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Accreditation No.: **SCS 0108**

Client **PC-Test**

Certificate No: **EX3-7308_Aug18**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7308**

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

Calibration date: **August 23, 2018**

BN ✓
09-06-2018

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-17)	In house check: Oct-18

Calibrated by:	Name	Function	Signature
	Jeton Kastrati	Laboratory Technician	
Approved by:	Name	Function	Signature
	Katja Pokovic	Technical Manager	

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

Issued: August 24, 2018



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Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization ϕ	ϕ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.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:

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

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E^2 -field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z}** = NORM_{x,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.
- DCP_{x,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
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,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 $f \leq 800$ 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 NORM_{x,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 NORM_x (no uncertainty required).

Probe EX3DV4

SN:7308

Manufactured: March 11, 2014
Calibrated: August 23, 2018

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

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

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$) ^A	0.49	0.60	0.44	$\pm 10.1 \%$
DCP (mV) ^B	99.6	97.1	102.5	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu V}$	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	177.2	$\pm 3.5 \%$
		Y	0.0	0.0	1.0		165.4	
		Z	0.0	0.0	1.0		159.6	

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	53.71	401.2	35.76	12.80	0.351	5.077	0.717	0.413	1.005
Y	56.67	439.8	38.08	13.44	0.524	5.100	0.000	0.597	1.012
Z	40.98	304.1	35.29	8.573	0.334	5.045	1.531	0.174	1.005

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 E^2 -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.

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)
750	41.9	0.89	10.23	10.23	10.23	0.57	0.81	± 12.0 %
835	41.5	0.90	9.96	9.96	9.96	0.58	0.81	± 12.0 %
1750	40.1	1.37	8.66	8.66	8.66	0.36	0.80	± 12.0 %
1900	40.0	1.40	8.26	8.26	8.26	0.29	0.85	± 12.0 %
2300	39.5	1.67	7.81	7.81	7.81	0.29	0.85	± 12.0 %
2450	39.2	1.80	7.45	7.45	7.45	0.35	0.91	± 12.0 %
2600	39.0	1.96	7.30	7.30	7.30	0.35	0.87	± 12.0 %
5250	35.9	4.71	5.10	5.10	5.10	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.85	4.85	4.85	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.04	5.04	5.04	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.

^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.

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	10.38	10.38	10.38	0.36	0.99	± 12.0 %
835	55.2	0.97	10.19	10.19	10.19	0.50	0.82	± 12.0 %
1750	53.4	1.49	8.13	8.13	8.13	0.27	1.04	± 12.0 %
1900	53.3	1.52	7.79	7.79	7.79	0.38	0.85	± 12.0 %
2300	52.9	1.81	7.73	7.73	7.73	0.37	0.80	± 12.0 %
2450	52.7	1.95	7.57	7.57	7.57	0.34	0.88	± 12.0 %
2600	52.5	2.16	7.40	7.40	7.40	0.29	0.95	± 12.0 %
5250	48.9	5.36	4.48	4.48	4.48	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.00	4.00	4.00	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.18	4.18	4.18	0.50	1.90	± 13.1 %

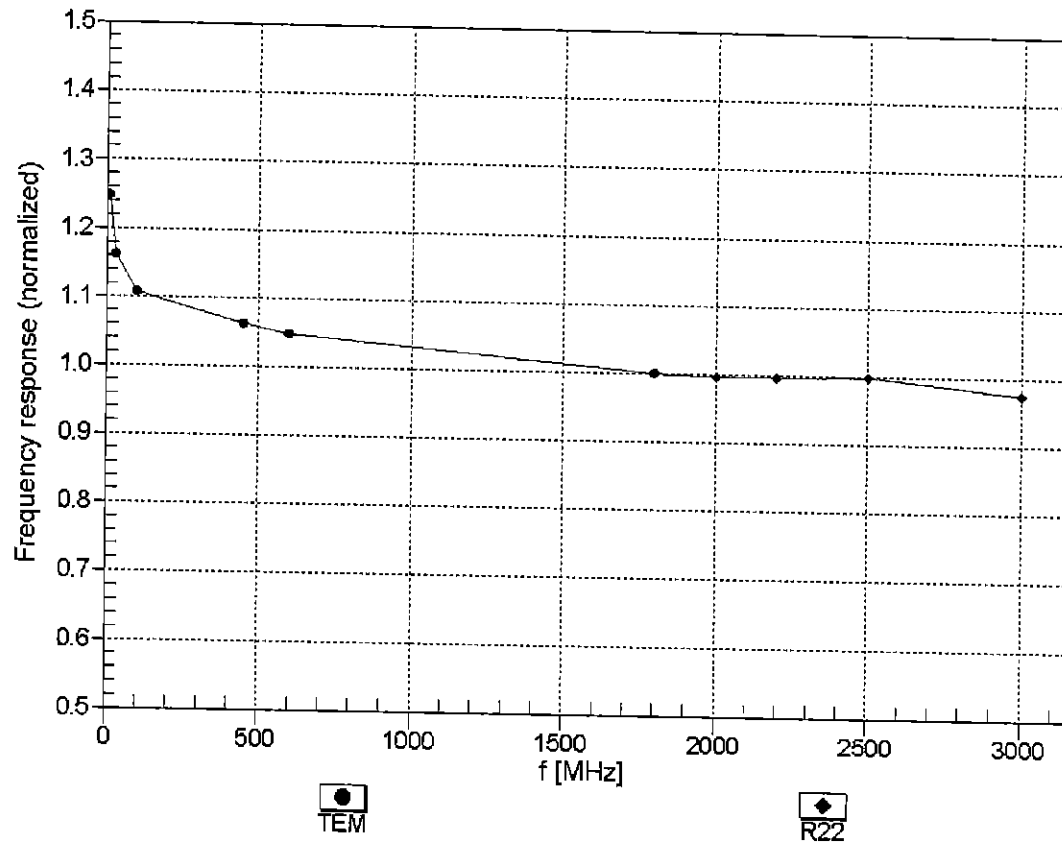
^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 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.

^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

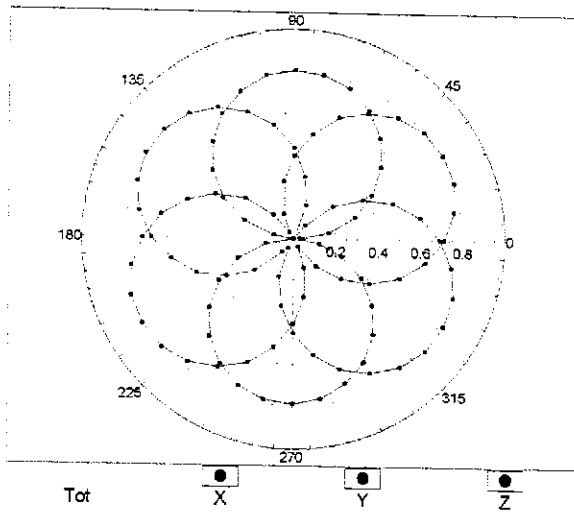
(TEM-Cell:ifi110 EXX, Waveguide: R22)



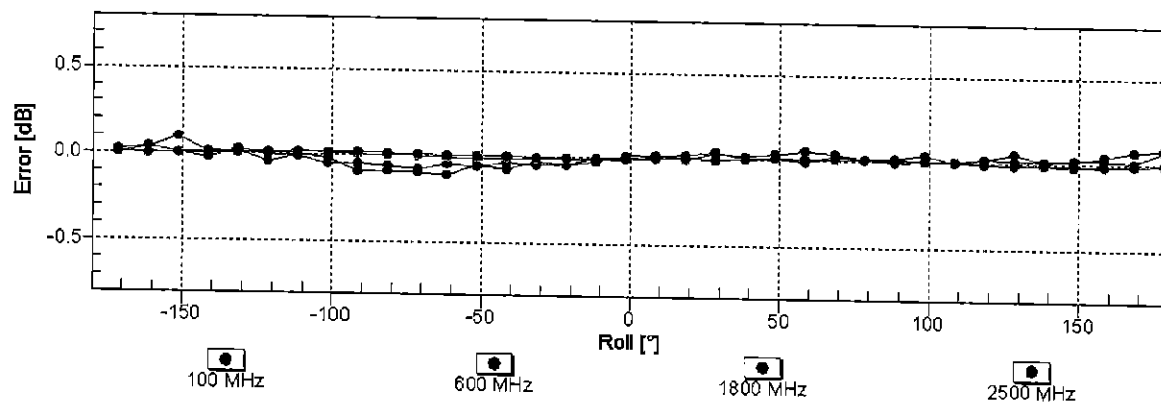
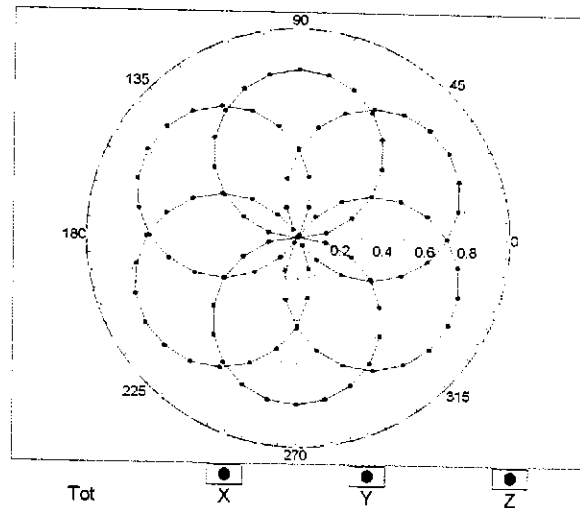
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

Receiving Pattern (ϕ), $\theta = 0^\circ$

f=600 MHz, TEM

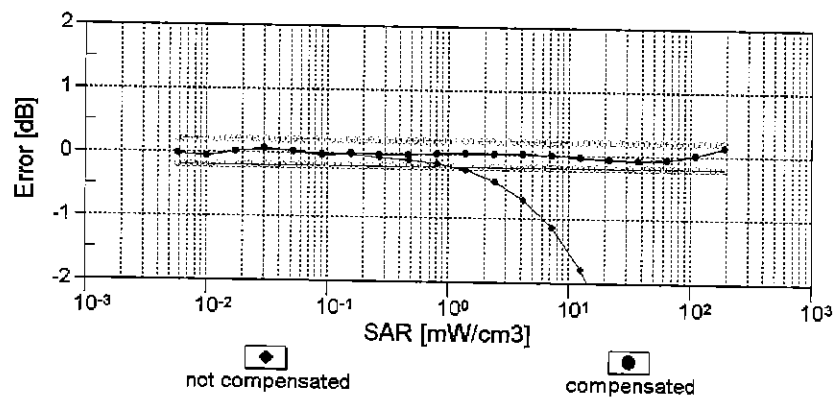
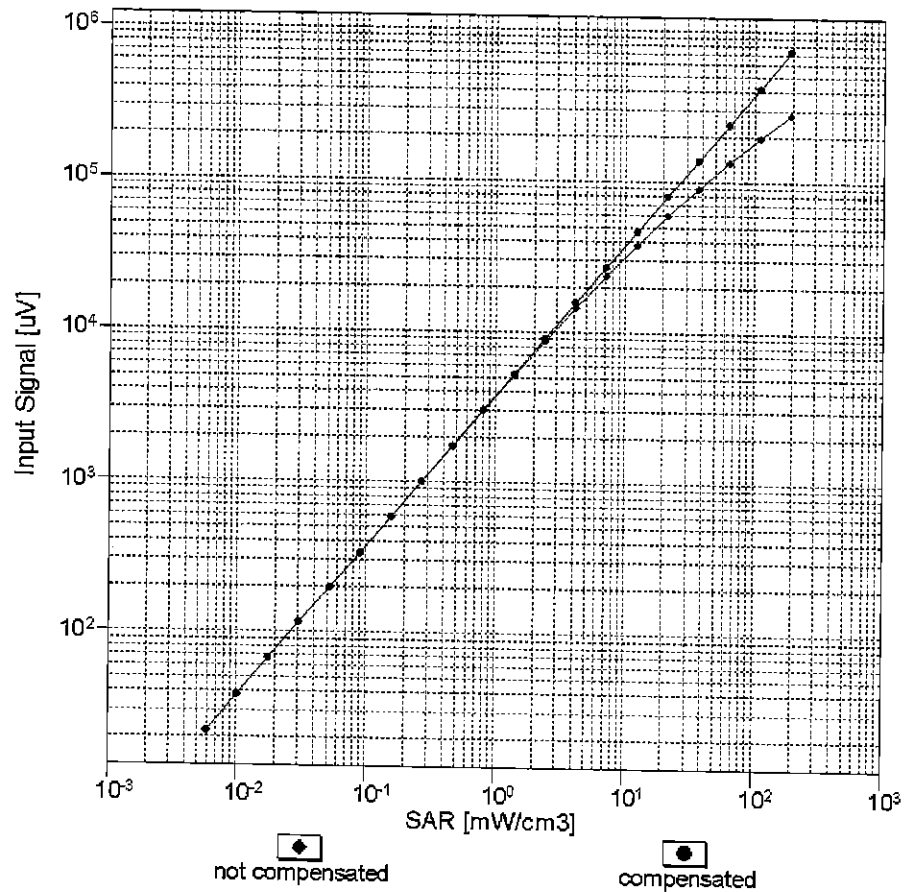


f=1800 MHz, R22



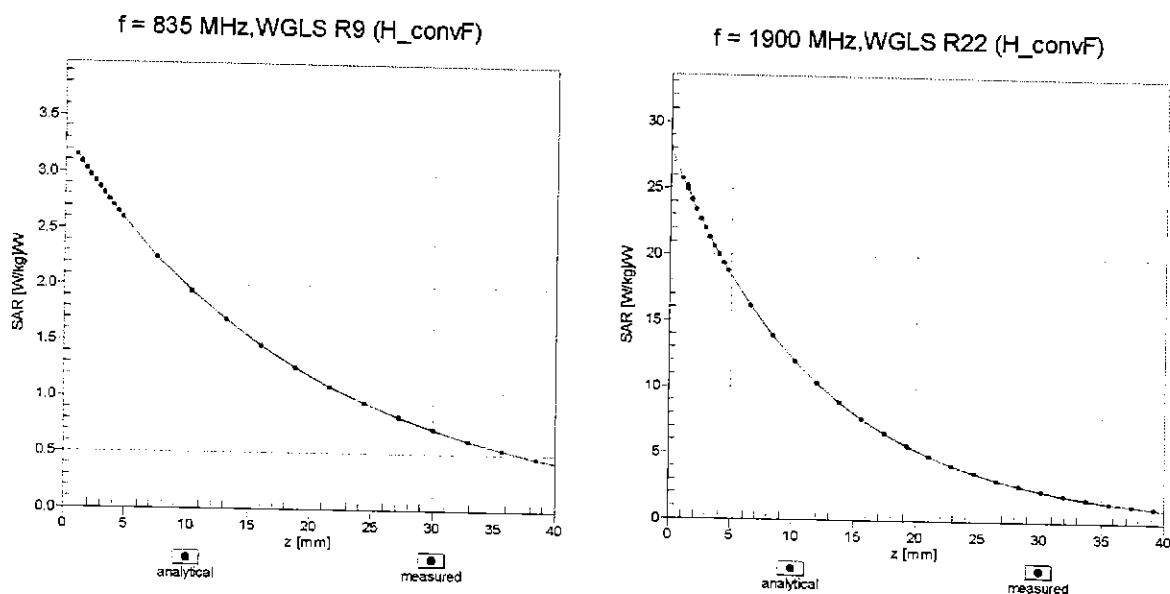
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$)



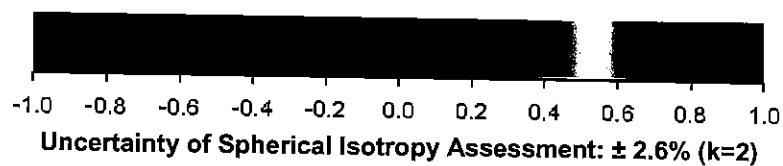
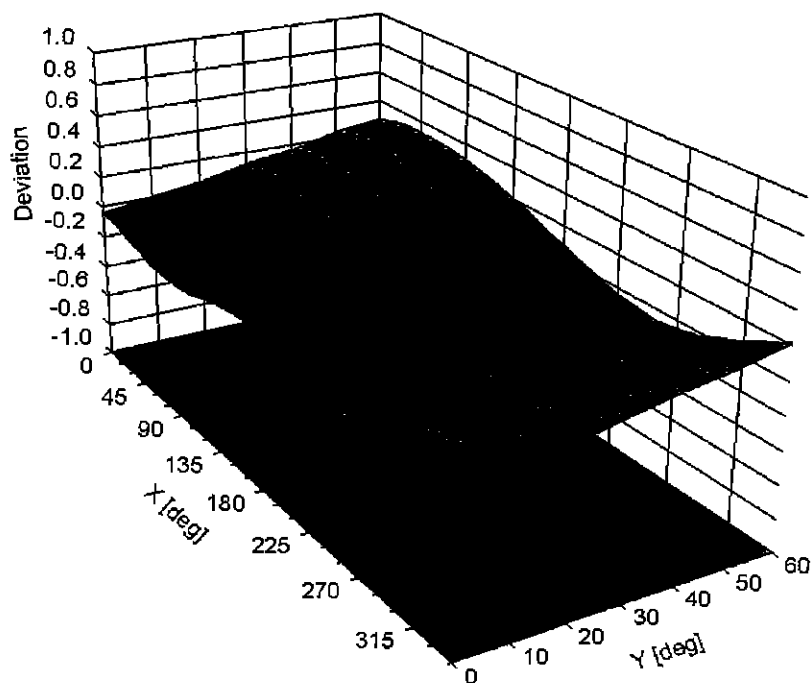
Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), $f = 900 \text{ MHz}$



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

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	108.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu V}$	C	D dB	VR mV	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	177.2	$\pm 3.5\%$
		Y	0.00	0.00	1.00		165.4	
		Z	0.00	0.00	1.00		159.6	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	2.71	68.17	11.26	10.00	20.0	$\pm 9.6\%$
		Y	2.39	66.64	10.67		20.0	
		Z	1.90	64.26	9.03		20.0	
10011- CAB	UMTS-FDD (WCDMA)	X	1.19	70.37	17.06	0.00	150.0	$\pm 9.6\%$
		Y	0.96	66.50	14.51		150.0	
		Z	1.05	68.92	16.00		150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.18	64.67	16.08	0.41	150.0	$\pm 9.6\%$
		Y	1.11	63.43	15.04		150.0	
		Z	1.13	64.11	15.48		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	4.93	66.75	17.26	1.46	150.0	$\pm 9.6\%$
		Y	4.92	66.47	17.15		150.0	
		Z	4.74	66.75	17.08		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	100.00	114.38	27.28	9.39	50.0	$\pm 9.6\%$
		Y	100.00	114.83	27.64		50.0	
		Z	100.00	109.69	24.90		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	113.94	27.13	9.57	50.0	$\pm 9.6\%$
		Y	100.00	114.49	27.54		50.0	
		Z	100.00	109.21	24.74		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	115.48	26.77	6.56	60.0	$\pm 9.6\%$
		Y	100.00	114.18	26.29		60.0	
		Z	100.00	109.85	23.86		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	6.22	84.66	34.29	12.57	50.0	$\pm 9.6\%$
		Y	4.94	76.24	29.94		50.0	
		Z	5.36	79.88	31.57		50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	11.81	100.22	36.35	9.56	60.0	$\pm 9.6\%$
		Y	11.10	97.75	35.30		60.0	
		Z	7.89	90.81	32.78		60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	118.27	27.22	4.80	80.0	$\pm 9.6\%$
		Y	100.00	114.44	25.61		80.0	
		Z	100.00	111.67	23.86		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	122.72	28.40	3.55	100.0	$\pm 9.6\%$
		Y	100.00	114.80	25.04		100.0	
		Z	100.00	114.83	24.49		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	6.56	85.50	29.56	7.80	80.0	$\pm 9.6\%$
		Y	6.53	84.80	29.16		80.0	
		Z	4.80	79.03	26.78		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	114.96	26.10	5.30	70.0	$\pm 9.6\%$
		Y	100.00	112.69	25.18		70.0	
		Z	100.00	108.37	22.73		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	126.84	28.53	1.88	100.0	$\pm 9.6\%$
		Y	100.00	105.21	19.68		100.0	
		Z	100.00	108.61	20.59		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	146.53	35.02	1.17	100.0	± 9.6 %
		Y	100.00	95.65	15.05		100.0	
		Z	100.00	112.23	21.08		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	100.00	133.98	36.90	5.30	70.0	± 9.6 %
		Y	94.91	132.14	36.35		70.0	
		Z	24.70	106.96	28.52		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	8.70	95.28	25.33	1.88	100.0	± 9.6 %
		Y	4.18	83.23	21.11		100.0	
		Z	3.97	82.01	19.44		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	3.83	83.82	21.38	1.17	100.0	± 9.6 %
		Y	2.23	74.99	17.69		100.0	
		Z	2.33	75.94	16.98		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	100.00	134.50	37.14	5.30	70.0	± 9.6 %
		Y	100.00	133.48	36.76		70.0	
		Z	56.60	119.91	31.85		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	7.69	93.53	24.78	1.88	100.0	± 9.6 %
		Y	3.89	82.31	20.76		100.0	
		Z	3.40	80.12	18.77		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	3.93	84.59	21.78	1.17	100.0	± 9.6 %
		Y	2.28	75.57	18.03		100.0	
		Z	2.38	76.51	17.34		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	2.78	78.14	18.71	0.00	150.0	± 9.6 %
		Y	1.67	70.12	14.94		150.0	
		Z	2.00	74.01	15.76		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	100.00	110.92	24.96	7.78	50.0	± 9.6 %
		Y	100.00	110.22	24.75		50.0	
		Z	100.00	106.01	22.46		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	112.58	4.43	0.00	150.0	± 9.6 %
		Y	0.07	121.95	9.84		150.0	
		Z	0.01	118.94	9.83		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	100.00	111.48	27.44	13.80	25.0	± 9.6 %
		Y	100.00	112.85	28.28		25.0	
		Z	18.65	86.54	19.90		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	100.00	112.40	26.75	10.79	40.0	± 9.6 %
		Y	100.00	113.42	27.38		40.0	
		Z	46.23	99.19	22.45		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	100.00	126.85	34.82	9.03	50.0	± 9.6 %
		Y	100.00	126.84	34.96		50.0	
		Z	73.14	116.99	30.84		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	4.87	79.06	26.07	6.55	100.0	± 9.6 %
		Y	4.89	78.72	25.82		100.0	
		Z	3.78	74.24	23.87		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.24	66.08	16.89	0.61	110.0	± 9.6 %
		Y	1.15	64.70	15.80		110.0	
		Z	1.15	65.12	16.08		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	145.11	38.67	1.30	110.0	± 9.6 %
		Y	100.00	138.14	35.54		110.0	
		Z	100.00	143.13	37.45		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	5.01	92.44	27.34	2.04	110.0	± 9.6 %
		Y	3.88	86.79	24.94		110.0	
		Z	2.64	81.37	23.02		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.74	66.80	16.70	0.49	100.0	± 9.6 %
		Y	4.72	66.44	16.52		100.0	
		Z	4.55	66.78	16.53		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.76	66.90	16.81	0.72	100.0	± 9.6 %
		Y	4.74	66.55	16.64		100.0	
		Z	4.57	66.86	16.62		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.07	67.18	17.05	0.86	100.0	± 9.6 %
		Y	5.06	66.88	16.91		100.0	
		Z	4.83	67.08	16.83		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.93	67.08	17.15	1.21	100.0	± 9.6 %
		Y	4.92	66.80	17.03		100.0	
		Z	4.69	66.95	16.91		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.95	67.11	17.33	1.46	100.0	± 9.6 %
		Y	4.94	66.84	17.22		100.0	
		Z	4.70	66.94	17.07		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.22	67.17	17.72	2.04	100.0	± 9.6 %
		Y	5.23	66.94	17.65		100.0	
		Z	4.99	67.15	17.52		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.28	67.31	17.99	2.55	100.0	± 9.6 %
		Y	5.30	67.12	17.95		100.0	
		Z	5.01	67.08	17.69		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.36	67.24	18.15	2.67	100.0	± 9.6 %
		Y	5.38	67.05	18.11		100.0	
		Z	5.09	67.11	17.88		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.01	66.83	17.56	1.99	100.0	± 9.6 %
		Y	5.01	66.58	17.48		100.0	
		Z	4.83	66.80	17.36		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	5.00	67.20	17.81	2.30	100.0	± 9.6 %
		Y	5.01	66.96	17.73		100.0	
		Z	4.79	67.07	17.56		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.05	67.32	18.13	2.83	100.0	± 9.6 %
		Y	5.06	67.11	18.07		100.0	
		Z	4.84	67.21	17.87		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.01	67.17	18.27	3.30	100.0	± 9.6 %
		Y	5.03	66.98	18.23		100.0	
		Z	4.82	67.10	18.01		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.05	67.33	18.61	3.82	90.0	± 9.6 %
		Y	5.08	67.18	18.60		90.0	
		Z	4.84	67.13	18.28		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.04	67.01	18.67	4.15	90.0	± 9.6 %
		Y	5.06	66.85	18.66		90.0	
		Z	4.86	66.95	18.41		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.05	67.06	18.76	4.30	90.0	± 9.6 %
		Y	5.07	66.89	18.74		90.0	
		Z	4.89	67.03	18.52		90.0	

10081-CAB	CDMA2000 (1xRTT, RC3)	X	1.10	69.87	14.99	0.00	150.0	± 9.6 %
		Y	0.78	64.74	11.83		150.0	
		Z	0.78	66.34	11.97		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	0.69	60.00	4.39	4.77	80.0	± 9.6 %
		Y	0.71	60.00	4.39		80.0	
		Z	7.97	68.50	6.36		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	115.53	26.81	6.56	60.0	± 9.6 %
		Y	100.00	114.29	26.36		60.0	
		Z	100.00	109.90	23.90		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	1.95	68.97	16.62	0.00	150.0	± 9.6 %
		Y	1.75	66.81	15.24		150.0	
		Z	1.87	68.90	16.13		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.91	68.95	16.60	0.00	150.0	± 9.6 %
		Y	1.71	66.77	15.20		150.0	
		Z	1.83	68.86	16.11		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	11.93	100.45	36.42	9.56	60.0	± 9.6 %
		Y	11.20	97.95	35.37		60.0	
		Z	7.96	90.99	32.84		60.0	
10100-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.40	71.76	17.45	0.00	150.0	± 9.6 %
		Y	3.10	69.82	16.33		150.0	
		Z	3.12	70.91	17.03		150.0	
10101-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.36	68.15	16.35	0.00	150.0	± 9.6 %
		Y	3.24	67.23	15.77		150.0	
		Z	3.17	67.74	16.07		150.0	
10102-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.45	68.05	16.42	0.00	150.0	± 9.6 %
		Y	3.34	67.19	15.87		150.0	
		Z	3.28	67.71	16.16		150.0	
10103-CAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.86	77.75	21.56	3.98	65.0	± 9.6 %
		Y	6.56	76.62	21.10		65.0	
		Z	5.69	75.27	20.45		65.0	
10104-CAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	6.41	74.58	21.07	3.98	65.0	± 9.6 %
		Y	6.33	74.04	20.86		65.0	
		Z	5.58	72.74	20.11		65.0	
10105-CAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	6.09	73.43	20.88	3.98	65.0	± 9.6 %
		Y	6.03	72.95	20.69		65.0	
		Z	5.24	71.29	19.75		65.0	
10108-CAF	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	2.97	70.94	17.29	0.00	150.0	± 9.6 %
		Y	2.72	69.08	16.17		150.0	
		Z	2.70	70.20	16.88		150.0	
10109-CAF	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.02	68.05	16.32	0.00	150.0	± 9.6 %
		Y	2.90	67.02	15.66		150.0	
		Z	2.83	67.71	15.99		150.0	
10110-CAF	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.42	70.09	17.00	0.00	150.0	± 9.6 %
		Y	2.21	68.14	15.78		150.0	
		Z	2.18	69.46	16.49		150.0	
10111-CAF	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.76	69.06	16.78	0.00	150.0	± 9.6 %
		Y	2.59	67.59	15.88		150.0	
		Z	2.59	68.99	16.39		150.0	

