

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	8.39	± 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 %

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



Appendix E. Conducted RF Output Power Table

The detailed power table are shown as follows.



Full Power Mode

GSM850	Burst Average Power (dBm)				Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251			128	189	251	
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)									
GSM 1 Tx slot	32.78	32.63	32.60	33.50	23.78	23.63	23.60	24.50	
GPRS 1 Tx slot	32.77	32.62	32.58	33.50	23.77	23.62	23.58	24.50	
GPRS 2 Tx slots	30.95	31.05	30.91	31.50	24.95	25.05	24.91	25.50	
GPRS 3 Tx slots	30.39	30.27	30.14	31.00	26.13	26.01	25.88	26.74	
GPRS 4 Tx slots	28.53	28.45	28.55	29.50	25.53	25.45	25.55	26.50	
EDGE 1 Tx slot	26.91	27.05	26.96	27.50	17.91	18.05	17.96	18.50	
EDGE 2 Tx slots	25.73	25.83	25.88	26.50	19.73	19.83	19.88	20.50	
EDGE 3 Tx slots	24.21	24.29	24.27	24.50	19.95	20.03	20.01	20.24	
EDGE 4 Tx slots	22.56	22.51	22.52	23.50	19.56	19.51	19.52	20.50	

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	1852.2	1850	1868.8		1852.2	1850	1868.8	
Frequency (MHz)								
GSM 1 Tx slot	29.86	29.81	29.94	30.50	20.86	20.81	20.94	21.50
GPRS 1 Tx slot	29.85	29.79	29.93	30.50	20.85	20.79	20.93	21.50
GPRS 2 Tx slots	28.99	29.01	29.10	29.50	22.99	23.01	23.10	23.50
GPRS 3 Tx slots	27.58	27.61	27.71	28.00	23.32	23.35	23.45	23.74
GPRS 4 Tx slots	25.96	26.06	26.20	26.50	22.96	23.06	23.20	23.50
EDGE 1 Tx slot	26.75	26.82	26.93	27.50	17.75	17.82	17.93	18.50
EDGE 2 Tx slots	25.31	25.34	25.42	25.50	19.31	19.34	19.42	19.50
EDGE 3 Tx slots	24.14	24.23	24.31	24.50	19.88	19.97	20.05	20.24
EDGE 4 Tx slots	22.16	22.14	22.22	22.50	19.16	19.14	19.22	19.50

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 12.2Kbps	22.63	22.74	22.70	24.00	22.35	22.40	22.31	24.00	22.56	22.50	22.54	24.00
3GPP Rel 99	RM12 2Kbps	22.64	22.76	22.71	24.00	22.36	22.42	22.33	24.00	22.58	22.51	22.56	24.00
3GPP Rel 6	HSDPA Subtest-1	22.28	22.36	22.19	23.00	22.23	22.28	22.24	23.00	22.38	22.30	22.34	23.00
3GPP Rel 6	HSDPA Subtest-2	22.32	22.07	22.19	23.00	22.18	22.35	22.26	23.00	22.41	22.31	22.40	23.00
3GPP Rel 6	HSDPA Subtest-3	21.81	21.46	21.68	22.50	21.77	21.78	21.73	22.50	21.95	21.86	21.86	22.50
3GPP Rel 6	HSDPA Subtest-4	21.79	21.45	21.76	22.50	21.73	21.76	21.76	22.50	21.93	21.84	21.86	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.16	22.31	22.14	23.00	22.20	22.22	22.18	23.00	22.32	22.25	22.29	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.24	21.99	22.10	23.00	22.12	22.30	22.21	23.00	22.38	22.28	22.28	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.67	21.38	21.56	22.50	21.61	21.72	21.64	22.50	21.90	21.82	21.73	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.70	21.39	21.63	22.50	21.58	21.68	21.72	22.50	21.87	21.75	21.81	22.50
3GPP Rel 6	HSUPA Subtest-1	22.29	22.28	22.20	23.00	21.96	22.07	22.02	23.00	22.38	22.29	22.28	23.00
3GPP Rel 6	HSUPA Subtest-2	20.26	20.36	20.21	21.00	20.04	20.10	20.03	21.00	20.36	20.32	20.25	21.00
3GPP Rel 6	HSUPA Subtest-3	21.30	21.37	21.19	22.00	20.98	21.03	21.02	22.00	21.38	21.27	21.32	22.00
3GPP Rel 6	HSUPA Subtest-4	20.24	20.33	20.18	21.00	20.01	20.03	20.04	21.00	20.38	20.27	20.29	21.00
3GPP Rel 6	HSUPA Subtest-5	22.20	22.40	22.20	23.00	22.00	22.10	22.00	23.00	22.40	22.30	22.30	23.00



**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.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	1870	1890	1910	24	0
20	QPSK	1	49	22.88	22.86	22.89		
20	QPSK	1	99	22.96	22.91	22.90	23	1
20	QPSK	50	0	21.88	21.96	21.92		
20	QPSK	50	24	21.92	21.90	21.92	23	1
20	QPSK	50	50	21.95	21.84	21.87		
20	QPSK	100	0	21.96	21.98	21.90	23	1
20	16QAM	1	0	22.34	22.33	22.33		
20	16QAM	1	49	22.27	22.30	22.29	22	2
20	16QAM	1	99	22.33	22.31	22.31		
20	16QAM	50	0	21.04	21.01	21.04	22	2
20	16QAM	50	24	21.08	21.07	21.08		
20	16QAM	50	50	21.11	21.01	20.99	22	2
20	16QAM	100	0	21.10	20.95	21.02		
20	64QAM	1	0	21.27	21.19	21.23	22	2
20	64QAM	1	49	21.17	21.22	21.16		
20	64QAM	1	99	21.23	21.25	21.13	21	3
20	64QAM	50	0	20.23	19.98	20.04		
20	64QAM	50	24	20.05	20.03	20.05	21	3
20	64QAM	50	50	20.08	20.00	20.01		
20	64QAM	100	0	20.10	20.00	20.03	Channel	
Frequency (MHz)								
15	QPSK	1	0	1875	1890	1915	24	0
15	QPSK	1	37	22.86	22.81	22.94		
15	QPSK	1	74	22.80	22.79	22.89	23	1
15	QPSK	35	0	21.82	21.85	21.90		
15	QPSK	35	20	21.95	21.90	21.90	23	1
15	QPSK	35	39	21.86	21.87	21.94		
15	QPSK	75	0	21.91	21.87	21.87	23	1
15	16QAM	1	0	22.29	22.26	22.29		
15	16QAM	1	37	22.32	22.28	22.34	22	2
15	16QAM	1	74	22.23	22.17	22.25		
15	16QAM	35	0	21.05	21.04	21.04	22	2
15	16QAM	35	20	21.09	21.05	21.06		
15	16QAM	35	39	21.04	21.05	21.10	22	2
15	16QAM	75	0	21.04	21.00	20.98		
15	64QAM	1	0	21.15	21.16	21.19	22	2
15	64QAM	1	37	21.14	21.18	21.24		
15	64QAM	1	74	21.11	21.11	21.13	21	3
15	64QAM	35	0	20.05	20.02	20.04		
15	64QAM	35	20	20.10	20.07	20.05	21	3
15	64QAM	35	39	20.05	20.03	20.08		
15	64QAM	75	0	20.04	20.04	20.00	Channel	
Frequency (MHz)								
10	QPSK	1	0	1855	1880	1905	24	0
10	QPSK	1	25	22.87	22.83	22.92		
10	QPSK	1	49	22.86	22.87	22.87	23	1
10	QPSK	25	0	21.87	21.87	21.88		
10	QPSK	25	12	21.89	21.87	21.95	23	1
10	QPSK	25	25	21.87	21.82	21.93		
10	QPSK	50	0	21.89	21.85	21.83	23	1
10	16QAM	1	0	22.35	22.36	22.25		
10	16QAM	1	25	22.30	22.29	22.32	22	2
10	16QAM	1	49	22.28	22.27	22.23		
10	16QAM	25	0	21.04	21.01	21.00	22	2
10	16QAM	25	12	21.02	21.02	21.09		
10	16QAM	25	25	20.98	21.02	21.05	22	2
10	16QAM	50	0	21.02	21.01	20.98		
10	64QAM	1	0	21.22	21.22	21.11	22	2
10	64QAM	1	13	21.23	21.12	21.17		
10	64QAM	1	49	21.16	21.16	21.12	21	3
10	64QAM	25	0	20.05	20.00	20.00		
10	64QAM	25	12	20.03	20.02	20.08	21	3
10	64QAM	25	25	20.00	20.00	20.05		
10	64QAM	50	0	20.02	20.00	19.95	Channel	
Frequency (MHz)								
5	QPSK	1	0	1825	1890	1915	24	0
5	QPSK	1	12	22.86	22.80	22.87		
5	QPSK	1	24	22.82	22.80	22.86	23	1
5	QPSK	12	0	21.82	21.88	21.89		
5	QPSK	12	7	21.91	21.89	21.92	23	1
5	QPSK	12	13	21.89	21.84	21.90		
5	QPSK	25	0	21.87	21.82	21.91	23	1
5	16QAM	1	0	22.19	22.18	22.23		
5	16QAM	1	12	22.24	22.19	22.21	22	2
5	16QAM	1	24	22.21	22.16	22.21		
5	16QAM	12	0	21.08	21.06	21.05	22	2
5	16QAM	12	7	21.07	21.02	21.03		
5	16QAM	12	13	21.06	21.05	21.09	22	2
5	16QAM	25	0	21.00	20.97	21.01		
5	64QAM	1	0	21.15	21.11	21.12	22	2
5	64QAM	1	12	21.20	21.12	21.14		
5	64QAM	1	24	21.09	21.06	21.07	21	3
5	64QAM	12	0	20.05	20.02	20.03		
5	64QAM	12	7	20.05	20.03	20.08	21	3
5	64QAM	12	13	20.00	20.03	20.04		
5	64QAM	25	0	19.97	19.99	20.01	Channel	
Frequency (MHz)								
3	QPSK	1	0	1851.5	1880	1908.5	24	0
3	QPSK	1	8	22.83	22.78	22.85		
3	QPSK	1	14	22.81	22.76	22.85	23	1
3	QPSK	8	0	21.80	21.85	21.86		
3	QPSK	8	4	21.84	21.89	21.91	23	1
3	QPSK	8	10	21.85	21.89	21.88		
3	QPSK	15	0	21.86	21.86	21.88	23	1
3	16QAM	1	0	22.23	22.23	22.19		
3	16QAM	1	8	22.31	22.25	22.27	22	2
3	16QAM	1	14	22.21	22.23	22.19		
3	16QAM	8	0	21.08	21.05	21.07	22	2
3	16QAM	8	4	21.14	21.13	21.13		
3	16QAM	8	7	21.10	21.09	21.08	22	2
3	16QAM	15	0	21.03	21.00	21.02		
3	64QAM	1	0	21.11	21.08	21.13	22	2
3	64QAM	1	8	21.15	21.12	21.14		
3	64QAM	1	14	21.10	21.09	21.08	21	3
3	64QAM	8	0	20.04	20.00	20.03		
3	64QAM	8	4	20.08	20.05	20.07	21	3
3	64QAM	8	7	20.04	20.03	20.03		
3	64QAM	15	0	20.00	19.94	19.99	Channel	
Frequency (MHz)								
1.4	QPSK	1	0	1850.7	1890	1903.3	24	0
1.4	QPSK	1	3	22.73	22.72	22.72		
1.4	QPSK	1	5	22.66	22.71	22.73	23	1
1.4	QPSK	3	0	22.70	22.75	22.82		
1.4	QPSK	3	1	22.71	22.78	22.83	23	1
1.4	QPSK	3	3	22.70	22.74	22.82		
1.4	QPSK	6	0	21.68	21.76	21.81	23	1
1.4	16QAM	1	0	22.06	22.11	22.08		
1.4	16QAM	1	3	22.00	22.06	22.18	23	1
1.4	16QAM	1	5	22.03	22.13	22.07		
1.4	16QAM	3	0	21.82	21.89	21.90	22	2
1.4	16QAM	3	1	21.88	21.95	21.95		
1.4	16QAM	3	3	21.83	21.88	21.92	22	2
1.4	16QAM	6	0	20.88	20.92	21.00		
1.4	64QAM	1	0	20.93	21.07	20.97	22	2
1.4	64QAM	1	3	20.96	21.08	21.02		
1.4	64QAM	1	5	20.91	21.00	20.96	22	2
1.4	64QAM	3	0	20.85	20.91	20.89		
1.4	64QAM	3	1	20.89	20.94	20.97	21	3
1.4	64QAM	3	3	20.83	20.87	20.92		
1.4	64QAM	6	0	19.81	19.86	19.90	Channel	
Frequency (MHz)								
1.4	QPSK	1	0	1760	1775	1790	24	0
1.4	QPSK	1	49	22.80	22.77	22.82		
1.4	QPSK	1	99	22.72	22.65	22.66	23	1
1.4	QPSK	50	0	21.83	21.86	21.78		
1.4	QPSK	50	24	21.81	21.81	21.71	23	1
1.4	QPSK	50	50	21.82	21.75	21.82		
1.4	QPSK	100	0	21.75	21.79	21.71	23	1
1.4	16QAM	1	0	22.09	22.21	22.19		
1.4	16QAM	1	49	22.19	22.21	22.24	22	2
1.4	16QAM	1	99	22.15	21.99	22.05		
1.4	16QAM	50	0	20.93	20.98	20.89	22	2
1.4	16QAM	50	24	20.92	20.93	20.86		
1.4	16QAM	50	50	20.95	20.87	20.93	22	2
1.4	16QAM	100	0	20.89	20.93	20.83		
1.4	64QAM	1	0	21.03	21.11	21.17	22	2
1.4	64QAM	1	49	21.08	21.11	21.13		
1.4	64QAM	1	99	21.10	21.00	20.96	21	3
1.4	64QAM	50	0	19.92	20.00	19.98		
1.4	64QAM	50	24	19.91	19.95	19.		



