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





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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

PC Test

Certificate No: ES3-3287_Sep16

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CALIBRATION CERTIFICATE

Object

ES3DV3 - SN:3287

Calibration procedure(s)

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

19-28-2016

Calibration date:

September 19, 2016

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	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Apr-17
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
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-15)	In house check: Oct-16

Calibrated by:

Name

Function

Laboratory Technician

Cianatura

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Leif Klysner

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Approved by:

Katja Pokovic

Technical Manager

Issued: September 20, 2016

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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Glossary:

TSL

NORMx,y,z

ConvF DCP

CF

A, B, C, D

Polarization o

Polarization 9

Connector Angle

Certificate No: ES3-3287_Sep16

φ rotation around probe axis

tissue simulating liquid

sensitivity in free space sensitivity in TSL / NORMx,y,z

diode compression point

9 rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., 9 = 0 is normal to probe axis

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

Calibration is Performed According to the Following Standards:

crest factor (1/duty cycle) of the RF signal

modulation dependent linearization parameters

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement
- Techniques", June 2013
 IEC 62209-1, "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 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 ($f \le 900$ MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E2-field uncertainty inside TSL (see below ConvF).
- $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx.v.z; DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, v, 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
- 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 ES3DV3

SN:3287

Manufactured: June 7, 2010 Calibrated: September 19

September 19, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	0.87	0.98	1.00	± 10.1 %
DCP (mV) ^B	101.9	101.4	106.1	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc [±] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	198.4	±3.5 %
		Y	0.0	0.0	1.0		189.6	
		Z	0.0	0.0	1.0		184.8	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
X	65.67	459.4	34.07	29.08	2.68	5.077	2	0.308	1.009
_ Y	71.46	511.8	35.31	29.86	3.707	5.1	0.748	0.607	1.009
Z	50.48	357.3	34.55	27.84	2.262	5.1	1.583	0.279	1.01

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

^a Numerical linearization parameter: uncertainty not required.

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

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	6.96	6.96	6.96	0.44	1.36	± 12.0 %
835	41.5	0.90	6.67	6.67	6.67	0.29	1.69	± 12.0 %
1750	40.1	1.37	5.49	5.49	5.49	0.43	1.42	± 12.0 %
1900	40.0	1.40	5.27	5.27	5.27	0.41	1.45	± 12.0 %
2300	39.5	1.67	4.86	4.86	4.86	0.61	1.28	± 12.0 %
2450	39.2	1.80	4.54	4.54	4.54	0.47	1.51	± 12.0 %
2600	39.0	1.96	4.41	4.41	4.41	0.77	1.18	± 12.0 %

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

validity can be extended to \pm 110 MHz.

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

the ConvF uncertainty for indicated target lissue parameters.

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Calibration Parameter Determined in Body Tissue Simulating Media

			•		_			
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	6.64	6.64	6.64	0.27	1.86	_ ± 12.0 %
835	55.2	0.97	6.55	6.55	6.55	0.50	1.37	± 12.0 %
1750	53.4	1.49	5.11	5.11	5.11	0.33	1.85	± 12.0 %
1900	53.3	1.52	4.94	4.94	4.94	0.42	1.59	± 12.0 %
2300	52.9	1.81	4.55	4.55	4.55	0.55	1.42	± 12.0 %
2450	52.7	1.95	4.35	4.35	4.35	0.80	1.09	± 12.0 %
2600	52.5	2.16	4.12	4.12	4.12	0.80	1.10	± 12.0 %

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

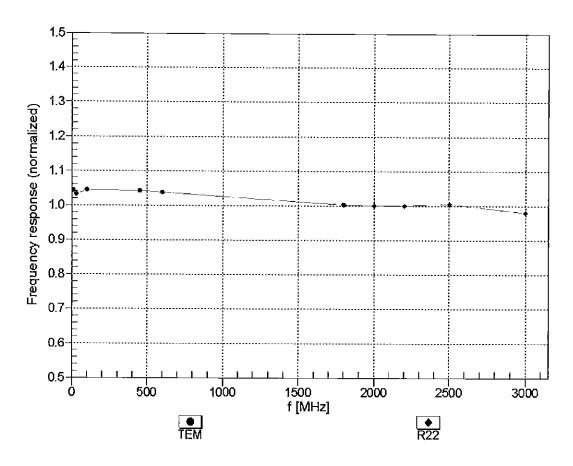
validity can be extended to ± 110 MHz.

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

the ConvF uncertainty for indicated target tissue parameters.

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

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

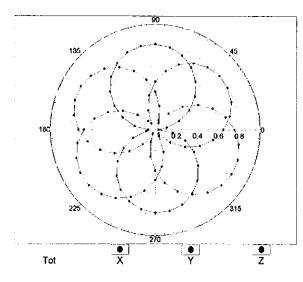


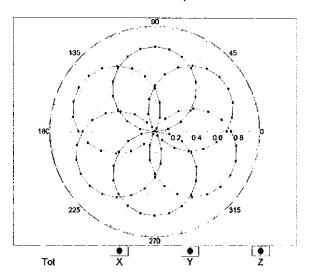
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

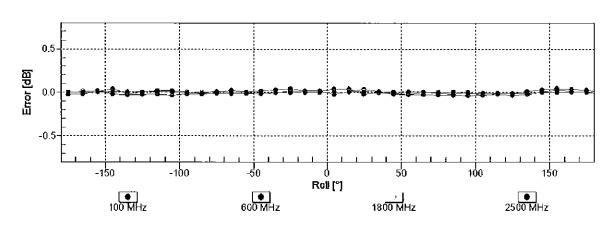
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$



f=1800 MHz,R22

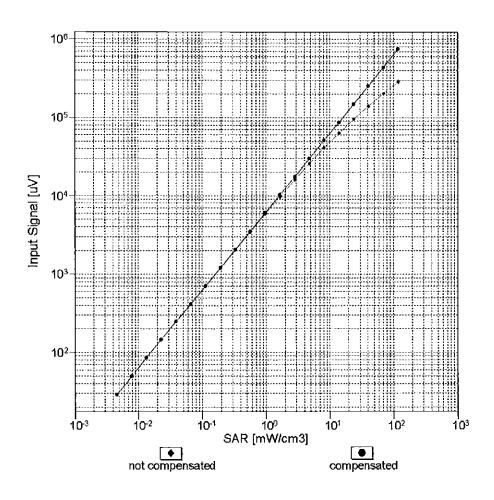


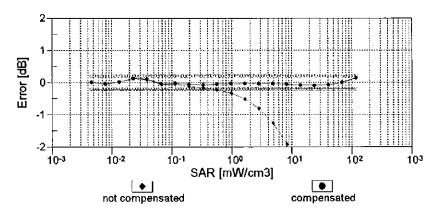




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

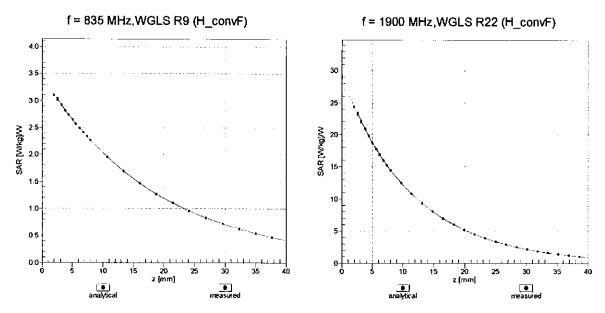
Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)





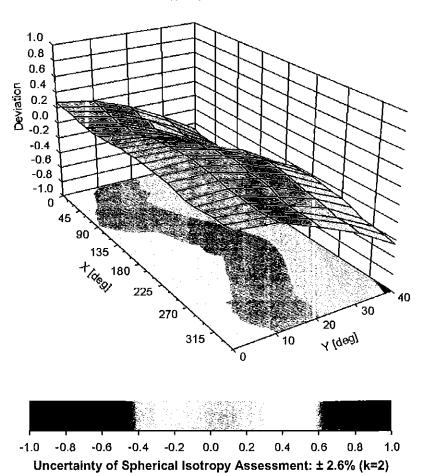
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ , ϑ), f = 900 MHz



ES3DV3-SN:3287

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3287

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	84.9
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

ES3DV3-SN:3287

Appendix: Modulation Calibration Parameters

UID	ix: Modulation Calibration Parar Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc ^E (k=2)
0	CW	Х	0.00	0.00	1.00	0.00	198.4	± 3.5 %
		Υ	0.00	0.00	1.00		189.6	
10010	0.000	Z	0.00	0.00	1.00		184.8	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	9.57	81.27	19.66	10.00	25.0	± 9.6 %
		Υ	9.48	81.17	20.59		25.0	
		Z	11.44	84.72	20.81		25.0	
10011- CAB	UMTS-FDD (WCDMA)	×	1.41	73.12	18.60	0.00	150.0	± 9.6 %
		Υ	1.09	67.36	15.29		150.0	
40040	1555 000 441 NEST 0 4 011 (D000 4	Z	1.04	67.24	15.12	0.44	150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	Х	1.39	66.79	17.15	0.41	150.0	± 9.6 %
		Y	1.33	64.98	15.75		150.0	
40040	IEEE 000 44* WIE: 0 4 OU- (D000	Z	1.31	64.97	15.66	4.40	150.0	1000
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	5.20	67.40	17.54	1.46	150.0	± 9.6 %
		Y	5.27	67.18	17.41		150.0	
10021- DAB	GSM-FDD (TDMA, GMSK)	X	5.09 25.12	67 <u>.33</u> 98.64	17.40 27.15	9.39	150.0 50.0	± 9.6 %
חעח		Υ	16.05	91.61	25.96		50.0	
	-	ż	54.58	112.47	31.02		50.0	
10023- DAB	GPRS-FDD (TDMA, GMSK, TN 0)	X	21.90	96.28	26.48	9.57	50.0	± 9.6 %
		Υ	15.04	90.31	25.57		50.0	
		Z	40.95	107.64	29.77		50.0	·
10024- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1)	Х	100.00	118.44	30.60	6.56	60.0	± 9.6 %
		Υ	56.85	112.42	30.28		60.0	
		Z	100.00	119.26	30.80		60.0	
10025- DAB	EDGE-FDD (TDMA, 8PSK, TN 0)	Х	15.98	100.03	37.68	12.57	50.0	± 9.6 %
		Υ	12.36	89.89	33.32	ļ	50.0	
		Z	14.92	100.13	38.33		50.0	. 0 0 0/
10026- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1)	Х	19.89	102.72	35.15	9.56	60.0	± 9.6 %
		Y	15.11	94.49	32.22		60.0	
10027-	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	Z X	21.16 100.00	106.39 117.46	36.94 29.21	4.80	60.0 80.0	± 9.6 %
DAB		Υ	100.00	119.97	30.83	 	80.0	
	-	Z	100.00	118.35	29.47	 	80.0	-
10028- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	117.97	28.63	3.55	100.0	± 9.6 %
J. 10		Y	100.00	119.91	29.91		100.0	
		Z	100.00	118.74	28.84		100.0	
10029- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	Х	14.03	95.19	31.54	7.80	80.0	± 9.6 %
		Υ	11.54	89.32	29.33		80.0	
		Z	13.09	95.17	31.96		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Х	100.00	117.04	29.36	5.30	70.0	± 9.6 %
		Y	100.00	119.78	31.12		70.0	
		Z	100.00	117.69	29.49	100	70.0	1000
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	120.90	28.34	1.88	100.0	± 9.6 %
		Y	100.00	121.14	28.78	 	100.0	
		Z	100.00	119.84	27.78	<u> </u>	100.0	

10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Х	100.00	128.75	30.50	1.17	100.0	± 9.6 %
1		TY	100.00	125.19	29.33	╁	400.0	
		l ż	100.00	124.54	28.68	 	100.0	
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Х	24.47	102.44	28.62	5.30	70.0	± 9.6 %
		Y	12.93	91.34	25.64		70.0	
		<u> Z</u>	20.22	99.06	27.27		70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	15.75	99.73	26.60	1.88	100.0	± 9.6 %
		<u> Y</u> _	6.06	84.29	21.90		100.0	
10035- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	7.41 8.06	86.87 91.60	21.79 24.06	1.17	100.0	± 9.6 %
		Y	3.71	78.74	19.66	 	100.0	
		ż	4.06	80.00	19.16	 	100.0	
10036- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	31.59	106.91	29.95	5.30	70.0	± 9.6 %
		Y	14.71	93.73	26.48		70.0	
		Z	25.49	103.04	28.49		70.0	
10037- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Х	15.02	99.00	26.34	1.88	100.0	± 9.6 %
		Y	5.91	83.93	21.74		100.0	
40000	IFFE 000 45 4 DL 4 III (0 DD 14 III III	Z	6.95	86.01	21.48		100.0	
10038- CAA	(EEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	8.64	92.97	24.58	1.17	100.0	± 9.6 %
<u> </u>	<u> </u>	Y	3.82	79.37	19.97		100.0	
10039-	CDMA2000 (1xRTT, RC1)	Z	4.16	80.58	19.47		100.0	
CAB	CDMA2000 (IXR11, RC1)	X	3.32	80.83	20.52	0.00	150.0	± 9.6 %
		Y	1.99	71.59	16.56		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	1.78 93.96	71.38 116.51	15.53 30.17	7.78	150.0 50.0	± 9.6 %
	- ar ord ridilato)	Υ	28.36	100.31	27.04		50.0	
		ż	100.00	118.01	30.46			
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	110.81	0.68	0.00	50.0 150.0	± 9.6 %
		Υ	0.00	94.68	0.92		150.0	
		Z	0.01	95.27	0.89		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	12.13	84.40	24.33	13.80	25.0	± 9.6 %
		Υ	11.03	81.88	24.36		25.0	
40040	DEOT (TOD TOWN (TOWN)	_Z_	<u> 15.47</u>	90.17	26.32		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	14.56	88.92	24.53	10.79	40.0	± 9.6 %
	 	Y	12.34	85.94	24.48		40.0	
10056- CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	20.46 13.90	95.78 88.80	26.73 25.15	9.03	40.0 50.0	± 9.6 %
		Υ	11.60	84.93	24.34		50.0	
		Z	15.96	92.01	26.12		50.0	
10058- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	Х	10.54	89.79	28.95	6.55	100.0	± 9.6 %
		Y	9.17	85.43	27.21		100.0	
40050		_Z	9.28	88.15	28.66		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	Х	1.62	69.54	18.42	0.61	110.0	± 9.6 %
		Υ	1.52	67.09	16.78		110.0	_
10060-	IEEE 900 44h MICLO 4 OLL (DOGG S	Z	1.47	67.00	16.67		110.0	
10060- _CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	133.57	34.76	1.30	110.0	± 9.6 %
	 	_ <u>Y</u> _	47.37	119.92	31.34		110.0	
		_Z	100.00	131.70	33.88		110.0	

10061- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	Х	24.29	111.37	31.49	2.04	110.0	± 9.6 %
		Y	7.57	90.21	25.12		110.0	
		Ż	8.96	94.42	26.47		110.0	
10062- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.94	67.26	16.92	0.49	100.0	± 9.6 %
		Y	4.99	66.94	16.70		100.0	
		Z	4.80	67.06	16.67		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.98	67.42	17.05	0.72	100.0	± 9.6 %
		Y	5.03	67.12	16.85		100.0	
		Z	4.84	67.22	16.80		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	Х	5.33	67.75	17.30	0.86	100.0	± 9.6 %
		Υ	5.40	67.50	17.13		100.0	
		Z	5.14	67.52	17.06		100.0	
10065- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5.22	67.77	17.45	1.21	100.0	± 9.6 %
		Y	5.30	67.55	17.30		100.0	
_		Z	5.05	67.55	17.23		100.0	
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	Х	5.28	67.89	17.67	1.46	100.0	± 9.6 %
		Ÿ	5.37	67.69	17.54		100.0	
		Z	5.11	67.69	17.47		100.0	
10067- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	Х	5.58	67.96	18.07	2.04	100.0	± 9.6 %
		Y	5.70	67.83	17.99		100.0	
		Z	5.44	67.94	17.97		100.0	
10068- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.73	68.36	18.44	2.55	100.0	± 9.6 %
		Y	5.86	68.26	18.38		100.0	
		Z	5.56	68.20	18.31		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	Х	5.80	68.22	18.58	2.67	100.0	± 9.6 %
		Y	5.93	68.12	18.53		100.0	
	<u> </u>	Z	5.64	68.21	18.51		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	Х	5.34	67.61	17.91	1.99	100.0	± 9.6 %
		Y	5.43	67.44	17.80		100.0	
		Z	5.23	67.57	17.79		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	5.41	68.20	18.23	2.30	100.0	± 9.6 %
		Υ	5.52	68.04	18.13		100.0	
		Z	5.28	68.10	18.11		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.54	68.52	18.63	2.83	100.0	±9.6 %
		Υ	5.67	68.41	18.56		100.0	
		Z	5.42	68.46	18.55		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.57	68.60	18.89	3.30	100.0	± 9.6 %
		Υ	5.71	68.53	18.84		100.0	
		Z	5.46	68.55	18.80		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.74	69.13	19.40	3.82	90.0	± 9.6 %
		Υ	5.91	69.12	19.39		90.0	
		Z	5.60	68.97	19.28		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	Х	5.73	68.87	19.48	4.15	90.0	± 9.6 %
		Y	5.91	68.89	19.48		90.0	
		Z	5.64	68.84	19.44		90.0	
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.76	68.96	19.58	4.30	90.0	± 9.6 %
	1	1 14		00.00	40.50		00.0	1
		Υ	5.95	68.98	19.59		90.0	

10081- CAB	CDMA2000 (1xRTT, RC3)	Х	1.45	73.74	17.54	0.00	150.0	± 9.6 %
		Y	1.01	66.70	13.93	 	150.0	+
		Z	0.86	65.95	12.65	 	150.0	<u> </u>
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	X	2.22	64.23	9.03	4.77	80.0	± 9.6 %
		Y	2.60	65.39	10.25		80.0	
10000		Z	2.07	64.06	8.86		80.0	
10090- DAB	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	118.52	30.65	6.56	60.0	± 9.6 %
		<u> </u>	54.54	111.83	30.17	ļ	60.0	
10097-	UMTS-FDD (HSDPA)	Z	100.00	119.33	30.85	 	60.0	
CAB	OWITO-FDD (HODFA)	X	2.07	69.87	17.29	0.00	150.0	± 9.6 %
		$\frac{1}{Z}$	1.87 1.83	67.25	15.70	 	150.0	<u> </u>
10098-	UMTS-FDD (HSUPA, Subtest 2)	+ ×	2.03	67.53	15.55		150.0	
CAB	CIMTO-1 DD (11001 A, oublest 2)	^ Y	1.83	69.88 67.20	17.28 15.65	0.00	150.0	± 9.6 %
		Ż	1.80	67.49	15.52	 	150.0	
10099- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	19.79	102.55	35.10	9.56	150.0 60.0	± 9.6 %
		TY	15.06	94.38	32.19	 	60.0	
		Z	21.07	106.24	36.89	-	60.0	
10100- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	3.71	73.15	18.05	0.00	150.0	± 9.6 %
		Y	3.34	70.68	16.71		150.0	
		Z	3.15	70.31	16.60		150.0	
10101- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.53	68.94	16.73	0.00	150.0	± 9.6 %
		Y	3.44	67.88	16.03		150.0	
		Z	3.28	67.66	15.91		150.0	
10102- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.62	68.78	16.77	0.00	150.0	± 9.6 %
		Υ	3.55	67.81	16.12		150.0	
40400	LTE TOP (00 beauty size)	Z	3.38	67.61	16.00		150.0	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	9.03	78.84	21.45	3.98	65.0	± 9.6 %
		Y	8.52	77.08	20.81		65.0	
10104-	LITE TOD (OO FOLKS 4000) FD 00	Z	8.79	79.04	21.64		65.0	
CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	8.83	77.31	21.70	3.98	65.0	± 9.6 %
		ΙΫ́	8.68	76.21	21.28		65.0	
10105-	LTE-TDD (SC-FDMA, 100% RB, 20	X	8.45	77.10	21.68		65.0	
CAB	MHz, 64-QAM)		8.12	75.63	21.27	3.98	65.0	± 9.6 %
	 	Y 7	7.58 7.68	73.53	20.37		65.0	
10108- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.26	75.16 72.24	21.11 17.88	0.00	65.0 150.0	± 9.6 %
		Y	2.97	69.86	16.52		150.0	
		Z	2.76	69.54	16.43		150.0	
10109- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.21	68.83	16.74	0.00	150.0	± 9.6 %
		Υ	3.12	67.65	15.97		150.0	
10110	LTE FDD (OO FDL)	Z	2.93	67.47	15.80		150.0	
10110- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.68	71.31	17.65	0.00	150.0	± 9.6 %
		Y	2.45	68.82	16.19		150.0	_
10111-	LITE EDD (OC EDMA 400% DD 5:33	Z	2.25	68.65	16.05		150.0	
CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.94	69.70	17.25	0.00	150.0	± 9.6 %
		Y	2.81	68.04	16.25		150.0	
		<u> Z </u>	2.63	68.09	16.01		150.0	

10113- LT CAC 64 10114- IE CAB M 10115- IE CAB 16 10116- CAB 64 10117- CAB BI 10118- CAB Q	TE-FDD (SC-FDMA, 100% RB, 5 MHz, 4-QAM) EEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK) EEE 802.11n (HT Greenfield, 81 Mbps, 6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, BPSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Y	3.24 3.06 3.09 2.97 2.78 5.30 5.32 5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15 5.73	67.56 67.45 69.65 68.11 68.22 67.67 67.34 67.41 67.95 67.60 67.93 67.58 67.63 67.69 67.35 67.28 68.05	16.01 15.85 17.28 16.35 16.13 16.69 16.45 16.46 16.83 16.66 16.57 16.74 16.50 16.50 16.73	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	± 9.6 % ± 9.6 % ± 9.6 % ± 9.6 %
10114- IECAB M 10115- IECAB 16 10116- CAB 64 10117- CAB BI 10118- CAB Q	4-QAM) EEE 802.11n (HT Greenfield, 13.5 Abps, BPSK) EEE 802.11n (HT Greenfield, 81 Mbps, 6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 8PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Z X Y Z X Y Z X Y Z X Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y X Y Y X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X X Y Y X X X Y Y X X X Y Y X X X Y Y X X X Y Y X X X Y X X X Y X X X X Y X X X X X Y X	3.06 3.09 2.97 2.78 5.30 5.32 5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31	67.45 69.65 68.11 68.22 67.67 67.34 67.41 67.95 67.60 67.93 67.58 67.63 67.63 67.69	15.85 17.28 16.35 16.13 16.69 16.45 16.46 16.83 16.66 16.57 16.74 16.50 16.50 16.73	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	± 9.6 % ± 9.6 % ± 9.6 %
10114- IE CAB M 10115- IE CAB 16 10116- IE CAB 64 10117- IE CAB BI 10118- IE CAB Q	4-QAM) EEE 802.11n (HT Greenfield, 13.5 Abps, BPSK) EEE 802.11n (HT Greenfield, 81 Mbps, 6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 8PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X Y Z X Y Z X Y Z X Y Z X	3.09 2.97 2.78 5.30 5.32 5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	69.65 68.11 68.22 67.67 67.34 67.41 67.95 67.60 67.93 67.58 67.63 67.63 67.63 67.69	17.28 16.35 16.13 16.69 16.45 16.46 16.83 16.66 16.57 16.74 16.50 16.73 16.48 16.42	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	± 9.6 % ± 9.6 % ± 9.6 %
10115- IE CAB 16 10116- CAB 64 10117- CAB BI 10118- CAB Q	EEE 802.11n (HT Greenfield, 81 Mbps, 6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 8PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Z X Y Z X Y Z X Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y Z X Y Y X Y Y X Y Y X Y Y X Y Y X Y Y X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X Y Y X X X Y Y X X X Y Y X X X Y Y X X X Y Y X X X Y X X X Y X X X X Y X	2.78 5.30 5.32 5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	68.22 67.67 67.34 67.41 67.95 67.75 67.60 67.93 67.58 67.63 67.63 67.69	16.13 16.69 16.45 16.46 16.83 16.66 16.57 16.74 16.50 16.73 16.48 16.42	0.00	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 %
10115- IE CAB 16 10116- CAB 64 10117- CAB BI 10118- CAB Q	EEE 802.11n (HT Greenfield, 81 Mbps, 6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 8PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X Y Z X Y Z X Y Z X Y Z X	5.30 5.32 5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	67.67 67.34 67.41 67.95 67.75 67.60 67.93 67.58 67.63 67.63 67.69	16.69 16.45 16.46 16.83 16.66 16.57 16.74 16.50 16.50 16.73	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	± 9.6 % ± 9.6 %
10115- IE CAB 16 10116- CAB 64 10117- CAB BI 10118- CAB Q	EEE 802.11n (HT Greenfield, 81 Mbps, 6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 8PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Y Z X Y Z X Y Z X Y Y Z X Y Y Z X	5.32 5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	67.34 67.41 67.95 67.75 67.60 67.93 67.58 67.63 67.69 67.35 67.28	16.45 16.46 16.83 16.66 16.57 16.74 16.50 16.73 16.48 16.42	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	± 9.6 % ± 9.6 %
10116- IECAB 64 10117- IECAB BI 10118- CAB Q	6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, BPSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Z X Y Z X Y Z X Y Y Z X Y	5.18 5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	67.41 67.95 67.75 67.60 67.93 67.58 67.63 67.69 67.35 67.28	16.46 16.83 16.66 16.57 16.74 16.50 16.50 16.73 16.48 16.42	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	±9.6 %
10116- IECAB 64 10117- IECAB BI 10118- CAB Q	6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, BPSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X Y Z X Y Z X Y Z X	5.68 5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	67.95 67.75 67.60 67.93 67.58 67.63 67.69 67.35 67.28	16.83 16.66 16.57 16.74 16.50 16.50 16.73 16.48 16.42	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0	±9.6 %
10116- IECAB 64 10117- IECAB BI 10118- CAB Q	6-QAM) EEE 802.11n (HT Greenfield, 135 Mbps, 4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, BPSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Y Z X Y Z X Y Y Z X Y	5.74 5.49 5.43 5.45 5.29 5.31 5.33 5.15	67.75 67.60 67.93 67.58 67.63 67.69 67.35 67.28	16.66 16.57 16.74 16.50 16.50 16.73 16.48 16.42	0.00	150.0 150.0 150.0 150.0 150.0 150.0 150.0	±9.6 %
10117- IE CAB BI 10118- IE CAB Q	4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 3PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Z X Y Z X Y Z X	5.49 5.43 5.45 5.29 5.31 5.33 5.15	67.60 67.93 67.58 67.63 67.69 67.35 67.28	16.57 16.74 16.50 16.50 16.73 16.48 16.42		150.0 150.0 150.0 150.0 150.0	
10117- IE CAB BI 10118- IE CAB Q	4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 3PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X Y Z X Y Z X	5.43 5.45 5.29 5.31 5.33 5.15	67.93 67.58 67.63 67.69 67.35 67.28	16.74 16.50 16.50 16.73 16.48 16.42		150.0 150.0 150.0 150.0	
10117- IE CAB BI 10118- IE CAB Q	4-QAM) EEE 802.11n (HT Mixed, 13.5 Mbps, 3PSK) EEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Y Z X Y Z X	5.45 5.29 5.31 5.33 5.15	67.58 67.63 67.69 67.35 67.28	16.50 16.50 16.73 16.48 16.42		150.0 150.0 150.0	
10118- IE CAB Q	EEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	Z X Y Z X	5.29 5.31 5.33 5.15	67.63 67.69 67.35 67.28	16.50 16.73 16.48 16.42	0.00	150.0 150.0 150.0	± 9.6 %
10118- IE CAB Q	EEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X Y Z X	5.31 5.33 5.15	67.69 67.35 67.28	16.73 16.48 16.42	0.00	150.0 150.0	± 9.6 %
10118- IE CAB Q	EEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	Y Z X	5.33 5.15	67.35 67.28	16.48 16.42	0.00	150.0	± 9.6 %
10119- IE	QAM)	Z X Y	5.15	67.28	16.42			
10119- IE	QAM)	X				ı		
10119- IE	QAM)	Y	5.73	68.05			150.0	
	FFF 802 11n /HT Mixed 135 Mhos 64-				16.89	0.00	150.0	± 9.6 %
	FFF 802 11n /HT Mixed 135 Mbns 64-		5.76	67.71	16.65		150.0	
	-H-802 11n/HT Mixed 135 Mbns 64.	Z	5.58	67.82	16.69		150.0	
	QAM)	X	5.40	67.88	16.73	0.00	150.0	±9.6 %
		Υ	5.42	67.54	16.49		150.0	
		Z	5.26	67.56	16.48		150.0	
	TE-FDD (SC-FDMA, 100% RB, 15 //Hz, 16-QAM)	Х	3.67	68.77	16.68	0.00	150.0	± 9.6 %
		Υ	3.60	67.81	16.05		150.0	
		Z	3.42	67.62	15.92		150.0	
	TE-FDD (SC-FDMA, 100% RB, 15 //Hz, 64-QAM)	Х	3.79	68.75	16.79	0.00	150.0	±9.6 %
		Υ	3.72	67.84	16.19		150.0	
		Z	3.54	67.70	16.08		150.0	<u>.</u>
	TE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	2.48	71.58	17.67	0.00	150.0	± 9.6 %
		Υ	2.22	68.66	16.03		150.0	
		Z	2.02	68.57	15.71		150.0	
	TE-FDD (SC-FDMA, 100% RB, 3 MHz, 6-QAM)	Х	2.90	70.86	17.43	0.00	150.0	± 9.6 %
		Υ	2.68	68.61	16.20		150.0	
	TE-FDD (SC-FDMA, 100% RB, 3 MHz,	Z X	2.48 2.65	68.71 68.53	15.71 15.87	0.00	150.0 150.0	± 9.6 %
CAC 6	64-QAM)	,	0.50	60.00	14.04		150.0	-
		Y	2.53	66.90	14.94		150.0	
10145	TE EDD (SC EDMA 4009/ DD 4.4	Z	2.29	66.75	14.27 16.48	0.00	150.0 150.0	± 9.6 %
	TE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	ll	2.00	71.65		0.00		I 9.0 76
		Y	1.64	67.49	14.42		150.0	
	TE-FDD (SC-FDMA, 100% RB, 1.4	Z X	1.28 6.65	65.53 82.42	12.17 19.81	0.00	150.0 150.0	± 9.6 %
	MHz, 16-QAM)	Y	3.51	73.00	16.51		150.0	
		Z	2.73	70.16	13.72		150.0	 · · · · · · · · · · · · · · · · · · ·
	TE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	11.62	90.60	22.70	0.00	150.0	± 9.6 %
14.	MILL, OT-WAINI)	Y	4.34	76.22	18.03		150.0	
		Z	3.53	73.44	15.25		150.0	

10149- CAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.22	68.90	16.79	0.00	150.0	± 9.6 %
_		TY	3.13	67.70	16.01		150.0	
		Z	2.94	67.52	15.84		150.0	
10150- CAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.33	68.71	16.76	0.00	150.0	± 9.6 %
		Y	3.25	67.61	16.05		150.0	
		Z	3.06	67.50	15.89		150.0	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	9.59	81.08	22.43	3.98	65.0	± 9.6 %
		Y	8.87	78.87	21.64		65.0	
		Z	9.33	81.38	22.62		65.0	
10152- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	8.50	77.58	21.63	3.98	65.0	± 9.6 %
		Y	8.30	76.31	21.16		65.0	
40450	LTG TDD (0.0 GD)	Z	8.08	77.33	21.50		65.0	
10153- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	×	8.85	78.28	22.25	3.98	65.0	± 9.6 %
		Y	8.62	76.95	21.75		65.0	
40451	LTE EDD (OC TO)	Z	8.48	78.15	22.17		65.0	
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	2.77	71.95	18.01	0.00	150.0	± 9.6 %
		<u>Y</u>	2.51	69.32	16.50		150.0	
40455	LTE FOR (OC FRA)	Z	2,29	69.01	16.28		150.0	
10155- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.94	69.69	17.25	0.00	150.0	± 9.6 %
		Υ	2.80	68.03	16.25		150.0	1
40450	LTC FDD (OC FD) (LZ_	2.63	68.10	16.02		150.0	
10156- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2.40	72.31	17.91	0.00	150.0	± 9.6 %
		Y	2.09	68.89	16.05		150.0	
40455		<u>Z</u>	1.86	68.62	15.51		150.0	
10157- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.55	69.65	16.30	0.00	150.0	± 9.6 %
		Υ	<u>2.36</u>	67.46	15.11		150.0	
		Z	2.12	67.25	14.30		150.0	<u> </u>
10158- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	Х	3.10	69.70	17.32	0.00	150.0	± 9.6 %
		Y	2.97	68.15	16.39		150.0	
		LZ.	2.78	68.27	16.17		150.0	
10159- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	×	2.69	70.18	16.62	0.00	150.0	± 9.6 %
		Υ	2.48	67.89	15.40		150.0	
10100		Z	2.22	67.66	14.56		150.0	
10160- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	Х	3.10	70.43	17.35	0.00	150.0	± 9.6 %
		Υ	2.94	68.69	16.29		150.0	
40404	LTC PDD (00 France)	Z	2.78	68.69	16.25		150.0	
10161- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	×	3.22	68.62	16.74	0.00	150.0	± 9.6 %
		Υ	3.14	67.48	16.00		150.0	
40400	LTC CDD (00 To the control of the co	Z	2.96	67.42	15.82		150.0	
10162- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.32	68.61	16.76	0.00	150.0	± 9.6 %
	 	Υ	3.24	67.49	16.04		150.0	
10100	LTE EDD (OO ED)	Z	3.07	67.56	15.92		150.0	
10166- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	4.32	72.20	20.50	3.01	150.0	± 9.6 %
		Y	4.09	70.13	19.37		150.0	
10167	LTE EDD (OO EDL)	Z	3.89	71.03	19.86		150.0	
10167- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	×	6.13	77.20	21.71	3.01	150.0	± 9.6 %
		Υ	5.31	73.40	20.02		150.0	
		Z	5.17	75.28	20.82		150.0	

10168-	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz,	X	6.94	79.87	23.11	3.01	150.0	± 9.6 %
CAC	64-QAM)							
	-	Y	5.79	75.28	21.14		150.0	
40400	1.TE EDD (00 ED) 4 (DD 00 M)	Z	5.82	77.80	22.20	0.04	150.0	
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	4.47	76.31	22.20	3.01	150.0	± 9.6 %
		Υ	3.93	72.42	20.26		150.0	
		Z	3.45	71.87	20.27		150.0	
10170- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	9.97	90.37	26.89	3.01	150.0	± 9.6 %
		Υ	6.08	79.64	22.84		150.0	
		Z	5.69	81.07	23.66		150.0	
10171- AAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	6.58	81.51	22.72	3.01	150.0	± 9.6 %
		Υ	4.82	74.69	19.94		150.0	
		Z	4.39	75.54	20.48		150.0	
10172- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	73.64	126.23	37.77	6.02	65.0	± 9.6 %
		Y	18.65	98.22	29.94		65.0	
	ļ- ·-	Z	50.70	122.38	37.42		65.0	
10173-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz,	X	94.74	123.96	35.21	6.02	65.0	± 9.6 %
CAB	16-QAM)	Y	22.61	98.04	28.47		65.0	
	· · · · · · · · · · · · · · · · · · ·	Z	96.90	127.66	36.64		65.0	
10174-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz,	X	56.11	113.11	31.91	6.02	65.0	± 9.6 %
CAB	64-QAM)					0.02		
		Y	18.59	93.53	26.66		65.0	
	<u> </u>	Z	65.46	118.77	33.84	0.04	65.0	
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	4.37	75.74	21.85	3.01	150.0	± 9.6 %
		Υ	3.86	71.99	19.97		150.0	
		Z	3.41	71.52	20.02		150.0	
10176- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	Х	9.99	90.41	26.90	3.01	150.0	± 9.6 %
		Υ	6.09	79.66	22.85		150.0	
		Z	5.70	81.10	23.67		150.0	
10177- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	Х	4.43	76.02	22.00	3.01	150.0	± 9.6 %
		Y	3.90	72.21	20.10		150.0	
_		Z	3.44	71.69	20.11		150.0	
10178- CAC	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	Х	9.65	89.71	26.63	3.01	150.0	± 9.6 %
<u> </u>		Υ	5.97	79.26	22.66		150.0	
		Z	5.62	80.80	23.53		150.0	
10179- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	7.97	85.43	24.54	3.01	150.0	± 9.6 %
		Y	5.36	76.88	21.19		150.0	
		Ż	4.98	78.13	21.92		150.0	
10180- CAC	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	6.51	81.29	22.61	3.01	150.0	± 9.6 %
J. 1.0		Y	4.79	74.55	19.86		150.0	
		Ż	4.38	75.44	20.42	<u> </u>	150.0	
10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	4.42	75.99	21.99	3.01	150.0	± 9.6 %
57.10		ŤΥ	3.90	72.19	20.09		150.0	
		† ż	3.43	71.67	20.11		150.0	
10182- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	9.63	89.67	26.62	3.01	150.0	± 9.6 %
OVO	10-Q/NVI)	Y	5.96	79.23	22.65	† 	150.0	ĺ
		l ż	5.61	80.77	23.51		150.0	
10183-	LTE-FDD (SC-FDMA, 1 RB, 15 MHz,	X	6.50	81.25	22.60	3.01	150.0	± 9.6 %
AAA	64-QAM)	Y	4 70	74.53	19.85	1	150.0	
		I Z	4.78			 	150.0	+
			4.37	75.41	20.41	<u> </u>	1 100.0	<u> </u>

10185- CAC	QPSK)	† _Y -	0.04		1			
CAC		1 1		72.24	20.12	<u> </u>	450.0	 .
CAC		Z	3.91 3.45	71.72		 	150.0	
CAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-	1 x	9.70		20.13	204	150.0	
	QAM)			89.80	26.67	3.01	150.0	± 9.6 %
	 	Y	5.99	79.32	22.68	<u> </u>	150.0	
40400		Z	5.64	80.86	23.56		150.0	
10186- AAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	6.54	81.37	22.64	3.01	150.0	± 9.6 %
		Y	4.81	74.60	19.88		150.0	
		Z	4.39	75.50	20.45		150.0	
10187- CAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	4.45	76.10	22.07	3.01	150.0	± 9.6 %
		Y	3.92	72.26	20.15		150.0	
		Z	3.46	71.78	20.19		150.0	
10188- CAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	Х	10.51	91.45	27.34	3.01	150.0	± 9.6 %
		Y	6.26	80.23	23.14		150.0	
		Z	5.89	81.76	24.00	 	150.0	
10189- AAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	6.85	82.27	23.07	3.01	150.0	± 9.6 %
		Υ	4.94	75.14	20.19		150.0	
		Z	4.52	76.06	20.77	l —	150.0	
10193- CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	Х	4.73	67.10	16.51	0.00	150.0	± 9.6 %
		Y	4.75	66.68	16.23		150.0	
		Z	4.57	66.79	16.16		150.0	
10194- CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	Х	4.94	67.48	16.62	0.00	150.0	± 9.6 %
		Υ	4.96	67.08	16.34		150.0	
		Z	4.75	67.11	16.28		150.0	
10195- CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	Х	4.98	67.48	16.62	0.00	150.0	± 9.6 %
		TY	5.00	67.07	16.34		150.0	
		Z	4.79	67.14	16.30		150.0	
10196- CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.76	67.21	16.55	0.00	150.0	± 9.6 %
_		Y	4.78	66.80	16.27		150.0	
		Z	4.58	66.86	16.18		150.0	
10197- CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	Х	4.96	67.50	16.63	0.00	150.0	± 9.6 %
		Y	4.98	67.09	16.35	_	150.0	_
		Z	4.76	67.14	16.30		150.0	
10198- CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.99	67.50	16.63	0.00	150.0	± 9.6 %
		Y	5.01	67.09	16.35		150.0	
		Z	4.79	67.16	16.31		150.0	-
10219- CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	Х	4.71	67.23	16.53	0.00	150.0	± 9.6 %
		Y	4.73	66.82	16.24		150.0	-
		Z	4.53	66.87	16.14		150.0	<u> </u>
10220- CAB	IEEE 802.11π (HT Mixed, 43.3 Mbps, 16-QAM)	Х	4.96	67.50	16.63	0.00	150.0	± 9.6 %
		Υ	4.98	67.10	16.35		150.0	
		Z	4.76	67.11	16.29		150.0	
10221- CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64- QAM)	X	4.99	67.43	16.62	0.00	150.0	± 9.6 %
		Y	5.01	67.03	16.34		150.0	
		Ż	4.80	67.09	16.30		150.0	
10222- CAB	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.29	67.72	16.73	0.00	150.0	±9.6 %
SAR		Y	5.31	67.38	16.49		1500	
			V.V.1	01.00	10.48		150.0	

10223- CAB	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	Х	5.67	68.03	16.90	0.00	150.0	± 9.6 %
		Υ	5.70	67.71	16.67		150.0	
		Ζ	5.43	67.50	16.54		150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	Х	5.35	67.84	16.72	0.00	150.0	± 9.6 %
		Υ	5.37	67.51	16.48		150.0	
		Z	5.17	67.40	16.39		150.0	
10225- CAB	UMTS-FDD (HSPA+)	Х	3.03	67.01	16.18	0.00	150.0	± 9.6 %
		Υ	3.00	66.12	15.59		150.0	
		Z	2.84	66.23	15.31		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	100.00	125.13	35.58	6.02	65.0	± 9.6 %
		Y	23.60	98.91	28.82		65.0	
	1	Z	100.00	128.43	36.91		65.0	0.001
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	61.16	114.83	32.47	6.02	65.0	± 9.6 %
		Y	19.96	94.87	27.16		65.0	
40000	LITE TER (OO FEMALE)	Z	73.77	120.96	34.46	0.55	65.0	
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	72.18	126.53	38.01	6.02	65.0	± 9.6 %
		Y	21.44	101.40	31.05		65.0	
10000		Z	53.16	123.89	37.96	0.00	65.0	1000
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	Х	94.57	123.93	35.21	6.02	65.0	± 9.6 %
		Υ	22.66	98.06	28.49		65.0	
		Z	96.87	127.65	36.65	0.00	65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	56.39	113.28	31.99	6.02	65.0	± 9.6 %
		Υ	19.26	94.16	26.88		65.0	
		Z	66.99	119.13	33.93		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	66.18	124.67	37.45	6.02	65.0	± 9.6 %
		Y	20.62	100.55	30.72		65.0	
		Z	48.89	122.07	37.41		65.0	
10232- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	94.69	123.96	35.21	6.02	65.0	± 9.6 %
		Y	22.64	98.05	28.48		65.0	
		Z	97.00	127.68	36.66		65.0	
10233- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	56.52	113.33	32.00	6.02	65.0	± 9.6 %
		Y	19.26	94.17	26.88		65.0	<u> </u>
		Z	67.07	119.16	33.94		65.0	
10234- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	×	60.26	122.59	36.81	6.02	65.0	± 9.6 %
		Y_	19.81	99.63	30.34		65.0	
		Z	45.11	120.21	36.81	<u> </u>	65.0	1000
10235- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	95.38	124.09	35.25	6.02	65.0	± 9.6 %
_		Y	22.67	98.09	28.50		65.0	
		Z	97.77	127.84	36.70	0.00	65.0	1000
10236- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	57.18	113.50	32.04	6.02	65.0	± 9.6 %
		Y	19.38	94.26	26.90		65.0	ļ
10237-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz,	Z X	68.10 67.28	119.39 125.01	33.99 37.54	6.02	65.0 65.0	± 9.6 %
CAB	QPSK)	 , , -	00.74	100.00	20.70	 	05.0	
		Y	20.74	100.68	30.76	ļ	65.0	
40000		Z	49.59	122.38	37.49	6.02	65.0	T0 6 0/
10238- CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	×	95.00	124.02	35.23	6.02	65.0	± 9.6 %
		Y	22.64	98.06	28.49	1	65.0	<u> </u>
		Z	97.19	127.73	36.66		65.0	1

10239-	LTE-TDD (SC-FDMA, 1 RB, 15 MHz,	X	56.67	113.39	32.01	6.02	65.0	± 9.6 %
CAB	64-QAM)	1	40.00	+	 	├	_	<u> </u>
		Y	19.26	94.19	26.88	<u> </u>	65.0	
10240-	LTE-TDD (SC-FDMA, 1 RB, 15 MHz,	Z	67.13	119.19	33.94		65.0	
CAB	QPSK)	X	67.00	124.93	37.52	6.02	65.0	± 9.6 %
		Y	20.68	100.63	30.74	ļ	65.0	
40044	175 700 (00 504)	Z	49.37	122.30	37.47		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	×	14.43	89.77	28.56	6.98	65.0	± 9.6 %
		Y	12.31	85.00	26.80		65.0	
40040	LTC TDD (00 EDIN TOWN DD 4 AND TOWN	Z	13.89	90.56	28.94	L	65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	13.70	88.57	28.03	6.98	65.0	± 9.6 %
	 	Y	10.82	82.08	25.53		65.0	
10243-	LTE TOD (CC FOMA FOR OD 4 (AM)	Z	13.16	89.30	28.37		65.0	
CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	×	10.55	84.90	27.56	6.98	65.0	± 9.6 %
		Υ_	8.88	79.49	25.25		65.0	
40044	LTC TDD (OO ED)	Z	9.99	85.03	27.70		65.0	
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	11.43	83.67	22.47	3.98	65.0	± 9.6 %
		Υ	9.78	80.48	21.64		65.0	
10245-	LITE TED (OO FELL)	Z	9.76	81.22	20.90		65.0	
10245- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	×	11.21	83.09	22.22	3.98	65.0	± 9.6 %
		Υ	9.71	80.13	21,47		65.0	
10010		Z	9.48	80.50	20.58		65.0	
10246- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	Х	10.58	85.22	23.00	3.98	65.0	± 9.6 %
		Υ	8.86	81.57	21.94		65.0	
		Z	9.16	83.05	21.67		65.0	
10247- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	8.25	78.94	21.22	3.98	65.0	± 9.6 %
		Υ	7.85	77.32	20.79		65.0	
		Z	7.47	77.61	20.18		65.0	
10248- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	Х	8.20	78.37	20.99	3.98	65.0	± 9.6 %
		Υ	7.89	76.93	20.61		65.0	
		Ζ	7.41	77.03	19.93		65.0	_
10249- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	11.20	86.28	23.89	3.98	65.0	± 9.6 %
		Y	9.29	82.26	22.62		65.0	
		Z	10.48	85.66	23.36		65.0	
10250- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	Х	8.93	80.25	22.81	3.98	65.0	± 9.6 %
		Y	8.46	78.37	22.14		65.0	
40071		Z	8.46	79.88	22.48		65.0	
10251- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	_ X	8.39	77.98	21.64	3.98	65.0	± 9.6 %
		Y	8.12	76.54	21.14		65.0	
100==		Z	7.98	77.74	21.34		65.0	
10252- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	10.53	84.51	23.78	3.98	65.0	± 9.6 %
		Y	9.19	81.18	22.63		65.0	
10055	1.77.75	Z	10.24	84.82	23.86		65.0	
10253- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	Х	8.25	76.95	21,44	3.98	65.0	± 9.6 %
		Y	8.10	75.77	21.00		65.0	
1007:		Z	7.89	76.78	21.28		65.0	
10254- C <u>AB</u>	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	Х	8.62	77.66	22.02	3.98	65.0	± 9.6 %
		Y	8.44	70.40	04.50			
		z	0.44	76.43	21.56	ſ	_ 65.0	

10255- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	9.25	80.67	22.52	3.98	65.0	± 9.6 %
J, 1.D		Y	8.61	78.53	21.74		65,0	
	-	Z	9.00	80.97	22.67		65.0	
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	10.45	81.80	21.06	3.98	65.0	± 9.6 %
		Y	9.25	79.43	20.63		65.0	
		Z	8.10	77.76	18.69		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	10.14	80.97	20.68	3.98	65.0	± 9.6 %
		Y	9.17	78.95	20.38		65.0	
		Z	7.78	76.81	18.23		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	Х	9.51	83.16	21.76	3.98	65.0	± 9.6 %
		Y	8.34	80.46	21.12		65.0	
		Z	7.35	79.00	19.46		65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	×	8.50	79.32	21.74	3.98	65.0	± 9.6 %
		Υ	8.08	77.61	21.22		65.0	
		Z	7.86	78.44	21.00		65.0	<u> </u>
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	8.50	79.04	21.65	3.98	65.0	± 9.6 %
		Υ	8.14	77.44	21.18		65.0	
		Z	7.85	78.11	20.87		65.0	
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	10.46	84.88	23.66	3.98	65.0	± 9.6 %
		Υ	8.99	81.35	22.49		65.0	ļ
		Z	9.90	84.54	23.31		65.0	
10262- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	8.92	80.22	22.77	3.98	65.0	± 9.6 %
		Υ	8.45	78.35	22.11		65.0	
		Z	8.45	79.83	22.45		65.0	
10263- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	Х	8.39	77.98	21.64	3.98	65.0	± 9.6 %
		Y	8.12	76.54	21.14		65.0	
		Z	7.97	77.72	21.33		65.0	
10264- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	10.46	84.37	23.71	3.98	65.0	± 9.6 %
		Y	9.15	81.08	22.57		65.0	
		Z	10.16	84.65	23.78		65.0	
10265- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	Х	8.50	77.59	21.64	3.98	65.0	± 9.6 %
		Υ	8.29	76.32	21.16		65.0	
		Z	8.08	77.33	21.51		65.0	<u> </u>
10266- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	8.85	78.27	22.25	3.98	65.0	± 9.6 %
		Υ	8.62	76.95	21.75	<u> </u>	65.0	1
		Z	8.48	78.14	22.17		65.0	
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	9.58	81.04	22.42	3.98	65.0	± 9.6 %
		Υ_	8.86	78.85	21.63	<u> </u>	65.0	
		<u> Z</u>	9.31	81.34	22.60		65.0	
10268- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	8.89	76.95	21.70	3.98	65.0	± 9.6 %
		Υ	8.78	75.95	21.31	-	65.0	
10269-	LTE-TDD (SC-FDMA, 100% RB, 15	X	8.54 8.79	76.83 76.51	21.69 21.59	3.98	65.0 65.0	± 9.6 %
CAB	MHz, 64-QAM)	1		75.50	04.00	-	05.0	-
		<u> </u>	8.71	75.58	21.23	<u> </u>	65.0	1
		Z	8.47	76.42	21.58	6.00	65.0	1000
10270- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	8.98	78.26	21.47	3.98	65.0	± 9.6 %
		Y	8.66	76.86	20.96	<u> </u>	65.0	
- <u></u> -		Z	8.70	78.39	21.61	L	65.0	<u> </u>

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.76	67.40	16.12	0.00	150.0	± 9.6 %
<u>-</u>		TY	2.68	66.20	15.35	 	150.0	
		Τż	2.61	66.55	15.21	 	150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.97	71.33	17.64	0.00	150.0	± 9.6 %
		Y	1.71	67.84	15.61	† — — ·	150.0	
		Z	1.63	67.82	15.44		150.0	
10277- CAA	PHS (QPSK)	X	5.79	70.12	14.44	9.03	50.0	± 9.6 %
		Y	6.71	72.04	16.24		50.0	
10278-	DHC (ODC)/, DW 004MH; D-II-((0.5)	Z	5.20	69.01	13.39		50.0	
CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	10.14	81.72	21.64	9.03	50.0	± 9.6 %
		$\frac{\mid Y}{Z}$	10.00	81.13	22.16	├ ——	50.0	
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	8.80 10.33	79.36 81.92	20.19	9.03	50.0	± 9.6 %
		ŤΥ	10.19	81.33	22.24	 	50.0	
		Ż	8.92	79.53	20.27	 	50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	X	2.41	75.76	18.30	0.00	150.0	± 9.6 %
		Υ	1.70	69.18	15.23		150.0	
40004		Z	1.46	68.58	14.00		150.0	
10291- AAB	CDMA2000, RC3, SO55, Full Rate	X	1.39	73.22	17.31	0.00	150.0	± 9.6 %
		Y	0.98	66.45	13.79		150.0	
10292-	CDMARROOD DOO COOR THE	Z	0.85	65.74	12.53		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	X	2.43	83.14	21.70	0.00	150.0	± 9.6 %
		Y	1.15	69.63	15.75		150.0	
40202	001110000 000 000 000	Z	1.04	69.40	14.71		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	Х	5.22	96.14	26.57	0.00	150.0	± 9.6 %
		Y	1.48	73.58	17.97		150.0	
10295-	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	Z X	1.47 10.48	74.43 83.75	17.37 24.32	9.03	150.0 50.0	± 9.6 %
AAB		Y				J.00		1 9.0 %
		Z	9.84	81.54	23.85		50.0	
10297-	LTE-FDD (SC-FDMA, 50% RB, 20 MHz,	X	11.88 3.28	86.37 72.37	24.91	0.00	50.0	
AAA	QPSK)	Ŷ	2.98	69.95	17.95	0.00	150.0	± 9.6 %
		Z	2.77	69.63	16.59 16.49		150.0	
10298- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	x	2.26	72.62	17.48	0.00	150.0 150.0	± 9.6 %
		Υ	1.88	68.51	15.39		150.0	
40000	LTE FDD (00 FD)	Z	1.59	67.65	14.14		150.0	
10299- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	6.40	81.89	20.37	0.00	150.0	± 9.6 %
		Y	3.78	73.44	17.26		150.0	
10300-	TTE EDD (OC EDLA FOR ST. A.V.	Z	3.62	73.66	16.18		150.0	
AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	3.72	72.73	16.07	0.00	150.0	± 9.6 %
	 	Y	2.96	68.88	14.55		150.0	
10301- AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	Z X	5.70	67.52 68.03	12.75 18.84	4.17	150.0 80.0	± 9.6 %
		Y	5.77	67.36	18.35		80.0	
		Z	5.64	68.37	18.74		80.0	
10302- AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	6.21	68.72	19.60	4.96	80.0	± 9.6 %
		Y	6.41	68.65	19.47		- <u></u> -	
			0.71	UO.OD I	19.47	1	80.0	

10303- AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	×	6.07	68.83	19.70	4.96	80.0	± 9.6 %
		Υ	6.30	68.82	19.58		80.0	
		Ζ	5.97	69.08	19.56		80.0	
10304- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	5.71	68.13	18.89	4.17	0.08	± 9.6 %
		Y	5.89	68.01	18.73		80.0	
		Z	5.61	68.35	18.73		80.0	
10305- AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	Х	6.90	74.81	23.11	6.02	50.0	± 9.6 %
		Υ	9.48	82.28	26.60		50.0	
		Z	9.03	82.45	26.20		50.0	
10306- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	6.40	71.34	21.64	6.02	50.0	± 9.6 %
		Y	6.75	71.50	21.57		50.0	
		Z	6.43	72.04	21.56		50.0	
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	6.49	72.10	21.82	6.02	50.0	± 9.6 %
		Υ	6.85	72.21	21.70		50.0	
		Z	6.50	72.67	21.67		50.0	
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	6.53	72.49	22.02	6.02	50.0	± 9.6 %
		Υ	6.89	72.58	21.88		50.0	
		Z	6.59	73.18	21.92		50.0	
10309- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	Х	6.52	71.66	21.81	6.02	50.0	± 9.6 %
		Y	6.86	71.77	21.70		50.0	
		Z	6.53	72.35	21.74		50.0	
10310- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	6.41	71.57	21.66	6.02	50.0	± 9.6 %
		Υ	6.75	71.71	21.56		50.0	
		Z	6.45	72.29	21.59		50.0	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.66	71.55	17.51	0.00	150.0	± 9.6 %
		Υ	3.33	69.32	16.27	_	150.0	
		<u>Z</u>	3.12	68.94	16.14		150.0	
10313- AAA	iDEN 1:3	X	8.19	79.62	19.16	6.99	70.0	± 9.6 %
		Y	7.35	77.72	18.90		70.0	
		Z	8.21_	80.46	19. <u>57</u>		70.0	
10314- AAA	IDEN 1:6	X	11.35	86.83	24.06	10.00	30.0	± 9.6 %
		Y	8.72	81.68	22.69		30.0	
		Z	10.81	87.34	24.49		30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.24	66.34	16.99	0.17	150.0	± 9.6 %
		Υ	1.18	64.44	15.46		150.0	
		Z	1.17	64.45	15.36		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duly cycle)	X	4.83	67.25	16.68	0.17	150.0	± 9.6 %
		Y	4.86	66.88_	16.43		150.0	
		Z	4.68	66.99	16.39		150.0	1000
10317- AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.83	67.25	16.68	0.17	150.0	± 9.6 %
		Y	4.86	66.88	16.43	1	150.0	
10400-	IEEE 802.11ac WiFi (20MHz, 64-QAM,	Z X	4.68 4.96	66.99 67.54	16.39 16.61	0.00	150.0 150.0	± 9.6 %
AAC	99pc duty cycle)	<u> </u>		<u> </u>	<u> </u>	ļ.——		
		<u> Y</u>	4.98	67.13	16.32		150.0	
		Z	4.75	67.19	16.29_		150.0	1000
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duly cycle)	X	5.54	67.49	16.61	0.00	150.0	± 9.6 %
1-		Y	5.56	67.14	16.37		150.0	
		Z	5.45	67.43	16.49		150.0	

