Appendix F: Test Data for E-UTRA Band 5

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

F.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Con1iguration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	O11set			
QPSK / 16QAM	LCH	1	0	23.70	22.75	PASS
		1	3	23.53	22.76	PASS
		1	5	23.55	22.86	PASS
		3	0	23.53	22.63	PASS
		3	2	23.57	22.71	PASS
		3	3	23.54	22.66	PASS
		6	0	23.70	22.75	PASS
	MCH	1	0	22.90	21.84	PASS
		1	3	22.90	22.40	PASS
		1	5	22.69	22.22	PASS
		3	0	22.87	21.76	PASS
		3	2	22.88	21.94	PASS
		3	3	22.69	21.82	PASS
		6	0	22.90	21.84	PASS
	HCH	1	0	23.29	22.19	PASS
		1	3	23.39	22.61	PASS
		1	5	23.12	22.70	PASS
		3	0	23.24	22.36	PASS
		3	2	23.13	22.48	PASS
		3	3	23.33	22.53	PASS
		6	0	23.29	22.19	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Con1iguration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	O11set	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.54	22.75	PASS
		1	7	23.46	22.69	PASS
		1	14	23.41	22.66	PASS
		8	0	22.69	21.76	PASS
		8	4	22.64	21.69	PASS
		8	7	22.60	21.66	PASS
		15	0	23.54	22.75	PASS
	MCH	1	0	22.90	22.07	PASS
		1	7	22.75	21.78	PASS
		1	14	22.54	21.49	PASS
		8	0	22.13	21.08	PASS
		8	4	22.11	21.13	PASS
		8	7	22.98	22.12	PASS
		15	0	22.90	22.07	PASS
	HCH	1	0	22.98	22.13	PASS
		1	7	23.00	22.29	PASS
		1	14	23.25	22.22	PASS
		8	0	22.38	21.32	PASS
		8	4	22.37	21.30	PASS
		8	7	22.45	21.56	PASS
		15	0	22.98	22.13	PASS

This report shall not be reproduced except in 1ull, without the written approval o1 Shenzhen LCS Compliance Testing Laboratory Ltd.

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Con1iguration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	O11set	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.50	22.81	PASS
		1	12	23.45	22.85	PASS
		1	24	23.40	22.79	PASS
		12	0	22.68	21.80	PASS
		12	6	22.62	21.77	PASS
		12	13	22.51	21.63	PASS
		25	0	23.53	22.86	PASS
	MCH	1	0	22.99	22.47	PASS
		1	12	22.51	21.67	PASS
		1	24	22.56	22.28	PASS
		12	0	22.98	22.08	PASS
		12	6	22.98	22.00	PASS
		12	13	22.97	22.04	PASS
		25	0	22.99	22.47	PASS
	HCH	1	0	23.24	22.13	PASS
		1	12	23.47	22.35	PASS
		1	24	22.60	22.09	PASS
		12	0	22.25	21.39	PASS
		12	6	22.35	21.52	PASS
		12	13	22.35	21.22	PASS
		25	0	23.24	22.13	PASS

This report shall not be reproduced except in 1ull, without the written approval o1 Shenzhen LCS Compliance Testing Laboratory Ltd.

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Con1iguration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	O11set	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.73	22.87	PASS
		1	24	23.41	22.74	PASS
		1	49	23.53	22.92	PASS
		25	0	22.76	21.74	PASS
		25	12	22.62	21.55	PASS
		25	25	22.49	21.51	PASS
		50	0	23.73	22.87	PASS
	MCH	1	0	23.24	22.69	PASS
		1	24	22.62	22.04	PASS
		1	49	22.40	21.13	PASS
		25	0	22.07	21.09	PASS
		25	12	21.92	21.20	PASS
		25	25	22.31	21.26	PASS
		50	0	23.24	22.69	PASS
	HCH	1	0	23.08	22.55	PASS
		1	24	22.96	22.41	PASS
		1	49	22.97	22.31	PASS
		25	0	22.14	21.21	PASS
		25	12	22.18	21.31	PASS
		25	25	22.44	21.39	PASS
		50	0	23.08	22.55	PASS

This report shall not be reproduced except in 1ull, without the written approval o1 Shenzhen LCS Compliance Testing Laboratory Ltd.

F.2 Peak-to-Average Ratio

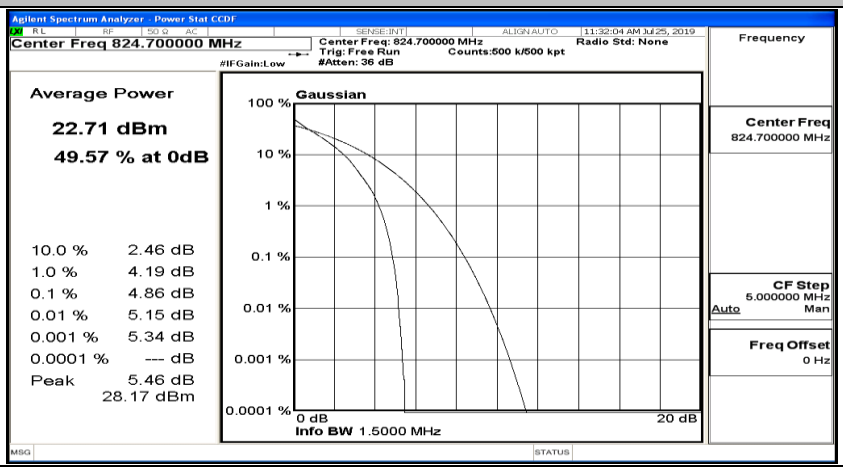
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.86	<13	PASS
	MCH	4.35	<13	PASS
	HCH	4.28	<13	PASS
16QAM	LCH	5.69	<13	PASS
	MCH	5.17	<13	PASS
	HCH	5.1	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.09	<13	PASS
	MCH	4.56	<13	PASS
	HCH	4.5	<13	PASS
16QAM	LCH	5.94	<13	PASS
	MCH	5.34	<13	PASS
	HCH	5.23	<13	PASS

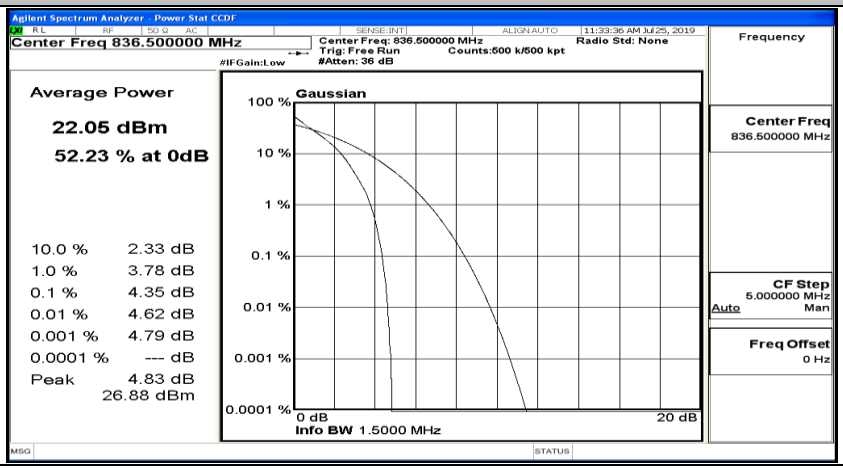
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.15	<13	PASS
	MCH	4.53	<13	PASS
	HCH	4.49	<13	PASS
16QAM	LCH	5.92	<13	PASS
	MCH	5.29	<13	PASS
	HCH	5.33	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.24	<13	PASS
	MCH	4.81	<13	PASS
	HCH	4.81	<13	PASS
16QAM	LCH	5.94	<13	PASS
	MCH	5.54	<13	PASS
	HCH	5.58	<13	PASS

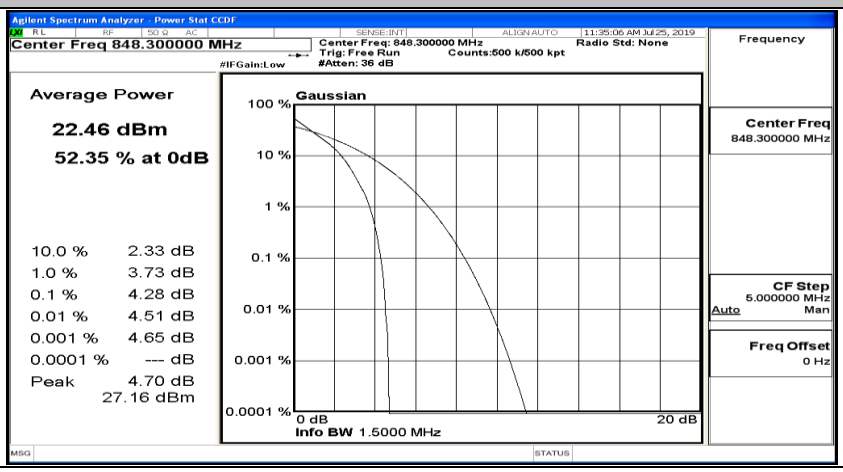
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



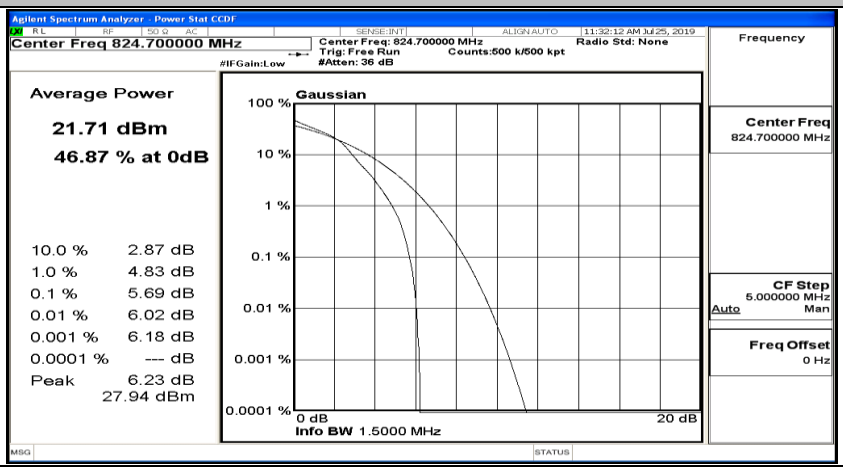
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



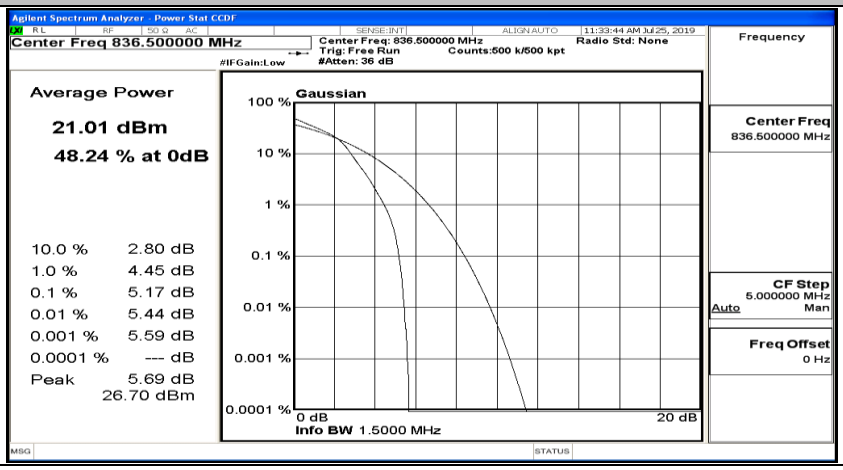
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



