



8.1.4.3 Conducted Power of LTE

LTE Band 2 Hotspot off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	22.19	22.12	22.13	24.00
		1	2	22.32	22.32	22.29	24.00
		1	5	22.16	22.28	22.28	24.00
		3	0	22.21	22.19	22.23	24.00
		3	2	22.27	22.19	22.21	24.00
		3	3	22.16	22.16	22.21	24.00
		6	0	21.34	21.27	21.30	23.00
	16QAM	1	0	21.46	21.55	21.78	23.00
		1	2	21.39	21.38	21.39	23.00
		1	5	21.73	21.31	21.33	23.00
		3	0	21.49	21.33	21.43	23.00
		3	2	21.28	21.36	21.32	23.00
		3	3	21.47	21.17	21.22	23.00
		6	0	20.45	20.39	20.32	22.00
	64QAM	1	0	20.46	20.58	20.82	22.00
		1	2	20.37	20.37	20.41	22.00
		1	5	20.71	20.28	20.30	22.00
		3	0	20.47	20.32	20.49	22.00
		3	2	20.30	20.41	20.28	22.00
		3	3	20.47	20.19	20.21	22.00
		6	0	19.49	19.41	19.35	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	22.22	22.27	22.37	24.00
		1	7	22.25	22.22	22.38	24.00
		1	14	22.22	22.20	22.10	24.00
		8	0	21.43	21.37	21.43	23.00
		8	4	21.42	21.38	21.44	23.00
		8	7	21.33	21.37	21.38	23.00
		15	0	21.43	21.33	21.38	23.00
	16QAM	1	0	21.49	21.43	21.56	23.00
		1	7	21.72	21.21	21.53	23.00
		1	14	21.50	21.38	21.55	23.00
		8	0	20.50	20.45	20.52	22.00
		8	4	20.45	20.49	20.52	22.00
		8	7	20.46	20.53	20.44	22.00
		15	0	20.34	20.45	20.38	22.00
	64QAM	1	0	20.46	20.45	20.56	22.00
		1	7	20.78	20.26	20.59	22.00
		1	14	20.49	20.36	20.59	22.00
		8	0	19.48	19.50	19.57	21.00
		8	4	19.41	19.55	19.55	21.00
		8	7	19.43	19.52	19.41	21.00
		15	0	19.36	19.47	19.43	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	22.25	22.04	22.12	24.00
		1	13	22.20	22.31	22.35	24.00
		1	24	22.21	22.27	22.20	24.00
		12	0	21.32	21.39	21.34	23.00
		12	6	21.44	21.40	21.42	23.00
		12	13	21.34	21.33	21.30	23.00
		25	0	21.35	21.33	21.32	23.00
	16QAM	1	0	21.51	21.49	21.29	23.00
		1	13	21.42	21.23	21.95	23.00
		1	24	21.09	21.29	21.11	23.00
		12	0	20.37	20.41	20.39	22.00
		12	6	20.42	20.29	20.32	22.00
		12	13	20.41	20.35	20.34	22.00
		25	0	20.45	20.46	20.33	22.00
	64QAM	1	0	20.47	20.48	20.28	22.00
		1	13	20.38	20.23	20.96	22.00
		1	24	20.13	20.34	20.14	22.00
		12	0	19.40	19.47	19.41	21.00
		12	6	19.38	19.35	19.38	21.00
		12	13	19.40	19.32	19.33	21.00
		25	0	19.48	19.44	19.39	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	22.12	22.10	22.19	24.00
		1	25	22.20	22.14	22.10	24.00
		1	49	22.13	22.07	22.27	24.00
		25	0	21.30	21.20	21.31	23.00
		25	13	21.43	21.37	21.36	23.00
		25	25	21.27	21.31	21.30	23.00
		50	0	21.33	21.22	21.34	23.00
	16QAM	1	0	21.41	21.43	21.21	23.00
		1	25	21.56	21.64	21.52	23.00
		1	49	21.49	21.33	21.47	23.00
		25	0	20.07	20.37	20.25	22.00
		25	13	20.36	20.33	20.37	22.00
		25	25	20.19	20.43	20.34	22.00
		50	0	20.32	20.12	20.29	22.00
	64QAM	1	0	20.38	20.47	20.19	22.00
		1	25	20.56	20.64	20.51	22.00
		1	49	20.49	20.37	20.52	22.00
		25	0	19.03	19.35	19.30	21.00
		25	13	19.37	19.30	19.37	21.00
		25	25	19.24	19.41	19.34	21.00
		50	0	19.36	19.14	19.32	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	22.21	22.39	22.32	24.00
		1	38	22.27	22.34	22.38	24.00
		1	74	22.34	22.39	22.39	24.00
		36	0	21.37	21.34	21.31	23.00
		36	18	21.44	21.43	21.60	23.00
		36	39	21.44	21.51	21.49	23.00
		75	0	21.46	21.38	21.47	23.00
	16QAM	1	0	21.73	21.52	21.67	23.00
		1	38	21.66	21.53	21.96	23.00
		1	74	21.63	21.71	21.35	23.00
		36	0	20.40	20.40	20.37	22.00
		36	18	20.40	20.36	20.54	22.00
		36	39	20.52	20.45	20.48	22.00
		75	0	20.52	20.45	20.45	22.00
	64QAM	1	0	20.77	20.58	20.66	22.00
		1	38	20.67	20.54	21.00	22.00
		1	74	20.64	20.68	20.33	22.00
		36	0	19.40	19.43	19.42	21.00
		36	18	19.45	19.34	19.53	21.00
		36	39	19.57	19.48	19.46	21.00
		75	0	19.48	19.44	19.47	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	22.37	22.45	22.27	24.00
		1	50	22.34	22.40	22.44	24.00
		1	99	22.43	22.35	22.33	24.00
		50	0	21.45	21.37	21.32	23.00
		50	25	21.50	21.45	21.40	23.00
		50	50	21.53	21.50	21.58	23.00
		100	0	21.39	21.41	21.39	23.00
	16QAM	1	0	21.86	21.98	21.33	23.00
		1	50	21.65	21.74	21.31	23.00
		1	99	21.72	21.33	21.36	23.00
		50	0	20.36	20.37	20.43	22.00
		50	25	20.53	20.44	20.49	22.00
		50	50	20.44	20.50	20.51	22.00
		100	0	20.43	20.39	20.37	22.00
	64QAM	1	0	20.88	21.02	20.38	22.00
		1	50	20.62	20.71	20.34	22.00
		1	99	20.71	20.30	20.40	22.00
		50	0	19.37	19.42	19.44	21.00
		50	25	19.52	19.46	19.50	21.00
		50	50	19.42	19.54	19.52	21.00
		100	0	19.49	19.43	19.43	21.00



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LTE Band 2 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	19.13	19.03	19.19	21.00
		1	2	19.20	19.25	19.12	21.00
		1	5	19.09	19.17	19.08	21.00
		3	0	19.16	19.16	19.08	21.00
		3	2	19.30	19.39	19.09	21.00
		3	3	19.14	19.16	19.09	21.00
		6	0	19.16	19.18	19.19	21.00
	16QAM	1	0	19.61	19.36	19.35	21.00
		1	2	19.76	19.44	19.77	21.00
		1	5	19.49	19.94	19.04	21.00
		3	0	19.21	19.18	19.29	21.00
		3	2	19.19	19.20	19.27	21.00
		3	3	19.08	19.10	19.00	21.00
		6	0	19.19	19.42	19.42	21.00
	64QAM	1	0	19.49	19.55	19.77	21.00
		1	2	19.29	19.40	19.43	21.00
		1	5	19.76	19.30	19.25	21.00
		3	0	19.57	19.41	19.45	21.00
		3	2	19.37	19.39	19.29	21.00
		3	3	19.42	19.23	19.23	21.00
		6	0	19.44	19.34	19.25	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18615	18900	19185	
3MHz	QPSK	1	0	19.23	19.18	19.19	21.00
		1	7	19.17	19.22	19.16	21.00
		1	14	19.03	19.06	19.10	21.00
		8	0	19.24	19.18	19.26	21.00
		8	4	19.23	19.21	19.29	21.00
		8	7	19.10	19.18	19.25	21.00
		15	0	19.19	19.29	19.30	21.00
	16QAM	1	0	19.27	19.17	19.44	21.00
		1	7	19.17	19.75	19.77	21.00
		1	14	19.63	19.85	19.10	21.00
		8	0	19.35	19.33	19.42	21.00
		8	4	19.46	19.26	19.29	21.00
		8	7	19.31	19.71	19.33	21.00
		15	0	19.29	19.35	19.13	21.00
	64QAM	1	0	19.42	19.52	19.54	21.00
		1	7	19.68	19.22	19.67	21.00
		1	14	19.45	19.28	19.67	21.00
		8	0	19.43	19.41	19.50	21.00
		8	4	19.33	19.49	19.49	21.00
		8	7	19.36	19.44	19.32	21.00
		15	0	19.31	19.41	19.37	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	19.10	19.10	19.12	21.00
		1	13	19.28	19.42	19.21	21.00
		1	24	19.26	19.16	19.01	21.00
		12	0	19.21	19.37	19.21	21.00
		12	6	19.46	19.24	19.25	21.00
		12	13	19.25	19.13	19.24	21.00
		25	0	19.25	19.27	19.25	21.00
	16QAM	1	0	19.61	19.64	19.63	21.00
		1	13	19.90	19.56	19.53	21.00
		1	24	19.36	19.79	19.28	21.00
		12	0	19.20	19.20	19.25	21.00
		12	6	19.25	19.37	19.22	21.00
		12	13	19.28	19.33	19.32	21.00
		25	0	19.27	19.26	19.29	21.00
	64QAM	1	0	19.41	19.54	19.26	21.00
		1	13	19.45	19.23	19.98	21.00
		1	24	19.08	19.32	19.22	21.00
		12	0	19.31	19.41	19.34	21.00
		12	6	19.32	19.25	19.30	21.00
		12	13	19.35	19.27	19.26	21.00
		25	0	19.39	19.34	19.34	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	19.09	19.11	19.26	21.00
		1	25	19.15	19.06	19.07	21.00
		1	49	19.09	19.08	19.22	21.00
		25	0	19.11	19.18	19.24	21.00
		25	13	19.37	19.21	19.29	21.00
		25	25	19.24	19.21	19.25	21.00
		50	0	19.27	19.22	19.19	21.00
	16QAM	1	0	19.49	19.14	19.87	21.00
		1	25	19.76	19.41	19.75	21.00
		1	49	19.32	19.36	19.74	21.00
		25	0	19.09	19.09	19.12	21.00
		25	13	19.38	19.18	19.22	21.00
		25	25	19.17	19.26	19.01	21.00
		50	0	19.30	19.13	19.14	21.00
	64QAM	1	0	19.35	19.40	19.23	21.00
		1	25	19.48	19.60	19.58	21.00
		1	49	19.39	19.29	19.58	21.00
		25	0	19.03	19.29	19.20	21.00
		25	13	19.27	19.20	19.31	21.00
		25	25	19.16	19.36	19.24	21.00
		50	0	19.31	19.06	19.23	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	19.29	19.50	19.35	21.00
		1	38	19.18	19.44	19.29	21.00
		1	74	19.21	19.33	19.33	21.00
		36	0	19.34	19.35	19.27	21.00
		36	18	19.44	19.41	19.52	21.00
		36	39	19.40	19.48	19.50	21.00
		75	0	19.47	19.44	19.44	21.00
	16QAM	1	0	19.57	19.50	19.46	21.00
		1	38	19.52	19.38	19.66	21.00
		1	74	19.51	19.59	19.49	21.00
		36	0	19.48	19.38	19.34	21.00
		36	18	19.51	19.40	19.46	21.00
		36	39	19.52	19.52	19.37	21.00
		75	0	19.40	19.10	19.54	21.00
	64QAM	1	0	19.77	19.66	19.72	21.00
		1	38	19.58	19.52	19.95	21.00
		1	74	19.67	19.74	19.29	21.00
		36	0	19.33	19.38	19.37	21.00
		36	18	19.37	19.28	19.46	21.00
		36	39	19.49	19.39	19.38	21.00
		75	0	19.38	19.39	19.38	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	19.32	19.66	19.30	21.00
		1	50	19.31	19.31	19.34	21.00
		1	99	19.33	19.24	19.24	21.00
		50	0	19.26	19.55	19.33	21.00
		50	25	19.45	19.32	19.41	21.00
		50	50	19.38	19.36	19.45	21.00
		100	0	19.36	19.34	19.31	21.00
	16QAM	1	0	19.50	19.45	19.39	21.00
		1	50	19.35	19.25	19.22	21.00
		1	99	19.36	19.25	19.33	21.00
		50	0	19.32	19.32	19.26	21.00
		50	25	19.43	19.46	19.37	21.00
		50	50	19.39	19.47	19.36	21.00
		100	0	19.50	19.27	19.34	21.00
	64QAM	1	0	19.83	20.11	19.32	21.00
		1	50	19.58	19.76	19.39	21.00
		1	99	19.61	19.38	19.32	21.00
		50	0	19.32	19.36	19.34	21.00
		50	25	19.43	19.36	19.42	21.00
		50	50	19.32	19.44	19.43	21.00
		100	0	19.44	19.37	19.37	21.00



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LTE Band 4 Hotspot off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	22.05	22.14	22.13	24.00
		1	2	22.11	22.11	22.26	24.00
		1	5	22.14	22.12	22.10	24.00
		3	0	22.12	22.14	22.14	24.00
		3	2	22.07	22.22	22.23	24.00
		3	3	22.19	22.17	22.19	24.00
		6	0	21.22	21.23	21.27	23.00
	16QAM	1	0	21.45	21.52	21.90	23.00
		1	2	21.22	21.70	21.69	23.00
		1	5	21.16	21.51	21.50	23.00
		3	0	21.11	21.29	21.25	23.00
		3	2	21.26	21.15	21.15	23.00
		3	3	21.26	21.12	21.16	23.00
		6	0	20.21	20.48	20.27	22.00
	64QAM	1	0	20.49	20.57	20.92	22.00
		1	2	20.28	20.76	20.73	22.00
		1	5	20.16	20.53	20.53	22.00
		3	0	20.07	20.32	20.21	22.00
		3	2	20.23	20.16	20.11	22.00
		3	3	20.32	20.13	20.16	22.00
		6	0	19.25	19.51	19.27	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19965	20175	20385	
3MHz	QPSK	1	0	22.04	22.18	22.32	24.00
		1	7	22.24	22.29	22.38	24.00
		1	14	22.19	22.09	22.22	24.00
		8	0	21.27	21.33	21.30	23.00
		8	4	21.29	21.35	21.35	23.00
		8	7	21.21	21.24	21.30	23.00
		15	0	21.28	21.26	21.27	23.00
	16QAM	1	0	21.19	21.58	21.46	23.00
		1	7	21.31	21.36	21.91	23.00
		1	14	21.58	21.49	21.69	23.00
		8	0	20.28	20.34	20.35	22.00
		8	4	20.48	20.42	20.29	22.00
		8	7	20.35	20.26	20.34	22.00
		15	0	20.40	20.43	20.21	22.00
	64QAM	1	0	20.23	20.54	20.50	22.00
		1	7	20.35	20.35	20.87	22.00
		1	14	20.55	20.51	20.70	22.00
		8	0	19.27	19.39	19.37	21.00
		8	4	19.48	19.47	19.25	21.00
		8	7	19.36	19.27	19.39	21.00
		15	0	19.43	19.43	19.22	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	22.02	22.22	22.24	24.00
		1	13	22.21	22.22	22.28	24.00
		1	24	22.14	22.28	22.06	24.00
		12	0	21.31	21.30	21.26	23.00
		12	6	21.29	21.32	21.30	23.00
		12	13	21.25	21.31	21.29	23.00
		25	0	21.24	21.27	21.29	23.00
	16QAM	1	0	21.07	21.23	21.59	23.00
		1	13	21.43	21.88	21.28	23.00
		1	24	21.39	21.18	21.29	23.00
		12	0	20.16	20.35	20.19	22.00
		12	6	20.33	20.44	20.26	22.00
		12	13	20.17	20.23	20.32	22.00
		25	0	20.31	20.20	20.20	22.00
	64QAM	1	0	20.09	20.20	20.58	22.00
		1	13	20.45	20.87	20.31	22.00
		1	24	20.43	20.18	20.25	22.00
		12	0	19.12	19.33	19.21	21.00
		12	6	19.36	19.40	19.31	21.00
		12	13	19.15	19.19	19.30	21.00
		25	0	19.32	19.17	19.24	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	22.07	22.04	22.09	24.00
		1	25	22.37	22.25	22.09	24.00
		1	49	22.04	22.12	22.02	24.00
		25	0	21.05	21.21	21.16	23.00
		25	13	21.33	21.31	21.17	23.00
		25	25	21.14	21.13	21.22	23.00
		50	0	21.23	21.20	21.11	23.00
	16QAM	1	0	21.11	21.89	21.13	23.00
		1	25	21.39	21.32	21.33	23.00
		1	49	21.50	21.08	21.37	23.00
		25	0	20.22	20.26	20.27	22.00
		25	13	20.34	20.32	20.17	22.00
		25	25	20.29	20.22	20.21	22.00
		50	0	20.19	20.22	20.19	22.00
	64QAM	1	0	20.95	20.94	20.19	22.00
		1	25	20.37	20.37	20.36	22.00
		1	49	20.51	20.53	20.38	22.00
		25	0	19.23	19.32	19.27	21.00
		25	13	19.36	19.33	19.22	21.00
		25	25	19.32	19.27	19.18	21.00
		50	0	19.21	19.20	19.21	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	22.12	22.15	22.19	24.00
		1	38	22.21	22.39	22.22	24.00
		1	74	22.27	22.31	22.31	24.00
		36	0	21.38	21.28	21.31	23.00
		36	18	21.47	21.50	21.41	23.00
		36	39	21.50	21.50	21.39	23.00
		75	0	21.32	21.42	21.27	23.00
	16QAM	1	0	21.25	21.06	21.28	23.00
		1	38	21.85	21.49	21.52	23.00
		1	74	21.74	21.55	21.45	23.00
		36	0	20.28	20.35	20.34	22.00
		36	18	20.48	20.54	20.39	22.00
		36	39	20.42	20.46	20.45	22.00
		75	0	20.44	20.44	20.38	22.00
	64QAM	1	0	20.22	20.09	20.27	22.00
		1	38	20.81	20.54	20.51	22.00
		1	74	20.77	20.58	20.41	22.00
		36	0	19.25	19.39	19.39	21.00
		36	18	19.45	19.53	19.39	21.00
		36	39	19.38	19.43	19.51	21.00
		75	0	19.42	19.42	19.36	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	22.13	22.16	22.06	24.00
		1	50	22.26	22.37	22.33	24.00
		1	99	22.05	22.24	22.13	24.00
		50	0	21.27	21.31	21.32	23.00
		50	25	21.41	21.49	21.50	23.00
		50	50	21.43	21.46	21.40	23.00
		100	0	21.32	21.39	21.47	23.00
	16QAM	1	0	21.71	21.13	21.62	23.00
		1	50	21.50	21.79	21.72	23.00
		1	99	21.14	21.44	21.37	23.00
		50	0	20.30	20.36	20.34	22.00
		50	25	20.60	20.53	20.52	22.00
		50	50	20.45	20.46	20.42	22.00
		100	0	20.33	20.44	20.41	22.00
	64QAM	1	0	20.75	20.17	20.62	22.00
		1	50	20.50	20.75	20.73	22.00
		1	99	20.14	20.40	20.40	22.00
		50	0	19.33	19.38	19.39	21.00
		50	25	19.58	19.54	19.53	21.00
		50	50	19.48	19.47	19.38	21.00
		100	0	19.39	19.49	19.43	21.00