10402- AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.87	68.11	16.75	0.00	150.0	± 9.6 %
		Y	5.89	67.80	16.54		150.0	
		Z	5.70	67.70	16.47		150.0	
10403- AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	2.41	75.76	18.30	0.00	115.0	± 9.6 %
		Υ	1.70	69.18	15.23		115.0	
		Z	1.46	68.58	14.00		115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	X	2.41	75.76	18.30	0.00	115.0	± 9.6 %
		Y	1.70	69.18	15.23		115.0	
10406-	ODILLOGO BOO COM CONTRACTOR	Z	1.46	68.58	14.00		115.0	
AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	120.32	30.30	0.00	100.0	± 9.6 %
		Y	37.67	108.93	28.46		100.0	
40440	LITE TOP (OO ED) II A TOP (O LIVE)	Z	100.00	119.28	29.39		100.0	
10410- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	118.51	29.90	3.23	80.0	± 9.6 %
		Y	100.00	119.74	30.88		80.0	
10445	IEEE 000 (4) WEE 0 4 OU TOOK	Z	100.00	120.99	30.71		80.0	
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.06	64.54	16.02	0.00	150.0	± 9.6 %
		Υ	1.03	62.90	14.57		150.0	
40440	1155 000 44 1155 0 4 0 1155	Z	1.03	63.04	14.51		150.0	
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	X	4.73	67.12	16.55	0.00	150.0	± 9.6 %
		Υ	4.75	66.70	16.25		150.0	
40447	1555 000 44 5 1875 5 011 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Z	4.58	66.83	16.23		150.0	
10417- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	Х	4.73	67.12	16.55	0.00	150.0	± 9.6 %
		Y	4.75	66.70	16.25		150.0	
40440	1555 000 11 1155	Z ,	4.58	66.83	16.23		150.0	
10418- AAA ————	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.72	67.27	16.56	0.00	150.0	± 9.6 %
		Υ	4.73	66.83	16.25		150.0	
10110		Z	4.56	66.98	16.24		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.75	67.23	16.56	0.00	150.0	± 9.6 %
		LYT	4.76	66.80	16.26		150.0	
40.45-		Z	4.59	66.94	16.24		150.0	
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	Х	4.87	67.22	16.56	0.00	150.0	± 9.6 %
		Υ	4.89	66.82	16.28		150.0	
		Z	4.71	66.94	16.26		150.0	_
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	Х	5.09	67.62	16.71	0.00	150.0	± 9.6 %
		Y	5.12	67.23	16.44		150.0	
40.40.1		Z	4.88	67.27	16.38		150.0	
10424- AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	Х	5.00	67.56	16.68	0.00	150.0	± 9.6 %
		Υ	5.02	67.15	16.39		150.0	
40405		Z	4.80	67.22	16.35		150.0	
10425- AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	Х	5.55	67.83	16.78	0.00	150.0	± 9.6 %
		Υ	5.59	67.55	16.57		150.0	
40400		Z	5.40	67.57	16.55		150.0	
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	Х	5.56	67.88	16.79	0.00	150.0	± 9.6 %
ν ν ι								
		Υ	5.60	67.58	16.58		150.0	

10427- AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	Х	5.59	67.91	16.80	0.00	150.0	± 9.6 %
		Υ	5.63	67.61	16.59		150.0	
		Z	5.42	67.56	16.54		150.0	
10430- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	Х	4.54	71.07	18.70	0.00	150.0	± 9.6 %
		Y	4.46	69.99	18.11		150.0	
		Ż	4.20	70.41	17.89		150.0	
10431- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	Х	4.50	67.77	16.69	0.00	150.0	± 9.6 %
-		Υ	4.51	67.23	16.34		150.0	
		Z.	4.26	67.36	16.21		150.0	
10432- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	Х	4.78	67.63	16.67	0.00	150.0	± 9.6 %
		Υ	4.80	67.18	16.37		150.0	
	<u></u>	Z	4.56	67.25_	16.29		150.0	
10433- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	5.01	67.62	16.71	0.00	150.0	± 9.6 %
		Υ	5.04	67.21	16.43		150.0	
		Z	4.81	67.25	16.37		150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	Х	4.66	71.93	18.79	0.00	150.0	± 9.6 %
		Υ	4.53	70.61	18.11		150.0	
		Z	4.27	71.15	17.82		150.0	
10435- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	100.00	118.35	29.82	3.23	80.0	± 9.6 %
		Υ	100.00	119.61	30.82		80.0	
		Z	100.00	120.81	30.62		80.0	
10447- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	Х	3.85	68.02	16.38	0.00	150.0	± 9.6 %
		Υ	3.83	67.22	15.92		150.0	
		Z	3.54	67.32	15.53		150.0	
10448- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.31	67.56	16.56	0.00	150.0	± 9.6 %
_;		Y	4.32	66.99	16.19		150.0	
		Z	4.10	67.13	16.07		150.0	
10449- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	Х	4.56	67.47	16.59	0.00	150.0	± 9.6 %
		Y	4.57	66.98	16.26		150.0	
		Z	4.37	67.07	16.19		150.0	
10450- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.73	67.38	16.58	0.00	150.0	±9.6 %
		Y	4.74	66.94	16.27		150.0	
		Z	4.56	67.01	16.22		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.81	68.42	16.23	0.00	150.0	± 9.6 %
		Y	3.77	67.50	15.73		150.0	
		Z	3.44	67.49	15.16		150.0	
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.40	68.45	16.93	0.00	150.0	± 9.6 %
		Y	6.44	68.23	16.77		150.0	
		Z	6.27	68.12	16.71		150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	Х	3.89	65.77	16.30	0.00	150.0	± 9.6 %
		Y	3.90	65.36	15.99		150.0	
		Z	3.82	65.47	15.93		150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.60	67.53	15.71	0.00	150.0	± 9.6 %
		Υ	3.56	66.59	15.22		150.0	
		Z	3.27	66.88	14.62		150.0	
10459-	CDMA2000 (1xEV-DO, Rev. B, 3	X	4.70	65.53	16.21	0.00	150.0	± 9.6 %
AAA	carriers)	1						
AAA	carriers)	Y	4.63	64.60	15.71		150.0 150.0	

10460- AAA	UMTS-FDD (WCDMA, AMR)	X	1.28	75.29	20.20	0.00	150.0	± 9.6 %
		Y	0.92	67.71	15.91	 	150.0	
		Z	0.90	67.71	15.78		150.0	
10461- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	122.97	32.01	3.29	80.0	± 9.6 %
		_ Y	100.00	121.34	31.70		80.0	
10100		Z	100.00	125.58	32.88		80.0	
10462- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.03	24.84	3.23	80.0	± 9.6 %
		<u> Y</u>	100.00	109.86	26.18		80.0	
10463-	LTC TDD /00 EDINA 4 DD 4 4 HI	Z	100.00	108.99	24.93		80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	105.21	23.49	3.23	80.0	± 9.6 %
 		<u> Y</u>	47.92	99.26	23.13	<u> </u>	80.0	
10464-	LTE TOD (CC FDMA 4 DD 2 MIL	Z	100.00	105.71	23.36	ļ	80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	121.12	31.00	3.23	80.0	± 9.6 %
		Y	100.00	119.76	30.82		80.0	
10465-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-	Z	100.00	123.61	31.80		80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.54	24.59	3.23	80.0	± 9.6 %
	-	Y	92.10	108.50	25.75		80.0	
10466-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-	Z	100.00	108.47	24.68	<u> </u>	80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	104.76	23.28	3.23	80.0	± 9.6 %
		Y	27.79	92.79	21.40		80.0	
10467- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	53.71 100.00	98.96 121.32	21.73 31.10	3.23	80.0 80.0	± 9.6 %
	G. 5.4, 62 64514116-2,0,4,1,6,9j	Y	100.00	119.93	20.00			
		Z	100.00	123.83	30.90		80.0	
10468- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.68	31.91 24.66	3.23	80.0 80.0	± 9.6 %
_	, , , , , , , , , , , , , , , , , , , ,	Y	100.00	109.58	26.02		80.0	
		Z	100.00	108.64	24.75		80.0	
10469- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	104.76	23.27	3.23	80.0	± 9.6 %
		Υ	28.45	93.06	21.47		80.0	
		Z	57.15	99.60	21.88		80.0	
10470- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	121.35	31.10	3.23	80.0	± 9.6 %
		Υ	100.00	119.95	30.90		80.0	
40.5.		Z	100.00	123.86	31.91		80.0	
10471- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	107.63	24.63	3.23	80.0	± 9.6 %
		Υ	100.00	109.54	26.00		80.0	
10470	LTE TOP (OO FOLL)	Ζ	100.00	108.59	24.73		80.0	_
10472- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	104.72	23.24	3.23	0.08	± 9.6 %
		Y	28.52	93.08	21.46		80.0	
10473-	TE TOD (CC FDAA 4 BB 4 - 4 BB	Z	57.07	99.54	21.85		80.0	
AAA 	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	100.00	121.32	31.09	3.23	80.0	± 9.6 %
		Y	100.00	119.92	30.89		80.0	
10474-	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	123.84 107.64	31.90 24.63	3.23	80.0 80.0	± 9.6 %
		1						
AAA	So un, OE Cubitatiic-2,0,4,7,0,9]	$\overline{}$	100.00	100 55 1				
	37 INT, OE OUDITAING—2,0,4,7,0,0)	Y 7	100.00	109.55	26.00		80.0	
	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-	Y Z X	100.00 100.00 100.00	109.55 108.60 104.73	26.00 24.73 23.25	3.23	80.0 80.0 80.0	± 9.6 %
10475-		Z	100.00	108.60	24.73	3.23	80.0	± 9.6 %

10477-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-	Х	100.00	107.49	24.56	3.23	80.0	± 9.6 %
AAA	QAM, UL Subframe=2,3,4,7,8,9)							
		Υ	96.57	109.01	25.85		80.0	
40.470	1 = = = 100 = E 144 4 E 2 00 MIL 04	Z	100.00	108.42	24.64	0.00	80.0	1000
10478- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	104.68	23.23	3.23	80.0	± 9.6 %
		Υ	27.68	92.72	21.36		80.0	
	155 500 500 500 500 500 500 500 500 500	Z	53.23	98.81	21.67	0.00	80.0	1000
10479- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	26.63	104.01	29.13	3.23	80.0	± 9.6 %
		Y	9.63	86.48	23.96		80.0	
10100	LTE TOD (00 FOMA 50% DD 4 AM)	Z	24.30	102.59	28.22 27.02	3.23	80.0 80.0	± 9.6 %
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)		38.31	102.90		J.ZJ		19.0 %
	<u> </u>	Y Z	11.50 29.11	85.06 98.49	22.20 25.10		80.0 80.0	
40404	LTC TDD (CC EDMA EON DD 4 A MH-	X	30.40	98.59	25.52	3.23	80.0	± 9.6 %
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	^ Y			21.41	3,23	80.0	2 3.0 %
			10.74	83.47 92.98	23.18	_	80.0	
10493	LITE TOD (SC EDAM 500/ DD 2 MU-	Z X	20.94 8.51	84.82	22.25	2.23	80.0	± 9.6 %
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Y	5.60	77.58	19.80		80.0	± 3.0 /0
		Z	5.41	78.09	19.00		80.0	
10483-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	X	14.01	88.92	23.41	2.23	80.0	± 9.6 %
AAA	16-QAM, UL Subframe=2,3,4,7,8,9)	^ Y	8.14	80.18	20.73	2.20	80.0	20.0 %
		Z	9.32	82.50	20.44		80.0	
10484- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	12.47	87.00	22.82	2.23	80.0	± 9.6 %
AAA	04-QAW, 02 000Hame 2,0,4,7,0,0)	Y	7.81	79.33	20.43		80.0	
	<u> </u>	Ż	8.26	80.64	19.81		80.0	
10485- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	8.06	84.25	22.66	2.23	80.0	± 9.6 %
7001	Qr Ord DE Gubitatio Ejo; if i jojo)	Y	5.75	77.87	20.37		80.0	
		Z	5.68	79.10	20.42		80.0	
10486- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.66	75.87	19.43	2.23	80.0	± 9.6 %
		Y	4.94	72.86	18.29		80.0	
		Z	4.62	73.05	17.69		80.0	
10487- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.56	75.25	19.19	2.23	80.0	±9.6 %
		Υ	4.94	72.51	18.16		80.0	
		Z	4.56	72.51	17.46		80.0	_
10488- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.10	80.82	21.84	2.23	80.0	± 9.6 %
		Υ	5.79	76.47	20.13	<u> </u>	80.0	
		Z	5.49	77.19	20.36		80.0	1.000
10489- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.34	73.87	19.44	2.23	80.0	± 9.6 %
		Y	5.00	71.87	18.57	<u> </u>	80.0	
		Z	4.68_	72.17	18.47	0.00	80.0	+069/
10490- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.35	73.36	19.26	2.23	80.0	± 9.6 %
		Y	5.06	71.53	18.46	-	80.0	+
10491-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz,	Z X	4.74 6.36	71.87 77.12	18.36 20.56	2.23	80.0 80.0	± 9.6 %
AAA	QPSK, UL Subframe=2,3,4,7,8,9)	1,,	F 00	74.00	40.00	 	80.0	+
		Y	5.66	74.28	19.36	 	80.0	
10:00	LTG TDD (00 ED) A 50% DD 45 1 11	Z	5.31	74.67	19.54	2.23	80.0	± 9.6 %
10492- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.41	72.24	18.98	2.23		± 3.0 %
		Y	5.23	70.84	18.33	 	80.0	1
1		Z	4.89	71.01	18.29	<u> </u>	80.0	

10493- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.44	71.94	18.88	2.23	80.0	± 9.6 %
7001	04-QAM, OL Subilattie-2,3,4,7,8,9)	Y	5.28	70.63	40.07	 	1000	
		l ż	4.94	70.83	18.27 18.22	├ —	80.0	
10494- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.43	79.70	21.31	2.23	80.0	± 9.6 %
		Y	6.30	76.13	19.88	 	00.0	
		Ż	5.88	76.40	20.05	 	80.0	+
10495- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.56	72.97	19.25	2.23	80.0 80.0	± 9.6 %
		TY	5.33	71.45	18.55	 	80.0	
		Ż	4.97	71.48	18.50	 -	80.0	
10496- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.54	72.39	19.06	2.23	80.0	± 9.6 %
		Υ	5.37	71.03	18.42		80.0	
		Z	5.01	71.08	18.38		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.31	82.38	20.82	2.23	80.0	± 9.6 %
		Y	4.87	75.75	18.64		80.0	
40.100		Z	4.03	73.68	16.68		80.0	\top
10498- AAA 	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.73	73.29	16.69	2.23	80.0	± 9.6 %
		Υ	4.12	70.77	15.97		80.0	
10100		Z	2.73	66.24	12.60		80.0	
10499- AAA 	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	4.59	72.54	16.27	2.23	80.0	± 9.6 %
		Υ	4.10	70.38	15.70		80.0	
40500		Z	2.62	65.47	12.11		80.0	
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	7.19	81.83	22.01	2.23	80.0	± 9.6 %
		Υ	<u>5.5</u> 7	76.69	20.07		80.0	
10501-	LTE TOD (OO FOLIA 1000) DE CANA	Z	5.44	77.85	20.24		80.0	
AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.46	74.81	19.33	2.23	80.0	± 9.6 %
	 	Y	4.94	72.30	18.33		80.0	
10502-	LTE TOD (CO FDMA 4000) DD 0 MH	Z	4.65	72.67	17.97		80.0	
AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.46	74.43	19.15	2.23	80.0	± 9.6 %
		Y	<u>4.98</u>	72.05	18.20		80.0	
10503-	LTC TOD (OO EDITA 1000) DD - 100	Z	4.68	72.41	17.81		80.0	
AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.99	80.56	21.73	2.23	80.0	± 9.6 %
	 	Y	5.72	76.28	20.04		80.0	
10504-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z	5.42	76.98	20.27		80.0	
AAA	16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.31	73.78	19.39	2.23	80.0	± 9.6 %
	 	Y	4.98	71.79	18.52		80.0	
10505- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z	4. <u>66</u> 5.32	72.08 73.26	18.42 19.21	2.23	80.0 80.0	± 9.6 %
	ביים ביים ביים ביים ביים ביים ביים ביים	Y	5.03	71.44	10 11		00.5	
		_ <u>'</u>	4.72	71.44 71.78	18.41		80.0	
10506- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.35	79.52	18.31 21.23	2.23	80.0 80.0	± 9.6 %
		Y	6.24	75.99	19.82		80.0	
		ż	5.83	76.25	19.98		80.0	
10507- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.53	72.90	19.22	2.23	80.0	± 9.6 %
		Y	5.31	71.39	18.51		80.0	

10508- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.52	72.31	19.02	2.23	80.0	± 9.6 %
		Υ	5.35	70.96	18.38		80.0	
		Z	4.99	71.02	18.34		80.0	
10509- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.86	76.40	20.08	2.23	80.0	± 9.6 %
		Υ	6.23	74.05	19.09		80.0	
		Z	5.83	74.13	19.18		80.0	_
10510- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	5.89	72.04	18.91	2.23	80.0	± 9.6 %
		Υ	5.75	70.91	18.36		80.0	
		Z	5.36	70.80	18.32		80.0	
10511- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.86	71.58	18.77	2.23	80.0	± 9.6 %
		Υ	5.75	70.55	18.27		80.0	
		Z	5.39	70.48	18.23		80.0	
10512- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.85	79.24	20.97	2.23	80.0	± 9.6 %
		Y	6.75	76.04	19.69		80.0	
400.0		Z	6.30	76.05	19.77	0.00	80.0	1000
10513- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.88	72.72	19.16	2.23	80.0	± 9.6 %
		Y	5.70	71.43	18.55		80.0	
		Z	5.29	71.21	18.47	0.00	80.0	. 0 0 0/
10514- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.77	72.00	18.94	2.23	80.0	± 9.6 %
		Υ	5.64	70.86	18.38		80.0	
		Z	5.26	70.69	18.32		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	1.03	64.88	16.19	0.00	150.0	± 9.6 %
		Υ	0.99	63.07	14.62		150.0	
		Z	0.99	63.20	14.56	0.00	150.0	1000
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	1.64	91.04	26.85	0.00	150.0 150.0	± 9.6 %
		Y	0.59	69.22 69.23	16.60 16.57		150.0	
10517-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	Z	0.59 0.96	68.68	17.89	0.00	150.0	± 9.6 %
AAA	Mbps, 99pc duty cycle)	Y	0.84	64.94	15.18		150.0	2 0.0 70
		Z	0.84	64.94	15.09		150.0	_
10518- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.73	67.22	16.54	0.00	150.0	± 9.6 %
		Υ	4.75	66.79	16.24		150.0	
		Z	4.57	66.91	16.20		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	Х	4.96	67.51	16.67	0.00	150.0	± 9.6 %
		Y	4.99	67.12	16.39	<u> </u>	150.0	
		Z	4.76	67.15	16.33	0.00	150.0	1060/
10520- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.82	67.52	16.62	0.00	150.0 150.0	± 9.6 %
		Y Z	4.84 4.61	67.09 67.11	16.32		150.0	
10521- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.75	67.54	16.61	0.00	150.0	± 9.6 %
		Y	4.77	67.10	16.31		150.0	
		Ż	4.54	67.10	16.23		150.0	
10522- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.79	67.47	16.62	0.00	150.0	± 9.6 %
		Υ	4.80	67.00	16.30		150.0	
		Z	4.60	67.19	16.31		150.0	1

								
10523- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.66	67.41	16.50	0.00	150.0	± 9.6 %
		Υ	4.67	66.95	16.18		150.0	
40504	LEEE COO LA DAVISIONI DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMPANIA DE LA COMPANIA DEL COMP	Z	4.48	67.04	16.16		150.0	
10524- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	Х	4.74	67.44	16.62	0.00	150.0	± 9.6 %
		<u> Y</u>	4.76	66.99	16.31		150.0	
		Z	4.54	67.10	16.28		150.0	
10525- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.69	66.48	16.21	0.00	150.0	± 9.6 %
		Υ	4.70	66.02	15.89		150.0	
40500	LEED OOD 14 TO THE OOD 14 TO T	Z	4.53	66.15	15.87		150.0	
10526- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.91	66.90	16.35	0.00	150.0	± 9.6 %
		Y	4.91	66.43	16.04		150.0	
40507		Z	4.70	66.52	16.01		150.0	
10527- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.82	66.89	16.32	0.00	150.0	± 9.6 %
		Υ	4.83	66.42	16.00		150.0	
		Z	4.62	66.47	15.95		150.0	
10528- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.84	66.91	16.35	0.00	150.0	± 9.6 %
		Y	4.85	66.44	16.03		150.0	\vdash
40500	1======================================	Z	4.63	66.49	15.99		150.0	
10529- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duly cycle)	Х	4.84	66.91	16.35	0.00	150.0	± 9.6 %
		Y	4.85	66.44	16.03		150.0	
		Z	4.63	66.49	15.99		150.0	
10531- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	Х	4.86	67.08	16.39	0.00	150.0	± 9.6 %
		Υ	4.87	66.60	16.06		150.0	
		Z	4.63	66.60	16.00		150.0	
10532- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	Х	4.71	66.97	16.35	0.00	150.0	± 9.6 %
		Y	4.72	66.49	16.02		150.0	
		Z	4.49	66.45	15.93		150.0	
10533- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	Х	4.86	66.93	16.33	0.00	150.0	± 9.6 %
		Y	4.87	66.45	16.01		150.0	
		Ζ	4.64	66.54	15.97		150.0	
10534- <u>AAA</u>	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duly cycle)	X	5.34	67.03	16.36	0.00	150.0	± 9.6 %
		Y	5.36	66.66	16.11		150.0	
		Z	5.17	66.62	16.06		150.0	
10535- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	Х	5.42	67.17	16.42	0.00	150.0	± 9.6 %
		Υ	5.43	66.80	16.16		150.0	
40000		Z	5.24	66.80	16.14		150.0	
10536- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duly cycle)	Х	5.29	67.18	16.41	0.00	150.0	± 9.6 %
		Υ]	5.30	66.78	16.13		150.0	
10505	100	Z	5.11	66.74	16.09		150.0	
10537- AAA	IEEE 802.11ac WiFi (40MHz, MCS3,	Х	5.35	67.14	16.39	0.00	150.0	± 9.6 %
444	99pc duty cycle)							
44A	99pc duty cycle)	Υ	5.36	66.75	16.12		150.0	
		Z	5.36 5.16				150.0 150.0	
10538-	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X		66.75 66.71 67.20	16.12 16.08 16.46	0.00	150.0 150.0 150.0	± 9.6 %
0538-	IEEE 802.11ac WiFi (40MHz, MCS4,	Z X Y	5.16	66.71	16.08 16.46	0.00	150.0 150.0	± 9.6 %
10538- \AA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.16 5.47 5.49	66.71 67.20 66.85	16.08 16.46 16.21	0.00	150.0 150.0	± 9.6 %
10538- AAA 10540- AAA	IEEE 802.11ac WiFi (40MHz, MCS4,	Z X Y Z X	5.16 5.47	66.71 67.20	16.08 16.46	0.00	150.0 150.0	± 9.6 % ± 9.6 %
10538- AAA 10540-	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle) IEEE 802.11ac WiFi (40MHz, MCS6,	Z X Y Z	5.16 5.47 5.49 5.26	66.71 67.20 66.85 66.74	16.08 16.46 16.21 16.13		150.0 150.0 150.0 150.0	

10541-	IEEE 802.11ac WiFi (40MHz, MCS7,	ТхТ	5.35	67.08	16.42	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	^	5.55	07.00	10,42	0.00	130.0	I 9.0 %
7001	sope daty cyclo)	Y.	5.38	66.75	16.17		150.0	
		z	5.16	66.62	16.08		150.0	
10542-	IEEE 802.11ac WiFi (40MHz, MCS8,	X	5.49	67.08	16.42	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	``	••••					
		Y	5.51	66.73	16.18		150.0	
		Z	5.31	66.69	16.13		150.0	
10543-	IEEE 802.11ac WiFi (40MHz, MCS9,	X	5.58	67.09	16.44	0.00	150.0	± 9.6 %
AAA	99pc duly cycle)	1 1						
		Y	5.61	66.77	16.21		150.0	
		Z	5.39	66.74	16.17		150.0	
10544-	IEEE 802.11ac WiFi (80MHz, MCS0,	X	5.61	67.12	16.33	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)							
		Y	5.62	66.77	16.09		150.0	
		Z	5.48	66.74	16.05		150.0	
10545-	IEEE 802.11ac WiFi (80MHz, MCS1,	X	5.83	67.51	16.46	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)							
		Y	5.84	67.15	16.22		150.0	
10510	NEET 000 44 1975 (001 1) 1 100	Z	5.68	67.16	16.22	0.00	150.0	
10546-	IEEE 802.11ac WiFi (80MHz, MCS2,	X	5.72	67.42	16.44	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	,	E 70	07.00	40.00		450.0	
		Y	5.73	67.08	16.20		150.0	
40547	IEEE 000 44 WIE! (00MI) - MOOD	Z	5.55	66.95	16.13		150.0	± 9.6 %
10547-	IEEE 802.11ac WiFi (80MHz, MCS3,	X	5.81	67.48	16.46	0.00	150.0	±9.6%
AAA	99pc duty cycle)	Y	5.83	67.17	16.24		150.0	
		Z	5.62	66.99	16.14		150.0	
10548-	IEEE 802.11ac WiFi (80MHz, MCS4,	X	6.10	68.50	16.14	0.00	150.0	± 9.6 %
10046- AAA	99pc duty cycle)	^	0.10	66.50	10.94	0.00	150.0	19.0 %
AAA	99pc duty cycle)	Y	6.15	68.24	16.74		150.0	
		Z	5.89	67.98	16.61		150.0	
10550-	IEEE 802.11ac WiFi (80MHz, MCS6,	X	5.74	67.36	16.42	0.00	150.0	± 9.6 %
AAA	99pc duly cycle)	^	3.74	07.50	10.42	0.00	150.0	2 3.0 70
7001		Y	5.75	67.01	16.18		150.0	
		Ż	5.57	66.96	16.14		150.0	-
10551-	IEEE 802.11ac WiFi (80MHz, MCS7,	$\frac{1}{x}$	5.76	67.47	16.43	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	^	0.10	0	10110	0,00		
, , , ,		Y	5.78	67.14	16.20		150.0	
	-	Ż	5.58	67.00	16.12		150.0	
10552-	IEEE 802.11ac WiFi (80MHz, MCS8,	1 x 1	5.66	67.23	16.33	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)	^	0.00	***-2*	10.00			
		Y	5.67	66.89	16.10		150.0	
		Z	5.49	66.80	16.03		150.0	
10553-	IEEE 802.11ac WiFi (80MHz, MCS9,	X	5.75	67.26	16.37	0.00	150.0	± 9.6 %
AAA	99pc duly cycle)			<u></u>				
		Y	5.76	66.93	16.14		150.0	
		Z	5.58	66.84	16.08		150.0	
10554- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	Х	6.01	67.49	16.42	0.00	150.0	± 9.6 %
	7000 400, 0,000	Y	6.02	67.17	16.20		150.0	
		Z	5.89	67.10	16.15		150.0	<u> </u>
10555-	IEEE 1602.11ac WiFi (160MHz, MCS1,	T X	6.17	67.85	16.56	0.00	150.0	±9.6 %
AAA	99pc duty cycle)			<u> </u>		<u></u>		
		Υ	6.20	67.56	16.36		150.0	
		Z	6.02	67.41	16.28		150.0	
10556-	IEEE 1602.11ac WiFi (160MHz, MCS2,	Х	6.18	67.83	16.55	0.00	150.0	± 9.6 %
AAA	99pc duty cycle)							
		Y	6.19	67.51	16.33		150.0	
		Z	6.04	67.46	16.30		150.0	
10557-	IEEE 1602.11ac WiFi (160MHz, MCS3,	X	6.17	67.82	16.57	0.00	150.0	± 9.6 %
					1	1	1	
10557- AAA	99pc duty cycle)	Y	6.19	67.52	16.36		150.0	

10558- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.23	68.01	16.68	0.00	150.0	± 9.6 %
		Y	6.25	67.72	16.47		150.0	
		Z	6.05	67.53	16.37		150.0	
10560- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	Х	6.22	67.85	16.63	0.00	150.0	± 9.6 %
		ΙY	6.25	67.56	16.43		150.0	
40=04		Z	6.05	67.37	16.33		150.0	
10561- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.13	67.79	16.64	0.00	150.0	± 9.6 %
		Y	6.15	67.49	16.43		150.0	
10562-	JEEC 4000 44 - MEC 4601 B1 - 1000	Z	5.97	67.35	16.35	ļ	150.0	
AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.29	68.28	16.89	0.00	150.0	± 9.6 %
		Y	6.33	68.01	16.70		150.0	
10563-	IEEE 1600 11 MEE: (100ML) MOOO	Z	6.10	67.74	16.55	<u> </u>	150.0	
AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duly cycle)	X	6.57	68.63	17.00	0.00	150.0	± 9.6 %
		Y	6.57	68.27	16.77		150.0	
10564-	ICCE 900 44# MCC: 0 4 OU (DOOG	Z	6.35	68.10	16.68		150.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	X	5.07	67.31	16.69	0.46	150.0	± 9.6 %
	 	<u> </u>	5.10	66.95	16.44		150.0	
10565-	IEEE DOD 44 MIEI D 4 OU 45 OOA	Z	4.91	67.04	16.40		150.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 99pc duty cycle)	X	5.34	67.80	17.01	0.46	150.0	± 9.6 %
		Y	5.38	67.46	16.78		150.0	
10500	IECE 000 44 - WEET 0 4 OU FROM	<u>Z</u>	5.14	67.47	16.71		150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	5.17	67.69	16.85	0.46	150.0	± 9.6 %
		Y	5.21	67.33	16.61		150.0	
40507	IFFE COO 44 W/The Land	Z	4.97	67.33	16.54		150.0	
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	5.20	68.09	17.20	0.46	150.0	± 9.6 %
		Y	5.23	67.71	16.94		150.0	
40500		Z	5.00	67.68	16.86		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	Х	5.08	67.38	16.59	0.46	150.0	± 9.6 %
		Y	5.11	67.01	16.33		150.0	
40500		Z	4.90	67.16	16.34		150.0	
10569- AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	5.14	68.11	17.22	0.46	150.0	± 9.6 %
		Υ	5.16	67.71	16.95		150.0	
40570	IEEE 000 44 NATION IN THE REST	Z	4.96	67.77	16.91		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	X	5.18	67.92	17.15	0.46	150.0	± 9.6 %
		Y	5.21	67.52	16.88		150.0	
10E74	JEEE 000 441 MEE 0 1 511	Z	4.99	67.63	16.86		150.0	
10571- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.45	67.97	17.69	0.46	130.0	± 9.6 %
		Y	1.38	65.84	16.15		130.0	
10570	IEEE 000 441 110 0 1 011	Z	1.34	65.80	16.05		130.0	
10572- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.49	68.86	18.18	0.46	130.0	± 9.6 %
		Y	1.40	66.47	16.51		130.0	-
10573-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5	Z	1.36 100.00	66.39 149.30	16.40 40.22	0.46	130.0 130.0	± 9.6 %
AAA	Mbps, 90pc duty cycle)		244					
		Y	3.11	88.03	23.54		130.0	
10574-	IEEE 802.11b WIFi 2.4 GHz (DSSS, 11	Z	3.23	89.37	24.00		130.0	
4AA	Mbps, 90pc duly cycle)	X	2.21	80.01	23.13	0.46	130.0	± 9.6 %
	 	Y	1.65	72.75	19.44		130.0	
	1	Z	1.56	72.33	19.21		130.0	

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10575-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	ТхТ	4.88	67.15	16.77	0.46	120.0	1069/
AAA	OFDM, 6 Mbps, 90pc duty cycle)	^	4.00	67.15	10.77	0.46	130.0	± 9.6 %
		Y	4.92	66.81	16.54		130.0	_
		Z	4.73	66.93	16.51		130.0	_
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.91	67.32	16.84	0.46	130.0	± 9.6 %
		Υ	4.94	66.97	16.61		130.0	
		Z	4.75	67.08	16.56		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	Х	5.15	67.65	17.01	0.46	130.0	± 9.6 %
		Y	5.20	67.33	16.79		130.0	
		Z	4.96	67.36	16.73		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	5.05	67.86	17.13	0.46	130.0	± 9.6 %
· · ·		Y	5.09	67.50	16.89		130.0	
40570	IEEE 000 44 - MiEi 0 4 OH- /DOOD	Z	4.85	67.51	16.82	0.40	130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.82	67.24	16.51	0.46	130.0	± 9.6 %
		Y	4.87	66.90	16.27		130.0	
40E00		Z	4.63	66.89	16.19	0.40	130.0	1000
10580- AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.86	67.17	16.48	0.46	130.0	±9.6%
		Y	4.91	66.83	16.25		130.0	
10581-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z	4.68 4.96	66.92 67.97	16.22 17.11	0.46	130.0 130.0	± 9.6 %
AAA	OFDM, 48 Mbps, 90pc duty cycle)					0.46		±9.6%
		Y	5.00	67.61 67.57	16.86		130.0 130.0	
10500	IEEE 002 44a WiEi 2 4 CHa /DCCC	Z	4.76		16.77	0.46	130.0	+060/
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.78	66.97	16.29	0.46		± 9.6 %
		Ϋ́	4.83	66.64	16.06		130.0	
10583-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6	Z X	4.58 4.88	66.67 67.15	16.00 16.77	0.46	130.0	± 9.6 %
AAA	Mbps, 90pc duty cycle)	Y	4.92	66.81	16.54		130.0	
	-	Z	4.73	66.93	16.51		130.0	
10584- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.91	67.32	16.84	0.46	130.0	± 9.6 %
		Y	4.94	66.97	16.61		130.0	
		Z	4.75	67.08	16.56		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	Х	5.15	67.65	17.01	0.46	130.0	± 9.6 %
•		Υ	5.20	67.33	16.79		130.0	
		Z	4.96	67.36	16.73		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	Х	5.05	67.86	17.13	0.46	130.0	± 9.6 %
		Υ	5.09	67.50	16.89		130.0	
		Z	4.85	67.51	16.82	ļ	130.0	
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.82	67.24	16.51	0.46	130.0	± 9.6 %
		Y	4.87	66.90	16.27		130.0	_
		Z	4.63	66.89	16.19		130.0	1000
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.86	67.17	16.48	0.46	130.0	± 9.6 %
		Y	4.91	66.83	16.25		130.0	
L		Z	4.68	66.92	16.22	L	130.0	1000
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.96	67.97	17.11	0.46	130.0	± 9.6 %
		Y	5.00	67.61	16.86		130.0	
		Z	4.76	67.57	16.77		130.0	1000
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duly cycle)	Х	4.78	66.97	16.29	0.46	130.0	± 9.6 %
		Υ_	4.83	66.64	16.06		130.0	
I		Z	4.58	66.67	16.00	1	130.0	

10591- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	5.03	67.20	16.86	0.46	130.0	± 9.6 %
· · · ·	mood, copo duty cycle)	+ Y	5.07	66.88	16.64	+	130.0	
		Z	4.88	66.97	16.60	 	130.0	
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.21	67.55	16.98	0.46	130.0	± 9.6 %
		Y	5.26	67.23	16.76		130.0	<u> </u>
		Z	5.03	67.30	16.73		130.0	
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	Х	5.14	67.52	16.89	0.46	130.0	±9.6 %
		Y	5.19	67.20	16.68		130.0	
40504		Z	4.96	67.23	16.62		130.0	
10594- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duly cycle)	Х	5.19	67.66	17.03	0.46	130.0	± 9.6 %
		Y	5.24	67.33	16.81	<u> </u>	130.0	
40505	ICCC 000 44 (UTA)	Z	5.01	67.38	16.76	<u> </u>	130.0	
10595- _AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	5.17	67.65	16.95	0.46	130.0	± 9.6 %
<u> </u>		Y	5.23	67.33	16.73		130.0	
10596-	EEE 000 44- (UT 15-1-1-00)	Z	4.98	67.35	16.67	<u></u>	130.0	
AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	5.11	67.64	16.94	0.46	130.0	± 9.6 %
 		Y 7	5.16	67.30	16.71	<u> </u>	130.0	
10597-	IEEE 802.11n (HT Mixed, 20MHz,	Z	4.92	67.35	16.67		130.0	
AAA	MCS6, 90pc duty cycle)	X	5.06	67.59	16.86	0.46	130.0	± 9.6 %
_		Y	5.11	67.26	16.64		130.0	
10598-	IEEE 802.11n (HT Mixed, 20MHz,	Z	4.87	67.26	16.56	<u> </u>	130.0	
AAA	MCS7, 90pc duty cycle)	X	5.05	67.87	17.14	0.46	130.0	± 9.6 %
<u></u>		Y	5.09	67.53	16.91		130.0	
10599-	IEEE DOO 44- (UTAK1 40MI)	_ Z	4.85	67.47	16.80		130.0	
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.68	67.76	17.01	0.46	130.0	± 9.6 %
		Y	5.74	67.54	16.84		130.0	
10600-	IEEE 000 44- WITHER 1 (ON III)	Z	5.54	67.51	16.80		130.0	
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duly cycle)	Х	5.91	68.42	17.31	0.46	130.0	± 9.6 %
		Y	6.00	68.29	17.19		130.0	
40004	JEEE 000 44 (UTA)	Z	5.69	67.96	17.01		130.0	
10601- <u>AAA</u>	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.75	68.03	17.13	0.46	130.0	± 9.6 %
		Y	5.81	67.81	16.96		130.0	
10602-		Z	5.57	67.70	16.89		130.0	
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.85	68.05	17.05	0.46	130.0	± 9.6 %
	 	_ <u>Y</u>	5.93	67.91	16.93		130.0	
10603-	IEEE 802.11n (HT Mixed, 40MHz,	Z	5.67	67.73	16.83		130.0	
AAA	MCS4, 90pc duty cycle)	X	5.97	68.46	17.38	0.46	130.0	± 9.6 %
<u> </u>	 	Y	6.05	68.29	17.25		130.0	
10604-	IEEE 802.11n (HT Mixed, 40MHz.	Z X	5.74	68.01	17.09		130.0	
AAA	MCS5, 90pc duty cycle)		5.70	67.75	17.03	0.46	130.0	± 9.6 %
		Y	5.76	67.53	16.86		130.0	
10605- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	Z	5.55 5.80	67.48 68.03	16.81 17.16	0.46	130.0 130.0	± 9.6 %
	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T 7	5.86	67.81	17.00		120.0	
		Z	5.67	67.84	17.00		130.0	
10606- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.58	67.53	16.79	0.46	130.0 130.0	± 9.6 %
	.,,, ., ., .,	Y	5.62	67.26	16.60		120.0	
		Z	5.41	67.19	16.54		130.0	
			V. T 1	01.18	10.04		130.0	

10607- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.86	66.52	16.48	0.46	130.0	± 9.6 %
		Y	4.89	66.14	16.23		130.0	
		Ż	4.71	66.27	16.21		130.0	
10608- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	Х	5.09	66.96	16.64	0.46	130.0	± 9.6 %
		Ϋ́	5.12	66.58	16.39		130.0	
		Z	4.90	66.67	16.37		130.0	
10609- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.98	66.85	16.52	0.46	130.0	± 9.6 %
		Y	5.01	66.47	16.26		130.0	
10010		Z	4.79	66.53	16.22		130.0	
10610- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	Х	5.03	67.01	16.67	0.46	130.0	± 9.6 %
	 	Y	5.06	66.63	16.42		130.0	
10611-	IEEE 000 44 - MEE (OOM). MOOA	Z	4.84	66.68	16.37	0.40	130.0	
AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.96	66.86	16.54	0.46	130.0	± 9.6 %
		Y	4.99	66.50	16.29		130.0	
40040	LIEFE COO A4 WEE (COLUMN AGE)	Z	4.76	66.50	16.23		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.97	67.00	16.58	0.46	130.0	± 9.6 %
		Y	5.01	66.61	16.31		130.0	
10010	1555 200 (4 1495) (2014)	Z	4.77	66.66	16.28		130.0	
10613- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	Х	4.99	66.94	16.49	0.46	130.0	± 9.6 %
	<u> </u>	Y	5.03	66.55	16.23		130.0	
10011	IEEE 000 (4 NEEL CONTILL MOOR	Z	4.77	66.56	16.17		130.0	
10614- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	Х	4.92	67.15	16.73	0.46	130.0	± 9.6 %
		Y	4.95	66.76	16.47		130.0	
		Z	4.71	66.71	16.38		130.0	
10615- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.95	66.65	16.31	0.46	130.0	± 9.6 %
		Y	4.99	66.28	16.06		130.0	
		Z	4.76	66.36	16.03		130.0	
10616- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	×	5.51	67.07	16.65	0.46	130.0	± 9.6 %
		Y	5.55	66.78	16.45		130.0	
		Z	5.35	66.74	16.40		130.0	
10617- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.58	67.18	16.67	0.46	130.0	± 9.6 %
		Υ	5.62	66.89	16.46		130.0	
		Z	5.43	66.92	16.46		130.0	
10618- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.47	67.27	16.74	0.46	130.0	± 9.6 %
		Y	5.50	66.95	16.52		130.0	ļ
		Z	5.31	66.92	16.47		130.0	
10619- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.49	67.07	16.57	0.46	130.0	± 9.6 %
		Y	5.52	66.76	16.36		130.0	
		Z	5.33	66.76	16.33		130.0	
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.62	67.19	16.68	0.46	130.0	± 9.6 %
		Y	5.67	66.93	16.49		130.0	ļ
		Z	5.42	66.79	16.40		130.0	
10621- AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	×	5.59	67.25	16.82	0.46	130.0	± 9.6 %
		Y	5.63	66.98	16.62		130.0	ļ
		Ž_	5.41	66.88	16.56		130.0	
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duly cycle)	X	5.58	67.35	16.86	0.46	130.0	± 9.6 %
		Υ	5.62	67.06	16.66		130.0	
		Z	5.43	67.06	16.64		130.0	

10623- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duly cycle)	X	5.48	66.99	16.57	0.46	130.0	± 9.6 %
		Y	5.54	66.75	16.40	1	130.0	
		Z	5.31	66.61	16.29		130.0	
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duly cycle)	X	5.65	67.09	16.68	0.46	130.0	± 9.6 %
-		Υ	5.69	66.81	16.49		130.0	
		Z	5.50	66.79	16.45		130.0	
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	Х	6.03	68.01	17.18	0.46	130.0	± 9.6 %
		Y	6.05	67.65	16.95		130.0	
		Z	5.88	67.81	17.01		130.0	
10626- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.76	67.09	16.57	0.46	130.0	± 9.6 %
		Y	5.79	66.81	16.38		130.0	
		Z	5.64	66.79	16.35		130.0	
10627- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	Х	6.01	67.60	16.77	0.46	130.0	± 9.6 %
		Υ	6.04	67.32	16.58		130.0	
		Z	5.89	67.37	16.60		130.0	
10628- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	Х	5.83	67.28	16.56	0.46	130.0	± 9.6 %
		Y	5.87	67.01	16.37		130.0	
		Z	5.69	66.92	16.32		130.0	
10629- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.93	67.36	16.58	0.46	130.0	± 9.6 %
		Y	5.99	67.16	16.43		130.0	
		Z	5.77	67.00	16.35		130.0	
10630- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.47	69.11	17.45	0.46	130.0	± 9.6 %
		Y	6.56	68.99	17.34		130.0	
		Z	6.24	68.58	17.14		130.0	
10631- AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	6.36	68.89	17.53	0.46	130.0	± 9.6 %
·		Y	6.44	68.71	17.39		130.0	
		Z	6.09	68.24	17.15		130.0	
10632- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	Х	6.00	67.73	16.97	0.46	130.0	± 9.6 %
		Y	6.05	67.48	16.79		130.0	
		Z	5.85	67.39	16.74		130.0	
10633- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duly cycle)	Х	5.95	67.59	16.73	0.46	130.0	± 9.6 %
		Y	6.01	67.38	16.58		130.0	
		Z	5.74	67.05	16.41		130.0	
10634- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.92	67.56	16.78	0.46	130.0	± 9.6 %
		Y	5.98	67.34	16.62		130.0	
		Z	5.72	67.07	16.47		130.0	
10635- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.80	66.87	16.18	0.46	130.0	± 9.6 %
		Y	5.85	66.64	16.01		130.0	
		Z	5.62	66.48	15.93		130.0	
10636- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duly cycle)	X	6.16	67.47	16.65	0.46	130.0	± 9.6 %
		Υ	6.19	67.22	16.49		130.0	
·		Z	6.06	67.16	16.44		130.0	· ·
			6.34	67.89	16.84	0.46	130.0	± 9.6 %
10637- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X						
		Y	6.39	67.69	16.69		130.0	
AAA	90pc duty cycle)				16.69			
		Υ	6.39	67.69		0.46	130.0 130.0 130.0	± 9.6 %
10638-	90pc duty cycle) IEEE 1602.11ac WiFi (160MHz, MCS2,	Y	6.39 6.22	67.69 67.55	16.69 16.62	0.46	130.0	± 9.6 %

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10639- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3,	X	6.34	67.88	16.86	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	Υ	6.38	67.64	16.70		130.0	_
		Z	6.19	67.47	16.60		130.0	· · ·
10640-	IEEE 1602.11ac WiFi (160MHz, MCS4,	l x	6.37	67.96	16.84	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)					0.40		± 9.0 %
		Υ	6.42	67.75	16.69		130.0	
		Z	6.20	67.51	16.57		130.0	_
10641- AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.36	67.66	16.71	0.46	130.0	± 9.6 %
		Υ	6.40	67.44	16.56	-	130.0	
		Z	6.24	67.40	16.53		130.0	
10642- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	Х	6.44	68.03	17.05	0.46	130.0	± 9.6 %
		Y	6.49	67.81	16.91		130.0	
		Z	6.28	67.62	16.80		130.0	
10643- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	Х	6.26	67.70	16.80	0.46	130.0	± 9.6 %
	1	Y	6.31	67.48	16.64		130.0	
		Z	6.12	67.34	16.57		130.0	
10644- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	Х	6.50	68.41	17.18	0.46	130.0	± 9.6 %
		Y	6.57	68.25	17.05		130.0	
		Z	6.29	67.86	16.85		130.0	
10645- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	Х	6.78	68.77	17.29	0.46	130.0	± 9.6 %
		Υ	6.81	68.48	17.11		130.0	
		Z	6.68	68.60	17.18		130.0	
10646- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	37.14	116.21	38.03	9.30	60.0	± 9.6 %
		Y	19.95	100.33	33.06		60.0	
		Z	62.05	131.91	43.22		60.0	
10647- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	38.52	117.84	38.64	9,30	60.0	± 9.6 %
		Y	20.25	101.35	33.50		60.0	
		Z	63.43	133.45	43.81		60.0	
10648- AAA	CDMA2000 (1x Advanced)	X	1.03	68.68	14.68	0.00	150.0	± 9.6 %
· · · · · · · · · · · · · · · · · · ·		Y	0.85	64.54	12.30		150.0	
		Z	0.71	63.65	10.90		150.0	

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

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





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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

PC Test

Certificate No: ES3-3334_Nov16

CALIBRATION CERTIFICATE

Object

ES3DV3 - SN:3334

Calibration procedure(s)

QA CAL-01.v9, QA CAL-12.v9, QA CAL-23.v5, QA CAL-25.v6

Calibration procedure for dosimetric E-field probes

3NV 11-21-2016

Calibration date:

November 15, 2016

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	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Арг-17
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
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

Calibrated by:

Name
Function
Signature
Laboratory Technician

Approved by:

Katja Pokovic
Technical Manager

Issued: November 15, 2016

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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Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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

Glossarv:

TSL

tissue simulating liquid sensitivity in free space

NORMx,y,z 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., 9 = 0 is normal to probe axis

Connector Angle

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

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
 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 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 9 = 0 ($f \le 900$ MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,v,z are only intermediate values, i.e., the uncertainties of NORMx,v,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z; DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,v,z; Bx,v,z; Cx,v,z; Dx,v,z; VRx,v,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
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

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Probe ES3DV3

SN:3334

Manufactured: Calibrated:

January 24, 2012 November 15, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	1.01	1.01	0.97	± 10.1 %
DCP (mV) ^B	104.9	104.3	106.9	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc [±] (k≕2)
0	CW	Х	0.0	0.0	1.0	0.00	187.7	±3.3 %
		Y	0.0	0.0	1.0		186.1	
		Z	0.0	0.0	1.0		182.2	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

Certificate No: ES3-3334_Nov16

	C1 fF	C2 fF	α V-1	T1 ms.V ⁻²	T2 ms.V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	Т6
X	70.73	504.3	35.08	31.68	3.658	5.1	1.261	0.548	1.013
Y	65.12	464.8	35.12	29.88	3.928	5.1	1.127	0.529	1.01
Z	65.17	461.4	34.69	29.79	3.402	5.1	0.804	0.54	1.01

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%.

^B Numerical linearization parameter: uncertainty not required.

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

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

Calibration Parameter Determined in Head Tissue Simulating Media

					-			
f (MHz) ^c	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
6	55.5	0.75	6.51	6.51	6.51	0.05	1.10	± 13.3 %
13	55.5	0.75	6.87	6.87	6.87	0.05	1.20	± 13.3 %
750	41.9	0.89	6.76	6.76	6.76	0.40	1.68	± 12.0 %
835	41.5	0.90	6.49	6.49	6.49	0.41	1.68	± 12.0 %
1750	40.1	1.37	5.45	5.45	5.45	0.51	1.46	± 12.0 %
1900	40.0	1.40	5.27	5.27	5.27	0.52	1.49	± 12.0 %
2300	39.5	1.67	4.92	4.92	4.92	0.69	1.31	± 12.0 %
2450	39.2	1.80	4.73	4.73	4.73	0.77	1.27	± 12.0 %
2600	39.0	1.96	4.51	4.51	4.51	0.80	1.27	± 12.0 %

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

Certificate No: ES3-3334_Nov16

⁶ MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz

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

the ConvF uncertainty for indicated target tissue parameters.

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

Calibration Parameter Determined in Body Tissue Simulating Media

			-		_			
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	6.33	6.33	6.33	0.45	1.54	± 12.0 %
835	55.2	0.97	6.31	6.31	6.31	0.74	1.21	± 12.0 %
1750	53.4	1.49	5.12	5.12	5.12	0.52	1.50	± 12.0 %
1900	53.3	1.52	4.91	4.91	4.91	0.41	1.81	± 12.0 %
2300	52.9	1.81	4.68	4.68	4.68	0.80	1.21	± 12.0 %
2450	52.7	1.95	4.52	4.52	4.52	0.79	1.20	± 12.0 %
2600	52.5	2.16	4.42	4.42	4.42	0.80	1.18	± 12.0 %

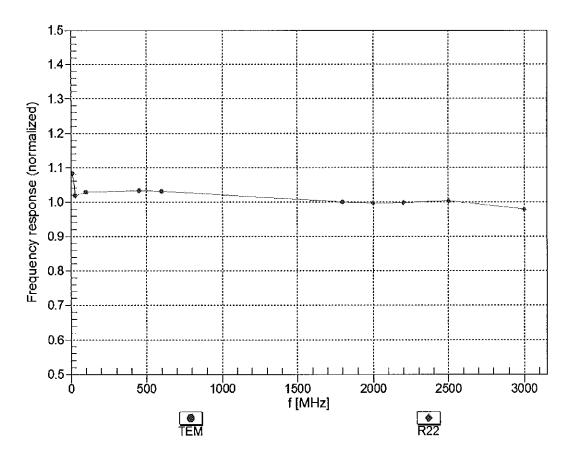
^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is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

validity can be extended to ± 110 MHz.

