

		8	7	5.56	<13	PASS
		15	0	5.65	<13	PASS
	MCH	1	0	5.39	<13	PASS
		1	7	5.34	<13	PASS
		1	14	5.37	<13	PASS
		8	0	5.88	<13	PASS
		8	4	5.87	<13	PASS
		8	7	5.92	<13	PASS
		15	0	5.9	<13	PASS
	HCH	1	0	4.68	<13	PASS
		1	7	4.66	<13	PASS
		1	14	4.6	<13	PASS
		8	0	5.15	<13	PASS
		8	4	5.24	<13	PASS
		8	7	5.12	<13	PASS
15		0	5.25	<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	4.27	<13	PASS
		1	12	4.24	<13	PASS
		1	24	4.26	<13	PASS
		12	0	4.75	<13	PASS
		12	6	4.75	<13	PASS
		12	13	4.69	<13	PASS
		25	0	4.85	<13	PASS
	MCH	1	0	4.55	<13	PASS
		1	12	4.59	<13	PASS
		1	24	4.76	<13	PASS
		12	0	5.14	<13	PASS
		12	6	5.11	<13	PASS
		12	13	5.12	<13	PASS
		25	0	5.07	<13	PASS
	HCH	1	0	3.66	<13	PASS
		1	12	3.54	<13	PASS
		1	24	3.47	<13	PASS
		12	0	4.49	<13	PASS

		12	6	4.49	<13	PASS
		12	13	4.34	<13	PASS
		25	0	4.41	<13	PASS
16QAM	LCH	1	0	5.19	<13	PASS
		1	12	5.07	<13	PASS
		1	24	5.08	<13	PASS
		12	0	5.6	<13	PASS
		12	6	5.59	<13	PASS
		12	13	5.59	<13	PASS
		25	0	5.59	<13	PASS
	MCH	1	0	5.13	<13	PASS
		1	12	5.17	<13	PASS
		1	24	5.3	<13	PASS
		12	0	5.84	<13	PASS
		12	6	5.85	<13	PASS
		12	13	5.9	<13	PASS
		25	0	5.98	<13	PASS
	HCH	1	0	4.72	<13	PASS
		1	12	4.63	<13	PASS
		1	24	4.63	<13	PASS
		12	0	5.44	<13	PASS
		12	6	5.4	<13	PASS
		12	13	5.33	<13	PASS
		25	0	5.29	<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	3.84	<13	PASS
		1	49	3.98	<13	PASS
		1	99	3.88	<13	PASS
		50	0	4.83	<13	PASS
		50	25	4.85	<13	PASS
		50	50	4.75	<13	PASS
		100	0	4.82	<13	PASS
	MCH	1	0	4.29	<13	PASS
		1	49	4.44	<13	PASS
		1	99	4.69	<13	PASS

		50	0	5.02	<13	PASS
		50	25	5.01	<13	PASS
		50	50	5.06	<13	PASS
		100	0	5.12	<13	PASS
	HCH	1	0	4.27	<13	PASS
		1	49	3.84	<13	PASS
		1	99	3.61	<13	PASS
		50	0	4.76	<13	PASS
		50	25	4.75	<13	PASS
		50	50	4.52	<13	PASS
		100	0	4.61	<13	PASS
16QAM	LCH	1	0	4.97	<13	PASS
		1	49	4.8	<13	PASS
		1	99	4.8	<13	PASS
		50	0	5.57	<13	PASS
		50	25	5.64	<13	PASS
		50	50	5.49	<13	PASS
		100	0	5.64	<13	PASS
	MCH	1	0	4.78	<13	PASS
		1	49	5.1	<13	PASS
		1	99	5.06	<13	PASS
		50	0	5.84	<13	PASS
		50	25	5.81	<13	PASS
		50	50	5.96	<13	PASS
		100	0	5.92	<13	PASS
	HCH	1	0	5.29	<13	PASS
		1	49	4.79	<13	PASS
		1	99	4.65	<13	PASS
		50	0	5.65	<13	PASS
		50	25	5.62	<13	PASS
		50	50	5.36	<13	PASS
		100	0	5.44	<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	4.15	<13	PASS
		1	37	3.98	<13	PASS
		1	74	4.11	<13	PASS
		37	0	5.18	<13	PASS
		37	18	5.17	<13	PASS
		37	38	5.16	<13	PASS
		75	0	5.13	<13	PASS
	MCH	1	0	4.29	<13	PASS
		1	37	4.5	<13	PASS
		1	74	4.73	<13	PASS
		37	0	5.4	<13	PASS
		37	18	5.38	<13	PASS
		37	38	5.46	<13	PASS
		75	0	5.45	<13	PASS
	HCH	1	0	4.47	<13	PASS
		1	37	3.96	<13	PASS
		1	74	3.55	<13	PASS
		37	0	5.16	<13	PASS
		37	18	5.15	<13	PASS
		37	38	5.14	<13	PASS
		75	0	5.17	<13	PASS
16QAM	LCH	1	0	5.06	<13	PASS
		1	37	4.8	<13	PASS
		1	74	5	<13	PASS
		37	0	5.14	<13	PASS
		37	18	5.16	<13	PASS
		37	38	5.16	<13	PASS
		75	0	5.78	<13	PASS
	MCH	1	0	5.02	<13	PASS
		1	37	5.26	<13	PASS
		1	74	5.35	<13	PASS
		37	0	5.46	<13	PASS
		37	18	5.46	<13	PASS
		37	38	5.45	<13	PASS
		75	0	6.04	<13	PASS

	HCH	1	0	4.94	<13	PASS
		1	37	4.3	<13	PASS
		1	74	3.85	<13	PASS
		37	0	5.21	<13	PASS
		37	18	5.15	<13	PASS
		37	38	5.16	<13	PASS
		75	0	5.77	<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	4.26	<13	PASS
		1	49	3.97	<13	PASS
		1	99	4.2	<13	PASS
		50	0	4.85	<13	PASS
		50	25	4.85	<13	PASS
		50	50	4.95	<13	PASS
		100	0	5.12	<13	PASS
	MCH	1	0	4.14	<13	PASS
		1	49	4.52	<13	PASS
		1	99	4.5	<13	PASS
		50	0	5.07	<13	PASS
		50	25	5.05	<13	PASS
		50	50	5.17	<13	PASS
		100	0	5.36	<13	PASS
	HCH	1	0	4.6	<13	PASS
		1	49	4.15	<13	PASS
		1	99	3.46	<13	PASS
		50	0	5.13	<13	PASS
		50	25	5.1	<13	PASS
		50	50	4.78	<13	PASS
		100	0	5.25	<13	PASS
16QAM	LCH	1	0	4.78	<13	PASS
		1	49	4.69	<13	PASS
		1	99	5.03	<13	PASS
		50	0	5.61	<13	PASS
		50	25	5.61	<13	PASS
		50	50	5.68	<13	PASS

		100	0	5.9	<13	PASS
	MCH	1	0	4.99	<13	PASS
		1	49	5.54	<13	PASS
		1	99	5.46	<13	PASS
		50	0	5.81	<13	PASS
		50	25	5.87	<13	PASS
		50	50	6.02	<13	PASS
		100	0	6.08	<13	PASS
		HCH	1	0	5.59	<13
	1		49	5.19	<13	PASS
	1		99	4.67	<13	PASS
	50		0	5.94	<13	PASS
	50		25	5.93	<13	PASS
	50		50	5.5	<13	PASS
	100		0	5.94	<13	PASS

**LTE BAND 5**  
**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	4.41	<13	PASS
		1	3	4.36	<13	PASS
		1	5	4.43	<13	PASS
		3	0	4.57	<13	PASS
		3	2	4.51	<13	PASS
		3	3	4.5	<13	PASS
		6	0	5.16	<13	PASS
	MCH	1	0	4.5	<13	PASS
		1	3	4.48	<13	PASS
		1	5	4.54	<13	PASS
		3	0	4.42	<13	PASS
		3	2	4.44	<13	PASS
		3	3	4.54	<13	PASS
		6	0	5.03	<13	PASS
	HCH	1	0	4.47	<13	PASS
		1	3	4.36	<13	PASS
		1	5	4.54	<13	PASS
		3	0	4.48	<13	PASS
		3	2	4.49	<13	PASS
		3	3	4.45	<13	PASS
		6	0	4.86	<13	PASS
16QAM	LCH	1	0	5.34	<13	PASS
		1	3	5.38	<13	PASS
		1	5	5.37	<13	PASS
		3	0	5.4	<13	PASS
		3	2	5.34	<13	PASS
		3	3	5.31	<13	PASS
		6	0	5.8	<13	PASS
	MCH	1	0	5.27	<13	PASS
		1	3	5.28	<13	PASS
		1	5	5.34	<13	PASS
		3	0	5.41	<13	PASS
		3	2	5.46	<13	PASS
		3	3	5.47	<13	PASS

		6	0	5.85	<13	PASS
	HCH	1	0	4.99	<13	PASS
		1	3	4.94	<13	PASS
		1	5	5.05	<13	PASS
		3	0	5.43	<13	PASS
		3	2	5.28	<13	PASS
		3	3	5.35	<13	PASS
		6	0	5.72	<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	4.63	<13	PASS
		1	7	4.61	<13	PASS
		1	14	4.63	<13	PASS
		8	0	5.11	<13	PASS
		8	4	5.17	<13	PASS
		8	7	5.1	<13	PASS
		15	0	5.13	<13	PASS
	MCH	1	0	4.51	<13	PASS
		1	7	4.54	<13	PASS
		1	14	4.55	<13	PASS
		8	0	5.07	<13	PASS
		8	4	5.09	<13	PASS
		8	7	5.06	<13	PASS
		15	0	5.05	<13	PASS
	HCH	1	0	4.5	<13	PASS
		1	7	4.42	<13	PASS
		1	14	4.45	<13	PASS
		8	0	5.02	<13	PASS
		8	4	5.05	<13	PASS
		8	7	5.01	<13	PASS
		15	0	5.12	<13	PASS
16QAM	LCH	1	0	5.69	<13	PASS
		1	7	5.57	<13	PASS
		1	14	5.78	<13	PASS
		8	0	5.93	<13	PASS
		8	4	5.97	<13	PASS



		8	7	5.89	<13	PASS
		15	0	5.97	<13	PASS
	MCH	1	0	5.04	<13	PASS
		1	7	4.89	<13	PASS
		1	14	4.85	<13	PASS
		8	0	5.84	<13	PASS
		8	4	5.83	<13	PASS
		8	7	5.86	<13	PASS
		15	0	5.87	<13	PASS
	HCH	1	0	5.5	<13	PASS
		1	7	5.36	<13	PASS
		1	14	5.46	<13	PASS
		8	0	5.8	<13	PASS
		8	4	5.86	<13	PASS
		8	7	5.73	<13	PASS
15		0	5.85	<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	4.74	<13	PASS
		1	12	4.8	<13	PASS
		1	24	4.65	<13	PASS
		12	0	5.13	<13	PASS
		12	6	5.07	<13	PASS
		12	13	4.98	<13	PASS
		25	0	5.07	<13	PASS
	MCH	1	0	4.5	<13	PASS
		1	12	4.55	<13	PASS
		1	24	4.53	<13	PASS
		12	0	5.05	<13	PASS
		12	6	5.05	<13	PASS
		12	13	5.09	<13	PASS
		25	0	4.96	<13	PASS
	HCH	1	0	4.66	<13	PASS
		1	12	4.65	<13	PASS
		1	24	4.56	<13	PASS
		12	0	5.03	<13	PASS

		12	6	4.99	<13	PASS
		12	13	5.01	<13	PASS
		25	0	5.1	<13	PASS
16QAM	LCH	1	0	5.56	<13	PASS
		1	12	5.6	<13	PASS
		1	24	5.42	<13	PASS
		12	0	5.93	<13	PASS
		12	6	5.94	<13	PASS
		12	13	5.96	<13	PASS
		25	0	5.89	<13	PASS
	MCH	1	0	5.21	<13	PASS
		1	12	5.23	<13	PASS
		1	24	5.14	<13	PASS
		12	0	5.86	<13	PASS
		12	6	5.83	<13	PASS
		12	13	5.95	<13	PASS
		25	0	5.83	<13	PASS
	HCH	1	0	5.73	<13	PASS
		1	12	5.55	<13	PASS
		1	24	5.55	<13	PASS
		12	0	5.81	<13	PASS
		12	6	5.85	<13	PASS
		12	13	5.84	<13	PASS
		25	0	5.77	<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	4.47	<13	PASS
		1	24	4.5	<13	PASS
		1	49	4.36	<13	PASS
		25	0	5.08	<13	PASS
		25	12	5.08	<13	PASS
		25	25	4.99	<13	PASS
		50	0	5.08	<13	PASS
	MCH	1	0	4.29	<13	PASS
		1	24	4.42	<13	PASS
		1	49	4.36	<13	PASS

