



10MHz	1H	20600	24.5	23.31	0	22.46	1
		20525	24.5	23.33	0	22.26	1
		20450	24.5	23.35	0	22.17	1
	1M	20600	24.5	23.47	0	22.70	1
		20525	24.5	23.37	0	22.37	1
		20450	24.5	23.45	0	22.27	1
	1L	20600	24.5	23.30	0	22.55	1
		20525	24.5	23.29	0	22.21	1
		20450	24.5	23.28	0	22.11	1
	25H	20600	24.5	22.38	1	21.36	2
		20525	24.5	22.32	1	21.36	2
		20450	24.5	22.31	1	21.27	2
	25M	20600	24.5	22.35	1	21.36	2
		20525	24.5	22.40	1	21.41	2
		20450	24.5	22.34	1	21.35	2
	25L	20600	24.5	22.27	1	21.34	2
		20525	24.5	22.38	1	21.40	2
		20450	24.5	22.31	1	21.27	2
	50	20600	24.5	22.37	1	21.35	2
		20525	24.5	22.37	1	21.33	2
		20450	24.5	22.34	1	21.28	2

Table 11-5 LTE700-FDD12 #1

LTE700-FDD12 #1								
BandWidth	RB No./Start	Channel	Tune-up	Measured Power (dBm) & MPR				
				QPSK		16QAM		
				Measured Power	MPR	Measured Power	MPR	
1.4MHz	1H	23173	24.5	23.14	0	22.11	1	
		23095	24.5	23.29	0	22.53	1	
		23017	24.5	23.33	0	22.23	1	
	1M	23173	24.5	23.38	0	22.24	1	
		23095	24.5	23.43	0	22.70	1	
		23017	24.5	23.48	0	22.34	1	
	1L	23173	24.5	23.18	0	22.19	1	
		23095	24.5	23.32	0	22.56	1	
		23017	24.5	23.33	0	22.20	1	
	3H	23173	24.5	23.23	0	22.32	1	
		23095	24.5	23.29	0	22.46	1	
		23017	24.5	23.29	0	22.45	1	
	3M	23173	24.5	23.30	0	22.44	1	
		23095	24.5	23.35	0	22.48	1	
		23017	24.5	23.40	0	22.47	1	
	3L	23173	24.5	23.26	0	22.37	1	
		23095	24.5	23.30	0	22.46	1	
		23017	24.5	23.35	0	22.40	1	
	6	23173	24.5	22.35	1	21.47	2	
		23095	24.5	22.35	1	21.23	2	
		23017	24.5	22.38	1	21.48	2	
	3MHz	1H	23165	24.5	23.20	0	22.10	1
			23095	24.5	23.31	0	22.14	1
			23025	24.5	23.38	0	22.62	1
		1M	23165	24.5	23.41	0	22.33	1
			23095	24.5	23.42	0	22.27	1
			23025	24.5	23.50	0	22.68	1
1L		23165	24.5	23.22	0	22.19	1	
		23095	24.5	23.29	0	22.13	1	
		23025	24.5	23.38	0	22.54	1	
8H		23165	24.5	22.27	1	21.30	2	
		23095	24.5	22.31	1	21.35	2	
		23025	24.5	22.30	1	21.33	2	
8M		23165	24.5	22.30	1	21.36	2	
		23095	24.5	22.35	1	21.42	2	
		23025	24.5	22.36	1	21.41	2	
8L		23165	24.5	22.29	1	21.35	2	
		23095	24.5	22.29	1	21.37	2	
		23025	24.5	22.34	1	21.38	2	
15		23165	24.5	22.21	1	21.22	2	
		23095	24.5	22.27	1	21.29	2	
		23025	24.5	22.26	1	21.33	2	
5MHz		1H	23155	24.5	23.19	0	22.13	1
			23095	24.5	23.25	0	22.28	1
			23035	24.5	23.29	0	22.70	1
		1M	23155	24.5	23.40	0	22.42	1
			23095	24.5	23.55	0	22.55	1
			23035	24.5	23.50	0	22.89	1
	1L	23155	24.5	23.21	0	22.21	1	
		23095	24.5	23.30	0	22.28	1	
		23035	24.5	23.22	0	22.58	1	
	12H	23155	24.5	22.19	1	21.28	2	
		23095	24.5	22.29	1	21.40	2	
		23035	24.5	22.26	1	21.44	2	
	12M	23155	24.5	22.25	1	21.34	2	
		23095	24.5	22.28	1	21.40	2	
		23035	24.5	22.32	1	21.47	2	
	12L	23155	24.5	22.31	1	21.36	2	
		23095	24.5	22.22	1	21.35	2	
		23035	24.5	22.27	1	21.42	2	
	25	23155	24.5	22.21	1	21.20	2	
		23095	24.5	22.29	1	21.31	2	
		23035	24.5	22.25	1	21.33	2	



