Table 11-8 LTE700-FDD12 #1

LTE700-FDD12 #1							
				Measured Power (dBm) & MPR			
				QPSK		16QAM	
BandWidth	RB No./Start	Channel	Tune-up	Measured Power	MPR	Measured Power	MPR
1.4MHz	1H	23173	24	23.37	0	22.10	1
		23095	24	23.23	0	22.17	1
		23017	24	23.34	0	22.36	1
	1M	23173	24	23.41	0	22.27	1
		23095	24	23.34	0	22.30	1
		23017	24	23.36	0	22.48	1
	1L	23173	24	23.18	0	22.10	1
		23095	24	23.16	0	22.16	1
		23017	24	23.25	0	22.36	1
	3H	23173	24	23.20	0	22.36	1
		23095	24	23.19	0	22.19	1
		23017	24	23.16	0	22.26	1
	3M	23173	24	23.38	0	22.41	1
		23095	24	23.24	0	22.20	1
		23017	24	23.14	0	22.22	1
	3L	23173	24	23.33	0	22.36	1
		23095	24	23.17	0	22.18	1
		23017	24	23.15	0	22.24	1
	6	23173	24	22.36	1	21.37	2
		23095	24	22.15	1	21.18	2
		23017	24	22.14	1	21.26	2
3MHz	1H	23165	24	23.37	0	22.13	1
		23095	24	23.29	0	21.99	1
		23025	24	23.48	0	22.51	1
	1M	23165	24	23.46	0	22.32	1
		23095	24	23.39	0	22.17	1
		23025	24	23.28	0	22.58	1
	1L	23165	24	23.36	0	22.19	1
		23095	24	23.33	0	22.07	1
		23025	24	23.36	0	22.38	1
	8H	23165	24	22.28	1	21.26	2
		23095	24	22.23	1	21.27	2
		23025	24	22.28	1	21.26	2
	8M	23165	24	22.32	1	21.31	2
		23095	24	22.29	1	21.34	2
		23025	24	22.32	1	21.27	2
	8L	23165	24	22.28	1	21.30	2
		23095	24	22.22	1	21.29	2
		23025	24	22.25	1	21.23	2
	15	23165	24	22.26	1	21.18	2
		23095	24	22.22	1	21.23	2
		23025	24	22.22	1	21.18	2
5MHz	1H	23155	24	23.18	0	22.19	1
		23095	24	23.32	0	22.19	1
		23035	24	23.15	0	22.54	1
	1M	23155	24	23.38	0	22.38	1
		23095	24	23.49	0	22.46	1
		23035	24	23.44	0	22.77	1
	1L	23155	24	23.13	0	22.09	1
		23095	24	23.29	0	22.24	1
		23035	24	23.17	0	22.48	1
	12H	23155	24	22.16	1	21.21	2
		23095	24	22.23	1	21.21	2
		23035	24	22.21	1	21.36	2
	12M	23155	24	22.30	1	21.28	2
		23095	24	22.34	1	21.30	2
		23035	24	22.25	1	21.33	2
	12L	23155	24	22.25	1	21.29	2
		23095	24	22.27	1	21.27	2
		23035	24	22.16	1	21.26	2
	25	23155	24	22.24	1	21.14	2
		23095	24	22.30	1	21.17	2
		23035	24	22.19	1	21.22	2

10MHz	1H	23130	24	23.27	0	22.59	1
		23095	24	23.20	0	22.09	1
		23060	24	23.19	0	22.04	1
	1M	23130	24	23.35	0	**22.62**	1
		23095	24	23.16	0	**22.20**	1
		23060	24	23.30	0	**22.15**	1
	1L	23130	24	23.21	0	22.60	1
		23095	24	23.14	0	22.16	1
		23060	24	23.29	0	21.98	1
	25H	23130	24	22.22	1	21.35	2
		23095	24	22.17	1	21.20	2
		23060	24	22.27	1	21.27	2
	25M	23130	24	22.28	1	21.36	2
		23095	24	22.30	1	21.30	2
		23060	24	22.27	1	21.24	2
	25L	23130	24	22.36	1	21.44	2
		23095	24	22.21	1	21.27	2
		23060	24	22.19	1	21.19	2
	50	23130	24	22.29	1	21.32	2
		23095	24	22.20	1	21.21	2
		23060	24	22.29	1	21.21	2

Table 11-9 LTE750-FDD13 #1

LTE750-FDD13 #1							
				Measured Power (dBm) & MPR			
BandWidth	RB No./Start	Channel	Tune-up	QPSK		16QAM	
				Measured Power	MPR	Measured Power	MPR
5MHz	1H	23255	24	22.88	0	22.03	1
		23230	24	22.93	0	22.09	1
		23205	24	23.03	0	22.49	1
	1M	23255	24	23.17	0	22.29	1
		23230	24	23.24	0	22.40	1
		23205	24	23.26	0	22.78	1
	1L	23255	24	22.97	0	22.13	1
		23230	24	23.02	0	22.17	1
		23205	24	22.98	0	22.48	1
	12H	23255	24	22.00	1	21.16	2
		23230	24	22.06	1	21.27	2
		23205	24	22.10	1	21.31	2
	12M	23255	24	22.04	1	21.21	2
		23230	24	22.13	1	21.28	2
		23205	24	22.10	1	21.40	2
	12L	23255	24	21.95	1	21.15	2
		23230	24	22.03	1	21.24	2
		23205	24	22.05	1	21.31	2
	25	23255	24	22.04	1	21.09	2
		23230	24	22.13	1	21.21	2
		23205	24	22.12	1	21.26	2
10MHz	1H	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	23.05	0	22.26	1
	1M	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	23.23	0	**22.48**	1
	1L	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	23.10	0	22.40	1
	25H	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	21.59	1	21.25	2
	25M	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	21.61	1	21.25	2
	25L	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	21.58	1	21.20	2
	50	H	24	/	/	/	/
		M	24	/	/	/	/
		23230	24	21.62	1	21.21	2

