Appendix H: Test Data for E-UTRA Band 17

Product Name: 4G Router/4G LTE/Wireless Router
Trade Mark: TODAAIR
Test Model: TD954G2

Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	DIAMOND.LU
Supervised by:	LI HUAN

H.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.92	23.05	PASS
		1	12	18.91	18.12	PASS
		1	24	19.19	18.36	PASS
		12	0	17.46	16.45	PASS
		12	6	17.56	16.59	PASS
		12	13	17.84	16.83	PASS
		25	0	17.65	16.69	PASS
	MCH	1	0	18.85	18.14	PASS
		1	12	19.93	19.01	PASS
		1	24	20.14	19.15	PASS
		12	0	18.23	17.28	PASS
		12	6	18.63	17.64	PASS
		12	13	19.10	18.04	PASS
		25	0	18.76	17.64	PASS
	HCH	1	0	19.96	18.92	PASS
		1	12	20.55	19.55	PASS
		1	24	19.58	19.05	PASS
		12	0	18.90	17.85	PASS
		12	6	19.17	18.21	PASS
		12	13	18.74	17.81	PASS

		25	0	18.86	17.81	PASS

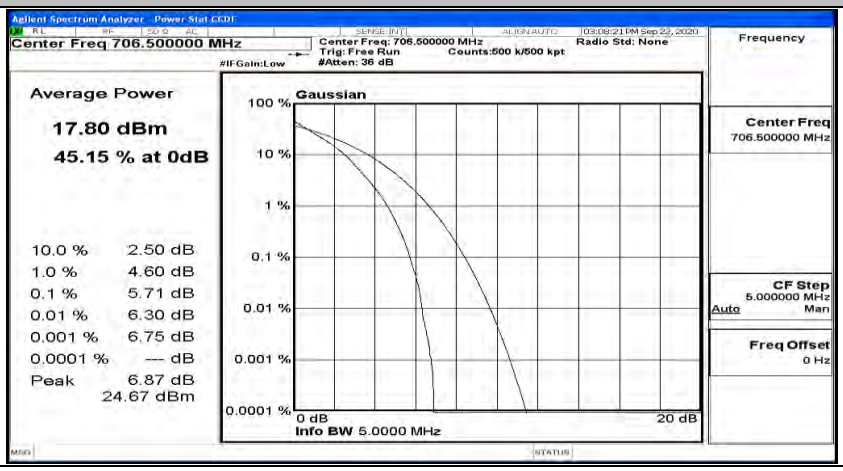
Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	17.97	17.26	PASS
		1	24	19.37	18.60	PASS
		1	49	20.26	19.31	PASS
		25	0	17.92	16.89	PASS
		25	12	18.39	17.36	PASS
		25	25	19.38	18.25	PASS
		50	0	18.73	17.74	PASS
	MCH	1	0	18.22	17.67	PASS
		1	24	19.75	18.95	PASS
		1	49	20.06	19.36	PASS
		25	0	18.07	17.14	PASS
		25	12	18.70	17.64	PASS
		25	25	19.49	18.35	PASS
		50	0	18.93	17.93	PASS
	HCH	1	0	18.52	17.83	PASS
		1	24	20.05	19.08	PASS
		1	49	19.71	19.18	PASS
		25	0	18.24	17.24	PASS
		25	12	18.90	17.84	PASS
		25	25	19.24	18.11	PASS
		50	0	18.90	17.85	PASS

H.2 Peak-to-Average Ratio

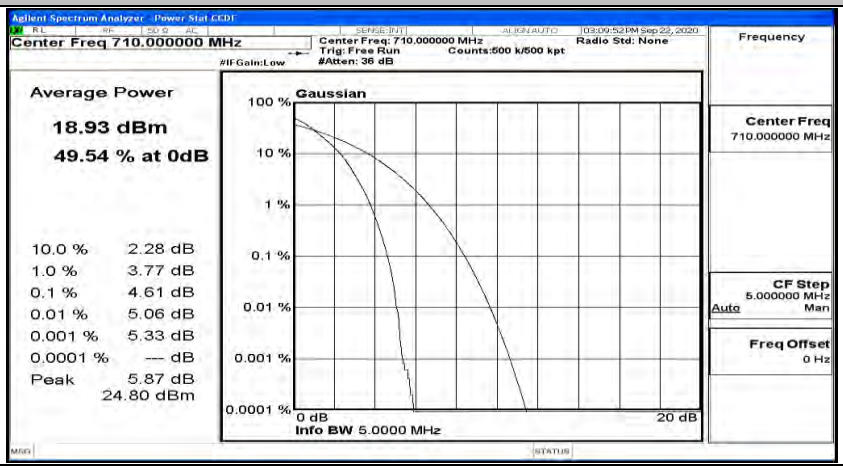
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.71	<13	PASS
	MCH	4.61	<13	PASS
	HCH	4.47	<13	PASS
16QAM	LCH	6.64	<13	PASS
	MCH	5.36	<13	PASS
	HCH	5.28	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.18	<13	PASS
	MCH	5.11	<13	PASS
	HCH	5.02	<13	PASS
16QAM	LCH	5.87	<13	PASS
	MCH	5.79	<13	PASS
	HCH	5.72	<13	PASS

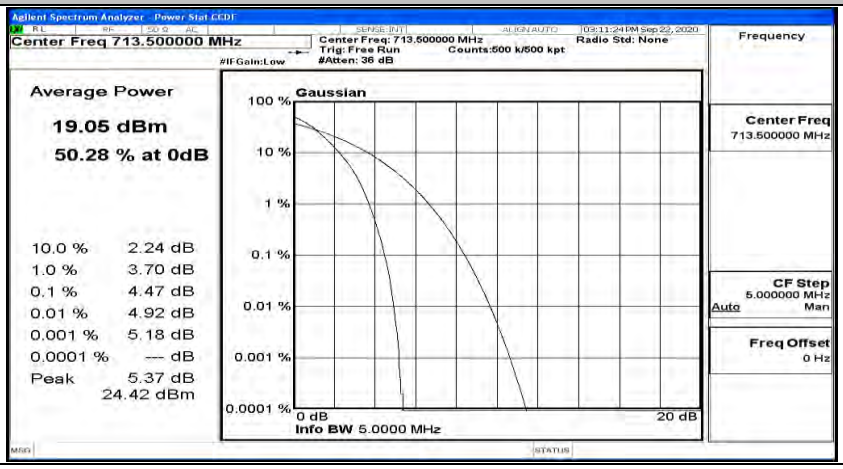
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



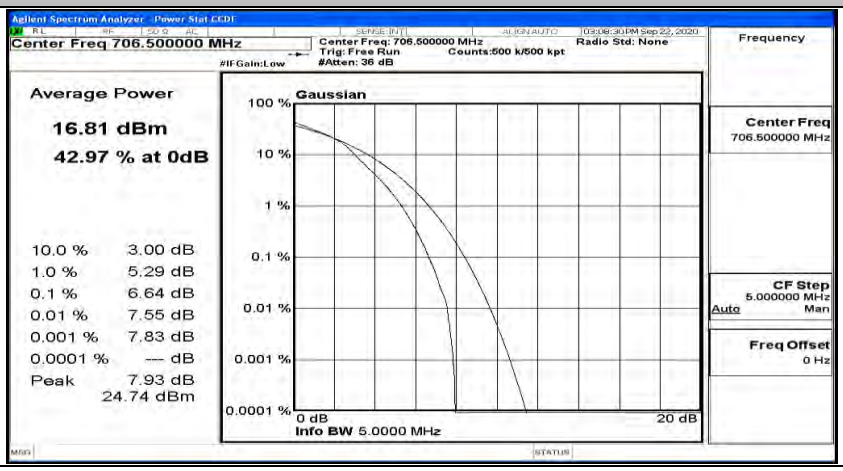
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



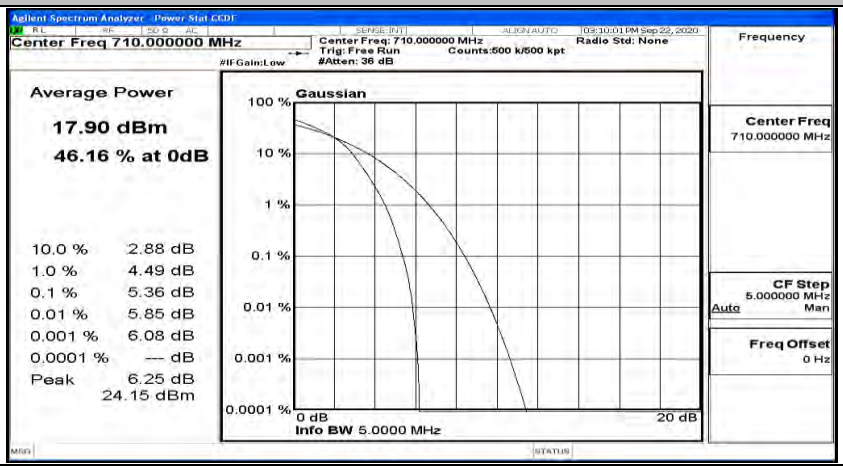
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



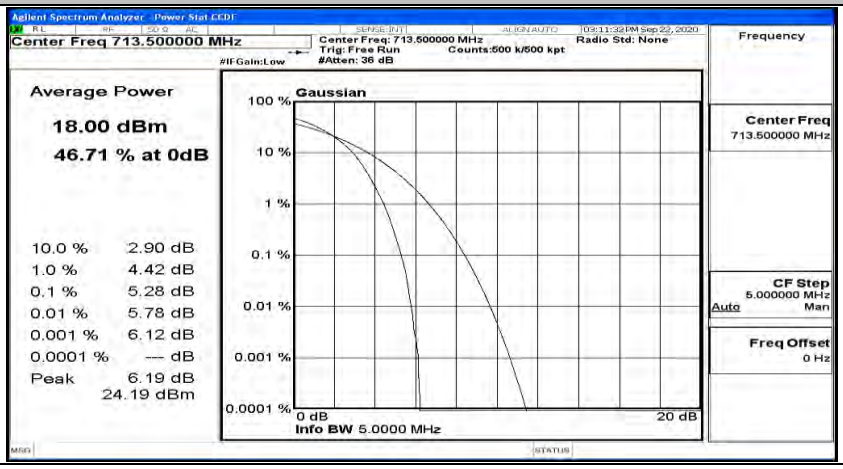
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



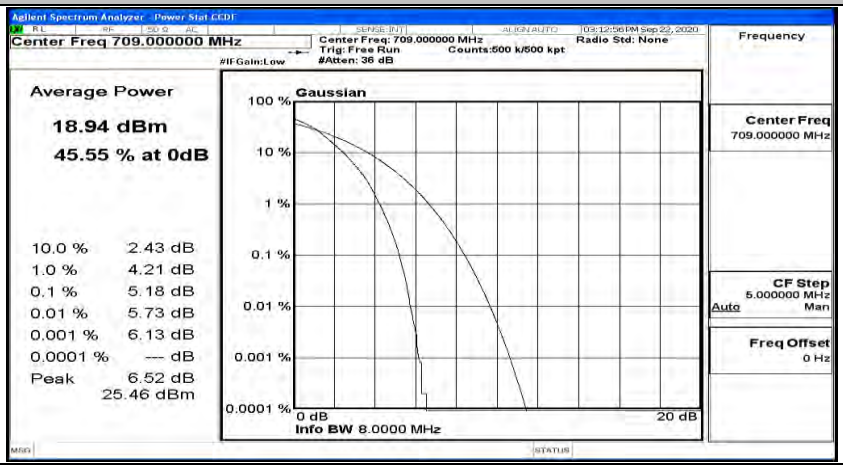
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



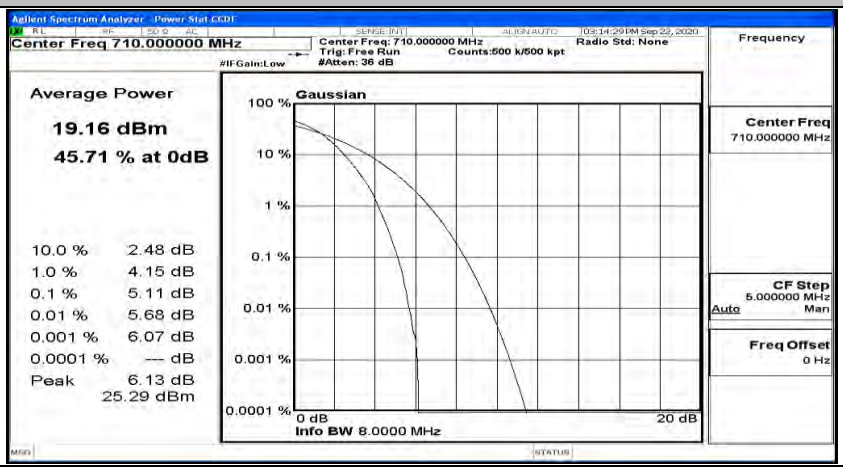
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



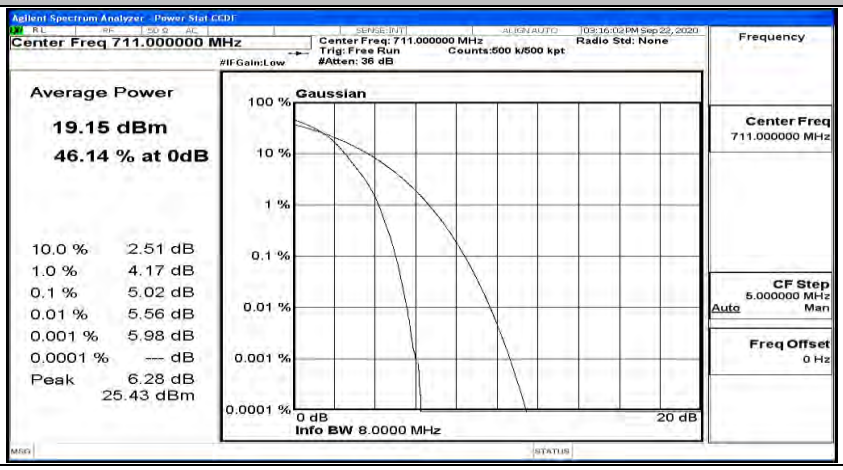
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



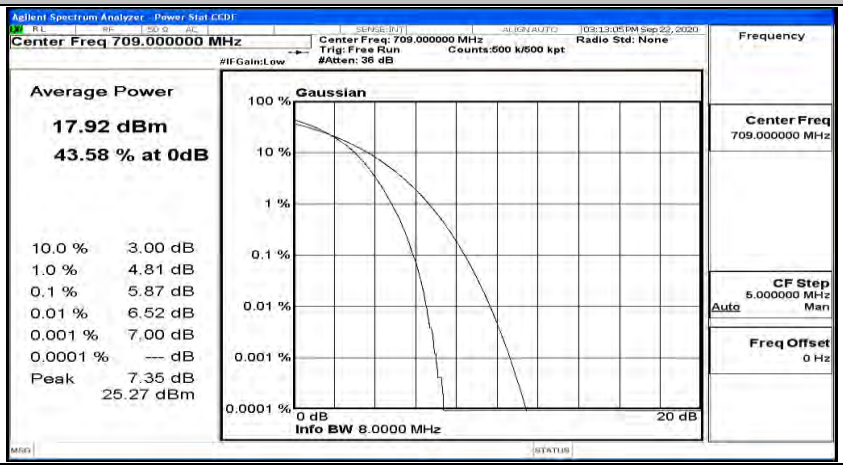
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



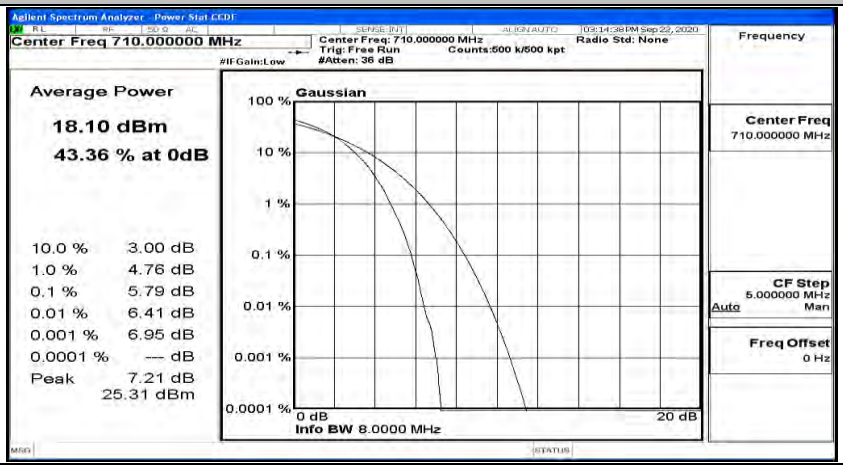
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK

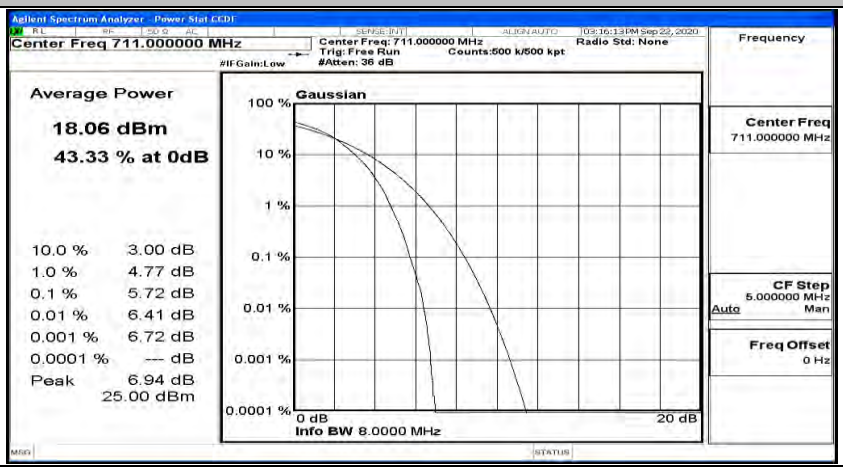


Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



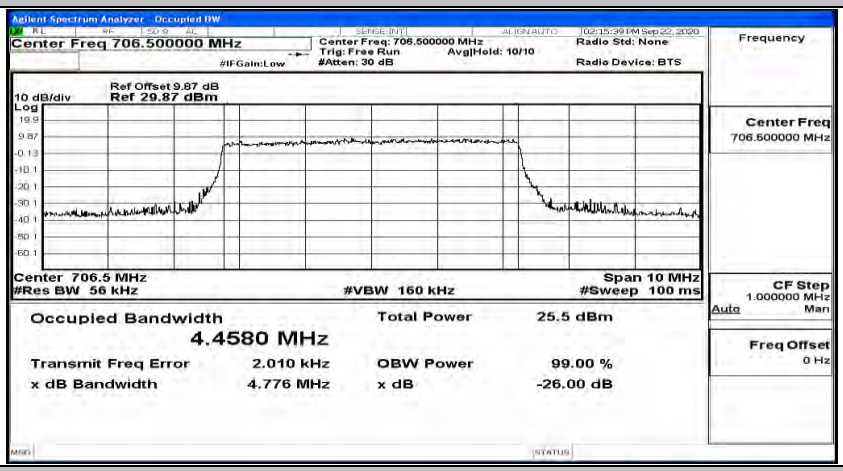
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM


H.3 26dB Bandwidth and Occupied Bandwidth

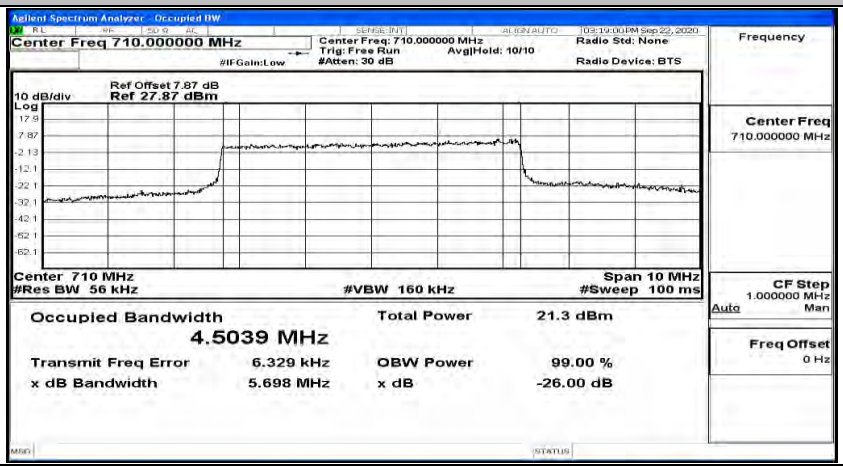
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4580	4.776	PASS
	MCH	4.5039	5.698	PASS
	HCH	4.4547	4.807	PASS
16QAM	LCH	4.4880	4.834	PASS
	MCH	4.4911	5.560	PASS
	HCH	4.4500	4.791	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9936	10.31	PASS
	MCH	8.9504	9.685	PASS
	HCH	8.9185	9.426	PASS
16QAM	LCH	8.9897	10.14	PASS
	MCH	8.9591	9.654	PASS
	HCH	8.9023	9.374	PASS

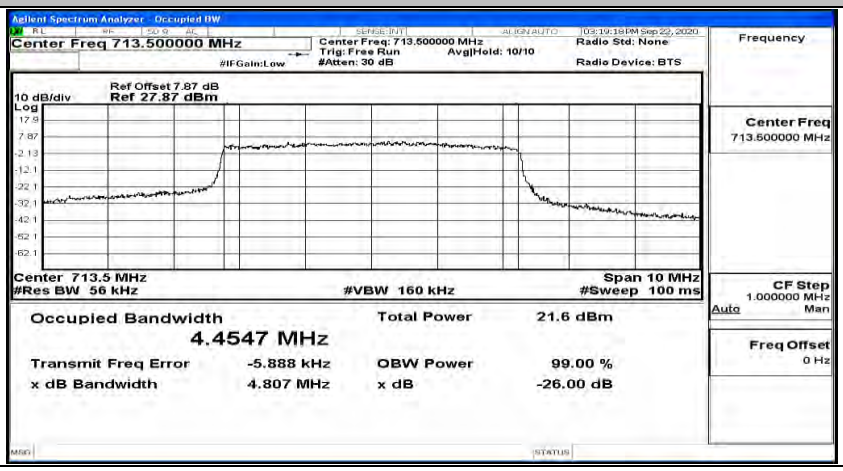
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



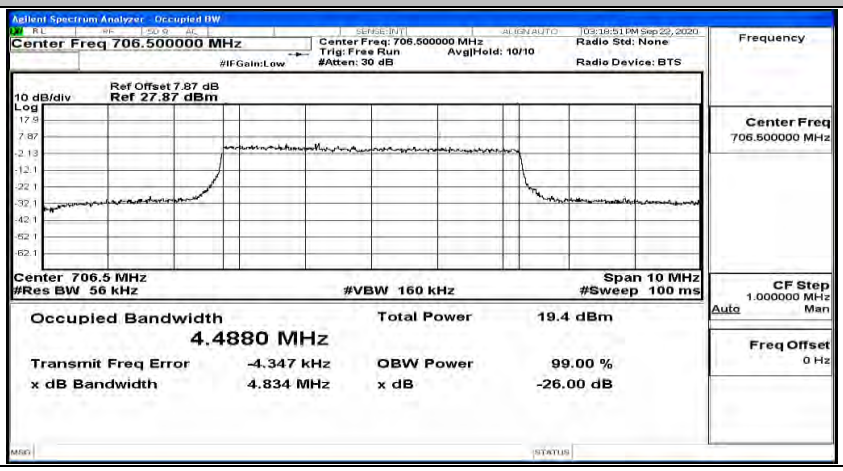
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



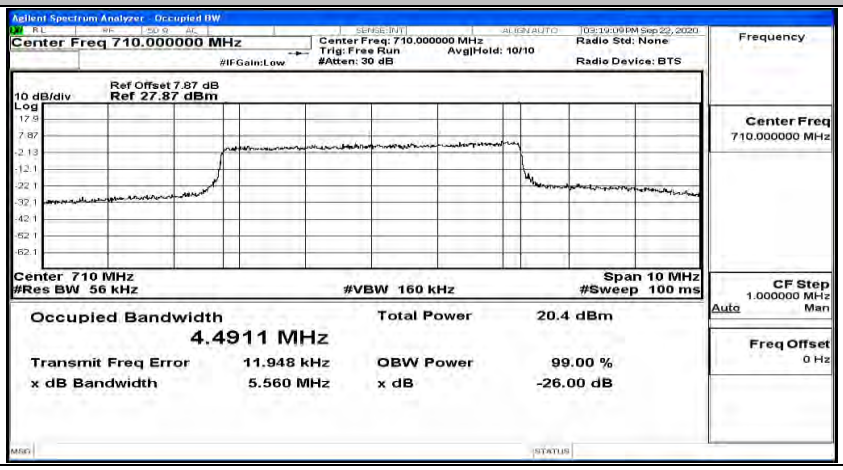
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



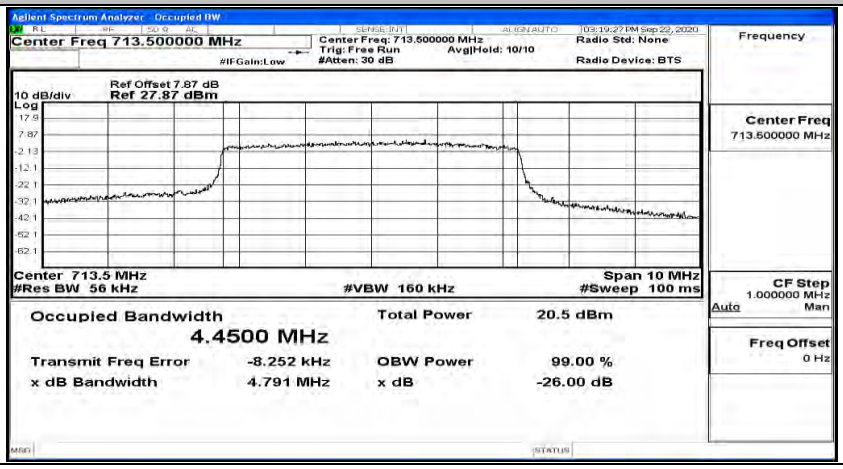
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



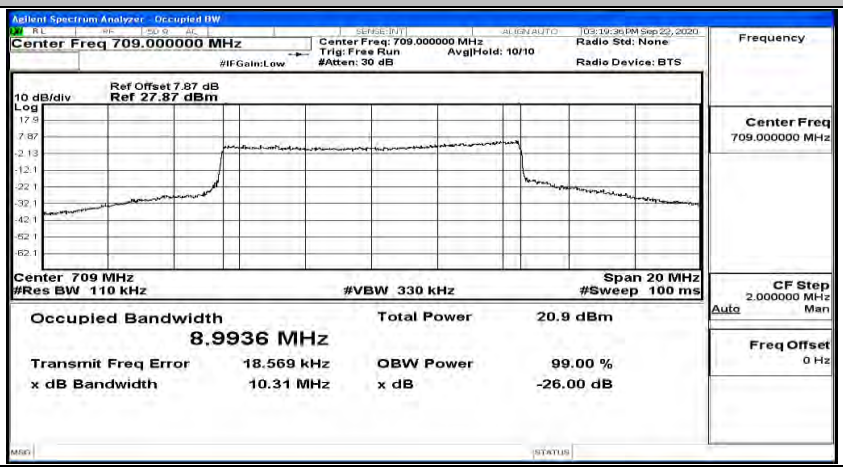
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



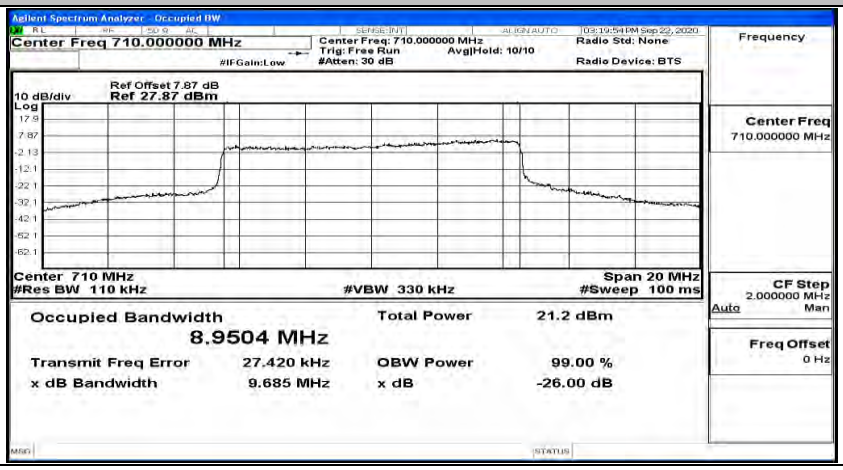
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



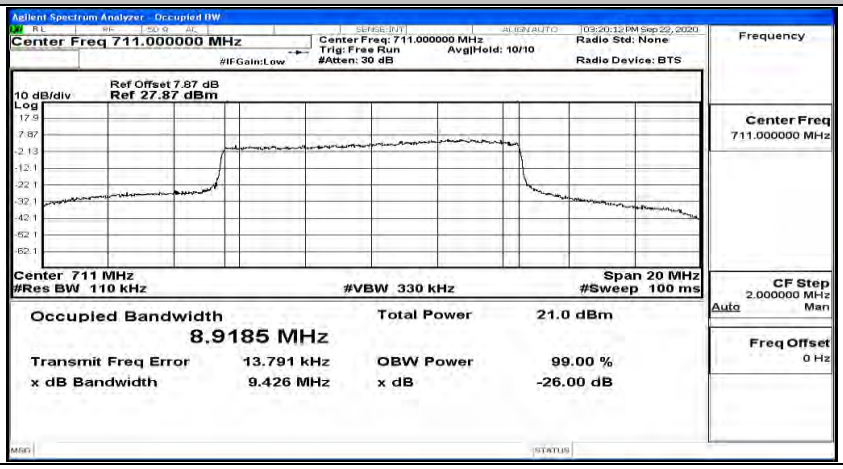
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



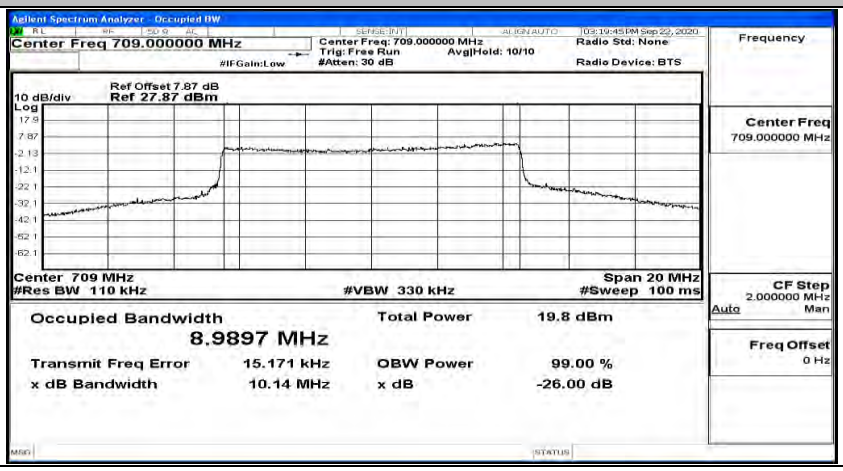
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



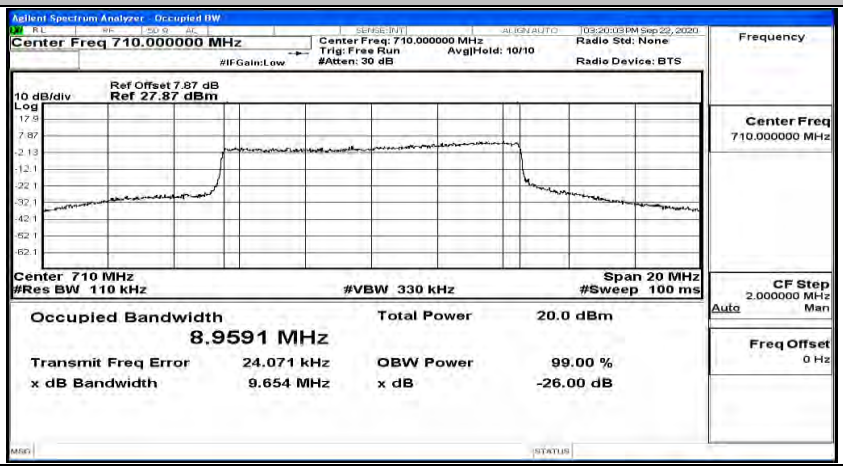
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



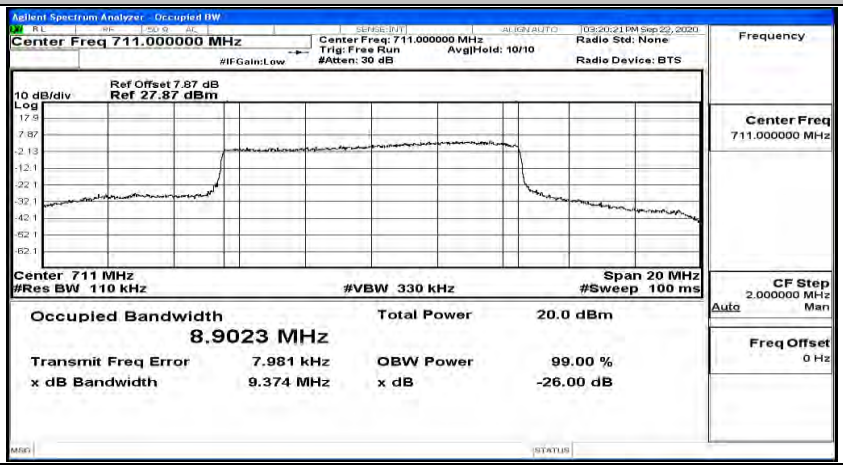
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



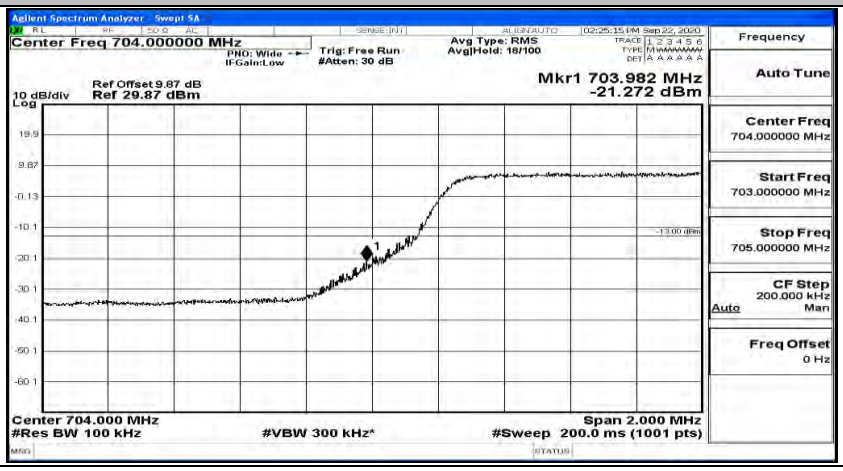
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



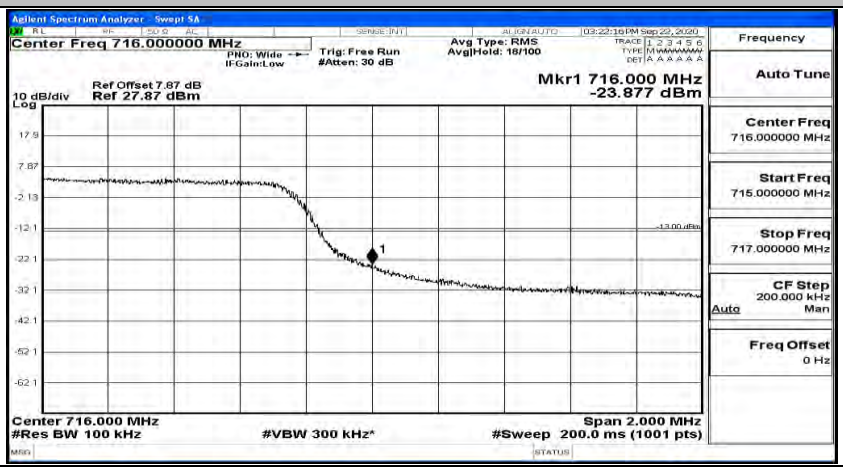
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



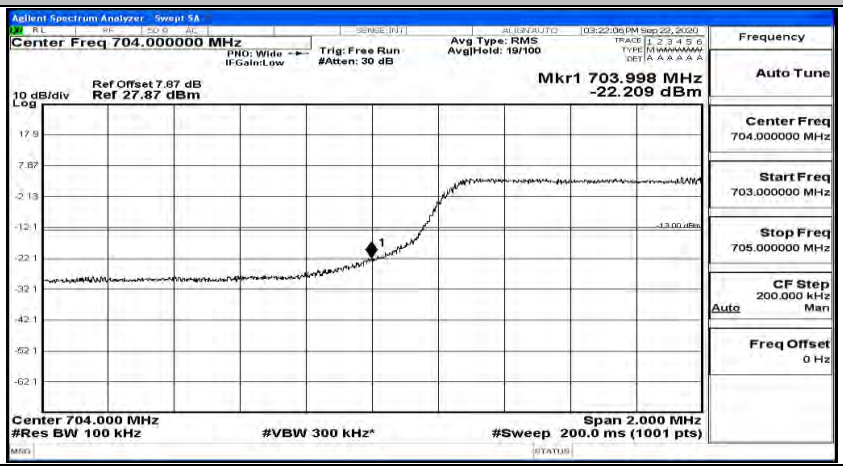
H.4 Band Edge

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


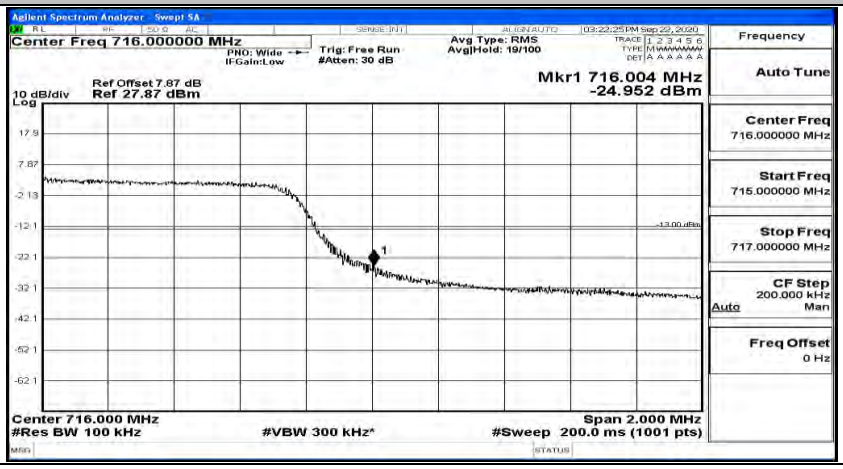
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



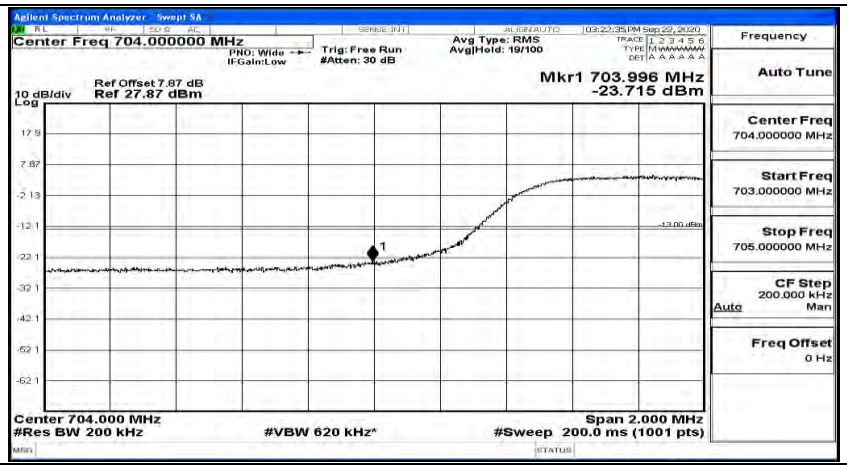
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



