

15 MHz				2562.5MHz	2535MHz	2507.5MHz	Tune up
	1RB	High	QPSK	20.87	21.43	21.57	23
			16QAM	20.16	20.68	20.77	22
		Middle	QPSK	21.61	22.11	22.07	23
			16QAM	20.90	21.40	21.35	22
		Low	QPSK	21.19	21.52	21.22	23
			16QAM	20.50	20.83	20.55	22
	36RB	High	QPSK	20.36	20.89	20.96	22
			16QAM	19.85	20.44	20.52	21.5
		Middle	QPSK	20.49	21.08	21.12	22
			16QAM	20.04	20.61	20.68	21.5
		Low	QPSK	20.49	20.90	20.89	22
			16QAM	20.07	20.44	20.45	21.5
	75RB	/	QPSK	20.56	20.87	20.85	22
			16QAM	20.04	20.39	20.39	21.5
20MHz				2560MHz	2535MHz	2510MHz	
	1RB	High	QPSK	20.98	21.59	21.67	23
			16QAM	20.30	20.91	20.96	22
		Middle	QPSK	21.73	21.98	22.11	23
			16QAM	20.98	21.31	21.41	22
		Low	QPSK	21.48	21.70	21.33	23
			16QAM	21.23	21.35	20.99	22
	50RB	High	QPSK	20.35	20.83	20.90	22
			16QAM	19.91	20.43	20.45	21.5
		Middle	QPSK	20.75	20.93	21.06	22
			16QAM	20.11	20.53	20.69	21.5
		Low	QPSK	20.62	20.80	20.89	22
			16QAM	20.20	20.41	20.53	21.5
	100RB	/	QPSK	20.61	20.84	20.85	22
			16QAM	20.14	20.44	20.47	21.5

Main antenna - Sensor on							
LTE-FDD Band 7				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2567.4MHz	2535MHz	2502.5MHz	
	1RB	High	QPSK	18.21	18.88	18.96	20.1
			16QAM	17.49	18.31	18.36	19.9
		Middle	QPSK	20.01	19.39	19.36	20.1
			16QAM	18.29	18.84	18.80	19.9
		Low	QPSK	18.55	19.09	18.70	20.1
			16QAM	17.98	18.47	18.16	19.9
	12RB	High	QPSK	17.52	18.20	18.26	20.1
			16QAM	17.07	17.76	17.84	19
		Middle	QPSK	17.76	18.40	18.37	20.1
			16QAM	17.30	17.99	17.92	19
		Low	QPSK	17.79	18.35	18.19	20.1
			16QAM	17.33	17.93	17.74	19
	25RB	/	QPSK	17.67	18.31	18.24	20.1
			16QAM	17.20	17.78	17.75	19
10 MHz				2565MHz	2535MHz	2505MHz	
	1RB	High	QPSK	18.55	19.27	19.46	20.1
			16QAM	17.88	18.63	19.82	19.9
		Middle	QPSK	19.19	19.72	19.81	20.1
			16QAM	18.59	19.10	19.12	19.9
		Low	QPSK	18.97	19.34	19.02	20.1
			16QAM	18.33	18.65	19.34	19.9
	25RB	High	QPSK	17.65	18.26	18.39	20.1
			16QAM	17.12	17.76	17.90	19
		Middle	QPSK	17.81	18.43	18.49	20.1
			16QAM	17.39	17.94	18.00	19
		Low	QPSK	17.75	18.35	18.28	20.1
			16QAM	17.36	17.85	17.79	19
	50RB	/	QPSK	17.75	18.27	18.33	20.1
			16QAM	17.34	17.77	17.81	19

15 MHz				2562.5MHz	2535MHz	2507.5MHz	Tune up
	1RB	High	QPSK	18.05	18.65	18.81	20.1
			16QAM	17.34	18.04	18.18	19.9
		Middle	QPSK	18.90	19.40	19.50	20.1
			16QAM	18.23	18.80	18.94	19.9
		Low	QPSK	18.50	18.73	18.50	20.1
			16QAM	17.83	18.14	17.87	19.9
	36RB	High	QPSK	17.65	18.24	18.36	20.1
			16QAM	17.22	17.73	17.92	19
		Middle	QPSK	17.84	18.43	18.58	20.1
			16QAM	17.41	17.92	18.08	19
		Low	QPSK	17.84	18.23	18.29	20.1
16QAM			17.41	17.72	17.78	19	
75RB	/	QPSK	17.81	18.19	18.26	20.1	
		16QAM	17.38	17.67	17.74	19	

20MHz				2560MHz	2535MHz	2510MHz	
	1RB	High	QPSK	18.23	18.87	18.94	20.1
			16QAM	17.52	18.24	18.25	19.9
		Middle	QPSK	19.10	19.34	19.52	20.1
			16QAM	18.37	18.72	19.03	19.9
		Low	QPSK	18.86	18.99	18.77	20.1
			16QAM	18.27	18.31	18.11	19.9
	50RB	High	QPSK	17.73	18.27	18.34	20.1
			16QAM	17.32	17.76	17.89	19
		Middle	QPSK	18.08	18.36	18.51	20.1
			16QAM	17.57	17.85	18.12	19
		Low	QPSK	18.09	18.22	18.41	20.1
			16QAM	17.59	17.71	17.90	19
	100RB	/	QPSK	18.00	18.26	18.36	20.1
			16QAM	17.56	17.73	17.84	19

Second antenna - Receiver on							
LTE-FDD Band 7				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2567.4MHz	2535MHz	2502.5MHz	
	1RB	High	QPSK	10.56	11.10	11.37	13
			16QAM	11.13	11.65	11.92	13
		Middle	QPSK	11.53	11.86	11.81	13
			16QAM	12.02	12.39	12.42	13
		Low	QPSK	11.10	11.37	10.89	13
			16QAM	11.68	11.91	11.42	13
	12RB	High	QPSK	10.93	11.42	11.55	13
			16QAM	11.07	11.55	11.70	13
		Middle	QPSK	11.31	11.75	11.60	13
			16QAM	11.46	11.89	11.77	13
		Low	QPSK	11.34	11.64	11.32	13
			16QAM	11.50	11.77	11.47	13
	25RB	/	QPSK	11.11	11.47	11.42	13
			16QAM	11.24	11.58	11.53	13
10 MHz				2565MHz	2535MHz	2505MHz	
	1RB	High	QPSK	10.96	11.68	12.37	13
			16QAM	11.61	12.29	12.91	13
		Middle	QPSK	11.96	12.17	12.55	13
			16QAM	12.52	12.79	12.89	13
		Low	QPSK	11.66	11.58	11.25	13
			16QAM	12.26	12.10	11.81	13
	25RB	High	QPSK	11.05	11.46	12.02	13
			16QAM	11.15	11.57	12.12	13
		Middle	QPSK	11.35	11.65	11.94	13
			16QAM	11.47	11.76	12.05	13
		Low	QPSK	11.38	11.52	11.51	13
			16QAM	11.48	11.62	11.62	13
	50RB	/	QPSK	11.28	11.42	11.74	13
			16QAM	11.40	11.54	11.85	13

15 MHz				2562.5MHz	2535MHz	2507.5MHz	Tune up
	1RB	High	QPSK	10.31	10.98	11.65	13
			16QAM	10.95	11.58	12.24	13
		Middle	QPSK	11.71	11.82	12.42	13
			16QAM	12.29	12.43	12.90	13
		Low	QPSK	11.27	10.93	10.50	13
			16QAM	11.87	11.52	11.11	13
	36RB	High	QPSK	11.08	11.45	12.24	13
			16QAM	11.18	11.57	12.34	13
		Middle	QPSK	11.47	11.63	12.28	13
			16QAM	11.59	11.76	12.42	13
		Low	QPSK	11.52	11.31	11.58	13
			16QAM	11.64	11.48	11.70	13
	75RB	/	QPSK	11.38	11.34	11.81	13
			16QAM	11.49	11.46	11.92	13

20MHz				2560MHz	2535MHz	2510MHz	
	1RB	High	QPSK	10.59	11.48	11.78	13
			16QAM	11.24	12.12	12.25	13
		Middle	QPSK	12.22	12.24	12.64	13
			16QAM	12.46	12.33	12.95	13
		Low	QPSK	11.71	11.46	10.96	13
			16QAM	12.30	12.00	11.58	13
	50RB	High	QPSK	11.18	11.57	12.28	13
			16QAM	11.34	11.71	12.38	13
		Middle	QPSK	11.90	11.96	12.35	13
			16QAM	11.85	11.69	12.57	13
		Low	QPSK	11.82	11.40	11.89	13
			16QAM	11.97	11.48	12.02	13
	100RB	/	QPSK	11.64	11.49	12.04	13
			16QAM	11.78	11.58	12.12	13

