

Appendix C: Test Data for E-UTRA Band 5

Product Name: LTE GSM/WCDMA Smartphone

Trade Mark: DOOGEE

Test Model: S90

Environmental Conditions

Temperature:	23.9
Relative Humidity:	52.8
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.Xu
Supervised by:	Jayden Zhuo

C.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.79	23.07	PASS
		1	3	23.87	23.20	PASS
		1	5	23.73	23.05	PASS
		3	0	23.83	23.01	PASS
		3	2	23.87	23.01	PASS
		3	3	23.84	22.98	PASS
		6	0	22.79	21.81	PASS
	MCH	1	0	23.49	22.95	PASS
		1	3	23.56	23.08	PASS
		1	5	23.50	22.88	PASS
		3	0	23.62	22.61	PASS
		3	2	23.58	22.60	PASS
		3	3	23.56	22.63	PASS
		6	0	22.50	21.51	PASS
	HCH	1	0	23.66	22.95	PASS
		1	3	23.84	23.10	PASS
		1	5	23.65	23.02	PASS
		3	0	23.77	22.81	PASS
		3	2	23.80	22.88	PASS
		3	3	23.79	22.87	PASS
		6	0	22.74	21.87	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.77	23.18	PASS
		1	7	24.06	23.34	PASS
		1	14	23.75	23.09	PASS
		8	0	22.76	21.94	PASS
		8	4	22.86	21.97	PASS
		8	7	22.76	21.89	PASS
		15	0	22.77	21.78	PASS
	MCH	1	0	23.50	22.83	PASS
		1	7	23.75	23.07	PASS
		1	14	23.57	22.82	PASS
		8	0	22.53	21.69	PASS
		8	4	22.61	21.73	PASS
		8	7	22.57	21.64	PASS
		15	0	22.52	21.60	PASS
	HCH	1	0	23.64	23.08	PASS
		1	7	24.06	23.31	PASS
		1	14	23.75	23.17	PASS
		8	0	22.72	21.73	PASS
		8	4	22.74	21.78	PASS
		8	7	22.75	21.75	PASS
		15	0	22.69	21.73	PASS

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	23.69	23.13	PASS
		1	12	24.03	23.49	PASS
		1	24	23.56	22.98	PASS
		12	0	22.69	21.93	PASS
		12	6	22.79	22.02	PASS
		12	13	22.75	22.01	PASS
		25	0	22.78	21.89	PASS
	MCH	1	0	23.45	22.90	PASS
		1	12	23.80	23.19	PASS
		1	24	23.44	22.87	PASS
		12	0	22.59	21.83	PASS
		12	6	22.61	21.88	PASS
		12	13	22.53	21.78	PASS
		25	0	22.65	21.73	PASS
	HCH	1	0	23.52	22.59	PASS
		1	12	24.10	22.95	PASS
		1	24	23.63	22.66	PASS
		12	0	22.70	21.77	PASS
		12	6	22.70	21.83	PASS
		12	13	22.55	21.68	PASS
		25	0	22.67	21.72	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.79	23.13	PASS
		1	24	23.90	23.20	PASS
		1	49	23.53	22.80	PASS
		25	0	22.71	21.77	PASS
		25	12	22.69	21.76	PASS
		25	25	22.47	21.58	PASS
		50	0	22.74	21.81	PASS
	MCH	1	0	23.70	23.04	PASS
		1	24	23.89	23.21	PASS
		1	49	23.67	23.02	PASS
		25	0	23.02	22.10	PASS
		25	12	22.76	21.83	PASS
		25	25	22.92	21.98	PASS
		50	0	22.97	21.95	PASS
	HCH	1	0	23.70	23.12	PASS
		1	24	23.98	23.42	PASS
		1	49	23.94	23.37	PASS
		25	0	22.68	21.73	PASS
		25	12	22.86	21.93	PASS
		25	25	22.77	21.85	PASS
		50	0	22.72	21.83	PASS

C.2 Peak-to-Average Ratio

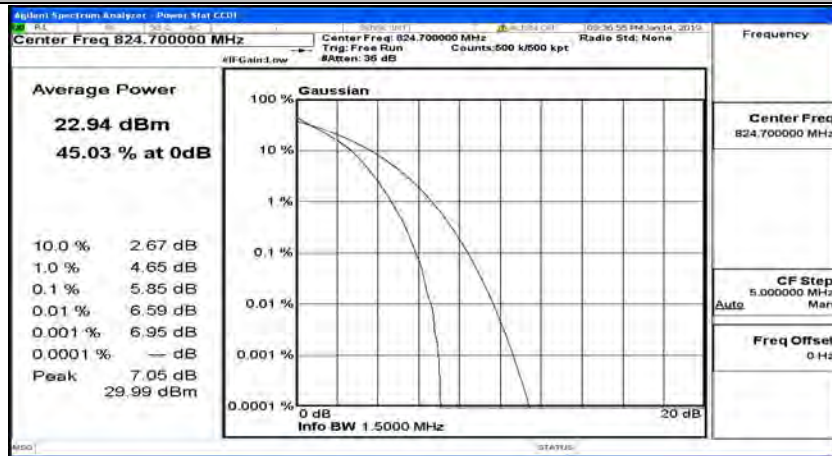
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.85	<13	PASS
	MCH	5.79	<13	PASS
	HCH	5.58	<13	PASS
16QAM	LCH	6.76	<13	PASS
	MCH	6.72	<13	PASS
	HCH	6.5	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.77	<13	PASS
	MCH	5.74	<13	PASS
	HCH	5.71	<13	PASS
16QAM	LCH	6.74	<13	PASS
	MCH	6.75	<13	PASS
	HCH	6.43	<13	PASS

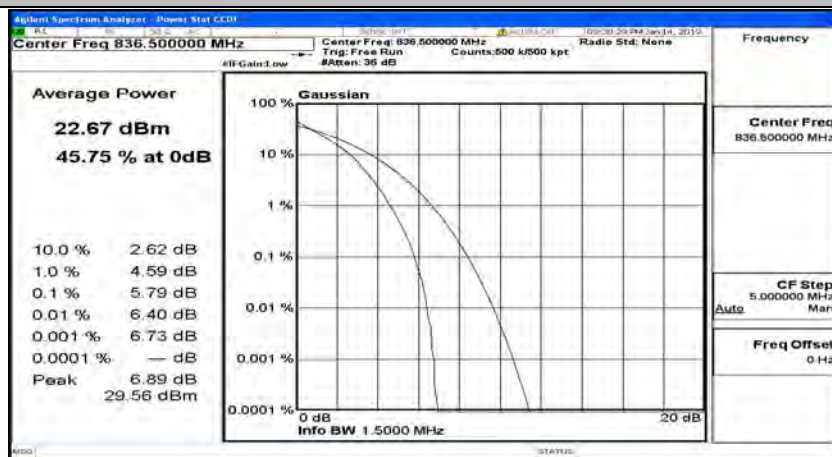
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.84	<13	PASS
	MCH	5.85	<13	PASS
	HCH	5.6	<13	PASS
16QAM	LCH	6.63	<13	PASS
	MCH	6.6	<13	PASS
	HCH	6.39	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.6	<13	PASS
	MCH	5.91	<13	PASS
	HCH	5.55	<13	PASS
16QAM	LCH	6.4	<13	PASS
	MCH	6.52	<13	PASS
	HCH	6.3	<13	PASS

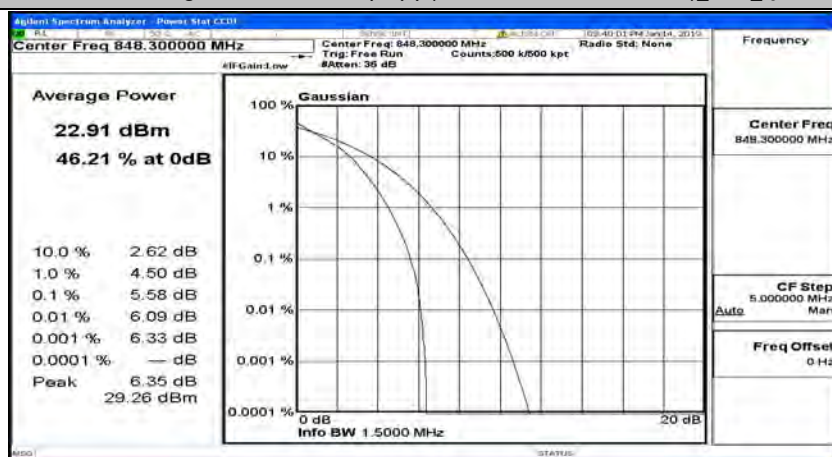
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



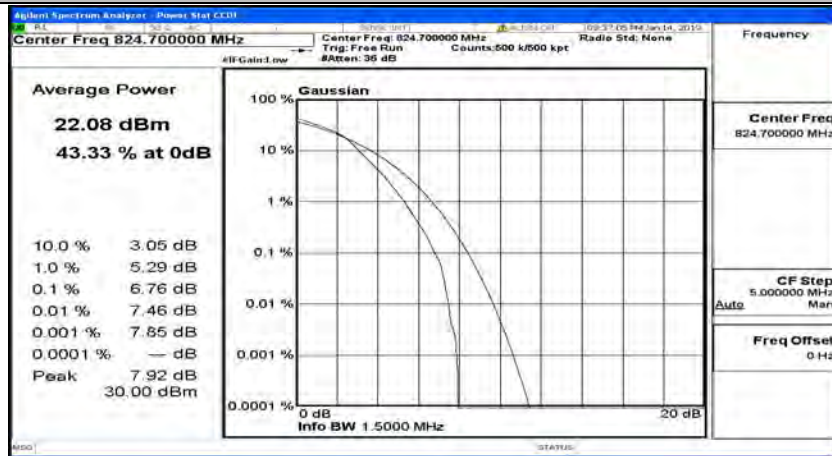
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



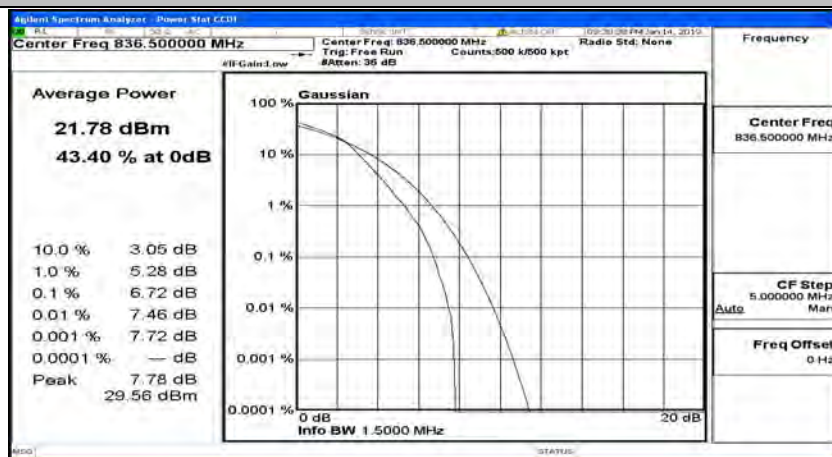
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



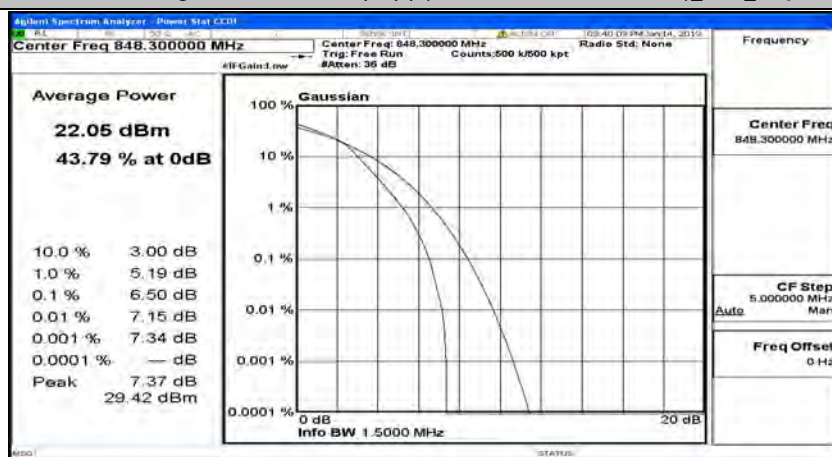
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



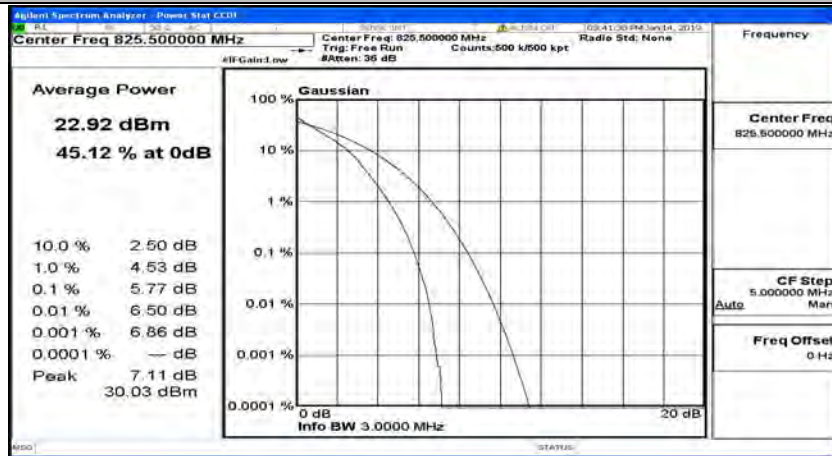
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



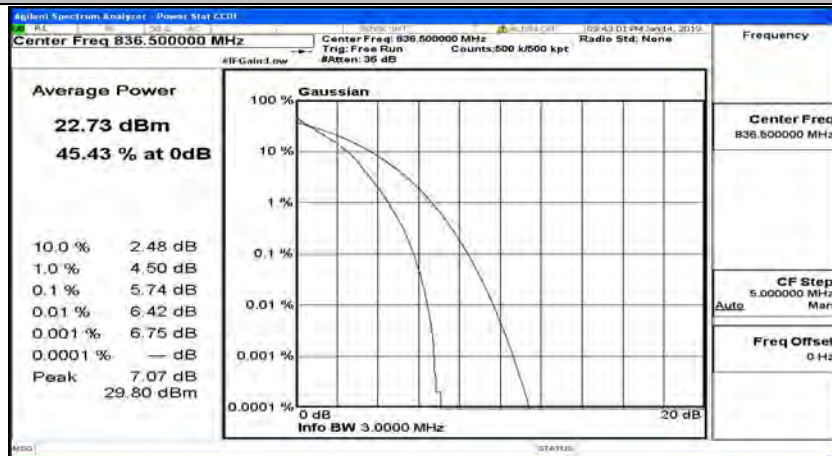
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



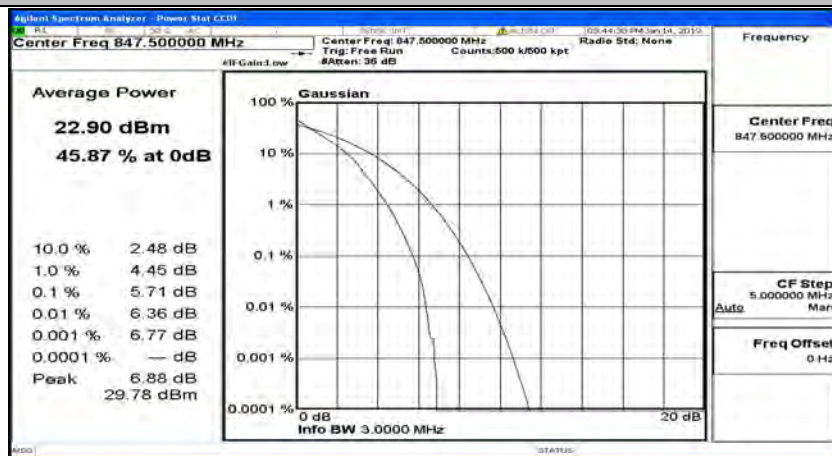
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



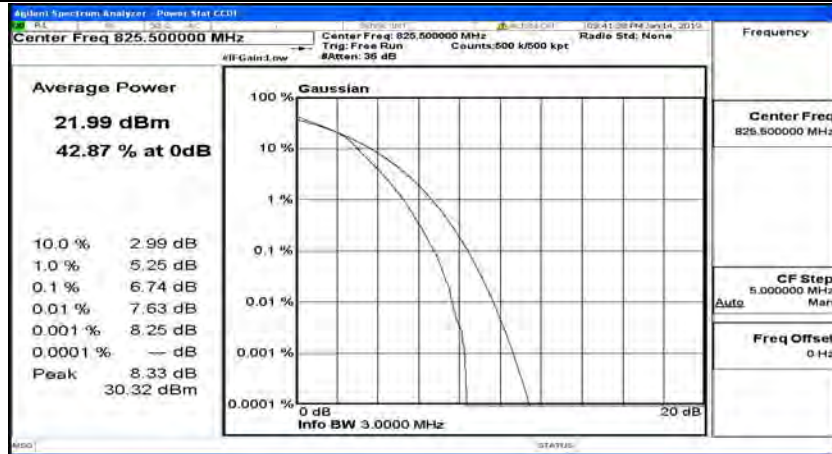
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



