Appendix G: Test Data for E-UTRA Band 7

Product Name: Smartphone
Test Model: M12A

Environmental Conditions

Temperature:	24.1 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang Chuang
Supervised by:	Tom Liu

G.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	22.73	21.82	PASS
		1	12	22.56	21.57	PASS
		1	24	22.21	21.26	PASS
		12	0	22.71	21.54	PASS
		12	6	22.55	21.39	PASS
		12	13	22.30	21.32	PASS
		25	0	22.53	21.47	PASS
	MCH	1	0	23.29	22.50	PASS
		1	12	23.38	22.54	PASS
		1	24	23.20	22.38	PASS
		12	0	22.28	21.29	PASS
		12	6	22.37	21.29	PASS
		12	13	22.19	21.24	PASS
		25	0	22.29	21.25	PASS
	HCH	1	0	22.99	21.91	PASS
		1	12	22.42	21.21	PASS
		1	24	22.54	21.22	PASS
		12	0	22.18	21.21	PASS
		12	6	22.27	21.37	PASS
		12	13	22.30	21.28	PASS
		25	0	22.20	21.23	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.02	21.84	PASS
		1	24	22.39	21.23	PASS
		1	49	22.98	21.93	PASS
		25	0	22.61	21.65	PASS
		25	12	22.27	21.30	PASS
		25	25	22.28	21.25	PASS
		50	0	22.37	21.36	PASS
	MCH	1	0	23.27	22.29	PASS
		1	24	23.47	22.42	PASS
		1	49	23.37	22.10	PASS
		25	0	22.33	21.34	PASS
		25	12	22.31	21.35	PASS
		25	25	23.13	22.09	PASS
		50	0	22.23	21.30	PASS
	HCH	1	0	22.48	21.74	PASS
		1	24	22.99	22.18	PASS
		1	49	22.56	21.54	PASS
		25	0	22.79	21.86	PASS
		25	12	23.02	22.08	PASS
		25	25	23.13	22.26	PASS
		50	0	23.05	22.01	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.12	21.86	PASS
		1	37	23.14	21.96	PASS
		1	74	22.86	21.90	PASS
		37	0	22.71	21.69	PASS
		37	18	22.19	21.25	PASS
		37	38	22.22	21.19	PASS
		75	0	22.40	21.32	PASS
	MCH	1	0	23.27	22.21	PASS
		1	37	23.43	22.45	PASS
		1	74	23.13	21.94	PASS
		37	0	22.54	21.42	PASS
		37	18	22.56	21.39	PASS
		37	38	22.33	21.20	PASS
		75	0	22.38	21.36	PASS
	HCH	1	0	22.52	21.69	PASS
		1	37	22.88	22.14	PASS
		1	74	22.84	21.74	PASS
		37	0	22.59	21.59	PASS
		37	18	22.86	21.89	PASS
		37	38	22.24	21.20	PASS
		75	0	22.93	21.96	PASS

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Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.21	22.47	PASS
		1	49	22.93	22.38	PASS
		1	99	22.33	21.88	PASS
		50	0	22.47	21.50	PASS
		50	25	22.92	21.90	PASS
		50	50	23.10	22.09	PASS
		100	0	22.38	21.32	PASS
	MCH	1	0	23.20	22.72	PASS
		1	49	23.56	22.95	PASS
		1	99	22.92	22.18	PASS
		50	0	22.36	21.33	PASS
		50	25	22.32	21.25	PASS
		50	50	22.89	21.84	PASS
		100	0	23.16	23.11	PASS
	HCH	1	0	22.76	21.74	PASS
		1	49	22.57	21.68	PASS
		1	99	22.90	21.62	PASS
		50	0	22.46	21.57	PASS
		50	25	22.66	21.77	PASS
		50	50	23.03	22.13	PASS
		100	0	22.69	21.85	PASS

G.2 Peak-to-Average Ratio

Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.04	<13	PASS
	MCH	4.94	<13	PASS
	HCH	5.28	<13	PASS
16QAM	LCH	5.87	<13	PASS
	MCH	5.81	<13	PASS
	HCH	6.11	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.23	<13	PASS
	MCH	5.15	<13	PASS
	HCH	5.37	<13	PASS
16QAM	LCH	6.02	<13	PASS
	MCH	5.9	<13	PASS
	HCH	6.12	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)				
QPSK	LCH	5.04	<13	PASS
	MCH	4.99	<13	PASS
	HCH	5.03	<13	PASS
16QAM	LCH	6.31	<13	PASS
	MCH	6.28	<13	PASS
	HCH	6.34	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.73	<13	PASS
	MCH	5.7	<13	PASS
	HCH	5.78	<13	PASS
16QAM	LCH	6.87	<13	PASS
	MCH	6.86	<13	PASS
	HCH	6.78	<13	PASS

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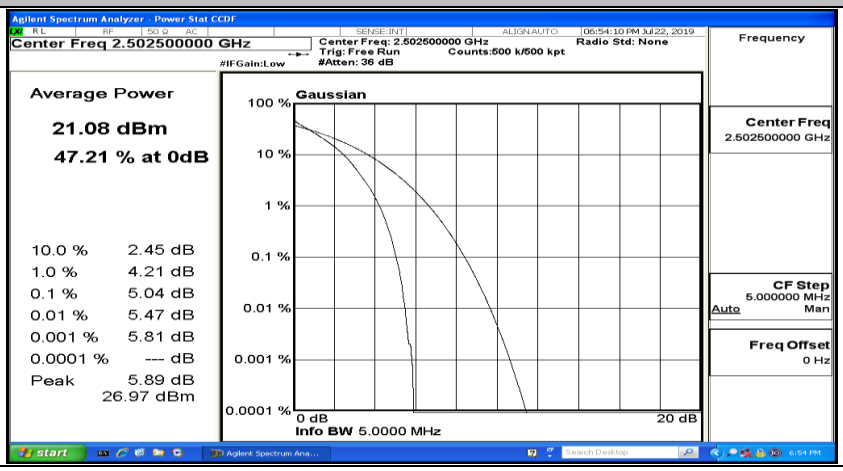
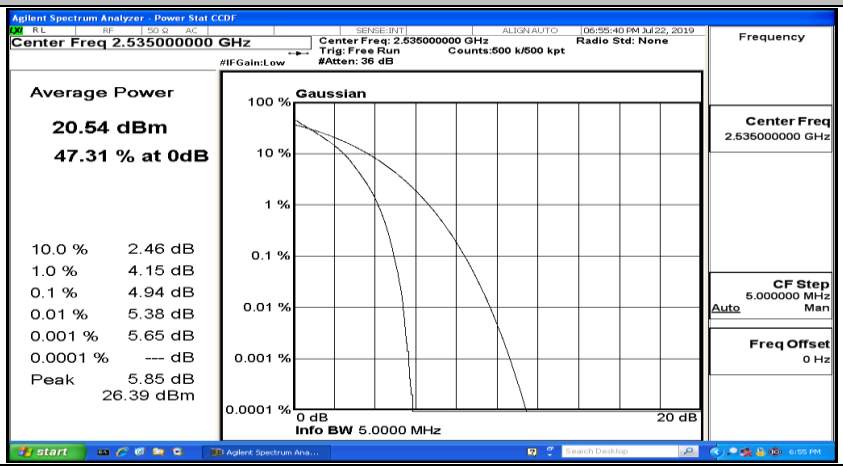
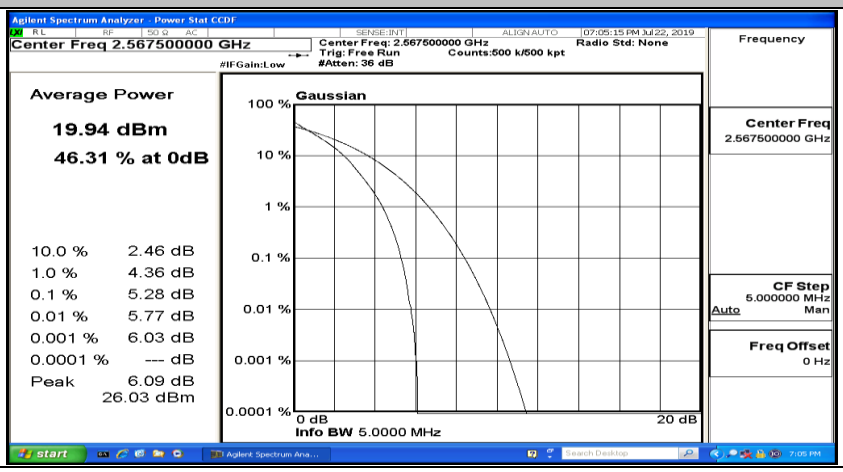
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



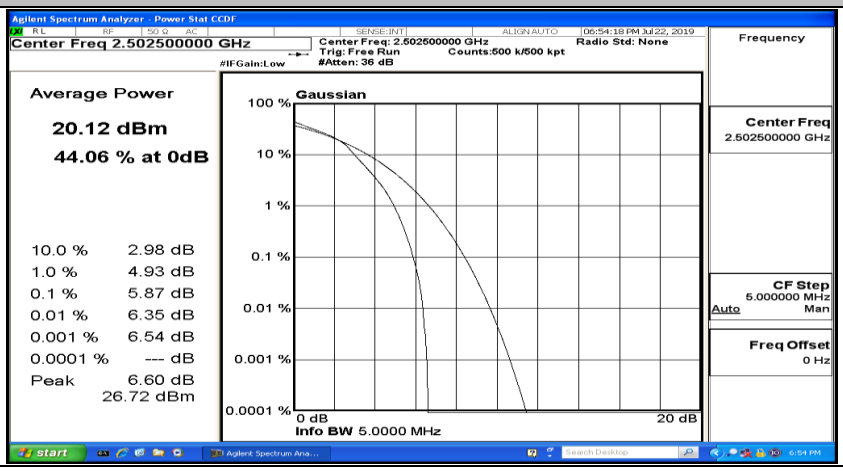
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



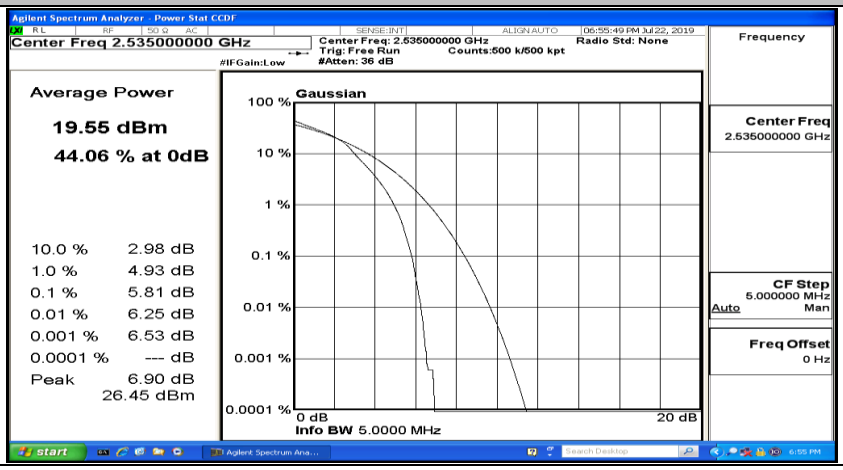
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



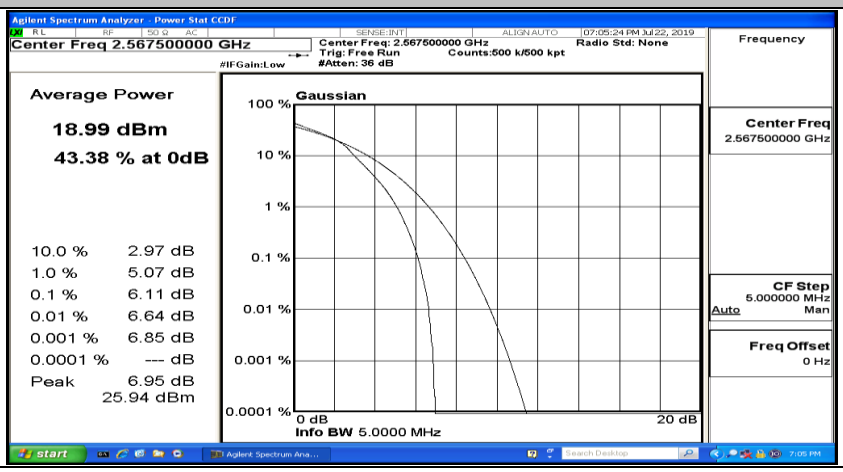
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