Second antenna - Receiver off							
LTE-FDD Band 7				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2567.4MHz	2535MHz	2502.5MHz	
	1RB	High	QPSK	19.50	20.20	20.28	21.5
			16QAM	19.33	20.01	20.12	21.5
		Middle	QPSK	20.21	20.65	20.46	21.5
			16QAM	20.04	20.43	20.30	21.5
		Low	QPSK	19.99	20.35	19.81	21.5
			16QAM	19.75	20.11	19.57	21.5
	12RB	High	QPSK	19.28	19.92	19.95	21.5
			16QAM	18.83	19.49	19.56	21.5
		Middle	QPSK	19.58	20.11	19.92	21.5
			16QAM	19.09	19.71	19.51	21.5
		Low	QPSK	19.63	20.04	19.67	21.5
			16QAM	19.17	19.65	19.27	21.5
	25RB	/	QPSK	19.48	19.94	19.80	21.5
			16QAM	19.01	19.52	19.36	21.5
10 MHz				2565MHz	2535MHz	2505MHz	
	1RB	High	QPSK	19.91	20.76	21.15	21.5
			16QAM	19.72	20.48	20.88	21.5
		Middle	QPSK	20.58	21.04	21.22	21.5
			16QAM	20.36	20.74	20.89	21.5
		Low	QPSK	20.62	20.57	20.15	21.5
			16QAM	20.34	20.28	19.87	21.5
	25RB	High	QPSK	19.42	19.98	20.36	21.5
			16QAM	18.94	19.50	19.91	21.5
		Middle	QPSK	19.59	20.07	20.24	21.5
			16QAM	19.16	19.57	19.79	21.5
		Low	QPSK	19.64	19.92	19.86	21.5
			16QAM	19.17	19.47	19.45	21.5
	50RB	/	QPSK	19.55	19.90	20.10	21.5
			16QAM	19.09	19.43	19.65	21.5

15 MHz				2562.5MHz	2535MHz	2507.5MHz	Tune up
	1RB	High	QPSK	19.43	20.19	20.55	21.5
			16QAM	19.17	20.02	20.31	21.5
		Middle	QPSK	20.41	20.58	21.02	21.5
			16QAM	20.09	20.42	20.82	21.5
		Low	QPSK	20.29	19.97	19.54	21.5
			16QAM	20.04	19.74	19.40	21.5
	36RB	High	QPSK	19.43	19.99	20.56	21.5
			16QAM	18.95	19.52	20.07	21.5
		Middle	QPSK	19.75	20.05	20.54	21.5
			16QAM	19.27	19.59	20.06	21.5
		Low	QPSK	19.95	19.83	20.03	21.5
16QAM			19.48	19.37	19.52	21.5	
75RB	/	QPSK	19.77	19.87	20.24	21.5	
		16QAM	19.29	19.39	19.70	21.5	
20MHz				2560MHz	2535MHz	2510MHz	
	1RB	High	QPSK	19.62	20.54	20.52	21.5
			16QAM	19.28	20.41	20.28	21.5
		Middle	QPSK	20.73	20.75	21.16	21.5
			16QAM	20.31	20.39	21.03	21.5
		Low	QPSK	21.10	20.69	20.06	21.5
			16QAM	20.77	20.30	19.86	21.5
	50RB	High	QPSK	19.57	20.12	20.48	21.5
			16QAM	19.12	19.63	20.03	21.5
		Middle	QPSK	20.12	20.13	20.57	21.5
			16QAM	19.56	19.55	20.22	21.5
		Low	QPSK	20.27	19.87	20.25	21.5
			16QAM	19.78	19.36	19.78	21.5
	100RB	/	QPSK	20.05	20.01	20.35	21.5
			16QAM	19.57	19.47	19.87	21.5

Second antenna - Hotspot							
LTE-FDD Band 7				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2567.4MHz	2535MHz	2502.5MHz	
	1RB	High	QPSK	8.66	9.18	9.45	11.4
			16QAM	9.08	9.72	9.98	11.4
		Middle	QPSK	9.59	9.95	9.89	11.4
			16QAM	10.07	10.49	10.47	11.4
		Low	QPSK	9.27	9.46	8.99	11.4
			16QAM	9.73	9.96	9.55	11.4
	12RB	High	QPSK	9.03	9.53	9.66	11.4
			16QAM	9.16	9.68	9.80	11.4
		Middle	QPSK	9.42	9.86	9.71	11.4
			16QAM	9.57	9.99	9.86	11.4
		Low	QPSK	9.46	9.74	9.43	11.4
			16QAM	9.61	9.88	9.57	11.4
	25RB	/	QPSK	9.23	9.58	9.52	11.4
			16QAM	9.34	9.69	9.64	11.4
10 MHz				2565MHz	2535MHz	2505MHz	
	1RB	High	QPSK	9.11	9.74	10.44	11.4
			16QAM	9.63	10.25	10.91	11.4
		Middle	QPSK	10.06	10.26	10.61	11.4
			16QAM	10.54	10.80	11.12	11.4
		Low	QPSK	9.78	9.63	9.29	11.4
			16QAM	10.26	10.11	9.80	11.4
	25RB	High	QPSK	9.16	9.56	10.12	11.4
			16QAM	9.27	9.67	10.24	11.4
		Middle	QPSK	9.49	9.74	10.02	11.4
			16QAM	9.59	9.86	10.14	11.4
		Low	QPSK	9.51	9.62	9.59	11.4
			16QAM	9.62	9.73	9.71	11.4
	50RB	/	QPSK	9.40	9.53	9.84	11.4
			16QAM	9.50	9.62	9.93	11.4

15 MHz				2562.5MHz	2535MHz	2507.5MHz	Tune up
	1RB	High	QPSK	8.41	9.12	9.83	11.4
			16QAM	8.93	9.52	10.25	11.4
		Middle	QPSK	9.87	9.96	10.57	11.4
			16QAM	10.33	10.49	10.96	11.4
		Low	QPSK	9.36	9.02	8.65	11.4
			16QAM	9.85	9.49	9.17	11.4
	36RB	High	QPSK	9.23	9.58	10.41	11.4
			16QAM	9.33	9.61	10.43	11.4
		Middle	QPSK	9.65	9.78	10.43	11.4
			16QAM	9.75	9.81	10.47	11.4
		Low	QPSK	9.73	9.51	9.72	11.4
			16QAM	9.77	9.54	9.77	11.4
	75RB	/	QPSK	9.55	9.49	9.97	11.4
			16QAM	9.56	9.51	10.00	11.4
20MHz				2560MHz	2535MHz	2510MHz	
	1RB	High	QPSK	8.64	9.55	9.88	11.4
			16QAM	9.17	10.09	10.45	11.4
		Middle	QPSK	10.08	10.13	10.54	11.4
			16QAM	10.52	10.34	10.93	11.4
		Low	QPSK	9.81	9.53	9.02	11.4
			16QAM	10.28	9.99	9.54	11.4
	50RB	High	QPSK	9.30	9.66	10.39	11.4
			16QAM	9.43	9.77	10.48	11.4
		Middle	QPSK	9.94	9.88	10.36	11.4
			16QAM	9.97	9.77	10.66	11.4
		Low	QPSK	9.96	9.51	9.98	11.4
			16QAM	10.08	9.61	10.08	11.4
	100RB	/	QPSK	9.76	9.59	10.15	11.4
			16QAM	9.87	9.69	10.24	11.4

Second antenna - Receiver on + WIFI							
LTE-FDD Band 7				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2567.4MHz	2535MHz	2502.5MHz	
	1RB	High	QPSK	8.73	9.19	9.44	11.4
			16QAM	9.22	9.74	9.96	11.4
		Middle	QPSK	9.73	9.94	9.88	11.4
			16QAM	10.26	10.51	10.41	11.4
		Low	QPSK	9.32	9.45	8.97	11.4
			16QAM	9.88	9.98	9.50	11.4
	12RB	High	QPSK	9.15	9.52	9.63	11.4
			16QAM	9.26	9.65	9.75	11.4
		Middle	QPSK	9.45	9.85	9.69	11.4
			16QAM	9.57	9.98	9.79	11.4
		Low	QPSK	9.49	9.74	9.41	11.4
			16QAM	9.62	9.86	9.52	11.4
	25RB	/	QPSK	9.33	9.57	9.50	11.4
			16QAM	9.44	9.67	9.59	11.4
10 MHz				2565MHz	2535MHz	2505MHz	
	1RB	High	QPSK	9.13	9.71	10.42	11.4
			16QAM	9.75	10.24	10.97	11.4
		Middle	QPSK	10.11	10.32	10.67	11.4
			16QAM	10.68	10.85	11.19	11.4
		Low	QPSK	9.90	9.71	9.37	11.4
			16QAM	10.39	10.26	9.92	11.4
	25RB	High	QPSK	9.27	9.55	10.18	11.4
			16QAM	9.37	9.65	10.23	11.4
		Middle	QPSK	9.52	9.76	10.09	11.4
			16QAM	9.62	9.84	10.12	11.4
		Low	QPSK	9.54	9.62	9.65	11.4
			16QAM	9.64	9.71	9.71	11.4
	50RB	/	QPSK	9.44	9.51	9.89	11.4
			16QAM	9.52	9.60	9.90	11.4

