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Client **PC Test**

Certificate No: **EX3-3914_Feb18**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3914**

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

BN✓
 02-29-2018

Calibration date: **February 14, 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-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: S5277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	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:	Name	Function	Signature
	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 14, 2018

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



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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., $\theta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

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

Methods Applied and Interpretation of Parameters:

- *NORM_{x,y,z}*: Assessed for E-field polarization $\theta = 0$ ($f \leq 900$ 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*.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR*: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *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 *NORMx* (no uncertainty required).

Probe EX3DV4

SN:3914

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

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.47	0.41	0.44	$\pm 10.1 \%$
DCP (mV) ^B	98.1	103.5	99.1	

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	157.3	$\pm 3.5 \%$
		Y	0.0	0.0	1.0		143.4	
		Z	0.0	0.0	1.0		153.1	

Note: For details on UID parameters see Appendix.

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 ms.V^{-2}	T2 ms.V^{-1}	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	44.52	338.7	36.78	11.30	0.699	5.054	0.000	0.544	1.006
Y	43.63	317.9	34.18	13.04	0.623	5.031	2.000	0.164	1.007
Z	41.48	314.2	36.51	10.96	0.847	5.054	0.251	0.494	1.008

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

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

^B Numerical linearization parameter: uncertainty not required.

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
6	55.5	0.75	21.06	21.06	21.06	0.00	1.00	± 13.3 %
13	55.5	0.75	17.97	17.97	17.97	0.00	1.00	± 13.3 %
750	41.9	0.89	10.18	10.18	10.18	0.58	0.80	± 12.0 %
835	41.5	0.90	9.70	9.70	9.70	0.52	0.80	± 12.0 %
1750	40.1	1.37	8.34	8.34	8.34	0.40	0.80	± 12.0 %
1900	40.0	1.40	7.98	7.98	7.98	0.41	0.84	± 12.0 %
2300	39.5	1.67	7.58	7.58	7.58	0.37	0.87	± 12.0 %
2450	39.2	1.80	7.26	7.26	7.26	0.43	0.84	± 12.0 %
2600	39.0	1.96	7.04	7.04	7.04	0.29	0.86	± 12.0 %
3500	37.9	2.91	6.99	6.99	6.99	0.25	1.20	± 13.1 %
3700	37.7	3.12	6.72	6.72	6.72	0.23	1.20	± 13.1 %
5250	35.9	4.71	5.41	5.41	5.41	0.30	1.80	± 13.1 %
5600	35.5	5.07	4.79	4.79	4.79	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.78	4.78	4.78	0.40	1.80	± 13.1 %

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

^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:3914

Calibration Parameter Determined in Body Tissue Simulating Media

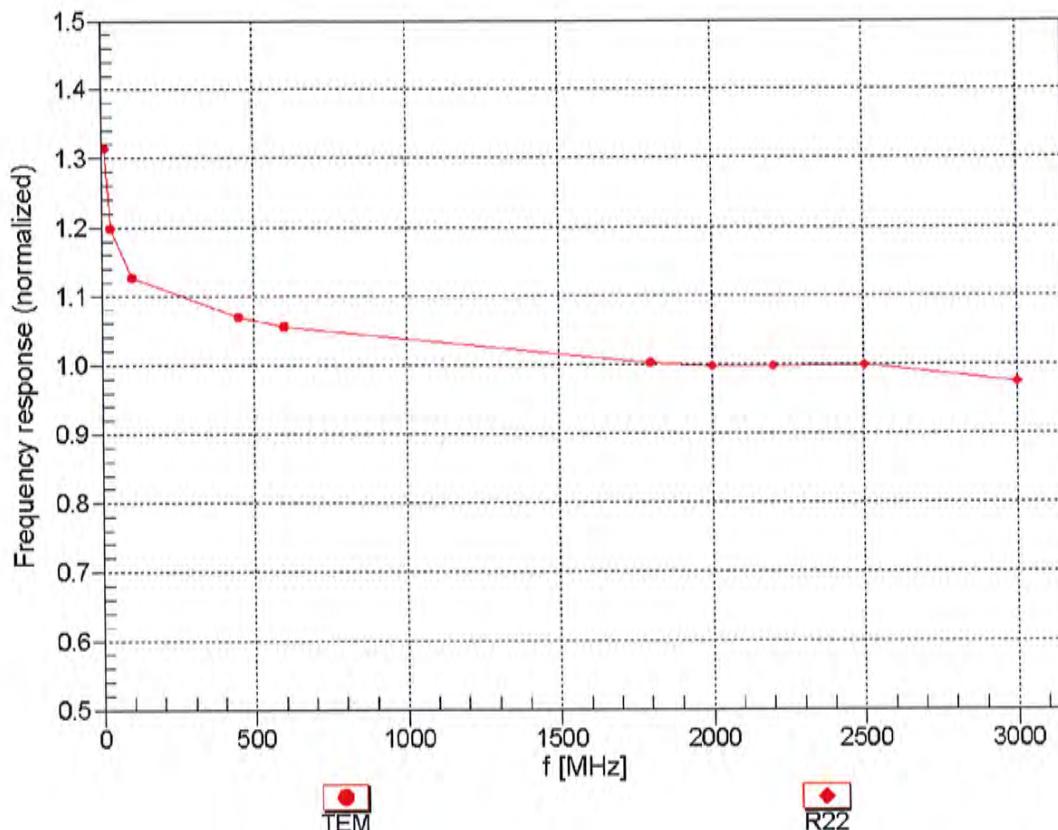
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	55.5	0.96	9.75	9.75	9.75	0.47	0.80	± 12.0 %
835	55.2	0.97	9.57	9.57	9.57	0.44	0.89	± 12.0 %
1750	53.4	1.49	7.91	7.91	7.91	0.37	0.80	± 12.0 %
1900	53.3	1.52	7.62	7.62	7.62	0.29	1.01	±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

^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.

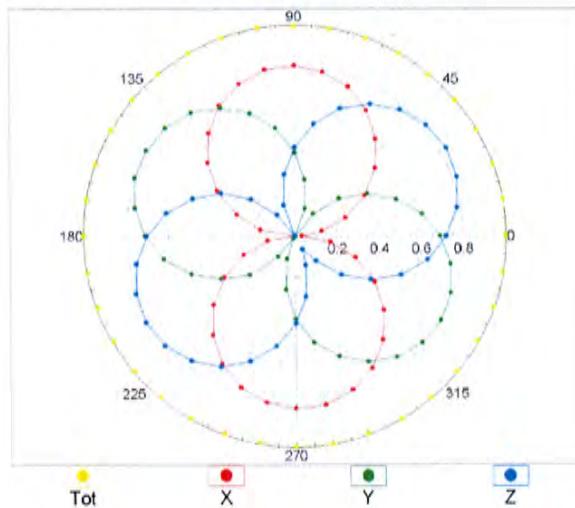
Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



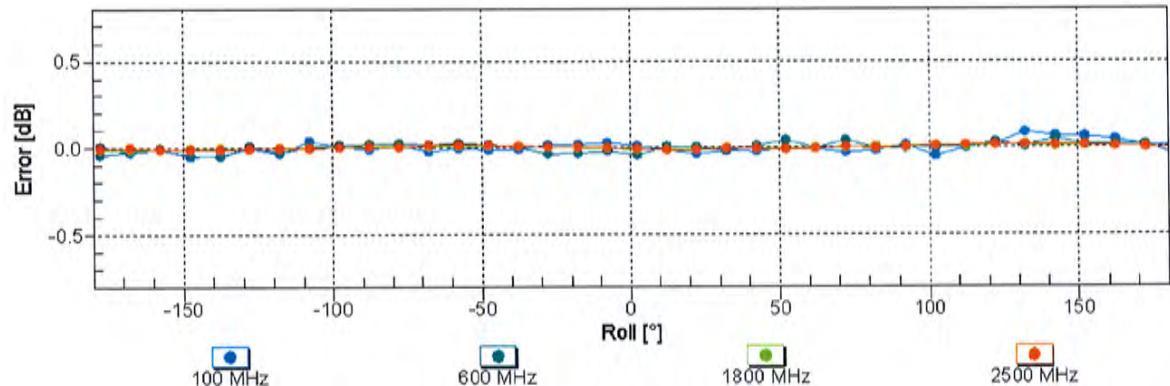
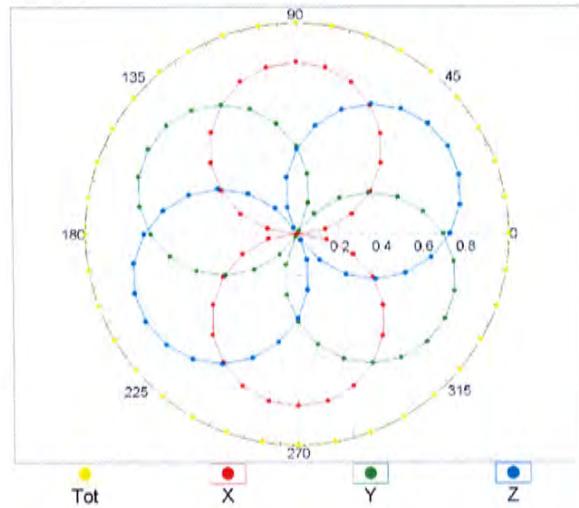
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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

$f=600 \text{ MHz, TEM}$

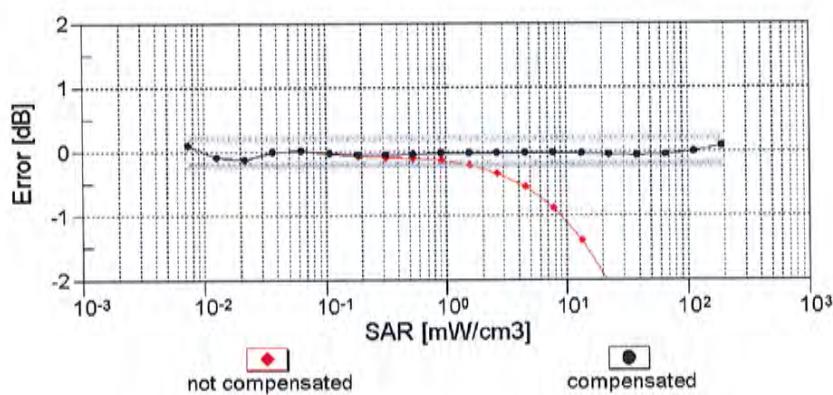
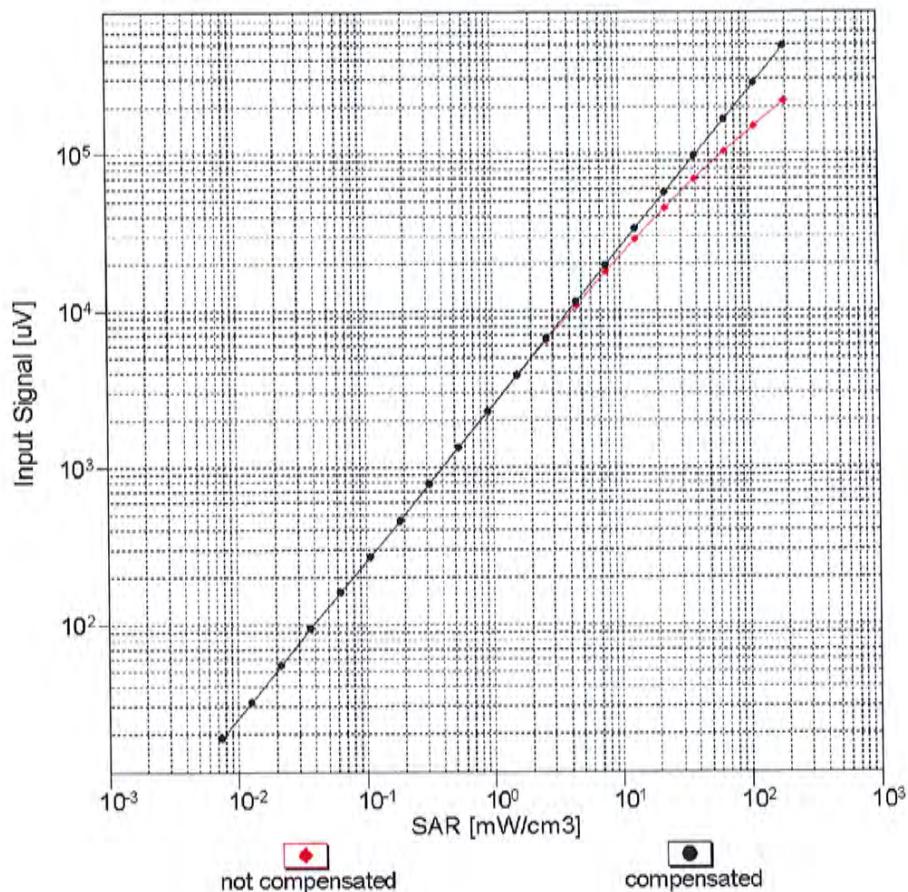


