

10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	± 9.6 %
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	± 9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	± 9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	± 9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	± 9.6 %
10682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	± 9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc dc)	WLAN	8.28	± 9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc dc)	WLAN	8.45	± 9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc dc)	WLAN	8.29	± 9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	± 9.6 %
10690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc dc)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc dc)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc dc)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc dc)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	WLAN	8.78	± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc dc)	WLAN	8.86	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc dc)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	± 9.6 %
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	± 9.6 %
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.32	± 9.6 %
10708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	± 9.6 %
10711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	± 9.6 %
10712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.67	± 9.6 %
10713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	± 9.6 %
10714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc dc)	WLAN	8.26	± 9.6 %
10715	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc dc)	WLAN	8.45	± 9.6 %
10716	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.30	± 9.6 %
10717	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc dc)	WLAN	8.48	± 9.6 %
10718	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc dc)	WLAN	8.24	± 9.6 %
10719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WLAN	8.81	± 9.6 %
10720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WLAN	8.87	± 9.6 %
10721	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WLAN	8.76	± 9.6 %
10722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.55	± 9.6 %
10723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc dc)	WLAN	8.90	± 9.6 %
10725	AAA	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WLAN	8.72	± 9.6 %
10727	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc dc)	WLAN	8.66	± 9.6 %
10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc dc)	WLAN	8.65	± 9.6 %
10729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc dc)	WLAN	8.64	± 9.6 %
10730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc dc)	WLAN	8.67	± 9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc dc)	WLAN	8.46	± 9.6 %
10733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc dc)	WLAN	8.40	± 9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc dc)	WLAN	8.25	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc dc)	WLAN	8.33	± 9.6 %

10736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc dc)	WLAN	8.27	±9.6 %
10737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	±9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc dc)	WLAN	8.42	±9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc dc)	WLAN	8.29	±9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.48	±9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.40	±9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.43	±9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc dc)	WLAN	8.94	±9.6 %
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc dc)	WLAN	9.16	±9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc dc)	WLAN	8.93	±9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc dc)	WLAN	9.11	±9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc dc)	WLAN	9.04	±9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc dc)	WLAN	8.93	±9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc dc)	WLAN	8.90	±9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc dc)	WLAN	8.79	±9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc dc)	WLAN	8.82	±9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc dc)	WLAN	8.81	±9.6 %
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc dc)	WLAN	9.00	±9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc dc)	WLAN	8.94	±9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.64	±9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	±9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.77	±9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	8.69	±9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	±9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.49	±9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	±9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	±9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	±9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	±9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	±9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	±9.6 %
10767	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6 %
10768	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10769	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10770	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6 %
10771	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6 %
10772	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6 %
10773	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	±9.6 %
10774	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6 %
10775	AAB	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6 %
10776	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6 %
10777	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6 %
10778	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10779	AAB	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	±9.6 %
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6 %
10781	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6 %
10782	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±9.6 %
10783	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6 %
10784	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±9.6 %
10785	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±9.6 %
10786	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10787	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±9.6 %
10788	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10789	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10790	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10791	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±9.6 %
10792	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6 %
10793	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6 %
10794	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6 %
10795	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6 %
10796	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6 %
10797	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10798	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6 %
10799	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6 %

10801	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10805	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10806	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10809	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAC	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAC	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10827	AAC	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10828	AAC	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10830	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
10831	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	± 9.6 %
10835	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10860	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAC	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAC	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAC	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10875	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	6.39	± 9.6 %
10877	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %

10886	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10897	AAA	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	± 9.6 %
10898	AAA	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10899	AAA	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10900	AAA	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10901	AAA	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10902	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10903	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10904	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10905	AAA	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10906	AAA	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10907	AAA	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	± 9.6 %
10908	AAA	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10909	AAA	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	± 9.6 %
10910	AAA	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10911	AAA	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10912	AAA	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10913	AAA	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10914	AAA	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	± 9.6 %
10915	AAA	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10916	AAA	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10917	AAA	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10918	AAA	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10919	AAA	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10920	AAA	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10921	AAA	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10922	AAA	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	± 9.6 %
10923	AAA	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10924	AAA	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10925	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	± 9.6 %
10926	AAA	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10927	AAA	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10928	AAA	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10929	AAA	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10930	AAA	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10931	AAA	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10932	AAA	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10933	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10934	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10935	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10936	AAA	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10937	AAA	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	± 9.6 %
10938	AAA	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10939	AAA	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	± 9.6 %
10940	AAA	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	± 9.6 %
10941	AAA	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10942	AAA	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10943	AAA	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	± 9.6 %
10944	AAA	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	± 9.6 %
10945	AAA	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10946	AAA	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10947	AAA	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10948	AAA	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10949	AAA	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10950	AAA	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10951	AAA	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	± 9.6 %
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	± 9.6 %
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	± 9.6 %

10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	± 9.6 %
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	± 9.6 %
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	± 9.6 %
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	± 9.6 %
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAA	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %

<sup>‡</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 **Sporton**

Certificate No: **EX3-3976\_Jan20**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3976**

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: **January 27, 2020**

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	27-Dec-19 (No. DAE4-660, Dec19)	Dec-20
Reference Probe ES3DV2	SN: 3013	31-Dec-19 (No. ES3-3013, Dec19)	Dec-20
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 4, 2020

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).

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3976

## Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ( $\mu V/(V/m)^2$ ) <sup>A</sup>	0.48	0.50	0.54	± 10.1 %
DCP (mV) <sup>B</sup>	104.2	97.4	106.5	

## Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\mu$ 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	191.8	± 3.0 %	± 4.7 %
		Y	0.00	0.00	1.00		186.3		
		Z	0.00	0.00	1.00		175.8		
10352- AAA	Pulse Waveform (200Hz, 10%)	X	20.00	94.27	22.80	10.00	60.0	± 2.9 %	± 9.6 %
		Y	20.00	92.24	21.74		60.0		
		Z	20.00	93.79	22.86		60.0		
10353- AAA	Pulse Waveform (200Hz, 20%)	X	20.00	99.71	24.52	6.99	80.0	± 1.9 %	± 9.6 %
		Y	20.00	94.54	21.52		80.0		
		Z	20.00	94.46	22.10		80.0		
10354- AAA	Pulse Waveform (200Hz, 40%)	X	20.00	112.84	29.50	3.98	95.0	± 1.2 %	± 9.6 %
		Y	20.00	97.96	21.49		95.0		
		Z	20.00	101.35	24.09		95.0		
10355- AAA	Pulse Waveform (200Hz, 60%)	X	20.00	141.13	41.02	2.22	120.0	± 1.4 %	± 9.6 %
		Y	20.00	112.18	26.31		120.0		
		Z	20.00	111.64	27.45		120.0		
10387- AAA	QPSK Waveform, 1 MHz	X	20.00	102.43	23.93	0.00	150.0	± 2.8 %	± 9.6 %
		Y	0.53	60.11	7.40		150.0		
		Z	0.96	65.89	11.65		150.0		
10388- AAA	QPSK Waveform, 10 MHz	X	3.27	75.78	19.98	0.00	150.0	± 1.1 %	± 9.6 %
		Y	2.23	68.86	16.32		150.0		
		Z	2.57	71.08	17.44		150.0		
10396- AAA	64-QAM Waveform, 100 kHz	X	3.94	77.03	22.30	3.01	150.0	± 1.2 %	± 9.6 %
		Y	2.66	69.29	18.75		150.0		
		Z	3.79	75.30	21.02		150.0		
10399- AAA	64-QAM Waveform, 40 MHz	X	3.91	69.68	17.48	0.00	150.0	± 2.0 %	± 9.6 %
		Y	3.48	67.32	16.03		150.0		
		Z	3.66	68.29	16.51		150.0		
10414- AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.94	66.38	16.22	0.00	150.0	± 4.0 %	± 9.6 %
		Y	4.77	65.66	15.68		150.0		
		Z	4.94	66.22	15.93		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:3976

### Sensor Model Parameters

	C1 fF	C2 fF	$\alpha$ V <sup>-1</sup>	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	T6
X	43.7	320.71	34.86	15.41	0.32	5.10	1.25	0.27	1.01
Y	39.8	301.78	36.70	10.48	0.56	5.08	0.00	0.43	1.01
Z	45.2	331.44	34.65	19.40	0.54	5.10	1.65	0.25	1.01

### Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-5.5
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3976

### Calibration Parameter Determined in Head Tissue Simulating Media

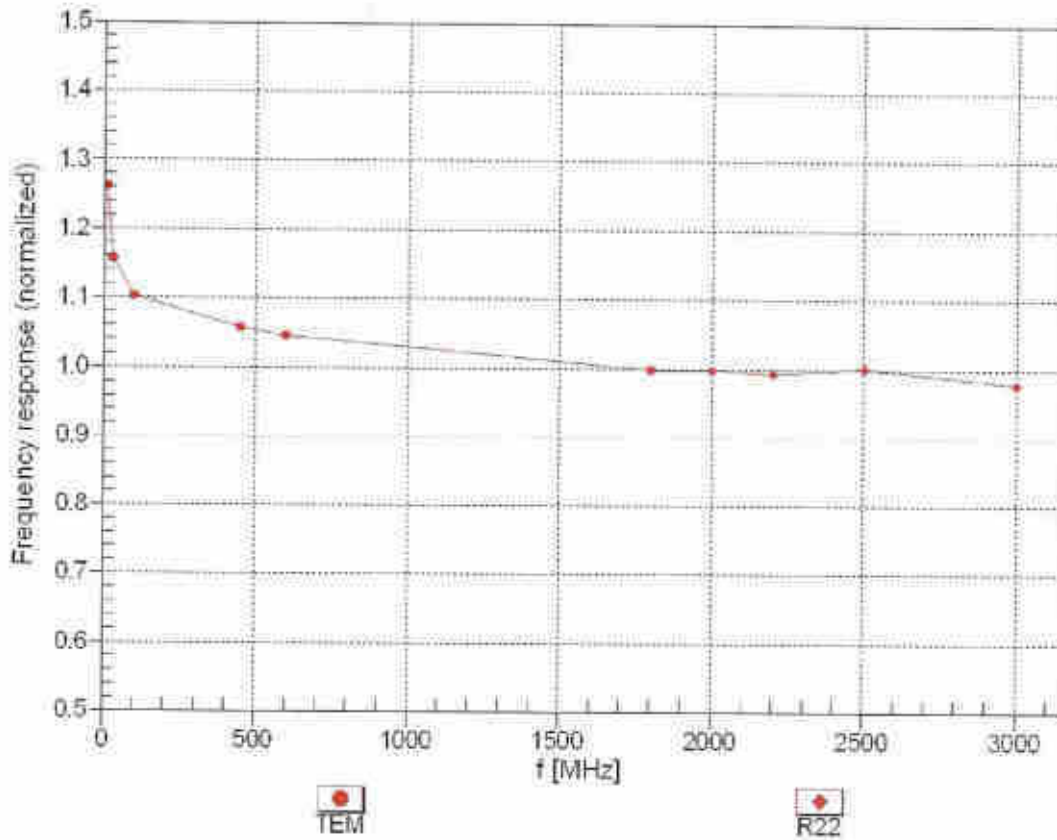
f (MHz) <sup>c</sup>	Relative Permittivity <sup>f</sup>	Conductivity (S/m) <sup>f</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>g</sup>	Depth <sup>g</sup> (mm)	Unc (k=2)
750	41.9	0.89	10.23	10.23	10.23	0.65	0.80	± 12.0 %
835	41.5	0.90	10.16	10.16	10.16	0.48	0.88	± 12.0 %
900	41.5	0.97	9.89	9.89	9.89	0.52	0.80	± 12.0 %
1450	40.5	1.20	8.97	8.97	8.97	0.48	0.80	± 12.0 %
1750	40.1	1.37	8.63	8.63	8.63	0.34	0.80	± 12.0 %
1900	40.0	1.40	8.33	8.33	8.33	0.29	0.80	± 12.0 %
2000	40.0	1.40	8.30	8.30	8.30	0.36	0.80	± 12.0 %
2300	39.5	1.67	7.89	7.89	7.89	0.35	0.80	± 12.0 %
2450	39.2	1.80	7.74	7.74	7.74	0.33	0.80	± 12.0 %
2600	39.0	1.96	7.48	7.48	7.48	0.38	0.80	± 12.0 %
3500	37.9	2.91	7.15	7.15	7.15	0.30	1.35	± 14.0 %
3700	37.7	3.12	6.92	6.92	6.92	0.30	1.35	± 14.0 %
5250	35.9	4.71	5.37	5.37	5.37	0.40	1.80	± 14.0 %
5600	35.5	5.07	4.85	4.85	4.85	0.40	1.80	± 14.0 %
5750	35.4	5.22	4.87	4.87	4.87	0.40	1.80	± 14.0 %

<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 up to 6 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula<sup>h</sup> is applied to measured SAR values. 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.

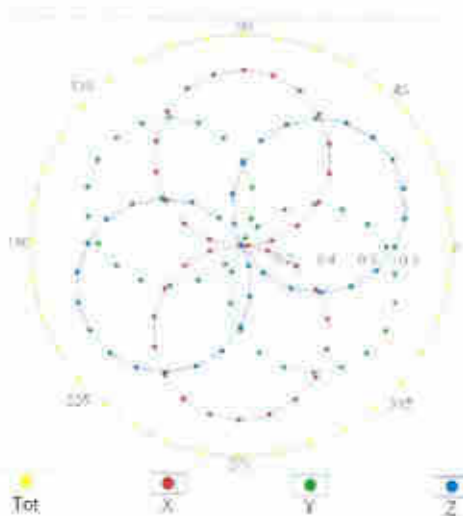
### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



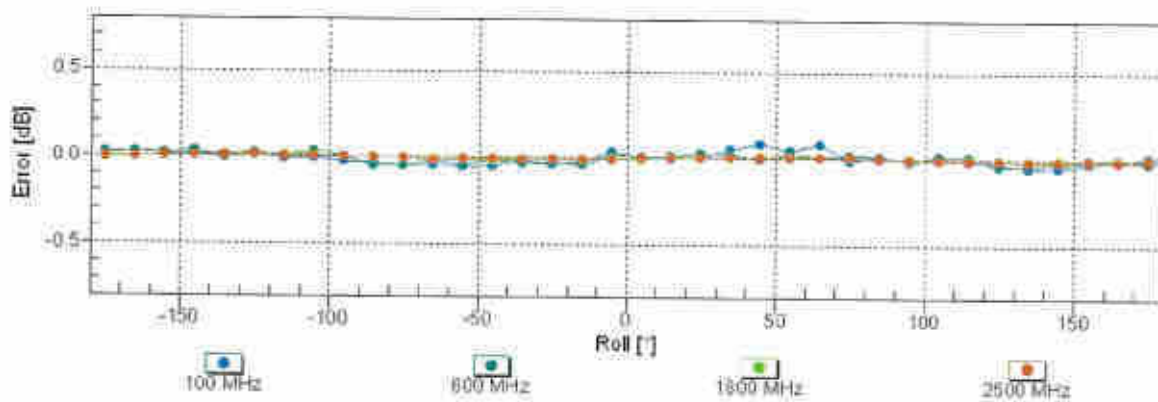
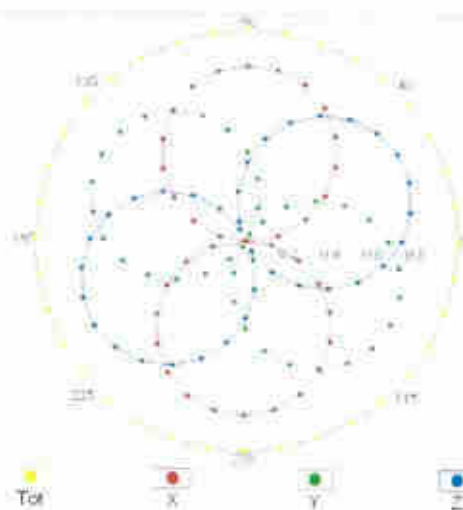
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

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

f=600 MHz,TEM

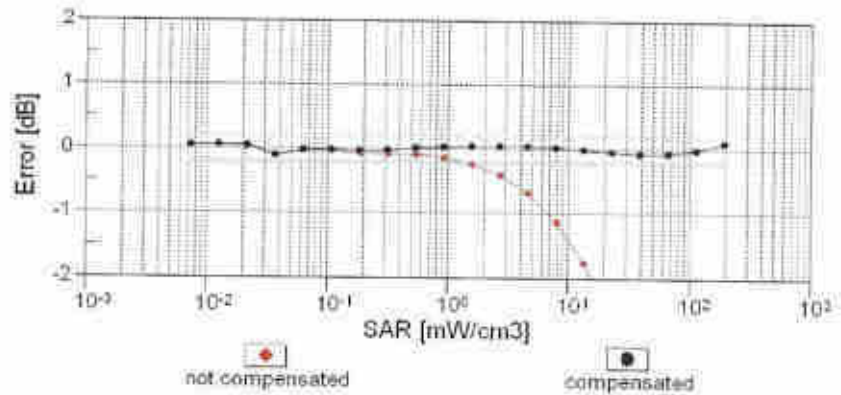
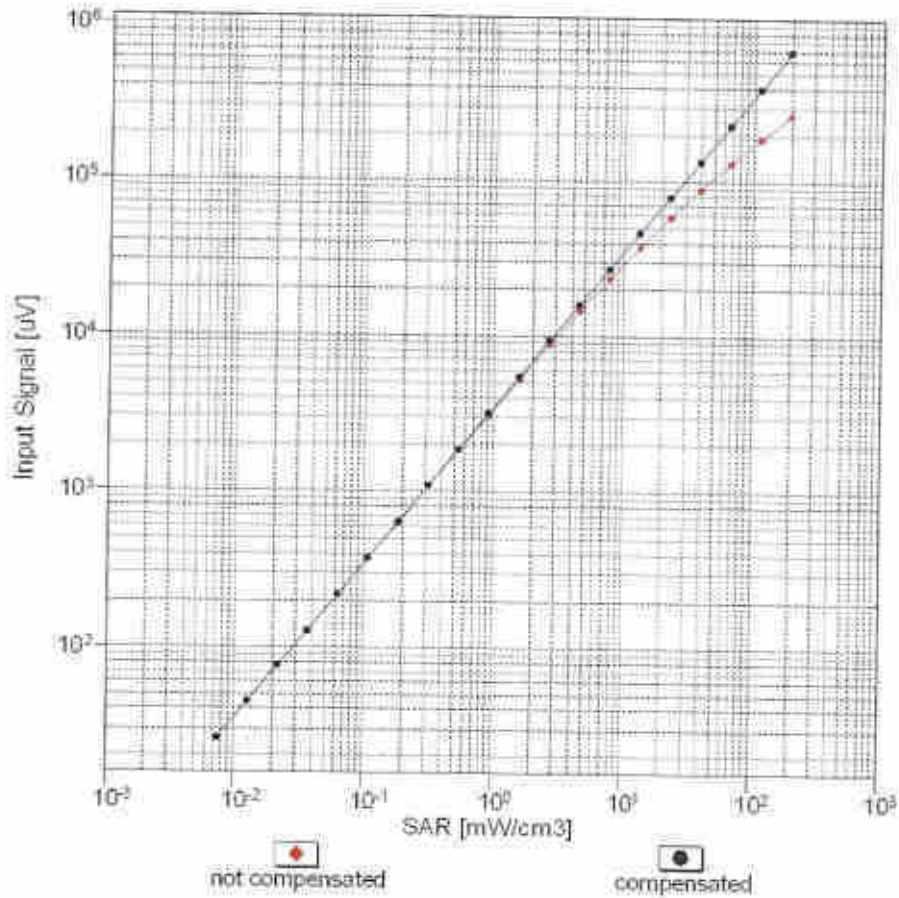


f=1800 MHz,R22



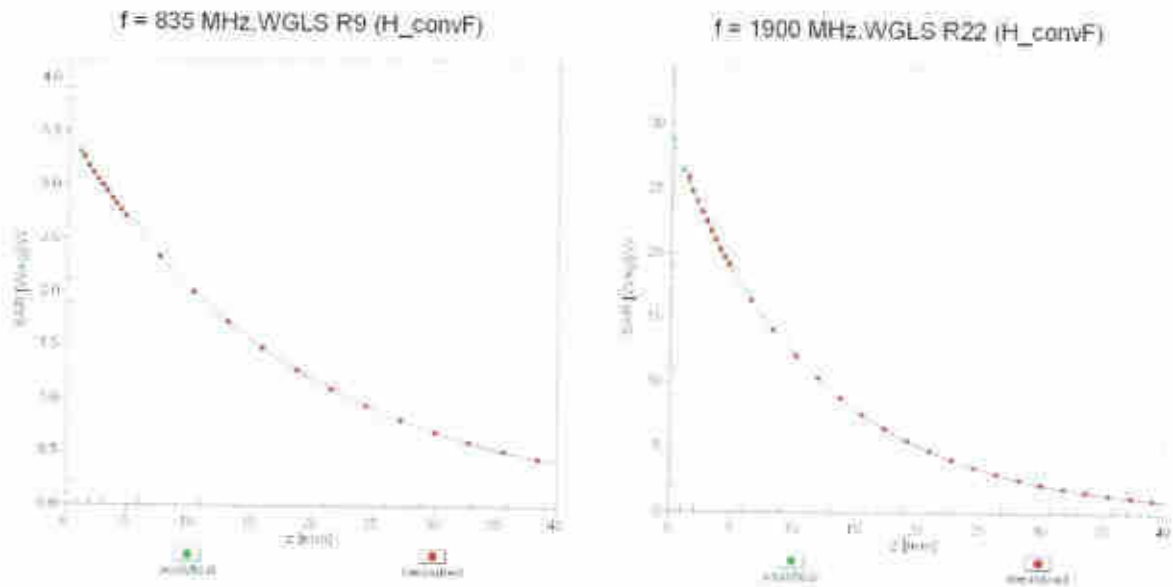
**Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )**