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

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

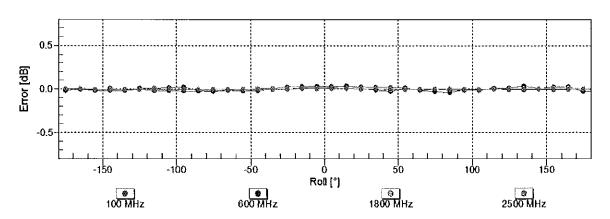
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



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

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

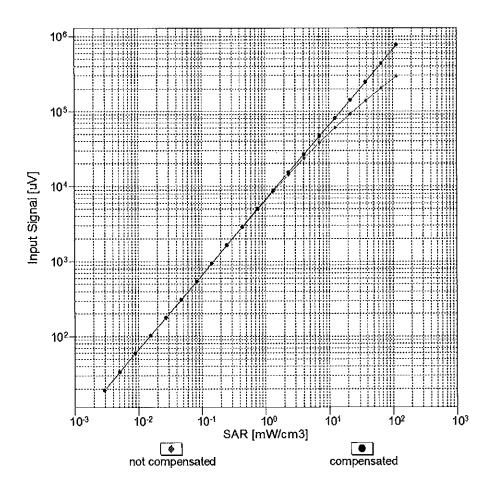
f=600 MHz,TEM f=1800 MHz,R22

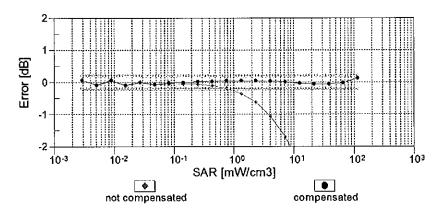


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

November 15, 2016

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

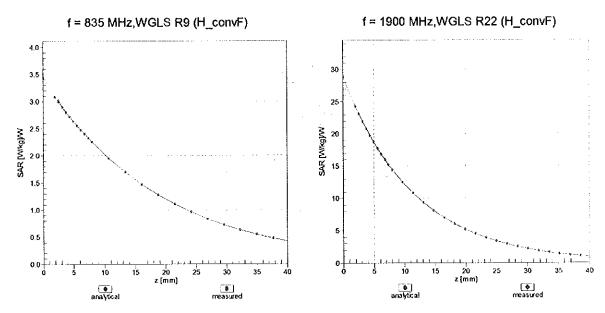




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

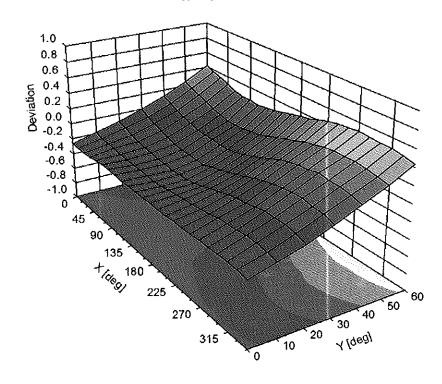
November 15, 2016

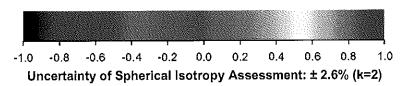
Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, ϑ) , f = 900 MHz





November 15, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	14.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

Appendix: Modulation Calibration Parameters

ÜİD	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc ^E (k=2)
0	CW	Х	0.00	0.00	1.00	0.00	187.7	± 3.3 %
		Y	0.00	0.00	1.00		186.1	
10010-	SAR Validation (Square, 100ms, 10ms)	Z	0.00 8.77	0.00 79.31	1.00 19.59	10.00	182.2 25.0	± 9.6 %
CAA	OAR Validation (Oquare, 100ms, 10ms)	^	0.77	79.51	19.09	10.00	25.0	19.0 %
		Υ	9.54	81.15	20.73		25.0	
		Z	9.84	81.78	20.60		25.0	
10011- CAB	UMTS-FDD (WCDMA)	X	1.16	69.33	16.31	0.00	150.0	± 9.6 %
		Y	1.10 1.22	67.90 70.12	15.63 16.93		150.0 150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.34	65.77	16.28	0.41	150.0	± 9.6 %
		Υ	1.35	65.28	15.96		150.0	
		Z	1.37	65.99	16.52		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	5.24 5.25	67.29 67.32	17.48	1.46	150.0	± 9.6 %
		Z	5.24	67.32	17.47 17.55		150.0 150.0	
10021- DAB	GSM-FDD (TDMA, GMSK)	X	14.04	88.44	24.56	9.39	50.0	± 9.6 %
		Υ	15.09	90.46	25.72		50.0	
		Z	17.26	92.82	26.12		50.0	
10023- DAB	GPRS-FDD (TDMA, GMSK, TN 0)	X	13.38	87.46	24.27	9.57	50.0	± 9.6 %
		Y	14.20 16.01	89.20 91.37	25.34 25.70		50.0 50.0	
10024- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	38.05	104.88	27.91	6.56	60.0	± 9.6 %
		Υ	46.94	109.69	29.75		60.0	
		Z	100.00	120.75	32.11		60.0	
10025- DAB	EDGE-FDD (TDMA, 8PSK, TN 0)	X	17.81	101.01 91.27	37.92 33.89	12.57	50.0	± 9.6 %
		Z	16.92	100.44	37.93		50.0	
10026- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	17.77	98.41	33.58	9.56	60.0	± 9.6 %
		Υ	14.79	93.85	31.99		60.0	
40007	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	Z	18.16	99.88	34.34	4.00	60.0	+060/
10027- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	Y	100.00	118.25 120.44	29.99 31.14	4.80	80.0	±9.6 %
		Z	100.00	119.61	30.56		80.0	
10028- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	Х	100.00	117.97	28.98	3.55	100.0	± 9.6 %
		Υ	100.00	120.46	30.24		100.0	
40000	FROE FRO /TONA ORON THE OLON	Z	100.00	119.89	29.81	7.00	100.0	1000
10029- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	13.52 11.42	92.94 89.03	30.62 29.23	7.80	80.0	±9.6 %
		Z	13.37	93.50	31.06		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Х	100.00	118.21	30.35	5.30	70.0	±9.6 %
		Υ	100.00	120.20	31.41		70.0	
		Z	100.00	119.30	30.79		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Х	100.00	118.75	27.66	1.88	100.0	± 9.6 %
		Y	100.00	121.92	29.18	 	100.0	
		Z	100.00	122.14	29.14	1	100.0	<u> </u>

10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	122.24	27.95	1.17	100.0	± 9.6 %
0/01	****	Y	100.00	126.42	29.90	-	100.0	1
		Ż	100.00	128.02	30.44	·	100.0	-
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	14.25	92.44	25.75	5.30	70.0	± 9.6 %
		Υ	12.48	90.39	25.26		70.0	
		Z	16.14	95.22	26.75		70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	8.01	88.33	23.06	1.88	100.0	± 9.6 %
		Y	6.72	85.60	22.20	ļ	100.0	
40005	IFFE 000 45 4 DL 4 4 4 DL 4 D 0 DOCK	Z	9.24	90.99	24.02	ļ	100.0	
10035- _CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	4.78	82.59	20.90	1.17	100.0	± 9.6 %
		Y	4.12	80.18	20.04	ļ	100.0	
10036-	IEEE 902 15 1 Blustooth (9 DDSK DUI)	Z	5.37	84.73	21.75	O	100.0	0.00
CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	16.24	94.81	26.57	5.30	70.0	± 9.6 %
		Y	14.09	92.64	26.06		70.0	
10037-	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Z	18.84 7.84	98.03	27.68	4.00	70.0	1000
CAA	ILLE 002.10.1 DIUGIUUII (0-DPSN, DH3)			88.03	22.91	1.88	100.0	± 9.6 %
		Y	6.49	85.11	21.99	ļ	100.0	1
10038-	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Z X	8.95 5.00	90.55 83.47	23.84	1 4 4 7	100.0	1000
CAA	ILLE 002.13.1 Bidelootif (0-DF 5K, DF15)	^ Y	4.25		21.28	1.17	100.0	± 9.6 %
		Z	5.60	80.87 85.62	20.36		100.0	
10039-	CDMA2000 (1xRTT, RC1)	X	2.21	73.71	22.13	0.00	100.0	1000
CAB	ODWAZOOO (IXXII, KCI)	ĺ			17.42	0.00	150.0	± 9.6 %
		Υ	2.07	72,72	16.90		150.0	
10042-	IS SALIS 426 EDD /TOMA/EDM DUA	Z	2.43	75.47	18.19		150.0	
CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	21.10	94.61	24.99	7.78	50.0	± 9.6 %
		Y	25.53	98.75	26.74		50.0	
10044-	IS-91/EIA/TIA-553 FDD (FDMA, FM)	Z	36.08 0.00	103.76 112.80	27.77 5.71	0.00	50.0 150.0	±9.6 %
CAA		Υ	0.00	00.40	0.45	 	450.0	
		Z	0.00	96.18 107.58	0.45	<u> </u>	150.0	
10048-	DECT (TDD, TDMA/FDM, GFSK, Full	X	10.49		0.68	40.00	150.0	
CAA	Slot, 24)	Y	10.49	80.43	23.52	13.80	25.0	± 9.6 %
				81.22	24.23		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	11.11 11.49	82.26 83.98	24.27 23.46	10.79	25.0 40.0	± 9.6 %
21,71		Υ	11.98	85.23	24.35	-	40.0	
		Z	12.68	86.48	24.43	-	40.0	
10056- CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	11.65	84.59	23.99	9.03	50.0	± 9.6 %
		Y	11.36	84.29	24.10		50.0	
		Ζ	12.41	86.38	24.72	'''	50.0	
10058- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	10.62	88.69	28.41	6.55	100.0	± 9.6 %
		Υ	9.13	85.32	27.18		100.0	
		Z	10.28	88.69	28.63		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	Х	1.56	68.30	17.46	0.61	110.0	± 9.6 %
		Y	1.54	67.48	17.02		110.0	
		Z	1.58	68.47	17.70		110.0	
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	Х	100.00	129.94	33.28	1.30	110.0	± 9.6 %
		Υ	82.67	128.45	33.38		110.0	
		Z	100.00	132.52	34.47		110.0	

10061-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	X	12.22	98.02	27.41	2.04	110.0	± 9.6 %
CAB	Mbps)	1	6.45	01.15	0===		ļ.,,,	
		Y	8.15	91.42	25.55		110.0	
10062-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6	Z	12.67	99.62	28.21	0.40	110.0	
CAB	Mbps)	X	4.95	67.04	16.77	0.49	100.0	± 9.6 %
		Y	4.95	67.04	16.75		100.0	
40000	IEEE OOO 44 / NAMES E OUT (OFFICE	Z	4.95	67.16	16.84		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	5.00	67.22	16.92	0.72	100.0	± 9.6 %
		Υ	5.00	67.22	16.90		100.0	
10001	TETE OOD AA A NUTTE OUT OF THE	Z	5.00	67.33	16.99		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	Х	5.37	67.60	17.20	0.86	100.0	±9.6 %
		Y	5.35	67.58	17.17		100.0	
		Z	5.35	67.68	17.26		100.0	
10065- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5.27	67.66	17.37	1.21	100.0	± 9.6 %
		Υ	5.27	67.65	17.35		100.0	
		Z	5.25	67.74	17.44		100.0	
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	Х	5.34	67.81	17.61	1.46	100.0	± 9.6 %
		Υ	5.33	67.80	17.59		100.0	
		Z	5.32	67.89	17.67		100.0	
10067- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	Х	5.67	67.95	18.07	2.04	100.0	± 9.6 %
		Y	5.66	67.95	18.04		100.0	
		Z	5.64	68.02	18.12		100.0	
10068- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	Х	5.84	68.42	18.48	2.55	100.0	±9.6%
		Y	5.84	68.39	18.44		100.0	
		Z	5.80	68.45	18.52		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	Х	5.91	68.29	18.64	2.67	100.0	± 9.6 %
**** *** *		Y	5.91	68.28	18.60		100.0	
		Z	5.88	68.35	18.68		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	Х	5.40	67.57	17.88	1.99	100.0	± 9.6 %
		Y	5.42	67.58	17.87		100.0	
		Ż	5.39	67.65	17.94		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	Х	5.50	68.20	18.23	2.30	100.0	± 9.6 %
		Y	5.51	68.20	18.21		100.0	
		Z	5.48	68.27	18.29		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	Х	5.66	68.60	18.67	2.83	100.0	± 9.6 %
		Y	5.67	68.59	18.64		100.0	
		Z	5.63	68.66	18.73		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	Х	5.71	68.74	18.97	3.30	100.0	± 9.6 %
-		Y	5.72	68.71	18.92		100.0	
		Z	5.68	68.77	19.01		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	Х	5,92	69.39	19.54	3.82	90.0	± 9.6 %
		Y	5.92	69.30	19.46		90.0	
		Z	5.87	69.36	19.56		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	Х	5.92	69.17	19.65	4.15	90.0	± 9.6 %
		Υ	5.94	69.10	19.58		90.0	
		Z	5.88	69.15	19.67		90.0	
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	Х	5.96	69.26	19.75	4.30	90.0	± 9.6 %
	V	Y	5.98	69.19	19.68		90.0	
		Ż	5.92	69.25	19.77	,	90.0	

				T 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	· · · · · · · · · · · · · · · · · · ·			
10081- CAB	CDMA2000 (1xRTT, RC3)	Х	1.06	68.38	14.68	0.00	150.0	± 9.6 %
		Υ	1.00	67.23	14.06		150.0	
		Z	1.15	69.61	15.40		150.0	
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	Х	2.58	65.03	9.90	4.77	80.0	± 9.6 %
		Υ	2.69	65.68	10.51		80.0	
		Z	2.57	65.43	10.13		80.0	
10090- DAB	GPRS-FDD (TDMA, GMSK, TN 0-4)	Х	36.90	104.46	27.83	6.56	60.0	± 9.6 %
		Υ	45.21	109.15	29.65		60.0	
		Z	94.87	120.02	31.97		60.0	
10097- CAB	UMTS-FDD (HSDPA)	Х	1.90	68.06	16.14	0.00	150.0	± 9.6 %
		Y	1.89	67.63	15.88		150.0	
		Z	1.96	68.55	16.47		150.0	
10098- CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.86	68.04	16.12	0.00	150.0	± 9.6 %
		Y	1.85	67.59	15.85		150.0	
40065		Z	1.92	68.55	16.45		150.0	
10099- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	17.69	98.25	33.53	9.56	60.0	± 9.6 %
		Υ	14.75	93.74	31.95		60.0	
		Z	18.07	99.72	34.29		60.0	
10100- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	3.44	71.50	17.09	0.00	150.0	± 9.6 %
		Υ	3.34	70.90	16.87		150.0	
		Z	3.49	71.85	17.37		150.0	
10101- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.45	68.24	16.24	0.00	150.0	± 9.6 %
		Υ	3.42	67.96	16.11		150.0	
		Z	3.46	68.39	16.38		150.0	
10102- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	Х	3.54	68.11	16.30	0.00	150.0	± 9.6 %
] Y	3.52	67.89	16.19		150.0	
		Z	3.56	68.26	16.44		150.0	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	8.66	77.35	20.84	3.98	65.0	± 9.6 %
		Υ	8.46	77.01	20.81		65.0	
		Z	8.71	77.85	21.15		65.0	
10104- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	Х	8.88	76.70	21.45	3.98	65.0	± 9.6 %
		Y	8.67	76.23	21.29		65.0	
		Z	8.82	76.91	21.62		65.0	
10105- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	Х	8.13	74.97	20.97	3.98	65.0	± 9.6 %
		Υ	7.88	74.31	20.72	<u> </u>	65.0	
		Z	7.92	74.75	20.95		65.0	
10108- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.04	70.66	16.91	0.00	150.0	± 9.6 %
		Υ	2.95	70.09	16.69		150.0	
		Z	3.08	70.99	17.20		150.0	
10109- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	Х	3.12	68.03	16.19	0.00	150.0	± 9.6 %
		Υ	3.09	67.76	16.05		150.0	
		Z	3.14	68.21	16.35		150.0	
10110- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	2.50	69.68	16.63	0.00	150.0	± 9.6 %
		Y	2.43	69.09	16.36		150.0	
		Z	2.53	70.06	16.93		150.0	
10111- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.81	68.48	16.49	0.00	150.0	± 9.6 %
		Υ	2.78	68.30	16.36		150.0	
		Z	2.84	68.81	16.69		150.0	

10112- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	Х	3.24	67.90	16.20	0.00	150.0	± 9.6 %
		Υ	3.21	67.68	16.09	l	150.0	
		Z	3.25	68.09	16.35		150.0	
10113- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.97	68.50	16.56	0.00	150.0	± 9.6 %
		Υ	2.94	68.37	16.47		150.0	
		Z	2.99	68.82	16.76		150.0	
10114- CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	Х	5.29	67.41	16.51	0.00	150.0	± 9.6 %
		Y	5.28	67.36	16.48		150.0	
		Z	5.28	67.49	16.58		150.0	
10115- CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	Х	5.70	67.80	16.71	0.00	150.0	± 9.6 %
		Y	5.66	67.68	16.65		150.0	
		Ζ	5.66	67.80	16.73		150.0	
10116- CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.42	67.66	16.55	0.00	150.0	± 9.6 %
		Υ	5.41	67.63	16.54		150.0	
		Z	5.42	67.76	16.63		150.0	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	Х	5.29	67.43	16.54	0.00	150.0	± 9.6 %
		Y	5.29	67.39	16.52		150.0	
		Z	5.29	67.52	16.61		150.0	
10118- CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Х	5.72	67.78	16.70	0.00	150.0	±9.6 %
		Y	5.72	67.79	16.71		150.0	
		Z	5.72	67.90	16.79		150.0	
10119- CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	Х	5.39	67.61	16.55	0.00	150.0	± 9.6 %
		Y	5.39	67.59	16.53		150.0	
		Z	5.39	67.71	16.62		150.0	
10140- CAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	Х	3.60	68.11	16.22	0.00	150.0	± 9.6 %
		Y	3.57	67.89	16.12		150.0	
		Z	3.61	68.26	16.36		150.0	
10141- CAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.71	68.11	16.35	0.00	150.0	± 9.6 %
		Y	3.69	67.93	16.26		150.0	
	"	Z	3.72	68.27	16.48		150.0	
10142- CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	2.28	69.60	16.50	0.00	150.0	± 9.6 %
		Y	2.20	69.01	16.20		150.0	
		Z	2.31	70.09	16.82		150.0	
10143- CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.70	69.15	16.46	0.00	150.0	± 9.6 %
		Y	2.67	68.99	16.31		150.0	
		Z	2.74	69.63	16.70		150.0	
10144- CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	Х	2.54	67.36	15.17	0.00	150.0	± 9.6 %
_		Υ	2.49	67.09	14.94		150.0	
		Z	2.55	67.71	15.33		150.0	
10145- CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	Х	1.68	68.42	14.82	0.00	150.0	± 9.6 %
		Υ	1.60	67.64	14.26		150.0	
		Z	1.72	69.05	15.06		150.0	
10146- CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	4.83	77.87	18.53	0.00	150.0	± 9.6 %
	,	Υ	3.98	75.00	17.05		150.0	
		Z	3.89	75.00	17.12		150.0	
10147- CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	Х	6.50	82.39	20.39	0.00	150.0	± 9.6 %
	1	Y	5.41	79.51	18.99	1	150.0	

10149- CAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	Х	3.13	68.08	16.23	0.00	150.0	± 9.6 %
		Y	3.10	67.82	16.09	1	150.0	<u> </u>
		Z	3.14	68.27	16.39	1	150.0	
10150- CAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	Х	3.25	67.94	16.24	0.00	150.0	± 9.6 %
ļ		Y	3.22	67.73	16.12		150.0	
		Z	3.26	68.13	16.39		150.0	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	9.12	79.35	21.75	3.98	65.0	± 9.6 %
		Y	8.93	79.07	21.74		65.0	
10152- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	9.26 8.52	80.07 76.90	22.14 21.36	3.98	65.0 65.0	± 9.6 %
		Y	8.28	76.34	21.15	<u> </u>	65.0	
		Ż	8.47	77.14	21.53	·	65.0	
10153- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	8.83	77.49	21.93	3.98	65.0	± 9.6 %
		Υ	8.62	77.01	21.76		65.0	
		Z	8.79	77.75	22.10		65.0	
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.57	70.18	16.94	0.00	150.0	± 9.6 %
		Υ	2.49	69.59	16.67		150.0	
		Z	2.60	70.55	17.23		150.0	
10155- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.81	68.47	16.49	0.00	150.0	± 9.6 %
		Y	2.78	68.29	16.36		150.0	
40450	1175 500 (00 5011)	Z	2.84	68.81	16.70		150.0	
10156- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	Х	2.16	69,95	16.57	0.00	150.0	±9.6 %
		Υ	2.07	69.28	16.21		150.0	
40450	155 555 (8.5 55.5)	Z	2.20	70.51	16.91		150.0	
10157- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	Х	2.38	68.05	15.40	0.00	150.0	± 9.6 %
		Υ	2.33	67.74	15.13		150.0	
10150	LTC EDD (OO CDMA SOO(DD 40 M)	Z	2.41	68.51	15.61		150.0	
10158- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.97	68.54	16.60	0.00	150.0	± 9.6 %
		Y	2.95	68.41	16.50		150.0	
10159-	LTE EDD (CC EDMA 500/ DD 5 4/11-	Z	2.99	68.87	16.80		150.0	
CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.50	68.46	15.67	0.00	150.0	± 9.6 %
		Y	2.45	68.21	15.44		150.0	
10160-	LTE-FDD (SC-FDMA, 50% RB, 15 MHz,	X	2.53	68.95	15.89		150.0	
CAB	QPSK)		2.97	69.28	16.60	0.00	150.0	± 9.6 %
		Y Z	2.92	68.92	16.43		150.0	
10161- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.00 3.13	69.58 67.81	16.83 16.19	0.00	150.0 150.0	± 9.6 %
		Υ	3.11	67.62	16.07		150.0	
		Ζ	3.15	68.02	16.34	-	150.0	
10162- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	Х	3.23	67.81	16.23	0.00	150.0	± 9.6 %
·		Υ	3.21	67.66	16.13		150.0	
1015-		Ζ	3.25	68.04	16.39		150.0	
10166- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	Х	4.28	71.44	20.14	3.01	150.0	± 9.6 %
		Υ	4.14	70.84	19.78		150.0	
40407	LTE EDD (OO FOLL)	Ζ	4.08	70.78	19.80		150.0	
10167- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	Х	5.82	75.47	21.02	3.01	150.0	± 9.6 %
		Υ	5.49	74.58	20.57		150.0	
		_ Z	5.34	74.36	20.53		150.0	

10168- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.39	77.47	22.15	3.01	150.0	± 9.6 %
		Y	6.08	76.81	21.83		150.0	1
		Z	5.84	76.29	21.65		150.0	1
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	4.38	75.00	21.59	3.01	150.0	± 9.6 %
		Υ	3.97	73.13	20.72	<u>"</u>	150.0	
		Z	3.86	72.93	20.71		150.0	
10170- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	7.68	84.36	24.73	3.01	150.0	± 9.6 %
		Y	6.57	81.73	23.77		150.0	
10171-	LTC COD (CC CDAA 4 DD 00 AUI-	Z	6.11	80.75	23.47	0.04	150.0	
AAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	5.83	78.41	21.57	3.01	150.0	± 9.6 %
		Y Z	5.03	75.97	20.56		150.0	
10172-	LTE TOD (CC CDAM 4 DD 20 MILE		4.85	75.79	20.60	0.00	150.0	
CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	34.00	110.08	33.55	6.02	65.0	± 9.6 %
		Υ	23.82	103.43	31.66		65.0	
10470	LITE TOD (SO COMA 4 DD COMU	Z	27.68	107.07	32.82	0.00	65.0	
10173- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	32.90	104.70	30.42	6.02	65.0	±9.6%
		Y	28.30	102.52	29.89		65.0	
40474	LTC TOD (OO FDAM A DD OO MIL	Z	30.73	104.44	30.45		65.0	
10174- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	25.83	99.19	28.36	6.02	65.0	± 9.6 %
		Y	22.98	97.66	28.00		65.0	
10175	LTC 500 (00 5014) 4 50 40111	Z	24.34	99.06	28.41		65.0	
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	4.30	74.53	21.28	3.01	150.0	± 9.6 %
		Υ	3.90	72.69	20.41		150.0	
		Z	3.80	72.54	20.44		150.0	
10176- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	Х	7.70	84.38	24.74	3.01	150.0	±9.6 %
		Y	6.58	81.76	23.78		150.0	
		Z	6.11	80.77	23.48		150.0	
10177- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	Х	4.35	74.76	21.41	3.01	150.0	±9.6%
		Υ	3.95	72.91	20.54		150.0	
		Z	3.84	72.73	20.55		150.0	
10178- CAC	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	7.52	83.92	24.54	3.01	150.0	± 9.6 %
		Υ	6.44	81.32	23.58		150.0	
		Z	6.01	80.41	23.31		150.0	
10179- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	Х	6.63	81.06	22.94	3.01	150.0	± 9.6 %
		Υ	5.69	78.55	21.97		150.0	
		Z	5.41	78.06	21.87	ļ	150.0	
10180- CAC	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	Х	5.79	78.25	21.48	3.01	150.0	±9.6 %
		Υ	4.99	75.83	20.48		150.0	
		Z	4.83	75.67	20.53		150.0	
10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	4.34	74.74	21.40	3.01	150.0	± 9.6 %
		Y	3.94	72.89	20.53		150.0	
		Z	3.83	72.71	20.54		150.0	
10182- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	Х	7.51	83.89	24.53	3.01	150.0	±9.6 %
· · ·		Υ	6.43	81.29	23.57		150.0	
		Z	6.00	80.39	23.30		150.0	
10183- AAA	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	Х	5.78	78.22	21.47	3.01	150.0	±9.6 %
		Υ	4.98	75.80	20.47		150.0	
		Z	4.82	75.64	20.52		150.0	

10184- CAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	4.36	74.79	21.43	3.01	150.0	± 9.6 %
		Υ	3.95	72.94	20.56		150.0	
		Ž	3.85	72.76	20.56		150.0	
10185- CAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	7.55	83.99	24.57	3.01	150.0	± 9.6 %
		Y	6.47	81.38	23.61		150.0	
		Z	6.03	80.47	23.34		150.0	
10186- AAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	Х	5.81	78.31	21.51	3.01	150.0	± 9.6 %
		Υ	5.01	75.88	20.50		150.0	
		Z	4.84	75.72	20.55		150.0	
10187- CAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	4.37	74.83	21.47	3.01	150.0	± 9.6 %
		Υ	3.96	72.98	20.60		150.0	
		Z	3.85	72.80	20.61		150.0	
10188- CAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	Х	7.95	85.05	25.06	3.01	150.0	± 9.6 %
		Υ	6.80	82.42	24.11		150.0	
		Z	6.29	81.33	23.77		150.0	
10189- AAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	6.01	78.95	21.85	3.01	150.0	± 9.6 %
		Υ	5.17	76.49	20.84		150.0	
		Z	4.98	76.26	20.86		150.0	
10193- CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.72	66.78	16.30	0.00	150.0	± 9.6 %
		Υ	4.71	66.76	16.26		150.0	
		Z	4.72	66.90	16.38		150.0	
10194- CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	Х	4.93	67.17	16.41	0.00	150.0	± 9.6 %
		Y]	4.91	67.14	16.38		150.0	
		Z	4.92	67.28	16.49		150.0	
10195- CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	Х	4.97	67.17	16.41	0.00	150.0	± 9.6 %
		Y	4.95	67.14	16.38		150.0	
		Z	4.96	67.29	16.49		150.0	
10196- CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.74	66.90	16.34	0.00	150.0	± 9.6 %
		Υ	4.73	66.86	16.30		150.0	
		Z	4.74	67.01	16.41		150.0	
10197- CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	Х	4.94	67.19	16.42	0.00	150.0	± 9.6 %
		Y	4.93	67.16	16.39		150.0	
		Z	4.94	67.30	16.50		150.0	
10198- CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	Х	4.97	67.18	16.41	0.00	150.0	± 9.6 %
		Υ	4.96	67.16	16.39		150.0	
		Ζ	4.97	67.30	16.50		150.0	
10219- CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	Х	4.69	66.91	16.31	0.00	150.0	± 9.6 %
		Υ	4.68	66.88	16.27		150.0	
		Z	4.69	67.03	16.38		150.0	
10220- CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	Х	4.95	67.19	16.42	0.00	150.0	± 9.6 %
		Υ	4.93	67.15	16.39		150.0	
		Ζ	4.94	67.30	16.50		150.0	
10221- CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	Х	4.98	67.12	16.41	0.00	150.0	± 9.6 %
		Υ	4.96	67.09	16.38		150.0	
		Z	4.97	67.24	16.49		150.0	
10222- CAB	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.28	67.46	16.55	0.00	150.0	± 9.6 %
OND		Y	5.27	67.41	16.52	*****	150.0	

10223-	IEEE 802.11n (HT Mixed, 90 Mbps, 16-	Х	5.66	67.79	16.73	0.00	150.0	± 9.6 %
CAB	QAM)	Υ	5.66	67.78	16.72		150.0	
		Z	5.66	67.78	16.72	ļ	150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.34	67.59	16.53	0.00	150.0	± 9.6 %
		Υ	5.32	67.52	16.49		150.0	
		Z	5.33	67.65	16.59		150.0	
10225- CAB	UMTS-FDD (HSPA+)	Х	2.98	66.36	15.75	0.00	150.0	± 9.6 %
		Υ	2.97	66.26	15.63		150.0	
10226-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	X	2.99 34.49	66.57 105.68	15.86 30.78	6.02	150.0 65.0	± 9.6 %
CAA	16-QAM)	1	00.70	400.57	22.22			
		Z	29.79	103.57	30.28		65.0	
10227-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	X	32.28 26.80	105.46 99.98	30.82 28.68	6.02	65.0	1069/
CAA	64-QAM)	Y	••••			6.02	65.0	±9.6%
		Z	24.57	98.96 100.11	28.48 28.80		65.0	
10228-	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz,	X	25.66 34.73	111.06	33.97	6.02	65.0 65.0	± 9.6 %
CAA	QPSK)	Y	25.52	105.30		0.02		± 5.0 %
·		Z	30.95	105.30	32.35 33.72		65.0 65.0	L
10229-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-	X	32.90	109.77	30.43	6.02	65.0	± 9.6 %
CAB	QAM)	Y	28.35	102.53	29.91	0.02		1 9.0 %
		Z	30.75	102.55	30.46		65.0 65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	25.79	99.22	28.39	6.02	65.0	± 9.6 %
OND	w unj	Υ	23.57	98.14	28.17		65.0	
		Ż	24.66	99.32	28.50		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	33.18	110.06	33.62	6.02	65.0	± 9.6 %
		Υ	24.40	104.32	31.99		65.0	
		Z	29.56	108.76	33.36		65.0	
10232- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	Х	32.89	104.69	30.43	6.02	65.0	± 9.6 %
		Y	28.33	102.53	29.90		65.0	
		Z	30.74	104.44	30.46		65.0	
10233- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	Х	25.82	99.25	28.40	6.02	65.0	± 9.6 %
		Υ	23.57	98.15	28.17		65.0	
		Ζ	24.67	99.34	28.51		65.0	
10234- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	31.54	108.89	33.19	6.02	65.0	± 9.6 %
		Υ	23.30	103.27	31.58		65.0	
		Z	28.13	107.61	32.94		65.0	
10235- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	32.98	104.76	30.45	6.02	65.0	±9.6%
		Υ	28.39	102.58	29.92		65.0	
		Z	30.82	104.50	30.48		65.0	
10236- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	26.00	99.35	28.43	6.02	65.0	± 9.6 %
		Y	23.73	98.25	28.20		65.0	
10237-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz,	Z	24.86 33.51	99.45 110.27	28.54 33.67	6.02	65.0 65.0	±9.6 %
CAB	QPSK)	Y	24.55	104.47	32.03		65.0	
		Z	29.82	104.47	33.42	1	65.0	
10238-	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	32.92	104.72	30.43	6.02	65.0	± 9.6 %
CAB					•			
CAB	10-QAW)	Υ	28.33	102.54	29.91		65.0	

10239- CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	25.84	99.28	28.41	6.02	65.0	± 9.6 %
		Y	23.57	98.17	28.18		65.0	
		Z	24.68	99.36	28.51		65.0	
10240- CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	33.41	110.22	33.66	6.02	65.0	± 9.6 %
		Υ	24.49	104.42	32.01		65.0	
		Z	29.73	108.90	33.40		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	Х	13.87	87.85	27.97	6.98	65.0	± 9.6 %
		Y	12.90	86.30	27.27		65.0	
		Z	13.00	86.99	27.62		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	13.03	86.40	27.33	6.98	65.0	± 9.6 %
		Υ	12.04	84.70	26.56		65.0	
		Z	12.01	85.17	26.83		65.0	
10243- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	10.68	84.11	27.32	6.98	65.0	± 9.6 %
		Υ	9.82	82.05	26.33		65.0	
		Z	9.82	82.65	26.70		65.0	
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	10.69	81.99	22.20	3.98	65.0	± 9.6 %
		Υ	10.07	80.96	21.68		65.0	
40015	LTE TOP (OO TOUR	Z	10.02	81.14	21.69		65.0	
10245- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	Х	10.57	81.58	22.00	3.98	65.0	± 9.6 %
		Υ	9.98	80.56	21.49		65.0	
		Z	9.91	80.72	21.49		65.0	
10246- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	Х	9.29	82.24	22.05	3.98	65.0	± 9.6 %
		Υ	8.84	81.48	21.78		65.0	
		Z	9.57	83.17	22.39		65.0	
10247- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	8.07	77.79	20.87	3.98	65.0	± 9.6 %
		Υ	7.81	77.20	20.60		65.0	
		Z	8.04	78.08	20.96		65.0	
10248- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	8.11	77.42	20.72	3.98	65.0	± 9.6 %
		Υ	7.83	76.80	20.42		65.0	
		Ζ	8.05	77.65	20.78		65.0	
10249- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	Х	9.78	83.07	22.80	3.98	65.0	± 9.6 %
		Υ	9.36	82.41	22.61		65.0	
		Z		84.18	23.26		65.0	
10250- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	Х	8.72	78.97	22.30	3.98	65.0	± 9.6 %
		Υ	8.48	78.45	22.12		65.0	
10251-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	Z X	8.71 8.36	79.35 77.15	22.51 21.34	3.98	65.0 65.0	± 9.6 %
CAB	64-QAM)	Y	0.40	70.00	04.44			
		Z	8.13	76.62	21.11		65.0	-
10252-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz,	X	8.33	77.46	21.50	2.00	65.0	1000
CAB	QPSK)		9.59	81.92	22.81	3.98	65.0	± 9.6 %
		Y	9.28	81.44	22.73		65.0	
10253- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	9.85 8.31	82.90 76.36	23.29 21.21	3.98	65.0 65.0	± 9.6 %
JAU	TO GENEL	Y	8.09	75.81	20.99		GEA	
		Z	8.25	76.57			65.0	
10254- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	8.64	76.97	21.35 21.75	3.98	65.0 65.0	± 9.6 %
37,10		Υ	8.44	76.49	21.55		65.0	
		1						

10255- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	8.88	79.09	21.89	3.98	65.0	± 9.6 %
		Υ	8.67	78.72	21.83		65.0	
		Z	8.98	79.73	22.24		65.0	
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	10.07	80.79	21.11	3.98	65.0	± 9.6 %
		Y	9.36	79.53	20.48		65.0	
		Z	9.27	79.61	20.43		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	9.93	80.22	20.83	3.98	65.0	± 9.6 %
		Y	9.22	78.95	20.18		65.0	
		Z	9.12	79.01	20.13		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	Х	8.66	80.91	21.13	3.98	65.0	± 9.6 %
	44444	Y	8.13	79.89	20.72		65.0	
		Z	8.71	81.36	21.24		65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	8.32	78.14	21.35	3.98	65.0	± 9.6 %
		Y	8.07	77.59	21.11		65.0	
		Z	8.30	78.48	21.48		65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	8.37	77.96	21.30	3.98	65.0	±9.6 %
		Y	8 <i>.</i> 11	77.40	21.05		65.0	
] Z]	8.33	78.25	21.41		65.0	
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	9.44	82.16	22.69	3.98	65.0	± 9.6 %
		Y	9.05	81.51	22.50		65.0	
		Z	9.69	83.12	23.12		65.0	
10262- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	8.72	78.94	22.28	3.98	65.0	±9.6%
		Υ	8.47	78.42	22.09		65.0	
		Z	8.71	79.32	22.48		65.0	
10263- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	8.36	77.16	21.34	3.98	65.0	±9.6%
	·	Y	8.13	76.62	21.11		65.0	
		Z	8.33	77.46	21.50		65.0	
10264- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	9.55	81.82	22.76	3.98	65.0	±9.6 %
		Y	9.23	81.33	22.67		65.0	
		Z	9.80	82.79	23.23		65.0	
10265- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	Х	8.52	76.91	21.37	3.98	65.0	±9.6 %
		Y	8.28	76.34	21.16		65.0	
		Z	8.46	77.15	21.54		65.0	
10266- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	8.84	77.48	21.92	3.98	65.0	± 9.6 %
		Υ	8.62	77.01	21.75		65.0	
		Z	8.79	77.75	22.10		65.0	
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	9.11	79.33	21.73	3.98	65.0	± 9.6 %
		Υ	8.91	79.04	21.73		65.0	
		Z	9.25	80.04	22.13		65.0	
10268- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	8.95	76.40	21.47	3.98	65.0	± 9.6 %
		Υ	8.77	75.99	21.33		65.0	1
		Z	8.89	76.60	21.62		65.0	
10269- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	Х	8.88	76.03	21.40	3.98	65.0	± 9.6 %
		Y	8.71	75.62	21.25		65.0	
		Z	8.81	76.21	21.54		65.0	
10270- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	8.82	77.21	21.03	3.98	65.0	± 9.6 %
• • • • •		Υ	8.69	77.00	21.04		65.0	
		Z	8.86	77.65	21.31	1	65.0	1

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	Х	2.68	66.55	15.56	0.00	150.0	± 9.6 %
		Y	2.68	66.43	15.43		150.0	1
		Z	2.71	66.85	15.73		150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.76	69.02	16.21	0.00	150.0	± 9.6 %
		Y	1.71	68.23	15.83		150.0	
		Z	1.82	69.57	16.62		150.0	
10277- CAA	PHS (QPSK)	X	6.62	71.52	15.81	9.03	50.0	± 9.6 %
		Υ	6.77	71.96	16.20		50.0	
		Z	6.48	71.54	15.70		50.0	
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	9.81	80.35	21.62	9.03	50.0	± 9.6 %
		Y	9.58	79.96	21.62		50.0	
100-0		Z	9.84	80.82	21.76		50.0	
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	Х	10.00	80.57	21.71	9.03	50.0	± 9.6 %
		Υ	9.73	80.14	21.69		50.0	
10000	ODILLOGO DOL OCCUPATION	Z	10.02	81.03	21.84		50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	X	1.82	70.77	15.90	0.00	150.0	± 9.6 %
		Y	1.72	69.89	15.40		150.0	
(0004		Z	1.95	72.06	16.51		150.0	
10291- AAB	CDMA2000, RC3, SO55, Full Rate	Х	1.03	68.06	14.52	0.00	150.0	± 9.6 %
		Y	0.98	66.97	13.92		150.0	
10000		Z	1.11	69.26	15.22		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	Х	1.32	72.62	17.03	0.00	150.0	± 9.6 %
		Y	1.20	70.85	16.19		150.0	
		Z	1.50	74.78	18.11		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	Х	1.86	78.12	19.78	0.00	150.0	± 9.6 %
		Υ	1.66	75.88	18.82		150.0	
		Z	2.25	81.38	21.19		150.0	
10295- AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	10.17	82.01	23.87	9.03	50.0	± 9.6 %
		Υ	10.08	81.64	23.75		50.0	
		Z	10.46	83.00	24.26		50.0	
10297- AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	3.06	70.75	16.98	0.00	150.0	± 9.6 %
		Υ	2.97	70.19	16.76		150.0	
		Z	3.09	71.09	17.26		150.0	
10298- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.94	69.59	15.88	0.00	150.0	± 9.6 %
		Y	1.86	68.90	15.44		150.0	
10055	LTE EDD (OO HOLD)	Z	2.00	70.30	16.23		150.0	
10299- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	Х	4.90	77.67	19.07	0.00	150.0	±9.6 %
		Υ	4.30	75.67	18.00		150.0	
		Z	4.17	75.58	18.03		150.0	
10300- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	Х	3.47	71.44	15.80	0.00	150.0	± 9.6 %
		Υ	3.06	69.68	14.73		150.0	
		Z	3.03	69.87	14.88		150.0	
10301- AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	6.02	68.68	19.11	4.17	80.0	± 9.6 %
		Υ	5.98	68.44	18.86		80.0	
		Z	5.95	68.58	19.03		80.0	
10302- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	Х	6.59	69.62	20.04	4.96	80.0	± 9.6 %
		Υ	6.48	69.09	19.63		80.0	***
		Z	6.53	69.66	20.05		80.0	

10303- AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	6.50	69.94	20.23	4.96	80.0	± 9.6 %
		Υ	6.37	69.29	19.74	<u> </u>	80.0	
		Z	6.43	69.92	20.21	<u> </u>	80.0	
10304- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	Х	6.04	68.91	19.25	4.17	80.0	± 9.6 %
		Y	5.94	68.42	18.86		80.0	
		Z	5.99	68.95	19.25		80.0	
10305- AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	8.62	79.07	24.92	6.02	50.0	± 9.6 %
		Υ	11.34	86.21	27.91		50.0	
		Z	8.42	78.75	24.71		50.0	
10306- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	7.30	73.86	22.83	6.02	50.0	± 9.6 %
		Y	6.99	72.41	21.84		50.0	
		Z	7.19	73.72	22.72		50.0	
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	Х	7.53	74.88	23.08	6.02	50.0	±9.6 %
		Υ	7.13	73.19	22.00		50.0	
		Z	7.41	74.71	22.96		50.0	
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	Х	7.64	75.45	23.34	6.02	50.0	± 9.6 %
		Υ	7.20	73.62	22.20		50.0	
		Z	7.51	75.27	23.22		50.0	
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	7.44	74.18	22.99	6.02	50.0	± 9.6 %
		Υ	7.11	72.71	22.00		50.0	
		Z	7.33	74.08	22.90		50.0	
10310- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	7.36	74.18	22.87	6.02	50.0	± 9.6 %
		Υ	7.02	72.66	21.86		50.0	
		Z	7.24	74.05	22.76		50.0	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	3.41	70.03	16.61	0.00	150.0	± 9.6 %
		Υ	3.32	69.51	16.42		150.0	
		Z	3.45	70.34	16.87		150.0	
10313- AAA	IDEN 1:3	Х	7.37	77.22	18.46	6.99	70.0	±9.6%
		Υ	7.49	77.91	19.05		70.0	
		Z	7.96	79.06	19.32		70.0	
10314- AAA	IDEN 1:6	Х	8.75	81.12	22.17	10.00	30.0	± 9.6 %
		Υ	8.84	81.70	22.74		30.0	
		Z	9.56	83.47	23.24	<u> </u>	30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	Х	1.18	65.17	15.98	0.17	150.0	± 9.6 %
		Υ	1.19	64.74	15.68		150.0	
		Z	1.21	65.44	16.26		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	X	4.83	66.99	16.50	0.17	150.0	± 9.6 %
		Υ	4.83	66.97	16.48		150.0	
		Z	4.83	67.11	16.58		150.0	
10317- AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	Х	4.83	66.99	16.50	0.17	150.0	± 9.6 %
		Υ	4.83	66.97	16.48		150.0	
		Z	4.83	67.11	16.58		150.0	
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	Х	4.95	67.24	16.40	0.00	150.0	± 9.6 %
		Y	4.92	67.19	16.36		150.0	1
		Z	4.94	67.35	16.49		150.0	
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.53	67.22	16.43	0.00	150.0	± 9.6 %
		Υ	5.54	67.25	16.44		150.0	
		Z	5.54	67.37	16.53		150.0	1

10402- AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.85	67.86	16.58	0.00	150.0	± 9.6 %
		Υ	5.85	67.83	16.57		150.0	
		Z	5.85	67.95	16.65		150.0	
10403- AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.82	70.77	15.90	0.00	115.0	± 9.6 %
		Υ	1.72	69.89	15.40		115.0	
		Z	1.95	72.06	16.51		115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	Х	1.82	70.77	15.90	0.00	115.0	±9.6%
		Y	1.72	69.89	15.40		115.0	
		Z	1.95	72.06	16.51		115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	122.48	31.59	0.00	100.0	± 9.6 %
		Υ	100.00	122.39	31.44		100.0	
10110	LITE TOD (OC MOUNT)	Z	100.00	123.91	32.06		100.0	
10410- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	119.39	30.70	3.23	80.0	± 9.6 %
		Υ	100.00	120.18	31.03		80.0	
40445	LEEE 000 441 MEETS 4 CV 4 COOK	Z	100.00	120.31	30.97		80.0	
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	Х	1.00	63.40	15.00	0.00	150.0	± 9.6 %
		Y	1.03	63.13	14.76		150.0	
10110		Z	1.04	63.74	15.31		150.0	
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	Х	4.72	66.80	16.33	0.00	150.0	± 9.6 %
		Υ	4.71	66.79	16.30		150.0	
		Z	4.72	66.93	16.41		150.0	
10417- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	Х	4.72	66.80	16.33	0.00	150.0	± 9.6 %
		Υ	4.71	66.79	16.30		150.0	
		Z	4.72	66.93	16.41		150.0	
10418- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	Х	4.70	66.93	16.32	0.00	150.0	± 9.6 %
		Υ	4.69	66.92	16.30		150.0	
		Z	4.70	67.07	16.41		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.73	66.90	16.34	0.00	150.0	± 9.6 %
		Υ	4.72	66.88	16.31		150.0	-
		Z	4.73	67.03	16.42		150.0	
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	Х	4.86	66.91	16.35	0.00	150.0	± 9.6 %
		Υ	4.85	66.90	16.33		150.0	
		Z	4.86	67.04	16.44		150.0	
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	Х	5.08	67.33	16.51	0.00	150.0	± 9.6 %
-· ·		Υ	5.06	67.29	16.47		150.0	
		Z	5.07	67.43	16.58		150.0	
10424- AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.99	67.25	16.46	0.00	150.0	± 9.6 %
		Υ	4.97	67.22	16.43		150.0	
		Z	4.98	67.37	16.54		150.0	
10425- AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	Х	5.55	67.62	16.62	0.00	150.0	± 9.6 %
		Υ	5.54	67.58	16.60		150.0	
		Z	5.54	67.69	16.68		150.0	
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	Х	5.56	67.65	16.63	0.00	150.0	± 9.6 %
		Υ	5.55	67.62	16.61		150.0	
		Z	5.55	67.73	16.70		150.0	

10427- AAA	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	Х	5.59	67.68	16.64	0.00	150.0	± 9.6 %
		Y	5.57	67.63	16.62	 	150.0	
		z	5.58	67.75	16.70		150.0	
10430- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.40	70.01	18.10	0.00	150.0	± 9.6 %
		Y	4.43	70.35	18.24		150.0	
		Z	4.41	70.36	18.25		150.0	
10431- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.49	67.37	16.43	0.00	150.0	± 9.6 %
		Υ	4.45	67.33	16.37		150.0	
		Z	4.47	67.52	16.51		150.0	
10432- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	Х	4.77	67.29	16.44	0.00	150.0	± 9.6 %
****		Υ	4.74	67.25	16.40		150.0	
		Z	4.75	67.42	16.53		150.0	
10433- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	Х	5.00	67.31	16.50	0.00	150.0	± 9.6 %
		Υ	4.98	67.27	16.46		150.0	
		Z	4.99	67.42	16.57		150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	Х	4.48	70.64	18.10	0.00	150.0	± 9.6 %
		Υ	4.52	71.07	18.25		150.0	
		Z	4.50	71.08	18.27		150.0	
10435- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	119.25	30.64	3.23	80.0	± 9.6 %
		Υ	100.00	120.04	30.96		80.0	
		Z	100.00	120.17	30.90		80.0	
10447- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.81	67.43	16.04	0.00	150.0	± 9.6 %
		Υ	3.77	67.36	15.92		150.0	
		Z	3.80	67.63	16.11		150.0	
10448- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	Х	4.29	67.14	16.28	0.00	150.0	± 9.6 %
		Υ	4.27	67.10	16.23		150.0	
		Z	4.28	67.30	16.37		150.0	
10449- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	Х	4.54	67.10	16.34	0.00	150.0	± 9.6 %
		Y	4.52	67.07	16.30		150.0	
		Z	4.53	67.24	16.43		150.0	
10450- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	Х	4.71	67.05	16.35	0.00	150.0	± 9.6 %
		Υ	4.70	67.01	16.31		150.0	
		Z	4.71	67.17	16.43		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	Х	3.76	67.73	15.85	0.00	150.0	± 9.6 %
		Υ	3.70	67.65	15.70		150.0	
		Z	3.74	67.97	15.92		150.0	
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	Х	6.40	68.27	16.81	0.00	150.0	± 9.6 %
		Y	6.40	68.22	16.78		150.0	
		Z	6.39	68.32	16.85		150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	X	3.86	65.46	16.08	0.00	150.0	± 9.6 %
		Υ	3.88	65.42	16.03		150.0	
10458-	CDMA2000 (1xEV-DO, Rev. B, 2	X	3.88 3.55	65.58 66.84	16.16 15.36	0.00	150.0 150.0	± 9.6 %
AAA	carriers)	<u> </u>					1	
		Y	3.51	66.84	15.20		150.0	
		Z	3.55	67.17	15.43		150.0	
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.71	65.21	16.07	0.00	150.0	± 9.6 %
		Υ	4.63	65.09	15.89		150.0	
		Z	4.67	65.34	16.07		150.0	l

10460- AAA	UMTS-FDD (WCDMA, AMR)	Х	0.99	70.26	17.25	0.00	150.0	± 9.6 %
, <u> </u>		Y	0.94	68.45	16.37	 	150.0	
		Ż	1.07	71.18	17.96		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	122.02	31.99	3.29	80.0	± 9.6 %
		Y	100.00	122.59	32.22		80.0	
		Z	100.00	122.98	32.28		80.0	
10462- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	109.85	26.14	3.23	80.0	± 9.6 %
		Y	100.00	110.36	26.33	ļ	80.0	
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z X	100.00 100.00	110.34 107.53	26.21 25.02	3.23	80.0 80.0	± 9.6 %
707	04-QAM, OL GUDITAINE-2,5,4,7,6,9)	Υ	100.00	107.98	25.17		80.0	
		Z	100.00	107.85	25.00	<u> </u>	80.0	
10464- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	120.45	31.12	3.23	80.0	± 9.6 %
		Υ	100.00	121.00	31.33		80.0	
		Z	100.00	121.35	31.38		80.0	
10465- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	109.46	25.94	3.23	80.0	± 9.6 %
		Υ	100.00	109.95	26.11		80.0	
		Z	100.00	109.93	25.99		80.0	
10466- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	107.15	24.83	3.23	80.0	± 9.6 %
		Υ	100.00	107.57	24.97		80.0	
40407	1.TE TDD (00 ED) 14 4 DD E 4 11	Z	100.00	107.44	24.80		80.0	
10467- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	100.00	120.62	31.20	3.23	80.0	± 9.6 %
		Y	100.00	121.18	31.42		80.0	
40400	LEE TOD (OO FOLK) A DD CANA (O	Z	100.00	121.53	31.46		80.0	
10468- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	109.57	26.00	3.23	80.0	± 9.6 %
		Y	100.00	110.07	26.17		80.0	
10469- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Z X	100.00 100.00	110.05 107.16	26.05 24.83	3.23	80.0 80.0	± 9.6 %
7001	GANI, OL Guottanie-2,0,4,7,0,0)	Υ	100.00	107.58	24.96		80.0	
		Ż	100.00	107.45	24.80		80.0	
10470- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	120.64	31.20	3.23	80.0	± 9.6 %
		Y	100.00	121.21	31.42		80.0	
		Z	100.00	121.56	31.46		80.0	
10471- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	109.54	25.97	3.23	80.0	± 9.6 %
		Υ	100.00	110.04	26.15		80.0	
40.455	LITE TOD (OO FOLK)	Z	100.00	110.01	26.03		80.0	
10472- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	107.12	24.81	3.23	80.0	± 9.6 %
		Y	100.00	107.54	24.94		80.0	
40470	LITE TOD (OC FOMA 4 DD 45 ML)	Z	100.00	107.41	24.78	0.00	80.0	. 0 0 0
10473- AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	120.62	31.19	3.23	80.0	± 9.6 %
		Y	100.00	121.18	31.41	 	80.0	
10474- AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00 100.00	121.53 109.55	31.45 25.98	3.23	80.0 80.0	± 9.6 %
1001	₩ 611, OL OGDITATIO - 2,0,7,1,0,0)	Y	100.00	110.05	26.15		80.0	
		Z	100.00	110.03	26.03		80.0	
10475- AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	107.13	24.81	3.23	80.0	± 9.6 %
		Y	100.00	107.55	24.95	-	80.0	
	1	Z	100.00	107.42	24.78	l	1 00.0	1

10477- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	109.42	25.91	3.23	80.0	± 9.6 %
		Y	100.00	109.91	26.09		80.0	<u> </u>
		Z	100.00	109.89	25.96		80.0	-
10478- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	107.10	24.80	3.23	80.0	± 9.6 %
		Υ	100.00	107.52	24.93		80.0	
101=0		Z	100.00	107.38	24.76		80.0	
10479- _AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	15.27	94.34	26.55	3.23	80.0	± 9.6 %
		Υ	13.93	92.73	25.91		80.0	
40400	LIFE TOP (CO PENAL FOX DE LA	Z	13.69	92.81	25.94		80.0	
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	17.85	91.69	24.29	3.23	80.0	±9.6%
		Y	17.05	90.96	23.91		80.0	
10481-	LTC TOD (CO FOMA FOR DD 4 4 MIL	Z	15.74	90.05	23.61		80.0	
AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	16.05	89.42	23.31	3.23	80.0	± 9.6 %
		Y	15.20	88.58	22.88	Y	80.0	
40400	LTE TOD (OC EDMA COO) DD OA!!!	Z	14.01	87.66	22.58	0.00	80.0	
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.46	79.79	20.49	2.23	80.0	± 9.6 %
		Y	6.00	78.69	20.07		80.0	
40400	LTE TOD (OO FOLK) FOR OR OLIVE	Z	6.94	81.30	21.05		80.0	
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	10.64	84.45	22.26	2.23	80.0	± 9.6 %
		Y	10.00	83.37	21.70		80.0	
10101	LTE TOO (OO FOLK) FOR OR OLD IN	Z	9.59	82.97	21.54		80.0	
10484- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	9.96	83.22	21.86	2.23	80.0	± 9.6 %
		Υ	9.31	82.09	21.27		80.0	
		Z	8.95	81.72	21.12		80.0	
10485- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	6.59	80.11	21.11	2.23	80.0	±9.6 %
		Υ	6.08	78.90	20.69		80.0	
		Z	6.88	81.28	21.62	,	80.0	
10486- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.22	73.82	18.61	2.23	80.0	± 9.6 %
		Υ	5.09	73.44	18.41		80.0	
		Ζ	5.33	74.50	18.88		80.0	
10487- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.19	73.39	18.45	2.23	80.0	± 9.6 %
		Υ	5.06	73.02	18.24		80.0	
		Z	5.27	73.99	18.68		80.0	
10488- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.39	78.18	20.73	2.23	80.0	± 9.6 %
		Υ	5.97	77.14	20.41		80.0	
10.755	1177 700 700 700 700 700 700 700 700 700	Z	6.48	78.88	21.13		80.0	<u> </u>
10489- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.20	72.70	18.88	2.23	80.0	± 9.6 %
		Y	5.07	72.27	18.71		80.0	
10100		Z	5.21	73.04	19.09		80.0	
10490- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.24	72.29	18.75	2.23	80.0	± 9.6 %
		Y	5.12	71.92	18.59		80.0	
10491-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz,	Z X	5.24 6.02	72.63 75.43	18.94 19.78	2.23	80.0 80.0	± 9.6 %
AAA	QPSK, UL Subframe=2,3,4,7,8,9)	\/	E 70	74.70	10 57		900	
		Y	5.76	74.73	19.57		80.0	1
10400	LITE TOD (QC CDMA 500/ DD 45 MU-		6.05	75.89	20.09	2 22	80.0	1069/
10492- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.38	71.48	18.58	2.23	80.0	± 9.6 %
		Y	5.27	71.13	18.44		80.0	ļ
		Z	5.35	71.71	18.74		80.0	l

10493- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.42	71.24	18.51	2.23	80.0	± 9.6 %
		Υ	5.32	70.91	18.38	<u> </u>	80.0	
		Z	5.40	71.45	18.66		80.0	
10494- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	6.80	77.48	20.35	2.23	80.0	± 9.6 %
		Υ	6.41	76.59	20.10		80.0	
		Z	6.87	78.03	20.70		80.0	
10495- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.50	72.14	18.82	2.23	80.0	± 9.6 %
		Y	5.37	71.71	18.66		80.0	
10496-	LTE-TDD (SC-FDMA, 50% RB, 20 MHz,	Z	5.48	72.35	18.98	0.00	80.0	. 0.00/
AAA	64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.52	71.65	18.67	2.23	80.0	± 9.6 %
		Y	5.40	71.28	18.53		80.0	
40407	1.TE TOD (00 EDIM 4000) DD 44	Z	5.49	71.85	18.82		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.51	77.56	19.18	2.23	80.0	± 9.6 %
		Υ	5.11	76.42	18.67		80.0	
40.45.5		Z	5.89	78.83	19.60		80.0	<u> </u>
10498- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.31	71.42	16.10	2.23	80.0	± 9.6 %
		Υ	4.05	70.52	15.58		80.0	
		Z	4.34	71.77	16.11		80.0	
10499- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.27	70.94	15.80	2.23	80.0	± 9.6 %
		Y	3.98	70.00	15.24	· · · · · · · · · · · · · · · · · · ·	80.0	
		Z	4.25	71.16	15.75		80.0	
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	6.24	78.61	20.73	2.23	80.0	± 9.6 %
		Υ	5.82	77.56	20.37		80.0	
		Z	6.42	79.55	21.18		80.0	
10501- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.18	73.19	18.64	2.23	80.0	± 9.6 %
		Y	5.05	72.81	18.45		80.0	
		Z	5.24	73.73	18.88		80.0	
10502- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.20	72.88	18.49	2.23	80.0	± 9.6 %
		Y	5.09	72.56	18.32		80.0	
		Z	5.26	73.41	18.72		80.0	
10503- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	6.31	77.98	20.65	2,23	80.0	± 9.6 %
		Υ	5.89	76.94	20.32		80.0	
		Z	6.40	78.67	21.04		80.0	
10504- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.18	72.62	18.84	2.23	80.0	±9.6 %
		Υ	5.05	72.19	18.66		80.0	
		Z	5.18	72.96	19.04		80.0	
10505- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.22	72.20	18.70	2.23	80.0	± 9.6 %
		Y	5.10	71.83	18.54		80.0	
		Z	5.22	72.54	18.90		80.0	
10506- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	6.75	77.34	20.29	2.23	80.0	± 9.6 %
		Υ	6.36	76.44	20.03		80.0	
		Z	6.81	77.88	20.63		80.0	
10507- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.48	72.08	18.79	2.23	80.0	± 9.6 %
	MHz, 16-QAM, UL					2.23		± 9.6 %

10508- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.50	71.59	18.63	2.23	80.0	±9.6 %
		Y	5.38	71.22	18.49		80.0	
		Z	5.47	71.78	18.79		80.0	
10509- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	6.53	74.93	19.40	2.23	80.0	± 9.6 %
		Y	6.29	74.36	19.25		80.0	
		Z	6.55	75.31	19.67		80.0	
10510- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.88	71.44	18.58	2.23	80.0	±9.6%
		Y	5.77	71.08	18.45		80.0	
		Z	5.84	71.58	18.71		80.0	
10511- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.87	71.05	18.47	2.23	80.0	±9.6 %
		Υ	5.77	70.72	18.36		80.0	
		Z	5.83	71.17	18.60		80.0	
10512- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	7.22	77.19	20.09	2.23	80.0	± 9.6 %
		Y	6.85	76.38	19.87		80.0	
10516	LTC TOD (OO SOLID LOCAL)	Z	7.29	77.69	20.41		80.0	
10513- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.86	72.04	18.79	2.23	80.0	± 9.6 %
		Υ	5.72	71.59	18.64		0.08	
		Z	5.82	72.17	18.93		80.0	
10514- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.77	71.41	18.61	2.23	80.0	± 9.6 %
		Y	5.66	71.02	18.47		80.0	
		Z	5.73	71.53	18.74		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.97	63.64	15.09	0.00	150.0	± 9.6 %
		Υ	0.99	63.32	14.82		150.0	
40540	IFFE OOD ALL MEET O A OUT A POOR E	Z	1.01	63.99	15.42		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.78	76.08	19.79	0.00	150.0	± 9.6 %
		Y	0.63	70.67	17.47		150.0	
10517-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	Z	0.88	77.61	21.01	0.00	150.0	1000
AAA	Mbps, 99pc duty cycle)		0.85	66.24	16.04 15.50	0.00	150.0	± 9.6 %
		Z	0.89	65.35 66.77	16.53		150.0 150.0	
10518- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.72	66.89	16.32	0.00	150.0	± 9.6 %
		Y	4.71	66.87	16.28		150.0	
		Z	4.72	67.02	16.40		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	Х	4.96	67.21	16.46	0.00	150.0	± 9.6 %
		Y	4.94	67.17	16.43		150.0	
40500	LEGG OOD AA-A-MARKET COLL (OFFICE	Z	4.94	67.32	16.54	0.00	150.0	
10520- AAA	IEEE 802.11a/h WIFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.80	67.20	16.39	0.00	150.0	± 9.6 %
		Y	4.78	67.15 67.31	16.36 16.47		150.0 150.0	
10521- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	Z X	4.79 4.73	67.21	16.38	0.00	150.0	± 9.6 %
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Y	4.71	67.16	16.34		150.0	
		Z	4.72	67.32	16.46		150.0	
10522- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	Х	4.77	67.11	16.38	0.00	150.0	± 9.6 %
		Υ	4.75	67.11	16.36		150.0	
		Z	4.76	67.26	16.48		150.0	

