

## Appendix D: Test Data for E-UTRA Band 7

**Product Name: LTE GSM/WCDMA Smartphone**

**Trade Mark: DOOGEE**

**Test Model: S70 Lite**

### Environmental Conditions

Temperature:	22.8
Relative Humidity:	53.2
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]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.43	22.77	PASS
		1	12	23.74	<b>23.04</b>	PASS
		1	24	23.43	22.69	PASS
		12	0	22.56	21.68	PASS
		12	6	22.64	21.75	PASS
		12	13	22.60	21.71	PASS
		25	0	22.60	21.60	PASS
	MCH	1	0	23.42	22.36	PASS
		1	12	23.80	22.73	PASS
		1	24	23.43	22.37	PASS
		12	0	22.48	21.50	PASS
		12	6	22.53	21.59	PASS
		12	13	22.46	21.50	PASS
		25	0	22.53	21.53	PASS
	HCH	1	0	22.95	22.06	PASS
		1	12	23.26	22.37	PASS
		1	24	23.18	22.01	PASS
		12	0	22.13	21.18	PASS
		12	6	22.16	21.21	PASS
		12	13	22.13	21.15	PASS
		25	0	22.16	21.19	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	23.62	22.77	PASS
		1	24	23.72	22.92	PASS
		1	49	23.51	22.63	PASS
		25	0	22.60	21.58	PASS
		25	12	22.68	21.59	PASS
		25	25	22.66	21.57	PASS
		50	0	22.59	21.58	PASS
	MCH	1	0	23.40	22.66	PASS
		1	24	23.61	22.85	PASS
		1	49	23.44	22.64	PASS
		25	0	22.55	21.54	PASS
		25	12	22.56	21.56	PASS
		25	25	22.57	21.57	PASS
		50	0	22.59	21.54	PASS
	HCH	1	0	23.12	22.40	PASS
		1	24	23.07	22.59	PASS
		1	49	23.22	22.31	PASS
		25	0	22.27	21.28	PASS
		25	12	22.16	21.20	PASS
		25	25	22.18	21.17	PASS
		50	0	22.19	21.24	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	22.75	PASS
		1	37	23.79	22.92	PASS
		1	74	23.40	22.51	PASS
		37	0	22.71	21.55	PASS
		37	18	22.73	21.60	PASS
		37	38	22.73	21.58	PASS
		75	0	22.71	21.58	PASS
	MCH	1	0	23.31	22.59	PASS
		1	37	23.58	22.86	PASS
		1	74	23.33	22.56	PASS
		37	0	22.58	21.50	PASS
		37	18	22.59	21.53	PASS
		37	38	22.64	21.56	PASS
		75	0	22.62	21.52	PASS
	HCH	1	0	23.19	22.23	PASS
		1	37	23.25	22.52	PASS
		1	74	23.19	22.22	PASS
		37	0	22.37	21.30	PASS
		37	18	22.31	21.24	PASS
		37	38	22.22	21.14	PASS
		75	0	22.35	21.22	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	23.61	22.73	PASS
		1	49	<b>23.85</b>	22.87	PASS
		1	99	23.37	22.40	PASS
		50	0	22.35	21.35	PASS
		50	25	22.60	21.47	PASS
		50	50	22.46	21.40	PASS
		100	0	22.43	21.36	PASS
	MCH	1	0	23.39	22.56	PASS
		1	49	23.80	22.91	PASS
		1	99	23.42	22.47	PASS
		50	0	22.50	21.48	PASS
		50	25	22.57	21.50	PASS
		50	50	22.56	21.57	PASS
		100	0	22.54	21.48	PASS
	HCH	1	0	23.19	22.34	PASS
		1	49	23.42	22.61	PASS
		1	99	23.12	22.23	PASS
		50	0	22.26	21.26	PASS
		50	25	22.18	21.22	PASS
		50	50	21.98	21.05	PASS
		100	0	22.13	21.08	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	4.77	<13	PASS
	MCH	5.24	<13	PASS
	HCH	4.87	<13	PASS
16QAM	LCH	5.65	<13	PASS
	MCH	6.11	<13	PASS
	HCH	5.76	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.93	<13	PASS
	MCH	5.34	<13	PASS
	HCH	5.1	<13	PASS
16QAM	LCH	5.72	<13	PASS
	MCH	6.09	<13	PASS
	HCH	5.89	<13	PASS

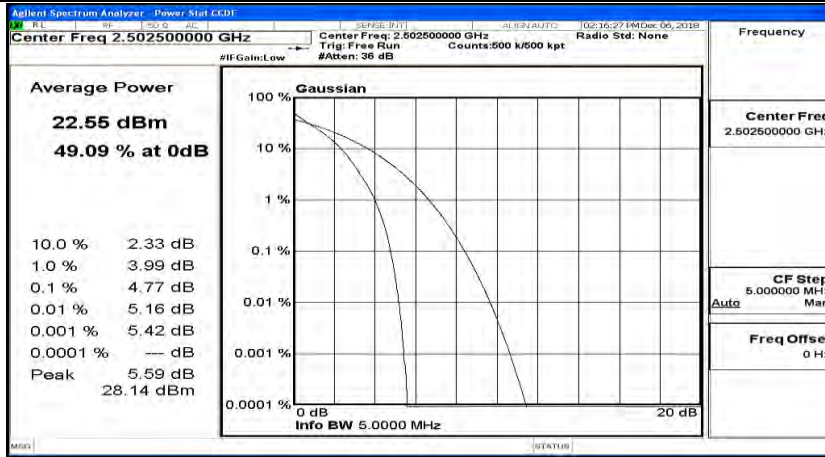
**Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)**

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.95	<13	PASS
	MCH	5.02	<13	PASS
	HCH	5.02	<13	PASS
16QAM	LCH	6.07	<13	PASS
	MCH	6.28	<13	PASS
	HCH	6.19	<13	PASS

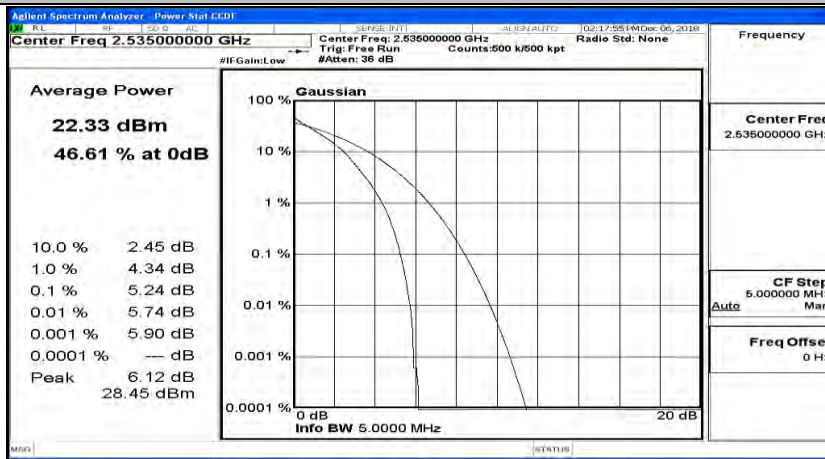
**Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)**

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.71	<13	PASS
	MCH	5.74	<13	PASS
	HCH	5.8	<13	PASS
16QAM	LCH	6.66	<13	PASS
	MCH	6.86	<13	PASS
	HCH	6.72	<13	PASS

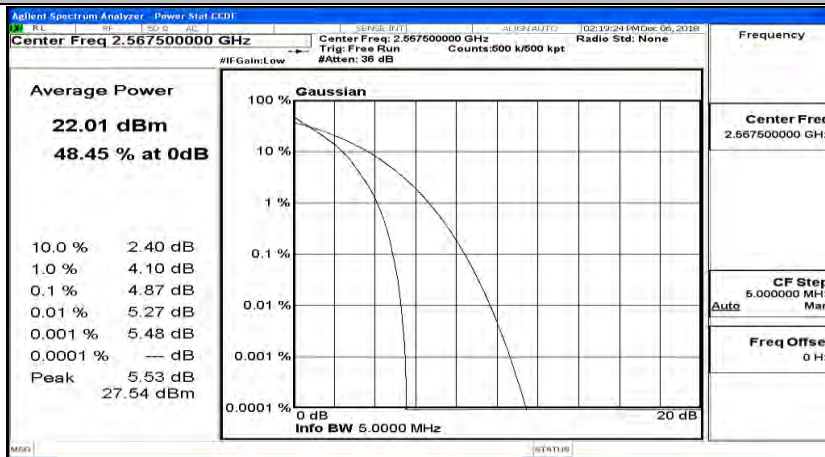
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK

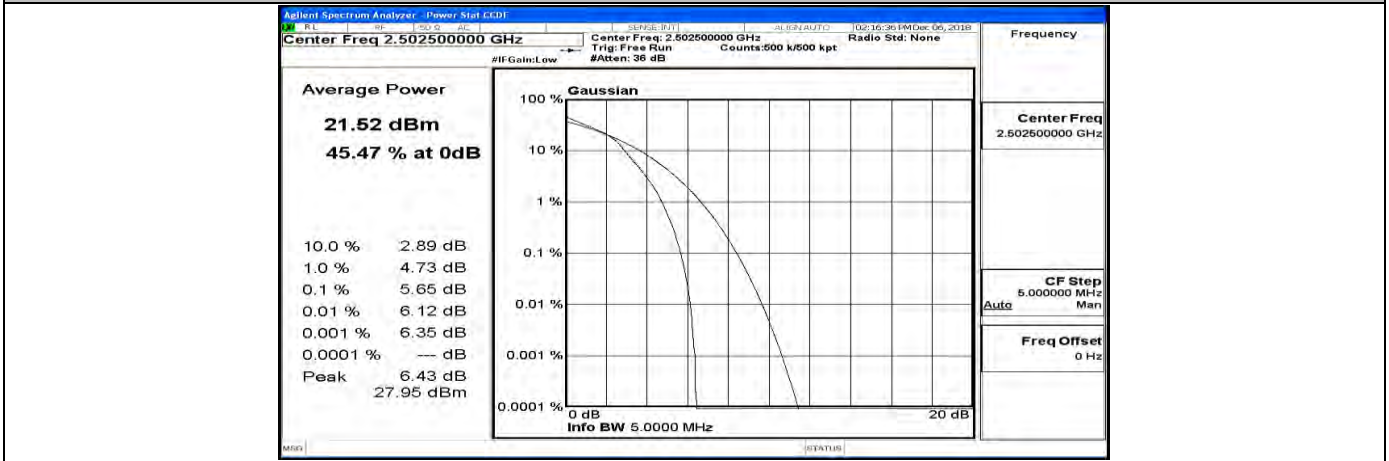


Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK

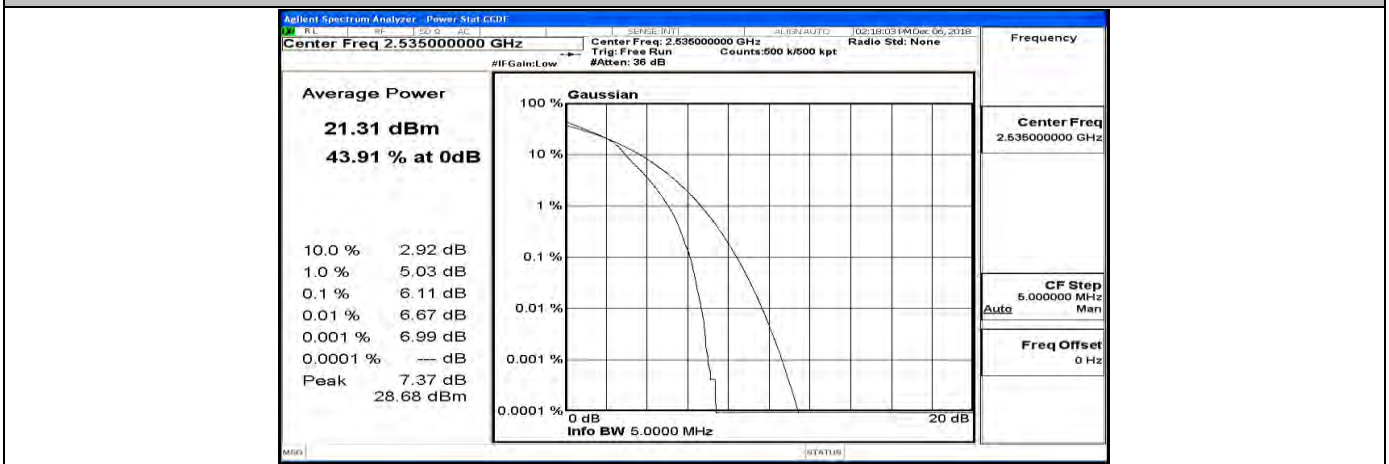




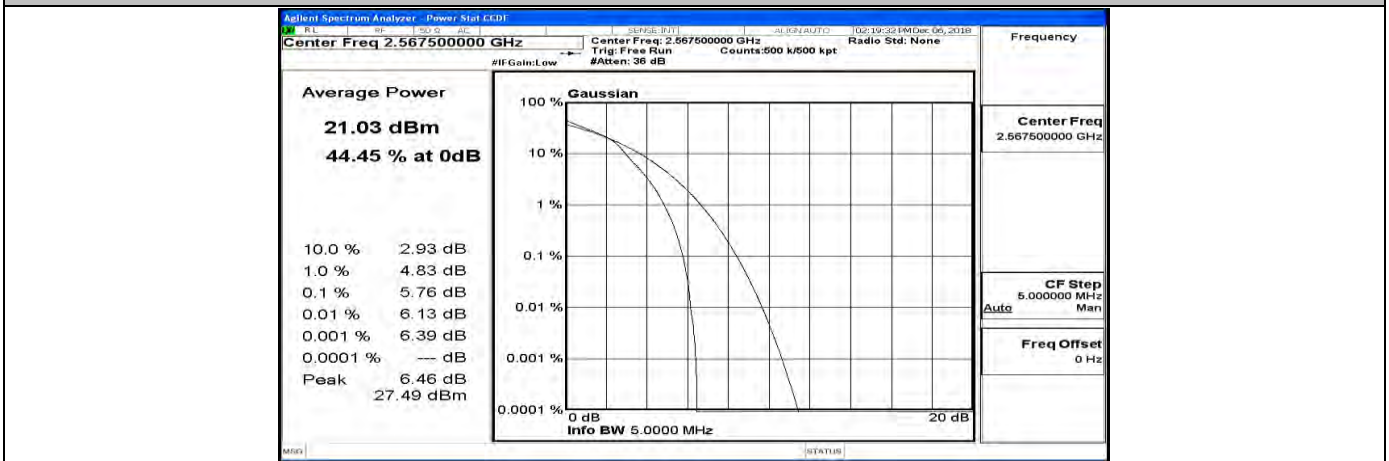
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



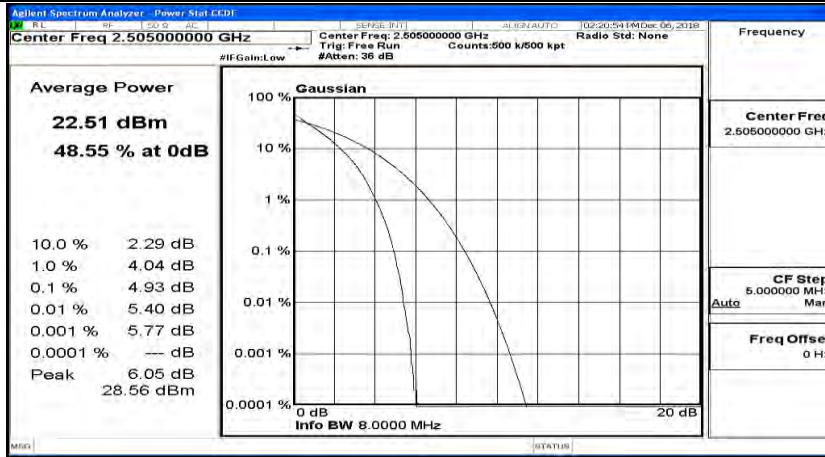
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



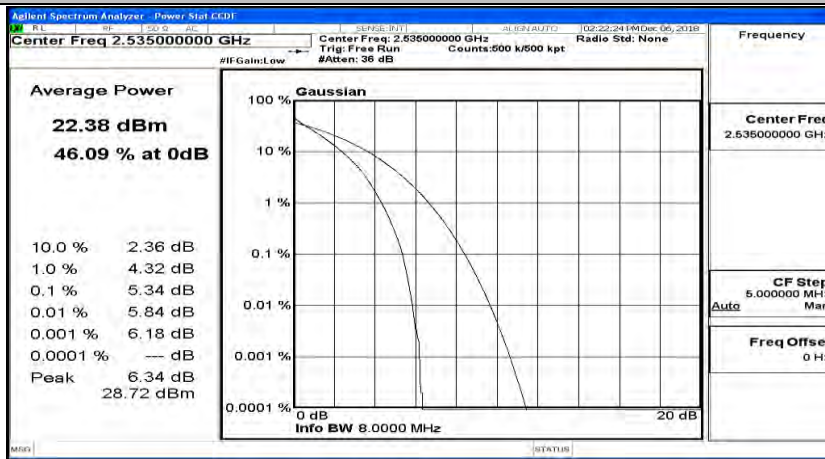
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



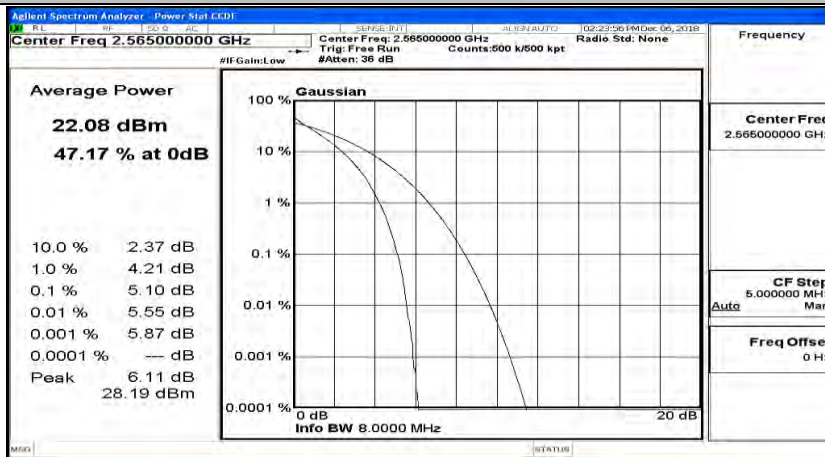
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz) LCH\_QPSK



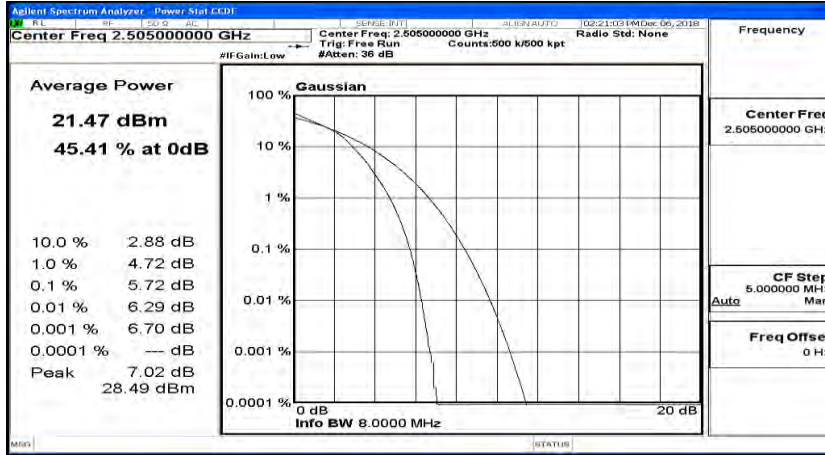
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz) MCH\_QPSK



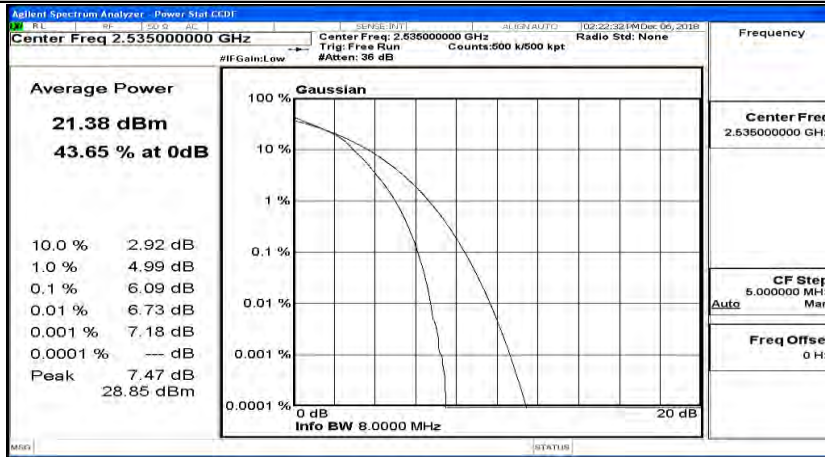
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz) HCH\_QPSK



