10460-AAA	UMTS-FDD (WCDMA, AMR)	X	2.00	84.84	24.51	0.00	150.0	± 9.6 %
		Y	0.71	65.89	13.95		150.0	
		Z	0.96	70.29	17.20		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	145.46	40.71	3.29	80.0	± 9.6 %
		Y	100.00	152.33	42.34		80.0	
		Z	100.00	131.21	33.70		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	116.29	27.16	3.23	80.0	± 9.6 %
		Y	1.18	68.35	11.90		80.0	
		Z	0.87	61.67	8.58		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	109.31	24.00	3.23	80.0	± 9.6 %
		Y	0.48	60.00	7.21		80.0	
		Z	0.74	60.00	7.10		80.0	
10464-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.32	39.48	3.23	80.0	± 9.6 %
		Y	100.00	149.20	40.60		80.0	
		Z	100.00	127.41	31.78		80.0	
10465-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.14	26.63	3.23	80.0	± 9.6 %
		Y	0.64	62.86	9.55		80.0	
		Z	0.79	60.86	8.11		80.0	
10466-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.27	23.54	3.23	80.0	± 9.6 %
		Y	0.49	60.00	7.14		80.0	
		Z	0.74	60.00	7.04		80.0	
10467-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.75	39.67	3.23	80.0	± 9.6 %
		Y	100.00	149.95	40.92		80.0	
		Z	100.00	127.85	31.97		80.0	
10468-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.51	26.79	3.23	80.0	± 9.6 %
		Y	0.73	64.05	10.12		80.0	
		Z	0.81	61.08	8.24		80.0	
10469-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.31	23.55	3.23	80.0	± 9.6 %
		Y	0.49	60.00	7.14		80.0	
		Z	0.74	60.00	7.04		80.0	
10470-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.87	39.71	3.23	80.0	± 9.6 %
		Y	100.00	150.09	40.97		80.0	
		Z	100.00	127.88	31.97		80.0	
10471-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.41	26.74	3.23	80.0	± 9.6 %
		Y	0.71	63.78	9.99		80.0	
		Z	0.80	61.01	8.19		80.0	
10472-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.18	23.49	3.23	80.0	± 9.6 %
		Y	0.49	60.00	7.11		80.0	
		Z	0.74	60.00	7.02		80.0	
10473-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	143.83	39.69	3.23	80.0	± 9.6 %
		Y	100.00	150.04	40.94		80.0	
		Z	100.00	127.83	31.95		80.0	
10474-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	115.43	26.75	3.23	80.0	± 9.6 %
		Y	0.70	63.68	9.94		80.0	
		Z	0.80	60.98	8.17		80.0	
10475-AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	108.21	23.50	3.23	80.0	± 9.6 %
		Y	0.48	60.00	7.12		80.0	
		Z	0.74	60.00	7.02		80.0	

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix D. Photographs of EUT and Setup

The setup photographs for SAR testing are shown as follows.

FCC SAR Test Report

Report No.	:	**SA190114C07**
Applicant	:	**ASUSTek COMPUTER INC.**
Address	:	**4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN**
Product	:	**ASUS Phone**
FCC ID	:	**MSQI01WD**
Brand	:	**ASUS**
Model No.	:	**ASUS_ I01WD**
Standards	:	**FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013 KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 248227 D01 v02r02, KDB 447498 D01 v06, KDB 648474 D04 v01r03, KDB 941225 D01 v03r01, KDB 941225 D05 v02r05, KDB 941225 D05A v01r02, KDB 941225 D06 v02r01**
Sample Received Date	:	**Jan. 14, 2019**
Date of Testing	:	**Jan. 25, 2019 ~ Mar. 08, 2019**
Lab Address	:	**No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.**
Test Location	:	**No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)**

CERTIFICATION: The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch – Lin Kou Laboratories**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by TAF or any government agencies.

Prepared By : Rona Chen

Rona Chen / Specialist

Approved By : Gordon Lin

Gordon Lin / Assistant Manager

FCC Accredited No.: TW0003

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

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Release Control Record

Report No.	Reason for Change	Date Issued
SA190114C07	Initial release	Mar. 18, 2019

1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR-1g Head (W/kg)	Highest SAR-1g Body-worn Tested at 10 mm (W/kg)	Highest SAR-1g Hotspot Tested at 10 mm (W/kg)	Highest SAR-10g Product Specific Tested at 0 mm (W/kg)
PCE	GSM850	0.66	0.93	0.93	N/A
	GSM1900	0.71	0.82	1.15	N/A
	WCDMA II	1.14	0.72	0.96	N/A
	WCDMA IV	1.18	0.74	1.09	N/A
	WCDMA V	0.27	0.57	0.57	N/A
	LTE 2	0.65	0.78	1.18	N/A
	LTE 4	0.73	0.73	1.09	N/A
	LTE 5	0.18	0.37	0.37	N/A
	LTE 7	0.62	0.14	0.14	N/A
	LTE 26	0.18	0.35	0.35	N/A
	LTE 41 & 38	0.79	0.18	0.19	N/A
DTS	2.4G WLAN	0.66	0.14	0.24	N/A
NII	5.2G WLAN	N/A	N/A	0.37	N/A
	5.3G WLAN	0.81	0.46	N/A	0.83
	5.6G WLAN	1.07	0.61	N/A	1.29
	5.8G WLAN	0.97	0.40	0.40	N/A
DSS	Bluetooth	0.06	0.02	0.04	N/A
DXX	NFC	N/A	N/A	N/A	N/A

Highest Simultaneous Transmission SAR	Highest SAR-1g Head (W/kg)	Highest SAR-1g Body-worn Tested at 10 mm (W/kg)	Highest SAR-1g Hotspot Tested at 10 mm (W/kg)	Highest SAR-10g Product Specific Tested at 0 mm (W/kg)
	1.43	1.56	1.35	N/A

Note:

1. The SAR criteria **(Head & Body: SAR-1g 1.6 W/kg, and Extremity: SAR-10g 4.0 W/kg)** for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.
2. This device supports both LTE band 41 and band 38. The frequency span of LTE band 41 can completely cover LTE band 38, and they has the same tune-up power. SAR was tested for LTE band 41 only.

2. Description of Equipment Under Test

EUT Type	ASUS Phone
FCC ID	MSQI01WD
Brand Name	ASUS
Model Name	ASUS_ I01WD
Tx Frequency Bands (Unit: MHz)	GSM850 : 824.2 ~ 848.8 GSM1900 : 1850.2 ~ 1909.8 WCDMA Band II : 1852.4 ~ 1907.6 WCDMA Band IV : 1712.4 ~ 1752.6 WCDMA Band V : 826.4 ~ 846.6 LTE Band 2 : 1850.7 ~ 1909.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 4 : 1710.7 ~ 1754.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 5 : 824.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 7 : 2502.5 ~ 2567.5 (BW: 5M, 10M, 15M, 20M) LTE Band 26 : 814.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M, 15M) LTE Band 38 : 2572.5 ~ 2617.5 (BW: 5M, 10M, 15M, 20M) LTE Band 41 : 2535 ~ 2655 (BW: 5M, 10M, 15M, 20M) LTE Band 46(RX) : 5150~5925 (BW: 10M, 20M) WLAN : 2412 ~ 2472, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 Bluetooth : 2402 ~ 2480 NFC : 13.56
Uplink Modulations	GSM & GPRS : GMSK EDGE : 8PSK WCDMA : QPSK LTE : QPSK, 16QAM, 64QAM 802.11b : DSSS 802.11a/g/n/ac : OFDM Bluetooth : GFSK, π/4-DQPSK, 8-DPSK NFC : ASK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.6.1 of this report
Antenna Type	PIFA Antenna
EUT Stage	Identical Prototype

Note:

1. The EUT accessories list refers to EUT Photo.pdf.
2. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.
3. The WLAN antenna support band with power reduction information as below.

Position	WLAN 2.4G Ant0	WLAN 2.4G Ant1	WLAN 2.4G Ant0+1	WLAN 5.2G Ant0	WLAN 5.2G Ant1	WLAN 5.2G Ant0+1	WLAN 5.3G Ant0	WLAN 5.3G Ant1	WLAN 5.3G Ant0+1	WLAN 5.6G Ant0	WLAN 5.6G Ant1	WLAN 5.6G Ant0+1	WLAN 5.8G Ant0	WLAN 5.8G Ant1	WLAN 5.8G Ant0+1	BT Ant0	Function Notes	Simultaneous TX Combination
Head (Voice mode)	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	w/o	Wifi On , Cell Off	No
	w/	w/	w/o	w/o	w/	w/o	w/o	w/	w/o	w/o	w/	w/o	w/o	w/	w/o	w/o	Wifi On , Cell On	Yes

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$\mathbf{SAR} = \frac{\mathbf{d}}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\mathbf{dm}}\right) = \frac{\mathbf{d}}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\boldsymbol{\rho}\mathbf{dv}}\right)$$

SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be related to the electrical field in the tissue by

$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}|\mathbf{E}|^2}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SPEAG DASY52 System

DASY52 system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY52 software defined. The DASY52 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion form the optical into digital electric signal of the DAE and transfers data to the PC.

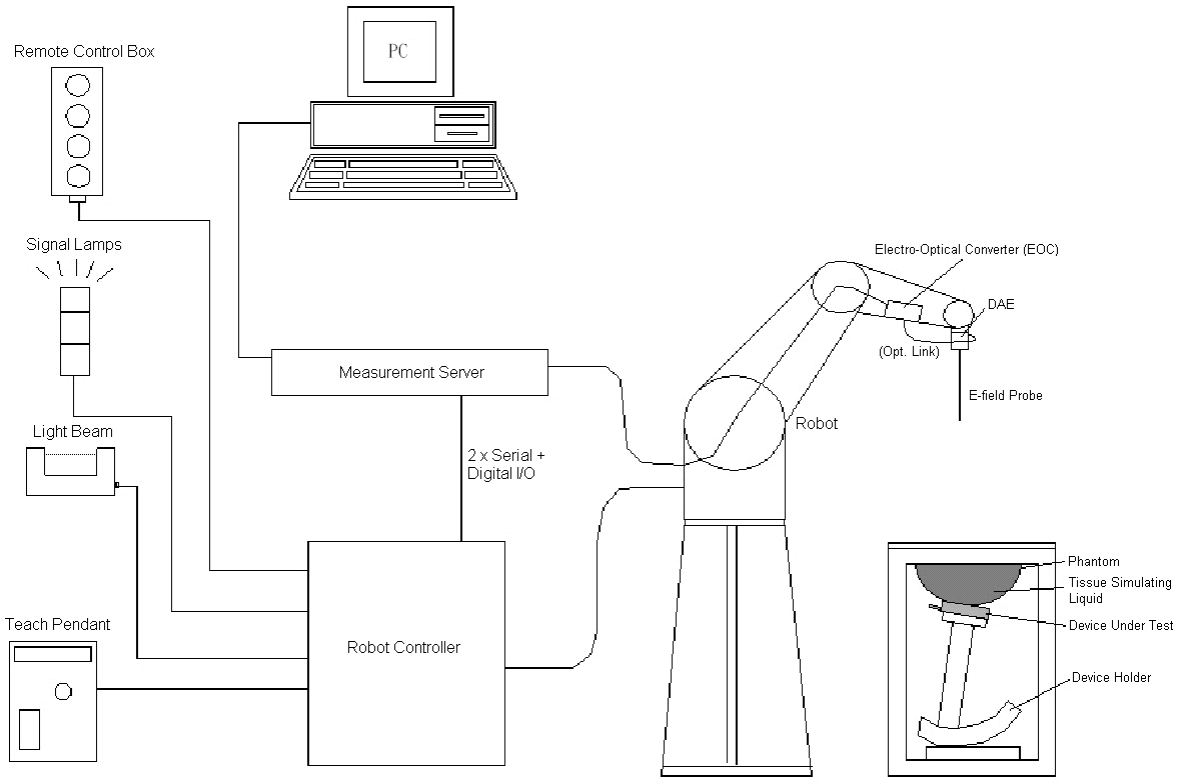


Fig-3.1 SPEAG DASY52 System Setup

3.2.1 Robot

The DASY52 systems use the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version of CS8c from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ±0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

Fig-3.2 SPEAG DASY52 System

3.2.2 Probes

The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

Model	EX3DV4	
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

Model	ES3DV3	
Construction	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	5 µW/g to 100 mW/g Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	

Model	ET3DV6	
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 2.3 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.4 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 mm	

3.2.3 Data Acquisition Electronics (DAE)

Model	DAE3, DAE4	
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.	
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
Input Offset Voltage	< 5µV (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	

3.2.4 Phantoms

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	

3.2.5 Device Holder

Model	Mounting Device	
Construction	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
Material	POM	

Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
Material	POM, Acrylic glass, Foam	

3.2.6 System Validation Dipoles

Model	D-Serial	
Construction	Symmetrical dipole with I/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

3.2.7 Tissue Simulating Liquids

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in Table-3.1.

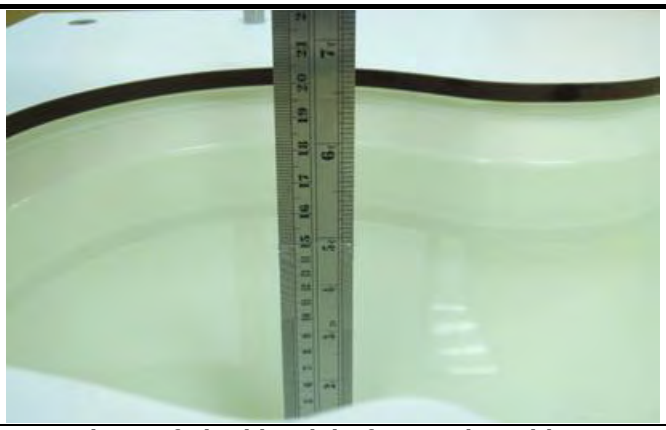
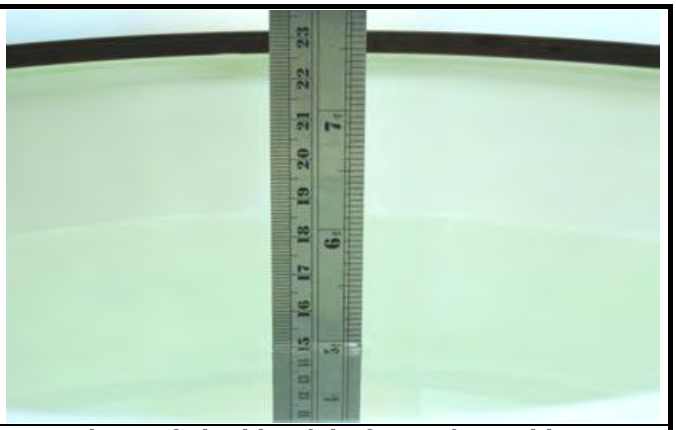
	

Photo of Liquid Height for Head Position	**Photo of Liquid Height for Body Position**

The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528, and KDB 865664 D01 Appendix A. For the body tissue simulating liquids, the dielectric properties are defined in KDB 865664 D01 Appendix A. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

Table-3.1 Targets of Tissue Simulating Liquid

Frequency (MHz)	Target Permittivity	Range of ±5%	Target Conductivity	Range of ±5%
For Head				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53
For Body				
750	55.5	52.7 ~ 58.3	0.96	0.91 ~ 1.01
835	55.2	52.4 ~ 58.0	0.97	0.92 ~ 1.02
900	55.0	52.3 ~ 57.8	1.05	1.00 ~ 1.10
1450	54.0	51.3 ~ 56.7	1.30	1.24 ~ 1.37
1640	53.8	51.1 ~ 56.5	1.40	1.33 ~ 1.47
1750	53.4	50.7 ~ 56.1	1.49	1.42 ~ 1.56
1800	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
1900	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2000	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2300	52.9	50.3 ~ 55.5	1.81	1.72 ~ 1.90
2450	52.7	50.1 ~ 55.3	1.95	1.85 ~ 2.05
2600	52.5	49.9 ~ 55.1	2.16	2.05 ~ 2.27
3500	51.3	48.7 ~ 53.9	3.31	3.14 ~ 3.48
5200	49.0	46.6 ~ 51.5	5.30	5.04 ~ 5.57
5300	48.9	46.5 ~ 51.3	5.42	5.15 ~ 5.69
5500	48.6	46.2 ~ 51.0	5.65	5.37 ~ 5.93
5600	48.5	46.1 ~ 50.9	5.77	5.48 ~ 6.06
5800	48.2	45.8 ~ 50.6	6.00	5.70 ~ 6.30

The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

3.3 SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.

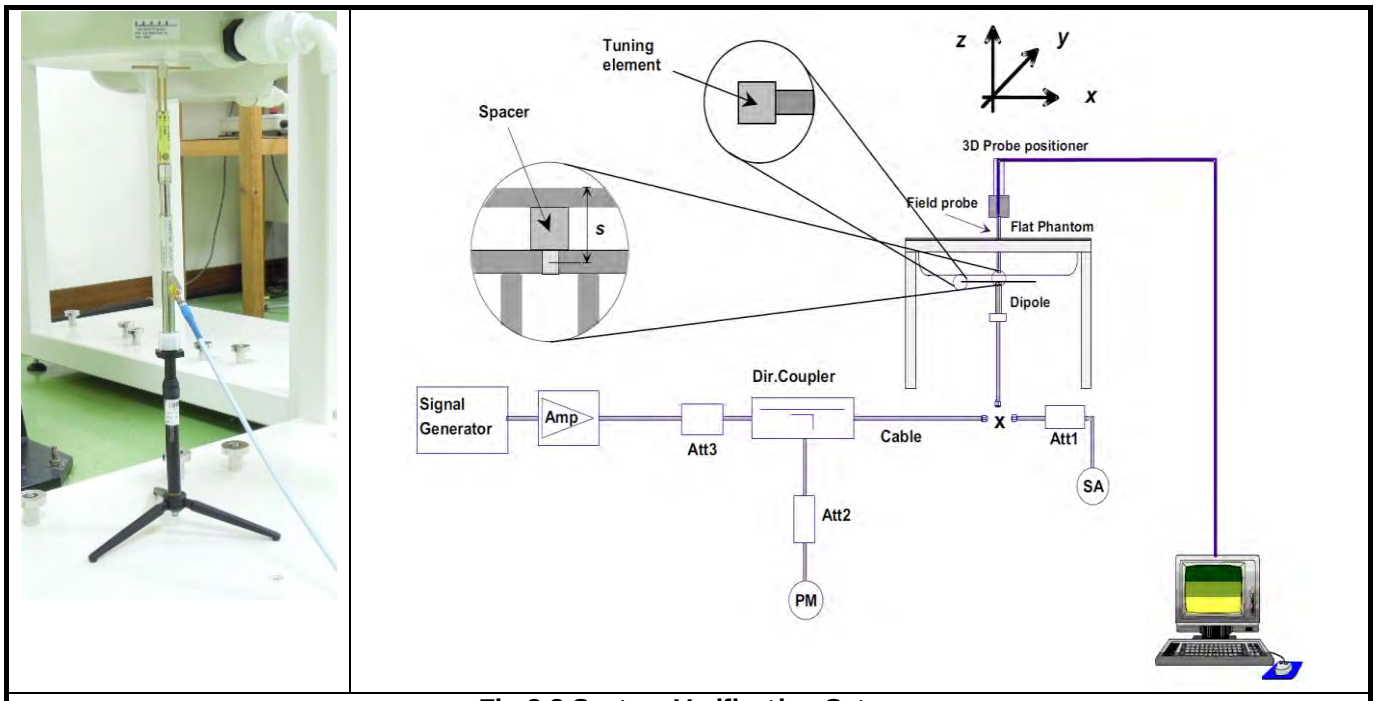


Fig-3.3 System Verification Setup

The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The spectrum analyzer measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

3.4 SAR Measurement Procedure

According to the SAR test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

(a) Make EUT to transmit maximum output power
(b) Measure conducted output power through RF cable
(c) Place the EUT in the specific position of phantom
(d) Perform SAR testing steps on the DASY system
(e) Record the SAR value

3.4.1 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664 D01, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan (Δx, Δy)	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan (Δx, Δy)	<= 8 mm	<= 5 mm	<= 5 mm	<= 4 mm	<= 4 mm
Zoom Scan (Δz)	<= 5 mm	<= 5 mm	<= 4 mm	<= 3 mm	<= 2 mm
Zoom Scan Volume	>= 30 mm	>= 30 mm	>= 28 mm	>= 25 mm	>= 22 mm

Note:

When zoom scan is required and report SAR is <= 1.4 W/kg, the zoom scan resolution of Δx / Δy (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

3.4.2 Volume Scan Procedure

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

3.4.3 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

3.4.4 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

3.4.5 SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

4. SAR Measurement Evaluation

4.1 EUT Configuration and Setting

<Connections between EUT and System Simulator>

For WWAN SAR testing, the EUT was linked and controlled by base station emulator. Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

<Considerations Related to GSM / GPRS / EDGE for Setup and Testing>

The maximum multi-slot capability supported by this device is as below.

1. This EUT is class B device
2. This EUT supports GPRS multi-slot class 10 (max. uplink: 2, max. downlink: 4, total timeslots: 5)
3. This EUT supports EDGE multi-slot class 10 (max. uplink: 2, max. downlink: 4, total timeslots: 5)

For GSM850 frequency band, the power control level is set to 5 for GSM mode and GPRS (GMSK: CS1), and set to 8 for EDGE (GMSK: MCS1, 8PSK: MCS9). For GSM1900 frequency band, the power control level is set to 0 for GSM mode and GPRS (GMSK: CS1), and set to 2 for EDGE (GMSK: MCS1, 8PSK: MCS9).

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

<Considerations Related to WCDMA for Setup and Testing>

WCDMA Handsets Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode.

WCDMA Handsets Body-worn SAR

SAR for body-worn configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode.

Handsets with Release 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices”, for the highest reported SAR body-worn exposure configuration in 12.2 kbps RMC. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

Handsets with Release 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the "Release 6 HSPA Data Devices", for the highest reported body-worn exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn measurements is tested for next to the ear head exposure.

Release 5 HSDPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH / HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors (β_c, β_d), and HS-DPCCH power offset parameters (Δ_{ACK}, Δ_{NACK}, Δ_{CQI}) are set according to values indicated in below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (1)(2)	CM (3) (dB)	MPR (3) (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (4)	15/15 (4)	64	12/15 (4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{HS} = 30/15 * β_c.
Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with β_{HS} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{HS} = 24/15 * β_c.
Note 3: CM = 1 for β_c/β_d = 12/15, β_{HS}/β_c = 24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Release 6 HSUPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode. Otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing. Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in below.

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{HS} (1)	β_{ec}	β_{ed} (4)(5)	β_{ed} (SF)	β_{ed} (Codes)	CM (2) (dB)	MPR (2)(6) (dB)	AG (5) Index	E-TFCI
1	11/15 (3)	15/15 (3)	64	11/15 (3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed}1: 47/15 β_{ed}2: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{HS} = 30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{HS} = 5/15 * β_c.
Note 2: CM = 1 for β_c/β_d = 12/15, β_{HS}/β_c = 24/15. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.
Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.
Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

HSPA+ SAR Guidance

The 3G SAR test reduction procedure is applied to HSPA+ (uplink) with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 6 HSPA, SAR is required for Rel. 7 HSPA+. Power is measured for HSPA+ that supports uplink 16QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

Sub-test	β_c (3)	β_d	β_{HS} (1)	β_{ec}	β_{ed} (4) (2xSF2)	β_{ed} (4) (2xSF4)	CM (2) (dB)	MPR (2) (dB)	AG (4) Index	E-TFCI (5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{HS} = 30/15 * β_c.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

DC-HSDPA SAR Guidance

The 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 5 HSDPA, SAR is required for Rel. 8 DC-HSDPA. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

<Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, is category 3, supports both QPSK and QAM modulations, and supported LTE band and channel bandwidth is listed in below. The output power was tested per 3GPP TS 36.521-1 maximum transmit procedures for both QPSK and QAM modulation. The results please refer to section 4.6 of this report.

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz
2	V	V	V	V	V	V
4	V	V	V	V	V	V
5	V	V	V	V		
7			V	V	V	V
26	V	V	V	V	V	
38			V	V	V	V
41			V	V	V	V

The LTE maximum power reduction (MPR) in accordance with 3GPP TS 36.101 is active all times during LTE operation. The allowed MPR for the maximum output power is specified in below.

Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)
	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3

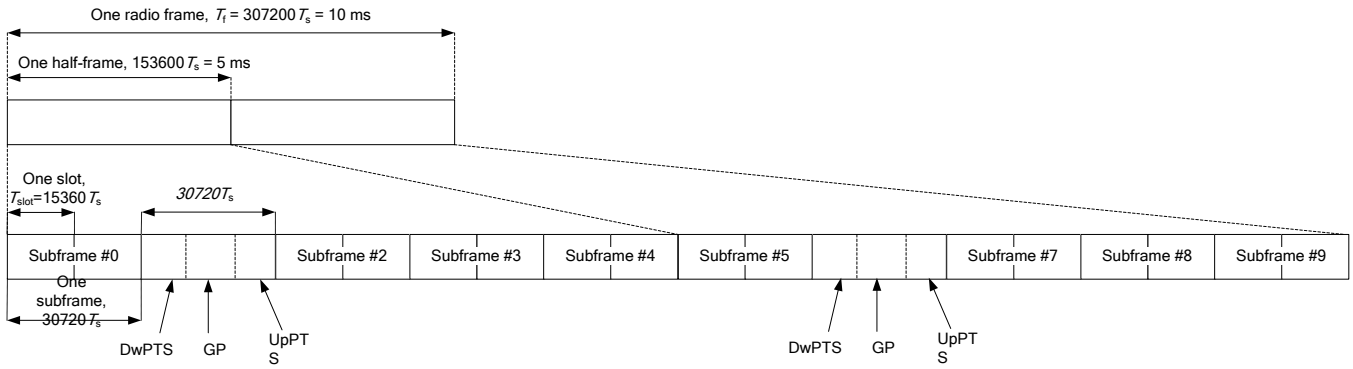
Note: MPR is according to the standard and implemented in the circuit (mandatory).

In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

During LTE SAR testing, the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB was set in base station simulator. When the EUT has registered and communicated to base station simulator, the simulator set to make EUT transmitting the maximum radiated power.

TDD-LTE Setup Configurations

According to KDB 941225 D05, SAR testing for TDD-LTE device must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP TDD-LTE configurations. The TDD-LTE of this device supports frame structure type 2 defined in 3GPP TS 36.211 section 4.2, and the frame structure configuration can be referred to below.



3GPP TS 36.211 Figure 4.2-1: Frame Structure Type 2

Special Subframe Configuration	Normal Cyclic Prefix in Downlink			Extended Cyclic Prefix in Downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink
0	6592 • Ts	2192 • Ts	2560 • Ts	7680 • Ts	2192 • Ts	2560 • Ts
1	19760 • Ts			20480 • Ts		
2	21952 • Ts			23040 • Ts		
3	24144 • Ts			25600 • Ts		
4	26336 • Ts			7680 • Ts	4384 • Ts	5120 • Ts
5	6592 • Ts	4384 • Ts	5120 • Ts	20480 • Ts		
6	19760 • Ts			23040 • Ts		
7	21952 • Ts			12800 • Ts		
8	24144 • Ts			-	-	-
9	13168 • Ts			-	-	-

3GPP TS 36.211 Table 4.2-1: Configuration of Special Subframe

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-Point Periodicity	Subframe Number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

3GPP TS 36.211 Table 4.2-2: Uplink-Downlink Configurations

The variety of different TD-LTE uplink-downlink configurations allows a network operator to allocate the network's capacity between uplink and downlink traffic to meet the needs of the network. The uplink duty cycle of these seven configurations can readily be computed and shown in below.

UL-DL Configuration	0	1	2	3	4	5	6
Highest Duty-Cycle	63.33%	43.33%	23.33%	31.67%	21.67%	11.67%	53.33%

Considering the highest transmission duty cycle, TDD-LTE was tested using Uplink-Downlink Configuration 0 with 6 uplink subframe and 2 special subframe. The special subframe was set to special subframe configuration 7 using extended cyclic prefix uplink. Therefore, SAR testing for TDD-LTE was performed at the maximum output power with highest transmission duty cycle of 63.33%.

LTE Downlink Carrier Aggregation (CA) Setup Configurations

LTE Carrier Aggregation (CA) was defined in 3GPP release 10 and higher. The LTE device in CA mode has one Primary Component Carrier (PCC) and one or more Secondary Component Carriers (SCC). PCC acts as the anchor carrier and can optionally cross-schedule data transmission on SCC. The RRC connection is only handled by one cell, the PCC for downlink and uplink communications. After making a data connection to the PCC, the LTE device adds the SCC on the downlink only. All uplink communications and acknowledgements remain identical to release 8 specifications on the PCC. The combinations of downlink carrier aggregation supported by this device are listed in below.

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Contiguous CA

Downlink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_2C	5	20	-	40	0
	10	15, 20	-		
	15	10, 15, 20	-		
	20	5, 10, 15, 20	-		
CA_5B	5, 10	10	-	20	0
	10	5	-		
	3	5	-	8	1
	5	3	-		
CA_7B	15	5	-	20	0
CA_7C	15	15	-	40	0
	20	20	-		
	10	20	-	40	1
	15	15, 20	-		
	20	10, 15, 20	-		
	15	10, 15	-	40	2
	20	15, 20	-		
CA_38C	15	15	-	40	0
	20	20	-		
CA_41C	10	20	-	40	0
	15	15, 20	-		
	20	10, 15, 20	-		
	5, 10	20	-	40	1
	15	15, 20	-		
	20	5, 10, 15, 20	-		
	10	15, 20	-	40	2
	15	10, 15, 20	-		
	20	10, 15, 20	-		
	10	20	-	40	3
	20	20	-		

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Non-Contiguous CA

Downlink CA Configuration	Component Carriers in order of Increasing Carrier Frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel Bandwidths for Carrier-1 (MHz)	Channel Bandwidths for Carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20	-	40	0
CA_7A-7A	5	15	-	40	0
	10	10, 15	-		
	15	15, 20	-		
	20	20	-		
	5, 10, 15, 20	5, 10, 15, 20	-	40	1
	5, 10, 15, 20	5, 10	-	30	2
	10, 15, 20	10, 15, 20	-	40	3
CA_41A-41A	10, 15, 20	10, 15, 20	-	40	0
	5, 10, 15, 20	5, 10, 15, 20	-	40	1

LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Two Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-5A	2	5, 10, 15, 20	30	0
	5	5, 10		
	2	5, 10	20	1
	5	5, 10		
CA_2A-2A-5A	2	Refer to CA_2A-2A (BCS0)	50	0
	5	5, 10		
CA_4A-5A	4	5, 10	20	0
	5	5, 10		
	4	5, 10, 15, 20	30	1
	5	5, 10		
CA_4A-46C	4	5, 10, 15, 20	60	0
	46	Refer to CA_46C (BCS0)		
CA_5A-7A	5	1.4, 3, 5, 10	30	0
	7	10, 15, 20		
	5	5, 10	30	1
	7	10, 15, 20		
CA_7A-46C	7	5, 10, 15, 20	60	0
	46	Refer to CA_46C (BCS0)		
	7	5, 10, 15, 20	60	1
	46	Refer to CA_46C (BCS1)		
CA_7A-46D	7	5, 10, 15, 20	80	0
	46	Refer to CA_46D (BCS0)		
	7	5, 10, 15, 20	80	1
	46	Refer to CA_46D (BCS1)		

<SAR Test Exclusion Evaluations for LTE Downlink CA>

According to Nov 2017 TCB Workshop, SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. The downlink Carrier Aggregation configurations are tabulated in separate columns. DL CA would be listed in the columns corresponding to Intra Band contiguous, Intra Band Non-contiguous, 2bands/2CCs, 2bands/3CCs. The CA/CC combinations in each columns are sorted so that frequency bands listed in subsequent columns on each row are ascending subsets, as illustrated below; i.e., columns to the right correspond to increasing number of frequency bands and CCs.

Configure	Intra Band		Inter Band		
	Contiguous	Non-Contiguous	2 Bands / 2CC	2 Bands / 3CC	2 Bands / 4CC
				CA_7A-46C	CA_7A-46D
	CA_2C	CA_2A-2A	CA_2A-5A	CA_2A-2A-5A	
			CA_4A-5A		
				CA_4A-46C	
	CA_5B		CA_5A-7A		
	CA_7B	CA_7A-7A			
	CA_7C				
	CA_41C	CA_41A-41A			
	CA_38C				

• Only yellow highlighted cells need power measurement.

LTE Uplink Carrier Aggregation (CA) Setup Configurations

This device supports LTE uplink CA for band 41 only with a maximum of two 20 MHz carrier components in the uplink. The maximum output power for uplink intra-band contiguous CA specified in Table 6.2.2A-1 of 3GPP TS 36.101 is the same as single carrier specified in Table 6.2.2-1 of 3GPP TS 36.101. In Table 6.2.3A-1 of 3GPP TS 36.101, the MPR (maximum power reduction) for several dB is allowed due to modulation and contiguously aggregated transmit bandwidth configuration. All the RF parameters in this device have followed above 3GPP criteria.

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Contiguous CA

Uplink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_7C	15	15	-	40	0
	20	20	-		
	10	20	-	40	1
	15	15, 20	-		
	20	10, 15, 20	-		
	15	10, 15	-	40	2
	20	15, 20	-		
CA_38C	15	15	-	40	0
	20	20	-		

Uplink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_41C	10	20	-	40	0
	15	15, 20	-		
	20	10, 15, 20	-		
	5, 10	20	-	40	1
	15	15, 20	-		
	20	5, 10, 15, 20	-		
	10	15, 20	-	40	2
	15	10, 15, 20	-		
	20	10, 15, 20	-		
	10	20	-	40	3
	20	20	-		

This device does not support full CA (Carrier Aggregation) features on 3GPP release 12. Its capability for LTE CA is for LTE band 41 only and supported configuration is shown in above. For network enhancement features, it does not support Wi-Fi Offloading, Enhanced SC-FDMA, Uplink MIMO, CoMP, HetNet, Relay, SON, Cross-Carrier Scheduling, eICIC, Enhanced Downlink MIMO, MBMS, M2M/D2D. All other uplink communications are identical to the LTE Release 8 specifications.

<Considerations Related to WLAN for Setup and Testing>

In general, various vendor specific external test software and chipset based internal test modes are typically used for SAR measurement. These chipset based test mode utilities are generally hardware and manufacturer dependent, and often include substantial flexibility to reconfigure or reprogram a device. A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement. The test frequencies established using test mode must correspond to the actual channel frequencies. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. In addition, a periodic transmission duty factor is required for current generation SAR systems to measure SAR correctly. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

According to KDB 248227 D01, this device has installed WLAN engineering testing software which can provide continuous transmitting RF signal. During WLAN SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

Initial Test Configuration

An initial test configuration is determined for OFDM transmission modes in 2.4 GHz and 5 GHz bands according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

Subsequent Test Configuration

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. When the highest reported SAR for the initial test configuration according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

SAR Test Configuration and Channel Selection

When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the initial test configuration is using largest channel bandwidth, lowest order modulation, lowest data rate, and lowest order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n). After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following.

1) The channel closest to mid-band frequency is selected for SAR measurement.

2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

Test Reduction for U-NII-1 (5.2 GHz) and U-NII-2A (5.3 GHz) Bands

For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following.

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition).

2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

<Considerations Related to Bluetooth for Setup and Testing>

This device has installed Bluetooth engineering testing software which can provide continuous transmitting RF signal. During Bluetooth SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

The Bluetooth call box has been used during SAR measurement and the EUT was set to DH5 mode at the maximum output power. Its duty factor was calculated as below and the measured SAR for Bluetooth would be scaled to the 100% transmission duty factor to determine compliance.

Time-domain plot for Bluetooth transmission signal

The duty factor of Bluetooth signal has been calculated as following.

Duty Factor = Pulse Width / Total Period = 2.923 / 3.744 = 78.07 %

4.2 EUT Testing Position

According to KDB 648474 D04, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

4.2.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2003 using the SAM phantom illustrated as below.

1. Define two imaginary lines on the handset

(a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.

(b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.

(c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

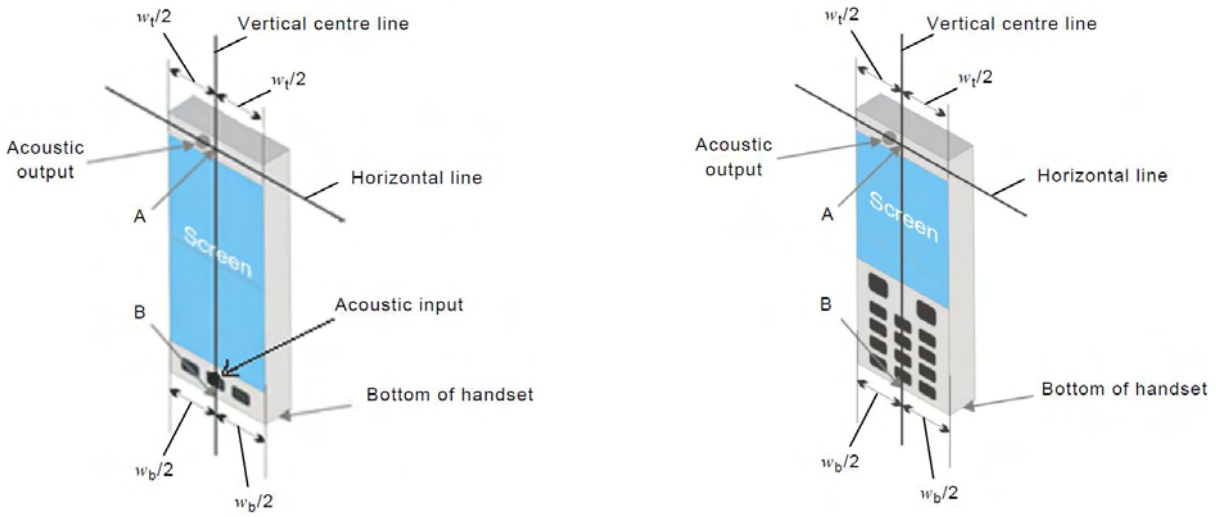


Fig-4.1 Illustration for Handset Vertical and Horizontal Reference Lines

2. Cheek Position

(a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.

(b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig-4.2).

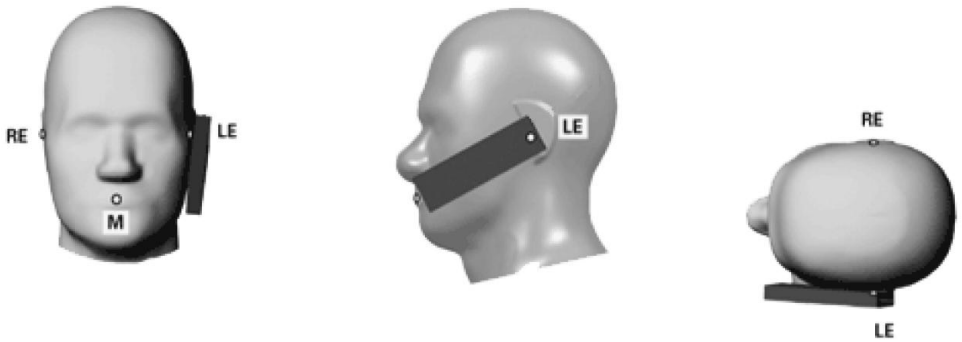


Fig-4.2 Illustration for Cheek Position

3. Tilted Position

(a) To position the device in the “cheek” position described above.

(b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig-4.3).

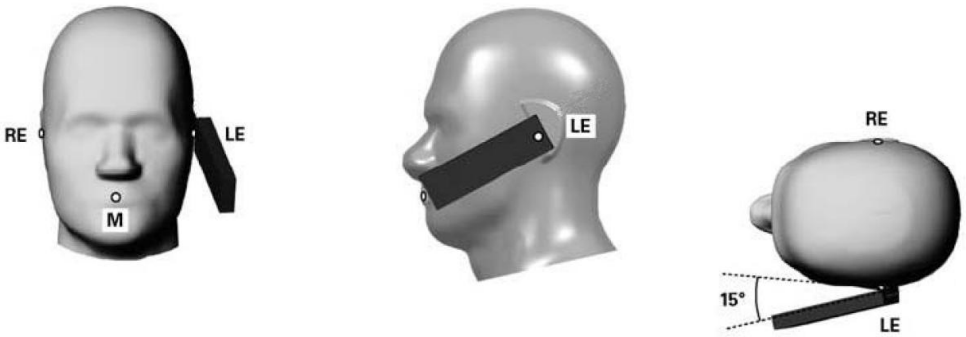


Fig-4.3 Illustration for Tilted Position

4.2.2 Body-worn Accessory Exposure Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 D01 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required.

A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance <= 5 mm to support compliance.

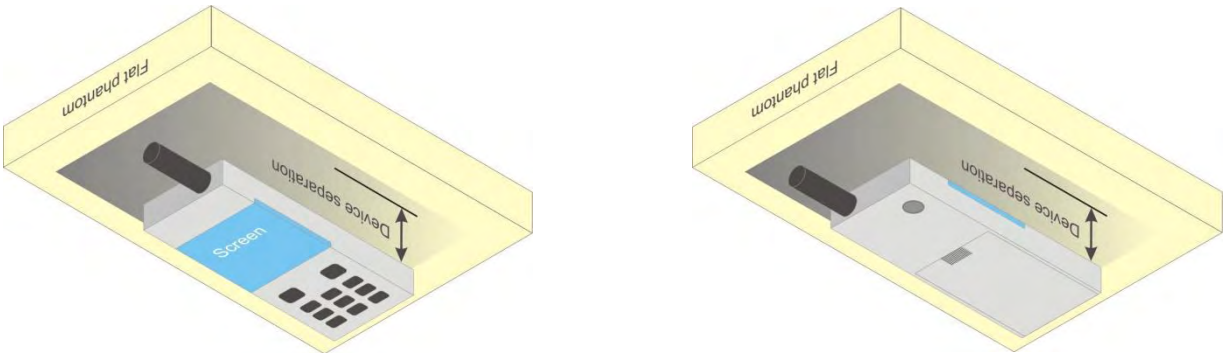
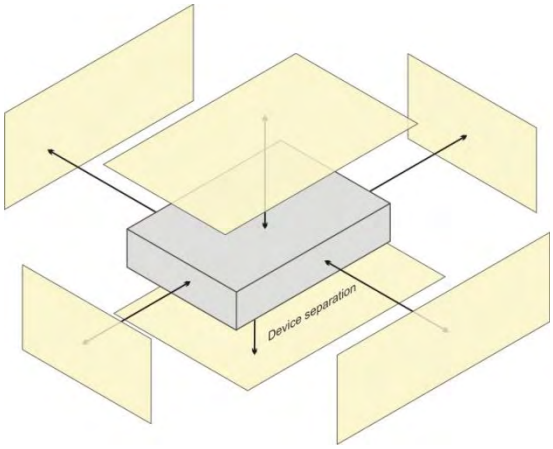


Fig-4.4 Illustration for Body Worn Position

4.2.3 Hotspot Mode Exposure Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225 D06. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



Based on the antenna location shown on appendix D of this report, the SAR testing required for hotspot mode is listed as below.

Antenna	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
WWAN Ant-0	V	V	V	V		V
WWAN Ant-1	V	V	V		V	
WLAN Ant-0	V	V		V	V	
WLAN Ant-1	V	V		V	V	
WLAN Ant-0+1	V	V		V	V	

4.2.4 Product Specific (Phablet) Exposure Conditions

For smart phones with a display diagonal dimension > 15 cm or an overall diagonal dimension > 16 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at <= 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR > 1.2 W/kg. The normal tablet procedures in KDB 616217 are required when the over diagonal dimension of the device is > 20 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Extremity 10-g SAR is also not required for the front (top) surface of large form factor full size tablets. The more conservative tablet SAR results can be used to support the 10-g extremity SAR for phablet mode.
3. The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions.

4.3 Tissue Verification

The measuring results for tissue simulating liquid are shown as below.

<Head Mode>

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Jan. 27, 2019	Head	835	23.4	0.901	42.932	0.9	41.5	0.11	3.45
Feb. 01, 2019	Head	1750	23.5	1.333	39.585	1.37	40.1	-2.70	-1.28
Feb. 20, 2019	Head	1750	23.5	1.323	40.829	1.37	40.1	-3.43	1.82
Jan. 27, 2019	Head	1900	23.4	1.458	39.592	1.4	40	4.14	-1.02
Feb. 01, 2019	Head	1900	23.5	1.462	39.071	1.4	40	4.43	-2.32
Feb. 11, 2019	Head	2450	23.3	1.883	38.339	1.8	39.2	4.61	-2.20
Feb. 24, 2019	Head	2450	23.6	1.874	38.486	1.8	39.2	4.11	-1.82
Mar. 01, 2019	Head	2450	23.3	1.877	38.588	1.8	39.2	4.28	-1.56
Jan. 27, 2019	Head	2600	23.4	2.035	38.572	1.96	39	3.83	-1.10
Feb. 19, 2019	Head	5250	23.2	4.735	36.962	4.71	35.9	0.53	2.96
Feb. 24, 2019	Head	5250	23.6	4.56	36.018	4.71	35.9	-3.18	0.33
Mar. 01, 2019	Head	5250	23.3	4.906	36.784	4.71	35.9	4.16	2.46
Feb. 19, 2019	Head	5600	23.2	5.089	36.492	5.07	35.5	0.37	2.79
Feb. 28, 2019	Head	5600	23.3	5.074	36.37	5.07	35.5	0.08	2.45
Mar. 01, 2019	Head	5600	23.3	5.239	36.2	5.07	35.5	3.33	1.97
Feb. 19, 2019	Head	5750	23.2	5.249	36.271	5.22	35.4	0.56	2.46
Feb. 28, 2019	Head	5750	23.3	5.121	36.517	5.22	35.4	-1.90	3.16
Mar. 01, 2019	Head	5750	23.3	5.37	35.688	5.22	35.4	2.87	0.81

<Body & Hotspot Mode>

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Jan. 25, 2019	Body	835	23.4	1.012	56.703	0.97	55.2	4.33	2.72
Jan. 26, 2019	Body	835	23.2	0.979	56.504	0.97	55.2	0.93	2.36
Jan. 25, 2019	Body	1750	23.4	1.441	51.722	1.49	53.4	-3.29	-3.14
Jan. 31, 2019	Body	1750	23.4	1.439	52.605	1.49	53.4	-3.42	-1.49
Jan. 25, 2019	Body	1900	23.4	1.556	51.468	1.52	53.3	2.37	-3.44
Jan. 26, 2019	Body	1900	23.2	1.564	52.198	1.52	53.3	2.89	-2.07
Jan. 31, 2019	Body	1900	23.4	1.583	52.166	1.52	53.3	4.14	-2.13
Feb. 12, 2019	Body	2450	23.5	2.024	50.609	1.95	52.7	3.79	-3.97
Feb. 18, 2019	Body	2450	23.2	2.02	50.626	1.95	52.7	3.59	-3.94
Feb. 24, 2019	Body	2450	23.3	2.013	51.24	1.95	52.7	3.23	-2.77
Jan. 25, 2019	Body	2600	23.4	2.23	51.121	2.16	52.5	3.24	-2.63
Jan. 26, 2019	Body	2600	23.2	2.157	50.909	2.16	52.5	-0.14	-3.03
Feb. 18, 2019	Body	5250	23.1	5.289	49.874	5.36	48.9	-1.32	1.99
Feb. 24, 2019	Body	5250	23.3	5.395	47.266	5.36	48.9	0.65	-3.34
Mar. 01, 2019	Body	5250	23.4	5.49	47.955	5.36	48.9	2.43	-1.93
Feb. 18, 2019	Body	5600	23.1	5.745	49.345	5.77	48.5	-0.43	1.74
Feb. 24, 2019	Body	5600	23.3	5.822	46.671	5.77	48.5	0.90	-3.77
Mar. 01, 2019	Body	5600	23.4	5.952	47.415	5.77	48.5	3.15	-2.24
Feb. 18, 2019	Body	5750	23.1	5.951	49.109	5.94	48.3	0.19	1.67
Feb. 24, 2019	Body	5750	23.3	6.037	46.339	5.94	48.3	1.63	-4.06
Feb. 28, 2019	Body	5750	23.3	6.135	47.344	5.94	48.3	3.28	-1.98

<Extremity>

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Measured Conductivity (σ)	Measured Permittivity (ε_r)	Target Conductivity (σ)	Target Permittivity (ε_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Mar. 08, 2019	Body	5250	23.2	5.458	47.106	5.36	48.9	1.83	-3.67
Mar. 08, 2019	Body	5600	23.2	5.918	46.532	5.77	48.5	2.56	-4.06

Note:

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within ±5% of the target values. Liquid temperature during the SAR testing must be within ±2 ℃.

4.4 System Validation

The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.