10523-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48	X	4,64	67.06	16.26	0.00	150.0	± 9.6 %
AAA	Mbps, 99pc duty cycle)			3.100		""	100.0	20.0 /0
		Υ	4.63	67.02	16.23		150.0	
10501	1555 000 44 # 1155 5 011 (050) 4 6	Z	4.64	67.19	16.35		150.0	
10524- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.73	67.10	16.38	0.00	150.0	± 9.6 %
		Y	4.71	67.08	16.36		150.0	
10525-	IEEE 000 44 WEE (00M In MOOO	Z	4.72	67.24	16.48	0.00	150.0	
AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)		4.67	66.13	15.97	0.00	150.0	± 9.6 %
		Y	4.66 4.67	66.11 66.26	15.94 16.06		150.0 150.0	
10526- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.89	66.55	16.11	0.00	150.0	± 9.6 %
		Υ	4.87	66.51	16.09		150.0	
		Z	4.88	66.68	16.21		150.0	-
10527- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	Х	4.80	66.53	16.08	0.00	150.0	± 9.6 %
		Υ	4.78	66.49	16.04		150.0	
		Z	4.79	66.66	16.17		150.0	
10528- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.82	66.56	16.11	0.00	150.0	± 9.6 %
		Y	4.80	66.51	16.08		150.0	
40500	1555 000 44 - 1115 (0011) 14004	Z	4.81	66.68	16.20		150.0	
10529- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.82	66.56	16.11	0.00	150.0	± 9.6 %
		Y	4.80	66.51	16.08		150.0	
10531- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.81 4.84	66.68 66.72	16.20 16.14	0.00	150.0 150.0	± 9.6 %
7001	oopo daty oyole)	Y	4.82	66.67	16.11		150.0	
		Z	4.83	66.84	16.23		150.0	
10532- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	Х	4.69	66.61	16.10	0.00	150.0	± 9.6 %
		Y	4.66	66.54	16.05		150.0	
		Z	4.68	66.72	16.18		150.0	
10533- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.84	66.57	16.08	0.00	150.0	± 9.6 %
		Y	4.81	66.53	16.05		150.0	
10-01		Z	4.83	66.70	16.17		150.0	
10534- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.33	66.74	16.17	0.00	150.0	± 9.6 %
		Y	5.31	66.69	16.14		150.0	
40505	JEEE 000 44 1855; (40MH- 14004	X	5.32	66.83	16.24	2.00	150.0	
10535- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)		5.40	66.88	16.22	0.00	150.0	± 9.6 %
		Y	5.39	66.83	16.19		150.0	
10536- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.39 5.26	66.97 66.87	16.29 16.20	0.00	150.0 150.0	± 9.6 %
 -	Topo and Oyoloj	Y	5.25	66.82	16.17		150.0	
		Z	5.26	66.97	16.28		150.0	
10537- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.33	66.84	16.18	0.00	150.0	± 9.6 %
		Υ	5.32	66.80	16.16		150.0	
40500	1555 000 44 1405 (100 110 110 110 110 110 110 110 110 11	Z	5.33	66.94	16.26		150.0	
10538- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.46	66.94	16.27	0.00	150.0	± 9.6 %
		Y	5.44	66.88	16.24		150.0	
10540-	IEEE 902 1100 WIE: (AOM) - MOOO	Z	5.44	67.01	16.34	0.00	150.0	1.000
AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.34	66.86	16.25	0.00	150.0	± 9.6 %
	+	Y	5.33	66.81	16.22		150.0	
		Z	5.34	66.95	16.32		150.0	L

10541- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.34	66.83	16.23	0.00	150.0	± 9.6 %
		İΥ	5.32	66.74	16.19		150.0	<u> </u>
		Z	5.33	66.88	16.29		150.0	
10542- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.48	66.80	16.24	0.00	150.0	± 9.6 %
		Y	5.47	66.76	16.21		150.0	
		Z	5.47	66.89	16.31		150.0	
10543- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	Х	5.58	66.84	16.26	0.00	150.0	± 9.6 %
		Y	5.55	66.78	16.23		150.0	
		Z	5.56	66.91	16.32		150.0	
10544- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.59	66.84	16.14	0.00	150.0	± 9.6 %
		Y	5.59	66.80	16.12		150.0	
		Z	5.59	66.93	16.22		150.0	
10545- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.80	67.23	16.27	0.00	150.0	± 9.6 %
		Υ	5.81	67.21	16.27		150.0	
		Z	5.81	67.33	16.35		150.0	
10546- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.70	67.16	16.26	0.00	150.0	±9.6%
		Y	5.69	67.10	16.23		150.0	
		Z	5.70	67.23	16.32		150.0	
10547- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.80	67.24	16.29	0.00	150.0	± 9.6 %
		Υ	5.78	67.16	16.25		150.0	
		Z	5.79	67.29	16.34		150.0	
10548- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	Х	6.11	68.33	16.80	0.00	150.0	± 9.6 %
		Y	6.11	68.30	16.79		150.0	
		Z	6.10	68.40	16.87		150.0	
10550- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	Х	5.72	67.09	16.23	0.00	150.0	± 9.6 %
		Y	5.71	67.04	16.21		150.0	
		Z	5.72	67.17	16.30		150.0	
10551- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	Х	5.74	67.22	16.25	0.00	150.0	± 9.6 %
		Y	5.73	67.16	16.23		150.0	
		Z	5.74	67.28	16.32		150.0	
10552- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	Х	5.64	66.96	16.15	0.00	150.0	±9.6 %
		Υ	5.63	66.91	16.12		150.0	
		Z	5.63	67.04	16.21		150.0	
10553- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	×	5.73	67.00	16.19	0.00	150.0	± 9.6 %
		Y	5.72	66.95	16.17		150.0	
		Z	5.73	67.08	16.26		150.0	
10554- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.98	67.23	16.24	0.00	150.0	± 9.6 %
		Y	5.99	67.19	16.23	ļ	150.0	
		Z	5.99	67.31	16.31		150.0	
10555- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.16	67.63	16.41	0.00	150.0	± 9.6 %
		Y	6.15	67.55	16.37		150.0	
10556-	IEEE 1602.11ac WiFi (160MHz, MCS2,	Z X	6.15 6.15	67.67 67.58	16.46 16.38	0.00	150.0 150.0	± 9.6 %
AAA	99pc duty cycle)	Υ	6.15	67.54	16.36	!	150.0	
		Z		67.54			150.0	
10557-		X	6.16	67.66	16.45	0.00	150.0	1069/
10557- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle)		6.15	67.59	16.40	0.00		± 9.6 %
		Y	6.15	67.52	16.38		150.0	1
		Z	6.15	67.65	16.46	I	150.0	

10558- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.22	67.79	16.52	0.00	150.0	± 9.6 %
, , , , , , , , , , , , , , , , , , , ,		Y	6.21	67.72	16.49		150.0	
		Ż	6.21	67.84	16.57		150.0	
10560- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.21	67.62	16.48	0.00	150.0	± 9.6 %
		Y	6.20	67.54	16.44		150.0	
		Z	6.21	67.67	16.52		150.0	
10561- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.12	67.56	16.48	0.00	150.0	± 9.6 %
		Υ	6.11	67.49	16.45		150.0	
		Z	6.11	67.62	16.54		150.0	
10562- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.29	68.09	16.75	0.00	150.0	± 9.6 %
		Υ	6.28	68.00	16.71		150.0	
		Z	6.28	68.13	16.80		150.0	
10563- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	Х	6.54	68.36	16.83	0.00	150.0	± 9.6 %
		Υ	6.57	68.41	16.85		150.0	
		Z	6.57	68.51	16.93		150.0	1
10564- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	X	5.06	67.04	16.51	0.46	150.0	± 9.6 %
		Υ	5.05	67.01	16.47		150.0	
		Z	5.06	67.15	16.59		150.0	
10565- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 99pc duty cycle)	X	5.34	67.54	16.84	0.46	150.0	± 9.6 %
		Y	5.32	67.51	16.80		150.0	
		Z	5.33	67.64	16.90		150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	Х	5.17	67.43	16.67	0.46	150.0	± 9.6 %
		Υ	5.15	67.38	16.64		150.0	
		Z	5.16	67.53	16.75		150.0]
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	Х	5.19	67.79	16.99	0.46	150.0	± 9.6 %
		Υ	5.18	67.77	16.98		150.0	
		Z	5.18	67.89	17.07		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	Х	5.08	67.13	16.42	0.46	150.0	± 9.6 %
		Υ	5.06	67.09	16.38		150.0	
		Z	5.07	67.25	16.51		150.0]
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	5.13	67.78	16.99	0.46	150.0	± 9.6 %
		Υ	5.12	67.79	17.00		150.0	
		Z	5.12	67.90	17.08		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	Х	5.17	67.61	16.93	0.46	150.0	± 9.6 %
		Y	5.16	67.61	16.93		150.0	
		Z	5.16	67.74	17.02		150.0	
10571- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.39	66.83	16.76	0.46	130.0	± 9.6 %
		Υ	1.39	66.19	16.38		130.0	
		Z	1.42	67.03	17.01		130.0	
10572- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	Х	1.43	67.56	17.16	0.46	130.0	± 9.6 %
		Υ	1.42	66.85	16.75		130.0	
		Z	1.46	67.77	17.42		130.0	
10573- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	18.61	116.47	31.43	0.46	130.0	±9.6 %
		Υ	4.07	92.61	25.14		130.0	
		Z	21.94	121.24	33.33		130.0	
10574- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	Х	1.85	75.72	20.80	0.46	130.0	± 9.6 %
		Υ	1.71	73.65	19.92	·	130.0	
		Z	1.88	76.05	21.19		130.0	

10575- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 90pc duty cycle)	Х	4.89	66.92	16.62	0.46	130.0	±9.6%
	, , , , , , , , , , , , , , , , , , , ,	Y	4.88	66.90	16.59	 	130.0	
		Ż	4.88	67.03	16.69		130.0	
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	Х	4.91	67.07	16.68	0.46	130.0	± 9.6 %
		Υ	4.91	67.06	16.65		130.0	
		Z	4.91	67.19	16.75		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	Х	5.16	67.42	16.86	0.46	130.0	± 9.6 %
		Y	5.15	67.40	16.83		130.0	
40570	IMPERIOR AND AND AND AND AND AND AND AND AND AND	Z	5.15	67.52	16.93		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	5.06	67.59	16.95	0.46	130.0	± 9.6 %
		Y	5.04	67.58	16.94		130.0	
10570	IEEE 000 44 - MEE: 0 4 CUL. (D000	Z	5.04	67.69	17.03		130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.84	67.04	16.37	0.46	130.0	± 9.6 %
		Y	4.82	66.95	16.30		130.0	
10580-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z	4.83	67.12	16.43	0.40	130.0	1000
AAA	OFDM, 36 Mbps, 90pc duty cycle)	Х	4.88	66.96	16.35	0.46	130.0	± 9.6 %
		Y	4.86	66.90	16.28		130.0	
10581-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	Z	4.87	67.07	16.42	0.40	130.0	
AAA	OFDM, 48 Mbps, 90pc duty cycle)	X	4.97	67.71	16.92	0.46	130.0	± 9.6 %
		Y	4.95	67.68	16.90		130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	Z	4.95 4.80	67.80 66.79	16.99 16.1 7	0.46	130.0 130.0	± 9.6 %
7001	Of DW, 34 Wobs, 3000 daty cycle)	Y	4.77	66.69	16.09		130.0	
		Ż	4.78	66.88	16.24		130.0	
10583- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.89	66.92	16.62	0.46	130.0	± 9.6 %
	misper control	Υ	4.88	66.90	16.59		130.0	
		Z	4.88	67.03	16.69		130.0	
10584- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.91	67.07	16.68	0.46	130.0	± 9.6 %
		Y	4.91	67.06	16.65		130.0	
		Z	4.91	67.19	16.75		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	Х	5.16	67.42	16.86	0.46	130.0	± 9.6 %
		Υ	5.15	67.40	16.83		130.0	
		Z	5.15	67.52	16.93		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	5.06	67.59	16.95	0.46	130.0	± 9.6 %
		Υ	5.04	67.58	16.94		130.0	
		Z	5.04	67.69	17.03		130.0	
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	Х	4.84	67.04	16.37	0.46	130.0	±9.6 %
		Υ	4.82	66.95	16.30		130.0	
		Z	4.83	67.12	16.43		130.0	
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	Х	4.88	66.96	16.35	0.46	130.0	± 9.6 %
		Y	4.86	66.90	16.28		130.0	
		Z	4.87	67.07	16.42		130.0	
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	Х	4.97	67.71	16.92	0.46	130.0	± 9.6 %
		Υ	4.95	67.68	16.90		130.0	
		Z	4.95	67.80	16.99		130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	Х	4.80	66.79	16.17	0.46	130.0	± 9.6 %
		Y	4.77	66.69	16.09		130.0	
		Z	4.78	66.88	16.24		130.0	

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10591- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	Х	5.03	66.97	16.70	0.46	130.0	± 9.6 %
	,	Y	5.03	66.96	16.68		130.0	
		Z	5.03	67.08	16.78		130.0	
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.22	67.32	16.82	0.46	130.0	±9.6 %
		Υ	5.21	67.31	16.80		130.0	
		Z	5.21	67.42	16.90		130.0	
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	5.16	67.30	16.75	0.46	130.0	± 9.6 %
		Y	5.14	67.27	16.71	ļ	130.0	
10501	1555 000 44 415 14 100 11	Z	5.14	67.40	16.82		130.0	
10594- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	5.20	67.42	16.87	0.46	130.0	± 9.6 %
		Y 7	5.19	67.41	16.85		130.0	
40E0E	IEEE 000 44s (LIT Mixed, 00ML)s	Z	5.19	67.53	16.94	0.40	130.0	1000
10595- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	5.19	67.42	16.79	0.46	130.0	± 9.6 %
		<u> </u>	5.17	67.39	16.76		130.0	
10500	HEEF GOO AAR ALTERIAN LOOP HE	Z	5.17	67.51	16.86	0.40	130.0	1000
10596- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	5.12	67.41	16.79	0.46	130.0	± 9.6 %
		Y	5.11	67.38	16.76		130.0	
10507	IEEE 900 445 (HT Missal OOM)	Z	5.11	67.51	16.86	0.40	130.0	1000
10597- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	5.08	67.37	16.71	0.46	130.0	± 9.6 %
		Y	5.06	67.32	16.67		130.0	
40500	IEEE 000 44+ /UE Missel COMUL-	Z	5.06	67.46	16.78	0.40	130.0	
10598- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	5.06	67.63	16.97	0.46	130.0	± 9.6 %
		Y	5.04	67.59	16.94		130.0	
		Z	5.04	67.71	17.04		130.0	
10599- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.70	67.60	16.89	0.46	130.0	± 9.6 %
		Y	5.70	67.57	16.88		130.0	
100		Z	5.69	67.67	16.95		130.0	
10600- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.96	68.36	17.25	0.46	130.0	± 9.6 %
		Y	5.93	68.27	17.19		130.0	
		Z	5.92	68.36	17.27		130.0	
10601- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.77	67.88	17.02	0.46	130.0	± 9.6 %
		Y	5.76	67.84	17.00		130.0	
		Z	5.76	67.94	17.07		130.0	
10602- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.89	67.97	16.99	0.46	130.0	± 9.6 %
		Y	5.86	67.86	16.92		130.0	
40000		Z	5.85	67.97	17.01		130.0	
10603- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	6.01	68.36	17.30	0.46	130.0	± 9.6 %
		Y	5.97	68.24	17.24		130.0	
40004	1555 000 44 (UZ) UZ UZ	Z	5.97	68.34	17.32		130.0	
10604- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.72	67.60	16.91	0.46	130.0	± 9.6 %
		Y	5.71	67.55	16.89	<u> </u>	130.0	
10605-	IEEE 802.11n (HT Mixed, 40MHz,	Z X	5.70 5.82	67.65 67.89	16.97 17.06	0.46	130.0 130.0	± 9.6 %
AAA	MCS6, 90pc duty cycle)		E 04	07.04	47.00		4000	
		Y	5.81	67.84	17.03	 	130.0	
10606-	IEEE 000 11n /UT Missod 40MU-	Z	5.81	67.95	17.12	0.40	130.0	1000
AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.59	67.36	16.67	0.46	130.0	±9.6 %
		Y	5.59	67.33	16.65		130.0	
	1	Z	5.59	67.46	16.75		130.0	·

10607- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.86	66.24	16.30	0.46	130.0	± 9.6 %
		Y	4.85	66.24	16.28	 	130.0	ļ
		Ż	4.86	66.37	16.38	· · · · · · · · · · · · · · · · · · ·	130.0	
10608- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	5.09	66.68	16.46	0.46	130.0	± 9.6 %
-		Y	5.07	66.67	16.44		130.0	
		Z	5.08	66.80	16.54		130.0	
10609- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	Х	4.98	66.59	16.34	0.46	130.0	± 9.6 %
		Y	4.96	66.55	16.31		130.0	
10010		Z	4.97	66.70	16.42		130.0	
10610- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	5.03	66.73	16.49	0.46	130.0	± 9.6 %
		Y	5.02	66.71	16.47		130.0	
40044	IFFE 000 44 - MFF (00) III - MOO 4	Z	5.02	66.85	16.57		130.0	
10611- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	Х	4.96	66.60	16.37	0.46	130.0	± 9.6 %
		Y	4.94	66.56	16.33		130.0	
40040	IEEE 000 44. WEE (000 W. 1905	Z	4.95	66.70	16.44		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.98	66.74	16.40	0.46	130.0	± 9.6 %
		Y	4.96	66.69	16.36		130.0	
10040	IEEE 000 44 - MEET (00) HT TIGOS	Z	4.97	66.85	16.48		130.0	
10613- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	5.00	66.68	16.32	0.46	130.0	± 9.6 %
		Y	4.97	66.62	16.27		130.0	
40044	IFFE 000 44 MIE! (001 III) 100 F	Z	4.98	66.79	16.39		130.0	
10614- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	Х	4.92	66.87	16.54	0.46	130.0	± 9.6 %
		Y	4.90	66.82	16.51		130.0	
		_ Z	4.91	66.96	16.61		130.0	
10615- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.96	66.40	16.15	0.46	130.0	±9.6%
		Y	4.94	66.35	16.10		130.0	
		Z	4.95	66.52	16.23		130.0	
10616- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	Х	5.51	66.85	16.50	0.46	130.0	± 9.6 %
		Υ	5.51	66.82	16.48		130.0	
		Z	5.51	66.93	16.57		130.0	
10617- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	Х	5.58	66.97	16.52	0.46	130.0	± 9.6 %
		Y	5.57	66.93	16.50		130.0	
		Z	5.57	67.05	16.59		130.0	
10618- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	Х	5.47	67.03	16.57	0.46	130.0	± 9.6 %
		Y	5.47	67.01	16.56		130.0	
	<u> </u>	Z	5.47	67.12	16.65		130.0	
10619- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.49	66.84	16.42	0.46	130.0	± 9.6 %
		Y	5.48	66.81	16.40		130.0	
		Z	5.49	66.94	16.49		130.0	
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	Х	5.63	67.01	16.55	0.46	130.0	± 9.6 %
		Y	5.61	66.94	16.51		130.0	
10621- AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	Z X	5.61 5.59	67.06 67.04	16.60 16.67	0.46	130.0 130.0	± 9.6 %
1777	oopo daty cycles	Y	5.58	67.00	16.66		130.0	
		Z	5.58	67.11	16.73		130.0	
10622-	IEEE 802.11ac WiFi (40MHz, MCS6,	X	5.58	67.13	16.73	0.46	130.0	±9.6 %
AAA	90pc duty cycle)					0.40		I 9.0 %
	-	Y	5.58	67.10	16.70		130.0	
	1	Z	5.57	67.21	16.77		130.0	

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10623- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.50	66.83	16.46	0.46	130.0	± 9.6 %
		Y	5.47	66.72	16.39		130.0	
		Z	5.48	66.85	16.49		130.0	
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.66	66.88	16.54	0.46	130.0	± 9.6 %
		Y	5.65	66.86	16.52		130.0	
		Z	5.65	66.97	16.61		130.0	
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	Х	6.01	67.74	17.01	0.46	130.0	± 9.6 %
		Y	6.05	67.88	17.08		130.0	
		Z	6.04	67.96	17.15		130.0	
10626- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.75	66.88	16.43	0.46	130.0	± 9.6 %
		Υ	5.76	66.85	16.41		130.0	
		Z	5.75	66.96	16.49		130.0	
10627- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	6.01	67.38	16.62	0.46	130.0	± 9.6 %
		Υ	6.02	67.40	16.64		130.0	
		Z	6.01	67.49	16.71		130.0	
10628- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.83	67.09	16.43	0.46	130.0	± 9.6 %
		Υ	5.83	67.04	16.40		130.0	
		Z	5.83	67.16	16.49		130.0	
10629- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.95	67.23	16.49	0.46	130.0	± 9.6 %
		Υ	5.93	67.12	16.43		130.0	
		Z	5.93	67.24	16.52		130.0	
10630- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	Х	6.53	69.08	17.41	0.46	130.0	± 9.6 %
		Υ	6.52	69.03	17.38		130.0	
		Z	6.50	69.10	17.45		130.0	
10631- AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	Х	6.39	68.76	17.42	0.46	130.0	± 9.6 %
		Y	6.37	68.68	17.39		130.0	
		Z	6.35	68.75	17.45		130.0	
10632- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	6.01	67.52	16.82	0.46	130.0	± 9.6 %
		Y	6.00	67.49	16.82		130.0	
		Z	5.99	67.58	16.88		130.0	
10633- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	Х	5.97	67.44	16.62	0.46	130.0	± 9.6 %
		Y	5.95	67.35	16.58		130.0	
		Z	5.95	67.46	16.66		130.0	
10634- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	Х	5.94	67.39	16.66	0.46	130.0	± 9.6 %
		Υ	5.92	67.31	16.62		130.0	
		Z	5.91	67.41	16.70		130.0	
10635- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.81	66.73	16.09	0.46	130.0	± 9.6 %
		Υ	5.79	66.63	16.02		130.0	
		Z	5.80	66.78	16.13		130.0	
10636- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.15	67.27	16.52	0.46	130.0	± 9.6 %
		Υ	6.16	67.25	16.52		130.0	
		Z	6.16	67.35	16.59		130.0	
10637- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.36	67.74	16.73	0.46	130.0	± 9.6 %
		Υ	6.35	67.67	16.70		130.0	
		Z	6.34	67.77	16.77		130.0	
10638- AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	Х	6.33	67.63	16.65	0.46	130.0	±9.6 %
		Υ	6.34	67.61	16.65		130.0	
		Z	6.33	67.71	16.72		130.0	i

10639- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.35	67.70	16.74	0.46	130.0	± 9.6 %
		Y	6.35	67.65	16.72		130.0	
		Z	6.34	67.75	16.79		130.0	
10640- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	Х	6.39	67.82	16.74	0.46	130.0	±9.6 %
		Y	6.38	67.74	16.71	· · ·	130.0	
		Z	6.38	67.86	16.79		130.0	
10641- AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.37	67.50	16.60	0.46	130.0	± 9.6 %
		Y	6.36	67.44	16.57		130.0	
		Z	6.36	67.56	16.65	***	130.0	
10642- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	Х	6.45	67.86	16.94	0.46	130.0	± 9.6 %
· <u> </u>		Υ	6.43	67.79	16.91		130.0	<u> </u>
		Z	6.43	67.88	16.98		130.0	
10643- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	Х	6.27	67.55	16.69	0.46	130.0	± 9.6 %
		Υ	6.26	67.47	16.66		130.0	
		Z	6.26	67.59	16.74		130.0	
10644- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	Х	6.53	68.33	17.11	0.46	130.0	± 9.6 %
		Y	6.51	68.21	17.05		130.0	
		Z	6.51	68.32	17.13		130.0	
10645- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	Х	6.77	68.56	17.17	0.46	130.0	± 9.6 %
		Υ	6.81	68.62	17.19		130.0	
		Z	6.80	68.72	17.27		130.0	
10646- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	Х	25.99	106.58	35.17	9.30	60.0	± 9.6 %
		Y	21.82	102.72	33.95		60.0	
		Z	27.43	108.77	35.97		60.0	
10647- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	Х	27.16	108.33	35.83	9.30	60.0	± 9.6 %
		Y	22.36	104.00	34.47		60.0	
		Z	28.70	110.58	36.65		60.0	
10648- AAA	CDMA2000 (1x Advanced)	Х	0.86	65.46	12.69	0.00	150.0	± 9.6 %
		Y	0.83	64.77	12.28		150.0	
		Z	0.90	66.26	13.22		150.0	

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

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





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

Accredited by the Swiss Accreditation Service (SAS)

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

Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

PC Test

Certificate No: EX3-7409_May16

C

CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:7409

Calibration procedure(s)

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

BN 05/23/16

Calibration date:

May 17, 2016

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	מו	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Apr-17
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
Secondary Standards	ID -	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (No. 217-02285/02284)	In house check: Jun-16
Power sensor E4412A	SN: MY41498087	06-Apr-16 (No. 217-02285)	In house check: Jun-16
Power sensor E4412A	SN: 000110210	06-Apr-16 (No. 217-02284)	In house check: Jun-16
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Apr-13)	In house check: Jun-16
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Name

Function

Michael Weber

Laboratory Technician

Approved by:

Calibrated by:

Katja Pokovic

Technical Manager

Issued: May 18, 2016

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

Certificate No: EX3-7409_May16

Page 1 of 12

Calibration Laboratory of

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





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Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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

Glossary:

TSL.

tissue simulatina liquid sensitivity in free space

NORMx,y,z ConvF

sensitivity in TSL / NORMx, y, z

DCP

diode compression point crest factor (1/duty cycle) of the RF signal

CF 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., 9 = 0 is normal to probe axis

Connector Angle

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

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
 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 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 9 = 0 (f ≤ 900 MHz in TEM-cell: f > 1800 MHz; R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx.v.z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters; Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100
- 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).

Certificate No: EX3-7409_May16 Page 2 of 12

Probe EX3DV4

SN:7409

Manufactured: November 24, 2015

Calibrated:

May 17, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

EX3DV4-- SN:7409

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

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	0.39	0.34	0.39	± 10.1 %
DCP (mV) ^B	106.3	102.2	99.4	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc ^t (k=2)
0	CW	х	0.0	0.0	1.0	0.00	141.2	±3.3 %
		Y	0.0	0.0	1.0		127.3	
		Z	0.0	0.0	1.0		131.8	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	0.39	53.8	5.5	10.00	42.5	±1.2 %
		Y	0.55	54.7	5.9		41.8	
		Z	0.85	58.7	9.1		41.6	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	Х	3.55	75.3	22.2	1.87	149.7	±0.7 %
		Υ	3.32	72.6	21.0		139.7	
		Z	2.84	68.8	19.0	_	144.7	
10100- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	5.98	66.6	19.3	5.67	113.6	±0.9 %
		Υ	6.17	66.7	19.4		107.1	
		Z	6.13	66.1	18.8	ļ <u>.</u>	110.9	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.59	66.2	21.1	9.29	123.5	±1.4 %
		Y	7.27	67.9	22.1		121.1	
		Z	7.01	66.4	21.1		119.9	
10108- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	5.72	66.1	19.2	5.80	111.4	±1.2 %
		Υ	6.34	67.6	20.0		149.2	
		Z	6.02	65.9	19.0		109.0	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	6.27	66.1	21.2	9.28	116.8	±1.4 %
		Υ	6.89	67.6	22.1		114.7	
		Z	6.69	66.0	21.0		116.4	4.0.04
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	5.37	65.9	19.1	5.75	107.3	±1.2 %
_		Υ	5.98	67.2	19.9	ļ	143.3	
		Z	6.01	66.7	19.4		149.2	- 1 0 01
10160- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	5.76	66.2	19.2	5.82	109.5	±1.2 %
		Υ	6.43	67.6	20.0		148.3	
		Z	6.05	65.6	18.7	5.70	107.5	.000
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	4.24	65.6	19.3	5.73	127.4	±0.9 %
		Y	4.54	66.4	19.8		120.4	
	1 TE TOD (00 FDM) 4 DD 00 MI	Z	4.62	65.9	19.3	0.04	123.8	.4.4.04
10172- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	4.91	68.0	22.7	9.21	126.7	±1.4 %
	-:	Y	5.24	68.8	23.3		124.0	
40475	1.TE EDD (00 PDM 4.00 40 M)	Z	5.35	68.1	22.5	E 70	125.0	1000
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.27	65.8	19.4	5.72	128.9	±0.9 %
		Y	4.52	66.2	19.7		121.2	
		Z	4.63	65.9	19.3		125.2	

EX3DV4-SN:7409 May 17, 2016

10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	Х	4.26	65.7	19.4	5.72	125.9	±0.9 %
		Υ	4.47	66.0	19.5		120.6	
		Z	4.60	65.7	19.2		123.0	
10237- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	4.89	67.9	22.6	9.21	125.9	±1.7 %
		Y	5.26	69.0	23.4		123.8	
		Ζ	5.32	67.8	22.3		124.3	
10252- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	6.04	66.8	21.7	9.24	149.2	±1.4 %
		Y	6.64	68.1	22.6		148.9	
<u>-</u>		Z	6.48	66.5	21.4		147.5	
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	6.27	66.1	21.2	9.30	119.1	±1.4 %
		Υ	6.88	67.4	22.0		115.9	
		Z	6.73	66.1	21.1		117.6	
10297- AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	5.71	66.0	19.2	5.81	110.7	±0.9 %
		Y	6.41	67.8	20.2		149.8	
		Ζ	5.98	65.7	18.9		107.9	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	6.23	66.3	19.4	6.06	112.8	±0.9 %
		Υ	6.51	66.6	19.5		107.4	
		Z	6.49	66.1	19.0		109.4	

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

A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 6 and 7).

B Numerical linearization parameter: uncertainty not required.

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

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

Calibration Parameter Determined in Head Tissue Simulating Media

					-			
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	10.73	10.73	10.73	0.62	0.83	± 12.0 %
835	41.5	0.90	10.04	10.04	10.04	0.45	0.93	± 12.0 %
1750	40.1	1.37	8.05	8.05	8.05	0.38	0.80	± 12.0 %
1900	40.0	1.40	7.69	7.69	7.69	0.41	0.80	± 12.0 %
2300	39.5	1.67	7.22	7.22	7.22	0.25	0.92	± 12.0 %
2450	39.2	1.80	6.90	6.90	6.90	0.30	0.93	± 12.0 %
2600	39.0	1.96	6.77	6.77	6.77	0.32	0.83	± 12.0 %

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

validity can be extended to ± 110 MHz.

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

the ConvF uncertainty for indicated target tissue parameters.

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

Certificate No: EX3-7409_May16

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

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.46	9.46	9.46	0.52	0.80	± 12.0 %
835	55.2	0.97	9.33	9.33	9.33	0.34	1.04	± 12.0 %
1750	53.4	1.49	7.72	7.72	7.72	0.44	0.80	± 12.0 %
1900	53.3	1.52	7.47	7.47	7.47	0.43	0.80	± 12.0 %
2300	52.9	1.81	7.22	7,22	7.22	0.36	0.85	± 12.0 %
2450	52.7	1.95	7.10	7.10	7.10	0.39	0.80	± 12.0 %
2600	52.5	2.16	6.83	6.83	6.83	0.39	0.86	± 12.0 %

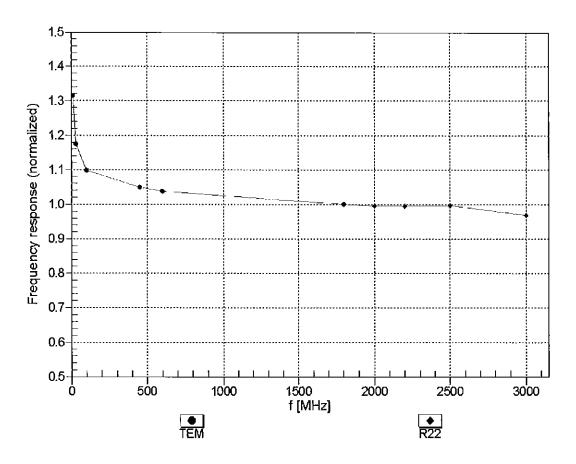
 $^{^{\}rm C}$ Frequency validity above 300 MHz of \pm 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to \pm 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity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

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

the ConvF uncertainty for indicated target tissue parameters.

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

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

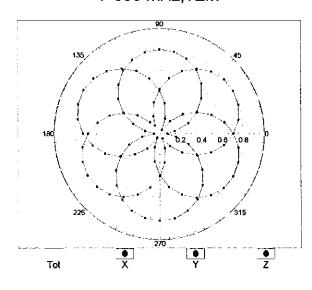


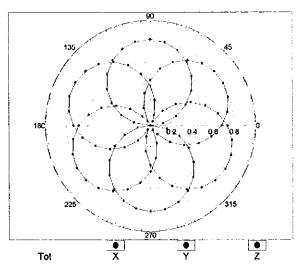
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

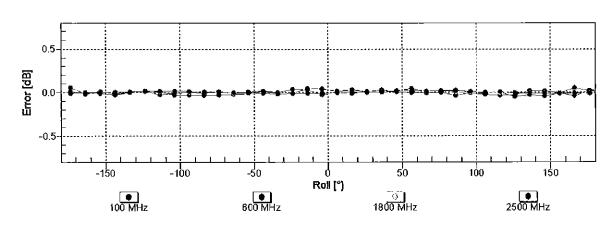
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

f=600 MHz,TEM

f=1800 MHz,R22



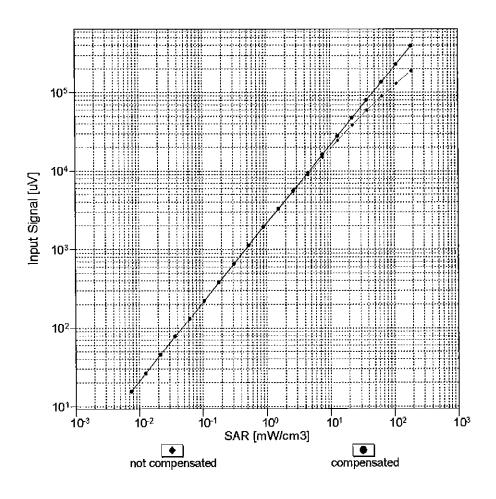


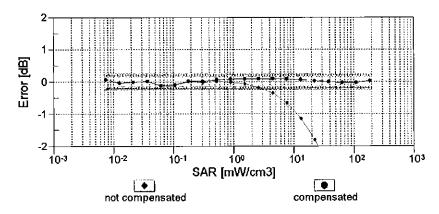


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

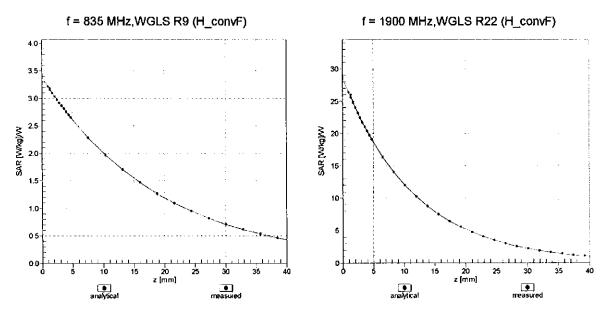
(TEM cell, f_{eval}= 1900 MHz)





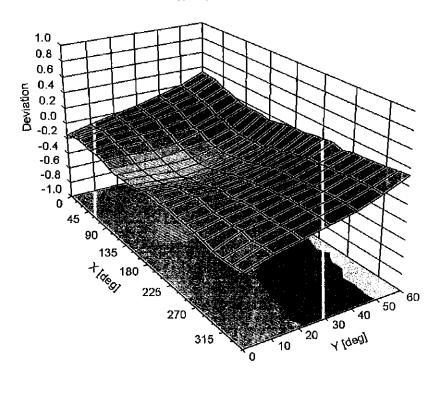
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

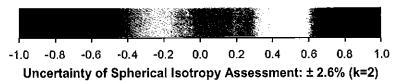
Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, ϑ) , f = 900 MHz





EX3DV4- SN:7409

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

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	36.2
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

Calibration Laboratory of

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





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

Accreditation No.: SCS 0108

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

Client

PC Test

Certificate No: ES3-3319 Mar16

CALIBRATION CERTIFICATE

Object

ES3DV3 - SN:3319

Calibration procedure(s)

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

Calibration date:

March 18, 2016

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 E4419B	GB41293874	01-Apr-15 (No. 217-02128)	Mar-16
Power sensor E4412A	MY41498087	01-Apr-15 (No. 217-02128)	Mar-16
Reference 3 dB Attenuator	SN: S5054 (3c)	01-Apr-15 (No. 217-02129)	Mar-16
Reference 20 dB Attenuator	SN: S5277 (20x)	01-Apr-15 (No. 217-02132)	Mar-16
Reference 30 dB Attenuator	SN: S5129 (30b)	01-Apr-15 (No. 217-02133)	Mar-16
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
Secondary Standards	1D	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-16
Network Analyzer HP 8753E US37390585		18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Name Function Signature Calibrated by: Leif Klysner Laboratory Technician Approved by: Katja Pokovic Technical Manager

Issued: March 21, 2016

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

Certificate No: ES3-3319_Mar16

Calibration Laboratory of

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





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Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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

Glossary:

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

sensitivity in free space sensitivity in TSL / NORMx,v,z

ConvF sensitivity in TSL / NORM 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., 9 = 0 is normal to probe axis

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

Calibration is Performed According to the Following Standards:

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

Methods Applied and Interpretation of Parameters:

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

Certificate No: ES3-3319_Mar16 Page 2 of 12

ES3DV3 - SN:3319 March 18, 2016

Probe ES3DV3

SN:3319

Manufactured: Calibrated:

January 10, 2012 March 18, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

Page 3 of 12

ES3DV3- SN:3319 March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	1.12	1.08	1.16	± 10.1 %
DCP (mV) ^B	104.1	104.5	103.7	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc [⊨] (k=2)
0	CW	Х	0.0	0.0	1.0	0.00	203.1	±3.5 %
		Υ	0.0	0.0	1.0		203.8	***************************************
		Z	0.0	0.0	1.0		200.4	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	Х	2.29	60.1	11.2	10.00	42.0	±1.2 %
		Υ	1.95	58.7	10.4		42.0	
		Z	3.15	62.5	12.1		42.9	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	3.45	71.5	19.9	1.87	122.0	±0.5 %
		Υ	2.88	68.4	18.6		122.8	
		Z	3.35	70.8	19.5		120.5	
10100- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.39	67.3	19.5	5.67	132.3	±1.2 %
		Υ	6.54	68.2	20.1		134.5	
		Z	6.40	67.4	19.6		130.2	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	10.41	75.3	25.6	9.29	124.2	±2.2 %
		Υ	10.45	76.3	26.6		122.6	
		Z	10.82	75.9	25.8		124.8	
10108- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	6.30	67.1	19.5	5.80	130.7	±1.2 %
		Υ	6.35	67.5	19.9		131.5	
		Z	6.33	67.1	19.6		128.5	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	9.70	74.1	25.2	9.28	118.8	±2.2 %
***************************************		Y	9.65	74.9	26.0		117.1	
		Z	10.15	75.0	25.5		119.2	
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	6.00	66.6	19.3	5.75	127.4	±1.2 %
		Υ	6.01	66.9	19.6		128.9	
		Z	6.02	66.6	19.3		125.6	
10160- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	6.45	67.2	19.6	5.82	132.2	±1.2 %
		Y	6.47	67.5	19.9		133.5	
		Z	6.45	67.1	19.5		130.0	
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	4.76	65.7	19.0	5.73	110.8	±0.9 %
		Y	4.80	66.3	19.5	 	112.0	
40470	1 TE TOD (00 EDIA) 1 DD 00 MH	Z	4.84	65.9	19.1	<u> </u>	109.2	1 .0 5 67
10172- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	8.98	78.7	27.7	9.21	132.0	±2.5 %
		Y	9.71	82.4	30.0		132.2	
10175	LTF FDD (OC FDMA 4 DD 40 M)-	Z	9.79	80.4	28.4	<u> </u>	133.4	1000
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.76	65.6	19.0	5.72	109.8	±0.9 %
		Y	4.76	66.1	19.4		111.4	
		Z	4.83	65.8	19.1		108.9	

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10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	Х	4.77	65.7	19.1	5.72	109.2	±0.9 %
		Υ	4.78	66.2	19.4		111.9	
		Z	5.24	67.7	20.2		149.0	
	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	8.93	78.5	27.6	9.21	131.4	±2.5 %
		Υ	9.48	81.7	29.7		131.7	
		Z	9.69	80.3	28.3		131.6	
10252- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	8.94	73.0	24.7	9.24	111.2	±2.2 %
		Υ	9.05	74.3	25.9		111.8	
		Z	9.29	73.6	24.9		111.3	
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	9.62	73.9	25.1	9.30	117.4	±2.2 %
		Υ	9.73	75.1	26.1		118.2	
		Z	10.08	74.8	25.5		118.2	
10297- AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	6.31	67.1	19.6	5.81	128.6	±1.2 %
		Υ	6.39	67.6	20.0		132.2	
		Z	6.33	67.1	19.6	***************************************	127.2	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	6.87	67.6	19.9	6.06	132.8	±1.4 %
		Υ	6.96	68.2	20.3		137.0	
		Z	6.88	67.6	19.9		131.3	

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

A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 6 and 7).

B Numerical linearization parameter: uncertainty not required.

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

ES3DV3-- SN:3319 March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	6.44	6.44	6.44	0.49	1.80	± 12.0 %
835	41.5	0.90	6.16	6.16	6.16	0.46	1.80	± 12.0 %
1750	40.1	1.37	5.20	5.20	5.20	0.51	1.45	± 12.0 %
1900	40.0	1.40	5.03	5.03	5.03	0.58	1.40	± 12.0 %
2300	39.5	1.67	4.69	4.69	4.69	0.80	1.21	± 12.0 %
2450	39.2	1.80	4.47	4.47	4.47	0.75	1.32	± 12.0 %
2600	39.0	1.96	4.33	4.33	4.33	0.80	1.31	± 12.0 %

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

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

G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

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

ES3DV3- SN:3319 March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	6.06	6.06	6.06	0.47	1.45	± 12.0 %
835	55.2	0.97	6.04	6.04	6.04	0.63	1.27	± 12.0 %
1750	53.4	1.49	4.91	4.91	4.91	0.46	1.66	± 12.0 %
1900	53.3	1.52	4.70	4.70	4.70	0.80	1.24	± 12.0 %
2300	52.9	1.81	4.36	4.36	4.36	0.74	1.33	± 12.0 %
2450	52.7	1.95	4.20	4.20	4.20	0.80	1.25	± 12.0 %
2600	52.5	2.16	3.99	3.99	3.99	0.80	1.20	± 12.0 %

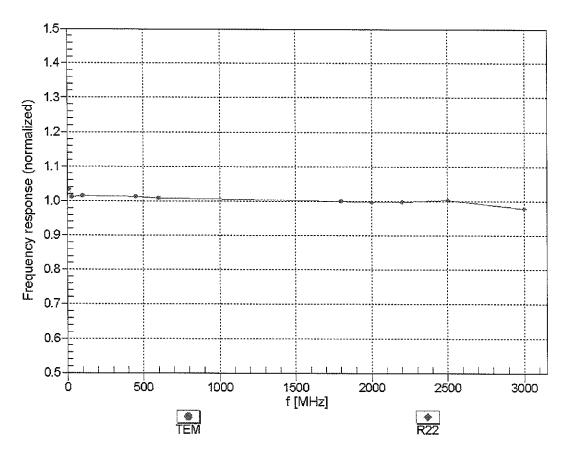
 $^{^{\}rm C}$ Frequency validity above 300 MHz of \pm 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to \pm 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity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

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

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

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

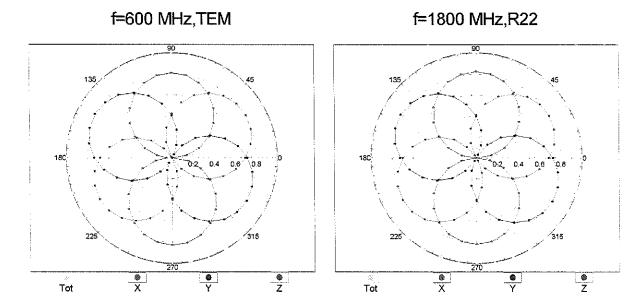


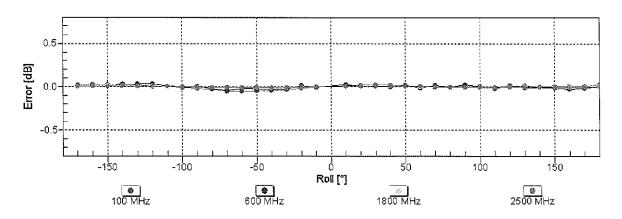
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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



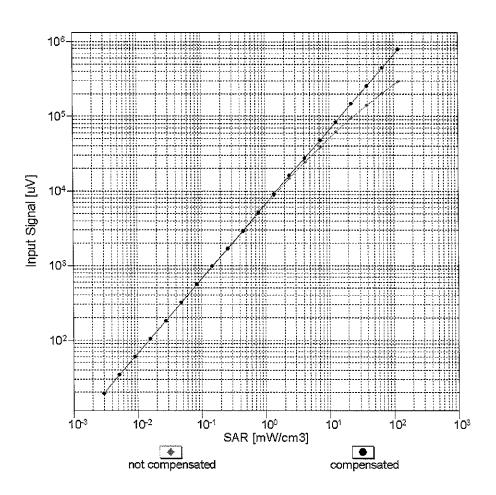


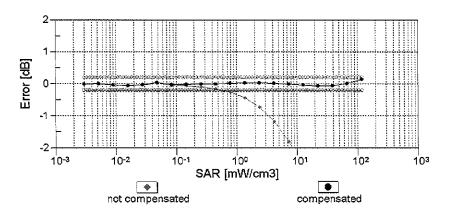


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

ES3DV3- SN:3319 March 18, 2016

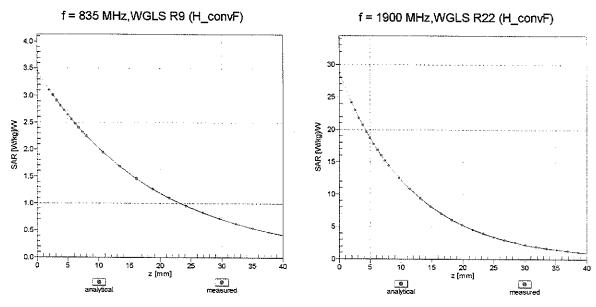
Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)





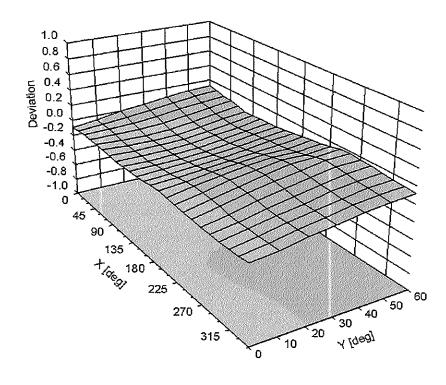
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

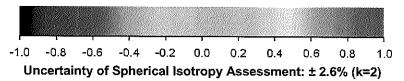
Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ , ϑ), f = 900 MHz





DASY/EASY - Parameters of Probe: ES3DV3 - SN:3319

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	60
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

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





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

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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

Multilateral Agreement for the recognition of calibration certificates

Client

PC Test

Certificate No: ES3-3209_Mar16

CALIBRATION CERTIFICATE

Object

ES3DV3 - SN:3209

Calibration procedure(s)

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

Calibration date:

March 18, 2016

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)

Certificate No: ES3-3209_Mar16

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	01-Apr-15 (No. 217-02128)	Mar-16
Power sensor E4412A	MY41498087	01-Apr-15 (No. 217-02128)	Mar-16
Reference 3 dB Attenuator	SN: S5054 (3c)	01-Apr-15 (No. 217-02129)	Mar-16
Reference 20 dB Attenuator	SN: S5277 (20x)	01-Apr-15 (No. 217-02132)	Mar-16
Reference 30 dB Attenuator	SN: S5129 (30b)	01-Apr-15 (No. 217-02133)	Mar-16
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
Secondary Standards	1D	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-16
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Calibrated by:

Name
Function
Signature

Leif Klysner
Laboratory Technician

Suffly

Approved by:

Katja Pokovic
Technical Manager

Issued: March 22, 2016

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

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Calibration Laboratory of

Schmid & Partner

Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst

Service suisse d'étalonnage C

Servizio svizzero di taratura **Swiss Calibration Service**

Accreditation No.: SCS 0108 Accredited by the Swiss Accreditation Service (SAS)

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

Glossary:

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

ConvF DCP

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

CF A, B, C, D crest factor (1/duty_cycle) of the RF signal modulation dependent linearization parameters

Polarization φ

o 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, "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 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 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E2-field uncertainty inside TSL (see below ConvF).

 $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included

in the stated uncertainty of ConvF.

DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.

PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics

Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.

ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100

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).

ES3DV3 - SN:3209 March 18, 2016

Probe ES3DV3

SN:3209

Manufactured:

October 14, 2008 March 18, 2016

Calibrated:

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3209

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	1.33	1.31	1.12	± 10.1 %
DCP (mV) ^B	101.7	103.5	101.2	

Modulation Calibration Parameters

JID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc ^E (k=2)
)	CW	Х	0.0	0.0	1.0	0.00	220.0	±3.8 %
D.T.M.		Υ	0.0	0.0	1.0		213.1	
		Z	0.0	0.0	1.0		195.4	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	Х	2.09	61.8	11.1	10.00	43.7	±0.9 %
<u> </u>		Υ	2.54	63.7	12.3		42.4	
		Z	9.74	76.2	16.0		38.8	
	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	Х	2.73	68.3	18.8	1.87	133.3	±0.7 %
<u> </u>		Υ	3.26	72.2	21.0	- Vines	127.7	
	A TOTAL OF THE PARTY OF THE PAR	Z	2.80	68.4	18.6		116.7	
	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.61	68.5	20.5	5.67	147.6	±1.4 %
<u> </u>		Υ	6.48	68.0	20.1		139.5	
		Z	6.30	67.2	19.6		127.7	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	9.09	74.0	25.9	9.29	124.5	±2.2 %
		Υ	9.05	73.2	25.1		120.6	
		Z	8.51	71.7	24.5		107.7	
	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	6.45	68.0	20.4	5.80	144.1	±1.4 %
<u> </u>		Υ	6.35	67.6	20.0		137.6	
·······		Z	6.17	66.8	19.5		124.8	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	8.52	73.1	25.6	9.28	119.2	±2.5 %
0,10	<u> </u>	Y	8.47	72.2	24.7		116.3	
		Z	9.20	75.3	26.7		148.4	
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	6.14	67.6	20.2	5.75	140.1	±1.4 %
0.10		Y	6.03	67.1	19.8		134.4	
		Z	5.89	66.4	19.4		121.9	
10160- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	Х	6.57	68.0	20.3	5.82	145.9	±1.4 %
<u> </u>		Υ	6.48	67.6	20.0		139.5	
		Z	6.32	67.0	19.6		126.7	
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	4.84	66.7	19.9	5.73	121.1	±1.2 %
		Y	4.86	66.6	19.8		117.0	
		Z	5.16	67.8	20.4		148.7	
10172- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	7.43	77.3	28.3	9.21	131.4	±1.9 %
<u> </u>		Y	7.40	75.8	27.0		129.7	
	***************************************	Z	6.83	73.7	26.0		116.1	
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.75	66.3	19.7	5.72	114.6	±0.9 %
		Y	4.82	66.4	19.7		110.3	<u> </u>
		Z	5.16	67.8	20.4		147.4	

March 18, 2016 ES3DV3-SN:3209

10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	Х	4.82	66.6	19.9	5.72	119.3	±0.9 %
OAD	Q. 0.3/	Y	4.79	66.2	19.6		110.0	
		Z	5.15	67.8	20.3		147.0	
10237- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	7.37	76.9	28.1	9.21	130.4	±1.9 %
	W. O.L.	Y	7.02	74.1	26.0		122.0	
		Z	6.83	73.6	25.9		115.6	
10252- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	7.85	72.0	25.2	9.24	112.3	±2.5 %
	GR OTY	Y	7.74	70.8	24.1		104.5	
	1000	z	8.42	73.9	26.1		138.6	
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	8.43	72.7	25.4	9.30	116.9	±2.5 %
<u> </u>		Υ	8.28	71.5	24.3		109.4	
	A STATE OF THE PARTY OF THE PAR	Z	9,17	75.2	26.7		147.6	
10297- AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	6.48	68.1	20.5	5.81	141.5	±1.4 %
7777	Q O O	Y	6.32	67.4	20.0		136.8	
		Z	6.17	66.8	19.6		123.8	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	7.07	68.8	20.8	6.06	146.9	±1.7 %
, , , , ,		Y	6.98	68.3	20.5		142.2	
		Z	6.77	67.5	20.0		128.8	

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

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 6 and 7).

^B Numerical linearization parameter: uncertainty not required.

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

ES3DV3- SN:3209 March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3209

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	6.60	6.60	6.60	0.47	1.59	± 12.0 %
835	41.5	0.90	6.20	6.20	6.20	0.80	1.19	± 12.0 %
1750	40.1	1.37	5.28	5.28	5.28	0.54	1.35	± 12.0 %
1900	40.0	1.40	5.14	5.14	5.14	0.71	1.21	± 12.0 %
2300	39.5	1.67	4.82	4.82	4.82	0.74	1.26	± 12.0 %
2450	39.2	1.80	4.63	4.63	4.63	0.55	1.50	± 12.0 %
2600	39.0	1.96	4.48	4.48	4.48	0.78	1.25	± 12.0 %

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

validity can be extended to \pm 110 MHz.

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

G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

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.

ES3DV3- SN:3209 March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3209

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	6.19	6.19	6.19	0.53	1.42	± 12.0 %
835	55.2	0.97	6.19	6.19	6.19	0.62	1.30	± 12.0 %
1750	53.4	1.49	4.99	4.99	4.99	0.51	1.54	± 12.0 %
1900	53.3	1.52	4.77	4.77	4.77	0.56	1.52	± 12.0 %
2300	52.9	1.81	4.44	4.44	4.44	0.75	1.26	± 12.0 %
2450	52.7	1.95	4.31	4.31	4.31	0.74	1.26	± 12.0 %
2600	52.5	2.16	4.11	4.11	4.11	0.80	1.20	± 12.0 %

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

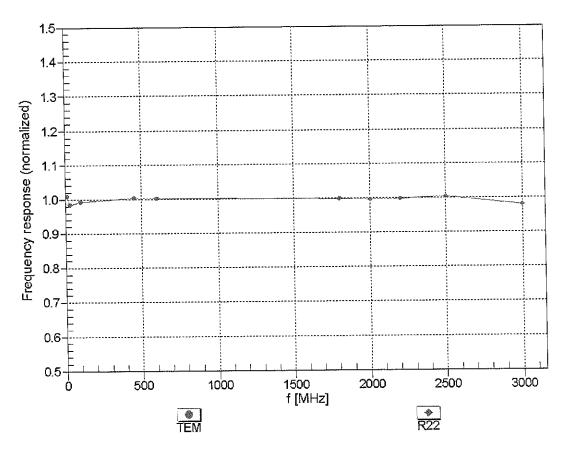
F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to \pm 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to \pm 5%. The uncertainty is the RSS of the ConvF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

the ConvF uncertainty for indicated target tissue parameters.