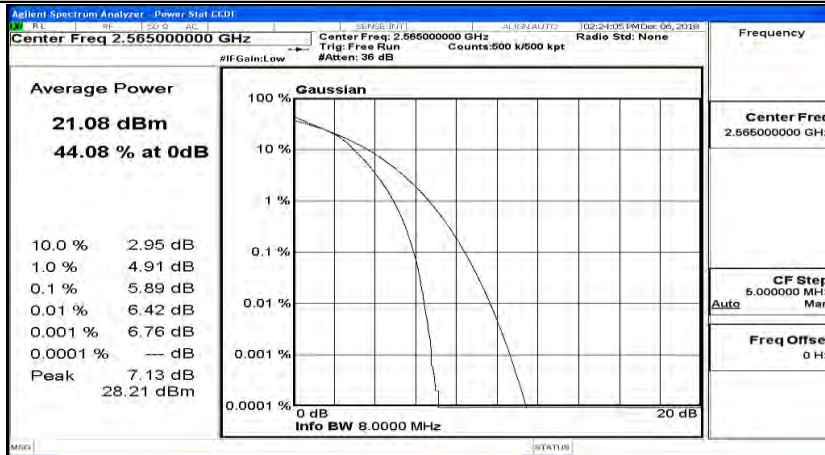
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



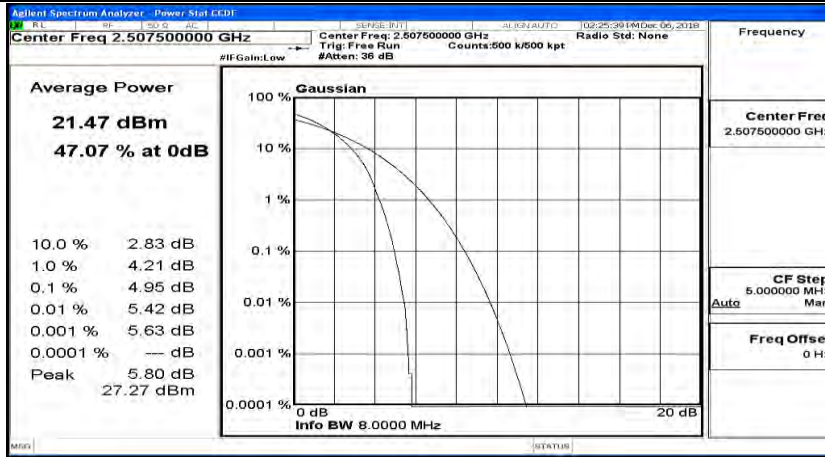
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM



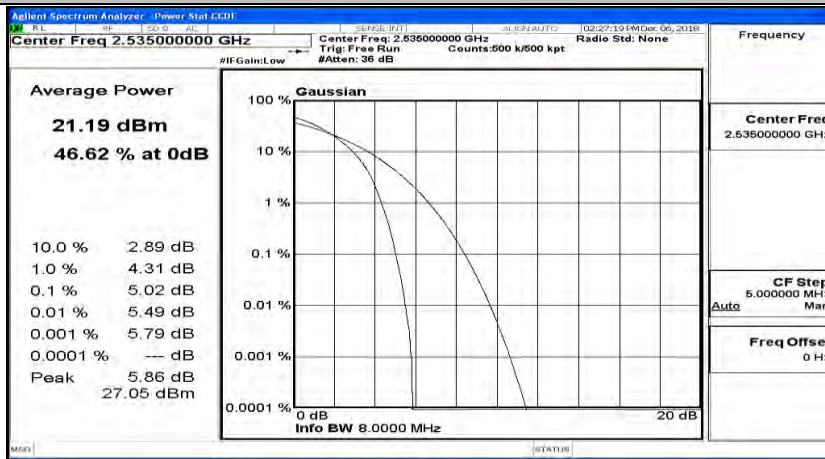
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



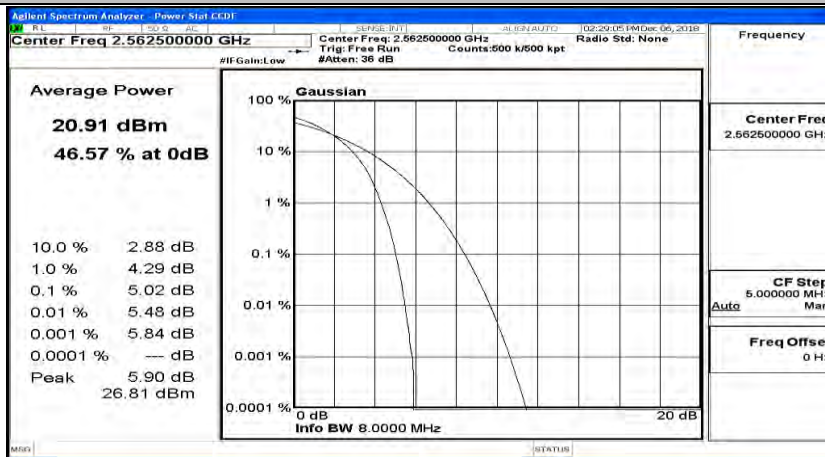
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz) LCH\_QPSK



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz) MCH\_QPSK

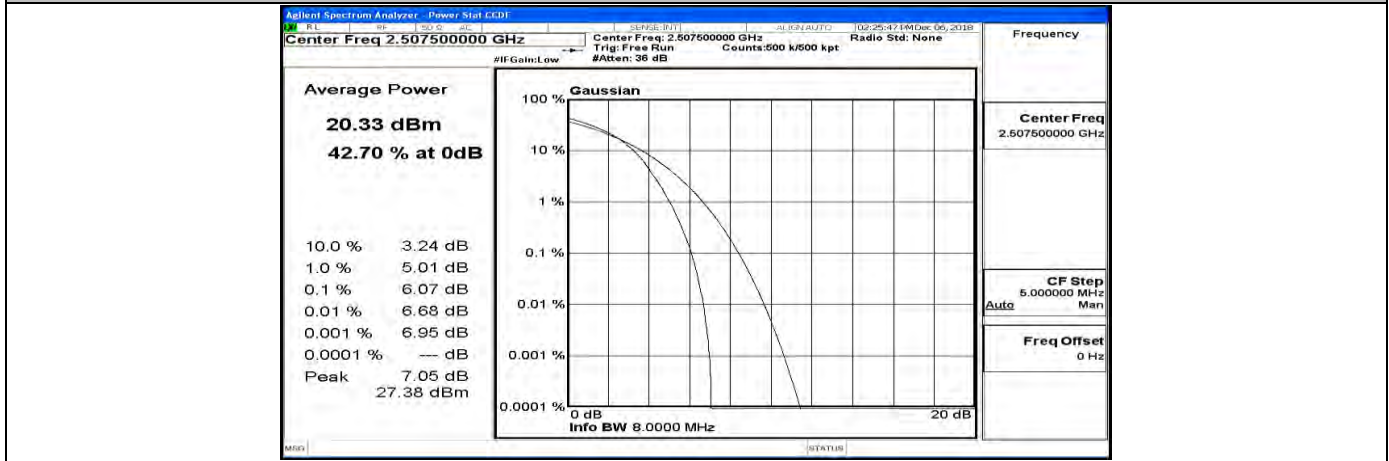


Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz) HCH\_QPSK

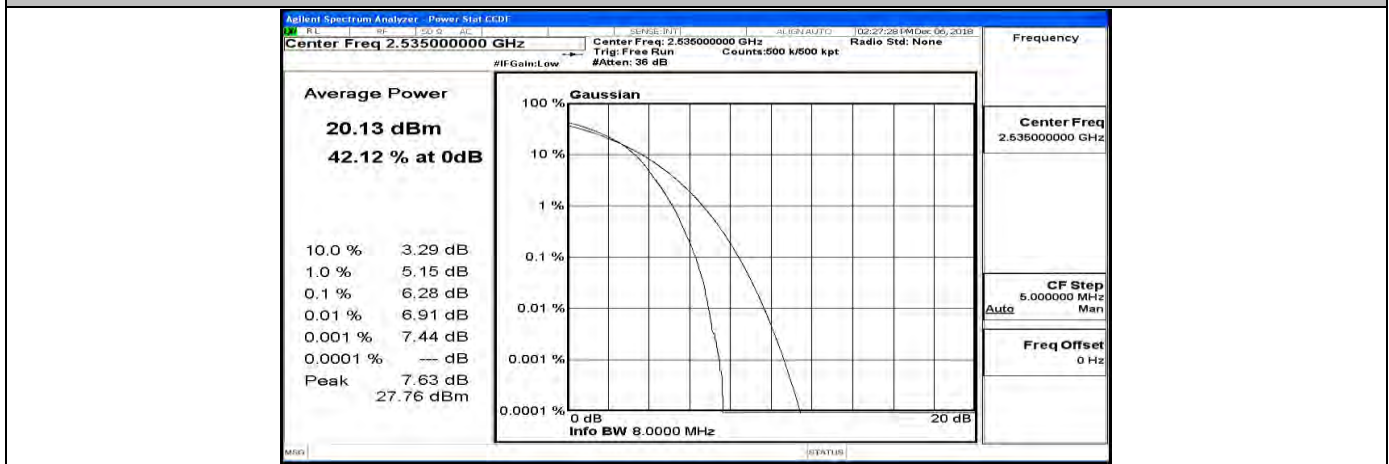




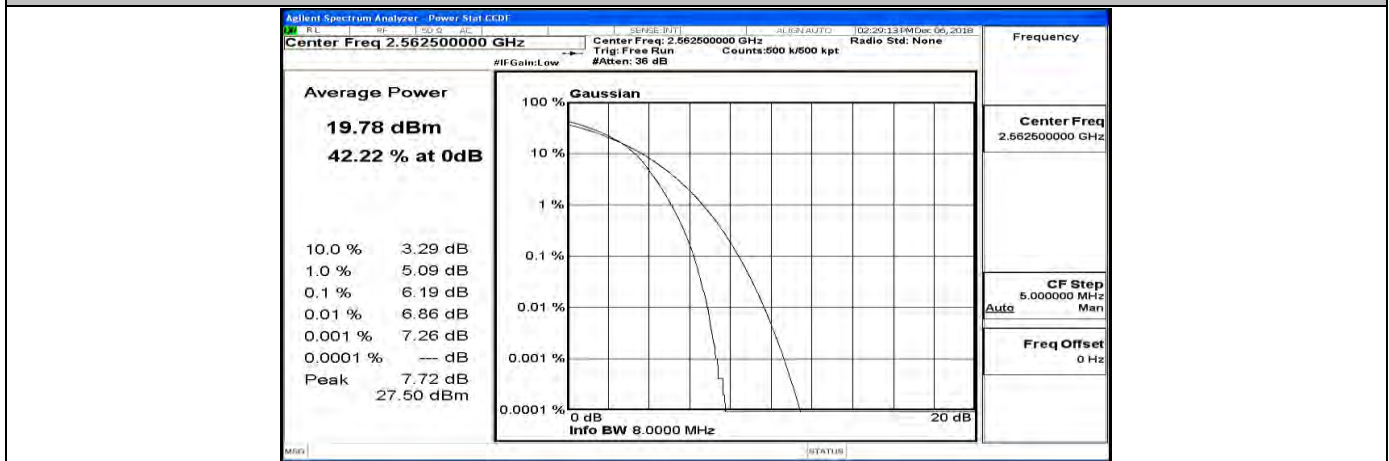
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_16QAM



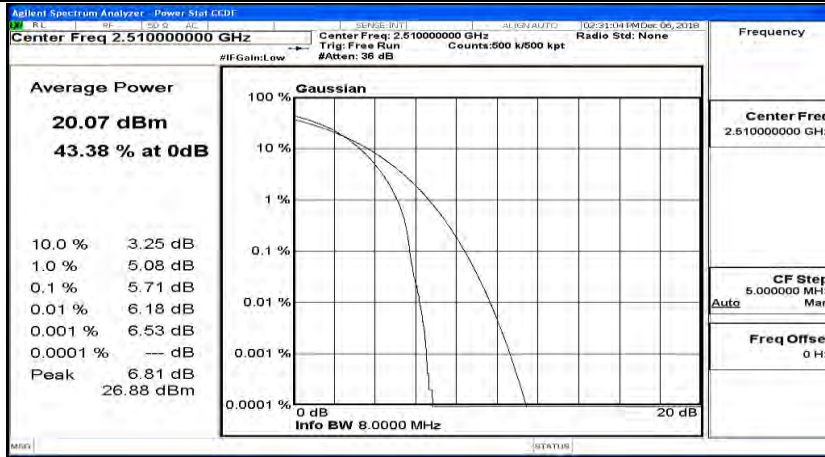
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_16QAM



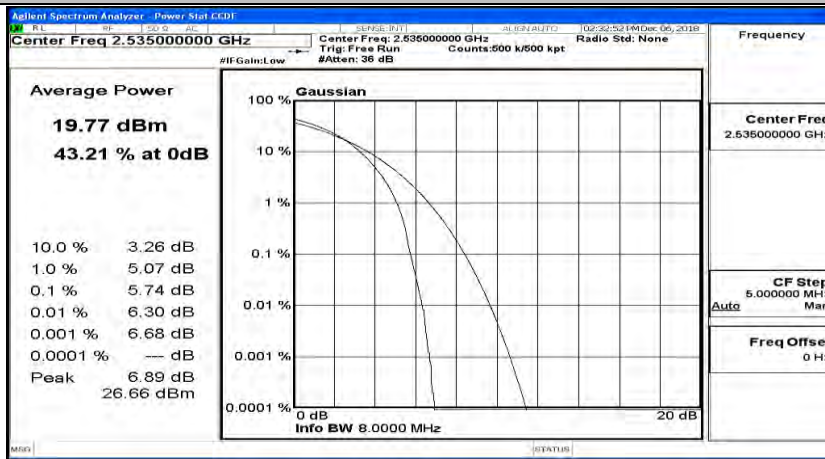
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_16QAM



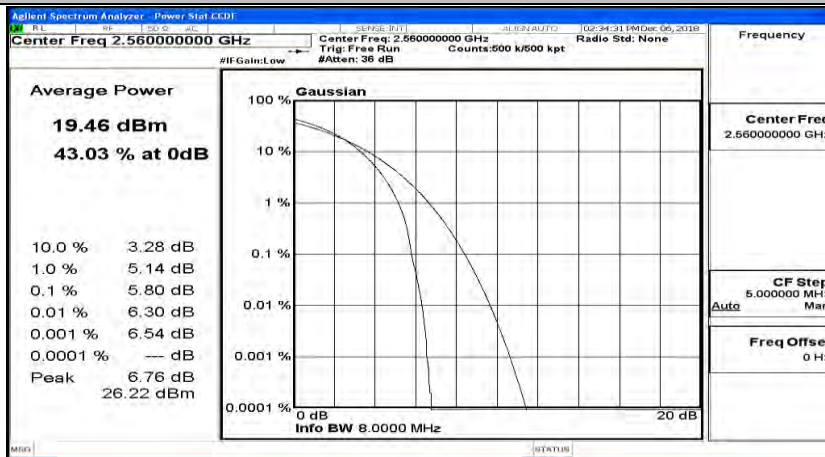
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz) LCH\_QPSK



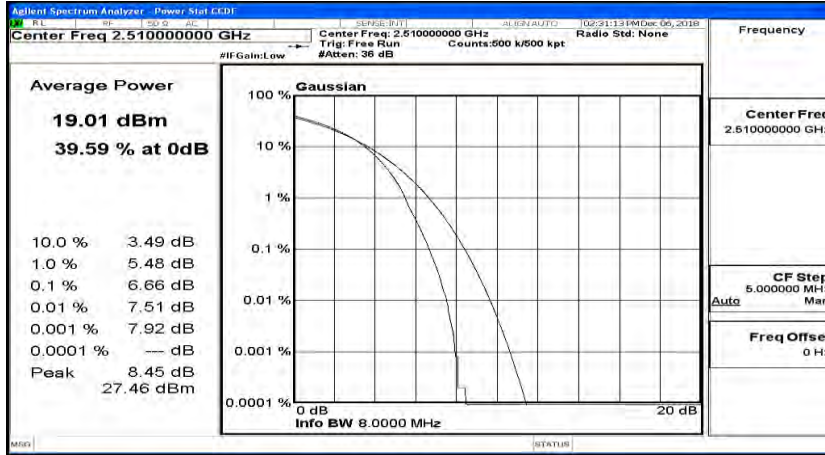
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz) MCH\_QPSK



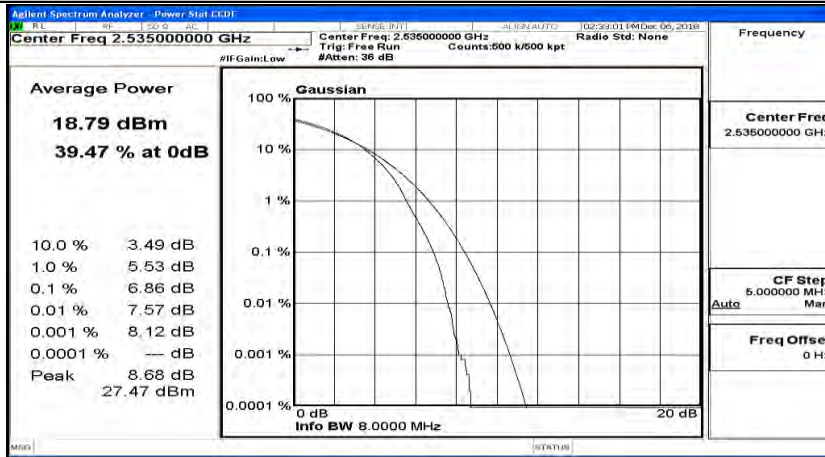
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz) HCH\_QPSK



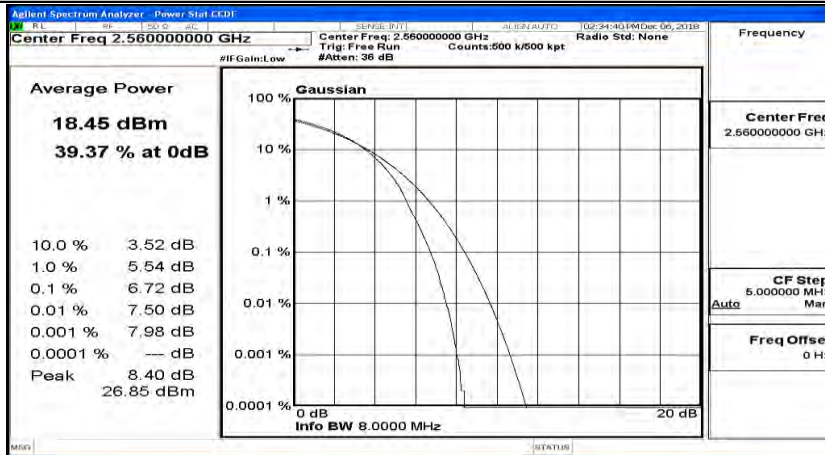
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_16QAM



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**

<b>EBW &amp; OBW Test Result (Channel Bandwidth: 5 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4844	4.869	PASS
	MCH	4.4765	4.866	PASS
	HCH	4.4846	4.876	PASS
16QAM	LCH	4.4788	4.836	PASS
	MCH	4.4823	4.911	PASS
	HCH	4.4804	4.841	PASS

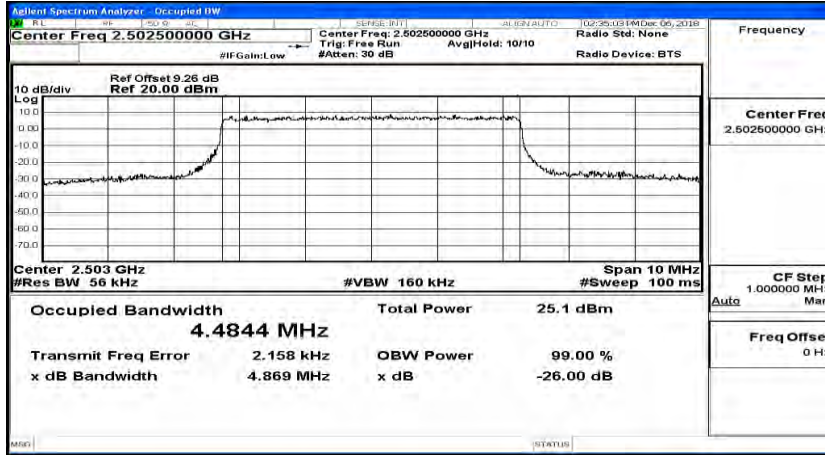
<b>EBW &amp; OBW Test Result (Channel Bandwidth: 10 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9445	9.572	PASS
	MCH	8.9523	9.565	PASS
	HCH	8.9420	9.572	PASS
16QAM	LCH	8.9336	9.465	PASS
	MCH	8.9462	9.562	PASS
	HCH	8.9463	9.462	PASS