10112-CAF	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	3.14	67.97	16.35	0.00	150.0	± 9.6 %
		Y	3.03	67.00	15.72		150.0	
		Z	2.95	67.72	16.05		150.0	
10113-CAF	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.92	69.11	16.87	0.00	150.0	± 9.6 %
		Y	2.75	67.72	16.02		150.0	
		Z	2.74	69.14	16.51		150.0	
10114-CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.18	67.31	16.57	0.00	150.0	± 9.6 %
		Y	5.14	66.93	16.36		150.0	
		Z	5.02	67.26	16.48		150.0	
10115-CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.52	67.57	16.70	0.00	150.0	± 9.6 %
		Y	5.51	67.29	16.56		150.0	
		Z	5.27	67.30	16.50		150.0	
10116-CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.29	67.56	16.61	0.00	150.0	± 9.6 %
		Y	5.27	67.21	16.43		150.0	
		Z	5.10	67.44	16.50		150.0	
10117-CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.16	67.25	16.55	0.00	150.0	± 9.6 %
		Y	5.13	66.89	16.36		150.0	
		Z	4.99	67.15	16.44		150.0	
10118-CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.59	67.74	16.79	0.00	150.0	± 9.6 %
		Y	5.60	67.49	16.67		150.0	
		Z	5.34	67.49	16.60		150.0	
10119-CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.26	67.49	16.59	0.00	150.0	± 9.6 %
		Y	5.24	67.15	16.41		150.0	
		Z	5.09	67.40	16.49		150.0	
10140-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.50	68.05	16.33	0.00	150.0	± 9.6 %
		Y	3.39	67.19	15.79		150.0	
		Z	3.30	67.72	16.07		150.0	
10141-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.62	68.10	16.48	0.00	150.0	± 9.6 %
		Y	3.51	67.27	15.96		150.0	
		Z	3.43	67.85	16.25		150.0	
10142-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	2.22	70.35	16.88	0.00	150.0	± 9.6 %
		Y	1.98	67.98	15.45		150.0	
		Z	1.97	69.67	16.10		150.0	
10143-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.70	70.21	16.79	0.00	150.0	± 9.6 %
		Y	2.44	68.12	15.58		150.0	
		Z	2.48	69.97	16.00		150.0	
10144-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.42	67.64	15.07	0.00	150.0	± 9.6 %
		Y	2.26	66.15	14.15		150.0	
		Z	2.13	66.86	13.96		150.0	
10145-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.54	68.23	14.00	0.00	150.0	± 9.6 %
		Y	1.25	64.93	12.03		150.0	
		Z	1.00	63.72	10.21		150.0	
10146-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	2.38	68.67	13.30	0.00	150.0	± 9.6 %
		Y	2.63	70.03	14.41		150.0	
		Z	1.37	62.94	8.80		150.0	
10147-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	3.01	71.74	14.81	0.00	150.0	± 9.6 %
		Y	3.44	73.73	16.16		150.0	
		Z	1.50	63.86	9.38		150.0	

10149-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.03	68.12	16.37	0.00	150.0	± 9.6 %
		Y	2.91	67.08	15.71		150.0	
		Z	2.84	67.78	16.04		150.0	
10150-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.15	68.03	16.39	0.00	150.0	± 9.6 %
		Y	3.03	67.05	15.76		150.0	
		Z	2.96	67.78	16.09		150.0	
10151-CAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	7.33	80.62	22.85	3.98	65.0	± 9.6 %
		Y	6.93	79.21	22.28		65.0	
		Z	6.07	78.22	21.74		65.0	
10152-CAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	5.98	74.73	20.92	3.98	65.0	± 9.6 %
		Y	5.89	74.12	20.68		65.0	
		Z	5.12	72.74	19.78		65.0	
10153-CAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	6.33	75.57	21.65	3.98	65.0	± 9.6 %
		Y	6.23	74.94	21.41		65.0	
		Z	5.49	73.78	20.61		65.0	
10154-CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.49	70.63	17.32	0.00	150.0	± 9.6 %
		Y	2.26	68.57	16.06		150.0	
		Z	2.24	69.92	16.77		150.0	
10155-CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.77	69.07	16.79	0.00	150.0	± 9.6 %
		Y	2.59	67.59	15.89		150.0	
		Z	2.59	69.02	16.41		150.0	
10156-CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2.11	70.85	16.93	0.00	150.0	± 9.6 %
		Y	1.83	68.04	15.26		150.0	
		Z	1.82	69.80	15.80		150.0	
10157-CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.31	68.61	15.35	0.00	150.0	± 9.6 %
		Y	2.08	66.62	14.16		150.0	
		Z	1.98	67.47	13.92		150.0	
10158-CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.92	69.17	16.92	0.00	150.0	± 9.6 %
		Y	2.75	67.77	16.06		150.0	
		Z	2.75	69.22	16.57		150.0	
10159-CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.44	69.17	15.69	0.00	150.0	± 9.6 %
		Y	2.19	67.06	14.45		150.0	
		Z	2.09	67.96	14.21		150.0	
10160-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.90	69.57	16.90	0.00	150.0	± 9.6 %
		Y	2.74	68.24	16.05		150.0	
		Z	2.70	69.25	16.60		150.0	
10161-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.05	67.98	16.35	0.00	150.0	± 9.6 %
		Y	2.93	66.95	15.69		150.0	
		Z	2.86	67.77	16.01		150.0	
10162-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.15	68.06	16.42	0.00	150.0	± 9.6 %
		Y	3.03	67.06	15.79		150.0	
		Z	2.97	67.96	16.14		150.0	
10166-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.67	69.77	19.22	3.01	150.0	± 9.6 %
		Y	3.71	69.61	19.37		150.0	
		Z	3.45	70.11	19.35		150.0	
10167-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.61	72.92	19.78	3.01	150.0	± 9.6 %
		Y	4.57	72.37	19.78		150.0	
		Z	4.42	74.02	20.14		150.0	

10168-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	5.13	75.25	21.12	3.01	150.0	± 9.6 %
		Y	5.05	74.54	21.07		150.0	
		Z	5.13	77.22	21.87		150.0	
10169-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	3.12	70.03	19.37	3.01	150.0	± 9.6 %
		Y	3.15	69.73	19.46		150.0	
		Z	2.86	69.57	19.15		150.0	
10170-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	4.58	77.10	22.08	3.01	150.0	± 9.6 %
		Y	4.39	75.79	21.81		150.0	
		Z	4.44	78.23	22.53		150.0	
10171-AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	3.64	72.24	19.05	3.01	150.0	± 9.6 %
		Y	3.59	71.47	18.98		150.0	
		Z	3.36	72.39	19.02		150.0	
10172-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	12.64	100.34	31.84	6.02	65.0	± 9.6 %
		Y	12.97	100.68	32.37		65.0	
		Z	5.77	87.24	27.51		65.0	
10173-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	36.96	114.71	33.67	6.02	65.0	± 9.6 %
		Y	30.92	112.16	33.64		65.0	
		Z	22.36	108.00	31.61		65.0	
10174-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	22.92	104.35	30.17	6.02	65.0	± 9.6 %
		Y	21.96	104.04	30.70		65.0	
		Z	11.65	95.24	27.25		65.0	
10175-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	3.08	69.68	19.10	3.01	150.0	± 9.6 %
		Y	3.11	69.39	19.20		150.0	
		Z	2.82	69.22	18.88		150.0	
10176-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	4.59	77.13	22.09	3.01	150.0	± 9.6 %
		Y	4.40	75.82	21.82		150.0	
		Z	4.45	78.26	22.55		150.0	
10177-CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	3.11	69.85	19.21	3.01	150.0	± 9.6 %
		Y	3.14	69.56	19.30		150.0	
		Z	2.84	69.38	18.97		150.0	
10178-CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	4.53	76.83	21.94	3.01	150.0	± 9.6 %
		Y	4.34	75.53	21.68		150.0	
		Z	4.39	77.99	22.42		150.0	
10179-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	4.06	74.50	20.40	3.01	150.0	± 9.6 %
		Y	3.95	73.49	20.26		150.0	
		Z	3.83	75.09	20.61		150.0	
10180-CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	3.62	72.15	18.99	3.01	150.0	± 9.6 %
		Y	3.58	71.38	18.93		150.0	
		Z	3.35	72.32	18.97		150.0	
10181-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	3.10	69.83	19.20	3.01	150.0	± 9.6 %
		Y	3.13	69.54	19.29		150.0	
		Z	2.84	69.36	18.97		150.0	
10182-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	4.52	76.80	21.93	3.01	150.0	± 9.6 %
		Y	4.33	75.51	21.66		150.0	
		Z	4.38	77.96	22.40		150.0	
10183-AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	3.62	72.12	18.97	3.01	150.0	± 9.6 %
		Y	3.57	71.35	18.91		150.0	
		Z	3.34	72.29	18.96		150.0	

10184-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	3.11	69.88	19.22	3.01	150.0	± 9.6 %
		Y	3.14	69.58	19.32		150.0	
		Z	2.85	69.41	18.99		150.0	
10185-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	4.54	76.88	21.97	3.01	150.0	± 9.6 %
		Y	4.35	75.59	21.70		150.0	
		Z	4.41	78.06	22.45		150.0	
10186-AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	3.64	72.20	19.01	3.01	150.0	± 9.6 %
		Y	3.59	71.42	18.95		150.0	
		Z	3.36	72.37	19.00		150.0	
10187-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	3.12	69.93	19.28	3.01	150.0	± 9.6 %
		Y	3.15	69.63	19.37		150.0	
		Z	2.86	69.48	19.07		150.0	
10188-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	4.72	77.70	22.40	3.01	150.0	± 9.6 %
		Y	4.51	76.33	22.11		150.0	
		Z	4.61	78.98	22.92		150.0	
10189-AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	3.73	72.70	19.32	3.01	150.0	± 9.6 %
		Y	3.67	71.88	19.24		150.0	
		Z	3.46	72.92	19.33		150.0	
10193-CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.59	66.76	16.33	0.00	150.0	± 9.6 %
		Y	4.55	66.31	16.09		150.0	
		Z	4.42	66.80	16.19		150.0	
10194-CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.77	67.10	16.45	0.00	150.0	± 9.6 %
		Y	4.74	66.66	16.21		150.0	
		Z	4.58	67.08	16.32		150.0	
10195-CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.82	67.12	16.46	0.00	150.0	± 9.6 %
		Y	4.78	66.69	16.22		150.0	
		Z	4.62	67.10	16.34		150.0	
10196-CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.60	66.84	16.36	0.00	150.0	± 9.6 %
		Y	4.56	66.40	16.12		150.0	
		Z	4.41	66.83	16.20		150.0	
10197-CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.79	67.12	16.46	0.00	150.0	± 9.6 %
		Y	4.75	66.69	16.22		150.0	
		Z	4.59	67.09	16.33		150.0	
10198-CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.82	67.14	16.47	0.00	150.0	± 9.6 %
		Y	4.78	66.71	16.24		150.0	
		Z	4.61	67.11	16.35		150.0	
10219-CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.55	66.86	16.33	0.00	150.0	± 9.6 %
		Y	4.51	66.41	16.08		150.0	
		Z	4.37	66.86	16.17		150.0	
10220-CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.79	67.10	16.45	0.00	150.0	± 9.6 %
		Y	4.75	66.67	16.22		150.0	
		Z	4.58	67.05	16.32		150.0	
10221-CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.83	67.06	16.45	0.00	150.0	± 9.6 %
		Y	4.79	66.64	16.23		150.0	
		Z	4.62	67.04	16.33		150.0	
10222-CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.14	67.26	16.55	0.00	150.0	± 9.6 %
		Y	5.11	66.90	16.36		150.0	
		Z	4.97	67.15	16.43		150.0	

10223-CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.45	67.43	16.65	0.00	150.0	± 9.6 %
		Y	5.45	67.18	16.52		150.0	
		Z	5.25	67.35	16.55		150.0	
10224-CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.19	67.37	16.53	0.00	150.0	± 9.6 %
		Y	5.15	66.99	16.33		150.0	
		Z	5.01	67.26	16.42		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	2.89	66.55	15.78	0.00	150.0	± 9.6 %
		Y	2.80	65.71	15.24		150.0	
		Z	2.72	66.49	15.32		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	42.12	117.30	34.47	6.02	65.0	± 9.6 %
		Y	34.39	114.35	34.35		65.0	
		Z	25.78	110.75	32.49		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	33.34	110.83	32.01	6.02	65.0	± 9.6 %
		Y	29.14	109.23	32.25		65.0	
		Z	23.91	107.08	30.63		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	15.66	105.06	33.38	6.02	65.0	± 9.6 %
		Y	15.84	105.37	33.95		65.0	
		Z	7.75	93.33	29.68		65.0	
10229-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	37.28	114.84	33.72	6.02	65.0	± 9.6 %
		Y	31.13	112.26	33.67		65.0	
		Z	22.62	108.17	31.67		65.0	
10230-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	29.88	108.76	31.36	6.02	65.0	± 9.6 %
		Y	26.58	107.43	31.66		65.0	
		Z	20.85	104.61	29.86		65.0	
10231-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	14.65	103.59	32.85	6.02	65.0	± 9.6 %
		Y	14.88	103.95	33.43		65.0	
		Z	7.34	92.15	29.19		65.0	
10232-CAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	37.25	114.84	33.71	6.02	65.0	± 9.6 %
		Y	31.10	112.26	33.67		65.0	
		Z	22.58	108.16	31.67		65.0	
10233-CAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	29.82	108.74	31.35	6.02	65.0	± 9.6 %
		Y	26.53	107.41	31.66		65.0	
		Z	20.76	104.56	29.85		65.0	
10234-CAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	13.83	102.21	32.30	6.02	65.0	± 9.6 %
		Y	14.10	102.64	32.91		65.0	
		Z	7.03	91.14	28.71		65.0	
10235-CAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	37.39	114.93	33.74	6.02	65.0	± 9.6 %
		Y	31.21	112.34	33.70		65.0	
		Z	22.65	108.24	31.69		65.0	
10236-CAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	30.43	109.05	31.43	6.02	65.0	± 9.6 %
		Y	27.03	107.71	31.73		65.0	
		Z	21.22	104.87	29.93		65.0	
10237-CAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	14.73	103.74	32.90	6.02	65.0	± 9.6 %
		Y	14.96	104.11	33.48		65.0	
		Z	7.35	92.21	29.22		65.0	
10238-CAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	37.20	114.83	33.71	6.02	65.0	± 9.6 %
		Y	31.07	112.26	33.67		65.0	
		Z	22.51	108.13	31.66		65.0	

10239-CAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	29.73	108.72	31.35	6.02	65.0	± 9.6 %
		Y	26.48	107.40	31.66		65.0	
		Z	20.66	104.50	29.83		65.0	
10240-CAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	14.67	103.66	32.88	6.02	65.0	± 9.6 %
		Y	14.89	104.03	33.46		65.0	
		Z	7.33	92.17	29.20		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	8.22	81.62	25.84	6.98	65.0	± 9.6 %
		Y	8.21	81.11	25.93		65.0	
		Z	7.55	81.89	25.74		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	7.60	79.92	25.06	6.98	65.0	± 9.6 %
		Y	7.70	79.68	25.24		65.0	
		Z	6.63	79.21	24.57		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	6.06	76.28	24.43	6.98	65.0	± 9.6 %
		Y	6.20	76.29	24.69		65.0	
		Z	5.27	75.02	23.70		65.0	
10244-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	6.94	79.13	20.40	3.98	65.0	± 9.6 %
		Y	7.61	80.93	21.65		65.0	
		Z	4.63	73.01	16.54		65.0	
10245-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	6.74	78.35	20.03	3.98	65.0	± 9.6 %
		Y	7.38	80.11	21.28		65.0	
		Z	4.46	72.20	16.14		65.0	
10246-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	8.26	86.16	23.38	3.98	65.0	± 9.6 %
		Y	7.07	83.23	22.34		65.0	
		Z	4.76	77.46	19.00		65.0	
10247-CAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	5.60	76.50	20.35	3.98	65.0	± 9.6 %
		Y	5.37	75.45	19.96		65.0	
		Z	4.29	72.64	17.71		65.0	
10248-CAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	5.54	75.70	19.98	3.98	65.0	± 9.6 %
		Y	5.35	74.79	19.65		65.0	
		Z	4.24	71.91	17.36		65.0	
10249-CAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	9.19	88.24	24.95	3.98	65.0	± 9.6 %
		Y	7.96	85.32	23.90		65.0	
		Z	6.28	82.28	22.02		65.0	
10250-CAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	6.20	77.76	22.32	3.98	65.0	± 9.6 %
		Y	6.01	76.85	21.97		65.0	
		Z	5.20	75.42	20.86		65.0	
10251-CAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	5.85	75.32	20.92	3.98	65.0	± 9.6 %
		Y	5.73	74.58	20.63		65.0	
		Z	4.92	73.12	19.45		65.0	
10252-CAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	8.09	84.95	24.58	3.98	65.0	± 9.6 %
		Y	7.42	82.94	23.81		65.0	
		Z	6.31	81.52	22.96		65.0	
10253-CAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	5.80	74.00	20.63	3.98	65.0	± 9.6 %
		Y	5.72	73.40	20.39		65.0	
		Z	5.04	72.28	19.52		65.0	
10254-CAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	6.14	74.84	21.30	3.98	65.0	± 9.6 %
		Y	6.05	74.22	21.07		65.0	
		Z	5.36	73.21	20.25		65.0	

10255-CAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	6.81	79.50	22.67	3.98	65.0	± 9.6 %
		Y	6.50	78.25	22.16		65.0	
		Z	5.72	77.37	21.59		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	5.54	75.38	17.88	3.98	65.0	± 9.6 %
		Y	6.45	78.02	19.55		65.0	
		Z	3.15	67.52	12.83		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	5.31	74.31	17.34	3.98	65.0	± 9.6 %
		Y	6.14	76.80	18.96		65.0	
		Z	3.05	66.79	12.37		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	6.24	81.13	20.76	3.98	65.0	± 9.6 %
		Y	5.52	78.91	19.97		65.0	
		Z	3.09	70.62	15.05		65.0	
10259-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	5.84	76.93	21.04	3.98	65.0	± 9.6 %
		Y	5.63	75.94	20.66		65.0	
		Z	4.68	73.82	18.92		65.0	
10260-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	5.84	76.54	20.88	3.98	65.0	± 9.6 %
		Y	5.65	75.62	20.54		65.0	
		Z	4.68	73.47	18.76		65.0	
10261-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	7.94	85.32	24.30	3.98	65.0	± 9.6 %
		Y	7.17	83.07	23.45		65.0	
		Z	5.90	80.89	22.01		65.0	
10262-CAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	6.19	77.72	22.28	3.98	65.0	± 9.6 %
		Y	6.00	76.81	21.93		65.0	
		Z	5.19	75.36	20.81		65.0	
10263-CAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	5.84	75.30	20.91	3.98	65.0	± 9.6 %
		Y	5.72	74.57	20.63		65.0	
		Z	4.91	73.09	19.44		65.0	
10264-CAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	8.00	84.72	24.48	3.98	65.0	± 9.6 %
		Y	7.34	82.73	23.71		65.0	
		Z	6.24	81.28	22.84		65.0	
10265-CAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	5.98	74.73	20.93	3.98	65.0	± 9.6 %
		Y	5.89	74.12	20.69		65.0	
		Z	5.12	72.74	19.78		65.0	
10266-CAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	6.33	75.56	21.64	3.98	65.0	± 9.6 %
		Y	6.22	74.93	21.40		65.0	
		Z	5.49	73.76	20.60		65.0	
10267-CAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	7.32	80.56	22.82	3.98	65.0	± 9.6 %
		Y	6.92	79.16	22.26		65.0	
		Z	6.05	78.17	21.72		65.0	
10268-CAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.52	74.24	21.04	3.98	65.0	± 9.6 %
		Y	6.45	73.73	20.85		65.0	
		Z	5.74	72.63	20.16		65.0	
10269-CAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	6.46	73.71	20.87	3.98	65.0	± 9.6 %
		Y	6.39	73.22	20.69		65.0	
		Z	5.73	72.22	20.02		65.0	
10270-CAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	6.79	76.82	21.42	3.98	65.0	± 9.6 %
		Y	6.57	75.90	21.04		65.0	
		Z	5.88	75.11	20.59		65.0	

10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.66	66.98	15.73	0.00	150.0	± 9.6 %
		Y	2.54	65.90	15.04		150.0	
		Z	2.55	67.07	15.35		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.78	69.77	16.72	0.00	150.0	± 9.6 %
		Y	1.55	67.13	15.03		150.0	
		Z	1.62	69.04	16.02		150.0	
10277-CAA	PHS (QPSK)	X	2.12	61.97	7.55	9.03	50.0	± 9.6 %
		Y	2.25	62.30	7.96		50.0	
		Z	1.72	60.31	5.78		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	10.93	86.19	21.29	9.03	50.0	± 9.6 %
		Y	9.64	84.41	20.95		50.0	
		Z	3.57	69.00	13.15		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	11.22	86.49	21.46	9.03	50.0	± 9.6 %
		Y	9.91	84.71	21.11		50.0	
		Z	3.69	69.35	13.38		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	1.95	72.86	16.32	0.00	150.0	± 9.6 %
		Y	1.38	67.46	13.46		150.0	
		Z	1.34	68.81	13.27		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	1.06	69.47	14.79	0.00	150.0	± 9.6 %
		Y	0.76	64.53	11.71		150.0	
		Z	0.76	66.05	11.81		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	1.83	78.35	18.94	0.00	150.0	± 9.6 %
		Y	0.91	67.73	13.68		150.0	
		Z	1.34	73.93	15.68		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	4.73	93.04	24.47	0.00	150.0	± 9.6 %
		Y	1.31	72.72	16.40		150.0	
		Z	6.43	94.81	23.11		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	10.60	89.87	26.40	9.03	50.0	± 9.6 %
		Y	10.25	88.78	26.08		50.0	
		Z	12.25	89.80	24.68		50.0	
10297-AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.99	71.06	17.36	0.00	150.0	± 9.6 %
		Y	2.73	69.18	16.24		150.0	
		Z	2.72	70.32	16.96		150.0	
10298-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.90	70.47	15.90	0.00	150.0	± 9.6 %
		Y	1.56	67.01	13.91		150.0	
		Z	1.44	67.67	13.50		150.0	
10299-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	3.07	71.64	15.53	0.00	150.0	± 9.6 %
		Y	3.23	72.42	16.33		150.0	
		Z	2.17	67.61	12.32		150.0	
10300-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	2.19	66.26	12.34	0.00	150.0	± 9.6 %
		Y	2.31	66.80	13.02		150.0	
		Z	1.57	63.33	9.50		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.82	65.43	17.57	4.17	50.0	± 9.6 %
		Y	4.87	65.32	17.50		50.0	
		Z	4.60	65.72	17.49		50.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.31	66.17	18.35	4.96	50.0	± 9.6 %
		Y	5.36	66.00	18.25		50.0	
		Z	5.00	66.00	18.02		50.0	

10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	5.06	65.83	18.21	4.96	50.0	± 9.6 %
		Y	5.11	65.70	18.12		50.0	
		Z	4.75	65.61	17.82		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.87	65.69	17.69	4.17	50.0	± 9.6 %
		Y	4.90	65.47	17.55		50.0	
		Z	4.58	65.56	17.35		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.43	67.35	19.83	6.02	35.0	± 9.6 %
		Y	4.56	67.70	19.98		35.0	
		Z	4.15	67.17	19.10		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.77	66.43	19.36	6.02	35.0	± 9.6 %
		Y	4.86	66.61	19.45		35.0	
		Z	4.49	66.31	18.82		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.67	66.65	19.36	6.02	35.0	± 9.6 %
		Y	4.78	66.88	19.46		35.0	
		Z	4.37	66.39	18.75		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.64	66.81	19.48	6.02	35.0	± 9.6 %
		Y	4.74	67.03	19.58		35.0	
		Z	4.35	66.60	18.90		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.84	66.72	19.54	6.02	35.0	± 9.6 %
		Y	4.94	66.92	19.63		35.0	
		Z	4.52	66.47	18.95		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.71	66.49	19.33	6.02	35.0	± 9.6 %
		Y	4.81	66.68	19.42		35.0	
		Z	4.43	66.37	18.80		35.0	
10311-AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.36	70.26	16.95	0.00	150.0	± 9.6 %
		Y	3.08	68.46	15.91		150.0	
		Z	3.08	69.51	16.57		150.0	
10313-AAA	IDEN 1:3	X	5.95	81.40	19.48	6.99	70.0	± 9.6 %
		Y	4.30	76.35	17.48		70.0	
		Z	3.21	73.80	16.43		70.0	
10314-AAA	IDEN 1:6	X	12.17	97.07	27.72	10.00	30.0	± 9.6 %
		Y	7.44	87.94	24.60		30.0	
		Z	6.18	85.76	23.72		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.10	64.61	16.02	0.17	150.0	± 9.6 %
		Y	1.01	63.21	14.85		150.0	
		Z	1.05	64.14	15.48		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.65	66.81	16.47	0.17	150.0	± 9.6 %
		Y	4.62	66.42	16.27		150.0	
		Z	4.46	66.78	16.31		150.0	
10317-AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.65	66.81	16.47	0.17	150.0	± 9.6 %
		Y	4.62	66.42	16.27		150.0	
		Z	4.46	66.78	16.31		150.0	
10400-AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.78	67.16	16.44	0.00	150.0	± 9.6 %
		Y	4.74	66.73	16.21		150.0	
		Z	4.55	67.11	16.31		150.0	
10401-AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.43	67.23	16.53	0.00	150.0	± 9.6 %
		Y	5.42	66.92	16.38		150.0	
		Z	5.24	67.11	16.40		150.0	

10402-AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.71	67.66	16.59	0.00	150.0	± 9.6 %
		Y	5.70	67.34	16.43		150.0	
		Z	5.52	67.48	16.45		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.95	72.86	16.32	0.00	115.0	± 9.6 %
		Y	1.38	67.46	13.46		115.0	
		Z	1.34	68.81	13.27		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.95	72.86	16.32	0.00	115.0	± 9.6 %
		Y	1.38	67.46	13.46		115.0	
		Z	1.34	68.81	13.27		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	122.38	30.73	0.00	100.0	± 9.6 %
		Y	81.48	123.67	32.28		100.0	
		Z	100.00	114.83	26.66		100.0	
10410-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	100.00	123.65	31.04	3.23	80.0	± 9.6 %
		Y	100.00	127.30	33.02		80.0	
		Z	100.00	122.18	29.60		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.02	63.74	15.40	0.00	150.0	± 9.6 %
		Y	0.94	62.36	14.20		150.0	
		Z	0.99	63.49	14.99		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.59	66.79	16.39	0.00	150.0	± 9.6 %
		Y	4.55	66.36	16.15		150.0	
		Z	4.42	66.82	16.27		150.0	
10417-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.59	66.79	16.39	0.00	150.0	± 9.6 %
		Y	4.55	66.36	16.15		150.0	
		Z	4.42	66.82	16.27		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	X	4.58	66.96	16.41	0.00	150.0	± 9.6 %
		Y	4.54	66.49	16.15		150.0	
		Z	4.42	67.01	16.31		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	X	4.61	66.90	16.41	0.00	150.0	± 9.6 %
		Y	4.56	66.45	16.16		150.0	
		Z	4.43	66.95	16.30		150.0	
10422-AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.73	66.90	16.41	0.00	150.0	± 9.6 %
		Y	4.69	66.47	16.18		150.0	
		Z	4.54	66.92	16.31		150.0	
10423-AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.91	67.24	16.54	0.00	150.0	± 9.6 %
		Y	4.87	66.82	16.31		150.0	
		Z	4.68	67.21	16.40		150.0	
10424-AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.82	67.19	16.51	0.00	150.0	± 9.6 %
		Y	4.79	66.76	16.28		150.0	
		Z	4.61	67.16	16.38		150.0	
10425-AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.41	67.47	16.65	0.00	150.0	± 9.6 %
		Y	5.40	67.17	16.50		150.0	
		Z	5.21	67.35	16.53		150.0	
10426-AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.41	67.47	16.65	0.00	150.0	± 9.6 %
		Y	5.40	67.19	16.50		150.0	
		Z	5.23	67.42	16.56		150.0	