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LTE Band 4 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	21.04	21.04	21.04	23.00
		1	2	21.10	21.02	21.11	23.00
		1	5	21.00	21.09	21.06	23.00
		3	0	21.03	21.05	21.04	23.00
		3	2	21.04	21.09	21.12	23.00
		3	3	21.07	21.01	21.05	23.00
		6	0	21.07	21.08	21.19	23.00
	16QAM	1	0	21.37	21.02	21.45	23.00
		1	2	21.40	21.63	21.67	23.00
		1	5	21.12	21.61	21.12	23.00
		3	0	21.21	21.19	21.15	23.00
		3	2	21.16	21.24	21.18	23.00
		3	3	21.16	21.06	21.15	23.00
		6	0	20.31	20.14	20.30	22.00
	64QAM	1	0	20.42	20.54	20.88	22.00
		1	2	20.21	20.71	20.67	22.00
		1	5	20.13	20.45	20.45	22.00
		3	0	20.03	20.28	20.14	22.00
		3	2	20.20	20.08	20.04	22.00
		3	3	20.24	20.05	20.12	22.00
		6	0	19.21	19.47	19.23	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19965	20175	20385	
3MHz	QPSK	1	0	21.09	21.12	21.02	23.00
		1	7	21.15	21.10	21.15	23.00
		1	14	21.09	21.09	21.09	23.00
		8	0	21.22	21.17	21.21	23.00
		8	4	21.19	21.17	21.26	23.00
		8	7	21.14	21.20	21.23	23.00
		15	0	21.19	21.23	21.12	23.00
	16QAM	1	0	21.29	21.72	21.33	23.00
		1	7	21.03	21.39	21.67	23.00
		1	14	21.47	21.64	21.29	23.00
		8	0	20.17	20.34	20.26	22.00
		8	4	20.26	20.21	20.28	22.00
		8	7	20.20	20.24	20.20	22.00
		15	0	20.21	20.12	20.26	22.00
	64QAM	1	0	20.15	20.47	20.47	22.00
		1	7	20.30	20.31	20.82	22.00
		1	14	20.52	20.45	20.66	22.00
		8	0	19.23	19.36	19.34	21.00
		8	4	19.41	19.43	19.19	21.00
		8	7	19.32	19.21	19.31	21.00
		15	0	19.35	19.37	19.14	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	21.03	21.13	21.23	23.00
		1	13	21.19	21.27	21.18	23.00
		1	24	21.07	21.23	21.09	23.00
		12	0	21.27	21.31	21.28	23.00
		12	6	21.25	21.27	21.29	23.00
		12	13	21.22	21.26	21.26	23.00
		25	0	21.27	21.18	21.16	23.00
	16QAM	1	0	21.21	21.68	21.09	23.00
		1	13	21.44	21.61	21.48	23.00
		1	24	21.33	21.03	21.28	23.00
		12	0	20.35	20.35	20.29	22.00
		12	6	20.26	20.27	20.23	22.00
		12	13	20.26	20.26	20.16	22.00
		25	0	20.24	20.30	20.22	22.00
	64QAM	1	0	20.05	20.13	20.54	22.00
		1	13	20.41	20.79	20.27	22.00
		1	24	20.37	20.14	20.22	22.00
		12	0	19.05	19.29	19.14	21.00
		12	6	19.28	19.36	19.24	21.00
		12	13	19.07	19.13	19.27	21.00
		25	0	19.29	19.13	19.18	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	21.08	21.03	21.01	23.00
		1	25	21.02	21.21	21.20	23.00
		1	49	21.08	21.06	21.02	23.00
		25	0	21.11	21.21	21.21	23.00
		25	13	21.26	21.21	21.22	23.00
		25	25	21.15	21.23	21.10	23.00
		50	0	21.16	21.13	21.11	23.00
	16QAM	1	0	21.40	21.19	21.54	23.00
		1	25	21.40	21.33	21.69	23.00
		1	49	21.13	21.37	21.14	23.00
		25	0	20.08	20.05	20.22	22.00
		25	13	20.26	20.40	20.31	22.00
		25	25	20.15	20.00	20.22	22.00
		50	0	20.11	20.19	20.26	22.00
	64QAM	1	0	20.90	20.91	20.13	22.00
		1	25	20.29	20.33	20.33	22.00
		1	49	20.44	20.49	20.30	22.00
		25	0	19.15	19.27	19.20	21.00
		25	13	19.33	19.27	19.17	21.00
		25	25	19.24	19.21	19.11	21.00
		50	0	19.15	19.14	19.13	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	21.12	21.10	21.28	23.00
		1	38	21.31	21.29	21.34	23.00
		1	74	21.19	21.10	21.25	23.00
		36	0	21.33	21.37	21.30	23.00
		36	18	21.45	21.46	21.37	23.00
		36	39	21.38	21.40	21.49	23.00
		75	0	21.38	21.44	21.37	23.00
	16QAM	1	0	21.39	21.58	21.44	23.00
		1	38	21.76	21.84	21.54	23.00
		1	74	21.59	21.78	21.55	23.00
		36	0	20.32	20.27	20.34	22.00
		36	18	20.42	20.52	20.44	22.00
		36	39	20.45	20.58	20.48	22.00
		75	0	20.42	20.40	20.38	22.00
	64QAM	1	0	20.14	20.04	20.20	22.00
		1	38	20.78	20.51	20.44	22.00
		1	74	20.72	20.51	20.33	22.00
		36	0	19.18	19.33	19.32	21.00
		36	18	19.42	19.47	19.36	21.00
		36	39	19.34	19.38	19.47	21.00
		75	0	19.37	19.37	19.33	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	21.12	21.23	21.48	23.00
		1	50	21.18	21.38	21.31	23.00
		1	99	21.03	21.17	21.01	23.00
		50	0	21.21	21.25	21.31	23.00
		50	25	21.43	21.42	21.47	23.00
		50	50	21.34	21.27	21.27	23.00
		100	0	21.30	21.35	21.30	23.00
	16QAM	1	0	21.24	21.22	21.37	23.00
		1	50	21.29	21.35	21.28	23.00
		1	99	21.36	21.22	21.25	23.00
		50	0	20.29	20.23	20.25	22.00
		50	25	20.47	20.51	20.47	22.00
		50	50	20.29	20.34	20.47	22.00
		100	0	20.27	20.33	20.40	22.00
	64QAM	1	0	20.70	20.12	20.59	22.00
		1	50	20.46	20.71	20.68	22.00
		1	99	20.06	20.34	20.35	22.00
		50	0	19.27	19.33	19.32	21.00
		50	25	19.54	19.51	19.49	21.00
		50	50	19.41	19.39	19.34	21.00
		100	0	19.32	19.46	19.39	21.00



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LTE Band 7 Hotspot off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	22.82	22.97	22.96	24.00
		1	13	23.07	23.02	23.05	24.00
		1	24	22.77	22.87	22.87	24.00
		12	0	21.99	21.98	22.06	23.00
		12	6	22.04	22.01	22.06	23.00
		12	13	21.83	21.96	21.94	23.00
		25	0	21.98	21.92	21.92	23.00
	16QAM	1	0	22.56	21.99	22.54	23.00
		1	13	22.35	22.20	22.14	23.00
		1	24	22.30	21.99	21.99	23.00
		12	0	20.98	20.94	20.98	22.00
		12	6	21.01	21.02	20.95	22.00
		12	13	20.87	20.98	21.03	22.00
		25	0	20.98	20.87	21.02	22.00
	64QAM	1	0	21.58	21.00	21.59	22.00
		1	13	21.39	21.25	21.19	22.00
		1	24	21.33	20.95	21.03	22.00
		12	0	20.00	19.93	20.01	21.00
		12	6	20.07	20.03	19.97	21.00
		12	13	19.90	19.99	20.03	21.00
		25	0	19.96	19.86	20.04	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	22.83	22.92	22.77	24.00
		1	25	22.82	22.81	22.85	24.00
		1	49	22.87	22.82	23.08	24.00
		25	0	21.88	22.05	21.95	23.00
		25	13	21.94	21.98	21.97	23.00
		25	25	22.00	21.98	21.99	23.00
		50	0	21.85	21.81	21.84	23.00
	16QAM	1	0	22.53	21.97	22.43	23.00
		1	25	22.31	22.04	22.23	23.00
		1	49	22.19	22.45	22.19	23.00
		25	0	21.16	20.96	20.87	22.00
		25	13	20.90	20.86	21.03	22.00
		25	25	20.83	20.92	21.01	22.00
		50	0	20.74	20.93	20.88	22.00
	64QAM	1	0	21.53	21.02	21.43	22.00
		1	25	21.34	21.09	21.20	22.00
		1	49	21.25	21.46	21.25	22.00
		25	0	20.15	19.97	19.89	21.00
		25	13	19.91	19.86	20.02	21.00
		25	25	19.88	19.88	19.99	21.00
		50	0	19.70	19.99	19.87	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	22.99	23.09	23.12	24.00
		1	38	22.96	22.94	22.96	24.00
		1	74	23.15	23.08	23.07	24.00
		36	0	22.11	22.08	22.10	23.00
		36	18	22.18	22.15	22.17	23.00
		36	39	22.12	22.13	22.18	23.00
		75	0	22.11	22.07	22.13	23.00
	16QAM	1	0	22.49	22.21	22.59	23.00
		1	38	22.71	22.32	22.18	23.00
		1	74	22.22	22.56	22.08	23.00
		36	0	21.05	21.19	21.29	22.00
		36	18	21.18	21.11	21.21	22.00
		36	39	21.19	21.02	21.17	22.00
		75	0	21.17	20.96	21.07	22.00
	64QAM	1	0	21.49	21.20	21.56	22.00
		1	38	21.71	21.32	21.14	22.00
		1	74	21.26	21.53	21.06	22.00
		36	0	20.07	20.20	20.30	21.00
		36	18	20.24	20.17	20.19	21.00
		36	39	20.20	20.06	20.17	21.00
		75	0	20.23	20.02	20.11	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20850	21100	21350	
20MHz	QPSK	1	0	23.05	22.98	23.16	24.00
		1	50	22.95	23.05	23.02	24.00
		1	99	23.12	22.99	22.89	24.00
		50	0	22.13	22.12	22.20	23.00
		50	25	22.25	22.09	22.24	23.00
		50	50	22.13	22.09	22.23	23.00
		100	0	22.14	22.00	22.21	23.00
	16QAM	1	0	22.38	22.35	22.53	23.00
		1	50	22.83	22.07	22.28	23.00
		1	99	22.55	22.48	22.16	23.00
		50	0	21.21	21.17	21.23	22.00
		50	25	21.18	21.20	21.24	22.00
		50	50	21.18	21.12	21.25	22.00
		100	0	21.05	21.13	21.14	22.00
	64QAM	1	0	21.38	21.35	21.58	22.00
		1	50	21.80	21.13	21.29	22.00
		1	99	21.57	21.47	21.15	22.00
		50	0	20.18	20.23	20.29	21.00
		50	25	20.24	20.18	20.23	21.00
		50	50	20.16	20.17	20.26	21.00
		100	0	20.05	20.13	20.11	21.00



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LTE Band 7 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	18.26	18.14	18.32	20.00
		1	13	18.26	18.36	18.47	20.00
		1	24	18.24	18.26	18.31	20.00
		12	0	18.26	18.29	18.32	20.00
		12	6	18.32	18.34	18.33	20.00
		12	13	18.28	18.30	18.34	20.00
		25	0	18.21	18.29	18.34	20.00
	16QAM	1	0	18.11	18.42	18.45	20.00
		1	13	18.40	18.46	18.50	20.00
		1	24	18.45	18.38	18.47	20.00
		12	0	18.30	18.25	18.32	20.00
		12	6	18.32	18.42	18.35	20.00
		12	13	18.25	18.33	18.40	20.00
		25	0	18.28	18.18	18.37	20.00
	64QAM	1	0	18.03	18.35	18.45	20.00
		1	13	18.32	18.49	18.47	20.00
		1	24	18.37	18.28	18.41	20.00
		12	0	18.20	18.15	18.25	20.00
		12	6	18.23	18.37	18.25	20.00
		12	13	18.18	18.25	18.34	20.00
		25	0	18.18	18.13	18.31	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20800	21100	21400	
10MHz	QPSK	1	0	18.20	18.16	18.20	20.00
		1	25	18.11	18.26	18.15	20.00
		1	49	18.49	18.23	18.22	20.00
		25	0	18.22	18.37	18.33	20.00
		25	13	18.31	18.29	18.46	20.00
		25	25	18.29	18.35	18.40	20.00
		50	0	18.20	18.22	18.28	20.00
	16QAM	1	0	18.38	18.37	18.41	20.00
		1	25	18.55	18.54	18.42	20.00
		1	49	18.45	18.49	18.38	20.00
		25	0	18.07	18.25	18.32	20.00
		25	13	18.21	18.38	18.42	20.00
		25	25	18.17	18.29	18.41	20.00
		50	0	18.26	18.28	18.20	20.00
	64QAM	1	0	18.28	18.29	18.36	20.00
		1	25	18.57	18.46	18.56	20.00
		1	49	18.56	18.44	18.33	20.00
		25	0	18.07	18.16	18.24	20.00
		25	13	18.11	18.33	18.32	20.00
		25	25	18.08	18.23	18.31	20.00
		50	0	18.17	18.18	18.13	20.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	18.48	18.38	18.35	20.00
		1	38	18.45	18.47	18.49	20.00
		1	74	18.49	18.53	18.55	20.00
		36	0	18.53	18.45	18.46	20.00
		36	18	18.58	18.48	18.55	20.00
		36	39	18.55	18.54	18.36	20.00
		75	0	18.49	18.54	18.43	20.00
	16QAM	1	0	18.55	18.47	18.54	20.00
		1	38	18.54	18.48	18.57	20.00
		1	74	18.54	18.51	18.46	20.00
		36	0	18.50	18.48	18.53	20.00
		36	18	18.49	18.54	18.50	20.00
		36	39	18.54	18.44	18.58	20.00
		75	0	18.50	18.45	18.53	20.00
	64QAM	1	0	18.49	18.53	18.48	20.00
		1	38	18.49	18.58	18.44	20.00
		1	74	18.46	18.55	18.58	20.00
		36	0	18.44	18.38	18.46	20.00
		36	18	18.43	18.46	18.42	20.00
		36	39	18.49	18.36	18.53	20.00
		75	0	18.51	18.39	18.49	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20850	21100	21350	
20MHz	QPSK	1	0	18.29	18.45	18.35	20.00
		1	50	18.44	18.36	18.23	20.00
		1	99	18.59	18.42	18.36	20.00
		50	0	18.35	18.40	18.37	20.00
		50	25	18.49	18.44	18.56	20.00
		50	50	18.57	18.49	18.55	20.00
		100	0	18.42	18.41	18.51	20.00
	16QAM	1	0	18.32	18.24	18.24	20.00
		1	50	18.56	18.38	18.39	20.00
		1	99	18.32	18.23	18.47	20.00
		50	0	18.44	18.44	18.46	20.00
		50	25	18.56	18.25	18.21	20.00
		50	50	18.58	18.21	18.26	20.00
		100	0	18.37	18.30	18.48	20.00
	64QAM	1	0	18.23	18.14	18.15	20.00
		1	50	18.47	18.31	18.31	20.00
		1	99	18.26	18.18	18.37	20.00
		50	0	18.34	18.39	18.41	20.00
		50	25	18.49	18.19	18.12	20.00
		50	50	18.51	18.14	18.20	20.00
		100	0	18.28	18.25	18.39	20.00



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LTE Band 38 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37775	38000	38225	
5MHz	QPSK	1	0	20.16	20.31	20.25	22.00
		1	13	20.42	20.35	20.42	22.00
		1	24	20.28	20.26	20.32	22.00
		12	0	20.41	20.40	20.37	22.00
		12	6	20.43	20.43	20.41	22.00
		12	13	20.33	20.35	20.46	22.00
		25	0	20.37	20.39	20.44	22.00
	16QAM	1	0	20.27	20.33	20.34	22.00
		1	13	20.51	20.44	20.45	22.00
		1	24	20.39	20.42	20.39	22.00
		12	0	20.37	20.40	20.31	22.00
		12	6	20.43	20.44	20.35	22.00
		12	13	20.38	20.36	20.31	22.00
		25	0	20.38	20.42	20.45	22.00
	64QAM	1	0	20.48	20.61	20.38	22.00
		1	13	20.54	20.50	20.61	22.00
		1	24	20.42	20.53	20.46	22.00
		12	0	19.93	20.01	19.95	21.00
		12	6	19.85	19.95	20.00	21.00
		12	13	19.93	19.97	19.87	21.00
		25	0	20.05	19.91	20.05	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37800	38000	38200	
10MHz	QPSK	1	0	20.12	20.26	20.20	22.00
		1	25	20.39	20.28	20.35	22.00
		1	49	20.21	20.22	20.25	22.00
		25	0	20.33	20.32	20.31	22.00
		25	13	20.36	20.38	20.37	22.00
		25	25	20.25	20.29	20.43	22.00
		50	0	20.33	20.35	20.37	22.00
	16QAM	1	0	20.19	20.29	20.31	22.00
		1	25	20.44	20.36	20.38	22.00
		1	49	20.31	20.36	20.35	22.00
		25	0	20.33	20.36	20.26	22.00
		25	13	20.40	20.39	20.28	22.00
		25	25	20.31	20.33	20.24	22.00
		50	0	20.34	20.35	20.38	22.00
	64QAM	1	0	20.20	20.54	20.65	22.00
		1	25	20.50	20.56	20.49	22.00
		1	49	20.11	20.39	20.41	22.00
		25	0	19.80	19.85	19.85	21.00
		25	13	19.93	19.90	19.96	21.00
		25	25	19.93	19.81	19.90	21.00
		50	0	19.90	19.92	20.02	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37825	38000	38175	
15MHz	QPSK	1	0	20.51	20.55	20.56	22.00
		1	38	20.52	20.54	20.52	22.00
		1	74	20.46	20.60	20.59	22.00
		36	0	20.51	20.53	20.50	22.00
		36	18	20.62	20.63	20.53	22.00
		36	39	20.52	20.54	20.61	22.00
		75	0	20.57	20.54	20.53	22.00
	16QAM	1	0	20.65	20.63	20.63	22.00
		1	38	20.63	20.65	20.61	22.00
		1	74	20.62	20.64	20.63	22.00
		36	0	20.53	20.53	20.47	22.00
		36	18	20.62	20.64	20.47	22.00
		36	39	20.61	20.56	20.56	22.00
		75	0	20.63	20.62	20.57	22.00
	64QAM	1	0	20.64	20.65	20.63	22.00
		1	38	20.64	20.61	20.65	22.00
		1	74	20.58	20.59	20.65	22.00
		36	0	19.99	20.08	20.01	21.00
		36	18	20.18	20.13	20.12	21.00
		36	39	20.04	20.14	20.08	21.00
		75	0	20.14	20.20	20.02	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37850	38000	38150	
20MHz	QPSK	1	0	20.66	20.46	20.49	22.00
		1	50	20.43	20.48	20.55	22.00
		1	99	20.53	20.55	20.49	22.00
		50	0	20.46	20.43	20.41	22.00
		50	25	20.55	20.62	20.58	22.00
		50	50	20.50	20.53	20.44	22.00
		100	0	20.52	20.49	20.33	22.00
	16QAM	1	0	20.43	20.49	20.64	22.00
		1	50	20.27	20.37	20.39	22.00
		1	99	20.32	20.65	20.45	22.00
		50	0	20.49	20.49	20.41	22.00
		50	25	20.54	20.64	20.60	22.00
		50	50	20.61	20.53	20.53	22.00
		100	0	20.43	20.53	20.52	22.00
	64QAM	1	0	20.59	20.58	20.62	22.00
		1	50	20.58	20.56	20.59	22.00
		1	99	20.63	20.57	20.55	22.00
		50	0	20.07	20.06	20.13	21.00
		50	25	20.24	20.25	20.23	21.00
		50	50	20.11	20.09	20.20	21.00
		100	0	20.05	20.20	20.11	21.00