Test Date	Probe S/N	Calibration Point		Measured Conductivity (σ)	Measured Permittivity (ε_r)	Validation for CW			Validation for Modulation		
						Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Jan. 27, 2019	3898	Head	835	0.901	42.932	Pass	Pass	Pass	GMSK	Pass	N/A
Feb. 01, 2019	7472	Head	1750	1.333	39.585	Pass	Pass	Pass	N/A	N/A	N/A
Feb. 20, 2019	3650	Head	1750	1.323	40.829	Pass	Pass	Pass	N/A	N/A	N/A
Jan. 27, 2019	3898	Head	1900	1.458	39.592	Pass	Pass	Pass	GMSK	Pass	N/A
Feb. 01, 2019	7472	Head	1900	1.462	39.071	Pass	Pass	Pass	GMSK	Pass	N/A
Feb. 11, 2019	7472	Head	2450	1.883	38.339	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 24, 2019	3650	Head	2450	1.874	38.486	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 01, 2019	7472	Head	2450	1.877	38.588	Pass	Pass	Pass	OFDM	N/A	Pass
Jan. 27, 2019	3898	Head	2600	2.035	38.572	Pass	Pass	Pass	N/A	N/A	N/A
Feb. 19, 2019	3898	Head	5250	4.735	36.962	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 24, 2019	3650	Head	5250	4.56	36.018	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 01, 2019	7472	Head	5250	4.906	36.784	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 19, 2019	3898	Head	5600	5.089	36.492	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 28, 2019	7472	Head	5600	5.074	36.37	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 01, 2019	7472	Head	5600	5.239	36.2	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 19, 2019	3898	Head	5750	5.249	36.271	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 28, 2019	7472	Head	5750	5.121	36.517	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 01, 2019	7472	Head	5750	5.37	35.688	Pass	Pass	Pass	OFDM	N/A	Pass

Test Date	Probe S/N	Calibration Point		Measured Conductivity (σ)	Measured Permittivity (ε_r)	Validation for CW			Validation for Modulation		
						Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Jan. 25, 2019	7472	Body	835	1.012	56.703	Pass	Pass	Pass	GMSK	Pass	N/A
Jan. 26, 2019	7472	Body	835	0.979	56.504	Pass	Pass	Pass	GMSK	Pass	N/A
Jan. 25, 2019	7472	Body	1750	1.441	51.722	Pass	Pass	Pass	N/A	N/A	N/A
Jan. 31, 2019	7472	Body	1750	1.439	52.605	Pass	Pass	Pass	N/A	N/A	N/A
Jan. 25, 2019	7472	Body	1900	1.556	51.468	Pass	Pass	Pass	GMSK	Pass	N/A
Jan. 26, 2019	7472	Body	1900	1.564	52.198	Pass	Pass	Pass	GMSK	Pass	N/A
Jan. 31, 2019	7472	Body	1900	1.583	52.166	Pass	Pass	Pass	GMSK	Pass	N/A
Feb. 12, 2019	7472	Body	2450	2.024	50.609	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 18, 2019	3898	Body	2450	2.02	50.626	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 24, 2019	3650	Body	2450	2.013	51.24	Pass	Pass	Pass	OFDM	N/A	Pass
Jan. 25, 2019	7472	Body	2600	2.23	51.121	Pass	Pass	Pass	N/A	N/A	N/A
Jan. 26, 2019	7472	Body	2600	2.157	50.909	Pass	Pass	Pass	N/A	N/A	N/A
Feb. 18, 2019	3898	Body	5250	5.289	49.874	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 24, 2019	3650	Body	5250	5.395	47.266	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 01, 2019	7472	Body	5250	5.49	47.955	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 18, 2019	3898	Body	5600	5.745	49.345	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 24, 2019	3650	Body	5600	5.822	46.671	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 01, 2019	7472	Body	5600	5.952	47.415	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 18, 2019	3898	Body	5750	5.951	49.109	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 24, 2019	3650	Body	5750	6.037	46.339	Pass	Pass	Pass	OFDM	N/A	Pass
Feb. 28, 2019	7472	Body	5750	6.135	47.344	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 08, 2019	3971	Body	5250	5.458	47.106	Pass	Pass	Pass	OFDM	N/A	Pass
Mar. 08, 2019	3971	Body	5600	5.918	46.532	Pass	Pass	Pass	OFDM	N/A	Pass

4.5 System Verification

The measuring result for system verification is tabulated as below.

<Head Mode>

Test Date	Mode	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Jan. 27, 2019	Head	835	9.44	2.31	9.24	-2.12	4d121	3898	905
Feb. 01, 2019	Head	1750	36.90	8.81	35.24	-4.50	1055	7472	1431
Feb. 20, 2019	Head	1750	36.90	9.39	37.56	1.79	1055	3650	579
Jan. 27, 2019	Head	1900	40.10	10.2	40.80	1.75	5d018	3898	905
Feb. 01, 2019	Head	1900	40.10	10.1	40.40	0.75	5d018	7472	1431
Feb. 11, 2019	Head	2450	51.50	13.5	54.00	4.85	737	7472	1431
Feb. 24, 2019	Head	2450	51.50	12.8	51.20	-0.58	737	3650	579
Mar. 01, 2019	Head	2450	51.50	13.1	52.40	1.75	737	7472	1431
Jan. 27, 2019	Head	2600	55.70	15	60.00	7.72	1020	3898	905
Feb. 19, 2019	Head	5250	78.60	7.86	78.60	0.00	1019	3898	905
Feb. 24, 2019	Head	5250	78.60	7.4	74.00	-5.85	1019	3650	579
Mar. 01, 2019	Head	5250	78.60	7.74	77.40	-1.53	1019	7472	1431
Feb. 19, 2019	Head	5600	84.90	8.16	81.60	-3.89	1019	3898	905
Feb. 28, 2019	Head	5600	84.90	8.34	83.40	-1.77	1019	7472	1431
Mar. 01, 2019	Head	5600	84.90	8.74	87.40	2.94	1019	7472	1431
Feb. 19, 2019	Head	5750	79.40	8.09	80.90	1.89	1019	3898	905
Feb. 28, 2019	Head	5750	79.40	7.72	77.20	-2.77	1019	7472	1431
Mar. 01, 2019	Head	5750	79.40	7.66	76.60	-3.53	1019	7472	1431

<Body & Hotspot Mode>

Test Date	Mode	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Jan. 25, 2019	Body	835	9.64	2.32	9.28	-3.73	4d121	7472	1431
Jan. 26, 2019	Body	835	9.64	2.36	9.44	-2.07	4d121	7472	1431
Jan. 25, 2019	Body	1750	36.90	9.45	37.80	2.44	1055	7472	1431
Jan. 31, 2019	Body	1750	36.90	9.04	36.16	-2.01	1055	7472	1431
Jan. 25, 2019	Body	1900	40.20	10.2	40.80	1.49	5d018	7472	1431
Jan. 26, 2019	Body	1900	40.20	9.84	39.36	-2.09	5d018	7472	1431
Jan. 31, 2019	Body	1900	40.20	10.4	41.60	3.48	5d018	7472	1431
Feb. 12, 2019	Body	2450	50.50	13.1	52.40	3.76	737	7472	1431
Feb. 18, 2019	Body	2450	50.50	12.2	48.80	-3.37	737	3898	905
Feb. 24, 2019	Body	2450	50.50	12	48.00	-4.95	737	3650	579
Jan. 25, 2019	Body	2600	55.30	13.9	55.60	0.54	1020	7472	1431
Jan. 26, 2019	Body	2600	55.30	13.5	54.00	-2.35	1020	7472	1431
Feb. 18, 2019	Body	5250	74.90	7.55	75.50	0.80	1019	3898	905
Feb. 24, 2019	Body	5250	74.90	7.81	78.10	4.27	1019	3650	579
Mar. 01, 2019	Body	5250	74.90	7.84	78.40	4.67	1019	7472	1431
Feb. 18, 2019	Body	5600	79.30	8.05	80.50	1.51	1019	3898	905
Feb. 24, 2019	Body	5600	79.30	8.08	80.80	1.89	1019	3650	579
Mar. 01, 2019	Body	5600	79.30	8.05	80.50	1.51	1019	7472	1431
Feb. 18, 2019	Body	5750	74.50	7.23	72.30	-2.95	1019	3898	905
Feb. 24, 2019	Body	5750	74.50	7.29	72.90	-2.15	1019	3650	579
Feb. 28, 2019	Body	5750	74.50	7.14	71.40	-4.16	1019	7472	1431

<Extremity>

Test Date	Mode	Frequency (MHz)	1W Target SAR-10g (W/kg)	Measured SAR-10g (W/kg)	Normalized to 1W SAR-10g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Mar. 08, 2019	Body	5250	20.80	2.2	22.00	5.77	1019	3971	861
Mar. 08, 2019	Body	5600	22.20	2.39	23.90	7.66	1019	3971	861

Note:

Comparing to the reference SAR value provided by SPEAG, the validation data should be within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.

4.6 Maximum Output Power

4.6.1 Maximum Target Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

Mode	Maximum Burst-Averaged Output Power		Maximum Frame-Averaged Output Power	
	GSM850	GSM1900	GSM850	GSM1900
GSM (GMSK, 1Tx-slot)	33.0	30.0	24.0	21.0
GPRS (GMSK, 1Tx-slot)	33.0	30.0	24.0	21.0
GPRS (GMSK, 2Tx-slot)	33.0	30.0	27.0	24.0
EDGE (8PSK, 1Tx-slot)	28.5	27.0	19.5	18.0
EDGE (8PSK, 2Tx-slot)	28.0	26.5	22.0	20.5

Note:

1. SAR testing was performed on the maximum frame-averaged power mode.
2. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:
   Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8)

Mode	WCDMA Band II	WCDMA Band IV	WCDMA Band V
RMC 12.2K	22.5	22.0	23.5
HSDPA / HSUPA / DC-HSDPA	22.0	21.5	23.0

Mode	LTE 2	LTE 4	LTE 5	LTE 7
Maximum Target Power	23.0	21.5	22.5	23.0

Mode	LTE 26	LTE 38	LTE 41
Maximum Target Power	22.5	23.0	23.0

Mode	Tx Antenna	2.4G WLAN (without Power Reduction_Cell off)	2.4G WLAN (with Power Reduction_Cell on)
802.11b	Ant-0	18.5	18.0
	Ant-1	18.5	17.0
	Ant-0+Ant-1	18.5	-
802.11g	Ant-0	Ch 1-12: 18.5 Ch 13: 8.5	Ch 1-12: 18.0 Ch 13: 8.5
	Ant-1	Ch 1-12: 18.5 Ch 13: 8.5	Ch 1-12: 17.0 Ch 13: 8.5
	Ant-0+Ant-1	Ch 1-12: 18.5 Ch 13: 8.5	-
802.11n HT20	Ant-0	Ch 1-12: 18.5 Ch 13: 8.0	Ch 1-12: 18.0 Ch 13: 8.0
	Ant-1	Ch 1-12: 18.5 Ch 13: 8.0	Ch 1-12: 17.0 Ch 13: 8.0
	Ant-0+Ant-1	Ch 1-12: 18.5 Ch 13: 8.0	-
802.11n HT40	Ant-0	Ch 3-10:16.5 Ch 11: 12.5	Ch 3-10:16.5 Ch 11: 12.5
	Ant-1	Ch 3-10:16.5 Ch 11: 12.5	Ch 3-10:16.5 Ch 11: 12.5
	Ant-0+Ant-1	Ch 3-10:16.5 Ch 11: 13.0	-

Mode	Tx Antenna	5.2G WLAN (without Power Reduction_Cell off)	5.2G WLAN (with Power Reduction_Cell on)
802.11a	Ant-0	18.5	-
	Ant-1	18.5	15.5
	Ant-0+Ant-1	18.5	-
802.11n HT20	Ant-0	17.5	-
	Ant-1	17.5	14.5
	Ant-0+Ant-1	17.5	-
802.11n HT40	Ant-0	17.5	-
	Ant-1	17.5	14.5
	Ant-0+Ant-1	17.5	-
802.11ac VHT80	Ant-0	16.5	-
	Ant-1	16.5	13.5
	Ant-0+Ant-1	16.5	-

Mode	Tx Antenna	5.3G WLAN (without Power Reduction_Cell off)	5.3G WLAN (with Power Reduction_Cell on)
802.11a	Ant-0	18.5	-
	Ant-1	18.5	15.5
	Ant-0+Ant-1	18.5	-
802.11n HT20	Ant-0	17.5	-
	Ant-1	17.5	14.5
	Ant-0+Ant-1	17.5	-
802.11n HT40	Ant-0	17.5	-
	Ant-1	17.5	14.5
	Ant-0+Ant-1	17.5	-
802.11ac VHT80	Ant-0	16.5	-
	Ant-1	16.5	13.5
	Ant-0+Ant-1	16.5	-

Mode	Tx Antenna	5.6G WLAN (without Power Reduction_Cell off)	5.6G WLAN (with Power Reduction_Cell on)
802.11a	Ant-0	17.5	-
	Ant-1	17.5	13.5
	Ant-0+Ant-1	17.5	-
802.11n HT20	Ant-0	16.5	-
	Ant-1	16.5	12.5
	Ant-0+Ant-1	16.5	-
802.11n HT40	Ant-0	16.5	
	Ant-1	16.5	12.5
	Ant-0+Ant-1	16.5	-
802.11ac VHT80	Ant-0	15.5	-
	Ant-1	15.5	11.5
	Ant-0+Ant-1	15.5	-

Mode	Tx Antenna	5.8G WLAN (without Power Reduction_Cell off)	5.8G WLAN (with Power Reduction_Cell on)
802.11a	Ant-0	18.5	-
	Ant-1	18.5	15.0
	Ant-0+Ant-1	18.5	-
802.11n HT20	Ant-0	17.5	-
	Ant-1	17.5	14.0
	Ant-0+Ant-1	17.5	-
802.11n HT40	Ant-0	17.5	-
	Ant-1	17.5	14.0
	Ant-0+Ant-1	17.5	-
802.11ac VHT80	Ant-0	16.5	-
	Ant-1	16.5	13.0
	Ant-0+Ant-1	16.5	-

Mode	2.4G Bluetooth
Bluetooth DH	Ch 0: 9.0 Ch 39: 12.0 Ch 78: 9.5
Bluetooth LE	Ch 0: 9.0 Ch 19: 8.0 Ch 39: 9.5

4.6.2 Measured Conducted Power Result

The measuring conducted average power (Unit: dBm) is shown as below.

Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency (MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
Maximum Burst-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	32.64	32.82	**32.93**	29.71	29.79	**29.99**
GPRS (GMSK, 1Tx-slot)	32.63	32.81	32.91	29.70	29.77	29.98
GPRS (GMSK, 2Tx-slot)	32.19	32.35	32.45	29.43	29.50	29.78
EDGE (8PSK, 1Tx-slot)	27.81	28.15	28.25	26.26	26.34	26.62
EDGE (8PSK, 2Tx-slot)	27.19	27.53	27.63	25.82	25.96	26.24

Band	WCDMA Band II			WCDMA Band IV			WCDMA Band V			3GPP MPR (dB)
Channel	9262	9400	9538	1312	1413	1513	4132	4182	4233	
Frequency (MHz)	1852.4	1880.0	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6	
RMC 12.2K	22.43	**22.49**	22.48	21.69	**21.73**	21.65	23.41	**23.47**	23.45	-
HSDPA Subtest-1	21.41	21.47	21.46	20.67	20.71	20.63	22.43	22.49	22.47	0
HSDPA Subtest-2	21.40	21.46	21.45	20.66	20.70	20.62	22.42	22.48	22.46	0
HSDPA Subtest-3	20.97	21.03	21.02	20.20	20.24	20.16	21.92	21.98	21.96	0.5
HSDPA Subtest-4	20.95	21.01	21.00	20.17	20.21	20.13	21.90	21.96	21.94	0.5
DC-HSDPA Subtest-1	21.30	21.36	21.35	20.58	20.62	20.54	22.31	22.37	22.35	0
DC-HSDPA Subtest-2	21.29	21.35	21.34	20.57	20.61	20.53	22.30	22.36	22.34	0
DC-HSDPA Subtest-3	20.86	20.92	20.91	20.11	20.15	20.07	21.80	21.86	21.84	0.5
DC-HSDPA Subtest-4	20.84	20.90	20.89	20.08	20.12	20.04	21.78	21.84	21.82	0.5
HSUPA Subtest-1	21.59	21.65	21.64	20.75	20.79	20.71	22.43	22.49	22.47	0
HSUPA Subtest-2	19.60	19.66	19.65	18.79	18.83	18.75	20.42	20.48	20.46	2
HSUPA Subtest-3	20.58	20.64	20.63	19.77	19.81	19.73	21.40	21.46	21.44	1
HSUPA Subtest-4	19.56	19.62	19.61	18.72	18.76	18.68	20.36	20.42	20.40	2
HSUPA Subtest-5	21.65	21.71	21.70	20.78	20.82	20.74	22.42	22.48	22.46	0

LTE Band 2

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency (MHz)		1860.0	1880.0	1900.0				Frequency (MHz)		1857.5	1880.0	1902.5	
20M	QPSK	1	0	**22.21**	22.18	22.02	0	15M	QPSK	1	0	22.13	22.17	21.97	0
		1	50	22.11	22.08	21.92	0			1	37	22.08	22.03	21.83	0
		1	99	22.17	22.14	21.98	0			1	74	22.08	22.09	21.98	0
		50	0	**21.32**	21.24	21.08	1			36	0	21.20	21.20	21.08	1
		50	25	21.29	21.26	21.10	1			36	19	21.20	21.26	21.09	1
		50	50	21.31	21.28	21.12	1			36	39	21.27	21.27	21.09	1
		100	0	**21.27**	21.24	21.08	1			75	0	21.17	21.15	21.01	1
	16QAM	1	0	21.15	21.12	21.01	1		16QAM	1	0	21.10	21.00	20.92	1
		1	50	21.05	21.08	20.86	1			1	37	21.06	20.94	20.81	1
		1	99	21.12	21.04	20.93	1			1	74	21.07	21.05	20.78	1
		50	0	20.19	20.14	19.99	2			36	0	20.20	20.11	19.97	2
		50	25	20.24	20.23	20.07	2			36	19	20.14	20.14	20.03	2
		50	50	20.31	20.27	20.02	2			36	39	20.21	20.17	19.98	2
		100	0	20.25	20.22	19.98	2			75	0	20.21	20.15	19.96	2
	64QAM	1	0	20.16	20.12	19.94	2		64QAM	1	0	20.08	20.04	19.99	2
		1	50	20.06	19.99	19.84	2			1	37	20.00	19.99	19.80	2
		1	99	20.09	20.11	19.92	2			1	74	20.09	20.07	19.92	2
		50	0	19.17	19.17	18.98	3			36	0	19.21	19.14	19.04	3
		50	25	19.23	19.22	19.08	3			36	19	19.18	19.21	19.01	3
		50	50	19.24	19.28	19.02	3			36	39	19.17	19.20	19.08	3
		100	0	19.18	19.21	18.99	3			75	0	19.23	19.10	18.90	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18650	18900	19150				Channel		18625	18900	19175	
		Frequency (MHz)		1855.0	1880.0	1905.0				Frequency (MHz)		1852.5	1880.0	1907.5	
10M	QPSK	1	0	22.08	22.09	21.84	0	5M	QPSK	1	0	22.20	22.15	21.88	0
		1	24	21.98	22.01	21.74	0			1	12	22.04	21.99	21.82	0
		1	49	22.08	21.93	21.90	0			1	24	22.05	21.91	21.73	0
		25	0	21.22	21.07	20.85	1			12	0	21.26	21.13	20.94	1
		25	12	21.19	21.16	20.97	1			12	6	21.19	21.06	20.94	1
		25	25	21.15	21.17	20.95	1			12	13	21.12	21.12	21.03	1
		50	0	21.16	21.11	20.94	1			25	0	21.12	21.11	20.93	1
	16QAM	1	0	20.99	21.11	20.80	1		16QAM	1	0	21.08	21.01	20.93	1
		1	24	20.87	20.96	20.65	1			1	12	20.98	20.89	20.74	1
		1	49	21.00	21.03	20.74	1			1	24	20.87	20.95	20.82	1
		25	0	20.13	19.99	19.87	2			12	0	20.14	20.14	19.90	2
		25	12	20.11	20.13	19.91	2			12	6	19.97	20.14	19.79	2
		25	25	20.14	20.05	20.02	2			12	13	20.05	20.14	19.97	2
		50	0	20.10	19.96	19.86	2			25	0	20.02	20.07	20.04	2
	64QAM	1	0	19.97	20.08	19.80	2		64QAM	1	0	19.98	20.01	19.93	2
		1	24	20.00	19.99	19.67	2			1	12	19.90	19.86	19.65	2
		1	49	20.05	19.91	19.78	2			1	24	20.11	20.04	19.77	2
		25	0	19.15	18.95	18.88	3			12	0	19.04	19.12	18.79	3
		25	12	19.08	19.09	18.88	3			12	6	19.08	19.16	18.95	3
		25	25	19.19	19.22	18.86	3			12	13	19.10	19.02	18.98	3
		50	0	19.17	18.98	18.91	3			25	0	19.07	19.07	18.91	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18615	18900	19185				Channel		18607	18900	19193	
		Frequency (MHz)		1851.5	1880.0	1908.5				Frequency (MHz)		1850.7	1880.0	1909.3	
3M	QPSK	1	0	22.01	22.05	21.90	0	1.4M	QPSK	1	0	22.00	22.13	21.87	0
		1	7	21.89	22.02	21.86	0			1	2	22.08	21.85	21.83	0
		1	14	22.00	22.04	21.84	0			1	5	22.03	21.97	21.84	0
		8	0	21.15	21.11	21.03	1			3	0	22.14	22.06	21.99	0
		8	3	21.13	21.10	21.00	1			3	1	22.15	22.09	22.00	0
		8	7	21.09	21.25	20.96	1			3	3	22.10	22.02	21.96	0
		15	0	21.14	21.06	20.84	1			6	0	21.11	21.13	20.93	1
	16QAM	1	0	21.05	21.01	20.88	1		16QAM	1	0	20.94	20.94	20.95	1
		1	7	20.92	20.90	20.75	1			1	2	20.81	20.83	20.66	1
		1	14	20.95	21.05	20.73	1			1	5	21.02	21.03	20.81	1
		8	0	19.99	20.11	19.86	2			3	0	20.98	21.08	20.95	1
		8	3	20.01	20.03	20.00	2			3	1	21.23	21.15	20.90	1
		8	7	20.19	20.17	19.96	2			3	3	21.06	21.12	20.96	1
		15	0	20.05	20.11	19.91	2			6	0	20.03	20.01	19.87	2
	64QAM	1	0	20.08	20.08	19.82	2		64QAM	1	0	19.88	19.94	19.94	2
		1	7	19.88	19.95	19.77	2			1	2	19.95	19.93	19.81	2
		1	14	19.93	19.94	19.73	2			1	5	20.01	19.95	19.90	2
		8	0	19.11	19.03	18.93	3			3	0	20.15	20.05	19.93	2
		8	3	19.08	19.13	18.88	3			3	1	20.04	20.06	19.93	2
		8	7	19.21	19.15	18.81	3			3	3	20.19	20.02	19.91	2
		15	0	19.08	19.00	18.91	3			6	0	19.08	19.06	18.87	3

LTE Band 4

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20050	20175	20300				Channel		20025	20175	20325	
		Frequency (MHz)		1720.0	1732.5	1745.0				Frequency (MHz)		1717.5	1732.5	1747.5	
20M	QPSK	1	0	**21.47**	21.37	21.31	0	15M	QPSK	1	0	21.44	21.34	21.28	0
		1	50	21.42	21.32	21.26	0			1	37	21.39	21.29	21.23	0
		1	99	21.36	21.26	21.20	0			1	74	21.33	21.23	21.17	0
		50	0	**20.46**	20.36	20.30	1			36	0	20.43	20.33	20.27	1
		50	25	20.43	20.33	20.27	1			36	19	20.40	20.30	20.24	1
		50	50	20.41	20.31	20.25	1			36	39	20.38	20.28	20.22	1
		100	0	**20.42**	20.32	20.26	1			75	0	20.39	20.29	20.23	1
	16QAM	1	0	20.49	20.39	20.33	1		16QAM	1	0	20.46	20.36	20.30	1
		1	50	20.44	20.34	20.28	1			1	37	20.41	20.31	20.25	1
		1	99	20.38	20.28	20.22	1			1	74	20.35	20.25	20.19	1
		50	0	19.48	19.38	19.32	2			36	0	19.45	19.35	19.29	2
		50	25	19.45	19.35	19.29	2			36	19	19.42	19.32	19.26	2
		50	50	19.43	19.33	19.27	2			36	39	19.40	19.30	19.24	2
		100	0	19.44	19.34	19.28	2			75	0	19.41	19.31	19.25	2
	64QAM	1	0	19.47	19.37	19.31	2		64QAM	1	0	19.44	19.34	19.28	2
		1	50	19.42	19.32	19.26	2			1	37	19.39	19.29	19.23	2
		1	99	19.36	19.26	19.20	2			1	74	19.33	19.23	19.17	2
		50	0	18.46	18.36	18.30	3			36	0	18.43	18.33	18.27	3
		50	25	18.43	18.33	18.27	3			36	19	18.40	18.30	18.24	3
		50	50	18.41	18.31	18.25	3			36	39	18.38	18.28	18.22	3
		100	0	18.42	18.32	18.26	3			75	0	18.39	18.29	18.23	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20000	20175	20350				Channel		19975	20175	20375	
		Frequency (MHz)		1715.0	1732.5	1750.0				Frequency (MHz)		1712.5	1732.5	1752.5	
10M	QPSK	1	0	21.39	21.29	21.23	0	5M	QPSK	1	0	21.36	21.26	21.20	0
		1	24	21.34	21.24	21.18	0			1	12	21.31	21.21	21.15	0
		1	49	21.28	21.18	21.12	0			1	24	21.25	21.15	21.09	0
		25	0	20.38	20.28	20.22	1			12	0	20.35	20.25	20.19	1
		25	12	20.35	20.25	20.19	1			12	6	20.32	20.22	20.16	1
		25	25	20.33	20.23	20.17	1			12	13	20.30	20.20	20.14	1
		50	0	20.34	20.24	20.18	1			25	0	20.31	20.21	20.15	1
	16QAM	1	0	20.41	20.31	20.25	1		16QAM	1	0	20.38	20.28	20.22	1
		1	24	20.36	20.26	20.20	1			1	12	20.33	20.23	20.17	1
		1	49	20.30	20.20	20.14	1			1	24	20.27	20.17	20.11	1
		25	0	19.40	19.30	19.24	2			12	0	19.37	19.27	19.21	2
		25	12	19.37	19.27	19.21	2			12	6	19.34	19.24	19.18	2
		25	25	19.35	19.25	19.19	2			12	13	19.32	19.22	19.16	2
		50	0	19.36	19.26	19.20	2			25	0	19.33	19.23	19.17	2
	64QAM	1	0	**19.39**	19.29	19.23	2		64QAM	1	0	**19.36**	19.26	19.20	2
		1	24	19.34	19.24	19.18	2			1	12	19.31	19.21	19.15	2
		1	49	19.28	19.18	19.12	2			1	24	19.25	19.15	19.09	2
		25	0	18.38	18.28	18.22	3			12	0	18.35	18.25	18.19	3
		25	12	18.35	18.25	18.19	3			12	6	18.32	18.22	18.16	3
		25	25	18.33	18.23	18.17	3			12	13	18.30	18.20	18.14	3
		50	0	18.34	18.24	18.18	3			25	0	18.31	18.21	18.15	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		19965	20175	20385				Channel		19957	20175	20393	
		Frequency (MHz)		1711.5	1732.5	1753.5				Frequency (MHz)		1710.7	1732.5	1754.3	
3M	QPSK	1	0	21.41	21.31	21.25	0	1.4M	QPSK	1	0	21.38	21.28	21.22	0
		1	7	21.36	21.26	21.20	0			1	2	21.33	21.23	21.17	0
		1	14	21.30	21.20	21.14	0			1	5	21.27	21.17	21.11	0
		8	0	20.40	20.30	20.24	1			3	0	21.19	21.09	21.03	0
		8	3	20.37	20.27	20.21	1			3	1	21.16	21.06	21.00	0
		8	7	20.35	20.25	20.19	1			3	3	21.14	21.04	20.98	0
		15	0	20.36	20.26	20.20	1			6	0	20.33	20.23	20.17	1
	16QAM	1	0	20.43	20.33	20.27	1		16QAM	1	0	20.40	20.30	20.24	1
		1	7	20.38	20.28	20.22	1			1	2	20.35	20.25	20.19	1
		1	14	20.32	20.22	20.16	1			1	5	20.29	20.19	20.13	1
		8	0	19.42	19.32	19.26	2			3	0	20.22	20.12	20.06	1
		8	3	19.39	19.29	19.23	2			3	1	20.19	20.09	20.03	1
		8	7	19.37	19.27	19.21	2			3	3	20.17	20.07	20.01	1
		15	0	19.38	19.28	19.22	2			6	0	19.35	19.25	19.19	2
	64QAM	1	0	19.41	19.31	19.25	2		64QAM	1	0	**19.38**	19.28	19.22	2
		1	7	19.36	19.26	19.20	2			1	2	19.33	19.23	19.17	2
		1	14	19.30	19.20	19.14	2			1	5	19.27	19.17	19.11	2
		8	0	18.40	18.30	18.24	3			3	0	19.21	19.11	19.05	2
		8	3	18.37	18.27	18.21	3			3	1	19.18	19.08	19.02	2
		8	7	18.35	18.25	18.19	3			3	3	19.16	19.06	19.00	2
		15	0	18.36	18.26	18.20	3			6	0	18.33	18.23	18.17	3

LTE Band 5

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20450	20525	20600				Channel		20425	20525	20625	
		Frequency (MHz)		829.0	836.5	844.0				Frequency (MHz)		826.5	836.5	846.5	
10M	QPSK	1	0	22.26	**22.32**	22.24	0	5M	QPSK	1	0	22.21	22.27	22.19	0
		1	24	22.21	22.27	22.19	0			1	12	22.16	22.22	22.14	0
		1	49	22.15	22.21	22.13	0			1	24	22.10	22.16	22.08	0
		25	0	21.25	**21.31**	21.23	1			12	0	21.20	21.26	21.18	1
		25	12	21.21	21.27	21.19	1			12	6	21.16	21.22	21.14	1
		25	25	21.20	21.26	21.18	1			12	13	21.15	21.21	21.13	1
		50	0	21.19	**21.25**	21.17	1			25	0	21.14	21.20	21.12	1
	16QAM	1	0	21.22	**21.27**	21.20	1		16QAM	1	0	21.17	21.22	21.15	1
		1	24	21.17	21.22	21.15	1			1	12	21.12	21.17	21.10	1
		1	49	21.11	21.16	21.09	1			1	24	21.06	21.11	21.04	1
		25	0	20.21	20.26	20.19	2			12	0	20.16	20.21	20.14	2
		25	12	20.17	20.22	20.15	2			12	6	20.12	20.17	20.10	2
		25	25	20.16	20.21	20.14	2			12	13	20.11	20.16	20.09	2
		50	0	20.15	20.20	20.13	2			25	0	20.10	20.15	20.08	2
	64QAM	1	0	20.18	**20.25**	20.16	2		64QAM	1	0	20.13	**20.20**	20.11	2
		1	24	20.13	20.20	20.11	2			1	12	20.08	20.15	20.06	2
		1	49	20.07	20.14	20.05	2			1	24	20.02	20.09	20.00	2
		25	0	19.17	19.24	19.15	3			12	0	19.12	19.19	19.10	3
		25	12	19.13	19.20	19.11	3			12	6	19.08	19.15	19.06	3
		25	25	19.12	19.19	19.10	3			12	13	19.07	19.14	19.05	3
		50	0	19.11	19.18	19.09	3			25	0	19.06	19.13	19.04	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20415	20525	20635				Channel		20407	20525	20643	
		Frequency (MHz)		825.5	836.5	847.5				Frequency (MHz)		824.7	836.5	848.3	
3M	QPSK	1	0	22.18	22.24	22.16	0	1.4M	QPSK	1	0	22.16	22.22	22.14	0
		1	7	22.13	22.19	22.11	0			1	2	22.11	22.17	22.09	0
		1	14	22.07	22.13	22.05	0			1	5	22.05	22.11	22.03	0
		8	0	21.17	21.23	21.15	1			3	0	21.97	22.03	21.95	0
		8	3	21.13	21.19	21.11	1			3	1	21.93	21.99	21.91	0
		8	7	21.12	21.18	21.10	1			3	3	21.92	21.98	21.90	0
		15	0	21.11	21.17	21.09	1			6	0	21.09	21.15	21.07	1
	16QAM	1	0	21.14	21.19	21.12	1		16QAM	1	0	21.12	**21.17**	21.10	1
		1	7	21.09	21.14	21.07	1			1	2	21.07	21.12	21.05	1
		1	14	21.03	21.08	21.01	1			1	5	21.01	21.06	20.99	1
		8	0	20.13	20.18	20.11	2			3	0	20.94	20.99	20.92	1
		8	3	20.09	20.14	20.07	2			3	1	20.90	20.95	20.88	1
		8	7	20.08	20.13	20.06	2			3	3	20.89	20.94	20.87	1
		15	0	20.07	20.12	20.05	2			6	0	20.05	20.10	20.03	2
	64QAM	1	0	20.10	**20.17**	20.08	2		64QAM	1	0	20.08	**20.15**	20.06	2
		1	7	20.05	20.12	20.03	2			1	2	20.03	20.10	20.01	2
		1	14	19.99	20.06	19.97	2			1	5	19.97	20.04	19.95	2
		8	0	19.09	19.16	19.07	3			3	0	19.90	19.97	19.88	2
		8	3	19.05	19.12	19.03	3			3	1	19.86	19.93	19.84	2
		8	7	19.04	19.11	19.02	3			3	3	19.85	19.92	19.83	2
		15	0	19.03	19.10	19.01	3			6	0	19.01	19.08	18.99	3

LTE Band 7

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20850	21100	21350				Channel		20825	21100	21375	
		Frequency (MHz)		2510.0	2535.0	2560.0				Frequency (MHz)		2507.5	2535.0	2562.5	
20M	QPSK	1	0	**22.82**	22.54	22.49	0	15M	QPSK	1	0	22.74	22.46	22.41	0
		1	50	22.71	22.58	22.53	0			1	37	22.63	22.50	22.45	0
		1	99	22.67	22.69	22.64	0			1	74	22.59	22.61	22.56	0
		50	0	**21.92**	21.71	21.66	1			36	0	21.76	21.63	21.58	1
		50	25	21.86	21.73	21.68	1			36	19	21.78	21.65	21.60	1
		50	50	21.84	21.79	21.74	1			36	39	21.84	21.71	21.66	1
		100	0	**21.76**	21.63	21.58	1			75	0	21.68	21.55	21.50	1
	16QAM	1	0	21.47	21.52	21.65	1		16QAM	1	0	21.39	21.44	21.57	1
		1	50	21.51	21.56	21.69	1			1	37	21.43	21.48	21.61	1
		1	99	21.62	21.67	21.80	1			1	74	21.54	21.59	21.72	1
		50	0	20.64	20.69	20.82	2			36	0	20.56	20.61	20.74	2
		50	25	20.66	20.71	20.84	2			36	19	20.58	20.63	20.76	2
		50	50	20.72	20.77	20.90	2			36	39	20.64	20.69	20.82	2
		100	0	20.56	20.61	20.74	2			75	0	20.48	20.53	20.66	2
	64QAM	1	0	20.43	20.50	20.61	2		64QAM	1	0	20.35	20.42	20.53	2
		1	50	20.47	20.54	20.65	2			1	37	20.39	20.46	20.57	2
		1	99	20.58	20.65	20.76	2			1	74	20.50	20.57	20.68	2
		50	0	19.60	19.67	19.78	3			36	0	19.52	19.59	19.70	3
		50	25	19.62	19.69	19.80	3			36	19	19.54	19.61	19.72	3
		50	50	19.68	19.75	19.86	3			36	39	19.60	19.67	19.78	3
		100	0	19.52	19.59	19.70	3			75	0	19.44	19.51	19.62	3
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20800	21100	21400				Channel		20775	21100	21425	
		Frequency (MHz)		2505.0	2535.0	2565.0				Frequency (MHz)		2502.5	2535.0	2567.5	
10M	QPSK	1	0	22.44	22.49	22.62	0	5M	QPSK	1	0	22.21	22.18	22.31	0
		1	24	22.48	22.53	22.66	0			1	12	22.43	22.48	22.61	0
		1	49	22.59	22.64	22.77	0			1	24	22.18	22.29	22.09	0
		25	0	21.61	21.66	21.79	1			12	0	21.56	21.61	21.74	1
		25	12	21.63	21.68	21.81	1			12	6	21.58	21.63	21.76	1
		25	25	21.69	21.74	21.87	1			12	13	21.64	21.69	21.82	1
		50	0	21.53	21.58	21.71	1			25	0	21.48	21.53	21.66	1
	16QAM	1	0	21.42	21.47	21.60	1		16QAM	1	0	21.37	21.42	21.55	1
		1	24	21.46	21.51	21.64	1			1	12	21.41	21.46	21.59	1
		1	49	21.57	21.62	21.75	1			1	24	21.52	21.57	21.70	1
		25	0	20.59	20.64	20.77	2			12	0	20.54	20.59	20.72	2
		25	12	20.61	20.66	20.79	2			12	6	20.56	20.61	20.74	2
		25	25	20.67	20.72	20.85	2			12	13	20.62	20.67	20.80	2
		50	0	20.51	20.56	20.69	2			25	0	20.46	20.51	20.64	2
	64QAM	1	0	20.38	20.45	20.56	2		64QAM	1	0	20.33	20.40	20.51	2
		1	24	20.42	20.49	20.60	2			1	12	20.37	20.44	20.55	2
		1	49	20.53	20.60	20.71	2			1	24	20.48	20.55	20.66	2
		25	0	19.55	19.62	19.73	3			12	0	19.50	19.57	19.68	3
		25	12	19.57	19.64	19.75	3			12	6	19.52	19.59	19.70	3
		25	25	19.63	19.70	19.81	3			12	13	19.58	19.65	19.76	3
		50	0	19.47	19.54	19.65	3			25	0	19.42	19.49	19.60	3

LTE Band 26

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26765	26865	26965	
		Frequency (MHz)		821.5	831.5	841.5	
15M	QPSK	1	0	22.31	22.36	**22.41**	0
		1	37	22.28	22.33	22.38	0
		1	74	22.26	22.31	22.36	0
		36	0	21.42	21.47	**21.49**	1
		36	19	21.39	21.44	21.47	1
		36	39	21.36	21.41	21.45	1
		75	0	21.37	21.42	**21.47**	1
	16QAM	1	0	21.29	21.34	21.39	1
		1	37	21.26	21.31	21.36	1
		1	74	21.24	21.29	21.34	1
		36	0	20.40	20.45	20.50	2
		36	19	20.37	20.42	20.47	2
		36	39	20.34	20.39	20.44	2
		75	0	20.35	20.40	20.45	2
	64QAM	1	0	20.25	20.32	20.35	2
		1	37	20.22	20.29	20.32	2
		1	74	20.20	20.27	20.30	2
		36	0	19.36	19.43	19.46	3
		36	19	19.33	19.40	19.43	3
		36	39	19.30	19.37	19.40	3
		75	0	19.31	19.38	19.41	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26740	26865	26990	
		Frequency (MHz)		819.0	831.5	844.0	
10M	QPSK	1	0	22.21	22.26	22.31	0
		1	24	22.18	22.23	22.28	0
		1	49	22.16	22.21	22.26	0
		25	0	21.32	21.37	21.42	1
		25	12	21.29	21.34	21.39	1
		25	25	21.26	21.31	21.36	1
		50	0	21.27	21.32	21.37	1
	16QAM	1	0	21.19	21.24	21.29	1
		1	24	21.16	21.21	21.26	1
		1	49	21.14	21.19	21.24	1
		25	0	20.30	20.35	20.40	2
		25	12	20.27	20.32	20.37	2
		25	25	20.24	20.29	20.34	2
		50	0	20.25	20.30	20.35	2
	64QAM	1	0	20.15	20.22	20.25	2
		1	24	20.12	20.19	20.22	2
		1	49	20.10	20.17	20.20	2
		25	0	19.26	19.33	19.36	3
		25	12	19.23	19.30	19.33	3
		25	25	19.20	19.27	19.30	3
		50	0	19.21	19.28	19.31	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26715	26865	27015	
		Frequency (MHz)		816.5	831.5	846.5	
5M	QPSK	1	0	22.19	22.24	22.29	0
		1	12	22.16	22.21	22.26	0
		1	24	22.14	22.19	22.24	0
		12	0	21.30	21.35	21.40	1
		12	6	21.27	21.32	21.37	1
		12	13	21.24	21.29	21.34	1
		25	0	21.25	21.30	21.35	1
	16QAM	1	0	21.17	21.22	21.27	1
		1	12	21.14	21.19	21.24	1
		1	24	21.12	21.17	21.22	1
		12	0	20.28	20.33	20.38	2
		12	6	20.25	20.30	20.35	2
		12	13	20.22	20.27	20.32	2
		25	0	20.23	20.28	20.33	2
	64QAM	1	0	20.13	20.20	20.23	2
		1	12	20.10	20.17	20.20	2
		1	24	20.08	20.15	20.18	2
		12	0	19.24	19.31	19.34	3
		12	6	19.21	19.28	19.31	3
		12	13	19.18	19.25	19.28	3
		25	0	19.19	19.26	19.29	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26705	26865	27025	
		Frequency (MHz)		815.5	831.5	847.5	
3M	QPSK	1	0	22.15	22.20	22.25	0
		1	7	22.12	22.17	22.22	0
		1	14	22.10	22.15	22.20	0
		8	0	21.26	21.31	21.36	1
		8	3	21.23	21.28	21.33	1
		8	7	21.20	21.25	21.30	1
		15	0	21.21	21.26	21.31	1
	16QAM	1	0	21.13	21.18	21.23	1
		1	7	21.10	21.15	21.20	1
		1	14	21.08	21.13	21.18	1
		8	0	20.24	20.29	20.34	2
		8	3	20.21	20.26	20.31	2
		8	7	20.18	20.23	20.28	2
		15	0	20.19	20.24	20.29	2
	64QAM	1	0	20.09	20.16	20.19	2
		1	7	20.06	20.13	20.16	2
		1	14	20.04	20.11	20.14	2
		8	0	19.20	19.27	19.30	3
		8	3	19.17	19.24	19.27	3
		8	7	19.14	19.21	19.24	3
		15	0	19.15	19.22	19.25	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26697	26865	27033	
		Frequency (MHz)		814.7	831.5	848.3	
1.4M	QPSK	1	0	22.13	22.18	22.23	0
		1	2	22.10	22.15	22.20	0
		1	5	22.08	22.13	22.18	0
		3	0	22.05	22.10	22.15	0
		3	1	22.02	22.07	22.12	0
		3	3	21.99	22.04	22.09	0
		6	0	21.19	21.24	21.29	1
	16QAM	1	0	21.11	21.16	21.21	1
		1	2	21.08	21.13	21.18	1
		1	5	21.06	21.11	21.16	1
		3	0	21.03	21.08	21.13	1
		3	1	21.00	21.05	21.10	1
		3	3	20.97	21.02	21.07	1
		6	0	20.17	20.22	20.27	2
	64QAM	1	0	20.07	20.14	20.17	2
		1	2	20.04	20.11	20.14	2
		1	5	20.02	20.09	20.12	2
		3	0	20.00	20.07	20.10	2
		3	1	19.97	20.04	20.07	2
		3	3	19.94	20.01	20.04	2
		6	0	19.13	19.20	19.23	3

LTE Band 38

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37850	38000	38150				Channel		37825	38000	38175	
		Frequency (MHz)		2580	2595	2610				Frequency (MHz)		2577.5	2595	2612.5	
20M	QPSK	1	0	**22.77**	22.73	22.75	0	15M	QPSK	1	0	22.45	22.43	22.47	0
		1	50	22.65	22.61	22.63	0			1	37	22.57	22.55	22.59	0
		1	99	22.53	22.49	22.51	0			1	74	22.69	22.67	22.71	0
		50	0	**21.77**	21.65	21.67	1			36	0	21.61	21.59	21.63	1
		50	25	21.75	21.71	21.73	1			36	19	21.67	21.65	21.69	1
		50	50	21.69	21.73	21.75	1			36	39	21.69	21.67	21.71	1
		100	0	**21.70**	21.66	21.68	1			75	0	21.62	21.60	21.64	1
	16QAM	1	0	21.49	21.47	21.51	1		16QAM	1	0	21.43	21.41	21.45	1
		1	50	21.61	21.59	21.63	1			1	37	21.55	21.53	21.57	1
		1	99	21.73	21.71	21.75	1			1	74	21.67	21.65	21.69	1
		50	0	20.65	20.63	20.67	2			36	0	20.59	20.57	20.61	2
		50	25	20.71	20.69	20.73	2			36	19	20.65	20.63	20.67	2
		50	50	20.73	20.71	20.75	2			36	39	20.67	20.65	20.69	2
		100	0	20.66	20.64	20.68	2			75	0	20.60	20.58	20.62	2
	64QAM	1	0	20.45	20.43	20.47	2		64QAM	1	0	20.39	20.37	20.41	2
		1	50	20.57	20.55	20.59	2			1	37	20.51	20.49	20.53	2
		1	99	20.69	20.67	20.71	2			1	74	20.63	20.61	20.65	2
		50	0	19.61	19.59	19.63	3			36	0	19.55	19.53	19.57	3
		50	25	19.67	19.65	19.69	3			36	19	19.61	19.59	19.63	3
		50	50	19.69	19.67	19.71	3			36	39	19.63	19.61	19.65	3
		100	0	19.62	19.60	19.64	3			75	0	19.56	19.54	19.58	3
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37800	38000	38200				Channel		37775	38000	38225	
		Frequency (MHz)		2575	2595	2615				Frequency (MHz)		2572.5	2595	2617.5	
10M	QPSK	1	0	22.41	22.39	22.43	0	5M	QPSK	1	0	22.39	22.37	22.41	0
		1	24	22.53	22.51	22.55	0			1	12	22.51	22.49	22.53	0
		1	49	22.65	22.63	22.67	0			1	24	22.63	22.61	22.65	0
		25	0	21.57	21.55	21.59	1			12	0	21.55	21.53	21.57	1
		25	12	21.63	21.61	21.65	1			12	6	21.61	21.59	21.63	1
		25	25	21.65	21.63	21.67	1			12	13	21.63	21.61	21.65	1
		50	0	21.58	21.56	21.60	1			25	0	21.56	21.54	21.58	1
	16QAM	1	0	21.39	21.37	21.41	1		16QAM	1	0	21.37	21.35	21.39	1
		1	24	21.51	21.49	21.53	1			1	12	21.49	21.47	21.51	1
		1	49	21.63	21.61	21.65	1			1	24	21.61	21.59	21.63	1
		25	0	20.55	20.53	20.57	2			12	0	20.53	20.51	20.55	2
		25	12	20.61	20.59	20.63	2			12	6	20.59	20.57	20.61	2
		25	25	20.63	20.61	20.65	2			12	13	20.61	20.59	20.63	2
		50	0	20.56	20.54	20.58	2			25	0	20.54	20.52	20.56	2
	64QAM	1	0	20.35	20.33	20.37	2		64QAM	1	0	20.33	20.31	20.35	2
		1	24	20.47	20.45	20.49	2			1	12	20.45	20.43	20.47	2
		1	49	20.59	20.57	20.61	2			1	24	20.57	20.55	20.59	2
		25	0	19.51	19.49	19.53	3			12	0	19.49	19.47	19.51	3
		25	12	19.57	19.55	19.59	3			12	6	19.55	19.53	19.57	3
		25	25	19.59	19.57	19.61	3			12	13	19.57	19.55	19.59	3
		50	0	19.52	19.50	19.54	3			25	0	19.50	19.48	19.52	3

LTE Band 41

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High	3GPP MPR (dB)
		Channel		40140	40470	40810	41140				Channel		40115	40465	40815	41165	
		Frequency (MHz)		2545	2578	2612	2645				Frequency (MHz)		2542.5	2577.5	2612.5	2647.5	
20M	QPSK	1	0	22.87	22.48	22.51	**22.89**	0	15M	QPSK	1	0	22.82	22.43	22.46	**22.84**	0
		1	50	22.84	22.45	22.48	22.86	0			1	37	22.79	22.40	22.43	22.81	0
		1	99	22.69	22.30	22.33	22.71	0			1	74	22.64	22.25	22.28	22.66	0
		50	0	21.92	21.53	21.56	**21.94**	1			36	0	21.87	21.48	21.51	21.89	1
		50	25	21.89	21.50	21.53	21.91	1			36	19	21.84	21.45	21.48	21.86	1
		50	50	21.87	21.48	21.51	21.89	1			36	39	21.82	21.43	21.46	21.84	1
		100	0	21.90	21.51	21.54	**21.92**	1			75	0	21.85	21.46	21.49	21.87	1
	16QAM	1	0	21.85	21.46	21.49	**21.87**	1		16QAM	1	0	**21.80**	21.41	21.44	**21.82**	1
		1	50	21.82	21.43	21.46	21.84	1			1	37	21.77	21.38	21.41	21.79	1
		1	99	21.67	21.28	21.31	21.69	1			1	74	21.62	21.23	21.26	21.64	1
		50	0	20.90	20.51	20.54	20.92	2			36	0	20.85	20.46	20.49	20.87	2
		50	25	20.87	20.48	20.51	20.89	2			36	19	20.82	20.43	20.46	20.84	2
		50	50	20.85	20.46	20.49	20.87	2			36	39	20.80	20.41	20.44	20.82	2
		100	0	20.88	20.49	20.52	20.90	2			75	0	20.83	20.44	20.47	20.85	2
	64QAM	1	0	**20.82**	20.43	20.46	**20.84**	2		64QAM	1	0	**20.77**	20.38	20.41	**20.79**	2
		1	50	20.79	20.40	20.43	20.81	2			1	37	20.74	20.35	20.38	20.76	2
		1	99	20.64	20.25	20.28	20.66	2			1	74	20.59	20.20	20.23	20.61	2
		50	0	19.87	19.48	19.51	19.89	3			36	0	19.82	19.43	19.46	19.84	3
		50	25	19.84	19.45	19.48	19.86	3			36	19	19.79	19.40	19.43	19.81	3
		50	50	19.82	19.43	19.46	19.84	3			36	39	19.77	19.38	19.41	19.79	3
		100	0	19.85	19.46	19.49	19.87	3			75	0	19.80	19.41	19.44	19.82	3
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	High	3GPP MPR (dB)
		Channel		40090	40450	40820	41190				Channel		40065	40445	40825	41215	
		Frequency (MHz)		2540	2576	2613	2650				Frequency (MHz)		2537.5	2575.5	2613.5	2652.5	
10M	QPSK	1	0	22.79	22.40	22.43	**22.81**	0	5M	QPSK	1	0	**22.75**	22.36	22.39	**22.77**	0
		1	24	22.76	22.37	22.40	22.78	0			1	12	22.72	22.33	22.36	22.74	0
		1	49	22.61	22.22	22.25	22.63	0			1	24	22.57	22.18	22.21	22.59	0
		25	0	21.84	21.45	21.48	21.86	1			12	0	21.80	21.41	21.44	21.82	1
		25	12	21.81	21.42	21.45	21.83	1			12	6	21.77	21.38	21.41	21.79	1
		25	25	21.79	21.40	21.43	21.81	1			12	13	21.75	21.36	21.39	21.77	1
		50	0	21.82	21.43	21.46	21.84	1			25	0	21.78	21.39	21.42	21.80	1
	16QAM	1	0	**21.77**	21.38	21.41	**21.79**	1		16QAM	1	0	21.73	21.34	21.37	**21.75**	1
		1	24	21.74	21.35	21.38	21.76	1			1	12	21.70	21.31	21.34	21.72	1
		1	49	21.59	21.20	21.23	21.61	1			1	24	21.55	21.16	21.19	21.57	1
		25	0	20.82	20.43	20.46	20.84	2			12	0	20.78	20.39	20.42	20.80	2
		25	12	20.79	20.40	20.43	20.81	2			12	6	20.75	20.36	20.39	20.77	2
		25	25	20.77	20.38	20.41	20.79	2			12	13	20.73	20.34	20.37	20.75	2
		50	0	20.80	20.41	20.44	20.82	2			25	0	20.76	20.37	20.40	20.78	2
	64QAM	1	0	**20.74**	20.35	20.38	**20.76**	2		64QAM	1	0	**20.70**	20.31	20.34	**20.72**	2
		1	24	20.71	20.32	20.35	20.73	2			1	12	20.67	20.28	20.31	20.69	2
		1	49	20.56	20.17	20.20	20.58	2			1	24	20.52	20.13	20.16	20.54	2
		25	0	19.79	19.40	19.43	19.81	3			12	0	19.75	19.36	19.39	19.77	3
		25	12	19.76	19.37	19.40	19.78	3			12	6	19.72	19.33	19.36	19.74	3
		25	25	19.74	19.35	19.38	19.76	3			12	13	19.70	19.31	19.34	19.72	3
		50	0	19.77	19.38	19.41	19.79	3			25	0	19.73	19.34	19.37	19.75	3

<WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (Cell off)					
802.11b	1	2412	18.28	18.14	18.30
	6	2437	18.18	18.03	18.36
	11	2462	**18.33**	**18.18**	18.37
	12	2467	18.20	18.11	**18.38**
	13	2472	18.03	18.01	18.15
EUT with Power Reduction (Cell on)					
802.11b	1	2412	17.84	16.88	-
	6	2437	17.69	16.71	-
	11	2462	**17.91**	**16.91**	-
	12	2467	17.82	16.89	-
	13	2472	17.71	16.78	-

<WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (Cell off)					
802.11a	36	5180	18.02	18.05	**18.17**
	40	5200	18.00	18.01	18.10
	44	5220	18.03	18.00	18.04
	48	5240	**18.06**	**18.11**	18.13
EUT with Power Reduction (Cell on)					
802.11a	36	5180	-	**15.18**	-
	40	5200	-	15.10	-
	44	5220	-	15.12	-
	48	5240	-	15.17	-

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (Cell off)					
802.11a	52	5260	18.06	18.01	18.17
	56	5280	18.11	18.06	18.08
	60	5300	18.13	18.05	**18.37**
	64	5320	**18.13**	**18.16**	18.29
EUT with Power Reduction (Cell on)					
802.11a	52	5260	-	15.24	-
	56	5280	-	15.19	-
	60	5300	-	15.21	-
	64	5320	-	**15.26**	-

<WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (Cell off)					
802.11a	100	5500	17.22	17.31	17.37
	116	5580	17.19	17.20	17.33
	120	5600	17.19	17.19	17.28
	124	5620	17.13	17.16	17.29
	132	5660	17.23	17.19	17.28
	140	5700	17.10	17.15	**17.49**
	144	5720	**17.26**	**17.34**	17.44
EUT with Power Reduction (Cell on)					
802.11a	100	5500	-	13.33	-
	116	5580	-	13.21	-
	120	5600	-	13.25	-
	124	5620	-	13.27	-
	132	5660	-	13.31	-
	140	5700	-	13.18	-
	144	5720	-	**13.42**	-

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
EUT without Power Reduction (Cell off)					
802.11a	149	5745	18.11	18.15	18.19
	153	5765	18.05	18.07	18.18
	157	5785	**18.19**	**18.23**	**18.34**
	161	5805	18.09	18.14	18.17
	165	5825	18.05	18.08	18.25
EUT with Power Reduction (Cell on)					
802.11a	149	5745	-	14.53	-
	153	5765	-	14.88	-
	157	5785	-	**14.94**	-
	161	5805	-	14.77	-
	165	5825	-	14.52	-

<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	8.67
	39	2441	11.52
	78	2480	9.37
Bluetooth LE	0	2402	8.68
	19	2440	7.93
	39	2480	9.46

4.7 SAR Testing Results

4.7.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

Testing of other required channels within the operating mode of a frequency band is not required when the reported SAR for the mid-band or highest output power channel is:

(1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz

(2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz

(3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

When SAR is not measured at the maximum power level allowed for production units, the measured SAR will be scaled to the maximum tune-up tolerance limit to determine compliance. The scaling factor for the tune-up power is defined as maximum tune-up limit (mW) / measured conducted power (mW). The reported SAR would be calculated by measured SAR x tune-up power scaling factor.

The SAR has been measured with highest transmission duty factor supported by the test mode tools for WLAN and/or Bluetooth. When the transmission duty factor could not achieve 100%, the reported SAR will be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up power. The scaling factor for the duty factor is defined as 100% / transmission duty cycle (%). The reported SAR would be calculated by measured SAR x tune-up power scaling factor x duty cycle scaling factor.

<KDB 941225 D01, 3G SAR Measurement Procedures>

The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ 1/4 dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

<KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>

(1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

(2) QPSK with 100% RB allocation

SAR is not required when the highest maximum output power for 100% RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

(3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > 1/2 dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is > 1/2 dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

<Power Confirmation for SAR Test Exclusion for LTE Downlink CA>

According to KDB 941225 D05A, the uplink maximum output power below was measured with downlink CA active on the channel with highest measured maximum output power when downlink CA is inactive. The downlink SCC channel was paired with the uplink channel as normal operation. For intra-band contiguous CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing per section 5.4.1A of 3GPP TS36.521. For intra-band non-contiguous CA, the downlink channel spacing between the component carriers was set to maximum separation from PCC and remain fully within the downlink transmission band. For Inter-band CA, the SCC downlink channel was set to near the middle of its transmission band.

Power Measurements for Intra-Band Contiguous Downlink CA

CA Combination	PCC								SCC1				SCC2				SCC3				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
38C	38	20M	37850	2310	1	0	37850	2310	38	20M	38048	2329.8	-	-	-	-	-	-	-	-	22.77	21.78

Power Measurements for Intra-Band Non-Contiguous Downlink CA

CA Combination	PCC								SCC1				SCC2				SCC3				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
CA_7A-7A	7	20M	20850	2510	1	0	2850	2360	7	20M	3100	2655	-	-	-	-	-	-	-	-	22.82	21.18
CA_41A-41A	41	20M	41140	2645	1	0	41055	2645	41	20M	40470	2578	-	-	-	-	-	-	-	-	22.89	22.39

Power Measurements for Inter-Band Downlink CA

CA Combination	PCC								SCC1				SCC2				SCC3				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
CA_2A-2A-5A	2	20M	18700	1860	1	0	700	1940	2	20M	900	1960	5	10M	2525	881.5	-	-	-	-	22.21	22.08
CA_4A-5A	4	20M	20050	1720	1	0	2050	2120	5	10M	2525	881.5	-	-	-	-	-	-	-	-	22.68	22.18
CA_4A-46C	4	20M	20050	1720	1	0	2050	2120	46	20M	50665	5537.5	46	20M	50863	5557.3	-	-	-	-	22.68	22.11
CA_5A-7A	5	10M	20525	836.5	1	0	2525	881.5	7	20M	3100	2655	-	-	-	-	-	-	-	-	22.32	21.92
CA_7A-46D	7	20M	20850	2510	1	0	2850	2630	46	20M	50665	5537.5	46	20M	50863	5557.3	46	20M	51061	5577.1	22.82	22.02

Power Measurements for Inter Band Downlink CA (4*4 MIMO)

CA Combination	PCC								SCC1				SCC2				SCC3				Power	
	LTE Band	BW (MHz)	UL Ch	UL Freq. (MHz)	RB Size	RB Offset	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
CA_7A-7A	7	20M	20850	2510	1	0	2850	2360	7	20M	3100	2655	-	-	-	-	-	-	-	-	22.82	22.25

Summary for SAR Test Exclusion for LTE Downlink CA

Per power confirmation results in above, the uplink maximum output power with downlink CA active remains within the specified tune-up tolerance and not more than 0.25 dB higher than the maximum output power with downlink CA inactive. According to KDB 941225 D05A, the SAR test exclusion applies to LTE downlink CA operation.

<Power Confirmation for SAR Testing for LTE Uplink CA>

The conducted power for uplink CA active was measured on the highest reported SAR configuration for each exposure condition with both two carrier components was set to largest channel bandwidth.

PCC							SCC							Power	
Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	MPR Level (dB)	Tx Power with UL-CA Active (dBm)
7	20	QPSK	1	0	20850	2510	7	20	QPSK	1	99	21048	2529.8	0-8.5	14.71
			1	99						1	0			0	22.38
7	20	QPSK	1	0	21001	2525.1	7	20	QPSK	1	99	21199	2544.9	0-8.5	14.36
			1	99						1	0			0	22.61
7	20	QPSK	1	0	21152	2540.2	7	20	QPSK	1	99	21350	2560	0-8.5	14.26
			1	99						1	0			0	22.51
38	20	QPSK	1	0	37850	2580	38	20	QPSK	1	99	38048	2599.8	0-8.5	14.12
			1	99						1	0			0	22.50
38	20	QPSK	1	0	37901	2585.1	38	20	QPSK	1	99	38099	2604.9	0-8.5	14.20
			1	99						1	0			0	22.35
38	20	QPSK	1	0	37952	2590.2	38	20	QPSK	1	99	38150	2610	0-8.5	14.45
			1	99						1	0			0	22.43
41	20	QPSK	1	0	40140	2545	41	20	QPSK	1	99	40338	2564.8	0-8.5	14.42
			1	99						1	0			0	21.52
41	20	QPSK	1	0	40470	2578	41	20	QPSK	1	99	40668	2597.8	0-8.5	14.08
			1	99						1	0			0	22.29
41	20	QPSK	1	0	40810	2612	41	20	QPSK	1	99	41008	2631.8	0-8.5	13.44
			1	99						1	0			0	22.02
41	20	QPSK	1	0	40942	2625.2	41	20	QPSK	1	99	41140	2645	0-8.5	12.63
			1	99						1	0			0	21.24

SAR Measurements for Intra-Band Contiguous CA

The SAR testing was performed with the single carrier (uplink CA is inactive) for all test positions for each exposure condition. The LTE uplink CA active was verified with maximum output power on the highest SAR configuration of single carrier for each exposure condition. For intra-band contiguous CA, the SCC channel was set to closest available contiguous channel.

<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

(1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is <= 0.4 W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is <= 0.8 W/kg or all test positions are measured.

(2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is <= 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is <= 1.2 W/kg.

(3) For WLAN 5 GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is <= 1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is <= 1.2 W/kg.

(4) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

4.7.2 SAR Results for Head Exposure Condition

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	GSM850	GPRS10	Right Cheek	251	-	Ant 0	33.0	32.45	1.14	-0.19	0.382	0.44
	GSM850	GPRS10	Right Tilted	251	-	Ant 0	33.0	32.45	1.14	0.03	0.246	0.28
	GSM850	GPRS10	Left Cheek	251	-	Ant 0	33.0	32.45	1.14	0.09	0.321	0.37
	GSM850	GPRS10	Left Tilted	251	-	Ant 0	33.0	32.45	1.14	0.11	0.212	0.24
01	GSM850	GPRS10	Right Cheek	251	-	Ant 1	33.0	32.45	1.14	-0.03	0.582	**0.66**
	GSM850	GPRS10	Right Tilted	251	-	Ant 1	33.0	32.45	1.14	-0.06	0.178	0.20
	GSM850	GPRS10	Left Cheek	251	-	Ant 1	33.0	32.45	1.14	0.07	0.478	0.54
	GSM850	GPRS10	Left Tilted	251	-	Ant 1	33.0	32.45	1.14	-0.13	0.174	0.20
	GSM850	GPRS10	Right Cheek	128	-	Ant 1	33.0	32.19	1.21	0.09	0.354	0.43
	GSM850	GPRS10	Right Cheek	189	-	Ant 1	33.0	32.35	1.16	-0.11	0.459	0.53
	GSM850	GPRS10	Right Cheek	251	Flip-out	Ant 1	33.0	32.45	1.14	0.05	0.571	0.65
	GSM1900	GPRS10	Right Cheek	810	-	Ant 0	30.0	29.78	1.05	0.05	0.057	0.06
	GSM1900	GPRS10	Right Tilted	810	-	Ant 0	30.0	29.78	1.05	0.00	<0.001	0.00
	GSM1900	GPRS10	Left Cheek	810	-	Ant 0	30.0	29.78	1.05	0.03	0.038	0.04
	GSM1900	GPRS10	Left Tilted	810	-	Ant 0	30.0	29.78	1.05	0.00	<0.001	0.00
	GSM1900	GPRS10	Right Cheek	810	-	Ant 1	30.0	29.78	1.05	0.11	0.579	0.61
	GSM1900	GPRS10	Right Tilted	810	-	Ant 1	30.0	29.78	1.05	0.05	0.373	0.39
	GSM1900	GPRS10	Left Cheek	810	-	Ant 1	30.0	29.78	1.05	-0.03	0.311	0.33
	GSM1900	GPRS10	Left Tilted	810	-	Ant 1	30.0	29.78	1.05	-0.12	0.121	0.13
02	GSM1900	GPRS10	Right Cheek	512	-	Ant 1	30.0	29.43	1.14	-0.04	0.622	**0.71**
	GSM1900	GPRS10	Right Cheek	661	-	Ant 1	30.0	29.50	1.12	0.08	0.314	0.35
	GSM1900	GPRS10	Right Cheek	512	Flip-out	Ant 1	30.0	29.43	1.14	0.06	0.603	0.69
	WCDMAII	RMC12.2K	Right Cheek	9400	-	Ant 0	22.5	22.49	1.00	0.07	0.058	0.06
	WCDMAII	RMC12.2K	Right Tilted	9400	-	Ant 0	22.5	22.49	1.00	0.00	<0.001	0.00
	WCDMAII	RMC12.2K	Left Cheek	9400	-	Ant 0	22.5	22.49	1.00	0.02	0.042	0.04
	WCDMAII	RMC12.2K	Left Tilted	9400	-	Ant 0	22.5	22.49	1.00	0.00	<0.001	0.00
	WCDMAII	RMC12.2K	Right Cheek	9400	-	Ant 1	22.5	22.49	1.00	-0.08	1.07	1.07
	WCDMAII	RMC12.2K	Right Tilted	9400	-	Ant 1	22.5	22.49	1.00	0.02	0.566	0.57
	WCDMAII	RMC12.2K	Left Cheek	9400	-	Ant 1	22.5	22.49	1.00	-0.06	0.788	0.79
	WCDMAII	RMC12.2K	Left Tilted	9400	-	Ant 1	22.5	22.49	1.00	0.03	0.179	0.18
03	WCDMAII	RMC12.2K	Right Cheek	9262	-	Ant 1	22.5	22.43	1.02	0.04	1.12	**1.14**
	WCDMAII	RMC12.2K	Right Cheek	9538	-	Ant 1	22.5	22.48	1.00	0.01	0.91	0.91
	WCDMAII	RMC12.2K	Right Cheek	9262	Flip-out	Ant 1	22.5	22.43	1.02	-0.05	1.08	1.10
	WCDMAII	RMC12.2K	Right Cheek	9400	Flip-out	Ant 1	22.5	22.49	1.00	-0.08	1.01	1.01
	WCDMAII	RMC12.2K	Right Cheek	9538	Flip-out	Ant 1	22.5	22.48	1.00	0.01	0.902	0.90
	WCDMAII	RMC12.2K	Right Cheek	9262	-	Ant 1	22.5	22.43	1.02	0.03	1.07	1.09
	WCDMAIV	RMC12.2K	Right Cheek	1413	-	Ant 0	22.0	21.73	1.06	-0.05	0.036	0.04
	WCDMAIV	RMC12.2K	Right Tilted	1413	-	Ant 0	22.0	21.73	1.06	0.07	0.032	0.03
	WCDMAIV	RMC12.2K	Left Cheek	1413	-	Ant 0	22.0	21.73	1.06	0.06	0.047	0.05
	WCDMAIV	RMC12.2K	Left Tilted	1413	-	Ant 0	22.0	21.73	1.06	0.13	0.027	0.03
	WCDMAIV	RMC12.2K	Right Cheek	1413	-	Ant 1	22.0	21.73	1.06	0.09	0.963	1.02
	WCDMAIV	RMC12.2K	Right Tilted	1413	-	Ant 1	22.0	21.73	1.06	-0.02	0.398	0.42
	WCDMAIV	RMC12.2K	Left Cheek	1413	-	Ant 1	22.0	21.73	1.06	0.11	0.574	0.61
	WCDMAIV	RMC12.2K	Left Tilted	1413	-	Ant 1	22.0	21.73	1.06	0.05	0.177	0.19
	WCDMAIV	RMC12.2K	Right Cheek	1312	-	Ant 1	22.0	21.69	1.07	-0.02	1.02	1.09
04	WCDMAIV	RMC12.2K	Right Cheek	1513	-	Ant 1	22.0	21.65	1.08	0.07	1.09	**1.18**
	WCDMAIV	RMC12.2K	Right Cheek	1513	Flip-out	Ant 1	22.0	21.65	1.08	-0.05	1.03	1.11
	WCDMAIV	RMC12.2K	Right Cheek	1312	Flip-out	Ant 1	22.0	21.69	1.07	0.03	0.992	1.06
	WCDMAIV	RMC12.2K	Right Cheek	1413	Flip-out	Ant 1	22.0	21.73	1.06	-0.11	0.956	1.01
	WCDMAIV	RMC12.2K	Right Cheek	1513	-	Ant 1	22.0	21.65	1.08	0.01	1.02	1.10

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
05	WCDMA V	RMC12.2K	Right Cheek	4182	-	Ant 0	23.5	23.47	1.01	-0.02	0.271	**0.27**
	WCDMA V	RMC12.2K	Right Tilted	4182	-	Ant 0	23.5	23.47	1.01	0.05	0.255	0.26
	WCDMA V	RMC12.2K	Left Cheek	4182	-	Ant 0	23.5	23.47	1.01	0.03	0.261	0.26
	WCDMA V	RMC12.2K	Left Tilted	4182	-	Ant 0	23.5	23.47	1.01	0.12	0.226	0.23
	WCDMA V	RMC12.2K	Right Cheek	4182	-	Ant 1	23.5	23.47	1.01	-0.05	0.16	0.16
	WCDMA V	RMC12.2K	Right Tilted	4182	-	Ant 1	23.5	23.47	1.01	0.06	0.029	0.03
	WCDMA V	RMC12.2K	Left Cheek	4182	-	Ant 1	23.5	23.47	1.01	0.08	0.125	0.13
	WCDMA V	RMC12.2K	Left Tilted	4182	-	Ant 1	23.5	23.47	1.01	0.09	0.026	0.03
	WCDMA V	RMC12.2K	Right Cheek	4132	-	Ant 0	23.5	23.41	1.02	0.11	0.143	0.15
	WCDMA V	RMC12.2K	Right Cheek	4233	-	Ant 0	23.5	23.45	1.01	0.08	0.159	0.16
	WCDMA V	RMC12.2K	Right Cheek	4182	Flip-out	Ant 0	23.5	23.47	1.01	0.01	0.256	0.26

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 2	QPSK20M	Right Cheek	18700	1	0	-	Ant 0	23.0	22.21	1.20	-0.05	0.033	0.04
	LTE 2	QPSK20M	Right Tilted	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.00	<0.001	0.00
	LTE 2	QPSK20M	Left Cheek	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.06	0.031	0.04
	LTE 2	QPSK20M	Left Tilted	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.00	<0.001	0.00
	LTE 2	QPSK20M	Right Cheek	18700	50	0	-	Ant 0	22.0	21.32	1.17	-0.08	0.028	0.03
	LTE 2	QPSK20M	Right Tilted	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.00	<0.001	0.00
	LTE 2	QPSK20M	Left Cheek	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.11	0.021	0.02
	LTE 2	QPSK20M	Left Tilted	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.00	<0.001	0.00
	LTE 2	QPSK20M	Right Cheek	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.03	0.442	0.53
	LTE 2	QPSK20M	Right Tilted	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.05	0.244	0.29
	LTE 2	QPSK20M	Left Cheek	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.11	0.272	0.33
	LTE 2	QPSK20M	Left Tilted	18700	1	0	-	Ant 1	23.0	22.21	1.20	-0.03	0.087	0.10
	LTE 2	QPSK20M	Right Cheek	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.09	0.311	0.36
	LTE 2	QPSK20M	Right Tilted	18700	50	0	-	Ant 1	22.0	21.32	1.17	-0.18	0.159	0.19
	LTE 2	QPSK20M	Left Cheek	18700	50	0	-	Ant 1	22.0	21.32	1.17	-0.06	0.188	0.22
	LTE 2	QPSK20M	Left Tilted	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.05	0.061	0.07
06	LTE 2	QPSK20M	Right Cheek	18900	1	0	-	Ant 1	23.0	22.18	1.21	0.02	0.539	**0.65**
	LTE 2	QPSK20M	Right Cheek	19100	1	0	-	Ant 1	23.0	22.02	1.25	0.03	0.413	0.52
	LTE 2	QPSK20M	Right Cheek	18900	1	0	Flip-out	Ant 1	23.0	22.18	1.21	0.01	0.521	0.63
	LTE 4	QPSK20M	Right Cheek	20050	1	0	-	Ant 0	21.5	21.47	1.01	-0.03	0.024	0.02
	LTE 4	QPSK20M	Right Tilted	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.00	<0.001	0.00
	LTE 4	QPSK20M	Left Cheek	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.12	0.04	0.04
	LTE 4	QPSK20M	Left Tilted	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.00	<0.001	0.00
	LTE 4	QPSK20M	Right Cheek	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.00	<0.001	0.00
	LTE 4	QPSK20M	Right Tilted	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.00	<0.001	0.00
	LTE 4	QPSK20M	Left Cheek	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.05	0.034	0.03
	LTE 4	QPSK20M	Left Tilted	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.00	<0.001	0.00
	LTE 4	QPSK20M	Right Cheek	20050	1	0	-	Ant 1	21.5	21.47	1.01	-0.06	0.703	0.71
	LTE 4	QPSK20M	Right Tilted	20050	1	0	-	Ant 1	21.5	21.47	1.01	0.02	0.291	0.29
	LTE 4	QPSK20M	Left Cheek	20050	1	0	-	Ant 1	21.5	21.47	1.01	0.10	0.303	0.31
	LTE 4	QPSK20M	Left Tilted	20050	1	0	-	Ant 1	21.5	21.47	1.01	-0.07	0.113	0.11
	LTE 4	QPSK20M	Right Cheek	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.03	0.589	0.59
	LTE 4	QPSK20M	Right Tilted	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.15	0.244	0.25
	LTE 4	QPSK20M	Left Cheek	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.01	0.258	0.26
	LTE 4	QPSK20M	Left Tilted	20050	50	0	-	Ant 1	20.5	20.46	1.01	-0.02	0.091	0.09
07	LTE 4	QPSK20M	Right Cheek	20175	1	0	-	Ant 1	21.5	21.37	1.03	-0.08	0.705	**0.73**
	LTE 4	QPSK20M	Right Cheek	20300	1	0	-	Ant 1	21.5	21.31	1.04	-0.06	0.634	0.66
	LTE 4	QPSK20M	Right Cheek	20175	1	0	Flip-out	Ant 1	21.5	21.37	1.03	0.01	0.685	0.71

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
08	LTE 5	QPSK10M	Right Cheek	20525	1	0	-	Ant 0	22.5	22.32	1.04	-0.17	0.174	**0.18**
	LTE 5	QPSK10M	Right Tilted	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.03	0.138	0.14
	LTE 5	QPSK10M	Left Cheek	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.05	0.155	0.16
	LTE 5	QPSK10M	Left Tilted	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.11	0.123	0.13
	LTE 5	QPSK10M	Right Cheek	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.13	0.156	0.16
	LTE 5	QPSK10M	Right Tilted	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.09	0.127	0.13
	LTE 5	QPSK10M	Left Cheek	20525	25	0	-	Ant 0	21.5	21.31	1.04	-0.03	0.129	0.13
	LTE 5	QPSK10M	Left Tilted	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.08	0.101	0.11
	LTE 5	QPSK10M	Right Cheek	20525	1	0	-	Ant 1	22.5	22.32	1.04	-0.03	0.092	0.10
	LTE 5	QPSK10M	Right Tilted	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Left Cheek	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.03	0.064	0.07
	LTE 5	QPSK10M	Left Tilted	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Right Cheek	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.08	0.069	0.07
	LTE 5	QPSK10M	Right Tilted	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Left Cheek	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.11	0.052	0.05
	LTE 5	QPSK10M	Left Tilted	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Right Cheek	20450	1	0	-	Ant 0	22.5	22.26	1.06	-0.06	0.083	0.09
	LTE 5	QPSK10M	Right Cheek	20600	1	0	-	Ant 0	22.5	22.24	1.06	-0.02	0.091	0.10
	LTE 5	QPSK10M	Right Cheek	20525	1	0	Flip-out	Ant 0	22.5	22.32	1.04	0.07	0.166	0.17
	LTE 7	QPSK20M	Right Cheek	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.00	<0.001	0.00
	LTE 7	QPSK20M	Right Tilted	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.00	<0.001	0.00
	LTE 7	QPSK20M	Left Cheek	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.05	0.028	0.03
	LTE 7	QPSK20M	Left Tilted	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.00	<0.001	0.00
	LTE 7	QPSK20M	Right Cheek	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Right Tilted	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Left Cheek	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.03	0.016	0.02
	LTE 7	QPSK20M	Left Tilted	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Right Cheek	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.03	0.519	0.54
	LTE 7	QPSK20M	Right Tilted	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.05	0.228	0.24
	LTE 7	QPSK20M	Left Cheek	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.11	0.165	0.17
	LTE 7	QPSK20M	Left Tilted	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.09	0.081	0.08
	LTE 7	QPSK20M	Right Cheek	20850	50	0	-	Ant 1	22.0	21.92	1.02	-0.03	0.447	0.46
	LTE 7	QPSK20M	Right Tilted	20850	50	0	-	Ant 1	22.0	21.92	1.02	0.07	0.206	0.21
	LTE 7	QPSK20M	Left Cheek	20850	50	0	-	Ant 1	22.0	21.92	1.02	-0.13	0.146	0.15
	LTE 7	QPSK20M	Left Tilted	20850	50	0	-	Ant 1	22.0	21.92	1.02	-0.09	0.075	0.08
09	LTE 7	QPSK20M	Right Cheek	21100	1	0	-	Ant 1	23.0	22.54	1.11	0.07	0.556	**0.62**
	LTE 7	QPSK20M	Right Cheek	21350	1	0	-	Ant 1	23.0	22.49	1.12	0.06	0.483	0.54
	LTE 7	QPSK20M	Right Cheek	21100	1	0	Flip-out	Ant 1	23.0	22.54	1.11	-0.03	0.549	0.61
	LTE 7	QPSK20M	Right Cheek	PCC:21001 SCC:21199	PCC:1 SCC:1	PCC:99 SCC:0	-	Ant 1	23.0	22.61	1.09	0.07	0.539	0.59

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
10	LTE 26	QPSK15M	Right Cheek	26965	1	0	-	Ant 0	22.5	22.41	1.02	-0.18	0.180	**0.18**
	LTE 26	QPSK15M	Right Tilted	26965	1	0	-	Ant 0	22.5	22.41	1.02	0.09	0.132	0.13
	LTE 26	QPSK15M	Left Cheek	26965	1	0	-	Ant 0	22.5	22.41	1.02	-0.06	0.142	0.14
	LTE 26	QPSK15M	Left Tilted	26965	1	0	-	Ant 0	22.5	22.41	1.02	-0.12	0.116	0.12
	LTE 26	QPSK15M	Right Cheek	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.07	0.148	0.15
	LTE 26	QPSK15M	Right Tilted	26965	36	0	-	Ant 0	21.5	21.49	1.00	-0.06	0.114	0.11
	LTE 26	QPSK15M	Left Cheek	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.05	0.115	0.12
	LTE 26	QPSK15M	Left Tilted	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.03	0.095	0.10
	LTE 26	QPSK15M	Right Cheek	26965	1	0	-	Ant 1	22.5	22.41	1.02	-0.03	0.101	0.10
	LTE 26	QPSK15M	Right Tilted	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.00	<0.001	0.00
	LTE 26	QPSK15M	Left Cheek	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.03	0.076	0.08
	LTE 26	QPSK15M	Left Tilted	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.00	<0.001	0.00
	LTE 26	QPSK15M	Right Cheek	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.09	0.086	0.09
	LTE 26	QPSK15M	Right Tilted	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Left Cheek	26965	36	0	-	Ant 1	21.5	21.49	1.00	-0.06	0.075	0.08
	LTE 26	QPSK15M	Left Tilted	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Right Cheek	26765	1	0	-	Ant 0	22.5	22.31	1.04	0.03	0.033	0.03
	LTE 26	QPSK15M	Right Cheek	26865	1	0	-	Ant 0	22.5	22.36	1.03	0.02	0.047	0.05
	LTE 26	QPSK15M	Right Cheek	26965	1	0	Flip-out	Ant 0	22.5	22.41	1.02	-0.02	0.173	0.18
	LTE 41	QPSK20M	Right Cheek	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.09	0.045	0.05
	LTE 41	QPSK20M	Right Tilted	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.11	0.033	0.03
	LTE 41	QPSK20M	Left Cheek	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.05	0.110	0.11
	LTE 41	QPSK20M	Left Tilted	41140	1	0	-	Ant 0	23.0	22.89	1.03	-0.03	0.041	0.04
	LTE 41	QPSK20M	Right Cheek	41140	50	0	-	Ant 0	22.0	21.94	1.01	-0.13	0.039	0.04
	LTE 41	QPSK20M	Right Tilted	41140	50	0	-	Ant 0	22.0	21.94	1.01	-0.05	0.029	0.03
	LTE 41	QPSK20M	Left Cheek	41140	50	0	-	Ant 0	22.0	21.94	1.01	0.06	0.088	0.09
	LTE 41	QPSK20M	Left Tilted	41140	50	0	-	Ant 0	22.0	21.94	1.01	0.02	0.031	0.03
	LTE 41	QPSK20M	Right Cheek	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.03	0.441	0.45
	LTE 41	QPSK20M	Right Tilted	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.05	0.321	0.33
	LTE 41	QPSK20M	Left Cheek	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.12	0.201	0.21
	LTE 41	QPSK20M	Left Tilted	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.03	0.136	0.14
	LTE 41	QPSK20M	Right Cheek	41140	50	0	-	Ant 1	22.0	21.94	1.01	0.09	0.381	0.38
	LTE 41	QPSK20M	Right Tilted	41140	50	0	-	Ant 1	22.0	21.94	1.01	-0.04	0.261	0.26
	LTE 41	QPSK20M	Left Cheek	41140	50	0	-	Ant 1	22.0	21.94	1.01	-0.13	0.171	0.17
	LTE 41	QPSK20M	Left Tilted	41140	50	0	-	Ant 1	22.0	21.94	1.01	0.03	0.106	0.11
11	LTE 41	QPSK20M	Right Cheek	40140	1	0	-	Ant 1	23.0	22.87	1.03	0.04	0.768	**0.79**
	LTE 41	QPSK20M	Right Cheek	40470	1	0	-	Ant 1	23.0	22.48	1.13	0.03	0.584	0.66
	LTE 41	QPSK20M	Right Cheek	40810	1	0	-	Ant 1	23.0	22.51	1.12	0.09	0.351	0.39
	LTE 41	QPSK20M	Right Cheek	40140	1	0	Flip-out	Ant 1	23.0	22.87	1.03	-0.06	0.732	0.75
	LTE 41	QPSK20M	Right Cheek	PCC:40140 SCC:40338	PCC:1 SCC:1	PCC:99 SCC:0	-	Ant 1	23.0	21.52	1.41	0.13	0.451	0.64

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
EUT without Power Reduction (Cell off)														
	WLAN2.4G	802.11b	Right Cheek	11	-	Ant 0	100.00	1.00	18.5	18.33	1.04	0.05	0.361	0.38
	WLAN2.4G	802.11b	Right Tilted	11	-	Ant 0	100.00	1.00	18.5	18.33	1.04	-0.01	0.451	0.47
	WLAN2.4G	802.11b	Left Cheek	11	-	Ant 0	100.00	1.00	18.5	18.33	1.04	-0.08	0.509	0.53
	WLAN2.4G	802.11b	Left Tilted	11	-	Ant 0	100.00	1.00	18.5	18.33	1.04	-0.07	0.549	0.57
	WLAN2.4G	802.11b	Right Cheek	11	-	Ant 1	99.68	1.00	18.5	18.18	1.08	0.02	0.157	0.17
	WLAN2.4G	802.11b	Right Tilted	11	-	Ant 1	99.68	1.00	18.5	18.18	1.08	0.00	<0.001	0.00
12	WLAN2.4G	802.11b	Left Cheek	11	-	Ant 1	99.68	1.00	18.5	18.18	1.08	-0.10	0.609	**0.66**
	WLAN2.4G	802.11b	Left Tilted	11	-	Ant 1	99.68	1.00	18.5	18.18	1.08	-0.06	0.217	0.23
	WLAN2.4G	802.11b	Right Cheek	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	-0.04	0.067	0.07
	WLAN2.4G	802.11b	Right Tilted	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	0.11	0.053	0.05
	WLAN2.4G	802.11b	Left Cheek	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	-0.08	0.273	0.28
	WLAN2.4G	802.11b	Left Tilted	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	0.02	0.128	0.13
	WLAN2.4G	802.11b	Left Cheek	1	-	Ant 1	99.68	1.00	18.5	18.14	1.09	0.08	0.505	0.55
	WLAN2.4G	802.11b	Left Cheek	6	-	Ant 1	99.68	1.00	18.5	18.03	1.11	-0.15	0.253	0.28
	WLAN2.4G	802.11b	Left Cheek	12	-	Ant 1	99.68	1.00	18.5	18.11	1.09	0.12	0.529	0.58
	WLAN2.4G	802.11b	Left Cheek	13	-	Ant 1	99.68	1.00	18.5	18.01	1.12	0.01	0.411	0.46
	WLAN2.4G	802.11b	Left Cheek	11	Flip-out	Ant 1	99.68	1.00	18.5	18.18	1.08	0.02	0.561	0.61
EUT with Power Reduction (Cell on)														
	WLAN2.4G	802.11b	Right Cheek	11	-	Ant 0	100.00	1.00	18.0	17.91	1.02	-0.03	0.248	0.25
	WLAN2.4G	802.11b	Right Tilted	11	-	Ant 0	100.00	1.00	18.0	17.91	1.02	0.01	0.310	0.32
	WLAN2.4G	802.11b	Left Cheek	11	-	Ant 0	100.00	1.00	18.0	17.91	1.02	0.07	0.300	0.31
	WLAN2.4G	802.11b	Left Tilted	11	-	Ant 0	100.00	1.00	18.0	17.91	1.02	0.12	0.377	0.38
	WLAN2.4G	802.11b	Right Cheek	11	-	Ant 1	99.68	1.00	17.0	16.91	1.02	0.05	0.072	0.07
	WLAN2.4G	802.11b	Right Tilted	11	-	Ant 1	99.68	1.00	17.0	16.91	1.02	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Left Cheek	11	-	Ant 1	99.68	1.00	17.0	16.91	1.02	-0.01	0.378	0.39
	WLAN2.4G	802.11b	Left Tilted	11	-	Ant 1	99.68	1.00	17.0	16.91	1.02	-0.02	0.101	0.10
	WLAN2.4G	802.11b	Right Cheek	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	-0.04	0.067	0.07
	WLAN2.4G	802.11b	Right Tilted	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	0.11	0.053	0.05
	WLAN2.4G	802.11b	Left Cheek	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	-0.08	0.273	0.28
	WLAN2.4G	802.11b	Left Tilted	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	0.02	0.128	0.13
	WLAN2.4G	802.11b	Left Cheek	1	-	Ant 1	99.68	1.00	17.0	16.88	1.03	0.08	0.308	0.32
	WLAN2.4G	802.11b	Left Cheek	6	-	Ant 1	99.68	1.00	17.0	16.71	1.07	-0.15	0.154	0.16
	WLAN2.4G	802.11b	Left Cheek	12	-	Ant 1	99.68	1.00	17.0	16.89	1.03	0.12	0.328	0.34
	WLAN2.4G	802.11b	Left Cheek	13	-	Ant 1	99.68	1.00	17.0	16.78	1.05	0.01	0.251	0.26
	WLAN2.4G	802.11b	Left Cheek	11	Flip-out	Ant 1	99.68	1.00	17.0	16.91	1.02	0.02	0.331	0.34

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
EUT without Power Reduction (Cell off)														
	WLAN5.3G	802.11a	Right Cheek	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Right Tilted	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Left Cheek	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.01	0.085	0.09
	WLAN5.3G	802.11a	Left Tilted	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	-0.01	0.053	0.06
	WLAN5.3G	802.11a	Right Cheek	64	-	Ant 1	98.71	1.01	18.5	18.16	1.08	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Right Tilted	64	-	Ant 1	98.71	1.01	18.5	18.16	1.08	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Left Cheek	64	-	Ant 1	98.71	1.01	18.5	18.16	1.08	0.06	0.705	0.77
	WLAN5.3G	802.11a	Left Tilted	64	-	Ant 1	98.71	1.01	18.5	18.16	1.08	-0.11	0.201	0.22
	WLAN5.3G	802.11a	Right Cheek	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Right Tilted	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Left Cheek	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.15	0.264	0.27
	WLAN5.3G	802.11a	Left Tilted	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	-0.05	0.091	0.09
	WLAN5.3G	802.11a	Left Cheek	52	-	Ant 1	98.71	1.01	18.5	18.01	1.12	0.15	0.659	0.75
	WLAN5.3G	802.11a	Left Cheek	56	-	Ant 1	98.71	1.01	18.5	18.06	1.11	-0.10	0.692	0.78
13	WLAN5.3G	802.11a	Left Cheek	60	-	Ant 1	98.71	1.01	18.5	18.05	1.11	-0.10	0.726	**0.81**
	WLAN5.3G	802.11a	Left Cheek	60	Flip-out	Ant 1	98.71	1.01	18.5	18.05	1.11	0.15	0.642	0.72
EUT with Power Reduction (Cell on)														
	WLAN5.3G	802.11a	Right Cheek	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Right Tilted	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Left Cheek	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.01	0.085	0.09
	WLAN5.3G	802.11a	Left Tilted	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	-0.01	0.053	0.06
	WLAN5.3G	802.11a	Right Cheek	64	-	Ant 1	98.71	1.01	15.5	15.26	1.06	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Right Tilted	64	-	Ant 1	98.71	1.01	15.5	15.26	1.06	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Left Cheek	64	-	Ant 1	98.71	1.01	15.5	15.26	1.06	-0.08	0.339	0.36
	WLAN5.3G	802.11a	Left Tilted	64	-	Ant 1	98.71	1.01	15.5	15.26	1.06	0.02	0.096	0.10
	WLAN5.3G	802.11a	Right Cheek	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Right Tilted	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Left Cheek	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.15	0.264	0.27
	WLAN5.3G	802.11a	Left Tilted	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	-0.05	0.091	0.09
	WLAN5.3G	802.11a	Left Cheek	52	-	Ant 1	98.71	1.01	15.5	15.24	1.06	-0.03	0.317	0.34
	WLAN5.3G	802.11a	Left Cheek	56	-	Ant 1	98.71	1.01	15.5	15.19	1.07	0.11	0.333	0.36
	WLAN5.3G	802.11a	Left Cheek	60	-	Ant 1	98.71	1.01	15.5	15.21	1.07	0.09	0.349	0.38
	WLAN5.3G	802.11a	Left Cheek	60	Flip-out	Ant 1	98.71	1.01	15.5	15.21	1.07	-0.02	0.331	0.36

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
EUT without Power Reduction (Voice off)														
	WLAN5.6G	802.11a	Right Cheek	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Tilted	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Left Cheek	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.02	0.109	0.12
	WLAN5.6G	802.11a	Left Tilted	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	-0.02	<0.001	0.00
	WLAN5.6G	802.11a	Right Cheek	144	-	Ant 1	98.71	1.01	17.5	17.34	1.04	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Tilted	144	-	Ant 1	98.71	1.01	17.5	17.34	1.04	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Left Cheek	144	-	Ant 1	98.71	1.01	17.5	17.34	1.04	0.08	0.771	0.81
	WLAN5.6G	802.11a	Left Tilted	144	-	Ant 1	98.71	1.01	17.5	17.34	1.04	0.15	0.155	0.16
	WLAN5.6G	802.11a	Right Cheek	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Tilted	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Left Cheek	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.10	0.257	0.26
	WLAN5.6G	802.11a	Left Tilted	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	-0.02	0.101	0.10
14	WLAN5.6G	802.11a	Left Cheek	100	-	Ant 1	98.71	1.01	17.5	17.31	1.04	-0.15	1.02	**1.07**
	WLAN5.6G	802.11a	Left Cheek	116	-	Ant 1	98.71	1.01	17.5	17.20	1.07	-0.11	0.981	1.06
	WLAN5.6G	802.11a	Left Cheek	120	-	Ant 1	98.71	1.01	17.5	17.19	1.07	0.02	0.971	1.05
	WLAN5.6G	802.11a	Left Cheek	124	-	Ant 1	98.71	1.01	17.5	17.16	1.08	0.05	0.974	1.06
	WLAN5.6G	802.11a	Left Cheek	132	-	Ant 1	98.71	1.01	17.5	17.19	1.07	-0.11	0.778	0.84
	WLAN5.6G	802.11a	Left Cheek	140	-	Ant 1	98.71	1.01	17.5	17.15	1.08	0.15	0.726	0.79
	WLAN5.6G	802.11a	Left Cheek	100	Flip-out	Ant 1	98.71	1.01	17.5	17.31	1.04	0.13	0.997	1.05
	WLAN5.6G	802.11a	Left Cheek	116	Flip-out	Ant 1	98.71	1.01	17.5	17.20	1.07	0.02	0.979	1.06
	WLAN5.6G	802.11a	Left Cheek	120	Flip-out	Ant 1	98.71	1.01	17.5	17.19	1.07	-0.01	0.973	1.05
	WLAN5.6G	802.11a	Left Cheek	124	Flip-out	Ant 1	98.71	1.01	17.5	17.16	1.08	0.15	0.962	1.05
	WLAN5.6G	802.11a	Left Cheek	132	Flip-out	Ant 1	98.71	1.01	17.5	17.19	1.07	0.12	0.765	0.83
	WLAN5.6G	802.11a	Left Cheek	140	Flip-out	Ant 1	98.71	1.01	17.5	17.15	1.08	0.12	0.711	0.78
	WLAN5.6G	802.11a	Left Cheek	144	Flip-out	Ant 1	98.71	1.01	17.5	17.34	1.04	0.15	0.752	0.79
	WLAN5.6G	802.11a	Left Cheek	100	-	Ant 1	98.71	1.01	17.5	17.31	1.04	0.12	0.990	1.04
EUT with Power Reduction (Voice on)														
	WLAN5.6G	802.11a	Right Cheek	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Tilted	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Left Cheek	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.02	0.109	0.12
	WLAN5.6G	802.11a	Left Tilted	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Cheek	144	-	Ant 1	98.71	1.01	13.5	13.42	1.02	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Tilted	144	-	Ant 1	98.71	1.01	13.5	13.42	1.02	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Left Cheek	144	-	Ant 1	98.71	1.01	13.5	13.42	1.02	-0.05	0.255	0.26
	WLAN5.6G	802.11a	Left Tilted	144	-	Ant 1	98.71	1.01	13.5	13.42	1.02	0.03	0.049	0.05
	WLAN5.6G	802.11a	Right Cheek	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Right Tilted	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Left Cheek	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.10	0.257	0.26
	WLAN5.6G	802.11a	Left Tilted	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	-0.02	0.101	0.10
	WLAN5.6G	802.11a	Left Cheek	100	-	Ant 1	98.71	1.01	13.5	13.33	1.04	0.07	0.320	0.34
	WLAN5.6G	802.11a	Left Cheek	116	-	Ant 1	98.71	1.01	13.5	13.21	1.07	0.05	0.313	0.34
	WLAN5.6G	802.11a	Left Cheek	120	-	Ant 1	98.71	1.01	13.5	13.25	1.06	-0.02	0.309	0.33
	WLAN5.6G	802.11a	Left Cheek	124	-	Ant 1	98.71	1.01	13.5	13.27	1.05	0.01	0.305	0.32
	WLAN5.6G	802.11a	Left Cheek	132	-	Ant 1	98.71	1.01	13.5	13.31	1.04	-0.13	0.244	0.26
	WLAN5.6G	802.11a	Left Cheek	140	-	Ant 1	98.71	1.01	13.5	13.18	1.08	0.08	0.228	0.25
	WLAN5.6G	802.11a	Left Cheek	100	Flip-out	Ant 1	98.71	1.01	13.5	13.33	1.04	0.02	0.310	0.33

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
EUT without Power Reduction (Voice off)														
	WLAN5.8G	802.11a	Right Cheek	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Right Tilted	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.04	0.182	0.20
	WLAN5.8G	802.11a	Left Tilted	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	-0.05	0.113	0.12
	WLAN5.8G	802.11a	Right Cheek	157	-	Ant 1	98.71	1.01	18.5	18.23	1.06	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Right Tilted	157	-	Ant 1	98.71	1.01	18.5	18.23	1.06	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	157	-	Ant 1	98.71	1.01	18.5	18.23	1.06	0.08	0.655	0.70
	WLAN5.8G	802.11a	Left Tilted	157	-	Ant 1	98.71	1.01	18.5	18.23	1.06	0.02	0.148	0.16
	WLAN5.8G	802.11a	Right Cheek	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Right Tilted	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	-0.03	0.289	0.30
	WLAN5.8G	802.11a	Left Tilted	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
15	WLAN5.8G	802.11a	Left Cheek	149	-	Ant 1	98.71	1.01	18.5	18.15	1.08	-0.10	0.889	**0.97**
	WLAN5.8G	802.11a	Left Cheek	153	-	Ant 1	98.71	1.01	18.5	18.07	1.10	0.02	0.732	0.81
	WLAN5.8G	802.11a	Left Cheek	161	-	Ant 1	98.71	1.01	18.5	18.14	1.09	0.03	0.648	0.71
	WLAN5.8G	802.11a	Left Cheek	165	-	Ant 1	98.71	1.01	18.5	18.08	1.10	-0.15	0.573	0.64
	WLAN5.8G	802.11a	Left Cheek	149	Flip-out	Ant 1	98.71	1.01	18.5	18.15	1.08	0.02	0.878	0.96
	WLAN5.8G	802.11a	Left Cheek	153	Flip-out	Ant 1	98.71	1.01	18.5	18.07	1.10	0.01	0.728	0.81
	WLAN5.8G	802.11a	Left Cheek	157	Flip-out	Ant 1	98.71	1.01	18.5	18.23	1.06	-0.05	0.651	0.70
	WLAN5.8G	802.11a	Left Cheek	161	Flip-out	Ant 1	98.71	1.01	18.5	18.14	1.09	0.02	0.642	0.71
	WLAN5.8G	802.11a	Left Cheek	165	Flip-out	Ant 1	98.71	1.01	18.5	18.08	1.10	0.07	0.571	0.63
	WLAN5.8G	802.11a	Left Cheek	149	-	Ant 1	98.71	1.01	18.5	18.15	1.08	0.12	0.878	0.96
EUT with Power Reduction (Voice on)														
	WLAN5.8G	802.11a	Right Cheek	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Right Tilted	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.04	0.182	0.20
	WLAN5.8G	802.11a	Left Tilted	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	-0.05	0.113	0.12
	WLAN5.8G	802.11a	Right Cheek	157	-	Ant 1	98.71	1.01	15.0	14.94	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Right Tilted	157	-	Ant 1	98.71	1.01	15.0	14.94	1.01	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	157	-	Ant 1	98.71	1.01	15.0	14.94	1.01	0.12	0.294	0.30
	WLAN5.8G	802.11a	Left Tilted	157	-	Ant 1	98.71	1.01	15.0	14.94	1.01	-0.05	0.055	0.06
	WLAN5.8G	802.11a	Right Cheek	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Right Tilted	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	-0.03	0.289	0.30
	WLAN5.8G	802.11a	Left Tilted	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Left Cheek	149	-	Ant 1	98.71	1.01	15.0	14.53	1.11	0.01	0.332	0.37
	WLAN5.8G	802.11a	Left Cheek	153	-	Ant 1	98.71	1.01	15.0	14.88	1.03	-0.08	0.273	0.28
	WLAN5.8G	802.11a	Left Cheek	161	-	Ant 1	98.71	1.01	15.0	14.77	1.05	0.06	0.242	0.26
	WLAN5.8G	802.11a	Left Cheek	165	-	Ant 1	98.71	1.01	15.0	14.52	1.12	0.03	0.214	0.24
	WLAN5.8G	802.11a	Left Cheek	149	Flip-out	Ant 1	98.71	1.01	15.0	14.53	1.11	0.01	0.318	0.36

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	BT	BDR	Right Cheek	39	-	Ant 0	78.07	1.28	12.0	11.52	1.12	0.00	<0.001	0.00
	BT	BDR	Right Tilted	39	-	Ant 0	78.07	1.28	12.0	11.52	1.12	0.00	<0.001	0.00
16	BT	BDR	Left Cheek	39	-	Ant 0	78.07	1.28	12.0	11.52	1.12	-0.02	0.042	**0.06**
	BT	BDR	Left Tilted	39	-	Ant 0	78.07	1.28	12.0	11.52	1.12	0.05	0.040	0.06
	BT	BDR	Left Cheek	0	-	Ant 0	78.07	1.28	9.0	8.67	1.08	0.00	<0.001	0.00
	BT	BDR	Left Cheek	78	-	Ant 0	78.07	1.28	9.5	9.37	1.03	0.00	<0.001	0.00
	BT	BDR	Left Cheek	39	Flip-out	Ant 0	78.07	1.28	12.0	11.52	1.12	0.05	0.039	0.06

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

4.7.3 SAR Results for Body-worn Exposure Condition (Test Separation Distance is 10 mm)

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	GSM850	GPRS10	Front Face	251	-	Ant 0	33.0	32.45	1.14	0.01	0.468	0.53
17	GSM850	GPRS10	Rear Face	251	-	Ant 0	33.0	32.45	1.14	-0.16	0.815	**0.93**
	GSM850	GPRS10	Front Face	251	-	Ant 1	33.0	32.45	1.14	0.14	0.166	0.19
	GSM850	GPRS10	Rear Face	251	-	Ant 1	33.0	32.45	1.14	-0.18	0.080	0.09
	GSM850	GPRS10	Rear Face	128	-	Ant 0	33.0	32.19	1.21	0.03	0.695	0.84
	GSM850	GPRS10	Rear Face	189	-	Ant 0	33.0	32.35	1.16	0.11	0.749	0.87
	GSM850	GPRS10	Rear Face	251	Flip-out	Ant 0	33.0	32.45	1.14	-0.02	0.796	0.91
	GSM850	GPRS10	Rear Face	128	Flip-out	Ant 0	33.0	32.19	1.21	-0.08	0.673	0.81
	GSM850	GPRS10	Rear Face	189	Flip-out	Ant 0	33.0	32.35	1.16	0.02	0.739	0.86
	GSM850	GPRS10	Rear Face	251	-	Ant 0	33.0	32.45	1.14	0.06	0.811	0.92
	GSM1900	GPRS10	Front Face	810	-	Ant 0	30.0	29.78	1.05	0.16	0.257	0.27
	GSM1900	GPRS10	Rear Face	810	-	Ant 0	30.0	29.78	1.05	0.03	0.644	0.68
	GSM1900	GPRS10	Front Face	810	-	Ant 1	30.0	29.78	1.05	-0.04	0.135	0.14
	GSM1900	GPRS10	Rear Face	810	-	Ant 1	30.0	29.78	1.05	0.11	0.121	0.13
18	GSM1900	GPRS10	Rear Face	512	-	Ant 0	30.0	29.43	1.14	-0.03	0.719	**0.82**
	GSM1900	GPRS10	Rear Face	661	-	Ant 0	30.0	29.50	1.12	0.13	0.604	0.68
	GSM1900	GPRS10	Rear Face	512	Flip-out	Ant 0	30.0	29.43	1.14	0.01	0.695	0.79
	WCDMAII	RMC12.2K	Front Face	9400	-	Ant 0	22.5	22.49	1.00	0.13	0.254	0.25
	WCDMAII	RMC12.2K	Rear Face	9400	-	Ant 0	22.5	22.49	1.00	0.01	0.609	0.61
	WCDMAII	RMC12.2K	Front Face	9400	-	Ant 1	22.5	22.49	1.00	0.13	0.080	0.08
	WCDMAII	RMC12.2K	Rear Face	9400	-	Ant 1	22.5	22.49	1.00	0.05	0.084	0.08
19	WCDMAII	RMC12.2K	Rear Face	9262	-	Ant 0	22.5	22.43	1.02	-0.17	0.702	**0.72**
	WCDMAII	RMC12.2K	Rear Face	9538	-	Ant 0	22.5	22.48	1.00	0.11	0.595	0.60
	WCDMAII	RMC12.2K	Rear Face	9262	Flip-out	Ant 0	22.5	22.43	1.02	-0.03	0.686	0.70
	WCDMAIV	RMC12.2K	Front Face	1413	-	Ant 0	22.0	21.73	1.06	0.13	0.340	0.36
20	WCDMAIV	RMC12.2K	Rear Face	1413	-	Ant 0	22.0	21.73	1.06	0.11	0.696	**0.74**
	WCDMAIV	RMC12.2K	Front Face	1413	-	Ant 1	22.0	21.73	1.06	-0.18	0.116	0.12
	WCDMAIV	RMC12.2K	Rear Face	1413	-	Ant 1	22.0	21.73	1.06	0.13	0.110	0.12
	WCDMAIV	RMC12.2K	Rear Face	1312	-	Ant 0	22.0	21.69	1.07	0.02	0.681	0.73
	WCDMAIV	RMC12.2K	Rear Face	1513	-	Ant 0	22.0	21.65	1.08	-0.1	0.634	0.68
	WCDMAIV	RMC12.2K	Rear Face	1413	Flip-out	Ant 0	22.0	21.73	1.06	-0.06	0.679	0.72
	WCDMAV	RMC12.2K	Front Face	4182	-	Ant 0	23.5	23.47	1.01	0.03	0.342	0.35
	WCDMAV	RMC12.2K	Rear Face	4182	-	Ant 0	23.5	23.47	1.01	0.01	0.534	0.54
	WCDMAV	RMC12.2K	Front Face	4182	-	Ant 1	23.5	23.47	1.01	0.07	0.051	0.05
	WCDMAV	RMC12.2K	Rear Face	4182	-	Ant 1	23.5	23.47	1.01	0.14	0.030	0.03
	WCDMAV	RMC12.2K	Rear Face	4132	-	Ant 0	23.5	23.41	1.02	0.08	0.448	0.46
21	WCDMAV	RMC12.2K	Rear Face	4233	-	Ant 0	23.5	23.45	1.01	-0.16	0.560	**0.57**
	WCDMAV	RMC12.2K	Rear Face	4233	Flip-out	Ant 0	23.5	23.45	1.01	-0.05	0.551	0.56

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 2	QPSK20M	Front Face	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.02	0.292	0.35
22	LTE 2	QPSK20M	Rear Face	18700	1	0	-	Ant 0	23.0	22.21	1.20	-0.04	0.651	**0.78**
	LTE 2	QPSK20M	Front Face	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.14	0.254	0.30
	LTE 2	QPSK20M	Rear Face	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.06	0.553	0.65
	LTE 2	QPSK20M	Front Face	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.03	0.181	0.22
	LTE 2	QPSK20M	Rear Face	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.17	0.193	0.23
	LTE 2	QPSK20M	Front Face	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.15	0.117	0.14
	LTE 2	QPSK20M	Rear Face	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.09	0.135	0.16
	LTE 2	QPSK20M	Rear Face	18900	1	0	-	Ant 0	23.0	22.18	1.21	0.15	0.551	0.67
	LTE 2	QPSK20M	Rear Face	19100	1	0	-	Ant 0	23.0	22.02	1.25	0.09	0.530	0.66
	LTE 2	QPSK20M	Rear Face	18700	1	0	Flip-out	Ant 0	23.0	22.21	1.20	0.01	0.642	0.77
	LTE 4	QPSK20M	Front Face	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.15	0.270	0.27
	LTE 4	QPSK20M	Rear Face	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.11	0.507	0.51
	LTE 4	QPSK20M	Front Face	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.19	0.263	0.27
	LTE 4	QPSK20M	Rear Face	20050	50	0	-	Ant 0	20.5	20.46	1.01	-0.13	0.530	0.54
	LTE 4	QPSK20M	Front Face	20050	1	0	-	Ant 1	21.5	21.47	1.01	0.13	0.097	0.10
	LTE 4	QPSK20M	Rear Face	20050	1	0	-	Ant 1	21.5	21.47	1.01	-0.15	0.099	0.10
	LTE 4	QPSK20M	Front Face	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.05	0.078	0.08
	LTE 4	QPSK20M	Rear Face	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.11	0.079	0.08
23	LTE 4	QPSK20M	Rear Face	20175	1	0	-	Ant 0	21.5	21.37	1.03	-0.14	0.711	**0.73**
	LTE 4	QPSK20M	Rear Face	20300	1	0	-	Ant 0	21.5	21.31	1.04	0.05	0.654	0.68
	LTE 4	QPSK20M	Rear Face	20175	1	0	Flip-out	Ant 0	21.5	21.37	1.03	0.03	0.698	0.72
	LTE 5	QPSK10M	Front Face	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.05	0.198	0.21
	LTE 5	QPSK10M	Rear Face	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.11	0.327	0.34
	LTE 5	QPSK10M	Front Face	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.01	0.171	0.18
	LTE 5	QPSK10M	Rear Face	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.05	0.270	0.28
	LTE 5	QPSK10M	Front Face	20525	1	0	-	Ant 1	22.5	22.32	1.04	-0.05	0.059	0.06
	LTE 5	QPSK10M	Rear Face	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Front Face	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.02	0.051	0.05
	LTE 5	QPSK10M	Rear Face	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Rear Face	20450	1	0	-	Ant 0	22.5	22.26	1.06	-0.13	0.289	0.31
24	LTE 5	QPSK10M	Rear Face	20600	1	0	-	Ant 0	22.5	22.24	1.06	-0.09	0.350	**0.37**
	LTE 5	QPSK10M	Rear Face	20600	1	0	Flip-out	Ant 0	22.5	22.24	1.06	-0.06	0.338	0.36
	LTE 7	QPSK20M	Front Face	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.00	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	20850	1	0	-	Ant 0	23.0	22.82	1.04	-0.19	0.027	0.03
	LTE 7	QPSK20M	Front Face	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.01	0.016	0.02
	LTE 7	QPSK20M	Front Face	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.09	0.065	0.07
25	LTE 7	QPSK20M	Rear Face	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.12	0.139	**0.14**
	LTE 7	QPSK20M	Front Face	20850	50	0	-	Ant 1	22.0	21.92	1.02	-0.13	0.060	0.06
	LTE 7	QPSK20M	Rear Face	20850	50	0	-	Ant 1	22.0	21.92	1.02	0.09	0.118	0.12
	LTE 7	QPSK20M	Rear Face	21100	1	99	-	Ant 1	23.0	22.69	1.07	0.01	0.127	0.14
	LTE 7	QPSK20M	Rear Face	21350	1	99	-	Ant 1	23.0	22.64	1.09	0.03	0.125	0.14
	LTE 7	QPSK20M	Rear Face	20850	1	0	Flip-out	Ant 1	23.0	22.82	1.04	-0.03	0.135	0.14
	LTE 7	QPSK20M	Rear Face	PCC:20850 SCC:21048	PCC:1 SCC:1	PCC:99 SCC:0	-	Ant 1	23.0	22.38	1.15	-0.11	0.111	0.13

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 26	QPSK15M	Front Face	26965	1	0	-	Ant 0	22.5	22.41	1.02	0.05	0.208	0.21
26	LTE 26	QPSK15M	Rear Face	26965	1	0	-	Ant 0	22.5	22.41	1.02	-0.02	0.340	**0.35**
	LTE 26	QPSK15M	Front Face	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.03	0.175	0.18
	LTE 26	QPSK15M	Rear Face	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.00	0.292	0.29
	LTE 26	QPSK15M	Front Face	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.17	0.034	0.03
	LTE 26	QPSK15M	Rear Face	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.00	<0.001	0.00
	LTE 26	QPSK15M	Front Face	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.01	0.031	0.03
	LTE 26	QPSK15M	Rear Face	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Rear Face	26765	1	0	-	Ant 0	22.5	22.31	1.04	0.11	0.280	0.29
	LTE 26	QPSK15M	Rear Face	26865	1	0	-	Ant 0	22.5	22.36	1.03	0.08	0.290	0.30
	LTE 26	QPSK15M	Rear Face	26965	1	0	Flip-out	Ant 0	22.5	22.41	1.02	0.01	0.331	0.34
	LTE 41	QPSK20M	Front Face	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.01	0.024	0.02
	LTE 41	QPSK20M	Rear Face	41140	1	0	-	Ant 0	23.0	22.89	1.03	-0.12	0.029	0.03
	LTE 41	QPSK20M	Front Face	41140	50	0	-	Ant 0	22.0	21.94	1.01	0.13	0.018	0.02
	LTE 41	QPSK20M	Rear Face	41140	50	0	-	Ant 0	22.0	21.94	1.01	-0.18	0.024	0.02
	LTE 41	QPSK20M	Front Face	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.03	0.071	0.07
27	LTE 41	QPSK20M	Rear Face	41140	1	0	-	Ant 1	23.0	22.89	1.03	-0.01	0.171	**0.18**
	LTE 41	QPSK20M	Front Face	41140	50	0	-	Ant 1	22.0	21.94	1.01	-0.17	0.050	0.05
	LTE 41	QPSK20M	Rear Face	41140	50	0	-	Ant 1	22.0	21.94	1.01	0.06	0.124	0.13
	LTE 41	QPSK20M	Rear Face	40140	1	0	-	Ant 1	23.0	22.87	1.03	0.01	0.159	0.16
	LTE 41	QPSK20M	Rear Face	40470	1	0	-	Ant 1	23.0	22.48	1.13	0.06	0.151	0.17
	LTE 41	QPSK20M	Rear Face	40810	1	0	-	Ant 1	23.0	22.51	1.12	-0.11	0.132	0.15
	LTE 41	QPSK20M	Rear Face	41140	1	0	Flip-out	Ant 1	23.0	22.89	1.03	-0.02	0.159	0.16
	LTE 41	QPSK20M	Rear Face	PCC:40942 SCC:41140	PCC:1 SCC:1	PCC:99 SCC:0	-	Ant 1	23.0	21.24	1.50	-0.07	0.111	0.17

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Front Face	11	-	Ant 0	100.00	1.00	18.5	18.33	1.04	0.02	0.108	0.11
28	WLAN2.4G	802.11b	Rear Face	11	-	Ant 0	100.00	1.00	18.5	18.33	1.04	-0.03	0.132	**0.14**
	WLAN2.4G	802.11b	Front Face	11		Ant 1	99.68	1.00	18.5	18.18	1.08	-0.03	0.081	0.09
	WLAN2.4G	802.11b	Rear Face	11		Ant 1	99.68	1.00	18.5	18.18	1.08	-0.11	0.104	0.11
	WLAN2.4G	802.11b	Front Face	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	0.07	0.051	0.05
	WLAN2.4G	802.11b	Rear Face	12	-	Ant 0+1	99.68	1.00	18.5	18.38	1.03	-0.08	0.056	0.06
	WLAN2.4G	802.11b	Rear Face	1	-	Ant 0	100.00	1.00	18.5	18.28	1.05	0.01	0.118	0.12
	WLAN2.4G	802.11b	Rear Face	6	-	Ant 0	100.00	1.00	18.5	18.18	1.08	-0.05	0.056	0.06
	WLAN2.4G	802.11b	Rear Face	12	-	Ant 0	100.00	1.00	18.5	18.20	1.07	-0.11	0.128	0.14
	WLAN2.4G	802.11b	Rear Face	13	-	Ant 0	100.00	1.00	18.5	18.03	1.11	0.02	0.092	0.10
	WLAN2.4G	802.11b	Rear Face	11	Flip-out	Ant 0	100.00	1.00	18.5	18.33	1.04	0.03	0.129	0.13
	WLAN5.3G	802.11a	Front Face	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Rear Face	64	-	Ant 0	98.71	1.01	18.5	18.13	1.09	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Front Face	64	-	Ant 1	98.71	1.01	18.5	18.16	1.08	0.08	0.123	0.13
	WLAN5.3G	802.11a	Rear Face	64	-	Ant 1	98.71	1.01	18.5	18.16	1.08	0.01	0.366	0.40
	WLAN5.3G	802.11a	Front Face	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	0.00	<0.001	0.00
	WLAN5.3G	802.11a	Rear Face	60	-	Ant 0+1	98.71	1.01	18.5	18.37	1.03	-0.08	0.143	0.15
	WLAN5.3G	802.11a	Rear Face	52	-	Ant 1	98.71	1.01	18.5	18.01	1.12	-0.02	0.357	0.40
29	WLAN5.3G	802.11a	Rear Face	56	-	Ant 1	98.71	1.01	18.5	18.06	1.11	-0.13	0.408	**0.46**
	WLAN5.3G	802.11a	Rear Face	60	-	Ant 1	98.71	1.01	18.5	18.05	1.11	0.01	0.401	0.45
	WLAN5.3G	802.11a	Rear Face	56	Flip-out	Ant 1	98.71	1.01	18.5	18.06	1.11	0.05	0.398	0.45

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN5.6G	802.11a	Front Face	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	0.03	0.029	0.03
	WLAN5.6G	802.11a	Rear Face	144	-	Ant 0	98.71	1.01	17.5	17.26	1.06	-0.08	0.040	0.04
	WLAN5.6G	802.11a	Front Face	144	-	Ant 1	98.71	1.01	17.5	17.34	1.04	0.08	0.127	0.13
	WLAN5.6G	802.11a	Rear Face	144	-	Ant 1	98.71	1.01	17.5	17.34	1.04	0.13	0.378	0.40
	WLAN5.6G	802.11a	Front Face	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	0.00	<0.001	0.00
	WLAN5.6G	802.11a	Rear Face	140	-	Ant 0+1	98.71	1.01	17.5	17.49	1.00	-0.02	0.141	0.14
30	WLAN5.6G	802.11a	Rear Face	100	-	Ant 1	98.71	1.01	17.5	17.31	1.04	0.08	0.581	**0.61**
	WLAN5.6G	802.11a	Rear Face	116	-	Ant 1	98.71	1.01	17.5	17.20	1.07	0.02	0.555	0.60
	WLAN5.6G	802.11a	Rear Face	120	-	Ant 1	98.71	1.01	17.5	17.19	1.07	0.05	0.556	0.60
	WLAN5.6G	802.11a	Rear Face	124	-	Ant 1	98.71	1.01	17.5	17.16	1.08	-0.11	0.539	0.59
	WLAN5.6G	802.11a	Rear Face	132	-	Ant 1	98.71	1.01	17.5	17.19	1.07	-0.15	0.421	0.45
	WLAN5.6G	802.11a	Rear Face	140	-	Ant 1	98.71	1.01	17.5	17.15	1.08	0.15	0.413	0.45
	WLAN5.6G	802.11a	Rear Face	100	Flip-out	Ant 1	98.71	1.01	17.5	17.31	1.04	0.02	0.572	0.60
	WLAN5.8G	802.11a	Front Face	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	0.00	0.022	0.02
	WLAN5.8G	802.11a	Rear Face	157	-	Ant 0	98.71	1.01	18.5	18.19	1.07	-0.08	0.051	0.06
	WLAN5.8G	802.11a	Front Face	157	-	Ant 1	98.71	1.01	18.5	18.23	1.06	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Rear Face	157	-	Ant 1	98.71	1.01	18.5	18.23	1.06	0.08	0.283	0.30
	WLAN5.8G	802.11a	Front Face	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.00	<0.001	0.00
	WLAN5.8G	802.11a	Rear Face	157	-	Ant 0+1	98.71	1.01	18.5	18.34	1.04	0.11	0.093	0.10
31	WLAN5.8G	802.11a	Rear Face	149	-	Ant 1	98.71	1.01	18.5	18.15	1.08	0.13	0.371	**0.40**
	WLAN5.8G	802.11a	Rear Face	153	-	Ant 1	98.71	1.01	18.5	18.07	1.10	0.05	0.298	0.33
	WLAN5.8G	802.11a	Rear Face	161	-	Ant 1	98.71	1.01	18.5	18.14	1.09	-0.11	0.259	0.29
	WLAN5.8G	802.11a	Rear Face	165	-	Ant 1	98.71	1.01	18.5	18.08	1.10	0.15	0.237	0.26
	WLAN5.8G	802.11a	Rear Face	149	Flip-out	Ant 1	98.71	1.01	18.5	18.15	1.08	0.16	0.368	0.40

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	BT	BDR	Front Face	39	-	Ant 0	78.07	1.28	12.0	11.52	1.12	-0.06	0.011	0.02
32	BT	BDR	Rear Face	39	-	Ant 0	78.07	1.28	12.0	11.52	1.12	-0.10	0.013	**0.02**
	BT	BDR	Rear Face	0	-	Ant 0	78.07	1.28	9.0	8.67	1.08	0.00	<0.001	0.00
	BT	BDR	Rear Face	78	-	Ant 0	78.07	1.28	9.5	9.37	1.03	0.00	<0.001	0.00
	BT	BDR	Rear Face	39	Flip-out	Ant 0	78.07	1.28	12.0	11.52	1.12	-0.08	0.010	0.01