10427-AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.42	67.47	16.64	0.00	150.0	± 9.6 %
		Y	5.41	67.16	16.48		150.0	
		Z	5.22	67.32	16.51		150.0	
10430-AAC	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.40	71.17	18.58	0.00	150.0	± 9.6 %
		Y	4.23	70.08	17.99		150.0	
		Z	4.30	72.10	18.56		150.0	
10431-AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.31	67.42	16.46	0.00	150.0	± 9.6 %
		Y	4.26	66.88	16.15		150.0	
		Z	4.07	67.45	16.24		150.0	
10432-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.60	67.26	16.49	0.00	150.0	± 9.6 %
		Y	4.56	66.79	16.22		150.0	
		Z	4.38	67.26	16.33		150.0	
10433-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.84	67.23	16.53	0.00	150.0	± 9.6 %
		Y	4.80	66.80	16.30		150.0	
		Z	4.63	67.20	16.40		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.54	72.17	18.64	0.00	150.0	± 9.6 %
		Y	4.31	70.81	17.94		150.0	
		Z	4.47	73.20	18.53		150.0	
10435-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	123.43	30.93	3.23	80.0	± 9.6 %
		Y	100.00	127.09	32.93		80.0	
		Z	100.00	121.88	29.46		80.0	
10447-AAC	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.63	67.60	15.97	0.00	150.0	± 9.6 %
		Y	3.55	66.82	15.51		150.0	
		Z	3.36	67.49	15.39		150.0	
10448-AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	4.14	67.21	16.33	0.00	150.0	± 9.6 %
		Y	4.08	66.64	16.00		150.0	
		Z	3.93	67.24	16.11		150.0	
10449-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.40	67.10	16.39	0.00	150.0	± 9.6 %
		Y	4.35	66.60	16.11		150.0	
		Z	4.21	67.10	16.24		150.0	
10450-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.59	67.00	16.40	0.00	150.0	± 9.6 %
		Y	4.54	66.54	16.14		150.0	
		Z	4.41	66.98	16.27		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.56	67.91	15.68	0.00	150.0	± 9.6 %
		Y	3.45	67.01	15.16		150.0	
		Z	3.21	67.51	14.85		150.0	
10456-AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.26	68.01	16.78	0.00	150.0	± 9.6 %
		Y	6.26	67.75	16.66		150.0	
		Z	6.13	67.97	16.72		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.81	65.42	16.11	0.00	150.0	± 9.6 %
		Y	3.77	64.98	15.86		150.0	
		Z	3.73	65.50	15.98		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	4.16	71.37	18.08	0.00	150.0	± 9.6 %
		Y	3.92	69.91	17.32		150.0	
		Z	4.02	72.11	17.63		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	5.19	68.40	18.36	0.00	150.0	± 9.6 %
		Y	5.10	67.75	18.06		150.0	
		Z	5.01	69.18	18.25		150.0	

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	1.07	72.05	18.39	0.00	150.0	± 9.6 %
		Y	0.81	67.05	15.17		150.0	
		Z	0.95	70.49	17.24		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	129.11	33.59	3.29	80.0	± 9.6 %
		Y	100.00	132.68	35.56		80.0	
		Z	100.00	128.17	32.38		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	29.76	94.39	20.32	3.23	80.0	± 9.6 %
		Y	100.00	112.07	25.94		80.0	
		Z	0.79	60.49	7.76		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.50	68.97	12.20	3.23	80.0	± 9.6 %
		Y	100.00	107.58	23.85		80.0	
		Z	0.77	60.00	6.89		80.0	
10464-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.29	32.12	3.23	80.0	± 9.6 %
		Y	100.00	130.29	34.26		80.0	
		Z	100.00	124.25	30.42		80.0	
10465-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	9.13	82.53	17.12	3.23	80.0	± 9.6 %
		Y	100.00	111.30	25.58		80.0	
		Z	0.75	60.00	7.44		80.0	
10466-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.98	66.71	11.27	3.23	80.0	± 9.6 %
		Y	99.88	106.88	23.53		80.0	
		Z	0.78	60.00	6.83		80.0	
10467-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.60	32.25	3.23	80.0	± 9.6 %
		Y	100.00	130.59	34.40		80.0	
		Z	100.00	124.67	30.60		80.0	
10468-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	11.66	85.00	17.83	3.23	80.0	± 9.6 %
		Y	100.00	111.53	25.68		80.0	
		Z	0.75	60.09	7.51		80.0	
10469-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.98	66.75	11.28	3.23	80.0	± 9.6 %
		Y	100.00	106.90	23.54		80.0	
		Z	0.77	60.00	6.83		80.0	
10470-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.64	32.26	3.23	80.0	± 9.6 %
		Y	100.00	130.65	34.41		80.0	
		Z	100.00	124.69	30.60		80.0	
10471-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	11.32	84.67	17.72	3.23	80.0	± 9.6 %
		Y	100.00	111.46	25.64		80.0	
		Z	0.75	60.04	7.47		80.0	
10472-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.96	66.63	11.22	3.23	80.0	± 9.6 %
		Y	100.00	106.82	23.49		80.0	
		Z	0.77	60.00	6.81		80.0	
10473-AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.60	32.24	3.23	80.0	± 9.6 %
		Y	100.00	130.61	34.39		80.0	
		Z	100.00	124.64	30.58		80.0	
10474-AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	11.06	84.45	17.66	3.23	80.0	± 9.6 %
		Y	100.00	111.47	25.64		80.0	
		Z	0.74	60.02	7.45		80.0	
10475-AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.95	66.59	11.20	3.23	80.0	± 9.6 %
		Y	99.99	106.84	23.50		80.0	
		Z	0.77	60.00	6.81		80.0	

10477-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	9.10	82.47	17.07	3.23	80.0	± 9.6 %
		Y	100.00	111.24	25.54		80.0	
		Z	0.74	60.00	7.42		80.0	
10478-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.93	66.47	11.14	3.23	80.0	± 9.6 %
		Y	96.81	106.44	23.40		80.0	
		Z	0.77	60.00	6.80		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	9.68	90.97	25.10	3.23	80.0	± 9.6 %
		Y	13.83	97.37	27.65		80.0	
		Z	12.23	94.71	25.17		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	11.91	88.02	22.17	3.23	80.0	± 9.6 %
		Y	19.25	95.65	25.10		80.0	
		Z	7.50	81.30	18.54		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	9.15	83.59	20.38	3.23	80.0	± 9.6 %
		Y	15.12	91.18	23.39		80.0	
		Z	4.40	74.24	15.71		80.0	
10482-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.76	79.70	20.44	2.23	80.0	± 9.6 %
		Y	3.53	74.74	18.45		80.0	
		Z	2.62	71.60	16.13		80.0	
10483-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.87	78.17	19.16	2.23	80.0	± 9.6 %
		Y	8.24	83.44	21.55		80.0	
		Z	2.93	69.04	14.15		80.0	
10484-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.35	76.61	18.60	2.23	80.0	± 9.6 %
		Y	7.24	81.28	20.83		80.0	
		Z	2.73	67.94	13.69		80.0	
10485-AAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.47	78.87	21.04	2.23	80.0	± 9.6 %
		Y	3.68	75.23	19.49		80.0	
		Z	3.15	74.27	18.50		80.0	
10486-AAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.79	72.50	18.04	2.23	80.0	± 9.6 %
		Y	3.38	70.29	17.05		80.0	
		Z	2.84	69.02	15.57		80.0	
10487-AAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.74	71.89	17.77	2.23	80.0	± 9.6 %
		Y	3.37	69.86	16.85		80.0	
		Z	2.81	68.50	15.32		80.0	
10488-AAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.24	75.86	20.43	2.23	80.0	± 9.6 %
		Y	3.83	73.65	19.40		80.0	
		Z	3.28	72.72	18.85		80.0	
10489-AAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.72	70.49	18.27	2.23	80.0	± 9.6 %
		Y	3.53	69.26	17.66		80.0	
		Z	3.19	68.97	17.14		80.0	
10490-AAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.79	70.18	18.14	2.23	80.0	± 9.6 %
		Y	3.62	69.04	17.58		80.0	
		Z	3.27	68.77	17.05		80.0	
10491-AAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.23	73.19	19.42	2.23	80.0	± 9.6 %
		Y	3.95	71.65	18.67		80.0	
		Z	3.47	70.90	18.25		80.0	
10492-AAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.97	69.24	17.95	2.23	80.0	± 9.6 %
		Y	3.85	68.36	17.51		80.0	
		Z	3.50	68.04	17.11		80.0	

10493-AAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.03	69.04	17.87	2.23	80.0	± 9.6 %
		Y	3.92	68.21	17.46		80.0	
		Z	3.56	67.90	17.04		80.0	
10494-AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.79	75.46	20.14	2.23	80.0	± 9.6 %
		Y	4.38	73.53	19.24		80.0	
		Z	3.78	72.48	18.78		80.0	
10495-AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.03	69.76	18.19	2.23	80.0	± 9.6 %
		Y	3.90	68.85	17.73		80.0	
		Z	3.53	68.35	17.31		80.0	
10496-AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.08	69.35	18.04	2.23	80.0	± 9.6 %
		Y	3.97	68.51	17.62		80.0	
		Z	3.60	68.09	17.22		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.72	75.87	18.08	2.23	80.0	± 9.6 %
		Y	2.64	70.76	15.98		80.0	
		Z	1.51	64.60	11.77		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.30	66.27	12.99	2.23	80.0	± 9.6 %
		Y	2.02	64.31	12.06		80.0	
		Z	1.20	60.00	8.21		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.18	65.35	12.41	2.23	80.0	± 9.6 %
		Y	1.97	63.70	11.62		80.0	
		Z	1.22	60.00	8.05		80.0	
10500-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.19	76.87	20.53	2.23	80.0	± 9.6 %
		Y	3.63	74.04	19.27		80.0	
		Z	3.15	73.35	18.54		80.0	
10501-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.74	71.57	18.07	2.23	80.0	± 9.6 %
		Y	3.44	69.83	17.26		80.0	
		Z	3.03	69.25	16.29		80.0	
10502-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.79	71.34	17.92	2.23	80.0	± 9.6 %
		Y	3.50	69.66	17.14		80.0	
		Z	3.07	69.05	16.12		80.0	
10503-AAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.18	75.62	20.32	2.23	80.0	± 9.6 %
		Y	3.77	73.43	19.30		80.0	
		Z	3.23	72.50	18.74		80.0	
10504-AAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.70	70.40	18.21	2.23	80.0	± 9.6 %
		Y	3.52	69.18	17.61		80.0	
		Z	3.17	68.86	17.07		80.0	
10505-AAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.77	70.08	18.09	2.23	80.0	± 9.6 %
		Y	3.60	68.95	17.53		80.0	
		Z	3.25	68.67	16.99		80.0	
10506-AAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.74	75.29	20.06	2.23	80.0	± 9.6 %
		Y	4.34	73.37	19.17		80.0	
		Z	3.74	72.32	18.70		80.0	
10507-AAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.01	69.69	18.15	2.23	80.0	± 9.6 %
		Y	3.88	68.79	17.69		80.0	
		Z	3.51	68.29	17.27		80.0	

10508-AAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.07	69.28	18.00	2.23	80.0	± 9.6 %
		Y	3.96	68.45	17.58		80.0	
		Z	3.59	68.02	17.17		80.0	
10509-AAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.87	73.12	19.15	2.23	80.0	± 9.6 %
		Y	4.57	71.69	18.46		80.0	
		Z	4.08	70.95	18.12		80.0	
10510-AAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.46	69.19	17.97	2.23	80.0	± 9.6 %
		Y	4.36	68.46	17.61		80.0	
		Z	3.98	67.93	17.23		80.0	
10511-AAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.49	68.83	17.85	2.23	80.0	± 9.6 %
		Y	4.40	68.15	17.52		80.0	
		Z	4.03	67.70	17.16		80.0	
10512-AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.35	75.53	19.95	2.23	80.0	± 9.6 %
		Y	4.89	73.64	19.09		80.0	
		Z	4.27	72.56	18.64		80.0	
10513-AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.37	69.62	18.15	2.23	80.0	± 9.6 %
		Y	4.26	68.83	17.75		80.0	
		Z	3.86	68.15	17.33		80.0	
10514-AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.36	69.04	17.95	2.23	80.0	± 9.6 %
		Y	4.26	68.32	17.60		80.0	
		Z	3.89	67.75	17.20		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.98	64.01	15.52	0.00	150.0	± 9.6 %
		Y	0.90	62.52	14.23		150.0	
		Z	0.95	63.71	15.08		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.96	80.43	22.24	0.00	150.0	± 9.6 %
		Y	0.52	69.16	15.73		150.0	
		Z	0.74	75.71	19.80		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.87	66.95	16.73	0.00	150.0	± 9.6 %
		Y	0.75	64.30	14.64		150.0	
		Z	0.81	66.10	15.98		150.0	
10518-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.59	66.88	16.37	0.00	150.0	± 9.6 %
		Y	4.55	66.43	16.12		150.0	
		Z	4.41	66.91	16.25		150.0	
10519-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.79	67.13	16.49	0.00	150.0	± 9.6 %
		Y	4.75	66.71	16.26		150.0	
		Z	4.57	67.10	16.35		150.0	
10520-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.64	67.11	16.43	0.00	150.0	± 9.6 %
		Y	4.60	66.67	16.18		150.0	
		Z	4.43	67.05	16.27		150.0	
10521-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.57	67.12	16.42	0.00	150.0	± 9.6 %
		Y	4.53	66.66	16.16		150.0	
		Z	4.36	67.04	16.26		150.0	
10522-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.63	67.16	16.48	0.00	150.0	± 9.6 %
		Y	4.59	66.70	16.22		150.0	
		Z	4.42	67.17	16.36		150.0	

10523-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.51	67.05	16.34	0.00	150.0	± 9.6 %
		Y	4.46	66.56	16.06		150.0	
		Z	4.33	67.10	16.24		150.0	
10524-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.58	67.09	16.46	0.00	150.0	± 9.6 %
		Y	4.53	66.64	16.20		150.0	
		Z	4.37	67.10	16.33		150.0	
10525-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.55	66.14	16.05	0.00	150.0	± 9.6 %
		Y	4.50	65.66	15.78		150.0	
		Z	4.38	66.18	15.95		150.0	
10526-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.74	66.53	16.19	0.00	150.0	± 9.6 %
		Y	4.69	66.05	15.93		150.0	
		Z	4.52	66.50	16.07		150.0	
10527-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.66	66.50	16.15	0.00	150.0	± 9.6 %
		Y	4.61	66.01	15.87		150.0	
		Z	4.45	66.47	16.02		150.0	
10528-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.67	66.52	16.18	0.00	150.0	± 9.6 %
		Y	4.62	66.03	15.91		150.0	
		Z	4.47	66.48	16.05		150.0	
10529-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.67	66.52	16.18	0.00	150.0	± 9.6 %
		Y	4.62	66.03	15.91		150.0	
		Z	4.47	66.48	16.05		150.0	
10531-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.67	66.65	16.20	0.00	150.0	± 9.6 %
		Y	4.63	66.16	15.93		150.0	
		Z	4.44	66.54	16.04		150.0	
10532-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.53	66.51	16.14	0.00	150.0	± 9.6 %
		Y	4.48	66.01	15.86		150.0	
		Z	4.32	66.41	15.98		150.0	
10533-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.68	66.56	16.16	0.00	150.0	± 9.6 %
		Y	4.63	66.06	15.89		150.0	
		Z	4.48	66.56	16.05		150.0	
10534-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.19	66.60	16.20	0.00	150.0	± 9.6 %
		Y	5.16	66.20	15.99		150.0	
		Z	5.01	66.50	16.09		150.0	
10535-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.26	66.75	16.27	0.00	150.0	± 9.6 %
		Y	5.22	66.35	16.06		150.0	
		Z	5.06	66.65	16.16		150.0	
10536-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.13	66.73	16.24	0.00	150.0	± 9.6 %
		Y	5.09	66.32	16.02		150.0	
		Z	4.95	66.64	16.13		150.0	
10537-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.19	66.69	16.22	0.00	150.0	± 9.6 %
		Y	5.15	66.30	16.01		150.0	
		Z	5.00	66.59	16.11		150.0	
10538-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.28	66.73	16.28	0.00	150.0	± 9.6 %
		Y	5.26	66.36	16.08		150.0	
		Z	5.08	66.58	16.14		150.0	
10540-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.21	66.72	16.29	0.00	150.0	± 9.6 %
		Y	5.17	66.33	16.08		150.0	
		Z	5.01	66.56	16.15		150.0	

10541-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.18	66.60	16.22	0.00	150.0	± 9.6 %
		Y	5.14	66.20	16.01		150.0	
		Z	4.99	66.47	16.09		150.0	
10542-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.33	66.65	16.26	0.00	150.0	± 9.6 %
		Y	5.31	66.28	16.07		150.0	
		Z	5.14	66.55	16.15		150.0	
10543-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.41	66.68	16.29	0.00	150.0	± 9.6 %
		Y	5.39	66.31	16.11		150.0	
		Z	5.20	66.56	16.18		150.0	
10544-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.49	66.70	16.18	0.00	150.0	± 9.6 %
		Y	5.45	66.31	15.98		150.0	
		Z	5.34	66.58	16.07		150.0	
10545-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.68	67.09	16.32	0.00	150.0	± 9.6 %
		Y	5.66	66.76	16.15		150.0	
		Z	5.51	66.98	16.23		150.0	
10546-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.57	66.94	16.26	0.00	150.0	± 9.6 %
		Y	5.54	66.57	16.08		150.0	
		Z	5.38	66.73	16.11		150.0	
10547-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.64	66.98	16.27	0.00	150.0	± 9.6 %
		Y	5.63	66.66	16.11		150.0	
		Z	5.45	66.79	16.14		150.0	
10548-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.90	67.92	16.71	0.00	150.0	± 9.6 %
		Y	5.97	67.87	16.68		150.0	
		Z	5.63	67.50	16.47		150.0	
10550-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.59	66.92	16.26	0.00	150.0	± 9.6 %
		Y	5.55	66.54	16.07		150.0	
		Z	5.42	66.82	16.17		150.0	
10551-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.60	66.98	16.25	0.00	150.0	± 9.6 %
		Y	5.56	66.60	16.06		150.0	
		Z	5.40	66.75	16.10		150.0	
10552-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.51	66.77	16.16	0.00	150.0	± 9.6 %
		Y	5.47	66.37	15.96		150.0	
		Z	5.35	66.67	16.06		150.0	
10553-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.60	66.81	16.21	0.00	150.0	± 9.6 %
		Y	5.56	66.43	16.01		150.0	
		Z	5.41	66.65	16.08		150.0	
10554-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.89	67.05	16.26	0.00	150.0	± 9.6 %
		Y	5.86	66.69	16.08		150.0	
		Z	5.75	66.91	16.14		150.0	
10555-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.02	67.35	16.38	0.00	150.0	± 9.6 %
		Y	6.00	67.02	16.22		150.0	
		Z	5.86	67.17	16.25		150.0	
10556-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	6.04	67.39	16.40	0.00	150.0	± 9.6 %
		Y	6.02	67.06	16.23		150.0	
		Z	5.88	67.24	16.28		150.0	
10557-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	6.01	67.32	16.38	0.00	150.0	± 9.6 %
		Y	5.99	66.98	16.22		150.0	
		Z	5.85	67.13	16.24		150.0	

10558-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.07	67.49	16.48	0.00	150.0	± 9.6 %
		Y	6.05	67.17	16.33		150.0	
		Z	5.88	67.26	16.33		150.0	
10560-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.06	67.34	16.44	0.00	150.0	± 9.6 %
		Y	6.04	66.99	16.28		150.0	
		Z	5.88	67.13	16.30		150.0	
10561-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.98	67.30	16.46	0.00	150.0	± 9.6 %
		Y	5.96	66.96	16.30		150.0	
		Z	5.81	67.11	16.32		150.0	
10562-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.11	67.72	16.67	0.00	150.0	± 9.6 %
		Y	6.12	67.46	16.55		150.0	
		Z	5.89	67.37	16.45		150.0	
10563-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.43	68.23	16.87	0.00	150.0	± 9.6 %
		Y	6.50	68.16	16.85		150.0	
		Z	5.96	67.23	16.35		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	4.91	66.93	16.51	0.46	150.0	± 9.6 %
		Y	4.88	66.54	16.31		150.0	
		Z	4.73	66.93	16.37		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	5.16	67.40	16.83	0.46	150.0	± 9.6 %
		Y	5.13	67.02	16.64		150.0	
		Z	4.93	67.35	16.69		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	4.99	67.26	16.66	0.46	150.0	± 9.6 %
		Y	4.96	66.87	16.45		150.0	
		Z	4.77	67.18	16.50		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	5.02	67.67	17.02	0.46	150.0	± 9.6 %
		Y	4.98	67.25	16.79		150.0	
		Z	4.81	67.60	16.88		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	4.90	67.00	16.42	0.46	150.0	± 9.6 %
		Y	4.87	66.62	16.22		150.0	
		Z	4.67	66.94	16.26		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	4.97	67.73	17.07	0.46	150.0	± 9.6 %
		Y	4.93	67.29	16.83		150.0	
		Z	4.78	67.78	16.99		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	5.01	67.57	17.00	0.46	150.0	± 9.6 %
		Y	4.97	67.15	16.77		150.0	
		Z	4.80	67.57	16.89		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.17	65.22	16.39	0.46	130.0	± 9.6 %
		Y	1.09	63.89	15.30		130.0	
		Z	1.10	64.48	15.68		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.19	65.91	16.81	0.46	130.0	± 9.6 %
		Y	1.10	64.45	15.65		130.0	
		Z	1.12	65.08	16.07		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	11.95	118.97	33.95	0.46	130.0	± 9.6 %
		Y	2.10	86.50	22.92		130.0	
		Z	2.78	93.83	26.37		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.42	73.69	20.72	0.46	130.0	± 9.6 %
		Y	1.20	70.19	18.52		130.0	
		Z	1.24	71.54	19.44		130.0	

10575-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	X	4.69	66.71	16.57	0.46	130.0	± 9.6 %
		Y	4.67	66.34	16.38		130.0	
		Z	4.50	66.68	16.40		130.0	
10576-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	X	4.72	66.88	16.64	0.46	130.0	± 9.6 %
		Y	4.69	66.50	16.44		130.0	
		Z	4.53	66.88	16.48		130.0	
10577-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	X	4.94	67.20	16.81	0.46	130.0	± 9.6 %
		Y	4.91	66.83	16.62		130.0	
		Z	4.71	67.13	16.63		130.0	
10578-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	X	4.83	67.37	16.92	0.46	130.0	± 9.6 %
		Y	4.81	66.98	16.72		130.0	
		Z	4.61	67.29	16.74		130.0	
10579-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	X	4.60	66.66	16.24	0.46	130.0	± 9.6 %
		Y	4.57	66.30	16.05		130.0	
		Z	4.37	66.49	16.00		130.0	
10580-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	X	4.64	66.67	16.25	0.46	130.0	± 9.6 %
		Y	4.62	66.31	16.06		130.0	
		Z	4.41	66.55	16.03		130.0	
10581-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	X	4.73	67.42	16.87	0.46	130.0	± 9.6 %
		Y	4.70	67.02	16.65		130.0	
		Z	4.52	67.36	16.71		130.0	
10582-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	X	4.54	66.41	16.03	0.46	130.0	± 9.6 %
		Y	4.53	66.07	15.85		130.0	
		Z	4.30	66.25	15.78		130.0	
10583-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.69	66.71	16.57	0.46	130.0	± 9.6 %
		Y	4.67	66.34	16.38		130.0	
		Z	4.50	66.68	16.40		130.0	
10584-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.72	66.88	16.64	0.46	130.0	± 9.6 %
		Y	4.69	66.50	16.44		130.0	
		Z	4.53	66.88	16.48		130.0	
10585-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.94	67.20	16.81	0.46	130.0	± 9.6 %
		Y	4.91	66.83	16.62		130.0	
		Z	4.71	67.13	16.63		130.0	
10586-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.83	67.37	16.92	0.46	130.0	± 9.6 %
		Y	4.81	66.98	16.72		130.0	
		Z	4.61	67.29	16.74		130.0	
10587-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.60	66.66	16.24	0.46	130.0	± 9.6 %
		Y	4.57	66.30	16.05		130.0	
		Z	4.37	66.49	16.00		130.0	
10588-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.64	66.67	16.25	0.46	130.0	± 9.6 %
		Y	4.62	66.31	16.06		130.0	
		Z	4.41	66.55	16.03		130.0	
10589-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.73	67.42	16.87	0.46	130.0	± 9.6 %
		Y	4.70	67.02	16.65		130.0	
		Z	4.52	67.36	16.71		130.0	
10590-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.54	66.41	16.03	0.46	130.0	± 9.6 %
		Y	4.53	66.07	15.85		130.0	
		Z	4.30	66.25	15.78		130.0	

10591-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.84	66.77	16.66	0.46	130.0	± 9.6 %
		Y	4.82	66.41	16.48		130.0	
		Z	4.66	66.76	16.51		130.0	
10592-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.01	67.12	16.79	0.46	130.0	± 9.6 %
		Y	4.99	66.76	16.61		130.0	
		Z	4.79	67.07	16.64		130.0	
10593-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.93	67.04	16.68	0.46	130.0	± 9.6 %
		Y	4.91	66.69	16.51		130.0	
		Z	4.71	66.95	16.50		130.0	
10594-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.98	67.20	16.83	0.46	130.0	± 9.6 %
		Y	4.96	66.84	16.65		130.0	
		Z	4.76	67.13	16.67		130.0	
10595-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.95	67.16	16.73	0.46	130.0	± 9.6 %
		Y	4.93	66.80	16.55		130.0	
		Z	4.73	67.10	16.57		130.0	
10596-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.89	67.16	16.74	0.46	130.0	± 9.6 %
		Y	4.87	66.79	16.55		130.0	
		Z	4.66	67.08	16.56		130.0	
10597-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.84	67.08	16.63	0.46	130.0	± 9.6 %
		Y	4.82	66.71	16.44		130.0	
		Z	4.61	66.96	16.43		130.0	
10598-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.82	67.33	16.90	0.46	130.0	± 9.6 %
		Y	4.80	66.95	16.70		130.0	
		Z	4.60	67.20	16.70		130.0	
10599-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.51	67.30	16.83	0.46	130.0	± 9.6 %
		Y	5.50	67.04	16.72		130.0	
		Z	5.31	67.18	16.69		130.0	
10600-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.66	67.75	17.03	0.46	130.0	± 9.6 %
		Y	5.70	67.66	17.00		130.0	
		Z	5.42	67.55	16.85		130.0	
10601-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.54	67.49	16.91	0.46	130.0	± 9.6 %
		Y	5.55	67.29	16.83		130.0	
		Z	5.33	67.34	16.76		130.0	
10602-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.62	67.47	16.82	0.46	130.0	± 9.6 %
		Y	5.64	67.27	16.74		130.0	
		Z	5.46	67.51	16.77		130.0	
10603-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.72	67.83	17.13	0.46	130.0	± 9.6 %
		Y	5.72	67.56	17.01		130.0	
		Z	5.53	67.80	17.05		130.0	
10604-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.51	67.26	16.84	0.46	130.0	± 9.6 %
		Y	5.51	67.00	16.72		130.0	
		Z	5.40	67.44	16.85		130.0	
10605-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.62	67.58	16.99	0.46	130.0	± 9.6 %
		Y	5.63	67.37	16.91		130.0	
		Z	5.43	67.48	16.86		130.0	
10606-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.39	67.04	16.59	0.46	130.0	± 9.6 %
		Y	5.38	66.75	16.46		130.0	
		Z	5.18	66.82	16.39		130.0	

10607-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.69	66.11	16.30	0.46	130.0	± 9.6 %
		Y	4.65	65.70	16.09		130.0	
		Z	4.51	66.12	16.16		130.0	
10608-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.89	66.54	16.47	0.46	130.0	± 9.6 %
		Y	4.86	66.13	16.26		130.0	
		Z	4.67	66.48	16.32		130.0	
10609-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.78	66.40	16.32	0.46	130.0	± 9.6 %
		Y	4.74	65.99	16.10		130.0	
		Z	4.56	66.32	16.14		130.0	
10610-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.83	66.56	16.48	0.46	130.0	± 9.6 %
		Y	4.80	66.15	16.27		130.0	
		Z	4.61	66.49	16.31		130.0	
10611-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.74	66.37	16.33	0.46	130.0	± 9.6 %
		Y	4.71	65.96	16.12		130.0	
		Z	4.52	66.28	16.15		130.0	
10612-AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.76	66.53	16.38	0.46	130.0	± 9.6 %
		Y	4.73	66.12	16.16		130.0	
		Z	4.52	66.43	16.20		130.0	
10613-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.76	66.43	16.27	0.46	130.0	± 9.6 %
		Y	4.74	66.03	16.06		130.0	
		Z	4.52	66.26	16.05		130.0	
10614-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.70	66.62	16.50	0.46	130.0	± 9.6 %
		Y	4.67	66.19	16.28		130.0	
		Z	4.48	66.49	16.31		130.0	
10615-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.74	66.19	16.10	0.46	130.0	± 9.6 %
		Y	4.72	65.79	15.90		130.0	
		Z	4.52	66.11	15.92		130.0	
10616-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.34	66.61	16.47	0.46	130.0	± 9.6 %
		Y	5.32	66.28	16.32		130.0	
		Z	5.14	66.47	16.32		130.0	
10617-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.40	66.74	16.51	0.46	130.0	± 9.6 %
		Y	5.38	66.41	16.35		130.0	
		Z	5.21	66.65	16.39		130.0	
10618-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.29	66.79	16.56	0.46	130.0	± 9.6 %
		Y	5.27	66.46	16.39		130.0	
		Z	5.11	66.70	16.43		130.0	
10619-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.31	66.61	16.40	0.46	130.0	± 9.6 %
		Y	5.30	66.30	16.25		130.0	
		Z	5.11	66.46	16.24		130.0	
10620-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.41	66.67	16.47	0.46	130.0	± 9.6 %
		Y	5.41	66.38	16.34		130.0	
		Z	5.19	66.48	16.30		130.0	
10621-AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.40	66.76	16.64	0.46	130.0	± 9.6 %
		Y	5.38	66.43	16.48		130.0	
		Z	5.21	66.64	16.50		130.0	
10622-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.41	66.91	16.70	0.46	130.0	± 9.6 %
		Y	5.39	66.60	16.55		130.0	
		Z	5.20	66.74	16.55		130.0	