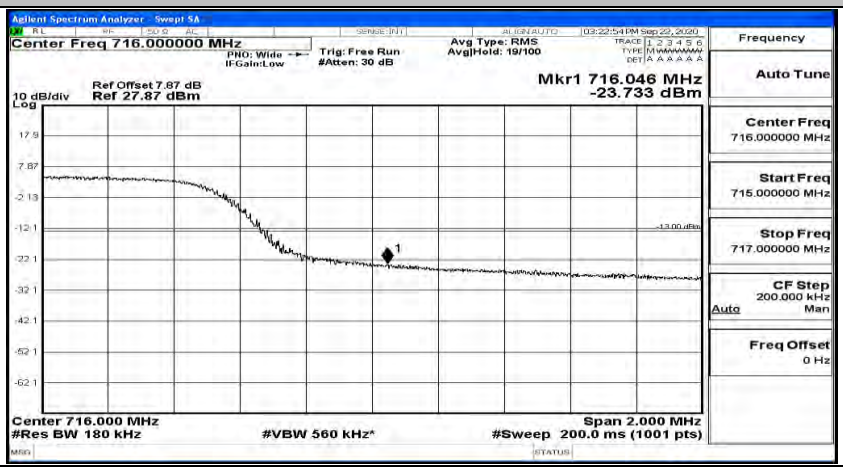
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



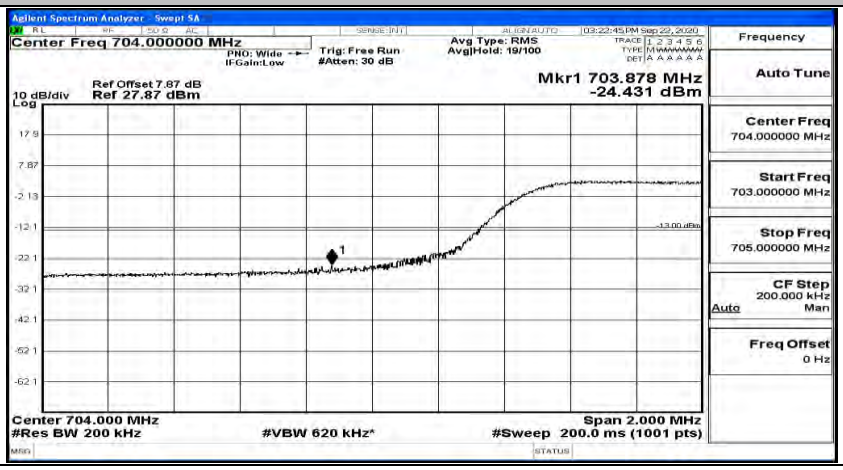
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK


Agilent Spectrum Analyzer - Swept SA
Center Freq 704.000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold: 19/100
03:22:35 PM Sep 22, 2020
Mkr1 703.996 MHz
-23.715 dBm
Ref Offset 7.87 dB
10 dB/div
Log
Ref 27.87 dBm
17.9
7.87
-2.13
-12.1
-22.1
-32.1
-42.1
-52.1
-62.1
-13.00 dBm
Center 704.000 MHz
#Res BW 200 kHz
#VBW 620 kHz*
Span 2.000 MHz
#Sweep 200.0 ms (1001 pts)
Frequency
Auto Tune
Center Freq
704.000000 MHz
Start Freq
703.000000 MHz
Stop Freq
705.000000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz

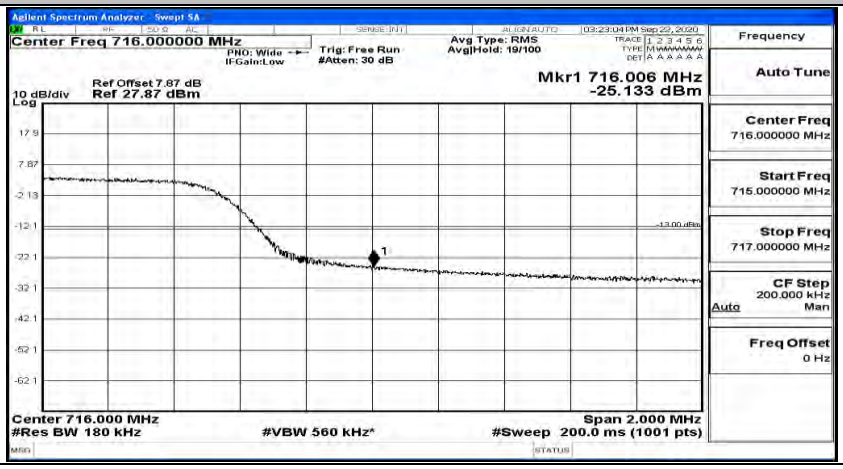
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



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



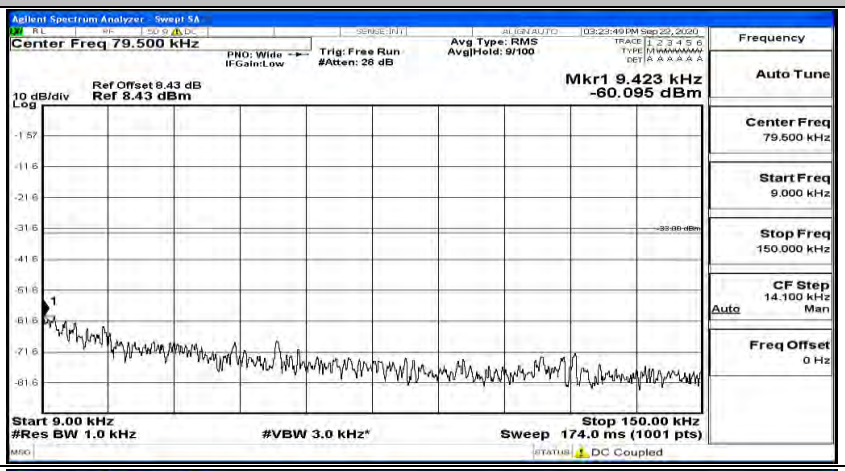
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

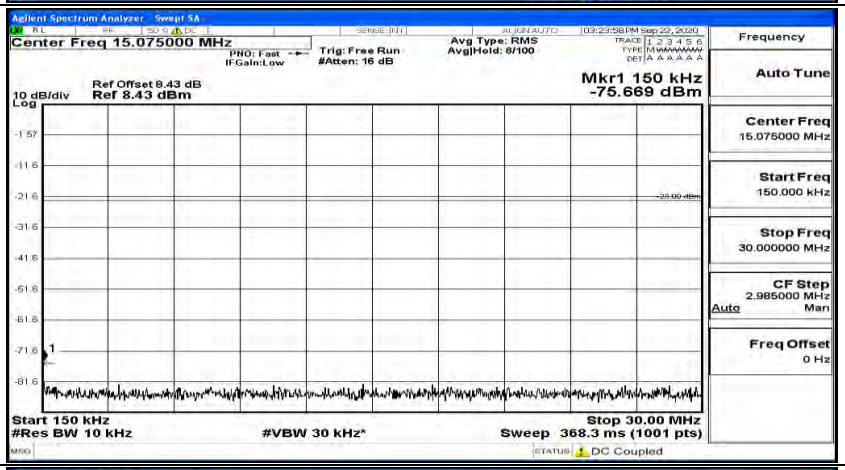


H.5 Conducted Spurious Emission

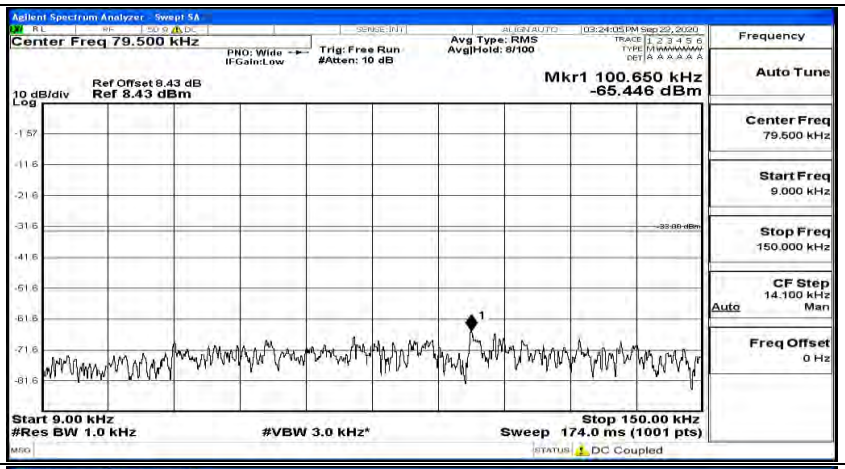
Channel Bandwidth: 5 MHz

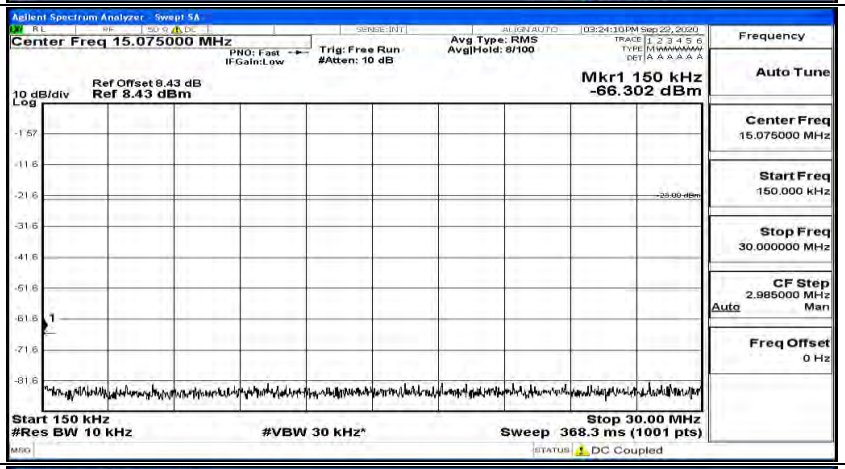
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



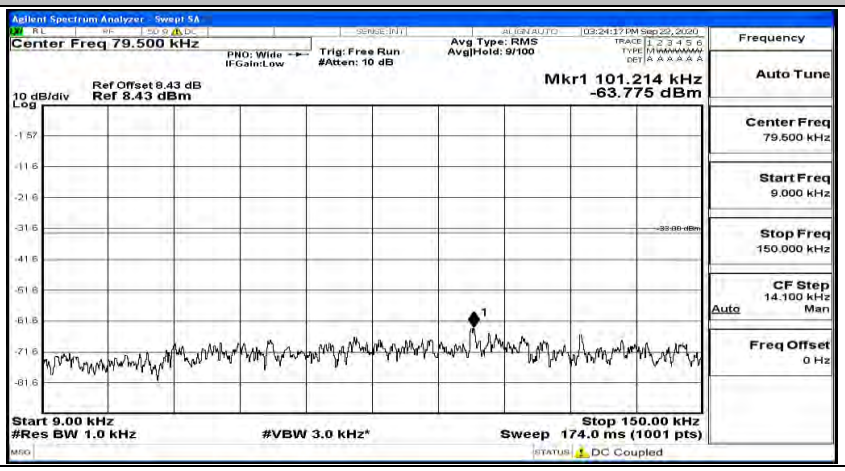


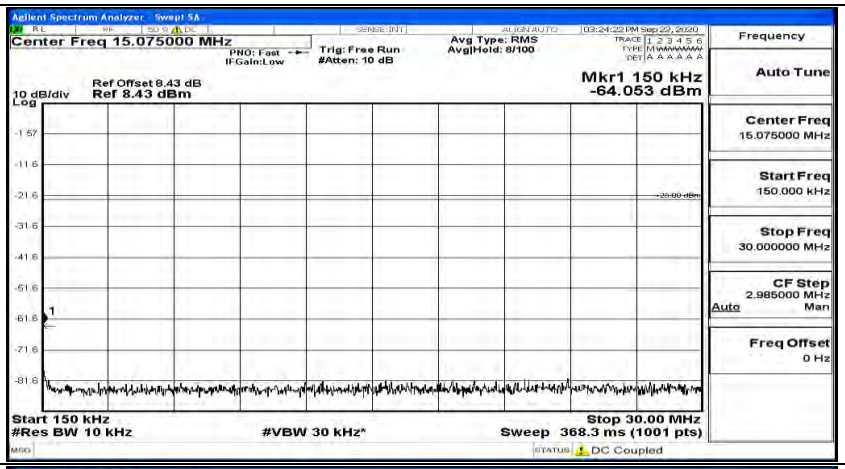
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

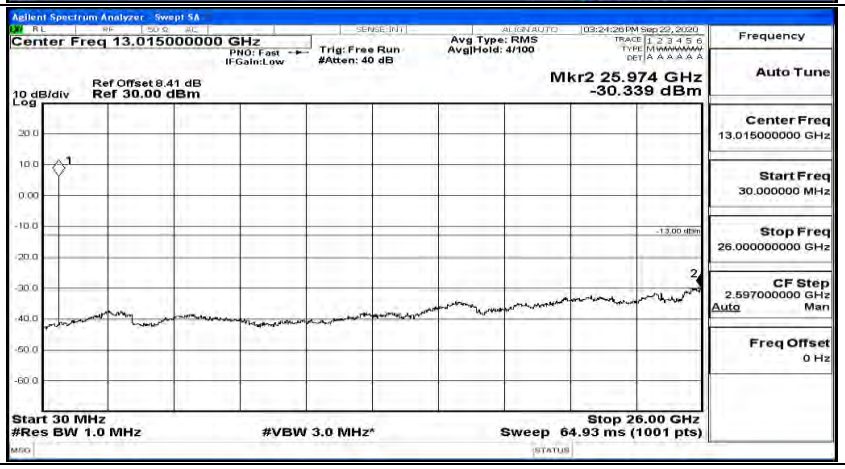




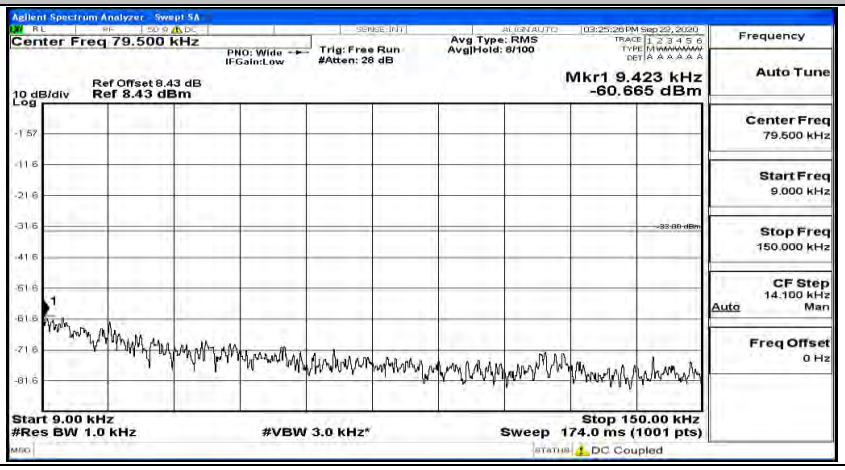
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

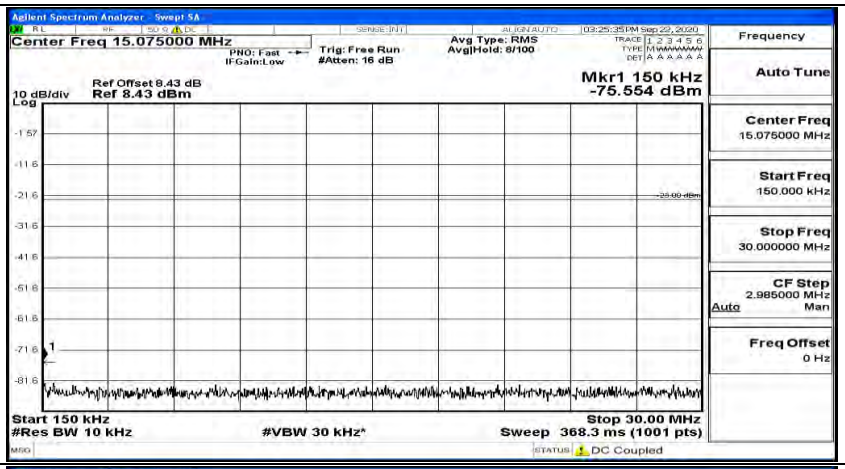




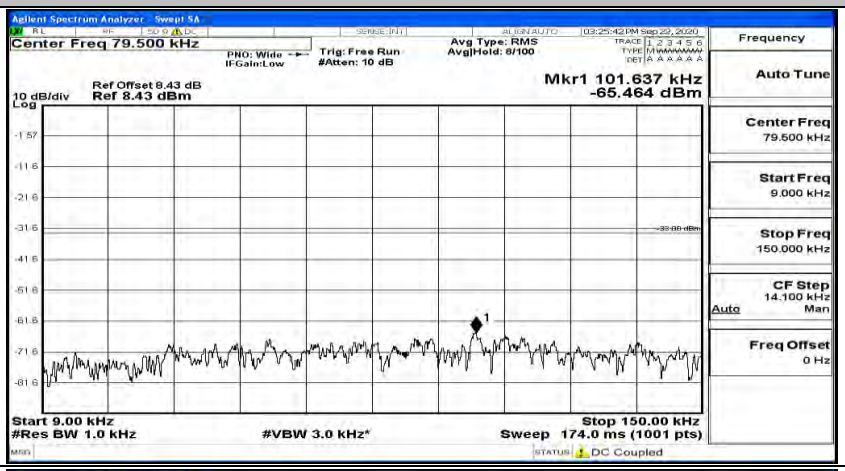


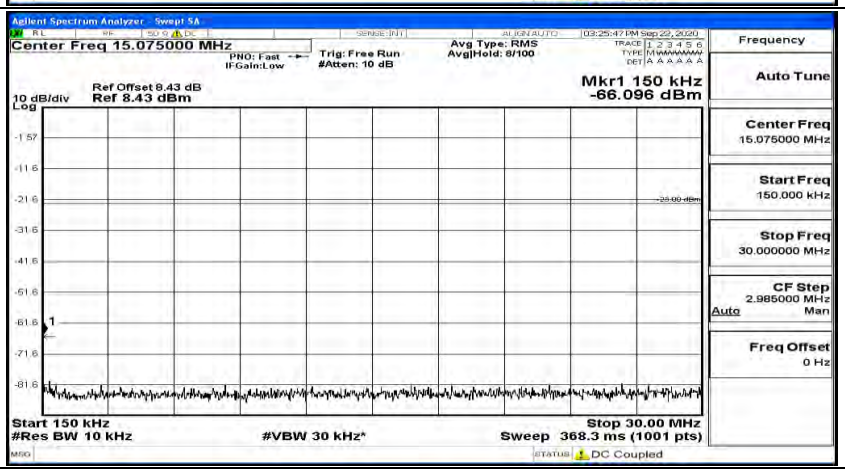
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