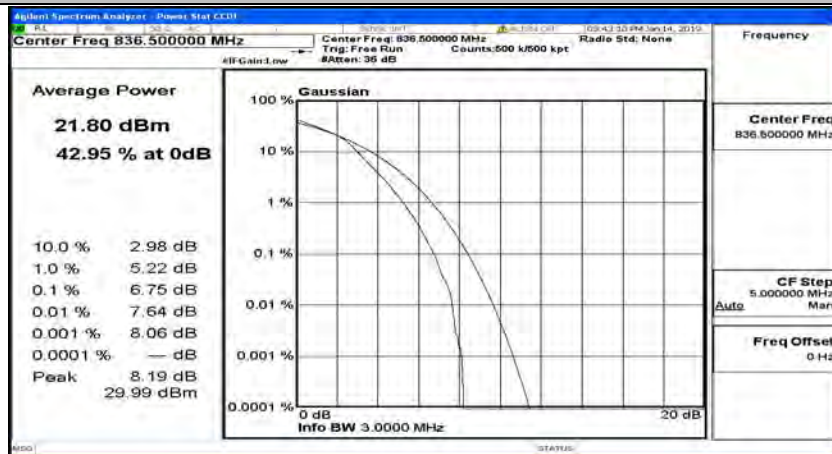
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



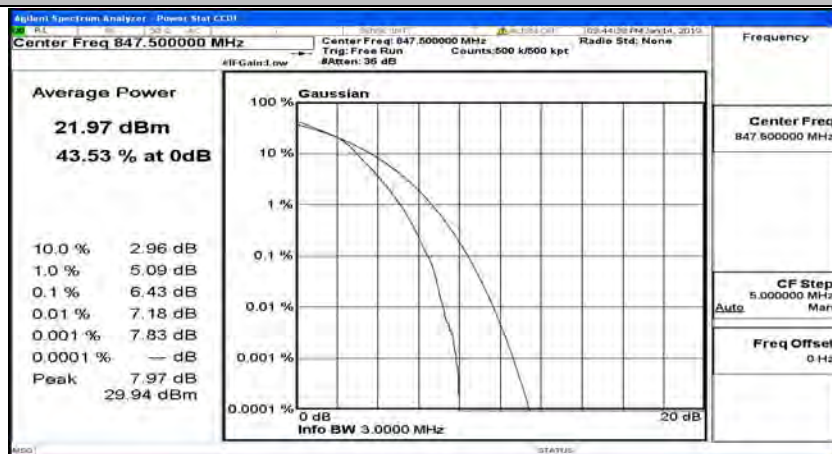
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



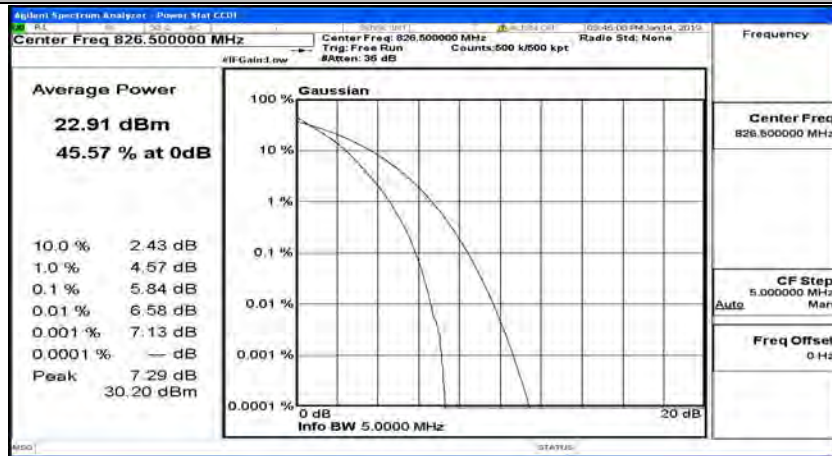
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



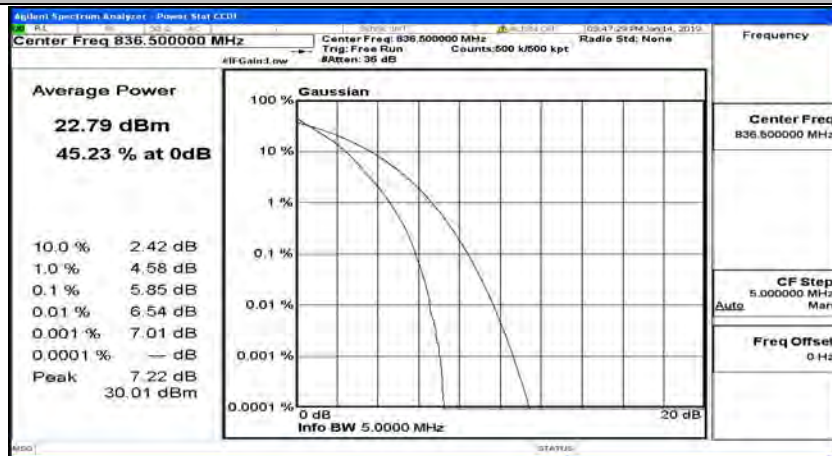
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



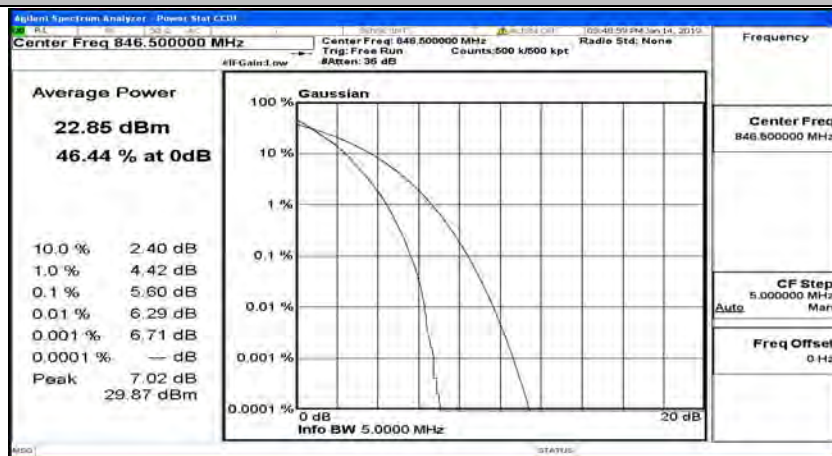
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



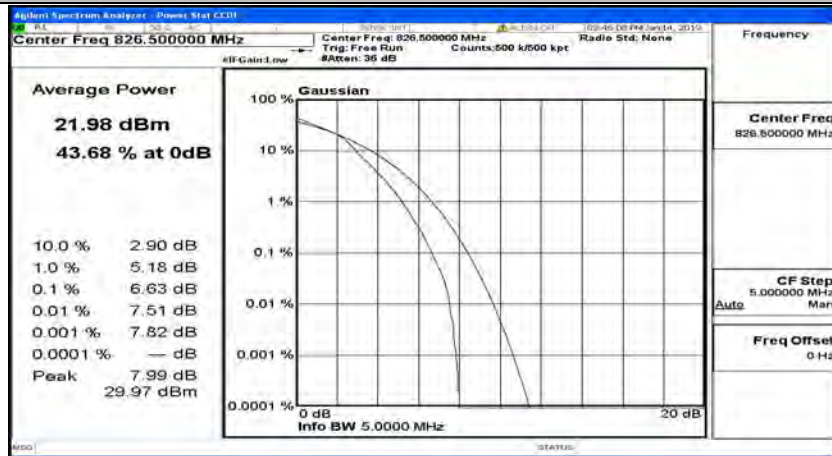
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



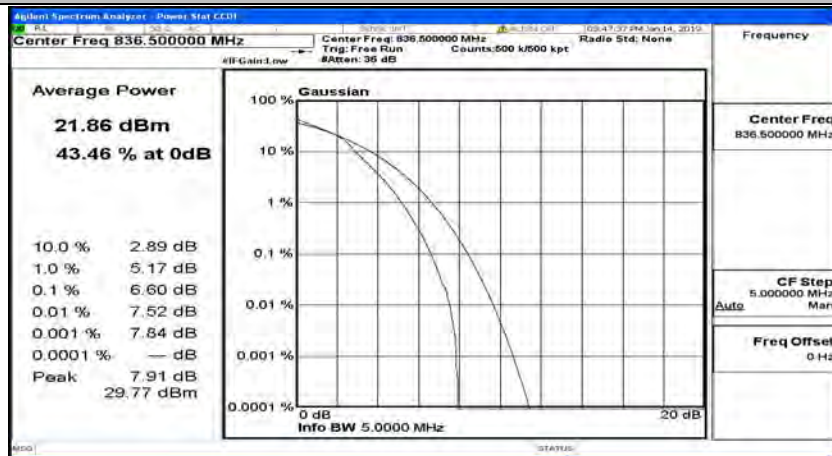
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



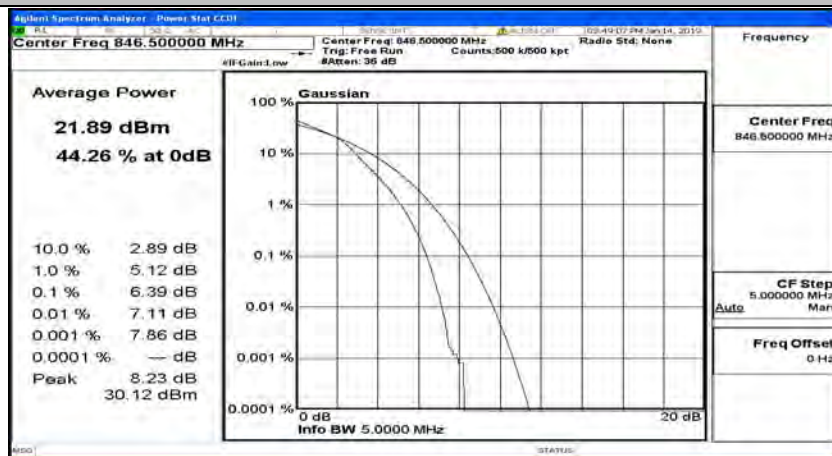
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



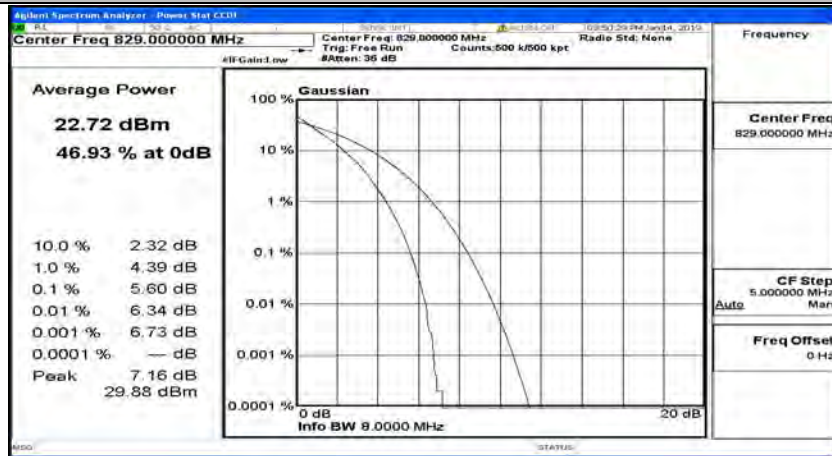
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



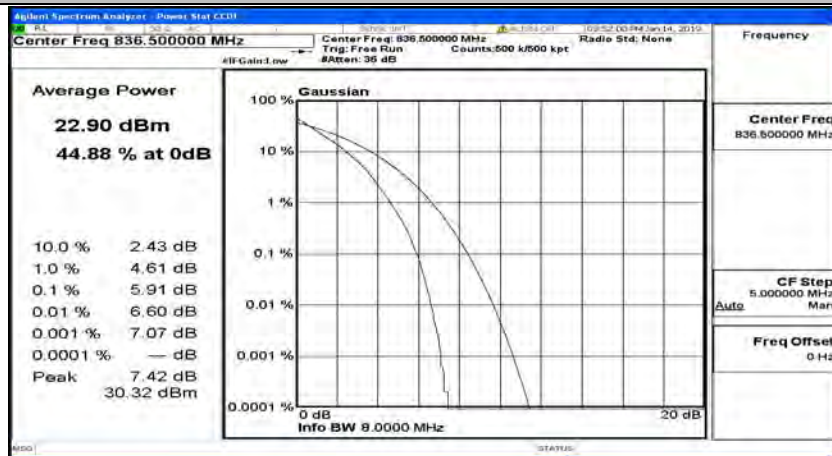
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



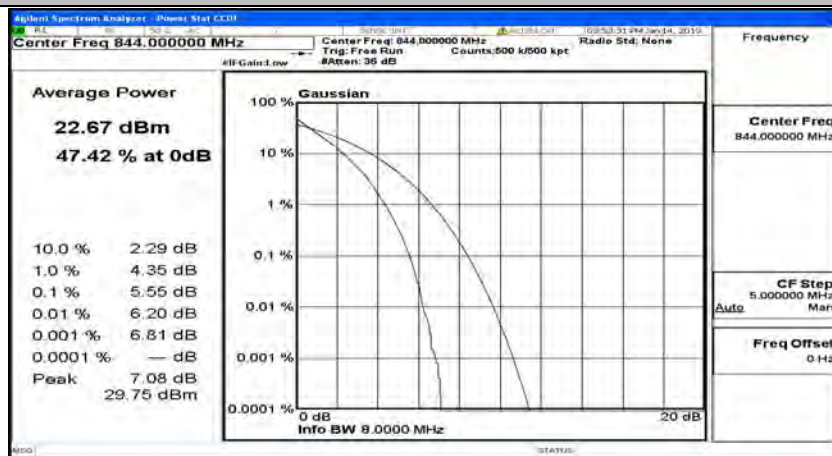
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



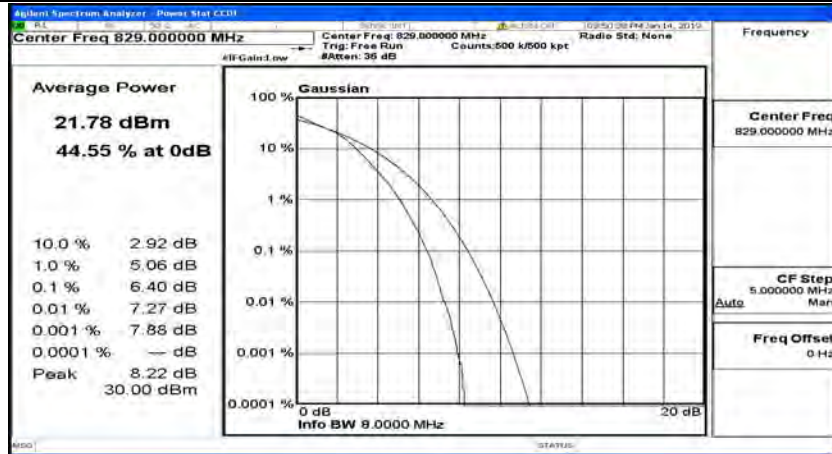
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



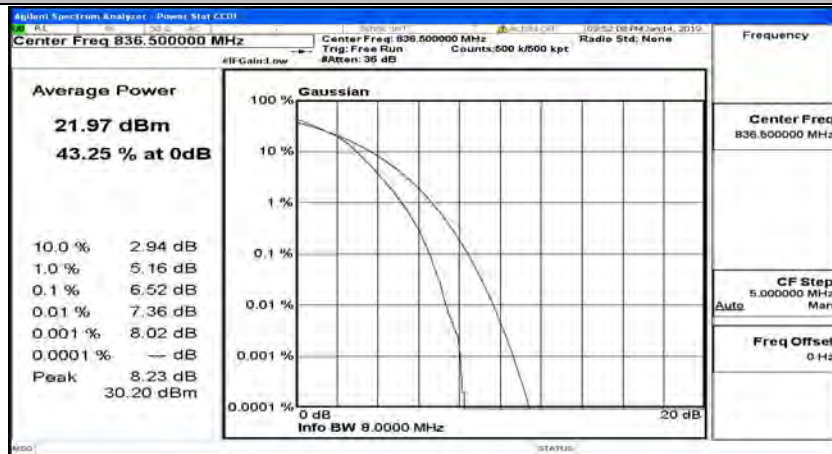
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