		25	0	5.13	<13	PASS	
		25	12	5.1	<13	PASS	
		25	25	5.06	<13	PASS	
		50	0	5.07	<13	PASS	
	HCH	1	0	4.48	<13	PASS	
		1	24	4.46	<13	PASS	
		1	49	4.53	<13	PASS	
		25	0	4.99	<13	PASS	
		25	12	4.98	<13	PASS	
		25	25	5.05	<13	PASS	
		50	0	5.22	<13	PASS	
	16QAM	LCH	1	0	5.43	<13	PASS
			1	24	5.49	<13	PASS
1			49	5.45	<13	PASS	
25			0	6	<13	PASS	
25			12	6.03	<13	PASS	
25			25	5.91	<13	PASS	
50			0	5.98	<13	PASS	
MCH		1	0	5.19	<13	PASS	
		1	24	5.21	<13	PASS	
		1	49	5.17	<13	PASS	
		25	0	5.85	<13	PASS	
		25	12	5.84	<13	PASS	
		25	25	5.95	<13	PASS	
		50	0	5.9	<13	PASS	
HCH		1	0	5.51	<13	PASS	
		1	24	5.49	<13	PASS	
		1	49	5.44	<13	PASS	
		25	0	5.77	<13	PASS	
		25	12	5.81	<13	PASS	
		25	25	5.91	<13	PASS	
		50	0	5.82	<13	PASS	

**LTEBand 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	2.76	<13	PASS
		1	12	2.55	<13	PASS
		1	24	2.69	<13	PASS
		12	0	3.36	<13	PASS
		12	6	3.35	<13	PASS
		12	13	3.58	<13	PASS
		25	0	3.42	<13	PASS
	MCH	1	0	2.72	<13	PASS
		1	12	2.68	<13	PASS
		1	24	2.75	<13	PASS
		12	0	3.45	<13	PASS
		12	6	3.46	<13	PASS
		12	13	3.43	<13	PASS
		25	0	3.41	<13	PASS
	HCH	1	0	2.14	<13	PASS
		1	12	2.07	<13	PASS
		1	24	2.09	<13	PASS
		12	0	3.11	<13	PASS
		12	6	3.1	<13	PASS
		12	13	3.15	<13	PASS
		25	0	3.2	<13	PASS
16QAM	LCH	1	0	3.62	<13	PASS
		1	12	3.72	<13	PASS
		1	24	3.92	<13	PASS
		12	0	4.18	<13	PASS
		12	6	4.15	<13	PASS
		12	13	4.41	<13	PASS
		25	0	4.21	<13	PASS
	MCH	1	0	3.22	<13	PASS
		1	12	3.25	<13	PASS
		1	24	3.3	<13	PASS
		12	0	4.32	<13	PASS
		12	6	4.25	<13	PASS
		12	13	4.34	<13	PASS

		25	0	4.19	<13	PASS
	HCH	1	0	3.29	<13	PASS
		1	12	3.31	<13	PASS
		1	24	3.33	<13	PASS
		12	0	4.1	<13	PASS
		12	6	4.09	<13	PASS
		12	13	4.11	<13	PASS
		25	0	4.05	<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	3.23	<13	PASS
		1	24	2.79	<13	PASS
		1	49	3.13	<13	PASS
		25	0	3.44	<13	PASS
		25	12	3.42	<13	PASS
		25	25	3.81	<13	PASS
		50	0	3.64	<13	PASS
	MCH	1	0	2.48	<13	PASS
		1	24	2.34	<13	PASS
		1	49	2.43	<13	PASS
		25	0	3.41	<13	PASS
		25	12	3.42	<13	PASS
		25	25	3.47	<13	PASS
		50	0	3.46	<13	PASS
	HCH	1	0	2.52	<13	PASS
		1	24	2.29	<13	PASS
		1	49	2.4	<13	PASS
		25	0	3.21	<13	PASS
		25	12	3.23	<13	PASS
		25	25	3.21	<13	PASS
		50	0	3.24	<13	PASS
16QAM	LCH	1	0	3.34	<13	PASS
		1	24	3.73	<13	PASS
		1	49	4.03	<13	PASS
		25	0	4.23	<13	PASS
		25	12	4.31	<13	PASS

		25	25	4.67	<13	PASS
		50	0	4.45	<13	PASS
	MCH	1	0	3.46	<13	PASS
		1	24	3.42	<13	PASS
		1	49	3.46	<13	PASS
		25	0	4.17	<13	PASS
		25	12	4.16	<13	PASS
		25	25	4.22	<13	PASS
		50	0	4.26	<13	PASS
		HCH	1	0	2.85	<13
	1		24	2.68	<13	PASS
	1		49	2.64	<13	PASS
	25		0	4.11	<13	PASS
	25		12	4.1	<13	PASS
	25		25	3.94	<13	PASS
	50		0	3.98	<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	2.46	<13	PASS
		1	37	3	<13	PASS
		1	74	3.23	<13	PASS
		37	0	4.33	<13	PASS
		37	18	4.35	<13	PASS
		37	38	4.34	<13	PASS
		75	0	4.35	<13	PASS
	MCH	1	0	2.74	<13	PASS
		1	37	2.49	<13	PASS
		1	74	2.66	<13	PASS
		37	0	3.98	<13	PASS
		37	18	3.97	<13	PASS
		37	38	3.97	<13	PASS
		75	0	3.97	<13	PASS
	HCH	1	0	2.62	<13	PASS
		1	37	2.41	<13	PASS
		1	74	2.31	<13	PASS
		37	0	3.81	<13	PASS

		37	18	3.81	<13	PASS
		37	38	3.8	<13	PASS
		75	0	3.79	<13	PASS
16QAM	LCH	1	0	3.26	<13	PASS
		1	37	3.94	<13	PASS
		1	74	4.25	<13	PASS
		37	0	4.34	<13	PASS
		37	18	4.34	<13	PASS
		37	38	4.34	<13	PASS
		75	0	5	<13	PASS
		MCH	1	0	3.47	<13
	1		37	3.43	<13	PASS
	1		74	3.5	<13	PASS
	37		0	3.96	<13	PASS
	37		18	3.97	<13	PASS
	37		38	3.99	<13	PASS
	75		0	4.7	<13	PASS
	HCH	1	0	2.91	<13	PASS
		1	37	2.69	<13	PASS
		1	74	2.64	<13	PASS
		37	0	3.8	<13	PASS
		37	18	3.81	<13	PASS
		37	38	3.81	<13	PASS
		75	0	4.57	<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	2.33	<13	PASS
		1	49	3.03	<13	PASS
		1	99	2.95	<13	PASS
		50	0	3.81	<13	PASS
		50	25	3.8	<13	PASS
		50	50	4.29	<13	PASS
		100	0	4.57	<13	PASS
	MCH	1	0	2.79	<13	PASS
		1	49	2.52	<13	PASS
		1	99	2.73	<13	PASS

		50	0	3.68	<13	PASS
		50	25	3.69	<13	PASS
		50	50	3.64	<13	PASS
		100	0	4.33	<13	PASS
	HCH	1	0	2.51	<13	PASS
		1	49	2.23	<13	PASS
		1	99	2.08	<13	PASS
		50	0	3.58	<13	PASS
		50	25	3.57	<13	PASS
		50	50	3.38	<13	PASS
		100	0	4.3	<13	PASS
16QAM	LCH	1	0	3.33	<13	PASS
		1	49	4.14	<13	PASS
		1	99	4.09	<13	PASS
		50	0	4.52	<13	PASS
		50	25	4.5	<13	PASS
		50	50	5.07	<13	PASS
		100	0	5.28	<13	PASS
	MCH	1	0	3.38	<13	PASS
		1	49	3.23	<13	PASS
		1	99	3.39	<13	PASS
		50	0	4.41	<13	PASS
		50	25	4.48	<13	PASS
		50	50	4.51	<13	PASS
		100	0	4.95	<13	PASS
	HCH	1	0	3.2	<13	PASS
		1	49	3.02	<13	PASS
		1	99	2.78	<13	PASS
		50	0	4.35	<13	PASS
		50	25	4.35	<13	PASS
		50	50	4.12	<13	PASS
		100	0	4.9	<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	5.03	<13	PASS
		1	3	4.91	<13	PASS
		1	5	5.09	<13	PASS
		3	0	5.25	<13	PASS
		3	2	5.31	<13	PASS
		3	3	5.2	<13	PASS
		6	0	5.64	<13	PASS
	MCH	1	0	4.69	<13	PASS
		1	3	4.63	<13	PASS
		1	5	4.87	<13	PASS
		3	0	4.68	<13	PASS
		3	2	4.66	<13	PASS
		3	3	4.73	<13	PASS
		6	0	5.27	<13	PASS
	HCH	1	0	4.08	<13	PASS
		1	3	4.14	<13	PASS
		1	5	4.25	<13	PASS
		3	0	4.26	<13	PASS
		3	2	4.34	<13	PASS
		3	3	4.38	<13	PASS
		6	0	4.94	<13	PASS
16QAM	LCH	1	0	5.96	<13	PASS
		1	3	5.88	<13	PASS
		1	5	5.94	<13	PASS
		3	0	5.96	<13	PASS
		3	2	6.03	<13	PASS
		3	3	6.03	<13	PASS
		6	0	6.43	<13	PASS
	MCH	1	0	5.2	<13	PASS
		1	3	5.22	<13	PASS
		1	5	5.37	<13	PASS
		3	0	5.53	<13	PASS
		3	2	5.53	<13	PASS
		3	3	5.57	<13	PASS

		6	0	6.04	<13	PASS
	HCH	1	0	5.24	<13	PASS
		1	3	5.23	<13	PASS
		1	5	5.31	<13	PASS
		3	0	5.12	<13	PASS
		3	2	5.05	<13	PASS
		3	3	5.14	<13	PASS
		6	0	5.68	<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	5.2	<13	PASS
		1	7	5.14	<13	PASS
		1	14	4.84	<13	PASS
		8	0	5.68	<13	PASS
		8	4	5.64	<13	PASS
		8	7	5.64	<13	PASS
		15	0	5.62	<13	PASS
	MCH	1	0	4.47	<13	PASS
		1	7	4.54	<13	PASS
		1	14	4.73	<13	PASS
		8	0	5.33	<13	PASS
		8	4	5.39	<13	PASS
		8	7	5.39	<13	PASS
		15	0	5.28	<13	PASS
	HCH	1	0	4.29	<13	PASS
		1	7	4.06	<13	PASS
		1	14	4.27	<13	PASS
		8	0	5.09	<13	PASS
		8	4	5.1	<13	PASS
		8	7	4.99	<13	PASS
		15	0	5.1	<13	PASS
16QAM	LCH	1	0	6.2	<13	PASS
		1	7	6.21	<13	PASS
		1	14	6.05	<13	PASS
		8	0	6.56	<13	PASS
		8	4	6.6	<13	PASS

		8	7	6.16	<13	PASS
		15	0	6.49	<13	PASS
	MCH	1	0	5.53	<13	PASS
		1	7	5.51	<13	PASS
		1	14	5.68	<13	PASS
		8	0	5.91	<13	PASS
		8	4	5.89	<13	PASS
		8	7	6.08	<13	PASS
		15	0	6.18	<13	PASS
		HCH	1	0	5.48	<13
	1		7	5.18	<13	PASS
	1		14	5.38	<13	PASS
	8		0	5.86	<13	PASS
	8		4	5.87	<13	PASS
	8		7	5.73	<13	PASS
	15		0	5.96	<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	4.84	<13	PASS
		1	12	5.15	<13	PASS
		1	24	4.86	<13	PASS
		12	0	5.54	<13	PASS
		12	6	5.57	<13	PASS
		12	13	5.32	<13	PASS
		25	0	5.51	<13	PASS
	MCH	1	0	4.83	<13	PASS
		1	12	4.83	<13	PASS
		1	24	5.14	<13	PASS
		12	0	5.31	<13	PASS
		12	6	5.32	<13	PASS
		12	13	5.46	<13	PASS
		25	0	5.38	<13	PASS
	HCH	1	0	4.85	<13	PASS
		1	12	4.41	<13	PASS
		1	24	4.36	<13	PASS
		12	0	5.29	<13	PASS

		12	6	5.32	<13	PASS
		12	13	5.04	<13	PASS
		25	0	5.19	<13	PASS
16QAM	LCH	1	0	6.2	<13	PASS
		1	12	5.92	<13	PASS
		1	24	5.96	<13	PASS
		12	0	6.57	<13	PASS
		12	6	6.53	<13	PASS
		12	13	6.08	<13	PASS
		25	0	6.15	<13	PASS
		MCH	1	0	5.44	<13
	1		12	5.35	<13	PASS
	1		24	5.63	<13	PASS
	12		0	5.93	<13	PASS
	12		6	6.03	<13	PASS
	12		13	6.24	<13	PASS
	25		0	6.28	<13	PASS
	HCH	1	0	5.76	<13	PASS
		1	12	5.37	<13	PASS
		1	24	5.3	<13	PASS
		12	0	6.13	<13	PASS
		12	6	6.24	<13	PASS
		12	13	6.04	<13	PASS
		25	0	6.08	<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	4.55	<13	PASS
		1	24	4.38	<13	PASS
		1	49	4.52	<13	PASS
		25	0	5.49	<13	PASS
		25	12	5.54	<13	PASS
		25	25	5.38	<13	PASS
		50	0	5.48	<13	PASS
	MCH	1	0	4.61	<13	PASS
		1	24	4.61	<13	PASS
		1	49	4.76	<13	PASS

		25	0	5.24	<13	PASS	
		25	12	5.26	<13	PASS	
		25	25	5.35	<13	PASS	
		50	0	5.45	<13	PASS	
	HCH	1	0	4.71	<13	PASS	
		1	24	5.07	<13	PASS	
		1	49	4.46	<13	PASS	
		25	0	5.46	<13	PASS	
		25	12	5.37	<13	PASS	
		25	25	5.23	<13	PASS	
		50	0	5.38	<13	PASS	
	16QAM	LCH	1	0	5.95	<13	PASS
			1	24	5.56	<13	PASS
1			49	5.68	<13	PASS	
25			0	6.21	<13	PASS	
25			12	6.23	<13	PASS	
25			25	6.02	<13	PASS	
50			0	6.38	<13	PASS	
MCH		1	0	5.32	<13	PASS	
		1	24	5.28	<13	PASS	
		1	49	5.28	<13	PASS	
		25	0	6.01	<13	PASS	
		25	12	5.96	<13	PASS	
		25	25	6.26	<13	PASS	
		50	0	6.36	<13	PASS	
HCH		1	0	5.91	<13	PASS	
		1	24	6.09	<13	PASS	
		1	49	5.47	<13	PASS	
		25	0	6.4	<13	PASS	
		25	12	6.43	<13	PASS	
		25	25	6.17	<13	PASS	
		50	0	6.17	<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  $43 + \log_{10}(P[\text{Watts}])$ , where P is the transmitter power in Watts.**

For Band 7:

- (i)  $40 + 10 \log_{10} p$  from the channel edges to 5 MHz away
- (ii)  $43 + 10 \log_{10} p$  between 5 MHz and X MHz from the channel edges, and
- (iii)  $55 + 10 \log_{10} p$  at X MHz and beyond from the channel edges

Test Procedure Used

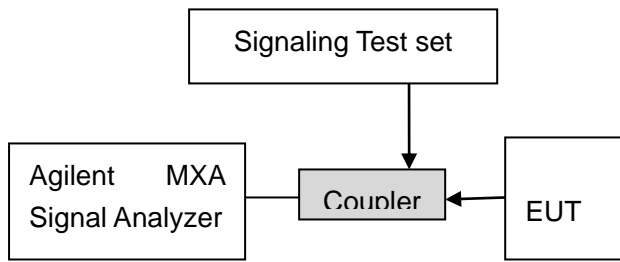
KDB 971168 D01v03 – Section 6.0

#### Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least  $10 \times$  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  $43+10\log(P)$  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.



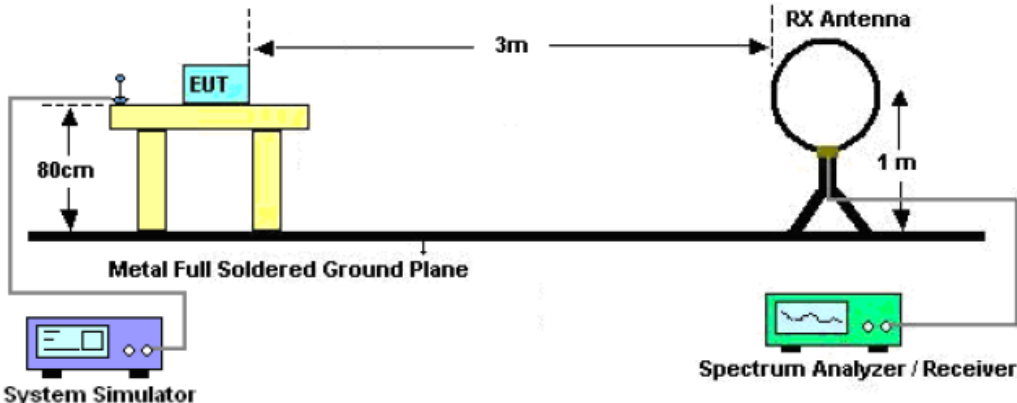
## **7.2 RADIATED SPURIOUS EMISSION**

### **7.2.1. MEASUREMENT PROCEDURE**

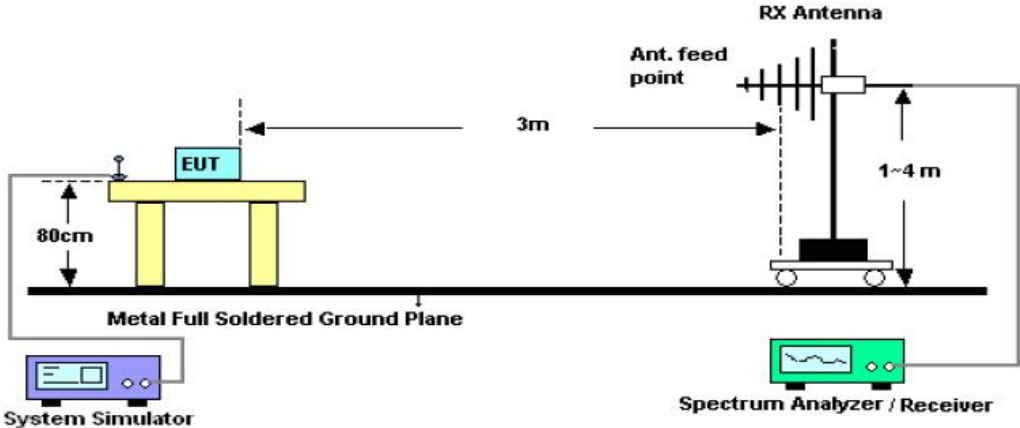
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated 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

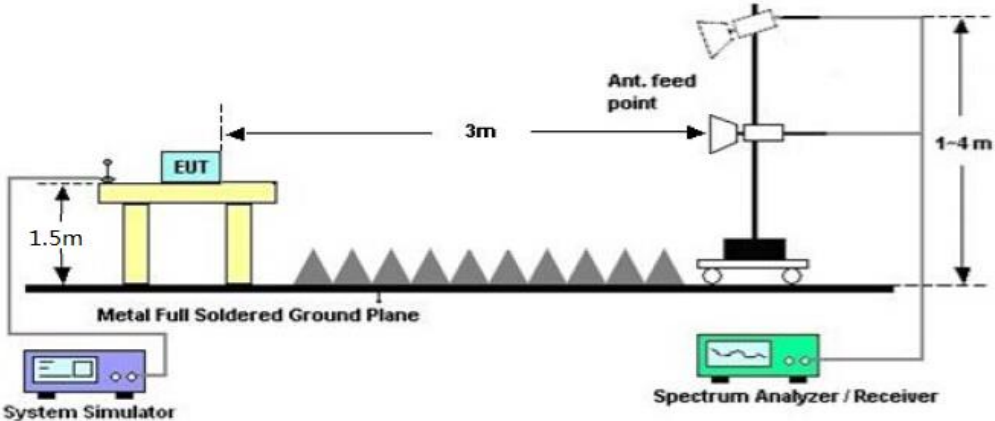
Radiated Emission Test-Setup Frequency Below 30MHz



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  $43+10\log(P)$  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**

**LTEBand2  
Lowchannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3720	V	-36.49	-13	-23.49
784.3	V	-42.47	-13	-29.47
569.5	V	-45.04	-13	-32.04
3720	H	-37.23	-13	-24.23
814.2	H	-42.9	-13	-29.9
477.6	H	-45.35	-13	-32.35

**Middlechannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3760	V	-36.9	-13	-23.9
615.2	V	-42.69	-13	-29.69
444.3	V	-44.08	-13	-31.08
3760	H	-37.73	-13	-24.73
619.6	H	-42.97	-13	-29.97
336.9	H	-46.02	-13	-33.02

**Highchannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3800	V	-36.41	-13	-23.41
754.6	V	-43.46	-13	-30.46
669.4	V	-43.72	-13	-30.72
3800	H	-36.23	-13	-23.23
758.6	H	-43.78	-13	-30.78
588.6	H	-44.74	-13	-31.74

**LTE Band 4**  
**Lowchannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3440	V	-35.77	-13	-22.77
884.1	V	-40.92	-13	-27.92
447.5	V	-42.34	-13	-29.34
3440	H	-35.62	-13	-22.62
741.3	H	-42.35	-13	-29.35
510.2	H	-42.25	-13	-29.25

**Middlechannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3465	V	-35.14	-13	-22.14
897.7	V	-42.07	-13	-29.07
789.4	V	-43.33	-13	-30.33
3465	H	-35.13	-13	-22.13
599.6	H	-41.08	-13	-28.08
301.3	H	-41.77	-13	-28.77

**Highchannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3490	V	-35.18	-13	-22.18
614.3	V	-42.74	-13	-29.74
506.7	V	-42.18	-13	-29.18
3490	H	-34.71	-13	-21.71
402.9	H	-40.02	-13	-27.02
333.1	H	-42.21	-13	-29.21

**LTE Band 5**  
**Low channel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1658	V	-36.26	-13	-23.26
554.3	V	-42.54	-13	-29.54
315.1	V	-42.39	-13	-29.39
1658	H	-36.1	-13	-23.1
541.5	H	-40.7	-13	-27.7
349.2	H	-40.69	-13	-27.69

**Middle channel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1673	V	-37.32	-13	-24.32
565.1	V	-42.65	-13	-29.65
463.3	V	-42.41	-13	-29.41
1673	H	-37.69	-13	-24.69
686.3	H	-39.98	-13	-26.98
404.5	H	-42.28	-13	-29.28

**High channel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1688	V	-37.67	-13	-24.67
654.6	V	-41.91	-13	-28.91
557.1	V	-41.74	-13	-28.74
1688	H	-39.39	-13	-26.39
603.7	H	-41.57	-13	-28.57
435.4	H	-41.94	-13	-28.94

**LTE Band 7**  
**Low channel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3440	V	-38.52	-25	-13.52
874.61	V	-43.18	-25	-18.18
759.13	V	-44.55	-25	-19.55
3440	H	-36.55	-25	-11.55
549.66	H	-41.54	-25	-16.54
447.03	H	-42.63	-25	-17.63

**Middle channel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3465	V	-37.29	-25	-12.29
561.33	V	-44.38	-25	-19.38
436.16	V	-44.79	-25	-19.79
3465	H	-37.76	-25	-12.76
343.66	H	-43.38	-25	-18.38
289.44	H	-44.55	-25	-19.55

**High channel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
3490	V	-40.29	-25	-15.29
536.33	V	-42.38	-25	-17.38
444.70	V	-40.79	-25	-15.79
3490	H	-39.76	-25	-14.76
318.59	H	-40.38	-25	-15.38
287.16	H	-42.55	-25	-17.55

**LTE Band 12  
Lowchannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1408	V	-42.66	-13	-29.66
596.7	V	-43.32	-13	-30.32
365.4	V	-43.58	-13	-30.58
1408	H	-37.94	-13	-24.94
563.1	H	-45.57	-13	-32.57
490.2	H	-46.12	-13	-33.12

**Middlechannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1415	V	-41.61	-13	-28.61
569.3	V	-45.07	-13	-32.07
431.0	V	-45.75	-13	-32.75
1415	H	-40.39	-13	-27.39
495.5	H	-44.32	-13	-31.32
312.1	H	-46.09	-13	-33.09

**Highchannel**

Frequency (MHz)	Polarity (H/V)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1422	V	-41.02	-13	-28.02
742.3	V	-44.14	-13	-31.14
641.0	V	-44.54	-13	-31.54
1422	H	-39.17	-13	-26.17
684.3	H	-45.85	-13	-32.85
489.7	H	-46.37	-13	-33.37

**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°C. 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°C increments from -10°C to +40°C. 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 +40°C.
- 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°C increments from +40°C to -10°C. 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°C 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 +40°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  $\pm 0.00025\%$  ( $\pm 2.5$  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 +40°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

**8.3 MEASUREMENT RESULT (WORST)**

**LTEBand2**

MiddleChannel, f <sub>0</sub> =1880MHz			
Temperature (°C)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	3.8	-16.51	-0.008781
0		-34.07	-0.018125
10		-5.21	-0.002770
20		-25.32	-0.013468
30		-43.22	-0.022987
40		-13.43	-0.007145
25	4.35	-13.40	-0.007020
	3.23	-18.20	-0.009530

Note: Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very samll. 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. The

**LTEBand4**

MiddleChannel, f <sub>0</sub> = 1732.5MHz				
Temperature (°C)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.8	5.31	0.003063	±2.5
0		-9.97	-0.005755	±2.5
10		-28.41	-0.016398	±2.5
20		-4.65	-0.002683	±2.5
30		-13.70	-0.007910	±2.5
40		-28.91	-0.016687	±2.5
50		5.31	0.003063	±2.5
55		-9.97	-0.005755	±2.5
25	4.35	-25.79	-0.015077	±2.5
	3.23	-37.24	-0.021767	±2.5

**LTEBand5**

MiddleChannel, f <sub>0</sub> =836.5MHz				
Temperature (°C)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10	3.8	-3.76	-0.004498	± 2.5
0		-4.96	-0.005934	± 2.5
10		-5.36	-0.006413	± 2.5
20		-7.71	-0.009218	± 2.5
30		-12.04	-0.014399	± 2.5
40		-14.22	-0.016999	± 2.5
25	4.35	-27.27	-0.033061	± 2.5
	3.23	-27.65	-0.033530	± 2.5

**LTE Band 7**

MiddleChannel, f <sub>0</sub> =2535MHz			
Temperature (°C)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	3.8	-28.31	-0.011168
0		-40.91	-0.016139
10		-4.86	-0.001919
20		-25.51	-0.010062
30		-42.64	-0.016822
40		2.82	0.001112
25	4.35	1.77	0.000709
	3.23	-4.91	-0.001936

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.

**LTEBand12**

MiddleChannel, f <sub>0</sub> =1882.5MHz			
Temperature (°C)	Power Supplied (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
-10	3.8	-3.93	-0.005560
0		-7.78	-0.010999
10		-10.87	-0.015367
20		-16.81	-0.023758
30		-22.69	-0.032068
40		-28.75	-0.040641
25	4.35	-8.31	-0.011878
	3.23	-16.82	-0.023519

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.

The EUT doesn't work below -10°C

## **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.

**LTEBand 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	1.0820	PASS
	MCH	6	0	1.0813	PASS
	HCH	6	0	1.0826	PASS
16QAM	LCH	6	0	1.0785	PASS
	MCH	6	0	1.0793	PASS
	HCH	6	0	1.0783	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6861	PASS
	MCH	15	0	2.6874	PASS
	HCH	15	0	2.6896	PASS
16QAM	LCH	15	0	2.6891	PASS
	MCH	15	0	2.6863	PASS
	HCH	15	0	2.6858	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4735	PASS
	MCH	25	0	4.4735	PASS
	HCH	25	0	4.4779	PASS
16QAM	LCH	25	0	4.4780	PASS
	MCH	25	0	4.4743	PASS
	HCH	25	0	4.4768	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9518	PASS
	MCH	50	0	8.9559	PASS
	HCH	50	0	8.9607	PASS
16QAM	LCH	50	0	8.9406	PASS
	MCH	50	0	8.9512	PASS
	HCH	50	0	8.9721	PASS

**Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.404	PASS
	MCH	75	0	13.418	13.372
	HCH	75	0	13.435	PASS
16QAM	LCH	75	0	13.398	PASS
	MCH	75	0	13.428	PASS
	HCH	75	0	13.421	PASS

**Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.847	PASS
	MCH	100	0	17.943	PASS
	HCH	100	0	17.818	PASS
16QAM	LCH	100	0	17.827	PASS
	MCH	100	0	17.933	PASS
	HCH	100	0	17.842	PASS



**LTEBand 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	1.0779	PASS
	MCH	6	0	1.0792	PASS
	HCH	6	0	1.0806	PASS
16QAM	LCH	6	0	1.0795	PASS
	MCH	6	0	1.0808	PASS
	HCH	6	0	1.0783	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6809	PASS
	MCH	15	0	2.6872	PASS
	HCH	15	0	2.6818	PASS
16QAM	LCH	15	0	2.6860	PASS
	MCH	15	0	2.6863	PASS
	HCH	15	0	2.6839	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4746	PASS
	MCH	25	0	4.4726	PASS
	HCH	25	0	4.4744	PASS
16QAM	LCH	25	0	4.4714	PASS
	MCH	25	0	4.4655	PASS
	HCH	25	0	4.4753	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9428	PASS
	MCH	50	0	8.9472	PASS
	HCH	50	0	8.9467	PASS
16QAM	LCH	50	0	8.9448	PASS
	MCH	50	0	8.9280	PASS
	HCH	50	0	8.9379	PASS

**Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.389	PASS
	MCH	75	0	13.405	PASS
	HCH	75	0	13.400	PASS
16QAM	LCH	75	0	13.388	PASS
	MCH	75	0	13.406	PASS
	HCH	75	0	13.385	PASS

**Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.872	PASS
	MCH	100	0	17.891	PASS
	HCH	100	0	17.883	PASS
16QAM	LCH	100	0	17.861	PASS
	MCH	100	0	17.900	PASS
	HCH	100	0	17.894	PASS

**LTEBand 5**

**Channel Bandwidth: 1.4 MHz**

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.0790	PASS
	MCH	6	0	1.0760	PASS
	HCH	6	0	1.0796	PASS
16QAM	LCH	6	0	1.0795	PASS
	MCH	6	0	1.0800	PASS
	HCH	6	0	1.0800	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6850	PASS
	MCH	15	0	2.6859	PASS
	HCH	15	0	2.6801	PASS
16QAM	LCH	15	0	2.6878	PASS
	MCH	15	0	2.6842	PASS
	HCH	15	0	2.6844	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4667	PASS
	MCH	25	0	4.4743	PASS
	HCH	25	0	4.4662	PASS
16QAM	LCH	25	0	4.4757	PASS
	MCH	25	0	4.4778	PASS
	HCH	25	0	4.4763	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9407	PASS
	MCH	50	0	8.9492	PASS
	HCH	50	0	8.9521	PASS
16QAM	LCH	50	0	8.9279	PASS
	MCH	50	0	8.9395	PASS
	HCH	50	0	8.9342	PASS

**LTEBand 7**

**Channel Bandwidth: 5MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4783	PASS
	MCH	25	0	4.4780	PASS
	HCH	25	0	4.4693	PASS
16QAM	LCH	25	0	4.4743	PASS
	MCH	25	0	4.4758	PASS
	HCH	25	0	4.4737	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9682	PASS
	MCH	50	0	8.9556	PASS
	HCH	50	0	8.9562	PASS
16QAM	LCH	50	0	8.9450	PASS
	MCH	50	0	8.9568	PASS
	HCH	50	0	8.9624	PASS

**Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	13.393	PASS
	MCH	75	0	13.425	PASS
	HCH	75	0	13.442	PASS
16QAM	LCH	75	0	13.395	PASS
	MCH	75	0	13.410	PASS
	HCH	75	0	13.418	PASS

**Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	17.875	PASS
	MCH	100	0	17.871	PASS
	HCH	100	0	17.868	PASS
16QAM	LCH	100	0	17.867	PASS
	MCH	100	0	17.882	PASS
	HCH	100	0	17.867	PASS

**LTEBand 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	1.0785	PASS
	MCH	6	0	1.0784	PASS
	HCH	6	0	1.0819	PASS
16QAM	LCH	6	0	1.0769	PASS
	MCH	6	0	1.0818	PASS
	HCH	6	0	1.0792	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth:3 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.6802	PASS
	MCH	15	0	2.6902	PASS
	HCH	15	0	2.6888	PASS
16QAM	LCH	15	0	2.6851	PASS
	MCH	15	0	2.6844	PASS
	HCH	15	0	2.6869	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth(MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.4651	PASS
	MCH	25	0	4.4725	PASS
	HCH	25	0	4.4688	PASS
16QAM	LCH	25	0	4.4628	PASS
	MCH	25	0	4.4709	PASS
	HCH	25	0	4.4704	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	8.9331	PASS
	MCH	50	0	8.9386	PASS
	HCH	50	0	8.9489	PASS
16QAM	LCH	50	0	8.9432	PASS
	MCH	50	0	8.9543	PASS
	HCH	50	0	8.9450	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.

**LTEBand 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	1.231	PASS
	MCH	6	0	1.236	PASS
	HCH	6	0	1.213	PASS
16QAM	LCH	6	0	1.223	PASS
	MCH	6	0	1.228	PASS
	HCH	6	0	1.225	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.949	PASS
	MCH	15	0	2.935	PASS
	HCH	15	0	2.962	PASS
16QAM	LCH	15	0	2.933	PASS
	MCH	15	0	2.963	PASS
	HCH	15	0	2.931	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.863	PASS
	MCH	25	0	4.866	PASS
	HCH	25	0	4.849	PASS
16QAM	LCH	25	0	4.910	PASS
	MCH	25	0	4.905	PASS
	HCH	25	0	4.879	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.494	PASS
	MCH	50	0	9.540	PASS
	HCH	50	0	9.540	PASS
16QAM	LCH	50	0	9.482	PASS
	MCH	50	0	9.597	PASS
	HCH	50	0	9.630	PASS

**Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.26	PASS
	MCH	75	0	14.14	PASS
	HCH	75	0	14.09	PASS
16QAM	LCH	75	0	14.18	PASS
	MCH	75	0	14.17	PASS
	HCH	75	0	14.27	PASS

**Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.66	PASS
	MCH	100	0	18.74	PASS
	HCH	100	0	18.75	PASS
16QAM	LCH	100	0	18.69	PASS
	MCH	100	0	18.87	PASS
	HCH	100	0	18.55	PASS

**LTEBand 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	1.211	PASS
	MCH	6	0	1.237	PASS
	HCH	6	0	1.244	PASS
16QAM	LCH	6	0	1.225	PASS
	MCH	6	0	1.230	PASS
	HCH	6	0	1.229	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.941	PASS
	MCH	15	0	2.959	PASS
	HCH	15	0	2.952	PASS
16QAM	LCH	15	0	2.949	PASS
	MCH	15	0	2.969	PASS
	HCH	15	0	2.947	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.833	PASS
	MCH	25	0	4.841	PASS
	HCH	25	0	4.848	PASS
16QAM	LCH	25	0	4.837	PASS
	MCH	25	0	4.927	PASS
	HCH	25	0	4.785	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.495	PASS
	MCH	50	0	9.484	PASS
	HCH	50	0	9.575	PASS
16QAM	LCH	50	0	9.638	PASS
	MCH	50	0	9.466	PASS
	HCH	50	0	9.615	PASS

**Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.18	PASS
	MCH	75	0	14.34	PASS
	HCH	75	0	14.17	PASS
16QAM	LCH	75	0	14.19	PASS
	MCH	75	0	14.12	PASS
	HCH	75	0	14.16	PASS

**Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.63	PASS
	MCH	100	0	18.93	PASS
	HCH	100	0	18.69	PASS
16QAM	LCH	100	0	18.72	PASS
	MCH	100	0	18.80	PASS
	HCH	100	0	18.82	PASS

**LTEBand 5**

**Channel Bandwidth: 1.4 MHz**

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.222	PASS
	MCH	6	0	1.207	PASS
	HCH	6	0	1.245	PASS
16QAM	LCH	6	0	1.228	PASS
	MCH	6	0	1.225	PASS
	HCH	6	0	1.241	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.945	PASS
	MCH	15	0	2.942	PASS
	HCH	15	0	2.956	PASS
16QAM	LCH	15	0	2.975	PASS
	MCH	15	0	2.973	PASS
	HCH	15	0	2.938	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.838	PASS
	MCH	25	0	4.874	PASS
	HCH	25	0	4.862	PASS
16QAM	LCH	25	0	4.821	PASS
	MCH	25	0	4.917	PASS
	HCH	25	0	4.933	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.560	PASS
	MCH	50	0	9.533	PASS
	HCH	50	0	9.456	PASS
16QAM	LCH	50	0	9.466	PASS
	MCH	50	0	9.501	PASS
	HCH	50	0	9.592	PASS

**LTEBand 7**

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.908	PASS
	MCH	25	0	4.990	PASS
	HCH	25	0	4.871	PASS
16QAM	LCH	25	0	4.900	PASS
	MCH	25	0	4.910	PASS
	HCH	25	0	4.877	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.561	PASS
	MCH	50	0	9.623	PASS
	HCH	50	0	9.767	PASS
16QAM	LCH	50	0	9.558	PASS
	MCH	50	0	9.680	PASS
	HCH	50	0	9.723	PASS



**Channel Bandwidth: 15 MHz**

Channel Bandwidth: 15MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	75	0	14.12	PASS
	MCH	75	0	15.65	PASS
	HCH	75	0	16.68	PASS
16QAM	LCH	75	0	14.14	PASS
	MCH	75	0	14.34	PASS
	HCH	75	0	14.39	PASS

**Channel Bandwidth: 20 MHz**

Channel Bandwidth: 20MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	100	0	18.78	PASS
	MCH	100	0	18.84	PASS
	HCH	100	0	18.75	PASS
16QAM	LCH	100	0	18.73	PASS
	MCH	100	0	18.76	PASS
	HCH	100	0	18.75	PASS

**LTEBand 12**

**Channel Bandwidth: 1.4 MHz**

Channel Bandwidth: 1.4MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	6	0	1.218	PASS
	MCH	6	0	1.213	PASS
	HCH	6	0	1.237	PASS
16QAM	LCH	6	0	1.209	PASS
	MCH	6	0	1.223	PASS
	HCH	6	0	1.252	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	15	0	2.941	PASS
	MCH	15	0	2.931	PASS
	HCH	15	0	2.928	PASS
16QAM	LCH	15	0	2.942	PASS
	MCH	15	0	2.951	PASS
	HCH	15	0	2.986	PASS

**Channel Bandwidth: 5 MHz**

Channel Bandwidth: 5MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	25	0	4.826	PASS
	MCH	25	0	4.851	PASS
	HCH	25	0	4.859	PASS
16QAM	LCH	25	0	4.859	PASS
	MCH	25	0	4.933	PASS
	HCH	25	0	4.841	PASS

**Channel Bandwidth: 10 MHz**

Channel Bandwidth: 10MHz					
Modulation	Channel	RB Configuration		26dB Bandwidth (MHz)	Verdict
		Size	Offset		
QPSK	LCH	50	0	9.454	PASS
	MCH	50	0	9.512	PASS
	HCH	50	0	9.518	PASS
16QAM	LCH	50	0	9.561	PASS
	MCH	50	0	9.588	PASS
	HCH	50	0	9.611	PASS

Note:Please refers to Appendix B for compliance test plots for emission bandwidth (-26dBc)

## **11. BAND EDGE**

### **11.1 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.

### **11.2 PROVISIONS APPLICABLE**

As Specified in FCC rules of §2.1051 §24.238(a) §27.53(g) §27.53(h) §27.53(m)  
KDB 971168 D01v03 – Section 6.0

### **11.3 MEASUREMENT RESULT**

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 frequency. 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  $43 + \log_{10}(P[\text{Watts}])$ , where P is the transmitter power in Watts.

For Band 7:

- (i)  $40 + 10 \log_{10} p$  from the channel edges to 5 MHz away
- (ii)  $43 + 10 \log_{10} p$  between 5 MHz and X MHz from the channel edges, and
- (iii)  $55 + 10 \log_{10} p$  at X MHz and beyond from the channel edges

Please refers to Appendix C for compliance test plots for band edge

## APPENDIX A TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION LTE BAND 2

