		1	14	4.49	<13	PASS
		8	0	5.36	<13	PASS
		8	4	5.35	<13	PASS
		8	7	5.27	<13	PASS
		15	0	5.36	<13	PASS
	MCH	1	0	4.72	<13	PASS
		1	7	5.25	<13	PASS
		1	14	4.81	<13	PASS
		8	0	5.76	<13	PASS
		8	4	5.8	<13	PASS
		8	7	5.81	<13	PASS
		15	0	5.8	<13	PASS
	HCH	1	0	5.28	<13	PASS
		1	7	5.83	<13	PASS
		1	14	5.7	<13	PASS
		8	0	6.16	<13	PASS
		8	4	6.11	<13	PASS
		8	7	6.19	<13	PASS
		15	0	6.18	<13	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.24	<13	PASS
		1	12	4.28	<13	PASS
		1	24	3.92	<13	PASS
		12	0	4.82	<13	PASS
		12	6	4.82	<13	PASS
		12	13	4.63	<13	PASS
		25	0	4.77	<13	PASS
	MCH	1	0	4.46	<13	PASS
		1	12	4.67	<13	PASS
		1	24	4.02	<13	PASS
		12	0	5.2	<13	PASS
		12	6	5.2	<13	PASS

		12	13	5.29	<13	PASS
		25	0	5.33	<13	PASS
	HCH	1	0	4.23	<13	PASS
		1	12	5.23	<13	PASS
		1	24	5.27	<13	PASS
		12	0	5.27	<13	PASS
		12	6	5.27	<13	PASS
		12	13	5.67	<13	PASS
		25	0	5.46	<13	PASS
16QAM	LCH	1	0	4.62	<13	PASS
		1	12	4.78	<13	PASS
		1	24	4.46	<13	PASS
		12	0	5.44	<13	PASS
		12	6	5.41	<13	PASS
		12	13	5.23	<13	PASS
		25	0	5.34	<13	PASS
	MCH	1	0	4.97	<13	PASS
		1	12	5.1	<13	PASS
		1	24	4.69	<13	PASS
		12	0	5.78	<13	PASS
		12	6	5.77	<13	PASS
		12	13	5.86	<13	PASS
		25	0	5.84	<13	PASS
	HCH	1	0	4.72	<13	PASS
		1	12	5.63	<13	PASS
		1	24	5.71	<13	PASS
		12	0	5.77	<13	PASS
		12	6	5.78	<13	PASS
		12	13	6.16	<13	PASS
		25	0	6.02	<13	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.59	<13	PASS
		1	24	4.12	<13	PASS
		1	49	3.59	<13	PASS
		25	0	4.72	<13	PASS
		25	12	4.77	<13	PASS
		25	25	4.67	<13	PASS
		50	0	4.61	<13	PASS
	MCH	1	0	4.23	<13	PASS
		1	24	4.83	<13	PASS
		1	49	2.73	<13	PASS
		25	0	5.35	<13	PASS
		25	12	5.39	<13	PASS
		25	25	5.24	<13	PASS
		50	0	5.37	<13	PASS
	HCH	1	0	2.98	<13	PASS
		1	24	4.55	<13	PASS
		1	49	5.01	<13	PASS
		25	0	4.38	<13	PASS
		25	12	4.37	<13	PASS
		25	25	5.45	<13	PASS
		50	0	4.87	<13	PASS
16QAM	LCH	1	0	4.4	<13	PASS
		1	24	4.81	<13	PASS
		1	49	4.13	<13	PASS
		25	0	5.29	<13	PASS
		25	12	5.29	<13	PASS
		25	25	5.2	<13	PASS
		50	0	5.1	<13	PASS
	MCH	1	0	4.71	<13	PASS
		1	24	5.38	<13	PASS
		1	49	4.13	<13	PASS
		25	0	5.89	<13	PASS

		25	12	5.87	<13	PASS
		25	25	5.78	<13	PASS
		50	0	5.81	<13	PASS
	HCH	1	0	3.53	<13	PASS
		1	24	5.02	<13	PASS
		1	49	5.49	<13	PASS
		25	0	4.75	<13	PASS
		25	12	4.73	<13	PASS
		25	25	6.01	<13	PASS
		50	0	5.38	<13	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.77	<13	PASS
		1	37	4.34	<13	PASS
		1	74	3.75	<13	PASS
		37	0	5.16	<13	PASS
		37	18	5.16	<13	PASS
		37	38	5.16	<13	PASS
		75	0	5.31	<13	PASS
	MCH	1	0	3.92	<13	PASS
		1	37	4.78	<13	PASS
		1	74	3.65	<13	PASS
		37	0	5.72	<13	PASS
		37	18	5.67	<13	PASS
		37	38	5.59	<13	PASS
		75	0	5.64	<13	PASS
	HCH	1	0	2.87	<13	PASS
		1	37	3.95	<13	PASS
		1	74	4.86	<13	PASS
		37	0	4.96	<13	PASS
		37	18	4.98	<13	PASS
		37	38	4.98	<13	PASS
		75	0	4.98	<13	PASS
16QAM	LCH	1	0	4.2	<13	PASS
		1	37	4.72	<13	PASS
		1	74	4.18	<13	PASS

		37	0	5.15	<13	PASS
		37	18	5.26	<13	PASS
		37	38	5.27	<13	PASS
		75	0	5.6	<13	PASS
	MCH	1	0	4.5	<13	PASS
		1	37	5.36	<13	PASS
		1	74	4.35	<13	PASS
		37	0	5.61	<13	PASS
		37	18	5.63	<13	PASS
		37	38	5.6	<13	PASS
		75	0	6.03	<13	PASS
	HCH	1	0	3.44	<13	PASS
		1	37	4.39	<13	PASS
		1	74	4.98	<13	PASS
		37	0	4.98	<13	PASS
		37	18	4.98	<13	PASS
		37	38	4.98	<13	PASS
		75	0	5.27	<13	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.76	<13	PASS
		1	49	4.13	<13	PASS
		1	99	3.84	<13	PASS
		50	0	4.64	<13	PASS
		50	25	4.64	<13	PASS
		50	50	5.04	<13	PASS
		100	0	5.35	<13	PASS
	MCH	1	0	3.81	<13	PASS
		1	49	4.63	<13	PASS
		1	99	2.7	<13	PASS
		50	0	5.46	<13	PASS
		50	25	5.45	<13	PASS
		50	50	5.33	<13	PASS
		100	0	5.52	<13	PASS
	HCH	1	0	3.08	<13	PASS
		1	49	3.61	<13	PASS

		1	99	4.55	<13	PASS
		50	0	4.22	<13	PASS
		50	25	4.23	<13	PASS
		50	50	4.91	<13	PASS
		100	0	5.07	<13	PASS
16QAM	LCH	1	0	4.14	<13	PASS
		1	49	4.62	<13	PASS
		1	99	3.9	<13	PASS
		50	0	5.14	<13	PASS
		50	25	5.14	<13	PASS
		50	50	5.47	<13	PASS
		100	0	5.77	<13	PASS
	MCH	1	0	4.15	<13	PASS
		1	49	5.11	<13	PASS
		1	99	3.83	<13	PASS
		50	0	6.06	<13	PASS
		50	25	6.06	<13	PASS
		50	50	5.92	<13	PASS
		100	0	6	<13	PASS
	HCH	1	0	3.82	<13	PASS
		1	49	4.15	<13	PASS
		1	99	4.21	<13	PASS
		50	0	4.76	<13	PASS
		50	25	4.78	<13	PASS
		50	50	5.43	<13	PASS
		100	0	5.53	<13	PASS