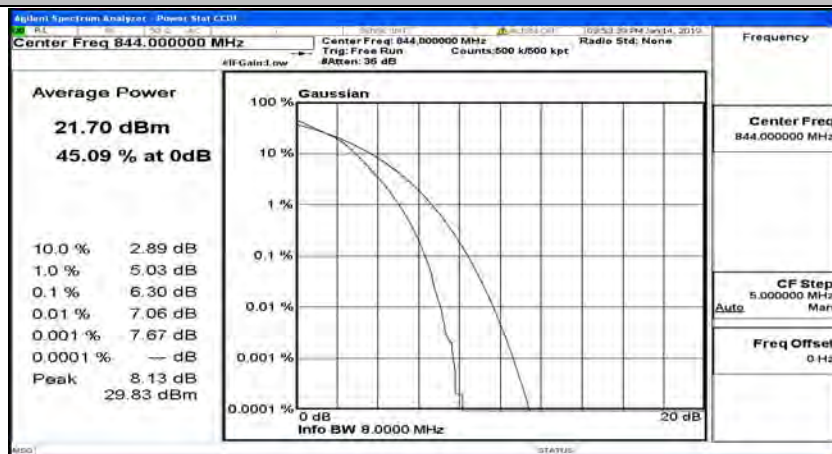
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



C.3 26dB Bandwidth and Occupied Bandwidth

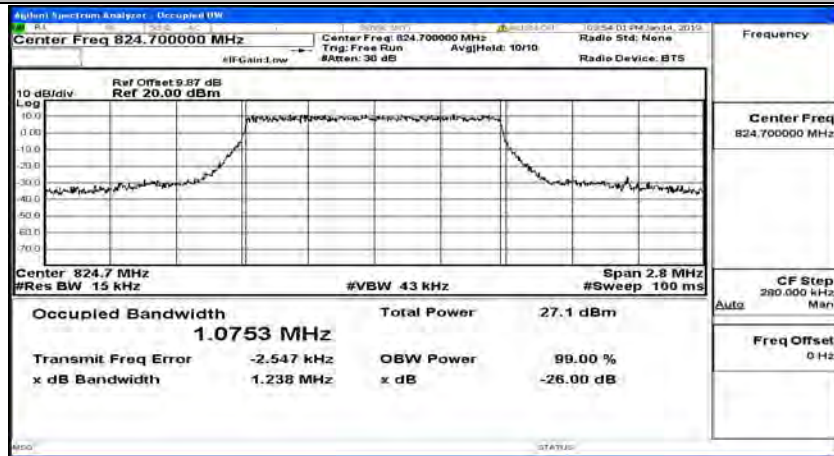
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0753	1.238	PASS
	MCH	1.0728	1.222	PASS
	HCH	1.0763	1.228	PASS
16QAM	LCH	1.0768	1.223	PASS
	MCH	1.0783	1.236	PASS
	HCH	1.0726	1.229	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6802	2.828	PASS
	MCH	2.6764	2.822	PASS
	HCH	2.6767	2.831	PASS
16QAM	LCH	2.6799	2.832	PASS
	MCH	2.6779	2.821	PASS
	HCH	2.6847	2.819	PASS

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4758	4.849	PASS
	MCH	4.4827	4.863	PASS
	HCH	4.4659	4.877	PASS
16QAM	LCH	4.4821	4.882	PASS
	MCH	4.4806	4.879	PASS
	HCH	4.4813	4.805	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9177	9.454	PASS
	MCH	8.9631	9.591	PASS
	HCH	8.9050	9.451	PASS
16QAM	LCH	8.9230	9.455	PASS
	MCH	8.9645	9.543	PASS
	HCH	8.9279	9.445	PASS

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



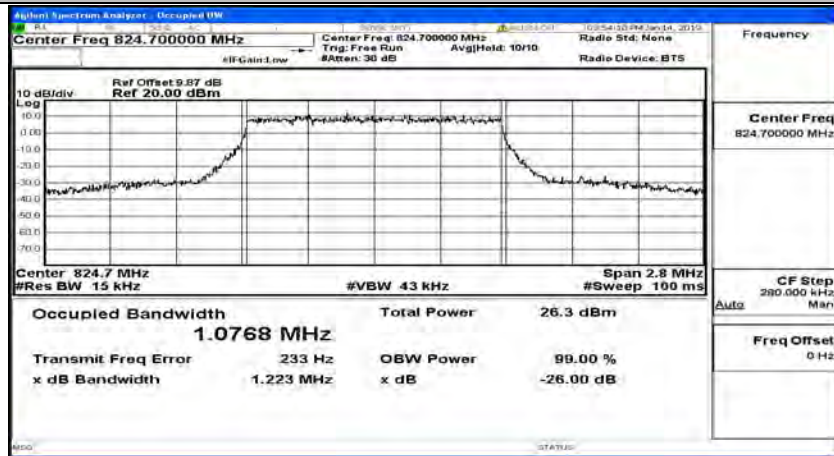
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



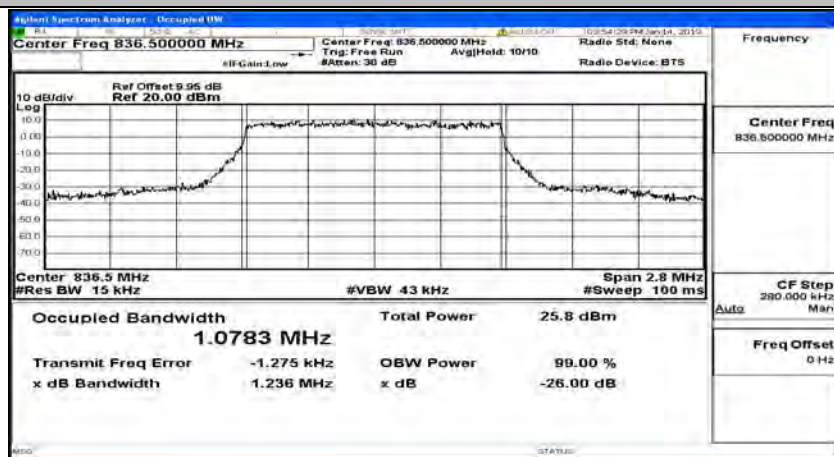
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



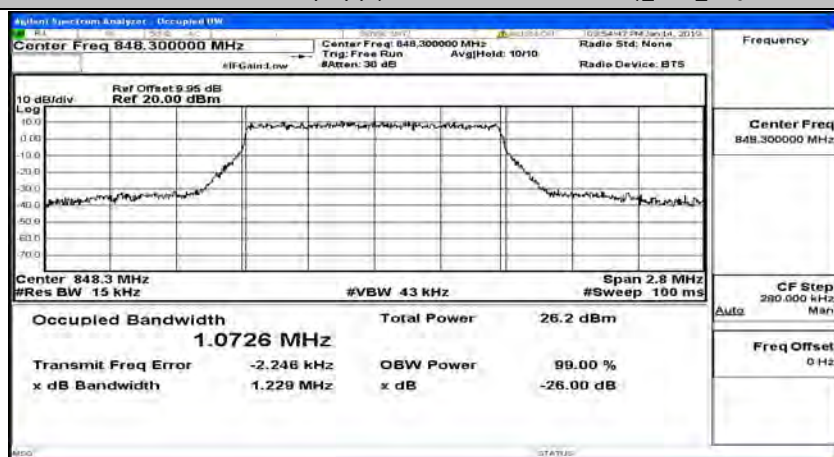
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



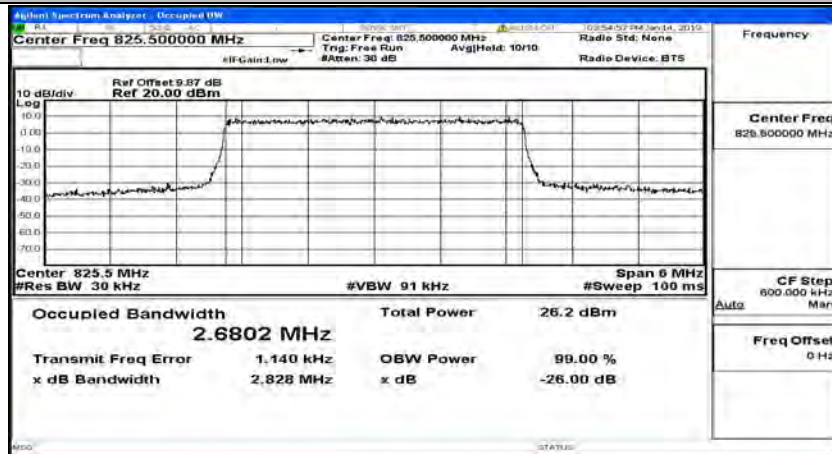
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



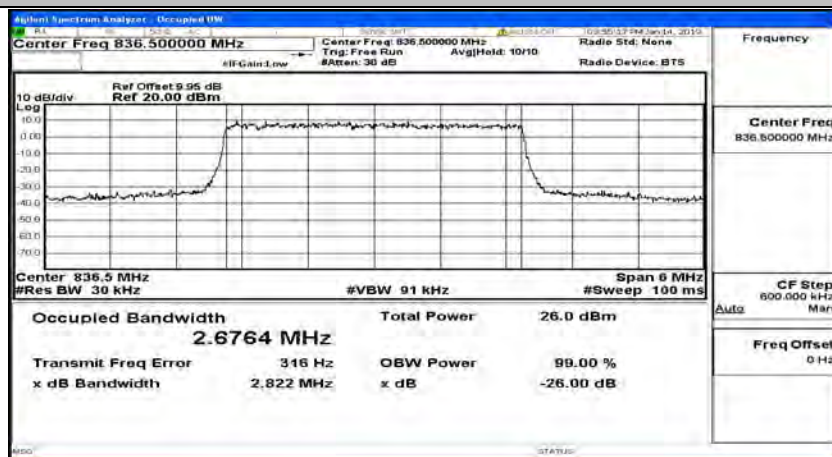
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



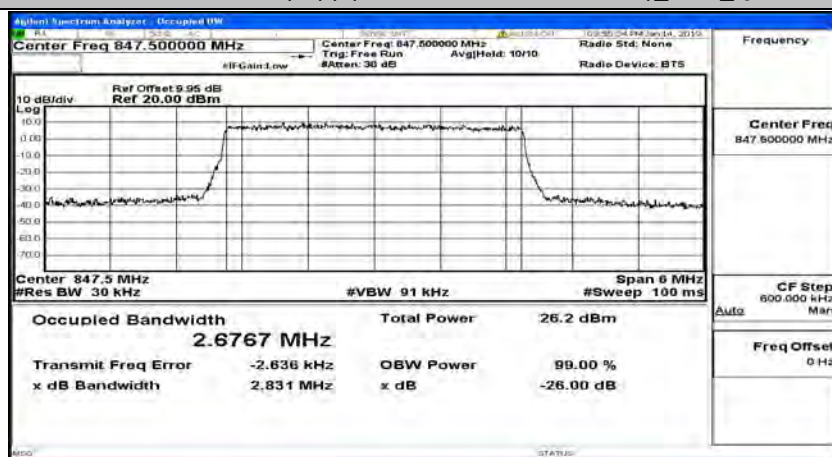
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



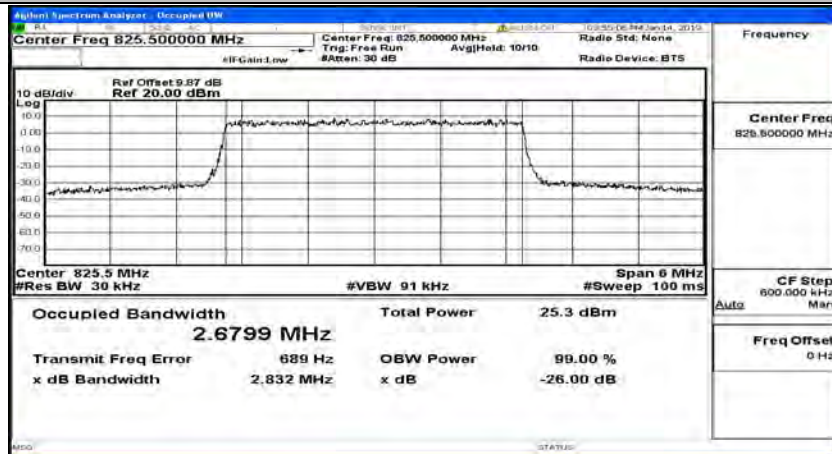
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



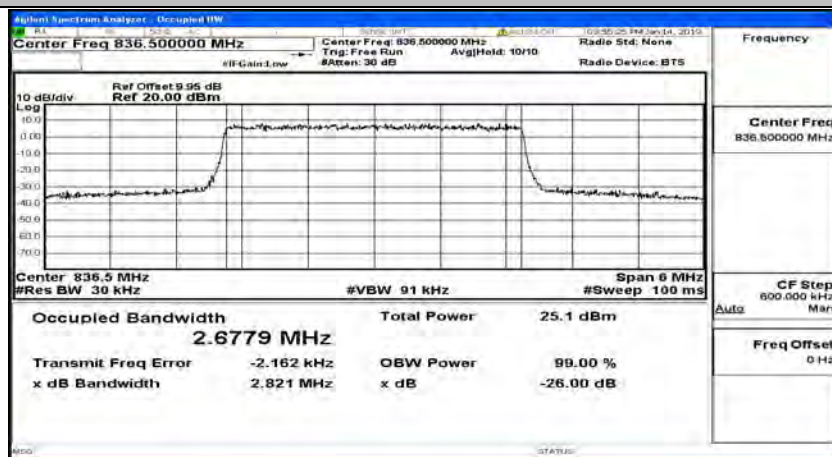
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



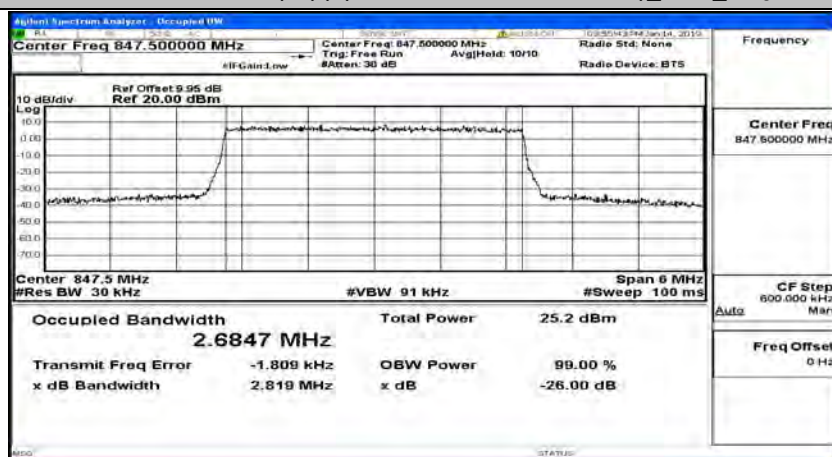
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



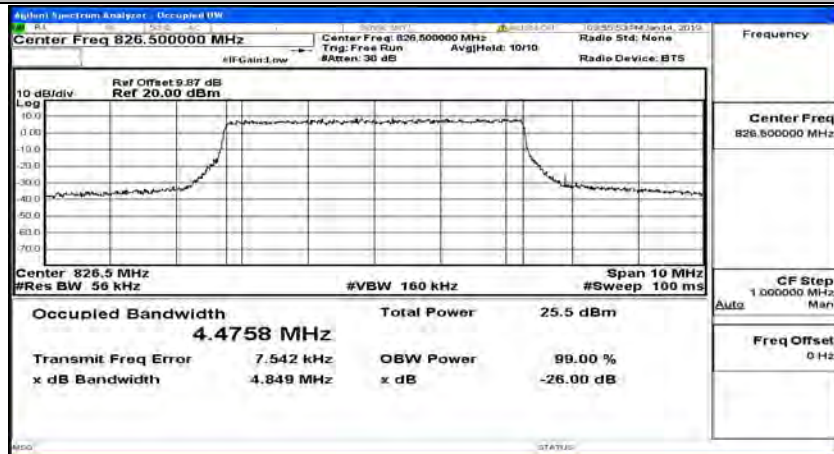
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



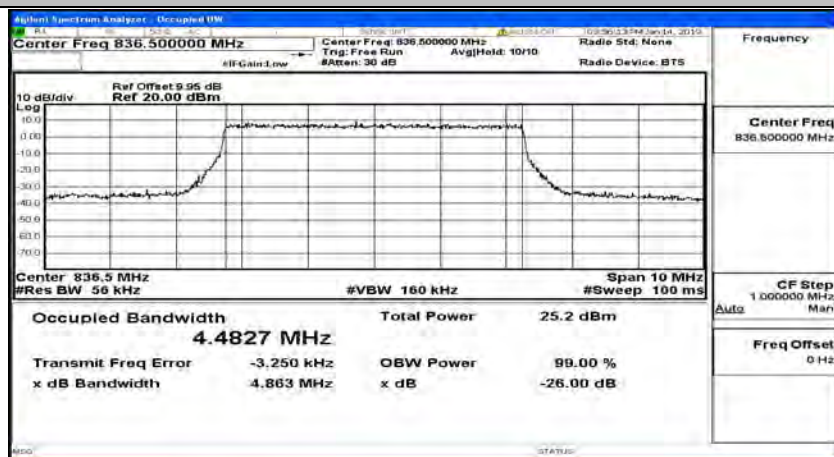
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