Band 7 (2600MHz Band)								
Part 27								
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	22.70	22.88	22.81		
20	QPSK	1	49	22.73	22.73	22.77	24	0
20	QPSK	1	99	22.80	22.78	22.83		
20	QPSK	50	0	21.78	21.84	21.85		
20	QPSK	50	24	21.79	21.82	21.85	23	1
20	QPSK	50	50	21.84	21.81	21.87		
20	QPSK	100	0	21.86	21.92	21.83		
20	16QAM	1	0	22.04	22.06	22.21		
20	16QAM	1	49	22.07	22.06	22.16	23	1
20	16QAM	1	99	22.21	22.11	22.16		
20	16QAM	50	0	20.84	20.94	20.92		
20	16QAM	50	24	20.90	20.97	20.98		
20	16QAM	50	50	21.03	20.95	21.00	22	2
20	16QAM	100	0	20.96	20.92	20.94		
20	64QAM	1	0	20.94	20.97	21.09		
20	64QAM	1	49	20.95	20.97	21.09	22	2
20	64QAM	1	99	21.03	21.03	21.06		
20	64QAM	50	0	19.81	19.93	19.90		
20	64QAM	50	24	19.85	19.85	19.92		
20	64QAM	50	50	20.01	19.94	19.93	21	3
20	64QAM	100	0	19.94	19.94	19.96		
Channel				20825	21100	21375		
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.70	22.76	22.82		
15	QPSK	1	37	22.70	22.72	22.75	24	0
15	QPSK	1	74	22.82	22.83	22.85		
15	QPSK	36	0	21.77	21.83	21.82		
15	QPSK	36	20	21.76	21.81	21.84	23	1
15	QPSK	36	39	21.78	21.83	21.88		
15	QPSK	75	0	21.75	21.83	21.85		
15	16QAM	1	0	22.09	22.11	22.20		
15	16QAM	1	37	22.05	22.06	22.15	23	1
15	16QAM	1	74	22.23	22.19	22.23		
15	16QAM	36	0	20.81	20.90	20.91		
15	16QAM	36	20	20.86	20.93	20.96	22	2
15	16QAM	36	39	20.88	20.93	20.95		
15	16QAM	75	0	20.86	20.88	20.94		
15	64QAM	1	0	21.00	21.04	21.10		
15	64QAM	1	37	20.97	20.99	21.04	22	2
15	64QAM	1	74	21.08	21.08	21.12		
15	64QAM	36	0	19.79	19.87	19.92		
15	64QAM	36	20	19.87	19.92	19.93	21	3
15	64QAM	36	39	19.84	19.91	19.95		
15	64QAM	75	0	19.87	19.88	19.93		
Channel				20800	21100	21400		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.85	22.72	22.74		
10	QPSK	1	25	22.68	22.70	22.73	24	0
10	QPSK	1	49	22.73	22.76	22.77		
10	QPSK	25	0	21.69	21.79	21.81		
10	QPSK	25	12	21.74	21.77	21.78	23	1
10	QPSK	25	25	21.76	21.76	21.84		
10	QPSK	50	0	21.72	21.80	21.80		
10	16QAM	1	0	22.04	22.07	22.13		
10	16QAM	1	25	22.04	22.07	22.12	23	1
10	16QAM	1	49	22.12	22.11	22.17		
10	16QAM	25	0	20.80	20.89	20.87		
10	16QAM	25	12	20.85	20.91	20.94	22	2
10	16QAM	25	25	20.85	20.91	20.89		
10	16QAM	50	0	20.80	20.88	20.93		
10	64QAM	1	0	20.92	20.95	21.00		
10	64QAM	1	25	20.97	20.96	21.00	22	2
10	64QAM	1	49	21.00	20.98	21.08		
10	64QAM	25	0	19.81	19.86	19.89		
10	64QAM	25	12	19.82	19.90	19.90	21	3
10	64QAM	25	25	19.82	19.90	19.91		
10	64QAM	50	0	19.79	19.87	19.91		
Channel				20775	21100	21425		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.84	22.69	22.73		
5	QPSK	1	12	22.85	22.69	22.75	24	0
5	QPSK	1	24	22.70	22.72	22.76		
5	QPSK	12	0	21.69	21.74	21.80		
5	QPSK	12	7	21.75	21.80	21.81	23	1
5	QPSK	12	13	21.75	21.77	21.80		
5	QPSK	25	0	21.71	21.77	21.80		
5	16QAM	1	0	22.00	22.01	22.10		
5	16QAM	1	12	22.02	22.04	22.07	23	1
5	16QAM	1	24	22.03	22.07	22.13		
5	16QAM	12	0	20.77	20.86	20.87		
5	16QAM	12	7	20.85	20.89	20.95	22	2
5	16QAM	12	13	20.80	20.91	20.94		
5	16QAM	25	0	20.81	20.83	20.89		
5	64QAM	1	0	20.88	20.94	21.01		
5	64QAM	1	12	20.92	20.97	21.00	22	2
5	64QAM	1	24	20.94	20.96	21.03		
5	64QAM	12	0	19.77	19.84	19.85		
5	64QAM	12	7	19.81	19.89	19.89		
5	64QAM	12	13	19.78	19.89	19.91	21	3
5	64QAM	25	0	19.80	19.83	19.87		

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	22.88	22.88	22.88		
20	QPSK	1	49	22.82	22.89	22.86	24	0
20	QPSK	1	99	22.82	22.89	22.86		
20	QPSK	50	0	21.89	22.09	21.97		
20	QPSK	50	24	22.08	21.97	21.91	23	1
20	QPSK	50	50	21.96	21.98	21.83		
20	QPSK	100	0	22.04	22.00	21.94		
20	16QAM	1	0	22.43	22.48	22.34		
20	16QAM	1	49	22.38	22.36	22.29	23	1
20	16QAM	1	99	22.24	22.16	22.09		
20	16QAM	50	0	21.21	21.17	21.11		
20	16QAM	50	24	21.17	21.13	21.09		
20	16QAM	50	50	21.11	21.06	20.98	22	2
20	16QAM	100	0	21.13	21.10	21.04		
20	64QAM	1	0	21.29	21.28	21.25		
20	64QAM	1	49	21.30	21.22	21.12	22	2
20	64QAM	1	99	21.19	21.06	21.03		
20	64QAM	50	0	20.20	20.14	20.07		
20	64QAM	50	24	20.18	20.10	20.04	21	3
20	64QAM	50	50	20.09	20.03	19.95		
20	64QAM	100	0	20.19	20.10	20.04		
Channel				132047	132322	132597		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	22.86	22.79	22.71		
15	QPSK	1	37	22.77	22.68	22.60	24	0
15	QPSK	1	74	22.68	22.62	22.55		
15	QPSK	36	0	22.05	22.01	21.90		
15	QPSK	36	20	22.03	22.01	21.89	23	1
15	QPSK	36	39	22.00	21.95	21.82		
15	QPSK	75	0	21.98	21.93	21.85		
15	16QAM	1	0	22.44	22.45	22.34		
15	16QAM	1	37	22.38	22.35	22.20	23	1
15	16QAM	1	74	22.35	22.23	22.16		
15	16QAM	36	0	21.20	21.14	21.05		
15	16QAM	36	20	21.20	21.15	21.05	22	2
15	16QAM	36	39	21.14	21.04	21.00		
15	16QAM	75	0	21.13	21.12	20.97		
15	64QAM	1	0	21.38	21.34	21.19		
15	64QAM	1	37	21.28	21.19	21.07	22	2
15	64QAM	1	74	21.20	21.07	21.02		
15	64QAM	36	0	20.18	20.13	20.07		
15	64QAM	36	20	20.20	20.12	20.04	21	3
15	64QAM	36	39	20.12	20.03	19.97		
15	64QAM	75	0	20.16	20.10	20.03		
Channel				132022	132322	132622		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	22.81	22.77	22.62		
10	QPSK	1	25	22.78	22.70	22.61	24	0
10	QPSK	1	49	22.71	22.61	22.52		
10	QPSK	25	0	22.05	21.98	21.87		
10	QPSK	25	12	22.07	21.97	21.87	23	1
10	QPSK	25	25	21.98	21.89	21.81		
10	QPSK	50						



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)				2580	2595	2610				
20	QPSK	1	0	22.70	22.95	22.89	24	0		
20	QPSK	1	49	22.82	22.78	22.85				
20	QPSK	1	99	22.83	22.80	22.87				
20	QPSK	50	0	22.41	22.42	22.40	23	1		
20	QPSK	50	24	22.41	22.37	22.38				
20	QPSK	50	50	22.38	22.33	22.39				
20	QPSK	100	0	22.39	22.41	22.39	23	1		
20	16QAM	1	0	22.52	22.50	22.56				
20	16QAM	1	49	22.47	22.41	22.52				
20	16QAM	1	99	22.44	22.40	22.51	22	2		
20	16QAM	50	0	21.53	21.50	21.51				
20	16QAM	50	24	21.54	21.50	21.52				
20	16QAM	50	50	21.52	21.47	21.53	22	2		
20	16QAM	100	0	21.51	21.46	21.53				
20	84QAM	1	0	21.24	21.22	21.31				
20	84QAM	1	49	21.18	21.17	21.27	22	2		
20	84QAM	1	99	21.22	21.19	21.21				
20	84QAM	50	0	20.47	20.42	20.45				
20	84QAM	50	24	20.45	20.43	20.43	21	3		
20	84QAM	50	50	20.46	20.39	20.44				
20	84QAM	100	0	20.55	20.51	20.59				
Channel				37925	38000	38175	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2677.5	2695	2612.5				
15	QPSK	1	0	22.87	22.88	22.89	24	0		
15	QPSK	1	37	22.90	22.82	22.85				
15	QPSK	1	74	22.86	22.87	22.95				
15	QPSK	36	0	22.43	22.34	22.40	23	1		
15	QPSK	36	20	22.44	22.38	22.39				
15	QPSK	36	39	22.38	22.36	22.40				
15	QPSK	75	0	22.42	22.38	22.41	23	1		
15	16QAM	1	0	22.51	22.47	22.59				
15	16QAM	1	37	22.56	22.44	22.52				
15	16QAM	1	74	22.57	22.45	22.57	22	2		
15	16QAM	36	0	21.52	21.45	21.48				
15	16QAM	36	20	21.52	21.49	21.52				
15	16QAM	36	39	21.48	21.43	21.47	22	2		
15	16QAM	75	0	21.55	21.51	21.53				
15	84QAM	1	0	21.32	21.24	21.29				
15	84QAM	1	37	21.27	21.18	21.26	22	2		
15	84QAM	1	74	21.32	21.21	21.34				
15	84QAM	36	0	20.54	20.48	20.52				
15	84QAM	36	20	20.55	20.50	20.55	21	3		
15	84QAM	36	39	20.53	20.48	20.52				
15	84QAM	75	0	20.51	20.51	20.53				
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2575	2595	2615				
10	QPSK	1	0	22.89	22.76	22.81	24	0		
10	QPSK	1	25	22.86	22.80	22.85				
10	QPSK	1	49	22.86	22.80	22.84				
10	QPSK	25	0	22.37	22.28	22.32	23	1		
10	QPSK	25	12	22.38	22.31	22.36				
10	QPSK	25	25	22.35	22.31	22.37				
10	QPSK	50	0	22.39	22.33	22.36	23	1		
10	16QAM	1	0	22.50	22.44	22.48				
10	16QAM	1	25	22.50	22.43	22.48				
10	16QAM	1	49	22.51	22.40	22.47	22	2		
10	16QAM	25	0	21.53	21.44	21.52				
10	16QAM	25	12	21.53	21.47	21.51				
10	16QAM	25	25	21.52	21.40	21.51	22	2		
10	16QAM	50	0	21.54	21.44	21.50				
10	84QAM	1	0	21.30	21.18	21.23				
10	84QAM	1	25	21.23	21.15	21.22	22	2		
10	84QAM	1	49	21.25	21.19	21.23				
10	84QAM	25	0	20.47	20.40	20.45				
10	84QAM	25	12	20.46	20.41	20.47	21	3		
10	84QAM	25	25	20.45	20.37	20.47				
10	84QAM	50	0	20.45	20.38	20.43				
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2672.5	2695	2617.5				
5	QPSK	1	0	22.89	22.85	22.81	24	0		
5	QPSK	1	12	22.88	22.83	22.86				
5	QPSK	1	24	22.82	22.77	22.80				
5	QPSK	12	0	22.41	22.36	22.36	23	1		
5	QPSK	12	7	22.44	22.38	22.41				
5	QPSK	12	13	22.41	22.36	22.40				
5	QPSK	25	0	22.40	22.35	22.36	23	1		
5	16QAM	1	0	22.53	22.43	22.48				
5	16QAM	1	12	22.55	22.46	22.50				
5	16QAM	1	24	22.53	22.46	22.49	22	2		
5	16QAM	12	0	21.52	21.39	21.46				
5	16QAM	12	7	21.50	21.45	21.48				
5	16QAM	12	13	21.46	21.42	21.49	22	2		
5	16QAM	25	0	21.54	21.51	21.53				
5	84QAM	1	0	21.30	21.23	21.24				
5	84QAM	1	12	21.29	21.20	21.26	22	2		
5	84QAM	1	24	21.30	21.19	21.24				
5	84QAM	12	0	20.48	20.40	20.43				
5	84QAM	12	7	20.56	20.46	20.50	21	3		
5	84QAM	12	13	20.46	20.42	20.46				
5	84QAM	25	0	20.49	20.46	20.45				