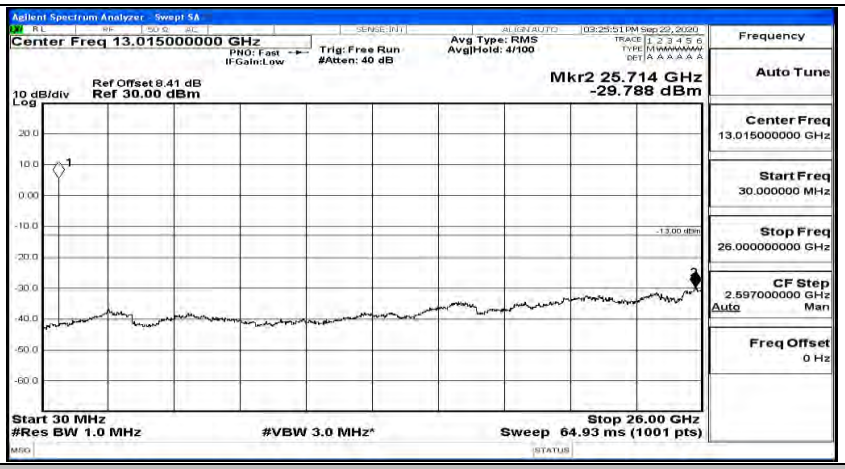




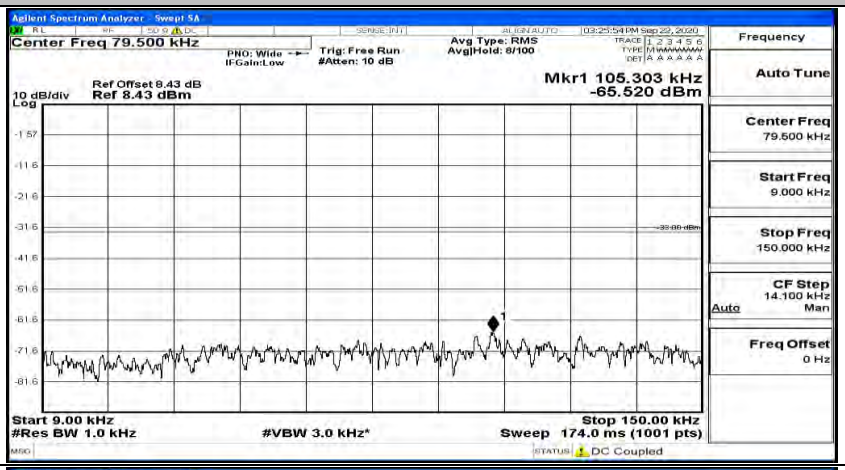
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

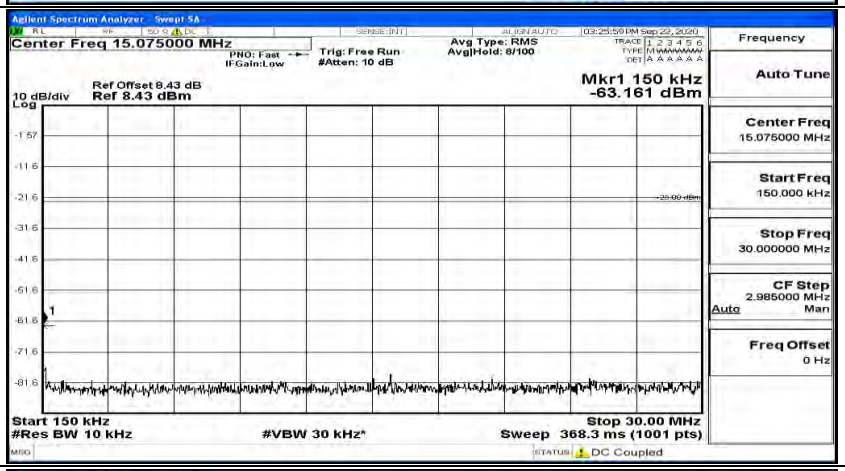


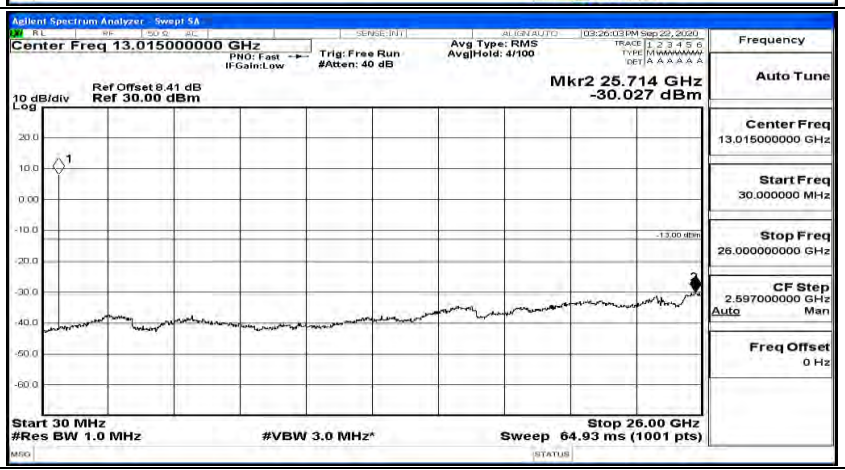




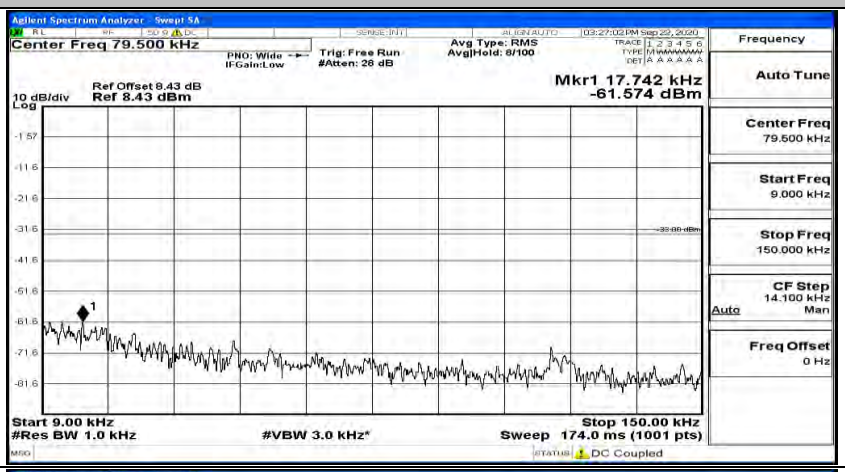
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

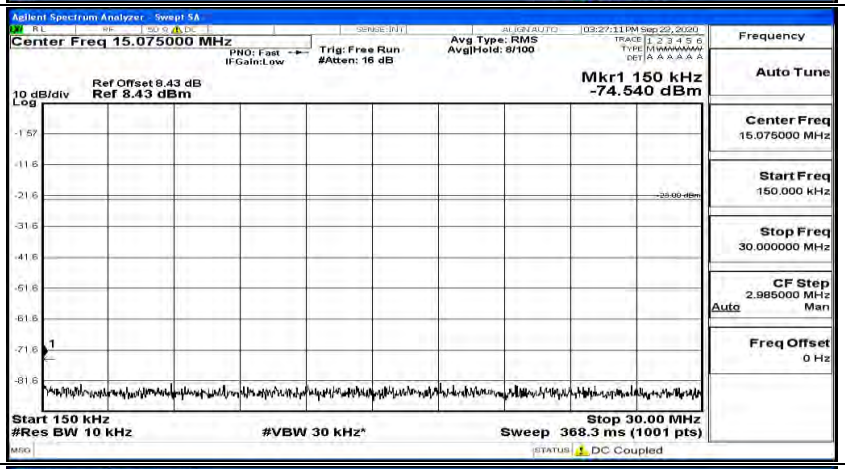


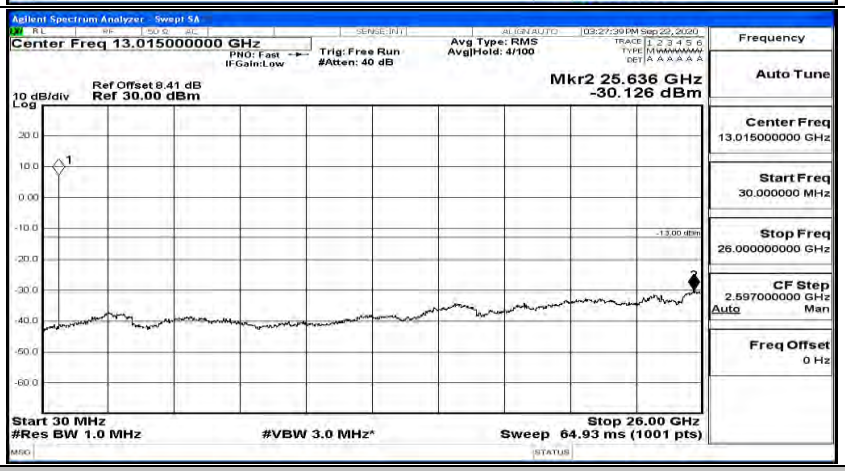




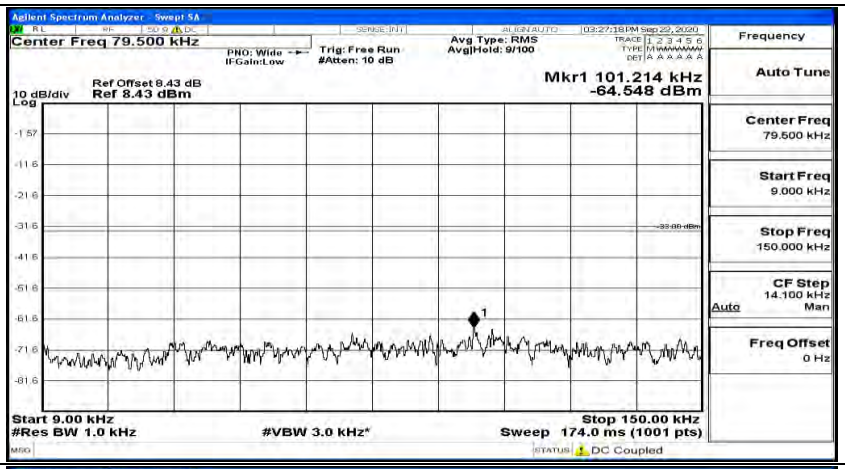
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

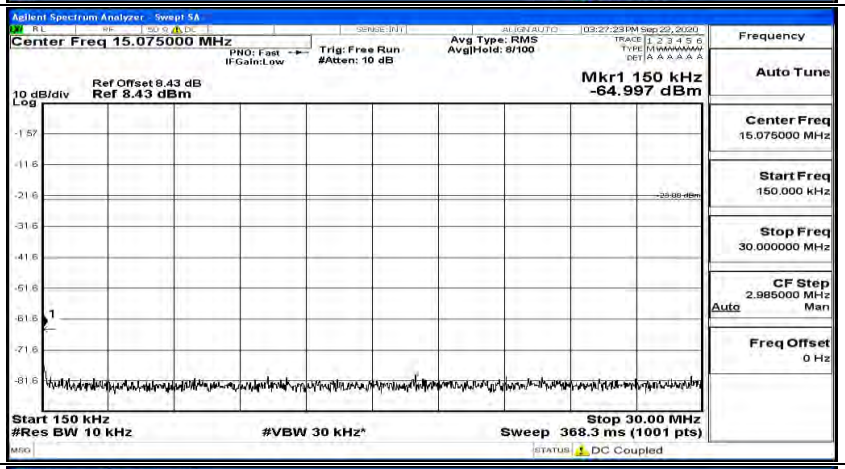


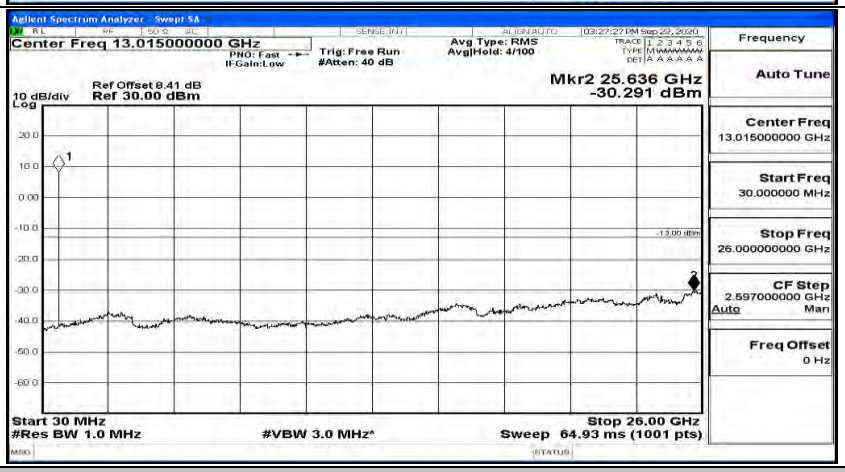




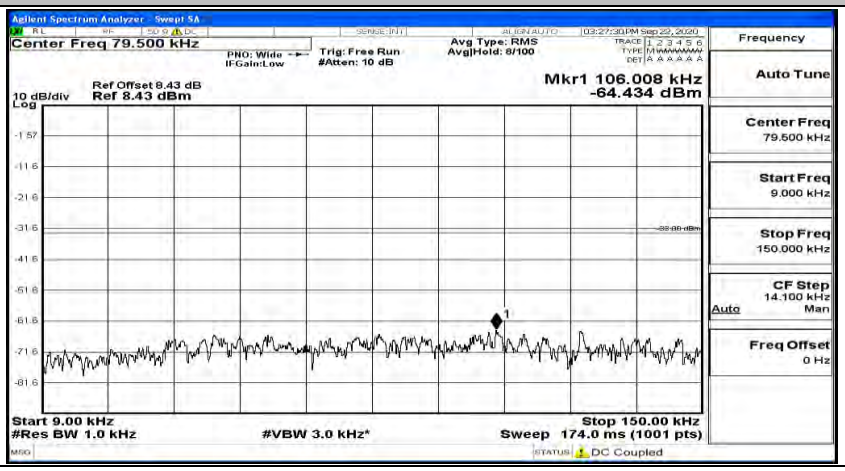
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

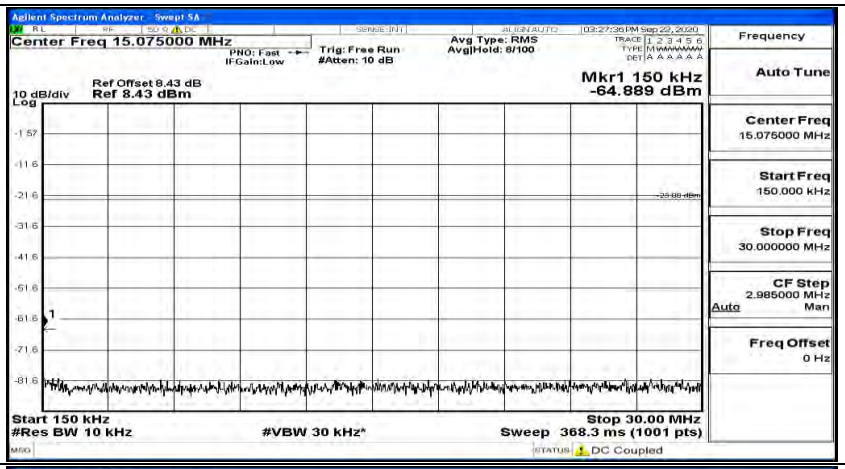




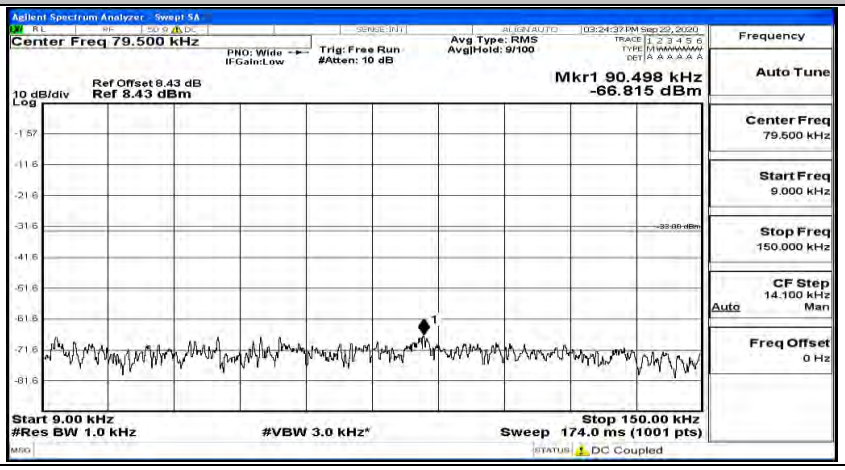


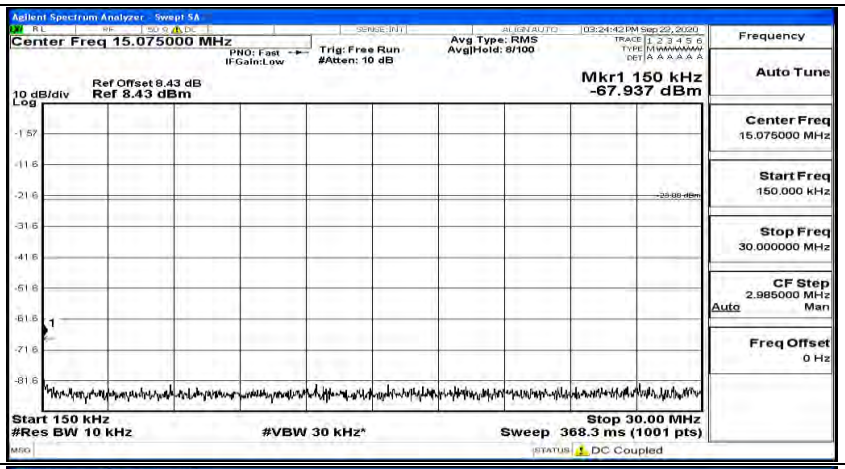
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

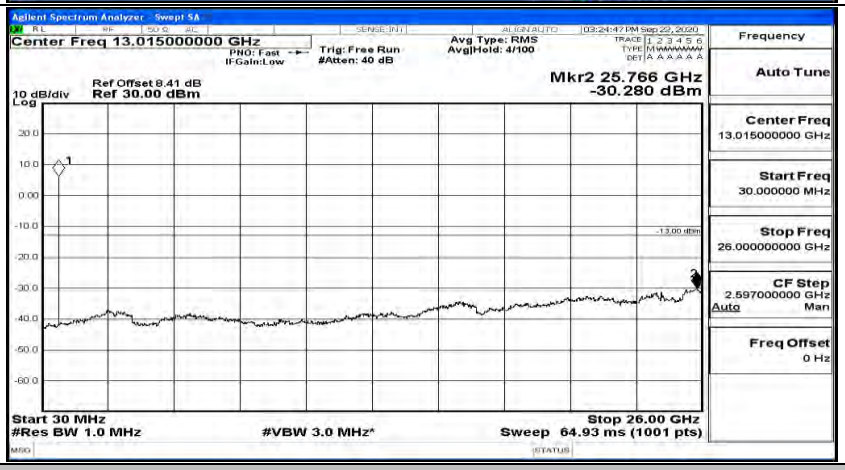




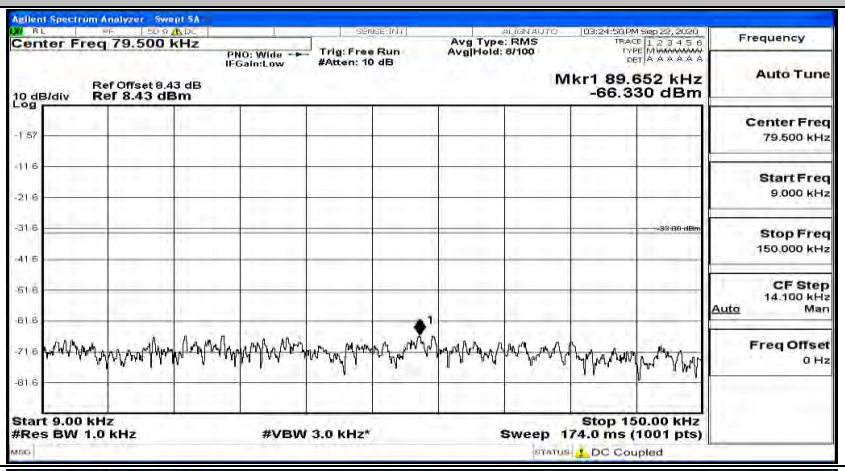
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

