Appendix F: Test Data for E-UTRA Band 2

Product Name: 3-D VR Smartphone
Trade Mark: Q PHONE
Test Model: Qphone2019_A

Environmental Conditions

Temperature:	23.1 ° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Jayden Zhuo

F.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	23.08	22.38	PASS
		1	3	23.19	22.40	PASS
		1	5	23.11	22.38	PASS
		3	0	23.39	22.58	PASS
		3	2	23.39	22.60	PASS
		3	3	23.36	22.56	PASS
		6	0	22.32	21.48	PASS
	MCH	1	0	22.65	22.19	PASS
		1	3	22.69	22.26	PASS
		1	5	22.71	22.27	PASS
		3	0	22.81	21.91	PASS
		3	2	22.86	21.96	PASS
		3	3	22.83	21.98	PASS
		6	0	22.88	21.96	PASS
	HCH	1	0	22.27	21.36	PASS
		1	3	22.31	21.41	PASS
		1	5	22.37	21.38	PASS
		3	0	22.45	21.68	PASS
		3	2	22.48	21.64	PASS
		3	3	22.44	21.62	PASS
		6	0	22.40	21.65	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.30	22.37	PASS
		1	7	23.35	22.44	PASS
		1	14	23.15	22.25	PASS
		8	0	22.45	21.46	PASS
		8	4	22.42	21.43	PASS
		8	7	22.39	21.42	PASS
		15	0	22.42	21.50	PASS
	MCH	1	0	22.76	21.82	PASS
		1	7	22.89	21.94	PASS
		1	14	22.76	21.81	PASS
		8	0	22.95	21.93	PASS
		8	4	22.95	21.94	PASS
		8	7	22.97	21.93	PASS
		15	0	22.93	21.97	PASS
	HCH	1	0	22.23	21.42	PASS
		1	7	22.37	21.54	PASS
		1	14	22.29	21.41	PASS
		8	0	22.46	21.63	PASS
		8	4	22.47	21.63	PASS
		8	7	22.51	21.64	PASS
		15	0	22.49	21.52	PASS

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.24	22.43	PASS
		1	12	23.24	22.45	PASS
		1	24	23.03	22.25	PASS
		12	0	22.36	21.30	PASS
		12	6	22.33	21.26	PASS
		12	13	22.24	21.20	PASS
		25	0	22.33	21.41	PASS
	MCH	1	0	22.71	21.87	PASS
		1	12	22.82	21.97	PASS
		1	24	22.72	21.87	PASS
		12	0	22.88	21.78	PASS
		12	6	22.89	21.80	PASS
		12	13	22.85	21.75	PASS
		25	0	22.87	21.91	PASS
	HCH	1	0	22.28	21.59	PASS
		1	12	22.39	21.71	PASS
		1	24	22.35	21.59	PASS
		12	0	22.38	21.49	PASS
		12	6	22.43	21.51	PASS
		12	13	22.41	21.49	PASS
		25	0	22.41	21.51	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	23.43	22.51	PASS
		1	24	23.15	22.28	PASS
		1	49	22.99	22.06	PASS
		25	0	22.31	21.38	PASS
		25	12	22.23	21.30	PASS
		25	25	22.17	21.25	PASS
		50	0	22.28	21.37	PASS
	MCH	1	0	22.92	21.93	PASS
		1	24	22.90	21.92	PASS
		1	49	22.92	21.93	PASS
		25	0	22.87	21.90	PASS
		25	12	22.90	21.93	PASS
		25	25	22.85	21.87	PASS
		50	0	22.87	21.92	PASS
	HCH	1	0	22.48	21.54	PASS
		1	24	22.33	21.49	PASS
		1	49	22.44	21.57	PASS
		25	0	22.52	21.55	PASS
		25	12	22.40	21.47	PASS
		25	25	22.40	21.49	PASS
		50	0	22.49	21.50	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	23.52	22.57	PASS
		1	37	23.04	22.15	PASS
		1	74	22.98	21.90	PASS
		37	0	22.30	21.29	PASS
		37	18	22.12	21.09	PASS
		37	38	22.07	21.02	PASS
		75	0	22.19	21.21	PASS
	MCH	1	0	23.01	21.93	PASS
		1	37	22.90	21.92	PASS
		1	74	22.88	21.98	PASS
		37	0	22.97	21.90	PASS
		37	18	22.97	21.91	PASS
		37	38	22.94	21.88	PASS
		75	0	22.97	21.95	PASS
	HCH	1	0	22.81	22.01	PASS
		1	37	22.54	21.68	PASS
		1	74	22.63	21.82	PASS
		37	0	22.74	21.65	PASS
		37	18	22.56	21.49	PASS
		37	38	22.46	21.44	PASS
		75	0	22.59	21.53	PASS

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	23.73	23.24	PASS
		1	49	23.06	22.58	PASS
		1	99	23.11	22.44	PASS
		50	0	22.19	21.25	PASS
		50	25	22.02	21.05	PASS
		50	50	22.89	21.90	PASS
		100	0	22.05	21.05	PASS
	MCH	1	0	23.17	22.53	PASS
		1	49	23.00	22.49	PASS
		1	99	23.07	22.62	PASS
		50	0	21.90	20.90	PASS
		50	25	21.91	20.92	PASS
		50	50	21.96	20.95	PASS
		100	0	21.95	20.92	PASS
	HCH	1	0	23.04	22.15	PASS
		1	49	22.58	21.51	PASS
		1	99	22.68	21.67	PASS
		50	0	22.71	21.72	PASS
		50	25	22.48	21.45	PASS
		50	50	22.37	21.37	PASS
		100	0	22.59	21.60	PASS

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	5.24	<13	PASS
	MCH	4.89	<13	PASS
	HCH	4.85	<13	PASS
16QAM	LCH	6.08	<13	PASS
	MCH	5.82	<13	PASS
	HCH	5.75	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.33	<13	PASS
	MCH	5.05	<13	PASS
	HCH	5.08	<13	PASS
16QAM	LCH	6.25	<13	PASS
	MCH	5.95	<13	PASS
	HCH	5.88	<13	PASS

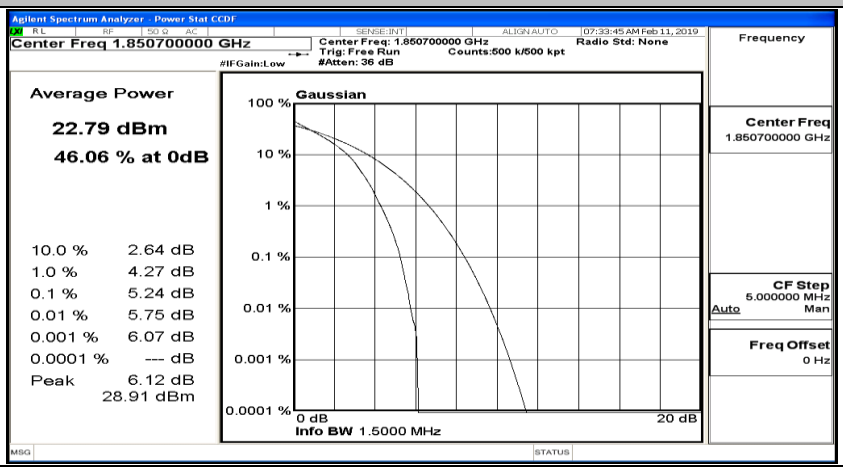
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.44	<13	PASS
	MCH	5.05	<13	PASS
	HCH	5.16	<13	PASS
16QAM	LCH	6.23	<13	PASS
	MCH	5.84	<13	PASS
	HCH	6	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.55	<13	PASS
	MCH	5.18	<13	PASS
	HCH	5.13	<13	PASS
16QAM	LCH	6.28	<13	PASS
	MCH	5.93	<13	PASS
	HCH	5.89	<13	PASS

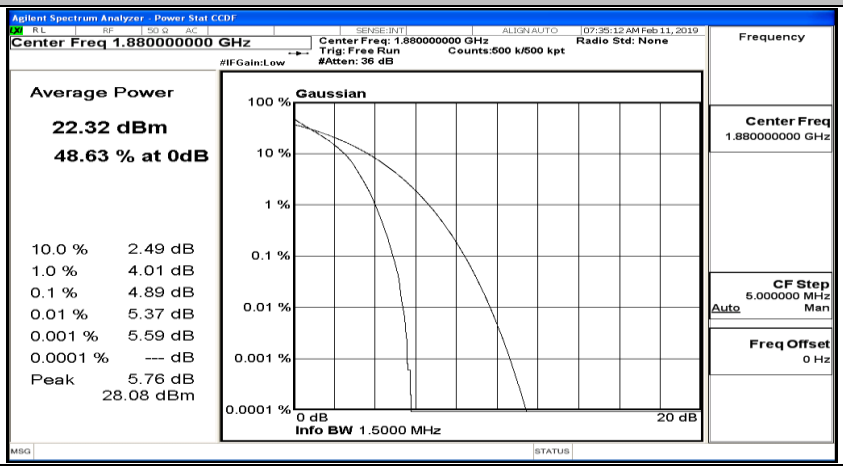
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.05	<13	PASS
	MCH	4.96	<13	PASS
	HCH	4.98	<13	PASS
16QAM	LCH	6.21	<13	PASS
	MCH	6.03	<13	PASS
	HCH	6.06	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.76	<13	PASS
	MCH	5.67	<13	PASS
	HCH	5.65	<13	PASS
16QAM	LCH	6.82	<13	PASS
	MCH	6.64	<13	PASS
	HCH	6.48	<13	PASS

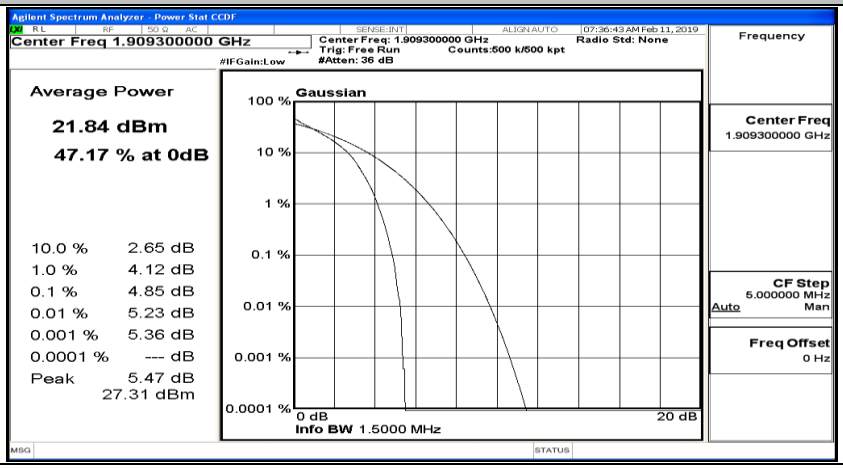
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



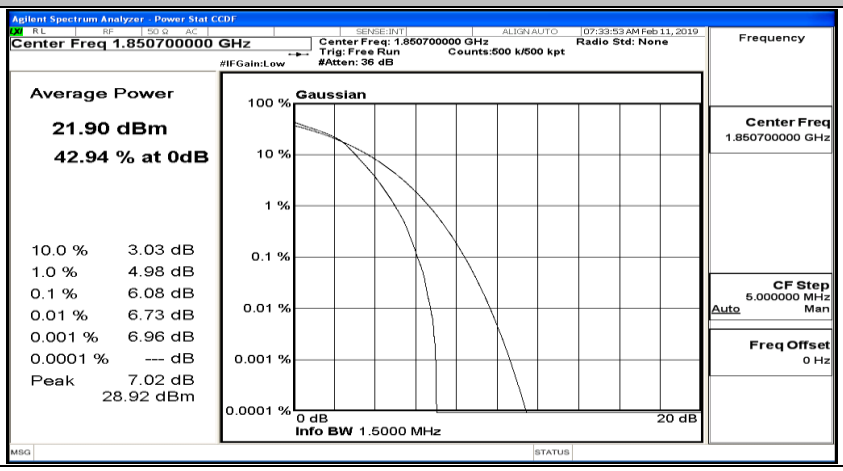
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



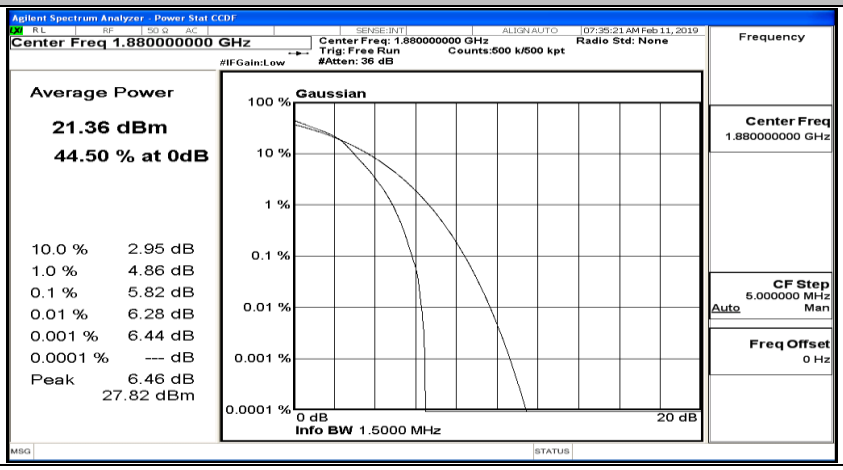
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



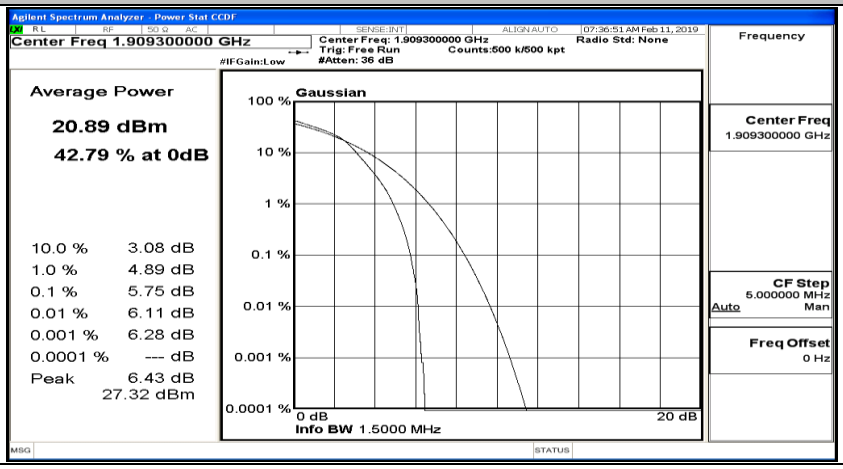
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



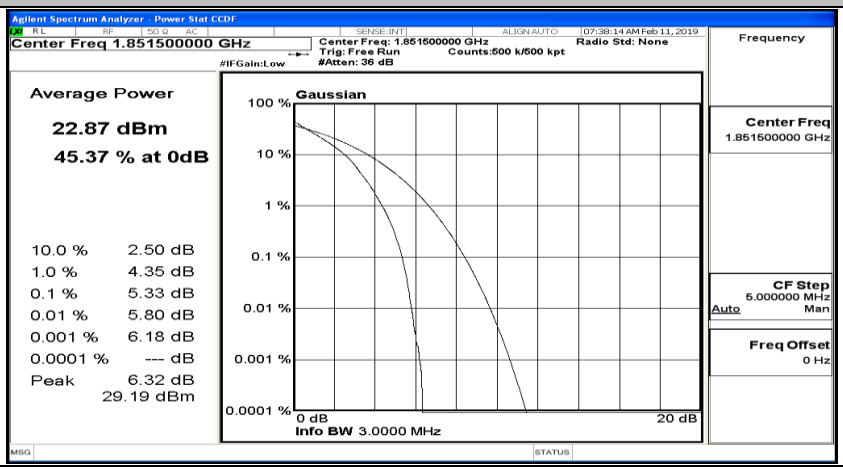
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



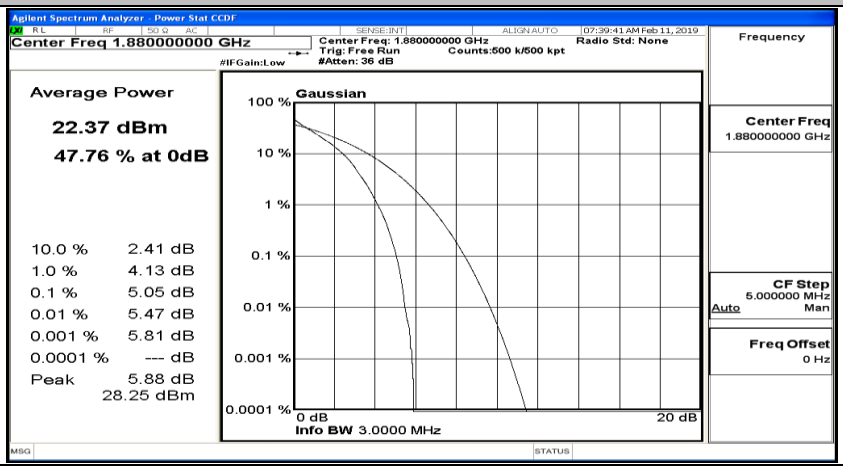
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