15 MHz				2562.5MHz	2535MHz	2507.5MHz	Tune up
	1RB	High	QPSK	8.44	9.11	9.79	11.4
			16QAM	9.02	9.67	10.38	11.4
		Middle	QPSK	9.85	9.97	10.54	11.4
			16QAM	10.47	10.53	11.15	11.4
		Low	QPSK	9.41	9.09	8.62	11.4
			16QAM	10.02	9.63	9.21	11.4
	36RB	High	QPSK	9.22	9.58	10.40	11.4
			16QAM	9.37	9.67	10.48	11.4
		Middle	QPSK	9.65	9.79	10.42	11.4
			16QAM	9.79	9.87	10.51	11.4
		Low	QPSK	9.72	9.52	9.70	11.4
			16QAM	9.85	9.61	9.80	11.4
	75RB	/	QPSK	9.57	9.50	9.96	11.4
			16QAM	9.67	9.57	10.04	11.4
20MHz				2560MHz	2535MHz	2510MHz	
	1RB	High	QPSK	8.68	9.57	9.88	11.4
			16QAM	9.24	10.14	10.39	11.4
		Middle	QPSK	10.02	9.83	10.83	11.4
			16QAM	10.65	10.37	11.39	11.4
		Low	QPSK	9.88	9.52	9.02	11.4
			16QAM	10.51	10.06	9.58	11.4
	50RB	High	QPSK	9.36	9.67	10.41	11.4
			16QAM	9.49	9.78	10.49	11.4
		Middle	QPSK	9.90	9.67	10.57	11.4
			16QAM	10.02	9.76	10.66	11.4
		Low	QPSK	10.01	9.52	9.99	11.4
			16QAM	10.13	9.62	10.08	11.4
	100RB	/	QPSK	9.81	9.61	10.17	11.4
			16QAM	9.92	9.69	10.25	11.4

Main antenna - full Power							
LTE-TDD Band 41				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2592.5MHz	2570MHz	2547.5MHz	
	1RB	High	QPSK	21.37	21.83	21.05	23
			16QAM	20.48	20.95	20.27	22.5
		Middle	QPSK	22.04	22.38	21.63	23
			16QAM	21.12	21.54	20.89	22.5
		Low	QPSK	21.67	22.07	21.38	23
			16QAM	20.79	21.24	20.64	22.5
	12RB	High	QPSK	20.77	21.22	20.45	22.5
			16QAM	20.33	20.75	19.94	21.5
		Middle	QPSK	20.93	21.47	20.73	22.5
			16QAM	20.48	20.99	20.22	21.5
		Low	QPSK	20.88	21.41	20.73	22.5
			16QAM	20.44	20.93	20.22	21.5
	25RB	/	QPSK	20.86	21.28	20.62	22.5
			16QAM	20.34	20.78	20.08	21.5
10 MHz				2590MHz	2570MHz	2550MHz	
	1RB	High	QPSK	21.43	21.85	21.23	23
			16QAM	20.51	21.02	20.38	22.5
		Middle	QPSK	21.97	22.39	21.56	23
			16QAM	21.04	21.57	20.72	22.5
		Low	QPSK	21.82	21.94	21.35	23
			16QAM	20.83	21.13	20.52	22.5
	25RB	High	QPSK	20.74	21.28	20.50	22.5
			16QAM	20.24	20.74	19.98	21.5
		Middle	QPSK	20.94	21.45	20.62	22.5
			16QAM	20.48	20.89	20.09	21.5
		Low	QPSK	21.03	21.35	20.63	22.5
			16QAM	20.56	20.79	20.11	21.5
	50RB	/	QPSK	20.86	21.24	20.56	22.5
			16QAM	20.36	20.73	20.03	21.5

15 MHz				2587.5MHz	2570MHz	2552.5MHz	Tune up
	1RB	High	QPSK	21.24	21.76	21.31	23
			16QAM	20.38	20.82	20.46	22.5
		Middle	QPSK	22.09	22.37	21.63	23
			16QAM	21.23	21.47	20.80	22.5
		Low	QPSK	21.66	21.64	21.14	23
			16QAM	20.76	20.74	20.31	22.5
	36RB	High	QPSK	20.75	21.24	20.71	22.5
			16QAM	20.25	20.73	20.22	21.5
		Middle	QPSK	21.08	21.43	20.72	22.5
			16QAM	20.57	20.90	20.21	21.5
		Low	QPSK	21.03	21.25	20.57	22.5
16QAM			20.51	20.74	20.07	21.5	
75RB	/	QPSK	20.90	21.24	20.60	22.5	
		16QAM	20.36	20.69	20.07	21.5	

20MHz				2585MHz	2570MHz	2555MHz	
	1RB	High	QPSK	21.77	22.13	22.16	23
			16QAM	20.67	21.07	21.05	22.5
		Middle	QPSK	22.37	22.62	22.26	23
			16QAM	21.28	21.52	21.10	22.5
		Low	QPSK	22.42	22.15	21.95	23
			16QAM	21.27	21.05	20.70	22.5
	50RB	High	QPSK	20.86	21.24	20.92	22.5
			16QAM	20.32	20.71	20.41	21.5
		Middle	QPSK	21.07	21.36	20.91	22.5
			16QAM	20.59	20.80	20.31	21.5
		Low	QPSK	21.14	21.22	20.65	22.5
			16QAM	20.65	20.66	20.15	21.5
	100RB	/	QPSK	21.00	21.30	20.77	22.5
			16QAM	20.50	20.75	20.26	21.5

Main antenna - Sensor on							
LTE-TDD Band 41				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2592.5MHz	2570MHz	2547.5MHz	
	1RB	High	QPSK	18.72	19.21	18.41	20
			16QAM	17.85	18.19	17.55	19.5
		Middle	QPSK	19.30	19.79	19.11	20
			16QAM	18.44	18.87	18.27	19.5
		Low	QPSK	19.07	19.38	18.84	20
			16QAM	18.16	18.46	17.97	19.5
	12RB	High	QPSK	18.03	18.51	17.75	19.5
			16QAM	17.46	17.96	17.26	19
		Middle	QPSK	18.18	18.76	18.07	19.5
			16QAM	17.61	18.20	17.57	19
		Low	QPSK	18.20	18.67	18.06	19.5
			16QAM	17.64	18.14	17.55	19
	25RB	/	QPSK	18.14	18.55	17.93	19.5
			16QAM	17.56	17.99	17.44	19
10 MHz				2590MHz	2570MHz	2550MHz	
	1RB	High	QPSK	18.74	19.24	18.58	20
			16QAM	17.74	18.19	17.59	19.5
		Middle	QPSK	19.65	19.82	18.97	20
			16QAM	18.41	18.81	18.03	19.5
		Low	QPSK	19.10	19.29	18.75	20
			16QAM	18.09	18.24	17.85	19.5
	25RB	High	QPSK	19.73	18.52	17.73	19.5
			16QAM	17.45	18.00	17.22	19
		Middle	QPSK	18.25	19.21	17.90	19.5
			16QAM	17.75	18.17	17.40	19
		Low	QPSK	18.32	18.57	17.97	19.5
			16QAM	17.78	18.03	17.45	19
	50RB	/	QPSK	18.13	18.50	17.83	19.5
			16QAM	17.61	17.97	17.31	19

15 MHz				2587.5MHz	2570MHz	2552.5MHz	Tune up
	1RB	High	QPSK	18.48	19.03	18.58	20
			16QAM	17.63	18.05	17.70	19.5
		Middle	QPSK	19.44	19.79	18.93	20
			16QAM	18.56	18.88	18.09	19.5
		Low	QPSK	18.97	18.88	18.46	20
			16QAM	18.06	18.00	17.65	19.5
	36RB	High	QPSK	17.98	18.47	17.89	19.5
			16QAM	17.44	17.92	17.39	19
		Middle	QPSK	18.33	18.66	17.92	19.5
			16QAM	17.78	18.11	17.42	19
		Low	QPSK	18.25	18.45	17.80	19.5
16QAM			17.71	17.89	17.29	19	
75RB	/	QPSK	18.11	18.45	17.80	19.5	
		16QAM	17.54	17.88	17.28	19	

20MHz				2585MHz	2570MHz	2555MHz	
	1RB	High	QPSK	18.68	19.15	18.96	20
			16QAM	17.74	18.22	18.13	19.5
		Middle	QPSK	19.45	19.74	19.32	20
			16QAM	18.49	18.85	18.26	19.5
		Low	QPSK	19.35	19.03	18.66	20
			16QAM	18.38	18.18	17.83	19.5
	50RB	High	QPSK	18.06	18.44	18.16	19.5
			16QAM	17.57	17.95	17.60	19
		Middle	QPSK	18.31	18.56	18.09	19.5
			16QAM	17.86	18.07	20.28	19
		Low	QPSK	18.36	18.38	17.94	19.5
			16QAM	17.85	17.90	20.17	19
	100RB	/	QPSK	18.21	18.48	18.03	19.5
			16QAM	17.70	18.00	18.59	19

Second antenna - Receiver on							
LTE-TDD Band 41				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2592.5MHz	2570MHz	2547.5MHz	
	1RB	High	QPSK	13.91	14.29	13.02	15.5
			16QAM	14.00	14.40	13.10	15.5
		Middle	QPSK	14.46	14.80	13.78	15.5
			16QAM	14.51	14.86	13.86	15.5
		Low	QPSK	14.33	14.33	13.65	15.5
			16QAM	14.46	14.43	13.72	15.5
	12RB	High	QPSK	14.11	14.53	13.33	15.5
			16QAM	14.01	14.39	13.28	15.5
		Middle	QPSK	14.28	14.71	13.66	15.5
			16QAM	14.19	14.61	13.60	15.5
		Low	QPSK	14.37	14.58	13.71	15.5
			16QAM	14.27	14.53	13.66	15.5
	25RB	/	QPSK	14.26	14.52	13.54	15.5
			16QAM	14.19	14.43	13.48	15.5
10 MHz				2590MHz	2570MHz	2550MHz	
	1RB	High	QPSK	13.94	14.36	13.10	15.5
			16QAM	13.83	14.29	12.98	15.5
		Middle	QPSK	14.68	14.79	13.54	15.5
			16QAM	14.55	14.69	13.44	15.5
		Low	QPSK	14.41	14.10	13.57	15.5
			16QAM	14.28	14.04	13.42	15.5
	25RB	High	QPSK	14.14	14.58	13.23	15.5
			16QAM	14.05	14.49	13.15	15.5
		Middle	QPSK	14.47	14.65	13.43	15.5
			16QAM	14.38	14.56	13.35	15.5
		Low	QPSK	14.55	14.42	13.55	15.5
			16QAM	14.45	14.34	13.47	15.5
	50RB	/	QPSK	14.33	14.45	13.38	15.5
			16QAM	14.25	14.39	13.30	15.5