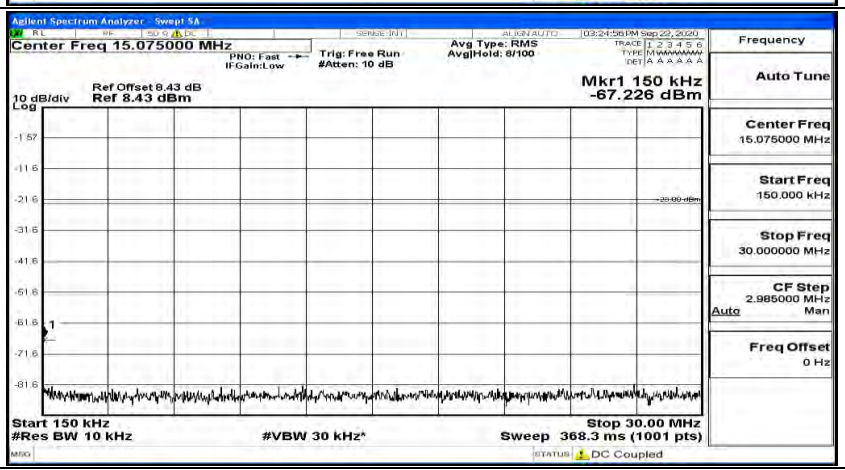


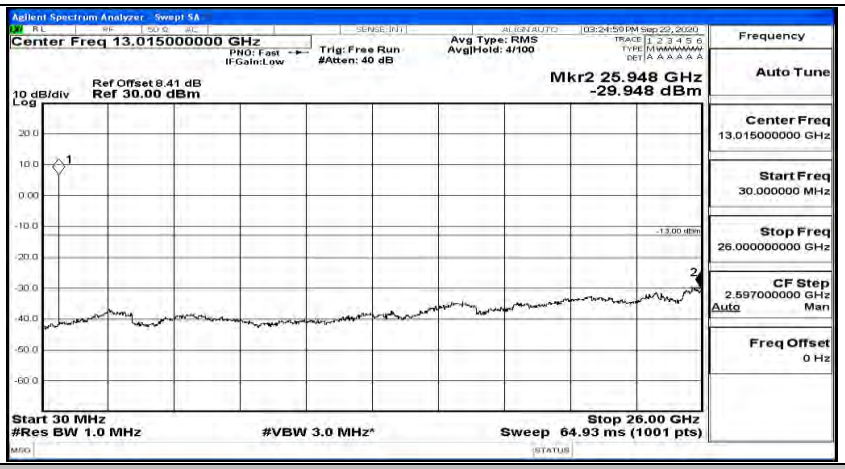




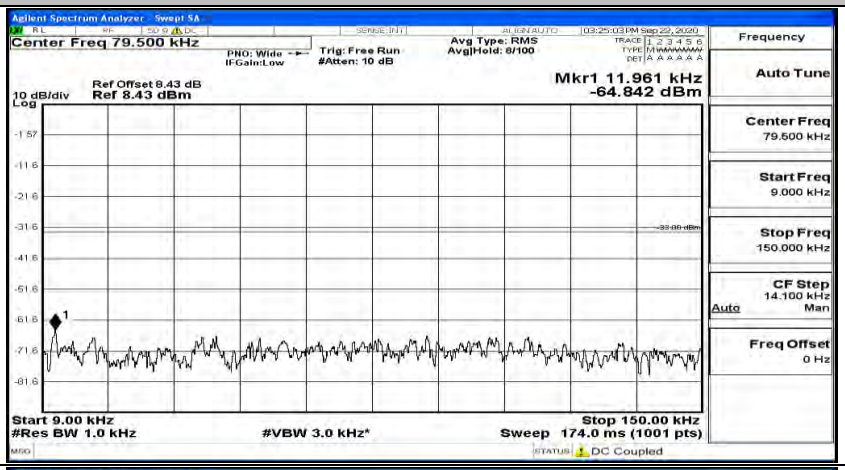
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

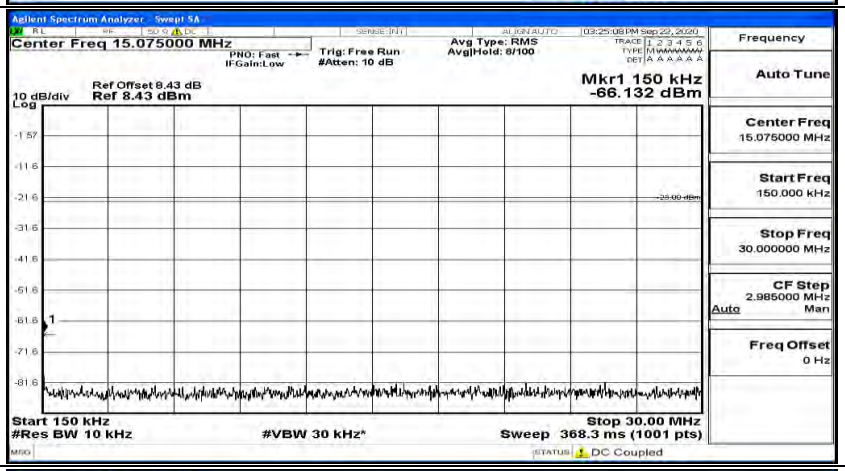


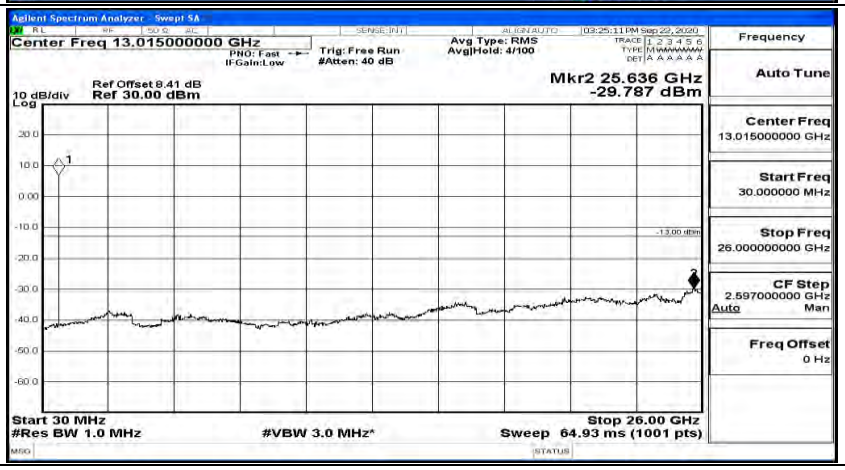




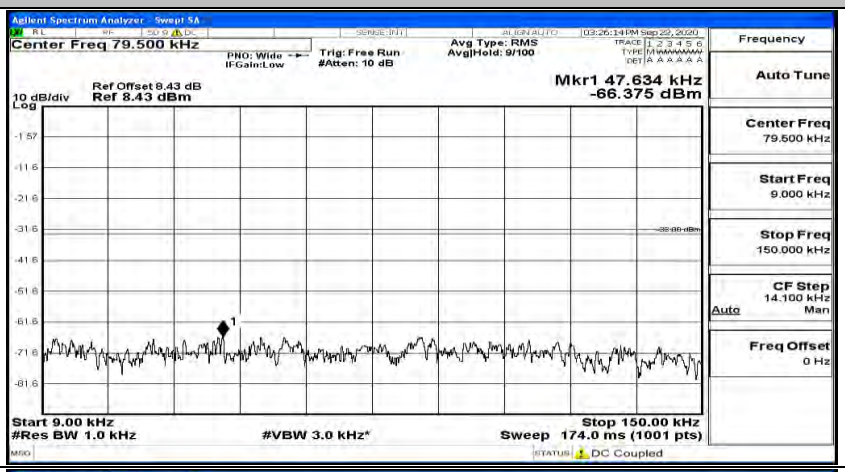
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

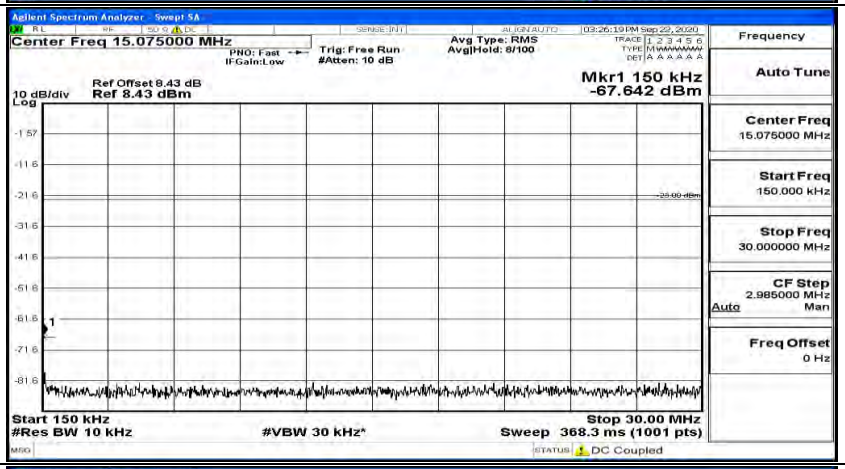


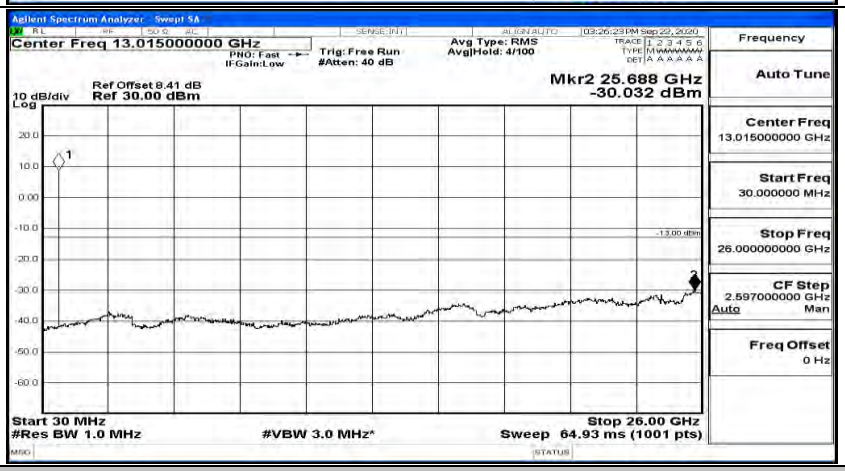




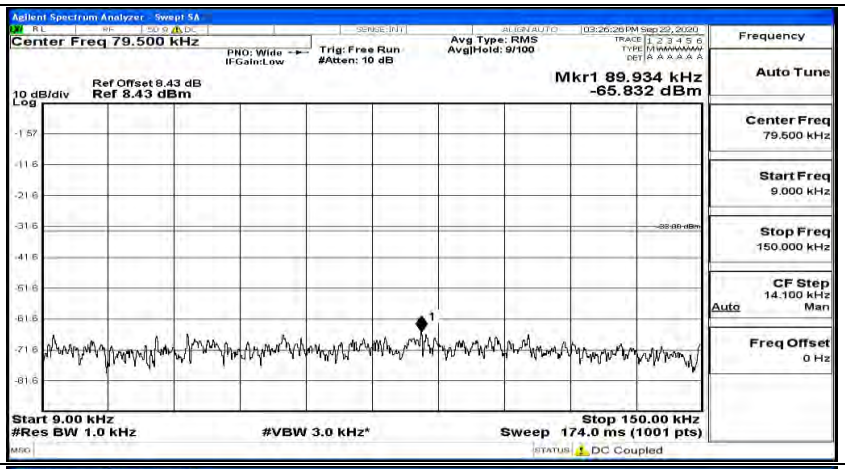
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

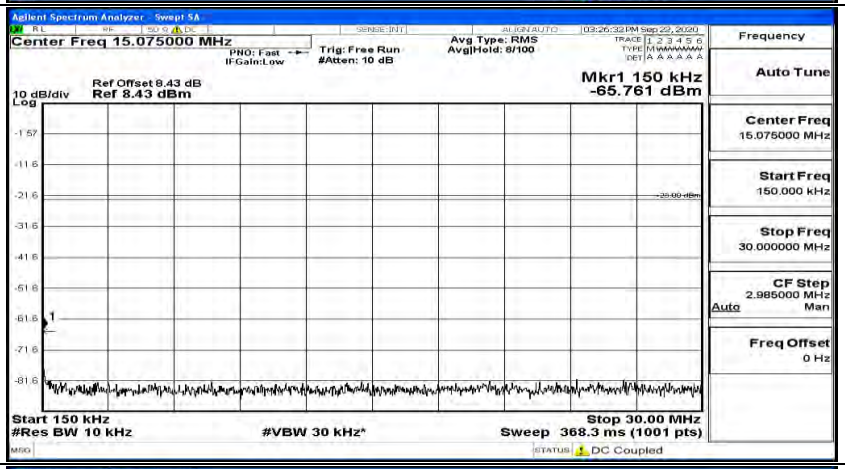




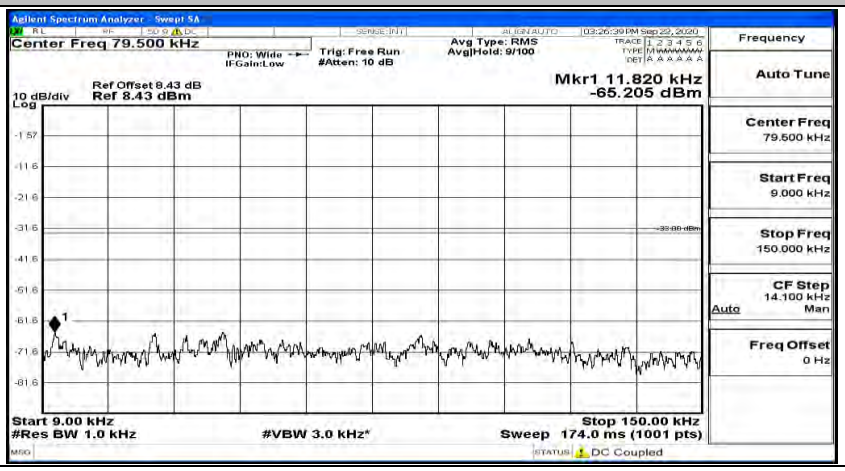


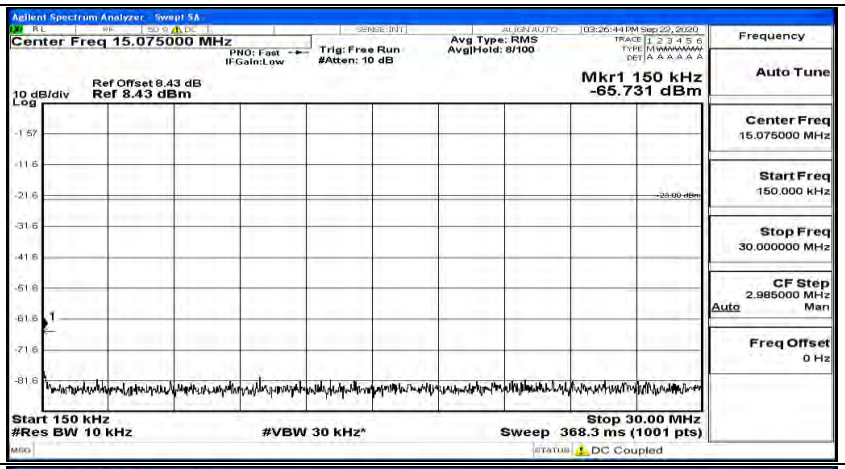
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

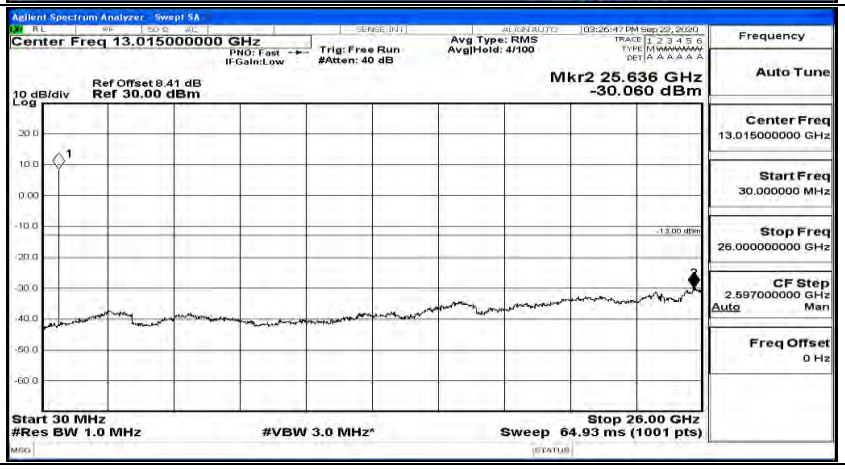




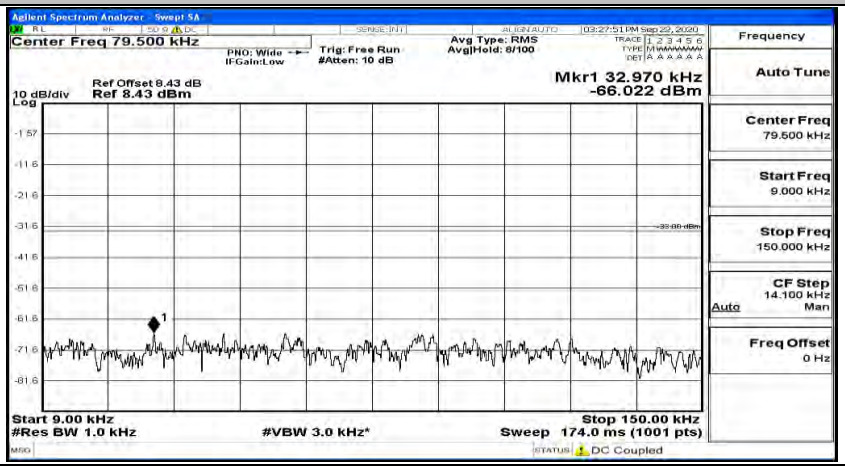
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

