

Probe EX3DV4

SN:7346

Manufactured:	October 13, 2014
Repaired:	February 19, 2018
Calibrated:	February 28, 2018

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7346

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.46	0.47	0.48	$\pm 10.1 \%$
DCP (mV) ^B	100.0	102.9	99.7	

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	148.2	$\pm 3.0 \%$
		Y	0.0	0.0	1.0		139.8	
		Z	0.0	0.0	1.0		139.3	

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	35.30	261.2	35.06	7.248	0.016	5.034	1.798	0.079	1.006
Y	34.75	261.4	35.94	6.021	0.263	5.073	0.000	0.421	1.007
Z	48.88	364.7	35.56	12.29	0.261	5.100	0.367	0.451	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:7346

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	10.36	10.36	10.36	0.55	0.80	± 12.0 %
835	41.5	0.90	10.02	10.02	10.02	0.46	0.80	± 12.0 %
900	41.5	0.97	9.79	9.79	9.79	0.34	1.04	± 12.0 %
1450	40.5	1.20	8.83	8.83	8.83	0.33	0.80	± 12.0 %
1750	40.1	1.37	8.81	8.81	8.81	0.45	0.81	± 12.0 %
1900	40.0	1.40	8.46	8.46	8.46	0.38	0.85	± 12.0 %
2000	40.0	1.40	8.33	8.33	8.33	0.37	0.85	± 12.0 %
2300	39.5	1.67	7.87	7.87	7.87	0.30	0.89	± 12.0 %
2450	39.2	1.80	7.49	7.49	7.49	0.34	0.91	± 12.0 %
2600	39.0	1.96	7.35	7.35	7.35	0.42	0.87	± 12.0 %
3500	37.9	2.91	7.40	7.40	7.40	0.20	1.20	± 13.1 %
5250	35.9	4.71	5.49	5.49	5.49	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.97	4.97	4.97	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.12	5.12	5.12	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:7346

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	10.16	10.16	10.16	0.69	0.80	± 12.0 %
835	55.2	0.97	9.95	9.95	9.95	0.65	0.80	± 12.0 %
900	55.0	1.05	9.79	9.79	9.79	0.58	0.80	± 12.0 %
1450	54.0	1.30	8.95	8.95	8.95	0.30	0.80	± 12.0 %
1750	53.4	1.49	8.45	8.45	8.45	0.40	0.80	± 12.0 %
1900	53.3	1.52	8.04	8.04	8.04	0.40	0.85	± 12.0 %
2000	53.3	1.52	8.20	8.20	8.20	0.42	0.80	± 12.0 %
2300	52.9	1.81	7.89	7.89	7.89	0.36	0.88	± 12.0 %
2450	52.7	1.95	7.78	7.78	7.78	0.34	0.87	± 12.0 %
2600	52.5	2.16	7.44	7.44	7.44	0.24	0.99	± 12.0 %
3500	51.3	3.31	7.21	7.21	7.21	0.30	1.20	± 13.1 %
5250	48.9	5.36	5.06	5.06	5.06	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.35	4.35	4.35	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.52	4.52	4.52	0.50	1.90	± 13.1 %