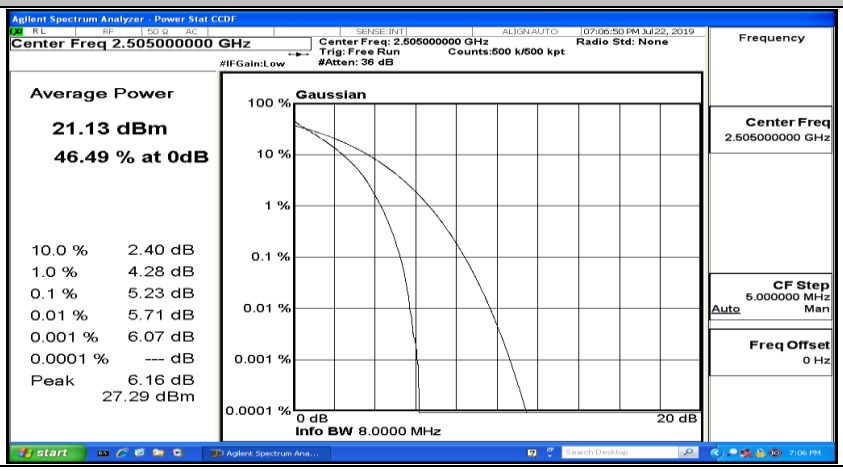
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



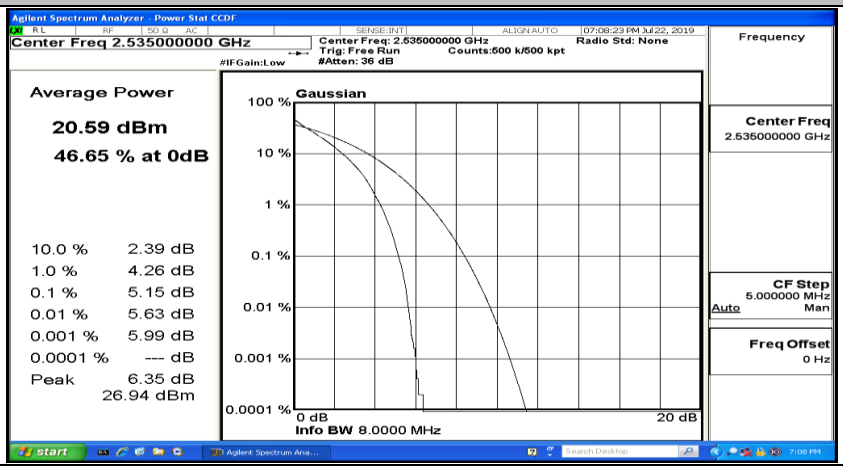
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



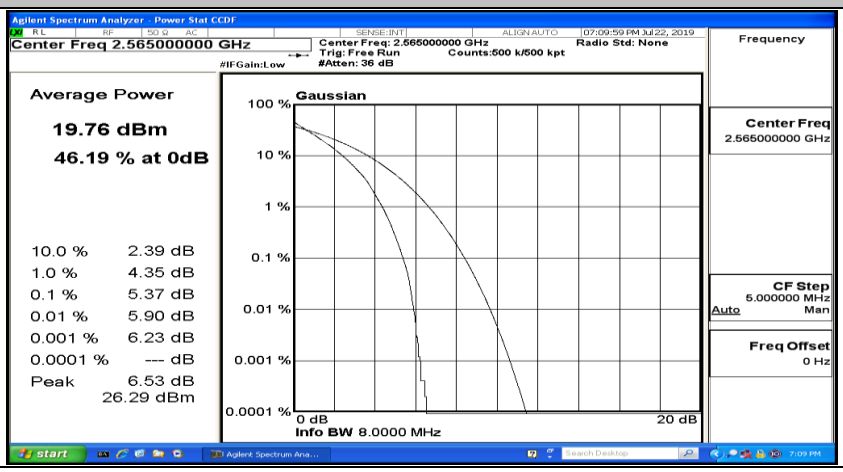
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



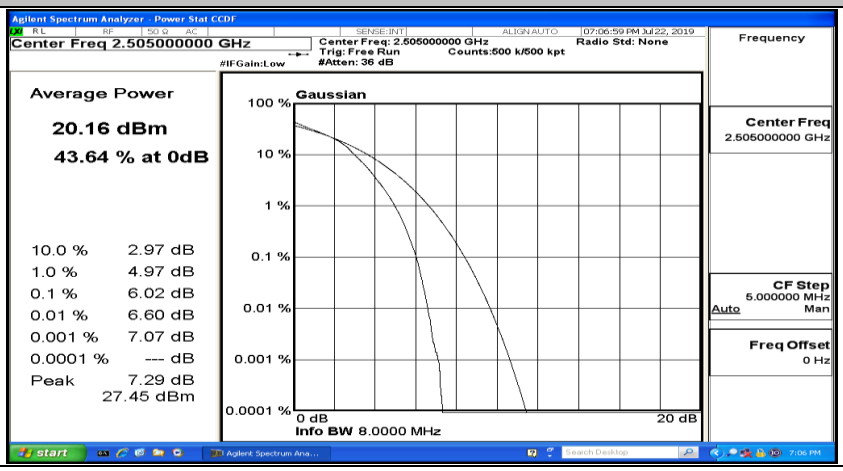
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



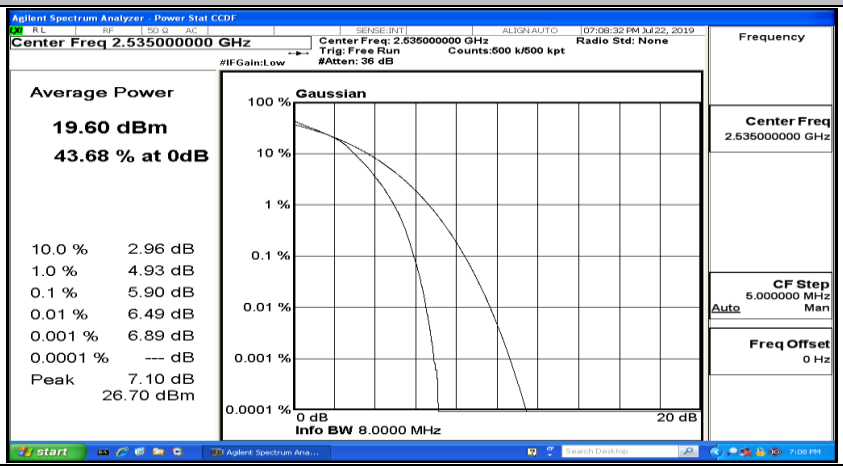
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



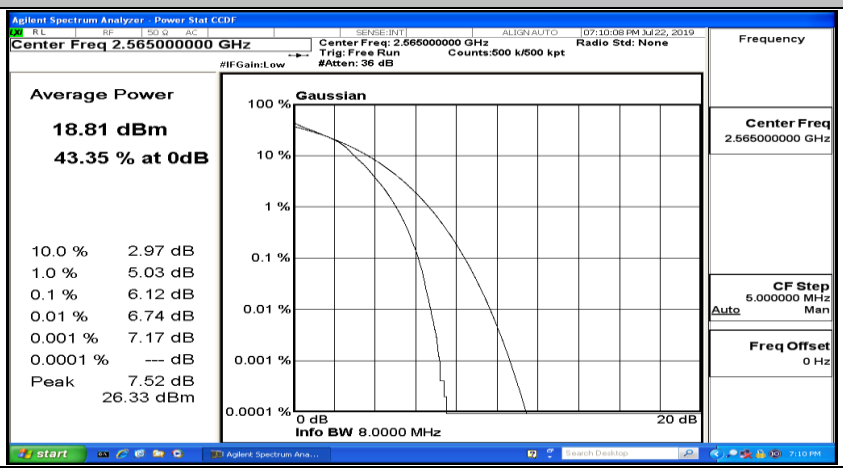
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



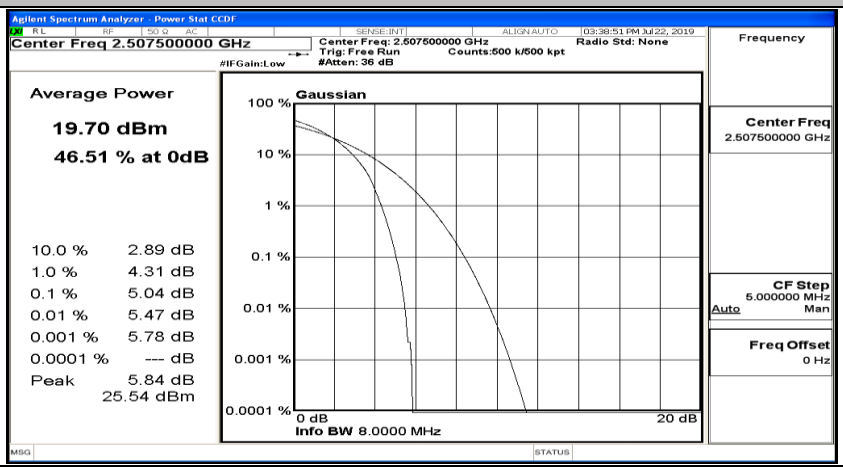
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



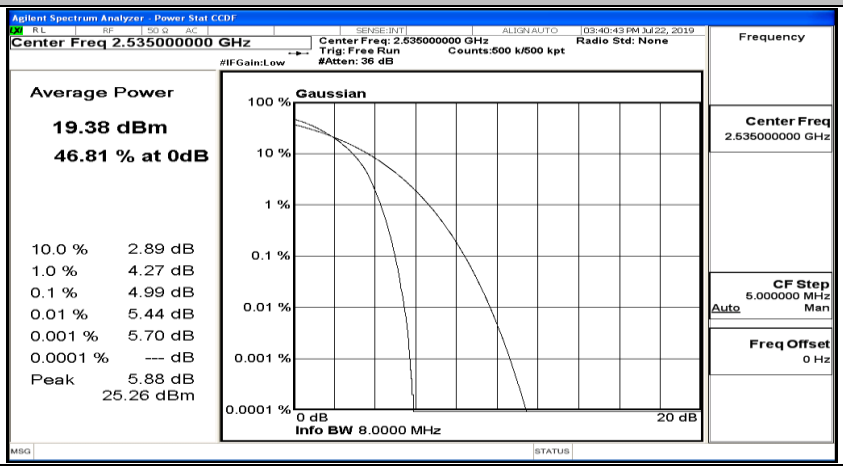
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



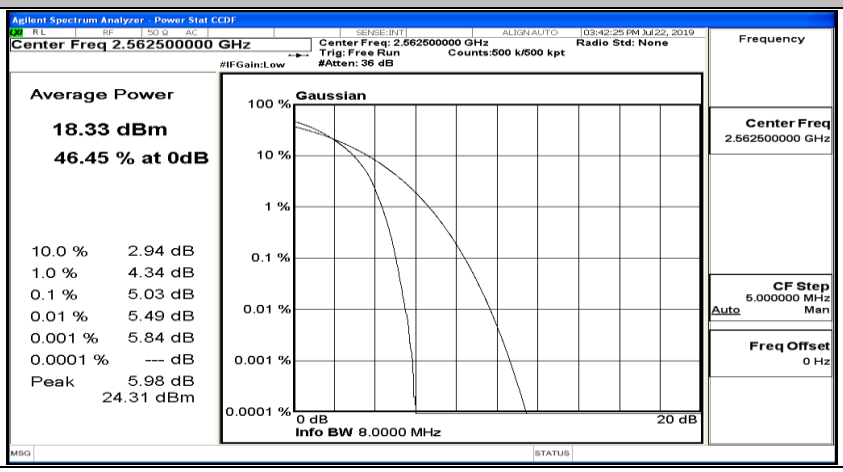
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



