

Appendix D: Test Data for E-UTRA Band 7

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

D.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]		Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	22.15	21.13	PASS
		1	12	21.81	21.19	PASS
		1	24	21.02	20.51	PASS
		12	0	20.58	19.86	PASS
		12	6	20.53	19.74	PASS
		12	13	20.31	19.48	PASS
		25	0	20.52	19.57	PASS
	MCH	1	0	22.86	21.97	PASS
		1	12	23.10	22.21	PASS
		1	24	22.65	21.72	PASS
		12	0	21.93	21.04	PASS
		12	6	21.93	21.03	PASS
		12	13	21.80	20.86	PASS
		25	0	21.96	20.96	PASS
	HCH	1	0	22.54	21.83	PASS
		1	12	23.01	22.32	PASS
		1	24	23.03	22.04	PASS
		12	0	21.79	20.86	PASS
		12	6	21.94	21.03	PASS
		12	13	21.93	20.98	PASS
		25	0	21.94	21.04	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	21.76	21.12	PASS
		1	24	21.34	20.66	PASS
		1	49	20.83	20.11	PASS
		25	0	20.52	19.54	PASS
		25	12	20.25	19.26	PASS
		25	25	20.14	19.10	PASS
		50	0	20.34	19.33	PASS
	MCH	1	0	22.93	22.27	PASS
		1	24	23.08	22.43	PASS
		1	49	22.47	21.87	PASS
		25	0	22.10	21.10	PASS
		25	12	21.98	20.99	PASS
		25	25	21.85	20.82	PASS
		50	0	21.93	20.97	PASS
	HCH	1	0	22.13	21.50	PASS
		1	24	22.81	22.31	PASS
		1	49	23.02	22.40	PASS
		25	0	21.64	20.70	PASS
		25	12	21.77	20.78	PASS
		25	25	21.97	20.99	PASS
		50	0	21.82	20.83	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	21.68	21.03	PASS
		1	37	21.08	20.34	PASS
		1	74	20.90	20.16	PASS
		37	0	20.24	19.26	PASS
		37	18	20.04	19.02	PASS
		37	38	20.03	18.97	PASS
		75	0	20.16	19.10	PASS
	MCH	1	0	22.69	22.12	PASS
		1	37	23.15	22.41	PASS
		1	74	22.19	21.59	PASS
		37	0	22.00	21.01	PASS
		37	18	21.95	20.95	PASS
		37	38	21.68	20.73	PASS
		75	0	21.86	20.86	PASS
	HCH	1	0	21.58	20.78	PASS
		1	37	22.61	21.76	PASS
		1	74	22.84	22.22	PASS
		37	0	21.18	20.12	PASS
		37	18	21.47	20.47	PASS
		37	38	21.80	20.77	PASS
		75	0	21.48	20.42	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	21.61	20.86	PASS
		1	49	21.13	20.31	PASS
		1	99	21.48	20.61	PASS
		50	0	20.05	18.93	PASS
		50	25	19.99	18.93	PASS
		50	50	20.12	19.10	PASS
		100	0	20.07	19.03	PASS
	MCH	1	0	22.56	21.78	PASS
		1	49	23.21	22.44	PASS
		1	99	22.08	21.27	PASS
		50	0	21.99	20.97	PASS
		50	25	21.96	20.96	PASS
		50	50	21.62	20.59	PASS
		100	0	21.76	20.99	PASS
	HCH	1	0	21.75	21.05	PASS
		1	49	22.63	21.98	PASS
		1	99	22.96	22.41	PASS
		50	0	21.17	20.16	PASS
		50	25	21.51	20.53	PASS
		50	50	21.77	20.82	PASS
		100	0	21.45	20.38	PASS

D.2 Peak-to-Average Ratio

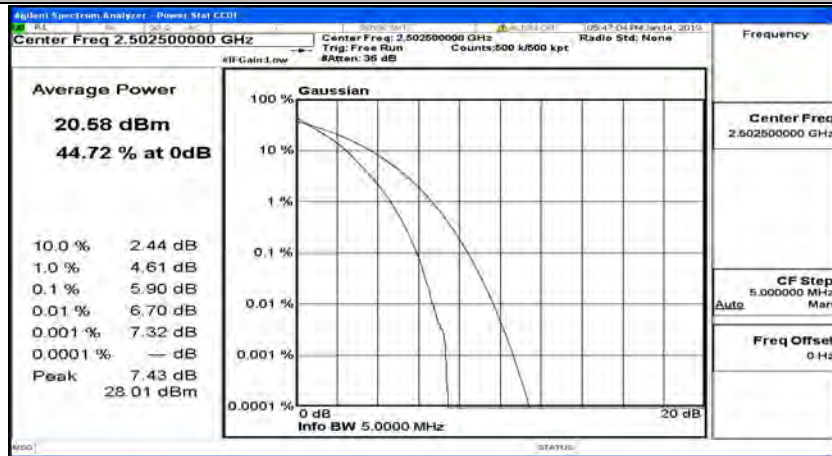
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.9	<13	PASS
	MCH	5.88	<13	PASS
	HCH	5.68	<13	PASS
16QAM	LCH	6.75	<13	PASS
	MCH	6.67	<13	PASS
	HCH	6.52	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.83	<13	PASS
	MCH	5.83	<13	PASS
	HCH	5.68	<13	PASS
16QAM	LCH	6.51	<13	PASS
	MCH	6.58	<13	PASS
	HCH	6.41	<13	PASS

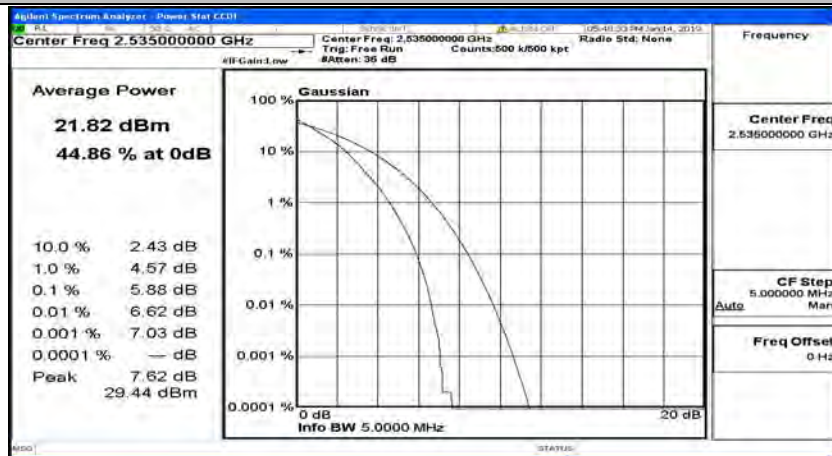
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.08	<13	PASS
	MCH	5.01	<13	PASS
	HCH	5.04	<13	PASS
16QAM	LCH	6.32	<13	PASS
	MCH	6.34	<13	PASS
	HCH	6.28	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.72	<13	PASS
	MCH	5.68	<13	PASS
	HCH	5.78	<13	PASS
16QAM	LCH	6.73	<13	PASS
	MCH	6.78	<13	PASS
	HCH	6.77	<13	PASS

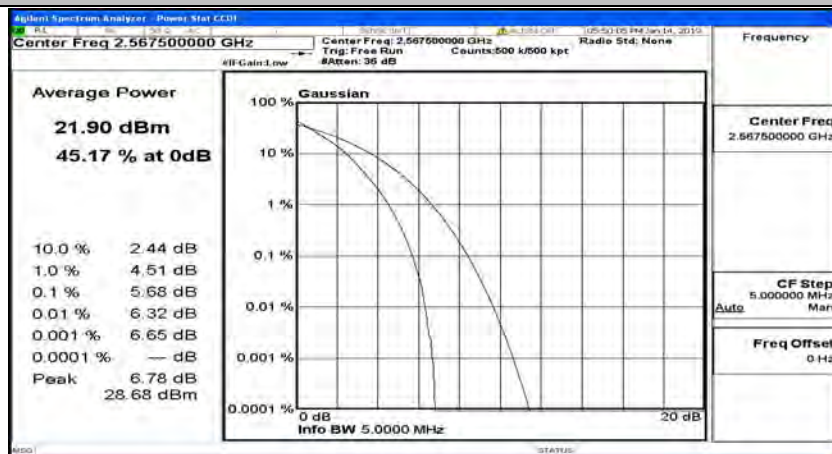
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



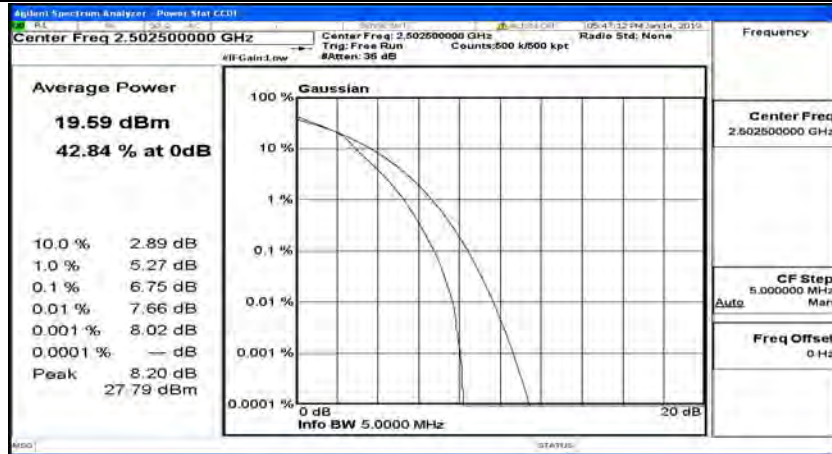
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



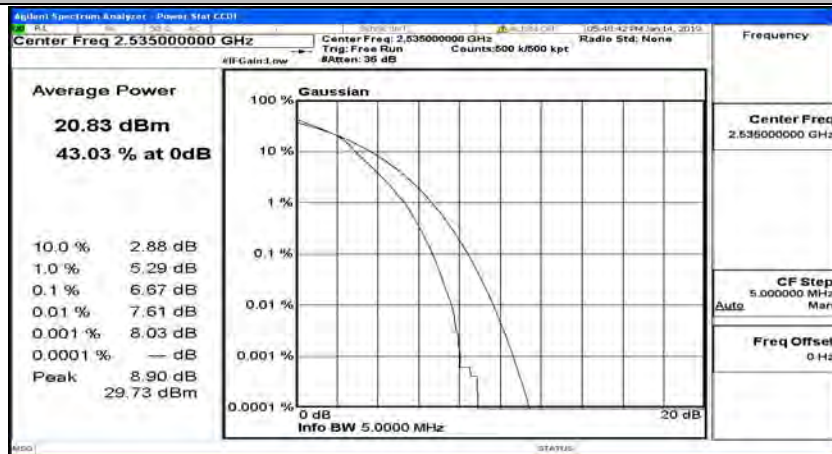
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



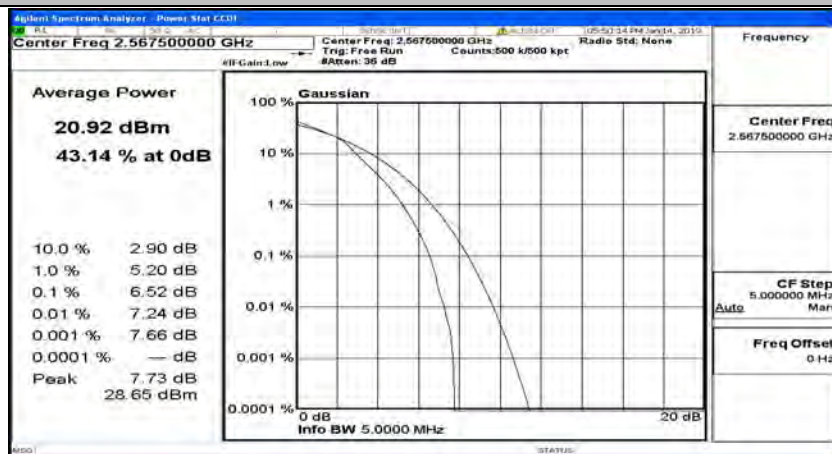
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



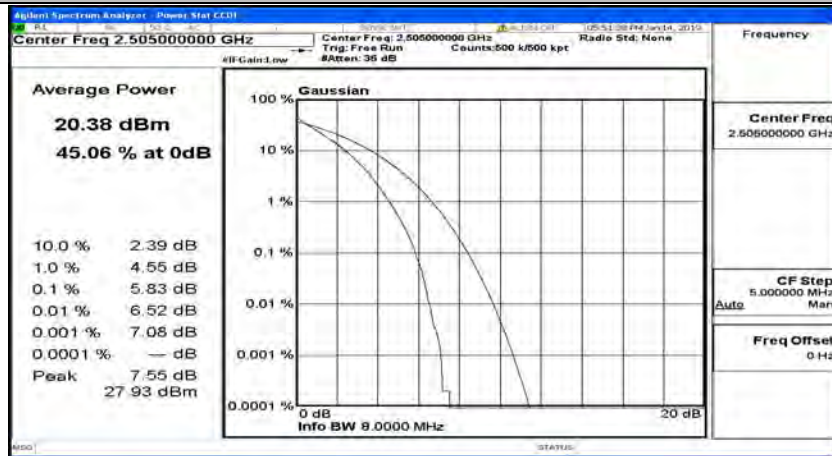
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



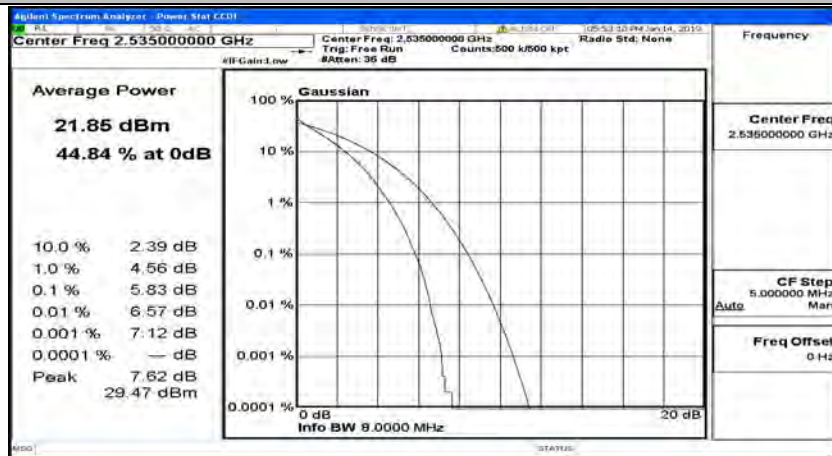
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



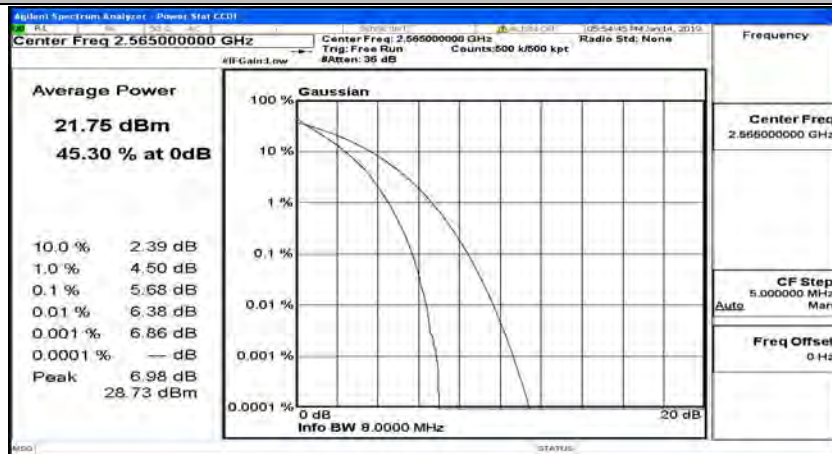
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



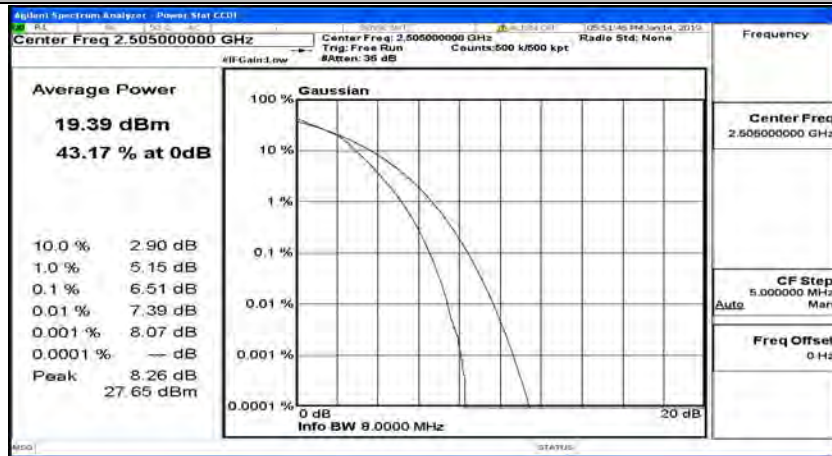
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



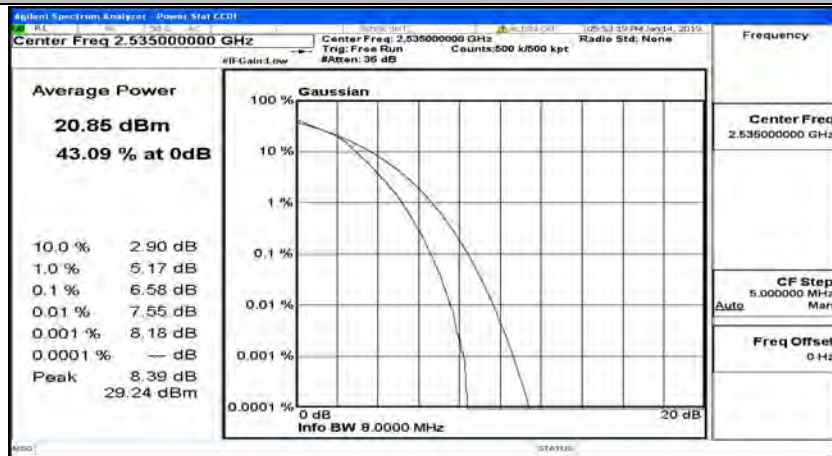
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