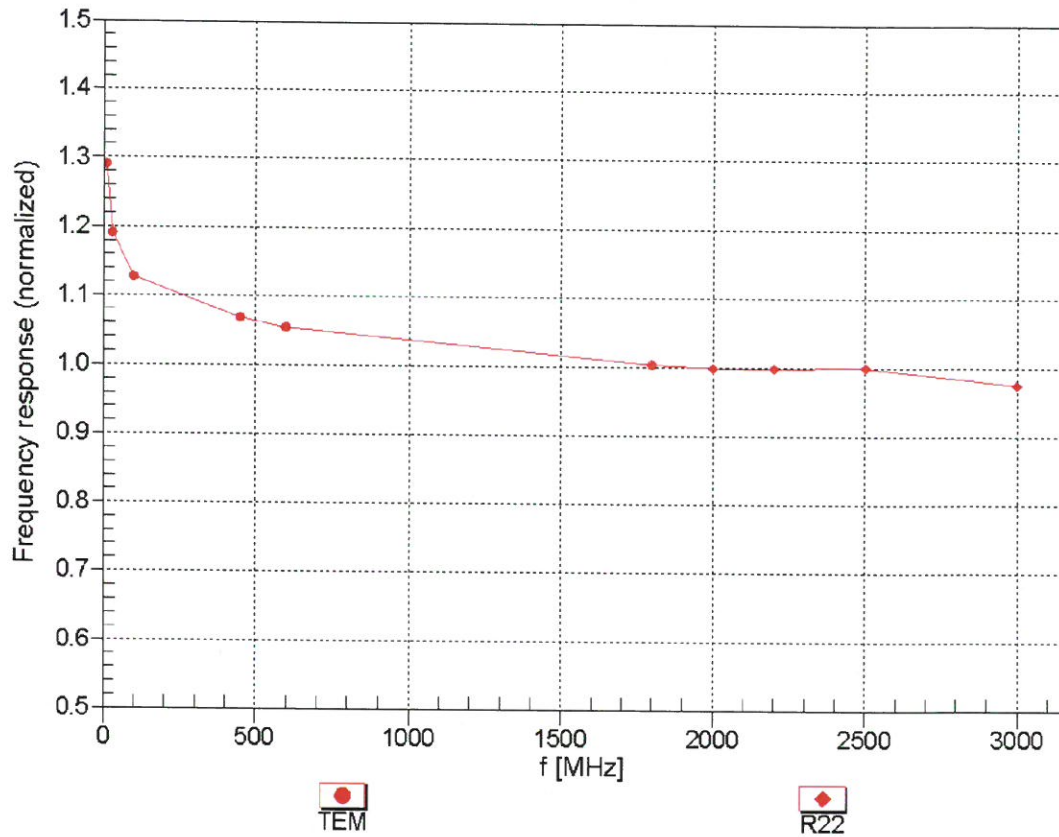
^C Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is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

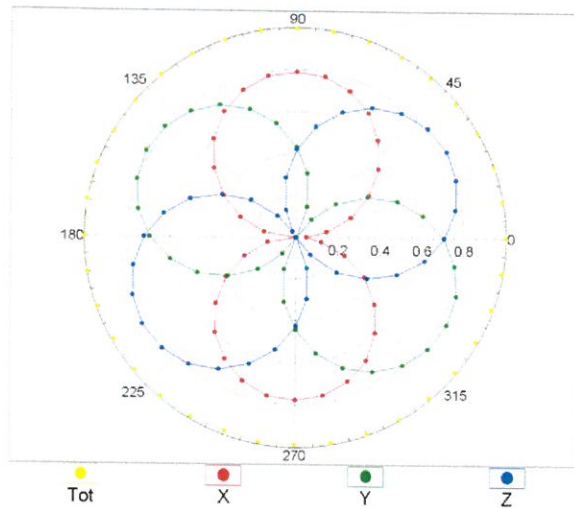
(TEM-Cell:ifi110 EXX, Waveguide: R22)



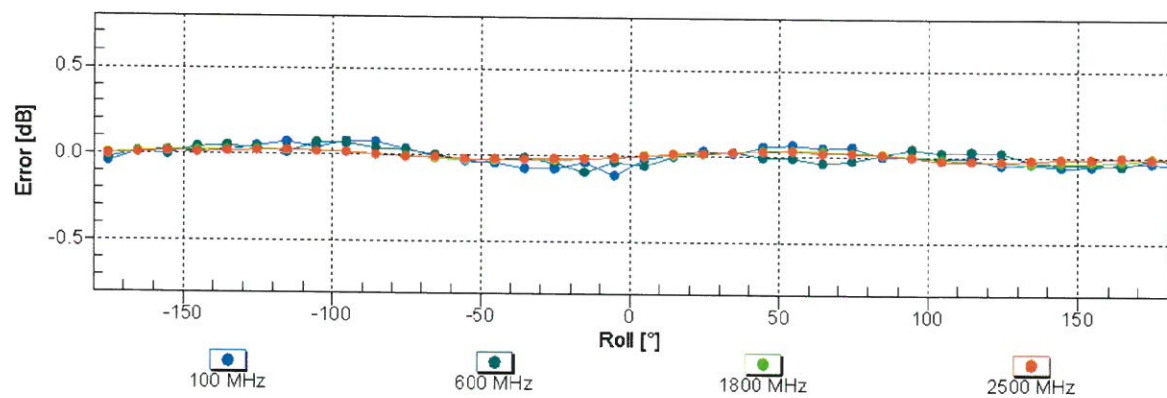
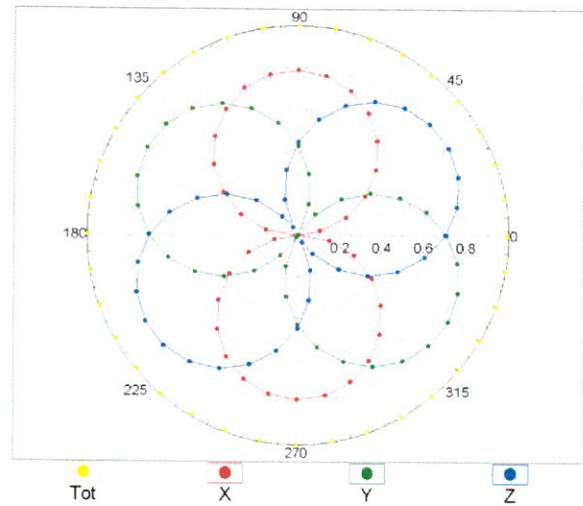
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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