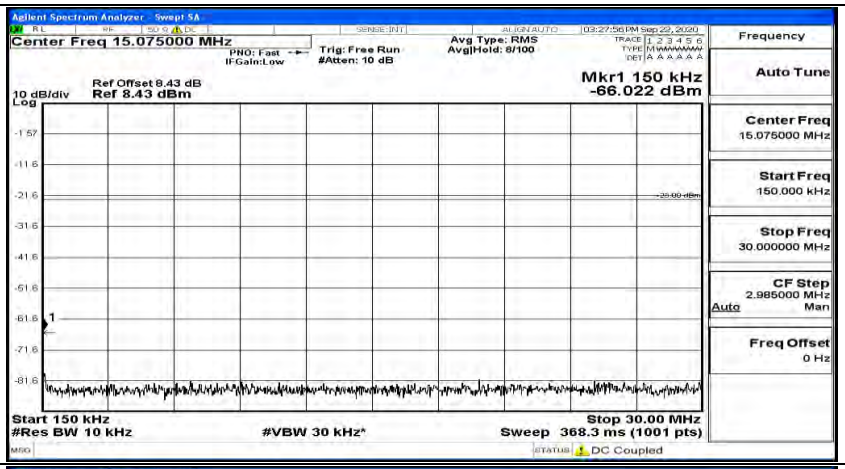




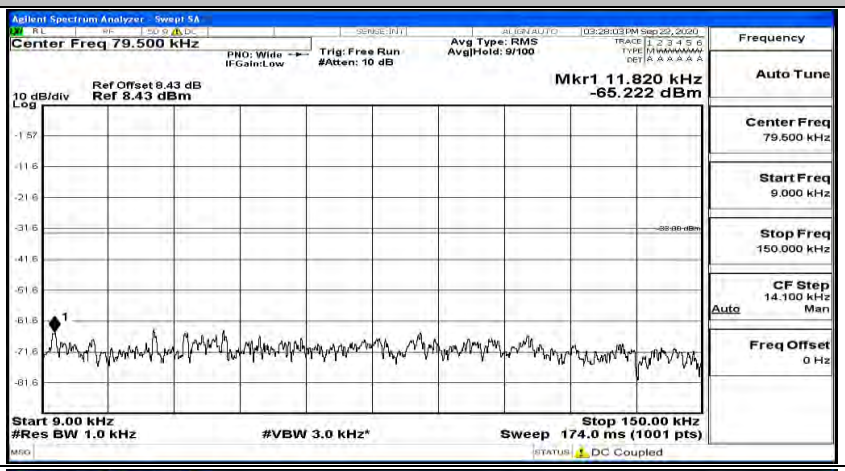


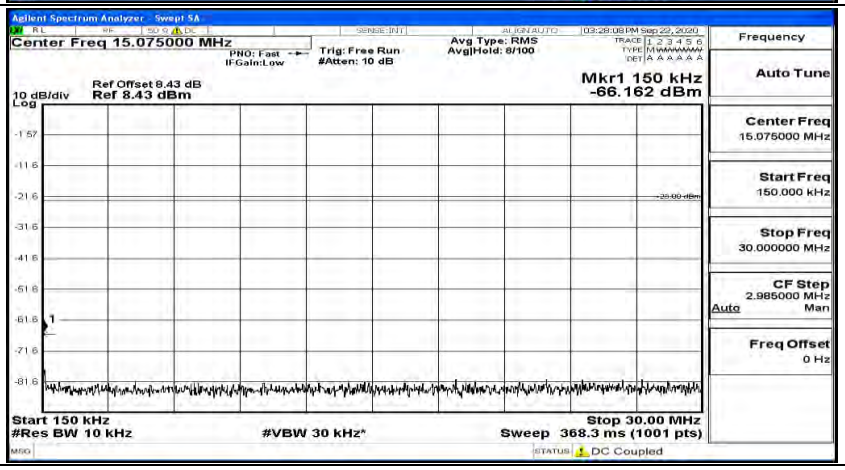
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



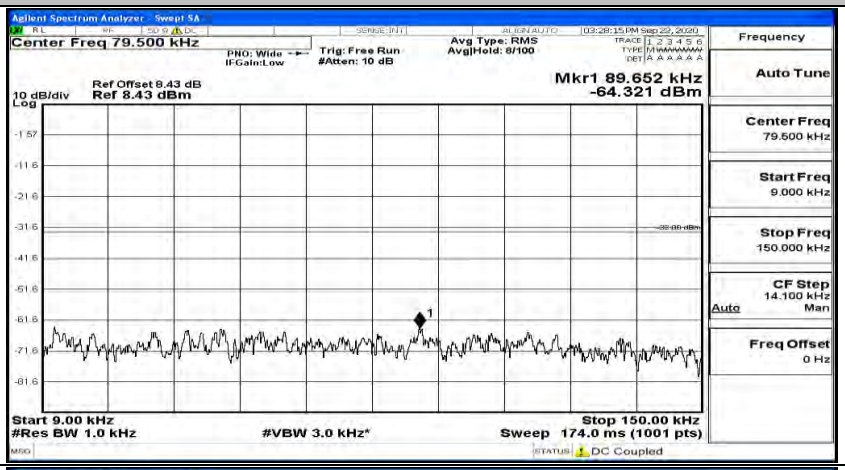


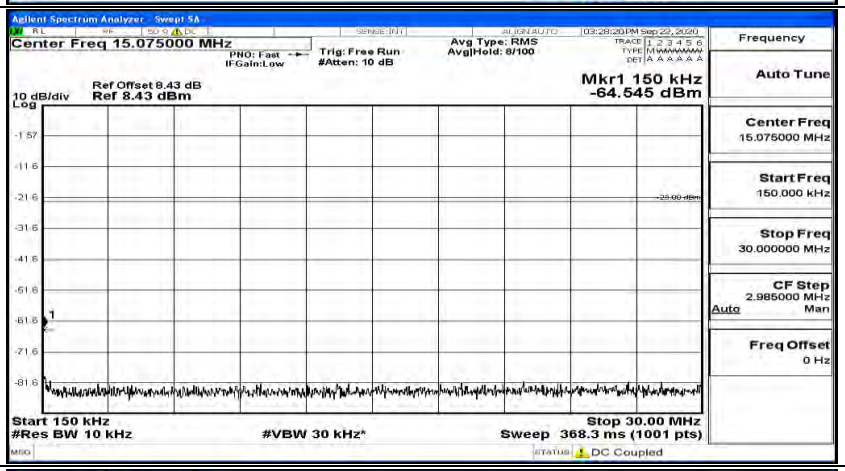
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

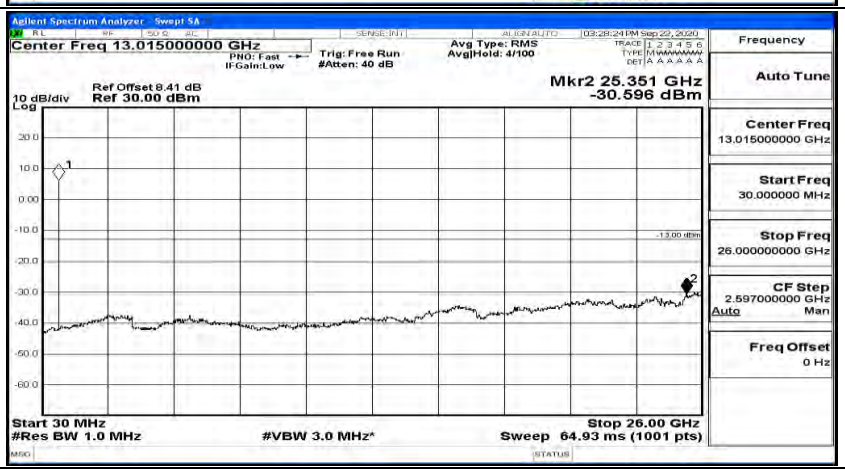




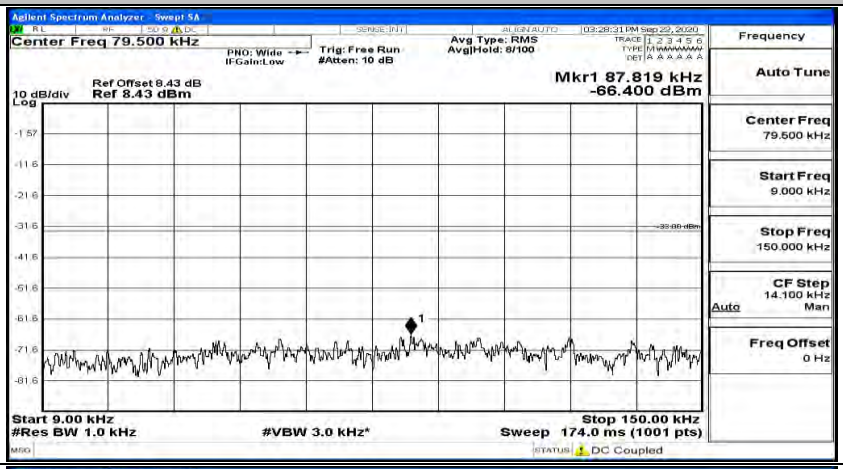
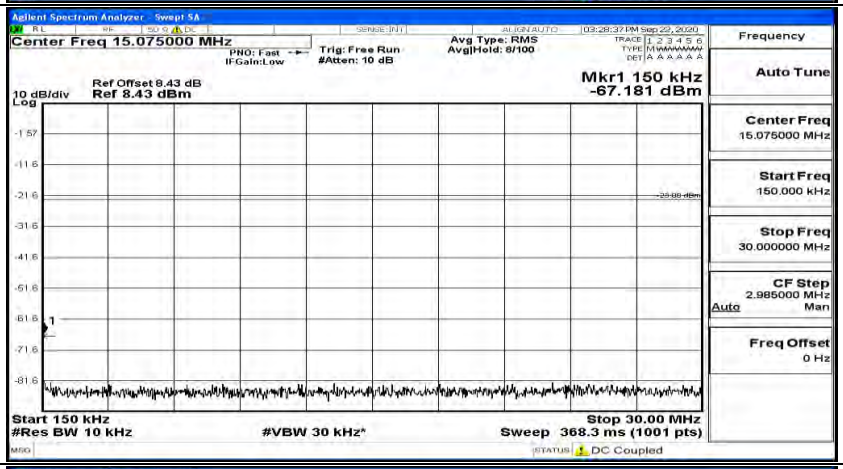
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



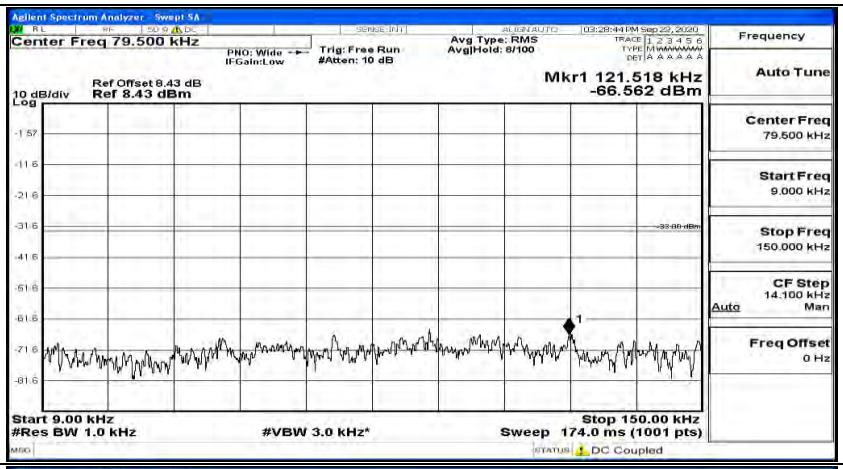


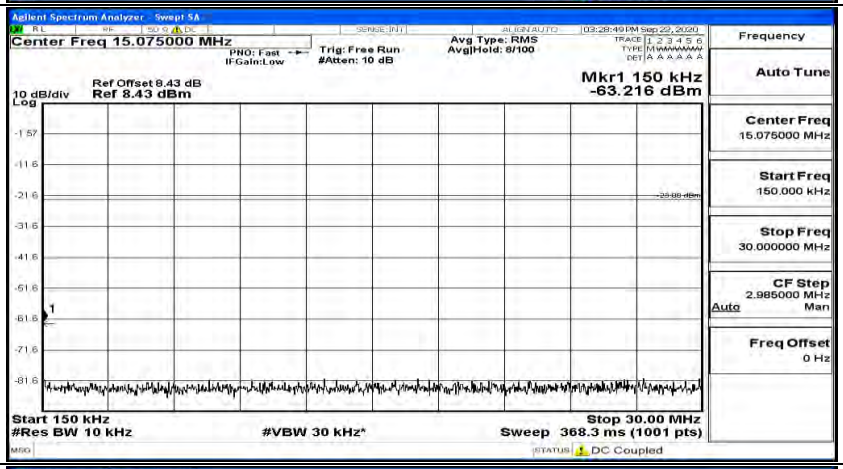


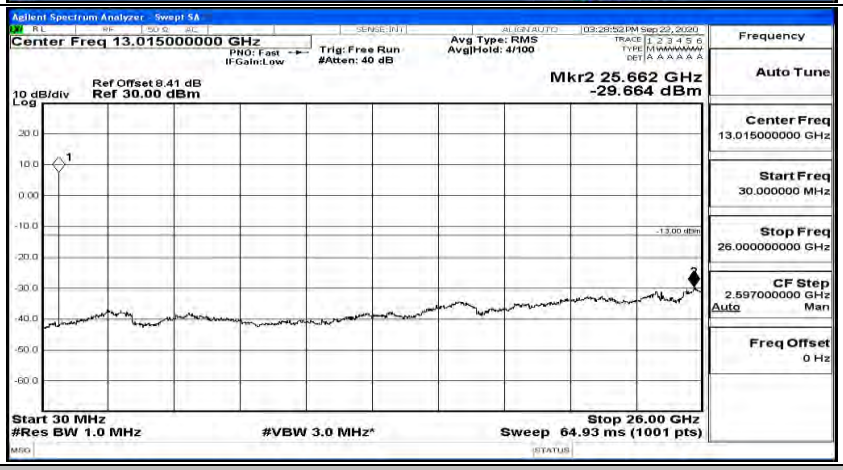
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



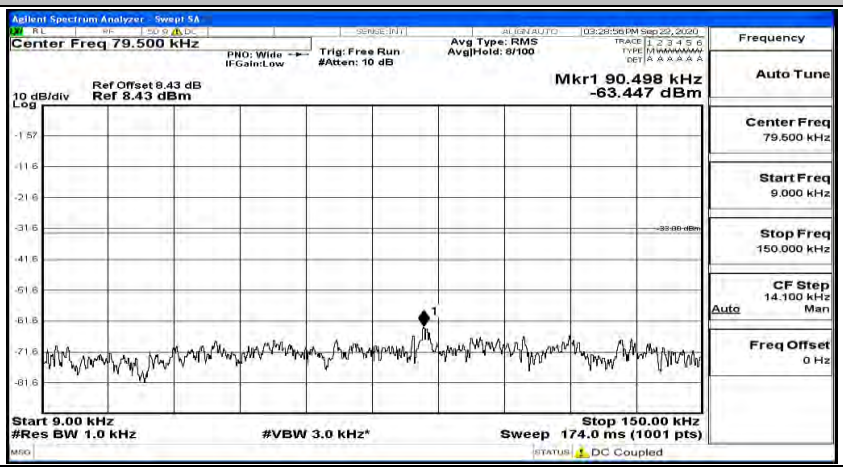
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

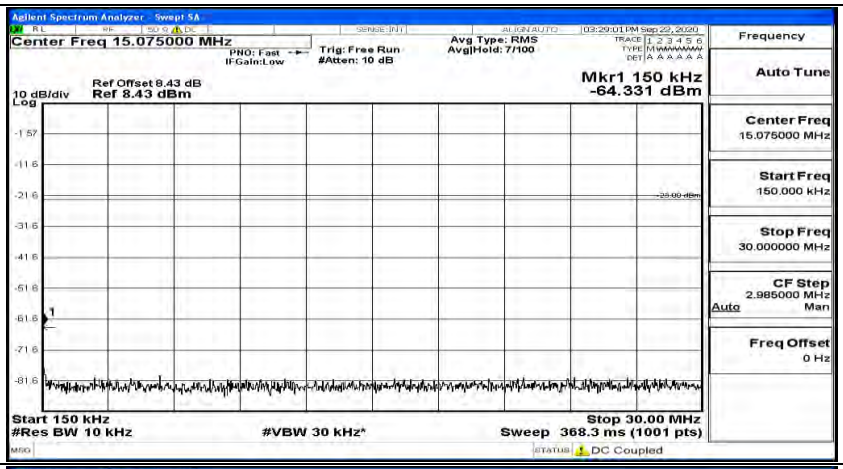




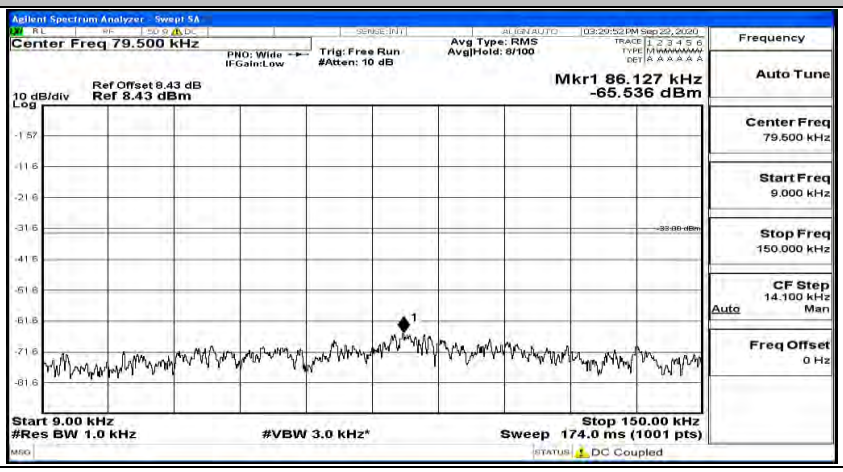


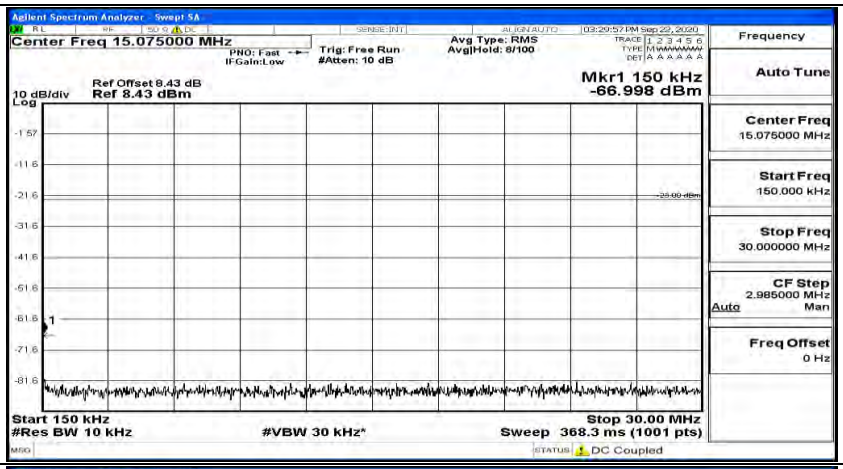
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

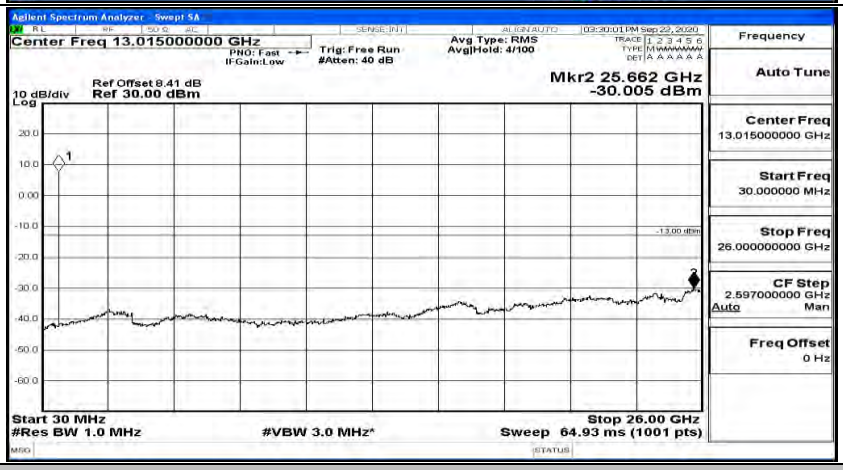




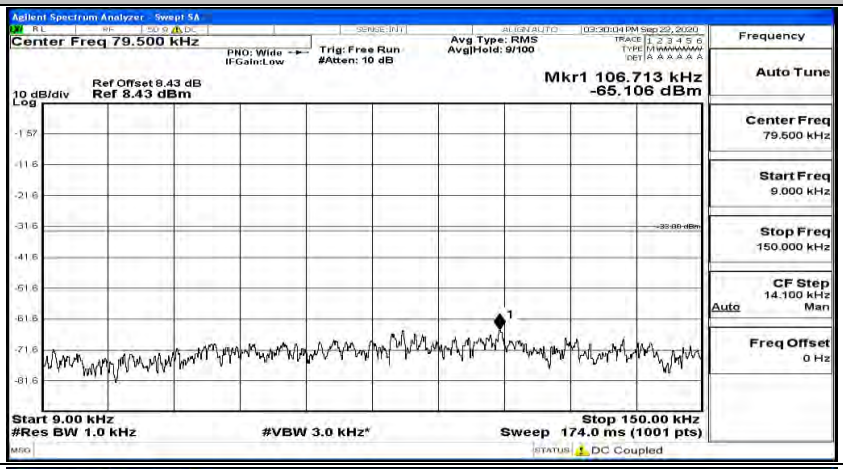
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