LTE Band 4

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	LCH	1	0	5.19	<13	PASS
		1	3	5.05	<13	PASS
		1	5	5	<13	PASS
		3	0	5.25	<13	PASS
		3	2	5.21	<13	PASS
		3	3	5.21	<13	PASS
		6	0	5.51	<13	PASS
	MCH	1	0	4.68	<13	PASS
		1	3	4.7	<13	PASS
		1	5	4.68	<13	PASS
		3	0	4.84	<13	PASS
		3	2	4.68	<13	PASS
		3	3	4.6	<13	PASS
		6	0	5.12	<13	PASS
	HCH	1	0	5.51	<13	PASS
		1	3	5.34	<13	PASS
		1	5	5.45	<13	PASS
		3	0	5.43	<13	PASS
		3	2	5.51	<13	PASS
		3	3	5.53	<13	PASS
		6	0	5.64	<13	PASS
16QAM	LCH	1	0	5.59	<13	PASS
		1	3	5.44	<13	PASS
		1	5	5.53	<13	PASS
		3	0	5.64	<13	PASS
		3	2	5.67	<13	PASS
		3	3	5.62	<13	PASS
		6	0	5.94	<13	PASS
	MCH	1	0	5.29	<13	PASS
		1	3	5.26	<13	PASS
		1	5	5.13	<13	PASS
		3	0	5.14	<13	PASS
		3	2	5.18	<13	PASS
		3	3	5.14	<13	PASS

		6	0	5.47	<13	PASS
	HCH	1	0	5.81	<13	PASS
		1	3	5.79	<13	PASS
		1	5	5.89	<13	PASS
		3	0	5.96	<13	PASS
		3	2	5.95	<13	PASS
		3	3	5.93	<13	PASS
		6	0	6.2	<13	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	5.3	<13	PASS
		1	7	5.26	<13	PASS
		1	14	5.2	<13	PASS
		8	0	5.63	<13	PASS
		8	4	5.56	<13	PASS
		8	7	5.62	<13	PASS
		15	0	5.62	<13	PASS
	MCH	1	0	4.86	<13	PASS
		1	7	5.11	<13	PASS
		1	14	4.89	<13	PASS
		8	0	5.38	<13	PASS
		8	4	5.4	<13	PASS
		8	7	5.34	<13	PASS
		15	0	5.29	<13	PASS
	HCH	1	0	5.4	<13	PASS
		1	7	5.26	<13	PASS
		1	14	5.52	<13	PASS
		8	0	5.68	<13	PASS
		8	4	5.71	<13	PASS
		8	7	5.68	<13	PASS
		15	0	5.86	<13	PASS
16QAM	LCH	1	0	5.74	<13	PASS
		1	7	5.79	<13	PASS
		1	14	5.49	<13	PASS
		8	0	6.14	<13	PASS
		8	4	6.17	<13	PASS

		8	7	6.1	<13	PASS
		15	0	6.14	<13	PASS
	MCH	1	0	5.42	<13	PASS
		1	7	5.48	<13	PASS
		1	14	5.36	<13	PASS
		8	0	5.76	<13	PASS
		8	4	5.82	<13	PASS
		8	7	5.72	<13	PASS
		15	0	5.76	<13	PASS
	HCH	1	0	5.61	<13	PASS
		1	7	6.04	<13	PASS
		1	14	6.12	<13	PASS
		8	0	6.2	<13	PASS
		8	4	6.25	<13	PASS
		8	7	6.49	<13	PASS
		15	0	6.3	<13	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	5.41	<13	PASS
		1	12	5.16	<13	PASS
		1	24	4.97	<13	PASS
		12	0	5.71	<13	PASS
		12	6	5.63	<13	PASS
		12	13	5.57	<13	PASS
		25	0	5.49	<13	PASS
	MCH	1	0	5.04	<13	PASS
		1	12	4.99	<13	PASS
		1	24	4.8	<13	PASS
		12	0	5.43	<13	PASS
		12	6	5.42	<13	PASS
		12	13	5.36	<13	PASS
		25	0	5.33	<13	PASS
	HCH	1	0	4.99	<13	PASS
		1	12	5.5	<13	PASS
		1	24	5.53	<13	PASS
		12	0	5.62	<13	PASS

		12	6	5.63	<13	PASS
		12	13	5.78	<13	PASS
		25	0	5.62	<13	PASS
16QAM	LCH	1	0	5.75	<13	PASS
		1	12	5.74	<13	PASS
		1	24	5.46	<13	PASS
		12	0	6.16	<13	PASS
		12	6	6.19	<13	PASS
		12	13	6.02	<13	PASS
		25	0	6.1	<13	PASS
	MCH	1	0	5.12	<13	PASS
		1	12	5.51	<13	PASS
		1	24	5.25	<13	PASS
		12	0	5.9	<13	PASS
		12	6	5.85	<13	PASS
		12	13	5.82	<13	PASS
		25	0	5.9	<13	PASS
	HCH	1	0	5.37	<13	PASS
		1	12	5.87	<13	PASS
		1	24	6.13	<13	PASS
		12	0	6.08	<13	PASS
		12	6	6.08	<13	PASS
		12	13	6.21	<13	PASS
		25	0	6.2	<13	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.93	<13	PASS
		1	49	5.11	<13	PASS
		1	99	4.59	<13	PASS
		50	0	5.53	<13	PASS
		50	25	5.51	<13	PASS
		50	50	5.56	<13	PASS
		100	0	5.55	<13	PASS
	MCH	1	0	4.31	<13	PASS
		1	49	5.12	<13	PASS
		1	99	4.3	<13	PASS

		50	0	5.38	<13	PASS
		50	25	5.3	<13	PASS
		50	50	5.25	<13	PASS
		100	0	5.28	<13	PASS
	HCH	1	0	4.21	<13	PASS
		1	49	5.12	<13	PASS
		1	99	5.07	<13	PASS
		50	0	5.43	<13	PASS
		50	25	5.54	<13	PASS
		50	50	5.61	<13	PASS
		100	0	5.49	<13	PASS
16QAM	LCH	1	0	5.3	<13	PASS
		1	49	5.62	<13	PASS
		1	99	4.94	<13	PASS
		50	0	6.1	<13	PASS
		50	25	6.1	<13	PASS
		50	50	6.05	<13	PASS
		100	0	6.08	<13	PASS
	MCH	1	0	4.83	<13	PASS
		1	49	5.66	<13	PASS
		1	99	4.91	<13	PASS
		50	0	5.7	<13	PASS
		50	25	5.7	<13	PASS
		50	50	5.66	<13	PASS
		100	0	5.7	<13	PASS
	HCH	1	0	4.64	<13	PASS
		1	49	5.83	<13	PASS
		1	99	5.5	<13	PASS
		50	0	6.08	<13	PASS
		50	25	6.08	<13	PASS
		50	50	6.2	<13	PASS
		100	0	5.96	<13	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.11	<13	PASS
		1	37	5.4	<13	PASS
		1	74	3.76	<13	PASS
		37	0	6.03	<13	PASS
		37	18	6.02	<13	PASS
		37	38	6.04	<13	PASS
		75	0	6	<13	PASS
	MCH	1	0	3.76	<13	PASS
		1	37	5.28	<13	PASS
		1	74	3.7	<13	PASS
		37	0	5.61	<13	PASS
		37	18	5.61	<13	PASS
		37	38	5.6	<13	PASS
		75	0	5.65	<13	PASS
	HCH	1	0	3.29	<13	PASS
		1	37	5.13	<13	PASS
		1	74	4.17	<13	PASS
		37	0	5.81	<13	PASS
		37	18	5.82	<13	PASS
		37	38	5.81	<13	PASS
		75	0	5.78	<13	PASS
16QAM	LCH	1	0	4.38	<13	PASS
		1	37	5.81	<13	PASS
		1	74	4.02	<13	PASS
		37	0	6.03	<13	PASS
		37	18	6.03	<13	PASS
		37	38	6.02	<13	PASS
		75	0	6.38	<13	PASS
	MCH	1	0	3.99	<13	PASS
		1	37	5.53	<13	PASS
		1	74	3.6	<13	PASS
		37	0	5.63	<13	PASS
		37	18	5.62	<13	PASS
		37	38	5.64	<13	PASS
		75	0	5.91	<13	PASS

	HCH	1	0	3.6	<13	PASS
		1	37	5.78	<13	PASS
		1	74	4.52	<13	PASS
		37	0	5.81	<13	PASS
		37	18	5.78	<13	PASS
		37	38	5.79	<13	PASS
		75	0	6.18	<13	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.39	<13	PASS
		1	49	5.15	<13	PASS
		1	99	2.14	<13	PASS
		50	0	5.43	<13	PASS
		50	25	5.42	<13	PASS
		50	50	5.25	<13	PASS
		100	0	5.67	<13	PASS
	MCH	1	0	3.22	<13	PASS
		1	49	5.02	<13	PASS
		1	99	2.76	<13	PASS
		50	0	5.04	<13	PASS
		50	25	5.06	<13	PASS
		50	50	4.98	<13	PASS
		100	0	5.39	<13	PASS
	HCH	1	0	2.27	<13	PASS
		1	49	5	<13	PASS
		1	99	3.18	<13	PASS
		50	0	4.88	<13	PASS
		50	25	4.87	<13	PASS
		50	50	5.41	<13	PASS
		100	0	5.59	<13	PASS
16QAM	LCH	1	0	3.56	<13	PASS
		1	49	5.43	<13	PASS
		1	99	2.71	<13	PASS
		50	0	5.95	<13	PASS
		50	25	6.08	<13	PASS
		50	50	5.82	<13	PASS

		100	0	6.29	<13	PASS
	MCH	1	0	3.42	<13	PASS
		1	49	5.3	<13	PASS
		1	99	3.09	<13	PASS
		50	0	5.48	<13	PASS
		50	25	5.51	<13	PASS
		50	50	5.42	<13	PASS
		100	0	5.8	<13	PASS
	HCH	1	0	2.85	<13	PASS
		1	49	5.33	<13	PASS
		1	99	3.6	<13	PASS
		50	0	5.37	<13	PASS
		50	25	5.36	<13	PASS
		50	50	5.91	<13	PASS
		100	0	6.16	<13	PASS

LTE Band 7

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.04	<13	PASS
		1	12	3.41	<13	PASS
		1	24	3.48	<13	PASS
		12	0	3.07	<13	PASS
		12	6	3.06	<13	PASS
		12	13	3.3	<13	PASS
		25	0	3.27	<13	PASS
	MCH	1	0	2.52	<13	PASS
		1	12	2.65	<13	PASS
		1	24	2.32	<13	PASS
		12	0	2.21	<13	PASS
		12	6	2.22	<13	PASS
		12	13	2.27	<13	PASS
		25	0	2.34	<13	PASS
	HCH	1	0	2.96	<13	PASS
		1	12	2.8	<13	PASS
		1	24	2.48	<13	PASS
		12	0	2.47	<13	PASS
		12	6	2.5	<13	PASS
		12	13	2.19	<13	PASS
		25	0	2.25	<13	PASS
16QAM	LCH	1	0	2.93	<13	PASS
		1	12	3.26	<13	PASS
		1	24	3.23	<13	PASS
		12	0	3.89	<13	PASS
		12	6	3.89	<13	PASS
		12	13	3.97	<13	PASS
		25	0	3.89	<13	PASS
	MCH	1	0	2.6	<13	PASS
		1	12	2.62	<13	PASS
		1	24	2.26	<13	PASS
		12	0	3.06	<13	PASS
		12	6	3.04	<13	PASS

		12	13	2.91	<13	PASS
		25	0	3.01	<13	PASS
	HCH	1	0	2.69	<13	PASS
		1	12	2.65	<13	PASS
		1	24	2.36	<13	PASS
		12	0	3.53	<13	PASS
		12	6	3.52	<13	PASS
		12	13	3.18	<13	PASS
		25	0	3.32	<13	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	2.72	<13	PASS
		1	24	4.02	<13	PASS
		1	49	3.5	<13	PASS
		25	0	3.32	<13	PASS
		25	12	3.32	<13	PASS
		25	25	3.92	<13	PASS
		50	0	3.62	<13	PASS
	MCH	1	0	2.21	<13	PASS
		1	24	2.72	<13	PASS
		1	49	2.14	<13	PASS
		25	0	2.41	<13	PASS
		25	12	2.41	<13	PASS
		25	25	2.26	<13	PASS
		50	0	2.54	<13	PASS
	HCH	1	0	3.42	<13	PASS
		1	24	3.4	<13	PASS
		1	49	2.05	<13	PASS
		25	0	3.89	<13	PASS
		25	12	3.88	<13	PASS
		25	25	2.34	<13	PASS
		50	0	2.76	<13	PASS
16QAM	LCH	1	0	2.56	<13	PASS
		1	24	3.84	<13	PASS
		1	49	3.28	<13	PASS
		25	0	4.14	<13	PASS

		25	12	4.12	<13	PASS
		25	25	4.72	<13	PASS
		50	0	4.41	<13	PASS
	MCH	1	0	2.4	<13	PASS
		1	24	2.83	<13	PASS
		1	49	2.42	<13	PASS
		25	0	3.24	<13	PASS
		25	12	3.24	<13	PASS
		25	25	2.9	<13	PASS
		50	0	3.11	<13	PASS
	HCH	1	0	3.14	<13	PASS
		1	24	3.25	<13	PASS
		1	49	2	<13	PASS
		25	0	4.7	<13	PASS
		25	12	4.67	<13	PASS
		25	25	3.32	<13	PASS
		50	0	3.65	<13	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	2.98	<13	PASS
		1	37	4.43	<13	PASS
		1	74	3.85	<13	PASS
		37	0	4.45	<13	PASS
		37	18	4.45	<13	PASS
		37	38	4.46	<13	PASS
		75	0	4.45	<13	PASS
	MCH	1	0	2.72	<13	PASS
		1	37	2.73	<13	PASS
		1	74	2.39	<13	PASS
		37	0	3.19	<13	PASS
		37	18	3.22	<13	PASS
		37	38	3.22	<13	PASS
		75	0	3.2	<13	PASS
	HCH	1	0	3.93	<13	PASS
		1	37	4.15	<13	PASS
		1	74	2.1	<13	PASS

		37	0	4.17	<13	PASS
		37	18	4.17	<13	PASS
		37	38	4.17	<13	PASS
		75	0	4.2	<13	PASS
16QAM	LCH	1	0	2.64	<13	PASS
		1	37	4.18	<13	PASS
		1	74	3.59	<13	PASS
		37	0	4.46	<13	PASS
		37	18	4.46	<13	PASS
		37	38	4.46	<13	PASS
		75	0	5.12	<13	PASS
	MCH	1	0	2.63	<13	PASS
		1	37	2.92	<13	PASS
		1	74	2.52	<13	PASS
		37	0	3.2	<13	PASS
		37	18	3.19	<13	PASS
		37	38	3.21	<13	PASS
		75	0	3.79	<13	PASS
	HCH	1	0	3.82	<13	PASS
		1	37	4.13	<13	PASS
		1	74	2.02	<13	PASS
		37	0	4.18	<13	PASS
		37	18	4.19	<13	PASS
		37	38	4.19	<13	PASS
		75	0	4.88	<13	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.01	<13	PASS
		1	49	4.37	<13	PASS
		1	99	3.49	<13	PASS
		50	0	3.84	<13	PASS
		50	25	3.85	<13	PASS
		50	50	4.56	<13	PASS
		100	0	4.71	<13	PASS
	MCH	1	0	2.88	<13	PASS
		1	49	2.53	<13	PASS

		1	99	2.59	<13	PASS
		50	0	2.92	<13	PASS
		50	25	2.93	<13	PASS
		50	50	3.08	<13	PASS
		100	0	3.72	<13	PASS
	HCH	1	0	3.94	<13	PASS
		1	49	4.13	<13	PASS
		1	99	2.2	<13	PASS
		50	0	4.78	<13	PASS
		50	25	4.76	<13	PASS
		50	50	3.05	<13	PASS
		100	0	4.55	<13	PASS
16QAM	LCH	1	0	2.8	<13	PASS
		1	49	4.13	<13	PASS
		1	99	3.07	<13	PASS
		50	0	4.61	<13	PASS
		50	25	4.6	<13	PASS
		50	50	5.3	<13	PASS
		100	0	5.38	<13	PASS
	MCH	1	0	2.74	<13	PASS
		1	49	2.61	<13	PASS
		1	99	2.52	<13	PASS
		50	0	3.7	<13	PASS
		50	25	3.71	<13	PASS
		50	50	3.64	<13	PASS
		100	0	4.23	<13	PASS
	HCH	1	0	3.65	<13	PASS
		1	49	3.9	<13	PASS
		1	99	1.93	<13	PASS
		50	0	5.43	<13	PASS
		50	25	5.35	<13	PASS
		50	50	3.94	<13	PASS
		100	0	5.21	<13	PASS

LTE BAND 12

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.43	<13	PASS
		1	3	3.64	<13	PASS
		1	5	3.6	<13	PASS
		3	0	3.49	<13	PASS
		3	2	3.56	<13	PASS
		3	3	3.76	<13	PASS
		6	0	4.11	<13	PASS
	MCH	1	0	5.51	<13	PASS
		1	3	5.22	<13	PASS
		1	5	5.12	<13	PASS
		3	0	5.6	<13	PASS
		3	2	5.63	<13	PASS
		3	3	5.46	<13	PASS
		6	0	6	<13	PASS
	HCH	1	0	5.15	<13	PASS
		1	3	5.31	<13	PASS
		1	5	5.23	<13	PASS
		3	0	5.46	<13	PASS
		3	2	5.46	<13	PASS
		3	3	5.5	<13	PASS
		6	0	5.96	<13	PASS
16QAM	LCH	1	0	3.95	<13	PASS
		1	3	4.05	<13	PASS
		1	5	4.15	<13	PASS
		3	0	4.16	<13	PASS
		3	2	4.11	<13	PASS
		3	3	4.39	<13	PASS
		6	0	4.61	<13	PASS
	MCH	1	0	5.86	<13	PASS
		1	3	5.6	<13	PASS
		1	5	5.45	<13	PASS
		3	0	6.07	<13	PASS
		3	2	6.13	<13	PASS
		3	3	5.95	<13	PASS

		6	0	6.51	<13	PASS
	HCH	1	0	5.86	<13	PASS
		1	3	5.94	<13	PASS
		1	5	5.77	<13	PASS
		3	0	6.05	<13	PASS
		3	2	6.02	<13	PASS
		3	3	6.05	<13	PASS
		6	0	6.44	<13	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.3	<13	PASS
		1	7	4.46	<13	PASS
		1	14	4.63	<13	PASS
		8	0	4.38	<13	PASS
		8	4	4.36	<13	PASS
		8	7	5.02	<13	PASS
		15	0	4.74	<13	PASS
	MCH	1	0	5.75	<13	PASS
		1	7	5.6	<13	PASS
		1	14	4.6	<13	PASS
		8	0	6.34	<13	PASS
		8	4	6.34	<13	PASS
		8	7	5.87	<13	PASS
		15	0	6.27	<13	PASS
	HCH	1	0	4.25	<13	PASS
		1	7	5.29	<13	PASS
		1	14	5.28	<13	PASS
		8	0	5.33	<13	PASS
		8	4	5.35	<13	PASS
		8	7	6.04	<13	PASS
		15	0	5.69	<13	PASS
16QAM	LCH	1	0	3.98	<13	PASS
		1	7	4.9	<13	PASS
		1	14	5.27	<13	PASS
		8	0	4.86	<13	PASS
		8	4	4.84	<13	PASS

		8	7	5.51	<13	PASS
		15	0	5.28	<13	PASS
	MCH	1	0	5.88	<13	PASS
		1	7	6.15	<13	PASS
		1	14	5.06	<13	PASS
		8	0	7.04	<13	PASS
		8	4	7	<13	PASS
		8	7	6.43	<13	PASS
		15	0	6.72	<13	PASS
	HCH	1	0	4.82	<13	PASS
		1	7	5.9	<13	PASS
		1	14	5.75	<13	PASS
		8	0	5.89	<13	PASS
		8	4	5.79	<13	PASS
		8	7	6.44	<13	PASS
		15	0	8.37	<13	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.62	<13	PASS
		1	12	4.84	<13	PASS
		1	24	5.51	<13	PASS
		12	0	4.56	<13	PASS
		12	6	4.53	<13	PASS
		12	13	5.73	<13	PASS
		25	0	5.09	<13	PASS
	MCH	1	0	5.44	<13	PASS
		1	12	5.64	<13	PASS
		1	24	4.26	<13	PASS
		12	0	6.37	<13	PASS
		12	6	6.28	<13	PASS
		12	13	5.63	<13	PASS
		25	0	6.03	<13	PASS
	HCH	1	0	3.75	<13	PASS
		1	12	4.81	<13	PASS
		1	24	5.53	<13	PASS
		12	0	4.58	<13	PASS

		12	6	4.57	<13	PASS
		12	13	5.74	<13	PASS
		25	0	5.37	<13	PASS
16QAM	LCH	1	0	3.98	<13	PASS
		1	12	5.09	<13	PASS
		1	24	5.85	<13	PASS
		12	0	5.02	<13	PASS
		12	6	5.01	<13	PASS
		12	13	6.24	<13	PASS
		25	0	5.64	<13	PASS
	MCH	1	0	6.07	<13	PASS
		1	12	6.29	<13	PASS
		1	24	4.71	<13	PASS
		12	0	7.04	<13	PASS
		12	6	7.02	<13	PASS
		12	13	6.2	<13	PASS
		25	0	6.73	<13	PASS
	HCH	1	0	4.43	<13	PASS
		1	12	5.33	<13	PASS
		1	24	6.14	<13	PASS
		12	0	5.12	<13	PASS
		12	6	5.11	<13	PASS
		12	13	6.28	<13	PASS
		25	0	5.79	<13	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.15	<13	PASS
		1	24	5.20	<13	PASS
		1	49	4.35	<13	PASS
		25	0	3.54	<13	PASS
		25	12	4.12	<13	PASS
		25	25	3.33	<13	PASS
		50	0	3.40	<13	PASS
	MCH	1	0	5.52	<13	PASS
		1	24	5.31	<13	PASS
		1	49	4.45	<13	PASS

		25	0	5.18	<13	PASS
		25	12	3.56	<13	PASS
		25	25	5.69	<13	PASS
		50	0	3.45	<13	PASS
	HCH	1	0	4.22	<13	PASS
		1	24	5.17	<13	PASS
		1	49	4.46	<13	PASS
		25	0	3.48	<13	PASS
		25	12	4.35	<13	PASS
		25	25	3.24	<13	PASS
		50	0	5.85	<13	PASS
16QAM	LCH	1	0	3.16	<13	PASS
		1	24	3.70	<13	PASS
		1	49	5.24	<13	PASS
		25	0	4.33	<13	PASS
		25	12	4.15	<13	PASS
		25	25	3.61	<13	PASS
		50	0	3.16	<13	PASS
	MCH	1	0	5.05	<13	PASS
		1	24	4.35	<13	PASS
		1	49	3.78	<13	PASS
		25	0	6.85	<13	PASS
		25	12	6.42	<13	PASS
		25	25	5.50	<13	PASS
		50	0	5.31	<13	PASS
	HCH	1	0	3.42	<13	PASS
		1	24	3.16	<13	PASS
		1	49	3.25	<13	PASS
		25	0	5.34	<13	PASS
		25	12	3.67	<13	PASS
		25	25	5.18	<13	PASS
		50	0	5.16	<13	PASS

LTE Band 25

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.56	<13	PASS
		1	3	8.48	<13	PASS
		1	5	8.59	<13	PASS
		3	0	8.55	<13	PASS
		3	2	8.53	<13	PASS
		3	3	8.51	<13	PASS
		6	0	8.52	<13	PASS
	MCH	1	0	4.44	<13	PASS
		1	3	4.56	<13	PASS
		1	5	4.57	<13	PASS
		3	0	4.74	<13	PASS
		3	2	4.77	<13	PASS
		3	3	4.85	<13	PASS
		6	0	5.36	<13	PASS
	HCH	1	0	7.95	<13	PASS
		1	3	6.16	<13	PASS
		1	5	7.98	<13	PASS
		3	0	4.92	<13	PASS
		3	2	5.12	<13	PASS
		3	3	7.08	<13	PASS
		6	0	5.08	<13	PASS
16QAM	LCH	1	0	8.51	<13	PASS
		1	3	8.55	<13	PASS
		1	5	8.57	<13	PASS
		3	0	8.52	<13	PASS
		3	2	8.6	<13	PASS
		3	3	8.5	<13	PASS
		6	0	8.53	<13	PASS
	MCH	1	0	5.05	<13	PASS
		1	3	5.08	<13	PASS
		1	5	5.14	<13	PASS
		3	0	5.33	<13	PASS
		3	2	5.3	<13	PASS
		3	3	5.4	<13	PASS

		6	0	5.78	<13	PASS
	HCH	1	0	7.15	<13	PASS
		1	3	5.43	<13	PASS
		1	5	6.08	<13	PASS
		3	0	5.83	<13	PASS
		3	2	5.86	<13	PASS
		3	3	5.72	<13	PASS
		6	0	5.63	<13	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.51	<13	PASS
		1	7	8.56	<13	PASS
		1	14	8.55	<13	PASS
		8	0	8.51	<13	PASS
		8	4	8.54	<13	PASS
		8	7	8.54	<13	PASS
		15	0	8.5	<13	PASS
	MCH	1	0	4.59	<13	PASS
		1	7	5.09	<13	PASS
		1	14	4.73	<13	PASS
		8	0	5.53	<13	PASS
		8	4	5.5	<13	PASS
		8	7	5.58	<13	PASS
		15	0	5.5	<13	PASS
	HCH	1	0	4.96	<13	PASS
		1	7	5.21	<13	PASS
		1	14	4.65	<13	PASS
		8	0	5.38	<13	PASS
		8	4	5.43	<13	PASS
		8	7	5.3	<13	PASS
		15	0	5.39	<13	PASS
16QAM	LCH	1	0	8.54	<13	PASS
		1	7	8.53	<13	PASS
		1	14	8.53	<13	PASS
		8	0	8.53	<13	PASS
		8	4	8.54	<13	PASS

		8	7	8.56	<13	PASS
		15	0	8.5	<13	PASS
	MCH	1	0	5.15	<13	PASS
		1	7	5.59	<13	PASS
		1	14	5.13	<13	PASS
		8	0	5.96	<13	PASS
		8	4	6.03	<13	PASS
		8	7	5.98	<13	PASS
		15	0	6.09	<13	PASS
	HCH	1	0	5.61	<13	PASS
		1	7	5.58	<13	PASS
		1	14	5.2	<13	PASS
		8	0	5.86	<13	PASS
		8	4	5.83	<13	PASS
		8	7	5.75	<13	PASS
		15	0	5.86	<13	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.51	<13	PASS
		1	12	8.51	<13	PASS
		1	24	8.52	<13	PASS
		12	0	8.63	<13	PASS
		12	6	8.54	<13	PASS
		12	13	8.57	<13	PASS
		25	0	8.5	<13	PASS
	MCH	1	0	4.94	<13	PASS
		1	12	5.2	<13	PASS
		1	24	4.98	<13	PASS
		12	0	5.52	<13	PASS
		12	6	5.52	<13	PASS
		12	13	5.5	<13	PASS
		25	0	5.38	<13	PASS
	HCH	1	0	5.3	<13	PASS
		1	12	4.93	<13	PASS
		1	24	4.55	<13	PASS
		12	0	5.65	<13	PASS

		12	6	5.55	<13	PASS
		12	13	5.29	<13	PASS
		25	0	5.47	<13	PASS
16QAM	LCH	1	0	8.57	<13	PASS
		1	12	8.52	<13	PASS
		1	24	8.54	<13	PASS
		12	0	8.48	<13	PASS
		12	6	8.54	<13	PASS
		12	13	8.49	<13	PASS
		25	0	8.51	<13	PASS
	MCH	1	0	5.54	<13	PASS
		1	12	5.51	<13	PASS
		1	24	5.49	<13	PASS
		12	0	5.69	<13	PASS
		12	6	5.7	<13	PASS
		12	13	5.84	<13	PASS
		25	0	5.71	<13	PASS
	HCH	1	0	5.62	<13	PASS
		1	12	5.52	<13	PASS
		1	24	4.95	<13	PASS
		12	0	5.96	<13	PASS
		12	6	6.04	<13	PASS
		12	13	5.82	<13	PASS
		25	0	5.92	<13	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.51	<13	PASS
		1	49	8.51	<13	PASS
		1	99	8.54	<13	PASS
		50	0	8.54	<13	PASS
		50	25	8.53	<13	PASS
		50	50	8.52	<13	PASS
		100	0	8.53	<13	PASS
	MCH	1	0	4.35	<13	PASS
		1	49	5.16	<13	PASS
		1	99	4.16	<13	PASS

		50	0	5.57	<13	PASS
		50	25	5.64	<13	PASS
		50	50	5.52	<13	PASS
		100	0	5.58	<13	PASS
	HCH	1	0	4.43	<13	PASS
		1	49	5.33	<13	PASS
		1	99	4.33	<13	PASS
		50	0	5.49	<13	PASS
		50	25	5.45	<13	PASS
		50	50	5.45	<13	PASS
		100	0	5.49	<13	PASS
16QAM	LCH	1	0	8.5	<13	PASS
		1	49	8.5	<13	PASS
		1	99	8.51	<13	PASS
		50	0	8.55	<13	PASS
		50	25	8.55	<13	PASS
		50	50	8.51	<13	PASS
		100	0	8.54	<13	PASS
	MCH	1	0	4.74	<13	PASS
		1	49	5.69	<13	PASS
		1	99	4.95	<13	PASS
		50	0	6.12	<13	PASS
		50	25	6.09	<13	PASS
		50	50	6.02	<13	PASS
		100	0	5.92	<13	PASS
	HCH	1	0	4.84	<13	PASS
		1	49	5.73	<13	PASS
		1	99	4.79	<13	PASS
		50	0	5.93	<13	PASS
		50	25	5.97	<13	PASS
		50	50	5.98	<13	PASS
		100	0	5.99	<13	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.58	<13	PASS
		1	37	8.56	<13	PASS
		1	74	8.55	<13	PASS
		37	0	8.54	<13	PASS
		37	18	8.52	<13	PASS
		37	38	8.55	<13	PASS
		75	0	8.54	<13	PASS
	MCH	1	0	4.1	<13	PASS
		1	37	5.05	<13	PASS
		1	74	4.08	<13	PASS
		37	0	5.88	<13	PASS
		37	18	5.9	<13	PASS
		37	38	5.91	<13	PASS
		75	0	5.89	<13	PASS
	HCH	1	0	3.39	<13	PASS
		1	37	5.12	<13	PASS
		1	74	4.37	<13	PASS
		37	0	5.48	<13	PASS
		37	18	5.44	<13	PASS
		37	38	5.46	<13	PASS
		75	0	5.48	<13	PASS
16QAM	LCH	1	0	8.55	<13	PASS
		1	37	8.52	<13	PASS
		1	74	8.51	<13	PASS
		37	0	8.51	<13	PASS
		37	18	8.54	<13	PASS
		37	38	8.52	<13	PASS
		75	0	8.51	<13	PASS
	MCH	1	0	4.75	<13	PASS
		1	37	5.64	<13	PASS
		1	74	4.6	<13	PASS
		37	0	5.89	<13	PASS
		37	18	5.93	<13	PASS
		37	38	5.92	<13	PASS
		75	0	6.19	<13	PASS

	HCH	1	0	3.95	<13	PASS
		1	37	5.6	<13	PASS
		1	74	4.71	<13	PASS
		37	0	5.45	<13	PASS
		37	18	5.47	<13	PASS
		37	38	5.46	<13	PASS
		75	0	5.82	<13	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.55	<13	PASS
		1	49	8.52	<13	PASS
		1	99	8.5	<13	PASS
		50	0	8.49	<13	PASS
		50	25	8.53	<13	PASS
		50	50	8.51	<13	PASS
		100	0	8.59	<13	PASS
	MCH	1	0	4.39	<13	PASS
		1	49	5.16	<13	PASS
		1	99	3.87	<13	PASS
		50	0	5.61	<13	PASS
		50	25	5.64	<13	PASS
		50	50	5.43	<13	PASS
		100	0	5.69	<13	PASS
	HCH	1	0	3.41	<13	PASS
		1	49	4.85	<13	PASS
		1	99	4	<13	PASS
		50	0	4.59	<13	PASS
		50	25	4.58	<13	PASS
		50	50	5.54	<13	PASS
		100	0	5.3	<13	PASS
16QAM	LCH	1	0	8.53	<13	PASS
		1	49	8.54	<13	PASS
		1	99	8.51	<13	PASS
		50	0	8.58	<13	PASS
		50	25	8.51	<13	PASS
		50	50	8.54	<13	PASS

		100	0	8.57	<13	PASS
	MCH	1	0	4.32	<13	PASS
		1	49	5.63	<13	PASS
		1	99	4.29	<13	PASS
		50	0	6.23	<13	PASS
		50	25	6.22	<13	PASS
		50	50	5.79	<13	PASS
		100	0	6.14	<13	PASS
	HCH	1	0	3.79	<13	PASS
		1	49	5.12	<13	PASS
		1	99	4.34	<13	PASS
		50	0	5.16	<13	PASS
		50	25	5.13	<13	PASS
		50	50	6.04	<13	PASS
		100	0	5.95	<13	PASS

7. SPURIOUS EMISSION

7.1 CONDUCTED SPURIOUS EMISSION

7.1.1 MEASUREMENT METHOD

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is 43 + log10(P[Watts]), where P is the transmitter power in Watts.

For FCC rules§27.53(m)
(i) 40 + 10 log10 p from the channel edges to 5 MHz away
(ii) 43 + 10 log10 p between 5 MHz and X MHz from the channel edges, and
(iii) 55 + 10 log10 p at X MHz and beyond from the channel edges

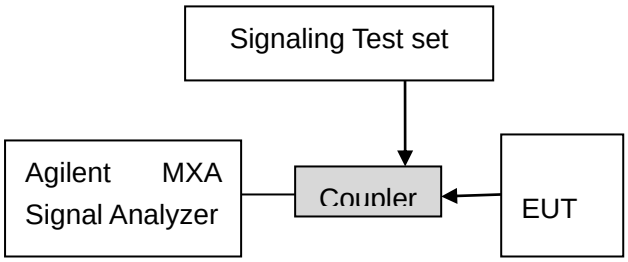
Test Procedure Used
KDB 971168 D01v03 – Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = max hold
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Test Instrument & Measurement Setup

shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

Test Note

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

7.1.2 MEASUREMENT RESULT

PLEASE REFER TO: APPENDIX A TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION

Note: 1. No emission found in standby or receive mode, no recording in this report.

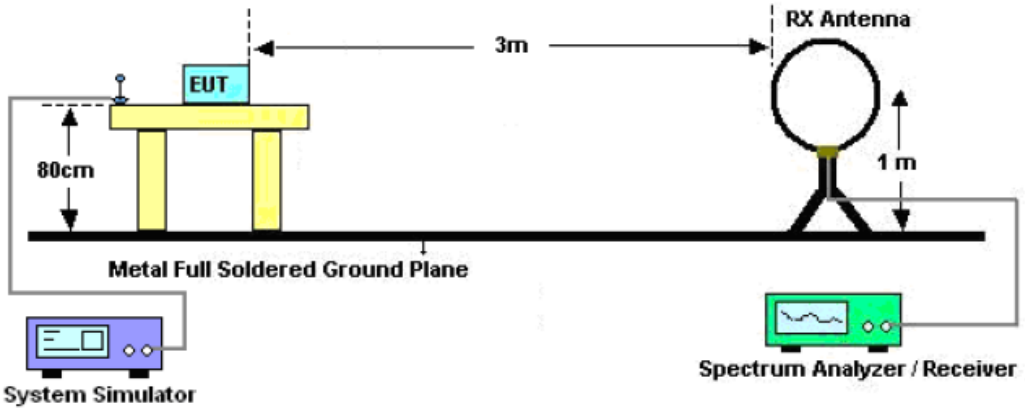
7.2 RADIATED SPURIOUS EMISSION

7.2.1. MEASUREMENT PROCEDURE

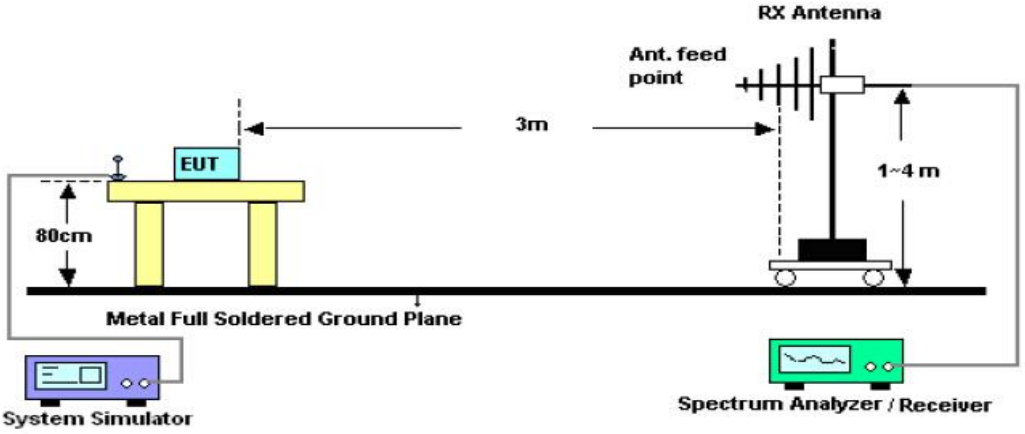
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

7.2.2. TEST SETUP

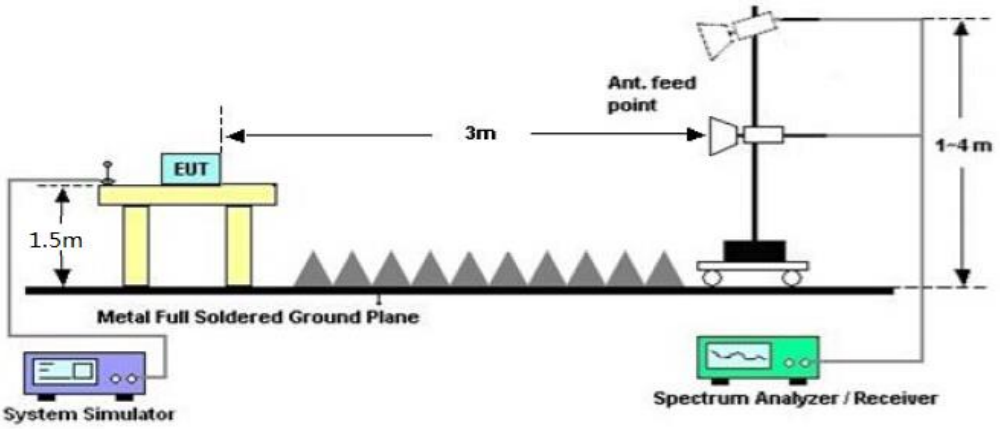
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



7.2.3 PROVISIONS APPLICABLE

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Note: Only record the worst condition of each test mode:

7.2.4 MEASUREMENT RESULT

LTE Band 2
Low channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3720	V	-48.96	-13	-35.96
896.5	V	-35.00	-13	-22.00
796.4	V	-27.45	-13	-14.45
3720	H	-49.00	-13	-36.00
654.7	H	-36.93	-13	-23.93
588.3	H	-28.18	-13	-15.18

Middle channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3760	V	-49.95	-13	-36.95
775.9	V	-35.61	-13	-22.61
486.7	V	-28.10	-13	-15.10
3760	H	-48.56	-13	-35.56
712.5	H	-36.54	-13	-23.54
583.0	H	-27.96	-13	-14.96

High channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3800	V	-48.56	-13	-35.56
498.1	V	-34.51	-13	-21.51
326.3	V	-27.95	-13	-14.95
3800	H	-48.93	-13	-35.93
655.1	H	-37.14	-13	-24.14
520.9	H	-27.86	-13	-14.86

LTE Band 4

Low channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3440	V	-49.36	-13	-36.36
769.5	V	-35.33	-13	-22.33
611.5	V	-28.10	-13	-15.10
3440	H	-49.34	-13	-36.34
591.3	H	-36.17	-13	-23.17
512.2	H	-28.18	-13	-15.18

Middle channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3465	V	-48.99	-13	-35.99
847.1	V	-35.07	-13	-22.07
732.5	V	-26.86	-13	-13.86
3465	H	-49.11	-13	-36.11
598.3	H	-37.06	-13	-24.06
496.1	H	-27.60	-13	-14.60

High channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3490	V	-49.04	-13	-36.04
889.7	V	-35.09	-13	-22.09
792.5	V	-27.09	-13	-14.09
3490	H	-48.19	-13	-35.19
569.4	H	-35.99	-13	-22.99
496.3	H	-27.73	-13	-14.73

LTE Band 7

Low channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
5020	V	-49.84	-13	-36.84
643.5	V	-34.64	-13	-21.64
559.1	V	-27.83	-13	-14.83
5020	H	-48.49	-13	-35.49
869.6	H	-36.74	-13	-23.74
447.0	H	-28.18	-13	-15.18

Middle channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
5070	V	-48.16	-13	-35.16
693.5	V	-34.81	-13	-21.81
521.1	V	-26.91	-13	-13.91
5070	H	-48.08	-13	-35.08
496.2	H	-37.07	-13	-24.07
311.7	H	-28.07	-13	-15.07

High channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
5120	V	-47.03	-13	-34.03
869.5	V	-35.71	-13	-22.71
694.3	V	-27.42	-13	-14.42
5120	H	-48.70	-13	-35.70
854.2	H	-36.81	-13	-23.81
595.7	H	-27.15	-13	-14.15

LTE Band 12
Low channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1408	V	-39.19	-13	-26.19
635.4	V	-46.81	-13	-33.81
469.5	V	-45.92	-13	-32.92
1408	H	-38.62	-13	-25.62
617.9	H	-45.99	-13	-32.99
523.6	H	-45.99	-13	-32.99

Middle channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1415	V	-46.93	-13	-33.93
663.4	V	-34.90	-13	-21.90
513.9	V	-27.57	-13	-14.57
1415	H	-48.44	-13	-35.44
495.5	H	-36.43	-13	-23.43
312.1	H	-27.73	-13	-14.73

High channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1422	V	-47.24	-13	-34.24
745.6	V	-35.47	-13	-22.47
664.5	V	-27.11	-13	-14.11
1422	H	-49.32	-13	-36.32
715.2	H	-37.29	-13	-24.29
469.7	H	-27.56	-13	-14.56

LTE Band 25

Low channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3720	V	-47.55	-13	-34.55
768.5	V	-35.42	-13	-22.42
625.3	V	-27.85	-13	-14.85
3720	H	-48.83	-13	-35.83
605.3	H	-37.32	-13	-24.32
611.2	H	-26.93	-13	-13.93

Middle channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3765	V	-46.52	-13	-33.52
839.8	V	-34.77	-13	-21.77
745.8	V	-27.69	-13	-14.69
3765	H	-49.23	-13	-36.23
605.7	H	-36.43	-13	-23.43
512.3	H	-27.27	-13	-14.27

High channel

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3810	V	-47.17	-13	-34.17
886.8	V	-34.83	-13	-21.83
795.4	V	-28.15	-13	-15.15
3810	H	-48.62	-13	-35.62
615.6	H	-36.20	-13	-23.20
502.3	H	-26.94	-13	-13.94

Note: 1. Margin = Emission Level -Limit

2. (30MHz-26GHz) Below 30MHZ no Spurious found and above is the worst mode data

8. FREQUENCY STABILITY

8.1 MEASUREMENT METHOD

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of R&S CMW500 DIGITAL RADIO COMMUNICATION TESTER.

1 Measure the carrier frequency at room temperature.

2 Subject the EUT to overnight soak at -10℃. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on channel 20175 for LTE band 4 measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

3 Repeat the above measurements at 10℃ increments from -10℃ to +50℃. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

4 Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.

5 Subject the EUT to overnight soak at +50℃.

6 With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

7 Repeat the above measurements at 10℃ increments from +50℃ to -10℃. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

8 At all temperature levels hold the temperature to +/- 0.5℃ during the measurement procedure.

8.2 PROVISIONS APPLICABLE

8.2.1 For Hand carried battery powered equipment

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-E-2016. The frequency stability of the transmitter is measured by:

a.) Temperature: The temperature is varied from -10°C to +50°C in 10°C increments using an environmental chamber.

b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 22, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency. For Part 24 and Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

8.2.2 For equipment powered by primary supply voltage

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).

2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10°C intervals ranging from -10°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

4. The EUT doesn’t work below -10℃

8.3 MEASUREMENT RESULT (WORST)

LTE Band 2

Middle Channel, f_O = 1880 MHz			
Temperature (℃)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	5.0	-12.23	-0.006609
0		-12.06	-0.006516
10		-34.83	-0.018528
20		-17.04	-0.009062
30		16.57	0.008676
40		8.45	0.004428
50		-29.00	-0.015668
25	5.5	-4.25	-0.002296
	4.5	-30.33	-0.016387

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

LTE Band 4

Middle Channel, f_O = 1732.5 MHz				
Temperature (℃)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	5.0	4.56	0.002668	±2.5
0		-21.37	-0.012493	±2.5
10		3.69	0.002130	±2.5
20		-9.33	-0.005384	±2.5
30		-23.49	-0.013389	±2.5
40		-22.57	-0.012868	±2.5
50		-20.53	-0.012000	±2.5
25	5.5	-12.00	-0.006928	±2.5
	4.5	16.42	0.009479	±2.5

LTE Band 7

Middle Channel, f_O = 2535 MHz			
Temperature (℃)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	5.0	4.48	0.001789
0		-6.39	-0.002555
10		10.33	0.004074
20		-48.19	-0.019011
30		20.70	0.008272
40		22.16	0.008855
50		10.41	0.004161
25	5.5	-44.75	-0.017428
	4.5	-34.33	-0.013372

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

LTE Band 12

Middle Channel, f_O = 707.5 MHz			
Temperature (℃)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	5.0	4.01	0.005716
0		4.53	0.006472
10		-1.86	-0.002629
20		-2.40	-0.003397
30		12.04	0.017025
40		9.84	0.013911
50		-1.47	-0.002103
25	5.5	-16.54	-0.023119
	4.5	-7.81	-0.010919

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

LTE Band 25

Middle Channel, f_O = 1882.5 MHz			
Temperature (℃)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	5.0	-17.85	-0.010815
0		-27.19	-0.016474
10		-0.31	-0.000167
20		-40.90	-0.021726
30		22.79	0.013805
40		20.16	0.012211
50		5.52	0.003345
25	5.5	-2.16	-0.001128
	4.5	-5.28	-0.002757

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

9. OCCUPIED BANDWIDTH

9.1 MEASUREMENT METHOD

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

9.2 PROVISIONS APPLICABLE

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power

9.3 MEASUREMENT RESULT

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

LTE Band 2

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0795	PASS
	MCH	6	0	1.0853	PASS
	HCH	6	0	1.0815	PASS
16QAM	LCH	6	0	1.0825	PASS
	MCH	6	0	1.0824	PASS
	HCH	6	0	1.0813	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6900	PASS
	MCH	15	0	2.6932	PASS
	HCH	15	0	2.6925	PASS
16QAM	LCH	15	0	2.6892	PASS
	MCH	15	0	2.6866	PASS
	HCH	15	0	2.6855	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4838	PASS
	MCH	25	0	4.4815	PASS
	HCH	25	0	4.4854	PASS
16QAM	LCH	25	0	4.4772	PASS
	MCH	25	0	4.4802	PASS
	HCH	25	0	4.4902	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9513	PASS
	MCH	50	0	8.9522	PASS
	HCH	50	0	8.9497	PASS
16QAM	LCH	50	0	8.9568	PASS
	MCH	50	0	8.9504	PASS
	HCH	50	0	8.9514	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.423	PASS
	MCH	75	0	13.429	13.372
	HCH	75	0	13.401	PASS
16QAM	LCH	75	0	13.428	PASS
	MCH	75	0	13.450	PASS
	HCH	75	0	13.392	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.869	PASS
	MCH	100	0	17.899	PASS
	HCH	100	0	17.835	PASS
16QAM	LCH	100	0	17.866	PASS
	MCH	100	0	17.915	PASS
	HCH	100	0	17.838	PASS

LTE Band 4

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0794	PASS
	MCH	6	0	1.0851	PASS
	HCH	6	0	1.0813	PASS
16QAM	LCH	6	0	1.0829	PASS
	MCH	6	0	1.0882	PASS
	HCH	6	0	1.0829	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6909	PASS
	MCH	15	0	2.6949	PASS
	HCH	15	0	2.6866	PASS
16QAM	LCH	15	0	2.6892	PASS
	MCH	15	0	2.6896	PASS
	HCH	15	0	2.6876	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4819	PASS
	MCH	25	0	4.4885	PASS
	HCH	25	0	4.4782	PASS
16QAM	LCH	25	0	4.4856	PASS
	MCH	25	0	4.4924	PASS
	HCH	25	0	4.4858	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9333	PASS
	MCH	50	0	8.9591	PASS
	HCH	50	0	8.9454	PASS
16QAM	LCH	50	0	8.9520	PASS
	MCH	50	0	8.9564	PASS
	HCH	50	0	8.9386	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.415	PASS
	MCH	75	0	13.439	PASS
	HCH	75	0	13.384	PASS
16QAM	LCH	75	0	13.423	PASS
	MCH	75	0	13.443	PASS
	HCH	75	0	13.393	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.874	PASS
	MCH	100	0	17.909	PASS
	HCH	100	0	17.839	PASS
16QAM	LCH	100	0	17.886	PASS
	MCH	100	0	17.914	PASS
	HCH	100	0	17.829	PASS

LTE Band 7

Channel Bandwidth: 5MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4920	PASS
	MCH	25	0	4.5090	PASS
	HCH	25	0	4.5192	PASS
16QAM	LCH	25	0	4.4828	PASS
	MCH	25	0	4.5091	PASS
	HCH	25	0	4.5073	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9589	PASS
	MCH	50	0	9.0021	PASS
	HCH	50	0	9.0081	PASS
16QAM	LCH	50	0	8.9588	PASS
	MCH	50	0	9.0006	PASS
	HCH	50	0	9.0071	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.437	PASS
	MCH	75	0	13.534	PASS
	HCH	75	0	13.470	PASS
16QAM	LCH	75	0	13.455	PASS
	MCH	75	0	13.508	PASS
	HCH	75	0	13.464	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.899	PASS
	MCH	100	0	17.963	PASS
	HCH	100	0	17.948	PASS
16QAM	LCH	100	0	17.899	PASS
	MCH	100	0	17.990	PASS
	HCH	100	0	17.957	PASS

LTE Band 12

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0833	PASS
	MCH	6	0	1.0852	PASS
	HCH	6	0	1.0822	PASS
16QAM	LCH	6	0	1.0823	PASS
	MCH	6	0	1.0822	PASS
	HCH	6	0	1.0839	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth:3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6871	PASS
	MCH	15	0	2.6932	PASS
	HCH	15	0	2.6921	PASS
16QAM	LCH	15	0	2.6900	PASS
	MCH	15	0	2.6989	PASS
	HCH	15	0	2.6892	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4931	PASS
	MCH	25	0	4.4875	PASS
	HCH	25	0	4.4831	PASS
16QAM	LCH	25	0	4.4983	PASS
	MCH	25	0	4.4760	PASS
	HCH	25	0	4.4874	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9842	PASS
	MCH	50	0	8.9522	PASS
	HCH	50	0	8.9264	PASS
16QAM	LCH	50	0	8.9867	PASS
	MCH	50	0	8.9388	PASS
	HCH	50	0	8.9325	PASS

LTE Band 25

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0808	PASS
	MCH	6	0	1.0819	PASS
	HCH	6	0	1.0826	PASS
16QAM	LCH	6	0	1.0815	PASS
	MCH	6	0	1.0813	PASS
	HCH	6	0	1.0808	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6934	PASS
	MCH	15	0	2.6884	PASS
	HCH	15	0	2.6933	PASS
16QAM	LCH	15	0	2.6862	PASS
	MCH	15	0	2.6912	PASS
	HCH	15	0	2.6866	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4731	PASS
	MCH	25	0	4.4841	PASS
	HCH	25	0	4.4780	PASS
16QAM	LCH	25	0	4.4788	PASS
	MCH	25	0	4.4785	PASS
	HCH	25	0	4.4840	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9457	PASS
	MCH	50	0	8.9480	PASS
	HCH	50	0	8.9555	PASS
16QAM	LCH	50	0	8.9569	PASS
	MCH	50	0	8.9538	PASS
	HCH	50	0	8.9575	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.428	PASS
	MCH	75	0	13.434	PASS
	HCH	75	0	13.436	PASS
16QAM	LCH	75	0	13.415	PASS
	MCH	75	0	13.422	PASS
	HCH	75	0	13.426	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.867	PASS
	MCH	100	0	17.895	PASS
	HCH	100	0	17.855	PASS
16QAM	LCH	100	0	17.878	PASS
	MCH	100	0	17.899	PASS
	HCH	100	0	17.875	PASS

Note: Please refers to Appendix B for compliance test plots for Occupied Bandwidth (99%)

10. EMISSION BANDWIDTH

10.1 MEASUREMENT METHOD

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

10.2 PROVISIONS APPLICABLE

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

10.3 MEASUREMENT RESULT

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

LTE Band 2

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.342	PASS
	MCH	6	0	1.384	PASS
	HCH	6	0	1.392	PASS
16QAM	LCH	6	0	1.383	PASS
	MCH	6	0	1.398	PASS
	HCH	6	0	1.363	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.966	PASS
	MCH	15	0	2.979	PASS
	HCH	15	0	2.935	PASS
16QAM	LCH	15	0	2.946	PASS
	MCH	15	0	2.983	PASS
	HCH	15	0	2.965	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.939	PASS
	MCH	25	0	4.958	PASS
	HCH	25	0	4.899	PASS
16QAM	LCH	25	0	4.952	PASS
	MCH	25	0	4.929	PASS
	HCH	25	0	4.935	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.734	PASS
	MCH	50	0	9.769	PASS
	HCH	50	0	9.683	PASS
16QAM	LCH	50	0	9.723	PASS
	MCH	50	0	9.683	PASS
	HCH	50	0	9.633	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.48	PASS
	MCH	75	0	14.52	PASS
	HCH	75	0	14.32	PASS
16QAM	LCH	75	0	14.55	PASS
	MCH	75	0	14.54	PASS
	HCH	75	0	14.49	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.76	PASS
	MCH	100	0	18.81	PASS
	HCH	100	0	18.66	PASS
16QAM	LCH	100	0	18.88	PASS
	MCH	100	0	18.89	PASS
	HCH	100	0	18.83	PASS

LTE Band 4

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.293	PASS
	MCH	6	0	1.373	PASS
	HCH	6	0	1.357	PASS
16QAM	LCH	6	0	1.354	PASS
	MCH	6	0	1.555	PASS
	HCH	6	0	1.375	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.961	PASS
	MCH	15	0	2.915	PASS
	HCH	15	0	2.924	PASS
16QAM	LCH	15	0	2.921	PASS
	MCH	15	0	2.962	PASS
	HCH	15	0	2.948	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.937	PASS
	MCH	25	0	4.966	PASS
	HCH	25	0	4.946	PASS
16QAM	LCH	25	0	4.879	PASS
	MCH	25	0	4.955	PASS
	HCH	25	0	4.949	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.707	PASS
	MCH	50	0	9.719	PASS
	HCH	50	0	9.586	PASS
16QAM	LCH	50	0	9.670	PASS
	MCH	50	0	9.784	PASS
	HCH	50	0	9.692	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.36	PASS
	MCH	75	0	14.52	PASS
	HCH	75	0	14.42	PASS
16QAM	LCH	75	0	14.56	PASS
	MCH	75	0	14.42	PASS
	HCH	75	0	14.46	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.73	PASS
	MCH	100	0	18.76	PASS
	HCH	100	0	18.79	PASS
16QAM	LCH	100	0	18.87	PASS
	MCH	100	0	18.97	PASS
	HCH	100	0	18.76	PASS

LTE Band 7

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	5.058	PASS
	MCH	25	0	7.683	PASS
	HCH	25	0	8.712	PASS
16QAM	LCH	25	0	5.023	PASS
	MCH	25	0	8.184	PASS
	HCH	25	0	8.130	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.921	PASS
	MCH	50	0	14.98	PASS
	HCH	50	0	13.81	PASS
16QAM	LCH	50	0	9.924	PASS
	MCH	50	0	14.51	PASS
	HCH	50	0	15.67	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.96	PASS
	MCH	75	0	25.10	PASS
	HCH	75	0	19.34	PASS
16QAM	LCH	75	0	14.95	PASS
	MCH	75	0	22.75	PASS
	HCH	75	0	18.06	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	19.05	PASS
	MCH	100	0	28.86	PASS
	HCH	100	0	20.45	PASS
16QAM	LCH	100	0	19.10	PASS
	MCH	100	0	31.36	PASS
	HCH	100	0	19.19	PASS