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

March 18, 2016 ES3DV3-SN:3209

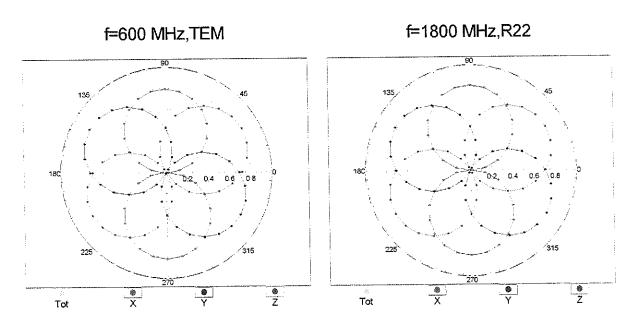
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

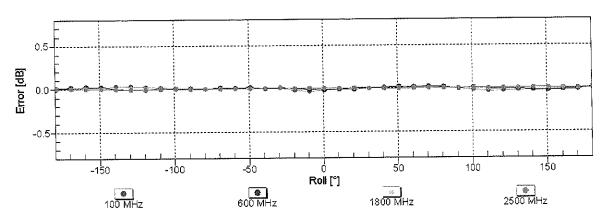


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

ES3DV3- SN:3209 March 18, 2016

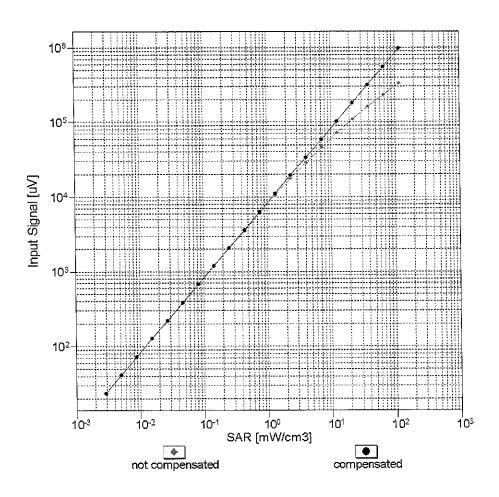
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

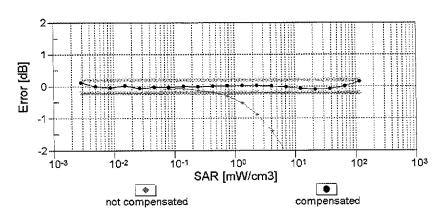




Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

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

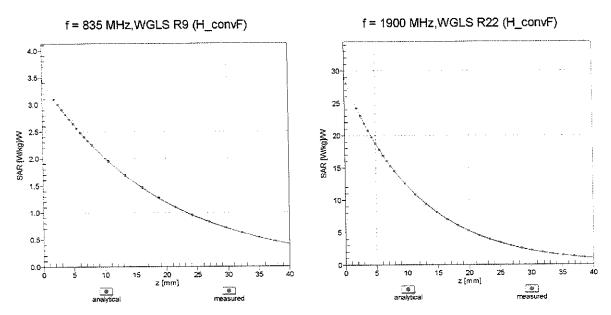




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

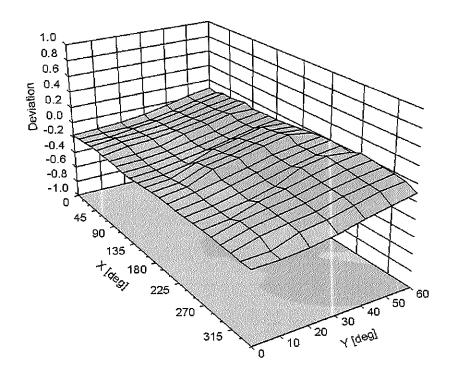
ES3DV3- SN:3209 March 18, 2016

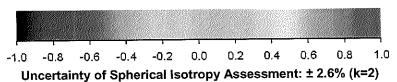
Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ , ϑ), f = 900 MHz





ES3DV3- SN:3209 March 18, 2016

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3209

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	141
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

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





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

Accreditation No.: SCS 0108

Certificate No: EX3-7406_Apr16

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Multilateral Agreement for the recognition of calibration certificates

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CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:7406

Calibration procedure(s)

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

BN 04/26/2016

Calibration date:

April 19, 2016

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)

Certificate No: EX3-7406_Apr16

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Apr-17
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (No. 217-02285/02284)	In house check: Jun-16
Power sensor E4412A	SN: MY41498087	06-Apr-16 (No. 217-02285)	In house check: Jun-16
Power sensor E4412A	SN: 000110210	06-Apr-16 (No. 217-02284)	In house check: Jun-16
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Apr-13)	In house check: Jun-16
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-15)	In house check: Oct-16

Calibrated by:

Name
Function
Signature
Laboratory Technician

Approved by:

Katja Pokovic
Technical Manager

Issued: April 20, 2016

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

Calibration Laboratory of

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





S Schweizerischer Kalibrierdienst
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Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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

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

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., 9 = 0 is normal to probe axis

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

Calibration is Performed According to the Following Standards:

 a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013

b) IEC 62209-1, "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

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:

Certificate No: EX3-7406_Apr16

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

April 19, 2016 EX3DV4 - SN:7406

Probe EX3DV4

SN:7406

Manufactured: November 24, 2015 Calibrated: April 19, 2016

Calibrated:

April 19, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7406

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	0.48	0.44	0.47	± 10.1 %
DCP (mV) ⁸	100.7	97.9	98.6	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	120.4	±3.3 %
		Y	0.0	0.0	1.0		148.3	
_		Z	0.0	0.0	1.0		146.7	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	Х	0.81	54.6	7.4	10.00	50.3	±2.2 %
		Υ	0.68	55.1	7.9	-	47.9	
		Z	1.34	61.0	11.0		46.8	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	Х	2.83	68.0	18.3	1.87	127.8	±0.5 %
		Υ	2.82	68.4	18.4		117.8	
		Z	3.00	69.2	19.0		115.9	
10100- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	6.54	67.4	19.5	5.67	142.1	±1.2 %
		Y	6.19	66.7	19.3		127.6	
- 1015-		Z	6.37	66.7	19.2		125.7	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	7.58	67.9	21.8	9.29	114.4	±1.7 %
		Y	7.34	68.3	22.5		144.3	
		Z	7.53	67.7	21.8		139.5	
10108- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	6.34	66.9	19.4	5.80	137.5	±1.2 %
		Y	5.90	65.9	19.0		123.8	
40454		Z	6.24	66.4	19.2		123.7	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	×	7.17	67.2	21.5	9.28	109.5	±1,7 %
		Y	6.83	67.6	22.3		137.0	
40454		Z	7.23	67.4	21.7		135.1	_
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	5.99	66.4	19.2	5.75	132.4	±0.9 %
		Y	5.61	65.8	19.1		119.4	
		Z	5.91	65.9	19.0		120.1	
10160- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	Х	6.47	67.0	19.5	5.82	137.0	±1.2 %
		Y	5.96	66.0	19.1		123.9	
		Z	6.33	66.3	19.1		124.2	
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	4.71	65.5	18.9	5.73	113.2	±1.2 %
		Υ	4.60	66.2	19.6		144.2	
		Z	4.93	66.5	19.5		143.2	
10172- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	5.68	68.2	22.4	9.21	117.6	±1.7 %
		Y	5.56	70.1	24.1		146.1	
		Z	<u>5</u> .87	69.4	23.2		143.7	
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.75	65.7	19.1	5.72	112.3	±0.9 %
		Υ	4.58	66.1	19.5		143.2	
		Z	4.95	66.7	19.6		142.0	

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10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	Х	4.71	65.5	18.9	5.72	110.2	±0.9 %
		Υ	4.53	65.8	19.4		141.4	
		Z	4.90	66.5	19.5		138.1	
10237- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	5.69	68.3	22.5	9.21	117.3	±1.7 %
		Υ	5.47	69.5	23.8		145.1	
		Z	5.85	69.3	23.1		142.0	
10252- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	7.04	68.1	22.2	9.24	141.2	±1.9 %
	-	Υ	6.35	67.2	22.2		125.4	
		Z	6.82	67.1	21.7		127.5	
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	7.45	68.3	22.2	9.30	148.0	±1.9 %
		Υ	6.84	67.5	22.3		132.0	
		Z	7.24	67.4	21.8		134.6	
10297- AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	6.35	66.9	19.4	5.81	135.3	±1.2 %
		Υ	5.92	65.9	19.0		122.9	
		Z	6.26	66.4	19.2		122.1	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	6.92	67.4	19.7	6.06	139.3	±1.2 %
		Υ	6.52	66.6	19.5		127.9	
		Z	6.82	66.9	19.5		126.8	

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

A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 6 and 7).

B Numerical linearization parameter: uncertainty not required.

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7406

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	10.52	10.52	10.52	0.52	0.89	± 12.0 %
835	41.5	0.90	9.83	9.83	9.83	0.54	0.80	± 12.0 %
1750	40.1	1.37	8.85	8.85	8.85	0.49	0.85	± 12.0 %
1900	40.0	1.40	8.22	8.22	8.22	0.40	0.88	± 12.0 %
2300	39.5	1.67	7.67	7.67	7.67	0.36	0.89	± 12.0 %
2450	39.2	1.80	7.29	7.29	7.29	0.40	0.80	± 12.0 %
2600	39.0	1.96	7.08	7.08	7.08	0.37	0.95	± 12.0 %

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.

At frequencies below 3 CHz, the validity of the provided to 100 MHz.

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

the ConvF uncertainty for indicated target tissue parameters.

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

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DASY/EASY - Parameters of Probe: EX3DV4 - SN:7406

Calibration Parameter Determined in Body Tissue Simulating Media

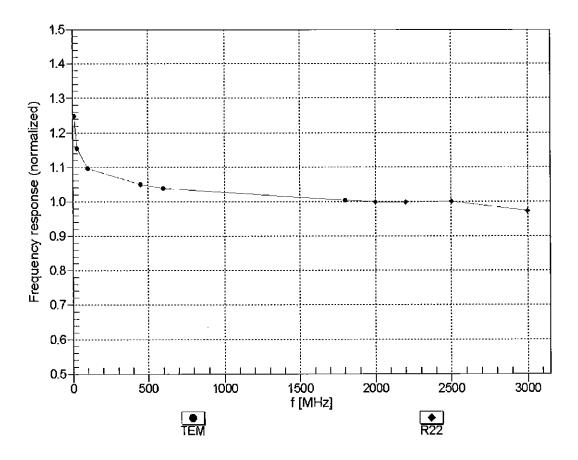
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.54	9.54	9.54	0.46	0.80	± 12.0 %
835	55.2	0.97	9.35	9.35	9.35	0.45	0.84	± 12.0 %
1750	53.4	1.49	7.78	7.78	7.78	0.37	0.85	± 12.0_%
1900	53.3	1.52	7.49	7.49	7.49	0.33	0.91	± 12.0 %
2300	52.9	1.81	7.37	7.37	7.37	0.42	0.80	± 12.0 %_
2450	52.7	1.95	7.24	7.24	7.24	0.37	0.88	± 12.0 %
2600	52.5	2.16	6.94	6.94	6.94	0.27	0.99	± 12.0 %

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

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

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



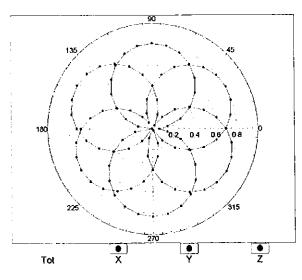
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

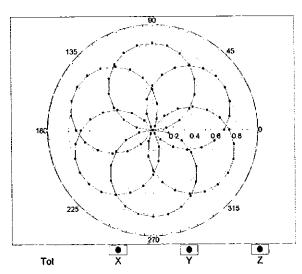
April 19, 2016

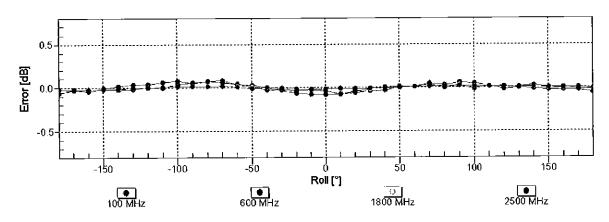
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

f=600 MHz,TEM

f=1800 MHz,R22



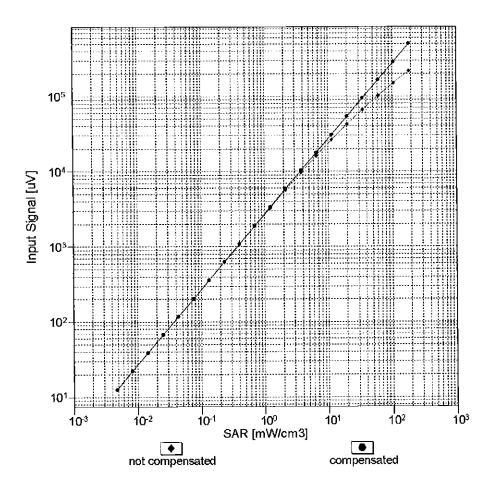


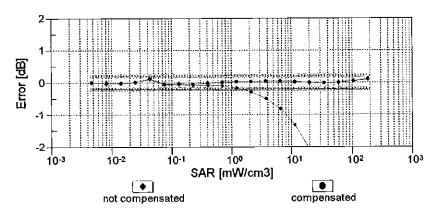


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

(TEM cell , f_{eval}= 1900 MHz)

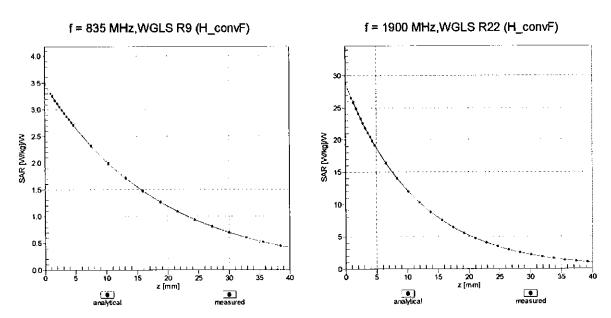




Uncertainty of Linearity Assessment: ± 0.6% (k=2)

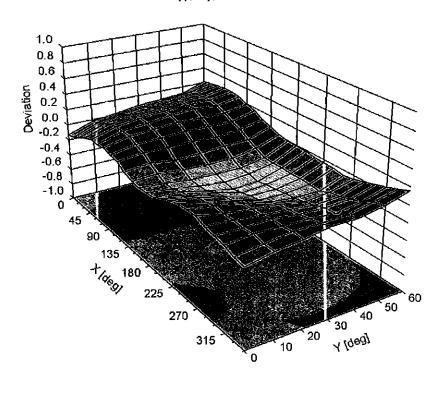
EX3DV4- SN:7406 April 19, 2016

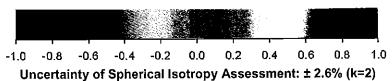
Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, ϑ) , f = 900 MHz





April 19, 2016

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7406

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	0.4
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

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





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Accredited by the Swiss Accreditation Service (SAS)

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

Multilateral Agreement for the recognition of calibration certificates

Client

PC Test

Certificate No: EX3-7308_Jul16

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

07/27/2016

Calibration date:

Calibrated by:

Certificate No: EX3-7308_Jul16

July 21, 2016

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	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Apr-17
Reference Probe ES3DV2	SN: 3013	31-Dec-15 (No. ES3-3013_Dec15)	Dec-16
DAE4	SN: 660	23-Dec-15 (No. DAE4-660_Dec15)	Dec-16
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-15)	In house check: Oct-16

Name Function

Claudio Leubler Laboratory Technician

Approved by: Katja Pokovic Technical Manager

Issued: July 21, 2016

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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Accreditation No.: SCS 0108

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Glossary:

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

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

crest factor (1/duty_cycle) of the RF signal CF modulation dependent linearization parameters A, B, C, D

Polarization ϕ φ rotation around probe axis

9 rotation around an axis that is in the plane normal to probe axis (at measurement center), Polarization 9

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

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 used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010

KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization ϑ = 0 (f \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 E²-field uncertainty inside TSL (see below ConvF).
- $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx, v,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100
- 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).

July 21, 2016 EX3DV4 - SN:7308

Probe EX3DV4

SN:7308

Manufactured: March 11, 2014

Calibrated:

July 21, 2016

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

July 21, 2016 EX3DV4-- SN:7308

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (µV/(V/m) ²) ^A	0.52	0.60	0.44	± 10.1 %
DCP (mV) ^B	98.3	94.6	98.8	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc ^t (k=2)
0	CW	Х	0.0	0.0	1.0	0.00	140.2	±3.3 %
		Υ	0.0	0.0	1.0		155.1	_
		Z	0.0	0.0	1.0		146.8	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
X	60.26	455	36.5	14.2	0.975	4.987	0	0.469	1.003
Υ	62.87	478.8	36.94	14.22	1.185	5.005	0	0.587	1.005
Z	46.53	347.2	35.64	7.972	0.771	4.965	1.295	0.134	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%.

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

B Numerical linearization parameter: uncertainty not required.

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

Certificate No: EX3-7308_Jul16

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

Calibration Parameter Determined in Head Tissue Simulating Media

					•			
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
5250	35.9	4.71	5.21	5.21	5.21	0.35	1.80	± 13.1 %
5600	35.5	5.07	4.63	4.63	4.63	0.45	1.80	± 13.1 %
5750	35.4	5.22	4.86	4.86	4.86	0.45	1.80	± 13.1 %

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

validity can be extended to ± 110 MHz.

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

G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is

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

July 21, 2016

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.66	9.66	9.66	0.46	0.80	± 12.0 <u>%</u>
835	55.2	0.97	9.63	9.63	9.63	0.47	0.80	± 12.0 %
1750	53.4	1.49	8.00	8.00	8.00	0.45	0.80	± 12.0 <u>%</u>
1900	53.3	1.52	7.73	7.73	7.73	0.42	0.80	± 12.0 %
2300	52.9	1.81	7.53	7.53	7.53	0.40	0.80	± 12.0 %
2450	52.7	1.95	7.36	7.36	7.36	0.39	0.80	± 12.0 %
2600	52.5	2.16	7.16	7.16	7.16	0.34	0.80	± 12.0 %
5250	48.9	5.36	4.45	4.45	4.45	0.50	1.90	± 13.1 %
5600	48.5	5.77	3.75	3.75	3.75	0.60	1.90	± 13.1 %
5750	48.3	5.94	4.04	4.04	4.04	0.60	1.90	± 13.1 %

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

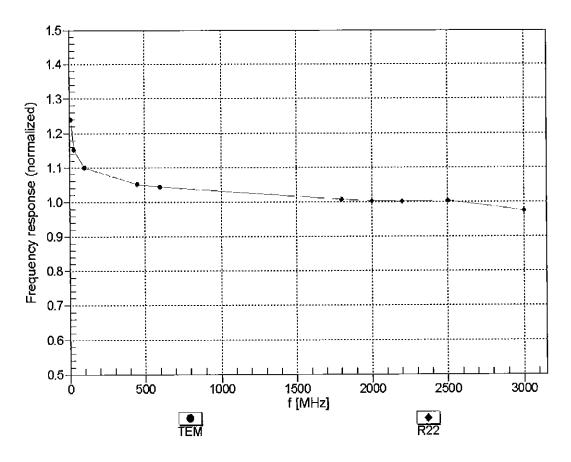
F At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConyF uncertainty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

the ConvF uncertainty for indicated target tissue parameters.

At requencies above 3 GHz, the validity of issue parameters (£ and 6) is restricted to £ 5%. The uncertainty is the ASS of the ConvF uncertainty for indicated target tissue parameters.

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

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

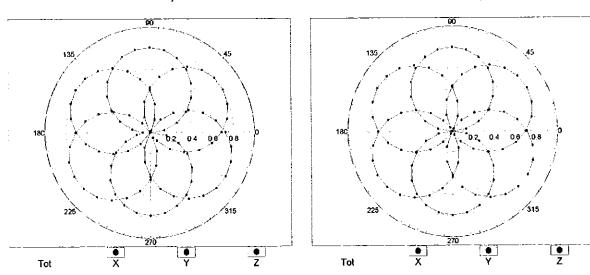


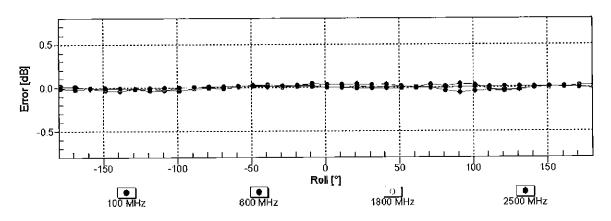
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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



f=1800 MHz,R22

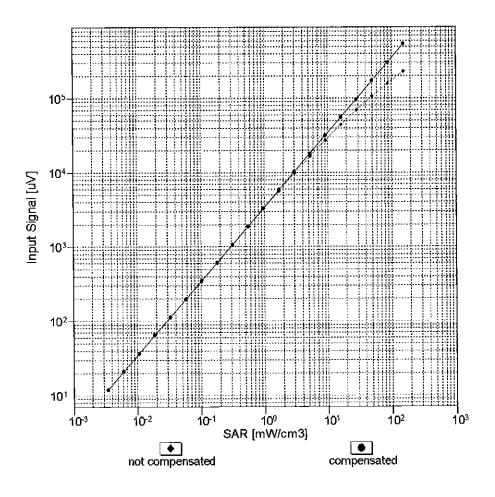


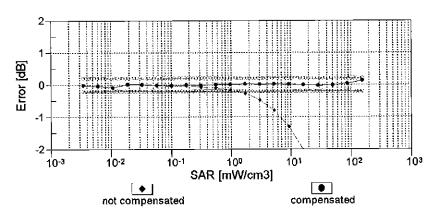


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR_{head})

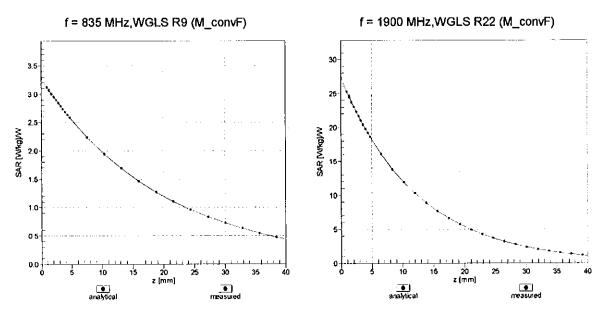
(TEM cell , f_{eval}= 1900 MHz)





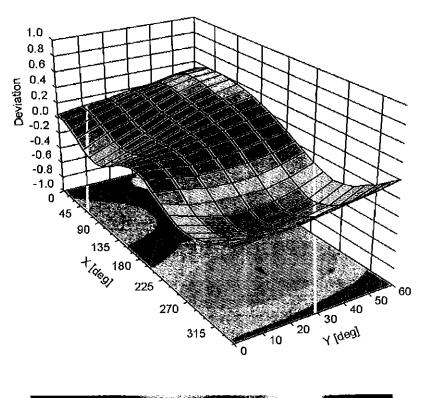
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (¢, 3), f = 900 MHz



DASY/EASY - Parameters of Probe: EX3DV4 - SN:7308

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	111.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc ^E (k=2)
0 10010- CAA 10011- CAB 10012- CAB 10021- DAB 10023- DAB	CW	Х	0.00	0.00	1.00	0.00	140.2	± 3.3 %
		Y	0.00	0.00	1.00		155.1	
10010-	SAR Validation (Square, 100ms, 10ms)	Z	0.00 2.83	0.00 67.00	1.00 11.27	10.00	146.8 20.0	± 9.6 %
	or in validation (oquato, rooms, roms)	^	2.00	07.00	11.27	10.00	20.0	1 3.0 %
		Υ	3.34	68.78	12.50		20.0	
40044	LIMITO EDD (MODNA)	Z	2.28	64.60	9.60	0.00	20.0	
	UMTS-FDD (WCDMA)	X	1.34	71.85 68.23	18.12 16.00	0.00	150.0 150.0	± 9.6 %
		Z	1.10	68.59	16.08	<u> </u>	150.0	
	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.23	64.83	16.25	0.41	150.0	± 9.6 %
		Υ	1.20	63.91	15.45		150.0	
40040	IEEE 000 44 WEE 0 4 OU (DOGO	Z	1.15	63.75	15.24	1 10	150.0	. 0 0 0/
	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	4.98 5.01	66.56 66.42	17.14 17.03	1.46	150.0 150.0	± 9.6 %
		Z	4.80	66.45	16.86		150.0	
	GSM-FDD (TDMA, GMSK)	X	25.48	94.55	22.26	9.39	50.0	± 9.6 %
		Υ	40.46	102.10	25.04		50.0	
40000	ODDO EDD (TDIA) OLOV TU O	Z	7.12	77.75	16.17		50.0	. 0 0 0/
	GPRS-FDD (TDMA, GMSK, TN 0)	X	18.38 27.25	90.36	21.10 23.65	9.57	50.0	± 9.6 %
		Z	6.28	76.05	15.59		50.0	
	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	109.33	24.46	6.56	60.0	± 9.6 %
		Υ	100.00	111.81	25.81		60.0	
40005	FROM FROM (TRUM)	Z	9.25	82.27	16.44	40.57	60.0	. 0.00/
10025- DAB	EDGE-FDD (TDMA, 8PSK, TN 0)	X	7.47	106.23 84.59	41.47 32.35	12.57	50.0 50.0	± 9.6 %
		Z	8.60	90.69	35.00		50.0	
10026- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	12.91	98.45	34.49	9.56	60.0	± 9.6 %
		Υ	11.05	93.55	32.55		60.0	
40007	OPPO FDD /TDMA OMOK TN 0 4 0)	Z	8.49	89.59	31.21	4.00	60.0	1000
10027- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	109.19	23.64 24.84	4.80	80.0	± 9.6 %
		Ż	100.00	104.98	21.25		80.0	
10028- DAB	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	110.50	23.56	3.55	100.0	± 9.6 %
		Υ	100.00	112.25	24.50		100.0	
40000	EDOE EDD (TDMA OBOX TMO 4 C)	Z	100.00	105.68	20.90	7.00	100.0	1000
10029- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	7,41 6.96	85.77 83.45	28.75	7.80	80.0	± 9.6 %
		Z	5.10	78.52	25.75	 	80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Х	100.00	108.05	23.44	5.30	70.0	± 9.6 %
		Y	100.00	110.41	24.70		70.0	
40001	TEEE 000 45 4 Physically (05004 PMO)	Z	6.05	78.47	14.65	4.00	70.0	1060
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	112.81	23.28	1.88	100.0	± 9.6 %
	+	Z	100.00	103.47	18.83	-	100.0	
		1_4_	100.00	103.47	10.03	<u> </u>	100.0	ı

10033- CAA		Y		1		l		
			100.00	119.57	25.26		100.0	
	· · · · · · · · · · · · · · · · · · ·	Z	100.00	110.66	20.91		100.0	
	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	10.55	92.07	24.78	5.30	70.0	± 9.6 %
		Υ	8.39	88.28	23.78		70.0	
		Z	4.41	78.47	19.14		70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Х	3.66	80.35	20.21	1.88	100.0	± 9.6 %
		7	2.86	76.17	18.63		100.0	
		Z	1.96	71.49	15.59		100.0	_
10035- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Х	2.62	76.94	18.91	1.17	100.0	± 9.6 %
		Υ	2.07	72.85	17.18		100.0	
40000	VEET 000 45 4 51 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Z	1.59	70.05	14.91		100.0	
10036- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Х	14.05	96.80	26.29	5.30	70.0	± 9.6 %
		Y	10.44	91.99	25.05		70.0	
10027	IEEE 000 45 4 Physical (6 DDOL DUG	Z	5.12	80.83	20.06		70.0	
10037- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	3.49	79.77	19.96	1.88	100.0	± 9.6 %
		Y	2.76	75.73	18.41		100.0	
10038-	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Z	1.85 2.67	70.88	15.31	4.47	100.0	
CAA	TEEE 002.13.1 Blue(00(II (0-DPSK, DH3)	Y	2.10	77.50	19.24	1.17	100.0	± 9.6 %
		Z	1.60	73.25 70.33	17.45		100.0 100.0	
10039-	CDMA2000 (1xRTT, RC1)	X	3.18	79.96	15.14	0.00		106%
CAB	CDIVIAZOUU (TXRTT, RCT)				20.08	0.00	150.0	± 9.6 %
		Y	2.20	73.61	17.38		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	Z X	2.23 31.74	75.04 95.47	17.00 21.12	7.78	150.0 50.0	± 9.6 %
0710	Dai Ort, Hamato)	Y	64.91	105.35	24.27		50.0	
		Z	4.35	73.27	13.53		50.0	
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	107.22	2.22	0.00	150.0	± 9.6 %
		Υ	0.00	97.51	0.45		150.0	
		Z	0.00	98.85	0.67		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	8.20	77.29	18.29	13.80	25.0	± 9.6 %
		Υ	10.21	80.82	20.20		25.0	
		Ζ	5.52	70.29	14.78		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	Х	9.24	80.87	18.39	10.79	40.0	± 9.6 %
		Υ	11.91	84.97	20.43		40.0	
40050	LINATO TOD (TD CODY)	Z	5.41	72.91	14.64		40.0	
10056- CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	Х	13.33	89.97 	24.07	9.03	50.0	± 9.6 %
		Y	12.04	88.43	23.91		50.0	
40050	FROM EDD (TRAIL ADD) (TV)	Z	8.86	82.58	20.56		50.0	
10058- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	5.43	79.57	25.57	6.55	100.0	± 9.6 %
		Y	5.27	78.18	24.83		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	Z X	3.94 1.29	73.72 66.09	22.98 16.86	0.61	100.0 110.0	± 9.6 %
		Υ	1.25	65.03	16.00	-	110.0	_
		z	1.16	64.48	15.58		110.0	<u> </u>
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	138.36	36.00	1.30	110.0	± 9.6 %
		Υ	11.04	103.32	27.31		110.0	

10061- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	3.68	83.91	23.47	2.04	110.0	± 9.6 %
<u>-</u>		Y	2.95	79.27	21.54		110.0	
		Z	1.94	73.90	19.24		110.0	
10062- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.82	66.71	16.71	0.49	100.0	± 9.6 %
	<u> </u>	Y	4.83	66.51	16.55		100.0	
	-	Ż	4.64	66.59	16.44		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.84	66.78	16.78	0.72	100.0	± 9.6 %
		Y	4.85	66.59	16.63		100.0	-
		Z	4.64	66.63	16.49		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.16	67.07	17.01	0.86	100.0	± 9.6 %
		Y	5.18	66.92	16.88		100.0	
		Z	4.92	66.88	16.70		100.0	
10065- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5.01	66.95	17.07	1.21	100.0	± 9.6 %
		Y	5.03	66.80	16.95		100.0	
10000		Z	4.77	66.70	16.73		100.0	
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	5.02	66.95	17.21	1.46	100.0	± 9.6 %
		Y	5.05	66.81	17.10		100.0	
		Z	4.78	66.67	16.85		100.0	
10067- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	Х	5.29	66.96	17.55	2.04	100.0	± 9.6 %
		Υ	5.33	66.84	17.46		100.0	
		Z	5.05	66.81	17.24		100.0	
10068- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	Х	5.36	67.13	17.80	2.55	100.0	± 9.6 %
		Y	5.41	67.04	17.73		100.0	
		L Z	5.09	66.80	17.41		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	Х	5.43	67.04	17.96	2.67	100.0	± 9.6 %
		Υ	5.48	66.94	17.88		100.0	
		Z	5.16	66.79	17.59		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.07	66.61	17.40	1.99	100.0	± 9.6 %
		Υ	5.09	66.49	17.30		100.0	
		Z	4.88	66.47	17.10		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	Х	5.06	66.97	17.60	2.30	100.0	± 9.6 %
		Υ	5.09	66.86	17.51		100.0	
		Z	4.84	66.72	17.25		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.11 ——	67.07	17.87	2.83	100.0	± 9.6 %
	<u> </u>	Y	5.15	66.97	17.79		100.0	
		Z	4.88	66.81	17.51		100.0	<u> </u>
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.07	66.94	18.01	3.30	100.0	± 9.6 %
		Υ	5.11	66.85	17.94		100.0	
		Z	4.85	66.67	17.62		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.13	67.16	18.36	3.82	90.0	± 9.6 %
		Υ	5.18	67.10	18.30		90.0	
		Z	4.88	66.76	17.89		90.0	<u> </u>
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.10	66.84	18.39	4.15	90.0	± 9.6 %
		Υ	5.15	66.77	18.34	ļ <u>.</u>	90.0	
	_	Z	4.90	66.55	17.99		90.0	
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	Х	5.12	66.87	18.47	4.30	90.0	± 9.6 %
		Υ	5.17	66.81	18.42		90.0	
		Ζ	4.92	66.61	18.08	I	90.0	1

10081- CAB	CDMA2000 (1xRTT, RC3)	X	1.35	72.43	16.88	0.00	150.0	± 9.6 %
		T	1.03	67.65	14.41		150.0	· -
		Ż	0.93	67.60	13.46		150.0	
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	X	0.83	60.00	4.84	4.77	80.0	± 9.6 %
		Y	0.88	60.00	5.10		80.0	
		Z	0.49	58.11	3.09		80.0	
10090- DAB	GPRS-FDD (TDMA, GMSK, TN 0-4)	Х	100.00	109.34	24.48	6.56	60.0	± 9.6 %
		Y	100.00	111.83	25.84		60.0	
		Z	8.98	81.95	16.36		60.0	J
10097- CAB	UMTS-FDD (HSDPA)	X	2.05	69.36	17.11	0.00	150.0	± 9.6 %
		<u> </u>	1.91	67.73	16.09		150.0	
10000	(11470.500.410.401.401.401.401.401.401.401.401.4	Z	1.90	68.45	16.16		150.0	
10098- CAB	UMTS-FDD (HSUPA, Subtest 2)	X	2.01	69.36	17.10	0.00	150.0	± 9.6 %
		Y	1.87	67.69	16.06	_	150.0	
40000	EDOC EDD /TDMA SDOW THE CO	Z	1.86	68.42	16.14	<u> </u>	150.0	
10099- DAB	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	12.98	98.52	34.50	9.56	60.0	± 9.6 %
		Υ	11.10	93.61	32.56		60.0	
1010	1.75.500.400.400.400.400.400.400.400.400.40	Z	8.54	89.68	31.23		60.0	
10100- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	3.60	72.41	17.88	0.00	150.0	± 9.6 %
		Y	3.37	70.94	17.04		150.0	
10101		Z	3.22	70.91	17.07		150.0	
10101- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	Х	3.49	68.46	16.64	0.00	150.0	± 9.6 %
		L Y	3.42	67.83	16.19		150.0	
		Z	3.27	67.77	16.13		150.0	
10102- CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.58	68.32	16.68	0.00	150.0	± 9.6 %
		Υ	3.52	67.75	16.27		150.0	
		Z	3.37	67.73	16.22		150.0	
10103- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.45	75.11	20.01	3.98	65.0	± 9.6 %
·		Y	6.23	74.17	19.60		65.0	
		Z	5.42	73.09	19.06		65.0	
10104- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	6.65	74.01	20.45	3.98	65.0	± 9.6 %
		Υ	6.63	73.58	20.23		65.0	
		Z	5.66	71.90	19.37		65.0	
10105- CAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	6.13	72.34	20.02	3.98	65.0	± 9.6 %
		Υ	6.54	73.26	20.42		65.0	
40400		Z	5.41	70.86	19.20		65.0	
10108- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.16	71.55	17.71	0.00	150.0	± 9.6 %
		Y	2.97	70.11	16.86		150.0	
40400	LITE COD (OO FELL)	Z	2.80	70.14	16.91		150.0	
10109- CAC	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.16	68.36	16.64	0.00	150.0	± 9.6 %
		Υ	3.09	67.64	16.14		150.0	
40440	LTE FDD (00 TT)	Z	2.93	67.68	16.07		150.0	
10110- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	2.60	70.68	17.48	0.00	150.0	± 9.6 %
		Y	2.44	69.13	16.54		150.0	
40444	LTE EDD (OO POLICE)	Z	2.28	69.31	16.55		150.0	
10111- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.89	69.28	17.12	0.00	150.0	± 9.6 %
		Υ	2.79	68.28	16.49		150.0	
		Z	2.67	68.73	16.46		150.0	

10112-	LTE-FDD (SC-FDMA, 100% RB, 10	X	3.27	60.00	46.60	0.00	150.0	. 0.00
CAC	MHz, 64-QAM)	^	3.27	68.22	16.63	0.00	150.0	± 9.6 %
		Υ	3.21	67.56	16.17		150.0	
		Z	3.05	67.66	16.11		150.0	
10113- CAC	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	Х	3.04	69.26	17.17	0.00	150.0	± 9.6 %
		Y	2.95	68.34	16.59		150.0	
		Z	2.82	68.85	16.57		150.0	
10114- CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	Х	5.27	67.35	16.68	0.00	150.0	± 9.6 %
		Y	5.26	67.13	16.50		150.0	
		Z	5.13	67.29	16.53		150.0	
10115- CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	Х	5.64	67.65	16.83	0.00	150.0	± 9.6 %
		ΙΥ	5.64	67.44	16.66		150.0	
		Z	5.41	67.39	16.58		150.0	
10116- CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	Х	5.40	67.63	16.74	0.00	150.0	± 9.6 %
		Υ	5.40	67.41	16.56		150.0	
		Z	5.23	67.48	16.55		150.0	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	Х	5.28	67.37	16.71	0.00	150.0	± 9.6 %
		Y	5.27	67.16	16.53		150.0	
		Z	5.10	67.15	16.47		150.0	
10118- CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	Х	5.72	67.82	16.92	0.00	150.0	± 9.6 %
		Y	5.71	67.59	16.74		150.0	
		Z	5.49	67.60	16.69		150.0	
10119- CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	Х	5.38	67.58	16.73	0.00	150.0	± 9.6 %
	,	Y	5.37	67.36	16.55		150.0	
		Z	5.20	67.43	16.53		150.0	
10140- CAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.63	68.32	16.60	0.00	150.0	± 9.6 %
		Υ	3.57	67.75	16.19		150.0	
		Z	3.41	67.73	16.13		150.0	
10141- CAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.74	68.32	16.72	0.00	150.0	± 9.6 %
		Y	3.68	67.79	16.33		150.0	
		Z	3.53	67.83	16.30		150.0	
10142- CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	2.40	70.97	17.46	0.00	150.0	± 9.6 %
		Y	2.22	69.12	16.40		150.0	
		Z	2.07	69,49	16.29		150.0	
10143- CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	Х	2.84	70.46	17.25	0.00	150.0	± 9.6 %
		Υ	2.69	69.07	16.47		150.0	
		Z	2.57	69.75	16.27		150.0	
10144- CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	Х	2.59	68.09	15.66	0.00	150.0	± 9.6 %
		Y	2.49	67.04	15.03		150.0	
		Ζ	2.28	67.10	14.49		150.0	
10145- CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	Х	1.87	70.46	15.76	0.00	150.0	± 9.6 %
		Υ	1.62	67.78	14.40		150.0	
		Z	1.28	65.93	12.24		150.0	
10146- CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	Х	2.49	69.41	14.37	0.00	150.0	± 9.6 %
		Υ	2.53	69.01	14.31		150.0	
		Z	1.68	64.93	10.62		150.0	
10147- CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	Х	3.06	72.33	15.83	0.00	150.0	± 9.6 %
	,	Υ	3.03	71.56	15.63		150.0	1

10149- CAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	Х	3.17	68.42	16.69	0.00	150.0	± 9.6 %
		Y	3.10	67.70	16.19		150.0	1
		Z	2.94	67.75	16,11		150.0	1
10150- CAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.28	68.28	16.67	0.00	150.0	± 9.6 %
		Υ	3.21	67.61	16.21		150.0	
		Z	3.06	67.72	16.16		150.0	
10151- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	6.87	77.59	21.12	3.98	65.0	± 9.6 %
		Y	6.68	76.71	20.75		65.0	
		Z	5.57	75.10	19.96		65.0	
10152- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	6.19	73.97	20.22	3.98	65.0	± 9.6 %
	<u> </u>	Υ	6.16	73.47	19.98		65.0	
		Z	5.16	71.65	18.95		65.0	
10153- CAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	6.52	74.73	20.90	3.98	65.0	± 9.6 %
		Y	6.48	74.22	20.67		65.0	
	ļ	Z	5.49	72.56	19.72		65.0	
10154- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	2.68	71.25	17.81	0.00	150.0	± 9.6 %
		Υ	2.51	69.65	16.86		150.0	
		Z	2.33	69.77	16.83		150.0	l
10155- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.89	69.27	17.13	0.00	150.0	± 9.6 %
		Υ	<u>2.79</u>	68.27	16.50		150.0	
		Z	2.67	68.74	16.47		150.0	
10156- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	Х	2.31	71.63	17.64	0.00	150.0	± 9.6 %
		Υ	<u>2.</u> 10	69.44	16.42		150.0	
		Z	1.93	69.75	16.16		150.0	
10157- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.49 ——	69.19	16.06	0.00	150.0	± 9.6 %
		Υ	2.34	67.77	_15.26		150.0	1
	<u> </u>	Z	2.15	67.87	14.61		150.0	
10158- CAC	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	Х	3.05	69.32	17.22	0.00	150.0	± 9.6 %
		Y	2.95	68.39	16.63		150.0	
		Z	2.83	68.92	16.62		150.0	
10159- CAC	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.62	69.72	16.37	0.00	150.0	± 9.6 %
		Υ	2.47	68.27	15.57		150.0	
		Z	2.26	68.38	14.92		150.0	
10160- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	Х	3.05	69.96	17.25	0.00	150.0	± 9.6 %
		Y	2.93	68.87	16.57		150.0	
4046:	LITE FOR YOU FRANCE OF THE STATE Z	2.79	69.10	16.62		150.0		
10161- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.17	68.21	16.64	0.00	150.0	± 9.6 %
.		Y	3.11	67.51	16.16		150.0	
40400	LITE EDD (OO EDLIE HOS)	Z	2.96	67.69	16.10		150.0	
10162- CAB	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.28	68.24	16.69	0.00	150.0	± 9.6 %
_	<u> </u>	Y	3.21	67.56	16.23		150.0	
10100	LITE FIRE (OO TO	Z	3.07	67.83	16.20		150.0	
10166- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	×	3.61 ————	68.91	18.91	3.01	150.0	± 9.6 %
		Υ	3.71	68.82	18.78		150.0	
40		Z	3.44	69.35	19.00		150.0	
10167- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	Х	4.35	71.40	19.28	3.01	150.0	± 9.6 %
·		Y	4.53	71.34	19.15		150.0	
		Z	4.23	72.68	19.64		150.0	

10168- CAC	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	Х	4.73	73.23	20.42	3.01	150.0	± 9.6 %
_		Υ	4.93	73.16	20.29		150.0	
		Z	4.78	75.32	21.15		150.0	
10169- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	Х	3.00	68.99	19.00	3.01	150.0	± 9.6 %
		Υ	3.19	69.30	18.97		150.0	
		Z	2.76	68.70	18.79		150.0	
10170- CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	3.99	74.42	21.15	3.01	150.0	± 9.6 %
		Y	4.35	74.74	21.07		150.0	
40474	LTE EDD (OO EDLIA A DD OO LIL	Z	3.93	76.10	21.80		150.0	
10171- AAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	3.33	70.61	18.53	3.01	150.0	± 9.6 %
	-	Ÿ	3.61	70.81	18.44		150.0	
10172-	LTE TOD (CC EDMA 4 DD 20 MIL-	Z	3.09	71.10	18.58	0.00	150.0	1000
CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	7.91	87.61	26.50	6.02	65.0	± 9.6 %
	<u> </u>	Y	7.30	84.90	25.48		65.0	
10472	LTE TOD (CC CDMA A DD CC MUL-	Z	5.11	82.28	24.60	0.00	65.0	1000
10173- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	11.97	91.19	25.81	6.02	65.0	± 9.6 %
	<u> </u>	Y	11.64	89.69	25.41		65.0	
40474	LIFE TOD (OO EDAM 4 DD OO MIL	Z	9.00	89.10	24.85	0.00	65.0	
10174- CAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	Х	8.52	84.47	23.07	6.02	65.0	± 9.6 %
		Y	8.34	83.17	22.74		65.0	
10175	1.TE EDD (00 ED) 4 . DD 40 MI	Z	6.44	82.64	22.10	0.04	65.0	
10175- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	Х	2.97	68.69	18.76	3.01	150.0	± 9.6 %
		Y	3.15	68.97	18.71		150.0	
		Z	2.72	68.39	18.53		150.0	
10176- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	Х	4.00	74.44	21.16	3.01	150.0	± 9.6 %
		Υ	4.35	74.76	21.08		150.0	
		Z	3.93	76.13	21.81		150.0	
10177- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.99	68.85	18.86	3.01	150.0	± 9.6 %
··		Υ	3.18	69.14	18.82		150.0	
		Z	2.75	68.54	18.63		150.0	
10178- CAC	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	Х	3.95	74.18	21.02	3.01	150.0	± 9.6 %
		Y	4.29	74.47	20.93		150.0	
		Z	3.88	75.86	21.67		150.0	
10179- CAC	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.63	72.40	19.71	3.01	150.0	± 9.6 %
	1	Y	3.93	72.61	19.60		150.0	
40400	1.TE EDD /00 ED144 4.DD = 1.111 = 1.	Z	3.47	73,44	20.04	0.04	150.0	1000
10180- CAC	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	3.32	70.53	18.48	3.01	150.0	± 9.6 %
		Y	3.59	70.72	18.38	_	150.0	
40401		Z	3.08	71.02	18.53	0.01	150.0	1000
10181- CAB	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.99	68.83	18.85	3.01	150.0	± 9.6 %
		Ϋ́	3.17	69.12	18.81	<u> </u>	150.0	.
10182-	LTE-FDD (SC-FDMA, 1 RB, 15 MHz,	Z X	2.74 3.94	68.5 <u>2</u> 74.15	18.62 21.01	3.01	150.0 150.0	± 9.6 %
CAB	16-QAM)	Y	4.29	74.45	20.92	-	150.0	+
		Z	3.88	75.83	21.66	 	150.0	
10183-	LTE-FDD (SC-FDMA, 1 RB, 15 MHz,	X	3.31	70.50	18.46	3.01	150.0	± 9.6 %
AAA	64-QAM)					3.01		1.3.0 /
_	<u> </u>	Y	3.59	70.70	18.37	 	150.0	-
		Z	3.08	71.00	18.52	L	150.0	1

10184- CAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	3.00	68.87	18.87	3.01	150.0	± 9.6 %
•••••		Y	3.19	69.17	18.84		150.0	
	-	Ż	2.75	68.57	18.65		150.0	
10185- CAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	3.96	74.22	21.04	3.01	150.0	± 9.6 %
-		Υ	4.31	74.52	20.96	<u> </u>	150.0	
		Z	3.90	75.92	21.71		150.0	
10186- AAC	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	3.33	70.57	18.50	3.01	150.0	± 9.6 %
		Υ	3.60	70.76	18.40		150.0	<u> </u>
		Z	3.09	71.07	18.56		150.0	
10187- CAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	Х	3.00	68.91	18.92	3.01	150.0	± 9.6 %
		Υ	3.19	69.19	18.88		150.0	
		Z	2.76	68.63	18.71		150.0	
10188- CAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	Х	4.09	74.89	21.43	3.01	150.0	± 9.6 %
	_	Υ	4.45	75.22	21.35		150.0	
		Z	4.06	76.74	22.15		150.0	_
10189- AAC	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	Х	3.41	70.99	18.78	3.01	150.0	± 9.6 %
		Υ	3.68	71.19	18.68		150.0	
		Ζ	3.17	71.57	18.87		150.0	
10193- CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	Х	4.70	66.80	16.49	0.00	150.0	± 9.6 %
		Υ	4.69	66.56	16.29		150.0	
		Z	<u>4</u> .53	66.73	16.24		150.0	
10194- CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.90	67.17	16.60	0.00	150.0	± 9.6 %
		Y	4.89	66.93	16.40		150.0	
		Z	4.70	67.04	16.36		150.0	
10195- CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.94	67.18	16.61	0.00	150.0	± 9.6 %
		Y	4.93	66.94	16.41		150.0	
		Z	4.74	67.07	16.38		150.0	
10196- CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	Х	4.72	66.91	16.53	0.00	150.0	± 9.6 %
		Y	4.71	66.66	16.33		150.0	
		Z	4.53	66.79	16.26		150.0	
10197- CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.91	67.19	16.61	0.00	150.0	± 9.6 %
		Υ	4.91	66.95	16.41		150.0	
		Z	4.71	67.06	16.38		150.0	
10198- CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.94	67.20	16.62	0.00	150.0	± 9.6 %
		Υ	4.94	66.95	16.42		150.0	
1001-		Z	4.74	67.09	16.39		150.0	
10219- CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	×	4.67	66.93	16.50	0.00	150.0	± 9.6 %
		Ϋ́	4.66	66.67	16.29		150.0	
		Z	4.48	66.81	16.22		150.0	
10220- CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	Х	4.91	67.18	16.61	0.00	150.0	± 9.6 %
		Υ	4.91	66.94	16.41		150.0	
400-:		Ζ	4.70	67.03	16.36		150.0	
10221- CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.95 	67.12	16.60	0.00	150.0	± 9.6 %
		Y	4.95	66.89	16.41		150.0	
		Z	4.75	67.01	16.38		150.0	
10222- CAB	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.26	67.39	16.71	0.00	150.0	± 9.6 %
		Υ	5.25	67.18	16.54		150.0	
		Z	5.07	67.16	16.47		150.0	

10223- CAB	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	Х	5.62	67.69	16.88	0.00	150.0	± 9.6 %
		Y	5.63	67.53	16.73		150.0	
		Z	5.37	67.35	16.59		150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	Х	5.31	67.49	16.69	0.00	150.0	± 9.6 %
		Υ	5.30	67.29	16.51		150.0	
		Z	5.12	67.27	16.46		150.0	
10225- CAB	UMTS-FDD (HSPA+)	Х	3.00	66.68	16.08	0.00	150.0	± 9.6 %
		Υ	2.96	66.13	15.70		150.0	
		Z	2.82	66.40	15.50		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	Х	12.69	92.31	26.26	6.02	65.0	± 9.6 %
	<u> </u>	Y	12.26	90.69	25.83		65.0	
		Z	9.67	90.43	25.39		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	×	10.90	88.38	24.41	6.02	65.0	± 9.6 %
		Υ	10.80	87.33	24.19		65.0	
		Z	8.79	87.36	23.69		65.0	
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	10.21	92.65	28.25	6.02	65.0	± 9.6 %
		Y	9.82	90.78	27.59		65.0	
10000		Z	6.11	85.69	25.88		65.0	
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	12.05	91.28	25.85	6.02	65.0	± 9.6 %
		Υ	11.71	89.77	25.44		65.0	
		Z	9.08	89.22	24.90		65.0	
10230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	10.38	87.50	24.04	6.02	65.0	± 9.6 %
	<u>-</u>	Y	10.34	86.53	23.85		65.0	
		Z	8.23	86.25	23.24		65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	Х	9.79	91.76	27.87	6.02	65.0	± 9.6 %
		Y	9.44	89.96	27.24		65.0	
		Ż	5.87	84.87	25.51		65.0	
10232- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	Х	12.03	91.27	25.84	6.02	65.0	± 9.6 %
		Υ	11.69	89.75	25.44		65.0	
		Z	9.06	89.20	24.90		65.0	
10233- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	Х	10.37	87.49	24.04	6.02	65.0	± 9.6 %
		Υ	10.32	86.52	23.85		65.0	
		Z	8.21	86.23	23.23		65.0	
10234- CAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	9.39	90.84	27.46	6.02	65.0	± 9.6 %
		Y	9.09	89.12	26.85		65.0	
		Z	5.67	84.10	25.11		65.0	
10235- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	12.04	91.30	25.85	6.02	65.0	± 9.6 %
		<u>Y</u>	11.69	89.78	25.44		65.0	
10000		Z	9.06	89.23	24.91		65.0	
10236- CAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	10.47	87.62	24.08	6.02	65.0	± 9.6 %
		Υ	10.41	86.63	23.88		65.0	1
10237-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz,	X	8.31 9.82	86.37 91.85	23.28 27.91	6.02	65.0 65.0	± 9.6 %
CAB	QPSK)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0.40	00.00	07.00		GE O	
		Y	9.46	90.03	27.26		65.0	
10000	LTE TOD (SC EDMA 4 DD 45 MU)	Z	5.87	84.92	25.53	6.02	65.0	+060/
10238- CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	12.01	91.25	25.83	6.02	65.0	± 9.6 %
		Y	11.67	89.74	25.43		65.0	ļ
		Z	9.03	89.17	24.88		65.0	

10239- CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	10.34	87.48	24.04	6.02	65.0	± 9.6 %
	w - wat 1(1)	Y	10.30	86.51	23.84		65.0	
		ż	8.18	86.19	23.22		65.0	
10240- CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	9.78	91.79	27.89	6.02	65.0	± 9.6 %
		Υ	9.43	89.98	27.24		65.0	
		Ζ	5.85	84.87	25.51		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	7.79	78.91	24.31	6.98	65.0	± 9.6 %
		Υ	8.04	78.76	24.24		65.0	
		Z	6.87	78.46	23.88		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.95	76.46	23.17	6.98	65.0	± 9.6 %
		Υ	7.85	78.23	23.94		65.0	
		Z	6.30	76.69	23.05		65.0	
10243- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	5.78	73.78	22.84	6.98	65.0	± 9.6 %
		Υ	6.51	75.72	23.72		65.0	
		Z	5.21	73.41	22.50		65.0	
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	Х	5.73	74.52	18.36	3.98	65.0	± 9.6 %
		Y	6.00	74.92	18.76		65.0	
		Z	4.17	70.46	15.50		65.0	
10245- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	5.70	74.16	18.16	3.98	65.0	± 9.6 %
		Y	5.98	74.60	18.58		65.0	
		Z	4.12	70.05	15.27		65.0	
10246- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	Х	6.07	78.90	20.35	3.98	65.0	± 9.6 %
		Υ	5.79	77.80	20.04		65.0	
		Z	3.87	72.73	16.96		65.0	
10247- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	5.42	74.27	19.15	3.98	65.0	± 9.6 %
		Υ	5.39	73.79	19.04		65.0	
		Z	4.12	70.68	16.77		65.0	
10248- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	Х	5.47	73.87	18.97	3.98	65.0	± 9.6 %
		Y	5.45	73.44	18.87		65.0	
		Z	4.17	70.35	16.61		65.0	
10249- CAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	6.95	81.03	21.84	3.98	65.0	± 9.6 %
		Υ	6.51	79.54	21.33		65.0	
		Z	4.82	76.06	19.29		65.0	
10250- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	6.19	76.05	21.19	3.98	65.0	± 9.6 %
		Υ	6.11	75.40	20.92		65.0	
100		Z	5.02	73.34	19.63		65.0	
10251- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	Х	5.97	74.17	20.08	3.98	65.0	± 9.6 %
		Υ	5.92	73.60	19.85		65.0	
		Z	4.90	71.72	18.57		65.0	
10252- CAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	7.05	80.22	22.22	3.98	65.0	± 9.6 %
		Υ	6.71	78.91	21.71		65.0	
100=-		Z	5.38	76.79	20.59		65.0	
10253- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	6.02 ————	73.31	19.98	3.98	65.0	± 9.6 %
		Υ	5.99	72.84	19.76		65.0	
10000		Z	5.07	71.20	18.73		65.0	
10254- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	6.34	74.08	20.62	3.98	65.0	± 9.6 %
		Υ	6.32	73.60	20.40		65.0	1
		Z	5.38	72.04	19.42		65.0	

10255- CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	Х	6.54	76.96	21.13	3.98	65.0	± 9.6 %
		Y	6.39	76.11	20.77		65.0	
-		Z	5.35	74.55	19.95	-	65.0	-
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	4.78	71.78	16.29	3.98	65.0	± 9.6 %
		Y	5.15	72.61	16.95		65.0	
		Z	3.17	66.79	12.69		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	Х	4.75	71.31	16.01	3.98	65.0	± 9.6 %
		Υ	5.13	72.17	16.68	·	65.0	
		Z	3.15	66.37	12.40		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	Х	4.97	75.61	18.39	3.98	65.0	± 9.6 %
		Υ	4.91	75.17	18.40		65.0	
		Z	2.94	68.65	14.25	-	65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	5.73	74.90	19.87	3.98	65.0	± 9.6 %
		Y	5.67	74.34	19.69		65.0	
		Z	4.48	71.72	17.84		65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	Х	5.78	74.70	19.80	3.98	65.0	± 9.6 %
		Υ	5.74	74.19	19.64		65.0	
		Z	4.53	71.55	17.77		65.0	
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	6.66	79.93	21.76	3.98	65.0	± 9.6 %
	<u> </u>	Y	6.33	78.60	21.27		65.0	
		Z	4.85	75.73	19.59		65.0	
10262- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	6.18	76.01	21.15	3.98	65.0	± 9.6 %
		Y	6.10	75.36	20.89		65.0	<u> </u>
		Z	5.01	73.29	19.59		65.0	
10263- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	Х	5.97	74.15	20.08	3.98	65.0	± 9.6 %
		Y	5.92	73.60	19.85		65.0	
		Z	4.89	71.70	18.57		65.0	
10264- CAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	7.00	80.07	22.14	3.98	65.0	± 9.6 %
		Y	6.67	78.77	21.63		65.0	
		Z	5.34	76.63	20.50		65.0	
10265- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	Х	6.19	73.97	20.22	3.98	65.0	± 9.6 %
		Y	6.16	73.47	19.98	_	65.0	
		Z	5.16	71.65	18.95		65.0	
10266- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	6.52	74.71	20.90	3.98	65.0	± 9.6 %
		Υ	6.48	74.21	20.66		65.0	
		Z	5.49	72.55	19.71		65.0	ļ
10267- CAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	6.86	77.55	21.10	3.98	65.0	±9.6 %
		Υ	6.67	76.67	20.74		65.0	
		Z	5.56	75.06	19.94		65.0	
10268- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.77	73.75	20.47	3.98	65.0	± 9.6 %
		Υ	6.76	73.36	20.27		65.0	
		Z	5.82	71.83	19.46		65.0	
10269- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	Х	6.72	73.31	20.36	3.98	65.0	± 9.6 %
		Υ	6.71	72.94	20.17		65.0	
		Z	5.82	71.50	19.37		65.0	1
10270- CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	6.72	75.15	20.27	3.98	65.0	± 9.6 %
	 	1		74.00	00.00	i e	05.0	t
		Υ	6.64	74.60	20.03		65.0	

10274-	UMTS-FDD (HSUPA, Subtest 5, 3GPP	Х	2.75	67.09	16.03	0.00	150.0	± 9.6 %
CAB	Rel8.10)	ļ.,			1===		ļ	
		Y	2.69	66.35	15.53		150.0	
40075	LIMITO FOR WOULDA CONTACTOR CORP.	Z	2.62	66.86	15.47	0.00	150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.92	70.57	17.38	0.00	150.0	± 9.6 %
		Υ	1.74	68.38	16.07		150.0	
		Z	1.68	68.78	16.11		150.0	
10277- CAA	PHS (QPSK)	Х	2.69	62.91	8.63	9.03	50.0	± 9.6 %
		Υ	2.96	63.71	9.45	<u> </u>	50.0	
		Z	2.20	61.27	6.87		50.0	
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	×	5.78 	74.86	17.12	9.03	50.0	± 9.6 %
		Υ	6.34	76.24	18.11		50.0	
		Z	3.69	68.00	12.92		50.0	
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	5.98	75.20	17.31	9.03	50.0	± 9.6 %
		Ϋ́	6.53	76.54	18.27		50.0	
		Z	3.80	68.27	13.10		50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	Х	2.30	74.88	17.83	0.00	150.0	± 9.6 %
		Υ	1.78	70.39	15.73		150.0	
		Z	1.61	70.42	14.78		150.0	
10291- AAB	CDMA2000, RC3, SO55, Full Rate	X	1.30	71.95	16.66	0.00	150.0	± 9.6 %
		Υ	1.01	67.36	14.25		150.0	
		Z	0.90	67.30	13.30		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	Х	2.22	81.32	20.90	0.00	150.0	± 9.6 %
		Υ	1.29	71.97	16.82		150.0	
		Z	1.39	74.12	16.76		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	Х	4.76	93.97	25.71	0.00	150.0	± 9.6 %
		Υ	1.89	78.06	19.82		150.0	
		Z	3.15	86.13	21.66		150.0	
10295- AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	Х	7.57	80.84	22.54	9.03	50.0	± 9.6 %
		Υ	7.32	79.92	22.39		50.0	
		Ζ	7.16	79.00	20.62	-	50.0	
10297- AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	3.18	71.66	17.79	0.00	150.0	± 9.6 %
		Υ	2.99	70.22	16.93		150.0	
		Z	2.82	70.25	16.98		150.0	
10298- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	Х	2.15	71.80	17.05	0.00	150.0	± 9.6 %
	_	Y	1.88	69.12	15.66		150.0	
		Z	1.65	68.73	14.65		150.0	
10299- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	Х	2.93	71.02	15.86	0.00	150.0	± 9.6 %
		Υ	2.93	70.34	15.61		150.0	
		Z	2,42	68.83	13.56		150.0	
10300- AAB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	Х	2.26	66.49	13.02	0.00	150.0	± 9.6 %
		Υ	2.35	66.38	13.04		150.0	
		Z	1.78	64.38	10.69		150.0	1
10301- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	Х	4.86	65.22	17.67	4.17	50.0	±9.6 %
		Υ	4.88	64.94	17.44		50.0	
		Z	4.60	65.15	17.37		50.0	Ì
10302- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.36	65.98	18.46	4.96	50.0	± 9.6 %
	,	Υ	5.43	65.89	18.33	 	50.0	
	 -· 	Ż	5.04	65.63	18.01	 	50.0	