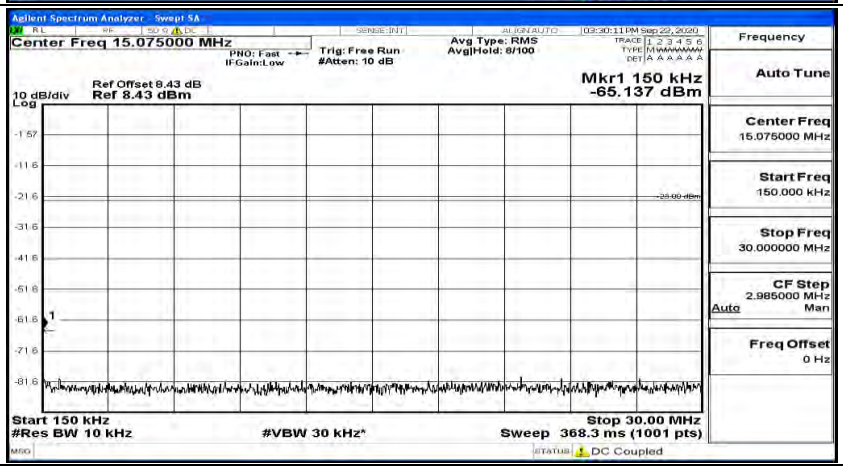




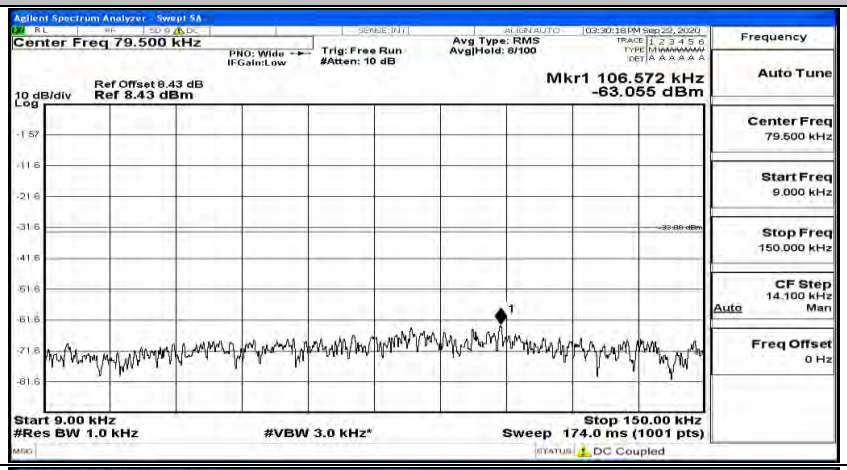


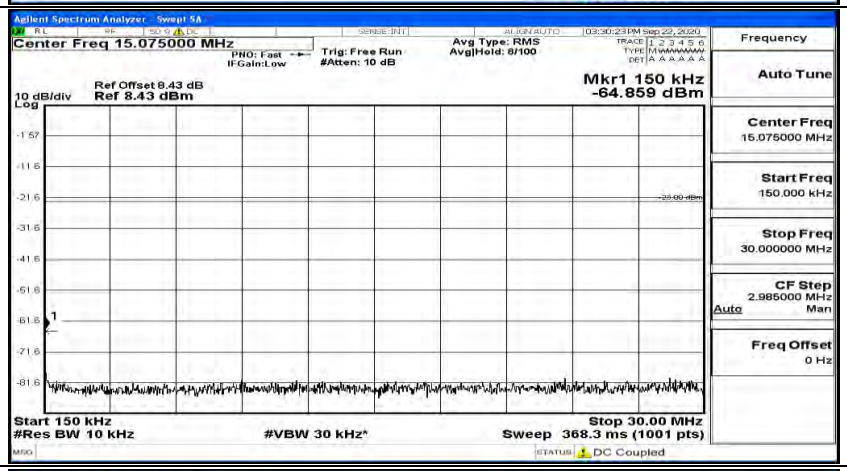
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

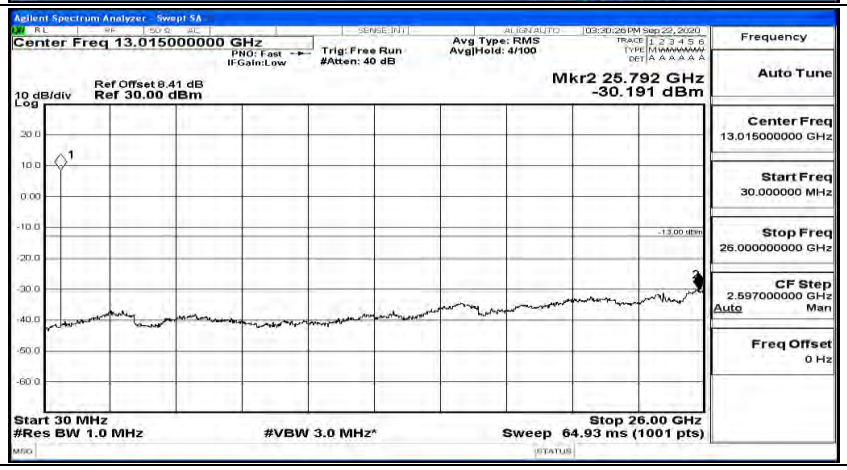


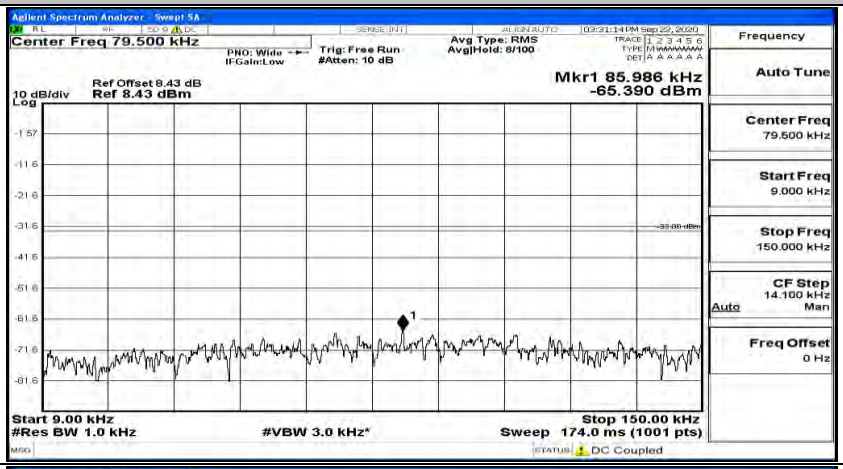
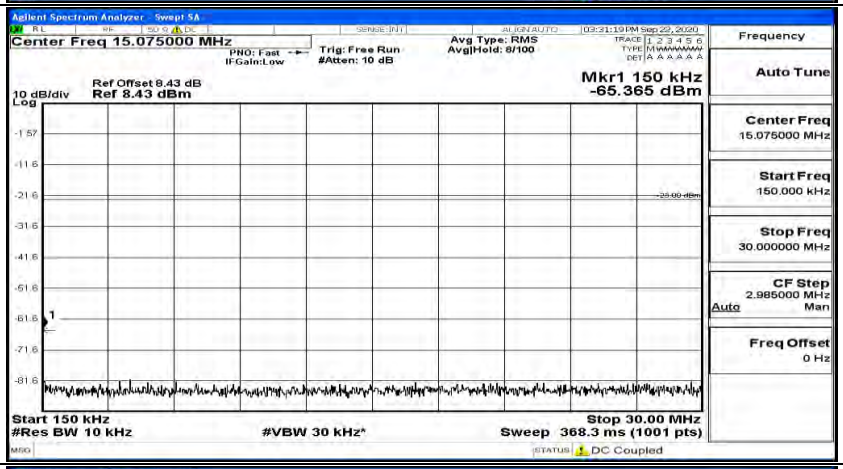
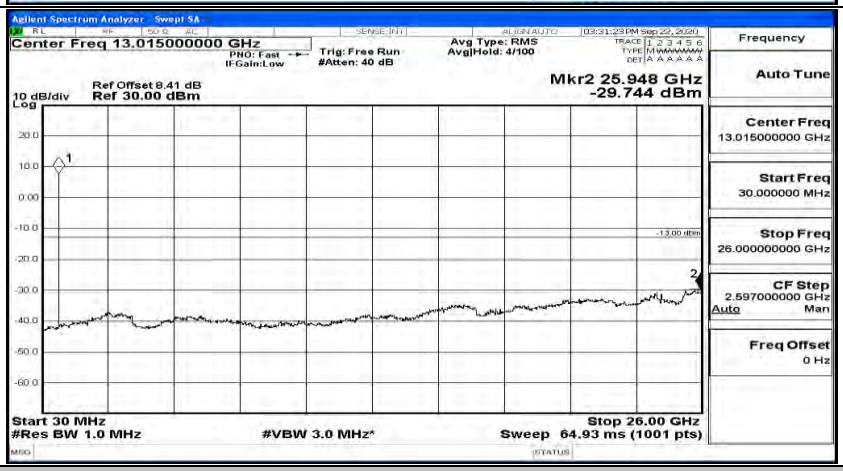


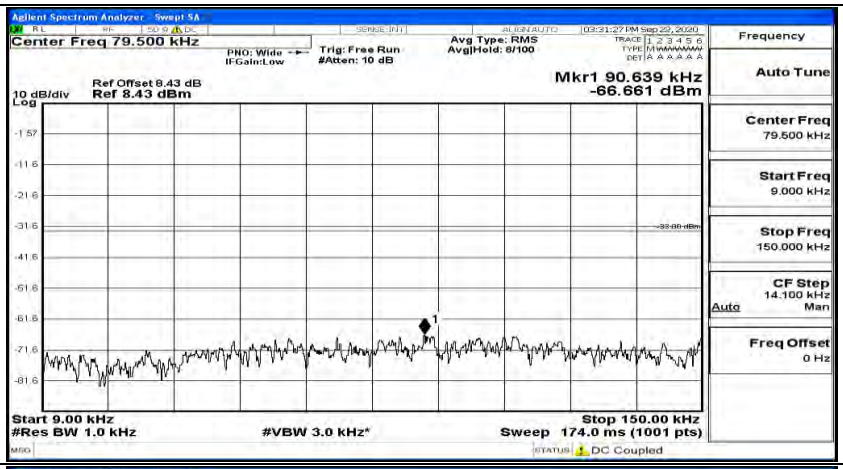
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

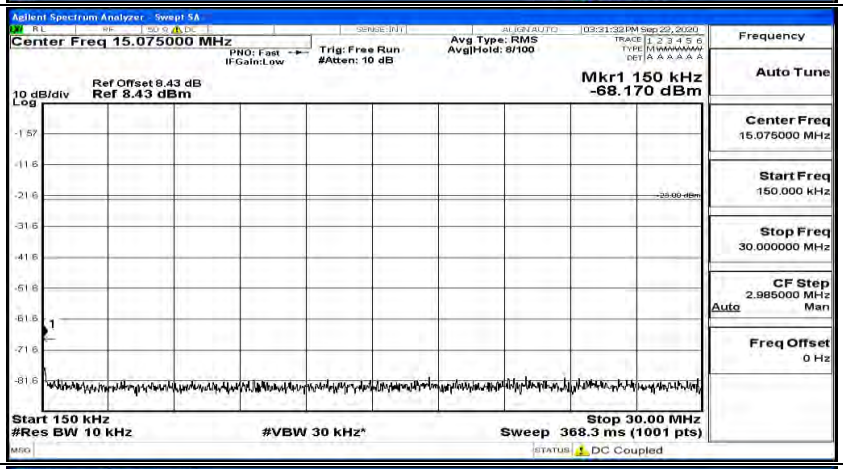


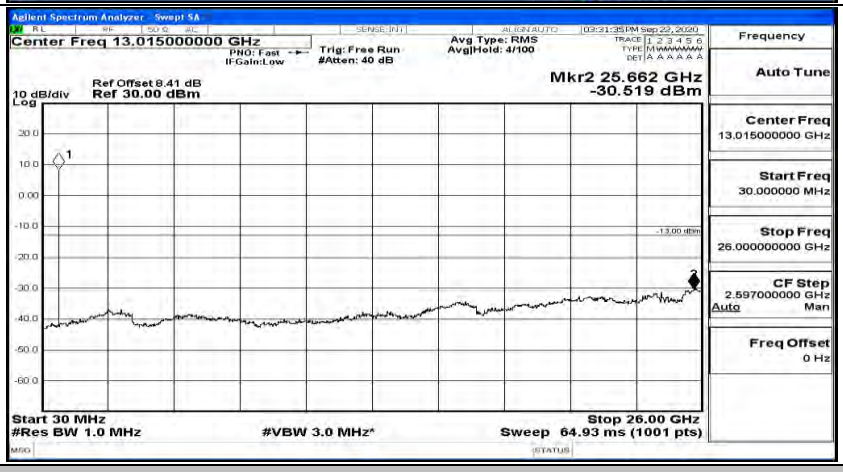




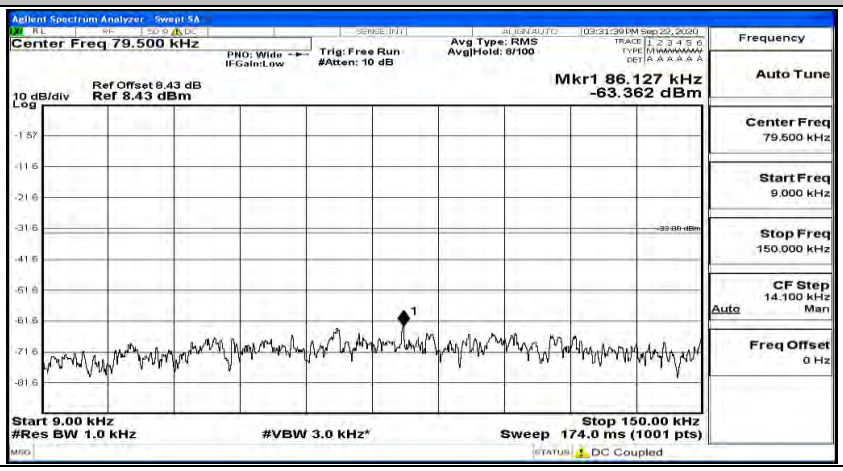
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

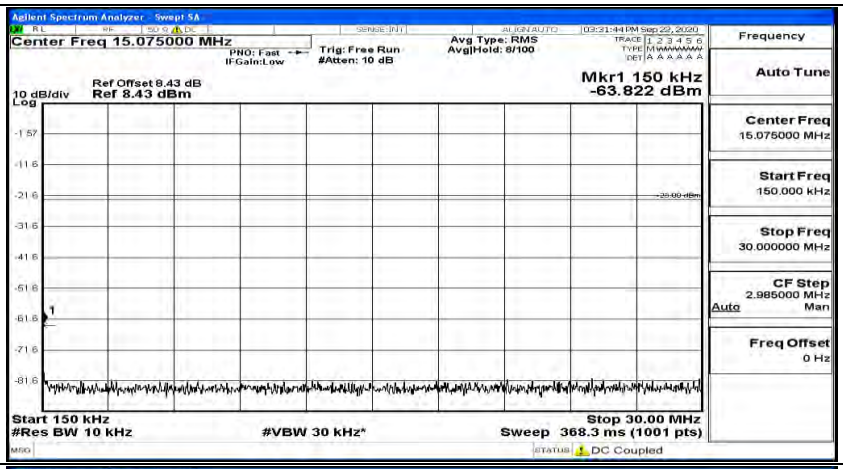




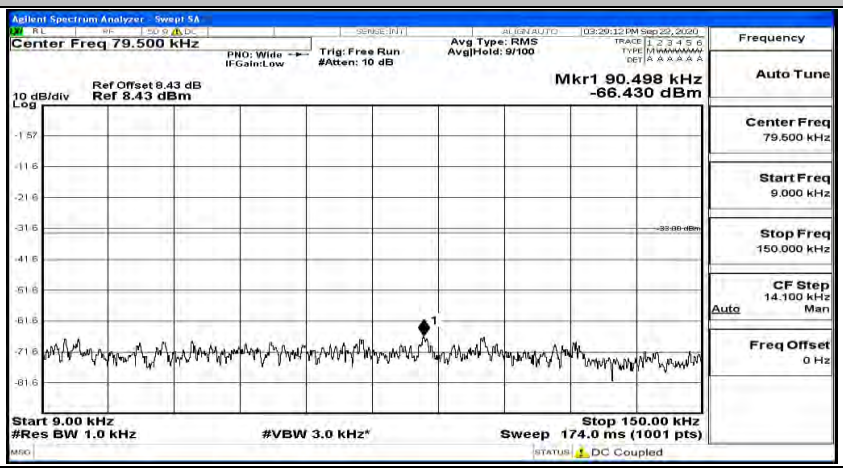


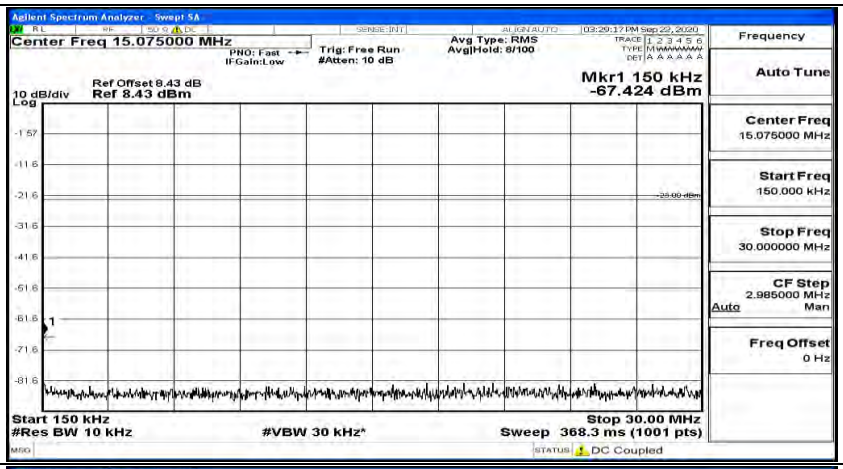
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

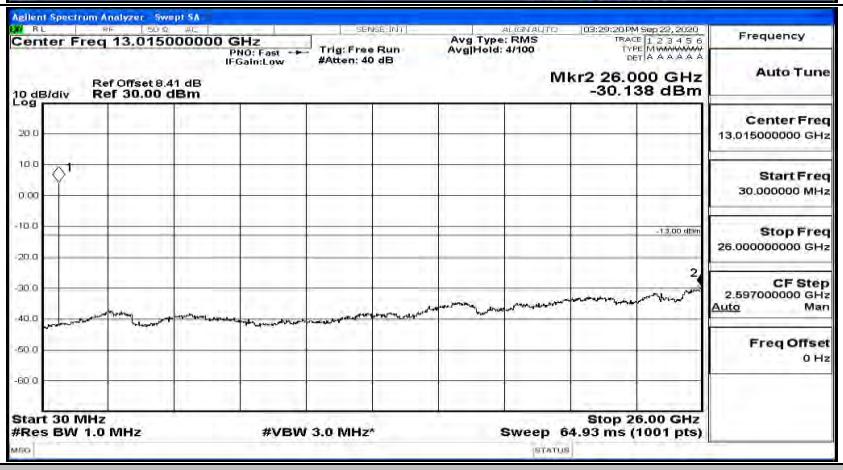




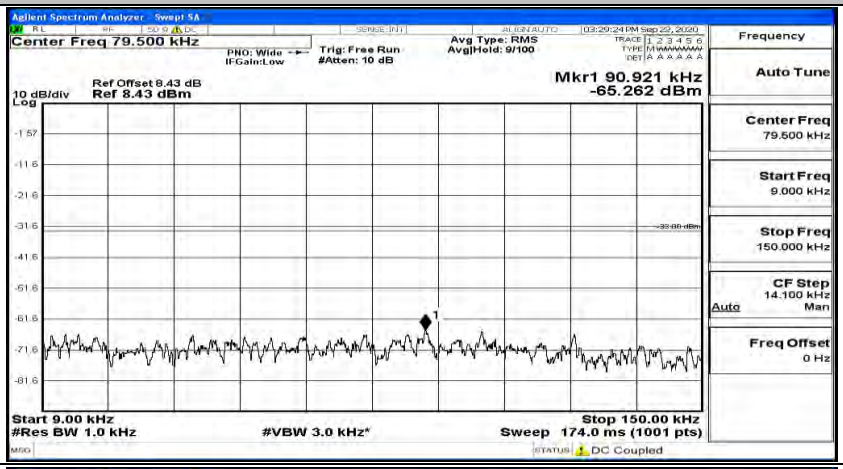
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

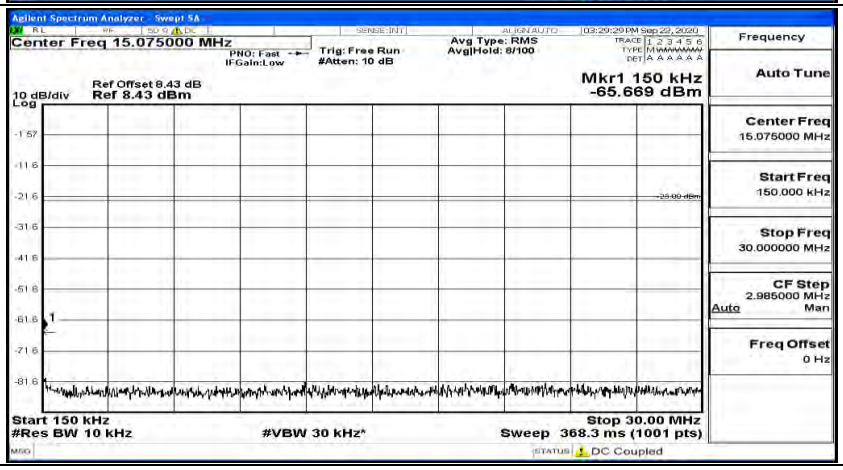


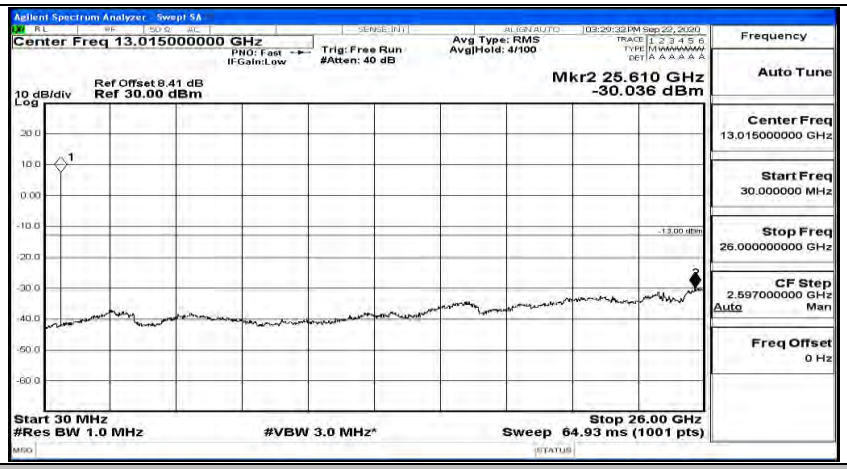




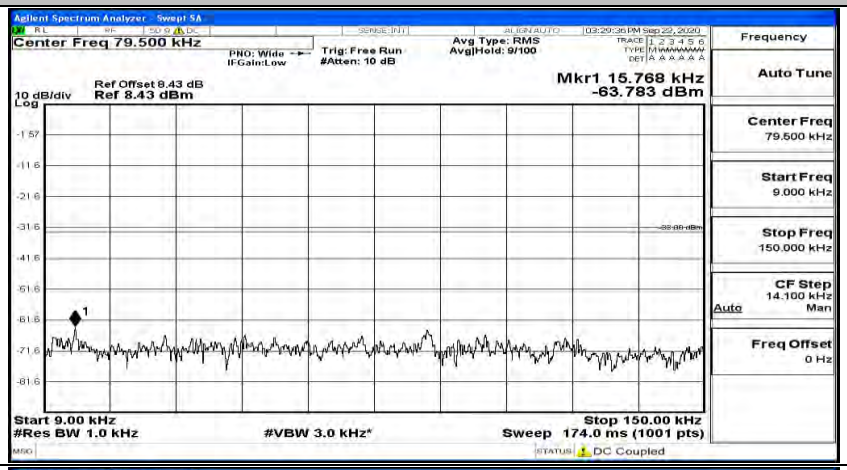
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

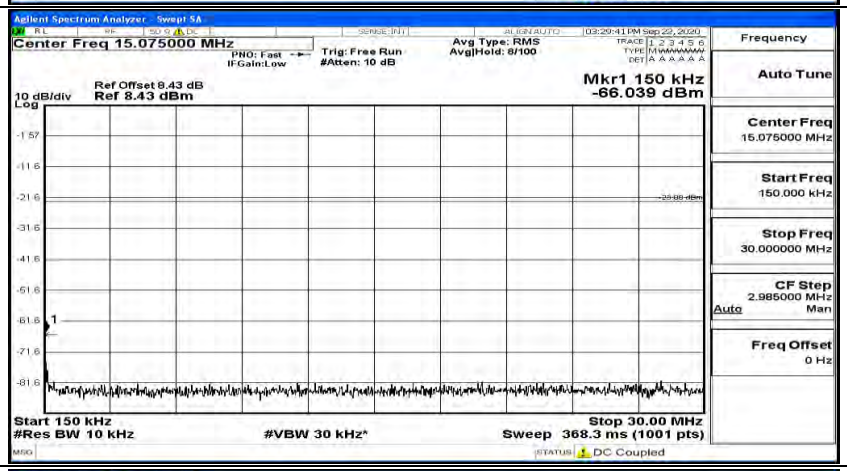


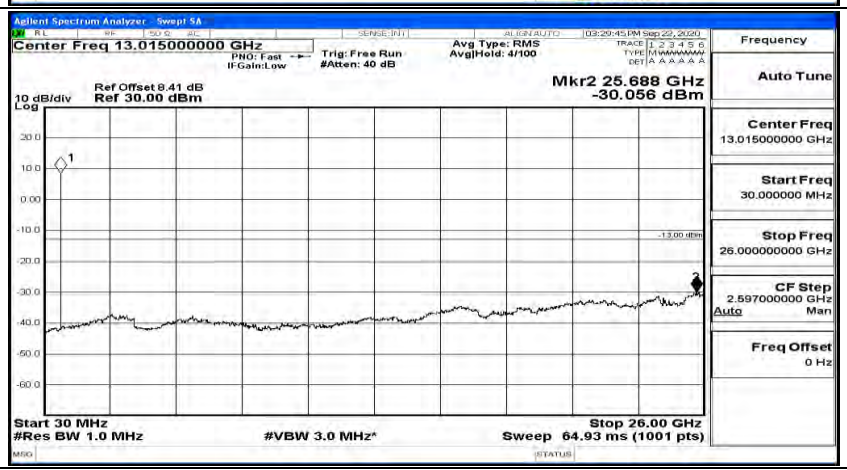


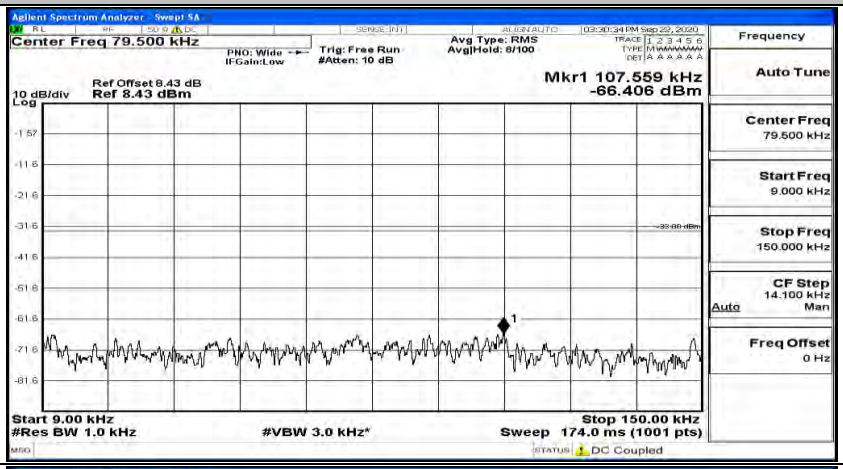
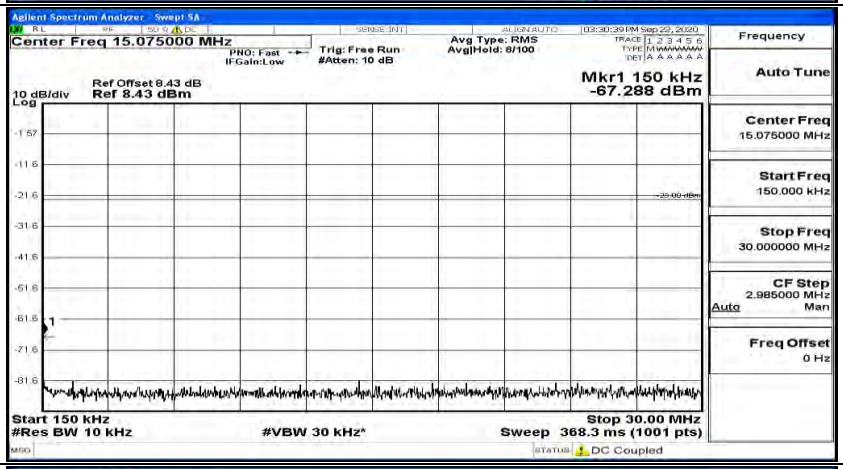


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

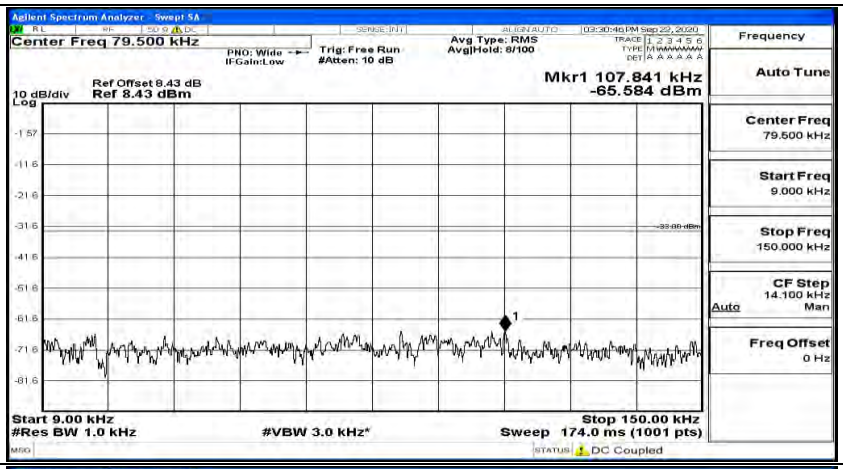


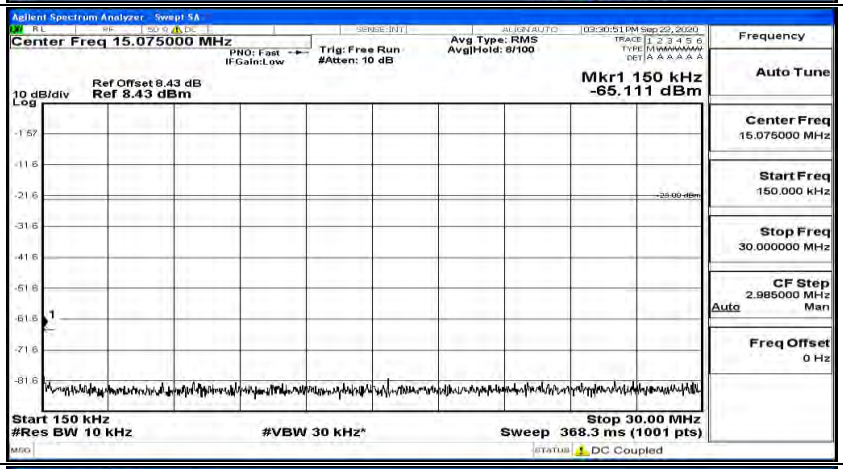




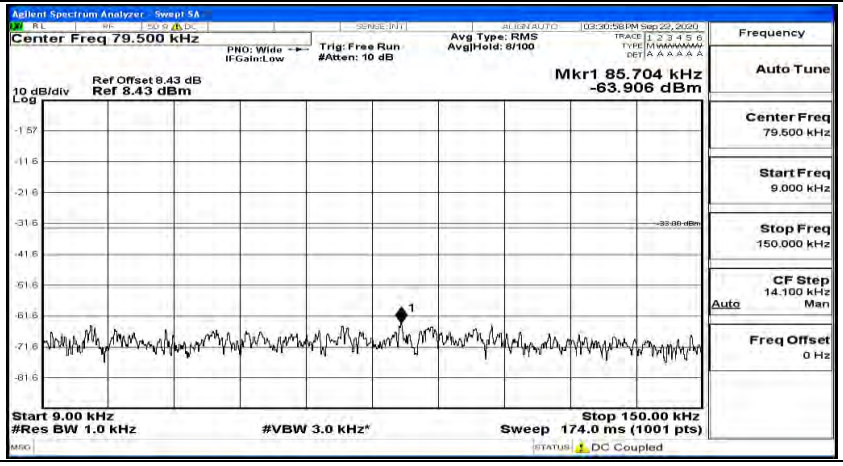
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



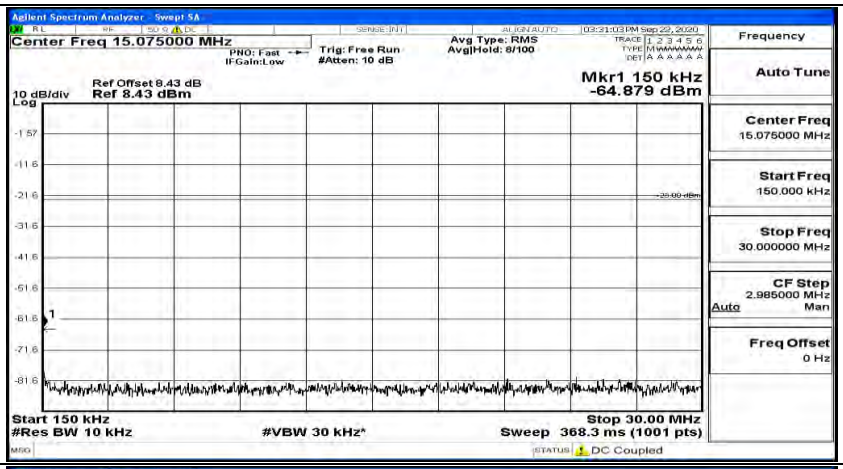
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



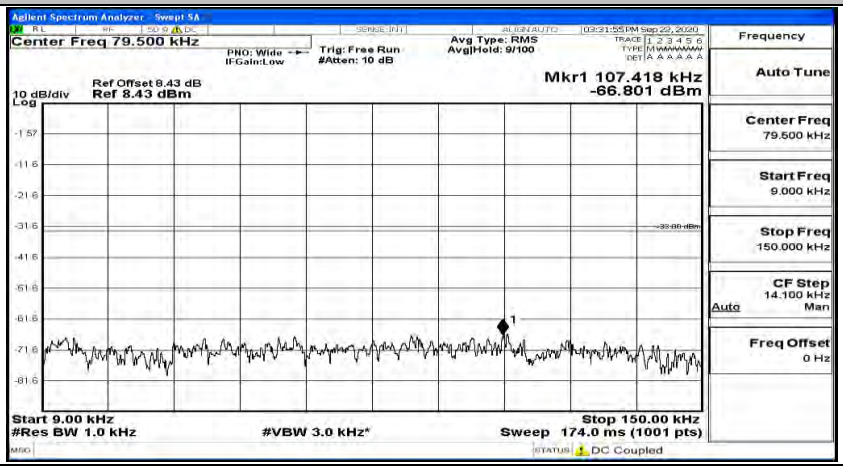


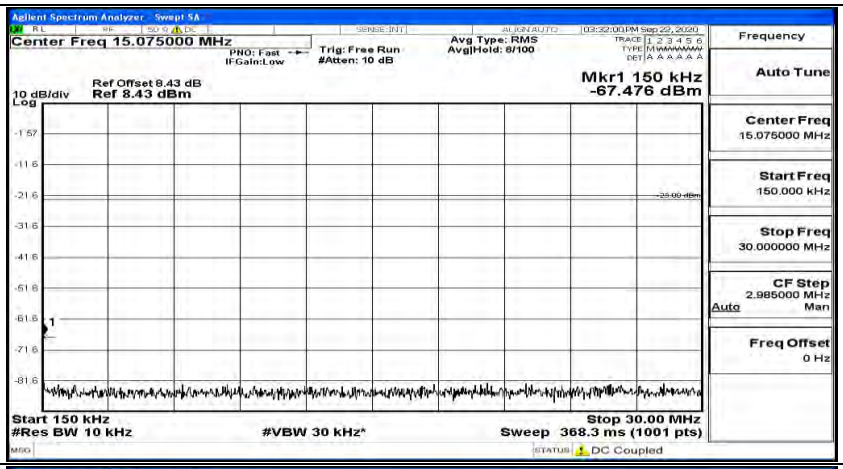
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49



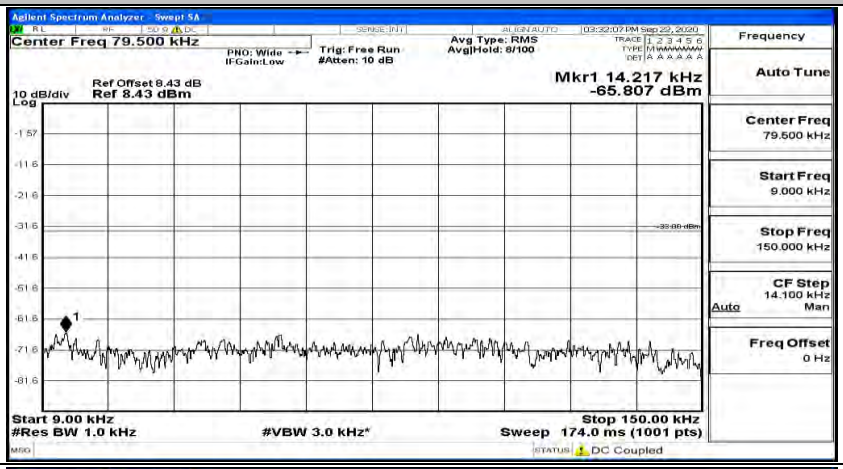


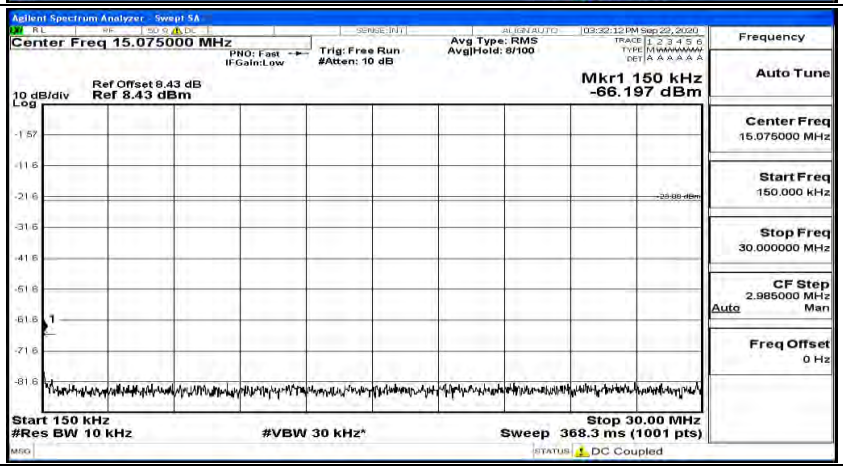
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0





Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24





Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49