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



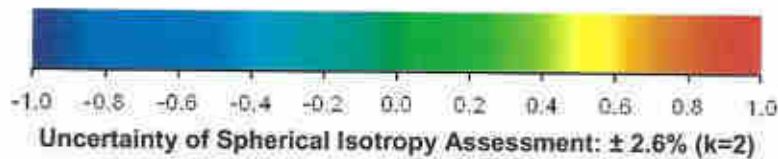
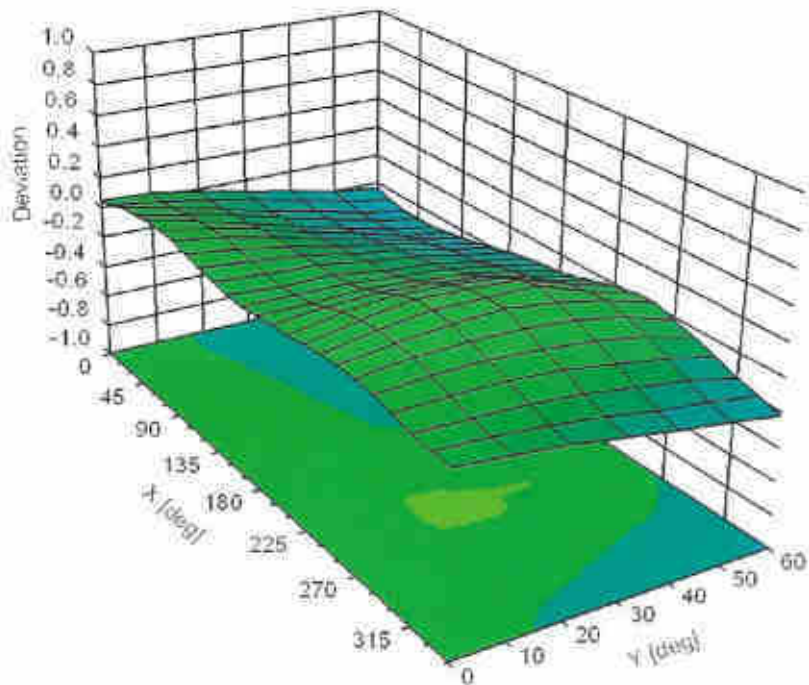
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment:  $\pm 2.6\%$  (k=2)

## Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>E</sup> (k=2)
0		CW	CW	0.00	± 4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	± 9.6 %
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	± 9.6 %
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	± 9.6 %
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	± 9.6 %
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	± 9.6 %
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
10063	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	± 9.6 %
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	± 9.6 %
10067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	± 9.6 %
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	± 9.6 %
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	± 9.6 %
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	± 9.6 %
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	± 9.6 %
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	± 9.6 %
10097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	± 9.6 %
10100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	± 9.6 %
10101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
10102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	± 9.6 %
10104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
10105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	± 9.6 %
10108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	± 9.6 %

10109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6%
10110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6%
10111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6%
10112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6%
10113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6%
10114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6%
10115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6%
10116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6%
10117	CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6%
10118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	±9.6%
10119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6%
10140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6%
10141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6%
10142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6%
10144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6%
10145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6%
10146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6%
10147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6%
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6%
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6%
10151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6%
10152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6%
10153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6%
10154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6%
10155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6%
10156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6%
10157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6%
10158	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6%
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6%
10160	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6%
10161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6%
10162	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.6%
10166	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6%
10167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6%
10168	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6%
10169	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10171	AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6%
10172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6%
10173	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6%
10174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6%
10175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6%
10176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10179	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6%
10182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10185	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6%
10186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6%
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6%
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6%
10193	CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6%
10194	CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6%
10195	CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6%
10196	CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6%
10197	CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6%
10198	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6%
10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6%



10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6 %
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6 %
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.6 %
10226	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6 %
10227	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6 %
10228	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6 %
10229	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10230	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10231	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	±9.6 %
10232	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10233	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10234	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10235	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10236	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10237	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	±9.6 %
10242	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6 %
10243	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	±9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6 %
10245	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.6 %
10246	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6 %
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6 %
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6 %
10251	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6 %
10252	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	±9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±9.6 %
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	±9.6 %
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	±9.6 %
10257	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±9.6 %
10258	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±9.6 %
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	±9.6 %
10260	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.6 %
10261	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	±9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	±9.6 %
10264	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	±9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.6 %
10266	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	±9.6 %
10267	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	±9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	±9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	±9.6 %
10275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	±9.6 %
10277	CAA	PHS (QPSK)	PHS	11.81	±9.6 %
10278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	±9.6 %
10279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	±9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	±9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	±9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	±9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6 %
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	±9.6 %
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	±9.6 %
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±9.6 %
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	±9.6 %

10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WiMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WiMAX	12.57	± 9.6 %
10303	AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	12.52	± 9.6 %
10304	AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WiMAX	11.86	± 9.6 %
10305	AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WiMAX	15.24	± 9.6 %
10306	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	WiMAX	14.67	± 9.6 %
10307	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	WiMAX	14.49	± 9.6 %
10308	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WiMAX	14.46	± 9.6 %
10309	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	WiMAX	14.58	± 9.6 %
10310	AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	WiMAX	14.57	± 9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAA	iDEN 1:3	iDEN	10.51	± 9.6 %
10314	AAA	iDEN 1:6	iDEN	13.48	± 9.6 %
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	± 9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	± 9.6 %
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	± 9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	± 9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	± 9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	± 9.6 %
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	± 9.6 %
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	± 9.6 %
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10401	AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	± 9.6 %
10402	AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SQ32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %
10410	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	± 9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)	WLAN	8.14	± 9.6 %
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)	WLAN	8.19	± 9.6 %
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10426	AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	± 9.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6 %

10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	±9.6 %
10453	AAD	Validation (Square, 10ms, 1ms)	Test	10.00	±9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	±9.6 %
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	±9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	±9.6 %
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	±9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	±9.6 %
10461	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10462	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	±9.6 %
10463	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6 %
10464	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10467	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10469	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6 %
10470	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10471	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10472	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10473	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10474	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10475	AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10479	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6 %
10480	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.6 %
10481	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6 %
10482	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±9.6 %
10483	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±9.6 %
10484	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	±9.6 %
10485	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	±9.6 %
10486	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.6 %
10487	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	±9.6 %
10488	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	±9.6 %
10489	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6 %
10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6 %

10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6%
10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.6%
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6%
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6%
10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	±9.6%
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6%
10497	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6%
10498	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	±9.6%
10499	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	±9.6%
10500	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6%
10501	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.6%
10502	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	±9.6%
10503	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.6%
10504	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6%
10505	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6%
10506	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6%
10507	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	±9.6%
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6%
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.99	±9.6%
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.6%
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.6%
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6%
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	±9.6%
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6%
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6%
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	±9.6%
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6%
10518	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6%
10519	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	±9.6%
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	±9.6%
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	±9.6%
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6%
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	±9.6%
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	±9.6%
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	WLAN	8.36	±9.6%
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	WLAN	8.42	±9.6%
10527	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN	8.21	±9.6%
10528	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	WLAN	8.36	±9.6%
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	WLAN	8.36	±9.6%
10531	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	WLAN	8.43	±9.6%
10532	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6%
10533	AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	WLAN	8.38	±9.6%

10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.45	±9.6 %
10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6 %
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	±9.6 %
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	±9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	±9.6 %
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	±9.6 %
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	±9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	±9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	±9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	±9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	±9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	±9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	±9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	±9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	±9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	±9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	±9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	±9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	±9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	±9.6 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	±9.6 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	±9.6 %
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	±9.6 %
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	±9.6 %
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	±9.6 %
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6 %
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6 %
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6 %
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6 %
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6 %
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6 %
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6 %
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6 %
10583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6 %
10584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6 %
10585	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6 %
10586	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6 %

10587	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6 %
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	AAG	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	AAE	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±9.6 %
10653	AAE	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%
10767	AAB	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6%
10768	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6%
10769	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6%
10770	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6%
10771	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6%
10772	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6%
10773	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	±9.6%
10774	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6%
10776	AAB	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6%
10778	AAB	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±9.6%
10780	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6%
10781	AAB	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6%



10782	AAB	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±9.6 %
10783	AAB	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6 %
10784	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±9.6 %
10785	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±9.6 %
10786	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10787	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±9.6 %
10788	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10789	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10790	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10791	AAB	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±9.6 %
10792	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6 %
10793	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6 %
10794	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6 %
10795	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6 %
10796	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6 %
10797	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10798	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6 %
10799	AAB	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6 %
10801	AAB	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6 %
10802	AAB	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±9.6 %
10803	AAB	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6 %
10805	AAB	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10806	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10809	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10810	AAB	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10812	AAB	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10817	AAB	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10818	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10819	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	±9.6 %
10820	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	±9.6 %
10821	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10822	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10823	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	±9.6 %

10824	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10825	AAB	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10827	AAB	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	±9.6 %
10828	AAB	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6 %
10829	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	±9.6 %
10830	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	±9.6 %
10831	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	±9.6 %
10832	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	±9.6 %
10833	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6 %
10834	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	±9.6 %
10835	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6 %
10836	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	±9.6 %
10837	AAB	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	±9.6 %
10839	AAB	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6 %
10840	AAB	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	±9.6 %
10841	AAB	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	±9.6 %
10843	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	±9.6 %
10844	AAB	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10846	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10854	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10855	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6 %
10856	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10857	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10858	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6 %
10859	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10860	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10861	AAB	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	±9.6 %
10863	AAB	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10864	AAB	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10865	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10866	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6 %
10868	AAB	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	±9.6 %
10869	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6 %

10870	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	±9.6 %
10871	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	±9.6 %
10872	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	±9.6 %
10873	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6 %
10874	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6 %
10875	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6 %
10876	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	±9.6 %
10877	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	±9.6 %
10878	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6 %
10879	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	±9.6 %
10880	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	±9.6 %
10881	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6 %
10882	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	±9.6 %
10883	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	±9.6 %
10884	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	±9.6 %
10885	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6 %
10886	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6 %
10887	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6 %
10888	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	±9.6 %
10889	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	±9.6 %
10890	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	±9.6 %
10891	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	±9.6 %
10892	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	±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.



Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

Client **Sporton**

Certificate No: **Z20-60181**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN : 3279**

Calibration Procedure(s)  
**FF-Z11-004-01**  
**Calibration Procedures for Dosimetric E-field Probes**

Calibration date: **June 02, 2020**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	101919	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101547	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101548	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Reference 10dBAttenuator	18N50W-10dB	10-Feb-20(CTTL, No.J20X00525)	Feb-22
Reference 20dBAttenuator	18N50W-20dB	10-Feb-20(CTTL, No.J20X00526)	Feb-22
Reference Probe EX3DV4	SN 3617	30-Jan-20(SPEAG, No.EX3-3617_Jan20/2)	Jan-21
DAE4	SN 1556	4-Feb-20(SPEAG, No.DAE4-1556_Feb20)	Feb-21

Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	18-Jun-19(CTTL, No.J19X05127)	Jun-20
Network Analyzer E5071C	MY46110673	10-Feb-20(CTTL, No.J20X00515)	Feb-21

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: June 04, 2020

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



## 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 $\Phi$	$\Phi$ rotation around probe axis
Polarization $\theta$	$\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e. $\theta=0$ is normal to probe axis

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

## Calibration is Performed According to the Following Standards:

- 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  $\theta=0$  ( $f \leq 900\text{MHz}$  in TEM-cell;  $f > 1800\text{MHz}$ : waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not effect the  $E^2$ -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 (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>; VR<sub>x,y,z</sub>; A,B,C** 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  $f \leq 800\text{MHz}$ ) and inside waveguide using analytical field distributions based on power measurements for  $f > 800\text{MHz}$ . The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued 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  $\pm 50\text{MHz}$  to  $\pm 100\text{MHz}$ .
- 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: ES3DV3 – SN:3279

### Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup>	1.32	1.39	1.31	±10.0%
DCP(mV) <sup>B</sup>	104.2	106.6	106.1	

### 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	264.4	±2.2%
		Y	0.0	0.0	1.0		276.5	
		Z	0.0	0.0	1.0		268.2	

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 4).

<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: ES3DV3 – SN:3279

### 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)	Unct. (k=2)
750	41.9	0.89	6.44	6.44	6.44	0.40	1.40	±12.1%
835	41.5	0.90	6.25	6.25	6.25	0.43	1.48	±12.1%
1750	40.1	1.37	5.40	5.40	5.40	0.75	1.19	±12.1%
1900	40.0	1.40	5.16	5.16	5.16	0.69	1.25	±12.1%
2000	40.0	1.40	5.13	5.13	5.13	0.63	1.31	±12.1%
2300	39.5	1.67	4.92	4.92	4.92	0.90	1.10	±12.1%
2450	39.2	1.80	4.71	4.71	4.71	0.90	1.16	±12.1%
2600	39.0	1.96	4.54	4.54	4.54	0.90	1.15	±12.1%

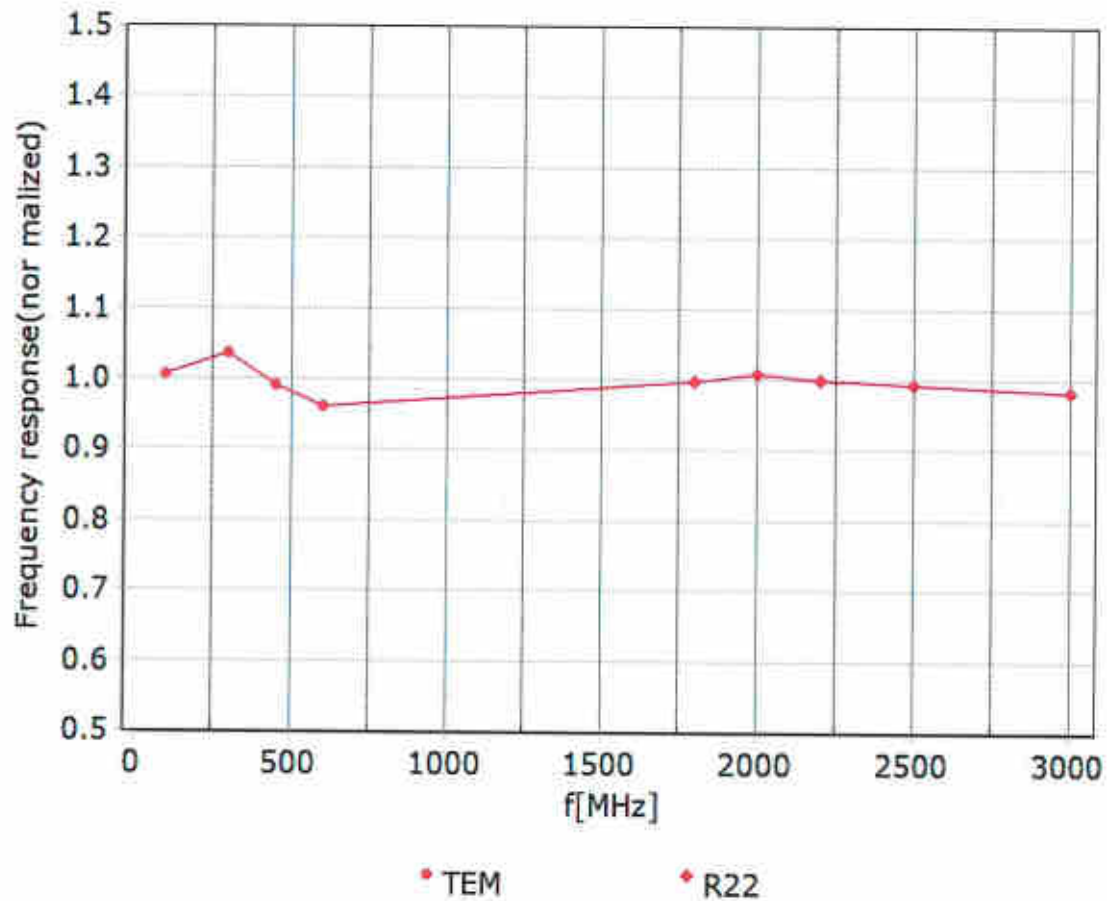
<sup>C</sup> Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 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 frequency 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 the 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:  $\pm 7.4\%$  ( $k=2$ )



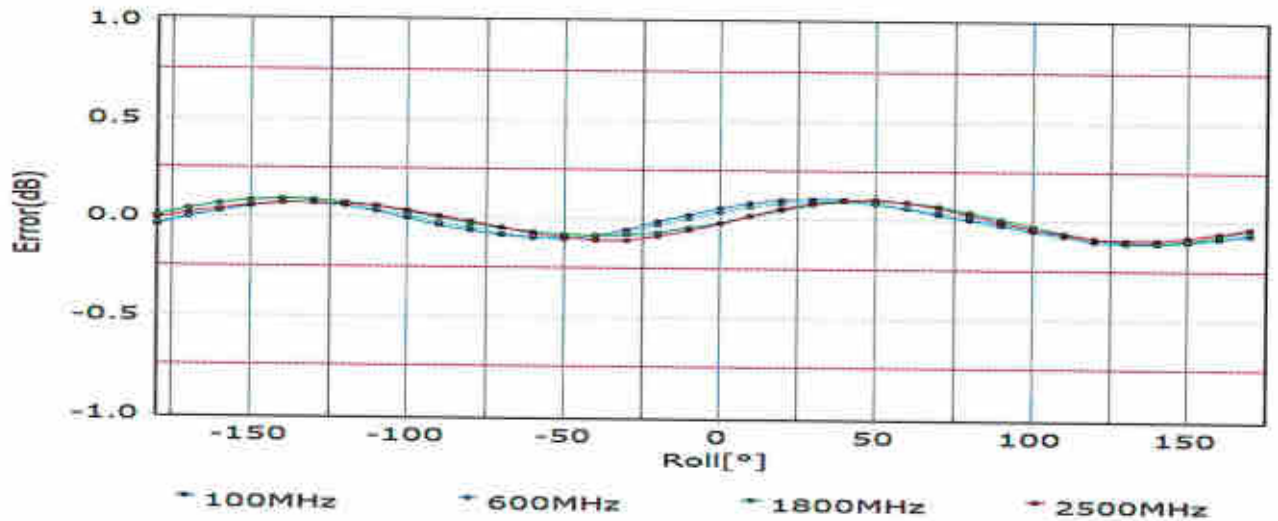
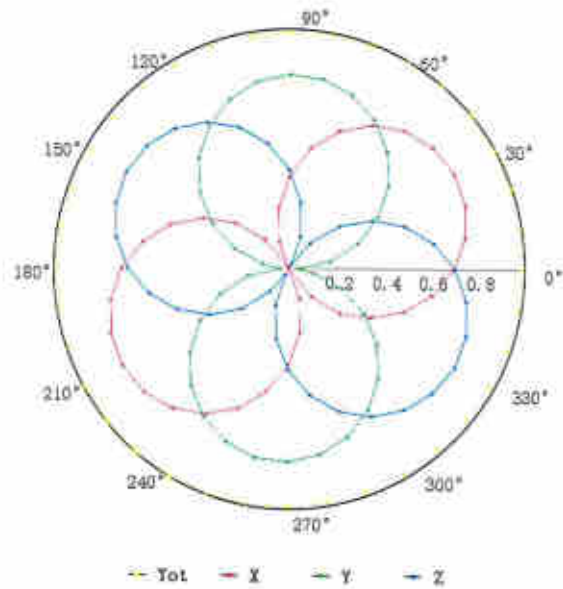
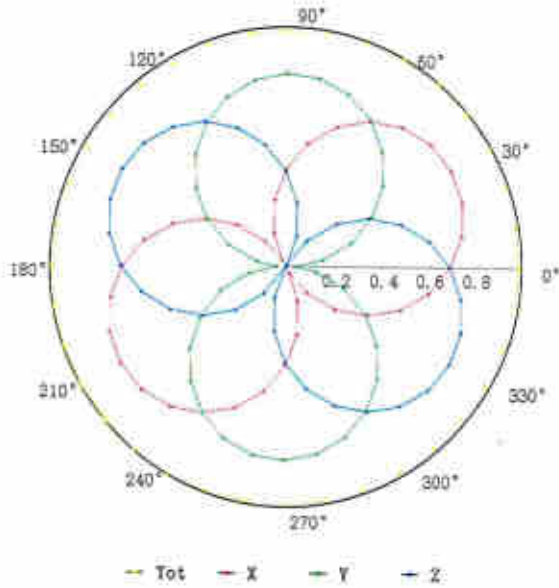


Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

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

**f=600 MHz, TEM**

**f=1800 MHz, R22**

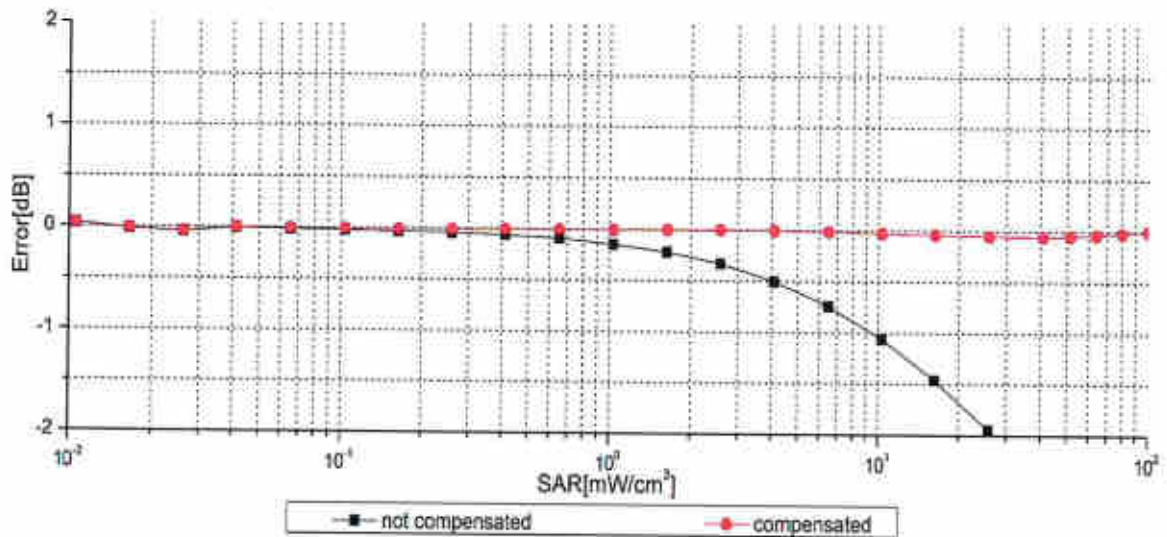
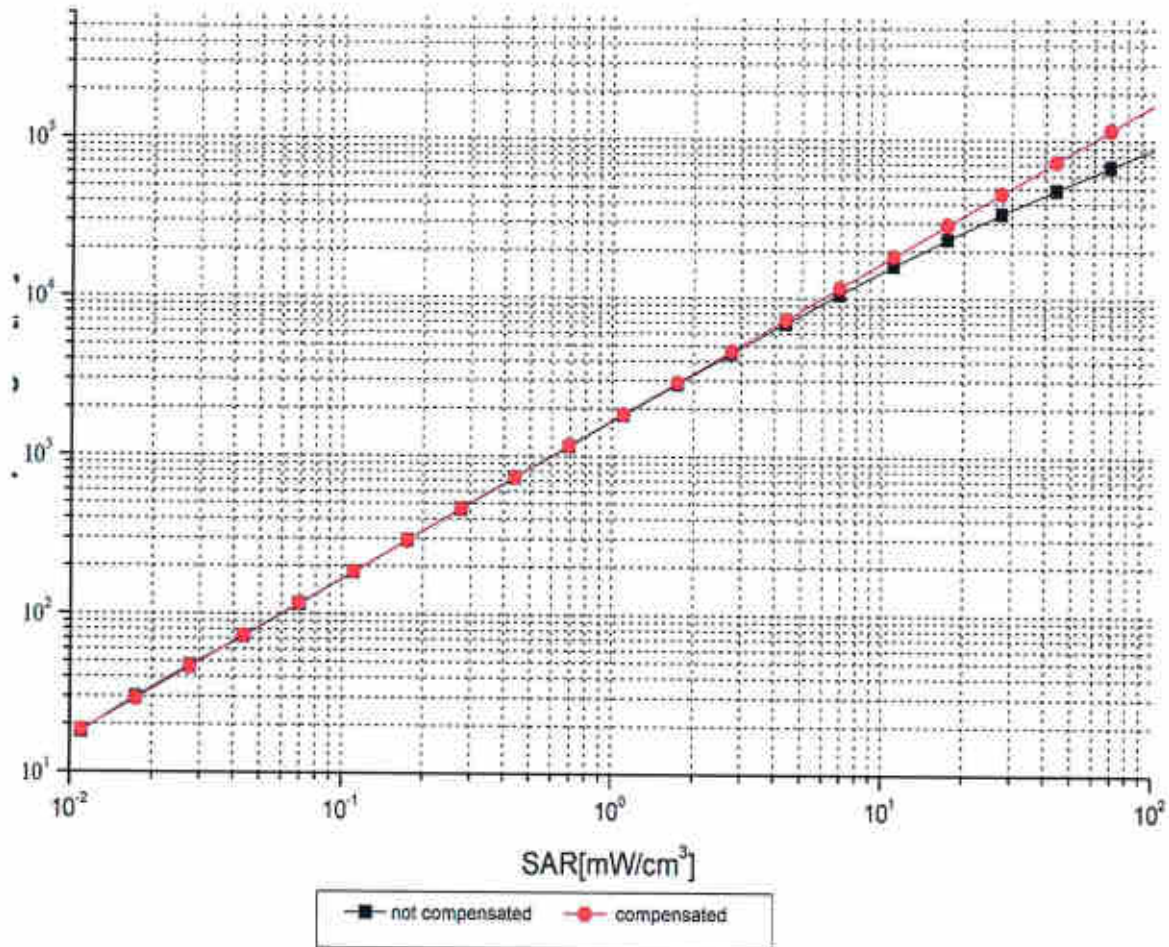


Uncertainty of Axial Isotropy Assessment:  $\pm 1.2\%$  ( $k=2$ )



Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China  
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504  
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f = 900 \text{ MHz}$ )



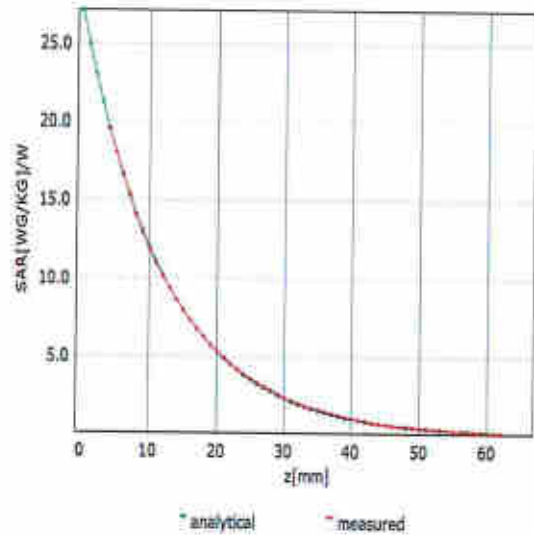
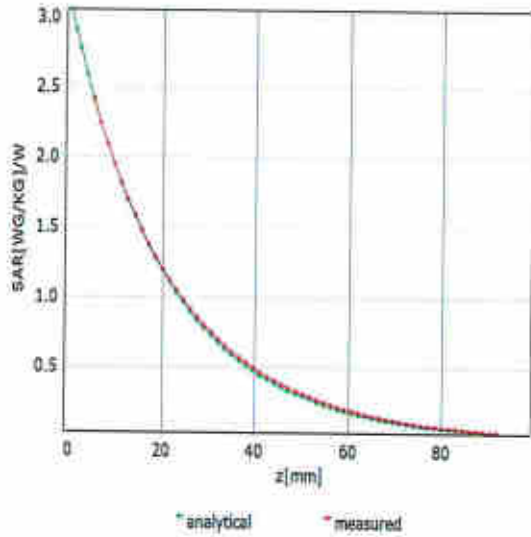
Uncertainty of Linearity Assessment:  $\pm 0.9\%$  ( $k=2$ )



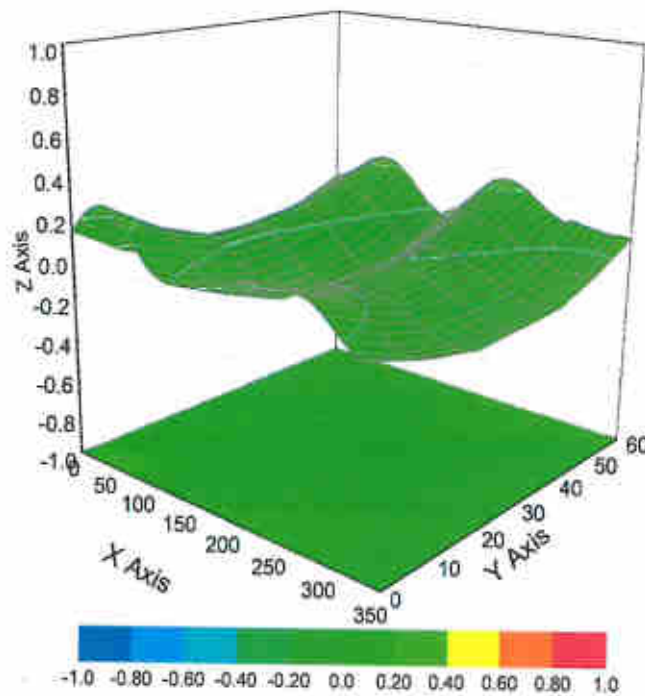
## Conversion Factor Assessment

f=750 MHz,WGLS R9(H\_convF)

f=1750 MHz,WGLS R22(H\_convF)



## Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment:  $\pm 3.2\%$  ( $k=2$ )



## DASY/EASY – Parameters of Probe: ES3DV3 – SN:3279

### Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	170.7
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	4mm
Probe Tip to Sensor X Calibration Point	2mm
Probe Tip to Sensor Y Calibration Point	2mm
Probe Tip to Sensor Z Calibration Point	2mm
Recommended Measurement Distance from Surface	3mm



**Appendix E. Conducted RF Output Power Table**

The detailed power table are shown as follows.



**Full Power Mode for ANT1**

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	169	251		128	169	251	
TX Channel	124.2	153.4	148.8	33.50	23.48	23.50	23.51	24.50
Frequency (MHz)	32.48	32.50	32.51	33.50	23.48	23.50	23.51	24.50
GSM 1 Tx slot	32.48	32.50	32.51	33.50	23.48	23.50	23.51	24.50
GPRS 1 Tx slots	32.47	32.49	32.50	33.50	23.47	23.49	23.50	24.50
GPRS 2 Tx slots	29.77	29.51	29.36	30.50	23.77	23.51	23.36	24.50
GPRS 3 Tx slots	28.45	28.46	28.03	29.00	24.19	24.20	23.77	24.74
GPRS 4 Tx slots	26.36	26.30	26.32	27.50	23.36	23.30	23.32	24.50
EDGE 1 Tx slot	25.46	25.38	25.39	26.50	16.46	16.38	16.39	17.50
EDGE 2 Tx slots	23.96	23.86	23.97	24.50	17.96	17.88	17.97	18.50
EDGE 3 Tx slots	22.77	22.71	22.71	23.50	18.51	18.45	18.45	19.24
EDGE 4 Tx slots	20.91	20.98	20.82	21.50	17.91	17.98	17.82	18.50

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8	30.50	20.43	20.60	20.81	21.50
Frequency (MHz)	1850.2	1880	1909.8	30.50	20.43	20.60	20.81	21.50
GSM 1 Tx slot	29.43	29.60	29.81	30.50	20.43	20.60	20.81	21.50
GPRS 1 Tx slot	29.42	29.59	29.80	30.50	20.42	20.59	20.80	21.50
GPRS 2 Tx slots	26.75	27.11	27.15	28.00	20.75	21.11	21.15	22.00
GPRS 3 Tx slots	25.64	26.08	26.07	27.00	21.38	21.82	21.81	22.74
GPRS 4 Tx slots	23.76	23.96	24.06	25.00	20.76	20.96	21.06	22.00
EDGE 1 Tx slot	24.79	24.91	25.00	26.00	15.79	15.91	16.02	17.00
EDGE 2 Tx slots	23.28	23.53	23.60	24.50	17.28	17.53	17.60	18.50
EDGE 3 Tx slots	22.12	22.40	22.45	23.50	17.86	18.14	18.19	19.24
EDGE 4 Tx slots	20.57	20.43	20.45	21.50	17.57	17.43	17.45	18.50

Band	TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
	Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
	Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kops	22.87	22.92	22.85	24.00	22.83	23.10	23.05	24.00	22.57	22.58	22.48	24.00
3GPP Rel 99	RMG 12.2Kops	22.89	22.94	22.87	24.00	22.85	23.12	23.07	24.00	22.59	22.60	22.51	24.00
3GPP Rel 6	HSDPA Subtest-1	21.06	21.96	21.96	23.00	21.88	22.19	22.12	23.00	21.61	21.55	21.47	23.00
3GPP Rel 6	HSDPA Subtest-2	21.98	22.00	21.95	23.00	21.90	22.14	22.12	23.00	21.62	21.53	21.46	23.00
3GPP Rel 6	HSDPA Subtest-3	21.51	21.51	21.45	22.50	21.42	21.69	21.66	22.50	21.10	21.05	20.96	22.50
3GPP Rel 6	HSDPA Subtest-4	21.51	21.45	21.47	22.50	21.39	21.65	21.66	22.50	21.08	21.05	20.92	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	21.76	21.78	21.76	23.00	21.68	21.99	21.92	23.00	21.90	21.95	21.97	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	21.78	21.80	21.75	23.00	21.70	21.94	21.92	23.00	21.85	21.96	21.95	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	21.31	21.31	21.25	22.50	21.22	21.49	21.46	22.50	21.33	21.49	21.36	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	21.31	21.25	21.27	22.50	21.19	21.45	21.46	22.50	21.34	21.46	21.35	22.50
3GPP Rel 6	HSUPA Subtest-1	21.83	21.87	21.75	23.00	21.81	22.15	22.22	23.00	21.79	21.74	21.66	23.00
3GPP Rel 6	HSUPA Subtest-2	19.86	19.87	19.79	21.00	19.77	20.14	20.17	21.00	19.74	19.72	19.67	21.00
3GPP Rel 6	HSUPA Subtest-3	20.88	20.81	20.80	22.00	20.81	21.20	21.22	22.00	20.70	20.76	20.66	22.00
3GPP Rel 6	HSUPA Subtest-4	19.83	19.85	19.76	21.00	19.80	20.17	20.17	21.00	19.76	19.73	19.66	21.00
3GPP Rel 6	HSUPA Subtest-5	21.80	21.90	21.70	23.00	21.80	22.10	22.20	23.00	21.80	21.80	21.70	23.00













**Full Power Mode for ANT2**

GSM850	Burst Average Power (dBm)				Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	126	189	251	33.00		126	189	251	
	824.2	836.4	848.8			824.2	836.4	848.8	
TX Channel	31.89	31.96	32.00	33.00	22.89	22.96	23.00	24.00	
Frequency (MHz)	31.89	31.96	31.99	33.00	22.88	22.94	22.99	24.00	
GSM 1 Tx slot	29.36	29.46	29.39	29.50	23.36	23.46	23.39	23.50	
GPRS 1 Tx slot	27.83	28.05	27.86	28.50	23.57	23.79	23.60	24.24	
GPRS 2 Tx slots	25.94	25.89	25.85	26.50	22.94	22.89	22.85	23.50	
GPRS 3 Tx slots	24.90	24.89	24.76	25.50	15.90	15.89	15.76	16.50	
GPRS 4 Tx slots	23.46	23.65	23.35	24.50	17.46	17.65	17.35	18.50	
EDGE 1 Tx slot	22.35	22.57	22.25	23.00	18.09	18.31	17.99	18.74	
EDGE 2 Tx slots	20.44	20.56	20.51	21.00	17.44	17.56	17.51	18.00	
EDGE 3 Tx slots									
EDGE 4 Tx slots									

Band	TX Channel	WCDMA V			Tune-up Limit (dBm)
		4132	4182	4233	
		4357	4407	4458	
	Rx Channel	826.4	836.4	846.6	
	Frequency (MHz)	826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.06	23.05	22.99	24.00
3GPP Rel 99	RMC 12.2Kbps	23.08	23.09	23.01	24.00
3GPP Rel 6	HSDPA Subtest-1	22.10	22.15	22.07	23.00
3GPP Rel 6	HSDPA Subtest-2	22.05	22.16	22.05	23.00
3GPP Rel 6	HSDPA Subtest-3	21.53	21.69	21.56	22.50
3GPP Rel 6	HSDPA Subtest-4	21.54	21.66	21.55	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.90	21.95	21.97	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	21.85	21.96	21.95	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.33	21.49	21.36	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.34	21.46	21.35	22.50
3GPP Rel 6	HSUPA Subtest-1	22.02	21.99	21.85	23.00
3GPP Rel 6	HSUPA Subtest-2	20.03	19.95	19.86	21.00
3GPP Rel 6	HSUPA Subtest-3	21.15	20.98	20.82	22.00
3GPP Rel 6	HSUPA Subtest-4	19.99	19.95	19.82	21.00
3GPP Rel 6	HSUPA Subtest-5	22.10	22.00	21.80	23.00









GSM/UMTS	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	812	861	910		812	861	910	
TX Channel	1800.2	1800	1809.8		1800.2	1800	1809.8	
Frequency (MHz)								
GSM 1 Tx slot	25.18	25.27	25.17	26.50	16.18	16.27	16.17	17.50
GPRS 1 Tx slot	25.17	25.26	25.14	26.50	16.17	16.26	16.14	17.50
GPRS 2 Tx slots	22.79	22.16	23.03	24.00	16.79	17.16	17.03	18.00
GPRS 3 Tx slots	21.70	22.10	21.93	23.00	17.44	17.84	17.67	18.74
GPRS 4 Tx slots	18.78	18.93	18.93	21.00	16.78	16.93	16.93	18.00
EDGE 1 Tx slot	20.98	21.34	21.16	22.00	11.98	12.34	12.16	13.00
EDGE 2 Tx slots	19.29	19.24	19.25	20.50	13.28	13.24	13.25	14.50
EDGE 3 Tx slots	18.29	18.23	18.34	19.50	14.03	13.97	14.08	15.24
EDGE 4 Tx slots	16.29	16.24	16.28	17.50	13.29	13.24	13.28	14.50

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	5262	5400	5538		1312	1413	1513	
TX Channel	9662	9800	9938		1537	1638	1738	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1632.4	1680	1637.6		1712.4	1732.6	1732.6	
3GPP Ref 92	AMR 12.2Kbps	17.07	17.20	17.17	18.00	18.14	18.40	18.32
3GPP Ref 99	RMC 12.2Kbps	17.08	17.21	17.18	18.00	18.16	18.42	18.37
3GPP Ref 6	HSDPA Subtest-1	16.07	16.07	16.05	17.00	18.02	18.18	18.15
3GPP Ref 6	HSDPA Subtest-2	16.09	16.07	16.06	17.00	18.00	18.19	18.14
3GPP Ref 6	HSDPA Subtest-3	15.69	15.67	15.64	16.50	17.61	17.86	17.74
3GPP Ref 6	HSDPA Subtest-4	15.65	15.67	15.65	16.50	17.61	17.79	17.74
3GPP Ref 6	DC-HSDPA Subtest-1	16.01	16.02	15.99	17.00	18.10	18.15	18.13
3GPP Ref 6	DC-HSDPA Subtest-2	16.02	16.09	15.92	17.00	18.02	18.12	18.11
3GPP Ref 6	DC-HSDPA Subtest-3	15.81	15.82	15.83	16.50	17.53	17.63	17.71
3GPP Ref 6	DC-HSDPA Subtest-4	15.53	15.59	15.51	16.50	17.52	17.62	17.66
3GPP Ref 6	HSUPA Subtest-1	15.88	15.87	15.92	17.00	18.18	18.30	18.29
3GPP Ref 6	HSUPA Subtest-2	14.01	13.98	13.88	15.00	16.18	16.45	16.24
3GPP Ref 6	HSUPA Subtest-3	15.11	15.03	14.93	16.00	17.20	17.47	17.35
3GPP Ref 6	HSUPA Subtest-4	14.03	14.11	13.86	15.00	16.22	16.37	16.41
3GPP Ref 6	HSUPA Subtest-5	16.10	16.20	16.11	17.00	18.20	18.40	18.40