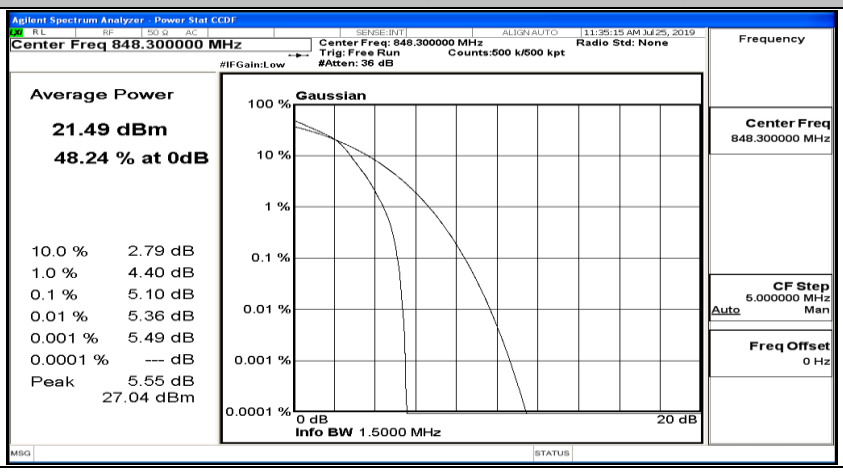
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



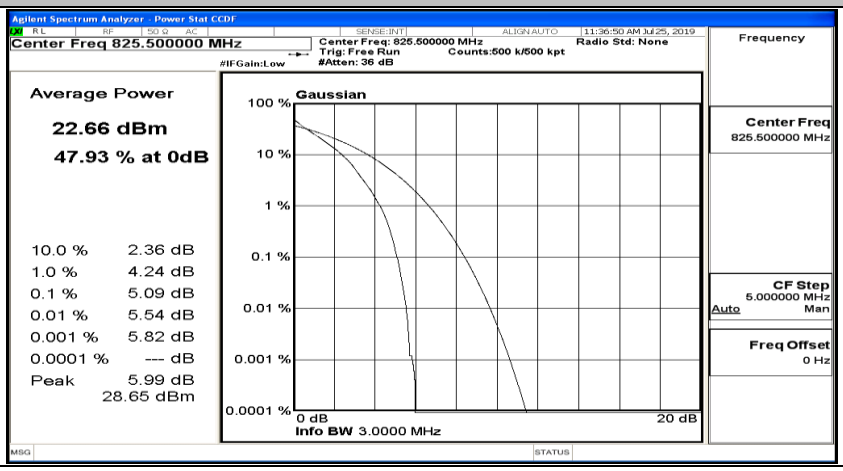
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



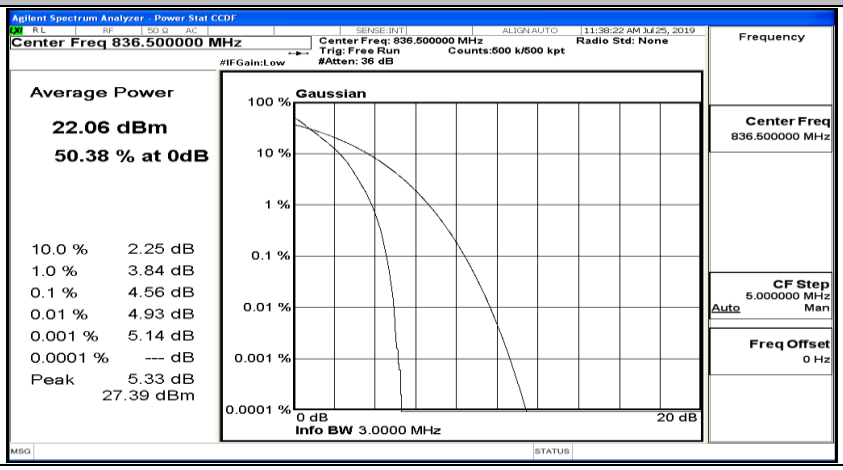
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



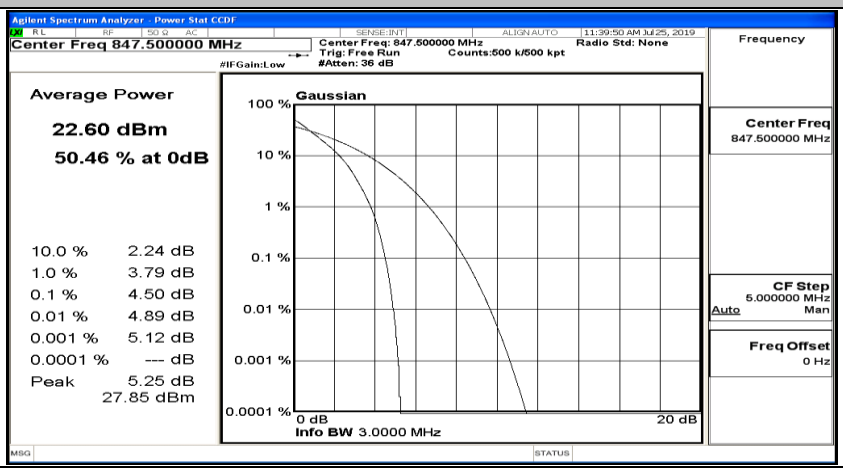
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



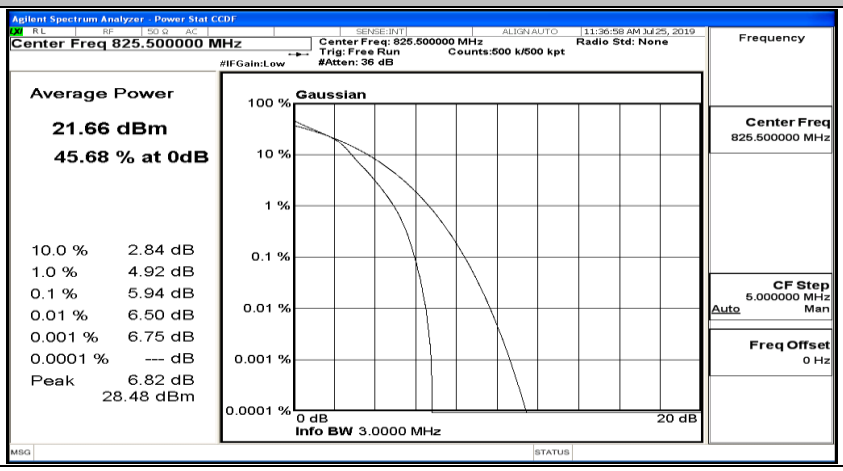
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



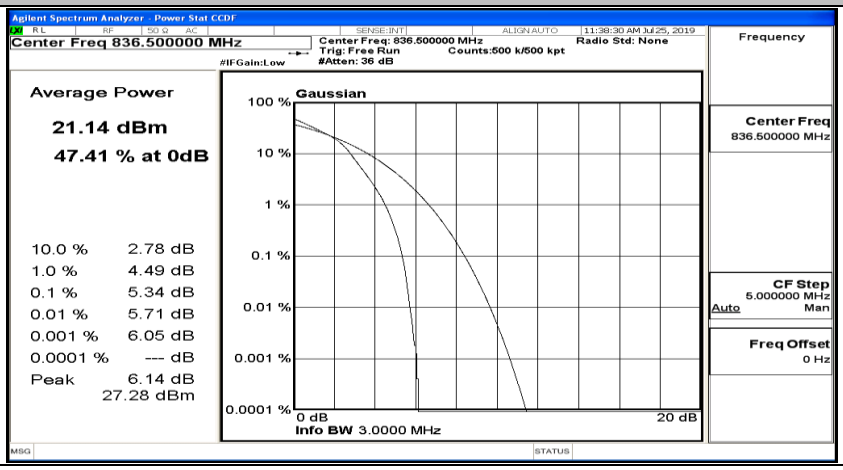
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



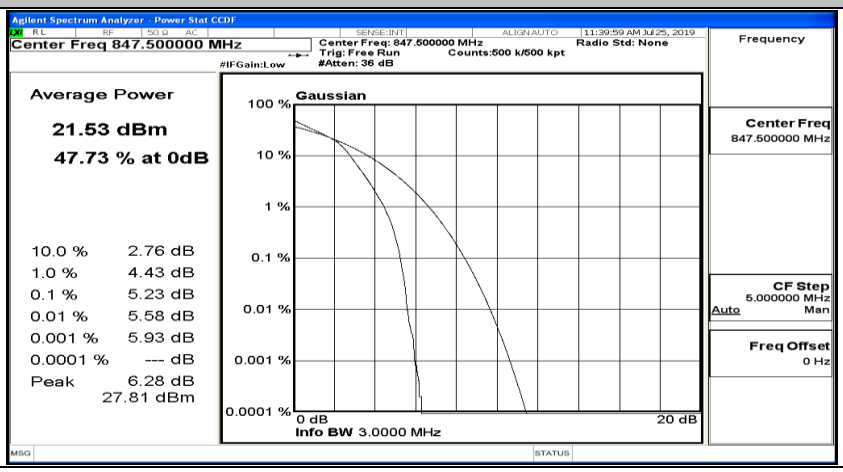
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



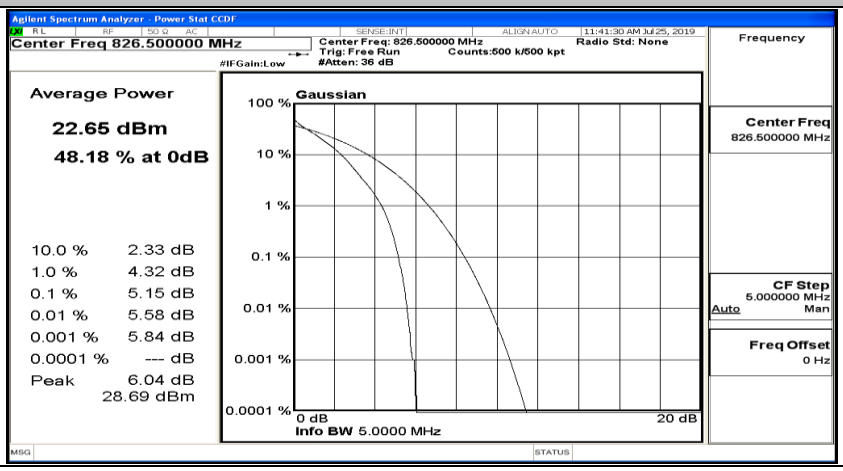
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



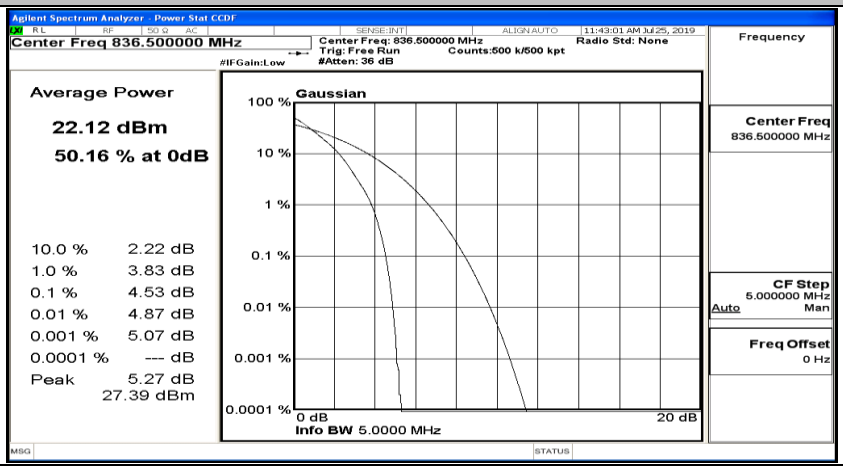
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



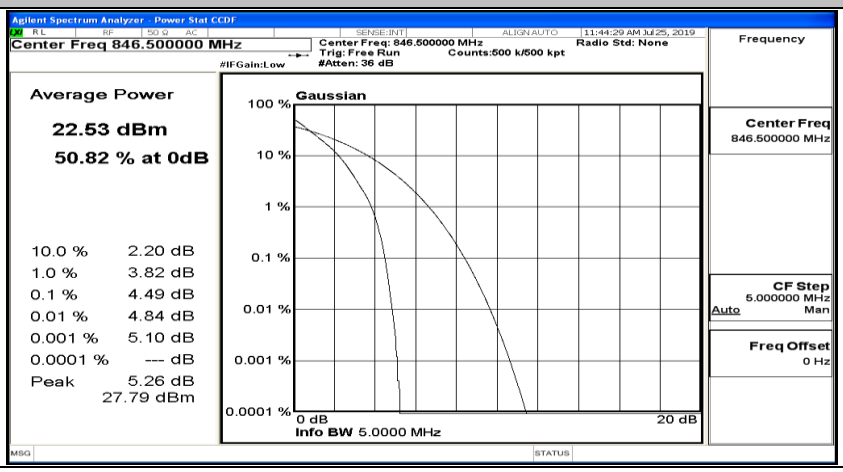
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