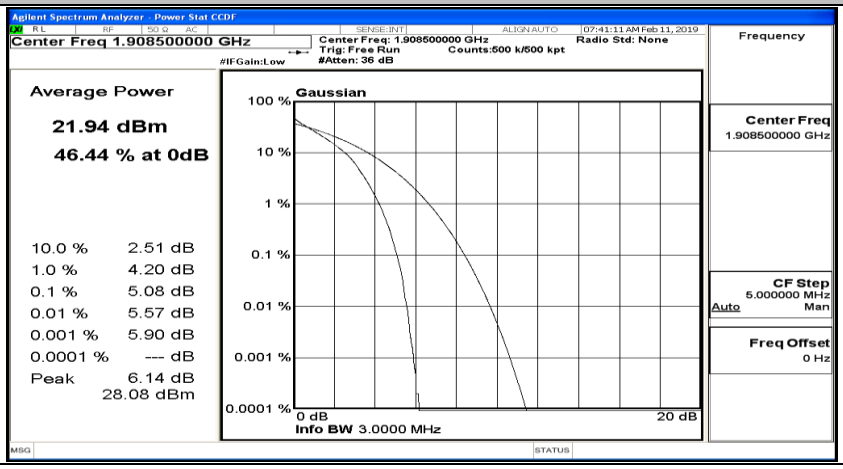
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



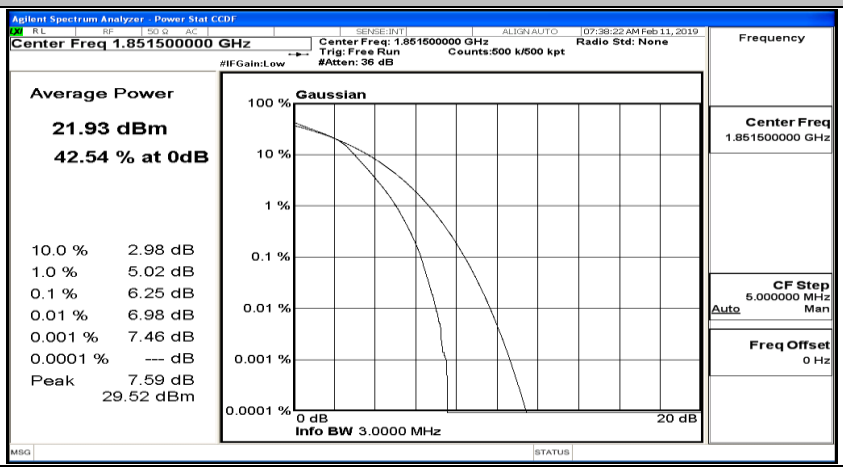
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



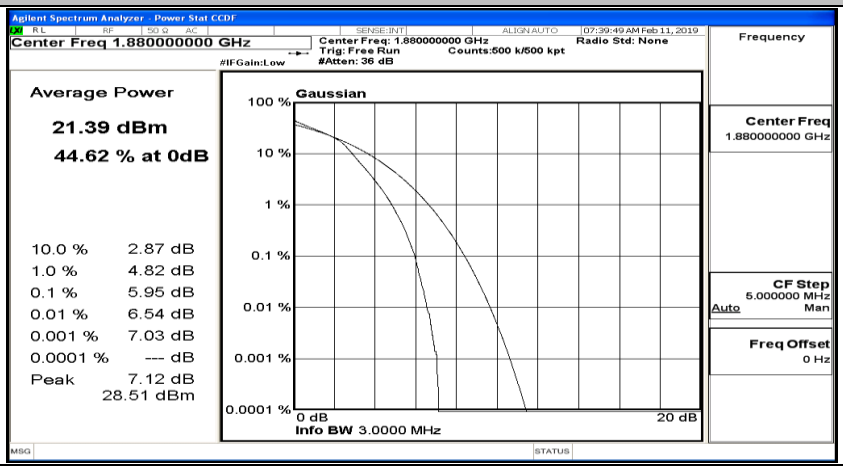
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



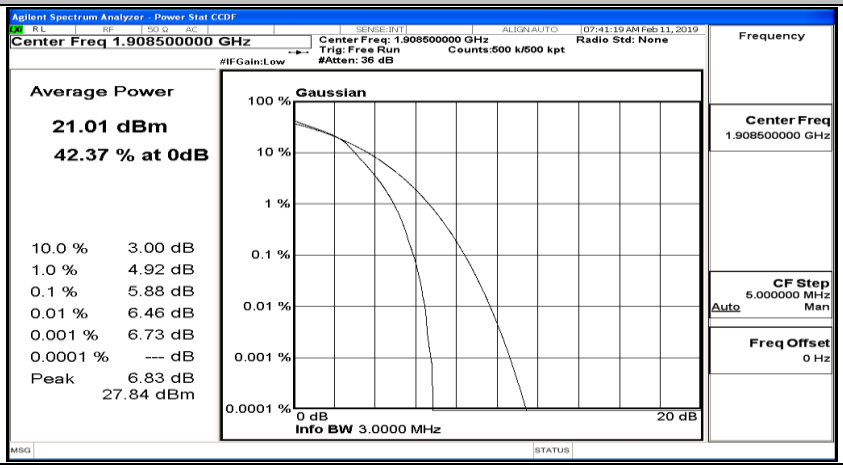
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



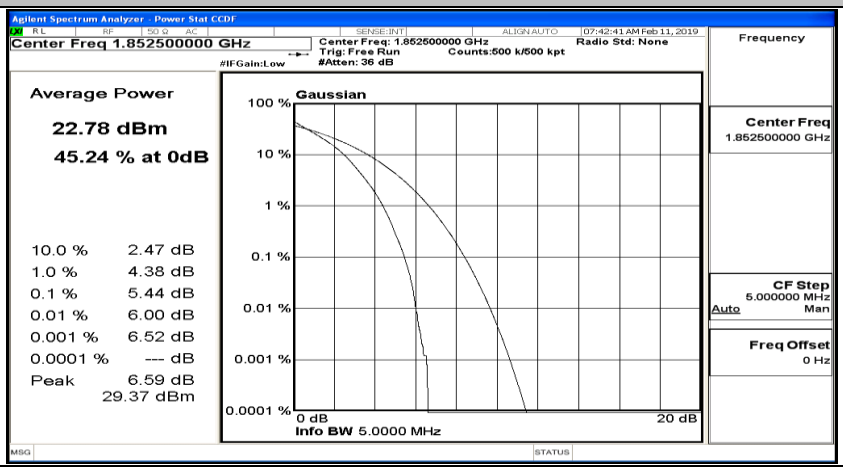
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



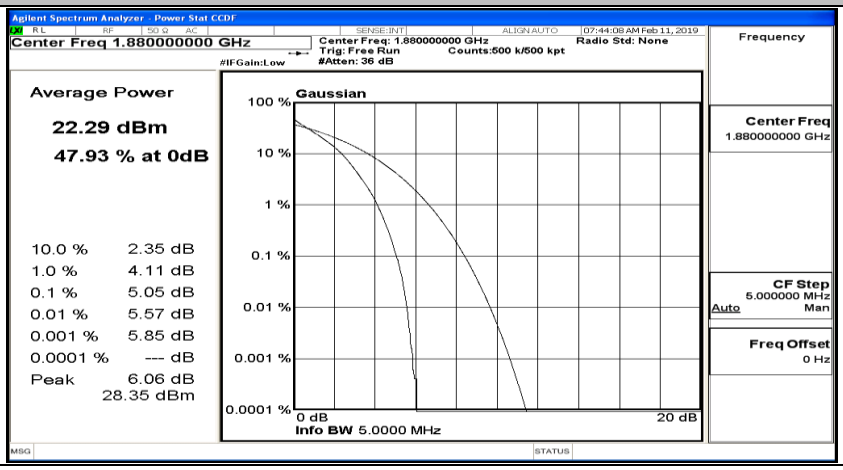
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



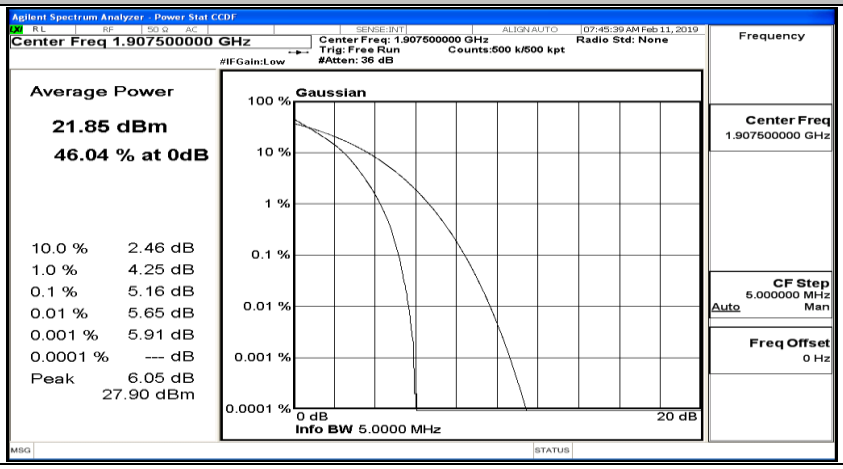
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



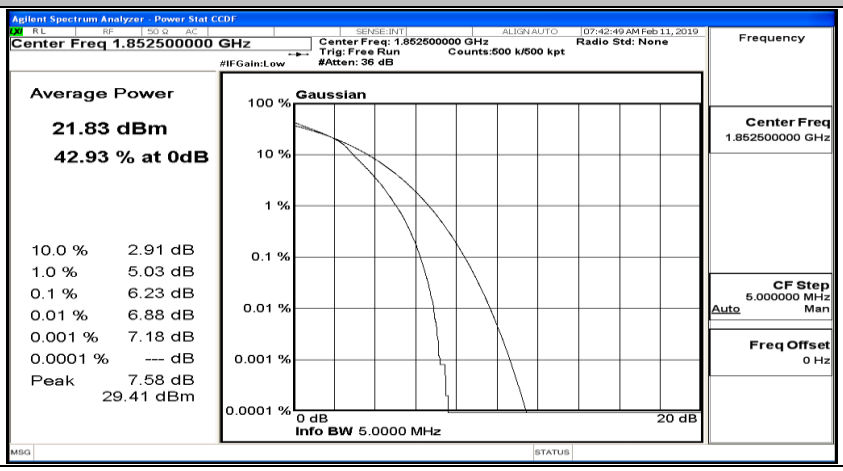
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



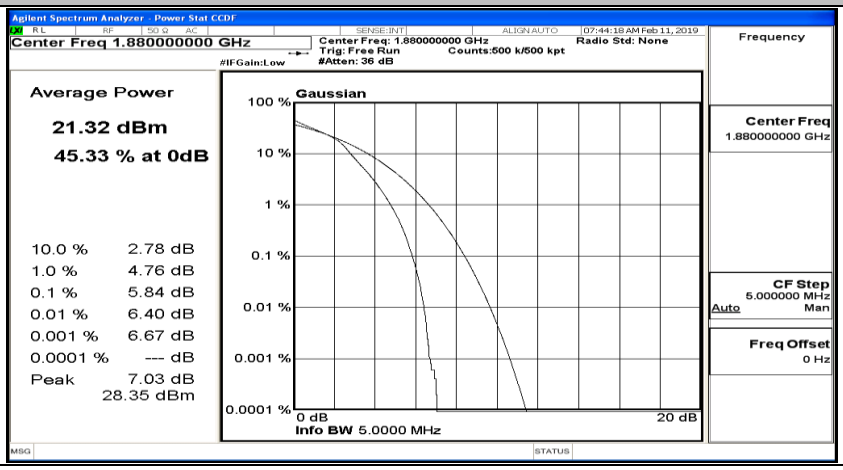
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



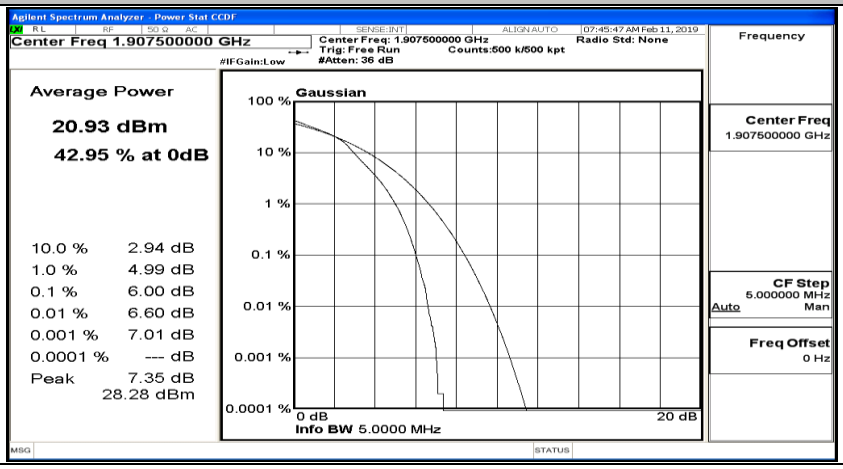
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



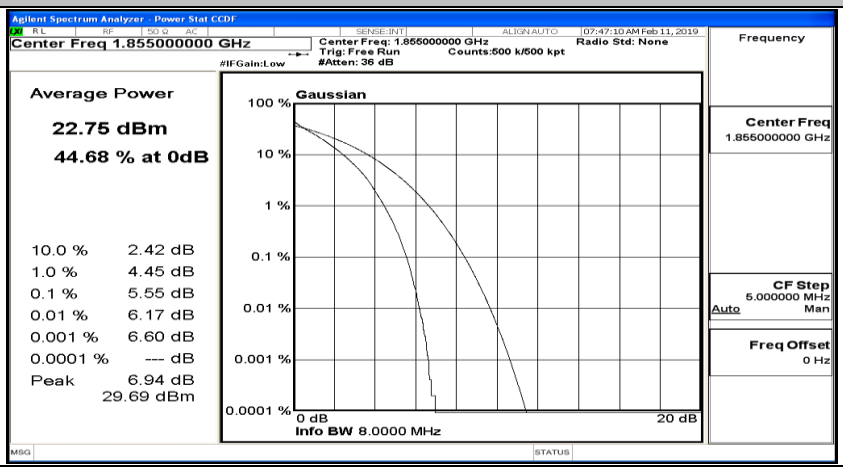
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



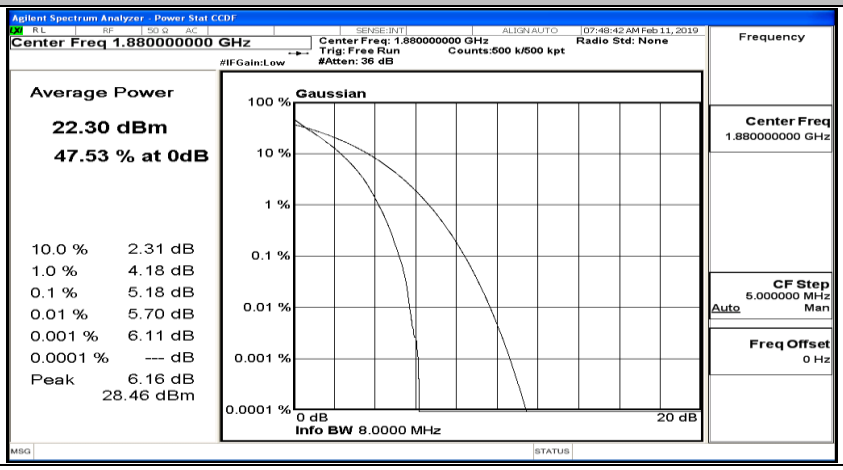
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



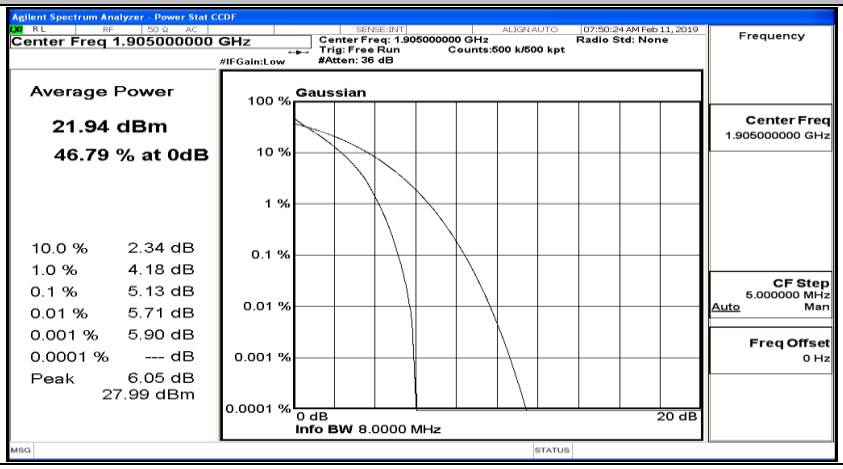
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



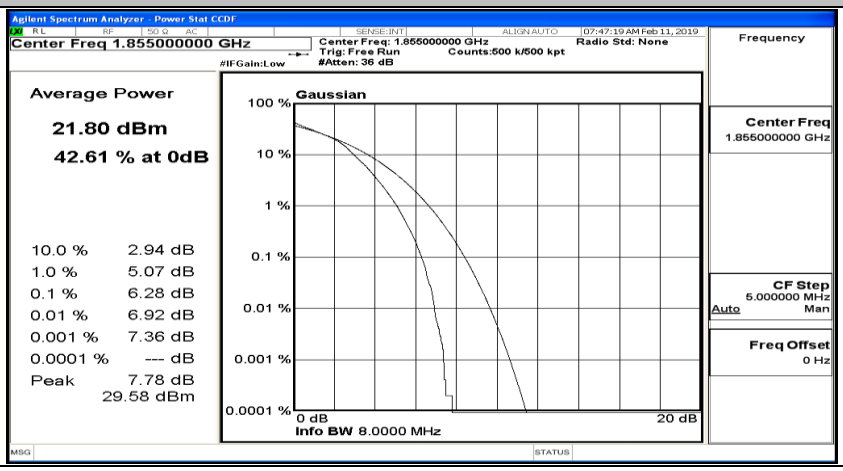
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