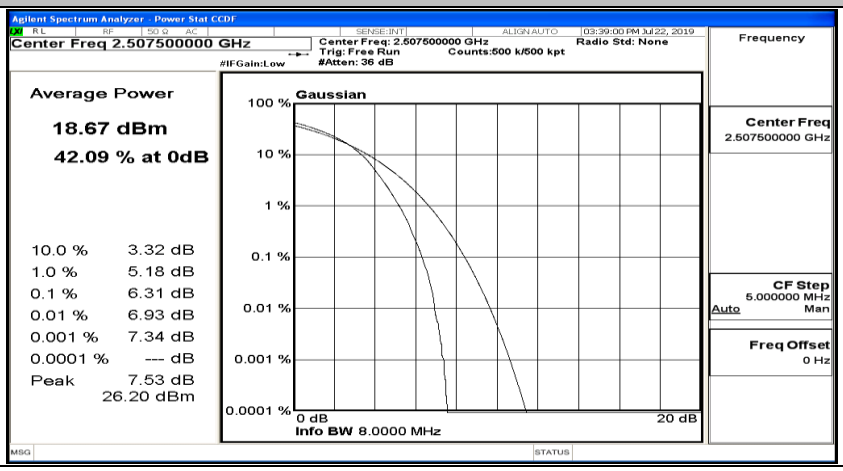
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



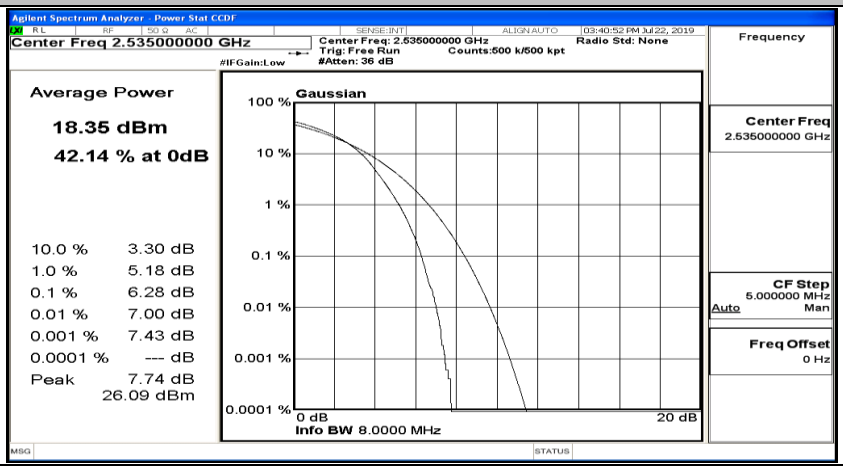
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



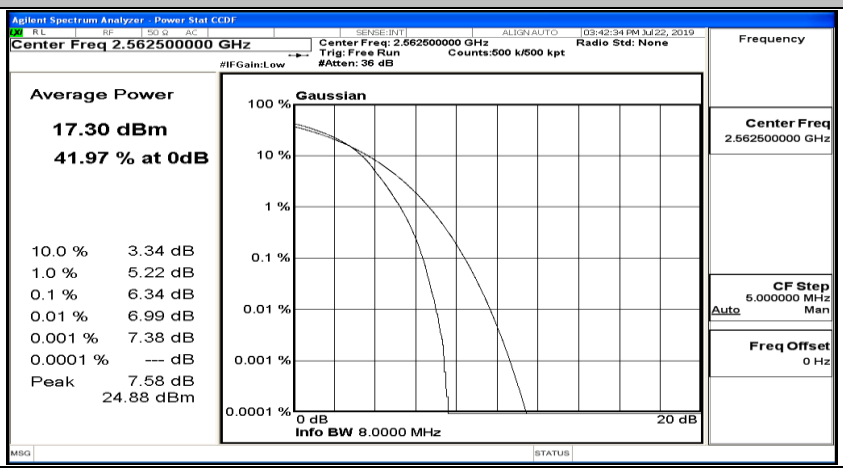
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



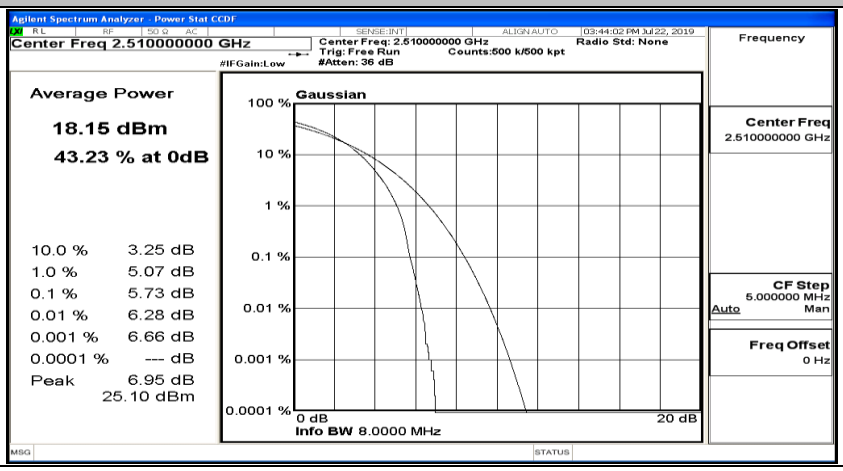
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



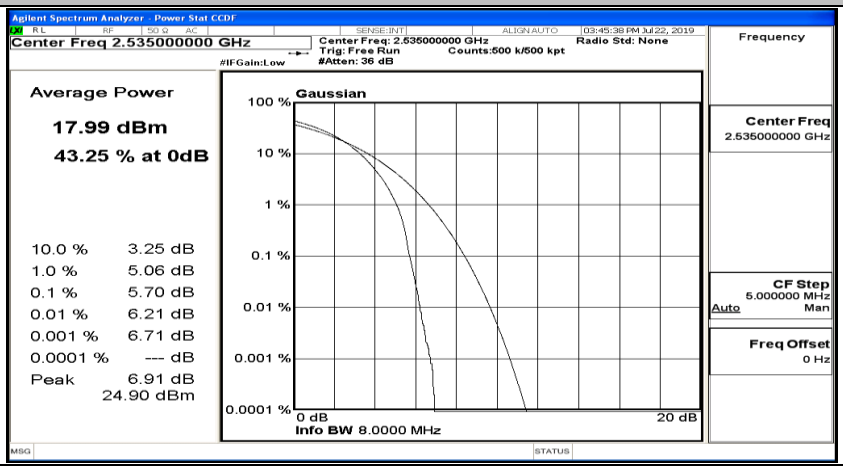
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



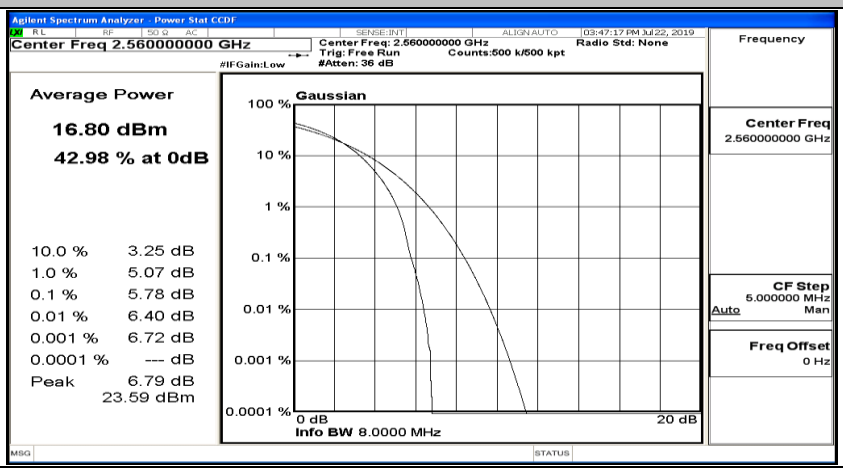
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



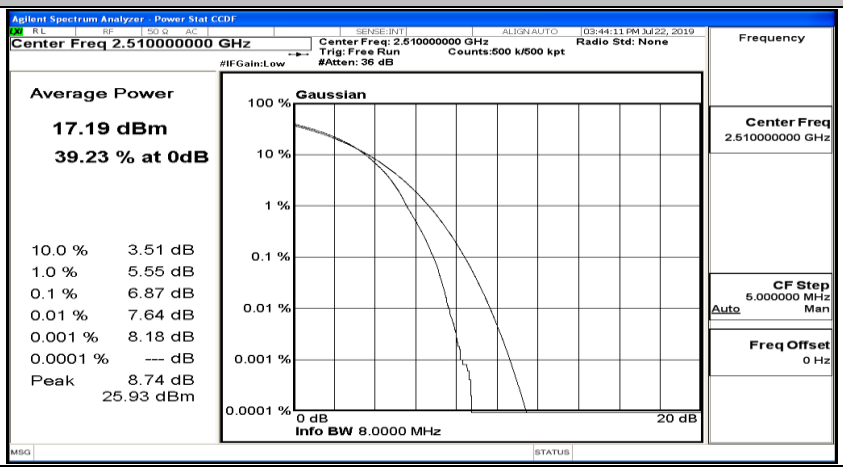
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



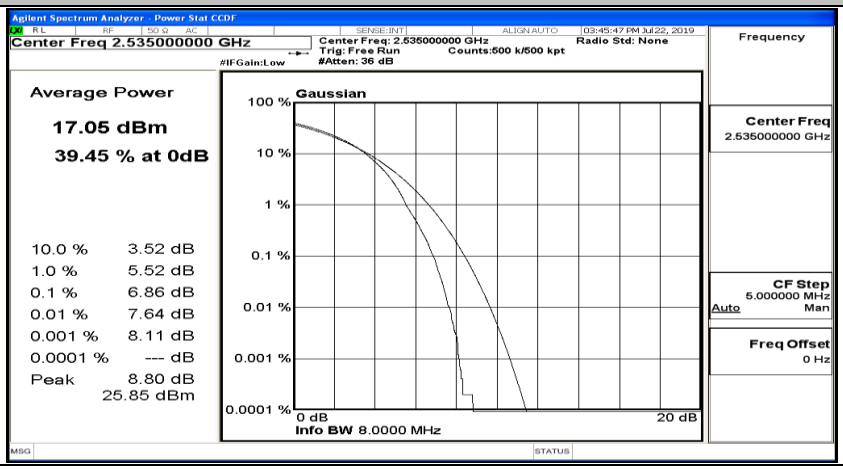
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



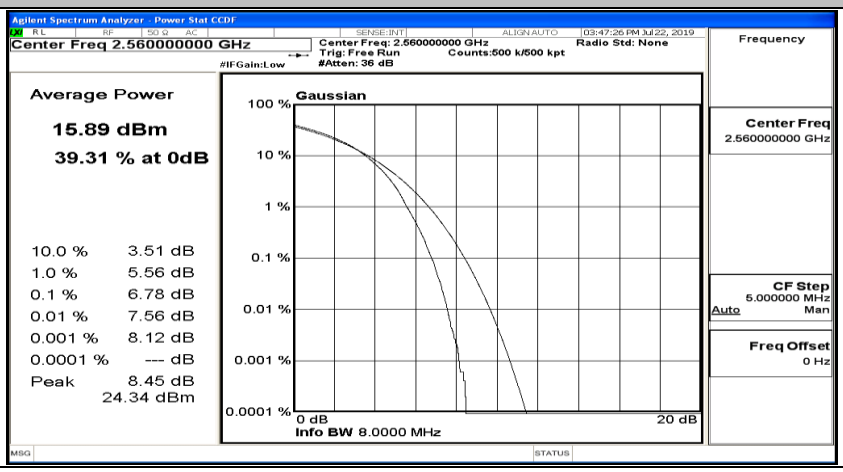
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM



G.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4818	4.799	PASS
	MCH	4.4828	5.373	PASS
	HCH	4.4886	4.761	PASS
16QAM	LCH	4.4625	4.804	PASS
	MCH	4.4870	4.896	PASS
	HCH	4.4791	4.796	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9564	9.566	PASS
	MCH	8.9659	10.07	PASS
	HCH	8.9541	9.473	PASS
16QAM	LCH	8.9491	9.407	PASS
	MCH	8.9599	9.428	PASS
	HCH	8.9521	9.366	PASS

EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.421	14.20	PASS
	MCH	13.398	14.07	PASS
	HCH	13.412	14.15	PASS
16QAM	LCH	13.412	14.18	PASS
	MCH	13.390	14.16	PASS
	HCH	13.427	14.04	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.866	18.70	PASS
	MCH	17.868	18.62	PASS
	HCH	17.876	18.71	PASS
16QAM	LCH	17.873	18.65	PASS
	MCH	17.845	18.58	PASS
	HCH	17.863	18.67	PASS

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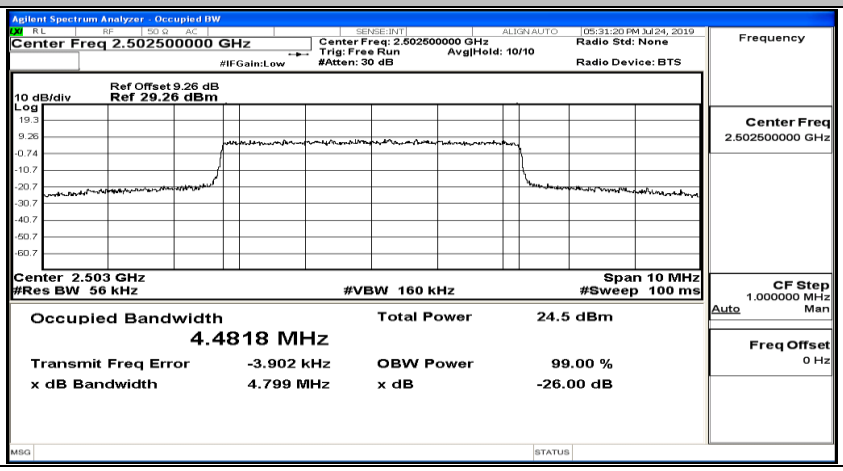
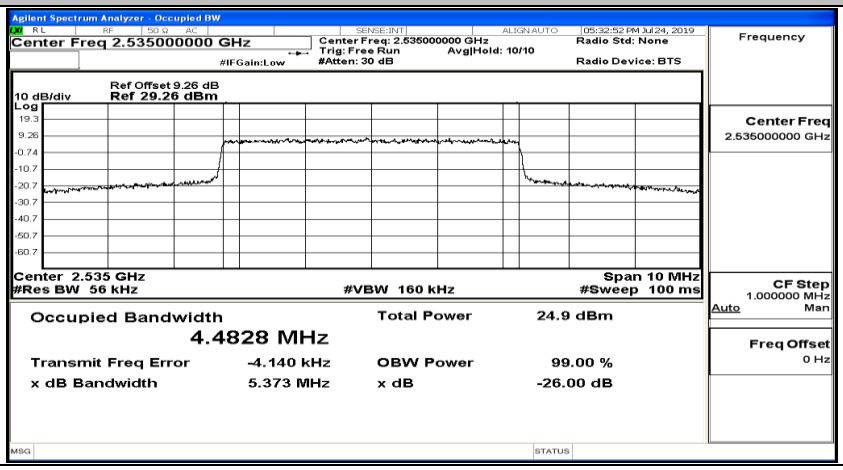
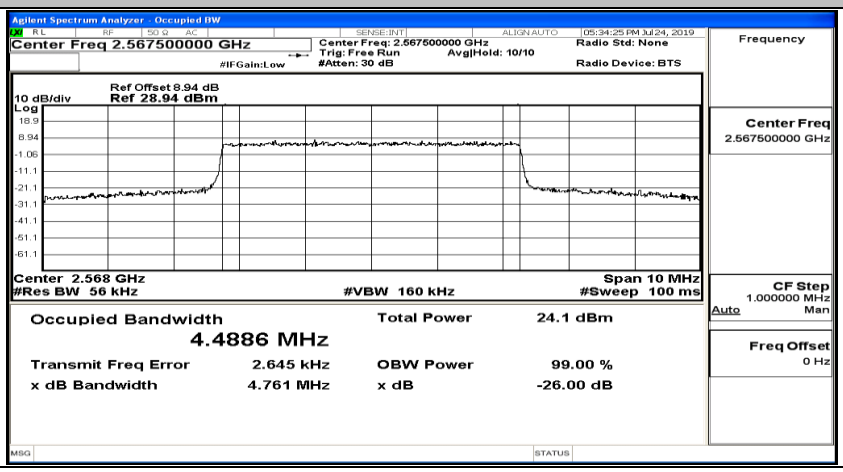
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



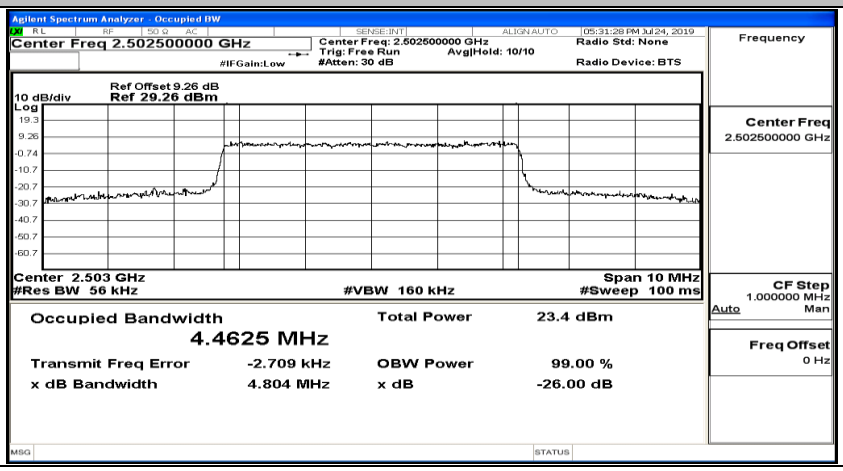
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



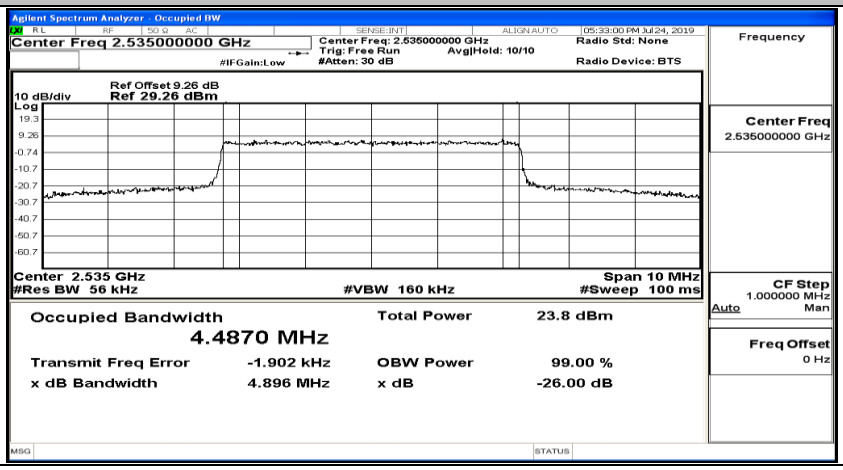
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



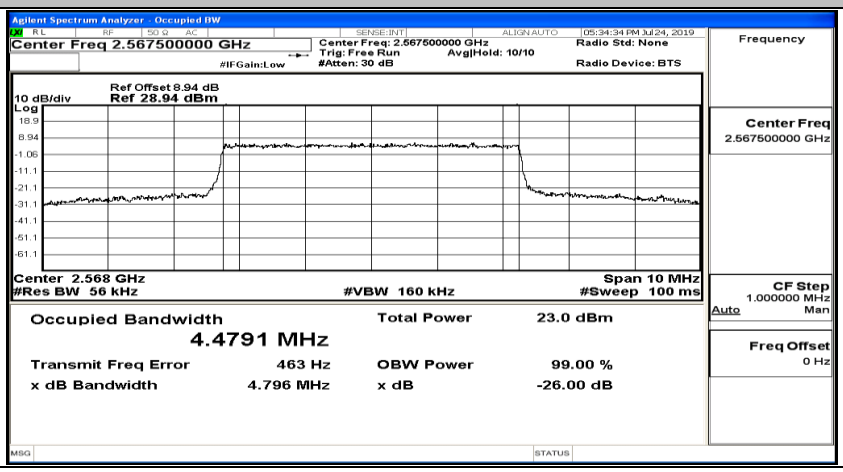
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



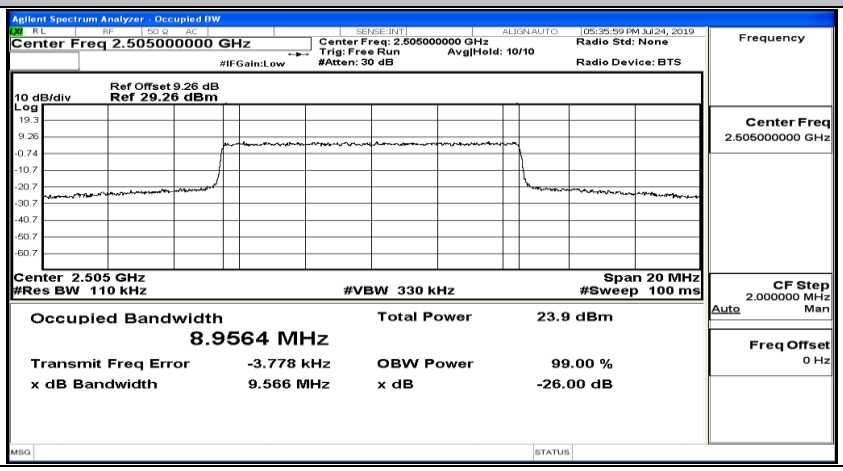
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



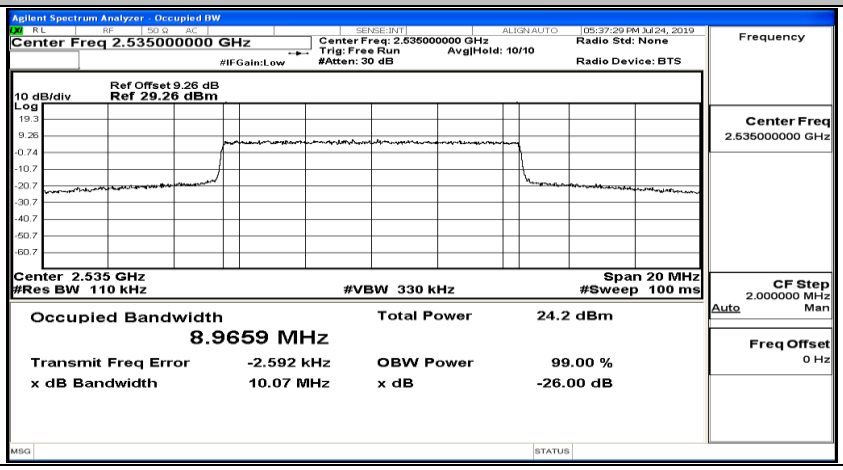
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