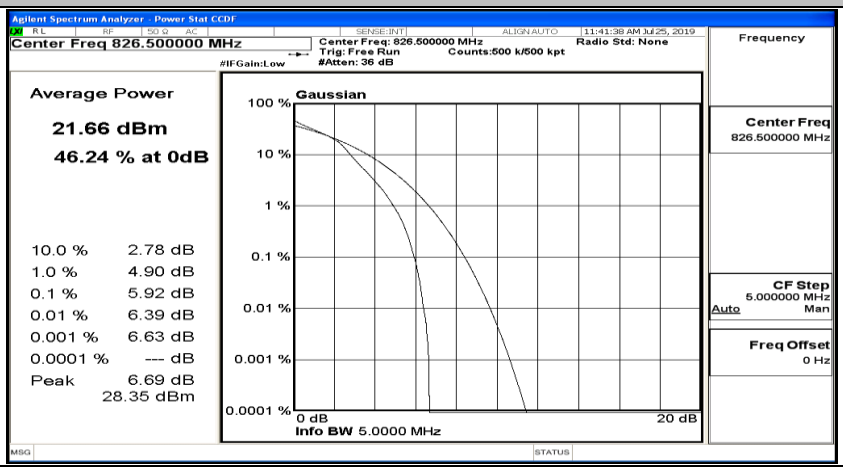
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



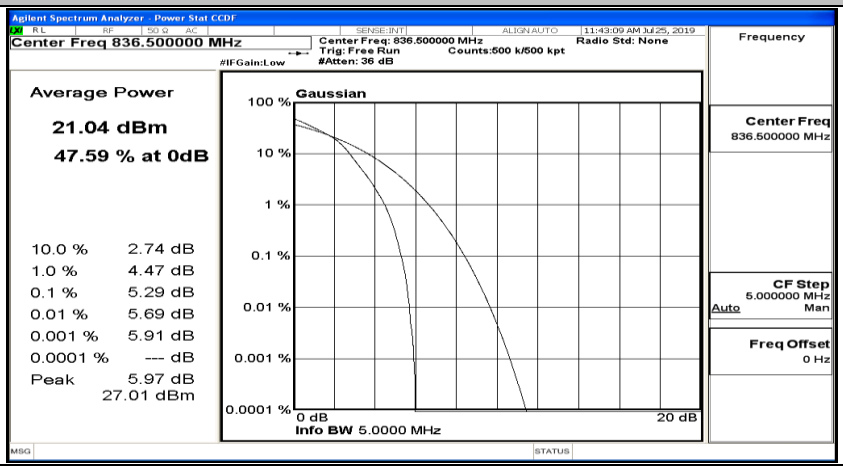
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



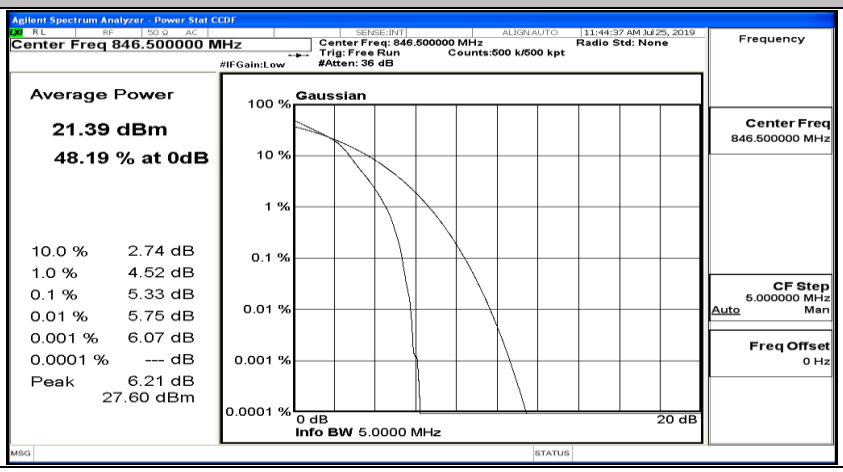
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



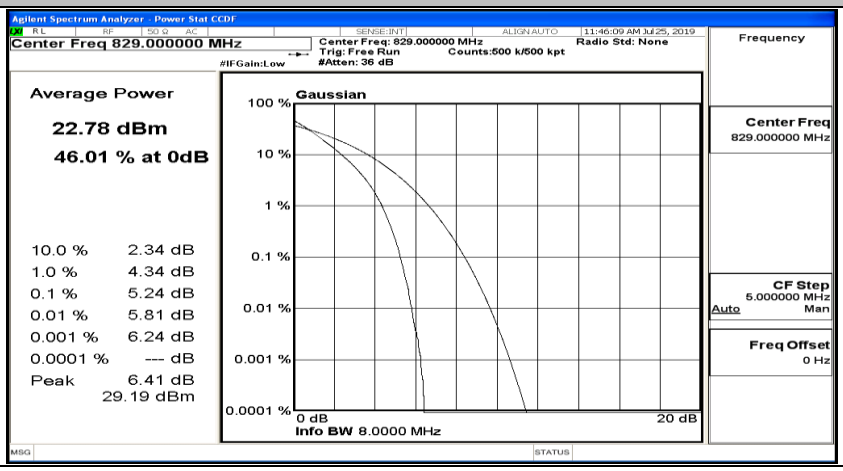
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



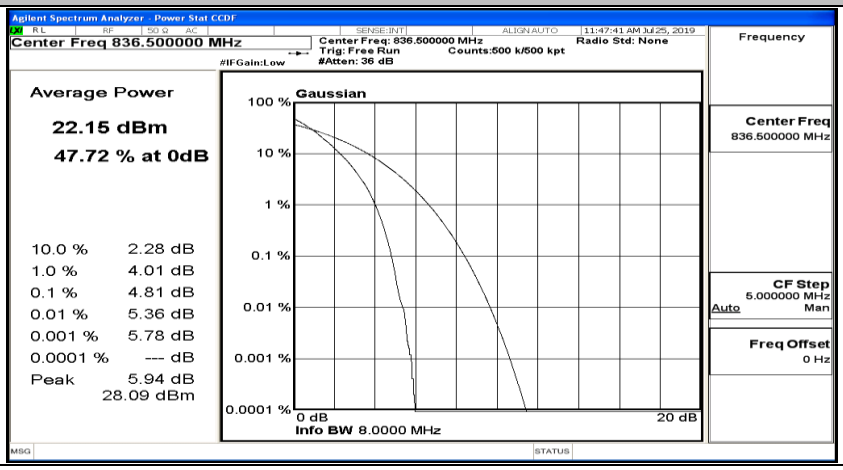
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



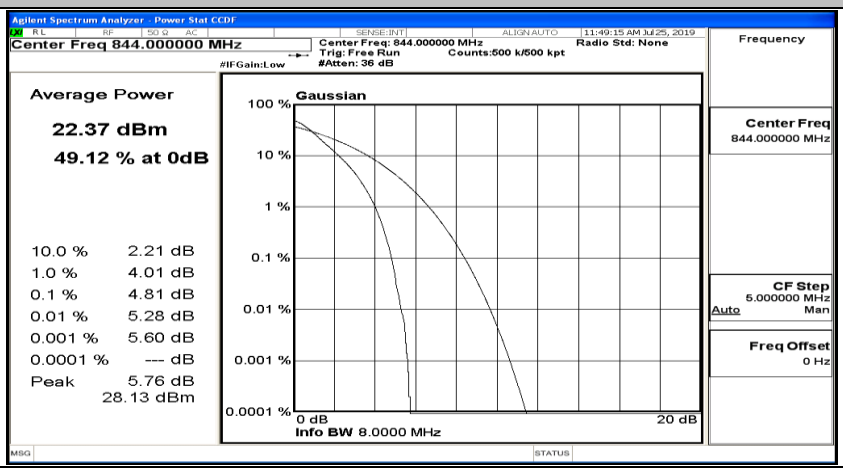
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



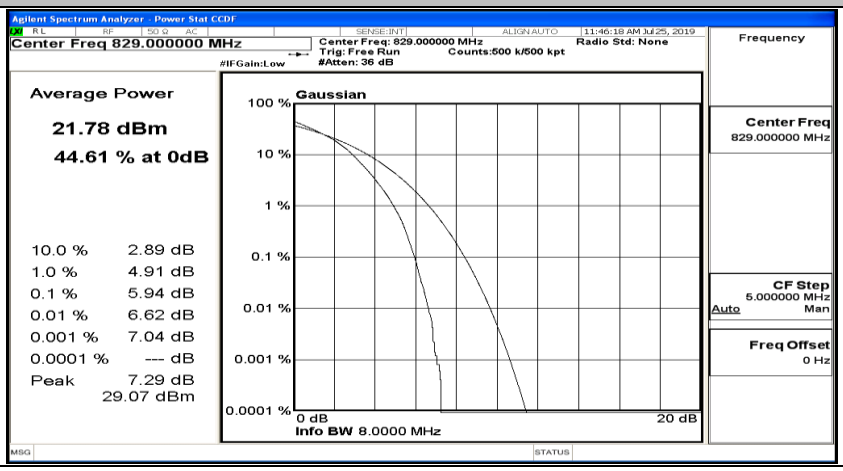
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



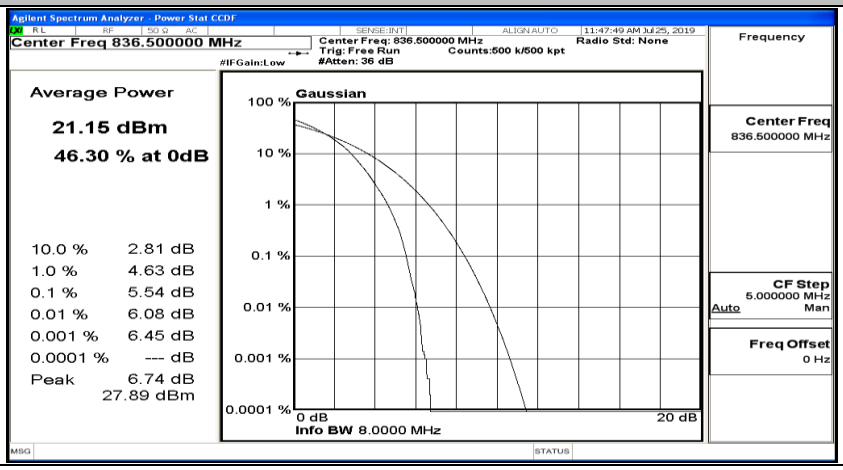
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



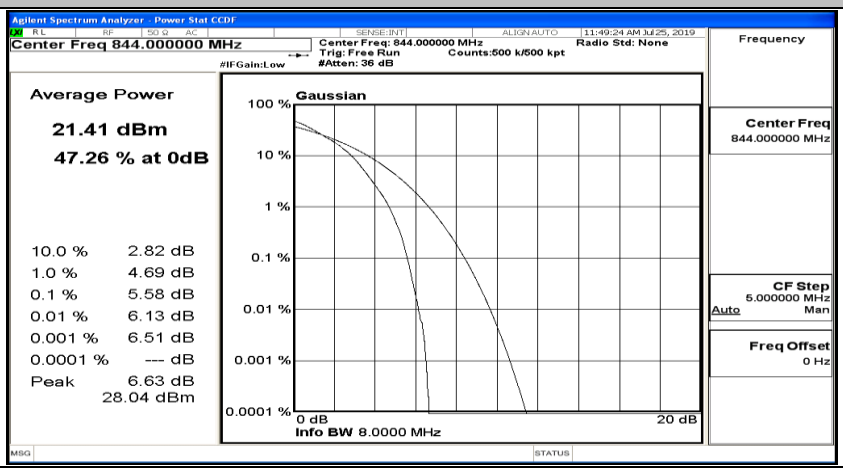
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