10303-	IEEE 802.16e WiMAX (31:15, 5ms,	Х	5.12	65.68	18.36	4.96	50.0	± 9.6 %
AAA	10MHz, 64QAM, PUSC)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	E 00	05.00	40.05		50.0	
		Y	5.20	65.63 65.22	18.25		50.0	
10304-	IEEE 802.16e WIMAX (29:18, 5ms,	 	4.79 4.91		17.82	4 47	50.0	1069/
AAA	10MHz, 64QAM, PUSC)			65.48	17.80	4.17	50.0	± 9.6 %
		Y	4.97	65.39	17.67		50.0	
40005	IEEE 000 40 - IMBAAY (04:45, 40	Z	4.60	65.13	17.33	0.00	50.0	. 0.00/
10305- AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	Х	4.54	67.31	20.13	6.02	35.0	± 9.6 %
		Y	4.68	67.57	20.17	_	35.0	
10206	IEEE 000 460 M/SMAY (00:40, 40	Z	4.18	66.58	19.14 19.53	C 00	35.0	1000
10306- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)		4.85	66.25		6.02	35.0	± 9.6 %
		Ϋ́	4.97	66.42	19.54		35.0	
40007	IEEE 000 40 - WENANY (00 40 40	Z	4.53	65.75	18.78	0.00	35.0	1000
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.78	66.57	19.58	6.02	35.0	± 9.6 %
		Y	4.90	66.76	19.60		35.0	
40000	IEEE OOG 40 MENANCIOS 40 40	Z	4.42	65.89	18.75	0.00	35.0	
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	Х	4.73	66.70	19.69	6.02	35.0	± 9.6 %
		Y	4.86	66.89	19.70		35.0	
10000	LEGE 200 to 18/19/2000 to 18	Z	4.39	66.07	18.88	0.55	35.0	
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.94	66.57	19.71	6.02	35.0	± 9.6 %
		Y	5.06	66.72	19.71		35.0	
		Z	4.58	65.95	18.92		35.0	
10310- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.80	66.33	19.50	6.02	35.0	± 9.6 %
		Y	4.92	66.50	19.51		35.0	
		Z	4.47	65.81	18.76		35.0	
10311- AAA	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	3.56	70.85	17.35	0.00	150.0	± 9.6 %
		Υ	3.35	69.53	16.58		150.0	
		Z	3.18	69.50	16.60		150.0	
10313- AAA	iDEN 1:3	Х	3.61	72.32	15.68	6.99	70.0	± 9.6 %
		Y	3.53	71.79	15.62		70.0	
		Z	2.40	68.35	13.79		70.0	
10314- AAA	IDEN 1:6	Х	4.88	78.34	20.75	10.00	30.0	± 9.6 %
		Υ	4.58	76.90	20.34		30.0	
		Z	3.37	73.24	18.49		30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	Х	1.15	64.85	16.31	0.17	150.0	± 9.6 %
		Y	1.11	63.83	15.42		150.0	
		Z	1.08	63.84	15.32		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	Х	4.74	66.77	16.53	0.17	150.0	± 9.6 %
		Υ	4.74	66.55	16.35		150.0	
		Z	4.55	66.64	16.26		150.0	
10317- AAB	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	Х	4.74	66.77	16.53	0.17	150.0	± 9.6 %
		Υ	4.74	66.55	16.35		150.0	
		Z	4.55	66.64	16.26		150.0	
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duly cycle)	Х	4.91	67.24	16.60	0.00	150.0	± 9.6 %
		Y	4.90	66.98	16.39		150.0	
		Z	4.68	67.09	16.36		150.0	
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.53	67.26	16.65	0.00	150.0	± 9.6 %
AAC	Jopo daty oyotoj	Y	5.53	67.04	16.47		150.0	1
		1 1	อ.ออ	07.04	10.47		1 30.0	

10402-	IEEE 802.11ac WiFi (80MHz, 64-QAM,	X	5.84	67.79	16.75	0.00	150.0	± 9.6 %
AAC	99pc duty cycle)	<u> </u>						
		Y	5.83	67.60	16.59		150.0	
40400	ODIMAGOO (4 E) (DO E	Z	5.64	67.53	16.51		150.0	
10403- AAB	CDMA2000 (1xEV-DO, Rev. 0)	Х	2.30	74.88	17.83	0.00	115.0	± 9.6 %
		<u>Y</u>	1.78	70.39	15.73		115.0	
40404	ODIA 0000 (4 EV DO (5 A)	Z	1.61	70.42	14.78		115.0	
10404- <u>A</u> AB	CDMA2000 (1xEV-DO, Rev. A)	X	2.30	74.88	17.83	0.00	115.0	± 9.6 %
		Y	1.78	70.39	15.73	-	115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	1.61 20.87	70.42 104.72	14.78 27.71	0.00	115.0 100.0	± 9.6 %
		Y	10.70	92.86	24.21	-	100.0	·
		Ż	100.00	118.79	28.45		100.0	
10410- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	4.21	2.23	80.0	± 9.6 %
		Υ	0.85	60.00	4.73		80.0	
		Z	276.16	59.75	0.95		80.0	
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.07	64.09	15.86	0.00	150.0	± 9.6 %
		Y	1.03	63.09	14.95		150.0	
		Z	1.03	63.38	15.01		150.0	
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	Х	4.70	66.84	16.53	0.00	150.0	± 9.6 %
		Υ	4.70	66.59	16.33		150.0	
10117	IEEE OOO 44 E HUELE OLA (OFFILIA	Z	4.53	66.77	16.31		150.0	
10417- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.70	66.84	16.53	0.00	150.0	± 9.6 %
_		Υ	4.70	66.59	16.33		150.0	
10418-	LIEFE 000 44 - WIFE 0 4 OLL (D000	Z	4.53	66.77	16.31		150.0	
·AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duly cycle, Long preambule)	×	4.69	66.99	16.55	0.00	150.0	± 9.6 %
		Y	4.68	66.72	16.33		150.0	
40440	UEEE 000 44 MUEE 0 4 OUT (FOOD	Z	4.52	66.94	16.34		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.72	66.94	16.55	0.00	150.0	± 9.6 %
		Υ	4.71	66.68	16.34		150.0	
		Z	4.54	66.88	16.33		150.0	
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.84	66.94	16.56	0.00	150.0	± 9.6 %
		Υ	4.83	66.69	16.36		150.0	
40400	IEEE 000 44- (UE O	Z	4.66	66.87	16.34		150.0	
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	5.04	67.32	16.69	0.00	150.0	± 9.6 %
	 	Y	5.04	67.08	16.50		150.0	
10424-	IEEE 802.11n (HT Greenfield, 72.2	Z	4.82	67.18	16.45	0.00	150.0	
AAA	Mbps, 64-QAM)	X	4.95	67.26	16.66	0.00	150.0	± 9.6 %
	 	Y	4.95	67.01	16.46		150.0	
10425- AAA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	4.74 5.52	67.14 67.53	16.43 16.78	0.00	150.0 150.0	± 9.6 %
	7	Y	5.52	67.34	16.61		150.0	
	1	Ż	5.34	67.39	16.58	_	150.0	
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.53	67.57	16.79	0.00	150.0	± 9.6 %
////			I					
		Y	5.53	67.38	16.62	•	150.0	

10427-	IEEE 802.11n (HT Greenfield, 150 Mbps,	Х	5.55	67.58	16.79	0.00	150.0	± 9.6 %
AAA	64-QAM)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		07.00	40.00		450.0	
		Y	5.55	67.39	16.63		150.0	
40400	LTE EDD (OEDLIA E MIL E TMAA)	Z	5.36	67.40	16.58		150.0	
10430- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	×	4.49	70.88	18.66	0.00	150.0	± 9.6 %
		Υ	4.44	70.33	18.34		150.0	
		Z	4.33	71.40	18.47		150.0	
10431- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	Х	4.45	67.48	16.65	0.00	150.0	± 9.6 %
		Υ	4.44	67.15	16.41		150.0	
		Z	4.21	67.37	16.32		150.0	
10432- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.73	67.33	16.65	0.00	150.0	± 9.6 %
		Y	4.72	67.05	16.43		150.0	
		Z	4.51	67.21	16.38		150.0	
10433- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	Х	4.97	67.31	16.69	0.00	150.0	± 9.6 %
		Y	4.96	67.06	16.49		150.0	
		Z	4.75	67.17	16.45		150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.62	71.79	18.74	0.00	150.0	± 9.6 %
		Υ	4.54	71.10	18.37		150.0	
		Z	4.47	72.43	18.49		150.0	
10435- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	0.76	60.00	4.20	2.23	80.0	± 9.6 %
		Υ	0.85	60.00	4.72		80.0	
		Z	66.45	60.78	1.49		80.0	
10447- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	Х	3.79	67.71	16.28	0.00	150.0	± 9.6 %
-1		Y	3.75	67.22	15.96		150.0	
		Ż	3.51	67.46	15.65		150.0	
10448- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	4.27	67.27	16.52	0.00	150.0	± 9.6 %
, , , , ,		Υ	4.25	66.92	16.26		150.0	
		Z	4.05	67.16	16.19		150.0	
10449- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.52	67.17	16.56	0.00	150.0	± 9.6 %
		Υ	4.51	66.87	16.33		150.0	
	-	Z	4.32	67.04	16.29		150.0	
10450- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	Х	4.70	67.08	16.56	0.00	150.0	± 9.6 %
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Υ	4.69	66.81	16.34		150.0	
		Z	4.52	66.95	16.31		150.0	
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	Х	3.73	68.10	16.08	0.00	150.0	± 9.6 %
		Υ	3.69	67.52	15.74		150.0	
		Ż	3.40	67.64	15.25		150.0	
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	Х	6.38	68.13	16.93	0.00	150.0	± 9.6 %
		Y	6.38	67.98	16.79		150.0	
		Z	6.21	67.93	16.72		150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	X	3.89	65.47	16.27	0.00	150.0	± 9.6 %
		Y	3.87	65.22	16.06		150.0	
		Z.	3.80	65.41	16.02	_	150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	Х	3.54	67.33	15.57	0.00	150.0	± 9.6 %
,,,,,		Y	3.50	66.74	15.23		150.0	
		Ż	3.21	66.91	14.60	ļ	150.0	
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.73	65.72	16.35	0.00	150.0	± 9.6 %
1		Y	4.68	65.20	16.05	1	150.0	
	 -					 		
		Z	4.29	65.19	15.57	<u> </u>	150.0	·

10460- AAA	UMTS-FDD (WCDMA, AMR)	X	1.21	73.65	19.54	0.00	150.0	± 9.6 %
		Y	0.97	68.97	16.85	-	150.0	
		Z	0.97	69.70	17.11		150.0	-
10461- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	11.72	93.10	23.40	3.29	80.0	± 9.6 %
_	<u> </u>	Y	9.76	90.03	22.73		80.0	
		Z	2.37	74.43	16.84		80.0	
10462- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.54	63.80	10.33	3.23	80.0	± 9.6 %
_		Y	2.10	66.18	11.79	<u> </u>	80.0	
10463-	LTE TOD (OO FOLKS 4 DD 4 4 ML	Z	0.80	60.00	7.11		80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.22	61.20	8.65	3.23	80.0	± 9.6 %
	-	Y	1.64	63.16	10.02		80.0	
10464-	LTE TOD (CO EDMA 4 OD O MIL	Z	0.83	60.00	6.56		80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	8.54	87.88	21.27	3.23	80.0	± 9.6 %
		Y	7.63	85.91	20.94		80.0	
10465-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-	Z	1.78	70.62	14.76		80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)	X	1.43	63.04	9.91	3.23	80.0	± 9.6 %
	 	Y	1.91	65.20	11.30		80.0	
10466-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-	Z X	0.80	60.00	7.03	0.55	80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)		1.18	60.81	8.40	3.23	80.0	± 9.6 %
	 	Y	1.55	62.61	9.71		80.0	
10467-	LTE-TDD (SC-FDMA, 1 RB, 5 MHz,	Z	0.84	60.00	6.51		80.0	
	QPSK, UL Subframe=2,3,4,7,8,9)	X	9.44	89.25	21.70	3.23	80.0	± 9.6 %
		Y	8.24	87.00	21.30		80.0	
40400	LTE TOP (OO EDIA A DD ELIU A	Z	1.86	71.22	15.03		80.0	
10468- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	1.45	63.20	10.00	3.23	80.0	± 9.6 %
		Υ	1.95	65.41	11.41		80.0	
40400	LITE TRR (CO FRIAL 4 PR. T. VI.	Z	0.80	60.00	7.05	_	80.0	
10469- AAA	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	1.17	60.81	8.40	3.23	80.0	± 9.6 %
		Υ	1.55	62.62	9.71		80.0	
10170		LZ_	0.84	60.00	6.51		80.0	
10470- AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	9.43	89.27	21.70	3.23	80.0	± 9.6 %
		Υ	8.23	87.00	21.30		80.0	
10471-	LTC TOD (OC EDIAN A DD COAUL AC	Z	1.85	71.19	15.01		80.0	
AAA 	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	1.44	63.15	9.97	3.23	80.0	± 9.6 %
		Y	1.94	65.36	11.38		80.0	
10472-	LITE TOD (CC FDMA 4 DB 40 MH C4	Z	0.80	60.00	7.03		80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	1.17	60.78	8.37	3.23	80.0	± 9.6 %
		Y	1.54	62.59	9.68		80.0	
10473-	LITE TOD (CO FOMA 4 DD 45 AU)	Z	0.84	60.00	6.49		80.0	
AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	9.41	89.22	21.68	3.23	80.0	± 9.6 %
		Y	8.21	86.96	21.28		80.0	
10474- AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Z X	1.85 1.43	71.16 63.13	14.99 9.95	3.23	80.0 80.0	± 9.6 %
	Grant OF Oppiration (19.4, 1,0,8)	Y	1.93	65.00	44.00		00.0	
		Z		65.33	11.36		80.0	
10475-	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-	X	0.80	60.00	7.03	0.00	80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)		1.17	60.76	8.36	3.23	80.0	± 9.6 %
		Y	1.54	62.57	9.67		80.0	
	<u> </u>	Z	0.83	60.00	6.49		80.0	

10477-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-	х	1.41	62.97	9.86	3.23	80.0	± 9.6 %
AAA	QAM, UL Subframe=2,3,4,7,8,9)			02.01		0.20	00.0	20.0 %
		Υ	1.90	65.14	11.26		80.0	
40.470	LITE TOO (OO FOLK) A DO COLUMN	Z	0.80	60.00	7.01		80.0	
10478- AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	1.16	60.73	8.34	3.23	0.08	± 9.6 %
		Y	1.54	62.53	9.65		80.0	
40.470		Z	0.84	60.00	6.48		80.0	
10479- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	0.98	60.00	7.39	1.99	80.0	± 9.6 %
	-	Y	1.06	60.16	7.95		80.0	
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.94 1.27	60.00	5.23 6.63	1.99	0.08 0.08	± 9.6 %
	is a my or east and Elefth lefe)	Y	1.35	60.00	7.13		80.0	†
	-	Z	1.53	60.00	4.29		80.0	
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	1.30	60.00	6.40	1.99	80.0	± 9.6 %
		Υ	1.38	60.00	6.90		80.0	
		Ζ	0.43	54.19	1.30		80.0	
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	3.28	73.00	16.98	1.99	80.0	± 9.6 %
		Υ	2.86	70.68	16.10		80.0	
		Z	1.62	64.74	12.32		80.0	
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	3.40	69.73	15.23	1.99	80.0	± 9.6 %
	·	Υ	3.59	70.08	15.60		80.0	
10484-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	Z X	1.86 3.34	63.18 69.24	10.97 15.06	1.99	80.0 80.0	± 9.6 %
AAA	64-QAM, UL Subframe=2,3,4,7,8,9)	Υ	3.54	69.64	15.45		80.0	-
		Z	1.86	62.93	10.88	-	80.0	
10485- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	3.77	75.01	18.62	1.99	80.0	± 9.6 %
		Υ	3.28	72.46	17.59		80.0	
		Z	2.22	68.46	15.19		80.0	
10486- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.26	69.56	16.20	1.99	80.0	± 9.6 %
		Y	3.11	68.44	15.75		80.0	
		Ζ	2.24	65.29	13.35		80.0	
10487- AAA	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.26	69.18	16.06	1.99	80.0	± 9.6 %
		Υ	3.13	68.18	15.65		80.0	
10488-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.27 4.02	65.07 74.12	13.25 18.89	1.99	80.0 80.0	± 9.6 %
AAA	QL ON, OE GUDITATIC=2,0,4,1,0,8)	Y	3.68	72.24	18.05		80.0	
	 	Z	2.79	69.65	16.71		80.0	
10489- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.55	69.37	17.23	1.99	80.0	± 9.6 %
• •		Y	3.45	68.50	16.80		80.0	
		Z	2.85	66.93	15.67		80.0	
10490- AAA	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.64	69.12	17.17	1.99	80.0	± 9.6 %
		Υ	3.55	68.33	16.77		80.0	
		Z	2.95	66.87	15.67		80.0	
10491- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.06	71.97	18.21	1.99	80.0	± 9.6 %
		Υ	3.86	70.73	17.60		80.0	
10.15	1.77 700 /00 75111 7517 7517	Z	3.12	68.84	16.64	4.00	80.0	1000
10492- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.87	68.55	17.18	1.99	80.0	±9.6 %
		Y	3.81	67.93	16.84	<u> </u>	80.0	
		Z	3.27	66.72	16.02	<u> </u>	80.0	

10493- AAA	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.94	68.39	17.14	1.99	80.0	± 9.6 %
, 1/7/1	04 SONN, OL SUBIRATIO-2,3,4,7,0,8)	Y	3.89	67.81	16.82		80.0	-
	-	Z	3.34	66.64	16.00		80.0	-
10494- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.55	73.88	18.73	1.99	80.0	± 9.6 %
•		Υ	4.24	72.33	18.02		80.0	†
		Z	3.33	70.03	16.95		80.0	
10495- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.93	69.10	17.40	1.99	80.0	± 9.6 %
		Υ	3.86	68.43	17.03		80.0	<u> </u>
10496- AAA	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z	3.29 4.00	67.05 68.74	16.20 17.30	1.99	80.0 80.0	± 9.6 %
7001	0-1 40 MM, OE GUDITATIO-2,0,4,7,0,0)	Y	3.94	68.14	16.97		80.0	 -
		ż	3.38	66.88	16.17		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.20	67.90	14.03	1.99	80.0	± 9.6 %
		Y	2.06	66.72	13.63	-	80.0	
		Ż	1.04	60.25	8.90		80.0	
10498- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.78	62.65	10.75	1.99	80.0	± 9.6 %
		Υ	1.84	62.68	10.94		80.0	
		Z	1.23	60.00	7.86		80.0	
10499- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	1.75	62.21	10.41	1.99	80.0	± 9.6 %
		Υ	1.82	62.33	10.65		80.0	
		Ζ	1.25	60.00	7.73		80.0	
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	3.75	74.13	18.58	1.99	80.0	± 9.6 %
		Y	3.37	71.97	17.66		80.0	
40504	LTE TOD (OO FD) A 4000 DD O HIL	Z	2.44	68.90	15.82		80.0	
10501- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.39	69.48	16.61	1.99	80.0	± 9.6 %
		Y	3.26	68.46	16.16	_	80.0	
10502- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Z	2.53 3.45	66.17 69.28	14.37 16.49	1.99	80.0 80.0	± 9.6 %
	20111110	Y	3.32	68.32	16.07		80.0	
		z	2.58	66.07	14.27		80.0	
10503- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.96	73.88	18.78	1.99	80.0	± 9.6 %
		Y	3.63	72.03	17.95		80.0	
10501	LITE TOP (OR FELLE	Z	2.75	69.46	16.61		80.0	
10504- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.53	69.28	17.18	1.99	80.0	± 9.6 %
	 	Y	3.44	68.42	16.75		80.0	
10505- AAA	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z X	2.83 3.62	66.84 69.03	15.61 17.11	1.99	80.0 80.0	± 9.6 %
	64-QAM, UL Subframe=2,3,4,7,8,9)	Y	3.53	68.24	16.71		80.0	
40500	LITE TOD (OO FOLK)	Z	2.93	66.78	15.61	<u> </u>	80.0	
10506- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	4.51	73.71	18.65	1.99	80.0	± 9.6 %
	 	Y	4.20	72.18	17.95		80.0	
40507	LITE TOD (OO EDITE 1000' DD	Z	3.30	69.89	16.88		80.0	
10507- AAA —	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.92	69.03	17.36	1.99	80.0	± 9.6 %
		Υ	3.85	68.37	17.00		80.0	
	· ————————————————————————————————————	Z	3.27	66.99	16.16		80.0	

10508- AAA	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	3.98	68.67	17.26	1.99	80.0	±9.6 %
		Υ	3.93	68.08	16.93		80.0	
		Z	3.37	66.81	16.13		80.0	
10509- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.65	71.85	17.97	1.99	80.0	± 9.6 %
		Υ	4.46	70.83	17.47	·	80.0	·
		Z	3.71	69.11	16.66		80.0	
10510- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	4.39	68.71	17.31	1.99	80.0	± 9.6 %
		Y	4.35	68.21	17.02		80.0	
	1.55	Z	3.78	66.98	16.33		80.0	
10511- AAA	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.43	68.38	17.23	1.99	80.0	± 9.6 %
		Υ	4.39	67.92	16.97		0.08	
		Z	3.85	66.80	16.31		80.0	
10512- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.04	73.84	18.55	1.99	80.0	± 9.6 %
		<u>Y</u>	4.71	72.47	17.92		80.0	
1		Z	3.79	70.27	16.94		80.0	
10513- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.30	69.13	17.46	1.99	80.0	± 9.6 %
		Υ	4.24	68.57	17.14		80.0	
		Z	3.66	67.17	16.38		80.0	
10514- AAA	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.29	68.60	17.32	1.99	80.0	±9.6 %
		Y	4.24	68.10	17.03		80.0	
		Z	3.70	66.84	16.32		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	Х	1.04	64.40	16.01	0.00	150.0	± 9.6 %
		Υ	1.00	63.29	15.02		150.0	
		\[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0.99	63.60	15.10		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	1.24	84.64	24.55	0.00	150.0	±9.6%
		Y	0.67	71.96	18.39		150.0	
10517-	!EEE 802.11b WiFi 2.4 GHz (DSSS, 11	Z	0.70 0.95	73.24 67.81	19.02 17.51	0.00	150.0 150.0	± 9.6 %
AAA	Mbps, 99pc duty cycle)	^ Y	0.86	65.51	15.82	0.00	150.0	19.0 %
	-	Z	0.85	65.84	15.95		150.0	
10518- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.70	66.93	16.52	0.00	150.0	± 9.6 %
		Ϋ́	4.69	66.67	16.31		150.0	
		Z	4.52	66.85	16.29		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	Х	4.92	67.20	16.65	0.00	150.0	± 9.6 %
		_<	4.92	66.96	16.45		150.0	
		Z	4.70	67.07	16.40		150.0	
10520- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.77	67.20	16.59	0.00	150.0	± 9.6 %
	<u> </u>	Y	4.76	66.95	16.38	<u> </u>	150.0 150.0	
10521- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.55 4.70	67.03 67.22	16.33 16.59	0.00	150.0	± 9.6 %
		Y	4.70	66.95	16.37	ĺ	150.0	
		Z	4.49	67.03	16.32		150.0	
10522- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.75	67.20	16.62	0.00	150.0	± 9.6 %
		Ŷ	4.74	66.92	16.40		150.0	
		Z	4.55	67.13	16.41		150.0	

10523- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.62	67.11	16.49	0.00	150.0	± 9.6 %
		Y	4.61	66.83	16.26		150.0	
		Z	4.44	67,02	16.27		150.0	
10524- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.70	67.15	16.61	0.00	150.0	± 9.6 %
		Υ	4.69	66.88	16.39		150.0	
		Z	4.49	67.05	16.37		150.0	
10525- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.66	66.19	16.19	0.00	150.0	± 9.6 %
		Υ	4.65	65.91	15.98		150.0	
10500		Z	4.49	66.11	15.97	L	150.0	
10526- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duly cycle)	Х	4.86	66.60	16.34	0.00	150.0	± 9.6 %
-		Y	4.85	66.32	16.12		150.0	
10507	IEEE 000 44 INIE: (00MH - MO00	Z	4.65	66.47	16.11	L	150.0	
10527- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.78	66.58	16.30	0.00	150.0	± 9.6 %
		Y	4.77	66.30	16.08	<u> </u>	150.0	
10500	IEEE 000 44 - 1465 (2018) 14050	Z	4.57	66.43	16.06		150.0	<u></u>
10528- AAA	IEEE 802 11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.80	66.60	16.33	0.00	150.0	± 9.6 %
	 	Y	4.79	66.32	16.11	ļ	150.0	
10529-	IEEE 900 44cc WIE: (00MH- NGC4	Z	4.59	66.45	16.09		150.0	
AAA	IEEE 802.11ac WIFi (20MHz, MCS4, 99pc duty cycle)	X	4.80	66.60	16.33	0.00	150.0	± 9.6 %
	<u> </u>	ĻΫ́	4.79	66.32	16.11		150.0	
10531-	IEEE 000 44 co WEE: (00MH - MOOO	Z	4.59	66.45	16.09		150.0	
AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.81	66.75	16.36	0.00	150.0	± 9.6 %
		Y	4.80	66.47	16.14		150.0	
10532-	IEEE 000 44 - WIEL (0014) ALOOF	Z	4.57	66.54	16.10		150.0	
AAA 	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duly cycle)	X	4.66	66.63	16.31	0.00	150.0	± 9.6 %
		Y	4.65	66.33	16.09		150.0	
40500	IEEE 000 44 - INVENTOR III - NOOO	Z	4.44	66.40	16.03		150.0	
10533- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.81	66.62	16.31	0.00	150.0	± 9.6 %
		Y	4.80	66.34	16.09		150.0	
40504	1555 000 11 1155 1100 11	Z	4.60	66.50	16.08		150.0	
10534- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.31	66.70	16.35	0.00	150.0	± 9.6 %
_		Y	5.30	66.47	16.16		150.0	
10535-	IEEE 000 44 - 18/5' /405 U. 11004	LZ I	5.12	66.50	16.12		150.0	
_AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.38	66.84	16.40	0.00	150.0	± 9.6 %
		Y	5.37	66.61	16.21		150.0	
10536- AAA	IEEE 802.11ac WiFi (40MHz, MCS2,	Z	5.19 5.25	66.68 66.84	16.21 16.39	0.00	150.0 150.0	± 9.6 %
747	99pc duty cycle)	 , 	<u> </u>	CC 00	40.00		155.5	
	 	Y	5.24	66.60	16.20		150.0	
10537-	IEEE 802.11ac WiFi (40MHz, MCS3,	Z	5.06	66.64	16.17	0.00	150.0	
AAA	99pc duty cycle)		5.31	66.81	16.37	0.00	150.0	± 9.6 %
		Y	5.30	66.58	16.19		150.0	
10538- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	Z X	5.11 5.42	66.60 66.86	16.15 16.44	0.00	150.0 150.0	± 9.6 %
		Y	5.42	66.65	16.26		150.0	
		ż	5.20	66.61	16.19		150.0 150.0	
10540- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.32	66.82	16.43	0.00	150.0	± 9.6 %
		Y	5.31	66.59	16.25		150.0	
		z	5.13					
	<u> </u>		ี	66.62	16.21		150.0	

10541- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	Х	5.31	66.72	16.38	0.00	150.0	± 9.6 %
· · · · · · · · · · · · · · · · · · ·		Y	5.30	66.51	16.20		150.0	
		Z	5.11	66.50	16.14		150.0	·
10542- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duly cycle)	X	5.46	66.75	16.41	0.00	150.0	± 9.6 %
		Υ	5.45	66.54	16.23		150.0	
		Z	5.26	66.57	16.19		150.0	
10543- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	Х	5.54	66.76	16.42	0.00	150.0	± 9.6 %
		Υ	5.53	66.55	16.25		150.0	
		Z	5.33	66.59	16.22		150.0	
10544- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.59	66.79	16.32	0.00	150.0	± 9.6 %
		Y.	5.58	66.58	16.15		150.0	
		Z	5.44	66.61	16.12		150.0	
10545- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.80	67.20	16.46	0.00	150.0	± 9.6 %
		Υ	5.79	66.99	16.29		150.0	
		Z	5.62	67.01	16.27		150.0	
10546- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.69	67.08	16.42	0.00	150.0	± 9.6 %
		Y	5.68	66.87	16.25		150.0	
		Z	5.49	66.80	16.18		150.0	
10547- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.78	67.15	16.45	0.00	150.0	± 9.6 %
		Υ	5.76	66.94	16.27		150.0	
		Z	5.56	66.84	16.19		150.0	
10548- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	6.08	68.21	16.94	0.00	150.0	± 9.6 %
		Y	6.07	68.02	16.78		150.0	
		Z	5.78	67.67	16.58		150.0	
10550- AAA	IEEE 802.11ac WIFi (80MHz, MCS6, 99pc duty cycle)	Х	5.70	67.03	16.40	0.00	150.0	± 9.6 %
		Y	5.69	66.82	16.23		150.0	
		Z	5.52	66.83	16.20		150.0	
10551- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	Х	5.72	67.11	16.41	0.00	150.0	± 9.6 %
		Υ	5.71	66.92	16.24		150.0	
		Z	5.53	66.87	16.18		150.0	
10552- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.62	66.88	16.31	0.00	150.0	± 9.6 %
		Υ	5.61	66.68	16.14		150.0	
		Z	5.45	66.69	16.10		150.0	
10553- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.71	66.92	16.35	0.00	150.0	± 9.6 %
		Υ	5.70	66.73	16.19		150.0	
		Z	5.53	66.71	16.14		150.0	
10554- AAA	IEEE 1602.11ac WIFi (160MHz, MCS0, 99pc duty cycle)	X	5.99	67.16	16.40	0.00	150.0	± 9.6 %
		Y	5.98	66.97	16.24		150.0	
		Z	5.85	66.96	16.20		150.0	
10555- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	Х	6.14	67.49	16.54	0.00	150.0	± 9.6 %
		Y	6.13	67.31	16.38		150.0	
10556-	IEEE 1602.11ac WiFi (160MHz, MCS2,	Z	5.97 6.15	67.25 67.51	16.32 16.54	0.00	150.0 150.0	± 9.6 %
AAA	99pc duty cycle)	+ , -	6.4.4	67.04	40.00		150.0	
		Y	6.14	67.31	16.38		150.0	
10557	IEEE 4600 4400 WEE: (460 MU- 14000	Z	5.99	67.30	16.34	0.00	150.0	± 9.6 %
10557- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle)		6.14	67.46	16.54	0.00	150.0	I 9.0 %
		Y	6.13	67.28	16.39		150.0	ļ
	1	Z	5.95	67.20	16.30		150.0	<u>L</u>

10558- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duly cycle)	Х	6.20	67.65	16.65	0.00	150.0	± 9.6 %
		Υ	6.19	67.47	16.50		150.0	
		Z	6.00	67.35	16.40	_	150.0	
10560- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	Х	6.19	67.48	16.60	0.00	150.0	± 9.6 %
		Y	6.18	67.30	16.45		150.0	
		Z	5.99	67.21	16.36		150.0	
10561- <u>A</u> AA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.10	67.44	16.62	0.00	150.0	± 9.6 %
		Y	6.09	67.25	16.46		150.0	
		Z	_ 5.92	67.18	16.38		150.0	
10562- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	Х	6.26	67.92	16.86	0.00	150.0	± 9.6 %
		Y	6.25	67.74	16.71		150.0	
		Z	6.02	67.51	16.55		150.0	<u>L</u>
10563- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.59	68.43	17.06	0.00	150.0	± 9.6 %
		Y	6.56	68.19	16.88		150.0	
		Z	6.17	67.57	16.54		150.0	
10564- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	Х	5.02	66.98	16.64	0.46	150.0	± 9.6 %
		Y	5.02	66.75	16.46		150.0	
		Z	4.84	66.87	16.40		150.0	
10565- _AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 99pc duty cycle)	X	5.28	67.46	16.97	0.46	150.0	± 9.6 %
		Y	5.29	67.25	16.80		150.0	
	<u> </u>	Z	5.06	67.31	16.73		150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	5.11	67.33	16.80	0.46	150.0	± 9.6 %
		Υ	5.11	67.11	16.62		150.0	-
		Z	4.89	67.16	16.54		150.0	
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	5.14	67.71	17.14	0.46	150.0	± 9.6 %
		Y	5.14	67.49	16.96		150.0	
		Z	4.92	67.55	16.90		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	X	5.02	67.04	16.54	0.46	150.0	± 9.6 %
		Y	5.01	66.80	16.34		150.0	
		Z	4.80	66.91	16.29		150.0	
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X	5.07	67.72	17.15	0.46	150.0	± 9.6 %
		Y	5.07	67.49	16.97		150.0	
		Z	4.88	67.65	16.96		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	X	5.13	67.59	17,11	0.46	150.0	± 9.6 %
		Y	5.13	67.36	16.92		150.0	
40		Z	4.92	67.50	16.90		150.0	
10571- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.22	65.32	16.47	0.46	130.0	± 9.6 %
		L Y	1.19	64.33	15.63		130.0	
		Z	1.12	63.99	15.32		130.0	
10572- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.24	65.99	16.87	0.46	130.0	± 9.6 %
		Y	1.20	64.88	15.97		130.0	
	<u> </u>	Z	1.13	64.51	15.65		130.0	
10573- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	8.40	111.27	31.87	0.46	130.0	± 9.6 %
		Y	1.93	84.16	22.83		130.0	
		Z	1.44	80.98	21.76		130.0	
10574- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.48	73.54	20.63	0.46	130.0	± 9.6 %
		Y	4.00	70.50	40.00		100.0	
		r i	1.32	70.59	18.86		130.0	

10575-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	T X T	4.78	66.67	16.61	0.46	130.0	1 +060/
AAA	OFDM, 6 Mbps, 90pc duty cycle)					0.46		± 9.6 %
	 	Y	4.79	66.46	16.45		130.0	
10576		Z	4.59	66.54	16.35		130.0	
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	Х	4.81	66.83	16.68	0.46	130.0	± 9.6 %
		Υ	4.81	66.62	16.51		130.0	
	<u> </u>	Z	4.62	66.72	16.42		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duty cycle)	Х	5.04	67.16	16.86	0.46	130.0	± 9.6 %
		Y	5.05	66.97	16.70		130.0	
10578-	IEEE 000 44 - WEE 0 4 OUT (DOOD	Z	4.82	67.00	16.58		130.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	4.94	67.34	16.97	0.46	130.0	± 9.6 %
	 	Y	4.95	67.13	16.80		130.0	
10579-	IFFE 000 44 ~ W/F: 0 4 OU ~ /D000	Z	4.72	67.16	16.69		130.0	
AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	Х	4.71	66.68	16.31	0.46	130.0	± 9.6 %
		Y	4.71	66.46	16.14	_	130.0	
10580-	IEEE 900 44a WIE 0 4 OU- (DOOD	Z	4.47	66.40	15.97	<u> </u>	130.0	
AAA 	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	X	4.75	66.65	16.31	0.46	130.0	± 9.6 %
	 	Y	4.76	66.43	16.13		130.0	ļ
10E94	JEEE 000 44% MEE 0 4 OUT (DOOG	Z	4.52	66.45	16.00	0.15	130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	Х	4.84	67.39	16.91	0.46	130.0	± 9.6 %
		Y	4.84	67.17	16.73		130.0	
40500		Z	4.61	67.19	16.63	2.12	130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.66 	66.43	16.11	0.46	130.0	± 9.6 %
		Y	4.67	66.22	15.93	<u> </u>	130.0	
		Z	4.41	66.17	15.76		130.0	
10583- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	Х	4.78	66.67	16.61	0.46	130.0	± 9.6 %
		Υ	4.79	66.46	16.45		130.0	
		Z	4.59	66.54	16.35		130.0	
10584- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	Х	4.81	66.83	16.68	0.46	130.0	± 9.6 %
		Y	4.81	66.62	16.51		130.0	
	<u></u>	Z	4.62	66.72	16.42		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	5.04	67.16	16.86	0.46	130.0	± 9.6 %
		Υ	5.05	66.97	16.70	<u> </u>	130.0	
		Z	4.82	67.00	16.58		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	Х	4.94	67.34	16.97	0.46	130.0	± 9.6 %
		Y	4.95	67.13	16.80		130.0	
		Z	4.72	67.16	16.69	ļ	130.0	
10587- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	Х	4.71	66.68	16.31	0.46	130.0	± 9.6 %
		Υ	4.71	66.46	16.14		130.0	
		Z	4.47	66.40	15.97		130.0	
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	Х	4.75	66.65	16.31	0.46	130.0	± 9.6 %
		Υ	4.76	66.43	16.13		130.0	
		Z	4.52	66.45	16.00	<u> </u>	130.0	
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	Х	4.84	67.39	16.91	0.46	130.0	± 9.6 %
		Υ	4.84	67.17	16.73		130.0	
		Z	4.61	67.19	16.63		130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.66	66.43	16.11	0.46	130.0	± 9.6 %
		Υ	4.67	66.22	15.93		130.0	
		Z	4.41	66.17	15.76]	130.0	

10591- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.94	66.72	16.71	0.46	130.0	± 9.6 %
<u> </u>		Y	4.94	66.53	16.55		130.0	
		Ż	4.75	66.62	16.45		130.0	1
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.11	67.08	16.83	0.46	130.0	± 9.6 %
		Y	5.12	66.88	16.67		130.0	
		Z	4.89	66.95	16.59		130.0	
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duly cycle)	X	5.04	67.02	16.74	0.46	130.0	± 9.6 %
		Y	5.05	66.83	16.58		130.0	
	-	Z	4.81	66.84	16.46		130.0	i .
10594- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	5.09	67.17	16.88	0.46	130.0	± 9.6 %
		Y	5.10	66.97	16.72		130.0	
		Z	4.87	67.01	16.62	L.	130.0	
10595- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	5.06	67.13	16.78	0.46	130.0	± 9.6 %
		Y	5.07	66.94	16.62		130.0	
		Z	4.83	66.96	16.51		130.0	
10596- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	Х	5.00	67.13	16.78	0.46	130.0	± 9.6 %
		Y	5.01	66.93	16.61		130.0	
		Z	4.77	66.95	16.51		130.0	
10597- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.95	67.07	16.69	0.46	130.0	± 9.6 %
		Y	4.96	66.86	16.52		130.0	
		Z	4.72	66.85	16.39		130.0	
10598- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.93	67.32	16.96	0.46	130.0	± 9.6 %
		Y	4.94	67.12	16.79		130.0	
		Z	4.70	67.08	16.65		130.0	
10599- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duly cycle)	X	5.61	67.34	16.90	0.46	130.0	± 9.6 %
		Y	5.62	67.17	16.76		130.0	
		Z	5.41	67.12	16.66		130.0	1
10600- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.80	67.88	17.15	0.46	130.0	± 9.6 %
		Υ	5.82	67.78	17.04		130.0	_
		Z	5.54	67.52	16.83		130.0	
10601- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.66	67.55	16.99	0.46	130.0	± 9.6 %
		Y	5.67	67.41	16.87		130.0	
		Z	5.43	67.28	16.73		130.0	
10602- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.74	67.54	16.91	0.46	130.0	± 9.6 %
		_ Y_	5.76	67.41	16.79		130.0	
		Z	5.54	67.35	16.68	<u> </u>	130.0	
10603- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.84	67.86	17.20	0.46	130.0	± 9.6 %
		Y	5.87	67.78	17.09		130.0	
		Z	5.60	67.62	16.94		130.0	
10604- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.61	67.29	16.90	0.46	130.0	± 9.6 %
		Y	5.62	67.14	16.77		130.0	
10605-	IEEE 802.11n (HT Mixed, 40MHz,	Z X	5.45 5.72	67.20 67.59	16.72 17.05	0.46	130.0 130.0	± 9.6 %
AAA	MCS6, 90pc duty cycle)			07.10	40.51		1000	ļ
	 	Y	5.73	67.43	16.91		130.0	
40000	IEEE 000 44: (UT NO. 1 1010)	Z	5.53	67.43	16.83		130.0	
10606- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.49	67.07	16.66	0.46	130.0	± 9.6 %
		Y	5.51	66.91	16.52		130.0	
	Ī	Z	5.27	66.75	16.35	I	130.0	i

10607-	TEEE 902 44cc MEET (20ML) - MOCO	1 2 1			1 40.00	T 2 12	1	F
AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	×	4.77	66.05	16.33	0.46	130.0	± 9.6 %
7001	Jope duty cycle)	Y	4.77	65.82	16.16		120.0	-
		Ż	4.77	65.94	16.09	 	130.0	
10608-	IEEE 802.11ac WiFi (20MHz, MCS1,	+ x	4.99	66.48	16.50	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	^	4.00	00.40	10.50	0.40	130.0	1 9.0 %
		Y	4.99	66.26	16.32		130.0	
		Z	4.77	66.33	16.25		130.0	
10609-	IEEE 802.11ac WiFi (20MHz, MCS2,	$-\frac{1}{x}$	4.87	66.36	16.36	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)						100.0	= 0.0 %
		Y	4.87	66.13	16.18		130.0	
		Z	4.65	66.17	16.08		130.0	
10610-	IEEE 802.11ac WiFi (20MHz, MCS3,	X	4.93	66.51	16.51	0.46	130.0	± 9.6 %
_AAA	90pc duty cycle)	_		<u></u> _				
		Y	4.93	66.29	16.34		130.0	
		Z	4.70	66.33	16.24		130.0	
10611-	IEEE 802.11ac WiFi (20MHz, MCS4,	X	4.85	66.34	16.37	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	-						
		Y	4.85	66.12	16.20		130.0	
40040	IEEE DOO 44 - MEET (ODAM) - MOOF	Z	4.62	66.13	16.08		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5,	Х	4.86	66.49	16.41	0.46	130.0	± 9.6 %
***	90pc duty cycle)	 , 	4.00	60.05	40.00		400.0	
	 	Y	4.86	66.25	16.22		130.0	
10613-	IEEE 802.11ac WiFi (20MHz, MCS6,	X	4.62	66.27	16.12	0.40	130.0	
AAA	90pc duty cycle)	^	4.88	66.41	16.32	0.46	130.0	± 9.6 %
7777	sope daty cycle)	 	4.88	66.18	16.13	 	130.0	
		Ż	4.63	66.15	16.00		130.0	
10614-	IEEE 802.11ac WiFi (20MHz, MCS7,		4.81	66.59	16.55	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	1 ^ [4.01	00.00	10.55	0.70	150.0	2 3.0 %
		Y	4.81	66.37	16.37		130.0	
		Ż	4.58	66.35	16.24	<u> </u>	130.0	
10615-	IEEE 802.11ac WiFi (20MHz, MCS8,	$\frac{1}{x}$	4.85	66.15	16.15	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	`		55175	102.0	"""	100.0	2 0.0 %
		Y	4.85	65.92	15.97		130.0	
		Z	4.62	65.96	15.86	_	130.0	
10616-	IEEE 802.11ac WiFi (40MHz, MCS0,	X	5.43	66.61	16.52	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)							
		Y	5.43	66.43	16.37		130.0	
		Z	5.24	66.40	16.28		130.0	
10617-	IEEE 802.11ac WiFi (40MHz, MCS1,	X	5.49	66.70	16.53	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)							
		Y	5.49	66.53	16.39		130.0	
		Z	5.30	66.57	16.34		130.0	
10618-	IEEE 802.11ac WiFi (40MHz, MCS2,	X	5.38	66.79	16.60	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	1						
		Y	5.39	66.60	16.44	<u> </u>	130.0	
10010	IEEE 000 44- MIEC (400 III	Z	5.19	66.58	16.36		130.0	
10619-	IEEE 802.11ac WiFi (40MHz, MCS3,	×	5.41	66.61	16.45	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	$+$ \downarrow \downarrow	F 44	00.40	40.00		400.0	
	 	Y	5.41	66.42	16.29	 	130.0	
10600	IEEE 902 41cc MIC: (40MI - A4004	Z	5.20	66.37	16.19	0.40	130.0	1000
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.52	66.71	16.54	0.46	130.0	± 9.6 %
/VV1	John daily Cycle)	Y	5.53	66.54	16.40	<u> </u>	130.0	
	<u> </u>	Z	5.29	66.41	16.40	 	130.0	
10621-	IEEE 802.11ac WiFi (40MHz, MCS5,	X	5.50	66.77	16.69	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)	^	0.00	00.77	10.05	U.40	130.0	± ∂.∪ 70
7007	oopo daty oyoloj	Y	5.50	66.60	16.54		130.0	
		ż	5.30	66.56	16.45		130.0	
	1					0.46		± 9.6 %
10622-	IEEE 802.11ac WiFi (40MHz, MCS6	X	5.50	1 66 89	1 1b /4	I 1J.440	1,31111	
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.50	66.89	16.74	0.46	130.0	1 3.0 %
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.50	66.89	16.74	0.46	130.0	1 9.0 %

10623-	IEEE 802.11ac WiFi (40MHz, MCS7,	T v !	E 20	66.47	16.40	0.46	T 120 0	±060/
10623- AAA	90pc duty cycle)	×	5.39	66.47	16.42	0.46	130.0	± 9.6 %
1	topo only of old	Y	5.39	66.31	16.27		130.0	
		Ż	5.18	66.24	16.16		130.0	
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	Х	5.58	66.64	16.56	0.46	130.0	± 9.6 %
		Υ	5.58	66.47	16.42		130.0	
		Z	5.37	_66.44	16.32		130.0	
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.98	67.70	17.14	0.46	130.0	± 9.6 %
		Y	5.98	67.50	16.97		130.0	
10626- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	Z	5.69 5.69	67.27 66.64	16.79 16.45	0.46	130.0 130.0	± 9.6 %
7001	copo daty cycle)	Y	5.69	66.47	16.31		130.0	
		Ż	5.54	66.46	16.24	-	130.0	
10627- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	Х	5.95	67.19	16.68	0.46	130.0	± 9.6 %
		Υ	5.95	67.02	16.54		130.0	
		Z	5.77	67.00	16.47		130.0	
10628- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.76	66.81	16.43	0.46	130.0	± 9.6 %
		Y	5.76	66.65	16.29		130.0	
10629-	NEEL BOO 4400 MEEL (BOMULE MOCO	Z X	5.56	66.52	16.17	0.46	130.0	1060
AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	Y	5.84	66.87	16.45 16.32	0.46	130.0	± 9.6 %
		Z	5.85 5.63	66.72 66.57	16.18		130.0 130.0	
10630- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.40	68.68	17.36	0.46	130.0	± 9.6 %
	5555 223, 576.57	Y	6.41	68.54	17.22		130.0	-
		Z	6.00	67.89	16.85		130.0	
10631- AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duly cycle)	X	6.26	68.38	17.39	0.46	130.0	± 9.6 %
		Y	6.27	68.24	17.27		130.0	
		Z	5.94	67.80	16.99		130.0	
10632- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	Х	5.92	67.27	16.85	0.46	130.0	± 9.6 %
		Y	5.93	67.11	16.72		130.0	
40000		Z	5.74	67.08	16.65		130.0	
10633- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.85	67.05	16.58	0.46	130.0	± 9.6 %
		-	5.87	66.93	16.46		130.0	<u> </u>
10634- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.63 5.82	66.71	16.29 16.63	0.46	130.0	± 9.6 %
		Ϋ́	5.84	66.90	16.51		130.0	
		Z	5.61	66.74	16.36		130.0	
10635- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.71	66.39	16.05	0.46	130.0	± 9.6 %
		Υ	5.72	66.23	15.91		130.0	
40000		Z	5.49	66.05	15.75	<u> </u>	130.0	
10636- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.11	67.03	16.55	0.46	130.0	± 9.6 %
	 	Z	6.10 5.95	66.88 66.82	16.42 16.32	<u> </u>	130.0 130.0	<u> </u>
10637- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.27	67.42	16.72	0.46	130.0	± 9.6 %
		Y	6.28	67.28	16.59	<u> </u>	130.0	
		Z	6.10	67.19	16.49		130.0	1
10638- AAA	IEEE 1602.11ac WIFi (160MHz, MCS2, 90pc duty cycle)	Х	6.27	67.39	16.68	0.46	130.0	± 9.6 %
		Υ	6.27	67.24	16.55		130.0	
		Z	6.10	67.17	16.46		130.0	

10639-	IEEE 1602.11ac WiFi (160MHz, MCS3,	Тх	6.27	67.41	16.74	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)							
		Y	6.28	67.27	16.61		130.0	
		Z	6.08	67.11	16.47		130.0	
10640-	IEEE 1602.11ac WiFi (160MHz, MCS4,	X	6.30	67.48	16.72	0.46	130.0	± 9.6 %
AAA	90pc duty cycle)						<u> </u>	
		Y	<u>6</u> .31	67.34	16.59		130.0	
		Z	6.08	67.11	16.42		130.0	
10641- AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duly cycle)	X	6.29	67.22	16.60	0.46	130.0	± 9.6 %
		Y	6.29	67.07	16.47		130.0	
		Z	6.13	67.04	16.40		130.0	
10642- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	Х	6.36	67.55	16.93	0.46	130.0	± 9.6 %
		Y	6.37	67.42	16.82		130.0	
		Z	6.17	67.29	16.69		130.0	1
10643- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.19	67.23	16.68	0.46	130.0	± 9.6 %
		Y	6.19	67.09	16.55		130.0	
		Z	6.01	66.97	16.43		130.0	
10644- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	Х	6.42	67.92	17.04	0.46	130.0	± 9.6 %
		Y	6.43	67.79	16.93		130.0	
		Z	6.14	67.40	16.66		130.0	
10645- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	Х	6.79	68.54	17.29	0.46	130.0	± 9.6 %
		Y	6.75	68.28	17.11		130.0	
		Z	6.35	67.63	16.74		130.0	

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

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





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Multilateral Agreement for the recognition of calibration certificates

Client

PC Test

Certificate No: ES3-3288_Jan17

CALIBRATION CERTIFICATE

Object

ES3DV3 - SN:3288

Calibration procedure(s)

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

Calibration date:

January 13, 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	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Allenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Apr-17
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

Calibrated by:

Name

Function

Laboratory Technician

Approved by:

Certificate No: ES3-3288_Jan17

Katja Pokovic

Michael Weber

Technical Manager

issued: January 16, 2017

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

Page 1 of 38

Calibration Laboratory of

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





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

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Accredited by the Swiss Accreditation Service (SAS)

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Glossary:

TSL

NORMx,y,z

tissue simulatina liquid sensitivity in free space

ConvE DCP

sensitivity in TSL / NORMx.v.z diode compression point

CF A, B, C, D crest factor (1/duty cycle) of the RF signal modulation dependent linearization parameters

Polarization φ

φ rotation around probe axis

Polarization 9

9 rotation around an axis that is in the plane normal to probe axis (at measurement center),

i.e., 9 = 0 is normal to probe axis

Connector Angle

Certificate No: ES3-3288_Jan17

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

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013 IEC 62209-1, "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 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 ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E2-field uncertainty inside TSL (see below ConvF).
- $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100
- 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 ES3DV3

SN:3288

Manufactured: July 6, 2010

Calibrated:

January 13, 2017

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3288

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) ²) ^A	1.14	1.10	1.09	± 10.1 %
DCP (mV) ^B	103.6	103.6	103.7	

Modulation Calibration Parameters

UID	Communication System Name	1	Α	В	С	D	VR	Unc ^E
1			dB	dB√μV		dB	m∨	(k=2)
0	CW	Х	0.0	0.0	1.0	0.00	195.6	±3.3 %
		Y	0.0	0.0	1.0		197.9	
		Z	0.0	0.0	1.0		194.9	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms.V ⁻²	T2 ms.V ⁻¹	T3 ms	T4 V ⁻²	T5 V⁻¹	T6
X	49.97	354.9	34.78	26.52	1.376	5.1	1.923	0.171	1.008
Y	51.2	365.6	35.05	27.41	1.73	5.1	1.782	0.195	1.01
Z	48.73	346.4	34.73	27.43	1.736	5.1	0.892	0.334	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%.

^B Numerical linearization parameter: uncertainty not required.

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

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3288

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivíty ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	6.84	6.84	6.84	0.59	1.46	± 12.0 %
835	41.5	0.90	6.60	6.60	6.60	0.53	1.50	± 12.0 %
1750	40.1	1.37	5.51	5.51	5.51	0.78	1.20	± 12.0 %
1900	40.0	1.40	5.31	5.31	5.31	0.78	1.19	± 12.0 %
2300	39.5	1.67	4.90	4.90	4.90	0.69	1.31	± 12.0 %
2450	39.2	1.80	4.72	4.72	4.72	0.72	1.31	± 12.0 %
2600	39.0	1.96	4.55	4.55	4.55	0.67	1.40	± 12.0 %

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

validity can be extended to ± 110 MHz.

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

the ConvF uncertainty for indicated target tissue parameters.

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3288

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	6.32	6.32	6.32	0.80	1.17	± 12.0 %
835	55.2	0.97	6.30	6.30	6.30	0.46	1.53	± 12.0 %
1750	53.4	1.49	5.09	5.09	5.09	0.70	1.35	± 12.0 %
1900	53.3	1.52	4.89	4.89	4.89	0.51	1.64	± 12.0 %
2300	52.9	1.81	4.69	4.69	4.69	0.78	1.34	± 12.0 %
2450	52.7	1.95	4.51	4.51	4.51	0.77	1.15	± 12.0_%
2600	52.5	2.16	4.35	4.35	4.35	0.80	1.15_	± 12.0 %

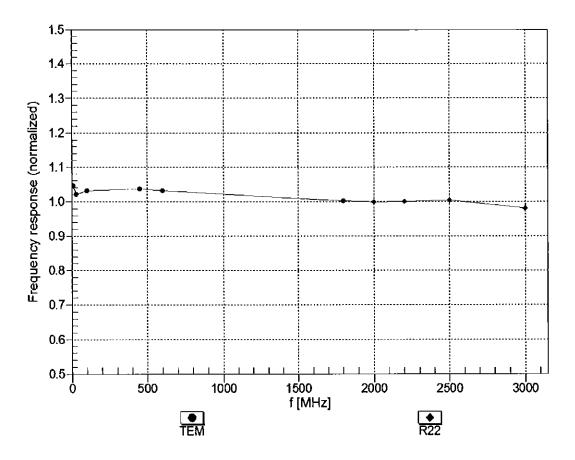
^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is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

validity can be extended to ± 110 MHz.