Band 41 (2.6G Band)												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				40140	40390	40640	40890	41140				
Frequency (MHz)				2545	2570	2595	2620	2645				
20	QPSK	1	0	22.64	22.71	22.85	22.98	22.88	24	0		
20	QPSK	1	49	22.68	22.78	22.90	22.81	22.93				
20	QPSK	1	99	22.84	22.82	22.92	22.86	22.95				
20	QPSK	50	0	21.79	21.85	21.93	22.00	21.96	23	1		
20	QPSK	50	24	21.86	21.89	21.96	21.83	21.99				
20	QPSK	50	50	21.83	21.86	21.90	21.88	21.93				
20	QPSK	100	0	21.84	21.79	21.92	21.95	21.95	23	1		
20	16QAM	1	0	21.91	21.88	21.99	21.91	22.02				
20	16QAM	1	49	21.90	21.91	22.00	21.94	22.03				
20	16QAM	1	99	21.95	22.00	22.00	21.98	22.03	22	2		
20	16QAM	50	0	20.90	20.96	21.05	20.97	21.08				
20	16QAM	50	24	20.97	20.95	21.07	20.99	21.10				
20	16QAM	50	50	20.97	20.96	21.06	21.00	21.09	22	2		
20	16QAM	100	0	20.93	20.98	20.96	20.98	21.07				
20	84QAM	1	0	20.89	20.80	20.78	20.91	21.03				
20	84QAM	1	49	20.82	20.97	20.95	20.93	21.03	22	2		
20	84QAM	1	99	20.74	20.95	20.93	20.92	21.00				
20	84QAM	50	0	20.05	20.12	20.10	20.14	20.28				
20	84QAM	50	24	20.14	20.11	20.09	20.10	20.22	21	3		
20	84QAM	50	50	20.09	20.14	20.12	20.14	20.24				
20	84QAM	100	0	20.19	20.21	20.19	20.23	20.32				
Channel				40115	40378	40640	40903	41165	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5				
15	QPSK	1	0	22.72	22.77	22.69	22.78	22.82	24	0		
15	QPSK	1	37	22.73	22.81	22.70	22.77	22.84				
15	QPSK	1	74	22.87	22.83	22.84	22.83	22.97				
15	QPSK	36	0	21.74	21.82	21.71	21.79	21.92	23	1		
15	QPSK	36	20	21.88	21.82	21.85	21.86	21.95				
15	QPSK	36	39	21.88	21.81	21.85	21.83	21.91				
15	QPSK	75	0	21.86	21.82	21.83	21.77	21.93	23	1		
15	16QAM	1	0	21.85	21.87	22.07	22.03	22.10				
15	16QAM	1	37	21.91	21.90	21.99	21.96	22.02				
15	16QAM	1	74	21.99	21.94	21.98	22.07	22.01	23	1		
15	16QAM	36	0	20.83	20.90	20.95	20.88	20.98				
15	16QAM	36	20	20.90	20.91	20.98	20.90	21.01				
15	16QAM	36	39	20.90	20.91	20.99	20.88	21.02	22	2		
15	16QAM	75										



Reduced Power Mode for Sensor on/Hotspot on

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	128	189		251	128	189	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	30.87	30.93	31.06	31.50	21.87	21.93	22.06	22.50
GPRS 1 Tx slot	30.86	30.92	31.05	31.50	21.86	21.92	22.05	22.50
GPRS 2 Tx slots	28.82	28.77	28.91	29.50	22.82	22.77	22.91	23.50
GPRS 3 Tx slots	28.06	28.00	27.99	29.00	23.80	23.74	23.73	24.74
GPRS 1 Tx slots	26.37	26.27	26.39	27.50	23.37	23.27	23.39	24.50
EDGE 1 Tx slot	25.27	25.30	25.28	25.50	16.27	16.30	16.28	16.50
EDGE 2 Tx slots	23.71	23.71	23.75	24.50	17.71	17.71	17.75	18.50
EDGE 3 Tx slots	22.36	22.35	22.37	22.50	18.10	18.09	18.11	18.24
EDGE 4 Tx slots	20.57	20.59	20.62	21.50	17.57	17.59	17.62	18.50

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	512	661		810	512	661	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	21.05	21.11	21.13	21.50	12.05	12.11	12.13	12.50
GPRS 1 Tx slot	21.05	21.10	21.12	21.50	12.05	12.10	12.12	12.50
GPRS 2 Tx slots	20.11	19.97	19.95	20.50	14.11	13.97	13.95	14.50
GPRS 3 Tx slots	18.31	18.32	18.30	19.00	14.05	14.06	14.04	14.74
GPRS 1 Tx slots	17.06	17.16	17.17	17.50	14.06	14.16	14.17	14.50
EDGE 1 Tx slot	17.97	17.88	17.99	18.50	9.97	9.88	9.99	9.50
EDGE 2 Tx slots	15.31	15.21	15.34	16.50	9.31	9.21	9.34	10.50
EDGE 3 Tx slots	14.68	14.63	14.62	15.50	10.42	10.37	10.66	11.24
EDGE 4 Tx slots	12.76	12.76	12.50	13.50	9.76	9.76	9.50	10.50

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 12.2kbps	12.45	12.46	12.35	13.00	12.18	12.29	12.14	13.00	20.06	19.96	19.96	21.50
3GPP Rel 99	RMC 12.2kbps	12.46	12.47	12.36	13.00	12.19	12.31	12.15	13.00	20.07	19.98	19.97	21.50
3GPP Rel 6	HSDPA Subtest-1	11.75	11.55	11.61	12.00	11.82	11.81	11.62	12.00	19.86	19.74	19.79	20.50
3GPP Rel 6	HSDPA Subtest-2	11.72	11.57	11.61	12.00	11.83	11.80	11.58	12.00	19.70	19.60	19.58	20.50
3GPP Rel 6	HSDPA Subtest-3	11.23	11.01	11.03	11.50	11.27	11.30	11.11	11.50	19.20	19.05	19.12	20.00
3GPP Rel 6	HSDPA Subtest-4	11.27	11.00	11.04	11.50	11.32	11.29	11.12	11.50	19.20	19.10	19.12	20.00
3GPP Rel 8	DC-HSDPA Subtest-1	11.63	11.42	11.52	12.00	11.70	11.68	11.53	12.00	19.63	19.64	19.63	20.50
3GPP Rel 8	DC-HSDPA Subtest-2	11.70	11.47	11.52	12.00	11.70	11.51	11.52	12.00	19.59	19.61	19.70	20.50
3GPP Rel 8	DC-HSDPA Subtest-3	11.11	10.88	10.94	11.50	11.15	11.17	11.02	11.50	19.14	19.10	19.12	20.00
3GPP Rel 8	DC-HSDPA Subtest-4	11.21	10.87	10.95	11.50	11.14	11.16	11.03	11.50	19.05	19.15	19.23	20.00
3GPP Rel 6	HSUPA Subtest-1	11.68	11.43	11.51	12.00	11.63	11.61	11.42	12.00	19.67	19.58	19.55	20.50
3GPP Rel 6	HSUPA Subtest-2	9.69	9.48	9.52	10.00	9.63	9.63	9.45	10.00	17.67	17.60	17.61	18.50
3GPP Rel 6	HSUPA Subtest-3	10.67	10.44	10.53	11.00	10.66	10.60	10.43	11.00	18.65	18.57	18.61	19.50
3GPP Rel 6	HSUPA Subtest-4	9.71	9.46	9.52	10.00	9.62	9.68	9.43	10.00	17.62	17.55	17.57	18.50
3GPP Rel 6	HSUPA Subtest-5	11.70	11.50	11.50	12.00	11.63	11.63	11.43	12.00	19.70	19.60	19.60	20.50