10623-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.29	66.45	16.36	0.46	130.0	± 9.6 %
		Y	5.27	66.12	16.20		130.0	
		Z	5.08	66.28	16.19		130.0	
10624-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.48	66.64	16.51	0.46	130.0	± 9.6 %
		Y	5.47	66.35	16.38		130.0	
		Z	5.28	66.51	16.36		130.0	
10625-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.87	67.67	17.07	0.46	130.0	± 9.6 %
		Y	5.92	67.56	17.03		130.0	
		Z	5.48	66.99	16.66		130.0	
10626-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.62	66.65	16.41	0.46	130.0	± 9.6 %
		Y	5.59	66.32	16.26		130.0	
		Z	5.46	66.52	16.28		130.0	
10627-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.86	67.19	16.64	0.46	130.0	± 9.6 %
		Y	5.87	66.96	16.54		130.0	
		Z	5.68	67.07	16.52		130.0	
10628-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.67	66.78	16.37	0.46	130.0	± 9.6 %
		Y	5.65	66.49	16.24		130.0	
		Z	5.47	66.52	16.18		130.0	
10629-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.76	66.87	16.41	0.46	130.0	± 9.6 %
		Y	5.74	66.55	16.26		130.0	
		Z	5.55	66.62	16.22		130.0	
10630-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.21	68.41	17.17	0.46	130.0	± 9.6 %
		Y	6.36	68.57	17.26		130.0	
		Z	5.84	67.72	16.78		130.0	
10631-AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	6.11	68.22	17.27	0.46	130.0	± 9.6 %
		Y	6.15	68.07	17.21		130.0	
		Z	5.81	67.73	16.97		130.0	
10632-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.83	67.26	16.81	0.46	130.0	± 9.6 %
		Y	5.82	66.98	16.68		130.0	
		Z	5.67	67.19	16.73		130.0	
10633-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.73	66.95	16.48	0.46	130.0	± 9.6 %
		Y	5.72	66.66	16.35		130.0	
		Z	5.54	66.74	16.32		130.0	
10634-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.72	66.98	16.56	0.46	130.0	± 9.6 %
		Y	5.70	66.65	16.41		130.0	
		Z	5.52	66.78	16.40		130.0	
10635-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.60	66.32	15.97	0.46	130.0	± 9.6 %
		Y	5.59	66.03	15.84		130.0	
		Z	5.39	66.04	15.76		130.0	
10636-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.03	67.02	16.50	0.46	130.0	± 9.6 %
		Y	6.02	66.74	16.37		130.0	
		Z	5.89	66.87	16.36		130.0	
10637-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.19	67.40	16.66	0.46	130.0	± 9.6 %
		Y	6.19	67.15	16.56		130.0	
		Z	6.02	67.21	16.51		130.0	
10638-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.19	67.38	16.63	0.46	130.0	± 9.6 %
		Y	6.19	67.12	16.52		130.0	
		Z	6.03	67.21	16.49		130.0	

10639-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.18	67.36	16.66	0.46	130.0	± 9.6 %
		Y	6.17	67.09	16.55		130.0	
		Z	6.00	67.13	16.50		130.0	
10640-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.19	67.39	16.62	0.46	130.0	± 9.6 %
		Y	6.20	67.16	16.53		130.0	
		Z	5.99	67.11	16.43		130.0	
10641-AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.21	67.22	16.56	0.46	130.0	± 9.6 %
		Y	6.20	66.94	16.44		130.0	
		Z	6.05	67.08	16.43		130.0	
10642-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.27	67.52	16.87	0.46	130.0	± 9.6 %
		Y	6.26	67.23	16.75		130.0	
		Z	6.09	67.31	16.72		130.0	
10643-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.10	67.19	16.61	0.46	130.0	± 9.6 %
		Y	6.09	66.93	16.50		130.0	
		Z	5.93	67.00	16.46		130.0	
10644-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.29	67.77	16.92	0.46	130.0	± 9.6 %
		Y	6.32	67.61	16.86		130.0	
		Z	6.02	67.30	16.63		130.0	
10645-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.72	68.61	17.29	0.46	130.0	± 9.6 %
		Y	6.81	68.60	17.31		130.0	
		Z	6.13	67.29	16.58		130.0	
10646-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	26.22	119.06	40.53	9.30	60.0	± 9.6 %
		Y	23.98	116.77	40.23		60.0	
		Z	13.39	105.96	36.68		60.0	
10647-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	21.91	115.56	39.67	9.30	60.0	± 9.6 %
		Y	20.79	114.08	39.59		60.0	
		Z	11.12	102.25	35.63		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	0.80	65.60	12.34	0.00	150.0	± 9.6 %
		Y	0.65	62.69	10.17		150.0	
		Z	0.58	62.96	9.61		150.0	
10652-AAC	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.70	67.38	17.08	2.23	80.0	± 9.6 %
		Y	3.59	66.56	16.66		80.0	
		Z	3.39	66.83	16.41		80.0	
10653-AAC	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	4.17	66.50	17.03	2.23	80.0	± 9.6 %
		Y	4.11	65.95	16.76		80.0	
		Z	3.90	66.02	16.55		80.0	
10654-AAC	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.13	66.12	17.00	2.23	80.0	± 9.6 %
		Y	4.07	65.60	16.75		80.0	
		Z	3.90	65.62	16.55		80.0	
10655-AAD	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.19	66.12	17.04	2.23	80.0	± 9.6 %
		Y	4.13	65.62	16.79		80.0	
		Z	3.96	65.57	16.58		80.0	
10658-AAA	Pulse Waveform (200Hz, 10%)	X	100.00	111.27	26.15	10.00	50.0	± 9.6 %
		Y	100.00	112.15	26.71		50.0	
		Z	14.35	85.50	18.40		50.0	
10659-AAA	Pulse Waveform (200Hz, 20%)	X	100.00	110.66	24.83	6.99	60.0	± 9.6 %
		Y	100.00	110.25	24.76		60.0	
		Z	100.00	105.29	22.07		60.0	

10660- AAA	Pulse Waveform (200Hz, 40%)	X	100.00	112.93	24.53	3.98	80.0	± 9.6 %
		Y	100.00	108.47	22.64		80.0	
		Z	100.00	104.83	20.58		80.0	
10661- AAA	Pulse Waveform (200Hz, 60%)	X	100.00	118.71	25.68	2.22	100.0	± 9.6 %
		Y	100.00	104.33	19.70		100.0	
		Z	100.00	104.48	19.32		100.0	
10662- AAA	Pulse Waveform (200Hz, 80%)	X	100.00	138.66	31.49	0.97	120.0	± 9.6 %
		Y	0.19	60.00	4.09		120.0	
		Z	100.00	91.23	12.90		120.0	

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



Accredited by the Swiss Accreditation Service (SAS)
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 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **EX3-7357_Apr18**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7357**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v4, QA CAL-23.v5,
 QA CAL-25.v6
 Calibration procedure for dosimetric E-field probes**

Calibration date: **April 18, 2018**

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

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-17)	In house check: Oct-18

Calibrated by: **Claudio Leubler** Name: **Claudio Leubler** Function: **Laboratory Technician** Signature:

Approved by: **Katja Pokovic** Name: **Katja Pokovic** Function: **Technical Manager** Signature:

Issued: April 19, 2018

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



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization ϕ	ϕ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.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:

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

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z}** = NORM_{x,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.
- DCP_{x,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
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,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 $f \leq 800$ 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 NORM_{x,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 NORM_x (no uncertainty required).

Probe EX3DV4

SN:7357

Manufactured: February 5, 2015
Calibrated: April 18, 2018

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.37	0.48	0.40	$\pm 10.1 \%$
DCP (mV) ^B	89.1	99.1	96.4	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	151.5	$\pm 2.7 \%$
		Y	0.0	0.0	1.0		139.1	
		Z	0.0	0.0	1.0		158.4	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $\text{ms}\cdot\text{V}^{-2}$	T2 $\text{ms}\cdot\text{V}^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	37.91	303.3	40.25	6.413	0.832	4.998	0.00	0.454	1.006
Y	48.33	363.1	36.01	10.58	0.113	5.100	0.00	0.458	1.004
Z	39.38	305.2	38.03	5.76	0.610	5.046	0.00	0.461	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%.

^A The uncertainties of Norm X,Y,Z do not affect the E^2 -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.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

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)
64	54.2	0.75	14.92	14.92	14.92	0.00	1.00	± 13.3 %
150	52.3	0.76	13.49	13.49	13.49	0.00	1.00	± 13.3 %
300	45.3	0.87	12.37	12.37	12.37	0.08	1.20	± 13.3 %
450	43.5	0.87	11.17	11.17	11.17	0.14	1.20	± 13.3 %
750	41.9	0.89	10.50	10.50	10.50	0.45	0.85	± 12.0 %
835	41.5	0.90	10.11	10.11	10.11	0.37	0.93	± 12.0 %
1750	40.1	1.37	8.80	8.80	8.80	0.38	0.86	± 12.0 %
1900	40.0	1.40	8.47	8.47	8.47	0.18	0.83	± 12.0 %
2300	39.5	1.67	7.83	7.83	7.83	0.33	0.86	± 12.0 %
2450	39.2	1.80	7.43	7.43	7.43	0.37	0.89	± 12.0 %
2600	39.0	1.96	7.13	7.13	7.13	0.27	0.98	± 12.0 %
5250	35.9	4.71	5.62	5.62	5.62	0.35	1.80	± 13.1 %
5600	35.5	5.07	4.93	4.93	4.93	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.23	5.23	5.23	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.

^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.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

Calibration Parameter Determined in Body Tissue Simulating Media

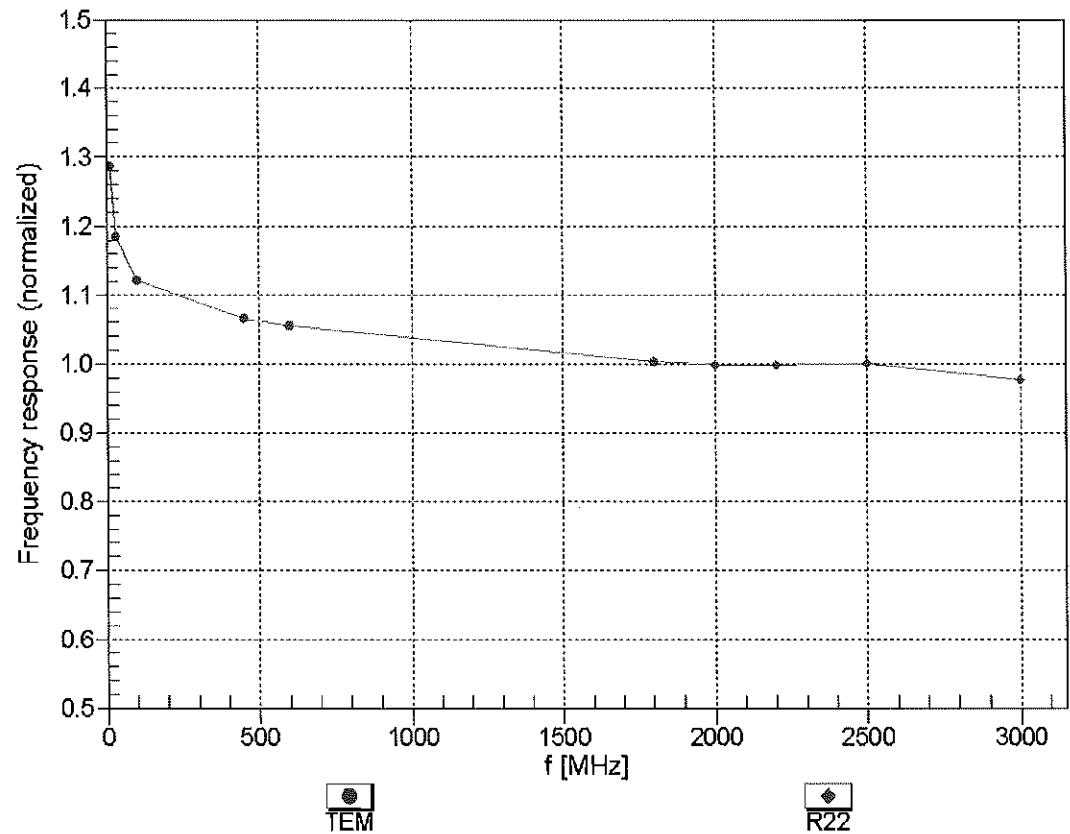
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
150	61.9	0.80	12.99	12.99	12.99	0.00	1.00	± 13.3 %
300	58.2	0.92	12.08	12.08	12.08	0.05	1.20	± 13.3 %
450	56.7	0.94	11.52	11.52	11.52	0.08	1.20	± 13.3 %
750	55.5	0.96	10.37	10.37	10.37	0.47	0.85	± 12.0 %
835	55.2	0.97	10.17	10.17	10.17	0.37	0.93	± 12.0 %
1750	53.4	1.49	8.43	8.43	8.43	0.37	0.86	± 12.0 %
1900	53.3	1.52	8.08	8.08	8.08	0.36	0.83	± 12.0 %
2300	52.9	1.81	7.74	7.74	7.74	0.38	0.85	± 12.0 %
2450	52.7	1.95	7.60	7.60	7.60	0.35	0.88	± 12.0 %
2600	52.5	2.16	7.44	7.44	7.44	0.33	0.93	± 12.0 %
5250	48.9	5.36	4.78	4.78	4.78	0.50	1.80	± 13.1 %
5600	48.5	5.77	4.20	4.20	4.20	0.50	1.80	± 13.1 %
5750	48.3	5.94	4.21	4.21	4.21	0.50	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.

^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)

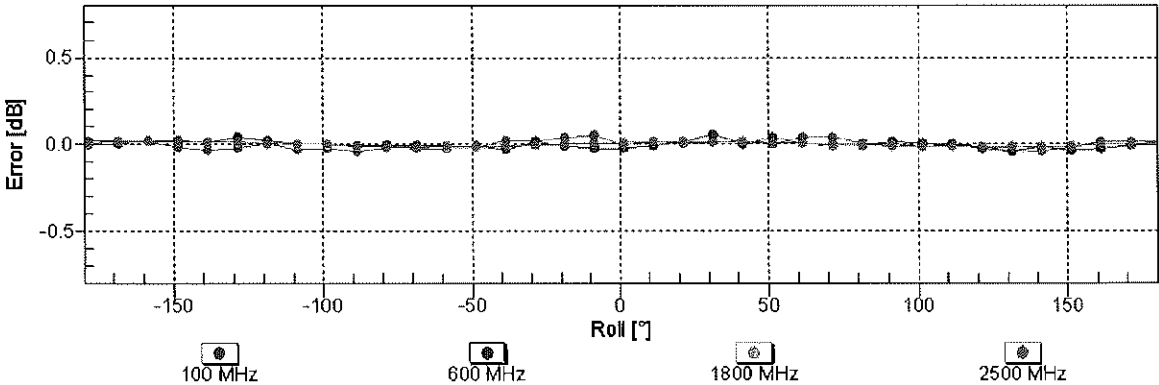
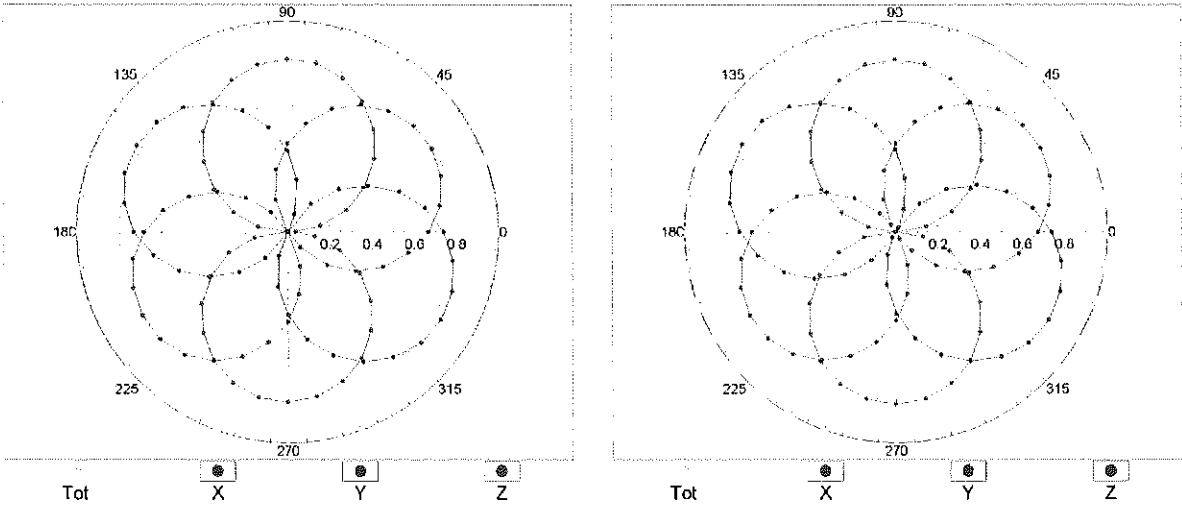


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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

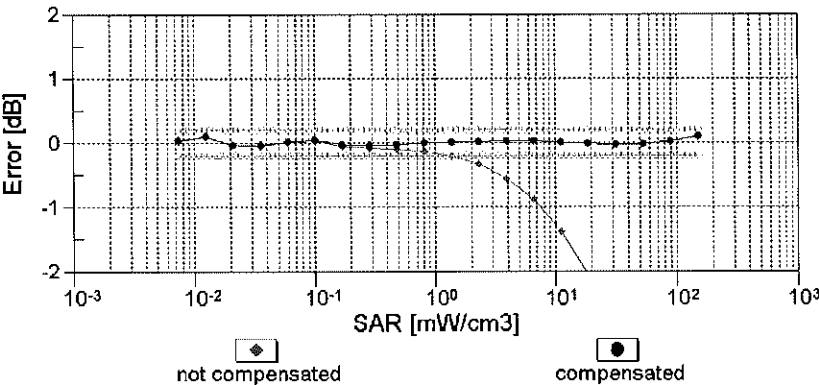
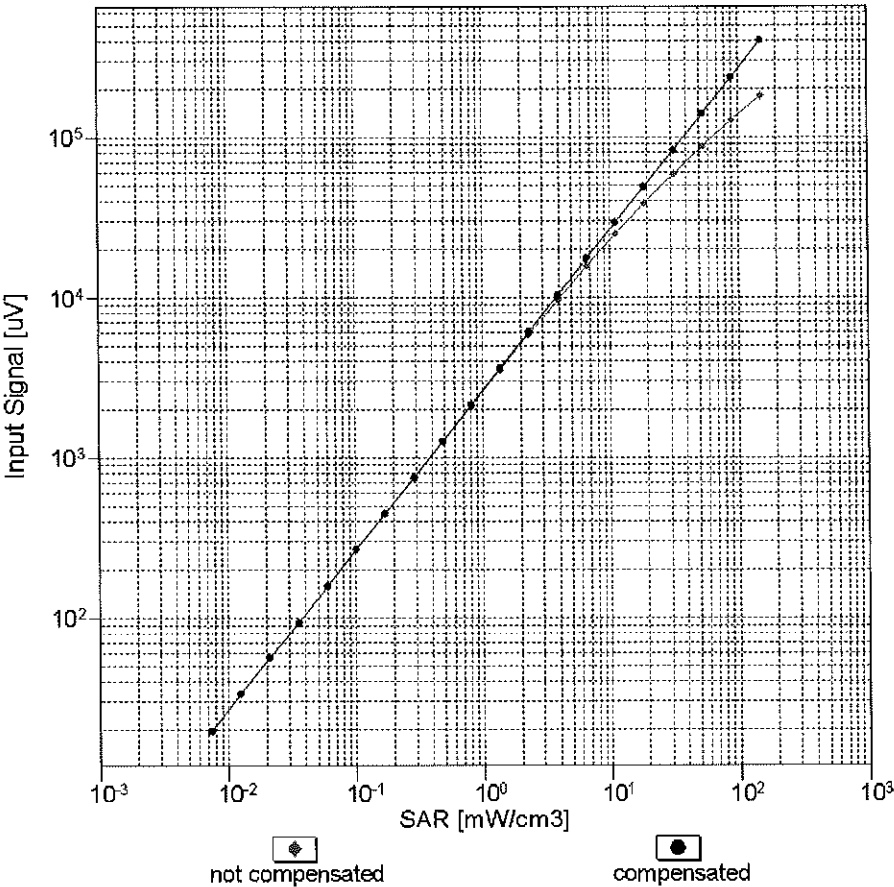
f=600 MHz,TEM

f=1800 MHz,R22



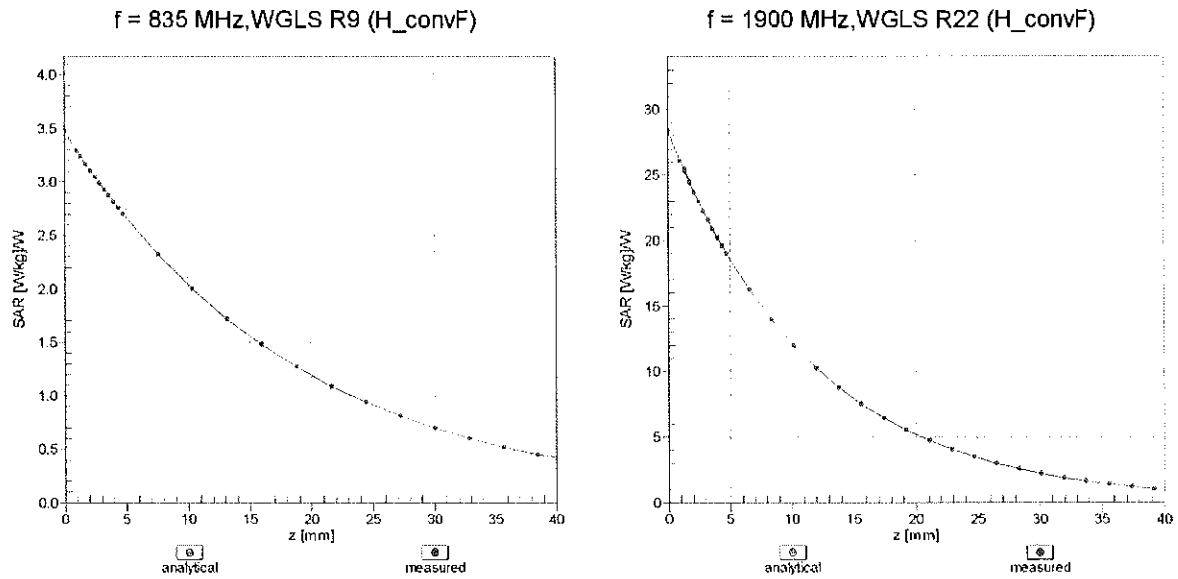
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range $f(\text{SAR}_{\text{head}})$
(TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$)



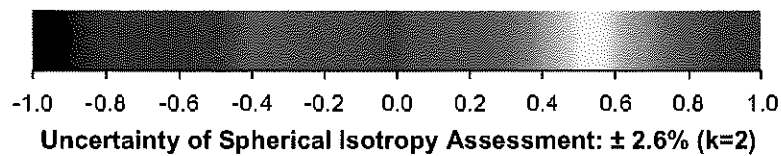
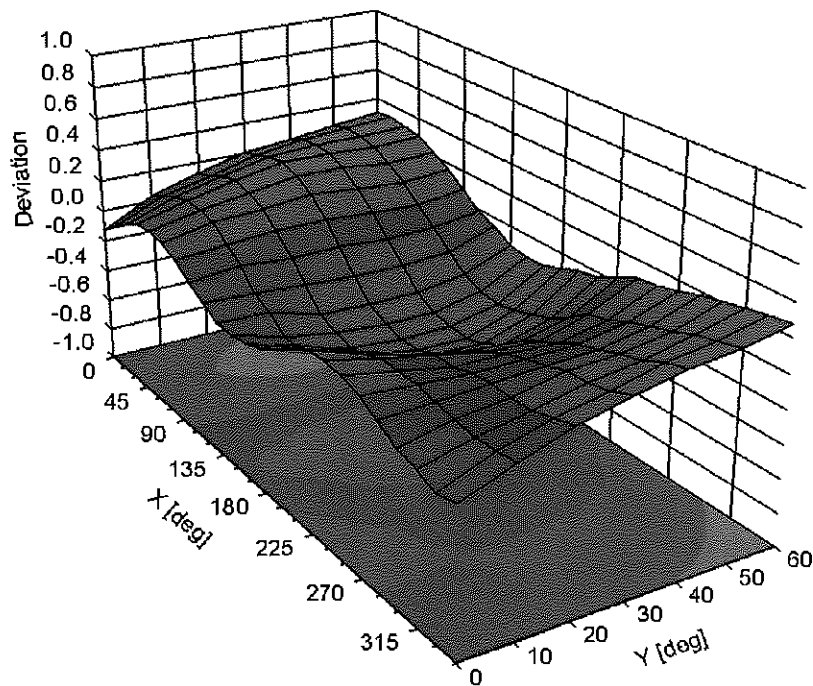
Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), $f = 900 \text{ MHz}$