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

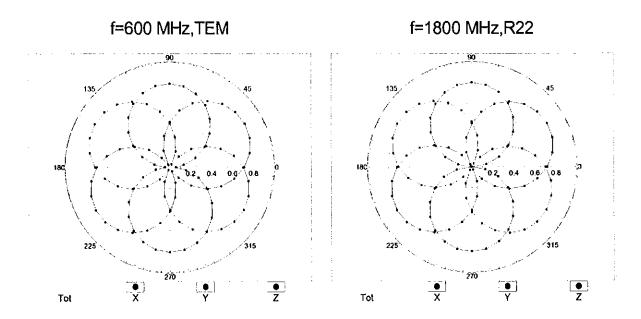
G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the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

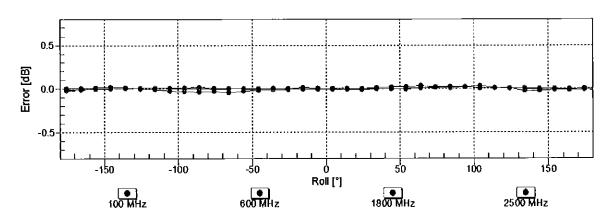
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



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

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

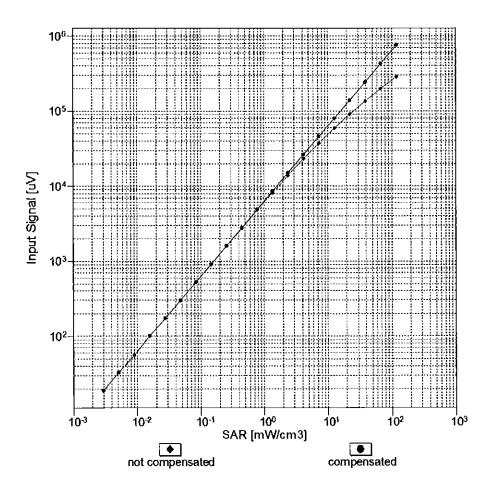


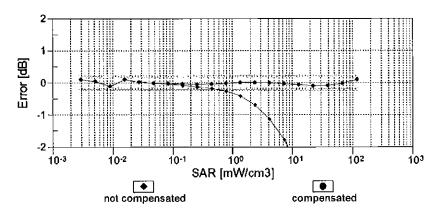


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

January 13, 2017 ES3DV3-SN:3288

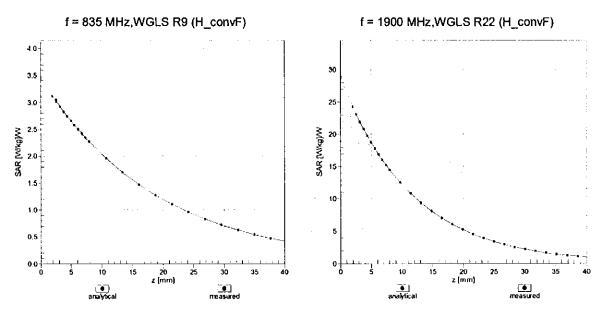
Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)





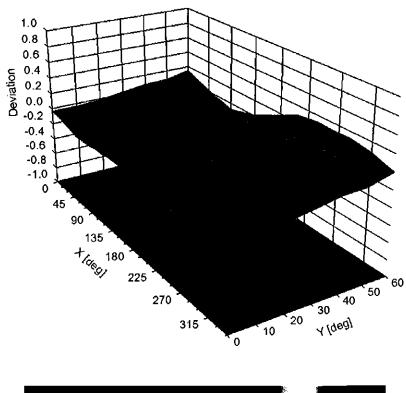
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, ϑ) , f = 900 MHz



DASY/EASY - Parameters of Probe: ES3DV3 - SN:3288

Other Probe Parameters

Triangular
94.3
enabled
disabled
337 mm
10 mm
10 mm
4 mm
2 mm
2 mm
2 mm
3 mm

ES3DV3-SN:3288

Appendix: Modulation Calibration Parameters

UÌD	lix: Modulation Calibration Para Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	195.6	± 3.3 %
		Y	0.00	0.00	1.00		197.9	
		Z	0.00	0.00	1.00		194.9	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	15.47	88.68	21.04	10.00	25.0	± 9.6 %
		Υ	12.58	86.20	20.78		25.0	
		Z	13.43	87.12	21.11		25.0	
10011- CAB	UMTS-FDD (WCDMA)	X	1.03	67.07	15.06	0.00	150.0	± 9.6 %
		<u>Y</u>	1.03	66.59	14.73		150.0	
10012-	IEEE 000 445 MEELO 4 OLL- (DOOD 4	Z	0.96	65.45	13.96		150.0	
CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)		1.28	64.78	15.61	0.41	150.0	± 9.6 %
		Y	1.29	64.59	15.42		150.0	
10013-	IEEE 902 11a WiEi 2 4 CU- (D000	Z X	1.27	64.13	15.00	4 40	150.0	. 0 0 0′
CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)		5.04	67.21	17.36	1.46	150.0	± 9.6 %
	 	Y	5.07	67.20	17.35		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	5.04 100.00	67.14 120.53	17.24 31.89	9.39	150.0 50.0	± 9.6 %
<i>D/</i> (0		Υ	100.00	121.39	32.62		50.0	
-		Z	100.00	121.67	32.78		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	120.44	31.89	9.57	50.0	± 9.6 %
		Υ	100.00	121.38	32.67		50.0	
		Z	100.00	121,62	32.81		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	Х	100.00	117.76	29.52	6.56	60.0	± 9.6 %
		Υ	100.00	118.38	30.06		60.0	
		Z	100.00	<u>1</u> 18.52	30.15		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	13.03	99.39	38.55	12.57	50.0	± 9.6 %
	-	Y	18.55	109.69	42.60		50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	Z X	15.92 21.09	103.55 108.19	39.76 37.71	9.56	50.0 60.0	± 9.6 %
<u> </u>	-	Υ	26.31	113.50	39.58	 	60.0	
	 	Z	18.46	103.77	36.07	 	60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	117.25	28.48	4.80	80.0	± 9.6 %
		Υ	100.00	117.62	28.87		80.0	
		Ż	100.00	117.64	28.89		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	Х	100.00	118.00	28.08	3.55	100.0	± 9.6 %
		Υ	100.00	118.10	28.32		100.0	
		Z	100.00	117.95	28.27		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	12.04	94.68	31.93	7.80	80.0	± 9.6 %
		Υ	13.90	97.76	33.13	<u> </u>	80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	11.33 100.00	92.35 116.22	30.92 28.30	5.30	80.0 70.0	± 9.6 %
J, 5 t		Υ	100.00	116.84	28.82	l	70.0	
		Z	100.00	116.83	28.83		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	119.07	27.09	1.88	100.0	± 9.6 %
		Υ	100.00	118.99	27.24		100.0	
		Ζ	100.00	118.17	26.90		100.0	

10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Х	100.00	124.31	28.26	1.17	100.0	± 9.6 %
- 024		Y	100.00	123.44	28.09		100.0	-
	· -	ż	100.00	121.81	27.42	 	100.0	
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	56.85	116.89	31.97	5.30	70.0	± 9.6 %
		Υ	26.10	103.93	28.65		70.0	
		Z	22.89	101.34	27.75		70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Х	9.34	90.97	23.06	1.88	100.0	± 9.6 %
		Y	6.38	85.07	21.22		100.0	
		Z	5.62	82.82	20.22		100.0	
10035- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	4.25	81.28	19.62	1.17	100.0	± 9.6 %
		Y	3.49	78.07	18.48		100.0	
40000	1555 000 45 4 DL	Z	3.10	76.08	17.48		100.0	
10036- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Х	100.00	126.29	34.32	5.30	70.0	± 9.6 %
		Y	35.39	109.10	30.14		70.0	
40027	IEEE 000 45 4 Dhieta all 40 DDOM DUO	Z	30.89	106.39	29.23	1.00	70.0	
10037- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	8.50	89.67	22.62	1.88	100.0	± 9.6 %
	 	Y	6.04	84.34	20.94		100.0	
10000	JEEE 000 45 4 Divisionals (O DDOK DUS)	Z	5.26	81.97	19.90	4.4-	100.0	
10038- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	4.37	81.97	19.96	1.17	100.0	± 9.6 %
		Y	3.55	78.57	18.76		100.0	
40000	CDMA0000 (4-DTT DO4)	Z	3.15	76.51	17.73	2.00	100.0	
10039- CAB	CDMA2000 (1xRTT, RC1)	X	1.80	71.63	15.63	0.00	150.0	± 9.6 %
		Y	1.66	70.11	14.97		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	Z X	1.49 100.00	68.70 116.14	14.08 28.97	7.78	150.0 50.0	± 9.6 %
CAU	DQF3N, Hallia(e)	Υ	100.00	117.01	29.65		50.0	
	-	Z	100.00	117.18	29.05	_	50.0 50.0	
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.01	92.29	0.00	0.00	150.0	± 9.6 %
		Υ	0.01	100.89	2.17		150.0	
		Z	0.01	87.03	0.28		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Stot, 24)	Х	100.00	122.42	34.27	13.80	25.0	± 9.6 %
		Υ	25.19	99.36	28.69		25.0	
		Z	33.23	104.34	30.21		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	100.00	120.89	32.45	10.79	40.0	± 9.6 %
		Υ	37.38	105.78	29.10		40.0	
10000		Z	50.18	110.83	30.56		40.0	
10056- <u>CAA</u>	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	32.71	105.58	29.92	9.03	50.0	± 9.6 %
		Y	21.17	97.74	27.82		50.0	
40050	EDOE FOR /TOUGH ORDER THE COMME	Z	20.25	96.76	27.43		50.0	
10058- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	8.39	87.11	28.40	6.55	100.0	± 9.6 %
		Y	9.28	89.02	29.19		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	8.14 1.42	85.62 66.72	27.66 16.61	0.61	100.0 110.0	± 9.6 %
		Υ	1.43	66.45	16.37		110.0	
	· · · · · · · · · · · · · · · · · · ·	ż	1.40	65.86	15.89		110.0	
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	133.06	34.29	1.30	110.0	± 9.6 %
		Υ	99.99	131.84	33.87		110.0	
_								
		Z	20.67	108.16	28.15		110.0	

10061-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11	ΤX	9.65	97.08	27.47	2.04	110.0	± 9.6 %
CAB	Mbps)				21.41	2.04	110.0	19.0%
	·	Υ	7.84	92.73	26.00		110.0	
		Z	6.27	88.57	24.47		110.0	
10062- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	Х	4.78	67.02	16.66	0.49	100.0	± 9.6 %
		Υ	4.80	66.96	16.63		100.0	
		Z	4.76	66.89	16.51		100.0	
10063- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.81	67.16	16.79	0.72	100.0	± 9.6 %
	<u> </u>	Υ	4.84	67.11	16.76		100.0	
40004	IEEE 000 44 % WEEL COLL (OFFILE 40	Z	4.80	67.03	16.64		100.0	
10064- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.12	67.46	17.04	0.86	100.0	± 9.6 %
	<u> </u>	Y	5.15	67.42	17.03		100.0	
10065-	IEEE 000 44-4- WIEL COLL- (OED) 40	Z	5.10	67.34	16.90	4.0.1	100.0	
CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	Х	5.01	67.45	17.21	1.21	100,0	± 9.6 %
		Y	5.05	67.43	17.19		100.0	
10066-	IEEE 902 11a/b WiEt E OU - (OED) 4 04	Z	5.00	67.35	17.07	4 40	100.0	1000
10066- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	5.05	67.55	17.42	1.46	100.0	± 9.6 %
		Y	5.10	67.55	17.42		100.0	
40007	IEEE 000 44 - % MEEL COLL (OFDM 00	Z	5.05	67.47	17.29		100.0	
10067- CAB	IEEE 802.11a/h WiFl 5 GHz (OFDM, 36 Mbps)	X	5.37	67.76	17.89	2.04	100.0	± 9.6 %
		Y	5.42	67.79	17.92		100.0	
40000	IEEE 000 44 - 5 MES F OU (OEDM 40	Z	5.38	67.71	17.79		100.0	
10068- CAB	IEEE 802.11a/n WiFi 5 GHz (OFDM, 48 Mbps)	×	5.47	67.97	18.21	2.55	100.0	± 9.6 %
		Υ	5.53	68.04	18.26		100.0	
		Z	5.48	67.93	18.11		100.0	
10069- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	Х	5.55	67.95	18.39	2.67	100.0	± 9.6 %
		Υ	5.61	68.05	18.47		100.0	
		Z	5.57	67.94	18.31		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	Х	5.17	67.41	17.73	1.99	100.0	± 9.6 %
		Y	5.21	67.42	17.74		100.0	
		Z	5.18	67.36	17.62		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	Х	5.20	67.89	18.03	2.30	100.0	± 9.6 %
		Υ	5.25	67.92	18.05		100.0	
		Z	5.21	67.84	17.92		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.31	68.19	18.44	2.83	100.0	± 9.6 %
		ΙΥ	5.37	68.25	18.48		100.0	
40c= :	 	Z	5.34	68.17	18.34		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	Х	5.33	68.21	18.66	3.30	100.0	± 9.6 %
		Y	5.40	68.30	18.72		100.0	
		<u>Z</u>	5.37	68.22	18.58		100.0	ļ. <u></u>
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.43	68.53	19.09	3.82	90.0	± 9.6 %
		Υ	5.52	68.69	19.19		90.0	
		Z	5.48	68.57	19.02		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	Х	5.45	68.35	19.22	4.15	90.0	± 9.6 %
		Υ	5.54	68.54	19.34		90.0	
	<u> </u>	Z	5.52	68.43	19.18		90.0	
10077- ÇAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.48	68.44	19.33	4.30	90.0	± 9.6 %
		Y	5.58	68.64	19.46		90.0	
		Z	5.56	68.53	19.29		90.0	L

10081- CAB	CDMA2000 (1xRTT, RC3)	Х	0.86	66.00	12.67	0.00	150.0	± 9.6 %
OND	<u> </u>	Y	0.84	65.24	12.29		150.0	
		Ż	0.78	64.30	11.54		150.0	
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	Х	1.63	62.58	7.49	4.77	80.0	± 9.6 %
		Υ	1.83	63.34	8.19		80.0	
		Z	1.83	63.28	8.17		80.0	
10090- DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	Х	100.00	117.83	29.57	6.56	60.0	± 9.6 %
		Y	100.00	118.44	30.11		60.0	
40007	LIMTO EDD (HODDA)	Z	100.00	118.59	30.20	0.00	60.0	
10097- CAB	UMTS-FDD (HSDPA)	X	1.83	67.54 67.09	15.57 15.29	0.00	150.0 150.0	± 9.6 %
		Z	1.76	66.54	14.86		150.0	
10098-	UMTS-FDD (HSUPA, Subtest 2)	X	1.80	67.49	15.53	0.00	150.0	± 9.6 %
CAB	OMTG-FDD (HOOFA, Sublest 2)	Y	1.78	67.05	15.26	0.00	150.0	19.0 %
		Z	1.72	66.48	14.82		150.0	
10099- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	21.11	108.17	37.70	9.56	60.0	± 9.6 %
		Υ	26.22	113.37	39.53		60.0	
		Ż	18.45	103.72	36.05		60.0	
10100- CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.14	70.26	16.61	0.00	150.0	± 9.6 %
		Υ	3.11	69.92	16.40		150.0	
		Z	3.00	69.31	16.04		150.0	
10101- CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	Х	3.27	67.62	15.91	0.00	150.0	± 9.6 %
		Υ	3.28	67.48	15.81		150.0	
		Z	3.21	67.16	15.57		150.0	
10102- CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.38	67.60	16.01	0.00	150.0	± 9.6 %
		Υ	3.38	67.43	15.90		150.0	ļ
		Z	3.32	67.16	15.68		150.0	
10103- CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	8.92	80.06	22.10	3.98	65.0	± 9.6 %
		Y	8.72	79.23	21.75		65.0	
10101	1 T T T T T T T T T T T T T T T T T T T	Z	8.55	78.87	21.55		65.0	
10104- CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	8.27	77.35	21.84	3.98	65.0	±9.6%
		Y	8.38	77.28	21.82		65.0	
40405	LITE TOD (OO FOMA 4000/ DD 00	Z	8.21	76.80	21.52	0.00	65.0	
10105- CAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	7.38	75.09	21.17	3.98	65.0	± 9.6 %
		Y	7.56	75.20	21.21 20.79		65.0	
10108- CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	7.30 2.75	74.45 69.51	16.43	0.00	65.0 150.0	± 9.6 %
		Υ	2.73	69.16	16.22		150.0	
	·	Z	2.63	68.56	15.84		150.0	-
10109-	LTE-FDD (SC-FDMA, 100% RB, 10	X	2.93	67.45	15.81	0.00	150.0	± 9.6 %
CAD	MHz, 16-QAM)	Y	2.93	67.26	15.68	5.00	150.0	- 0.0 /0
·		Ż	2.87	66.93	15.42	 	150.0	
10110- CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.24	68.60	16.04	0.00	150.0	± 9.6 %
		Y	2.23	68.25	15.83		150.0	
		Z	2.13	67.59	15.38		150.0	
10111-	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	Х	2.63	68.18	16.07	0.00	150.0	± 9.6 %
CAD	10-Q2-111)							
CAD	10-32-111)	Υ	2.61	67.75	15.82	-	150.0	

10112- CAD	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	Х	3.05	67.45	15.87	0.00	150.0	± 9.6 %
	THE STATE OF	Υ	3.05	67.25	15.74		150.0	
		Z	2.99	66.96	15.50	-	150.0	
10113- CAD	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.79	68.32	16.21	0.00	150.0	± 9.6 %
		Υ	2.76	67.88	15.95		150.0	
		Z	2.70	67.63	15.70		150.0	
10114- CAB	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.18	67.41	16.48	0.00	150.0	± 9.6 %
		Υ	5.20	67.34	16.44		150.0	
		Ζ	5.16	67.26	16.33		150.0	
10115- CAB	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	Х	5.49	67.59	16.58	0.00	150.0	± 9.6 %
		Υ	<u>5.51</u>	67.56	16.56		150.0	
10110		Ζ	5.46	67.43	16.43		150.0	
10116- CAB	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	Х	5.29	67.62	16.51	0.00	150.0	± 9.6 %
	·	Υ	5.30	67.57	16.48		150.0	_
10417	IEEE 000 44- #ITAN A 10 TH	Z	5.26	67.46	16.36		150.0	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.15	67.27	16.43	0.00	150.0	± 9.6 %
_		Y	5.17	67.22	16.40	ļ	150.0	
40440	IEEE 000 44 (UTAE) 1 04 141 40	Z	5.12	67.11	16.28		150.0	
10118- CAB	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.58	67.82	16.70	0.00	150.0	± 9.6 %
		Y	5.60	67.79	16.69		150.0	
10110	IEEE 000 44m (LIT Missed 405 Mb = - CA	Z	5.54	67.65	16.55	0.00	150.0	
10119- CAB	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	Х	5.26	67.56	16.50	0.00	150.0	± 9.6 %
		Υ	5.28	67.51	16.46		150.0	
40440	1 TT 500 (00 5044 (00) 00 (5	Z	5.23	67.40	16.34		150.0	
10140- CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	Х	3.42	67.60	15.93	0.00	150.0	± 9.6 %
		Y	3.42	67.45	15.83		150.0	_
10111		Z	3.36	67.18	15.61		150.0	
10141- CAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.54 —	67.70	16.10	0.00	150.0	± 9.6 %
	-	Υ	3.54	67. <u>5</u> 3	15.99		150.0	
		Ζ	3.48	67.29	15.79		150.0	
10142- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	2.01	68.55	15.71	0.00	150.0	± 9.6 %
		Υ.	1.99	68.09	15.45		150.0	
10110		Z	1.89	67.37	14.94		150.0	
10143- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.49	68.87	15.80	0.00	150.0	± 9.6 %
	 	Y	2.44	68.24	15.47		150.0	
10144- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.36 2.28	67.85 66.73	15.12 14.26	0.00	150.0 150.0	± 9.6 %
		Υ	2.28	66.47	14.14		150.0	· -
		ż	2.20	66.02	13.73		150.0	
10145-	LTE-FDD (SC-FDMA, 100% RB, 1.4	X	1.28	65.56	12.15	0.00	150.0	± 9.6 %
CAD	MHz, QPSK)	Y	1.27	65.10	11.97		150.0	
	<u> </u>	ż	1.18	64.31	11.28		150.0	
10146- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	2.45	68.71	12.81	0.00	150.0	± 9.6 %
		Y	2.66	69.78	13.59		150.0	
		Z	1.98	66.37	11.72		150.0	
10147- CAD	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	3.08	71.58	14.21	0.00	150.0	± 9.6 %
_		Y	3.33	72.66	14.97	· · · · · · ·	150.0	
			0.00	12.00	17.01		1 100.0	

			_					
10149- CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.94	67.51	15.86	0.00	150.0	± 9.6 %
	<u> </u>	Υ	2.94	67.31	15.72	1	150.0	
		Z	2.87	66.98	15.46		150.0	
10150- CAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	Х	3.06	67.50	15.91	0.00	150.0	±9.6 %
		Υ	3.06	67.29	15.78		150.0	
		Ζ	3.00	67.01	15.54		150.0	
10151- CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	9.65	82.82	23.23	3.98	65.0	± 9.6 %
		Υ	9.32	81.74	22.79		65.0	
		Z	9.14	81.35	22.57		65.0	
10152- CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	Х	7.90	77.63	21.67	3.98	65.0	± 9.6 %
		Υ	8.01	77.54	21.66		65.0	
		Z	7.81	76.96	21.29		65.0	
10153- CAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	8.36	78.62	22.43	3.98	65.0	± 9.6 %
		Υ	8.41	78.35	22.32		65.0	
		Z	8.25	77.92	22.03		65.0	
10154- CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	2.28	69.00	16.29	0.00	150.0	± 9.6 %
		Υ	2.27	68.58	16.04		150.0	
		Ζ	2.17	67.93	15.61		150.0	
10155- CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.64	68.19	16.09	0.00	150.0	± 9.6 %
		Y	2.61	67.76	15.83		150.0	
		Z	2.55	67.45	15.56		150.0	
10156- CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.86	68.63	15.52	0.00	150.0	± 9.6 %
		Υ	1.83	68.07	15.22		150.0	
		Ζ	1.73	67.27	14.65		150.0	
10157- CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.12	67.28	14.31	0.00	150.0	± 9.6 %
		Υ	2.10	66.88	14.12		150.0	
	·	Ζ	2.01	66.34	13.65		150.0	
10158- CAD	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.79	68.38	16.25	0.00	150.0	±9.6 %
		Υ	2.77	67.93	15.99	-	150.0	
		Z	2.71	67.68	15.75		150.0	
10159- CAD	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	Х	2.22	67.73	14.59	0.00	150.0	± 9.6 %
		Υ	2.20	67.25	14.36		150.0	
_		Z	2.10	66.73	13.91		150.0	
10160- CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.77	68.69	16.26	0.00	150.0	± 9.6 %
		Υ	2.77	68.42	16.09		150.0	
		Z	2.68	67.94	15.76		150.0	
10161- CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	Х	2.96	67.44	15.84	0.00	150.0	± 9.6 %
		A	2.95	67.20	15.70		150.0	
		Z	2.89	66.92	15.45		150.0	
10162- CAC	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	Х	3.07	67.57	15.95	0.00	150.0	± 9.6 %
<u> </u>		Υ	3.06	67.34	15.80	<u> </u>	150.0	
10165	1	Z	3.00	67.08	15.57		150.0	
10166- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	×	3.82	70.81	19.68	3.01	150.0	± 9.6 %
		Υ	3.87	70.87	19.83		150.0	
		Z	3.61	69.49	18.97		150.0	
10167- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	Х	5.10	75.20	20.68	3.01	150.0	± 9.6 %
		Υ	5.13	75.23	20.85		150.0	
		Z	4.45	72.58	19.53		150.0	1

TE-FDD (SC-FDMA, 1 RB, 20 MHz, CAC F-FDD (SC-FDMA, 1 RB, 10 MHz, CAC F-FDD (SC-FDMA, 1 RB, 10 MHz, CAC F-FDD (SC-FDMA, 1 RB, 5 MHz, CAC F-FDD (SC-FD	10168- CAD	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	Х	5.85	78.14	22.26	3.01	150.0	± 9.6 %
TIES-FDD (SC-FDMA, 1 RB, 20 MHz, CAC QPSK)			ΙΥ	5.74	77.64	22 17		150.0	
10169- LTE-FDD (SC-FDMA, 1 RB, 20 MHz, CAC CAC									
Total							3.01		± 9.6 %
10170- LTE-FDD (SC-FDMA, 1 RB, 20 MHz, CAC ACC		_				20.27		150.0	
CAC			Z	3.01	69.13	18.83		150.0	-
Total							3.01	150.0	± 9.6 %
10171- LTE-FDD (SC-FDMA, 1 RB, 20 MHz, ACC ACC ACC ACC ACC ACC ACC ACC ACC AC									
AAC 64-QAM) Y 4.36 75.75 20.83 150.0 10172- CAC QPSK) X 26.94 111.93 34.76 6.02 65.0 ±9.6 QPSK) Y 76.00 132.17 40.23 65.0 10173- LTE-TDD (SC-FDMA, 1 RB, 20 MHz, Z 22.37 106.85 33.09 65.0 10173- LTE-TDD (SC-FDMA, 1 RB, 20 MHz, Z 22.37 106.85 33.09 65.0 10174- CAC GAM) Y 100.00 128.18 37.07 6.00 65.0 LTE-TDD (SC-FDMA, 1 RB, 20 MHz, Z 42.24 113.60 33.08 65.0 10174- CAC HE-TDD (SC-FDMA, 1 RB, 20 MHz, Z 42.24 113.60 33.08 65.0 10175- CAC HE-TDD (SC-FDMA, 1 RB, 10 MHz, Z 31.11 106.84 30.62 65.0 LTE-FDD (SC-FDMA, 1 RB, 10 MHz, Z 33.8 71.22 13.18 10.00 12.00									
TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC CAC CFSK)							3.01		± 9.6 %
10172- CAC CAC CPSK Y 76.00 132.17 40.23 65.0 £9.6 65.0									
CAC QPSK) Y 76.00 132.17 40.23 65.0			_						
TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 20 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 10 MHz, CAC TE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-TD) TE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-TD) TE-FDD (SC-FDMA, 1 RB, 15 MHz, 17-TD) TE-FDD (SC-FDMA, 1 RB, 15 MHz, 1							6.02		±9.6 %
LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)			-						
CAC 16-QAM	40470	LITE TOD (OO EDIA) (TO CO !!!							
Tot74-							6.02		± 9.6 %
10174- CAC C		 							
CAC 64-QAM)	40474	LITE TER (OO ERLIA A ER OO LII)							
Tilde							6.02		± 9.6 %
10175- CAD CPSK Y 3.36 71.41 20.03 150.0 ±9.6									
CAD QPSK) Y 3.36 71.41 20.03 150.0 10176-CAD LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM) X 5.86 82.05 23.95 3.01 150.0 ±9.6 10177-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) X 5.64 81.27 23.80 150.0 ±9.6 10177-CAF LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) X 3.34 71.41 19.89 3.01 150.0 ±9.6 CAF QPSK) Y 3.39 71.57 20.12 150.0 ±9.6 10178-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) X 5.75 81.66 23.77 3.01 150.0 ±9.6 10179-CAD LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM) X 4.96 78.41 21.90 3.01 150.0 ±9.6 10180-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) X 4.96 78.41 21.90 3.01 150.0 ±9.6 10181-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) X 4.26 75.26	40475	LTE FDD (OO FDMA 4 DD 40 ML)					0.04		
Te-fdd Cap C							3.01		± 9.6 %
Tight Tigh									
CAD 16-QAM) Y 5.64 81.27 23.80 150.0 10177-CAF LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK) X 3.34 71.41 19.89 3.01 150.0 ±9.6 10178-CAF Y 3.39 71.57 20.12 150.0 ±9.6 10178-CAD Z 3.00 68.98 18.68 150.0 150.0 10179-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM) X 5.75 81.66 23.77 3.01 150.0 ±9.6 10179-CAD LTE-FDD (SC-FDMA, 1 RB, 10 MHz, GA-QAM) X 4.96 78.41 21.90 3.01 150.0 ±9.6 10180-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) Y 4.94 78.34 22.07 150.0 ±9.6 10180-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) X 4.26 75.26 20.20 3.01 150.0 ±9.6 10180-CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, GA-QAM) X 4.26 75.26 20.20 3.01 150.0 ±9.6 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td>								+	
Total			1				3.01		± 9.6 %
Total			4						
CAF QPSK) Y 3.39 71.57 20.12 150.0 10178- CAD QAM) LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- X 5.75 81.66 23.77 3.01 150.0 ± 9.6 10179- CAD LTE-FDD (SC-FDMA, 1 RB, 10 MHz, X 4.96 78.41 21.90 3.01 150.0 ± 9.6 CAD G4-QAM) Y 4.94 78.34 22.07 150.0 LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- X 4.26 75.26 20.20 3.01 150.0 ± 9.6 CAD QAM) Y 4.34 75.66 20.58 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64- X 3.33 71.39 19.88 3.01 150.0 ± 9.6 CAC QPSK) Y 3.38 71.55 20.11 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 3.33 71.39 19.88 3.01 150.0 ± 9.6 CAC QPSK) Y 3.38 71.55 20.11 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 3.38 71.55 20.11 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.74 81.63 23.76 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.74 81.63 23.76 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.74 81.63 23.76 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.74 81.63 23.76 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.75 80.94 23.65 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.75 80.94 23.65 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.21 21.20 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.25 75.23 20.18 3.01 150.0 ± 9.6 CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 4.2									
Te-fdd (SC-fdma, 1 RB, 5 MHz, 16-							3.01		± 9.6 %
10178- CAD CAD CAM C									
CAD QAM) Y 5.56 80.97 23.66 150.0 Z 4.15 75.23 21.21 150.0 10179- CAD 64-QAM) Y 4.94 78.34 22.07 150.0 TOTAL TE-FDD (SC-FDMA, 1 RB, 10 MHz, 2 3.77 73.18 19.78 150.0 LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- 2 3.77 73.18 19.78 150.0 TOTAL TE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- 2 3.42 71.14 18.48 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 2 3.33 71.39 19.88 3.01 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 2 3.33 71.39 19.88 3.01 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 2 3.30 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 2 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 2 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 2 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 3.00 68.96 18.67 150.0 150						+		+	
Te-fdd T							3.01		±9.6 %
10179- CAD			Υ	5.56	80.97	23.66		150.0	
CAD 64-QAM) Y 4.94 78.34 22.07 150.0 I 10180- CAD QAM) Y 4.34 75.66 20.20 3.01 150.0 Y 4.34 75.66 20.58 150.0 Z 3.42 71.14 18.48 150.0 I TE-FDD (SC-FDMA, 1 RB, 15 MHz, X 3.33 71.39 19.88 3.01 150.0 Y 3.38 71.55 20.11 150.0 I TE-FDD (SC-FDMA, 1 RB, 15 MHz, X 3.30 68.96 18.67 150.0 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, X 5.74 81.63 23.76 3.01 150.0 Y 5.55 80.94 23.65 150.0 I TO183- AAB 64-QAM) Y 4.33 75.63 20.57 150.0									<u> </u>
10180- LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- X 4.26 75.26 20.20 3.01 150.0 ± 9.6							3.01		± 9.6 %
10180-CAD LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM) X 4.26 75.26 20.20 3.01 150.0 ± 9.6 CAD Y 4.34 75.66 20.58 150.0 Y 3.42 71.14 18.48 150.0 10181-CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) X 3.33 71.39 19.88 3.01 150.0 ± 9.6 LTE-FDD (SC-FDMA, 1 RB, 15 MHz, CAC X 3.00 68.96 18.67 150.0 150.0 10182-CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, CAC X 5.74 81.63 23.76 3.01 150.0 ± 9.6 10183-AAB LTE-FDD (SC-FDMA, 1 RB, 15 MHz, CAC X 4.25 75.23 20.18 3.01 150.0 ± 9.6 10183-AAB LTE-FDD (SC-FDMA, 1 RB, 15 MHz, CAC X 4.25 75.23 20.18 3.01 150.0 ± 9.6		<u> </u>					ļ		
Y 4.34 75.66 20.58 150.0 Y 4.34 75.66 20.58 150.0							3.01		± 9.6 %
Temperature Temperature	OAD			4 24	75.00	20 E0		150.0	
10181- CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) X 3.33 71.39 19.88 3.01 150.0 ± 9.6 10182- CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, CAC X 5.74 81.63 23.76 3.01 150.0 ± 9.6 10183- AAB LTE-FDD (SC-FDMA, 1 RB, 15 MHz, AAB X 5.55 80.94 23.65 150.0 150.0 ± 9.6 10183- AAB LTE-FDD (SC-FDMA, 1 RB, 15 MHz, AAB X 4.25 75.23 20.18 3.01 150.0 ± 9.6									ļ
CAC QPSK) Y 3.38 71.55 20.11 150.0 10182- CAC LTE-FDD (SC-FDMA, 1 RB, 15 MHz, CAC) X 5.74 81.63 23.76 3.01 150.0 ± 9.6 Y 5.55 80.94 23.65 150.0<	10191	LITE FOD (SC.FDMA 1 PP 15 MU-					3.04		+06%
Tender T							3.01	<u> </u>	1 3.0 %
10182- CAC 16-QAM)		 			+				
Y 5.55 80.94 23.65 150.0 Z 4.15 75.21 21.20 150.0 10183- AAB 64-QAM) Y 4.33 75.63 20.57 150.0					+		3.01		± 9.6 %
Z 4.15 75.21 21.20 150.0 10183- LTE-FDD (SC-FDMA, 1 RB, 15 MHz, AAB 64-QAM) Y 4.33 75.63 20.57 150.0	0/10	10-MUINT	V	5 55	80 04	23.65	 	150.0	
10183- AAB 64-QAM)		1					 		
Y 4.33 75.63 20.57 150.0			_				3.01		± 9.6 %
	עעט	OT SUCIETY	V	4 22	75.63	20.57		150.0	
7 3/1 71 12 17 160 0	<u> </u>	+	Z	3.41	71.12	18.47	 	150.0	

10184- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	Х	3.35	71.44	19.91	3.01	150.0	± 9.6 %
		Υ	3.40	71.59	20.13		150.0	
	-	Z	3.01	69.00	18.69		150.0	
10185- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	5.78	81.74	23.81	3.01	150.0	± 9.6 %
		Υ	5.58	81.03	23.69		150.0	
		Z	4.17	75.28	21.24		150.0	
10186- AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	Х	4.27	75.32	20.23	3.01	150.0	± 9.6 %
		Y	4.36	75.71	20.61		150.0	
		Z	3.43	71.18	18.50		150.0	
10187- CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	3.36	71.50	19.98	3.01	150.0	± 9.6 %
		Υ	3.41	71.65	20.20		150.0	
		Z	3.02	69.06	18.75		150.0	
10188- CAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	Х	6.10	82.86	24.34	3.01	150.0	± 9.6 %
		Υ	5.82	81.92	24.13		150.0	
		Z	4.30	75.96	21.62		150.0	
10189- AAD	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	Х	4.42	75.96	20.58	3.01	150.0	± 9.6 %
		Υ	4.49	76.27	20.92		150.0	
		Z	3.50	71.61	18.78		150.0	
10193- CAB	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	Х	4.57	66.79	16.17	0.00	150.0	± 9.6 %
		Υ	4.59	66.71	16.13		150.0	
		Ζ	4.54	66.62	16.00		150.0	
10194- CAB	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	Х	4.75	67.11	16.29	0.00	150.0	±9.6 %
		Υ	_ 4.76	67.04	16.25		150.0	
		Ζ	4.71	66.93	16.12		150.0	
10195- CAB	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.79	67.14	16.31	0.00	150.0	± 9.6 %
_		LY	4.81	67.07	16.27		150.0	
		Z	4.76	66.97	16.14	-	150.0	
10196- CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.58	66.85	16.19	0.00	150.0	± 9.6 %
		Υ	4.59	66.78	16.15		150.0	
		Ζ	4.55	66.68	16.02		150.0	
10197- CAB	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	Х	4.76	67.13	16.31	0.00	150.0	± 9.6 %
		Υ	4.78	67.06	16.27		150.0	
		Ζ	4.73	66.96	16.14		150.0	
10198- CAB	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	Х	4.79	67.16	16.32	0.00	150.0	± 9.6 %
		Υ	4.81	67.09	16.28		150.0	
		Z	4.76	66.98	16.16		150.0	
10219- CAB	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	Х	4.53	66.86	16.15	0.00	150.0	± 9.6 %
		Υ	4.54	66.79	16.11		150.0	
		Z	4.50	66.69	15.97		150.0	
10220- CAB	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	Х	4.75 	67.10	16.30	0.00	150.0	± 9.6 %
		Υ	4.77	67.04	16.26		150.0	
	<u> </u>	Z	4.72	66.93	16.13		150.0	
10221- CAB	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.80	67.09	16.31	0.00	150.0	± 9.6 %
		Υ	4.82	67.02	16.27		150.0	
		Z	4.77	66.92	16.14		150.0	
10222- CAB	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	Х	5.12	67.28	16.42	0.00	150.0	± 9.6 %
		Υ	5.14	67.23	16.39		150.0	
		Ζ	5.10	67.12	16.27		150.0	

10223- CAB	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	Х	5.44	67.50	16.56	0.00	150.0	± 9.6 %
	,	Υ	5.45	67.45	16.53	 	150.0	
		Z	5.41	67.36	16.41		150.0	
10224- CAB	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.17	67.39	16.41	0.00	150.0	± 9.6 %
		Υ	5.19	67.33	16.37		150.0	
		Z	5.14	67.23	16.25		150.0	
10225- CAB	UMTS-FDD (HSPA+)	X	2.84	66.23	15.32	0.00	150.0	± 9.6 %
		Y	2.84	66.05	15.22		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	2.79 100.00	65.84 129.06	14.97 36.85	6.02	150.0 65.0	± 9.6 %
		Υ	100.00	129.37	37.20	_	65.0	
		Z	46.83	115.64	33.72		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	Х	100.00	126.73	35.63	6.02	65.0	± 9.6 %
		Υ	100.00	127.14	36.03		65.0	
		Z	38.56	110.41	31.72		65.0	
10228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	Х	69.69	130.84	39.78	6.02	65.0	± 9.6 %
		Y	75.32	132.43	40.40		65.0	
40000	LTE TOD (CO EDIA A DD ONI)	Z	25.86	110.08	34.12		65.0	
10229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	100.00	128.82	36.71	6.02	65.0	± 9.6 %
		Y	100.00	129.16	37.07		65.0	
10230-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-	Z	42.44	113.67	33.11	6.00	65.0	1069
CAB	QAM)	Y	100.00	126.56 126.99	35.52	6.02	65.0	± 9.6 %
	· -	Z	100.00 35.33	108.76	35.92 31.19		65.0 65.0	
10231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	61.41	128.11	39.01	6.02	65.0	± 9.6 %
07.12	a. o.y	Y	68.04	130.20	39.77		65.0	1
		ż	24.14	108.59	33.61		65.0	
10232- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	100.00	128.83	36.71	6.02	65.0	± 9.6 %
		Υ	100.00	129.16	37.07		65.0	
		Z	42.43	113.67	33.11		65.0	
10233- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	Х	100.00	126.58	35.52	6.02	65.0	± 9.6 %
		Υ	100.00	127.00	35.93		65.0	
10234- CAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	35.30 54.84	108.76 125.55	31,19 38.23	6.02	65.0 65.0	± 9.6 %
		Y	61.72	127.94	39.08		65.0	
		Ż	22.69	107.16	33.09		65.0	
10235- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	Х	100.00	128.84	36.71	6.02	65.0	± 9.6 %
		Υ	100.00	129.18	37.08		65.0	
		Z	42.60	113.76	33.13		65.0	
10236- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	100.00	126.53	35.50	6.02	65.0	± 9.6 %
		Y	100.00	126.95	35.91		65.0	
10237- CAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	35.76 62.38	108.95 128.46	31.24 39.10	6.02	65.0 65.0	± 9.6 %
UAU	QI OIV)	Y	69.37	130.62	39.87	<u> </u>	65.0	
		Z	24.31	108.75	33.66	 	65.0	
10238- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	100.00	128.84	36.71	6.02	65.0	± 9.6 %
,		Y	100.00	129.18	37.07	t	65.0	
	+	Ż	42.41	113.68	33.11	 	65.0	1

10239- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	100.00	126.59	35.53	6.02	65.0	± 9.6 %
,		Υ	100.00	127.02	35.93		65.0	1
		Z	35.25	108.75	31.19		65.0	
10240- CAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	Х	62.06	128.36	39.08	6.02	65.0	± 9.6 %
		Υ	68.99	130.52	39.85		65.0	
		Z	24.23	108.70	33.65		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	Х	13.28	90.52	28.93	6.98	65.0	± 9.6 %
		Υ	13.96	91.46	29.45		65.0	
		Z	11.68	87.20	27.61		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	Х	12.37	88.95	28.26	6.98	65.0	± 9.6 %
		Υ	13.39	90.50	29.02		65.0	
		Z	10.99	85.85	27.01		65.0	
10243- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	8.91	83.36	27.07	6.98	65.0	± 9.6 %
		Υ	9.86	85.50	28.12		65.0	
		Z	8.59	81.94	26.36		65.0	
10244- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	Х	10.30	82.67	21.25	3.98	65.0	± 9.6 %
		Υ	9.85	81.79	21.14		65.0	
		Z	8.72	79.63	20.08		65.0	
10245- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	9.87	81.74	20.86	3.98	65.0	± 9.6 %
		Υ	9.54	81.03	20.80		65.0	
		Ζ	8.47	78.92	19.75		65.0	
10246- CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	Х	10.47	86.04	22.67	3.98	65.0	± 9.6 %
		Υ	9.23	83.59	21.87		65.0	
		Ζ	8.84	82.73	21.39	-	65.0	
10247- CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	7.57	78.64	20.58	3.98	65.0	± 9.6 %
		Υ	7.38	77.78	20.28		65.0	
		Z	7.22	77.31	19.92		65.0	
10248- CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	Х	7.41	77.82	20.24	3.98	65.0	± 9.6 %
		Υ	7.32	77.21	20.04		65.0	
		Z	7.12	76.65	19.64		65.0	
10249- CAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	Х	12.11	89.03	24.53	3.98	65.0	± 9.6 %
		Y	10.66	86.38	23.64		65.0	
		Z	10.28	85.63	23.23		65.0	
10250- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	Х	8.55	80.96	22.98	3.98	65.0	± 9.6 %
		Υ	8.39	80.13	22.64		65.0	
		Z	8.25	79.76	22.37		65.0	
10251- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	Х	7.86	78.23	21.57	3.98	65.0	± 9.6 %
		Υ	7.91	77.96	21.49		65.0	
		Z	7.70	77.39	21,11		65.0	
10252- CAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	Х	11.12	87.26	24.79	3.98	65.0	± 9.6 %
		Υ	10.34	85.43	24.12		65.0	
		Z	10.04	84.83	23.80		65.0	
10253- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	7.69	77.02	21.42	3.98	65.0	± 9.6 %
		Y	7.81	76.95	21.42		65.0	
		Ζ	7.63	76.42	21.06		65.0	
10254- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	8.13	77.95	22.11	3.98	65.0	± 9.6 %
		Υ	8.20	77.74	22.03		65.0	
		Z	8.05	77.32	21.73	_	65.0	

10255- CAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	9.20	82.22	23.21	3.98	65.0	± 9.6 %
		Υ	8.98	81.31	22.85		65.0	
	<u> </u>	Z	8.79	80.88	22.59		65.0	
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	Х	8.08	78.24	18.62	3.98	65.0	± 9.6 %
		Υ	8.09	78.13	18.83		65.0	
		Z	7.06	75.90	17.68		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	7.63	77.04	18.06	3.98	65.0	± 9.6 %
		Y	7.74	77.12	18.34		65.0	
		Z	6.79	74.98	17.22		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	Х	7,91	80.91	20.07	3.98	65.0	± 9.6 %
		Υ	7.29	79.28	19.56		65.0	
	<u>.</u>	Z	6.91	78.29	18.99		65.0	
10259- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	7.95	79.46	21.42	3.98	65.0	± 9.6 %
		Y	7.78	78.64	21.12		65.0	
		Z	7.62	78.20	20.79		65.0	
10260- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	Х	7.90	79.04	21,27	3.98	65.0	± 9.6 %
		Υ	7.76	78.30	21.00		65.0	
		Z	7.60	77.86	20.67	,	65.0	
10261- CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	10.92	87.18	24.28	3.98	65.0	±9.6%
		Y	10.01	85.17	23.57		65.0	
		Z	9.66	84.43	23.18		65.0	
10262- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	8.53	80.89	22.94	3.98	65.0	± 9.6 %
		Y	8.37	80.08	22.61		65.0	
		Z	8.23	79.70	22.33		65.0	i
10263- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	7.85	78.21	21.57	3.98	65.0	±9.6%
		Y	7.90	77.94	21.48		65.0	
		Z	7.69	77.37	21.11		65.0	
10264- CAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	11.00	87.03	24.69	3.98	65.0	± 9.6 %
	•	Y	10.26	85.26	24.04		65.0	
		Z	9.95	84.63	23.71		65.0	
10265- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	7.90	77.63	21.68	3.98	65.0	± 9.6 %
	-	Y	8.01	77.54	21.66		65.0	
		Z	7.80	76.96	21.30		65.0	
10266- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	Х	8.36	78.61	22.42	3.98	65.0	± 9.6 %
		Υ	8.41	78.34	22.32		65.0	
		Z	8.25	77.91	22.03		65.0	
10267- CAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	Х	9.62	82.77	23.21	3.98	65.0	± 9.6 %
		Υ	9.31	81.70	22.78		65.0	
		Z	9.13	81.31	22,56		65.0	
10268- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	8.35	77.06	21.84	3.98	65.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Υ	8.46	76.99	21.82		65.0	
		Z	8.32	76.57	21.54		65.0	
10269- CAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	8.27	76.58	21.70	3.98	65.0	± 9.6 %
	,	Y	8.39	76.55	21.71		65.0	
		Z	8.25	76.15	21.43		65.0	
10270-	LTE-TDD (SC-FDMA, 100% RB, 15	X	8.73	79.17	21.98	3.98	65.0	± 9.6 %
	MHz, QPSK)						1	
CAC	MHz, QPSK)	Υ	8.64	78.57	21.73		65.0	

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.61	66.54	15.21	0.00	150.0	± 9.6 %
		Y	2.61	66.33	15.09		150.0	
		Z	2.56	66.07	14.82		150.0	
10275- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	Х	1.62	67.74	15.41	0.00	150.0	± 9.6 %
		Υ	1.61	67.33	15.16		150.0	
		Z	1.53	66.52	14.60		150.0	
10277- CAA	PHS (QPSK)	Х	4.16	66.85	11.50	9.03	50.0	± 9.6 %
		<u> </u>	4.63	67.94	12.46		50.0	
		Z	4.60	67.78	12.32		50.0	
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	9.85	82.12	20.69	9.03	50.0	± 9.6 %
_		Y	9.12	80.62	20.44		50.0	<u> </u>
40070	PHO (OPOK PIM OO MILL P. II (CO OO)	Z	8.86	79.95	20.07		50.0	
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	9.99	82.27	20.78	9.03	50.0	± 9.6 %
	<u> </u>	Υ	9.28	80.82	20.54		50.0	
40000	CDM40000 BO4 COFF F 117	Z	8.98	80.08	20.15		50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	X	1.46	68.64	14.01	0.00	150.0	± 9.6 %
		Y	1.41	67.76	13.62		150.0	
40004	ODMANOOD DOS COSS 5 "5	Z	1.28	66.63	12.83		150.0	<u> </u>
10291- AAB	CDMA2000, RC3, SO55, Full Rate	X	0.85	65.79	12.54	0.00	150.0	± 9.6 %
	·	Υ	0.83	65.06	12.17		150.0	
40000		Z	0.77	64.16	11.44		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	X	1.05	69.62	14.81	0.00	150.0	± 9.6 %
		Υ	0.97	67.98	14.02		150.0	
		Z	0.87	66.50	13.03		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	Х	1.55	75.31	17.73	0.00	150.0	± 9.6 %
		Y	1.27	71.79	16.21		150.0	
		Z	1.11	69.79	15.04		150.0	
10295- AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	Х	14.00	90.89	26.40	9.03	50.0	± 9.6 %
		Υ	12.77	88.70	25.78		50.0	
		Z	12.63	88.15	25.40		50.0	-
10297- AAB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	Х	2.76	69.60	16.50	0.00	150.0	± 9.6 %
		Υ	2.74	69.24	16.28		150.0	
		Z	2.64	68.64	15.90		150.0	
10298- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	Х	1.59	67.69	14.15	0.00	150.0	± 9.6 %
		Υ	1.56	67.07	13.85		150.0	
		Z	1.45	66.19	13.19		150.0	
10299- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	Х	3.37	72.61	15.51	0.00	150.0	± 9.6 %
		Υ	3.48	73.06	15.96		150.0	
		Ζ	2.61	69.32	14.07		150.0	-
10300- AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	Х	2.30	66.78	12.17	0.00	150.0	± 9.6 %
		Υ	2.43	67.41	12.73		150.0	
		Z	2.01	65.30	11.43		150.0	
10301- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	Х	5.22	66.94	18.03	4.17	80.0	± 9.6 %
		Υ	5.49	67.87	18.58		80.0	
		Ζ	5.31	67.15	18.03		80.0	
10302- AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.31 5.73	67.64	18.82	4.96	80.0 80.0	± 9.6 %
						4.96		± 9.6 %

10303-	IEEE 802.16e WiMAX (31:15, 5ms,	X	5.53	67.50	18.75	4.96	80.0	± 9.6 %
AAA	10MHz, 64QAM, PUSC)				<u> </u>			
		Y	5.80	68.54	19.39		80.0	
		Z	5.63	67.76	18.78		80.0	
10304- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	Х	5.26	67.09	18.10	4.17	80.0	± 9.6 %
	<u> </u>	Y	5.48	67.88	18.57		80.0	
		Z	5.33	67.25	18.07		80.0	
10305- AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	Х	6.11	74.04	22.57	6.02	50.0	± 9.6 %
		Υ	7.32	78.18	24.64		50.0	
		Ż	6.76	75.96	23.25		50.0	
10306- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	Х	5.53	68.89	20.02	6.02	50.0	± 9.6 %
	, , , , , , , , , , , , , , , , , , , ,	Y	6.06	70.93	21.19		50.0	
	·	Ż	6.08	71.68	21.53		50.0	
10307- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	5.79	71.27	21.31	6.02	50.0	± 9.6 %
		Y	6.08	71.47	21.28		50.0	
	<u> </u>	Ż	6.16	72.46	21.75		50.0	
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	5.83	71.72	21.55	6.02	50.0	± 9.6 %
		Y	6.13	71.90	21.50		50.0	
		Z	6.24	73.01	22.02		50.0	
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	5.60	69.14	20.17	6.02	50.0	± 9.6 %
		Υ	6.15	71.25	21.38		50.0	
		Z	5.82	69.74	20.33		50.0	
10310- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	5.76	70.87	21.20	6.02	50.0	± 9.6 %
		Y	6.05	71.14	21,21		50.0	
		Ż	6.10	72.01	21.62	_	50.0	
10311- AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.12	68.91	16.16	0.00	150.0	± 9.6 %
	- · · · · · · · · · · · · · · · · · · ·	Υ	3.09	68.57	15.95		150.0	
	1	Z	2.98	68.02	15.62		150.0	
10313- AAA	iDEN 1:3	X	9.49	83.32	20.31	6.99	70.0	± 9.6 %
		Y	8.42	81.34	19.78		70.0	
		Ż	8.14	80.74	19.54		70.0	
10314- AAA	iDEN 1:6	x	17.53	97.10	27.48	10.00	30.0	± 9.6 %
7001		Y	11.54	89.55	25.24		30.0	
	<u> </u>	Ż	11.83	89.83	25.30		30.0	
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.15	64.32	15,34	0.17	150.0	± 9.6 %
	poj ospo datj ojoloj	Y	1.16	64.08	15.10		150.0	
	 	Ż	1.14	63.64	14.68		150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	X	4.66	66.96	16.39	0.17	150.0	± 9.6 %
· • ·-		Y	4.68	66.90	16.35		150.0	
	 	Z	4.64	66.81	16.22		150.0	
10317-	IEEE 802.11a WiFi 5 GHz (OFDM, 6	X	4.66	66.96	16.39	0.17	150.0	± 9.6 %
AAB	Mbps, 96pc duty cycle)	Ŷ	4.68	66.90	16.35		150.0	
	+	Z	4.64	66.81	16.22	<u> </u>	150.0	
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.74	67.16	16.22	0.00	150.0	± 9.6 %
7770	Jupo daty Cycle)	Y	4.76	67.12	16.26	 	150.0	
		Z	4.76	66.99	16.12	 	150.0	
10404	IEEE 000 1100 MICH (40MI) - 64 OAM	X	5.46	67.42	16.49	0.00	150.0	± 9.6 %
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	l _l				0.00		1 5.0 %
		Y	5.48	67.39 67.30	16.49 16.36		150.0 150.0	
	1	. /	5.44	i h/.40	10 36	1	1 (151) []	1

10402- AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.70	67.69	16.48	0.00	150.0	± 9.6 %
		Y	5.72	67.65	16.46		150.0	
_		ż	5.67	67.54	16.34		150.0	
10403- AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.46	68.64	14.01	0.00	115.0	± 9.6 %
		Υ	1.41	67.76	13.62		115.0	
		Z	1.28	66.63	12.83	<u> </u>	115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.46	68.64	14.01	0.00	115.0	± 9.6 %
		Y	1.41	67.76	13.62		115.0	
	-	Z	1.28	66.63	12.83		115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	117.01	28.16	0.00	100.0	± 9.6 %
	 	Y	100.00	118.84	29.10	ļ	100.0	
10410-	LTC TOD (CO FOMA 4 DD 40 MIL-	Z	59.57	113.89	28.32		100.0	
AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	120.36	30.09	3.23	80.0	± 9.6 %
	-	Y	100.00	121.35	30.74		80.0	
10415-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1	Z	100.00	121.22	30.61	0.00	80.0	
AAA	Mbps, 99pc duty cycle)	X	1.03	63.00	14.52	0.00	150.0	± 9.6 %
		Y	1.03	62.80	14.30		150.0	
10416-	IEEE 802.11g WiFi 2.4 GHz (ERP-	Z	1.02	62.41	13.90		150.0	
AAA	OFDM, 6 Mbps, 99pc duty cycle)	X	4.58	66.83	16.24	0.00	150.0	± 9.6 %
	 	Y	4.59	66.75	16.19		150.0	
10417-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6	Z	4.55	66.66	16.06	0.00	150.0	
AAA	Mbps, 99pc duty cycle)		4.58	66.83	16.24	0.00	150.0	± 9.6 %
		Y	4.59	66.75	16.19		150.0	
10418- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long	X	4.55 4.56	66.66 66.98	16.06 16.25	0.00	150.0 150.0	± 9.6 %
	preambule)							
		Υ	4.58	66.90	16.20		150.0	
10.115		Z	4.53	66.80	16.08		150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.58	66.93	16.25	0.00	150.0	±9.6 %
		Υ	4.60	66.86	16.21		150.0	
		Z	4.56	66.76	16.08		150.0	
10422- AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.70	66.94	16.27	0.00	150.0	± 9.6 %
		Υ	4.72	66.87	16.23		150.0	
10100	1555 000 At (015 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Z	4.68	66.77	16.11		150.0	
10423- AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	Х	4.87	67.26	16.39	0.00	150.0	± 9.6 %
		Y	4.89	67.19	16.35		150.0	
10424	JEEF DOO 44- (UF C	Z	4.84	67.09	16.22		150.0	
10424- AAA	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.79	67.21	16.36	0.00	150.0	± 9.6 %
	 	Ÿ	4.81	67.14	16.32		150.0	
10425	IEEE 000 445 /UT Cooperate Land	Z	4.76	67.03	16.19		150.0	
10425- <u>A</u> AA	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	Х	5.41	67.57	16.57	0.00	150.0	± 9.6 %
		Y	5.43	67.53	16.55		150.0	
10426	IEEE 900 44p // IT Occord 1/2 00 5 P	Z	5.38	67.41	16.42		150.0	
10426- AAA	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	Х	5.41	67.60	16.58	0.00	150.0	± 9.6 %
		Υ	5.43	67.55	16.55		150.0	
 	<u> </u>	Z	5.39	67.45	16.44		150.0	

10427-	IEEE 802.11n (HT Greenfield, 150 Mbps,	х	5.42	67.57	16.56	0.00	150.0	± 9.6 %
AAA	64-QAM)					0.00		20.0 %
		Υ	5.44	67.52	16.53		150.0	
		Z	5.39	67.42	16.41		150.0	
10430- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	Х	4.28	70.86	18.16	0.00	150.0	± 9.6 %
		Υ	4.16	70.00	17.68		150.0	
		Z	4.16	70.28	17.74		150.0	
10431- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.25	67.36	16.22	0.00	150.0	± 9.6 %
		Υ	4.27	67.25	16.17		150.0	
		Z	4.21	67.12	16.00		150.0	
10432- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.56	67.24	16.30	0.00	150.0	± 9.6 %
	-	Y	4.58	67.16	16.26		150.0	
		Z	4.52	67.05	16.11		150.0	
10433- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.81	67.24	16.38	0.00	150.0	± 9.6 %
		Υ	4.82	67.17	16.34		150.0	
		Z	4.77	67.06	16.21	 	150.0	
10434-	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.37	71.70	18.12	0.00	150.0	± 9.6 %
10434- AAA	Some (Do real model 1, 04 or on)	Y	4,21	70.66	17.58	J.50	150.0	- 0.0 /0
			4.22	70.00	17.63		150.0	
10435-	LTE-TDD (SC-FDMA, 1 RB, 20 MHz,	Z	100.00	120.16	29.99	3.23		T U C 0/
AAB	QPSK, UL Subframe=2,3,4,7,8,9)					3.23	80.0	± 9.6 %
		Υ	100.00	121.16	30.65		80.0	
		Z	100.00	121.03	30.53		80.0	
10447- AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.54	67.33	15.54	0.00	150.0	± 9.6 %
		Υ	3.55	67.16	15.45		150.0	
		Z	3.47	66.95	15.21		150.0	<u> </u>
10448- AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	Х	4.09	67.13	16.08	0.00	150.0	± 9.6 %
		Υ	4.11	67.02	16.02		150.0	
	-	Z	4.05	66.89	15.85		150.0	
10449- AAA	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.37	67.07	16.20	0.00	150.0	± 9.6 %
		Υ	4.38	66.98	16.14		150.0	
		Z	4.33	66.86	16.00		150.0	
10450- AAA	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.56	67.00	16.23	0.00	150.0	± 9.6 %
		Υ	4.58	66.92	16.18		150.0	
		Z	4.53	66.82	16.05		150.0	_
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	×	3.43	67.50	15.16	0.00	150.0	±9.6%
		Y	3.44	67.30	15.07		150.0	
		Z	3.35	67.05	14.79		150.0	
10456- AAA	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	Х	6.27	68.12	16.72	0.00	150.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	6.29	68.09	16.71		150.0	
		Z	6.25	68.00	16.60		150.0	· ·
10457- AAA	UMTS-FDD (DC-HSDPA)	X	3.82	65.46	15.94	0.00	150.0	± 9.6 %
		TY	3.84	65.40	15.89		150.0	
	1	Ż	3.81	65.31	15.76	Ì	150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.25	66.84	14.57	0.00	150.0	±9.6 %
1777	- Carnotoj	Y	3.28	66.73	14.56	 	150.0	
		Z	3.18	66.43	14.21		150.0	†
40450	CDMA2000 (1vEV DO Dov. D. 2	+ z		65.30	15.60	0.00	150.0	± 9.6 %
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)		4.38			0.00		± 9.0 %
		Y	4.32	64.89	15.43	1	150.0 150.0	
	1	. 7	4.30	64.97	15.31		1 4EO O	