GSM/UMTS TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	812	861	910		812	861	910	
Frequency (MHz)	1850.2	1860	1909.8		1850.2	1860	1909.8	
GSM 1 Tx slot	24.30	24.39	24.30	23.50	15.30	15.39	15.30	16.50
GPRS 1 Tx slot	24.28	24.37	24.28	23.50	15.28	15.37	15.28	16.50
GPRS 2 Tx slots	21.92	22.27	22.16	21.00	13.92	15.27	15.16	17.00
GPRS 3 Tx slots	20.83	21.17	21.05	22.00	16.57	16.91	16.79	17.74
GPRS 4 Tx slots	18.91	18.06	18.04	20.00	15.91	16.06	16.04	17.00
EDGE 1 Tx slot	20.11	20.47	20.29	21.00	11.11	11.47	11.29	12.00
EDGE 2 Tx slots	18.41	18.37	18.38	19.50	12.41	12.37	12.38	13.50
EDGE 3 Tx slots	17.42	17.56	17.47	18.50	13.16	13.30	13.21	14.24
EDGE 4 Tx slots	15.42	15.37	15.41	16.50	12.42	12.37	12.41	13.50

Band TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	5862	5800	5938		1312	1413	1513	
Rx Channel	5662	5800	5938		1537	1638	1738	
Frequency (MHz)	1852.4	1860	1907.6		1712.4	1732.6	1732.6	
3GPP Rel 99	AMR 12.2Kbps	16.11	16.30	16.11	17.00	14.14	14.40	14.32
3GPP Rel 99	RMC 12.2Kbps	16.11	16.35	16.13	17.00	18.15	18.41	18.33
3GPP Rel 6	HSDPA Subtest-1	14.98	14.99	14.98	16.00	17.02	17.18	17.15
3GPP Rel 6	HSDPA Subtest-2	14.97	15.02	15.02	16.00	17.00	17.19	17.14
3GPP Rel 6	HSDPA Subtest-3	14.50	14.51	14.47	15.50	16.61	16.86	16.74
3GPP Rel 6	HSDPA Subtest-4	14.49	14.53	14.48	15.50	16.61	16.79	16.74
3GPP Rel 6	DC-HSDPA Subtest-1	14.92	14.95	14.93	16.00	17.10	17.15	17.13
3GPP Rel 6	DC-HSDPA Subtest-2	14.96	15.01	14.96	16.00	17.02	17.12	17.11
3GPP Rel 6	DC-HSDPA Subtest-3	14.53	14.56	14.53	15.50	16.53	16.63	16.71
3GPP Rel 6	DC-HSDPA Subtest-4	14.55	14.56	14.51	15.50	16.52	16.62	16.66
3GPP Rel 6	HSUPA Subtest-1	14.35	14.12	14.23	16.00	17.18	17.30	17.29
3GPP Rel 6	HSUPA Subtest-2	12.94	12.99	12.96	14.00	15.18	15.45	15.24
3GPP Rel 6	HSUPA Subtest-3	13.06	13.19	12.98	15.00	16.20	16.47	16.35
3GPP Rel 6	HSUPA Subtest-4	12.99	12.97	12.93	14.00	15.22	15.37	15.41
3GPP Rel 6	HSUPA Subtest-5	15.00	15.00	15.00	16.00	17.20	17.40	18.00













Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	
	TX Channel	5282	5400		5538	1312	1413		1513
	Rx Channel	5602	5800		5938	1537	1638		1738
Frequency (MHz)	1852.4	1880	1907.6		1752.4	1732.6	1752.6		
3GPP Rel 99	AMR 12.2Kbps	20.97	21.11	21.06	22.00	21.88	22.17	22.10	22.50
3GPP Rel 99	AMR 12.2Kbps	20.99	21.13	21.10	22.00	21.89	22.19	22.13	22.50
3GPP Rel 6	HSDPA Subtest-1	19.92	19.90	19.96	21.00	20.89	21.12	21.08	21.50
3GPP Rel 6	HSDPA Subtest-2	20.02	20.06	20.00	21.00	21.01	21.05	21.10	21.50
3GPP Rel 6	HSDPA Subtest-3	19.80	19.83	19.80	20.50	20.34	20.56	20.83	21.00
3GPP Rel 6	HSDPA Subtest-4	19.52	19.53	19.57	20.50	20.32	20.36	20.59	21.00
3GPP Rel 6	DC-HSDPA Subtest-1	19.80	19.96	19.82	21.00	20.91	21.08	21.03	21.50
3GPP Rel 6	DC-HSDPA Subtest-2	19.86	19.83	19.92	21.00	20.98	21.10	20.98	21.50
3GPP Rel 6	DC-HSDPA Subtest-3	19.52	19.62	19.57	20.50	20.38	20.42	20.45	21.00
3GPP Rel 6	DC-HSDPA Subtest-4	19.56	19.58	19.43	20.50	20.38	20.29	20.39	21.00
3GPP Rel 6	HSUPA Subtest-1	19.91	19.92	19.85	21.00	20.88	21.06	21.06	21.50
3GPP Rel 6	HSUPA Subtest-2	17.72	17.82	17.80	19.00	18.79	18.93	19.04	19.50
3GPP Rel 6	HSUPA Subtest-3	18.77	18.79	18.80	20.00	19.74	20.11	20.00	20.50
3GPP Rel 6	HSUPA Subtest-4	17.82	17.77	17.86	19.00	18.91	19.08	18.99	19.50
3GPP Rel 6	HSUPA Subtest-5	19.82	19.80	19.77	21.00	20.69	21.00	21.06	21.50



Band 2 (1900MHz Band)										
Part 24E										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	2191	2194	2194	23	0		
20	QPSK	1	49	2175	2171	2179	23	0		
20	QPSK	1	99	2160	2170	2182	23	0		
20	QPSK	50	0	2188	2191	2190	23	0		
20	QPSK	50	24	2185	2183	2183	23	0		
20	QPSK	50	50	2180	2187	2183	23	0		
20	QPSK	100	0	2189	2188	2182	23	0		
20	16QAM	1	0	2155	2159	2165	23	0		
20	16QAM	1	49	2154	2153	2160	23	0		
20	16QAM	1	99	2135	2150	2138	23	0		
20	16QAM	50	0	2086	2086	2093	22	1		
20	16QAM	50	24	2086	2085	2088	22	1		
20	16QAM	50	50	2077	2087	2087	22	1		
20	16QAM	100	0	2089	2091	2085	22	1		
20	84QAM	1	0	2110	2087	2087	22	1		
20	84QAM	1	49	2086	2087	2089	22	1		
20	84QAM	1	99	2062	2082	2072	22	1		
20	84QAM	50	0	1990	1985	1991	21	2		
20	84QAM	50	24	1987	1981	1988	21	2		
20	84QAM	50	50	1974	1985	1984	21	2		
20	84QAM	100	0	1988	1991	1987	21	2		
Channel										
Frequency (MHz)										
15	QPSK	1	0	2193	2193	2192	23	0		
15	QPSK	1	37	2173	2175	2182	23	0		
15	QPSK	1	74	2167	2176	2168	23	0		
15	QPSK	36	0	2187	2185	2191	23	0		
15	QPSK	36	20	2186	2190	2184	23	0		
15	QPSK	36	39	2178	2188	2183	23	0		
15	QPSK	75	0	2186	2185	2185	23	0		
15	16QAM	1	0	2175	2185	2185	23	0		
15	16QAM	1	37	2152	2151	2158	23	0		
15	16QAM	1	74	2141	2154	2134	23	0		
15	16QAM	36	0	2089	2084	2084	22	1		
15	16QAM	36	20	2086	2091	2082	22	1		
15	16QAM	36	39	2077	2088	2081	22	1		
15	16QAM	75	0	2112	2085	2100	22	1		
15	84QAM	1	0	2088	2089	2081	22	1		
15	84QAM	1	74	2069	2086	2070	22	1		
15	84QAM	36	0	1989	1982	1986	21	2		
15	84QAM	36	20	1984	1989	1981	21	2		
15	84QAM	36	39	1976	1988	1979	21	2		
15	84QAM	75	0	1991	1987	1993	21	2		
Channel										
Frequency (MHz)										
10	QPSK	1	0	2174	2157	2162	23	0		
10	QPSK	1	25	2148	2154	2150	23	0		
10	QPSK	1	49	2141	2150	2136	23	0		
10	QPSK	25	0	2168	2181	2162	23	0		
10	QPSK	25	12	2159	2159	2156	23	0		
10	QPSK	25	25	2150	2181	2155	23	0		
10	QPSK	50	0	2159	2183	2150	23	0		
10	16QAM	1	0	2146	2131	2136	23	0		
10	16QAM	1	25	2125	2125	2121	23	0		
10	16QAM	1	49	2114	2127	2112	23	0		
10	16QAM	25	0	2071	2065	2064	22	1		
10	16QAM	25	12	2067	2062	2061	22	1		
10	16QAM	25	25	2055	2061	2055	22	1		
10	16QAM	50	0	2064	2065	2065	22	1		
10	84QAM	1	0	2089	2072	2074	22	1		
10	84QAM	1	25	2064	2065	2066	22	1		
10	84QAM	1	49	2059	2067	2053	22	1		
10	84QAM	25	0	1986	1980	1957	21	2		
10	84QAM	25	12	1960	1957	1952	21	2		
10	84QAM	25	25	1952	1958	1951	21	2		
10	84QAM	50	0	1959	1962	1962	21	2		
Channel										
Frequency (MHz)										
5	QPSK	1	0	2166	2180	2153	23	0		
5	QPSK	1	12	2155	2151	2146	23	0		
5	QPSK	1	24	2142	2148	2130	23	0		
5	QPSK	12	0	2174	2161	2160	23	0		
5	QPSK	12	7	2166	2162	2156	23	0		
5	QPSK	12	13	2156	2168	2147	23	0		
5	QPSK	25	0	2185	2162	2154	23	0		
5	QPSK	1	0	2148	2132	2138	23	0		
5	16QAM	1	12	2144	2137	2129	23	0		
5	16QAM	1	24	2131	2135	2123	23	0		
5	16QAM	12	0	2078	2062	2064	22	1		
5	16QAM	12	7	2067	2064	2060	22	1		
5	16QAM	12	13	2059	2068	2067	22	1		
5	16QAM	25	0	2069	2065	2056	22	1		
5	84QAM	1	0	2107	2081	2082	22	1		
5	84QAM	1	12	2086	2084	2074	22	1		
5	84QAM	1	24	2083	2082	2065	22	1		
5	84QAM	12	0	1974	1963	1964	21	2		
5	84QAM	12	7	1966	1962	1955	21	2		
5	84QAM	12	13	1955	1955	1942	21	2		
5	84QAM	25	0	1968	1960	1951	21	2		
Channel										
Frequency (MHz)										
3	QPSK	1	0	2170	2154	2149	23	0		
3	QPSK	1	8	2156	2153	2144	23	0		
3	QPSK	1	14	2143	2142	2126	23	0		
3	QPSK	8	0	2169	2159	2154	23	0		
3	QPSK	8	4	2167	2164	2152	23	0		
3	QPSK	15	0	2159	2158	2147	23	0		
3	QPSK	15	0	2164	2163	2153	23	0		
3	16QAM	1	0	2153	2136	2131	23	0		
3	16QAM	1	8	2148	2137	2124	23	0		
3	16QAM	1	14	2131	2124	2108	23	0		
3	16QAM	8	0	2078	2064	2060	22	1		
3	16QAM	8	4	2075	2068	2055	22	1		
3	16QAM	8	7	2065	2061	2046	22	1		
3	16QAM	15	0	2069	2064	2050	22	1		
3	84QAM	1	0	2104	2087	2072	22	1		
3	84QAM	1	8	2093	2087	2075	22	1		
3	84QAM	1	14	2078	2076	2059	22	1		
3	84QAM	8	0	1976	1961	1956	21	2		
3	84QAM	8	4	1972	1966	1953	21	2		
3	84QAM	8	7	1961	1955	1942	21	2		
3	84QAM	15	0	1968	1961	1948	21	2		
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	2156	2153	2136	23	0		
1.4	QPSK	1	3	2152	2150	2136	23	0		
1.4	QPSK	1	5	2144	2140	2127	23	0		
1.4	QPSK	3	0	2155	2147	2133	23	0		
1.4	QPSK	3	1	2156	2153	2139	23	0		
1.4	QPSK	3	1	2146	2141	2126	23	0		
1.4	QPSK	6	0	2159	2154	2138	23	0		
1.4	16QAM	1	0	2190	2182	2160	23	0		
1.4	16QAM	1	3	2189	2178	2168	23	0		
1.4	16QAM	1	5	2175	2174	2149	23	0		
1.4	16QAM	3	0	2165	2158	2145	23	0		
1.4	16QAM	3	1	2168	2161	2147	23	0		
1.4	16QAM	3	1	2157	2149	2136	23	0		
1.4	16QAM	6	0	2065	2055	2035	22	1		
1.4	84QAM	1	0	2086	2068	2050	22	1		
1.4	84QAM	1	3	2082	2073	2050	22	1		
1.4	84QAM	1	5	2069	2060	2042	22	1		
1.4	84QAM	3	0	2071	2060	2048	22	1		
1.4	84QAM	3	1	2071	2060	2047	22	1		
1.4	84QAM	3	1	2062	2051	2037	22	1		
1.4	84QAM	6	0	1982	1957	1940	21	2		

Band 4 (AWS Band)										
Part 27L (only on channel required)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	2172	2191	2176	23	0		
20	QPSK	1	49	2159	2					



Band 66									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				132072	132322	132572			
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	0	21.65	21.53	21.68	23	0	
20	QPSK	1	49	21.66	21.63	21.54			
20	QPSK	1	99	21.66	21.53	21.49			
20	QPSK	50	0	21.42	21.47	21.36			
20	QPSK	50	24	21.46	21.37	21.34			
20	QPSK	50	50	21.41	21.38	21.38			
20	QPSK	100	0	21.40	21.45	21.31			
20	16QAM	1	0	21.71	21.65	21.73	23	0	
20	16QAM	1	49	21.82	21.65	21.58			
20	16QAM	1	99	21.53	21.58	21.55			
20	16QAM	50	0	20.90	20.91	20.88			
20	16QAM	50	24	20.96	20.91	20.86			
20	16QAM	50	50	20.94	20.92	20.87			
20	16QAM	100	0	20.96	20.86	20.80			
20	64QAM	1	0	20.92	20.80	20.61	22	1	
20	64QAM	1	49	20.45	20.52	20.46			
20	64QAM	1	99	20.29	20.46	20.46			
20	64QAM	50	0	19.88	19.91	19.87			
20	64QAM	50	24	19.98	19.90	19.83			
20	64QAM	50	50	19.94	19.92	19.85			
20	64QAM	100	0	19.97	19.87	19.83			
Channel				132342	132592	132842			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	21.31	21.34	21.35	23	0	
15	QPSK	1	37	21.33	21.32	21.31			
15	QPSK	1	74	21.29	21.25	21.22			
15	QPSK	36	0	21.43	21.36	21.32			
15	QPSK	36	20	21.41	21.37	21.30			
15	QPSK	36	39	21.39	21.40	21.33			
15	QPSK	75	0	21.43	21.33	21.28			
15	16QAM	1	0	21.82	21.87	21.86	23	0	
15	16QAM	1	37	21.56	21.60	21.62			
15	16QAM	1	74	21.50	21.57	21.57			
15	16QAM	36	0	20.95	20.89	20.82			
15	16QAM	36	20	20.94	20.90	20.82			
15	16QAM	36	39	20.91	20.89	20.83			
15	16QAM	75	0	20.92	20.86	20.82			
15	64QAM	1	0	20.54	20.52	20.55	22	1	
15	64QAM	1	37	20.48	20.46	20.43			
15	64QAM	1	74	20.30	20.48	20.47			
15	64QAM	36	0	19.82	19.87	19.83			
15	64QAM	36	20	19.92	19.86	19.80			
15	64QAM	36	39	19.87	19.90	19.83			
15	64QAM	75	0	19.92	19.85	19.81			
Channel				132922	133222	133522			
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	0	21.45	21.47	21.45	23	0	
10	QPSK	1	25	21.40	21.44	21.38			
10	QPSK	1	49	21.41	21.40	21.34			
10	QPSK	25	0	21.59	21.51	21.54			
10	QPSK	25	12	21.59	21.51	21.52			
10	QPSK	25	25	21.53	21.52	21.45			
10	QPSK	50	0	21.55	21.50	21.50			
10	16QAM	1	0	21.77	21.80	21.79	23	0	
10	16QAM	1	25	21.72	21.72	21.71			
10	16QAM	1	49	21.72	21.77	21.69			
10	16QAM	25	0	21.11	21.04	21.07			
10	16QAM	25	12	21.14	21.05	21.06			
10	16QAM	25	25	21.07	21.10	20.97			
10	16QAM	50	0	21.09	21.03	21.03			
10	64QAM	1	0	20.77	20.71	20.73	22	1	
10	64QAM	1	25	20.69	20.70	20.65			
10	64QAM	1	49	20.68	20.69	20.58			
10	64QAM	25	0	20.10	20.00	20.06			
10	64QAM	25	12	20.08	20.04	20.04			
10	64QAM	25	25	20.06	20.05	19.97			
10	64QAM	50	0	20.08	19.99	20.03			
Channel				131987	132322	132647			
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	0	21.56	21.45	21.47	23	0	
5	QPSK	1	12	21.47	21.54	21.45			
5	QPSK	1	24	21.49	21.46	21.40			
5	QPSK	12	0	21.60	21.54	21.51			
5	QPSK	12	7	21.56	21.62	21.51			
5	QPSK	12	13	21.55	21.57	21.47			
5	QPSK	25	0	21.60	21.49	21.49			
5	16QAM	1	0	21.89	21.79	21.81	23	0	
5	16QAM	1	12	21.81	21.82	21.72			
5	16QAM	1	24	21.85	21.83	21.72			
5	16QAM	12	0	21.14	21.05	21.04			
5	16QAM	12	7	21.10	21.12	21.03			
5	16QAM	12	13	21.08	21.10	21.03			
5	16QAM	25	0	21.11	21.03	21.05			
5	64QAM	1	0	20.82	20.74	20.69	22	1	
5	64QAM	1	12	20.83	20.76	20.64			
5	64QAM	1	24	20.78	20.74	20.61			
5	64QAM	12	0	20.11	20.04	20.05			
5	64QAM	12	7	20.11	20.10	20.05			
5	64QAM	12	13	20.11	20.06	20.01			
5	64QAM	25	0	20.12	20.04	20.03			
Channel				131987	132322	132657			
Frequency (MHz)				1711.5	1745	1776.5			
3	QPSK	1	0	21.49	21.50	21.41	23	0	
3	QPSK	1	8	21.56	21.54	21.43			
3	QPSK	1	14	21.48	21.47	21.37			
3	QPSK	8	0	21.55	21.53	21.46			
3	QPSK	8	4	21.57	21.56	21.50			
3	QPSK	8	7	21.59	21.52	21.44			
3	QPSK	15	0	21.59	21.55	21.47			
3	16QAM	1	0	21.85	21.86	21.73	23	0	
3	16QAM	1	8	21.53	21.87	21.82			
3	16QAM	1	14	21.82	21.81	21.75			
3	16QAM	8	0	21.14	21.13	21.04			
3	16QAM	8	4	21.19	21.15	21.06			
3	16QAM	8	7	21.11	21.12	21.03			
3	16QAM	15	0	21.09	21.11	21.01			
3	64QAM	1	0	20.76	20.75	20.63	22	1	
3	64QAM	1	8	20.79	20.80	20.70			
3	64QAM	1	14	20.72	20.71	20.60			
3	64QAM	8	0	20.11	20.10	20.01			
3	64QAM	8	4	20.09	20.11	20.02			
3	64QAM	8	7	20.09	20.08	19.98			
3	64QAM	15	0	20.05	20.07	20.03			
Channel				131978	132322	132665			
Frequency (MHz)				1710.7	1745	1779.3			
1.4	QPSK	1	0	21.40	21.37	21.29	23	0	
1.4	QPSK	1	3	21.46	21.45	21.37			
1.4	QPSK	1	5	21.39	21.40	21.29			
1.4	QPSK	3	0	21.44	21.42	21.34			
1.4	QPSK	3	1	21.46	21.45	21.39			
1.4	QPSK	3	3	21.42	21.40	21.35			
1.4	QPSK	6	0	21.50	21.48	21.39	23	0	
1.4	16QAM	1	0	21.76	21.73	21.67			
1.4	16QAM	1	3	21.83	21.79	21.73			
1.4	16QAM	1	5	21.73	21.74	21.64			
1.4	16QAM	3	0	21.54	21.53	21.44			
1.4	16QAM	3	1	21.58	21.57	21.49			
1.4	16QAM	3	3	21.52	21.50	21.42			
1.4	16QAM	6	0	21.04	21.07	21.00	22	1	
1.4	64QAM	1	0	20.67	20.66	20.55			
1.4	64QAM	1	3	20.70	20.72	20.56			
1.4	64QAM	1	5	20.64	20.64	20.55			
1.4	64QAM	3	0	20.57	20.57	20.48			
1.4	64QAM	3	1	20.60	20.62	20.54			
1.4	64QAM	3	3	20.55	20.59	20.50			
1.4	64QAM	6	0	19.98	20.00	19.99	21	2	



Band 38(only on channel required)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				37850	38000	38150				
Frequency (MHz)				2575	2595	2615				
20	QPSK	1	0	21.02	21.20	21.19	22.5	0		
20	QPSK	1	49	21.11	21.10	21.00				
20	QPSK	1	99	21.24	21.23	21.02				
20	QPSK	50	0	21.01	21.20	21.21	22.5	0		
20	QPSK	50	24	21.19	21.11	21.12				
20	QPSK	50	50	21.20	21.25	21.11				
20	QPSK	100	0	21.13	21.13	21.12	22.5	0		
20	16QAM	1	0	20.94	21.13	21.21				
20	16QAM	1	49	20.96	21.18	21.23				
20	16QAM	1	99	21.14	21.12	21.25	22	0.5		
20	16QAM	50	0	20.80	20.77	20.82				
20	16QAM	50	24	20.76	20.86	20.97				
20	16QAM	50	50	20.81	20.92	20.95	21	1.5		
20	16QAM	100	0	20.74	20.82	20.94				
20	16QAM	1	0	20.51	20.83	20.82				
20	84QAM	1	49	20.51	20.82	20.81	22	0.5		
20	84QAM	1	99	20.59	20.84	20.82				
20	84QAM	50	0	19.92	19.71	19.90				
20	84QAM	50	24	19.71	19.79	19.92	21	1.5		
20	84QAM	50	50	19.75	19.86	19.89				
20	84QAM	100	0	19.78	19.86	19.97				
Channel				37825	38000	38175				
Frequency (MHz)				2575.5	2595	2617.5				
15	QPSK	1	0	20.83	21.01	21.07	22.5	0		
15	QPSK	1	37	20.83	21.01	21.07				
15	QPSK	1	74	20.97	21.06	21.10				
15	QPSK	36	0	20.79	20.87	21.03	22.5	0		
15	QPSK	36	20	20.95	21.05	21.11				
15	QPSK	36	39	20.93	21.10	21.13				
15	QPSK	75	0	20.89	21.03	21.08	22.5	0		
15	16QAM	1	0	20.91	21.14	21.15				
15	16QAM	1	37	20.91	21.15	21.13				
15	16QAM	1	74	21.07	21.11	21.10	22	0.5		
15	16QAM	36	0	20.55	20.71	20.78				
15	16QAM	36	20	20.70	20.80	20.87				
15	16QAM	36	39	20.70	20.87	20.86	22	0.5		
15	16QAM	75	0	20.70	20.81	20.86				
15	84QAM	1	0	20.54	20.58	20.63				
15	84QAM	1	37	20.53	20.60	20.79	22	0.5		
15	84QAM	1	74	20.51	20.64	20.81				
15	84QAM	36	0	19.55	19.76	19.83				
15	84QAM	36	20	19.72	19.84	19.87	21	1.5		
15	84QAM	36	39	19.70	19.89	19.91				
15	84QAM	75	0	19.70	19.80	19.84				
Channel				37800	38000	38200				
Frequency (MHz)				2575	2595	2615				
10	QPSK	1	0	20.86	21.07	21.03	22.5	0		
10	QPSK	1	25	20.92	21.13	21.01				
10	QPSK	1	49	20.98	21.19	21.06				
10	QPSK	25	0	21.03	21.12	21.03	22.5	0		
10	QPSK	25	12	21.06	21.19	21.15				
10	QPSK	25	25	21.04	21.25	21.15				
10	QPSK	50	0	21.03	21.19	21.02	22.5	0		
10	16QAM	1	0	21.03	21.21	21.12				
10	16QAM	1	25	20.99	21.25	21.10				
10	16QAM	1	49	21.04	21.11	21.15	22	0.5		
10	16QAM	25	0	20.78	20.93	20.81				
10	16QAM	25	12	20.88	21.00	20.85				
10	16QAM	25	25	20.83	20.88	20.93	22	0.5		
10	16QAM	50	0	20.85	20.97	20.85				
10	84QAM	1	0	20.59	20.81	20.71				
10	84QAM	1	25	20.59	20.76	20.69	22	0.5		
10	84QAM	1	49	20.69	20.97	20.81				
10	84QAM	25	0	19.79	19.81	19.82				
10	84QAM	25	12	19.79	19.93	19.93	21	1.5		
10	84QAM	25	25	19.80	20.01	19.90				
10	84QAM	50	0	19.78	19.91	19.74				
Channel				37775	38000	38225				
Frequency (MHz)				2575.5	2595	2617.5				
5	QPSK	1	0	20.93	20.92	20.83	22.5	0		
5	QPSK	1	12	20.88	20.94	20.97				
5	QPSK	1	24	20.89	21.00	21.00				
5	QPSK	12	0	20.99	21.01	21.10	22.5	0		
5	QPSK	12	7	21.02	21.02	21.13				
5	QPSK	12	13	21.02	21.05	21.12				
5	QPSK	25	0	21.02	20.99	21.12	22.5	0		
5	16QAM	1	0	21.07	21.07	21.10				
5	16QAM	1	12	21.11	21.16	21.10				
5	16QAM	1	24	21.11	21.16	21.02	22	0.5		
5	16QAM	12	0	20.79	20.78	20.87				
5	16QAM	12	7	20.80	20.80	20.92				
5	16QAM	12	13	20.81	20.84	20.88	22	0.5		
5	16QAM	25	0	20.80	20.82	20.89				
5	84QAM	1	0	20.81	20.82	20.88				
5	84QAM	1	12	20.80	20.87	20.86	22	0.5		
5	84QAM	1	24	20.80	20.87	20.70				
5	84QAM	12	0	19.78	19.75	19.87				
5	84QAM	12	7	19.78	19.79	19.90	21	1.5		
5	84QAM	12	13	19.78	19.82	19.88				
5	84QAM	25	0	19.78	19.77	19.87				

Band 41 (2.6G Band)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				39750	40185	40620				
Frequency (MHz)				2596	2549.5	2593				
20	QPSK	1	0	20.99	20.87	21.27	22.5	0		
20	QPSK	1	49	21.03	20.90	20.86				
20	QPSK	1	99	21.00	20.91	21.10				
20	QPSK	50	0	21.15	21.07	21.20	22.5	0		
20	QPSK	50	24	21.14	21.10	21.04				
20	QPSK	50	50	21.08	21.08	21.05				
20	QPSK	100	0	21.17	21.07	21.18	22.5	0		
20	16QAM	1	0	21.12	21.04	21.01				
20	16QAM	1	49	21.09	20.97	20.99				
20	16QAM	1	99	21.14	21.04	20.75	22	0.5		
20	16QAM	50	0	20.98	20.87	20.71				
20	16QAM	50	24	20.98	20.87	20.84				
20	16QAM	50	50	20.88	20.88	20.87	22	0.5		
20	16QAM	100	0	20.94	20.86	20.81				
20	84QAM	1	0	20.81	20.51	20.72				
20	84QAM	1	49	20.72	20.62	20.52	22	0.5		
20	84QAM	1	99	20.59	20.54	20.84				
20	84QAM	50	0	19.91	19.82	19.68				
20	84QAM	50	24	19.82	19.82	19.78	21	1.5		
20	84QAM	50	50	19.83	19.84	19.83				
20	84QAM	100	0	19.98	19.93	19.85				
Channel				39725	40173	40620				
Frequency (MHz)				2595.5	2548.3	2593				
15	QPSK	1	0	20.99	20.92	21.08	22.5	0		
15	QPSK	1	37	20.96	20.85	20.99				
15	QPSK	1	74	20.94	20.93	21.13				
15	QPSK	36	0	21.11	21.05	21.11	22.5	0		
15	QPSK	36	20	21.13	21.04	21.20				
15	QPSK	36	39	21.11	21.07	21.23				
15	QPSK	75	0	21.15	21.07	20.90	22.5	0		
15	16QAM	1	0	21.14	21.12	20.82				
15	16QAM	1	37	21.04	20.96	21.14				
15	16QAM	1	74	21.11	21.13	21.02	22	0.5		
15	16QAM	36	0	20.89	20.82	20.84				
15	16QAM	36	20	20.91	20.83	20.88				
15	16QAM	36	39	20.87	20.84	20.86	22	0.5		
15	16QAM	75	0	20.95	20.85	20.88				
15	84QAM	1	0	20.83	20.87	20.89				
15	84QAM	1	37	20.81	20.54	20.74	22	0.5		
15	84QAM	1	74	20.67	20.59	20.77				
15	84QAM	36	0	19.80	19.86	19.89				
15	84QAM	36	20	19.82	19.85	19.76	21	1.5		
15	84QAM	36	39	19.90	19.86	19.83				
15	84QAM	75	0	19.93	19.86	19.58				
Channel				39700</						



**Reduced Power Mode for Receiver On for ANT2**

GSM850	Tx Power Average Power (dBm)			Tune-up Limit (dBm)	Tx Power Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	624.2	636.4	648.6	624.2	636.4	648.6	624.2	636.4
Frequency (MHz)	824.2	836.4	848.6	824.2	836.4	848.6	824.2	836.4
GSM 1 Tx slot	30.21	29.96	30.13	31.50	21.21	20.96	21.13	22.50
GPRS 1 Tx slot	30.20	29.95	30.12	31.50	21.20	20.95	21.12	22.50
GPRS 3 Tx slots	27.09	26.80	27.13	28.00	21.09	20.80	21.13	22.00
GPRS 3 Tx slots	25.87	26.10	25.75	27.00	21.61	21.84	21.49	22.74
GPRS 4 Tx slots	24.25	24.23	24.14	25.00	21.25	21.23	21.14	22.00
EDGE 1 Tx slot	23.15	23.04	23.05	24.00	14.15	14.04	14.05	15.00
EDGE 2 Tx slots	21.79	21.93	21.76	23.00	15.79	15.93	15.76	17.00
EDGE 3 Tx slots	20.67	20.79	20.54	21.50	16.41	16.53	16.28	17.24
EDGE 4 Tx slots	18.70	18.81	18.77	19.50	15.70	15.81	15.77	16.50

Band	WCDMA V			Tune-up Limit (dBm)	
	4132	4362	4233		
TX Channel	4307	4407	4455		
Rx Channel	4307	4407	4455		
Frequency (MHz)	626.4	636.4	646.6		
3GPP Rel 99	AMR 12.2Kbps	22.38	22.47	22.48	23.00
3GPP Rel 99	AMR 12.2Kbps	22.40	22.50	22.38	23.00
3GPP Rel 6	HSDPA Subtest-1	21.53	21.40	21.45	22.00
3GPP Rel 6	HSDPA Subtest-2	21.52	21.43	21.42	22.00
3GPP Rel 6	HSDPA Subtest-3	21.03	20.93	20.92	21.50
3GPP Rel 6	HSDPA Subtest-4	21.04	20.93	20.93	21.50
3GPP Rel 8	DCH-HSDPA Subtest-1	21.00	21.38	21.44	22.00
3GPP Rel 8	DCH-HSDPA Subtest-2	21.49	21.41	21.41	22.00
3GPP Rel 8	DCH-HSDPA Subtest-3	21.00	20.91	20.91	21.50
3GPP Rel 8	DCH-HSDPA Subtest-4	21.01	20.91	20.92	21.50
3GPP Rel 6	HSPA Subtest-1	21.49	21.42	21.42	22.00
3GPP Rel 6	HSPA Subtest-2	19.51	19.46	19.41	20.00
3GPP Rel 6	HSPA Subtest-3	20.45	20.44	20.38	21.00
3GPP Rel 6	HSPA Subtest-4	19.49	19.42	19.37	20.00
3GPP Rel 6	HSPA Subtest-5	21.53	21.43	21.43	22.00



Band 5 (Cellular Band)									
Part 22H(only on channel required)-ENDC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				20450	20525	20600			
Frequency (MHz)				829	836.5	844			
10	QPSK	1	0	19.36	19.25	19.29	20	0	
10	QPSK	1	25	19.25	19.27	19.22			
10	QPSK	1	49	19.24	19.29	19.26			
10	QPSK	25	0	19.36	19.43	19.20			
10	QPSK	25	12	19.40	19.39	19.22			
10	QPSK	25	25	19.36	19.33	19.25			
10	QPSK	50	0	19.41	19.45	19.21			
10	16QAM	1	0	19.45	19.38	19.27			
10	16QAM	1	25	19.23	19.20	19.24			
10	16QAM	1	49	19.37	19.30	19.21			
10	16QAM	25	0	19.18	19.08	19.07			
10	16QAM	25	12	19.22	19.20	19.07			
10	16QAM	25	25	19.16	19.12	19.08			
10	16QAM	50	0	19.24	19.17	19.02			
10	64QAM	1	0	19.32	19.30	19.18			
10	64QAM	1	25	19.23	19.20	19.10			
10	64QAM	1	49	19.29	19.19	19.12			
10	64QAM	25	0	19.11	19.04	19.08			
10	64QAM	25	12	19.26	19.15	19.05			
10	64QAM	25	25	19.13	19.14	19.09			
10	64QAM	50	0	19.20	19.12	19.02			
Channel				20425	20525	20625			
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	0	19.22	19.08	19.23	20	0	
5	QPSK	1	12	19.12	19.05	19.16			
5	QPSK	1	24	19.16	19.06	19.09			
5	QPSK	12	0	19.26	19.08	19.18			
5	QPSK	12	7	19.22	19.12	19.19			
5	QPSK	12	13	19.25	19.11	19.21			
5	QPSK	25	0	19.28	19.13	19.17			
5	16QAM	1	0	19.51	19.36	19.39			
5	16QAM	1	49	19.44	19.25	19.34			
5	16QAM	1	24	19.52	19.42	19.47			
5	16QAM	12	0	19.23	19.11	19.19			
5	16QAM	12	7	19.21	19.14	19.20			
5	16QAM	12	13	19.24	19.14	19.24			
5	16QAM	25	0	19.25	19.09	19.21			
5	64QAM	1	0	19.49	19.28	19.31			
5	64QAM	1	49	19.35	19.23	19.34			
5	64QAM	1	24	19.46	19.34	19.37			
5	64QAM	12	0	19.23	19.07	19.18			
5	64QAM	12	7	19.22	19.10	19.17			
5	64QAM	12	13	19.21	19.11	19.23			
5	64QAM	25	0	19.26	19.16	19.18			
Channel				20415	20525	20635			
Frequency (MHz)				825.5	836.5	847.5			
3	QPSK	1	0	19.20	19.02	19.16	20	0	
3	QPSK	1	8	19.19	19.06	19.20			
3	QPSK	1	14	19.18	19.05	19.13			
3	QPSK	8	0	19.23	19.06	19.19			
3	QPSK	8	4	19.24	19.14	19.25			
3	QPSK	8	7	19.22	19.08	19.24			
3	QPSK	15	0	19.22	19.11	19.21			
3	16QAM	1	0	19.33	19.26	19.48			
3	16QAM	1	8	19.24	19.41	19.51			
3	16QAM	1	14	19.47	19.41	19.47			
3	16QAM	8	0	19.31	19.13	19.22			
3	16QAM	8	4	19.27	19.17	19.30			
3	16QAM	8	7	19.22	19.20	19.26			
3	16QAM	15	0	19.21	19.12	19.16			
3	64QAM	1	0	19.45	19.27	19.26			
3	64QAM	1	8	19.44	19.33	19.47			
3	64QAM	1	14	19.40	19.32	19.35			
3	64QAM	8	0	19.24	19.11	19.16			
3	64QAM	8	4	19.23	19.14	19.24			
3	64QAM	8	7	19.21	19.13	19.25			
3	64QAM	15	0	19.24	19.13	19.15			
Channel				20407	20525	20643			
Frequency (MHz)				824.7	836.5	848.3			
1.4	QPSK	1	0	19.09	19.09	19.06	20	0	
1.4	QPSK	1	3	19.15	19.20	19.07			
1.4	QPSK	1	5	19.07	19.16	19.06			
1.4	QPSK	3	0	19.10	19.09	19.04			
1.4	QPSK	3	1	19.14	19.19	19.07			
1.4	QPSK	3	3	19.10	19.12	19.05			
1.4	QPSK	6	0	19.17	19.02	19.13			
1.4	16QAM	1	0	19.39	19.20	19.35			
1.4	16QAM	1	3	19.50	19.29	19.42			
1.4	16QAM	1	5	19.38	19.25	19.38			
1.4	16QAM	3	0	19.20	19.01	19.11			
1.4	16QAM	3	1	19.23	19.08	19.13			
1.4	16QAM	3	3	19.13	19.01	19.08			
1.4	16QAM	6	0	19.25	19.10	19.18			
1.4	64QAM	1	0	19.30	19.07	19.27			
1.4	64QAM	1	3	19.32	19.18	19.26			
1.4	64QAM	1	5	19.27	19.13	19.26			
1.4	64QAM	3	0	19.19	19.01	19.12			
1.4	64QAM	3	1	19.25	19.13	19.17			
1.4	64QAM	3	3	19.19	19.06	19.15			
1.4	64QAM	6	0	19.16	19.06	19.09			

Band 7 (2600MHz Band)									
Part 27-ENDC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				20650	21100	21350			
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	19.23	19.33	19.22	19.5	0	
20	QPSK	1	49	19.27	19.22	19.83			
20	QPSK	1	99	19.32	19.32	19.09			
20	QPSK	50	0	19.15	19.21	18.88			
20	QPSK	50	24	19.20	19.07	19.91			
20	QPSK	50	50	19.13	19.07	18.83			
20	QPSK	100	0	19.15	19.21	18.92			
20	16QAM	1	0	18.94	18.94	18.69			
20	16QAM	1	49	19.07	19.92	18.68			
20	16QAM	1	99	19.12	19.01	18.77			
20	16QAM	50	0	19.15	19.11	18.88			
20	16QAM	50	24	19.23	19.08	19.90			
20	16QAM	50	50	19.14	19.05	18.85			
20	16QAM	100	0	19.21	19.04	18.92			
20	64QAM	1	0	19.06	19.12	18.92			
20	64QAM	1	49	19.16	19.35	18.88			
20	64QAM	1	99	19.11	19.16	18.73			
20	64QAM	50	0	19.15	19.08	18.87			
20	64QAM	50	24	19.20	19.05	19.90			
20	64QAM	50	50	19.14	19.07	18.81			
20	64QAM	100	0	19.22	19.04	18.89			
Channel				20625	21100	21375			
Frequency (MHz)				2507.5	2530	2562.5			
15	QPSK	1	0	19.02	18.94	18.65	19.5	0	
15	QPSK	1	37	19.06	18.99	18.97			
15	QPSK	1	74	19.07	19.00	18.73			
15	QPSK	36	0	19.18	19.11	18.84			
15	QPSK	36	20	19.22	19.06	18.88			
15	QPSK	36	39	19.16	19.06	18.81			
15	QPSK	75	0	19.18	19.04	18.85			
15	16QAM	1	0	19.01	18.95	18.70			
15	16QAM	1	37	19.06	18.98	18.97			
15	16QAM	1	74	19.17	18.98	18.72			
15	16QAM	36	0	19.17	19.11	18.88			
15	16QAM	36	20	19.24	19.05	18.89			
15	16QAM	36	39	19.16	19.09	18.82			
15	16QAM	75	0	19.16	19.07	18.91			
15	64QAM	1	0	19.13	19.24	19.05			
15	64QAM	1	37	19.22	19.17	18.88			
15	64QAM	1	74	19.25	19.28	18.96			
15	64QAM	36	0	19.19	19.13	18.86			
15	64QAM	36	20	19.23	19.06	18.89			
15	64QAM	36	39	19.18	19.09	18.81			
15	64QAM	75	0	19.17	19.07	18.90			
Channel				20600	21100	21400			
Frequency (MHz)				2505	2530	2565</			



