

## Appendix C: Test Data for E-UTRA Band 5

Product Name: LTE GSM/WCDMA Smartphone

Trade Mark: DOOGEE

Test Model: S80 Lite

### Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	WANGCHUANG
Supervised by:	Jayden Zhuo

### C.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.82	22.66	PASS
		1	3	24.01	22.78	PASS
		1	5	23.82	22.56	PASS
		3	0	23.37	22.55	PASS
		3	2	23.39	22.53	PASS
		3	3	23.34	22.52	PASS
		6	0	22.48	21.40	PASS
	MCH	1	0	23.37	22.81	PASS
		1	3	23.49	22.91	PASS
		1	5	23.41	22.79	PASS
		3	0	23.51	22.51	PASS
		3	2	23.49	22.60	PASS
		3	3	23.46	22.57	PASS
		6	0	22.52	21.45	PASS
	HCH	1	0	23.32	22.58	PASS
		1	3	23.56	22.83	PASS
		1	5	23.34	22.65	PASS
		3	0	23.46	22.55	PASS
		3	2	23.51	22.57	PASS
		3	3	23.45	22.61	PASS
		6	0	22.56	21.61	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	23.29	22.60	PASS
		1	7	23.64	22.88	PASS
		1	14	23.29	22.55	PASS
		8	0	22.44	21.41	PASS
		8	4	22.49	21.51	PASS
		8	7	22.46	21.47	PASS
		15	0	22.37	21.30	PASS
	MCH	1	0	23.28	22.67	PASS
		1	7	23.33	22.87	PASS
		1	14	23.40	22.73	PASS
		8	0	22.43	21.50	PASS
		8	4	22.53	21.62	PASS
		8	7	22.52	21.57	PASS
		15	0	22.49	21.45	PASS
	HCH	1	0	23.38	22.78	PASS
		1	7	23.66	22.76	PASS
		1	14	23.37	22.83	PASS
		8	0	22.49	21.47	PASS
		8	4	22.56	21.52	PASS
		8	7	22.51	21.42	PASS
		15	0	22.47	21.44	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	23.21	22.65	PASS
		1	12	23.63	22.83	PASS
		1	24	23.21	22.61	PASS
		12	0	22.34	21.43	PASS
		12	6	22.46	21.62	PASS
		12	13	22.36	21.46	PASS
		25	0	22.38	21.34	PASS
	MCH	1	0	23.24	22.70	PASS
		1	12	23.90	22.84	PASS
		1	24	23.30	22.71	PASS
		12	0	22.42	21.53	PASS
		12	6	22.46	21.66	PASS
		12	13	22.53	21.65	PASS
		25	0	22.52	21.45	PASS
	HCH	1	0	23.29	22.36	PASS
		1	12	23.70	22.71	PASS
		1	24	23.35	22.34	PASS
		12	0	22.50	21.52	PASS
		12	6	22.55	21.55	PASS
		12	13	22.36	21.42	PASS
		25	0	22.45	21.45	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	23.31	22.63	PASS
		1	24	23.48	22.78	PASS
		1	49	23.34	22.68	PASS
		25	0	22.50	21.46	PASS
		25	12	22.47	21.46	PASS
		25	25	22.39	21.39	PASS
		50	0	22.40	21.37	PASS
	MCH	1	0	23.34	22.63	PASS
		1	24	23.60	22.92	PASS
		1	49	23.37	22.72	PASS
		25	0	22.53	21.50	PASS
		25	12	22.53	21.52	PASS
		25	25	22.65	21.65	PASS
		50	0	22.53	21.53	PASS
	HCH	1	0	23.36	22.84	PASS
		1	24	23.58	23.00	PASS
		1	49	23.38	22.82	PASS
		25	0	22.54	21.53	PASS
		25	12	22.59	21.54	PASS
		25	25	22.44	21.43	PASS
		50	0	22.44	21.50	PASS

**C.2 Peak-to-Average Ratio**

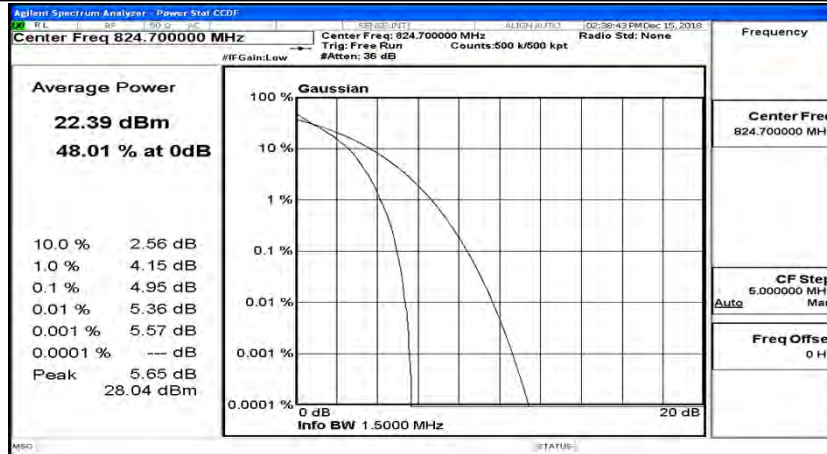
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.95	<13	PASS
	MCH	5.17	<13	PASS
	HCH	4.91	<13	PASS
16QAM	LCH	5.91	<13	PASS
	MCH	6.06	<13	PASS
	HCH	5.81	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.03	<13	PASS
	MCH	5.27	<13	PASS
	HCH	5.12	<13	PASS
16QAM	LCH	5.92	<13	PASS
	MCH	6.19	<13	PASS
	HCH	5.88	<13	PASS

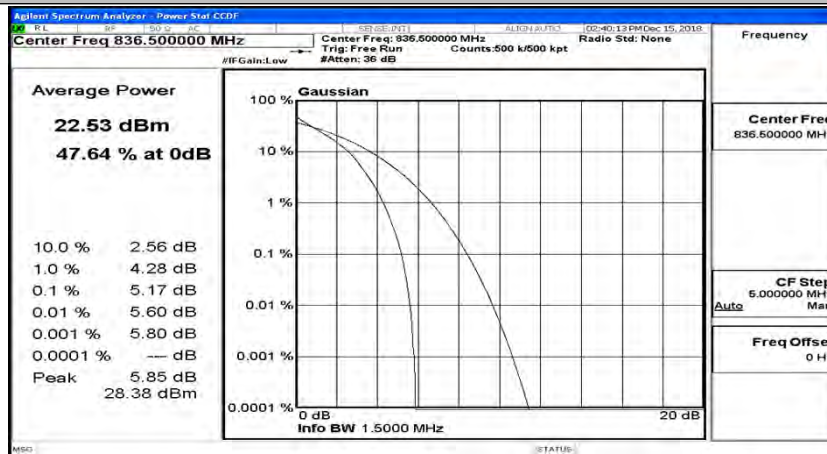
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.98	<13	PASS
	MCH	5.25	<13	PASS
	HCH	5.11	<13	PASS
16QAM	LCH	5.82	<13	PASS
	MCH	6.07	<13	PASS
	HCH	5.95	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.15	<13	PASS
	MCH	5.31	<13	PASS
	HCH	5.25	<13	PASS
16QAM	LCH	5.93	<13	PASS
	MCH	6.09	<13	PASS
	HCH	6.03	<13	PASS

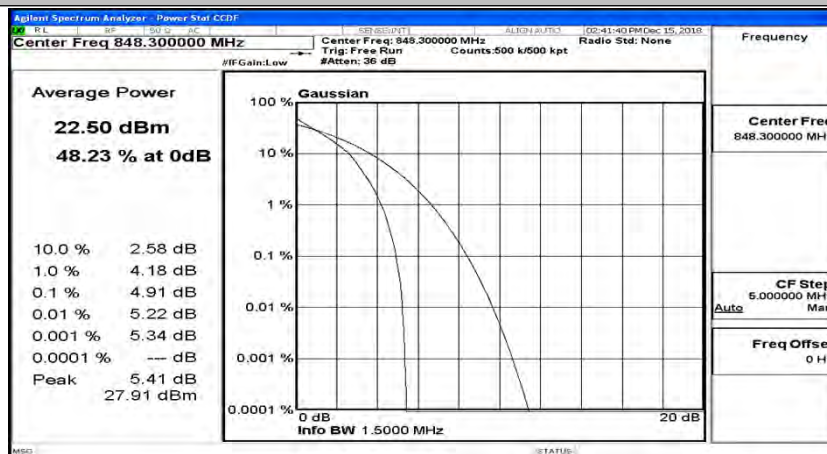
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK



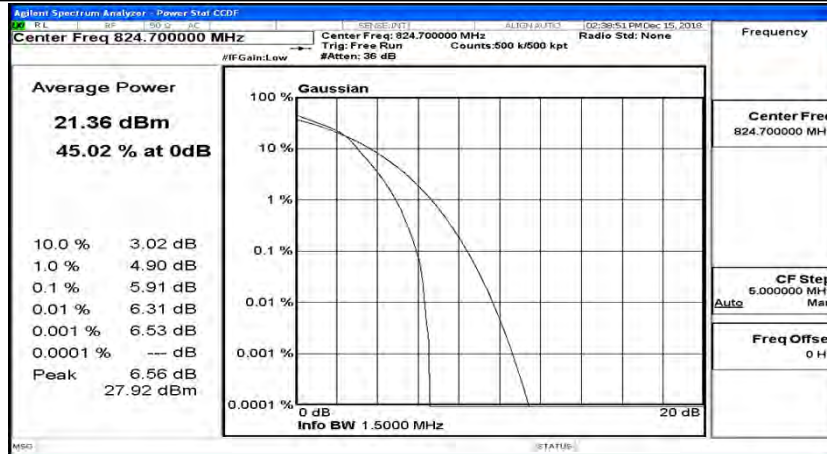
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK



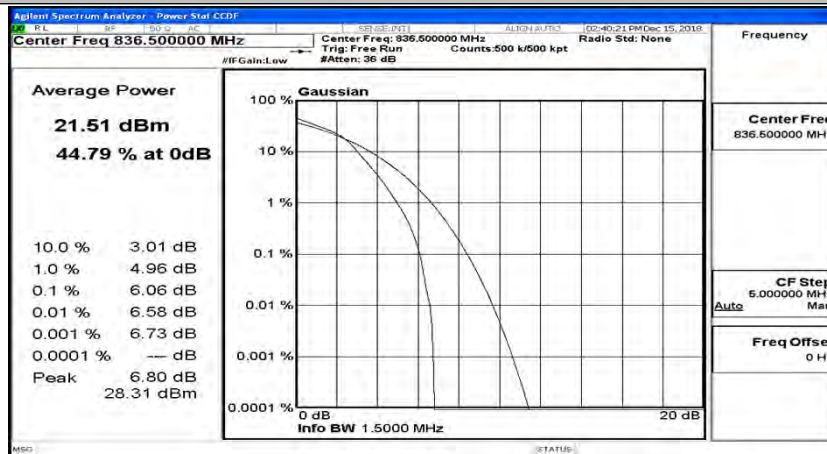
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK



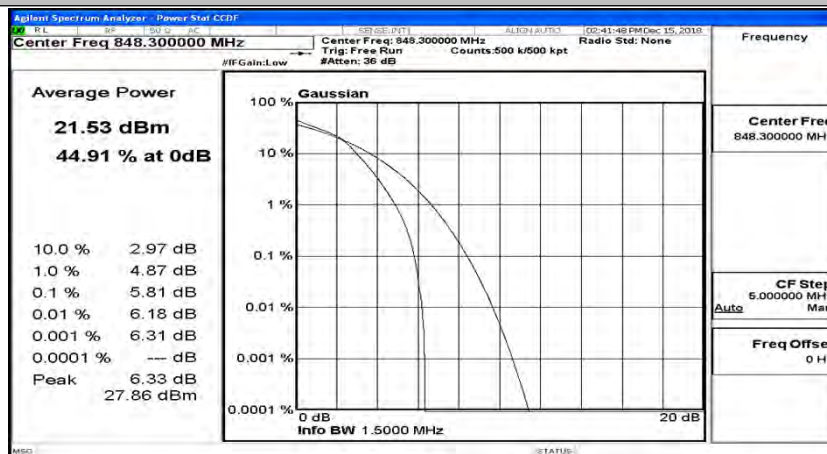
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM



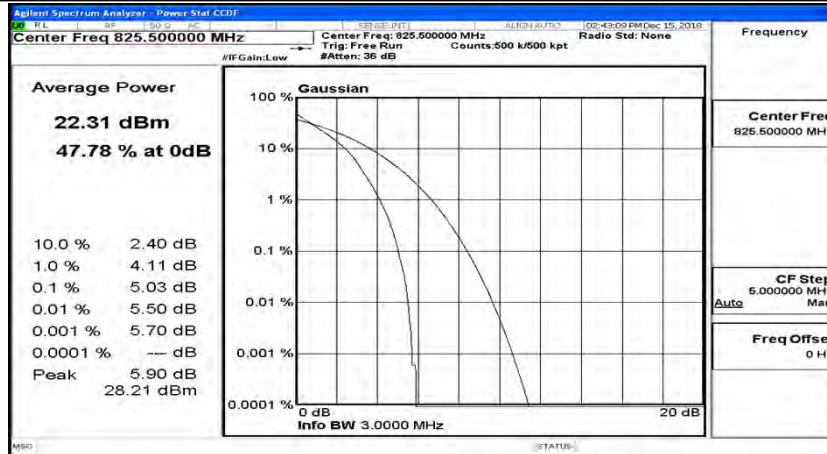
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM



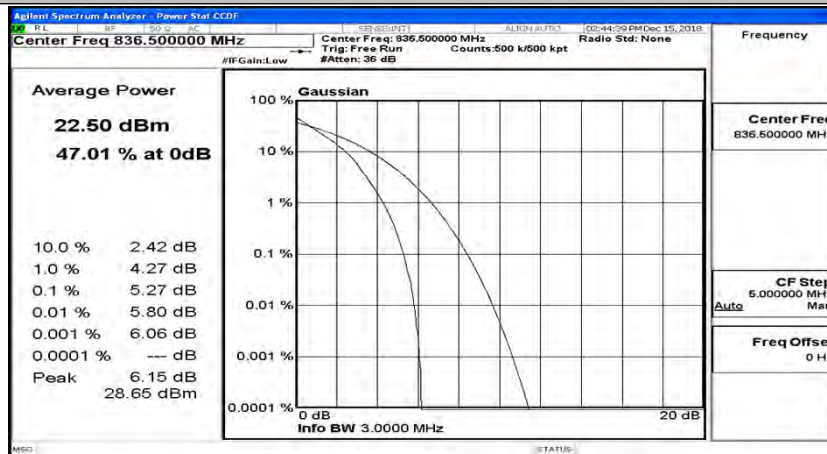
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM



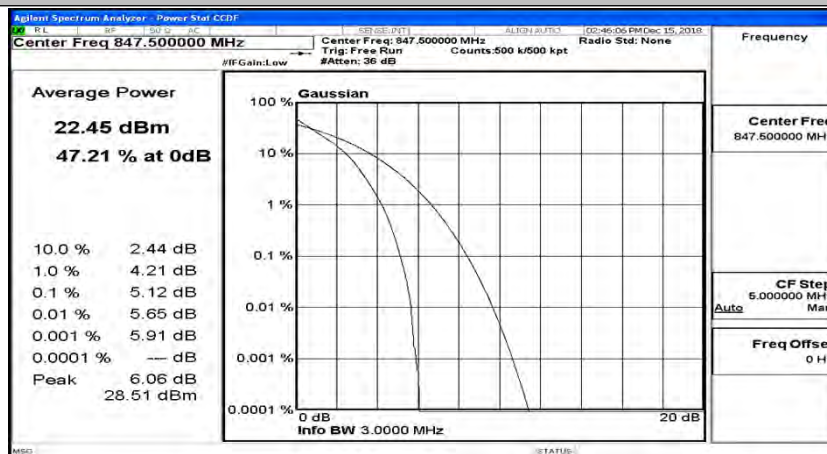
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_QPSK



## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_QPSK

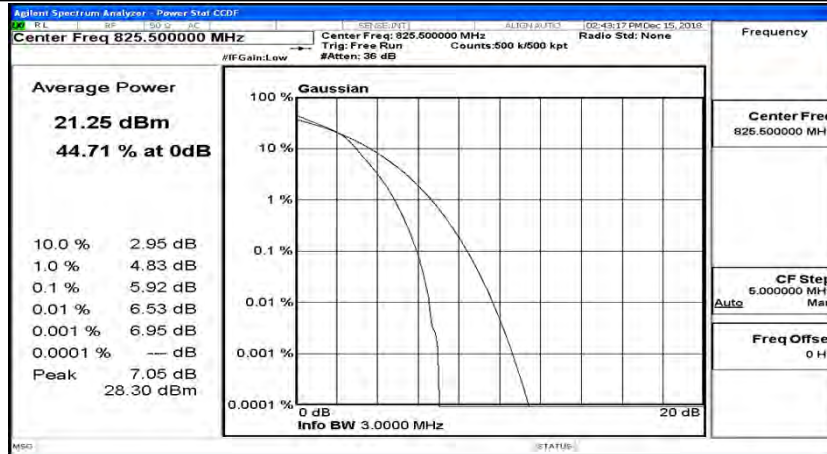


## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK

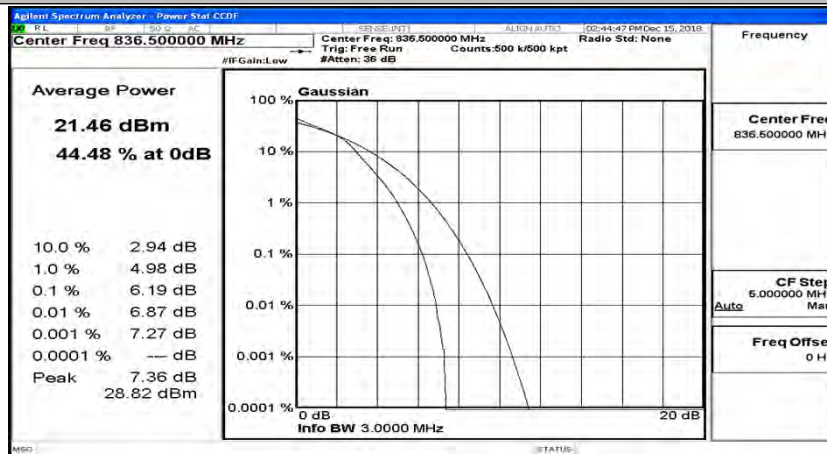




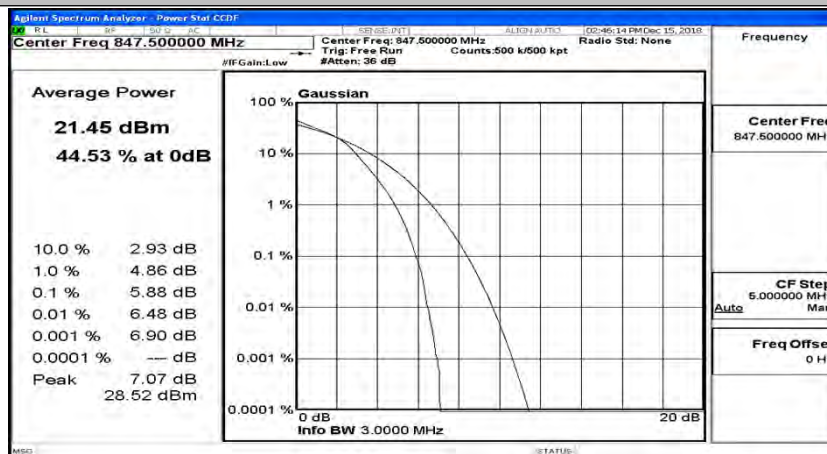
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_16QAM



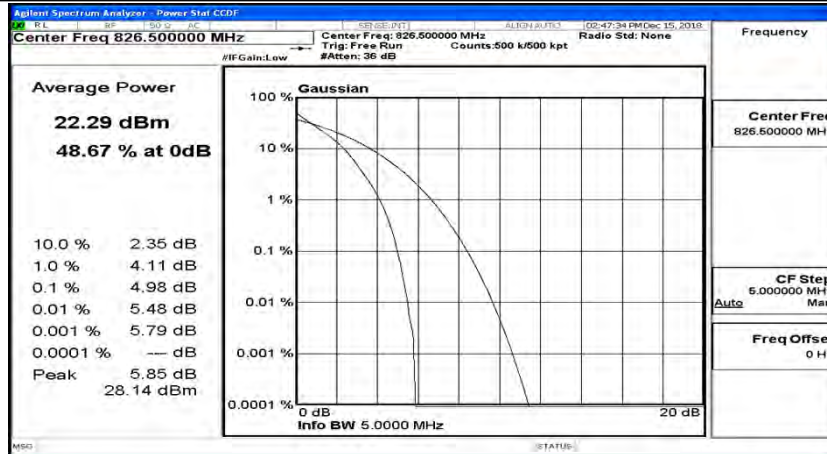
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_16QAM



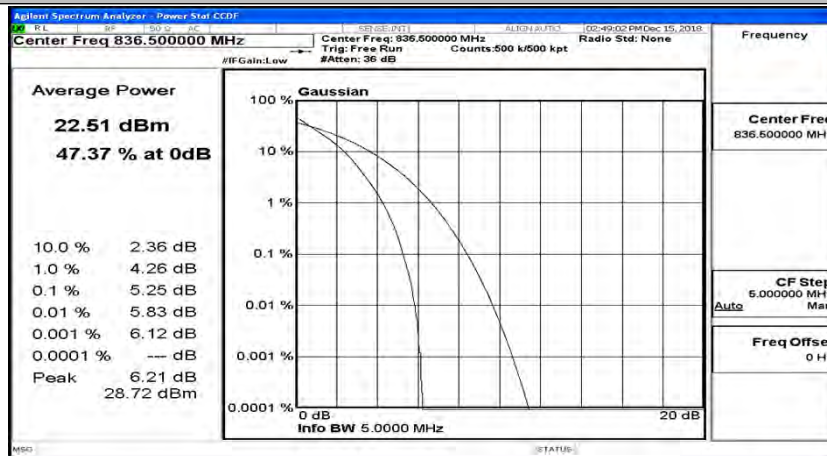
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM



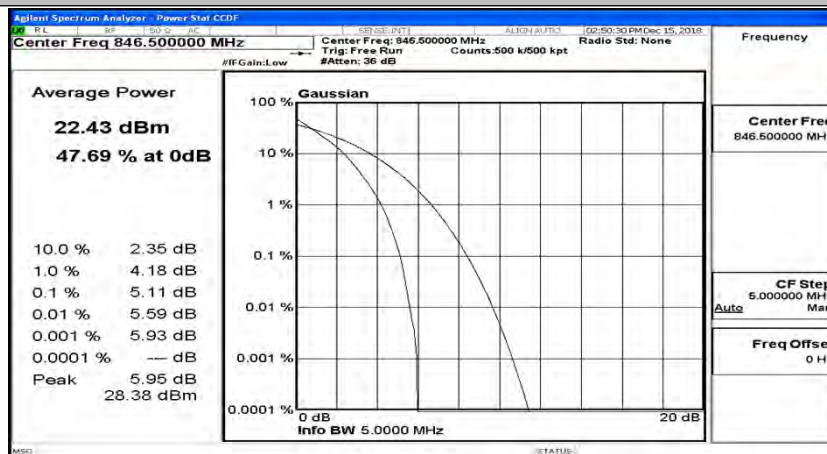
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



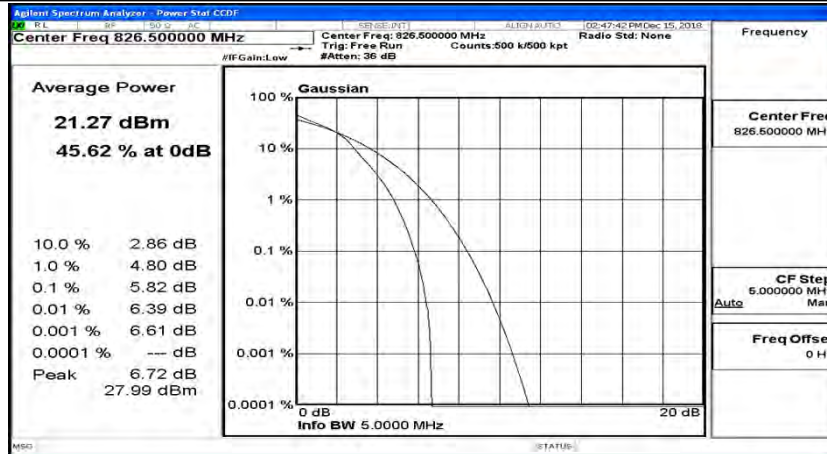
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



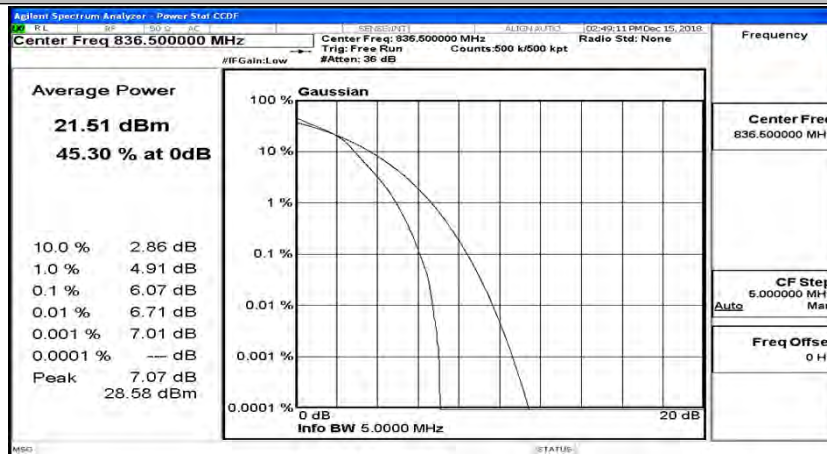
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



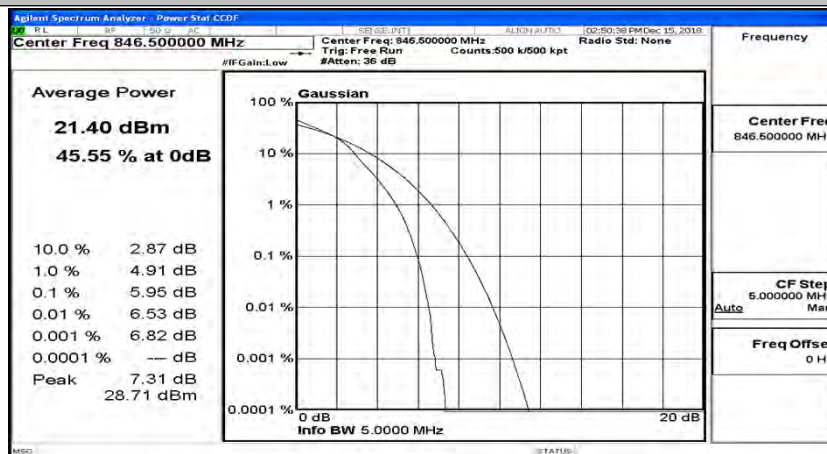
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



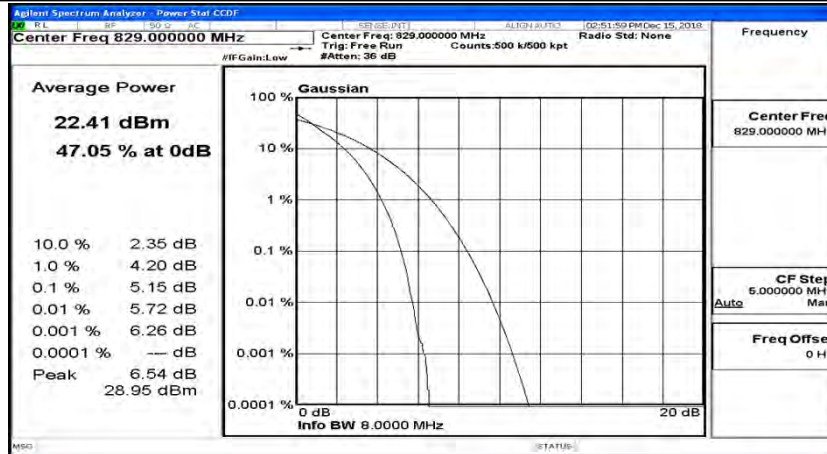
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



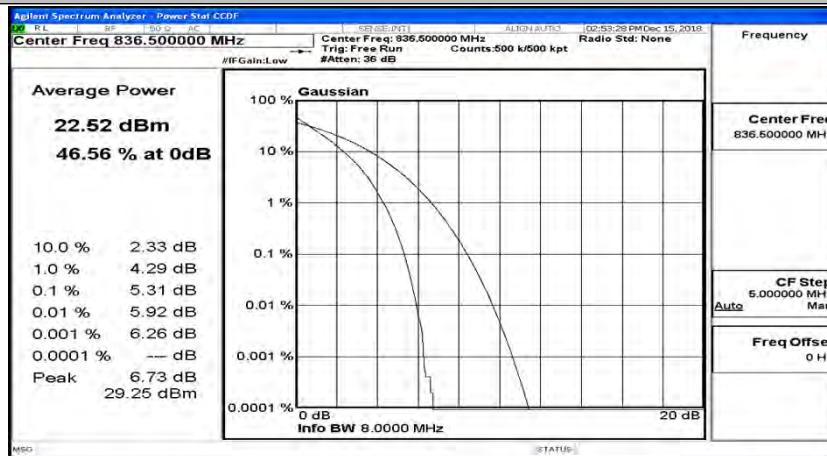
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



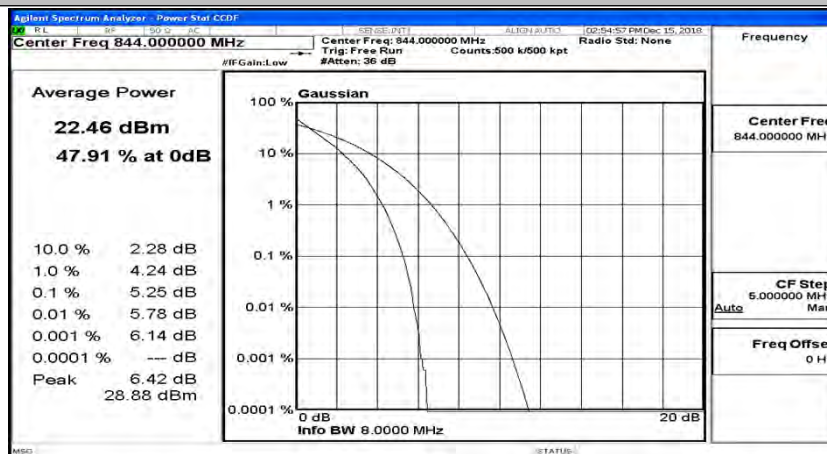
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



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

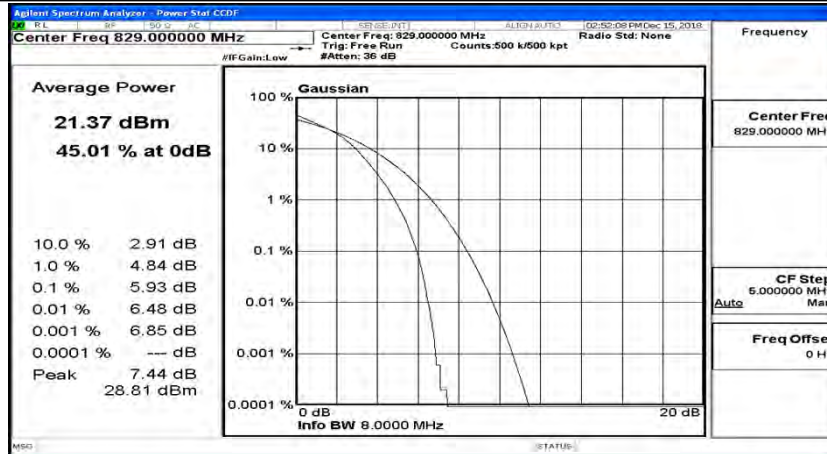


## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK

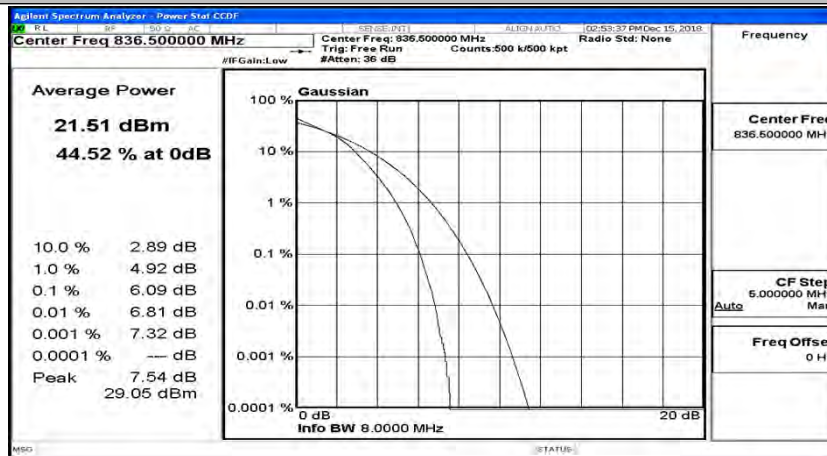




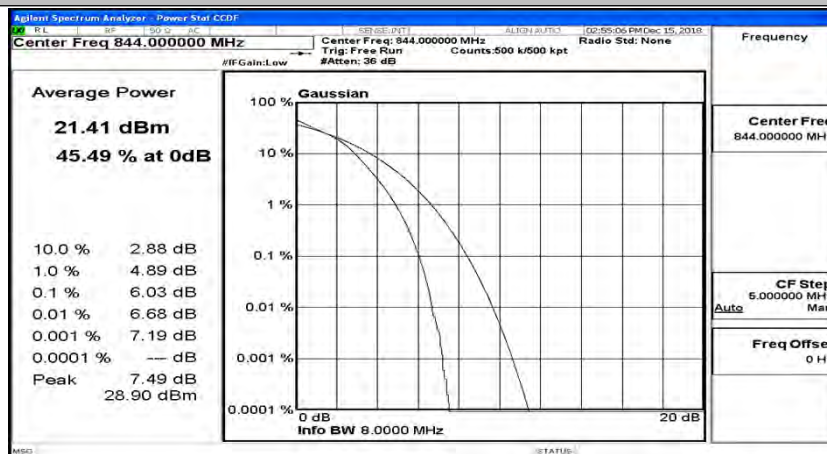
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



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



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



**C.3 26dB Bandwidth and Occupied Bandwidth**

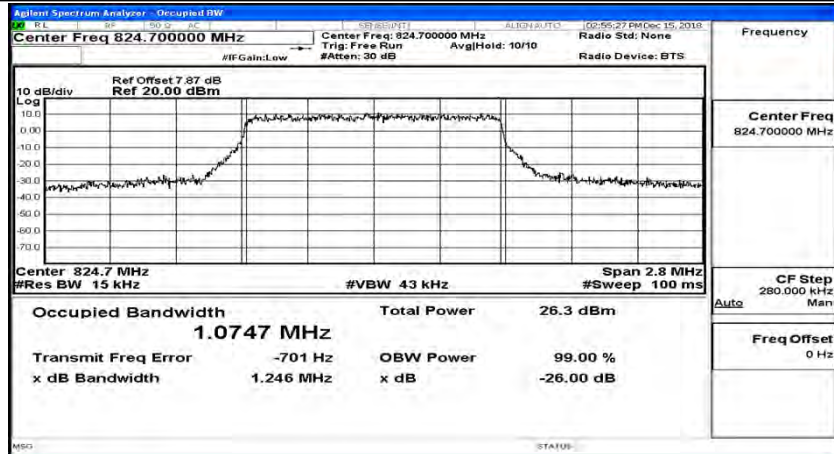
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0747	1.246	PASS
	MCH	1.0746	1.203	PASS
	HCH	1.0767	1.227	PASS
16QAM	LCH	1.0777	1.242	PASS
	MCH	1.0784	1.227	PASS
	HCH	1.0767	1.211	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6794	2.821	PASS
	MCH	2.6790	2.843	PASS
	HCH	2.6779	2.831	PASS
16QAM	LCH	2.6766	2.825	PASS
	MCH	2.6795	2.829	PASS
	HCH	2.6804	2.821	PASS

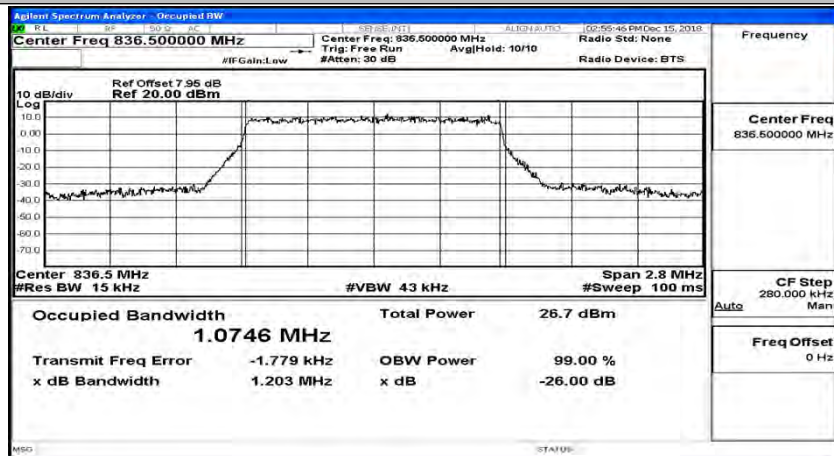
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4720	4.819	PASS
	MCH	4.4772	4.856	PASS
	HCH	4.4673	4.838	PASS
16QAM	LCH	4.4741	4.850	PASS
	MCH	4.4786	4.843	PASS
	HCH	4.4762	4.879	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9279	9.506	PASS
	MCH	8.9487	9.492	PASS
	HCH	8.9219	9.502	PASS
16QAM	LCH	8.9252	9.463	PASS
	MCH	8.9453	9.533	PASS
	HCH	8.9384	9.448	PASS

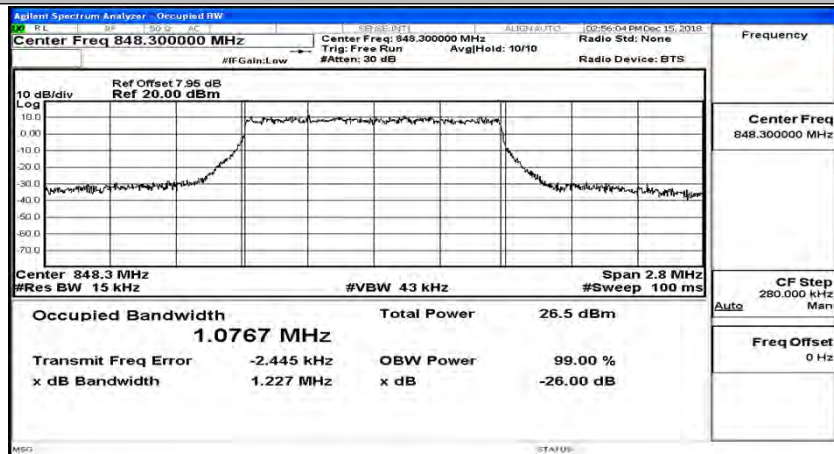
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK



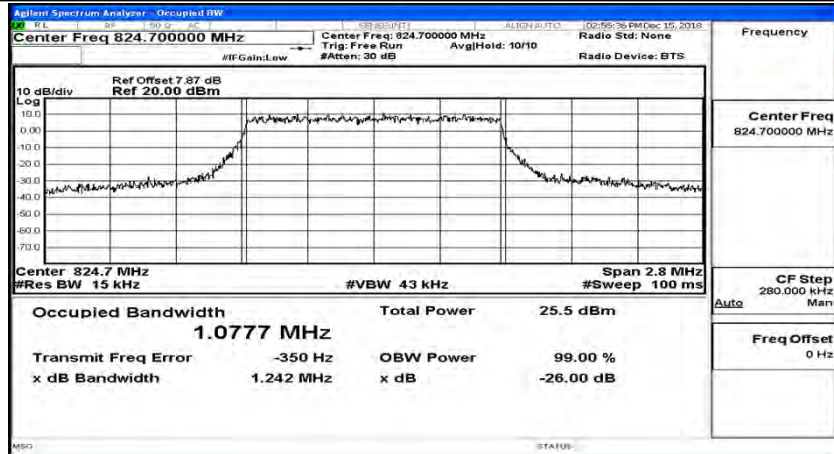
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK



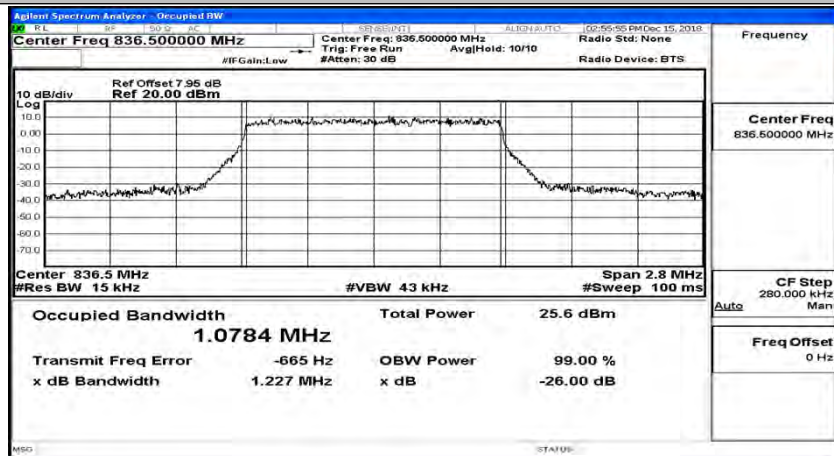
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK



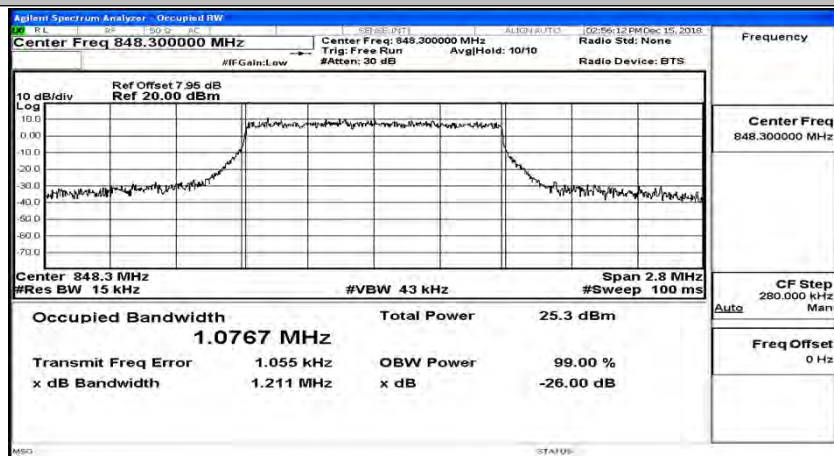
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM



## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM

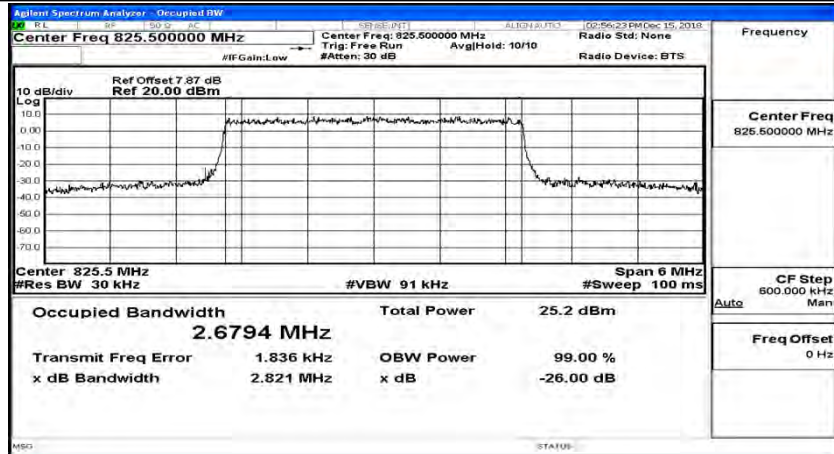


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM

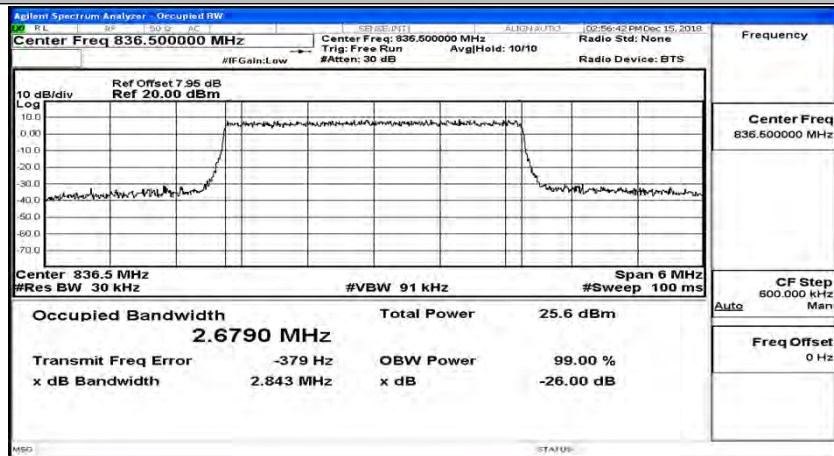




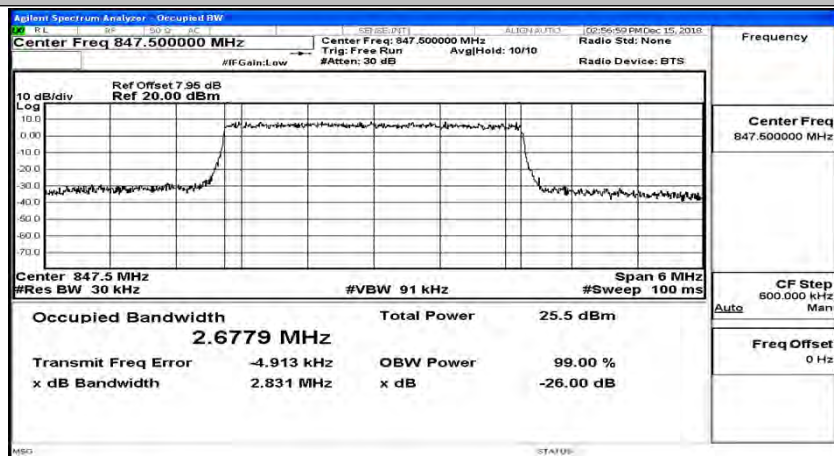
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_QPSK



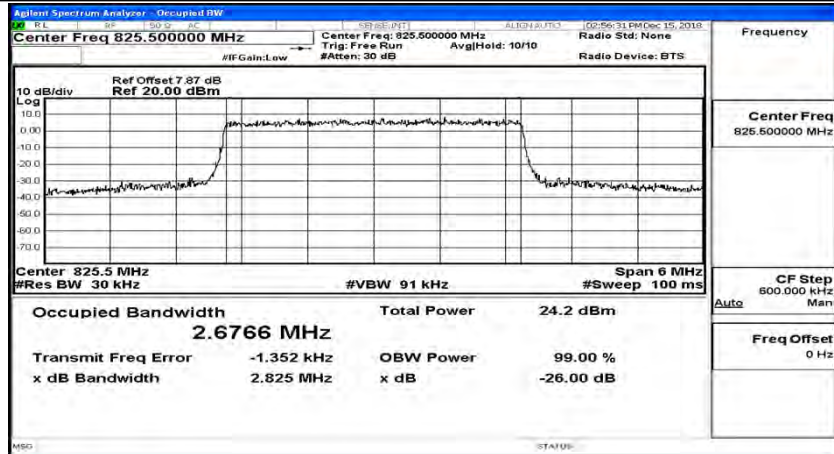
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_QPSK



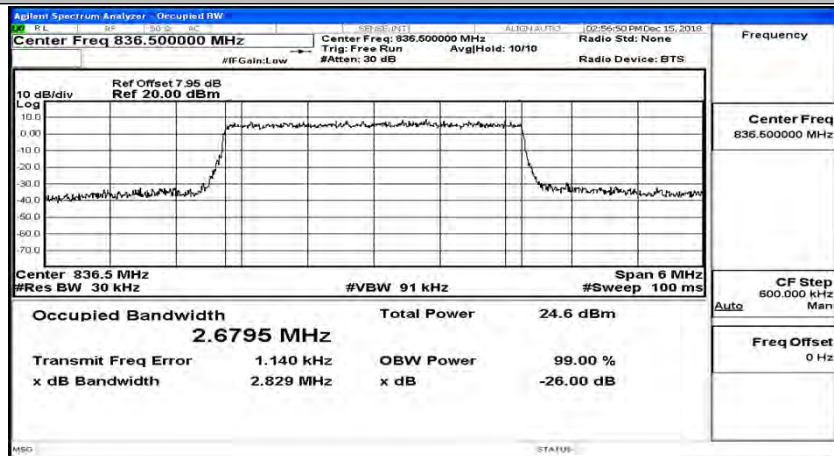
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK



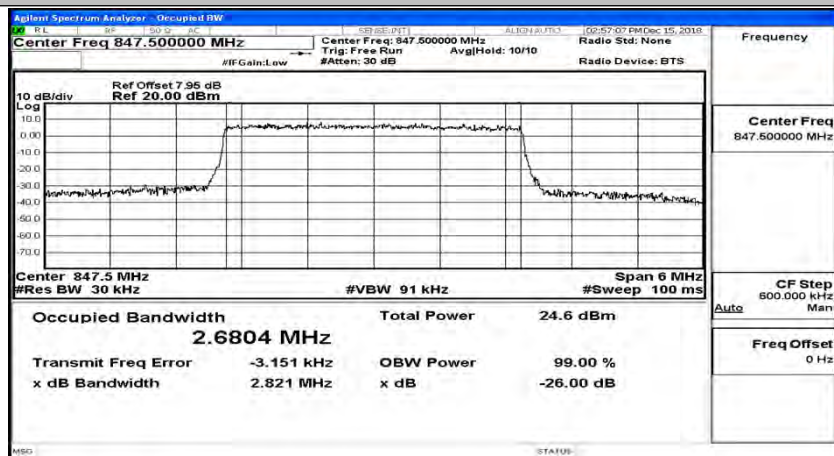
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_16QAM



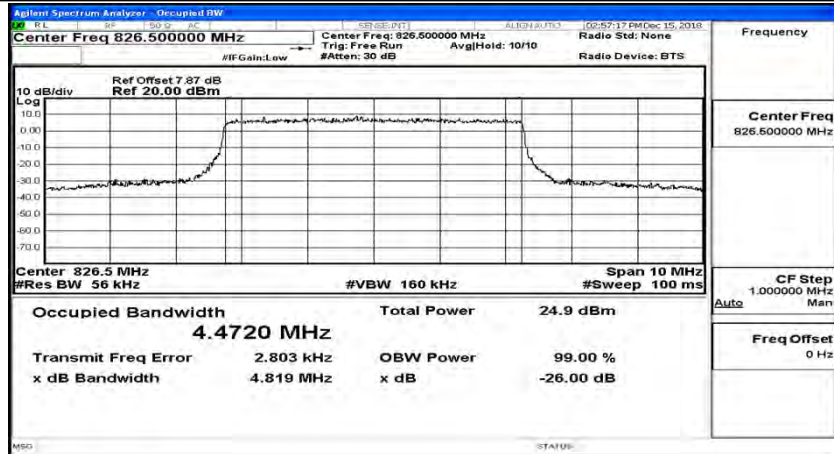
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_16QAM



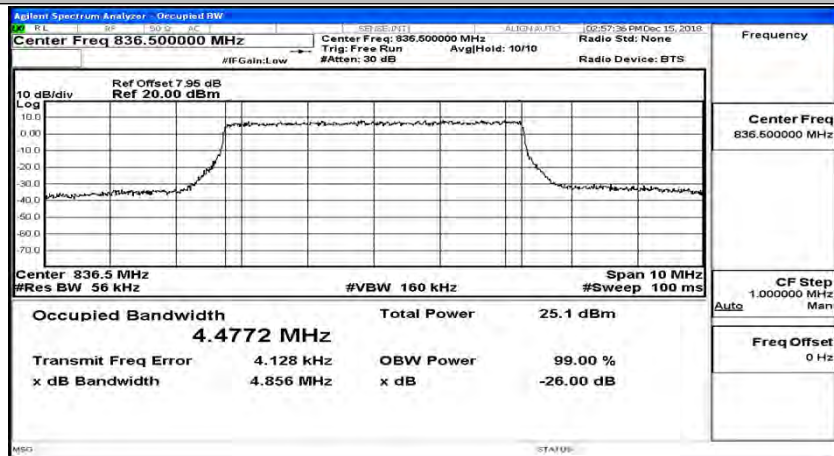
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM



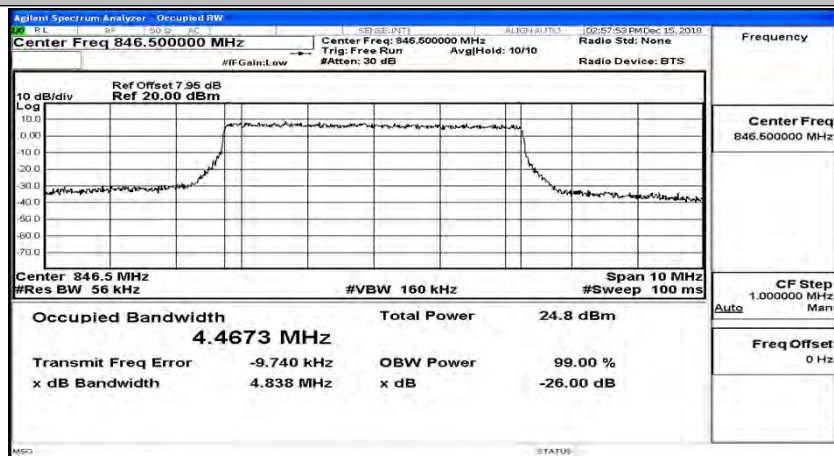
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



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

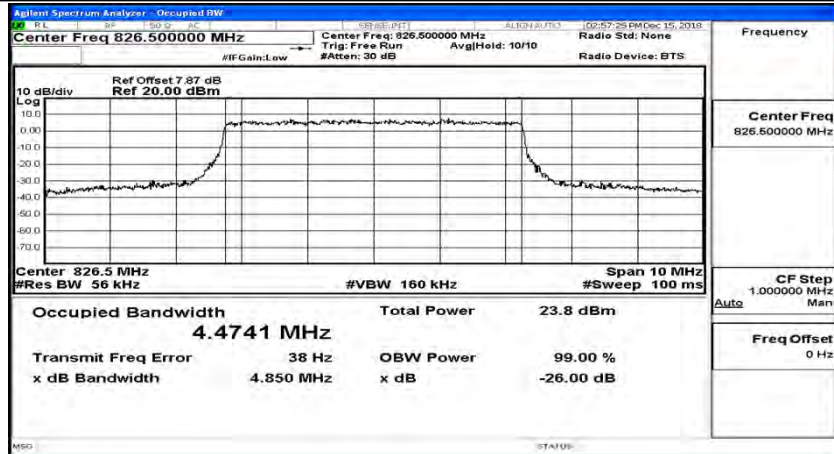


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK

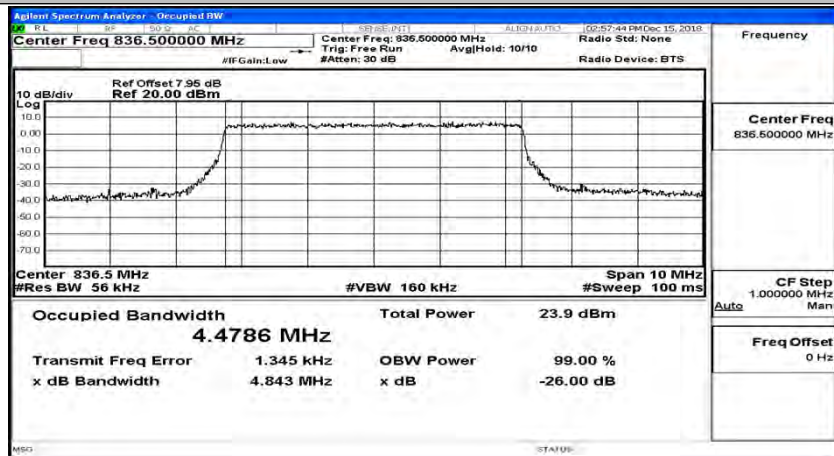




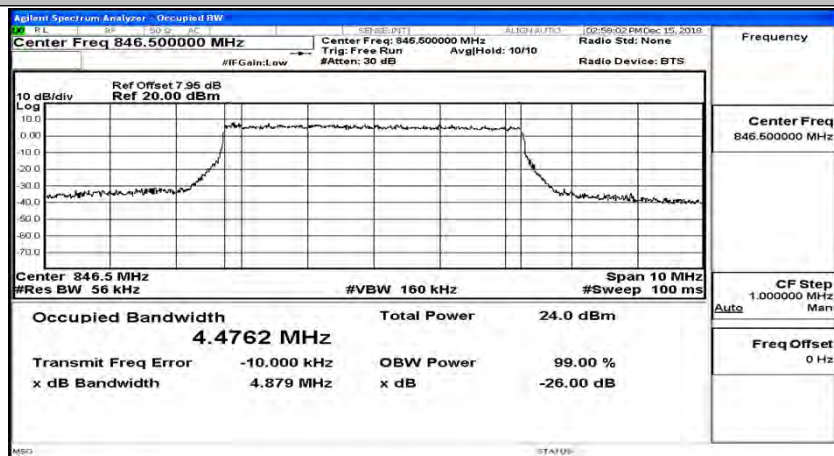
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



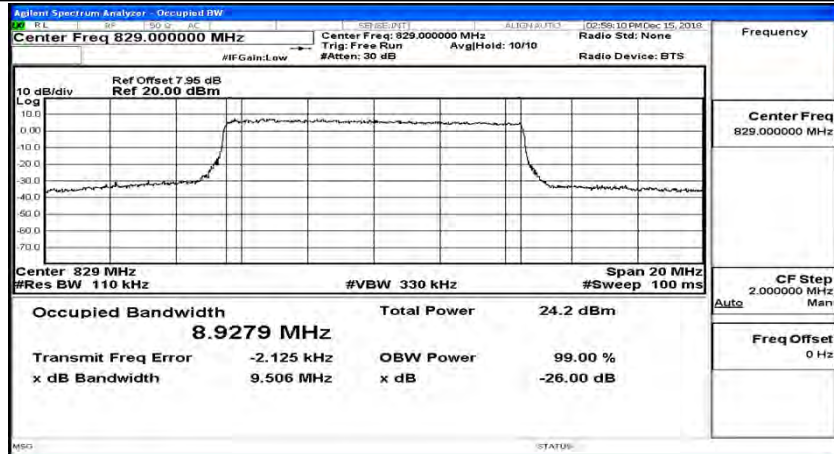
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



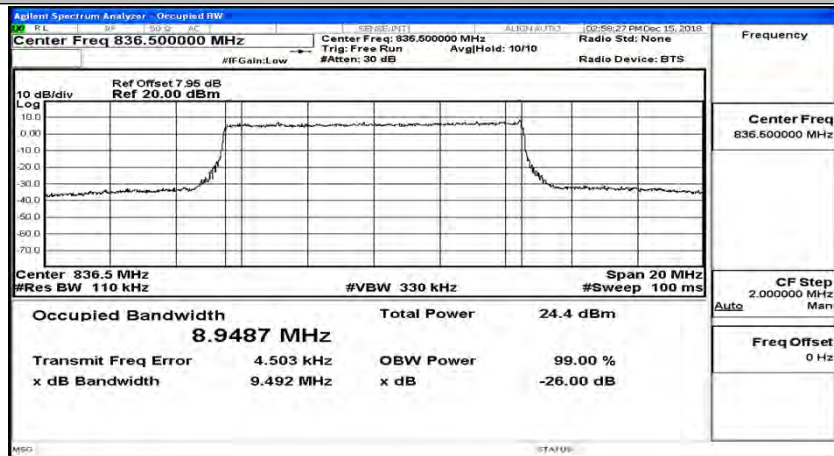
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



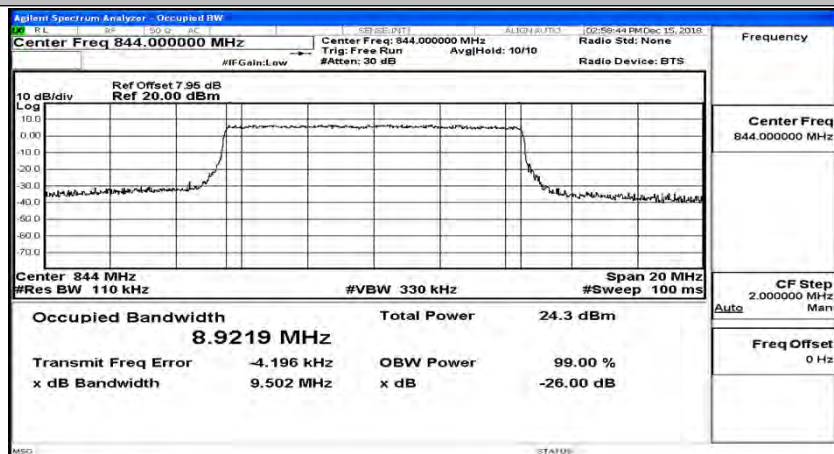
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



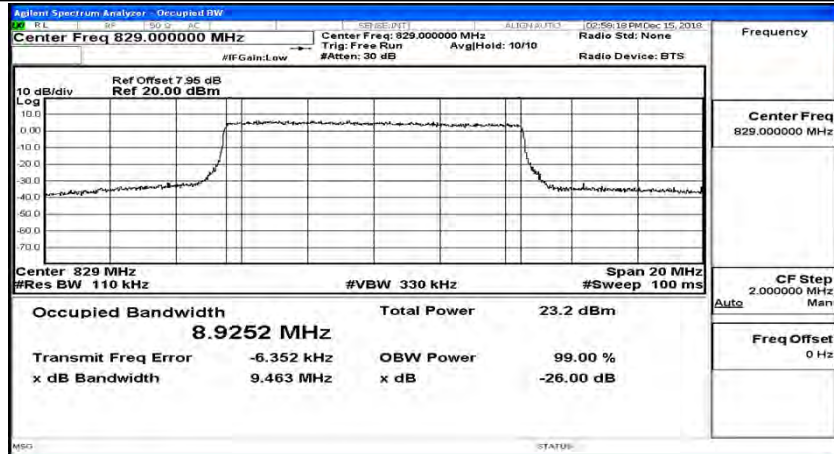
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



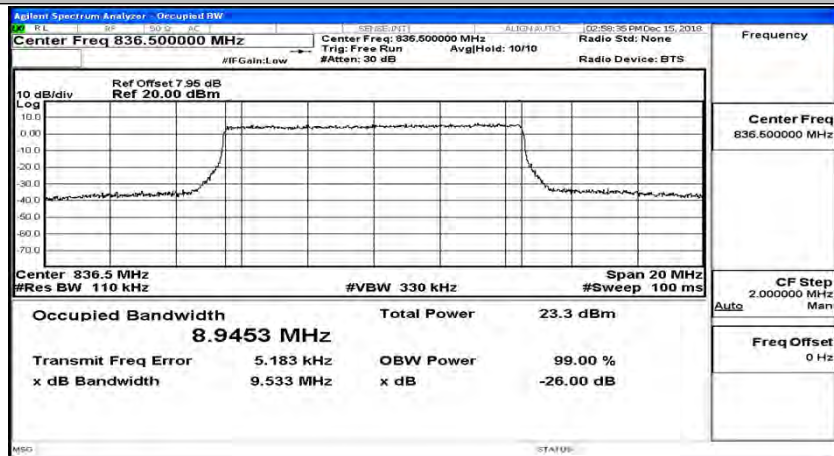
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



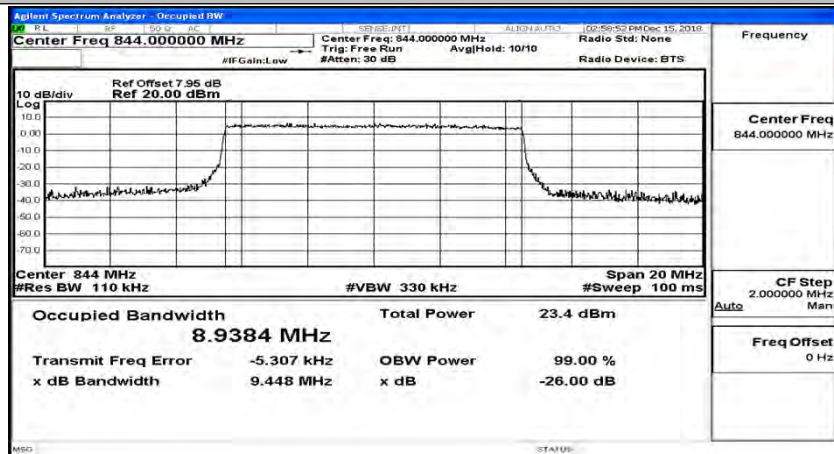
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



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



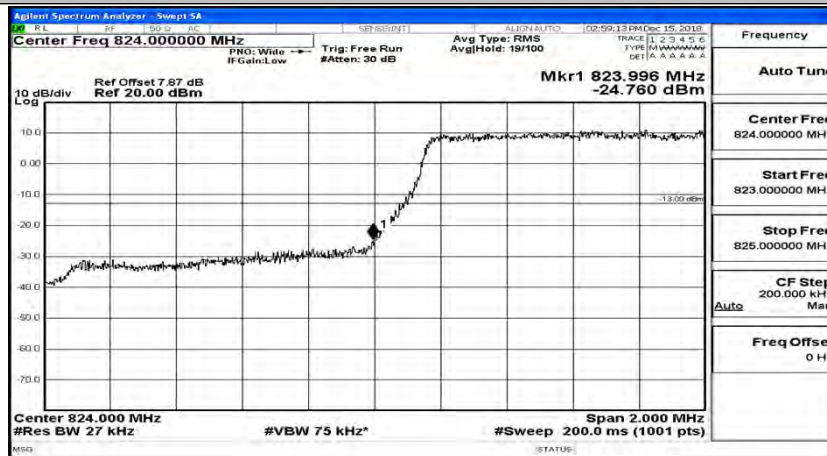
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



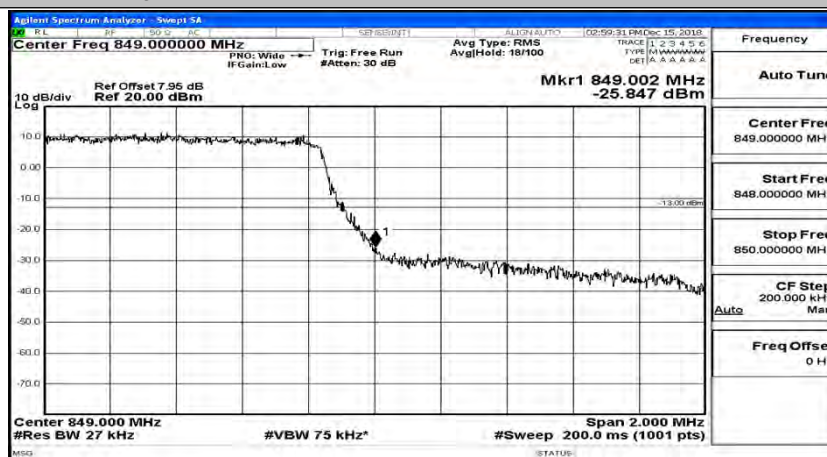


## C.4 Band Edge

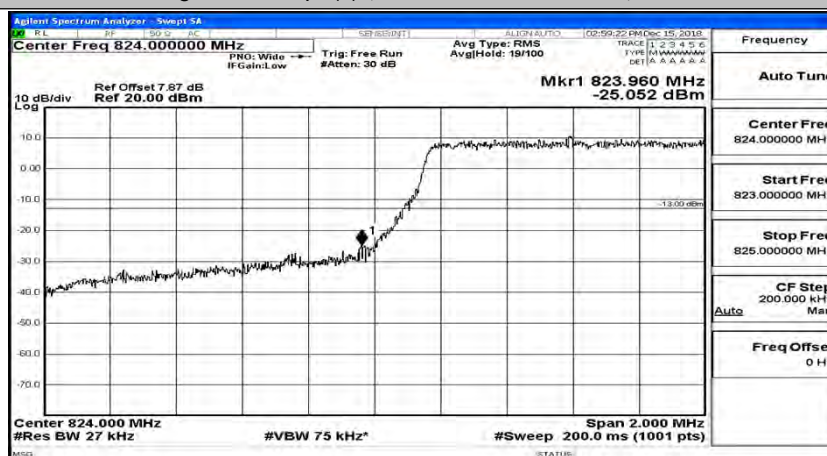
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK



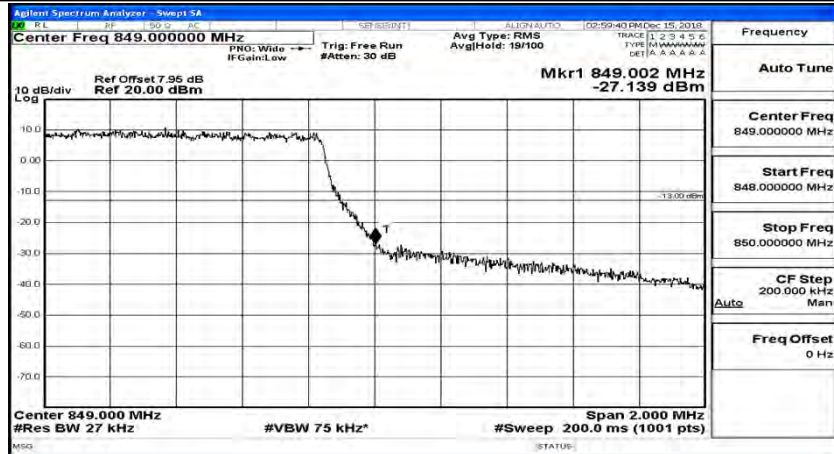
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK



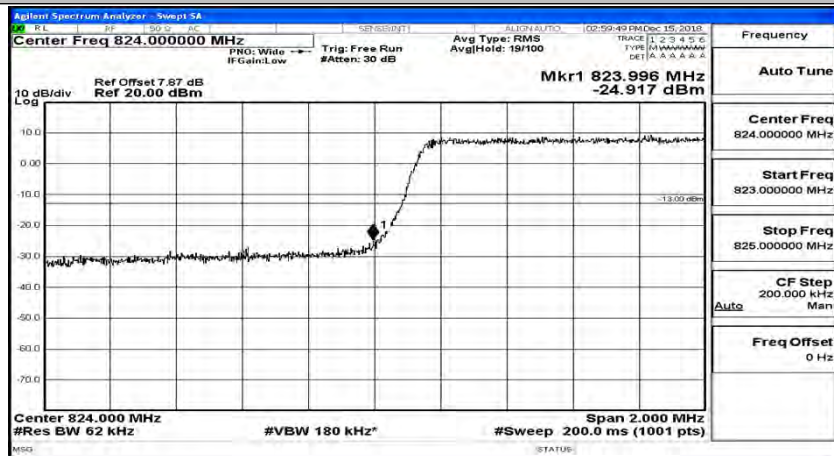
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM



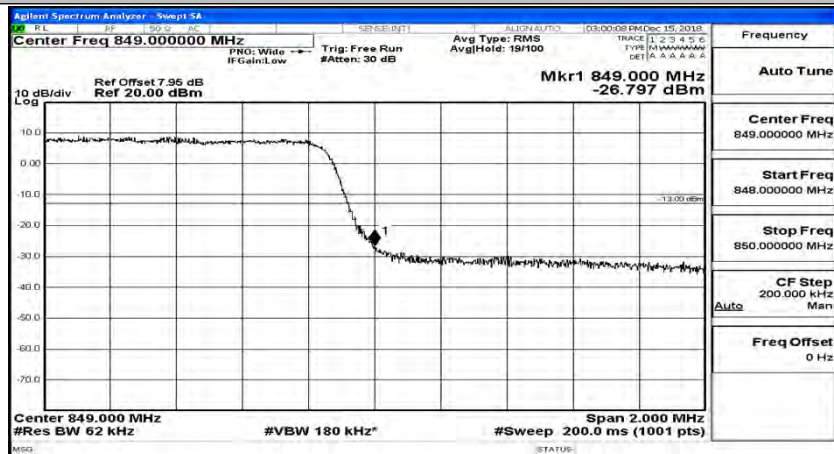
## Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM



## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_QPSK

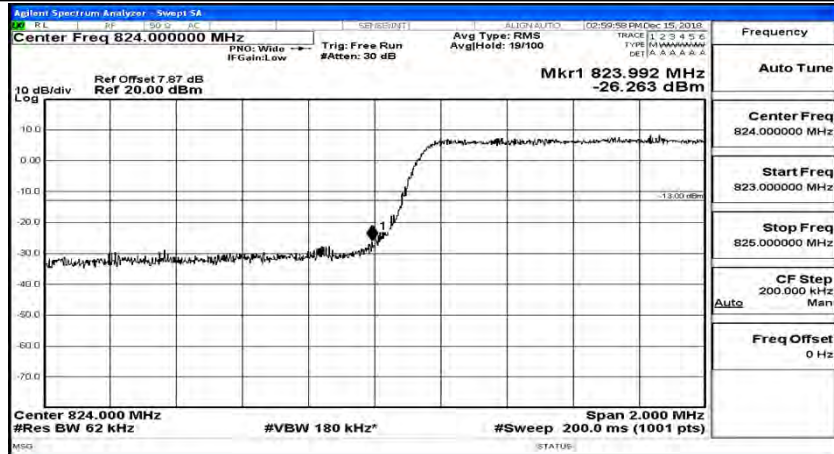


## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK

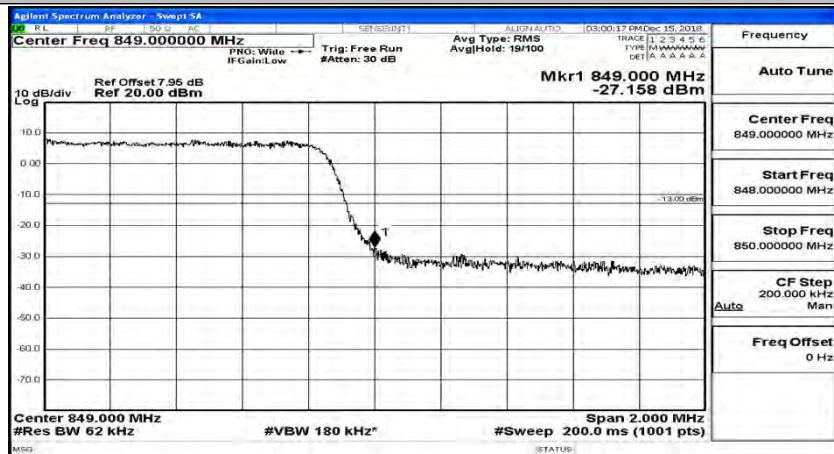




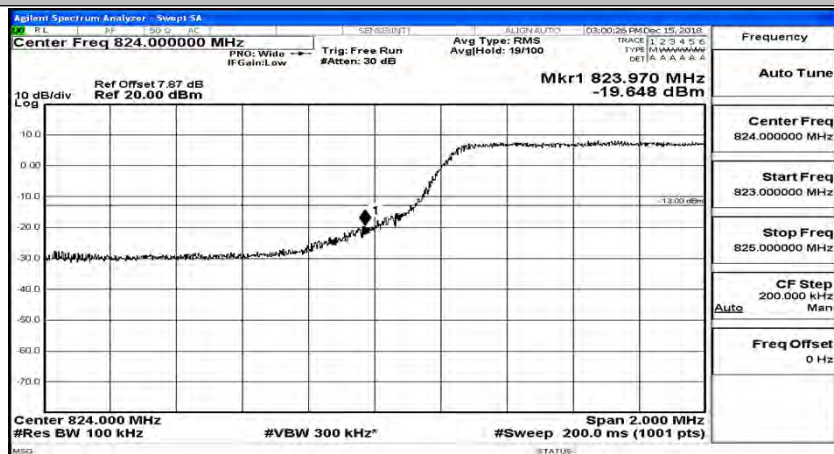
## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_16QAM



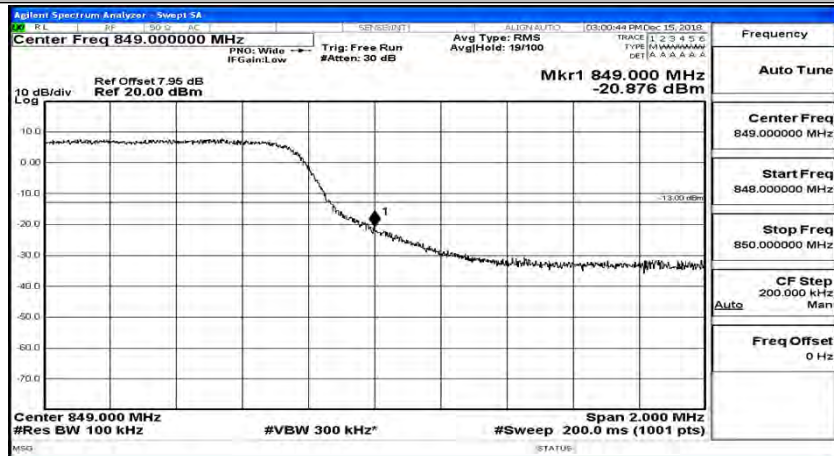
## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM



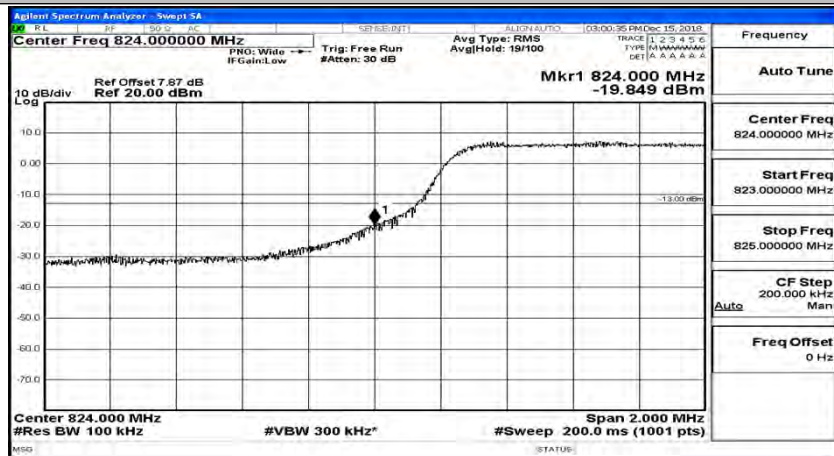
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



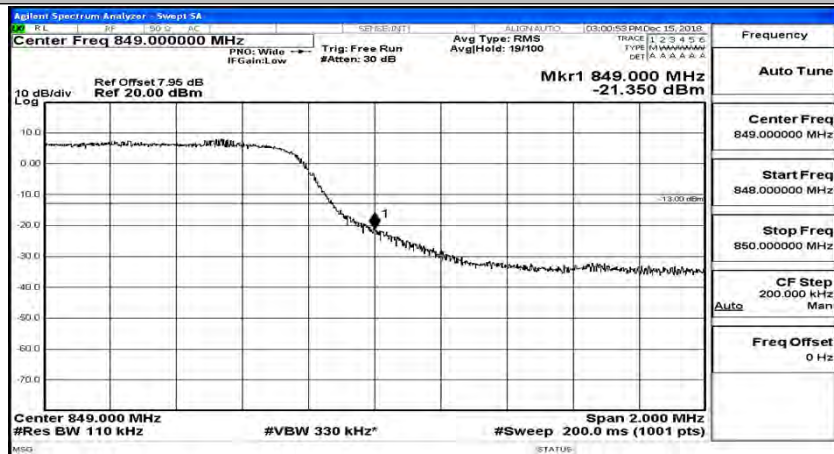
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



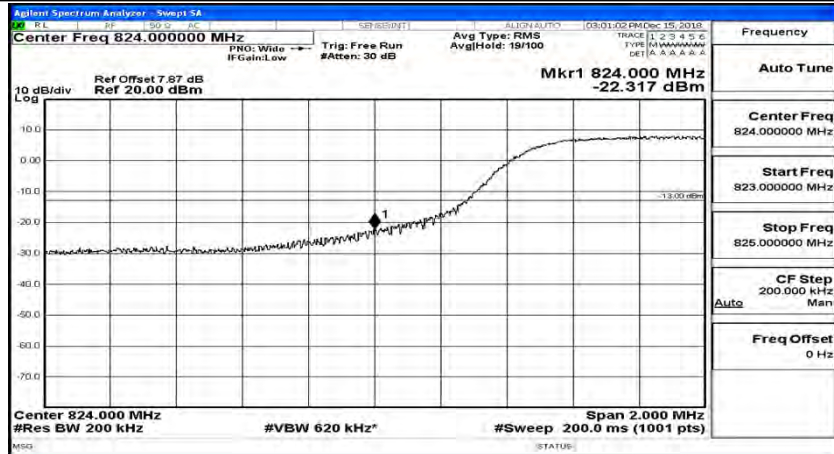
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



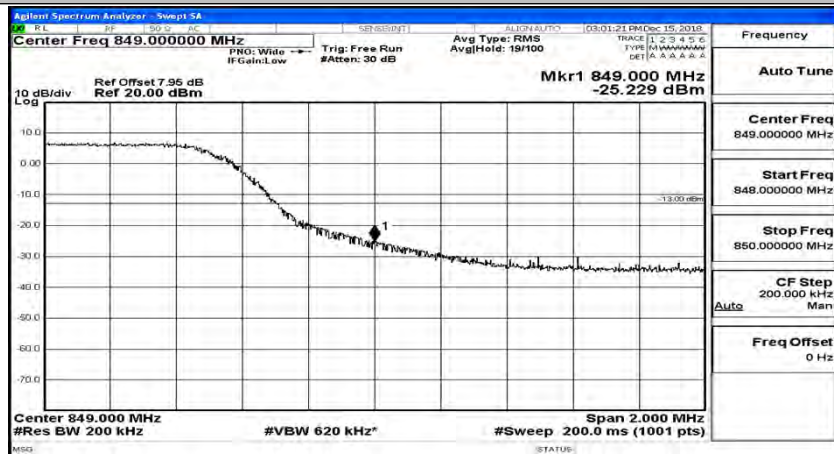
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



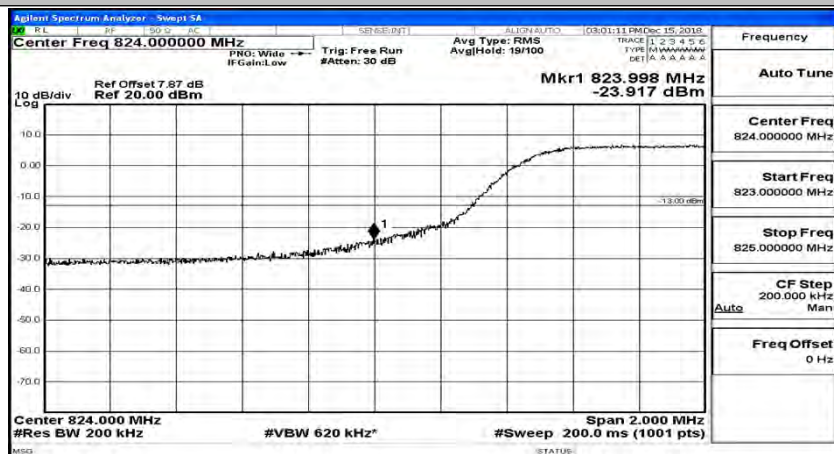
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



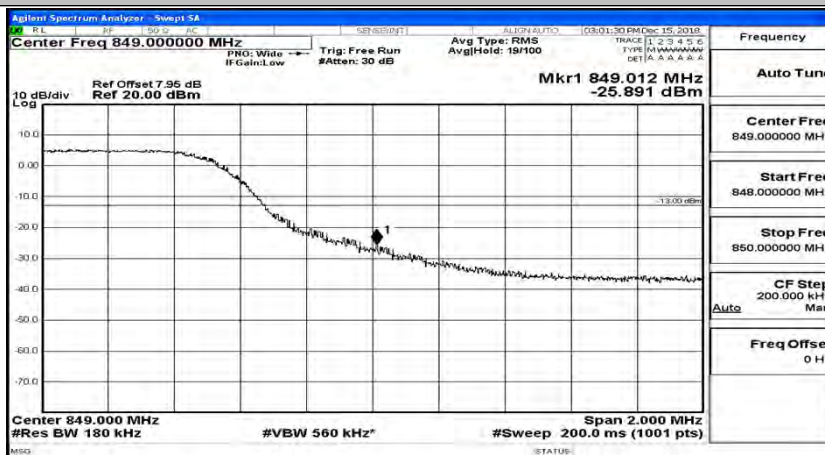
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



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



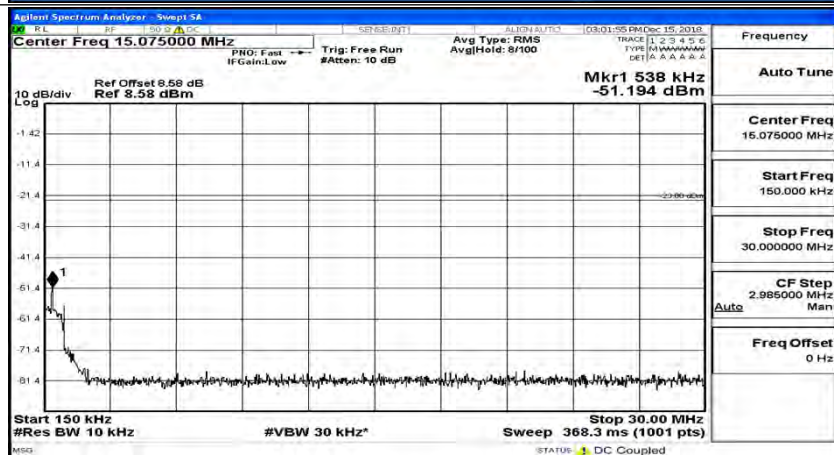
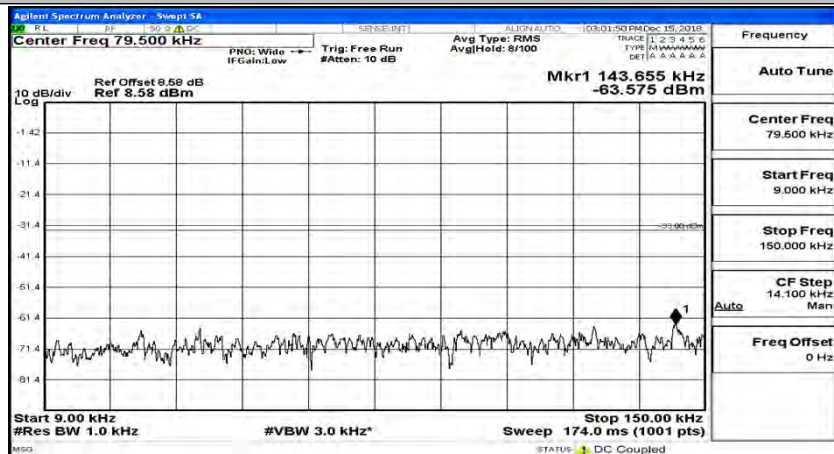
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



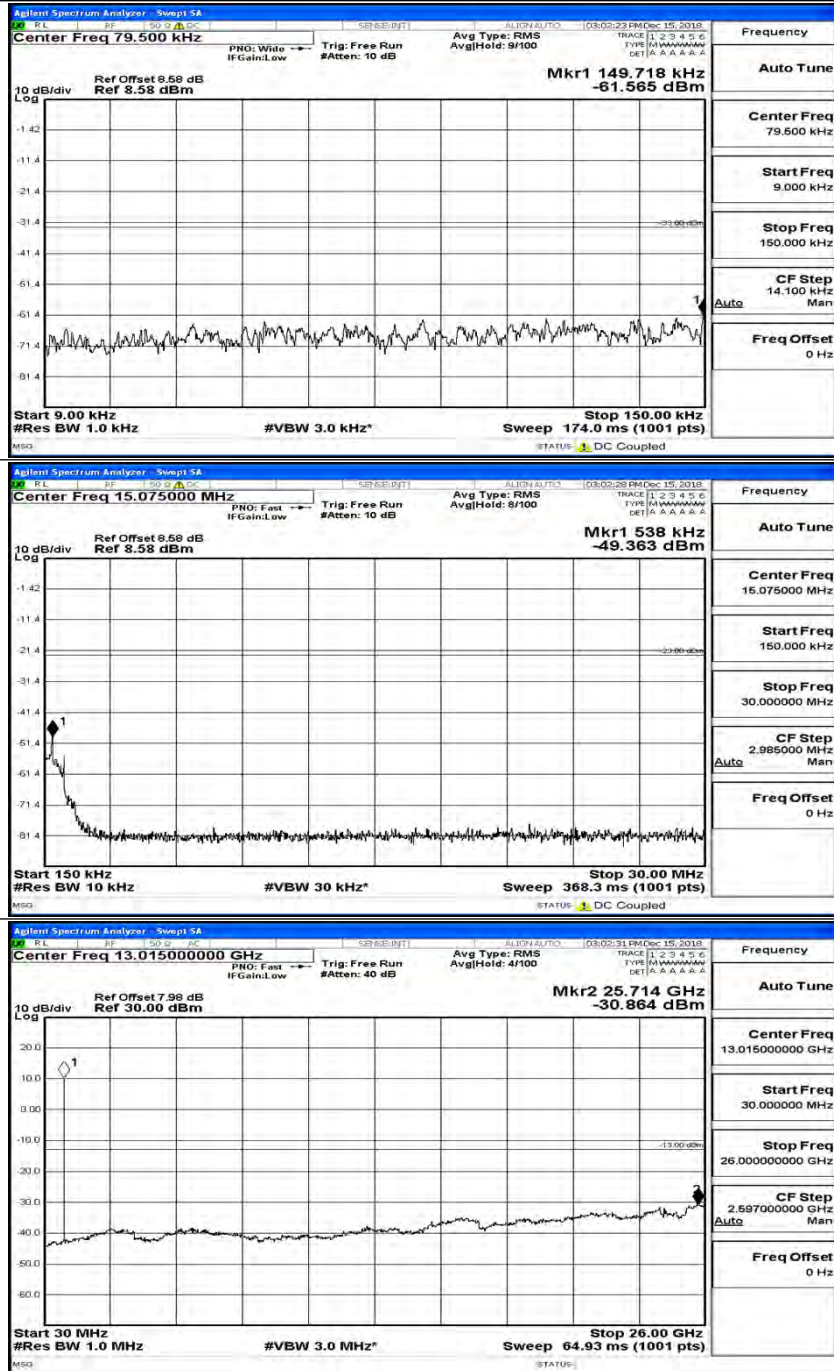


## C.5 Conducted Spurious Emission

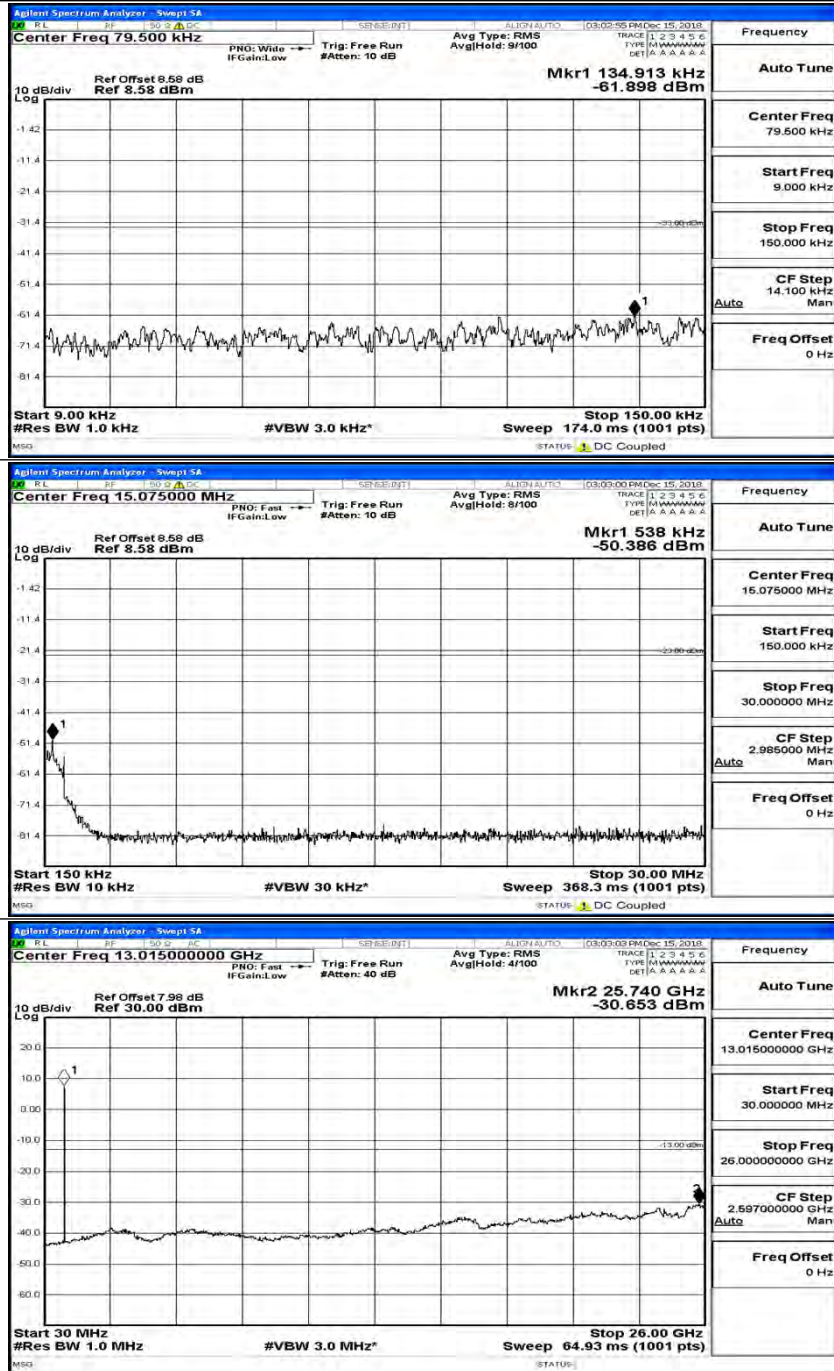
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK



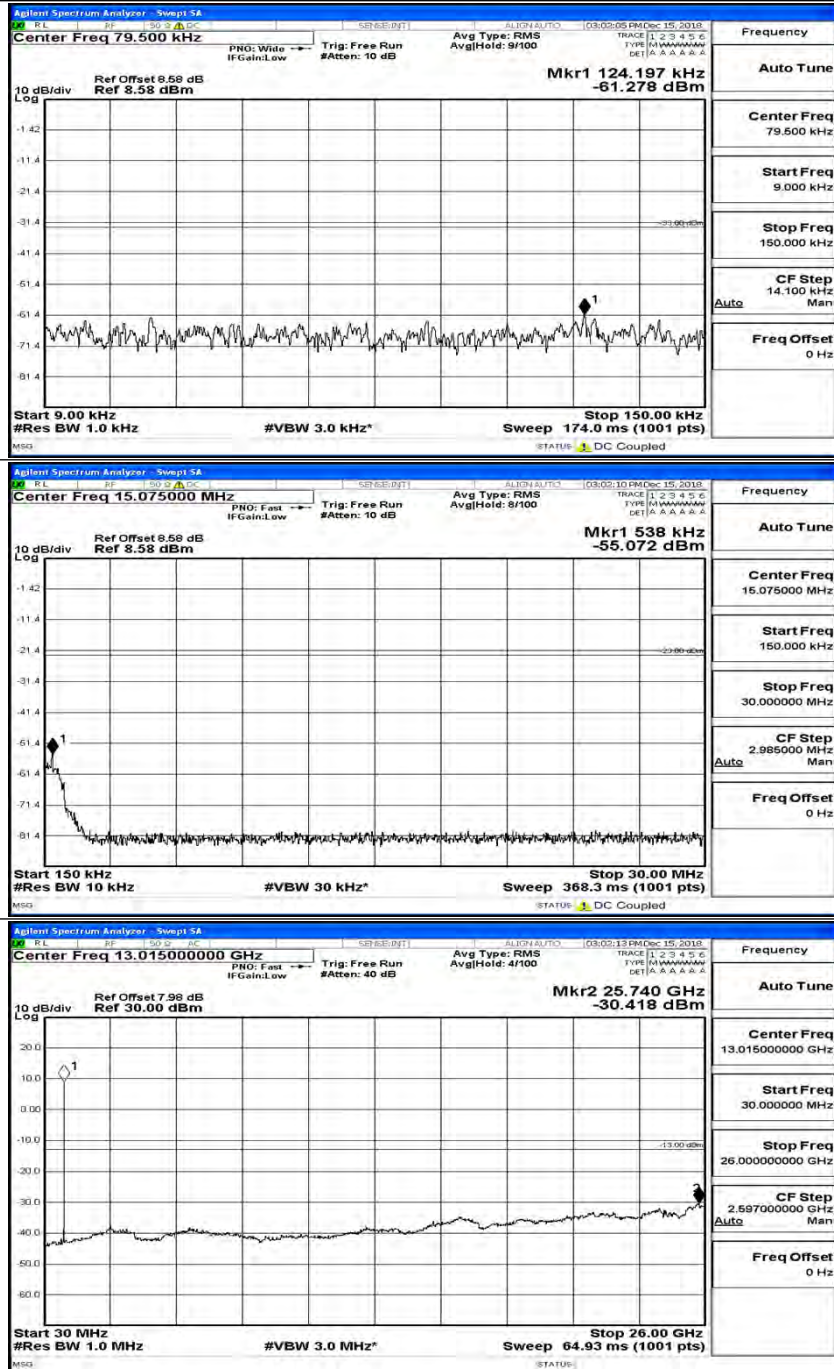
## CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK



## CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK

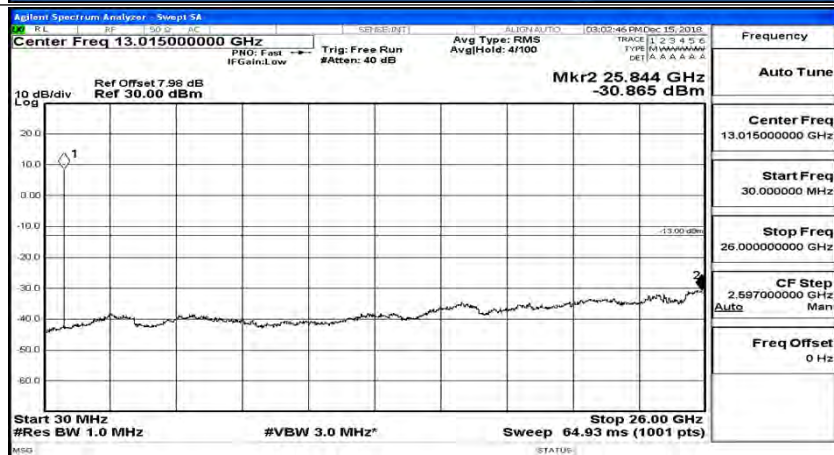
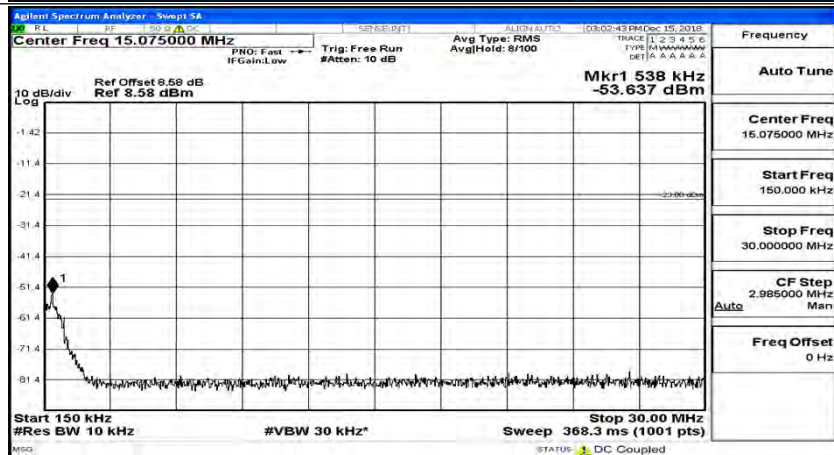
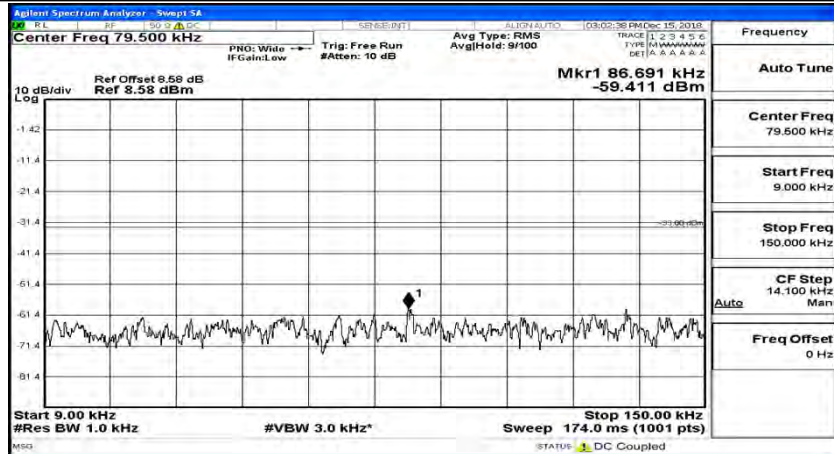


## CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM

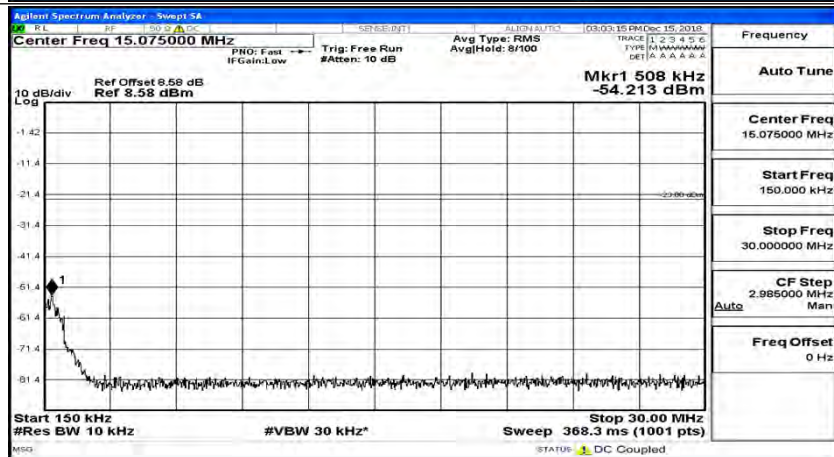
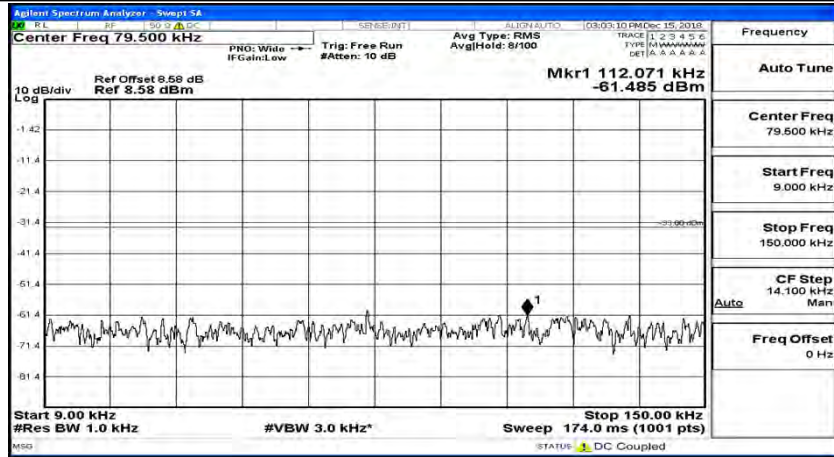




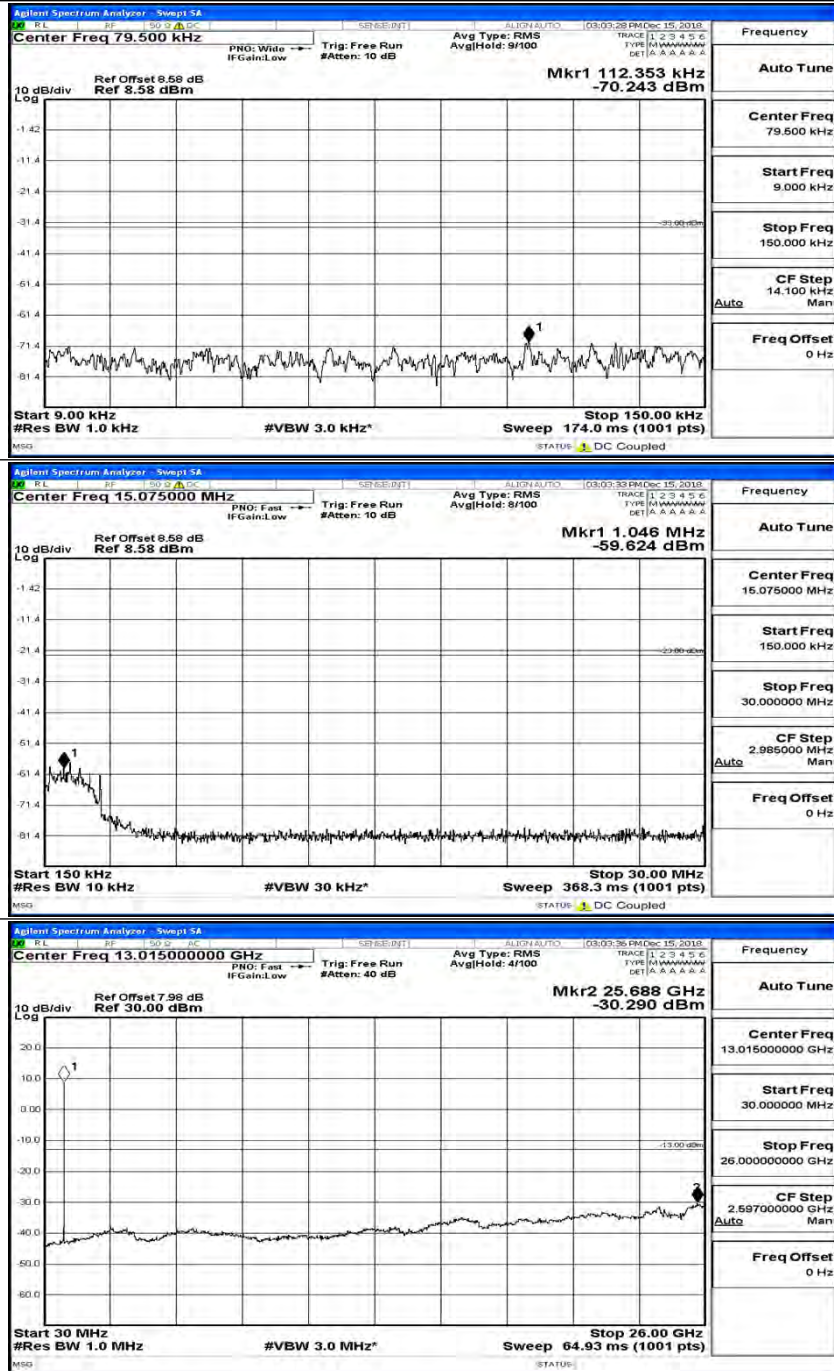
## CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM



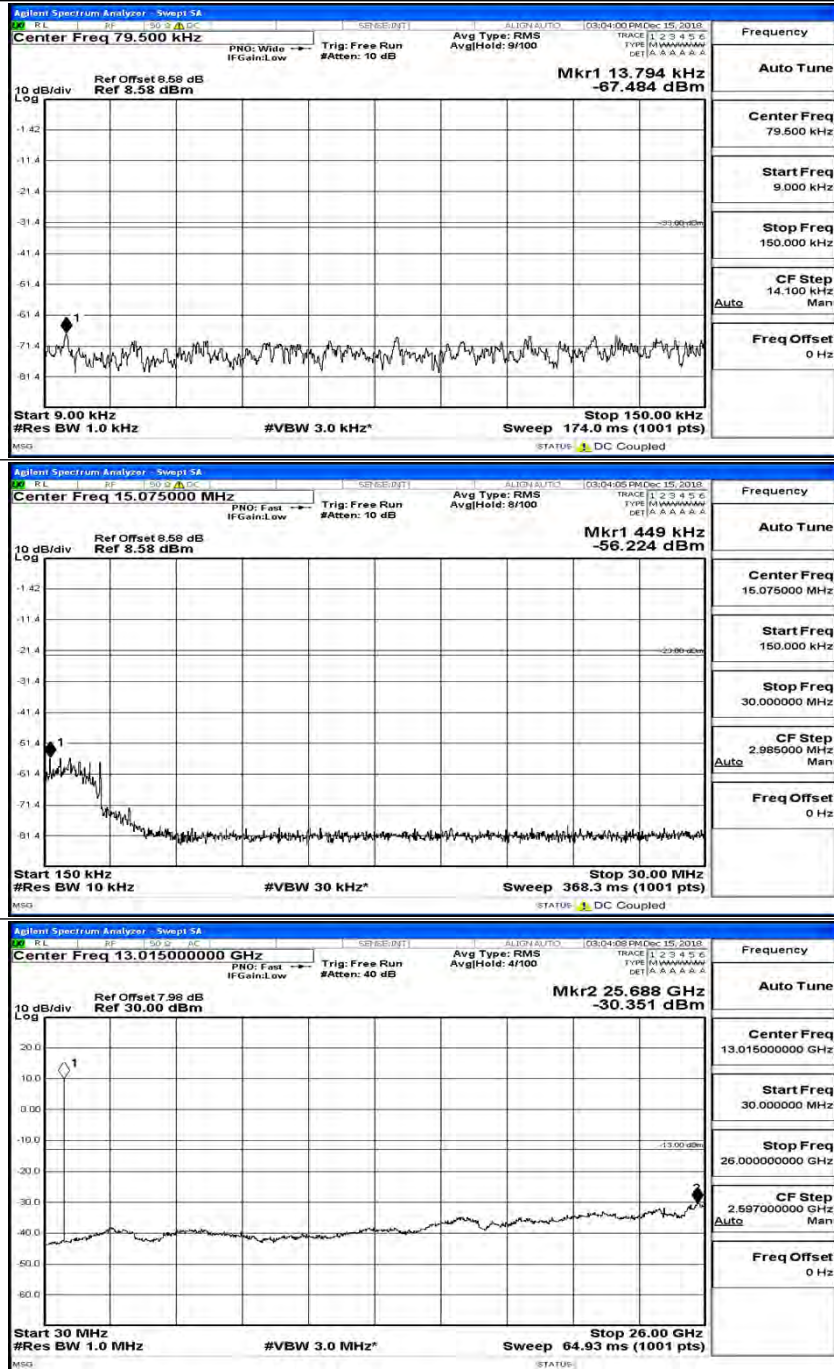
## CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM



## CSE Test Graph(s) (Channel Bandwidth: 3 MHz) LCH\_QPSK

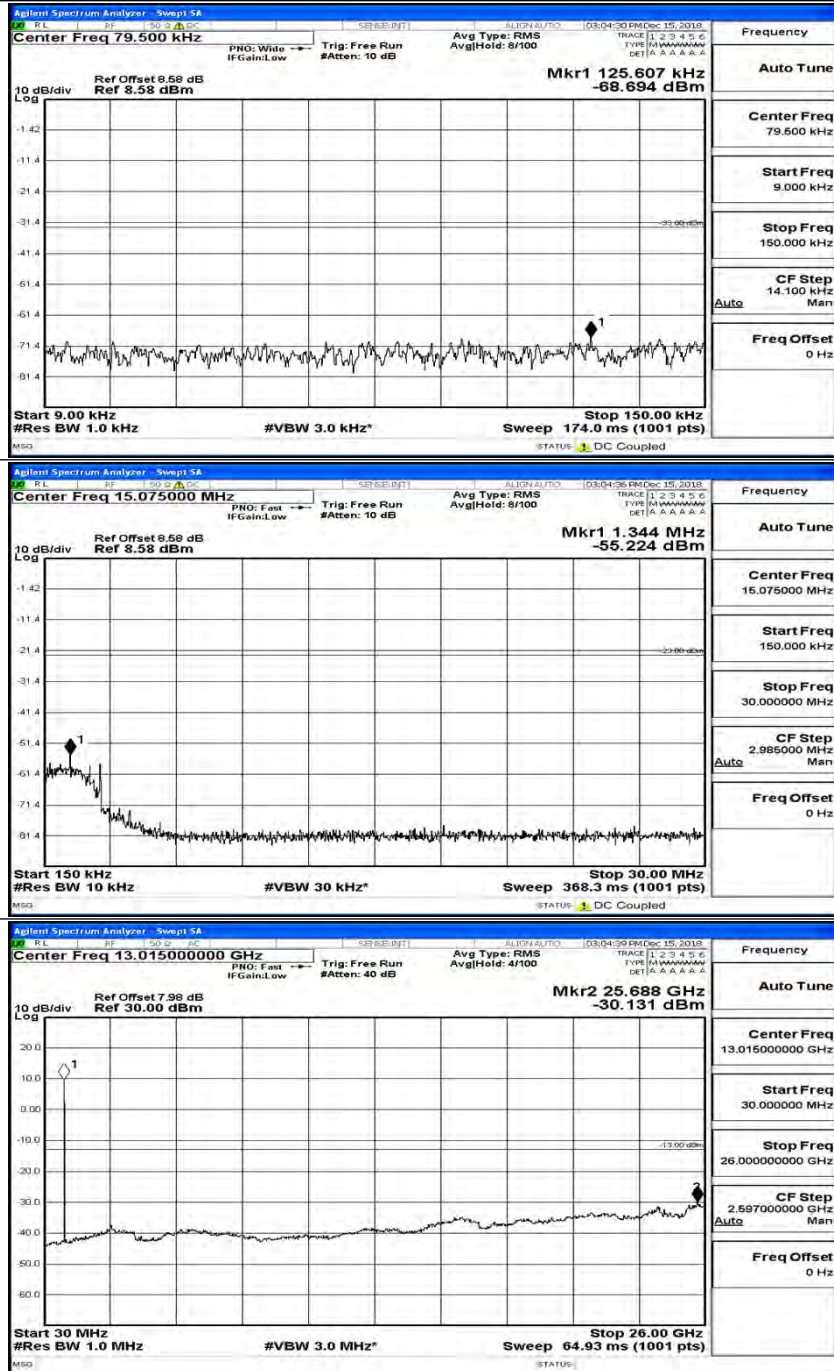


## CSE Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_QPSK





## CSE Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK



Agilent Spectrum Analyzer - Sweep 56

R1 500.0 dBc 507.630 DFT1 ALP194 ALP193 103.03-43 PM Dec 15, 2010

Center Freq 79.500 kHz

PN0: Wide → IF Gain: Low Trig: Free Run #Atten: 10 dB

Avg Type: RMS Avg/Hold: S/100

TRACE 1 2 3 4 5 C F0R 10AAAAAA DET[A A A A A A

Frequency

Auto Tun

Center Freq 79.500 kHz

Start Freq 9.000 kHz

Stop Freq 150.000 kHz

CF Step 14.100 kHz

Auto

Freq Offset 0 Hz

10 dB/div Log

Ref Offset 9.50 dB Ref 3.58 dBm

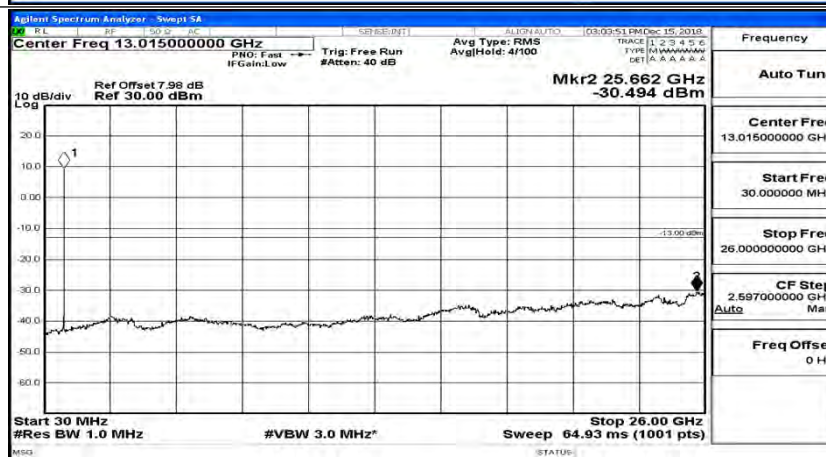
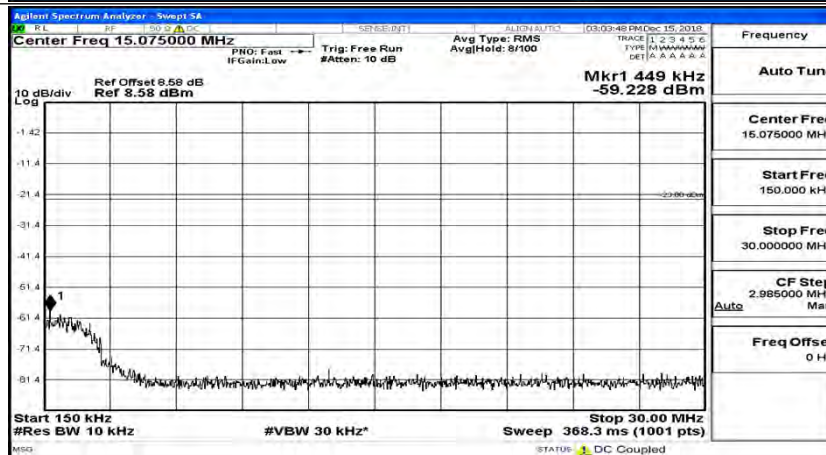
Mkr1 130.965 kHz -65.866 dBm

-71.40 dBm

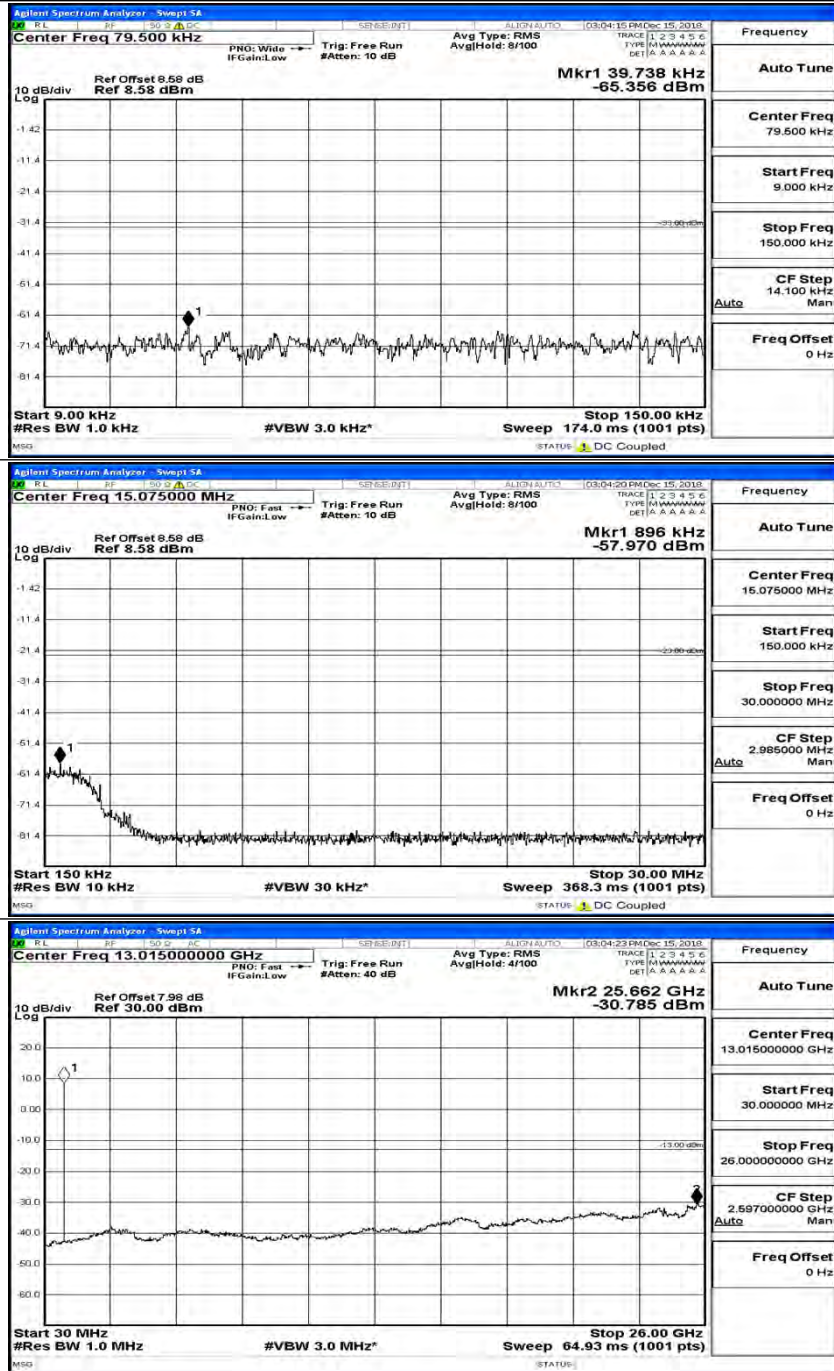
1

Start 9.00 kHz #Res BW 1.0 kHz #VBW 3.0 kHz\* Stop 150.00 kHz Sweep 174.0 ms (1001 pts)

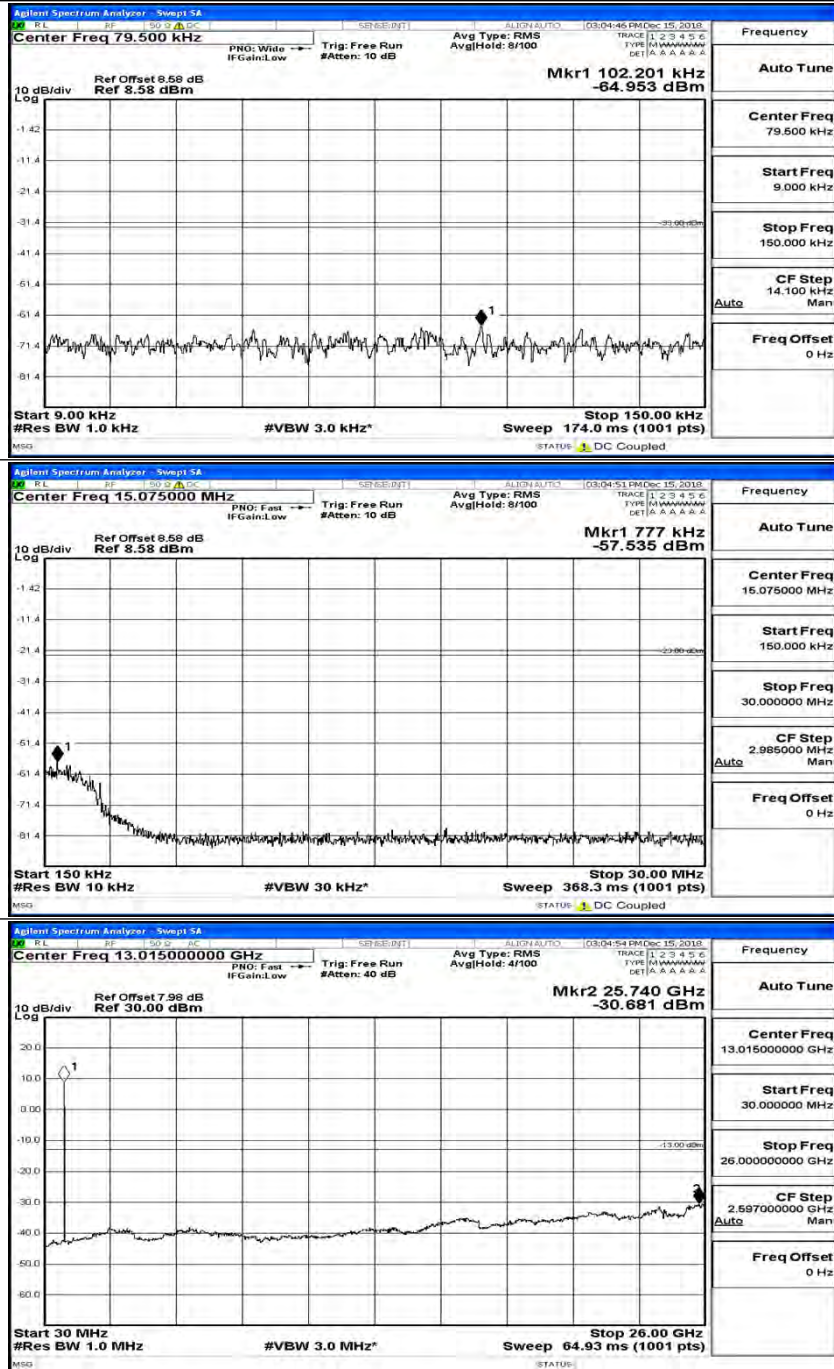
MS5 STATUS 1 DC Coupled



## CSE Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_16QAM

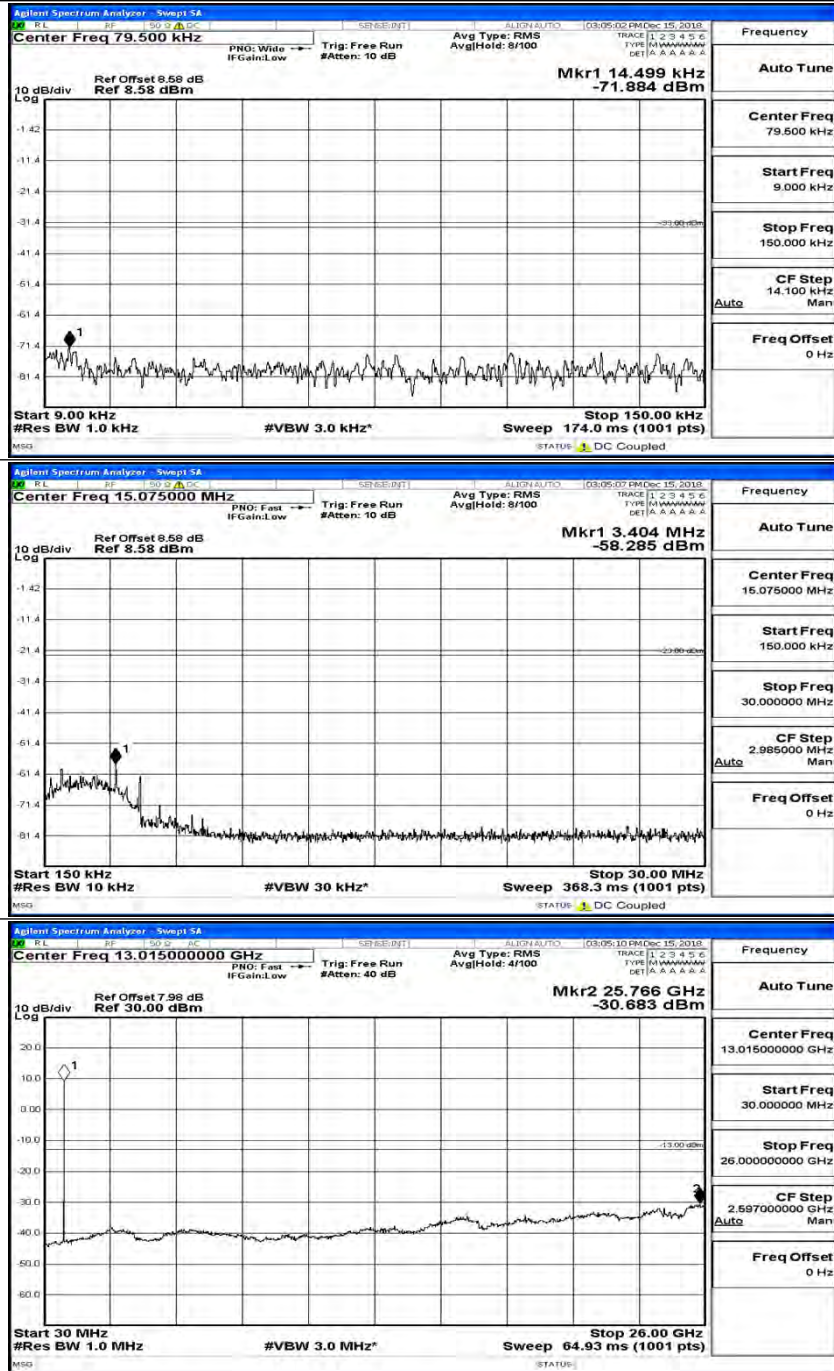


## CSE Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM

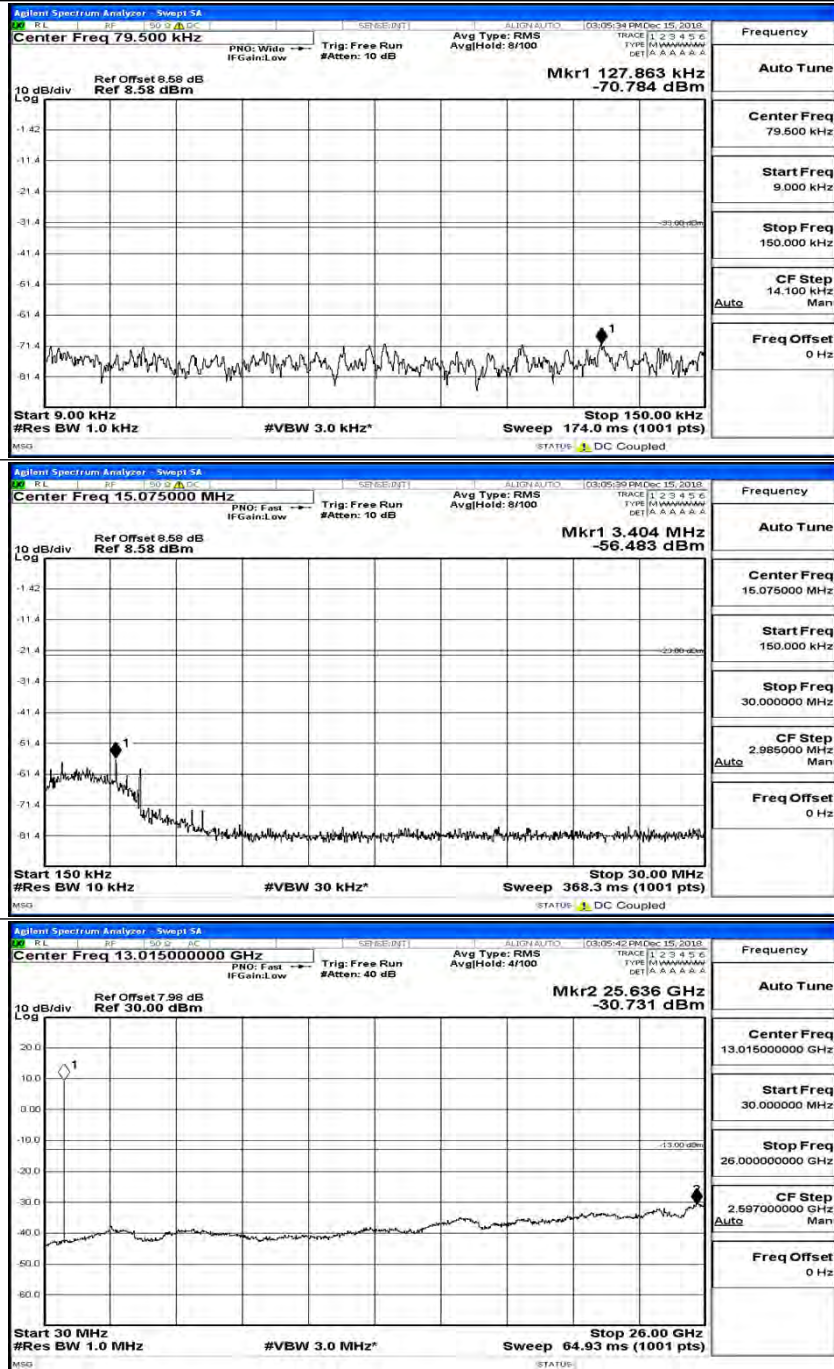




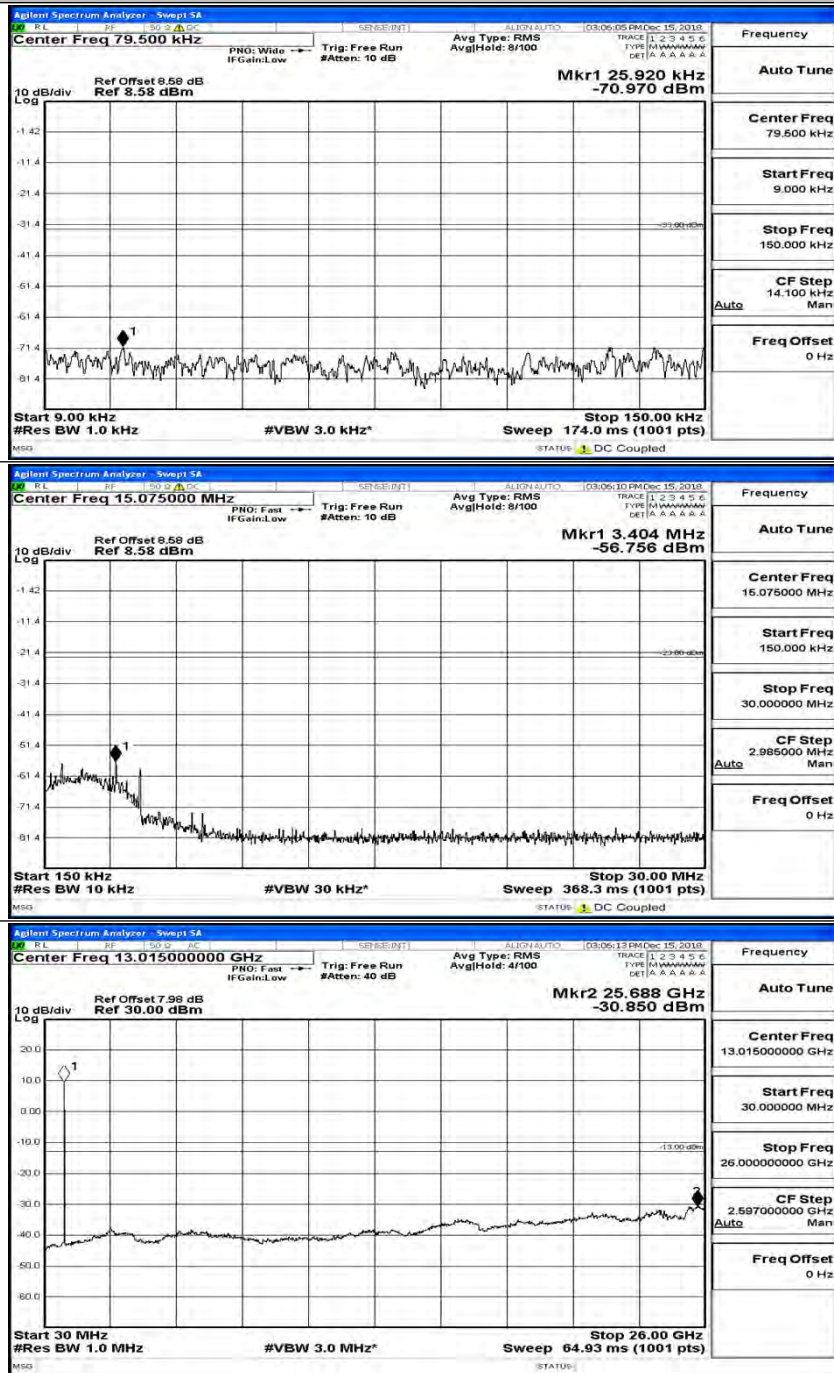
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz) LCH\_QPSK



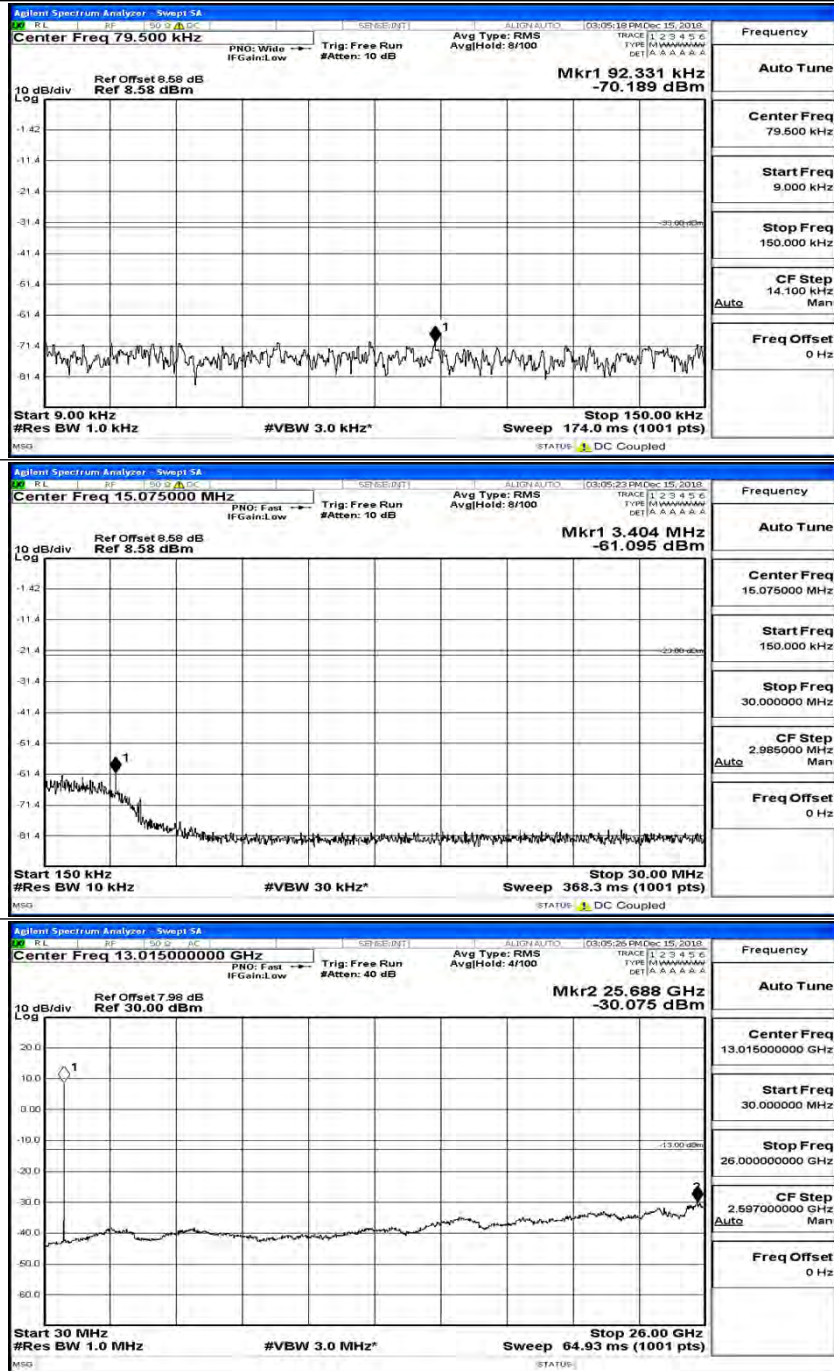
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



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

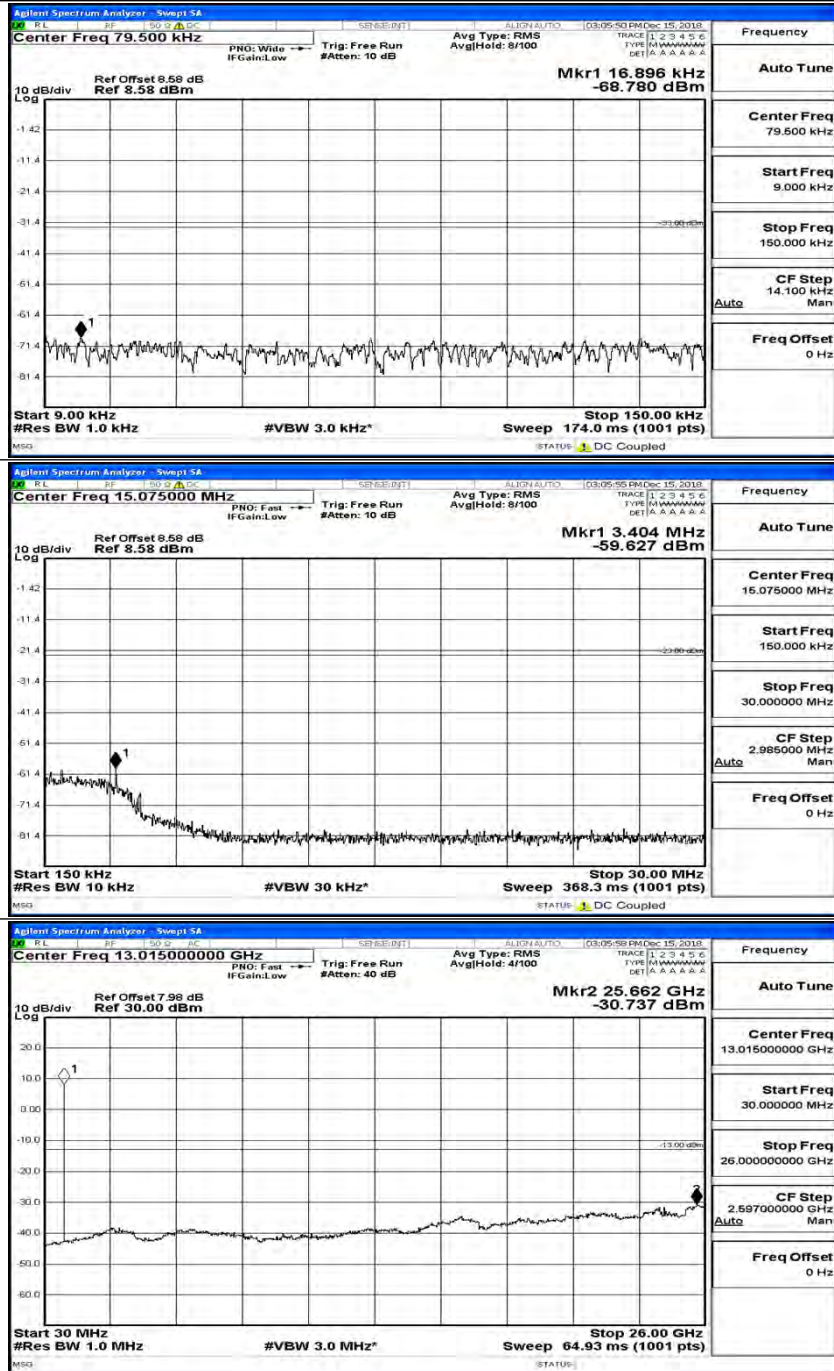


## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM

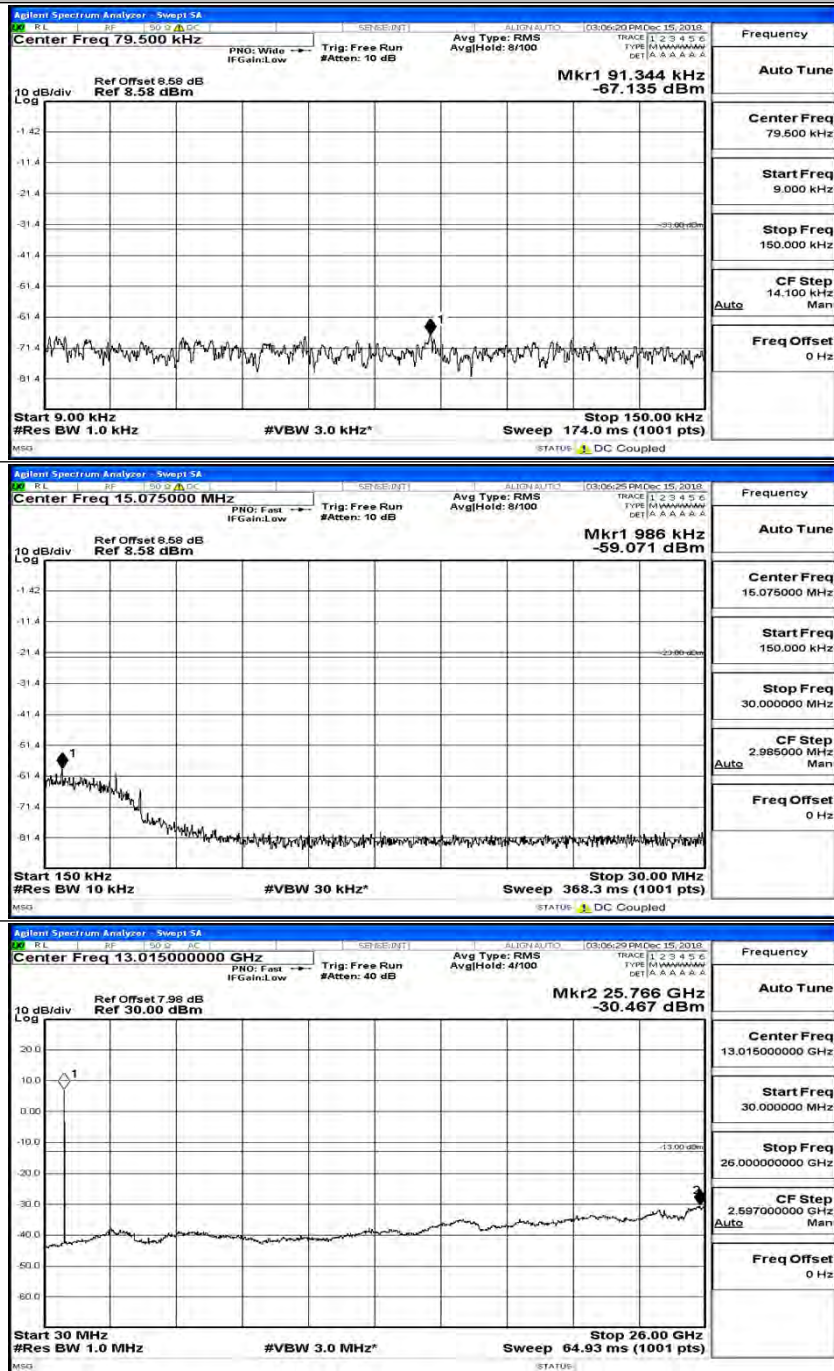




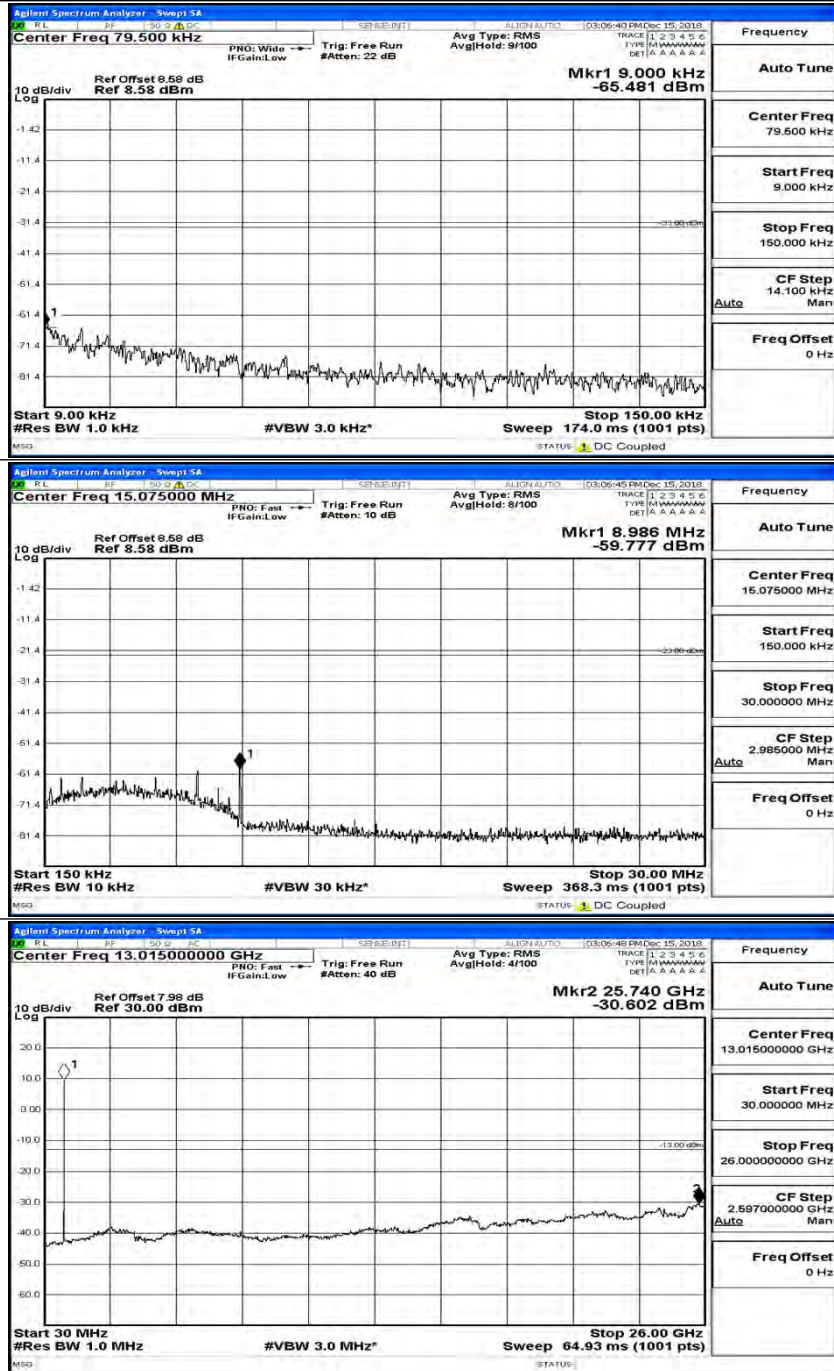
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



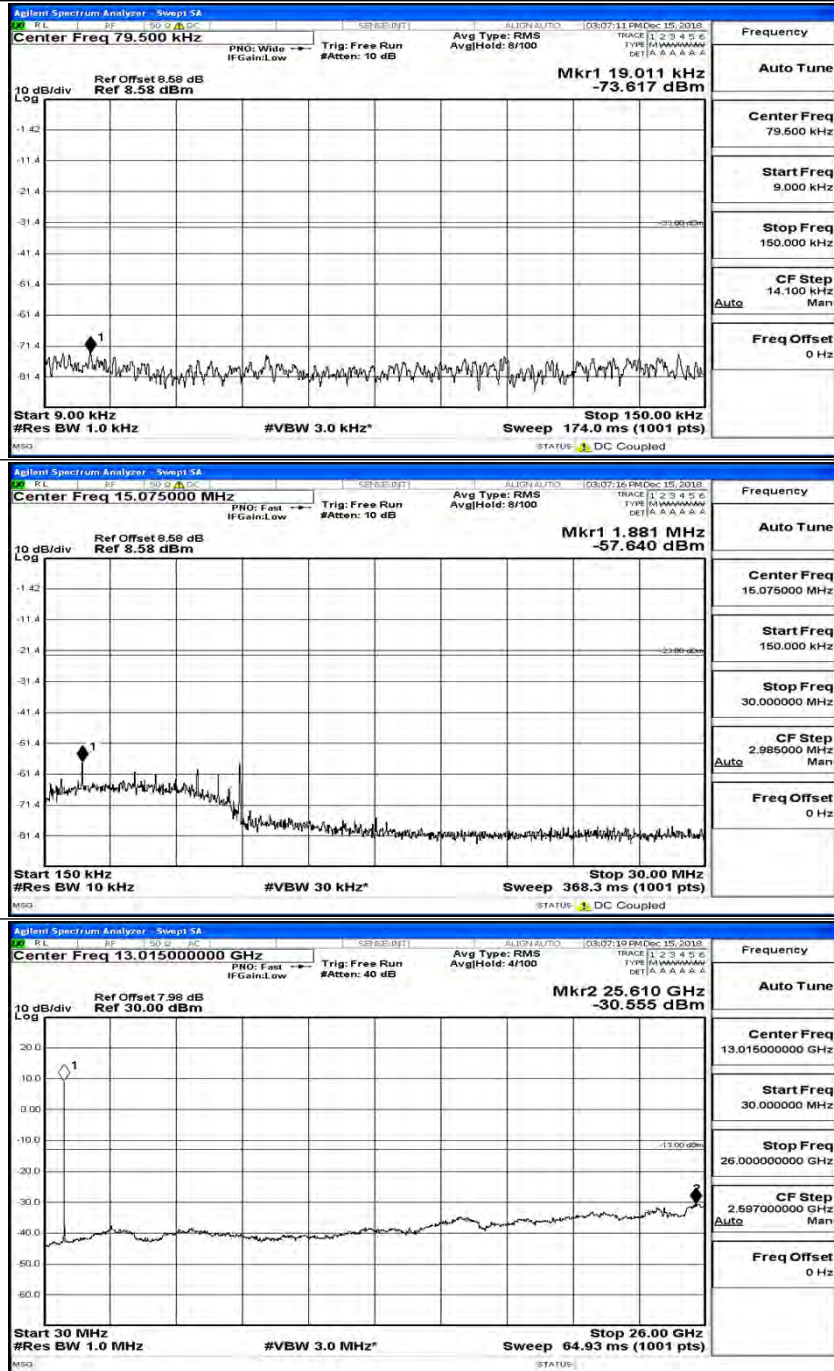
## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



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

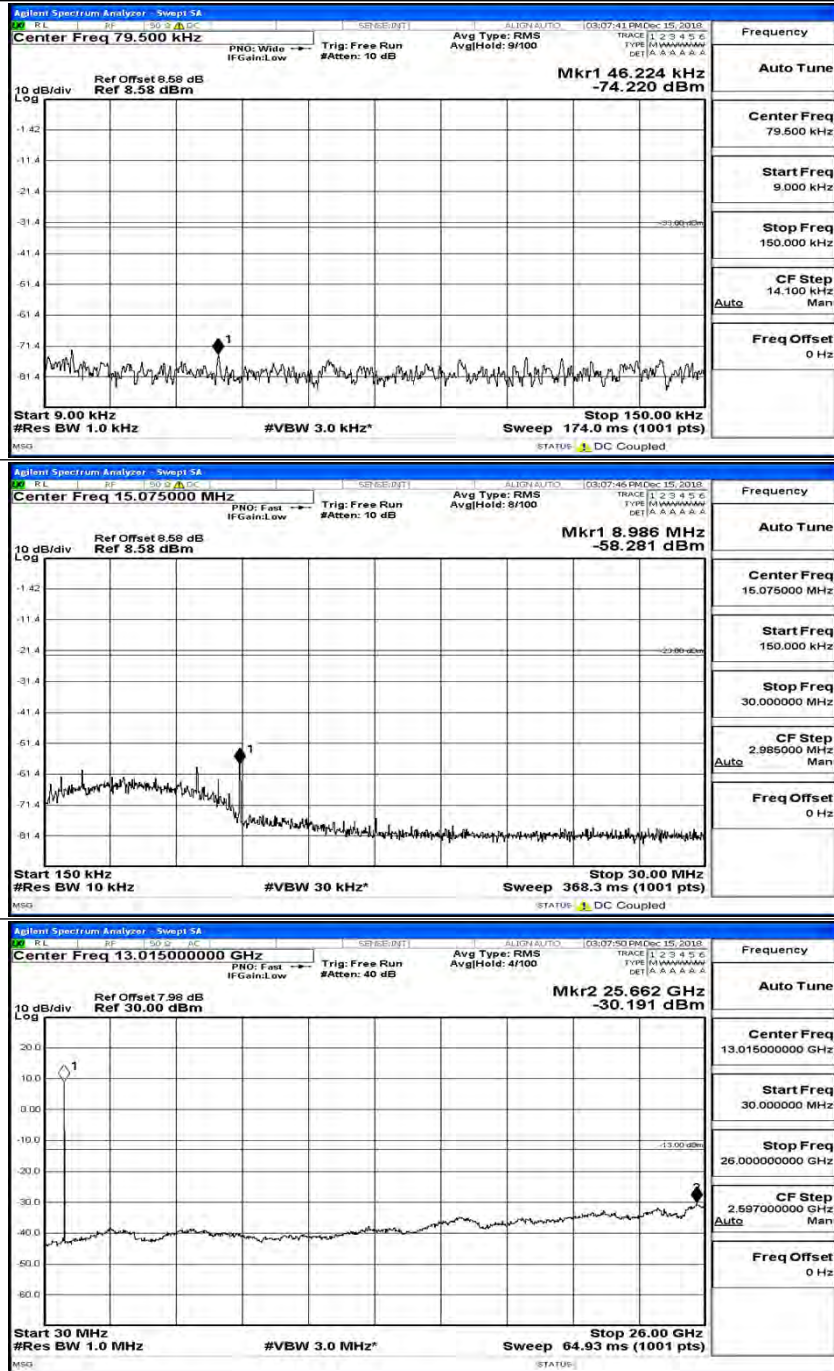


## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK

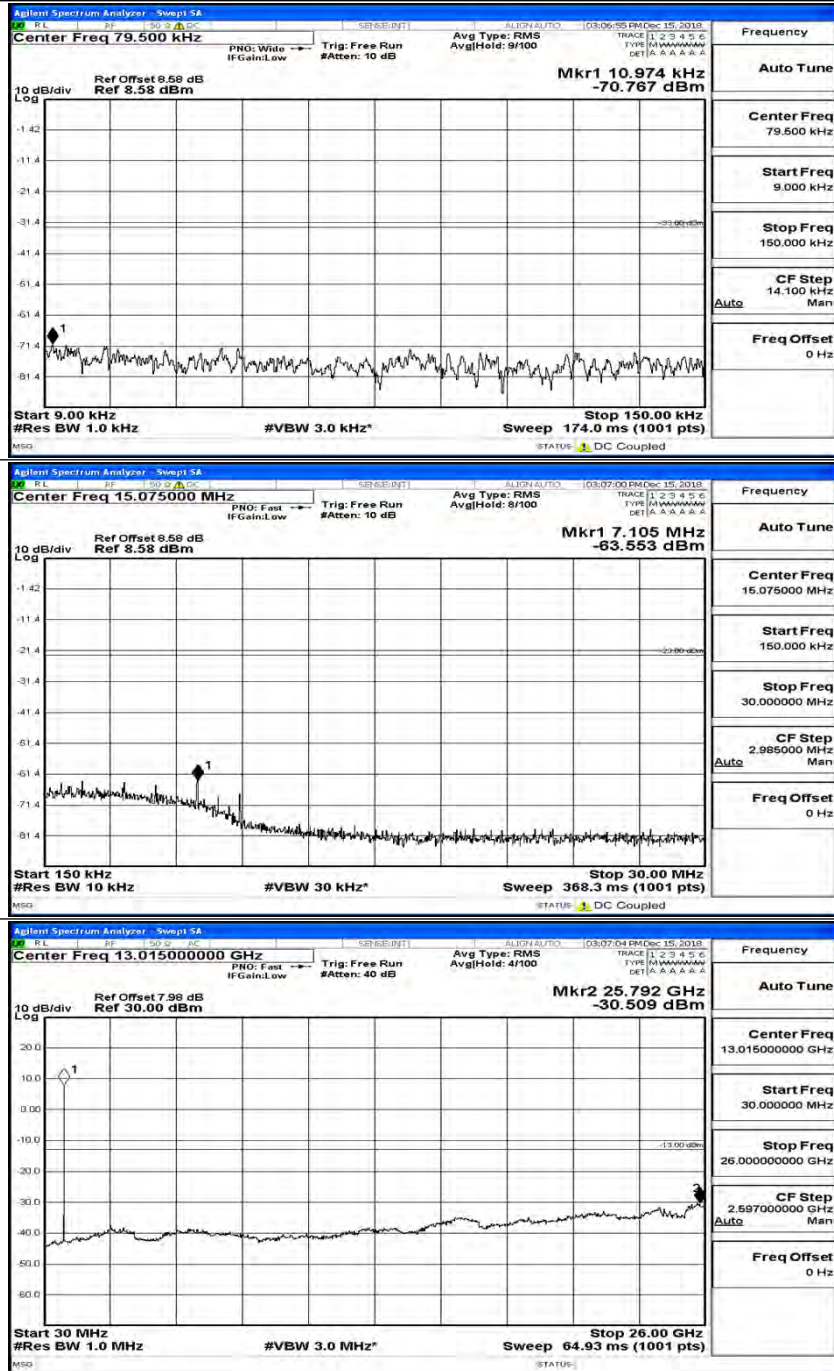




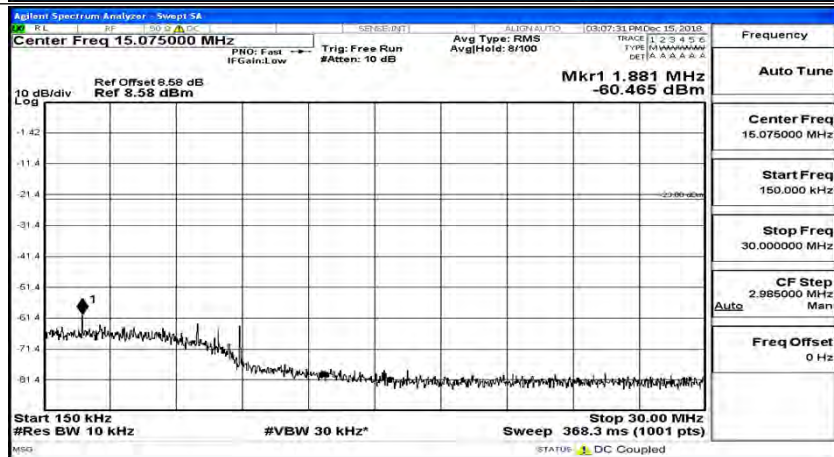
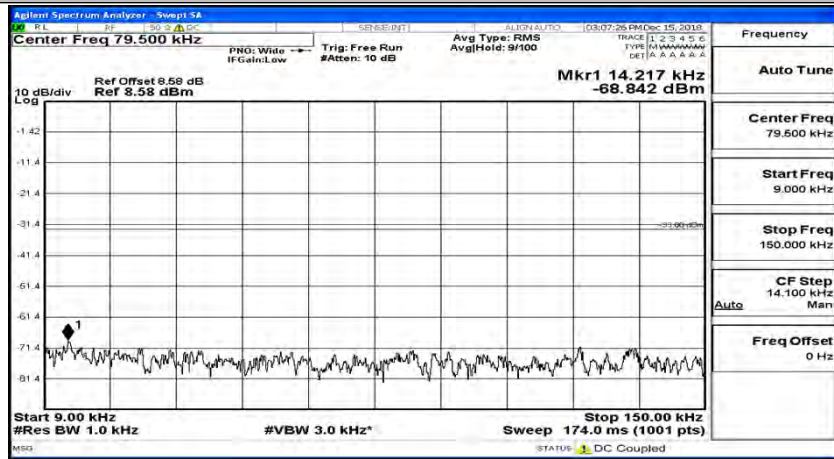
## CSE Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



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



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



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