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LTE Band 41 Hotspot off				Conducted Power(dBm)					
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Channel	Tune up
				39675	40148	40620	41093	41565	
5MHz	QPSK	1	0	22.30	22.34	22.34	22.27	22.31	24.00
		1	13	22.38	22.35	22.36	22.38	22.40	24.00
		1	24	22.25	22.28	22.27	22.24	22.26	24.00
		12	0	21.40	21.46	21.37	21.36	21.39	23.00
		12	6	21.42	21.45	21.41	21.40	21.42	23.00
		12	13	21.38	21.44	21.43	21.42	21.40	23.00
		25	0	21.46	21.47	21.35	21.34	21.35	23.00
	16QAM	1	0	21.54	21.44	21.37	21.41	21.57	23.00
		1	13	21.52	21.46	21.55	21.48	21.55	23.00
		1	24	21.57	21.52	21.57	21.42	21.56	23.00
		12	0	20.40	20.41	20.37	20.32	20.39	22.00
		12	6	20.42	20.44	20.37	20.32	20.39	22.00
		12	13	20.38	20.42	20.36	20.40	20.33	22.00
		25	0	20.47	20.43	20.36	20.39	20.44	22.00
	64QAM	1	0	20.56	20.45	20.38	20.38	20.59	22.00
		1	13	20.50	20.48	20.51	20.46	20.56	22.00
		1	24	20.60	20.52	20.58	20.39	20.52	22.00
		12	0	19.41	19.39	19.36	19.30	19.40	21.00
		12	6	19.43	19.50	19.39	19.32	19.37	21.00
		12	13	19.41	19.43	19.35	19.40	19.30	21.00
		25	0	19.49	19.45	19.37	19.44	19.45	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Channel	Tune up
				39700	40160	40620	41080	41540	
10MHz	QPSK	1	0	22.38	22.18	22.00	22.12	22.19	24.00
		1	25	22.16	22.31	22.24	22.30	22.29	24.00
		1	49	22.37	22.08	22.06	22.11	22.13	24.00
		25	0	21.43	21.25	21.29	21.28	21.26	23.00
		25	13	21.49	21.56	21.35	21.49	21.35	23.00
		25	25	21.34	21.31	21.39	21.28	21.36	23.00
		50	0	21.36	21.34	21.37	21.36	21.25	23.00
	16QAM	1	0	21.44	21.25	21.30	21.24	21.26	23.00
		1	25	21.46	21.48	21.37	21.53	21.51	23.00
		1	49	21.41	21.18	21.14	21.08	21.18	23.00
		25	0	20.41	20.24	20.33	20.24	20.37	22.00
		25	13	20.42	20.39	20.38	20.42	20.28	22.00
		25	25	20.32	20.30	20.29	20.32	20.30	22.00
		50	0	20.41	20.34	20.31	20.38	20.22	22.00
	64QAM	1	0	20.40	20.29	20.30	20.23	20.28	22.00
		1	25	20.48	20.45	20.39	20.59	20.52	22.00
		1	49	20.37	20.16	20.19	20.04	20.17	22.00
		25	0	19.43	19.23	19.35	19.24	19.39	21.00
		25	13	19.47	19.40	19.40	19.47	19.31	21.00
		25	25	19.32	19.28	19.25	19.33	19.27	21.00
		50	0	19.46	19.35	19.27	19.44	19.26	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Channel	Tune up
				39725	40173	40620	41068	41515	
15MHz	QPSK	1	0	22.59	22.35	22.31	22.48	22.26	24.00
		1	38	22.50	22.55	22.52	22.47	22.57	24.00
		1	74	22.45	22.22	22.39	22.25	22.49	24.00
		36	0	21.59	21.44	21.50	21.51	21.46	23.00
		36	18	21.66	21.57	21.55	21.55	21.64	23.00
		36	39	21.55	21.45	21.56	21.54	21.52	23.00
		75	0	21.55	21.58	21.48	21.45	21.51	23.00
	16QAM	1	0	21.64	21.46	21.43	21.65	21.46	23.00
		1	38	21.61	21.59	21.74	21.64	21.58	23.00
		1	74	21.66	21.40	21.45	21.47	21.65	23.00
		36	0	20.68	20.53	20.50	20.47	20.51	22.00
		36	18	20.56	20.51	20.60	20.51	20.54	22.00
		36	39	20.50	20.54	20.56	20.49	20.49	22.00
		75	0	20.60	20.54	20.53	20.44	20.43	22.00
	64QAM	1	0	20.69	20.42	20.41	20.66	20.51	22.00
		1	38	20.62	20.62	20.77	20.60	20.61	22.00
		1	74	20.66	20.38	20.50	20.51	20.69	22.00
		36	0	19.70	19.59	19.49	19.46	19.56	21.00
		36	18	19.53	19.48	19.66	19.50	19.59	21.00
		36	39	19.52	19.50	19.60	19.46	19.51	21.00
		75	0	19.56	19.54	19.59	19.49	19.40	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Channel	Tune up
				39750	40185	40620	41055	41490	
20MHz	QPSK	1	0	22.64	22.62	22.26	22.45	22.23	24.00
		1	50	22.51	22.57	22.54	22.48	22.51	24.00
		1	99	22.54	22.51	22.27	22.07	22.38	24.00
		50	0	21.50	21.50	21.56	21.48	21.39	23.00
		50	25	21.68	21.57	21.58	21.47	21.58	23.00
		50	50	21.60	21.58	21.61	21.42	21.62	23.00
		100	0	21.56	21.46	21.48	21.39	21.54	23.00
	16QAM	1	0	21.63	21.67	21.33	21.53	21.33	23.00
		1	50	21.67	21.60	21.66	21.65	21.63	23.00
		1	99	21.60	21.47	21.35	21.10	21.41	23.00
		50	0	20.63	20.54	20.55	20.60	20.50	22.00
		50	25	20.62	20.61	20.69	20.62	20.71	22.00
		50	50	20.67	20.58	20.61	20.44	20.62	22.00
		100	0	20.56	20.51	20.51	20.56	20.62	22.00
	64QAM	1	0	20.62	20.66	20.33	20.50	20.32	22.00
		1	50	20.69	20.65	20.68	20.71	20.61	22.00
		1	99	20.56	20.44	20.38	20.11	20.37	22.00
		50	0	19.69	19.57	19.52	19.61	19.56	21.00
		50	25	19.66	19.57	19.74	19.68	19.72	21.00
		50	50	19.65	19.55	19.62	19.44	19.67	21.00
		100	0	19.61	19.57	19.57	19.52	19.59	21.00



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LTE Band 41 Hotspot on				Conducted Power(dBm)					
Bandwidth	Modulation	RB size	RB offset	Channel 39675	Channel 40148	Channel 40620	Channel 41093	Channel 41565	Tune up
5MHz	QPSK	1	0	19.70	19.69	19.70	19.64	19.74	21.50
		1	13	19.81	19.90	19.85	19.89	19.72	21.50
		1	24	19.76	19.72	19.74	19.68	19.64	21.50
		12	0	19.92	19.89	19.84	19.89	19.79	21.50
		12	6	19.88	19.92	19.89	19.85	19.80	21.50
		12	13	19.88	19.87	19.90	19.94	19.79	21.50
		25	0	19.86	19.85	19.87	19.81	19.79	21.50
	16QAM	1	0	20.01	19.84	19.86	19.94	19.96	21.50
		1	13	19.92	20.03	19.95	19.94	19.85	21.50
		1	24	19.90	19.96	19.91	19.91	19.77	21.50
		12	0	19.77	19.94	19.84	19.85	19.91	21.50
		12	6	19.84	19.92	19.88	19.86	19.86	21.50
		12	13	19.82	19.92	19.89	19.83	19.76	21.50
		25	0	19.93	19.97	19.88	19.85	19.80	21.50
	64QAM	1	0	19.95	19.85	19.83	19.86	20.08	21.50
		1	13	19.90	19.97	19.92	19.91	19.99	21.50
		1	24	20.05	19.99	20.08	19.80	19.97	21.50
		12	0	19.35	19.31	19.30	19.24	19.32	21.00
		12	6	19.35	19.43	19.33	19.25	19.29	21.00
		12	13	19.35	19.36	19.27	19.32	19.24	21.00
		25	0	19.44	19.37	19.31	19.37	19.40	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 39700	Channel 40160	Channel 40620	Channel 41080	Channel 41540	Tune up
10MHz	QPSK	1	0	19.63	19.63	19.65	19.56	19.69	21.50
		1	25	19.75	19.85	19.77	19.82	19.65	21.50
		1	49	19.69	19.65	19.69	19.62	19.59	21.50
		25	0	19.84	19.81	19.77	19.83	19.72	21.50
		25	13	19.81	19.86	19.82	19.80	19.74	21.50
		25	25	19.82	19.82	19.82	19.87	19.73	21.50
		50	0	19.78	19.80	19.81	19.75	19.74	21.50
	16QAM	1	0	19.95	19.78	19.78	19.88	19.90	21.50
		1	25	19.84	19.98	19.87	19.89	19.80	21.50
		1	49	19.84	19.91	19.83	19.84	19.72	21.50
		25	0	19.72	19.88	19.78	19.77	19.83	21.50
		25	13	19.78	19.86	19.83	19.78	19.81	21.50
		25	25	19.75	19.85	19.83	19.78	19.70	21.50
		50	0	19.86	19.91	19.83	19.79	19.75	21.50
	64QAM	1	0	19.80	19.78	19.78	19.63	19.70	21.50
		1	25	19.95	19.93	19.89	20.04	20.02	21.50
		1	49	19.86	19.63	19.65	19.51	19.59	21.50
		25	0	19.36	19.16	19.29	19.16	19.34	21.00
		25	13	19.40	19.32	19.32	19.39	19.24	21.00
		25	25	19.26	19.22	19.18	19.25	19.21	21.00
		50	0	19.40	19.27	19.22	19.38	19.18	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Channel	Tune up
				39725	40173	40620	41068	41515	
15MHz	QPSK	1	0	19.97	19.78	19.79	19.91	19.70	21.50
		1	38	19.98	19.99	20.06	19.98	19.99	21.50
		1	74	20.04	19.80	19.88	19.82	19.84	21.50
		36	0	20.08	19.93	19.96	19.96	19.95	21.50
		36	18	20.08	20.05	20.04	20.03	20.04	21.50
		36	39	20.01	19.97	20.05	20.03	20.04	21.50
		75	0	20.04	20.06	19.95	20.00	19.87	21.50
	16QAM	1	0	20.11	19.94	19.95	20.14	19.74	21.50
		1	38	20.08	20.10	20.13	20.08	19.96	21.50
		1	74	20.13	19.94	20.05	19.91	20.01	21.50
		36	0	20.05	19.99	19.86	20.02	19.92	21.50
		36	18	20.11	20.08	19.90	20.08	20.00	21.50
		36	39	20.05	19.95	20.06	20.04	20.00	21.50
		75	0	20.08	20.03	20.01	20.05	19.99	21.50
	64QAM	1	0	20.12	19.86	19.91	20.12	19.97	21.50
		1	38	20.04	20.07	20.12	20.07	20.01	21.50
		1	74	20.10	19.87	19.97	20.01	20.13	21.50
		36	0	19.64	19.54	19.41	19.40	19.49	21.00
		36	18	19.48	19.42	19.59	19.44	19.52	21.00
		36	39	19.44	19.42	19.52	19.40	19.44	21.00
		75	0	19.51	19.46	19.53	19.42	19.34	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Channel	Tune up
				39750	40185	40620	41055	41490	
20MHz	QPSK	1	0	20.15	19.94	19.60	19.70	19.53	21.50
		1	50	19.81	19.94	19.87	19.93	19.96	21.50
		1	99	20.01	20.00	19.65	19.55	19.78	21.50
		50	0	19.91	20.01	19.84	19.90	19.78	21.50
		50	25	20.03	20.08	20.06	19.99	20.06	21.50
		50	50	20.07	20.01	20.04	19.93	20.03	21.50
		100	0	20.12	20.00	19.95	19.87	19.95	21.50
	16QAM	1	0	20.16	20.09	19.78	20.02	19.62	21.50
		1	50	20.11	20.10	20.03	20.10	20.03	21.50
		1	99	20.08	20.05	19.79	19.72	19.91	21.50
		50	0	20.10	20.11	20.00	20.09	19.89	21.50
		50	25	20.08	20.03	19.97	20.08	20.12	21.50
		50	50	20.07	20.09	20.04	19.95	20.00	21.50
		100	0	19.97	19.91	19.91	19.94	20.00	21.50
	64QAM	1	0	20.05	20.15	19.81	19.93	19.74	21.50
		1	50	20.10	20.09	20.09	20.15	20.11	21.50
		1	99	20.01	19.92	19.81	19.58	19.86	21.50
		50	0	19.62	19.51	19.47	19.55	19.50	21.00
		50	25	19.58	19.51	19.67	19.62	19.66	21.00
		50	50	19.58	19.50	19.54	19.36	19.61	21.00
		100	0	19.55	19.52	19.51	19.45	19.54	21.00

Table 22: Conducted Power of LTE



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8.1.5 Conducted Power of Uplink & Downlink LTE CA

8.1.5.1 Conducted Power of uplink LTE CA

• Uplink LTE CA Conducted Power of Ant5

Combination	Modulation	PCC						SCC					Receiver off/Hotspot off		Receiver on/Hotspot on	
		Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	DL Channel	Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	Power	Tune-up(dBm)	Power	Tune-up(dBm)
CA_7C	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	20.50	21.00	14.19	14.50
CA_7C	QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	20.46	21.00	14.15	14.50
CA_7C	QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	20.41	21.00	14.13	14.50
CA_7C	QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	20.53	21.00	14.16	14.50
Combination	Modulation	PCC						SCC					Receiver off/Hotspot off		Receiver on/Hotspot on	
		Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	DL Channel	Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	Power	Tune-up(dBm)	Power	Tune-up(dBm)
CA_38C	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	22.51	23.00	17.10	17.50
CA_38C	QPSK	38	20	37901	1	99	37901	38	20	38099	1	0	22.35	23.00	17.05	17.50
CA_38C	QPSK	38	20	38099	1	0	38099	38	20	37901	1	99	22.44	23.00	17.08	17.50
CA_38C	QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	22.48	23.00	17.11	17.50

• Uplink LTE CA Conducted Power of Ant10

Combination	Modulation	PCC						SCC					Hotspot off		Hotspot on	
		Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	DL Channel	Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	Power	Tune-up(dBm)	Power	Tune-up(dBm)
CA_7C	QPSK	7	20	20850	1	99	2850	7	20	21048	1	0	23.10	24.00	19.59	20.00
CA_7C	QPSK	7	20	21100	1	99	3100	7	20	21298	1	0	23.07	24.00	19.51	20.00
CA_7C	QPSK	7	20	21100	1	0	3100	7	20	20902	1	99	23.09	24.00	19.40	20.00
CA_7C	QPSK	7	20	21350	1	0	3350	7	20	21152	1	99	23.12	24.00	19.55	20.00
Combination	Modulation	PCC						SCC					Hotspot off		Hotspot on	
		Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	DL Channel	Band	BW (MHz)	UL Channel	UL# RB	UL RB Offset	Power	Tune-up(dBm)	Power	Tune-up(dBm)
CA_38C	QPSK	38	20	37850	1	99	37850	38	20	38048	1	0	23.42	24.00	21.74	22.00
CA_38C	QPSK	38	20	37901	1	99	37901	38	20	38099	1	0	23.41	24.00	21.38	22.00
CA_38C	QPSK	38	20	38099	1	0	38099	38	20	37901	1	99	23.29	24.00	21.53	22.00
CA_38C	QPSK	38	20	38150	1	0	38150	38	20	37952	1	99	23.40	24.00	21.67	22.00



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8.1.5.2 Conducted Power of Downlink LTE CA

In this section, the following conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A. Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than 1/4 dB higher than the maximum output power measured when downlink carrier aggregation inactive, therefore SAR evaluation with downlink carrier aggregation can be excluded.

Power test equipment: Anritsu Radio Communication Analyzer MT8821C

The possible downlink LTE CA combinations supported by this device are as below tables per 3GPP TS 36.101 V15.4.0. The detailed conducted power measurement results of downlink LTE CA are provided in the SAR report per 3GPP TS 36.521-1 V14.4.0. According to KDB 941225 D05A, the downlink only carrier aggregation conditions for this device can be excluded from SAR testing.

The conducted power measurement results of downlink LTE CA Conducted Power are as below, so the downlink only carrier aggregation conditions for this device can be excluded from SAR testing

In applying the existing power measurement procedures for DL CA SAR test exclusion, the configurations that require power measurements are highlighted in the table as below:

1 band / 2CC	2 bands / 2CC	2 bands / 3CC
CA_7C		CA_5A-7C
CA_7A-7A		CA_5A-7A-7A
	CA_5A-7A	CA_5A-7A-7A
CA_38C		



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• Downlink LTE CA Conducted Power of Ant1 & Ant10

Hotspot off																		
DL LTE CA Class	PCC							SCC1				SCC2				Power(dBm)		
	LTE Band	BW (MHz)	Modulation	UL Freq. (MHz)	UL Channel	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL LTE CA Tx Power	LTE Rel 8 Tx Power	Tune-up
CA_38C	Band 38	20M	QPSK	2580	37850	1	0	Band 38	20M	2599.8	38048	/	/	/	/	23.15	23.21	24.00
CA_5A-7C	Band 5	10M	QPSK	829	20450	1	0	Band 7	20M	2680	3350	Band 7	20M	3152	2660.2	22.44	22.49	23.50
CA_5A-7C	Band 7	20M	QPSK	2560	21350	1	0	Band 7	20M	3152	2660.2	Band 5	10M	881.5	2525	23.11	23.16	24.00
CA_5A-7A-7A	Band 5	10M	QPSK	829	20450	1	0	Band 7	20M	2680	3350	Band 7	20M	2630	2850	22.44	22.49	23.50
CA_5A-7A-7A	Band 7	20M	QPSK	2560	21350	1	0	Band 7	20M	2630	2850	Band 5	10M	881.5	2525	23.09	23.16	24.00
Hotspot on																		
DL LTE CA Class	PCC							SCC1				SCC2				Power(dBm)		
	LTE Band	BW (MHz)	Modulation	UL Freq. (MHz)	UL Channel	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL LTE CA Tx Power	LTE Rel 8 Tx Power	Tune-up
CA_38C	Band 38	20M	QPSK	2610	38150	1	0	Band 7	20M	2590.2	37952	/	/	/	/	20.59	20.66	22.00
CA_5A-7C	Band 5	10M	QPSK	829	20450	1	0	Band 7	20M	2680	3350	Band 7	20M	2649.8	3048	22.44	22.49	23.50
CA_5A-7C	Band 7	20M	QPSK	2510	20850	1	99	Band 7	20M	2649.8	3048	Band 5	10M	881.5	2525	18.51	18.59	20.00
CA_5A-7A-7A	Band 5	10M	QPSK	829	20450	1	0	Band 7	20M	2630	2850	Band 7	20M	2680	3350	22.42	22.49	23.50
CA_5A-7A-7A	Band 7	20M	QPSK	2510	20850	1	99	Band 7	20M	2680	3350	Band 5	10M	881.5	2525	18.53	18.59	20.00

• Downlink LTE CA Conducted Power of Ant4 & Ant5

Receiver off/Hotspot off																		
DL LTE CA Class	PCC							SCC1				SCC2				Power(dBm)		
	LTE Band	BW (MHz)	Modulation	UL Freq. (MHz)	UL Channel	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL LTE CA Tx Power	LTE Rel 8 Tx Power	Tune-up
CA_38C	Band 38	20M	QPSK	2580	37850	1	0	Band 38	20M	2599.8	38048	/	/	/	/	22.22	22.27	23.00
CA_5A-7C	Band 5	10M	QPSK	829	20450	1	25	Band 7	20M	2680	3350	Band 7	20M	3152	2660.2	23.71	23.75	24.50
CA_5A-7C	Band 7	20M	QPSK	2560	21350	1	99	Band 7	20M	3152	2660.2	Band 5	10M	881.5	2525	20.27	20.29	21.00
CA_5A-7A-7A	Band 5	10M	QPSK	829	20450	1	25	Band 7	20M	2680	3350	Band 7	20M	2630	2850	23.73	23.75	24.50
CA_5A-7A-7A	Band 7	20M	QPSK	2560	21350	1	99	Band 7	20M	2630	2850	Band 5	10M	881.5	2525	20.25	20.29	21.00
Receiver on/Hotspot on																		
DL LTE CA Class	PCC							SCC1				SCC2				Power(dBm)		
	LTE Band	BW (MHz)	Modulation	UL Freq. (MHz)	UL Channel	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL LTE CA Tx Power	LTE Rel 8 Tx Power	Tune-up
CA_38C	Band 38	20M	QPSK	2610	38150	1	0	Band 7	20M	2590.2	37952	/	/	/	/	16.82	16.88	17.50
CA_5A-7C	Band 5	10M	16QAM	829	20450	1	0	Band 7	20M	2630	2850	Band 7	20M	2649.8	3048	21.49	21.55	22.50
CA_5A-7C	Band 7	20M	QPSK	2510	20850	1	50	Band 7	20M	2649.8	3048	Band 5	10M	881.5	2525	13.86	13.90	14.50
CA_5A-7A-7A	Band 5	10M	QPSK	829	20450	1	0	Band 7	20M	2680	3350	Band 7	20M	2630	2850	21.52	21.55	22.50
CA_5A-7A-7A	Band 7	20M	QPSK	2510	20850	1	50	Band 7	20M	2680	3350	Band 5	10M	881.5	2525	13.88	13.90	14.50

Table 23: Conducted Power of Downlink LTE CA

Note: The downlink LTE CA SAR test is not required since the maximum output power for downlink LTE CA was not more than 0.25dB higher than the maximum output power for without downlink LTE CA.



