

Appendix F: Test Data for E-UTRA Band 12

Product Name: MEITRACK GPS P88L

Trade Mark: MEITRACK®Test

Model: P88L-A

Environmental Conditions

Temperature:	22.8° 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	23.53	22.28	PASS
		1	3	23.83	22.61	PASS
		1	5	23.86	22.64	PASS
		3	0	23.35	22.02	PASS
		3	2	23.34	22.02	PASS
		3	3	23.30	22.25	PASS
		6	0	23.18	22.25	PASS
	MCH	1	0	23.39	22.77	PASS
		1	3	23.36	22.76	PASS
		1	5	23.30	22.65	PASS
		3	0	23.46	22.37	PASS
		3	2	23.46	22.38	PASS
		3	3	23.41	22.31	PASS
		6	0	23.36	22.42	PASS
	HCH	1	0	24.55	23.77	PASS
		1	3	24.27	23.55	PASS
		1	5	24.02	23.20	PASS
		3	0	24.44	23.48	PASS
		3	2	24.43	23.49	PASS
		3	3	24.13	23.15	PASS
		6	0	23.66	22.76	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	23.07	22.18	PASS
		1	7	23.56	22.71	PASS
		1	14	23.63	22.77	PASS
		8	0	23.28	22.33	PASS
		8	4	23.27	22.33	PASS
		8	7	23.52	22.59	PASS
		15	0	23.38	22.42	PASS
	MCH	1	0	23.40	22.49	PASS
		1	7	23.44	22.61	PASS
		1	14	23.29	22.37	PASS
		8	0	23.31	22.34	PASS
		8	4	23.31	22.35	PASS
		8	7	23.22	22.28	PASS
		15	0	23.26	22.20	PASS
	HCH	1	0	24.75	23.76	PASS
		1	7	24.65	23.37	PASS
		1	14	23.84	23.10	PASS
		8	0	23.96	22.92	PASS
		8	4	23.96	23.02	PASS
		8	7	23.57	22.50	PASS
		15	0	23.80	22.72	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	23.02	21.95	PASS
		1	12	23.86	22.85	PASS
		1	24	23.49	22.52	PASS
		12	0	23.46	22.35	PASS
		12	6	23.44	22.35	PASS
		12	13	23.61	22.54	PASS
		25	0	23.37	22.37	PASS
	MCH	1	0	23.49	22.66	PASS
		1	12	23.56	22.73	PASS
		1	24	23.29	22.49	PASS
		12	0	23.50	22.49	PASS
		12	6	23.49	22.50	PASS
		12	13	23.36	22.39	PASS
		25	0	23.35	22.40	PASS
	HCH	1	0	24.08	23.25	PASS
		1	12	25.07	24.35	PASS
		1	24	23.87	23.11	PASS
		12	0	23.72	22.71	PASS
		12	6	23.62	22.71	PASS
		12	13	23.65	22.55	PASS
		25	0	23.75	22.66	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	22.40	21.57	PASS
		1	24	23.83	23.01	PASS
		1	49	22.51	21.66	PASS
		25	0	23.25	22.24	PASS
		25	12	23.25	22.25	PASS
		25	25	23.23	22.23	PASS
		50	0	23.19	22.21	PASS
	MCH	1	0	22.79	21.96	PASS
		1	24	23.44	22.63	PASS
		1	49	23.68	22.87	PASS
		25	0	23.21	22.26	PASS
		25	12	23.21	22.27	PASS
		25	25	23.34	22.39	PASS
		50	0	23.21	22.27	PASS
	HCH	1	0	22.62	21.56	PASS
		1	24	23.92	23.19	PASS
		1	49	23.14	22.42	PASS
		25	0	22.98	22.00	PASS
		25	12	22.98	21.99	PASS
		25	25	24.19	23.24	PASS
		50	0	23.72	22.75	PASS

F.2 Peak-to-Average Ratio

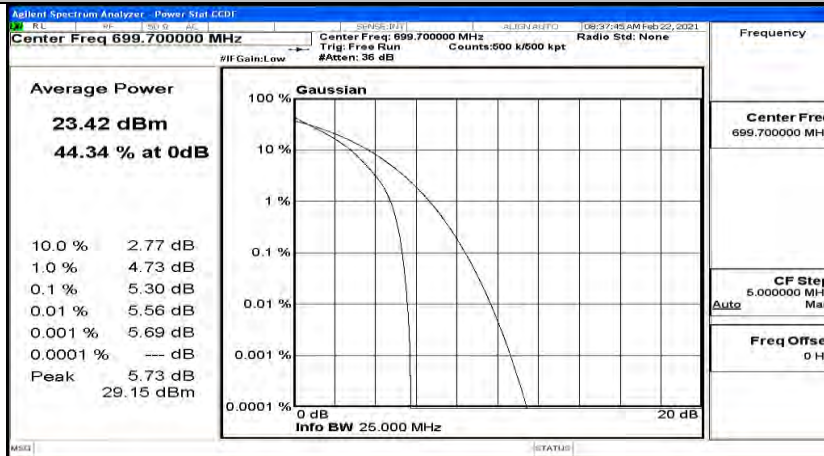
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.3	<13	PASS
	MCH	5.49	<13	PASS
	HCH	4.25	<13	PASS
16QAM	LCH	6.24	<13	PASS
	MCH	6.31	<13	PASS
	HCH	5.02	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.35	<13	PASS
	MCH	5.53	<13	PASS
	HCH	4.29	<13	PASS
16QAM	LCH	6.24	<13	PASS
	MCH	6.38	<13	PASS
	HCH	5.11	<13	PASS

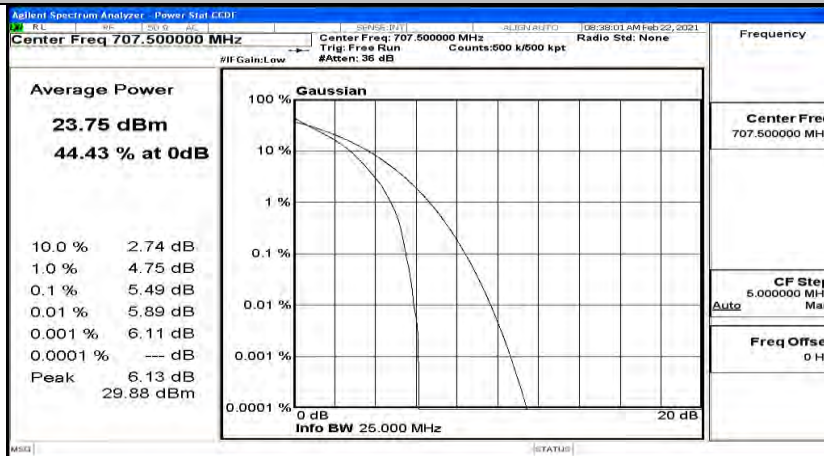
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.31	<13	PASS
	MCH	5.52	<13	PASS
	HCH	4.67	<13	PASS
16QAM	LCH	6.06	<13	PASS
	MCH	6.35	<13	PASS
	HCH	5.48	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.38	<13	PASS
	MCH	5.48	<13	PASS
	HCH	5.09	<13	PASS
16QAM	LCH	6.23	<13	PASS
	MCH	6.37	<13	PASS
	HCH	5.96	<13	PASS

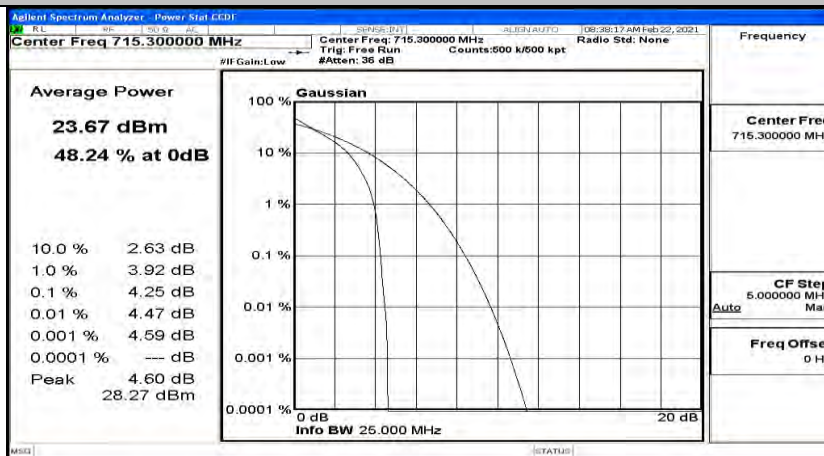
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



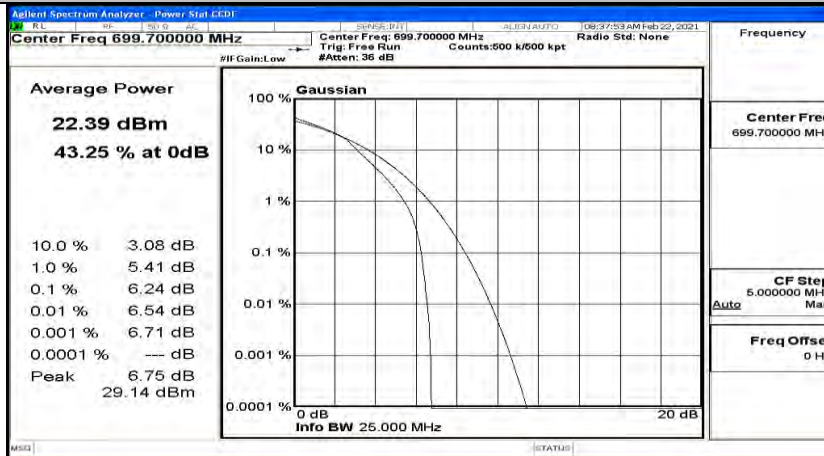
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



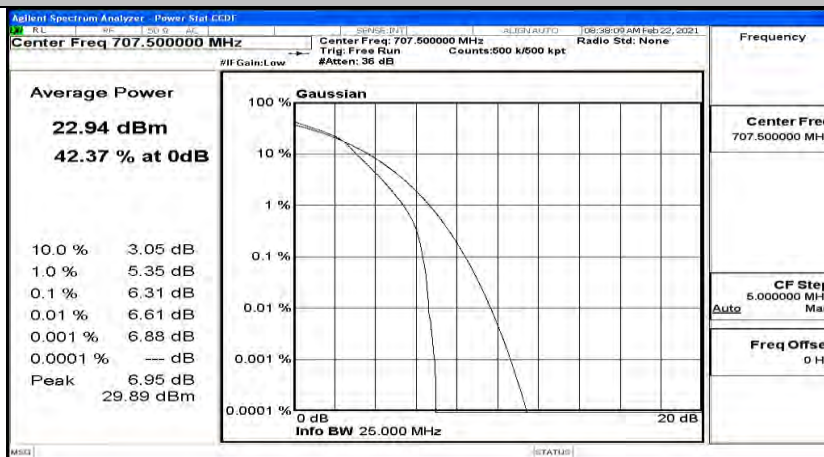
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



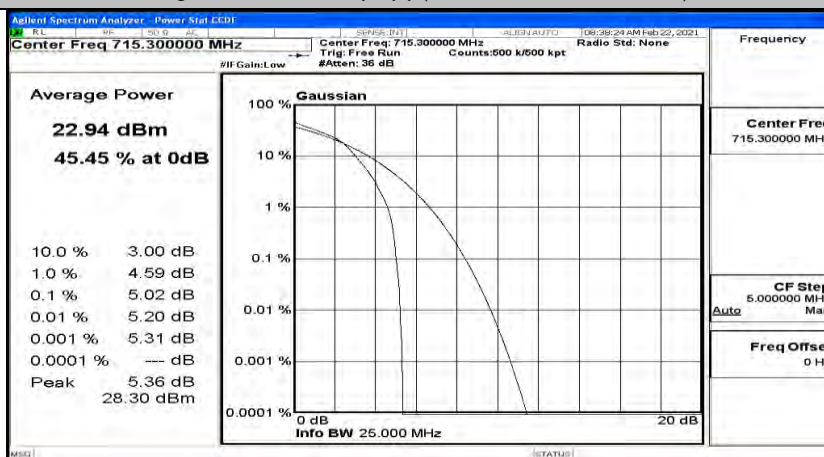
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



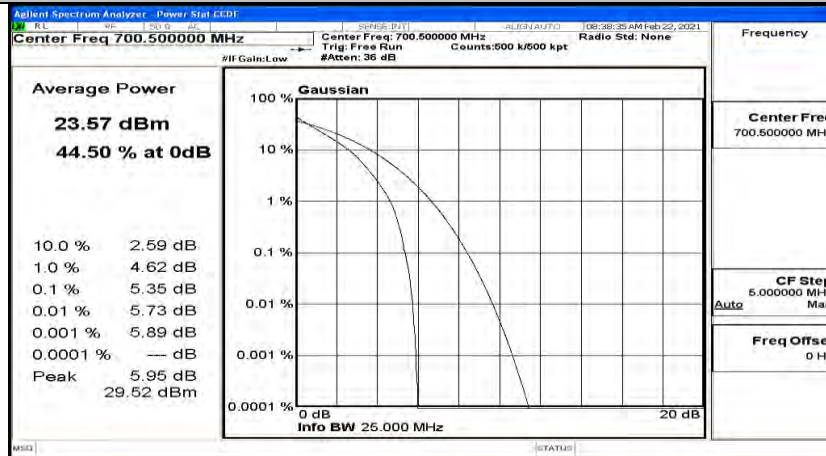
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



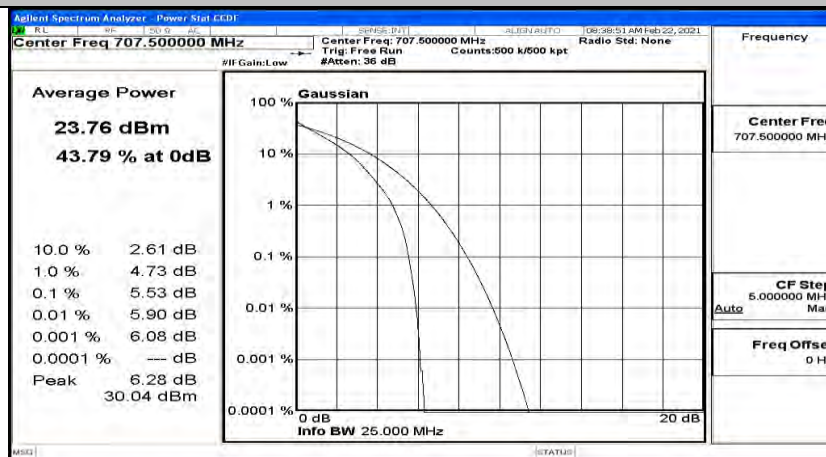
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



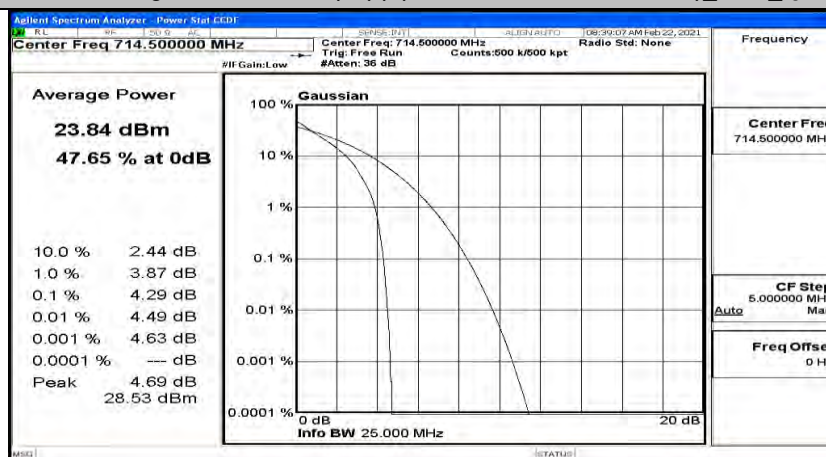
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



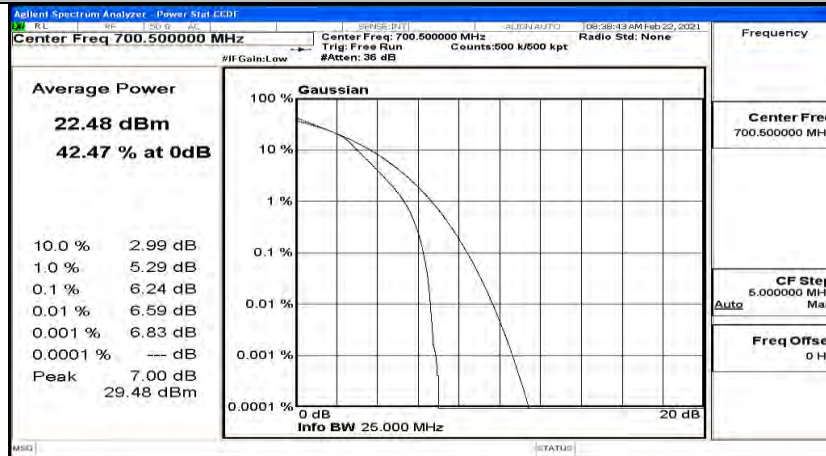
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



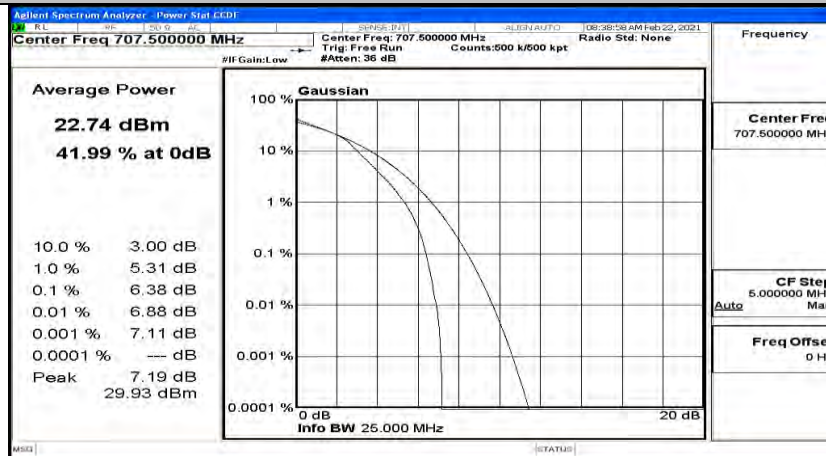
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



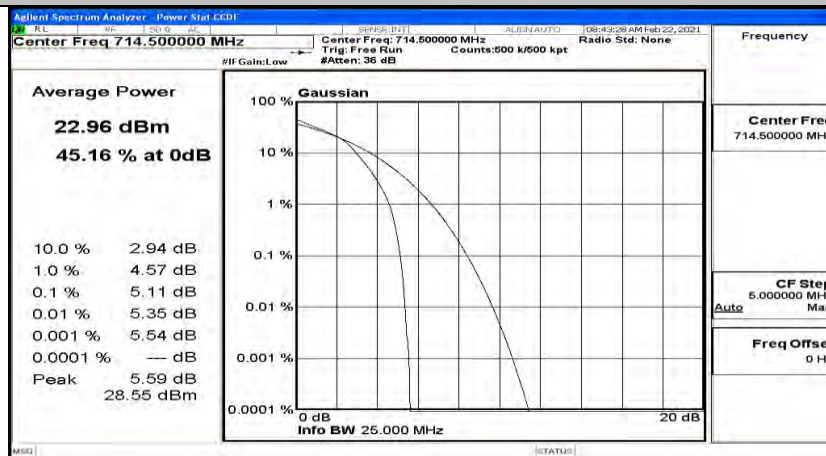
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



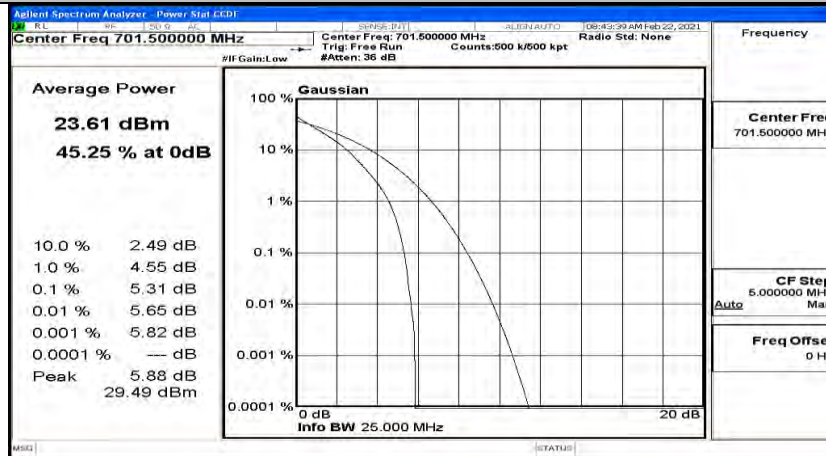
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



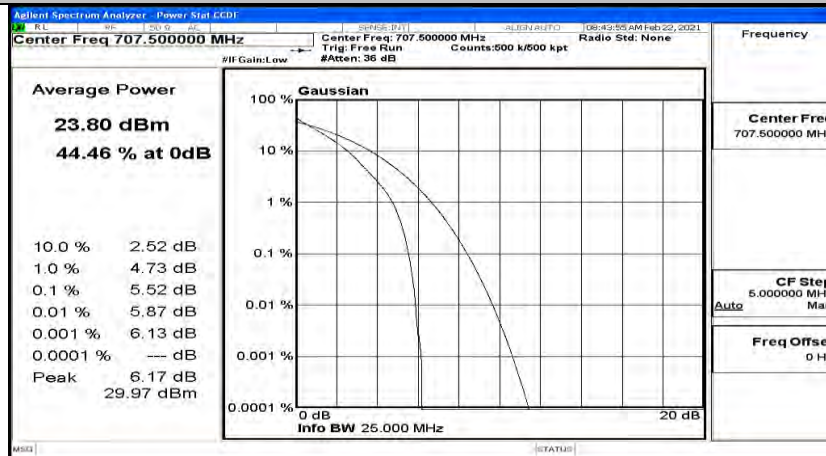
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



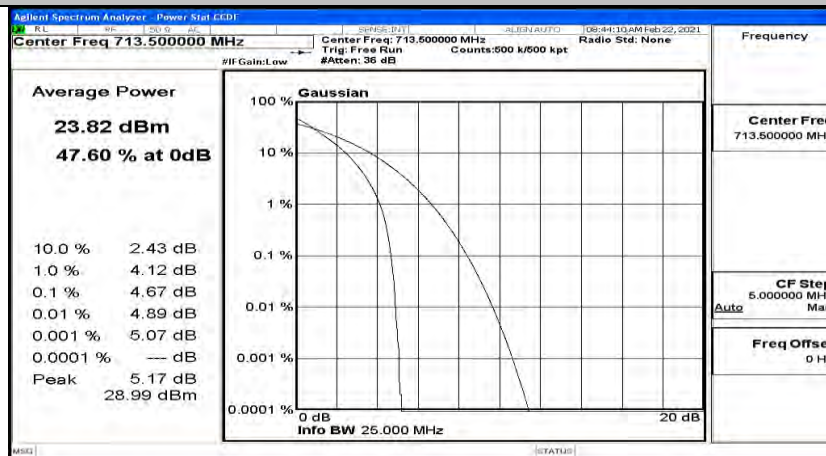
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



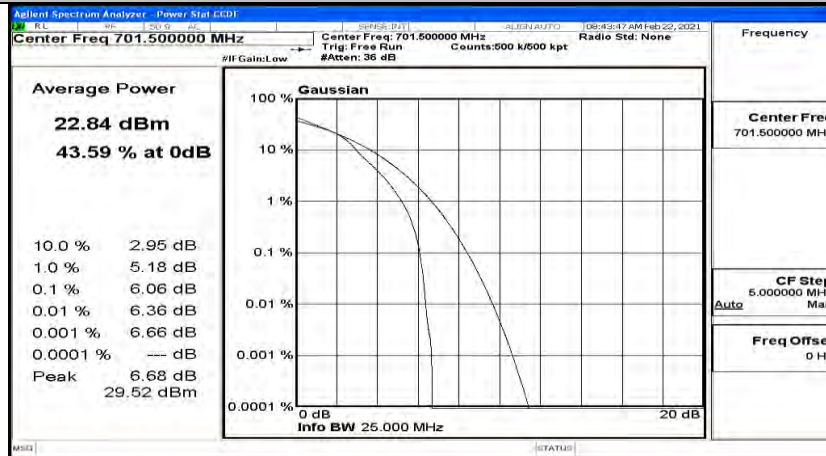
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



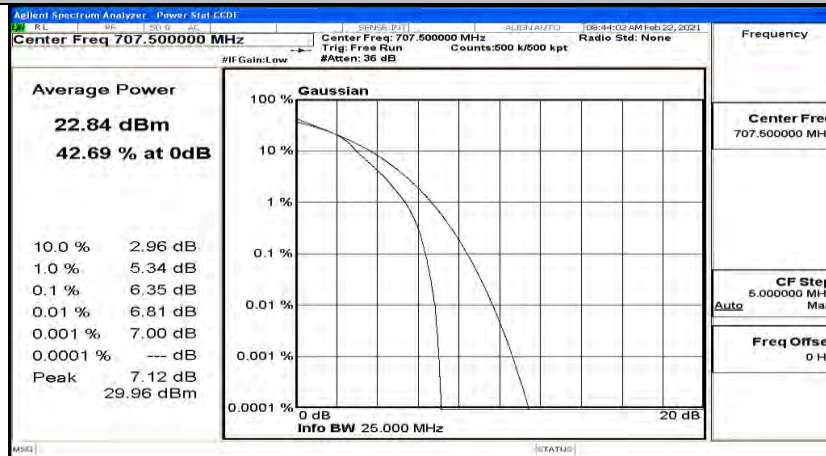
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



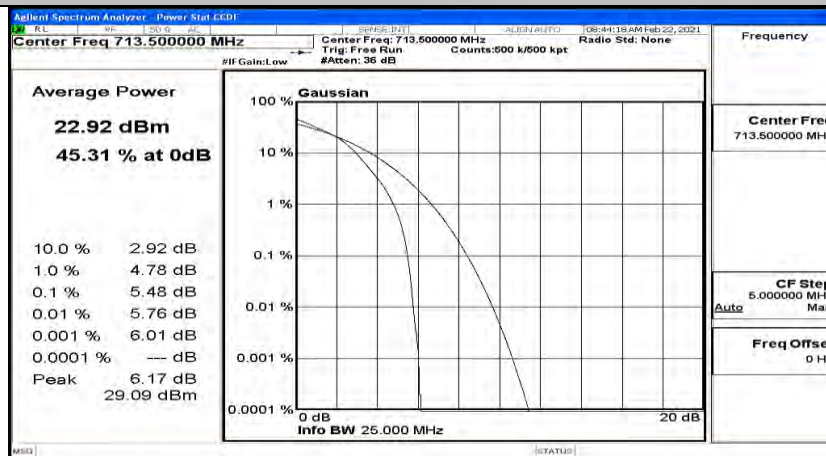
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



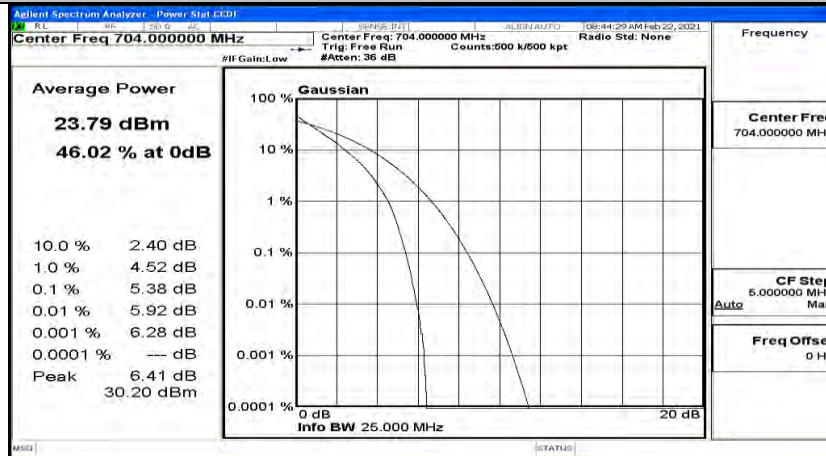
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



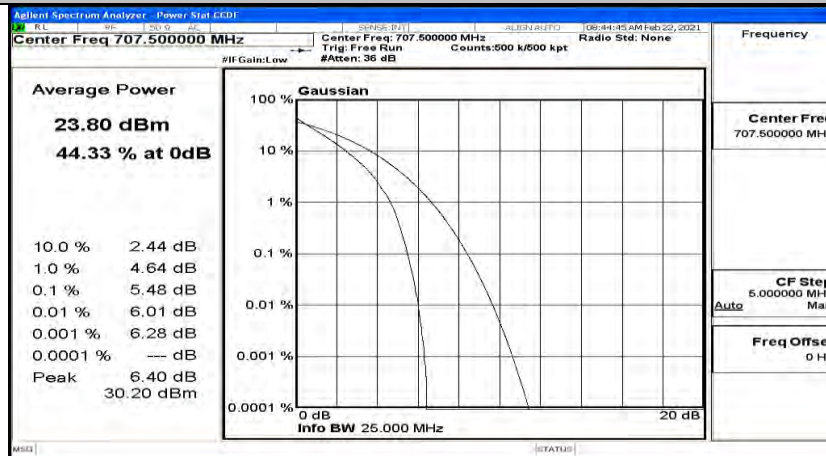
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



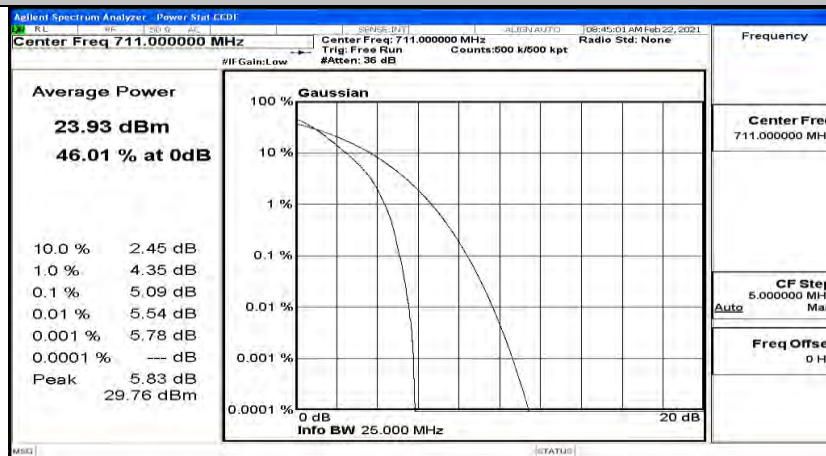
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



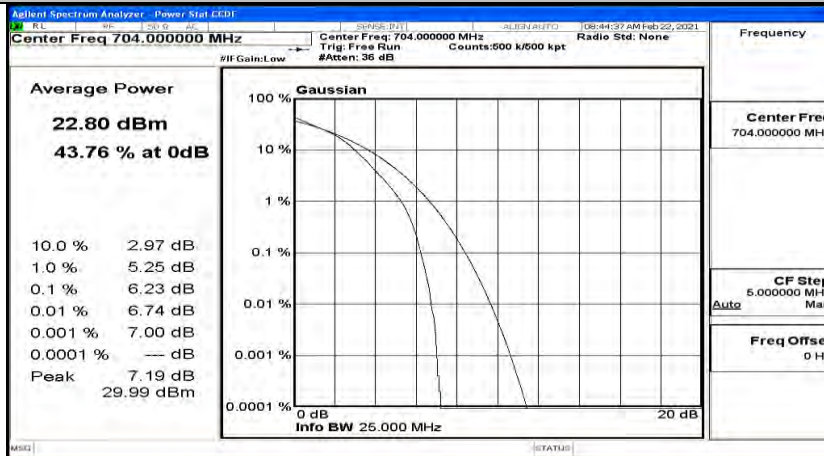
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



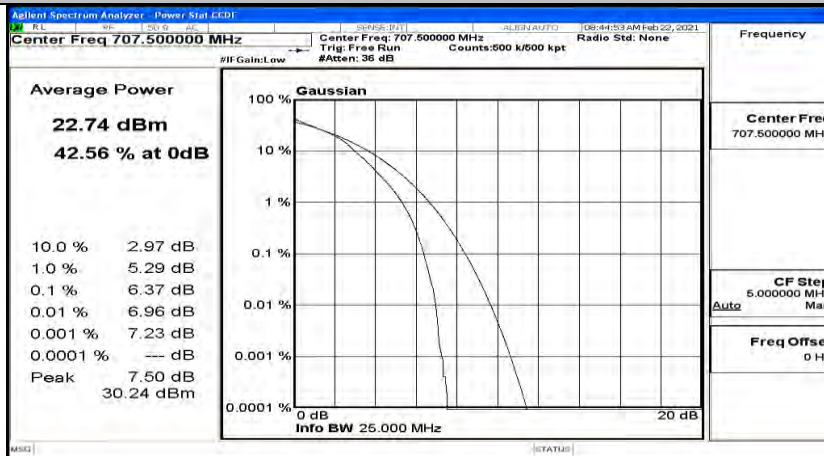
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



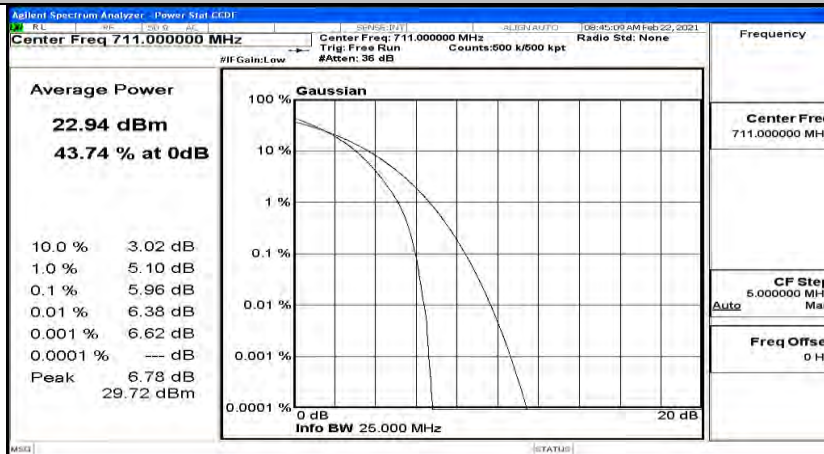
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

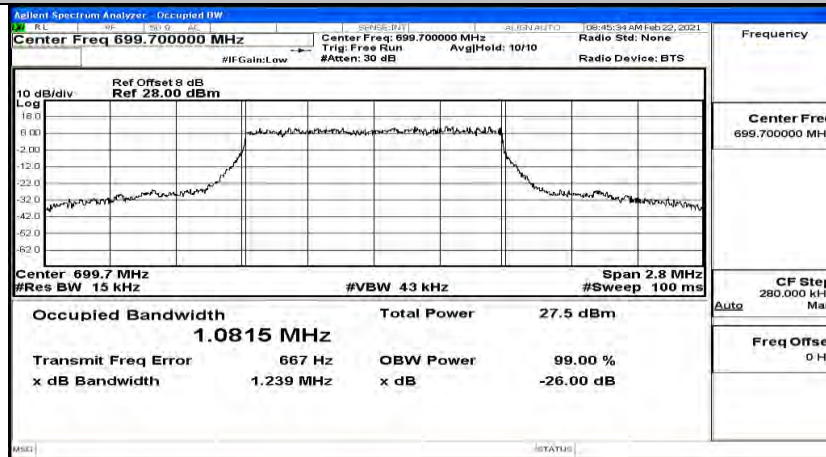
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0815	1.239	PASS
	MCH	1.0788	1.250	PASS
	HCH	1.0773	1.224	PASS
16QAM	LCH	1.0802	1.226	PASS
	MCH	1.0787	1.210	PASS
	HCH	1.0798	1.249	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6858	2.872	PASS
	MCH	2.6872	2.887	PASS
	HCH	2.6778	2.883	PASS
16QAM	LCH	2.6783	2.916	PASS
	MCH	2.6824	2.878	PASS
	HCH	2.6758	2.907	PASS

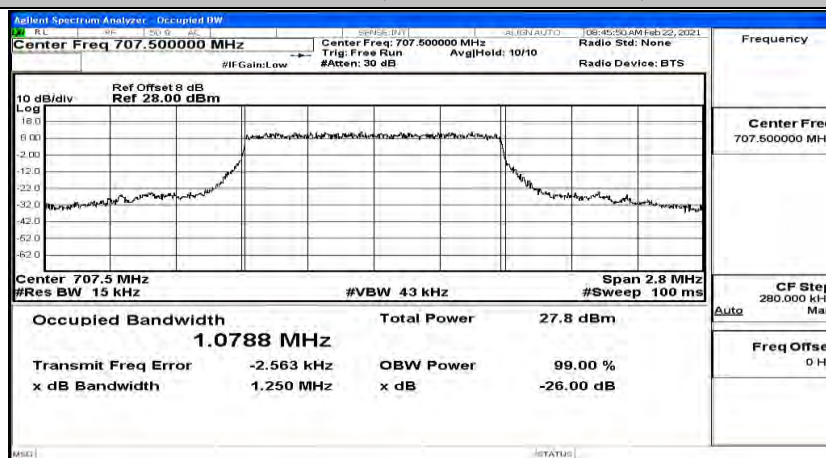
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4641	4.631	PASS
	MCH	4.4731	4.843	PASS
	HCH	4.4592	4.769	PASS
16QAM	LCH	4.4643	4.773	PASS
	MCH	4.4754	4.850	PASS
	HCH	4.4669	4.755	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9344	9.494	PASS
	MCH	8.9624	9.475	PASS
	HCH	8.9143	9.330	PASS
16QAM	LCH	8.9256	9.358	PASS
	MCH	8.9316	9.412	PASS
	HCH	8.9094	9.373	PASS

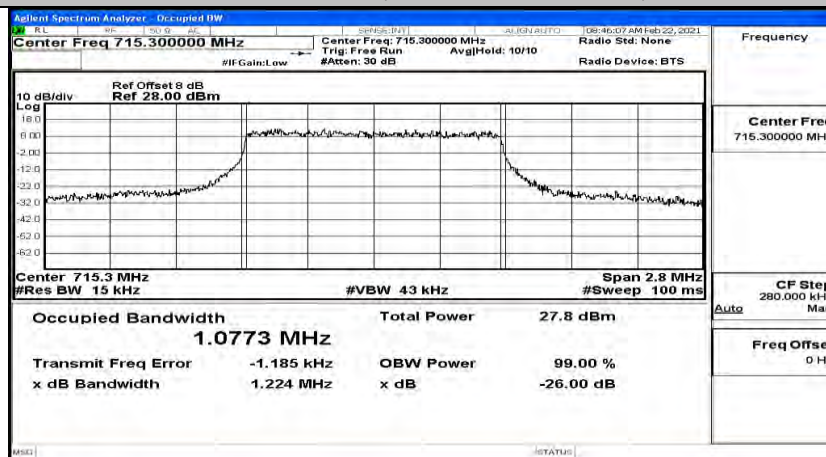
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



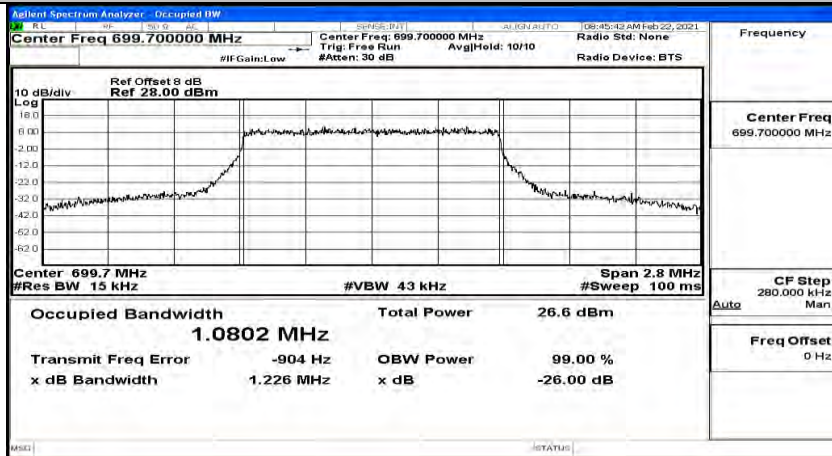
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



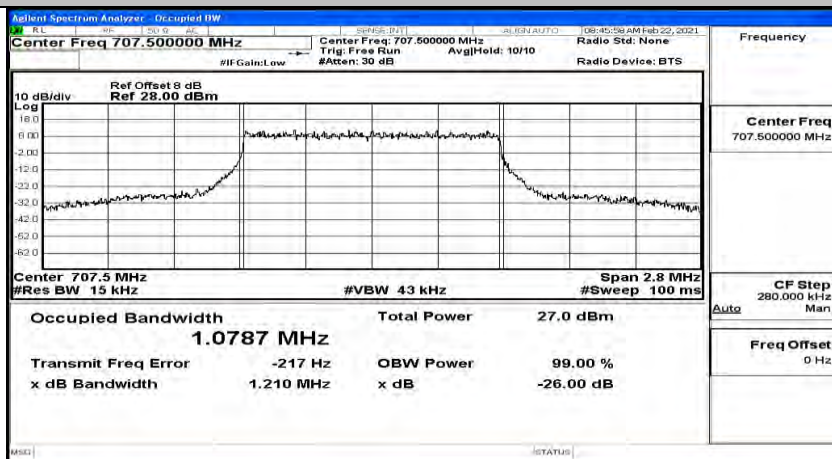
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



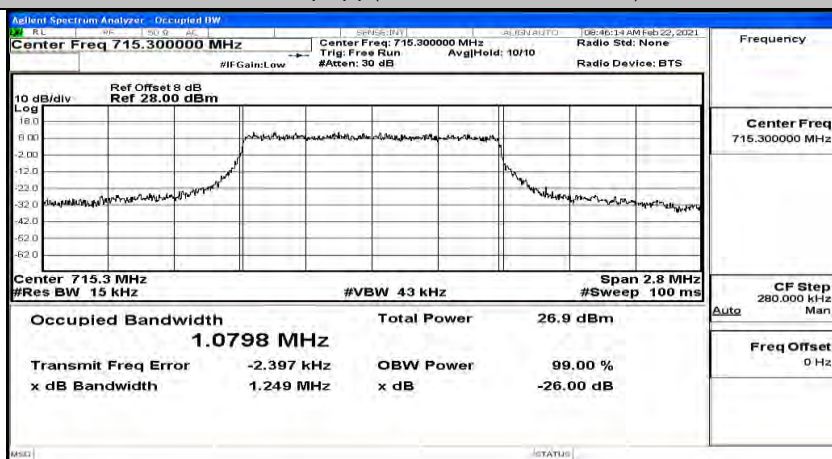
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



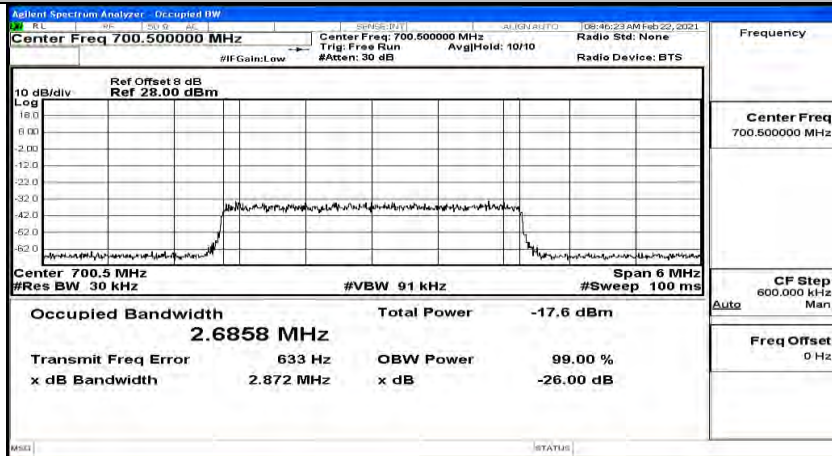
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



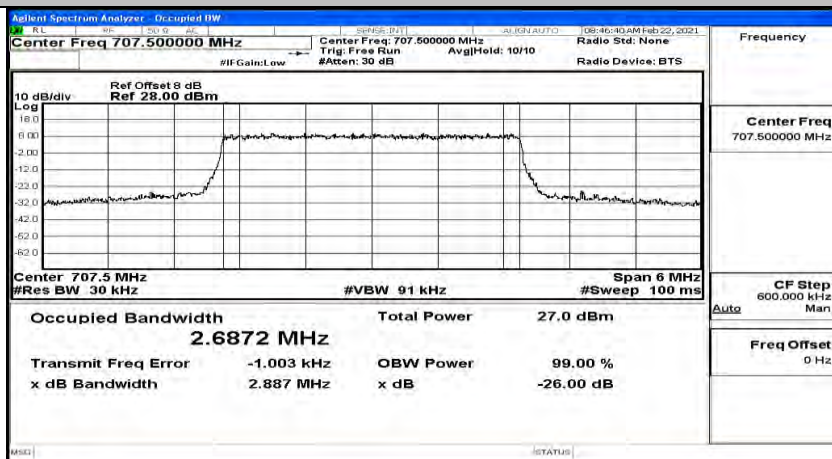
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



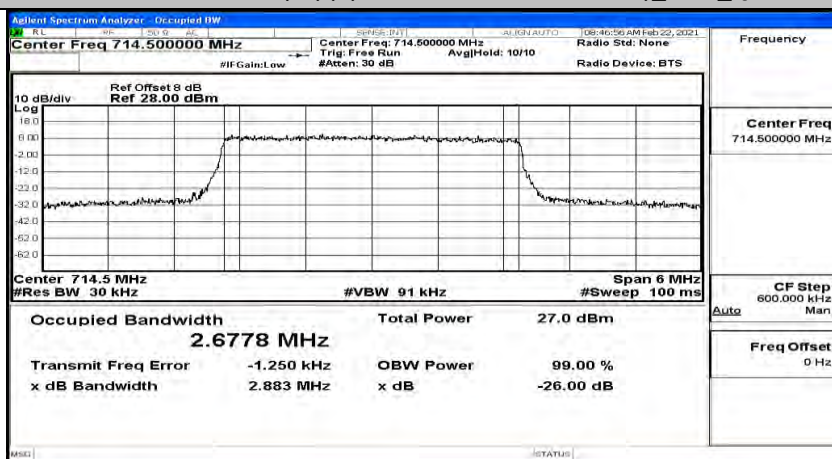
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



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



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



Agilent Spectrum Analyzer - Occupied BW

Center Freq 700.500000 MHz

Ref Offset 8 dB

Ref 28.00 dBm

10 dB/div

Log

Center 700.5 MHz

#Res BW 30 kHz

#VBW 91 kHz

Span 6 MHz

#Sweep 100 ms

Occupied Bandwidth

2.6783 MHz

Total Power

25.8 dBm

Transmit Freq Error

-552 Hz

OBW Power

99.00 %

x dB Bandwidth

2.916 MHz

x dB

-26.00 dB

Frequency

Center Freq

700.500000 MHz

CF Step

600.000 kHz

Man

Freq Offset

0 Hz

Agilent Spectrum Analyzer - Occupied BW

Center Freq 707.500000 MHz

Ref Offset 8 dB
Ref 28.00 dBm

10 dB/div

Log

Center 707.5 MHz
#Res BW 30 kHz

#VBW 91 kHz

Span 6 MHz
#Sweep 100 ms

Occupied Bandwidth

2.6824 MHz

Transmit Freq Error -4 Hz

x dB Bandwidth 2.878 MHz

Total Power 26.1 dBm

OBW Power 99.00 %

x dB -26.00 dB

Frequency

Center Freq 707.500000 MHz

CF Step 600.000 kHz

Freq Offset 0 Hz

The figure shows a spectrum plot with a central peak at 707.5 MHz. The y-axis is labeled 'Log' and ranges from -60.0 to 10.0 dBm. The x-axis is labeled 'Frequency' and ranges from 690 MHz to 725 MHz. The plot shows a sharp peak at the center frequency, with a bandwidth of approximately 2.68 MHz. The peak power is 26.1 dBm. The plot is titled 'Occupied Bandwidth' and 'Center Freq 707.500000 MHz'.

Agilent Spectrum Analyzer - Occupied BW

Center Freq 714.500000 MHz

Ref Offset 8 dB
Ref 28.00 dBm

10 dB/div

Log

18.0

6.00

2.00

12.0

23.0

32.0

42.0

62.0

Center 714.5 MHz
#Res BW 30 kHz

#VBW 91 kHz

Span 6 MHz
#Sweep 100 ms

Occupied Bandwidth

2.6758 MHz

Transmit Freq Error -5.335 kHz

x dB Bandwidth 2.907 MHz

Total Power 26.3 dBm

OBW Power x dB

99.00 %

-26.00 dB

Auto

Freq Offset 0 Hz

Frequency 714.500000 MHz

Center Freq 714.500000 MHz

Trig: Free Run

Avg/Hold: 10/10

Radio Std: None

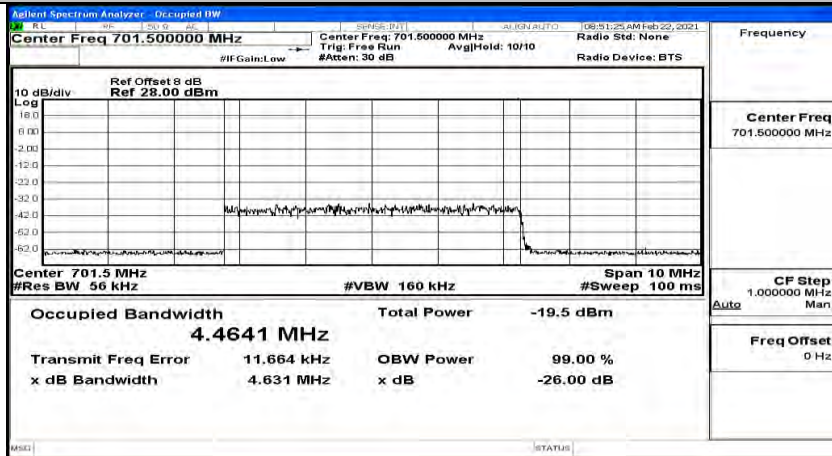
Radio Device: BTS

09:51:17 AM Feb 22, 2021

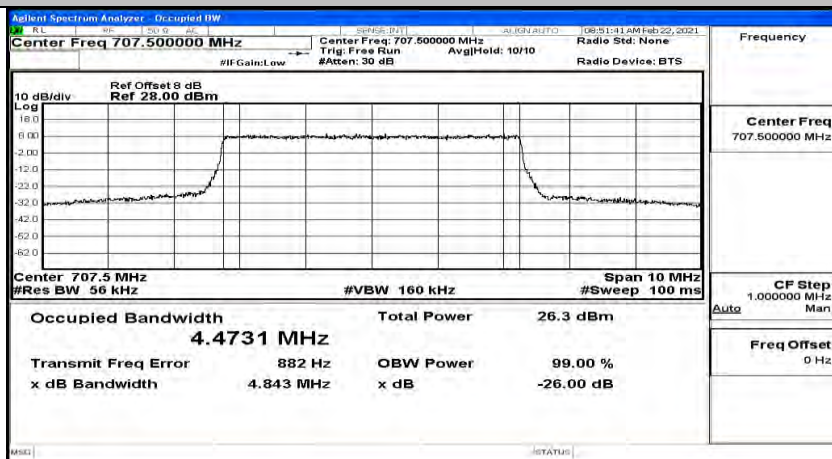
MSO1

STATUS

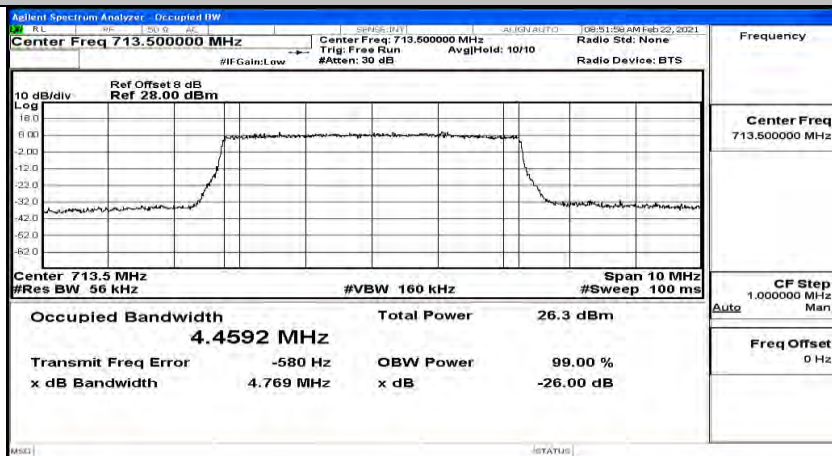
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



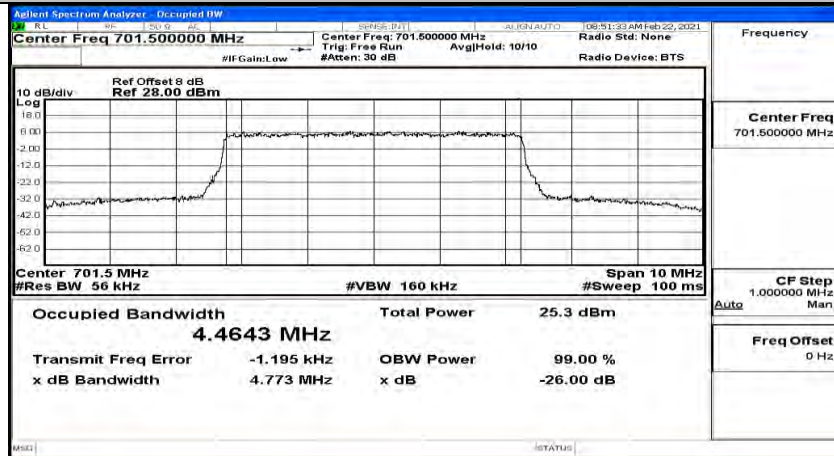
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



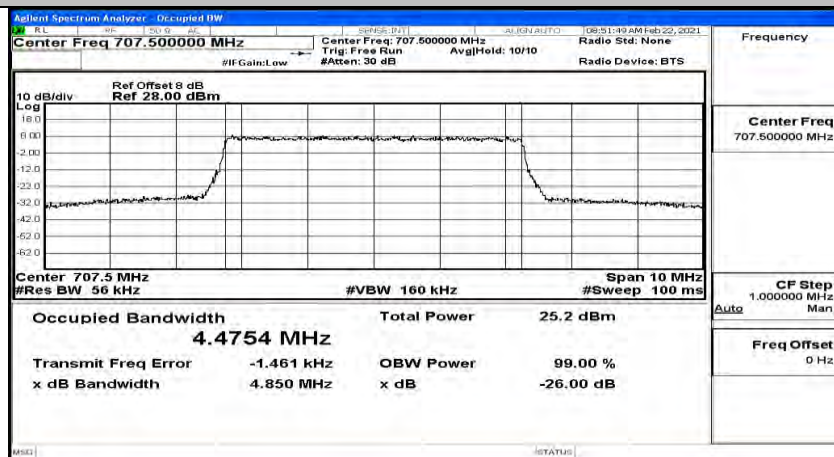
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



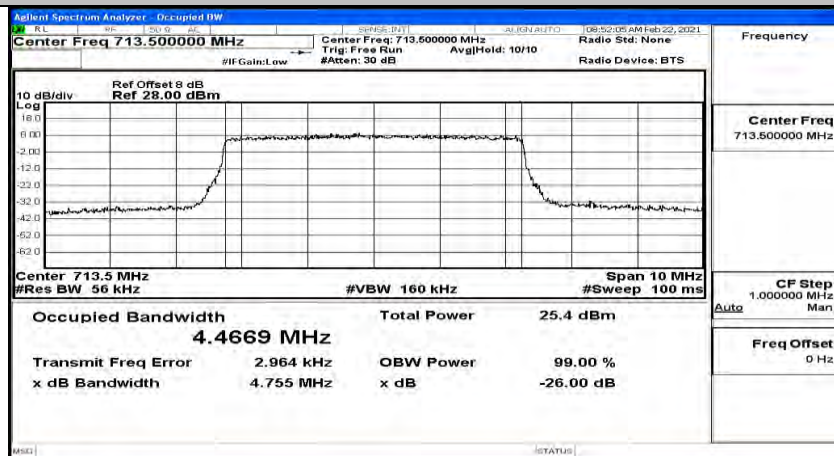
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



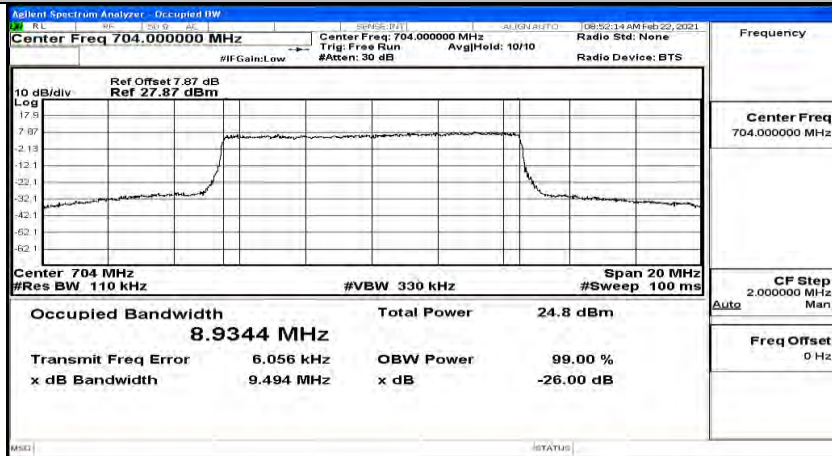
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



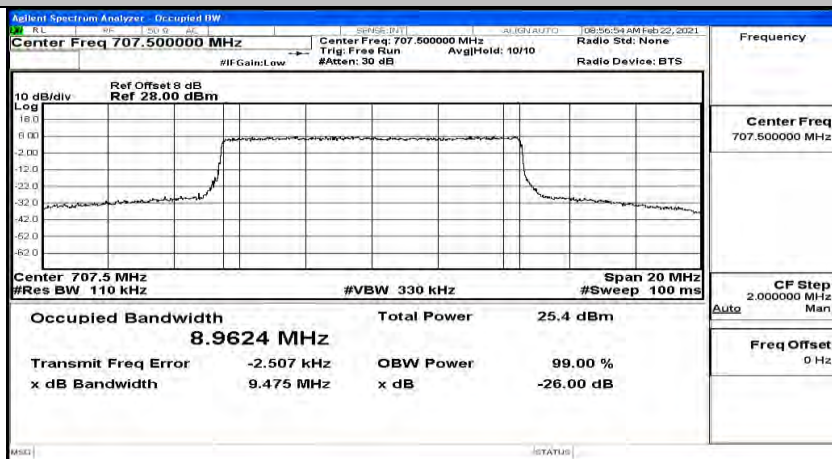
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



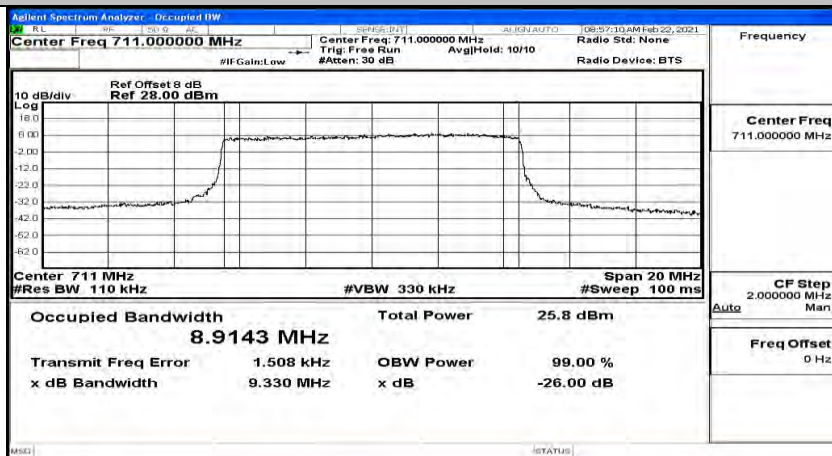
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



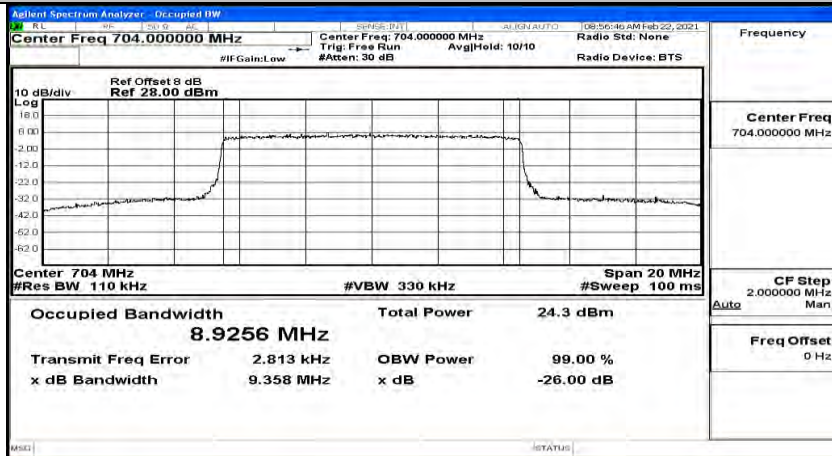
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



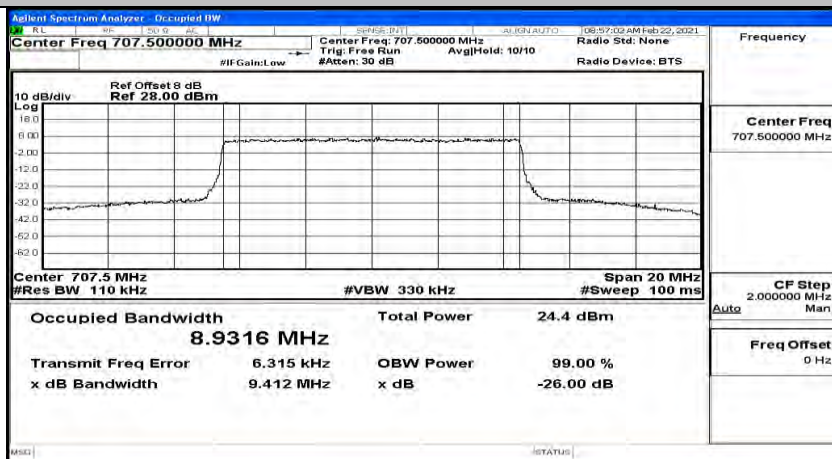
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



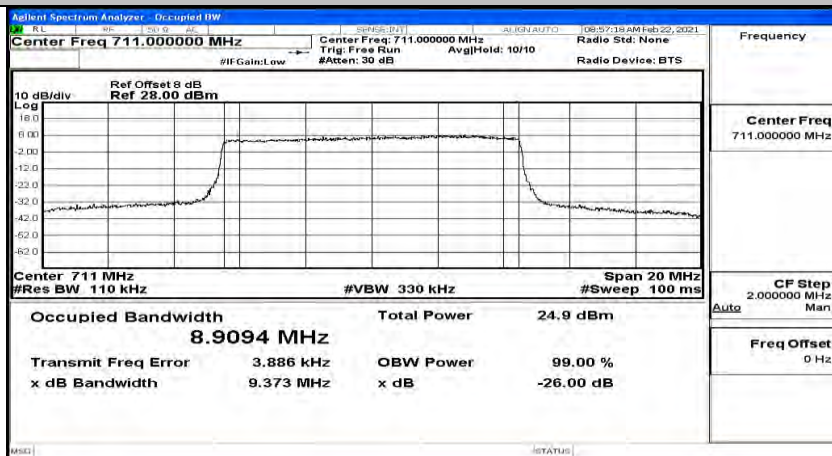
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

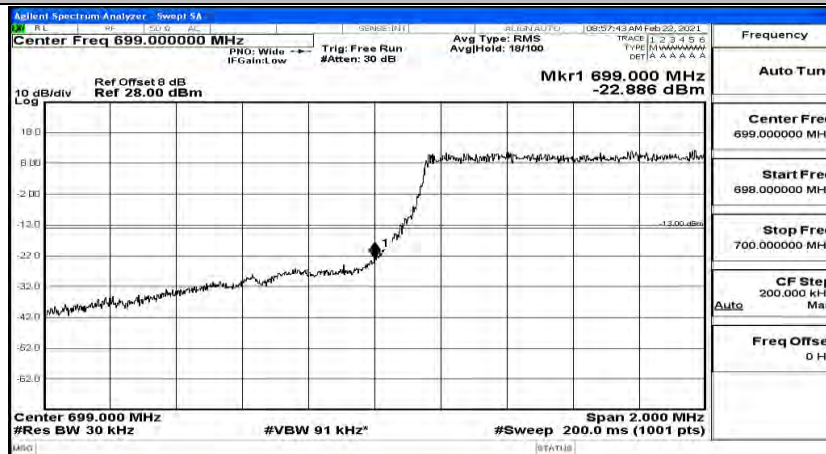


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

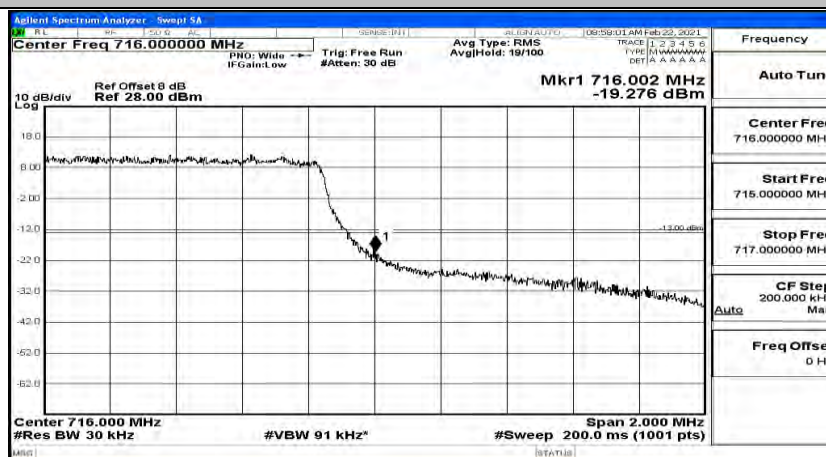


F.4 Band Edge

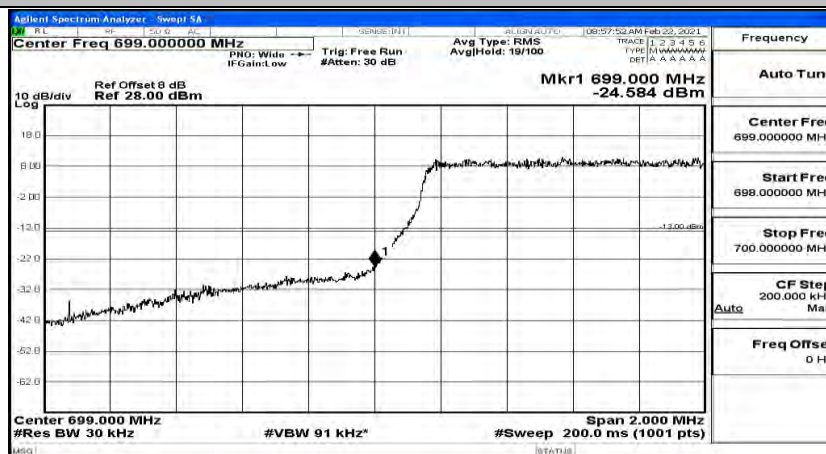
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



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



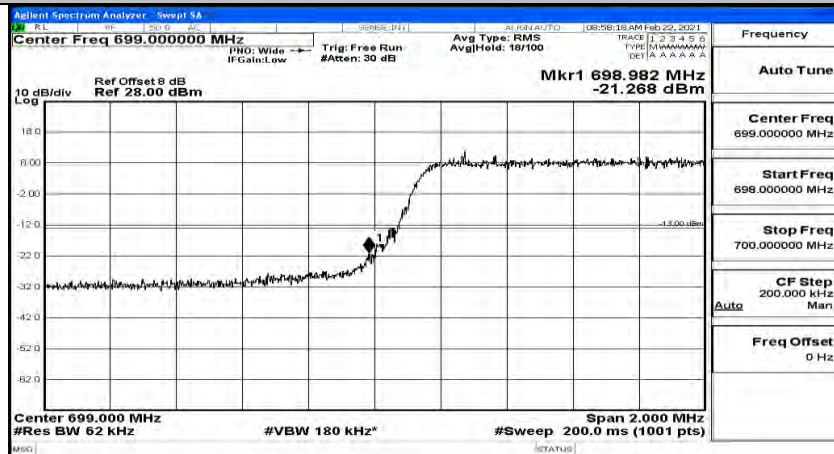
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



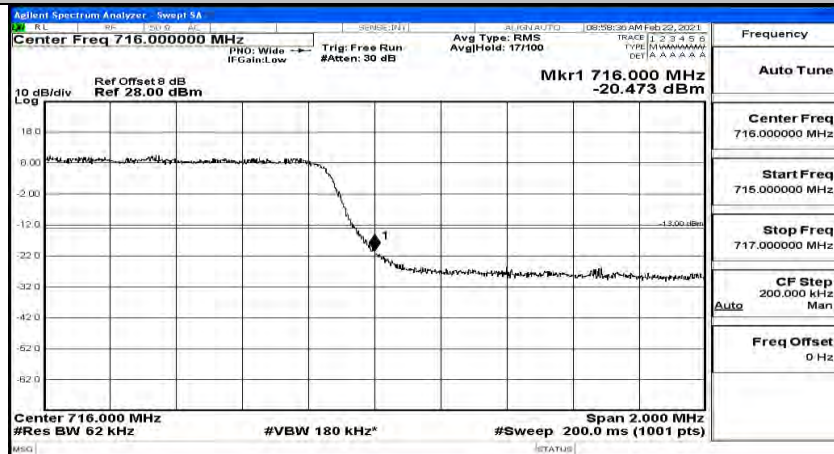
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



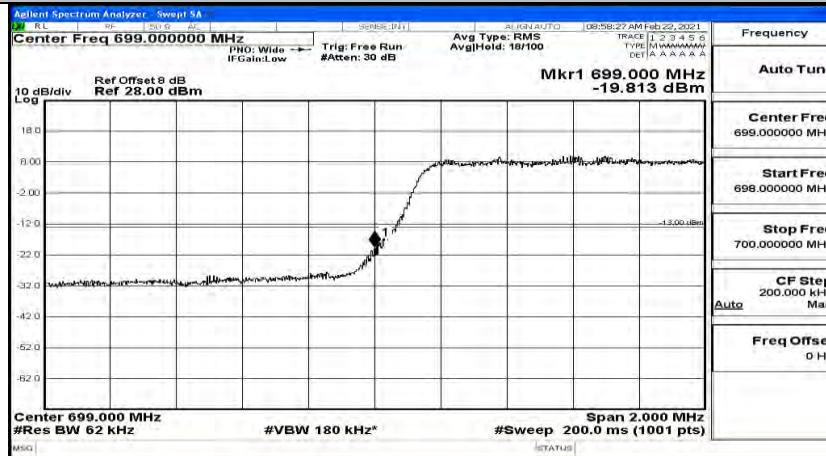
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



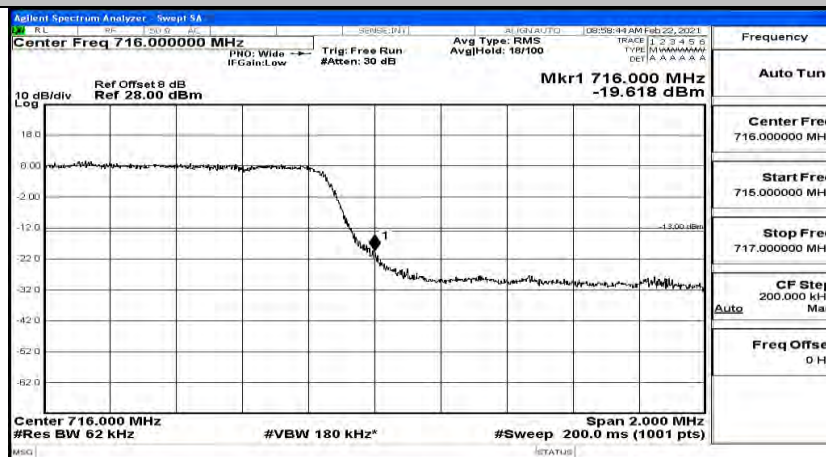
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



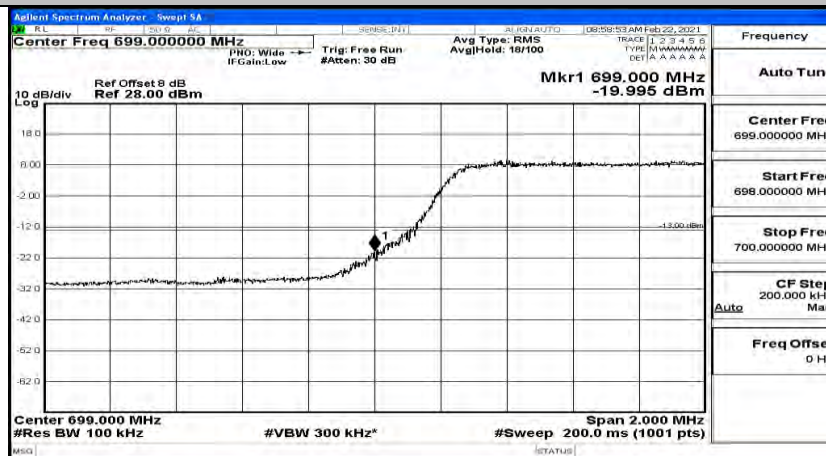
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



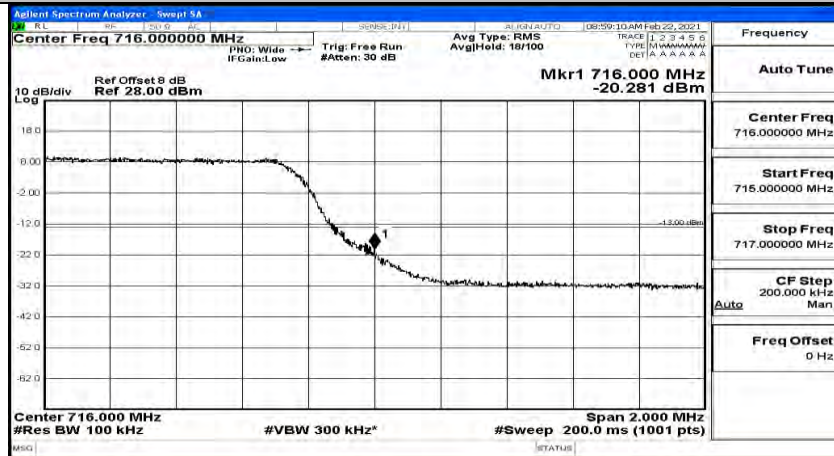
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



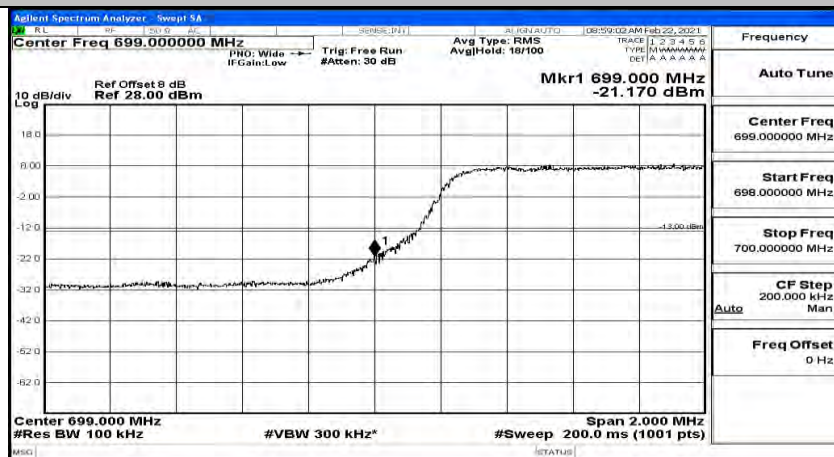
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



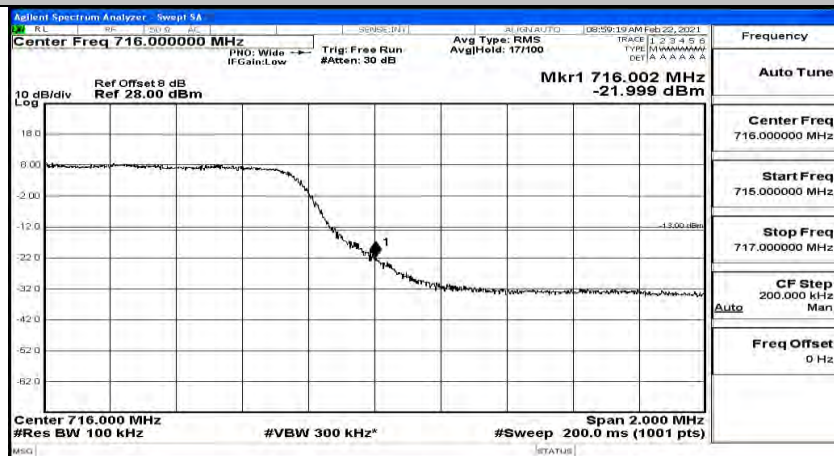
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



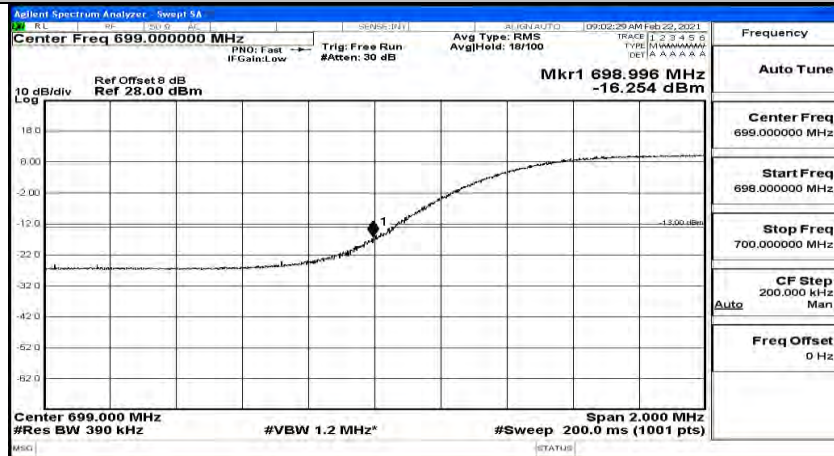
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



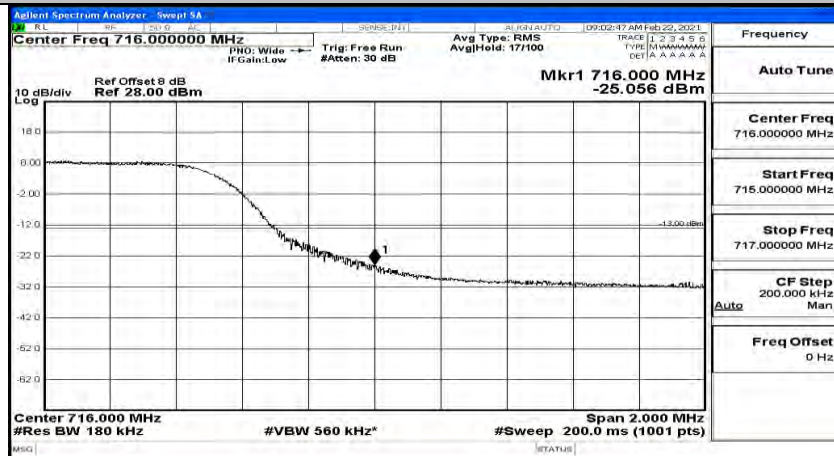
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



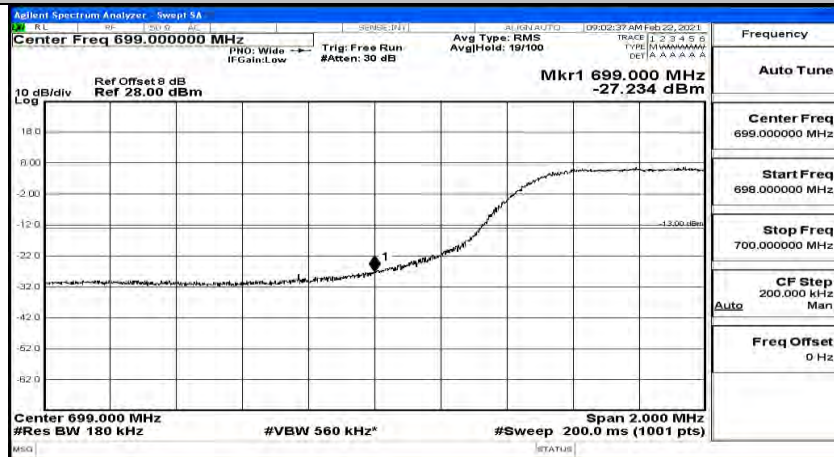
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



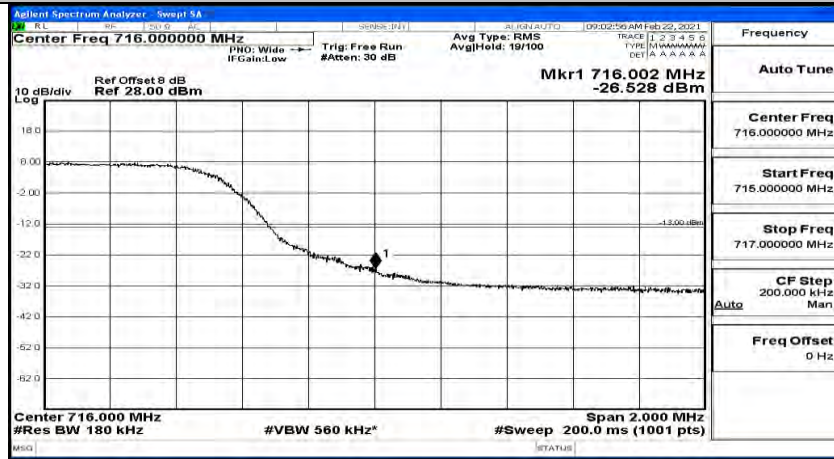
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



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



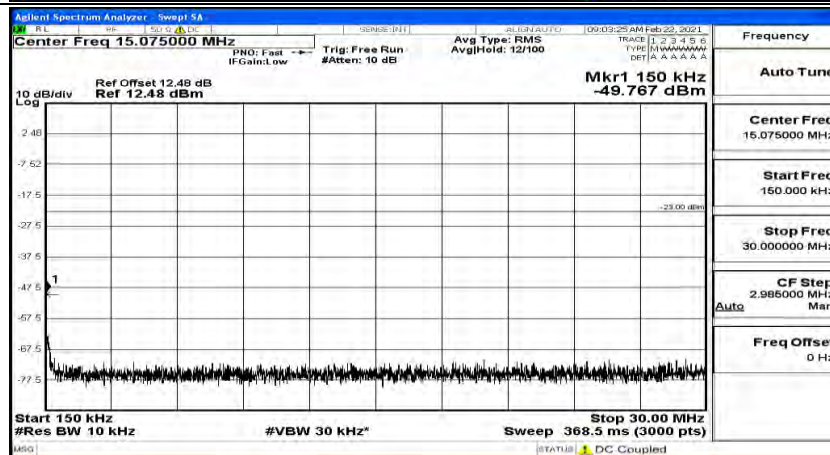
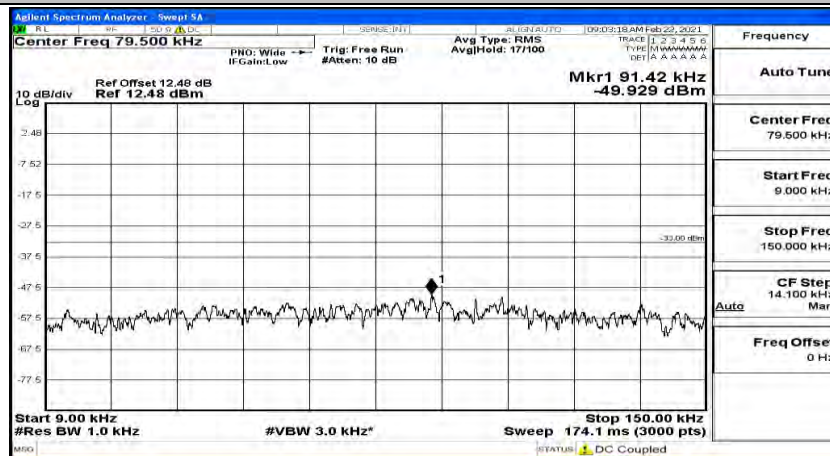
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



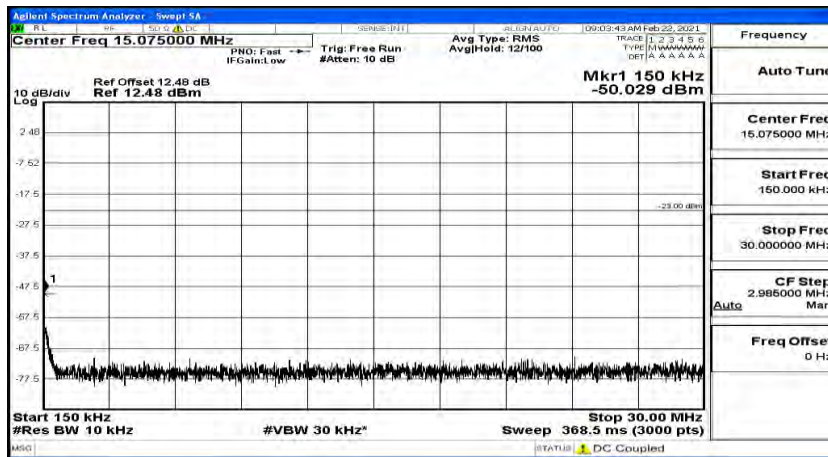
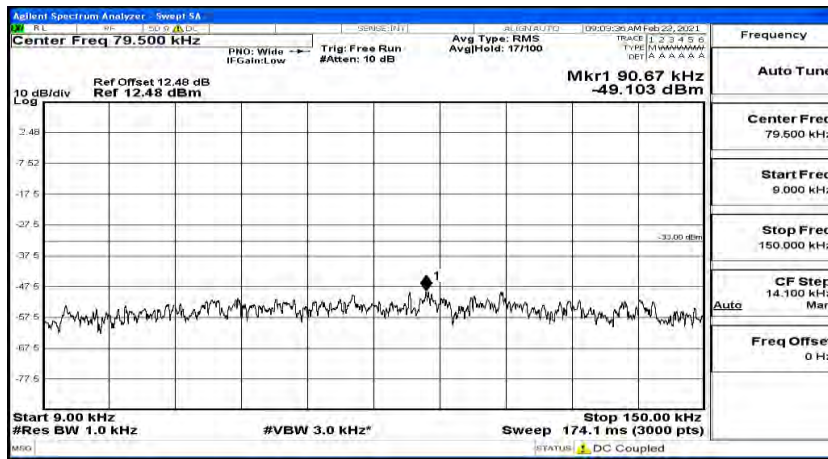
F.5 Conducted Spurious Emission

Channel Bandwidth: 1.4 MHz

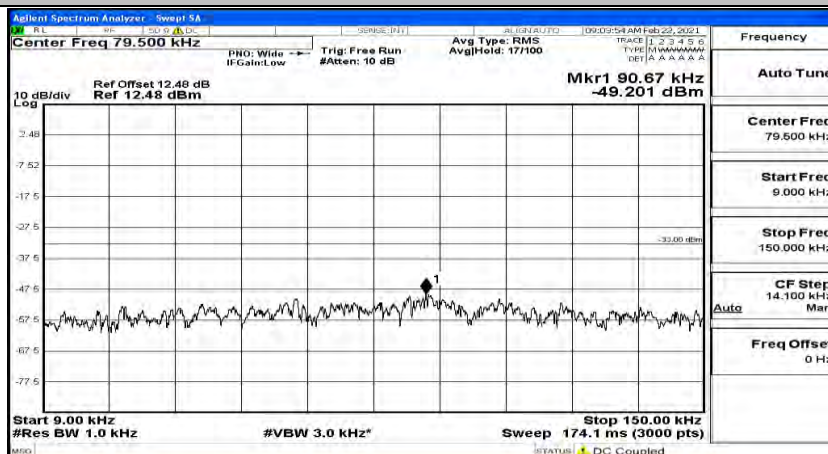
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0

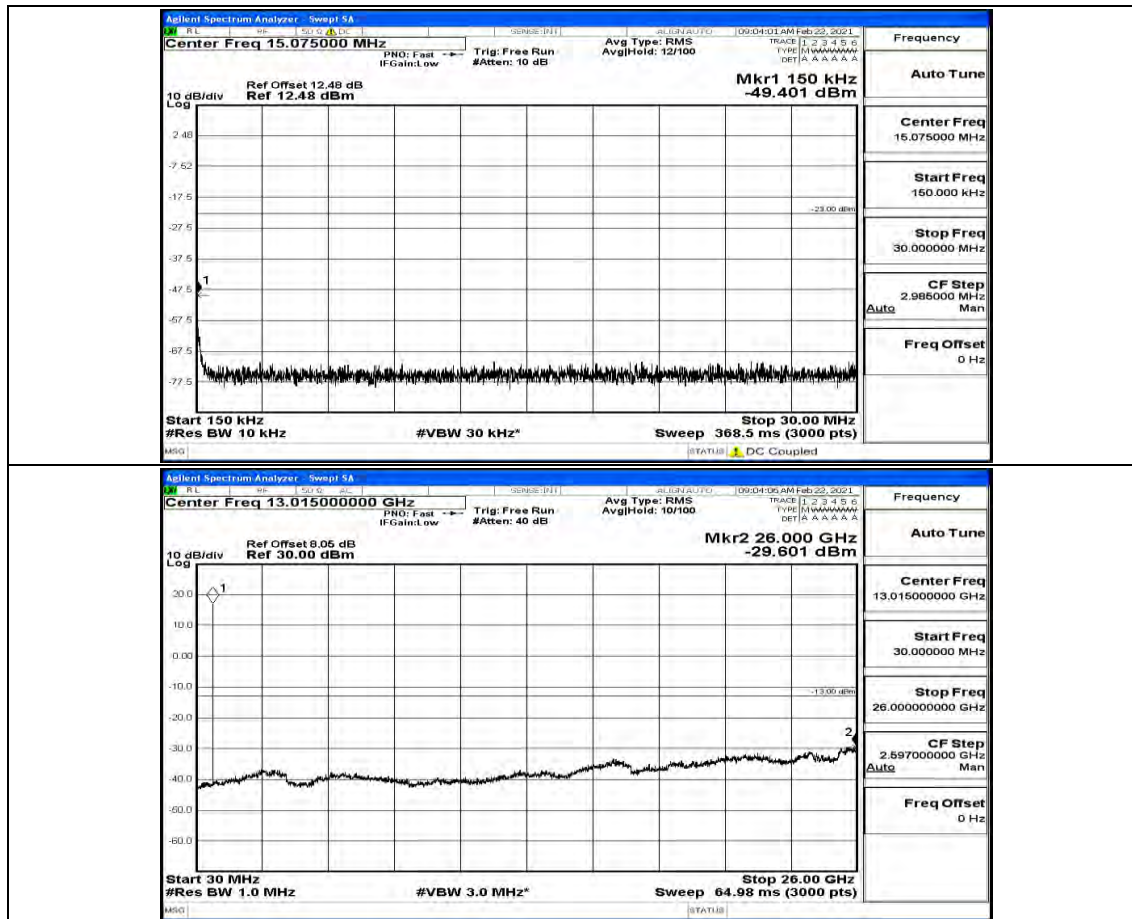


(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3

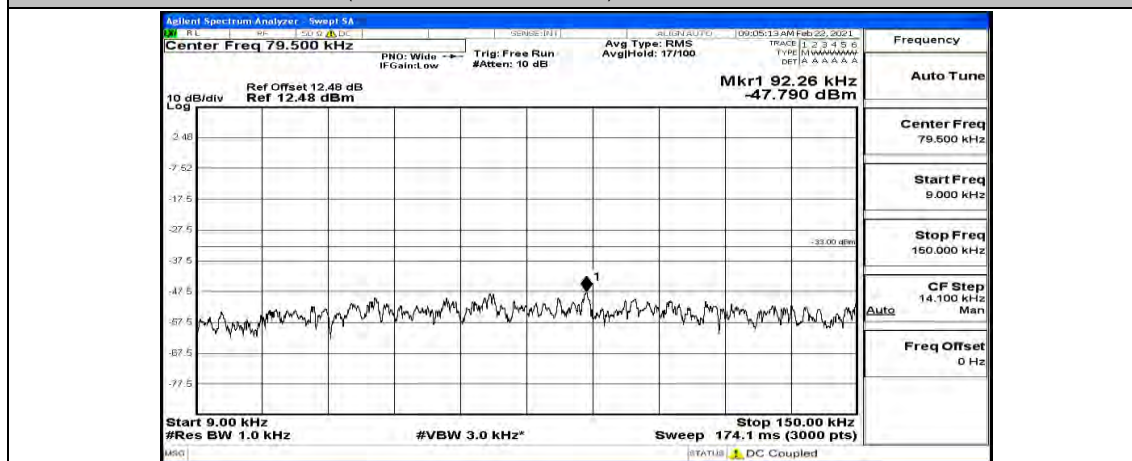


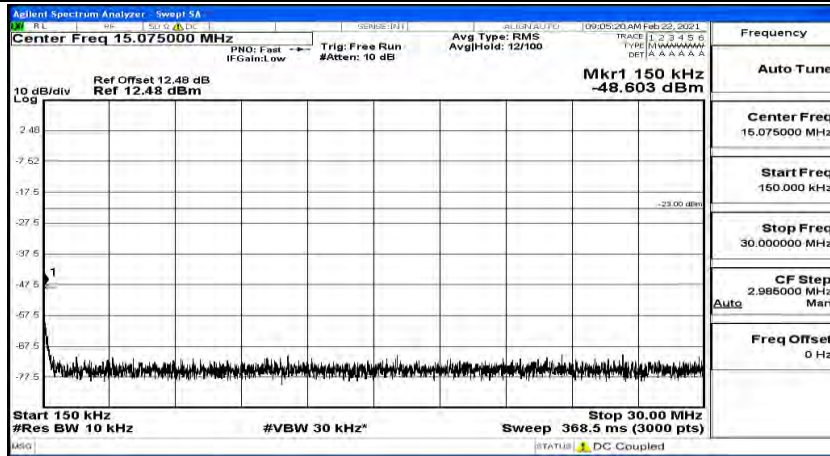
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5



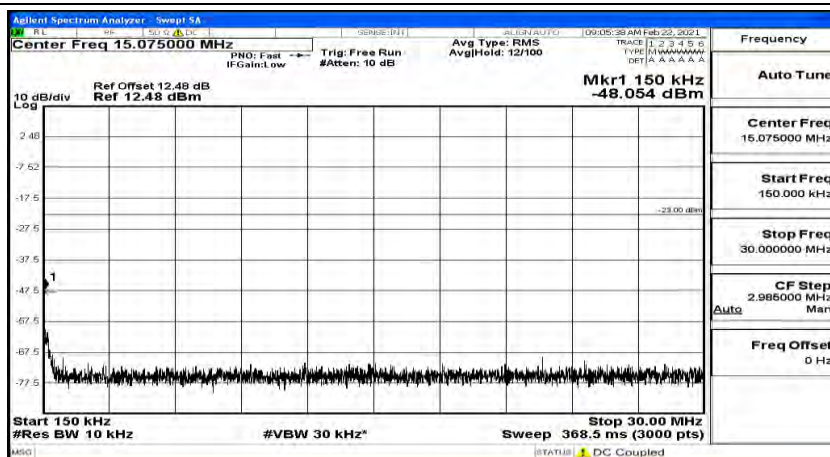
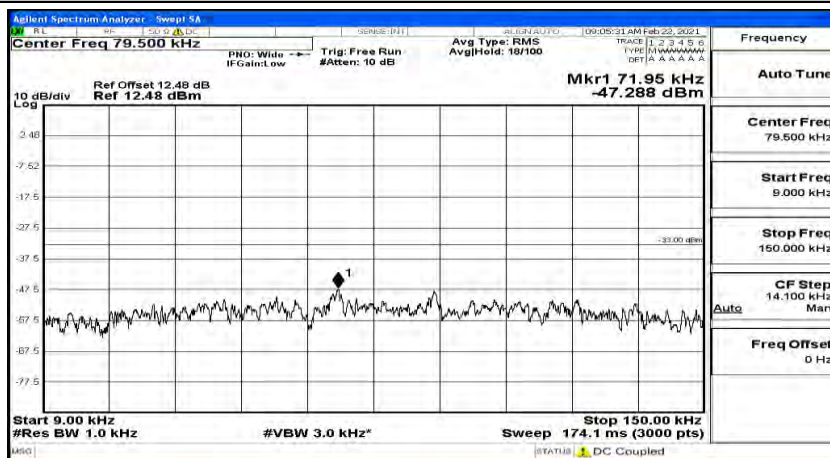


(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0



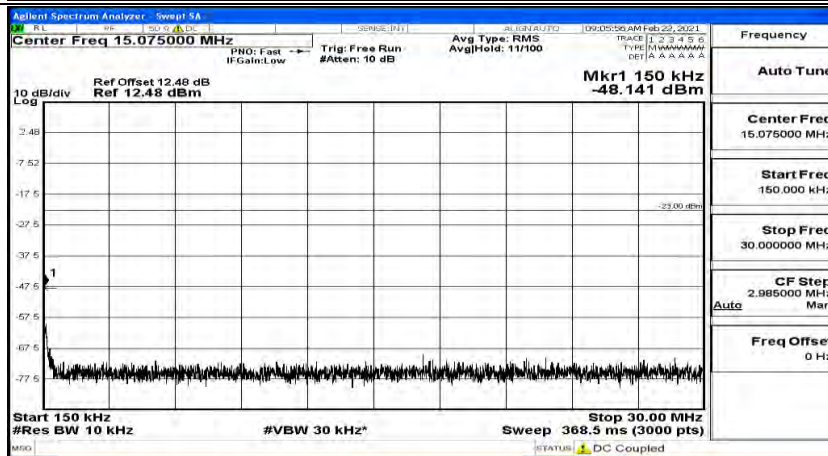
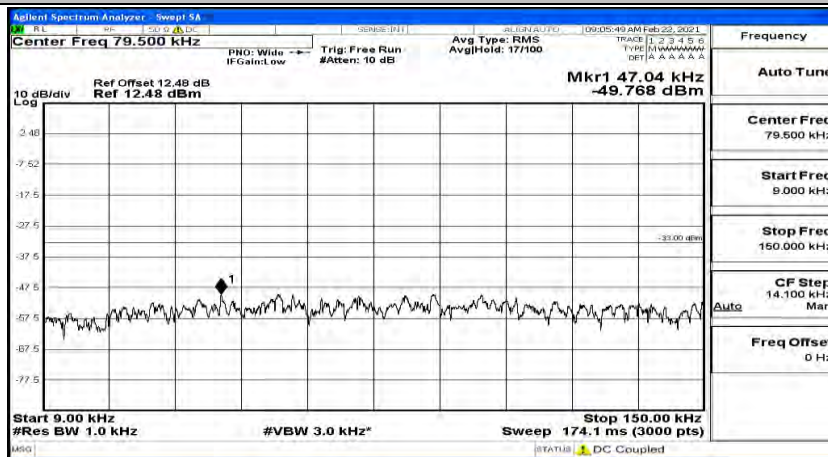


(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3

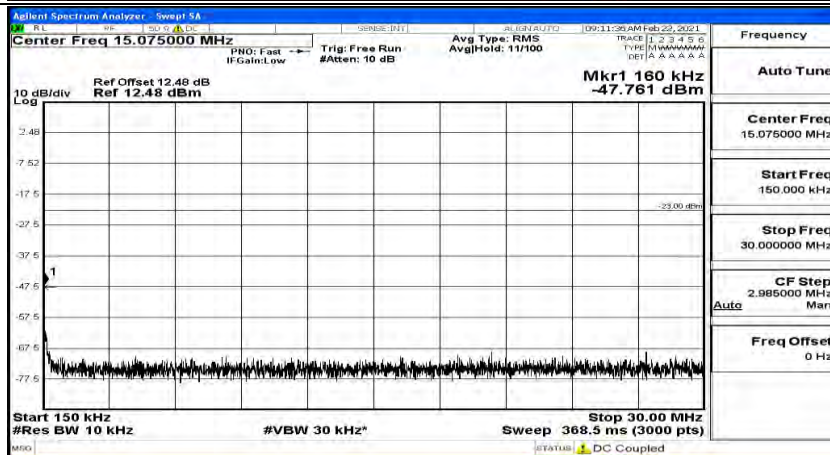
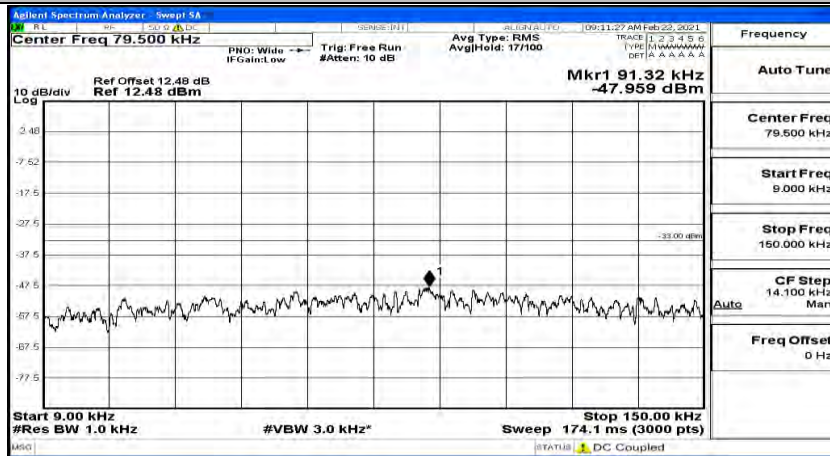




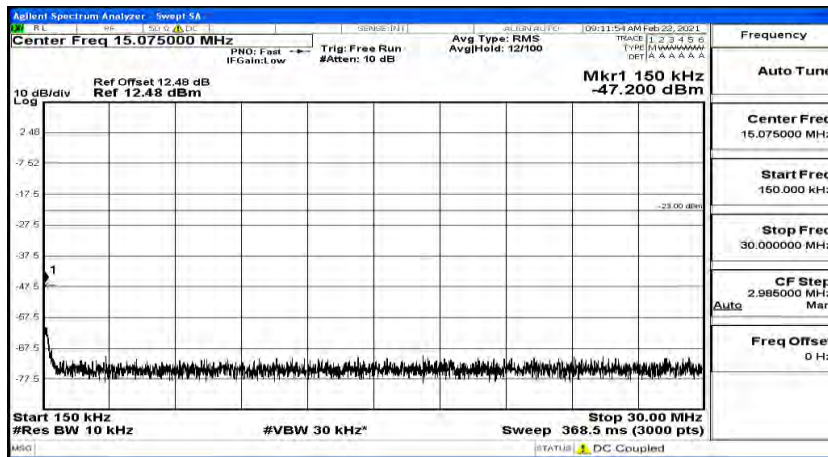
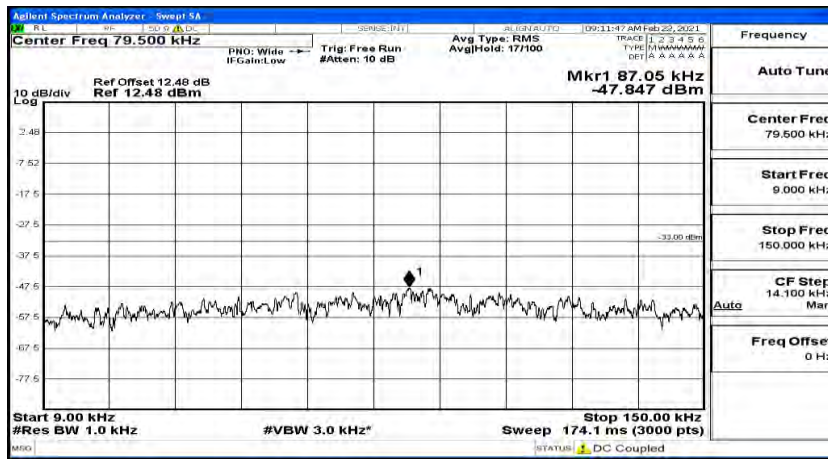
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5



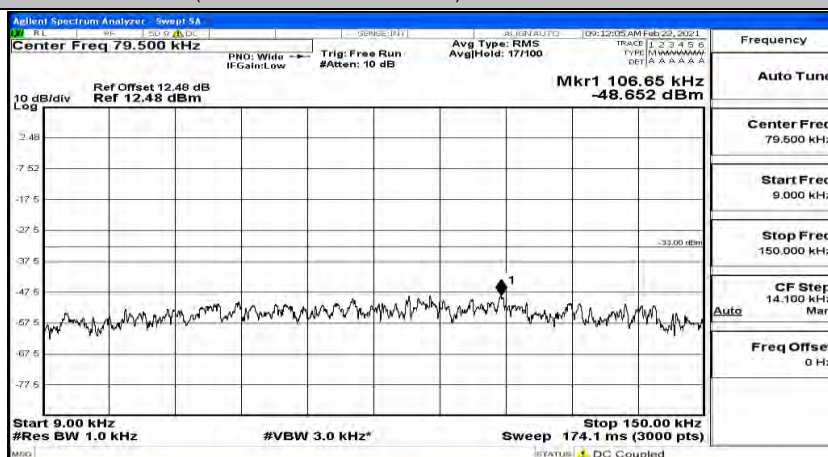
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0

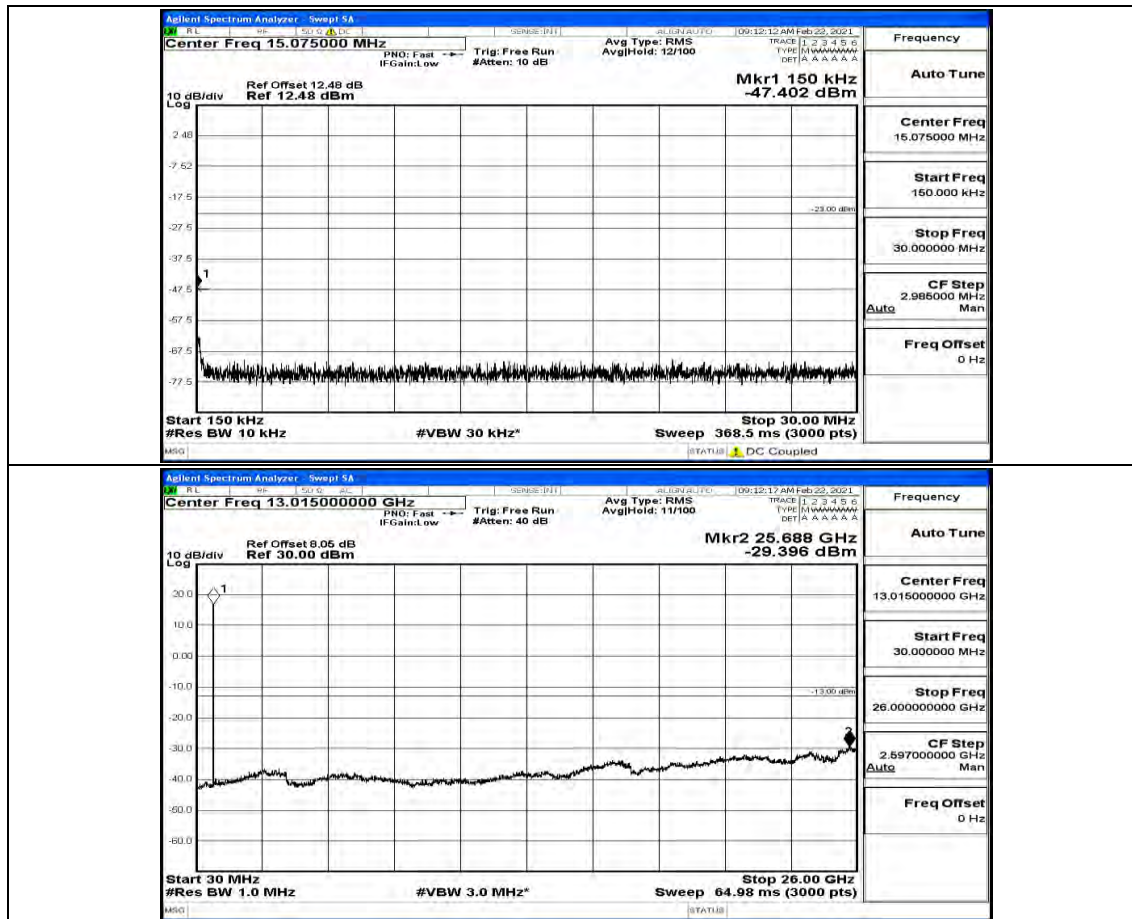


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3

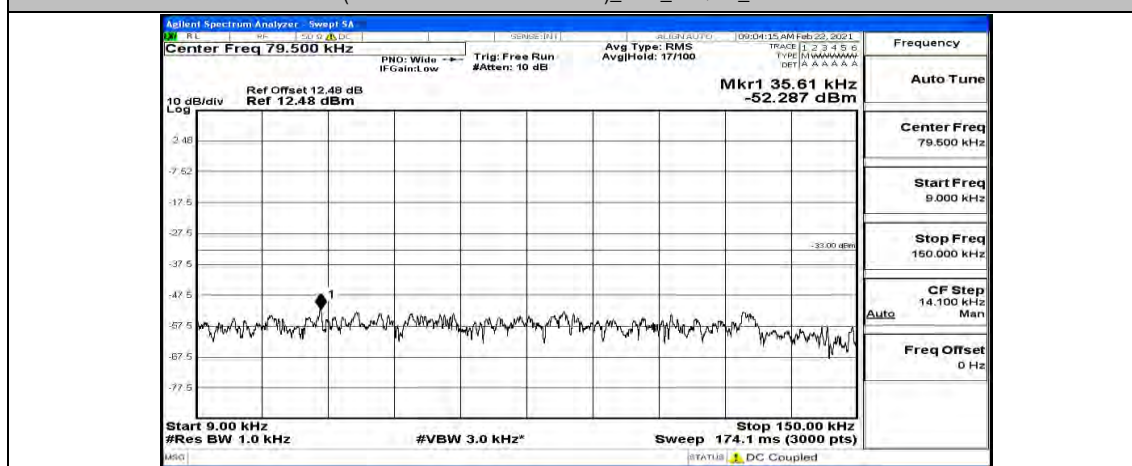


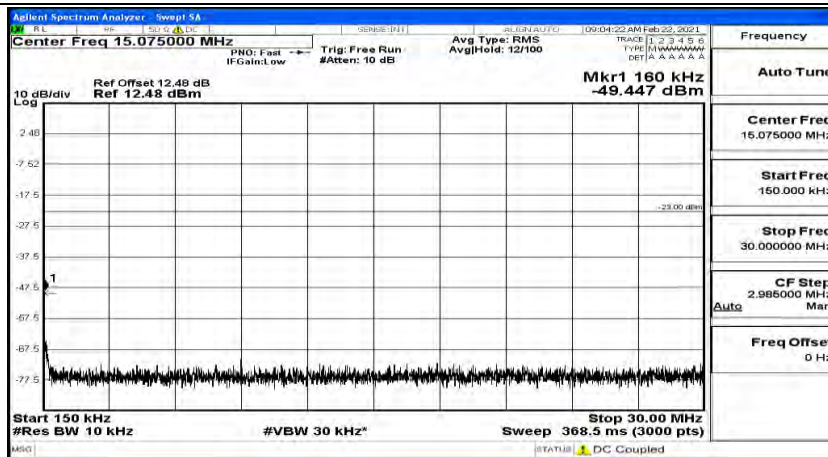
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5



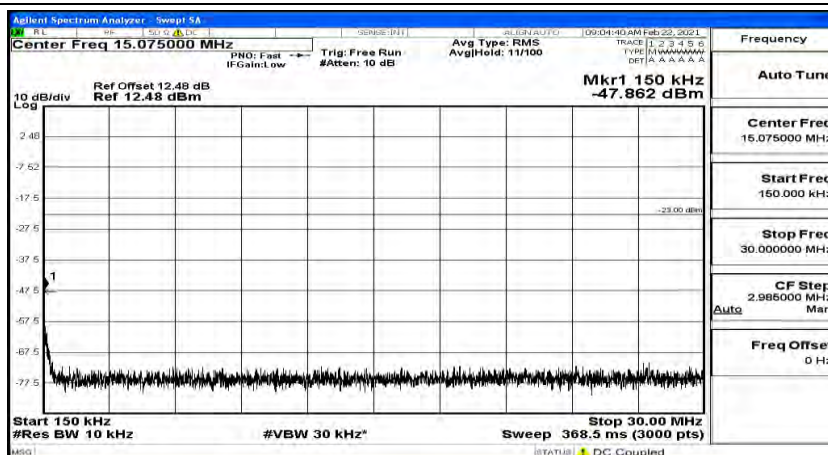
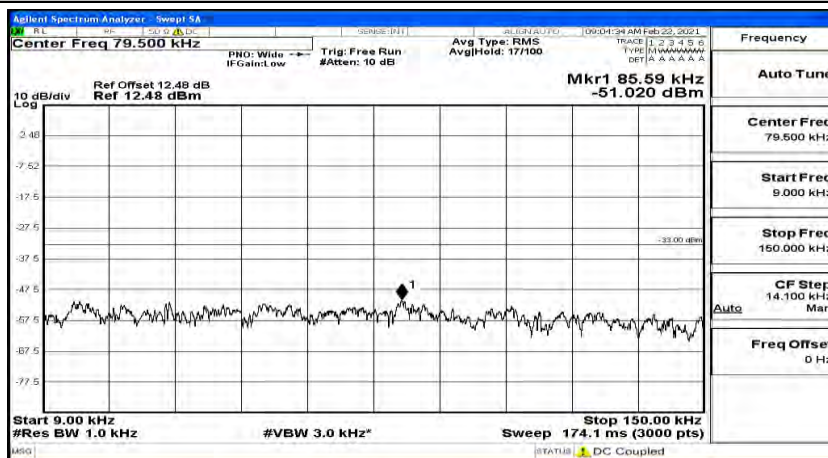


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0



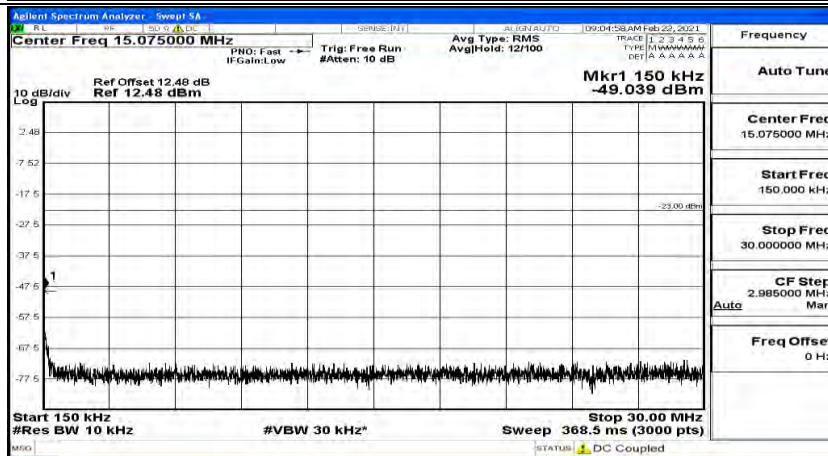
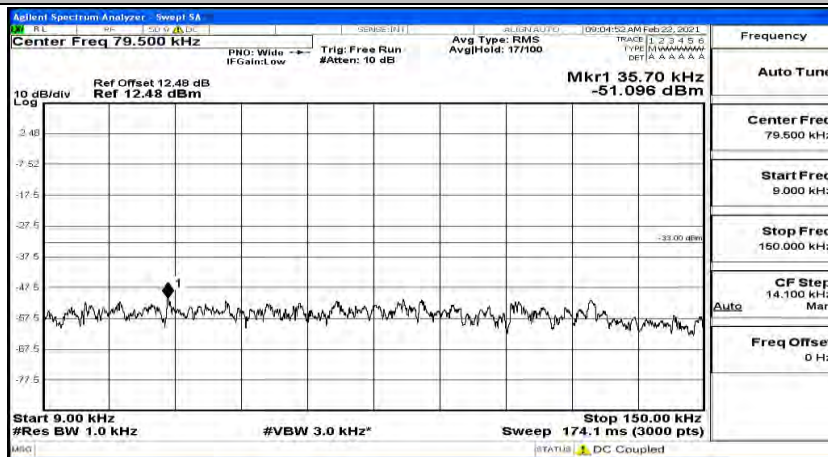


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3

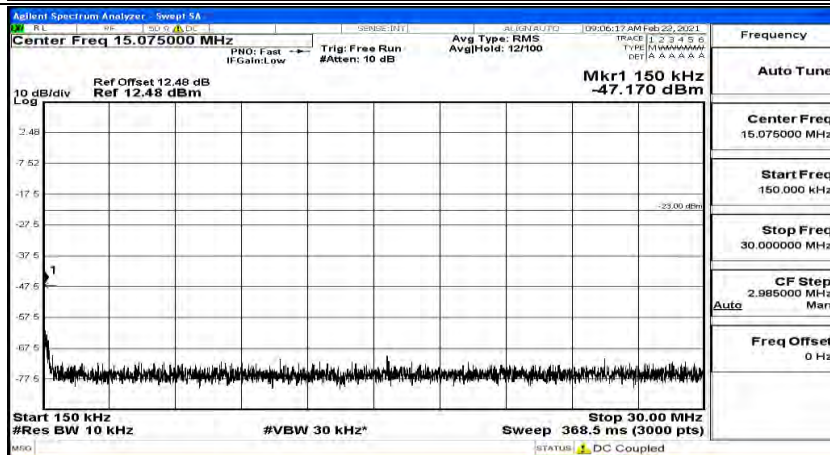
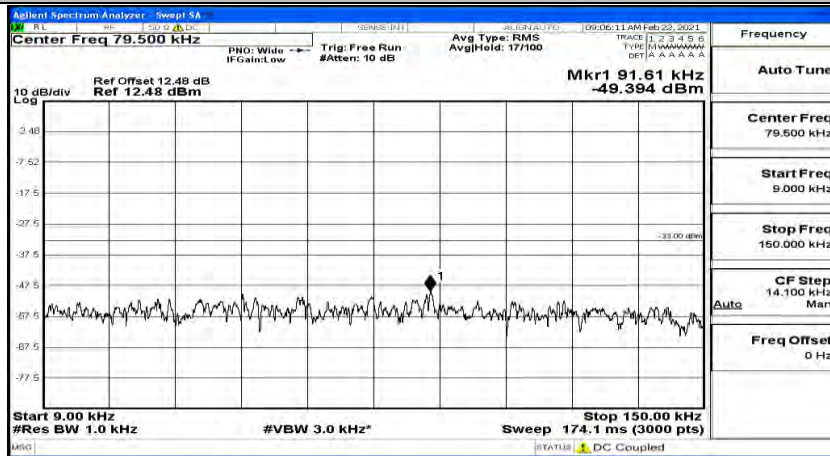




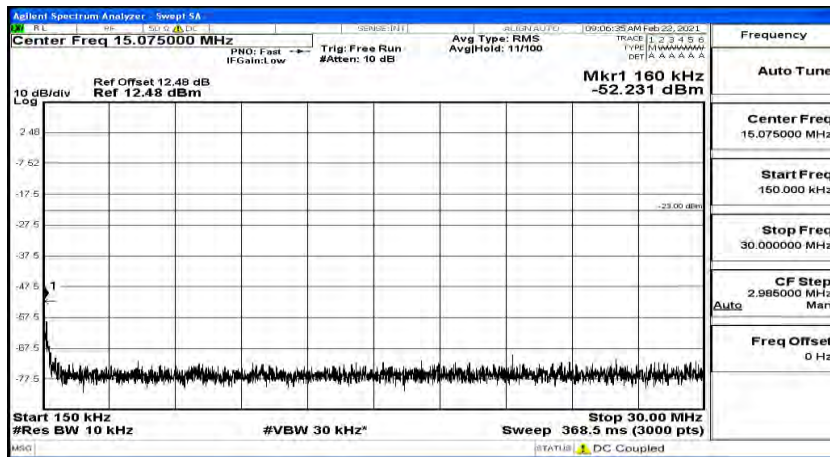
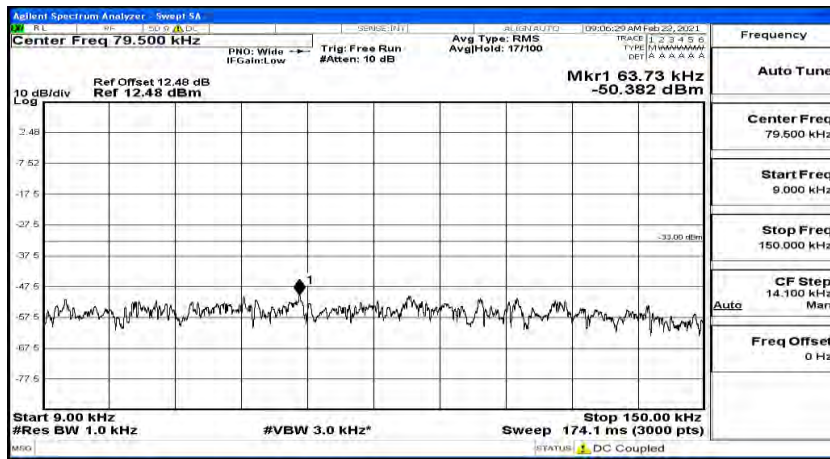
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5



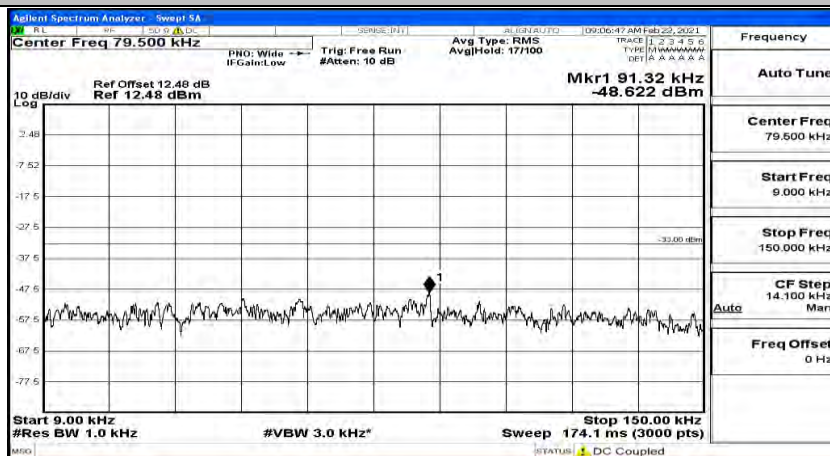
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0

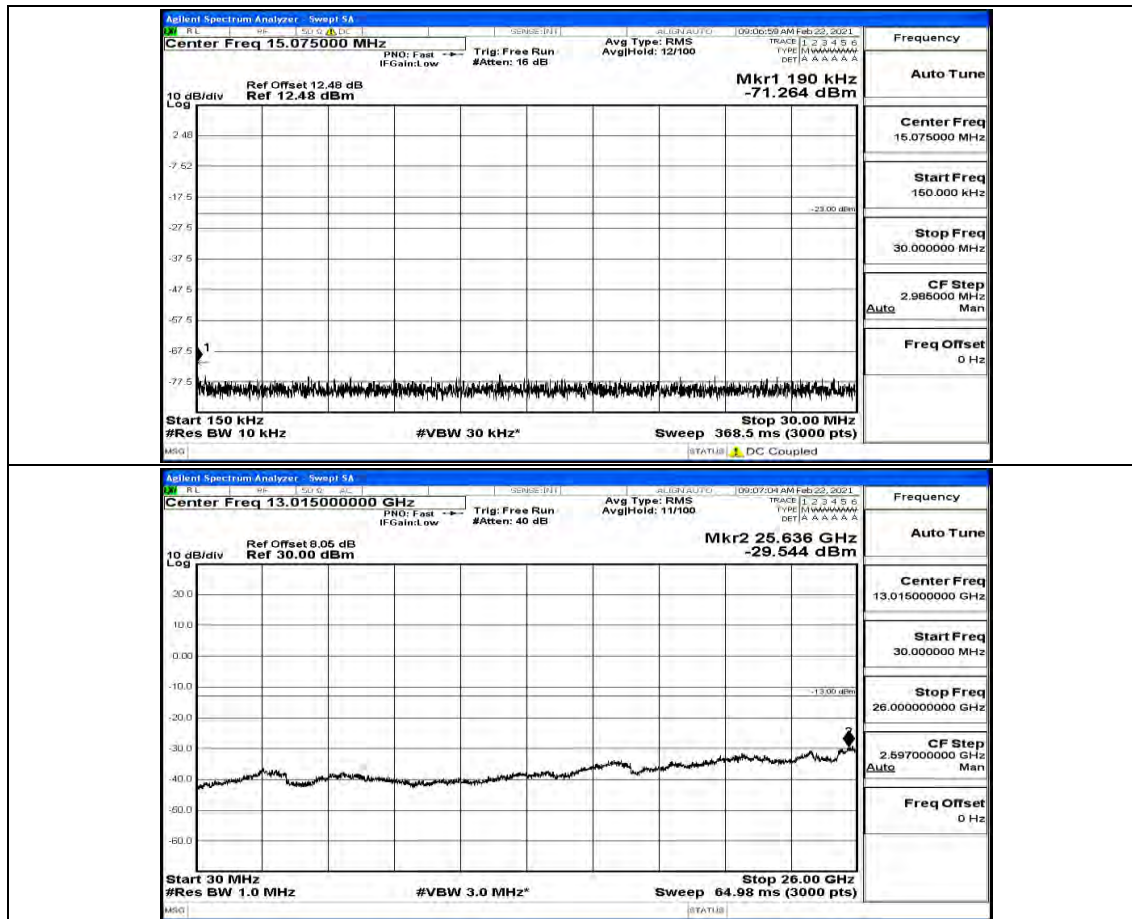


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3

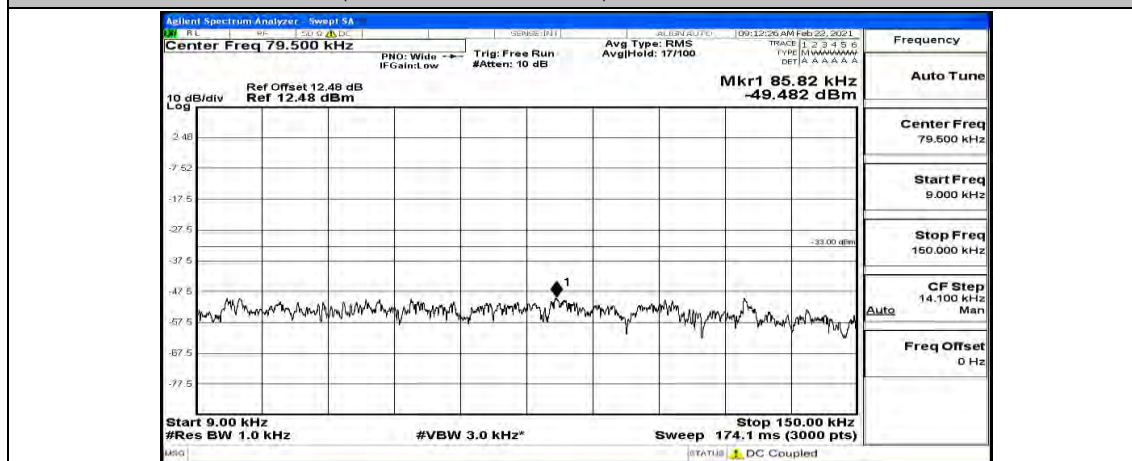


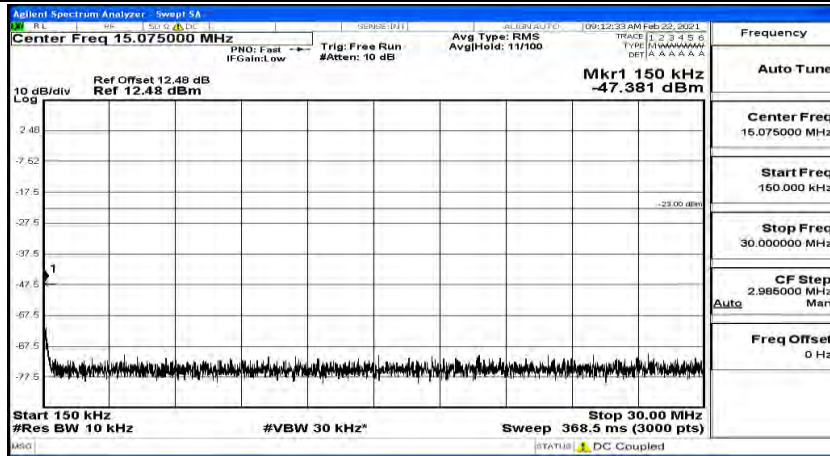
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5



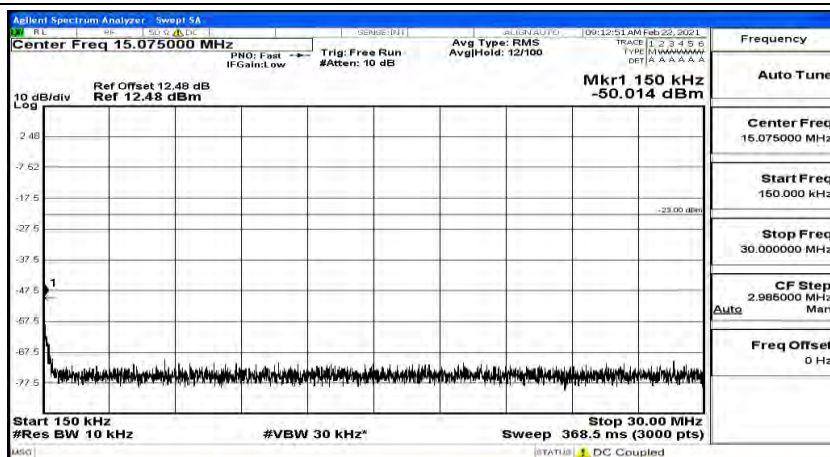
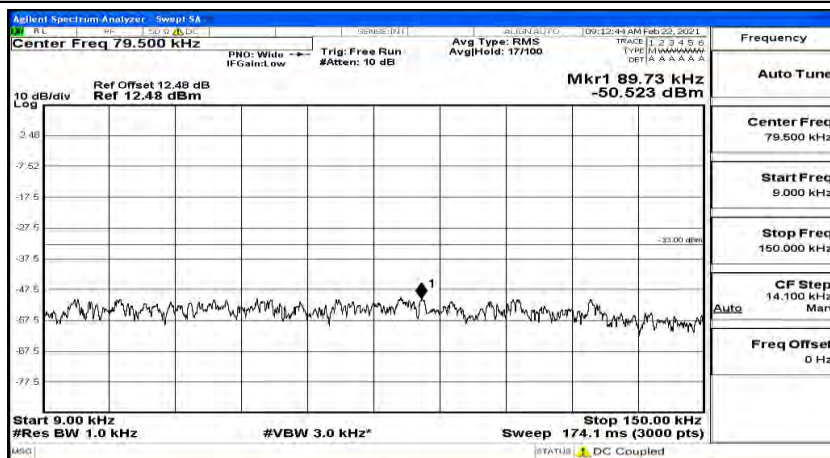


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0



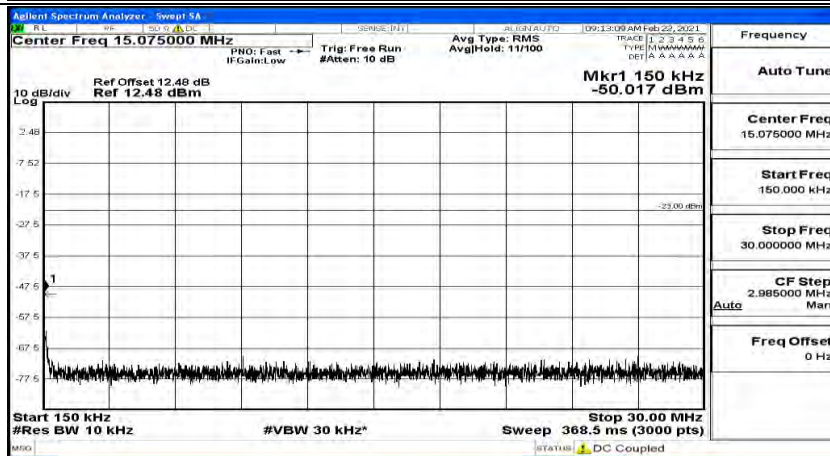
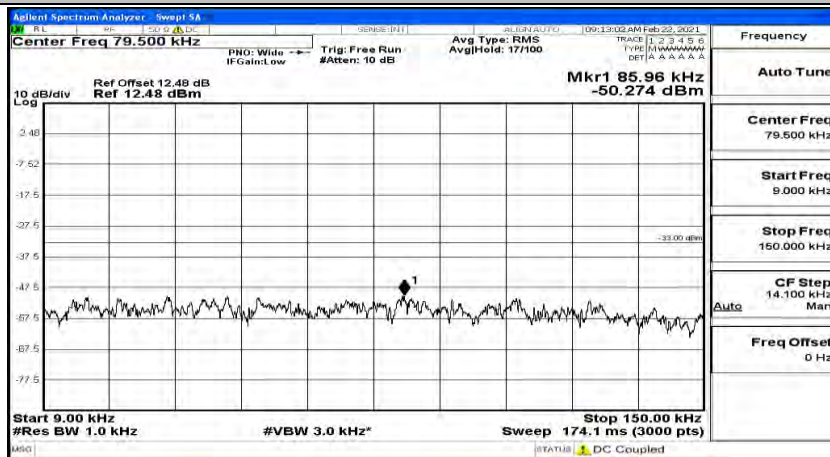


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3



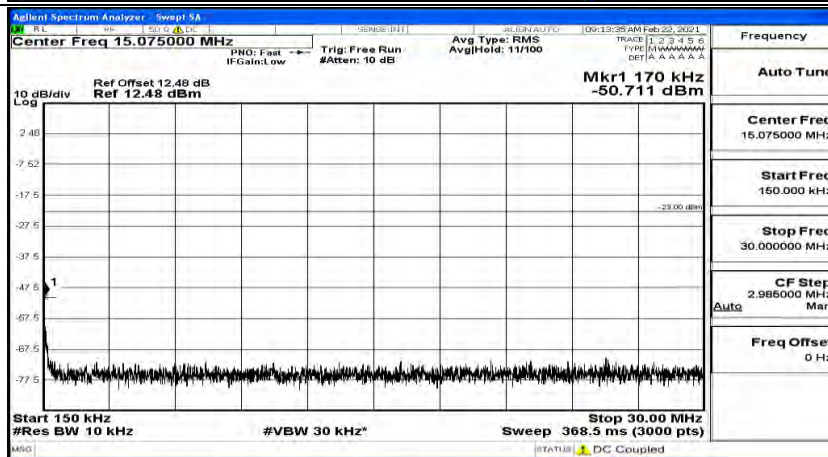
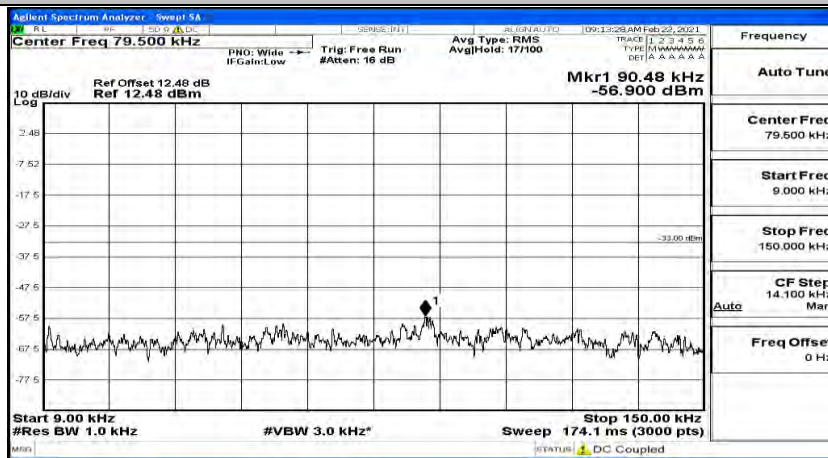


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

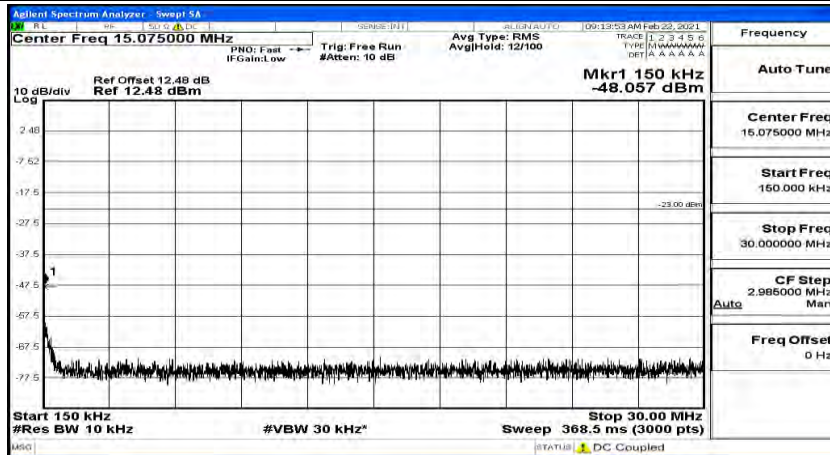
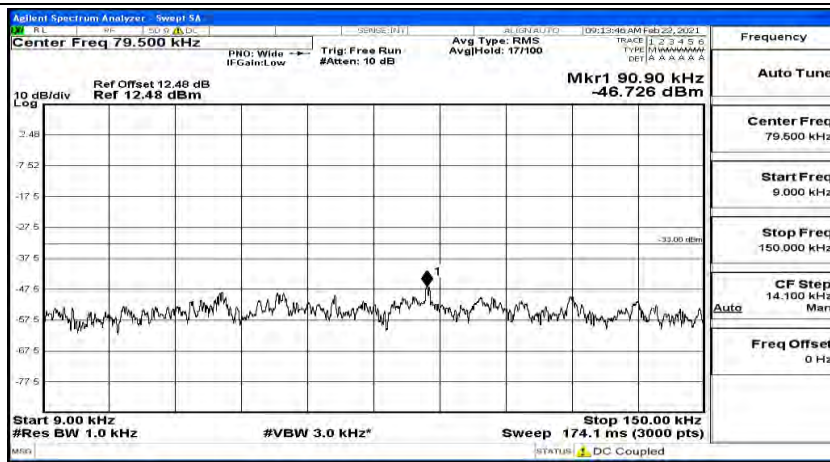


Channel Bandwidth: 3 MHz

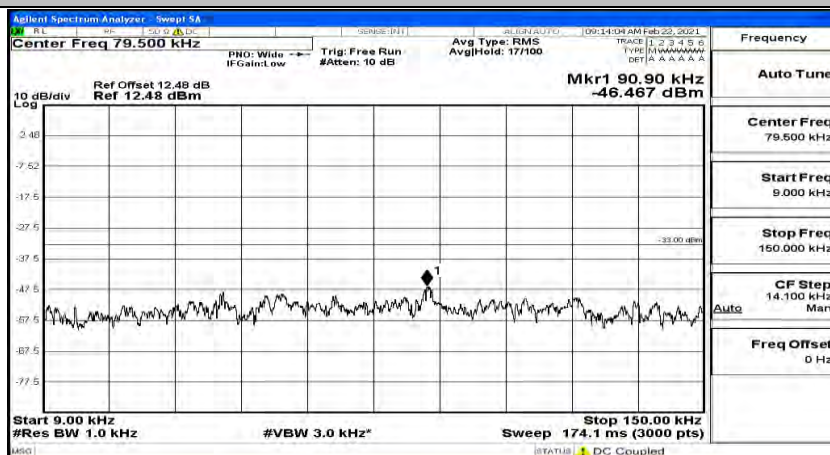
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0

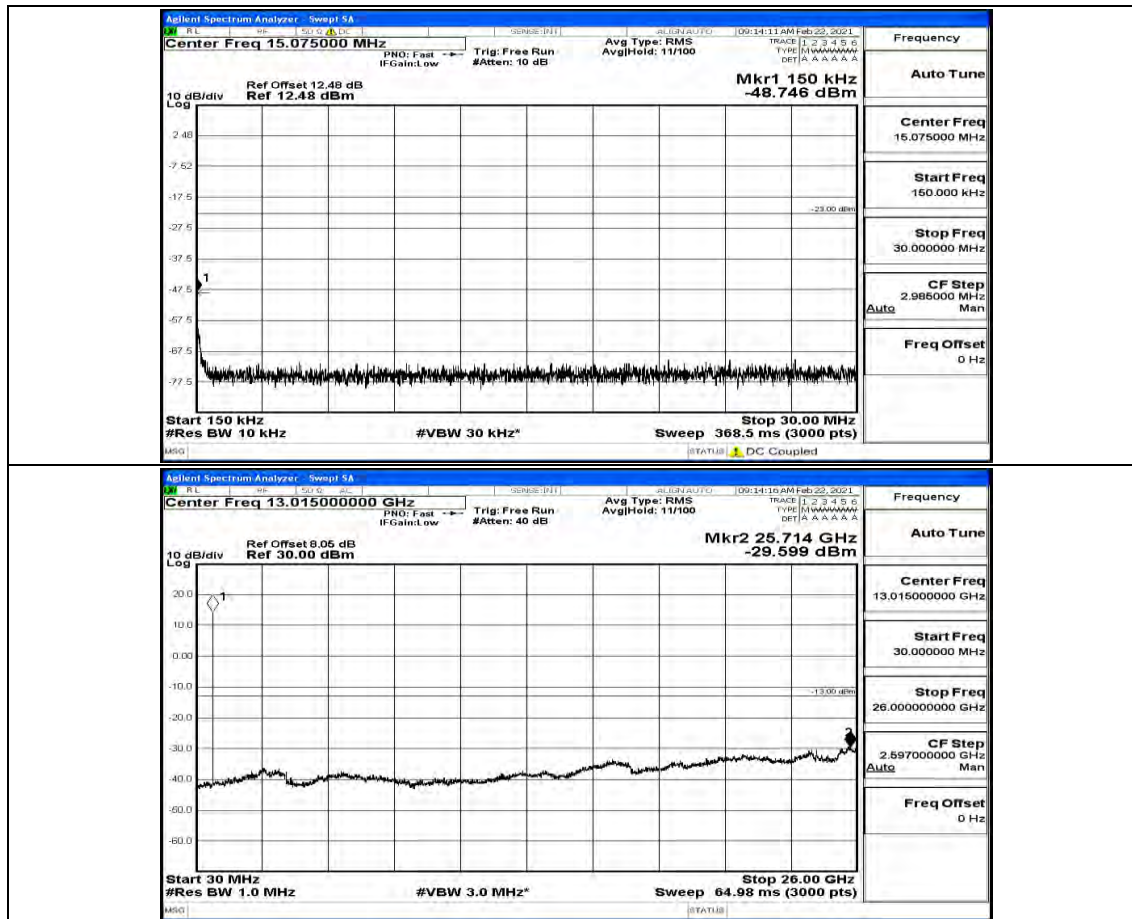


(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7

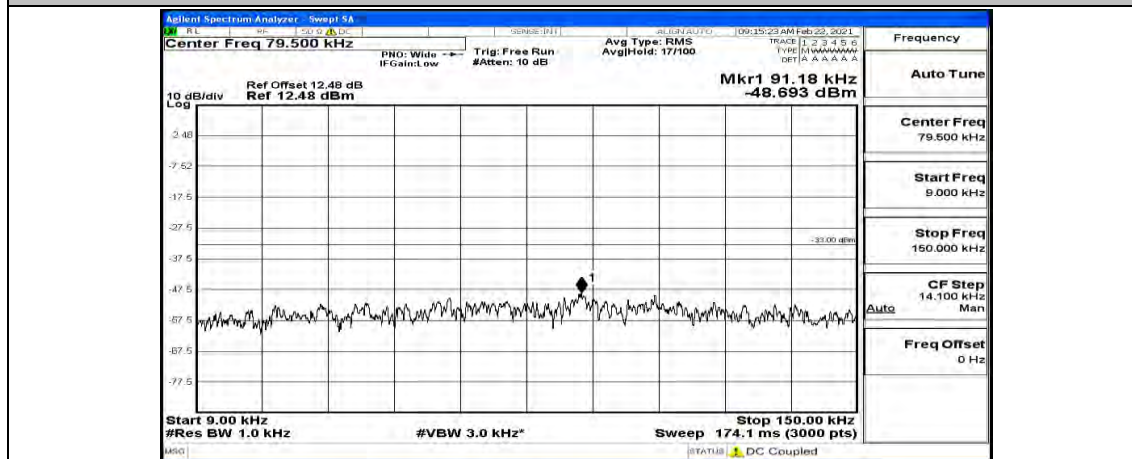


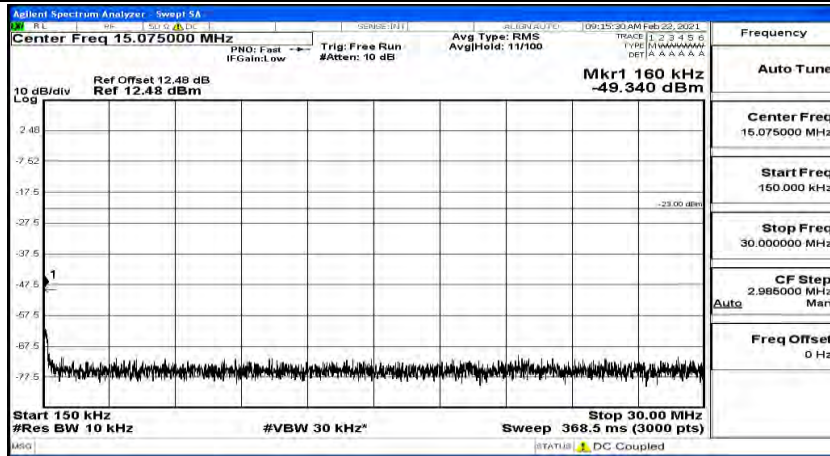
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14



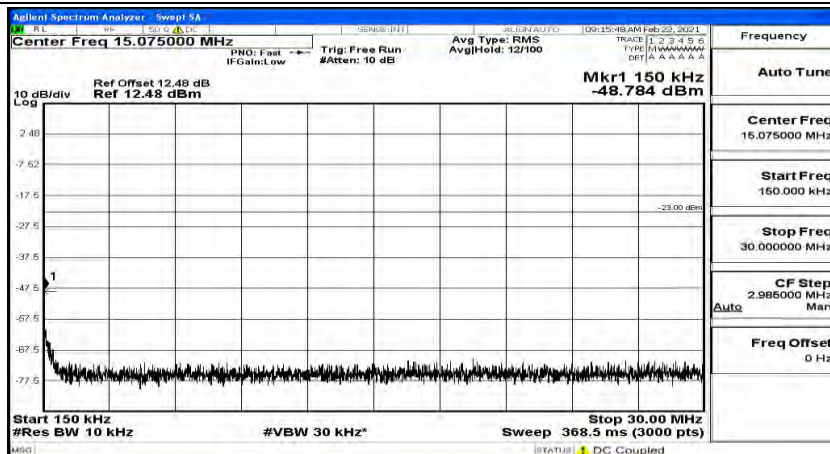
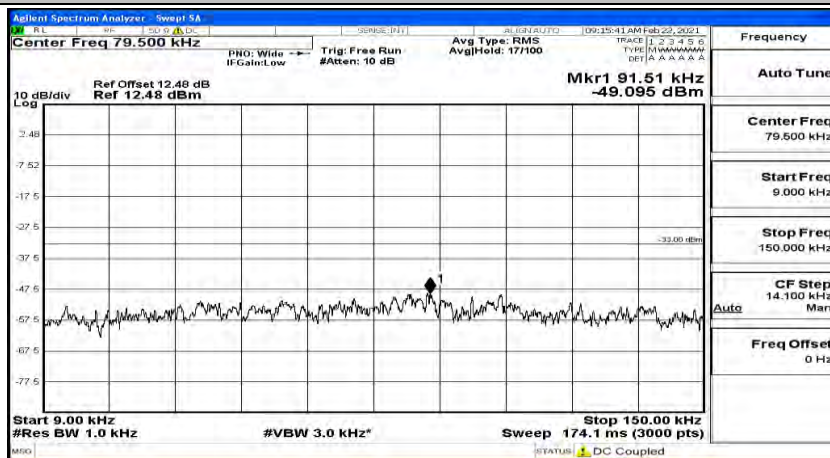


(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0



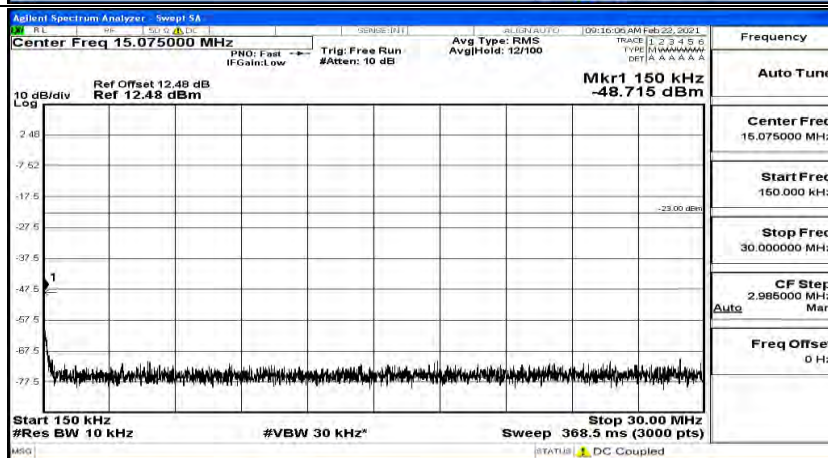
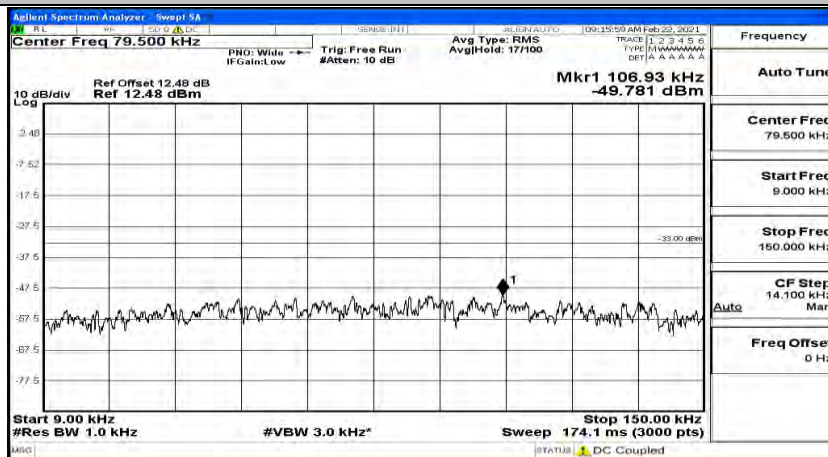


(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7

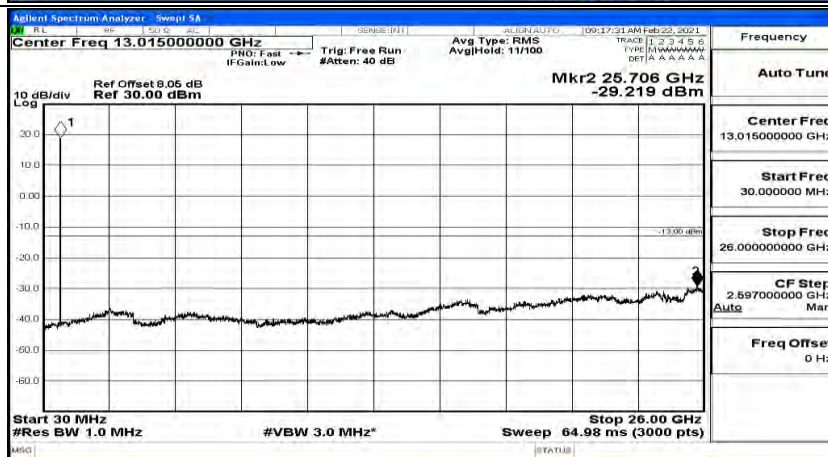
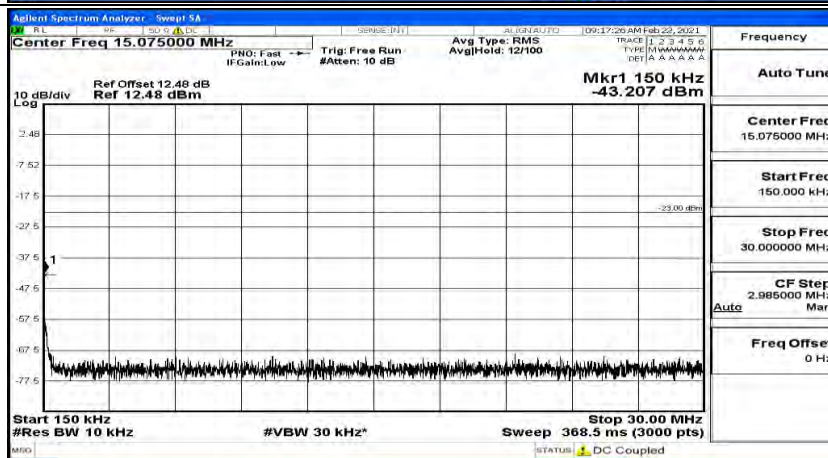
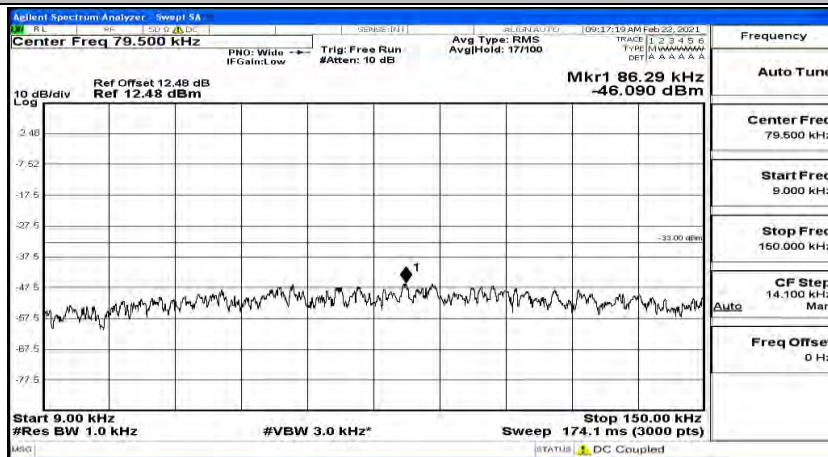




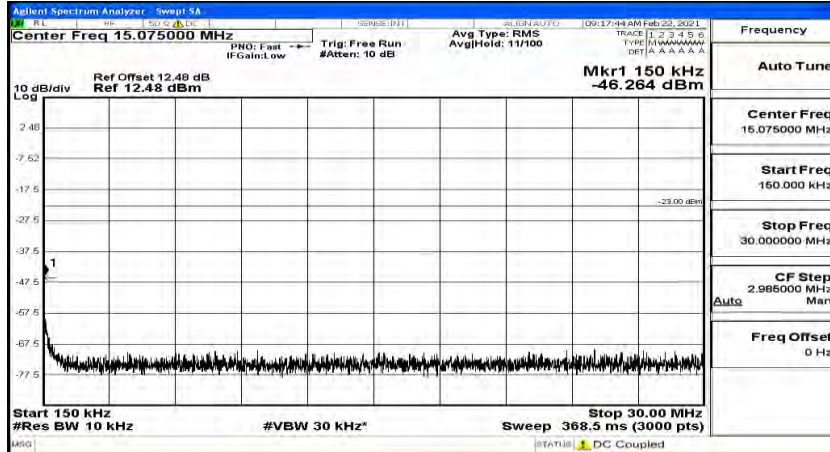
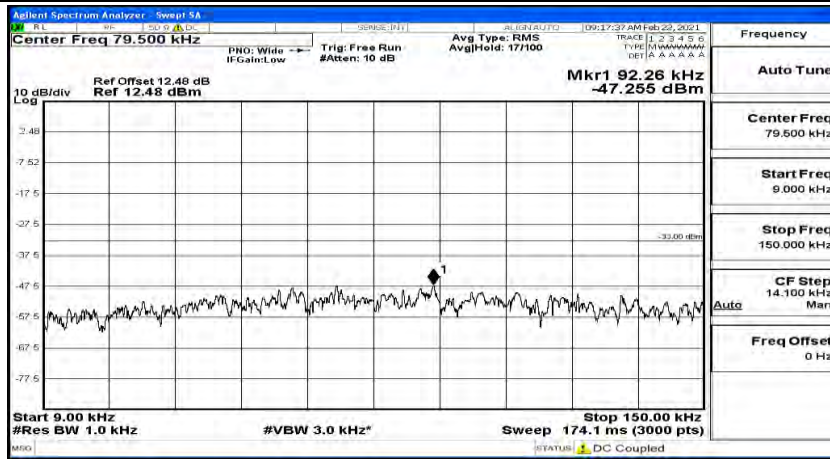
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14



(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7



(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14