DASY/EASY - Parameters of Probe: EX3DV4 - SN:7357

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	11.4
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu V}$	C	D dB	VR mV	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	151.5	$\pm 2.7\%$
		Y	0.00	0.00	1.00		139.1	
		Z	0.00	0.00	1.00		158.4	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	1.67	61.93	7.65	10.00	20.0	$\pm 9.6\%$
		Y	2.82	69.17	11.50		20.0	
		Z	1.68	62.20	7.72		20.0	
10011- CAB	UMTS-FDD (WCDMA)	X	0.91	67.36	14.64	0.00	150.0	$\pm 9.6\%$
		Y	1.03	67.52	15.32		150.0	
		Z	0.87	67.00	14.33		150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.03	63.20	14.83	0.41	150.0	$\pm 9.6\%$
		Y	1.15	63.79	15.34		150.0	
		Z	1.01	63.27	14.81		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	4.63	66.39	16.96	1.46	150.0	$\pm 9.6\%$
		Y	4.87	66.69	17.19		150.0	
		Z	4.64	66.53	16.99		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	3.67	70.27	12.79	9.39	50.0	$\pm 9.6\%$
		Y	100.00	116.17	27.83		50.0	
		Z	17.04	87.58	18.77		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	3.48	69.40	12.45	9.57	50.0	$\pm 9.6\%$
		Y	100.00	115.39	27.52		50.0	
		Z	8.91	80.25	16.55		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	1.80	66.18	9.84	6.56	60.0	$\pm 9.6\%$
		Y	100.00	120.19	28.55		60.0	
		Z	100.00	103.30	20.82		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	3.42	64.49	22.34	12.57	50.0	$\pm 9.6\%$
		Y	6.04	85.62	35.55		50.0	
		Z	3.44	65.04	22.85		50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	6.25	83.47	29.08	9.56	60.0	$\pm 9.6\%$
		Y	9.24	95.88	35.47		60.0	
		Z	6.56	85.41	30.17		60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	0.96	63.24	7.67	4.80	80.0	$\pm 9.6\%$
		Y	100.00	125.59	30.06		80.0	
		Z	100.00	100.14	18.62		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	0.48	60.36	5.50	3.55	100.0	$\pm 9.6\%$
		Y	100.00	132.37	32.13		100.0	
		Z	99.97	95.45	15.98		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	4.19	75.28	24.64	7.80	80.0	$\pm 9.6\%$
		Y	5.35	81.78	28.49		80.0	
		Z	4.26	76.21	25.31		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	1.09	63.09	7.76	5.30	70.0	$\pm 9.6\%$
		Y	100.00	120.14	28.06		70.0	
		Z	4.93	76.05	12.90		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	0.27	60.00	3.17	1.88	100.0	$\pm 9.6\%$
		Y	100.00	135.00	31.47		100.0	
		Z	0.26	60.00	3.07		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	27.08	314.20	3.36	1.17	100.0	± 9.6 %
		Y	100.00	149.06	35.68		100.0	
		Z	1.21	330.96	55.77		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	3.08	73.10	16.00	5.30	70.0	± 9.6 %
		Y	100.00	136.30	37.75		70.0	
		Z	7.37	86.92	21.69		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	1.25	65.91	11.39	1.88	100.0	± 9.6 %
		Y	5.27	87.77	22.72		100.0	
		Z	1.70	70.42	13.93		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	0.99	64.64	10.52	1.17	100.0	± 9.6 %
		Y	2.59	77.96	18.88		100.0	
		Z	1.19	67.26	12.19		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	3.48	74.91	16.77	5.30	70.0	± 9.6 %
		Y	100.00	136.90	38.02		70.0	
		Z	11.33	93.27	23.71		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	1.18	65.50	11.18	1.88	100.0	± 9.6 %
		Y	4.66	86.12	22.16		100.0	
		Z	1.56	69.56	13.55		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	1.00	64.92	10.78	1.17	100.0	± 9.6 %
		Y	2.61	78.41	19.18		100.0	
		Z	1.21	67.70	12.52		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	0.95	64.99	10.40	0.00	150.0	± 9.6 %
		Y	1.84	72.12	15.71		150.0	
		Z	1.02	65.84	10.98		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	1.77	64.37	9.09	7.78	50.0	± 9.6 %
		Y	100.00	113.16	25.71		50.0	
		Z	2.56	68.32	10.93		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.31	133.81	11.51	0.00	150.0	± 9.6 %
		Y	0.00	104.03	5.27		150.0	
		Z	0.33	142.49	0.98		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	4.01	66.51	12.74	13.80	25.0	± 9.6 %
		Y	100.00	110.91	26.95		25.0	
		Z	5.44	70.40	14.40		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	3.70	68.56	12.33	10.79	40.0	± 9.6 %
		Y	100.00	112.50	26.54		40.0	
		Z	5.22	72.87	14.17		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	6.09	76.95	17.81	9.03	50.0	± 9.6 %
		Y	100.00	128.62	35.43		50.0	
		Z	13.22	89.10	22.41		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	3.39	71.63	22.33	6.55	100.0	± 9.6 %
		Y	4.14	76.10	25.11		100.0	
		Z	3.42	72.27	22.83		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.03	63.98	15.22	0.61	110.0	± 9.6 %
		Y	1.18	64.90	16.05		110.0	
		Z	1.02	64.18	15.34		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	5.25	93.28	23.11	1.30	110.0	± 9.6 %
		Y	100.00	145.92	38.93		110.0	
		Z	39.44	123.36	31.22		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	1.80	74.31	19.24	2.04	110.0	± 9.6 %
		Y	3.02	83.93	24.56		110.0	
		Z	2.14	78.36	21.37		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.44	66.41	16.45	0.49	100.0	± 9.6 %
		Y	4.68	66.67	16.57		100.0	
		Z	4.45	66.51	16.42		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.45	66.48	16.52	0.72	100.0	± 9.6 %
		Y	4.69	66.78	16.69		100.0	
		Z	4.46	66.59	16.51		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.70	66.70	16.72	0.86	100.0	± 9.6 %
		Y	4.99	67.05	16.93		100.0	
		Z	4.72	66.83	16.73		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.56	66.53	16.77	1.21	100.0	± 9.6 %
		Y	4.85	66.96	17.05		100.0	
		Z	4.58	66.69	16.81		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.57	66.51	16.90	1.46	100.0	± 9.6 %
		Y	4.87	66.98	17.22		100.0	
		Z	4.60	66.69	16.96		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	4.86	66.77	17.36	2.04	100.0	± 9.6 %
		Y	5.15	67.13	17.68		100.0	
		Z	4.89	66.94	17.44		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	4.88	66.65	17.49	2.55	100.0	± 9.6 %
		Y	5.20	67.19	17.93		100.0	
		Z	4.91	66.87	17.60		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	4.95	66.72	17.70	2.67	100.0	± 9.6 %
		Y	5.28	67.17	18.11		100.0	
		Z	4.99	66.91	17.80		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.71	66.43	17.22	1.99	100.0	± 9.6 %
		Y	4.96	66.77	17.51		100.0	
		Z	4.73	66.59	17.28		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.67	66.65	17.37	2.30	100.0	± 9.6 %
		Y	4.94	67.10	17.75		100.0	
		Z	4.69	66.85	17.47		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	4.72	66.79	17.66	2.83	100.0	± 9.6 %
		Y	4.99	67.24	18.08		100.0	
		Z	4.75	67.01	17.79		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.72	66.70	17.78	3.30	100.0	± 9.6 %
		Y	4.95	67.09	18.23		100.0	
		Z	4.74	66.91	17.92		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	4.74	66.71	18.01	3.82	90.0	± 9.6 %
		Y	4.98	67.20	18.56		90.0	
		Z	4.76	66.94	18.18		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	4.77	66.58	18.17	4.15	90.0	± 9.6 %
		Y	4.98	66.93	18.66		90.0	
		Z	4.79	66.78	18.33		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	4.80	66.66	18.27	4.30	90.0	± 9.6 %
		Y	5.00	66.98	18.75		90.0	
		Z	4.82	66.86	18.43		90.0	

10081-CAB	CDMA2000 (1xRTT, RC3)	X	0.45	61.00	7.50	0.00	150.0	± 9.6 %
		Y	0.83	65.94	12.49		150.0	
		Z	0.46	61.34	7.83		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	0.68	60.00	3.10	4.77	80.0	± 9.6 %
		Y	0.78	61.11	4.54		80.0	
		Z	0.72	60.00	2.85		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	1.84	66.30	9.91	6.56	60.0	± 9.6 %
		Y	100.00	120.24	28.59		60.0	
		Z	100.00	103.44	20.90		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	1.71	67.90	15.28	0.00	150.0	± 9.6 %
		Y	1.82	67.70	15.69		150.0	
		Z	1.68	67.71	15.15		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.67	67.85	15.26	0.00	150.0	± 9.6 %
		Y	1.79	67.66	15.66		150.0	
		Z	1.64	67.65	15.11		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	6.29	83.56	29.10	9.56	60.0	± 9.6 %
		Y	9.34	96.14	35.56		60.0	
		Z	6.61	85.53	30.21		60.0	
10100-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	2.90	69.76	16.53	0.00	150.0	± 9.6 %
		Y	3.14	70.37	16.71		150.0	
		Z	2.89	69.82	16.39		150.0	
10101-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.04	67.08	15.83	0.00	150.0	± 9.6 %
		Y	3.24	67.51	15.94		150.0	
		Z	3.03	67.13	15.70		150.0	
10102-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.15	67.10	15.95	0.00	150.0	± 9.6 %
		Y	3.34	67.47	16.02		150.0	
		Z	3.13	67.15	15.83		150.0	
10103-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	4.81	72.04	18.88	3.98	65.0	± 9.6 %
		Y	6.41	77.25	21.56		65.0	
		Z	5.14	73.67	19.73		65.0	
10104-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	5.09	70.84	19.13	3.98	65.0	± 9.6 %
		Y	5.94	73.69	20.83		65.0	
		Z	5.16	71.44	19.51		65.0	
10105-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	4.78	69.37	18.75	3.98	65.0	± 9.6 %
		Y	5.83	73.15	20.89		65.0	
		Z	4.90	70.20	19.25		65.0	
10108-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	2.51	69.24	16.41	0.00	150.0	± 9.6 %
		Y	2.74	69.60	16.54		150.0	
		Z	2.49	69.21	16.24		150.0	
10109-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	2.68	67.06	15.67	0.00	150.0	± 9.6 %
		Y	2.89	67.36	15.84		150.0	
		Z	2.67	67.07	15.55		150.0	
10110-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	1.99	68.49	15.84	0.00	150.0	± 9.6 %
		Y	2.22	68.71	16.15		150.0	
		Z	1.98	68.38	15.68		150.0	
10111-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.41	68.19	15.80	0.00	150.0	± 9.6 %
		Y	2.61	68.17	16.11		150.0	
		Z	2.40	68.17	15.74		150.0	

10112-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	2.81	67.12	15.76	0.00	150.0	± 9.6 %
		Y	3.02	67.35	15.89		150.0	
		Z	2.80	67.12	15.64		150.0	
10113-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.56	68.40	15.97	0.00	150.0	± 9.6 %
		Y	2.76	68.30	16.24		150.0	
		Z	2.55	68.39	15.92		150.0	
10114-CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	4.95	66.96	16.54	0.00	150.0	± 9.6 %
		Y	5.12	67.17	16.44		150.0	
		Z	4.92	66.97	16.39		150.0	
10115-CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.23	67.14	16.63	0.00	150.0	± 9.6 %
		Y	5.41	67.31	16.52		150.0	
		Z	5.18	67.06	16.45		150.0	
10116-CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.04	67.18	16.57	0.00	150.0	± 9.6 %
		Y	5.22	67.37	16.47		150.0	
		Z	5.01	67.18	16.42		150.0	
10117-CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	4.94	66.92	16.53	0.00	150.0	± 9.6 %
		Y	5.09	67.03	16.39		150.0	
		Z	4.91	66.91	16.38		150.0	
10118-CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.34	67.47	16.81	0.00	150.0	± 9.6 %
		Y	5.50	67.52	16.63		150.0	
		Z	5.27	67.32	16.58		150.0	
10119-CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.06	67.24	16.61	0.00	150.0	± 9.6 %
		Y	5.20	67.31	16.45		150.0	
		Z	5.01	67.18	16.43		150.0	
10140-CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.17	67.11	15.85	0.00	150.0	± 9.6 %
		Y	3.38	67.48	15.94		150.0	
		Z	3.16	67.15	15.73		150.0	
10141-CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.30	67.28	16.06	0.00	150.0	± 9.6 %
		Y	3.50	67.57	16.11		150.0	
		Z	3.29	67.32	15.94		150.0	
10142-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	1.73	68.17	14.94	0.00	150.0	± 9.6 %
		Y	2.00	68.71	15.82		150.0	
		Z	1.72	68.11	14.89		150.0	
10143-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.15	68.15	14.63	0.00	150.0	± 9.6 %
		Y	2.47	68.91	15.82		150.0	
		Z	2.17	68.32	14.76		150.0	
10144-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	1.86	65.26	12.63	0.00	150.0	± 9.6 %
		Y	2.24	66.62	14.22		150.0	
		Z	1.88	65.43	12.77		150.0	
10145-CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	0.67	60.16	6.91	0.00	150.0	± 9.6 %
		Y	1.22	65.11	11.80		150.0	
		Z	0.71	60.61	7.39		150.0	
10146-CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	0.95	60.06	6.44	0.00	150.0	± 9.6 %
		Y	1.65	64.56	10.76		150.0	
		Z	1.07	61.07	7.44		150.0	
10147-CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	0.99	60.33	6.68	0.00	150.0	± 9.6 %
		Y	1.85	65.94	11.59		150.0	
		Z	1.13	61.55	7.80		150.0	

10149-CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.69	67.13	15.72	0.00	150.0	± 9.6 %
		Y	2.90	67.42	15.88		150.0	
		Z	2.68	67.14	15.60		150.0	
10150-CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	2.82	67.19	15.80	0.00	150.0	± 9.6 %
		Y	3.03	67.40	15.93		150.0	
		Z	2.81	67.19	15.69		150.0	
10151-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	5.01	74.56	19.93	3.98	65.0	± 9.6 %
		Y	6.65	79.71	22.70		65.0	
		Z	5.36	76.27	20.86		65.0	
10152-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	4.60	70.61	18.55	3.98	65.0	± 9.6 %
		Y	5.50	73.80	20.64		65.0	
		Z	4.69	71.33	19.06		65.0	
10153-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	4.95	71.72	19.46	3.98	65.0	± 9.6 %
		Y	5.84	74.66	21.37		65.0	
		Z	5.05	72.49	19.99		65.0	
10154-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.04	68.92	16.11	0.00	150.0	± 9.6 %
		Y	2.27	69.12	16.41		150.0	
		Z	2.03	68.83	15.96		150.0	
10155-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.41	68.23	15.84	0.00	150.0	± 9.6 %
		Y	2.61	68.18	16.13		150.0	
		Z	2.40	68.21	15.77		150.0	
10156-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.51	67.60	14.13	0.00	150.0	± 9.6 %
		Y	1.84	68.81	15.61		150.0	
		Z	1.52	67.67	14.19		150.0	
10157-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	1.63	65.15	12.07	0.00	150.0	± 9.6 %
		Y	2.08	67.20	14.25		150.0	
		Z	1.66	65.43	12.31		150.0	
10158-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.57	68.50	16.04	0.00	150.0	± 9.6 %
		Y	2.77	68.36	16.29		150.0	
		Z	2.56	68.48	15.98		150.0	
10159-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	1.70	65.38	12.24	0.00	150.0	± 9.6 %
		Y	2.19	67.65	14.54		150.0	
		Z	1.74	65.76	12.53		150.0	
10160-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.62	68.99	16.41	0.00	150.0	± 9.6 %
		Y	2.74	68.65	16.32		150.0	
		Z	2.56	68.70	16.16		150.0	
10161-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.71	67.15	15.66	0.00	150.0	± 9.6 %
		Y	2.92	67.34	15.86		150.0	
		Z	2.70	67.15	15.57		150.0	
10162-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	2.82	67.38	15.82	0.00	150.0	± 9.6 %
		Y	3.03	67.49	15.97		150.0	
		Z	2.81	67.37	15.72		150.0	
10166-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.14	68.82	18.96	3.01	150.0	± 9.6 %
		Y	3.40	68.62	18.58		150.0	
		Z	3.24	69.38	19.21		150.0	
10167-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	3.68	71.26	19.14	3.01	150.0	± 9.6 %
		Y	4.01	70.93	18.84		150.0	
		Z	3.86	71.98	19.46		150.0	

10168-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	4.20	74.21	20.88	3.01	150.0	± 9.6 %
		Y	4.39	72.91	20.06		150.0	
		Z	4.45	75.16	21.28		150.0	
10169-CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	2.49	66.95	18.11	3.01	150.0	± 9.6 %
		Y	2.73	67.59	18.14		150.0	
		Z	2.58	67.69	18.47		150.0	
10170-CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	3.17	72.06	20.27	3.01	150.0	± 9.6 %
		Y	3.45	72.20	20.01		150.0	
		Z	3.40	73.44	20.89		150.0	
10171-AAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	2.61	67.98	17.29	3.01	150.0	± 9.6 %
		Y	2.93	68.85	17.54		150.0	
		Z	2.74	68.83	17.69		150.0	
10172-CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	3.59	76.79	22.90	6.02	65.0	± 9.6 %
		Y	7.70	92.12	29.64		65.0	
		Z	4.50	82.04	25.61		65.0	
10173-CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	5.40	81.69	22.80	6.02	65.0	± 9.6 %
		Y	14.31	100.07	30.15		65.0	
		Z	8.60	91.21	26.84		65.0	
10174-CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	3.41	73.68	19.23	6.02	65.0	± 9.6 %
		Y	12.55	96.17	28.30		65.0	
		Z	5.50	82.57	23.30		65.0	
10175-CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.47	66.66	17.85	3.01	150.0	± 9.6 %
		Y	2.70	67.34	17.92		150.0	
		Z	2.55	67.36	18.19		150.0	
10176-CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	3.18	72.09	20.28	3.01	150.0	± 9.6 %
		Y	3.46	72.22	20.02		150.0	
		Z	3.41	73.46	20.90		150.0	
10177-CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.48	66.79	17.93	3.01	150.0	± 9.6 %
		Y	2.72	67.46	18.00		150.0	
		Z	2.57	67.51	18.28		150.0	
10178-CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	3.15	71.92	20.18	3.01	150.0	± 9.6 %
		Y	3.43	72.05	19.92		150.0	
		Z	3.38	73.25	20.78		150.0	
10179-CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	2.85	69.85	18.61	3.01	150.0	± 9.6 %
		Y	3.17	70.44	18.65		150.0	
		Z	3.03	70.94	19.12		150.0	
10180-CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	2.61	67.94	17.25	3.01	150.0	± 9.6 %
		Y	2.92	68.79	17.50		150.0	
		Z	2.74	68.78	17.65		150.0	
10181-CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.48	66.77	17.93	3.01	150.0	± 9.6 %
		Y	2.71	67.45	18.00		150.0	
		Z	2.56	67.49	18.28		150.0	
10182-CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	3.15	71.89	20.17	3.01	150.0	± 9.6 %
		Y	3.42	72.03	19.91		150.0	
		Z	3.37	73.22	20.77		150.0	
10183-AAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	2.60	67.92	17.24	3.01	150.0	± 9.6 %
		Y	2.92	68.77	17.49		150.0	
		Z	2.73	68.75	17.64		150.0	

10184-CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	2.49	66.81	17.95	3.01	150.0	± 9.6 %
		Y	2.72	67.49	18.02		150.0	
		Z	2.57	67.53	18.30		150.0	
10185-CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	3.16	71.97	20.21	3.01	150.0	± 9.6 %
		Y	3.44	72.09	19.94		150.0	
		Z	3.39	73.31	20.81		150.0	
10186-AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	2.62	67.98	17.28	3.01	150.0	± 9.6 %
		Y	2.93	68.83	17.52		150.0	
		Z	2.74	68.82	17.67		150.0	
10187-CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	2.50	66.88	18.03	3.01	150.0	± 9.6 %
		Y	2.73	67.53	18.08		150.0	
		Z	2.58	67.61	18.38		150.0	
10188-CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	3.26	72.60	20.60	3.01	150.0	± 9.6 %
		Y	3.53	72.62	20.27		150.0	
		Z	3.51	74.04	21.24		150.0	
10189-AAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	2.67	68.35	17.55	3.01	150.0	± 9.6 %
		Y	2.99	69.18	17.77		150.0	
		Z	2.80	69.24	17.97		150.0	
10193-CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.32	66.50	16.16	0.00	150.0	± 9.6 %
		Y	4.52	66.59	16.14		150.0	
		Z	4.31	66.50	16.05		150.0	
10194-CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.47	66.75	16.31	0.00	150.0	± 9.6 %
		Y	4.69	66.90	16.27		150.0	
		Z	4.46	66.77	16.19		150.0	
10195-CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.51	66.78	16.33	0.00	150.0	± 9.6 %
		Y	4.73	66.93	16.28		150.0	
		Z	4.50	66.80	16.21		150.0	
10196-CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.31	66.51	16.16	0.00	150.0	± 9.6 %
		Y	4.52	66.65	16.16		150.0	
		Z	4.30	66.52	16.05		150.0	
10197-CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.48	66.77	16.32	0.00	150.0	± 9.6 %
		Y	4.70	66.92	16.28		150.0	
		Z	4.47	66.78	16.20		150.0	
10198-CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.50	66.79	16.33	0.00	150.0	± 9.6 %
		Y	4.73	66.95	16.30		150.0	
		Z	4.49	66.81	16.22		150.0	
10219-CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.26	66.54	16.13	0.00	150.0	± 9.6 %
		Y	4.47	66.66	16.12		150.0	
		Z	4.25	66.55	16.01		150.0	
10220-CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.47	66.73	16.30	0.00	150.0	± 9.6 %
		Y	4.70	66.89	16.27		150.0	
		Z	4.46	66.74	16.19		150.0	
10221-CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.51	66.73	16.32	0.00	150.0	± 9.6 %
		Y	4.74	66.87	16.28		150.0	
		Z	4.51	66.74	16.20		150.0	
10222-CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	4.91	66.89	16.51	0.00	150.0	± 9.6 %
		Y	5.06	67.05	16.39		150.0	
		Z	4.88	66.88	16.36		150.0	

10223-CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.21	67.18	16.67	0.00	150.0	± 9.6 %
		Y	5.37	67.24	16.51		150.0	
		Z	5.17	67.14	16.51		150.0	
10224-CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	4.95	66.99	16.48	0.00	150.0	± 9.6 %
		Y	5.11	67.16	16.37		150.0	
		Z	4.91	66.98	16.33		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	2.57	65.87	14.82	0.00	150.0	± 9.6 %
		Y	2.79	66.10	15.32		150.0	
		Z	2.57	65.89	14.81		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	5.70	82.73	23.27	6.02	65.0	± 9.6 %
		Y	15.45	101.64	30.73		65.0	
		Z	9.36	92.89	27.50		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	5.51	81.11	22.01	6.02	65.0	± 9.6 %
		Y	15.16	99.52	29.37		65.0	
		Z	9.33	91.39	26.29		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	4.37	80.87	24.58	6.02	65.0	± 9.6 %
		Y	8.06	93.39	30.16		65.0	
		Z	5.51	86.54	27.40		65.0	
10229-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	5.43	81.78	22.83	6.02	65.0	± 9.6 %
		Y	14.43	100.19	30.19		65.0	
		Z	8.67	91.34	26.89		65.0	
10230-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	5.22	80.18	21.60	6.02	65.0	± 9.6 %
		Y	14.07	98.09	28.85		65.0	
		Z	8.56	89.82	25.70		65.0	
10231-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	4.21	80.08	24.19	6.02	65.0	± 9.6 %
		Y	7.72	92.42	29.75		65.0	
		Z	5.25	85.50	26.93		65.0	
10232-CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	5.42	81.76	22.83	6.02	65.0	± 9.6 %
		Y	14.40	100.18	30.19		65.0	
		Z	8.65	91.31	26.89		65.0	
10233-CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	5.21	80.16	21.59	6.02	65.0	± 9.6 %
		Y	14.03	98.05	28.84		65.0	
		Z	8.53	89.78	25.69		65.0	
10234-CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	4.09	79.41	23.80	6.02	65.0	± 9.6 %
		Y	7.46	91.57	29.34		65.0	
		Z	5.06	84.64	26.49		65.0	
10235-CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	5.43	81.79	22.84	6.02	65.0	± 9.6 %
		Y	14.42	100.22	30.20		65.0	
		Z	8.66	91.36	26.90		65.0	
10236-CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	5.25	80.28	21.63	6.02	65.0	± 9.6 %
		Y	14.26	98.30	28.91		65.0	
		Z	8.64	89.96	25.74		65.0	
10237-CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	4.21	80.11	24.20	6.02	65.0	± 9.6 %
		Y	7.73	92.49	29.78		65.0	
		Z	5.25	85.54	26.95		65.0	
10238-CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	5.41	81.74	22.82	6.02	65.0	± 9.6 %
		Y	14.37	100.15	30.18		65.0	
		Z	8.63	91.28	26.88		65.0	

10239-CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	5.19	80.13	21.58	6.02	65.0	± 9.6 %
		Y	13.97	98.01	28.83		65.0	
		Z	8.50	89.73	25.67		65.0	
10240-CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	4.20	80.08	24.19	6.02	65.0	± 9.6 %
		Y	7.71	92.44	29.76		65.0	
		Z	5.24	85.50	26.94		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	6.28	77.75	23.74	6.98	65.0	± 9.6 %
		Y	7.17	79.66	25.20		65.0	
		Z	6.62	79.11	24.64		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	5.61	75.51	22.71	6.98	65.0	± 9.6 %
		Y	7.01	79.22	24.95		65.0	
		Z	6.04	77.21	23.74		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	4.77	72.80	22.43	6.98	65.0	± 9.6 %
		Y	5.72	75.84	24.40		65.0	
		Z	4.99	73.88	23.19		65.0	
10244-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	3.08	66.71	12.88	3.98	65.0	± 9.6 %
		Y	5.65	76.51	19.16		65.0	
		Z	3.79	70.31	15.20		65.0	
10245-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	3.05	66.35	12.65	3.98	65.0	± 9.6 %
		Y	5.47	75.72	18.77		65.0	
		Z	3.68	69.62	14.83		65.0	
10246-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	2.73	68.50	14.10	3.98	65.0	± 9.6 %
		Y	6.90	84.10	22.59		65.0	
		Z	3.38	72.30	16.31		65.0	
10247-CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	3.32	68.16	14.83	3.98	65.0	± 9.6 %
		Y	5.00	75.29	19.75		65.0	
		Z	3.63	70.11	16.18		65.0	
10248-CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	3.35	67.83	14.68	3.98	65.0	± 9.6 %
		Y	4.95	74.49	19.36		65.0	
		Z	3.62	69.55	15.90		65.0	
10249-CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	3.90	73.79	17.79	3.98	65.0	± 9.6 %
		Y	7.87	86.63	24.46		65.0	
		Z	4.87	78.17	20.05		65.0	
10250-CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	4.46	72.43	19.10	3.98	65.0	± 9.6 %
		Y	5.61	76.63	21.92		65.0	
		Z	4.70	73.89	20.05		65.0	
10251-CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	4.27	70.46	17.79	3.98	65.0	± 9.6 %
		Y	5.36	74.41	20.57		65.0	
		Z	4.43	71.53	18.56		65.0	
10252-CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	4.80	76.28	20.36	3.98	65.0	± 9.6 %
		Y	7.12	83.67	24.31		65.0	
		Z	5.40	79.04	21.81		65.0	
10253-CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	4.54	70.25	18.29	3.98	65.0	± 9.6 %
		Y	5.37	73.18	20.35		65.0	
		Z	4.62	70.94	18.80		65.0	
10254-CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	4.85	71.22	19.07	3.98	65.0	± 9.6 %
		Y	5.69	74.00	21.02		65.0	
		Z	4.94	71.96	19.60		65.0	

10255-CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	4.83	74.07	19.88	3.98	65.0	± 9.6 %
		Y	6.20	78.60	22.49		65.0	
		Z	5.10	75.57	20.75		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	2.29	63.25	9.85	3.98	65.0	± 9.6 %
		Y	4.33	72.34	16.30		65.0	
		Z	2.61	65.28	11.48		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	2.28	62.96	9.60	3.98	65.0	± 9.6 %
		Y	4.16	71.35	15.76		65.0	
		Z	2.56	64.75	11.10		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.96	64.07	10.75	3.98	65.0	± 9.6 %
		Y	4.97	78.32	19.50		65.0	
		Z	2.22	66.21	12.33		65.0	
10259-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	3.77	69.86	16.44	3.98	65.0	± 9.6 %
		Y	5.26	75.82	20.54		65.0	
		Z	4.07	71.70	17.67		65.0	
10260-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	3.81	69.66	16.35	3.98	65.0	± 9.6 %
		Y	5.26	75.42	20.36		65.0	
		Z	4.10	71.41	17.53		65.0	
10261-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	4.13	74.31	18.63	3.98	65.0	± 9.6 %
		Y	6.91	83.89	23.89		65.0	
		Z	4.85	77.73	20.46		65.0	
10262-CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	4.45	72.36	19.04	3.98	65.0	± 9.6 %
		Y	5.60	76.58	21.88		65.0	
		Z	4.68	73.81	19.99		65.0	
10263-CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	4.26	70.44	17.79	3.98	65.0	± 9.6 %
		Y	5.34	74.38	20.56		65.0	
		Z	4.42	71.51	18.55		65.0	
10264-CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	4.75	76.08	20.25	3.98	65.0	± 9.6 %
		Y	7.04	83.44	24.20		65.0	
		Z	5.33	78.79	21.68		65.0	
10265-CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	4.60	70.61	18.56	3.98	65.0	± 9.6 %
		Y	5.50	73.80	20.64		65.0	
		Z	4.69	71.34	19.07		65.0	
10266-CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	4.95	71.71	19.45	3.98	65.0	± 9.6 %
		Y	5.83	74.64	21.36		65.0	
		Z	5.05	72.48	19.97		65.0	
10267-CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	5.01	74.52	19.91	3.98	65.0	± 9.6 %
		Y	6.63	79.66	22.68		65.0	
		Z	5.35	76.22	20.84		65.0	
10268-CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	5.27	70.89	19.25	3.98	65.0	± 9.6 %
		Y	6.07	73.43	20.81		65.0	
		Z	5.33	71.43	19.60		65.0	
10269-CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	5.29	70.58	19.15	3.98	65.0	± 9.6 %
		Y	6.04	72.94	20.64		65.0	
		Z	5.34	71.06	19.47		65.0	
10270-CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	5.17	72.58	19.33	3.98	65.0	± 9.6 %
		Y	6.28	76.09	21.29		65.0	
		Z	5.35	73.62	19.93		65.0	

10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.41	66.43	14.82	0.00	150.0	± 9.6 %
		Y	2.58	66.48	15.24		150.0	
		Z	2.39	66.38	14.76		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.45	67.76	15.04	0.00	150.0	± 9.6 %
		Y	1.61	67.98	15.58		150.0	
		Z	1.42	67.56	14.85		150.0	
10277-CAA	PHS (QPSK)	X	1.74	59.75	5.31	9.03	50.0	± 9.6 %
		Y	1.81	61.19	6.71		50.0	
		Z	1.73	59.88	5.41		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	2.71	64.14	10.09	9.03	50.0	± 9.6 %
		Y	10.58	86.01	20.92		50.0	
		Z	2.95	65.66	11.11		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	2.77	64.34	10.25	9.03	50.0	± 9.6 %
		Y	10.86	86.33	21.10		50.0	
		Z	3.03	65.92	11.30		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	0.78	62.91	9.04	0.00	150.0	± 9.6 %
		Y	1.44	68.67	13.91		150.0	
		Z	0.82	63.50	9.52		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	0.44	60.90	7.41	0.00	150.0	± 9.6 %
		Y	0.81	65.70	12.35		150.0	
		Z	0.46	61.22	7.73		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	0.52	62.90	8.81	0.00	150.0	± 9.6 %
		Y	1.08	70.34	14.96		150.0	
		Z	0.54	63.47	9.26		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	0.85	67.98	11.75	0.00	150.0	± 9.6 %
		Y	1.81	77.73	18.47		150.0	
		Z	0.93	69.19	12.44		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	10.59	83.36	20.91	9.03	50.0	± 9.6 %
		Y	13.63	95.28	28.15		50.0	
		Z	12.33	87.48	22.99		50.0	
10297-AAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.52	69.36	16.49	0.00	150.0	± 9.6 %
		Y	2.75	69.70	16.61		150.0	
		Z	2.51	69.33	16.32		150.0	
10298-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.02	63.71	10.46	0.00	150.0	± 9.6 %
		Y	1.56	67.65	14.07		150.0	
		Z	1.06	64.21	10.86		150.0	
10299-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	1.41	63.10	9.49	0.00	150.0	± 9.6 %
		Y	2.20	67.48	13.20		150.0	
		Z	1.66	65.04	10.89		150.0	
10300-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.19	60.99	7.64	0.00	150.0	± 9.6 %
		Y	1.75	63.96	10.73		150.0	
		Z	1.30	61.89	8.49		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.40	65.21	17.25	4.17	50.0	± 9.6 %
		Y	4.79	65.64	17.57		50.0	
		Z	4.51	65.62	17.36		50.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	4.89	66.01	18.10	4.96	50.0	± 9.6 %
		Y	5.23	66.10	18.21		50.0	
		Z	4.90	65.76	17.79		50.0	