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8.1.6 Conducted Power of WIFI and BT

WiFi 2.4G Ant8(Chain0) Receiver off						
Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11b	1	2412	1	19.50	19.07	Yes
	6	2437		19.50	18.98	No
	11	2462		19.50	19.04	No
802.11g	1	2412	6	19.50	18.92	No
	6	2437		19.50	19.00	No
	11	2462		19.50	19.21	No
802.11n 20M	1	2412	6.5	16.50	16.00	No
	6	2437		16.50	16.01	No
	11	2462		16.50	16.02	No
802.11n 40M	3	2422	13.5	14.50	13.72	No
	6	2437		14.50	13.78	No
	9	2452		14.50	13.86	No
WiFi 2.4G Ant8(Chain0) Receiver on						
Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11b	1	2412	1	15.50	14.02	No
	6	2437		15.50	14.06	Yes
	11	2462		15.50	14.01	No
802.11g	1	2412	6	15.50	14.05	No
	6	2437		15.50	14.05	No
	11	2462		15.50	14.07	No
802.11n 20M	1	2412	6.5	12.50	11.07	No
	6	2437		12.50	10.92	No
	11	2462		12.50	10.91	No
802.11n 40M	3	2422	13.5	10.50	9.05	No
	6	2437		10.50	9.21	No
	9	2452		10.50	8.67	No



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WiFi 2.4G MIMO Receiver off						
Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11b	1	2412	1	22.50	22.06	Yes
	6	2437		22.50	22.08	Yes
	11	2462		22.50	22.04	No
802.11g	1	2412	6	22.50	21.88	No
	6	2437		22.50	22.09	No
	11	2462		22.50	22.01	No
802.11n 20M	1	2412	6.5	19.50	18.77	No
	6	2437		19.50	18.91	No
	11	2462		19.50	18.92	No
802.11n 40M	3	2422	13.5	17.50	16.82	No
	6	2437		17.50	16.72	No
	9	2452		17.50	16.71	No
WiFi 2.4G MIMO Receiver on						
Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11b	1	2412	1	18.50	17.00	No
	6	2437		18.50	17.05	Yes
	11	2462		18.50	17.04	No
802.11g	1	2412	6	18.50	17.12	No
	6	2437		18.50	16.96	No
	11	2462		18.50	17.04	No
802.11n 20M	1	2412	6.5	15.50	13.81	No
	6	2437		15.50	13.70	No
	11	2462		15.50	13.84	No
802.11n 40M	3	2422	13.5	13.50	11.78	No
	6	2437		13.50	12.03	No
	9	2452		13.50	11.54	No



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WiFi 5G Ant7(Chain1) Receiver off							
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	6	18.00	17.23	No
		40	5200		18.00	17.48	No
		44	5220		18.00	17.52	No
		48	5240		18.00	17.56	Yes
	U-NII-2A	52	5260		18.00	17.58	Yes
		56	5280		18.00	17.43	No
		60	5300		18.00	17.52	No
		64	5320		18.00	17.37	No
	U-NII-2C	100	5500		18.00	17.43	No
		104	5520		18.00	17.41	No
		108	5540		18.00	17.25	No
		112	5560		18.00	17.32	No
		116	5580		18.00	17.11	No
		120	5600		18.00	17.50	Yes
		124	5620		18.00	17.21	No
		128	5640		18.00	17.23	No
		132	5660		18.00	17.35	No
		136	5680		18.00	17.33	No
		140	5700		18.00	17.25	No
	U-NII-3	149	5745		18.00	17.21	Yes
		153	5765		18.00	17.17	No
		157	5785		18.00	17.38	Yes
		161	5805		18.00	17.11	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT20	U-NII-1	36	5180	MCS0	17.00	16.01	No
		40	5200		17.00	15.21	No
		44	5220		17.00	15.11	No
		48	5240		17.00	15.06	No
	U-NII-2A	52	5260		17.00	15.11	No
		56	5280		17.00	15.21	No
		60	5300		17.00	15.26	No
		64	5320		17.00	15.09	No
	U-NII-2C	100	5500		17.00	15.01	No
		104	5520		17.00	15.02	No
		108	5540		17.00	15.11	No
		112	5560		17.00	15.03	No
		116	5580		17.00	14.99	No



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		120	5600		17.00	15.21	No
		124	5620		17.00	15.02	No
		128	5640		17.00	15.20	No
		132	5660		17.00	15.11	No
		136	5680		17.00	15.06	No
		140	5700		17.00	15.03	No
	U-NII-3	149	5745		17.00	15.89	No
		153	5765		17.00	15.95	No
		157	5785		17.00	15.93	No
		161	5805		17.00	16.02	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT40	U-NII-1	38	5190	MCS0	17.00	16.05	No
		46	5230		17.00	15.78	No
	U-NII-2A	54	5270		17.00	15.89	No
		62	5310		17.00	15.84	No
	U-NII-2C	102	5510		17.00	15.64	No
		110	5550		17.00	16.01	No
		118	5590		17.00	15.99	No
		126	5630		17.00	15.78	No
		134	5670		17.00	15.98	No
	U-NII-3	151	5755		17.00	15.88	No
		159	5795		17.00	15.85	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	MCS0	18.00	16.99	No
		40	5200		18.00	17.02	No
		44	5220		18.00	17.02	No
		48	5240		18.00	16.85	No
	U-NII-2A	52	5260		18.00	16.95	No
		56	5280		18.00	16.98	No
		60	5300		18.00	16.89	No
		64	5320		18.00	17.01	No
	U-NII-2C	100	5500		18.00	17.02	No
		104	5520		18.00	17.06	No
		108	5540		18.00	17.01	No
		112	5560		18.00	17.11	No
		116	5580		18.00	16.98	No
		120	5600		18.00	16.99	No
		124	5620		18.00	16.78	No
		128	5640		18.00	17.21	No



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		132	5660		18.00	17.01	No
		136	5680		18.00	17.02	No
		140	5700		18.00	16.98	No
	U-NII-3	149	5745		18.00	16.92	No
		153	5765		18.00	16.85	No
		157	5785		18.00	16.59	No
		161	5805		18.00	16.74	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	MCS0	17.00	16.21	No
		46	5230		17.00	16.01	No
	U-NII-2A	54	5270		17.00	16.11	No
		62	5310		17.00	16.01	No
	U-NII-2C	102	5510		17.00	16.21	No
		110	5550		17.00	16.47	No
		118	5590		17.00	16.54	No
		126	5630		17.00	16.25	No
		134	5670		17.00	16.21	No
	U-NII-3	151	5755		17.00	16.01	No
		159	5795		17.00	16.11	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	MCS0	16.00	14.98	No
	U-NII-2A	58	5290		16.00	14.96	No
	U-NII-2C	106	5530		16.00	14.93	No
		122	5610		16.00	14.89	No
	U-NII-3	155	5775		16.00	14.89	No

WWAN + WLAN 5G Ant7(Chain1) Receiver off							
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	6	16.50	15.65	No
		40	5200		16.50	15.54	No
		44	5220		16.50	15.51	No
		48	5240		16.50	15.70	No
	U-NII-2A	52	5260		16.50	15.54	No
		56	5280		16.50	15.71	No
		60	5300		16.50	15.83	No
		64	5320		16.50	15.82	No
	U-NII-	100	5500		16.50	15.56	No



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	2C	104	5520		16.50	15.90	No
		108	5540		16.50	15.68	No
		112	5560		16.50	15.84	No
		116	5580		16.50	15.86	No
		120	5600		16.50	15.96	No
		124	5620		16.50	16.17	No
		128	5640		16.50	16.08	No
		132	5660		16.50	16.06	No
		136	5680		16.50	15.62	No
		140	5700		16.50	15.48	No
	U-NII-3	149	5745		16.50	15.18	No
		153	5765		16.50	15.17	No
		157	5785		16.50	16.09	Yes
		161	5805		16.50	15.95	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT20	U-NII-1	36	5180	MCS0	15.50	14.45	No
		40	5200		15.50	14.28	No
		44	5220		15.50	14.54	No
		48	5240		15.50	14.69	No
	U-NII-2A	52	5260		15.50	14.40	No
		56	5280		15.50	14.53	No
		60	5300		15.50	14.34	No
		64	5320		15.50	14.40	No
	U-NII-2C	100	5500		15.50	14.45	No
		104	5520		15.50	14.50	No
		108	5540		15.50	14.57	No
		112	5560		15.50	14.53	No
		116	5580		15.50	14.60	No
		120	5600		15.50	14.75	No
		124	5620		15.50	14.54	No
		128	5640		15.50	14.43	No
		132	5660		15.50	14.32	No
		136	5680		15.50	14.32	No
		140	5700		15.50	14.29	No
		149	5745		15.50	14.19	No
	U-NII-3	153	5765		15.50	14.24	No
		157	5785		15.50	14.25	No
		161	5805		15.50	14.58	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test



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802.11n-HT40	U-NII-1	38	5190	MCS0	15.50	14.28	No
		46	5230		15.50	14.41	No
	U-NII-2A	54	5270		15.50	14.44	No
		62	5310		15.50	14.58	No
	U-NII-2C	102	5510		15.50	14.69	No
		110	5550		15.50	14.97	No
		118	5590		15.50	15.11	No
		126	5630		15.50	14.90	No
		134	5670		15.50	14.83	No
	U-NII-3	151	5755		15.50	14.10	No
		159	5795		15.50	13.99	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	MCS0	16.50	15.32	No
		40	5200		16.50	15.38	No
		44	5220		16.50	15.41	No
		48	5240		16.50	15.58	No
	U-NII-2A	52	5260		16.50	15.57	No
		56	5280		16.50	15.50	No
		60	5300		16.50	15.55	No
		64	5320		16.50	15.51	No
	U-NII-2C	100	5500		16.50	15.32	No
		104	5520		16.50	15.60	No
		108	5540		16.50	15.62	No
		112	5560		16.50	15.64	No
		116	5580		16.50	15.97	No
		120	5600		16.50	16.01	No
		124	5620		16.50	15.81	No
		128	5640		16.50	15.90	No
		132	5660		16.50	15.80	No
		136	5680		16.50	15.76	No
		140	5700		16.50	15.69	No
	U-NII-3	149	5745		16.50	15.49	No
		153	5765		16.50	15.38	No
		157	5785		16.50	15.55	No
		161	5805		16.50	15.49	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	MCS0	15.50	14.43	No
		46	5230		15.50	14.22	No
	U-NII-	54	5270		15.50	14.07	No



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	2A	62	5310		15.50	14.66	No
	U-NII-2C	102	5510		15.50	14.76	No
		110	5550		15.50	14.79	No
		118	5590		15.50	14.88	No
		126	5630		15.50	14.95	No
		134	5670		15.50	14.91	No
	U-NII-3	151	5755		15.50	14.09	No
		159	5795		15.50	14.20	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	MCS0	14.00	12.95	No
	U-NII-2A	58	5290		14.00	13.05	No
	U-NII-2C	106	5530		14.00	13.21	No
		122	5610		14.00	13.60	No
	U-NII-3	155	5775		14.00	13.34	No

WiFi 5G Ant7(Chain1) Receiver on							
5GHz	mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	6	13.50	12.81	No
		40	5200		13.50	12.69	No
		44	5220		13.50	12.83	No
		48	5240		13.50	12.87	No
	U-NII-2A	52	5260		13.50	12.97	Yes
		56	5280		13.50	12.91	No
		60	5300		13.50	12.96	No
		64	5320		13.50	12.96	No
	U-NII-2C	100	5500		13.50	12.85	No
		104	5520		13.50	13.08	No
		108	5540		13.50	13.03	No
		112	5560		13.50	13.18	No
		116	5580		13.50	13.15	No
		120	5600		13.50	13.41	Yes
		124	5620		13.50	13.33	No
		128	5640		13.50	13.39	No
		132	5660		13.50	13.28	No
		136	5680		13.50	12.88	No
		140	5700		13.50	12.83	No
	U-NII-3	149	5745		13.50	12.52	No
		153	5765		13.50	12.47	No
		157	5785		13.50	13.30	Yes



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		161	5805		13.50	13.26	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT20	U-NII-1	36	5180	MCS0	12.50	11.66	No
		40	5200		12.50	11.63	No
		44	5220		12.50	11.78	No
		48	5240		12.50	11.84	No
	U-NII-2A	52	5260		12.50	11.74	No
		56	5280		12.50	11.68	No
		60	5300		12.50	11.62	No
		64	5320		12.50	11.68	No
	U-NII-2C	100	5500		12.50	11.68	No
		104	5520		12.50	11.71	No
		108	5540		12.50	11.75	No
		112	5560		12.50	11.86	No
		116	5580		12.50	11.93	No
		120	5600		12.50	12.02	No
		124	5620		12.50	11.86	No
		128	5640		12.50	11.75	No
		132	5660		12.50	11.64	No
		136	5680		12.50	11.63	No
		140	5700		12.50	11.61	No
	U-NII-3	149	5745		12.50	11.43	No
		153	5765		12.50	11.51	No
		157	5785		12.50	11.58	No
		161	5805		12.50	11.86	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT40	U-NII-1	38	5190	MCS0	12.50	11.62	No
		46	5230		12.50	11.71	No
	U-NII-2A	54	5270		12.50	11.78	No
		62	5310		12.50	11.86	No
	U-NII-2C	102	5510		12.50	12.01	No
		110	5550		12.50	12.14	No
		118	5590		12.50	12.28	No
		126	5630		12.50	12.16	No
		134	5670		12.50	12.01	No
	U-NII-3	151	5755		12.50	11.43	No
		159	5795		12.50	11.34	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test



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802.11ac 20M	U-NII-1	36	5180	MCS0	13.50	12.62	No
		40	5200		13.50	12.54	No
		44	5220		13.50	12.68	No
		48	5240		13.50	12.85	No
	U-NII-2A	52	5260		13.50	12.74	No
		56	5280		13.50	12.65	No
		60	5300		13.50	12.71	No
		64	5320		13.50	12.77	No
	U-NII-2C	100	5500		13.50	12.64	No
		104	5520		13.50	12.75	No
		108	5540		13.50	12.82	No
		112	5560		13.50	12.98	No
		116	5580		13.50	13.15	No
		120	5600		13.50	13.24	No
		124	5620		13.50	13.12	No
		128	5640		13.50	13.15	No
		132	5660		13.50	13.12	No
		136	5680		13.50	12.98	No
		140	5700		13.50	12.86	No
		149	5745		13.50	12.77	No
	U-NII-3	153	5765		13.50	12.71	No
		157	5785		13.50	12.75	No
		161	5805		13.50	12.69	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	MCS0	12.50	11.58	No
		46	5230		12.50	11.51	No
	U-NII-2A	54	5270		12.50	11.42	No
		62	5310		12.50	11.83	No
	U-NII-2C	102	5510		12.50	12.04	No
		110	5550		12.50	12.13	No
		118	5590		12.50	12.23	No
		126	5630		12.50	12.15	No
		134	5670		12.50	12.06	No
		151	5755		12.50	11.41	No
	U-NII-3	159	5795		12.50	11.35	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	MCS0	11.00	10.21	No
	U-NII-2A	58	5290		11.00	10.24	No
	U-NII-	106	5530		11.00	10.45	No



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	2C	122	5610	11.00	10.76	No
	U-NII-3	155	5775	11.00	10.53	No

WWAN + WLAN 5G Ant7(Chain1) Receiver on							
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	6	11.50	10.76	No
		40	5200		11.50	10.59	No
		44	5220		11.50	10.86	No
		48	5240		11.50	10.81	No
	U-NII-2A	52	5260		11.50	10.85	No
		56	5280		11.50	10.91	No
		60	5300		11.50	10.99	Yes
		64	5320		11.50	10.90	No
	U-NII-2C	100	5500		11.50	10.92	No
		104	5520		11.50	10.92	No
		108	5540		11.50	11.02	No
		112	5560		11.50	11.05	No
		116	5580		11.50	11.20	No
		120	5600		11.50	11.40	No
		124	5620		11.50	11.22	No
		128	5640		11.50	11.26	No
		132	5660		11.50	11.21	No
		136	5680		11.50	11.05	No
		140	5700		11.50	10.89	No
	U-NII-3	149	5745		11.50	10.60	No
		153	5765		11.50	10.58	No
		157	5785		11.50	10.79	No
		161	5805		11.50	10.86	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT20	U-NII-1	36	5180	MCS0	10.50	9.61	No
		40	5200		10.50	9.58	No
		44	5220		10.50	9.86	No
		48	5240		10.50	9.87	No
	U-NII-2A	52	5260		10.50	9.73	No
		56	5280		10.50	9.73	No
		60	5300		10.50	9.58	No
		64	5320		10.50	9.59	No
	U-NII-2C	100	5500		10.50	9.74	No
		104	5520		10.50	9.68	No
		108	5540		10.50	9.83	No
		112	5560		10.50	9.87	No



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		116	5580		10.50	9.90	No
		120	5600		10.50	10.01	No
		124	5620		10.50	9.80	No
		128	5640		10.50	9.84	No
		132	5660		10.50	9.58	No
		136	5680		10.50	9.70	No
		140	5700		10.50	9.66	No
	U-NII-3	149	5745		10.50	9.38	No
		153	5765		10.50	9.55	No
		157	5785		10.50	9.48	No
		161	5805		10.50	9.86	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT40	U-NII-1	38	5190	MCS0	10.50	9.51	No
		46	5230		10.50	9.66	No
	U-NII-2A	54	5270		10.50	9.72	No
		62	5310		10.50	9.86	No
	U-NII-2C	102	5510		10.50	9.97	No
		110	5550		10.50	10.08	No
		118	5590		10.50	10.32	No
		126	5630		10.50	10.05	No
		134	5670		10.50	9.96	No
	U-NII-3	151	5755		10.50	9.51	No
		159	5795		10.50	9.35	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	MCS0	11.50	10.66	No
		40	5200		11.50	10.60	No
		44	5220		11.50	10.62	No
		48	5240		11.50	10.94	No
	U-NII-2A	52	5260		11.50	10.82	No
		56	5280		11.50	10.62	No
		60	5300		11.50	10.82	No
		64	5320		11.50	10.77	No
	U-NII-2C	100	5500		11.50	10.55	No
		104	5520		11.50	10.70	No
		108	5540		11.50	10.85	No
		112	5560		11.50	10.95	No
		116	5580		11.50	11.11	No
		120	5600		11.50	11.25	No
		124	5620		11.50	11.15	No
		128	5640		11.50	11.08	No
		132	5660		11.50	11.09	No



