



Appendix C: Test Data for E-UTRA Band 5

Product Name: CellCOM Prime 7 4G

Trade Mark: AES

Test Model: PRIME7-PX-IMPk-PED/4GA

Environmental Conditions

Temperature:	21.1 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan



C.1 Conducted Output Power

Test Result

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	22.99	22.26	PASS
		1	3	23.01	22.28	PASS
		1	5	23.06	22.32	PASS
		3	0	23.00	22.68	PASS
		3	2	22.97	22.18	PASS
		3	3	22.99	22.14	PASS
		6	0	22.14	21.44	PASS
	MCH	1	0	22.46	22.22	PASS
		1	3	22.51	22.26	PASS
		1	5	22.46	22.15	PASS
		3	0	22.49	21.85	PASS
		3	2	22.51	21.85	PASS
		3	3	22.49	21.82	PASS
		6	0	21.76	21.13	PASS
	HCH	1	0	22.45	22.51	PASS
		1	3	22.25	22.20	PASS
		1	5	21.88	21.80	PASS
		3	0	22.15	21.50	PASS
		3	2	22.17	21.49	PASS
		3	3	22.01	21.31	PASS
		6	0	21.44	20.95	PASS



Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	22.94	22.59	PASS
		1	7	23.02	22.65	PASS
		1	14	22.96	22.66	PASS
		8	0	22.20	21.71	PASS
		8	4	22.19	21.69	PASS
		8	7	22.20	21.72	PASS
		15	0	22.08	21.52	PASS
	MCH	1	0	22.65	22.24	PASS
		1	7	22.56	22.16	PASS
		1	14	22.57	22.15	PASS
		8	0	21.67	21.19	PASS
		8	4	21.67	21.18	PASS
		8	7	21.60	21.30	PASS
		15	0	21.56	20.95	PASS
	HCH	1	0	22.45	21.72	PASS
		1	7	22.40	21.72	PASS
		1	14	21.87	21.34	PASS
		8	0	21.46	21.10	PASS
		8	4	21.46	21.08	PASS
		8	7	21.43	20.96	PASS
		15	0	21.41	20.95	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	21.87	PASS
		1	12	23.09	21.93	PASS
		1	24	22.97	21.77	PASS
		12	0	22.02	21.54	PASS
		12	6	22.02	21.49	PASS
		12	13	22.09	21.49	PASS
		25	0	21.98	21.56	PASS
	MCH	1	0	22.51	22.19	PASS
		1	12	22.45	22.13	PASS
		1	24	22.35	22.12	PASS
		12	0	21.59	21.10	PASS
		12	6	21.59	21.11	PASS
		12	13	21.56	21.05	PASS
		25	0	21.58	21.05	PASS
	HCH	1	0	22.49	21.45	PASS
		1	12	22.43	21.52	PASS
		1	24	22.05	21.17	PASS
		12	0	21.50	21.06	PASS
		12	6	21.50	21.06	PASS
		12	13	21.46	20.95	PASS
		25	0	21.44	21.07	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	22.93	22.74	PASS
		1	24	22.73	22.50	PASS
		1	49	22.56	22.30	PASS
		25	0	21.99	21.44	PASS
		25	12	22.00	21.42	PASS
		25	25	21.78	21.24	PASS
		50	0	21.91	21.41	PASS
	MCH	1	0	22.59	22.30	PASS
		1	24	22.56	22.28	PASS
		1	49	22.37	22.06	PASS
		25	0	21.64	21.31	PASS
		25	12	21.64	21.31	PASS
		25	25	21.57	21.10	PASS
		50	0	21.54	21.11	PASS
	HCH	1	0	22.25	21.99	PASS
		1	24	22.24	22.00	PASS
		1	49	22.10	21.87	PASS
		25	0	21.34	20.83	PASS
		25	12	21.35	20.84	PASS
		25	25	21.52	20.92	PASS
		50	0	21.47	20.93	PASS



C.2 Peak-to-Average Ratio

Test Result

Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.49	<13	PASS
	MCH	4.34	<13	PASS
	HCH	4.25	<13	PASS
16QAM	LCH	5.04	<13	PASS
	MCH	4.98	<13	PASS
	HCH	4.99	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.43	<13	PASS
	MCH	4.28	<13	PASS
	HCH	4.22	<13	PASS
16QAM	LCH	5.03	<13	PASS
	MCH	4.92	<13	PASS
	HCH	4.97	<13	PASS

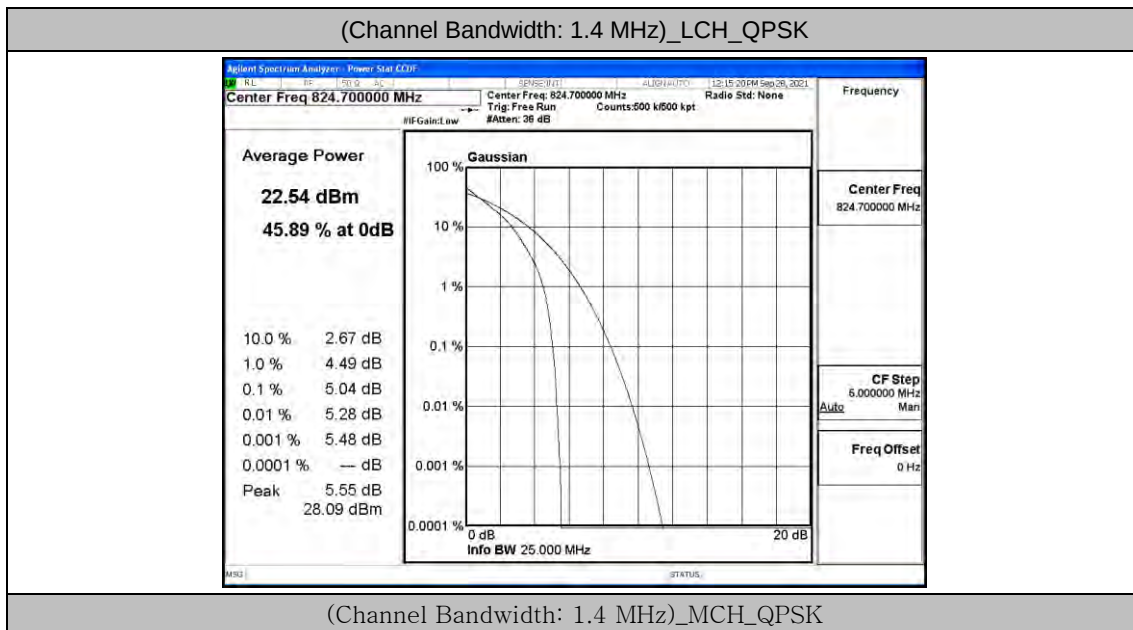
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.41	<13	PASS
	MCH	4.23	<13	PASS
	HCH	4.12	<13	PASS
16QAM	LCH	5.04	<13	PASS
	MCH	4.94	<13	PASS
	HCH	4.80	<13	PASS

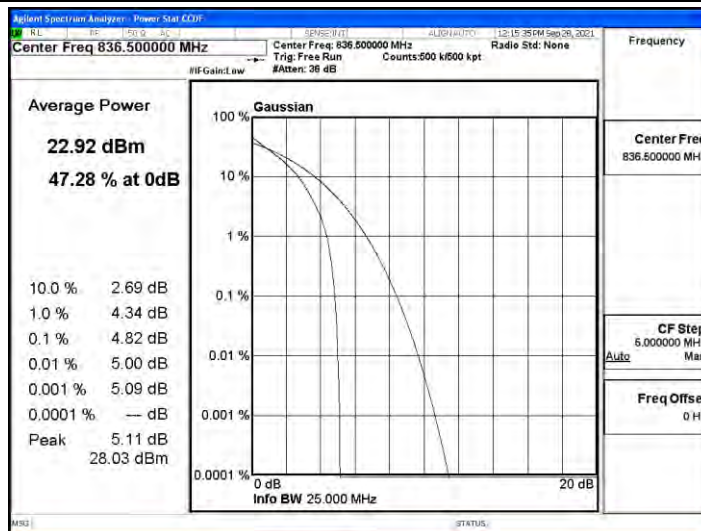


Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.33	<13	PASS
	MCH	4.25	<13	PASS
	HCH	4.12	<13	PASS
16QAM	LCH	5.04	<13	PASS
	MCH	4.99	<13	PASS
	HCH	4.83	<13	PASS

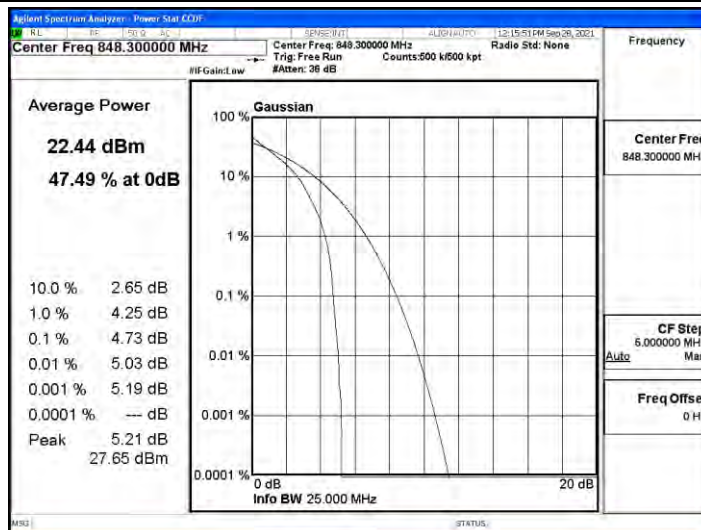
Test Graphs

Channel Bandwidth: 1.4 MHz

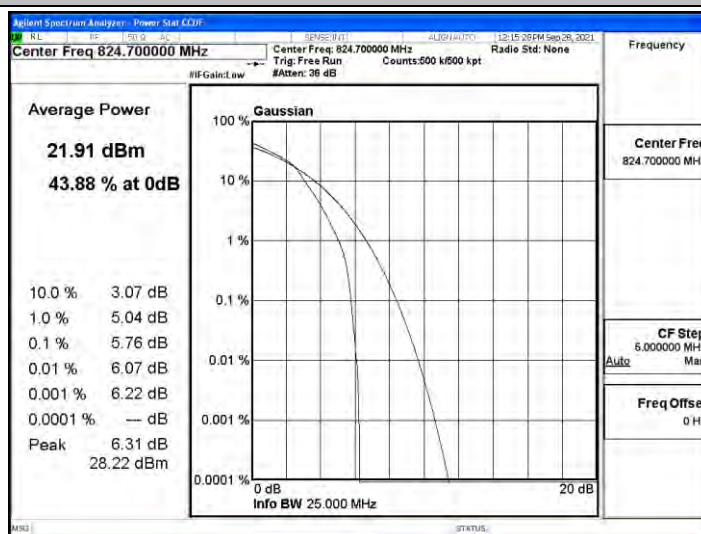




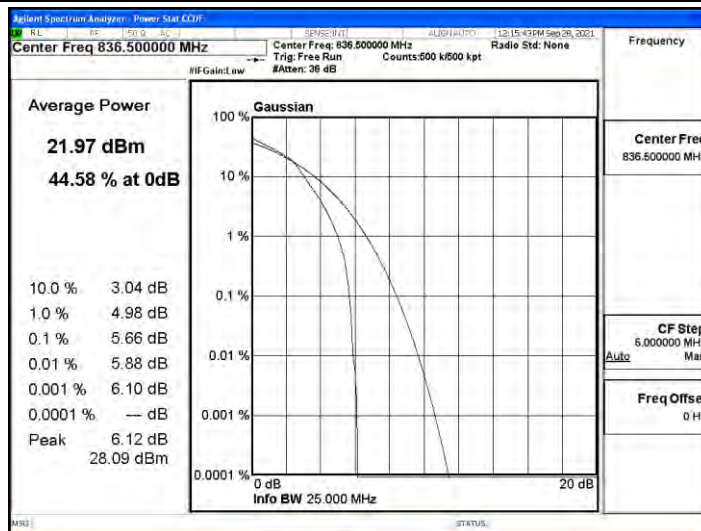
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK



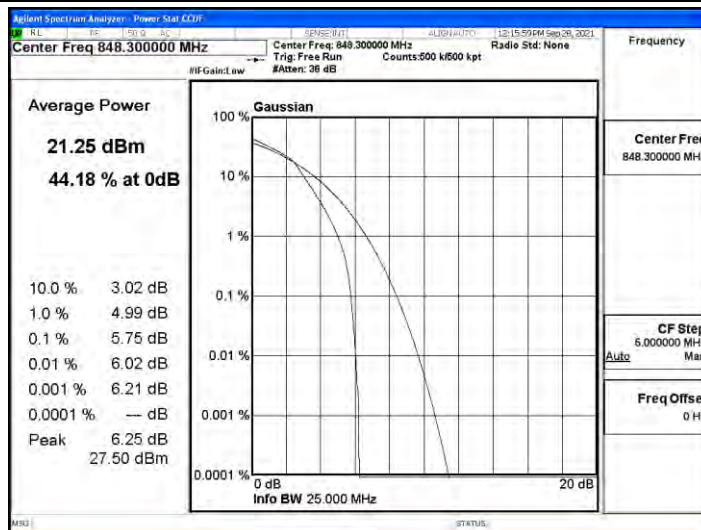
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM



(Channel Bandwidth: 1.4 MHz)_MCH_16QAM

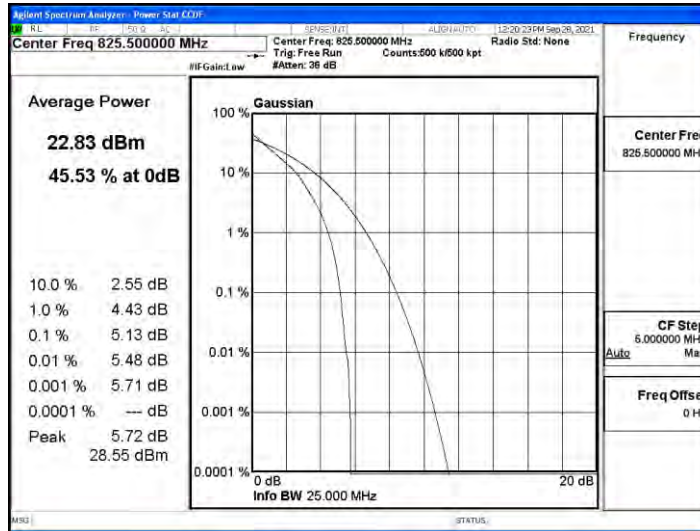


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM

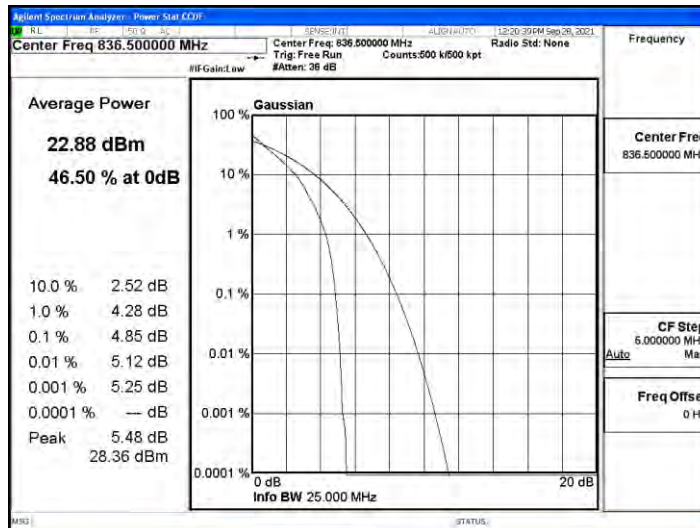




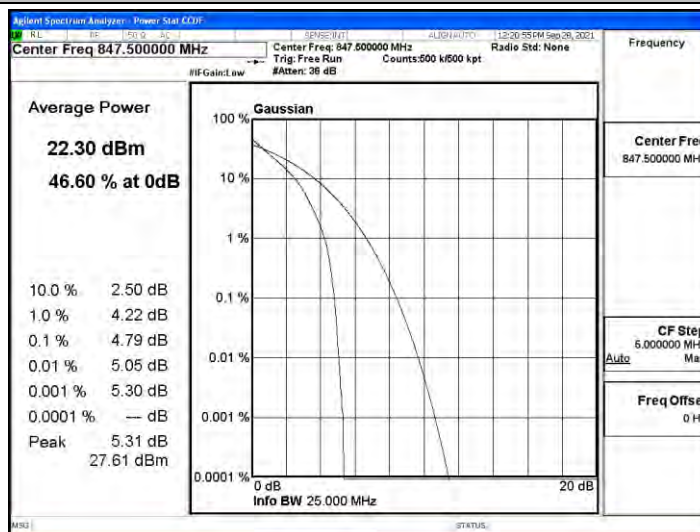
(Channel Bandwidth: 3 MHz)_LCH_QPSK



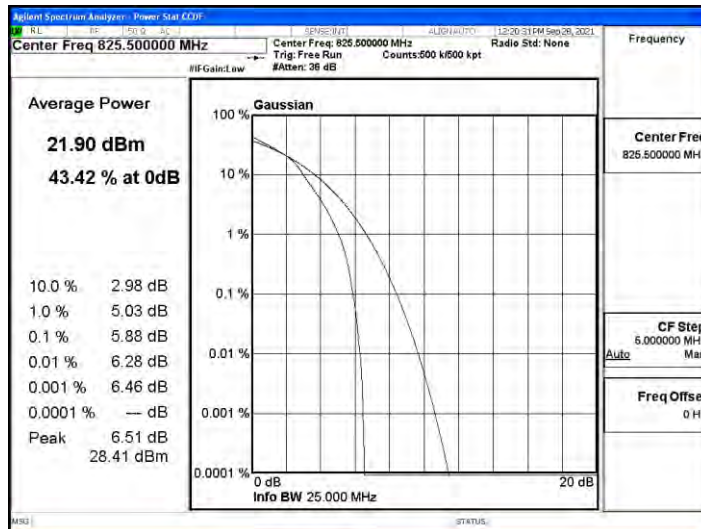
(Channel Bandwidth: 3 MHz)_MCH_QPSK



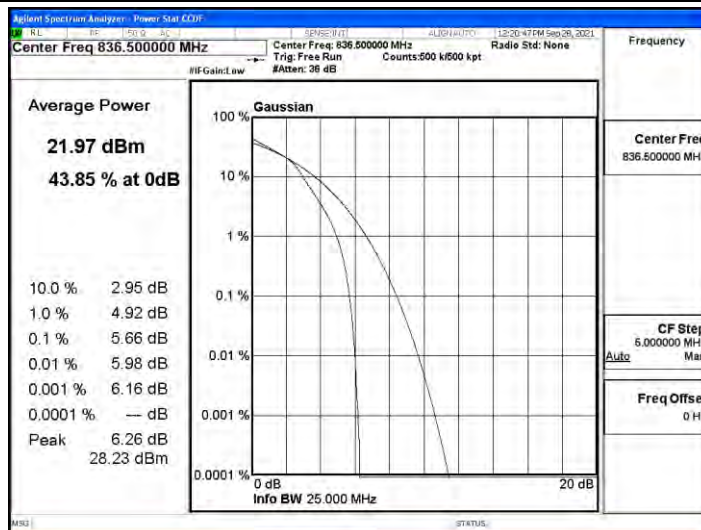
(Channel Bandwidth: 3 MHz)_HCH_QPSK



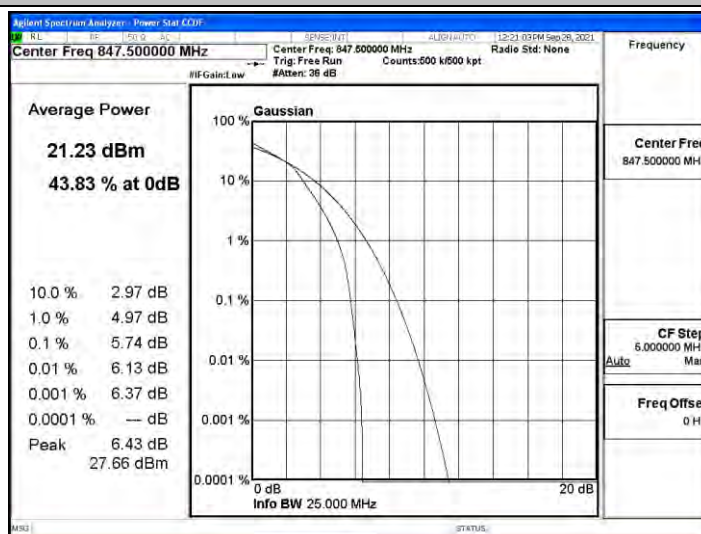
(Channel Bandwidth: 3 MHz)_LCH_16QAM



(Channel Bandwidth: 3 MHz)_MCH_16QAM

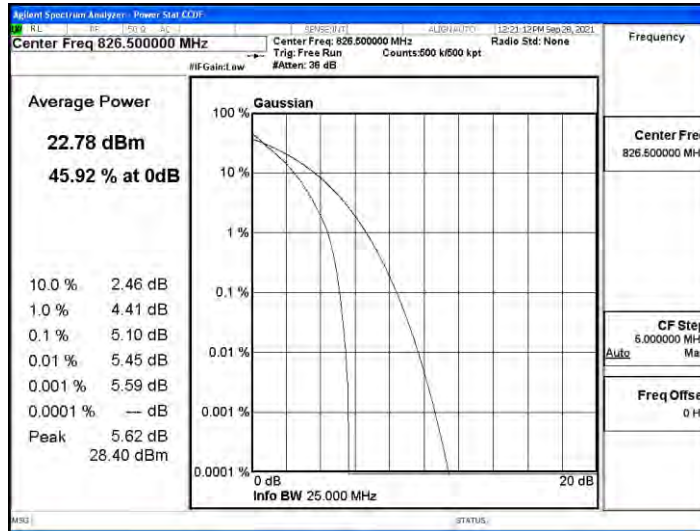


(Channel Bandwidth: 3 MHz)_HCH_16QAM

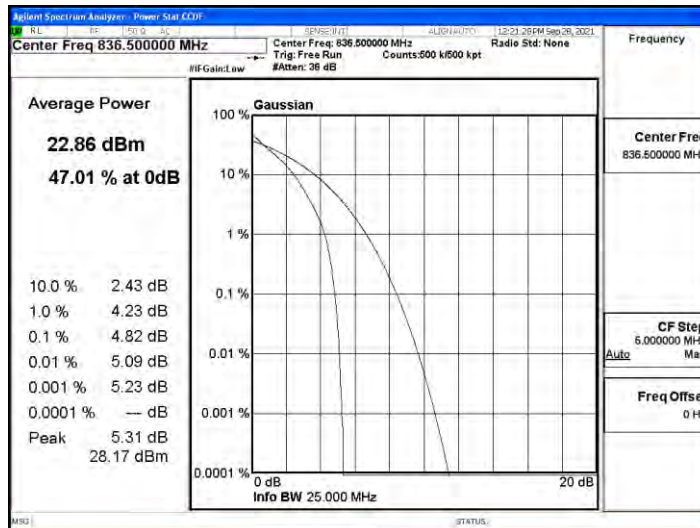




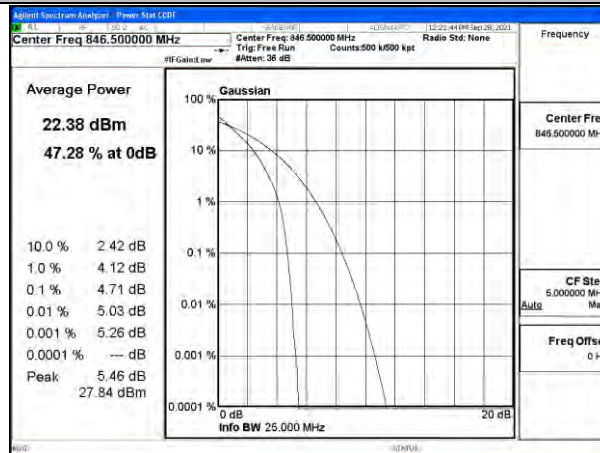
(Channel Bandwidth: 5 MHz)_LCH_QPSK



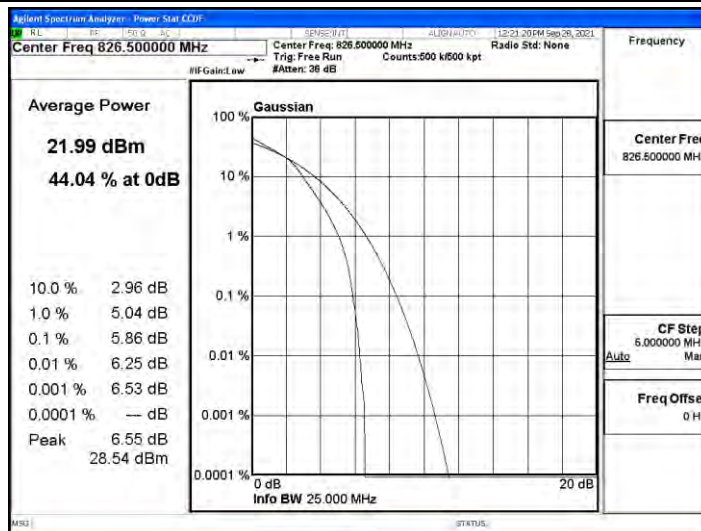
(Channel Bandwidth: 5MHz)_MCH_QPSK



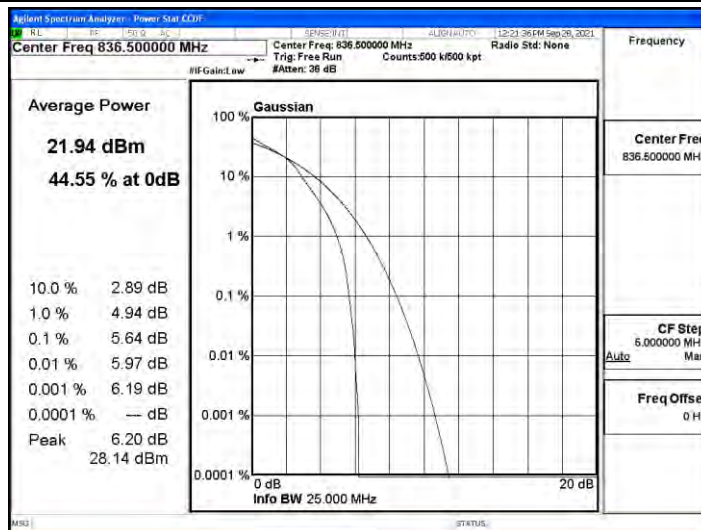
(Channel Bandwidth: 5MHz)_HCH_QPSK



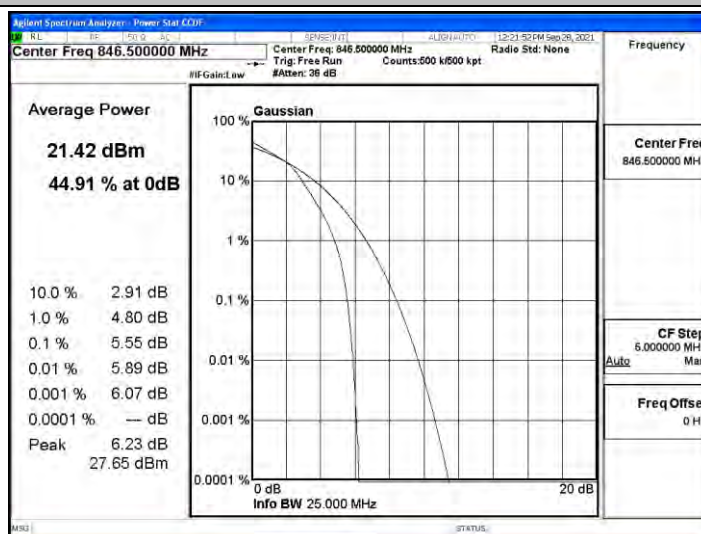
(Channel Bandwidth: 5MHz)_LCH_16QAM



(Channel Bandwidth: 5MHz)_MCH_16QAM

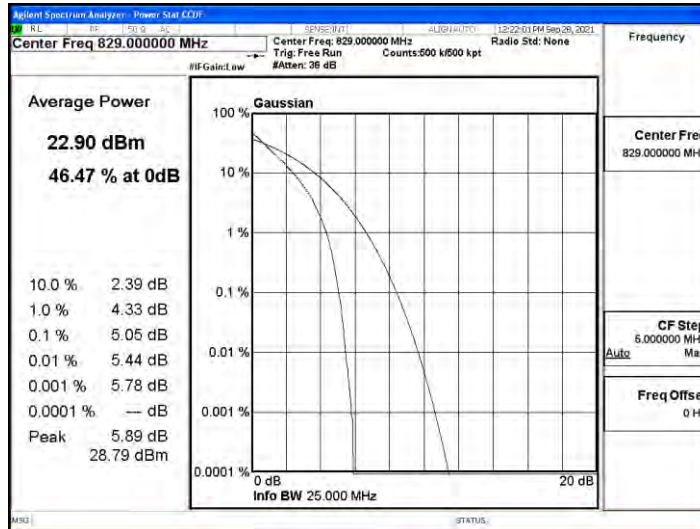


(Channel Bandwidth: 5MHz)_HCH_16QAM

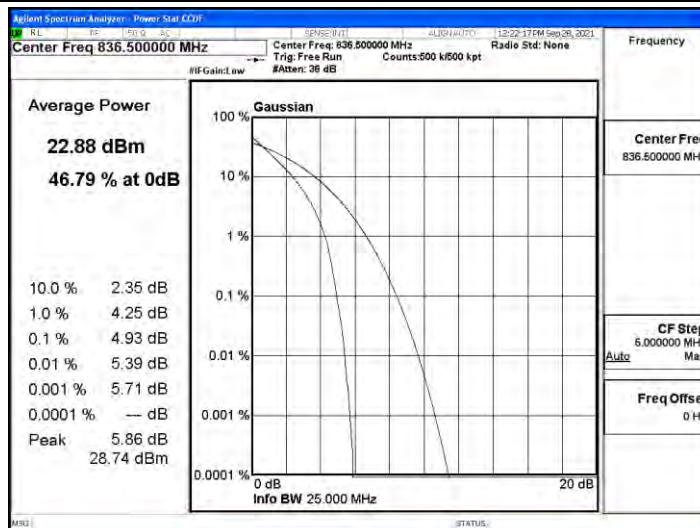




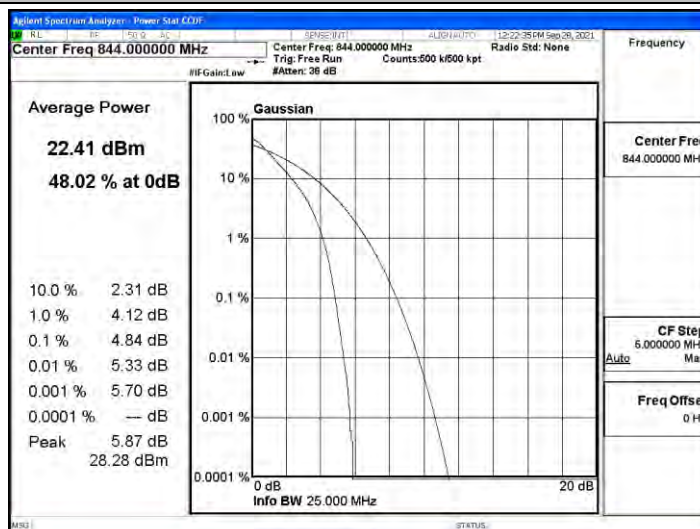
(Channel Bandwidth: 10 MHz)_LCH_QPSK



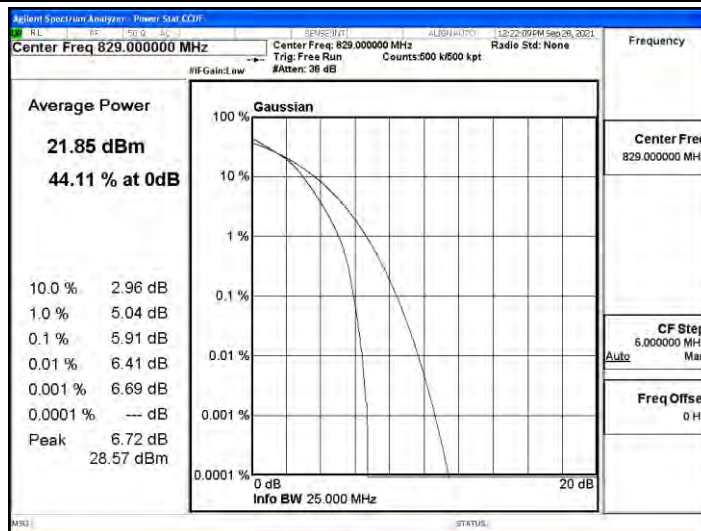
(Channel Bandwidth: 10MHz)_MCH_QPSK



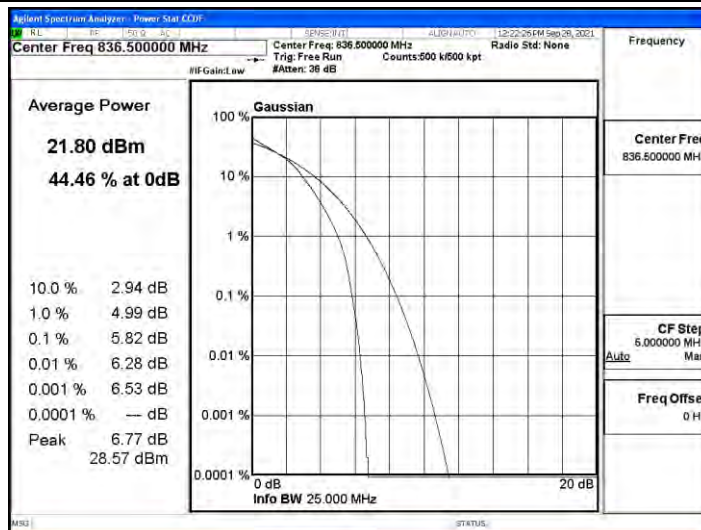
(Channel Bandwidth: 10MHz)_HCH_QPSK



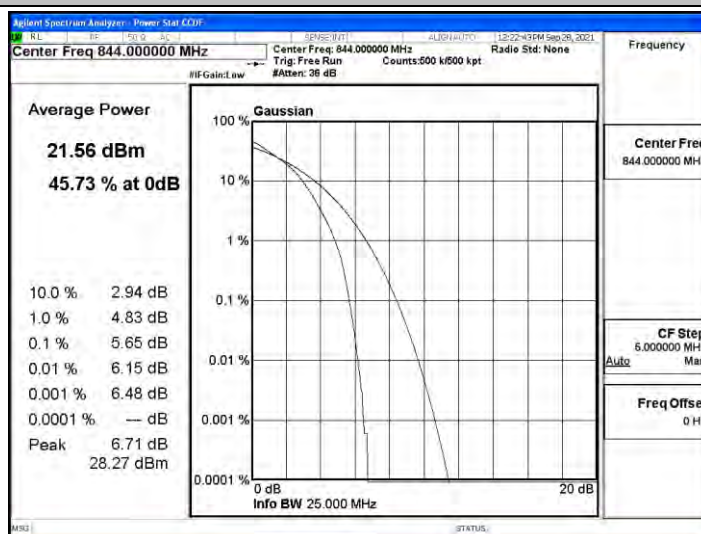
(Channel Bandwidth: 10MHz)_LCH_16QAM



(Channel Bandwidth: 10MHz)_MCH_16QAM