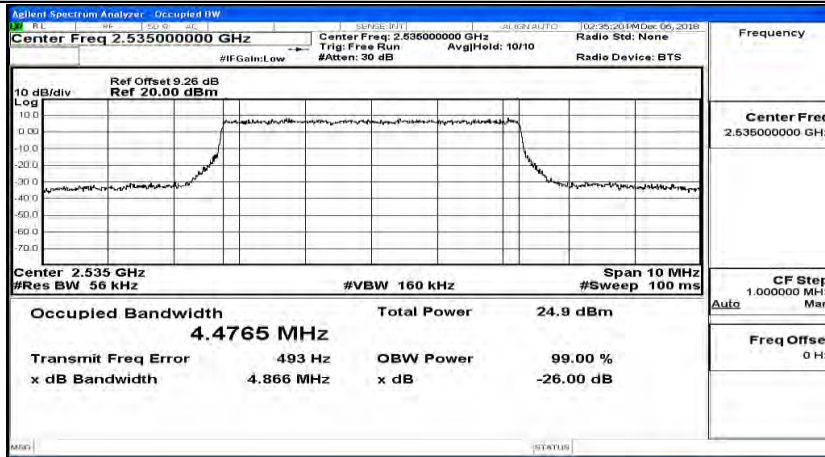
<b>EBW &amp; OBW Test Result (Channel Bandwidth: 15 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.408	14.15	PASS
	MCH	13.428	14.21	PASS
	HCH	13.409	14.20	PASS
16QAM	LCH	13.390	14.13	PASS
	MCH	13.410	14.12	PASS
	HCH	13.415	14.10	PASS

<b>EBW &amp; OBW Test Result (Channel Bandwidth: 20 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.846	18.70	PASS
	MCH	17.873	18.75	PASS
	HCH	17.876	18.64	PASS
16QAM	LCH	17.845	18.62	PASS
	MCH	17.886	18.70	PASS
	HCH	17.857	18.75	PASS

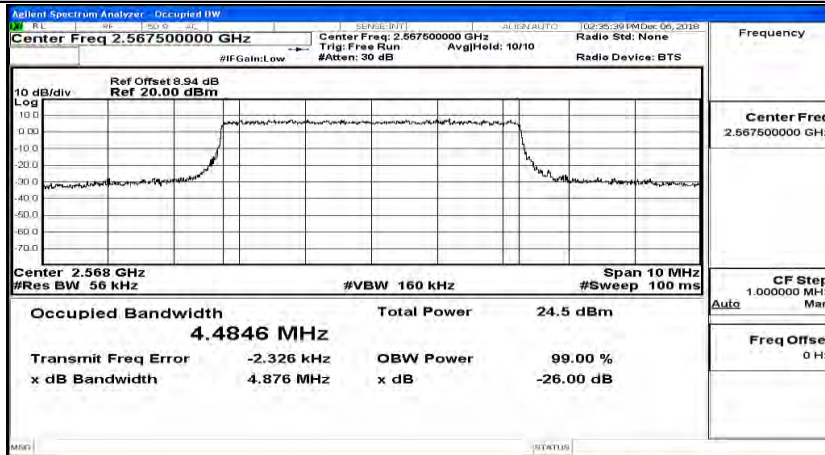
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



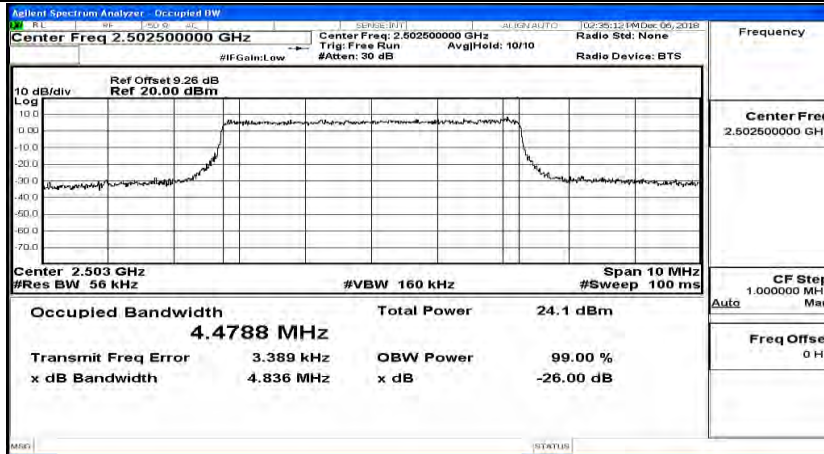
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



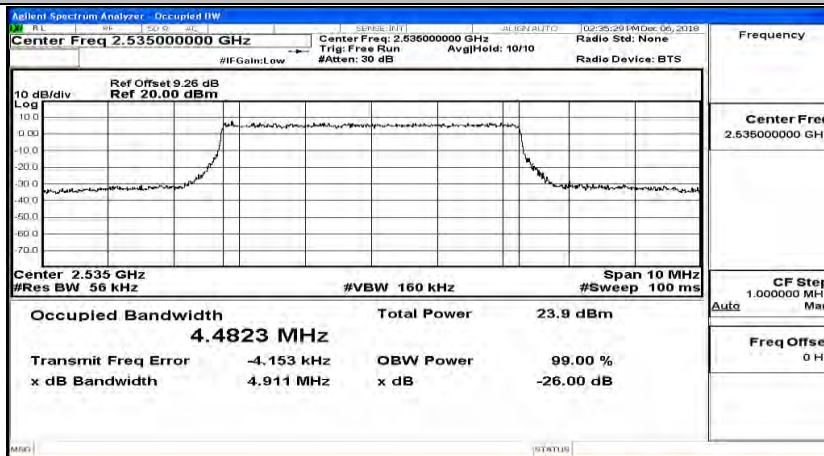
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



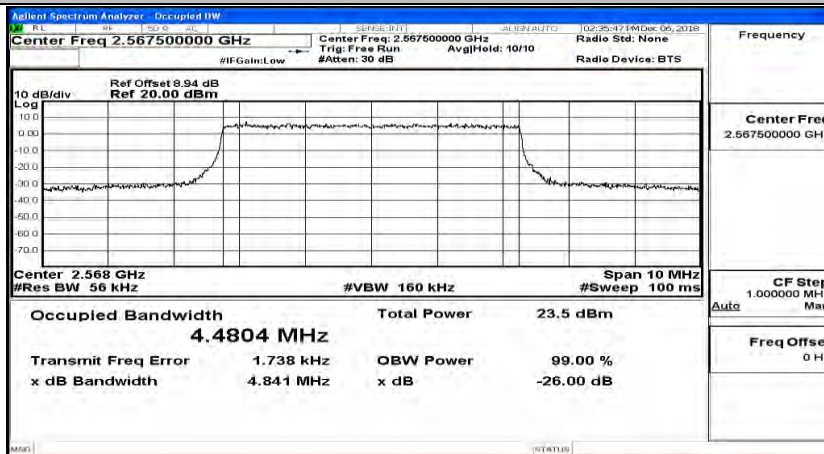
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



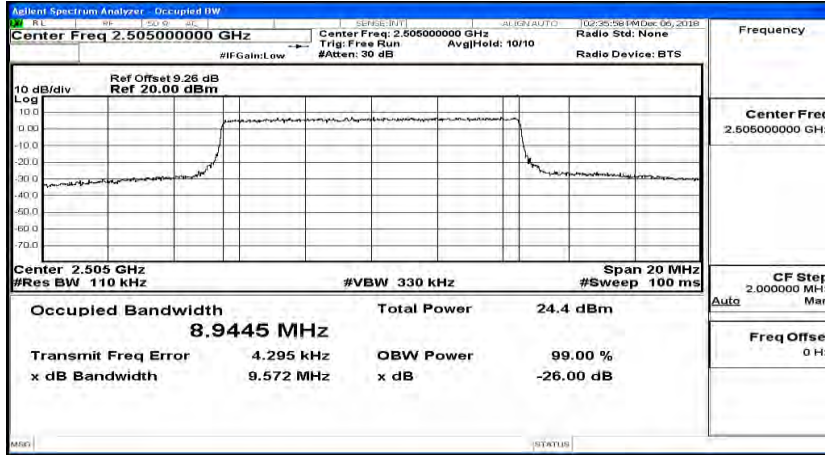
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



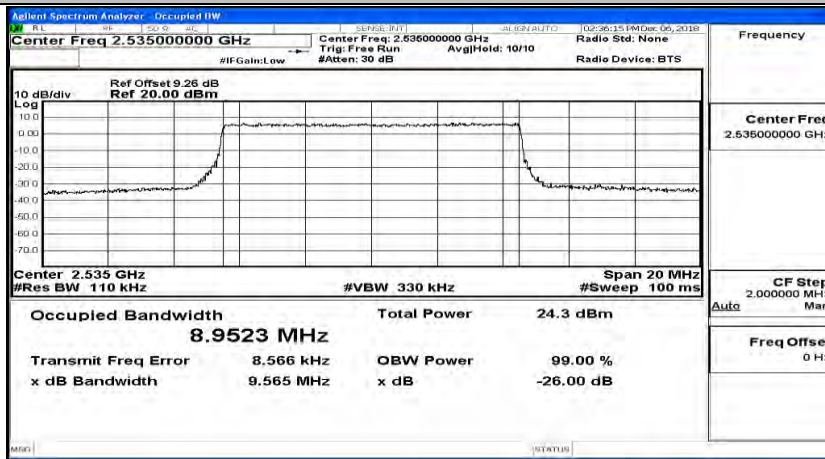
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



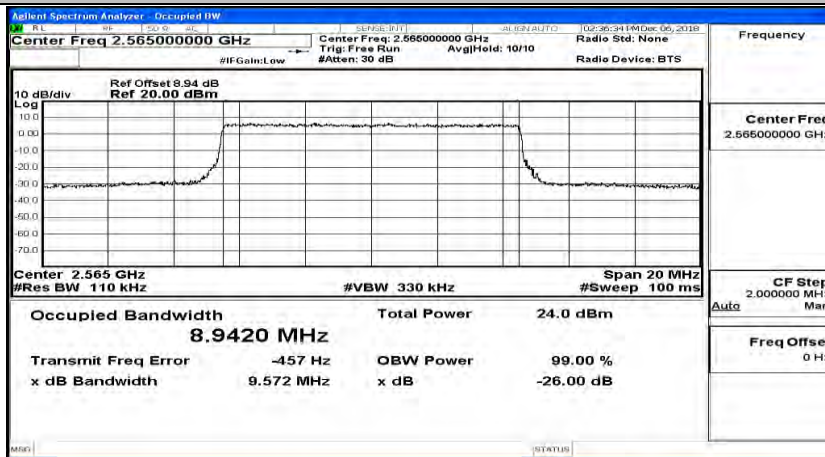
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK

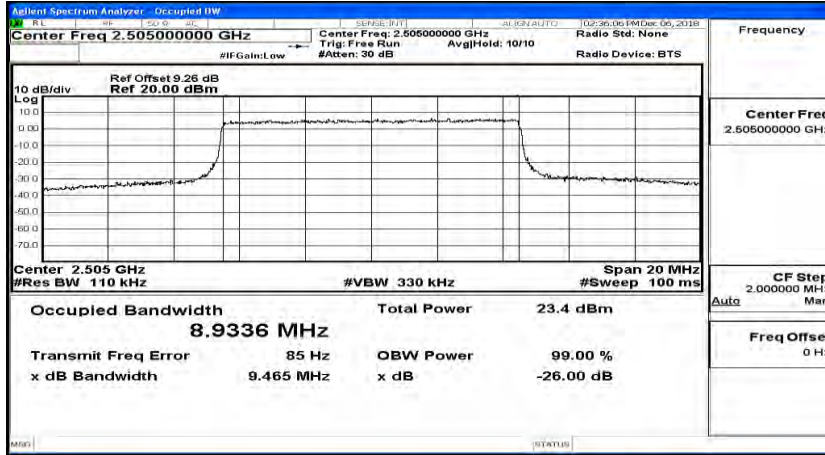


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK

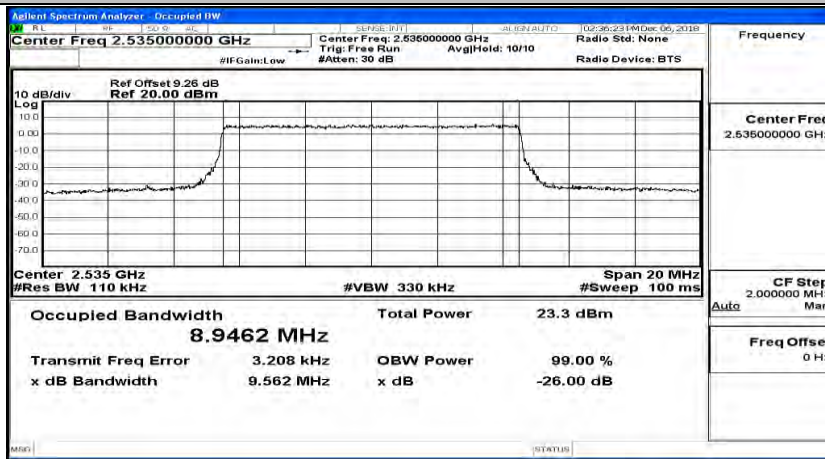




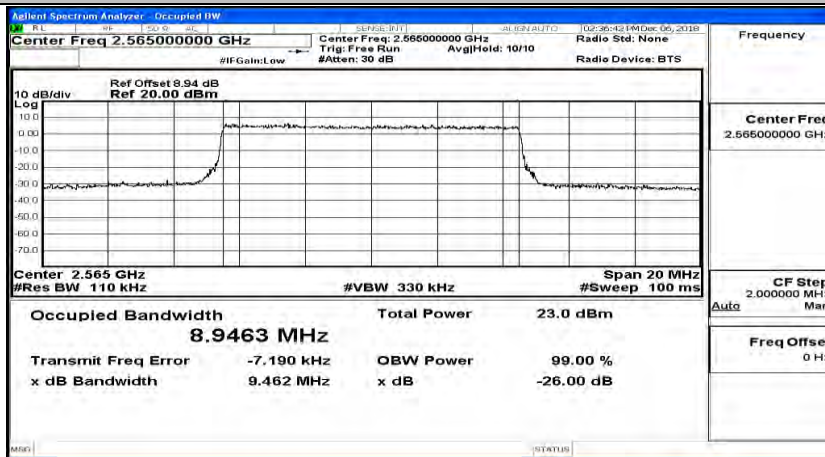
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



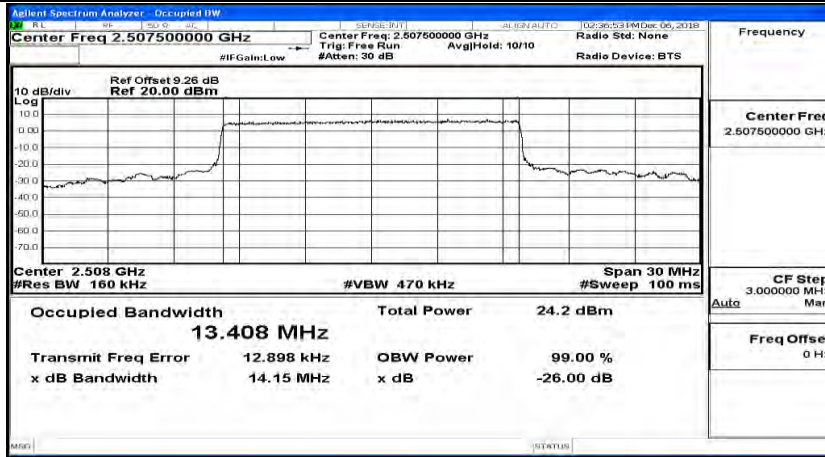
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM



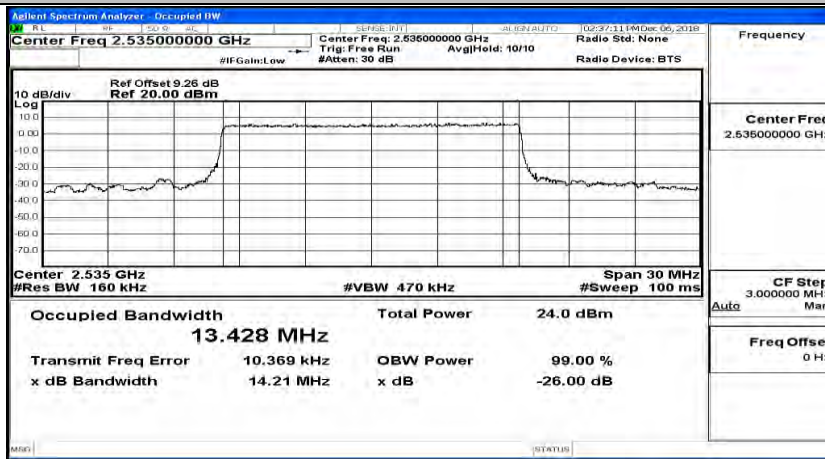
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



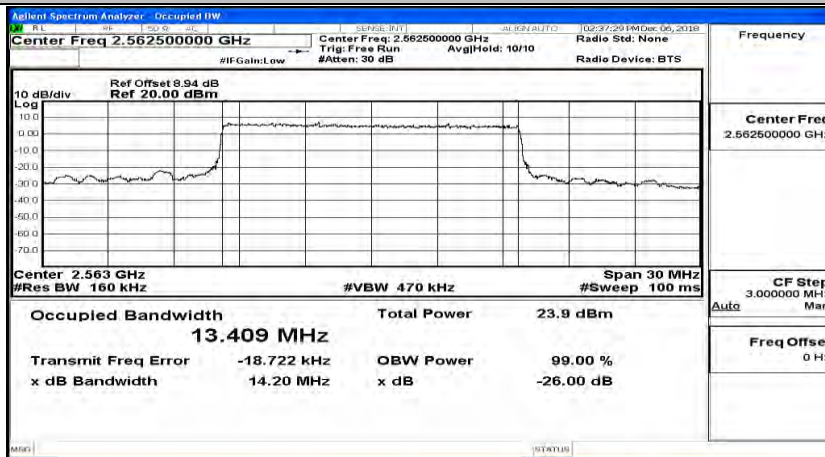
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_QPSK



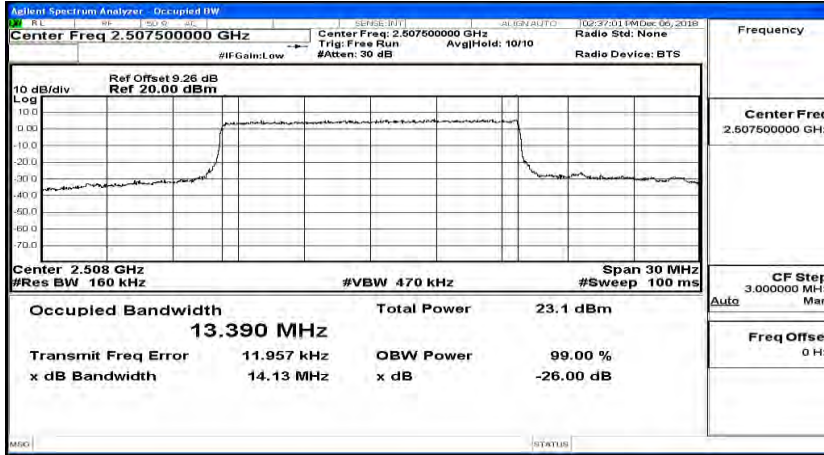
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_QPSK



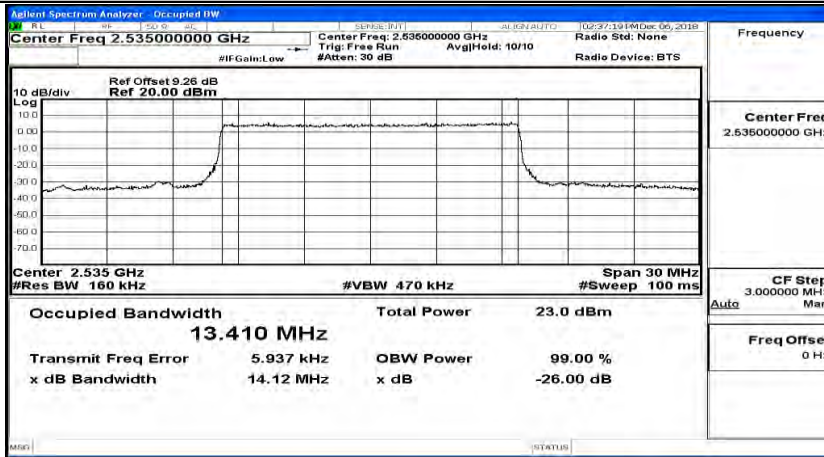
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_QPSK



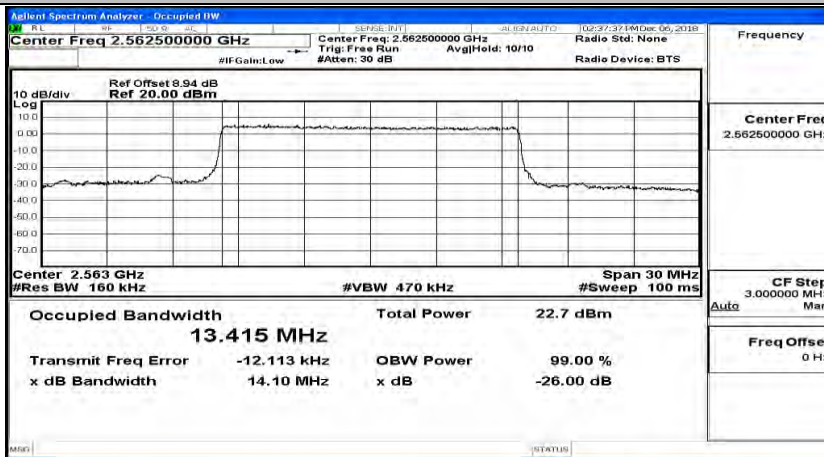
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_16QAM

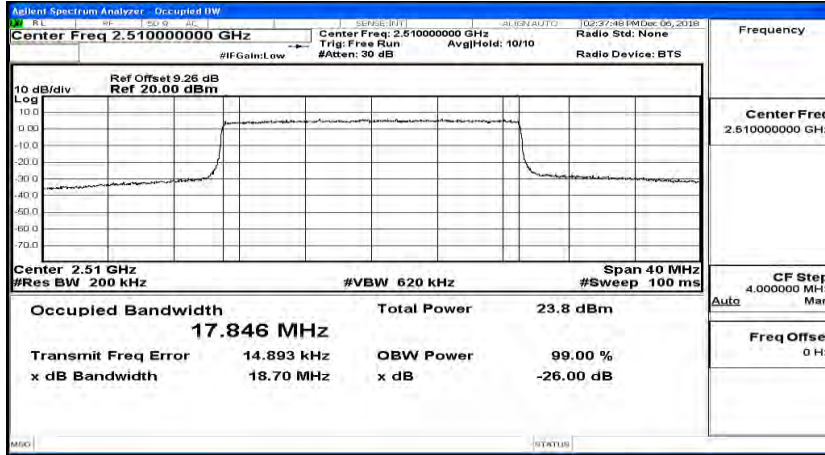


EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_16QAM

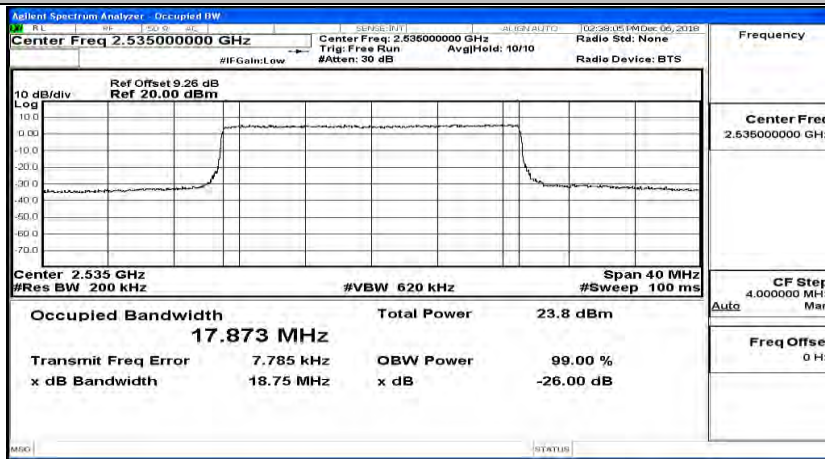




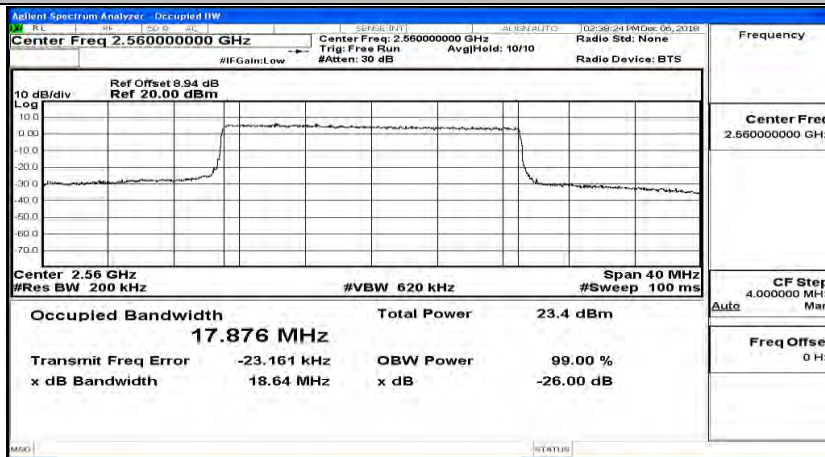
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_QPSK



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_QPSK

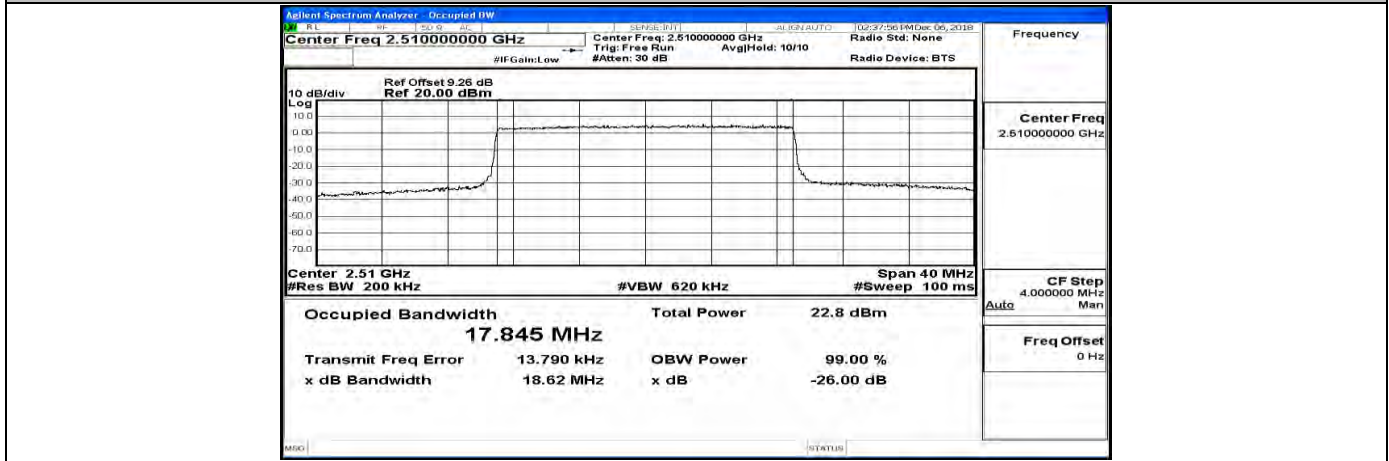


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_QPSK

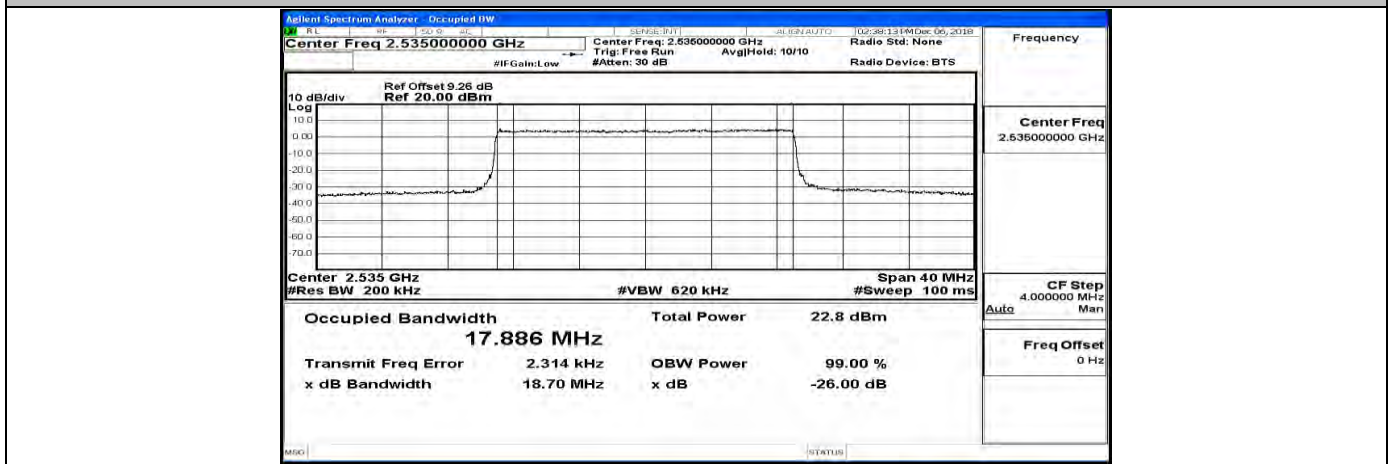




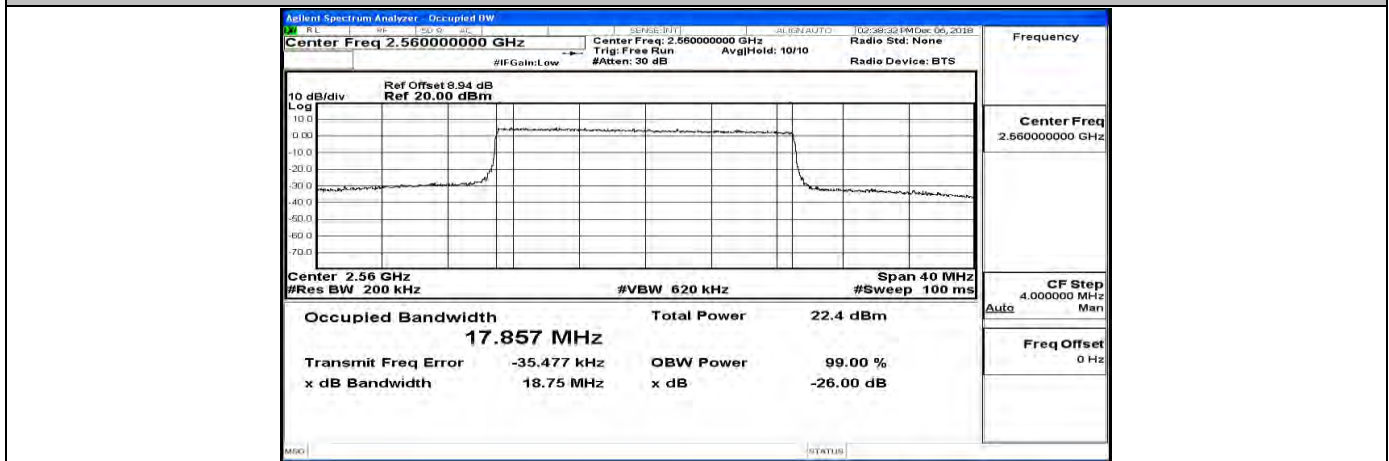
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_16QAM

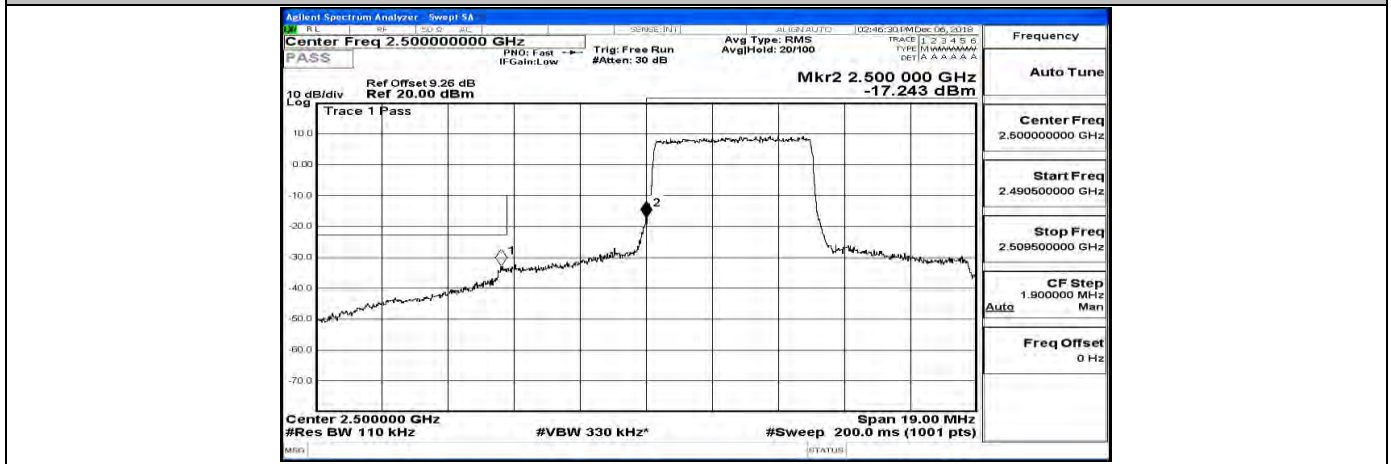


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_16QAM

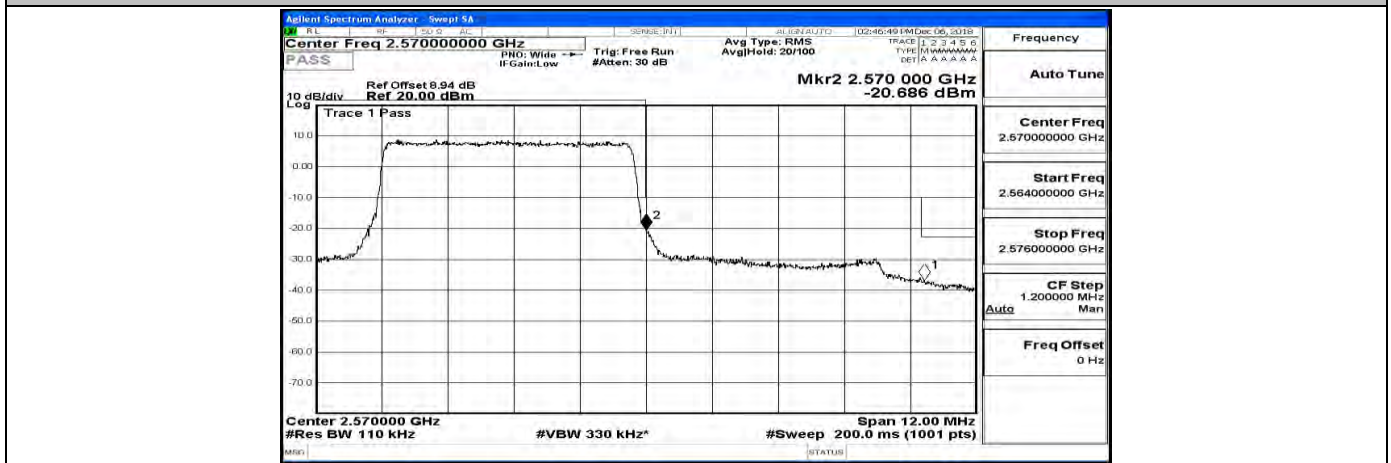


### D.4 Band Edge

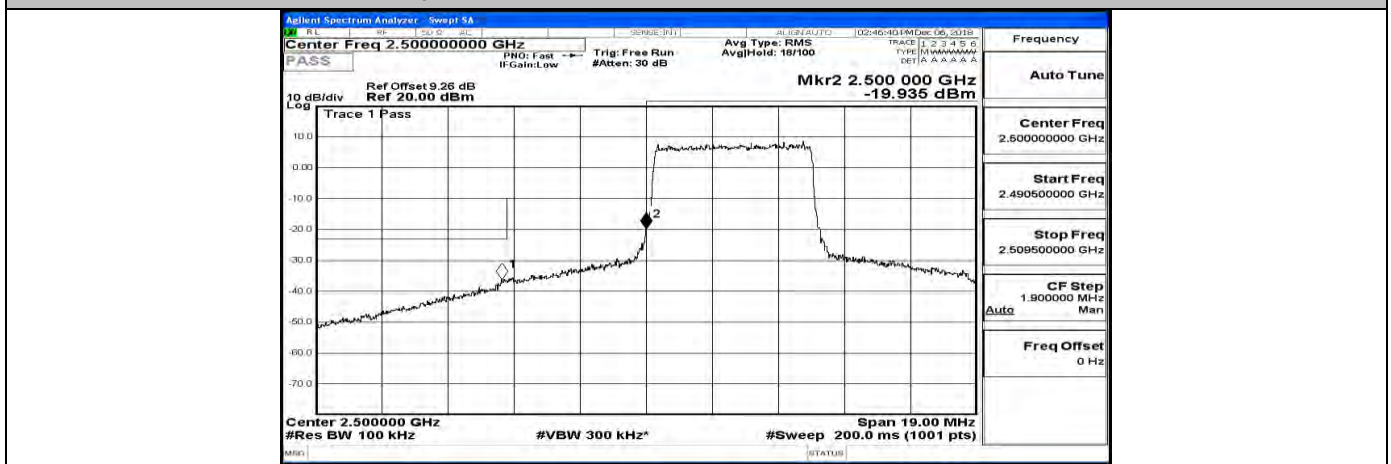
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



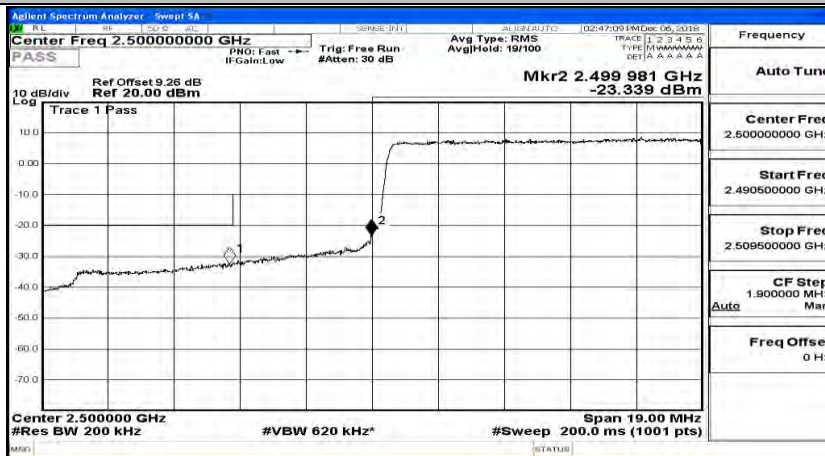
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



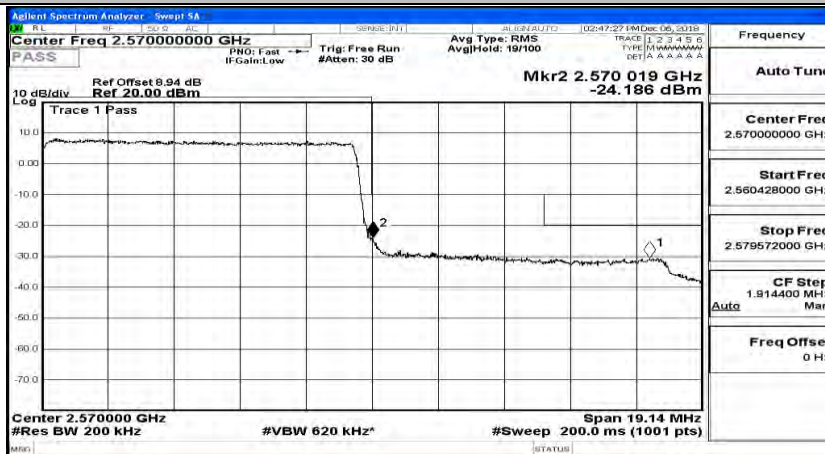
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK

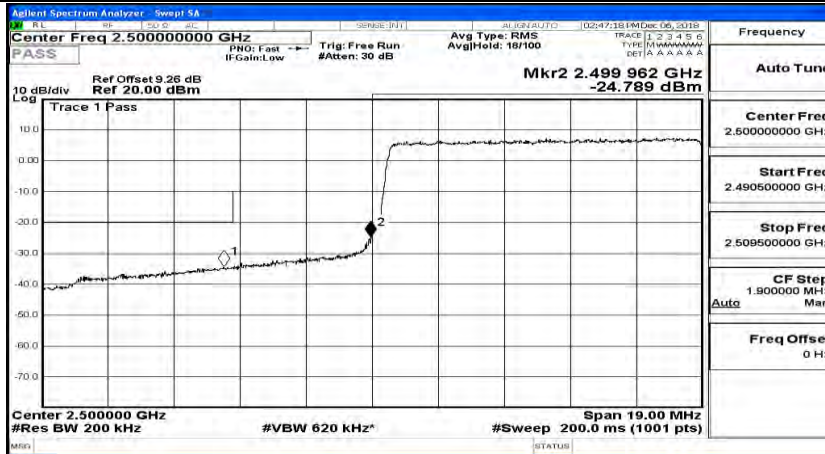


Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK

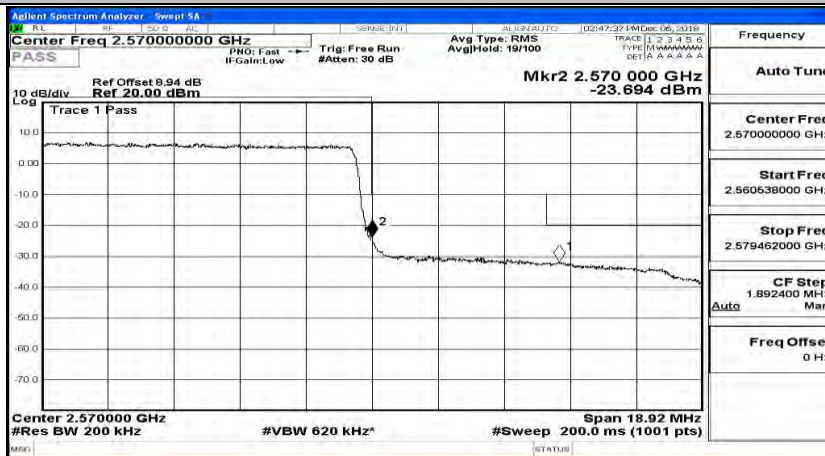




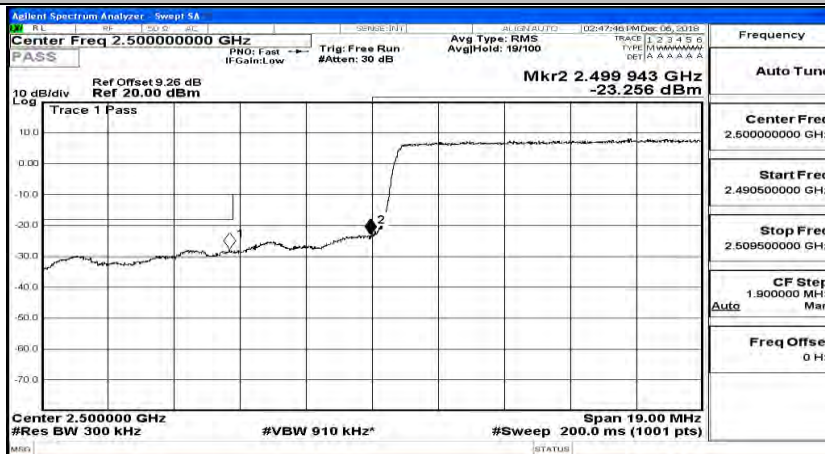
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz) LCH\_16QAM



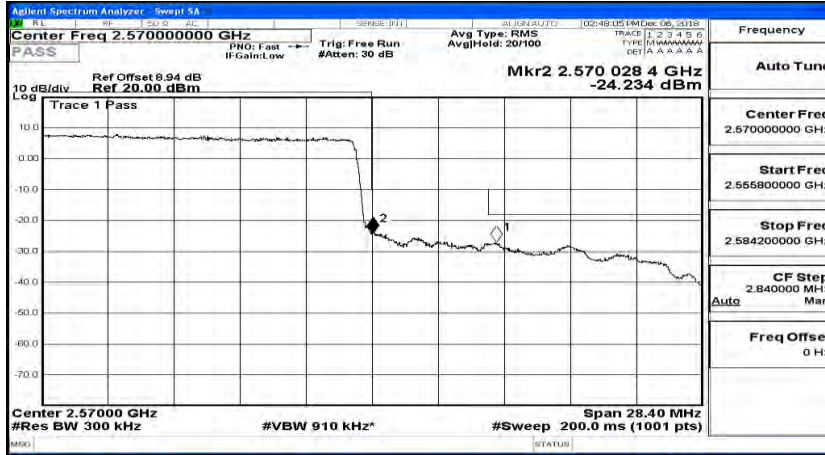
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



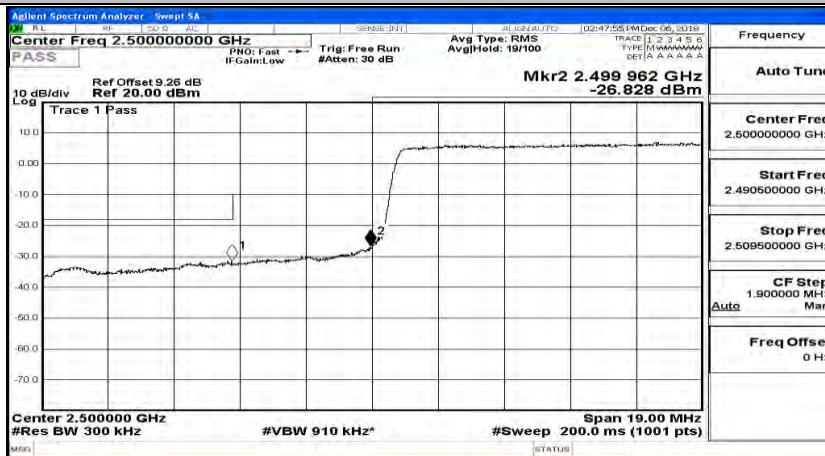
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz) LCH\_QPSK



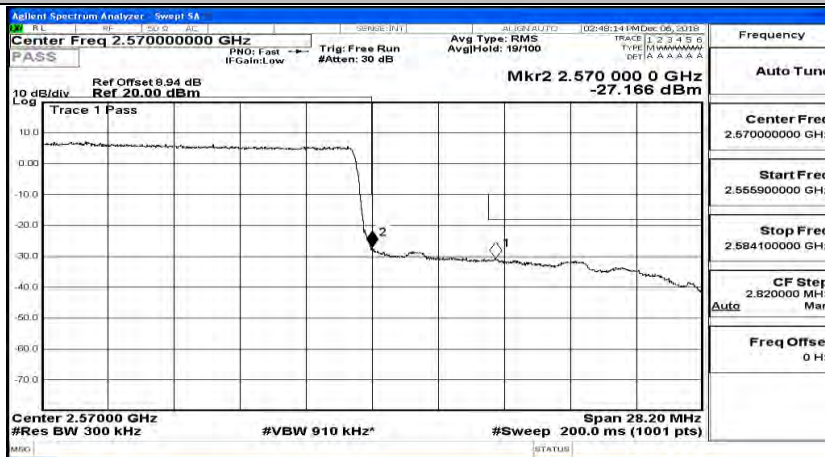
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_QPSK



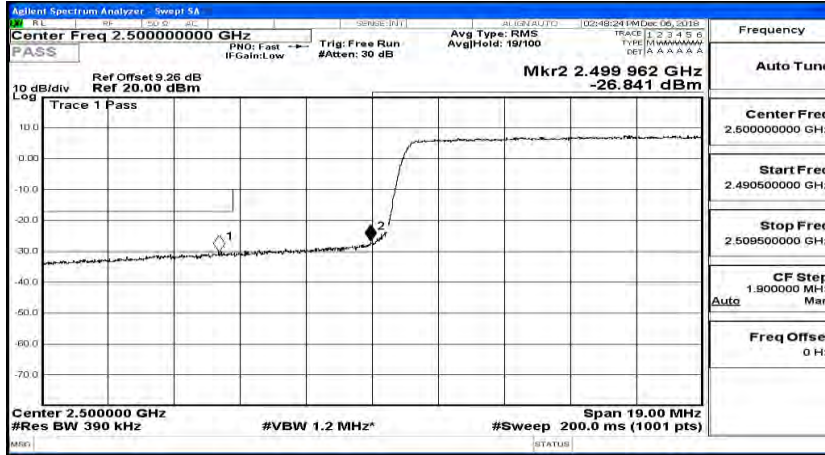
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_16QAM



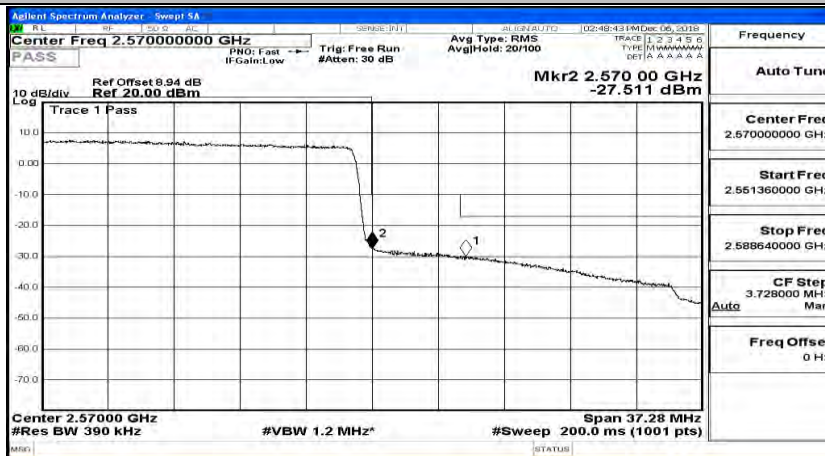
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_16QAM



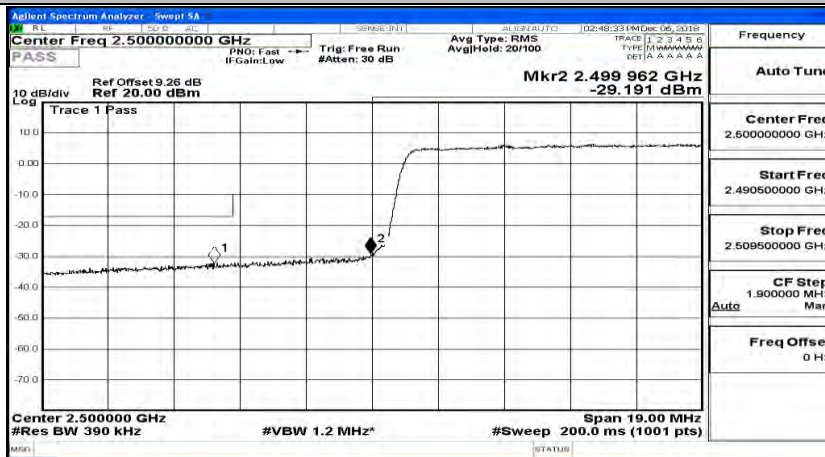
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz) LCH\_QPSK



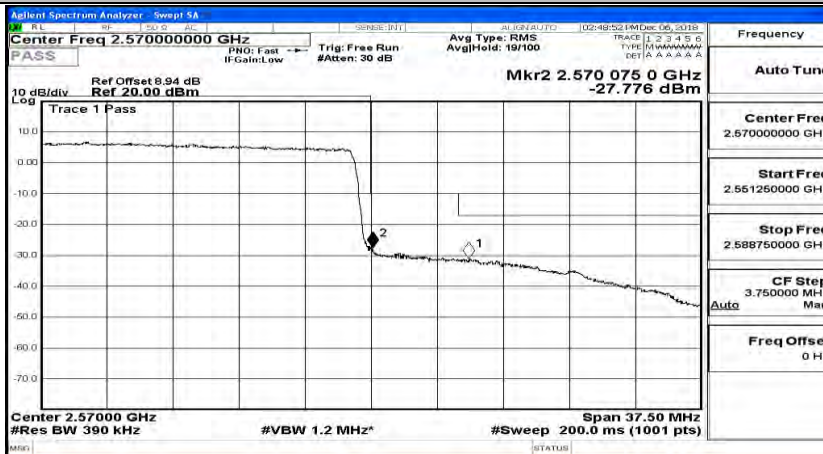
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz) HCH\_QPSK



Band Edge Test Graph(s) (Channel Bandwidth:20 MHz) LCH\_16QAM



Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_16QAM





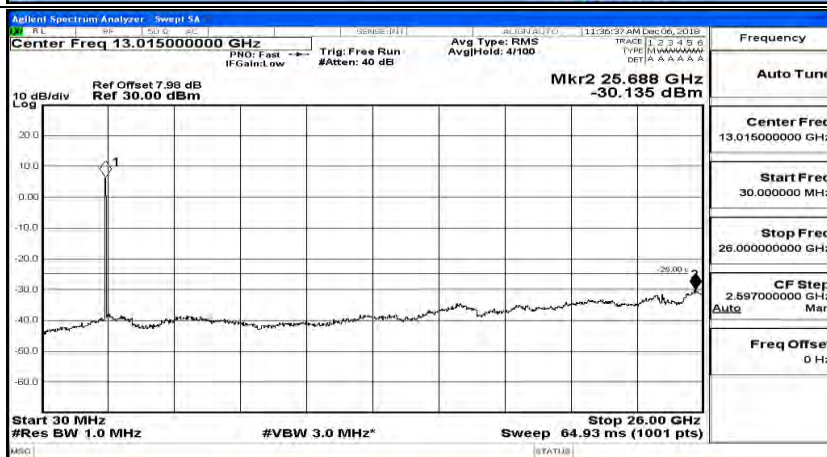
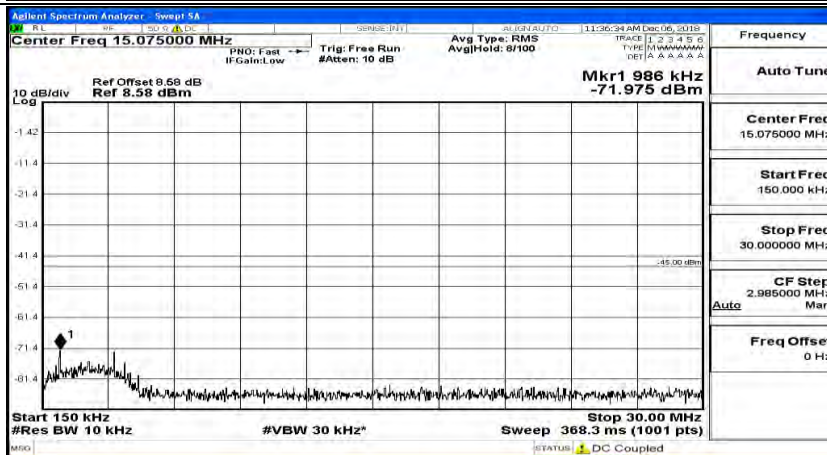
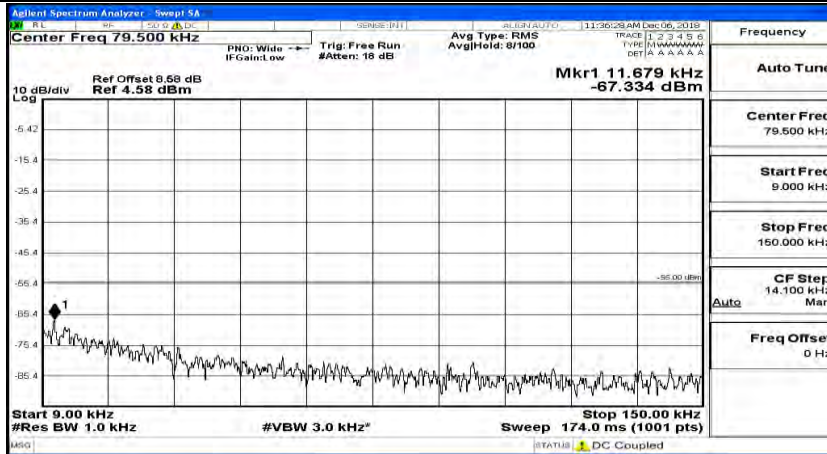
D.5 Conducted Spurious Emission

CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK

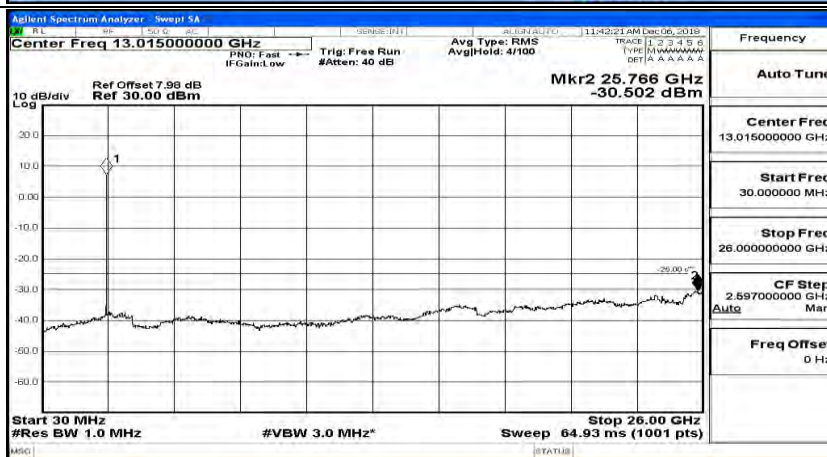
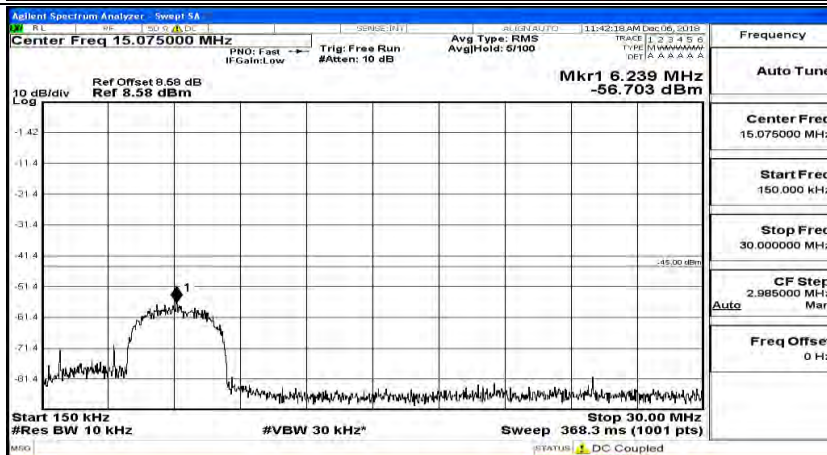
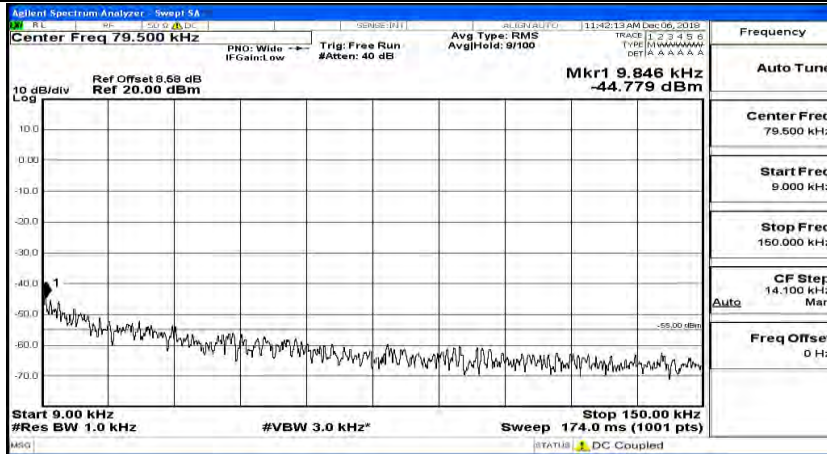




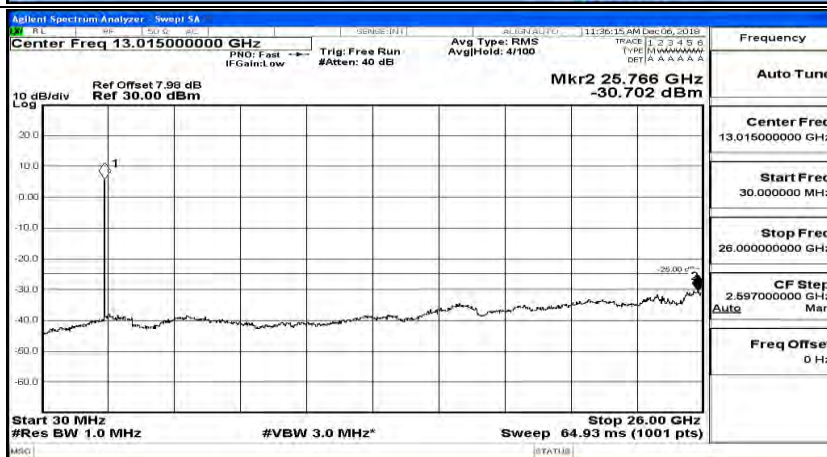
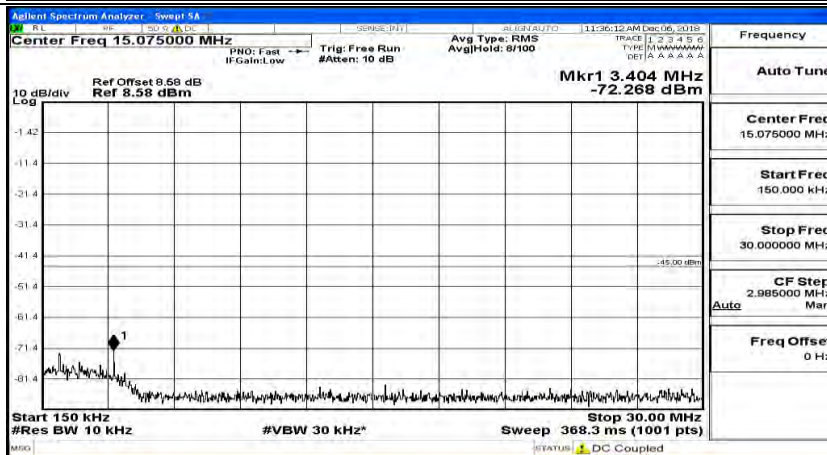
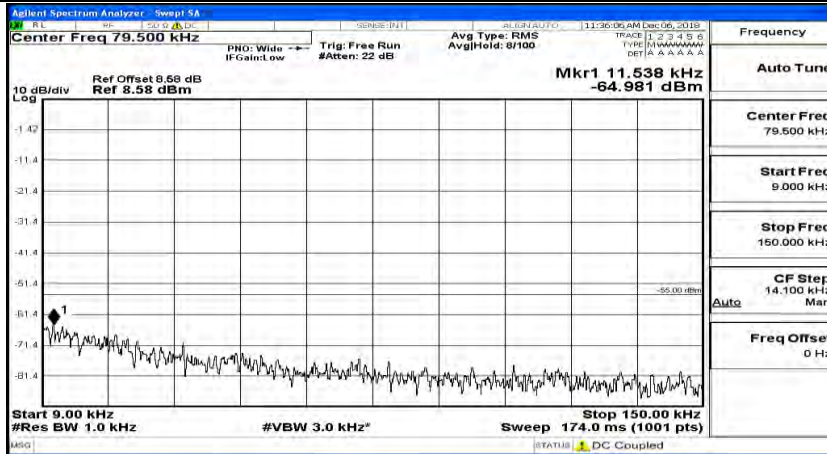
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



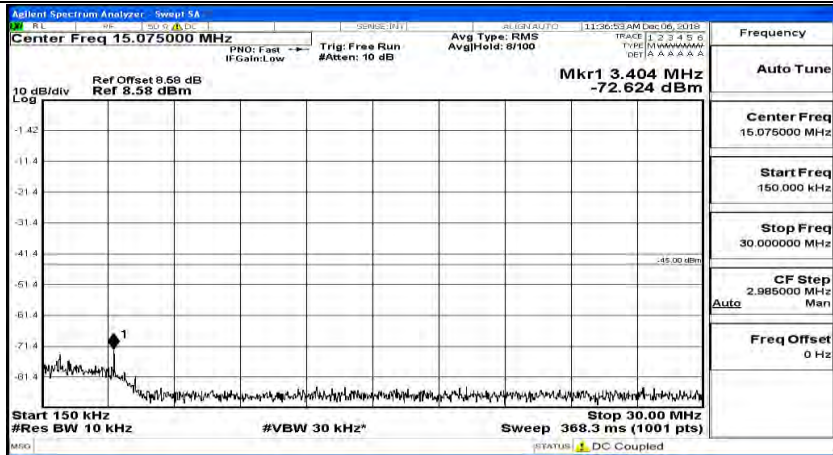
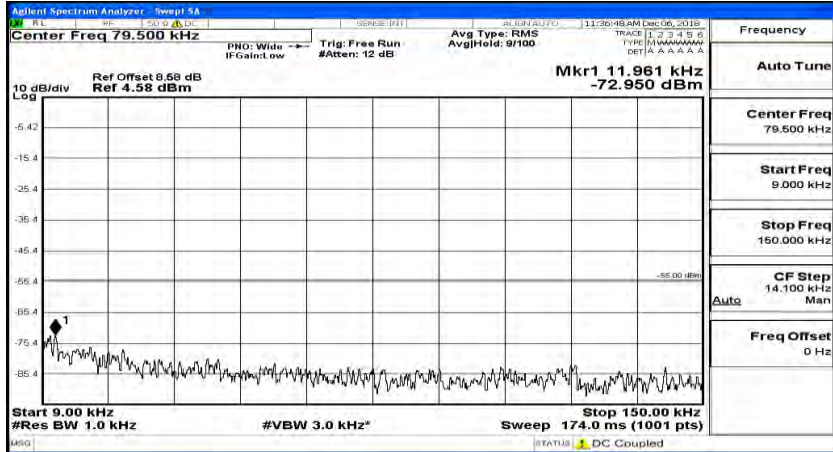
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM

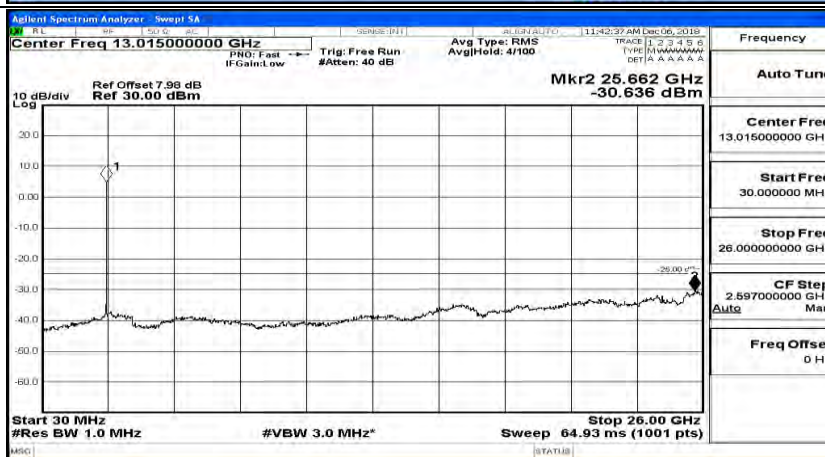
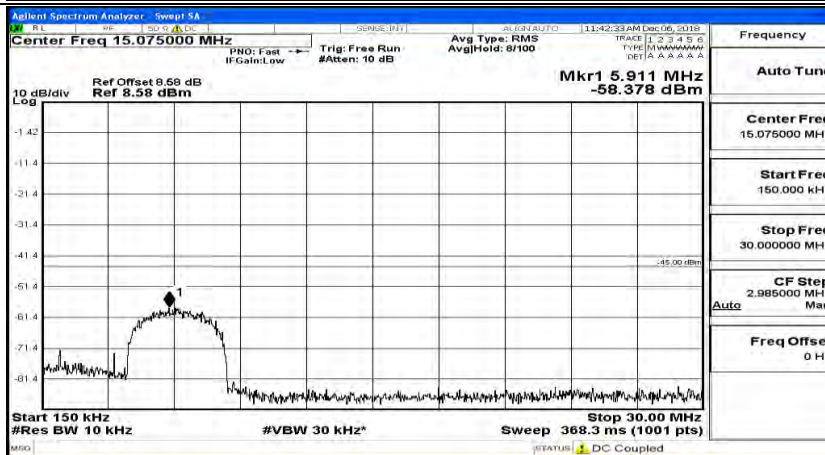
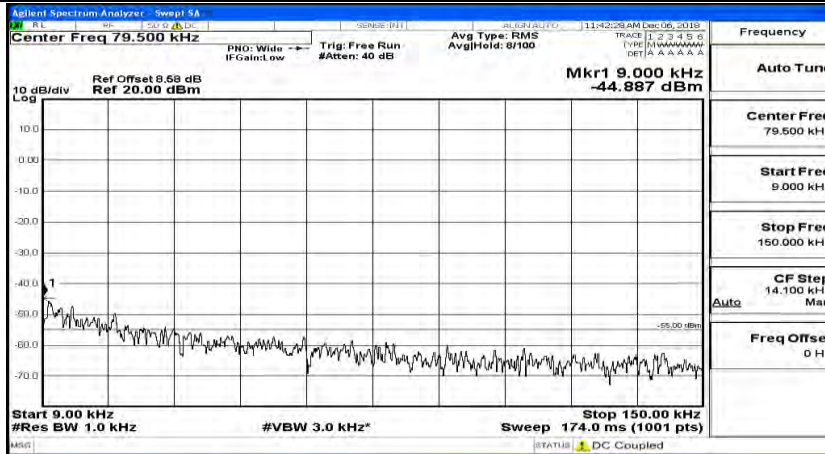


CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM

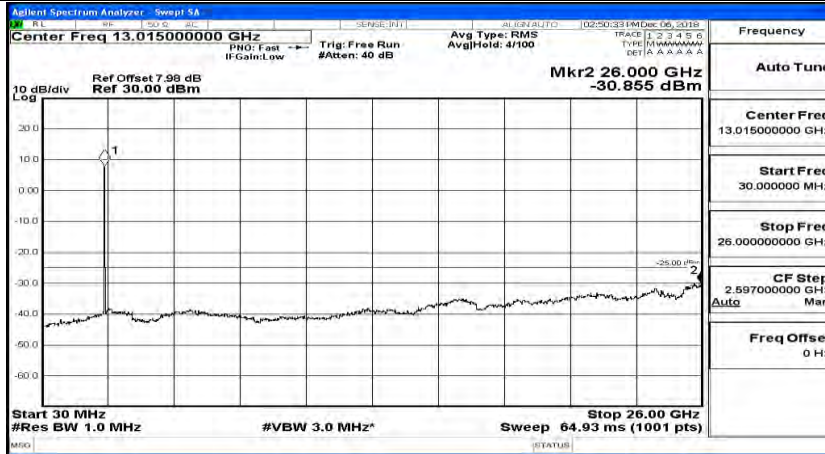
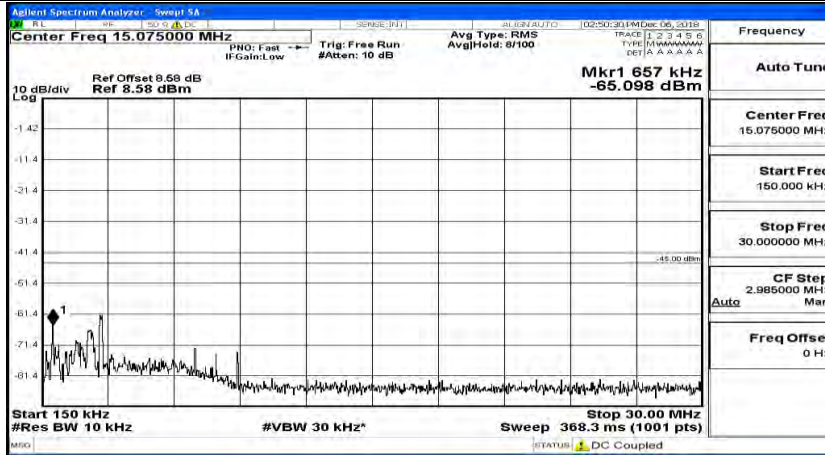
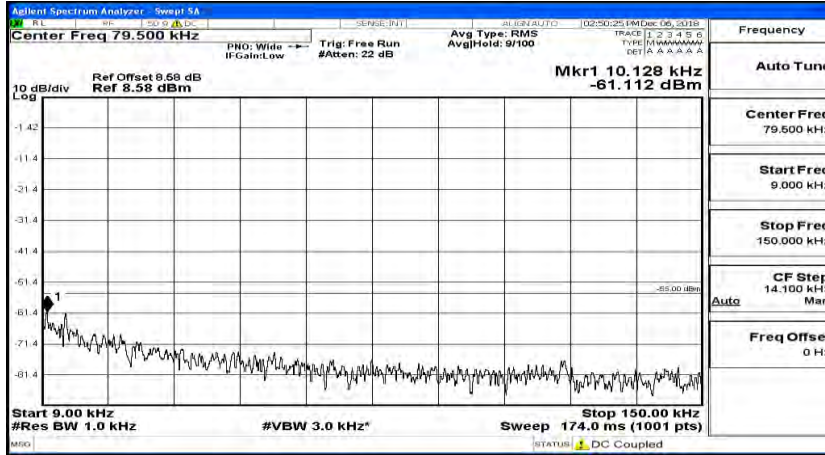




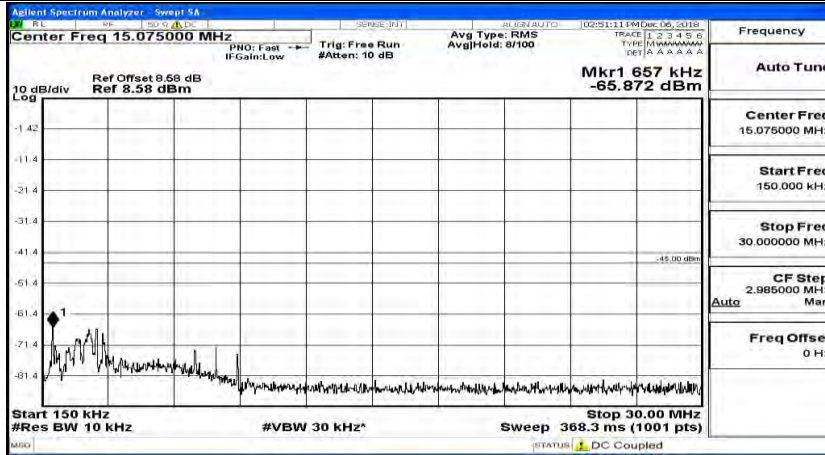
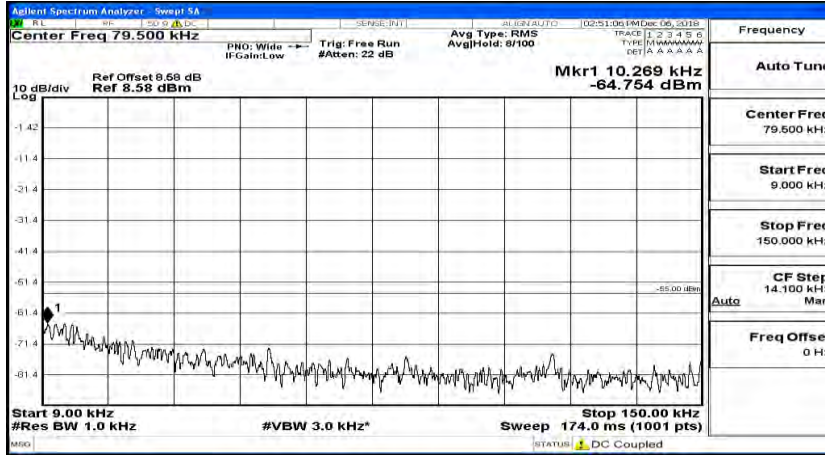
CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



CSE Test Graph(s) (Channel Bandwidth: 10 MHz) LCH\_QPSK

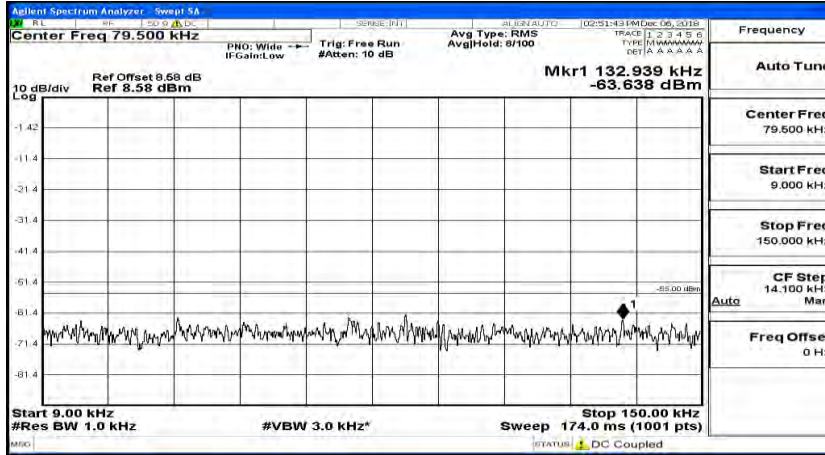


CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK

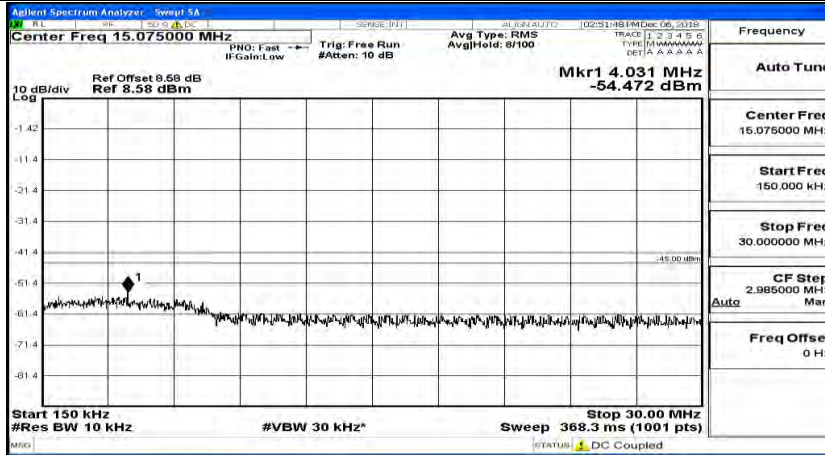




CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



Frequency
Auto Tune
Center Freq 79.500 kHz
Start Freq 9.000 kHz
Stop Freq 150.000 kHz
CF Step 14.100 kHz Man
Auto
Freq Offset 0 Hz



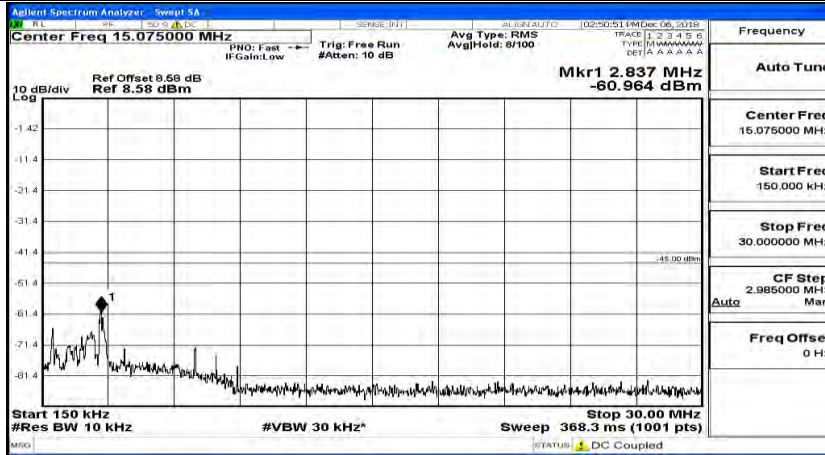
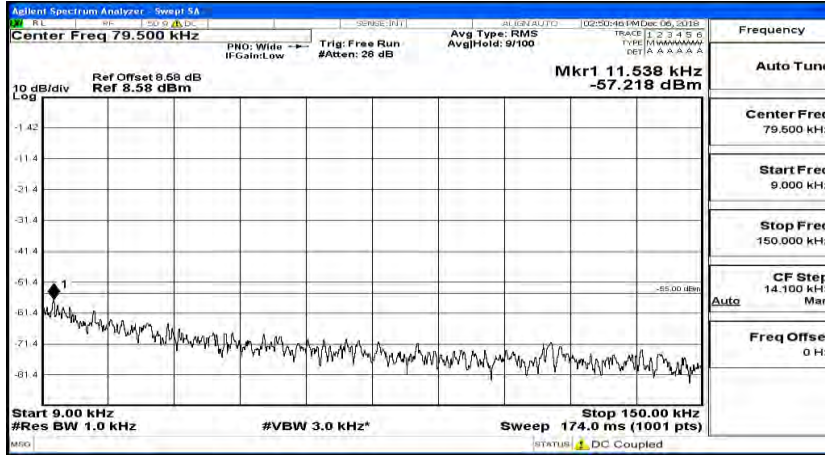
Frequency
Auto Tune
Center Freq 15.075000 MHz
Start Freq 150.000 kHz
Stop Freq 30.000000 MHz
CF Step 2.985000 MHz Man
Auto
Freq Offset 0 Hz



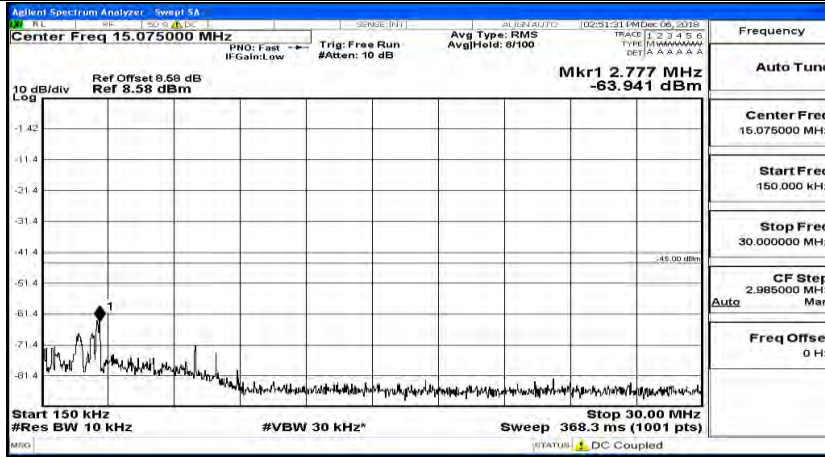
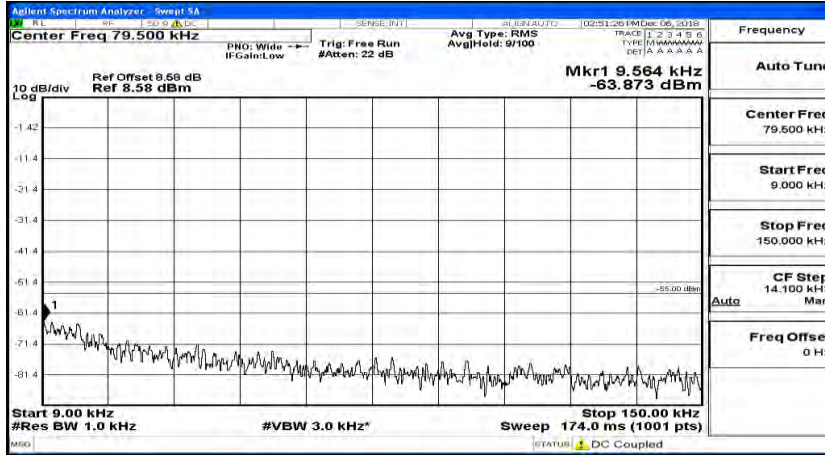
Frequency
Auto Tune
Center Freq 13.01500000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.00000000 GHz
CF Step 2.597000000 GHz Man
Auto
Freq Offset 0 Hz



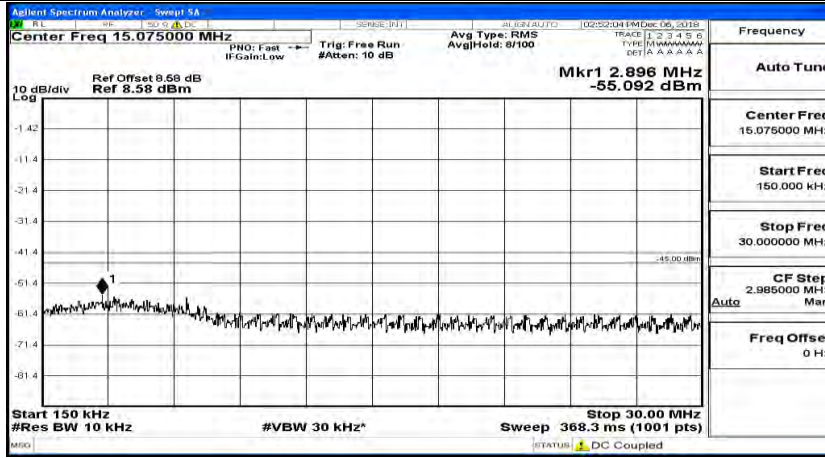
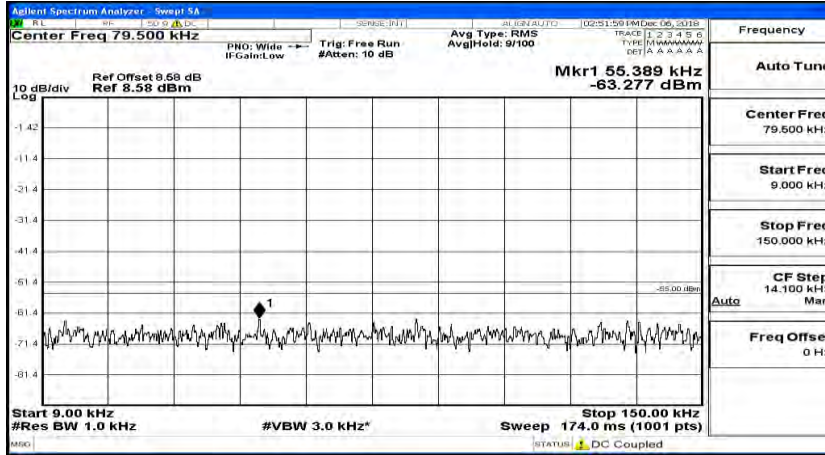
CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM

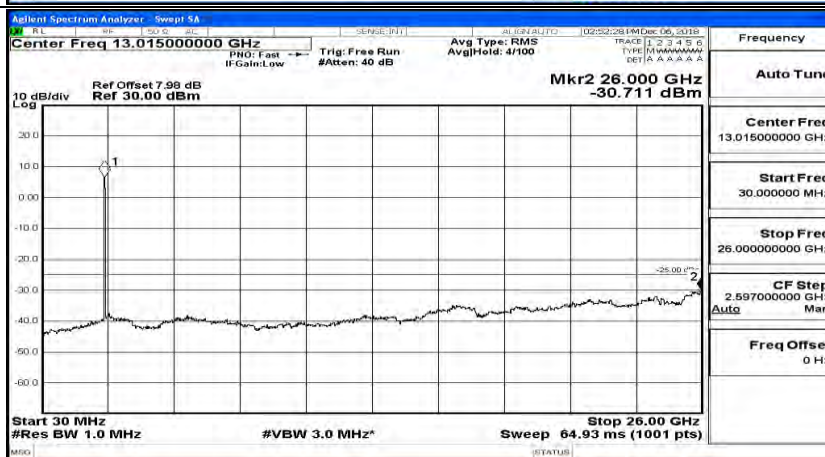
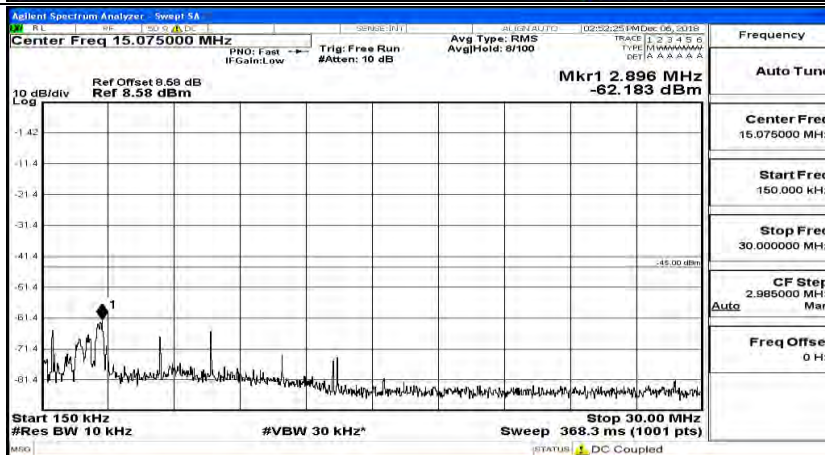
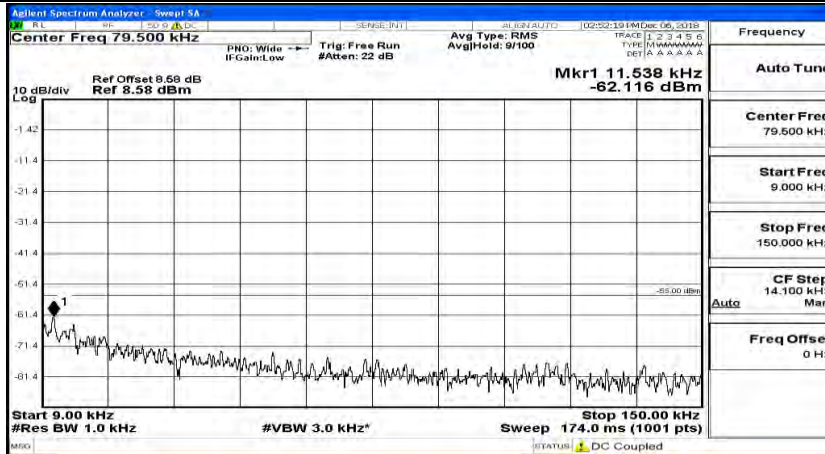


CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM

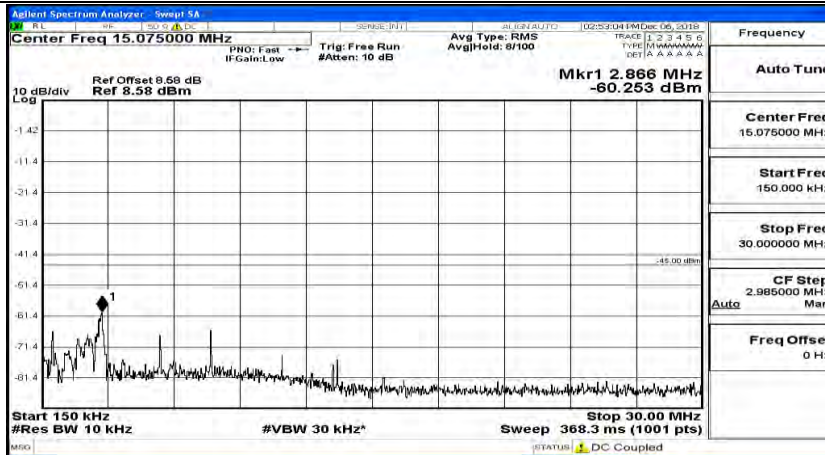
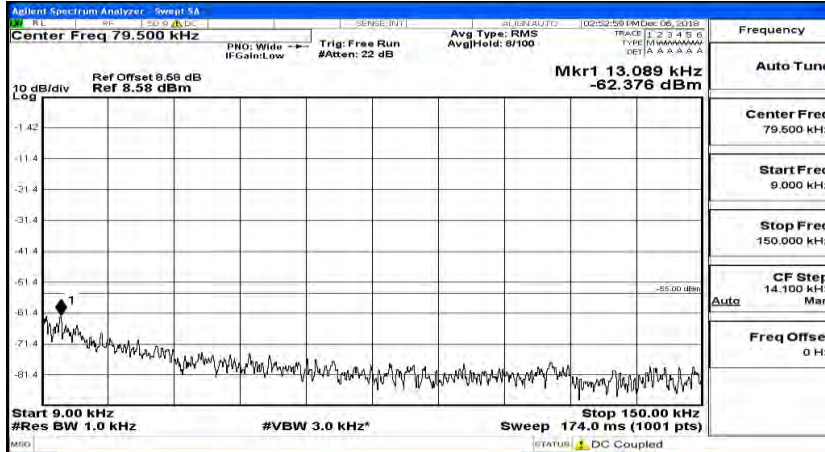




CSE Test Graph(s) (Channel Bandwidth:15 MHz) LCH\_QPSK

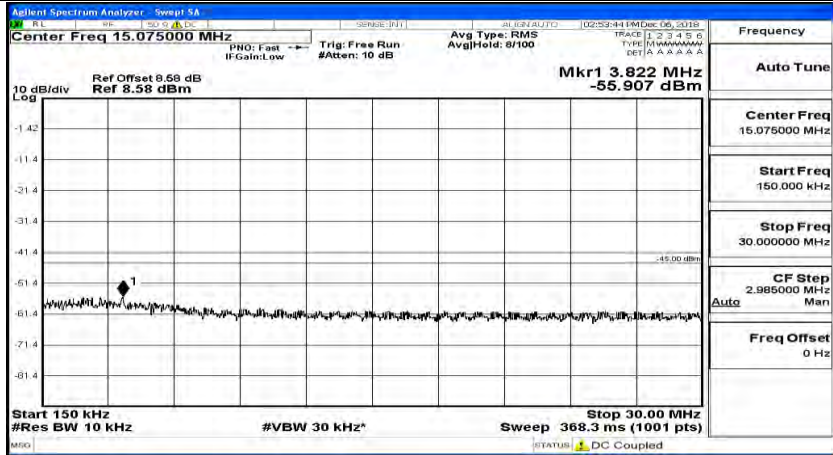
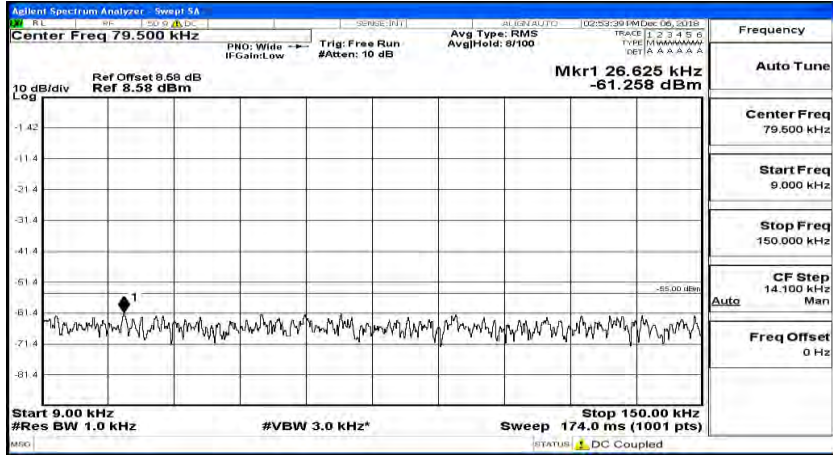


CSE Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_QPSK

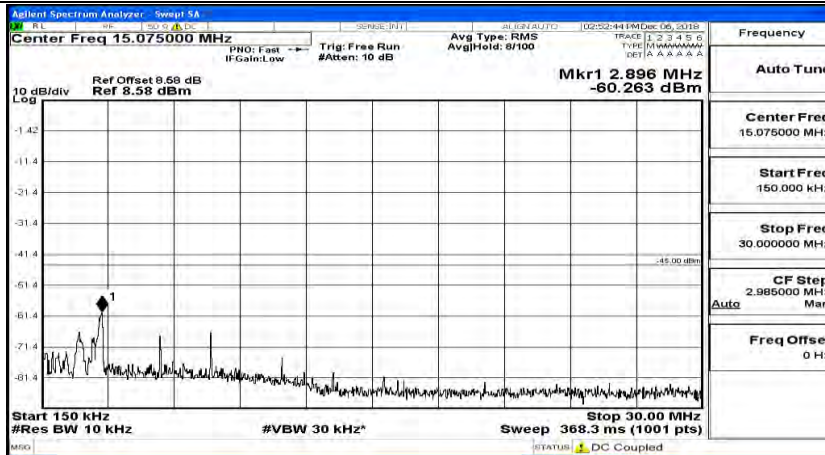
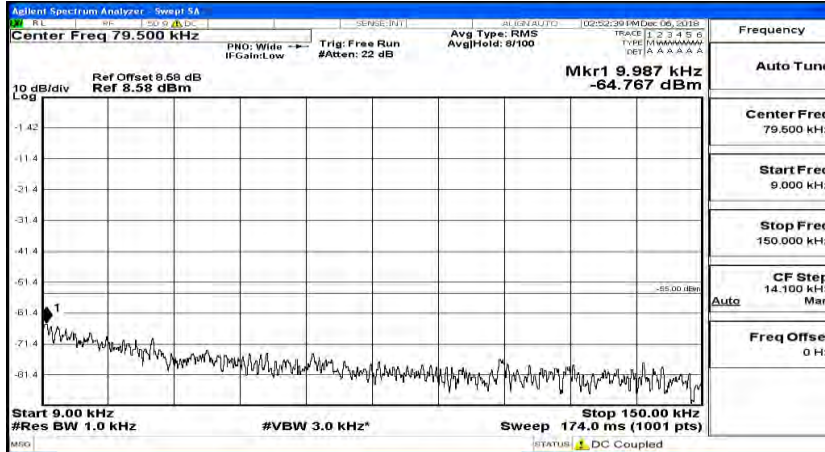




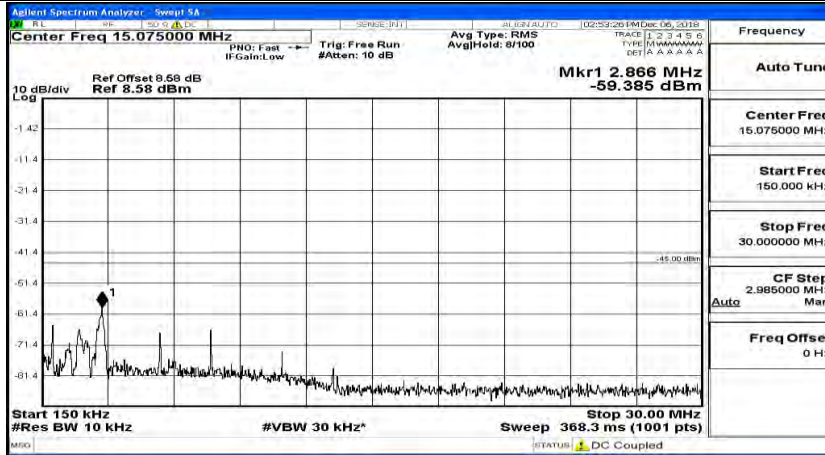
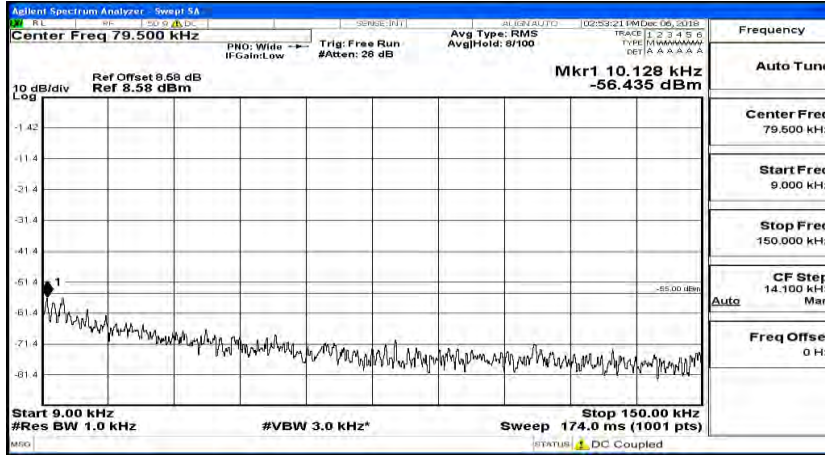
CSE Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_QPSK



CSE Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_16QAM

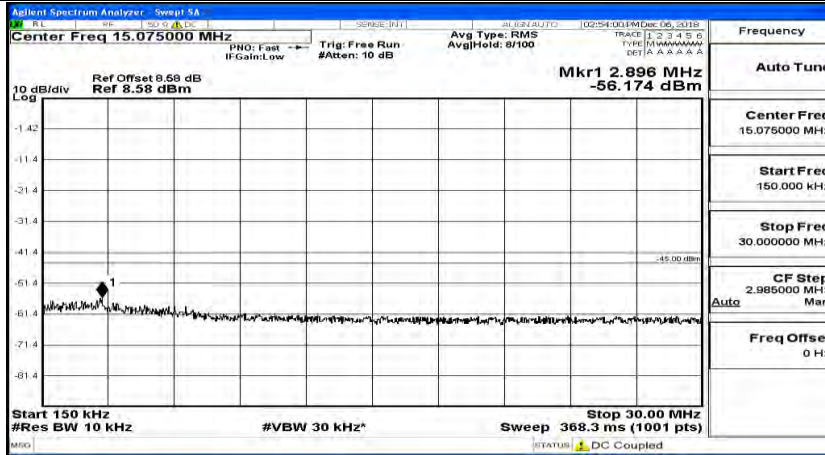
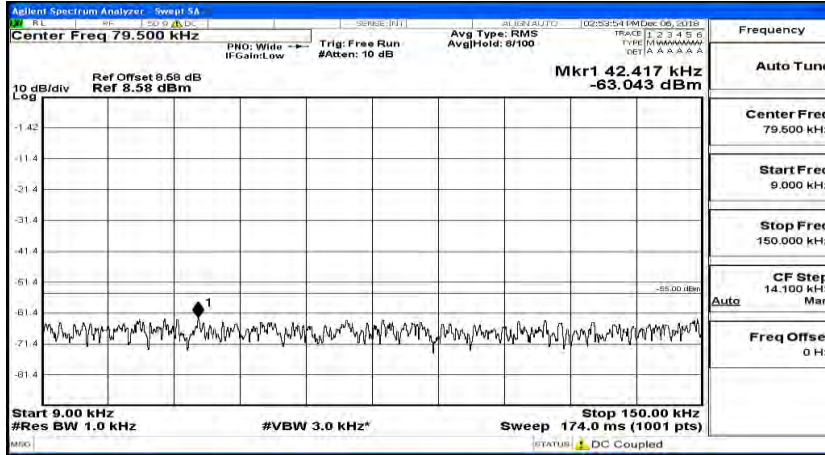


CSE Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_16QAM



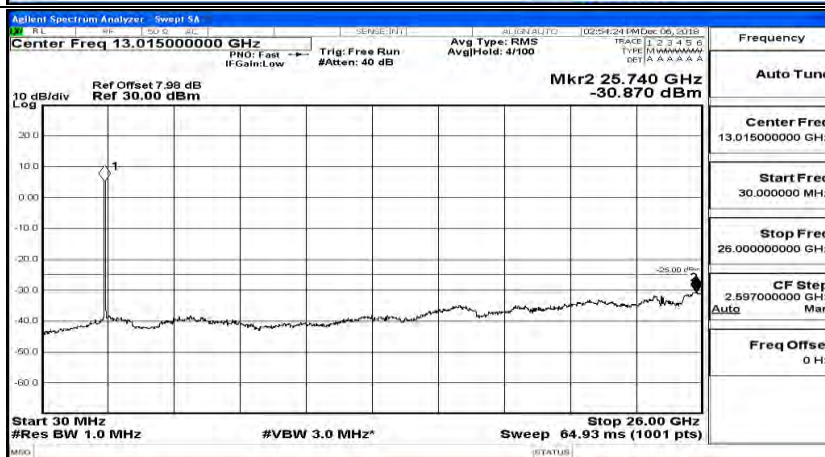
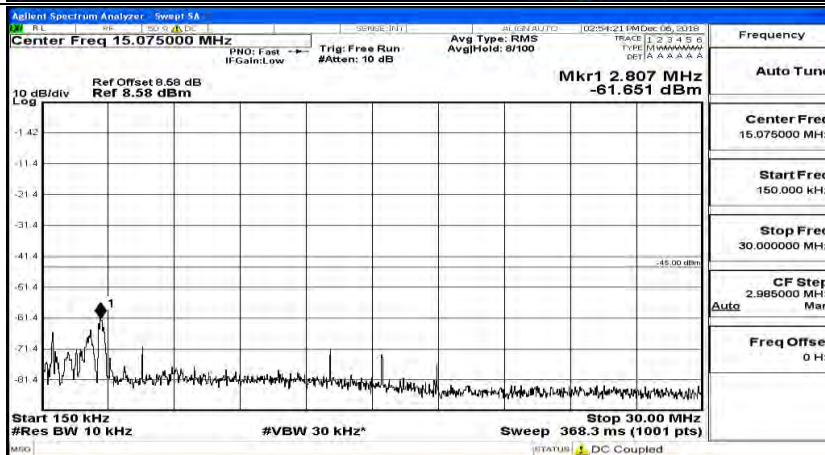
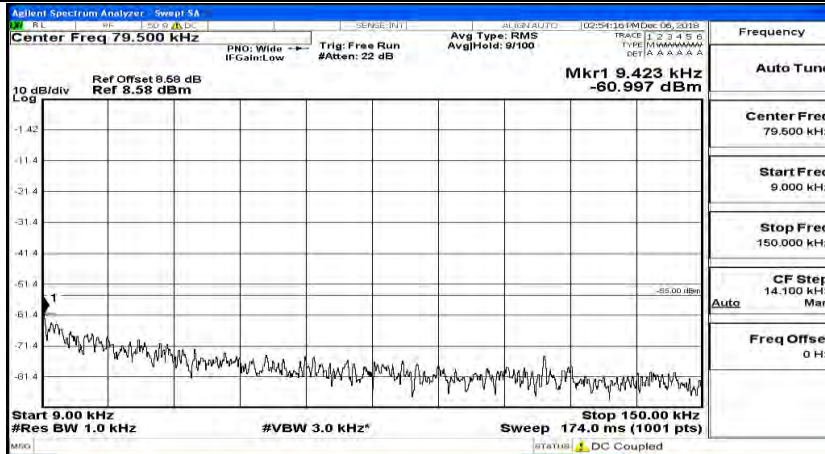


CSE Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_16QAM

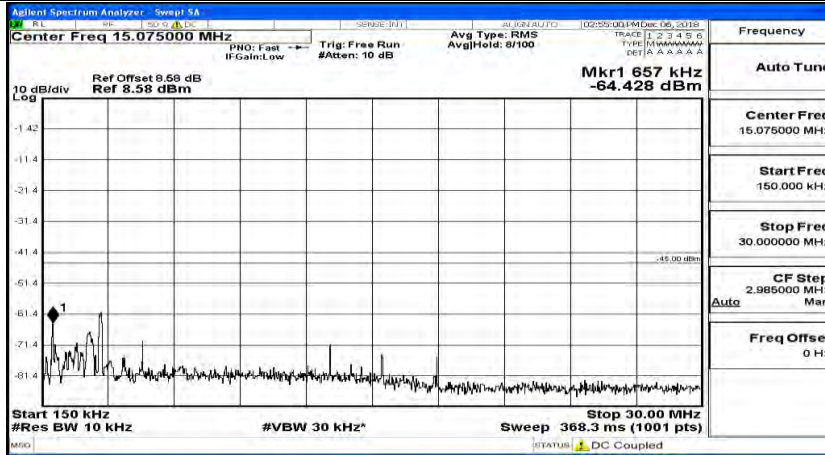
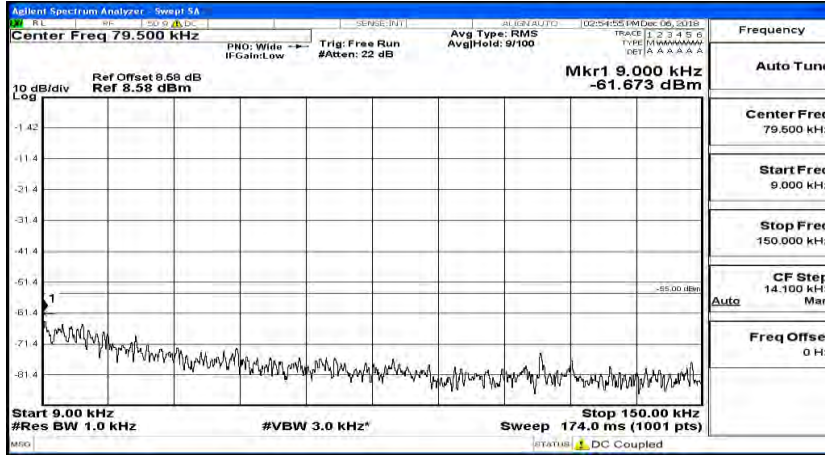




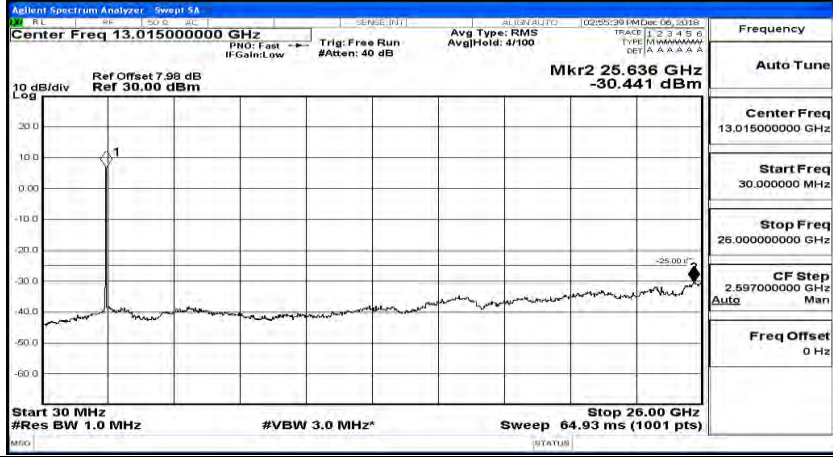
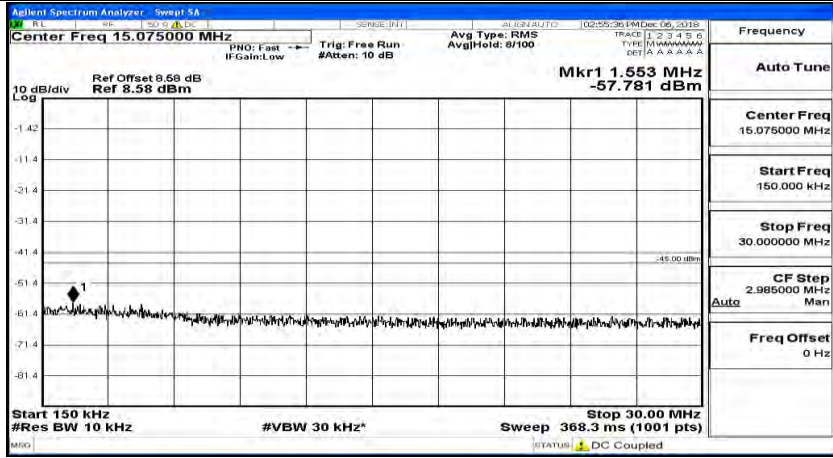
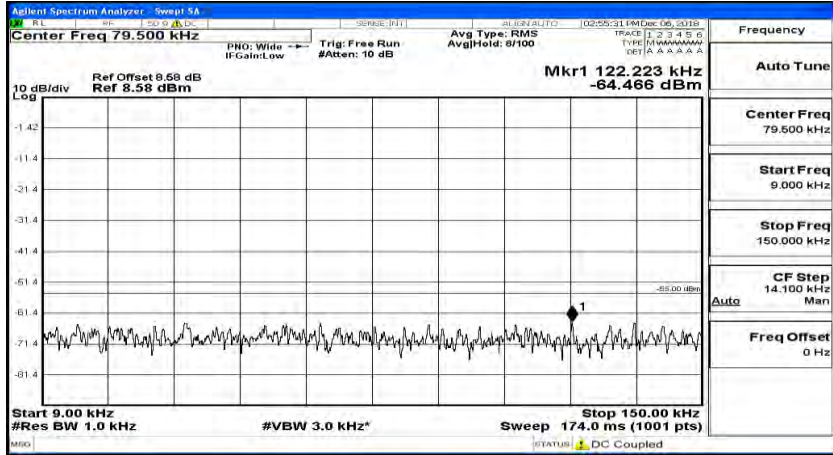
CSE Test Graph(s) (Channel Bandwidth:20 MHz) LCH\_QPSK



CSE Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_QPSK

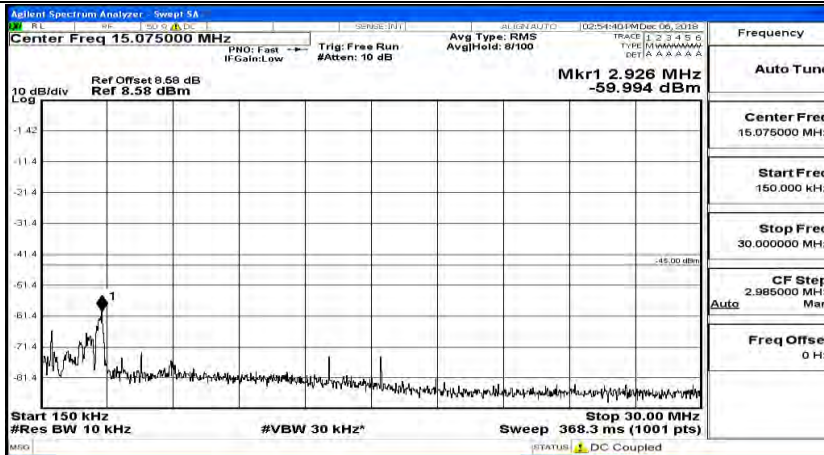
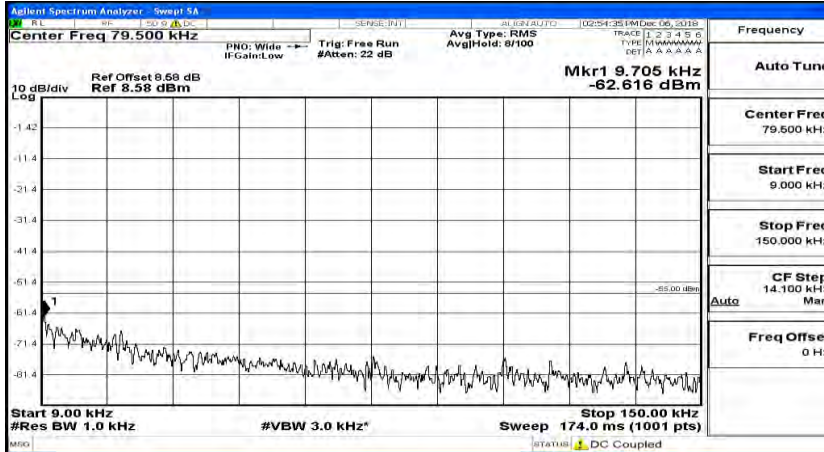


CSE Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_QPSK



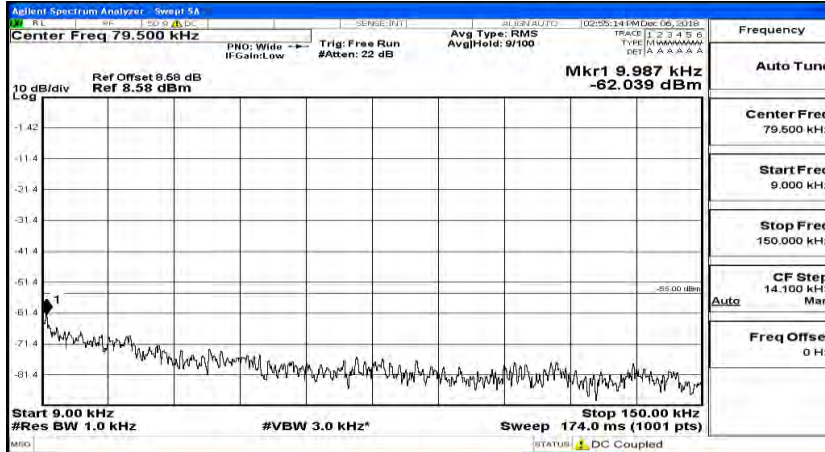


CSE Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_16QAM

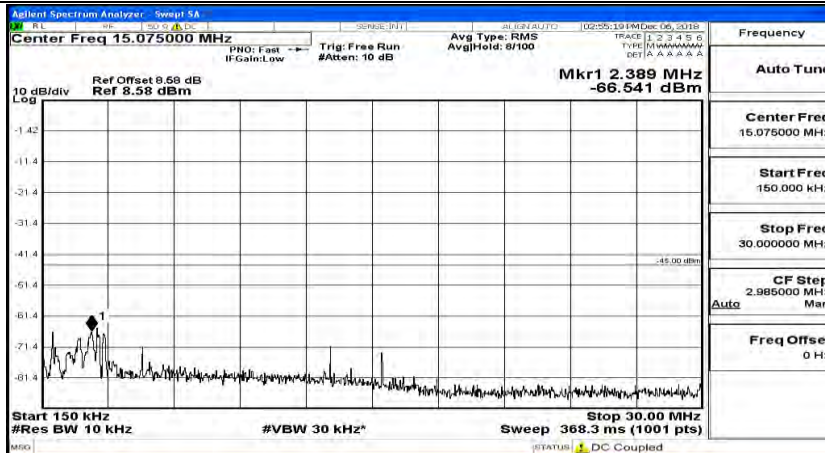




CSE Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_16QAM



Frequency
Auto Tune
Center Freq 79.500 kHz
Start Freq 9.000 kHz
Stop Freq 150.000 kHz
CF Step 14.100 kHz Man
Freq Offset 0 Hz

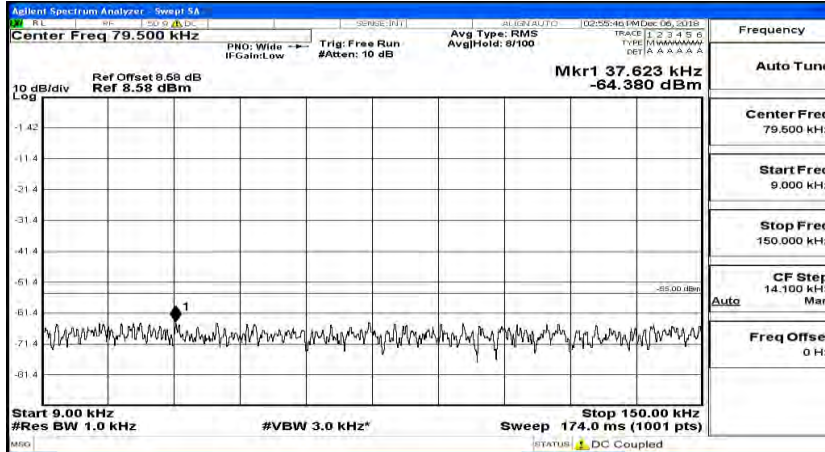


Frequency
Auto Tune
Center Freq 15.075000 MHz
Start Freq 150.000 kHz
Stop Freq 30.000000 MHz
CF Step 2.985000 MHz Man
Freq Offset 0 Hz

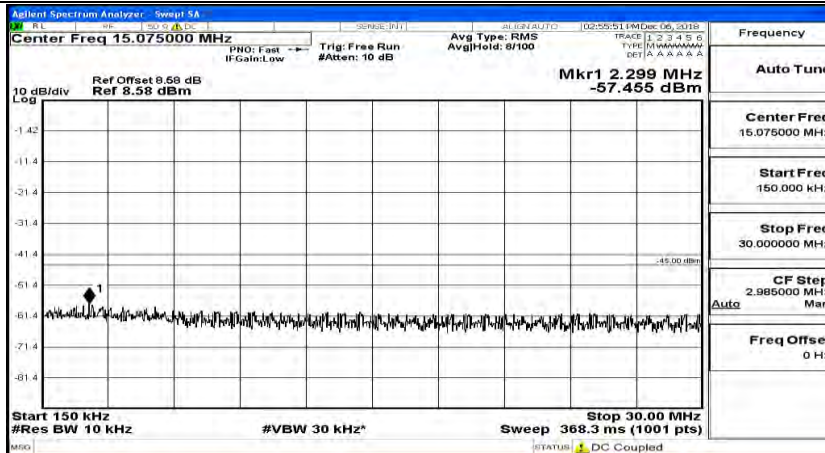


Frequency
Auto Tune
Center Freq 13.015000000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
CF Step 2.597000000 GHz Man
Freq Offset 0 Hz

CSE Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_16QAM



Frequency
Auto Tune
Center Freq 79.500 kHz
Start Freq 9.000 kHz
Stop Freq 150.000 kHz
CF Step 14.100 kHz Man
Freq Offset 0 Hz



Frequency
Auto Tune
Center Freq 15.075000 MHz
Start Freq 150.000 kHz
Stop Freq 30.000000 MHz
CF Step 2.985000 MHz Man
Freq Offset 0 Hz



Frequency
Auto Tune
Center Freq 13.015000000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
CF Step 2.597000000 GHz Man
Freq Offset 0 Hz