Table 11-10 LTE1700-FDD66 #1 AP OFF

LTE1700-FDD66 #1							
SN				Measured Power (dBm) & MPR			
				QPSK		16QAM	
BandWidth	RB No./Start	Channel	Tune-up	Measured Power	MPR	Measured Power	MPR
1.4MHz	1H	132665	23.5	22.94	0	22.13	1
		132322	23.5	22.99	0	22.06	1
		131979	23.5	23.15	0	22.21	1
	1M	132665	23.5	23.10	0	22.29	1
		132322	23.5	23.13	0	22.20	1
		131979	23.5	23.32	0	22.42	1
	1L	132665	23.5	22.88	0	22.12	1
		132322	23.5	23.04	0	22.06	1
		131979	23.5	23.24	0	22.25	1
	3H	132665	23.5	22.99	0	22.18	1
		132322	23.5	23.06	0	22.22	1
		131979	23.5	23.24	0	22.28	1
	3M	132665	23.5	23.07	0	22.23	1
		132322	23.5	23.09	0	22.36	1
		131979	23.5	23.28	0	22.32	1
	3L	132665	23.5	23.03	0	22.14	1
		132322	23.5	23.09	0	22.28	1
		131979	23.5	23.25	0	22.24	1
	6	132665	23.5	22.03	1	21.19	2
		132322	23.5	22.10	1	21.30	2
		131979	23.5	22.23	1	21.28	2
3MHz	1H	132657	23.5	23.06	0	21.89	1
		132322	23.5	23.05	0	22.12	1
		131987	23.5	23.23	0	22.23	1
	1M	132657	23.5	23.24	0	22.05	1
		132322	23.5	23.20	0	22.31	1
		131987	23.5	23.39	0	22.42	1
	1L	132657	23.5	23.02	0	21.98	1
		132322	23.5	23.13	0	22.15	1
		131987	23.5	23.32	0	22.26	1
	8H	132657	23.5	22.01	1	21.10	2
		132322	23.5	22.05	1	21.11	2
		131987	23.5	22.18	1	21.26	2
	8M	132657	23.5	22.06	1	21.16	2
		132322	23.5	22.17	1	21.17	2
		131987	23.5	22.23	1	21.33	2
	8L	132657	23.5	21.97	1	21.14	2
		132322	23.5	22.12	1	21.15	2
		131987	23.5	22.24	1	21.31	2
	15	132657	23.5	22.02	1	21.00	2
		132322	23.5	22.11	1	21.12	2
		131987	23.5	22.22	1	21.20	2
5MHz	1H	132647	23.5	22.93	0	22.10	1
		132322	23.5	23.00	0	22.17	1
		131997	23.5	23.11	0	22.29	1
	1M	132647	23.5	23.19	0	22.38	1
		132322	23.5	23.23	0	22.39	1
		131997	23.5	23.42	0	22.41	1
	1L	132647	23.5	22.95	0	22.18	1
		132322	23.5	23.02	0	22.22	1
		131997	23.5	23.16	0	22.29	1
	12H	132647	23.5	22.08	1	21.15	2
		132322	23.5	22.11	1	21.16	2
		131997	23.5	22.24	1	21.27	2
	12M	132647	23.5	22.08	1	21.21	2
		132322	23.5	22.18	1	21.27	2
		131997	23.5	22.31	1	21.38	2
	12L	132647	23.5	22.08	1	21.14	2
		132322	23.5	22.14	1	21.22	2
		131997	23.5	22.31	1	21.33	2
	25	132647	23.5	22.11	1	21.09	2
		132322	23.5	22.16	1	21.15	2
		131997	23.5	22.27	1	21.21	2