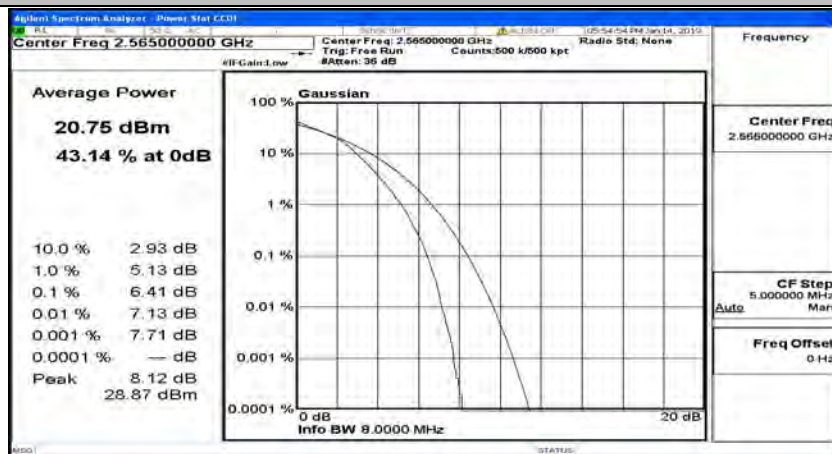
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



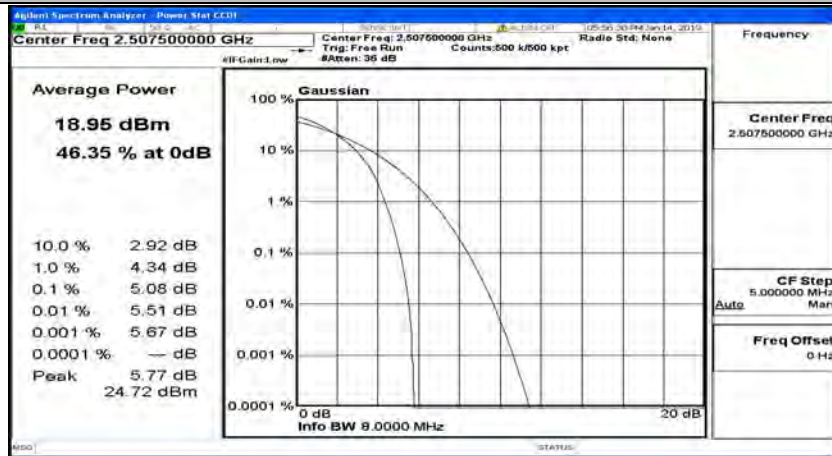
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



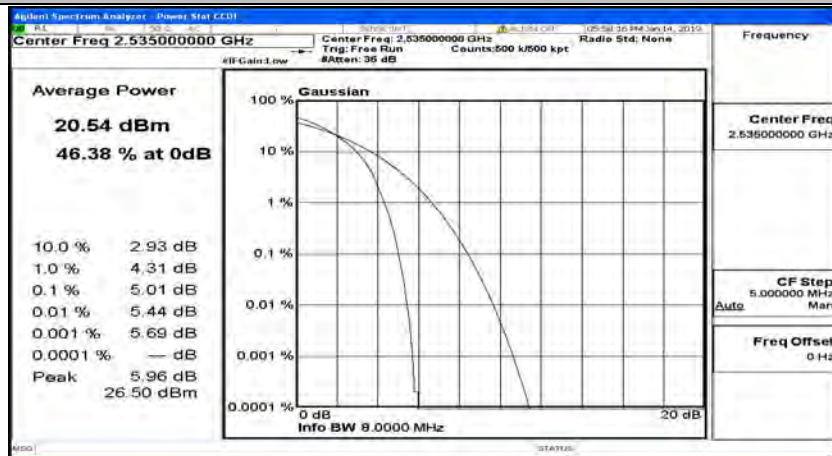
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



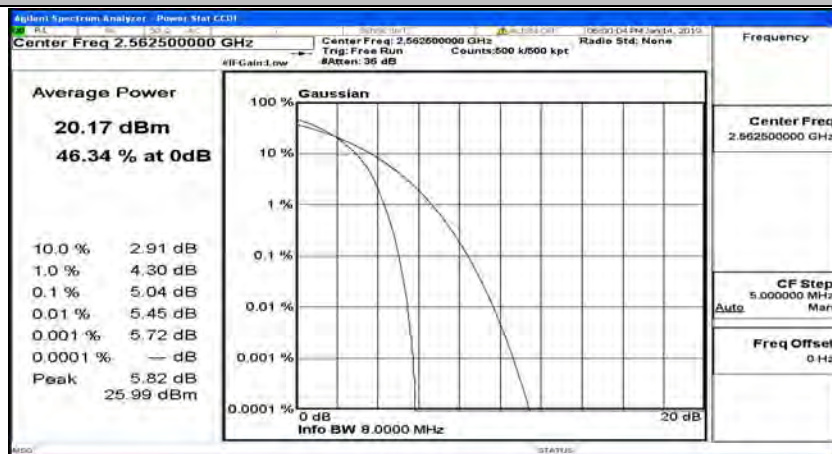
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



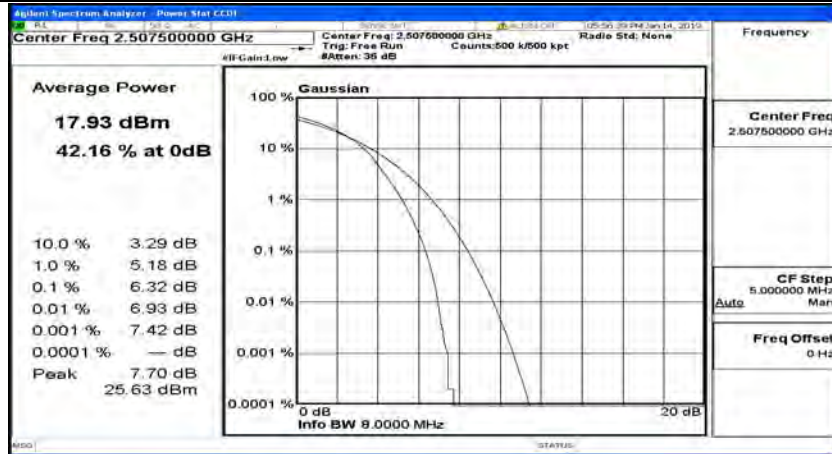
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



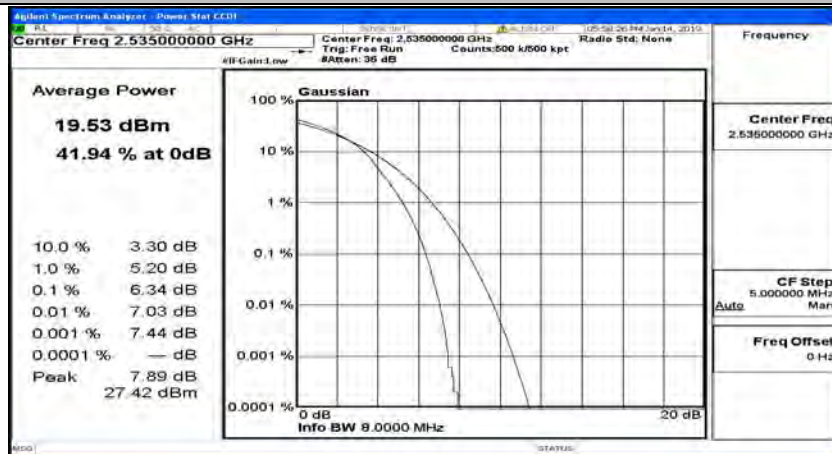
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



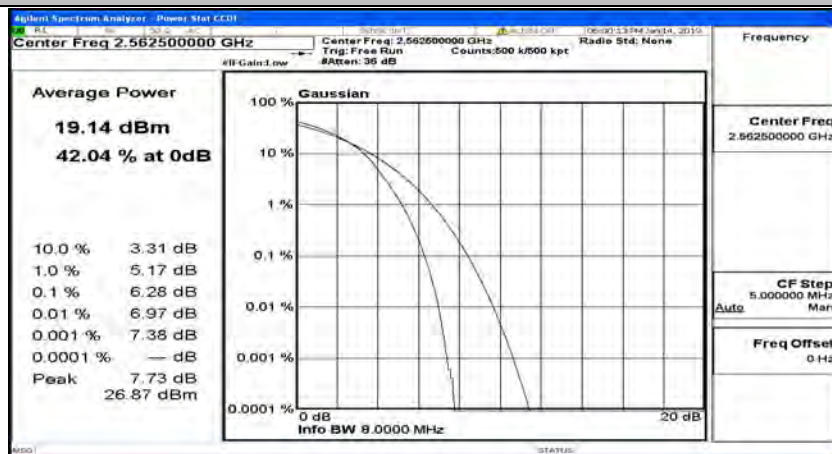
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



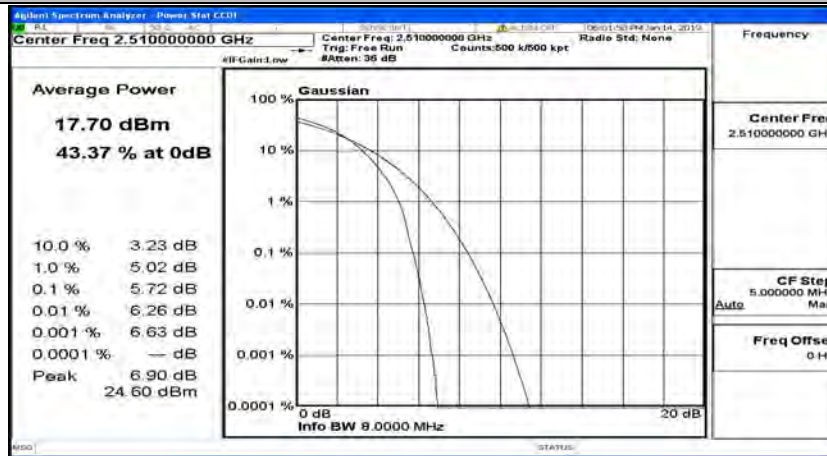
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



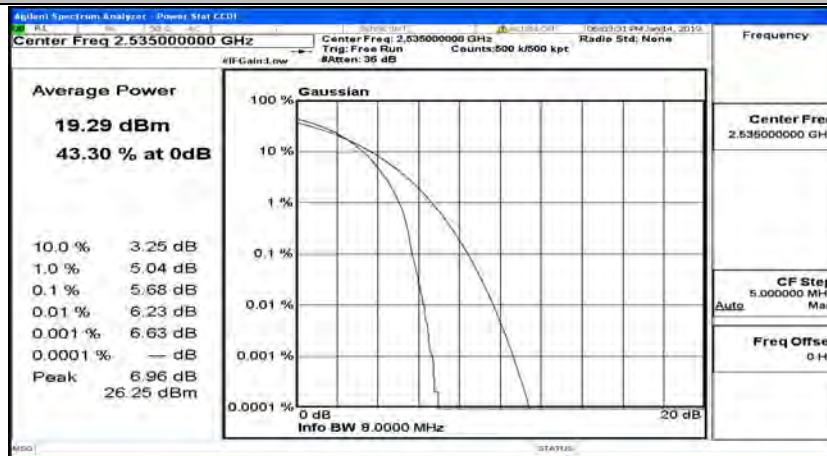
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



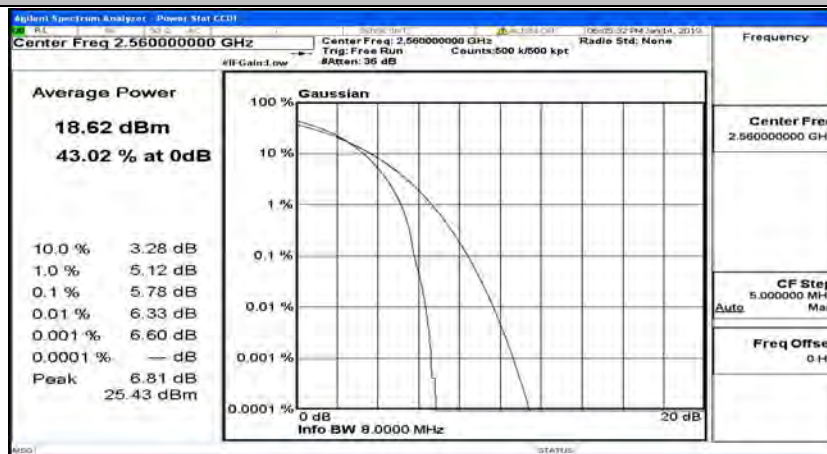
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



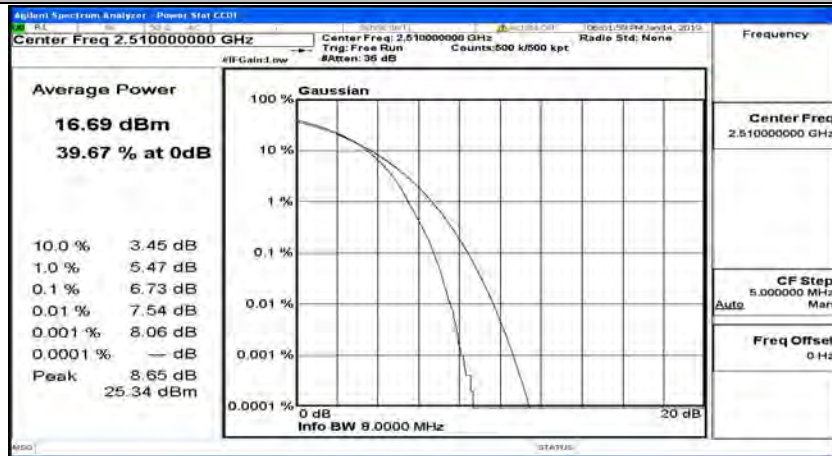
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



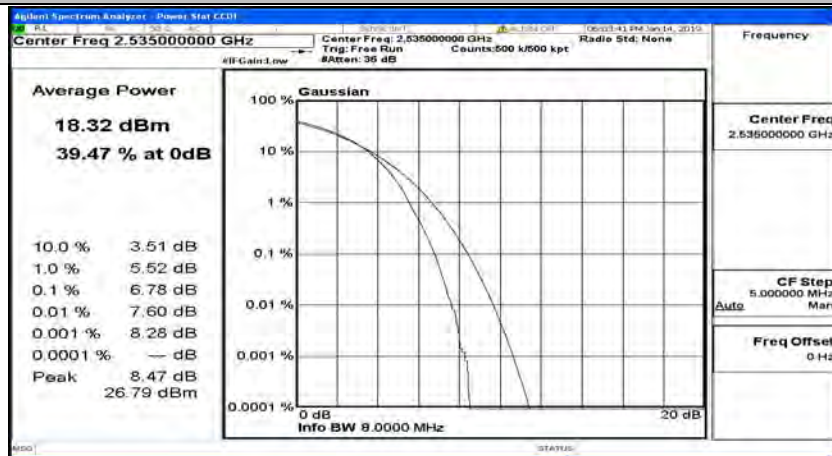
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



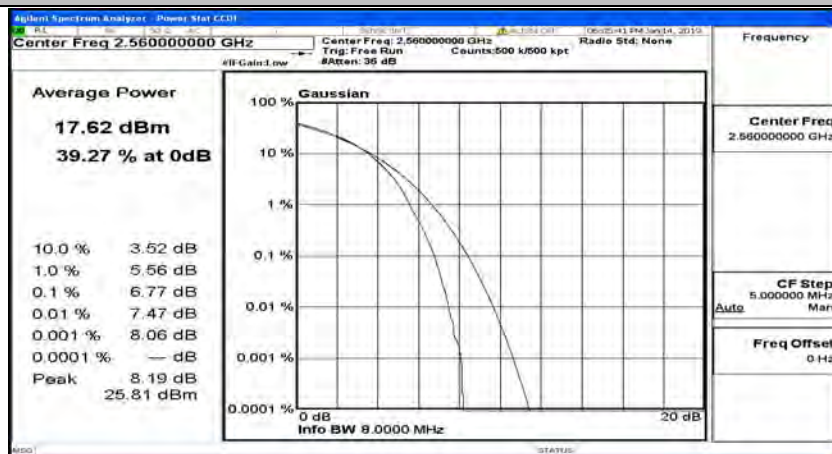
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



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



D.3 26dB Bandwidth and Occupied Bandwidth

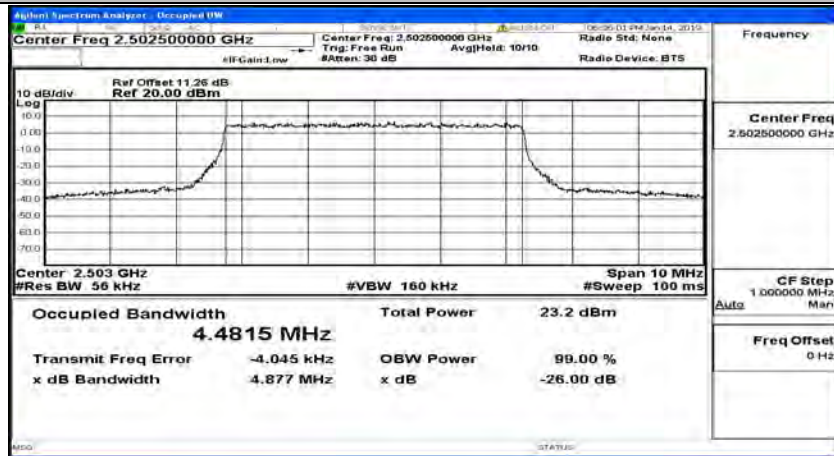
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4815	4.877	PASS
	MCH	4.4744	4.861	PASS
	HCH	4.4886	4.913	PASS
16QAM	LCH	4.4746	4.911	PASS
	MCH	4.4804	4.842	PASS
	HCH	4.4871	4.849	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9558	9.595	PASS
	MCH	8.9419	9.583	PASS
	HCH	8.9388	9.525	PASS
16QAM	LCH	8.9516	9.474	PASS
	MCH	8.9424	9.573	PASS
	HCH	8.9535	9.449	PASS