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.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	1850	1860	1870			
20	QPSK	1	49	1239	1229	1242	13	0	
20	QPSK	1	99	1229	1226	1228			
20	QPSK	50	0	1243	1245	1243			
20	QPSK	50	24	1233	1232	1240	13	0	
20	QPSK	50	50	1237	1220	1235			
20	QPSK	100	0	1241	1243	1236			
20	16QAM	1	0	1242	1244	1248			
20	16QAM	1	49	1232	1239	1245	13	0	
20	16QAM	1	99	1229	1237	1227			
20	16QAM	50	0	1231	1215	1226			
20	16QAM	50	24	1225	1215	1233			
20	16QAM	50	50	1217	1200	1218	13	0	
20	16QAM	100	0	1221	1207	1217			
20	16QAM	1	0	1240	1230	1244			
20	16QAM	1	49	1235	1225	1241	13	0	
20	16QAM	1	99	1215	1200	1215			
20	16QAM	50	0	1232	1214	1225			
20	16QAM	50	24	1223	1213	1232			
20	16QAM	50	50	1213	1200	1217	13	0	
20	16QAM	100	0	1222	1208	1218			
Channel									
Frequency (MHz)									
15	QPSK	1	0	1875	1890	19125			
15	QPSK	1	37	1231	1225	1239	13	0	
15	QPSK	1	74	1227	1209	1217			
15	QPSK	36	0	1238	1232	1248			
15	QPSK	36	20	1246	1230	1242	13	0	
15	QPSK	36	39	1239	1222	1232			
15	QPSK	75	0	1246	1228	1240			
15	16QAM	1	0	1245	1243	1245			
15	16QAM	1	37	1237	1236	1248	13	0	
15	16QAM	1	74	1233	1213	1227			
15	16QAM	36	0	1216	1216	1229			
15	16QAM	36	20	1238	1232	1248	13	0	
15	16QAM	36	39	1237	1200	1215			
15	16QAM	75	0	1227	1208	1219			
15	16QAM	1	0	1234	1232	1245			
15	16QAM	1	37	1223	1226	1238	13	0	
15	16QAM	1	74	1223	1202	1218			
15	16QAM	36	0	1216	1216	1228			
15	16QAM	36	20	1230	1216	1224	13	0	
15	16QAM	36	39	1217	1199	1218			
15	16QAM	75	0	1226	1208	1222			
Channel									
Frequency (MHz)									
10	QPSK	1	0	1855	1880	19150			
10	QPSK	1	25	1241	1240	1247	13	0	
10	QPSK	1	49	1240	1220	1221			
10	QPSK	25	0	1240	1232	1240			
10	QPSK	25	12	1240	1231	1237	13	0	
10	QPSK	25	25	1243	1223	1229			
10	QPSK	50	0	1239	1237	1238			
10	16QAM	1	0	1239	1238	1246			
10	16QAM	1	25	1233	1233	1228	13	0	
10	16QAM	1	49	1222	1215	1223			
10	16QAM	25	0	1218	1214	1220			
10	16QAM	25	12	1224	1207	1211	13	0	
10	16QAM	25	25	1228	1213	1219			
10	16QAM	50	0	1244	1240	1241			
10	16QAM	50	12	1226	1229	1234	13	0	
10	16QAM	50	25	1217	1205	1216			
10	16QAM	25	0	1220	1215	1224			
10	16QAM	25	12	1217	1213	1220			
10	16QAM	25	12	1225	1207	1211	13	0	
10	16QAM	25	25	1227	1210	1218			
10	16QAM	50	0	1237	1240	1248			
Channel									
Frequency (MHz)									
5	QPSK	1	0	18625	18900	19175			
5	QPSK	1	12	1243	1229	1233	13	0	
5	QPSK	1	25	1238	1227	1232			
5	QPSK	1	49	1228	1218	1218			
5	QPSK	12	0	1245	1229	1238	13	0	
5	QPSK	12	7	1246	1229	1237			
5	QPSK	12	13	1236	1226	1232			
5	QPSK	25	0	1242	1224	1234			
5	16QAM	1	0	1240	1237	1241			
5	16QAM	1	12	1242	1236	1242	13	0	
5	16QAM	1	24	1233	1229	1230			
5	16QAM	12	0	1211	1216	1222			
5	16QAM	12	7	1221	1213	1218	13	0	
5	16QAM	12	13	1215	1209	1215			
5	16QAM	25	0	1219	1210	1216			
5	16QAM	25	0	1229	1225	1233			
5	16QAM	1	12	1230	1222	1227	13	0	
5	16QAM	1	24	1223	1214	1218			
5	16QAM	12	0	1221	1215	1217			
5	16QAM	12	7	1217	1213	1220	13	0	
5	16QAM	12	13	1215	1208	1212			
5	16QAM	25	0	1218	1210	1213			
Channel									
Frequency (MHz)									
3	QPSK	1	0	18515	1880	19085			
3	QPSK	1	8	1228	1224	1238	13	0	
3	QPSK	1	14	1226	1204	1212			
3	QPSK	8	0	1235	1229	1247			
3	QPSK	8	4	1241	1227	1237	13	0	
3	QPSK	8	7	1238	1217	1231			
3	QPSK	15	0	1243	1225	1237			
3	16QAM	1	0	1244	1242	1250			
3	16QAM	1	8	1232	1231	1247	13	0	
3	16QAM	1	14	1232	1212	1224			
3	16QAM	8	0	1211	1211	1228			
3	16QAM	8	4	1231	1213	1221	13	0	
3	16QAM	8	7	1226	1199	1210			
3	16QAM	15	0	1226	1203	1218			
3	16QAM	1	0	1233	1229	1244			
3	16QAM	1	8	1218	1225	1233	13	0	
3	16QAM	1	14	1222	1197	1217			
3	16QAM	8	0	1213	1215	1225			
3	16QAM	8	4	1225	1215	1219	13	0	
3	16QAM	8	7	1214	1194	1217			
3	16QAM	15	0	1225	1207	1217			
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	18507	1880	19033			
1.4	QPSK	1	3	1231	1226	1238	13	0	
1.4	QPSK	1	3	1225	1223	1237			
1.4	QPSK	1	5	1225	1199	1207			
1.4	QPSK	3	0	1232	1226	1246			
1.4	QPSK	3	1	1236	1224	1232	13	0	
1.4	QPSK	3	3	1237	1212	1230			
1.4	QPSK	6	0	1240	1222	1234	13	0	
1.4	16QAM	1	0	1243	1241	1245			
1.4	16QAM	1	3	1227	1226	1246			
1.4	16QAM	1	5	1231	1211	1221	13	0	
1.4	16QAM	3	0	1206	1206	1227			
1.4	16QAM	3	1	1230	1210	1216			
1.4	16QAM	3	3	1207	1198	1205			
1.4	16QAM	6	0	1225	1198	1217	13	0	
1.4	16QAM	1	0	1232	1226	1233			
1.4	16QAM	1	3	1213	1224	1228			
1.4	16QAM	1	5	1221	1192	1216			
1.4	16QAM	3	0	1210	1214	1222	13	0	
1.4	16QAM	3	1	1220	1214	1214			
1.4	16QAM	3	3	1211	1189	1216			
1.4	16QAM	6	0	1224	1206	1220	13	0	

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.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	1720	1746	1742			
20	QPSK	1	49	1233	1228	1217	13	0	
20	QPSK	1	99	1220	1211	1200			
20	QPSK	50	0	1237	1245	1219			
20	QPSK	50	24	1232	1229	1224	13	0	
20	QPSK	50	50	1232	1217	1207			
20	QPSK	100	0	1236	1237	1222			
20	16QAM	1	0	1238	1239	1227			



Band 7 (2600MHz Band)									
Part 27									
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)				2570	2595	2620			
20	QPSK	1	0	15.33	15.61	15.29			
20	QPSK	1	49	15.26	15.33	15.45	16	0	
20	QPSK	1	99	15.30	15.37	15.44			
20	QPSK	50	0	15.23	15.36	15.29			
20	QPSK	50	24	15.28	15.28	15.35			
20	QPSK	50	50	15.27	15.24	15.28	16	0	
20	QPSK	100	0	15.27	15.34	15.33			
20	16QAM	1	0	15.24	15.14	15.40			
20	16QAM	1	49	15.26	15.31	15.33	16	0	
20	16QAM	1	99	15.26	15.24	15.35			
20	16QAM	50	0	15.25	15.24	15.48			
20	16QAM	50	24	15.39	15.36	15.48			
20	16QAM	50	50	15.36	15.36	15.30	16	0	
20	16QAM	100	0	15.32	15.35	15.45			
20	16QAM	1	0	15.48	15.48	15.37			
20	16QAM	1	49	15.49	15.33	15.39	16	0	
20	16QAM	1	99	15.56	15.27	15.39			
20	16QAM	50	0	15.31	15.31	15.40			
20	16QAM	50	24	15.35	15.33	15.46	16	0	
20	16QAM	50	50	15.34	15.34	15.57			
20	16QAM	100	0	15.35	15.37	15.45			
Channel				20825	21100	21375			
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	15.44	15.38	15.52			
15	QPSK	1	37	15.44	15.34	15.60	16	0	
15	QPSK	1	74	15.25	15.31	15.53			
15	QPSK	36	0	15.26	15.24	15.35			
15	QPSK	36	20	15.25	15.24	15.48	16	0	
15	QPSK	36	39	15.25	15.25	15.46			
15	QPSK	75	0	15.23	15.21	15.37			
15	16QAM	1	0	15.24	15.23	15.38			
15	16QAM	1	37	15.22	15.21	15.39	16	0	
15	16QAM	1	74	15.36	15.29	15.26			
15	16QAM	36	0	15.33	15.34	15.48			
15	16QAM	36	20	15.40	15.36	15.60	16	0	
15	16QAM	36	39	15.37	15.37	15.57			
15	16QAM	75	0	15.36	15.33	15.47			
15	16QAM	1	0	15.31	15.29	15.32			
15	16QAM	1	37	15.29	15.28	15.48	16	0	
15	16QAM	1	74	15.36	15.38	15.59			
15	16QAM	36	0	15.09	15.12	15.26			
15	16QAM	36	20	15.18	15.14	15.38	16	0	
15	16QAM	36	39	15.15	15.15	15.36			
15	16QAM	75	0	15.14	15.11	15.25			
Channel				20930	21100	21400			
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	15.36	15.38	15.55			
10	QPSK	1	25	15.35	15.38	15.59	16	0	
10	QPSK	1	49	15.23	15.22	15.44			
10	QPSK	25	0	15.17	15.20	15.40			
10	QPSK	25	12	15.19	15.21	15.46	16	0	
10	QPSK	25	25	15.21	15.20	15.43			
10	QPSK	50	0	15.22	15.23	15.41			
10	16QAM	1	0	15.20	15.18	15.42	16	0	
10	16QAM	1	25	15.20	15.24	15.42			
10	16QAM	1	49	15.24	15.27	15.44			
10	16QAM	25	0	15.32	15.30	15.53			
10	16QAM	25	12	15.35	15.33	15.54	16	0	
10	16QAM	25	25	15.33	15.32	15.56			
10	16QAM	50	0	15.31	15.33	15.55			
10	16QAM	1	0	15.25	15.26	15.42			
10	16QAM	1	25	15.24	15.24	15.46	16	0	
10	16QAM	1	49	15.32	15.29	15.55			
10	16QAM	25	0	15.09	15.10	15.32			
10	16QAM	25	12	15.14	15.10	15.34	16	0	
10	16QAM	25	25	15.11	15.12	15.35			
10	16QAM	50	0	15.09	15.11	15.32			
Channel				20775	21100	21425			
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	0	15.35	15.34	15.54			
5	QPSK	1	12	15.34	15.37	15.58	16	0	
5	QPSK	1	24	15.19	15.20	15.41			
5	QPSK	12	0	15.22	15.19	15.44			
5	QPSK	12	7	15.26	15.22	15.46	16	0	
5	QPSK	12	13	15.23	15.22	15.44			
5	QPSK	25	0	15.19	15.18	15.42			
5	16QAM	1	0	15.17	15.16	15.43			
5	16QAM	1	12	15.18	15.23	15.40	16	0	
5	16QAM	1	24	15.15	15.17	15.46			
5	16QAM	12	0	15.33	15.30	15.54			
5	16QAM	12	7	15.37	15.37	15.60	16	0	
5	16QAM	12	13	15.35	15.35	15.58			
5	16QAM	25	0	15.30	15.30	15.52			
5	16QAM	1	0	15.20	15.25	15.48			
5	16QAM	1	12	15.20	15.24	15.50	16	0	
5	16QAM	1	24	15.32	15.24	15.50			
5	16QAM	12	0	15.10	15.09	15.33			
5	16QAM	12	7	15.13	15.12	15.37	16	0	
5	16QAM	12	13	15.13	15.10	15.34			
5	16QAM	25	0	15.09	15.07	15.31			

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	12.20	12.23	12.41			
20	QPSK	1	49	12.23	12.24	12.34	13	0	
20	QPSK	1	99	12.18	12.26	12.30			
20	QPSK	50	0	12.25	12.35	12.30			
20	QPSK	50	24	12.07	12.03	12.01	13	0	
20	QPSK	50	50	12.02	12.03	12.10			
20	QPSK	100	0	12.08	12.23	12.11			
20	16QAM	1	0	12.37	12.34	12.34			
20	16QAM	1	49	12.23	12.33	12.41	13	0	
20	16QAM	1	99	12.20	12.43	12.43			
20	16QAM	50	0	12.06	12.11	12.11			
20	16QAM	50	24	12.15	12.09	12.12			
20	16QAM	50	50	12.09	12.04	12.20	13	0	
20	16QAM	100	0	12.14	12.06	12.08			
20	16QAM	1	0	12.18	12.16	12.32			
20	16QAM	1	49	12.22	12.12	12.40	13	0	
20	16QAM	1	99	12.16	12.30	12.31			
20	16QAM	50	0	12.06	12.11	12.12			
20	16QAM	50	24	12.09	12.10	12.14	13	0	
20	16QAM	50	50	12.09	12.05	12.16			
20	16QAM	100	0	12.08	12.07	12.04			
Channel				132047	132322	132597			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	12.22	12.34	12.22			
15	QPSK	1	37	12.22	12.19	12.34	13	0	
15	QPSK	1	74	12.25	12.16	12.31			
15	QPSK	36	0	12.27	12.31	12.24			
15	QPSK	36	20	12.00	12.02	12.09	13	0	
15	QPSK	36	39	12.06	11.93	12.06			
15	QPSK	75	0	12.02	12.00	11.96			
15	16QAM	1	0	12.39	12.41	12.34			
15	16QAM	1	37	12.29	12.26	12.42	13	0	
15	16QAM	1	74	12.27	12.19	12.44			
15	16QAM	36	0	12.06	12.05	12.11			
15	16QAM	36	20	12.11	12.36	12.24	13	0	
15	16QAM	36	39	12.09	12.01	12.17			
15	16QAM	75	0	12.14	12.05	12.10			
15	16QAM	1	0	12.25	12.32	12.29			
15	16QAM	1	37	12.25	12.30	12.41	13	0	
15	16QAM	1	74	12.27	12.20	12.25			
15	16QAM	36	0	12.11	12.11	12.09			
15	16QAM	36	20	12.14	12.14	12.27	13	0	
15	16QAM	36	39	12.21	12.07	12.21			
15	16QAM	75	0						