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	U-NII-3	136	5680		11.50	10.84	No
		140	5700		11.50	10.75	No
		149	5745		11.50	10.79	No
		153	5765		11.50	10.76	No
		157	5785		11.50	10.76	No
		161	5805		11.50	10.70	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	MCS0	10.50	9.48	No
		46	5230		10.50	9.53	No
	U-NII-2A	54	5270		10.50	9.55	No
		62	5310		10.50	9.80	No
	U-NII-2C	102	5510		10.50	10.05	No
		110	5550		10.50	10.14	No
		118	5590		10.50	10.24	No
		126	5630		10.50	10.17	No
		134	5670		10.50	10.01	No
	U-NII-3	151	5755		10.50	9.51	No
		159	5795		10.50	9.28	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	MCS0	9.00	8.14	No
	U-NII-2A	58	5290		9.00	8.18	No
	U-NII-2C	106	5530		9.00	8.42	No
		122	5610		9.00	8.71	No
	U-NII-3	155	5775		9.00	8.51	No



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WiFi 5G MIMO Receiver off						
5GHz	mode	Channel	Frequency (MHz)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	21.00	19.83	Yes
		40	5200	21.00	19.57	No
		44	5220	21.00	19.72	No
		48	5240	21.00	19.72	No
	U-NII-2A	52	5260	21.00	19.98	Yes
		56	5280	21.00	19.90	No
		60	5300	21.00	19.80	No
		64	5320	21.00	19.73	No
	U-NII-2C	100	5500	21.00	19.84	Yes
		104	5520	21.00	19.66	No
		108	5540	21.00	19.70	No
		112	5560	21.00	19.33	No
		116	5580	21.00	19.59	No
		120	5600	21.00	20.03	Yes
		124	5620	21.00	19.69	No
		128	5640	21.00	19.54	No
		132	5660	21.00	19.71	No
		136	5680	21.00	19.50	No
	U-NII-3	140	5700	21.00	19.53	No
		149	5745	21.00	20.13	Yes
		153	5765	21.00	20.03	No
		157	5785	21.00	20.39	Yes
		161	5805	21.00	19.95	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT20	U-NII-1	36	5180	20.00	18.60	No
		40	5200	20.00	18.52	No
		44	5220	20.00	18.70	No
		48	5240	20.00	18.63	No
	U-NII-2A	52	5260	20.00	18.86	No
		56	5280	20.00	18.90	No
		60	5300	20.00	18.79	No
		64	5320	20.00	18.68	No
	U-NII-2C	100	5500	20.00	18.79	No
		104	5520	20.00	18.62	No
		108	5540	20.00	18.44	No
		112	5560	20.00	18.38	No
		116	5580	20.00	18.50	No
		120	5600	20.00	18.57	No



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		124	5620	20.00	18.69	No
		128	5640	20.00	18.60	No
		132	5660	20.00	18.63	No
		136	5680	20.00	18.43	No
		140	5700	20.00	18.56	No
	U-NII-3	149	5745	20.00	18.43	No
		153	5765	20.00	18.39	No
		157	5785	20.00	18.58	No
		161	5805	20.00	18.55	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n- HT40	U-NII-1	38	5190	20.00	18.62	No
		46	5230	20.00	18.56	No
	U-NII-2A	54	5270	20.00	18.47	No
		62	5310	20.00	18.40	No
	U-NII-2C	102	5510	20.00	18.20	No
		110	5550	20.00	18.38	No
		118	5590	20.00	18.45	No
		126	5630	20.00	18.31	No
		134	5670	20.00	18.35	No
	U-NII-3	151	5755	20.00	18.29	No
		159	5795	20.00	18.22	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	21.00	19.85	No
		40	5200	21.00	19.80	No
		44	5220	21.00	19.76	No
		48	5240	21.00	19.85	No
	U-NII-2A	52	5260	21.00	19.89	No
		56	5280	21.00	19.61	No
		60	5300	21.00	19.69	No
		64	5320	21.00	19.75	No
	U-NII-2C	100	5500	21.00	19.89	No
		104	5520	21.00	19.80	No
		108	5540	21.00	19.77	No
		112	5560	21.00	19.63	No
		116	5580	21.00	19.60	No
		120	5600	21.00	19.70	No
		124	5620	21.00	19.54	No
		128	5640	21.00	19.66	No
		132	5660	21.00	19.74	No
		136	5680	21.00	19.79	No
		140	5700	21.00	19.79	No



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		149	5745	21.00	19.45	No
		153	5765	21.00	19.35	No
		157	5785	21.00	19.33	No
		161	5805	21.00	19.40	No
5GHz	mode	Channel	Frequency(MHz)	21	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	20	18.48	No
		46	5230	20	18.65	No
	U-NII-2A	54	5270	20	18.58	No
		62	5310	20	18.56	No
	U-NII-2C	102	5510	20	18.93	No
		110	5550	20	18.89	No
		118	5590	20	18.85	No
		126	5630	20	18.75	No
		134	5670	20	18.67	No
	U-NII-3	151	5755	20	18.70	No
		159	5795	20	18.79	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	19.00	17.43	No
	U-NII-2A	58	5290	19.00	17.32	No
	U-NII-2C	106	5530	19.00	17.38	No
		122	5610	19.00	17.43	No
	U-NII-3	155	5775	19.00	17.29	No

WWAN + WiFi 5G MIMO Receiver off						
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	19.50	17.91	No
		40	5200	19.50	17.92	No
		44	5220	19.50	18.00	No
		48	5240	19.50	18.09	No
	U-NII-2A	52	5260	19.50	18.09	No
		56	5280	19.50	18.23	No
		60	5300	19.50	18.33	No
		64	5320	19.50	18.27	No
	U-NII-2C	100	5500	19.50	18.32	No
		104	5520	19.50	18.37	No
		108	5540	19.50	18.41	No
		112	5560	19.50	18.45	No
		116	5580	19.50	18.39	No
		120	5600	19.50	18.16	No
		124	5620	19.50	18.52	No



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		128	5640	19.50	18.56	No
		132	5660	19.50	18.29	No
		136	5680	19.50	18.23	No
		140	5700	19.50	18.09	No
	U-NII-3	149	5745	19.50	17.64	No
		153	5765	19.50	17.63	No
		157	5785	19.50	18.25	Yes
		161	5805	19.50	18.05	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n- HT20	U-NII-1	36	5180	18.50	17.05	No
		40	5200	18.50	17.01	No
		44	5220	18.50	17.05	No
		48	5240	18.50	17.16	No
	U-NII-2A	52	5260	18.50	17.26	No
		56	5280	18.50	17.05	No
		60	5300	18.50	17.18	No
		64	5320	18.50	17.11	No
	U-NII-2C	100	5500	18.50	17.20	No
		104	5520	18.50	17.04	No
		108	5540	18.50	17.21	No
		112	5560	18.50	17.14	No
		116	5580	18.50	17.18	No
		120	5600	18.50	17.38	No
		124	5620	18.50	17.32	No
		128	5640	18.50	17.29	No
		132	5660	18.50	17.19	No
		136	5680	18.50	17.13	No
		140	5700	18.50	16.90	No
	U-NII-3	149	5745	18.50	16.83	No
		153	5765	18.50	16.53	No
		157	5785	18.50	16.90	No
		161	5805	18.50	17.08	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n- HT40	U-NII-1	38	5190	18.50	16.99	No
		46	5230	18.50	17.02	No
	U-NII-2A	54	5270	18.50	17.07	No
		62	5310	18.50	17.11	No
	U-NII-2C	102	5510	18.50	17.17	No
		110	5550	18.50	17.13	No
		118	5590	18.50	17.19	No
		126	5630	18.50	17.19	No



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	U-NII-3	134	5670	18.50	17.31	No
		151	5755	18.50	17.32	No
		159	5795	18.50	17.45	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	19.50	18.00	No
		40	5200	19.50	18.25	No
		44	5220	19.50	18.11	No
		48	5240	19.50	18.08	No
	U-NII-2A	52	5260	19.50	18.22	No
		56	5280	19.50	18.22	No
		60	5300	19.50	18.11	No
		64	5320	19.50	18.04	No
	U-NII-2C	100	5500	19.50	18.09	No
		104	5520	19.50	17.95	No
		108	5540	19.50	17.95	No
		112	5560	19.50	18.23	No
		116	5580	19.50	18.15	No
		120	5600	19.50	18.17	No
		124	5620	19.50	18.36	No
		128	5640	19.50	18.26	No
		132	5660	19.50	18.11	No
		136	5680	19.50	18.14	No
		140	5700	19.50	17.98	No
		149	5745	19.50	17.55	No
	U-NII-3	153	5765	19.50	17.58	No
		157	5785	19.50	17.68	No
		161	5805	19.50	17.73	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	18.50	16.99	No
		46	5230	18.50	17.03	No
	U-NII-2A	54	5270	18.50	17.09	No
		62	5310	18.50	17.09	No
	U-NII-2C	102	5510	18.50	17.29	No
		110	5550	18.50	17.23	No
		118	5590	18.50	17.36	No
		126	5630	18.50	17.26	No
		134	5670	18.50	17.37	No
		151	5755	18.50	17.30	No
	U-NII-3	159	5795	18.50	17.25	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test



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802.11ac 80M	U-NII-1	42	5210	17.00	15.64	No
	U-NII-2A	58	5290	17.00	15.82	No
	U-NII-2C	106	5530	17.00	15.77	No
		122	5610	17.00	15.65	No
	U-NII-3	155	5775	17.00	15.66	No

WiFi 5G MIMO Receiver on						
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	16.50	15.32	No
		40	5200	16.50	15.38	No
		44	5220	16.50	15.45	No
		48	5240	16.50	15.42	No
	U-NII-2A	52	5260	16.50	15.89	Yes
		56	5280	16.50	15.65	No
		60	5300	16.50	15.66	Yes
		64	5320	16.50	15.39	No
	U-NII-2C	100	5500	16.50	15.52	No
		104	5520	16.50	15.54	No
		108	5540	16.50	15.54	No
		112	5560	16.50	15.64	No
		116	5580	16.50	15.60	No
		120	5600	16.50	15.76	Yes
		124	5620	16.50	15.74	No
		128	5640	16.50	15.63	No
		132	5660	16.50	15.49	No
		136	5680	16.50	15.45	No
	U-NII-3	140	5700	16.50	15.28	No
		149	5745	16.50	14.79	No
		153	5765	16.50	14.79	No
		157	5785	16.50	15.08	Yes
		161	5805	16.50	14.99	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n- HT20	U-NII-1	36	5180	15.50	14.19	No
		40	5200	15.50	14.26	No
		44	5220	15.50	14.31	No
		48	5240	15.50	14.37	No
	U-NII-2A	52	5260	15.50	14.45	No
		56	5280	15.50	14.31	No
		60	5300	15.50	14.38	No
		64	5320	15.50	14.23	No
	U-NII-2C	100	5500	15.50	14.33	No



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		104	5520	15.50	14.29	No
		108	5540	15.50	14.41	No
		112	5560	15.50	14.40	No
		116	5580	15.50	14.45	No
		120	5600	15.50	14.48	No
		124	5620	15.50	14.58	No
		128	5640	15.50	14.48	No
		132	5660	15.50	14.33	No
		136	5680	15.50	14.20	No
		140	5700	15.50	14.03	No
	U-NII-3	149	5745	15.50	13.91	No
		153	5765	15.50	13.61	No
		157	5785	15.50	14.04	No
		161	5805	15.50	14.24	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT40	U-NII-1	38	5190	15.50	14.12	No
		46	5230	15.50	14.18	No
	U-NII-2A	54	5270	15.50	14.23	No
		62	5310	15.50	14.27	No
	U-NII-2C	102	5510	15.50	14.30	No
		110	5550	15.50	14.33	No
		118	5590	15.50	14.36	No
		126	5630	15.50	14.43	No
		134	5670	15.50	14.48	No
	U-NII-3	151	5755	15.50	14.53	No
		159	5795	15.50	14.64	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	16.50	15.25	No
		40	5200	16.50	15.43	No
		44	5220	16.50	15.35	No
		48	5240	16.50	15.36	No
	U-NII-2A	52	5260	16.50	15.42	No
		56	5280	16.50	15.36	No
		60	5300	16.50	15.34	No
		64	5320	16.50	15.30	No
	U-NII-2C	100	5500	16.50	15.34	No
		104	5520	16.50	15.24	No
		108	5540	16.50	15.17	No
		112	5560	16.50	15.42	No
		116	5580	16.50	15.43	No
		120	5600	16.50	15.43	No



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		124	5620	16.50	15.53	No
		128	5640	16.50	15.44	No
		132	5660	16.50	15.36	No
		136	5680	16.50	15.28	No
		140	5700	16.50	15.17	No
	U-NII-3	149	5745	16.50	14.65	No
		153	5765	16.50	14.72	No
		157	5785	16.50	14.85	No
		161	5805	16.50	14.98	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	15.50	14.13	No
		46	5230	15.50	14.19	No
	U-NII-2A	54	5270	15.50	14.27	No
		62	5310	15.50	14.27	No
	U-NII-2C	102	5510	15.50	14.36	No
		110	5550	15.50	14.34	No
		118	5590	15.50	14.44	No
		126	5630	15.50	14.51	No
		134	5670	15.50	14.55	No
	U-NII-3	151	5755	15.50	14.48	No
159		5795	15.50	14.41	No	
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	14.00	12.86	No
	U-NII-2A	58	5290	14.00	12.91	No
	U-NII-2C	106	5530	14.00	13.03	No
		122	5610	14.00	12.95	No
	U-NII-3	155	5775	14.00	12.85	No



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WWAN + WiFi 5G MIMO Receiver on						
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	14.50	13.35	No
		40	5200	14.50	13.50	No
		44	5220	14.50	13.45	No
		48	5240	14.50	13.38	No
	U-NII-2A	52	5260	14.50	13.46	No
		56	5280	14.50	13.42	No
		60	5300	14.50	13.56	Yes
		64	5320	14.50	13.55	No
	U-NII-2C	100	5500	14.50	13.71	No
		104	5520	14.50	13.81	No
		108	5540	14.50	13.74	No
		112	5560	14.50	13.80	No
		116	5580	14.50	13.66	No
		120	5600	14.50	14.00	No
		124	5620	14.50	13.63	No
		128	5640	14.50	13.86	No
		132	5660	14.50	13.75	No
		136	5680	14.50	13.61	No
		140	5700	14.50	13.39	No
	U-NII-3	149	5745	14.50	13.02	No
		153	5765	14.50	13.13	No
		157	5785	14.50	13.10	No
		161	5805	14.50	13.10	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n- HT20	U-NII-1	36	5180	13.50	12.34	No
		40	5200	13.50	12.48	No
		44	5220	13.50	12.47	No
		48	5240	13.50	12.53	No
	U-NII-2A	52	5260	13.50	12.56	No
		56	5280	13.50	12.57	No
		60	5300	13.50	12.56	No
		64	5320	13.50	12.48	No
	U-NII-2C	100	5500	13.50	12.50	No
		104	5520	13.50	12.50	No
		108	5540	13.50	12.65	No
		112	5560	13.50	12.56	No
		116	5580	13.50	12.72	No
		120	5600	13.50	12.69	No
		124	5620	13.50	12.86	No



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		128	5640	13.50	12.75	No
		132	5660	13.50	12.48	No
		136	5680	13.50	12.34	No
		140	5700	13.50	12.14	No
	U-NII-3	149	5745	13.50	12.15	No
		153	5765	13.50	11.84	No
		157	5785	13.50	12.25	No
		161	5805	13.50	12.40	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11n- HT40	U-NII-1	38	5190	13.50	12.32	No
		46	5230	13.50	12.38	No
	U-NII-2A	54	5270	13.50	12.56	No
		62	5310	13.50	12.46	No
	U-NII-2C	102	5510	13.50	12.56	No
		110	5550	13.50	12.55	No
		118	5590	13.50	12.62	No
		126	5630	13.50	12.51	No
	U-NII-3	134	5670	13.50	12.60	No
		151	5755	13.50	12.74	No
		159	5795	13.50	12.89	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	14.50	13.36	No
		40	5200	14.50	13.60	No
		44	5220	14.50	13.59	No
		48	5240	14.50	13.64	No
	U-NII-2A	52	5260	14.50	13.63	No
		56	5280	14.50	13.47	No
		60	5300	14.50	13.60	No
		64	5320	14.50	13.50	No
	U-NII-2C	100	5500	14.50	13.57	No
		104	5520	14.50	13.47	No
		108	5540	14.50	13.34	No
		112	5560	14.50	13.48	No
		116	5580	14.50	13.61	No
		120	5600	14.50	13.70	No
		124	5620	14.50	13.69	No
		128	5640	14.50	13.69	No
		132	5660	14.50	13.59	No
		136	5680	14.50	13.51	No
		140	5700	14.50	13.28	No
	U-NII-3	149	5745	14.50	12.84	No



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		153	5765	14.50	12.91	No
		157	5785	14.50	13.07	No
		161	5805	14.50	13.13	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	13.50	12.34	No
		46	5230	13.50	12.43	No
	U-NII-2A	54	5270	13.50	12.43	No
		62	5310	13.50	12.47	No
	U-NII-2C	102	5510	13.50	12.57	No
		110	5550	13.50	12.57	No
		118	5590	13.50	12.65	No
		126	5630	13.50	12.59	No
	U-NII-3	134	5670	13.50	12.83	No
		151	5755	13.50	12.73	No
		159	5795	13.50	12.66	No
5GHz	mode	Channel	Frequency(MHz)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	12.00	11.05	No
	U-NII-2A	58	5290	12.00	11.08	No
	U-NII-2C	106	5530	12.00	11.23	No
		122	5610	12.00	11.14	No
	U-NII-3	155	5775	12.00	11.00	No

Table 24: Conducted Power of WiFi

BT			Tune up (dBm)	Average Conducted Power(dBm)
Modulation	Channel	Frequency (MHz)		
GFSK	0	2402	10.00	9.53
	39	2441	10.00	9.61
	78	2480	10.00	9.58
$\pi/4$ DQPSK	0	2402	10.00	9.53
	39	2441	10.00	9.46
	78	2480	10.00	9.42
8DPSK	0	2402	10.00	9.54
	39	2441	10.00	9.48
	78	2480	10.00	9.46



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BLE 1M			Tune up (dBm)	Average Conducted Power(dBm)
Modulation	Channel	Frequency (MHz)		
GFSK	0	2402	1.00	-0.70
	19	2440	1.00	0.93
	39	2480	1.00	-0.57
BLE-2M			Tune up (dBm)	Average Conducted Power(dBm)
Modulation	Channel	Frequency (MHz)		
GFSK	0	2402	-1.00	-3.50
	19	2440	-1.00	-2.01
	39	2480	-1.00	-3.40

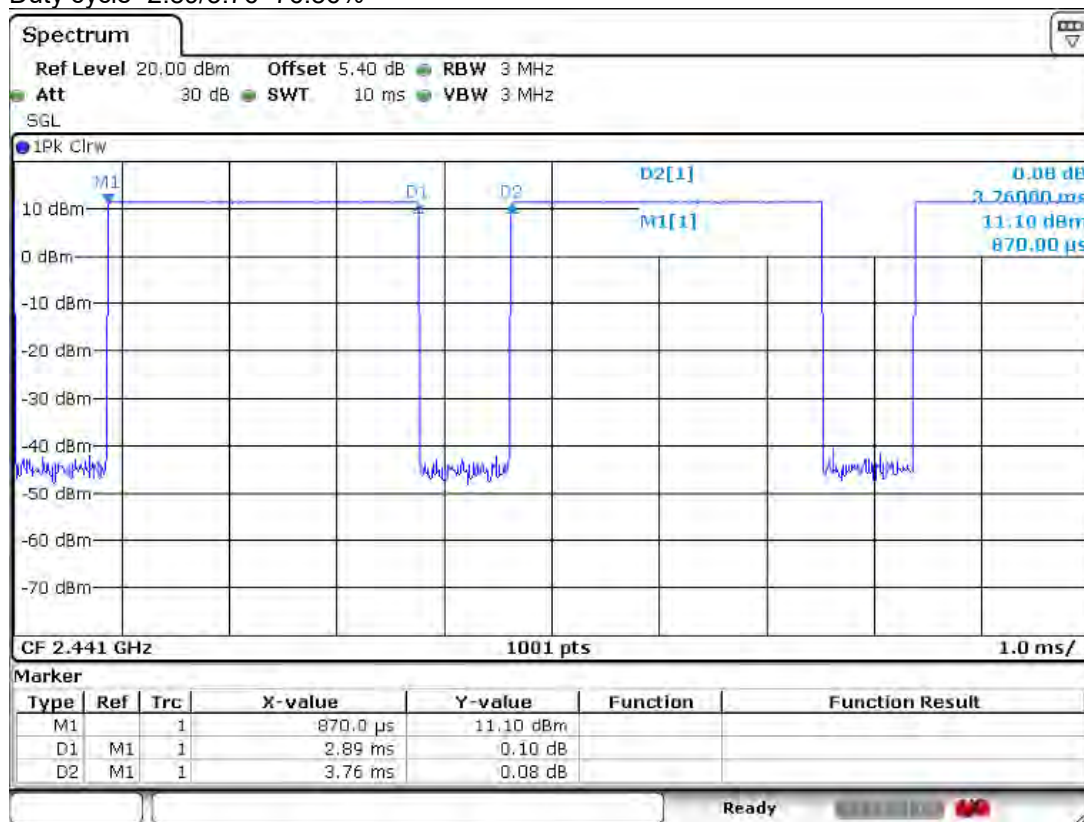
Table 25: Conducted Power of BT

Note:

- 1)The conducted power of BT is measured with RMS detector.
- 2)The bolded mode was selected for SAR testing.