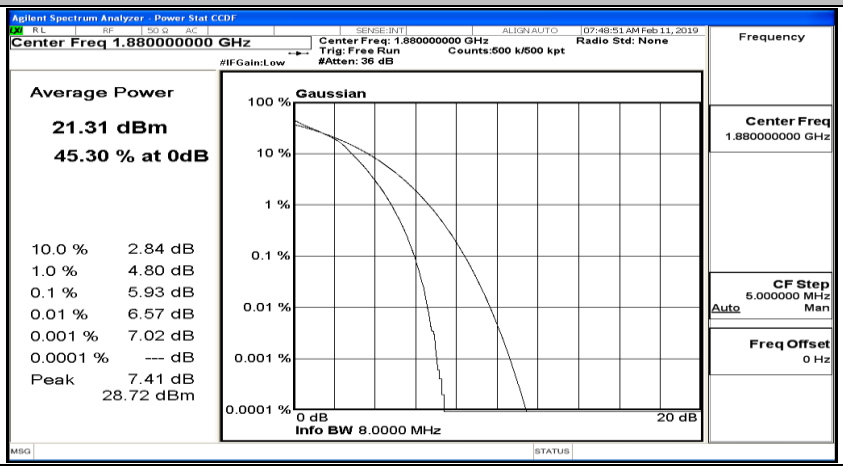
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



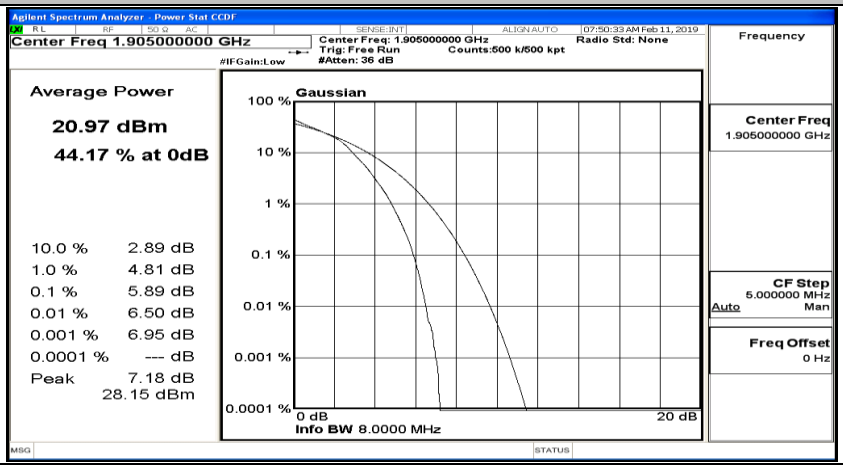
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



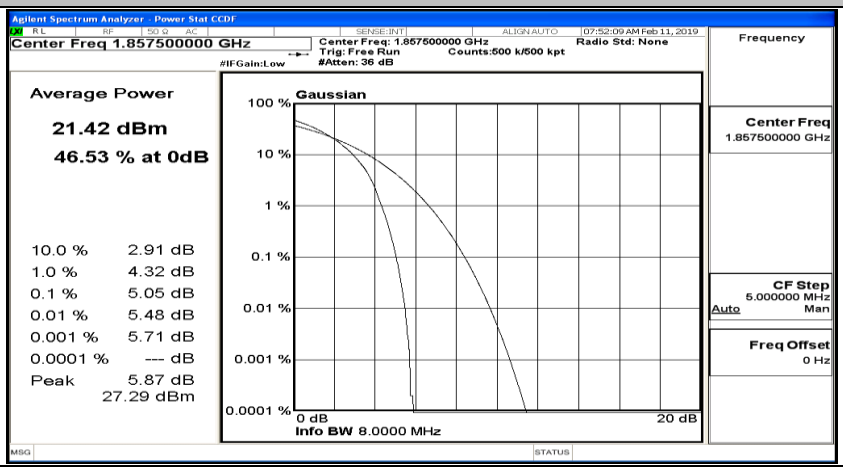
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



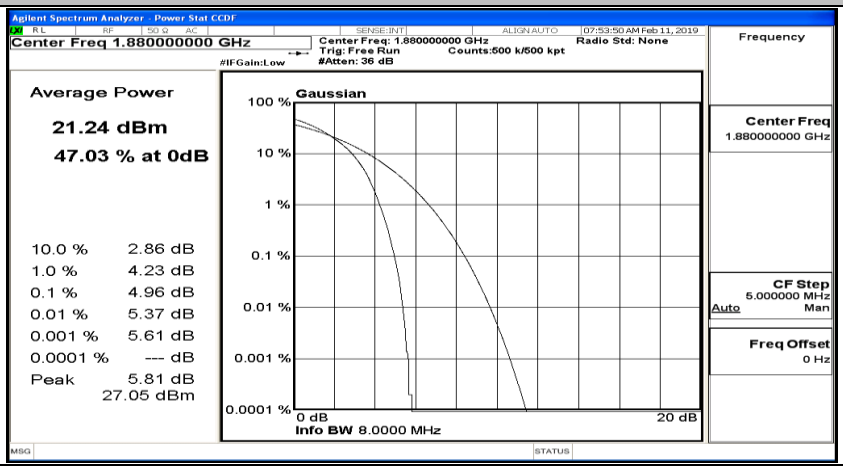
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



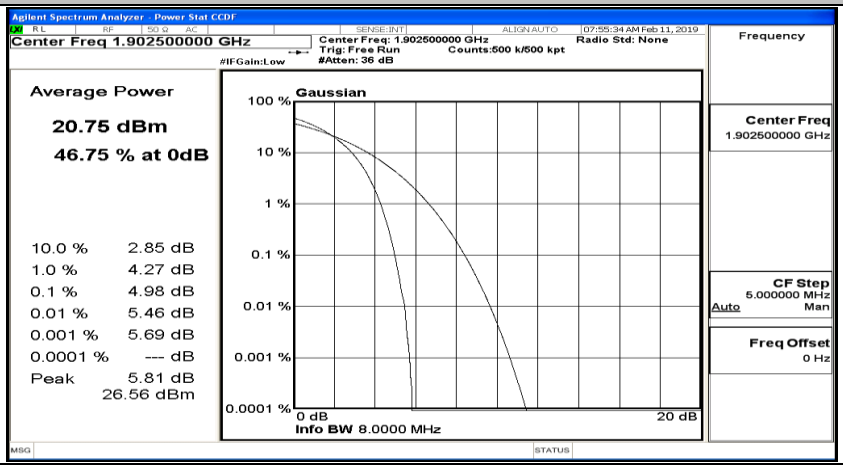
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



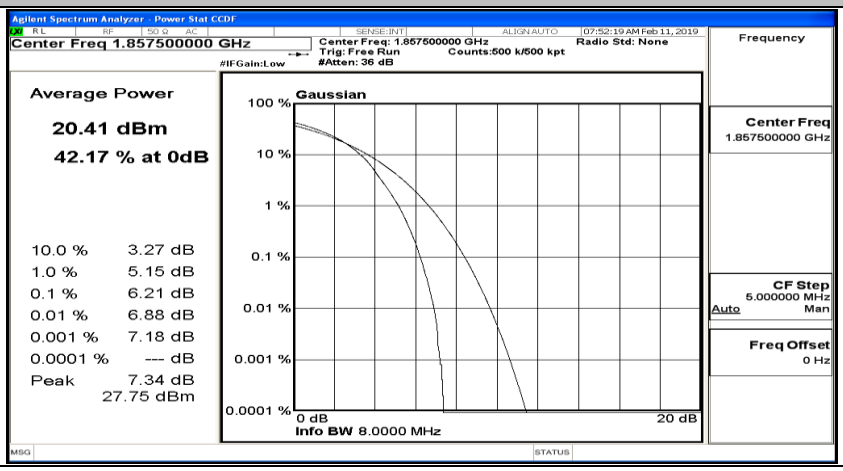
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



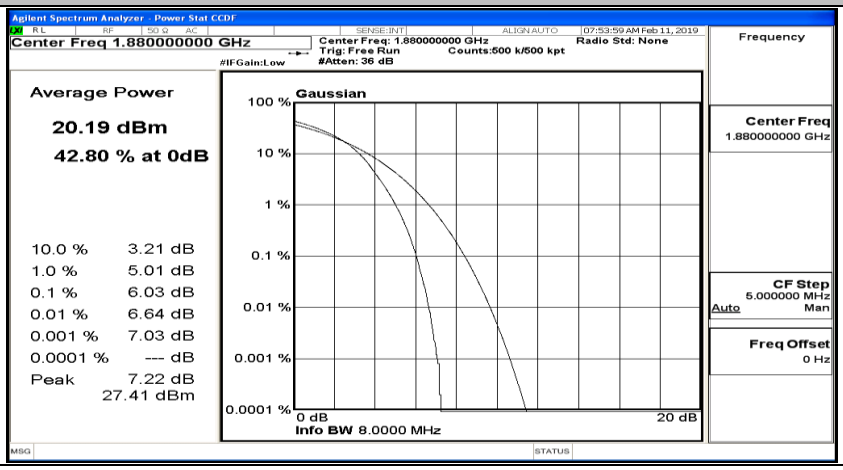
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



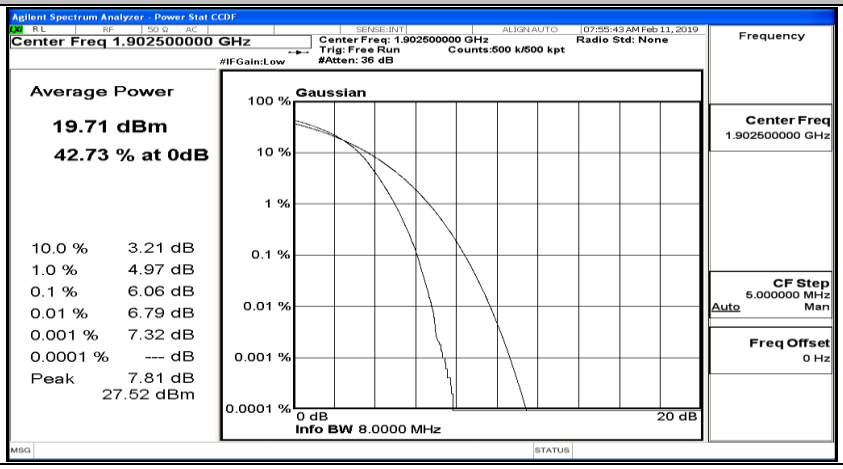
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



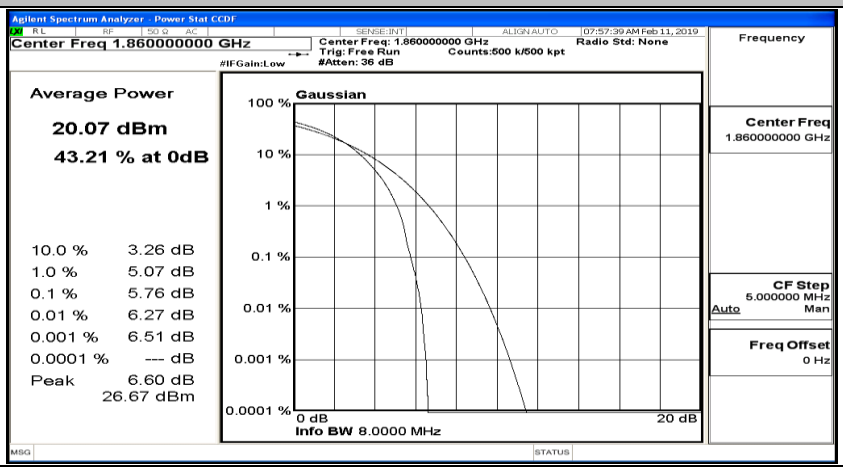
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



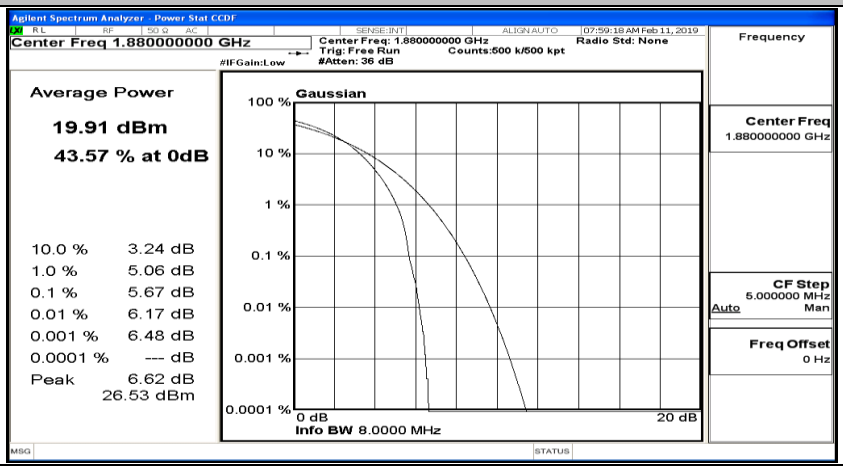
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



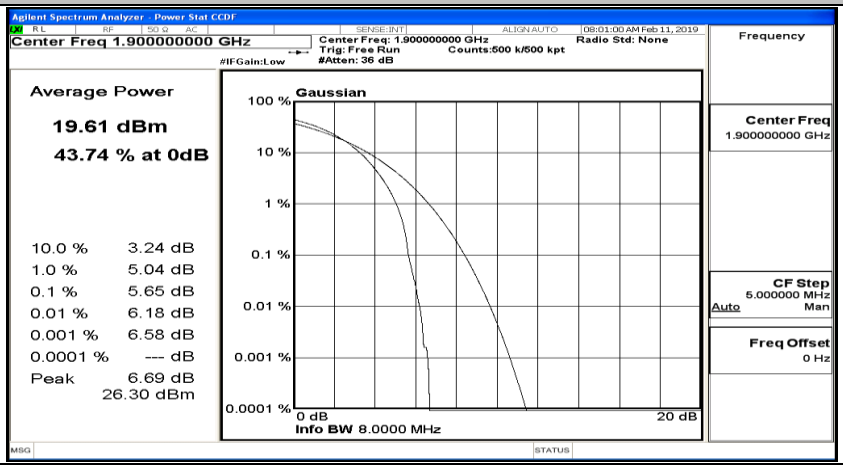
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



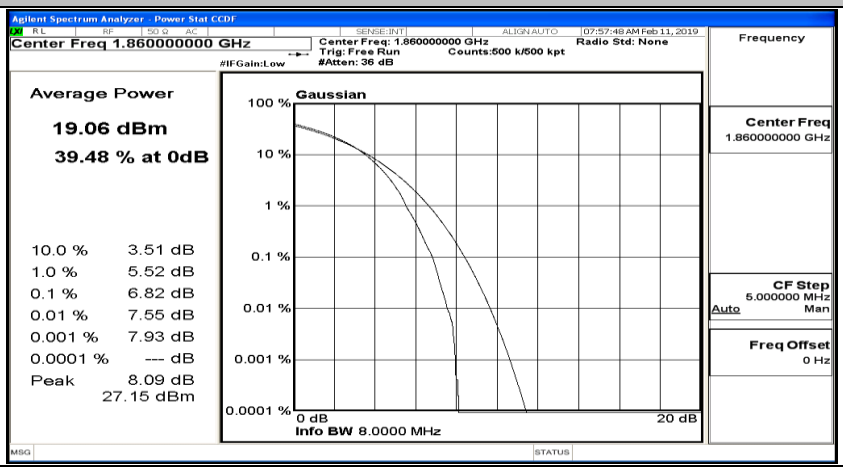
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



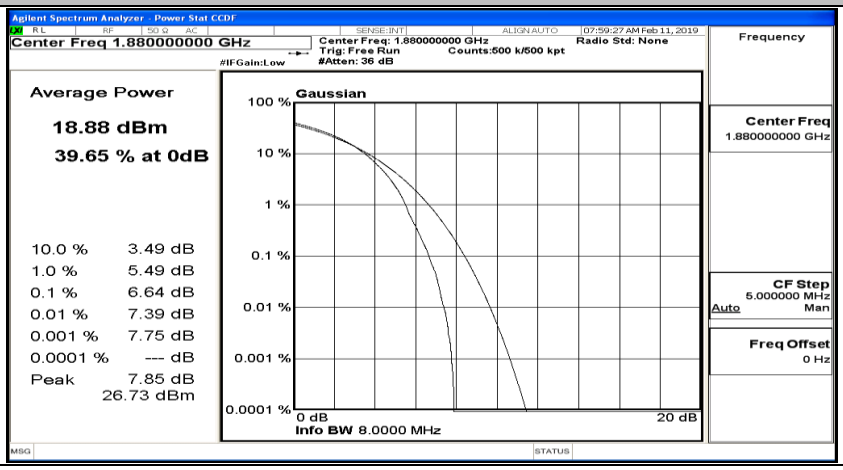
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