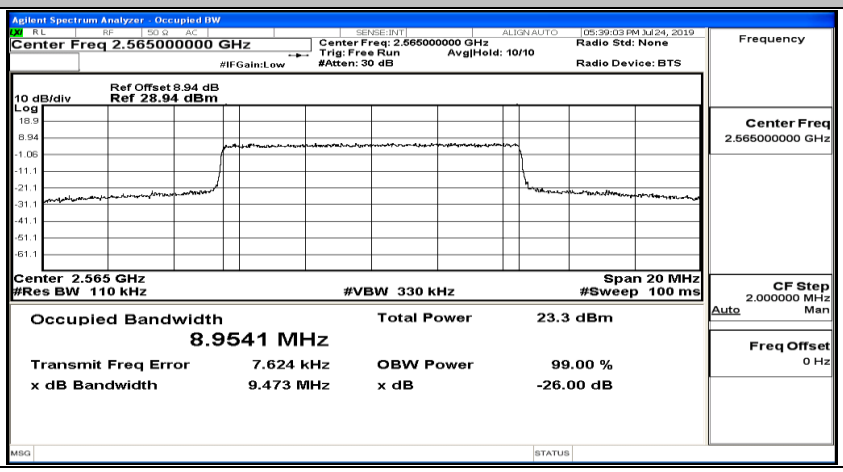
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



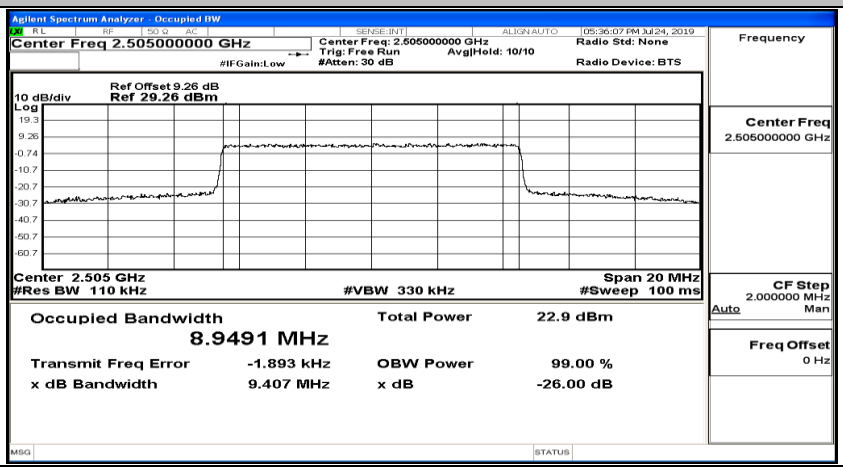
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



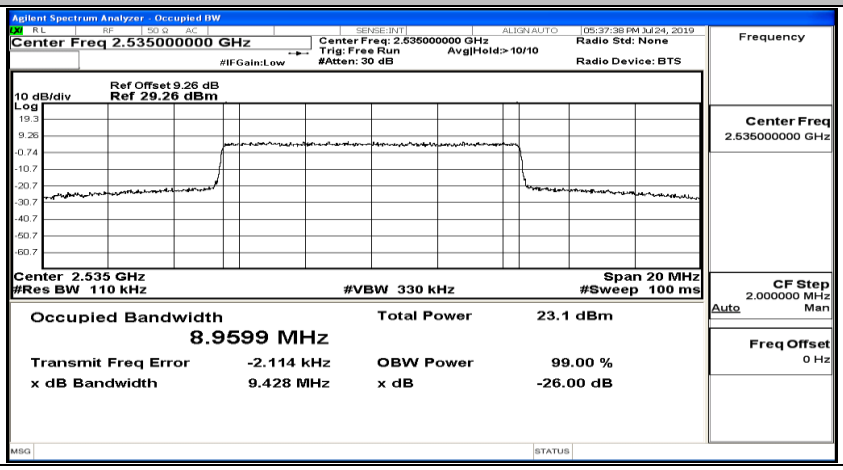
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



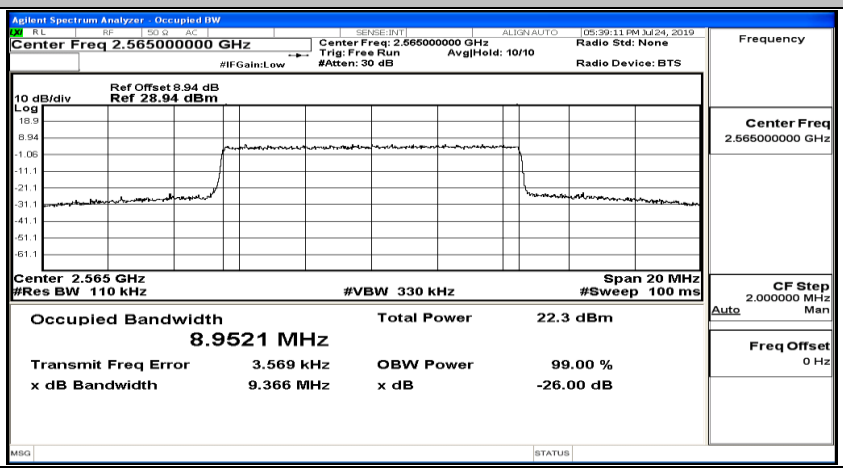
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM

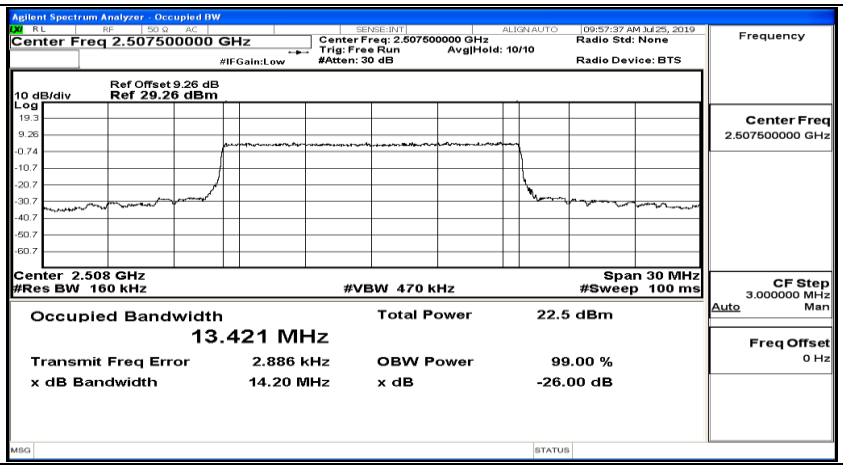


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM

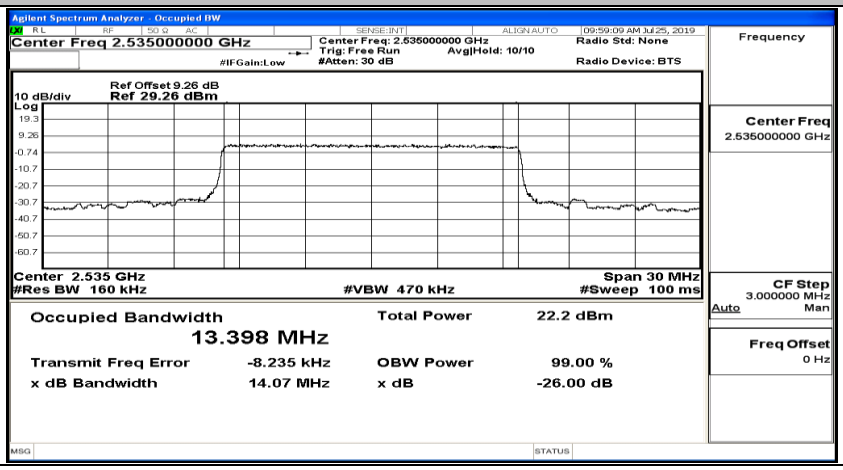


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

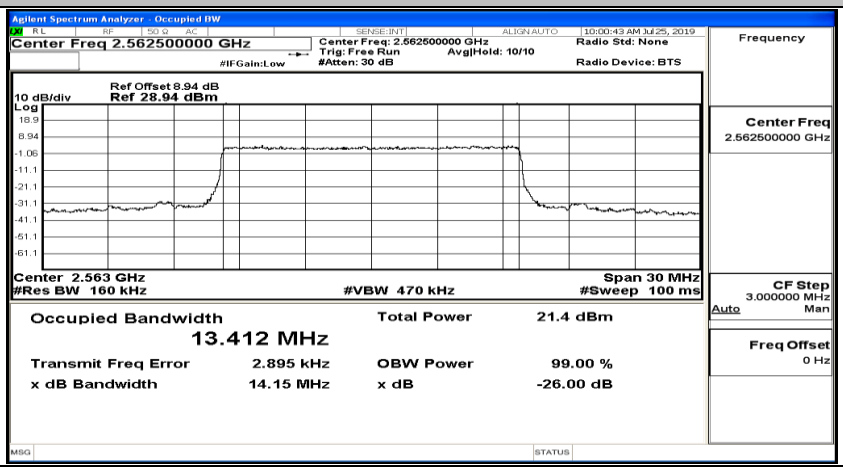




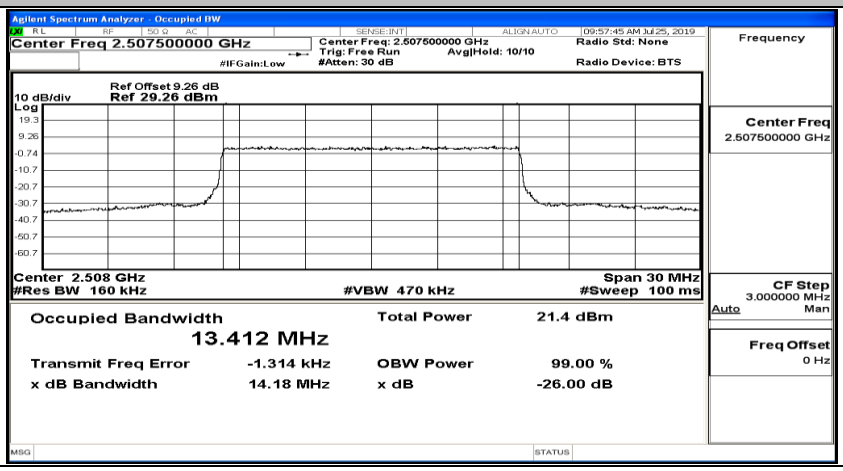
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



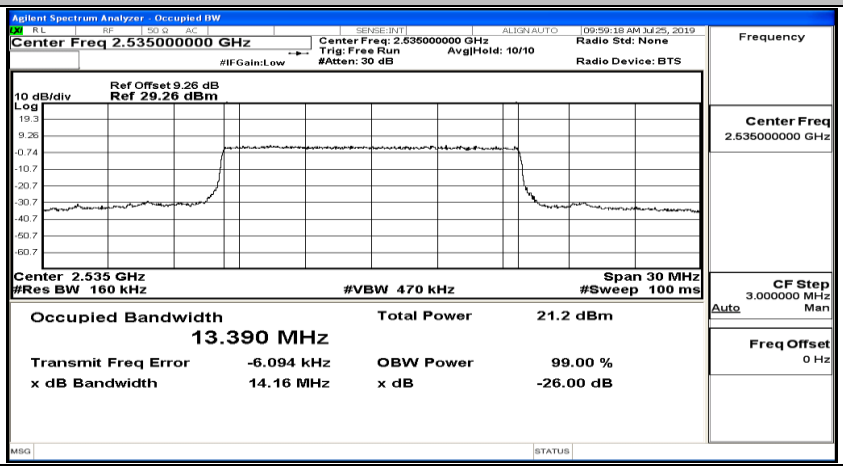
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



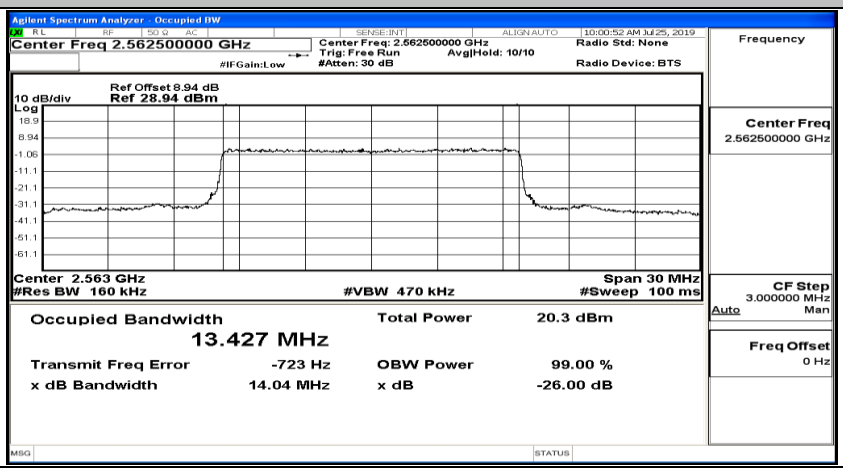
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



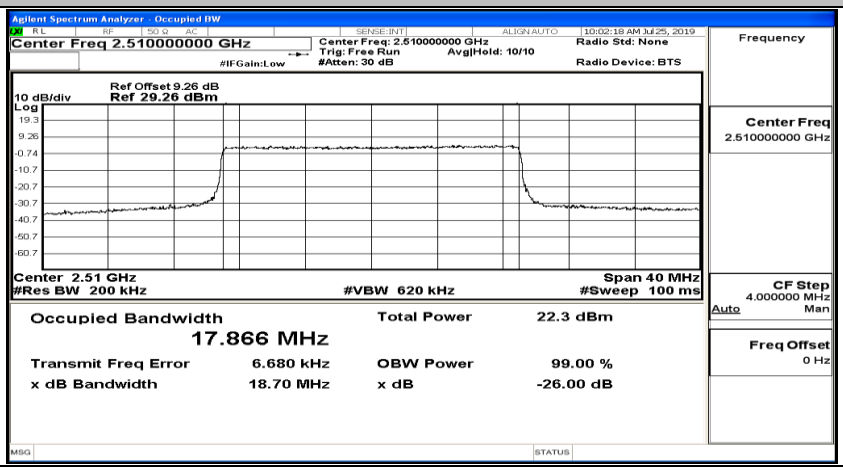
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



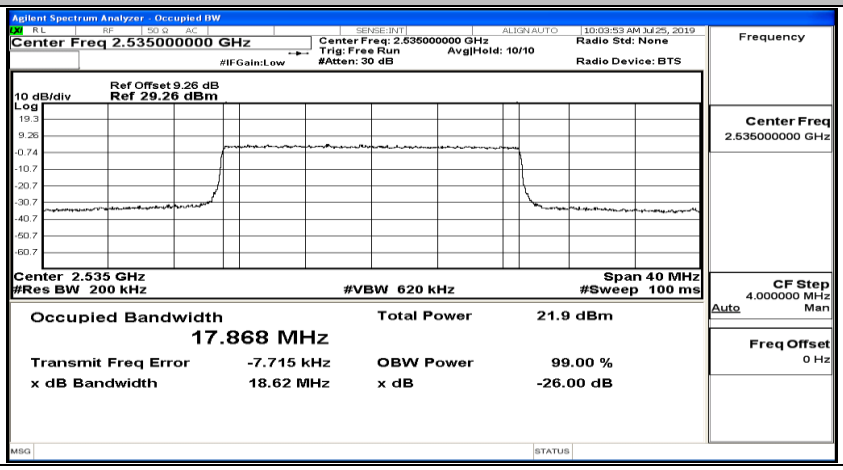
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



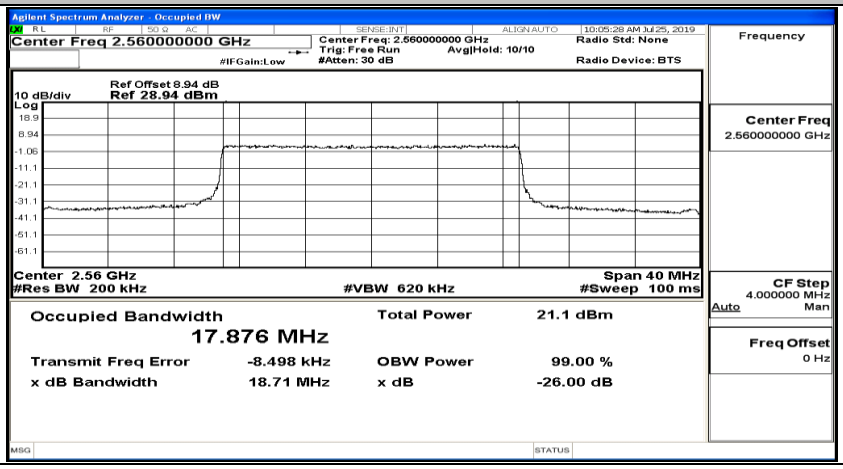
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



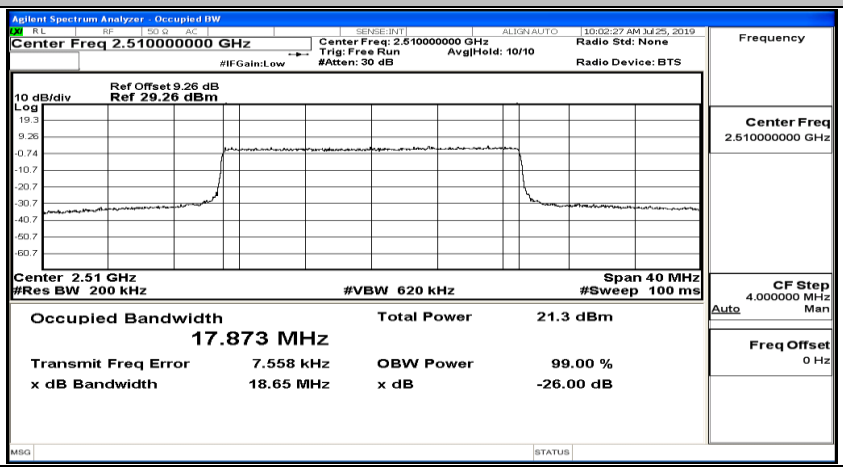
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



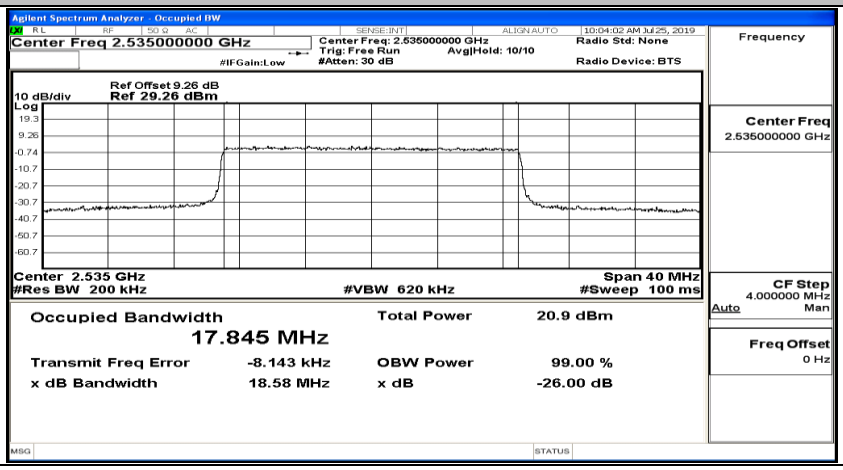
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



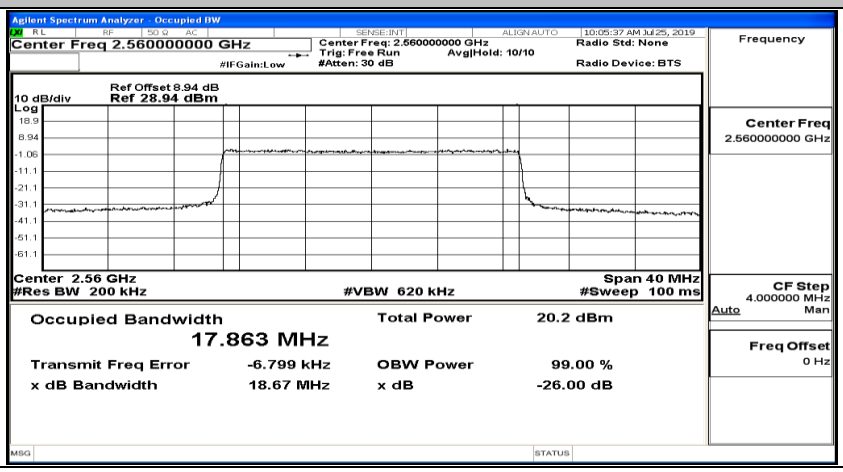
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM

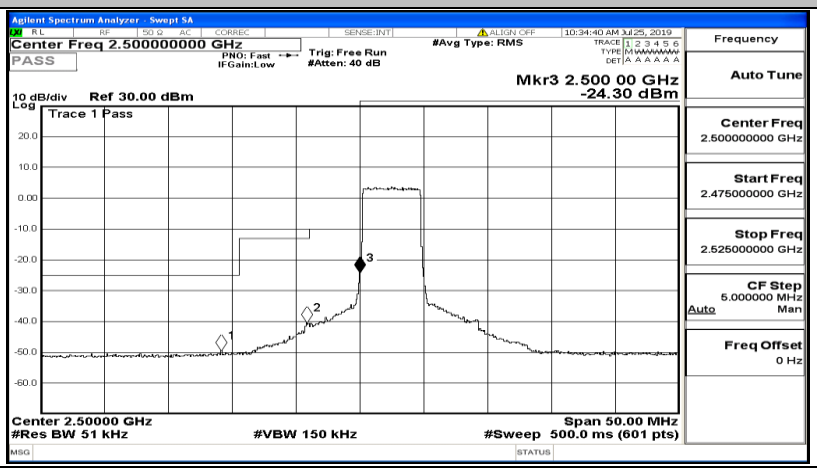


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

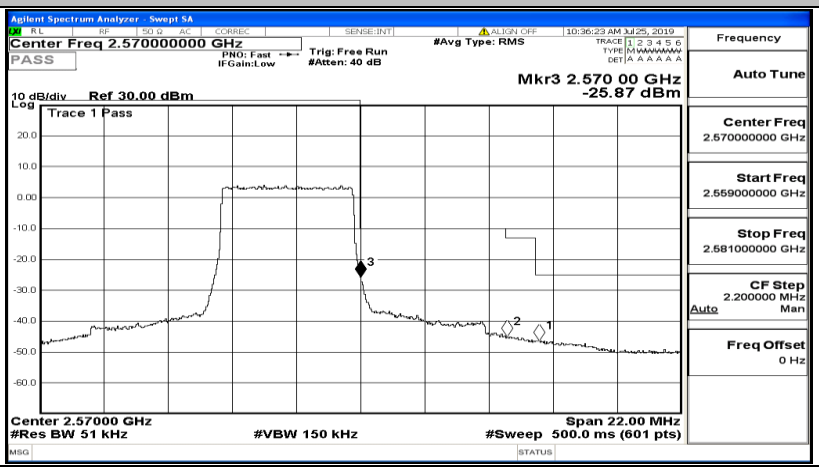


G.4 Band Edge

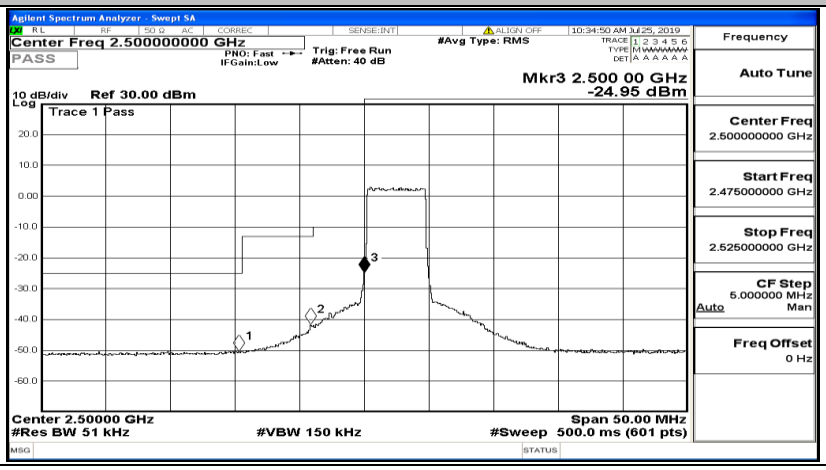
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



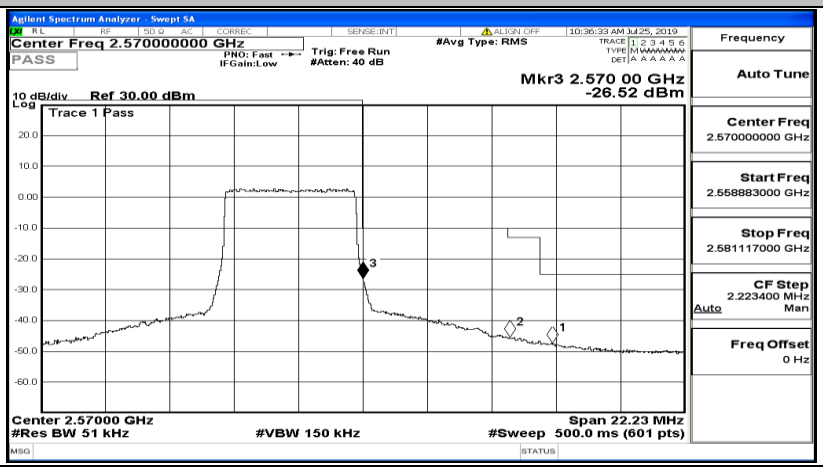
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



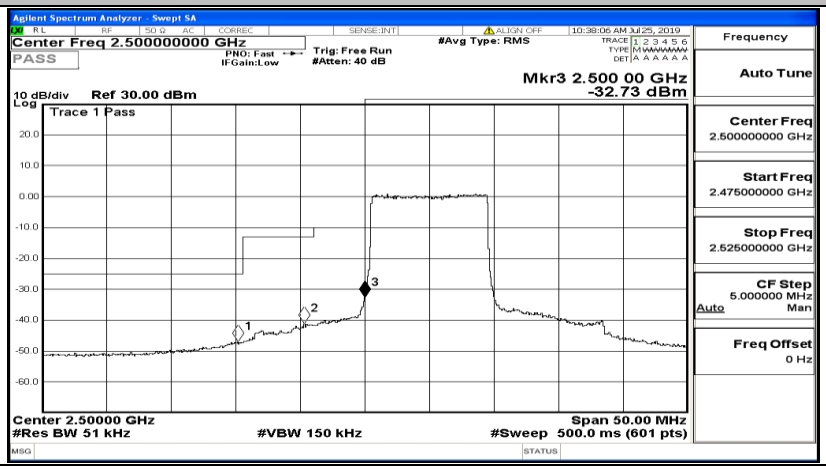
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



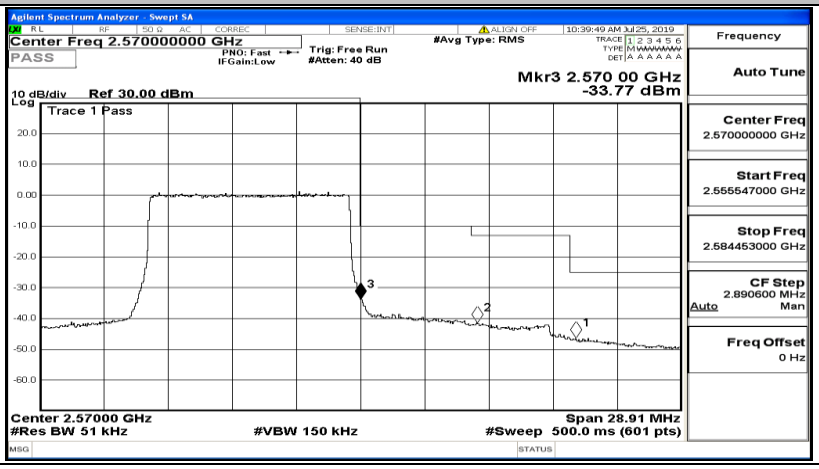
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



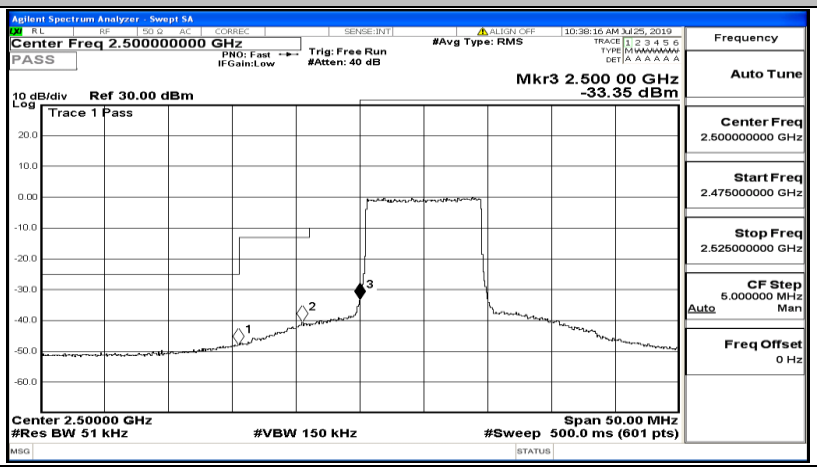
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



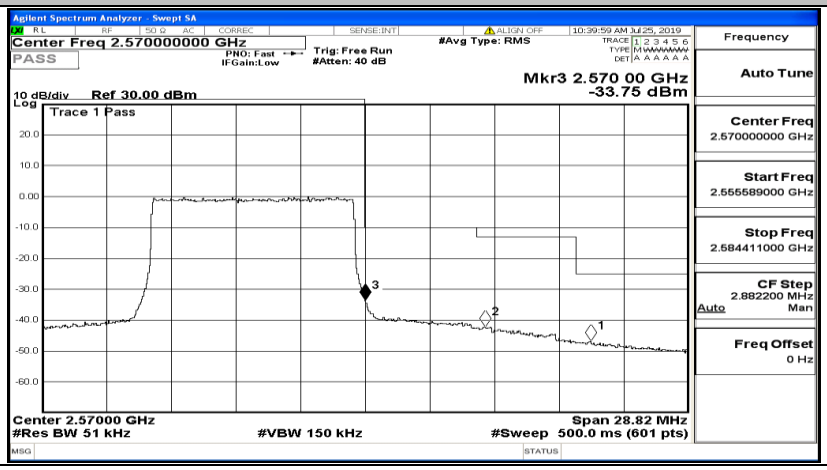
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



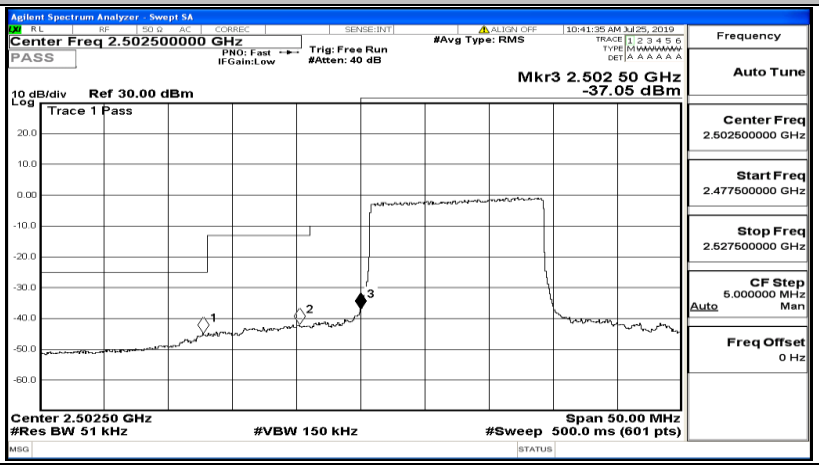
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



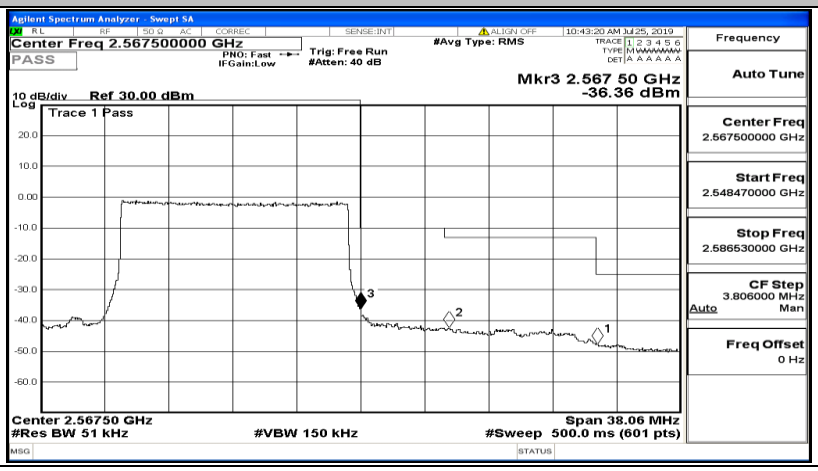
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



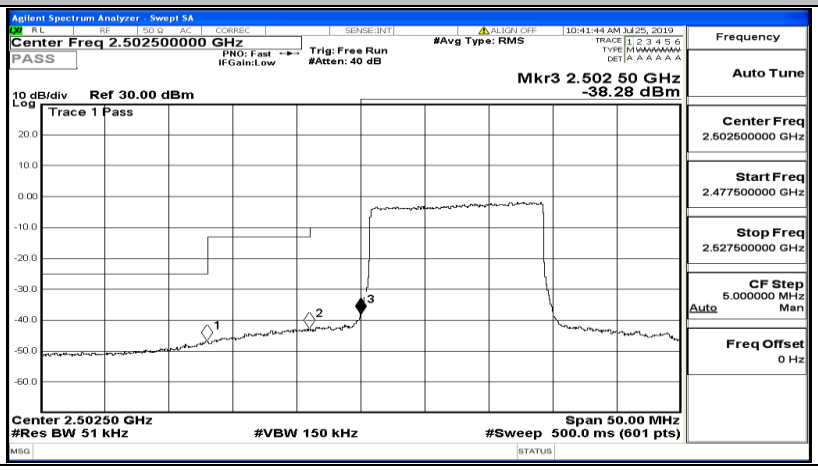
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



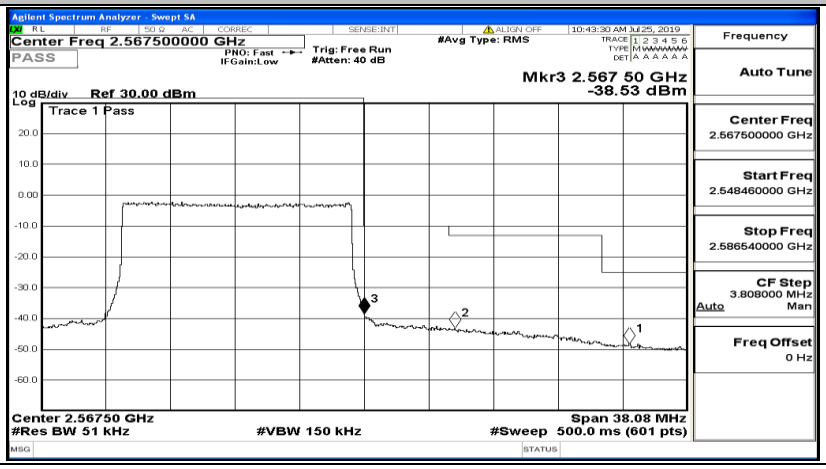
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



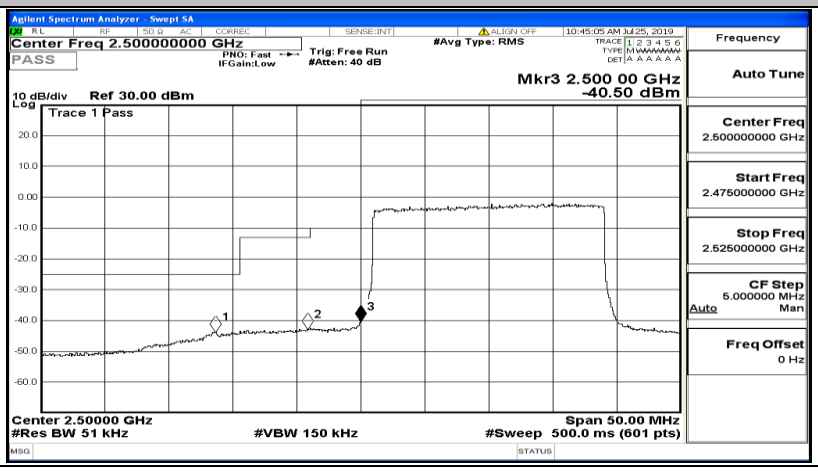
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



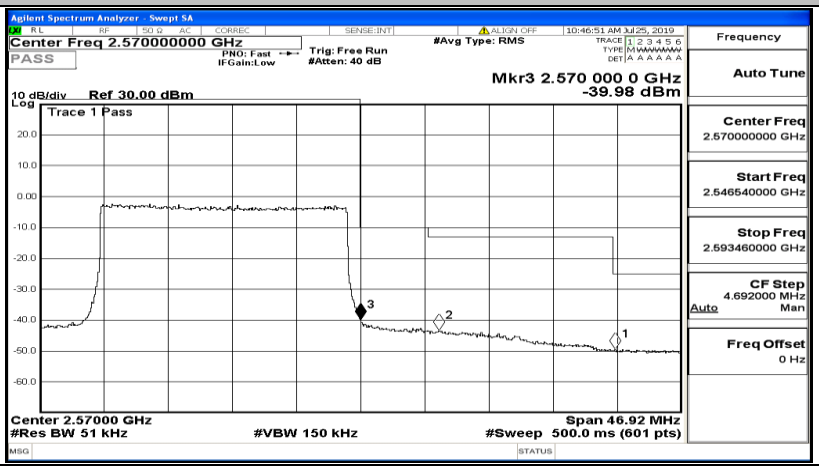
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



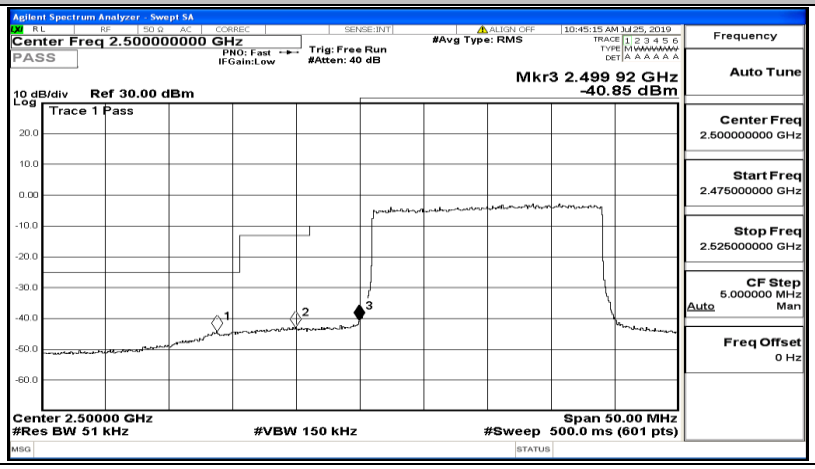
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



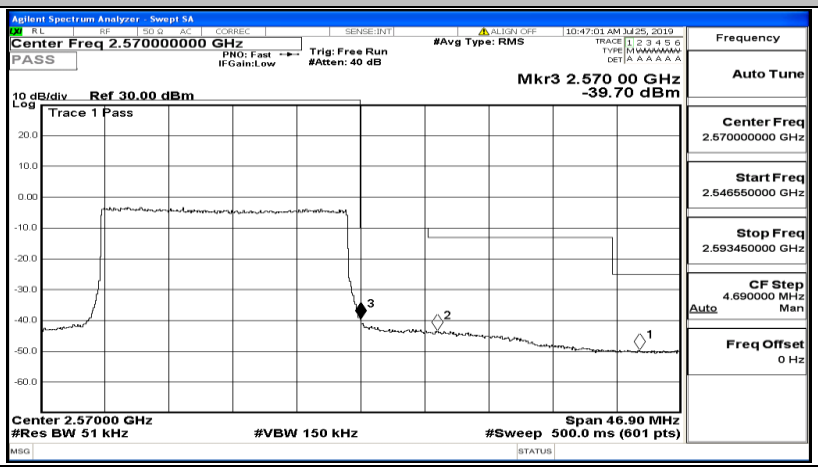
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM

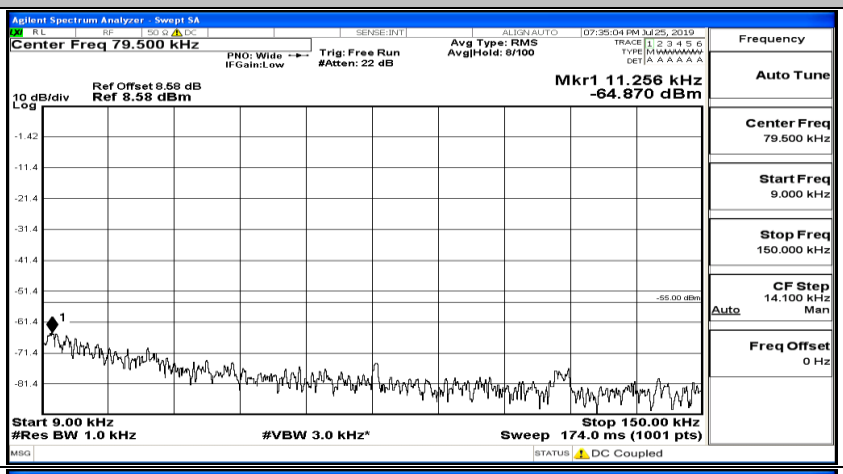


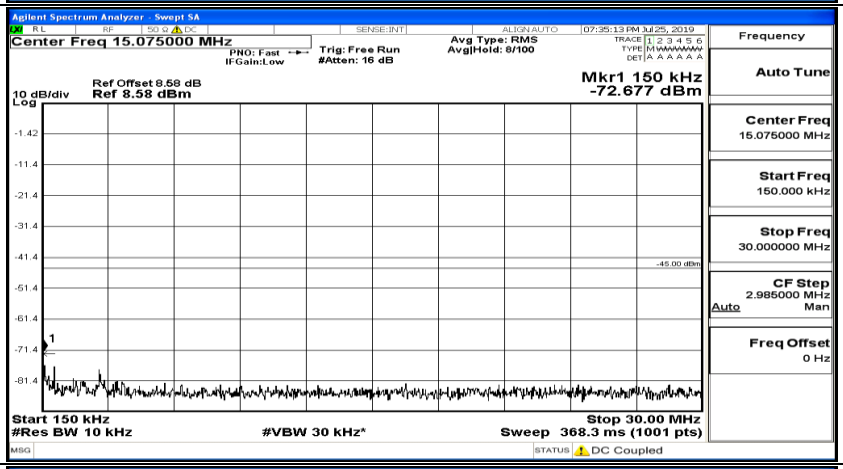
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

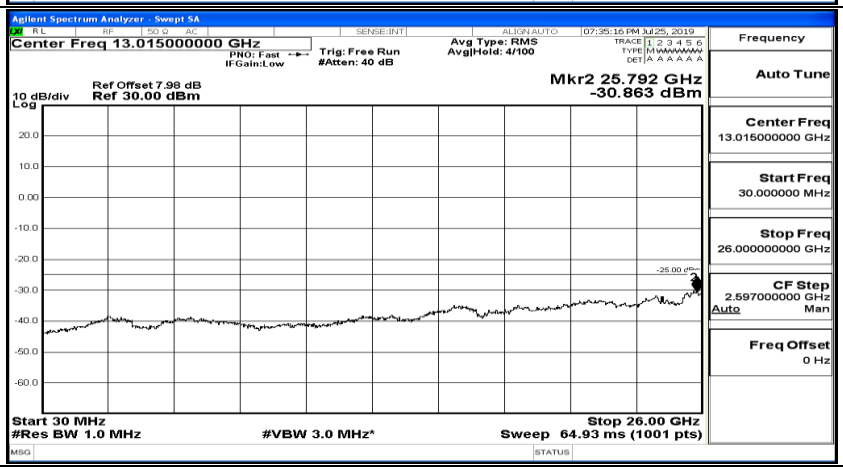
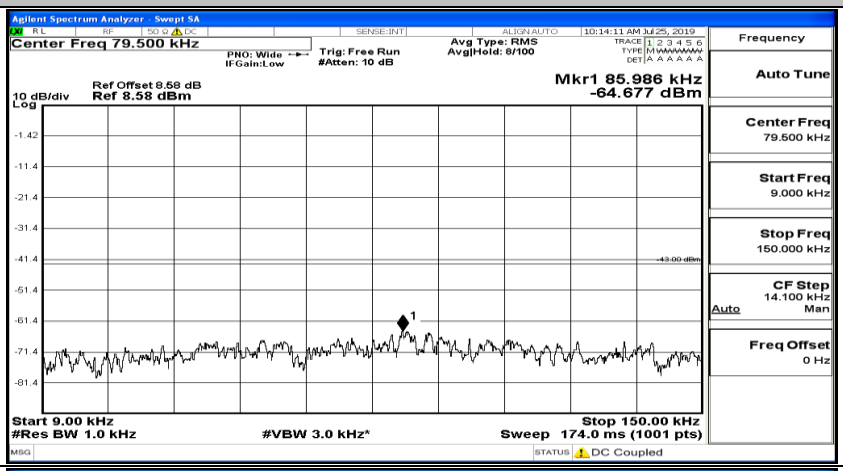
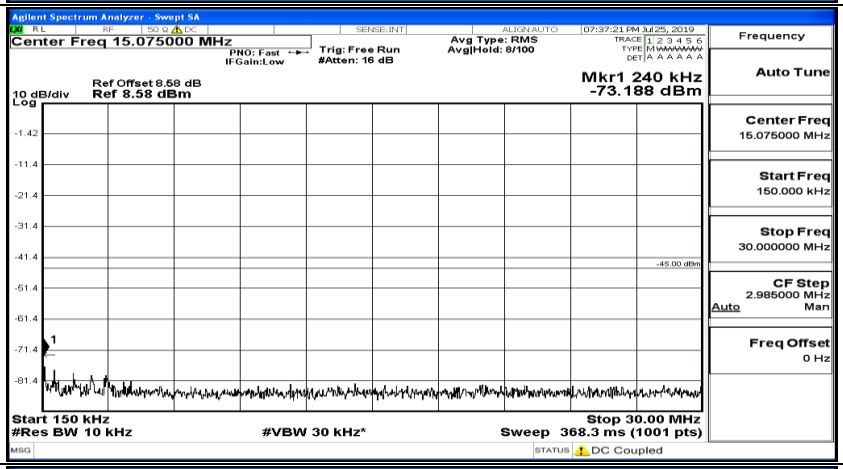


G.5 Conducted Spurious Emission

CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK







CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK