablet - Back Side	Mid	12	15	5
Grip	Phablet - Front Side	Mid	4	6	3
Grip	Phablet - Bottom Edge	Mid	5	6	3

\*Note: Mid band refers to: UMTS B2/4, LTE B2/4/66

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# 1.4 WIFI Verification Summary

		Conducted Power (dBm)			
Mechanism(s)	Mode/Band	Un-triggered (Max)	Mechanism #1 (Reduced)		
Held-to-Ear	802.11b	18.19	14.76		
Held-to-Ear	802.11g	16.99	14.89		
Held-to-Ear	802.11n (2.4GHz)	17.81	14.7		
Held-to-Ear	802.11a	16.32	9.52		
Held-to-Ear	802.11n (5GHz, 20MHz BW)	16.16	9.41		
Held-to-Ear	802.11ac (20MHz BW)	16.21	9.42		
Held-to-Ear	802.11n (5GHz, 40MHz BW)	13.23	8.61		
Held-to-Ear	802.11ac (40MHz BW)	14.69	9.03		
Held-to-Ear	802.11ac (80MHz BW)	12.62	8.26		

Table G-3 Power Measurement Verification WIFI

Note: Per the manufacturer, the above measurements are within the expected target power and tolerances of the power reduction mechanism.

 Table G-4

 Distance Measurement Verification for WIFI

Mechanism(s)	Test Condition	Band	Distance Measu	urements (mm)	Minimum Distance per
wechanism(s)	Test condition	Ballu	Moving Toward	Moving Away	Manufacturer (mm)
Held-to-Ear	Head - Right Cheek	2.4GHz	58	86	50
Held-to-Ear	Head - Right Cheek	5GHz	57	85	50
Held-to-Ear	Head - Left Cheek	2.4GHz	60	81	50
Held-to-Ear	Head - Left Cheek	5GHz	58	88	50

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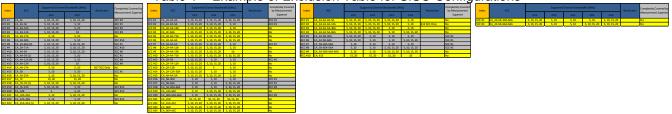
# APPENDIX H: LTE CARRIER AGGREGATION CONDUCTED POWERS

# 1.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

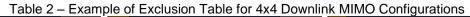
SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per FCC Guidance, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

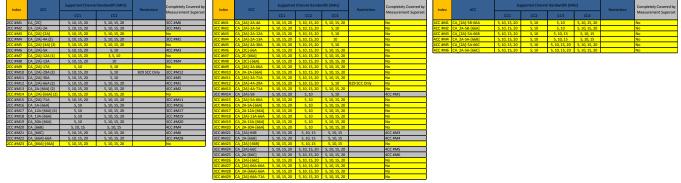
LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA\_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.



#### Table 1 – Example of Exclusion Table for SISO Configurations





Note: [CC] indicates component carrier with 4x4 DL MIMO antenna configuration

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# 1.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by FCC Guidance, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

General PCC and SCC configuration selection procedure

- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KBD 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
- All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.
- When a device supports LTE capabilities with overlapping transmission frequency ranges, the standalone powers from the band with a larger transmission frequency range can be used to select measurement configurations for the band with the fully covered transmission frequency range.

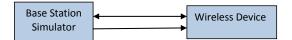


Figure 1 SISO CA Power Measurement Setup

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#### 1.3 **Downlink Carrier Aggregation RF Conducted Powers**

#### 1.3.1 LTE Band 12 as PCC

	Maximum Output Powers														
					PCC						so	CC 1		Por	wer
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Channel	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-12A (1)	LTE B12	5	23095	707.5	QPSK	1	24	5095	737.5	LTE B2	20	900	1960	23.98	23.86
CA_4A-12A (1)	LTE B12	5	23095	707.5	QPSK	1	24	5095	737.5	LTE B4	20	2175	2132.5	23.97	23.86
CA_12A-66A (1)	LTE B12	5	23095	707.5	QPSK	1	24	5095	737.5	LTE B66	20	66786	2145	23.99	23.86
CA_2A-12A	LTE B12	5	23095	707.5	QPSK	1	24	5095	737.5	LTE B2	20	900	1960	23.98	23.86
CA_4A-12A (2)	LTE B12	5	23095	707.5	QPSK	1	24	5095	737.5	LTE B4	20	2175	2132.5	23.97	23.86
CA_12A-66A (2)	LTE B12	5	23095	707.5	QPSK	1	24	5095	737.5	LTE B66	20	66786	2145	23.99	23.86

Table 1

# 1.3.2 LTE Band 5 as PCC

Table 2 **Maximum Output Powers** 

					PCC						CC Band         [MHz]         Channel         Freq.           LTE B4         20         2175         21			Pov	ver
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Channel	PCC (UL) Freq. [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band			SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_4A-5A (1)	LTE B5	5	20425	826.5	QPSK	1	0	2425	871.5	LTE B4	20	2175	2132.5	24.01	23.91
CA_2A-5A	LTE B5	5	20425	826.5	QPSK	1	0	2425	871.5	LTE B2	20	900	1960	24.12	23.91

# 1.3.3 LTE Band 4 as PCC

Table 3 **Maximum Output Powers** 

					PCC						SCO	21		Po	wer
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Channel	PCC (UL) Freq. [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A	LTE B4	15	20300	1745	QPSK	1	0	2300	2145	LTE B2	20	900	1960	23.72	23.71
CA_4A-5A (1)	LTE B4	15	20300	1745	QPSK	1	0	2300	2145	LTE B5	10	2525	881.5	23.77	23.71
CA_4A-12A (1)	LTE B4	15	20300	1745	QPSK	1	0	2300	2145	LTE B12	10	5095	737.5	23.82	23.71
CA_4A-4A	LTE B4	15	20300	1745	QPSK	1	0	2300	2145	LTE B4	20	2050	2120	23.84	23.71
CA_4A-12A (2)	LTE B4	15	20300	1745	QPSK	1	0	2300	2145	LTE B12	10	5095	737.5	23.82	23.71

Table 4 Reduced Output Powers

					PCC						SCO	21		Po	wer
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Channel	PCC (UL) Freq. [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A	LTE B4	20	20300	1745	QPSK	1	0	2300	2145	LTE B2	20	900	1960	22.91	22.91
CA_4A-5A (1)	LTE B4	20	20300	1745	QPSK	1	0	2300	2145	LTE B5	10	2525	881.5	22.89	22.91
CA_4A-12A (1)	LTE B4	20	20300	1745	QPSK	1	0	2300	2145	LTE B12	10	5095	737.5	22.94	22.91
CA_4A-4A	LTE B4	20	20300	1745	QPSK	1	0	2300	2145	LTE B4	20	2050	2120	22.92	22.91
CA 4A-12A (2)	LTE B4	20	20300	1745	QPSK	1	0	2300	2145	LTE B12	10	5095	737.5	22.94	22.91

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# 1.3.4 LTE Band 66 as PCC

	Maximum Output Powers														
					PCC						SCO	21		Po	wer
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Channel	PCC (UL) Freq. [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	with DL CA	LTE Single Carrier Tx Power (dBm)
CA_2A-66A	LTE B66	15	132322	1745	QPSK	1	0	66786	2145	LTE B2	20	900	1960	23.75	23.71
CA_66A-66A	LTE B66	15	132322	1745	QPSK	1	0	66786	2145	LTE B66	20	67236	2190	23.74	23.71
CA_12A-66A (1)	LTE B66	15	132322	1745	QPSK	1	0	66786	2145	LTE B12	10	5095	737.5	23.80	23.71
CA_66B	LTE B66	15	132322	1745	QPSK	1	0	66786	2145	LTE B66	5	66693	2135.7	23.85	23.71
CA_12A-66A (2)	LTE B66	15	132322	1745	QPSK	1	0	66786	2145	LTE B12	10	5095	737.5	23.80	23.71
CA_66C	LTE B66	15	132322	1745	QPSK	1	0	66786	2145	LTE B66	20	66615	2127.9	23.87	23.71

Table 5 Maximum Output Powers

Table 6Reduced Output Powers

					PCC					SCC Band SCC BW [MHz] Channel [MHz]				Po	wer
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Channel	PCC (UL) Freq. [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]		SCC (DL) Freq. [MHz]	with DL CA	LTE Single Carrier Tx Power (dBm)
CA_2A-66A	LTE B66	20	132322	1745	QPSK	1	0	66786	2145	LTE B2	20	900	1960	22.94	22.91
CA_66A-66A	LTE B66	20	132322	1745	QPSK	1	0	66786	2145	LTE B66	20	67236	2190	22.92	22.91
CA_12A-66A (1)	LTE B66	20	132322	1745	QPSK	1	0	66786	2145	LTE B12	10	5095	737.5	22.95	22.91
CA_66B	LTE B66	15	132322	1745	16QAM	1	0	66786	2145	LTE B66	5	66693	2135.7	22.80	22.82
CA_12A-66A (2)	LTE B66	20	132322	1745	QPSK	1	0	66786	2145	LTE B12	10	5095	737.5	22.95	22.91
CA_66C	LTE B66	20	132322	1745	QPSK	1	0	66786	2145	LTE B66	20	66588	2125.2	22.91	22.91

# 1.3.5 LTE Band 2 as PCC

Table 7Maximum Output Powers

		Ind IPCC BW IMHZII I I I I I I I Modulation   PCC UL# RB I I I I I I I I I I I I I I I I I I									so	CC 1		Po	wer
Combination	PCC Band	PCC BW [MHz]			Modulation	PCC UL# RB			PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A	LTE B2	15	18900	1880	QPSK	1	74	900	1960	LTE B4	20	2175	2132.5	22.63	22.67
CA_2A-12A (1)	LTE B2	15	18900	1880	QPSK	1	74	900	1960	LTE B12	10	5095	737.5	22.70	22.67
CA_2A-2A	LTE B2	15	18900	1880	QPSK	1	74	900	1960	LTE B2	20	700	1940	22.74	22.67
CA_2A-66A	LTE B2	15	18900	1880	QPSK	1	74	900	1960	LTE B66	20	66786	2145	22.71	22.67
CA_2A-5A	LTE B2	15	18900	1880	QPSK	1	74	900	1960	LTE B5	10	2525	881.5	22.73	22.67
CA_2A-12A	LTE B2	15	18900	1880	QPSK	1	74	900	1960	LTE B12	10	5095	737.5	22.70	22.67

Table 8 Reduced Output Powers

		Band PCC BW [MHz] PCC (UL) PCC (UL) Freq. [MHz] Modulation PCC UL#RB PCC UL RB PCC (DL) PCC (DL) Freq. [MHz] (MHz]									so	CC 1		Power	
Combination	PCC Band	PCC BW [MHz]			Modulation	PCC UL# RB			PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A	LTE B2	20	19100	1900	QPSK	1	50	1100	1980	LTE B4	20	2175	2132.5	21.77	21.76
CA_2A-12A (1)	LTE B2	20	19100	1900	QPSK	1	50	1100	1980	LTE B12	10	5095	737.5	21.73	21.76
CA_2A-2A	LTE B2	20	19100	1900	QPSK	1	50	1100	1980	LTE B2	20	700	1940	21.77	21.76
CA_2A-66A	LTE B2	20	19100	1900	QPSK	1	50	1100	1980	LTE B66	20	66786	2145	21.75	21.76
CA_2A-5A	LTE B2	20	19100	1900	QPSK	1	50	1100	1980	LTE B5	10	2525	881.5	21.78	21.76
CA_2A-12A	LTE B2	20	19100	1900	QPSK	1	50	1100	1980	LTE B12	10	5095	737.5	21.73	21.76

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