15 MHz				2587.5MHz	2570MHz	2552.5MHz	Tune up
	1RB	High	QPSK	13.75	14.33	13.25	15.5
			16QAM	13.71	14.24	13.30	15.5
		Middle	QPSK	14.77	14.78	13.49	15.5
			16QAM	14.72	14.76	13.53	15.5
		Low	QPSK	14.41	13.68	13.33	15.5
			16QAM	14.34	13.68	13.35	15.5
	36RB	High	QPSK	14.28	14.61	13.39	15.5
			16QAM	14.15	14.53	13.34	15.5
		Middle	QPSK	14.63	14.64	13.40	15.5
			16QAM	14.50	14.58	13.34	15.5
		Low	QPSK	14.60	14.29	13.37	15.5
			16QAM	14.48	14.22	13.32	15.5
	75RB	/	QPSK	14.42	14.43	13.32	15.5
			16QAM	14.26	14.35	13.25	15.5
20MHz				2585MHz	2570MHz	2555MHz	
	1RB	High	QPSK	13.94	14.55	13.77	15.5
			16QAM	13.95	14.60	13.83	15.5
		Middle	QPSK	14.65	14.70	13.61	15.5
			16QAM	14.70	14.76	13.66	15.5
		Low	QPSK	14.64	13.74	13.53	15.5
			16QAM	14.61	13.84	13.56	15.5
	50RB	High	QPSK	14.34	14.56	13.66	15.5
			16QAM	14.25	14.53	13.64	15.5
		Middle	QPSK	14.55	14.58	13.51	15.5
			16QAM	14.56	14.46	13.46	15.5
		Low	QPSK	14.50	14.16	13.43	15.5
			16QAM	14.62	14.12	13.37	15.5
	100RB	/	QPSK	14.52	14.44	13.50	15.5
			16QAM	14.44	14.39	13.47	15.5

Second antenna - Receiver off							
LTE-TDD Band 41				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2592.5MHz	2570MHz	2547.5MHz	
	1RB	High	QPSK	19.49	20.00	18.61	21
			16QAM	19.60	19.96	18.68	21
		Middle	QPSK	20.15	20.50	19.28	21
			16QAM	20.24	20.47	19.41	21
		Low	QPSK	19.91	20.08	19.09	21
			16QAM	19.97	20.10	19.18	21
	12RB	High	QPSK	19.82	20.22	18.88	21
			16QAM	19.81	20.20	18.91	21
		Middle	QPSK	19.98	20.43	19.19	21
			16QAM	19.96	20.41	19.22	21
		Low	QPSK	19.98	20.32	19.20	21
			16QAM	19.95	20.31	19.24	21
	25RB	/	QPSK	19.93	20.24	19.06	21
			16QAM	19.89	20.18	19.09	21
10 MHz				2590MHz	2570MHz	2550MHz	
	1RB	High	QPSK	19.50	20.05	18.79	21
			16QAM	19.46	20.02	18.82	21
		Middle	QPSK	20.20	20.48	19.14	21
			16QAM	20.16	20.51	19.12	21
		Low	QPSK	20.03	19.84	19.03	21
			16QAM	19.97	19.88	19.02	21
	25RB	High	QPSK	19.78	20.24	18.94	21
			16QAM	19.75	20.19	18.88	21
		Middle	QPSK	20.07	20.34	19.05	21
			16QAM	20.02	20.29	19.00	21
		Low	QPSK	20.17	20.15	19.10	21
			16QAM	20.08	20.11	19.04	21
	50RB	/	QPSK	19.96	20.16	19.00	21
			16QAM	19.90	20.11	18.95	21

15 MHz				2587.5MHz	2570MHz	2552.5MHz	Tune up
	1RB	High	QPSK	19.31	19.93	19.02	21
			16QAM	19.35	19.91	19.04	21
		Middle	QPSK	20.30	20.46	19.17	21
			16QAM	20.31	20.42	19.24	21
		Low	QPSK	19.89	19.48	18.78	21
			16QAM	19.87	19.43	18.84	21
	36RB	High	QPSK	19.80	20.24	19.14	21
			16QAM	19.81	20.21	19.15	21
		Middle	QPSK	20.17	20.31	19.08	21
			16QAM	20.17	20.29	19.11	21
		Low	QPSK	20.12	20.07	18.95	21
			16QAM	20.12	20.01	18.97	21
	75RB	/	QPSK	19.95	20.17	19.00	21
			16QAM	19.95	20.08	19.01	21

20MHz				2585MHz	2570MHz	2555MHz	
	1RB	High	QPSK	19.48	20.05	19.50	21
			16QAM	19.54	20.11	19.61	21
		Middle	QPSK	20.26	20.34	19.32	21
			16QAM	20.31	20.38	19.39	21
		Low	QPSK	20.20	19.43	19.01	21
			16QAM	20.20	19.56	19.04	21
	50RB	High	QPSK	19.90	20.24	19.49	21
			16QAM	19.84	20.20	19.43	21
		Middle	QPSK	20.21	20.25	19.27	21
			16QAM	20.14	20.20	19.22	21
		Low	QPSK	20.23	19.95	19.08	21
			16QAM	20.19	19.93	19.02	21
	100RB	/	QPSK	20.12	20.18	19.27	21
			16QAM	20.08	20.17	19.23	21

Second antenna - Hotspot							
LTE-TDD Band 41				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2592.5MHz	2570MHz	2547.5MHz	
	1RB	High	QPSK	11.94	12.31	11.09	13.5
			16QAM	11.95	12.31	11.10	13.5
		Middle	QPSK	12.56	12.78	11.92	13.5
			16QAM	12.60	12.78	11.94	13.5
		Low	QPSK	12.44	12.32	11.76	13.5
			16QAM	12.49	12.32	11.77	13.5
	12RB	High	QPSK	12.22	12.53	11.44	13.5
			16QAM	12.16	12.48	11.40	13.5
		Middle	QPSK	12.43	12.77	11.83	13.5
			16QAM	12.37	12.73	11.77	13.5
		Low	QPSK	12.52	12.62	11.87	13.5
			16QAM	12.46	12.57	11.81	13.5
	25RB	/	QPSK	12.39	12.50	11.68	13.5
			16QAM	12.31	12.43	11.60	13.5
10 MHz				2590MHz	2570MHz	2550MHz	
	1RB	High	QPSK	11.96	12.38	11.16	13.5
			16QAM	11.91	12.39	11.12	13.5
		Middle	QPSK	12.76	12.86	11.71	13.5
			16QAM	12.70	12.86	11.67	13.5
		Low	QPSK	12.47	12.11	11.72	13.5
			16QAM	12.43	12.12	11.67	13.5
	25RB	High	QPSK	12.26	12.58	11.34	13.5
			16QAM	12.21	12.50	11.22	13.5
		Middle	QPSK	12.60	12.69	11.58	13.5
			16QAM	12.55	12.61	11.46	13.5
		Low	QPSK	12.65	12.50	11.73	13.5
			16QAM	12.60	12.37	11.60	13.5
	50RB	/	QPSK	12.45	12.50	11.52	13.5
			16QAM	12.38	12.38	11.41	13.5

15 MHz				2587.5MHz	2570MHz	2552.5MHz	Tune up
	1RB	High	QPSK	11.81	12.27	11.26	13.5
			16QAM	11.81	12.28	11.27	13.5
		Middle	QPSK	12.91	12.89	11.60	13.5
			16QAM	12.84	12.90	11.63	13.5
		Low	QPSK	12.41	11.70	11.43	13.5
			16QAM	12.39	11.73	11.45	13.5
	36RB	High	QPSK	12.32	12.71	11.46	13.5
			16QAM	12.26	12.64	11.44	13.5
		Middle	QPSK	12.69	12.74	11.51	13.5
			16QAM	12.62	12.68	11.48	13.5
		Low	QPSK	12.63	12.35	11.50	13.5
			16QAM	12.57	12.29	11.46	13.5
	75RB	/	QPSK	12.46	12.52	11.43	13.5
			16QAM	12.37	12.44	11.36	13.5

20MHz				2585MHz	2570MHz	2555MHz	
	1RB	High	QPSK	12.03	12.62	11.83	13.5
			16QAM	11.92	12.51	11.90	13.5
		Middle	QPSK	12.89	12.94	11.75	13.5
			16QAM	12.78	12.78	11.81	13.5
		Low	QPSK	12.72	11.81	11.69	13.5
			16QAM	12.61	11.72	11.76	13.5
	50RB	High	QPSK	12.48	12.68	11.77	13.5
			16QAM	12.39	12.62	11.73	13.5
		Middle	QPSK	12.70	12.76	11.63	13.5
			16QAM	12.72	12.60	11.58	13.5
		Low	QPSK	12.72	12.27	11.56	13.5
			16QAM	12.75	12.21	11.51	13.5
	100RB	/	QPSK	12.65	12.57	11.64	13.5
			16QAM	12.58	12.51	11.58	13.5