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)				2580	2595	2610				
20	QPSK	1	0	19.23	19.23	19.22	19.5	0		
20	QPSK	1	49	19.27	19.25	19.24				
20	QPSK	1	99	19.25	19.29	19.20				
20	QPSK	50	0	19.01	18.98	19.02	19.5	0		
20	QPSK	50	24	19.03	19.02	19.00				
20	QPSK	50	50	19.04	19.01	19.04				
20	QPSK	100	0	19.03	19.02	19.02	19.5	0		
20	16QAM	1	0	19.14	19.11	19.14				
20	16QAM	1	49	19.16	19.12	19.16				
20	16QAM	1	99	19.22	19.17	19.24	19.5	0		
20	16QAM	50	0	19.14	19.07	19.12				
20	16QAM	50	24	19.13	19.13	19.12				
20	16QAM	50	50	19.17	19.12	19.17	19.5	0		
20	16QAM	100	0	19.14	19.11	19.10				
20	64QAM	1	0	18.88	18.81	18.88				
20	64QAM	1	49	18.88	18.84	18.88	19.5	0		
20	64QAM	1	99	18.94	18.91	18.91				
20	64QAM	50	0	19.07	19.03	19.06				
20	64QAM	50	24	19.06	19.09	19.07	19.5	0		
20	64QAM	50	50	19.10	19.05	19.09				
20	64QAM	100	0	19.18	19.15	19.18				
Channel				37925	38000	38175	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2577.5	2595	2612.5				
15	QPSK	1	0	18.91	18.92	18.93	19.5	0		
15	QPSK	1	37	18.94	18.90	18.90				
15	QPSK	1	74	19.01	19.01	19.02				
15	QPSK	36	0	18.93	18.91	18.98	19.5	0		
15	QPSK	36	20	18.98	18.98	19.02				
15	QPSK	36	39	18.96	18.97	19.00				
15	QPSK	75	0	18.95	18.97	18.97	19.5	0		
15	16QAM	1	0	19.10	19.10	19.15				
15	16QAM	1	37	19.09	19.07	19.09				
15	16QAM	1	74	19.21	19.23	19.20	19.5	0		
15	16QAM	36	0	19.04	19.00	19.00				
15	16QAM	36	20	19.09	19.02	19.04				
15	16QAM	36	39	19.10	19.05	19.08	19.5	0		
15	16QAM	75	0	19.09	19.06	19.06				
15	64QAM	1	0	18.84	18.83	18.82				
15	64QAM	1	37	18.81	18.77	18.78	19.5	0		
15	64QAM	1	74	18.93	18.89	18.93				
15	64QAM	36	0	19.05	19.04	19.10				
15	64QAM	36	20	19.11	19.11	19.07	19.5	0		
15	64QAM	36	39	19.11	19.12	19.14				
15	64QAM	75	0	19.10	19.08	19.09				
Channel				37900	38000	38200	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2575	2595	2615				
10	QPSK	1	0	18.89	18.85	18.90	19.5	0		
10	QPSK	1	25	18.89	18.87	18.91				
10	QPSK	1	49	18.96	18.96	18.98				
10	QPSK	25	0	18.88	18.87	18.89	19.5	0		
10	QPSK	25	12	18.94	18.92	18.96				
10	QPSK	25	25	18.92	18.93	18.94				
10	QPSK	50	0	18.96	18.96	18.97	19.5	0		
10	16QAM	1	0	19.05	19.05	19.05				
10	16QAM	1	25	19.05	19.05	19.06				
10	16QAM	1	49	19.11	19.05	19.15	19.5	0		
10	16QAM	25	0	19.04	19.03	19.05				
10	16QAM	25	12	19.06	19.05	19.08				
10	16QAM	25	25	19.08	19.08	19.07	19.5	0		
10	16QAM	50	0	19.07	19.05	19.08				
10	64QAM	1	0	18.79	18.78	18.81				
10	64QAM	1	25	18.79	18.74	18.79	19.5	0		
10	64QAM	1	49	18.82	18.83	18.88				
10	64QAM	25	0	18.98	18.98	19.00				
10	64QAM	25	12	19.03	19.03	19.04	19.5	0		
10	64QAM	25	25	19.01	19.01	19.05				
10	64QAM	50	0	19.00	18.96	18.99				
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2572.5	2595	2617.5				
5	QPSK	1	0	18.90	18.84	18.91	19.5	0		
5	QPSK	1	12	18.92	18.93	18.95				
5	QPSK	1	24	18.85	18.84	18.92				
5	QPSK	12	0	18.95	18.90	18.95	19.5	0		
5	QPSK	12	7	18.96	18.93	19.00				
5	QPSK	12	13	18.96	18.92	18.99				
5	QPSK	25	0	18.94	18.91	18.96	19.5	0		
5	16QAM	1	0	19.04	19.04	19.07				
5	16QAM	1	12	19.08	19.07	19.09				
5	16QAM	1	24	19.11	19.08	19.13	19.5	0		
5	16QAM	12	0	19.00	18.96	19.03				
5	16QAM	12	7	19.04	19.04	19.05				
5	16QAM	12	13	19.03	19.03	19.05	19.5	0		
5	16QAM	25	0	19.07	19.06	19.12				
5	64QAM	1	0	18.81	18.79	18.85				
5	64QAM	1	12	18.83	18.75	18.82	19.5	0		
5	64QAM	1	24	18.85	18.78	18.87				
5	64QAM	12	0	18.99	18.97	19.01				
5	64QAM	12	7	19.05	19.00	19.06	19.5	0		
5	64QAM	12	13	19.04	19.00	19.04				
5	64QAM	25	0	18.99	19.00	19.04				

Band 41 (2.6G Band)												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				40140	40390	40640	40890	41140				
Frequency (MHz)				2545	2570	2595	2620	2645				
20	QPSK	1	0	19.16	19.11	19.15	19.32	19.23	19.5	0		
20	QPSK	1	49	19.00	19.00	19.12	19.00	19.12				
20	QPSK	1	99	19.03	18.92	19.10	18.96	19.12				
20	QPSK	50	0	19.11	19.11	19.14	19.23	19.22	19.5	0		
20	QPSK	50	24	19.08	19.08	19.14	19.10	19.19				
20	QPSK	50	50	19.11	19.00	19.08	19.03	19.18				
20	QPSK	100	0	19.16	19.05	19.09	19.20	19.19	19.5	0		
20	16QAM	1	0	19.25	19.30	19.31	19.25	19.15				
20	16QAM	1	49	19.20	19.16	19.21	19.18	19.30				
20	16QAM	1	99	19.22	19.07	19.23	19.12	19.28	19.5	0		
20	16QAM	50	0	19.26	19.22	19.14	19.22	19.31				
20	16QAM	50	24	19.25	19.17	19.09	19.17	19.27				
20	16QAM	50	50	19.30	19.11	19.12	19.11	19.27	19.5	0		
20	16QAM	100	0	19.30	19.16	19.15	19.13	19.26				
20	64QAM	1	0	19.05	19.07	18.93	19.01	19.10				
20	64QAM	1	49	18.92	18.85	18.84	18.87	18.97	19.5	0		
20	64QAM	1	99	18.95	18.79	18.64	18.80	18.96				
20	64QAM	50	0	18.71	18.68	19.01	18.63	18.77				
20	64QAM	50	24	18.69	18.62	18.92	18.63	18.75	19.5	0		
20	64QAM	50	50	18.73	18.57	18.87	18.55	18.70				
20	64QAM	100	0	18.85	18.71	18.99	18.68	18.80				
Channel				40115	40378	40640	40903	41165	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5				
15	QPSK	1	0	18.99	19.08	19.10	19.08	19.14	19.5	0		
15	QPSK	1	37	18.94	18.98	18.98	19.09	19.12				
15	QPSK	1	74	18.94	18.94	19.02	19.09	19.10				
15	QPSK	36	0	18.98	19.01	19.02	19.09	19.14	19.5	0		
15	QPSK	36	20	18.91	19.00	19.03	19.12	19.14				
15	QPSK	36	39	18.90	18.92	18.94	19.08	19.08				
15	QPSK	75	0	18.90	18.97	19.03	19.14	19.09	19.5	0		
15	16QAM	1	0	19.23	19.25	19.27	19.28	19.31				
15	16QAM	1	37	19.19	19.13	19.13	19.25	19.21				
15	16QAM	1	74	19.16	19.09	19.16	19.20	19.23	19.5	0		
15	16QAM	36	0	19.11	19.06	19.11	19.19	19.14				
15	16QAM	36	20	19.10	19.04	19.10	19.23	19.09				
15	16QAM	36	39	19.07	19.00	19.						

Reduced Power Mode for Handheld on

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	
	TX Channel	9262	9400		9538	1312	1413		1513
Rx Channel	9662	9800	9938		1537	1638	1738		
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		
3GPP Rel 99	AMR 12.2Kbps	18.23	18.27	18.15	20.00	18.50	18.51	18.38	19.00
3GPP Rel 99	RM-C 12.2Kbps	18.24	18.28	18.16	20.00	18.51	18.52	18.39	19.00
3GPP Rel 6	HSDPA Subtest-1	17.88	17.70	17.64	19.00	17.71	17.70	17.73	18.00
3GPP Rel 6	HSDPA Subtest-2	17.85	17.72	17.66	19.00	17.50	17.49	17.29	18.00
3GPP Rel 6	HSDPA Subtest-3	17.36	17.16	17.10	18.50	17.02	17.19	17.02	17.50
3GPP Rel 6	HSDPA Subtest-4	17.40	17.15	17.09	18.50	17.05	17.18	17.03	17.50
3GPP Rel 8	DC-HSDPA Subtest-1	17.77	17.70	17.64	19.00	17.52	17.62	17.50	18.00
3GPP Rel 8	DC-HSDPA Subtest-2	17.76	17.68	17.62	19.00	17.50	17.61	17.46	18.00
3GPP Rel 8	DC-HSDPA Subtest-3	16.91	16.60	17.04	18.50	17.02	17.11	16.99	17.50
3GPP Rel 8	DC-HSDPA Subtest-4	16.90	16.65	17.09	18.50	17.00	17.10	17.00	17.50
3GPP Rel 6	HSUPA Subtest-1	17.81	17.58	17.52	19.00	17.39	17.66	17.64	18.00
3GPP Rel 6	HSUPA Subtest-2	15.82	15.63	15.57	17.00	15.70	15.66	15.64	16.00
3GPP Rel 6	HSUPA Subtest-3	16.80	16.59	16.53	18.00	16.40	16.65	16.63	17.00
3GPP Rel 6	HSUPA Subtest-4	15.84	15.61	15.55	17.00	15.53	15.62	15.60	16.00
3GPP Rel 6	HSUPA Subtest-5	17.70	17.60	17.60	19.00	17.30	17.60	17.50	18.00



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.	Tune-up limit (dBm)	MPR (dB)	
Channel				18700	18800	19100			
Frequency (MHz)									
20	QPSK	1	0	18.98	18.99	18.97			
20	QPSK	1	49	18.99	19.00	18.92	20	0	
20	QPSK	1	99	18.98	18.92	18.79			
20	QPSK	50	0	18.99	19.05	18.93			
20	QPSK	50	24	19.00	19.03	18.94	20	0	
20	QPSK	50	50	18.92	18.95	18.85			
20	QPSK	100	0	18.93	18.97	18.91			
20	16QAM	1	0	18.92	18.97	18.92	20	0	
20	16QAM	1	49	18.93	18.95	18.93			
20	16QAM	1	99	18.97	18.92	18.76			
20	16QAM	50	0	18.99	18.97	18.91			
20	16QAM	50	24	18.99	18.99	18.89	20	0	
20	16QAM	50	50	18.92	18.92	18.81			
20	16QAM	100	0	18.92	18.90	18.85			
20	16QAM	1	0	18.99	18.95	18.90			
20	64QAM	1	49	18.94	18.99	18.88	20	0	
20	64QAM	1	99	18.93	18.86	18.71			
20	64QAM	50	0	18.75	18.75	18.70			
20	64QAM	50	24	18.77	18.77	18.71	20	0	
20	64QAM	50	50	18.80	18.69	18.60			
20	64QAM	100	0	18.88	18.72	18.64			
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	0	18.85	18.89	18.84			
15	QPSK	1	37	18.88	18.87	18.77	20	0	
15	QPSK	1	74	18.78	18.82	18.66			
15	QPSK	36	0	18.92	18.92	18.83			
15	QPSK	36	20	18.95	18.95	18.84	20	0	
15	QPSK	36	39	18.90	18.88	18.78			
15	QPSK	75	0	18.88	18.86	18.80			
15	16QAM	1	0	18.94	18.93	18.90			
15	16QAM	1	37	18.93	18.98	18.86	20	0	
15	16QAM	1	74	18.85	18.92	18.76			
15	16QAM	36	0	18.89	18.70	18.60			
15	16QAM	36	20	18.72	18.71	18.58	20	0	
15	16QAM	36	39	18.66	18.63	18.52			
15	16QAM	75	0	18.66	18.63	18.54			
15	64QAM	1	0	18.84	18.85	18.74			
15	64QAM	1	37	18.81	18.83	18.75	20	0	
15	64QAM	1	74	18.77	18.76	18.65			
15	64QAM	36	0	18.67	18.68	18.59			
15	64QAM	36	20	18.70	18.72	18.58	20	0	
15	64QAM	36	39	18.64	18.62	18.52			
15	64QAM	75	0	18.65	18.61	18.50			
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1855	1880	1905			
10	QPSK	1	0	19.00	18.96	18.80			
10	QPSK	1	25	18.86	18.85	18.75	20	0	
10	QPSK	1	49	18.87	18.87	18.69			
10	QPSK	25	0	18.92	18.89	18.78			
10	QPSK	25	12	18.94	18.91	18.78	20	0	
10	QPSK	25	25	18.85	18.84	18.74			
10	QPSK	50	0	18.90	18.87	18.78			
10	16QAM	1	0	19.03	19.02	18.91			
10	16QAM	1	25	18.97	18.99	18.88	20	0	
10	16QAM	1	49	18.96	18.96	18.76			
10	16QAM	25	0	18.68	18.66	18.54			
10	16QAM	25	12	18.68	18.68	18.56	20	0	
10	16QAM	25	25	18.61	18.64	18.51			
10	16QAM	50	0	18.66	18.68	18.54			
10	64QAM	1	0	18.95	18.89	18.75	20	0	
10	64QAM	1	25	18.90	18.83	18.73			
10	64QAM	1	49	18.83	18.85	18.63			
10	64QAM	25	0	18.68	18.66	18.56			
10	64QAM	25	12	18.64	18.67	18.55	20	0	
10	64QAM	25	25	18.65	18.62	18.50			
10	64QAM	50	0	18.65	18.63	18.53			
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1852.5	1880	1907.5			
5	QPSK	1	0	18.87	18.86	18.76			
5	QPSK	1	12	18.92	18.85	18.74	20	0	
5	QPSK	1	24	18.83	18.87	18.69			
5	QPSK	12	0	18.93	18.94	18.78			
5	QPSK	12	7	18.91	18.94	18.79	20	0	
5	QPSK	12	13	18.88	18.86	18.75			
5	QPSK	25	0	18.87	18.86	18.76			
5	16QAM	1	0	18.96	18.95	18.81			
5	16QAM	1	12	18.99	18.96	18.85	20	0	
5	16QAM	1	24	18.92	18.92	18.77			
5	16QAM	12	0	18.70	18.66	18.55			
5	16QAM	12	7	18.71	18.70	18.58	20	0	
5	16QAM	12	13	18.68	18.66	18.53			
5	16QAM	25	0	18.61	18.65	18.50			
5	64QAM	1	0	18.85	18.83	18.66			
5	64QAM	1	12	18.87	18.81	18.71	20	0	
5	64QAM	1	24	18.78	18.77	18.61			
5	64QAM	12	0	18.67	18.69	18.52			
5	64QAM	12	7	18.67	18.66	18.57	20	0	
5	64QAM	12	13	18.65	18.64	18.50			
5	64QAM	25	0	18.59	18.64	18.69			
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1851.5	1880	1908.5			
3	QPSK	1	0	18.87	18.86	18.71			
3	QPSK	1	8	18.89	18.86	18.71	20	0	
3	QPSK	1	14	18.82	18.80	18.71			
3	QPSK	8	0	18.91	18.90	18.78			
3	QPSK	8	4	18.93	18.95	18.80	20	0	
3	QPSK	8	7	18.89	18.89	18.75			
3	QPSK	15	0	18.87	18.87	18.74			
3	16QAM	1	0	18.96	18.92	18.83			
3	16QAM	1	8	18.97	18.98	18.78	20	0	
3	16QAM	1	14	18.92	18.93	18.72			
3	16QAM	8	0	18.75	18.71	18.54			
3	16QAM	8	4	18.78	18.75	18.59	20	0	
3	16QAM	8	7	18.73	18.70	18.53			
3	16QAM	15	0	18.67	18.63	18.53			
3	64QAM	1	0	18.83	18.82	18.65			
3	64QAM	1	8	18.84	18.86	18.67	20	0	
3	64QAM	1	14	18.79	18.75	18.63			
3	64QAM	8	0	18.66	18.66	18.51			
3	64QAM	8	4	18.71	18.71	18.54	20	0	
3	64QAM	8	7	18.69	18.66	18.50			
3	64QAM	15	0	18.62	18.62	18.50			
Channel				18600	18900	19185	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1850.7	1880	1909.3			
1.4	QPSK	1	0	18.80	18.81	18.64			
1.4	QPSK	1	3	18.88	18.84	18.72	20	0	
1.4	QPSK	1	5	18.76	18.74	18.63			
1.4	QPSK	3	0	18.83	18.84	18.69			
1.4	QPSK	3	1	18.88	18.86	18.71	20	0	
1.4	QPSK	3	3	18.82	18.81	18.67			
1.4	QPSK	6	0	18.85	18.82	18.68	20	0	
1.4	16QAM	1	0	18.91	18.80	18.68			
1.4	16QAM	1	3	18.92	18.95	18.71	20	0	
1.4	16QAM	1	5	18.86	18.83	18.65			
1.4	16QAM	3	0	18.63	18.63	18.76	20	0	
1.4	16QAM	3	1	18.69	18.66	18.50			
1.4	16QAM	3	3	18.57	18.58	18.73			
1.4	16QAM	6	0	18.64	18.64	18.72	20	0	
1.4	64QAM	1	0	18.73	18.73	18.53			
1.4	64QAM	1	3	18.77	18.77	18.58	20	0	
1.4	64QAM	1	5	18.73	18.71	18.53			
1.4	64QAM	3	0	18.62	18.64	18.69	20	0	
1.4	64QAM	3	1	18.63	18.71	18.79			
1.4	64QAM	3	3	18.59	18.62	18.82			
1.4	64QAM	6	0	18.55	18.55	18.82	20	0	

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.	Tune-up limit (dBm)	MPR (dB)	
Channel				20050	20175	20300			
Frequency (MHz)									
20	QPSK	1	0	18.30	18.30	18.28			
20	QPSK	1	49	18.30	18.22	18.28	19.5	0	
20	QPSK	1	99	18.21	18.33	18.37			
20	QPSK	50	0	18.34	18.39	18.29			
20	QPSK	50	24	18.37	18.26	18.24	19.5	0	
20	QPSK	50	50	18.31	18.38	18.32			
20	QPSK	100	0	18.36	18.40	18.20			
20	16QAM	1	0	18.31	18.37	18.25			
20	16QAM	1	49	18.29	18.29	18.33	19.5	0	
20	16QAM	1	99	18.19	18.33	18.34			
20	16QAM	50	0	18.21	18.21	18.35			
20	16QAM	50	24	18.25	18.16	18.31	19.5	0	
20	16QAM	50	50	18.28	18.33	18.23			
20	16QAM	100	0	18.22	18.34	18.33			
20	64QAM	1	0	18.39	18.44	18.28			
20	64QAM	1	49	18.38	18.34	18.21	19.5	0	
20	64QAM	1	99	18.30	18.20	18.33			
20	64QAM	50	0	18.17	18.18	18.30			
20	64QAM	50	24	18.27	18.31	18.0			



Band 7 (2600MHz Band)									
Part 27									
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)				2210	2235	2260			
20	QPSK	1	0	20.99	21.24	21.09			
20	QPSK	1	49	20.85	20.89	21.06	22.5	0	
20	QPSK	1	99	20.87	20.84	20.95			
20	QPSK	50	0	20.91	21.00	20.94			
20	QPSK	50	24	20.93	20.95	20.99	22.5	0	
20	QPSK	50	50	20.98	20.89	20.97			
20	QPSK	100	0	20.98	20.99	20.98			
20	16QAM	1	0	21.20	20.97	21.14			
20	16QAM	1	49	21.19	21.22	21.19	22.5	0	
20	16QAM	1	99	21.16	21.16	21.09			
20	16QAM	50	0	20.50	20.56	20.60			
20	16QAM	50	24	20.64	20.54	20.69	22	0.5	
20	16QAM	50	50	20.56	20.51	20.61			
20	16QAM	100	0	20.57	20.52	20.55			
20	64QAM	1	0	20.56	20.51	20.61			
20	64QAM	1	49	20.57	20.52	20.55	22	0.5	
20	64QAM	1	99	20.64	20.54	20.69			
20	64QAM	50	0	19.55	19.56	19.46			
20	64QAM	50	24	19.59	19.81	19.95	21	1.5	
20	64QAM	50	50	19.54	19.45	19.53			
20	64QAM	100	0	19.59	19.51	19.64			
Channel				20825	21100	21375			
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	20.91	20.92	21.05	22.5	0	
15	QPSK	1	37	20.88	20.92	20.99			
15	QPSK	1	74	20.87	20.87	20.98			
15	QPSK	36	0	20.95	20.96	21.06	22.5	0	
15	QPSK	36	20	20.94	20.96	21.08			
15	QPSK	36	39	20.91	20.91	21.06			
15	QPSK	75	0	20.93	20.93	21.06			
15	16QAM	1	0	21.23	21.05	21.02			
15	16QAM	1	37	21.21	21.21	21.02	22.5	0	
15	16QAM	1	74	21.17	21.17	21.08			
15	16QAM	36	0	20.56	20.57	20.52	22	0.5	
15	16QAM	36	20	20.54	20.54	20.50			
15	16QAM	36	39	20.52	20.53	20.54			
15	16QAM	75	0	20.48	20.55	20.63			
15	64QAM	1	0	20.52	20.53	20.61			
15	64QAM	1	37	20.50	20.55	20.58	22	0.5	
15	64QAM	1	74	20.64	20.52	20.68			
15	64QAM	36	0	19.53	19.51	19.62			
15	64QAM	36	20	19.53	19.53	19.62	21	1.5	
15	64QAM	36	39	19.51	19.51	19.59			
15	64QAM	75	0	19.48	19.54	19.63			
Channel				20800	21100	21400			
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	20.89	20.93	21.02	22.5	0	
10	QPSK	1	25	20.90	20.88	21.00			
10	QPSK	1	49	20.86	20.87	20.98			
10	QPSK	25	0	20.91	20.93	21.05	22.5	0	
10	QPSK	25	12	20.97	20.95	21.09			
10	QPSK	25	25	20.91	20.93	21.07			
10	QPSK	50	0	20.91	20.94	21.05			
10	16QAM	1	0	21.19	21.06	21.00	22.5	0	
10	16QAM	1	25	21.23	21.21	21.08			
10	16QAM	1	49	21.17	21.17	21.02			
10	16QAM	25	0	20.57	20.55	20.67	22	0.5	
10	16QAM	25	12	20.61	20.60	20.68			
10	16QAM	25	25	20.55	20.57	20.66			
10	16QAM	50	0	20.57	20.50	20.67			
10	64QAM	1	0	20.61	20.60	20.68	22	0.5	
10	64QAM	1	25	20.61	20.60	20.68			
10	64QAM	1	49	20.55	20.57	20.66			
10	64QAM	25	0	19.51	19.50	19.66			
10	64QAM	25	12	19.54	19.57	19.63	21	1.5	
10	64QAM	25	25	19.51	19.53	19.62			
10	64QAM	50	0	19.49	19.53	19.62			
Channel				20775	21100	21425			
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	0	20.88	20.92	20.99	22.5	0	
5	QPSK	1	12	20.87	20.87	20.96			
5	QPSK	1	24	20.95	20.96	21.06			
5	QPSK	12	0	20.94	20.96	21.08	22.5	0	
5	QPSK	12	7	20.91	20.91	21.06			
5	QPSK	12	13	20.93	20.93	21.06			
5	QPSK	25	0	20.86	20.87	20.98			
5	16QAM	1	0	20.91	20.93	21.05	22.5	0	
5	16QAM	1	12	20.97	20.95	21.09			
5	16QAM	1	24	20.91	20.93	21.07			
5	16QAM	12	0	20.57	20.55	20.68	22	0.5	
5	16QAM	12	7	20.67	20.60	20.68			
5	16QAM	12	13	20.57	20.60	20.68			
5	16QAM	25	0	20.67	20.61	20.67			
5	64QAM	1	0	20.52	20.53	20.61	22	0.5	
5	64QAM	1	12	20.50	20.55	20.58			
5	64QAM	1	24	20.64	20.52	20.68			
5	64QAM	12	0	19.57	19.50	19.61			
5	64QAM	12	7	19.58	19.49	19.53	21	1.5	
5	64QAM	12	13	19.68	19.87	19.55			
5	64QAM	25	0	19.61	19.57	19.62			

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	18.48	18.44	18.38	19.5	0	
20	QPSK	1	49	18.45	18.37	18.33			
20	QPSK	1	99	18.36	18.28	18.22			
20	QPSK	50	0	18.49	18.53	18.34	19.5	0	
20	QPSK	50	24	18.52	18.41	18.39			
20	QPSK	50	50	18.46	18.33	18.27			
20	QPSK	100	0	18.39	18.41	18.35			
20	16QAM	1	0	18.46	18.52	18.40	19.5	0	
20	16QAM	1	49	18.44	18.44	18.28			
20	16QAM	1	99	18.34	18.28	18.19			
20	16QAM	50	0	18.36	18.36	18.20	19.5	0	
20	16QAM	50	24	18.40	18.31	18.26			
20	16QAM	50	50	18.33	18.18	18.11			
20	16QAM	100	0	18.37	18.29	18.18			
20	64QAM	1	0	18.54	18.59	18.43	19.5	0	
20	64QAM	1	49	18.53	18.49	18.36			
20	64QAM	1	99	18.45	18.35	18.28			
20	64QAM	50	0	18.32	18.33	18.18	19.5	0	
20	64QAM	50	24	18.42	18.26	18.23			
20	64QAM	50	50	18.27	18.21	18.08			
20	64QAM	100	0	18.36	18.26	18.20			
Channel				132047	132322	132597			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	18.45	18.46	18.40	19.5	0	
15	QPSK	1	37	18.39	18.37	18.28			
15	QPSK	1	74	18.37	18.37	18.24			
15	QPSK	36	0	18.49	18.44	18.38	19.5	0	
15	QPSK	36	20	18.57	18.42	18.34			
15	QPSK	36	39	18.48	18.33	18.22			
15	QPSK	75	0	18.52	18.41	18.32	19.5	0	
15	16QAM	1	0	18.43	18.50	18.41			
15	16QAM	1	37	18.39	18.37	18.16	19.5	0	
15	16QAM	1	74	18.38	18.30	18.16			
15	16QAM	36	0	18.37	18.35	18.23	19.5	0	
15	16QAM	36	20	18.45	18.33	18.20			
15	16QAM	36	39	18.35	18.22	18.08			
15	16QAM	75	0	18.42	18.24	18.16	19.5	0	
15	64QAM	1	0	18.55	18.56	18.50			
15	64QAM	1	37	18.45	18.47	18.29	19.5	0	
15	64QAM	1	74	18.42	18.37	18.25			
15	64QAM	36	0	18.35	18.34	18.22	19.5	0	
15	64QAM	36	20	18.44	18.31	18.19			
15	64QAM	36	39						



Full Power Mode 2CA DL

CA List	PCC							SCC				Power	
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	With CA	Without CA
	Band	(MHz)	Freq.	Channel		RB	Offset	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
			(MHz)							(MHz)			
CA_4A-5A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	22.81	22.91
	Band 5	10M	836.5	20525	QPSK	1	0	Band 4	20M	2132.5	2175	22.76	22.86
CA_4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2555	3100	22.72	22.91
	Band 7	20M	2535	21100	QPSK	1	0	Band 4	20M	2132.5	2175	22.75	22.89
CA_7B	Band 7	15M	2535	21100	QPSK	1	0	Band 7	5M	2664.3	3193	22.71	22.76
CA_7A-7A	Band 7	20M	2535	21100	QPSK	1	0	Band 7	5M	2687.5	3425	22.73	22.88
CA_38C	Band 38	20M	2580	37850	QPSK	1	0	Band 38	20M	2599.8	38048	22.59	22.70
	Band 38	20M	2585.1	37901	QPSK	1	0	Band 38	20M	2604.9	38099	22.76	22.96
	Band 38	20M	2610	38150	QPSK	1	0	Band 38	20M	2590.2	37952	22.71	22.89

3CA DL

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

CA List	PCC							SCC1				SCC2				Power	
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	LTE	BW	DL	DL	With CA	Without CA
	Band	(MHz)	Freq. (MHz)	Channel		RB	RB Offset	Band	(MHz)	Freq. (MHz)	Channel	Band	(MHz)	Freq. (MHz)	Channel	Tx. Power (dBm)	Tx. Power (dBm)
CA_4A-7C	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	Band 7	20M	2674.8	3298	22.76	22.91
	Band 7	20M	2535	21100	QPSK	1	0	Band 7	20M	2674.8	3298	Band 4	20M	2132.5	2175	22.72	22.88
CA_7A-66A-66A	Band 7	20M	2535	21100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.59	22.76
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 7	20M	2674.8	3298	22.71	22.9



Reduced Power Mode for Sensor on/Hotspot on 2CA DL

CA List	PCC							SCC				Power	
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	Tx. Power (dBm)	Tx. Power (dBm)
	Band	(MHz)	Freq. (MHz)	Channel		RB	RB	Band	(MHz)	Freq. (MHz)	Channel		
						Offset							
CA_4A-5A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	13.63	13.90
	Band 5	10M	836.5	20525	QPSK	1	0	Band 4	20M	2132.5	2175	21.45	21.64
CA_4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	13.72	13.90
	Band 7	20M	2535	21100	QPSK	1	0	Band 4	20M	2132.5	2175	15.51	15.61
CA_7B	Band 7	15M	2535	21100	QPSK	1	0	Band 7	5M	2664.3	3193	15.23	15.38
CA_7A-7A	Band 7	20M	2535	21100	QPSK	1	0	Band 7	5M	2687.5	3425	15.43	15.61
CA_38C	Band 38	20M	2580	37850	QPSK	1	0	Band 38	20M	2599.8	38048	19.06	19.23
	Band 38	20M	2585.1	37901	QPSK	1	0	Band 38	20M	2604.9	38099	19.10	19.23
	Band 38	20M	2610	38150	QPSK	1	0	Band 38	20M	2590.2	37952	19.03	19.22

3CA DL

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

CA List	PCC						SCC1				SCC2				Power		
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	LTE	BW	DL	DL	With CA	Without CA
	Band	(MHz)	Freq.	Channel		RB	RB	Band	(MHz)	Freq.	Channel	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
			(MHz)			Offset	(MHz)			(MHz)							
CA_4A-7C	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	Band 7	20M	2674.8	3298	13.69	13.9
	Band 7	20M	2535	21100	QPSK	1	0	Band 7	20M	2674.8	3298	Band 4	20M	2132.5	2175	15.41	15.61
CA_7A-66A-66A	Band 7	20M	2535	21100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	15.34	15.61
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 7	20M	2674.8	3298	13.63	14



Reduced Power Mode for Handheld on 2CA DL

CA List	PCC							SCC				Power	
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	Tx. Power (dBm)	Tx. Power (dBm)
	Band	(MHz)	Freq.	Channel		RB	RB Offset	Band	(MHz)	Freq.	Channel		
			(MHz)		(MHz)								
CA_4A-5A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 5	10M	881.5	2525	18.63	18.80
	Band 5	10M	836.5	20525	QPSK	1	0	Band 4	20M	2132.5	2175	22.56	22.86
CA_4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	18.59	18.80
	Band 7	20M	2535	21100	QPSK	1	0	Band 4	20M	2132.5	2175	21.71	21.84
CA_7B	Band 7	15M	2535	21100	QPSK	1	0	Band 7	5M	2664.3	3193	21.35	21.52
CA_7A-7A	Band 7	20M	2535	21100	QPSK	1	0	Band 7	5M	2687.5	3425	21.76	21.84
CA_38C	Band 38	20M	2580	37850	QPSK	1	0	Band 38	20M	2599.8	38048	22.59	22.70
	Band 38	20M	2585.1	37901	QPSK	1	0	Band 38	20M	2604.9	38099	22.76	22.96
	Band 38	20M	2610	38150	QPSK	1	0	Band 38	20M	2590.2	37952	22.71	22.89



3CA DL

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

CA List	PCC						SCC1				SCC2				Power		
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	LTE	BW	DL	DL	With CA	Without CA
	Band	(MHz)	Freq.	Channel		RB	RB	Band	(MHz)	Freq.	Channel	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
			(MHz)			Offset	(MHz)			(MHz)				(MHz)			
CA_4A-7C	Band 4	20M	1732.5	20175	QPSK	1	0	Band 7	20M	2655	3100	Band 7	20M	2674.8	3298	18.62	18.80
	Band 7	20M	2535	21100	QPSK	1	0	Band 7	20M	2674.8	3298	Band 4	20M	2132.5	2175	21.58	21.84
CA_7A-66A-66A	Band 7	20M	2535	21100	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	21.62	21.84
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 7	20M	2674.8	3298	18.39	18.6



2.4GHz WLAN		Full				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
2.4GHz WLAN	802.11b 6Mbps	1	2412	18.13	20.00	100
		6	2437	18.43	20.00	
		11	2462	18.44	20.00	
802.11g 6Mbps	1	2412	18.24	19.50	98.58	
		6	2437	18.49		20.00
		11	2462	18.01		17.50
802.11n-HT20 MCS0	1	2412	17.91	19.00	98.52	
		6	2437	17.50		19.00
		11	2462	18.22		18.00

2.4GHz WLAN		Reduced Power for Simultaneous				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
2.4GHz WLAN	802.11b 6Mbps	1	2412	14.17	15.50	100
		6	2437	14.26	15.50	
		11	2462	14.23	15.50	
802.11g 6Mbps	1	2412	14.23	15.50	98.58	
		6	2437	15.50		15.50
		11	2462	15.50		15.50
802.11n-HT20 MCS0	1	2412	Not Inquired	15.50	98.52	
		6	2437	15.50		15.50
		11	2462	15.50		15.50

5GHz WLAN		Full				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.2GHz WLAN	802.11a 6Mbps	36	5180	17.96	18.50	98.28
		40	5200	19.40	19.50	
		44	5220	18.26	19.50	
		48	5240	18.93	19.50	
802.11n-HT20 MCS0	36	5180	17.02	18.50	98.16	
		40	5200	18.94		19.50
		44	5220	19.49		19.50
		48	5240	19.20		19.50
802.11n-HT40 MCS0	38	5190	12.96	14.00	96.03	
		46	5230	19.33		19.40
		36	5180	16.19		17.00
		40	5200	18.20		17.00
802.11ac-VHT20 MCS0	44	5220	15.94	17.00	98.01	
		48	5240	15.90		17.00
		38	5190	16.06		17.00
		46	5230	15.93		17.00
802.11ac-VHT40 MCS0	42	5210	12.17	13.50	91	
		52	5250	12.17		13.50

5GHz WLAN		Reduced Power for Simultaneous&Hotspot				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.2GHz WLAN	802.11a 6Mbps	36	5180	7.15	7.50	98.28
		40	5200	7.23	7.50	
		44	5220	7.19	7.50	
		48	5240	7.17	7.50	
802.11n-HT20 MCS0	36	5180	7.50	7.50	98.16	
		40	5200	7.50		7.50
		44	5220	7.50		7.50
		48	5240	7.50		7.50
802.11n-HT40 MCS0	38	5190	7.00	7.00	96.03	
		46	5230	7.00		7.00
		36	5180	7.50		7.50
		40	5200	7.50		7.50
802.11ac-VHT20 MCS0	44	5220	7.50	7.50	98.01	
		48	5240	7.50		7.50
		38	5190	7.00		7.00
		46	5230	7.00		7.00
802.11ac-VHT40 MCS0	42	5210	7.00	7.00	96.5	
		52	5250	7.00		7.00

5GHz WLAN		Reduced Power for P-Sensor				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.2GHz WLAN	802.11a 6Mbps	36	5180	11.49	12.00	98.28
		40	5200	11.51	12.00	
		44	5220	11.37	12.00	
		48	5240	11.23	12.00	
802.11n-HT20 MCS0	36	5180	12.00	12.00	98.16	
		40	5200	12.00		12.00
		44	5220	12.00		12.00
		48	5240	12.00		12.00
802.11n-HT40 MCS0	38	5190	11.50	11.50	96.03	
		46	5230	11.50		11.50
		36	5180	12.00		12.00
		40	5200	12.00		12.00
802.11ac-VHT20 MCS0	44	5220	12.00	12.00	98.01	
		48	5240	12.00		12.00
		38	5190	11.50		11.50
		46	5230	11.50		11.50
802.11ac-VHT40 MCS0	42	5210	11.50	11.50	96.5	
		52	5250	11.50		11.50

5GHz WLAN		Full				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.3GHz WLAN	802.11a 6Mbps	52	5260	19.26	19.50	98.28
		56	5280	19.39	19.50	
		60	5300	19.36	19.50	
		64	5320	17.75	19.00	
802.11n-HT20 MCS0	52	5260	19.15	19.50	98.16	
		56	5280	19.23		19.50
		60	5300	19.26		19.50
		64	5320	17.62		19.00
802.11n-HT40 MCS0	54	5270	19.23	19.40	96.03	
		62	5310	15.62		17.00
		52	5260	15.73		17.00
		56	5280	15.83		17.00
802.11ac-VHT20 MCS0	60	5300	15.81	17.00	98.01	
		64	5320	15.87		17.00
		54	5270	15.72		17.00
		62	5310	15.77		17.00
802.11ac-VHT40 MCS0	62	5310	15.77	17.00	96.5	
		58	5290	14.47		16.00

5GHz WLAN		Reduced Power for Simultaneous				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.3GHz WLAN	802.11a 6Mbps	52	5260	6.30	7.50	98.28
		56	5280	6.16	7.50	
		60	5300	6.31	7.50	
		64	5320	6.27	7.50	
802.11n-HT20 MCS0	52	5260	7.50	7.50	98.16	
		56	5280	7.50		7.50
		60	5300	7.50		7.50
		64	5320	7.50		7.50
802.11n-HT40 MCS0	54	5270	7.00	7.00	96.03	
		62	5310	7.00		7.00
		52	5260	7.50		7.50
		56	5280	7.50		7.50
802.11ac-VHT20 MCS0	60	5300	7.50	7.50	98.01	
		64	5320	7.50		7.50
		54	5270	7.00		7.00
		62	5310	7.00		7.00
802.11ac-VHT40 MCS0	62	5310	7.00	7.00	96.5	
		58	5290	7.50		7.50

5GHz WLAN		Reduced Power for P-Sensor				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.3GHz WLAN	802.11a 6Mbps	52	5260	11.15	12.00	98.28
		56	5280	11.29	12.00	
		60	5300	11.23	12.00	
		64	5320	11.15	12.00	
802.11n-HT20 MCS0	52	5260	12.00	12.00	98.16	
		56	5280	12.00		12.00
		60	5300	12.00		12.00
		64	5320	12.00		12.00
802.11n-HT40 MCS0	54	5270	11.50	11.50	96.03	
		62	5310	11.50		11.50
		52	5260	12.00		12.00
		56	5280	12.00		12.00
802.11ac-VHT20 MCS0	60	5300	12.00	12.00	98.01	
		64	5320	12.00		12.00
		54	5270	11.50		11.50
		62	5310	11.50		11.50
802.11ac-VHT40 MCS0	62	5310	11.50	11.50	96.5	
		58	5290	11.50		11.50

5GHz WLAN		Full				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.5GHz WLAN	802.11a 6Mbps	100	5500	18.83	19.50	98.28
		116	5580	18.70	19.50	
		124	5620	18.68	19.50	
		132	5660	19.30	19.50	
		140	5700	18.35	19.50	
		144	5720	19.33	19.50	
802.11n-HT20 MCS0	100	5500	18.72	19.50	98.16	
		116	5580	18.62		19.50
		124	5620	18.71		19.50
		132	5660	19.33		19.50
		140	5700	18.40		19.50
		144	5720	19.35		19.50
802.11n-HT40 MCS0	102	5510	18.34	18.00	96.03	
		110	5550	18.44		19.00
		126	5630	18.93		19.00
		134	5670	17.72		18.50
		142	5710	19.38		19.40
		100	5500	15.99		17.00
802.11ac-VHT20 MCS0	116	5580	15.64	17.00	98.01	
		124	5620	16.24		17.00
		132	5660	16.03		17.00
		140	5700	16.83		17.00
		144	5720	16.88		17.00
		102	5510	15.88		17.00
802.11ac-VHT40 MCS0	110	5550	16.36	17.00	96.5	
		126	5630	16.25		17.00
		134	5670	16.27		17.00
		142	5710	16.82		17.00
		106	5530	12.94		14.00
		122	5610	15.91		17.00
802.11ac-VHT80 MCS0	138	5690	16.46	17.00	91	

5GHz WLAN		Reduced Power for Simultaneous				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.5GHz WLAN	802.11a 6Mbps	100	5500	6.28	7.50	98.28
		116	5580	5.75	7.50	
		124	5620	6.05	7.50	
		132	5660	6.37	7.50	
		140	5700	6.73	7.50	
		144	5720	6.87	7.50	
802.11n-HT20 MCS0	100	5500	7.50	7.50	98.16	
		116	5580	7.50		7.50
		124	5620	7.50		7.50
		132	5660	7.50		7.50
		140	5700	7.50		7.50
		144	5720	7.50		7.50
802.11n-HT40 MCS0	102	5510	7.00	7.00	96.03	
		110	5550	7.00		7.00
		126	5630	7.00		7.00
		134	5670	7.00		7.00
		142	5710	7.00		7.00
		100	5500	7.50		7.50
802.11ac-VHT20 MCS0	116	5580	7.50	7.50	98.01	
		124	5620	7.50		7.50
		132	5660	7.50		7.50
		140	5700	7.50		7.50
		144	5720	7.50		7.50
		102	5510	7.00		7.00
802.11ac-VHT40 MCS0	110	5550	7.00	7.00	96.5	
		126	5630	7.00		7.00
		134	5670	7.00		7.00
		142	5710	7.00		7.00
		106	5530	7.00		7.00
		122	5610	7.00		7.00
802.11ac-VHT80 MCS0	138	5690	7.00	7.00	91	

5GHz WLAN		Reduced Power for P-Sensor				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.5GHz WLAN	802.11a 6Mbps	100	5500	11.24	12.00	



Appendix F. Supplemental Tuner Head & Body SAR Results

The results are shown as follows.



Head

Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																											
									Auto-Tune	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138			
WCDMA II	RMC12.2K	1880	9400	N/A	N/A	Left Cheek	0 mm	0.085	0.118	0.019	0.046	0.019	0.040	0.059	0.033	0.041	0.054	0.034	0.053	0.068	0.053	0.028	0.070	0.064	0.033	0.082	0.081	0.010	0.074	0.086	0.011	0.078	0.094			
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																											
WCDMA IV	RMC12.2K	1732.6	1413	N/A	N/A	Right Cheek	0 mm	0.131	0.175	0.015	0.052	0.013	0.080	0.086	0.044	0.019	0.076	0.040	0.028	0.031	0.070	0.007	0.037	0.060	0.013	0.019	0.033	0.002	0.015	0.021	0.004	0.008	0.012			
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																											
WCDMA V	RMC12.2K	826.4	4132	N/A	N/A	Right Cheek	0 mm	0.388	0.458	0.135	0.361	0.258	0.364	0.312	0.324	0.042	0.297	0.138	0.233	0.113	0.173	0.020	0.185	0.073	0.111	0.084	0.117	0.008	0.084	0.031	0.040	0.043	0.056			
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																											
LTE Band 2	QPSK	1880	18900	1	0	Left Cheek	0 mm	0.095	0.129	0.041	0.006	0.021	0.058	0.014	0.015	0.070	0.020	0.026	0.087	0.033	0.043	0.098	0.016	0.040	0.108	0.022	0.059	0.100	0.007	0.047	0.098	0.008	0.064			
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																											
LTE Band 5	QPSK	836.5	20525	1	0	Right Cheek	0 mm	0.361	0.428	0.140	0.023	0.151	0.207	0.152	0.190	0.060	0.005	0.101	0.092	0.046	0.074	0.031	0.002	0.054	0.065	0.016	0.051	0.012	0.001	0.021	0.031	0.004	0.024			
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																											
LTE Band 66	QPSK	1745	13322	1	0	Right Cheek	0 mm	0.104	0.171	0.042	0.010	0.013	0.072	0.032	0.038	0.063	0.033	0.022	0.036	0.040	0.062	0.037	0.016	0.040	0.022	0.018	0.053	0.015	0.003	0.049	0.009	0.006	0.024			



Body

Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																								
									Auto-Tune	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138
WCDMA II	RMC12.2K	1852.4	9262	N/A	N/A	Back	5mm	1.230	2.130	0.387	0.782	0.342	0.638	1.098	0.603	0.616	1.074	0.651	0.828	1.273	1.023	0.358	1.285	1.049	0.480	1.282	1.256	0.155	1.126	1.037	0.202	0.957	0.997
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																								
WCDMA IV	RMC12.2K	1752.6	1513	N/A	N/A	Back	5mm	1.091	1.470	0.644	0.891	0.279	1.217	1.281	0.776	0.609	1.190	0.705	0.692	0.651	1.084	0.286	0.773	0.987	0.409	0.437	0.730	0.112	0.342	0.497	0.178	0.213	0.319
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																								
WCDMA V	RMC12.2K	846.6	4233	N/A	N/A	Back	5mm	0.920	1.110	0.186	0.700	0.455	0.408	0.839	0.738	0.071	0.719	0.406	0.361	0.032	0.503	0.028	0.635	0.225	0.065	0.409	0.326	0.016	0.383	0.097	0.024	0.233	0.148
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																								
LTE Band 2	QPSK	1860	18700	1	0	Back	5mm	1.210	1.970	0.775	0.167	0.387	1.128	0.356	0.689	1.318	0.372	0.542	1.481	0.599	0.945	1.438	0.237	0.823	1.376	0.346	1.199	0.982	0.103	1.011	0.878	0.143	1.155
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																								
LTE Band 5	QPSK	836.5	20525	1	0	Back	5mm	1.01	1.540	0.721	0.119	0.779	1.104	0.410	1.105	0.416	0.038	0.732	0.600	0.116	0.606	0.230	0.023	0.435	0.400	0.047	0.434	0.101	0.010	0.194	0.192	0.016	0.213
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																								
LTE Band 66	QPSK	1770	132572	1	0	Back	5mm	1.190	1.192	0.821	0.210	0.269	1.189	0.596	0.729	1.139	0.680	0.455	0.692	0.868	1.058	0.754	0.413	0.744	0.477	0.470	0.933	0.329	0.145	0.161	0.232	0.181	0.498



Body-verified for SAR higher than 1.2W/Kg

Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured Ig SAR (W/kg)	Average Value of Time Sweep (W/kg)																									
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
									1.970	0.387	0.484	0.607	0.707	0.755	0.761	0.782	0.791	0.806	0.156	0.211	0.281	0.342	0.369	0.370	0.389	0.390	0.397	0.638	0.762					
WCDMA II	RMC12.2K	1852.4	9262	N/A	N/A	Back	5mm	1.23	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
									41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
									62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
									83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108
									104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129
									125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
									149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174
									172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197
									196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221
									220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245
									244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269
									268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293
									292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317
316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341									
340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365									
364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389									
388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413									
412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437									
436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461									
460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485									
484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509									
508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533									
532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557									
556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581									
580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605									
604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629									
628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653									
652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677									
676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701									
700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725									
724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749									
748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773									
772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797									
796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821									
820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845									
844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869									
868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893									
892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917									
916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941									
940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965									
964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989									
988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013									
1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037									
1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061									
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1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109									
1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133									
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1276	1277	1																																