

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

**Product Name: Smartphone**

**Trade Mark: NSPRE**

**Test Model: NX-20PRO1**

### Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

### F.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]		Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.52	22.69	PASS
		1	3	23.10	22.34	PASS
		1	5	22.97	22.19	PASS
		3	0	22.79	22.21	PASS
		3	2	22.60	21.81	PASS
		3	3	22.72	21.80	PASS
		6	0	22.70	21.79	PASS
	MCH	1	0	23.65	23.00	PASS
		1	3	23.66	23.08	PASS
		1	5	23.66	23.04	PASS
		3	0	23.69	22.78	PASS
		3	2	23.71	22.78	PASS
		3	3	23.67	22.65	PASS
		6	0	22.64	21.67	PASS
	HCH	1	0	23.97	23.22	PASS
		1	3	23.99	23.34	PASS
		1	5	23.89	23.20	PASS
		3	0	23.93	23.14	PASS
		3	2	23.95	23.05	PASS
		3	3	23.88	23.09	PASS
		6	0	23.25	21.93	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.49	22.58	PASS
		1	7	23.53	22.52	PASS
		1	14	23.71	22.94	PASS
		8	0	22.79	21.70	PASS
		8	4	22.88	21.83	PASS
		8	7	22.90	21.89	PASS
		15	0	22.91	21.79	PASS
	MCH	1	0	23.48	22.80	PASS
		1	7	23.73	22.94	PASS
		1	14	23.52	23.03	PASS
		8	0	22.62	21.50	PASS
		8	4	22.70	21.68	PASS
		8	7	22.67	21.85	PASS
		15	0	22.64	21.73	PASS
	HCH	1	0	24.01	22.68	PASS
		1	7	23.97	23.00	PASS
		1	14	23.86	23.00	PASS
		8	0	23.18	21.98	PASS
		8	4	23.14	22.13	PASS
		8	7	23.17	22.12	PASS
		15	0	23.21	22.15	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	23.30	22.27	PASS
		1	12	23.61	22.66	PASS
		1	24	24.12	22.33	PASS
		12	0	22.75	21.71	PASS
		12	6	22.70	21.86	PASS
		12	13	22.72	21.75	PASS
		25	0	22.77	21.94	PASS
	MCH	1	0	23.47	22.03	PASS
		1	12	24.08	22.82	PASS
		1	24	23.68	22.35	PASS
		12	0	22.58	21.59	PASS
		12	6	22.75	21.67	PASS
		12	13	22.66	21.65	PASS
		25	0	22.60	21.65	PASS
	HCH	1	0	23.81	22.62	PASS
		1	12	24.36	22.82	PASS
		1	24	23.96	22.29	PASS
		12	0	22.90	22.08	PASS
		12	6	23.02	22.14	PASS
		12	13	23.02	21.89	PASS
		25	0	23.10	22.23	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	23.01	22.27	PASS
		1	24	24.43	24.02	PASS
		1	49	23.36	22.69	PASS
		25	0	22.68	21.71	PASS
		25	12	22.76	21.86	PASS
		25	25	22.58	21.57	PASS
		50	0	22.68	21.76	PASS
	MCH	1	0	23.55	22.98	PASS
		1	24	23.97	23.27	PASS
		1	49	23.62	22.85	PASS
		25	0	22.63	21.62	PASS
		25	12	22.73	21.71	PASS
		25	25	22.76	21.77	PASS
		50	0	22.64	21.64	PASS
	HCH	1	0	23.71	23.12	PASS
		1	24	24.01	23.39	PASS
		1	49	23.38	22.71	PASS
		25	0	22.99	21.92	PASS
		25	12	22.95	21.91	PASS
		25	25	23.18	21.96	PASS
		50	0	23.03	22.01	PASS

**F.2 Peak-to-Average Ratio****Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)**

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.27	<13	PASS
	MCH	5.27	<13	PASS
	HCH	4.79	<13	PASS
16QAM	LCH	6.11	<13	PASS
	MCH	6.17	<13	PASS
	HCH	5.61	<13	PASS

**Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)**

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.23	<13	PASS
	MCH	5.28	<13	PASS
	HCH	4.87	<13	PASS
16QAM	LCH	6.20	<13	PASS
	MCH	6.23	<13	PASS
	HCH	5.75	<13	PASS

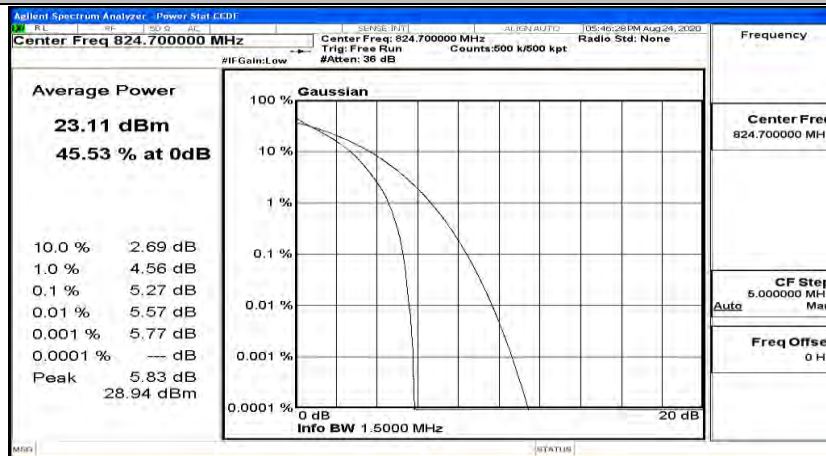
**Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)**

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.19	<13	PASS
	MCH	5.21	<13	PASS
	HCH	4.91	<13	PASS
16QAM	LCH	5.99	<13	PASS
	MCH	6.09	<13	PASS
	HCH	5.66	<13	PASS

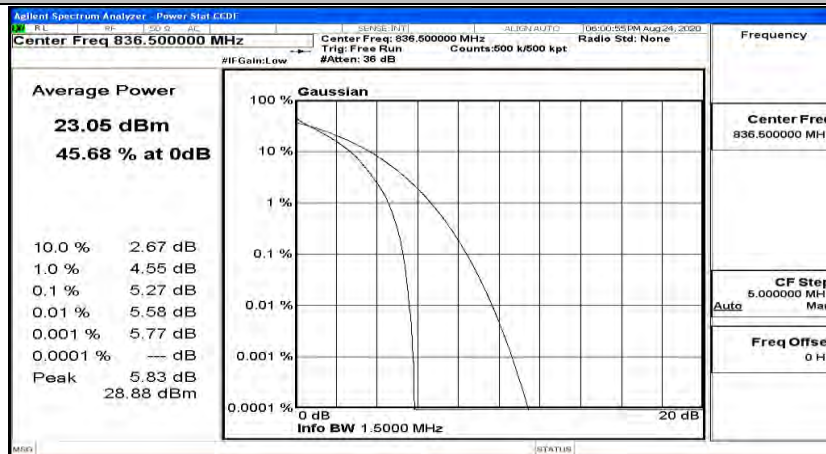
**Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)**

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.99	<13	PASS
	MCH	5.19	<13	PASS
	HCH	4.96	<13	PASS
16QAM	LCH	5.87	<13	PASS
	MCH	6.06	<13	PASS
	HCH	5.78	<13	PASS

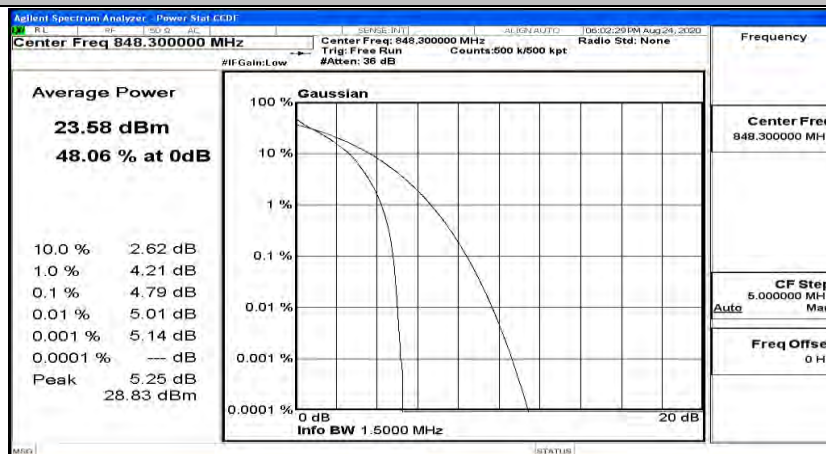
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK



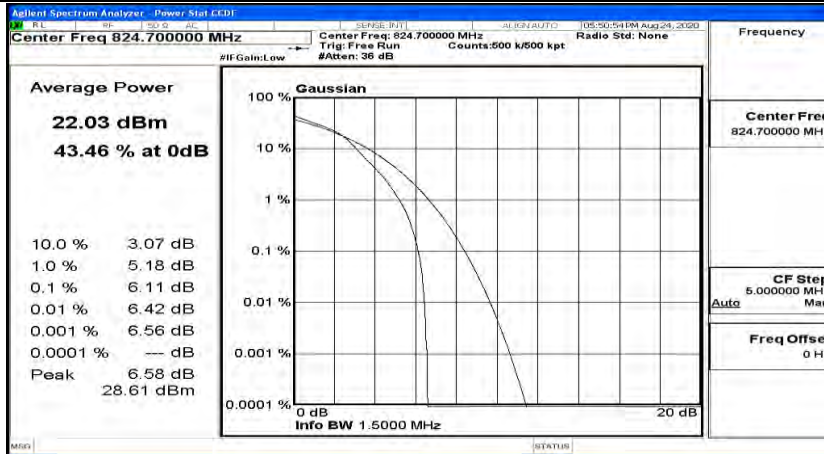
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK



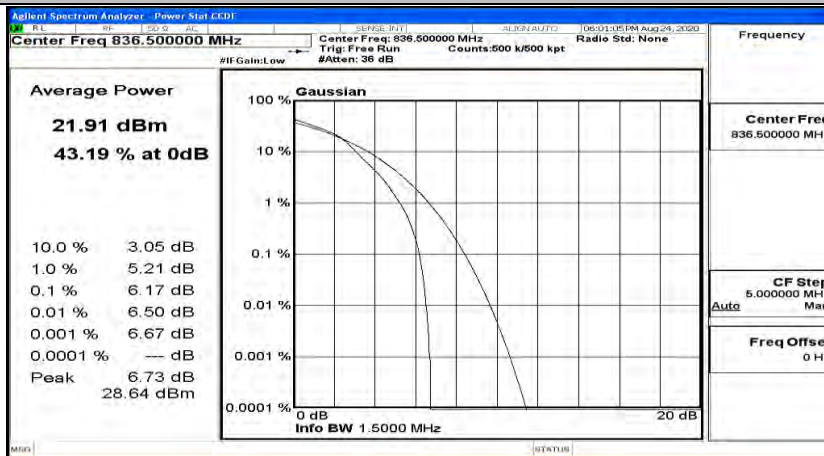
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK



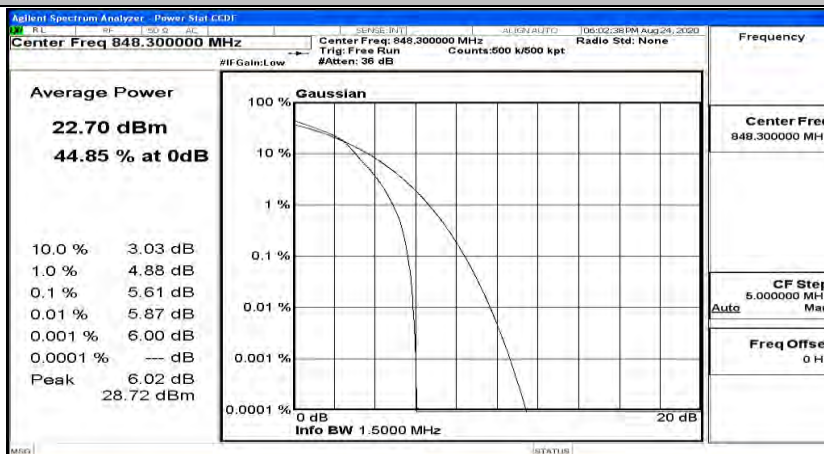
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM



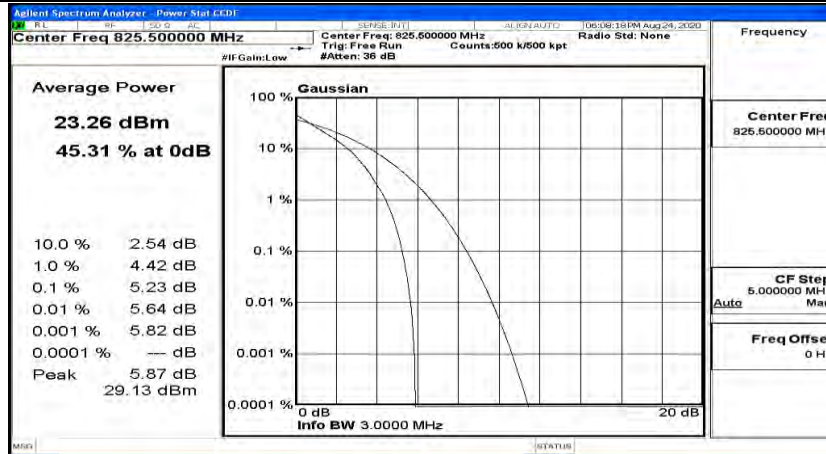
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM



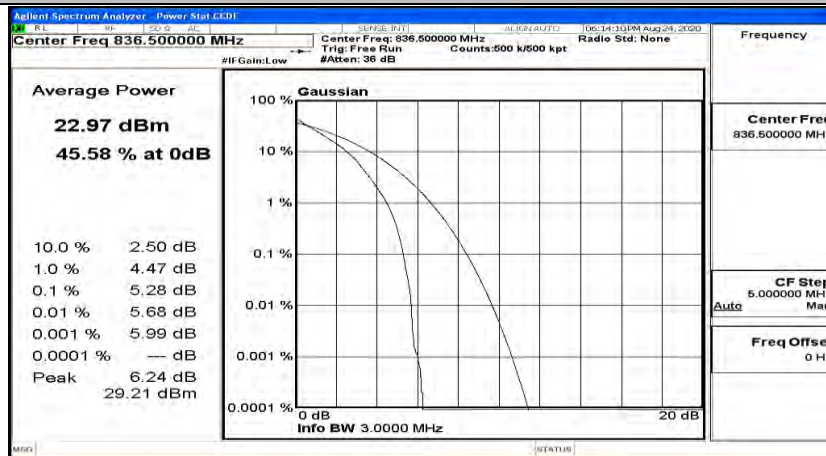
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM



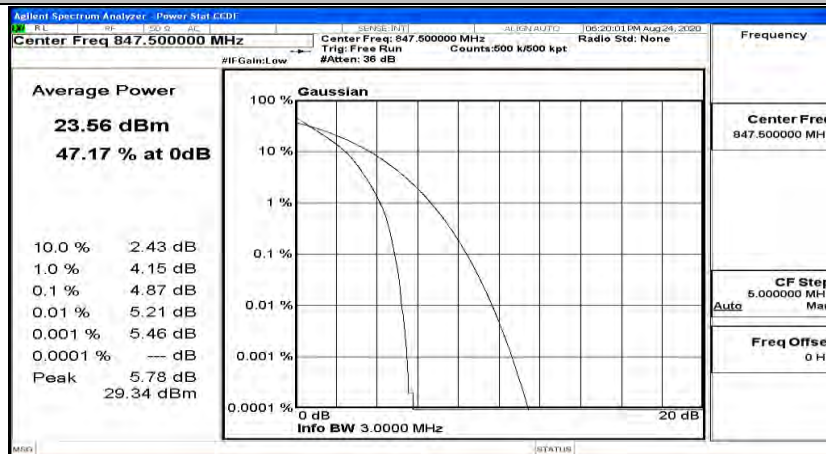
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_QPSK



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

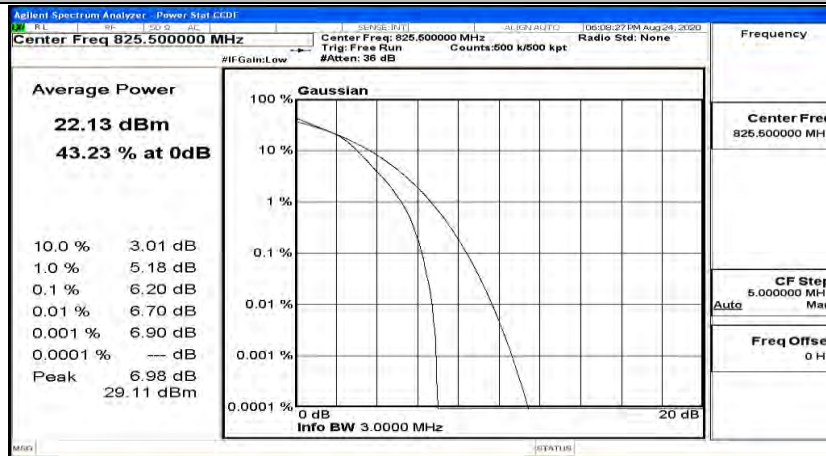


## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK

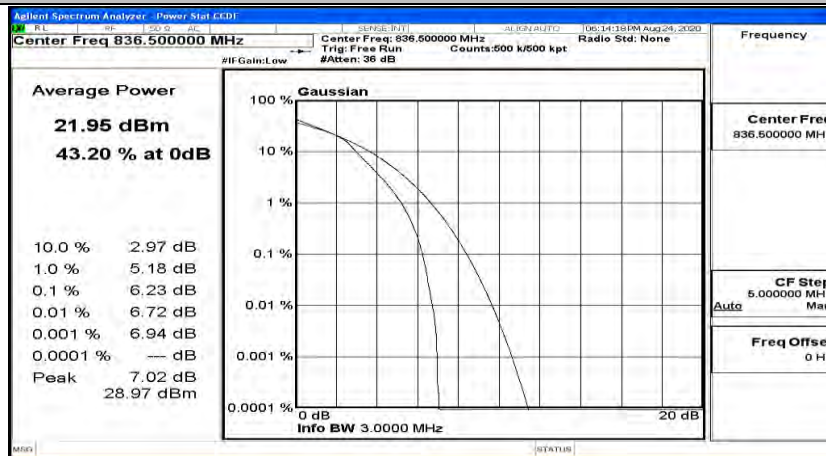




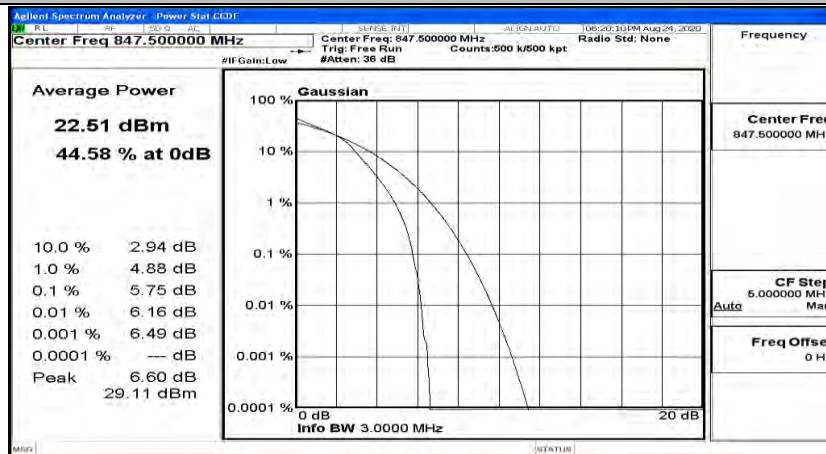
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_16QAM



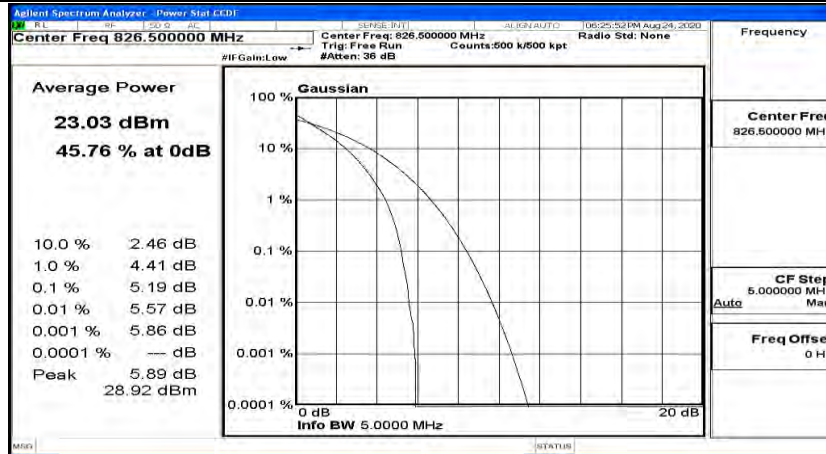
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_16QAM



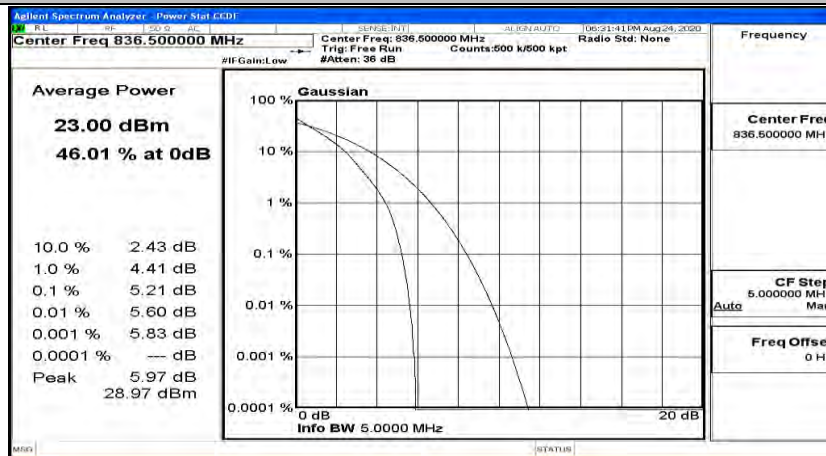
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM



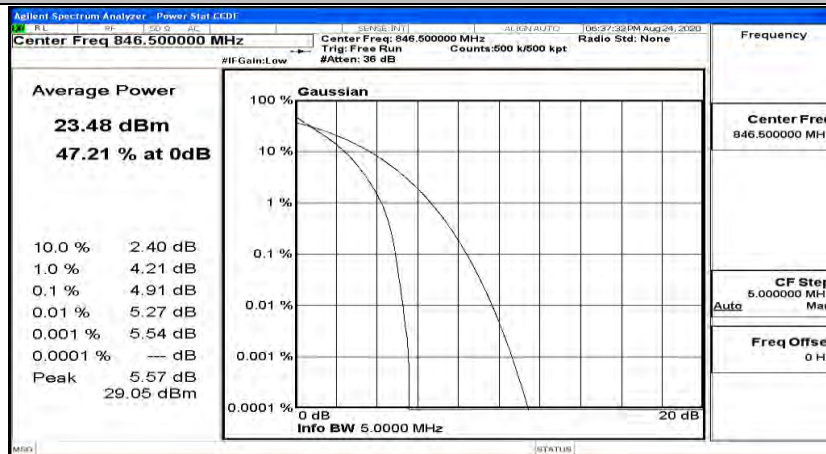
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



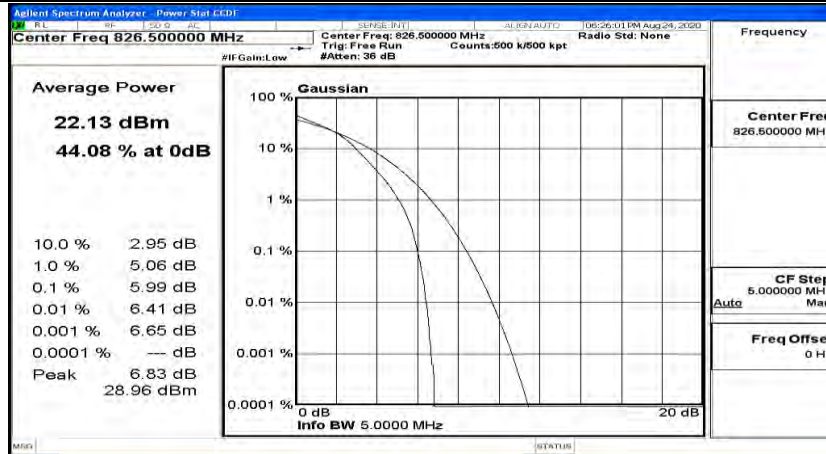
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



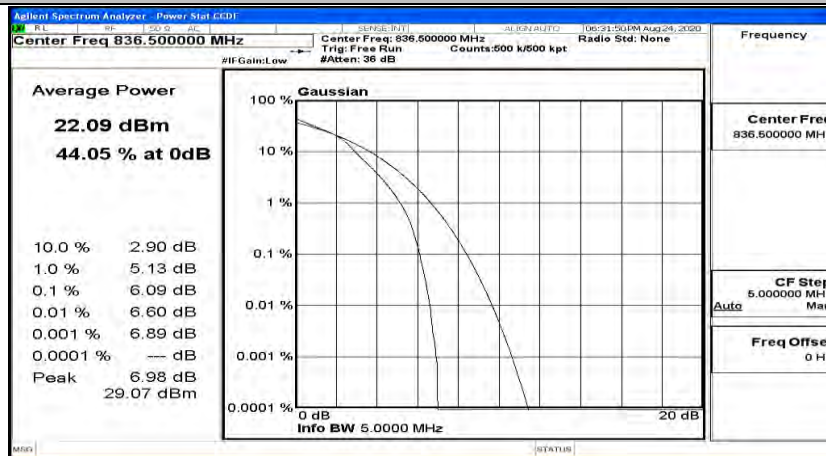
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



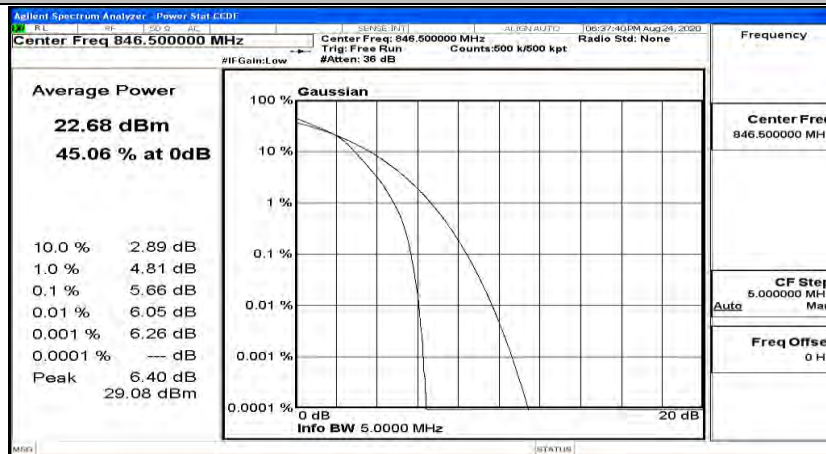
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



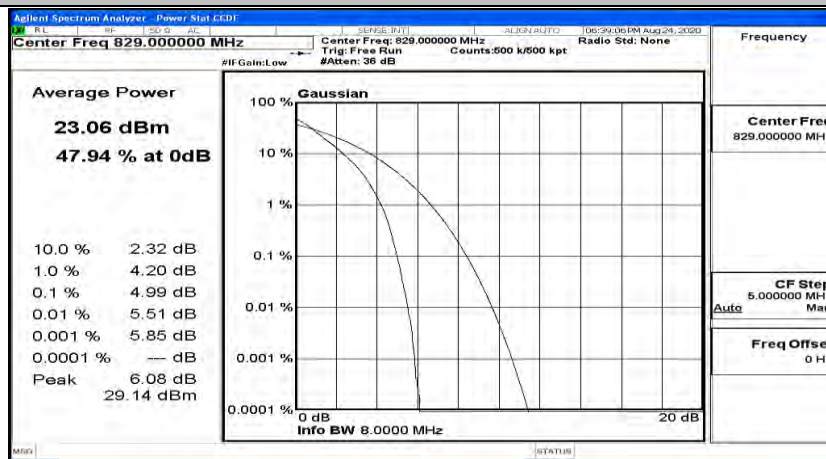
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



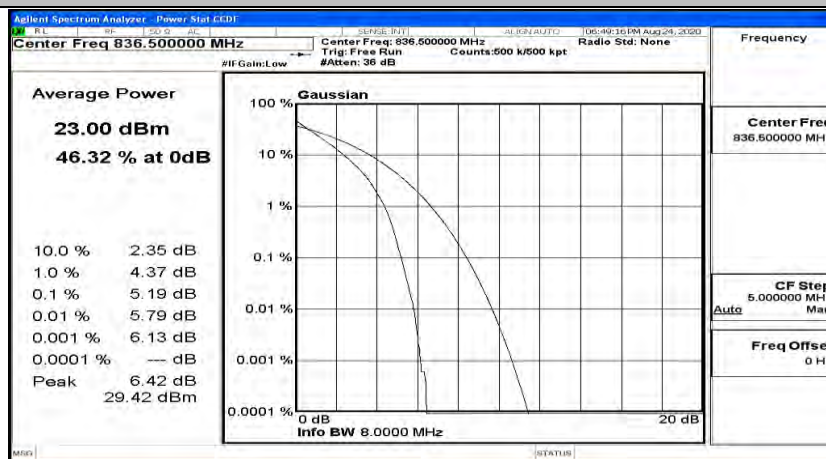
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



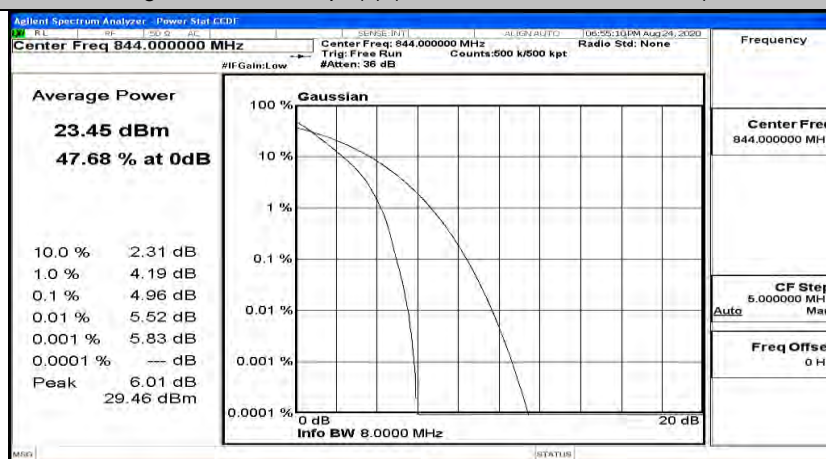
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



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

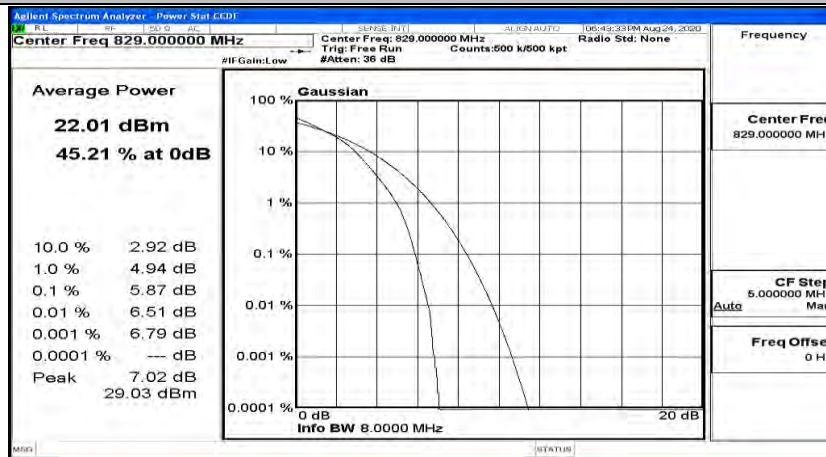


## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK

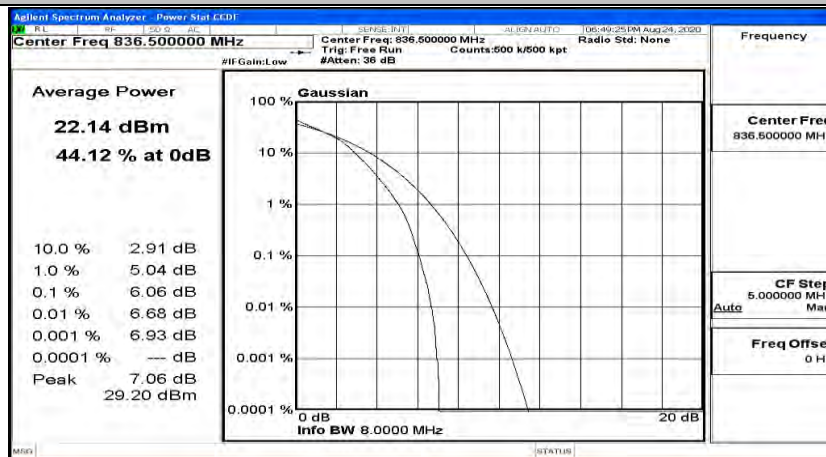




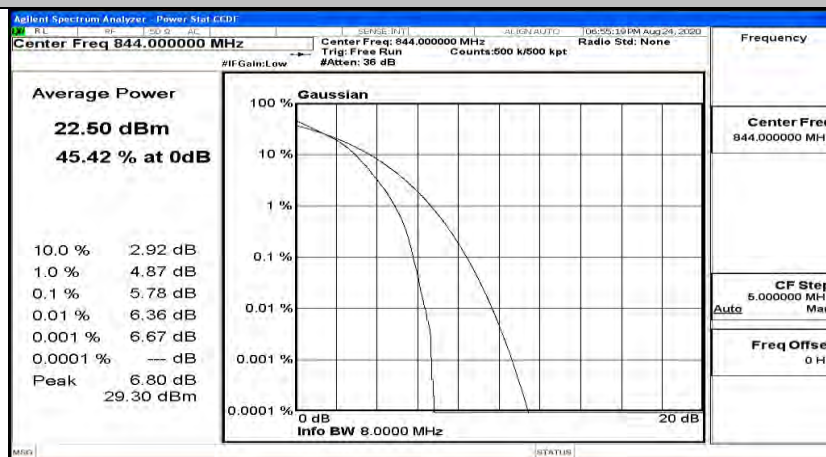
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



## 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



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

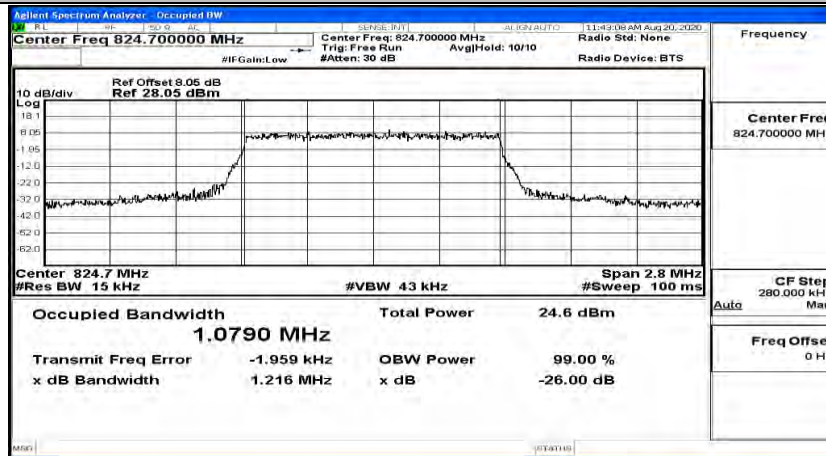
<b>EBW &amp; OBW Test Result (Channel Bandwidth: 1.4 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0790	1.216	PASS
	MCH	1.0773	1.211	PASS
	HCH	1.0745	1.210	PASS
16QAM	LCH	1.0761	1.217	PASS
	MCH	1.0802	1.226	PASS
	HCH	1.0791	1.223	PASS

<b>EBW &amp; OBW Test Result (Channel Bandwidth: 3 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6845	2.970	PASS
	MCH	2.6872	2.952	PASS
	HCH	2.6824	2.938	PASS
16QAM	LCH	2.6849	2.953	PASS
	MCH	2.6902	2.963	PASS
	HCH	2.6867	2.979	PASS

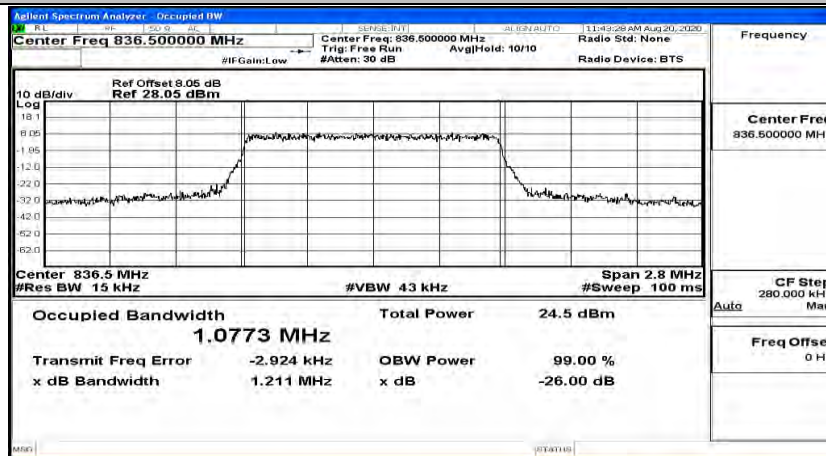
<b>EBW &amp; OBW Test Result (Channel Bandwidth: 5 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4729	4.877	PASS
	MCH	4.4766	4.913	PASS
	HCH	4.4796	4.870	PASS
16QAM	LCH	4.4745	4.822	PASS
	MCH	4.4752	4.830	PASS
	HCH	4.4778	4.823	PASS

<b>EBW &amp; OBW Test Result (Channel Bandwidth: 10 MHz)</b>				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9230	9.496	PASS
	MCH	8.9416	9.570	PASS
	HCH	8.9484	9.507	PASS
16QAM	LCH	8.9305	9.480	PASS
	MCH	8.9468	9.536	PASS
	HCH	8.9447	9.521	PASS

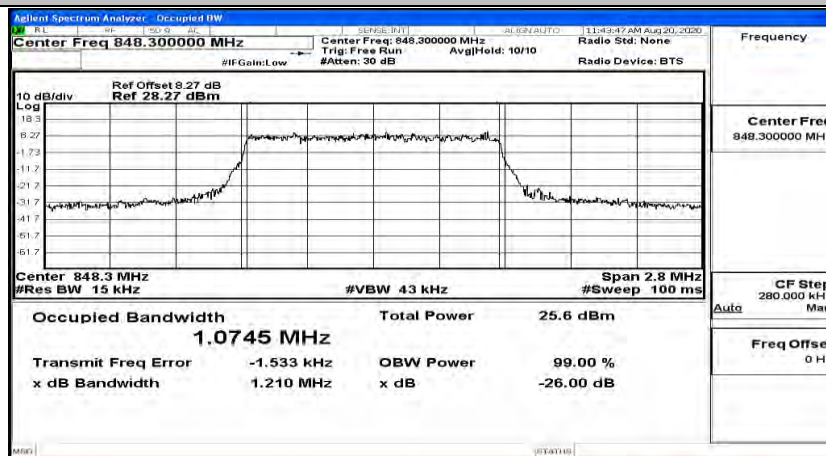
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK



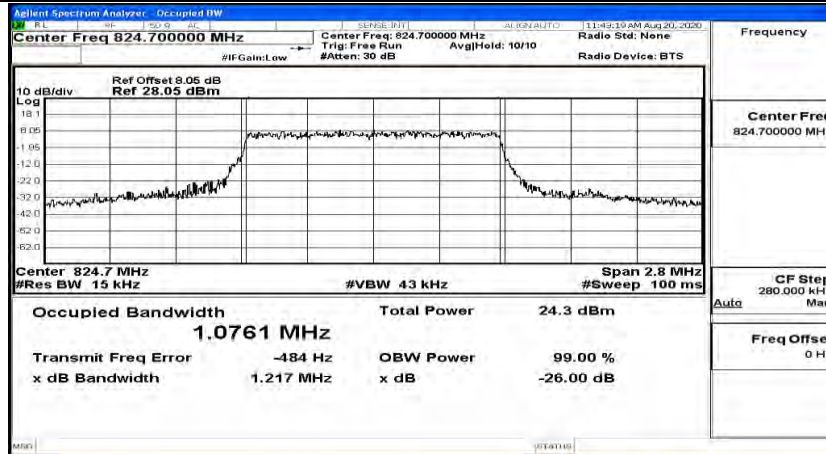
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK



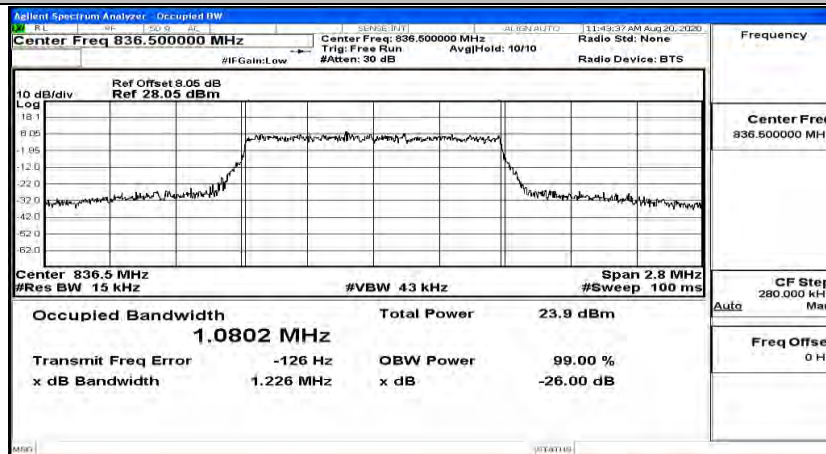
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK



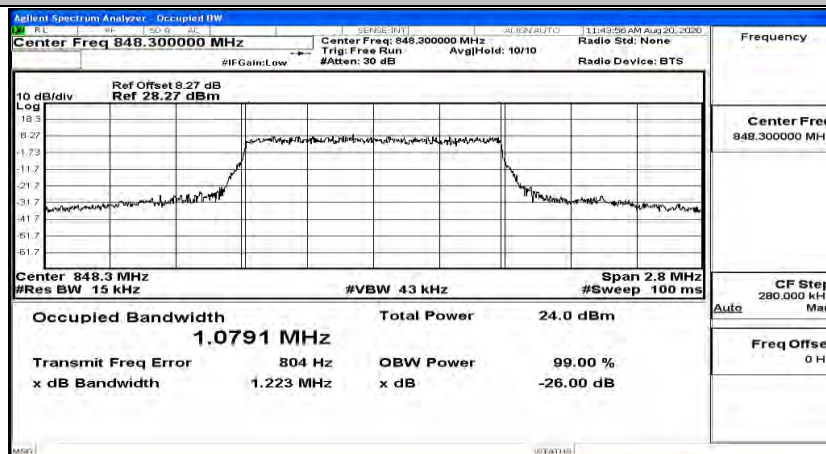
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM



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

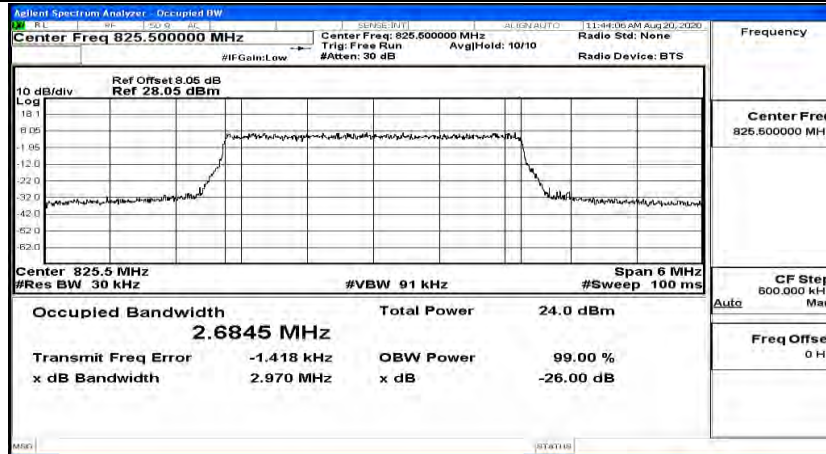


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM

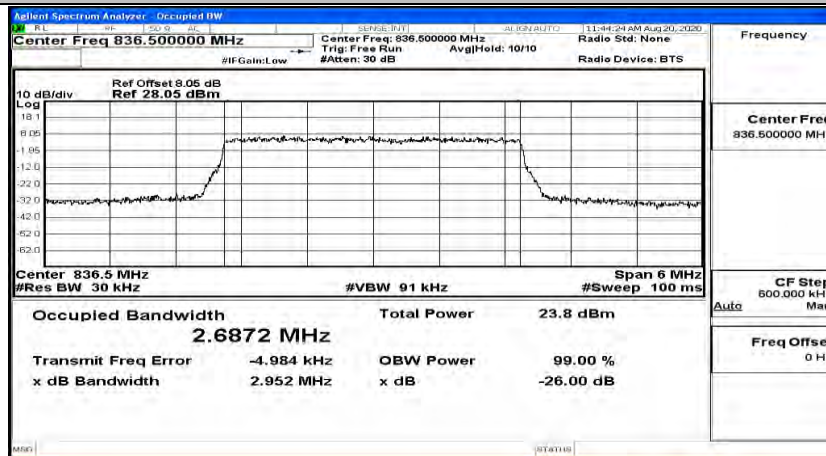




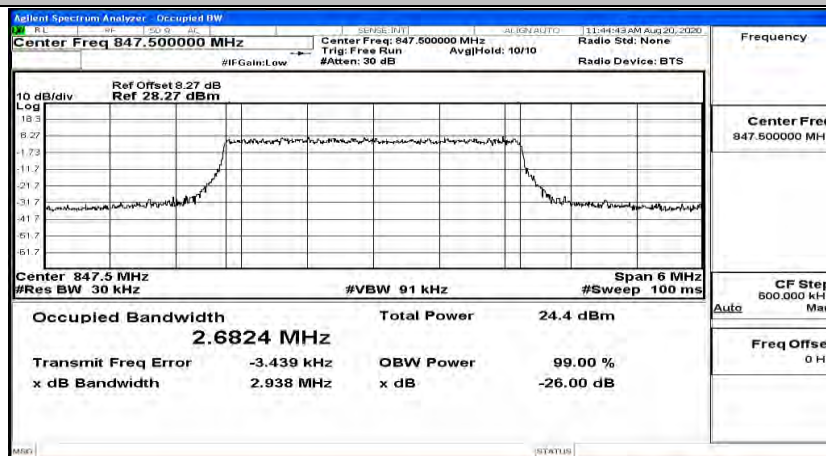
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_QPSK



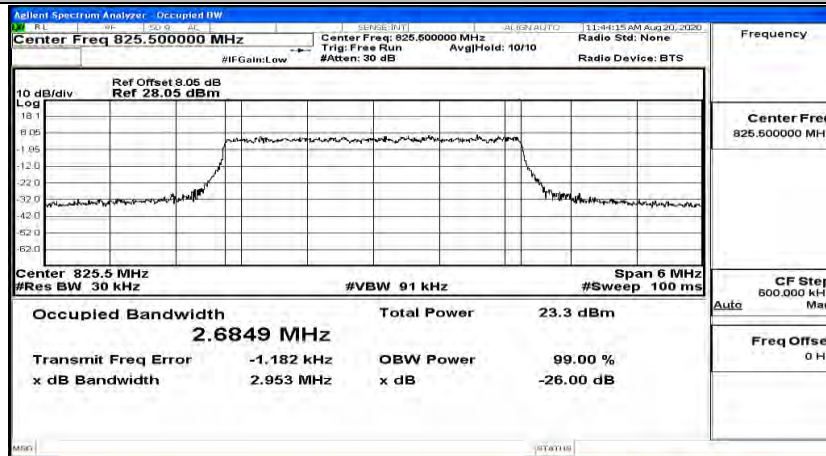
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_QPSK



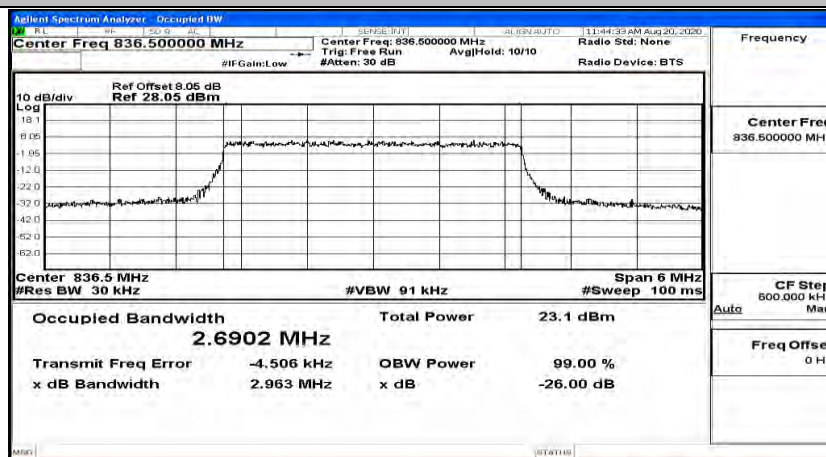
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK



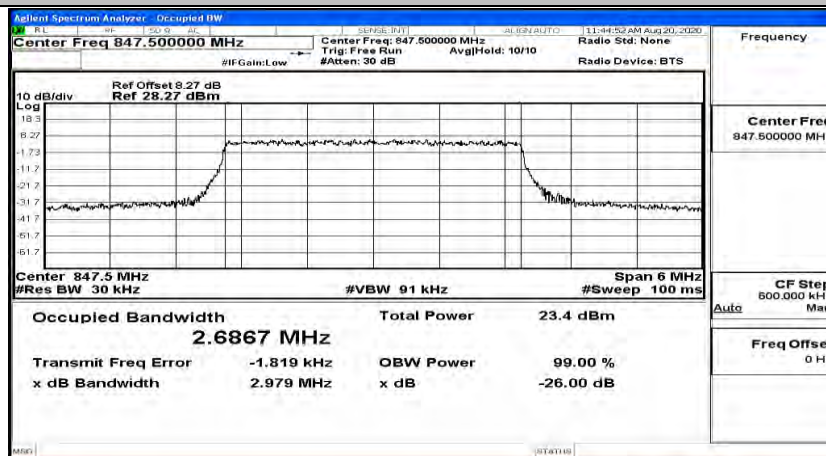
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_16QAM



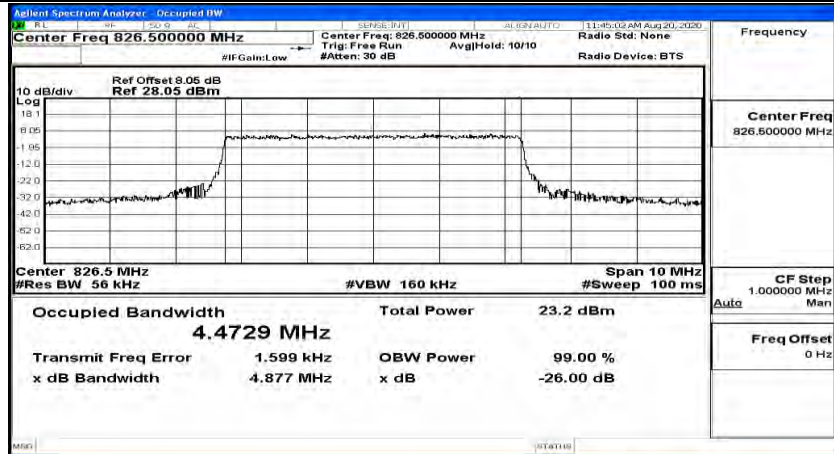
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_MCH\_16QAM



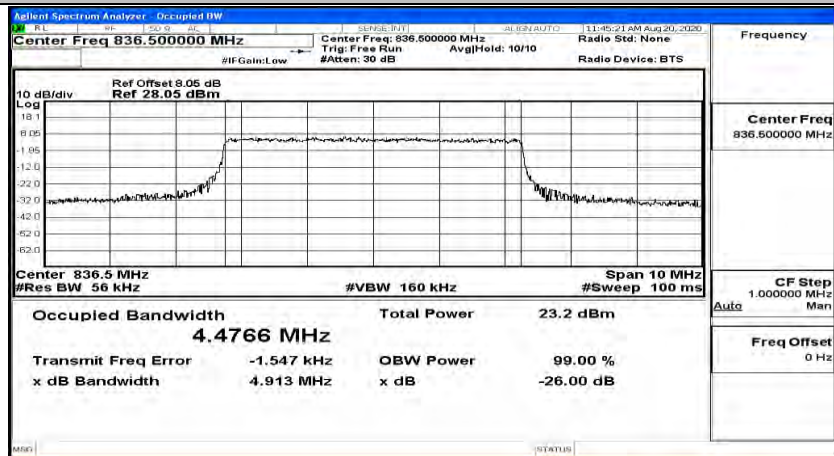
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM



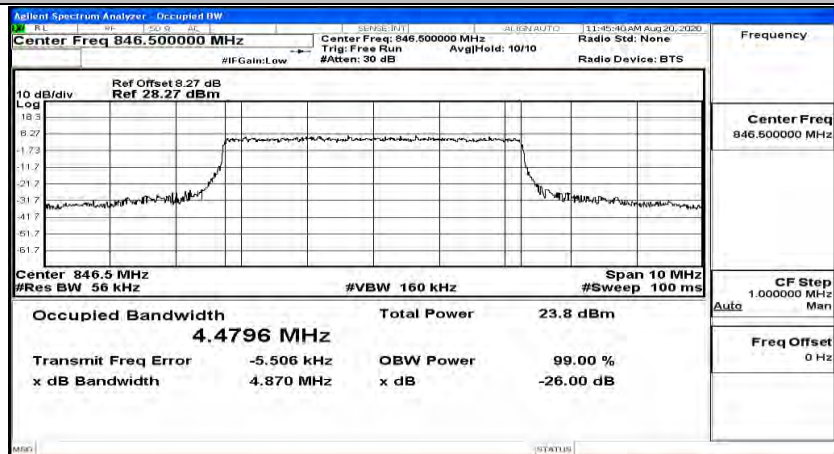
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



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

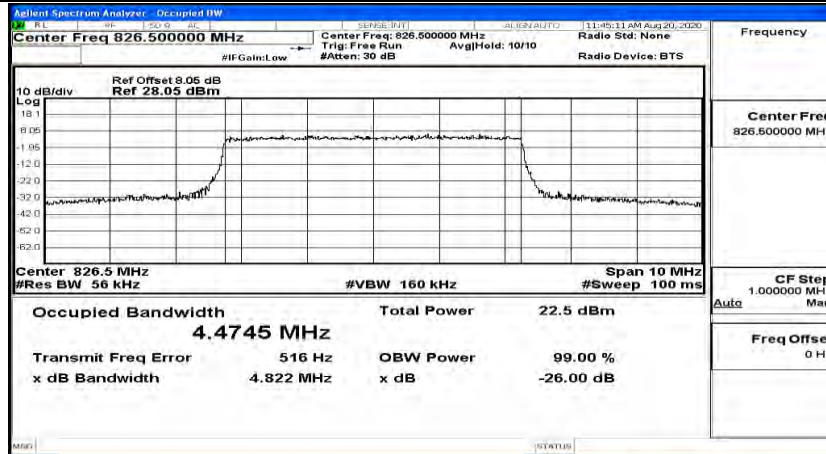


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK

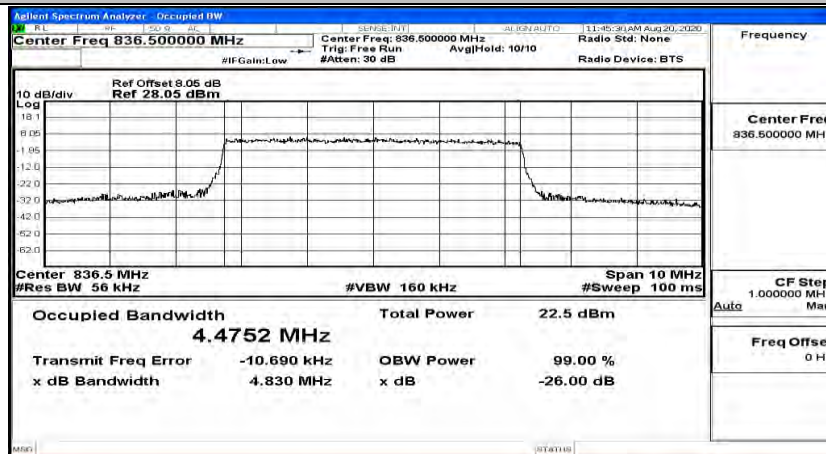




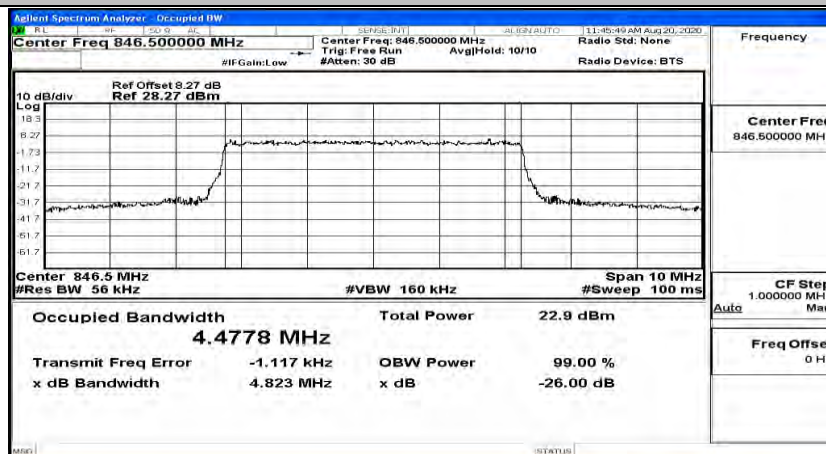
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz) \_LCH\_16QAM



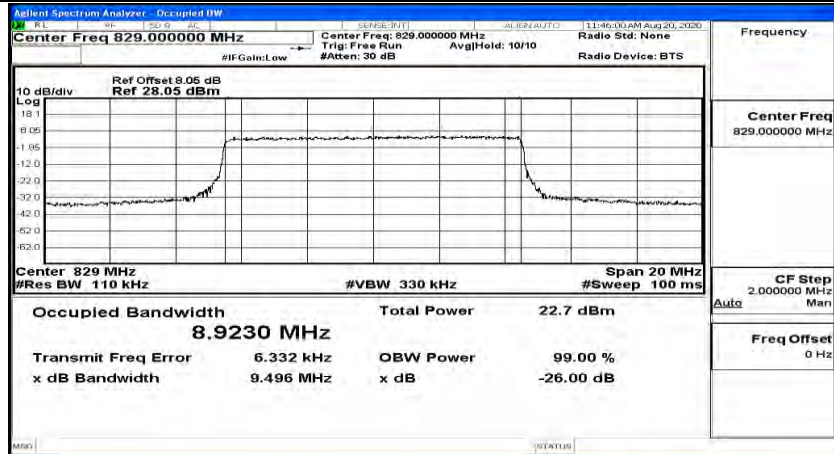
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz) \_MCH\_16QAM



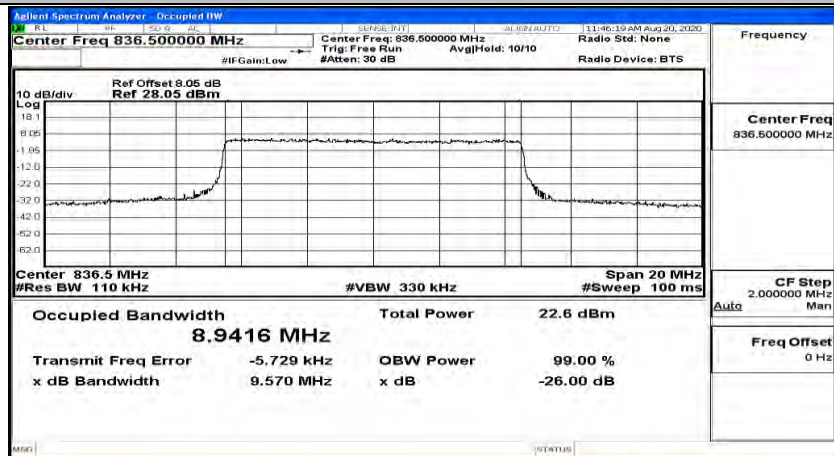
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz) \_HCH\_16QAM



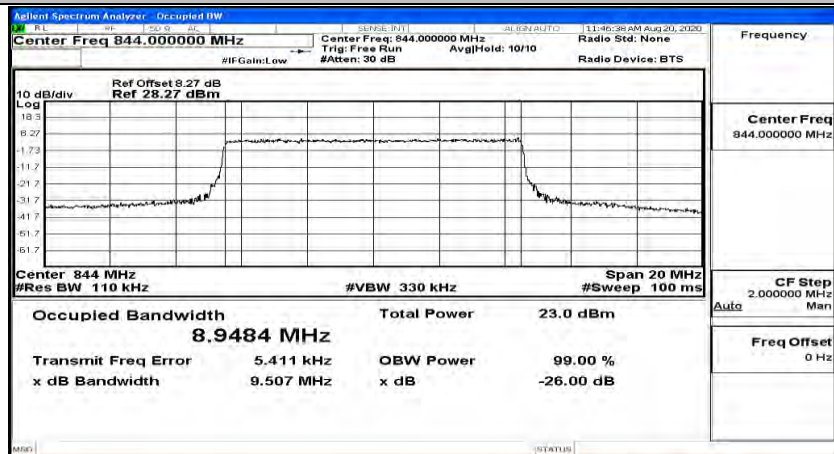
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



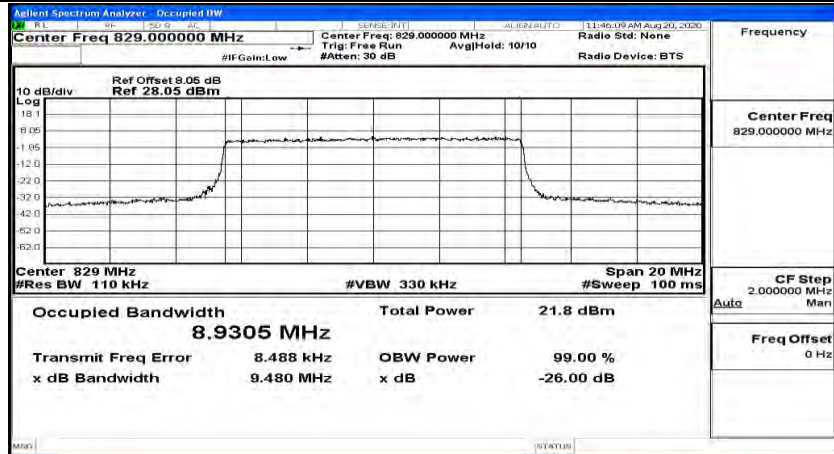
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



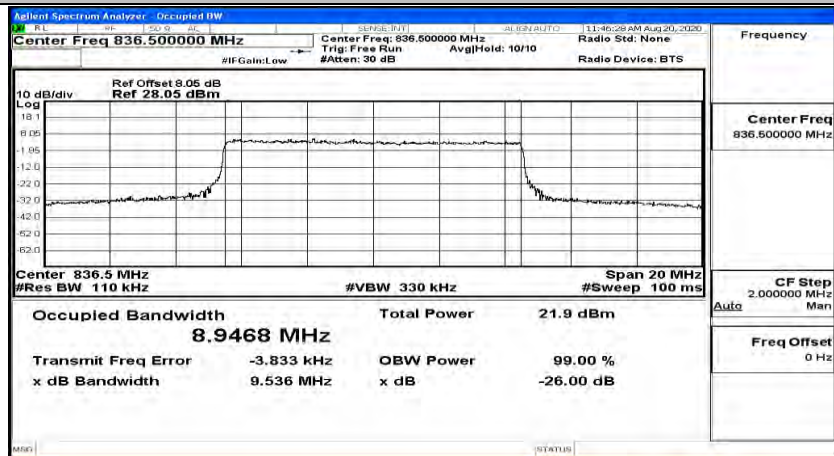
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



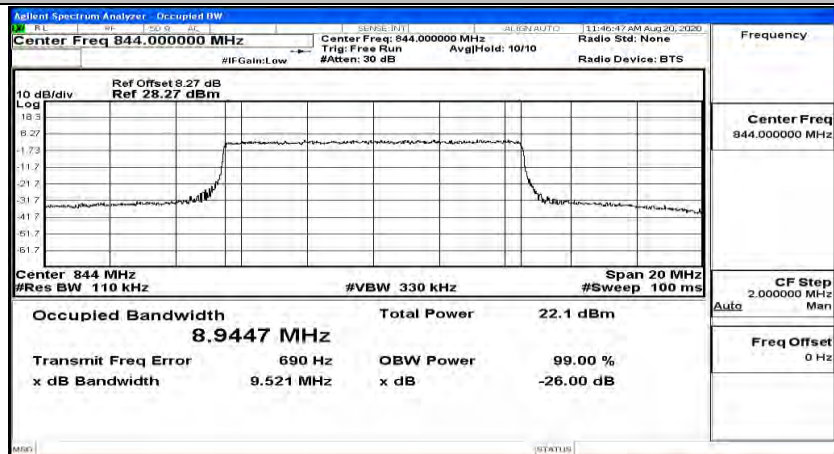
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



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



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



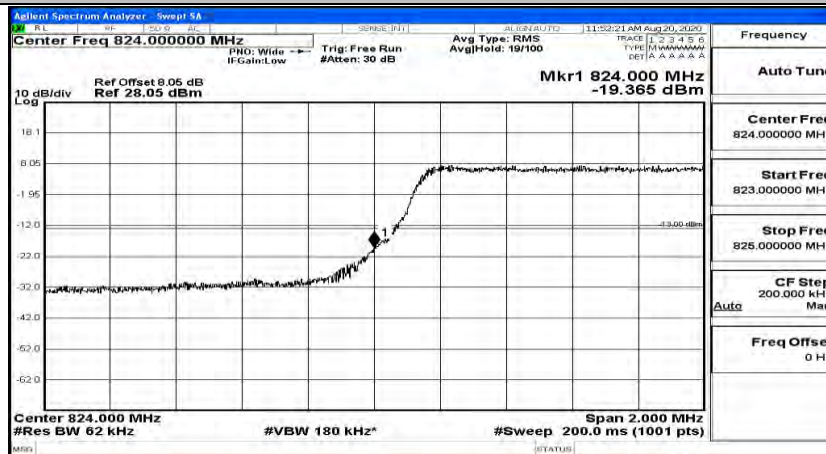




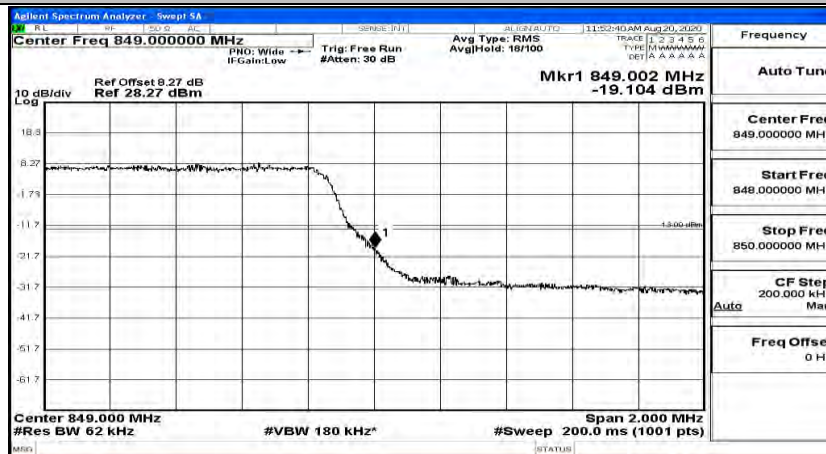
## Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM



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

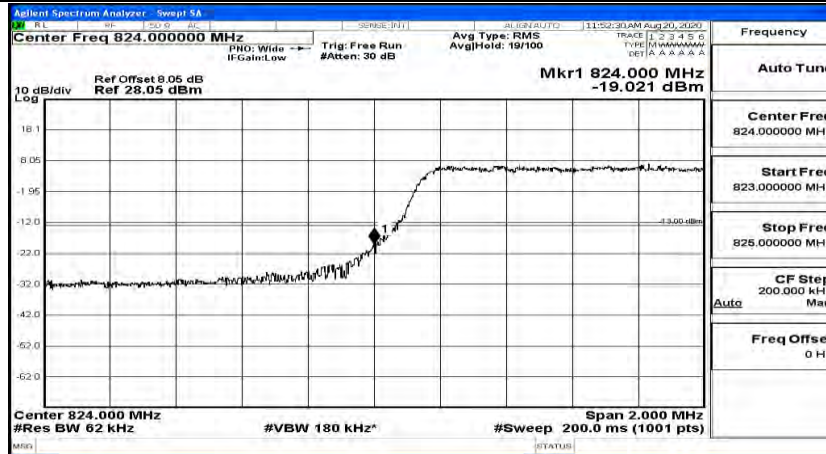


## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_QPSK

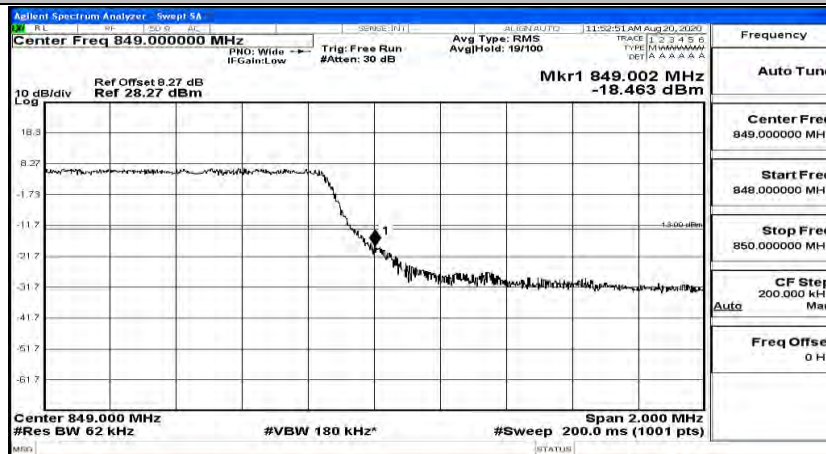




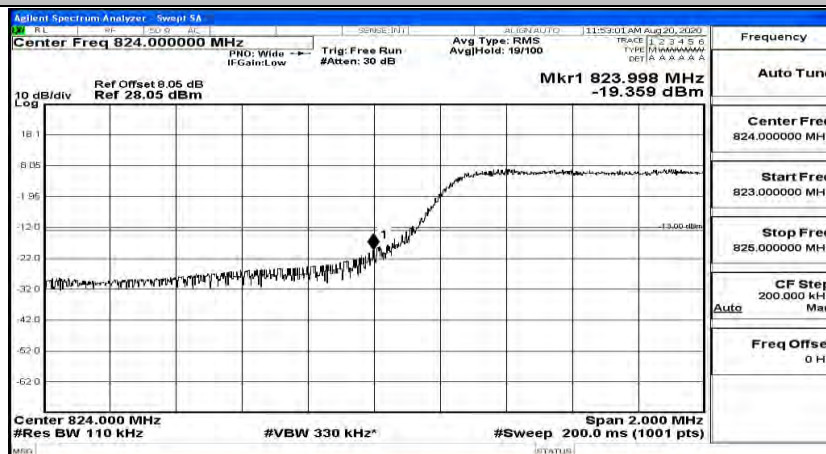
## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_LCH\_16QAM



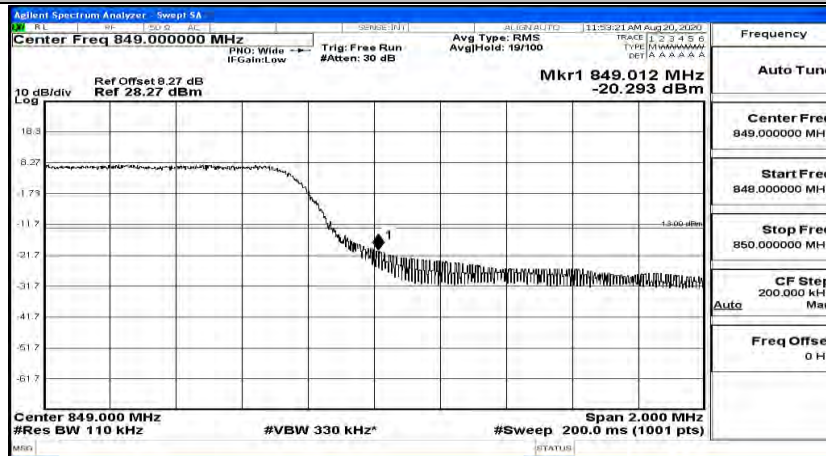
## Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)\_HCH\_16QAM



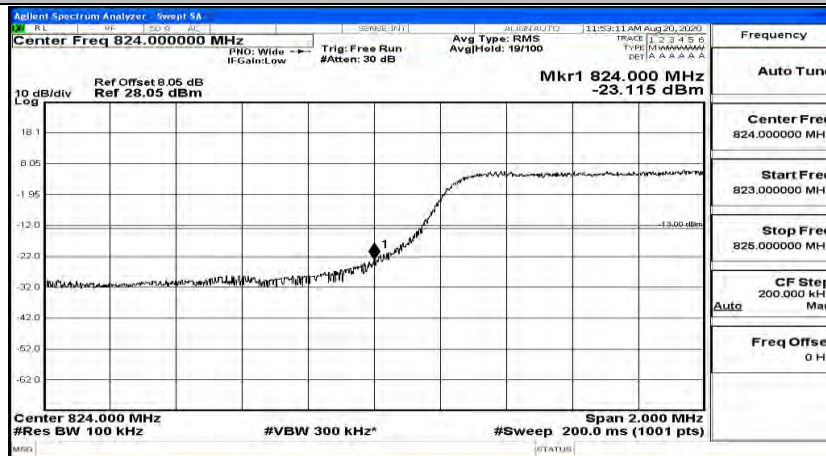
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



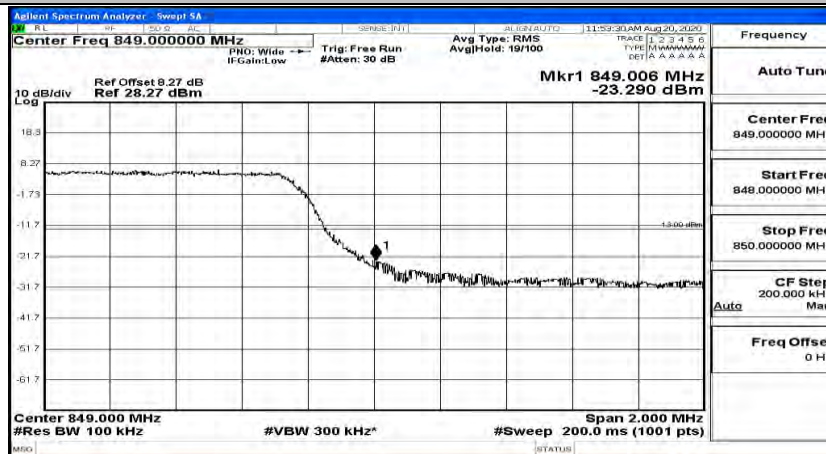
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



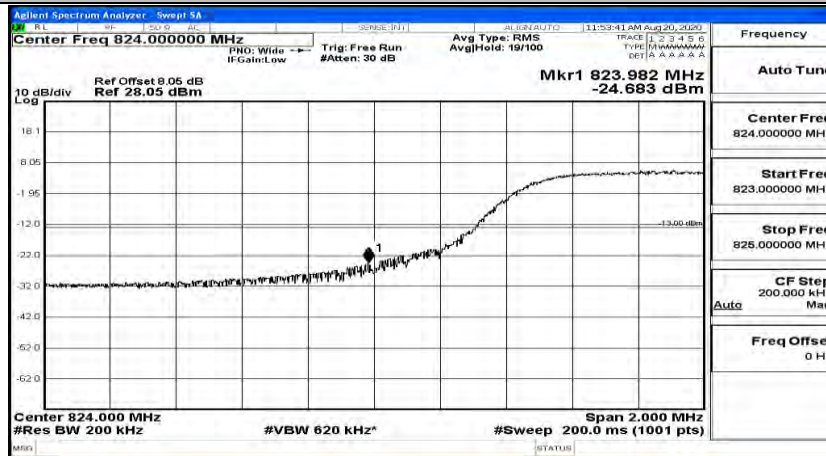
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



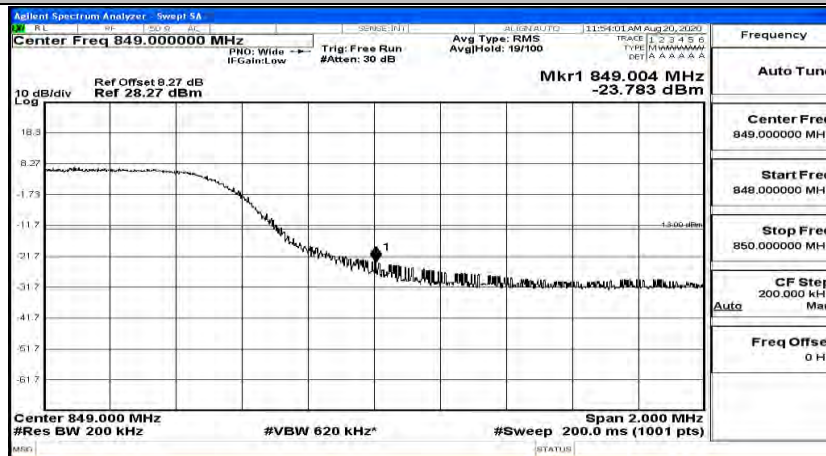
## Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



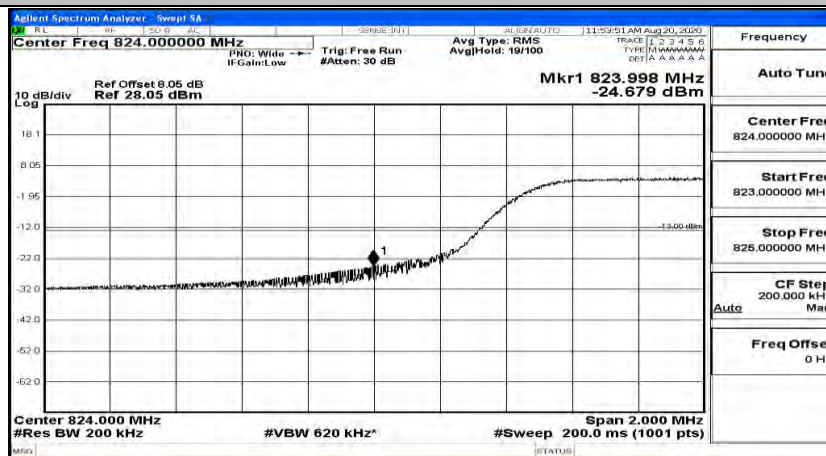
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



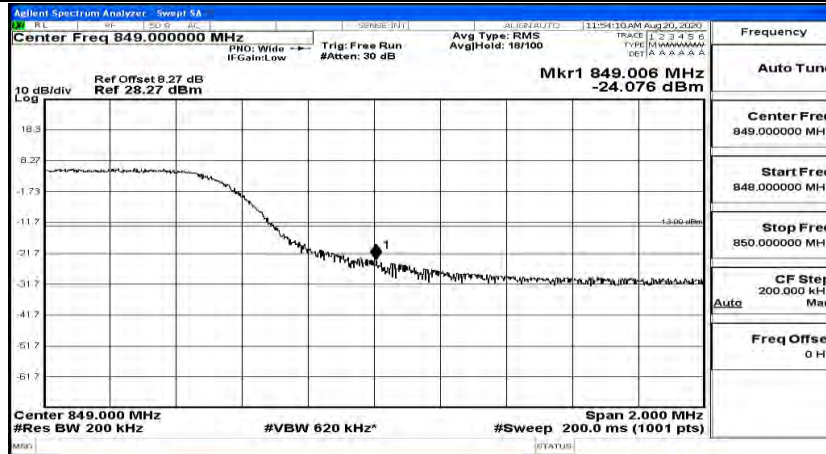
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



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



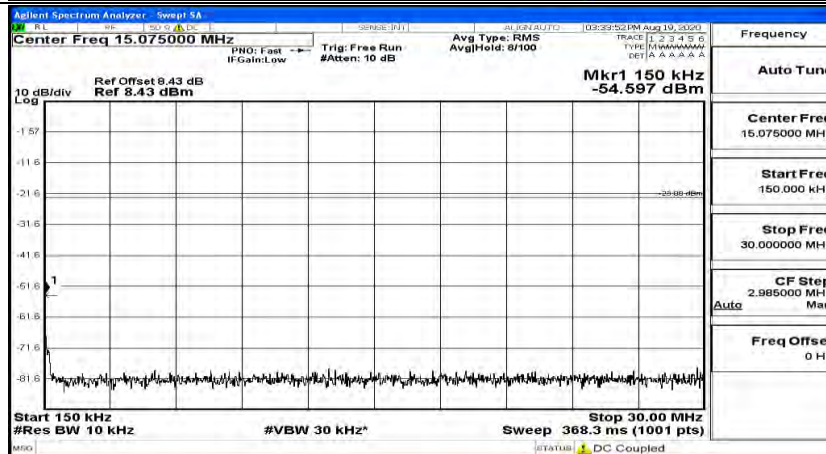
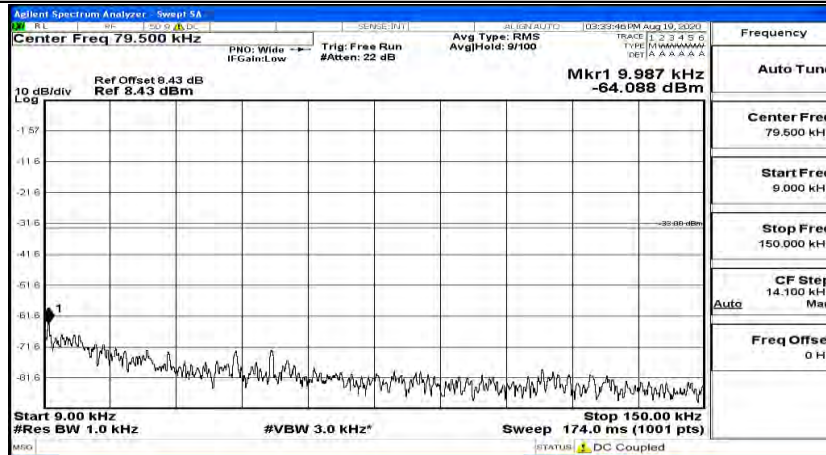
## Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



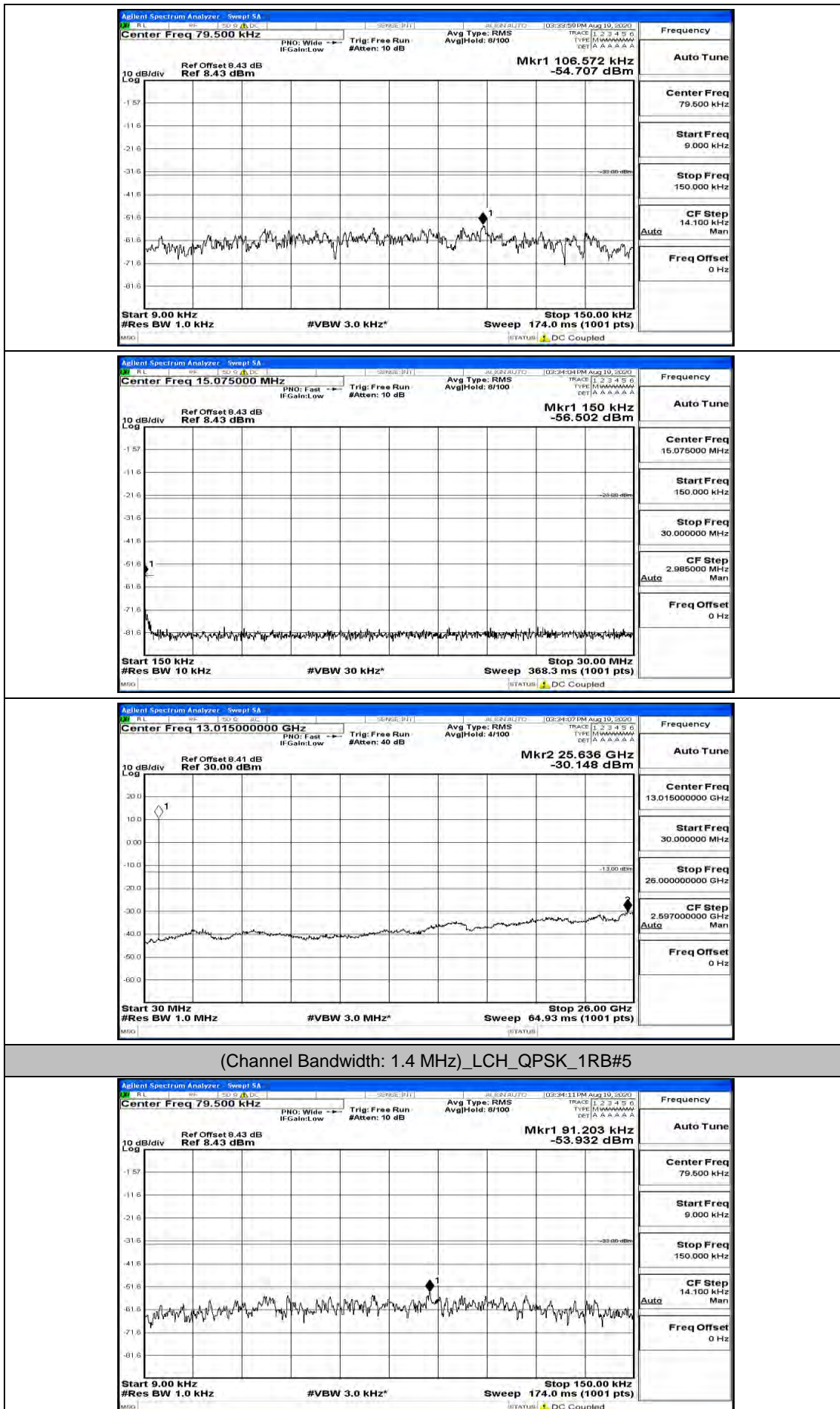


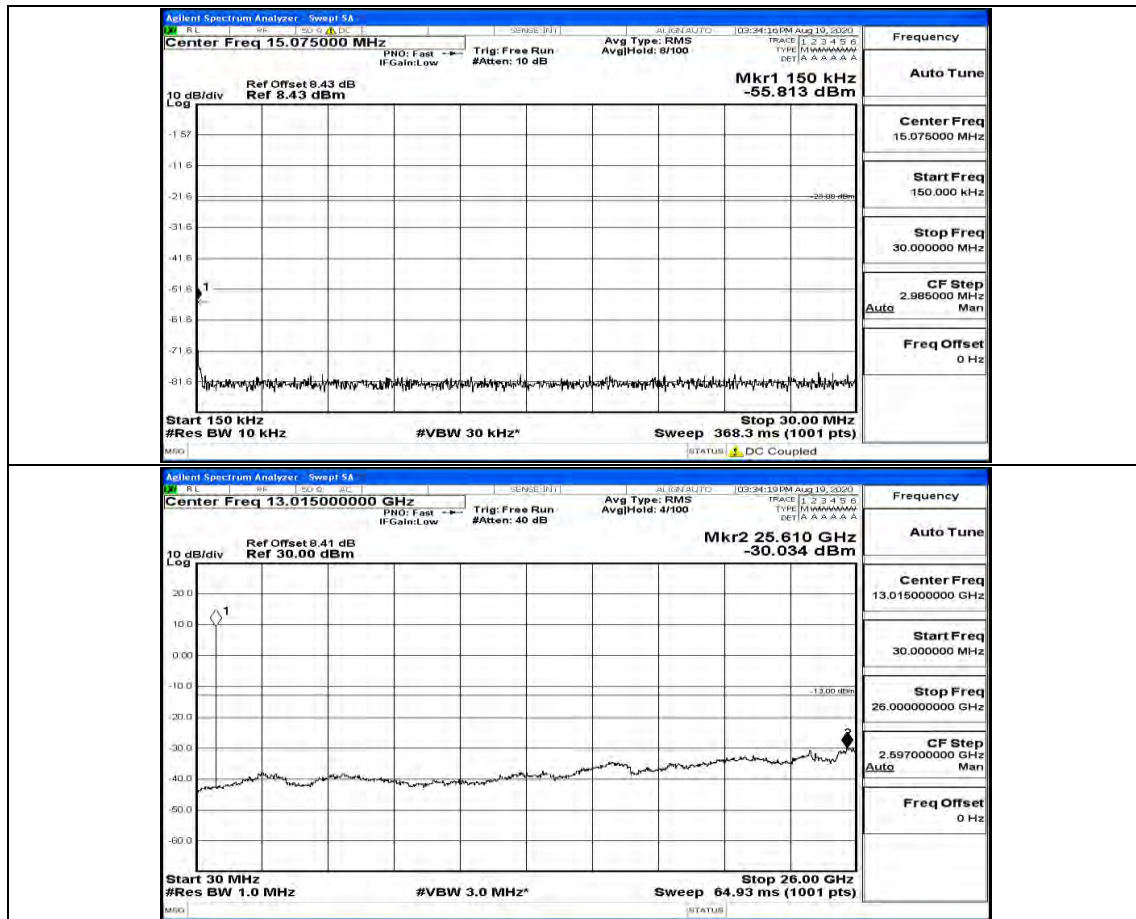
**F.5 Conducted Spurious Emission****Channel Bandwidth: 1.4 MHz**

(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_1RB#0

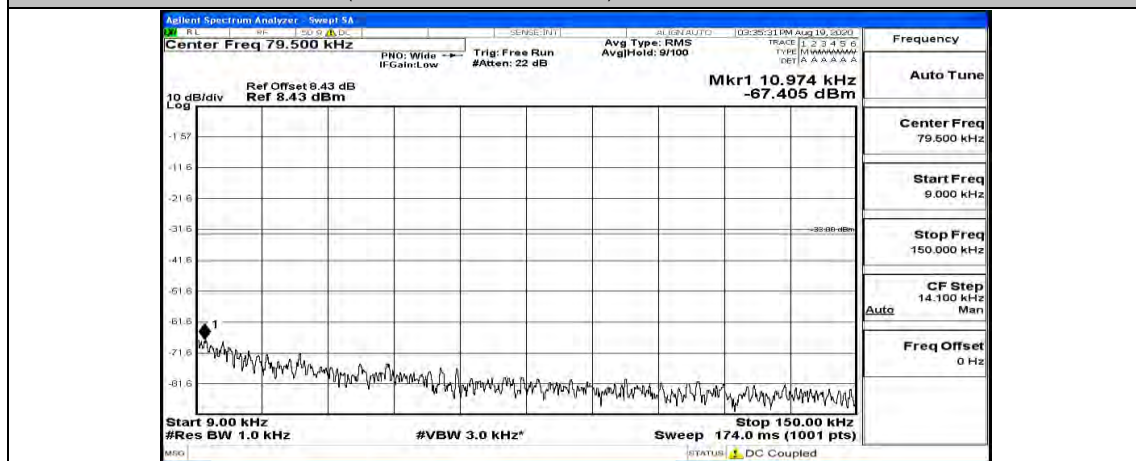


(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_1RB#3

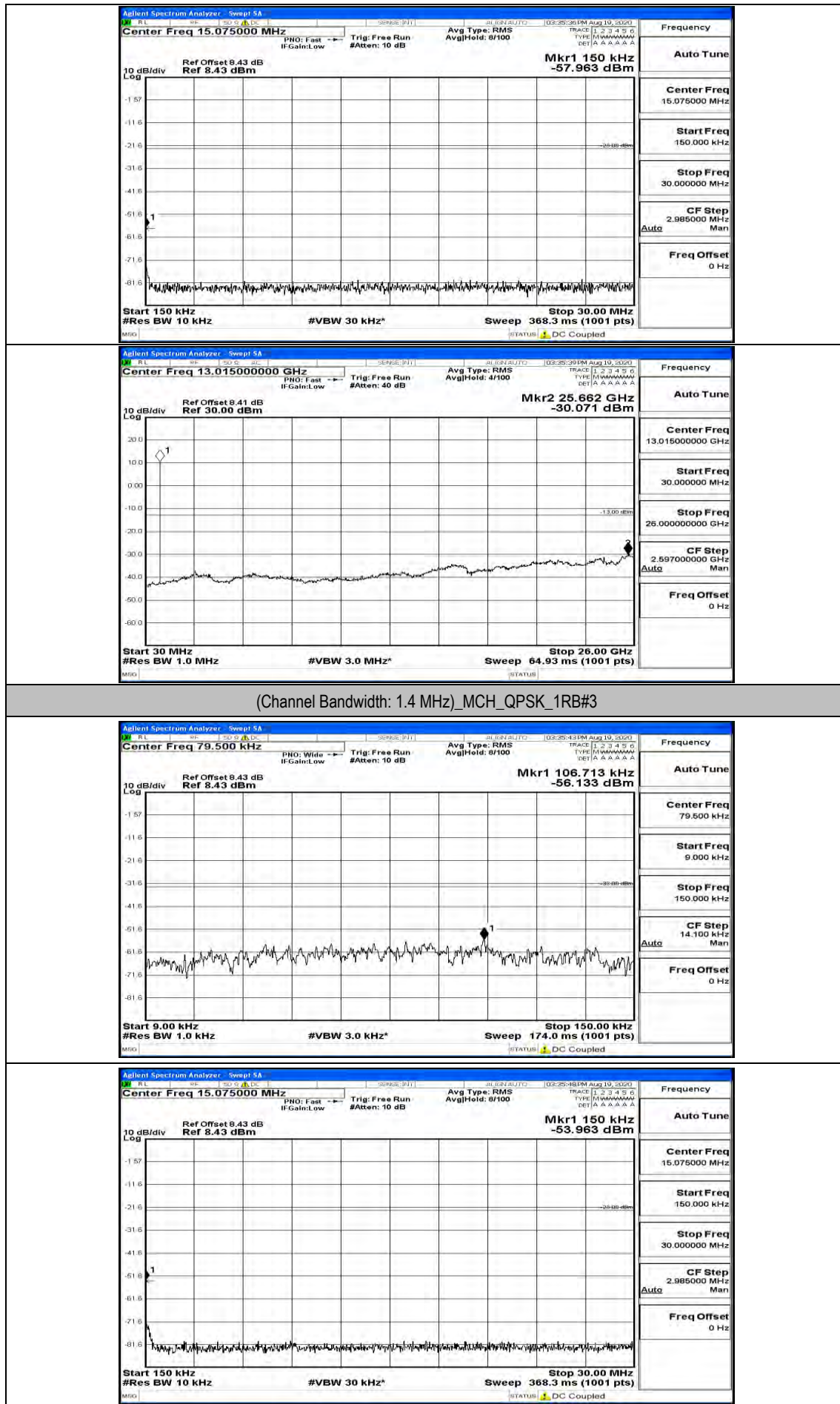




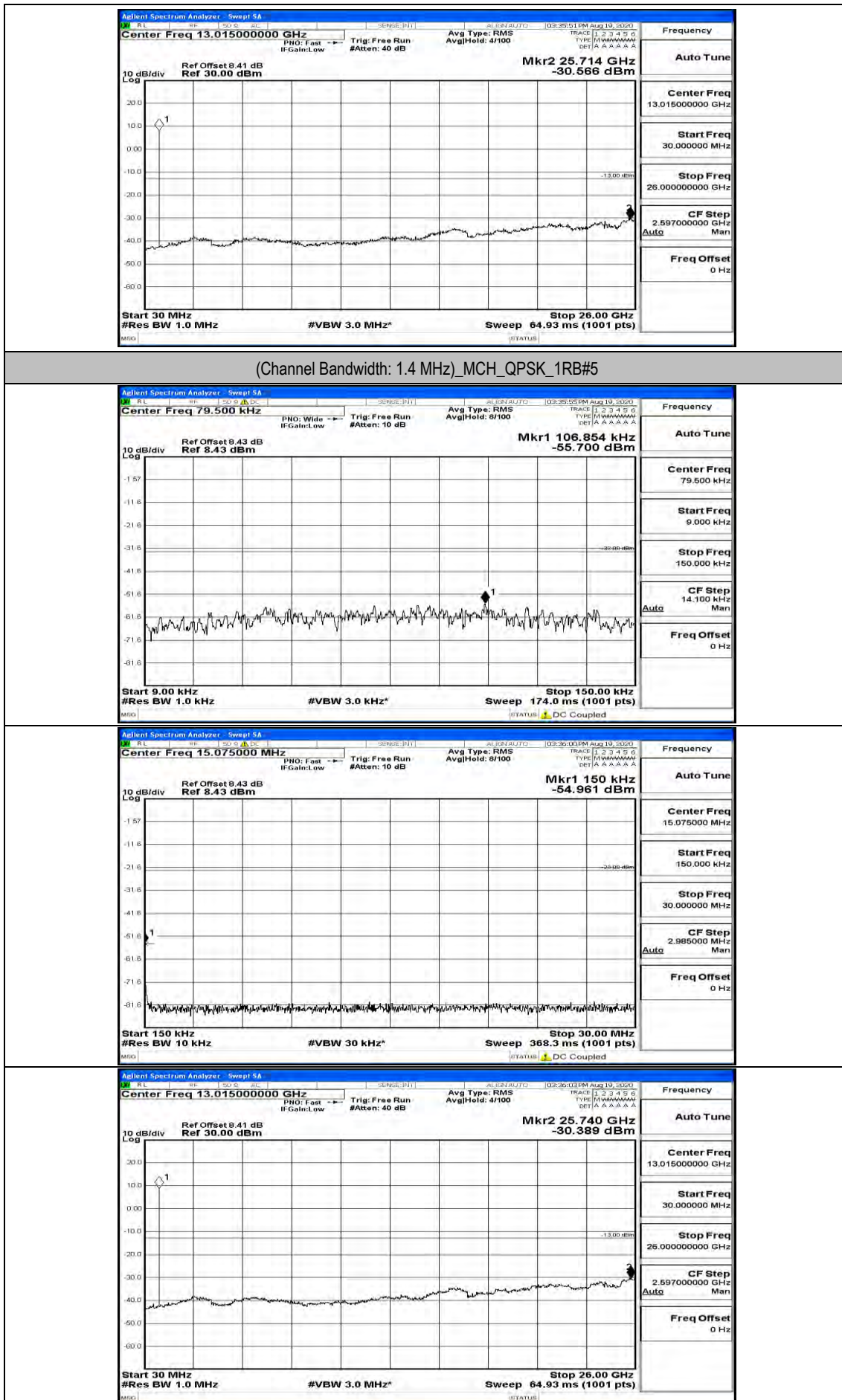
(Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK\_1RB#0



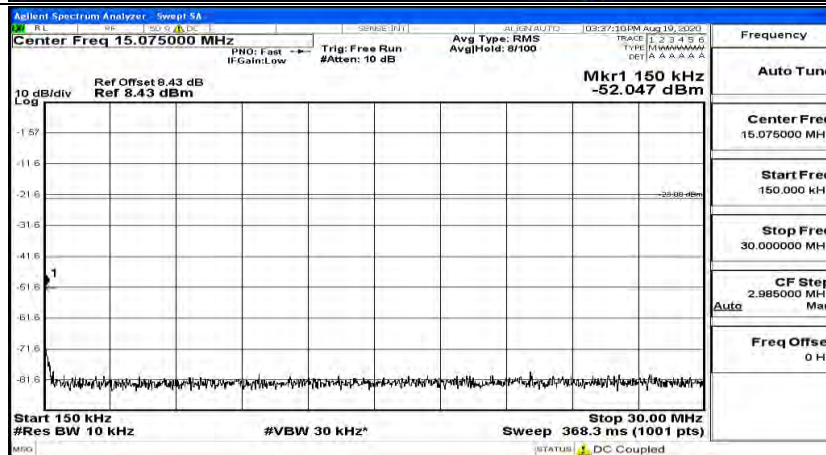
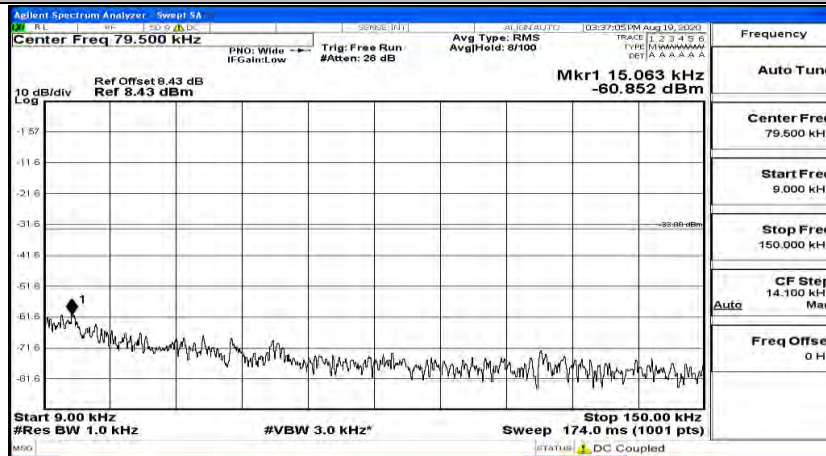




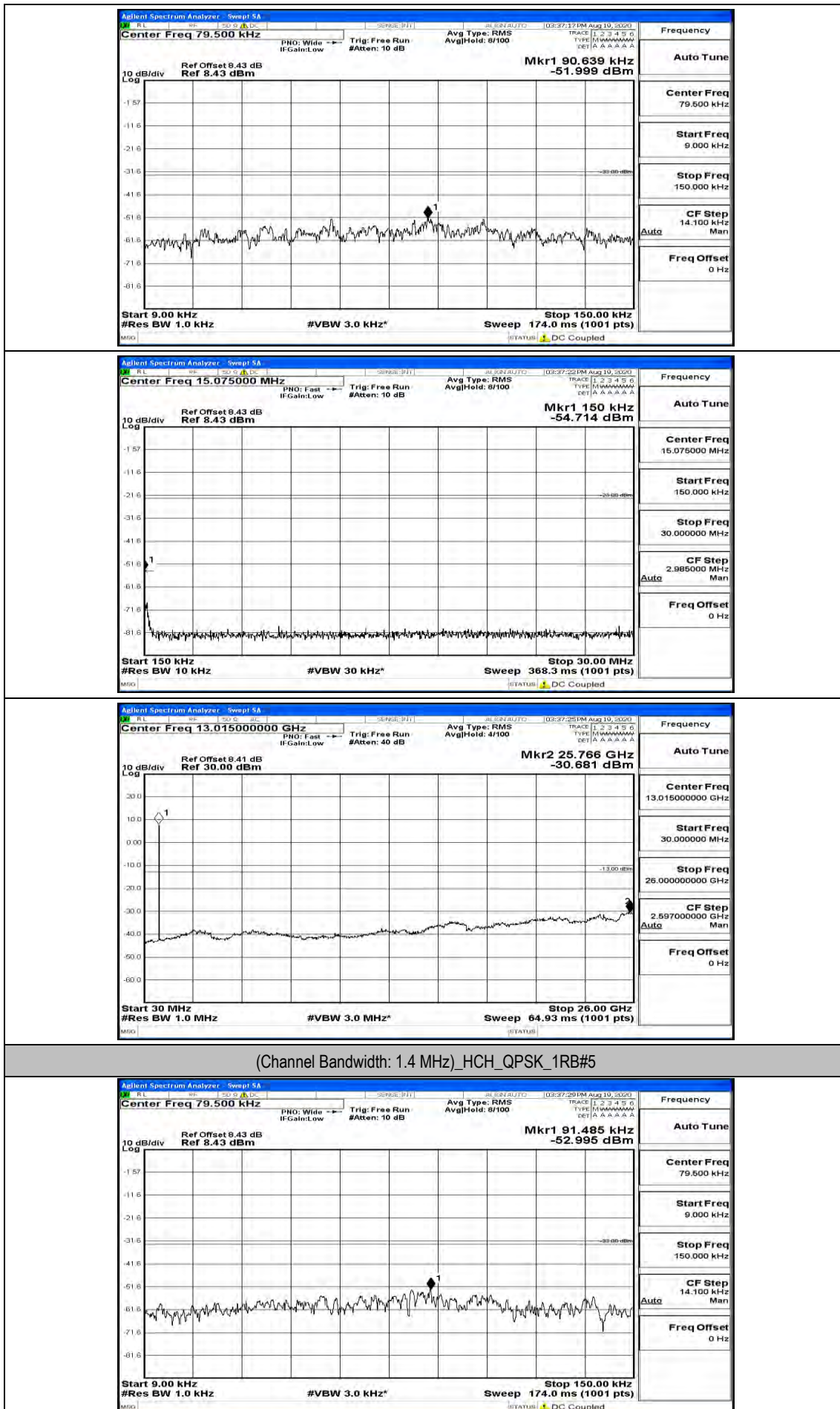




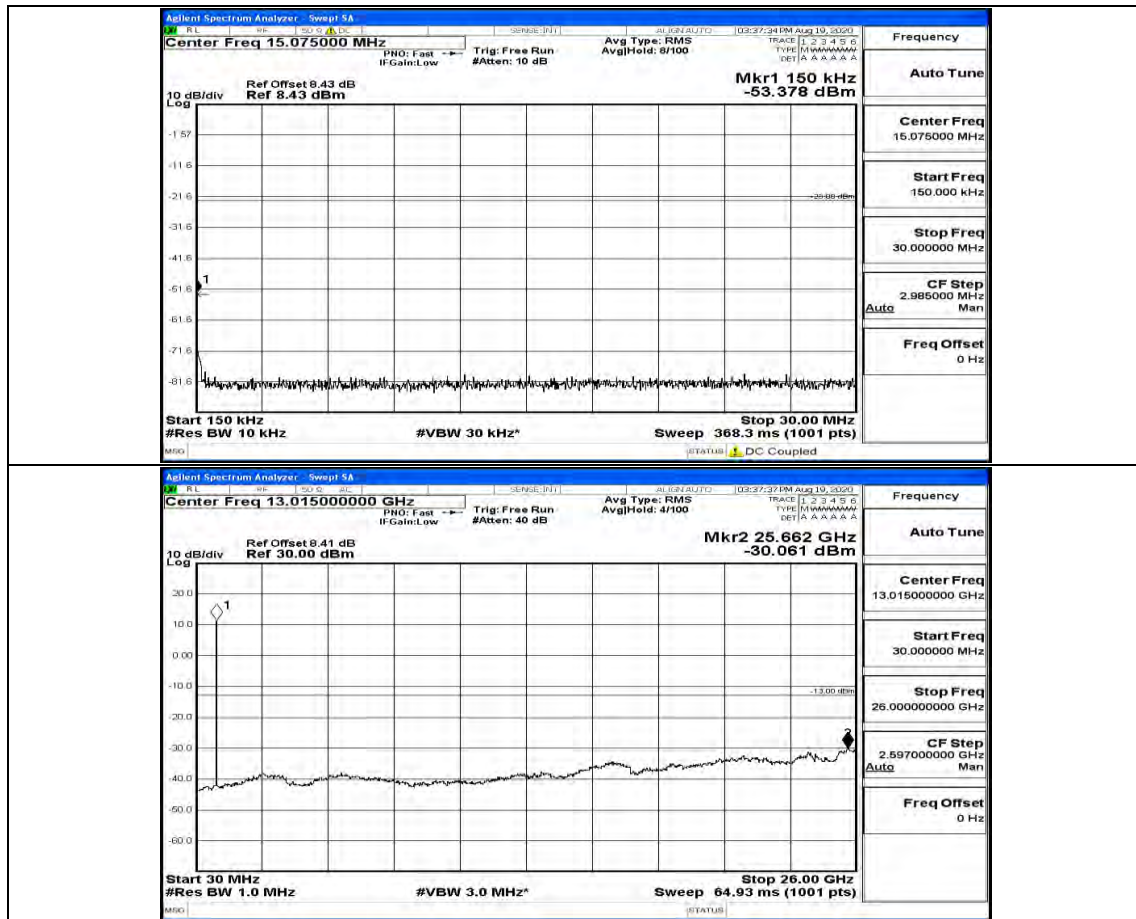
(Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK\_1RB#0



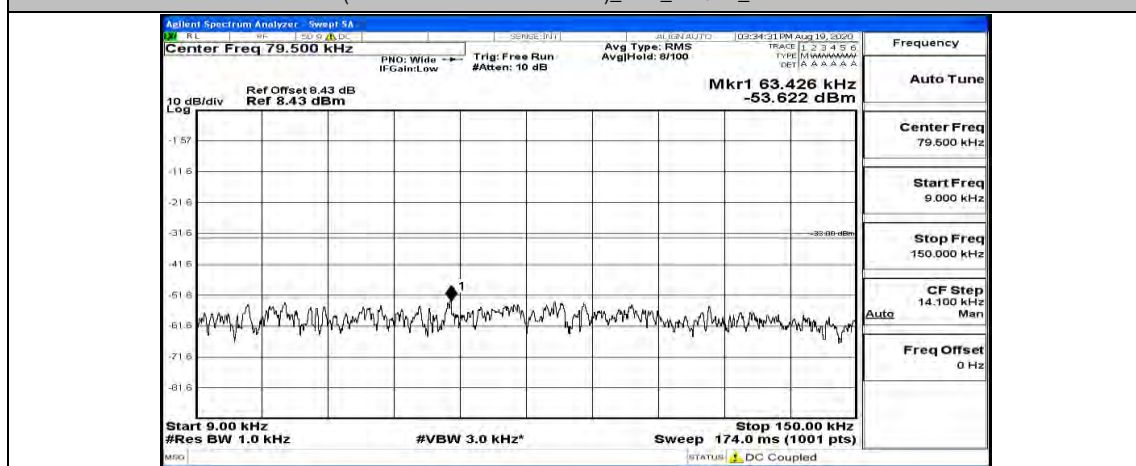
(Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK\_1RB#3

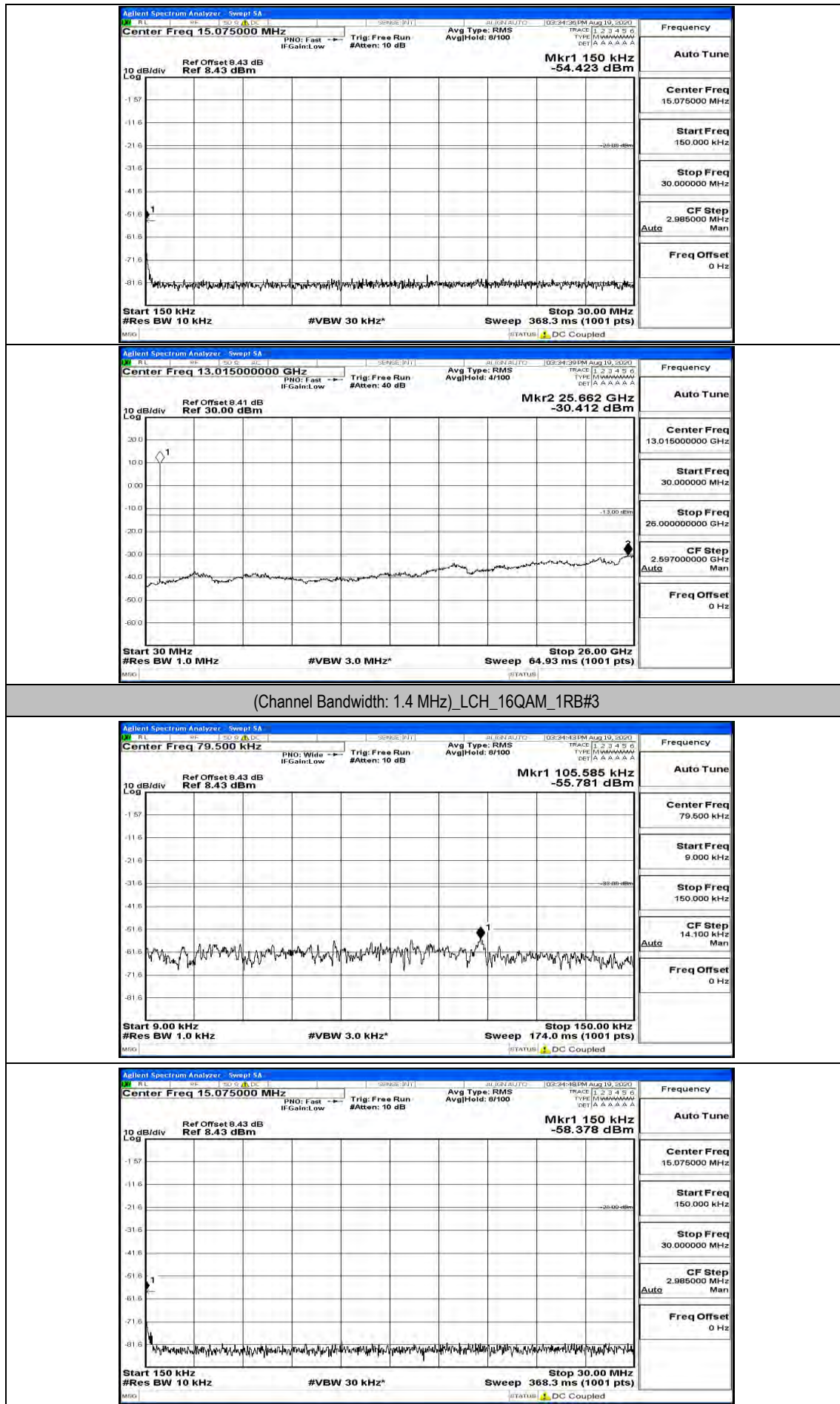






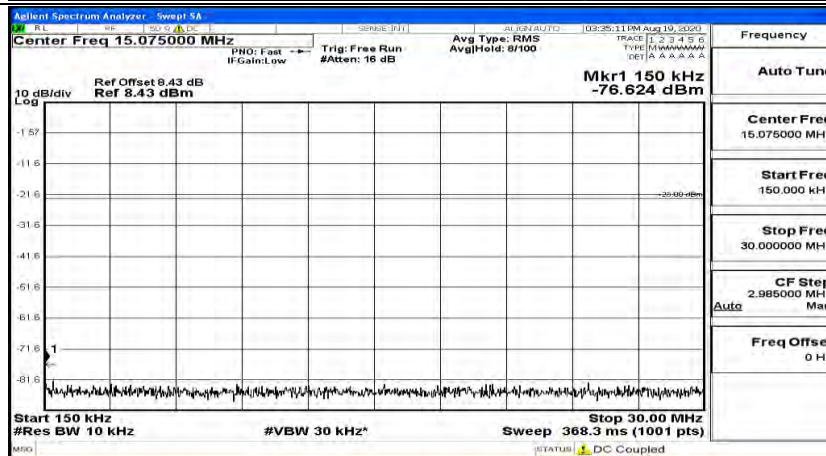
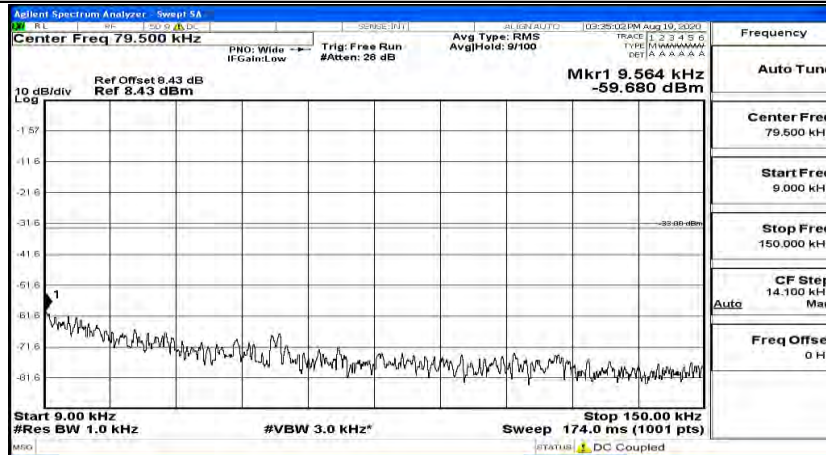
(Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM\_1RB#0





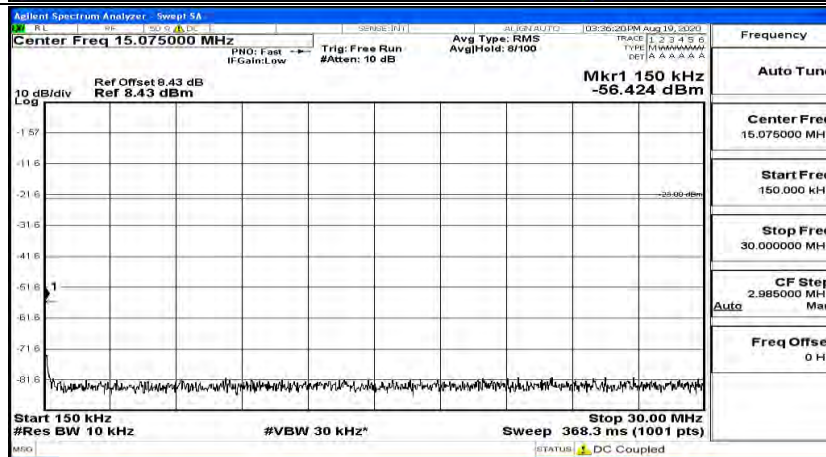
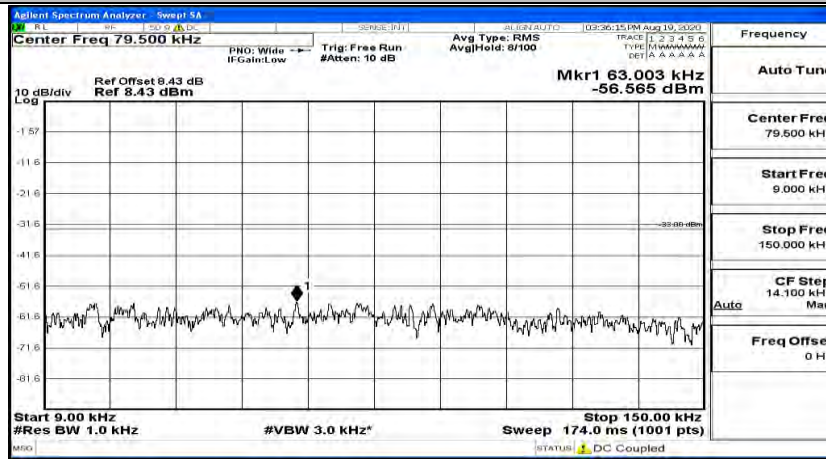


(Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM\_1RB#5

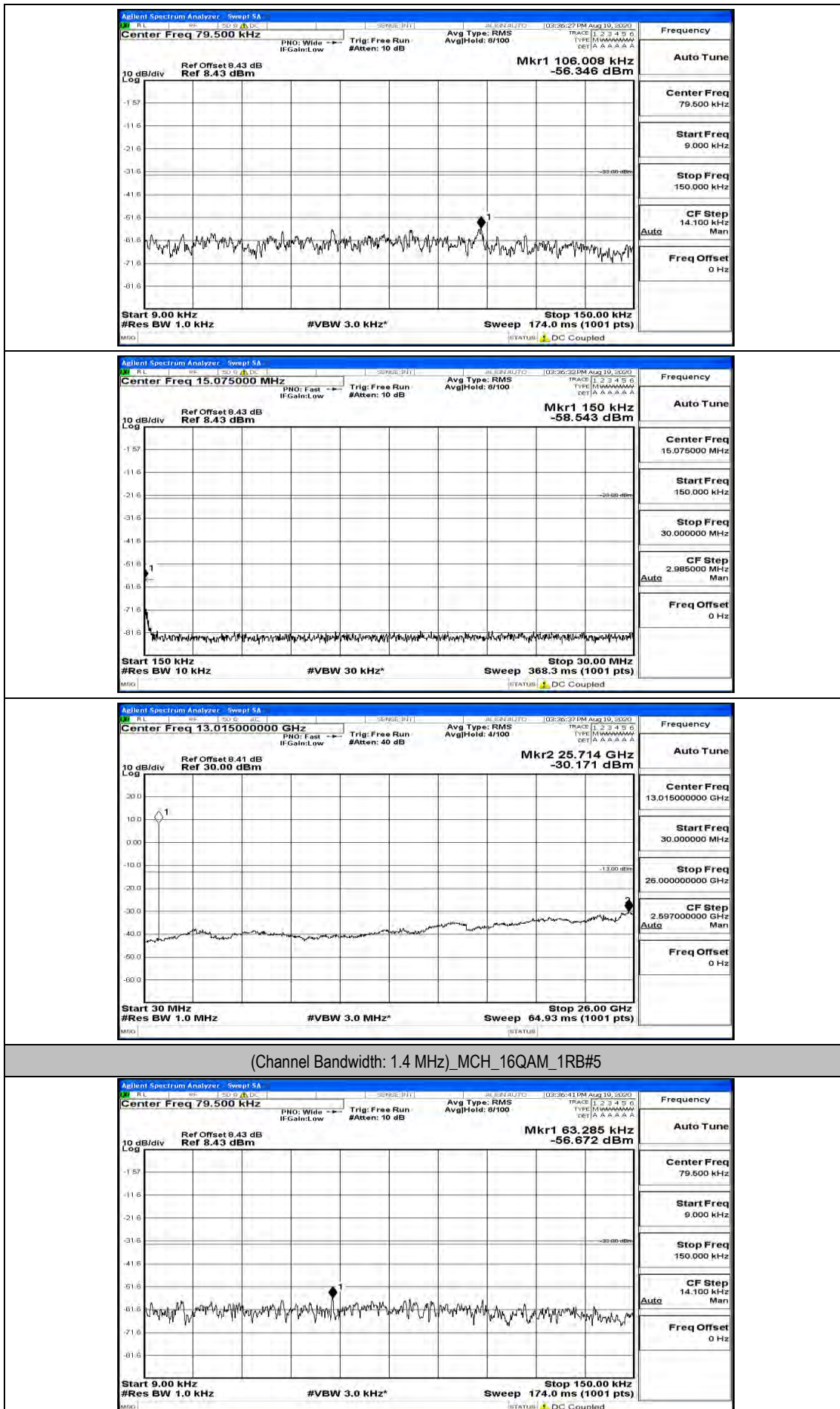




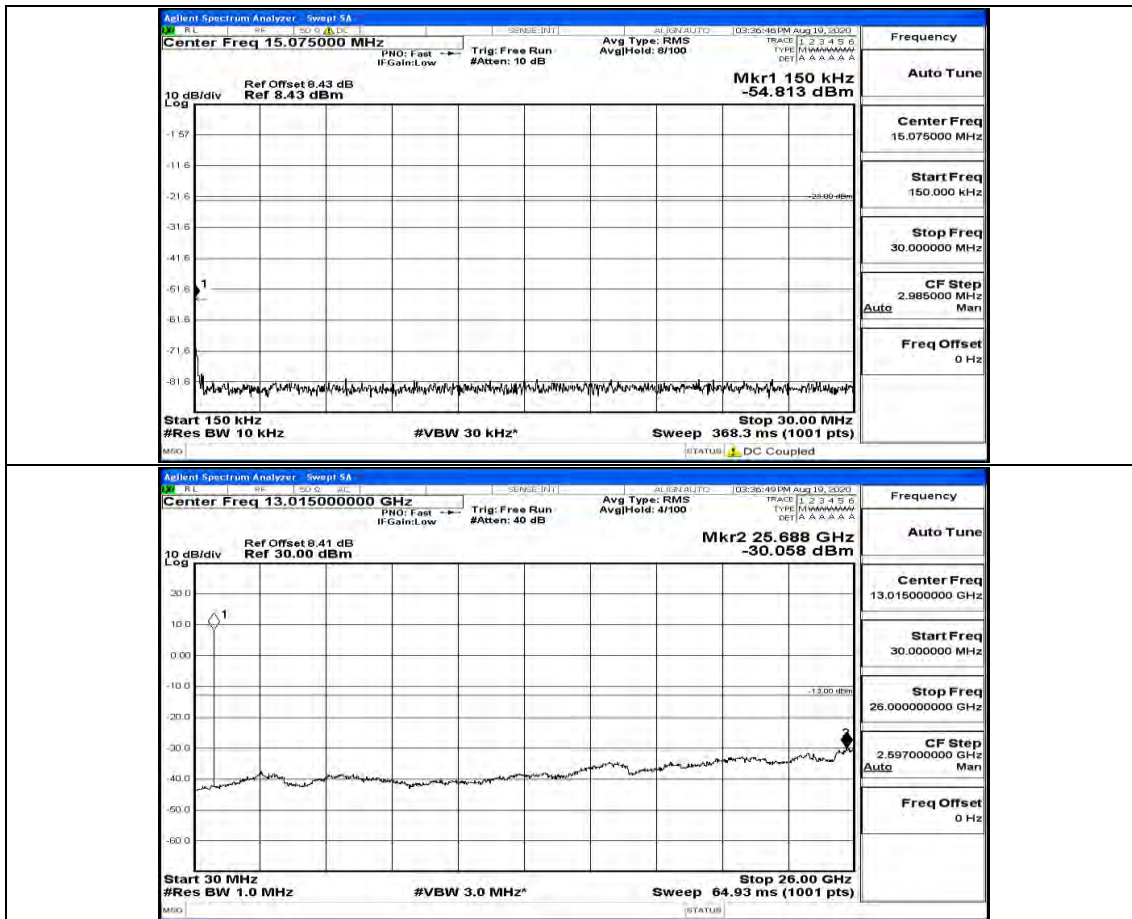
(Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM\_1RB#0



(Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM\_1RB#3







(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_1RB#0