10460-	UMTS-FDD (WCDMA, AMR)	Х	0.89	67.56	15.74	0.00	150.0	± 9.6 %
AAA		Y	0.88	66.06	45.05	<u> </u>	450.0	
		Z	0.82	66.86 65.57	15.25 14.37		150.0 150.0	
10461- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.36	32.88	3.29	80.0	± 9.6 %
		Υ	100.00	126.53	33.18		80.0	
		Z	100.00	124.94	32.40		80.0	
10462- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	106.76	23.56	3.23	80.0	± 9.6 %
		ΙΥ	100.00	108.68	24.62		80.0	<u> </u>
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	51.63 65.77	101.19 98.98	22.83 20.89	3.23	80.0 80.0	± 9.6 %
	5 - 4 m) 52 545 min 2 2 10 min 10 10 10 1	Y	99.96	105.11	22.93		80.0	
		Z	7.71	79.43	16.41		80.0	
10464- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	100.00	124.03	31.63	3.23	80.0	± 9.6 %
		Υ	100.00	124.44	32.05		80.0	
		Z	100.00	122.80	31.25		80.0	
10465- AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	106.13	23.26	3.23	80.0	± 9.6 %
	· · · · · · · · · · · · · · · · · · ·	Y	100.00	108.13	24.35		80.0	
10466-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-	Z	20.88 16.68	91.24 85.79	20.28	2.22	80.0	
AAA	QAM, UL Subframe=2,3,4,7,8,9)	Y	32.31	93.52	17.59	3.23	80.0	± 9.6 %
		Z	5.33	75.54	20.16 15.12		80.0	
10467- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	124.29	31.75	3.23	80.0	± 9.6 %
		Υ	100.00	124.68	32.15		80.0	
		Z	100.00	123.04	31.36		80.0	
10468- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	106.33	23.34	3.23	80.0	± 9.6 %
		Υ	100.00	108.31	24.43		80.0	
		Z	25.75	93.57	20.91		80.0	_
10469- AAB	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	17.39	86.19	17.69	3.23	80.0	± 9.6 %
	 	Y	33.96	94.02	20.28		80.0	
10470-	LTE-TDD (SC-FDMA, 1 RB, 10 MHz,	Z	5.39	75.68	15.16	0.00	80.0	
AAB	QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	124.32	31.76	3.23	80.0	± 9.6 %
			400.00	124.71	32.16		80.0	
10471- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	123.06 106.26	31.36 23.31	3.23	80.0	± 9.6 %
		Υ	100.00	108.25	24.40		80.0	
		Z	25.54	93.45	20.86		80.0	
10472- AAB	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	16.97	85.92	17.60	3.23	80.0	± 9.6 %
		Y	33.74	93.91	20.24		80.0	
10473-	LTE TOD (SC CDMA 4 ED 45 MIL	Z	5.36	75.60	15.12		80.0	
AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	124.29	31.74	3.23	80.0	± 9.6 %
		Z	100.00	124.68 123.04	32.14		80.0	
10474- AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	106.26	31.35 23.31	3.23	80.0	± 9.6 %
	, and a significant	Υ	100.00	108.26	24.40	_	80.0	
		Z	25.05	93.25	20.81		80.0	
10475- AAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	Х	16.57	85.71	17.55	3.23	80.0	± 9.6 %
		Υ	32.88	93.67	20.18		80.0	
		Z	5.31	75.51	15.09		80.0	

10477- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	Х	100.00	106.06	23.21	3.23	80.0	± 9.6 %
		Υ	100.00	108.07	24.32		80.0	
	·	Ż	21.55	91.55	20.34		80.0	
10478- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	15.88	85.28	17.42	3.23	80.0	± 9.6 %
		Υ	31.78	93.29	20.08		80.0	
		Z	5.24	75.37	15.04		80.0	
10479- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	32.00	107.36	29.37	3.23	80.0	± 9.6 %
		Υ	18.99	99.29	27.40		80.0	
		Ζ	12.66	92.38	25.03		80.0	
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	47.75	105.02	26.48	3.23	80.0	± 9.6 %
		Υ	24.72	96.66	24.62		80.0	
40.10.4		Ζ	13.49	88.05	21.90		80.0	
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	28.58	96.95	23.95	3.23	80.0	± 9.6 %
		Υ	18.05	91.37	22.73		80.0	
40		Z	10.51	83.92	20.24		80.0	
10482- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.71	79.55	19.73	2.23	80.0	± 9.6 %
		Y	4.78	76.56	18.66		80.0	
		Z	4.38	75.21	17.95		80.0	
10483- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	9.78	83.45	20.56	2.23	80.0	± 9.6 %
		Υ	8.22	81.04	19.99		80.0	
		Z	6.44	77.35	18.36		80.0	
10484- AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	8.43	81.23	19.83	2.23	80.0	± 9.6 %
		Y	7.40	79.37	19.42		80.0	
		Z	5.90	75.96	17.85		80.0	
10485- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.80	80.21	20.89	2.23	80.0	±9.6 %
		Υ	5.11	77.71	19.94		80.0	
		Z	4.76	76.58	19.36		80.0	
10486- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	4.61	73.61	17.94	2.23	80.0	± 9.6 %
		Y	4.33	72.22	17.38		80.0	
		Z	4.18	71.69	16.99		80.0	
10487- AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	4.53	73.00	17.69	2.23	80.0	± 9.6 %
		Y	4.28	71.73	17.17		80.0	
_		Z	4.14	71.23	16.79		80.0	
10488- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.39	77.60	20.61	2.23	80.0	± 9.6 %
		Υ	5.11	76.25	20.02		80.0	
		Z	4.84	75.34	19.57		80.0	1
10489- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	4.56	72.31	18.60	2.23	80.0	± 9.6 %
		Υ	4.47	71.57	18.24		80.0	
		Z	4.37	71.22	17.97		80.0	
10490- AAB	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	Х	4.62	71.98	18.48	2.23	80.0	± 9.6 %
		Υ	4.55	71.31	18.15		80.0	
		Z	4.45	70.98	17.90		80.0	
10491- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.18	74.83	19.69	2.23	80.0	± 9.6 %
		Υ	5.06	74.01	19.29		80.0	
		Z	4.86	73.38	18.95		80.0	
10492- AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.75	70.98	18.35	2.23	80.0	± 9.6 %
				•				
7010		Y	4.74	70.58	18.13	1	80.0	

10493-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz,	X	4.80	70.77	18.28	2.23	80.0	± 9.6 %
AAB	64-QAM, UL Subframe=2,3,4,7,8,9)	 	L				<u> </u>	
	-	ΙΥ	4.79	70.40	18.07		80.0	
10494-	LTE-TDD (SC-FDMA, 50% RB, 20 MHz,	Z X	4.70	70.11	17.85	0.00	80.0	
AAB	QPSK, UL Subframe=2,3,4,7,8,9)		5.78	76.75	20.27	2.23	80.0	± 9.6 %
		Y	5.56	75.65	19.77		80.0	
10495-	LTE TOD (CC CDMA 500) DD 00 MILE	Z	5.31	74.90	19.40		80.0	
AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.82	71.47	18.58	2.23	80.0	± 9.6 %
	-	Y	4.80	71.03	18.33		80.0	_
10496- AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.70 4.86	70.69 71.06	18.10 18.44	2.23	80.0	± 9.6 %
		Υ	4.85	70.66	18.22		80.0	<u> </u>
		Z	4.76	70.36	18.00		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	4.15	74.65	16.99	2.23	80.0	± 9.6 %
		Y	3.58	72.34	16.17		80.0	
		Z	3.23	70.88	15.35		80.0	
10498- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	2.56	65.93	12.36	2.23	80.0	± 9.6 %
		Υ	2.58	65.70	12.37		80.0	
		Z	2.34	64.56	11.59		80.0	
10499- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.44	65.10	11.83	2.23	80.0	± 9.6 %
		Υ	2.48	65.01	11.91		80.0	
		Z	2.26	63.91	11.14		80.0	
10500- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.42	78.56	20.59	2.23	80.0	± 9.6 %
	<u> </u>	Υ	4.99	76.71	19.84		80.0	
		Z	4.69	75.72	19.32		80.0	
10501- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.59	73.05	18.17	2.23	80.0	± 9.6 %
		Y	4.39	71.95	17.70		80.0	
40500	1.TE TOD (0.0 ED) (1. 1000) ED 0.111	Z	4.27	71.52	17.37		80.0	ļ
10502- AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.62	72.77	18.01	2.23	80.0	± 9.6 %
	<u> </u>	ΙŽ	4.43	71.72	17.55		80.0	
40500	LTE TOD (OO FDIAM 4000) DB 5 AU	Z	4.31	71.31	17.23		80.0	
10503- AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.31	77.36	20.51	2.23	80.0	± 9.6 %
	 	Υ	5.05	76.06	19.94		80.0	ļ
10504-	LTE-TDD (SC-FDMA, 100% RB, 5 MHz,	Z	4.78	75.13	19.47		80.0	
AAB	16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.53	72.20	18.54	2.23	80.0	± 9.6 %
	 	Y	4.45	71.49 71.12	18.19		80.0	ļ
10505- AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.35 4.59	71.12	17.92 18.42	2.23	80.0 80.0	± 9.6 %
		Y	4.52	71.23	18.11		80.0	 -
		Z	4.42	70.89	17.84		80.0	
10506- AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.73	76.57	20.19	2.23	80.0	± 9.6 %
		Υ	5.52	75.52	19.71		80.0	
		Z	5.26	74.76	19.33		80.0	
10507- AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	4.80	71.40	18.54	2.23	80.0	± 9.6 %
-		Υ	4 70	70.07	40.00			├
		Z	4.78	70.97	18.30		80.0	'

10508- AAB	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.84	70.98	18.40	2.23	80.0	± 9.6 %
		Υ	4.84	70.60	18.19		80.0	
		Z	4.74	70.29	17.96		80.0	
10509- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	5.72	74.32	19.33	2,23	80.0	± 9.6 %
		ΙΥ	5.59	73.58	18.97		80.0	
10-1-		Z	5.43	73.10	18.71		80.0	
10510- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.21	70.74	18.36	2.23	80.0	± 9.6 %
		Υ	5.23	70.46	18.19		80.0	
		Z	5.13	70.16	17.99		80.0	
10511- AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.24	70.40	18.26	2.23	80.0	± 9.6 %
		Υ	5.25	70.15	18.11		80.0	
		Z	5.17	69.88	17.92		80.0	
10512- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.23	76.40	19.98	2.23	80.0	± 9.6 %
		Y	6.00	75.40	19.53		80.0	
10510	LTC TDD (OO ED)	Z	5.76	74.74	19.21		80.0	
10513- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.14	71.15	18,52	2.23	80.0	± 9.6 %
		Υ	5.14	70.84	18.33		80.0	
		Z	5.04	70.49	18.11		80.0	
10514- AAB	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.11	70.61	18.35	2.23	80.0	± 9.6 %
		Υ	5.12	70.34	18.19		80.0	
		Z	5.04	70.04	17.98		80.0	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.99	63.16	14.56	0.00	150.0	± 9.6 %
		Υ	0.99	62.95	14.34		150.0	
		Z	0.98	62.52	13.91		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.58	68.82	16.42	0.00	150.0	± 9.6 %
		Y	0.57	67.74	15.66		150.0	
10512	JEEE 000 445 MEELO 4 OLI- (DOOC 44	Z	0.51	65.56	14.26		150.0	+069/
10517- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)		0.83	64.84	15.06 14.73	0.00	150.0 150.0	± 9.6 %
		Z	0.80	63.67	14.73		150.0	
10518- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.57	66.90	16.21	0.00	150.0	± 9.6 %
		Y	4.58	66.82	16.17		150.0	
		Ž	4.54	66.73	16.04		150.0	
10519- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.75	67.14	16.34	0.00	150.0	± 9.6 %
		Y	4.77	67.08	16.30		150.0	ļ. <u>.</u>
40500	THE DOO 44 - 5 THE POST (OFFICE OF	Z	4.72	66.97	16.16	0.00	150.0	1000
10520- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.61	67.10	16.26	0.00	150.0 150.0	± 9.6 %
	 	Z	4.62 4.57	67.03 66.91	16.07		150.0	
10521- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.54	67.09	16.24	0.00	150.0	± 9.6 %
		Y	4.56	67.01	16.19	T -	150.0	·
		Z	4.50	66.89	16.05		150.0	
10522- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	Х	4.60	67.18	16.32	0.00	150.0	± 9.6 %
		Υ	4.62	67.10	16.28		150.0	
		Z	4.56	66.99	16.14	I	150.0	1

10523- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.48	67.04	16.17	0.00	150.0	± 9.6 %
	, , , , , , , , , , , , , , , , , , , ,	Y	4.49	66.95	16.11		150.0	
		ż	4.44	66.85	15.99		150.0	
10524- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duly cycle)	X	4.54	67.10	16.29	0.00	150.0	± 9.6 %
		Υ	4.56	67.02	16.24		150.0	
		Z	4.51	66.91	16.11		150.0	
10525- AAA	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	Х	4.53	66.14	15.88	0.00	150.0	± 9.6 %
_		Υ	4.54	66.06	15.83		150.0	
	<u> </u>	Z	4.49	65.96	15.70		150.0	
10526- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.70	66.51	16.02	0.00	150.0	± 9.6 %
		Y	4.71	66.43	15.97		150.0	
		Z	4.66	66.31	15.84		150.0	
10527- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	×	4.62	66.47	15.97	0.00	150.0	± 9.6 %
		Υ	4.63	66.38	15.91		150.0	
		Z	4.58	66.26	15.78		150.0	
10528- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	Х	4.63	66.48	16.00	0.00	150.0	± 9.6 %
		Υ	4.65	66.40	15.95		150.0	
10		Z	4.59	66.28	15.81		150.0	
10529- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	Х	4.63	66.48	16.00	0.00	150.0	± 9.6 %
		Y	4.65	66.40	15.95		150.0	
		Z	4.59	66.28	15.81		150.0	
10531- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	Х	4.62 —	66.59	16.01	0.00	150.0	± 9.6 %
		_ Y_	4.64	66.51	15.96		150.0	
		Z	4.58	66.37	15.82		150.0	
10532- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.48	66.44	15.94	0.00	150.0	± 9.6 %
		Υ	4.50	66.35	15.89		150.0	
		Z	4.44	66.22	15.74		150.0	
10533- <u>A</u> AA	!EEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.64	66.53	15.99	0.00	150.0	± 9.6 %
		Υ	4.66	66.44	15.93		150.0	_
		Z	4.60	66.33	15.80		150.0	
10534- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	Х	5.17	66.61	16.07	0.00	150.0	± 9.6 %
		Y	5.19	66.55	16.03		150.0	
		Z	5.14	66.44	15.91		150.0	
10535- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.24	66.79	16.15	0.00	150.0	± 9.6 %
		Y	5.26	66.73	16.11		150.0	
40500		Z	5.21	66.63	16.00		150.0	
10536- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	Х	5.11 	66.73	16.10	0.00	150.0	± 9.6 %
	-	Υ	5.12	66.67	16.06		150.0	
		Z	5.07	66.56	15.94		150.0	
10537- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.17	66.71	16.09	0.00	150.0	± 9.6 %
_		Υ	5.18	66.64	16.05		150.0	
10500		Z	5.13	66.53	15.93		150.0	
10538- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.26	66.73	16.14	0.00	150.0	± 9.6 %
		Y	5.27	66.68	16.11		150.0	
		Z	5.22	66.56	15.99		150.0	
10540- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	Х	5.19	66.75	16.17	0.00	150.0	± 9.6 %
		Υ	5.20	66.69	16.13	_	150.0	
		Z	5.16	66.58	16.01		150.0	

10541- AAA	IEEE 802.11ac WiFi (40MHz, MCS7,	X	5.16	66.61	16.09	0.00	150.0	± 9.6 %
.7V-V4	99pc duty cycle)	+ ,	F 1=	+	100=		1	
		Y	5.17	66.55	16.05	<u> </u>	150.0	
10542-	IEEE 902 44 co MIEE (40MH - MCCO	Z	5.13	66.44	15.93		150.0	
AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)		5.32	66.69	16.14	0.00	150.0	± 9.6 %
		<u> </u>	5.33	66.63	16.11		150.0	
		Z	5.28	66.53	15.99		150.0	
10543- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	Х	5.39	66.73	16.19	0.00	150.0	± 9.6 %
		Y	5.41	66.68	16.16		150.0	
40011		Z	5.36	66.57	16.04		150.0	
10544- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duly cycle)	X	5.48	66.73	16.07	0.00	150.0	±9.6 %
		Y -	5.49	66.67	16.03		150.0	
40545	IFFE 000 44 INFE (000 III I I I I I I I I I I I I I I I	Z	5.45	66.58	15.92		150.0	
10545- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duly cycle)	X	5.68	67.16	16.23	0.00	150.0	± 9.6 %
-		Y	5.70	67.11	16.20		150.0	
		Z	5.65	67.00	16.09		150.0	
10546- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.55	66.94	16.14	0.00	150.0	± 9.6 %
		Y	5.56	66.89	16.11		150.0	
		Z	5.52	66.78	15.99		150.0	
10547- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.62	66.98	16.15	0.00	150.0	± 9.6 %
		Y	5.64	66.93	16.12		150.0	
		Z	5.59	66.82	16.00		150.0	
10548- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.89	67.99	16.62	0.00	150.0	± 9.6 %
		Y	5.92	67.98	16.62		150.0	
		Z	5.84	67.76	16.45		150.0	
10550- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.58	66.96	16.16	0.00	150.0	± 9.6 %
		Υ	5.59	66.90	16.12		150.0	
		Z	5.55	66.81	16.02		150.0	
10551- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.58	67.00	16.14	0.00	150.0	± 9.6 %
		Y	5.59	66.94	16.10		150.0	
		Z	5.55	66.84	15.99		150.0	
10552- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duly cycle)	Х	5.49	66.79	16.04	0.00	150.0	± 9.6 %
		Y	5.51	66.73	16.00		150.0	
		Z	5.46	66.64	15.90		150.0	
10553- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.58	66.83	16.09	0.00	150.0	± 9.6 %
		Y	5.59	66.78	16.06		150.0	
		Z	5.55	66.68	15.95		150.0	
10554- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.89	67.10	16.16	0.00	150.0	±9.6 %
		Y	5.90	67.05	16.13		150.0	
		Z	5.87	66.95	16.03		150.0	
10555- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	Х	6.02	67.41	16.29	0.00	150.0	± 9.6 %
		Υ	6.04	67.36	16.27		150.0	
		Z	5.99	67.26	16.16		150.0	
10556- AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	Х	6.04	67.45	16.31	0.00	150.0	± 9.6 %
		Υ	6.06	67.41	16.28		150.0	
		Z	6.01	67.30	16.17		150.0]
10557- AAA	IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	6.01	67.35	16.28	0.00	150.0	± 9.6 %
		Y	6.02	67.31	16.25		150.0	_
		Z	5.98	67.20	16.14	Г — —	150.0	1

10558- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.06	67.52	16.38	0.00	150.0	± 9.6 %
		Y	6.07	67.48	16.35		150.0	
		Z	6.02	67.36	16.23		150.0	
10560- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	Х	6.05	67.36	16.34	0.00	150.0	± 9.6 %
		Y	6.07	67.32	16.31		150.0	
		Z	6.02	67.21	16.20		150.0	
10561- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.97	67.34	16.36	0.00	150.0	± 9.6 %
		Y	5.99	67.30	16.34		150.0	
		Z	5.94	67.19	16.22		150.0	
10562- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	Х	6.10	67.72	16.55	0.00	150.0	± 9.6 %
		Υ	6.12	67.71	16.55		150.0	
		Z	6.06	67.55	16.40		150.0	
10563- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	Х	6.34	68.04	16.67	0.00	150.0	± 9.6 %
	<u> </u>	Υ	6.40	68.13	16.72		150.0	
		Z	6.26	67.76	16.47		150.0]
10564- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	Х	4.90	67.01	16.40	0.46	150.0	± 9.6 %
		Υ	4.93	66.98	16.38		150.0	
		Z	4.88	66.87	16.24		150.0	
10565- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 99pc duty cycle)	X	5.13	67.46	16.71	0.46	150.0	± 9.6 %
		Y	5.15	67.40	16.69		150.0	
		Z	5.10	67.30	16.56		150.0	
10566- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	Х	4.97	67.31	16.53	0.46	150.0	± 9.6 %
<u> </u>		Y	4.99	67.26	16.51		150.0	
		Z	4.94	67.15	16.37		150.0	
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	5.00	67.69	16.88	0.46	150.0	± 9.6 %
		Y	5.01	67.59	16.82		150.0	i
		Z	4.96	67.51	16.71		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	Х	4.89	67.10	16.32	0.46	150.0	± 9.6 %
		Υ	4.92	67.10	16.33		150.0	
		Z	4.86	66.95	16.17		150.0	
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duly cycle)	Х	4.96	67.79	16.95	0.46	150.0	± 9.6 %
		Y	4.96	67.66	16.87		150.0	
		Z	4.92	67.61	16.78		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	Х	4.99	67.63	16.87	0.46	150.0	± 9.6 %
		Y	5.00	67.54	16.82		150.0	
		Z	4.95	67.46	16.71		150.0	
10571- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	Х	1.30	65.56	15.99	0.46	130.0	± 9.6 %
		Y	1.32	65.34	15.77		130.0	
		Z	1.29	64.82	15.32		130.0	
10572- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.33	66.18	16.36	0.46	130.0	± 9.6 %
		Y	1.33	65.88	16.09		130.0	
		Z	1.31	65.33	15.63		130.0	
10573- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	Х	3.00	89.02	24.01	0.46	130.0	± 9.6 %
	<u> </u>	Y	2.35	84.15	22.16		130.0	
		Z	1.62	77.82	19.61		130.0	
10574- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	Х	1.52	72.35	19.33	0.46	130.0	± 9.6 %
		Υ	1.47	71.09	18.58		130.0	
		Z	1.40	69.97	17.87			

10575-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	X	4.71	66.88	16.50	0.46	130.0	± 9.6 %
AAA	OFDM, 6 Mbps, 90pc duty cycle)							
		Y	4.74	66.84	16.48		130.0	
40570	IEEE 000 44 - WEE' 0 4 OU - (DOOD	Z	4.70	66.75	16.34		130.0	
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.74	67.05	16.56	0.46	130.0	± 9.6 %
		Y	4.76	66.99	16.53		130.0	
		Z	4.72	66.90	16.40		130.0	
10577- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 90pc duly cycle)	X	4.94	67.33	16.73	0.46	130.0	± 9.6 %
		Y	4.97	67.28	16.70		130.0	
		Z	4.92	67.18	16.57		130.0	
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	4.84	67.50	16.83	0.46	130.0	± 9.6 %
		Y	4.86	67.41	16.77		130.0	
40570		Z	4.81	67.33	16.66		130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.61	66.80	16.16	0.46	130.0	± 9.6 %
		Y	4.64	66.81	16.17		130.0	
		Z	4.59	66.65	16.00		130.0	
10580- AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 90pc duty cycle)	. X	4.66	66.83	16.18	0.46	130.0	± 9.6 %
•		Υ	4.69	66.85	_16.20		130.0	
		Z	4.63	66.69	16.02		130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	X	4.74	67.55	16.78	0.46	130.0	± 9.6 %
	<u> </u>	Υ	4.76	67.46	16.72		130.0	
		Z	4.72	67.37	16.61		130.0	
10582- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 90pc duty cycle)	X	4.55	66.56	15.94	0.46	130.0	± 9.6 %
		Y	4.59	66.61	15.99		130.0	
		Z	4.53	66.42	15.79		130.0	
10583- AAA_	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4,71	66.88	16.50	0.46	130.0	± 9.6 %
•		Y	4.74	66.84	16.48		130.0	
		Z	4.70	66.75	16.34		130.0	
10584- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.74	67.05	16.56	0.46	130.0	± 9.6 %
		Y	4.76	66.99	16.53		130.0	
		Z	4.72	66.90	16.40		130.0	
10585- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	Х	4.94	67.33	16.73	0.46	130.0	± 9.6 %
		Y	4.97	67.28	16.70		130.0	
		Z	4.92	67.18	16.57		130.0	
10586- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.84	67.50	16.83	0.46	130.0	± 9.6 %
		Υ	4.86	67,41	16.77		130.0	
		Z	4.81	67.33	16.66		130.0	
10587- AAA	IEEE 802.11a/n WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.61	66.80	16.16	0.46	130.0	± 9.6 %
		Υ	4.64	66.81	16.17		130.0	
		Z	4.59	66.65	16.00		130.0	
10588- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	Х	4.66	66.83	16.18	0.46	130.0	± 9.6 %
		Υ	4.69	66.85	16.20		130.0	
		Z	4.63	66.69	16.02		130.0	
10589- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.74	67.55	16.78	0.46	130.0	± 9.6 %
		Υ	4.76	67.46	16.72		130.0	
		Z	4.72	67.37	16.61		130.0	
10590- AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.55	66.56	15.94	0.46	130.0	± 9.6 %
		Υ	4.59	66.61	15.99		130.0	
_		Z	4.53	66.42	15.79		130.0	

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10591-	IEEE 802.11n (HT Mixed, 20MHz,	I x I	4.86	66.94	16.59	0.46	130.0	± 9.6 %
AAA	MCS0, 90pc duty cycle)	^	4.00	00.54	10.55	0.40	130.0	1 5.0 %
		Y	4.89	66.89	16.57		130.0	
		Z	4.85	66.81	16.45		130.0	ì
10592- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.02	67.27	16.72	0.46	130.0	± 9.6 %
		Y	5.04	67.22	16.70		130.0	
		Z	4.99	67.14	16.58		130.0	
10593- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duly cycle)	Х	4.94	67.19	16.61	0.46	130.0	± 9.6 %
		Y	4.97	67.15	16.59		130.0	
10594- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duly cycle)	- Z	4.92 4.99	67.04 67.35	16.46 16.76	0.46	130.0 130.0	± 9.6 %
7001	MOGO, Sope daty cycle)	Y	5.02	67.29	16.73	ļ	130.0	
		Ż	4.97	67.21	16.61		130.0	
10595- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duly cycle)	Х	4.96	67.31	16.66	0.46	130.0	± 9.6 %
		Y	4.99	67.26	16.63		130.0	
		Z	4.94	67.16	16.51		130.0	
10596- AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.90	67.31	16.66	0.46	130.0	± 9.6 %
		Y	4.93	67.27	16.64		130.0	<u> </u>
10597-	IEEE 000 44% (UE Mined OOM)	Z	4.88	67.16	16.51	0.40	130.0	
AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.85	67.21	16.55	0.46	130.0	± 9.6 %
		Y	4.88	67.18	16.53		130.0	
10598-	IEEE 802.11n (HT Mixed, 20MHz,	Z	4.83 4.83	67.06 67.44	16.39 16.81	0.46	130.0 130.0	+069/
AAA	MCS7, 90pc duty cycle)		<u>-</u> _			0.46		± 9.6 %
	-	Y Z	4.85 4.81	67.37 67.28	16.76 16.64		130.0 130.0	
10599- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.54	67.49	16.81	0.46	130.0	± 9.6 %
		Y	5.55	67.44	16.79		130.0	
		Z	5.52	67.38	16.69	-	130.0	
10600- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.68	67.94	17.01	0.46	130.0	± 9.6 %
		Y	5.71	67.95	17.02		130.0	-
		Z	5.66	67.81	16.87		130.0	
10601- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.56	67.67	16.89	0.46	130.0	± 9.6 %
		Y	5.59	67.66	16.88		130.0	
10602-	IEEE 802.11n (HT Mixed, 40MHz,	X	5.54 5.66	67.54 67.70	16.75 16.82	0.46	130.0 130.0	± 9.6 %
AAA	MCS3, 90pc duty cycle)	Y	5.69	67.70	16.83	ļ	130.0	
	+	Z	5.64	67.59	16.70		130.0	<u> </u>
10603- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.74	67.99	17.10	0.46	130.0	± 9.6 %
		Y	5.76	67.96	17.08		130.0	
		Z	5.71	67.87	16.97		130.0	
10604- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	Х	5.54	67.46	16.82	0.46	130.0	± 9.6 %
		Y	5.56	67.41	16.80		130.0	
10605- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	Z X	5.53 5.66	67.37 67.81	16.70 17.00	0.46	130.0 130.0	± 9.6 %
/1///	MOGO, Jope duty Cycle)	Y	5.69	67.81	17.00		130.0	
	 	Ż	5.64	67.69	16.87		130.0	
10606- AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.40	67.14	16.52	0.46	130.0	± 9.6 %
		Y	5.44	67.18	16.55	-	130.0	
	<u> </u>	Z	5.38	67.01	16.39	-	130.0	

10607-	IEEE 802.11ac WiFi (20MHz, MCS0,	X	4.70	66.24	16.21	0.46	130.0	± 9.6 %
<u> </u>	90pc duty cycle)	 						
		Y	4.72	66.17	16.17		130.0	
40000	IFFE 000 44 W/F/ (004)	_ Z	4.67	66.09	16.05		130.0	
10608- AAA	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.88	66.64	16.37	0.46	130.0	± 9.6 %
		_ Y _	4.90	66.57	16.33		130.0	
		z	4.85	66.48	16.21	L	130.0	
10609- AAA	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.77	66.49	16.22	0.46	130.0	± 9.6 %
		Y	4.80	66.44	16.18		130.0	
10010		Z	4.74	66.32	16.05		130.0	
10610- AAA	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.82	66.65	16.38	0.46	130.0	± 9.6 %
		Y	4.84	66.58	16.33		130.0	
10011	LIEFE COO (4) NEW YORK IN THE	Z	4.79	66.48	16.21		130.0	
10611- AAA	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.74	66.46	16.23	0.46	130.0	± 9.6 %
		Y	4.76	66.40	16.19		130.0	
		Z	4.71	66.29	16.06		130.0	
10612- AAA	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.75	66.62	16.27	0.46	130.0	± 9.6 %
	<u> </u>	Y	4.78	66.57	16.24		130.0	
10015		Z	4.72	66.44	16.10		130.0	
10613- AAA	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duly cycle)	×	4.76	66.51	16.16	0.46	130.0	± 9.6 %
		Y	4.78	66.47	16.14		130.0	
		Z	4.72	66.33	15.99		130.0	
10614- AAA	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	×	4.70	66.68	16.38	0.46	130.0	± 9.6 %
		Y	4.72	66.60	16.33		130.0	
		Z	4.67	66.50	16.20		130.0	
10615- AAA	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.74	66.30	16.01	0.46	130.0	± 9.6 %
		Y	4.77	66.27	16.00		130.0	
		Z	4.71	66.14	15.85		130.0	
10616- AAA	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.35	66.72	16.41	0.46	130.0	± 9.6 %
		Y	5.37	66.67	16.37		130.0	
		Z	5.32	66.58	16.26		130.0	
10617- AAA	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	Х	5.42	66.91	16.47	0.46	130.0	± 9.6 %
		Υ	5.44	66.86	16.44		130.0	
		Z	5.39	66.77	16.33		130.0	
10618- AAA	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	×	5.30	66.90	16.49	0.46	130.0	± 9.6 %
		Y	5.32	66.84	16.45		130.0	
		Z	5.27	66.75	16.34		130.0	
10619- AAA	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	×	5.32	66.73	16.34	0.46	130.0	± 9.6 %
		Υ	5.35	66.70	16.32		130.0	
		Z	5.29	66.57	16.19		130.0	
10620- AAA	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duly cycle)	Х	5.41	66.76	16.40	0.46	130.0	± 9.6 %
		Y	5.44	66.74	16.38		130.0	
		Z	5.38	66.61	16.26		130.0	
10621- AAA	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	Х	5.41	66.88	16.58	0.46	130.0	± 9.6 %
		Y	5.42	66.80	16.52		130.0	
		Z	5.38	66.73	16.43		130.0	
10622- AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.43	67.06	16.66	0.46	130.0	± 9.6 %
	· · · · · · ·	_		1	1001	l	4000	
		Y	5.44	66.99	16.61	1	130.0	

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10623- AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.30	66.57	16.29	0.46	130.0	± 9.6 %
		TY	5.32	66.54	16.28		130.0	
		Z	5.27	66.44	16.15		130.0	
10624- AAA	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duly cycle)	X	5.49	66.77	16.45	0.46	130.0	± 9.6 %
		Y	5.51	66.74	16.43		130.0	
		Z	5.47	66.64	16.32		130.0	· - · · · · · · · · · · · · · · · · · · ·
10625- AAA	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duly cycle)	X	5.87	67.79	17.01	0.46	130.0	± 9.6 %
 -	00000000	Y	5.91	67.80	17.02		130.0	
		Ż	5.82	67.59	16.84		130.0	
10626- AAA	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.64	66.77	16.36	0.46	130.0	± 9.6 %
		Y	5.66	66.73	16.33		130.0	<u> </u>
		Z	5.62	66.65	16.23		130.0	
10627- AAA	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duly cycle)	Х	5.89	67.37	16.62	0.46	130.0	± 9.6 %
		Y	5.91	67.33	16.60		130.0	
		Ż	5.87	67.23	16.49		130.0	
10628- AAA	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duly cycle)	X	5.68	66.88	16.31	0.46	130.0	± 9.6 %
		Y	5.70	66.87	16.31		130.0	
	<u> </u>	Z	5.65	66.74	16.18		130.0	
10629- AAA	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.76	66.96	16.35	0.46	130.0	± 9.6 %
		Y	5.79	66.97	16.35		130.0	
		Z	5.73	66.80	16.20		130.0	
10630- AAA	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duly cycle)	X	6.24	68.57	17.15	0.46	130.0	± 9.6 %
	<u> </u>	Y	6.29	68.63	17.19		130.0	_
		Z	6.18	68.33	16.97		130.0	
10631- AAA	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	Х	6.10	68.25	17.18	0.46	130.0	± 9.6 %
		Y	6.12	68.20	17.14		130.0	
		Z	6.05	68.04	17.01	_	130.0	
10632- AAA	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.86	67.41	16.78	0.46	130.0	± 9.6 %
		Υ	5.86	67.33	16.72		130.0	
		Z	5.83	67.27	16.64		130.0	
10633- AAA	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.74	67.02	16.41	0.46	130.0	± 9.6 %
		Y	5.75	66.98	16.39		130.0	
		Z	5.71	66.88	16.28		130.0	
10634- AAA	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.72	67.05	16.48	0.46	130.0	± 9.6 %
		Υ	5.74	67.00	16.45		130.0	<u> </u>
		Z	5.69	66.91	16.35		130.0	
10635- AAA	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duly cycle)	X	5.61	66.41	15.90	0.46	130.0	± 9.6 %
		Y	5.64	66.44	15.93		130.0	
		Z	5.58	66.28	15.78		130.0	
10636- AAA	IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.06	67.15	16.45	0.46	130.0	± 9.6 %
		Υ	6.07	67.11	16.43		130.0	
		Z	6.04	67.02	16.33		130.0	
10637- AAA	IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.22	67.54	16.63	0.46	130.0	± 9.6 %
		Y	6.24	67.51	16.62		130.0	
		Z	6.19	67.41	16.51		130.0	-
10638- AAA	IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	Х	6.22	67.51	16.59	0.46	130.0	± 9.6 %
		Y	6.23	67.48	16.58		130.0	

10639-	IEEE 1602.11ac WiFi (160MHz, MCS3,	X	6.19	67.46	16.61	0.46	130.0	± 9.6 %
<u>AAA</u>	90pc duly cycle)							
		Y	6.21	67.42	16.59		130.0	
	-	Z	6.17	67.32	16.48		130.0	
10640- AAA	IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.20	67.48	16.56	0.46	130.0	± 9.6 %
		Y	6.22	67.47	16.57		130.0	
		Z	6.17	67.34	16.43		130.0	
10641- AAA	IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.24	67.37	16.53	0.46	130.0	± 9.6 %
		Y	6.26	67.35	16.53		130.0	
		Z	6.22	67.26	16.42		130.0	
10642- AAA	IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.28	67.61	16.82	0.46	130.0	± 9.6 %
		Y	6.29	67.56	16.78		130.0	
		Z	6.25	67.48	16.69		130.0	
10643- AAA	IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	Х	6.12	67.31	16.57	0.46	130.0	± 9.6 %
_	_	Y	6.14	67.30	16.57		130.0	
		Z	6.10	67.19	16.44	<u> </u>	130.0	
10644- AAA	IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.29	67.82	16.84	0.46	130.0	± 9.6 %
		Y	6.32	67.84	16.86		130.0	
		Z	6.25	67.65	16.70		130.0	
10645- AAA	IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	Х	6.66	68.51	17.14	0.46	130.0	± 9.6 %
		Y	6.74	68.70	17.25		130.0	
		Z	6.55	68.17	16.92		130.0	
10646- AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	Х	72.47	137.59	44.83	9.30	60.0	± 9.6 %
		Y	100.00	145.17	47.03		60.0	
		Z	40.65	122.83	40.68		60.0	
10647- AAB	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	Х	65.20	136.16	44.66	9.30	60.0	± 9.6 %
		Y	100.00	146.33	47.53		60.0	
		Z	38.60	122.56	40.77		60.0	
10648- AAA	CDMA2000 (1x Advanced)	Х	0.71	63.70	10.92	0.00	150.0	± 9.6 %
		Y	0.71	63.27	10.71		150.0	
		Z	0.67	62.68	10.14		150.0	

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

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





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

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

Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

PC Test

Certificate No: EX3-3589_Jan17

CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:3589

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:

January 13, 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	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: S5277 (20x)	05-Apr-16 (No. 217-02293)	Apr-17
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 Dale (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

Calibrated by:

Name

Function

45

Laboratory Technician

Approved by:

Katja Pokovic

Michael Weber

Technical Manager

Issued: January 16, 2017

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

Certificate No: EX3-3589_Jan17 Page 1 of 11

MY 2017

Calibration Laboratory of

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





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

Accreditation No.: SCS 0108

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

Glossary:

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

ConvF **DCP**

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

CF

crest factor (1/duty_cycle) of the RF signal modulation dependent linearization parameters

A, B, C, D Polarization φ

φ rotation around probe axis

Polarization 9

9 rotation around an axis that is in the plane normal to probe axis (at measurement center),

i.e., 9 = 0 is normal to probe axis

Connector Angle

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

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013

b) IEC 62209-1, "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 used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010

d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

NORMx, y, z: Assessed for E-field polarization $\vartheta = 0$ (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E2-field uncertainty inside TSL (see below ConvF).

 $NORM(f)x,y,z = NORMx,y,z * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included

in the stated uncertainty of ConvF.

DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.

PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal

characteristics

Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor

media. VR is the maximum calibration range expressed in RMS voltage across the diode.

ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100

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).

January 13, 2017 EX3DV4 - SN:3589

Probe EX3DV4

SN:3589

Manufactured: Calibrated:

March 30, 2006 January 13, 2017

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

January 13, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

Basic Calibration Parameters

Daoio Ganotation Fara	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (µV/(V/m) ²) ^A	0.45	0.39	0.39	± 10.1 %
DCP (mV) ^B	103.1	103.4	99.2	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	С	D dB	VR mV	Unc ^E (k=2)
0	CW	Х	0.0	0.0	1.0	0.00	161.2	±3.3 %
		Y	0.0	0.0	1.0		173.7	
		Z	0.0	0.0	1.0		135.7	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	4.33	68.3	14.2	10.00	44.8	±1.9 %
		Υ	3.03	64.9	12.6		44.0	_
		Z	1.75	59.1	10.5		48.9	
10062- CAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	Х	10.36	69.2	21.9	8.68	126.5	±2.7 %
<u> </u>	111000)	Y	10.35	68.8	21.4		136.4	
		Z	10.74	70.2	22.3		149.4	
10117- CAB	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	Х	10.30	69.0	21.3	8.07	131.3	±1.9 %
<u> </u>		Υ	10.24	68.6	20.9		140.6	
		Z	9.68	67.3	20.2		105.8	
10196- CAB	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	9.88	68.6	21.2	8.10	125.0	±2.2 %
		Υ	9.95	68.5	20.9		134.8	
		Z	9.28	67.0	20.1		100.7	
10400- AAC	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	10.17	68.9	21.6	8.37	125.5	±2.2 %
		Υ	10.21	68.7	21.1		134.8	
_		Z	9.53	67.2	20.4		100.7	
10401- AAC	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duly cycle)	X	10.95	69.6	21.9	8.60	134.0	±2.5 %
		Y	10.86	69.1	21.4		143.2	
		Z	10.34	67.9	20.8		107.9	
10402- AAC	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	×	11.11	70.0	21.9	8.53	134.7	±2.5 %
		Υ	10.77	68.9	21.1		141.7	ļ
		Z	10.46	68.2	20.7		107.7	

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

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

Numerical linearization parameter: uncertainty not required.

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

EX3DV4- SN:3589 January 13, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

Calibration Parameter Determined in Head Tissue Simulating Media

					•			
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
5250	35.9	4.71	4.78	4.78	4.78	0.30	1.80	± 13.1 %
5600	35.5	5.07	4.24	4.24	4.24	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.44	4.44	4.44	0.40	1.80	± 13.1 %

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

Certificate No: EX3-3589_Jan17

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

the ConvF uncertainty for indicated target tissue parameters.

A lipha/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.

EX3DV4- SN:3589 January 13, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
5250	48.9	5.36	4.19	4.19	4.19	0.40	1.90	± 13.1 %
5600	48.5	5.77	3.82	3.82	3.82	0.40	1.90	± 13.1 %
5750	48.3	5.94	3.83	3.83	3.83	0.50	1.90	± 13.1 %

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

Certificate No: EX3-3589_Jan17

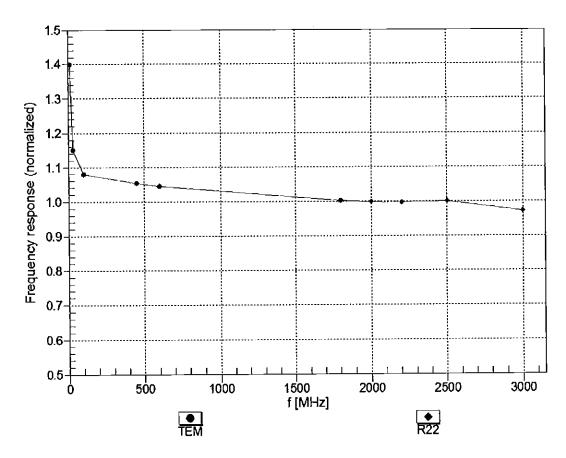
validity can be extended to ± 110 MHz.

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

the ConvF uncertainty for indicated target tissue parameters.

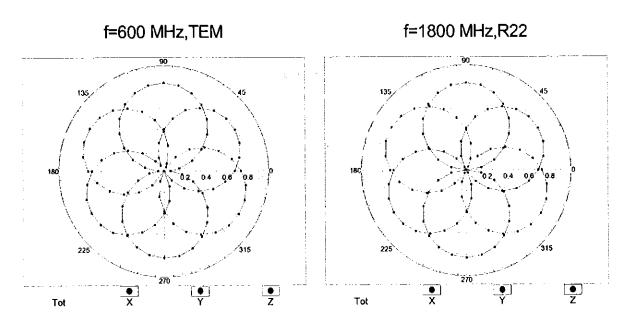
Galpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the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

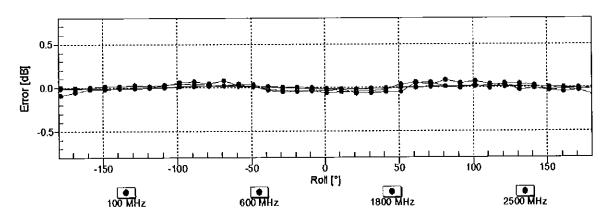
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



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

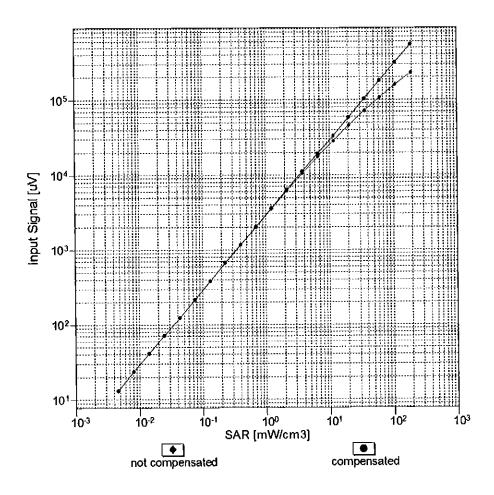
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

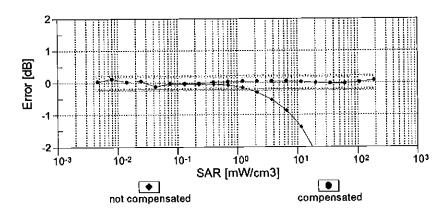




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

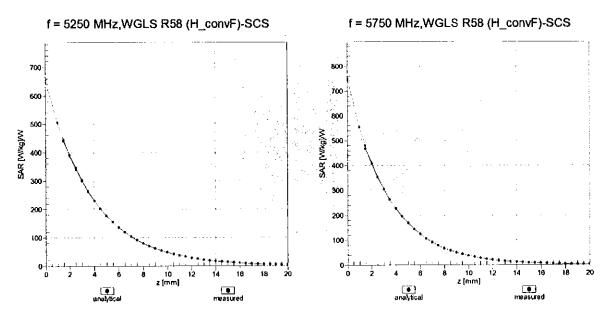
Dynamic Range f(SAR_{head}) (TEM cell , f_{eval}= 1900 MHz)



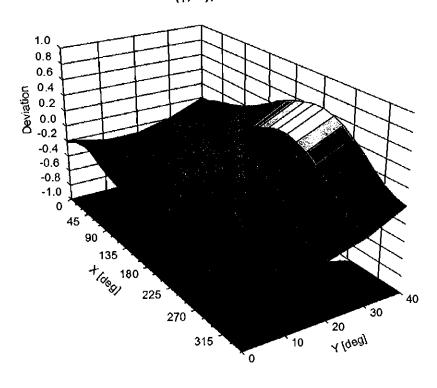


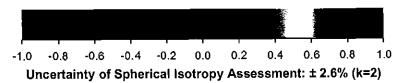
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



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





EX3DV4-- SN:3589 January 13, 2017

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3589

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	141.4
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 D: SAR TISSUE SPECIFICATIONS

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) 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
- 4) 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, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

Table D-I Composition of the Tissue Equivalent Matter

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	C		1	1	1			1							
NaCl	See page 2-3	See page 2	See page 2	See page 2	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											1	20			
Water			40.45	53.06	52.6	68.8	54.9	70.17		73.2		80			

FCC ID: ZNFM710H	PCTEST:	SAR EVALUATION REPORT	(LG	Approved by: Quality Manager
Test Dates:	DUT Type:			APPENDIX D:
02/13/17 - 03/02/17	Portable Handset			Page 1 of 5

2 Composition / Information on ingredients

The Item is composed of the following ingredients:

H₂O 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.

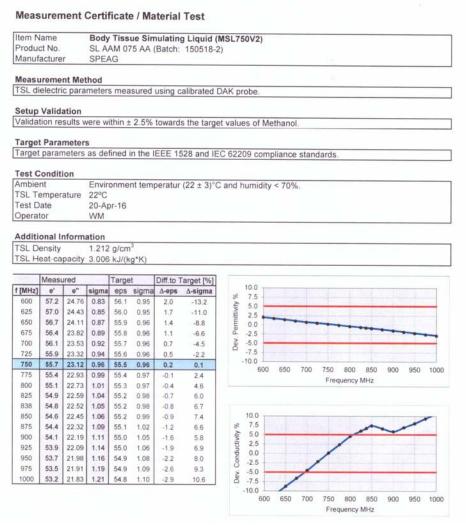


Figure D-2 750MHz Body Tissue Equivalent Matter

FCC ID: ZNFM	1710H	SAR EVALUATION REPORT	(LG	Approved by: Quality Manager
Test Dates:	DUT Type:			APPENDIX D:
02/13/17 - 03/02/17 Portable Handset				Page 2 of 5

Measurement Certificate / Material Test

Item Name	Head Tissue Simulating Liquid (HSL750V2)
Product No.	SL AAH 075 AB (Batch: 160322-2)
Manufacturer	SPEAG

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

Validation results were within ± 2.5% towards the target values of Methanol.

Target Parameters

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

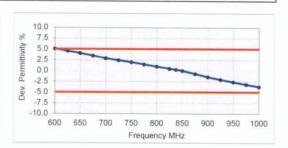
Test Condition

Ambient	Environment temperatur (22 ± 3)°C and humidity < 70%.
TSL Temperature	22°C
Test Date	23-Mar-16
Operator	WM

Additional Information

TSL Density 1.284 g/cm³
TSL Heat-capacity 2.701 kJ/(kg*K)

	Measi	ured		Targe	et	Diff.to T	arget [%]
f [MHz]	e'	е"	sigma	eps	sigma	∆-eps	Δ-sigma
600	44.9	22.60	0.75	42.7	0.88	5.1	-14.4
625	44.5	22.37	0.78	42.6	0.88	4.5	-12.0
650	44.2	22.13	0.80	42.5	0.89	4.0	-9.6
675	43.8	21.90	0.82	42.3	0.89	3.4	-7.4
700	43.4	21.67	0.84	42.2	0.89	2.8	-5.1
725	43.1	21.52	0.87	42.1	0.89	2.4	-2.6
750	42.8	21.37	0.89	41.9	0.89	2.0	-0.2
775	42.4	21.21	0.91	41.8	0.90	1.5	2.1
800	42.1	21.04	0.94	41.7	0.90	0.9	4.4
825	41.8	20.92	0.96	41.6	0.91	0.5	5.9
838	41.6	20.86	0.97	41.5	0.91	0.2	6.6
850	41.5	20.79	0.98	41.5	0.92	0.0	7.3
875	41.2	20.68	1.01	41.5	0.94	-0.7	6.7
900	40.9	20.56	1.03	41.5	0.97	-1.5	6.1
925	40.6	20.48	1.05	41.5	0.98	-2.0	7.3
950	40.3	20.39	1.08	41.4	0.99	-2.6	8.3
975	40.1	20.29	1.10	41.4	1.00	-3.2	9.5
1000	39.8	20.20	1.12	41.3	1.01	-3.7	10.7



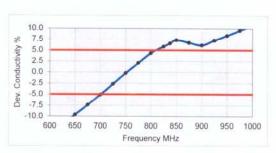


Figure D-3
750MHz Head Tissue Equivalent Matter

FCC ID: ZNFM710H	SAR EVALUATION REPORT LG	Approved by: Quality Manager
Test Dates:	DUT Type:	APPENDIX D:
02/13/17 - 03/02/17	Portable Handset	Page 3 of 5

3 Composition / Information on ingredients

The Item is composed of the following ingredients:

Water

50 - 73 % 25 - 50 % polyoxyethylenesorbitan monolaurate Non-ionic detergents

NaCl Preservative

0.05 - 0.1% Preventol-D7

Safety relevant ingredients:

CAS-No. 55965-84-9

< 0.1 % aqueous preparation, containing 5-chloro-2-methyl-3(2H)-

isothiazolone and 2-methyyl-3(2H)-isothiazolone

<50 % polyoxyethylenesorbitan monolaurate CAS-No. 9005-64-5

According to international guidelines, the product is not a dangerous mixture and therefore not required to be marked by symbols.

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

Note: 2.4-2.6 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.

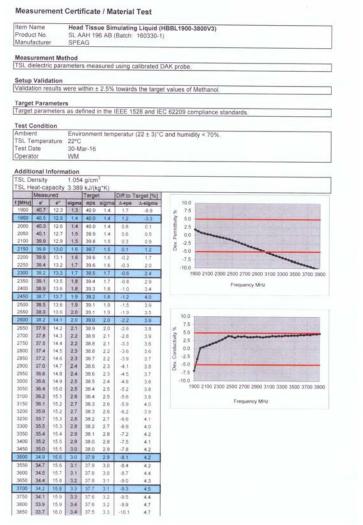


Figure D-5 2.4-2.6 GHz Head Tissue Equivalent Matter

FCC ID: ZNFM710H	SAR EVALUATION REPORT LG	Approved by: Quality Manager
Test Dates:	DUT Type:	APPENDIX D:
02/13/17 - 03/02/17	Portable Handset	Page 4 of 5

2 Composition / Information on ingredients

The Item is composed of the following ingredients:

 $\begin{array}{lll} \text{Water} & 50-65\% \\ \text{Mineral oil} & 10-30\% \\ \text{Emulsifiers} & 8-25\% \\ \text{Sodium salt} & 0-1.5\% \\ \end{array}$

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.

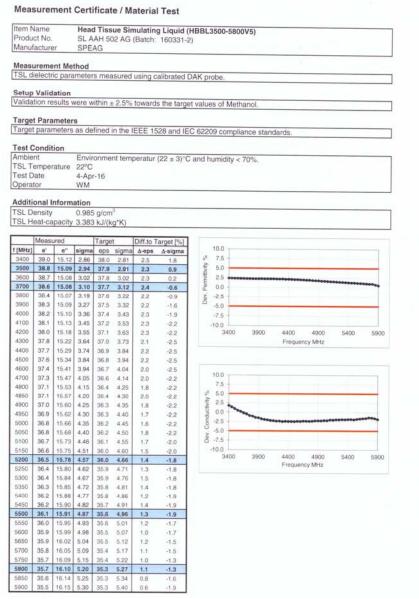


Figure D-7
5 GHz Head Tissue Equivalent Matter

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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.

Table E-I SAR System Validation Summary

SAR FF		OAK OYSICHI VAHAALION GAMMAA													
	FREQ.		PROBE	PROBE			COND.	PERM.	CI	W VALIDATIO	N	MC	DD. VALIDATIO	N	
SVSTEMI	MHz]	DATE	SN	TYPE	PROBE CA	PROBE CAL. POINT		(εr)	SENSITIVITY	PROBE	PROBE	MOD.	DUTY	PAR	
# -										LINEARITY	ISOTROPY	TYPE	FACTOR		
G 7	750	9/30/2016	3287	ES3DV3	750	Head	0.881	41.020	PASS	PASS	PASS	N/A	N/A	N/A	
J 7	750	2/2/2017	3334	ES3DV3	750	Head	0.895	41.120	PASS	PASS	PASS	N/A	N/A	N/A	
K 8	835	5/23/2016	7409	EX3DV4	835	Head	0.903	41.145	PASS	PASS	PASS	GMSK	PASS	N/A	
Н 8	835	4/7/2016	3319	ES3DV3	835	Head	0.914	42.395	PASS	PASS	PASS	GMSK	PASS	N/A	
I 1	1750	1/12/2017	3209	ES3DV3	1750	Head	1.342	39.160	PASS	PASS	PASS	N/A	N/A	N/A	
E 1	1750	4/25/2016	7406	EX3DV4	1750	Head	1.390	40.075	PASS	PASS	PASS	N/A	N/A	N/A	
I 19	1900	12/13/2016	3209	ES3DV3	1900	Head	1.447	39.330	PASS	PASS	PASS	GMSK	PASS	N/A	
G 2	2450	9/28/2016	3287	ES3DV3	2450	Head	1.875	37.737	PASS	PASS	PASS	OFDM/TDD	PASS	PASS	
G 2	2600	9/28/2016	3287	ES3DV3	2600	Head	2.050	37.072	PASS	PASS	PASS	TDD	PASS	N/A	
K 5	5250	9/13/2016	7308	EX3DV4	5250	Head	4.595	34.282	PASS	PASS	PASS	OFDM	N/A	PASS	
K 5	5600	9/13/2016	7308	EX3DV4	5600	Head	4.945	33.857	PASS	PASS	PASS	OFDM	N/A	PASS	
K 5	5750	9/13/2016	7308	EX3DV4	5750	Head	5.075	33.650	PASS	PASS	PASS	OFDM	N/A	PASS	
K 7	750	5/25/2016	7409	EX3DV4	750	Body	0.977	56.135	PASS	PASS	PASS	N/A	N/A	N/A	
D 7	750	2/27/2017	3288	ES3DV3	750	Body	0.965	56.492	PASS	PASS	PASS	N/A	N/A	N/A	
Н 8	835	4/7/2016	3319	ES3DV3	835	Body	1.000	54.246	PASS	PASS	PASS	GMSK	PASS	N/A	
E 1	1750	4/25/2016	7406	EX3DV4	1750	Body	1.490	53.432	PASS	PASS	PASS	N/A	N/A	N/A	
I 1	1750	12/19/2016	3209	ES3DV3	1750	Body	1.503	51.815	PASS	PASS	PASS	N/A	N/A	N/A	
J 1	1900	2/3/2017	3334	ES3DV3	1900	Body	1.561	51.227	PASS	PASS	PASS	GMSK	PASS	N/A	
E 2	2450	4/27/2016	7406	EX3DV4	2450	Body	2.016	51.629	PASS	PASS	PASS	OFDM/TDD	PASS	PASS	
E 2	2600	4/29/2016	7406	EX3DV4	2600	Body	2.225	50.688	PASS	PASS	PASS	TDD	PASS	N/A	
D 5:	5250	2/2/2017	3589	EX3DV4	5250	Body	5.422	47.823	PASS	PASS	PASS	OFDM	N/A	PASS	
D 5	5600	2/2/2017	3589	EX3DV4	5600	Body	5.882	47.193	PASS	PASS	PASS	OFDM	N/A	PASS	
D 5	5750	2/2/2017	3589	EX3DV4	5750	Body	6.117	46.985	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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