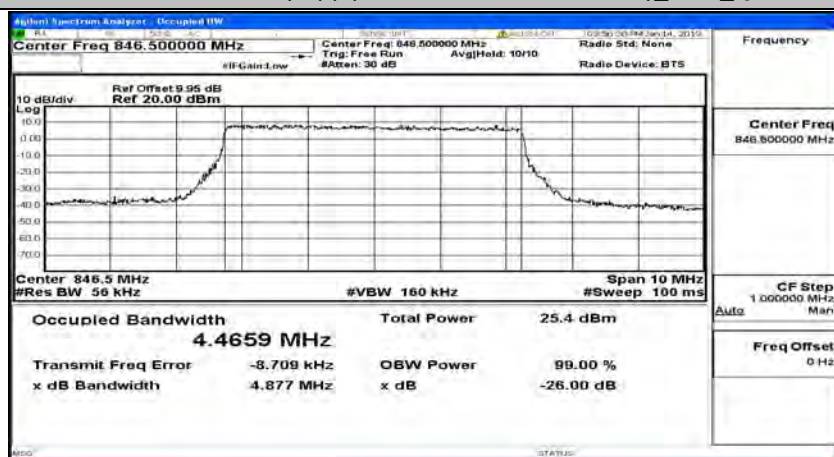
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



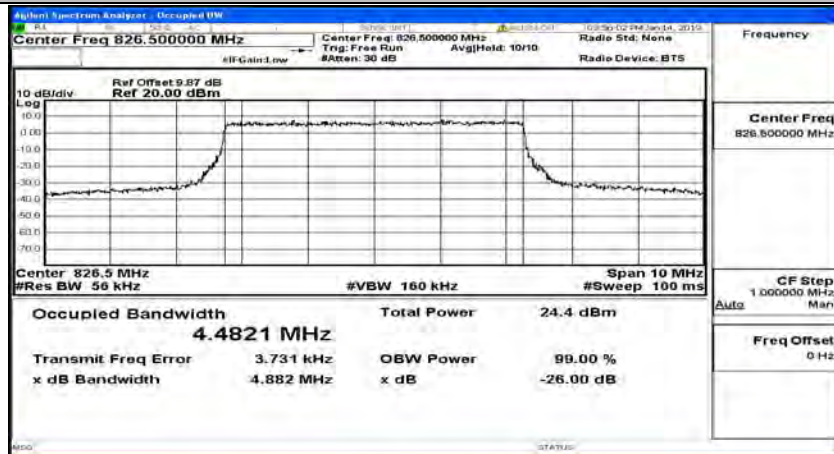
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



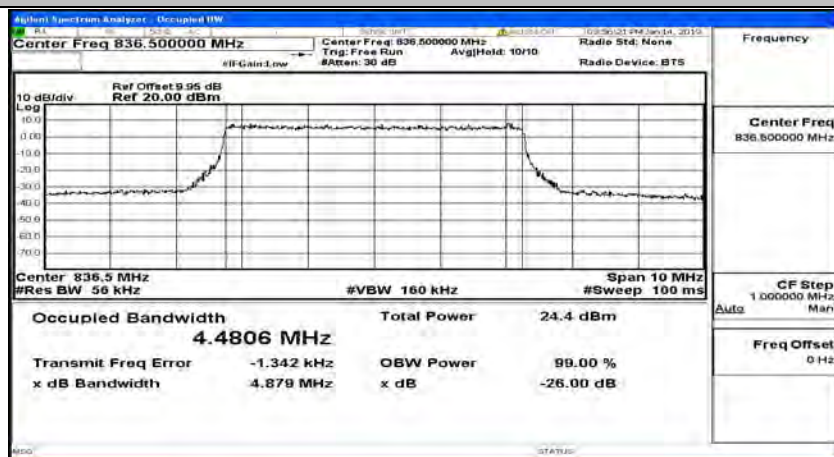
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



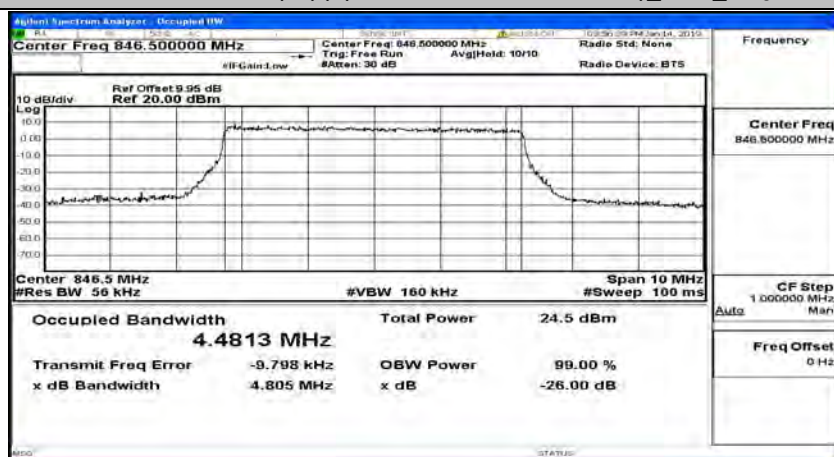
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



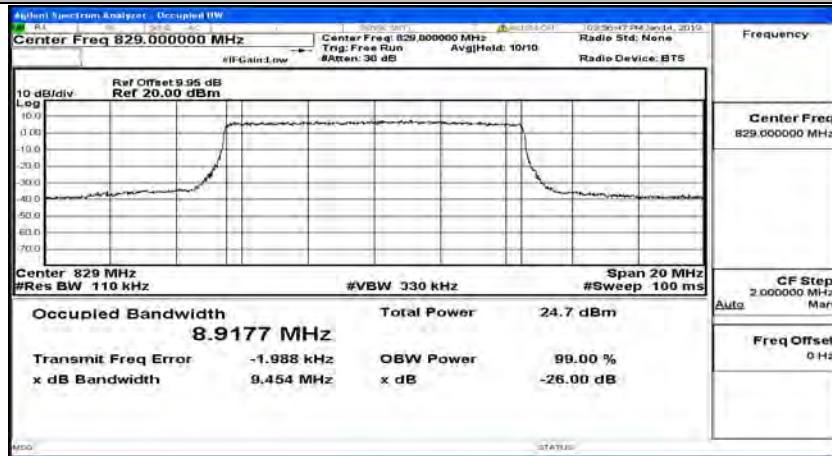
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



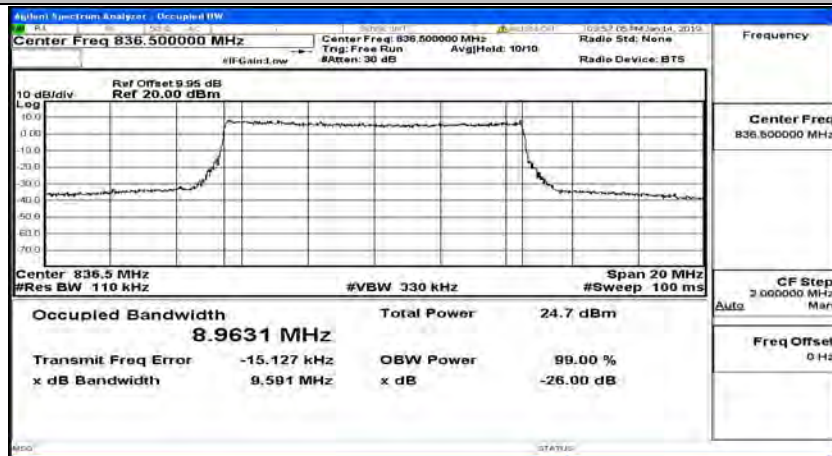
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



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



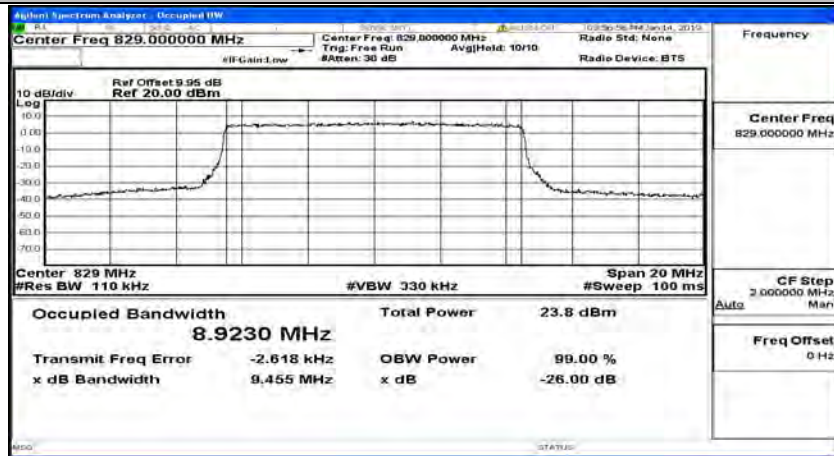
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



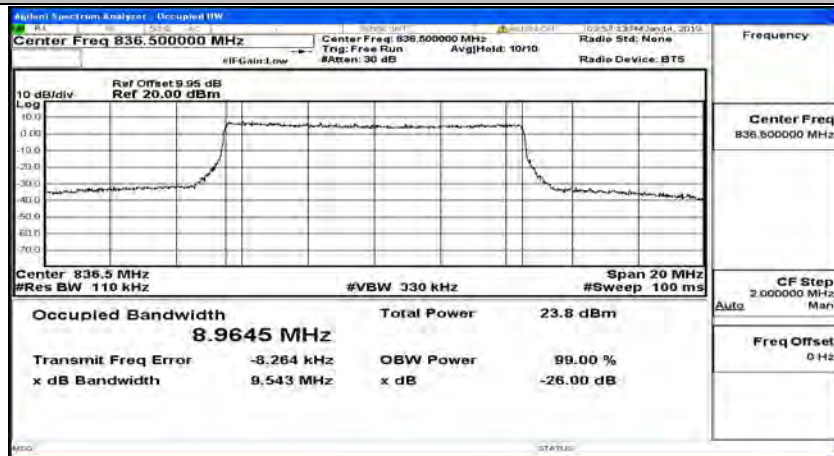
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



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



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

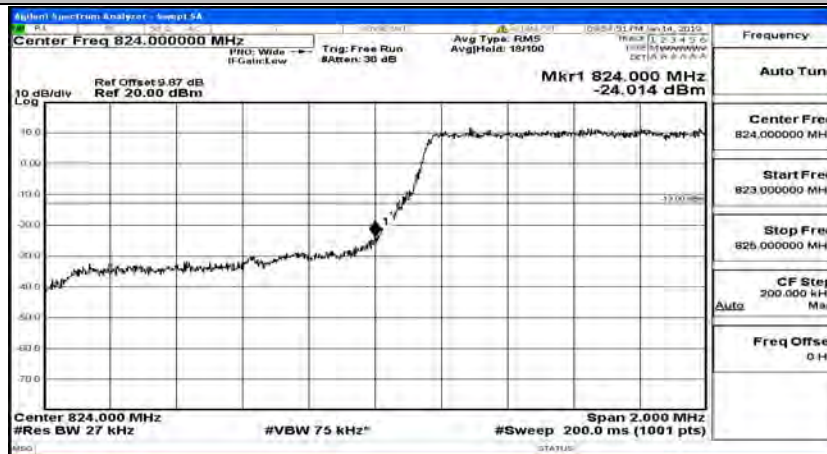


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



C.4 Band Edge

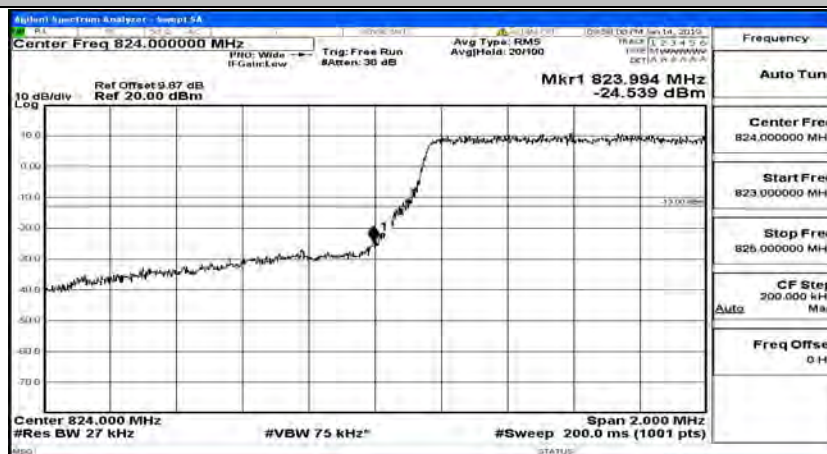
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



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



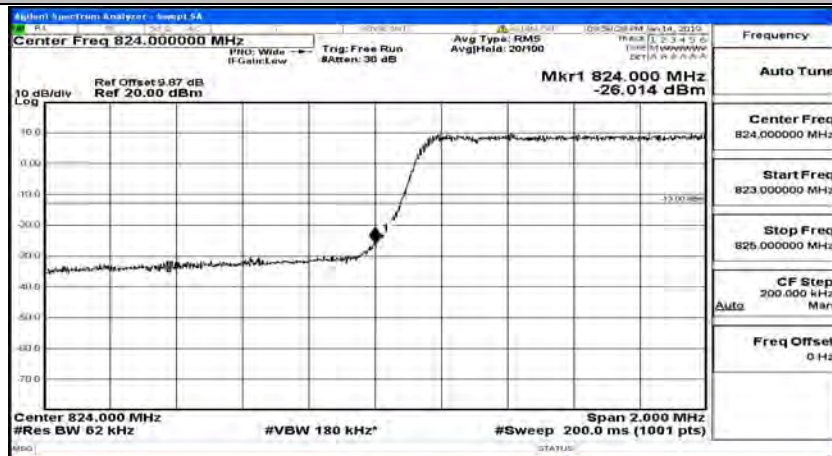
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



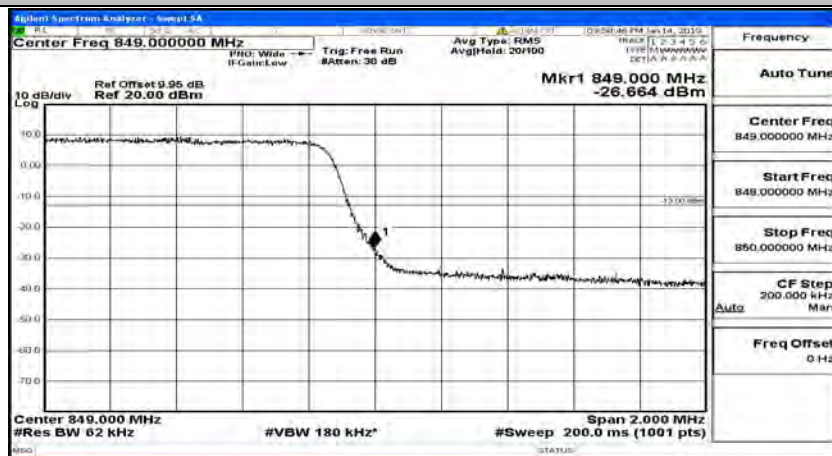
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



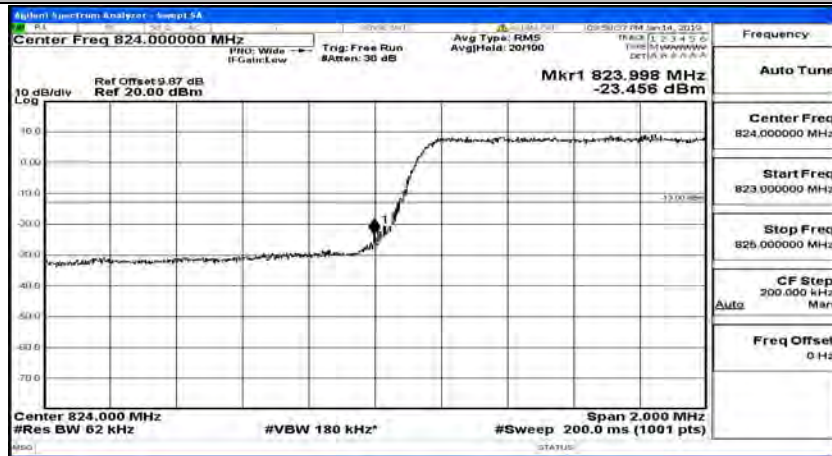
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



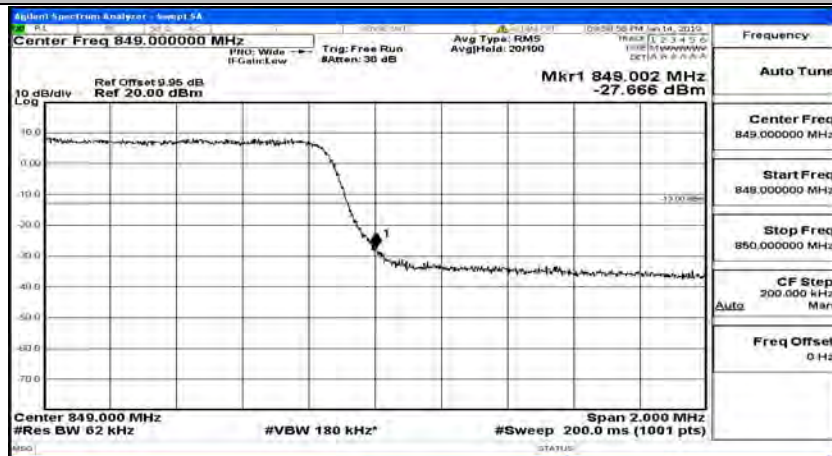
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