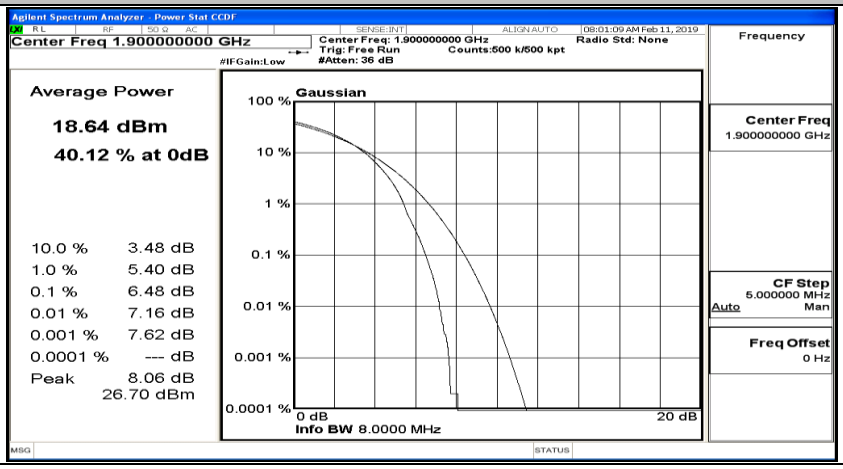
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



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



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	1.0759	1.215	PASS
	MCH	1.0768	1.228	PASS
	HCH	1.0805	1.222	PASS
16QAM	LCH	1.0756	1.220	PASS
	MCH	1.0807	1.204	PASS
	HCH	1.0786	1.219	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6824	2.869	PASS
	MCH	2.6827	2.883	PASS
	HCH	2.6835	2.882	PASS
16QAM	LCH	2.6848	2.870	PASS
	MCH	2.6832	2.866	PASS
	HCH	2.6794	2.864	PASS

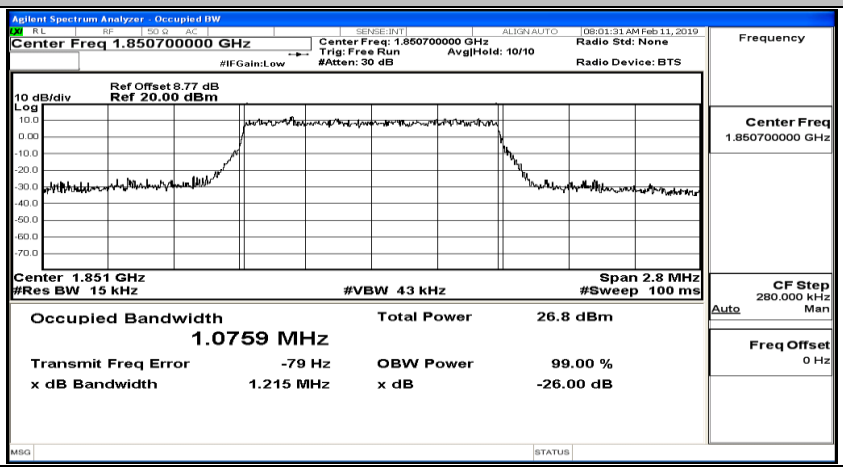
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4757	4.817	PASS
	MCH	4.4752	4.869	PASS
	HCH	4.4785	4.827	PASS
16QAM	LCH	4.4746	4.841	PASS
	MCH	4.4780	4.782	PASS
	HCH	4.4739	4.815	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9530	9.407	PASS
	MCH	8.9423	9.452	PASS
	HCH	8.9455	9.523	PASS
16QAM	LCH	8.9423	9.522	PASS
	MCH	8.9429	9.536	PASS
	HCH	8.9563	9.523	PASS

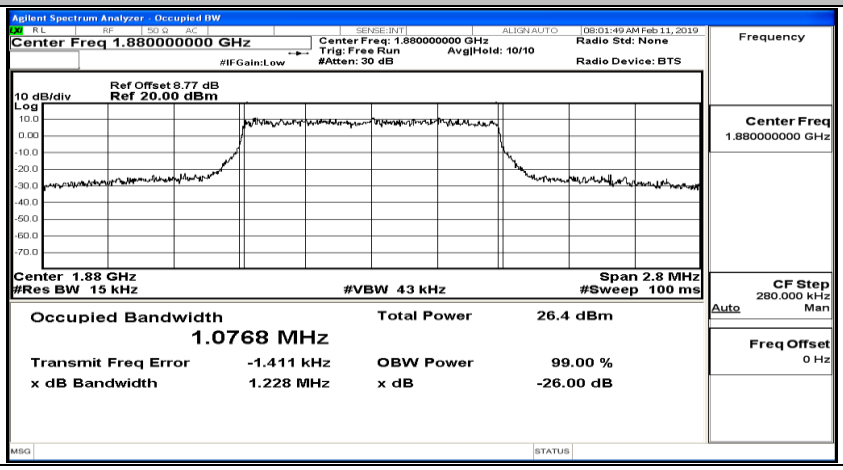
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.429	14.04	PASS
	MCH	13.413	14.10	PASS
	HCH	13.436	17.91	PASS
16QAM	LCH	13.422	14.17	PASS
	MCH	13.401	14.16	PASS
	HCH	13.425	14.09	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.883	18.62	PASS
	MCH	17.881	18.59	PASS
	HCH	17.870	18.70	PASS
16QAM	LCH	17.866	18.66	PASS
	MCH	17.877	18.70	PASS
	HCH	17.896	18.74	PASS

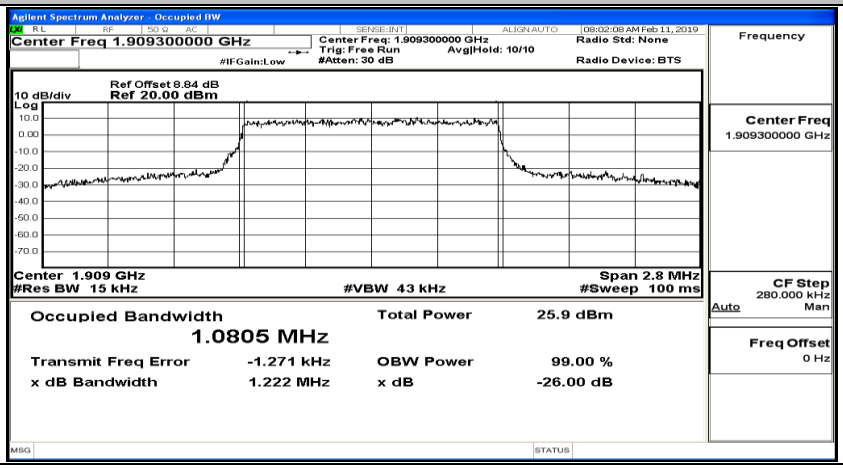
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



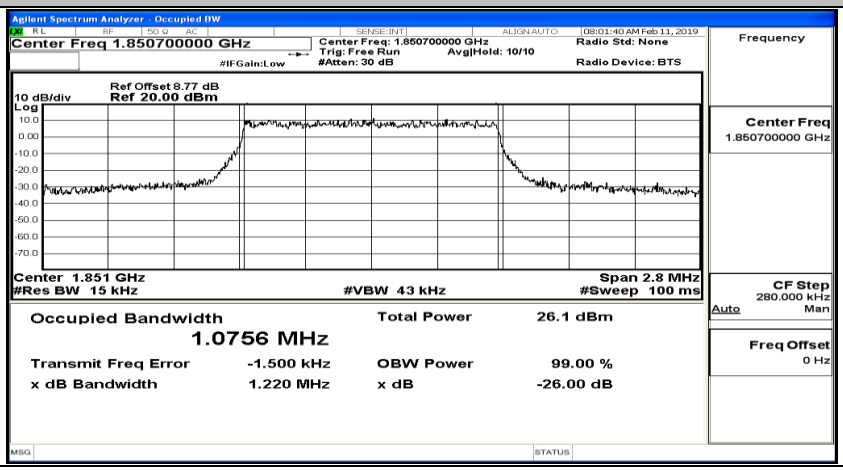
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



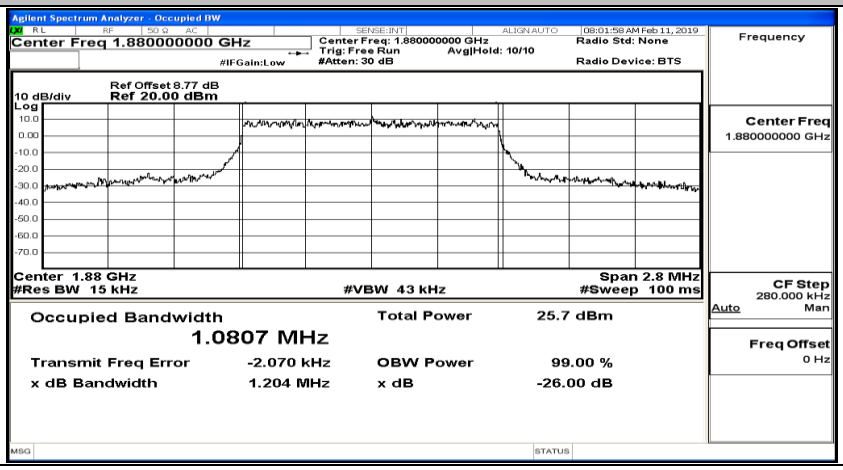
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



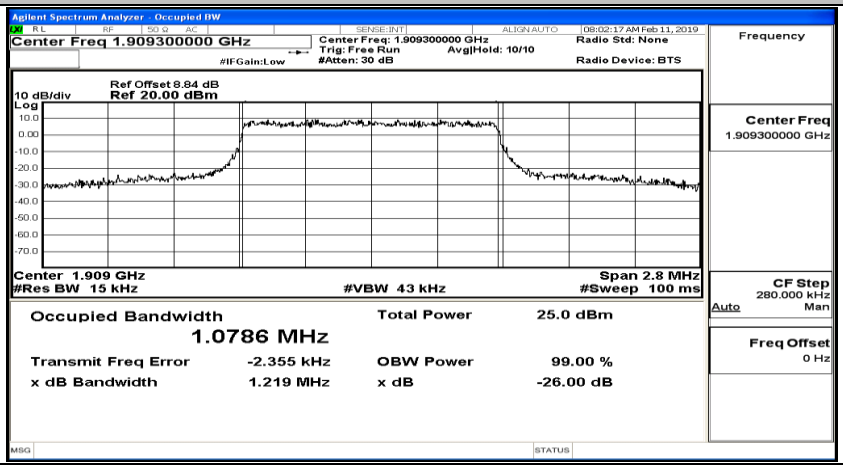
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



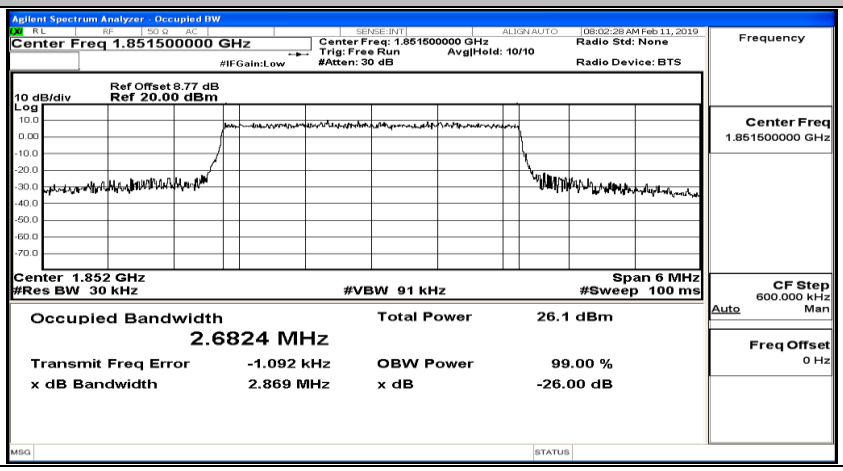
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



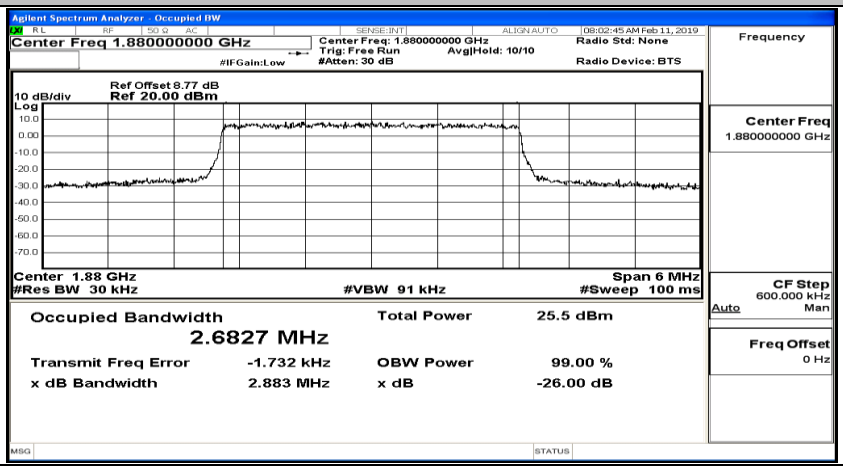
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



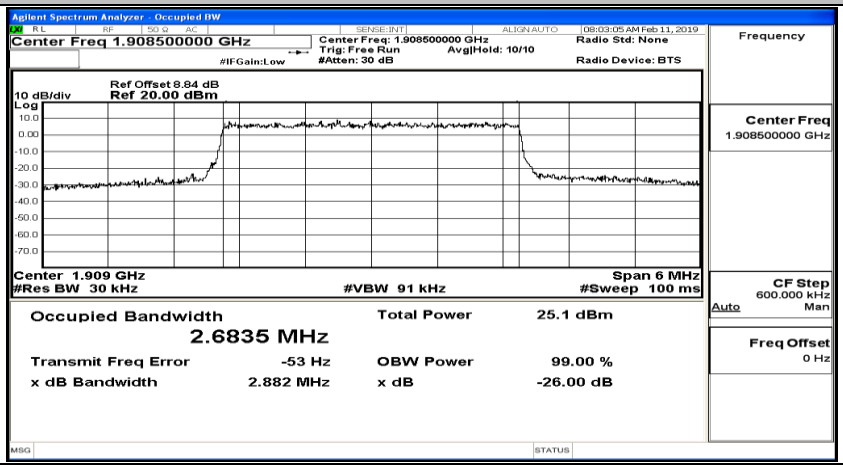
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



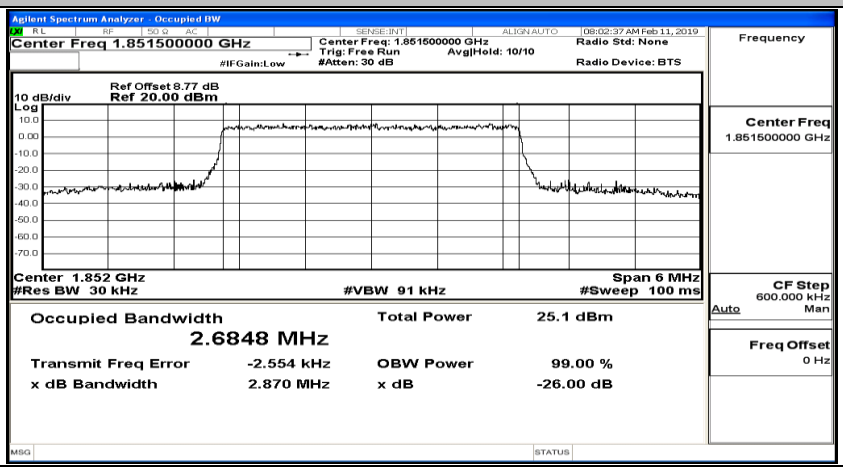
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



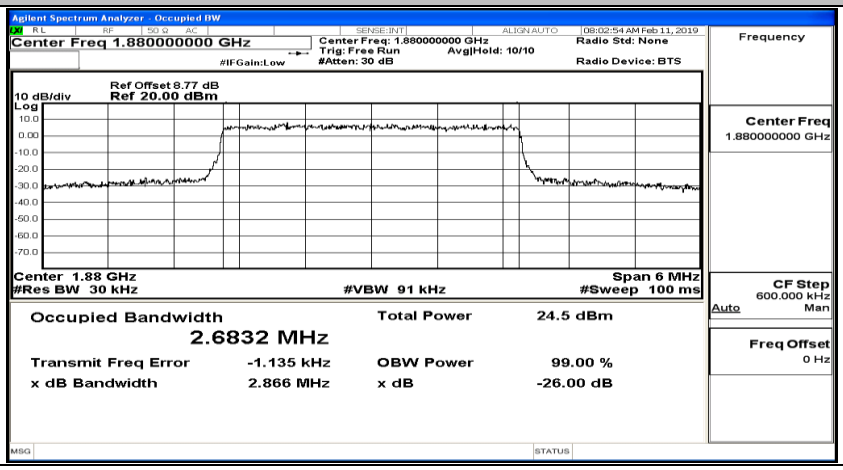
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