(Channel Bandwidth: 10MHz)_HCH_16QAM





C.3 26dB Bandwidth and Occupied Bandwidth

Test Result

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0792	1.229	PASS
	MCH	1.0790	1.210	PASS
	HCH	1.0782	1.234	PASS
16QAM	LCH	1.0796	1.266	PASS
	MCH	1.0786	1.233	PASS
	HCH	1.0792	1.234	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6720	2.794	PASS
	MCH	2.6898	2.972	PASS
	HCH	2.6812	2.922	PASS
16QAM	LCH	2.6822	2.938	PASS
	MCH	2.6875	2.947	PASS
	HCH	2.6830	2.948	PASS

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4748	4.825	PASS
	MCH	4.4661	4.842	PASS
	HCH	4.4757	4.825	PASS
16QAM	LCH	4.4729	4.866	PASS
	MCH	4.4707	4.866	PASS
	HCH	4.4725	4.865	PASS



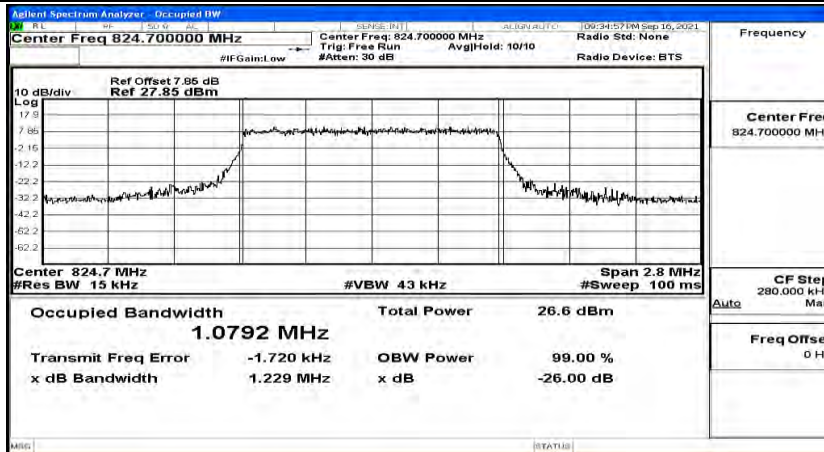
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9384	9.421	PASS
	MCH	8.9379	9.463	PASS
	HCH	8.9436	9.453	PASS
16QAM	LCH	8.9041	9.423	PASS
	MCH	8.9419	9.544	PASS
	HCH	8.9268	9.467	PASS



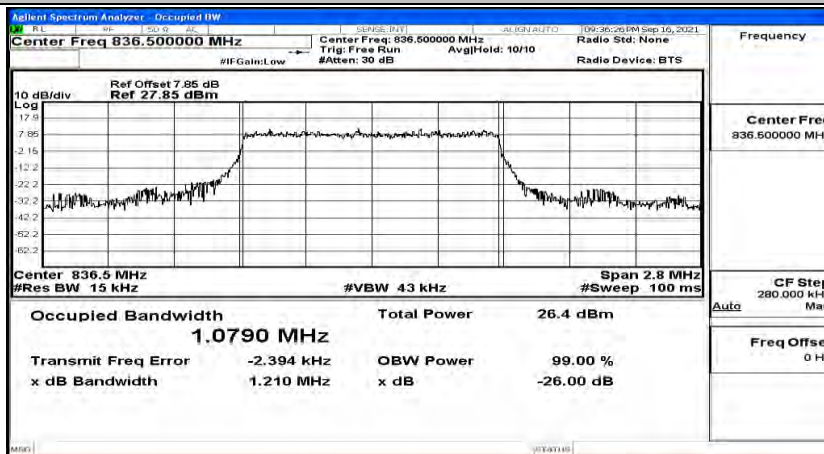
Test Graphs

Channel Bandwidth: 1.4 MHz

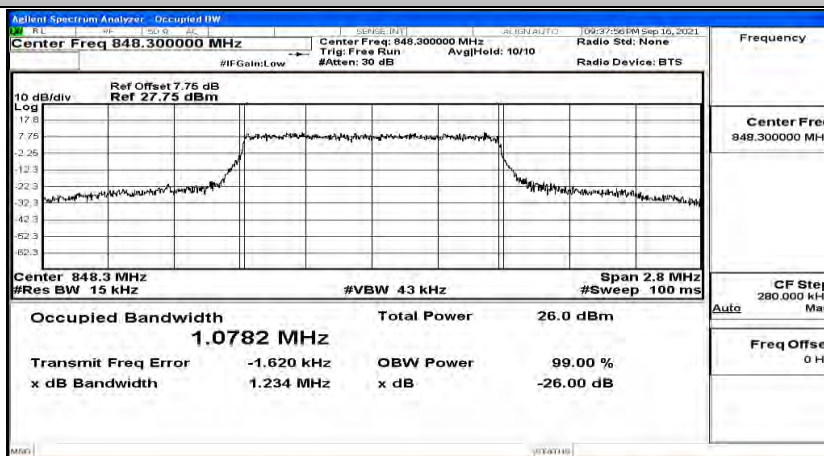
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK



(Channel Bandwidth: 1.4 MHz)_MCH_QPSK

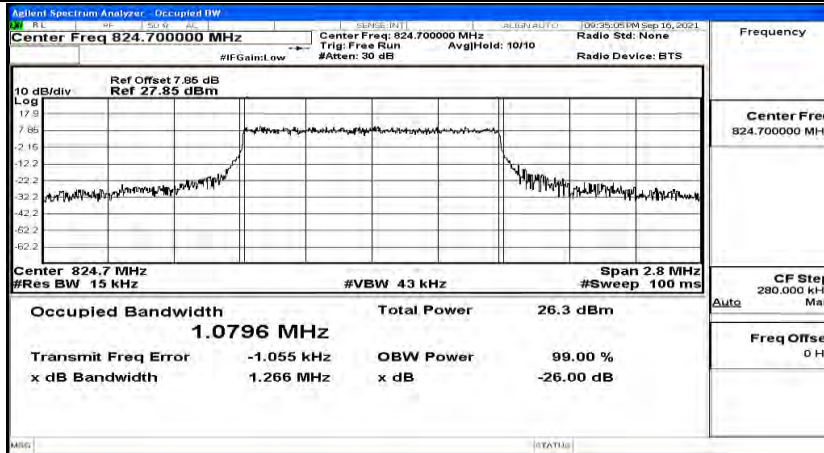


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK

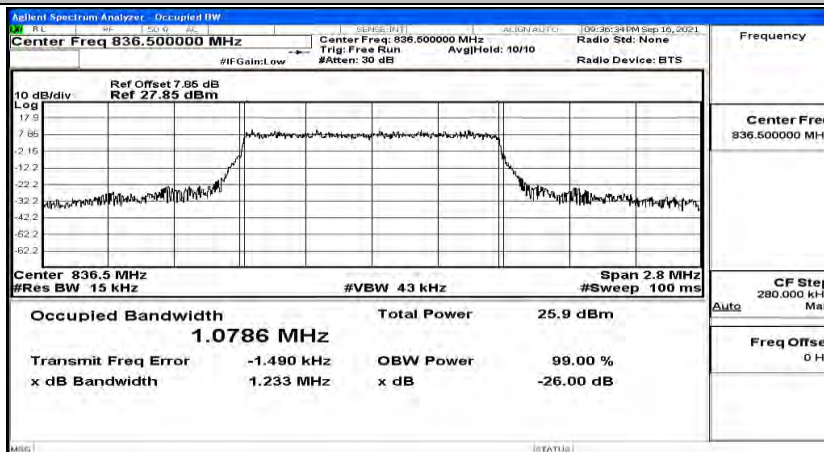




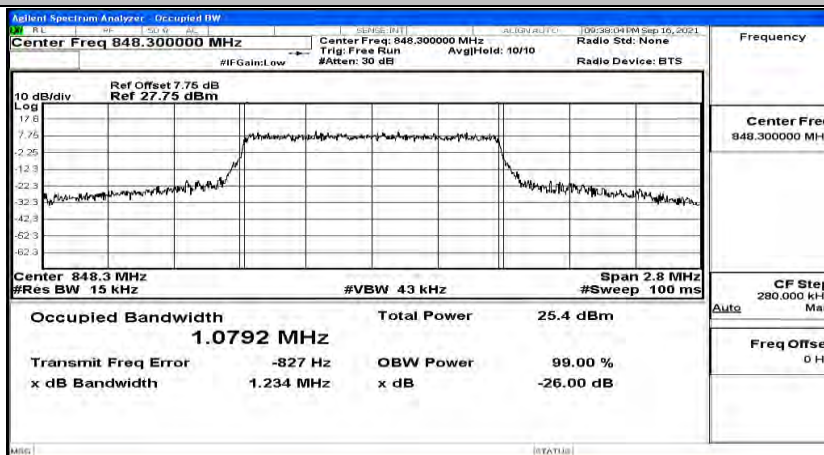
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM



(Channel Bandwidth: 1.4 MHz)_MCH_16QAM



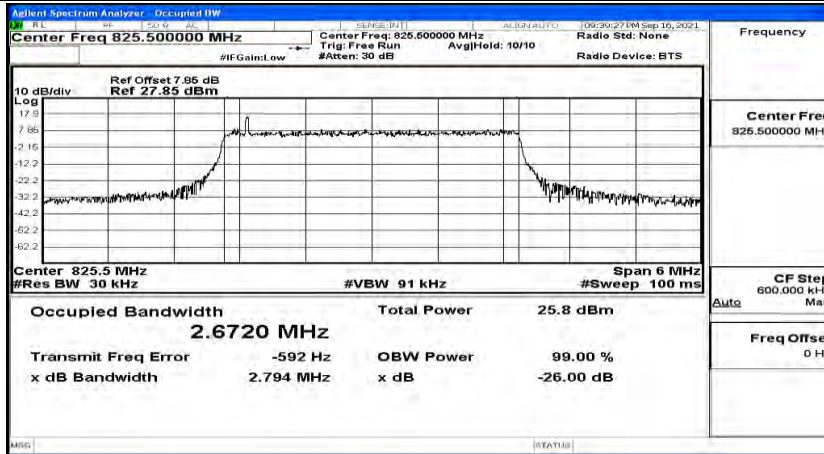
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM



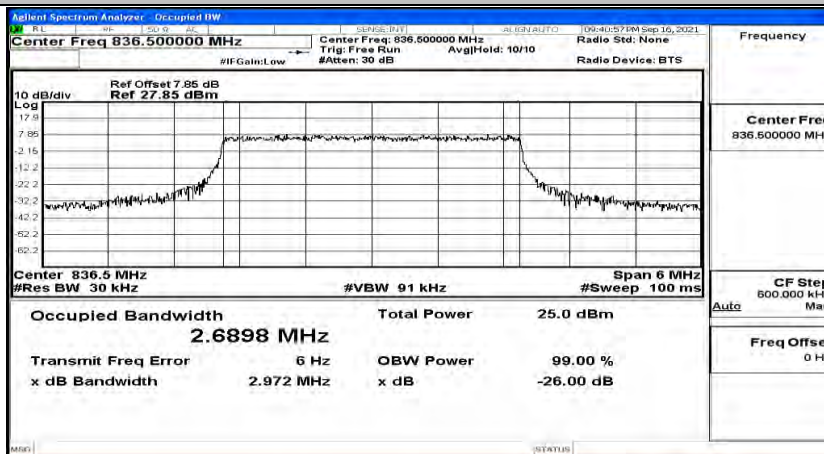


Channel Bandwidth: 3 MHz

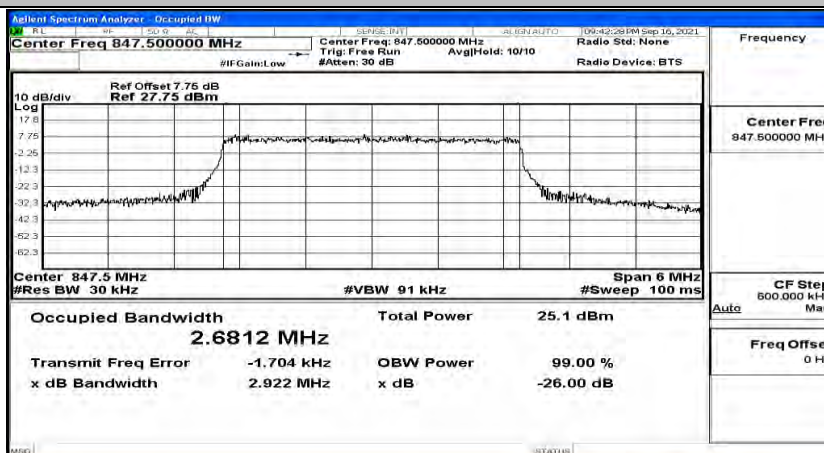
(Channel Bandwidth: 3 MHz)_LCH_QPSK



(Channel Bandwidth: 3 MHz)_MCH_QPSK

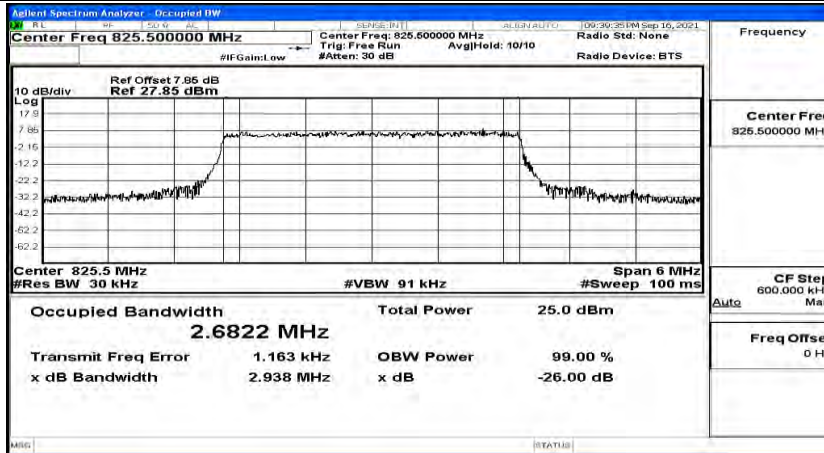


(Channel Bandwidth: 3 MHz)_HCH_QPSK

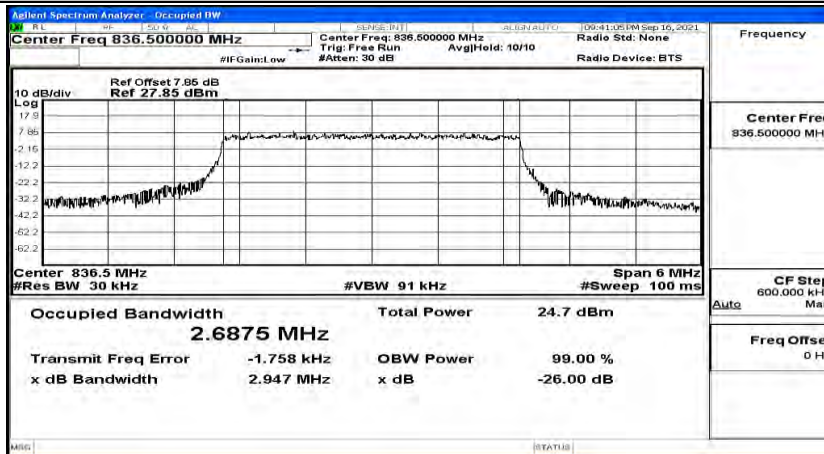




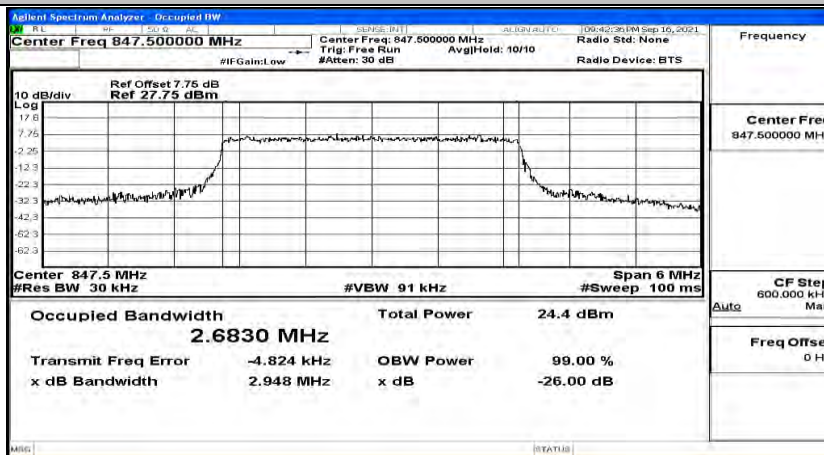
(Channel Bandwidth: 3 MHz)_LCH_16QAM



(Channel Bandwidth: 3 MHz)_MCH_16QAM



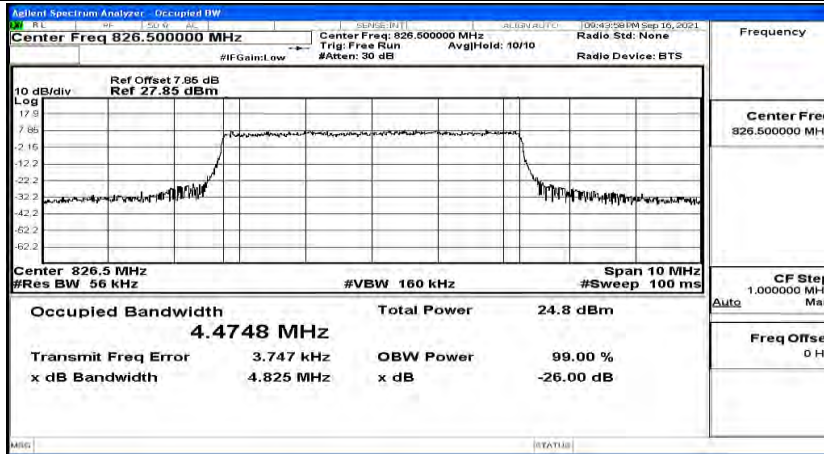
(Channel Bandwidth: 3 MHz)_HCH_16QAM



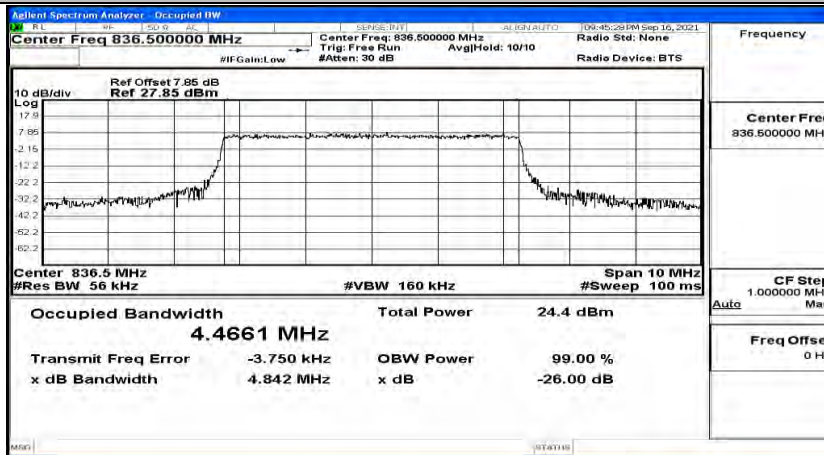


Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK

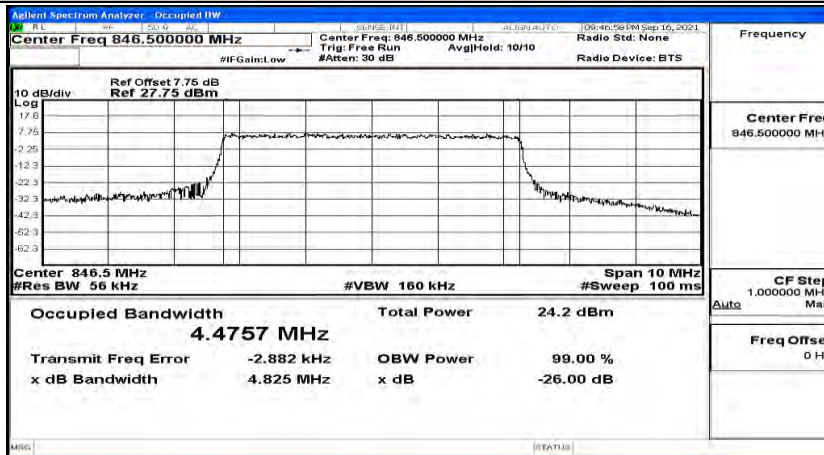


(Channel Bandwidth: 5 MHz)_MCH_QPSK_

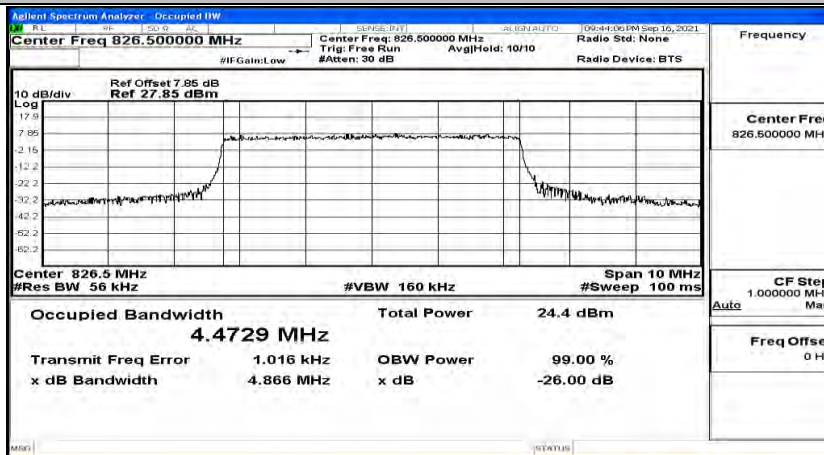




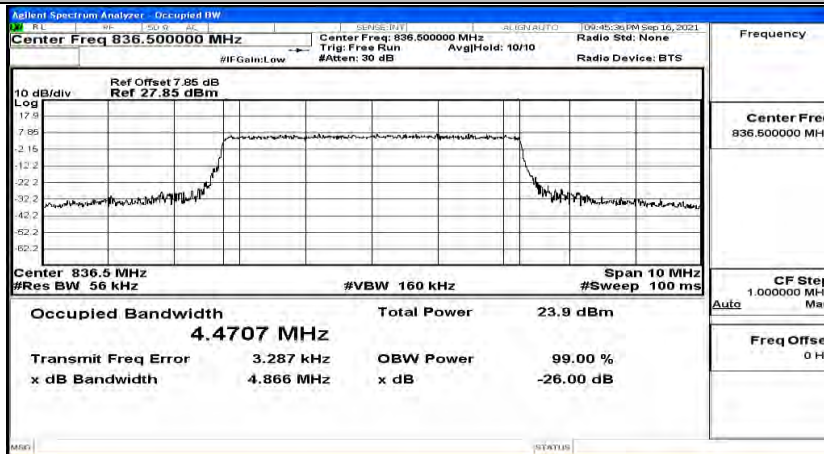
(Channel Bandwidth: 5 MHz)_HCH_QPSK