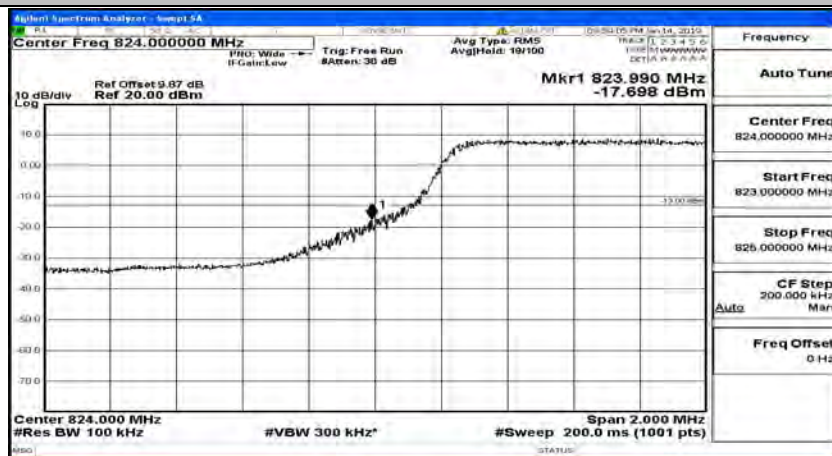
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



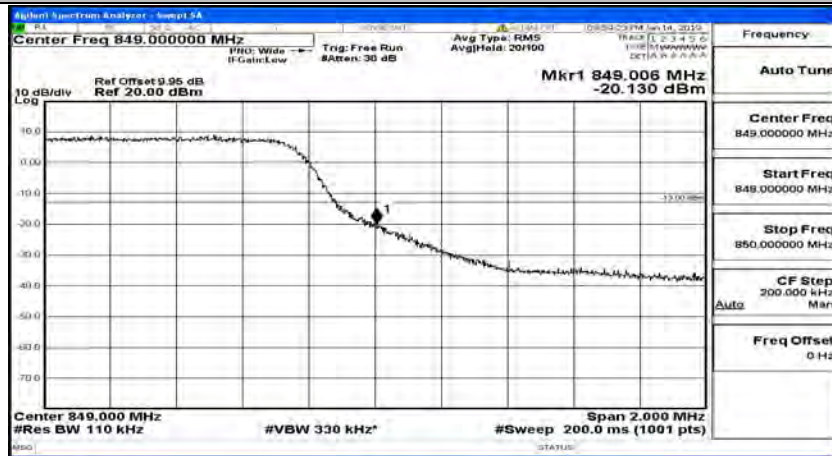
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



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



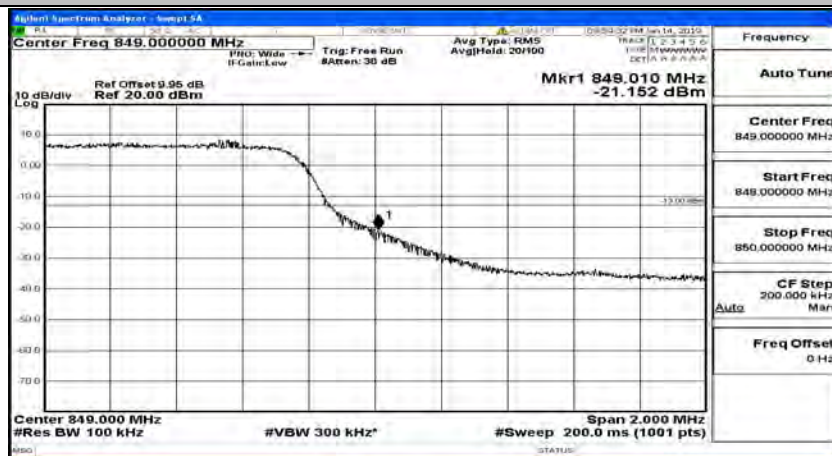
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



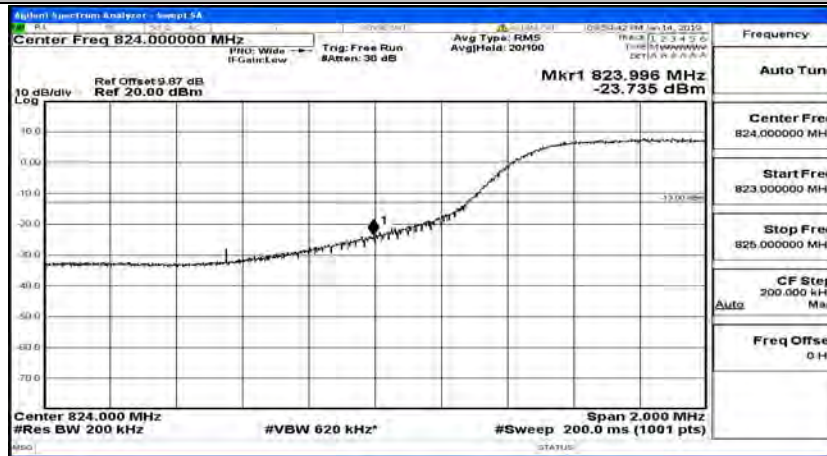
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



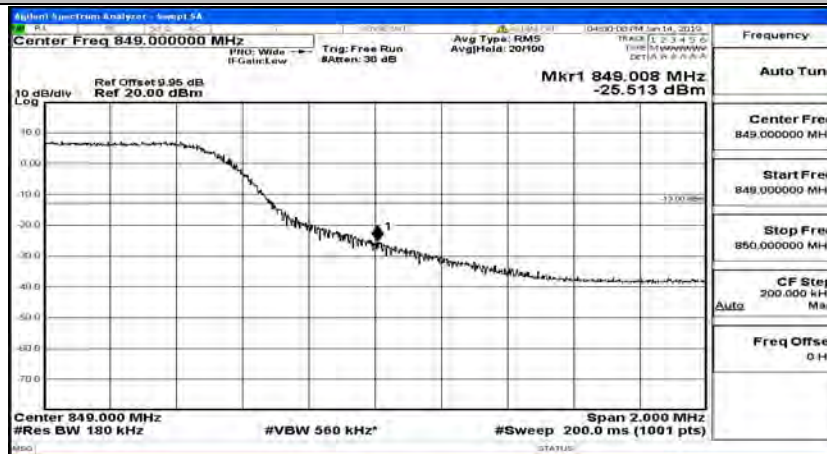
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



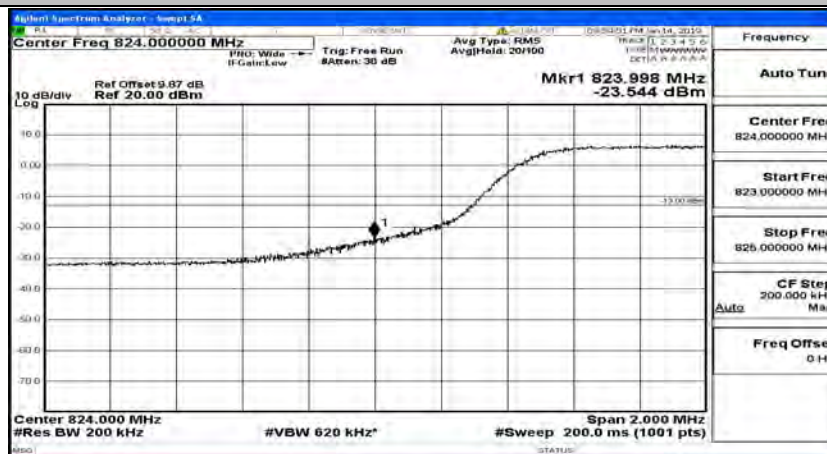
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



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



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

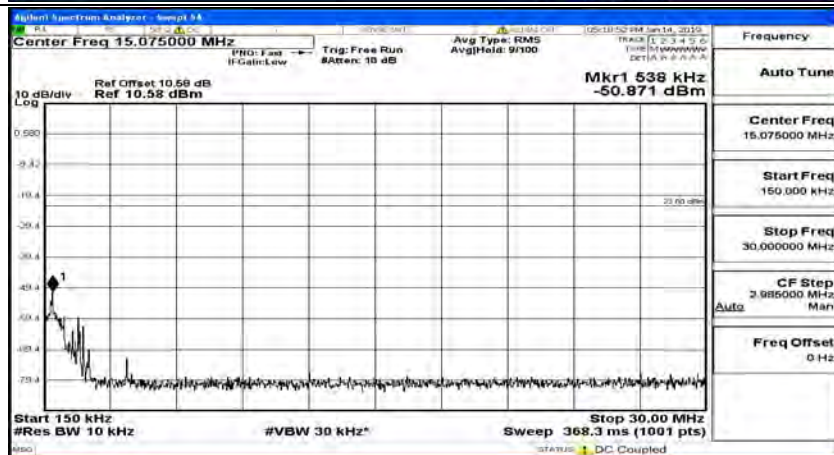
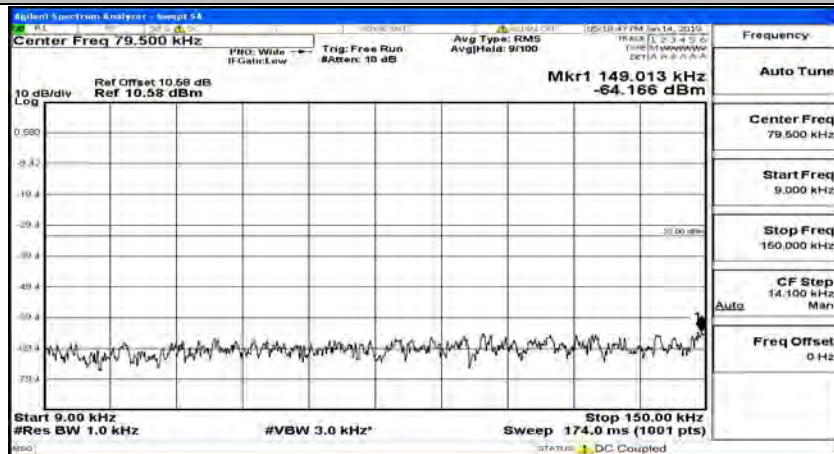


Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

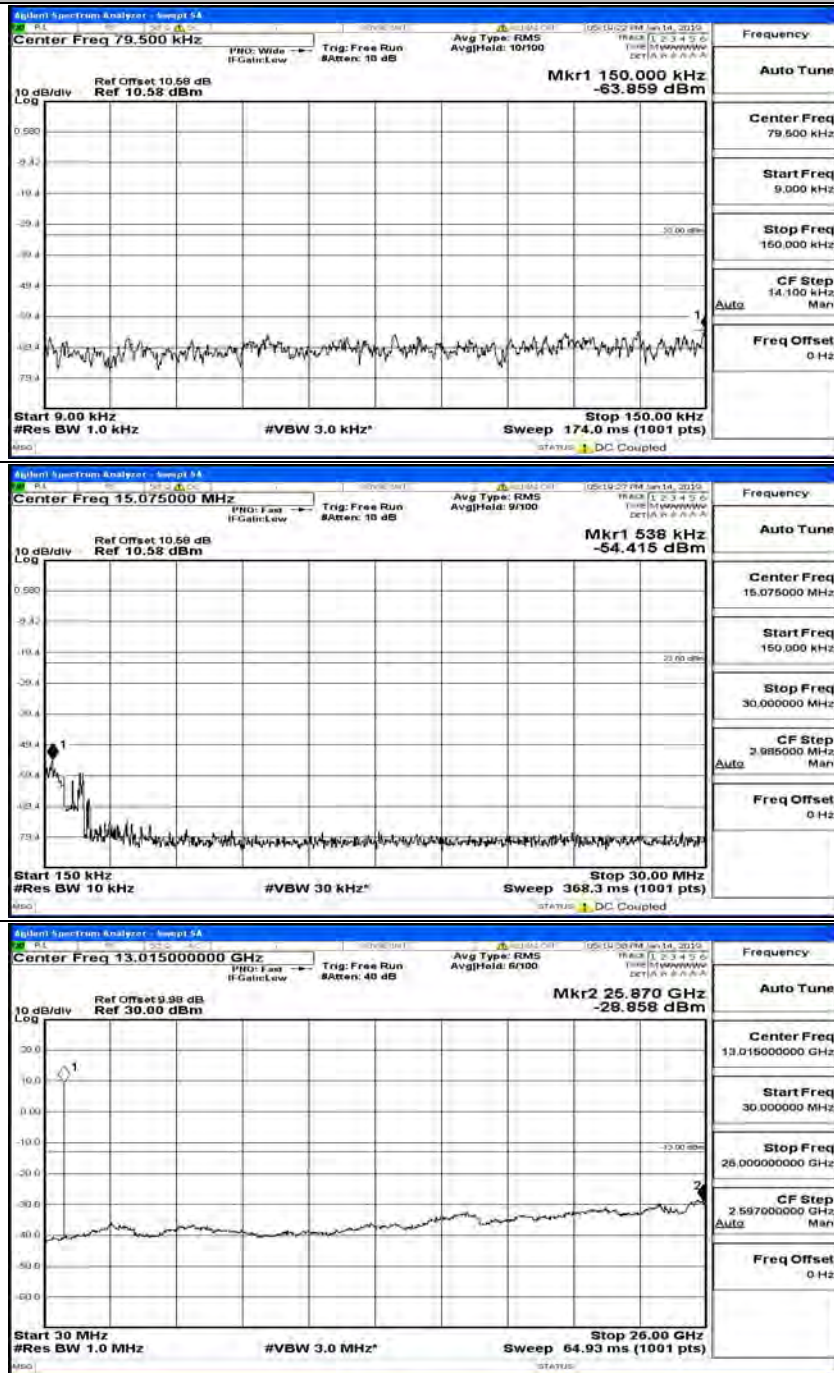


C.5 Conducted Spurious Emission

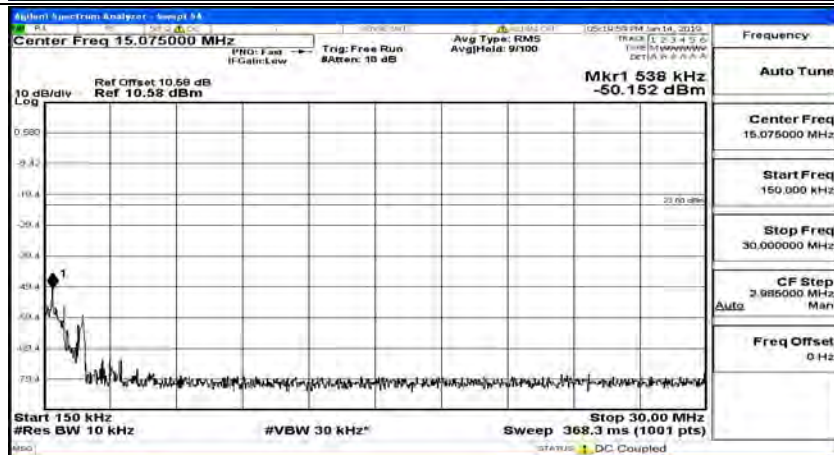
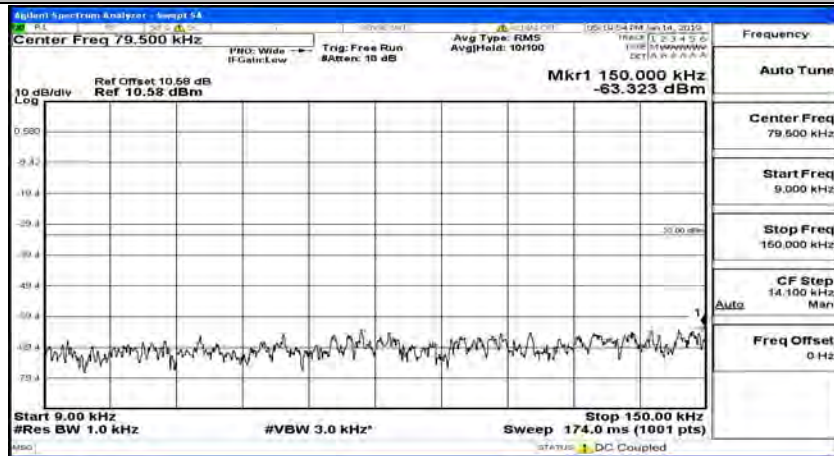
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