10MHz	1H	132622	23.5	23.02	0	21.87	1
		132322	23.5	23.01	0	22.01	1
		132022	23.5	23.14	0	22.23	1
	1M	132622	23.5	23.21	0	22.01	1
		132322	23.5	23.20	0	22.17	1
		132022	23.5	23.30	0	22.38	1
	1L	132622	23.5	23.10	0	21.97	1
		132322	23.5	23.13	0	22.04	1
		132022	23.5	23.24	0	22.22	1
	25H	132622	23.5	22.12	1	21.10	2
		132322	23.5	22.17	1	21.18	2
		132022	23.5	22.23	1	21.36	2
	25M	132622	23.5	22.13	1	21.10	2
		132322	23.5	22.20	1	21.22	2
		132022	23.5	22.30	1	21.34	2
	25L	132622	23.5	22.16	1	21.14	2
		132322	23.5	22.25	1	21.22	2
		132022	23.5	22.33	1	21.40	2
	50	132622	23.5	22.16	1	21.13	2
		132322	23.5	22.24	1	21.17	2
		132022	23.5	22.30	1	21.30	2
15MHz	1H	132597	23.5	22.89	0	21.92	1
		132322	23.5	22.99	0	21.92	1
		132047	23.5	23.07	0	21.95	1
	1M	132597	23.5	23.08	0	22.01	1
		132322	23.5	23.17	0	22.02	1
		132047	23.5	23.26	0	22.01	1
	1L	132597	23.5	23.08	0	21.99	1
		132322	23.5	23.12	0	22.04	1
		132047	23.5	23.24	0	22.05	1
	36H	132597	23.5	22.09	1	21.10	2
		132322	23.5	22.14	1	21.11	2
		132047	23.5	22.30	1	21.28	2
	36M	132597	23.5	22.10	1	21.17	2
		132322	23.5	22.20	1	21.17	2
		132047	23.5	22.36	1	21.30	2
	36L	132597	23.5	22.20	1	21.21	2
		132322	23.5	22.28	1	21.23	2
		132047	23.5	22.42	1	21.33	2
	75	132597	23.5	22.15	1	21.17	2
		132322	23.5	22.27	1	21.17	2
		132047	23.5	22.43	1	21.35	2
20MHz	1H	132572	23.5	22.88	0	22.19	1
		132322	23.5	22.91	0	22.25	1
		132072	23.5	23.08	0	22.34	1
	1M	132572	23.5	23.19	0	**22.41**	1
		132322	23.5	23.28	0	**22.46**	1
		132072	23.5	23.41	0	22.41	1
	1L	132572	23.5	23.01	0	22.30	1
		132322	23.5	23.05	0	22.38	1
		132072	23.5	23.12	0	**22.47**	1
	50H	132572	23.5	22.02	1	20.96	2
		132322	23.5	22.11	1	21.08	2
		132072	23.5	22.39	1	21.36	2
	50M	132572	23.5	22.06	1	21.04	2
		132322	23.5	22.13	1	21.12	2
		132072	23.5	22.37	1	21.35	2
	50L	132572	23.5	22.22	1	21.14	2
		132322	23.5	22.19	1	21.16	2
		132072	23.5	22.39	1	21.38	2
	100	132572	23.5	22.04	1	21.02	2
		132322	23.5	22.15	1	21.15	2
		132072	23.5	22.39	1	21.37	2

Table 11-11 LTE1700-FDD66 #2 AP ON

LTE1700-FDD66 #2							
SN				Measured Power (dBm) & MPR			
				QPSK		16QAM	
BandWidth	RB No./Start	Channel	Tune-up	Measured Power	MPR	Measured Power	MPR
1.4MHz	1H	132665	20	19.25	0	19.37	0
		132322	20	19.46	0	19.32	0
		131979	20	19.47	0	19.77	0
	1M	132665	20	19.44	0	19.60	0
		132322	20	19.68	0	19.59	0
		131979	20	19.59	0	19.94	0
	1L	132665	20	19.23	0	19.40	0
		132322	20	19.48	0	19.38	0
		131979	20	19.47	0	19.75	0
	3H	132665	20	19.33	0	19.41	0
		132322	20	19.44	0	19.40	0
		131979	20	19.47	0	19.73	0
	3M	132665	20	19.45	0	19.48	0
		132322	20	19.53	0	19.44	0
		131979	20	19.53	0	19.69	0
	3L	132665	20	19.33	0	19.43	0
		132322	20	19.48	0	19.39	0
		131979	20	19.46	0	19.68	0
	6	132665	20	19.39	0	19.52	0
		132322	20	19.54	0	19.48	0
		131979	20	19.56	0	19.41	0
3MHz	1H	132657	20	19.39	0	19.39	0
		132322	20	19.42	0	19.47	0
		131987	20	19.44	0	19.52	0
	1M	132657	20	19.52	0	19.63	0
		132322	20	19.48	0	19.66	0
		131987	20	19.61	0	19.66	0
	1L	132657	20	19.37	0	19.50	0
		132322	20	19.35	0	19.53	0
		131987	20	19.51	0	19.54	0
	8H	132657	20	19.39	0	19.44	0
		132322	20	19.35	0	19.50	0
		131987	20	19.48	0	19.52	0
	8M	132657	20	19.46	0	19.51	0
		132322	20	19.41	0	19.51	0
		131987	20	19.55	0	19.59	0
	8L	132657	20	19.40	0	19.46	0
		132322	20	19.37	0	19.52	0
		131987	20	19.49	0	19.53	0
	15	132657	20	19.39	0	19.35	0
		132322	20	19.37	0	19.41	0
		131987	20	19.50	0	19.47	0
5MHz	1H	132647	20	19.41	0	19.48	0
		132322	20	19.46	0	19.48	0
		131997	20	19.44	0	19.29	0
	1M	132647	20	19.68	0	19.78	0
		132322	20	19.72	0	19.74	0
		131997	20	19.71	0	19.43	0
	1L	132647	20	19.43	0	19.48	0
		132322	20	19.44	0	19.51	0
		131997	20	19.51	0	19.52	0
	12H	132647	20	19.47	0	19.50	0
		132322	20	19.44	0	19.49	0
		131997	20	19.45	0	19.47	0
	12M	132647	20	19.50	0	19.58	0
		132322	20	19.50	0	19.55	0
		131997	20	19.50	0	19.59	0
	12L	132647	20	19.43	0	19.49	0
		132322	20	19.47	0	19.52	0
		131997	20	19.51	0	19.55	0
	25	132647	20	19.47	0	19.40	0
		132322	20	19.47	0	19.39	0
		131997	20	19.50	0	19.43	0