f=600 MHz, TEM

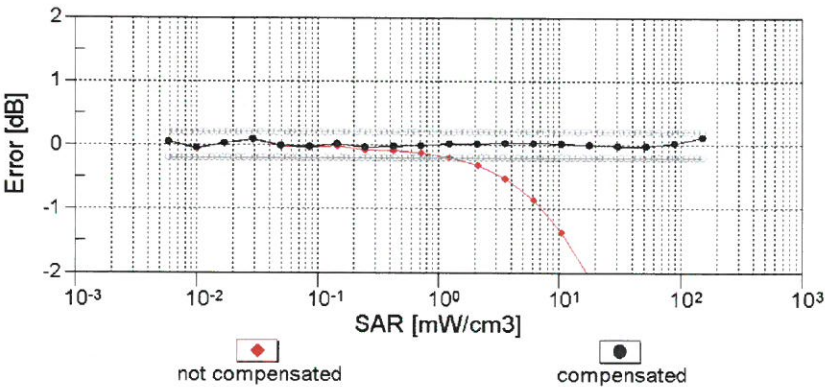
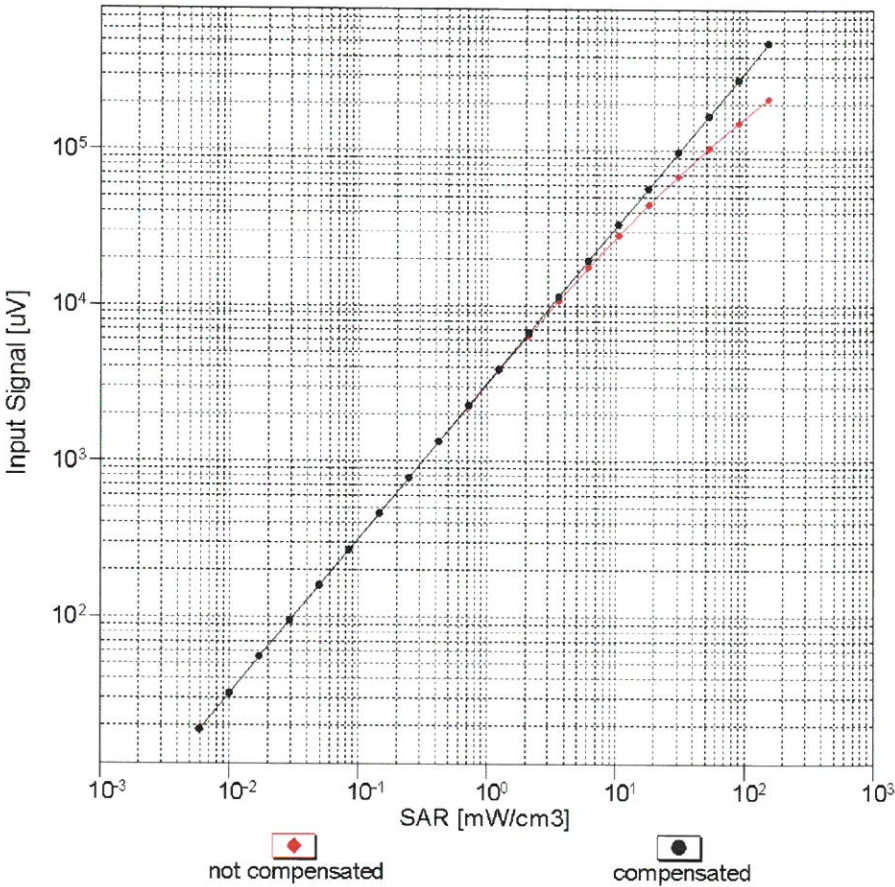


f=1800 MHz, R22



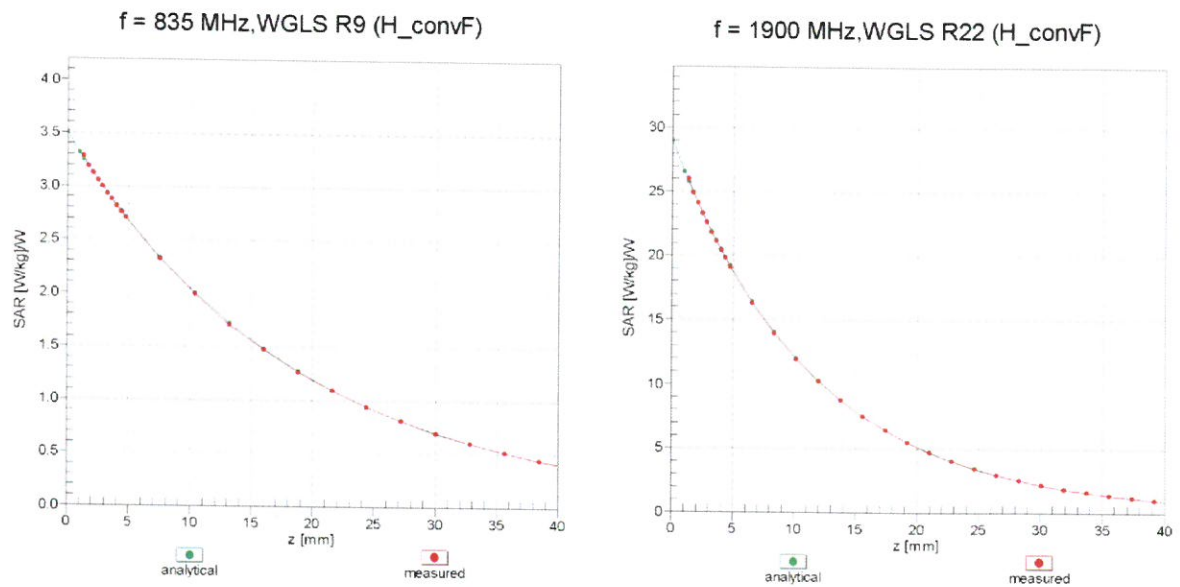
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

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



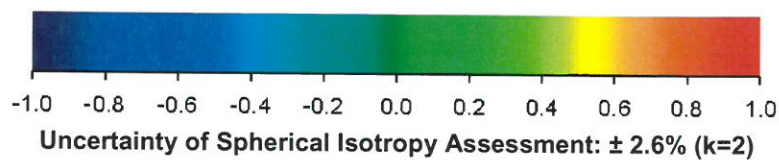
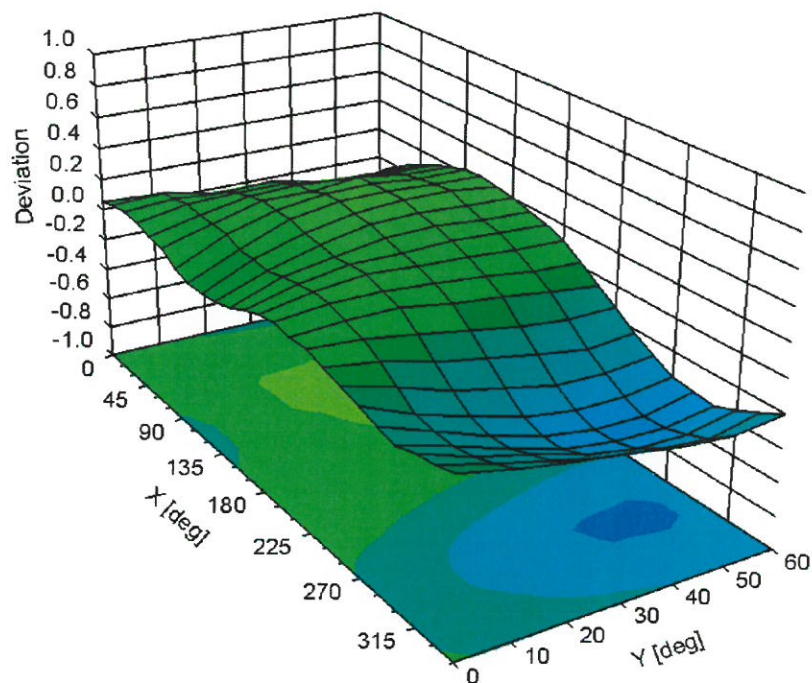
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), $f = 900 \text{ MHz}$



DASY/EASY - Parameters of Probe: EX3DV4 - SN:7346

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	94.5
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 μ V	C	D dB	VR mV	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	148.2	$\pm 3.0 \%$
		Y	0.00	0.00	1.00		139.8	
		Z	0.00	0.00	1.00		139.3	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	1.45	62.36	7.50	10.00	20.0	$\pm 9.6 \%$
		Y	1.75	63.39	8.41		20.0	
		Z	4.78	74.29	13.78		20.0	
10011- CAB	UMTS-FDD (WCDMA)	X	0.97	67.45	15.08	0.00	150.0	$\pm 9.6 \%$
		Y	0.79	64.77	12.99		150.0	
		Z	1.01	67.14	15.06		150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.11	63.62	15.02	0.41	150.0	$\pm 9.6 \%$
		Y	1.03	62.69	14.14		150.0	
		Z	1.15	63.81	15.26		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	4.64	66.70	16.95	1.46	150.0	$\pm 9.6 \%$
		Y	4.60	66.58	16.85		150.0	
		Z	4.88	66.71	17.15		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	100.00	105.35	22.47	9.39	50.0	$\pm 9.6 \%$
		Y	100.00	109.25	24.62		50.0	
		Z	100.00	116.92	28.43		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	104.76	22.25	9.57	50.0	$\pm 9.6 \%$
		Y	100.00	108.58	24.38		50.0	
		Z	100.00	116.29	28.20		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	105.70	21.57	6.56	60.0	$\pm 9.6 \%$
		Y	100.00	109.40	23.45		60.0	
		Z	100.00	119.07	28.36		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	4.44	75.57	29.75	12.57	50.0	$\pm 9.6 \%$
		Y	3.69	67.94	25.02		50.0	
		Z	6.34	85.87	35.21		50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	6.05	85.54	30.98	9.56	60.0	$\pm 9.6 \%$
		Y	5.87	83.75	30.00		60.0	
		Z	10.63	98.33	36.00		60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	108.03	21.85	4.80	80.0	$\pm 9.6 \%$
		Y	100.00	110.36	22.99		80.0	
		Z	100.00	122.50	29.06		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	112.09	22.91	3.55	100.0	$\pm 9.6 \%$
		Y	100.00	110.62	22.34		100.0	
		Z	100.00	127.03	30.23		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	3.98	75.54	25.39	7.80	80.0	$\pm 9.6 \%$
		Y	3.95	74.85	24.97		80.0	
		Z	6.00	83.77	29.04		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	103.91	20.36	5.30	70.0	$\pm 9.6 \%$
		Y	100.00	106.89	21.82		70.0	
		Z	100.00	118.49	27.64		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	103.39	18.21	1.88	100.0	$\pm 9.6 \%$
		Y	0.23	60.59	4.86		100.0	
		Z	100.00	127.69	28.89		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	108.99	19.60	1.17	100.0	± 9.6 %
		Y	17.88	185.55	8.98		100.0	
		Z	100.00	136.71	31.30		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	12.79	96.47	24.86	5.30	70.0	± 9.6 %
		Y	13.57	96.91	24.99		70.0	
		Z	100.00	134.23	36.96		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	2.37	74.93	16.07	1.88	100.0	± 9.6 %
		Y	1.68	70.39	13.82		100.0	
		Z	5.54	87.73	22.56		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	1.59	70.89	14.19	1.17	100.0	± 9.6 %
		Y	1.12	66.56	11.71		100.0	
		Z	2.66	77.84	18.73		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	24.14	105.98	27.55	5.30	70.0	± 9.6 %
		Y	26.94	107.15	27.86		70.0	
		Z	100.00	134.77	37.21		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	2.07	73.40	15.48	1.88	100.0	± 9.6 %
		Y	1.53	69.38	13.39		100.0	
		Z	4.94	86.18	22.03		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	1.60	71.24	14.48	1.17	100.0	± 9.6 %
		Y	1.13	66.80	11.96		100.0	
		Z	2.70	78.31	19.03		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	1.31	69.04	12.98	0.00	150.0	± 9.6 %
		Y	0.81	63.61	9.56		150.0	
		Z	1.78	71.59	15.48		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	100.00	102.07	20.31	7.78	50.0	± 9.6 %
		Y	100.00	104.84	21.79		50.0	
		Z	100.00	113.46	26.10		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	106.61	6.98	0.00	150.0	± 9.6 %
		Y	0.08	122.01	6.38		150.0	
		Z	0.00	105.01	6.87		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	7.44	74.51	14.94	13.80	25.0	± 9.6 %
		Y	19.01	85.89	19.55		25.0	
		Z	100.00	113.17	28.20		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	10.22	80.42	15.97	10.79	40.0	± 9.6 %
		Y	52.51	99.89	22.41		40.0	
		Z	100.00	114.06	27.50		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	100.00	119.57	30.50	9.03	50.0	± 9.6 %
		Y	70.07	114.86	29.74		50.0	
		Z	100.00	127.82	35.22		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	3.28	71.70	22.78	6.55	100.0	± 9.6 %
		Y	3.25	71.24	22.50		100.0	
		Z	4.54	77.63	25.56		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.11	64.39	15.49	0.61	110.0	± 9.6 %
		Y	1.03	63.44	14.62		110.0	
		Z	1.19	65.01	16.00		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	6.99	102.47	27.83	1.30	110.0	± 9.6 %
		Y	3.10	88.65	22.90		110.0	
		Z	100.00	143.08	37.80		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	1.88	75.91	20.78	2.04	110.0	± 9.6 %
		Y	1.76	74.64	20.01		110.0	
		Z	3.51	85.66	24.89		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.46	66.72	16.40	0.49	100.0	± 9.6 %
		Y	4.38	66.48	16.20		100.0	
		Z	4.68	66.67	16.53		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.47	66.80	16.49	0.72	100.0	± 9.6 %
		Y	4.40	66.58	16.31		100.0	
		Z	4.70	66.78	16.65		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	4.71	67.00	16.69	0.86	100.0	± 9.6 %
		Y	4.64	66.80	16.53		100.0	
		Z	4.99	67.06	16.89		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.57	66.82	16.75	1.21	100.0	± 9.6 %
		Y	4.52	66.66	16.62		100.0	
		Z	4.86	66.97	17.01		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.57	66.80	16.89	1.46	100.0	± 9.6 %
		Y	4.53	66.67	16.79		100.0	
		Z	4.88	67.00	17.19		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	4.85	67.05	17.36	2.04	100.0	± 9.6 %
		Y	4.82	66.98	17.31		100.0	
		Z	5.17	67.15	17.65		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	4.87	66.93	17.51	2.55	100.0	± 9.6 %
		Y	4.85	66.90	17.48		100.0	
		Z	5.22	67.24	17.90		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	4.94	66.95	17.69	2.67	100.0	± 9.6 %
		Y	4.92	66.93	17.68		100.0	
		Z	5.30	67.21	18.09		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	4.72	66.74	17.23	1.99	100.0	± 9.6 %
		Y	4.69	66.66	17.17		100.0	
		Z	4.97	66.80	17.48		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.67	66.95	17.40	2.30	100.0	± 9.6 %
		Y	4.64	66.90	17.36		100.0	
		Z	4.95	67.15	17.72		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	4.71	67.09	17.72	2.83	100.0	± 9.6 %
		Y	4.70	67.08	17.71		100.0	
		Z	5.01	67.31	18.07		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.71	67.00	17.86	3.30	100.0	± 9.6 %
		Y	4.71	67.03	17.88		100.0	
		Z	4.98	67.18	18.23		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	4.71	66.97	18.10	3.82	90.0	± 9.6 %
		Y	4.72	67.03	18.14		90.0	
		Z	5.02	67.31	18.57		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	4.74	66.82	18.25	4.15	90.0	± 9.6 %
		Y	4.76	66.90	18.31		90.0	
		Z	5.02	67.05	18.67		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	4.77	66.90	18.36	4.30	90.0	± 9.6 %
		Y	4.79	67.00	18.43		90.0	
		Z	5.04	67.10	18.76		90.0	

10081-CAB	CDMA2000 (1xRTT, RC3)	X	0.63	64.01	10.12	0.00	150.0	± 9.6 %
		Y	0.44	60.72	7.30		150.0	
		Z	0.81	65.60	12.31		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	0.59	60.00	3.05	4.77	80.0	± 9.6 %
		Y	0.59	60.00	3.19		80.0	
		Z	0.67	60.00	4.44		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	105.72	21.60	6.56	60.0	± 9.6 %
		Y	100.00	109.52	23.52		60.0	
		Z	100.00	119.12	28.40		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	1.79	68.41	15.60	0.00	150.0	± 9.6 %
		Y	1.57	66.45	14.19		150.0	
		Z	1.80	67.50	15.55		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.75	68.35	15.57	0.00	150.0	± 9.6 %
		Y	1.53	66.38	14.15		150.0	
		Z	1.77	67.46	15.52		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	6.10	85.72	31.04	9.56	60.0	± 9.6 %
		Y	5.91	83.90	30.06		60.0	
		Z	10.74	98.57	36.08		60.0	
10100-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	2.95	70.13	16.66	0.00	150.0	± 9.6 %
		Y	2.70	68.66	15.71		150.0	
		Z	3.11	70.25	16.60		150.0	
10101-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.08	67.39	15.84	0.00	150.0	± 9.6 %
		Y	2.93	66.61	15.25		150.0	
		Z	3.23	67.46	15.86		150.0	
10102-CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.19	67.41	15.94	0.00	150.0	± 9.6 %
		Y	3.04	66.68	15.39		150.0	
		Z	3.33	67.43	15.95		150.0	
10103-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	5.10	74.07	19.98	3.98	65.0	± 9.6 %
		Y	5.15	74.22	20.08		65.0	
		Z	6.72	77.66	21.60		65.0	
10104-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	5.13	71.79	19.66	3.98	65.0	± 9.6 %
		Y	5.05	71.43	19.52		65.0	
		Z	6.22	74.23	20.95		65.0	
10105-CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	4.81	70.26	19.25	3.98	65.0	± 9.6 %
		Y	4.89	70.53	19.40		65.0	
		Z	6.06	73.55	20.96		65.0	
10108-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	2.54	69.46	16.48	0.00	150.0	± 9.6 %
		Y	2.31	67.97	15.47		150.0	
		Z	2.72	69.46	16.42		150.0	
10109-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	2.72	67.37	15.70	0.00	150.0	± 9.6 %
		Y	2.57	66.45	15.00		150.0	
		Z	2.88	67.29	15.76		150.0	
10110-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.03	68.69	15.97	0.00	150.0	± 9.6 %
		Y	1.81	66.98	14.76		150.0	
		Z	2.20	68.54	16.02		150.0	
10111-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.47	68.63	15.96	0.00	150.0	± 9.6 %
		Y	2.26	67.23	14.95		150.0	
		Z	2.60	68.06	16.02		150.0	

10112-CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	2.85	67.44	15.78	0.00	150.0	± 9.6 %
		Y	2.70	66.58	15.12		150.0	
		Z	3.01	67.29	15.82		150.0	
10113-CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.62	68.82	16.10	0.00	150.0	± 9.6 %
		Y	2.40	67.49	15.14		150.0	
		Z	2.75	68.20	16.16		150.0	
10114-CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	4.92	67.13	16.37	0.00	150.0	± 9.6 %
		Y	4.84	66.82	16.13		150.0	
		Z	5.11	67.15	16.38		150.0	
10115-CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.17	67.19	16.41	0.00	150.0	± 9.6 %
		Y	5.08	66.90	16.18		150.0	
		Z	5.41	67.30	16.47		150.0	
10116-CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.01	67.32	16.40	0.00	150.0	± 9.6 %
		Y	4.91	67.00	16.15		150.0	
		Z	5.21	67.35	16.41		150.0	
10117-CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	4.92	67.08	16.37	0.00	150.0	± 9.6 %
		Y	4.83	66.76	16.12		150.0	
		Z	5.08	67.02	16.34		150.0	
10118-CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.24	67.37	16.50	0.00	150.0	± 9.6 %
		Y	5.15	67.10	16.28		150.0	
		Z	5.49	67.50	16.58		150.0	
10119-CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.00	67.31	16.40	0.00	150.0	± 9.6 %
		Y	4.91	67.00	16.16		150.0	
		Z	5.18	67.29	16.39		150.0	
10140-CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.20	67.43	15.85	0.00	150.0	± 9.6 %
		Y	3.06	66.69	15.30		150.0	
		Z	3.37	67.43	15.88		150.0	
10141-CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.33	67.59	16.05	0.00	150.0	± 9.6 %
		Y	3.19	66.89	15.52		150.0	
		Z	3.49	67.53	16.04		150.0	
10142-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	1.79	68.65	15.30	0.00	150.0	± 9.6 %
		Y	1.53	66.43	13.74		150.0	
		Z	1.98	68.50	15.67		150.0	
10143-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.28	69.10	15.14	0.00	150.0	± 9.6 %
		Y	1.96	66.88	13.65		150.0	
		Z	2.46	68.77	15.73		150.0	
10144-CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	1.94	65.97	13.06	0.00	150.0	± 9.6 %
		Y	1.73	64.50	11.90		150.0	
		Z	2.23	66.53	14.15		150.0	
10145-CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	0.78	61.55	8.19	0.00	150.0	± 9.6 %
		Y	0.64	60.00	6.61		150.0	
		Z	1.21	65.05	11.79		150.0	
10146-CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	1.07	61.11	7.04	0.00	150.0	± 9.6 %
		Y	0.91	60.04	6.31		150.0	
		Z	1.79	65.28	11.17		150.0	
10147-CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	1.13	61.56	7.38	0.00	150.0	± 9.6 %
		Y	0.95	60.33	6.56		150.0	
		Z	2.04	66.88	12.09		150.0	

10149-CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.73	67.44	15.75	0.00	150.0	± 9.6 %
		Y	2.58	66.52	15.05		150.0	
		Z	2.89	67.35	15.80		150.0	
10150-CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	2.86	67.50	15.83	0.00	150.0	± 9.6 %
		Y	2.71	66.64	15.17		150.0	
		Z	3.02	67.34	15.86		150.0	
10151-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	5.41	77.06	21.27	3.98	65.0	± 9.6 %
		Y	5.28	76.61	21.11		65.0	
		Z	7.06	80.28	22.78		65.0	
10152-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	4.66	71.71	19.22	3.98	65.0	± 9.6 %
		Y	4.58	71.35	19.06		65.0	
		Z	5.79	74.35	20.76		65.0	
10153-CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	5.02	72.83	20.10	3.98	65.0	± 9.6 %
		Y	4.95	72.53	19.98		65.0	
		Z	6.14	75.24	21.50		65.0	
10154-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.08	69.08	16.21	0.00	150.0	± 9.6 %
		Y	1.84	67.31	14.97		150.0	
		Z	2.25	68.95	16.28		150.0	
10155-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.48	68.67	15.99	0.00	150.0	± 9.6 %
		Y	2.26	67.27	14.98		150.0	
		Z	2.60	68.07	16.04		150.0	
10156-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.61	68.38	14.72	0.00	150.0	± 9.6 %
		Y	1.33	65.75	12.89		150.0	
		Z	1.82	68.57	15.47		150.0	
10157-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	1.74	66.14	12.73	0.00	150.0	± 9.6 %
		Y	1.50	64.22	11.27		150.0	
		Z	2.07	67.07	14.18		150.0	
10158-CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.63	68.91	16.16	0.00	150.0	± 9.6 %
		Y	2.41	67.57	15.20		150.0	
		Z	2.75	68.26	16.20		150.0	
10159-CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	1.82	66.50	12.94	0.00	150.0	± 9.6 %
		Y	1.56	64.46	11.44		150.0	
		Z	2.18	67.54	14.47		150.0	
10160-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.58	68.77	16.27	0.00	150.0	± 9.6 %
		Y	2.38	67.56	15.39		150.0	
		Z	2.72	68.50	16.19		150.0	
10161-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.75	67.48	15.71	0.00	150.0	± 9.6 %
		Y	2.59	66.55	15.00		150.0	
		Z	2.91	67.27	15.79		150.0	
10162-CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	2.86	67.71	15.86	0.00	150.0	± 9.6 %
		Y	2.70	66.80	15.16		150.0	
		Z	3.02	67.42	15.90		150.0	
10166-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.32	70.00	19.39	3.01	150.0	± 9.6 %
		Y	3.05	68.29	18.45		150.0	
		Z	3.49	69.03	18.74		150.0	
10167-CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.24	74.22	20.32	3.01	150.0	± 9.6 %
		Y	3.51	70.51	18.61		150.0	
		Z	4.24	71.69	19.11		150.0	