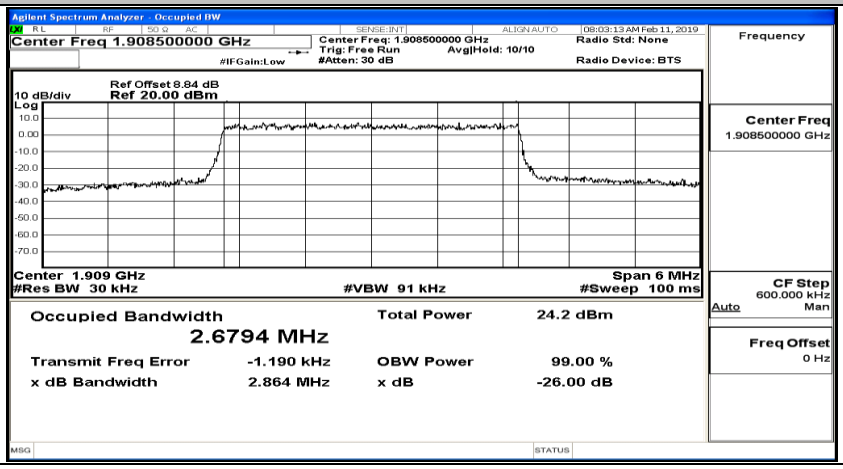
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



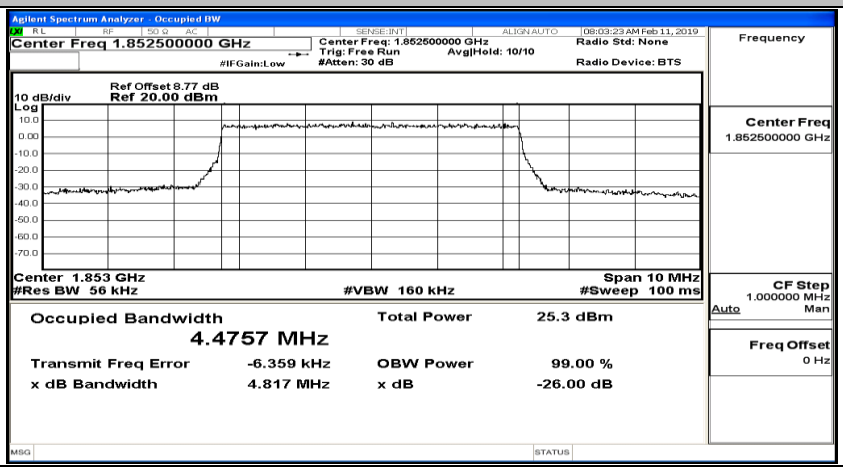
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



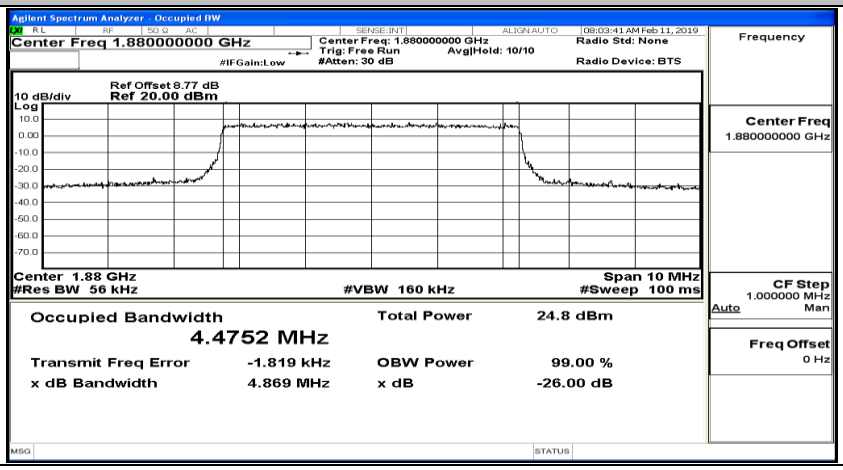
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



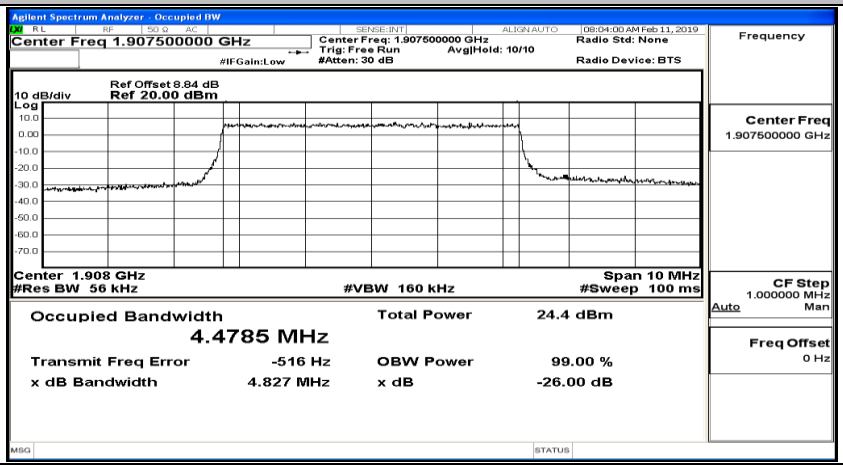
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



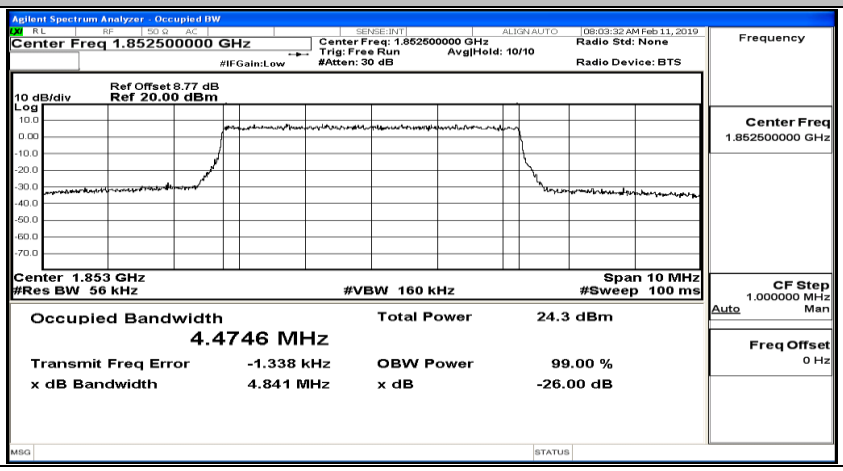
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



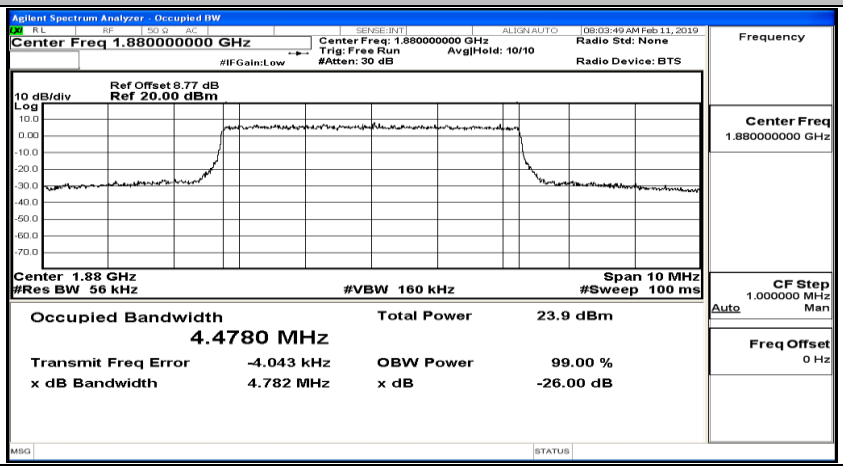
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



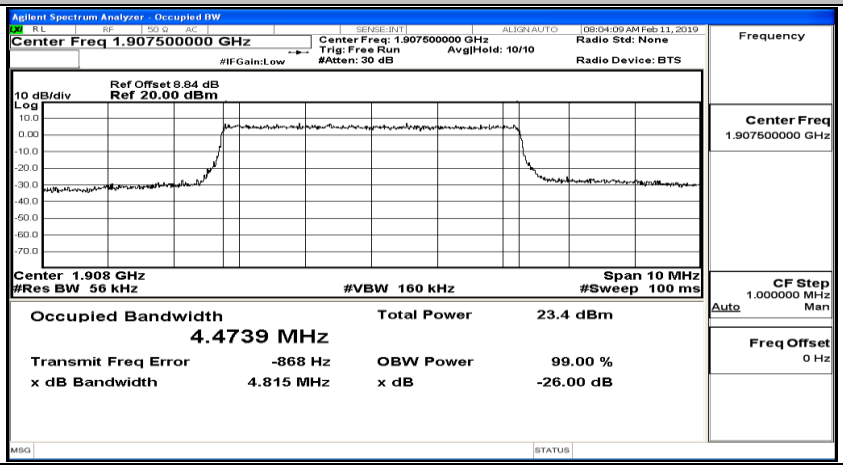
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



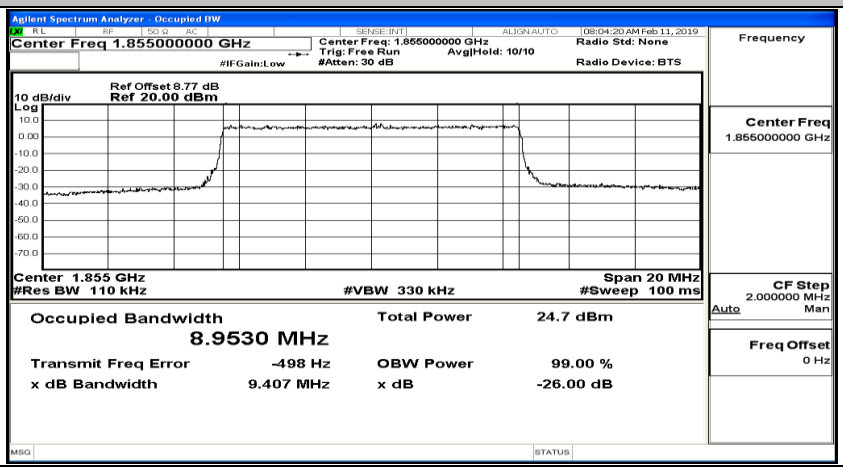
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



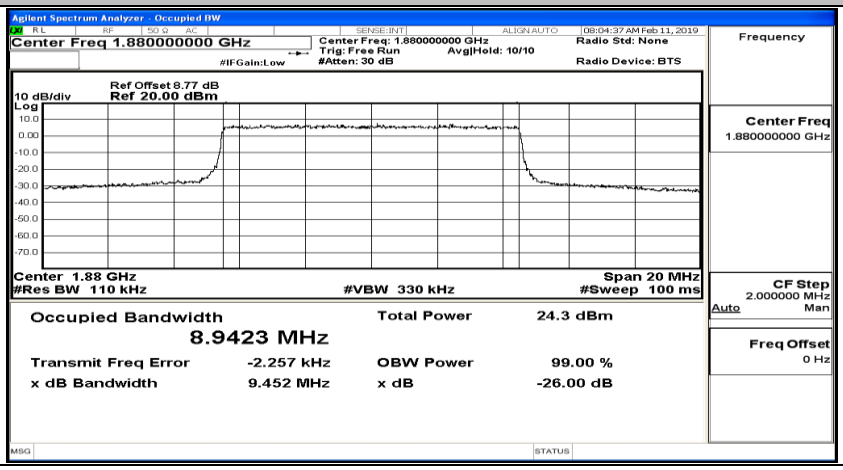
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



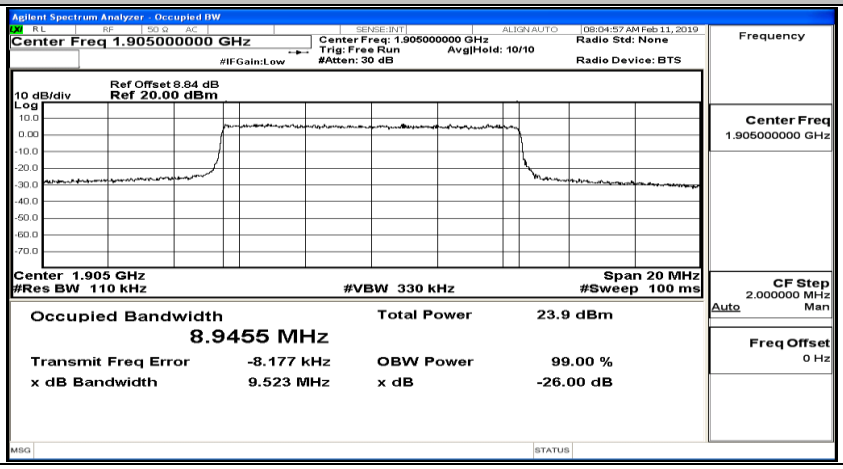
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



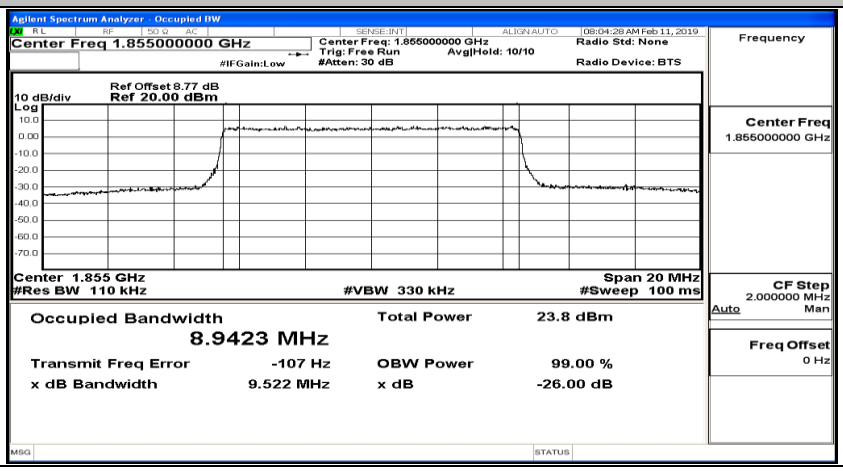
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



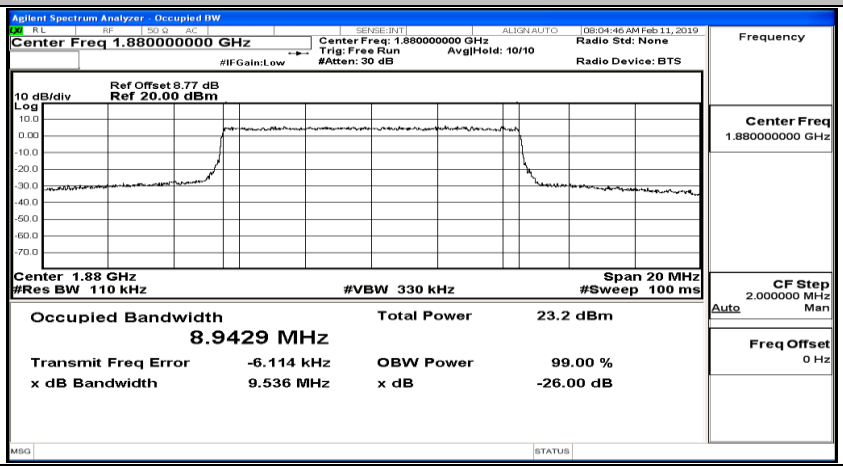
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



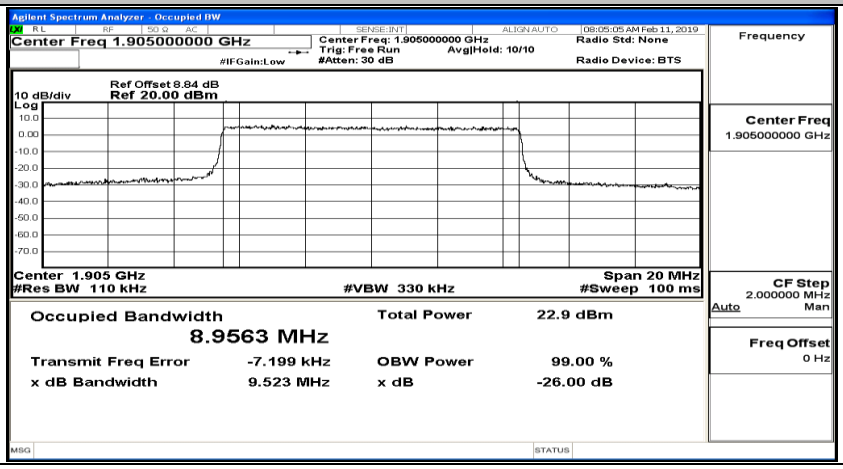
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



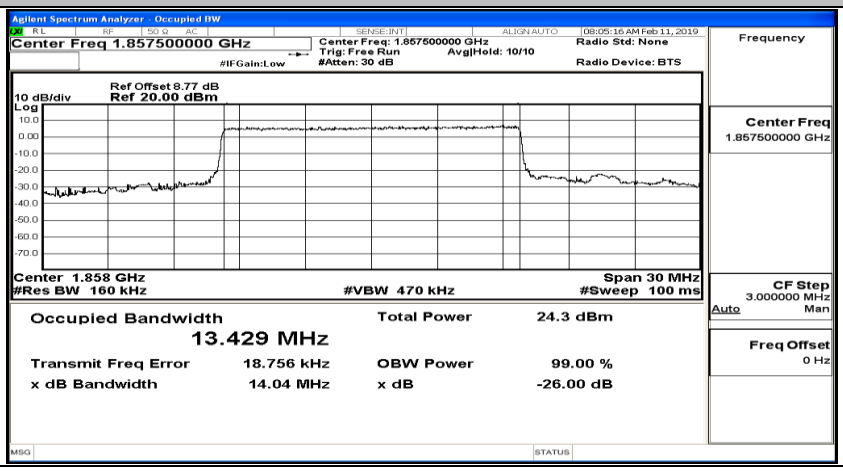
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