10MHz	1H	132622	20	19.35	0	19.33	0
		132322	20	19.32	0	19.34	0
		132022	20	19.46	0	19.49	0
	1M	132622	20	19.43	0	19.52	0
		132322	20	19.43	0	19.49	0
		132022	20	19.57	0	19.60	0
	1L	132622	20	19.40	0	19.42	0
		132322	20	19.42	0	19.40	0
		132022	20	19.48	0	19.52	0
	25H	132622	20	19.47	0	19.51	0
		132322	20	19.44	0	19.48	0
		132022	20	19.48	0	19.55	0
	25M	132622	20	19.46	0	19.49	0
		132322	20	19.49	0	19.54	0
		132022	20	19.54	0	19.57	0
	25L	132622	20	19.52	0	19.57	0
		132322	20	19.49	0	19.55	0
		132022	20	19.58	0	19.63	0
	50	132622	20	19.51	0	19.50	0
		132322	20	19.46	0	19.49	0
		132022	20	19.52	0	19.52	0
15MHz	1H	132597	20	19.26	0	19.76	0
		132322	20	19.32	0	19.77	0
		132047	20	19.38	0	19.81	0
	1M	132597	20	19.44	0	19.87	0
		132322	20	19.51	0	19.89	0
		132047	20	19.54	0	19.92	0
	1L	132597	20	19.45	0	19.86	0
		132322	20	19.43	0	19.86	0
		132047	20	19.53	0	19.86	0
	36H	132597	20	19.44	0	19.41	0
		132322	20	19.47	0	19.43	0
		132047	20	19.53	0	19.52	0
	36M	132597	20	19.50	0	19.44	0
		132322	20	19.47	0	19.47	0
		132047	20	19.58	0	19.54	0
	36L	132597	20	19.55	0	19.52	0
		132322	20	19.54	0	19.55	0
		132047	20	19.58	0	19.56	0
	75	132597	20	19.53	0	19.45	0
		132322	20	19.53	0	19.50	0
		132047	20	19.59	0	19.55	0
20MHz	1H	132572	20	19.32	0	19.53	0
		132322	20	19.23	0	19.69	0
		132072	20	19.28	0	19.69	0
	1M	132572	20	19.67	0	**19.84**	0
		132322	20	19.58	0	**19.92**	0
		132072	20	19.62	0	**19.99**	0
	1L	132572	20	19.42	0	19.64	0
		132322	20	19.34	0	19.77	0
		132072	20	19.38	0	19.76	0
	50H	132572	20	19.36	0	19.20	0
		132322	20	19.36	0	19.35	0
		132072	20	19.60	0	19.54	0
	50M	132572	20	19.48	0	19.30	0
		132322	20	19.44	0	19.44	0
		132072	20	19.54	0	19.47	0
	50L	132572	20	19.57	0	19.38	0
		132322	20	19.55	0	19.51	0
		132072	20	19.58	0	19.52	0
	100	132572	20	19.50	0	19.35	0
		132322	20	19.49	0	19.43	0
		132072	20	19.57	0	19.56	0

Table 11-12 LTE700-FDD71 #1

LTE700-FDD71 #1							
				Measured Power (dBm) & MPR			
BandWidth	RB No./Start	Channel	Tune-up	QPSK		16QAM	
				Measured Power	MPR	Measured Power	MPR
5MHz	1H	133447	24	23.18	0	22.32	1
		133297	24	23.13	0	22.29	1
		133147	24	23.20	0	22.72	1
	1M	133447	24	23.36	0	22.53	1
		133297	24	23.39	0	22.58	1
		133147	24	23.45	0	22.93	1
	1L	133447	24	23.14	0	22.29	1
		133297	24	23.14	0	22.31	1
		133147	24	23.16	0	22.65	1
	12H	133447	24	22.23	1	21.29	2
		133297	24	22.20	1	21.29	2
		133147	24	22.33	1	21.46	2
	12M	133447	24	22.26	1	21.34	2
		133297	24	22.28	1	21.36	2
		133147	24	22.34	1	21.45	2
	12L	133447	24	22.28	1	21.34	2
		133297	24	22.17	1	21.27	2
		133147	24	22.23	1	21.37	2
	25	133447	24	22.28	1	21.23	2
		133297	24	22.24	1	21.25	2
		133147	24	22.32	1	21.34	2
10MHz	1H	133422	24	23.31	0	22.30	1
		133297	24	23.21	0	22.10	1
		133172	24	23.25	0	22.57	1
	1M	133422	24	23.48	0	22.39	1
		133297	24	23.36	0	22.27	1
		133172	24	23.46	0	22.72	1
	1L	133422	24	23.16	0	22.20	1
		133297	24	23.14	0	22.15	1
		133172	24	23.20	0	22.51	1
	25H	133422	24	22.28	1	21.34	2
		133297	24	22.29	1	21.27	2
		133172	24	22.33	1	21.31	2
	25M	133422	24	22.35	1	21.40	2
		133297	24	22.30	1	21.27	2
		133172	24	22.32	1	21.32	2
	25L	133422	24	22.27	1	21.36	2
		133297	24	22.29	1	21.25	2
		133172	24	22.22	1	21.24	2
	50	133422	24	22.29	1	21.32	2
		133297	24	22.30	1	21.26	2
		133172	24	22.27	1	21.25	2