F.3 26dB Bandwidth and Occupied Bandwidth

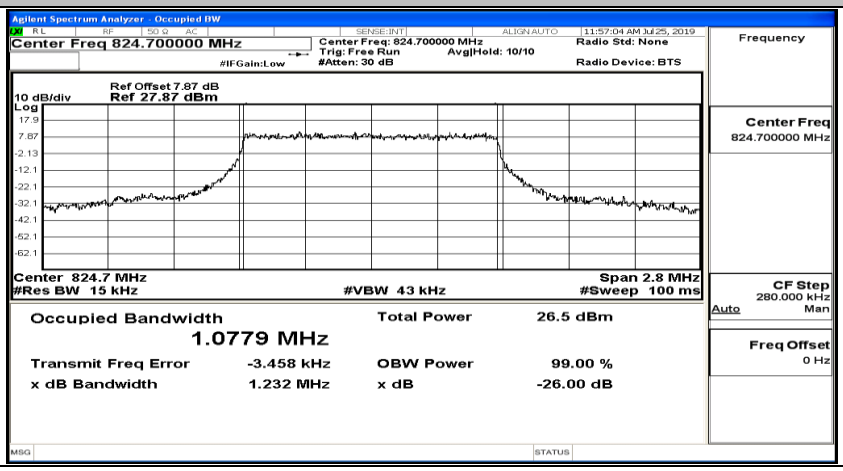
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0779	1.232	PASS
	MCH	1.0757	1.234	PASS
	HCH	1.0792	1.262	PASS
16QAM	LCH	1.0813	1.236	PASS
	MCH	1.0817	1.252	PASS
	HCH	1.0798	1.241	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6835	2.889	PASS
	MCH	2.6855	2.899	PASS
	HCH	2.6870	2.928	PASS
16QAM	LCH	2.6843	2.893	PASS
	MCH	2.6840	2.909	PASS
	HCH	2.6878	2.901	PASS

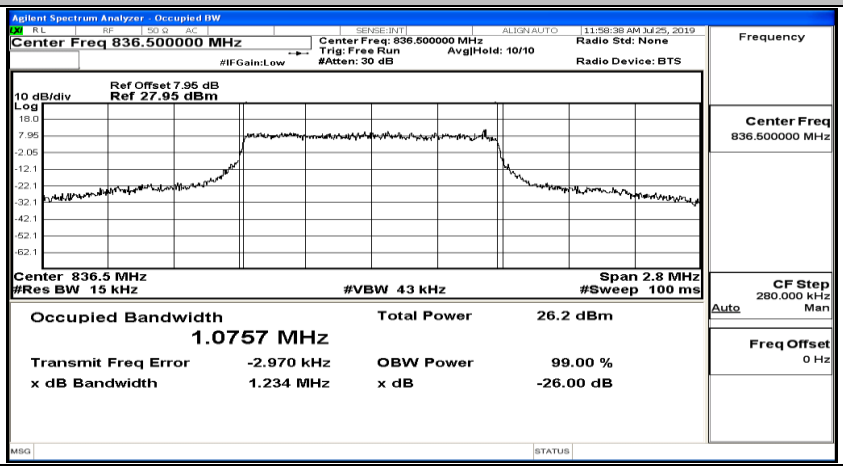
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4844	4.819	PASS
	MCH	4.4726	4.804	PASS
	HCH	4.4725	4.793	PASS
16QAM	LCH	4.4788	4.814	PASS
	MCH	4.4759	4.772	PASS
	HCH	4.4730	4.834	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9542	9.480	PASS
	MCH	8.9259	9.382	PASS
	HCH	8.9188	9.490	PASS
16QAM	LCH	8.9520	9.573	PASS
	MCH	8.9222	9.449	PASS
	HCH	8.9394	9.432	PASS

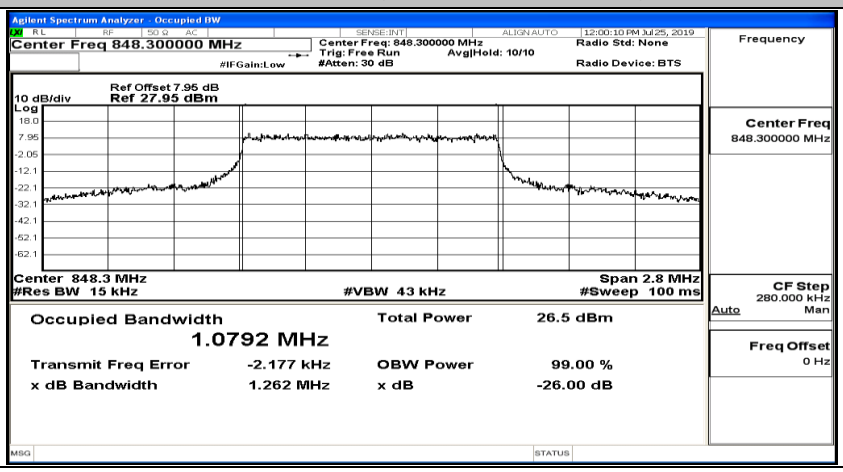
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



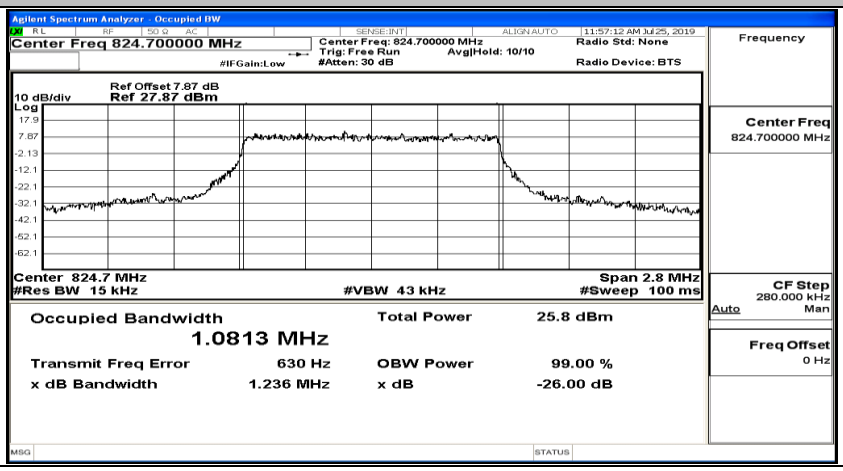
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



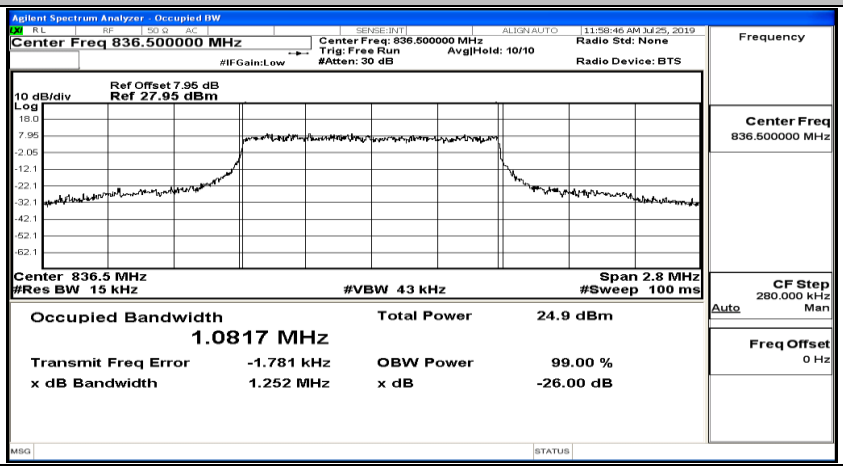
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



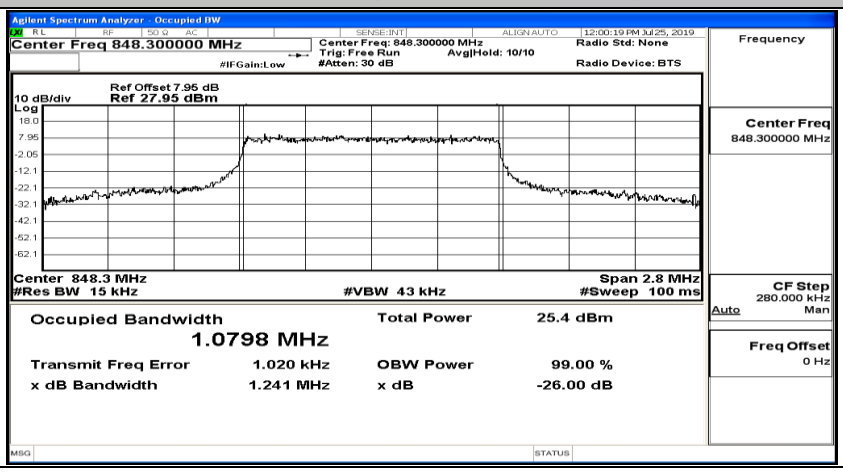
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



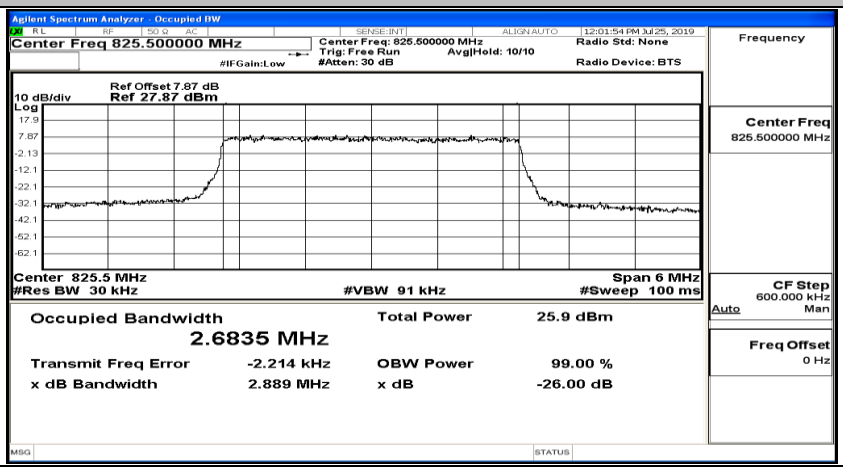
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



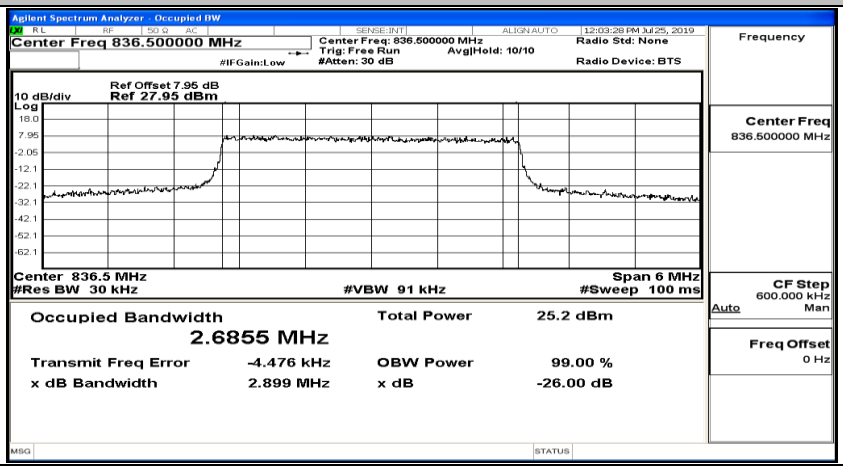
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



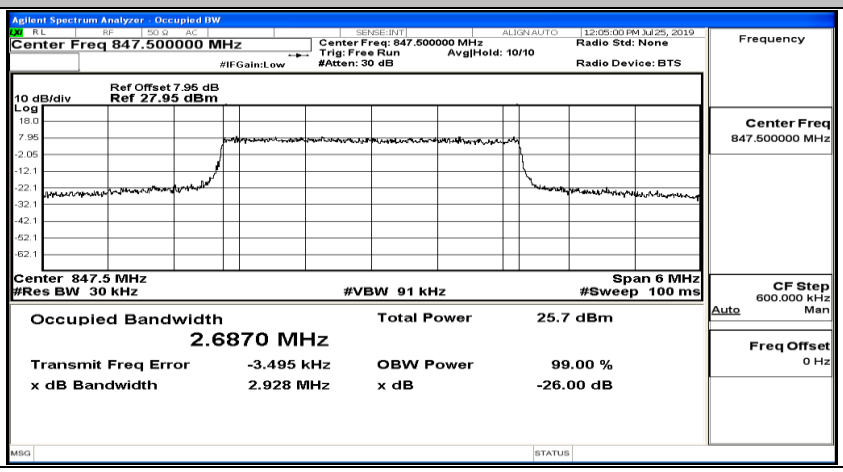
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



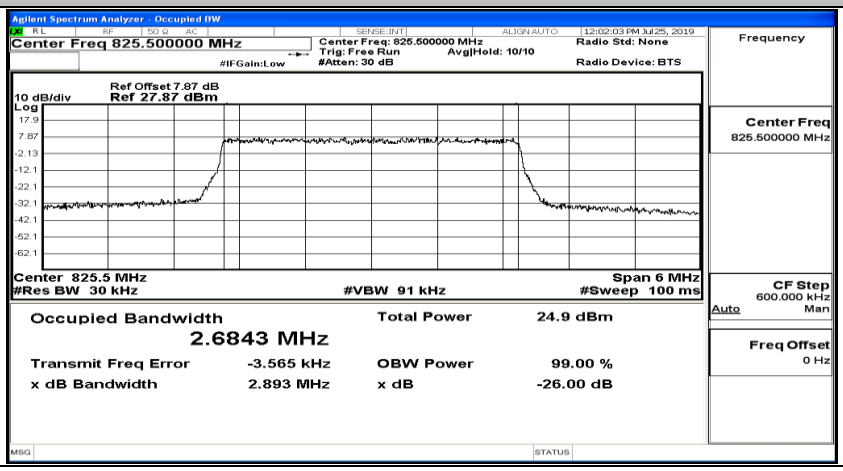
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



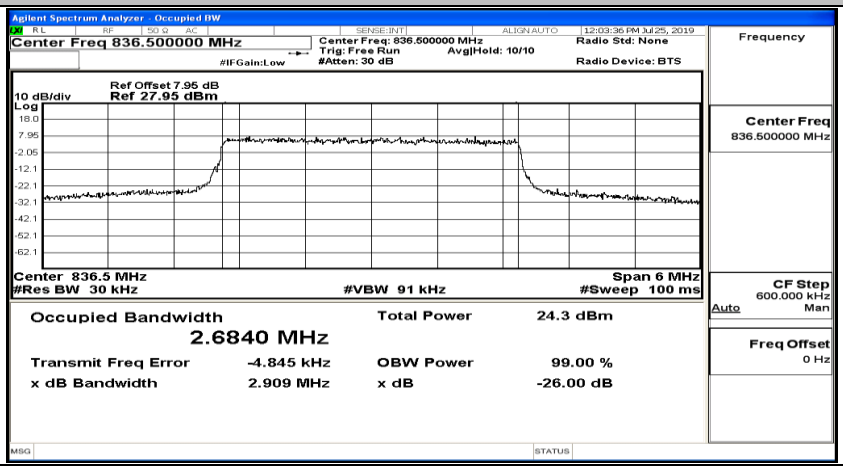
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



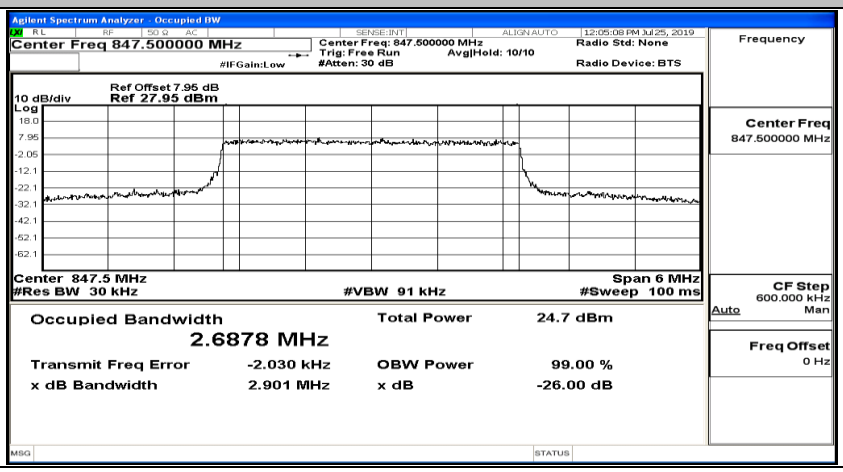
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



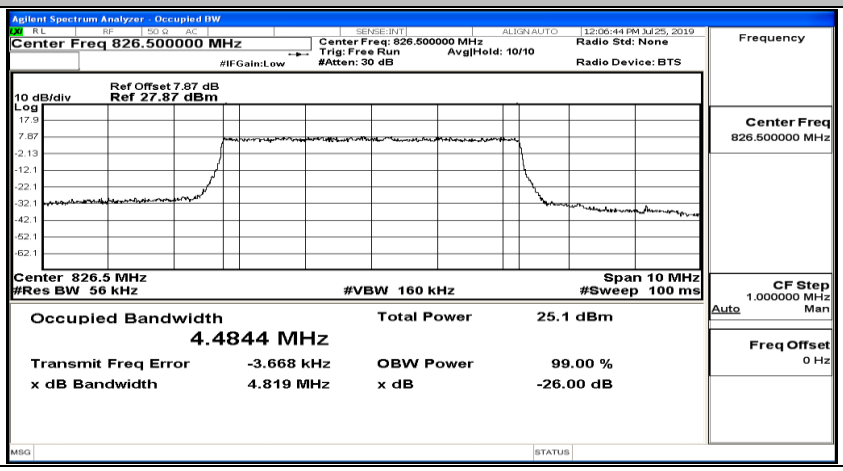
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



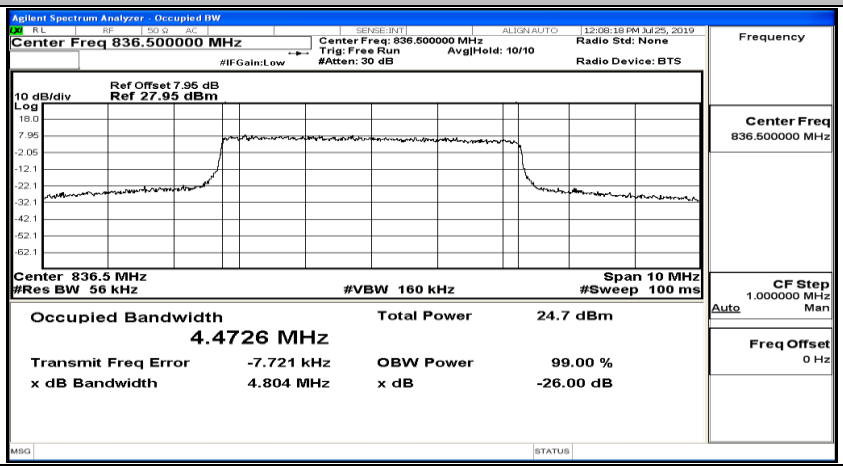
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



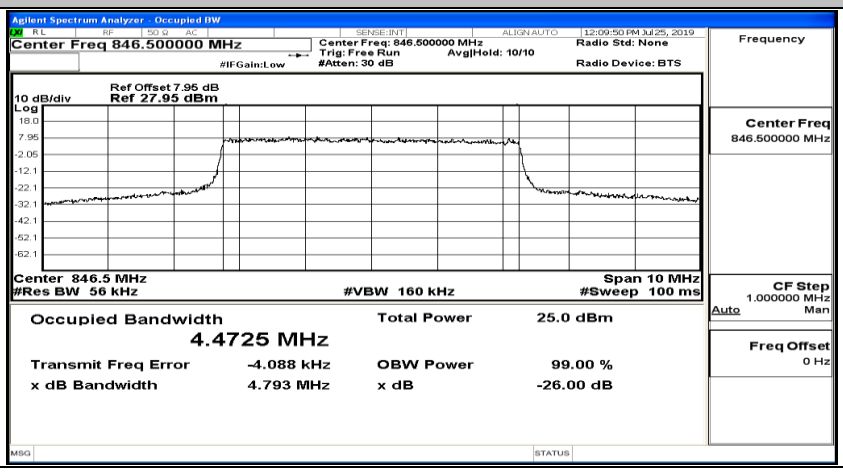
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



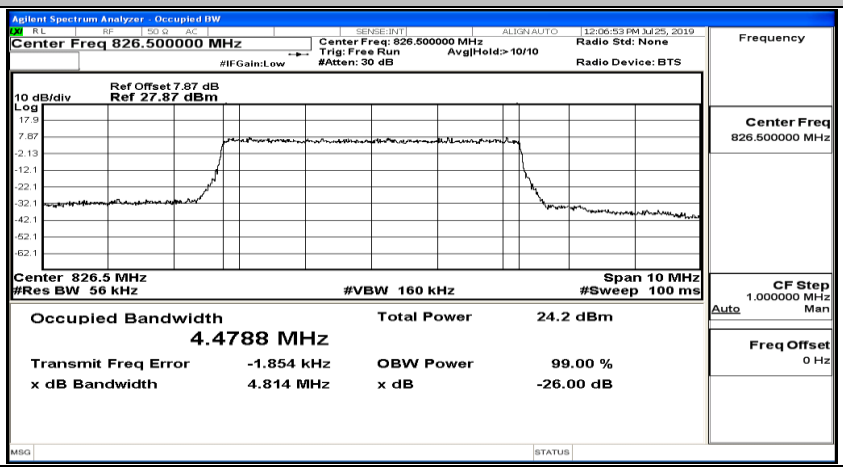
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



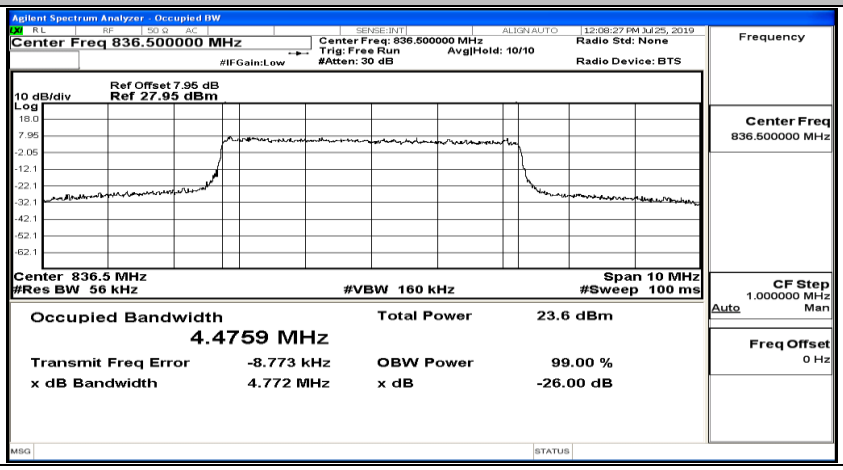
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



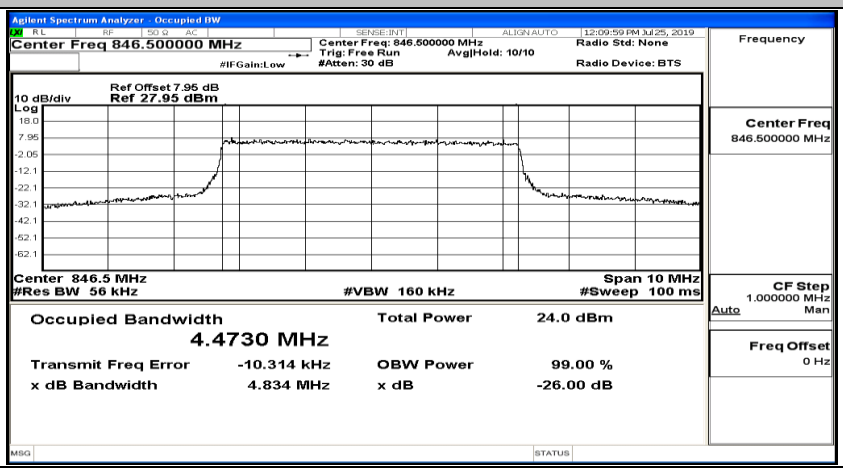
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