Bluetooth DH5(GFSK):

Duty cycle=2.89/3.76=76.86%



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8.2 Stand-alone SAR test evaluation

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and Product specific 10g SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

Freq. Band	Frequency (GHz)	Position	Average Power		Test Separation (mm)	Calculate Value	Exclusion Threshold	Exclusion (Y/N)
			dBm	mW				
Wi-Fi 2.4G Ant8(Chain0)	2.472	Head	15.5	35.48	5	11.16	3	N
		Body-worn	19.5	89.13	15	9.34	3	N
		Hotspot	19.5	89.13	10	14.01	3	N
Wi-Fi 2.4G MIMO	2.472	Head	18.5	70.79	5	22.26	3	N
		Body-worn	22.5	177.83	15	18.64	3	N
		Hotspot	22.5	177.83	10	27.96	3	N
Wi-Fi 5G Ant7(Chain1)	5.85	Head	13.5	22.39	5	10.83	3	N
		Body-worn	18.0	63.10	15	10.17	3	N
		Hotspot	18.0	63.10	10	15.26	3	N
Wi-Fi 5G MIMO	5.85	Head	16.5	44.67	5	21.61	3	N
		Body-worn	21.0	125.89	15	20.30	3	N
		Hotspot	21.0	125.89	10	30.45	3	N
Bluetooth	2.48	Head	10.0	10.00	5	3.15	3	N
		Body-worn	10.0	10.00	15	1.05	3	Y
		Hotspot	10.0	10.00	10	1.57	3	Y

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.



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8.3 Measurement of SAR Data

8.3.1 SAR Result of GSM850

Ant 1 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	GSM	190/836.6	1:8.3	0.128	0.16	31.72	32.50	1.197	0.153	22.0
Left tilted	GSM	190/836.6	1:8.3	0.054	0.04	31.72	32.50	1.197	0.065	22.0
Right cheek	GSM	190/836.6	1:8.3	0.099	0.06	31.72	32.50	1.197	0.119	22.0
Right tilted	GSM	190/836.6	1:8.3	0.056	-0.09	31.72	32.50	1.197	0.067	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.149	-0.06	31.72	32.50	1.197	0.178	22.0
Back side	GSM	190/836.6	1:8.3	0.209	0.05	31.72	32.50	1.197	0.250	22.0
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.242	0.10	25.18	26.50	1.355	0.328	22.0
Back side	GPRS 4TS	190/836.6	1:2.075	0.322	-0.04	25.18	26.50	1.355	0.436	22.0
Right side	GPRS 4TS	190/836.6	1:2.075	0.083	0.17	25.18	26.50	1.355	0.112	22.0
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.134	-0.15	25.18	26.50	1.355	0.182	22.0
Ant 4 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	GSM	190/836.6	1:8.3	0.318	-0.02	27.79	29.50	1.483	0.471	22.0
Left tilted	GSM	190/836.6	1:8.3	0.348	0.05	27.79	29.50	1.483	0.516	22.0
Right cheek	GSM	190/836.6	1:8.3	0.409	0.03	27.79	29.50	1.483	0.606	22.0
Right tilted	GSM	190/836.6	1:8.3	0.494	-0.04	27.79	29.50	1.483	0.732	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.150	0.18	32.44	33.50	1.276	0.191	22.0
Back side	GSM	190/836.6	1:8.3	0.220	-0.04	32.44	33.50	1.276	0.281	22.0
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.77	0.124	0.13	21.91	23.50	1.442	0.179	22.0
Back side	GPRS 4TS	190/836.6	1:2.77	0.134	-0.06	21.91	23.50	1.442	0.193	22.0
Left side	GPRS 4TS	190/836.6	1:2.77	0.066	-0.01	21.91	23.50	1.442	0.095	22.0
Top side	GPRS 4TS	190/836.6	1:2.77	0.154	0.05	21.91	23.50	1.442	0.222	22.0

Table 26: SAR of GSM850 for Head and Body

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.



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8.3.2 SAR Result of GSM1900

Ant 10 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	GSM	661/1880	1:8.3	0.073	0.04	29.21	30.50	1.346	0.098	22.0
Left tilted	GSM	661/1880	1:8.3	0.057	0.11	29.21	30.50	1.346	0.077	22.0
Right cheek	GSM	661/1880	1:8.3	0.074	0.07	29.21	30.50	1.346	0.099	22.0
Right tilted	GSM	661/1880	1:8.3	0.058	0.14	29.21	30.50	1.346	0.078	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.189	0.11	29.21	30.50	1.346	0.254	22.0
Back side	GSM	661/1880	1:8.3	0.239	0.17	29.21	30.50	1.346	0.322	22.0
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.273	0.03	23.29	24.50	1.321	0.361	22.0
Back side	GPRS 4TS	661/1880	1:2.075	0.309	-0.07	23.29	24.50	1.321	0.408	22.0
Left side	GPRS 4TS	661/1880	1:2.075	0.105	-0.02	23.29	24.50	1.321	0.139	22.0
Bottom side	GPRS 4TS	661/1880	1:2.075	0.466	0.05	23.29	24.50	1.321	0.616	22.0
Ant 5 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	GSM	661/1880	1:8.3	0.210	0.07	25.26	27.00	1.493	0.313	22.0
Left tilted	GSM	661/1880	1:8.3	0.095	-0.04	25.26	27.00	1.493	0.142	22.0
Right cheek	GSM	661/1880	1:8.3	0.565	-0.02	25.26	27.00	1.493	0.843	22.0
Right cheek	GSM	512/1850.2	1:8.3	0.557	0.03	25.35	27.00	1.462	0.814	22.0
Right cheek	GSM	810/1909.8	1:8.3	0.564	-0.02	25.34	27.00	1.466	0.827	22.0
Right tilted	GSM	661/1880	1:8.3	0.136	0.08	25.26	27.00	1.493	0.203	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.090	-0.19	29.31	30.50	1.315	0.118	22.0
Back side	GSM	661/1880	1:8.3	0.137	0.07	29.31	30.50	1.315	0.180	22.0
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.076	0.15	19.08	21.00	1.556	0.118	22.0
Back side	GPRS 4TS	661/1880	1:2.075	0.060	0.12	19.08	21.00	1.556	0.093	22.0
Left side	GPRS 4TS	661/1880	1:2.075	0.227	0.08	19.08	21.00	1.556	0.353	22.0

Table 27: SAR of GSM1900 for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.





8.3.3 SAR Result of WCDMA Band II

Ant 5 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.195	0.16	15.27	16.50	1.327	0.259	22.0
Left tilted	RMC	9400/1880	1:1	0.086	0.01	15.27	16.50	1.327	0.113	22.0
Right cheek	RMC	9400/1880	1:1	0.597	0.04	15.27	16.50	1.327	0.792	22.0
Right tilted	RMC	9400/1880	1:1	0.163	-0.01	15.27	16.50	1.327	0.216	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.165	-0.05	21.82	23.00	1.312	0.217	22.0
Back side	RMC	9400/1880	1:1	0.231	0.13	21.82	23.00	1.312	0.303	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.077	0.02	15.27	16.50	1.327	0.102	22.0
Back side	RMC	9400/1880	1:1	0.072	-0.01	15.27	16.50	1.327	0.096	22.0
Left side	RMC	9400/1880	1:1	0.194	0.03	15.27	16.50	1.327	0.258	22.0
Ant 10 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.173	0.03	23.68	24.50	1.208	0.209	22.0
Left tilted	RMC	9400/1880	1:1	0.157	0.08	23.68	24.50	1.208	0.190	22.0
Right cheek	RMC	9400/1880	1:1	0.186	0.09	23.68	24.50	1.208	0.225	22.0
Right tilted	RMC	9400/1880	1:1	0.193	0.00	23.68	24.50	1.208	0.233	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.455	0.07	23.68	24.50	1.208	0.550	22.0
Back side	RMC	9400/1880	1:1	0.544	-0.06	23.68	24.50	1.208	0.657	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.399	0.15	20.51	22.00	1.409	0.562	22.0
Back side	RMC	9400/1880	1:1	0.462	-0.16	20.51	22.00	1.409	0.651	22.0
Left side	RMC	9400/1880	1:1	0.167	-0.01	20.51	22.00	1.409	0.235	22.0
Bottom side	RMC	9262/1852.4	1:1	0.576	0.06	20.51	22.00	1.409	0.812	22.0
Bottom side	RMC	9400/1880	1:1	0.692	0.06	20.53	22.00	1.403	0.971	22.0
Bottom side	RMC	9538/1907.6	1:1	0.581	-0.14	20.46	22.00	1.426	0.828	22.0



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Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 10-g (W/kg)	Liquid Temp.(°C)
Product specific 10g SAR Test data(Separate 0mm)										
Bottom side	RMC	9400/1880	1:1	2.590	0.10	23.68	24.50	1.208	3.128	22.0
Bottom side-repeat	RMC	9400/1880	1:1	2.530	-0.09	23.68	24.50	1.208	3.056	22.0
Bottom side	RMC	9262/1852.4	1:1	2.410	0.09	23.70	24.50	1.202	2.897	22.0
Bottom side	RMC	9538/1907.6	1:1	2.560	0.18	23.71	24.50	1.199	3.071	22.0

Table 28: SAR of WCDMA Band II for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.

Test Position	Channel/Frequency (MHz)	Measured SAR (1g)	1 st Repeated SAR (1g)	Ratio	2 nd Repeated SAR (1g)	3 rd Repeated SAR (1g)
Bottom side 0mm	9400/1880	2.590	2.530	1.024	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg



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8.3.4 SAR Result of WCDMA Band IV

Ant 5 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.161	0.09	17.04	18.50	1.400	0.225	22.0
Left tilted	RMC	1412/1732.4	1:1	0.088	0.01	17.04	18.50	1.400	0.123	22.0
Right cheek	RMC	1412/1732.4	1:1	0.604	0.09	17.04	18.50	1.400	0.845	22.0
Right cheek	RMC	1312/1712.4	1:1	0.566	0.05	17.12	18.50	1.374	0.778	22.0
Right cheek	RMC	1513/1752.6	1:1	0.648	0.09	17.04	18.50	1.400	0.907	22.0
Right tilted	RMC	1412/1732.4	1:1	0.120	0.02	17.04	18.50	1.400	0.168	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.142	-0.11	23.57	24.50	1.239	0.176	22.0
Back side	RMC	1412/1732.4	1:1	0.269	-0.06	23.57	24.50	1.239	0.333	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.078	-0.20	17.04	18.50	1.400	0.109	22.0
Back side	RMC	1412/1732.4	1:1	0.078	0.09	17.04	18.50	1.400	0.109	22.0
Left side	RMC	1412/1732.4	1:1	0.186	0.12	17.04	18.50	1.400	0.260	22.0
Ant 10 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.154	0.05	23.55	24.50	1.245	0.192	22.0
Left tilted	RMC	1412/1732.4	1:1	0.131	0.06	23.55	24.50	1.245	0.163	22.0
Right cheek	RMC	1412/1732.4	1:1	0.181	0.13	23.55	24.50	1.245	0.225	22.0
Right tilted	RMC	1412/1732.4	1:1	0.183	0.03	23.55	24.50	1.245	0.228	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.338	-0.03	23.55	24.50	1.245	0.421	22.0
Back side	RMC	1412/1732.4	1:1	0.396	0.00	23.55	24.50	1.245	0.493	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.452	-0.07	21.51	23.00	1.409	0.637	22.0
Back side	RMC	1412/1732.4	1:1	0.487	0.05	21.51	23.00	1.409	0.686	22.0
Left side	RMC	1412/1732.4	1:1	0.188	0.09	21.51	23.00	1.409	0.265	22.0
Bottom side	RMC	1412/1732.4	1:1	0.614	0.05	21.51	23.00	1.409	0.865	22.0
Bottom side	RMC	1312/1712.4	1:1	0.554	0.04	21.37	23.00	1.455	0.806	22.0
Bottom side	RMC	1513/1752.6	1:1	0.685	0.01	21.45	23.00	1.429	0.979	22.0
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 10-g (W/kg)	Liquid Temp.(°C)
Product specific 10g SAR Test data(Separate 0mm)										
Bottom side	RMC	1412/1732.4	1:1	1.650	0.18	23.55	24.50	1.245	2.053	22.0
Bottom side	RMC	1312/1712.4	1:1	1.560	0.15	23.64	24.50	1.219	1.902	22.0
Bottom side	RMC	1513/1752.6	1:1	1.750	0.12	23.65	24.50	1.216	2.128	22.0

Table 29: SAR of WCDMA Band IV for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.



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8.3.5 SAR Result of WCDMA Band V

Ant 1 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.128	0.02	22.94	24.00	1.276	0.163	22.0
Left tilted	RMC	4182/836.4	1:1	0.054	0.06	22.94	24.00	1.276	0.069	22.0
Right cheek	RMC	4182/836.4	1:1	0.098	0.02	22.94	24.00	1.276	0.125	22.0
Right tilted	RMC	4182/836.4	1:1	0.054	0.18	22.94	24.00	1.276	0.069	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.166	0.11	22.94	24.00	1.276	0.212	22.0
Back side	RMC	4182/836.4	1:1	0.222	0.04	22.94	24.00	1.276	0.283	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.310	-0.02	22.94	24.00	1.276	0.396	22.0
Back side	RMC	4182/836.4	1:1	0.416	0.17	22.94	24.00	1.276	0.531	22.0
Right side	RMC	4182/836.4	1:1	0.105	-0.16	22.94	24.00	1.276	0.134	22.0
Bottom side	RMC	4182/836.4	1:1	0.157	0.02	22.94	24.00	1.276	0.200	22.0
Ant 4 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.611	0.01	21.35	22.50	1.303	0.796	22.0
Left tilted	RMC	4182/836.4	1:1	0.640	0.08	21.35	22.50	1.303	0.834	22.0
Left tilted	RMC	4132/826.4	1:1	0.565	-0.04	21.29	22.50	1.321	0.747	22.0
Left tilted	RMC	4233/846.6	1:1	0.621	-0.05	21.32	22.50	1.312	0.815	22.0
Right cheek	RMC	4182/836.4	1:1	0.789	-0.06	21.35	22.50	1.303	1.028	22.0
Right cheek	RMC	4132/826.4	1:1	0.750	0.03	21.29	22.50	1.321	0.991	22.0
Right cheek	RMC	4233/846.6	1:1	0.786	-0.03	21.32	22.50	1.312	1.031	22.0
Right tilted	RMC	4182/836.4	1:1	0.759	0.01	21.35	22.50	1.303	0.989	22.0
Right tilted	RMC	4132/826.4	1:1	0.704	0.09	21.29	22.50	1.321	0.930	22.0
Right tilted	RMC	4233/846.6	1:1	0.726	0.03	21.32	22.50	1.312	0.953	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.146	0.06	23.82	24.50	1.169	0.171	22.0
Back side	RMC	4182/836.4	1:1	0.228	-0.02	23.82	24.50	1.169	0.267	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.212	0.05	21.35	22.50	1.303	0.276	22.0
Back side	RMC	4182/836.4	1:1	0.214	0.03	21.35	22.50	1.303	0.279	22.0
Left side	RMC	4182/836.4	1:1	0.124	0.19	21.35	22.50	1.303	0.162	22.0
Top side	RMC	4182/836.4	1:1	0.275	-0.05	21.35	22.50	1.303	0.358	22.0

Table 30: SAR of WCDMA Band V for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.