10MHz	1H	23130	24.5	23.24	0	22.02	1
		23095	24.5	23.23	0	22.51	1
		23060	24.5	23.33	0	22.27	1
	1M	23130	24.5	23.48	0	22.22	1
		23095	24.5	23.38	0	22.69	1
		23060	24.5	23.50	0	22.40	1
	1L	23130	24.5	23.20	0	22.12	1
		23095	24.5	23.26	0	22.50	1
		23060	24.5	23.32	0	22.12	1
	25H	23130	24.5	22.17	1	21.22	2
		23095	24.5	22.42	1	21.41	2
		23060	24.5	22.40	1	21.46	2
	25M	23130	24.5	22.29	1	21.32	2
		23095	24.5	22.34	1	21.40	2
		23060	24.5	22.33	1	21.43	2
	25L	23130	24.5	22.18	1	21.24	2
		23095	24.5	22.33	1	21.35	2
		23060	24.5	22.41	1	21.48	2
	50	23130	24.5	22.18	1	21.22	2
		23095	24.5	22.35	1	21.39	2
		23060	24.5	22.39	1	21.41	2



Table 11-6 LTE750-FDD13 #1

LTE750-FDD13 #1								
BandWidth	RB No./Start	Channel	Tune-up	Measured Power (dBm) & MPR				
				QPSK		16QAM		
				Measured Power	MPR	Measured Power	MPR	
5MHz	1H	23255	24	22.77	0	21.83	1	
		23230	24	22.82	0	21.87	1	
		23205	24	22.77	0	22.20	1	
	1M	23255	24	23.02	0	22.05	1	
		23230	24	23.09	0	22.07	1	
		23205	24	23.03	0	22.42	1	
	1L	23255	24	22.73	0	21.79	1	
		23230	24	22.82	0	21.79	1	
		23205	24	22.79	0	22.10	1	
	12H	23255	24	21.70	1	20.92	2	
		23230	24	21.79	1	20.94	2	
		23205	24	21.82	1	21.04	2	
	12M	23255	24	21.85	1	20.97	2	
		23230	24	21.85	1	20.99	2	
		23205	24	21.88	1	21.05	2	
	12L	23255	24	21.83	1	20.92	2	
		23230	24	21.76	1	20.87	2	
		23205	24	21.66	1	20.87	2	
	25	23255	24	21.80	1	20.78	2	
		23230	24	21.81	1	20.84	2	
		23205	24	21.73	1	20.84	2	
	10MHz	1H	H	24		0		1
			M	24		0		1
			23230	24	22.81	0	21.82	1
		1M	H	24		0		1
			M	24		0		1
			23230	24	22.92	0	21.83	1
1L		H	24		0		1	
		M	24		0		1	
		23230	24	22.82	0	21.68	1	
25H		H	24		1		2	
		M	24		1		2	
		23230	24	21.82	1	20.96	2	
25M		H	24		1		2	
		M	24		1		2	
		23230	24	21.84	1	20.98	2	
25L		H	24		1		2	
		M	24		1		2	
		23230	24	21.73	1	20.84	2	
50		H	24		1		2	
		M	24		1		2	
		23230	24	21.78	1	20.85	2	

Table 11-7 LTE1700-FDD66 #1

LTE1700-FDD66 #1									
SN	BandWidth	RB No./Start	Channel	Tune-up	Measured Power (dBm) & MPR				
					QPSK		16QAM		
					Measured Power	MPR	Measured Power	MPR	
1.4MHz	1H		132665	24	22.68	0	21.62	1	
			132322	24	23.22	0	21.69	1	
			131979	24	23.27	0	21.76	1	
	1M		132665	24	22.89	0	21.78	1	
			132322	24	23.42	0	21.82	1	
			131979	24	23.04	0	21.98	1	
	1L		132665	24	22.65	0	21.59	1	
			132322	24	23.19	0	21.68	1	
			131979	24	22.72	0	21.77	1	
	3H		132665	24	22.76	0	21.81	1	
			132322	24	22.95	0	21.96	1	
			131979	24	22.89	0	22.04	1	
	3M		132665	24	22.79	0	21.92	1	
			132322	24	22.80	0	21.98	1	
			131979	24	22.91	0	22.12	1	
	3L		132665	24	22.68	0	21.84	1	
			132322	24	22.76	0	21.94	1	
			131979	24	22.86	0	22.02	1	
	6		132665	24	21.81	1	20.83	2	
			132322	24	21.77	1	20.93	2	
			131979	24	21.87	1	21.03	2	
	3MHz	1H		132657	24	22.70	0	21.66	1
				132322	24	22.72	0	21.70	1
				131987	24	22.78	0	21.80	1
		1M		132657	24	22.90	0	21.82	1
				132322	24	22.88	0	21.87	1
				131987	24	22.96	0	22.02	1
1L			132657	24	22.75	0	21.70	1	
			132322	24	22.77	0	21.75	1	
			131987	24	22.87	0	21.90	1	
8H			132657	24	21.77	1	20.75	2	
			132322	24	21.75	1	20.81	2	
			131987	24	21.85	1	20.90	2	
8M			132657	24	21.83	1	20.81	2	
			132322	24	21.81	1	20.85	2	
			131987	24	21.88	1	20.99	2	
8L			132657	24	21.77	1	20.74	2	
			132322	24	21.78	1	20.82	2	
			131987	24	21.89	1	20.95	2	
15			132657	24	21.73	1	20.66	2	
			132322	24	21.79	1	20.77	2	
			131987	24	21.86	1	20.84	2	
5MHz		1H		132647	24	22.72	0	21.68	1
				132322	24	22.73	0	21.72	1
				131997	24	22.80	0	21.83	1
		1M		132647	24	22.99	0	21.93	1
				132322	24	23.02	0	22.01	1
				131997	24	23.08	0	22.06	1
	1L		132647	24	22.72	0	21.67	1	
			132322	24	22.72	0	21.77	1	
			131997	24	22.87	0	21.87	1	
	12H		132647	24	21.72	1	20.73	2	
			132322	24	21.76	1	20.84	2	
			131997	24	21.86	1	20.95	2	
	12M		132647	24	21.79	1	20.81	2	
			132322	24	21.83	1	20.93	2	
			131997	24	21.94	1	20.99	2	
	12L		132647	24	21.77	1	20.78	2	
			132322	24	21.75	1	20.85	2	
			131997	24	21.88	1	20.89	2	
	25		132647	24	21.76	1	20.65	2	
			132322	24	21.79	1	20.75	2	
			131997	24	21.84	1	20.81	2	

10MHz	1H	132622	24	22.69	0	21.67	1
		132322	24	23.17	0	22.18	1
		132022	24	22.82	0	22.28	1
	1M	132622	24	22.86	0	21.77	1
		132322	24	23.02	0	22.12	1
		132022	24	22.93	0	21.96	1
	1L	132622	24	22.72	0	21.64	1
		132322	24	22.73	0	21.76	1
		132022	24	22.82	0	21.80	1
	25H	132622	24	21.68	1	20.76	2
		132322	24	21.81	1	20.89	2
		132022	24	21.97	1	21.04	2
	25M	132622	24	21.76	1	20.86	2
		132322	24	21.84	1	20.93	2
		132022	24	21.86	1	21.02	2
	25L	132622	24	21.77	1	20.81	2
		132322	24	21.79	1	20.85	2
		132022	24	21.92	1	20.98	2
50	132622	24	21.76	1	20.74	2	
	132322	24	21.79	1	20.86	2	
	132022	24	21.96	1	20.95	2	
15MHz	1H	132597	24	23.03	0	22.30	1
		132322	24	23.22	0	22.34	1
		132047	24	23.19	0	22.23	1
	1M	132597	24	23.28	0	22.44	1
		132322	24	23.31	0	22.59	1
		132047	24	23.31	0	22.34	1
	1L	132597	24	23.18	0	22.37	1
		132322	24	23.27	0	22.61	1
		132047	24	23.26	0	22.11	1
	36H	132597	24	22.28	1	21.15	2
		132322	24	22.29	1	21.19	2
		132047	24	22.40	1	20.93	2
	36M	132597	24	22.36	1	21.24	2
		132322	24	22.32	1	21.10	2
		132047	24	22.41	1	20.86	2
	36L	132597	24	22.32	1	21.23	2
		132322	24	22.32	1	21.10	2
		132047	24	22.42	1	20.92	2
75	132597	24	22.33	1	21.21	2	
	132322	24	22.35	1	21.06	2	
	132047	24	22.42	1	20.88	2	
20MHz	1H	132572	24	22.43	0	21.73	1
		132322	24	22.96	0	22.27	1
		132072	24	22.63	0	22.12	1
	1M	132572	24	22.91	0	22.15	1
		132322	24	23.23	0	22.71	1
		132072	24	23.01	0	22.39	1
	1L	132572	24	22.45	0	21.75	1
		132322	24	22.52	0	22.32	1
		132072	24	22.57	0	21.98	1
	50H	132572	24	21.64	1	20.60	2
		132322	24	21.79	1	21.20	2
		132072	24	21.93	1	20.94	2
	50M	132572	24	21.72	1	20.66	2
		132322	24	21.84	1	21.19	2
		132072	24	21.91	1	20.89	2
	50L	132572	24	21.78	1	20.72	2
		132322	24	21.81	1	21.25	2
		132072	24	21.88	1	20.89	2
100	132572	24	21.71	1	20.66	2	
	132322	24	21.82	1	20.89	2	
	132072	24	21.94	1	20.95	2	

Table 11-8 LTE700-FDD71 #1

LTE700-FDD71 #1								
BandWidth	RB No./Start	Channel	Tune-up	Measured Power (dBm) & MPR				
				QPSK		16QAM		
				Measured Power	MPR	Measured Power	MPR	
5MHz	1H	133447	24.5	23.22	0	22.38	1	
		133297	24.5	23.28	0	22.84	1	
		133147	24.5	23.39	0	22.47	1	
	1M	133447	24.5	23.50	0	22.58	1	
		133297	24.5	23.53	0	22.98	1	
		133147	24.5	23.59	0	22.60	1	
	1L	133447	24.5	23.22	0	22.29	1	
		133297	24.5	23.25	0	22.75	1	
		133147	24.5	23.21	0	22.39	1	
	12H	133447	24.5	22.33	1	21.38	2	
		133297	24.5	22.39	1	21.56	2	
		133147	24.5	22.21	1	21.49	2	
	12M	133447	24.5	22.41	1	21.44	2	
		133297	24.5	22.43	1	21.53	2	
		133147	24.5	22.16	1	21.52	2	
	12L	133447	24.5	22.32	1	21.34	2	
		133297	24.5	22.31	1	21.40	2	
		133147	24.5	22.08	1	21.47	2	
	25	133447	24.5	22.36	1	21.33	2	
		133297	24.5	22.40	1	21.38	2	
		133147	24.5	22.16	1	21.37	2	
	10MHz	1H	132422	24.5	23.45	0	22.71	1
			133297	24.5	23.44	0	22.76	1
			133172	24.5	23.46	0	22.63	1
		1M	132422	24.5	23.57	0	22.82	1
			133297	24.5	23.52	0	22.89	1
			133172	24.5	23.62	0	22.80	1
1L		132422	24.5	23.09	0	22.58	1	
		133297	24.5	23.34	0	22.70	1	
		133172	24.5	23.05	0	22.52	1	
25H		132422	24.5	22.54	1	21.55	2	
		133297	24.5	22.47	1	21.45	2	
		133172	24.5	22.57	1	21.54	2	
25M		132422	24.5	22.49	1	21.39	2	
		133297	24.5	22.44	1	21.42	2	
		133172	24.5	22.47	1	21.40	2	
25L		132422	24.5	22.45	1	21.39	2	
		133297	24.5	22.42	1	21.43	2	
		133172	24.5	22.44	1	21.36	2	
50		132422	24.5	22.48	1	21.48	2	
		133297	24.5	22.40	1	21.48	2	
		133172	24.5	22.48	1	21.45	2	
15MHz		1H	133397	24.5	23.28	0	22.09	1
			133297	24.5	22.74	0	22.58	1
			133197	24.5	22.91	0	22.59	1
		1M	133397	24.5	23.36	0	22.17	1
			133297	24.5	22.89	0	22.70	1
			133197	24.5	23.08	0	22.76	1
	1L	133397	24.5	23.21	0	22.15	1	
		133297	24.5	22.83	0	22.60	1	
		133197	24.5	22.98	0	22.51	1	
	36H	133397	24.5	22.56	1	21.39	2	
		133297	24.5	22.06	1	21.54	2	
		133197	24.5	22.08	1	21.47	2	
	36M	133397	24.5	22.51	1	21.40	2	
		133297	24.5	22.02	1	21.52	2	
		133197	24.5	22.05	1	21.47	2	
	36L	133397	24.5	22.43	1	21.35	2	
		133297	24.5	21.94	1	21.39	2	
		133197	24.5	21.99	1	21.34	2	
	75	133397	24.5	22.50	1	21.34	2	
		133297	24.5	22.03	1	21.44	2	
		133197	24.5	22.05	1	21.48	2	



20MHz	1H	133372	24.5	22.66	0	21.83	1
		133297	24.5	22.65	0	22.03	1
		133222	24.5	22.71	0	21.93	1
	1M	133372	24.5	22.93	0	22.13	1
		133297	24.5	23.00	0	22.39	1
		133222	24.5	23.17	0	22.30	1
	1L	133372	24.5	22.61	0	21.80	1
		133297	24.5	22.71	0	22.04	1
		133222	24.5	22.73	0	21.85	1
	50H	133372	24.5	21.88	1	20.94	2
		133297	24.5	22.05	1	21.06	2
		133222	24.5	21.99	1	20.88	2
	50M	133372	24.5	21.93	1	21.02	2
		133297	24.5	22.00	1	20.96	2
		133222	24.5	21.92	1	20.87	2
	50L	133372	24.5	21.83	1	20.80	2
		133297	24.5	21.83	1	20.83	2
		133222	24.5	21.79	1	20.75	2
	100	133372	24.5	21.84	1	20.83	2
		133297	24.5	21.94	1	20.89	2
		133222	24.5	21.87	1	20.82	2

11.4 Wi-Fi and BT Measurement result

The output power of BT antenna is as following:

Table 11-9 Bluetooth Power

Bluetooth Power				
Mode	Channel	Frequency	Tune-up	Measured
GFSK	78	2480 MHz	7	6.26
	39	2441 MHz	7	5.87
	0	2402 MHz	7	6.01
EDR2M-4_DQPSK	78	2480 MHz	6	4.98
	39	2441 MHz	6	4.64
	0	2402 MHz	6	4.7
EDR3M-8DPSK	78	2480 MHz	6	5.14
	39	2441 MHz	6	4.72
	0	2402 MHz	6	4.78



The average conducted power for Wi-Fi is as following:

Table 11-10 WLAN2450 #1

WLAN2450 #1						
Band	Mode	Channel	Frequency	Data Rate	Tune-up	Measured
WLAN 2.4G 20M	802.11b	11	2462 MHz	5.5Mbps	20.50	20.18
		6	2437 MHz		20.50	19.96
		1	2412 MHz		20.50	20.15
		11	2462 MHz	2Mbps	20.50	20.04
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	1Mbps	20.50	19.58
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	11Mbps	20.50	20.06
		6	2437 MHz		/	/
		1	2412 MHz		/	/
	802.11g	6Mbps	11	2462 MHz	16.50	15.97
			6	2437 MHz	16.50	16.15
			1	2412 MHz	16.50	15.91
			11	2462 MHz	15.50	14.27
			6	2437 MHz	15.50	14.19
			1	2412 MHz	/	/
		12Mbps	11	2462 MHz	15.50	14.79
			6	2437 MHz	15.50	14.87
			1	2412 MHz	/	/
		18Mbps	11	2462 MHz	15.50	15.07
			6	2437 MHz	15.50	14.92
			1	2412 MHz	/	/
		24Mbps	11	2462 MHz	15.50	14.01
			6	2437 MHz	15.50	14.40
			1	2412 MHz	/	/
		36Mbps	11	2462 MHz	16.00	14.18
			6	2437 MHz	/	14.34
			1	2412 MHz	/	/
		48Mbps	11	2462 MHz	15.50	14.98
			6	2437 MHz	15.50	14.82
			1	2412 MHz	/	/
		54Mbps	11	2462 MHz	15.50	14.95
			6	2437 MHz	15.50	14.81
			1	2412 MHz	/	/
	802.11n 20M	MCS0	11	2462 MHz	16.50	15.47
			6	2437 MHz	/	/
			1	2412 MHz	/	/
		MCS1	11	2462 MHz	16.50	15.38
			6	2437 MHz	/	/
			1	2412 MHz	/	/
		MCS2	11	2462 MHz	16.50	15.30
			6	2437 MHz	/	/
			1	2412 MHz	/	/
		MCS3	11	2462 MHz	16.50	15.46
			6	2437 MHz	/	/
			1	2412 MHz	/	/
MCS4		11	2462 MHz	16.50	15.69	
		6	2437 MHz	/	15.54	
		1	2412 MHz	/	15.35	
MCS5		11	2462 MHz	15.00	14.18	
		6	2437 MHz	/	/	
		1	2412 MHz	/	/	
MCS6		11	2462 MHz	15.00	14.19	
		6	2437 MHz	/	/	
		1	2412 MHz	/	/	
MCS7	11	2462 MHz	15.00	14.36		
	6	2437 MHz	/	/		
	1	2412 MHz	/	/		

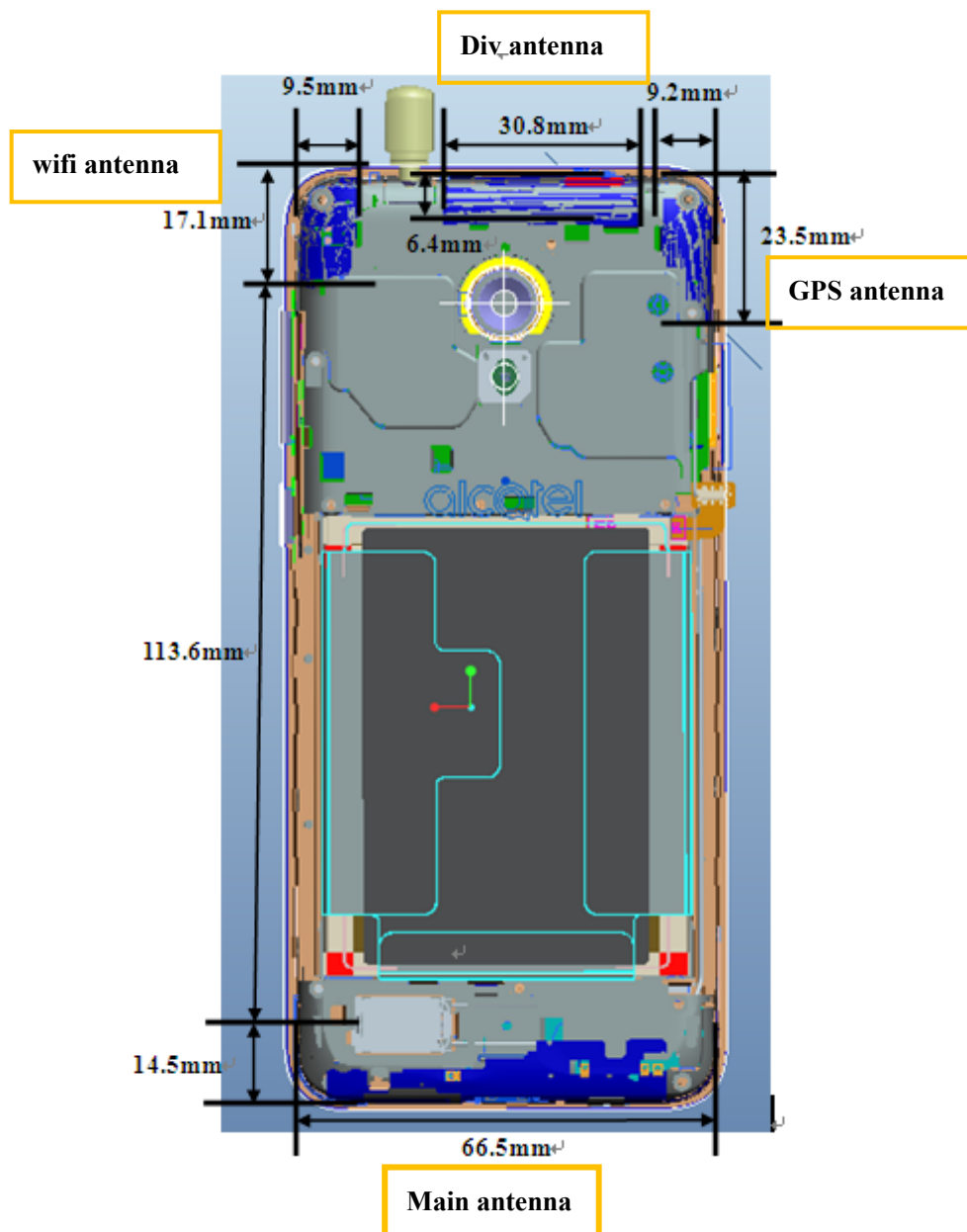
WLAN 2.4G 40M	802.11n 40M	9	2452 MHz	MCS0	14.50	13.51
		6	2437 MHz		14.50	13.73
		3	2422 MHz		/	/
		9	2452 MHz	MCS1	14.50	13.52
		6	2437 MHz		14.50	13.76
		3	2422 MHz		/	/
		9	2452 MHz	MCS2	14.50	13.70
		6	2437 MHz		14.50	13.77
		3	2422 MHz		14.00	12.50
		9	2452 MHz	MCS3	14.50	13.65
		6	2437 MHz		14.50	13.69
		3	2422 MHz		14.00	12.41
		9	2452 MHz	MCS4	14.50	13.46
		6	2437 MHz		14.50	13.70
		3	2422 MHz		/	/
		9	2452 MHz	MCS5	13.60	12.50
		6	2437 MHz		13.60	12.53
		3	2422 MHz		/	/
		9	2452 MHz	MCS6	13.60	12.55
		6	2437 MHz		13.60	12.58
		3	2422 MHz		/	/
9	2452 MHz	MCS7	13.60	12.49		
6	2437 MHz		13.60	12.53		
3	2422 MHz		/	/		

12 Simultaneous TX SAR Considerations

12.1 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.

12.2 Transmit Antenna Separation Distances



Picture 12.1 Antenna Locations

12.3 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR v01, 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
WLAN	Yes	Yes	No	Yes	Yes	No

12.4 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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, 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 12.1: 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	9.6	7	5.01	Yes
		Body	19.2	7	5.01	Yes
2.4GHz WLAN 802.11 b	2.45	Head	9.58	20.5	112.20	No
		Body	19.17	20.5	112.20	No

13 Evaluation of Simultaneous

Table 13.1: The sum of reported SAR values for main antenna and WiFi

	Position	Main antenna	WiFi	Sum
Highest reported SAR value for Head	Left hand, Touch cheek (LTE Band 71)	0.37	0.51	0.88
Highest reported SAR value for Body	Rear (WCDMA 1700)	0.98	0.19	1.17

Table 13.2: The sum of reported SAR values for main antenna and BT

	Position	Main antenna	BT	Sum
Maximum reported SAR value for Head	Right hand, Touch cheek (WCDMA 1900)	0.60	0.21	0.81
Maximum reported SAR value for Body	Front (WCDMA 1700)	1.00	0.10	1.10

[1] - Estimated SAR for Bluetooth (see the table 13.3)

Table 13.3: Estimated SAR for Bluetooth

Mode/Band	F (GHz)	Position	Distance (mm)	Upper limit of power *		Estimated _{1g} (W/kg)
				dBm	mW	
Bluetooth	2.441	Head	5	7	5.01	0.21
Bluetooth	2.441	Body	10	7	5.01	0.10

* - 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) · [$\sqrt{f(\text{GHz})/x}$] 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 < 1.6 W/kg. So the simultaneous transmission SAR with volume scans is not required.

14 SAR Test Result

It is determined by user manual for the distance between the EUT and the phantom bottom.

The distance is 10 mm and just applied to the condition of body worn accessory.

It is performed for all SAR measurements with area scan based 1-g SAR estimation (Fast SAR). A zoom scan measurement is added when the estimated 1-g SAR is the highest measured SAR in each exposure configuration, wireless mode and frequency band combination or more than 1.2W/kg.

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 11.

Mode	Duty Cycle
Speech for GSM850/1900	1:8.3
GPRS&EGPRS for GSM850/1900	1:2
WCDMA<E	1:1