

10588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
10590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	± 9.6 %
10592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	± 9.6 %
10599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
10604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	± 9.6 %
10606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10615	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	± 9.6 %
10619	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 %
10623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 %
10628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6 %
10629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10646	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %

10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	± 9.6 %
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	± 9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	± 9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	± 9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	± 9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	± 9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	± 9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.30	± 9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10718	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	± 9.6 %
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN	8.87	± 9.6 %
10721	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN	8.76	± 9.6 %
10722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)	WLAN	8.55	± 9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10725	AAA	IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
10726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)	WLAN	8.72	± 9.6 %
10727	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	± 9.6 %

10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	± 9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	± 9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	± 9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN	8.43	± 9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	± 9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	± 9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	± 9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	± 9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	± 9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	± 9.6 %

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





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

Accreditation No.: **SCS 0108**

Client **Auden**

Certificate No: **EX3-7375\_Dec18**

## CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:7375**

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

Calibration date: **December 13, 2018**

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

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

Calibration Equipment used (M&TE critical for calibration)

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

Calibrated by:	Name <b>Claudio Leubler</b>	Function <b>Laboratory Technician</b>	Signature 
Approved by:	Name <b>Katja Pokovic</b>	Function <b>Technical Manager</b>	

Issued: December 15, 2018

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





Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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Multilateral Agreement for the recognition of calibration certificates

### Glossary:

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

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

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

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: 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<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: 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<sub>x,y,z</sub> \* 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  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe EX3DV4

## SN:7375

Manufactured: April 13, 2015  
Calibrated: December 13, 2018

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

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7375

### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup>	0.50	0.42	0.46	$\pm 10.1 \%$
DCP (mV) <sup>B</sup>	99.7	99.5	99.8	

### Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Unc <sup>E</sup> (k=2)
0	CW	X	0.0	0.0	1.0	0.00	162.8	$\pm 3.3 \%$
		Y	0.0	0.0	1.0		162.4	
		Z	0.0	0.0	1.0		176.7	

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

	C1 fF	C2 fF	$\alpha$ $\text{V}^{-1}$	T1 $\text{ms}\cdot\text{V}^{-2}$	T2 $\text{ms}\cdot\text{V}^{-1}$	T3 ms	T4 $\text{V}^{-2}$	T5 $\text{V}^{-1}$	T6
X	49.17	370.4	36.49	10.04	0.092	5.100	1.852	0.214	1.010
Y	33.20	261.0	38.89	2.699	0.121	5.052	0.000	0.162	1.015
Z	41.99	314.1	35.78	7.410	0.109	5.054	1.240	0.205	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%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

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

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

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7375

### Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	41.9	0.89	10.35	10.35	10.35	0.40	0.94	± 12.0 %
835	41.5	0.90	10.13	10.13	10.13	0.50	0.81	± 12.0 %
900	41.5	0.97	9.83	9.83	9.83	0.44	0.84	± 12.0 %
1450	40.5	1.20	8.93	8.93	8.93	0.47	0.80	± 12.0 %
1750	40.1	1.37	8.58	8.58	8.58	0.39	0.84	± 12.0 %
1900	40.0	1.40	8.26	8.26	8.26	0.34	0.85	± 12.0 %
2000	40.0	1.40	8.19	8.19	8.19	0.33	0.84	± 12.0 %
2300	39.5	1.67	7.79	7.79	7.79	0.31	0.85	± 12.0 %
2450	39.2	1.80	7.64	7.64	7.64	0.34	0.86	± 12.0 %
2600	39.0	1.96	7.42	7.42	7.42	0.36	0.85	± 12.0 %
3500	37.9	2.91	7.20	7.20	7.20	0.28	1.20	± 13.1 %
3700	37.7	3.12	7.06	7.06	7.06	0.25	1.20	± 13.1 %
3900	37.5	3.32	6.96	6.96	6.96	0.25	1.80	± 13.1 %
4600	36.7	4.04	6.74	6.74	6.74	0.25	1.80	± 13.1 %
5250	35.9	4.71	5.29	5.29	5.29	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.69	4.69	4.69	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.85	4.85	4.85	0.40	1.80	± 13.1 %

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

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

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is 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:7375

### Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	10.52	10.52	10.52	0.47	0.80	± 12.0 %
835	55.2	0.97	10.18	10.18	10.18	0.46	0.80	± 12.0 %
900	55.0	1.05	9.93	9.93	9.93	0.45	0.81	± 12.0 %
1450	54.0	1.30	8.75	8.75	8.75	0.38	0.80	± 12.0 %
1750	53.4	1.49	8.56	8.56	8.56	0.44	0.88	± 12.0 %
1900	53.3	1.52	8.20	8.20	8.20	0.38	0.89	± 12.0 %
2000	53.3	1.52	8.14	8.14	8.14	0.27	1.10	± 12.0 %
2300	52.9	1.81	7.69	7.69	7.69	0.45	0.83	± 12.0 %
2450	52.7	1.95	7.81	7.81	7.81	0.34	0.92	± 12.0 %
2600	52.5	2.16	7.53	7.53	7.53	0.24	1.05	± 12.0 %
3500	51.3	3.31	7.17	7.17	7.17	0.28	1.20	± 13.1 %
3700	51.0	3.55	6.98	6.98	6.98	0.20	1.25	± 13.1 %
3900	51.2	3.78	6.86	6.86	6.86	0.20	1.90	± 13.1 %
4600	49.8	4.60	6.73	6.73	6.73	0.20	1.90	± 13.1 %
5250	48.9	5.36	4.65	4.65	4.65	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.00	4.00	4.00	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.27	4.27	4.27	0.50	1.90	± 13.1 %

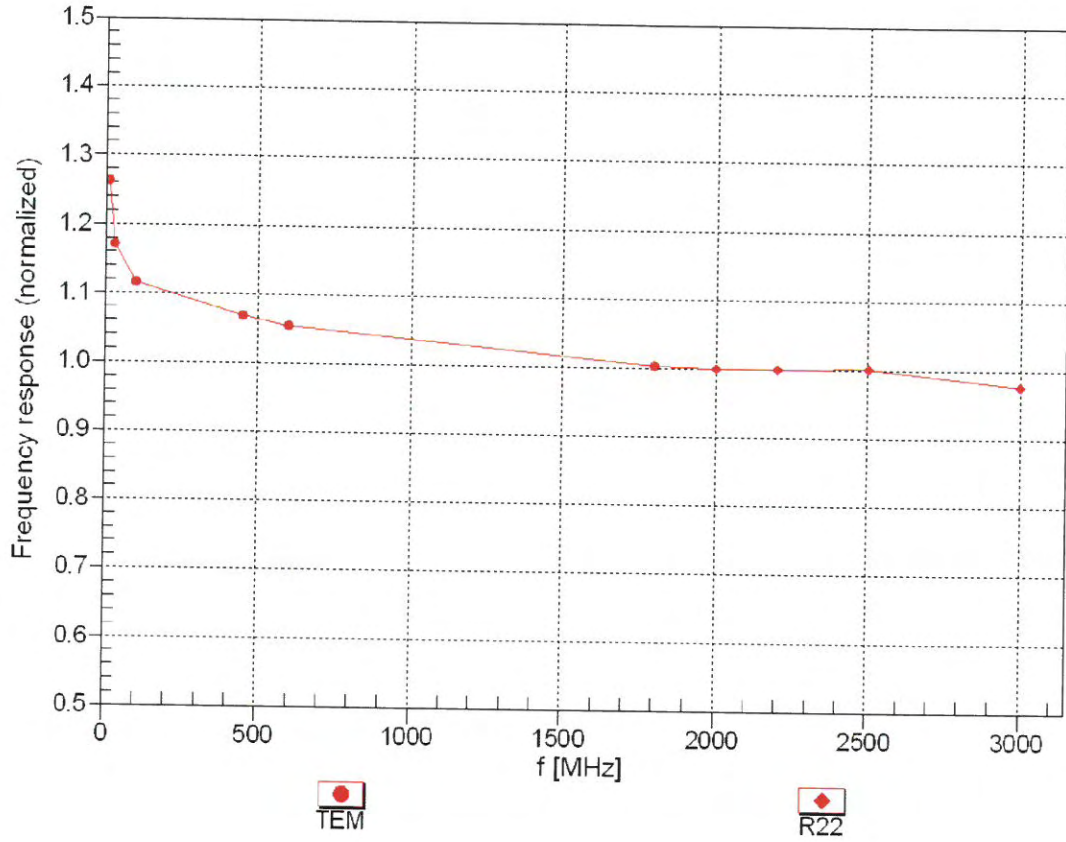
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below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

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

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

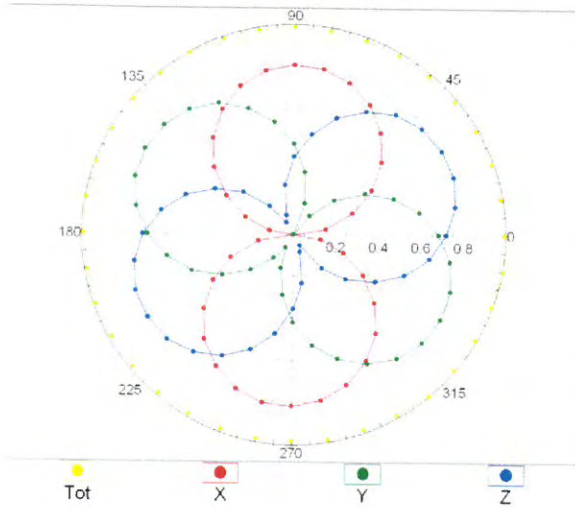
(TEM-Cell:ifi110 EXX, Waveguide: R22)



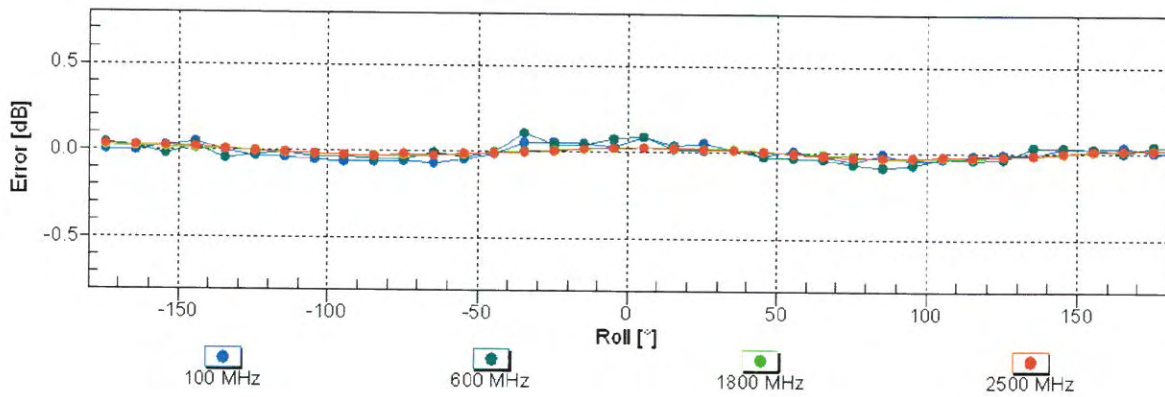
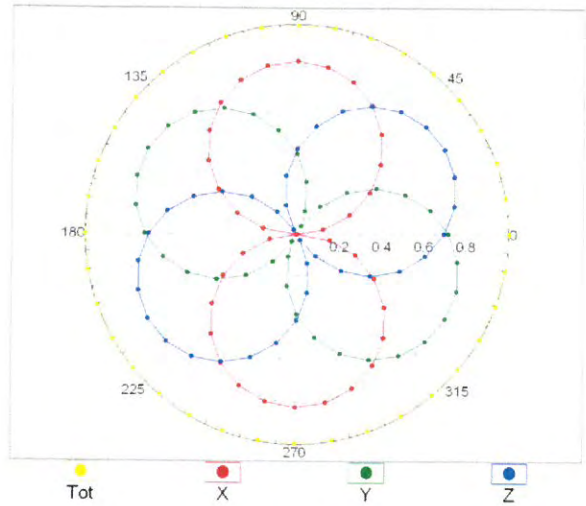
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

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

f=600 MHz,TEM



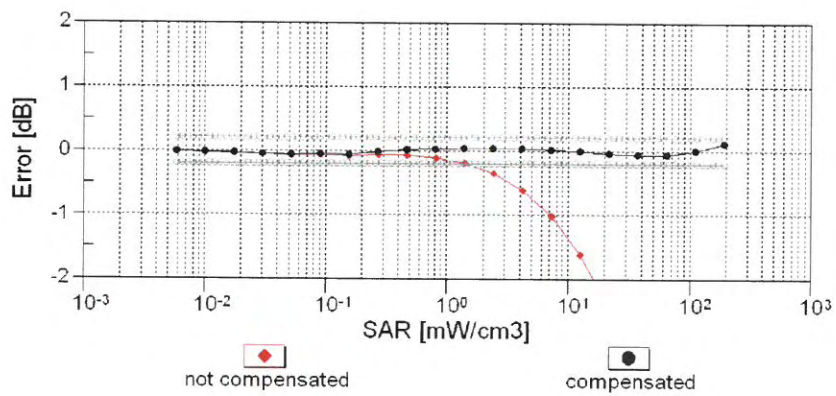
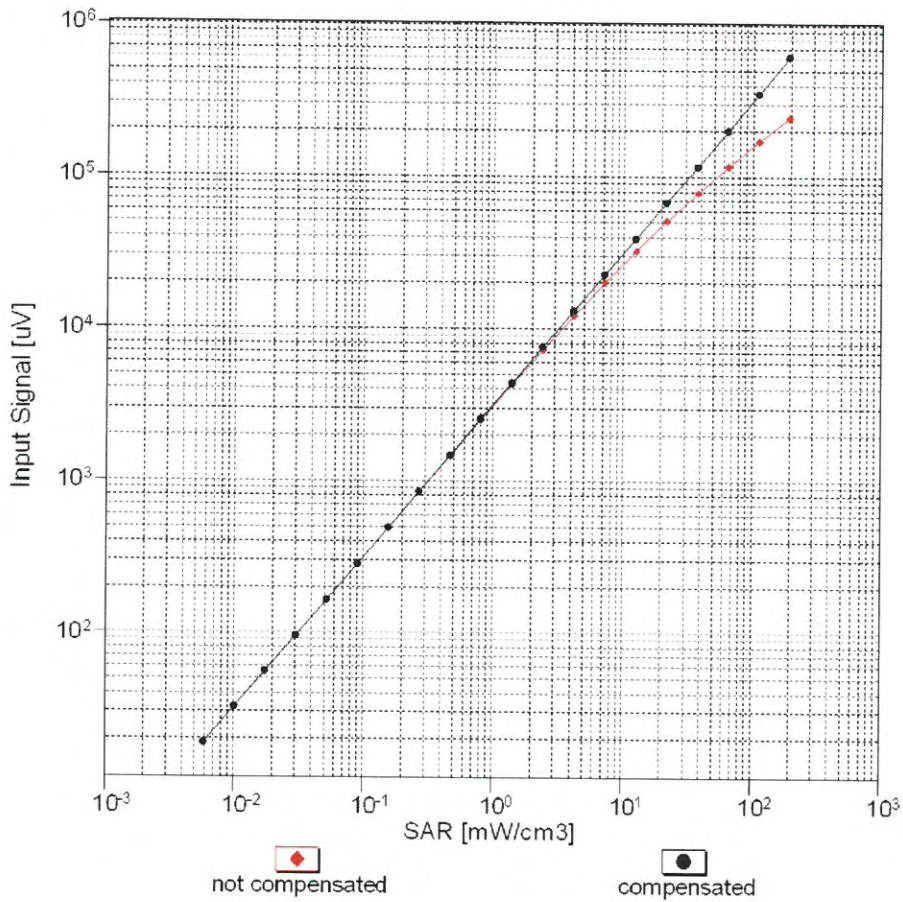
f=1800 MHz,R22



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

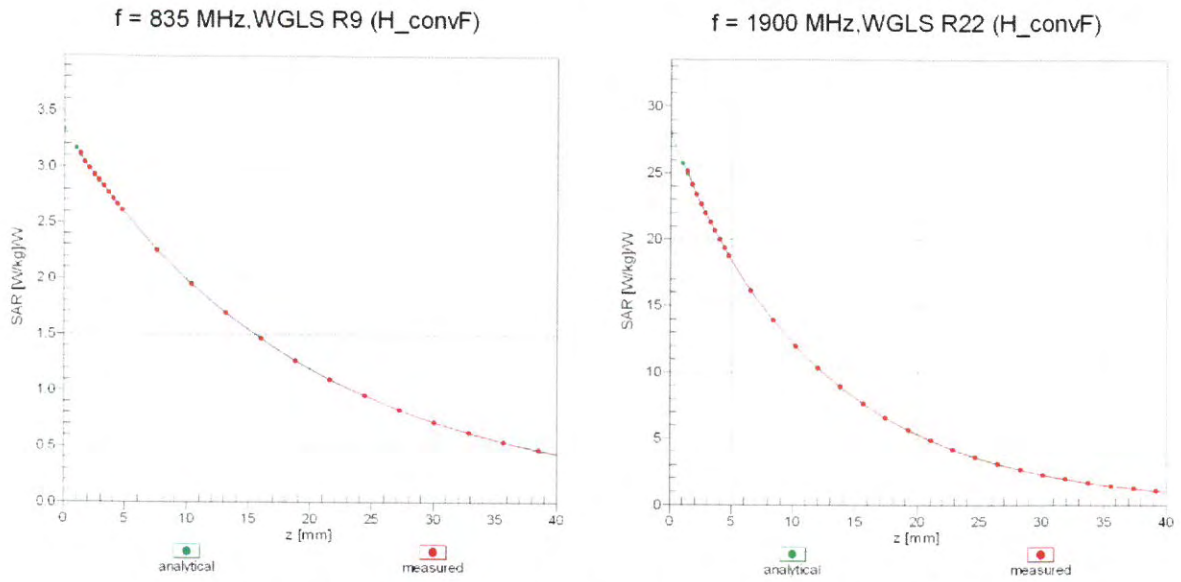


## Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)

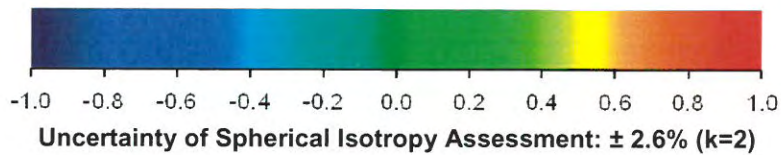
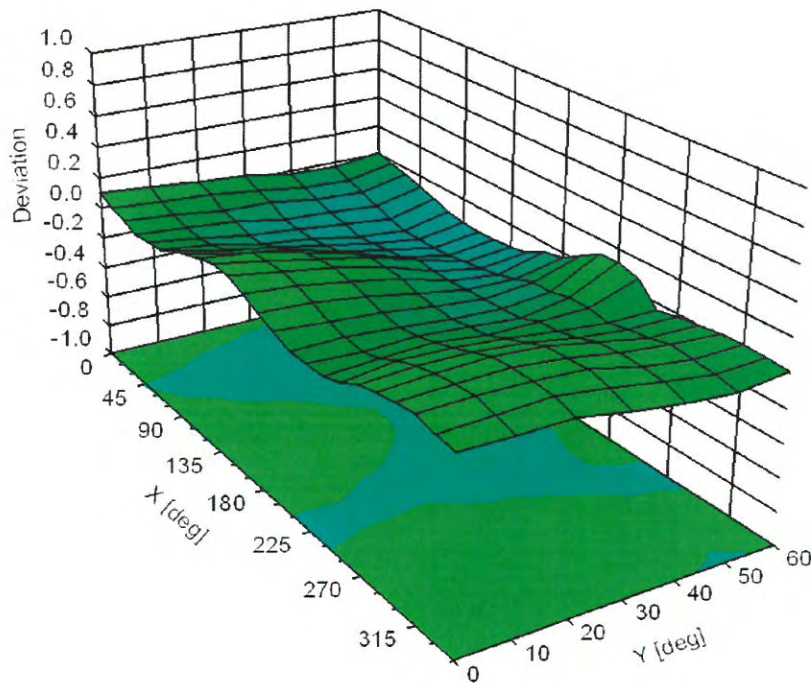


**Uncertainty of Linearity Assessment: ± 0.6% (k=2)**

# Conversion Factor Assessment



## Deviation from Isotropy in Liquid Error ( $\phi, \theta$ ), f = 900 MHz



## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7375

### Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	15.4
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm



**Appendix: Modulation Calibration Parameters**

UID	Communication System Name		A dB	B dB $\sqrt{\mu V}$	C	D dB	VR mV	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	162.8	$\pm 3.3\%$
		Y	0.00	0.00	1.00		162.4	
		Z	0.00	0.00	1.00		176.7	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	2.91	69.50	11.48	10.00	20.0	$\pm 9.6\%$
		Y	1.35	61.41	6.87		20.0	
		Z	1.64	63.37	8.27		20.0	
10011- CAB	UMTS-FDD (WCDMA)	X	1.84	78.98	21.46	0.00	150.0	$\pm 9.6\%$
		Y	0.82	65.25	13.30		150.0	
		Z	1.06	68.85	16.02		150.0	
10012- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	1.24	66.18	17.53	0.41	150.0	$\pm 9.6\%$
		Y	1.01	62.53	14.24		150.0	
		Z	1.12	63.97	15.48		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	X	4.93	67.08	17.64	1.46	150.0	$\pm 9.6\%$
		Y	4.56	66.44	16.91		150.0	
		Z	4.76	66.70	17.11		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	100.00	116.80	28.03	9.39	50.0	$\pm 9.6\%$
		Y	100.00	104.25	21.97		50.0	
		Z	100.00	108.46	24.06		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	115.86	27.65	9.57	50.0	$\pm 9.6\%$
		Y	27.86	91.24	18.81		50.0	
		Z	100.00	107.87	23.85		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	124.40	30.29	6.56	60.0	$\pm 9.6\%$
		Y	100.00	102.44	19.86		60.0	
		Z	100.00	110.17	23.70		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	7.05	92.09	38.98	12.57	50.0	$\pm 9.6\%$
		Y	3.18	64.30	23.15		50.0	
		Z	5.20	80.44	32.44		50.0	
10026- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	10.75	101.29	37.96	9.56	60.0	$\pm 9.6\%$
		Y	4.58	78.65	28.18		60.0	
		Z	7.14	89.57	32.76		60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	136.39	34.55	4.80	80.0	$\pm 9.6\%$
		Y	100.00	100.53	18.19		80.0	
		Z	100.00	113.90	24.50		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	154.91	41.33	3.55	100.0	$\pm 9.6\%$
		Y	100.00	96.11	15.71		100.0	
		Z	100.00	119.88	26.26		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	5.71	84.43	30.09	7.80	80.0	$\pm 9.6\%$
		Y	3.25	71.14	23.56		80.0	
		Z	4.39	77.68	26.53		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	126.72	30.80	5.30	70.0	$\pm 9.6\%$
		Y	100.00	98.47	17.62		70.0	
		Z	100.00	109.19	22.80		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	204.79	58.62	1.88	100.0	$\pm 9.6\%$
		Y	20.70	333.07	21.03		100.0	
		Z	100.00	114.13	22.48		100.0	

10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	332.68	104.48	1.17	100.0	± 9.6 %
		Y	0.02	110.01	6.35		100.0	
		Z	100.00	131.38	27.95		100.0	
10033-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	100.00	140.44	39.63	5.30	70.0	± 9.6 %
		Y	4.74	82.59	20.12		70.0	
		Z	38.53	116.47	31.52		70.0	
10034-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	100.00	137.36	36.72	1.88	100.0	± 9.6 %
		Y	1.09	65.96	11.42		100.0	
		Z	3.95	83.00	20.15		100.0	
10035-CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	93.71	135.49	35.72	1.17	100.0	± 9.6 %
		Y	0.84	63.91	10.00		100.0	
		Z	2.28	76.28	17.42		100.0	
10036-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	100.00	141.11	39.94	5.30	70.0	± 9.6 %
		Y	6.85	88.04	21.99		70.0	
		Z	100.00	131.91	35.24		70.0	
10037-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	100.00	137.50	36.72	1.88	100.0	± 9.6 %
		Y	1.01	65.33	11.12		100.0	
		Z	3.38	81.04	19.46		100.0	
10038-CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	100.00	137.56	36.40	1.17	100.0	± 9.6 %
		Y	0.84	64.10	10.23		100.0	
		Z	2.31	76.79	17.76		100.0	
10039-CAB	CDMA2000 (1xRTT, RC1)	X	19.34	107.07	27.68	0.00	150.0	± 9.6 %
		Y	0.72	62.44	8.55		150.0	
		Z	2.02	74.02	15.92		150.0	
10042-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	X	100.00	114.63	26.27	7.78	50.0	± 9.6 %
		Y	2.19	68.12	10.36		50.0	
		Z	100.00	105.23	21.86		50.0	
10044-CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	122.73	2.62	0.00	150.0	± 9.6 %
		Y	0.11	121.80	11.55		150.0	
		Z	0.01	113.49	7.34		150.0	
10048-CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	100.00	110.31	26.61	13.80	25.0	± 9.6 %
		Y	5.04	69.37	13.19		25.0	
		Z	26.95	89.52	20.10		25.0	
10049-CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	1017.78	139.92	31.99	10.79	40.0	± 9.6 %
		Y	4.91	72.32	13.17		40.0	
		Z	100.00	106.11	23.44		40.0	
10056-CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	X	100.00	130.04	36.07	9.03	50.0	± 9.6 %
		Y	26.70	99.76	25.13		50.0	
		Z	100.00	123.07	32.44		50.0	
10058-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	4.32	78.02	26.46	6.55	100.0	± 9.6 %
		Y	2.76	68.34	21.38		100.0	
		Z	3.52	73.12	23.61		100.0	
10059-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	X	1.30	67.86	18.55	0.61	110.0	± 9.6 %
		Y	1.00	63.07	14.61		110.0	
		Z	1.14	64.89	16.05		110.0	
10060-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	X	100.00	160.04	44.97	1.30	110.0	± 9.6 %
		Y	1.79	82.46	21.13		110.0	
		Z	100.00	146.44	38.81		110.0	

10061-CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	9.96	110.55	34.50	2.04	110.0	± 9.6 %
		Y	1.33	71.06	18.70		110.0	
		Z	2.29	79.83	22.80		110.0	
10062-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.75	67.15	17.08	0.49	100.0	± 9.6 %
		Y	4.36	66.39	16.30		100.0	
		Z	4.58	66.75	16.56		100.0	
10063-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.77	67.26	17.20	0.72	100.0	± 9.6 %
		Y	4.37	66.48	16.40		100.0	
		Z	4.59	66.82	16.65		100.0	
10064-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.06	67.50	17.41	0.86	100.0	± 9.6 %
		Y	4.61	66.69	16.61		100.0	
		Z	4.85	67.06	16.87		100.0	
10065-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	4.92	67.40	17.53	1.21	100.0	± 9.6 %
		Y	4.47	66.51	16.68		100.0	
		Z	4.71	66.92	16.95		100.0	
10066-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	4.93	67.41	17.70	1.46	100.0	± 9.6 %
		Y	4.48	66.48	16.82		100.0	
		Z	4.72	66.91	17.11		100.0	
10067-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.21	67.49	18.11	2.04	100.0	± 9.6 %
		Y	4.76	66.79	17.33		100.0	
		Z	5.00	67.10	17.56		100.0	
10068-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.25	67.55	18.35	2.55	100.0	± 9.6 %
		Y	4.78	66.67	17.49		100.0	
		Z	5.03	67.03	17.73		100.0	
10069-CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.32	67.51	18.52	2.67	100.0	± 9.6 %
		Y	4.84	66.70	17.68		100.0	
		Z	5.10	67.06	17.93		100.0	
10071-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.01	67.13	17.94	1.99	100.0	± 9.6 %
		Y	4.64	66.49	17.21		100.0	
		Z	4.84	66.75	17.40		100.0	
10072-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	4.99	67.49	18.20	2.30	100.0	± 9.6 %
		Y	4.58	66.67	17.37		100.0	
		Z	4.79	67.01	17.59		100.0	
10073-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.03	67.61	18.52	2.83	100.0	± 9.6 %
		Y	4.63	66.82	17.70		100.0	
		Z	4.84	67.13	17.90		100.0	
10074-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	4.99	67.43	18.65	3.30	100.0	± 9.6 %
		Y	4.63	66.75	17.85		100.0	
		Z	4.81	66.99	18.03		100.0	
10075-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.02	67.53	18.98	3.82	90.0	± 9.6 %
		Y	4.63	66.70	18.08		90.0	
		Z	4.83	67.01	18.30		90.0	
10076-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.00	67.21	19.04	4.15	90.0	± 9.6 %
		Y	4.67	66.57	18.25		90.0	
		Z	4.84	66.80	18.43		90.0	
10077-CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.02	67.26	19.13	4.30	90.0	± 9.6 %
		Y	4.70	66.65	18.36		90.0	
		Z	4.86	66.86	18.52		90.0	



10081-CAB	CDMA2000 (1xRTT, RC3)	X	3.86	88.87	22.28	0.00	150.0	± 9.6 %
		Y	0.39	60.00	6.46		150.0	
		Z	0.81	66.53	12.23		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	2.69	65.59	5.86	4.77	80.0	± 9.6 %
		Y	10.04	60.19	1.48		80.0	
		Z	0.56	60.00	3.36		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	124.42	30.32	6.56	60.0	± 9.6 %
		Y	100.00	102.56	19.93		60.0	
		Z	100.00	110.21	23.74		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	2.27	72.27	18.51	0.00	150.0	± 9.6 %
		Y	1.59	66.74	14.34		150.0	
		Z	1.87	68.75	16.12		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	2.23	72.34	18.54	0.00	150.0	± 9.6 %
		Y	1.56	66.67	14.30		150.0	
		Z	1.83	68.72	16.10		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	10.89	101.61	38.07	9.56	60.0	± 9.6 %
		Y	4.60	78.77	28.23		60.0	
		Z	7.21	89.78	32.83		60.0	
10100-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.77	74.04	18.80	0.00	150.0	± 9.6 %
		Y	2.72	68.71	15.92		150.0	
		Z	3.14	70.85	17.03		150.0	
10101-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.46	69.06	17.08	0.00	150.0	± 9.6 %
		Y	2.95	66.60	15.43		150.0	
		Z	3.19	67.71	16.09		150.0	
10102-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.55	68.89	17.10	0.00	150.0	± 9.6 %
		Y	3.05	66.66	15.56		150.0	
		Z	3.30	67.68	16.17		150.0	
10103-CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.76	78.84	22.54	3.98	65.0	± 9.6 %
		Y	4.52	72.48	19.54		65.0	
		Z	5.54	75.19	20.58		65.0	
10104-CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	6.13	74.76	21.60	3.98	65.0	± 9.6 %
		Y	4.52	69.83	18.98		65.0	
		Z	5.39	72.35	20.09		65.0	
10105-CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	5.63	72.80	21.01	3.98	65.0	± 9.6 %
		Y	4.49	69.37	19.06		65.0	
		Z	5.15	71.22	19.87		65.0	
10108-CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.28	73.32	18.73	0.00	150.0	± 9.6 %
		Y	2.33	68.12	15.72		150.0	
		Z	2.72	70.14	16.88		150.0	
10109-CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.13	69.19	17.16	0.00	150.0	± 9.6 %
		Y	2.57	66.50	15.16		150.0	
		Z	2.85	67.67	16.00		150.0	
10110-CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.73	72.94	18.68	0.00	150.0	± 9.6 %
		Y	1.82	67.19	14.96		150.0	
		Z	2.20	69.39	16.50		150.0	
10111-CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.96	70.94	17.93	0.00	150.0	± 9.6 %
		Y	2.25	67.31	15.02		150.0	
		Z	2.60	68.87	16.38		150.0	

10112-CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	3.24	69.02	17.13	0.00	150.0	± 9.6 %
		Y	2.70	66.62	15.28		150.0	
		Z	2.97	67.67	16.06		150.0	
10113-CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	3.10	70.86	17.94	0.00	150.0	± 9.6 %
		Y	2.39	67.55	15.21		150.0	
		Z	2.75	69.01	16.50		150.0	
10114-CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.21	67.66	16.94	0.00	150.0	± 9.6 %
		Y	4.87	66.86	16.35		150.0	
		Z	5.05	67.26	16.51		150.0	
10115-CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.51	67.77	16.99	0.00	150.0	± 9.6 %
		Y	5.12	66.96	16.40		150.0	
		Z	5.30	67.30	16.54		150.0	
10116-CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.32	67.88	16.97	0.00	150.0	± 9.6 %
		Y	4.94	67.01	16.35		150.0	
		Z	5.14	67.44	16.53		150.0	
10117-CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.17	67.51	16.88	0.00	150.0	± 9.6 %
		Y	4.84	66.74	16.30		150.0	
		Z	5.02	67.13	16.47		150.0	
10118-CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.60	68.01	17.11	0.00	150.0	± 9.6 %
		Y	5.21	67.22	16.54		150.0	
		Z	5.38	67.50	16.65		150.0	
10119-CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.29	67.82	16.95	0.00	150.0	± 9.6 %
		Y	4.95	67.06	16.38		150.0	
		Z	5.12	67.40	16.52		150.0	
10140-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.59	68.89	17.01	0.00	150.0	± 9.6 %
		Y	3.07	66.68	15.46		150.0	
		Z	3.33	67.69	16.09		150.0	
10141-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.70	68.89	17.13	0.00	150.0	± 9.6 %
		Y	3.20	66.88	15.69		150.0	
		Z	3.45	67.80	16.26		150.0	
10142-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	2.64	74.18	18.92	0.00	150.0	± 9.6 %
		Y	1.52	66.51	13.74		150.0	
		Z	1.99	69.58	16.12		150.0	
10143-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	3.08	73.19	18.30	0.00	150.0	± 9.6 %
		Y	1.91	66.61	13.39		150.0	
		Z	2.49	69.82	16.01		150.0	
10144-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.61	69.56	16.12	0.00	150.0	± 9.6 %
		Y	1.68	64.21	11.60		150.0	
		Z	2.16	66.87	14.05		150.0	
10145-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	2.17	73.67	16.29	0.00	150.0	± 9.6 %
		Y	0.62	60.00	6.23		150.0	
		Z	1.04	64.05	10.54		150.0	
10146-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	7.15	82.63	18.53	0.00	150.0	± 9.6 %
		Y	0.82	60.00	6.21		150.0	
		Z	1.41	63.26	9.17		150.0	
10147-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	35.33	102.70	24.44	0.00	150.0	± 9.6 %
		Y	0.84	60.10	6.34		150.0	
		Z	1.56	64.29	9.81		150.0	

10149-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.15	69.26	17.21	0.00	150.0	± 9.6 %
		Y	2.58	66.56	15.21		150.0	
		Z	2.86	67.73	16.05		150.0	
10150-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.25	69.09	17.18	0.00	150.0	± 9.6 %
		Y	2.71	66.68	15.32		150.0	
		Z	2.98	67.73	16.10		150.0	
10151-CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	7.59	82.97	24.36	3.98	65.0	± 9.6 %
		Y	4.43	74.29	20.34		65.0	
		Z	5.79	77.86	21.79		65.0	
10152-CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	5.74	75.16	21.57	3.98	65.0	± 9.6 %
		Y	4.05	69.69	18.43		65.0	
		Z	4.93	72.36	19.78		65.0	
10153-CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	6.08	75.98	22.28	3.98	65.0	± 9.6 %
		Y	4.37	70.81	19.35		65.0	
		Z	5.27	73.34	20.59		65.0	
10154-CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.82	73.59	19.03	0.00	150.0	± 9.6 %
		Y	1.85	67.52	15.17		150.0	
		Z	2.25	69.83	16.77		150.0	
10155-CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.96	70.96	17.95	0.00	150.0	± 9.6 %
		Y	2.26	67.36	15.06		150.0	
		Z	2.60	68.90	16.40		150.0	
10156-CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2.67	75.73	19.34	0.00	150.0	± 9.6 %
		Y	1.30	65.63	12.70		150.0	
		Z	1.84	69.72	15.85		150.0	
10157-CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	2.63	71.46	16.77	0.00	150.0	± 9.6 %
		Y	1.43	63.75	10.81		150.0	
		Z	2.01	67.49	14.04		150.0	
10158-CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	3.11	70.94	18.00	0.00	150.0	± 9.6 %
		Y	2.40	67.64	15.26		150.0	
		Z	2.76	69.09	16.56		150.0	
10159-CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.80	72.11	17.12	0.00	150.0	± 9.6 %
		Y	1.48	63.89	10.93		150.0	
		Z	2.12	67.97	14.32		150.0	
10160-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	3.14	71.53	18.14	0.00	150.0	± 9.6 %
		Y	2.43	67.90	15.68		150.0	
		Z	2.73	69.22	16.62		150.0	
10161-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.16	69.12	17.16	0.00	150.0	± 9.6 %
		Y	2.59	66.59	15.12		150.0	
		Z	2.88	67.71	16.03		150.0	
10162-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.26	69.20	17.23	0.00	150.0	± 9.6 %
		Y	2.69	66.85	15.29		150.0	
		Z	2.99	67.90	16.15		150.0	
10166-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	4.02	72.49	21.03	3.01	150.0	± 9.6 %
		Y	2.97	68.64	19.42		150.0	
		Z	3.42	69.79	19.25		150.0	
10167-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	5.68	78.00	22.39	3.01	150.0	± 9.6 %
		Y	3.24	70.90	19.70		150.0	
		Z	4.27	73.34	19.93		150.0	

10168-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.69	81.57	24.18	3.01	150.0	± 9.6 %
		Y	3.70	74.00	21.58		150.0	
		Z	4.89	76.24	21.54		150.0	
10169-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	3.59	73.83	21.76	3.01	150.0	± 9.6 %
		Y	2.23	65.86	18.24		150.0	
		Z	2.78	68.99	18.95		150.0	
10170-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	7.45	87.98	26.86	3.01	150.0	± 9.6 %
		Y	2.49	70.05	20.38		150.0	
		Z	4.05	76.56	21.98		150.0	
10171-AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	5.07	79.51	22.62	3.01	150.0	± 9.6 %
		Y	2.11	66.51	17.48		150.0	
		Z	3.17	71.46	18.74		150.0	
10172-CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	20.63	116.59	38.49	6.02	65.0	± 9.6 %
		Y	2.70	75.43	24.53		65.0	
		Z	5.45	86.96	27.77		65.0	
10173-CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	100.00	139.28	41.16	6.02	65.0	± 9.6 %
		Y	4.11	84.66	26.69		65.0	
		Z	17.44	105.14	31.28		65.0	
10174-CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	100.00	137.03	39.96	6.02	65.0	± 9.6 %
		Y	3.34	80.01	24.25		65.0	
		Z	11.08	95.56	27.74		65.0	
10175-CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	3.53	73.37	21.45	3.01	150.0	± 9.6 %
		Y	2.21	65.61	17.99		150.0	
		Z	2.75	68.68	18.69		150.0	
10176-CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	7.47	88.03	26.88	3.01	150.0	± 9.6 %
		Y	2.49	70.07	20.40		150.0	
		Z	4.06	76.59	21.99		150.0	
10177-CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	3.57	73.59	21.56	3.01	150.0	± 9.6 %
		Y	2.22	65.72	18.07		150.0	
		Z	2.77	68.83	18.79		150.0	
10178-CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	7.30	87.53	26.67	3.01	150.0	± 9.6 %
		Y	2.48	69.94	20.31		150.0	
		Z	4.01	76.36	21.87		150.0	
10179-CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	6.13	83.53	24.58	3.01	150.0	± 9.6 %
		Y	2.28	68.24	18.84		150.0	
		Z	3.57	73.86	20.21		150.0	
10180-CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	5.04	79.37	22.54	3.01	150.0	± 9.6 %
		Y	2.11	66.49	17.45		150.0	
		Z	3.17	71.40	18.69		150.0	
10181-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	3.56	73.57	21.56	3.01	150.0	± 9.6 %
		Y	2.22	65.70	18.06		150.0	
		Z	2.77	68.81	18.78		150.0	
10182-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	7.28	87.49	26.66	3.01	150.0	± 9.6 %
		Y	2.48	69.91	20.29		150.0	
		Z	4.00	76.33	21.85		150.0	
10183-AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	5.03	79.32	22.52	3.01	150.0	± 9.6 %
		Y	2.11	66.46	17.44		150.0	
		Z	3.16	71.37	18.68		150.0	



10184-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	3.58	73.62	21.58	3.01	150.0	± 9.6 %
		Y	2.23	65.74	18.08		150.0	
		Z	2.78	68.85	18.80		150.0	
10185-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	7.33	87.62	26.71	3.01	150.0	± 9.6 %
		Y	2.49	69.98	20.34		150.0	
		Z	4.03	76.42	21.90		150.0	
10186-AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	5.07	79.44	22.57	3.01	150.0	± 9.6 %
		Y	2.11	66.52	17.48		150.0	
		Z	3.18	71.45	18.72		150.0	
10187-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	3.59	73.70	21.65	3.01	150.0	± 9.6 %
		Y	2.23	65.81	18.17		150.0	
		Z	2.79	68.92	18.88		150.0	
10188-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	7.84	89.07	27.33	3.01	150.0	± 9.6 %
		Y	2.55	70.51	20.70		150.0	
		Z	4.18	77.21	22.33		150.0	
10189-AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	5.28	80.27	22.99	3.01	150.0	± 9.6 %
		Y	2.15	66.86	17.75		150.0	
		Z	3.26	71.94	19.03		150.0	
10193-CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.60	67.12	16.69	0.00	150.0	± 9.6 %
		Y	4.24	66.43	15.93		150.0	
		Z	4.44	66.76	16.21		150.0	
10194-CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.78	67.45	16.81	0.00	150.0	± 9.6 %
		Y	4.37	66.65	16.07		150.0	
		Z	4.60	67.05	16.34		150.0	
10195-CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.82	67.47	16.82	0.00	150.0	± 9.6 %
		Y	4.41	66.66	16.09		150.0	
		Z	4.64	67.07	16.36		150.0	
10196-CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.61	67.20	16.72	0.00	150.0	± 9.6 %
		Y	4.22	66.41	15.91		150.0	
		Z	4.44	66.80	16.22		150.0	
10197-CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.80	67.47	16.82	0.00	150.0	± 9.6 %
		Y	4.38	66.65	16.08		150.0	
		Z	4.61	67.06	16.35		150.0	
10198-CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.83	67.49	16.84	0.00	150.0	± 9.6 %
		Y	4.40	66.66	16.09		150.0	
		Z	4.64	67.09	16.37		150.0	
10219-CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.56	67.23	16.69	0.00	150.0	± 9.6 %
		Y	4.17	66.45	15.88		150.0	
		Z	4.39	66.83	16.19		150.0	
10220-CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.79	67.44	16.81	0.00	150.0	± 9.6 %
		Y	4.37	66.61	16.07		150.0	
		Z	4.61	67.02	16.34		150.0	
10221-CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.83	67.40	16.81	0.00	150.0	± 9.6 %
		Y	4.42	66.61	16.08		150.0	
		Z	4.65	67.02	16.35		150.0	
10222-CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	5.15	67.53	16.88	0.00	150.0	± 9.6 %
		Y	4.82	66.74	16.30		150.0	
		Z	4.99	67.13	16.46		150.0	

10223-CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.45	67.70	16.97	0.00	150.0	± 9.6 %
		Y	5.07	66.92	16.40		150.0	
		Z	5.29	67.36	16.59		150.0	
10224-CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.20	67.65	16.87	0.00	150.0	± 9.6 %
		Y	4.86	66.87	16.28		150.0	
		Z	5.03	67.24	16.44		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	2.96	67.48	16.43	0.00	150.0	± 9.6 %
		Y	2.46	65.41	14.18		150.0	
		Z	2.74	66.44	15.35		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	100.00	139.56	41.34	6.02	65.0	± 9.6 %
		Y	4.38	86.04	27.32		65.0	
		Z	19.68	107.54	32.08		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	100.00	136.06	39.56	6.02	65.0	± 9.6 %
		Y	4.92	87.47	27.08		65.0	
		Z	19.54	105.15	30.55		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	46.84	135.12	43.57	6.02	65.0	± 9.6 %
		Y	2.91	77.21	25.39		65.0	
		Z	6.55	90.89	29.23		65.0	
10229-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	100.00	139.24	41.16	6.02	65.0	± 9.6 %
		Y	4.14	84.79	26.74		65.0	
		Z	17.63	105.30	31.34		65.0	
10230-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	100.00	135.87	39.43	6.02	65.0	± 9.6 %
		Y	4.54	85.86	26.41		65.0	
		Z	17.29	102.89	29.82		65.0	
10231-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	41.02	131.96	42.66	6.02	65.0	± 9.6 %
		Y	2.83	76.52	25.01		65.0	
		Z	6.24	89.85	28.78		65.0	
10232-CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	100.00	139.27	41.16	6.02	65.0	± 9.6 %
		Y	4.13	84.75	26.73		65.0	
		Z	17.59	105.28	31.33		65.0	
10233-CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	100.00	135.90	39.44	6.02	65.0	± 9.6 %
		Y	4.52	85.78	26.39		65.0	
		Z	17.21	102.84	29.81		65.0	
10234-CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	37.16	129.42	41.85	6.02	65.0	± 9.6 %
		Y	2.77	76.07	24.69		65.0	
		Z	6.02	88.98	28.34		65.0	
10235-CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	100.00	139.30	41.17	6.02	65.0	± 9.6 %
		Y	4.13	84.77	26.74		65.0	
		Z	17.64	105.35	31.36		65.0	
10236-CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	100.00	135.81	39.41	6.02	65.0	± 9.6 %
		Y	4.59	86.04	26.47		65.0	
		Z	17.60	103.17	29.89		65.0	
10237-CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	41.71	132.40	42.78	6.02	65.0	± 9.6 %
		Y	2.82	76.52	25.02		65.0	
		Z	6.25	89.91	28.80		65.0	
10238-CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	100.00	139.30	41.17	6.02	65.0	± 9.6 %
		Y	4.12	84.71	26.71		65.0	
		Z	17.54	105.25	31.32		65.0	

10239-CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	100.00	135.94	39.46	6.02	65.0	± 9.6 %
		Y	4.50	85.71	26.37		65.0	
		Z	17.12	102.77	29.79		65.0	
10240-CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	41.36	132.24	42.74	6.02	65.0	± 9.6 %
		Y	2.82	76.50	25.01		65.0	
		Z	6.23	89.86	28.79		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	9.26	86.35	28.43	6.98	65.0	± 9.6 %
		Y	5.20	77.08	24.74		65.0	
		Z	7.01	80.65	25.45		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	7.95	82.90	26.97	6.98	65.0	± 9.6 %
		Y	5.03	76.47	24.38		65.0	
		Z	6.40	78.75	24.58		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	5.87	77.11	25.49	6.98	65.0	± 9.6 %
		Y	4.35	72.98	23.59		65.0	
		Z	5.13	74.64	23.72		65.0	
10244-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	10.98	88.44	24.15	3.98	65.0	± 9.6 %
		Y	3.04	69.09	14.47		65.0	
		Z	4.55	73.37	16.97		65.0	
10245-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	10.01	86.54	23.42	3.98	65.0	± 9.6 %
		Y	2.92	68.21	13.97		65.0	
		Z	4.38	72.53	16.55		65.0	
10246-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	12.70	95.58	26.90	3.98	65.0	± 9.6 %
		Y	2.31	68.28	14.11		65.0	
		Z	4.73	78.16	19.56		65.0	
10247-CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	5.74	78.40	21.42	3.98	65.0	± 9.6 %
		Y	2.87	67.63	14.60		65.0	
		Z	4.15	72.62	17.95		65.0	
10248-CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	5.56	77.21	20.88	3.98	65.0	± 9.6 %
		Y	2.86	67.09	14.31		65.0	
		Z	4.11	71.89	17.59		65.0	
10249-CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	12.90	96.74	28.34	3.98	65.0	± 9.6 %
		Y	3.48	74.40	18.42		65.0	
		Z	6.05	82.48	22.39		65.0	
10250-CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	6.08	78.88	23.25	3.98	65.0	± 9.6 %
		Y	3.91	71.80	19.11		65.0	
		Z	4.95	74.96	20.88		65.0	
10251-CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	5.69	76.14	21.67	3.98	65.0	± 9.6 %
		Y	3.72	69.66	17.63		65.0	
		Z	4.73	72.79	19.51		65.0	
10252-CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	9.08	89.32	26.82	3.98	65.0	± 9.6 %
		Y	4.19	76.24	20.90		65.0	
		Z	5.96	81.15	23.07		65.0	
10253-CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	5.58	74.41	21.23	3.98	65.0	± 9.6 %
		Y	4.01	69.42	18.16		65.0	
		Z	4.85	71.89	19.52		65.0	
10254-CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	5.90	75.22	21.89	3.98	65.0	± 9.6 %
		Y	4.28	70.37	18.93		65.0	
		Z	5.15	72.78	20.23		65.0	

10255-CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	6.92	81.46	24.03	3.98	65.0	± 9.6 %
		Y	4.24	73.63	20.17		65.0	
		Z	5.45	76.94	21.62		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	8.48	83.30	21.12	3.98	65.0	± 9.6 %
		Y	1.95	63.46	10.11		65.0	
		Z	3.11	67.90	13.25		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	7.37	80.66	20.03	3.98	65.0	± 9.6 %
		Y	1.91	62.93	9.68		65.0	
		Z	3.01	67.11	12.76		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	8.54	87.85	23.35	3.98	65.0	± 9.6 %
		Y	1.57	63.19	10.13		65.0	
		Z	3.09	71.34	15.64		65.0	
10259-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	5.88	78.57	22.06	3.98	65.0	± 9.6 %
		Y	3.29	69.42	16.35		65.0	
		Z	4.50	73.65	19.08		65.0	
10260-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	5.83	77.97	21.80	3.98	65.0	± 9.6 %
		Y	3.32	69.17	16.22		65.0	
		Z	4.51	73.30	18.91		65.0	
10261-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	9.56	90.98	26.89	3.98	65.0	± 9.6 %
		Y	3.66	74.63	19.18		65.0	
		Z	5.61	80.76	22.24		65.0	
10262-CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	6.07	78.84	23.21	3.98	65.0	± 9.6 %
		Y	3.90	71.72	19.05		65.0	
		Z	4.94	74.90	20.83		65.0	
10263-CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	5.68	76.11	21.66	3.98	65.0	± 9.6 %
		Y	3.72	69.64	17.63		65.0	
		Z	4.72	72.77	19.50		65.0	
10264-CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	8.96	89.03	26.69	3.98	65.0	± 9.6 %
		Y	4.15	76.02	20.78		65.0	
		Z	5.89	80.92	22.95		65.0	
10265-CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	5.74	75.16	21.57	3.98	65.0	± 9.6 %
		Y	4.05	69.70	18.44		65.0	
		Z	4.93	72.36	19.79		65.0	
10266-CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	6.07	75.96	22.27	3.98	65.0	± 9.6 %
		Y	4.36	70.80	19.33		65.0	
		Z	5.27	73.32	20.58		65.0	
10267-CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	7.57	82.90	24.33	3.98	65.0	± 9.6 %
		Y	4.42	74.25	20.32		65.0	
		Z	5.78	77.81	21.77		65.0	
10268-CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	6.23	74.36	21.52	3.98	65.0	± 9.6 %
		Y	4.70	69.94	19.09		65.0	
		Z	5.54	72.23	20.13		65.0	
10269-CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	6.16	73.76	21.30	3.98	65.0	± 9.6 %
		Y	4.73	69.66	18.98		65.0	
		Z	5.53	71.82	19.98		65.0	
10270-CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	6.69	77.84	22.35	3.98	65.0	± 9.6 %
		Y	4.63	72.13	19.56		65.0	
		Z	5.65	74.75	20.60		65.0	



10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.79	68.29	16.60	0.00	150.0	± 9.6 %
		Y	2.30	65.91	14.18		150.0	
		Z	2.56	67.00	15.38		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	2.20	74.21	19.16	0.00	150.0	± 9.6 %
		Y	1.32	66.26	13.99		150.0	
		Z	1.63	68.95	16.04		150.0	
10277-CAA	PHS (QPSK)	X	1.76	61.10	6.62	9.03	50.0	± 9.6 %
		Y	1.23	58.19	3.48		50.0	
		Z	1.53	59.90	5.31		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	23.74	97.78	24.59	9.03	50.0	± 9.6 %
		Y	2.25	63.55	9.25		50.0	
		Z	3.64	69.93	13.54		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	23.81	97.87	24.70	9.03	50.0	± 9.6 %
		Y	2.31	63.77	9.44		50.0	
		Z	3.79	70.36	13.81		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	5.23	87.73	21.79	0.00	150.0	± 9.6 %
		Y	0.63	61.20	7.58		150.0	
		Z	1.38	69.04	13.52		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	3.44	87.25	21.74	0.00	150.0	± 9.6 %
		Y	0.39	60.00	6.44		150.0	
		Z	0.79	66.25	12.07		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	100.00	139.14	35.61	0.00	150.0	± 9.6 %
		Y	0.42	61.08	7.36		150.0	
		Z	1.33	73.76	15.80		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	100.00	143.64	37.73	0.00	150.0	± 9.6 %
		Y	0.55	63.44	9.08		150.0	
		Z	4.87	91.37	22.35		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	22.10	105.22	31.52	9.03	50.0	± 9.6 %
		Y	43.43	105.27	27.35		50.0	
		Z	14.28	93.54	26.18		50.0	
10297-AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	3.31	73.46	18.81	0.00	150.0	± 9.6 %
		Y	2.34	68.22	15.79		150.0	
		Z	2.73	70.25	16.95		150.0	
10298-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	2.72	76.88	18.73	0.00	150.0	± 9.6 %
		Y	0.85	62.02	8.98		150.0	
		Z	1.47	67.80	13.69		150.0	
10299-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	9.96	88.44	21.71	0.00	150.0	± 9.6 %
		Y	1.34	63.96	9.96		150.0	
		Z	2.19	67.76	12.59		150.0	
10300-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	3.10	71.22	14.62	0.00	150.0	± 9.6 %
		Y	1.04	60.86	7.46		150.0	
		Z	1.60	63.48	9.75		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.91	66.32	18.17	4.17	50.0	± 9.6 %
		Y	4.19	64.68	16.72		50.0	
		Z	4.61	65.67	17.54		50.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.30	66.55	18.67	4.96	50.0	± 9.6 %
		Y	4.70	65.59	17.66		50.0	
		Z	4.99	65.82	17.99		50.0	

10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	5.03	66.16	18.50	4.96	50.0	± 9.6 %
		Y	4.45	65.22	17.43		50.0	
		Z	4.72	65.39	17.77		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.86	66.10	18.02	4.17	50.0	± 9.6 %
		Y	4.25	64.84	16.74		50.0	
		Z	4.56	65.36	17.32		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.36	67.65	20.04	6.02	35.0	± 9.6 %
		Y	3.71	65.74	17.66		35.0	
		Z	4.01	66.34	18.79		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.71	66.74	19.61	6.02	35.0	± 9.6 %
		Y	4.13	65.41	17.86		35.0	
		Z	4.40	65.78	18.63		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.60	66.90	19.58	6.02	35.0	± 9.6 %
		Y	3.99	65.33	17.70		35.0	
		Z	4.28	65.80	18.53		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.58	67.10	19.72	6.02	35.0	± 9.6 %
		Y	3.96	65.49	17.83		35.0	
		Z	4.25	65.98	18.67		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.78	67.00	19.78	6.02	35.0	± 9.6 %
		Y	4.14	65.47	17.95		35.0	
		Z	4.44	65.95	18.76		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.66	66.79	19.58	6.02	35.0	± 9.6 %
		Y	4.07	65.44	17.84		35.0	
		Z	4.34	65.81	18.59		35.0	
10311-AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	3.69	72.32	18.21	0.00	150.0	± 9.6 %
		Y	2.69	67.47	15.53		150.0	
		Z	3.10	69.44	16.56		150.0	
10313-AAA	iDEN 1:3	X	21.53	102.95	26.76	6.99	70.0	± 9.6 %
		Y	1.66	67.75	13.97		70.0	
		Z	3.11	74.65	16.98		70.0	
10314-AAA	iDEN 1:6	X	93.96	137.13	39.06	10.00	30.0	± 9.6 %
		Y	3.71	79.50	21.57		30.0	
		Z	6.39	88.00	24.81		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	1.16	66.35	17.62	0.17	150.0	± 9.6 %
		Y	0.94	62.56	14.16		150.0	
		Z	1.05	64.02	15.47		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.66	67.18	16.86	0.17	150.0	± 9.6 %
		Y	4.26	66.36	16.04		150.0	
		Z	4.48	66.76	16.34		150.0	
10317-AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.66	67.18	16.86	0.17	150.0	± 9.6 %
		Y	4.26	66.36	16.04		150.0	
		Z	4.48	66.76	16.34		150.0	
10400-AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.78	67.52	16.82	0.00	150.0	± 9.6 %
		Y	4.32	66.63	16.04		150.0	
		Z	4.58	67.09	16.34		150.0	
10401-AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.47	67.61	16.91	0.00	150.0	± 9.6 %
		Y	5.01	66.46	16.12		150.0	
		Z	5.29	67.17	16.47		150.0	

10402-AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.72	67.86	16.87	0.00	150.0	± 9.6 %
		Y	5.38	67.07	16.33		150.0	
		Z	5.55	67.47	16.48		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	5.23	87.73	21.79	0.00	115.0	± 9.6 %
		Y	0.63	61.20	7.58		115.0	
		Z	1.38	69.04	13.52		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	5.23	87.73	21.79	0.00	115.0	± 9.6 %
		Y	0.63	61.20	7.58		115.0	
		Z	1.38	69.04	13.52		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	122.17	30.62	0.00	100.0	± 9.6 %
		Y	100.00	133.89	33.91		100.0	
		Z	100.00	117.21	27.74		100.0	
10410-AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	100.00	133.43	35.33	3.23	80.0	± 9.6 %
		Y	100.00	146.48	39.53		80.0	
		Z	100.00	125.14	30.88		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.08	65.43	16.96	0.00	150.0	± 9.6 %
		Y	0.91	62.17	13.76		150.0	
		Z	1.00	63.43	14.99		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.61	67.17	16.76	0.00	150.0	± 9.6 %
		Y	4.23	66.40	16.00		150.0	
		Z	4.44	66.79	16.29		150.0	
10417-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.61	67.17	16.76	0.00	150.0	± 9.6 %
		Y	4.23	66.40	16.00		150.0	
		Z	4.44	66.79	16.29		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	X	4.60	67.36	16.80	0.00	150.0	± 9.6 %
		Y	4.22	66.61	16.06		150.0	
		Z	4.44	66.98	16.33		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	X	4.62	67.29	16.79	0.00	150.0	± 9.6 %
		Y	4.24	66.54	16.05		150.0	
		Z	4.46	66.91	16.32		150.0	
10422-AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.74	67.26	16.78	0.00	150.0	± 9.6 %
		Y	4.35	66.52	16.07		150.0	
		Z	4.57	66.89	16.33		150.0	
10423-AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.91	67.58	16.90	0.00	150.0	± 9.6 %
		Y	4.46	66.77	16.15		150.0	
		Z	4.71	67.18	16.43		150.0	
10424-AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.83	67.55	16.88	0.00	150.0	± 9.6 %
		Y	4.39	66.71	16.13		150.0	
		Z	4.64	67.14	16.41		150.0	
10425-AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.43	67.78	16.99	0.00	150.0	± 9.6 %
		Y	5.06	66.98	16.41		150.0	
		Z	5.24	67.35	16.56		150.0	
10426-AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.44	67.81	17.01	0.00	150.0	± 9.6 %
		Y	5.11	67.18	16.51		150.0	
		Z	5.26	67.42	16.59		150.0	

10427-AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.44	67.77	16.98	0.00	150.0	± 9.6 %
		Y	5.04	66.86	16.34		150.0	
		Z	5.26	67.33	16.54		150.0	
10430-AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.55	72.49	19.31	0.00	150.0	± 9.6 %
		Y	3.98	71.49	17.70		150.0	
		Z	4.28	71.80	18.47		150.0	
10431-AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.33	67.96	16.90	0.00	150.0	± 9.6 %
		Y	3.80	66.88	15.72		150.0	
		Z	4.10	67.41	16.26		150.0	
10432-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.61	67.68	16.88	0.00	150.0	± 9.6 %
		Y	4.15	66.79	16.00		150.0	
		Z	4.41	67.23	16.35		150.0	
10433-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.84	67.58	16.90	0.00	150.0	± 9.6 %
		Y	4.41	66.75	16.15		150.0	
		Z	4.66	67.17	16.42		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.80	73.85	19.49	0.00	150.0	± 9.6 %
		Y	3.93	71.70	17.10		150.0	
		Z	4.43	72.85	18.44		150.0	
10435-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	133.19	35.22	3.23	80.0	± 9.6 %
		Y	100.00	146.06	39.34		80.0	
		Z	100.00	124.85	30.74		80.0	
10447-AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.69	68.46	16.50	0.00	150.0	± 9.6 %
		Y	2.96	66.21	14.11		150.0	
		Z	3.39	67.45	15.44		150.0	
10448-AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	4.17	67.76	16.78	0.00	150.0	± 9.6 %
		Y	3.68	66.67	15.59		150.0	
		Z	3.95	67.20	16.13		150.0	
10449-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.42	67.54	16.80	0.00	150.0	± 9.6 %
		Y	3.99	66.60	15.89		150.0	
		Z	4.23	67.06	16.26		150.0	
10450-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.61	67.38	16.78	0.00	150.0	± 9.6 %
		Y	4.22	66.51	15.99		150.0	
		Z	4.44	66.95	16.29		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.63	68.88	16.22	0.00	150.0	± 9.6 %
		Y	2.71	65.63	13.10		150.0	
		Z	3.25	67.50	14.92		150.0	
10456-AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.28	68.22	17.06	0.00	150.0	± 9.6 %
		Y	6.05	67.63	16.65		150.0	
		Z	6.16	67.95	16.74		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.84	65.77	16.49	0.00	150.0	± 9.6 %
		Y	3.62	65.20	15.73		150.0	
		Z	3.74	65.46	16.00		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	4.44	73.25	18.96	0.00	150.0	± 9.6 %
		Y	3.15	68.70	14.96		150.0	
		Z	4.01	71.87	17.60		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	5.23	69.15	18.77	0.00	150.0	± 9.6 %
		Y	4.68	68.78	17.44		150.0	
		Z	5.01	68.98	18.21		150.0	



10460-AAA	UMTS-FDD (WCDMA, AMR)	X	2.00	84.84	24.51	0.00	150.0	± 9.6 %
		Y	0.71	65.89	13.95		150.0	
		Z	0.96	70.29	17.20		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	145.46	40.71	3.29	80.0	± 9.6 %
		Y	100.00	152.33	42.34		80.0	
		Z	100.00	131.21	33.70		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	116.29	27.16	3.23	80.0	± 9.6 %
		Y	1.18	68.35	11.90		80.0	
		Z	0.87	61.67	8.58		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	109.31	24.00	3.23	80.0	± 9.6 %
		Y	0.48	60.00	7.21		80.0	
		Z	0.74	60.00	7.10		80.0	
10464-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.32	39.48	3.23	80.0	± 9.6 %
		Y	100.00	149.20	40.60		80.0	
		Z	100.00	127.41	31.78		80.0	
10465-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.14	26.63	3.23	80.0	± 9.6 %
		Y	0.64	62.86	9.55		80.0	
		Z	0.79	60.86	8.11		80.0	
10466-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.27	23.54	3.23	80.0	± 9.6 %
		Y	0.49	60.00	7.14		80.0	
		Z	0.74	60.00	7.04		80.0	
10467-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.75	39.67	3.23	80.0	± 9.6 %
		Y	100.00	149.95	40.92		80.0	
		Z	100.00	127.85	31.97		80.0	
10468-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.51	26.79	3.23	80.0	± 9.6 %
		Y	0.73	64.05	10.12		80.0	
		Z	0.81	61.08	8.24		80.0	
10469-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.31	23.55	3.23	80.0	± 9.6 %
		Y	0.49	60.00	7.14		80.0	
		Z	0.74	60.00	7.04		80.0	
10470-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.87	39.71	3.23	80.0	± 9.6 %
		Y	100.00	150.09	40.97		80.0	
		Z	100.00	127.88	31.97		80.0	
10471-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.41	26.74	3.23	80.0	± 9.6 %
		Y	0.71	63.78	9.99		80.0	
		Z	0.80	61.01	8.19		80.0	
10472-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.18	23.49	3.23	80.0	± 9.6 %
		Y	0.49	60.00	7.11		80.0	
		Z	0.74	60.00	7.02		80.0	
10473-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.83	39.69	3.23	80.0	± 9.6 %
		Y	100.00	150.04	40.94		80.0	
		Z	100.00	127.83	31.95		80.0	
10474-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.43	26.75	3.23	80.0	± 9.6 %
		Y	0.70	63.68	9.94		80.0	
		Z	0.80	60.98	8.17		80.0	
10475-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.21	23.50	3.23	80.0	± 9.6 %
		Y	0.48	60.00	7.12		80.0	
		Z	0.74	60.00	7.02		80.0	

10477-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.09	26.59	3.23	80.0	± 9.6 %
		Y	0.64	62.78	9.49		80.0	
		Z	0.78	60.78	8.04		80.0	
10478-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.09	23.44	3.23	80.0	± 9.6 %
		Y	0.48	60.00	7.10		80.0	
		Z	0.74	60.00	7.01		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	134.28	37.66	3.23	80.0	± 9.6 %
		Y	100.00	134.96	36.66		80.0	
		Z	10.59	93.44	25.13		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	121.12	31.46	3.23	80.0	± 9.6 %
		Y	100.00	117.31	28.30		80.0	
		Z	8.05	82.87	19.34		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	118.71	30.27	3.23	80.0	± 9.6 %
		Y	100.00	113.05	26.28		80.0	
		Z	4.84	75.86	16.56		80.0	
10482-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	16.39	100.29	27.27	2.23	80.0	± 9.6 %
		Y	1.10	61.84	10.40		80.0	
		Z	2.67	72.27	16.65		80.0	
10483-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	120.52	31.43	2.23	80.0	± 9.6 %
		Y	2.05	66.25	12.36		80.0	
		Z	3.08	69.96	14.77		80.0	
10484-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	47.89	109.67	28.85	2.23	80.0	± 9.6 %
		Y	1.83	64.72	11.64		80.0	
		Z	2.85	68.75	14.27		80.0	
10485-AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	8.21	90.82	25.73	2.23	80.0	± 9.6 %
		Y	1.78	67.16	14.70		80.0	
		Z	3.07	74.27	18.73		80.0	
10486-AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.99	78.05	20.50	2.23	80.0	± 9.6 %
		Y	1.71	63.18	11.82		80.0	
		Z	2.83	69.19	15.84		80.0	
10487-AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.75	76.83	20.01	2.23	80.0	± 9.6 %
		Y	1.72	62.89	11.64		80.0	
		Z	2.81	68.66	15.58		80.0	
10488-AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.25	81.13	23.07	2.23	80.0	± 9.6 %
		Y	2.33	68.54	16.86		80.0	
		Z	3.19	72.50	18.92		80.0	
10489-AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.99	72.82	19.69	2.23	80.0	± 9.6 %
		Y	2.52	66.29	15.56		80.0	
		Z	3.12	68.77	17.19		80.0	
10490-AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.03	72.30	19.46	2.23	80.0	± 9.6 %
		Y	2.60	66.20	15.50		80.0	
		Z	3.21	68.58	17.11		80.0	
10491-AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	4.68	76.17	21.18	2.23	80.0	± 9.6 %
		Y	2.68	67.75	16.83		80.0	
		Z	3.40	70.71	18.30		80.0	
10492-AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.07	70.57	18.95	2.23	80.0	± 9.6 %
		Y	2.93	66.01	16.02		80.0	
		Z	3.44	67.84	17.13		80.0	

10493-AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.12	70.28	18.81	2.23	80.0	± 9.6 %
		Y	2.99	65.93	15.97		80.0	
		Z	3.51	67.70	17.07		80.0	
10494-AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.56	79.35	22.23	2.23	80.0	± 9.6 %
		Y	2.83	68.79	17.22		80.0	
		Z	3.70	72.31	18.84		80.0	
10495-AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.14	71.14	19.23	2.23	80.0	± 9.6 %
		Y	2.95	66.21	16.25		80.0	
		Z	3.47	68.15	17.33		80.0	
10496-AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.17	70.57	18.99	2.23	80.0	± 9.6 %
		Y	3.04	66.09	16.22		80.0	
		Z	3.54	67.89	17.24		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	18.91	99.42	25.52	2.23	80.0	± 9.6 %
		Y	0.87	60.00	7.72		80.0	
		Z	1.60	65.51	12.43		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.93	70.03	14.47	2.23	80.0	± 9.6 %
		Y	1.06	60.00	6.46		80.0	
		Z	1.19	60.00	8.40		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.53	67.90	13.40	2.23	80.0	± 9.6 %
		Y	1.09	60.00	6.29		80.0	
		Z	1.21	60.00	8.23		80.0	
10500-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.08	84.90	24.05	2.23	80.0	± 9.6 %
		Y	2.01	67.91	15.66		80.0	
		Z	3.06	73.22	18.69		80.0	
10501-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.43	75.51	20.02	2.23	80.0	± 9.6 %
		Y	2.08	64.88	13.49		80.0	
		Z	2.99	69.23	16.45		80.0	
10502-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.45	75.10	19.78	2.23	80.0	± 9.6 %
		Y	2.11	64.69	13.30		80.0	
		Z	3.04	69.04	16.29		80.0	
10503-AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.15	80.81	22.94	2.23	80.0	± 9.6 %
		Y	2.30	68.35	16.75		80.0	
		Z	3.15	72.29	18.82		80.0	
10504-AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.97	72.71	19.63	2.23	80.0	± 9.6 %
		Y	2.50	66.19	15.49		80.0	
		Z	3.11	68.67	17.13		80.0	
10505-AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.00	72.19	19.40	2.23	80.0	± 9.6 %
		Y	2.58	66.11	15.44		80.0	
		Z	3.19	68.49	17.05		80.0	
10506-AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.50	79.13	22.13	2.23	80.0	± 9.6 %
		Y	2.81	68.67	17.15		80.0	
		Z	3.67	72.16	18.76		80.0	
10507-AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.13	71.07	19.19	2.23	80.0	± 9.6 %
		Y	2.94	66.15	16.21		80.0	
		Z	3.45	68.09	17.30		80.0	

10508-AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.15	70.49	18.94	2.23	80.0	± 9.6 %
		Y	3.03	66.02	16.18		80.0	
		Z	3.53	67.82	17.20		80.0	
10509-AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	5.27	75.46	20.59	2.23	80.0	± 9.6 %
		Y	3.27	68.09	16.96		80.0	
		Z	4.01	70.80	18.16		80.0	
10510-AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.50	70.07	18.75	2.23	80.0	± 9.6 %
		Y	3.42	66.05	16.40		80.0	
		Z	3.92	67.76	17.25		80.0	
10511-AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.52	69.62	18.58	2.23	80.0	± 9.6 %
		Y	3.50	65.94	16.38		80.0	
		Z	3.98	67.52	17.18		80.0	
10512-AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.10	78.88	21.78	2.23	80.0	± 9.6 %
		Y	3.27	68.98	17.21		80.0	
		Z	4.20	72.44	18.71		80.0	
10513-AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.43	70.60	19.00	2.23	80.0	± 9.6 %
		Y	3.31	66.10	16.44		80.0	
		Z	3.81	67.97	17.35		80.0	
10514-AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.40	69.88	18.73	2.23	80.0	± 9.6 %
		Y	3.37	65.85	16.37		80.0	
		Z	3.84	67.57	17.22		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	1.05	65.92	17.22	0.00	150.0	± 9.6 %
		Y	0.87	62.29	13.76		150.0	
		Z	0.96	63.66	15.08		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	100.00	175.58	49.48	0.00	150.0	± 9.6 %
		Y	0.45	67.25	14.31		150.0	
		Z	0.73	75.28	19.67		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	1.05	71.62	19.91	0.00	150.0	± 9.6 %
		Y	0.69	63.59	13.90		150.0	
		Z	0.82	66.03	15.97		150.0	
10518-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.60	67.26	16.75	0.00	150.0	± 9.6 %
		Y	4.22	66.51	15.99		150.0	
		Z	4.44	66.88	16.27		150.0	
10519-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.79	67.48	16.85	0.00	150.0	± 9.6 %
		Y	4.36	66.67	16.08		150.0	
		Z	4.60	67.07	16.37		150.0	
10520-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.65	67.48	16.80	0.00	150.0	± 9.6 %
		Y	4.21	66.58	15.99		150.0	
		Z	4.46	67.03	16.30		150.0	
10521-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.58	67.49	16.80	0.00	150.0	± 9.6 %
		Y	4.15	66.53	15.95		150.0	
		Z	4.39	67.01	16.28		150.0	
10522-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.64	67.58	16.89	0.00	150.0	± 9.6 %
		Y	4.19	66.64	16.04		150.0	
		Z	4.45	67.14	16.38		150.0	



10523-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.53	67.47	16.75	0.00	150.0	± 9.6 %
		Y	4.13	66.69	15.99		150.0	
		Z	4.35	67.06	16.26		150.0	
10524-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.58	67.50	16.86	0.00	150.0	± 9.6 %
		Y	4.15	66.63	16.05		150.0	
		Z	4.39	67.07	16.35		150.0	
10525-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.58	66.55	16.44	0.00	150.0	± 9.6 %
		Y	4.19	65.75	15.69		150.0	
		Z	4.41	66.15	15.96		150.0	
10526-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.75	66.93	16.59	0.00	150.0	± 9.6 %
		Y	4.30	65.99	15.79		150.0	
		Z	4.55	66.47	16.09		150.0	
10527-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.68	66.91	16.55	0.00	150.0	± 9.6 %
		Y	4.23	65.96	15.73		150.0	
		Z	4.48	66.44	16.04		150.0	
10528-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.69	66.93	16.57	0.00	150.0	± 9.6 %
		Y	4.25	65.98	15.76		150.0	
		Z	4.49	66.45	16.07		150.0	
10529-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.69	66.93	16.57	0.00	150.0	± 9.6 %
		Y	4.25	65.98	15.76		150.0	
		Z	4.49	66.45	16.07		150.0	
10531-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.69	67.05	16.60	0.00	150.0	± 9.6 %
		Y	4.20	65.97	15.72		150.0	
		Z	4.47	66.52	16.06		150.0	
10532-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.55	66.92	16.55	0.00	150.0	± 9.6 %
		Y	4.09	65.82	15.65		150.0	
		Z	4.34	66.38	16.00		150.0	
10533-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.71	66.99	16.57	0.00	150.0	± 9.6 %
		Y	4.25	66.06	15.76		150.0	
		Z	4.50	66.52	16.07		150.0	
10534-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.21	66.89	16.54	0.00	150.0	± 9.6 %
		Y	4.84	66.03	15.91		150.0	
		Z	5.04	66.48	16.11		150.0	
10535-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.28	67.09	16.63	0.00	150.0	± 9.6 %
		Y	4.87	66.14	15.97		150.0	
		Z	5.09	66.65	16.19		150.0	
10536-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	5.16	67.06	16.60	0.00	150.0	± 9.6 %
		Y	4.76	66.10	15.92		150.0	
		Z	4.98	66.62	16.16		150.0	
10537-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.21	67.01	16.57	0.00	150.0	± 9.6 %
		Y	4.85	66.20	15.97		150.0	
		Z	5.03	66.57	16.13		150.0	
10538-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.30	67.00	16.61	0.00	150.0	± 9.6 %
		Y	4.90	66.11	15.97		150.0	
		Z	5.11	66.56	16.17		150.0	
10540-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.24	67.05	16.65	0.00	150.0	± 9.6 %
		Y	4.82	66.05	15.96		150.0	
		Z	5.04	66.55	16.18		150.0	

10541-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.20	66.89	16.56	0.00	150.0	± 9.6 %
		Y	4.81	65.97	15.90		150.0	
		Z	5.02	66.45	16.12		150.0	
10542-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.35	66.94	16.59	0.00	150.0	± 9.6 %
		Y	4.97	66.09	15.98		150.0	
		Z	5.17	66.53	16.17		150.0	
10543-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.43	66.96	16.62	0.00	150.0	± 9.6 %
		Y	5.06	66.27	16.10		150.0	
		Z	5.23	66.54	16.20		150.0	
10544-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.52	66.95	16.49	0.00	150.0	± 9.6 %
		Y	5.20	66.08	15.91		150.0	
		Z	5.36	66.56	16.09		150.0	
10545-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.72	67.40	16.66	0.00	150.0	± 9.6 %
		Y	5.40	66.63	16.15		150.0	
		Z	5.54	66.98	16.26		150.0	
10546-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.59	67.18	16.57	0.00	150.0	± 9.6 %
		Y	5.23	66.20	15.94		150.0	
		Z	5.41	66.72	16.14		150.0	
10547-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.66	67.21	16.57	0.00	150.0	± 9.6 %
		Y	5.36	66.48	16.08		150.0	
		Z	5.48	66.78	16.16		150.0	
10548-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.94	68.26	17.07	0.00	150.0	± 9.6 %
		Y	5.47	67.02	16.32		150.0	
		Z	5.67	67.55	16.52		150.0	
10550-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.62	67.20	16.59	0.00	150.0	± 9.6 %
		Y	5.35	66.61	16.16		150.0	
		Z	5.45	66.81	16.20		150.0	
10551-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.62	67.24	16.57	0.00	150.0	± 9.6 %
		Y	5.21	66.13	15.88		150.0	
		Z	5.43	66.76	16.13		150.0	
10552-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.53	67.03	16.48	0.00	150.0	± 9.6 %
		Y	5.20	66.19	15.91		150.0	
		Z	5.37	66.65	16.08		150.0	
10553-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.61	67.04	16.51	0.00	150.0	± 9.6 %
		Y	5.25	66.13	15.91		150.0	
		Z	5.44	66.64	16.11		150.0	
10554-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.93	67.28	16.55	0.00	150.0	± 9.6 %
		Y	5.65	66.45	16.01		150.0	
		Z	5.78	66.90	16.17		150.0	
10555-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.06	67.60	16.69	0.00	150.0	± 9.6 %
		Y	5.74	66.68	16.12		150.0	
		Z	5.89	67.17	16.29		150.0	
10556-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	6.08	67.66	16.71	0.00	150.0	± 9.6 %
		Y	5.80	66.87	16.20		150.0	
		Z	5.92	67.24	16.31		150.0	
10557-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	6.04	67.54	16.67	0.00	150.0	± 9.6 %
		Y	5.72	66.63	16.10		150.0	
		Z	5.87	67.12	16.27		150.0	

10558-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	6.10	67.72	16.78	0.00	150.0	± 9.6 %
		Y	5.70	66.62	16.11		150.0	
		Z	5.91	67.27	16.36		150.0	
10560-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6.08	67.54	16.73	0.00	150.0	± 9.6 %
		Y	5.74	66.60	16.14		150.0	
		Z	5.91	67.13	16.33		150.0	
10561-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.01	67.53	16.76	0.00	150.0	± 9.6 %
		Y	5.68	66.60	16.17		150.0	
		Z	5.84	67.11	16.36		150.0	
10562-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.14	67.93	16.96	0.00	150.0	± 9.6 %
		Y	5.71	66.71	16.22		150.0	
		Z	5.93	67.38	16.49		150.0	
10563-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.35	68.17	17.03	0.00	150.0	± 9.6 %
		Y	5.85	66.83	16.25		150.0	
		Z	6.00	67.26	16.39		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	4.92	67.26	16.86	0.46	150.0	± 9.6 %
		Y	4.54	66.54	16.15		150.0	
		Z	4.75	66.91	16.40		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	5.15	67.70	17.17	0.46	150.0	± 9.6 %
		Y	4.72	66.96	16.48		150.0	
		Z	4.96	67.33	16.72		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	4.99	67.58	17.01	0.46	150.0	± 9.6 %
		Y	4.56	66.75	16.26		150.0	
		Z	4.80	67.16	16.53		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	5.02	68.00	17.38	0.46	150.0	± 9.6 %
		Y	4.60	67.15	16.65		150.0	
		Z	4.83	67.57	16.90		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	4.90	67.37	16.79	0.46	150.0	± 9.6 %
		Y	4.44	66.42	15.96		150.0	
		Z	4.71	66.93	16.30		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	4.98	68.11	17.46	0.46	150.0	± 9.6 %
		Y	4.59	67.42	16.81		150.0	
		Z	4.80	67.73	17.00		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	5.01	67.93	17.37	0.46	150.0	± 9.6 %
		Y	4.58	67.17	16.68		150.0	
		Z	4.82	67.54	16.91		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.23	66.89	17.96	0.46	130.0	± 9.6 %
		Y	0.97	62.66	14.30		130.0	
		Z	1.10	64.30	15.66		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.26	67.79	18.51	0.46	130.0	± 9.6 %
		Y	0.98	63.10	14.60		130.0	
		Z	1.11	64.87	16.04		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	100.00	170.73	48.57	0.46	130.0	± 9.6 %
		Y	0.77	72.86	17.64		130.0	
		Z	2.32	91.29	25.82		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.80	80.11	24.49	0.46	130.0	± 9.6 %
		Y	0.95	67.17	16.84		130.0	
		Z	1.21	71.01	19.29		130.0	

10575-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	X	4.70	67.06	16.94	0.46	130.0	± 9.6 %
		Y	4.31	66.28	16.15		130.0	
		Z	4.53	66.66	16.43		130.0	
10576-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	X	4.73	67.25	17.02	0.46	130.0	± 9.6 %
		Y	4.34	66.50	16.24		130.0	
		Z	4.55	66.85	16.51		130.0	
10577-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	X	4.93	67.53	17.17	0.46	130.0	± 9.6 %
		Y	4.49	66.73	16.39		130.0	
		Z	4.73	67.10	16.66		130.0	
10578-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	X	4.84	67.72	17.30	0.46	130.0	± 9.6 %
		Y	4.40	66.86	16.50		130.0	
		Z	4.64	67.26	16.77		130.0	
10579-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	X	4.60	67.00	16.62	0.46	130.0	± 9.6 %
		Y	4.15	65.97	15.69		130.0	
		Z	4.39	66.48	16.04		130.0	
10580-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	X	4.64	67.04	16.64	0.46	130.0	± 9.6 %
		Y	4.17	66.02	15.70		130.0	
		Z	4.44	66.55	16.08		130.0	
10581-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	X	4.74	67.80	17.27	0.46	130.0	± 9.6 %
		Y	4.31	66.95	16.48		130.0	
		Z	4.54	67.32	16.73		130.0	
10582-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	X	4.54	66.76	16.41	0.46	130.0	± 9.6 %
		Y	4.07	65.74	15.46		130.0	
		Z	4.33	66.25	15.83		130.0	
10583-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.70	67.06	16.94	0.46	130.0	± 9.6 %
		Y	4.31	66.28	16.15		130.0	
		Z	4.53	66.66	16.43		130.0	
10584-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.73	67.25	17.02	0.46	130.0	± 9.6 %
		Y	4.34	66.50	16.24		130.0	
		Z	4.55	66.85	16.51		130.0	
10585-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.93	67.53	17.17	0.46	130.0	± 9.6 %
		Y	4.49	66.73	16.39		130.0	
		Z	4.73	67.10	16.66		130.0	
10586-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.84	67.72	17.30	0.46	130.0	± 9.6 %
		Y	4.40	66.86	16.50		130.0	
		Z	4.64	67.26	16.77		130.0	
10587-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.60	67.00	16.62	0.46	130.0	± 9.6 %
		Y	4.15	65.97	15.69		130.0	
		Z	4.39	66.48	16.04		130.0	
10588-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.64	67.04	16.64	0.46	130.0	± 9.6 %
		Y	4.17	66.02	15.70		130.0	
		Z	4.44	66.55	16.08		130.0	
10589-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.74	67.80	17.27	0.46	130.0	± 9.6 %
		Y	4.31	66.95	16.48		130.0	
		Z	4.54	67.32	16.73		130.0	
10590-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.54	66.76	16.41	0.46	130.0	± 9.6 %
		Y	4.07	65.74	15.46		130.0	
		Z	4.33	66.25	15.83		130.0	



10591-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.85	67.09	17.02	0.46	130.0	± 9.6 %
		Y	4.47	66.40	16.30		130.0	
		Z	4.68	66.73	16.54		130.0	
10592-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.01	67.44	17.15	0.46	130.0	± 9.6 %
		Y	4.58	66.67	16.42		130.0	
		Z	4.82	67.05	16.67		130.0	
10593-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.93	67.36	17.04	0.46	130.0	± 9.6 %
		Y	4.50	66.54	16.27		130.0	
		Z	4.73	66.93	16.53		130.0	
10594-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.98	67.53	17.20	0.46	130.0	± 9.6 %
		Y	4.55	66.72	16.44		130.0	
		Z	4.79	67.11	16.70		130.0	
10595-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.95	67.49	17.10	0.46	130.0	± 9.6 %
		Y	4.51	66.70	16.35		130.0	
		Z	4.76	67.07	16.60		130.0	
10596-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.89	67.51	17.12	0.46	130.0	± 9.6 %
		Y	4.44	66.64	16.33		130.0	
		Z	4.69	67.06	16.60		130.0	
10597-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.84	67.41	17.00	0.46	130.0	± 9.6 %
		Y	4.39	66.49	16.16		130.0	
		Z	4.64	66.94	16.46		130.0	
10598-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.82	67.66	17.27	0.46	130.0	± 9.6 %
		Y	4.39	66.74	16.45		130.0	
		Z	4.63	67.17	16.73		130.0	
10599-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.53	67.60	17.18	0.46	130.0	± 9.6 %
		Y	5.21	67.01	16.68		130.0	
		Z	5.34	67.18	16.73		130.0	
10600-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.67	68.05	17.38	0.46	130.0	± 9.6 %
		Y	5.35	67.51	16.91		130.0	
		Z	5.46	67.57	16.90		130.0	
10601-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.55	67.78	17.26	0.46	130.0	± 9.6 %
		Y	5.23	67.21	16.78		130.0	
		Z	5.36	67.35	16.81		130.0	
10602-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.65	67.81	17.19	0.46	130.0	± 9.6 %
		Y	5.32	67.26	16.72		130.0	
		Z	5.49	67.52	16.81		130.0	
10603-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.73	68.11	17.47	0.46	130.0	± 9.6 %
		Y	5.35	67.43	16.95		130.0	
		Z	5.55	67.77	17.07		130.0	
10604-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.53	67.57	17.19	0.46	130.0	± 9.6 %
		Y	5.20	66.91	16.65		130.0	
		Z	5.43	67.43	16.89		130.0	
10605-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.65	67.93	17.37	0.46	130.0	± 9.6 %
		Y	5.29	67.21	16.81		130.0	
		Z	5.46	67.51	16.92		130.0	
10606-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.38	67.22	16.88	0.46	130.0	± 9.6 %
		Y	5.10	66.72	16.41		130.0	
		Z	5.21	66.81	16.43		130.0	

10607-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.71	66.50	16.70	0.46	130.0	± 9.6 %
		Y	4.32	65.73	15.94		130.0	
		Z	4.53	66.09	16.19		130.0	
10608-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.90	66.93	16.86	0.46	130.0	± 9.6 %
		Y	4.44	66.03	16.07		130.0	
		Z	4.69	66.46	16.35		130.0	
10609-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.79	66.79	16.72	0.46	130.0	± 9.6 %
		Y	4.34	65.85	15.88		130.0	
		Z	4.58	66.30	16.18		130.0	
10610-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.84	66.95	16.88	0.46	130.0	± 9.6 %
		Y	4.39	66.03	16.06		130.0	
		Z	4.63	66.46	16.34		130.0	
10611-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.76	66.75	16.73	0.46	130.0	± 9.6 %
		Y	4.30	65.81	15.89		130.0	
		Z	4.55	66.26	16.19		130.0	
10612-AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.77	66.94	16.79	0.46	130.0	± 9.6 %
		Y	4.28	65.91	15.92		130.0	
		Z	4.55	66.41	16.23		130.0	
10613-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.77	66.81	16.66	0.46	130.0	± 9.6 %
		Y	4.28	65.72	15.75		130.0	
		Z	4.55	66.25	16.09		130.0	
10614-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.72	67.01	16.91	0.46	130.0	± 9.6 %
		Y	4.26	65.96	16.02		130.0	
		Z	4.50	66.46	16.34		130.0	
10615-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.76	66.59	16.50	0.46	130.0	± 9.6 %
		Y	4.29	65.63	15.64		130.0	
		Z	4.54	66.09	15.96		130.0	
10616-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.36	66.90	16.82	0.46	130.0	± 9.6 %
		Y	4.99	66.07	16.19		130.0	
		Z	5.17	66.46	16.36		130.0	
10617-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.43	67.11	16.89	0.46	130.0	± 9.6 %
		Y	5.02	66.19	16.23		130.0	
		Z	5.24	66.65	16.43		130.0	
10618-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.32	67.12	16.92	0.46	130.0	± 9.6 %
		Y	4.92	66.20	16.25		130.0	
		Z	5.13	66.69	16.46		130.0	
10619-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.33	66.92	16.76	0.46	130.0	± 9.6 %
		Y	4.99	66.19	16.17		130.0	
		Z	5.14	66.46	16.28		130.0	
10620-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.42	66.94	16.81	0.46	130.0	± 9.6 %
		Y	5.03	66.09	16.17		130.0	
		Z	5.22	66.48	16.34		130.0	
10621-AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.42	67.06	16.99	0.46	130.0	± 9.6 %
		Y	5.03	66.17	16.34		130.0	
		Z	5.23	66.63	16.54		130.0	
10622-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.44	67.26	17.08	0.46	130.0	± 9.6 %
		Y	5.02	66.27	16.39		130.0	
		Z	5.24	66.76	16.60		130.0	

10623-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.31	66.76	16.71	0.46	130.0	± 9.6 %
		Y	4.91	65.83	16.02		130.0	
		Z	5.12	66.29	16.23		130.0	
10624-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.50	66.93	16.85	0.46	130.0	± 9.6 %
		Y	5.11	66.11	16.23		130.0	
		Z	5.31	66.51	16.40		130.0	
10625-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.88	67.97	17.41	0.46	130.0	± 9.6 %
		Y	5.23	66.37	16.43		130.0	
		Z	5.53	67.07	16.73		130.0	
10626-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.65	66.91	16.74	0.46	130.0	± 9.6 %
		Y	5.33	66.07	16.15		130.0	
		Z	5.49	66.51	16.31		130.0	
10627-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.91	67.53	17.00	0.46	130.0	± 9.6 %
		Y	5.61	66.87	16.53		130.0	
		Z	5.72	67.09	16.57		130.0	
10628-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.69	67.03	16.70	0.46	130.0	± 9.6 %
		Y	5.32	66.05	16.04		130.0	
		Z	5.50	66.53	16.22		130.0	
10629-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.77	67.08	16.71	0.46	130.0	± 9.6 %
		Y	5.50	66.49	16.26		130.0	
		Z	5.58	66.63	16.26		130.0	
10630-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.26	68.76	17.55	0.46	130.0	± 9.6 %
		Y	5.69	67.28	16.66		130.0	
		Z	5.90	67.81	16.86		130.0	
10631-AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	6.12	68.44	17.58	0.46	130.0	± 9.6 %
		Y	5.63	67.20	16.82		130.0	
		Z	5.85	67.76	17.02		130.0	
10632-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.87	67.57	17.16	0.46	130.0	± 9.6 %
		Y	5.65	67.18	16.83		130.0	
		Z	5.70	67.19	16.76		130.0	
10633-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.75	67.18	16.80	0.46	130.0	± 9.6 %
		Y	5.33	66.09	16.10		130.0	
		Z	5.57	66.75	16.36		130.0	
10634-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.73	67.21	16.87	0.46	130.0	± 9.6 %
		Y	5.37	66.31	16.26		130.0	
		Z	5.55	66.77	16.43		130.0	
10635-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.61	66.53	16.27	0.46	130.0	± 9.6 %
		Y	5.23	65.54	15.59		130.0	
		Z	5.42	66.06	15.81		130.0	
10636-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.07	67.26	16.80	0.46	130.0	± 9.6 %
		Y	5.79	66.47	16.27		130.0	
		Z	5.92	66.87	16.40		130.0	
10637-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.23	67.67	16.99	0.46	130.0	± 9.6 %
		Y	5.92	66.81	16.43		130.0	
		Z	6.05	67.23	16.56		130.0	
10638-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.23	67.64	16.95	0.46	130.0	± 9.6 %
		Y	5.96	66.91	16.46		130.0	
		Z	6.06	67.22	16.53		130.0	

10639-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.21	67.58	16.96	0.46	130.0	± 9.6 %
		Y	5.88	66.69	16.39		130.0	
		Z	6.03	67.14	16.54		130.0	
10640-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.21	67.60	16.92	0.46	130.0	± 9.6 %
		Y	5.81	66.50	16.23		130.0	
		Z	6.02	67.13	16.48		130.0	
10641-AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.26	67.49	16.88	0.46	130.0	± 9.6 %
		Y	5.97	66.77	16.39		130.0	
		Z	6.09	67.10	16.48		130.0	
10642-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.29	67.73	17.16	0.46	130.0	± 9.6 %
		Y	5.95	66.83	16.60		130.0	
		Z	6.12	67.32	16.75		130.0	
10643-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.13	67.44	16.92	0.46	130.0	± 9.6 %
		Y	5.81	66.54	16.33		130.0	
		Z	5.96	67.02	16.50		130.0	
10644-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.30	67.96	17.20	0.46	130.0	± 9.6 %
		Y	5.84	66.66	16.41		130.0	
		Z	6.06	67.34	16.68		130.0	
10645-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.64	68.55	17.45	0.46	130.0	± 9.6 %
		Y	6.03	66.94	16.52		130.0	
		Z	6.18	67.35	16.65		130.0	
10646-AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	57.48	146.10	49.99	9.30	60.0	± 9.6 %
		Y	4.72	84.89	30.72		60.0	
		Z	12.01	104.85	36.81		60.0	
10647-AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	38.82	136.91	47.78	9.30	60.0	± 9.6 %
		Y	4.25	82.62	29.91		60.0	
		Z	9.95	100.92	35.66		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	1.29	73.02	15.88	0.00	150.0	± 9.6 %
		Y	0.37	60.00	5.92		150.0	
		Z	0.60	63.17	9.90		150.0	
10652-AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.78	68.49	17.89	2.23	80.0	± 9.6 %
		Y	2.93	65.29	15.35		80.0	
		Z	3.35	66.65	16.43		80.0	
10653-AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	4.18	67.03	17.56	2.23	80.0	± 9.6 %
		Y	3.53	64.87	15.90		80.0	
		Z	3.86	65.85	16.55		80.0	
10654-AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	4.13	66.54	17.49	2.23	80.0	± 9.6 %
		Y	3.57	64.50	15.97		80.0	
		Z	3.86	65.45	16.55		80.0	
10655-AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.18	66.49	17.50	2.23	80.0	± 9.6 %
		Y	3.66	64.42	16.03		80.0	
		Z	3.92	65.40	16.58		80.0	
10658-AAA	Pulse Waveform (200Hz, 10%)	X	100.00	111.76	26.06	10.00	50.0	± 9.6 %
		Y	3.37	68.78	11.57		50.0	
		Z	25.16	91.00	19.47		50.0	
10659-AAA	Pulse Waveform (200Hz, 20%)	X	100.00	115.13	26.48	6.99	60.0	± 9.6 %
		Y	1.83	66.81	9.62		60.0	
		Z	100.00	104.60	21.50		60.0	



10660- AAA	Pulse Waveform (200Hz, 40%)	X	100.00	129.28	31.07	3.98	80.0	± 9.6 %
		Y	0.39	60.07	5.04		80.0	
		Z	100.00	105.54	20.62		80.0	
10661- AAA	Pulse Waveform (200Hz, 60%)	X	100.00	168.20	45.08	2.22	100.0	± 9.6 %
		Y	0.23	60.00	3.29		100.0	
		Z	100.00	106.69	19.98		100.0	
10662- AAA	Pulse Waveform (200Hz, 80%)	X	100.00	422.37	135.84	0.97	120.0	± 9.6 %
		Y	0.02	113.24	6.85		120.0	
		Z	100.00	91.28	12.79		120.0	
10670- AAA	Bluetooth Low Energy	X	100.00	162.98	43.70	2.19	100.0	± 9.6 %
		Y	0.19	60.00	4.21		100.0	
		Z	100.00	120.82	25.98		100.0	

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



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **BV ADT (Auden)**

Certificate No: **EX3-7537\_Jun19**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7537**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7  
Calibration procedure for dosimetric E-field probes**

Calibration date: **June 18, 2019**

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	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
DAE4	SN: 660	19-Dec-18 (No. DAE4-660_Dec18)	Dec-19
Reference Probe ES3DV2	SN: 3013	31-Dec-18 (No. ES3-3013_Dec18)	Dec-19
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	<b>Manu Seitz</b>	<b>Laboratory Technician</b>	
Approved by:	<b>Katja Pokovic</b>	<b>Technical Manager</b>	
			Issued: June 20, 2019
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 <sub>x,y,z</sub>	sensitivity in free space
ConvF	sensitivity in TSL / NORM <sub>x,y,z</sub>
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization $\varphi$	$\varphi$ rotation around probe axis
Polarization $\vartheta$	$\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

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

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

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* frequency\_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: 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<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; 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<sub>x,y,z</sub> \* 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  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7537

### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup>	0.61	0.68	0.60	$\pm 10.1 \%$
DCP (mV) <sup>B</sup>	98.8	99.9	101.0	

### Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB/ $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	158.3	$\pm 3.3 \%$	$\pm 4.7 \%$
		Y	0.00	0.00	1.00		146.8		
		Z	0.00	0.00	1.00		153.3		
10352- AAA	Pulse Waveform (200Hz, 10%)	X	15.00	90.12	21.07	10.00	60.0	$\pm 3.6 \%$	$\pm 9.6 \%$
		Y	15.00	88.44	20.30		60.0		
		Z	15.00	89.91	21.20		60.0		
10353- AAA	Pulse Waveform (200Hz, 20%)	X	15.00	91.13	20.59	6.99	80.0	$\pm 1.9 \%$	$\pm 9.6 \%$
		Y	15.00	89.10	19.48		80.0		
		Z	15.00	91.90	21.20		80.0		
10354- AAA	Pulse Waveform (200Hz, 40%)	X	15.00	98.91	23.19	3.98	95.0	$\pm 1.2 \%$	$\pm 9.6 \%$
		Y	15.00	90.09	18.46		95.0		
		Z	15.00	96.54	22.16		95.0		
10355- AAA	Pulse Waveform (200Hz, 60%)	X	15.00	107.32	25.78	2.22	120.0	$\pm 1.2 \%$	$\pm 9.6 \%$
		Y	15.00	89.56	16.77		120.0		
		Z	15.00	104.15	24.43		120.0		
10387- AAA	QPSK Waveform, 1 MHz	X	0.83	63.23	10.56	0.00	150.0	$\pm 2.7 \%$	$\pm 9.6 \%$
		Y	0.71	61.44	8.94		150.0		
		Z	0.92	64.76	11.27		150.0		
10388- AAA	QPSK Waveform, 10 MHz	X	2.36	68.95	16.32	0.00	150.0	$\pm 1.0 \%$	$\pm 9.6 \%$
		Y	2.23	67.93	15.54		150.0		
		Z	2.51	70.17	16.91		150.0		
10396- AAA	64-QAM Waveform, 100 kHz	X	3.41	72.74	19.90	3.01	150.0	$\pm 0.7 \%$	$\pm 9.6 \%$
		Y	3.00	69.78	18.51		150.0		
		Z	3.43	72.93	19.89		150.0		
10399- AAA	64-QAM Waveform, 40 MHz	X	3.59	67.46	16.05	0.00	150.0	$\pm 1.8 \%$	$\pm 9.6 \%$
		Y	3.55	67.18	15.79		150.0		
		Z	3.54	67.47	16.08		150.0		
10414- AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.93	65.76	15.69	0.00	150.0	$\pm 3.8 \%$	$\pm 9.6 \%$
		Y	4.98	65.85	15.71		150.0		
		Z	4.84	65.60	15.60		150.0		

Note: For details on UID parameters see Appendix

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

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Page 5).

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

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



## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7537

### Sensor Model Parameters

	C1 fF	C2 fF	$\alpha$ $V^{-1}$	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 $V^{-2}$	T5 $V^{-1}$	T6
X	48.7	366.14	36.06	17.67	0.13	5.10	1.48	0.30	1.01
Y	49.8	384.45	37.67	16.87	0.40	5.10	0.00	0.59	1.01
Z	47.6	353.84	35.33	17.81	0.26	5.10	1.13	0.35	1.01

### Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-0.6
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

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7537

### Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	41.9	0.89	10.77	10.77	10.77	0.44	1.01	± 12.0 %
835	41.5	0.90	10.48	10.48	10.48	0.34	1.10	± 12.0 %
900	41.5	0.97	10.28	10.28	10.28	0.44	0.87	± 12.0 %
1450	40.5	1.20	8.85	8.85	8.85	0.38	0.80	± 12.0 %
1750	40.1	1.37	8.44	8.44	8.44	0.39	0.85	± 12.0 %
1900	40.0	1.40	8.13	8.13	8.13	0.31	0.85	± 12.0 %
2000	40.0	1.40	7.94	7.94	7.94	0.38	0.90	± 12.0 %
2300	39.5	1.67	7.75	7.75	7.75	0.32	0.80	± 12.0 %
2450	39.2	1.80	7.39	7.39	7.39	0.35	0.80	± 12.0 %
2600	39.0	1.96	7.19	7.19	7.19	0.41	0.80	± 12.0 %
3300	38.2	2.71	6.75	6.75	6.75	0.30	1.25	± 13.1 %
3500	37.9	2.91	6.71	6.71	6.71	0.30	1.25	± 13.1 %
3700	37.7	3.12	6.65	6.65	6.65	0.30	1.25	± 13.1 %
3900	37.5	3.32	6.45	6.45	6.45	0.40	1.50	± 13.1 %
4100	37.2	3.53	6.13	6.13	6.13	0.40	1.50	± 13.1 %
4200	37.1	3.63	5.98	5.98	5.98	0.40	1.50	± 13.1 %
4400	36.9	3.84	5.94	5.94	5.94	0.45	1.70	± 13.1 %
4600	36.7	4.04	5.93	5.93	5.93	0.45	1.70	± 13.1 %
4800	36.4	4.25	5.59	5.59	5.59	0.45	1.60	± 13.1 %
4950	36.3	4.40	5.56	5.56	5.56	0.45	1.80	± 13.1 %
5250	35.9	4.71	5.36	5.36	5.36	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.75	4.75	4.75	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.99	4.99	4.99	0.40	1.80	± 13.1 %

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

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

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