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8.3.6 SAR Result of LTE Band 2

Ant 5 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	18700/1860	1:1	0.251	0.15	15.56	16.50	1.242	0.312	22.1
Left tilted	20	QPSK	1_50	18700/1860	1:1	0.079	0.09	15.56	16.50	1.242	0.098	22.1
Right cheek	20	QPSK	1_50	18700/1860	1:1	0.570	-0.02	15.56	16.50	1.242	0.708	22.1
Right tilted	20	QPSK	1_50	18700/1860	1:1	0.098	0.01	15.56	16.50	1.242	0.122	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_50	19100/1900	1:1	0.277	0.08	15.66	16.50	1.213	0.336	22.1
Left tilted	20	QPSK	50_50	19100/1900	1:1	0.086	0.09	15.66	16.50	1.213	0.104	22.1
Right cheek	20	QPSK	50_50	19100/1900	1:1	0.651	0.06	15.66	16.50	1.213	0.790	22.1
Right tilted	20	QPSK	50_50	19100/1900	1:1	0.108	0.15	15.66	16.50	1.213	0.131	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	18700/1860	1:1	0.157	-0.13	22.60	23.00	1.096	0.172	22.1
Back side	20	QPSK	1_50	18700/1860	1:1	0.298	0.00	22.60	23.00	1.096	0.327	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_50	19100/1900	1:1	0.148	-0.07	21.52	22.00	1.117	0.165	22.1
Back side	20	QPSK	50_50	19100/1900	1:1	0.158	0.02	21.52	22.00	1.117	0.176	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	18700/1860	1:1	0.081	0.13	15.56	16.50	1.242	0.101	22.1
Back side	20	QPSK	1_50	18700/1860	1:1	0.068	0.20	15.56	16.50	1.242	0.084	22.1
Left side	20	QPSK	1_50	18700/1860	1:1	0.146	-0.01	15.56	16.50	1.242	0.181	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	19100/1900	1:1	0.085	0.06	15.66	16.50	1.213	0.103	22.1
Back side	20	QPSK	50_50	19100/1900	1:1	0.069	0.11	15.66	16.50	1.213	0.084	22.1
Left side	20	QPSK	50_50	19100/1900	1:1	0.218	-0.15	15.66	16.50	1.213	0.265	22.1
Ant 10 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_0	18900/1880	1:1	0.156	0.04	22.45	24.00	1.429	0.223	22.1
Left tilted	20	QPSK	1_0	18900/1880	1:1	0.131	0.08	22.45	24.00	1.429	0.187	22.1
Right cheek	20	QPSK	1_0	18900/1880	1:1	0.169	-0.02	22.45	24.00	1.429	0.241	22.1
Right tilted	20	QPSK	1_0	18900/1880	1:1	0.124	0.01	22.45	24.00	1.429	0.177	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_50	19100/1900	1:1	0.116	0.05	21.58	23.00	1.387	0.161	22.1
Left tilted	20	QPSK	50_50	19100/1900	1:1	0.092	0.09	21.58	23.00	1.387	0.127	22.1
Right cheek	20	QPSK	50_50	19100/1900	1:1	0.128	0.03	21.58	23.00	1.387	0.178	22.1
Right tilted	20	QPSK	50_50	19100/1900	1:1	0.089	0.02	21.58	23.00	1.387	0.123	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_0	18900/1880	1:1	0.397	-0.05	22.45	24.00	1.429	0.567	22.1
Back side	20	QPSK	1_0	18900/1880	1:1	0.483	0.00	22.45	24.00	1.429	0.690	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_50	19100/1900	1:1	0.297	0.02	21.58	23.00	1.387	0.412	22.1
Back side	20	QPSK	50_50	19100/1900	1:1	0.390	0.07	21.58	23.00	1.387	0.541	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_0	18900/1880	1:1	0.306	0.10	19.66	21.00	1.361	0.417	22.1



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Back side	20	QPSK	1_0	18900/1880	1:1	0.351	0.03	19.66	21.00	1.361	0.478	22.1
Left side	20	QPSK	1_0	18900/1880	1:1	0.122	0.17	19.66	21.00	1.361	0.166	22.1
Bottom side	20	QPSK	1_0	18900/1880	1:1	0.460	0.02	19.66	21.00	1.361	0.626	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	18900/1880	1:1	0.305	0.06	19.55	21.00	1.396	0.426	22.1
Back side	20	QPSK	50_0	18900/1880	1:1	0.347	0.15	19.55	21.00	1.396	0.485	22.1
Left side	20	QPSK	50_0	18900/1880	1:1	0.129	0.05	19.55	21.00	1.396	0.180	22.1
Bottom side	20	QPSK	50_0	18900/1880	1:1	0.566	0.06	19.55	21.00	1.396	0.790	22.1
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 10-g (W/kg)	Liquid Temp.(°C)
	BW	Modulation	RB Size_ RB offset									
Product specific 10g SAR Test data(Separate 0mm 1RB)												
Bottom side	20	QPSK	1_0	18900/1880	1:1	2.150	0.09	22.45	24.00	1.429	3.072	22.1
Bottom side	20	QPSK	1_99	18700/1860	1:1	2.090	0.02	22.43	24.00	1.435	3.000	22.1
Bottom side	20	QPSK	1_50	19100/1900	1:1	2.250	0.16	22.44	24.00	1.432	3.222	22.1
Bottom side-repeat	20	QPSK	1_50	19100/1900	1:1	2.220	0.01	22.44	24.00	1.432	3.179	22.1
Product specific 10g SAR Test data(Separate 0mm 50%RB)												
Bottom side	20	QPSK	50_50	19100/1900	1:1	1.850	0.13	21.58	23.00	1.387	2.565	22.1
Bottom side	20	QPSK	50_50	18700/1860	1:1	1.770	0.01	21.53	23.00	1.403	2.483	22.1
Bottom side	20	QPSK	50_50	18900/1880	1:1	1.810	0.14	21.50	23.00	1.413	2.557	22.1
Product specific 10g SAR Test data(Separate 0mm 100%RB)												
Bottom side	20	QPSK	100_0	18900/1880	1:1	1.780	0.17	21.41	23.00	1.442	2.567	22.1

Table 31: SAR of LTE Band 2 for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.

Test Position	Channel/Frequency (MHz)	Measured SAR (1g)	1 st Repeated SAR (1g)	Ratio	2 nd Repeated SAR (1g)	3 rd Repeated SAR (1g)
Bottom side 0mm	19100/1900	2.250	2.220	1.014	N/A	N/A

Note:

- 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
- 2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
- 4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg



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8.3.7 SAR Result of LTE Band 4

Ant 5 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	20175/1732.5	1:1	0.218	0.13	16.40	17.50	1.288	0.281	22.1
Left tilted	20	QPSK	1_50	20175/1732.5	1:1	0.067	0.11	16.40	17.50	1.288	0.086	22.1
Right cheek	20	QPSK	1_50	20175/1732.5	1:1	0.495	0.16	16.40	17.50	1.288	0.638	22.1
Right tilted	20	QPSK	1_50	20175/1732.5	1:1	0.095	0.11	16.40	17.50	1.288	0.122	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	20050/1720	1:1	0.221	0.12	16.57	17.50	1.239	0.274	22.1
Left tilted	20	QPSK	50_25	20050/1720	1:1	0.070	0.08	16.57	17.50	1.239	0.087	22.1
Right cheek	20	QPSK	50_25	20050/1720	1:1	0.504	0.13	16.57	17.50	1.239	0.624	22.1
Right tilted	20	QPSK	50_25	20050/1720	1:1	0.098	0.10	16.57	17.50	1.239	0.122	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	20175/1732.5	1:1	0.122	-0.17	22.23	23.50	1.340	0.163	22.1
Back side	20	QPSK	1_50	20175/1732.5	1:1	0.215	0.05	22.23	23.50	1.340	0.288	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	20050/1720	1:1	0.089	0.03	21.48	22.50	1.265	0.113	22.1
Back side	20	QPSK	50_25	20050/1720	1:1	0.103	0.07	21.48	22.50	1.265	0.130	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	20175/1732.5	1:1	0.059	-0.19	16.40	17.50	1.288	0.076	22.1
Back side	20	QPSK	1_50	20175/1732.5	1:1	0.070	-0.02	16.40	17.50	1.288	0.090	22.1
Left side	20	QPSK	1_50	20175/1732.5	1:1	0.144	-0.03	16.40	17.50	1.288	0.186	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	20050/1720	1:1	0.061	0.04	16.57	17.50	1.239	0.076	22.1
Back side	20	QPSK	50_25	20050/1720	1:1	0.075	-0.12	16.57	17.50	1.239	0.093	22.1
Left side	20	QPSK	50_25	20050/1720	1:1	0.130	-0.05	16.57	17.50	1.239	0.161	22.1
Ant 10 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	20175/1732.5	1:1	0.138	0.12	22.37	24.00	1.455	0.201	22.1
Left tilted	20	QPSK	1_50	20175/1732.5	1:1	0.102	0.02	22.37	24.00	1.455	0.148	22.1
Right cheek	20	QPSK	1_50	20175/1732.5	1:1	0.139	0.05	22.37	24.00	1.455	0.202	22.1
Right tilted	20	QPSK	1_50	20175/1732.5	1:1	0.145	0.04	22.37	24.00	1.455	0.211	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	20300/1745	1:1	0.121	0.13	21.50	23.00	1.413	0.171	22.1
Left tilted	20	QPSK	50_25	20300/1745	1:1	0.090	0.14	21.50	23.00	1.413	0.128	22.1
Right cheek	20	QPSK	50_25	20300/1745	1:1	0.109	0.15	21.50	23.00	1.413	0.154	22.1
Right tilted	20	QPSK	50_25	20300/1745	1:1	0.122	0.03	21.50	23.00	1.413	0.172	22.1



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Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	20175/1732.5	1:1	0.282	0.05	22.37	24.00	1.455	0.410	22.1
Back side	20	QPSK	1_50	20175/1732.5	1:1	0.339	0.09	22.37	24.00	1.455	0.493	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	20300/1745	1:1	0.255	0.13	21.50	23.00	1.413	0.360	22.1
Back side	20	QPSK	50_25	20300/1745	1:1	0.302	0.08	21.50	23.00	1.413	0.427	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_0	20300/1745	1:1	0.415	-0.16	21.48	23.00	1.419	0.589	22.1
Back side	20	QPSK	1_0	20300/1745	1:1	0.447	-0.01	21.48	23.00	1.419	0.634	22.1
Left side	20	QPSK	1_0	20300/1745	1:1	0.186	-0.09	21.48	23.00	1.419	0.264	22.1
Bottom side	20	QPSK	1_0	20300/1745	1:1	0.516	0.14	21.48	23.00	1.419	0.732	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	20300/1745	1:1	0.446	0.05	21.47	23.00	1.422	0.634	22.1
Back side	20	QPSK	50_25	20300/1745	1:1	0.479	-0.17	21.47	23.00	1.422	0.681	22.1
Left side	20	QPSK	50_25	20300/1745	1:1	0.170	-0.01	21.47	23.00	1.422	0.242	22.1
Bottom side	20	QPSK	50_25	20300/1745	1:1	0.653	0.06	21.47	23.00	1.422	0.929	22.1
Bottom side	20	QPSK	50_25	20050/1720	1:1	0.635	0.04	21.43	23.00	1.435	0.912	22.1
Bottom side	20	QPSK	50_25	20175/1732.5	1:1	0.644	0.03	21.42	23.00	1.439	0.927	22.1

Table 32: SAR of LTE Band 4 for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.



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8.3.8 SAR Result of LTE Band 5

Ant 1 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	10	QPSK	1_0	20450/829	1:1	0.092	0.17	22.49	23.50	1.262	0.116	22.1
Left tilted	10	QPSK	1_0	20450/829	1:1	0.040	0.05	22.49	23.50	1.262	0.051	22.1
Right cheek	10	QPSK	1_0	20450/829	1:1	0.074	0.00	22.49	23.50	1.262	0.094	22.1
Right tilted	10	QPSK	1_0	20450/829	1:1	0.078	-0.12	22.49	23.50	1.262	0.098	22.1
Head Test Data(50%RB)												
Left cheek	10	QPSK	25_0	20450/829	1:1	0.075	0.01	21.47	22.50	1.268	0.095	22.1
Left tilted	10	QPSK	25_0	20450/829	1:1	0.034	0.07	21.47	22.50	1.268	0.044	22.1
Right cheek	10	QPSK	25_0	20450/829	1:1	0.066	0.00	21.47	22.50	1.268	0.084	22.1
Right tilted	10	QPSK	25_0	20450/829	1:1	0.036	-0.02	21.47	22.50	1.268	0.046	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	10	QPSK	1_0	20450/829	1:1	0.107	0.04	22.49	23.50	1.262	0.135	22.1
Back side	10	QPSK	1_0	20450/829	1:1	0.160	0.02	22.49	23.50	1.262	0.202	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	10	QPSK	25_0	20450/829	1:1	0.093	0.00	21.47	22.50	1.268	0.118	22.1
Back side	10	QPSK	25_0	20450/829	1:1	0.135	-0.04	21.47	22.50	1.268	0.171	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	10	QPSK	1_0	20450/829	1:1	0.207	-0.04	22.49	23.50	1.262	0.261	22.1
Back side	10	QPSK	1_0	20450/829	1:1	0.302	0.03	22.49	23.50	1.262	0.381	22.1
Right side	10	QPSK	1_0	20450/829	1:1	0.063	0.19	22.49	23.50	1.262	0.079	22.1
Bottom Side	10	QPSK	1_0	20450/829	1:1	0.115	0.11	22.49	23.50	1.262	0.145	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	10	QPSK	25_0	20450/829	1:1	0.180	0.19	21.47	22.50	1.268	0.228	22.1
Back side	10	QPSK	25_0	20450/829	1:1	0.237	0.05	21.47	22.50	1.268	0.300	22.1
Right side	10	QPSK	25_0	20450/829	1:1	0.055	-0.09	21.47	22.50	1.268	0.070	22.1
Bottom Side	10	QPSK	25_0	20450/829	1:1	0.098	-0.02	21.47	22.50	1.268	0.124	22.1
Ant 4 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	10	QPSK	1_0	20525/836.5	1:1	0.535	0.14	21.35	22.50	1.303	0.697	22.1
Left tilted	10	QPSK	1_0	20525/836.5	1:1	0.539	0.02	21.35	22.50	1.303	0.702	22.1
Right cheek	10	QPSK	1_0	20525/836.5	1:1	0.605	0.02	21.35	22.50	1.303	0.788	22.1
Right tilted	10	QPSK	1_0	20525/836.5	1:1	0.581	-0.08	21.35	22.50	1.303	0.757	22.1
Head Test Data(50%RB)												
Left cheek	10	QPSK	25_25	20525/836.5	1:1	0.585	-0.06	21.37	22.50	1.297	0.759	22.1
Left tilted	10	QPSK	25_25	20525/836.5	1:1	0.573	0.03	21.37	22.50	1.297	0.743	22.1



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Right cheek	10	QPSK	25_25	20525/836.5	1:1	0.705	0.02	21.37	22.50	1.297	0.915	22.1
Right cheek	10	QPSK	25_25	20450/829	1:1	0.673	0.03	21.21	22.50	1.346	0.906	22.1
Right cheek	10	QPSK	25_0	20600/844	1:1	0.701	0.04	21.32	22.50	1.312	0.920	22.1
Right tilted	10	QPSK	25_25	20525/836.5	1:1	0.621	0.03	21.37	22.50	1.297	0.806	22.1
Right tilted	10	QPSK	25_25	20450/829	1:1	0.616	0.06	21.21	22.50	1.346	0.829	22.1
Right tilted	10	QPSK	25_0	20600/844	1:1	0.627	0.07	21.32	22.50	1.312	0.823	22.1
Head Test Data(100%RB)												
Right cheek	10	QPSK	50_0	20600/844	1:1	0.686	0.02	21.36	22.50	1.300	0.892	22.1
Right tilted	10	QPSK	50_0	20600/844	1:1	0.607	0.06	21.36	22.50	1.300	0.789	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	10	QPSK	1_0	20525/836.5	1:1	0.135	0.18	23.75	24.50	1.189	0.160	22.1
Back side	10	QPSK	1_0	20525/836.5	1:1	0.219	-0.10	23.75	24.50	1.189	0.260	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	10	QPSK	25_25	20450/829	1:1	0.100	-0.11	22.68	23.50	1.208	0.121	22.1
Back side	10	QPSK	25_25	20450/829	1:1	0.112	-0.06	22.68	23.50	1.208	0.135	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	10	QPSK	1_0	20525/836.5	1:1	0.169	0.00	21.35	22.50	1.303	0.220	22.1
Back side	10	QPSK	1_0	20525/836.5	1:1	0.170	0.01	21.35	22.50	1.303	0.222	22.1
Left side	10	QPSK	1_0	20525/836.5	1:1	0.090	-0.10	21.35	22.50	1.303	0.117	22.1
Top side	10	QPSK	1_0	20525/836.5	1:1	0.177	-0.19	21.35	22.50	1.303	0.231	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	10	QPSK	25_25	20525/836.5	1:1	0.176	0.14	21.37	22.50	1.297	0.228	22.1
Back side	10	QPSK	25_25	20525/836.5	1:1	0.179	-0.15	21.37	22.50	1.297	0.232	22.1
Left side	10	QPSK	25_25	20525/836.5	1:1	0.095	-0.08	21.37	22.50	1.297	0.123	22.1
Top side	10	QPSK	25_25	20525/836.5	1:1	0.241	0.17	21.37	22.50	1.297	0.313	22.1

Table 33: SAR of LTE Band 5 for Head and Body.

Note:

- 1)The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2)Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3)Per KDB648474D04, when hotspot mode applies, Product Specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold:





8.3.9 SAR Result of LTE Band 7

Ant 5 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	20850/2510	1:1	0.141	0.04	13.90	14.50	1.148	0.162	22.1
Left tilted	20	QPSK	1_50	20850/2510	1:1	0.044	0.01	13.90	14.50	1.148	0.051	22.1
Right cheek	20	QPSK	1_50	20850/2510	1:1	0.430	0.09	13.90	14.50	1.148	0.494	22.1
Right tilted	20	QPSK	1_50	20850/2510	1:1	0.091	0.08	13.90	14.50	1.148	0.104	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	20850/2510	1:1	0.143	0.14	13.77	14.50	1.183	0.169	22.1
Left tilted	20	QPSK	50_25	20850/2510	1:1	0.045	0.05	13.77	14.50	1.183	0.053	22.1
Right cheek	20	QPSK	50_25	20850/2510	1:1	0.428	-0.19	13.77	14.50	1.183	0.506	22.1
Right cheek	20	QPSK	PCC 1_99	20850/2510	1:1	0.412	-0.05	14.19	14.50	1.074	0.442	22.1
			SCC 1_0	21048/2529.8								
Right tilted	20	QPSK	50_25	20850/2510	1:1	0.087	0.05	13.77	14.50	1.183	0.103	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_0	21350/2560	1:1	0.189	-0.02	20.29	21.00	1.178	0.223	22.1
Back side	20	QPSK	1_0	21350/2560	1:1	0.238	0.07	20.29	21.00	1.178	0.280	22.1
Back side	20	QPSK	PCC 1_0	21350/2560	1:1	0.193	-0.11	20.53	21.00	1.114	0.215	22.1
			SCC 1_99	21152/2540.2								
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	21100/2535	1:1	0.145	-0.18	19.44	20.00	1.138	0.165	22.1
Front side	20	QPSK	50_0	21100/2535	1:1	0.141	-0.08	19.44	20.00	1.138	0.160	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	20850/2510	1:1	0.075	-0.08	13.90	14.50	1.148	0.086	22.1
Back side	20	QPSK	1_50	20850/2510	1:1	0.071	-0.08	13.90	14.50	1.148	0.082	22.1
Left side	20	QPSK	1_50	20850/2510	1:1	0.104	0.15	13.90	14.50	1.148	0.119	22.1
Left side	20	QPSK	PCC 1_99	20850/2510	1:1	0.093	-0.01	14.19	14.50	1.074	0.100	22.1
			SCC 1_0	21048/2529.8								
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	20850/2510	1:1	0.074	0.02	13.77	14.50	1.183	0.088	22.1
Back side	20	QPSK	50_25	20850/2510	1:1	0.069	-0.13	13.77	14.50	1.183	0.082	22.1
Left side	20	QPSK	50_25	20850/2510	1:1	0.081	-0.11	13.77	14.50	1.183	0.096	22.1
Ant 10 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_0	21350/2560	1:1	0.212	0.09	23.16	24.00	1.213	0.257	22.1
Left cheek	20	QPSK	PCC 1_0	21350/2560	1:1	0.203	0.11	23.12	24.00	1.225	0.249	22.1
			SCC 1_99	21152/2540.2								