Reduced Power Mode for Sensor On for ANT2

Band 7 (260MHz Band)									
Part 27-ENDC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq	Power Middle Ch. Freq	Power High Ch. Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				20850	21100	21350			
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	19.57	19.67	19.56	20	0	
20	QPSK	1	49	19.61	19.56	19.27			
20	QPSK	1	99	19.66	19.66	19.41			
20	QPSK	50	0	19.49	19.55	19.22			
20	QPSK	50	24	19.54	19.47	19.25	20	0	
20	QPSK	50	50	19.47	19.41	19.17			
20	QPSK	100	0	19.49	19.55	19.26			
20	16QAM	1	0	19.38	19.43	19.18			
20	16QAM	1	49	19.51	19.41	19.17	20	0	
20	16QAM	1	99	19.56	19.50	19.26			
20	16QAM	50	0	19.59	19.55	19.39			
20	16QAM	50	24	19.57	19.42	19.24	20	0	
20	16QAM	50	50	19.48	19.39	19.19			
20	16QAM	100	0	19.55	19.38	19.26			
20	64QAM	1	0	19.40	19.46	19.26			
20	64QAM	1	49	19.52	19.49	19.22	20	0	
20	64QAM	1	99	19.45	19.50	19.07			
20	64QAM	50	0	19.49	19.42	19.21			
20	64QAM	50	24	19.54	19.39	19.24	20	0	
20	64QAM	50	50	19.48	19.41	19.15			
20	64QAM	100	0	19.56	19.38	19.23			
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	19.36	19.49	19.41	20	0	
15	QPSK	1	37	19.40	19.54	19.44			
15	QPSK	1	74	19.41	19.55	19.49			
15	QPSK	36	0	19.52	19.68	19.60			
15	QPSK	36	20	19.56	19.61	19.64	20	0	
15	QPSK	36	39	19.50	19.61	19.57			
15	QPSK	75	0	19.52	19.59	19.61			
15	16QAM	1	0	19.45	19.44	19.40			
15	16QAM	1	37	19.50	19.45	19.41	20	0	
15	16QAM	1	74	19.61	19.47	19.42			
15	16QAM	36	0	19.61	19.55	19.51			
15	16QAM	36	20	19.58	19.39	19.44	20	0	
15	16QAM	36	39	19.50	19.43	19.37			
15	16QAM	75	0	19.50	19.41	19.46			
15	64QAM	1	0	19.47	19.58	19.60			
15	64QAM	1	37	19.56	19.51	19.41	20	0	
15	64QAM	1	74	19.59	19.62	19.51			
15	64QAM	36	0	19.53	19.47	19.41			
15	64QAM	36	20	19.57	19.40	19.44	20	0	
15	64QAM	36	39	19.52	19.43	19.36			
15	64QAM	75	0	19.51	19.41	19.45			
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	19.58	19.45	19.55	20	0	
10	QPSK	1	25	19.58	19.49	19.64			
10	QPSK	1	49	19.58	19.47	19.56			
10	QPSK	25	0	19.45	19.35	19.46	20	0	
10	QPSK	25	12	19.39	19.28	19.50			
10	QPSK	25	25	19.38	19.27	19.49			
10	QPSK	50	0	19.38	19.29	19.50			
10	16QAM	1	0	19.54	19.51	19.60			
10	16QAM	1	25	19.53	19.51	19.56	20	0	
10	16QAM	1	49	19.48	19.56	19.46			
10	16QAM	25	0	19.38	19.28	19.38	20	0	
10	16QAM	25	12	19.34	19.13	19.34			
10	16QAM	25	25	19.25	19.13	19.30			
10	16QAM	50	0	19.21	19.10	19.30			
10	64QAM	1	0	19.36	19.25	19.38			
10	64QAM	1	25	19.35	19.25	19.36	20	0	
10	64QAM	1	49	19.44	19.33	19.43			
10	64QAM	25	0	19.25	19.15	19.27	20	0	
10	64QAM	25	12	19.19	19.09	19.34			
10	64QAM	25	25	19.20	19.05	19.25			
10	64QAM	50	0	19.19	19.08	19.28			
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	0	19.29	19.24	19.34	20	0	
5	QPSK	1	12	19.35	19.24	19.39			
5	QPSK	1	24	19.39	19.22	19.41			
5	QPSK	12	0	19.39	19.27	19.42	20	0	
5	QPSK	12	7	19.47	19.33	19.48			
5	QPSK	12	13	19.50	19.35	19.52			
5	QPSK	25	0	19.47	19.27	19.43			
5	16QAM	1	0	19.37	19.24	19.54			
5	16QAM	1	12	19.44	19.27	19.53	20	0	
5	16QAM	1	24	19.42	19.25	19.60			
5	16QAM	12	0	19.21	19.30	19.20	20	0	
5	16QAM	12	7	19.17	19.37	19.32			
5	16QAM	12	13	19.36	19.34	19.35			
5	16QAM	25	0	19.47	19.33	19.25			
5	64QAM	1	0	19.24	19.22	19.50			
5	64QAM	1	12	19.38	19.25	19.54	20	0	
5	64QAM	1	24	19.39	19.21	19.52			
5	64QAM	12	0	19.38	19.30	19.19	20	0	
5	64QAM	12	7	19.46	19.32	19.30			
5	64QAM	12	13	19.48	19.33	19.34			
5	64QAM	25	0	19.47	19.28	19.27			



Reduced Power Mode for Hotspot On for ANT2

Band 5 (Cellular Band) Part 22H(only on channel required)-ENDC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				20450	20525	20590			
Frequency (MHz)				829	836.5	844			
10	QPSK	1	0	19.36	19.55	19.29			
10	QPSK	1	25	19.25	19.27	19.22	20	0	
10	QPSK	1	49	19.24	19.28	19.28			
10	QPSK	25	0	19.36	19.43	19.20			
10	QPSK	25	12	19.40	19.20	19.22			
10	QPSK	25	25	19.36	19.33	19.25	20	0	
10	QPSK	50	0	19.41	19.45	19.21			
10	16QAM	1	0	19.45	19.38	19.27			
10	16QAM	1	25	19.32	19.32	19.24	20	0	
10	16QAM	1	49	19.37	19.30	19.21			
10	16QAM	25	0	19.18	19.08	19.07			
10	16QAM	25	12	19.22	19.20	19.07			
10	16QAM	25	25	19.16	19.12	19.08	20	0	
10	16QAM	50	0	19.24	19.17	19.02			
10	64QAM	1	0	19.32	19.30	19.18			
10	64QAM	1	25	19.23	19.20	19.10	20	0	
10	64QAM	1	49	19.29	19.19	19.12			
10	64QAM	25	0	19.11	19.04	19.08			
10	64QAM	25	12	19.28	19.15	19.05			
10	64QAM	25	25	19.13	19.14	19.09	20	0	
10	64QAM	50	0	19.20	19.12	19.02			
Channel				20425	20525	20625			
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	0	19.22	19.06	19.23			
5	QPSK	1	12	19.13	19.04	19.14	20	0	
5	QPSK	1	24	19.16	19.06	19.09			
5	QPSK	12	0	19.28	19.07	19.16			
5	QPSK	12	7	19.22	19.10	19.19	20	0	
5	QPSK	12	13	19.25	19.11	19.21			
5	QPSK	25	0	19.26	19.13	19.17			
5	16QAM	1	0	19.51	19.36	19.39			
5	16QAM	1	12	19.44	19.35	19.45	20	0	
5	16QAM	1	24	19.52	19.42	19.47			
5	16QAM	12	0	19.23	19.11	19.19			
5	16QAM	12	7	19.21	19.14	19.20	20	0	
5	16QAM	12	13	19.24	19.14	19.24			
5	16QAM	25	0	19.25	19.09	19.21			
5	64QAM	1	0	19.49	19.28	19.31			
5	64QAM	1	12	19.35	19.23	19.34	20	0	
5	64QAM	1	24	19.46	19.34	19.37			
5	64QAM	12	0	19.23	19.07	19.16			
5	64QAM	12	7	19.22	19.10	19.17	20	0	
5	64QAM	12	13	19.21	19.11	19.23			
5	64QAM	25	0	19.26	19.16	19.18			
Channel				20415	20525	20635			
Frequency (MHz)				825.5	836.5	847.5			
3	QPSK	1	0	19.20	19.02	19.16			
3	QPSK	1	8	19.19	19.06	19.20	20	0	
3	QPSK	1	14	19.16	19.05	19.13			
3	QPSK	8	0	19.28	19.06	19.19			
3	QPSK	8	4	19.24	19.14	19.25	20	0	
3	QPSK	8	7	19.22	19.08	19.24			
3	QPSK	15	0	19.22	19.11	19.21			
3	16QAM	1	0	19.53	19.36	19.48			
3	16QAM	1	8	19.54	19.41	19.51	20	0	
3	16QAM	1	14	19.47	19.41	19.47			
3	16QAM	8	0	19.31	19.13	19.22			
3	16QAM	8	4	19.27	19.17	19.30	20	0	
3	16QAM	8	7	19.22	19.20	19.26			
3	16QAM	15	0	19.21	19.12	19.16			
3	64QAM	1	0	19.45	19.27	19.26			
3	64QAM	1	8	19.44	19.33	19.47	20	0	
3	64QAM	1	14	19.40	19.32	19.35			
3	64QAM	8	0	19.24	19.11	19.16			
3	64QAM	8	4	19.23	19.14	19.24	20	0	
3	64QAM	8	7	19.21	19.13	19.25			
3	64QAM	15	0	19.24	19.13	19.15			
Channel				20407	20525	20643			
Frequency (MHz)				824.7	836.5	848.3			
1.4	QPSK	1	0	19.09	19.09	19.06			
1.4	QPSK	1	3	19.15	19.20	19.07			
1.4	QPSK	1	5	19.27	19.16	19.06	20	0	
1.4	QPSK	3	0	19.10	19.09	19.04			
1.4	QPSK	3	1	19.14	19.19	19.07			
1.4	QPSK	3	3	19.10	19.12	19.05			
1.4	QPSK	6	0	19.17	19.02	19.13	20	0	
1.4	16QAM	1	0	19.39	19.20	19.35			
1.4	16QAM	1	3	19.50	19.29	19.42			
1.4	16QAM	1	5	19.38	19.25	19.36	20	0	
1.4	16QAM	3	0	19.20	19.01	19.11			
1.4	16QAM	3	1	19.23	19.06	19.13			
1.4	16QAM	3	3	19.13	19.01	19.08			
1.4	16QAM	6	0	19.25	19.10	19.18	20	0	
1.4	64QAM	1	0	19.30	19.07	19.27			
1.4	64QAM	1	3	19.32	19.18	19.26			
1.4	64QAM	1	5	19.27	19.13	19.26	20	0	
1.4	64QAM	3	0	19.19	19.01	19.12			
1.4	64QAM	3	1	19.25	19.13	19.17			
1.4	64QAM	3	3	19.19	19.06	19.15			
1.4	64QAM	6	0	19.16	19.06	19.09	20	0	

Band 7 (2600MHz Band) Part 27-ENDC									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				20550	21100	21350			
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	17.56	17.40	17.32			
20	QPSK	1	49	17.49	17.57	17.30	18	0	
20	QPSK	1	99	17.52	17.47	17.39			
20	QPSK	50	0	17.58	17.59	17.26			
20	16QAM	50	24	17.57	17.44	17.25	18	0	
20	16QAM	50	50	17.54	17.47	17.20			
20	QPSK	100	0	17.50	17.57	17.24			
20	16QAM	1	0	17.22	17.17	17.28			
20	16QAM	1	49	17.30	17.17	17.34	18	0	
20	16QAM	1	99	17.18	17.29	17.33			
20	16QAM	50	0	17.58	17.48	17.26			
20	16QAM	50	24	17.55	17.42	17.25	18	0	
20	16QAM	50	50	17.54	17.44	17.21			
20	16QAM	100	0	17.59	17.43	17.26			
20	64QAM	1	0	17.44	17.52	17.21			
20	64QAM	1	49	17.55	17.42	17.15	18	0	
20	64QAM	1	99	17.44	17.53	17.16			
20	64QAM	50	0	17.55	17.45	17.26			
20	64QAM	50	24	17.55	17.42	17.25	18	0	
20	64QAM	50	50	17.52	17.43	17.22			
20	64QAM	100	0	17.57	17.42	17.24			
Channel				20625	21100	21375			
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	17.35	17.28	17.04			
15	QPSK	1	37	17.40	17.34	17.08	18	0	
15	QPSK	1	74	17.44	17.34	17.09			
15	QPSK	36	0	17.53	17.50	17.21			
15	QPSK	36	20	17.58	17.46	17.25	18	0	
15	QPSK	36	39	17.54	17.42	17.16			
15	QPSK	75	0	17.49	17.40	17.22			
15	16QAM	1	0	17.19	17.16	17.33			
15	16QAM	1	37	17.29	17.15	17.30	18	0	
15	16QAM	1	74	17.38	17.28	17.31			
15	16QAM	36	0	17.53	17.50	17.21			
15	16QAM	36	20	17.58	17.41	17.22	18	0	
15	16QAM	36	39	17.55	17.44	17.17			
15	16QAM	75	0	17.55	17.40	17.21			
15	64QAM	1	0	17.02	17.17	17.26			
15	64QAM	1	37	17.20	17.04	17.11	18	0	
15	64QAM	1	74	17.07	17.12	17.16			
15	64QAM	36	0	17.56	17.52	17.23			
15	64QAM	36	20	17.58	17.40	17.21	18	0	
15	64QAM	36	39	17.56	17.46	17.16			
15	64QAM	75	0	17.					





Reduced Power Mode for Handheld On for ANT2

Band 7 (2600MHz Band)

Part 27-ENDC

Band	BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up (limit) (dBm)	MPP (dB)
20	Channel				20650	21100	21650	22	0
	Frequency (MHz)				2910	2935	2990		
	20	GPSK	1	0	21.61	21.71	21.60		
	20	GPSK	1	49	21.65	21.60	21.31		
	20	GPSK	1	99	21.70	21.70	21.45		
	20	GPSK	50	0	21.53	21.59	21.28		
	20	GPSK	50	24	21.58	21.45	21.29		
	20	GPSK	50	50	21.51	21.45	21.21		
	20	GPSK	100	0	21.53	21.59	21.30		
	20	16QAM	1	0	21.42	21.47	21.22		
	20	16QAM	1	49	21.55	21.45	21.21		
	20	16QAM	1	99	21.60	21.54	21.30		
	20	16QAM	50	0	21.63	21.59	21.34		
	20	16QAM	50	24	21.61	21.46	21.28		
	20	16QAM	50	50	21.52	21.43	21.23		
	20	16QAM	100	0	21.59	21.42	21.30		
	20	64QAM	1	0	21.44	21.50	21.30		
	20	64QAM	1	49	21.56	21.53	21.26		
	20	64QAM	1	99	21.49	21.54	21.11		
	20	64QAM	50	0	20.57	20.50	20.29		
20	64QAM	50	24	20.62	20.47	20.32			
20	64QAM	50	50	20.56	20.49	20.29			
20	64QAM	100	0	20.64	20.46	20.31			
15	Channel				20825	21100	21375	22	1
	Frequency (MHz)				2507.5	2535	2562.5		
	15	GPSK	1	0	21.61	21.54	21.66		
	15	GPSK	1	37	21.65	21.65	21.69		
	15	GPSK	1	74	21.66	21.66	21.54		
	15	GPSK	36	0	21.66	21.70	21.64		
	15	GPSK	36	20	21.60	21.65	21.68		
	15	GPSK	36	39	21.54	21.65	21.41		
	15	GPSK	75	0	21.56	21.63	21.65		
	15	16QAM	1	0	21.49	21.48	21.44		
	15	16QAM	1	37	21.54	21.49	21.45		
	15	16QAM	1	74	21.65	21.51	21.46		
	15	16QAM	36	0	21.65	21.59	21.55		
	15	16QAM	36	20	21.62	21.43	21.48		
	15	16QAM	36	39	21.54	21.47	21.41		
	15	16QAM	75	0	21.54	21.45	21.50		
	15	64QAM	1	0	21.51	21.62	21.64		
	15	64QAM	1	37	21.60	21.55	21.45		
	15	64QAM	1	74	21.63	21.66	21.55		
	15	64QAM	36	0	20.61	20.55	20.49		
15	64QAM	36	20	20.65	20.48	20.52			
15	64QAM	36	39	20.60	20.51	20.44			
15	64QAM	75	0	20.59	20.49	20.53			
10	Channel				20800	21100	21420	22	1
	Frequency (MHz)				2505	2535	2565		
	10	GPSK	1	0	21.62	21.49	21.59		
	10	GPSK	1	25	21.62	21.53	21.68		
	10	GPSK	1	49	21.62	21.51	21.60		
	10	GPSK	25	0	21.49	21.39	21.50		
	10	GPSK	25	12	21.45	21.32	21.54		
	10	GPSK	25	25	21.42	21.31	21.53		
	10	GPSK	50	0	21.42	21.33	21.54		
	10	16QAM	1	0	21.58	21.55	21.64		
	10	16QAM	1	25	21.57	21.55	21.60		
	10	16QAM	1	49	21.52	21.60	21.48		
	10	16QAM	25	0	21.61	21.53	21.63		
	10	16QAM	25	12	21.49	21.38	21.58		
	10	16QAM	25	25	21.59	21.39	21.55		
	10	16QAM	50	0	21.46	21.35	21.55		
	10	64QAM	1	0	21.61	21.50	21.63		
	10	64QAM	1	25	21.60	21.50	21.61		
	10	64QAM	1	49	21.69	21.58	21.68		
	10	64QAM	25	0	20.33	20.23	20.35		
10	64QAM	25	12	20.27	20.17	20.42			
10	64QAM	25	25	20.28	20.13	20.33			
10	64QAM	50	0	20.27	20.16	20.36			
5	Channel				20775	21100	21425	22	1
	Frequency (MHz)				2502.5	2535	2567.5		
	5	GPSK	1	0	21.63	21.69	21.58		
	5	GPSK	1	12	21.59	21.69	21.63		
	5	GPSK	1	24	21.63	21.67	21.65		
	5	GPSK	12	0	21.63	21.51	21.66		
	5	GPSK	12	7	21.55	21.57	21.65		
	5	GPSK	12	13	21.55	21.59	21.65		
	5	GPSK	25	0	21.55	21.51	21.67		
	5	16QAM	1	0	21.61	21.48	21.55		
	5	16QAM	1	12	21.68	21.51	21.66		
	5	16QAM	1	24	21.66	21.49	21.66		
	5	16QAM	12	0	21.45	21.54	21.44		
	5	16QAM	12	7	21.41	21.61	21.56		
	5	16QAM	12	13	21.60	21.58	21.59		
	5	16QAM	25	0	21.56	21.57	21.49		
	5	64QAM	1	0	21.48	21.48	21.65		
	5	64QAM	1	12	21.60	21.49	21.65		
	5	64QAM	1	24	21.63	21.45	21.54		
	5	64QAM	12	0	20.46	20.38	20.27		
5	64QAM	12	7	20.54	20.40	20.36			
5	64QAM	12	13	20.56	20.41	20.42			
5	64QAM	25	0	20.55	20.36	20.35			

UL CA

Full Power Ant 1											Tune up Power (dBm)
CA_7C											24
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset					
20850	21048	QPSK	1	0	0	0	1	0	22.45	24	
21100	20902	QPSK	1	0	0	0	2	0	22.63	24	
21350	21152	QPSK	1	0	0	0	2	0	22.41	24	
20850	21048	16QAM	1	0	0	0	1	0	21.67	23	
21100	20902	16QAM	1	0	0	0	2	0	21.54	23	
21350	21152	16QAM	1	0	0	0	2	0	21.66	23	
20850	21048	64QAM	1	0	0	0	1	0	20.89	22	
21100	20902	64QAM	1	0	0	0	2	0	20.56	22	
21350	21152	64QAM	1	0	0	0	2	0	20.61	22	

Sensor on Ant 1											Tune up Power (dBm)
CA_7C											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset					
20850	21048	QPSK	50	0	0	0	1	0	17.56	18.5	
21100	20902	QPSK	50	0	0	0	1	0	17.52	18.5	
21350	21152	QPSK	50	0	0	0	1	0	17.6	18.5	

Hotspot on Ant 1											Tune up Power (dBm)
CA_7C											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset					
20850	21048	QPSK	50	0	0	0	1	0	15.45	16.5	
21100	20902	QPSK	50	0	0	0	1	0	15.65	16.5	
21350	21152	QPSK	50	0	0	0	1	0	15.55	16.5	

Handheld on Ant 1											Tune up Power (dBm)
CA_7C											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset					
20850	21048	QPSK	1	0	0	0	1	0	18.39	20	
21100	20902	QPSK	1	0	0	0	1	0	18.3	20	
21350	21152	QPSK	1	0	0	0	1	0	18.25	20	

## 2CA DL

Configure	CA List	PCC									DL Antenna Configuration	SCC				Power		
		LTE	Antenna Port	BW	UL	UL	Mod.	UL#	UL	DL Antenna Configuration		LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA
		Band		(MHz)	Freq. (MHz)	Channel		RB	RB Offset			Band	(MHz)	Freq. (MHz)	Channel		Tx. Power (dBm)	Tx. Power (dBm)
Inter-Band	CA_2A-4A	Band 2	1	20M	1880	18900	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	22.34	22.74	
		Band 4	1	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		22.41	22.79	
	CA_2A-5A	Band 2	1	20M	1880	18900	QPSK	1	0		Band 5	10M	881.5	2525		22.65	22.74	
		Band 5	1	10M	836.5	20525	QPSK	1	0		Band 2	20M	1960	900		22.14	22.48	
	CA_2A-7A	Band 5	2	10M	836.5	20525	QPSK	1	0		Band 2	20M	1960	900		21.87	21.89	
		Band 2	1	20M	1880	18900	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	22.25	22.74	
	CA_4A-5A	Band 7	1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		22.68	22.83	
		Band 4	1	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.47	22.79	
	CA_4A-7A	Band 5	1	10M	836.5	20525	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	22.09	22.48	
		Band 5	2	10M	836.5	20525	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	22.00	21.89	
	CA_5A-7A	Band 4	1	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	22.57	22.79	
		Band 7	1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 4	20M	2132.5	2175	4x4MIMO	22.49	22.83	
	CA_5A-38A	Band 5	1	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	22.18	22.48	
		Band 5	2	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	21.92	21.89	
	CA_5A-41A	Band 7	1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.54	22.83	
		Band 5	1	10M	836.5	20525	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	22.11	22.48	
	CA_26A-41A	Band 5	2	10M	836.5	20525	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	22.06	21.89	
		Band 38	1	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.56	22.73	
	CA_7B	Band 5	1	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.21	22.48	
		Band 5	2	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.04	21.89	
CA_38C	Band 41	1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.63	22.64		
	Band 26	1	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.19	22.53		
CA_4A-4A	Band 26	2	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.01	21.99		
	Band 41	1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		22.65	22.64		
Intra-Band	CA_7B	Band 7	1	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2664.3	3193	4x4MIMO	22.67	22.83	
	CA_38C	Band 38	1	20M	2585.1	37901	QPSK	1	0	4x4MIMO	Band 38	20M	2604.9	38099	4x4MIMO	22.65	22.83	
	CA_4A-4A	Band 4	1	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 4	5M	2152.5	2375	4x4MIMO	22.61	22.79	
	CA_7A-7A	Band 7	1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	22.53	22.83	
	CA_41A-41A	Band 41	1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	5M	2687.5	41565	4x4MIMO	22.80	22.64	
	CA_66B	Band 66	1	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	22.12	22.35	
	CA_66C	Band 66	1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2174.8	67084	4x4MIMO	22.20	22.35	