Second antenna - Receiver on + WIFI							
LTE-TDD Band 41				Actual output Power (dBm)			Tune up
Band-width	RB allocation	RB offset	Modulation	High	Middle	Low	
5 MHz				2592.5MHz	2570MHz	2547.5MHz	
	1RB	High	QPSK	11.99	12.33	11.15	13.5
			16QAM	12.04	12.34	11.21	13.5
		Middle	QPSK	12.58	12.85	11.99	13.5
			16QAM	12.65	12.86	12.05	13.5
		Low	QPSK	12.45	12.39	11.82	13.5
			16QAM	12.46	12.40	11.89	13.5
	12RB	High	QPSK	12.21	12.58	11.50	13.5
			16QAM	12.10	12.46	11.38	13.5
		Middle	QPSK	12.43	12.82	11.87	13.5
			16QAM	12.31	12.70	11.74	13.5
		Low	QPSK	12.52	12.66	11.91	13.5
			16QAM	12.40	12.55	11.78	13.5
	25RB	/	QPSK	12.39	12.55	11.73	13.5
			16QAM	12.31	12.47	11.65	13.5
10 MHz				2590MHz	2570MHz	2550MHz	
	1RB	High	QPSK	12.01	12.36	11.14	13.5
			16QAM	12.04	12.35	11.08	13.5
		Middle	QPSK	12.81	12.88	11.68	13.5
			16QAM	12.83	12.86	11.64	13.5
		Low	QPSK	12.46	12.14	11.70	13.5
			16QAM	12.51	12.14	11.63	13.5
	25RB	High	QPSK	12.26	12.62	11.32	13.5
			16QAM	12.20	12.55	11.28	13.5
		Middle	QPSK	12.60	12.73	11.57	13.5
			16QAM	12.53	12.67	11.53	13.5
		Low	QPSK	12.65	12.49	11.71	13.5
			16QAM	12.58	12.43	11.67	13.5
	50RB	/	QPSK	12.45	12.47	11.51	13.5
			16QAM	12.38	12.43	11.46	13.5

15 MHz				2587.5MHz	2570MHz	2552.5MHz	Tune up
	1RB	High	QPSK	11.78	12.31	11.24	13.5
			16QAM	11.79	12.31	11.35	13.5
		Middle	QPSK	12.88	12.86	11.59	13.5
			16QAM	12.89	12.93	11.69	13.5
		Low	QPSK	12.43	11.67	11.42	13.5
			16QAM	12.41	11.78	11.52	13.5
	36RB	High	QPSK	12.36	12.63	11.45	13.5
			16QAM	12.26	12.57	11.40	13.5
		Middle	QPSK	12.72	12.72	11.50	13.5
			16QAM	12.60	12.67	11.46	13.5
		Low	QPSK	12.68	12.33	11.49	13.5
			16QAM	12.56	12.28	11.44	13.5
	75RB	/	QPSK	12.50	12.50	11.42	13.5
			16QAM	12.37	12.43	11.35	13.5
20MHz				2585MHz	2570MHz	2555MHz	
	1RB	High	QPSK	12.01	12.59	11.80	13.5
			16QAM	12.02	12.63	11.86	13.5
		Middle	QPSK	12.85	12.75	11.72	13.5
			16QAM	12.85	12.80	11.79	13.5
		Low	QPSK	12.68	11.78	11.66	13.5
			16QAM	12.70	11.86	11.71	13.5
	50RB	High	QPSK	12.45	12.65	11.74	13.5
			16QAM	12.38	12.60	11.70	13.5
		Middle	QPSK	12.78	12.57	11.60	13.5
			16QAM	12.70	12.51	11.55	13.5
		Low	QPSK	12.80	12.24	11.56	13.5
			16QAM	12.73	12.19	11.49	13.5
	100RB	/	QPSK	12.63	12.54	11.62	13.5
			16QAM	12.55	12.48	11.56	13.5

10.4 Wi-Fi and BT Measurement result

Table 10.5: The conducted Power measurement results for BT

BT	Averaged Power (dBm)			
Mode	Tune up	Ch0 (2402 MHz)	Ch39 (2441 MHz)	Ch78 (2480 MHz)
GFSK	10.5	6.11	7.23	7.15
EDR2M-4_DQPSK	10.5	6.08	7.17	7.93
EDR3M-8DPSK	10.5	6.02	7.05	7.87
BLE	Tune up	Ch0 (2402MHz)	Ch19 (2441MHz)	Ch39 (2480MHz)
	7	2.58	2.97	4.21

Table 10.6: The conducted Power measurement results for 2.4G WIFI

WiFi 2.4GHz	Averaged Power (dBm)			
Mode	Tune up	Ch 1(2412 MHz)	Ch 6(2437Mhz)	Ch 11(2462MHz)
802.11b	17.5	16.47	15.77	16.19
802.11g	17	15.06	15.23	15.60
802.11n(20MHz)	/	13.06(Tune up:15)	15.25(Tune up:17)	13.46(Tune up:15)
802.11n(40MHz)	Tune up	Ch 3(2422 MHz)	Ch 6(2437Mhz)	Ch 9 (2452MHz)
	/	11.80(Tune up:14)	15.30(Tune up:17)	12.57(Tune up:14)

WiFi 2.4GHz	Tune up	Averaged Power (dBm)	
Mode		Ch 2(2417 MHz)	Ch 10(2457Mhz)
802.11n(20MHz)	17	15.51	15.92

Table 10.7: The Reduce conducted Power measurement results for 2.4G WIFI

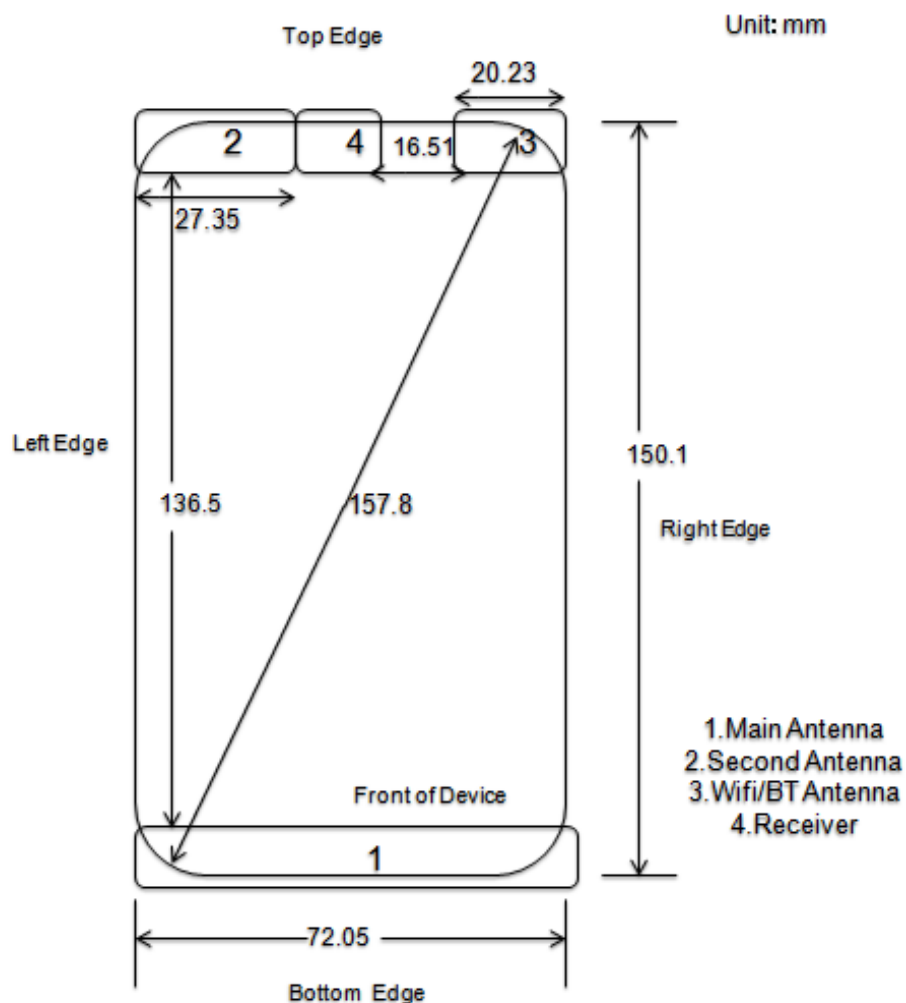
WiFi 2.4GHz	Averaged Power (dBm)			
Mode	Tune up	Ch 1(2412 MHz)	Ch 6(2437Mhz)	Ch 11(2462MHz)
802.11b	11	8.48	9.45	9.26
802.11g	10.5	8.83	9.19	9.45
802.11n(20MHz)	10.5	8.89	9.23	9.56
802.11n(40MHz)	Tune up	Ch 3(2422 MHz)	Ch 6(2437Mhz)	Ch 9 (2452MHz)
	10.5	8.91	9.13	9.77

11 Simultaneous TX SAR Considerations

11.1 Introduction

The following procedures adopted from “FCC SAR Considerations for Cell Phones with Multiple Transmitters” are applicable to handsets with built-in unlicensed transmitters such as 802.11 a/b/g and Bluetooth devices which may simultaneously transmit with the licensed transmitter. For this device, the BT and Wi-Fi can transmit simultaneous with other transmitters.

11.2 Transmit Antenna Separation Distances



Picture 11.1 Antenna Locations

11.3 Dynamic antenna switching specification

The device has two 2G/3G/4G Tx antennas (Main Antenna and Second Antenna). It can transmit from either Main Antenna or Second Antenna, but they cannot transmit simultaneously. SAR test procedure for dynamic antenna switching is as below:

The Main Antenna is set to the MAX transmit power level respectively and test the SAR respectively in all applicable RF exposure conditions. Some commands or test scripts are supplied to fix the operation state and choose the antenna so that only one TX antenna is chosen and tested at a time. All independent antennas will be completely covered by the appropriate SAR measurements and all simultaneous transmission possibilities will be fully considered to ensure SAR compliance.

11.4 Dynamic antenna tuning Test Configurations

The device also supports the dynamic antenna tuning function to optimize transmission efficiency for 1710MHz~2170MHz, 2500MHz~2700MHz frequency operations, especially in any hand usage scenario.

The dynamic antenna tuning function is only applicable for some frequency bands of the 2G/3G/4G main Tx antenna: GSM850, WCDMA V, LTE Band 5; which is located in the bottom part of the device. The 2G/3G/4G main antenna has two fixed states for these tuning bands: The two states (**state 1: Through condition** and **state 2: MAS condition**) shares the same antenna, RF path, test channel and conductive power. The software will choose better RSSI as the working state of the main TX antenna based on the RSSI comparison and switch algorithm. For dynamic antenna tuning SAR test of each model device, all the tuning states will be considered for SAR compliance:

- a) Firstly, some AT commands are used to fix the tuning state at state1 or state 2, so that only one antenna tuning state is chosen at a time for SAR test. The antenna is set to the MAX transmit output power level.
- b) Secondly, in order to reduce the number of SAR tests required to demonstrate compliance for the numerous tuning states, we plan to perform one single point zoom scan SAR measurement between state1 and state 2 for each antenna tuning band and applicable RF exposure condition to identify the higher SAR tuning state that need the full set of normally required SAR measurements and allow SAR test reduction for the lower SAR conditions.
- c) Thirdly, full normally required SAR measurements are performed for the higher SAR tuning state. Moreover, the SAR worst case check will also be tested for the other tuning state in each antenna tuning band and applicable RF exposure condition. We think it is conservative enough to ensure the SAR compliance.

11.5 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR, the edges with less than 2.5 cm distance to the antennas need to be tested for SAR.

SAR measurement positions						
Mode	Front	Rear	Left edge	Right edge	Top edge	Bottom edge
Main antenna	Yes	Yes	Yes	Yes	No	Yes
Second antenna	Yes	Yes	Yes	No	Yes	No
WLAN	Yes	Yes	No	Yes	Yes	No

11.6 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot$$

$$[\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g 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

Table 11.1: Standalone SAR test exclusion considerations

Band/Mode	f(GHz)	Position	SAR test exclusion threshold (mW)	RF output power		SAR test exclusion
				dBm	mW	
Bluetooth	2.441	Head	9.60	10.5	11.22	No
		Body	19.20	10.5	11.22	Yes
2.4GHz WLAN	2.45	Head	9.58	17.5	56.23	No
		Body	19.17	17.5	56.23	No

12 Evaluation of Simultaneous

Table 12.1: The sum of reported SAR values for main antenna and Wi-Fi

	Position	WWAN (W/Kg)	WLAN (W/kg)	Sum (W/kg)
Highest reported SAR value for Head	Left Touch	0.718	0.566	1.284
Highest reported SAR value for Hotspot	Rear 10mm	0.555	0.104	0.659
Highest reported SAR value for Body-worn	Rear 15mm	0.401	0.061	0.462

Table 12.2: The sum of reported SAR values for main antenna and Bluetooth

	Position	WWAN (W/Kg)	Bluetooth (W/kg)	Sum (W/kg)
Highest reported SAR value for Head	Right Touch	0.789	0.009	0.798
Highest reported SAR value for Body-worn	Rear 15mm	0.401	0.170	0.571

BT* - Estimated SAR for Bluetooth (see the table 12.3)

Table 12.3: Estimated SAR for Bluetooth

Position	f (GHz)	Distance (mm)	Upper limit of power *		Estimated _{1g} (W/kg)
			dBm	mW	
Body	2.441	15	10.5	11.22	0.170

* - Maximum possible output power declared by manufacturer

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;

Where x = 7.5 for 1-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

Conclusion:

According to the above tables, the sum of reported SAR values is < 1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.

13 SAR Test Result

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} \times 10^{(P_{\text{Target}} - P_{\text{Measured}})/10}$$

Where P_{Target} is the power of manufacturing upper limit;

P_{Measured} is the measured power in chapter 10.

Table 13.1: Duty Cycle For Main antenna

Mode	Duty Cycle
Speech for GSM850/1900	1:8.3
GPRS&EGPRS for GSM850/1900	1:8.3
WCDMA850	1:1
FDD_LTE Band 5/7	1:1
TDD_LTE Band 41	1:1.58

Table 13.2: Duty Cycle For Second antenna

Mode	Duty Cycle
Speech for GSM850/1900	1:8.3
GPRS&EGPRS for GSM850/1900	1:8.3
WCDMA850	1:1
FDD_LTE Band 5/7	1:1
TDD_LTE Band 41	1:1.58

Note:

B1(Battery): HB366481ECW-11 (Sunwoda Electronic Co., Ltd.)

B2(Battery): HB366481ECW-11 (Huizhou Desay Battery Co., Ltd.)

B3(Battery): HB366481ECW-11 (SCUD(Fujian)Electronics Co., Ltd)

13.1 SAR results

<Main antenna>

Table 13.3: SAR Values (GSM 850 - Head)

Ambient Temperature: 22.6°C					Liquid Temperature: 22.1°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
MAS condition									
836.6	190	Speech	Left Touch	/	32.43	33.3	0.049	0.060	0.02
Through condition									
836.6	190	Speech	Left Touch	/	32.43	33.3	0.114	0.139	-0.06
836.6	190	Speech	Left Tilt	/	32.43	33.3	0.114	0.139	-0.07
836.6	190	Speech	Right Touch	/	32.43	33.3	0.139	0.170	-0.08
836.6	190	Speech	Right Tilt	/	32.43	33.3	0.090	0.110	-0.04
836.6	190	Speech	Right Touch	Fig.1 / B2	32.43	33.3	0.154	0.188	-0.11
836.6	190	Speech	Right Touch	B3	32.43	33.3	0.116	0.142	0.07

Table 13.4: SAR Values (GSM 850 -Body)

Ambient Temperature: 22.7°C					Liquid Temperature: 22.2°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)- MAS condition									
836.6	190	GPRS	Rear	/	30.31	31.3	0.085	0.107	0.00
Hotspot Test Data (10mm)- Through condition									
836.6	190	GPRS	Front	/	30.31	31.3	0.081	0.102	0.01
836.6	190	GPRS	Rear	/	30.31	31.3	0.241	0.303	-0.08
836.6	190	GPRS	Left	/	30.31	31.3	0.068	0.085	-0.05
836.6	190	GPRS	Right	/	30.31	31.3	0.113	0.142	-0.02
836.6	190	GPRS	Bottom	/	30.31	31.3	0.063	0.079	0.02
836.6	190	GPRS	Rear	Fig.2 / B2	30.31	31.3	0.278	0.349	0.02
836.6	190	GPRS	Rear	B3	30.31	31.3	0.216	0.271	0.04
Body worn Test Data (15mm)									
836.6	190	GPRS	Front	/	32.43	33.3	0.062	0.076	0.02
836.6	190	GPRS	Rear	/	32.43	33.3	0.183	0.224	0.04

<Second antenna>

Table 13.5: SAR Values (GSM 850 - Head)

Ambient Temperature: 22.6°C					Liquid Temperature: 22.1°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
836.6	190	Speech	Left Touch	/	27.68	28.8	0.327	0.423	0.03
836.6	190	Speech	Left Tilt	/	27.68	28.8	0.307	0.397	0.05
836.6	190	Speech	Right Touch	Fig.3	27.68	28.8	0.593	0.767	0.04
836.6	190	Speech	Right Tilt	/	27.68	28.8	0.424	0.549	0.05
836.6	190	Speech	Right Touch	B2	27.68	28.8	0.524	0.678	-0.05
836.6	190	Speech	Right Touch	B3	27.68	28.8	0.542	0.701	-0.03

Table 13.6: SAR Values (GSM 850 -Body)

Ambient Temperature: 22.7°C					Liquid Temperature: 22.2°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)									
836.6	190	GPRS	Front	/	25.16	26.3	0.095	0.124	-0.14
836.6	190	GPRS	Rear	/	25.16	26.3	0.090	0.117	0.03
836.6	190	GPRS	Left	/	25.16	26.3	0.060	0.078	0.06
836.6	190	GPRS	Top	/	25.16	26.3	0.056	0.073	0.01
Body worn Test Data (15mm)									
836.6	190	GPRS	Front	/	30.26	31.3	0.143	0.182	-0.11
836.6	190	GPRS	Rear	Fig.4	30.26	31.3	0.152	0.193	0.08
836.6	190	GPRS	Rear	B2	30.26	31.3	0.093	0.118	-0.12
836.6	190	GPRS	Rear	B3	30.26	31.3	0.106	0.135	-0.07

<Main antenna>

Table 13.7: SAR Values (GSM 1900 - Head)