$f=1800 \text{ MHz, R22}$



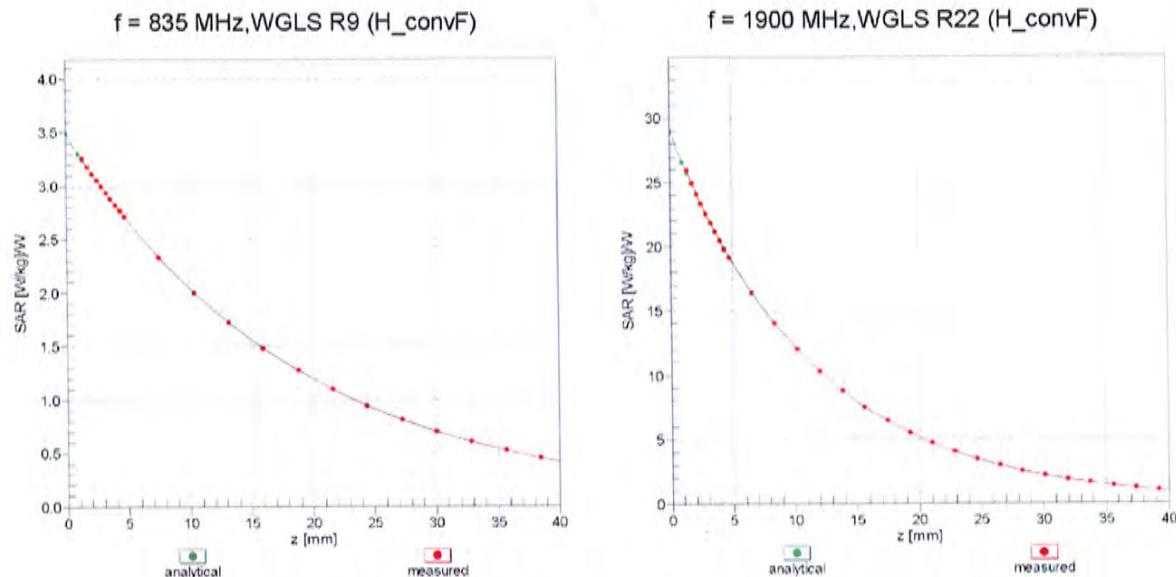
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

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

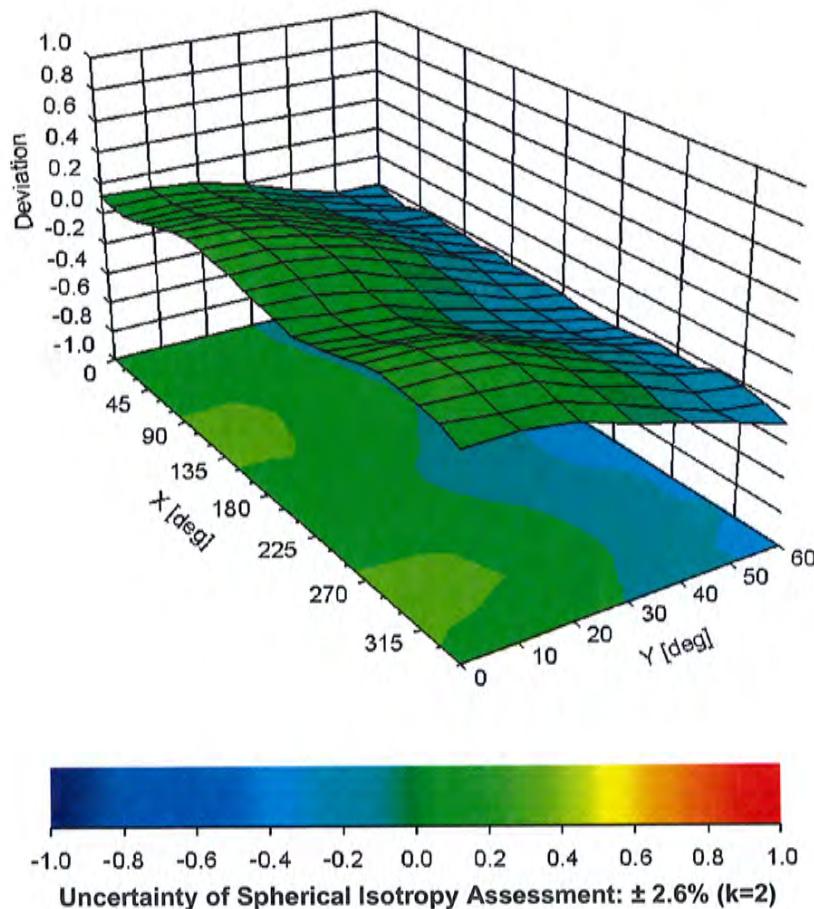


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, θ), $f = 900 \text{ MHz}$



DASY/EASY - Parameters of Probe: EX3DV4 - SN:3914

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	132.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB/ μ V	C	D dB	VR mV	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	157.3	$\pm 3.5\%$
		Y	0.00	0.00	1.00		143.4	
		Z	0.00	0.00	1.00		153.1	
10010-CAA	SAR Validation (Square, 100ms, 10ms)	X	2.02	63.97	9.10	10.00	20.0	$\pm 9.6\%$
		Y	2.59	66.85	10.84		20.0	
		Z	2.31	65.14	9.98		20.0	
10011-CAB	UMTS-FDD (WCDMA)	X	0.89	66.39	14.20	0.00	150.0	$\pm 9.6\%$
		Y	1.06	68.74	16.01		150.0	
		Z	0.90	66.80	14.44		150.0	
10012-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.06	63.38	14.79	0.41	150.0	$\pm 9.6\%$
		Y	1.17	64.37	15.54		150.0	
		Z	1.07	63.61	14.94		150.0	
10013-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	4.75	66.53	16.97	1.46	150.0	$\pm 9.6\%$
		Y	4.80	66.78	17.02		150.0	
		Z	4.73	66.65	17.01		150.0	
10021-DAC	GSM-FDD (TDMA, GMSK)	X	100.00	110.09	25.45	9.39	50.0	$\pm 9.6\%$
		Y	100.00	112.00	26.43		50.0	
		Z	100.00	111.93	26.50		50.0	
10023-DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	109.83	25.39	9.57	50.0	$\pm 9.6\%$
		Y	100.00	111.69	26.33		50.0	
		Z	100.00	111.63	26.42		50.0	
10024-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	107.43	23.14	6.56	60.0	$\pm 9.6\%$
		Y	100.00	110.61	24.77		60.0	
		Z	100.00	109.57	24.26		60.0	
10025-DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	4.03	68.96	25.05	12.57	50.0	$\pm 9.6\%$
		Y	5.30	77.15	29.41		50.0	
		Z	4.06	68.52	24.65		50.0	
10026-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	8.87	91.28	32.17	9.56	60.0	$\pm 9.6\%$
		Y	10.08	94.25	33.27		60.0	
		Z	8.65	90.32	31.77		60.0	
10027-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	105.82	21.66	4.80	80.0	$\pm 9.6\%$
		Y	100.00	111.09	24.24		80.0	
		Z	100.00	108.42	22.93		80.0	
10028-DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	104.11	20.26	3.55	100.0	$\pm 9.6\%$
		Y	100.00	112.84	24.34		100.0	
		Z	100.00	107.37	21.76		100.0	
10029-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	5.57	80.93	27.02	7.80	80.0	$\pm 9.6\%$
		Y	6.11	82.68	27.69		80.0	
		Z	5.53	80.55	26.85		80.0	
10030-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	104.99	21.59	5.30	70.0	$\pm 9.6\%$
		Y	100.00	109.04	23.62		70.0	
		Z	100.00	107.17	22.68		70.0	
10031-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	0.46	62.47	6.17	1.88	100.0	$\pm 9.6\%$
		Y	100.00	111.97	22.67		100.0	
		Z	100.00	95.35	15.52		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	0.19	60.00	3.78	1.17	100.0	$\pm 9.6\%$
		Y	100.00	120.03	24.95		100.0	
		Z	0.19	60.00	4.15		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	13.55	95.45	24.90	5.30	70.0	$\pm 9.6\%$
		Y	18.76	100.49	26.60		70.0	
		Z	13.36	94.67	24.55		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	2.70	75.51	16.71	1.88	100.0	$\pm 9.6\%$
		Y	4.49	82.47	19.70		100.0	
		Z	2.90	76.09	16.70		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	1.71	70.85	14.56	1.17	100.0	$\pm 9.6\%$
		Y	2.70	76.95	17.56		100.0	
		Z	1.78	71.24	14.48		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	22.62	103.29	27.18	5.30	70.0	$\pm 9.6\%$
		Y	32.35	108.98	28.96		70.0	
		Z	21.86	102.15	26.73		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	2.48	74.51	16.30	1.88	100.0	$\pm 9.6\%$
		Y	3.96	80.90	19.14		100.0	
		Z	2.61	74.90	16.23		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	1.74	71.34	14.88	1.17	100.0	$\pm 9.6\%$
		Y	2.75	77.52	17.90		100.0	
		Z	1.82	71.77	14.82		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	1.34	68.49	13.13	0.00	150.0	$\pm 9.6\%$
		Y	2.27	75.66	16.89		150.0	
		Z	1.29	68.35	12.80		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	34.99	94.66	19.93	7.78	50.0	$\pm 9.6\%$
		Y	100.00	108.11	23.89		50.0	
		Z	100.00	107.01	23.40		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.17	126.30	3.13	0.00	150.0	$\pm 9.6\%$
		Y	0.00	107.81	5.46		150.0	
		Z	0.15	126.17	2.27		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	10.11	79.88	18.52	13.80	25.0	$\pm 9.6\%$
		Y	23.48	91.75	22.45		25.0	
		Z	12.25	82.71	19.92		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	11.72	83.69	18.67	10.79	40.0	$\pm 9.6\%$
		Y	40.84	100.05	23.71		40.0	
		Z	15.78	87.97	20.48		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	18.86	95.31	25.05	9.03	50.0	$\pm 9.6\%$
		Y	26.98	101.35	27.04		50.0	
		Z	17.19	93.67	24.60		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	4.30	76.01	24.21	6.55	100.0	$\pm 9.6\%$
		Y	4.66	77.31	24.71		100.0	
		Z	4.30	75.85	24.15		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.10	64.51	15.41	0.61	110.0	$\pm 9.6\%$
		Y	1.22	65.59	16.19		110.0	
		Z	1.11	64.78	15.58		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	40.70	121.16	30.62	1.30	110.0	$\pm 9.6\%$
		Y	100.00	138.01	35.59		110.0	
		Z	76.47	130.66	32.92		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	2.97	81.68	22.34	2.04	110.0	± 9.6 %
		Y	3.52	84.01	23.42		110.0	
		Z	3.16	82.63	22.73		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.54	66.50	16.38	0.49	100.0	± 9.6 %
		Y	4.60	66.81	16.49		100.0	
		Z	4.51	66.59	16.41		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.56	66.59	16.48	0.72	100.0	± 9.6 %
		Y	4.62	66.89	16.58		100.0	
		Z	4.53	66.70	16.52		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.84	66.85	16.71	0.86	100.0	± 9.6 %
		Y	4.89	67.12	16.79		100.0	
		Z	4.80	66.93	16.74		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.71	66.74	16.80	1.21	100.0	± 9.6 %
		Y	4.76	67.01	16.87		100.0	
		Z	4.67	66.83	16.83		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.72	66.77	16.97	1.46	100.0	± 9.6 %
		Y	4.77	67.02	17.03		100.0	
		Z	4.69	66.86	17.00		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.02	66.97	17.43	2.04	100.0	± 9.6 %
		Y	5.06	67.18	17.45		100.0	
		Z	4.99	67.10	17.47		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.06	66.99	17.64	2.55	100.0	± 9.6 %
		Y	5.10	67.19	17.65		100.0	
		Z	5.03	67.09	17.67		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.14	67.01	17.83	2.67	100.0	± 9.6 %
		Y	5.18	67.19	17.83		100.0	
		Z	5.11	67.11	17.86		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.84	66.62	17.27	1.99	100.0	± 9.6 %
		Y	4.89	66.85	17.31		100.0	
		Z	4.83	66.75	17.32		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.82	66.93	17.48	2.30	100.0	± 9.6 %
		Y	4.86	67.16	17.51		100.0	
		Z	4.80	67.06	17.53		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	4.88	67.11	17.81	2.83	100.0	± 9.6 %
		Y	4.92	67.32	17.83		100.0	
		Z	4.87	67.25	17.87		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.87	67.01	17.95	3.30	100.0	± 9.6 %
		Y	4.91	67.22	17.97		100.0	
		Z	4.87	67.19	18.02		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	4.90	67.11	18.25	3.82	90.0	± 9.6 %
		Y	4.95	67.32	18.26		90.0	
		Z	4.91	67.27	18.31		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	4.92	66.92	18.38	4.15	90.0	± 9.6 %
		Y	4.97	67.13	18.38		90.0	
		Z	4.94	67.11	18.46		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	4.95	66.99	18.48	4.30	90.0	± 9.6 %
		Y	5.00	67.21	18.49		90.0	
		Z	4.97	67.20	18.56		90.0	

10081-CAB	CDMA2000 (1xRTT, RC3)	X	0.61	63.26	9.90	0.00	150.0	$\pm 9.6\%$
		Y	0.87	67.43	13.01		150.0	
		Z	0.58	63.10	9.56		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	2.50	65.17	5.97	4.77	80.0	$\pm 9.6\%$
		Y	0.75	60.00	4.55		80.0	
		Z	0.72	60.00	4.31		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	107.54	23.21	6.56	60.0	$\pm 9.6\%$
		Y	100.00	110.64	24.80		60.0	
		Z	100.00	109.67	24.33		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	1.69	67.19	15.08	0.00	150.0	$\pm 9.6\%$
		Y	1.88	68.79	16.18		150.0	
		Z	1.71	67.59	15.23		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.65	67.13	15.04	0.00	150.0	$\pm 9.6\%$
		Y	1.84	68.75	16.15		150.0	
		Z	1.67	67.53	15.19		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	8.93	91.41	32.21	9.56	60.0	$\pm 9.6\%$
		Y	10.16	94.39	33.31		60.0	
		Z	8.70	90.44	31.80		60.0	
10100-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	2.94	69.72	16.26	0.00	150.0	$\pm 9.6\%$
		Y	3.18	71.08	17.07		150.0	
		Z	2.94	69.89	16.39		150.0	
10101-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.09	67.13	15.64	0.00	150.0	$\pm 9.6\%$
		Y	3.21	67.85	16.08		150.0	
		Z	3.07	67.21	15.70		150.0	
10102-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.20	67.14	15.76	0.00	150.0	$\pm 9.6\%$
		Y	3.32	67.82	16.17		150.0	
		Z	3.18	67.23	15.82		150.0	
10103-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	5.93	75.11	20.17	3.98	65.0	$\pm 9.6\%$
		Y	6.63	76.82	20.78		65.0	
		Z	5.91	75.14	20.21		65.0	
10104-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	5.89	73.03	20.08	3.98	65.0	$\pm 9.6\%$
		Y	6.25	73.91	20.36		65.0	
		Z	5.90	73.09	20.11		65.0	
10105-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	5.51	71.58	19.75	3.98	65.0	$\pm 9.6\%$
		Y	6.10	73.31	20.41		65.0	
		Z	5.86	72.81	20.30		65.0	
10108-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	2.55	69.01	16.09	0.00	150.0	$\pm 9.6\%$
		Y	2.75	70.30	16.89		150.0	
		Z	2.54	69.20	16.22		150.0	
10109-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	2.74	66.99	15.50	0.00	150.0	$\pm 9.6\%$
		Y	2.87	67.79	16.01		150.0	
		Z	2.72	67.11	15.56		150.0	
10110-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.04	68.09	15.59	0.00	150.0	$\pm 9.6\%$
		Y	2.23	69.47	16.51		150.0	
		Z	2.03	68.32	15.72		150.0	
10111-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.46	67.87	15.72	0.00	150.0	$\pm 9.6\%$
		Y	2.64	69.03	16.47		150.0	
		Z	2.45	68.15	15.81		150.0	

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

10149-CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.75	67.05	15.55	0.00	150.0	$\pm 9.6\%$
		Y	2.88	67.86	16.07		150.0	
		Z	2.73	67.18	15.62		150.0	
10150-CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	2.88	67.08	15.63	0.00	150.0	$\pm 9.6\%$
		Y	3.01	67.85	16.12		150.0	
		Z	2.86	67.22	15.70		150.0	
10151-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	6.32	77.90	21.36	3.98	65.0	$\pm 9.6\%$
		Y	6.91	79.14	21.77		65.0	
		Z	6.41	78.22	21.50		65.0	
10152-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	5.42	72.95	19.71	3.98	65.0	$\pm 9.6\%$
		Y	5.78	73.88	20.03		65.0	
		Z	5.43	73.04	19.72		65.0	
10153-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	5.81	74.06	20.59	3.98	65.0	$\pm 9.6\%$
		Y	6.20	74.97	20.87		65.0	
		Z	5.84	74.21	20.62		65.0	
10154-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.09	68.53	15.87	0.00	150.0	$\pm 9.6\%$
		Y	2.29	69.96	16.81		150.0	
		Z	2.08	68.78	15.99		150.0	
10155-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.46	67.89	15.74	0.00	150.0	$\pm 9.6\%$
		Y	2.64	69.05	16.49		150.0	
		Z	2.46	68.18	15.84		150.0	
10156-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.63	67.76	14.61	0.00	150.0	$\pm 9.6\%$
		Y	1.89	69.98	16.07		150.0	
		Z	1.61	67.98	14.61		150.0	
10157-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	1.84	66.10	13.16	0.00	150.0	$\pm 9.6\%$
		Y	2.08	67.93	14.40		150.0	
		Z	1.79	66.07	12.96		150.0	
10158-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.62	68.14	15.95	0.00	150.0	$\pm 9.6\%$
		Y	2.80	69.25	16.65		150.0	
		Z	2.62	68.44	16.04		150.0	
10159-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	1.94	66.53	13.44	0.00	150.0	$\pm 9.6\%$
		Y	2.21	68.50	14.73		150.0	
		Z	1.88	66.49	13.23		150.0	
10160-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.59	68.31	15.97	0.00	150.0	$\pm 9.6\%$
		Y	2.73	69.19	16.57		150.0	
		Z	2.58	68.51	16.08		150.0	
10161-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.77	67.03	15.54	0.00	150.0	$\pm 9.6\%$
		Y	2.91	67.84	16.05		150.0	
		Z	2.75	67.18	15.60		150.0	
10162-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	2.88	67.21	15.67	0.00	150.0	$\pm 9.6\%$
		Y	3.02	68.01	16.17		150.0	
		Z	2.86	67.38	15.74		150.0	
10166-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.37	69.04	18.77	3.01	150.0	$\pm 9.6\%$
		Y	3.72	71.09	19.82		150.0	
		Z	3.38	69.53	19.11		150.0	
10167-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.04	71.49	19.00	3.01	150.0	$\pm 9.6\%$
		Y	5.05	75.77	20.88		150.0	
		Z	4.12	72.30	19.44		150.0	

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

10184-CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	2.74	67.80	18.11	3.01	150.0	$\pm 9.6\%$
		Y	3.24	71.35	19.88		150.0	
		Z	2.77	68.22	18.43		150.0	
10185-CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	3.64	73.15	20.34	3.01	150.0	$\pm 9.6\%$
		Y	5.93	82.75	24.19		150.0	
		Z	3.79	74.29	20.96		150.0	
10186-AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	2.99	69.07	17.49	3.01	150.0	$\pm 9.6\%$
		Y	4.16	75.34	20.20		150.0	
		Z	3.05	69.75	17.90		150.0	
10187-CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	2.75	67.86	18.18	3.01	150.0	$\pm 9.6\%$
		Y	3.25	71.43	19.96		150.0	
		Z	2.78	68.29	18.51		150.0	
10188-CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	3.76	73.83	20.74	3.01	150.0	$\pm 9.6\%$
		Y	6.30	84.02	24.77		150.0	
		Z	3.92	75.04	21.38		150.0	
10189-AAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	3.05	69.47	17.77	3.01	150.0	$\pm 9.6\%$
		Y	4.32	76.05	20.59		150.0	
		Z	3.12	70.18	18.19		150.0	
10193-CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.39	66.44	16.00	0.00	150.0	$\pm 9.6\%$
		Y	4.46	66.83	16.18		150.0	
		Z	4.36	66.53	16.02		150.0	
10194-CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.55	66.74	16.13	0.00	150.0	$\pm 9.6\%$
		Y	4.63	67.12	16.30		150.0	
		Z	4.51	66.81	16.16		150.0	
10195-CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.59	66.77	16.15	0.00	150.0	$\pm 9.6\%$
		Y	4.67	67.15	16.32		150.0	
		Z	4.55	66.84	16.18		150.0	
10196-CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.39	66.48	16.01	0.00	150.0	$\pm 9.6\%$
		Y	4.46	66.87	16.19		150.0	
		Z	4.35	66.57	16.03		150.0	
10197-CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.56	66.75	16.14	0.00	150.0	$\pm 9.6\%$
		Y	4.64	67.14	16.31		150.0	
		Z	4.53	66.83	16.17		150.0	
10198-CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.59	66.78	16.16	0.00	150.0	$\pm 9.6\%$
		Y	4.67	67.16	16.33		150.0	
		Z	4.55	66.85	16.19		150.0	
10219-CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.34	66.50	15.97	0.00	150.0	$\pm 9.6\%$
		Y	4.41	66.90	16.15		150.0	
		Z	4.30	66.59	15.99		150.0	
10220-CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.56	66.72	16.13	0.00	150.0	$\pm 9.6\%$
		Y	4.63	67.10	16.30		150.0	
		Z	4.52	66.79	16.15		150.0	
10221-CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.60	66.71	16.14	0.00	150.0	$\pm 9.6\%$
		Y	4.67	67.09	16.31		150.0	
		Z	4.56	66.79	16.17		150.0	
10222-CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	4.94	66.87	16.27	0.00	150.0	$\pm 9.6\%$
		Y	5.00	67.20	16.40		150.0	
		Z	4.91	66.93	16.30		150.0	

10223-CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.26	67.15	16.43	0.00	150.0	± 9.6 %
		Y	5.29	67.39	16.51		150.0	
		Z	5.21	67.16	16.44		150.0	
10224-CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	4.98	66.98	16.25	0.00	150.0	± 9.6 %
		Y	5.05	67.32	16.38		150.0	
		Z	4.95	67.03	16.28		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	2.65	65.82	14.94	0.00	150.0	± 9.6 %
		Y	2.77	66.54	15.42		150.0	
		Z	2.63	65.96	14.93		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	12.29	94.61	27.52	6.02	65.0	± 9.6 %
		Y	76.74	126.49	35.96		65.0	
		Z	14.23	97.75	28.67		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	11.60	92.16	26.09	6.02	65.0	± 9.6 %
		Y	58.51	119.10	33.33		65.0	
		Z	13.58	95.42	27.28		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	8.07	91.29	28.44	6.02	65.0	± 9.6 %
		Y	14.98	103.75	32.45		65.0	
		Z	8.37	92.43	29.01		65.0	
10229-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	11.46	93.21	26.98	6.02	65.0	± 9.6 %
		Y	62.74	122.68	34.92		65.0	
		Z	13.11	96.13	28.07		65.0	
10230-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	10.78	90.84	25.59	6.02	65.0	± 9.6 %
		Y	48.68	115.84	32.42		65.0	
		Z	12.46	93.85	26.71		65.0	
10231-CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	7.66	90.18	27.97	6.02	65.0	± 9.6 %
		Y	13.86	102.08	31.86		65.0	
		Z	7.92	91.24	28.52		65.0	
10232-CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	11.44	93.19	26.97	6.02	65.0	± 9.6 %
		Y	62.67	122.68	34.92		65.0	
		Z	13.08	96.11	28.07		65.0	
10233-CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	10.75	90.81	25.58	6.02	65.0	± 9.6 %
		Y	48.50	115.79	32.41		65.0	
		Z	12.42	93.82	26.70		65.0	
10234-CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	7.34	89.19	27.51	6.02	65.0	± 9.6 %
		Y	12.98	100.59	31.27		65.0	
		Z	7.57	90.21	28.04		65.0	
10235-CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	11.45	93.23	26.99	6.02	65.0	± 9.6 %
		Y	63.03	122.79	34.95		65.0	
		Z	13.11	96.15	28.08		65.0	
10236-CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	10.87	90.96	25.62	6.02	65.0	± 9.6 %
		Y	49.65	116.13	32.49		65.0	
		Z	12.57	93.99	26.75		65.0	
10237-CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	7.67	90.24	28.00	6.02	65.0	± 9.6 %
		Y	13.91	102.19	31.90		65.0	
		Z	7.93	91.30	28.54		65.0	
10238-CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	11.41	93.16	26.96	6.02	65.0	± 9.6 %
		Y	62.56	122.66	34.91		65.0	
		Z	13.06	96.08	28.06		65.0	

10239-CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	10.72	90.78	25.57	6.02	65.0	$\pm 9.6\%$
		Y	48.29	115.74	32.40		65.0	
		Z	12.38	93.78	26.69		65.0	
10240-CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	7.65	90.20	27.98	6.02	65.0	$\pm 9.6\%$
		Y	13.86	102.14	31.88		65.0	
		Z	7.91	91.26	28.53		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	7.49	79.94	24.73	6.98	65.0	$\pm 9.6\%$
		Y	9.15	84.52	26.53		65.0	
		Z	7.78	81.10	25.24		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.76	77.82	23.76	6.98	65.0	$\pm 9.6\%$
		Y	8.56	83.16	25.93		65.0	
		Z	7.57	80.56	24.94		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	5.55	74.73	23.33	6.98	65.0	$\pm 9.6\%$
		Y	6.44	78.27	24.91		65.0	
		Z	5.56	75.03	23.50		65.0	
10244-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	4.91	73.06	16.84	3.98	65.0	$\pm 9.6\%$
		Y	6.23	76.34	18.14		65.0	
		Z	4.96	73.17	16.71		65.0	
10245-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	4.78	72.39	16.50	3.98	65.0	$\pm 9.6\%$
		Y	5.96	75.43	17.72		65.0	
		Z	4.79	72.41	16.32		65.0	
10246-CAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	4.86	76.58	18.54	3.98	65.0	$\pm 9.6\%$
		Y	5.74	78.81	19.49		65.0	
		Z	4.75	76.10	18.16		65.0	
10247-CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	4.54	72.63	17.68	3.98	65.0	$\pm 9.6\%$
		Y	5.00	73.89	18.23		65.0	
		Z	4.50	72.44	17.41		65.0	
10248-CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	4.51	72.01	17.39	3.98	65.0	$\pm 9.6\%$
		Y	4.93	73.18	17.90		65.0	
		Z	4.45	71.77	17.09		65.0	
10249-CAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	6.38	81.20	21.41	3.98	65.0	$\pm 9.6\%$
		Y	7.34	83.11	22.13		65.0	
		Z	6.46	81.34	21.34		65.0	
10250-CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	5.54	75.67	20.83	3.98	65.0	$\pm 9.6\%$
		Y	5.99	76.71	21.17		65.0	
		Z	5.60	75.87	20.83		65.0	
10251-CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	5.22	73.28	19.41	3.98	65.0	$\pm 9.6\%$
		Y	5.60	74.26	19.76		65.0	
		Z	5.22	73.35	19.34		65.0	
10252-CAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	6.60	81.03	22.49	3.98	65.0	$\pm 9.6\%$
		Y	7.35	82.49	22.99		65.0	
		Z	6.74	81.46	22.63		65.0	
10253-CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	5.32	72.45	19.46	3.98	65.0	$\pm 9.6\%$
		Y	5.67	73.38	19.78		65.0	
		Z	5.34	72.58	19.46		65.0	
10254-CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	5.67	73.46	20.23	3.98	65.0	$\pm 9.6\%$
		Y	6.04	74.36	20.52		65.0	
		Z	5.70	73.62	20.25		65.0	

10255-CAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	6.00	77.17	21.28	3.98	65.0	$\pm 9.6 \%$
		Y	6.54	78.36	21.67		65.0	
		Z	6.09	77.51	21.41		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	3.55	68.31	13.56	3.98	65.0	$\pm 9.6 \%$
		Y	4.31	70.70	14.63		65.0	
		Z	3.47	67.95	13.18		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	3.46	67.65	13.15	3.98	65.0	$\pm 9.6 \%$
		Y	4.12	69.78	14.12		65.0	
		Z	3.37	67.24	12.73		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	3.31	70.56	15.03	3.98	65.0	$\pm 9.6 \%$
		Y	3.93	72.68	16.08		65.0	
		Z	3.14	69.68	14.40		65.0	
10259-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	4.95	73.85	18.86	3.98	65.0	$\pm 9.6 \%$
		Y	5.40	75.01	19.32		65.0	
		Z	4.95	73.84	18.70		65.0	
10260-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	4.97	73.54	18.73	3.98	65.0	$\pm 9.6 \%$
		Y	5.40	74.66	19.18		65.0	
		Z	4.96	73.50	18.55		65.0	
10261-CAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	6.09	80.15	21.50	3.98	65.0	$\pm 9.6 \%$
		Y	6.88	81.79	22.11		65.0	
		Z	6.20	80.42	21.51		65.0	
10262-CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	5.53	75.60	20.77	3.98	65.0	$\pm 9.6 \%$
		Y	5.97	76.64	21.12		65.0	
		Z	5.58	75.79	20.77		65.0	
10263-CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	5.21	73.26	19.40	3.98	65.0	$\pm 9.6 \%$
		Y	5.59	74.24	19.76		65.0	
		Z	5.21	73.32	19.33		65.0	
10264-CAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	6.52	80.79	22.38	3.98	65.0	$\pm 9.6 \%$
		Y	7.26	82.25	22.87		65.0	
		Z	6.65	81.20	22.51		65.0	
10265-CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	5.42	72.95	19.72	3.98	65.0	$\pm 9.6 \%$
		Y	5.78	73.89	20.03		65.0	
		Z	5.43	73.04	19.72		65.0	
10266-CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	5.81	74.04	20.57	3.98	65.0	$\pm 9.6 \%$
		Y	6.19	74.96	20.86		65.0	
		Z	5.84	74.19	20.60		65.0	
10267-CAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	6.31	77.85	21.33	3.98	65.0	$\pm 9.6 \%$
		Y	6.90	79.09	21.75		65.0	
		Z	6.39	78.16	21.48		65.0	
10268-CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.05	72.91	20.14	3.98	65.0	$\pm 9.6 \%$
		Y	6.40	73.76	20.40		65.0	
		Z	6.06	73.00	20.17		65.0	
10269-CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	6.03	72.50	20.01	3.98	65.0	$\pm 9.6 \%$
		Y	6.37	73.34	20.27		65.0	
		Z	6.05	72.60	20.04		65.0	
10270-CAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	6.14	75.03	20.36	3.98	65.0	$\pm 9.6 \%$
		Y	6.59	76.06	20.69		65.0	
		Z	6.19	75.26	20.47		65.0	

10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.45	66.18	14.83	0.00	150.0	$\pm 9.6\%$
		Y	2.58	67.05	15.42		150.0	
		Z	2.44	66.39	14.86		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.45	67.15	14.79	0.00	150.0	$\pm 9.6\%$
		Y	1.65	68.98	16.07		150.0	
		Z	1.46	67.49	14.94		150.0	
10277-CAA	PHS (QPSK)	X	2.05	60.99	6.61	9.03	50.0	$\pm 9.6\%$
		Y	2.14	61.42	6.98		50.0	
		Z	2.15	61.21	6.84		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	3.88	69.24	13.58	9.03	50.0	$\pm 9.6\%$
		Y	4.38	71.00	14.54		50.0	
		Z	3.84	68.69	13.30		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	4.00	69.55	13.78	9.03	50.0	$\pm 9.6\%$
		Y	4.51	71.31	14.73		50.0	
		Z	3.94	68.96	13.47		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	1.07	65.69	11.52	0.00	150.0	$\pm 9.6\%$
		Y	1.53	70.26	14.37		150.0	
		Z	1.01	65.37	11.10		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	0.60	63.10	9.79	0.00	150.0	$\pm 9.6\%$
		Y	0.85	67.12	12.84		150.0	
		Z	0.57	62.93	9.45		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	0.74	66.24	11.75	0.00	150.0	$\pm 9.6\%$
		Y	1.46	75.17	16.76		150.0	
		Z	0.73	66.36	11.54		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	1.24	72.67	15.10	0.00	150.0	$\pm 9.6\%$
		Y	5.17	93.05	23.35		150.0	
		Z	1.42	74.33	15.45		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	9.92	85.20	23.12	9.03	50.0	$\pm 9.6\%$
		Y	9.50	84.91	23.23		50.0	
		Z	10.83	86.02	23.20		50.0	
10297-AAC	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.57	69.12	16.16	0.00	150.0	$\pm 9.6\%$
		Y	2.77	70.42	16.97		150.0	
		Z	2.55	69.32	16.30		150.0	
10298-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.27	65.66	12.33	0.00	150.0	$\pm 9.6\%$
		Y	1.58	68.64	14.32		150.0	
		Z	1.21	65.43	11.98		150.0	
10299-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	2.00	66.49	12.18	0.00	150.0	$\pm 9.6\%$
		Y	3.31	72.57	14.96		150.0	
		Z	1.99	66.70	12.06		150.0	
10300-AAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.58	63.09	9.74	0.00	150.0	$\pm 9.6\%$
		Y	1.99	65.54	11.08		150.0	
		Z	1.51	62.92	9.42		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.69	65.76	17.48	4.17	50.0	$\pm 9.6\%$
		Y	4.64	65.55	17.37		50.0	
		Z	4.67	65.93	17.49		50.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.09	65.93	17.93	4.96	50.0	$\pm 9.6\%$
		Y	5.12	66.18	18.09		50.0	
		Z	5.09	66.17	17.98		50.0	

10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	4.84	65.58	17.76	4.96	50.0	$\pm 9.6 \%$
		Y	4.88	65.83	17.92		50.0	
		Z	4.85	65.84	17.81		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.65	65.44	17.26	4.17	50.0	$\pm 9.6 \%$
		Y	4.69	65.73	17.44		50.0	
		Z	4.65	65.69	17.31		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.44	68.14	19.56	6.02	35.0	$\pm 9.6 \%$
		Y	4.41	68.01	19.60		35.0	
		Z	4.62	69.17	19.86		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.68	66.85	19.08	6.02	35.0	$\pm 9.6 \%$
		Y	4.67	66.81	19.12		35.0	
		Z	4.77	67.53	19.30		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.59	67.04	19.05	6.02	35.0	$\pm 9.6 \%$
		Y	4.58	66.99	19.09		35.0	
		Z	4.69	67.75	19.27		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.57	67.28	19.21	6.02	35.0	$\pm 9.6 \%$
		Y	4.56	67.23	19.25		35.0	
		Z	4.69	68.04	19.45		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.73	67.04	19.22	6.02	35.0	$\pm 9.6 \%$
		Y	4.72	66.99	19.24		35.0	
		Z	4.82	67.69	19.42		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.63	66.94	19.07	6.02	35.0	$\pm 9.6 \%$
		Y	4.63	66.90	19.11		35.0	
		Z	4.74	67.65	19.30		35.0	
10311-AAC	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	2.92	68.38	15.85	0.00	150.0	$\pm 9.6 \%$
		Y	3.14	69.67	16.60		150.0	
		Z	2.91	68.56	15.97		150.0	
10313-AAA	iDEN 1:3	X	2.95	70.69	14.66	6.99	70.0	$\pm 9.6 \%$
		Y	3.98	74.43	16.48		70.0	
		Z	3.15	71.48	15.14		70.0	
10314-AAA	iDEN 1:6	X	5.04	79.92	21.00	10.00	30.0	$\pm 9.6 \%$
		Y	6.78	84.92	23.16		30.0	
		Z	5.73	81.64	21.73		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	0.97	63.25	14.68	0.17	150.0	$\pm 9.6 \%$
		Y	1.08	64.33	15.52		150.0	
		Z	0.98	63.49	14.85		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.44	66.48	16.13	0.17	150.0	$\pm 9.6 \%$
		Y	4.51	66.82	16.27		150.0	
		Z	4.41	66.56	16.16		150.0	
10317-AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.44	66.48	16.13	0.17	150.0	$\pm 9.6 \%$
		Y	4.51	66.82	16.27		150.0	
		Z	4.41	66.56	16.16		150.0	
10400-AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.53	66.78	16.11	0.00	150.0	$\pm 9.6 \%$
		Y	4.61	67.15	16.28		150.0	
		Z	4.49	66.84	16.14		150.0	
10401-AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.27	67.03	16.34	0.00	150.0	$\pm 9.6 \%$
		Y	5.28	67.17	16.36		150.0	
		Z	5.22	67.01	16.33		150.0	

10402-AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.50	67.24	16.31	0.00	150.0	$\pm 9.6 \%$
		Y	5.56	67.57	16.43		150.0	
		Z	5.47	67.27	16.33		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.07	65.69	11.52	0.00	115.0	$\pm 9.6 \%$
		Y	1.53	70.26	14.37		115.0	
		Z	1.01	65.37	11.10		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.07	65.69	11.52	0.00	115.0	$\pm 9.6 \%$
		Y	1.53	70.26	14.37		115.0	
		Z	1.01	65.37	11.10		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	23.46	102.23	25.39	0.00	100.0	$\pm 9.6 \%$
		Y	100.00	115.29	27.21		100.0	
		Z	100.00	120.73	29.57		100.0	
10410-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	55.06	113.36	27.76	3.23	80.0	$\pm 9.6 \%$
		Y	100.00	120.25	29.20		80.0	
		Z	100.00	122.59	30.17		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	0.91	62.47	14.11	0.00	150.0	$\pm 9.6 \%$
		Y	1.00	63.52	14.99		150.0	
		Z	0.91	62.68	14.27		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.39	66.47	16.07	0.00	150.0	$\pm 9.6 \%$
		Y	4.46	66.85	16.24		150.0	
		Z	4.36	66.56	16.10		150.0	
10417-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.39	66.47	16.07	0.00	150.0	$\pm 9.6 \%$
		Y	4.46	66.85	16.24		150.0	
		Z	4.36	66.56	16.10		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	X	4.38	66.64	16.10	0.00	150.0	$\pm 9.6 \%$
		Y	4.46	67.04	16.28		150.0	
		Z	4.35	66.74	16.14		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	X	4.40	66.59	16.10	0.00	150.0	$\pm 9.6 \%$
		Y	4.48	66.98	16.27		150.0	
		Z	4.37	66.68	16.13		150.0	
10422-AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.51	66.58	16.11	0.00	150.0	$\pm 9.6 \%$
		Y	4.59	66.96	16.28		150.0	
		Z	4.48	66.67	16.14		150.0	
10423-AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.67	66.88	16.22	0.00	150.0	$\pm 9.6 \%$
		Y	4.74	67.25	16.38		150.0	
		Z	4.62	66.95	16.24		150.0	
10424-AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.59	66.83	16.19	0.00	150.0	$\pm 9.6 \%$
		Y	4.67	67.21	16.36		150.0	
		Z	4.55	66.90	16.22		150.0	
10425-AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.20	67.12	16.39	0.00	150.0	$\pm 9.6 \%$
		Y	5.25	67.39	16.48		150.0	
		Z	5.17	67.16	16.41		150.0	
10426-AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.23	67.21	16.43	0.00	150.0	$\pm 9.6 \%$
		Y	5.26	67.44	16.50		150.0	
		Z	5.19	67.25	16.45		150.0	

10427-AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.23	67.14	16.39	0.00	150.0	± 9.6 %
		Y	5.27	67.40	16.48		150.0	
		Z	5.18	67.14	16.40		150.0	
10430-AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.20	71.33	18.23	0.00	150.0	± 9.6 %
		Y	4.38	72.12	18.67		150.0	
		Z	4.24	71.88	18.40		150.0	
10431-AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.04	67.01	16.00	0.00	150.0	± 9.6 %
		Y	4.14	67.47	16.25		150.0	
		Z	4.00	67.12	16.01		150.0	
10432-AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.35	66.89	16.12	0.00	150.0	± 9.6 %
		Y	4.44	67.29	16.32		150.0	
		Z	4.31	66.97	16.15		150.0	
10433-AAB	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.61	66.86	16.21	0.00	150.0	± 9.6 %
		Y	4.68	67.24	16.38		150.0	
		Z	4.57	66.94	16.24		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.31	72.22	18.13	0.00	150.0	± 9.6 %
		Y	4.57	73.29	18.72		150.0	
		Z	4.37	72.83	18.28		150.0	
10435-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	46.38	110.94	27.14	3.23	80.0	± 9.6 %
		Y	100.00	119.98	29.08		80.0	
		Z	100.00	122.32	30.05		80.0	
10447-AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.31	66.87	15.09	0.00	150.0	± 9.6 %
		Y	3.44	67.57	15.54		150.0	
		Z	3.26	66.97	15.03		150.0	
10448-AAB	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	3.89	66.79	15.86	0.00	150.0	± 9.6 %
		Y	3.98	67.27	16.12		150.0	
		Z	3.85	66.90	15.88		150.0	
10449-AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.17	66.71	16.01	0.00	150.0	± 9.6 %
		Y	4.26	67.14	16.23		150.0	
		Z	4.14	66.80	16.04		150.0	
10450-AAB	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.38	66.63	16.06	0.00	150.0	± 9.6 %
		Y	4.46	67.03	16.25		150.0	
		Z	4.35	66.71	16.09		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.16	66.87	14.55	0.00	150.0	± 9.6 %
		Y	3.31	67.71	15.09		150.0	
		Z	3.09	66.88	14.41		150.0	
10456-AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.10	67.71	16.58	0.00	150.0	± 9.6 %
		Y	6.13	67.95	16.63		150.0	
		Z	6.10	67.81	16.63		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.68	65.12	15.78	0.00	150.0	± 9.6 %
		Y	3.75	65.52	15.96		150.0	
		Z	3.67	65.23	15.81		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.88	71.11	17.24	0.00	150.0	± 9.6 %
		Y	4.15	72.36	17.96		150.0	
		Z	3.88	71.47	17.22		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	5.03	68.93	18.26	0.00	150.0	± 9.6 %
		Y	5.12	69.27	18.40		150.0	
		Z	5.02	69.28	18.31		150.0	

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	0.76	67.21	14.98	0.00	150.0	$\pm 9.6\%$
		Y	0.95	70.10	17.17		150.0	
		Z	0.78	67.84	15.35		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	124.22	31.05	3.29	80.0	$\pm 9.6\%$
		Y	100.00	126.59	32.12		80.0	
		Z	100.00	126.67	32.13		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.13	62.20	9.29	3.23	80.0	$\pm 9.6\%$
		Y	1.76	66.14	10.65		80.0	
		Z	1.32	63.88	10.13		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.67	3.23	80.0	$\pm 9.6\%$
		Y	0.95	60.52	7.63		80.0	
		Z	0.89	60.00	7.73		80.0	
10464-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	47.59	111.65	27.34	3.23	80.0	$\pm 9.6\%$
		Y	100.00	123.29	30.45		80.0	
		Z	100.00	123.26	30.40		80.0	
10465-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.05	61.52	8.89	3.23	80.0	$\pm 9.6\%$
		Y	1.46	64.47	9.90		80.0	
		Z	1.18	62.83	9.59		80.0	
10466-AAA	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.62	3.23	80.0	$\pm 9.6\%$
		Y	0.90	60.08	7.36		80.0	
		Z	0.89	60.00	7.68		80.0	
10467-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	72.09	117.06	28.59	3.23	80.0	$\pm 9.6\%$
		Y	100.00	123.66	30.60		80.0	
		Z	100.00	123.63	30.56		80.0	
10468-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.07	61.70	9.00	3.23	80.0	$\pm 9.6\%$
		Y	1.53	64.89	10.09		80.0	
		Z	1.22	63.12	9.74		80.0	
10469-AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.62	3.23	80.0	$\pm 9.6\%$
		Y	0.90	60.09	7.36		80.0	
		Z	0.89	60.00	7.68		80.0	
10470-AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	74.02	117.39	28.66	3.23	80.0	$\pm 9.6\%$
		Y	100.00	123.68	30.61		80.0	
		Z	100.00	123.65	30.56		80.0	
10471-AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.07	61.65	8.96	3.23	80.0	$\pm 9.6\%$
		Y	1.51	64.78	10.03		80.0	
		Z	1.21	63.05	9.70		80.0	
10472-AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.61	3.23	80.0	$\pm 9.6\%$
		Y	0.89	60.04	7.32		80.0	
		Z	0.89	60.00	7.66		80.0	
10473-AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	72.58	117.11	28.59	3.23	80.0	$\pm 9.6\%$
		Y	100.00	123.64	30.59		80.0	
		Z	100.00	123.61	30.54		80.0	
10474-AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.06	61.62	8.95	3.23	80.0	$\pm 9.6\%$
		Y	1.50	64.73	10.01		80.0	
		Z	1.20	63.02	9.68		80.0	
10475-AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.61	3.23	80.0	$\pm 9.6\%$
		Y	0.89	60.02	7.32		80.0	
		Z	0.89	60.00	7.66		80.0	

10477-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.04	61.46	8.85	3.23	80.0	$\pm 9.6 \%$
		Y	1.44	64.36	9.83		80.0	
		Z	1.17	62.77	9.54		80.0	
10478-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.91	60.00	7.60	3.23	80.0	$\pm 9.6 \%$
		Y	0.89	60.00	7.29		80.0	
		Z	0.89	60.00	7.65		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	8.21	87.49	22.94	3.23	80.0	$\pm 9.6 \%$
		Y	20.18	101.14	27.13		80.0	
		Z	18.46	99.74	26.54		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.14	76.02	17.14	3.23	80.0	$\pm 9.6 \%$
		Y	17.56	91.22	21.83		80.0	
		Z	8.18	81.93	19.01		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.78	71.70	15.15	3.23	80.0	$\pm 9.6 \%$
		Y	9.36	82.53	18.82		80.0	
		Z	4.98	75.18	16.32		80.0	
10482-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.35	69.25	15.02	2.23	80.0	$\pm 9.6 \%$
		Y	3.01	72.46	16.59		80.0	
		Z	2.33	69.25	14.80		80.0	
10483-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.09	69.06	14.42	2.23	80.0	$\pm 9.6 \%$
		Y	4.90	74.92	16.84		80.0	
		Z	3.31	69.99	14.61		80.0	
10484-AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.93	68.12	14.03	2.23	80.0	$\pm 9.6 \%$
		Y	4.36	73.23	16.22		80.0	
		Z	3.05	68.75	14.10		80.0	
10485-AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.95	72.33	17.49	2.23	80.0	$\pm 9.6 \%$
		Y	3.47	74.53	18.53		80.0	
		Z	3.08	73.09	17.68		80.0	
10486-AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.76	67.89	15.02	2.23	80.0	$\pm 9.6 \%$
		Y	3.16	69.70	15.94		80.0	
		Z	2.75	68.00	14.88		80.0	
10487-AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.75	67.50	14.83	2.23	80.0	$\pm 9.6 \%$
		Y	3.13	69.21	15.71		80.0	
		Z	2.74	67.55	14.66		80.0	
10488-AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.27	71.87	18.23	2.23	80.0	$\pm 9.6 \%$
		Y	3.61	73.22	18.84		80.0	
		Z	3.35	72.44	18.47		80.0	
10489-AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.21	68.44	16.77	2.23	80.0	$\pm 9.6 \%$
		Y	3.45	69.44	17.24		80.0	
		Z	3.25	68.82	16.89		80.0	
10490-AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.29	68.29	16.72	2.23	80.0	$\pm 9.6 \%$
		Y	3.53	69.24	17.16		80.0	
		Z	3.33	68.65	16.82		80.0	
10491-AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.51	70.39	17.81	2.23	80.0	$\pm 9.6 \%$
		Y	3.78	71.45	18.28		80.0	
		Z	3.55	70.76	17.99		80.0	
10492-AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.56	67.76	16.86	2.23	80.0	$\pm 9.6 \%$
		Y	3.76	68.54	17.20		80.0	
		Z	3.58	68.03	16.97		80.0	

10493-AAC	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.62	67.64	16.82	2.23	80.0	$\pm 9.6\%$
		Y	3.82	68.40	17.14		80.0	
		Z	3.64	67.90	16.91		80.0	
10494-AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.79	71.83	18.26	2.23	80.0	$\pm 9.6\%$
		Y	4.13	73.06	18.79		80.0	
		Z	3.85	72.23	18.46		80.0	
10495-AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.59	68.11	17.06	2.23	80.0	$\pm 9.6\%$
		Y	3.79	68.91	17.40		80.0	
		Z	3.61	68.36	17.17		80.0	
10496-AAC	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.67	67.87	17.00	2.23	80.0	$\pm 9.6\%$
		Y	3.86	68.62	17.31		80.0	
		Z	3.69	68.11	17.10		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.45	63.41	11.17	2.23	80.0	$\pm 9.6\%$
		Y	1.92	66.56	12.95		80.0	
		Z	1.35	62.71	10.54		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.28	60.00	8.33	2.23	80.0	$\pm 9.6\%$
		Y	1.38	60.59	8.91		80.0	
		Z	1.25	60.00	8.01		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.30	60.00	8.19	2.23	80.0	$\pm 9.6\%$
		Y	1.33	60.08	8.49		80.0	
		Z	1.27	60.00	7.87		80.0	
10500-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.04	71.93	17.72	2.23	80.0	$\pm 9.6\%$
		Y	3.46	73.67	18.54		80.0	
		Z	3.15	72.64	17.94		80.0	
10501-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.98	68.33	15.79	2.23	80.0	$\pm 9.6\%$
		Y	3.31	69.74	16.50		80.0	
		Z	3.01	68.63	15.79		80.0	
10502-AAA	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.03	68.16	15.65	2.23	80.0	$\pm 9.6\%$
		Y	3.36	69.55	16.35		80.0	
		Z	3.05	68.42	15.63		80.0	
10503-AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.23	71.65	18.12	2.23	80.0	$\pm 9.6\%$
		Y	3.56	73.00	18.74		80.0	
		Z	3.30	72.21	18.35		80.0	
10504-AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.19	68.33	16.71	2.23	80.0	$\pm 9.6\%$
		Y	3.43	69.33	17.17		80.0	
		Z	3.23	68.71	16.82		80.0	
10505-AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.27	68.19	16.66	2.23	80.0	$\pm 9.6\%$
		Y	3.51	69.14	17.10		80.0	
		Z	3.31	68.54	16.75		80.0	
10506-AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.76	71.67	18.18	2.23	80.0	$\pm 9.6\%$
		Y	4.10	72.90	18.71		80.0	
		Z	3.81	72.07	18.38		80.0	
10507-AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.57	68.04	17.02	2.23	80.0	$\pm 9.6\%$
		Y	3.78	68.84	17.36		80.0	
		Z	3.59	68.29	17.13		80.0	

10508-AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.65	67.79	16.95	2.23	80.0	$\pm 9.6 \%$
		Y	3.85	68.55	17.26		80.0	
		Z	3.67	68.04	17.05		80.0	
10509-AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.11	70.47	17.71	2.23	80.0	$\pm 9.6 \%$
		Y	4.41	71.52	18.16		80.0	
		Z	4.14	70.76	17.87		80.0	
10510-AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.05	67.79	17.05	2.23	80.0	$\pm 9.6 \%$
		Y	4.24	68.50	17.33		80.0	
		Z	4.06	67.96	17.14		80.0	
10511-AAC	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.11	67.57	17.00	2.23	80.0	$\pm 9.6 \%$
		Y	4.30	68.25	17.26		80.0	
		Z	4.12	67.74	17.08		80.0	
10512-AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.27	71.92	18.15	2.23	80.0	$\pm 9.6 \%$
		Y	4.64	73.17	18.68		80.0	
		Z	4.32	72.22	18.32		80.0	
10513-AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.94	68.01	17.14	2.23	80.0	$\pm 9.6 \%$
		Y	4.13	68.75	17.43		80.0	
		Z	3.95	68.18	17.23		80.0	
10514-AAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.97	67.63	17.03	2.23	80.0	$\pm 9.6 \%$
		Y	4.15	68.33	17.30		80.0	
		Z	3.98	67.79	17.12		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.87	62.63	14.14	0.00	150.0	$\pm 9.6 \%$
		Y	0.97	63.74	15.08		150.0	
		Z	0.87	62.85	14.30		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.49	69.66	15.70	0.00	150.0	$\pm 9.6 \%$
		Y	0.68	73.95	19.23		150.0	
		Z	0.52	70.86	16.45		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.71	64.33	14.51	0.00	150.0	$\pm 9.6 \%$
		Y	0.83	66.01	15.95		150.0	
		Z	0.72	64.67	14.76		150.0	
10518-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.38	66.55	16.05	0.00	150.0	$\pm 9.6 \%$
		Y	4.46	66.94	16.23		150.0	
		Z	4.35	66.64	16.08		150.0	
10519-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.55	66.77	16.16	0.00	150.0	$\pm 9.6 \%$
		Y	4.62	67.14	16.33		150.0	
		Z	4.51	66.84	16.19		150.0	
10520-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.40	66.71	16.07	0.00	150.0	$\pm 9.6 \%$
		Y	4.48	67.10	16.26		150.0	
		Z	4.37	66.78	16.10		150.0	
10521-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.34	66.70	16.06	0.00	150.0	$\pm 9.6 \%$
		Y	4.42	67.10	16.25		150.0	
		Z	4.30	66.76	16.08		150.0	
10522-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.40	66.82	16.16	0.00	150.0	$\pm 9.6 \%$
		Y	4.48	67.21	16.34		150.0	
		Z	4.36	66.90	16.19		150.0	

10523-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.29	66.70	16.01	0.00	150.0	$\pm 9.6\%$
		Y	4.37	67.12	16.22		150.0	
		Z	4.26	66.81	16.06		150.0	
10524-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.34	66.74	16.12	0.00	150.0	$\pm 9.6\%$
		Y	4.42	67.13	16.31		150.0	
		Z	4.30	66.82	16.16		150.0	
10525-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.34	65.80	15.73	0.00	150.0	$\pm 9.6\%$
		Y	4.43	66.22	15.92		150.0	
		Z	4.32	65.90	15.77		150.0	
10526-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.50	66.14	15.86	0.00	150.0	$\pm 9.6\%$
		Y	4.58	66.55	16.05		150.0	
		Z	4.46	66.22	15.90		150.0	
10527-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.42	66.09	15.80	0.00	150.0	$\pm 9.6\%$
		Y	4.50	66.52	16.00		150.0	
		Z	4.38	66.18	15.84		150.0	
10528-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.44	66.11	15.83	0.00	150.0	$\pm 9.6\%$
		Y	4.52	66.53	16.03		150.0	
		Z	4.40	66.19	15.87		150.0	
10529-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.44	66.11	15.83	0.00	150.0	$\pm 9.6\%$
		Y	4.52	66.53	16.03		150.0	
		Z	4.40	66.19	15.87		150.0	
10531-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.42	66.18	15.83	0.00	150.0	$\pm 9.6\%$
		Y	4.50	66.61	16.03		150.0	
		Z	4.37	66.25	15.86		150.0	
10532-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.29	66.04	15.76	0.00	150.0	$\pm 9.6\%$
		Y	4.37	66.48	15.97		150.0	
		Z	4.25	66.11	15.79		150.0	
10533-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.44	66.17	15.83	0.00	150.0	$\pm 9.6\%$
		Y	4.53	66.60	16.03		150.0	
		Z	4.41	66.26	15.87		150.0	
10534-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	4.98	66.20	15.91	0.00	150.0	$\pm 9.6\%$
		Y	5.05	66.57	16.06		150.0	
		Z	4.95	66.26	15.95		150.0	
10535-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.05	66.39	16.00	0.00	150.0	$\pm 9.6\%$
		Y	5.11	66.72	16.13		150.0	
		Z	5.01	66.43	16.03		150.0	
10536-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	4.92	66.34	15.95	0.00	150.0	$\pm 9.6\%$
		Y	4.99	66.70	16.10		150.0	
		Z	4.89	66.40	15.99		150.0	
10537-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	4.98	66.30	15.94	0.00	150.0	$\pm 9.6\%$
		Y	5.04	66.66	16.08		150.0	
		Z	4.95	66.35	15.97		150.0	
10538-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.06	66.31	15.98	0.00	150.0	$\pm 9.6\%$
		Y	5.12	66.65	16.12		150.0	
		Z	5.02	66.35	16.01		150.0	
10540-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	4.99	66.30	16.00	0.00	150.0	$\pm 9.6\%$
		Y	5.05	66.64	16.13		150.0	
		Z	4.95	66.33	16.02		150.0	

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

10558-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	5.87	67.06	16.20	0.00	150.0	$\pm 9.6\%$
		Y	5.91	67.36	16.31		150.0	
		Z	5.83	67.06	16.21		150.0	
10560-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	5.86	66.91	16.17	0.00	150.0	$\pm 9.6\%$
		Y	5.92	67.23	16.28		150.0	
		Z	5.83	66.92	16.18		150.0	
10561-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.80	66.89	16.20	0.00	150.0	$\pm 9.6\%$
		Y	5.84	67.19	16.30		150.0	
		Z	5.77	66.91	16.21		150.0	
10562-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	5.89	67.20	16.35	0.00	150.0	$\pm 9.6\%$
		Y	5.93	67.48	16.44		150.0	
		Z	5.84	67.16	16.34		150.0	
10563-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.00	67.15	16.29	0.00	150.0	$\pm 9.6\%$
		Y	6.02	67.38	16.35		150.0	
		Z	5.93	67.06	16.25		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	4.70	66.60	16.19	0.46	150.0	$\pm 9.6\%$
		Y	4.77	66.96	16.34		150.0	
		Z	4.67	66.68	16.22		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	4.92	67.06	16.53	0.46	150.0	$\pm 9.6\%$
		Y	4.99	67.39	16.67		150.0	
		Z	4.88	67.12	16.55		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	4.75	66.88	16.33	0.46	150.0	$\pm 9.6\%$
		Y	4.82	67.22	16.47		150.0	
		Z	4.71	66.94	16.35		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	4.79	67.31	16.72	0.46	150.0	$\pm 9.6\%$
		Y	4.86	67.67	16.87		150.0	
		Z	4.75	67.38	16.75		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	4.66	66.64	16.08	0.46	150.0	$\pm 9.6\%$
		Y	4.73	66.98	16.23		150.0	
		Z	4.62	66.69	16.09		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	4.76	67.45	16.81	0.46	150.0	$\pm 9.6\%$
		Y	4.83	67.82	16.96		150.0	
		Z	4.73	67.57	16.86		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	4.78	67.26	16.71	0.46	150.0	$\pm 9.6\%$
		Y	4.85	67.62	16.86		150.0	
		Z	4.74	67.35	16.75		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.05	63.78	14.98	0.46	130.0	$\pm 9.6\%$
		Y	1.16	64.84	15.77		130.0	
		Z	1.06	64.03	15.14		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.06	64.35	15.34	0.46	130.0	$\pm 9.6\%$
		Y	1.17	65.47	16.16		130.0	
		Z	1.07	64.63	15.52		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	1.81	84.33	21.65	0.46	130.0	$\pm 9.6\%$
		Y	2.93	92.85	25.80		130.0	
		Z	2.19	87.52	22.91		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.15	70.21	18.29	0.46	130.0	$\pm 9.6\%$
		Y	1.33	72.12	19.55		130.0	
		Z	1.19	70.90	18.68		130.0	

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

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

10607-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.48	65.79	15.98	0.46	130.0	$\pm 9.6 \%$
		Y	4.55	66.14	16.12		130.0	
		Z	4.46	65.89	16.02		130.0	
10608-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.65	66.17	16.14	0.46	130.0	$\pm 9.6 \%$
		Y	4.72	66.52	16.28		130.0	
		Z	4.61	66.26	16.18		130.0	
10609-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.54	66.00	15.96	0.46	130.0	$\pm 9.6 \%$
		Y	4.61	66.36	16.11		130.0	
		Z	4.51	66.08	15.99		130.0	
10610-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.59	66.17	16.14	0.46	130.0	$\pm 9.6 \%$
		Y	4.66	66.53	16.28		130.0	
		Z	4.56	66.26	16.17		130.0	
10611-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.51	65.97	15.97	0.46	130.0	$\pm 9.6 \%$
		Y	4.57	66.32	16.12		130.0	
		Z	4.47	66.05	16.01		130.0	
10612-AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.51	66.11	16.01	0.46	130.0	$\pm 9.6 \%$
		Y	4.58	66.46	16.16		130.0	
		Z	4.47	66.19	16.05		130.0	
10613-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.51	65.96	15.88	0.46	130.0	$\pm 9.6 \%$
		Y	4.57	66.31	16.02		130.0	
		Z	4.46	66.02	15.90		130.0	
10614-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.46	66.18	16.13	0.46	130.0	$\pm 9.6 \%$
		Y	4.53	66.55	16.29		130.0	
		Z	4.43	66.26	16.17		130.0	
10615-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.50	65.78	15.73	0.46	130.0	$\pm 9.6 \%$
		Y	4.57	66.13	15.88		130.0	
		Z	4.46	65.86	15.76		130.0	
10616-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.13	66.23	16.19	0.46	130.0	$\pm 9.6 \%$
		Y	5.18	66.52	16.28		130.0	
		Z	5.10	66.28	16.22		130.0	
10617-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.21	66.44	16.26	0.46	130.0	$\pm 9.6 \%$
		Y	5.24	66.68	16.33		130.0	
		Z	5.17	66.48	16.29		130.0	
10618-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.09	66.44	16.28	0.46	130.0	$\pm 9.6 \%$
		Y	5.14	66.73	16.37		130.0	
		Z	5.07	66.51	16.32		130.0	
10619-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.10	66.22	16.10	0.46	130.0	$\pm 9.6 \%$
		Y	5.14	66.49	16.19		130.0	
		Z	5.07	66.27	16.13		130.0	
10620-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.19	66.25	16.17	0.46	130.0	$\pm 9.6 \%$
		Y	5.23	66.52	16.25		130.0	
		Z	5.15	66.30	16.20		130.0	
10621-AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.20	66.42	16.38	0.46	130.0	$\pm 9.6 \%$
		Y	5.25	66.70	16.46		130.0	
		Z	5.17	66.46	16.41		130.0	
10622-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.21	66.59	16.46	0.46	130.0	$\pm 9.6 \%$
		Y	5.25	66.84	16.53		130.0	
		Z	5.16	66.58	16.46		130.0	

10623-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.08	66.07	16.06	0.46	130.0	$\pm 9.6\%$
		Y	5.13	66.35	16.15		130.0	
		Z	5.04	66.08	16.07		130.0	
10624-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.27	66.29	16.24	0.46	130.0	$\pm 9.6\%$
		Y	5.32	66.55	16.31		130.0	
		Z	5.24	66.33	16.26		130.0	
10625-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.56	67.05	16.67	0.46	130.0	$\pm 9.6\%$
		Y	5.57	67.20	16.69		130.0	
		Z	5.45	66.85	16.58		130.0	
10626-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.45	66.29	16.15	0.46	130.0	$\pm 9.6\%$
		Y	5.49	66.58	16.24		130.0	
		Z	5.42	66.33	16.18		130.0	
10627-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.69	66.90	16.42	0.46	130.0	$\pm 9.6\%$
		Y	5.70	67.08	16.45		130.0	
		Z	5.66	66.94	16.45		130.0	
10628-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.46	66.33	16.07	0.46	130.0	$\pm 9.6\%$
		Y	5.50	66.60	16.14		130.0	
		Z	5.42	66.33	16.07		130.0	
10629-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.54	66.41	16.10	0.46	130.0	$\pm 9.6\%$
		Y	5.57	66.66	16.17		130.0	
		Z	5.51	66.44	16.12		130.0	
10630-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	5.93	67.80	16.79	0.46	130.0	$\pm 9.6\%$
		Y	5.86	67.72	16.70		130.0	
		Z	5.85	67.67	16.74		130.0	
10631-AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.84	67.65	16.92	0.46	130.0	$\pm 9.6\%$
		Y	5.86	67.82	16.94		130.0	
		Z	5.79	67.61	16.91		130.0	
10632-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.66	66.99	16.61	0.46	130.0	$\pm 9.6\%$
		Y	5.68	67.19	16.65		130.0	
		Z	5.64	67.07	16.66		130.0	
10633-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.53	66.52	16.20	0.46	130.0	$\pm 9.6\%$
		Y	5.57	66.82	16.28		130.0	
		Z	5.50	66.56	16.22		130.0	
10634-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.51	66.55	16.27	0.46	130.0	$\pm 9.6\%$
		Y	5.56	66.86	16.37		130.0	
		Z	5.48	66.58	16.29		130.0	
10635-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.38	65.83	15.63	0.46	130.0	$\pm 9.6\%$
		Y	5.42	66.12	15.72		130.0	
		Z	5.34	65.82	15.63		130.0	
10636-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	5.87	66.66	16.24	0.46	130.0	$\pm 9.6\%$
		Y	5.90	66.93	16.31		130.0	
		Z	5.85	66.69	16.27		130.0	
10637-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.02	67.05	16.42	0.46	130.0	$\pm 9.6\%$
		Y	6.04	67.25	16.46		130.0	
		Z	5.99	67.06	16.43		130.0	
10638-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.02	67.01	16.38	0.46	130.0	$\pm 9.6\%$
		Y	6.04	67.26	16.44		130.0	
		Z	5.99	67.04	16.40		130.0	

10639-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	5.99	66.94	16.39	0.46	130.0	$\pm 9.6 \%$
		Y	6.02	67.20	16.45		130.0	
		Z	5.96	66.96	16.40		130.0	
10640-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	5.99	66.93	16.32	0.46	130.0	$\pm 9.6 \%$
		Y	6.01	67.17	16.38		130.0	
		Z	5.95	66.93	16.33		130.0	
10641-AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.05	66.90	16.33	0.46	130.0	$\pm 9.6 \%$
		Y	6.06	67.10	16.36		130.0	
		Z	6.02	66.93	16.35		130.0	
10642-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.08	67.13	16.62	0.46	130.0	$\pm 9.6 \%$
		Y	6.11	67.39	16.68		130.0	
		Z	6.05	67.15	16.64		130.0	
10643-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	5.92	66.82	16.35	0.46	130.0	$\pm 9.6 \%$
		Y	5.94	67.04	16.40		130.0	
		Z	5.89	66.84	16.37		130.0	
10644-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.04	67.19	16.56	0.46	130.0	$\pm 9.6 \%$
		Y	6.06	67.41	16.60		130.0	
		Z	5.99	67.13	16.53		130.0	
10645-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.20	67.30	16.58	0.46	130.0	$\pm 9.6 \%$
		Y	6.18	67.42	16.57		130.0	
		Z	6.12	67.19	16.53		130.0	
10646-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	13.97	103.27	34.96	9.30	60.0	$\pm 9.6 \%$
		Y	20.81	112.89	38.12		60.0	
		Z	13.67	103.09	35.06		60.0	
10647-AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	12.30	101.10	34.41	9.30	60.0	$\pm 9.6 \%$
		Y	17.37	109.51	37.26		60.0	
		Z	12.00	100.85	34.49		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	0.49	61.28	8.20	0.00	150.0	$\pm 9.6 \%$
		Y	0.65	63.85	10.60		150.0	
		Z	0.46	61.03	7.80		150.0	
10652-AAB	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.40	66.41	16.15	2.23	80.0	$\pm 9.6 \%$
		Y	3.58	67.18	16.52		80.0	
		Z	3.42	66.69	16.22		80.0	
10653-AAB	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	3.94	65.81	16.40	2.23	80.0	$\pm 9.6 \%$
		Y	4.08	66.40	16.64		80.0	
		Z	3.94	66.00	16.46		80.0	
10654-AAB	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	3.93	65.47	16.42	2.23	80.0	$\pm 9.6 \%$
		Y	4.06	66.03	16.64		80.0	
		Z	3.94	65.63	16.48		80.0	
10655-AAB	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	3.99	65.43	16.46	2.23	80.0	$\pm 9.6 \%$
		Y	4.13	65.99	16.67		80.0	
		Z	4.01	65.58	16.52		80.0	
10658-AAA	Pulse Waveform (200Hz, 10%)	X	7.13	77.36	16.21	10.00	50.0	$\pm 9.6 \%$
		Y	16.32	87.94	19.95		50.0	
		Z	9.11	80.61	17.72		50.0	
10659-AAA	Pulse Waveform (200Hz, 20%)	X	35.68	94.53	19.76	6.99	60.0	$\pm 9.6 \%$
		Y	100.00	107.23	23.45		60.0	
		Z	100.00	106.51	23.11		60.0	

10660-AAA	Pulse Waveform (200Hz, 40%)	X	100.00	100.10	18.83	3.98	80.0	± 9.6 %
		Y	100.00	106.47	21.86		80.0	
		Z	100.00	102.58	20.01		80.0	
10661-AAA	Pulse Waveform (200Hz, 60%)	X	1.25	67.33	8.37	2.22	100.0	± 9.6 %
		Y	100.00	108.17	21.47		100.0	
		Z	100.00	96.28	16.23		100.0	
10662-AAA	Pulse Waveform (200Hz, 80%)	X	0.30	60.00	2.55	0.97	120.0	± 9.6 %
		Y	100.00	113.09	21.91		120.0	
		Z	0.20	60.00	3.18		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)	13 MHz
Tissue	
Ingredients (% by weight)	
Bactericide	
DGBE	
HEC	
NaCl	See Page 2
Sucrose	
Polysorbate (Tween) 80	
Water	

Model: AURA Antenna



SAR EVALUATION REPORT

Approved by:

Quality Manager

Test Dates:
07/25/2018

DUT Type:
Wireless Power Transfer Device

APPENDIX D:
Page 1 of 2

Measurement Certificate / Material Test

Item Name	Head Tissue Simulating Liquid (HBBL30-250V3)
Product No.	SL AAH 005 AD (Batch: 141125-1)
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.

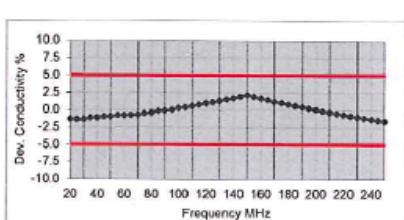
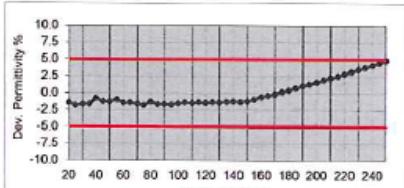
Test Condition

Ambient	Environment temperatur (22 ± 3)°C and humidity < 70%.
TSL Temperature	22°C
Test Date	14-Apr-16
Operator	WM

Additional Information

TSL Density	1.042 g/cm ³
TSL Heat-capacity	3.574 kJ/(kg*K)

f [MHz]	Measured		Target		Diff.to Target (%)		
	e'	e''	sigma	eps	sigma	Delta-eps	Delta-sigma
20	54.4	663.46	0.74	55.2	0.75	-1.5	-1.1
25	54.1	530.83	0.74	55.1	0.75	-1.8	-1.1
30	54.1	442.60	0.74	55.0	0.75	-1.6	-1.2
35	54.0	380.50	0.74	54.9	0.75	-1.6	-1.3
40	54.3	333.21	0.74	54.8	0.75	-0.9	-1.3
45	54.0	296.70	0.74	54.7	0.75	-1.2	-1.4
50	53.9	267.29	0.74	54.6	0.75	-1.2	-1.4
55	53.9	243.63	0.75	54.4	0.75	-1.0	-0.1
60	53.5	223.41	0.75	54.3	0.75	-1.5	-0.2
65	53.4	208.42	0.75	54.2	0.75	-1.5	-0.3
70	53.2	191.91	0.75	54.1	0.75	-1.7	-0.3
75	53.0	179.54	0.75	54.0	0.75	-1.8	-0.4
80	53.1	168.58	0.75	53.9	0.75	-1.4	-0.4
85	52.9	159.16	0.75	53.8	0.75	-1.6	-0.5
90	52.8	150.53	0.75	53.7	0.75	-1.6	-0.5
95	52.6	142.85	0.75	53.5	0.75	-1.8	-0.6
100	52.8	138.08	0.76	53.4	0.75	-1.8	0.7
105	52.6	129.84	0.78	53.3	0.78	-1.3	0.6
110	52.4	124.22	0.76	53.2	0.76	-1.5	0.6
115	52.4	119.11	0.76	53.1	0.76	-1.3	0.5
120	52.2	114.42	0.78	53.0	0.76	-1.5	0.5
125	52.1	110.08	0.77	52.9	0.76	-1.4	1.7
130	52.0	106.10	0.77	52.8	0.76	-1.4	1.7
135	51.9	102.44	0.77	52.6	0.76	-1.4	1.6
140	51.9	99.02	0.77	52.5	0.76	-1.2	1.6
145	51.7	95.89	0.77	52.4	0.76	-1.4	1.5
150	51.7	92.91	0.78	52.3	0.76	-1.1	2.8
155	51.8	90.14	0.78	52.1	0.76	-0.9	2.3
160	51.5	87.54	0.78	51.8	0.77	-0.6	1.8
165	51.4	85.10	0.78	51.6	0.77	-0.4	1.3
170	51.3	82.78	0.78	51.4	0.77	-0.1	0.8
175	51.2	80.67	0.79	51.1	0.78	0.1	1.6
180	51.1	78.63	0.79	50.9	0.78	0.4	1.2
185	51.0	76.69	0.79	50.7	0.78	0.7	0.7
190	51.0	74.91	0.79	50.4	0.79	1.1	0.2
195	50.9	73.18	0.79	50.2	0.79	1.4	-0.2
200	50.8	71.54	0.80	50.0	0.80	1.7	0.6
205	50.7	69.96	0.80	49.7	0.80	2.0	0.1
210	50.6	68.49	0.80	49.5	0.80	2.2	-0.4
215	50.5	67.08	0.80	49.3	0.81	2.5	-0.8
220	50.4	65.74	0.80	49.0	0.81	2.8	-1.3
225	50.3	64.45	0.81	48.8	0.81	3.1	-0.5
230	50.3	63.25	0.81	48.6	0.82	3.6	-0.9
235	50.2	62.07	0.81	48.3	0.82	3.9	-1.4
240	50.1	60.96	0.81	48.1	0.82	4.2	-1.8
245	50.0	59.88	0.82	47.9	0.83	4.4	-1.0
250	49.9	58.87	0.82	47.6	0.83	4.8	-1.5



**Figure D-1
13 MHz Tissue Equivalent Matter**

Model: AURA Antenna	PCTEST® Engineering Laboratory, Inc.	SAR EVALUATION REPORT	Approved by: Quality Manager
Test Dates: 07/25/2018	DUT Type: Wireless Power Transfer Device		APPENDIX D: Page 2 of 2

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 TYPE	PROBE CAL. POINT	COND. (σ)	PERM. (εr)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
J	13	7/24/2018	3914	EX3DV4	13 Head	0.744	53.074	PASS	PASS	PASS	N/A	N/A	N/A

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.

Model: AURA Antenna	 PCTEST ENGINEERING LABORATORY, INC.	SAR EVALUATION REPORT	Approved by: Quality Manager
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APPENDIX G: ADDITIONAL SAR TESTING CONSIDERATIONS

1.1 SAR Test Procedures for Point SAR Evaluation

- Evaluated SAR with the device positioned in direct contact with the bottom of the flat phantom.
- After SAR test was completed, the probe was moved to approximate center of peak distribution. At this location, Time Sweep was run (Test Case 1) and a point SAR value was taken.
- Positioned AURA Antenna against the side wall of the phantom. Moved the probe close to edge to approximately match the point SAR value found in step 2. Another Time Sweep was taken at this location with the AURA Sensor not in the liquid (Test Case 2).
- Inserted an inactive AURA sensor into the liquid far away from probe and transmitter. Using the SAR measurement system, a multi-meter was configured to perform continuous point SAR measurements. The sensor was continuously moved closer to probe to and the point SAR levels were monitored to confirm that the presence of AURA sensor did not significantly impact the point SAR levels.
- Time Sweeps were taken at the farthest point from the probe (Test Case 3) and at a point close to the probe (Test Case 4) to show that there was not a significant impact in Average Peak SAR due to the presence of the AURA Sensor.

1.2 Additional Evaluations to Confirm Sensor Proximity Impact

Table G-1
AURA Antenna with AURA Sensor Head SAR Data

MEASUREMENT RESULTS								
FREQUENCY MHz	Test Case	Device	Antenna Position	Sensor Position	Color in Figure 1-1	Device Serial Number	Average Peak SAR (W/kg)	Deviation* (%)
13.56	1	AURA Antenna	Normal test position	N/A	Blue	RD-0059	2.103	-
13.56	2	AURA Antenna	Side of ELI phantom	N/A	Green	RD-0059	2.149	-
13.56	3	AURA Antenna	Side of ELI phantom	Far from probe	Yellow	RD-0059	2.104	-2.094
13.56	4	AURA Antenna	Side of ELI phantom	Near probe	Pink	RD-0059	2.005	-6.701

Note: Deviation was calculated with respect to Test Case 2, when the AURA Sensor was not submerged in the liquid. Test Case 2 was positioned to approximately match the maximum Average Peak SAR found in Test Case 1.

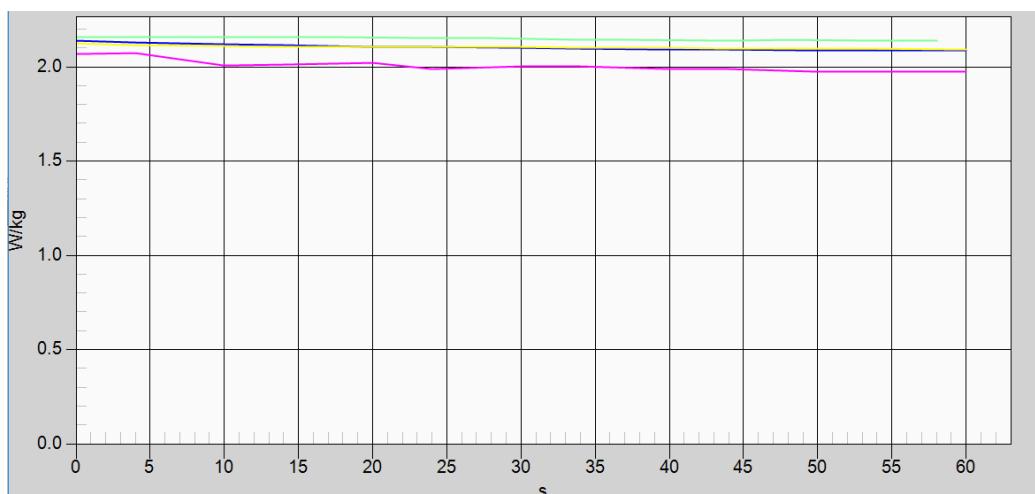


Figure G-1
Time Sweep Average Peak SAR Graph

Model: AURA Antenna	 PCTEST ENGINEERING LABORATORY, INC.	SAR EVALUATION REPORT	Approved by: Quality Manager
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