10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	4.65	65.68	17.92	4.96	50.0	± 9.6 %
		Y	4.97	65.72	18.04		50.0	
		Z	4.66	65.38	17.59		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.43	65.21	17.19	4.17	50.0	± 9.6 %
		Y	4.78	65.59	17.51		50.0	
		Z	4.47	65.30	17.12		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.15	67.54	18.96	6.02	35.0	± 9.6 %
		Y	4.30	67.06	19.45		35.0	
		Z	4.22	67.78	19.08		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.43	66.43	18.72	6.02	35.0	± 9.6 %
		Y	4.66	66.30	19.12		35.0	
		Z	4.49	66.64	18.78		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.32	66.52	18.64	6.02	35.0	± 9.6 %
		Y	4.55	66.42	19.07		35.0	
		Z	4.38	66.74	18.71		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.30	66.75	18.79	6.02	35.0	± 9.6 %
		Y	4.52	66.60	19.20		35.0	
		Z	4.37	66.98	18.86		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.46	66.55	18.83	6.02	35.0	± 9.6 %
		Y	4.72	66.54	19.28		35.0	
		Z	4.52	66.77	18.90		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.39	66.51	18.71	6.02	35.0	± 9.6 %
		Y	4.60	66.34	19.08		35.0	
		Z	4.45	66.72	18.77		35.0	
10311-AAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	2.88	68.46	16.13	0.00	150.0	± 9.6 %
		Y	3.11	68.97	16.25		150.0	
		Z	2.86	68.50	15.98		150.0	
10313-AAA	iDEN 1:3	X	1.87	66.02	12.37	6.99	70.0	± 9.6 %
		Y	5.52	82.21	20.17		70.0	
		Z	2.06	67.90	13.38		70.0	
10314-AAA	iDEN 1:6	X	2.66	70.48	16.99	10.00	30.0	± 9.6 %
		Y	9.77	95.91	27.98		30.0	
		Z	4.14	77.84	20.07		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	0.95	63.27	14.86	0.17	150.0	± 9.6 %
		Y	1.06	63.68	15.21		150.0	
		Z	0.93	63.28	14.78		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.35	66.42	16.23	0.17	150.0	± 9.6 %
		Y	4.58	66.66	16.32		150.0	
		Z	4.34	66.49	16.17		150.0	
10317-AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.35	66.42	16.23	0.17	150.0	± 9.6 %
		Y	4.58	66.66	16.32		150.0	
		Z	4.34	66.49	16.17		150.0	
10400-AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.44	66.78	16.30	0.00	150.0	± 9.6 %
		Y	4.68	66.96	16.27		150.0	
		Z	4.43	66.80	16.17		150.0	
10401-AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.15	66.76	16.42	0.00	150.0	± 9.6 %
		Y	5.39	67.16	16.44		150.0	
		Z	5.17	66.92	16.36		150.0	

10402-AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.46	67.17	16.51	0.00	150.0	± 9.6 %
		Y	5.63	67.44	16.43		150.0	
		Z	5.43	67.19	16.37		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	0.78	62.91	9.04	0.00	115.0	± 9.6 %
		Y	1.44	68.67	13.91		115.0	
		Z	0.82	63.50	9.52		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	0.78	62.91	9.04	0.00	115.0	± 9.6 %
		Y	1.44	68.67	13.91		115.0	
		Z	0.82	63.50	9.52		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	119.25	28.40	0.00	100.0	± 9.6 %
		Y	9.50	91.59	22.98		100.0	
		Z	100.00	122.00	29.77		100.0	
10410-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	3.12	77.42	16.90	3.23	80.0	± 9.6 %
		Y	100.00	127.40	32.46		80.0	
		Z	100.00	125.01	30.73		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	0.90	62.74	14.48	0.00	150.0	± 9.6 %
		Y	1.00	62.96	14.62		150.0	
		Z	0.88	62.66	14.28		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.32	66.51	16.25	0.00	150.0	± 9.6 %
		Y	4.52	66.62	16.21		150.0	
		Z	4.30	66.52	16.13		150.0	
10417-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.32	66.51	16.25	0.00	150.0	± 9.6 %
		Y	4.52	66.62	16.21		150.0	
		Z	4.30	66.52	16.13		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	X	4.31	66.71	16.30	0.00	150.0	± 9.6 %
		Y	4.51	66.79	16.23		150.0	
		Z	4.30	66.71	16.18		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	X	4.33	66.64	16.29	0.00	150.0	± 9.6 %
		Y	4.53	66.73	16.23		150.0	
		Z	4.32	66.65	16.17		150.0	
10422-AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.44	66.62	16.30	0.00	150.0	± 9.6 %
		Y	4.65	66.73	16.25		150.0	
		Z	4.43	66.63	16.18		150.0	
10423-AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.57	66.89	16.39	0.00	150.0	± 9.6 %
		Y	4.81	67.05	16.36		150.0	
		Z	4.56	66.90	16.28		150.0	
10424-AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.50	66.84	16.37	0.00	150.0	± 9.6 %
		Y	4.73	67.00	16.33		150.0	
		Z	4.49	66.86	16.25		150.0	
10425-AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.17	67.18	16.65	0.00	150.0	± 9.6 %
		Y	5.33	67.30	16.51		150.0	
		Z	5.13	67.14	16.48		150.0	
10426-AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.23	67.40	16.76	0.00	150.0	± 9.6 %
		Y	5.34	67.33	16.52		150.0	
		Z	5.16	67.27	16.54		150.0	

10427-AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.16	67.07	16.58	0.00	150.0	± 9.6 %
		Y	5.35	67.30	16.51		150.0	
		Z	5.13	67.07	16.44		150.0	
10430-AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.20	72.13	18.43	0.00	150.0	± 9.6 %
		Y	4.22	70.70	18.10		150.0	
		Z	4.22	72.19	18.46		150.0	
10431-AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	3.93	67.10	16.09	0.00	150.0	± 9.6 %
		Y	4.20	67.18	16.20		150.0	
		Z	3.93	67.10	16.01		150.0	
10432-AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.26	66.93	16.28	0.00	150.0	± 9.6 %
		Y	4.50	67.05	16.28		150.0	
		Z	4.25	66.94	16.17		150.0	
10433-AAB	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.52	66.87	16.39	0.00	150.0	± 9.6 %
		Y	4.75	67.03	16.35		150.0	
		Z	4.51	66.89	16.27		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.28	72.84	18.10	0.00	150.0	± 9.6 %
		Y	4.33	71.56	18.07		150.0	
		Z	4.34	73.06	18.24		150.0	
10435-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.96	76.73	16.60	3.23	80.0	± 9.6 %
		Y	100.00	127.17	32.36		80.0	
		Z	100.00	124.69	30.58		80.0	
10447-AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.15	66.77	14.81	0.00	150.0	± 9.6 %
		Y	3.49	67.18	15.50		150.0	
		Z	3.17	66.84	14.85		150.0	
10448-AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	3.79	66.88	15.96	0.00	150.0	± 9.6 %
		Y	4.04	66.96	16.06		150.0	
		Z	3.79	66.88	15.87		150.0	
10449-AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.09	66.75	16.17	0.00	150.0	± 9.6 %
		Y	4.31	66.88	16.18		150.0	
		Z	4.08	66.77	16.07		150.0	
10450-AAB	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.31	66.64	16.24	0.00	150.0	± 9.6 %
		Y	4.51	66.80	16.21		150.0	
		Z	4.30	66.66	16.12		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	2.94	66.45	13.98	0.00	150.0	± 9.6 %
		Y	3.38	67.33	15.10		150.0	
		Z	2.98	66.61	14.10		150.0	
10456-AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.17	67.89	16.91	0.00	150.0	± 9.6 %
		Y	6.20	67.84	16.66		150.0	
		Z	6.10	67.86	16.74		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.65	65.21	15.97	0.00	150.0	± 9.6 %
		Y	3.78	65.27	15.92		150.0	
		Z	3.63	65.21	15.85		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.63	70.67	16.50	0.00	150.0	± 9.6 %
		Y	3.97	70.83	17.45		150.0	
		Z	3.75	71.23	16.87		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.91	69.28	18.19	0.00	150.0	± 9.6 %
		Y	5.06	68.34	18.09		150.0	
		Z	4.97	69.44	18.31		150.0	

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	0.82	68.91	15.77	0.00	150.0	± 9.6 %
		Y	0.90	68.29	16.15		150.0	
		Z	0.77	68.38	15.37		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.32	75.39	17.14	3.29	80.0	± 9.6 %
		Y	100.00	131.59	34.49		80.0	
		Z	100.00	129.59	32.92		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	7.09	3.23	80.0	± 9.6 %
		Y	4.63	77.57	16.00		80.0	
		Z	0.74	60.00	7.79		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.79	60.00	6.50	3.23	80.0	± 9.6 %
		Y	1.49	65.34	10.90		80.0	
		Z	0.76	60.00	7.16		80.0	
10464-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.48	69.57	14.21	3.23	80.0	± 9.6 %
		Y	100.00	128.72	32.98		80.0	
		Z	100.00	125.35	30.81		80.0	
10465-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	7.02	3.23	80.0	± 9.6 %
		Y	2.92	72.75	14.31		80.0	
		Z	0.74	60.00	7.72		80.0	
10466-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.79	60.00	6.46	3.23	80.0	± 9.6 %
		Y	1.30	63.97	10.25		80.0	
		Z	0.76	60.00	7.11		80.0	
10467-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.57	70.35	14.56	3.23	80.0	± 9.6 %
		Y	100.00	129.06	33.13		80.0	
		Z	100.00	125.82	31.02		80.0	
10468-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	7.04	3.23	80.0	± 9.6 %
		Y	3.25	73.90	14.73		80.0	
		Z	0.74	60.00	7.74		80.0	
10469-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.79	60.00	6.46	3.23	80.0	± 9.6 %
		Y	1.30	64.00	10.26		80.0	
		Z	0.76	60.00	7.11		80.0	
10470-AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.56	70.33	14.55	3.23	80.0	± 9.6 %
		Y	100.00	129.11	33.14		80.0	
		Z	100.00	125.84	31.01		80.0	
10471-AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	7.03	3.23	80.0	± 9.6 %
		Y	3.21	73.75	14.66		80.0	
		Z	0.74	60.00	7.73		80.0	
10472-AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.79	60.00	6.44	3.23	80.0	± 9.6 %
		Y	1.29	63.92	10.21		80.0	
		Z	0.76	60.00	7.09		80.0	
10473-AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.56	70.28	14.52	3.23	80.0	± 9.6 %
		Y	100.00	129.06	33.12		80.0	
		Z	100.00	125.78	30.99		80.0	
10474-AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	7.02	3.23	80.0	± 9.6 %
		Y	3.17	73.64	14.62		80.0	
		Z	0.74	60.00	7.73		80.0	
10475-AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.78	60.00	6.45	3.23	80.0	± 9.6 %
		Y	1.29	63.89	10.20		80.0	
		Z	0.76	60.00	7.09		80.0	

10477-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	0.76	60.00	7.00	3.23	80.0	± 9.6 %
		Y	2.91	72.72	14.27		80.0	
		Z	0.74	60.00	7.70		80.0	
10478-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.79	60.00	6.43	3.23	80.0	± 9.6 %
		Y	1.28	63.82	10.16		80.0	
		Z	0.76	60.00	7.08		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.36	78.87	19.25	3.23	80.0	± 9.6 %
		Y	6.72	85.93	23.37		80.0	
		Z	31.53	108.71	28.80		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.01	65.44	11.92	3.23	80.0	± 9.6 %
		Y	7.23	81.86	20.03		80.0	
		Z	6.32	79.43	17.87		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.64	62.93	10.36	3.23	80.0	± 9.6 %
		Y	5.72	78.02	18.32		80.0	
		Z	3.41	71.49	14.62		80.0	
10482-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.29	62.41	10.80	2.23	80.0	± 9.6 %
		Y	3.64	76.21	18.93		80.0	
		Z	1.66	65.83	12.91		80.0	
10483-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.52	61.14	9.55	2.23	80.0	± 9.6 %
		Y	4.09	73.43	17.03		80.0	
		Z	2.32	66.35	12.70		80.0	
10484-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.52	60.89	9.42	2.23	80.0	± 9.6 %
		Y	3.80	72.18	16.53		80.0	
		Z	2.19	65.41	12.27		80.0	
10485-AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.96	67.14	14.58	2.23	80.0	± 9.6 %
		Y	3.64	76.20	19.95		80.0	
		Z	2.47	70.93	16.63		80.0	
10486-AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.93	63.65	12.21	2.23	80.0	± 9.6 %
		Y	3.34	71.00	17.20		80.0	
		Z	2.25	65.99	13.71		80.0	
10487-AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.95	63.41	12.07	2.23	80.0	± 9.6 %
		Y	3.31	70.45	16.94		80.0	
		Z	2.25	65.61	13.50		80.0	
10488-AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.57	68.84	16.72	2.23	80.0	± 9.6 %
		Y	3.64	73.87	19.67		80.0	
		Z	2.88	71.05	17.92		80.0	
10489-AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.71	66.42	15.54	2.23	80.0	± 9.6 %
		Y	3.41	69.51	17.78		80.0	
		Z	2.89	67.77	16.40		80.0	
10490-AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.80	66.35	15.53	2.23	80.0	± 9.6 %
		Y	3.50	69.28	17.68		80.0	
		Z	2.97	67.63	16.34		80.0	
10491-AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.93	68.13	16.75	2.23	80.0	± 9.6 %
		Y	3.79	71.78	18.88		80.0	
		Z	3.14	69.61	17.57		80.0	
10492-AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.14	66.26	16.05	2.23	80.0	± 9.6 %
		Y	3.72	68.46	17.58		80.0	
		Z	3.26	67.14	16.60		80.0	

10493-AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.20	66.19	16.02	2.23	80.0	± 9.6 %
		Y	3.78	68.30	17.52		80.0	
		Z	3.32	67.03	16.55		80.0	
10494-AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.09	69.16	17.09	2.23	80.0	± 9.6 %
		Y	4.18	73.66	19.49		80.0	
		Z	3.38	70.96	18.01		80.0	
10495-AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.16	66.52	16.26	2.23	80.0	± 9.6 %
		Y	3.75	68.86	17.79		80.0	
		Z	3.28	67.44	16.81		80.0	
10496-AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.25	66.39	16.25	2.23	80.0	± 9.6 %
		Y	3.82	68.54	17.67		80.0	
		Z	3.36	67.23	16.76		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	0.98	60.00	8.08	2.23	80.0	± 9.6 %
		Y	2.67	71.65	16.05		80.0	
		Z	0.96	60.00	8.56		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.18	60.00	7.01	2.23	80.0	± 9.6 %
		Y	1.73	63.28	11.10		80.0	
		Z	1.15	60.00	7.42		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.20	60.00	6.87	2.23	80.0	± 9.6 %
		Y	1.65	62.50	10.55		80.0	
		Z	1.17	60.00	7.27		80.0	
10500-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.22	67.95	15.51	2.23	80.0	± 9.6 %
		Y	3.54	74.72	19.65		80.0	
		Z	2.63	70.95	17.16		80.0	
10501-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.29	65.10	13.66	2.23	80.0	± 9.6 %
		Y	3.38	70.39	17.41		80.0	
		Z	2.58	67.13	14.94		80.0	
10502-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.32	64.94	13.52	2.23	80.0	± 9.6 %
		Y	3.43	70.21	17.27		80.0	
		Z	2.61	66.92	14.77		80.0	
10503-AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.54	68.66	16.62	2.23	80.0	± 9.6 %
		Y	3.60	73.66	19.57		80.0	
		Z	2.84	70.82	17.80		80.0	
10504-AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.69	66.32	15.48	2.23	80.0	± 9.6 %
		Y	3.40	69.42	17.73		80.0	
		Z	2.87	67.65	16.32		80.0	
10505-AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.78	66.26	15.46	2.23	80.0	± 9.6 %
		Y	3.48	69.19	17.63		80.0	
		Z	2.96	67.52	16.27		80.0	
10506-AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.07	69.03	17.01	2.23	80.0	± 9.6 %
		Y	4.15	73.51	19.42		80.0	
		Z	3.35	70.80	17.93		80.0	
10507-AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.15	66.46	16.22	2.23	80.0	± 9.6 %
		Y	3.73	68.80	17.76		80.0	
		Z	3.26	67.37	16.77		80.0	

10508-AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.24	66.32	16.20	2.23	80.0	± 9.6 %
		Y	3.81	68.47	17.63		80.0	
		Z	3.35	67.15	16.71		80.0	
10509-AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.51	68.36	16.83	2.23	80.0	± 9.6 %
		Y	4.41	71.84	18.68		80.0	
		Z	3.72	69.67	17.51		80.0	
10510-AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.65	66.40	16.44	2.23	80.0	± 9.6 %
		Y	4.20	68.42	17.64		80.0	
		Z	3.74	67.11	16.83		80.0	
10511-AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.72	66.27	16.42	2.23	80.0	± 9.6 %
		Y	4.25	68.13	17.55		80.0	
		Z	3.81	66.92	16.79		80.0	
10512-AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.53	69.27	17.06	2.23	80.0	± 9.6 %
		Y	4.71	73.81	19.35		80.0	
		Z	3.83	70.97	17.89		80.0	
10513-AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.53	66.49	16.47	2.23	80.0	± 9.6 %
		Y	4.09	68.73	17.78		80.0	
		Z	3.62	67.27	16.91		80.0	
10514-AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.58	66.23	16.41	2.23	80.0	± 9.6 %
		Y	4.11	68.25	17.62		80.0	
		Z	3.67	66.92	16.81		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.86	62.95	14.53	0.00	150.0	± 9.6 %
		Y	0.96	63.14	14.68		150.0	
		Z	0.84	62.85	14.32		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.68	75.09	17.93	0.00	150.0	± 9.6 %
		Y	0.60	70.79	17.39		150.0	
		Z	0.59	73.58	17.02		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.71	65.13	15.13	0.00	150.0	± 9.6 %
		Y	0.81	65.08	15.31		150.0	
		Z	0.69	64.87	14.81		150.0	
10518-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.31	66.61	16.23	0.00	150.0	± 9.6 %
		Y	4.51	66.70	16.19		150.0	
		Z	4.30	66.61	16.12		150.0	
10519-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.46	66.79	16.33	0.00	150.0	± 9.6 %
		Y	4.69	66.93	16.31		150.0	
		Z	4.45	66.80	16.22		150.0	
10520-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.32	66.72	16.24	0.00	150.0	± 9.6 %
		Y	4.55	66.89	16.23		150.0	
		Z	4.31	66.74	16.13		150.0	
10521-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.25	66.68	16.22	0.00	150.0	± 9.6 %
		Y	4.48	66.88	16.21		150.0	
		Z	4.24	66.71	16.11		150.0	
10522-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.30	66.84	16.33	0.00	150.0	± 9.6 %
		Y	4.54	66.98	16.30		150.0	
		Z	4.30	66.85	16.22		150.0	

10523-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.22	66.79	16.22	0.00	150.0	± 9.6 %
		Y	4.42	66.85	16.15		150.0	
		Z	4.21	66.79	16.10		150.0	
10524-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.25	66.78	16.31	0.00	150.0	± 9.6 %
		Y	4.48	66.90	16.27		150.0	
		Z	4.24	66.79	16.19		150.0	
10525-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.28	65.85	15.93	0.00	150.0	± 9.6 %
		Y	4.47	65.95	15.86		150.0	
		Z	4.27	65.86	15.81		150.0	
10526-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.41	66.15	16.05	0.00	150.0	± 9.6 %
		Y	4.64	66.31	16.00		150.0	
		Z	4.40	66.17	15.93		150.0	
10527-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.34	66.11	15.98	0.00	150.0	± 9.6 %
		Y	4.56	66.27	15.95		150.0	
		Z	4.33	66.13	15.87		150.0	
10528-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.35	66.13	16.02	0.00	150.0	± 9.6 %
		Y	4.58	66.29	15.98		150.0	
		Z	4.34	66.15	15.90		150.0	
10529-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.35	66.13	16.02	0.00	150.0	± 9.6 %
		Y	4.58	66.29	15.98		150.0	
		Z	4.34	66.15	15.90		150.0	
10531-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.32	66.16	16.00	0.00	150.0	± 9.6 %
		Y	4.57	66.39	15.99		150.0	
		Z	4.31	66.19	15.89		150.0	
10532-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.20	66.01	15.92	0.00	150.0	± 9.6 %
		Y	4.43	66.24	15.92		150.0	
		Z	4.19	66.04	15.81		150.0	
10533-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.36	66.21	16.02	0.00	150.0	± 9.6 %
		Y	4.59	66.34	15.97		150.0	
		Z	4.35	66.22	15.90		150.0	
10534-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	4.94	66.18	16.13	0.00	150.0	± 9.6 %
		Y	5.11	66.38	16.03		150.0	
		Z	4.91	66.20	15.99		150.0	
10535-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	4.99	66.35	16.21	0.00	150.0	± 9.6 %
		Y	5.18	66.56	16.12		150.0	
		Z	4.97	66.36	16.07		150.0	
10536-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	4.87	66.32	16.17	0.00	150.0	± 9.6 %
		Y	5.05	66.51	16.07		150.0	
		Z	4.85	66.34	16.04		150.0	
10537-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	4.94	66.34	16.18	0.00	150.0	± 9.6 %
		Y	5.10	66.48	16.06		150.0	
		Z	4.91	66.31	16.03		150.0	
10538-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.01	66.30	16.21	0.00	150.0	± 9.6 %
		Y	5.19	66.49	16.11		150.0	
		Z	4.98	66.30	16.06		150.0	
10540-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	4.93	66.22	16.18	0.00	150.0	± 9.6 %
		Y	5.13	66.52	16.13		150.0	
		Z	4.91	66.26	16.06		150.0	

10541-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	4.90	66.09	16.10	0.00	150.0	± 9.6 %
		Y	5.10	66.38	16.06		150.0	
		Z	4.88	66.13	15.98		150.0	
10542-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.07	66.24	16.19	0.00	150.0	± 9.6 %
		Y	5.25	66.45	16.11		150.0	
		Z	5.04	66.26	16.06		150.0	
10543-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.16	66.37	16.29	0.00	150.0	± 9.6 %
		Y	5.33	66.48	16.14		150.0	
		Z	5.12	66.32	16.12		150.0	
10544-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.28	66.21	16.10	0.00	150.0	± 9.6 %
		Y	5.42	66.50	16.03		150.0	
		Z	5.25	66.26	15.98		150.0	
10545-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.51	66.84	16.38	0.00	150.0	± 9.6 %
		Y	5.61	66.90	16.18		150.0	
		Z	5.45	66.77	16.19		150.0	
10546-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.32	66.36	16.14	0.00	150.0	± 9.6 %
		Y	5.48	66.70	16.10		150.0	
		Z	5.29	66.40	16.02		150.0	
10547-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.43	66.58	16.25	0.00	150.0	± 9.6 %
		Y	5.55	66.74	16.11		150.0	
		Z	5.37	66.52	16.07		150.0	
10548-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.67	67.49	16.67	0.00	150.0	± 9.6 %
		Y	5.79	67.62	16.52		150.0	
		Z	5.59	67.37	16.46		150.0	
10550-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.44	66.73	16.35	0.00	150.0	± 9.6 %
		Y	5.51	66.72	16.12		150.0	
		Z	5.36	66.62	16.14		150.0	
10551-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.31	66.31	16.10	0.00	150.0	± 9.6 %
		Y	5.52	66.76	16.10		150.0	
		Z	5.30	66.41	15.99		150.0	
10552-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.28	66.30	16.09	0.00	150.0	± 9.6 %
		Y	5.44	66.57	16.01		150.0	
		Z	5.25	66.34	15.96		150.0	
10553-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.34	66.26	16.10	0.00	150.0	± 9.6 %
		Y	5.52	66.60	16.06		150.0	
		Z	5.31	66.32	15.98		150.0	
10554-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.72	66.58	16.20	0.00	150.0	± 9.6 %
		Y	5.83	66.86	16.12		150.0	
		Z	5.67	66.61	16.06		150.0	
10555-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	5.84	66.90	16.34	0.00	150.0	± 9.6 %
		Y	5.95	67.15	16.24		150.0	
		Z	5.79	66.90	16.19		150.0	
10556-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	5.87	66.98	16.38	0.00	150.0	± 9.6 %
		Y	5.98	67.20	16.26		150.0	
		Z	5.82	66.99	16.23		150.0	
10557-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	5.81	66.79	16.30	0.00	150.0	± 9.6 %
		Y	5.94	67.10	16.23		150.0	
		Z	5.77	66.83	16.17		150.0	

10558-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	5.82	66.86	16.35	0.00	150.0	± 9.6 %
		Y	5.99	67.26	16.33		150.0	
		Z	5.79	66.94	16.24		150.0	
10560-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	5.84	66.78	16.35	0.00	150.0	± 9.6 %
		Y	5.98	67.11	16.29		150.0	
		Z	5.80	66.82	16.22		150.0	
10561-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.78	66.81	16.39	0.00	150.0	± 9.6 %
		Y	5.91	67.08	16.31		150.0	
		Z	5.74	66.84	16.26		150.0	
10562-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	5.83	66.94	16.46	0.00	150.0	± 9.6 %
		Y	6.02	67.44	16.49		150.0	
		Z	5.80	67.03	16.35		150.0	
10563-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	5.98	67.08	16.50	0.00	150.0	± 9.6 %
		Y	6.21	67.62	16.54		150.0	
		Z	5.91	67.01	16.31		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	4.63	66.62	16.36	0.46	150.0	± 9.6 %
		Y	4.84	66.79	16.36		150.0	
		Z	4.61	66.63	16.24		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	4.83	67.05	16.69	0.46	150.0	± 9.6 %
		Y	5.06	67.22	16.67		150.0	
		Z	4.82	67.07	16.58		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	4.66	66.85	16.48	0.46	150.0	± 9.6 %
		Y	4.90	67.07	16.49		150.0	
		Z	4.65	66.88	16.38		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	4.70	67.27	16.87	0.46	150.0	± 9.6 %
		Y	4.93	67.45	16.84		150.0	
		Z	4.69	67.33	16.78		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	4.56	66.58	16.20	0.46	150.0	± 9.6 %
		Y	4.81	66.86	16.28		150.0	
		Z	4.55	66.62	16.10		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	4.68	67.48	17.00	0.46	150.0	± 9.6 %
		Y	4.88	67.55	16.91		150.0	
		Z	4.67	67.53	16.91		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	4.69	67.30	16.91	0.46	150.0	± 9.6 %
		Y	4.92	67.39	16.83		150.0	
		Z	4.68	67.31	16.79		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.00	63.45	14.91	0.46	130.0	± 9.6 %
		Y	1.13	64.20	15.58		130.0	
		Z	0.98	63.57	14.96		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.01	64.01	15.28	0.46	130.0	± 9.6 %
		Y	1.14	64.75	15.94		130.0	
		Z	0.99	64.16	15.34		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	1.87	85.75	21.98	0.46	130.0	± 9.6 %
		Y	1.92	86.55	24.04		130.0	
		Z	2.25	89.51	23.31		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.08	70.06	18.36	0.46	130.0	± 9.6 %
		Y	1.22	70.33	18.86		130.0	
		Z	1.09	70.58	18.62		130.0	

10575-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	X	4.39	66.32	16.32	0.46	130.0	± 9.6 %
		Y	4.62	66.58	16.43		130.0	
		Z	4.39	66.40	16.27		130.0	
10576-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	X	4.42	66.53	16.41	0.46	130.0	± 9.6 %
		Y	4.65	66.74	16.49		130.0	
		Z	4.42	66.60	16.36		130.0	
10577-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	X	4.59	66.78	16.57	0.46	130.0	± 9.6 %
		Y	4.85	67.03	16.66		130.0	
		Z	4.59	66.86	16.52		130.0	
10578-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	X	4.49	66.94	16.68	0.46	130.0	± 9.6 %
		Y	4.74	67.18	16.75		130.0	
		Z	4.50	67.02	16.64		130.0	
10579-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	X	4.24	66.07	15.88	0.46	130.0	± 9.6 %
		Y	4.51	66.48	16.08		130.0	
		Z	4.24	66.15	15.83		130.0	
10580-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	X	4.28	66.14	15.91	0.46	130.0	± 9.6 %
		Y	4.56	66.53	16.11		130.0	
		Z	4.29	66.22	15.86		130.0	
10581-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	X	4.40	66.99	16.63	0.46	130.0	± 9.6 %
		Y	4.64	67.22	16.70		130.0	
		Z	4.40	67.08	16.59		130.0	
10582-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	X	4.17	65.84	15.66	0.46	130.0	± 9.6 %
		Y	4.45	66.25	15.88		130.0	
		Z	4.18	65.90	15.60		130.0	
10583-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.39	66.32	16.32	0.46	130.0	± 9.6 %
		Y	4.62	66.58	16.43		130.0	
		Z	4.39	66.40	16.27		130.0	
10584-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.42	66.53	16.41	0.46	130.0	± 9.6 %
		Y	4.65	66.74	16.49		130.0	
		Z	4.42	66.60	16.36		130.0	
10585-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.59	66.78	16.57	0.46	130.0	± 9.6 %
		Y	4.85	67.03	16.66		130.0	
		Z	4.59	66.86	16.52		130.0	
10586-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.49	66.94	16.68	0.46	130.0	± 9.6 %
		Y	4.74	67.18	16.75		130.0	
		Z	4.50	67.02	16.64		130.0	
10587-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.24	66.07	15.88	0.46	130.0	± 9.6 %
		Y	4.51	66.48	16.08		130.0	
		Z	4.24	66.15	15.83		130.0	
10588-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.28	66.14	15.91	0.46	130.0	± 9.6 %
		Y	4.56	66.53	16.11		130.0	
		Z	4.29	66.22	15.86		130.0	
10589-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.40	66.99	16.63	0.46	130.0	± 9.6 %
		Y	4.64	67.22	16.70		130.0	
		Z	4.40	67.08	16.59		130.0	
10590-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.17	65.84	15.66	0.46	130.0	± 9.6 %
		Y	4.45	66.25	15.88		130.0	
		Z	4.18	65.90	15.60		130.0	

10591-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.55	66.42	16.46	0.46	130.0	± 9.6 %
		Y	4.78	66.64	16.53		130.0	
		Z	4.55	66.49	16.40		130.0	
10592-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	4.67	66.72	16.59	0.46	130.0	± 9.6 %
		Y	4.93	66.98	16.66		130.0	
		Z	4.68	66.80	16.53		130.0	
10593-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.59	66.59	16.43	0.46	130.0	± 9.6 %
		Y	4.85	66.88	16.54		130.0	
		Z	4.59	66.67	16.38		130.0	
10594-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.64	66.77	16.61	0.46	130.0	± 9.6 %
		Y	4.90	67.05	16.69		130.0	
		Z	4.65	66.86	16.56		130.0	
10595-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.61	66.75	16.51	0.46	130.0	± 9.6 %
		Y	4.87	67.00	16.59		130.0	
		Z	4.61	66.82	16.45		130.0	
10596-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.54	66.71	16.50	0.46	130.0	± 9.6 %
		Y	4.80	67.00	16.60		130.0	
		Z	4.54	66.79	16.44		130.0	
10597-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.49	66.57	16.34	0.46	130.0	± 9.6 %
		Y	4.75	66.90	16.48		130.0	
		Z	4.49	66.65	16.29		130.0	
10598-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.48	66.81	16.63	0.46	130.0	± 9.6 %
		Y	4.73	67.12	16.73		130.0	
		Z	4.49	66.91	16.58		130.0	
10599-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.31	67.13	16.85	0.46	130.0	± 9.6 %
		Y	5.45	67.20	16.74		130.0	
		Z	5.25	67.05	16.69		130.0	
10600-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.48	67.76	17.14	0.46	130.0	± 9.6 %
		Y	5.57	67.58	16.91		130.0	
		Z	5.39	67.54	16.90		130.0	
10601-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.31	67.28	16.91	0.46	130.0	± 9.6 %
		Y	5.47	67.34	16.80		130.0	
		Z	5.27	67.22	16.76		130.0	
10602-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.43	67.41	16.89	0.46	130.0	± 9.6 %
		Y	5.56	67.39	16.75		130.0	
		Z	5.40	67.36	16.75		130.0	
10603-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.54	67.82	17.25	0.46	130.0	± 9.6 %
		Y	5.64	67.67	17.02		130.0	
		Z	5.49	67.76	17.09		130.0	
10604-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.42	67.47	17.05	0.46	130.0	± 9.6 %
		Y	5.46	67.19	16.76		130.0	
		Z	5.37	67.38	16.88		130.0	
10605-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.43	67.47	17.04	0.46	130.0	± 9.6 %
		Y	5.56	67.49	16.91		130.0	
		Z	5.37	67.38	16.87		130.0	
10606-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.17	66.77	16.54	0.46	130.0	± 9.6 %
		Y	5.31	66.83	16.45		130.0	
		Z	5.12	66.68	16.37		130.0	

10607-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.40	65.75	16.09	0.46	130.0	± 9.6 %
		Y	4.62	65.97	16.16		130.0	
		Z	4.40	65.83	16.04		130.0	
10608-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.54	66.09	16.24	0.46	130.0	± 9.6 %
		Y	4.80	66.37	16.32		130.0	
		Z	4.55	66.18	16.20		130.0	
10609-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.43	65.91	16.05	0.46	130.0	± 9.6 %
		Y	4.69	66.22	16.16		130.0	
		Z	4.44	66.00	16.00		130.0	
10610-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.49	66.09	16.23	0.46	130.0	± 9.6 %
		Y	4.74	66.38	16.32		130.0	
		Z	4.49	66.18	16.19		130.0	
10611-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.40	65.88	16.06	0.46	130.0	± 9.6 %
		Y	4.66	66.19	16.17		130.0	
		Z	4.40	65.97	16.02		130.0	
10612-AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.39	66.01	16.10	0.46	130.0	± 9.6 %
		Y	4.66	66.35	16.22		130.0	
		Z	4.40	66.10	16.06		130.0	
10613-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.38	65.82	15.94	0.46	130.0	± 9.6 %
		Y	4.67	66.22	16.10		130.0	
		Z	4.39	65.92	15.90		130.0	
10614-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.35	66.06	16.21	0.46	130.0	± 9.6 %
		Y	4.61	66.40	16.32		130.0	
		Z	4.36	66.17	16.17		130.0	
10615-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.39	65.69	15.81	0.46	130.0	± 9.6 %
		Y	4.66	66.03	15.96		130.0	
		Z	4.39	65.77	15.76		130.0	
10616-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.07	66.15	16.34	0.46	130.0	± 9.6 %
		Y	5.27	66.44	16.35		130.0	
		Z	5.05	66.21	16.25		130.0	
10617-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.14	66.37	16.43	0.46	130.0	± 9.6 %
		Y	5.34	66.62	16.41		130.0	
		Z	5.12	66.42	16.33		130.0	
10618-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.03	66.38	16.45	0.46	130.0	± 9.6 %
		Y	5.22	66.62	16.43		130.0	
		Z	5.02	66.45	16.36		130.0	
10619-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.07	66.24	16.31	0.46	130.0	± 9.6 %
		Y	5.24	66.43	16.27		130.0	
		Z	5.03	66.23	16.18		130.0	
10620-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.13	66.23	16.35	0.46	130.0	± 9.6 %
		Y	5.33	66.47	16.34		130.0	
		Z	5.11	66.25	16.24		130.0	
10621-AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.12	66.28	16.51	0.46	130.0	± 9.6 %
		Y	5.33	66.60	16.51		130.0	
		Z	5.11	66.38	16.44		130.0	
10622-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.11	66.38	16.55	0.46	130.0	± 9.6 %
		Y	5.34	66.76	16.59		130.0	
		Z	5.11	66.50	16.49		130.0	

10623-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	4.99	65.86	16.14	0.46	130.0	± 9.6 %
		Y	5.22	66.30	16.24		130.0	
		Z	4.98	65.96	16.08		130.0	
10624-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.20	66.20	16.38	0.46	130.0	± 9.6 %
		Y	5.41	66.49	16.39		130.0	
		Z	5.19	66.26	16.30		130.0	
10625-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.30	66.37	16.54	0.46	130.0	± 9.6 %
		Y	5.75	67.41	16.90		130.0	
		Z	5.33	66.58	16.52		130.0	
10626-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.40	66.14	16.28	0.46	130.0	± 9.6 %
		Y	5.57	66.51	16.31		130.0	
		Z	5.38	66.23	16.21		130.0	
10627-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.71	67.03	16.70	0.46	130.0	± 9.6 %
		Y	5.80	67.06	16.54		130.0	
		Z	5.65	66.96	16.54		130.0	
10628-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.40	66.15	16.18	0.46	130.0	± 9.6 %
		Y	5.60	66.59	16.25		130.0	
		Z	5.38	66.23	16.10		130.0	
10629-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.55	66.49	16.35	0.46	130.0	± 9.6 %
		Y	5.67	66.64	16.26		130.0	
		Z	5.49	66.42	16.19		130.0	
10630-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	5.95	67.89	17.05	0.46	130.0	± 9.6 %
		Y	6.08	68.07	16.98		130.0	
		Z	5.84	67.71	16.83		130.0	
10631-AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.77	67.48	17.05	0.46	130.0	± 9.6 %
		Y	5.99	67.89	17.07		130.0	
		Z	5.74	67.53	16.95		130.0	
10632-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.72	67.25	16.96	0.46	130.0	± 9.6 %
		Y	5.77	67.11	16.70		130.0	
		Z	5.64	67.12	16.77		130.0	
10633-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.44	66.28	16.29	0.46	130.0	± 9.6 %
		Y	5.66	66.76	16.36		130.0	
		Z	5.44	66.43	16.24		130.0	
10634-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.44	66.38	16.39	0.46	130.0	± 9.6 %
		Y	5.64	66.78	16.43		130.0	
		Z	5.43	66.48	16.32		130.0	
10635-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.30	65.61	15.72	0.46	130.0	± 9.6 %
		Y	5.53	66.14	15.85		130.0	
		Z	5.29	65.70	15.64		130.0	
10636-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	5.86	66.55	16.40	0.46	130.0	± 9.6 %
		Y	5.98	66.87	16.39		130.0	
		Z	5.82	66.61	16.30		130.0	
10637-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.02	66.98	16.61	0.46	130.0	± 9.6 %
		Y	6.13	67.25	16.56		130.0	
		Z	5.97	67.00	16.48		130.0	
10638-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.03	67.01	16.60	0.46	130.0	± 9.6 %
		Y	6.13	67.22	16.53		130.0	
		Z	5.97	67.00	16.46		130.0	

10639-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	5.96	66.80	16.53	0.46	130.0	± 9.6 %
		Y	6.11	67.17	16.55		130.0	
		Z	5.93	66.87	16.44		130.0	
10640-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	5.92	66.70	16.42	0.46	130.0	± 9.6 %
		Y	6.12	67.19	16.50		130.0	
		Z	5.91	66.82	16.35		130.0	
10641-AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.06	66.91	16.55	0.46	130.0	± 9.6 %
		Y	6.16	67.10	16.47		130.0	
		Z	6.01	66.89	16.41		130.0	
10642-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.04	66.98	16.76	0.46	130.0	± 9.6 %
		Y	6.20	67.33	16.75		130.0	
		Z	6.02	67.07	16.68		130.0	
10643-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	5.90	66.69	16.50	0.46	130.0	± 9.6 %
		Y	6.04	67.03	16.51		130.0	
		Z	5.87	66.78	16.42		130.0	
10644-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	5.95	66.86	16.60	0.46	130.0	± 9.6 %
		Y	6.19	67.50	16.76		130.0	
		Z	5.94	66.99	16.54		130.0	
10645-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.44	67.99	17.14	0.46	130.0	± 9.6 %
		Y	6.47	67.94	16.94		130.0	
		Z	6.16	67.33	16.68		130.0	
10646-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	7.50	90.48	30.44	9.30	60.0	± 9.6 %
		Y	17.43	112.38	39.34		60.0	
		Z	9.26	96.56	33.29		60.0	
10647-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	6.74	88.72	29.93	9.30	60.0	± 9.6 %
		Y	14.54	108.61	38.31		60.0	
		Z	8.10	94.14	32.60		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	0.39	60.00	6.32	0.00	150.0	± 9.6 %
		Y	0.67	63.31	10.55		150.0	
		Z	0.38	60.00	6.43		150.0	
10652-AAB	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.10	65.49	15.51	2.23	80.0	± 9.6 %
		Y	3.52	66.85	16.73		80.0	
		Z	3.18	66.07	15.91		80.0	
10653-AAB	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	3.70	65.11	16.04	2.23	80.0	± 9.6 %
		Y	4.03	66.07	16.78		80.0	
		Z	3.73	65.44	16.24		80.0	
10654-AAB	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	3.73	64.77	16.12	2.23	80.0	± 9.6 %
		Y	4.00	65.69	16.76		80.0	
		Z	3.74	65.07	16.28		80.0	
10655-AAB	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	3.81	64.71	16.17	2.23	80.0	± 9.6 %
		Y	4.06	65.68	16.79		80.0	
		Z	3.81	65.01	16.32		80.0	
10658-AAA	Pulse Waveform (200Hz, 10%)	X	3.06	66.59	11.16	10.00	50.0	± 9.6 %
		Y	100.00	111.68	26.09		50.0	
		Z	3.93	69.81	12.66		50.0	
10659-AAA	Pulse Waveform (200Hz, 20%)	X	1.63	63.81	8.65	6.99	60.0	± 9.6 %
		Y	100.00	113.13	25.67		60.0	
		Z	2.52	68.36	10.82		60.0	

10660-AAA	Pulse Waveform (200Hz, 40%)	X	0.57	60.00	5.26	3.98	80.0	± 9.6 %
		Y	100.00	118.24	26.52		80.0	
		Z	0.68	61.70	6.30		80.0	
10661-AAA	Pulse Waveform (200Hz, 60%)	X	0.32	60.00	3.83	2.22	100.0	± 9.6 %
		Y	100.00	125.46	28.15		100.0	
		Z	0.29	60.00	3.83		100.0	
10662-AAA	Pulse Waveform (200Hz, 80%)	X	7.43	367.15	53.93	0.97	120.0	± 9.6 %
		Y	100.00	135.73	30.13		120.0	
		Z	0.00	228.51	107.76		120.0	

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

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):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

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	2450	5200 - 5800	5200 - 5800
Tissue	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Ingredients (% by weight)												
Bactericide	See page 2-3	See page 2	0.1	0.1					See page 4		See page 5	See page 6
DGBE					47	31	44.92	29.44		26.7		
HEC			1	1								
NaCl			1.45	0.94	0.4	0.2	0.18	0.39		0.1		
Sucrose			57	44.9								
Water			40.45	53.06	52.6	68.8	54.9	70.17		73.2		

FCC ID ZNFV450PM		SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/28/18 - 01/31/19	DUT Type: Portable Handset			APPENDIX D: Page 1 of 6

2 Composition / Information on ingredients

The Item is composed of the following ingredients:

H ₂ O	Water, 35 – 58%
Sucrose	Sugar, white, refined, 40 – 60%
NaCl	Sodium Chloride, 0 – 6%
Hydroxyethyl-cellulose	Medium Viscosity (CAS# 9004-62-0), <0.3%
Preventol-D7	Preservative: aqueous preparation, (CAS# 55965-84-9), containing 5-chloro-2-methyl-3(2H)-isothiazolone and 2-methyl-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.

Schmid & Partner Engineering AG

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

Measurement Certificate / Material Test

Item Name	Body Tissue Simulating Liquid (MSL750V2)
Product No.	SL AAM 075 AA (Batch: 170608-1)
Manufacturer	SPEAG

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

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

Target Parameters

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

Test Condition

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

Additional Information

TSL Density	1.212 g/cm ³
TSL Heat-capacity	3.006 kJ/(kg*K)

f [MHz]	Measured			Target		Diff.to Target [%]	
	e'	e''	sigma	eps	sigma	Δ-eps	Δ-sigma
600	57.3	25.02	0.84	56.1	0.95	2.2	-12.2
625	57.1	24.67	0.86	56.0	0.95	1.9	-10.1
650	56.8	24.32	0.88	55.9	0.96	1.6	-8.0
675	56.6	24.02	0.90	55.8	0.96	1.3	-5.8
700	56.3	23.71	0.92	55.7	0.96	1.1	-3.8
725	56.1	23.48	0.95	55.6	0.96	0.8	-1.5
750	55.9	23.25	0.97	55.5	0.96	0.6	0.7
775	55.6	23.04	0.99	55.4	0.97	0.3	2.9
800	55.4	22.82	1.02	55.3	0.97	0.1	5.0
825	55.2	22.65	1.04	55.2	0.98	-0.1	6.3
838	55.1	22.56	1.05	55.2	0.98	-0.3	6.9
850	54.9	22.47	1.06	55.2	0.99	-0.4	7.5
875	54.7	22.34	1.09	55.1	1.02	-0.7	6.7
900	54.5	22.21	1.11	55.0	1.05	-0.9	5.9
925	54.3	22.08	1.14	55.0	1.06	-1.3	6.9
950	54.1	21.95	1.16	54.9	1.08	-1.6	7.9
975	53.8	21.86	1.19	54.9	1.09	-1.9	9.1
1000	53.6	21.76	1.21	54.8	1.10	-2.2	10.2

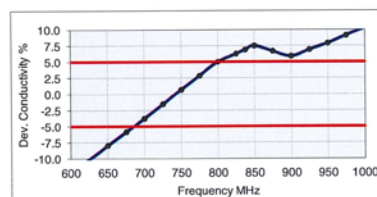
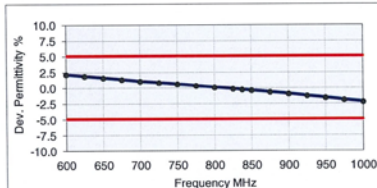


Figure D-2

750MHz Body Tissue Equivalent Matter

FCC ID ZNFV450PM		SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/28/18 - 01/31/19	DUT Type: Portable Handset			APPENDIX D: Page 2 of 6

Measurement Certificate / Material Test

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

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

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

Target Parameters

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

Test Condition

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

Additional Information

TSL Density 1.284 g/cm^3
 TSL Heat-capacity $2.701 \text{ kJ/(kg}^\circ\text{K)}$

f [MHz]	Measured			Target		Diff.to Target [%]	
	e'	e''	sigma	eps	sigma	$\Delta\text{-eps}$	$\Delta\text{-sigma}$
600	45.6	22.97	0.77	42.7	0.88	6.7	-13.1
625	45.2	22.73	0.79	42.6	0.88	6.2	-10.6
650	44.9	22.49	0.81	42.5	0.89	5.6	-8.2
675	44.5	22.27	0.84	42.3	0.89	5.1	-5.8
700	44.2	22.05	0.86	42.2	0.89	4.6	-3.5
725	43.8	21.88	0.88	42.1	0.89	4.2	-1.0
750	43.5	21.72	0.91	41.9	0.89	3.8	1.4
775	43.2	21.55	0.93	41.8	0.90	3.4	3.7
800	42.9	21.38	0.95	41.7	0.90	2.9	6.0
825	42.6	21.24	0.97	41.6	0.91	2.4	7.5
838	42.5	21.17	0.99	41.5	0.91	2.2	8.2
850	42.3	21.09	1.00	41.5	0.92	2.0	8.9
875	42.0	20.98	1.02	41.5	0.94	1.2	8.3
900	41.7	20.87	1.05	41.5	0.97	0.5	7.7
925	41.5	20.76	1.07	41.5	0.98	0.0	8.7
950	41.2	20.64	1.09	41.4	0.99	-0.6	9.7
975	40.9	20.55	1.11	41.4	1.00	-1.1	10.9
1000	40.6	20.46	1.14	41.3	1.01	-1.7	12.1

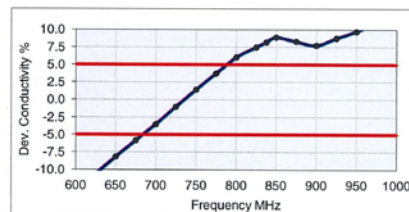
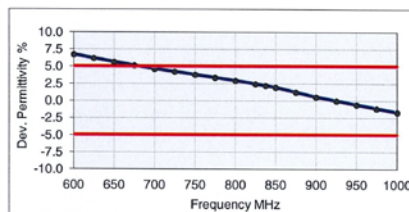


Figure D-3
750MHz Head Tissue Equivalent Matter

FCC ID ZNFV450PM		SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/28/18 - 01/31/19	DUT Type: Portable Handset			APPENDIX D: Page 3 of 6

3 Composition / Information on ingredients

The Item is composed of the following ingredients:

Water	50 – 73 %	
Non-ionic detergents	25 – 50 %	polyoxyethylenesorbitan monolaurate
NaCl	0 – 2 %	
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-methyl-3(2H)-isothiazolone
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CAS-No. 9005-64-5	< 50 %	polyoxyethylenesorbitan monolaurate
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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 GHz Head Tissue Equivalent Matter

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

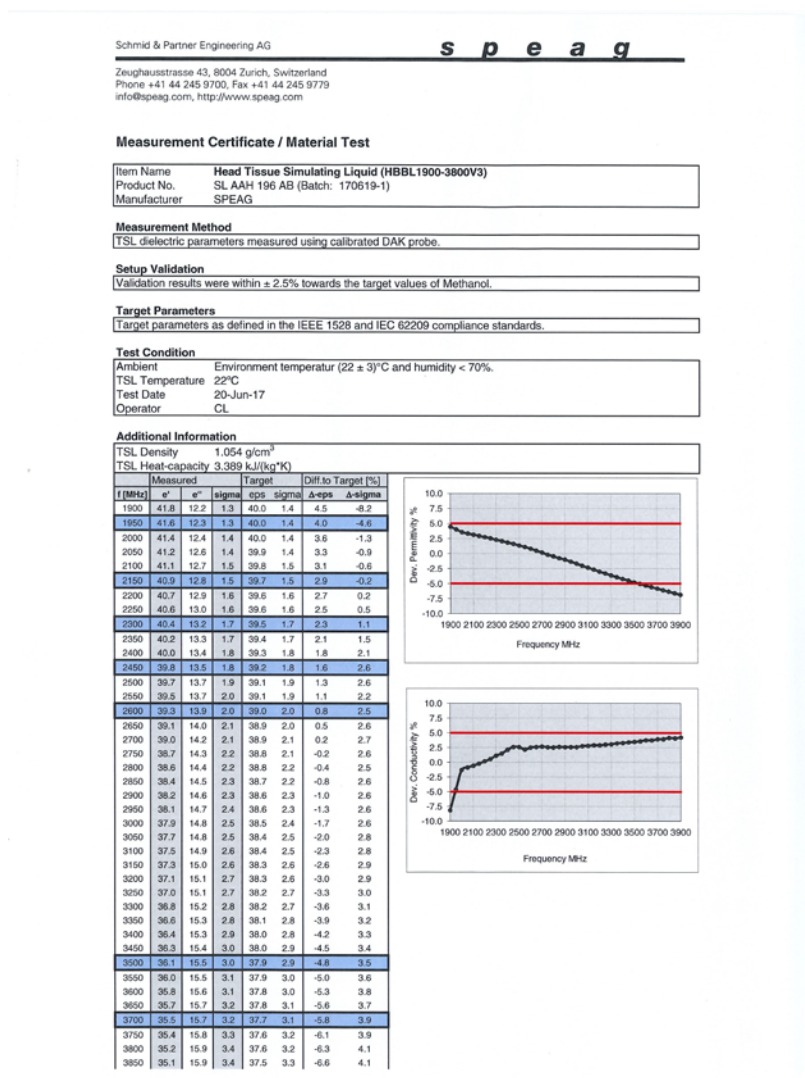


Figure D-5
2.4 GHz Head Tissue Equivalent Matter

FCC ID ZNFV450PM		SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/28/18 - 01/31/19	DUT Type: Portable Handset			APPENDIX D: Page 4 of 6

2 Composition / Information on ingredients

The Item is composed of the following ingredients:

Water	50 – 65%
Mineral oil	10 – 30%
Emulsifiers	8 – 25%
Sodium salt	0 – 1.5%

Figure D-6

Composition of 5 GHz Head Tissue Equivalent Matter

Note: 5 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.

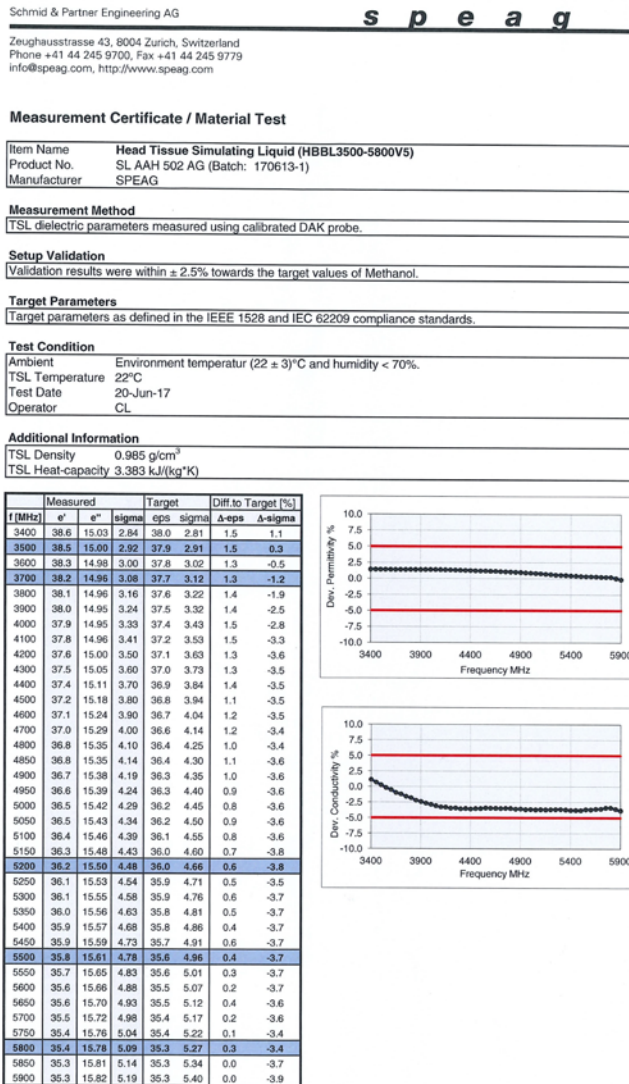


Figure D-7

5 GHz Head Tissue Equivalent Matter

FCC ID ZNFV450PM		SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/28/18 - 01/31/19	DUT Type: Portable Handset			APPENDIX D: Page 5 of 6

3 Composition / Information on ingredients

The Item is composed of the following ingredients:

Water	60 – 80%
Esters, Emulsifiers, Inhibitors	20 – 40%
Sodium salt	0 – 1.5%

Figure D-8
Composition of 5 GHz Body Tissue Equivalent Matter

Note: 5 GHz Body 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.

Schmid & Partner Engineering AG

s p e a g

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

Measurement Certificate / Material Test

Item Name: Body Tissue Simulating Liquid (MBBL3500-5800V5)
Product No.: SL AAM 501 EA (Batch: 180423-2)
Manufacturer: SPEAG

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

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

Target Parameters

Target parameters as defined in the KDB 865664 compliance standard.