### 3CA DL

**<Inter-Band for Three Carrier Combination> (three bands)**

Configure		PCC										SCC1				SCC2				Power		
		LTE	Antenna Port	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE	BW	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	LTE	BW	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
		Band									Band					Band						
CA_7A-66A-66A	Band 7	1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 66	20M	2155	66896		Band 66	5M	2197.5	67311		22.31	22.83	
	Band 66	1	20M	1745	132322	QPSK	1	0		Band 66	5M	2197.5	67311	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	22.1	22.35	
CA_26A-41C	Band 26	1	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	Band 41	20M	2612.6	40618	4x4MIMO	22.16	22.53	
	Band 41	1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2593	40620	4x4MIMO	Band 41	20M	2612.6	40618	4x4MIMO	21.72	21.99	
	Band 41	1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40618	4x4MIMO	Band 26	15M	876.5	8865		22.63	22.64	



### 4CA DL

**<Inter-Band for Three Carrier Combination> (four bands)**

Configure	PCC										SCC1				SCC2				SCC3				Power								
	LTE	Antenna Port	BW	UL	UL	Mod.	UL#	UL	DL	Antenna Configuration	LTE	BW	DL	DL	DL	Antenna Configuration	LTE	BW	DL	DL	DL	Antenna Configuration	LTE	BW	DL	DL	DL	Antenna Configuration	With CA	Without CA	
	Band		(MHz)	Freq. (MHz)	Channel		RB	RB Offset			Band	(MHz)	Freq. (MHz)	Channel			Band	(MHz)	Freq. (MHz)	Channel			Band	(MHz)	Freq. (MHz)	Channel			Tx. Power (dBm)	Tx. Power (dBm)	
CA_7C-66A-66A	Band 7	1	20M	2535	21100	QPSK	1	0	4xMIMO	Band 7	20M	2674.8	3298	4xMIMO	Band 66	20M	2155	66886		Band 66	5M	2197.5	67311	4xMIMO	Band 7	20M	2674.8	3298	4xMIMO	22.56	22.83
	Band 66	1	20M	1745	132322	QPSK	1	0		Band 66	5M	2197.5	67311		Band 7	20M	2655	3100		Band 7	20M	2674.8	3298	4xMIMO					22.02	22.35	



Full Power Mode for ANT2

n5 (only SCS15KHz has 5M BW)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	22.87	22.74	22.65	24.0	0.0
20	PI/2 BPSK	1	53	22.84	22.73	22.40		
20	PI/2 BPSK	1	104	22.81	22.50	22.17		
20	PI/2 BPSK	50	0	22.44	22.33	22.00	24.0	0.0
20	PI/2 BPSK	50	28	22.79	22.68	22.35		
20	PI/2 BPSK	50	56	22.14	22.03	21.70		
20	PI/2 BPSK	100	0	22.20	22.09	21.76	23.5	0.5
20	QPSK	1	1	22.85	22.98	22.41	24.0	0.0
20	QPSK	1	53	22.67	22.56	22.23		
20	QPSK	1	104	22.41	22.30	21.97		
20	QPSK	50	0	21.65	21.54	21.21	24.0	0.0
20	QPSK	50	28	22.58	22.69	22.25		
20	QPSK	50	56	21.45	21.34	21.01		
20	QPSK	100	0	21.52	21.63	21.19	23.0	1.0
20	16QAM	1	1	21.83	21.72	21.39	23.0	1.0
20	64QAM	1	1	20.34	20.23	19.90	21.5	2.5
20	256QAM	1	1	18.14	18.03	17.70	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.60	22.71	22.38	24.0	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.84	22.95	22.62	24.0	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.66	22.77	22.44	24.0	0.0

n7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	23.21	23.18	23.00	24.0	0.0
20	PI/2 BPSK	1	53	23.24	23.21	23.03		
20	PI/2 BPSK	1	104	23.26	23.23	23.05		
20	PI/2 BPSK	50	0	22.69	22.66	22.48	24.0	0.0
20	PI/2 BPSK	50	28	23.24	23.21	23.03		
20	PI/2 BPSK	50	56	22.75	22.72	22.54		
20	PI/2 BPSK	100	0	22.84	22.81	22.63	23.5	0.5
20	QPSK	1	1	23.27	23.30	23.06	24.0	0.0
20	QPSK	1	53	23.23	23.20	23.02		
20	QPSK	1	104	23.12	23.09	22.91		
20	QPSK	50	0	22.23	22.26	22.05	24.0	0.0
20	QPSK	50	28	23.22	23.24	23.09		
20	QPSK	50	56	22.27	22.24	22.06		
20	QPSK	100	0	22.39	22.42	22.21	23.0	1.0
20	16QAM	1	1	22.61	22.58	22.40	23.0	1.0
20	64QAM	1	1	21.12	21.09	20.91	21.5	2.5
20	256QAM	1	1	19.34	19.23	19.40	19.5	4.5
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	23.31	23.28	23.10	24.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	23.44	23.41	23.23	24.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	23.42	23.39	23.21	24.0	0.0



Full Power Mode for ANT1

n7									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510	2535	2560			
20	PI/2 BPSK	1	1	22.65	22.55	22.24	24.0	0.0	
20	PI/2 BPSK	1	53	22.64	22.54	22.23			
20	PI/2 BPSK	1	104	22.51	22.41	22.10			
20	PI/2 BPSK	50	0	22.04	21.94	21.63	24.0	0.0	
20	PI/2 BPSK	50	28	22.54	22.44	22.13			
20	PI/2 BPSK	50	56	22.08	21.98	21.67			
20	PI/2 BPSK	100	0	22.22	22.12	21.81	23.5	0.5	
20	QPSK	1	1	22.61	22.71	22.30	24.0	0.0	
20	QPSK	1	53	22.66	22.56	22.25			
20	QPSK	1	104	22.67	22.57	22.26			
20	QPSK	50	0	21.65	21.55	21.24	24.0	0.0	
20	QPSK	50	28	22.55	22.65	22.24			
20	QPSK	50	56	21.61	21.51	21.20			
20	QPSK	100	0	21.70	21.80	21.39	23.0	1.0	
20	16QAM	1	1	21.68	21.58	21.27	23.0	1.0	
20	64QAM	1	1	20.41	20.31	20.00	21.5	2.5	
20	256QAM	1	1	18.90	18.80	18.49	19.5	4.5	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	1	22.68	22.58	22.27	24.0	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	1	22.83	22.73	22.42	24.0	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	1	22.81	22.71	22.40	24.0	0.0	

n66 (only SCS15KHz has 5M BW)									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	PI/2 BPSK	1	1	22.77	22.84	22.75	24.0	0.0	
20	PI/2 BPSK	1	53	22.11	22.18	22.09			
20	PI/2 BPSK	1	104	22.69	22.76	22.67			
20	PI/2 BPSK	50	0	21.83	21.90	21.81	24.0	0.0	
20	PI/2 BPSK	50	28	22.13	22.20	22.11			
20	PI/2 BPSK	50	56	21.76	21.83	21.74			
20	PI/2 BPSK	100	0	21.78	21.85	21.76	23.5	0.5	
20	QPSK	1	1	22.85	22.92	22.83	24.0	0.0	
20	QPSK	1	53	22.21	22.28	22.19			
20	QPSK	1	104	22.80	22.87	22.78			
20	QPSK	50	0	21.38	21.45	21.36	24.0	0.0	
20	QPSK	50	28	22.20	22.27	22.18			
20	QPSK	50	56	21.34	21.41	21.32			
20	QPSK	100	0	21.27	21.34	21.25	23.0	1.0	
20	16QAM	1	1	21.62	21.69	21.60	23.0	1.0	
20	64QAM	1	1	20.48	20.55	20.46	21.5	2.5	
20	256QAM	1	1	18.15	18.22	18.13	19.5	4.5	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	22.45	22.52	22.43	24.0	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	22.69	22.76	22.67	24.0	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	22.36	22.43	22.34	24.0	0.0	



Reduced Power Mode for Receiver On for ANT2

n5 (only SCS15KHz has 5M BW)									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				166800	167300	167800			
Frequency (MHz)				834	836.5	839	Tune-up limit (dBm)	MPR (dB)	
20	PI/2 BPSK	1	1	19.69	19.75	19.70			
20	PI/2 BPSK	1	53	19.33	19.42	19.34	21.0	0.0	
20	PI/2 BPSK	1	104	19.07	19.17	19.09			
20	PI/2 BPSK	50	0	19.41	19.50	19.42			
20	PI/2 BPSK	50	28	19.24	19.37	19.34	21.0	0.0	
20	PI/2 BPSK	50	56	19.19	19.25	19.25			
20	PI/2 BPSK	100	0	19.23	19.38	19.27	21.0	0.0	
20	QPSK	1	1	19.67	19.77	19.58			
20	QPSK	1	53	19.35	19.45	19.36	21.0	0.0	
20	QPSK	1	104	19.01	19.15	19.04			
20	QPSK	50	0	19.39	19.51	19.41			
20	QPSK	50	28	19.31	19.64	19.35	21.0	0.0	
20	QPSK	50	56	19.06	19.20	19.11			
20	QPSK	100	0	19.28	19.35	19.31	21.0	0.0	
20	16QAM	1	1	19.40	19.52	19.47	21.0	0.0	
20	64QAM	1	1	19.44	19.56	19.49	21.0	0.0	
20	256QAM	1	1	17.89	17.95	17.81	19.5	1.5	
Channel				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				831.5	836.5	841.5	21.0	0.0	
15	QPSK	1	1	19.51	19.49	19.40	21.0	0.0	
Channel				168800	167300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				829	836.5	844	21.0	0.0	
10	QPSK	1	1	19.50	19.64	19.55	21.0	0.0	
Channel				169300	167300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				826.5	836.5	846.5	21.0	0.0	
5	QPSK	1	1	19.55	19.53	19.41	21.0	0.0	

n7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				500000	507000	510000			
Frequency (MHz)				2510	2535	2560	Tune-up limit (dBm)	MPR (dB)	
20	PI/2 BPSK	1	1	17.73	17.81	17.70			
20	PI/2 BPSK	1	53	17.52	17.53	17.54	18.5	0.0	
20	PI/2 BPSK	1	104	17.50	17.52	17.52			
20	PI/2 BPSK	50	0	17.53	17.54	17.48			
20	PI/2 BPSK	50	28	17.41	17.50	17.34	18.5	0.0	
20	PI/2 BPSK	50	56	17.33	17.54	17.48			
20	PI/2 BPSK	100	0	17.67	17.70	17.61	18.5	0.0	
20	QPSK	1	1	17.91	17.97	17.89			
20	QPSK	1	53	17.51	17.52	17.44	18.5	0.0	
20	QPSK	1	104	17.44	17.51	17.44			
20	QPSK	50	0	17.50	17.55	17.50			
20	QPSK	50	28	17.50	17.62	17.51	18.5	0.0	
20	QPSK	50	56	17.52	17.53	17.48			
20	QPSK	100	0	17.72	17.73	17.70	18.5	0.0	
20	16QAM	1	1	17.42	17.43	17.36	18.5	0.0	
20	64QAM	1	1	17.76	17.80	17.72	18.5	0.0	
20	256QAM	1	1	17.88	17.82	17.84	18.5	0.0	
Channel				501000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5	18.5	0.0	
15	QPSK	1	1	17.55	17.66	17.73	18.5	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565	18.5	0.0	
10	QPSK	1	1	17.68	17.69	17.62	18.5	0.0	
Channel				505000	507000	515000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5	18.5	0.0	
5	QPSK	1	1	17.81	17.81	17.83	18.5	0.0	





Reduced Power Mode for Sensor On for ANT2

n5 (only SCS15KHz has 5M BW) Sensor on							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq	Power Middle Ch. Freq	Power High Ch. Freq	MPR (dB)
Channel				169800	167300	167800	
Frequency (MHz)				834	836.5	839	
20	PI2 BPSK	1	1	21.37	21.38	21.33	
20	PI2 BPSK	1	53	21.06	21.09	21.00	22.5
20	PI2 BPSK	1	104	20.79	20.83	20.73	
20	PI2 BPSK	50	0	21.13	21.13	21.15	
20	PI2 BPSK	50	28	21.02	21.05	20.96	22.5
20	PI2 BPSK	50	56	20.90	20.92	20.86	
20	PI2 BPSK	100	0	21.04	21.06	20.97	22.5
20	QPSK	1	1	21.44	21.47	21.45	
20	QPSK	1	53	21.22	21.19	21.15	22.5
20	QPSK	1	104	20.85	20.84	20.87	
20	QPSK	50	0	21.17	21.18	21.10	
20	QPSK	50	28	21.19	21.39	21.21	22.5
20	QPSK	50	56	20.94	20.94	20.93	
20	QPSK	100	0	21.01	21.07	20.97	22.0
20	16QAM	1	1	21.38	21.37	21.31	22.0
20	16QAM	1	1	20.18	20.23	20.14	22.5
20	256QAM	1	1	18.06	18.04	17.99	19.5
Channel				169300	167300	168300	
Frequency (MHz)				831.5	836.5	841.5	
15	QPSK	1	1	21.37	21.30	21.44	22.5
Channel				168800	167300	168800	
Frequency (MHz)				829	838.5	844	
10	QPSK	1	1	21.40	21.38	21.39	22.5
Channel				169300	167300	169300	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	1	21.34	21.38	21.42	22.5

n7 Sensor on							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq	Power Middle Ch. Freq	Power High Ch. Freq	MPR (dB)
Channel				502000	507000	512000	
Frequency (MHz)				2510	2535	2560	
20	PI2 BPSK	1	1	18.02	18.18	17.99	
20	PI2 BPSK	1	53	17.85	17.89	17.89	19.0
20	PI2 BPSK	1	104	17.87	17.89	17.85	
20	PI2 BPSK	50	0	17.82	17.80	17.83	
20	PI2 BPSK	50	28	17.77	17.80	17.70	19.0
20	PI2 BPSK	50	56	17.85	17.86	17.81	
20	PI2 BPSK	100	0	18.00	18.04	17.93	19.0
20	QPSK	1	1	18.22	18.34	18.21	
20	QPSK	1	53	17.84	17.89	17.76	19.0
20	QPSK	1	104	17.78	17.86	17.82	
20	QPSK	50	0	17.86	17.87	17.82	
20	QPSK	50	28	18.18	18.25	18.23	19.0
20	QPSK	50	56	17.88	17.83	17.81	
20	QPSK	100	0	18.08	18.10	18.04	19.0
20	16QAM	1	1	17.80	17.73	17.70	19.0
20	16QAM	1	1	18.01	17.88	18.09	19.0
20	256QAM	1	1	18.11	18.22	17.89	19.0
Channel				501500	507000	512500	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	1	17.78	17.73	17.85	19.0
Channel				501000	507000	513000	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	1	17.74	17.82	17.93	19.0
Channel				500500	507000	513500	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	1	17.92	17.99	18.03	19.0



Reduced Power Mode for Hotspot On for ANT2

n5 (only SCS15KHz has 5M BW) Hotspot on									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq	Power Middle Ch. Freq	Power High Ch. Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				169800	167300	167800			
Frequency (MHz)				834	836.5	839			
20	PI2 BPSK	1	1	20.81	20.87	20.79			
20	PI2 BPSK	1	53	20.57	20.62	20.51	22.0	0.0	
20	PI2 BPSK	1	104	20.31	20.33	20.28			
20	PI2 BPSK	50	0	20.52	20.59	20.54			
20	PI2 BPSK	50	28	20.58	20.59	20.60	22.0	0.0	
20	PI2 BPSK	50	56	20.42	20.42	20.36			
20	PI2 BPSK	100	0	20.48	20.53	20.42	23.5	0.0	
20	QPSK	1	1	20.93	20.94	20.89			
20	QPSK	1	53	20.66	20.65	20.68	22.0	0.0	
20	QPSK	1	104	20.32	20.37	20.33			
20	QPSK	50	0	20.65	20.66	20.66			
20	QPSK	50	28	20.79	20.65	20.82	22.0	0.0	
20	QPSK	50	56	20.47	20.47	20.44			
20	QPSK	100	0	20.51	20.75	20.54	23.0	0.0	
20	16QAM	1	1	20.87	20.89	20.82	23.0	0.0	
20	64QAM	1	1	19.60	19.73	19.76	21.5	0.5	
20	256QAM	1	1	17.98	17.98	17.93	19.5	2.5	
Channel				169300	167300	168300			
Frequency (MHz)				831.5	836.5	841.5			
15	QPSK	1	1	20.72	20.68	20.71	22.0	0.0	
Channel				168800	167300	168800			
Frequency (MHz)				829	836.5	844			
10	QPSK	1	1	20.66	20.63	20.63	22.0	0.0	
Channel				169300	167300	169300			
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	1	20.70	20.75	20.68	22.0	0.0	

n7 Hotspot on									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq	Power Middle Ch. Freq	Power High Ch. Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				502000	507000	512000			
Frequency (MHz)				2510	2535	2560			
20	PI2 BPSK	1	1	15.74	15.96	15.88			
20	PI2 BPSK	1	53	15.70	15.94	15.74	17.0	0.0	
20	PI2 BPSK	1	104	15.74	15.97	15.82			
20	PI2 BPSK	50	0	15.69	15.92	15.91			
20	PI2 BPSK	50	28	15.71	15.89	15.86	17.0	0.0	
20	PI2 BPSK	50	56	15.73	15.93	15.78			
20	PI2 BPSK	100	0	15.82	16.06	15.94	17.0	0.0	
20	QPSK	1	1	16.11	16.12	16.08			
20	QPSK	1	53	15.65	15.86	15.78	17.0	0.0	
20	QPSK	1	104	16.71	15.89	15.81			
20	QPSK	50	0	15.83	15.98	15.87			
20	QPSK	50	28	15.98	16.08	16.01	17.0	0.0	
20	QPSK	50	56	15.75	15.91	15.82			
20	QPSK	100	0	15.92	16.10	16.01	17.0	0.0	
20	16QAM	1	1	15.58	15.78	15.68	17.0	0.0	
20	64QAM	1	1	16.02	16.03	15.98	17.0	0.0	
20	256QAM	1	1	16.01	16.08	16.03	17.0	0.0	
Channel				501500	507000	512500			
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	1	15.92	16.01	15.98	17.0	0.0	
Channel				501000	507000	513000			
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	1	15.97	15.88	16.03	17.0	0.0	
Channel				500500	507000	513500			
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	1	15.90	15.98	15.89	17.0	0.0	



Reduced Power Mode for Handheld On for ANT2

n7 Handheld on								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560	Tune-up limit (dBm)	MPR (dB)
20	PI/2 BPSK	1	1	21.80	21.82	21.80	23.0	0.0
20	PI/2 BPSK	1	53	21.98	21.93	21.80		
20	PI/2 BPSK	1	104	21.96	21.96	21.75		
20	PI/2 BPSK	50	0	21.91	21.99	21.88	23.0	0.0
20	PI/2 BPSK	50	28	21.95	21.80	21.71		
20	PI/2 BPSK	50	56	21.97	21.88	21.61		
20	PI/2 BPSK	100	0	22.11	21.98	21.77	23.0	0.0
20	QPSK	1	1	22.06	22.16	22.10		
20	QPSK	1	53	22.04	22.00	21.89		
20	QPSK	1	104	22.06	21.96	21.88	23.0	0.0
20	QPSK	50	0	21.94	21.83	21.63		
20	QPSK	50	28	22.05	22.14	22.03		
20	QPSK	50	56	22.00	21.93	21.87	23.0	0.0
20	QPSK	100	0	22.13	21.98	21.81		
20	16QAM	1	1	21.71	21.82	21.62		
20	64QAM	1	1	20.89	20.89	20.50	21.5	1.5
20	256QAM	1	1	19.08	19.11	18.80	19.5	3.5
Channel				501500	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	22.13	22.10	21.89	23.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	22.03	22.07	21.87	23.0	0.0
Channel				500500	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	21.93	22.11	22.10	23.0	0.0