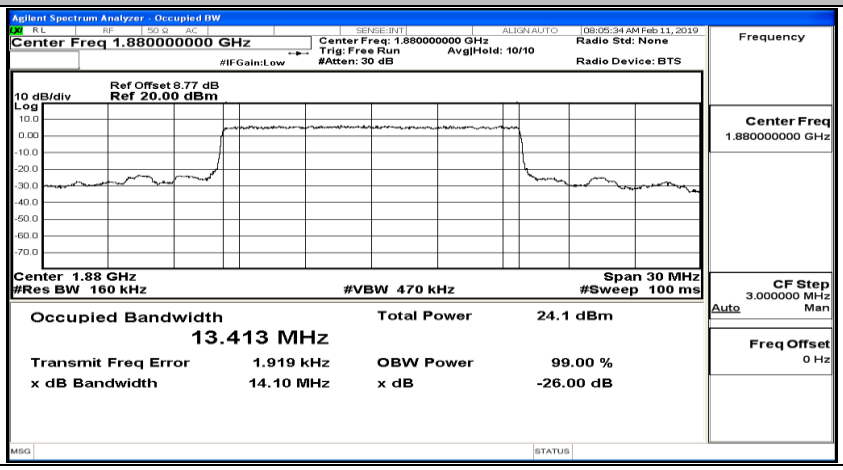
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



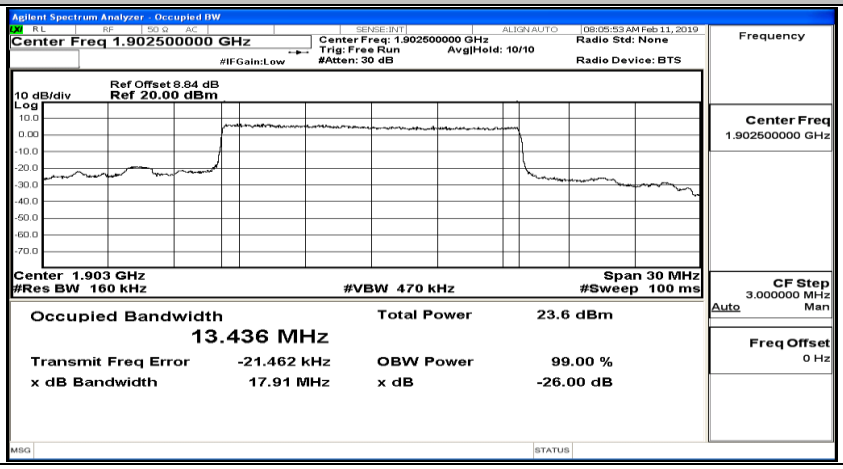
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



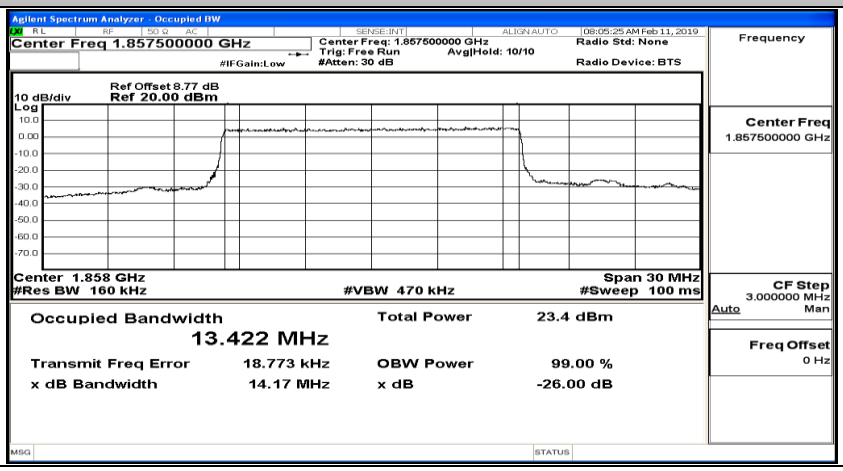
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



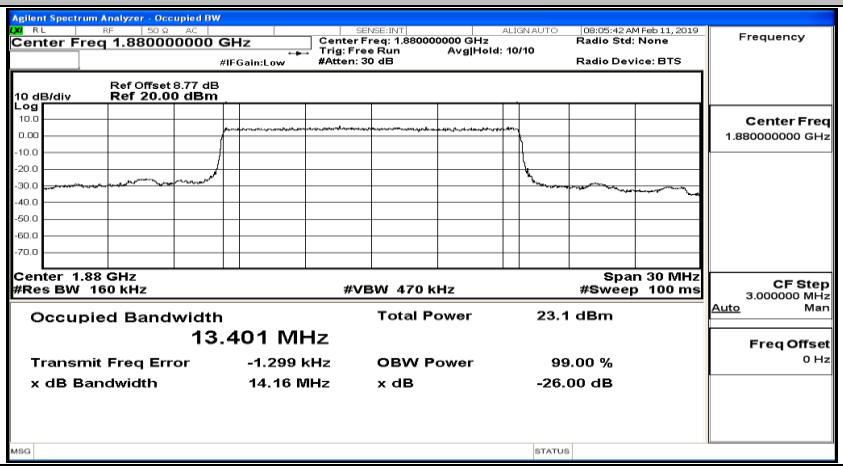
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



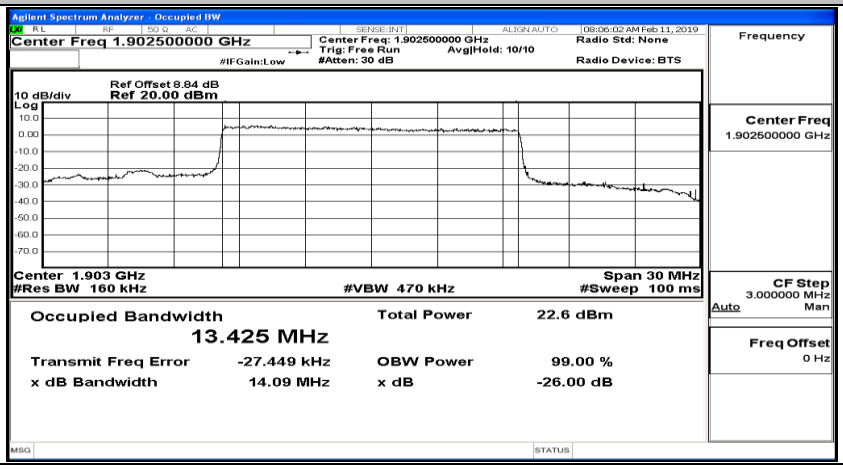
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



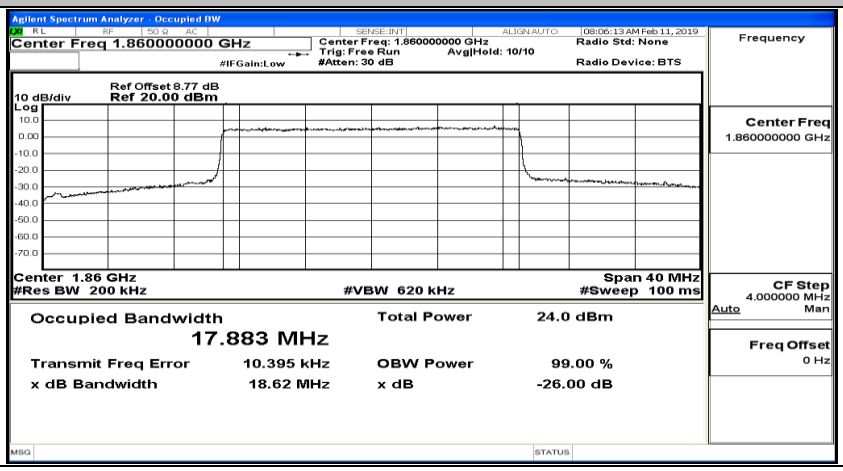
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



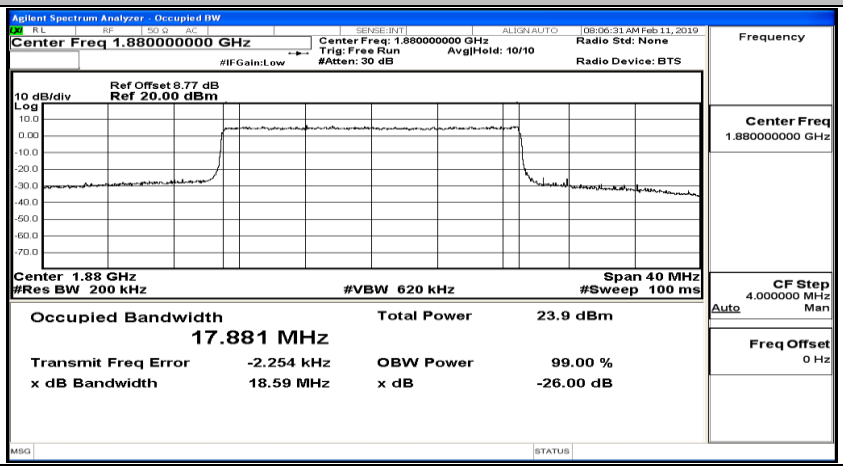
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



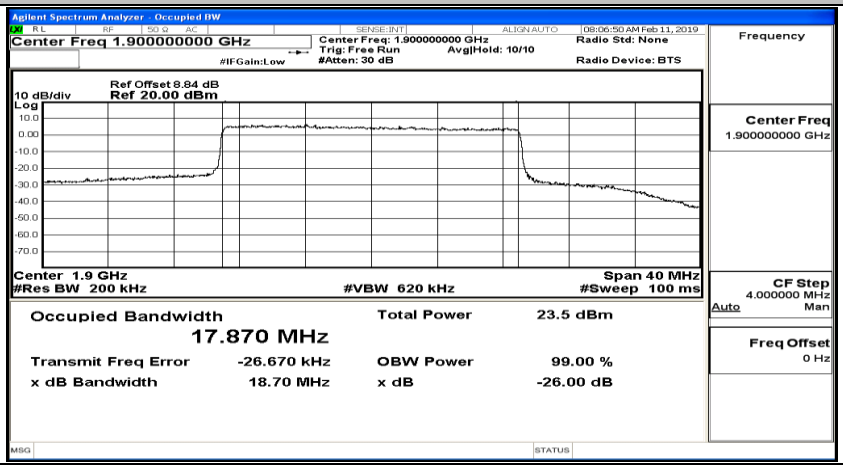
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



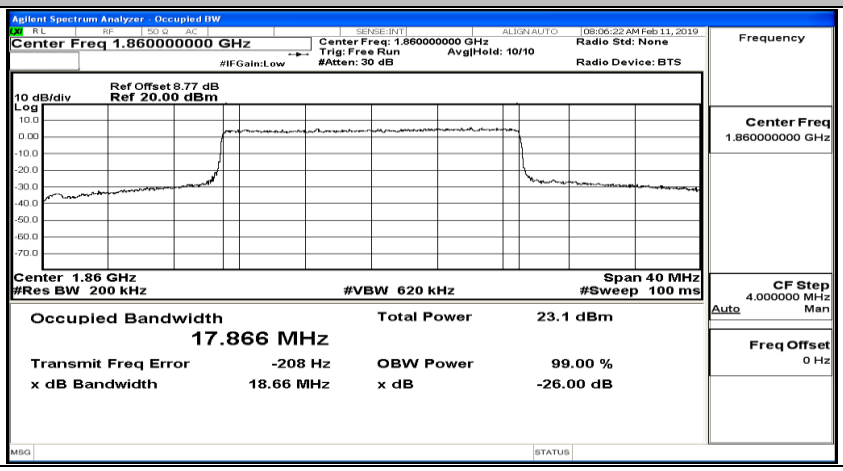
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



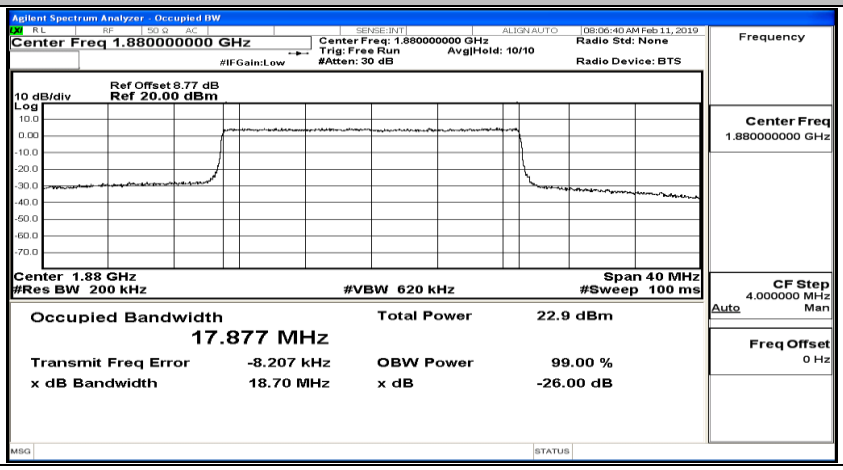
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



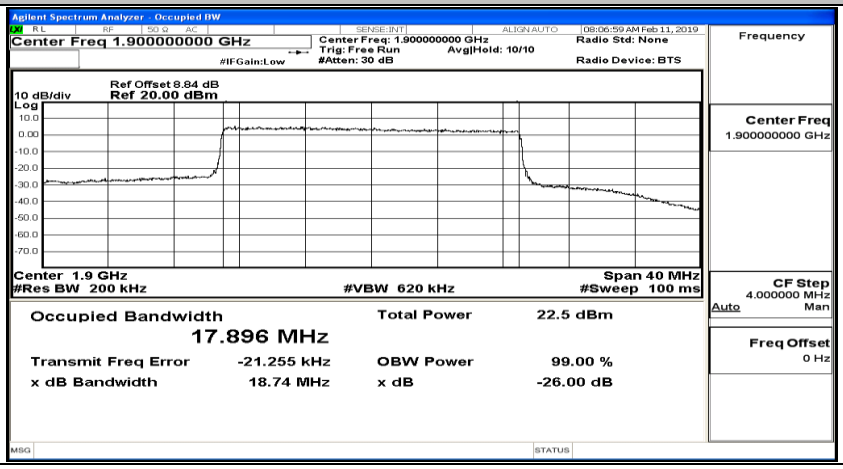
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



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

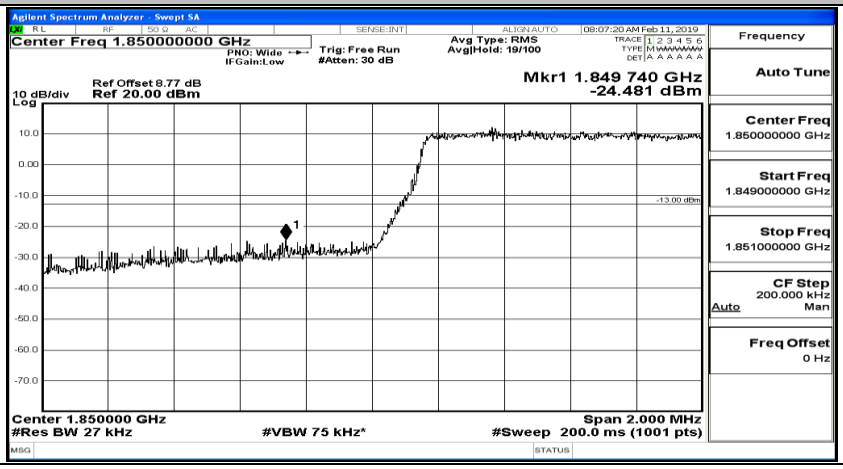


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

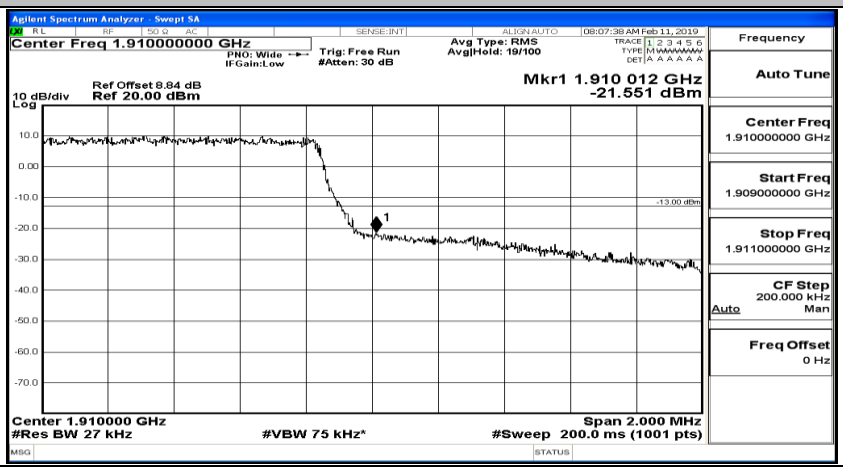


F.4 Band Edge

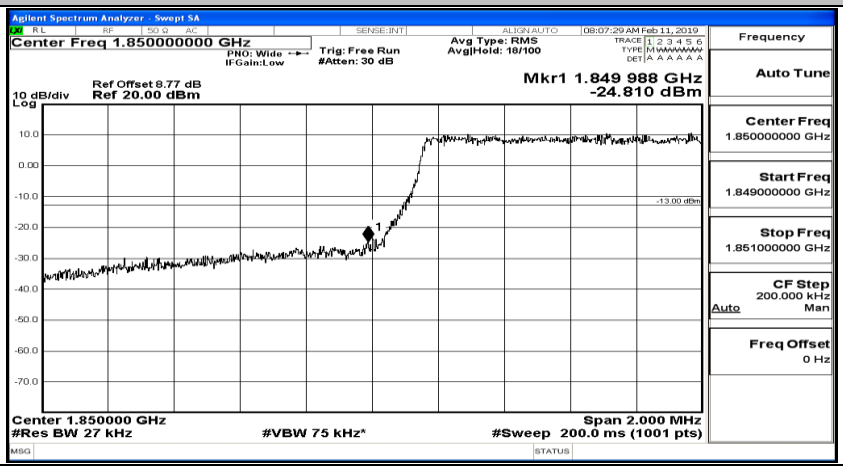
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



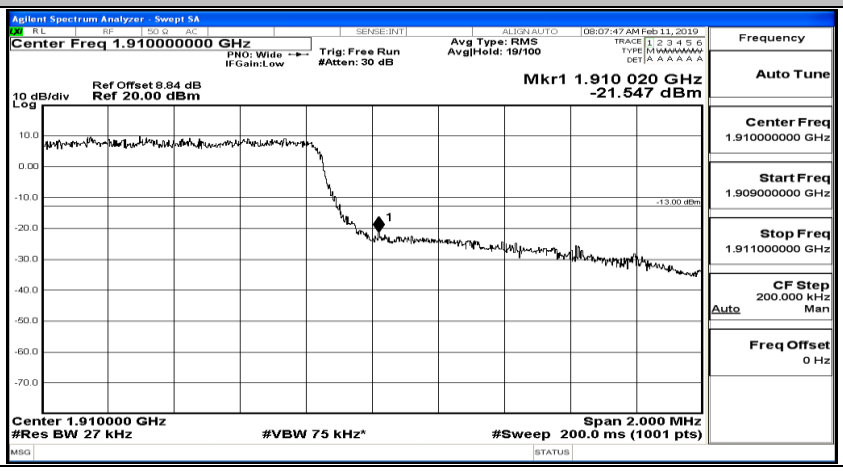
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



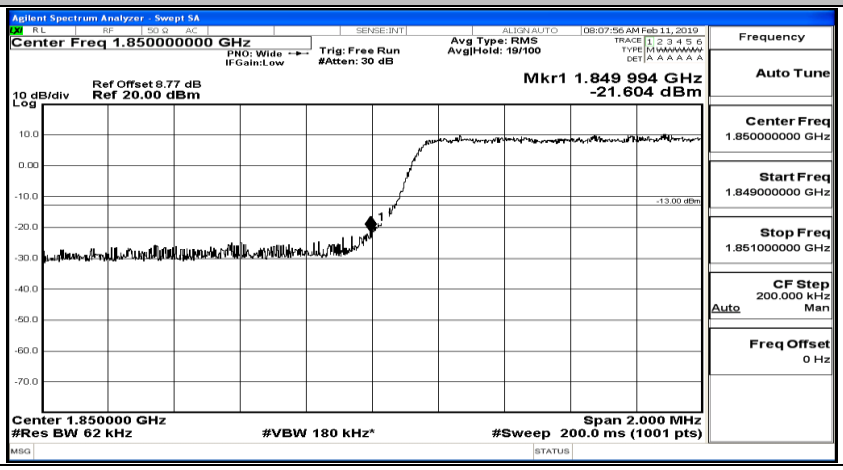
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



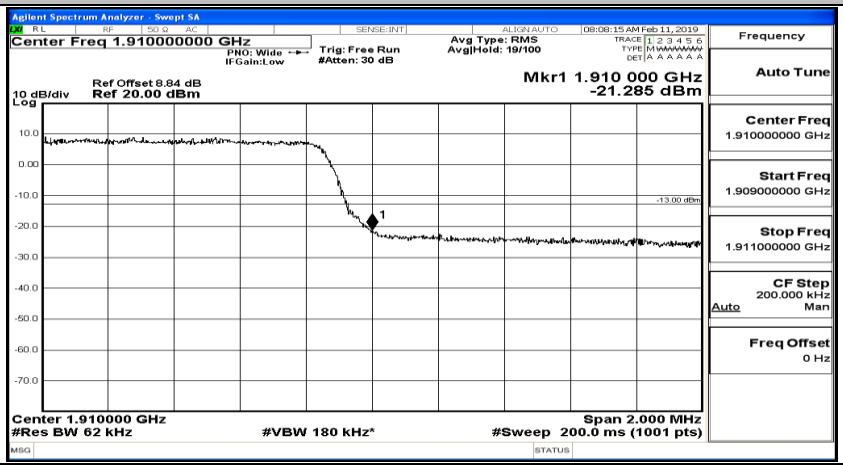
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



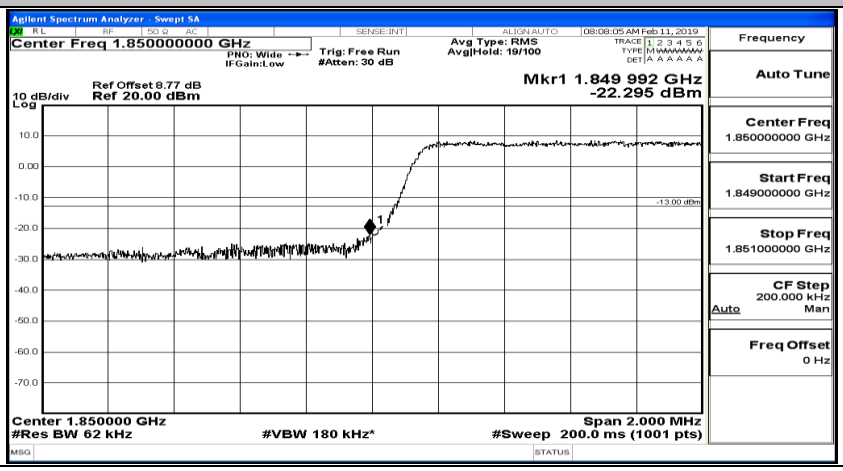
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



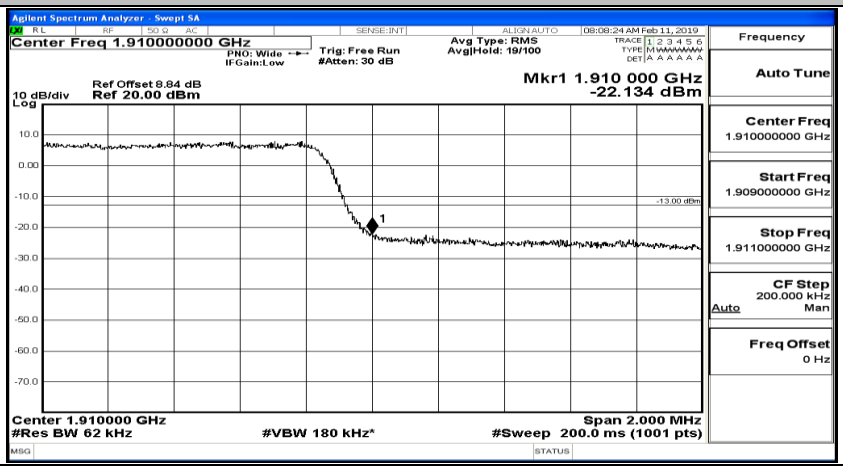
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



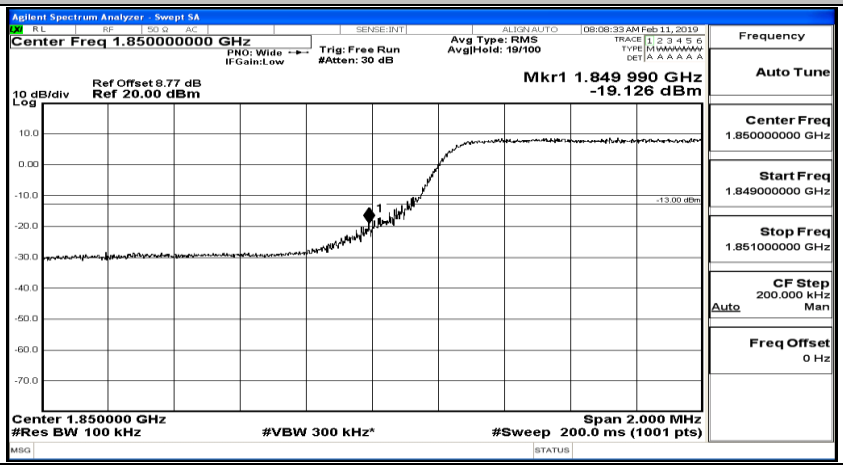
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



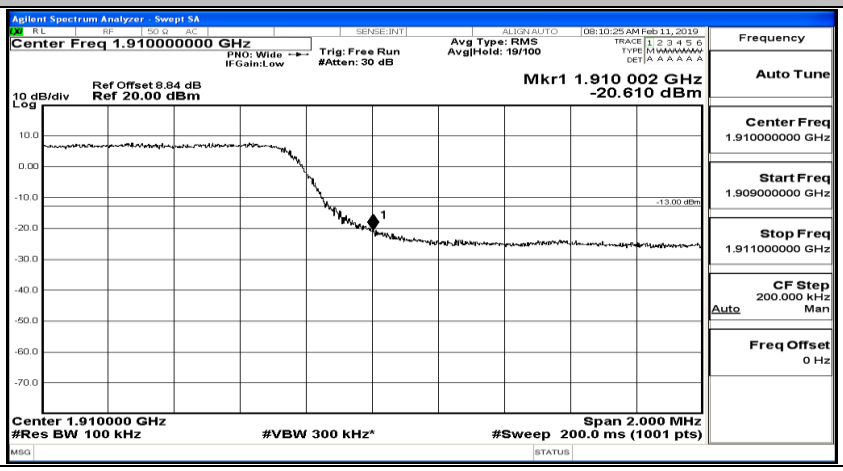
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



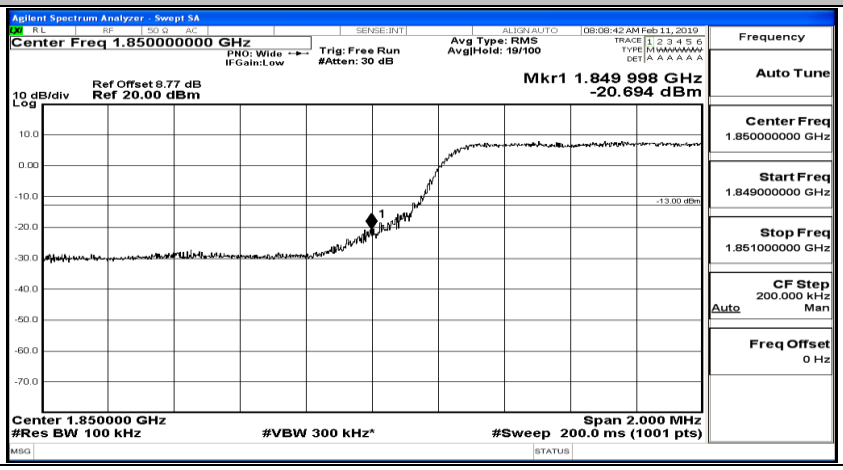
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



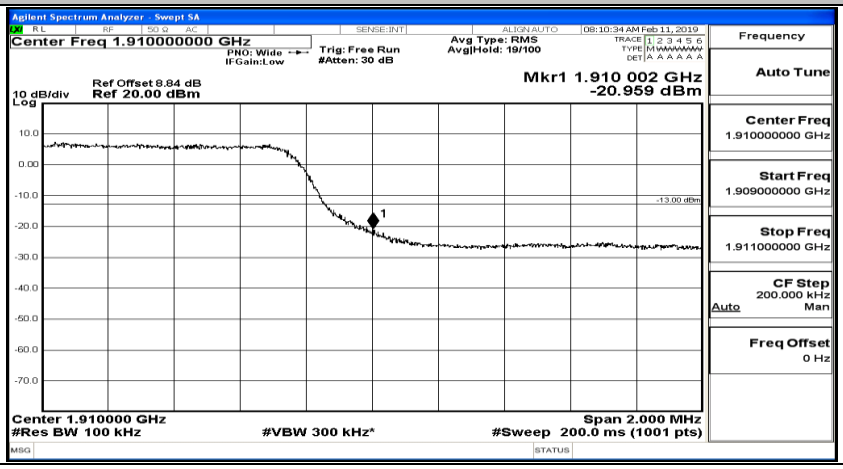
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



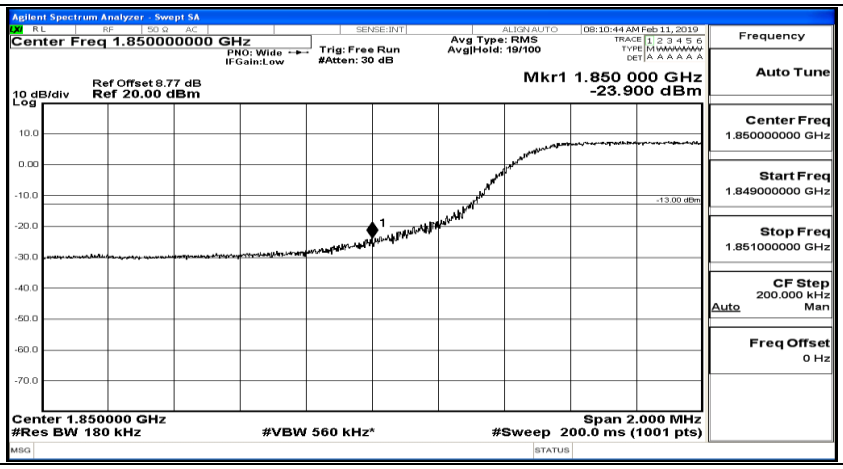
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



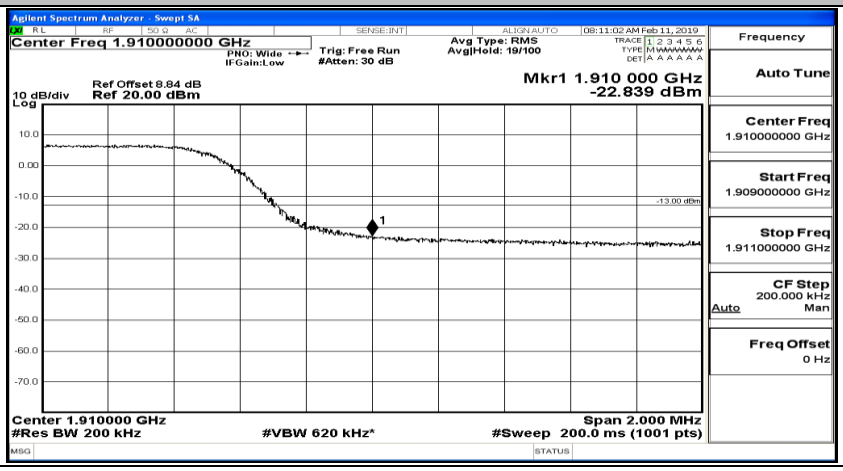
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



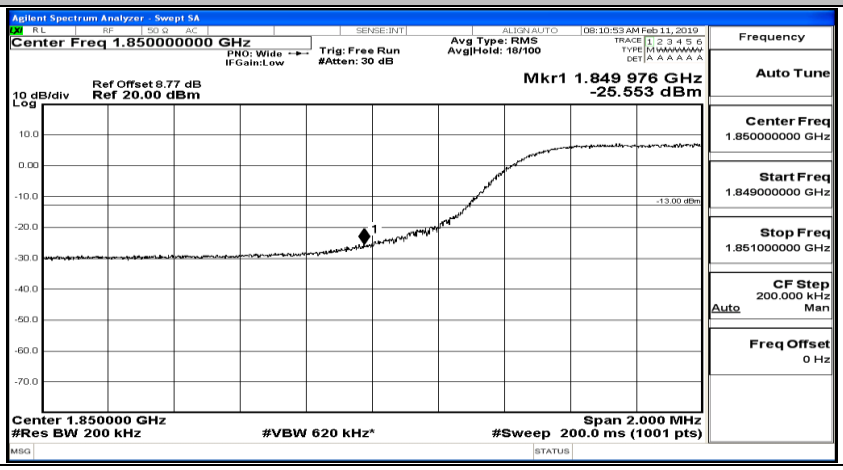
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



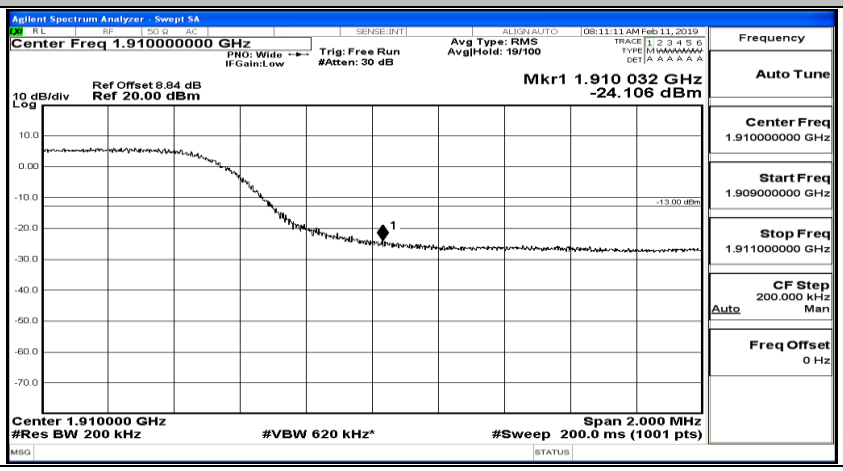
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



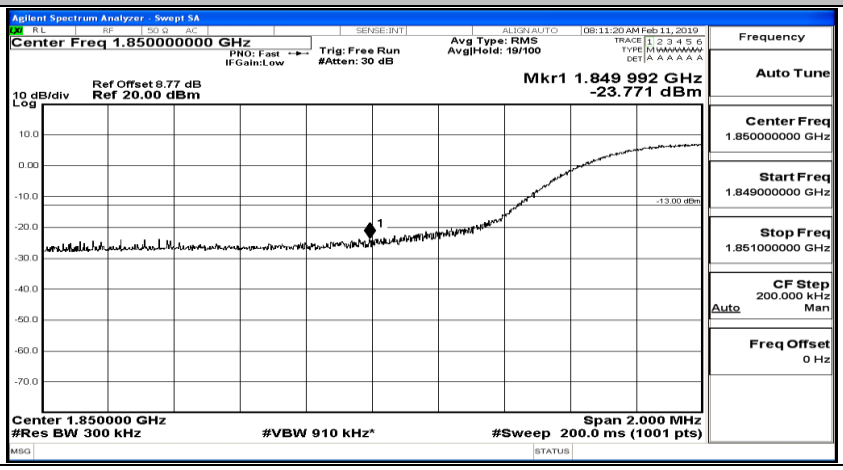
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



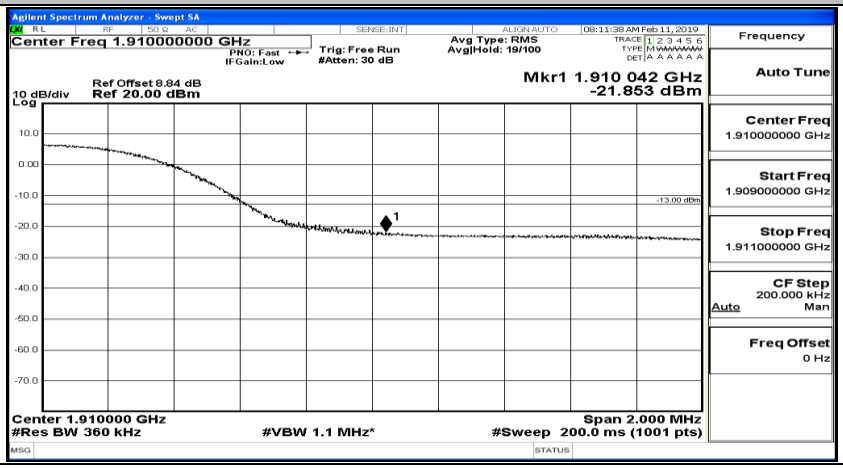
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



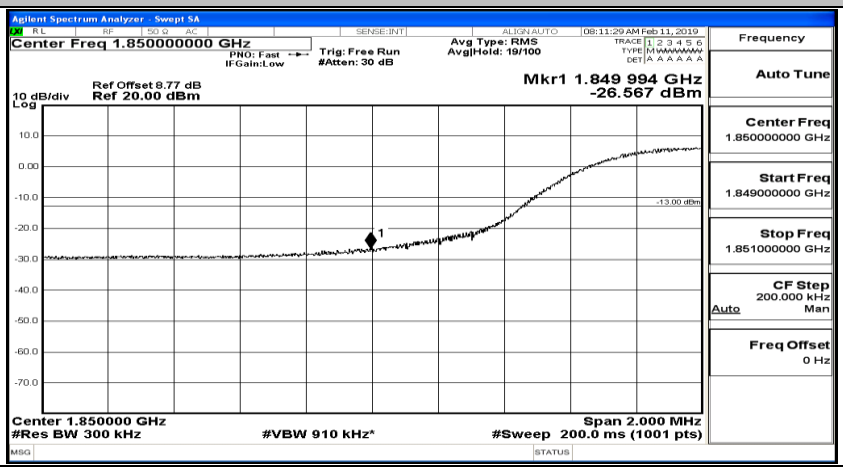
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



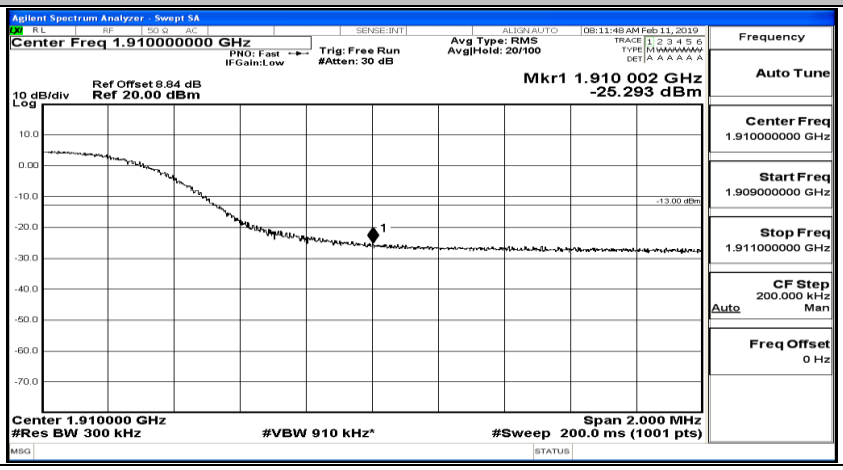
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



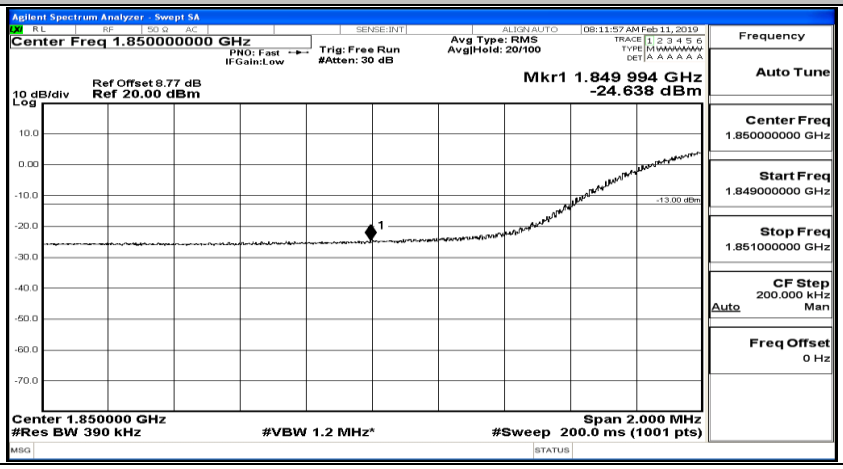
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



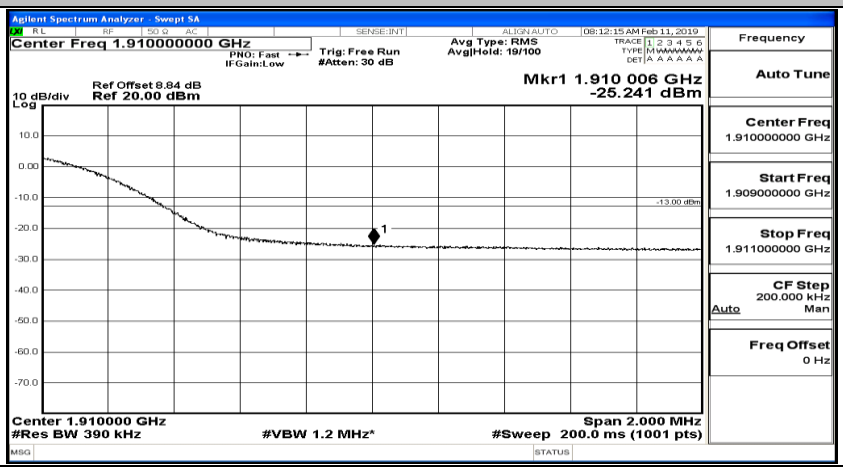
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



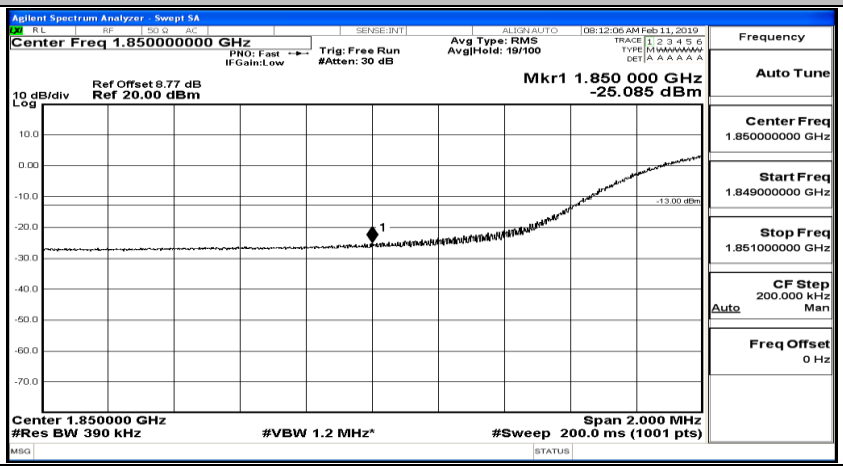
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



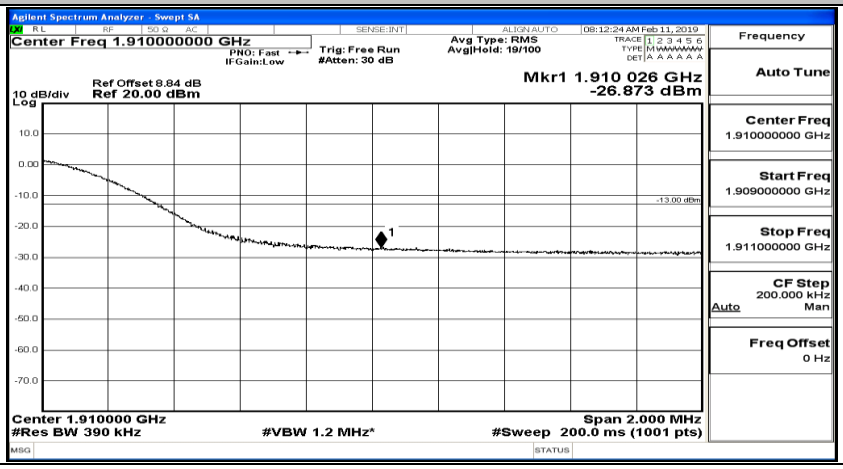
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



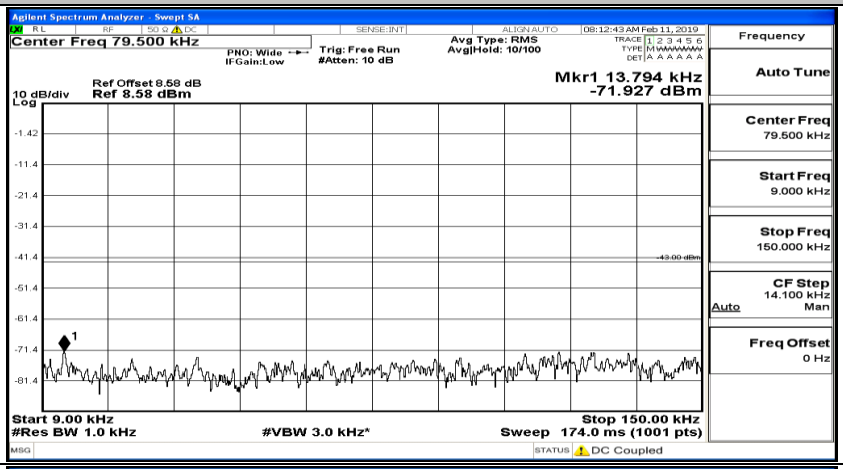
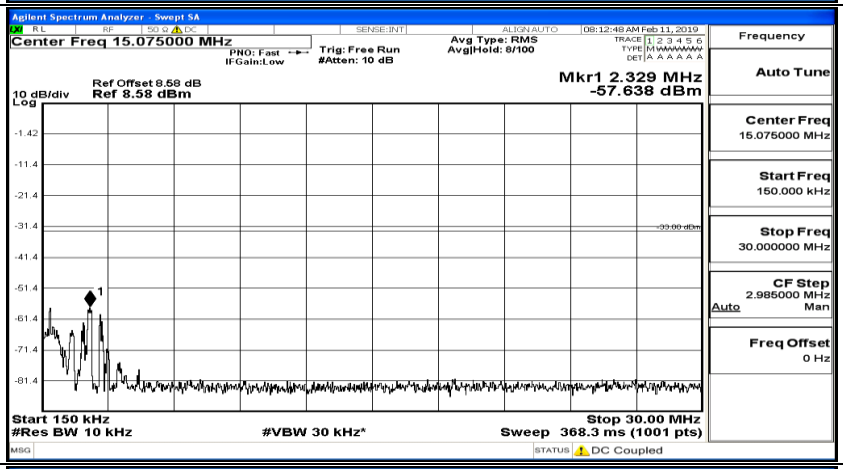
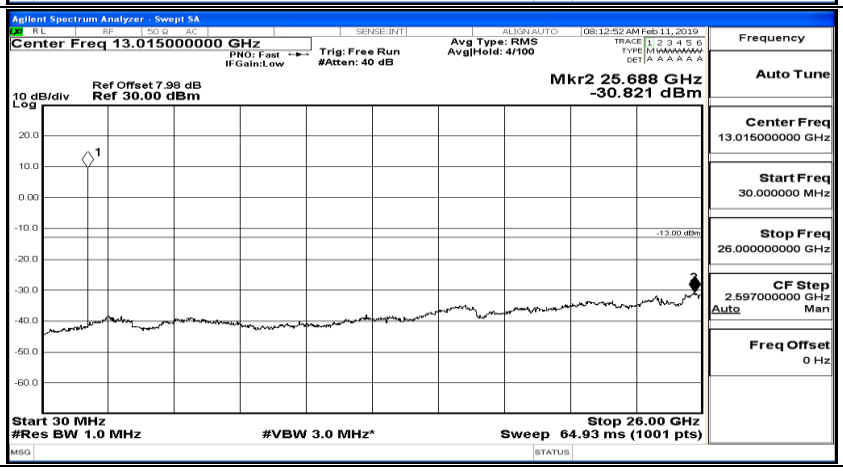
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



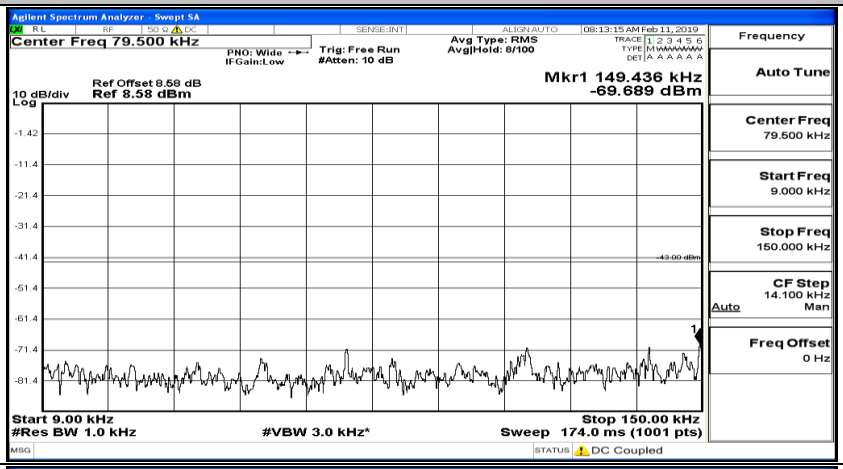
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

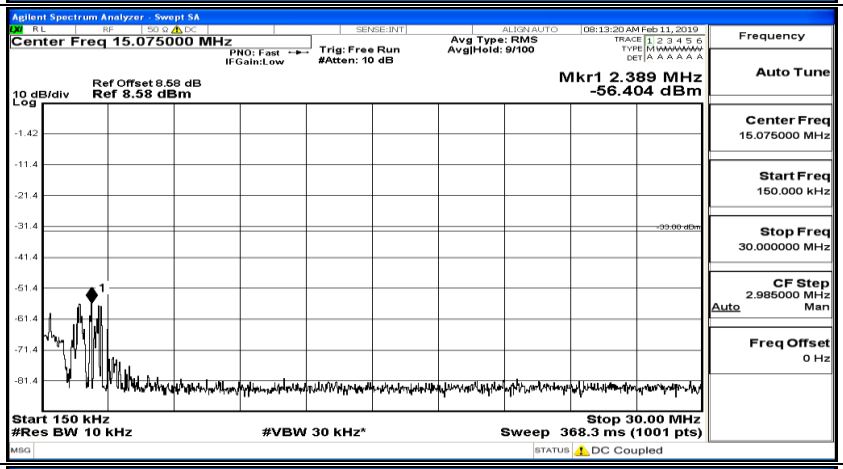


F.5 Conducted Spurious Emission

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




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





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