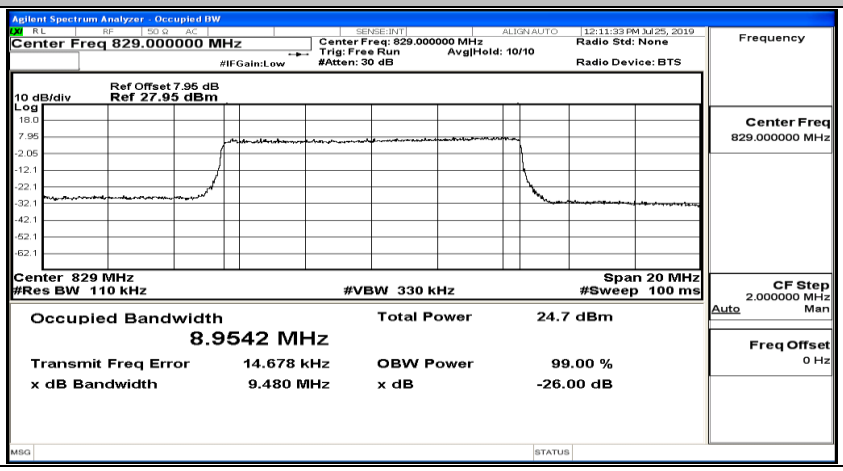
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



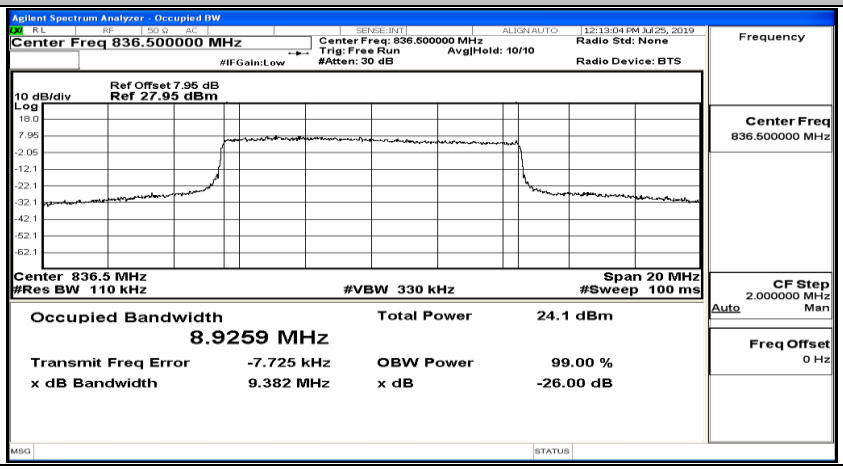
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



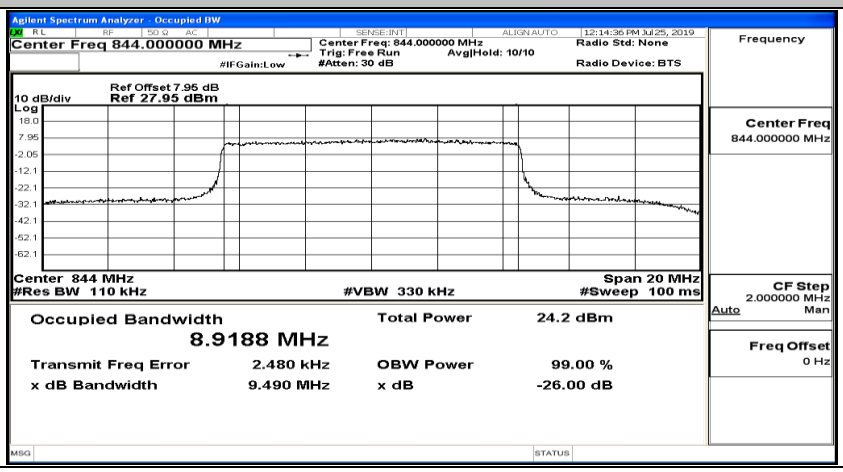
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



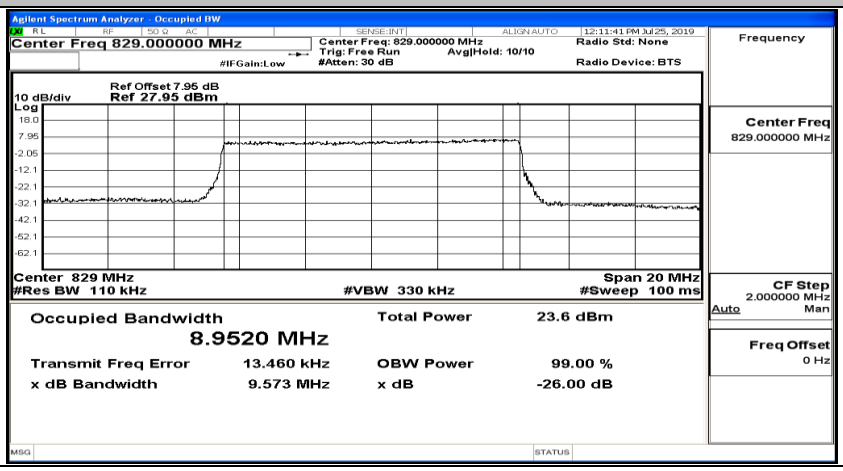
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



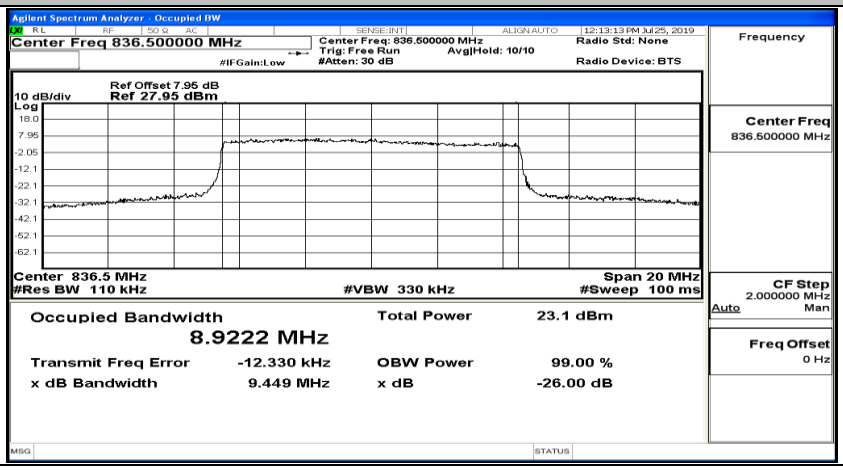
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



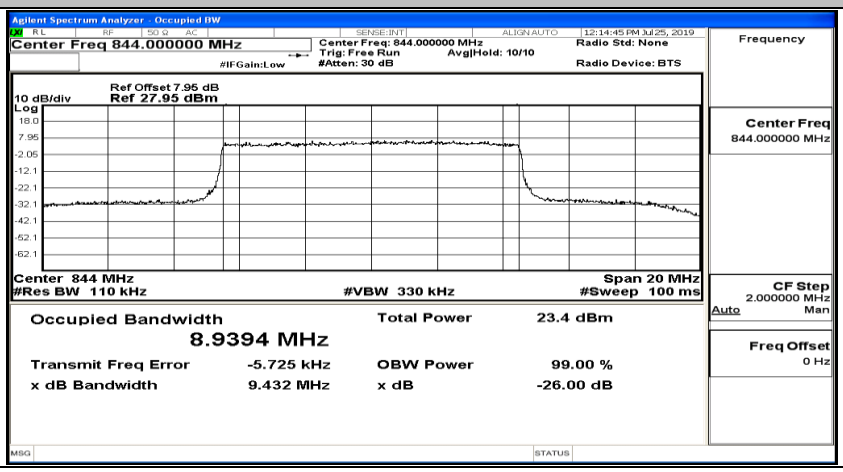
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

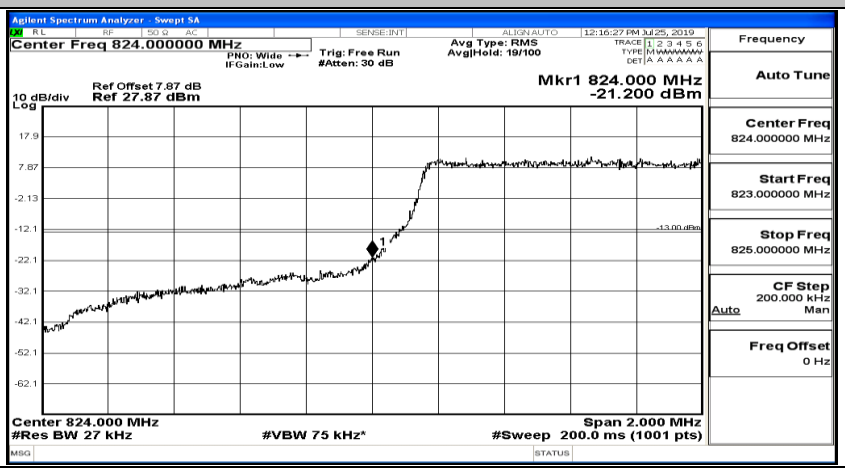


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

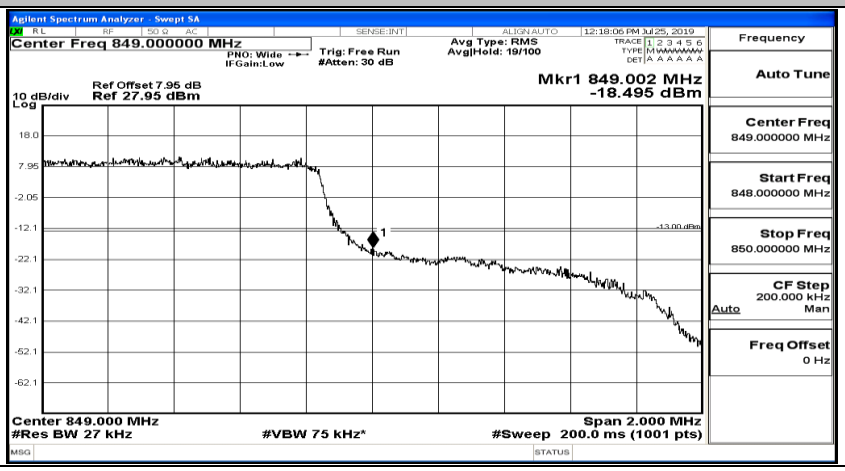


F.4 Band Edge

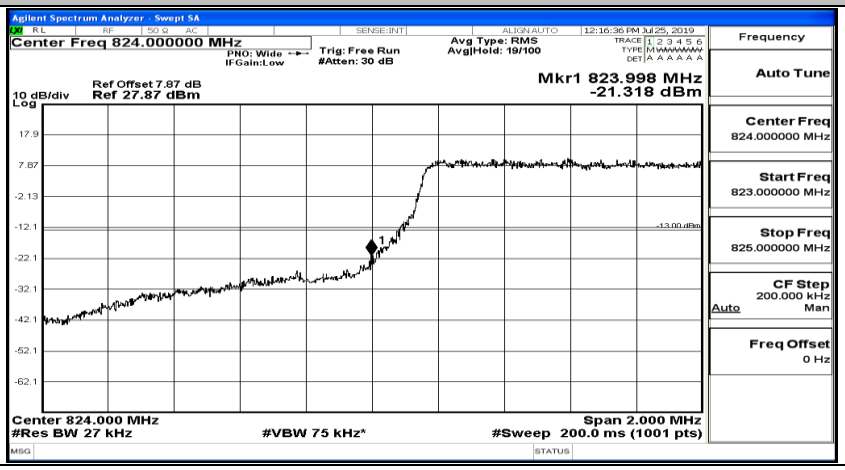
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



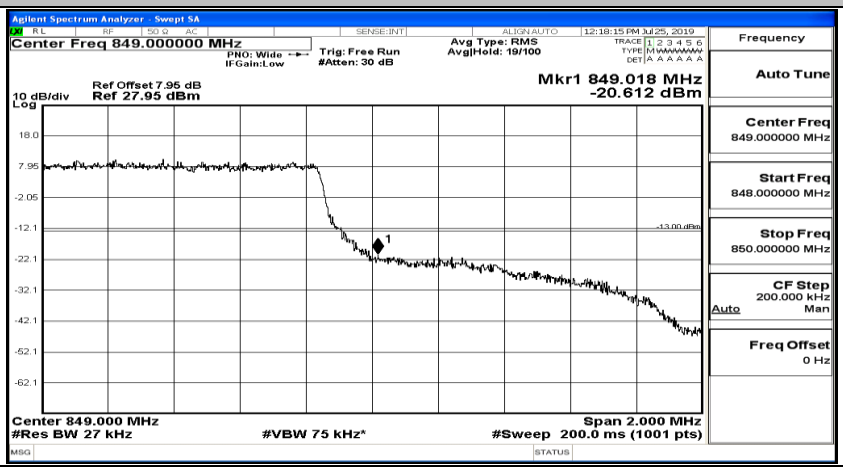
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



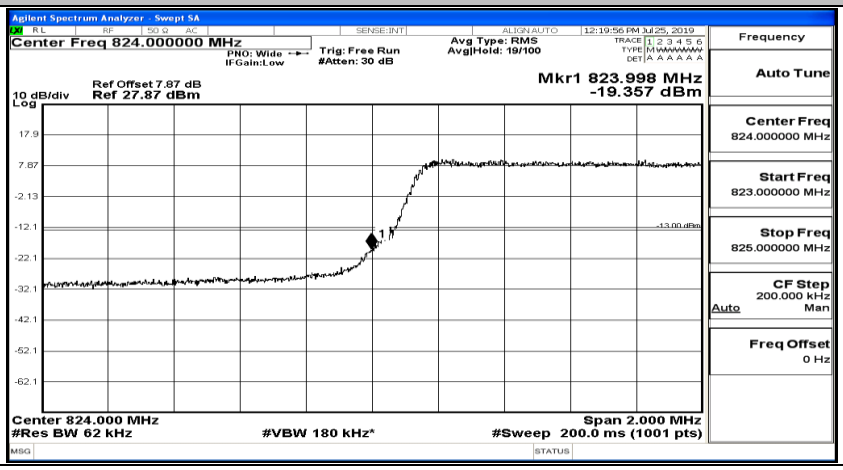
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



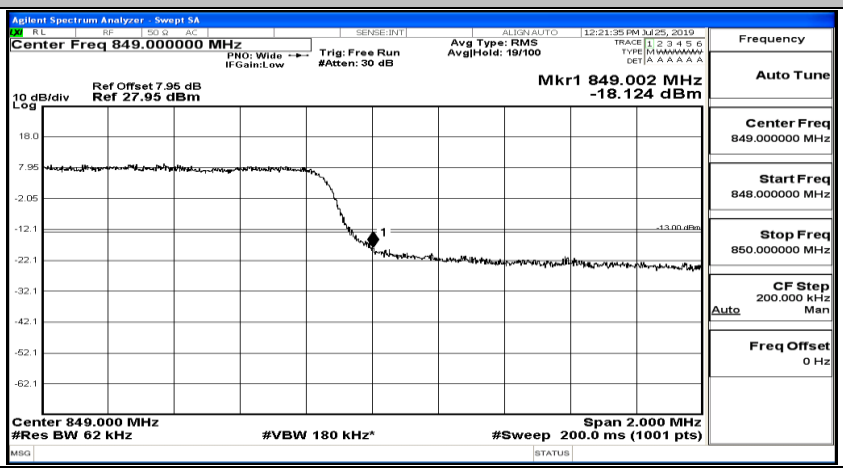
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



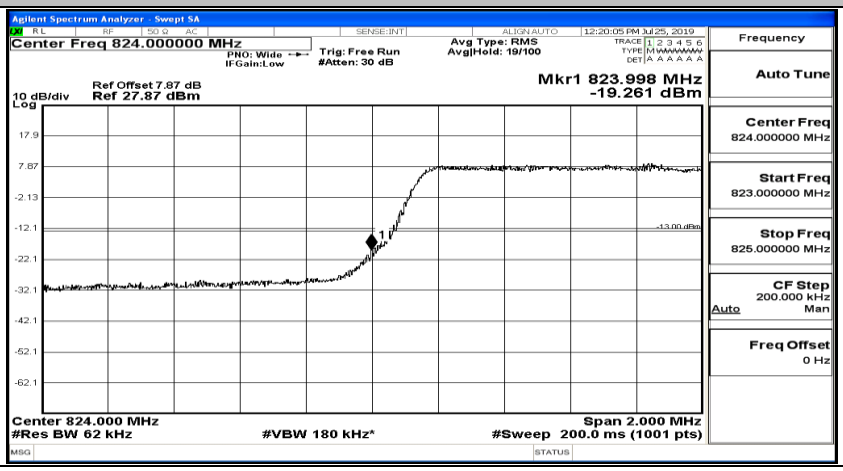
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



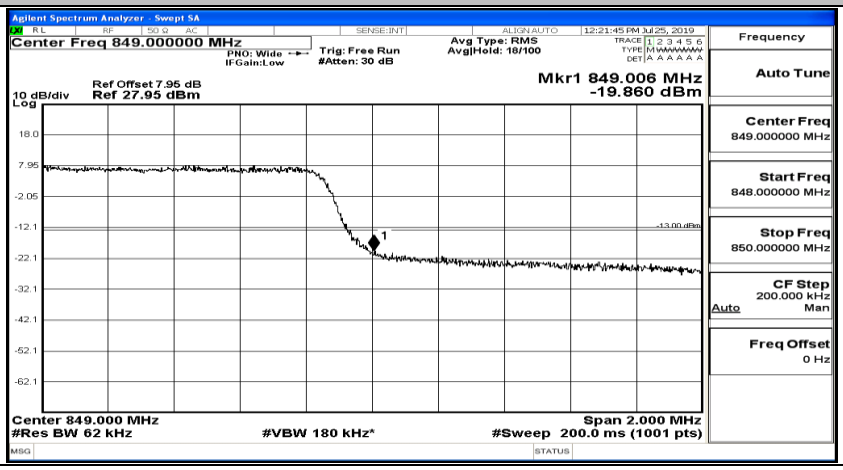
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



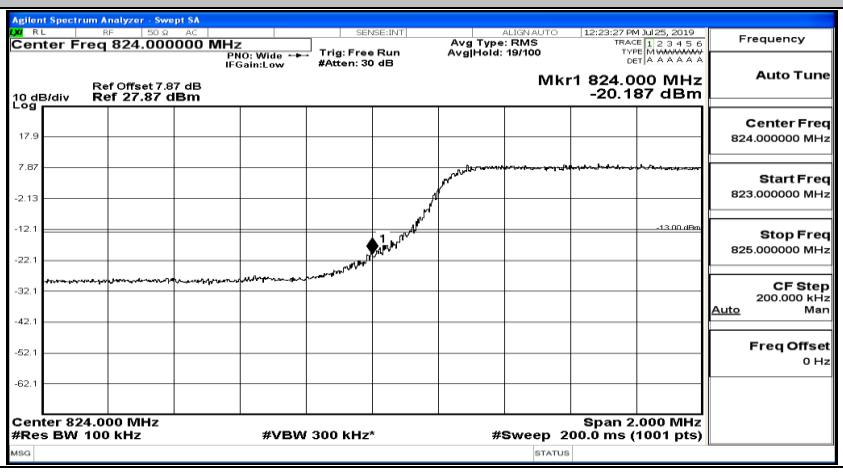
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



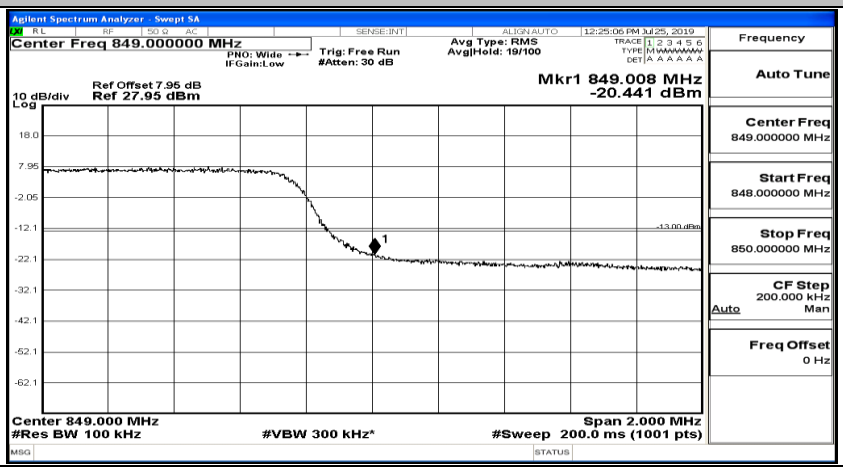
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



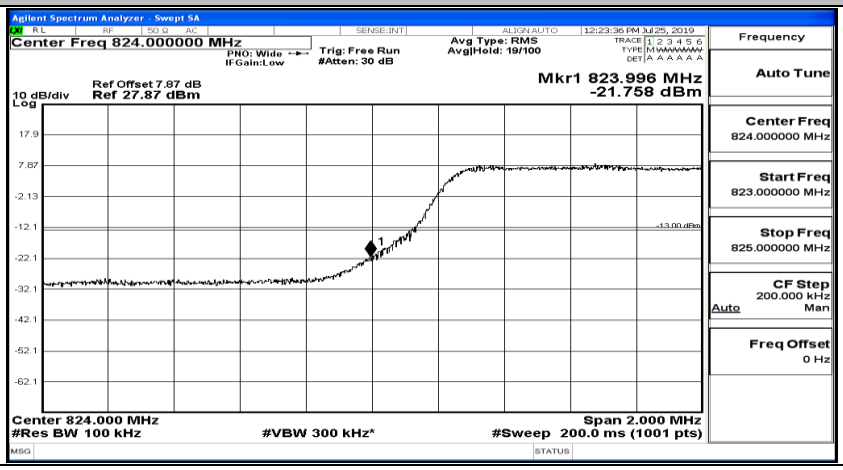
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



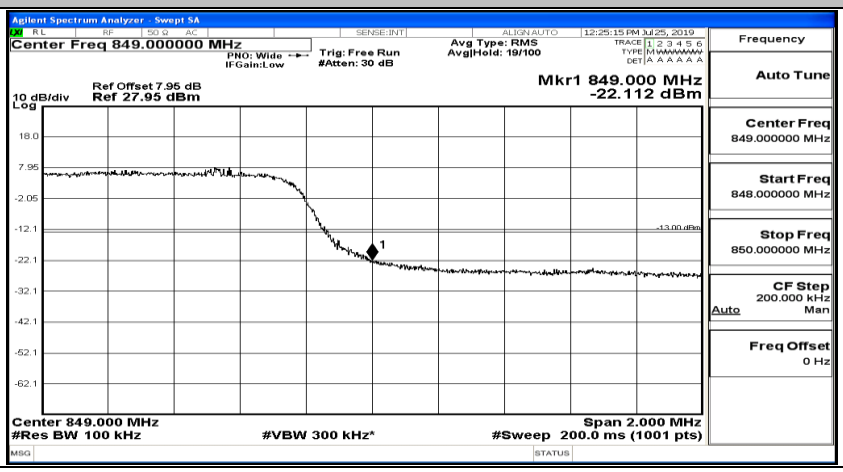
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



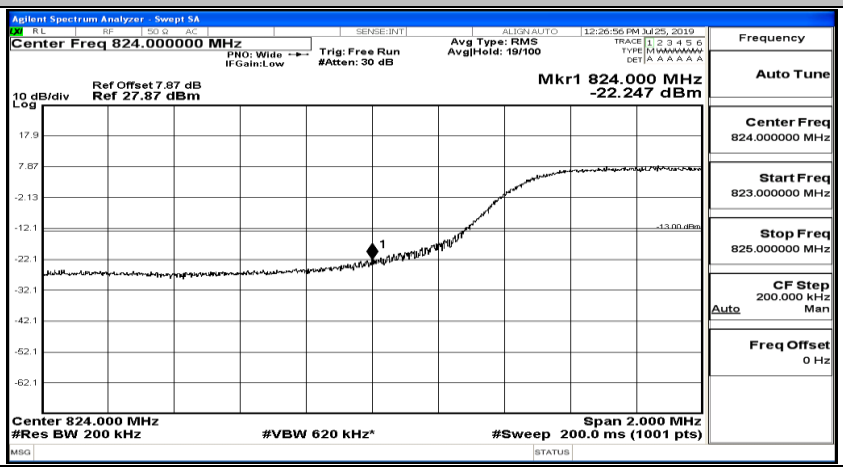
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