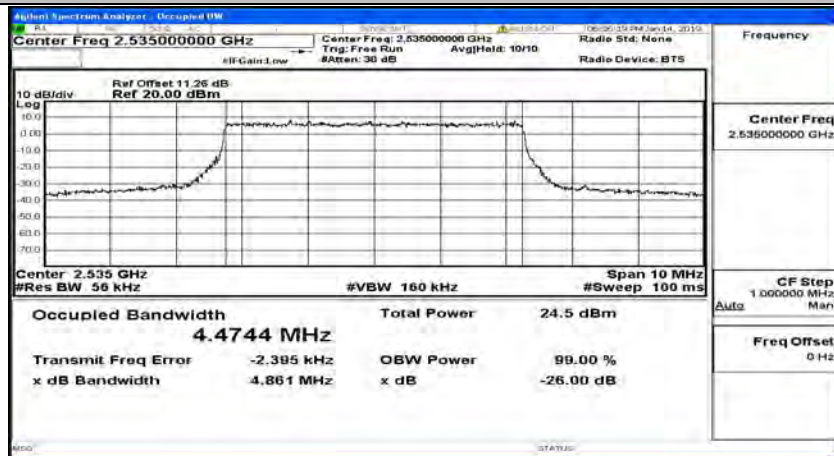
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.403	14.10	PASS
	MCH	13.405	14.15	PASS
	HCH	13.425	14.16	PASS
16QAM	LCH	13.424	14.11	PASS
	MCH	13.404	14.10	PASS
	HCH	13.421	14.16	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.848	18.71	PASS
	MCH	17.861	18.67	PASS
	HCH	17.881	18.68	PASS
16QAM	LCH	17.871	18.62	PASS
	MCH	17.858	18.70	PASS
	HCH	17.848	18.61	PASS

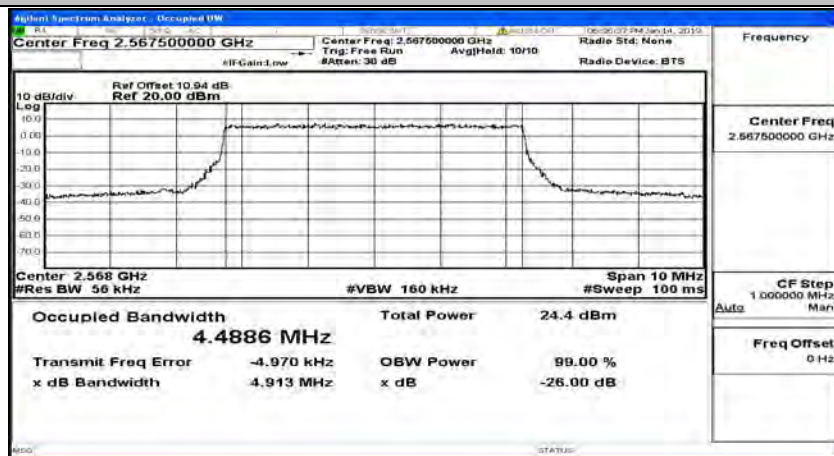
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



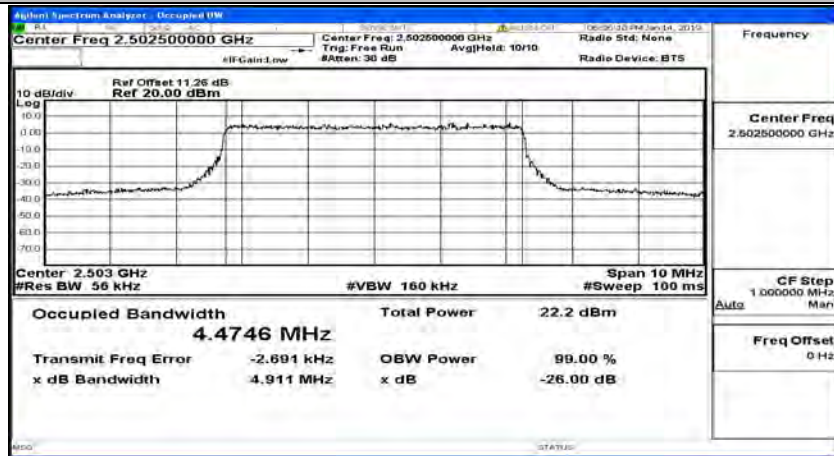
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



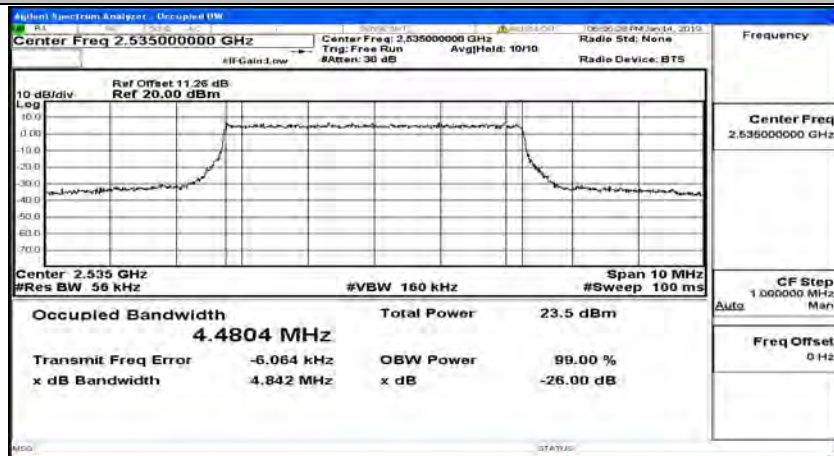
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



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



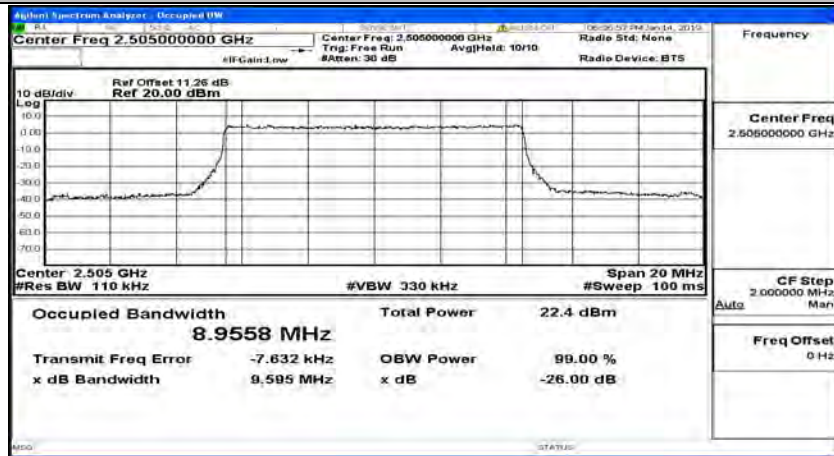
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



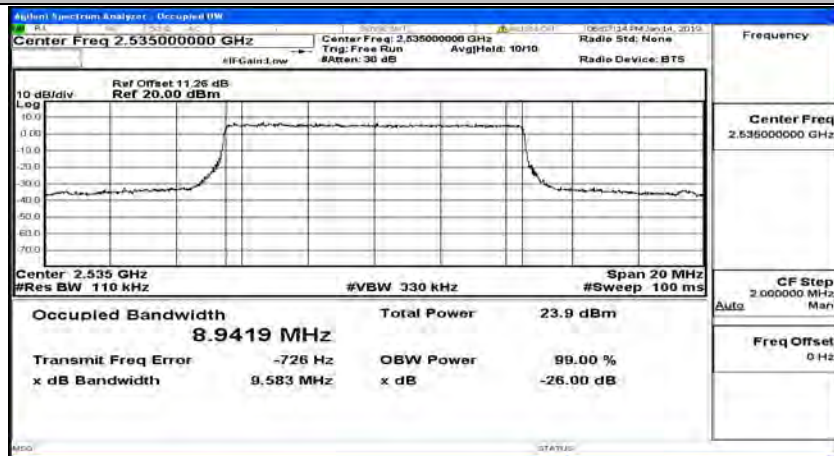
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



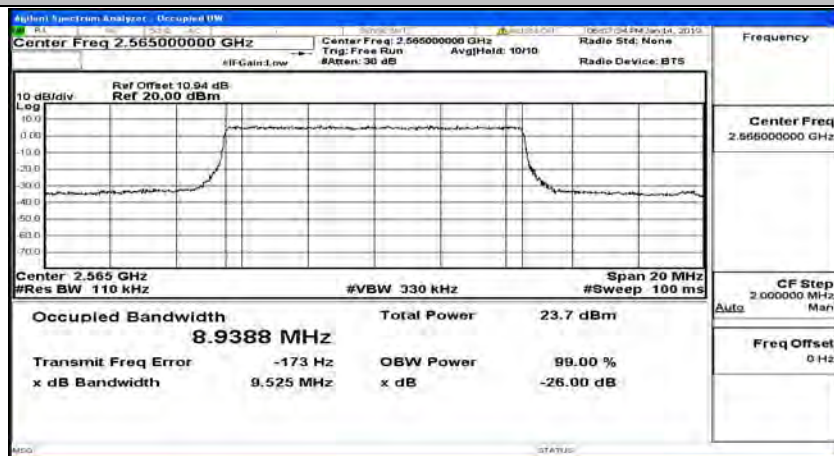
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



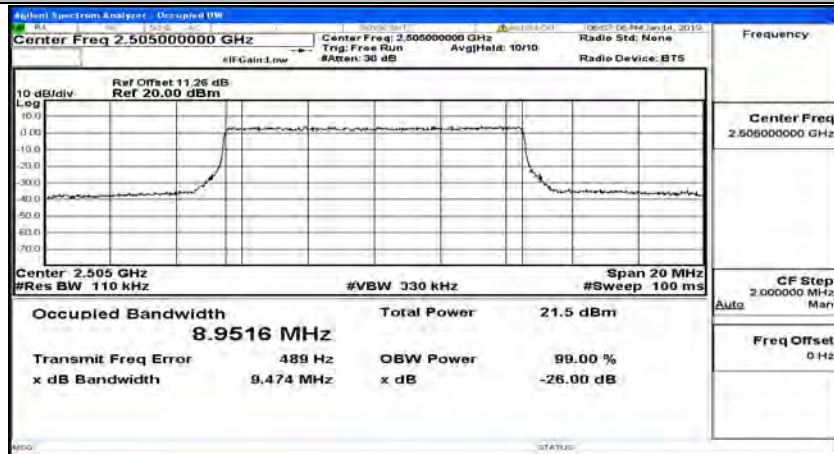
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



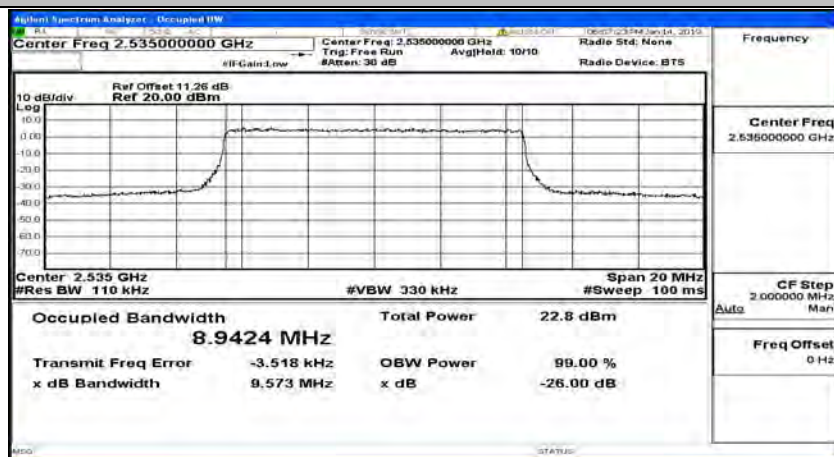
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



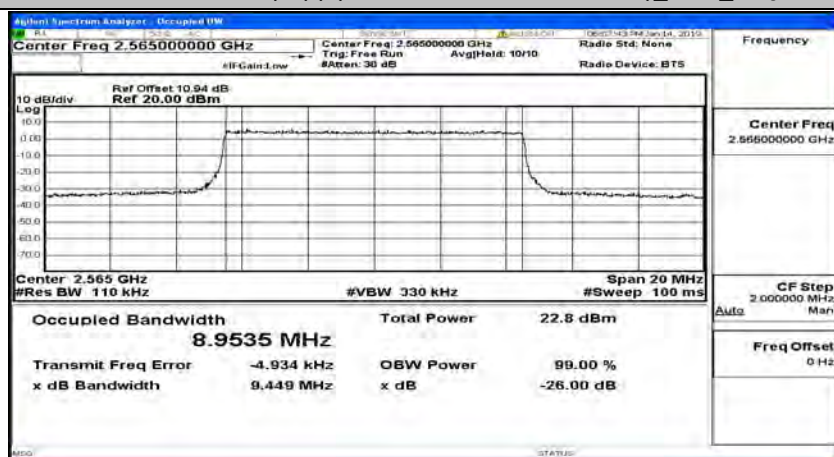
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



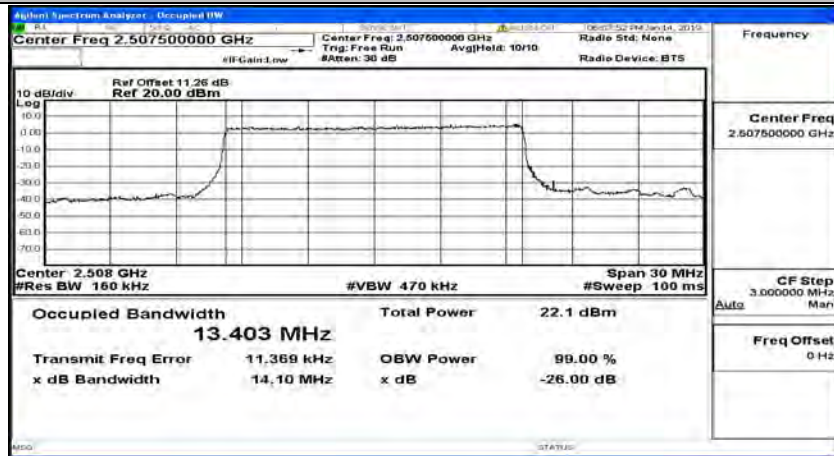
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



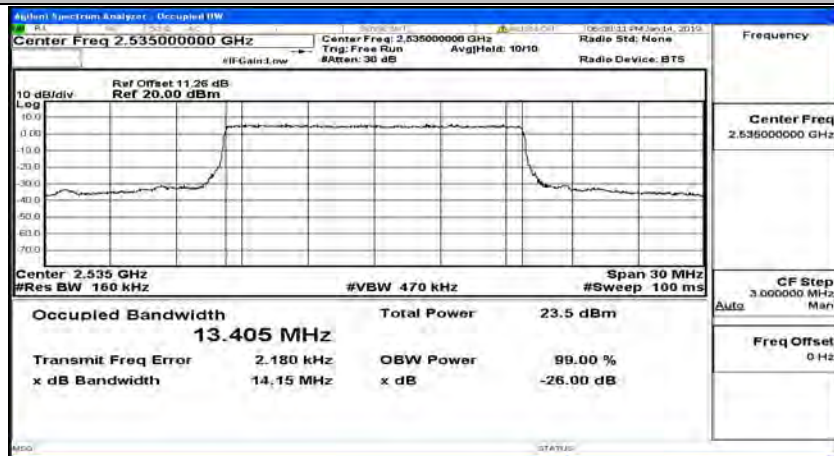
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



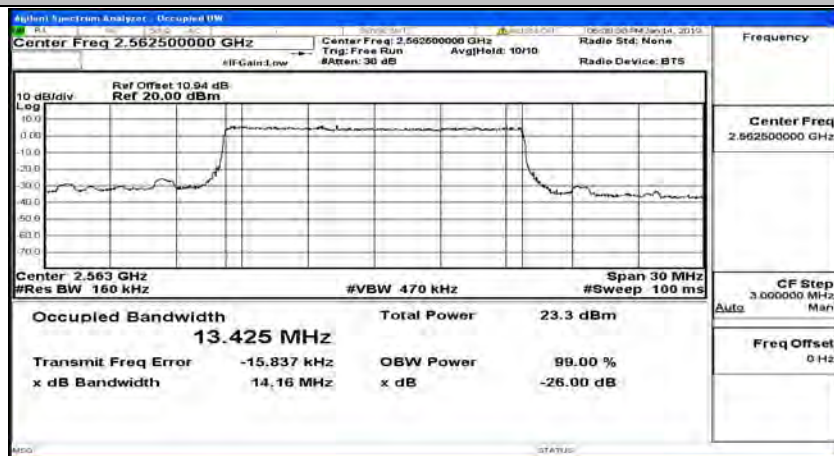
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



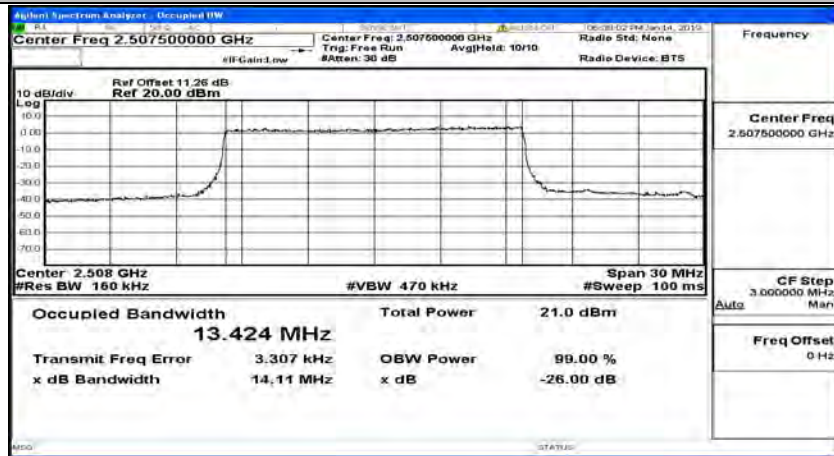
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



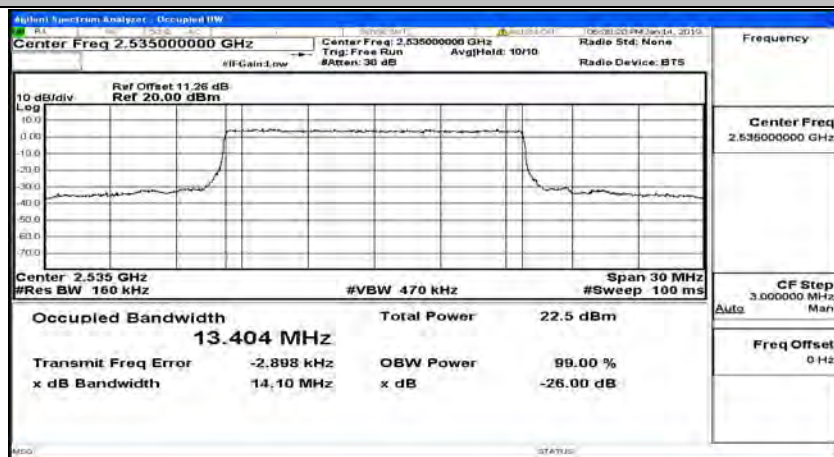
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



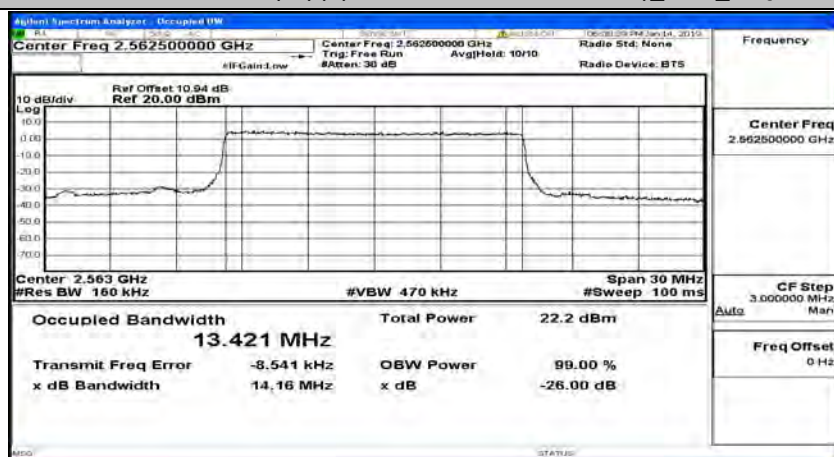
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



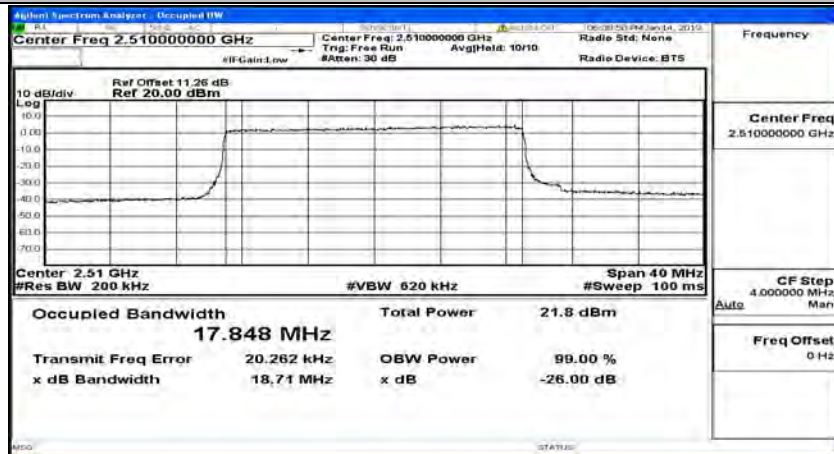
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



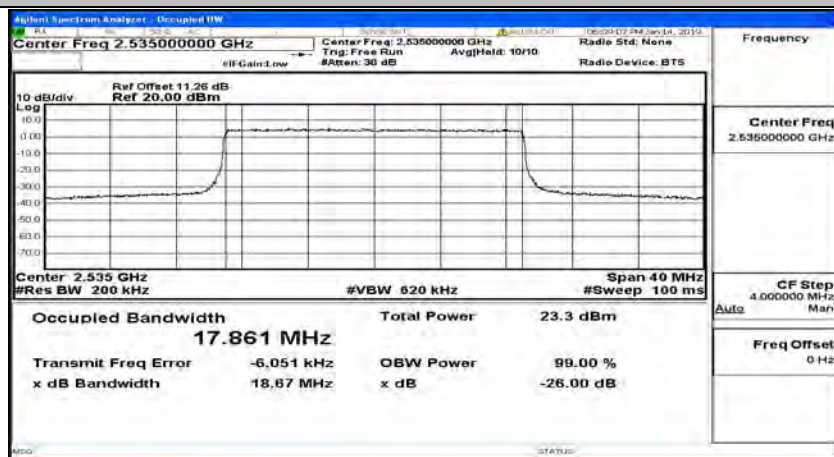
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



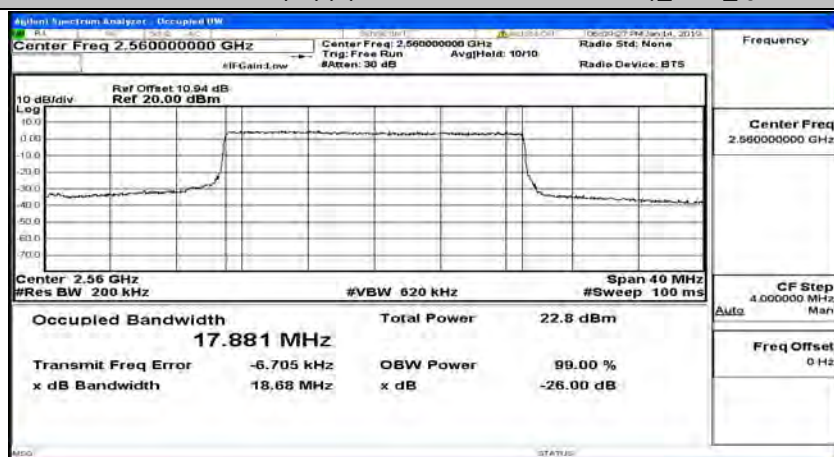
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



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



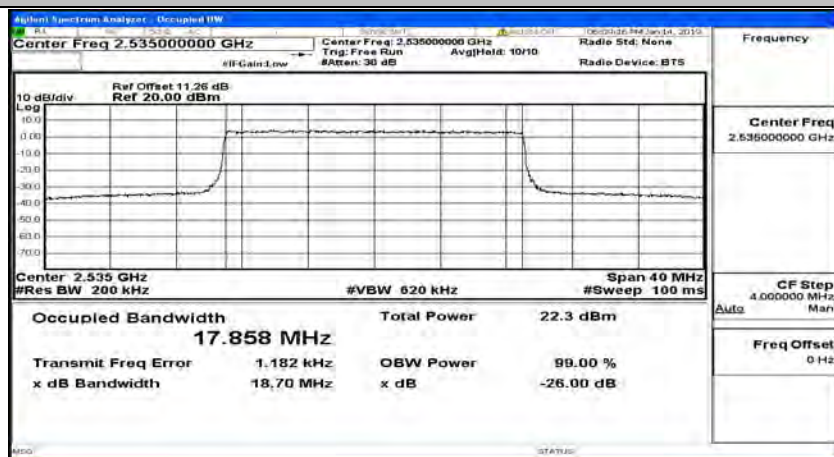
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



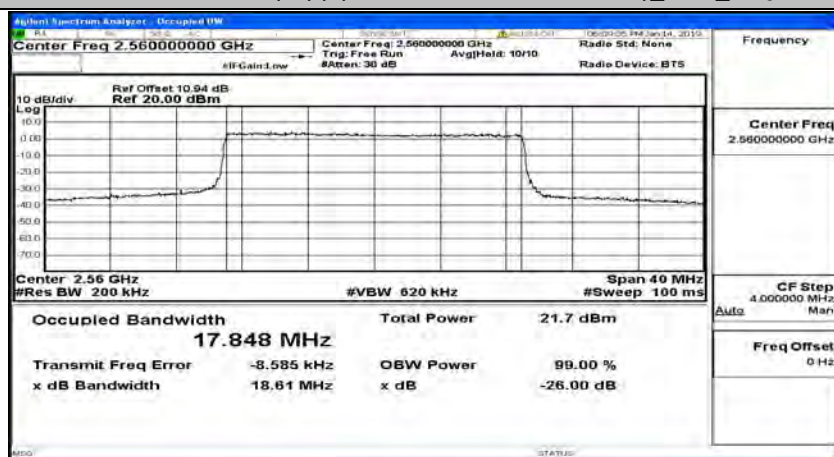
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



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

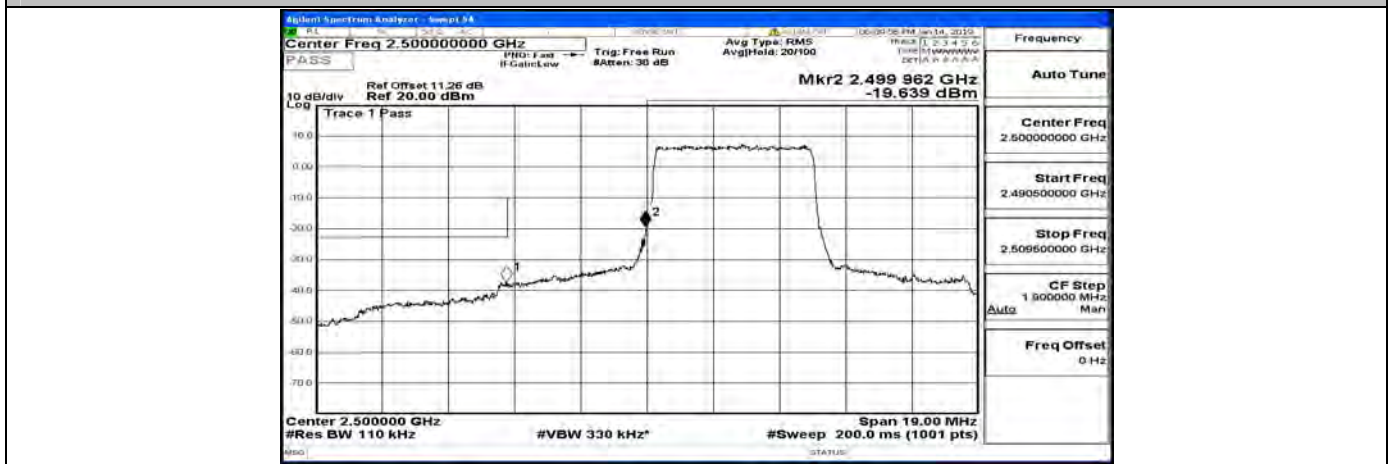


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

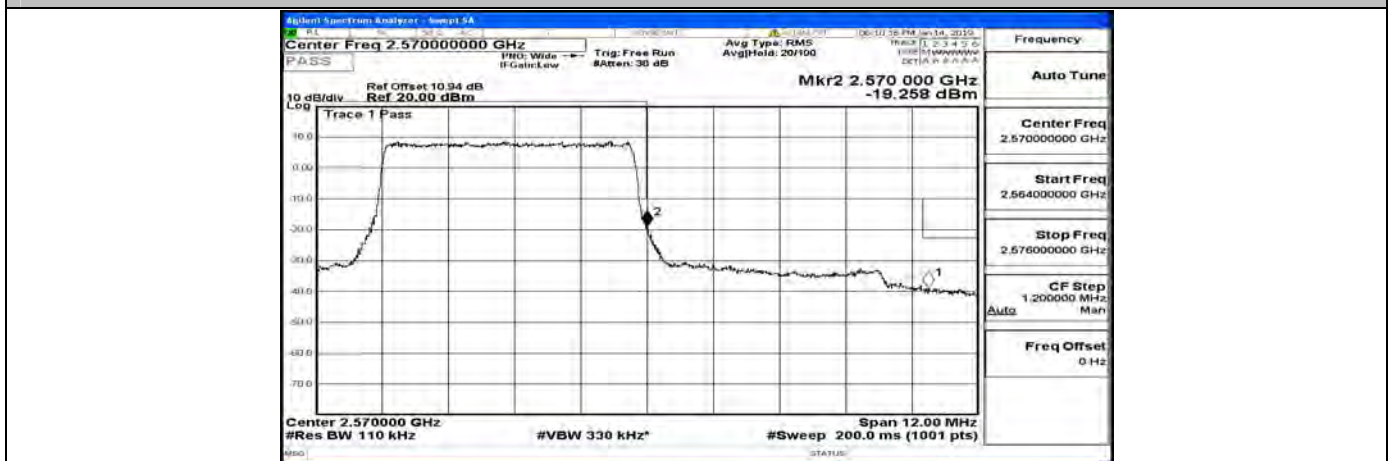


D.4 Band Edge

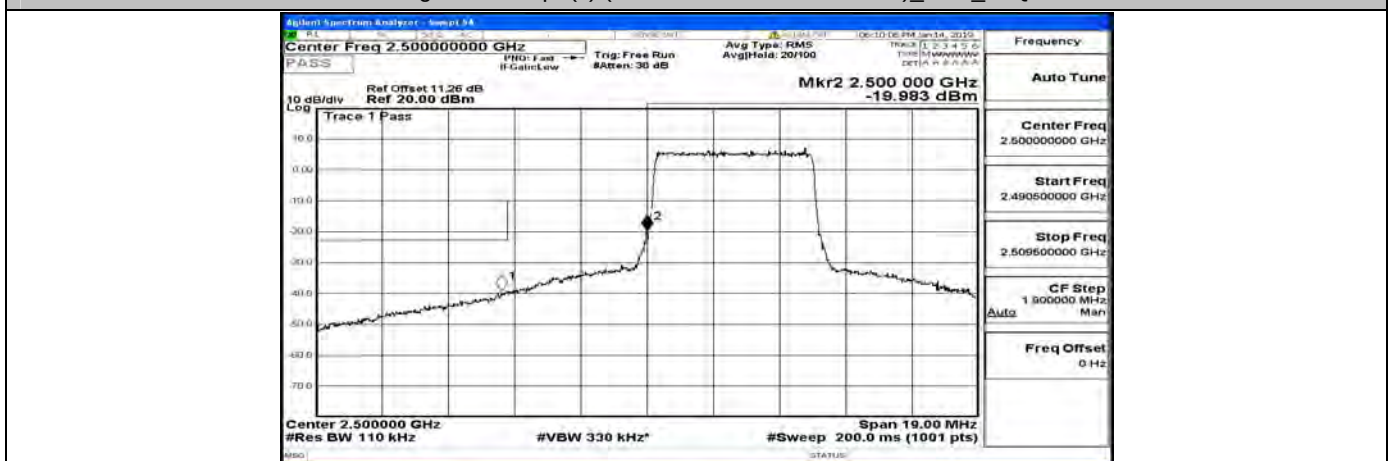
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



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



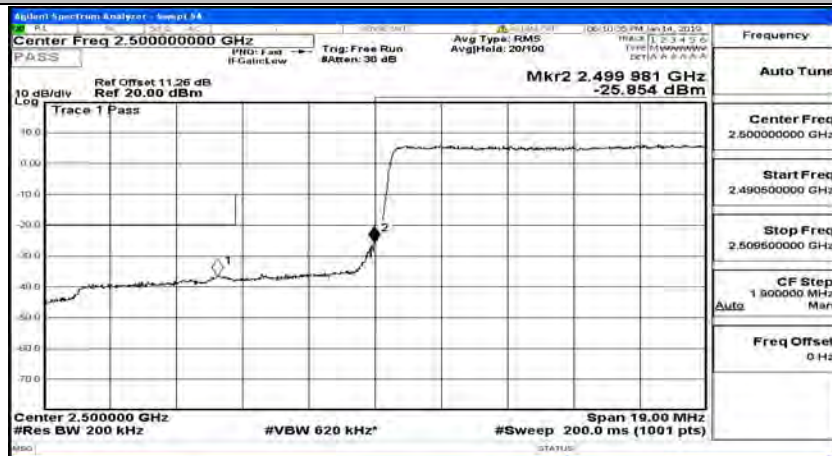
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



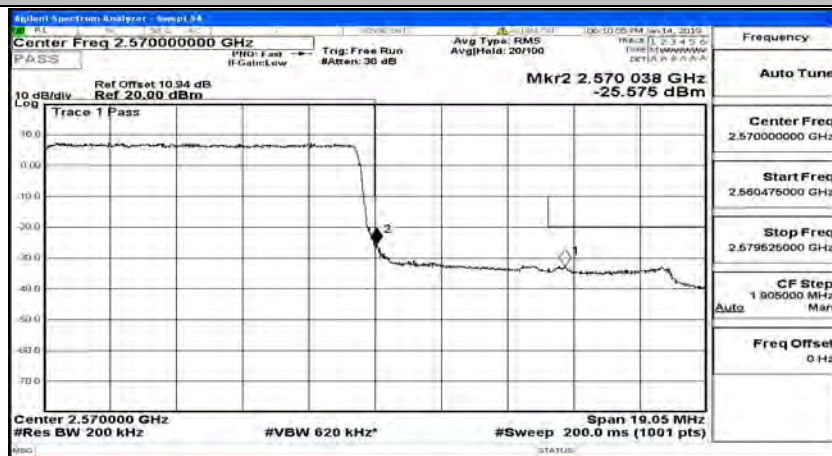
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



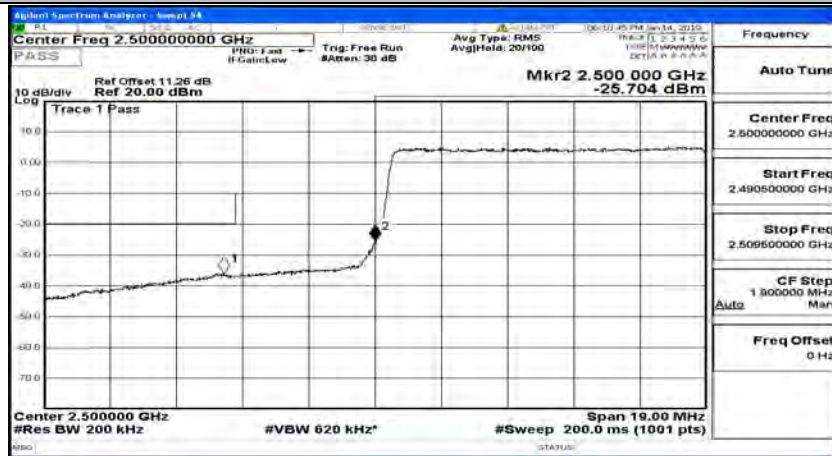
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



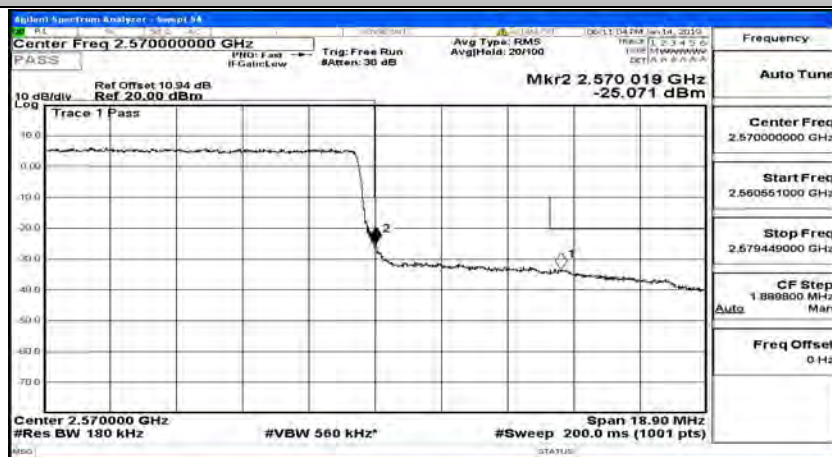
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



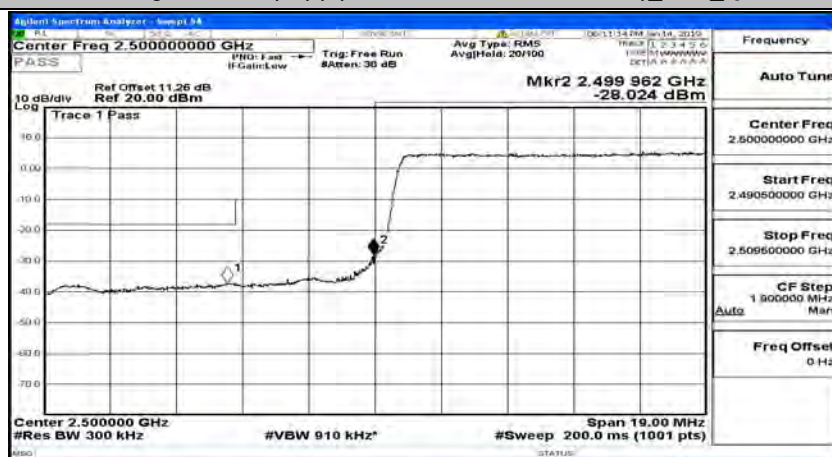
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



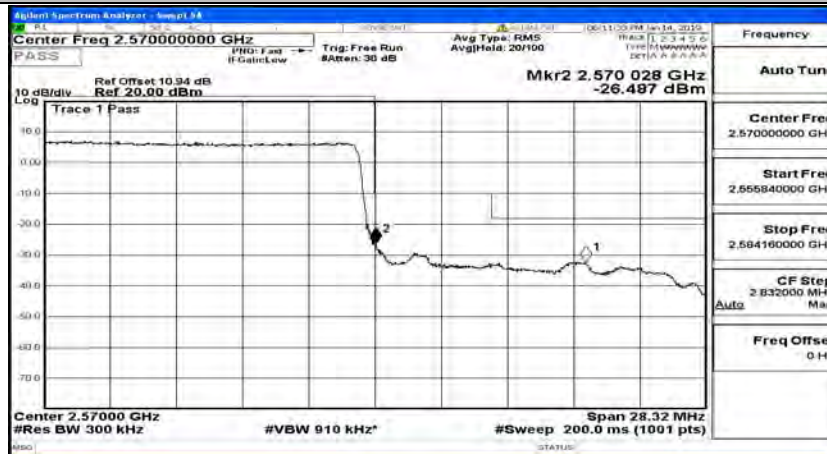
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



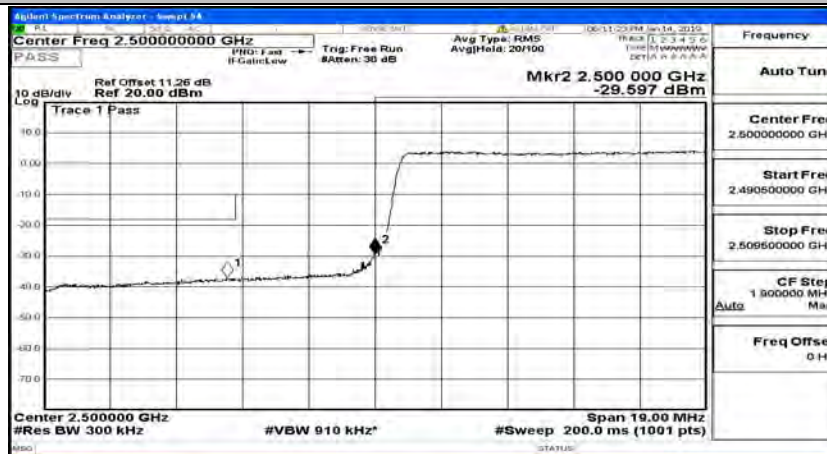
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



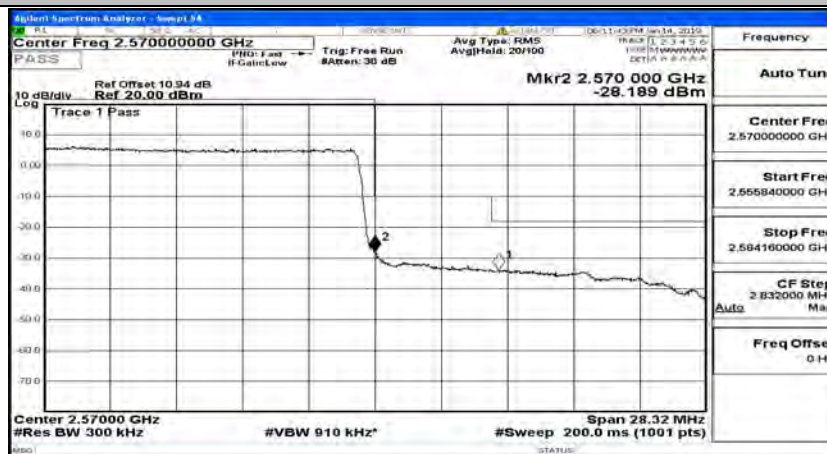
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



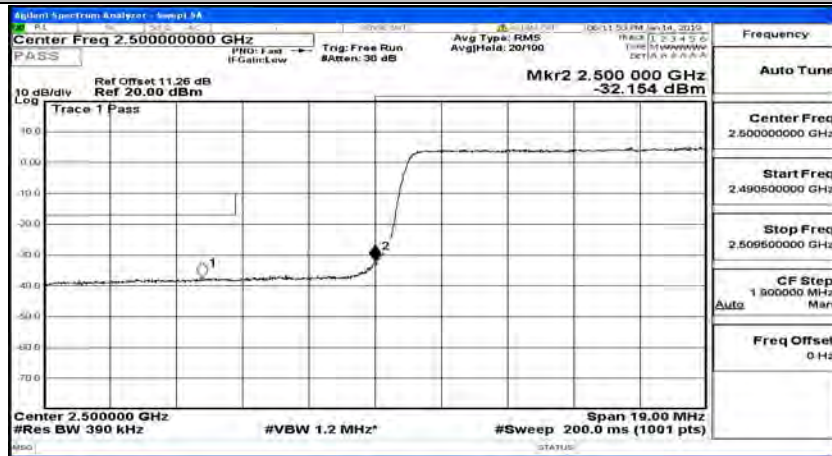
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



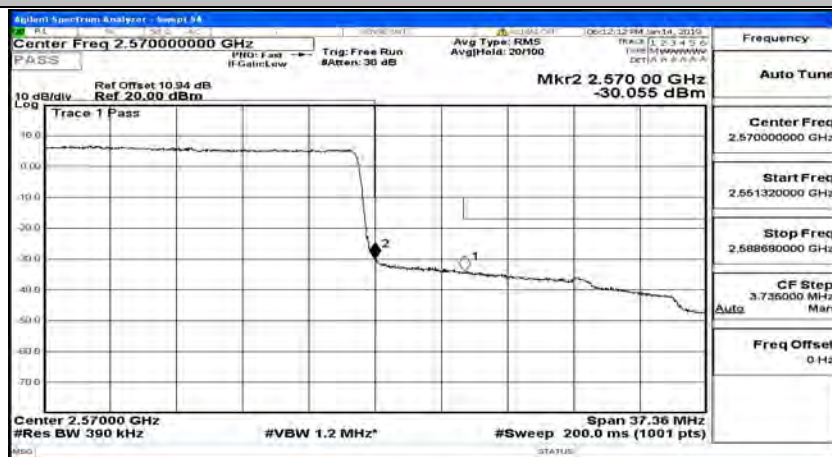
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



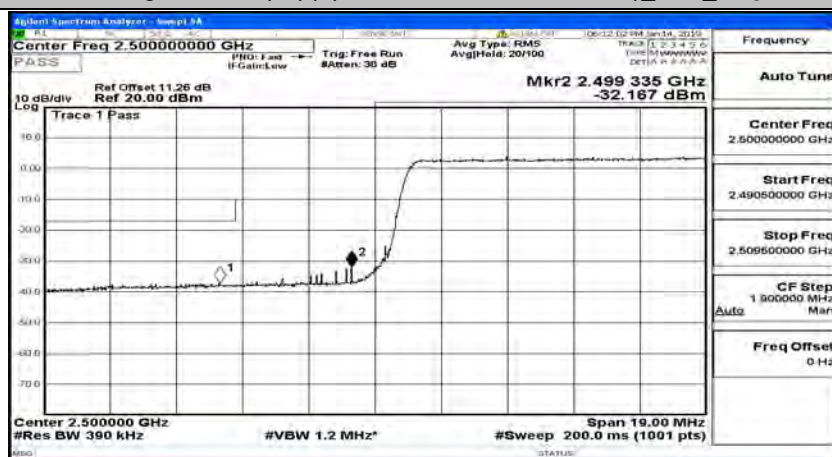
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



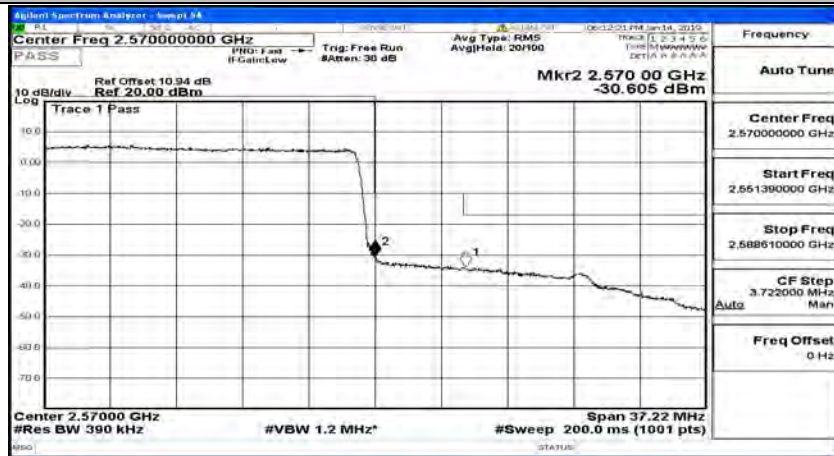
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



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

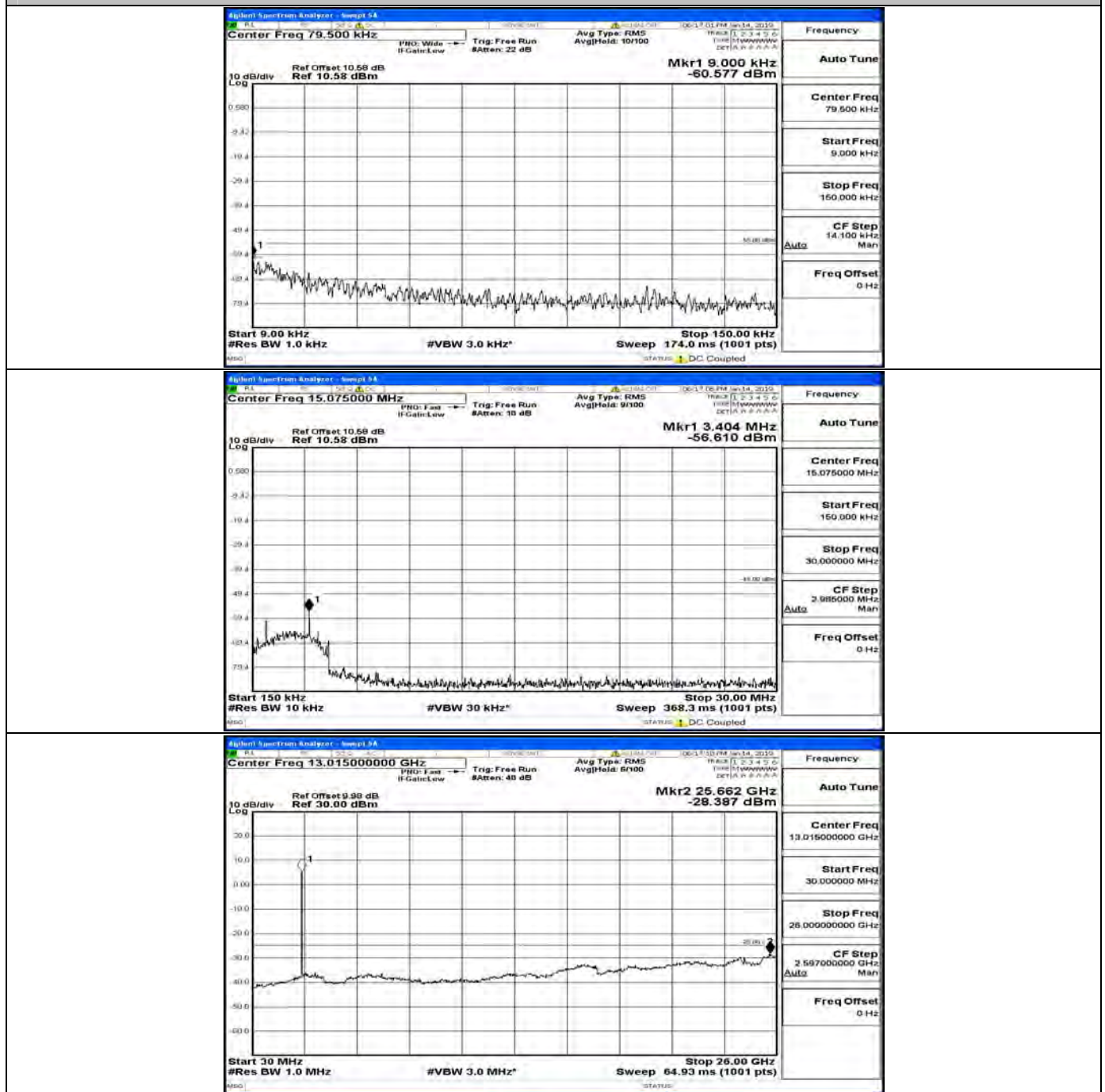


Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

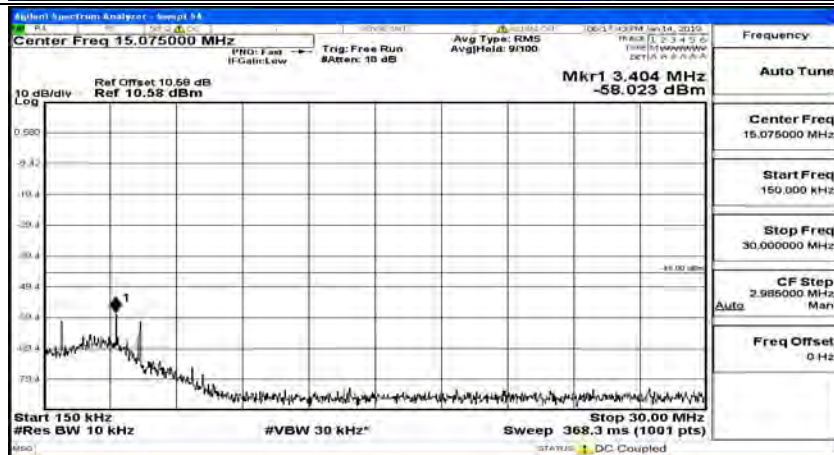
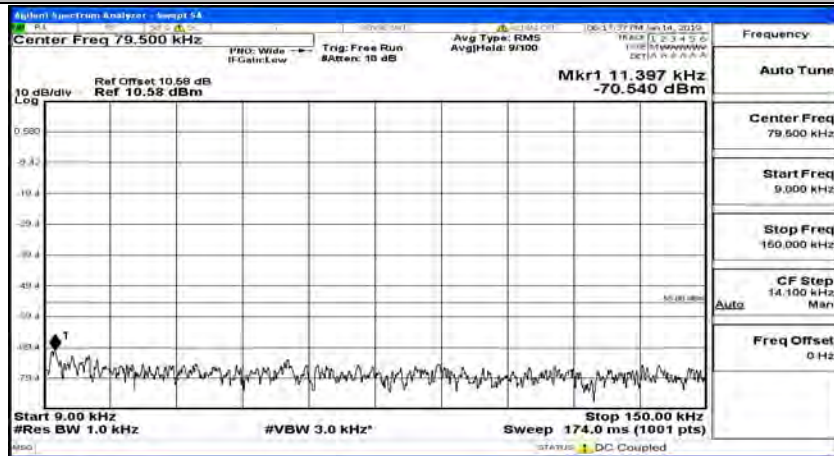


D.5 Conducted Spurious Emission

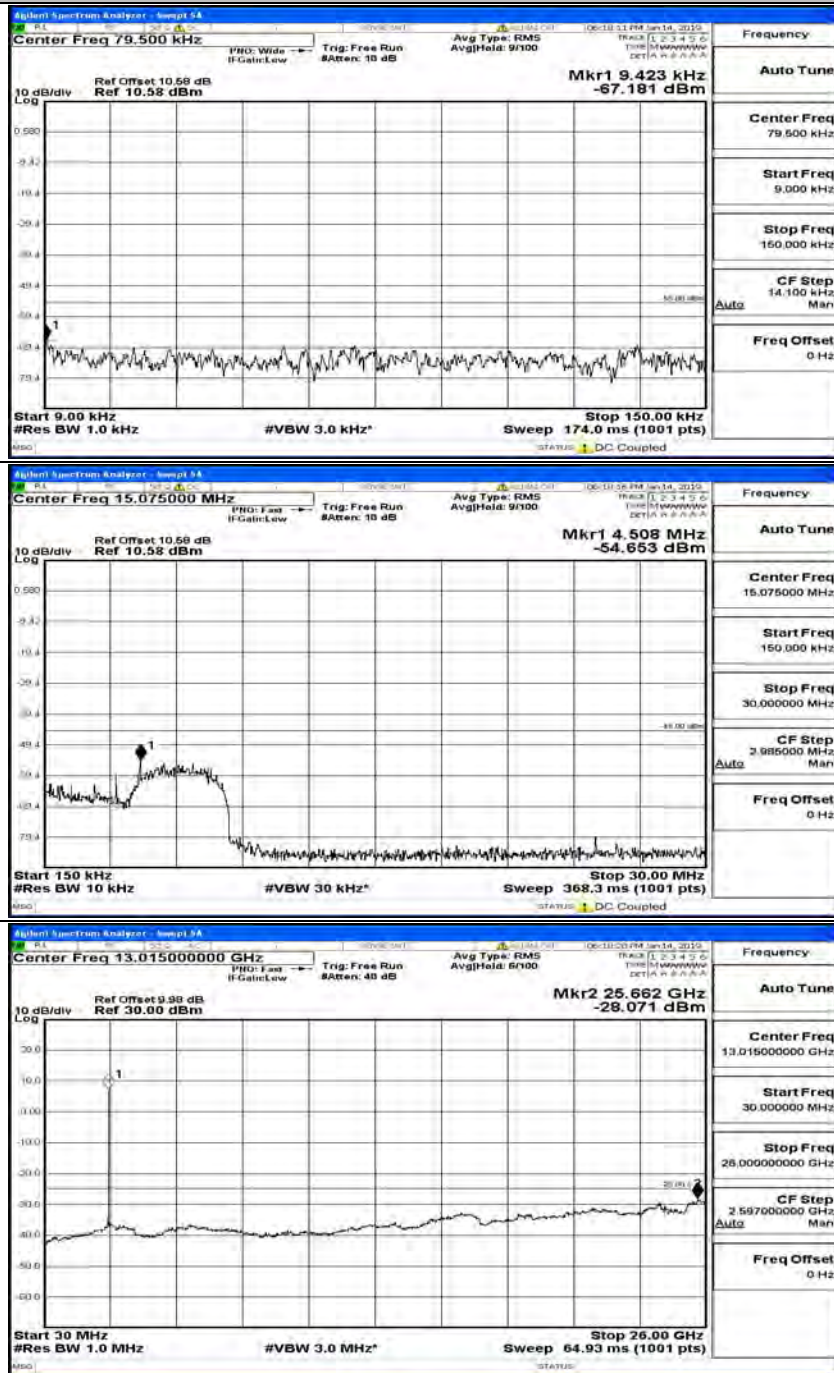
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



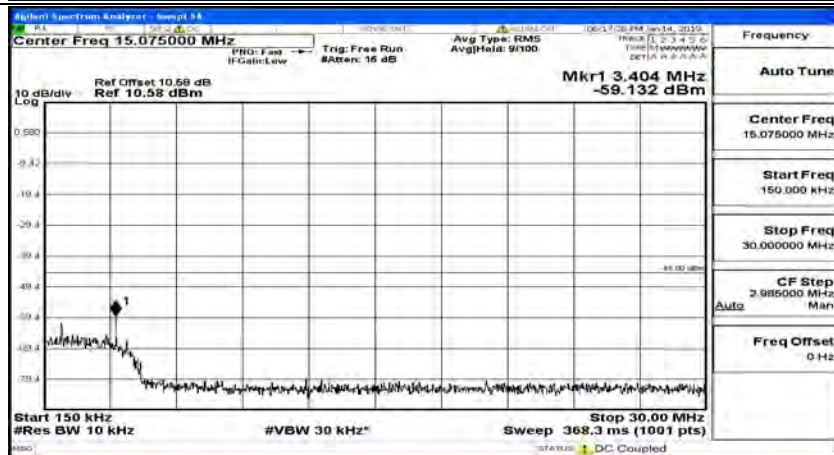
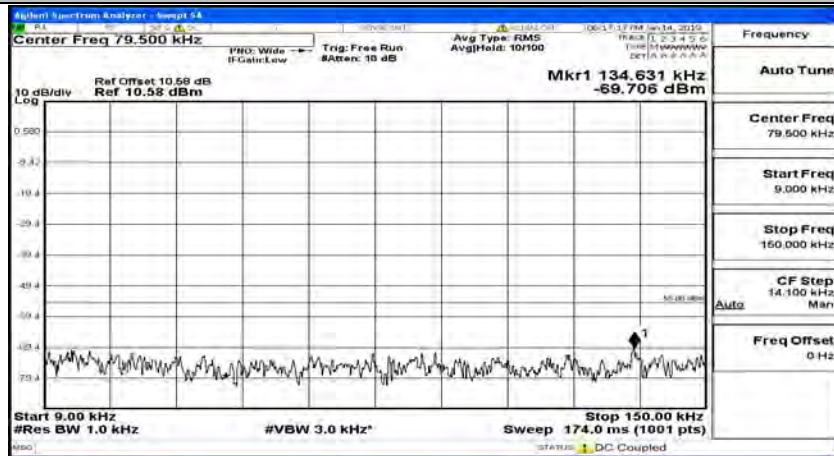
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



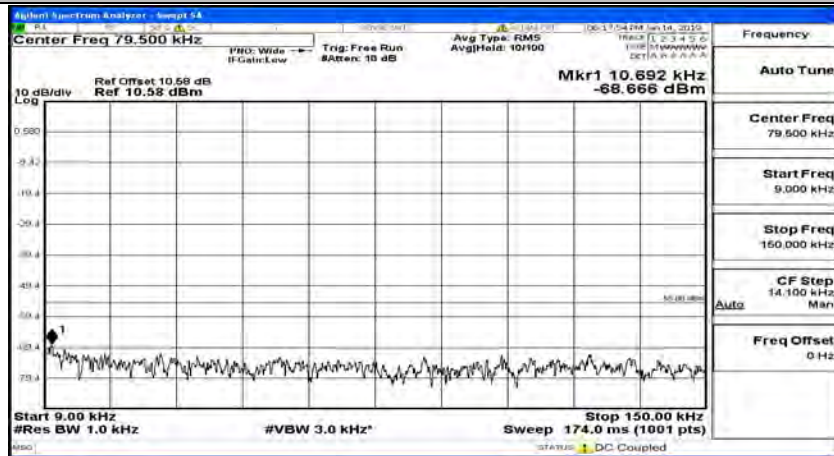
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



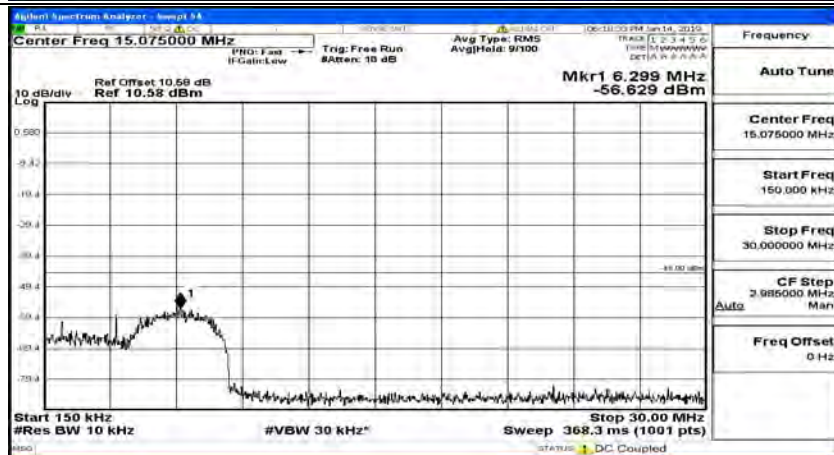
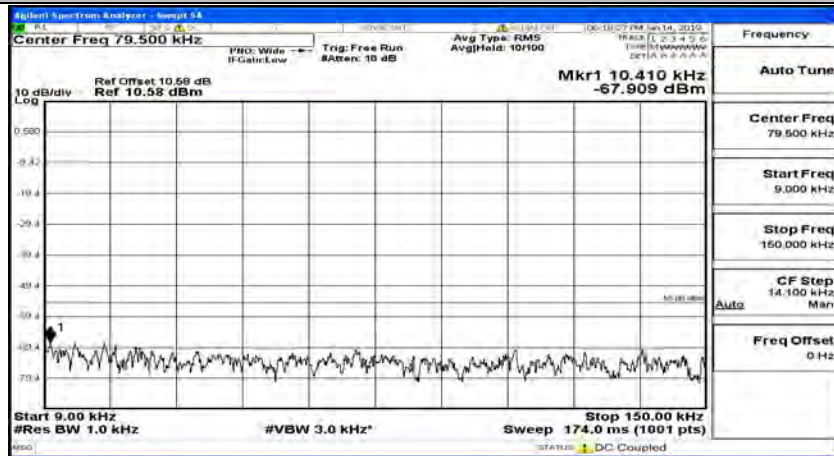
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



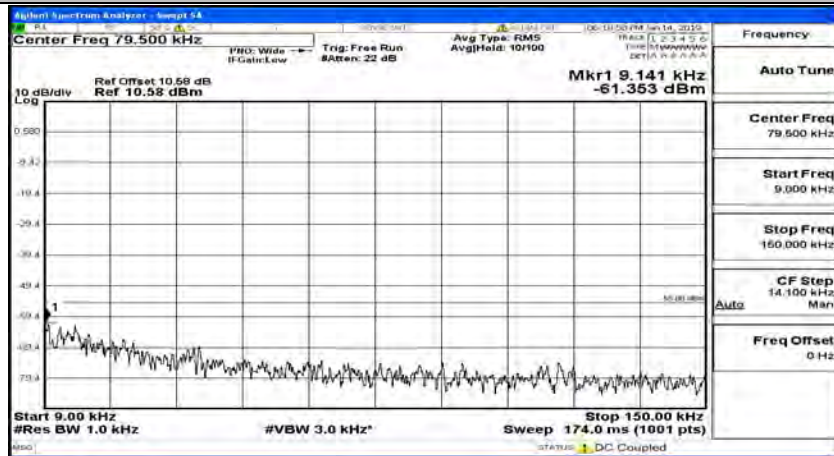
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



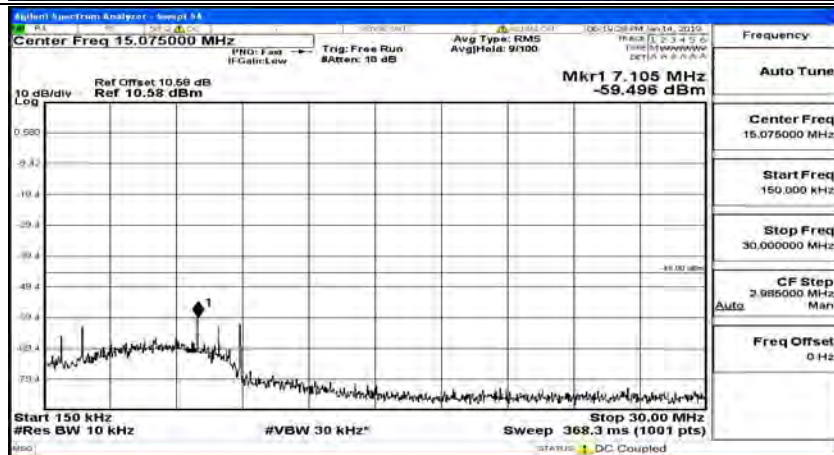
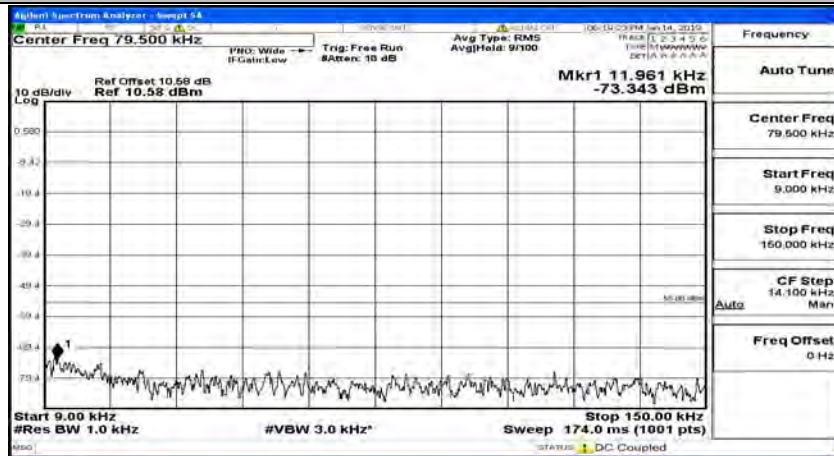
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



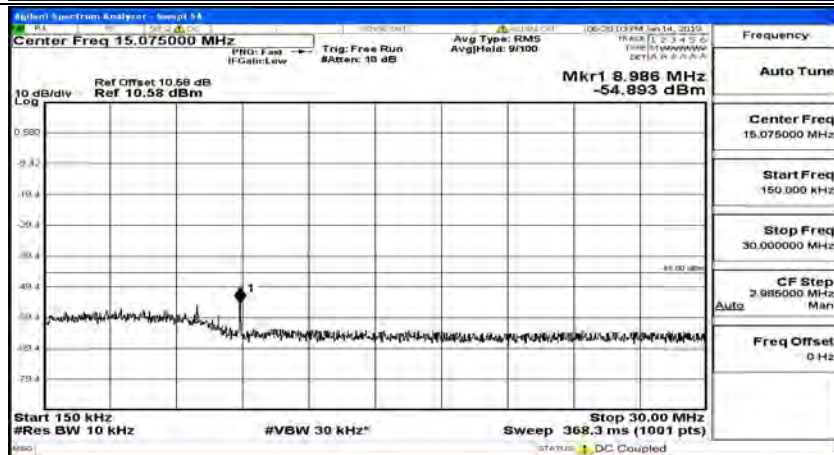
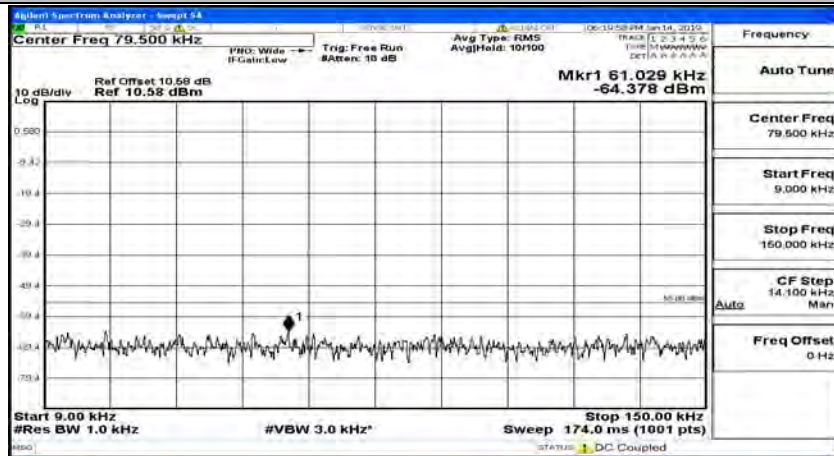
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



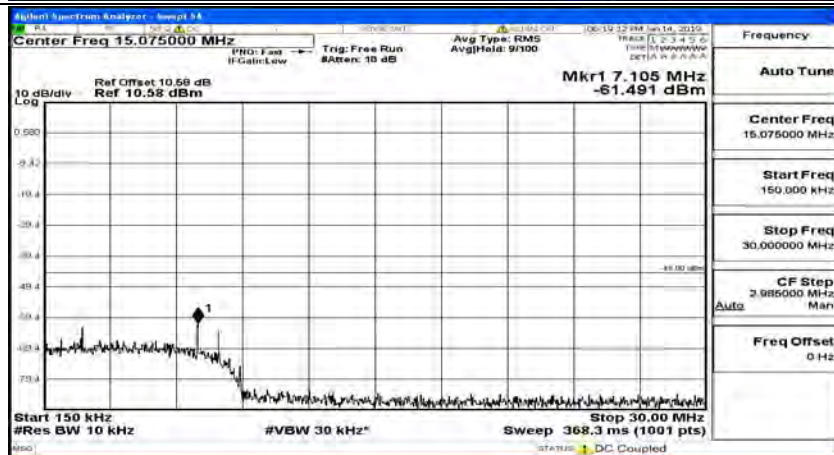
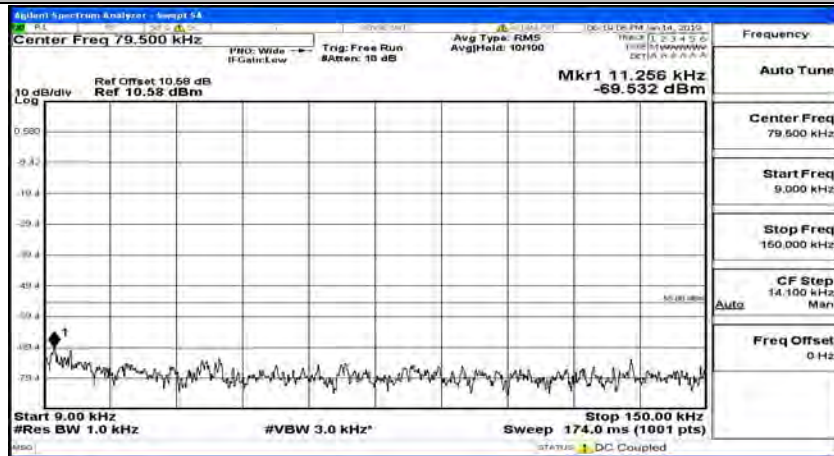
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



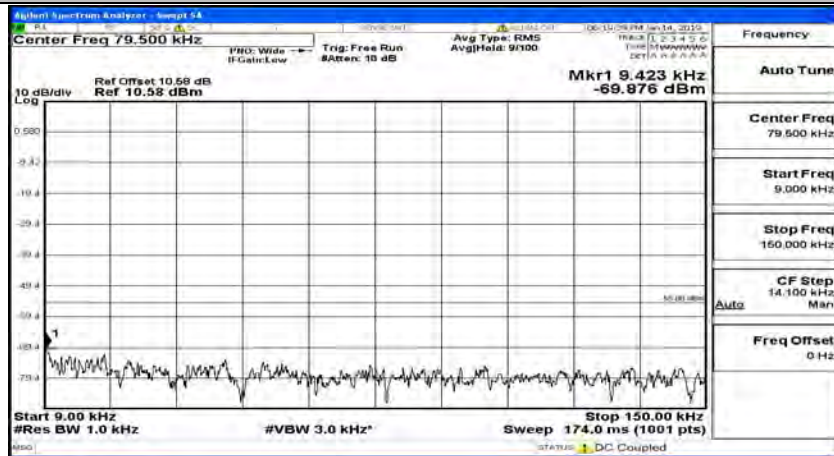
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



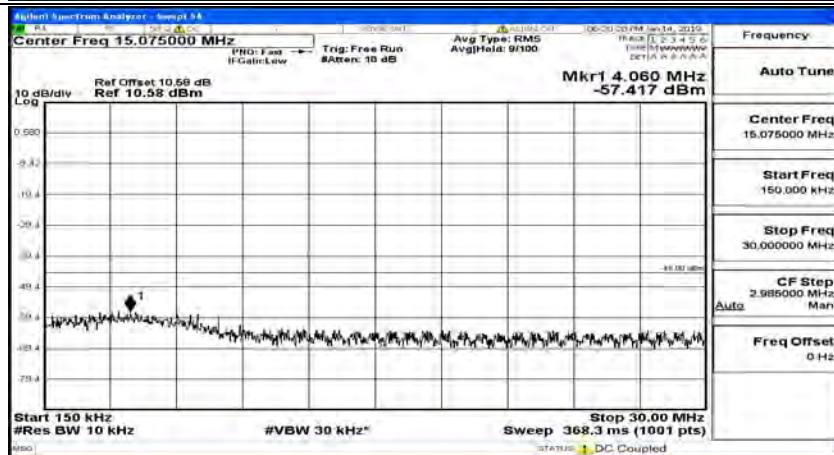
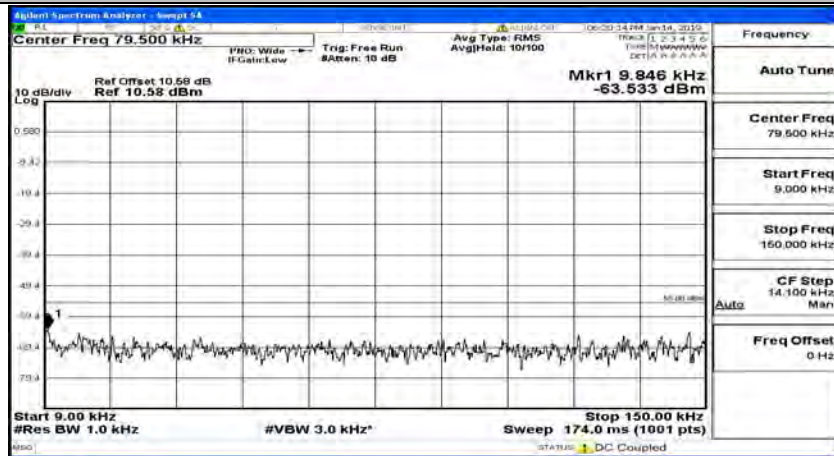
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



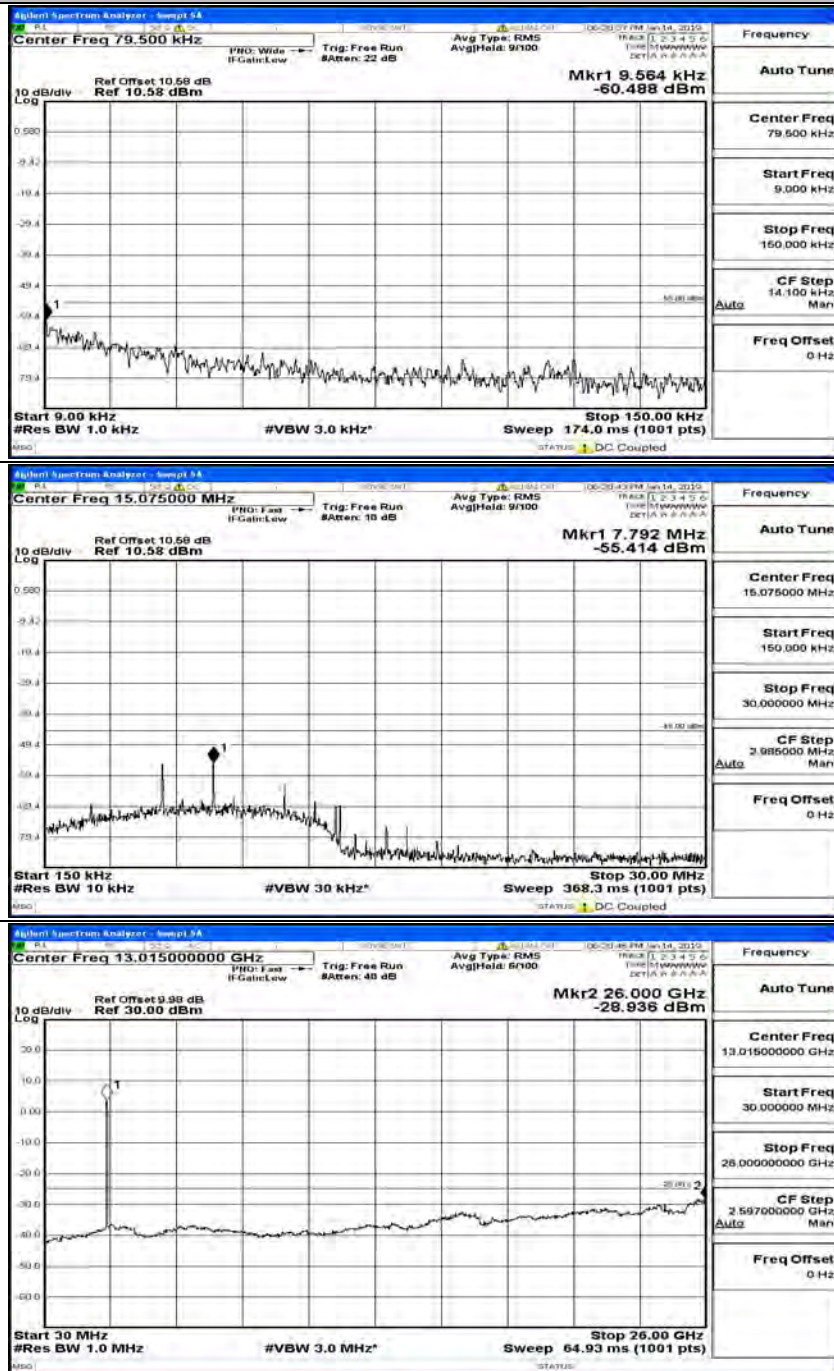
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



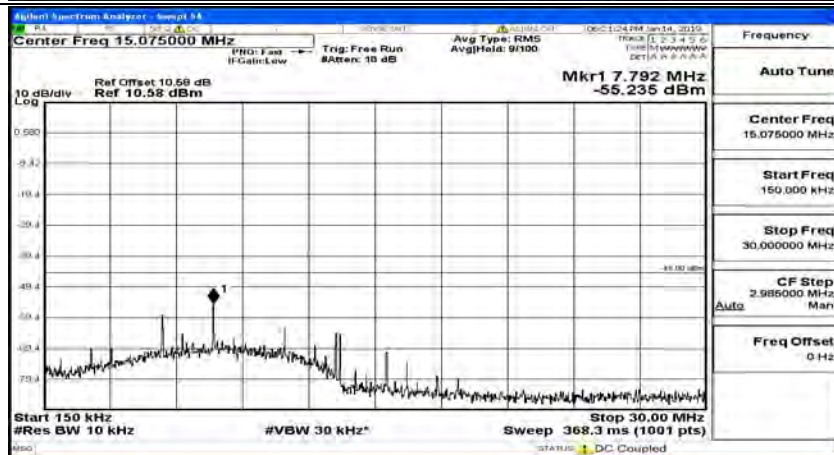
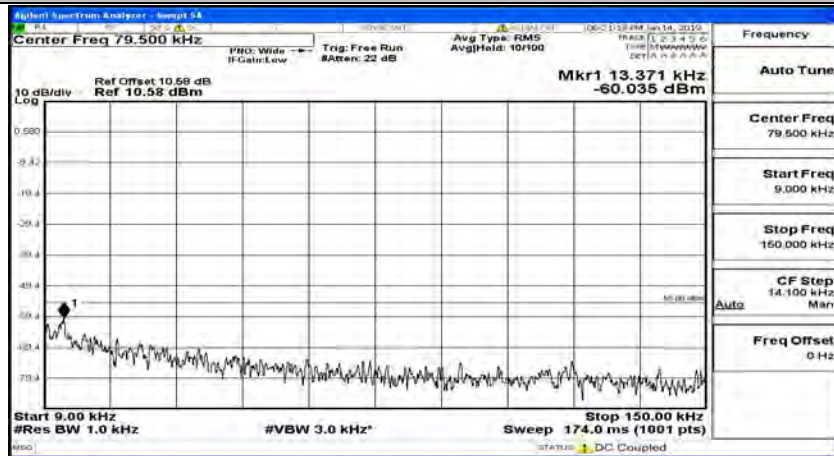
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



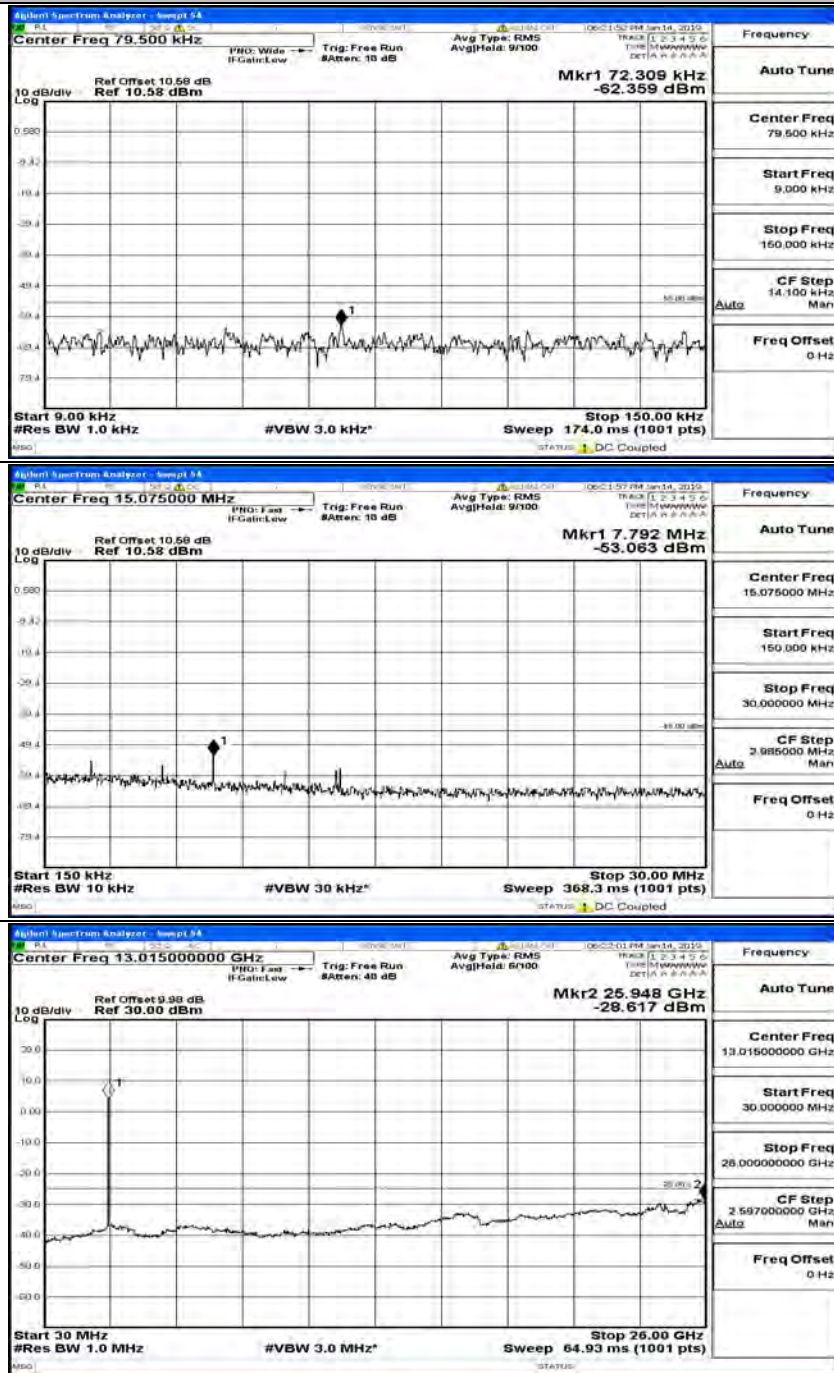
CSE Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



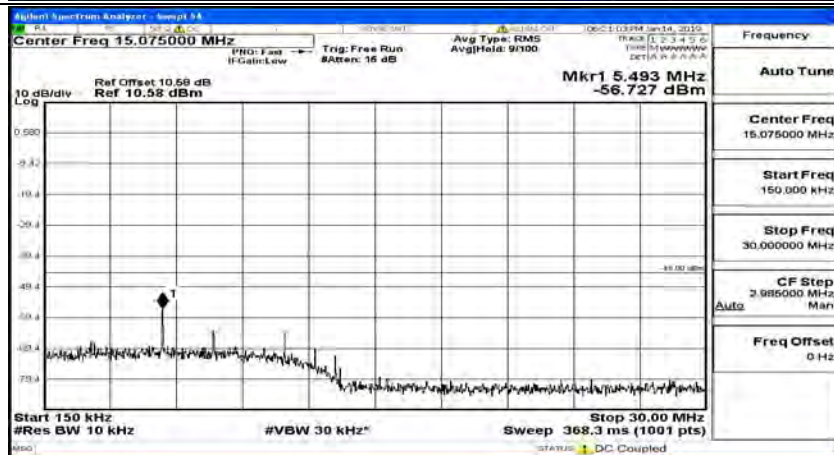
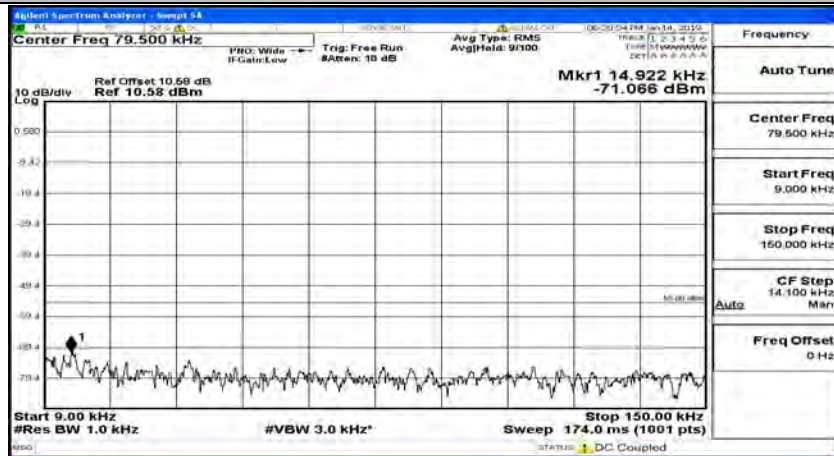
CSE Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



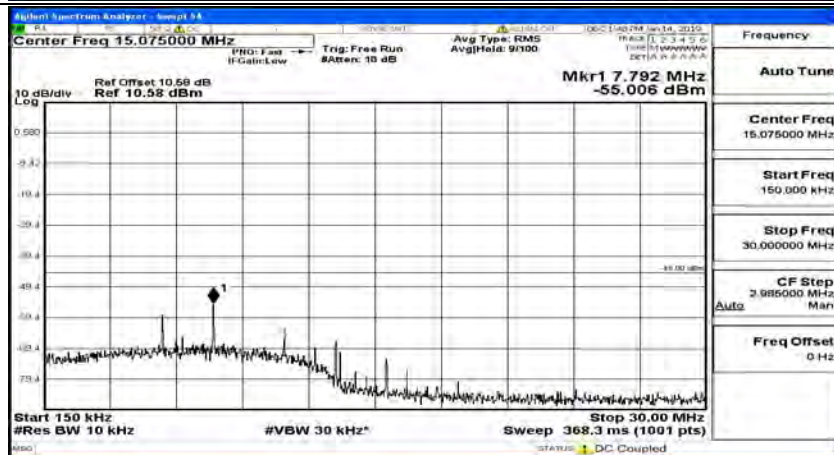
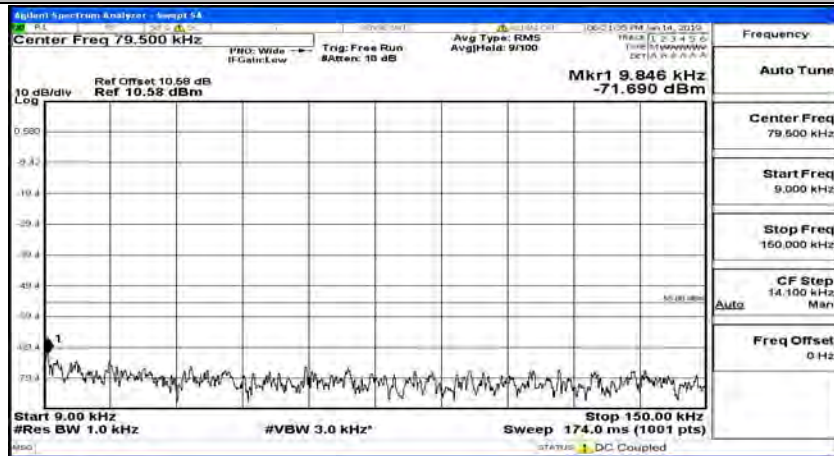
CSE Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



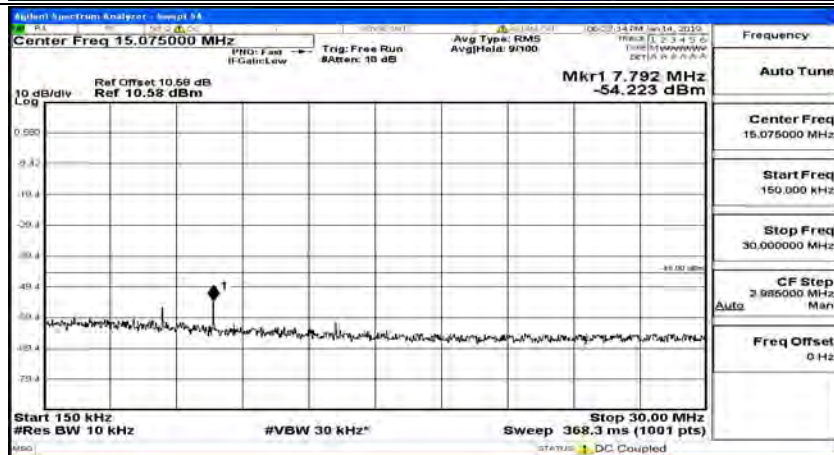
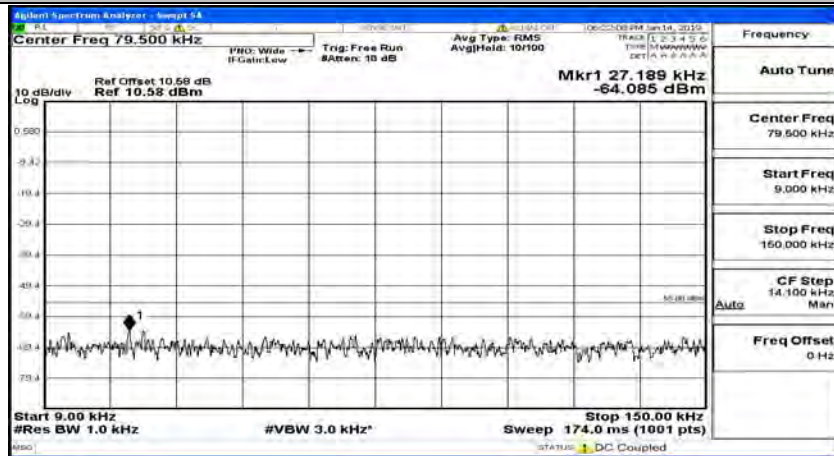
CSE Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



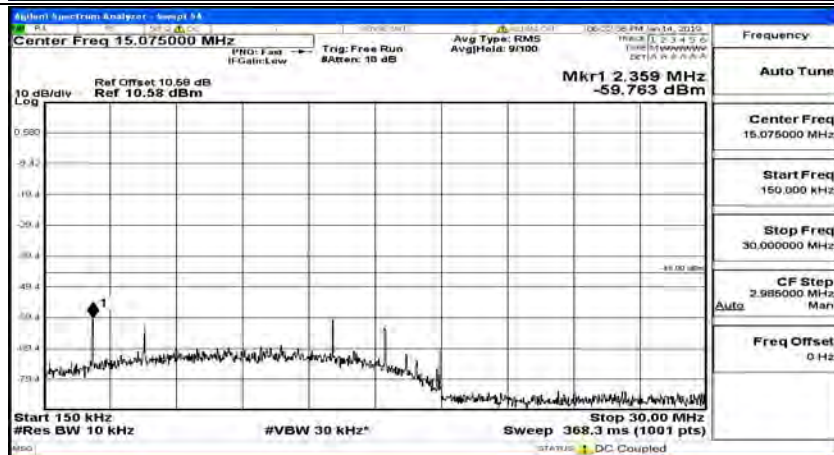
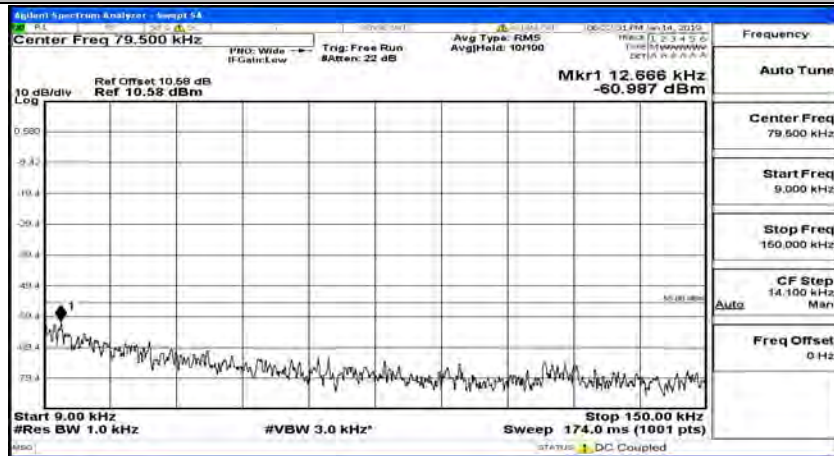
CSE Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



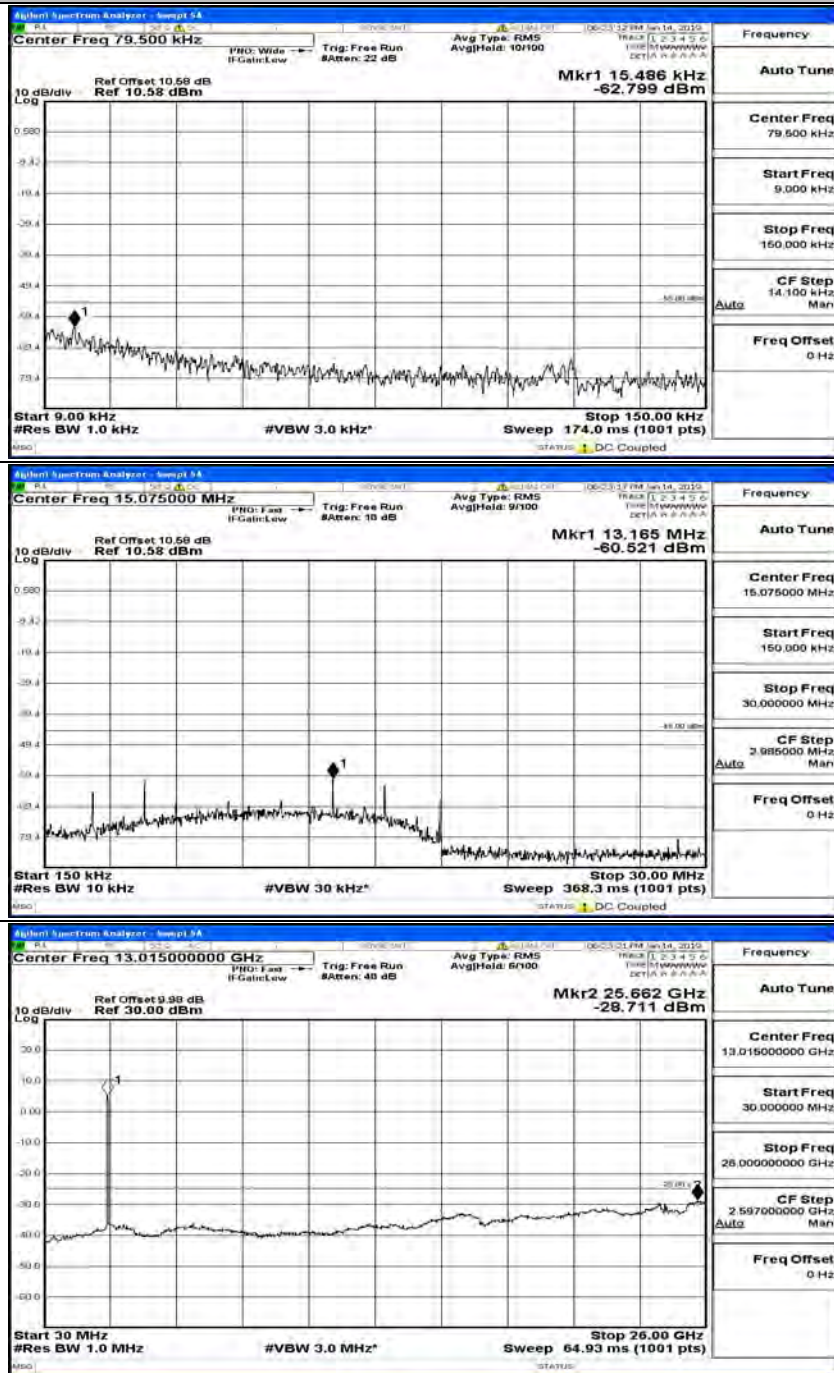
CSE Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



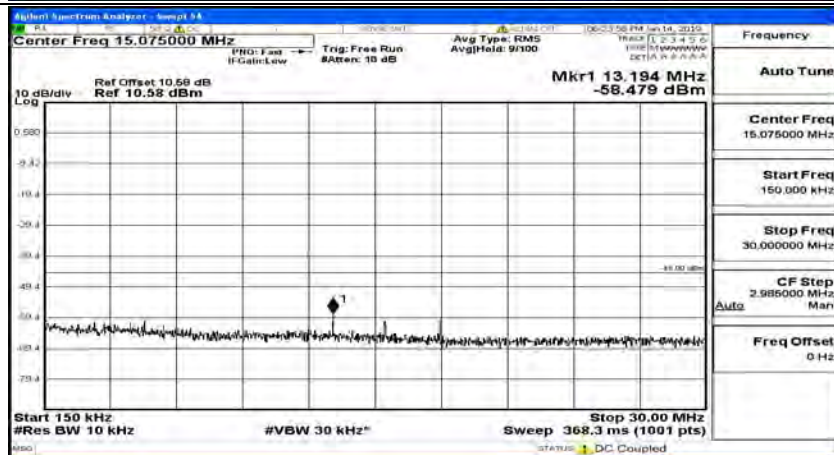
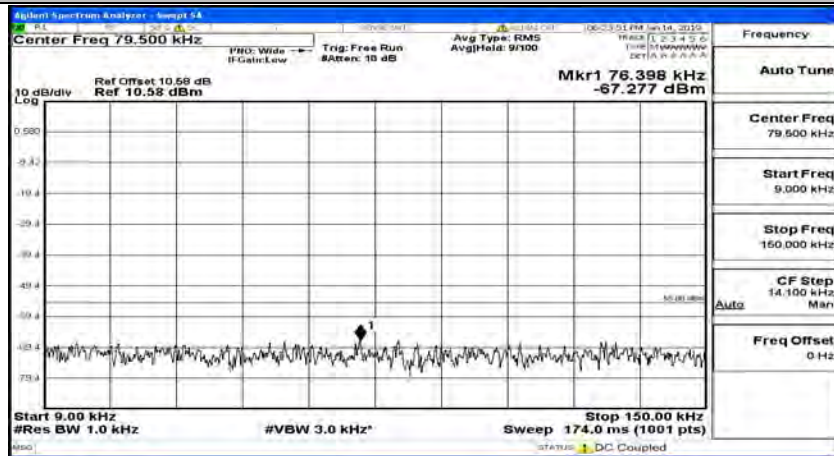
CSE Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



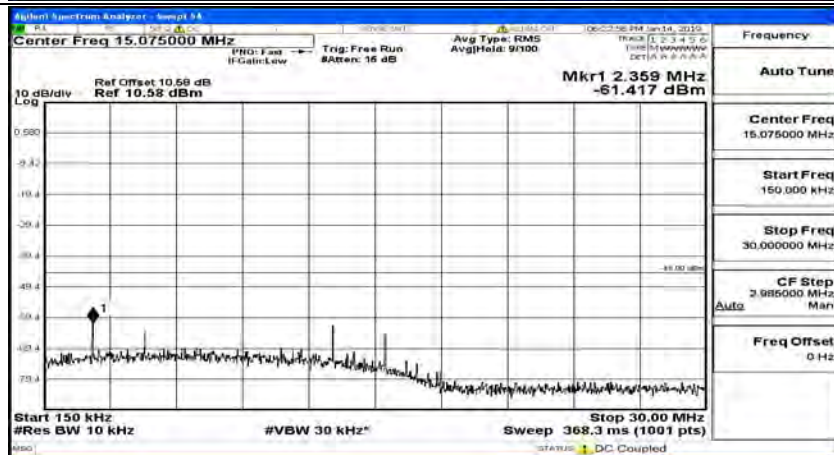
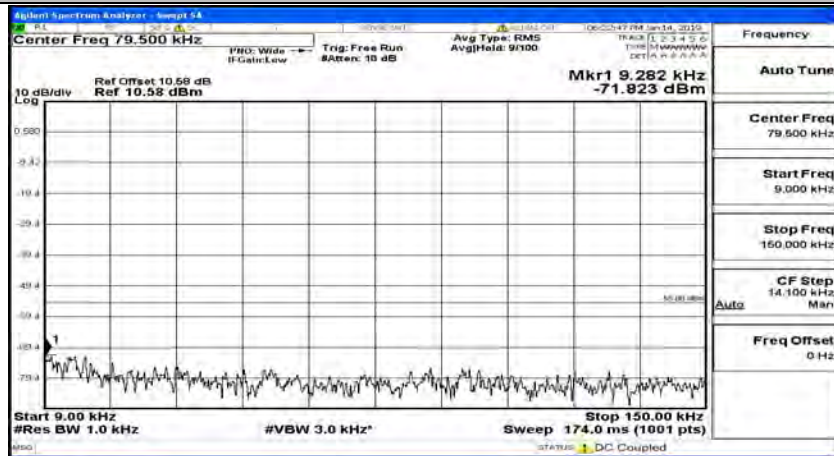
CSE Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



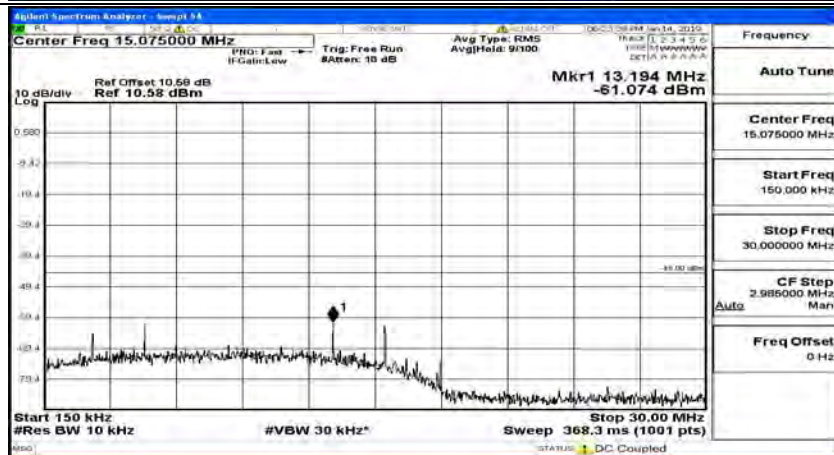
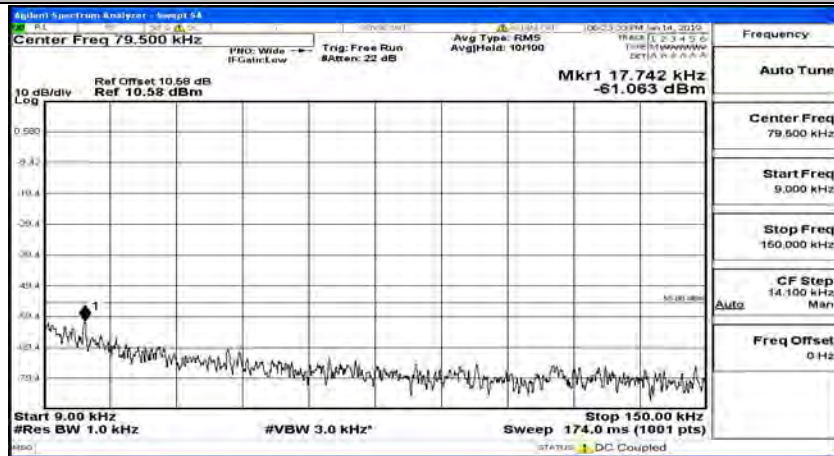
CSE Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



CSE Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



CSE Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM



CSE Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