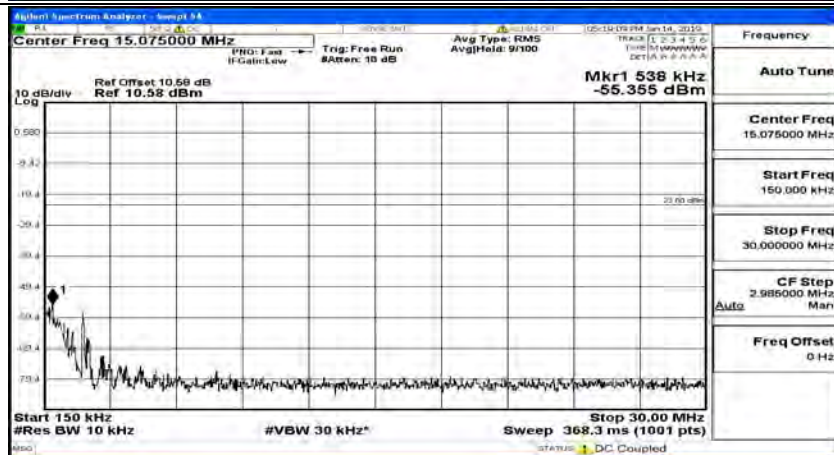
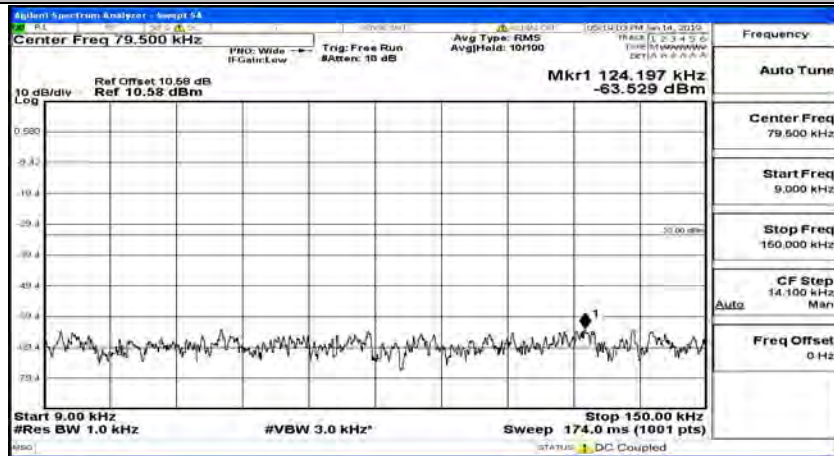
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



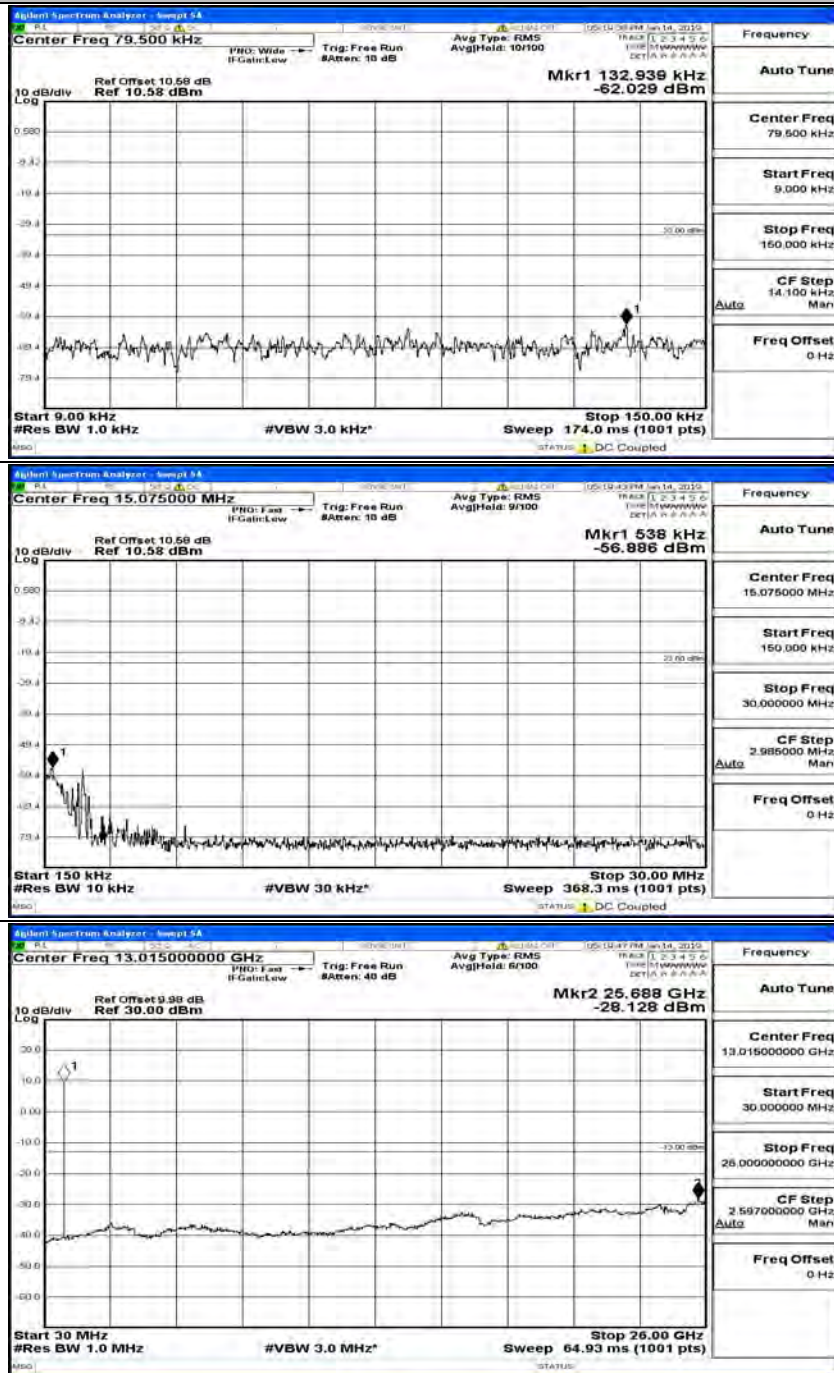
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



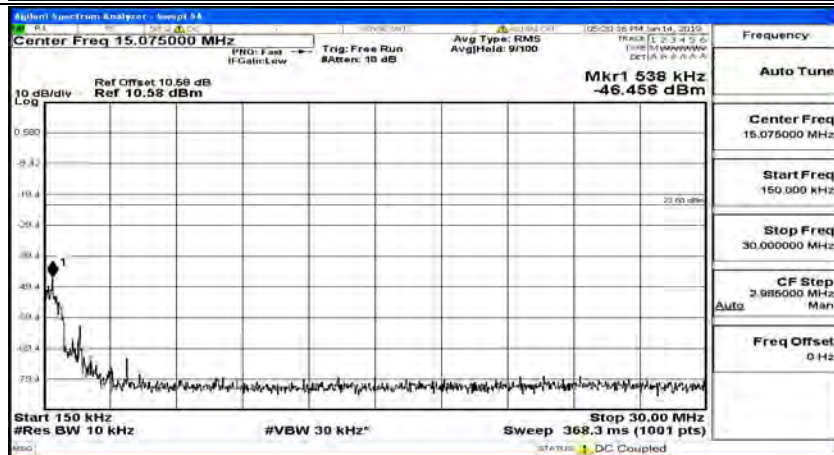
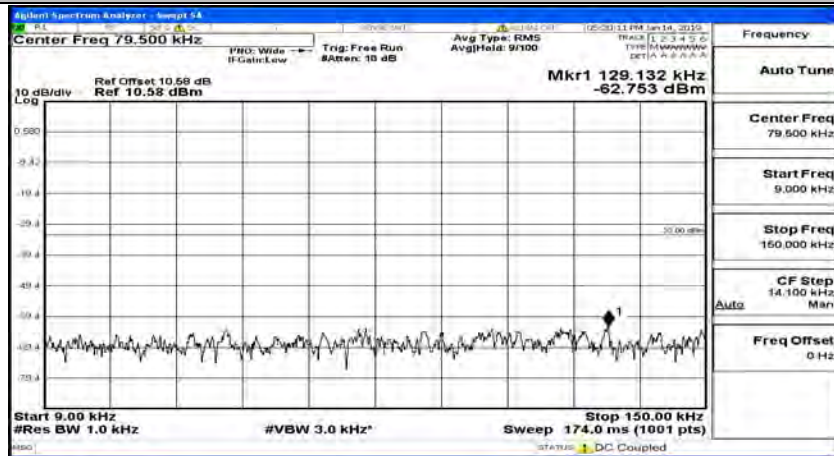
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



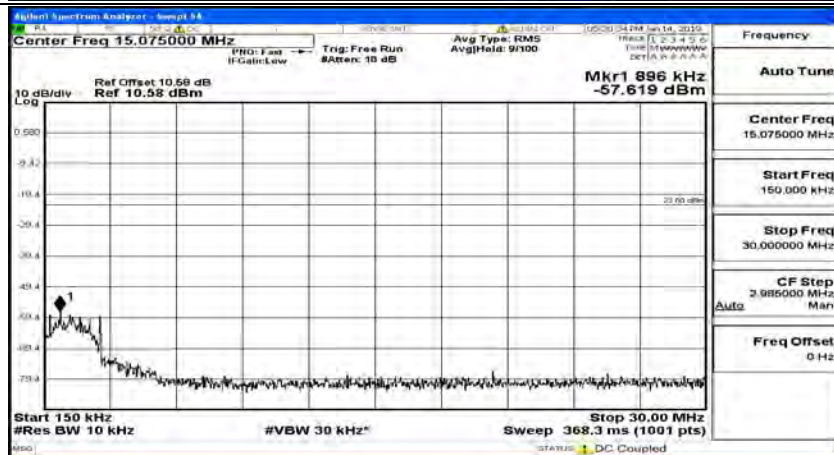
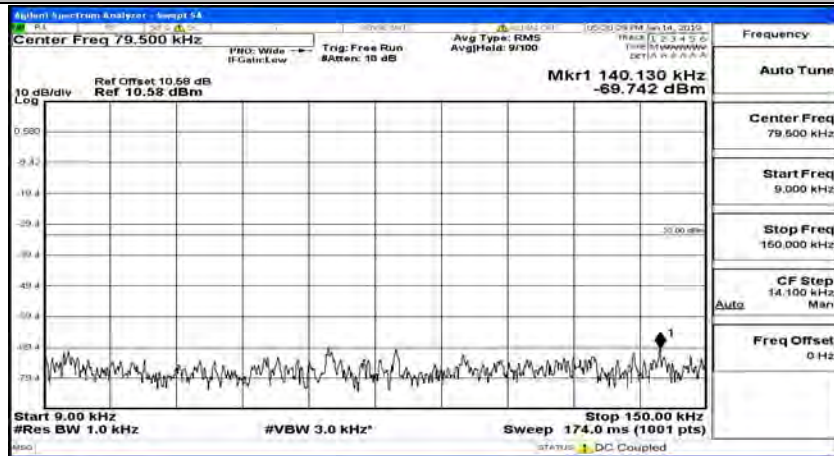
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



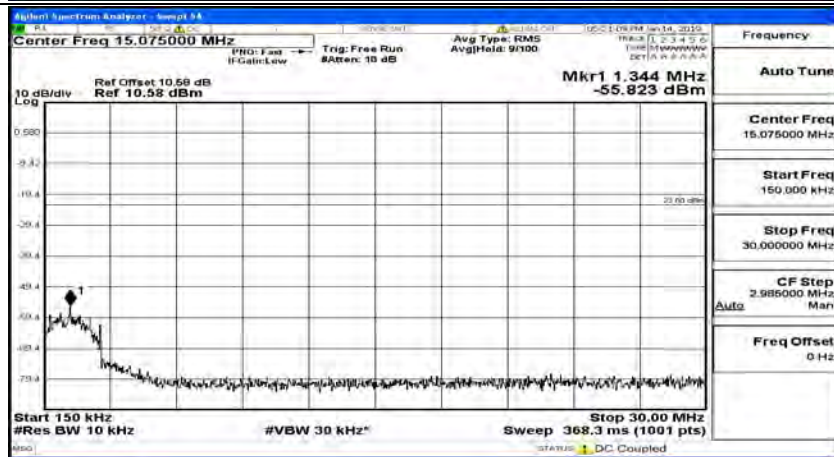
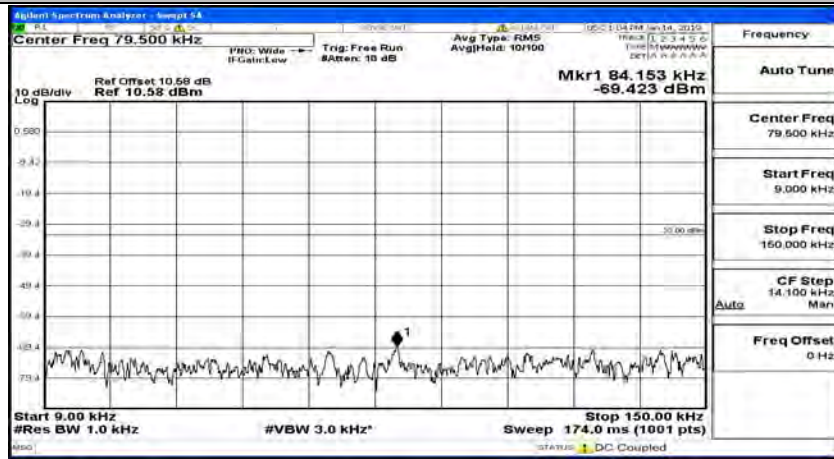
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



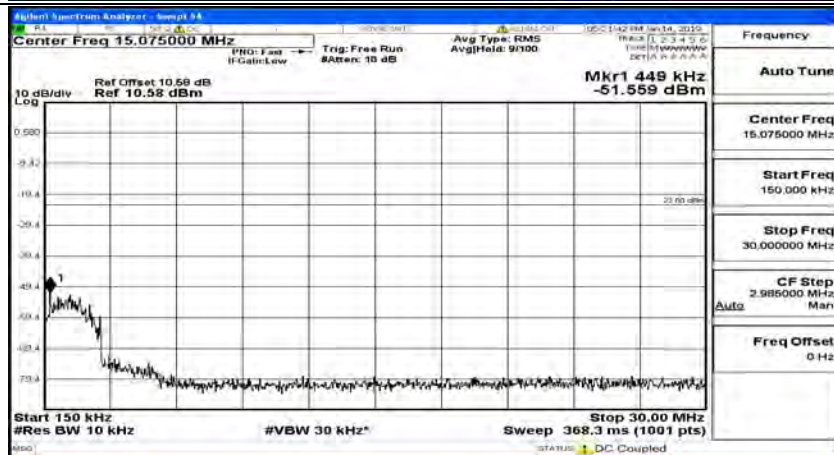
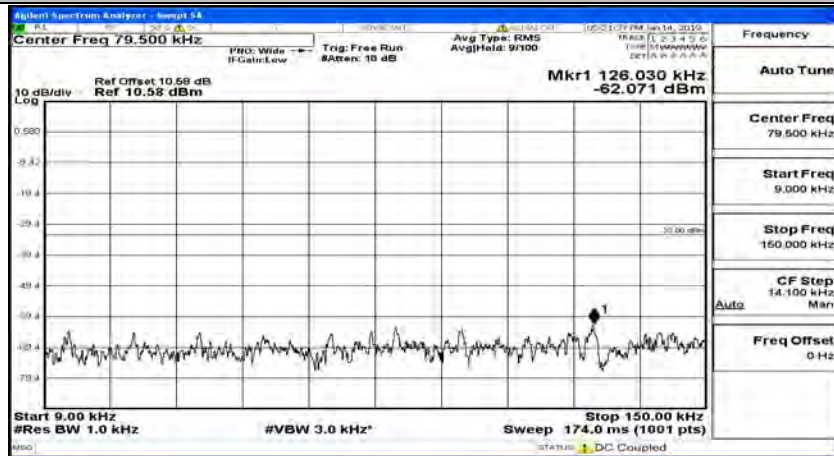
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



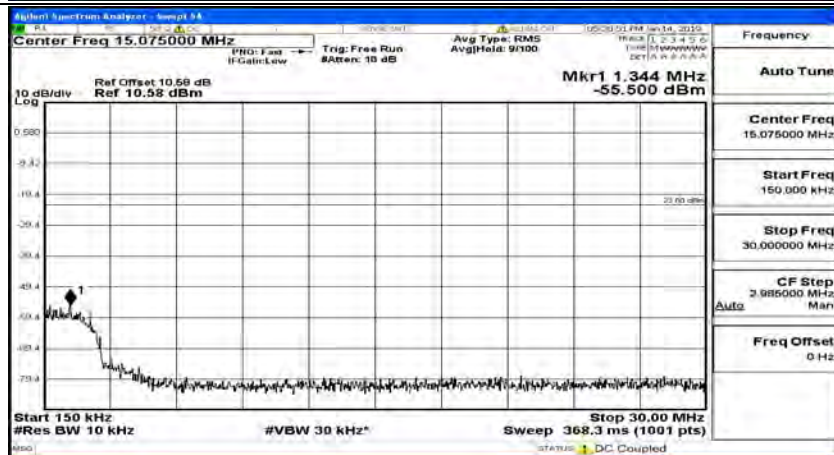
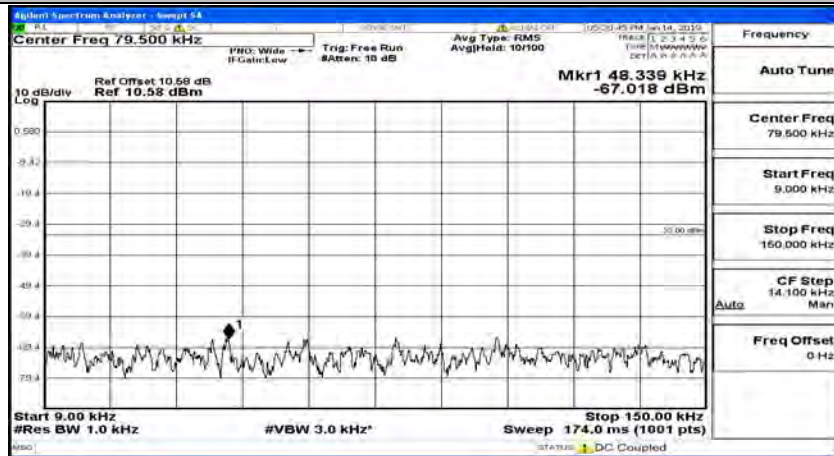
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



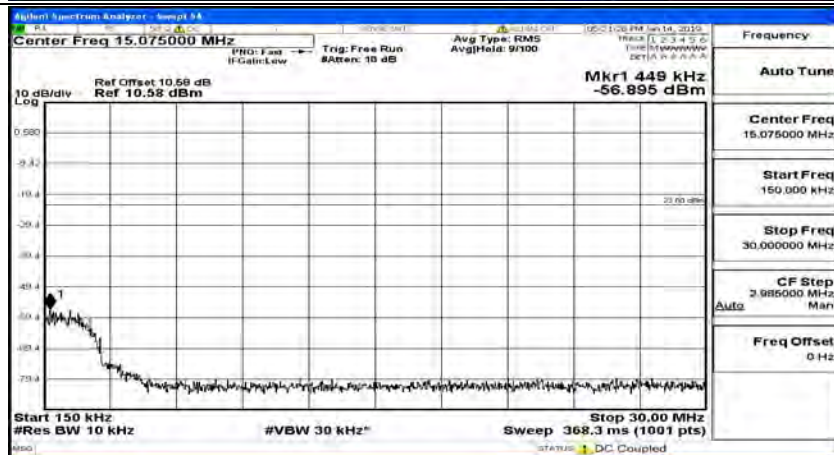
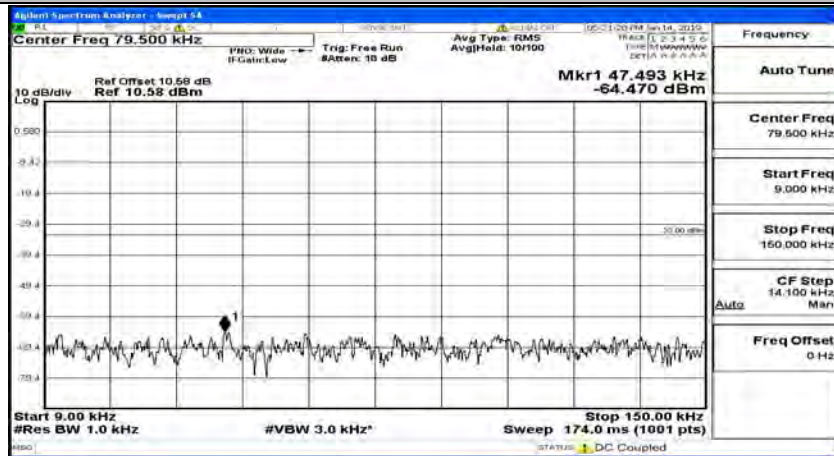
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



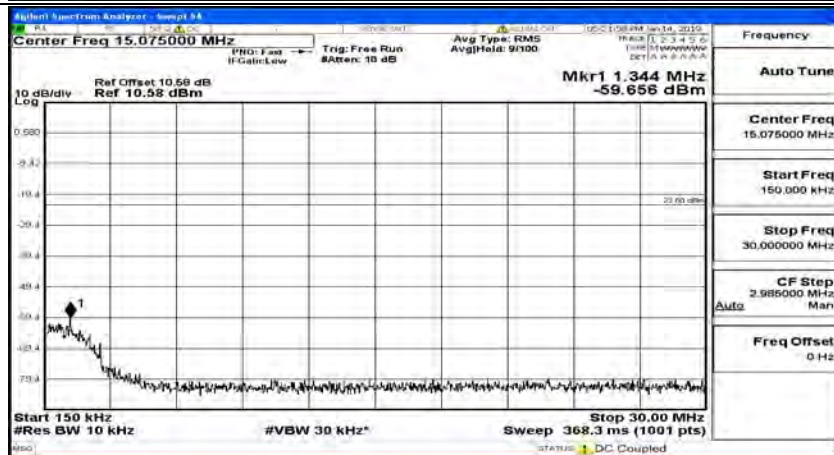
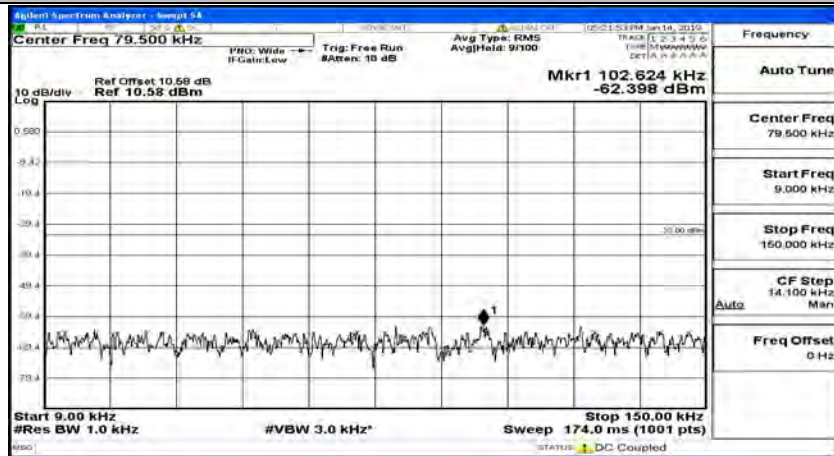
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



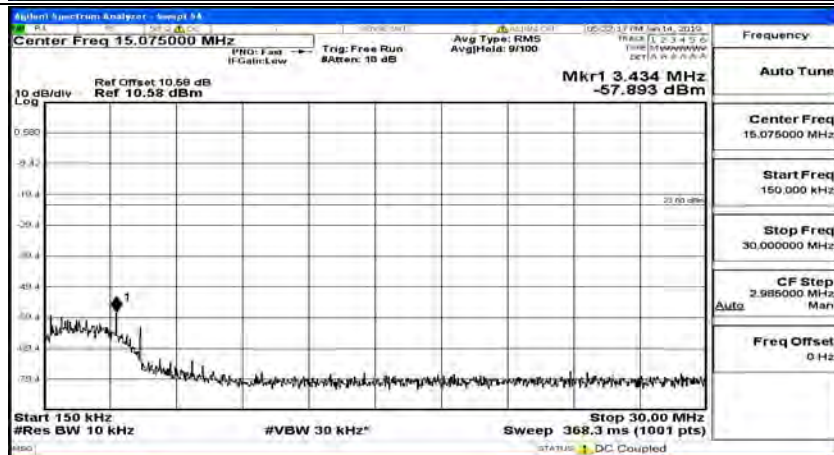
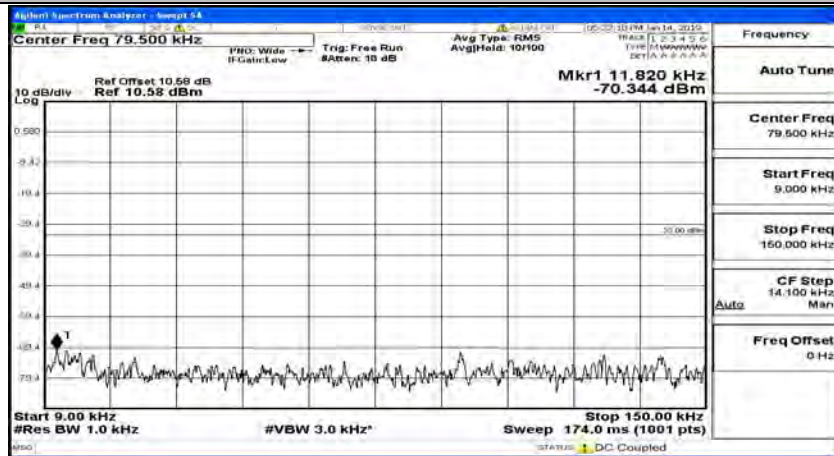
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



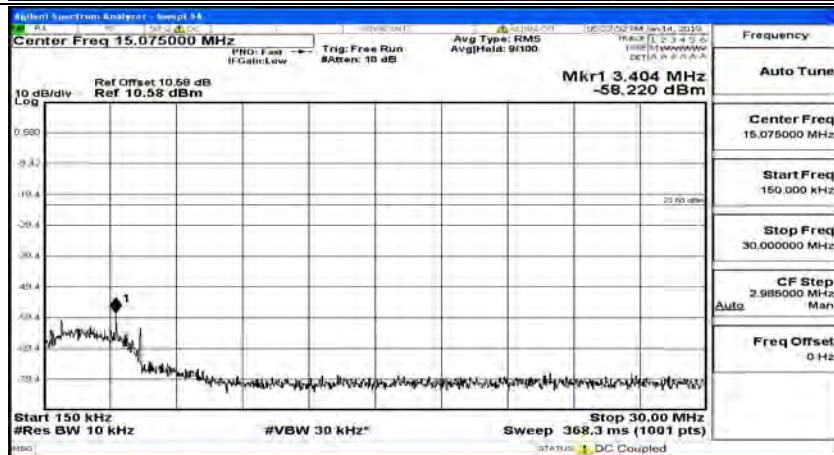
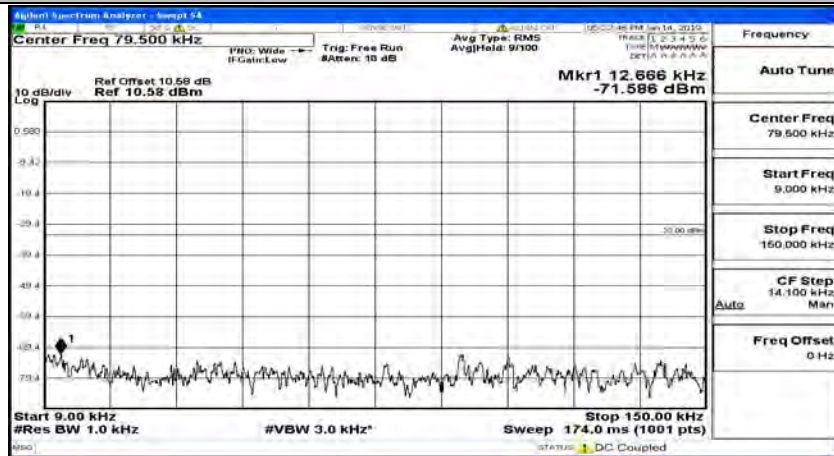
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



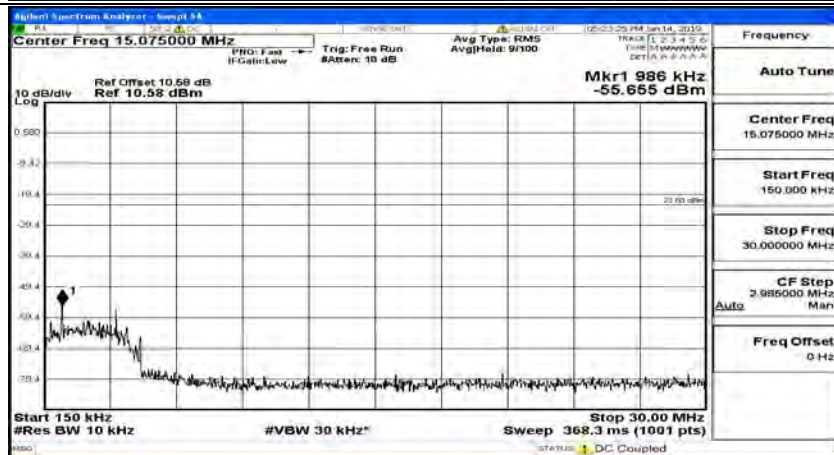
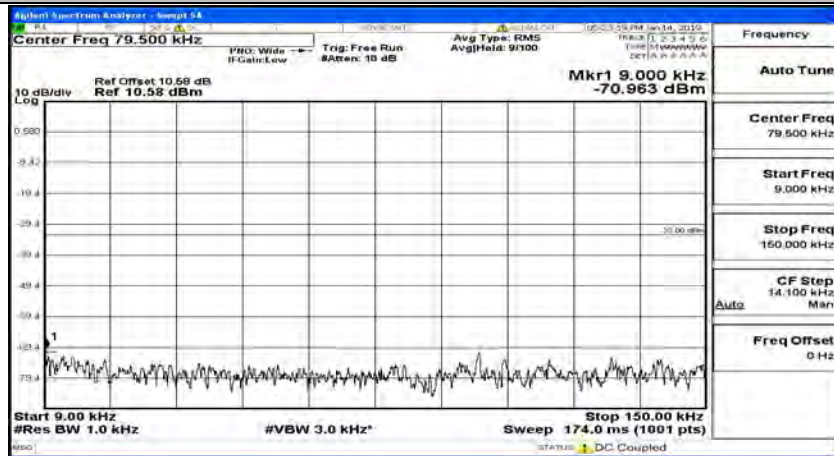
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



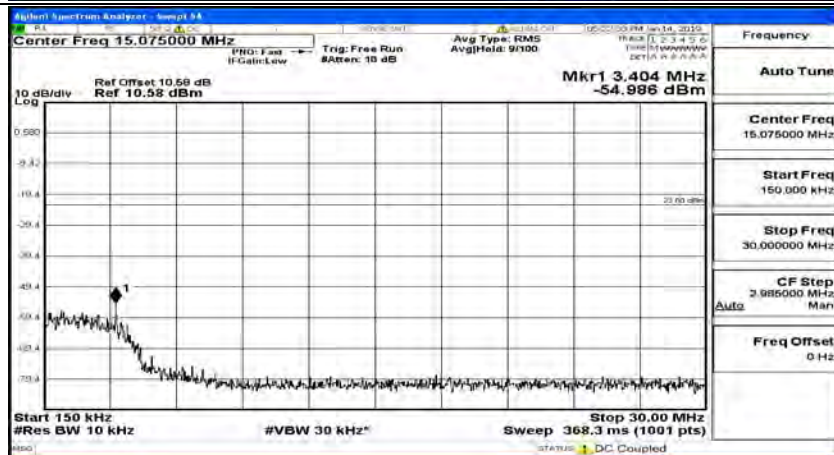
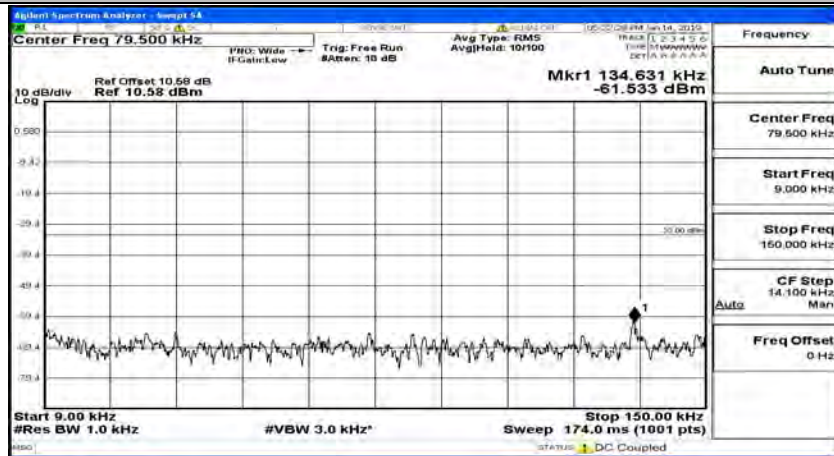
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