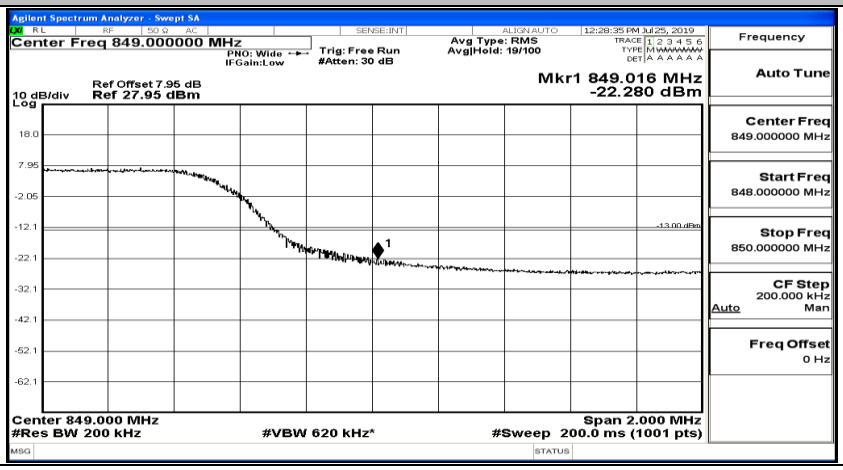
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



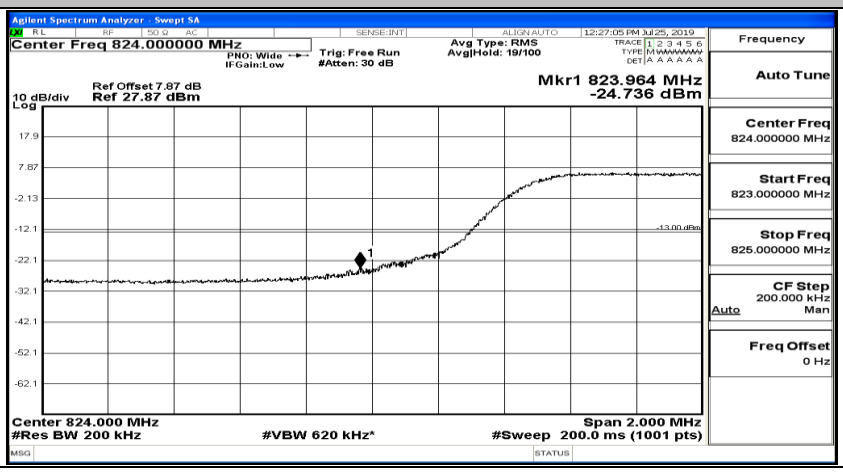
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



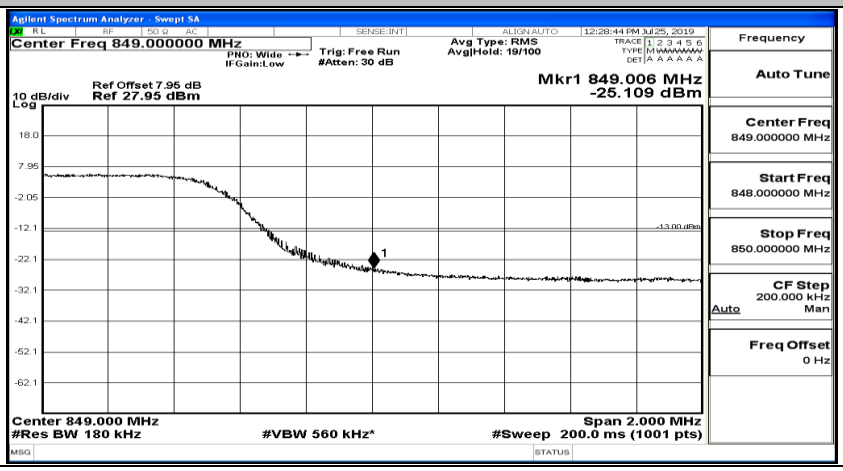
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



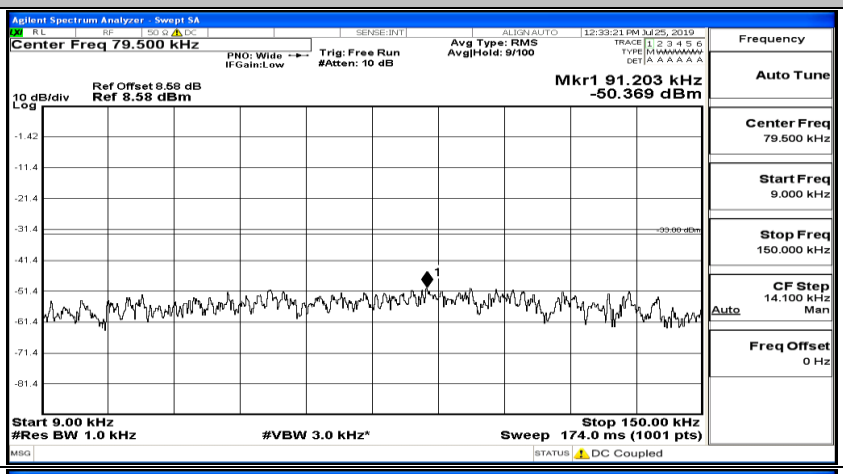
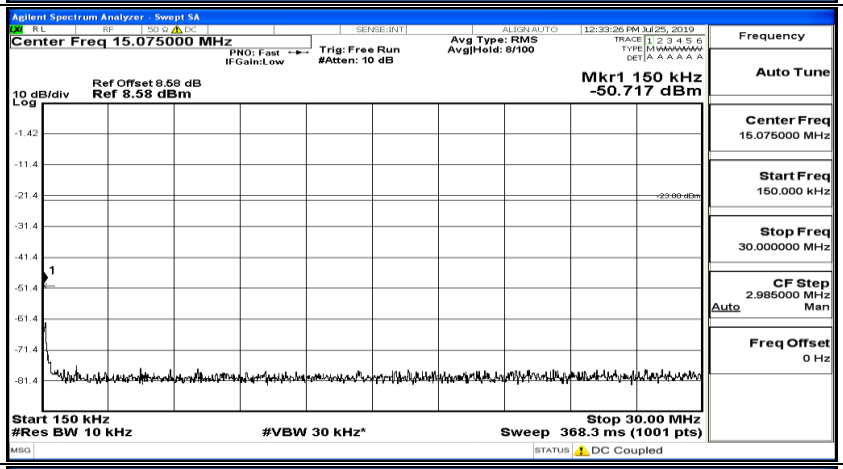
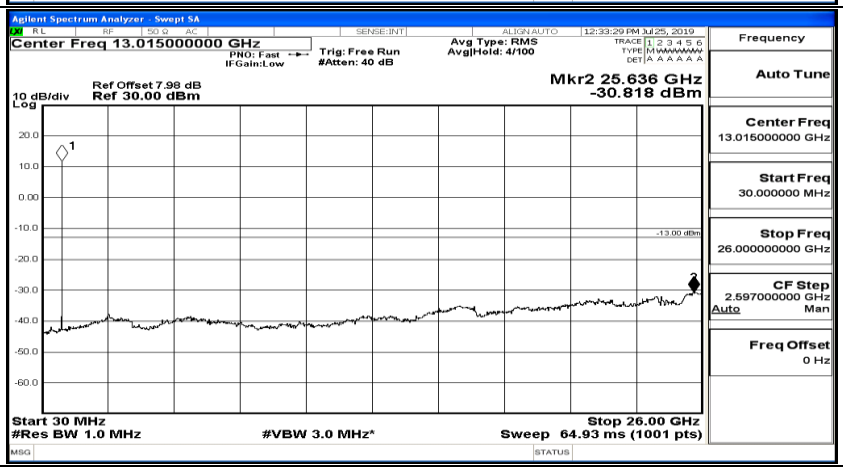
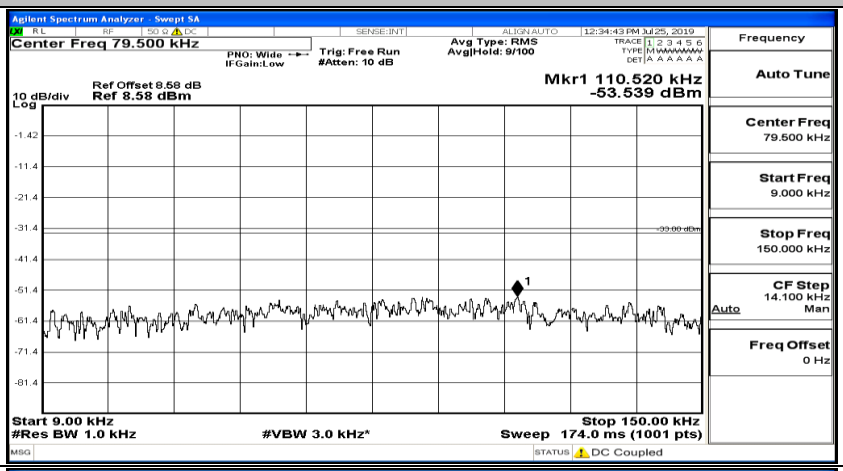
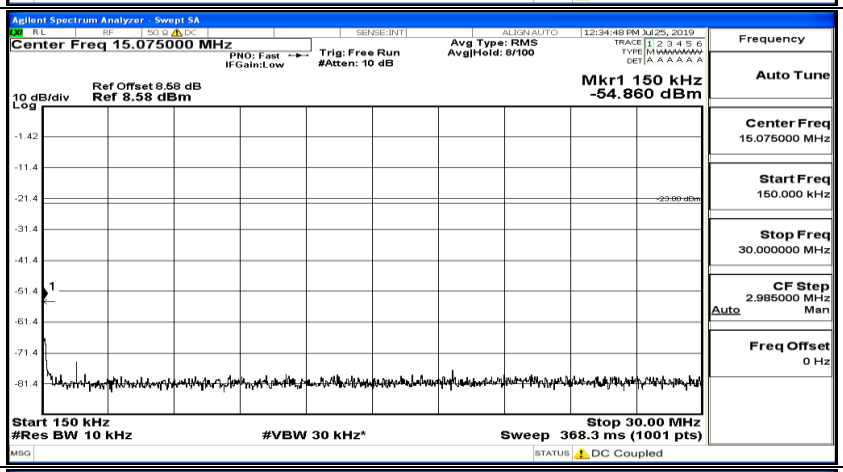
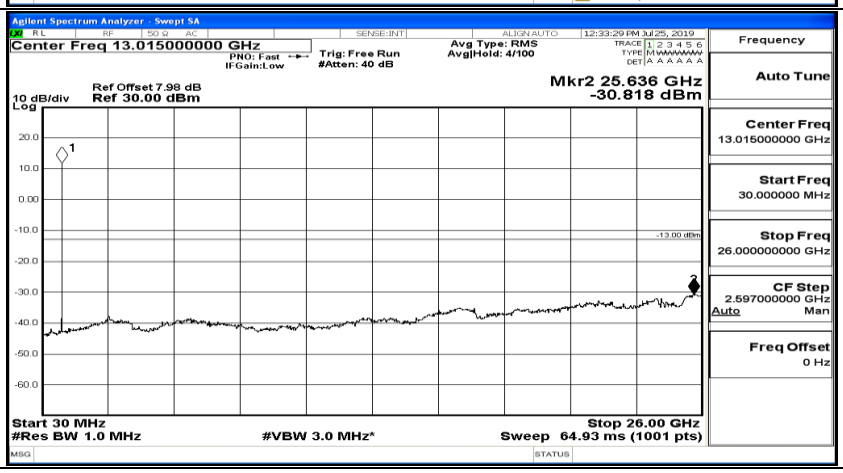
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



F.5 Conducted Spurious Emission

CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK




CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK