Appendix F: Test Data for E-UTRA Band 5

Product Name: 3G/4G Smart Phone
Trade Mark: DOOGEE
Test Model: S88Plus

Environmental Conditions

Temperature:	22.9° C
Relative Humidity:	53.3%
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]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.34	22.59	PASS
		1	3	23.23	22.44	PASS
		1	5	23.29	22.46	PASS
		3	0	23.32	22.18	PASS
		3	2	23.32	22.22	PASS
		3	3	23.25	22.21	PASS
		6	0	22.27	21.29	PASS
	MCH	1	0	23.89	22.96	PASS
		1	3	23.84	23.01	PASS
		1	5	23.92	23.08	PASS
		3	0	23.75	22.79	PASS
		3	2	23.77	22.74	PASS
		3	3	23.80	22.75	PASS
		6	0	22.81	21.76	PASS
	HCH	1	0	23.58	22.73	PASS
		1	3	23.50	22.66	PASS
		1	5	23.46	22.53	PASS
		3	0	23.59	22.54	PASS
		3	2	23.59	22.55	PASS
		3	3	23.52	22.44	PASS
		6	0	22.52	21.61	PASS

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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	23.20	22.46	PASS
		1	7	23.13	22.48	PASS
		1	14	23.09	22.41	PASS
		8	0	22.17	21.19	PASS
		8	4	22.14	21.19	PASS
		8	7	22.17	21.17	PASS
		15	0	22.23	21.21	PASS
	MCH	1	0	23.72	22.83	PASS
		1	7	23.47	22.59	PASS
		1	14	23.66	22.74	PASS
		8	0	22.80	21.77	PASS
		8	4	22.79	21.77	PASS
		8	7	22.84	21.88	PASS
		15	0	22.83	21.72	PASS
	HCH	1	0	23.87	23.02	PASS
		1	7	23.87	23.02	PASS
		1	14	23.65	22.65	PASS
		8	0	22.76	21.83	PASS
		8	4	22.79	21.82	PASS
		8	7	22.66	21.77	PASS
		15	0	22.72	21.73	PASS

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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	23.42	22.42	PASS
		1	12	23.56	22.67	PASS
		1	24	23.57	22.61	PASS
		12	0	22.26	21.24	PASS
		12	6	22.26	21.32	PASS
		12	13	22.24	21.24	PASS
		25	0	22.30	21.37	PASS
	MCH	1	0	23.79	22.98	PASS
		1	12	23.27	22.62	PASS
		1	24	23.33	22.66	PASS
		12	0	22.74	21.88	PASS
		12	6	22.76	21.87	PASS
		12	13	22.72	21.78	PASS
		25	0	22.80	21.79	PASS
	HCH	1	0	24.00	23.02	PASS
		1	12	24.12	23.27	PASS
		1	24	23.60	22.70	PASS
		12	0	22.88	21.99	PASS
		12	6	22.93	21.98	PASS
		12	13	22.72	21.75	PASS
		25	0	22.85	21.84	PASS

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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	23.45	22.72	PASS
		1	24	24.80	24.02	PASS
		1	49	23.68	22.85	PASS
		25	0	22.29	21.27	PASS
		25	12	22.29	21.28	PASS
		25	25	22.59	21.57	PASS
		50	0	22.39	21.43	PASS
	MCH	1	0	23.70	22.92	PASS
		1	24	23.22	22.45	PASS
		1	49	23.53	22.64	PASS
		25	0	22.78	21.85	PASS
		25	12	22.79	21.85	PASS
		25	25	22.80	21.96	PASS
		50	0	22.90	21.88	PASS
	HCH	1	0	24.23	23.43	PASS
		1	24	24.40	23.64	PASS
		1	49	24.18	23.31	PASS
		25	0	23.10	22.11	PASS
		25	12	23.11	22.09	PASS
		25	25	23.04	22.25	PASS
		50	0	23.10	22.08	PASS

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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	5.23	<13	PASS
	MCH	5.11	<13	PASS
	HCH	4.7	<13	PASS
16QAM	LCH	6.03	<13	PASS
	MCH	5.88	<13	PASS
	HCH	5.57	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.36	<13	PASS
	MCH	5.15	<13	PASS
	HCH	4.89	<13	PASS
16QAM	LCH	6.2	<13	PASS
	MCH	5.98	<13	PASS
	HCH	5.78	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.4	<13	PASS
	MCH	5.14	<13	PASS
	HCH	5	<13	PASS
16QAM	LCH	6.15	<13	PASS
	MCH	5.87	<13	PASS
	HCH	5.81	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.35	<13	PASS
	MCH	5.16	<13	PASS
	HCH	5.16	<13	PASS
16QAM	LCH	6.13	<13	PASS
	MCH	5.91	<13	PASS
	HCH	5.96	<13	PASS

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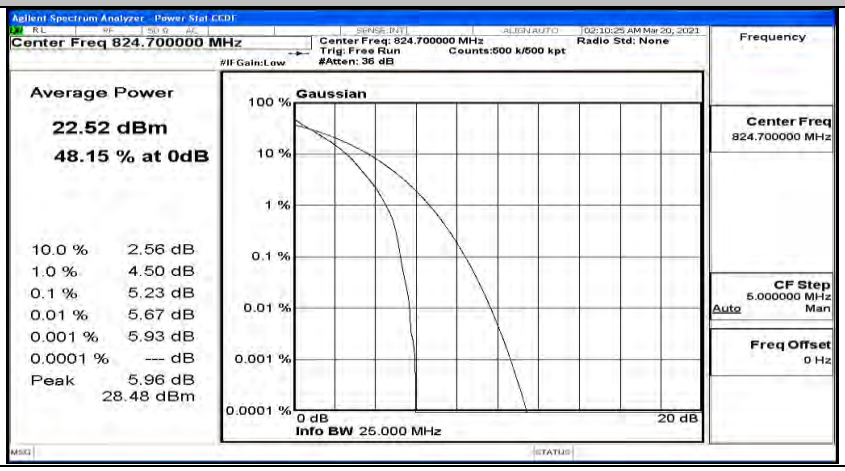
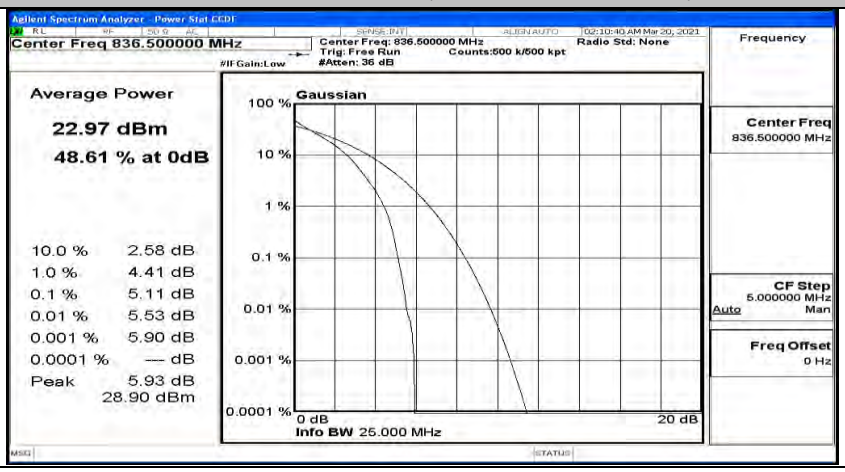
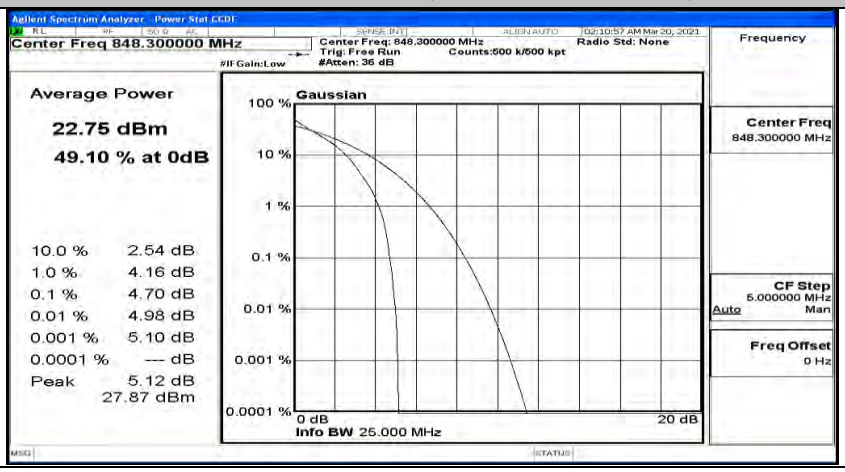
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



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



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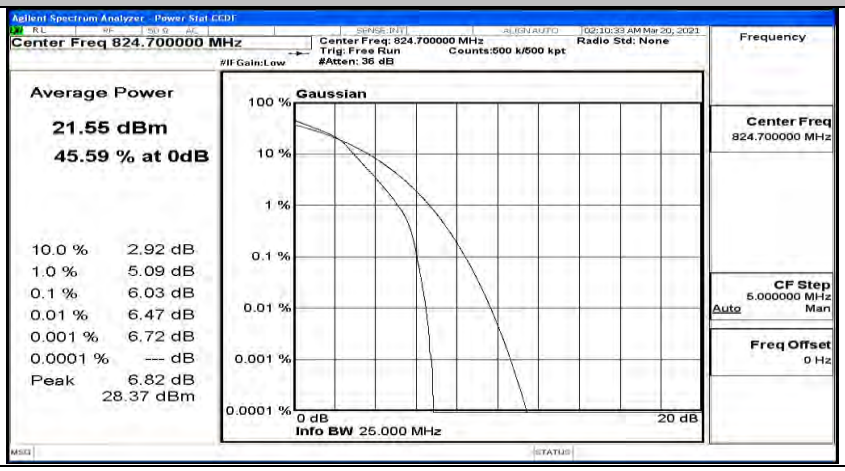
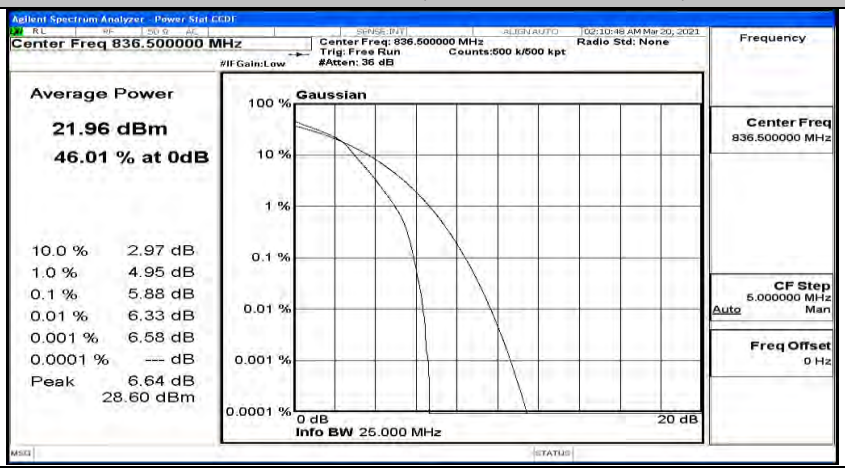
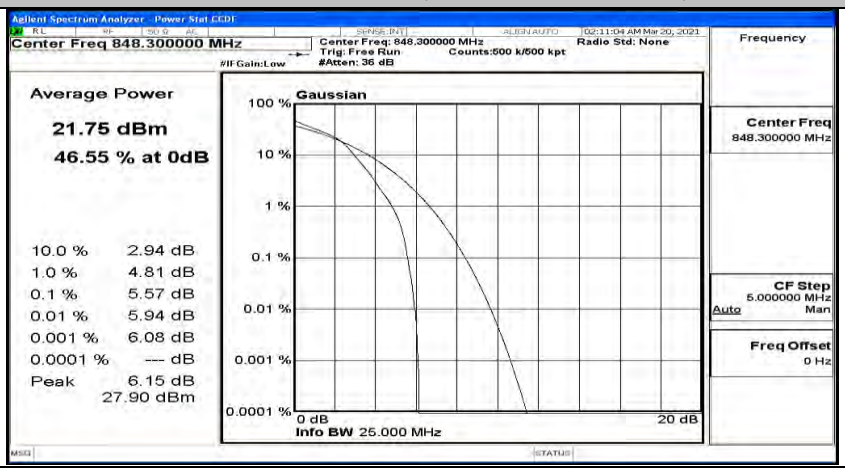
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



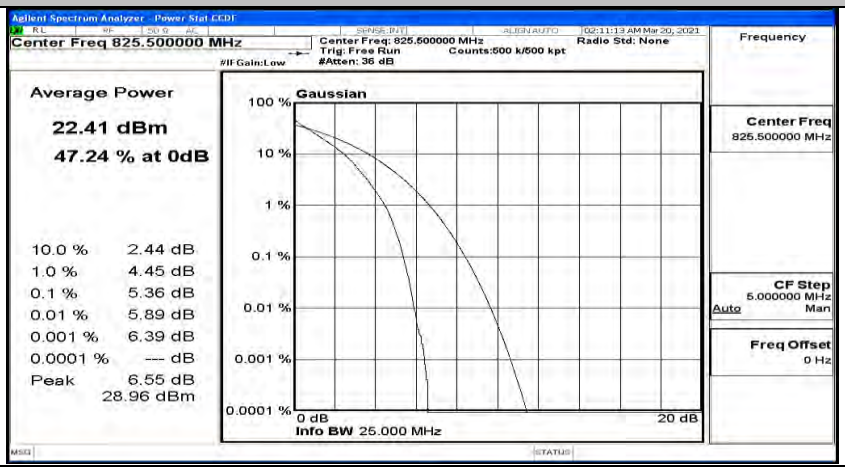
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



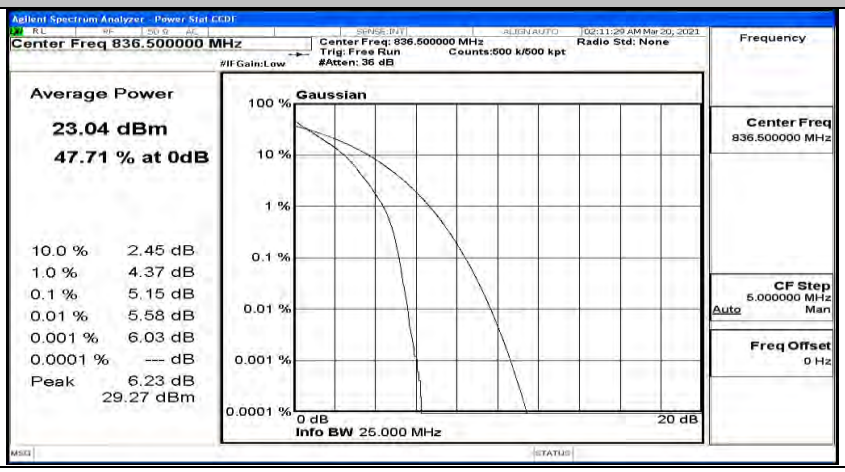
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



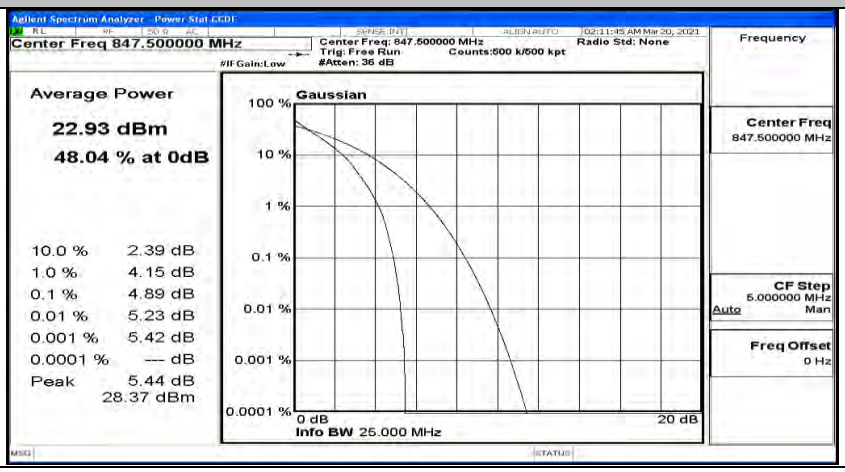
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



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



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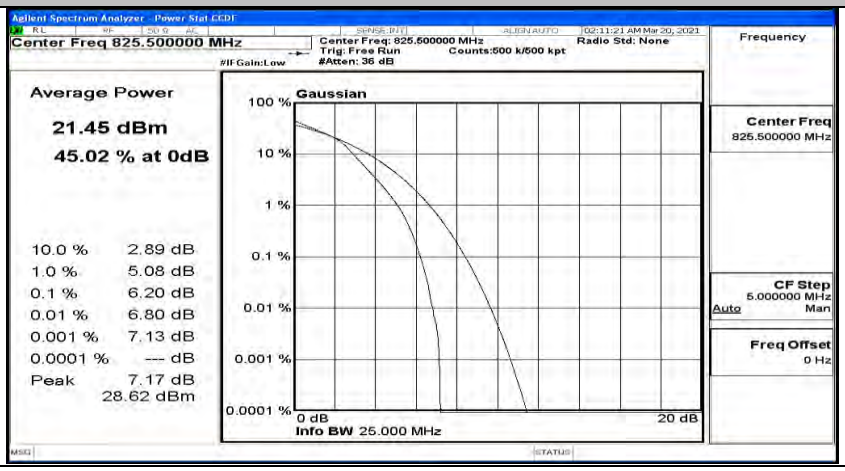
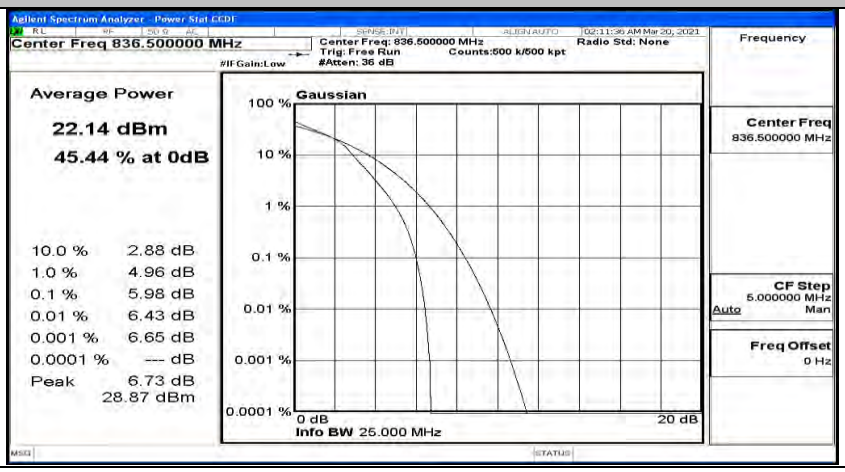
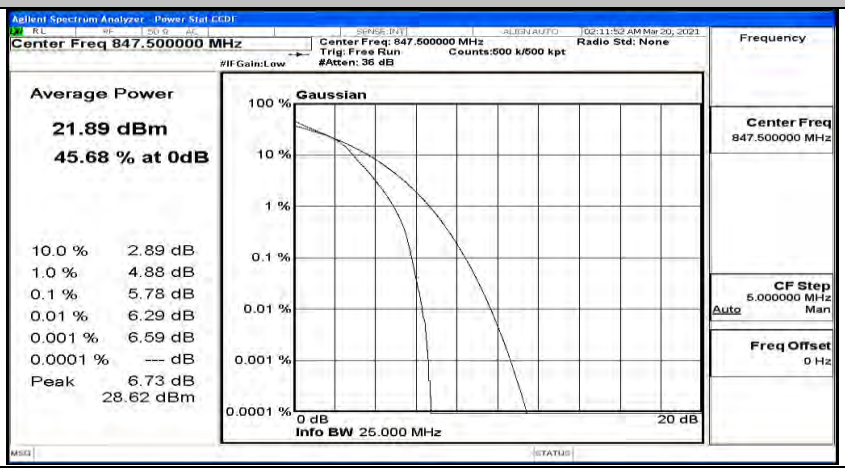
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



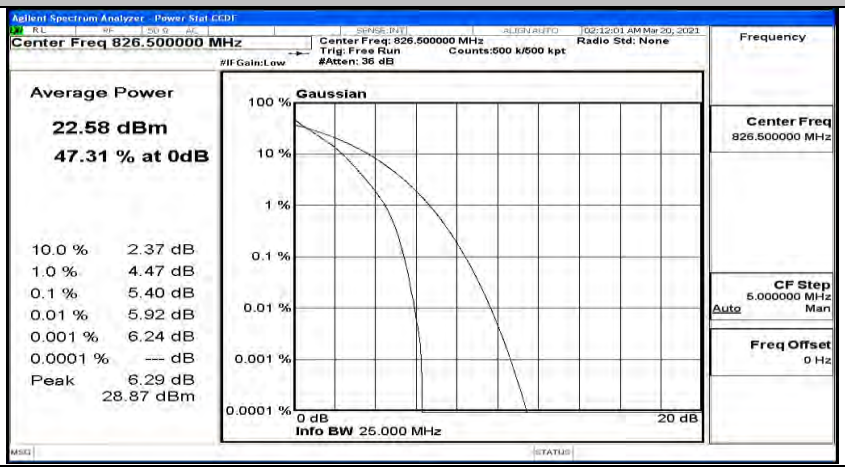
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



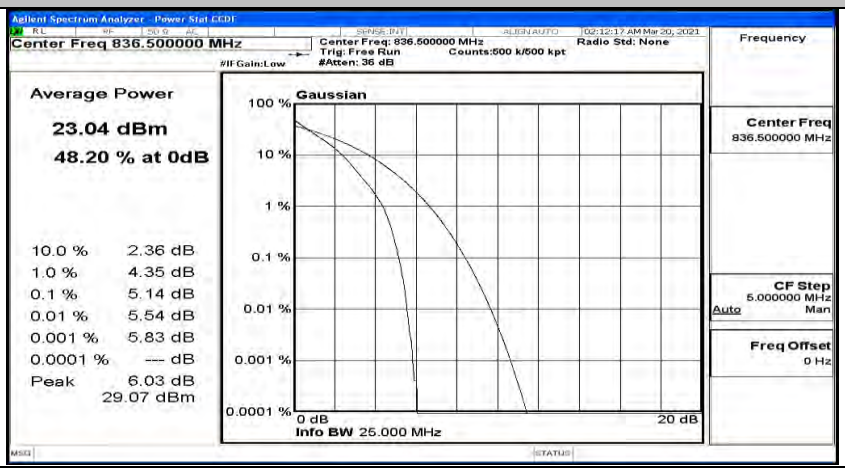
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



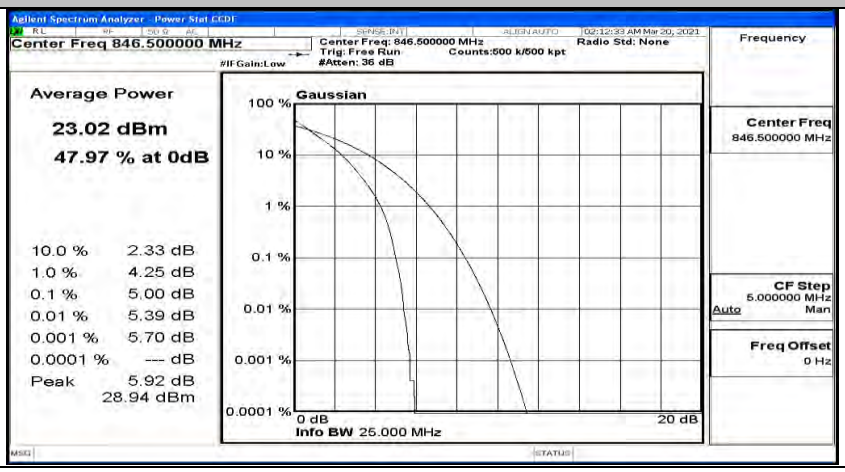
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



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



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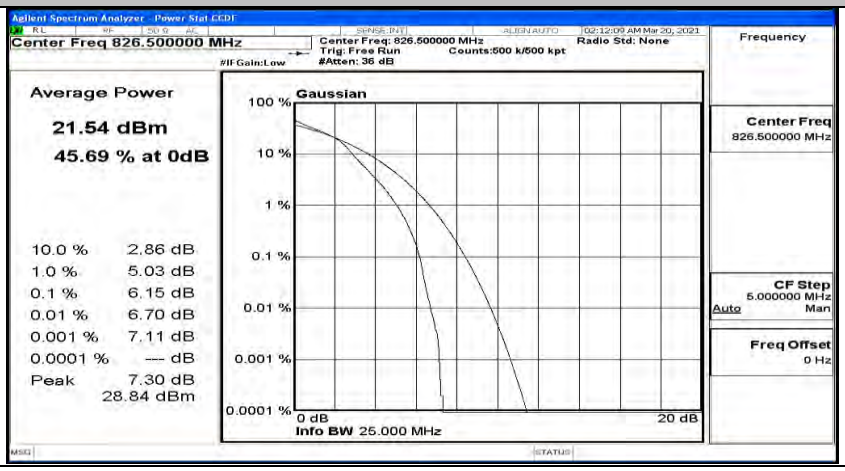
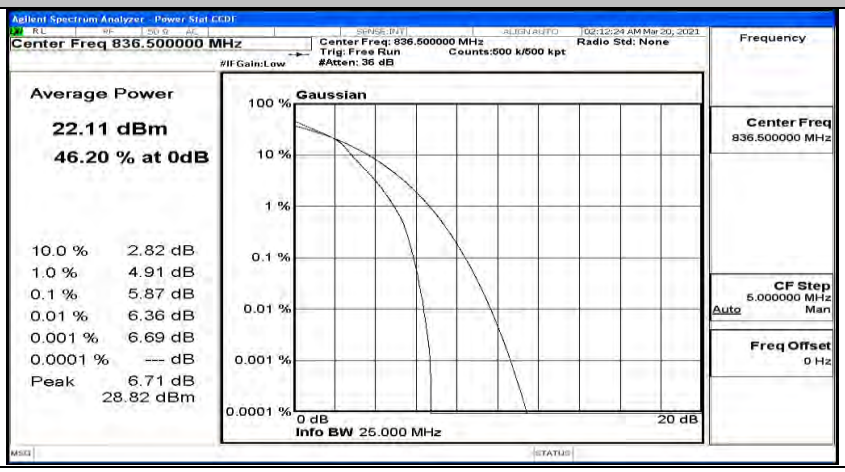
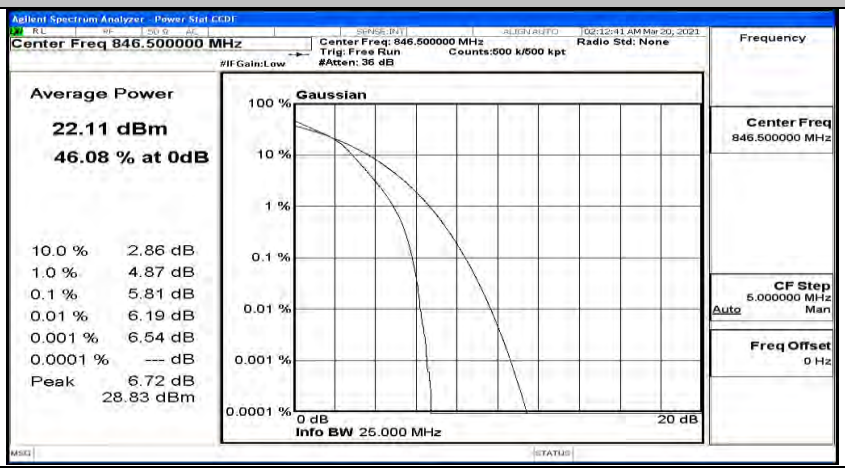
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



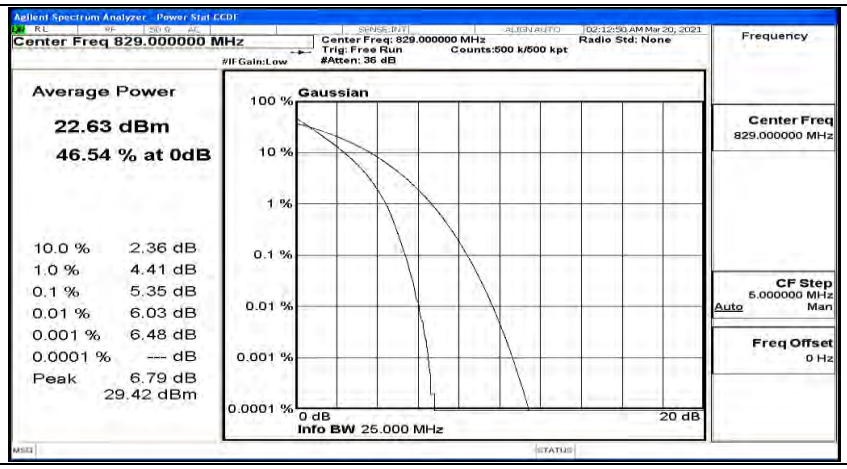
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



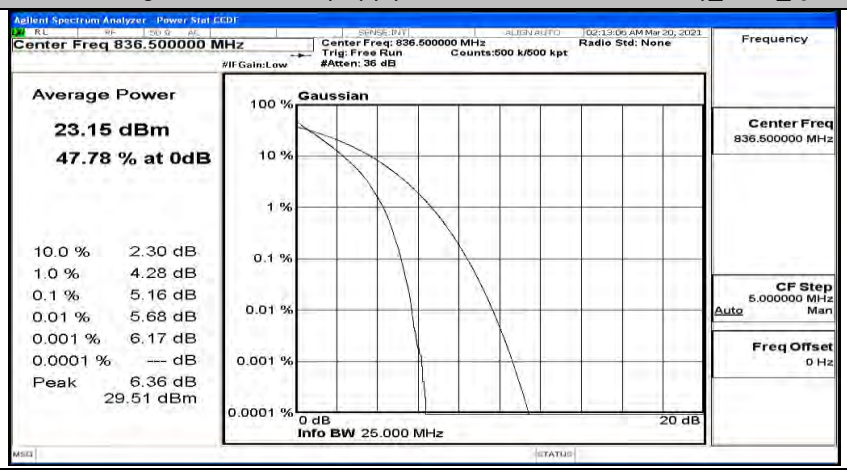
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



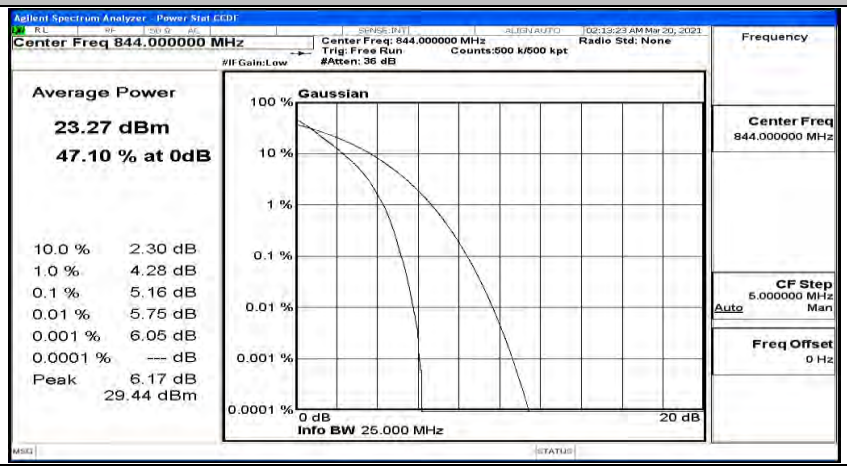
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



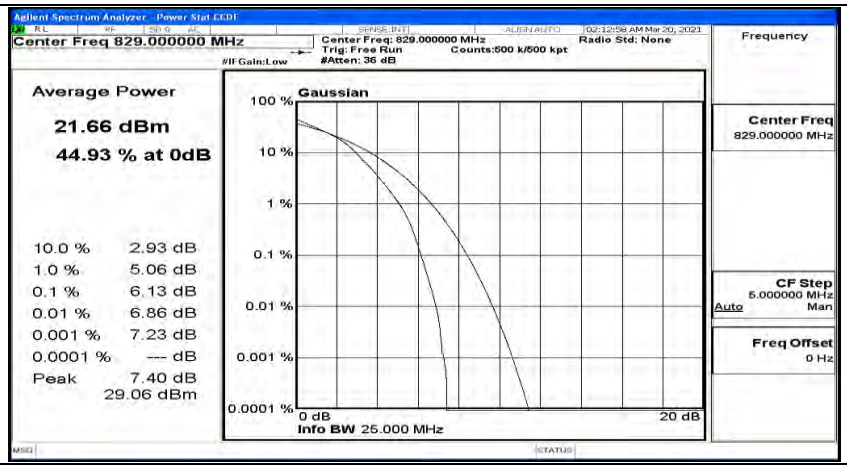
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



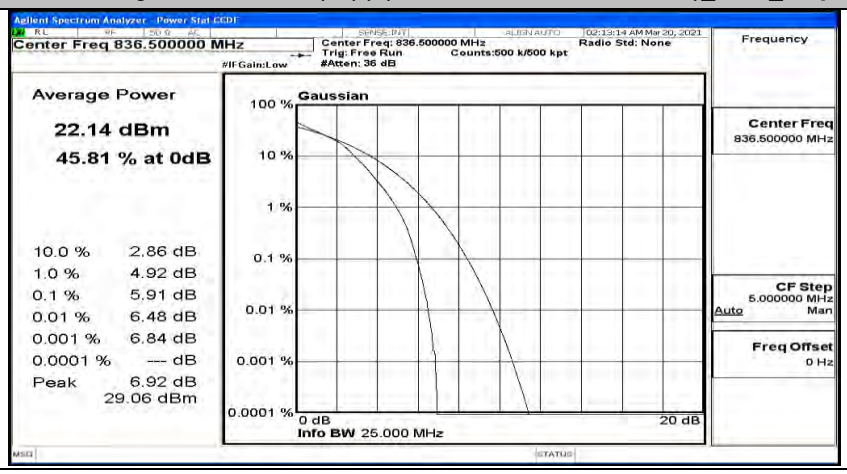
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



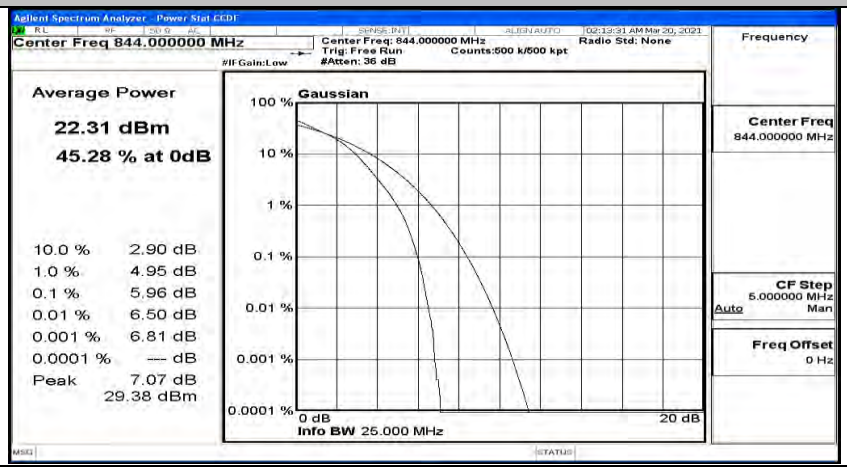
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0810	1.215	PASS
	MCH	1.0771	1.225	PASS
	HCH	1.0768	1.204	PASS
16QAM	LCH	1.0798	1.223	PASS
	MCH	1.0782	1.193	PASS
	HCH	1.0783	1.228	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6843	2.876	PASS
	MCH	2.6862	2.889	PASS
	HCH	2.6874	2.886	PASS
16QAM	LCH	2.6804	2.911	PASS
	MCH	2.6800	2.876	PASS
	HCH	2.6834	2.856	PASS

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4810	4.818	PASS
	MCH	4.4729	4.805	PASS
	HCH	4.4723	4.813	PASS
16QAM	LCH	4.4785	4.804	PASS
	MCH	4.4786	4.832	PASS
	HCH	4.4808	4.812	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9455	9.470	PASS
	MCH	8.9272	9.444	PASS
	HCH	8.9355	9.481	PASS
16QAM	LCH	8.9301	9.424	PASS
	MCH	8.9302	9.417	PASS
	HCH	8.9327	9.386	PASS

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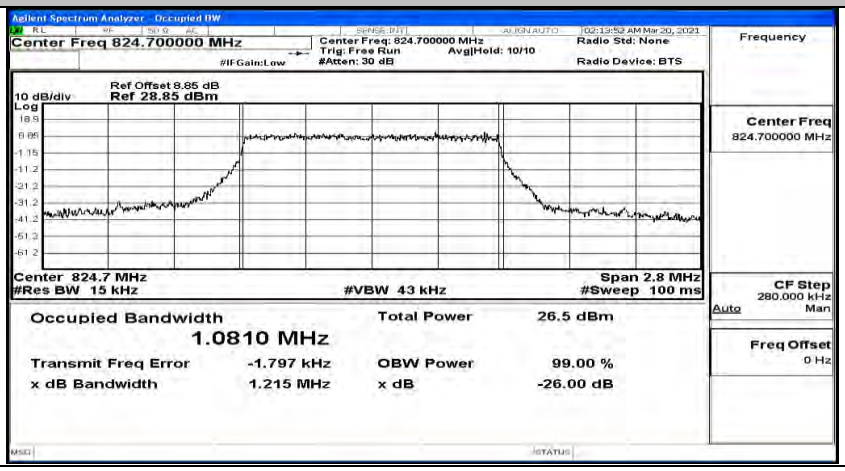
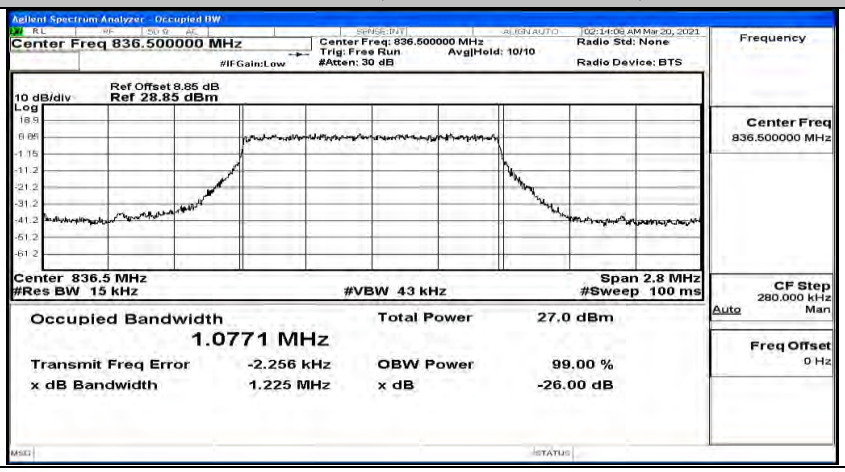
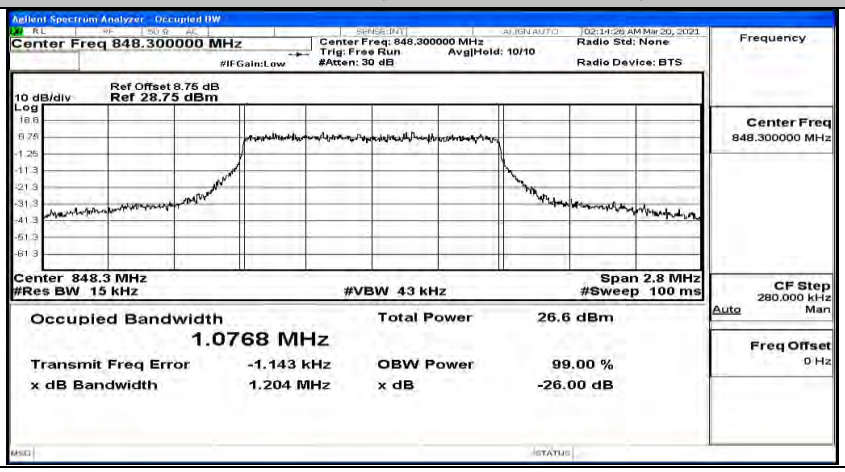
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



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



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



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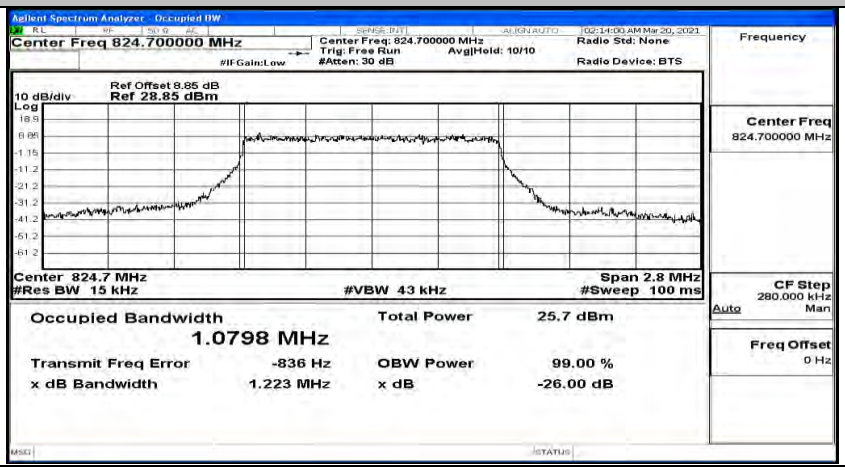
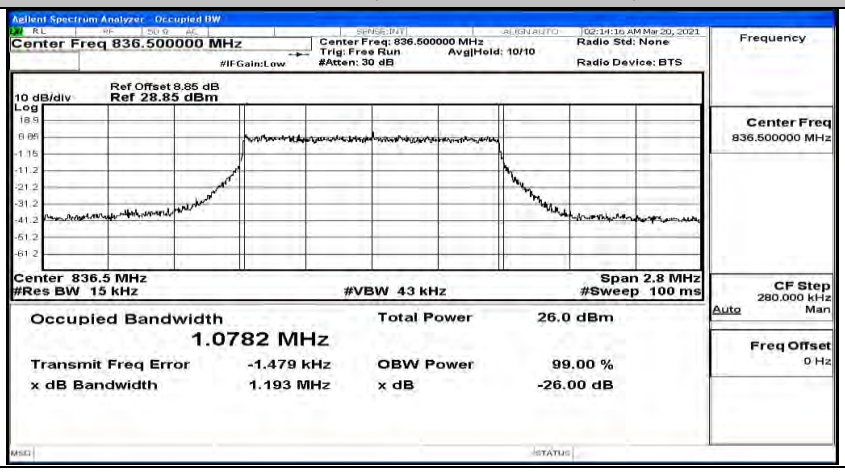
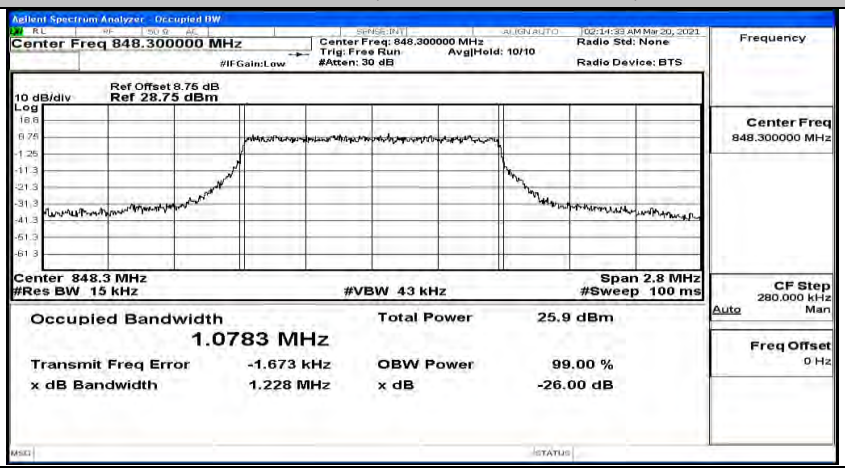
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



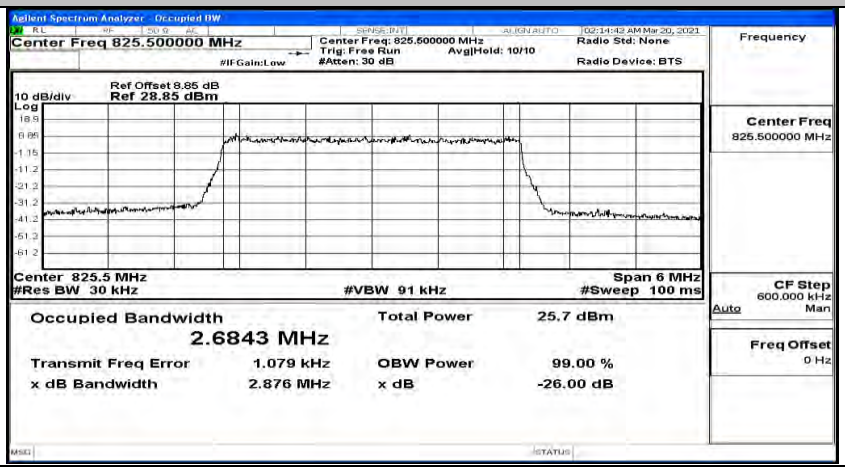
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



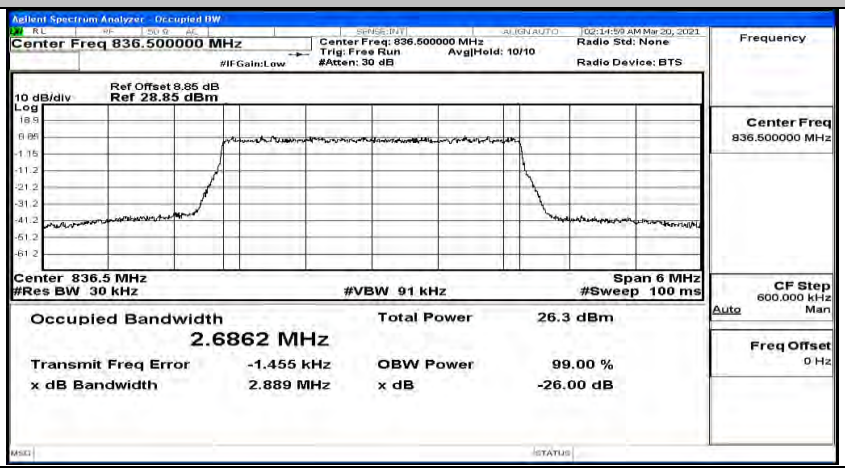
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



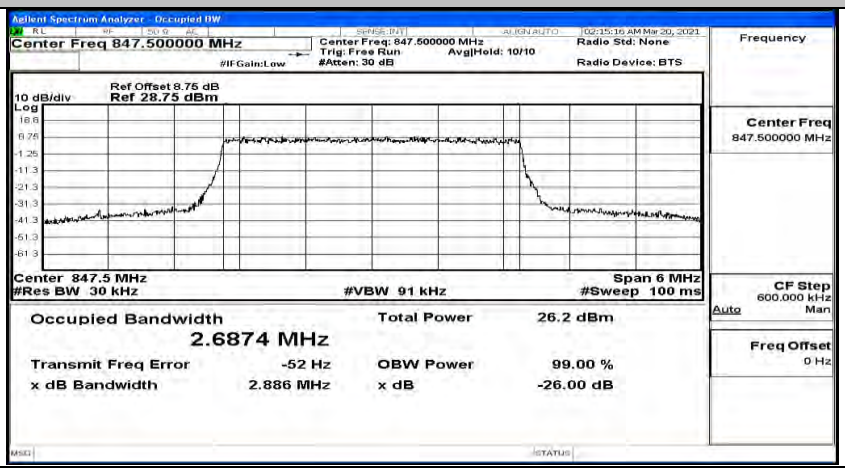
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



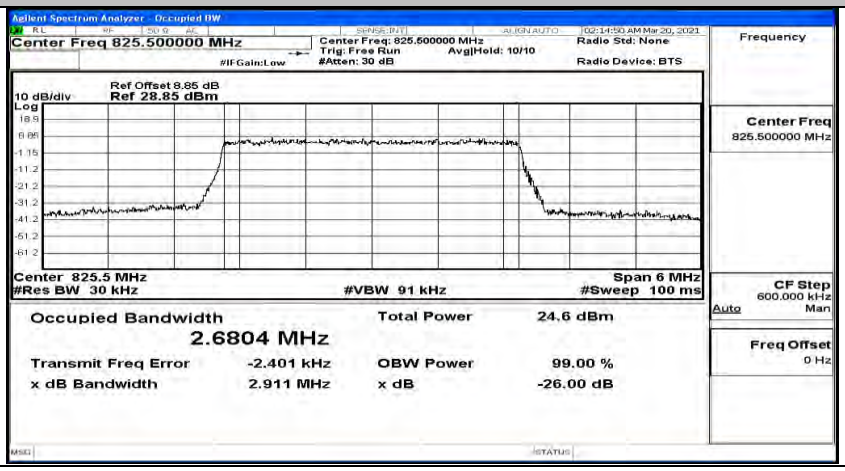
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



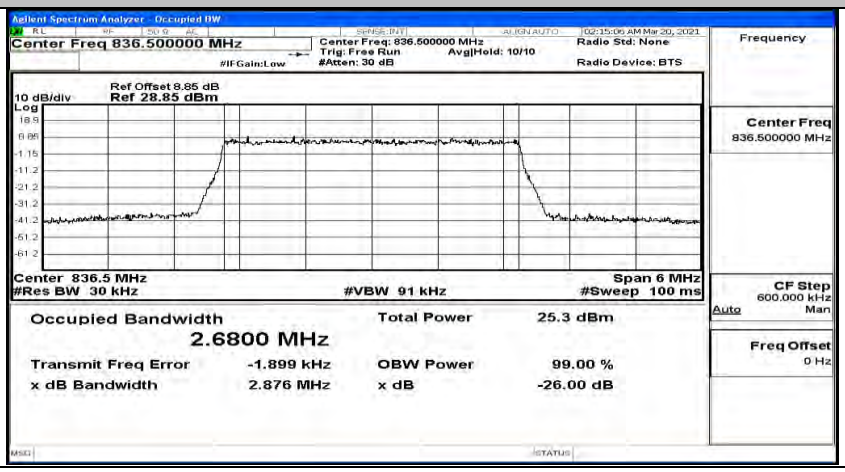
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



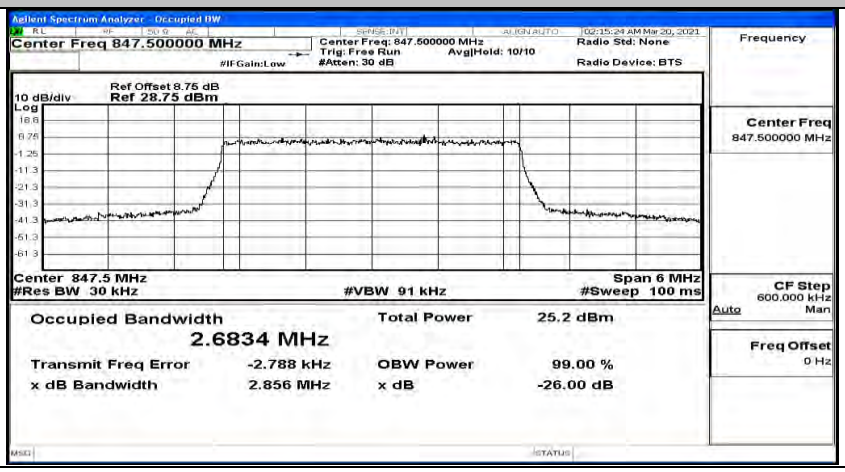
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



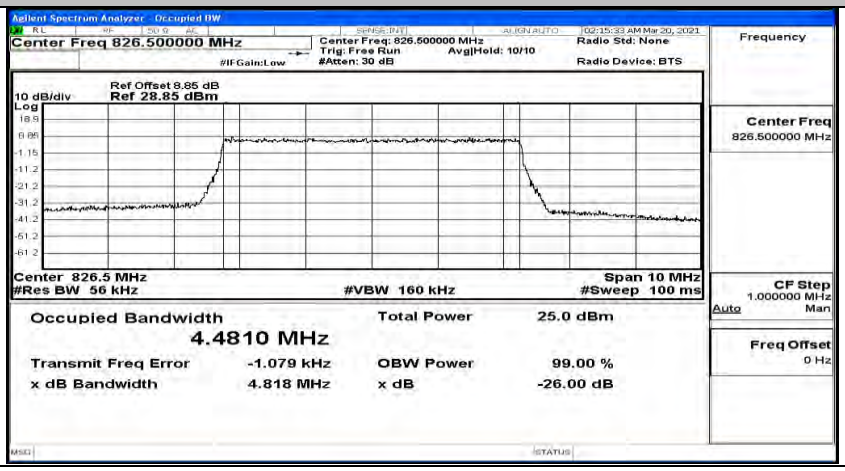
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



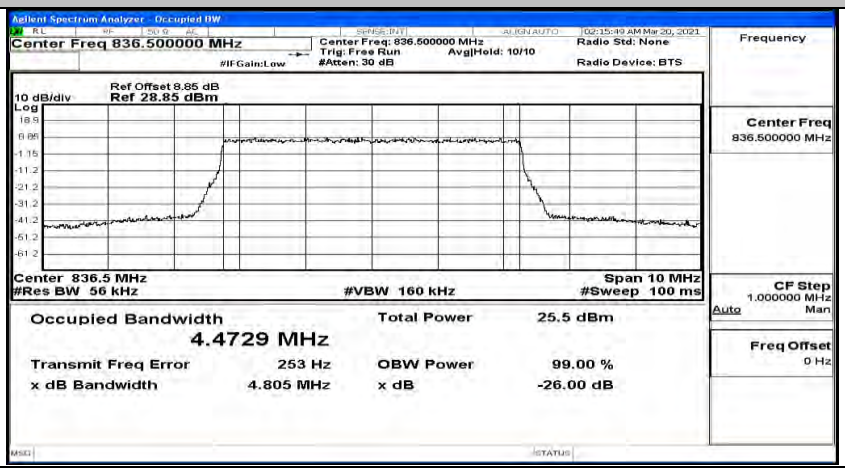
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



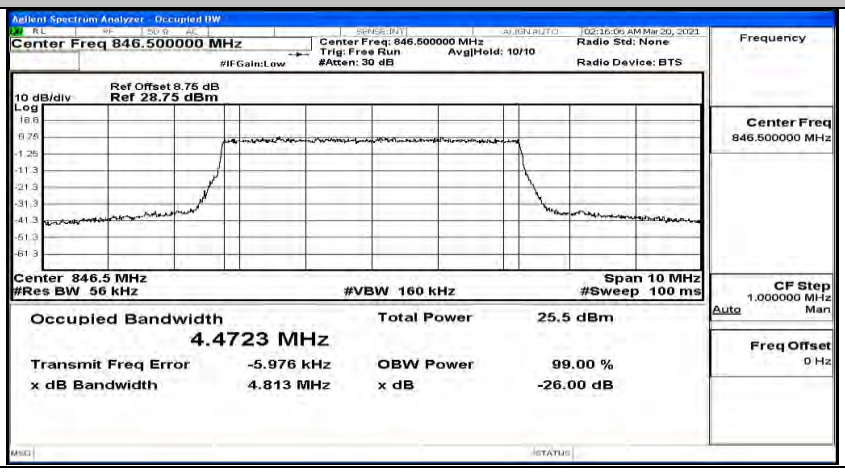
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



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



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



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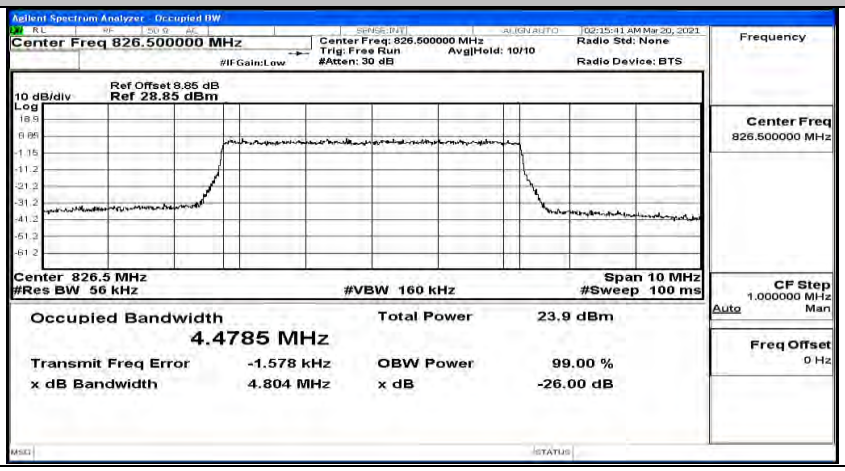
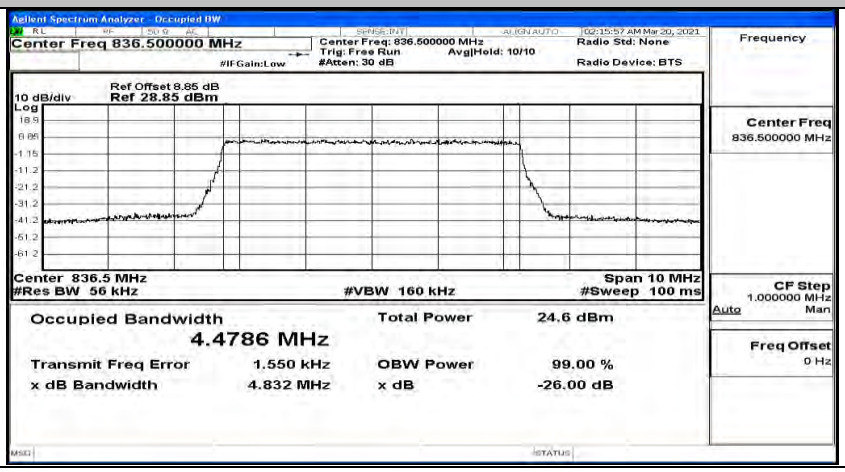
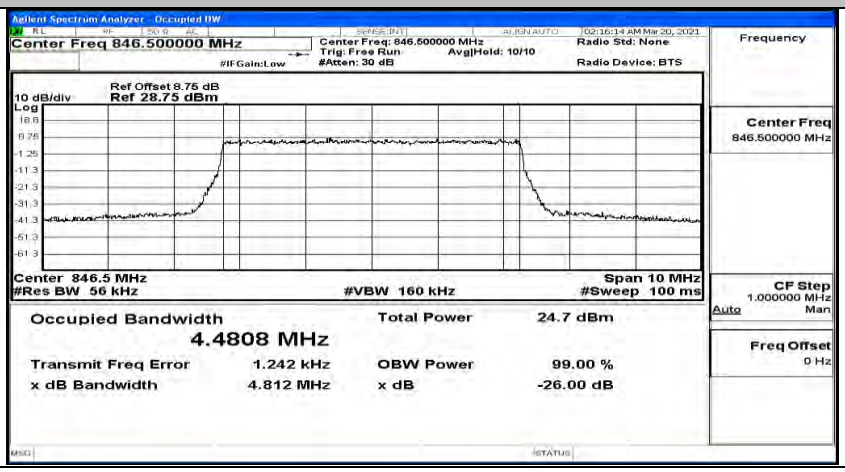
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



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



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



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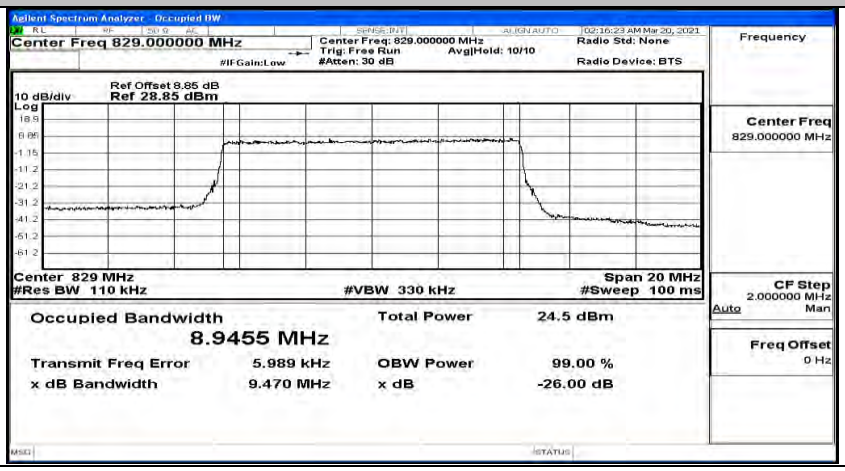
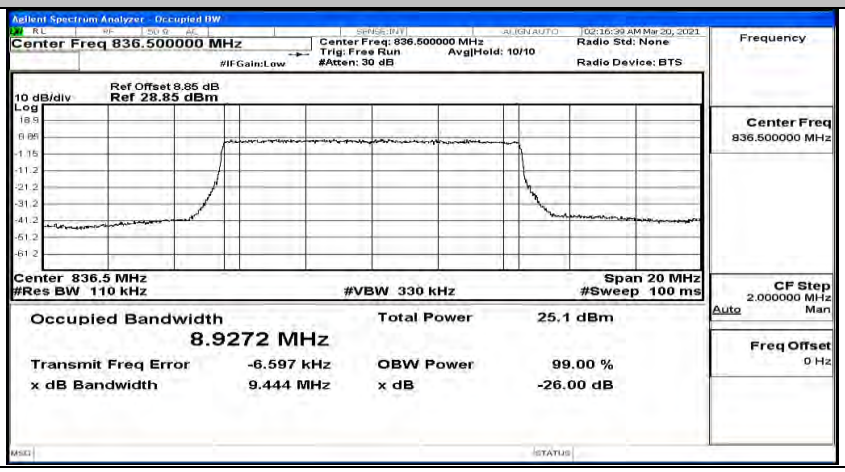
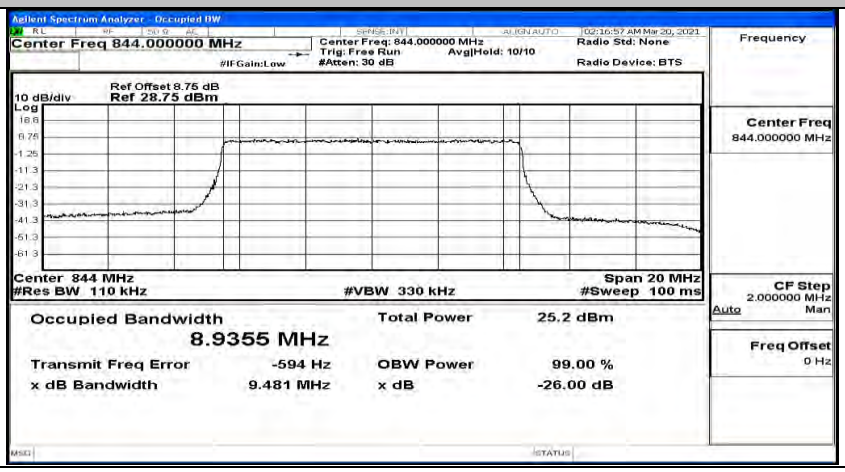
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



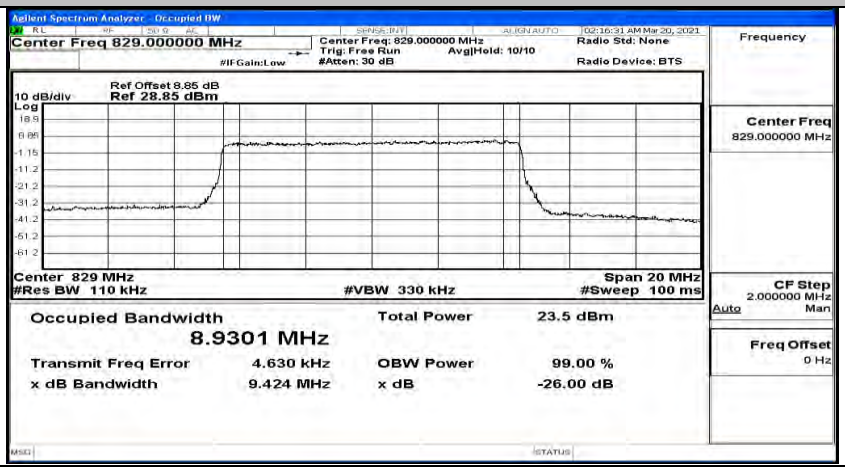
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



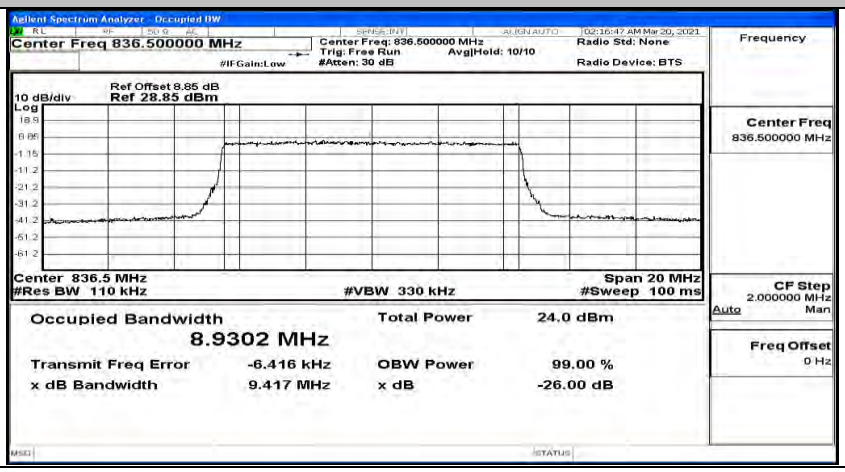
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



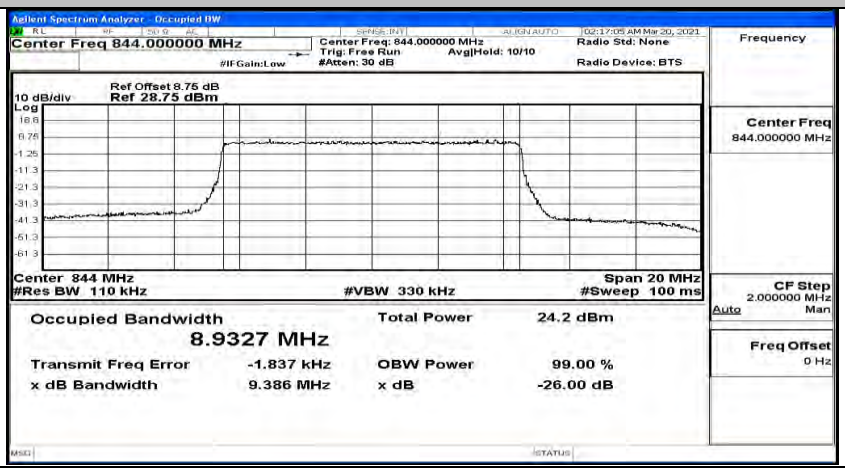
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

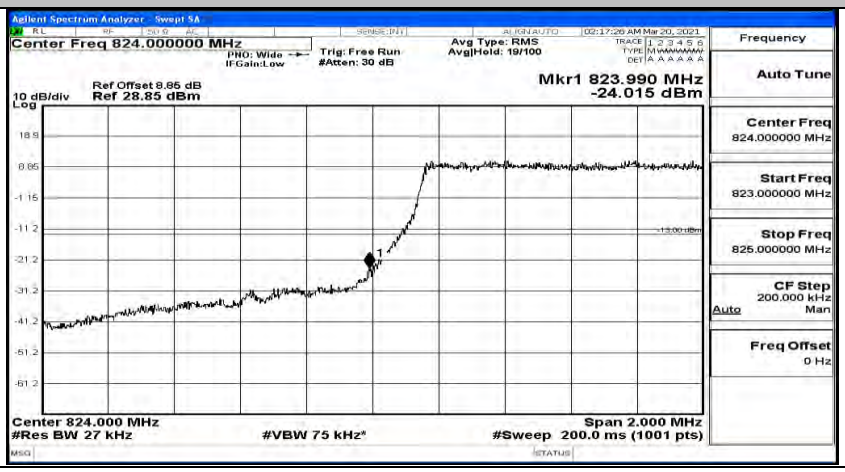


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

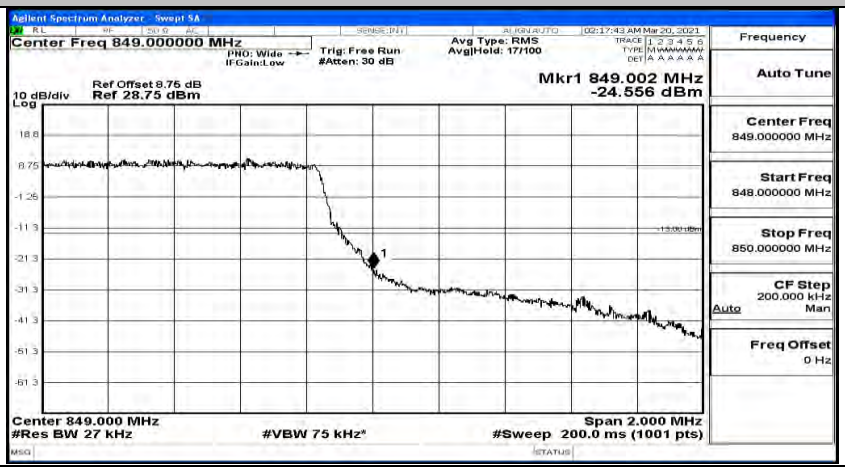


F.4 Band Edge

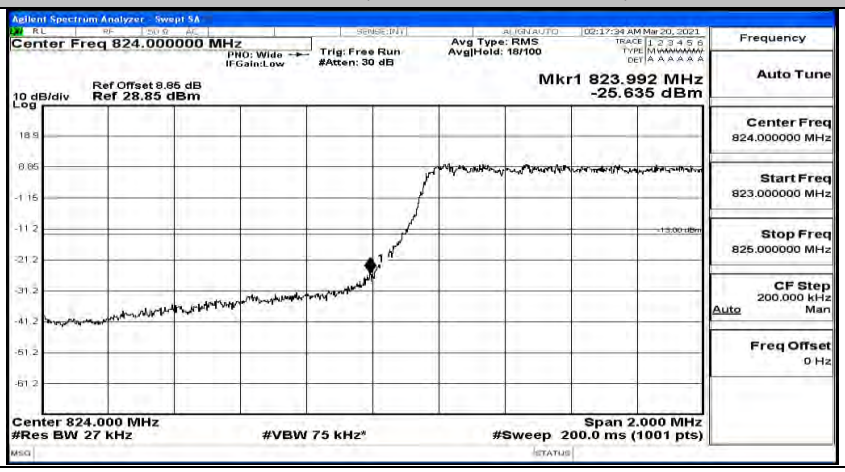
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



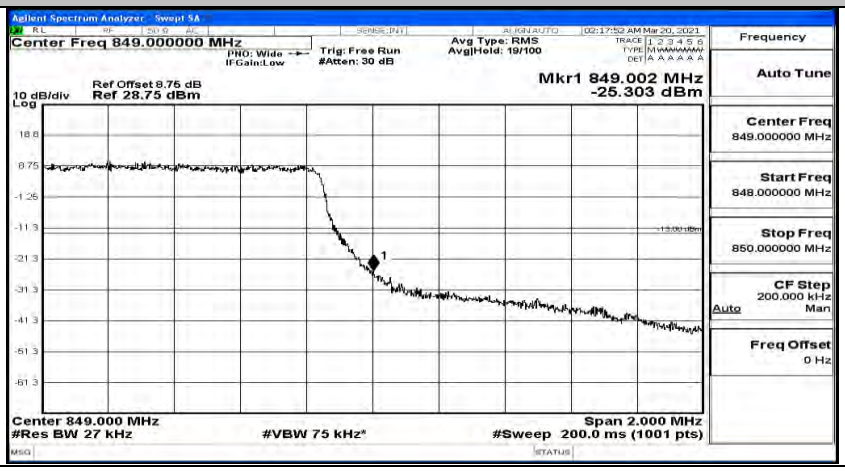
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



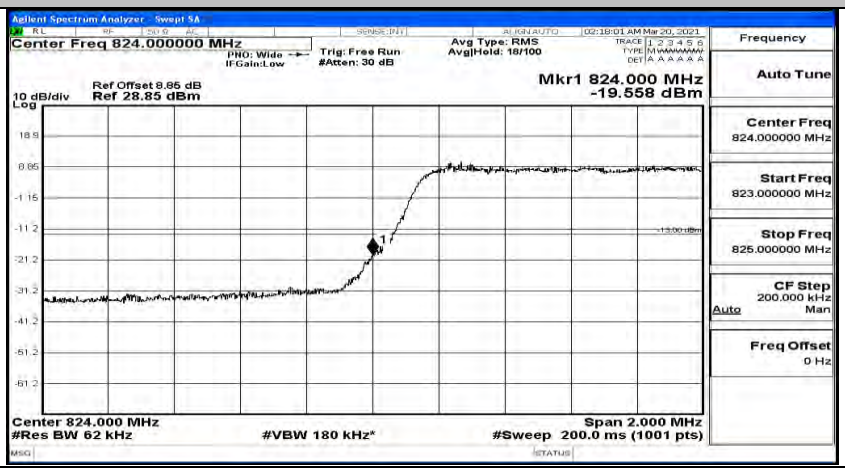
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



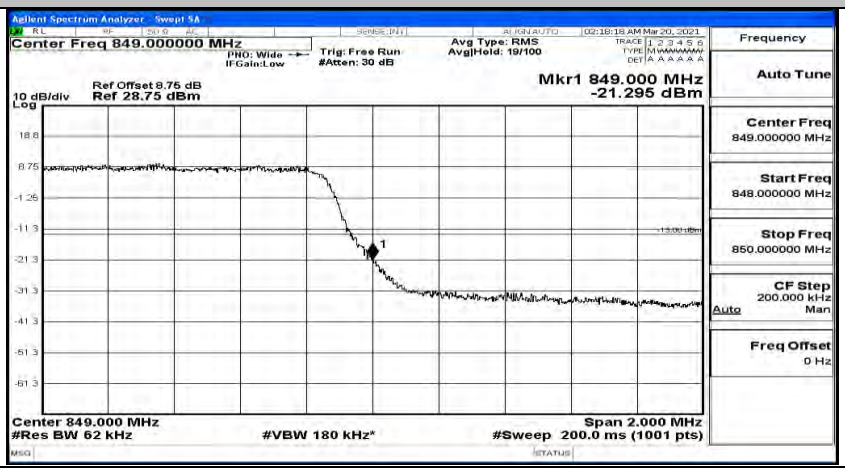
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



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



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



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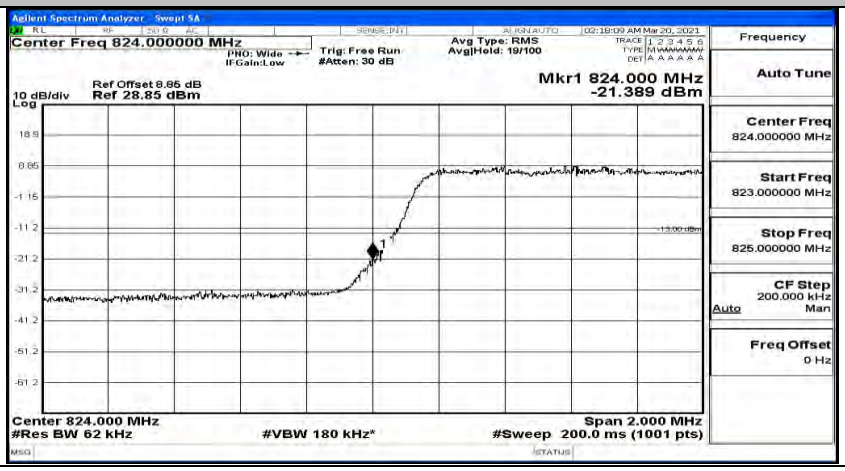
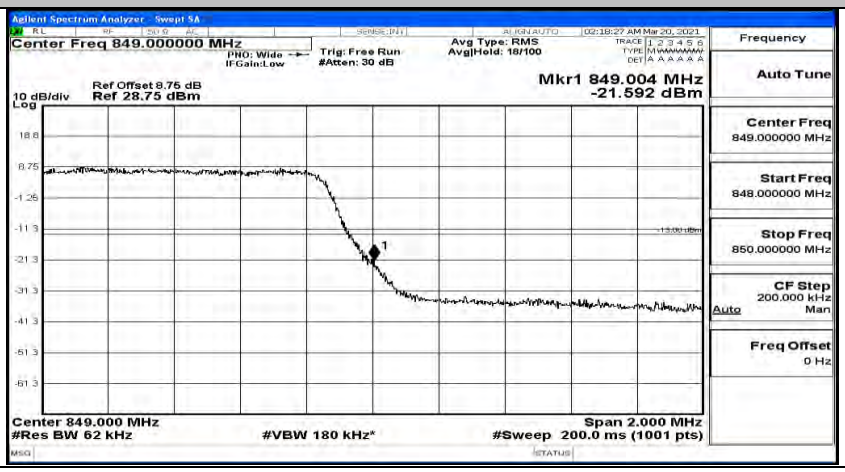
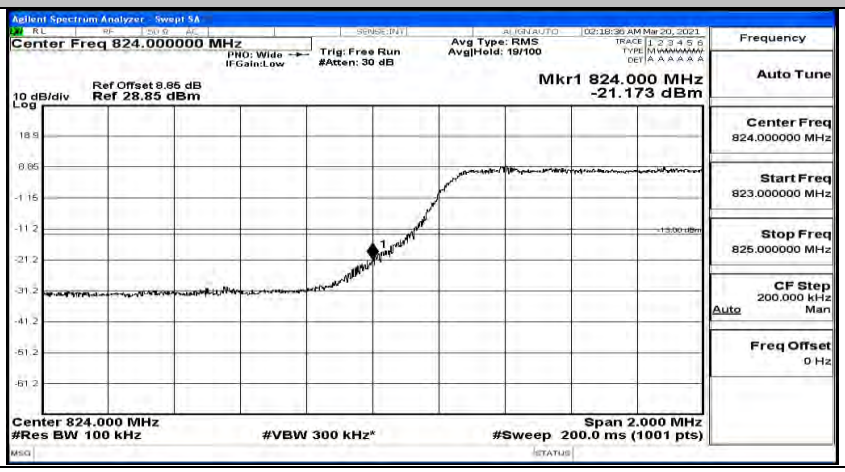
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



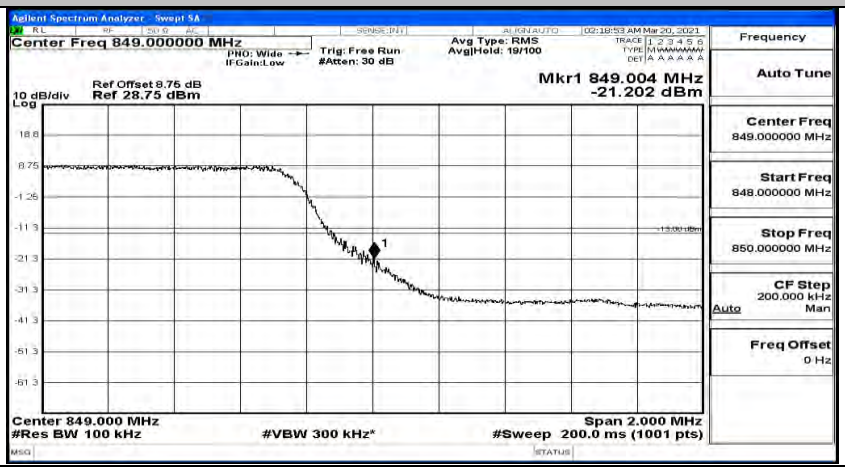
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



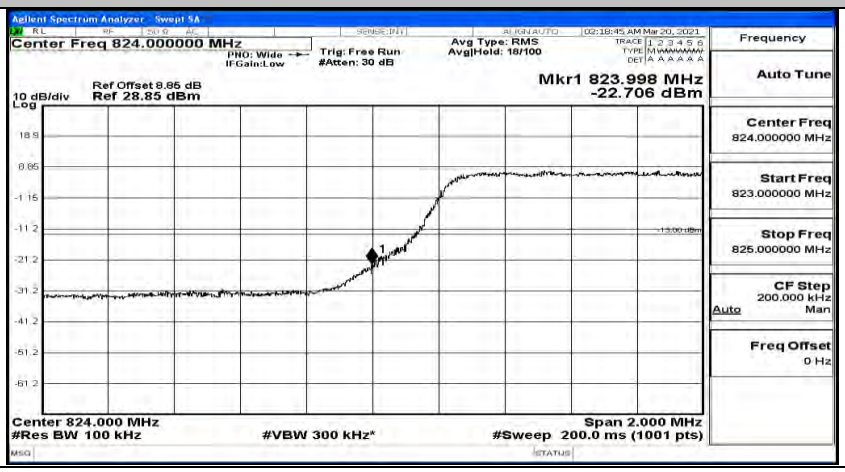
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



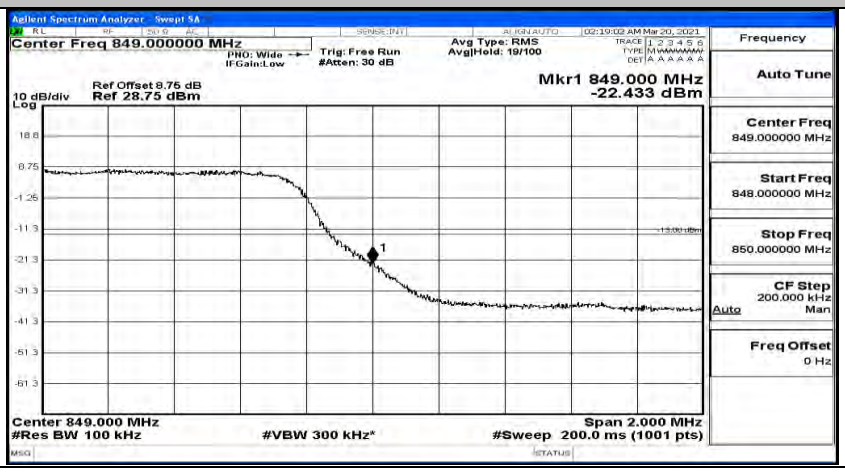
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



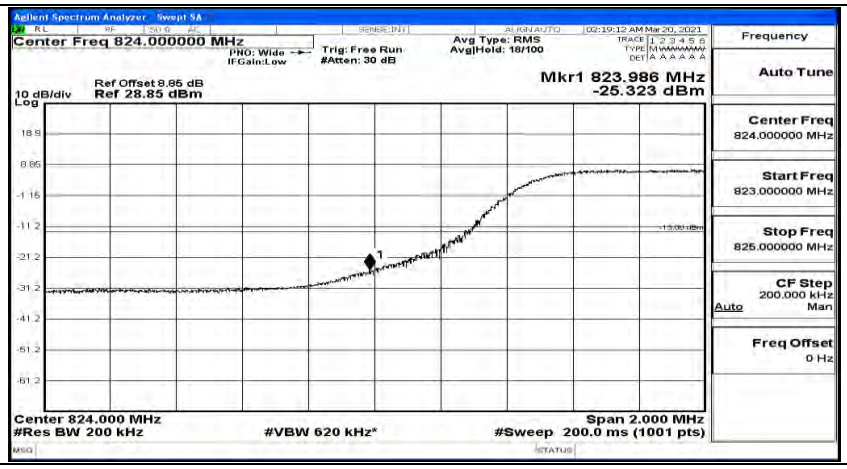
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



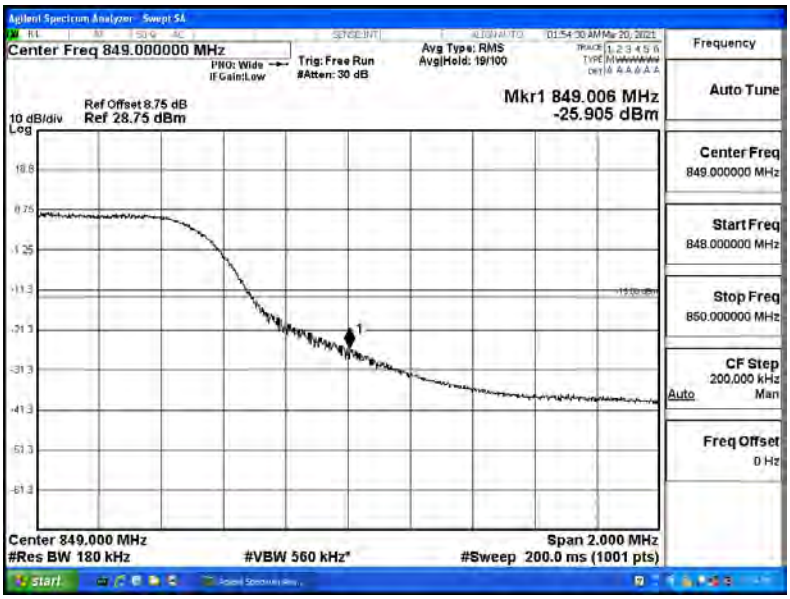
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



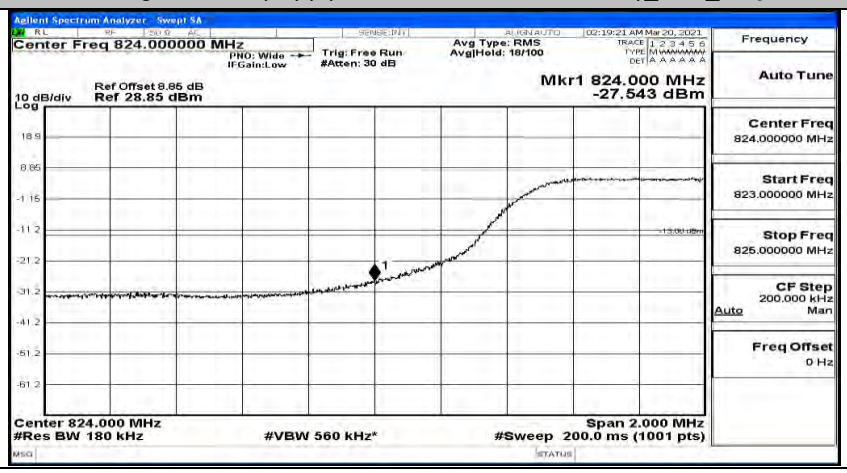
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



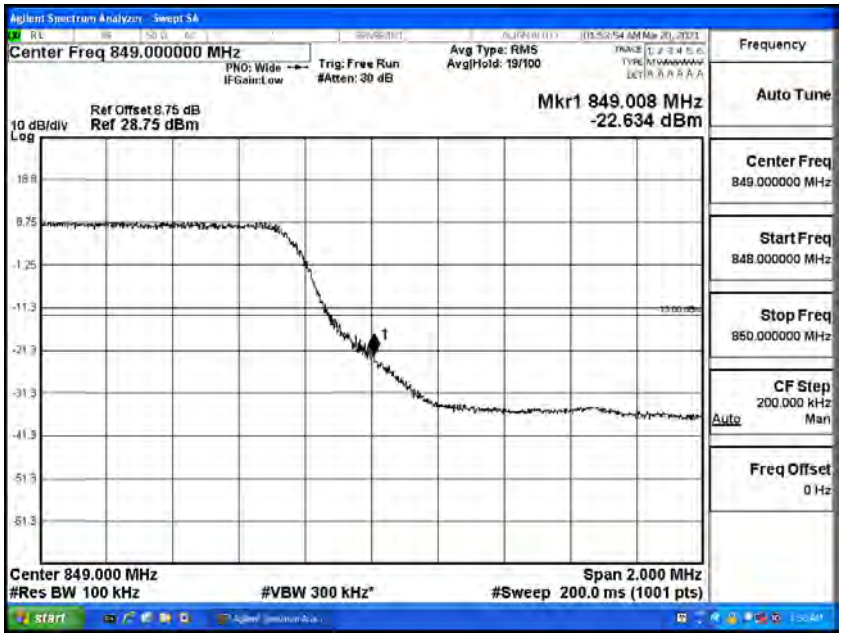
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



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

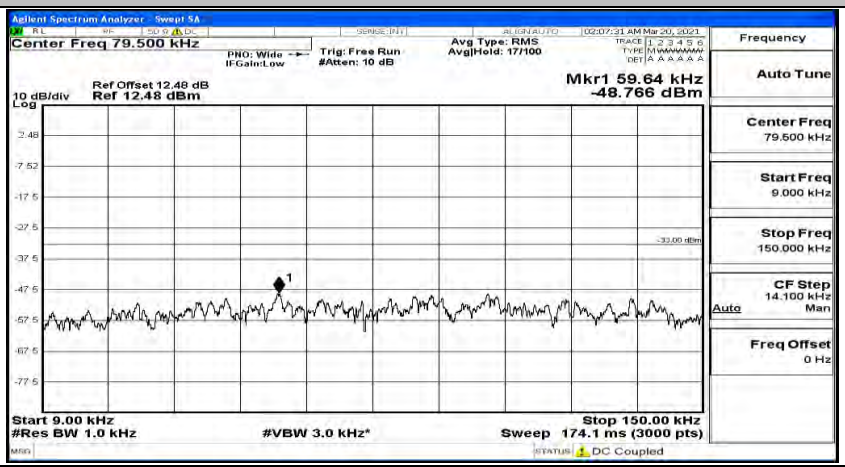
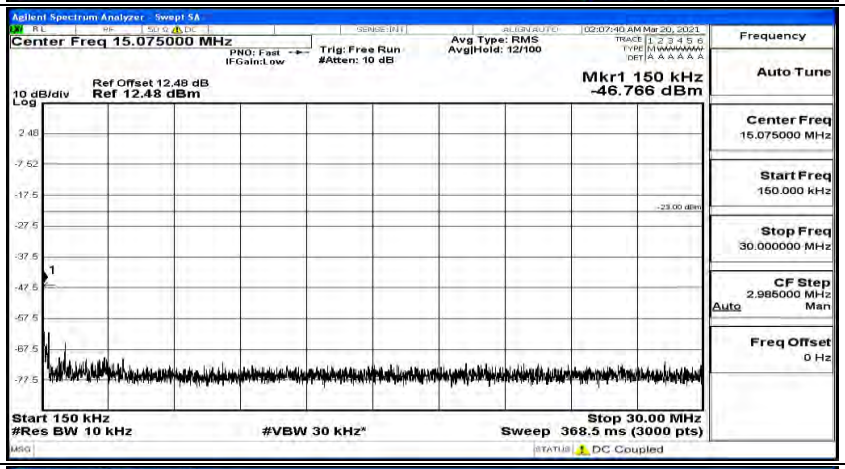


Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

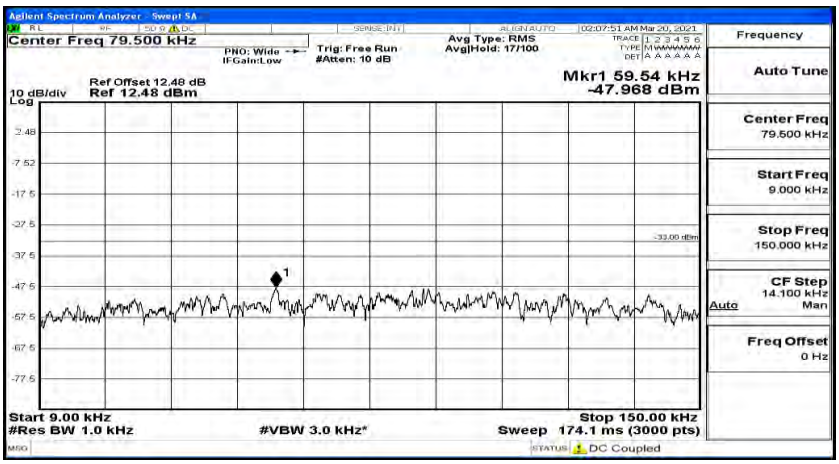

Agilent Spectrum Analyzer - Swept SA
Center Freq 849.000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold: 19/100
Mkr1 849.008 MHz
-22.634 dBm
Ref Offset 8.75 dB
10 dB/div
Log
Ref 28.75 dBm
18.8
8.75
-1.25
-11.3
-21.3
-31.3
-41.3
-51.3
-61.3
Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 200.0 ms (1001 pts)
Frequency
Auto Tune
Center Freq
849.000000 MHz
Start Freq
848.000000 MHz
Stop Freq
850.000000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
start

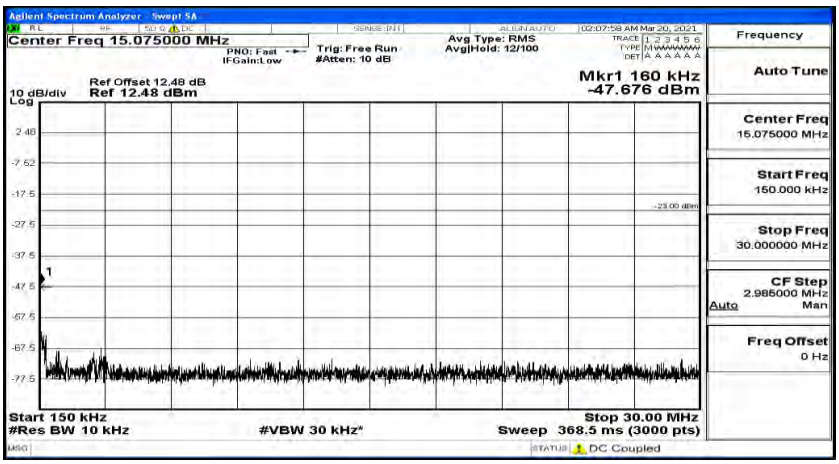
F.5 Conducted Spurious Emission

Channel Bandwidth: 1.4 MHz

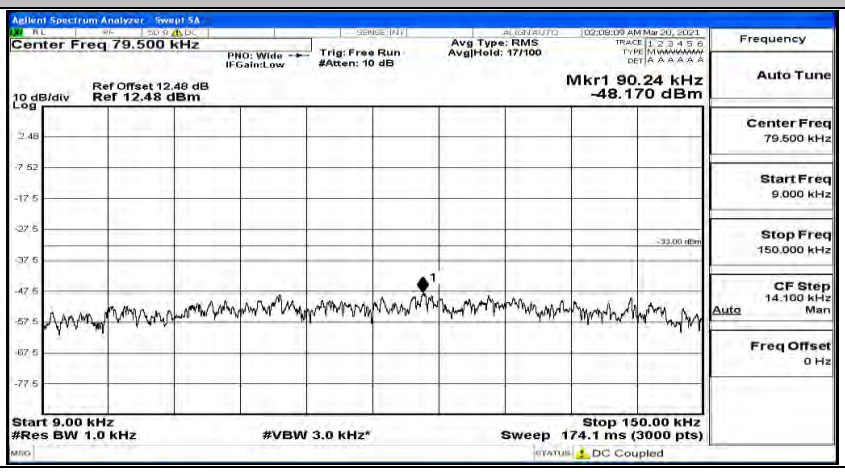
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0



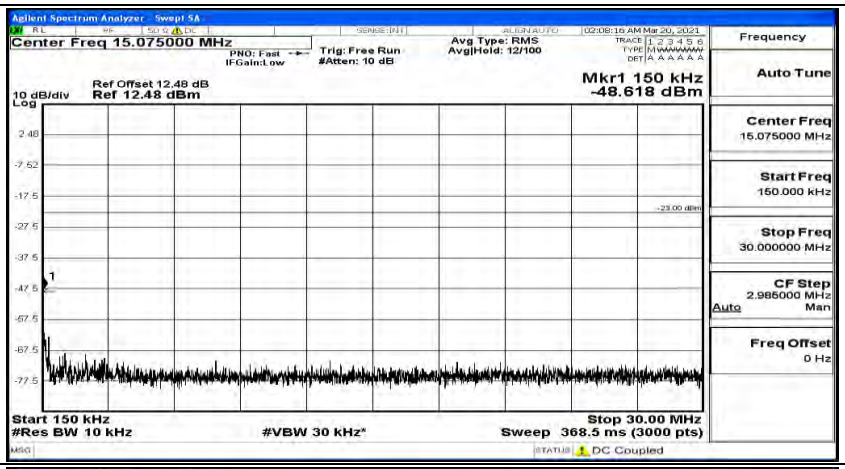
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3



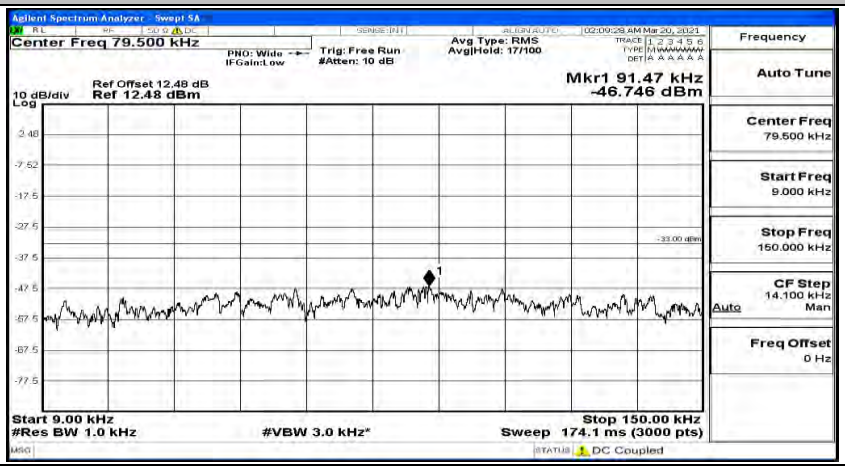


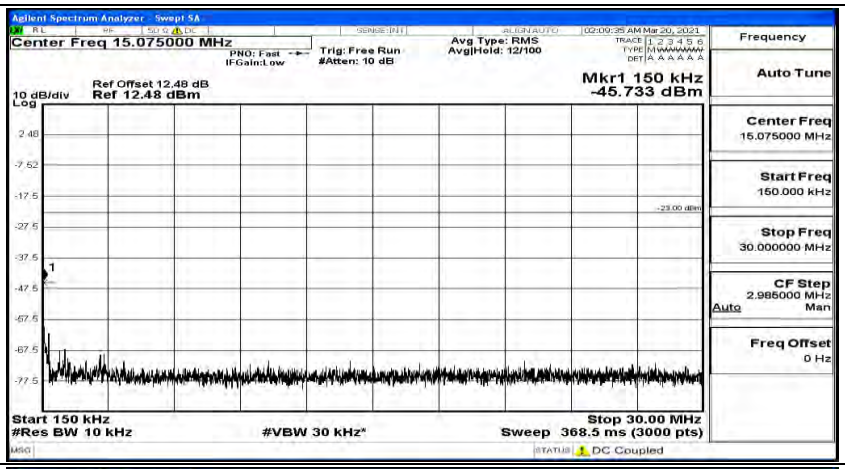
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5



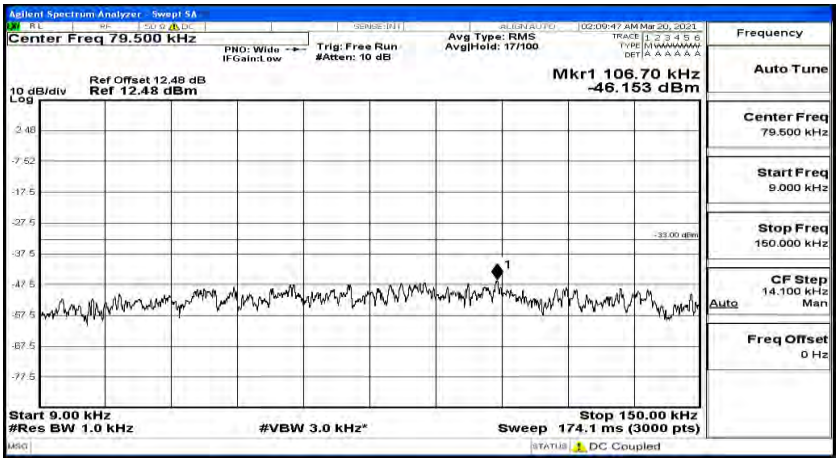


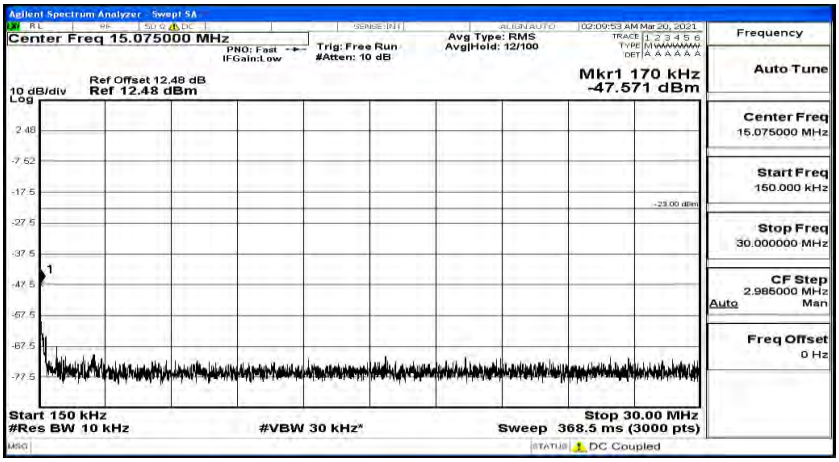
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0



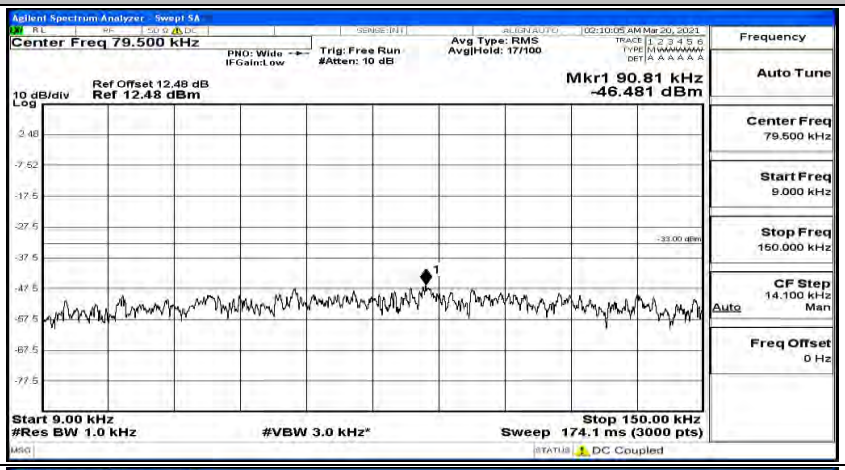


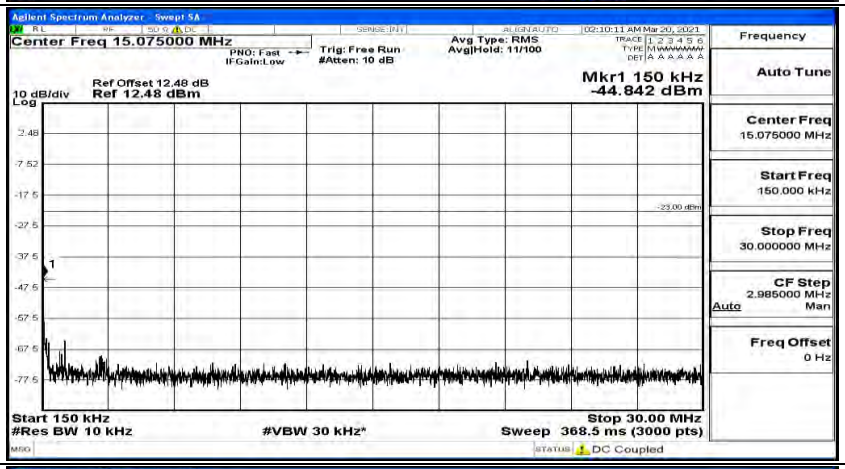
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3



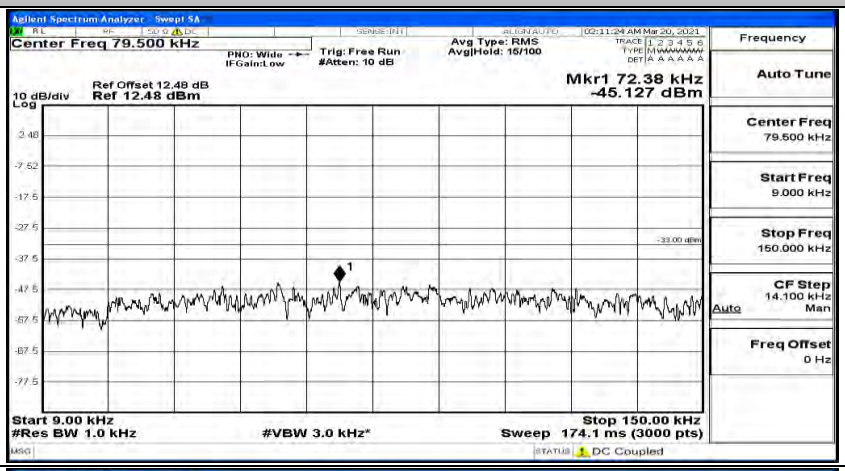


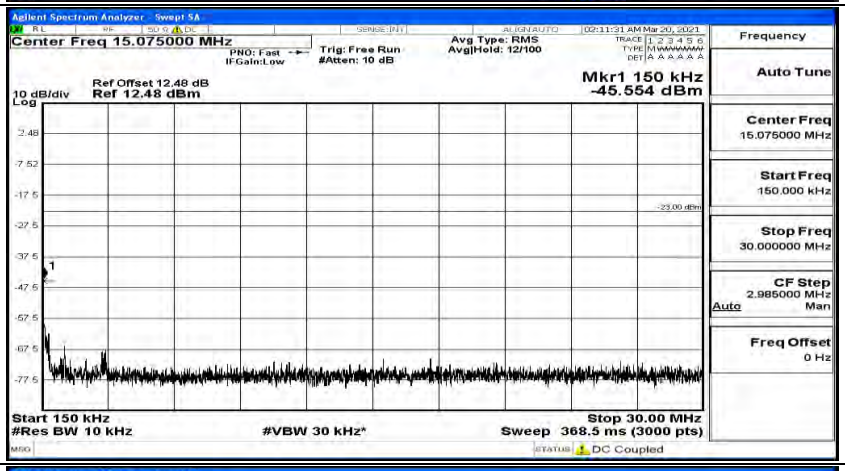
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5



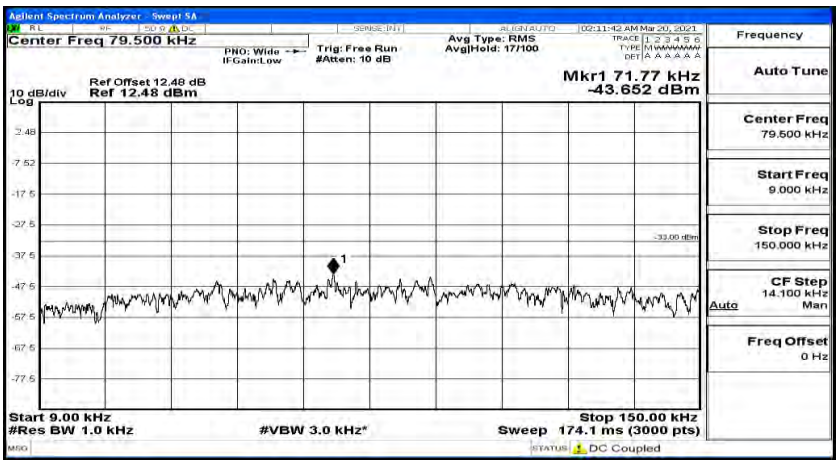


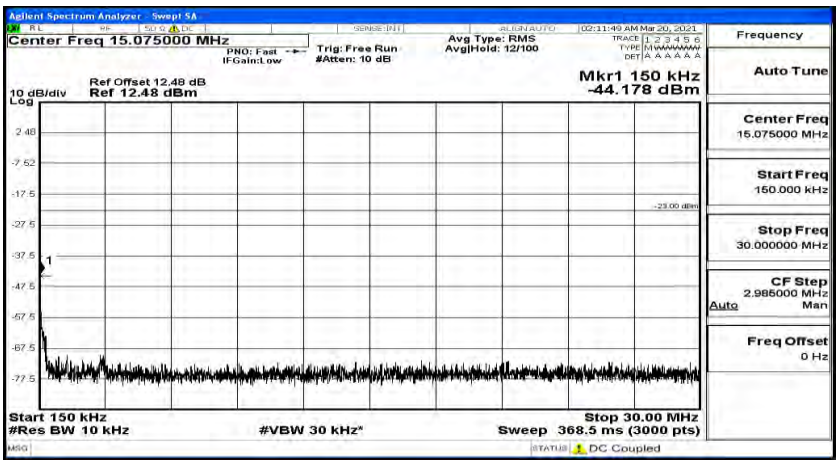
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0



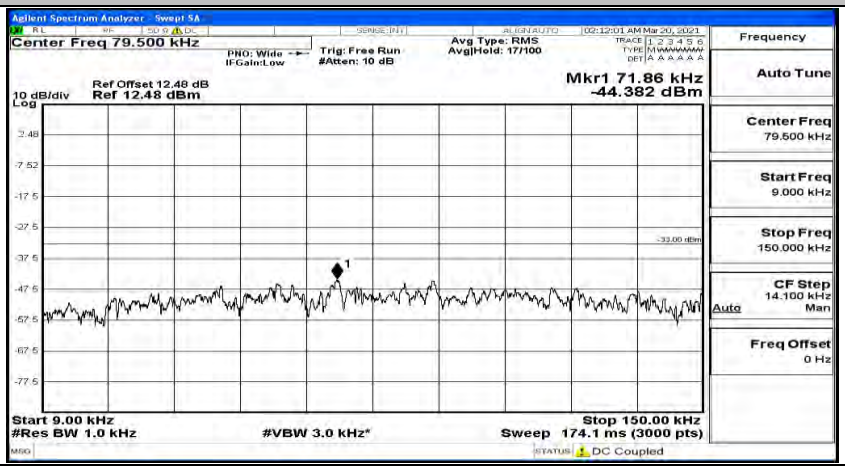


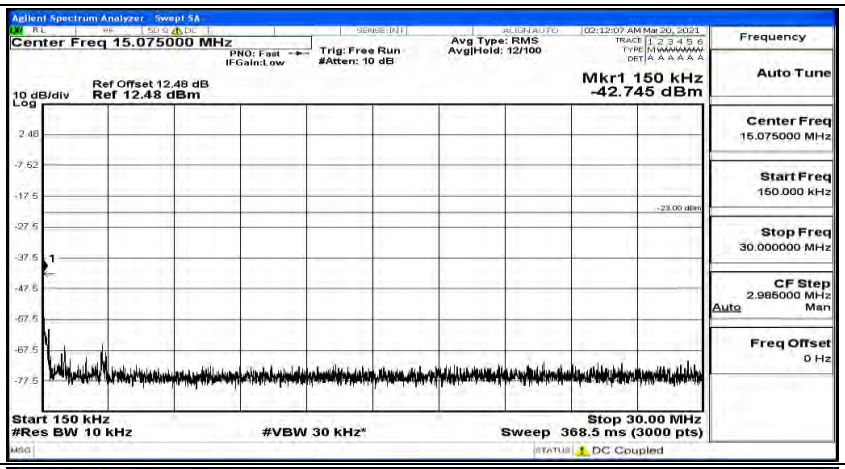
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3



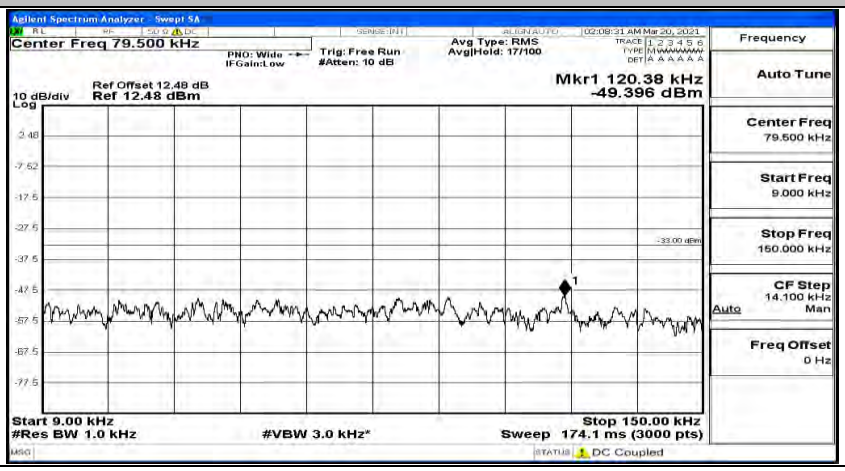


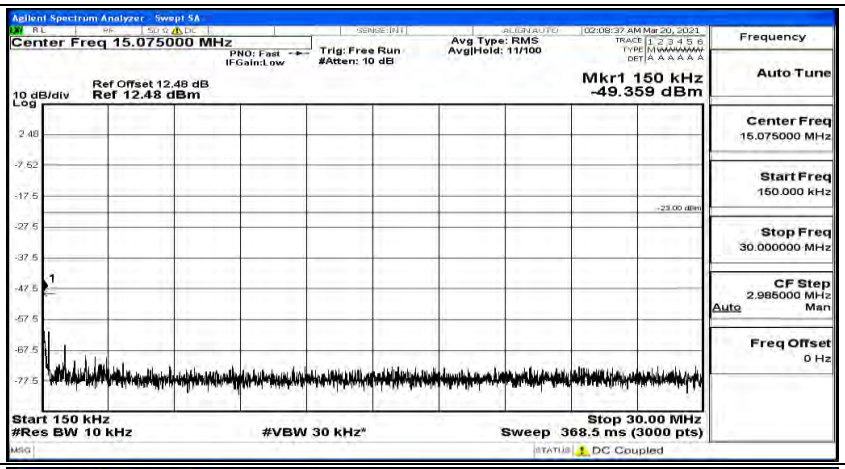
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5



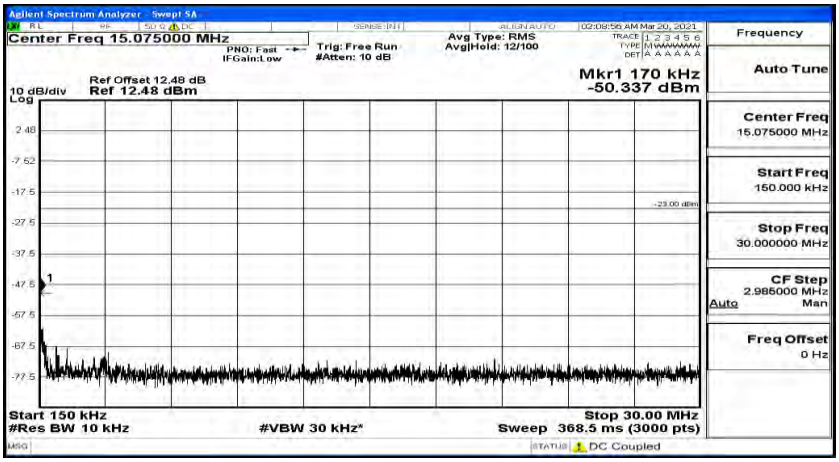


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0

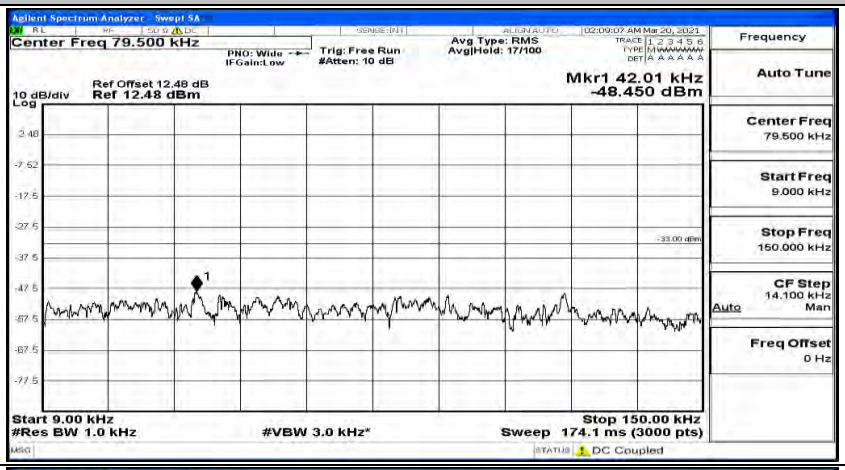


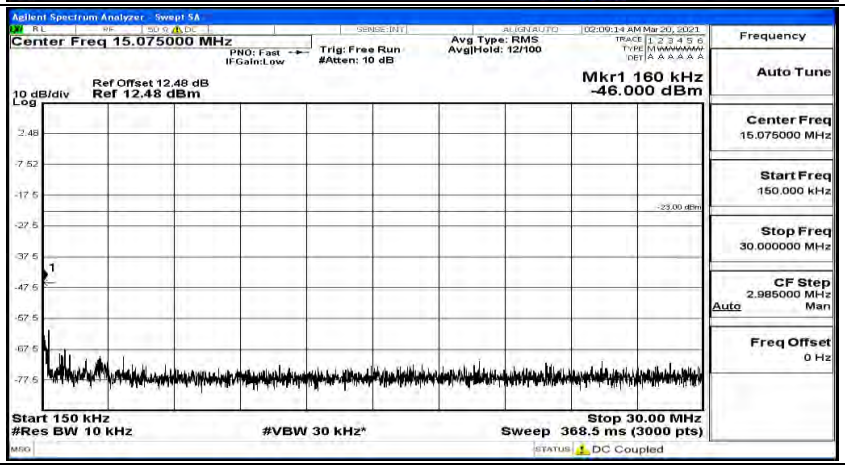


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3

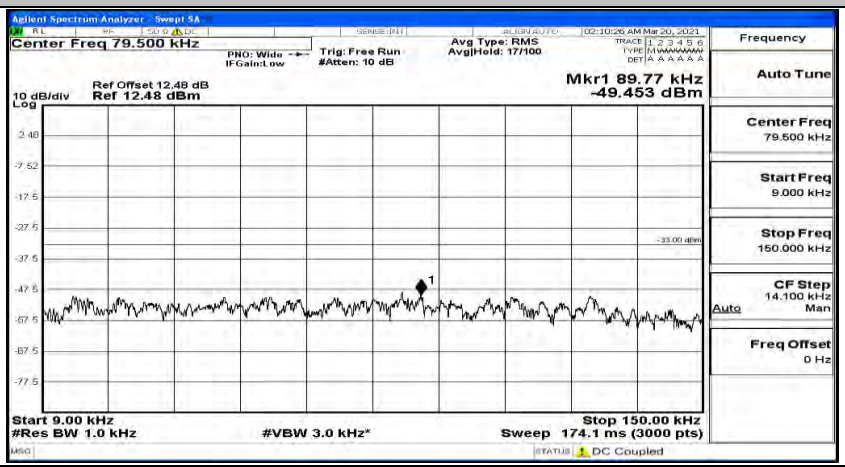


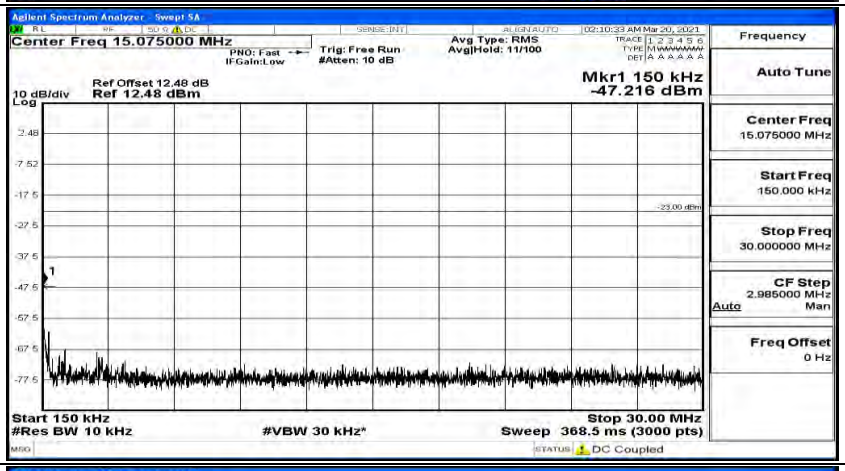
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5



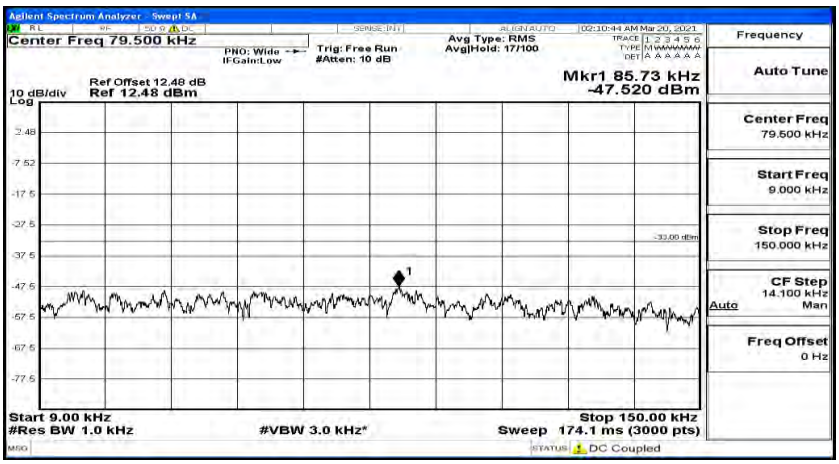


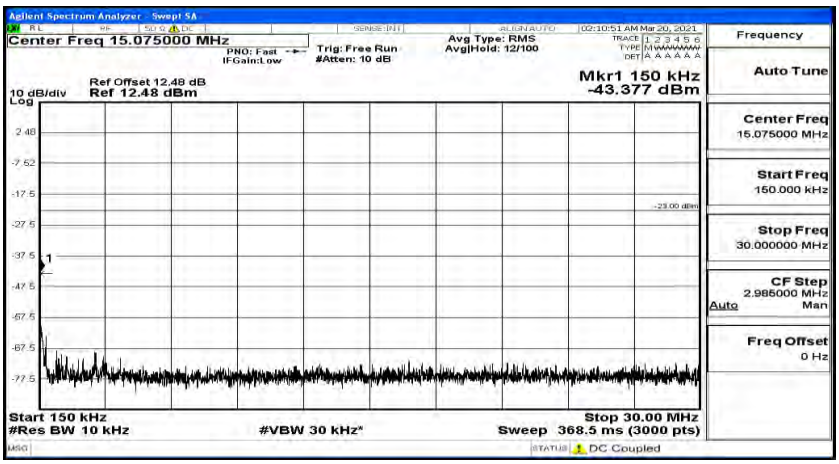
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0



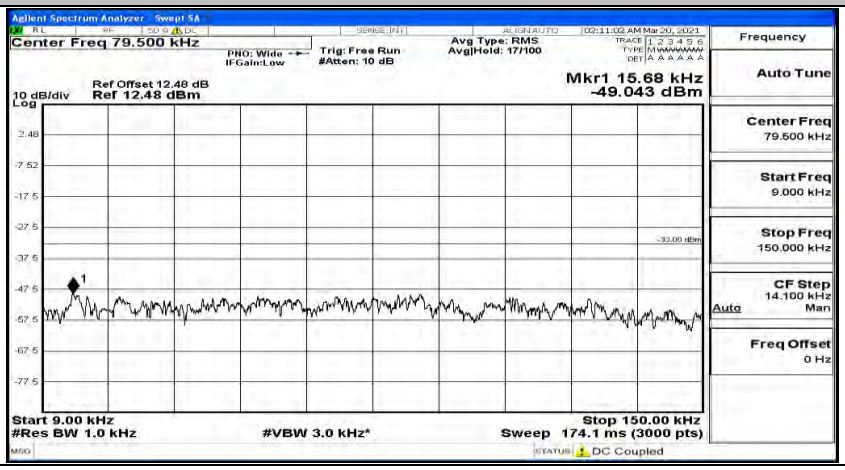


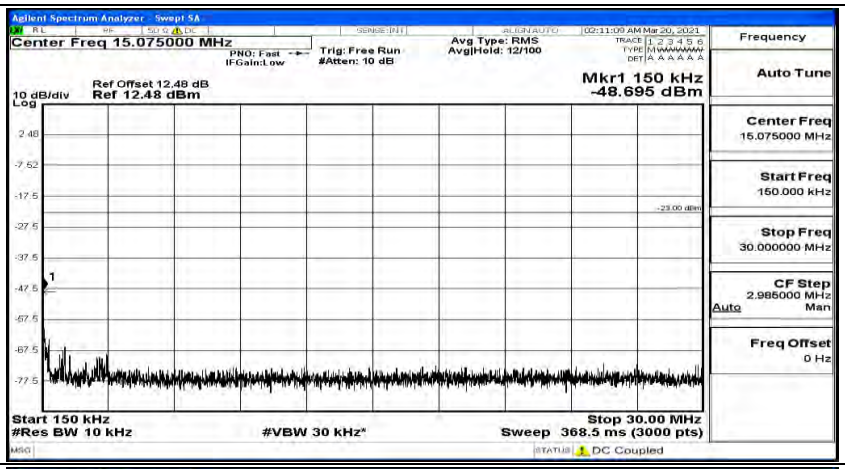
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3



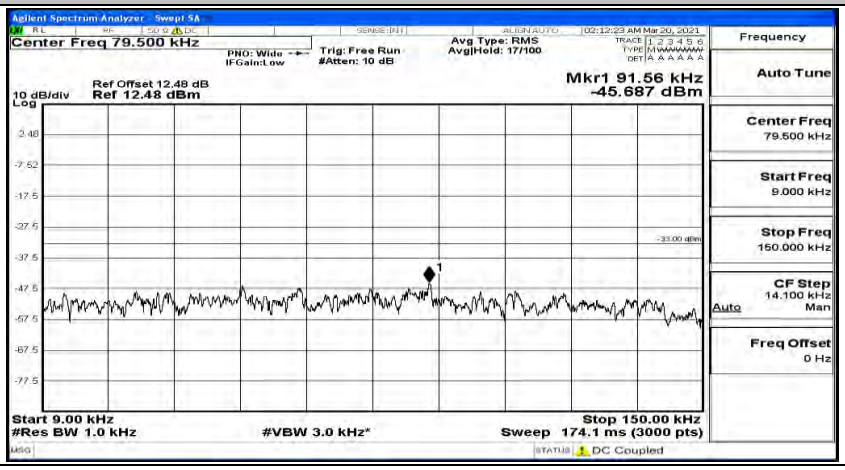


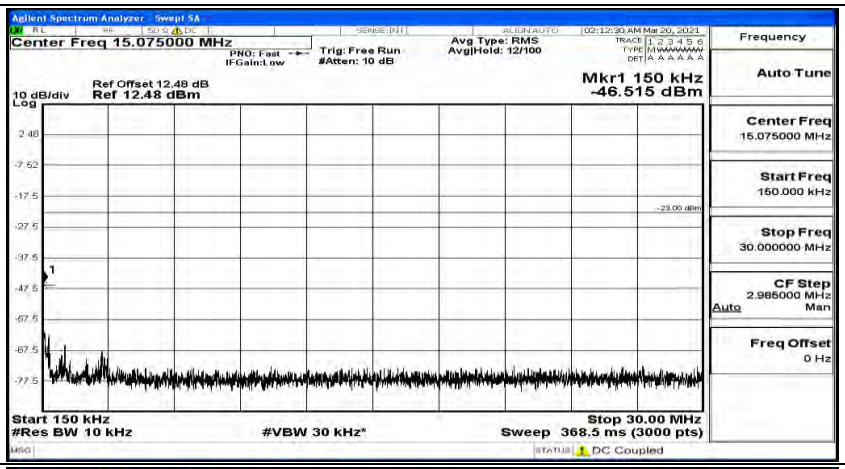
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5



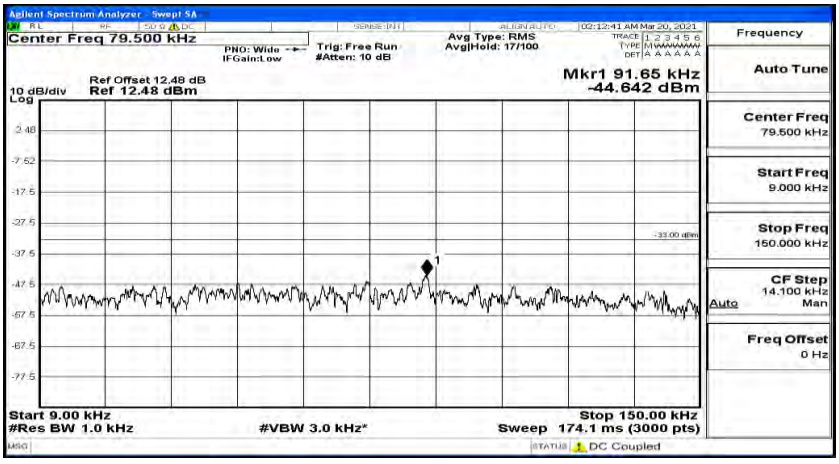


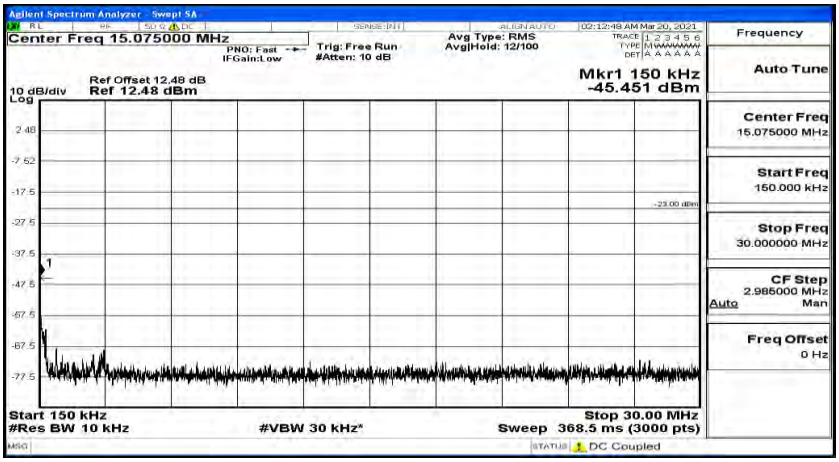
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0



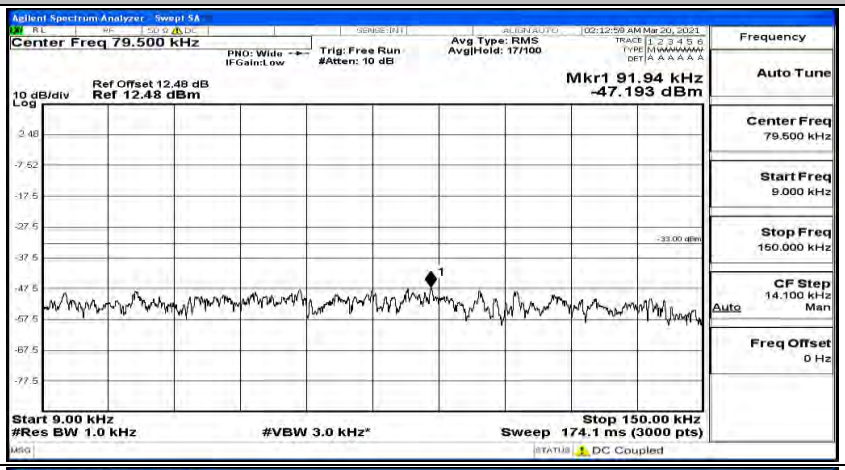


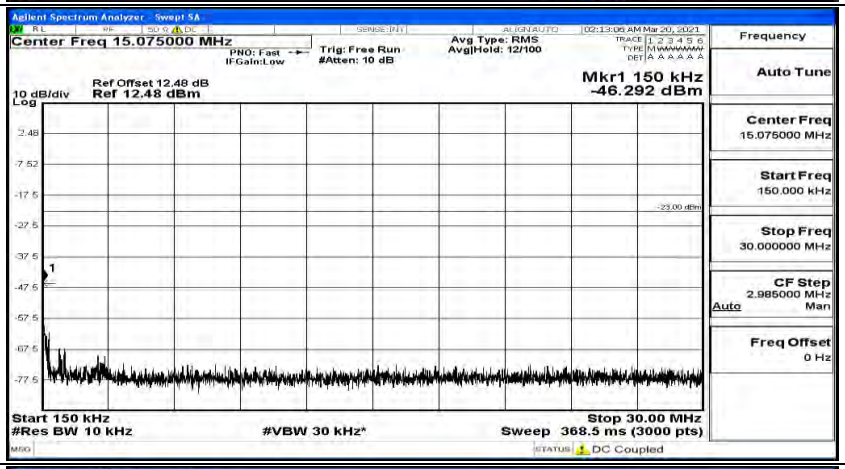
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3





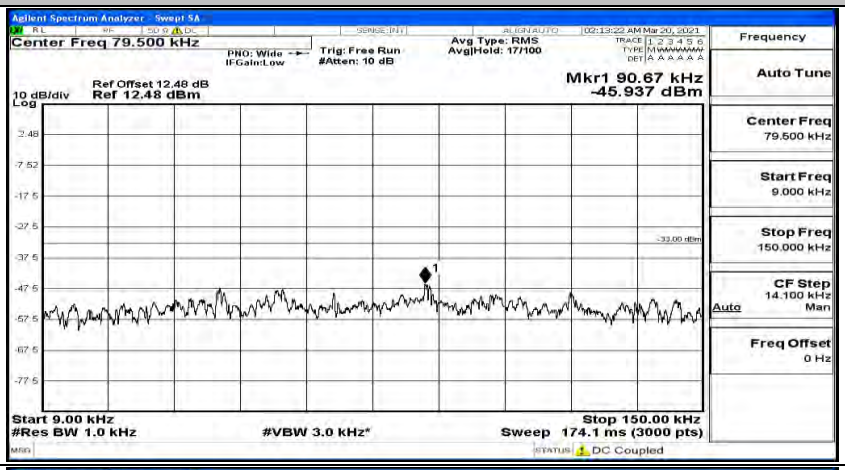
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

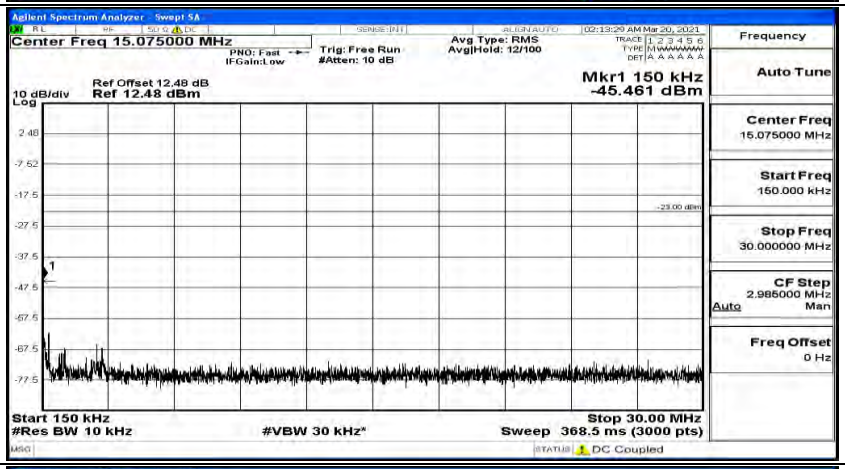




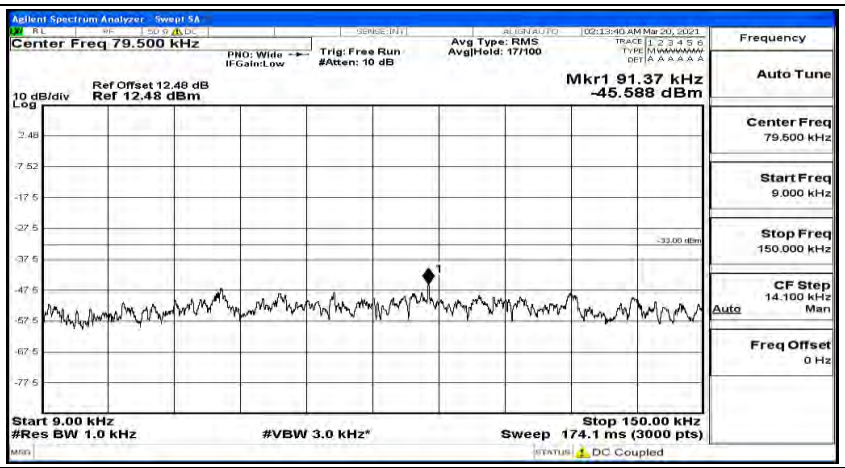
Channel Bandwidth: 3 MHz

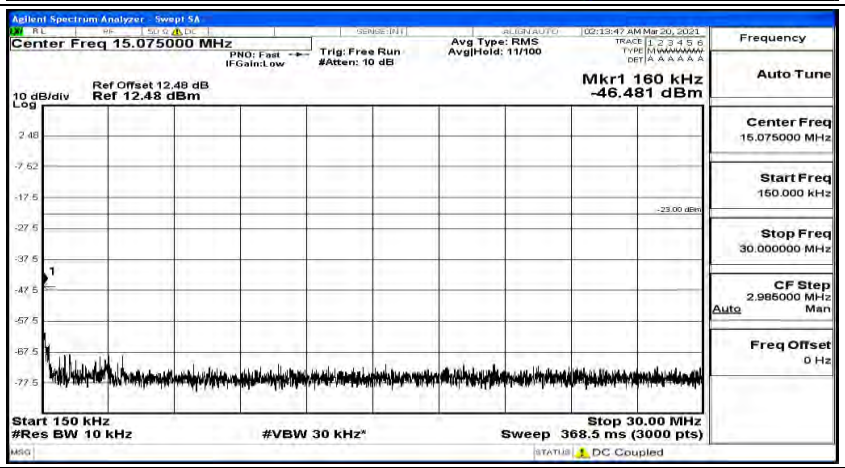
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



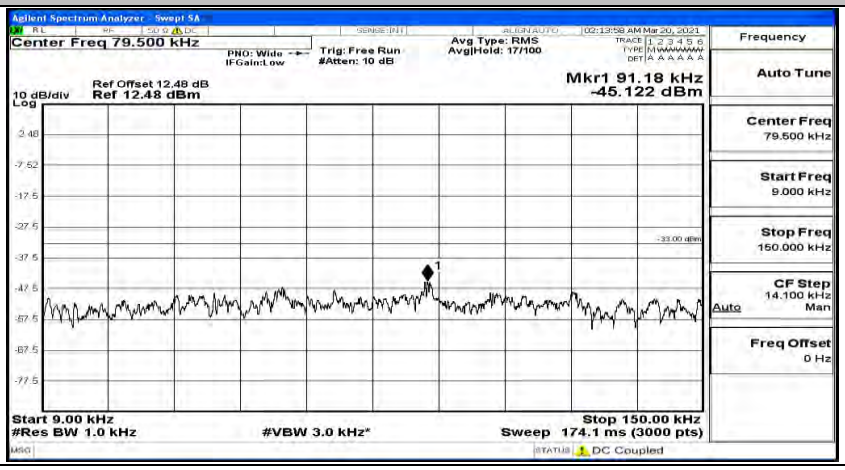


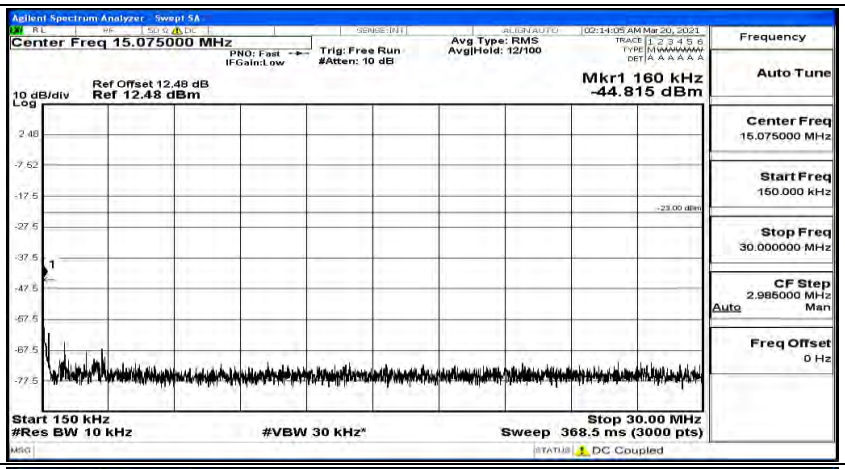
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7



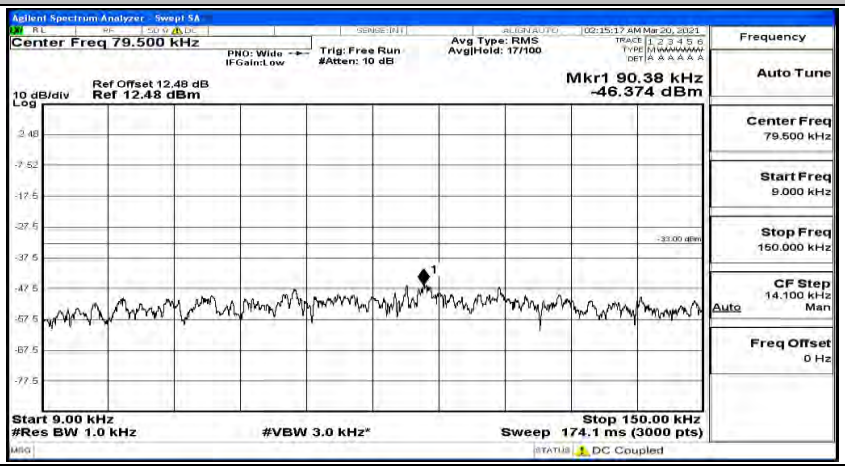


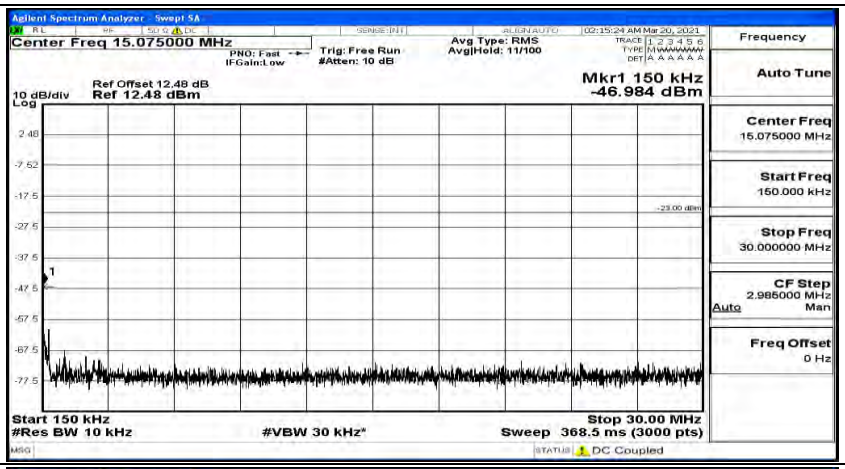
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14



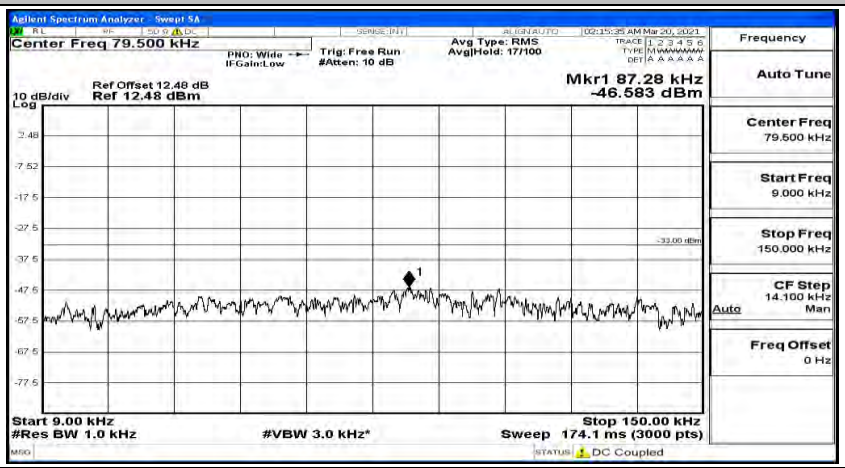


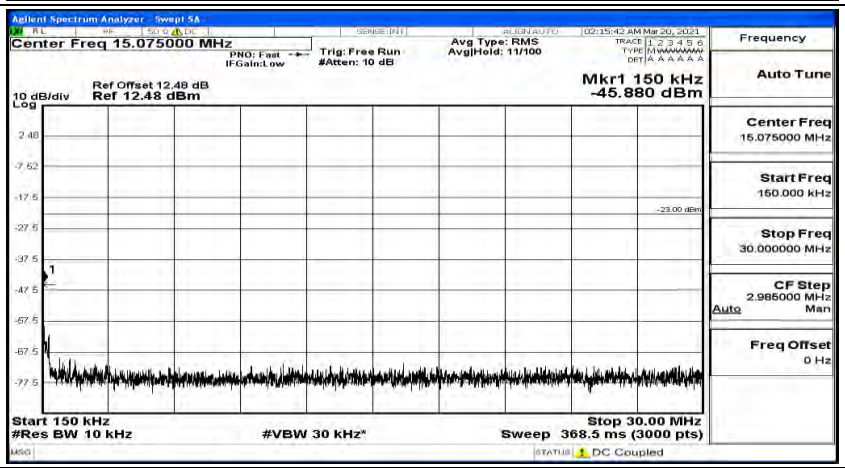
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

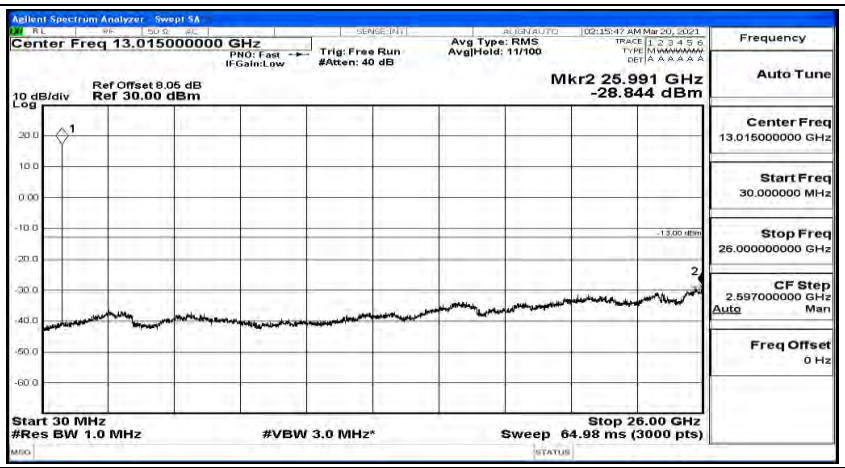




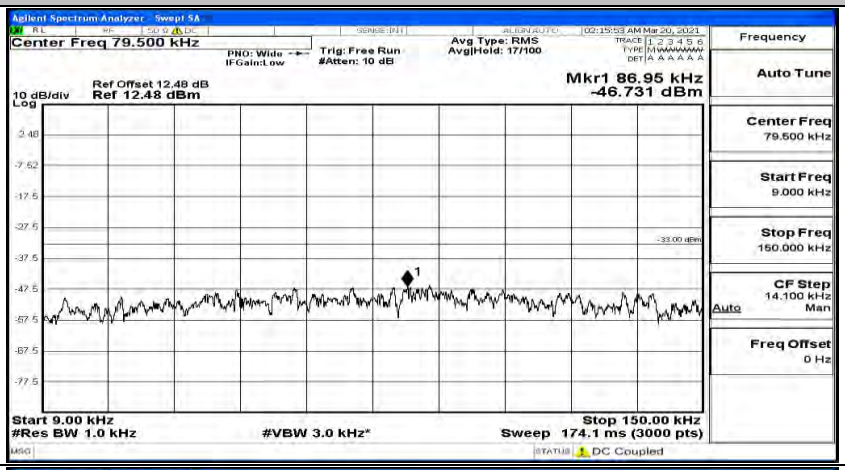
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7

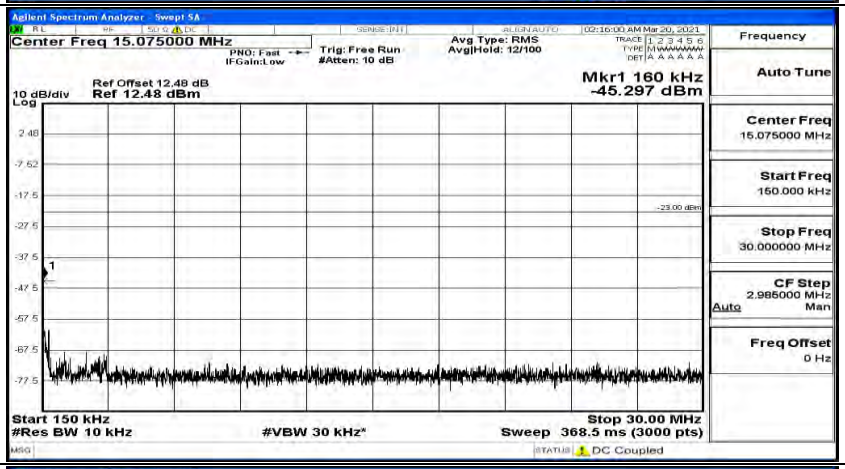




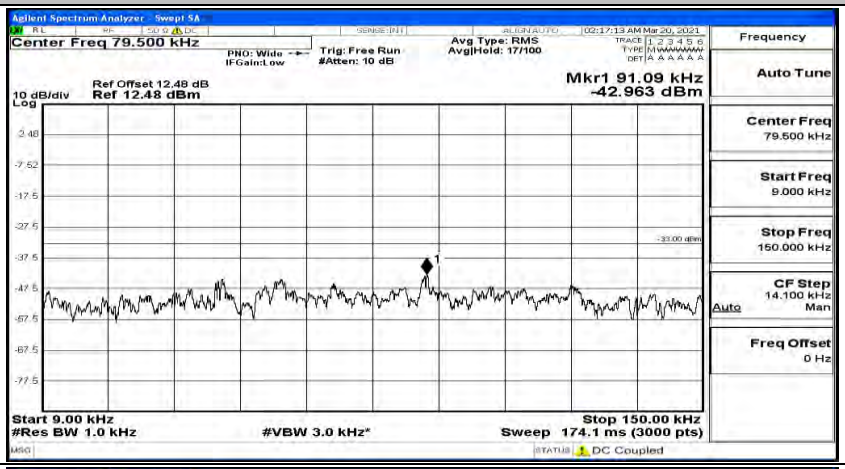


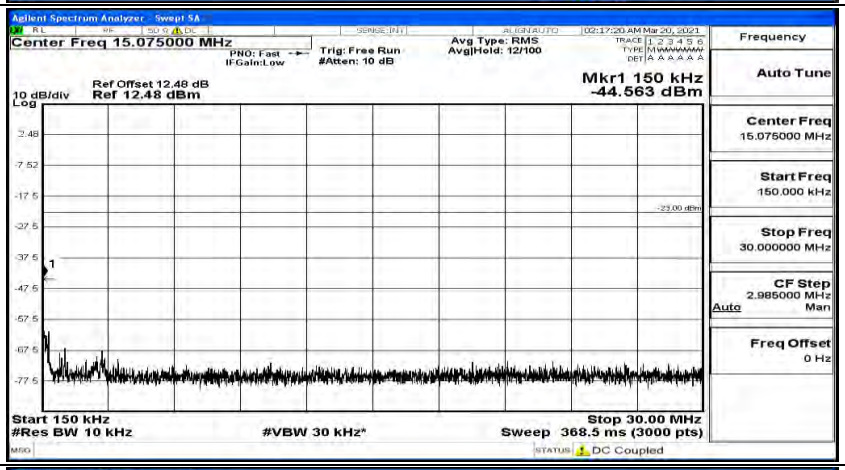
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14



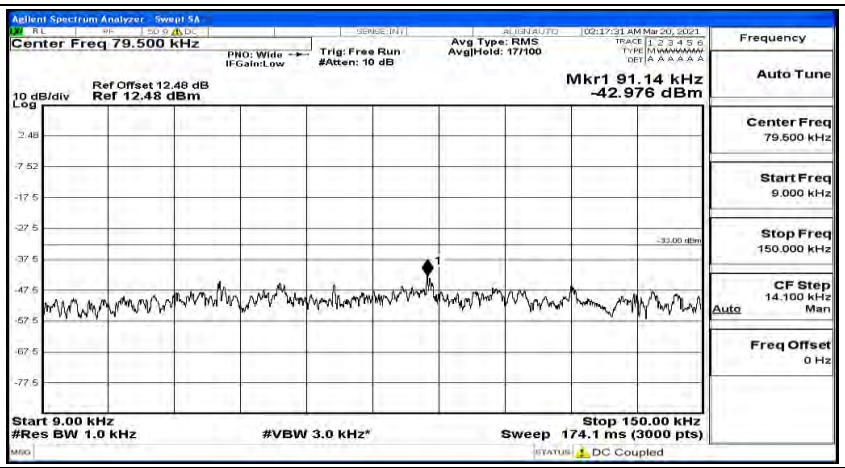


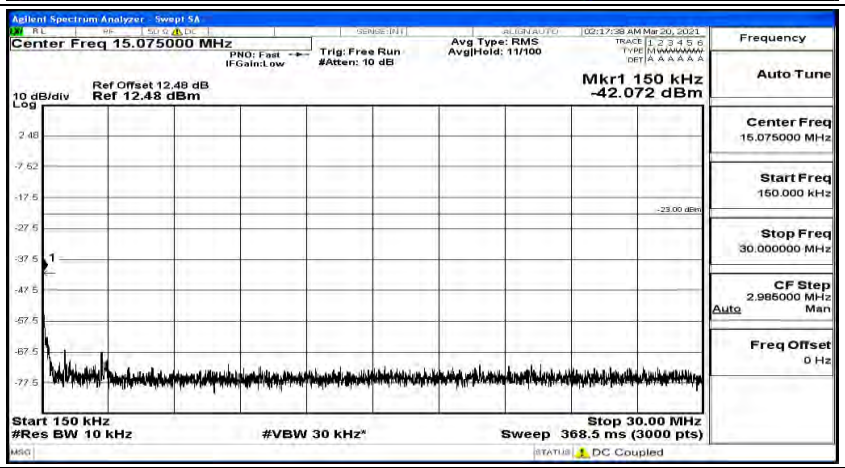
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0



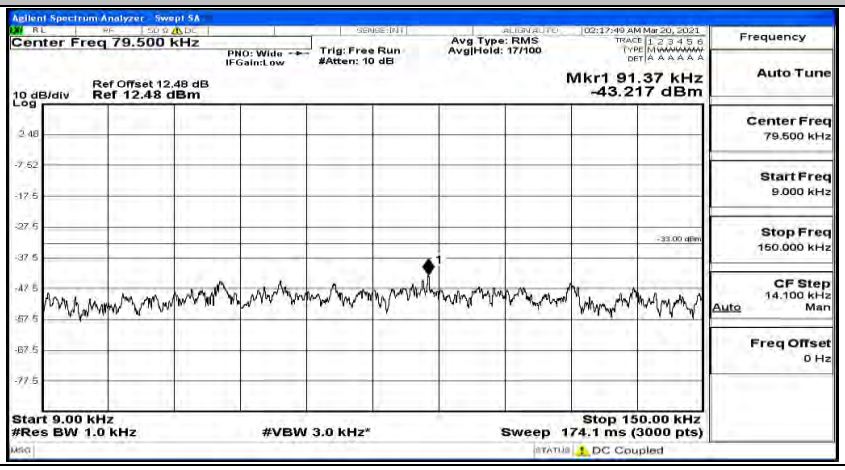


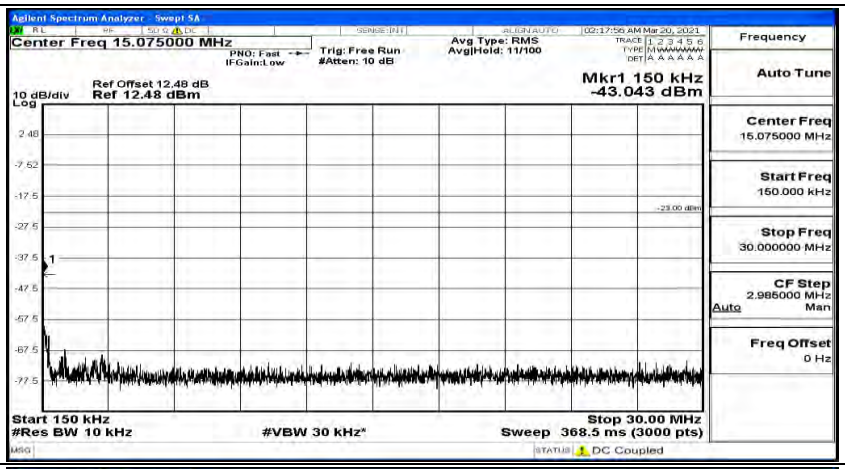
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7

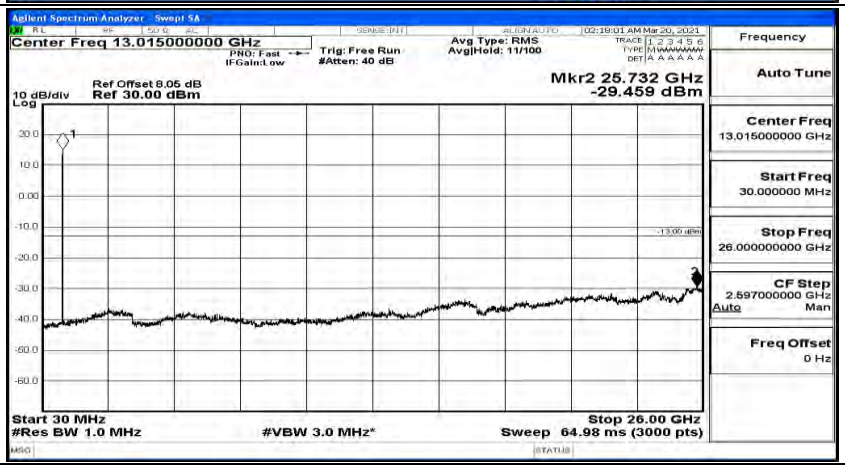




(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14







(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0