15MHz	1H	133397	24	23.26	0	22.68	1
		133297	24	23.11	0	22.08	1
		133197	24	23.22	0	22.56	1
	1M	133397	24	23.26	0	22.73	1
		133297	24	23.24	0	22.20	1
		133197	24	23.40	0	22.67	1
	1L	133397	24	23.18	0	22.59	1
		133297	24	23.15	0	22.09	1
		133197	24	23.29	0	22.55	1
	36H	133397	24	22.30	1	21.26	2
		133297	24	22.26	1	21.25	2
		133197	24	22.32	1	21.38	2
	36M	133397	24	22.26	1	21.25	2
		133297	24	22.24	1	21.25	2
		133197	24	22.36	1	21.37	2
	36L	133397	24	22.27	1	21.21	2
		133297	24	22.24	1	21.23	2
		133197	24	22.26	1	21.28	2
	75	133397	24	22.33	1	21.28	2
		133297	24	22.28	1	21.26	2
		133197	24	22.33	1	21.30	2
20MHz	1H	133372	24	23.28	0	22.38	1
		133297	24	23.12	0	22.33	1
		133222	24	23.12	0	22.36	1
	1M	133372	24	23.44	0	**22.61**	1
		133297	24	23.32	0	**22.56**	1
		133222	24	23.38	0	**22.59**	1
	1L	133372	24	23.22	0	22.32	1
		133297	24	23.11	0	22.31	1
		133222	24	23.11	0	22.35	1
	50H	133372	24	22.26	1	21.32	2
		133297	24	22.27	1	21.36	2
		133222	24	22.33	1	21.34	2
	50M	133372	24	22.29	1	21.28	2
		133297	24	22.29	1	21.28	2
		133222	24	22.29	1	21.28	2
	50L	133372	24	22.24	1	21.19	2
		133297	24	22.22	1	21.19	2
		133222	24	22.20	1	21.19	2
	100	133372	24	22.23	1	21.22	2
		133297	24	22.23	1	21.23	2
		133222	24	22.25	1	21.24	2

The conducted power measurement results of downlink LTE CA Conduted Power are as below (Normal Power):

DL LTE CA Class	PCC								SCC			Power		
	PCC Band	PCC Band width (MHz)	PCC UL RB size	PCC UL RB offset	PCC DL RB size	PCC DL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Band width (MHz)	SCC DL Channel	Rel 8 LTETx Power(dBm)	Rel 10 DL LTE CA Tx Power(dBm)	Tune-up
12A+4A	12	5	1	12	25	0	23095	5095	4	20	2175	23.49	23.43	24
2A+4A	2	5	1	12	25	0	19175	1175	4	20	2175	23.43	23.45	24
5A+4A	5	25	1	12	25	0	20525	2525	4	20	2175	23.12	23.01	23.5
66A+66A	66	5	1	12	25	0	131997	66511	66	20	67236	23.42	23.48	23.5
66B	66	5	1	12	25	0	131997	66511	66	5	66509	23.42	23.4	23.5
66C	66	20	1	50	100	0	132072	66536	66	20	66734	23.41	23.46	23.5
2A+66A	2	5	1	12	25	0	19175	1175	66	20	66786	23.43	23.47	24
66A+2A	66	5	1	12	25	0	131997	66511	2	20	900	23.42	23.46	23.5
12A+66A	12	5	1	12	25	0	23095	5095	66	20	66786	23.49	23.45	24
66A+12A	66	5	1	12	25	0	131997	66511	12	10	5095	23.42	23.46	23.5
2A+2A	2	5	1	12	25	0	19175	1175	2	20	700	23.43	23.44	24
2A+12A	2	5	1	12	25	0	19175	1175	12	10	5095	23.43	23.47	24
12A+2A	12	5	1	12	25	0	23095	5095	2	20	900	23.49	23.46	24
2C	2	2	1	12	25	0	19167	1167	2	20	1050	23.43	23.45	24
2A+5A	2	5	1	12	25	0	19175	1175	5	10	2525	23.43	23.44	24
5A+2A	5	5	1	12	25	0	20525	2525	2	20	900	23.12	22.97	23.5
71A+2A	71	10	1	24	50	9	133422	68886	2	20	900	23.48	23.34	24
2A+71A	2	5	1	12	25	0	19175	1175	71	20	68761	23.43	23.59	24
71A+4A	71	10	1	24	50	9	133422	68886	4	20	2175	23.48	23.34	24
66A+71A	66	5	1	12	25	0	131997	66511	71	20	68761	23.42	23.53	23.5
71A+66A	71	10	1	24	50	9	133422	68886	66	20	66786	23.48	23.33	24

Note: Testing is not required in bands or modes not intended/allowed for US operation.

The conducted power measurement results of downlink LTE CA Conduted Power are as below (Low Power):

DL LTE CA Class	PCC								SCC			Power		
	PCC Band	PCC Band width (MHz)	PCC UL RB size	PCC UL RB offset	PCC DL RB size	PCC DL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Band width (MHz)	SCC DL Channel	Rel 8 LTETx Power(dBm)	Rel 10 DL LTE CA Tx Power(dBm)	Tune-up
2A+4A	2	3	1	7	15	0	18615	615	4	20	2175	20.07	20.11	20.5
66A+66A	66	5	1	12	25	0	131997	66511	66	20	67236	19.71	19.64	20
66B	66	5	1	12	25	0	131997	66511	66	5	66509	19.71	19.65	20
66C	66	20	1	50	100	0	132572	67036	66	20	67234	19.67	19.49	20
2A+66A	2	3	1	7	15	0	18615	615	66	20	66786	20.07	20.12	20.5
66A+2A	66	5	1	12	25	0	132322	66786	2	20	900	19.72	19.61	20
66A+12A	66	5	1	12	25	0	132322	66786	12	10	5095	19.72	19.62	20
2A+2A	2	5	1	12	25	0	19175	1175	2	20	700	20.06	20.09	20.5
2A+12A	2	3	1	7	15	0	18615	615	12	10	5095	20.07	20.12	20.5
2C	2	5	1	12	25	0	19167	1167	2	20	1050	20.08	20.11	20.5
2A+5A	2	3	1	7	15	0	18615	615	5	10	2525	20.07	20.09	20.5
2A+71A	2	3	1	7	15	0	18615	615	71	20	68761	20.07	19.93	20.5
66A+71A	66	5	1	12	25	0	132322	66786	71	20	68761	19.72	19.65	20

Note: Testing is not required in bands or modes not intended/allowed for US operation.

11.4 Wi-Fi and BT Measurement result

The output power of BT antenna is as following:

Bluetooth Power				
Mode	Channel	Frequence	Tune-up	Measured
GFSK	78	2480 MHz	6.5	6.02
	39	2441 MHz	8	7.73
	0	2402 MHz	9	8.9
EDR2M-4_DQPSK	78	2480 MHz	6.5	5.49
	39	2441 MHz	8	7.16
	0	2402 MHz	9	8.36
EDR3M-8DPSK	78	2480 MHz	6.5	5.67
	39	2441 MHz	8	7.31
	0	2402 MHz	9	8.54

The average conducted power for 2.4G Wi-Fi is as following:

Table 11-13 WLAN2450 #1

WLAN2450 #1						
Band	Mode	Channel	Frequence	Data Rate	Tune-up	Measured
WLAN 2.4G 20M	802.11b	11	2462 MHz	5.5Mbps	14.50	14.39
		6	2437 MHz		13.50	13.28
		1	2412 MHz		13.00	12.92
		11	2462 MHz	2Mbps	15.00	14.12
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	1Mbps	14.50	14.14
		6	2437 MHz		13.50	13.36
		1	2412 MHz		13.00	12.98
		11	2462 MHz	11Mbps	14.50	13.93
		6	2437 MHz		/	/
		1	2412 MHz		/	/
	802.11g	11	2462 MHz	6Mbps	12.00	11.09
		6	2437 MHz		11.00	10.46
		1	2412 MHz		11.00	10.18
		11	2462 MHz	9Mbps	12.00	11.07
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	12Mbps	12.00	11.04
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	18Mbps	12.00	10.99
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	24Mbps	12.00	10.95
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	36Mbps	10.00	9.38
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	48Mbps	10.00	9.43
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	54Mbps	10.00	9.42
		6	2437 MHz		/	/
		1	2412 MHz		/	/
	802.11n	11	2462 MHz	MCS0	12.00	10.91
		6	2437 MHz		11.00	10.26
		1	2412 MHz		11.00	9.95
		11	2462 MHz	MCS1	12.00	10.86
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS2	12.00	10.81
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS3	12.00	10.83
		6	2437 MHz		/	/
		1	2412 MHz		/	/

	20M	11	2462 MHz	MCS4	12.00	10.81
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS5	10.00	9.26
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS6	10.00	9.27
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS7	10.00	9.26
		6	2437 MHz		/	/
		1	2412 MHz		/	/
WLAN 2.4G 40M	802.11n 40M	11	2462 MHz	MCS0	11.00	10.64
		6	2437 MHz		11.00	10.35
		1	2412 MHz		11.00	10.09
		11	2462 MHz	MCS1	11.00	10.61
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS2	11.00	10.58
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS3	11.00	10.57
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS4	11.00	10.56
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS5	10.00	8.98
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS6	10.00	8.97
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS7	10.00	8.94
		6	2437 MHz		/	/
		1	2412 MHz		/	/

Table 11-14 WLAN2450 #2

WLAN2450 #2						
Band	Mode	Channel	Frequence	Data Rate	Tune-up	Measured
WLAN 2.4G 20M	802.11b	11	2462 MHz	5.5Mbps	20.00	19.54
		6	2437 MHz		19.00	18.78
		1	2412 MHz		19.00	18.59
		11	2462 MHz	2Mbps	20.00	18.99
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	1Mbps	19.50	19.01
		6	2437 MHz		19.00	18.53
		1	2412 MHz		19.00	18.19
		11	2462 MHz	11Mbps	19.50	19.14
		6	2437 MHz		/	/
		1	2412 MHz		/	/
	802.11g	11	2462 MHz	6Mbps	17.00	16.88
		6	2437 MHz		17.00	16.26
		1	2412 MHz		16.00	15.89
		11	2462 MHz	9Mbps	17.00	16.83
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	12Mbps	17.00	16.79
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	18Mbps	17.00	16.72
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	24Mbps	17.00	16.71
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	36Mbps	17.00	16.11
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	48Mbps	17.00	16.08
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	54Mbps	17.00	16.09
		6	2437 MHz		/	/
		1	2412 MHz		/	/
	802.11n	11	2462 MHz	MCS0	17.00	16.73
		6	2437 MHz		17.00	16.19
		1	2412 MHz		17.00	15.77
		11	2462 MHz	MCS1	17.00	16.68
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS2	17.00	16.66
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS3	17.00	16.67
		6	2437 MHz		/	/
		1	2412 MHz		/	/

	20M	11	2462 MHz	MCS4	17.00	16.64
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS5	17.00	15.98
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS6	17.00	15.99
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS7	17.00	15.98
		6	2437 MHz		/	/
		1	2412 MHz		/	/
WLAN 2.4G 40M	802.11n 40M	11	2462 MHz	MCS0	17.00	16.48
		6	2437 MHz		17.00	16.21
		1	2412 MHz		17.00	15.92
		11	2462 MHz	MCS1	17.00	16.46
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS2	17.00	16.46
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS3	17.00	16.45
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS4	17.00	16.44
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS5	17.00	15.84
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS6	17.00	15.86
		6	2437 MHz		/	/
		1	2412 MHz		/	/
		11	2462 MHz	MCS7	17.00	15.86
		6	2437 MHz		/	/
		1	2412 MHz		/	/

The average conducted power for 5G Wi-Fi is as following:

WLAN UNII-1 #1								
802.11n 20M Measured Power (dBm)								
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
36(5180 MHz)	17.21	\	\	\	\	17.73	\	\
40(5200 MHz)	17.58	\	\	\	\	18.09	\	\
44(5220 MHz)	17.83	17.71	17.69	17.61	17.58	18.38	18.35	18.36
48(5240 MHz)	17.88	16.89	16.97	16.93	16.97	18.23	17.80	17.82

WLAN UNII-2A #1								
802.11n Measured Power (dBm)								
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
52(5260 MHz)	17.79	\	\	\	\	18.19	\	\
56(5280 MHz)	17.66	\	\	\	\	17.98	\	\
60(5300 MHz)	17.63	\	\	\	\	18.02	\	\
64(5320 MHz)	17.85	17.05	17.14	17.08	17.07	18.25	17.82	17.81

WLAN UNII-3 #1								
802.11n Measured Power (dBm)								
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
149(5745 MHz)	17.61	16.45	16.38	16.42	16.47	17.66	17.34	17.36
153(5765 MHz)	17.07	\	\	\	\	17.57	\	\
157(5785 MHz)	16.87	\	\	\	\	17.59	\	\
161(5805 MHz)	16.63	\	\	\	\	17.07	\	\
165(5825 MHz)	16.26	\	\	\	\	16.69	\	\

Tune up

WLAN UNII-1								
802.11n 20M Tune Up (dBm)								
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
36(5180 MHz)	18.80	\	\	\	\	\	\	\
40(5200 MHz)	18.80	\	\	\	\	\	\	\
44(5220 MHz)	18.80	18.50	18.50	18.50	18.50	18.50	18.50	18.50
48(5240 MHz)	18.80	18.50	18.50	18.50	18.50	18.50	18.50	18.50

WLAN UNII-2A								
802.11n Tune Up (dBm)								
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
52(5260 MHz)	18.80	18.50	18.50	18.50	18.50	18.50	18.50	18.50
56(5280 MHz)	18.80	\	\	\	\	\	\	\
60(5300 MHz)	18.80	\	\	\	\	\	\	\
64(5320 MHz)	18.80	\	\	\	\	\	\	\

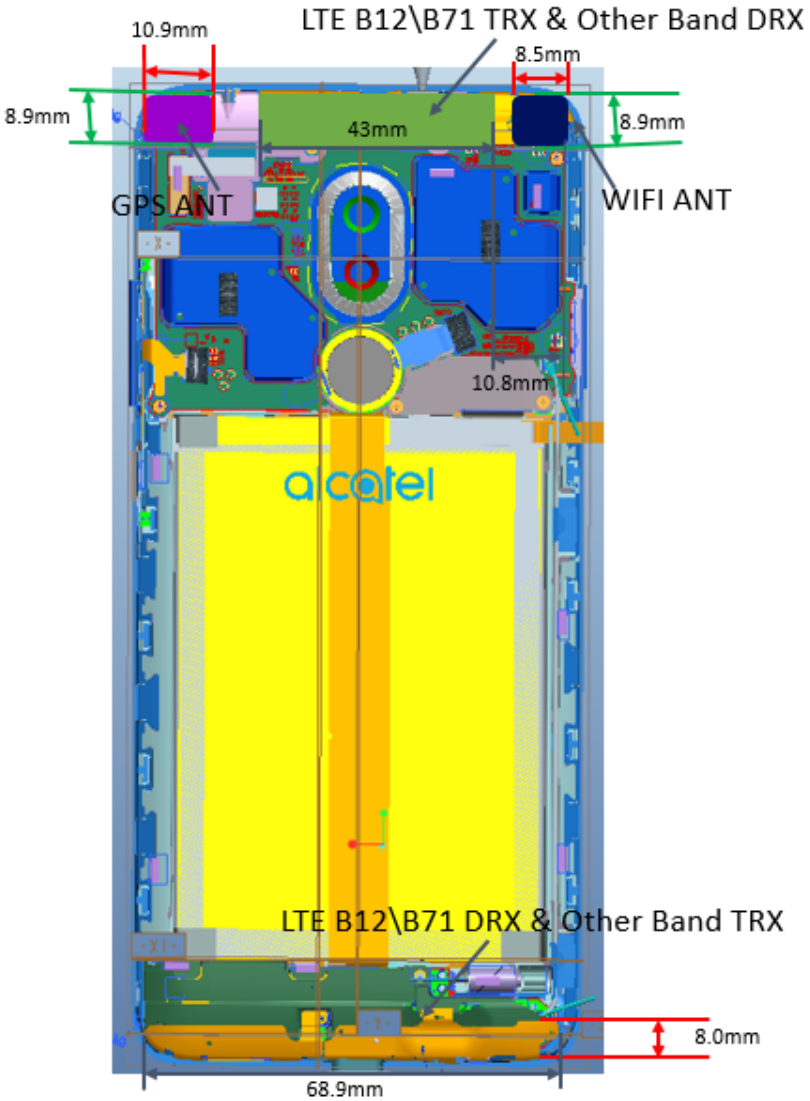
WLAN UNII-3								
802.11n Tune Up (dBm)								
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
149(5745 MHz)	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
153(5765 MHz)	18.00	\	\	\	\	\	\	\
157(5785 MHz)	18.00	\	\	\	\	\	\	\
161(5805 MHz)	18.00	\	\	\	\	\	\	\
165(5825 MHz)	18.00	\	\	\	\	\	\	\

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 Top	Yes	Yes	Yes	Yes	Yes	No
Main antenna Bottom	Yes	Yes	Yes	Yes	No	Yes
WLAN	Yes	Yes	Yes	No	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:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, where

- f(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	**9**	7.94	Yes
		Body	19.2	**9**	7.94	Yes
2.4GHz WLAN 802.11 b	2.45	Head	9.58	**14.5**	28.18	No
		Body	19.17	**20**	100.00	No
5GHz WLAN	5.2	Head	6.58	**18.8**	75.86	No
		Body	13.16	**18.8**	75.86	No
	5.3	Head	6.52	**18.8**	75.86	No
		Body	13.03	**18.8**	75.86	No
	5.6	Head	6.34	**18.8**	75.86	No
		Body	12.68	**18.8**	75.86	No
	5.8	Head	6.23	**18.8**	75.86	No
		Body	12.46	**18.8**	75.86	No

13 Evaluation of Simultaneous

Table 13.1: The sum of reported SAR values for main antenna and 2.4G WiFi

	Position	Main antenna	WiFi	Sum
Highest reported SAR value for Head	Left hand, Touch cheek	0.43	0.41	**0.84**
Highest reported SAR value for Body 10mm	Rear	0.96	0.53	**1.49**
Highest reported SAR value for Body 15mm	Rear	1.10	0.25	**1.35**

Table 13.2: The sum of reported SAR values for main antenna and 5G WiFi

	Position	Main antenna	WiFi	Sum
Highest reported SAR value for Head	Right hand, Touch cheek	0.54	1.03	**1.57**
Highest reported SAR value for Body	Bottom	1.18	/	**1.18**
Highest reported SAR value for Body 15mm	Rear	1.10	0.22	**1.32**

Note: The test distance of Rear WiFi is 10mm. It should be higher than the value test with 10mm. So we think the sum is more conservative.

Table 13.3: The sum of reported SAR values for main antenna and BT

	Position	Main antenna	BT	Sum
Maximum reported SAR value for Head	Left hand, Touch cheek	0.54	0.33	**0.87**
Maximum reported SAR value for Body	Rear	1.18	0.17	**1.35**

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

Table 13.4: Estimated SAR for Bluetooth

Mode/Band	F (GHz)	Position	Distance (mm)	Upper limit of power *		Estimated $_{1g}$
				dBm	mW	(W/kg)
Bluetooth	2.441	Head	5	9	7.94	0.33
Bluetooth	2.441	Body	10	9	7.94	0.17

* - 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.