Ambient Temperature: 22.2°C					Liquid Temperature: 21.5°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
1880	661	Speech	Left Touch	/	29.94	30.5	0.077	0.088	0.09
1880	661	Speech	Left Tilt	/	29.94	30.5	0.037	0.042	0.07
1880	661	Speech	Right Touch	/	29.94	30.5	0.048	0.055	0.02
1880	661	Speech	Right Tilt	/	29.94	30.5	0.031	0.035	0.05
1880	661	Speech	Left Touch	B2	29.94	30.5	0.059	0.067	0.06
1880	661	Speech	Left Touch	Fig.5 / B3	29.94	30.5	0.096	0.109	0.08

Table 13.8: SAR Values (GSM 1900 -Body)

Ambient Temperature: 22.2°C					Liquid Temperature: 21.5°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)									
1880	661	EGPRS	Front	/	25.41	26	0.206	0.236	0.11
1880	661	EGPRS	Rear	/	25.41	26	0.416	0.477	0.08
1880	661	EGPRS	Left	/	25.41	26	0.019	0.022	0.01
1880	661	EGPRS	Right		25.41	26	0.020	0.023	0.03
1880	661	EGPRS	Bottom	/	25.41	26	0.412	0.472	-0.01
Body worn Test Data (15mm)									
1880	661	GPRS	Front	/	26.8	27.5	0.156	0.183	0.08
1880	661	GPRS	Rear	/	26.8	27.5	0.279	0.328	0.02
Hotspot Test Data (17mm)									
1880	661	GPRS	Front	/	27.78	28.5	0.243	0.287	-0.04
1880	661	GPRS	Rear	/	27.78	28.5	0.495	0.584	0.05
1880	661	GPRS	Bottom	Fig.6	27.78	28.5	0.572	0.675	-0.03
1880	661	GPRS	Bottom	B2	27.78	28.5	0.436	0.515	-0.16
1880	661	GPRS	Bottom	B3	27.78	28.5	0.488	0.576	0.05
Body worn Test Data (17mm)									
1880	661	GPRS	Front	/	29.93	30.5	0.218	0.249	0.01
1880	661	GPRS	Rear	/	29.93	30.5	0.444	0.506	-0.01

<Second antenna>

Table 13.9: SAR Values (GSM 1900 - Head)

Ambient Temperature: 22.2°C					Liquid Temperature: 21.5°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
1880	661	Speech	Left Touch	/	25.96	26.5	0.262	0.297	0.09
1880	661	Speech	Left Tilt	/	25.96	26.5	0.189	0.214	0.07
1880	661	Speech	Right Touch	/	25.96	26.5	0.625	0.708	0.03
1880	661	Speech	Right Tilt	/	25.96	26.5	0.444	0.503	0.01
1880	661	Speech	Left Touch	Fig.7 / B2	25.96	26.5	0.634	0.718	0.02
1880	661	Speech	Left Touch	B3	25.96	26.5	0.591	0.669	0.03

Table 13.10: SAR Values (GSM 1900 -Body)

Ambient Temperature: 22.2°C					Liquid Temperature: 21.5°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)									
1880	661	EGPRS	Front	/	23.89	24	0.047	0.048	0.03
1880	661	EGPRS	Rear	/	23.89	24	0.050	0.051	0.04
1880	661	EGPRS	Left	/	23.89	24	0.019	0.019	0.09
1880	661	EGPRS	Top	/	23.89	24	0.038	0.039	0.07
Body worn Test Data (15mm)									
1880	661	GPRS	Front	/	26.98	27.5	0.058	0.065	-0.07
1880	661	GPRS	Rear	/	26.98	27.5	0.063	0.071	-0.07
1880	661	GPRS	Rear	Fig.8 / B2	26.98	27.5	0.074	0.083	0.04
1880	661	GPRS	Rear	B3	26.98	27.5	0.054	0.061	0.07

<Main antenna>

Table 13.11: SAR Values (WVDMA 850 - Head)

Ambient Temperature: 22.6°C					Liquid Temperature: 22.1°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
MAS condition									
836.4	4082	RMC12.2kbps	Right Touch	/	23.5	24.5	0.110	0.138	0.12
Through condition									
836.4	4082	RMC12.2kbps	Left Touch	/	23.5	24.5	0.149	0.188	0.04
836.4	4082	RMC12.2kbps	Left Tilt	/	23.5	24.5	0.131	0.165	0.02
836.4	4082	RMC12.2kbps	Right Touch	/	23.5	24.5	0.192	0.242	0.07
836.4	4082	RMC12.2kbps	Right Tilt	/	23.5	24.5	0.117	0.147	0.04
836.4	4082	RMC12.2kbps	Right Touch	B2	23.5	24.5	0.188	0.237	-0.01
836.4	4082	RMC12.2kbps	Right Touch	Fig.9 /B3	23.5	24.5	0.197	0.248	-0.03

Table 13.12: SAR Values (WVDMA 850 -Body)

Ambient Temperature: 22.7°C					Liquid Temperature: 22.2°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)- MAS condition									
836.4	4082	RMC12.2kbps	Rear	/	18.4	19.5	0.069	0.089	0.01
Hotspot Test Data (10mm)- Through condition									
836.4	4082	RMC12.2kbps	Front	/	18.4	19.5	0.090	0.116	0.02
836.4	4082	RMC12.2kbps	Rear	/	18.4	19.5	0.112	0.144	0.04
836.4	4082	RMC12.2kbps	Left	/	18.4	19.5	0.053	0.068	0.09
836.4	4082	RMC12.2kbps	Right	/	18.4	19.5	0.062	0.080	-0.08
836.4	4082	RMC12.2kbps	Bottom	/	18.4	19.5	0.040	0.052	-0.08
Body worn Test Data (15mm)									
836.4	4082	RMC12.2kbps	Front	/	21.4	22.5	0.167	0.215	0.02
836.4	4082	RMC12.2kbps	Rear	/	21.4	22.5	0.210	0.271	-0.03
Hotspot Test Data (17mm)									
836.4	4082	RMC12.2kbps	Front	/	20.5	21.5	0.067	0.084	0.02
836.4	4082	RMC12.2kbps	Rear	/	20.5	21.5	0.132	0.166	-0.02
836.4	4082	RMC12.2kbps	Bottom	/	20.5	21.5	0.029	0.037	0.07
Body worn Test Data (17mm)									
836.4	4082	RMC12.2kbps	Front	/	23.5	24.5	0.132	0.166	0.03
836.4	4082	RMC12.2kbps	Rear	/	23.5	24.5	0.262	0.330	-0.14
836.4	4082	RMC12.2kbps	Rear	Fig.10/B2	23.5	24.5	0.323	0.407	-0.05
836.4	4082	RMC12.2kbps	Rear	B3	23.5	24.5	0.313	0.394	0.02

<Second antenna>

Table 13.13: SAR Values (WVDMA 850 - Head)

Ambient Temperature: 22.6°C					Liquid Temperature: 22.1°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
836.4	4082	RMC12.2kbps	Left Touch	/	17.4	18.5	0.259	0.334	0.09
836.4	4082	RMC12.2kbps	Left Tilt	/	17.4	18.5	0.252	0.325	0.06
836.4	4082	RMC12.2kbps	Right Touch	Fig.11	17.4	18.5	0.495	0.638	0.01
836.4	4082	RMC12.2kbps	Right Tilt	/	17.4	18.5	0.401	0.517	0.03
836.4	4082	RMC12.2kbps	Right Touch	B2	17.4	18.5	0.449	0.578	-0.03
836.4	4082	RMC12.2kbps	Right Touch	B3	17.4	18.5	0.450	0.580	-0.07

Table 13.14: SAR Values (WVDMA 850 -Body)

Ambient Temperature: 22.7°C					Liquid Temperature: 22.2°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)									
836.4	4082	RMC12.2kbps	Front	/	15.7	16.5	0.125	0.150	-0.11
836.4	4082	RMC12.2kbps	Rear	/	15.7	16.5	0.099	0.119	-0.05
836.4	4082	RMC12.2kbps	Left	/	15.7	16.5	0.036	0.043	0.01
836.4	4082	RMC12.2kbps	Top	/	15.7	16.5	0.049	0.059	0.04
Body worn Test Data (15mm)									
836.4	4082	RMC12.2kbps	Front	/	21.3	22.5	0.157	0.207	0.07
836.4	4082	RMC12.2kbps	Rear	Fig.12	21.3	22.5	0.163	0.215	0.00
836.4	4082	RMC12.2kbps	Rear	B2	21.3	22.5	0.156	0.206	0.08
836.4	4082	RMC12.2kbps	Rear	B3	21.3	22.5	0.133	0.175	0.01

<Main antenna>

Table 13.15: SAR Values (LTE Band 5 - Head)

Ambient Temperature: 22.6°C					Liquid Temperature: 22.1°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
MAS condition									
836.5	20525	1RB_Mid	Right Touch	/	22.75	23.5	0.032	0.038	0.09
Through condition									
836.5	20525	1RB_Mid	Left Touch	/	22.75	23.5	0.157	0.187	0.08
836.5	20525	25RB_Mid	Left Touch	/	21.59	22.5	0.124	0.153	-0.08
836.5	20525	1RB_Mid	Left Tilt	/	22.75	23.5	0.127	0.151	0.01
836.5	20525	25RB_Mid	Left Tilt	/	21.59	22.5	0.099	0.122	0.03
836.5	20525	1RB_Mid	Right Touch	Fig.13	22.75	23.5	0.180	0.214	0.04
836.5	20525	25RB_Mid	Right Touch	/	21.59	22.5	0.142	0.175	0.03
836.5	20525	1RB_Mid	Right Tilt	/	22.75	23.5	0.119	0.141	0.05
836.5	20525	25RB_Mid	Right Tilt	/	21.59	22.5	0.090	0.111	0.07
836.5	20525	1RB_Mid	Right Touch	B2	22.75	23.5	0.173	0.206	0.04
836.5	20525	1RB_Mid	Right Touch	B3	22.75	23.5	0.133	0.158	0.02

Table 13.16: SAR Values (LTE Band 5 - Body)

Ambient Temperature: 22.7°C					Liquid Temperature: 22.2°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm) - MAS condition									
836.5	20525	1RB_Mid	Rear	/	22.75	23.5	0.205	0.244	0.06
Hotspot Test Data (10mm) - Through condition									
836.5	20525	1RB_Mid	Front	/	22.75	23.5	0.159	0.189	-0.10
836.5	20525	25RB_Mid	Front	/	21.59	22.5	0.125	0.154	0.00
836.5	20525	1RB_Mid	Rear	/	22.75	23.5	0.346	0.411	0.04
836.5	20525	25RB_Mid	Rear	/	21.59	22.5	0.264	0.326	-0.08
836.5	20525	1RB_Mid	Left	/	22.75	23.5	0.125	0.149	0.00
836.5	20525	25RB_Mid	Left	/	21.59	22.5	0.064	0.079	0.09
836.5	20525	1RB_Mid	Right	/	22.75	23.5	0.208	0.247	-0.06
836.5	20525	25RB_Mid	Right	/	21.59	22.5	0.160	0.197	0.09
836.5	20525	1RB_Mid	Bottom	/	22.75	23.5	0.101	0.120	-0.05
836.5	20525	25RB_Mid	Bottom	/	21.59	22.5	0.076	0.094	0.01
836.5	20525	1RB_Mid	Rear	Fig.14/B2	22.75	23.5	0.371	0.441	0.06
836.5	20525	1RB_Mid	Rear	B3	22.75	23.5	0.354	0.421	-0.12
Body worn Test Data (15mm)									
836.5	20525	1RB_Mid	Front	/	22.75	23.5	0.135	0.160	0.02
836.5	20525	25RB_Mid	Front	/	21.59	22.5	0.100	0.123	0.07
836.5	20525	1RB_Mid	Rear	/	22.75	23.5	0.337	0.401	-0.04
836.5	20525	25RB_Mid	Rear	/	21.59	22.5	0.256	0.316	-0.05

<Second antenna>

Table 13.17: SAR Values (LTE Band 5 - Head)

Ambient Temperature: 22.6°C					Liquid Temperature: 22.1°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
836.5	20525	1RB_Mid	Left Touch	/	18.09	19	0.389	0.480	0.09
836.5	20525	25RB_Mid	Left Touch	/	17.92	19	0.359	0.460	0.05
836.5	20525	1RB_Mid	Left Tilt	/	18.09	19	0.328	0.404	0.05
836.5	20525	25RB_Mid	Left Tilt	/	17.92	19	0.316	0.405	0.02
836.5	20525	1RB_Mid	Right Touch	Fig.15	18.09	19	0.640	0.789	-0.03
836.5	20525	25RB_Mid	Right Touch	/	17.92	19	0.541	0.694	0.07
836.5	20525	1RB_Mid	Right Tilt	/	18.09	19	0.609	0.751	0.01
836.5	20525	25RB_Mid	Right Tilt	/	17.92	19	0.549	0.704	0.02
836.5	20525	1RB_Mid	Right Touch	B2	18.09	19	0.525	0.647	0.05
836.5	20525	1RB_Mid	Right Touch	B3	18.09	19	0.574	0.708	0.03

Table 13.18: SAR Values (LTE Band 5 - Body)

Ambient Temperature: 22.7°C					Liquid Temperature: 22.2°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)									
836.5	20525	1RB_Mid	Front	/	16.17	17.5	0.116	0.158	0.05
836.5	20525	25RB_Mid	Front	/	16.03	17.5	0.097	0.136	-0.01
836.5	20525	1RB_Mid	Rear	/	16.17	17.5	0.097	0.132	-0.02
836.5	20525	25RB_Mid	Rear	/	16.03	17.5	0.095	0.133	-0.01
836.5	20525	1RB_Mid	Left	/	16.17	17.5	0.050	0.068	-0.07
836.5	20525	25RB_Mid	Left	/	16.03	17.5	0.048	0.067	-0.02
836.5	20525	1RB_Mid	Top	/	16.17	17.5	0.057	0.077	0.05
836.5	20525	25RB_Mid	Top	/	16.03	17.5	0.056	0.079	0.03
Body worn Test Data (15mm)									
836.5	20525	1RB_Mid	Front	/	22.47	23.5	0.132	0.167	0.05
836.5	20525	25RB_Mid	Front	/	21.34	22.5	0.116	0.152	0.12
836.5	20525	1RB_Mid	Rear	Fig.16	22.47	23.5	0.299	0.379	0.09
836.5	20525	25RB_Mid	Rear	/	21.34	22.5	0.283	0.370	0.05
836.5	20525	1RB_Mid	Rear	B2	22.47	23.5	0.201	0.255	-0.08
836.5	20525	1RB_Mid	Rear	B3	22.47	22.5	0.173	0.174	-0.04

<Main antenna>

Table 13.19: SAR Values (LTE Band 7 - Head)

Ambient Temperature: 22.5°C					Liquid Temperature: 22.0°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
2535	21100	1RB_Mid	Left Touch	/	21.98	23	0.094	0.119	0.08
2535	21100	50RB_Mid	Left Touch	/	20.93	22	0.107	0.137	0.02
2535	21100	1RB_Mid	Left Tilt	/	21.98	23	0.136	0.172	-0.05
2535	21100	50RB_Mid	Left Tilt	/	20.93	22	0.097	0.124	0.04
2535	21100	1RB_Mid	Right Touch	Fig.17	21.98	23	0.242	0.306	0.02
2535	21100	50RB_Mid	Right Touch	/	20.93	22	0.211	0.270	0.06
2535	21100	1RB_Mid	Right Tilt	/	21.98	23	0.225	0.285	0.06
2535	21100	50RB_Mid	Right Tilt	/	20.93	22	0.172	0.220	0.03
2535	21100	1RB_Mid	Right Touch	B2	21.98	23	0.188	0.238	0.01
2535	21100	1RB_Mid	Right Touch	B3	21.98	22	0.228	0.229	0.01

Table 13.20: SAR Values (LTE Band 7 - Body)

Frequency		Ambient Temperature: 22.7°C		Liquid Temperature: 22.2°C					
MHz	Ch.	Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Hotspot Test Data (10mm)									
2535	21100	1RB_Mid	Front	/	19.34	20.1	0.214	0.255	0.03
2535	21100	50RB_Mid	Front	/	18.36	20.1	0.169	0.252	0.01
2535	21100	1RB_Mid	Rear	/	19.34	20.1	0.448	0.534	-0.06
2535	21100	50RB_Mid	Rear	/	18.36	20.1	0.341	0.509	-0.03
2535	21100	1RB_Mid	Left	/	19.34	20.1	0.127	0.151	-0.05
2535	21100	50RB_Mid	Left	/	18.36	20.1	0.101	0.151	-0.01
2535	21100	1RB_Mid	Right	/	19.34	20.1	0.241	0.287	0.09
2535	21100	50RB_Mid	Right	/	18.36	20.1	0.189	0.282	0.01
2535	21100	1RB_Mid	Bottom	/	19.34	20.1	0.343	0.409	-0.02
2535	21100	50RB_Mid	Bottom	/	18.36	20.1	0.268	0.400	-0.02
2535	21100	1RB_Mid	Rear	Fig.18/B2	19.34	20.1	0.466	0.555	0.07
2535	21100	1RB_Mid	Rear	B3	19.34	20.1	0.457	0.544	0.09
Body worn Test Data (15mm)									
2535	21100	1RB_Mid	Front	/	19.34	20.1	0.244	0.291	-0.07
2535	21100	50RB_Mid	Front	/	18.36	20.1	0.144	0.215	0.02
2535	21100	1RB_Mid	Rear	/	19.34	20.1	0.201	0.239	-0.01
2535	21100	50RB_Mid	Rear	/	18.36	20.1	0.142	0.212	-0.06
Hotspot Test Data (17mm)									
2535	21100	1RB_Mid	Front	/	21.98	23	0.191	0.242	0.04
2535	21100	50RB_Mid	Front	/	20.93	22	0.136	0.174	0.05
2535	21100	1RB_Mid	Rear	/	21.98	23	0.303	0.383	-0.05
2535	21100	50RB_Mid	Rear	/	20.93	22	0.221	0.283	0.05
2535	21100	1RB_Mid	Bottom	/	21.98	23	0.303	0.383	0.05
2535	21100	50RB_Mid	Bottom	/	20.93	22	0.244	0.312	0.06
Body worn Test Data (17mm)									
2535	21100	1RB_Mid	Front	/	21.98	23	0.171	0.216	0.01
2535	21100	50RB_Mid	Front	/	20.93	22	0.136	0.174	0.09
2535	21100	1RB_Mid	Rear	/	21.98	23	0.318	0.402	0.01
2535	21100	50RB_Mid	Rear	/	20.93	22	0.200	0.256	0.03