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Left tilted	20	QPSK	1_0	21350/2560	1:1	0.086	0.00	23.16	24.00	1.213	0.105	22.1
Right cheek	20	QPSK	1_0	21350/2560	1:1	0.151	0.09	23.16	24.00	1.213	0.183	22.1
Right tilted	20	QPSK	1_0	21350/2560	1:1	0.056	0.00	23.16	24.00	1.213	0.068	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	20850/2510	1:1	0.176	0.00	22.25	23.00	1.189	0.209	22.1
Left tilted	20	QPSK	50_25	20850/2510	1:1	0.069	0.00	22.25	23.00	1.189	0.082	22.1
Right cheek	20	QPSK	50_25	20850/2510	1:1	0.140	0.01	22.25	23.00	1.189	0.166	22.1
Right tilted	20	QPSK	50_25	20850/2510	1:1	0.041	-0.08	22.25	23.00	1.189	0.048	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_0	21350/2560	1:1	0.317	-0.16	23.16	24.00	1.213	0.385	22.1
Back side	20	QPSK	1_0	21350/2560	1:1	0.449	-0.05	23.16	24.00	1.213	0.545	22.1
Back side	20	QPSK	PCC 1_0	21350/2560	1:1	0.385	0.03	23.12	24.00	1.225	0.471	22.1
			SCC 1_99	21152/2540.2								
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	20850/2510	1:1	0.251	0.19	22.25	23.00	1.189	0.298	22.1
Back side	20	QPSK	50_25	20850/2510	1:1	0.312	-0.19	22.25	23.00	1.189	0.371	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_99	20850/2510	1:1	0.234	0.16	18.59	20.00	1.384	0.324	22.1
Back side	20	QPSK	1_99	20850/2510	1:1	0.289	0.16	18.59	20.00	1.384	0.400	22.1
Left side	20	QPSK	1_99	20850/2510	1:1	0.102	-0.14	18.59	20.00	1.384	0.141	22.1
Bottom side	20	QPSK	1_99	20850/2510	1:1	0.264	-0.07	18.59	20.00	1.384	0.365	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	20850/2510	1:1	0.232	0.04	18.57	20.00	1.390	0.322	22.1
Back side	20	QPSK	50_50	20850/2510	1:1	0.386	0.08	18.57	20.00	1.390	0.537	22.1
Back side	20	QPSK	PCC 1_99	20850/2510	1:1	0.334	0.02	19.59	20.00	1.099	0.367	22.1
			SCC 1_0	21048/2529.8								
Left side	20	QPSK	50_50	20850/2510	1:1	0.107	0.00	18.57	20.00	1.390	0.149	22.1
Bottom side	20	QPSK	50_50	20850/2510	1:1	0.273	0.15	18.57	20.00	1.390	0.379	22.1

Table 34: SAR of LTE Band 7 for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB648474D04, when hotspot mode applies, Product Specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold:



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8.3.10 SAR Result of LTE Band 38

Ant 5 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_0	38150/2610	1:1.58	0.178	0.05	16.88	17.50	1.153	0.205	22.1
Left tilted	20	QPSK	1_0	38150/2610	1:1.58	0.062	0.08	16.88	17.50	1.153	0.071	22.1
Right cheek	20	QPSK	1_0	38150/2610	1:1.58	0.503	0.02	16.88	17.50	1.153	0.580	22.1
Right cheek	20	QPSK	PCC 1_0	38150/2610	1:1.58	0.473	0.15	17.11	17.50	1.094	0.517	22.1
			SCC 1_99	37952/2590.2								
Right tilted	20	QPSK	1_0	38150/2610	1:1.58	0.111	0.08	16.88	17.50	1.153	0.128	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	38150/2610	1:1.58	0.183	0.03	16.86	17.50	1.159	0.212	22.1
Left tilted	20	QPSK	50_25	38150/2610	1:1.58	0.063	-0.04	16.86	17.50	1.159	0.073	22.1
Right cheek	20	QPSK	50_25	38150/2610	1:1.58	0.497	0.04	16.86	17.50	1.159	0.576	22.1
Right tilted	20	QPSK	50_25	38150/2610	1:1.58	0.109	0.09	16.86	17.50	1.159	0.126	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_0	38000/2595	1:1.58	0.193	-0.16	22.27	23.00	1.183	0.228	22.1
Back side	20	QPSK	1_0	38000/2595	1:1.58	0.229	-0.09	22.27	23.00	1.183	0.271	22.1
Back side	20	QPSK	PCC 1_99	37850/2580	1:1.58	0.207	-0.06	22.51	23.00	1.119	0.232	22.1
			SCC 1_0	38048/2599.8								
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	38150/2610	1:1.58	0.149	-0.13	21.31	22.00	1.172	0.175	22.1
Back side	20	QPSK	50_25	38150/2610	1:1.58	0.155	0.17	21.31	22.00	1.172	0.182	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_0	38150/2610	1:1.58	0.101	-0.06	16.88	17.50	1.153	0.116	22.1
Back side	20	QPSK	1_0	38150/2610	1:1.58	0.112	0.19	16.88	17.50	1.153	0.129	22.1
Left side	20	QPSK	1_0	38150/2610	1:1.58	0.160	0.10	16.88	17.50	1.153	0.185	22.1
Left side	20	QPSK	PCC 1_0	38150/2610	1:1.58	0.147	-0.03	17.11	17.50	1.094	0.161	22.1
			SCC 1_99	37952/2590.2								
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	38150/2610	1:1.58	0.106	-0.14	16.86	17.50	1.159	0.123	22.1
Back side	20	QPSK	50_25	38150/2610	1:1.58	0.102	0.18	16.86	17.50	1.159	0.118	22.1
Left side	20	QPSK	50_25	38150/2610	1:1.58	0.139	-0.05	16.86	17.50	1.159	0.161	22.1
Ant 10 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	38000/2595	1:1.58	0.130	-0.01	23.21	24.00	1.199	0.156	22.1
Left cheek	20	QPSK	PCC 1_99	37850/2580	1:1.58	0.104	0.05	23.42	24.00	1.143	0.119	22.1
			SCC 1_0	38048/2599.8								



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Left tilted	20	QPSK	1_50	38000/2595	1:1.58	0.044	0.00	23.21	24.00	1.199	0.052	22.1
Right cheek	20	QPSK	1_50	38000/2595	1:1.58	0.084	-0.02	23.21	24.00	1.199	0.101	22.1
Right tilted	20	QPSK	1_50	38000/2595	1:1.58	0.036	0.00	23.21	24.00	1.199	0.043	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	38150/2610	1:1.58	0.108	0.00	22.26	23.00	1.186	0.128	22.1
Left tilted	20	QPSK	50_25	38150/2610	1:1.58	0.051	0.00	22.26	23.00	1.186	0.061	22.1
Right cheek	20	QPSK	50_25	38150/2610	1:1.58	0.083	-0.03	22.26	23.00	1.186	0.098	22.1
Right tilted	20	QPSK	50_25	38150/2610	1:1.58	0.034	-0.02	22.26	23.00	1.186	0.040	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	38000/2595	1:1.58	0.189	0.06	23.21	24.00	1.199	0.227	22.1
Back side	20	QPSK	1_50	38000/2595	1:1.58	0.279	0.11	23.21	24.00	1.199	0.335	22.1
Back side	20	QPSK	PCC 1_99	37850/2580	1:1.58	0.237	0.04	23.42	24.00	1.143	0.271	22.1
			SCC 1_0	38048/2599.8								
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	38150/2610	1:1.58	0.149	-0.01	22.26	23.00	1.186	0.177	22.1
Back side	20	QPSK	50_25	38150/2610	1:1.58	0.186	0.13	22.26	23.00	1.186	0.221	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_0	37850/2580	1:1.58	0.220	-0.19	20.66	22.00	1.361	0.300	22.1
Back side	20	QPSK	1_0	37850/2580	1:1.58	0.384	0.04	20.66	22.00	1.361	0.523	22.1
Back side	20	QPSK	PCC 1_99	37850/2580	1:1.58	0.351	0.13	21.74	22.00	1.062	0.373	22.1
			SCC 1_0	38048/2599.8								
Left side	20	QPSK	1_0	37850/2580	1:1.58	0.097	0.05	20.66	22.00	1.361	0.132	22.1
Bottom side	20	QPSK	1_0	37850/2580	1:1.58	0.270	-0.16	20.66	22.00	1.361	0.368	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	38000/2595	1:1.58	0.218	-0.13	20.62	22.00	1.374	0.300	22.1
Back side	20	QPSK	50_25	38000/2595	1:1.58	0.284	-0.14	20.62	22.00	1.374	0.390	22.1
Left side	20	QPSK	50_25	38000/2595	1:1.58	0.088	-0.12	20.62	22.00	1.374	0.121	22.1
Bottom side	20	QPSK	50_25	38000/2595	1:1.58	0.272	-0.15	20.62	22.00	1.374	0.374	22.1

Table 35: SAR of LTE Band 38 for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.



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8.3.11 SAR Result of LTE Band 41

Ant 5 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_0	40185/2549.5	1:1.58	0.151	0.02	15.76	16.50	1.186	0.179	22.1
Left tilted	20	QPSK	1_0	40185/2549.5	1:1.58	0.047	-0.08	15.76	16.50	1.186	0.055	22.1
Right cheek	20	QPSK	1_0	40185/2549.5	1:1.58	0.430	0.04	15.76	16.50	1.186	0.510	22.1
Right tilted	20	QPSK	1_0	40620/2593	1:1.58	0.081	0.08	15.76	16.50	1.186	0.096	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	41490/2680	1:1.58	0.116	0.01	15.84	16.50	1.164	0.135	22.1
Left tilted	20	QPSK	50_25	41490/2680	1:1.58	0.037	0.03	15.84	16.50	1.164	0.042	22.1
Right cheek	20	QPSK	50_25	41490/2680	1:1.58	0.318	-0.02	15.84	16.50	1.164	0.370	22.1
Right tilted	20	QPSK	50_25	41490/2680	1:1.58	0.063	0.06	15.84	16.50	1.164	0.073	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	41490/2680	1:1.58	0.150	0.01	22.68	23.50	1.208	0.181	22.1
Back side	20	QPSK	1_50	41490/2680	1:1.58	0.183	-0.14	22.68	23.50	1.208	0.221	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_50	41490/2680	1:1.58	0.122	-0.10	21.72	22.50	1.197	0.146	22.1
Back side	20	QPSK	50_50	41490/2680	1:1.58	0.119	-0.05	21.72	22.50	1.197	0.142	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_0	40185/2549.5	1:1.58	0.080	-0.18	15.76	16.50	1.186	0.095	22.1
Back side	20	QPSK	1_0	40185/2549.5	1:1.58	0.073	-0.12	15.76	16.50	1.186	0.087	22.1
Left side	20	QPSK	1_0	40185/2549.5	1:1.58	0.098	0.05	15.76	16.50	1.186	0.116	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	41490/2680	1:1.58	0.080	-0.09	15.84	16.50	1.164	0.093	22.1
Back side	20	QPSK	50_25	41490/2680	1:1.58	0.071	-0.19	15.84	16.50	1.164	0.083	22.1
Left side	20	QPSK	50_25	41490/2680	1:1.58	0.135	0.06	15.84	16.50	1.164	0.157	22.1
Ant 10 Test Record												
Test position	Test mode			Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(°C)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_0	39750/2506	1:1.58	0.146	0.06	22.64	24.00	1.368	0.200	22.1
Left tilted	20	QPSK	1_0	39750/2506	1:1.58	0.044	0.00	22.64	24.00	1.368	0.060	22.1
Right cheek	20	QPSK	1_0	39750/2506	1:1.58	0.076	0.00	22.64	24.00	1.368	0.104	22.1
Right tilted	20	QPSK	1_0	39750/2506	1:1.58	0.032	-0.01	22.64	24.00	1.368	0.043	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	39750/2506	1:1.58	0.102	0.00	21.68	23.00	1.355	0.138	22.1
Left tilted	20	QPSK	50_25	39750/2506	1:1.58	0.036	0.02	21.68	23.00	1.355	0.049	22.1
Right cheek	20	QPSK	50_25	39750/2506	1:1.58	0.086	-0.01	21.68	23.00	1.355	0.116	22.1
Right tilted	20	QPSK	50_25	39750/2506	1:1.58	0.025	-0.04	21.68	23.00	1.355	0.034	22.1



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Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_0	39750/2506	1:1.58	0.180	-0.11	22.64	24.00	1.368	0.246	22.1
Back side	20	QPSK	1_0	39750/2506	1:1.58	0.265	-0.01	22.64	24.00	1.368	0.362	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	39750/2506	1:1.58	0.140	-0.12	21.68	23.00	1.355	0.190	22.1
Back side	20	QPSK	50_25	39750/2506	1:1.58	0.180	-0.18	21.68	23.00	1.355	0.244	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_0	39750/2506	1:1.58	0.197	-0.03	20.15	21.50	1.365	0.269	22.1
Back side	20	QPSK	1_0	39750/2506	1:1.58	0.248	0.00	20.15	21.50	1.365	0.338	22.1
Left side	20	QPSK	1_0	39750/2506	1:1.58	0.087	0.16	20.15	21.50	1.365	0.119	22.1
Bottom side	20	QPSK	1_0	39750/2506	1:1.58	0.232	-0.15	20.15	21.50	1.365	0.317	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	40185/2549.5	1:1.58	0.198	-0.14	20.08	21.50	1.387	0.275	22.1
Back side	20	QPSK	50_25	40185/2549.5	1:1.58	0.348	0.03	20.08	21.50	1.387	0.483	22.1
Left side	20	QPSK	50_25	40185/2549.5	1:1.58	0.091	0.00	20.08	21.50	1.387	0.126	22.1
Bottom side	20	QPSK	50_25	40185/2549.5	1:1.58	0.247	-0.04	20.08	21.50	1.387	0.343	22.1

Table 36: SAR of LTE Band 41 for Head and Body.

Note:

- 1)The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2)Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.



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8.3.12 SAR Result of WIFI 2.4G

Ant8(Chian0) Test Record											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data											
Left cheek	802.11b	6/2437	99.04%	1.010	0.237	0.05	14.06	15.50	1.393	0.333	22
Left tilted	802.11b	6/2437	99.04%	1.010	0.054	0.01	14.06	15.50	1.393	0.076	22
Right cheek	802.11b	6/2437	99.04%	1.010	0.093	-0.03	14.06	15.50	1.393	0.130	22
Right tilted	802.11b	6/2437	99.04%	1.010	0.016	0.02	14.06	15.50	1.393	0.022	22
Body worn Test data(Separate 15mm)											
Front side	802.11b	1/2412	99.04%	1.010	0.096	0.01	19.07	19.50	1.104	0.106	22
Back side	802.11b	1/2412	99.04%	1.010	0.151	0.16	19.07	19.50	1.104	0.168	22
Hotspot Test data (Separate 10mm)											
Front side	802.11b	1/2412	99.04%	1.010	0.193	-0.15	19.07	19.50	1.104	0.215	22
Back side	802.11b	1/2412	99.04%	1.010	0.196	0.07	19.07	19.50	1.104	0.218	22
Right side	802.11b	1/2412	99.04%	1.010	0.317	-0.12	19.07	19.50	1.104	0.353	22
Top side	802.11b	1/2412	99.04%	1.010	0.025	0.01	19.07	19.50	1.104	0.028	22
MIMO Test Record											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data											
Left cheek	802.11b	6/2437	98.57%	1.015	0.301	0.05	17.05	18.50	1.396	0.426	22
Left tilted	802.11b	6/2437	98.57%	1.015	0.157	-0.03	17.05	18.50	1.396	0.222	22
Right cheek	802.11b	6/2437	98.57%	1.015	0.098	0.01	17.05	18.50	1.396	0.139	22
Right tilted	802.11b	6/2437	98.57%	1.015	0.119	0.05	17.05	18.50	1.396	0.169	22
Body worn Test data(Separate 15mm)											
Front side	802.11b	6/2437	98.57%	1.015	0.166	0.09	22.08	22.50	1.102	0.186	22
Back side	802.11b	6/2437	98.57%	1.015	0.207	0.04	22.08	22.50	1.102	0.231	22
Hotspot Test data (Separate 10mm)											
Front side	802.11b	6/2437	98.57%	1.015	0.287	0.02	22.08	22.50	1.102	0.321	22
Back side	802.11b	6/2437	98.57%	1.015	0.264	0.01	22.08	22.50	1.102	0.295	22
Right side	802.11b	6/2437	98.57%	1.015	0.720	-0.02	22.08	22.50	1.102	0.805	22
Right side	802.11b	1/2412	98.57%	1.015	0.704	-0.01	22.06	22.50	1.107	0.790	22
Top side	802.11b	6/2437	98.57%	1.015	0.220	-0.04	22.08	22.50	1.102	0.246	22

Table 37: SAR of WIFI 2.4G for Head and Body.

Note:

- 1) The maximum measured SAR value and Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s).
- 3) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.
- 4) When the highest reported SAR for the initial test configuration 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 test for the other 802.11 modes are not required.



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8.3.13 SAR Result of WIFI 5G

Ant7(Chian1) Test Record											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.
Head Test data of U-NII-2A											
Left cheek	802.11a	52/5260	96.67%	1.034	0.672	0.08	12.97	13.50	1.130	0.785	22.2
Left tilted	802.11a	52/5260	96.67%	1.034	0.367	0.12	12.97	13.50	1.130	0.429	22.2
Right cheek	802.11a	52/5260	96.67%	1.034	0.187	0.06	12.97	13.50	1.130	0.219	22.2
Right tilted	802.11a	52/5260	96.67%	1.034	0.154	0.05	12.97	13.50	1.130	0.180	22.2
Head Test data of U-NII-2C											
Left cheek	802.11a	120/5600	96.67%	1.034	0.157	0.04	13.41	13.50	1.021	0.166	22.2
Left tilted	802.11a	120/5600	96.67%	1.034	0.076	0.02	13.41	13.50	1.021	0.081	22.2
Right cheek	802.11a	120/5600	96.67%	1.034	0.045	0.01	13.41	13.50	1.021	0.048	22.2
Right tilted	802.11a	120/5600	96.67%	1.034	0.044	0.01	13.41	13.50	1.021	0.046	22.2
Head Test data of U-NII-3											
Left cheek	802.11a	157/5785	96.67%	1.034	0.247	0.07	13.30	13.50	1.047	0.268	22.2
Left tilted	802.11a	157/5785	96.67%	1.034	0.226	0.07	13.30	13.50	1.047	0.245	22.2
Right cheek	802.11a	157/5785	96.67%	1.034	0.094	0.03	13.30	13.50	1.047	0.101	22.2
Right tilted	802.11a	157/5785	96.67%	1.034	0.100	0.03	13.30	13.50	1.047	0.108	22.2
Body worn Test data of U-NII-2A (Separate 15mm)											
Front side	802.11a	52/5260	96.67%	1.034	0.213	0.08	17.58	18.00	1.102	0.243	22.2
Back side	802.11a	52/5260	96.67%	1.034	0.386	-0.04	17.58	18.00	1.102	0.440	22.2
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11a	120/5600	96.67%	1.034	0.082	-0.01	17.50	18.00	1.122	0.095	22.2
Back side	802.11a	120/5600	96.67%	1.034	0.635	0.06	17.50	18.00	1.122	0.737	22.2
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11a	157/5785	96.67%	1.034	0.056	0.01	17.38	18.00	1.153	0.067	22.2
Back side	802.11a	157/5785	96.67%	1.034	0.324	0.01	17.38	18.00	1.153	0.387	22.2
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	48/5240	96.67%	1.034	0.345	0.01	17.56	18.00	1.107	0.395	22.2
Back side	802.11a	48/5240	96.67%	1.034	0.659	0.06	17.56	18.00	1.107	0.754	22.2
Right side	802.11a	48/5240	96.67%	1.034	0.274	0.03	17.56	18.00	1.107	0.314	22.2
Top side	802.11a	48/5240	96.67%	1.034	0.373	0.10	17.56	18.00	1.107	0.427	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11a	157/5785	96.67%	1.034	0.083	-0.02	17.38	18.00	1.153	0.099	22.2
Back side	802.11a	157/5785	96.67%	1.034	0.913	0.01	17.38	18.00	1.153	1.089	22.2
Back side-repeat	802.11a	157/5785	96.67%	1.034	0.907	0.05	17.38	18.00	1.153	1.082	22.2
Back side	802.11a	149/5745	96.67%	1.034	0.741	0.04	17.21	18.00	1.199	0.919	22.2
Right side	802.11a	157/5785	96.67%	1.034	0.330	0.05	17.38	18.00	1.153	0.394	22.2
Top side	802.11a	157/5785	96.67%	1.034	0.378	0.06	17.38	18.00	1.153	0.451	22.2
Additional Test data(simultaneous transmission with WWAN + WiFi 5G Ant7(Chain1) Receiver on)											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)10-g	Power drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.
Head Test data of U-NII-2A											
Left cheek	802.11a	60/5300	96.67%	1.034	0.435	0.16	10.99	11.50	1.125	0.506	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Back side	802.11a	157/5785	96.67%	1.034	0.453	0.08	16.09	16.50	1.099	0.515	22.2



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