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

4.7.4 SAR Results for Hotspot Exposure Condition (Test Separation Distance is 10 mm)

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	GSM850	GPRS10	Front Face	251	-	Ant 0	33.0	32.45	1.14	0.01	0.468	0.53
17	GSM850	GPRS10	Rear Face	251	-	Ant 0	33.0	32.45	1.14	-0.16	0.815	**0.93**
	GSM850	GPRS10	Left Side	251	-	Ant 0	33.0	32.45	1.14	0.00	<0.001	0.00
	GSM850	GPRS10	Right Side	251	-	Ant 0	33.0	32.45	1.14	-0.08	0.101	0.12
	GSM850	GPRS10	Bottom Side	251	-	Ant 0	33.0	32.45	1.14	0.05	0.520	0.59
	GSM850	GPRS10	Front Face	251	-	Ant 1	33.0	32.45	1.14	0.14	0.166	0.19
	GSM850	GPRS10	Rear Face	251	-	Ant 1	33.0	32.45	1.14	-0.18	0.080	0.09
	GSM850	GPRS10	Left Side	251	-	Ant 1	33.0	32.45	1.14	0.12	0.457	0.52
	GSM850	GPRS10	Top Side	251	-	Ant 1	33.0	32.45	1.14	0.00	<0.001	0.00
	GSM850	GPRS10	Rear Face	128	-	Ant 0	33.0	32.19	1.21	0.03	0.695	0.84
	GSM850	GPRS10	Rear Face	189	-	Ant 0	33.0	32.35	1.16	0.11	0.749	0.87
	GSM850	GPRS10	Rear Face	251	Flip-out	Ant 0	33.0	32.45	1.14	-0.02	0.796	0.91
	GSM850	GPRS10	Rear Face	128	Flip-out	Ant 0	33.0	32.19	1.21	-0.08	0.673	0.81
	GSM850	GPRS10	Rear Face	189	Flip-out	Ant 0	33.0	32.35	1.16	0.02	0.739	0.86
	GSM850	GPRS10	Rear Face	251	-	Ant 0	33.0	32.45	1.14	0.06	0.811	0.92
	GSM1900	GPRS10	Front Face	810	-	Ant 0	30.0	29.78	1.05	0.16	0.257	0.27
	GSM1900	GPRS10	Rear Face	810	-	Ant 0	30.0	29.78	1.05	0.03	0.644	0.68
	GSM1900	GPRS10	Left Side	810	-	Ant 0	30.0	29.78	1.05	0.15	0.037	0.04
	GSM1900	GPRS10	Right Side	810	-	Ant 0	30.0	29.78	1.05	0.00	<0.001	0.00
	GSM1900	GPRS10	Bottom Side	810	-	Ant 0	30.0	29.78	1.05	0.09	0.710	0.75
	GSM1900	GPRS10	Front Face	810	-	Ant 1	30.0	29.78	1.05	-0.04	0.135	0.14
	GSM1900	GPRS10	Rear Face	810	-	Ant 1	30.0	29.78	1.05	0.11	0.121	0.13
	GSM1900	GPRS10	Left Side	810	-	Ant 1	30.0	29.78	1.05	0.16	0.269	0.28
	GSM1900	GPRS10	Top Side	810	-	Ant 1	30.0	29.78	1.05	0.09	0.102	0.11
33	GSM1900	GPRS10	Bottom Side	512	-	Ant 0	30.0	29.43	1.14	-0.14	1.01	**1.15**
	GSM1900	GPRS10	Bottom Side	661	-	Ant 0	30.0	29.50	1.12	0.11	0.916	1.03
	GSM1900	GPRS10	Bottom Side	512	Flip-out	Ant 0	30.0	29.43	1.14	-0.02	0.989	1.13
	GSM1900	GPRS10	Bottom Side	661	Flip-out	Ant 0	30.0	29.50	1.12	0.01	0.905	1.01
	GSM1900	GPRS10	Bottom Side	810	Flip-out	Ant 0	30.0	29.78	1.05	0.06	0.702	0.74
	GSM1900	GPRS10	Bottom Side	512	-	Ant 0	30.0	29.43	1.14	0.13	0.959	1.09
	WCDMAII	RMC12.2K	Front Face	9400	-	Ant 0	22.5	22.49	1.00	0.13	0.254	0.25
	WCDMAII	RMC12.2K	Rear Face	9400	-	Ant 0	22.5	22.49	1.00	0.01	0.609	0.61
	WCDMAII	RMC12.2K	Left Side	9400	-	Ant 0	22.5	22.49	1.00	0.01	0.037	0.04
	WCDMAII	RMC12.2K	Right Side	9400	-	Ant 0	22.5	22.49	1.00	0.15	0.041	0.04
	WCDMAII	RMC12.2K	Bottom Side	9400	-	Ant 0	22.5	22.49	1.00	0.11	0.810	0.81
	WCDMAII	RMC12.2K	Front Face	9400	-	Ant 1	22.5	22.49	1.00	0.13	0.080	0.08
	WCDMAII	RMC12.2K	Rear Face	9400	-	Ant 1	22.5	22.49	1.00	0.05	0.084	0.08
	WCDMAII	RMC12.2K	Left Side	9400	-	Ant 1	22.5	22.49	1.00	0.18	0.181	0.18
	WCDMAII	RMC12.2K	Top Side	9400	-	Ant 1	22.5	22.49	1.00	0.03	0.067	0.07
34	WCDMAII	RMC12.2K	Bottom Side	9262	-	Ant 0	22.5	22.43	1.02	-0.01	0.939	**0.96**
	WCDMAII	RMC12.2K	Bottom Side	9538	-	Ant 0	22.5	22.48	1.00	-0.17	0.700	0.70
	WCDMAII	RMC12.2K	Bottom Side	9262	Flip-out	Ant 0	22.5	22.43	1.02	-0.03	0.925	0.94
	WCDMAII	RMC12.2K	Bottom Side	9400	Flip-out	Ant 0	22.5	22.49	1.00	-0.07	0.802	0.80
	WCDMAII	RMC12.2K	Bottom Side	9538	Flip-out	Ant 0	22.5	22.48	1.00	0.01	0.698	0.70
	WCDMAII	RMC12.2K	Bottom Side	9262	-	Ant 0	22.5	22.43	1.02	0.15	0.911	0.93

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WCDMA IV	RMC12.2K	Front Face	1413	-	Ant 0	22.0	21.73	1.06	0.13	0.340	0.36
	WCDMA IV	RMC12.2K	Rear Face	1413	-	Ant 0	22.0	21.73	1.06	0.11	0.696	0.74
	WCDMA IV	RMC12.2K	Left Side	1413	-	Ant 0	22.0	21.73	1.06	0.08	0.041	0.04
	WCDMA IV	RMC12.2K	Right Side	1413	-	Ant 0	22.0	21.73	1.06	-0.11	0.067	0.07
35	WCDMA IV	RMC12.2K	Bottom Side	1413	-	Ant 0	22.0	21.73	1.06	0.04	1.03	**1.09**
	WCDMA IV	RMC12.2K	Front Face	1413	-	Ant 1	22.0	21.73	1.06	-0.18	0.116	0.12
	WCDMA IV	RMC12.2K	Rear Face	1413	-	Ant 1	22.0	21.73	1.06	0.13	0.110	0.12
	WCDMA IV	RMC12.2K	Left Side	1413	-	Ant 1	22.0	21.73	1.06	0.17	0.227	0.24
	WCDMA IV	RMC12.2K	Top Side	1413	-	Ant 1	22.0	21.73	1.06	0.01	0.052	0.06
	WCDMA IV	RMC12.2K	Bottom Side	1312	-	Ant 0	22.0	21.69	1.07	0.11	0.913	0.98
	WCDMA IV	RMC12.2K	Bottom Side	1513	-	Ant 0	22.0	21.65	1.08	0.06	0.900	0.97
	WCDMA IV	RMC12.2K	Bottom Side	1413	Flip-out	Ant 0	22.0	21.73	1.06	-0.01	0.992	1.05
	WCDMA IV	RMC12.2K	Bottom Side	1312	Flip-out	Ant 0	22.0	21.69	1.07	0.08	0.902	0.97
	WCDMA IV	RMC12.2K	Bottom Side	1513	Flip-out	Ant 0	22.0	21.65	1.08	-0.02	0.892	0.96
	WCDMA IV	RMC12.2K	Bottom Side	1413	-	Ant 0	22.0	21.73	1.06	0.04	0.968	1.03
	WCDMA V	RMC12.2K	Front Face	4182	-	Ant 0	23.5	23.47	1.01	0.03	0.342	0.35
	WCDMA V	RMC12.2K	Rear Face	4182	-	Ant 0	23.5	23.47	1.01	0.01	0.534	0.54
	WCDMA V	RMC12.2K	Left Side	4182	-	Ant 0	23.5	23.47	1.01	0.12	0.111	0.11
	WCDMA V	RMC12.2K	Right Side	4182	-	Ant 0	23.5	23.47	1.01	-0.05	0.268	0.27
	WCDMA V	RMC12.2K	Bottom Side	4182	-	Ant 0	23.5	23.47	1.01	0.03	0.340	0.34
	WCDMA V	RMC12.2K	Front Face	4182	-	Ant 1	23.5	23.47	1.01	0.07	0.051	0.05
	WCDMA V	RMC12.2K	Rear Face	4182	-	Ant 1	23.5	23.47	1.01	0.14	0.030	0.03
	WCDMA V	RMC12.2K	Left Side	4182	-	Ant 1	23.5	23.47	1.01	0.10	0.154	0.16
	WCDMA V	RMC12.2K	Top Side	4182	-	Ant 1	23.5	23.47	1.01	0.00	<0.001	0.00
	WCDMA V	RMC12.2K	Rear Face	4132	-	Ant 0	23.5	23.41	1.02	0.08	0.448	0.46
21	WCDMA V	RMC12.2K	Rear Face	4233	-	Ant 0	23.5	23.45	1.01	-0.16	0.560	**0.57**
	WCDMA V	RMC12.2K	Rear Face	4233	Flip-out	Ant 0	23.5	23.45	1.01	-0.05	0.551	0.56

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 2	QPSK20M	Front Face	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.02	0.292	0.35
	LTE 2	QPSK20M	Rear Face	18700	1	0	-	Ant 0	23.0	22.21	1.20	-0.04	0.651	0.78
	LTE 2	QPSK20M	Left Side	18700	1	0	-	Ant 0	23.0	22.21	1.20	-0.11	0.039	0.05
	LTE 2	QPSK20M	Right Side	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.06	0.055	0.07
36	LTE 2	QPSK20M	Bottom Side	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.02	0.981	**1.18**
	LTE 2	QPSK20M	Front Face	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.14	0.254	0.30
	LTE 2	QPSK20M	Rear Face	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.06	0.553	0.65
	LTE 2	QPSK20M	Left Side	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.15	0.040	0.05
	LTE 2	QPSK20M	Right Side	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.03	0.049	0.06
	LTE 2	QPSK20M	Bottom Side	18700	50	0	-	Ant 0	22.0	21.32	1.17	0.09	0.826	0.97
	LTE 2	QPSK20M	Front Face	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.03	0.181	0.22
	LTE 2	QPSK20M	Rear Face	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.17	0.193	0.23
	LTE 2	QPSK20M	Left Side	18700	1	0	-	Ant 1	23.0	22.21	1.20	-0.15	0.496	0.60
	LTE 2	QPSK20M	Top Side	18700	1	0	-	Ant 1	23.0	22.21	1.20	0.09	0.188	0.23
	LTE 2	QPSK20M	Front Face	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.15	0.117	0.14
	LTE 2	QPSK20M	Rear Face	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.09	0.135	0.16
	LTE 2	QPSK20M	Left Side	18700	50	0	-	Ant 1	22.0	21.32	1.17	0.06	0.356	0.42
	LTE 2	QPSK20M	Top Side	18700	50	0	-	Ant 1	22.0	21.32	1.17	-0.11	0.120	0.14
	LTE 2	QPSK20M	Bottom Side	18900	1	0	-	Ant 0	23.0	22.18	1.21	0.06	0.801	0.97
	LTE 2	QPSK20M	Bottom Side	19100	1	0	-	Ant 0	23.0	22.02	1.25	0.02	0.715	0.89
	LTE 2	QPSK20M	Bottom Side	18900	50	50	-	Ant 0	22.0	21.28	1.18	0.09	0.702	0.83
	LTE 2	QPSK20M	Bottom Side	19100	50	50	-	Ant 0	22.0	21.12	1.22	0.14	0.620	0.76
	LTE 2	QPSK20M	Bottom Side	18700	100	0	-	Ant 0	22.0	21.27	1.18	0.09	0.801	0.95
	LTE 2	QPSK20M	Bottom Side	18700	1	0	Flip-out	Ant 0	23.0	22.21	1.20	0.05	0.969	1.16
	LTE 2	QPSK20M	Bottom Side	18900	1	0	Flip-out	Ant 0	23.0	22.18	1.21	0.02	0.799	0.97
	LTE 2	QPSK20M	Bottom Side	19100	1	0	Flip-out	Ant 0	23.0	22.02	1.25	-0.03	0.702	0.88
	LTE 2	QPSK20M	Bottom Side	18700	1	0	-	Ant 0	23.0	22.21	1.20	0.13	0.952	1.14
	LTE 4	QPSK20M	Front Face	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.15	0.270	0.27
	LTE 4	QPSK20M	Rear Face	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.11	0.507	0.51
	LTE 4	QPSK20M	Left Side	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.09	0.031	0.03
	LTE 4	QPSK20M	Right Side	20050	1	0	-	Ant 0	21.5	21.47	1.01	-0.11	0.043	0.04
	LTE 4	QPSK20M	Bottom Side	20050	1	0	-	Ant 0	21.5	21.47	1.01	0.02	0.815	0.82
	LTE 4	QPSK20M	Front Face	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.19	0.263	0.27
	LTE 4	QPSK20M	Rear Face	20050	50	0	-	Ant 0	20.5	20.46	1.01	-0.13	0.530	0.54
	LTE 4	QPSK20M	Left Side	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.02	0.023	0.02
	LTE 4	QPSK20M	Right Side	20050	50	0	-	Ant 0	20.5	20.46	1.01	-0.10	0.040	0.04
	LTE 4	QPSK20M	Bottom Side	20050	50	0	-	Ant 0	20.5	20.46	1.01	0.09	0.781	0.79
	LTE 4	QPSK20M	Front Face	20050	1	0	-	Ant 1	21.5	21.47	1.01	0.13	0.097	0.10
	LTE 4	QPSK20M	Rear Face	20050	1	0	-	Ant 1	21.5	21.47	1.01	-0.15	0.099	0.10
	LTE 4	QPSK20M	Left Side	20050	1	0	-	Ant 1	21.5	21.47	1.01	0.14	0.191	0.19
	LTE 4	QPSK20M	Top Side	20050	1	0	-	Ant 1	21.5	21.47	1.01	0.11	0.046	0.05
	LTE 4	QPSK20M	Front Face	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.05	0.078	0.08
	LTE 4	QPSK20M	Rear Face	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.11	0.079	0.08
	LTE 4	QPSK20M	Left Side	20050	50	0	-	Ant 1	20.5	20.46	1.01	0.15	0.148	0.15
	LTE 4	QPSK20M	Top Side	20050	50	0	-	Ant 1	20.5	20.46	1.01	-0.13	0.043	0.04
	LTE 4	QPSK20M	Bottom Side	20175	1	0	-	Ant 0	21.5	21.37	1.03	0.02	1.04	1.07
37	LTE 4	QPSK20M	Bottom Side	20300	1	0	-	Ant 0	21.5	21.31	1.04	0.04	1.05	**1.09**
	LTE 4	QPSK20M	Bottom Side	20050	100	0	-	Ant 0	20.5	20.42	1.02	0.10	0.833	0.85
	LTE 4	QPSK20M	Bottom Side	20300	1	0	Flip-out	Ant 0	21.5	21.31	1.04	-0.08	1.01	1.05
	LTE 4	QPSK20M	Bottom Side	20050	1	0	Flip-out	Ant 0	21.5	21.47	1.01	-0.02	0.803	0.81
	LTE 4	QPSK20M	Bottom Side	20175	1	0	Flip-out	Ant 0	21.5	21.37	1.03	0.07	0.991	1.02
	LTE 4	QPSK20M	Bottom Side	20300	1	0	-	Ant 0	21.5	21.31	1.04	0.11	1.01	1.05

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 5	QPSK10M	Front Face	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.05	0.198	0.21
	LTE 5	QPSK10M	Rear Face	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.11	0.327	0.34
	LTE 5	QPSK10M	Left Side	20525	1	0	-	Ant 0	22.5	22.32	1.04	0.05	0.061	0.06
	LTE 5	QPSK10M	Right Side	20525	1	0	-	Ant 0	22.5	22.32	1.04	-0.08	0.186	0.19
	LTE 5	QPSK10M	Bottom Side	20525	1	0	-	Ant 0	22.5	22.32	1.04	-0.13	0.191	0.20
	LTE 5	QPSK10M	Front Face	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.01	0.171	0.18
	LTE 5	QPSK10M	Rear Face	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.05	0.270	0.28
	LTE 5	QPSK10M	Left Side	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.05	0.040	0.04
	LTE 5	QPSK10M	Right Side	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.11	0.175	0.18
	LTE 5	QPSK10M	Bottom Side	20525	25	0	-	Ant 0	21.5	21.31	1.04	0.05	0.180	0.19
	LTE 5	QPSK10M	Front Face	20525	1	0	-	Ant 1	22.5	22.32	1.04	-0.05	0.059	0.06
	LTE 5	QPSK10M	Rear Face	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Left Side	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.12	0.084	0.09
	LTE 5	QPSK10M	Top Side	20525	1	0	-	Ant 1	22.5	22.32	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Front Face	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.02	0.051	0.05
	LTE 5	QPSK10M	Rear Face	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Left Side	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.09	0.070	0.07
	LTE 5	QPSK10M	Top Side	20525	25	0	-	Ant 1	21.5	21.31	1.04	0.00	<0.001	0.00
	LTE 5	QPSK10M	Rear Face	20450	1	0	-	Ant 0	22.5	22.26	1.06	-0.13	0.289	0.31
24	LTE 5	QPSK10M	Rear Face	20600	1	0	-	Ant 0	22.5	22.24	1.06	-0.09	0.350	**0.37**
	LTE 5	QPSK10M	Rear Face	20600	1	0	Flip-out	Ant 0	22.5	22.24	1.06	-0.06	0.338	0.36
	LTE 7	QPSK20M	Front Face	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.00	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	20850	1	0	-	Ant 0	23.0	22.82	1.04	-0.19	0.027	0.03
	LTE 7	QPSK20M	Left Side	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.09	0.081	0.08
	LTE 7	QPSK20M	Right Side	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.00	<0.001	0.00
	LTE 7	QPSK20M	Bottom Side	20850	1	0	-	Ant 0	23.0	22.82	1.04	0.01	0.010	0.01
	LTE 7	QPSK20M	Front Face	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.01	0.016	0.02
	LTE 7	QPSK20M	Left Side	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.05	0.070	0.07
	LTE 7	QPSK20M	Right Side	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Bottom Side	20850	50	0	-	Ant 0	22.0	21.92	1.02	0.00	<0.001	0.00
	LTE 7	QPSK20M	Front Face	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.09	0.065	0.07
25	LTE 7	QPSK20M	Rear Face	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.12	0.139	**0.14**
	LTE 7	QPSK20M	Left Side	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.14	0.033	0.03
	LTE 7	QPSK20M	Top Side	20850	1	0	-	Ant 1	23.0	22.82	1.04	0.06	0.036	0.04
	LTE 7	QPSK20M	Front Face	20850	50	0	-	Ant 1	22.0	21.92	1.02	-0.13	0.060	0.06
	LTE 7	QPSK20M	Rear Face	20850	50	0	-	Ant 1	22.0	21.92	1.02	0.09	0.118	0.12
	LTE 7	QPSK20M	Left Side	20850	50	0	-	Ant 1	22.0	21.92	1.02	0.17	0.015	0.02
	LTE 7	QPSK20M	Top Side	20850	50	0	-	Ant 1	22.0	21.92	1.02	0.06	0.020	0.02
	LTE 7	QPSK20M	Rear Face	21100	1	99	-	Ant 1	23.0	22.69	1.07	0.01	0.127	0.14
	LTE 7	QPSK20M	Rear Face	21350	1	99	-	Ant 1	23.0	22.64	1.09	0.03	0.125	0.14
	LTE 7	QPSK20M	Rear Face	20850	1	0	Flip-out	Ant 1	23.0	22.82	1.04	-0.03	0.135	0.14
	LTE 7	QPSK20M	Rear Face	PCC:20850 SCC:21048	PCC:1 SCC:1	PCC:99 SCC:0	-	Ant 1	23.0	22.38	1.15	-0.11	0.111	0.13

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	Camera	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 26	QPSK15M	Front Face	26965	1	0	-	Ant 0	22.5	22.41	1.02	0.05	0.208	0.21
26	LTE 26	QPSK15M	Rear Face	26965	1	0	-	Ant 0	22.5	22.41	1.02	-0.02	0.340	**0.35**
	LTE 26	QPSK15M	Left Side	26965	1	0	-	Ant 0	22.5	22.41	1.02	0.03	0.057	0.06
	LTE 26	QPSK15M	Right Side	26965	1	0	-	Ant 0	22.5	22.41	1.02	0.11	0.103	0.11
	LTE 26	QPSK15M	Bottom Side	26965	1	0	-	Ant 0	22.5	22.41	1.02	0.08	0.170	0.17
	LTE 26	QPSK15M	Front Face	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.03	0.175	0.18
	LTE 26	QPSK15M	Rear Face	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.00	0.292	0.29
	LTE 26	QPSK15M	Left Side	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.11	0.020	0.02
	LTE 26	QPSK15M	Right Side	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.08	0.075	0.08
	LTE 26	QPSK15M	Bottom Side	26965	36	0	-	Ant 0	21.5	21.49	1.00	0.03	0.158	0.16
	LTE 26	QPSK15M	Front Face	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.17	0.034	0.03
	LTE 26	QPSK15M	Rear Face	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.00	<0.001	0.00
	LTE 26	QPSK15M	Left Side	26965	1	0	-	Ant 1	22.5	22.41	1.02	-0.10	0.098	0.10
	LTE 26	QPSK15M	Top Side	26965	1	0	-	Ant 1	22.5	22.41	1.02	0.00	<0.001	0.00
	LTE 26	QPSK15M	Front Face	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.01	0.031	0.03
	LTE 26	QPSK15M	Rear Face	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Left Side	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.09	0.093	0.09
	LTE 26	QPSK15M	Top Side	26965	36	0	-	Ant 1	21.5	21.49	1.00	0.00	<0.001	0.00
	LTE 26	QPSK15M	Rear Face	26765	1	0	-	Ant 0	22.5	22.31	1.04	0.11	0.280	0.29
	LTE 26	QPSK15M	Rear Face	26865	1	0	-	Ant 0	22.5	22.36	1.03	0.08	0.290	0.30
	LTE 26	QPSK15M	Rear Face	26965	1	0	Flip-out	Ant 0	22.5	22.41	1.02	0.01	0.331	0.34
	LTE 41	QPSK20M	Front Face	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.01	0.024	0.02
	LTE 41	QPSK20M	Rear Face	41140	1	0	-	Ant 0	23.0	22.89	1.03	-0.12	0.029	0.03
39	LTE 41	QPSK20M	Left Side	41140	1	0	-	Ant 0	23.0	22.89	1.03	-0.15	0.186	**0.19**
	LTE 41	QPSK20M	Right Side	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.00	<0.001	0.00
	LTE 41	QPSK20M	Bottom Side	41140	1	0	-	Ant 0	23.0	22.89	1.03	0.02	0.030	0.03
	LTE 41	QPSK20M	Front Face	41140	50	0	-	Ant 0	22.0	21.94	1.01	0.13	0.018	0.02
	LTE 41	QPSK20M	Rear Face	41140	50	0	-	Ant 0	22.0	21.94	1.01	-0.18	0.024	0.02
	LTE 41	QPSK20M	Left Side	41140	50	0	-	Ant 0	22.0	21.94	1.01	-0.13	0.015	0.02
	LTE 41	QPSK20M	Right Side	41140	50	0	-	Ant 0	22.0	21.94	1.01	0.00	<0.001	0.00
	LTE 41	QPSK20M	Bottom Side	41140	50	0	-	Ant 0	22.0	21.94	1.01	0.02	0.019	0.02
	LTE 41	QPSK20M	Front Face	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.03	0.071	0.07
	LTE 41	QPSK20M	Rear Face	41140	1	0	-	Ant 1	23.0	22.89	1.03	-0.01	0.171	0.18
	LTE 41	QPSK20M	Left Side	41140	1	0	-	Ant 1	23.0	22.89	1.03	-0.15	0.062	0.06
	LTE 41	QPSK20M	Top Side	41140	1	0	-	Ant 1	23.0	22.89	1.03	0.09	0.045	0.05
	LTE 41	QPSK20M	Front Face	41140	50	0	-	Ant 1	22.0	21.94	1.01	-0.17	0.050	0.05
	LTE 41	QPSK20M	Rear Face	41140	50	0	-	Ant 1	22.0	21.94	1.01	0.06	0.124	0.13
	LTE 41	QPSK20M	Left Side	41140	50	0	-	Ant 1	22.0	21.94	1.01	0.08	0.053	0.05
	LTE 41	QPSK20M	Top Side	41140	50	0	-	Ant 1	22.0	21.94	1.01	-0.11	0.030	0.03
	LTE 41	QPSK20M	Left Side	40140	1	0	-	Ant 0	23.0	22.87	1.03	0.14	0.134	0.14
	LTE 41	QPSK20M	Left Side	40470	1	0	-	Ant 0	23.0	22.48	1.13	-0.11	0.162	0.18
	LTE 41	QPSK20M	Left Side	40810	1	0	-	Ant 0	23.0	22.51	1.12	0.06	0.113	0.13
	LTE 41	QPSK20M	Left Side	41140	1	0	Flip-out	Ant 0	23.0	22.89	1.03	0.02	0.161	0.17
	LTE 41	QPSK20M	Left Side	PCC:40942 SCC:41140	PCC:1 SCC:1	PCC:99 SCC:0	-	Ant 0	23.0	21.24	1.50	0.18	0.115	0.17

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.