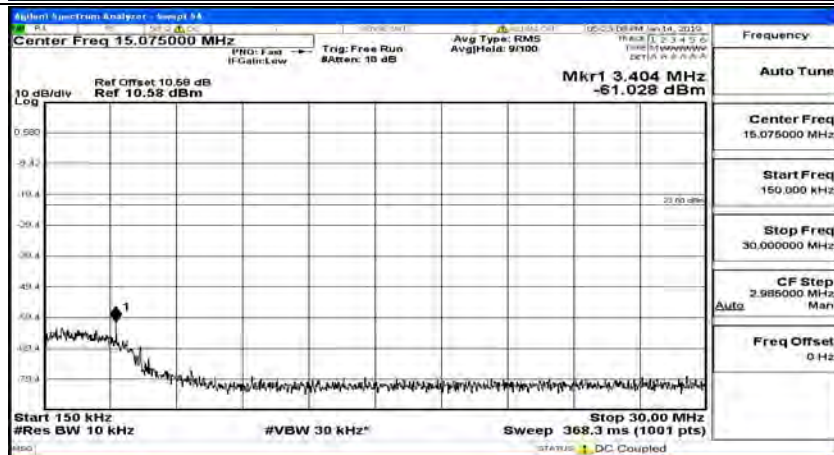
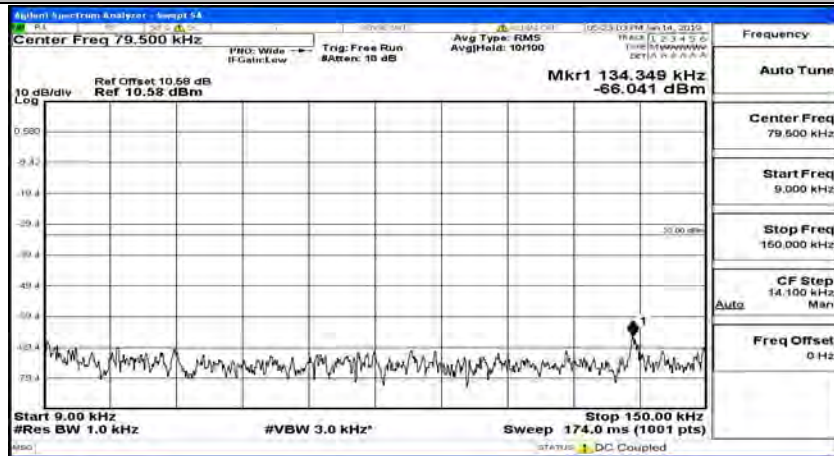
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



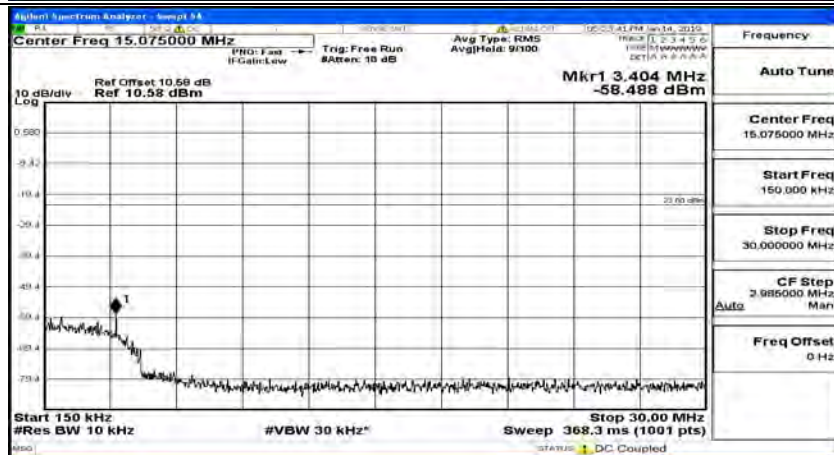
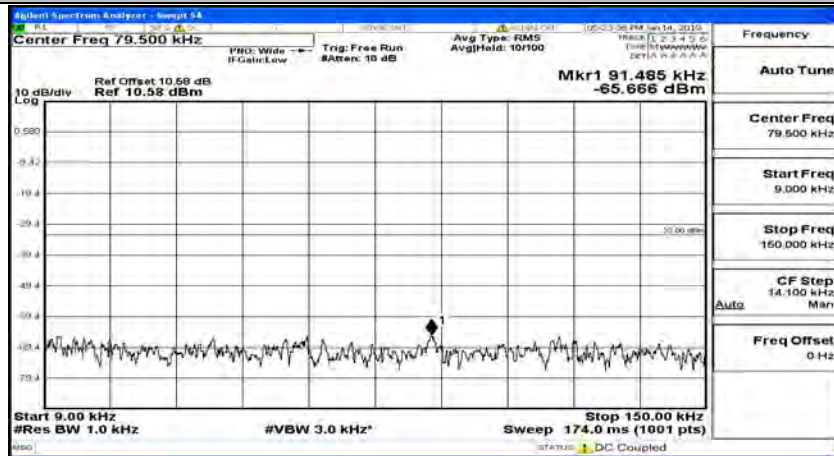
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



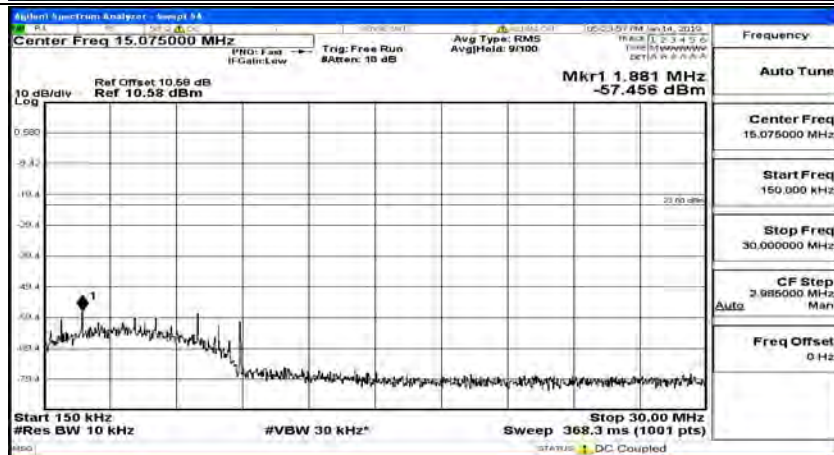
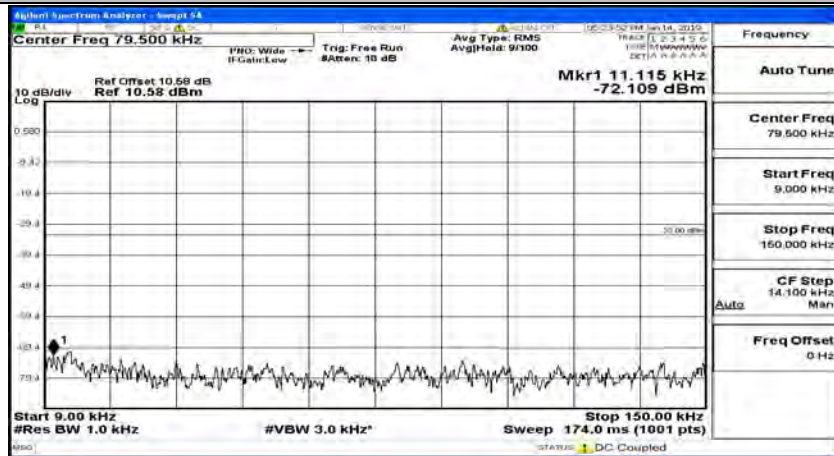
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



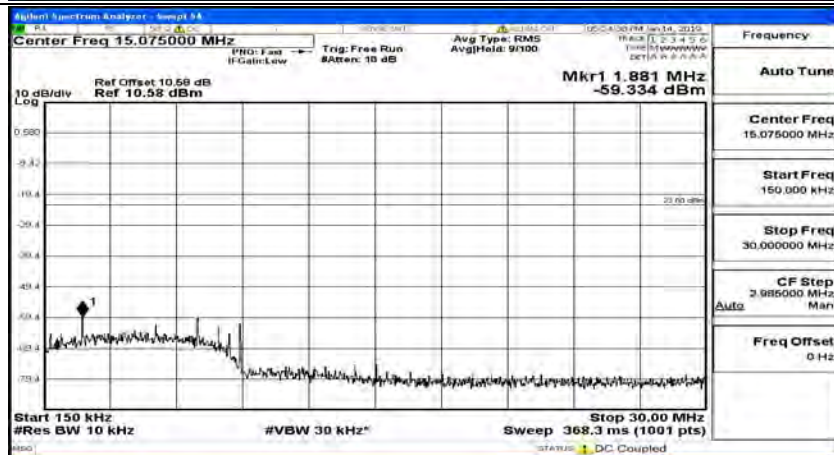
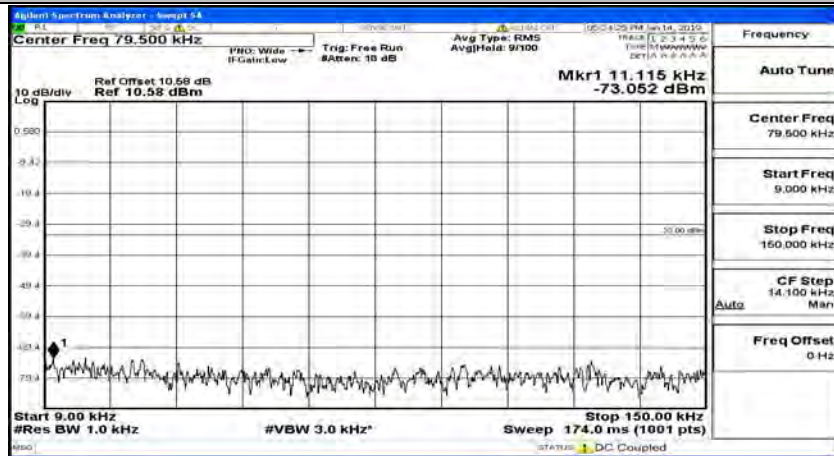
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



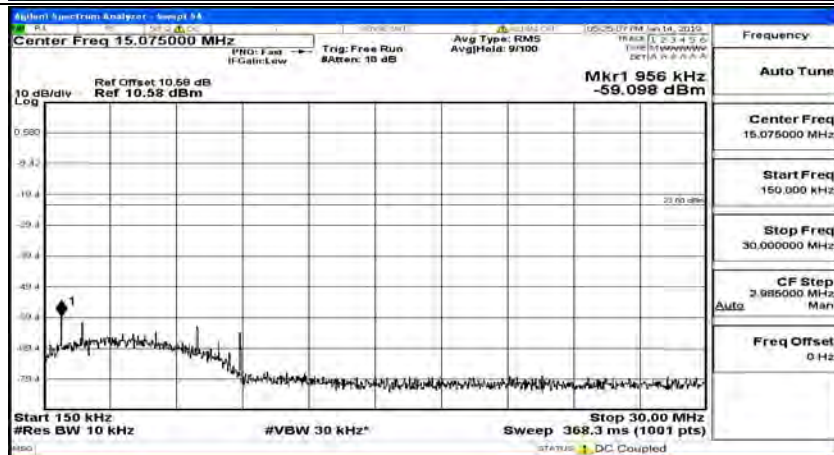
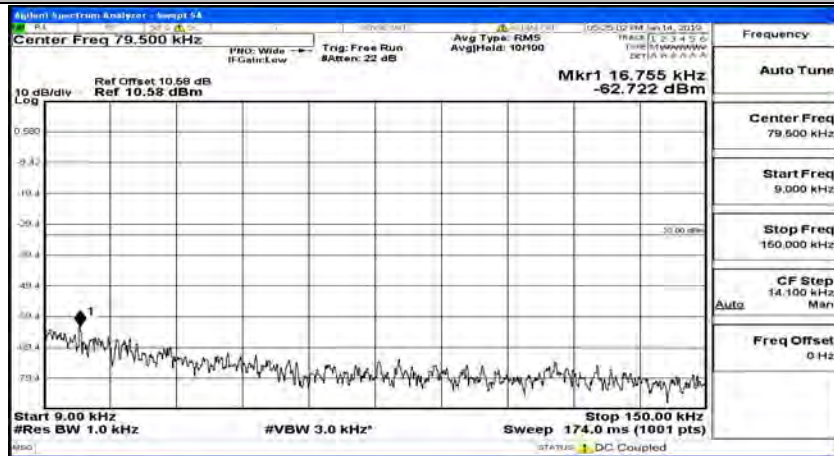
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



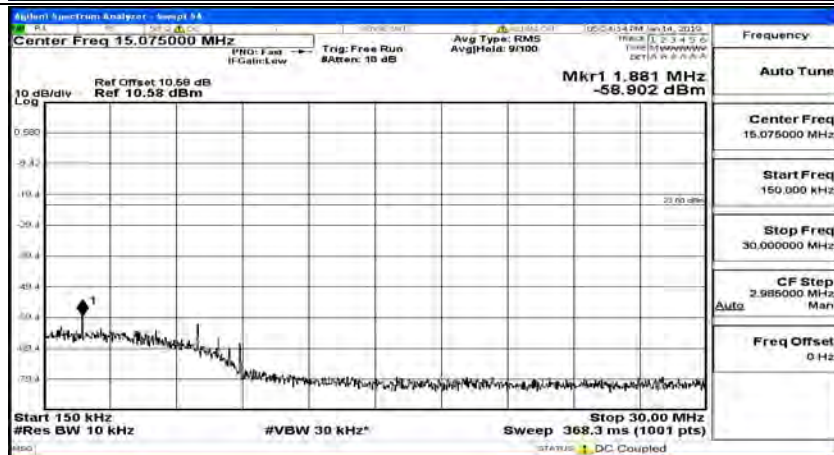
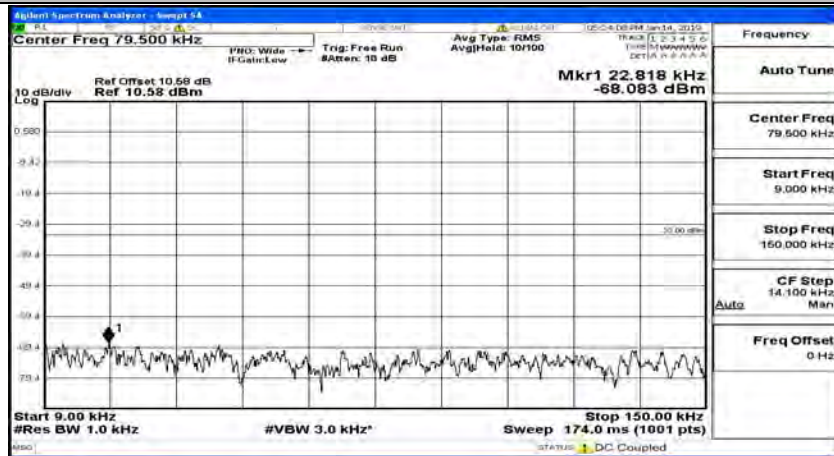
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



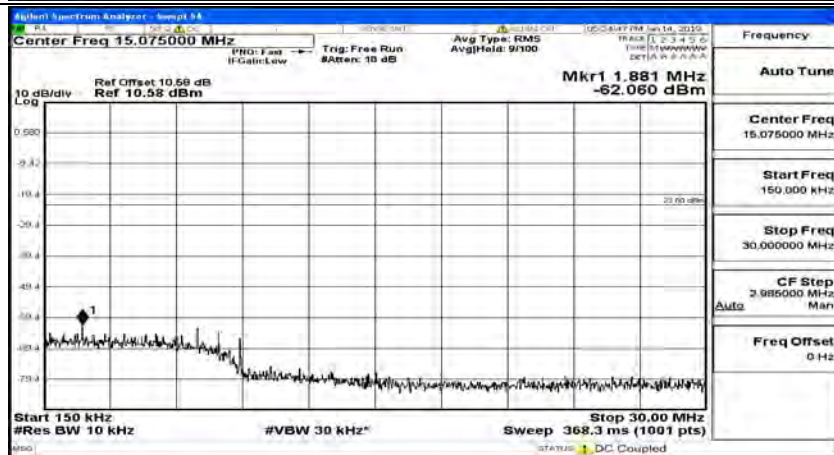
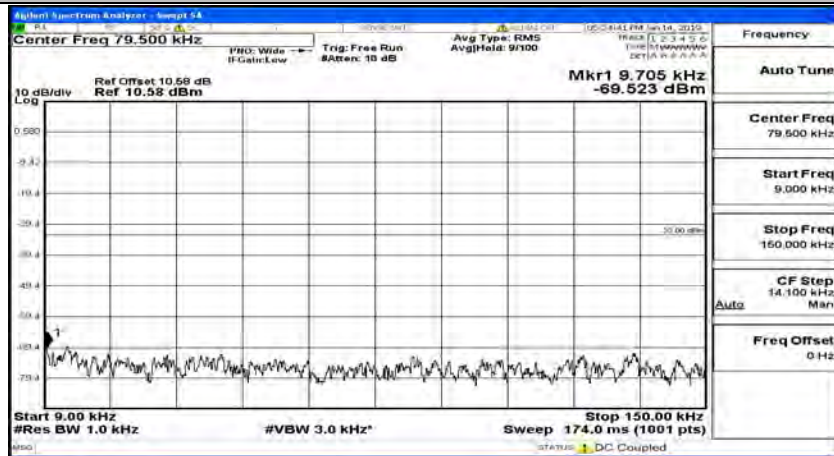
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