(Channel Bandwidth: 5 MHz)_LCH_16QAM

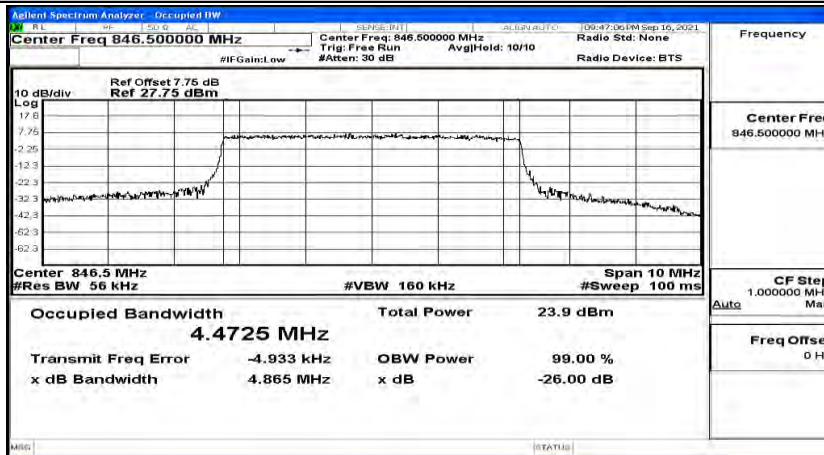


(Channel Bandwidth: 5 MHz)_MCH_16QAM



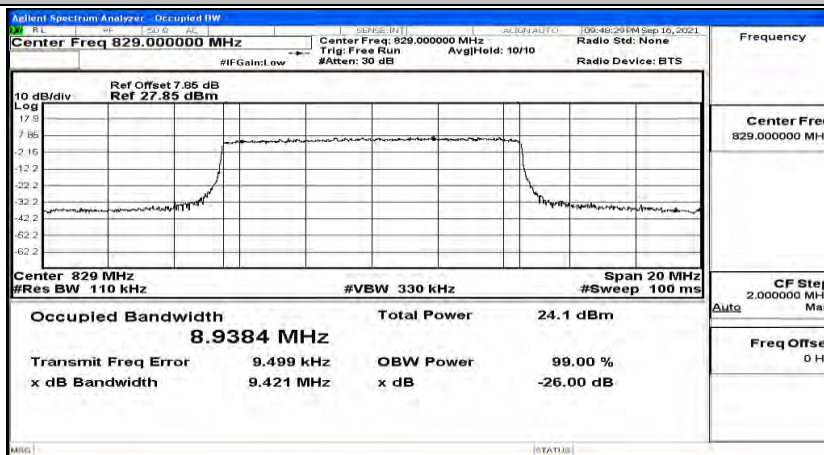


(Channel Bandwidth: 5 MHz)_HCH_16QAM

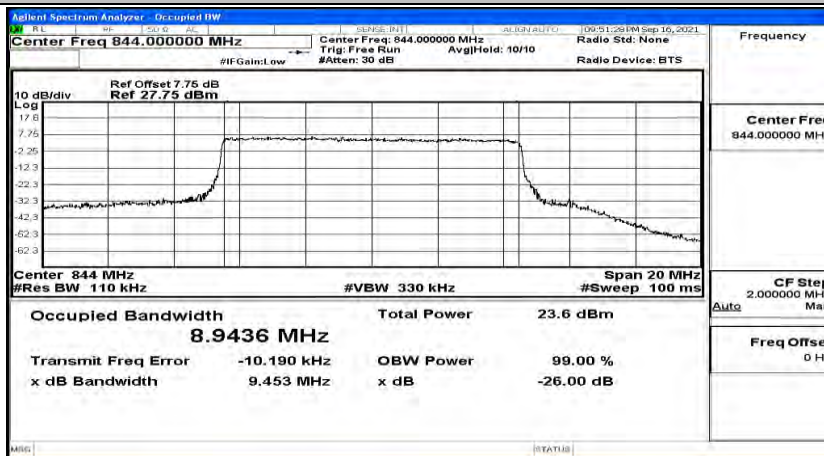


Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK

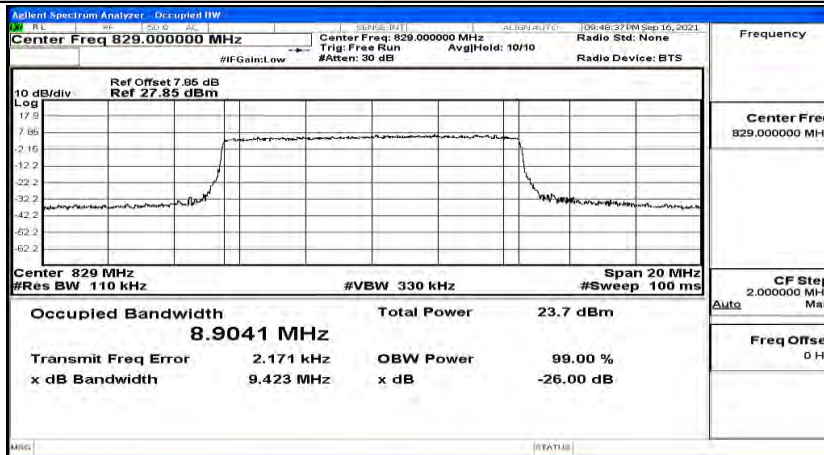


Channel Bandwidth: 10 MHz_HCH_QPSK

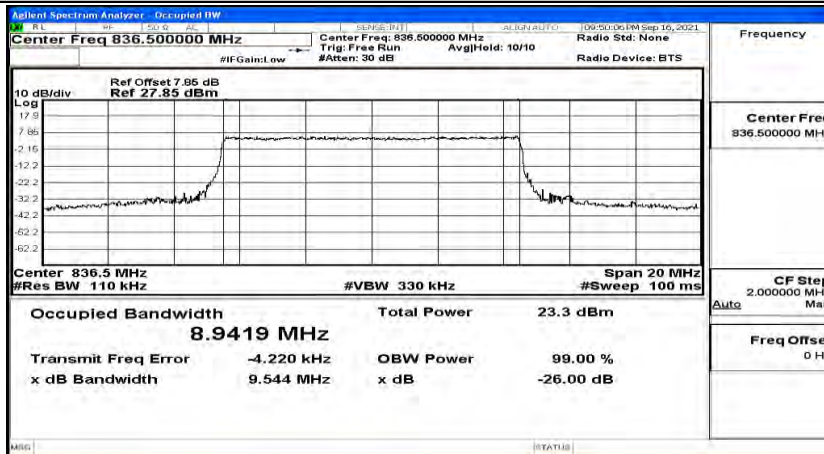




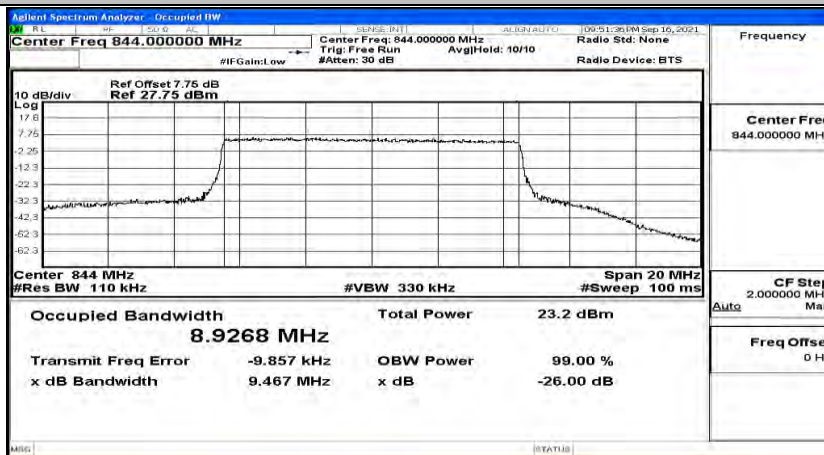
Channel Bandwidth: 10 MHz_LCH_16QAM



Channel Bandwidth: 10 MHz_MCH_16QAM



Channel Bandwidth: 10 MHz_HCH_16QAM



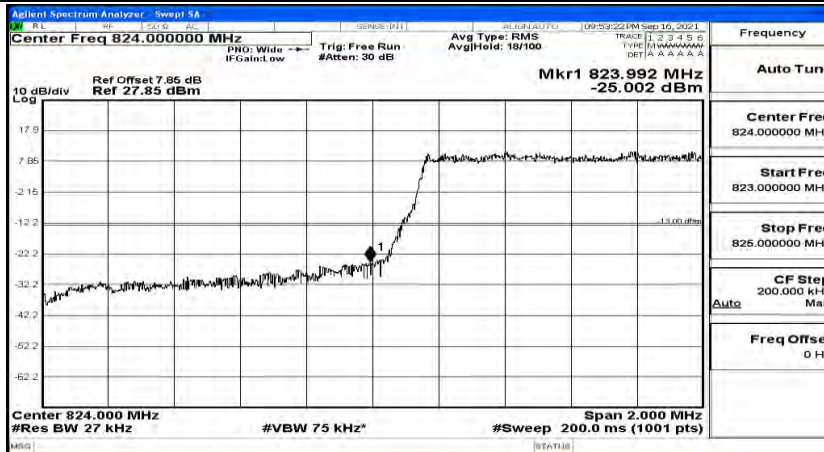


C.4 Band Edge

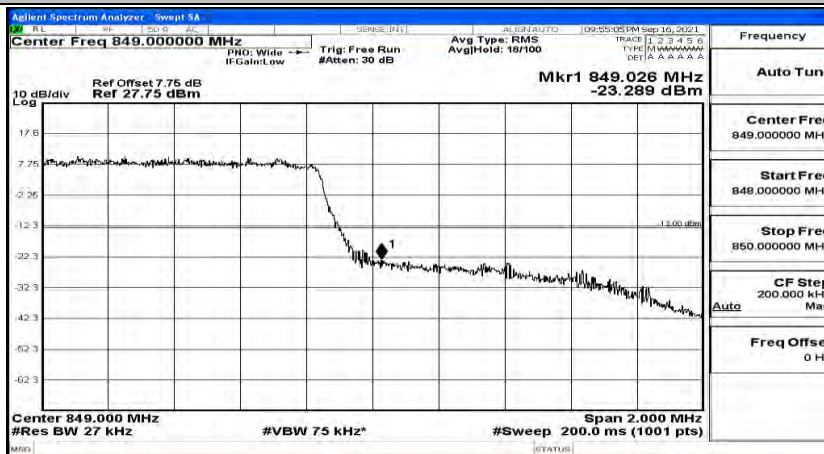
Test Graphs

Channel Bandwidth: 1.4 MHz

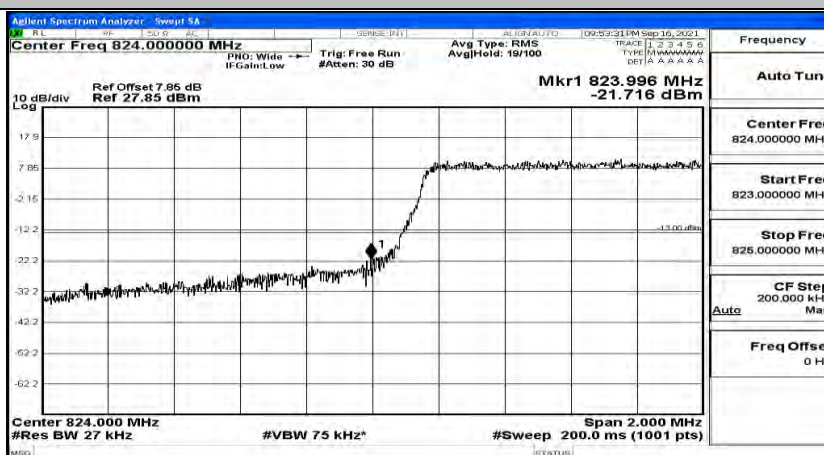
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK



(Channel Bandwidth: 1.4 MHz)_HCH_QPSK



(Channel Bandwidth: 1.4 MHz)_LCH_16QAM

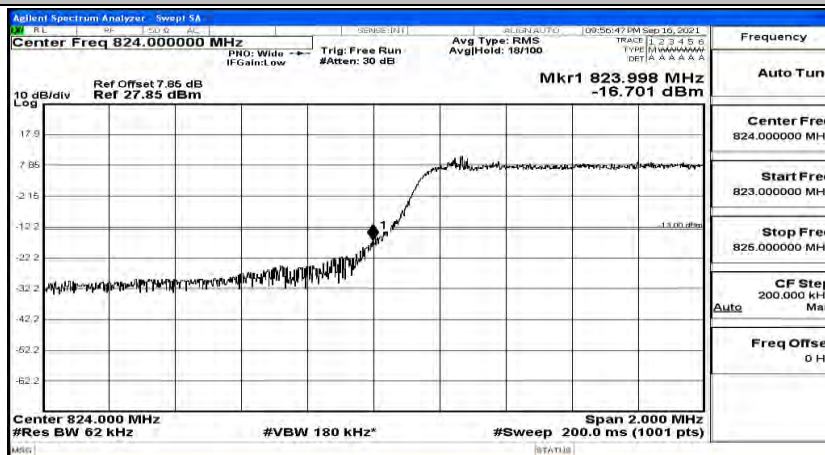


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM

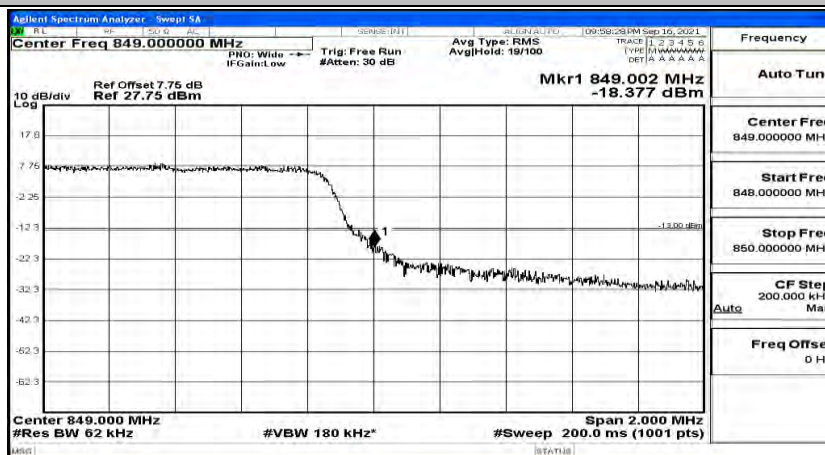


Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_LCH_QPSK

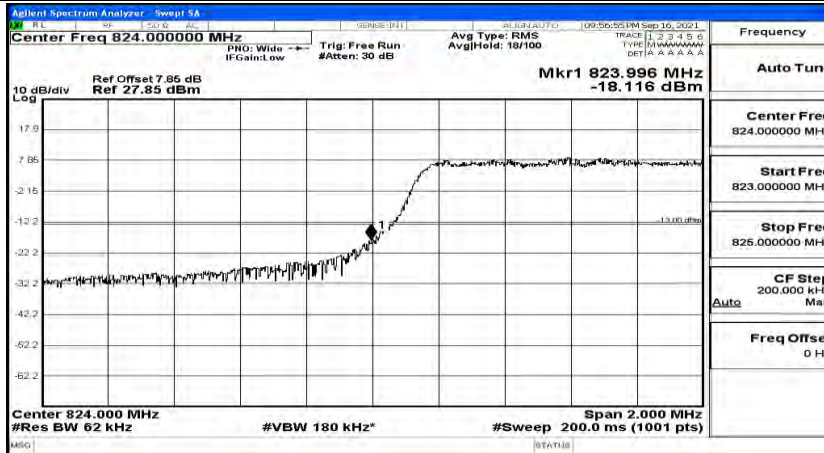


(Channel Bandwidth: 3 MHz)_HCH_QPSK

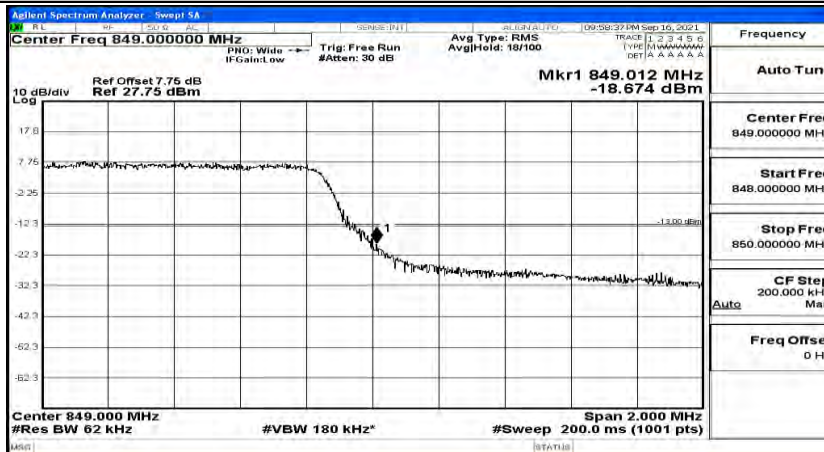




(Channel Bandwidth: 3 MHz)_LCH_16QAM



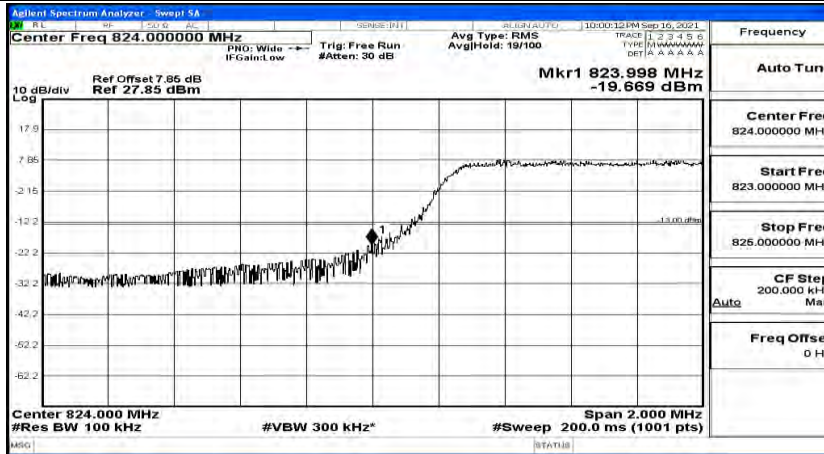
(Channel Bandwidth: 3 MHz)_HCH_16QAM



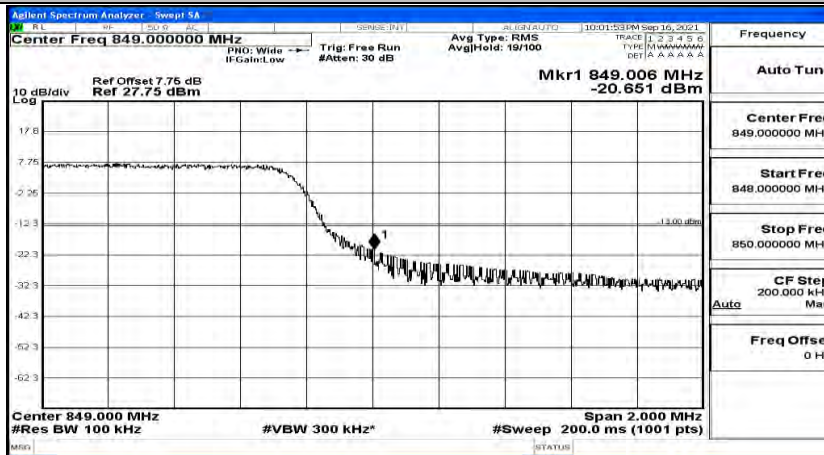


Channel Bandwidth: 5 MHz

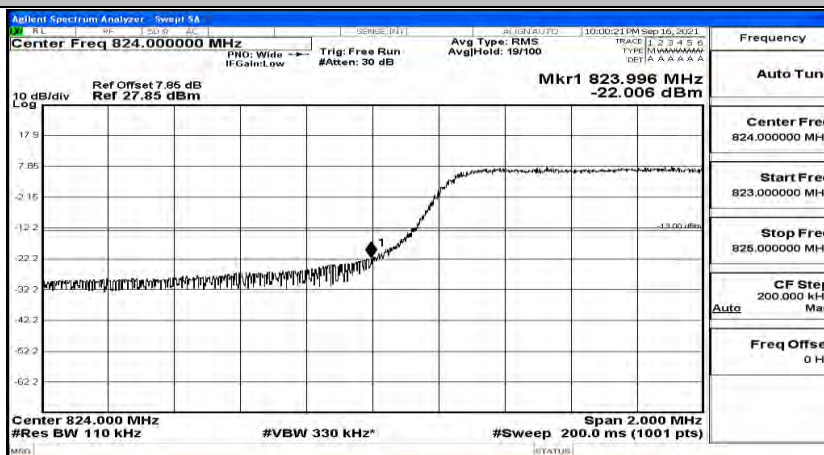
(Channel Bandwidth: 5 MHz)_LCH_QPSK



(Channel Bandwidth: 5 MHz)_HCH_QPSK

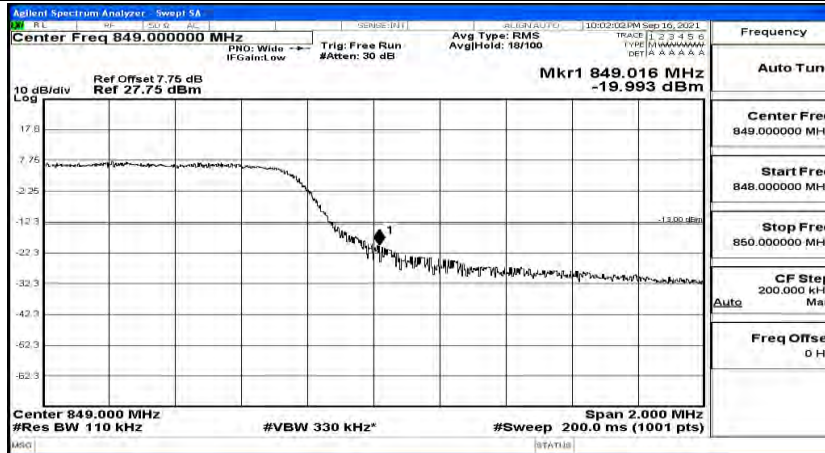


(Channel Bandwidth: 5 MHz)_LCH_16QAM



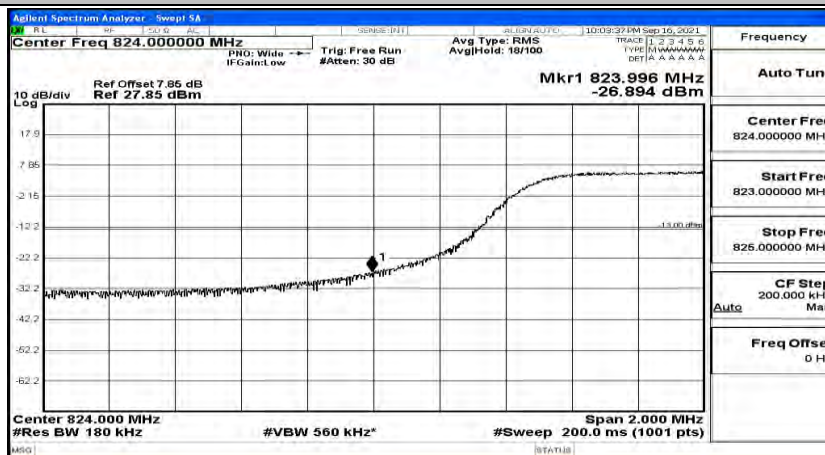


(Channel Bandwidth: 5 MHz)_HCH_16QAM

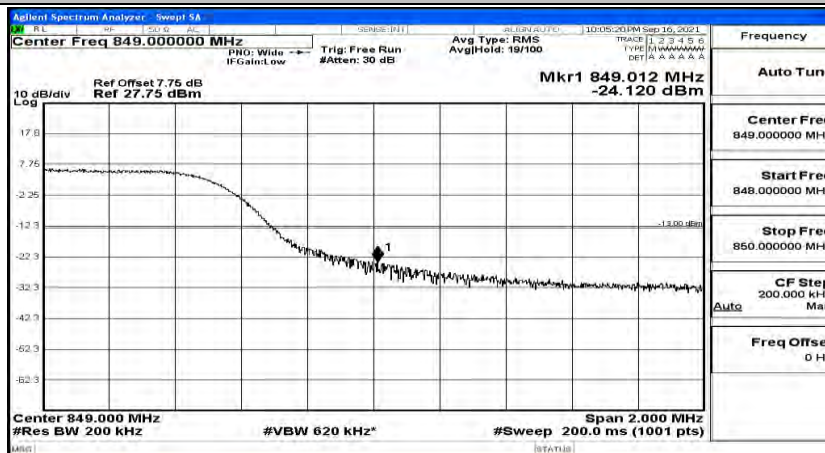


Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK

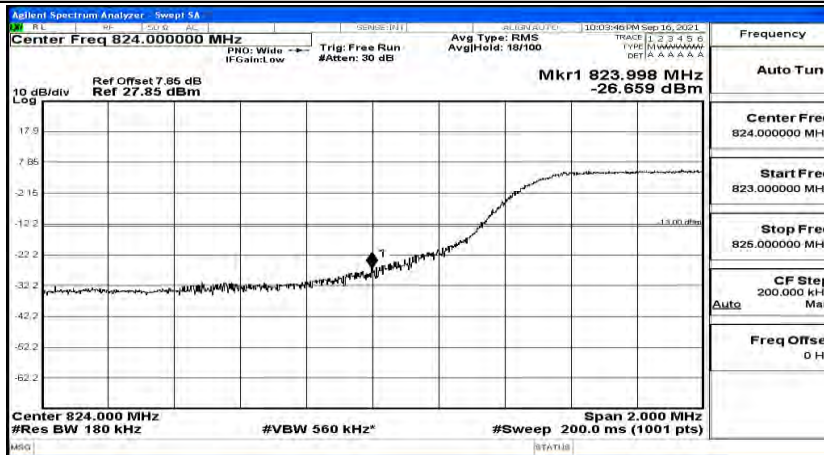


Channel Bandwidth: 10 MHz_HCH_QPSK

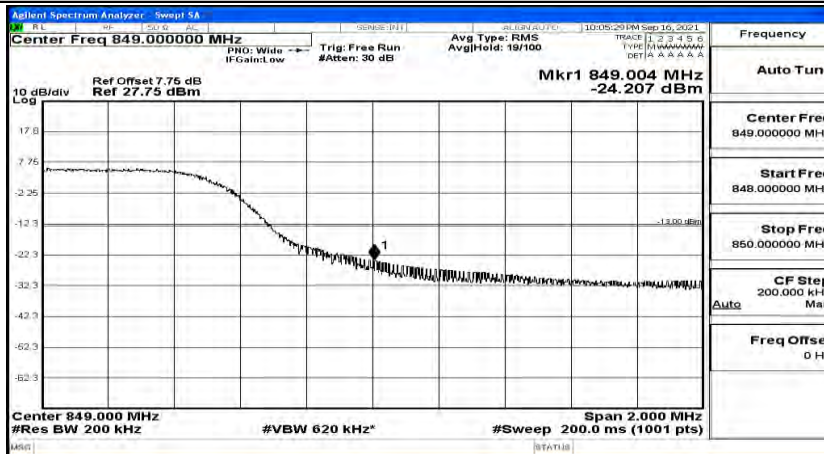




Channel Bandwidth: 10 MHz_LCH_16QAM



Channel Bandwidth: 10 MHz_HCH_16QAM



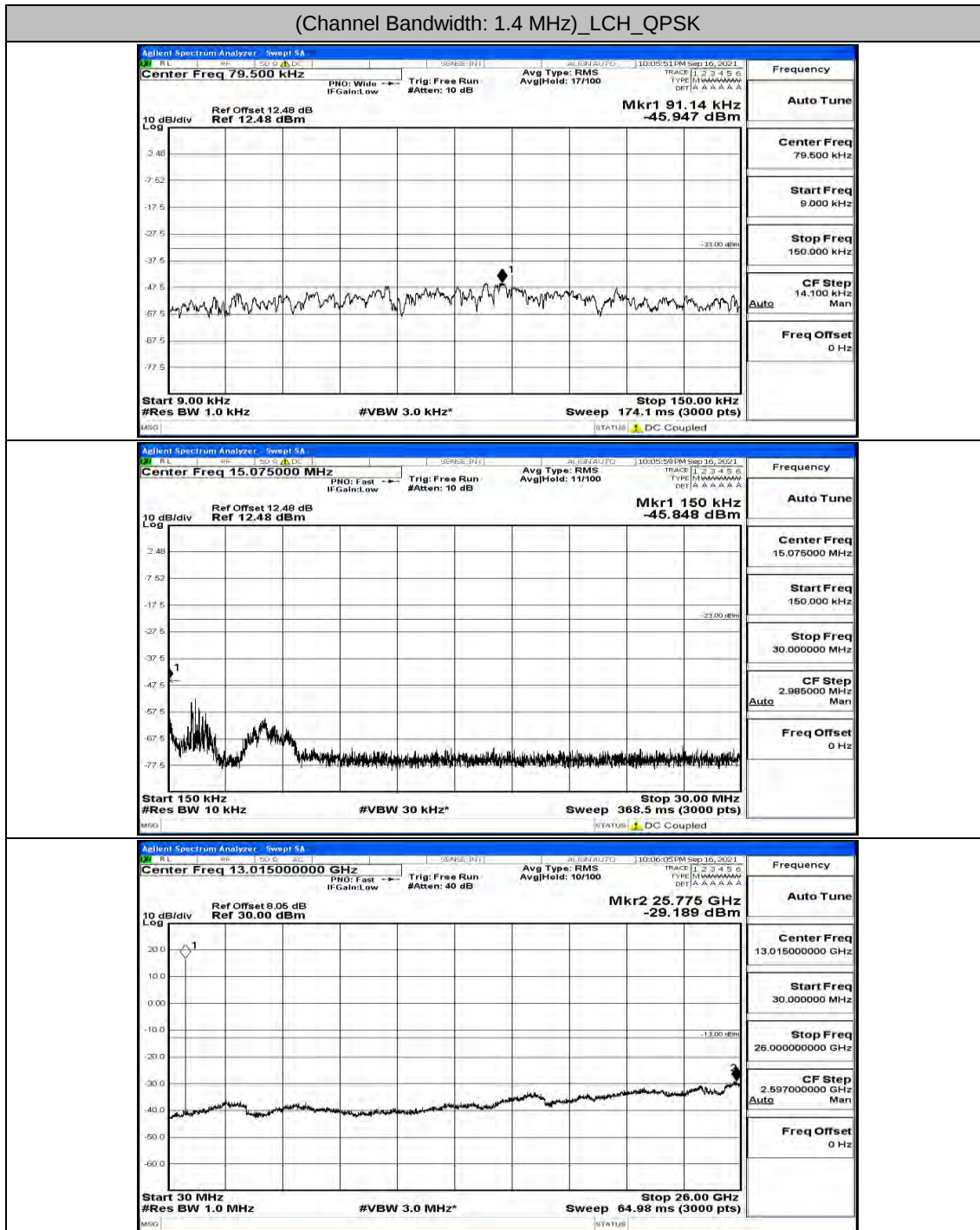


C.5 Conducted Spurious Emission

Test Graphs

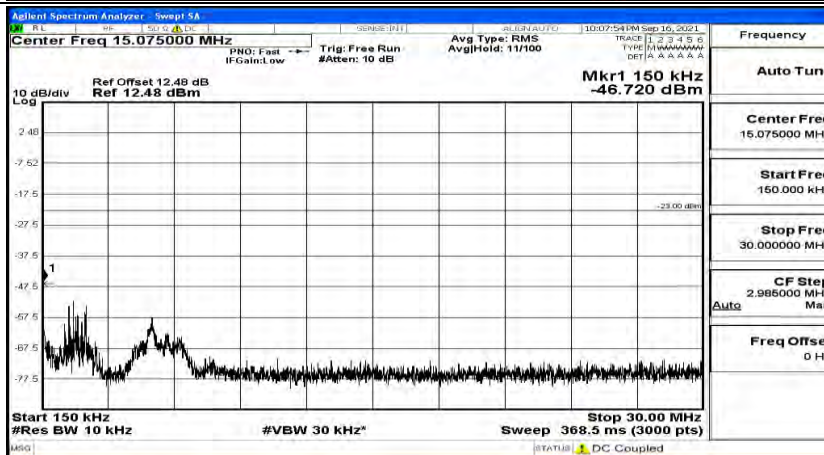
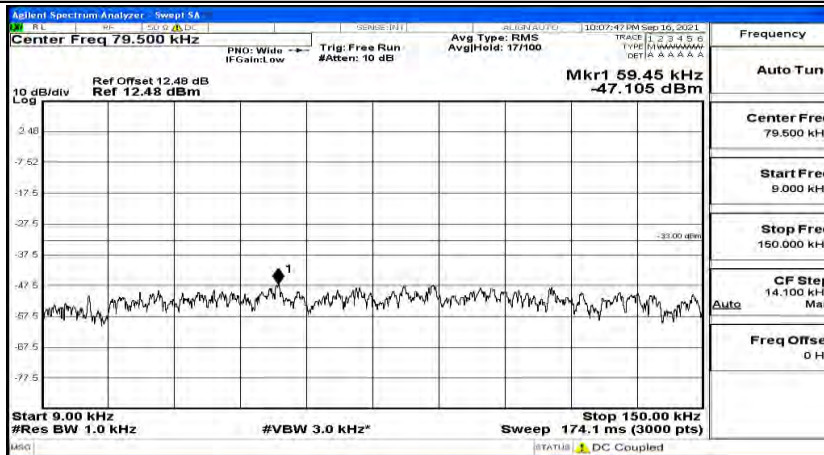
Channel Bandwidth: 1.4 MHz

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK



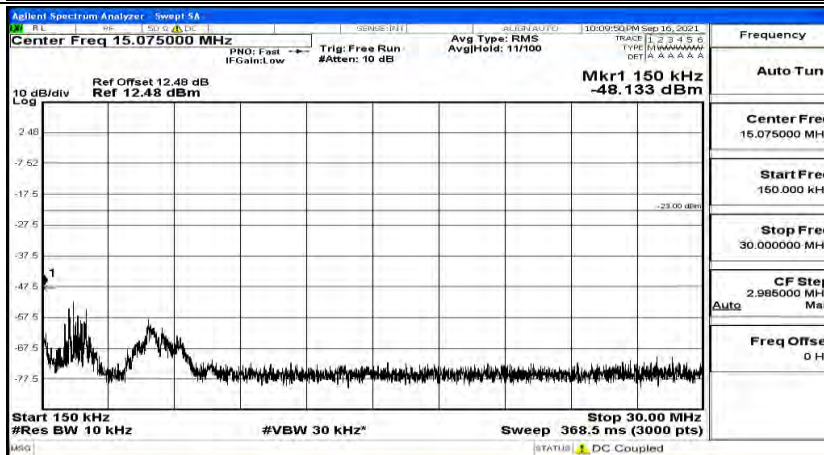
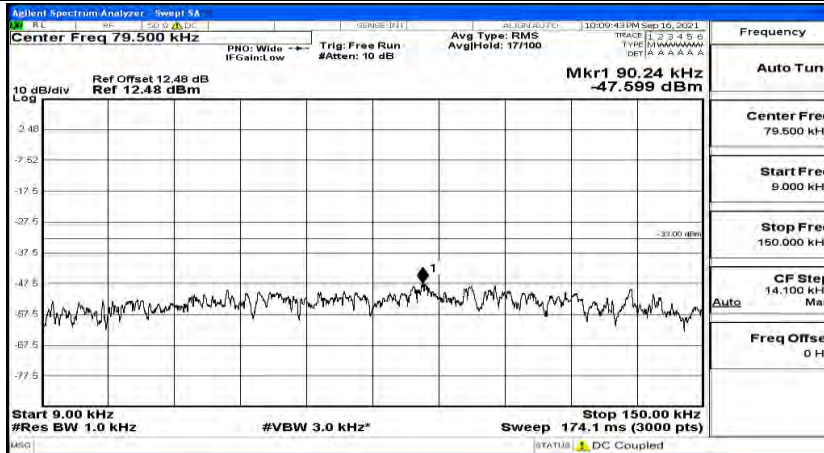