Test Condition

Ambient: Environment temperatur (22 ± 3)°C and humidity < 70%.
TSL Temperature: 22°C
Test Date: 25-Apr-18
Operator: WM

Additional Information

TSL Density: 0.996 g/cm³
TSL Heat-capacity: 3.765 kJ/(kg·K)

f [MHz]	Measured			Target		Diff.to Target [%]	
	ϵ'	ϵ''	sigma	ϵ'	sigma	$\Delta\epsilon'$	$\Delta\epsilon''$
3400	50.7	16.46	3.11	51.5	3.20	-1.5	-2.7
3500	50.5	16.50	3.21	51.3	3.31	-1.6	-3.1
3600	50.4	16.56	3.32	51.2	3.43	-1.5	-3.2
3700	50.3	16.62	3.42	51.1	3.55	-1.5	-3.6
3800	50.2	16.72	3.53	50.9	3.66	-1.4	-3.7
3900	50.1	16.81	3.65	50.8	3.78	-1.3	-3.5
4000	49.9	16.93	3.77	50.6	3.90	-1.5	-3.3
4100	49.8	17.05	3.89	50.5	4.01	-1.4	-3.1
4200	49.6	17.18	4.01	50.4	4.13	-1.5	-2.9
4300	49.5	17.32	4.14	50.2	4.25	-1.5	-2.5
4400	49.3	17.46	4.27	50.1	4.37	-1.6	-2.2
4500	49.2	17.59	4.40	50.0	4.48	-1.5	-1.8
4600	49.0	17.73	4.54	49.8	4.60	-1.7	-1.3
4700	48.8	17.86	4.67	49.7	4.72	-1.8	-1.0
4800	48.6	17.99	4.80	49.6	4.83	-1.9	-0.7
4850	48.5	18.05	4.87	49.5	4.89	-2.0	-0.4
4900	48.4	18.11	4.94	49.4	4.95	-2.1	-0.2
4950	48.3	18.17	5.00	49.4	5.01	-2.1	-0.1
5000	48.2	18.23	5.07	49.3	5.07	-2.2	0.1
5050	48.1	18.29	5.14	49.2	5.12	-2.3	0.3
5100	48.0	18.34	5.20	49.2	5.18	-2.3	0.3
5150	47.9	18.39	5.27	49.1	5.24	-2.4	0.6
5200	47.9	18.45	5.34	49.0	5.30	-2.3	0.8
5250	47.8	18.50	5.40	48.9	5.36	-2.3	0.8
5300	47.7	18.56	5.47	48.9	5.42	-2.4	1.0
5350	47.6	18.61	5.54	48.8	5.47	-2.5	1.2
5400	47.5	18.67	5.61	48.7	5.53	-2.5	1.4
5450	47.4	18.72	5.68	48.7	5.59	-2.6	1.6
5500	47.3	18.77	5.74	48.6	5.65	-2.7	1.6
5550	47.2	18.83	5.81	48.5	5.71	-2.8	1.8
5600	47.1	18.88	5.88	48.5	5.77	-2.8	2.0
5650	47.1	18.93	5.95	48.4	5.82	-2.7	2.1
5700	47.0	18.99	6.02	48.3	5.88	-2.8	2.3
5750	46.9	19.04	6.09	48.3	5.94	-2.8	2.5
5800	46.8	19.10	6.16	48.2	6.00	-2.9	2.7
5850	46.7	19.16	6.23	48.1	6.06	-3.0	2.8
5900	46.6	19.22	6.31	48.1	6.12	-3.0	3.2

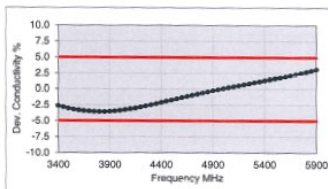
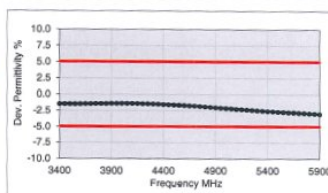


Figure D-9
5 GHz Body Tissue Equivalent Matter

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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-1
SAR System Validation Summary – 1g

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (ϵ_r)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
M	750	11/2/2018	3287	750	Head	0.908	42.19	PASS	PASS	PASS	N/A	N/A	N/A
G	835	8/9/2018	7410	835	Head	0.889	40.915	PASS	PASS	PASS	GMSK	PASS	N/A
M	1750	11/5/2018	3287	1750	Head	1.342	39.217	PASS	PASS	PASS	N/A	N/A	N/A
I	1750	1/7/2019	7406	1750	Head	1.341	39.591	PASS	PASS	PASS	N/A	N/A	N/A
H	1900	7/16/2018	7409	1900	Head	1.425	40.935	PASS	PASS	PASS	GMSK	PASS	N/A
G	2450	8/7/2018	7410	2450	Head	1.865	39.618	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
I	2450	12/24/2018	7406	2450	Head	1.797	38.399	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
I	2600	12/24/2018	7406	2600	Head	1.961	37.812	PASS	PASS	PASS	TDD	PASS	N/A
H	5250	7/5/2018	7409	5250	Head	4.492	34.994	PASS	PASS	PASS	OFDM	N/A	PASS
H	5600	7/5/2018	7409	5600	Head	4.839	34.496	PASS	PASS	PASS	OFDM	N/A	PASS
H	5750	7/5/2018	7409	5750	Head	4.995	34.288	PASS	PASS	PASS	OFDM	N/A	PASS
D	750	8/15/2018	7357	750	Body	0.97	53.479	PASS	PASS	PASS	N/A	N/A	N/A
I	835	8/8/2018	7406	835	Body	0.98	53.497	PASS	PASS	PASS	GMSK	PASS	N/A
J	835	9/11/2018	3347	835	Body	0.984	54.197	PASS	PASS	PASS	GMSK	PASS	N/A
M	1750	11/1/2018	3287	1750	Body	1.506	51.717	PASS	PASS	PASS	N/A	N/A	N/A
J	1750	9/5/2018	3347	1750	Body	1.454	53.515	PASS	PASS	PASS	N/A	N/A	N/A
E	1900	8/9/2018	3213	1900	Body	1.57	51.136	PASS	PASS	PASS	GMSK	PASS	N/A
H	1900	9/25/2018	7409	1900	Body	1.541	50.669	PASS	PASS	PASS	GMSK	PASS	N/A
E	1900	12/3/2018	3332	1900	Body	1.518	51.796	PASS	PASS	PASS	GMSK	PASS	N/A
G	1900	8/10/2018	7410	1900	Body	1.567	52.239	PASS	PASS	PASS	GMSK	PASS	N/A
K	2450	4/3/2018	3319	2450	Body	2.043	51.13	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
K	2600	4/3/2018	3319	2600	Body	2.225	50.665	PASS	PASS	PASS	TDD	PASS	N/A
L	5250	10/29/2018	7308	5250	Body	5.511	48.77	PASS	PASS	PASS	OFDM	N/A	PASS
L	5600	10/29/2018	7308	5600	Body	5.994	48.2	PASS	PASS	PASS	OFDM	N/A	PASS
L	5750	10/29/2018	7308	5750	Body	6.219	47.96	PASS	PASS	PASS	OFDM	N/A	PASS

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Table E-2
SAR System Validation Summary – 10g

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (ϵ_r)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
J	1750	9/5/2018	3347	1750	Body	1.454	53.515	PASS	PASS	PASS	N/A	N/A	N/A
M	1750	11/1/2018	3287	1750	Body	1.506	51.717	PASS	PASS	PASS	N/A	N/A	N/A
H	1900	9/25/2018	7409	1900	Body	1.541	50.669	PASS	PASS	PASS	GMSK	PASS	N/A
E	1900	12/3/2018	3332	1900	Body	1.518	51.796	PASS	PASS	PASS	GMSK	PASS	N/A
D	5250	6/11/2018	7357	5250	Body	5.529	48.096	PASS	PASS	PASS	OFDM	N/A	PASS
D	5600	6/11/2018	7357	5600	Body	6.007	47.521	PASS	PASS	PASS	OFDM	N/A	PASS
D	5750	6/11/2018	7357	5750	Body	6.214	47.275	PASS	PASS	PASS	OFDM	N/A	PASS

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

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APPENDIX G POWER REDUCTION VERIFICATION

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

G.1 Power Verification Procedure

The power verification was performed according to the following procedure:

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

G.2 Distance Verification Procedure

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

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

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G.3 Main Antenna Verification Summary

Table G-1
Power Measurement Verification for Main Antenna

Mechanism(s)	Mode/Band	Conducted Power (dBm)	
1st		Un-triggered (Max)	Mechanism #1 (Reduced)
Grip	UMTS 1750	24.98	23.81
Grip	UMTS 1900	24.77	23.66
Grip	PCS CDMA	24.47	23.46
Grip	LTE FDD Band 4	25.07	24.17
Grip	LTE FDD Band 66	25.09	24.11
Grip	LTE FDD Band 2	24.63	23.85
Grip	LTE FDD Band 25	24.7	23.91

Table G-2
Distance Measurement Verification for Main Antenna

Mechanism(s)	Test Condition	Band	Distance Measurements (mm)		Minimum Distance per Manufacturer (mm)
			Moving Toward	Moving Away	
Grip	Body - Back Side	Mid	4	7	3
Grip	Body - Front Side	Mid	5	7	2
Grip	Body - Bottom Edge	Mid	7	9	4

*Note: Mid band refers to: CDMA BC1, UMTS B2/4, LTE B2/4/25/66

G.4 WIFI Verification Summary

Table G-3
Power Measurement Verification WIFI

Mechanism(s)	Mode/Band	Conducted Power (dBm)	
1st		Un-triggered (Max)	Mechanism #1 (Reduced)
Held-to-Ear	802.11b	19.42	17.22
Held-to-Ear	802.11g	18.05	17.47
Held-to-Ear	802.11n (2.4GHz)	17.61	17.18

*Note: MIMO WIFI modes were not evaluated due to equipment limitations.

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APPENDIX H: DOWNLINK LTE CA RF CONDUCTED POWERS

1.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.

Table 1 – Example of Exclusion Table for SISO Configurations

[illegible]

Table 2 – Example of Exclusion Table for 4x4 Downlink MIMO Configurations

Table 2 External Interference Analysis for 5.8 GHz ISM Configuration													
Index	ZFC	Supported Channel Bandwidth (MHz)		Restriction	Completely Covered by Measurement Super	Index	ZFC	Supported Channel Bandwidth (MHz)			Restriction	Completely Covered by Measurement Super	
		CC1	CC2					CC1	CC2	CC3			CC4
DCI-RM1	CA [2C]	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM1	CA [2A]-2A-4A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
DCI-RM2	CA [10A]-3A	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM2	CA [2A]-2A-6A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
DCI-RM3	CA [2A]-2A	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM3	CA [2A]-2A-12A	5.10, 15, 20	5.10, 15, 20	5.10		Yes	
DCI-RM4	CA [2A]-4A(2)	5.10, 15, 20	5.10, 15, 20		No	DCI-RM4	CA [2A]-2A-13A	5.10, 15, 20	5.10, 15, 20	5.10		No	
DCI-RM5	CA [2A]-10A(4)(2)	5.10, 15, 20	5.10, 15, 20		No	DCI-RM5	CA [2A]-2A-14A	5.10, 15, 20	5.10, 15, 20	5.10		No	
DCI-RM6	CA [2A]-3A	5.10, 15, 20			Yes	DCI-RM6	CA [2A]-2A-15A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
DCI-RM7	CA [2A]-3A(1)	5.10, 15, 20	3.6, 10		Yes	DCI-RM7	CA [2C]-6Aa	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
DCI-RM8	CA [10A]-3A	5.10, 15, 20	10		Yes	DCI-RM8	CA [2C]-16Aa	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
DCI-RM9	CA [2A]-37A	5, 10	5, 10		No	DCI-RM9	CA [2A]-2A-66A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		No	
DCI-RM10	CA [2A]-29A(2)	5.10, 15, 20	5, 10	B29 SC Only	Yes	DCI-RM10	CA [2A]-36A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		No	
DCI-RM11	CA [2A]-66A	5.10, 15, 20	5, 10		Yes	DCI-RM11	CA [2A]-37A	5.10, 15, 20	5.10, 15, 20	5.10		No	
DCI-RM12	CA [2A]-66A(2)	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM12	CA [2A]-4A-29A	5.10, 15, 20	5.10, 15, 20	5.10	B29 SC Only	No	
DCI-RM13	CA [2A]-66A(2)	5.10, 15, 20			Yes	DCI-RM13	CA [2A]-4A-71A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		No	
DCI-RM14	CA [2A]-16A(4)	5.10, 15, 20	5.10, 15, 20		No	DCI-RM14	CA [2A]-58A	5.10, 15, 20				Yes	
DCI-RM15	CA [2A]-71A	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM15	CA [2A]-58A-66A	5.10, 15, 20	5.10	5.10, 15, 20		No	
DCI-RM16	CA [5A]-66A	5.10, 15, 20			Yes	DCI-RM16	CA [2A]-5A-16Aa	5.10, 15, 20	5.10	5.10, 15, 20		No	
DCI-RM17	CA [2A]-16A(4)(4)	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM17	CA [2A]-2A-16Aa	5.10, 15, 20	5.10	5.10, 15, 20		No	
DCI-RM18	CA [1A]-16A	5, 10	5.10, 15, 20		Yes	DCI-RM18	CA [2A]-11A-66A	5.10, 15, 20	5.10	5.10, 15, 20		No	
DCI-RM19	CA [3A]-66A	5, 10	5.10, 15, 20		Yes	DCI-RM19	CA [2A]-2A-13A-66A	5.10, 15, 20	5.10	5.10, 15, 20		No	
DCI-RM20	CA [5A]-16A	5.10, 15, 20			Yes	DCI-RM20	CA [2A]-30A-66A	5.10, 15, 20	5.10	5.10, 15, 20		No	
DCI-RM21	CA [66C]	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM21	CA [2A]-66B	5.10, 15, 20	5.10, 15	5.10, 15		Yes	
DCI-RM22	CA [66A]-66A	5.10, 15, 20	5.10, 15, 20		Yes	DCI-RM22	CA [2A]-66Bb	5.10, 15, 20	5.10, 15	5.10, 15		Yes	
DCI-RM23	CA [66A]-66A	5.10, 15, 20	5.10, 15, 20		No	DCI-RM23	CA [2A]-16Aa	5.10, 15, 20	5.10, 15	5.10, 15		Yes	
						DCI-RM24	CA [2A]-66C	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
						DCI-RM25	CA [2A]-66C2	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
						DCI-RM26	CA [2A]-16Aa1	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
						DCI-RM27	CA [2A]-66A-66A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
						DCI-RM28	CA [2A]-66Aa1-66A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	
						DCI-RM29	CA [2A]-66A-71A	5.10, 15, 20	5.10, 15, 20	5.10, 15, 20		Yes	

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

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1.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

This device supports LAA with downlink carrier aggregation only. It uses carrier aggregation in the downlink to combine LTE in the unlicensed spectrum (i.e. LTE Band 46) with LTE in the licensed band (served as PCC). All uplink communications and acknowledgements on the PCC remain identical to specifications when downlink carrier aggregation is inactive.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the maximum average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive. All bands required for SAR testing per FCC KDB procedures were considered. Based on the measured maximum powers below, no additional SAR tests were required for DLCA SAR configurations.

General PCC and SCC configuration selection procedure

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

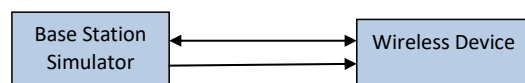


Figure 1
DL CA Power Measurement Setup

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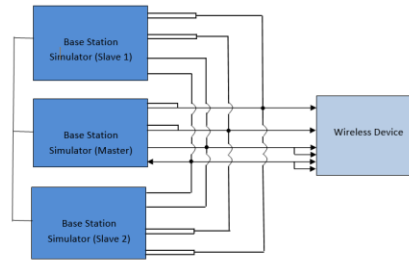


Figure 2
DL CA with DL 4x4 MIMO Power Measurement Setup

1.3 Downlink Carrier Aggregation RF Conducted Powers

1.3.1 LTE Band 26 as PCC

Table 1
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC				SCC 1				SCC 2				Power	
						PCC UL RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_25A-26A	LTE B26	15	26865	831.5	QPSK	1	36	8865	876.5	LTE B25	20	8365	1962.5	-	-	-	-	25.50	25.39
CA_26A-41A	LTE B26	15	26865	831.5	QPSK	1	36	8865	876.5	LTE B41	20	40620	2593	-	-	-	-	25.36	25.39
CA_25A-25A-26A	LTE B26	5	26715	816.5	QPSK	1	0	8715	861.5	LTE B25	20	8365	1962.5	LTE B25	20	8590	1985	25.45	25.32
CA_26A-41C	LTE B26	15	26865	831.5	QPSK	1	36	8865	876.5	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	25.35	25.39

1.3.2 LTE Band 25 as PCC

Table 2
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC				SCC 1				SCC 2				Power	
						PCC UL RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_25A-26A	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B26	15	8865	876.5	-	-	-	-	25.17	25.18
CA_25A-41A	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B41	20	40620	2593	-	-	-	-	25.19	25.18
CA_25A-46A	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B46	20	50665	5537.5	-	-	-	-	25.20	25.18
CA_25A-25A-26A	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B25	20	8140	1940	LTE B26	5	8865	876.5	25.16	25.18
CA_25A-41C	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	25.19	25.18
CA_25A-46C	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	25.17	25.18
CA_25A-41D	LTE B25	15	26615	1907.5	QPSK	1	0	8615	1987.5	LTE B41	20	40422	2573.2	LTE B41	20	40620	2593	25.17	25.18

Table 3
Reduced Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC				SCC 1				SCC 2				Power	
						PCC UL RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_25A-26A	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B26	15	8865	876.5	-	-	-	-	24.09	24.10
CA_25A-41A	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B41	20	40620	2593	-	-	-	-	24.15	24.10
CA_25A-46A	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B46	20	50665	5537.5	-	-	-	-	24.09	24.10
CA_25A-25A-26A	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B25	20	8140	1940	LTE B26	5	8865	876.5	24.05	24.10
CA_25A-41C	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	24.20	24.10
CA_25A-46C	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	24.07	24.10
CA_25A-41D	LTE B25	20	26590	1905	QPSK	1	99	8590	1985	LTE B41	20	40422	2573.2	LTE B41	20	40620	2593	24.19	24.10

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1.3.3 LTE Band 41 as PCC

Table 4
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC [UL] Ch.	PCC [DL] Freq. [MHz]	Mod.	PCC UL RB	PCC UL RB Offset	PCC [DL] Channel	PCC [DL] Freq. [MHz]	SCC 1				SCC 2				SCC 3				SCC 4				Power	
										SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	LTE Tx Power with DL CA Enabled [dBm]	LTE Single Carrier Tx Power [dBm]
CA 41A-41A	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	41490	2580	-	-	-	-	-	-	-	-	-	-	-	-	25.03	25.03
CA 41C (1)	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	40302	2561.2	-	-	-	-	-	-	-	-	-	-	-	-	25.03	25.04
CA 41A-41C	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	41202	2600.2	LTE B41	20	41490	2580	-	-	-	-	-	-	-	-	25.08	25.04
CA 41C-41A	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	40302	2561.2	LTE B41	20	41490	2580	-	-	-	-	-	-	-	-	25.09	25.04
CA 41E	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	40302	2561.2	LTE B41	20	40504	2596.4	LTE B41	20	40702	2600.2	-	-	-	-	25.12	25.04
CA 41C-41C	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	40302	2561.2	LTE B41	20	41202	2600.2	LTE B41	20	41490	2580	-	-	-	-	25.10	25.04
CA 41C-41D	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	40302	2561.2	LTE B41	20	41202	2600.2	LTE B41	20	41490	2580	-	-	-	-	25.03	25.03
CA 41D-41C	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	40302	2561.2	LTE B41	20	40504	2596.4	LTE B41	20	41202	2600.2	LTE B41	20	41490	2580	25.05	25.03

1.3.4 LTE Band 41 PC2 as PCC

Table 5
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC [UL] Ch.	PCC [DL] Freq. [MHz]	Mod.	PCC UL RB	PCC UL RB Offset	PCC [DL] Channel	PCC [DL] Freq. [MHz]	SCC 1				SCC 2				SCC 3				SCC 4				Power	
										SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	LTE Tx Power with DL CA Enabled [dBm]	LTE Single Carrier Tx Power [dBm]
CA 41A-41A	LTE B41 PC2	20	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41 PC2	20	39700	2580	-	-	-	-	-	-	-	-	-	-	-	-	27.64	27.69
CA 41C (1)	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	LTE B41 PC2	20	40302	2561.2	-	-	-	-	-	-	-	-	-	-	-	-	27.69	27.70
CA 41A-41C	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	LTE B41 PC2	20	41202	2600.2	LTE B41 PC2	20	41490	2580	-	-	-	-	-	-	-	-	27.69	27.70
CA 41C-41A	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	LTE B41 PC2	20	40302	2561.2	LTE B41 PC2	20	41490	2580	-	-	-	-	-	-	-	-	27.70	27.70
CA 41E	LTE B41 PC2	20	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41 PC2	20	40302	2561.2	LTE B41 PC2	20	40504	2596.4	LTE B41 PC2	20	40702	2600.2	-	-	-	-	27.68	27.69
CA 41C-41C	LTE B41 PC2	20	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41 PC2	20	40302	2561.2	LTE B41 PC2	20	41202	2600.2	LTE B41 PC2	20	41490	2580	-	-	-	-	27.68	27.69
CA 41C-41D	LTE B41 PC2	20	41490	2680	QPSK	1	0	41490	2680	LTE B41 PC2	20	41202	2600.2	LTE B41 PC2	20	40346	2545.6	LTE B41 PC2	20	39948	2525.8	LTE B41 PC2	20	39750	2506	27.65	27.69
CA 41D-41C	LTE B41 PC2	20	41490	2680	QPSK	1	0	41490	2680	LTE B41 PC2	20	41202	2600.2	LTE B41 PC2	20	40346	2545.6	LTE B41 PC2	20	39948	2525.8	LTE B41 PC2	20	39750	2506	27.62	27.69

1.4 DL CA with DL 4x4 MIMO RF Conduction Powers

This device supports downlink 4x4 MIMO operations for some LTE bands. Uplink transmission is limited to a single output stream. When carrier aggregation was applicable, the general test selection and setup procedures described in Section 1.2 were applied.

Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

1.4.1 LTE 4x4 MIMO DL Standalone Powers

Table 6
Maximum Output Powers

LTE Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx. Power [dBm]	Single Antenna Tx. Power [dBm]
25	15	26615	1907.5	QPSK	1	0	25.12	25.18
41	5	40185	2549.5	QPSK	1	0	25.03	25.04
41 PC2	5	40185	2549.5	QPSK	1	12	27.70	27.70

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1.4.2 LTE Band 25 as PCC

Table 7
Maximum Output Powers

Combination	PCC										SCC 1					SCC 2					Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA [25A]-[25A] (1)	LTE B25	15	26615	QPSK	1	0	8615	1987.5	4x4	LTE B25	20	8140	1940	4x4	-	-	-	-	-	-	25.10	25.18
CA [25A]-46A	LTE B25	15	26615	QPSK	1	0	8615	1987.5	4x4	LTE B46	20	50665	5537.5	2x2	-	-	-	-	-	-	25.19	25.18
CA [25A]-46C	LTE B25	15	26615	QPSK	1	0	8615	1987.5	4x4	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	-	25.10	25.18

Table 8
Reduced Output Powers

Combination	PCC										SCC 1					SCC 2					Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA [25A]-[25A] (1)	LTE B25	20	26590	QPSK	1	99	8590	1985	4x4	LTE B25	20	8090	1940	4x4	-	-	-	-	-	-	23.96	24.10
CA [25A]-46A	LTE B25	20	26590	QPSK	1	99	8590	1985	4x4	LTE B46	20	50665	5537.5	2x2	-	-	-	-	-	-	24.09	24.10
CA [25A]-46C	LTE B25	20	26590	QPSK	1	99	8590	1985	4x4	LTE B46	20	50665	5537.5	2x2	LTE B46	20	50467	5517.7	2x2	-	24.08	24.10

1.4.3 LTE Band 41 as PCC

Table 9
Maximum Output Powers

Combination	PCC Band	PCC								SCC 1				SCC 2				SCC 3				Power					
		PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA [41A]-41A (1)	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	41490	2680	2x2	-	-	-	-	-	-	-	-	-	-	25.12	25.04
CA [41A]-41A (1)	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	2x2	LTE B41	20	41490	2680	4x4	-	-	-	-	-	-	-	-	-	-	25.05	25.04
CA [41A]-41C	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	41292	2660.2	2x2	LTE B41	20	41490	2680	2x2	-	-	-	-	-	25.03	25.04
CA [41C]-41A	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	2x2	LTE B41	20	40302	2561.2	2x2	LTE B41	20	41490	2680	4x4	-	-	-	-	-	25.09	25.04
CA [41A]-41C	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	2x2	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41490	2680	4x4	-	-	-	-	-	25.02	25.04
CA [41C]-41A	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	40302	2561.2	4x4	LTE B41	20	41490	2680	2x2	-	-	-	-	-	25.03	25.04
CA [41A]-41D	LTE B41	5	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	41094	2640.4	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41490	2680	4x4	25.03	25.04
CA [41D]-41A	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	40329	2563.9	4x4	LTE B41	20	40927	2583.7	4x4	LTE B41	20	41490	2680	4x4	24.97	25.02
CA [41C]-41C	LTE B41	10	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	40329	2563.9	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41490	2680	4x4	25.04	25.02
CA [41E]	LTE B41	15	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	40356	2566.6	4x4	LTE B41	20	40954	2586.4	4x4	LTE B41	20	40752	2606.2	4x4	24.94	24.94

1.4.4 LTE Band 41 PC2 as PCC

Table 10
Maximum Output Powers

PCC											SCC 1				SCC 2				SCC 3				Power				
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)					
CA [41A]-[41A] (1)	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	4x4	LTE B41 PC2	20	41490	2680	2x2	-	-	-	-	-	-	27.68	27.70				
CA [41A]-[41A] (1)	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	2x2	LTE B41 PC2	20	41490	2680	4x4	-	-	-	-	-	-	27.69	27.70				
CA [41A]-41C	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	4x4	LTE B41 PC2	20	41292	2660.2	2x2	LTE B41 PC2	20	41490	2680	2x2	-	27.66	27.70				
CA [41C]-[41A]	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	2x2	LTE B41 PC2	20	40302	2561.2	2x2	LTE B41 PC2	20	41490	2680	4x4	-	27.69	27.70				
CA [41A]-[41C]	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	2x2	LTE B41 PC2	20	41292	2660.2	4x4	LTE B41 PC2	20	41490	2680	4x4	-	27.67	27.70				
CA [41C]-[41A]	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	4x4	LTE B41 PC2	20	40302	2561.2	4x4	LTE B41 PC2	20	41490	2680	2x2	-	27.64	27.70				
CA [41A]-[41D]	LTE B41 PC2	5	40185	2549.5	QPSK	1	12	40185	2549.5	4x4	LTE B41 PC2	20	41094	2640.4	4x4	LTE B41 PC2	20	41292	2660.2	4x4	LTE B41 PC2	20	41490	2680	4x4	27.69	27.70
CA [41D]-[41A]	LTE B41 PC2	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41 PC2	20	40383	2569.3	4x4	LTE B41 PC2	20	40581	2589.1	4x4	LTE B41 PC2	20	41490	2680	4x4	27.68	27.69
CA [41C]-[41C]	LTE B41 PC2	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41 PC2	20	40383	2569.3	4x4	LTE B41 PC2	20	41292	2660.2	4x4	LTE B41 PC2	20	41490	2680	4x4	27.70	27.69
CA [41E]	LTE B41 PC2	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41 PC2	20	40383	2569.3	4x4	LTE B41 PC2	20	40581	2589.1	4x4	LTE B41 PC2	20	40779	2608.9	4x4	27.67	27.69

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1.5 Downlink Carrier Aggregation with CA_41C Uplink Carrier Aggregation enabled

This device supports uplink carrier aggregation (ULCA) with additional Carrier Aggregation configurations active in the downlink. Power measurements were performed with ULCA active and additional CA configurations active in the downlink for the configuration per Fall 2017 TCB Workshop Notes.

Per FCC Guidance, additional SAR measurements for these configurations were not required since their maximum output power was not more than 0.25 dB higher than the maximum output power for with only ULCA active.

1.5.1 DL Carrier Aggregation RF Conducted Powers

Table 11
Maximum Output Powers

Combination	PCC								SCC1						SCC2				Power	
	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	CA_41C ULCA Tx. Power with add'l CA configuration active in DL (dBm)	CA_41C ULCA Tx. Power (dBm)
CA_41D	LTE B41	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	LTE B41	20	41094	2640.4	24.84	24.93

1.5.2 DL Carrier Aggregation with DL 4x4 MIMO RF Conducted Powers

Note: 4x4 DL MIMO is only operating in the downlink. Uplink transmission is limited to a single output stream for each component carrier of ULCA.

Table 12
Maximum Output Powers

Maximum Output Power																							
Combination	PCC Band	PCC							SCC1							SCC2				Power			
		PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	DL Ant. Config.	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	DL Ant. Config.	Modulation	SCC UL# RB	SCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	DL Ant. Config.	CA_41C ULCA Tx. Power with add'l CA configuration active in DL (dBm)	CA_41C ULCA Tx. Power (dBm)
CA_41C [1]	LTE B41	20	41490	2680.0	4x4	QPSK	1	0	LTE B41	20	41292	2660.2	4x4	QPSK	1	99	-	-	-	-	-	24.79	24.93
CA_41D	LTE B41	20	41490	2680.0	4x4	QPSK	1	0	LTE B41	20	41292	2660.2	4x4	QPSK	1	99	LTE B41	20	41094	2640.4	4x4	24.77	24.93

FCC ID: ZNFV450PM	 SAR EVALUATION REPORT 	Reviewed by: Quality Manager
Test Dates: 11/28/18 - 01/31/19	DUT Type: Portable Handset	APPENDIX H: Page 6 of 6