Reduced Power Mode for Sensor On for ANT1

n7 Sensor on									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510	2535	2560			
20	PI2 BPSK	1	1	12.62	12.65	12.50			
20	PI2 BPSK	1	53	12.55	12.67	12.40	14.0	0.0	
20	PI2 BPSK	1	104	12.52	12.64	12.37			
20	PI2 BPSK	50	0	12.56	12.70	12.41			
20	PI2 BPSK	50	28	12.60	12.63	12.36	14.0	0.0	
20	PI2 BPSK	50	56	12.67	12.66	12.36			
20	PI2 BPSK	100	0	12.72	12.78	12.61	14.0	0.0	
20	QPSK	1	1	12.84	12.87	12.80			
20	QPSK	1	53	12.66	12.73	12.38	14.0	0.0	
20	QPSK	1	104	12.65	12.66	12.39			
20	QPSK	50	0	12.61	12.64	12.45			
20	QPSK	50	28	12.72	12.61	12.66	14.0	0.0	
20	QPSK	50	56	12.68	12.67	12.38			
20	QPSK	100	0	12.82	12.85	12.55	14.0	0.0	
20	16QAM	1	1	12.68	12.57	12.29	14.0	0.0	
20	16QAM	1	1	12.63	12.76	12.73	14.0	0.0	
20	256QAM	1	1	12.72	12.63	12.76	14.0	0.0	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	1	12.67	12.67	12.48	14.0	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	1	12.54	12.62	12.54	14.0	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	1	12.81	12.72	12.52	14.0	0.0	

n66 (only SCS15KHz has 5M BW) Sensor on									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	PI2 BPSK	1	1	15.56	15.51	15.48			
20	PI2 BPSK	1	53	14.88	14.91	14.90	16.5	0.0	
20	PI2 BPSK	1	104	15.32	15.43	15.41			
20	PI2 BPSK	50	0	15.13	15.16	15.11			
20	PI2 BPSK	50	28	14.92	14.93	14.81	16.5	0.0	
20	PI2 BPSK	50	56	15.09	15.12	15.01			
20	PI2 BPSK	100	0	15.09	15.10	15.00	16.5	0.0	
20	QPSK	1	1	15.48	15.58	15.50			
20	QPSK	1	53	14.94	14.95	14.83	16.5	0.0	
20	QPSK	1	104	15.57	15.46	15.36			
20	QPSK	50	0	15.22	15.08	15.08			
20	QPSK	50	28	15.34	15.48	15.37	16.5	0.0	
20	QPSK	50	56	15.14	15.10	14.97			
20	QPSK	100	0	15.16	15.35	14.87	16.5	0.0	
20	16QAM	1	1	15.37	15.37	15.47	16.5	0.0	
20	16QAM	1	1	15.26	15.30	15.39	16.5	0.0	
20	256QAM	1	1	15.33	15.39	15.27	16.5	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	15.26	15.17	15.18	16.5	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	15.43	15.47	15.30	16.5	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	15.13	15.16	15.18	16.5	0.0	



Reduced Power Mode for Hotspot On for ANT1

n7 Hotspot on								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI2 BPSK	1	1	10.24	10.17	10.04		
20	PI2 BPSK	1	53	10.20	10.15	9.89	11.5	0.0
20	PI2 BPSK	1	104	10.16	10.22	9.97		
20	PI2 BPSK	50	0	10.24	10.18	10.03		
20	PI2 BPSK	50	28	10.19	10.15	9.91	11.5	0.0
20	PI2 BPSK	50	56	10.16	10.18	9.88		
20	PI2 BPSK	100	0	10.35	10.33	10.06	11.5	0.0
20	QPSK	1	1	10.42	10.50	10.39		
20	QPSK	1	53	10.38	10.20	9.95	11.5	0.0
20	QPSK	1	104	10.28	10.18	9.88		
20	QPSK	50	0	10.23	10.20	9.91		
20	QPSK	50	28	10.35	10.38	10.34	11.5	0.0
20	QPSK	50	56	10.23	10.13	9.93		
20	QPSK	100	0	10.38	10.36	10.04	11.5	0.0
20	16QAM	1	1	10.10	10.29	10.13	11.5	0.0
20	64QAM	1	1	10.31	10.26	10.14	11.5	0.0
20	256QAM	1	1	10.33	10.45	10.27	11.5	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	10.21	10.20	9.97	11.5	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	10.32	10.31	10.09	11.5	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	10.29	10.39	10.11	11.5	0.0

n66 (only SCS15KHz has 5M BW) Hotspot on								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	PI2 BPSK	1	1	13.46	13.48	13.33		
20	PI2 BPSK	1	53	12.83	12.81	12.73	14.5	0.0
20	PI2 BPSK	1	104	13.30	13.40	13.37		
20	PI2 BPSK	50	0	13.10	13.09	13.03		
20	PI2 BPSK	50	28	12.93	12.80	12.82	14.5	0.0
20	PI2 BPSK	50	56	13.08	13.00	12.93		
20	PI2 BPSK	100	0	13.07	13.01	13.02	14.5	0.0
20	QPSK	1	1	13.37	13.50	13.42		
20	QPSK	1	53	12.91	12.83	12.75	14.5	0.0
20	QPSK	1	104	13.46	13.34	13.36		
20	QPSK	50	0	13.15	13.08	13.01		
20	QPSK	50	28	13.32	13.36	13.24	14.5	0.0
20	QPSK	50	56	13.03	12.99	13.01		
20	QPSK	100	0	13.13	13.00	13.02	14.5	0.0
20	16QAM	1	1	13.31	13.39	13.18	14.5	0.0
20	64QAM	1	1	13.10	13.36	13.40	14.5	0.0
20	256QAM	1	1	13.21	13.27	13.28	14.5	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	13.26	13.18	13.22	14.5	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	13.43	13.32	13.44	14.5	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	13.04	12.98	13.01	14.5	0.0



Reduced Power Mode for Handheld On for ANT1

n7 Handheld on									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510	2535	2560			
20	PI2 BPSK	1	1	16.79	16.82	16.74			
20	PI2 BPSK	1	53	16.88	16.89	16.70	18.0	0.0	
20	PI2 BPSK	1	104	16.83	16.84	16.74			
20	PI2 BPSK	50	0	16.87	16.84	16.59			
20	PI2 BPSK	50	28	16.88	16.85	16.58	18.0	0.0	
20	PI2 BPSK	50	56	16.83	16.80	16.48			
20	PI2 BPSK	100	0	17.03	17.01	16.84	18.0	0.0	
20	QPSK	1	1	17.08	17.13	17.01			
20	QPSK	1	53	16.81	16.84	16.48	18.0	0.0	
20	QPSK	1	104	16.88	16.84	16.49			
20	QPSK	50	0	16.83	16.85	16.54			
20	QPSK	50	28	16.90	16.97	16.86	18.0	0.0	
20	QPSK	50	56	16.83	16.81	16.55			
20	QPSK	100	0	17.01	17.02	16.71	18.0	0.0	
20	16QAM	1	1	16.99	17.03	16.27	18.0	0.0	
20	64QAM	1	1	17.01	16.84	16.95	18.0	0.0	
20	256QAM	1	1	16.89	16.97	16.89	18.0	0.0	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	1	16.87	16.80	16.49	18.0	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	1	16.99	17.03	17.00	18.0	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	1	17.01	17.08	16.84	18.0	0.0	

n66 (only SCS15KHz has 5M BW) Handheld on									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	PI2 BPSK	1	1	16.38	16.43	16.33			
20	PI2 BPSK	1	53	17.64	17.69	17.59	19.5	0.0	
20	PI2 BPSK	1	104	16.33	16.25	16.18			
20	PI2 BPSK	50	0	17.58	18.00	17.98			
20	PI2 BPSK	50	28	17.73	17.75	17.62	19.5	0.0	
20	PI2 BPSK	50	56	17.93	17.90	17.84			
20	PI2 BPSK	100	0	17.94	17.89	17.83	19.5	0.0	
20	QPSK	1	1	16.41	16.52	16.38			
20	QPSK	1	53	17.66	17.76	17.66	19.5	0.0	
20	QPSK	1	104	16.36	16.34	16.17			
20	QPSK	50	0	17.85	18.01	17.87			
20	QPSK	50	28	16.42	16.46	16.40	19.5	0.0	
20	QPSK	50	56	17.95	17.88	17.85			
20	QPSK	100	0	17.88	18.17	17.73	19.5	1.0	
20	16QAM	1	1	16.47	16.11	16.42	19.5	1.0	
20	64QAM	1	1	16.46	16.46	16.50	19.5	0.0	
20	256QAM	1	1	16.32	16.16	16.44	19.5	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	16.33	16.13	16.22	19.5	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	16.40	16.35	16.26	19.5	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	16.18	16.18	16.11	19.5	0.0	





**Appendix F. Supplemental Tuner Head & Body SAR Results**

The results are shown as follows.





Head Ant 2

Mode	Service/Modulation	Channel	Frequency (MHz)	BS Size	BS Offset	Test Position	Spacing	Measured Ig-SAR (W/kg)	Average Value of Time Sweep (W/kg)																																				
									Auto-Tune	1	6	11	16	21	26	31	36	41	46	51	56	61	66	71	76	81	86	91	96	101	106	111	116	121	126	131	136	141	5	25	45	65	85	105	125
WCDMA V	RM-C 12.2kbs	4213	846.6	-	-	Left Cheek	0mm	1.010	1.100	0.602	0.071	0.434	0.796	0.871	0.965	1.022	-0.075	0.181	0.482	0.703	0.861	-0.127	0.022	0.353	0.723	0.793	0.828	0.930	-0.075	0.142	0.518	1.008	-0.130	0.049	0.051	0.445	0.681	0.854	-0.062	0.089	0.219	-0.054	0.795	0.302	0.541
Mode	Service/Modulation	Channel	Frequency (MHz)	BS Size	BS Offset	Test Position	Spacing	Measured Ig-SAR (W/kg)	Average Value of Time Sweep (W/kg)																																				
LTE Band 3	15M/QPSK	2000	949	20	0	Left Cheek	0mm	0.977	0.611	0.084	0.244	0.405	0.280	0.411	0.559	0.091	0.080	0.211	0.261	0.380	0.559	0.051	0.137	0.291	0.229	0.549	0.024	0.051	0.078	0.201	0.289	0.090	0.048	0.226	0.328	0.158	0.218	0.322	0.248	0.000	0.001	0.017	0.209	0.128	0.087
Mode	Service/Modulation	Channel	Frequency (MHz)	BS Size	BS Offset	Test Position	Spacing	Measured Ig-SAR (W/kg)	Average Value of Time Sweep (W/kg)																																				
LTE Band 12	15M/QPSK	2300	707.5	1	0	Left Throat	0mm	0.530	1.020	0.295	0.058	0.104	0.542	0.503	0.478	0.457	0.110	0.208	0.384	0.348	0.110	0.218	0.208	0.183	0.168	0.158	0.102	0.081	0.368	0.481	0.231	0.058	0.358	0.171	0.077	0.021	0.081	0.575	0.049	0.131	0.202	0.044	0.201	0.206	
Mode	Service/Modulation	Channel	Frequency (MHz)	BS Size	BS Offset	Test Position	Spacing	Measured Ig-SAR (W/kg)	Average Value of Time Sweep (W/kg)																																				
LTE Band 26	15M/QPSK	2600	811.5	1	0	Left Cheek	0mm	0.670	1.060	0.120	0.201	0.405	0.575	0.074	0.739	0.076	0.224	0.435	0.403	0.721	0.558	0.121	0.252	0.429	0.554	0.664	0.729	0.082	0.203	0.401	0.594	0.758	0.148	0.005	0.003	0.782	0.178	0.709	0.932	0.205	0.037	0.556	0.216	0.157	0.068



Body-Ant 1

Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)														
									Auto-Tune	2	15	28	41	54	67	80	93	106	119	132	143	65	131
WCDMA II	RMC 12.2Kbps	9400	1880	-	-	Back	5mm	1.150	1.650	0.530	0.433	0.759	0.765	0.757	0.878	1.038	0.677	1.047	0.683	0.763	0.619	1.056	0.896
WCDMA IV	RMC 12.2Kbps	1513	1752.6	-	-	Bottom Side	5mm	1.200	1.590	0.644	0.540	0.654	0.723	0.729	0.928	1.108	0.566	1.230	0.648	0.819	0.757	1.220	
WCDMA V	RMC 12.2Kbps	4233	846.6	-	-	Back	5mm	0.826	1.060	0.047	0.046	0.730	0.563	0.055	0.045	0.051	0.069	0.047	0.824	0.813	1.040	0.994	
LTE Band 2	20M/QPSK	19100	1900	50	0	Bottom Side	5mm	1.090	1.410	0.583	0.502	0.487	0.751	0.693	0.747	0.738	0.734	0.720	0.584	0.648	0.694	1.022	
LTE Band 7	20M/QPSK	21100	2535	50	0	Bottom Side	5mm	1.160	1.570	1.241	1.269	1.302	1.109	1.124	1.104	1.148	0.909	1.186	0.975	1.004	1.346	1.192	
LTE Band 12	10M/QPSK	23095	707.5	1	0	Back	5mm	0.520	0.776	0.055	0.063	0.072	0.073	0.068	0.064	0.062	0.058	0.065	0.073	0.061	0.051	0.048	
LTE Band 26	15M/QPSK	26865	831.5	1	0	Back	5mm	0.351	0.776	0.049	0.046	0.033	0.037	0.059	0.062	0.059	0.048	0.042	0.075	0.051	0.048	0.069	
LTE Band 41	20M/QPSK	40620	2593	100	0	Bottom Side	5mm	1.080	1.730	1.084	1.114	1.136	1.088	1.310	0.844	0.881	0.760	0.951	1.361	0.865	1.145	0.973	
LTE Band 66	20M/QPSK	132572	1770	50	0	Back	5mm	1.050	1.520	0.450	0.424	0.458	0.574	1.497	0.346	0.571	0.345	0.608	1.131	0.478	0.564	0.419	
FR1 n7	20M/QPSK	50700	2535	1	1	Back	5mm	0.440	0.753	0.173	0.154	0.178	0.173	0.233	0.149	0.187	0.129	0.177	0.288	0.125	0.155	0.196	
FR1 n66	20M/QPSK	349000	1745	1	1	Back	5mm	0.425	0.537	0.342	0.235	0.268	0.428	0.372	0.214	0.198	0.462	0.526	0.521	0.315	0.287	0.362	



Body-Ant 2

Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spreading	Measurement S <sub>avg</sub> (W/kg)	Average Value of Time Sweep (W/kg)																																				
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
WCDMA V	HMC 12.2Bps	4203	846.5	—	—	TOP Side	Scram	0.749	1.180	1.105	0.257	0.527	0.795	0.943	1.054	1.157	0.178	0.494	0.797	1.011	1.038	0.081	0.209	0.424	0.643	0.871	1.045	1.166	0.181	0.386	0.602	0.824	0.999	0.949	1.119	0.301	0.788	0.919	0.131	0.846	0.481	0.136	0.928	0.484	0.781

Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spreading	Measurement S <sub>avg</sub> (W/kg)	Average Value of Time Sweep (W/kg)																																				
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
LTE Band 5	QPSK	20525	896.5	1	0	Back	Scram	0.456	0.166	0.054	0.141	0.262	0.378	0.423	0.458	0.489	0.505	0.308	0.333	0.411	0.501	0.619	0.147	0.249	0.365	0.458	0.507	0.619	0.691	0.197	0.345	0.492	0.609	0.676	0.483	0.114	0.438	0.409	0.212	0.491	0.375	0.186	0.511	0.428	0.081

Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spreading	Measurement S <sub>avg</sub> (W/kg)	Average Value of Time Sweep (W/kg)																																			
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
LTE Band 12	QPSK	3090	799.5	1	0	TOP Side	Scram	0.507	0.689	0.211	0.418	0.367	0.336	0.516	0.289	0.288	0.269	0.197	0.349	0.236	0.094	0.111	0.111	0.112	0.112	0.116	0.113	0.101	0.269	0.246	0.269	0.246	0.054	0.051	0.113	0.113	0.269	0.056	0.166	0.210	0.146	0.059	0.117	0.146

Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spreading	Measurement S <sub>avg</sub> (W/kg)	Average Value of Time Sweep (W/kg)																																				
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
LTE Band 26	QPSK	2685	821.5	1	0	Back	Scram	0.112	0.110	0.112	0.245	0.385	0.472	0.448	0.469	0.506	0.205	0.385	0.423	0.497	0.418	0.592	0.294	0.111	0.402	0.487	0.416	0.581	0.175	0.323	0.462	0.495	0.119	0.412	0.075	0.484	0.158	0.261	0.149	0.114	0.081	0.141	0.128	0.095	0.113



Head-Ant 1

Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
									Auto-Tune	2	15	28	41	54	67	80	93	106	119	132	143	65	131			
WCDMA II	RMC 12.2Kbps	9400	1880	-	-	Left Cheek	0mm	0.079	0.090	0.071	0.085	0.082	0.081	0.083	0.087	0.090	0.079	0.081	0.081	0.088	0.087	0.088	0.089			
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
WCDMA IV	RMC 12.2Kbps	1413	1732.6	-	-	Left Cheek	0mm	0.071	0.100	0.077	0.067	0.079	0.100	0.075	0.092	0.094	0.072	0.094	0.076	0.085	0.062	0.068	0.068			
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
WCDMA V	RMC 12.2Kbps	4182	836.4	-	-	Left Cheek	0mm	0.150	0.198	0.149	0.150	0.139	0.143	0.146	0.146	0.144	0.133	0.156	0.140	0.153	0.032	0.055				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
LTE Band 2	20M/QPSK	18900	1880	50	0	Left Cheek	0mm	0.046	0.051	0.047	0.041	0.037	0.044	0.046	0.051	0.046	0.044	0.046	0.045	0.045	0.041	0.049				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
LTE Band 7	20M/QPSK	21100	2535	1	0	Right Cheek	0mm	0.095	0.108	0.058	0.055	0.059	0.051	0.059	0.049	0.065	0.044	0.071	0.044	0.043	0.052	0.055				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
LTE Band 12	10M/QPSK	23095	707.5	1	0	Right Cheek	0mm	0.153	0.166	0.105	0.163	0.041	0.033	0.061	0.043	0.036	0.042	0.044	0.101	0.099	0.129	0.039				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
LTE Band 26	15M/QPSK	26865	831.5	1	0	Right Cheek	0mm	0.159	0.174	0.068	0.061	0.087	0.098	0.067	0.153	0.131	0.068	0.178	0.039	0.126	0.074	0.048				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
LTE Band 41	20M/QPSK	40620	2593	1	0	Right Cheek	0mm	0.075	0.085	0.054	0.058	0.064	0.048	0.062	0.060	0.041	0.035	0.043	0.078	0.038	0.085	0.057				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
LTE Band 66	20M/QPSK	132322	1745	1	0	Right Cheek	0mm	0.045	0.097	0.063	0.065	0.073	0.068	0.088	0.064	0.082	0.058	0.071	0.089	0.081	0.053	0.092				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
FR1 n7	20M/QPSK	507000	2535	1	1	Right Cheek	0mm	0.052	0.065	0.051	0.048	0.046	0.040	0.061	0.057	0.038	0.034	0.042	0.039	0.043	0.027	0.039				
Mode	Service/Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																	
FR1 n66	20M/QPSK	349000	1745	1	1	Right Cheek	0mm	0.067	0.078	0.055	0.044	0.062	0.034	0.072	0.051	0.072	0.032	0.054	0.048	0.034	0.046	0.058				



verified for SAR higher than 1.2W/Kg

Table with columns: Mode, Service/Modulation, Channel, Frequency (MHz), RB Size, RB Offset, Test Position, Spacing, Measured Ig SAR (W/Kg), Average Value of Time Sweep (W/Kg) (Auto-Tune 0-20). Includes data for WCDMA II.

Table with columns: Mode, Service/Modulation, Channel, Frequency (MHz), RB Size, RB Offset, Test Position, Spacing, Measured Ig SAR (W/Kg), Average Value of Time Sweep (W/Kg) (Auto-Tune 0-20). Includes data for WCDMA IV.

Table with columns: Mode, Service/Modulation, Channel, Frequency (MHz), RB Size, RB Offset, Test Position, Spacing, Measured Ig SAR (W/Kg), Average Value of Time Sweep (W/Kg) (Auto-Tune 0-20). Includes data for LTE Band 7.

Table with columns: Mode, Service/Modulation, Channel, Frequency (MHz), RB Size, RB Offset, Test Position, Spacing, Measured Ig SAR (W/Kg), Average Value of Time Sweep (W/Kg) (Auto-Tune 0-20). Includes data for LTE Band 2.

Table with columns: Mode, Service/Modulation, Channel, Frequency (MHz), RB Size, RB Offset, Test Position, Spacing, Measured Ig SAR (W/Kg), Average Value of Time Sweep (W/Kg) (Auto-Tune 0-20). Includes data for LTE Band 41.

Table with columns: Mode, Service/Modulation, Channel, Frequency (MHz), RB Size, RB Offset, Test Position, Spacing, Measured Ig SAR (W/Kg), Average Value of Time Sweep (W/Kg) (Auto-Tune 0-20). Includes data for LTE Band 66.