(Channel Bandwidth: 1.4 MHz)_MCH_QPSK



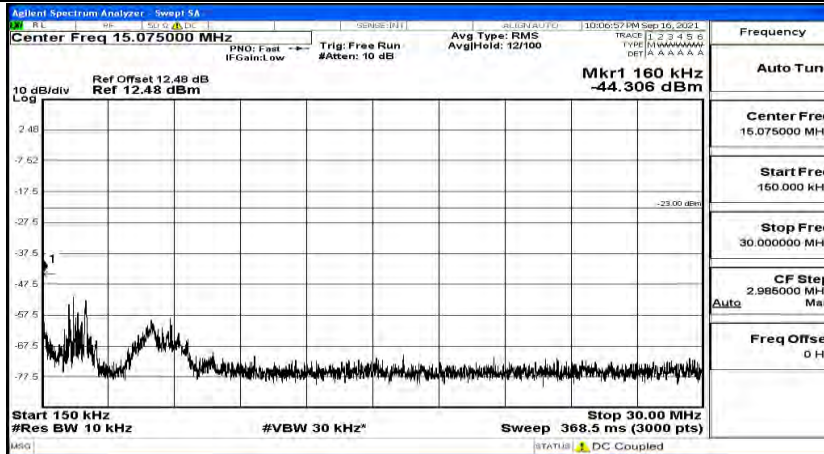
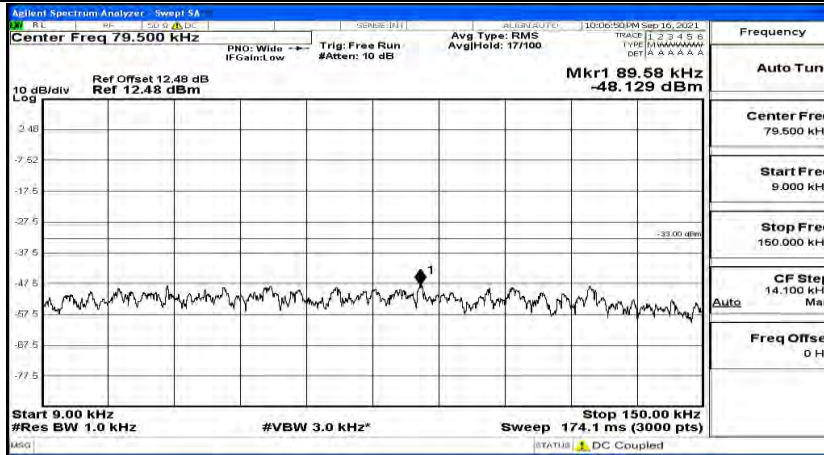


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK



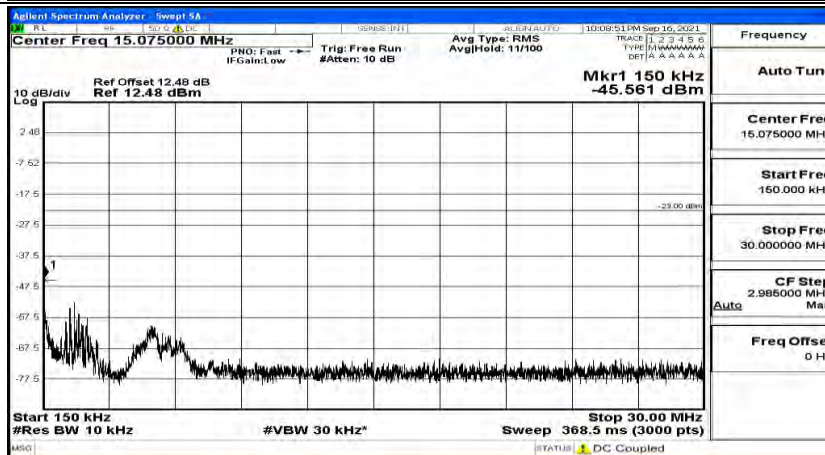
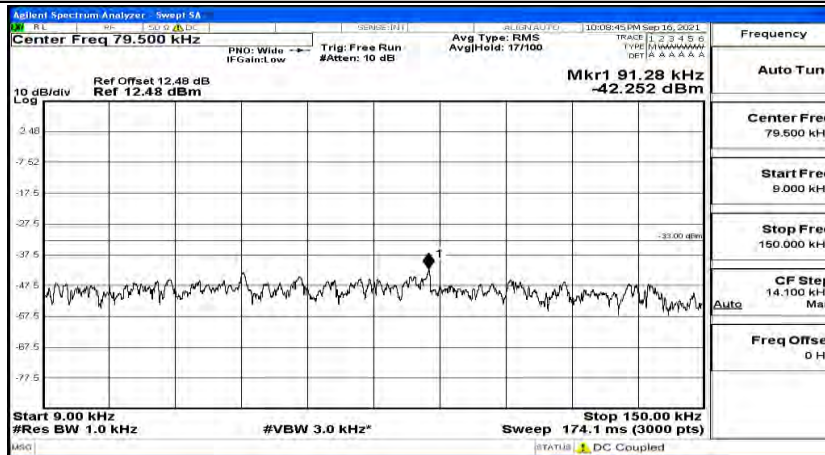


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM



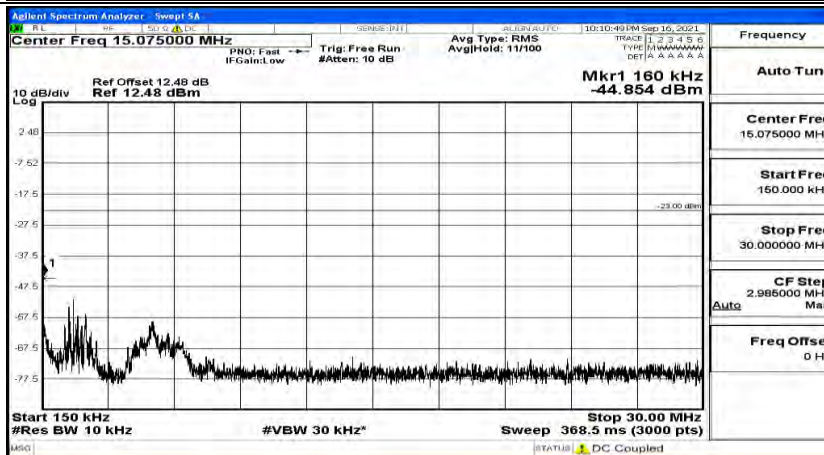
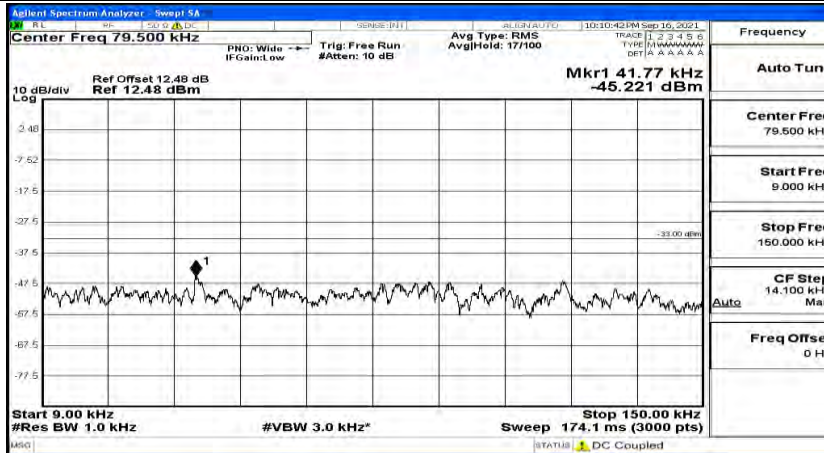


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM





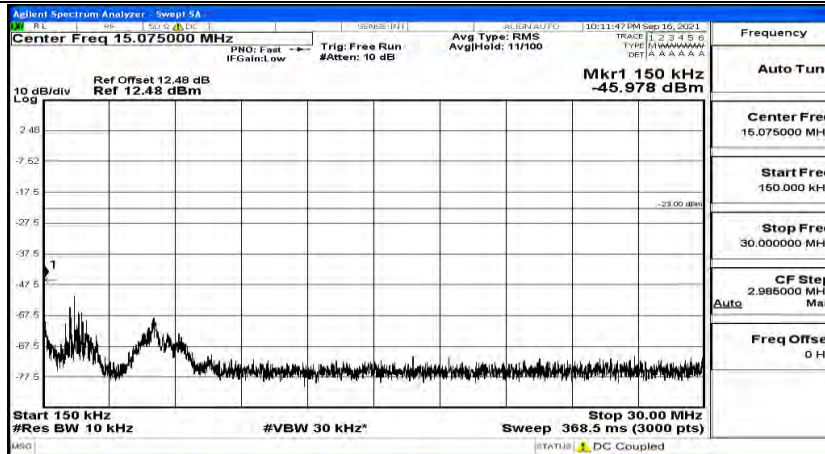
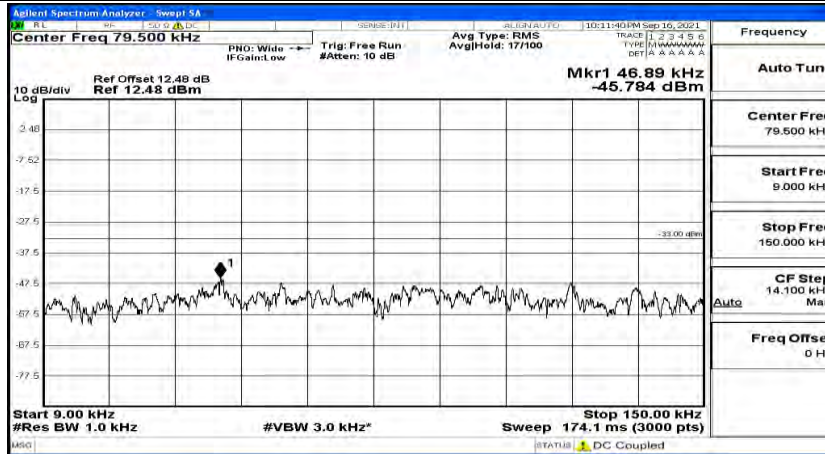
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM



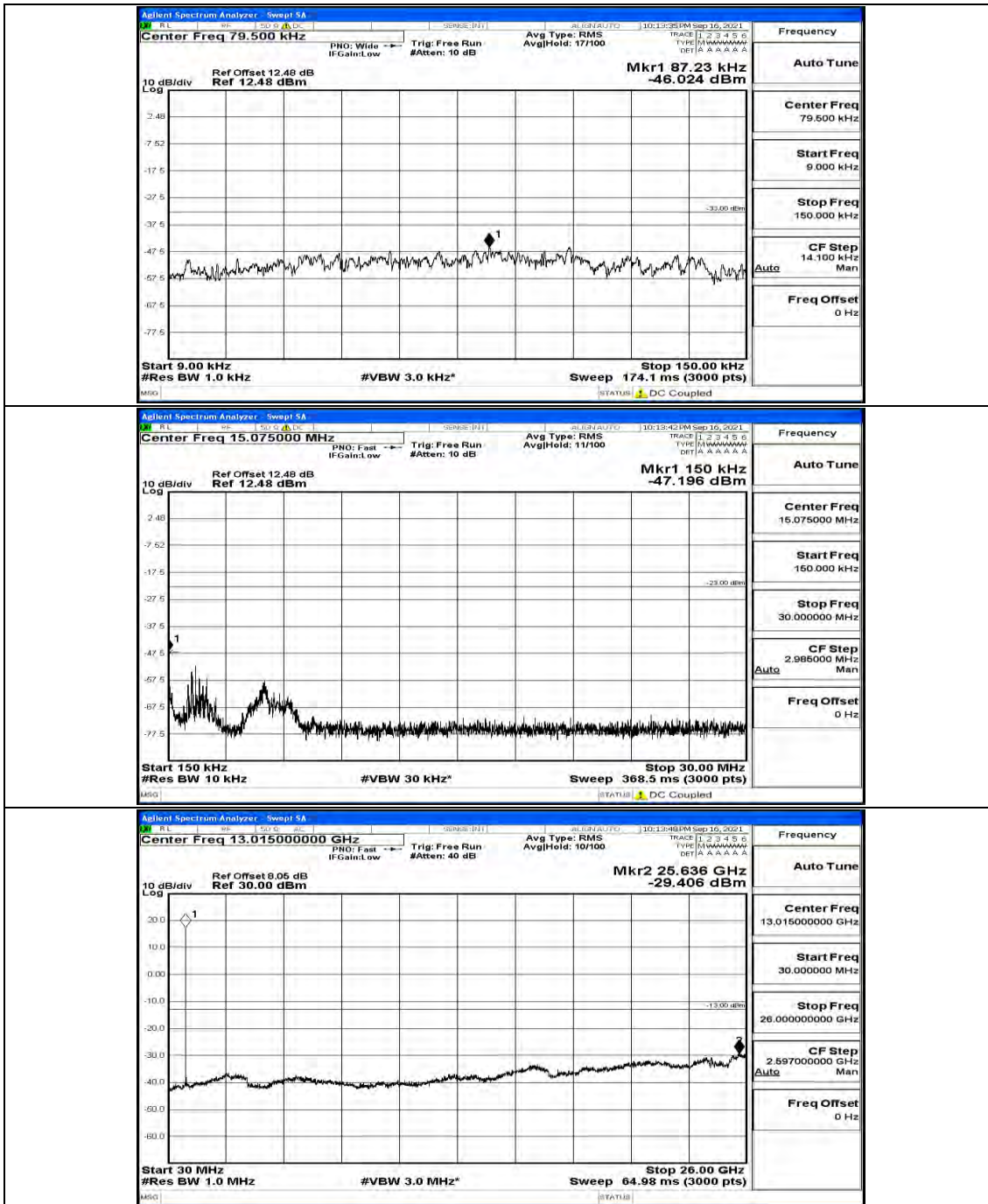


Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_LCH_QPSK

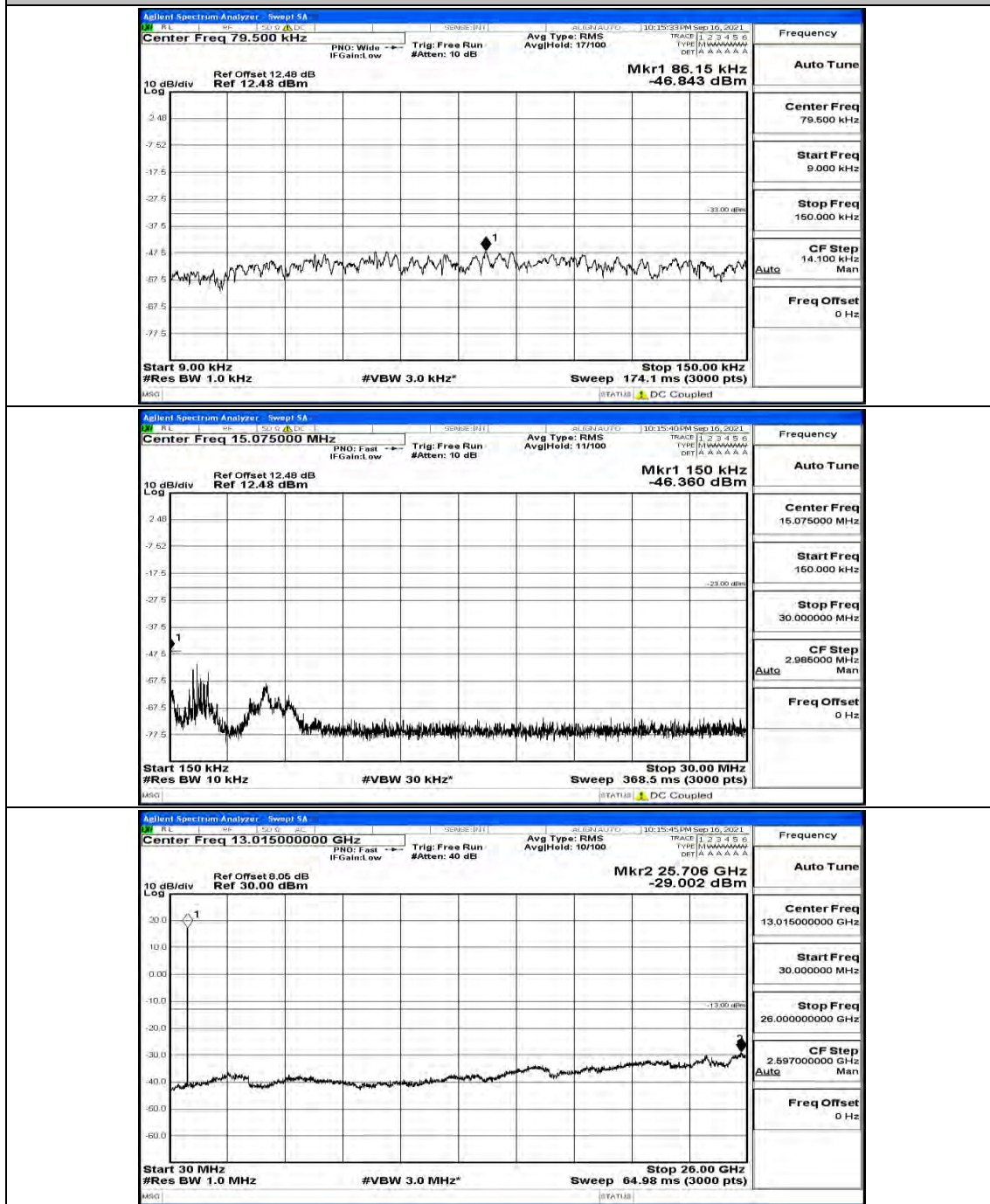


(Channel Bandwidth: 3 MHz)_MCH_QPSK



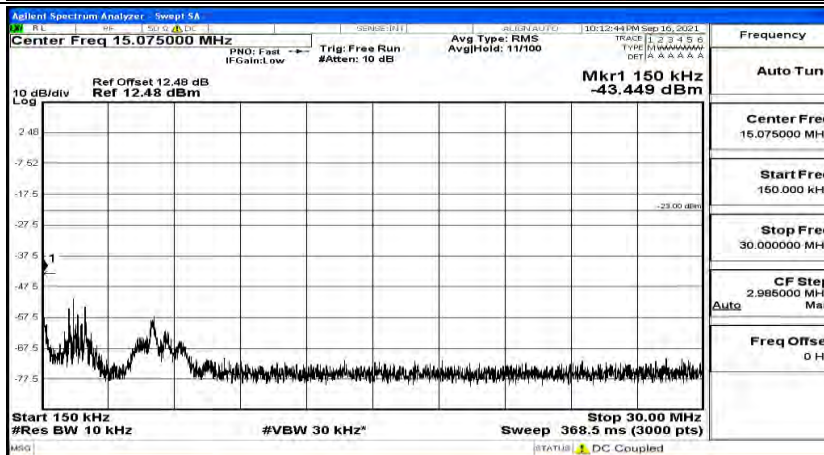
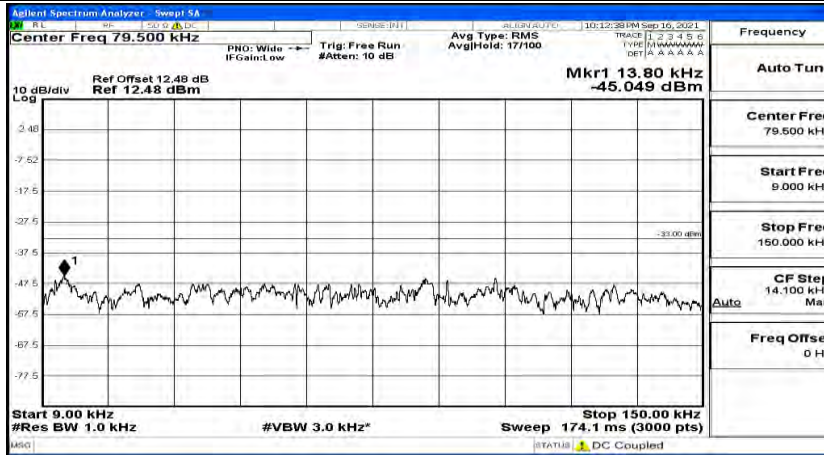


(Channel Bandwidth: 3 MHz)_HCH_QPSK

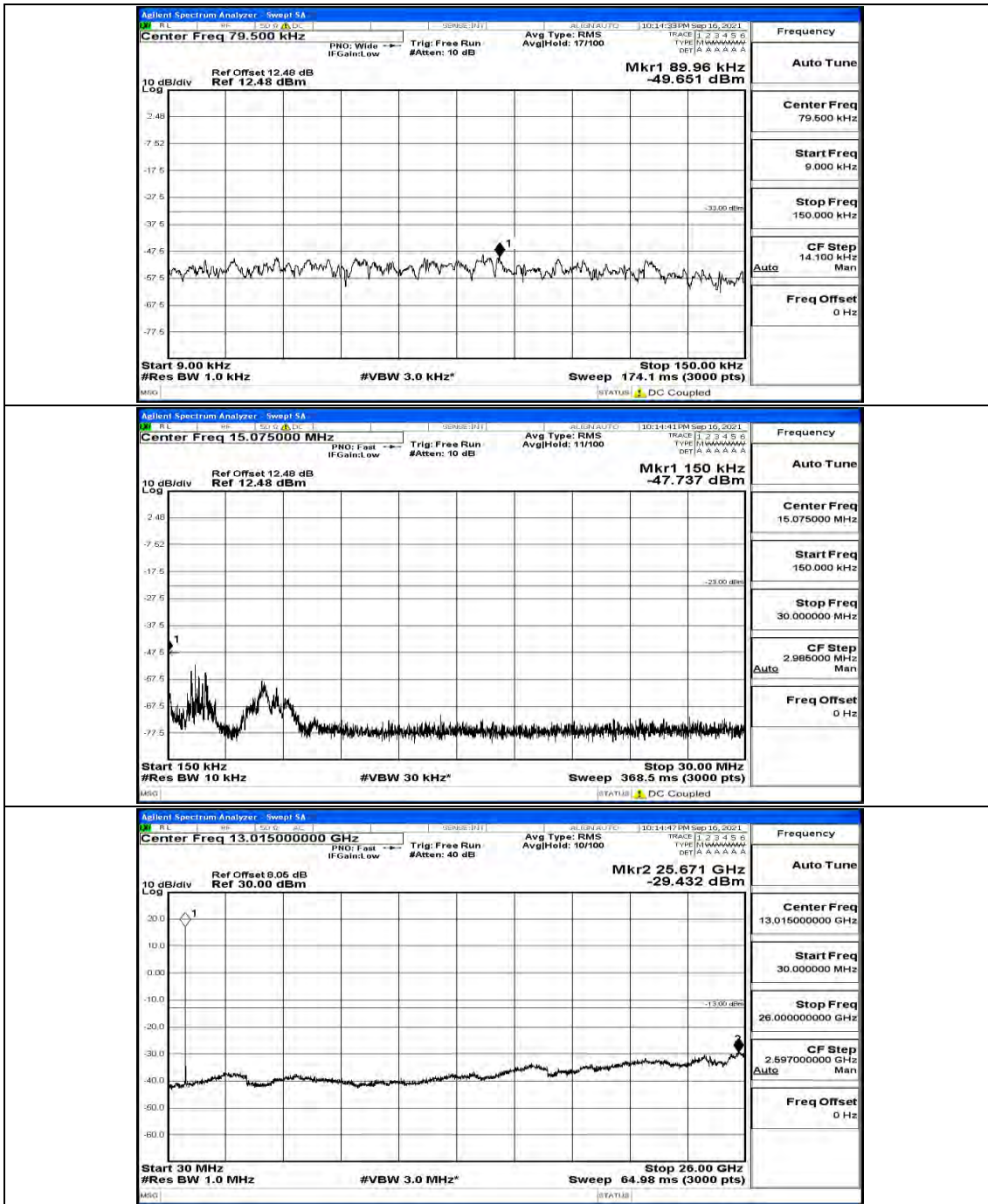




(Channel Bandwidth: 3 MHz)_LCH_16QAM

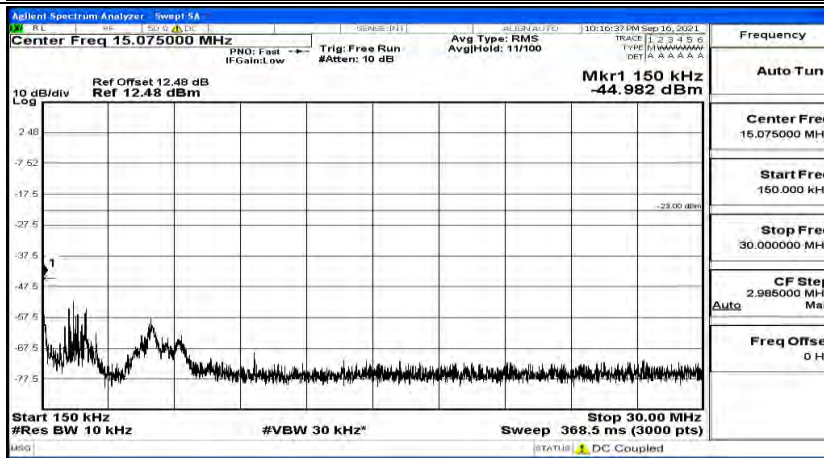
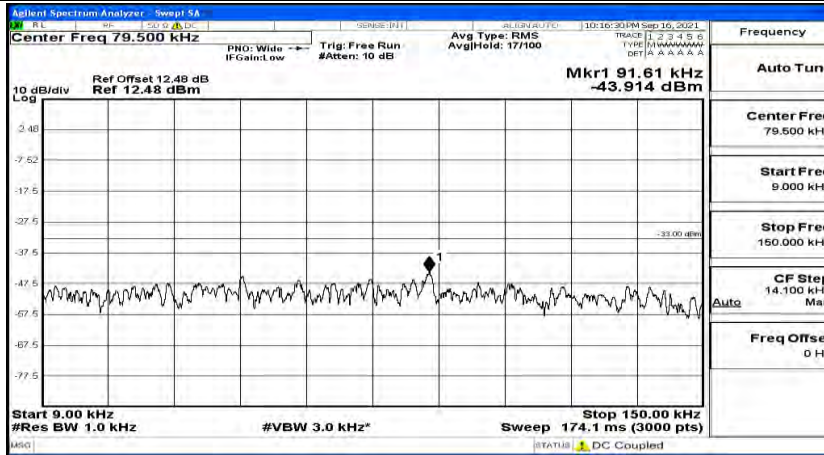


(Channel Bandwidth: 3 MHz)_MCH_16QAM





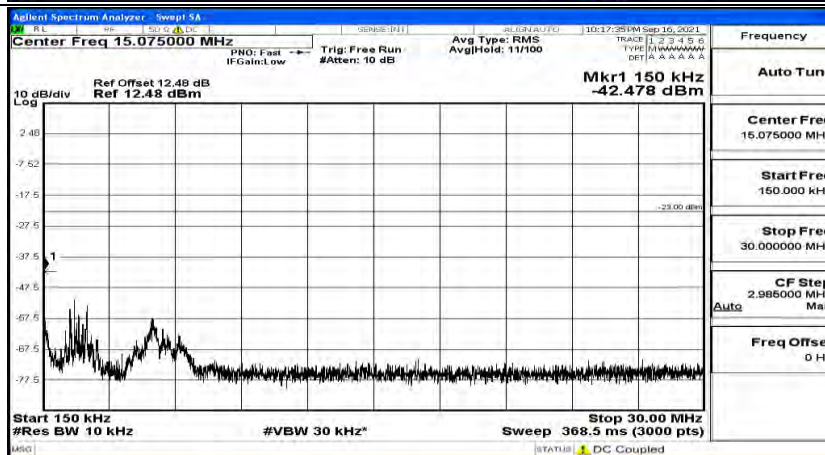
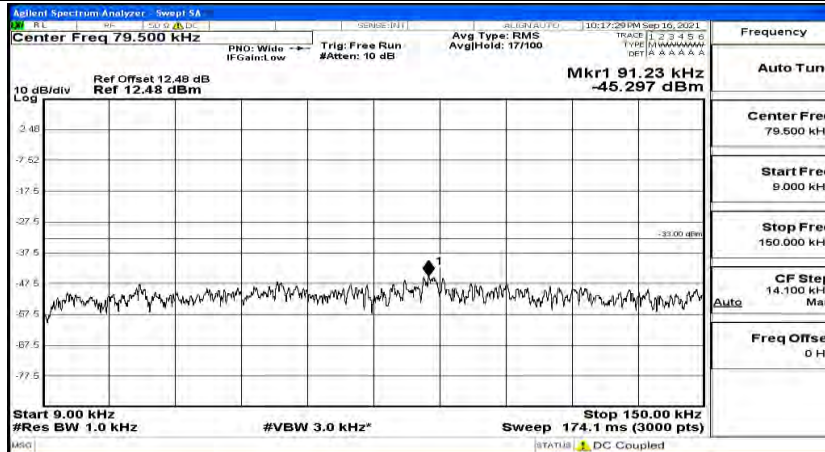
(Channel Bandwidth: 3 MHz)_HCH_16QAM





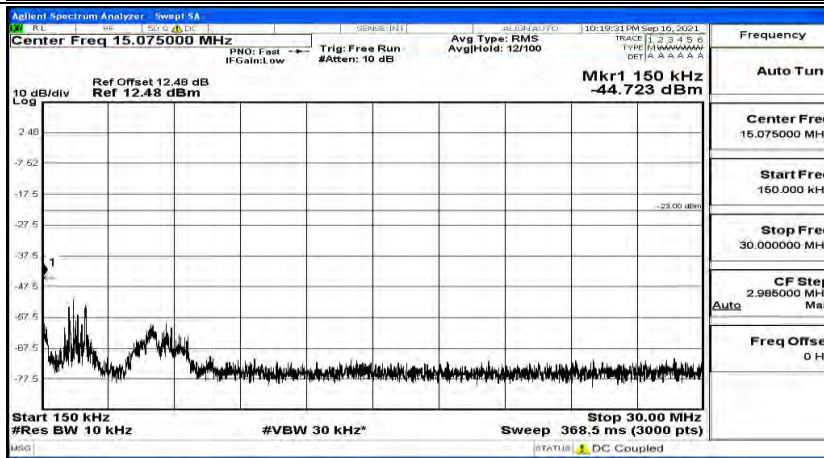
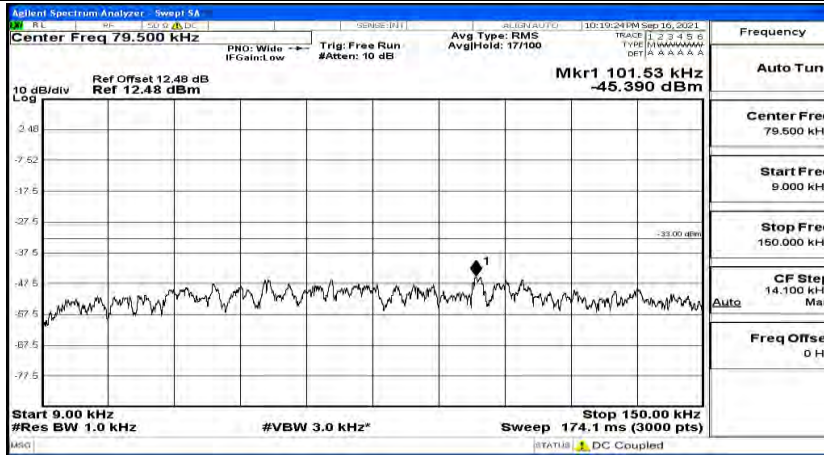
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK



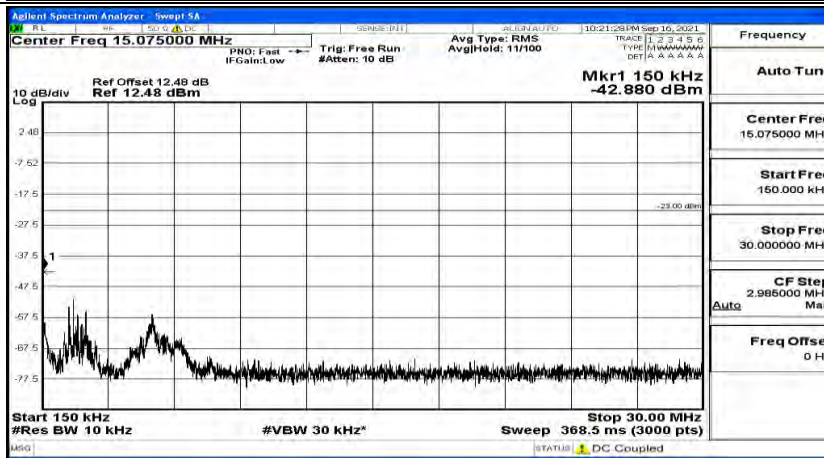
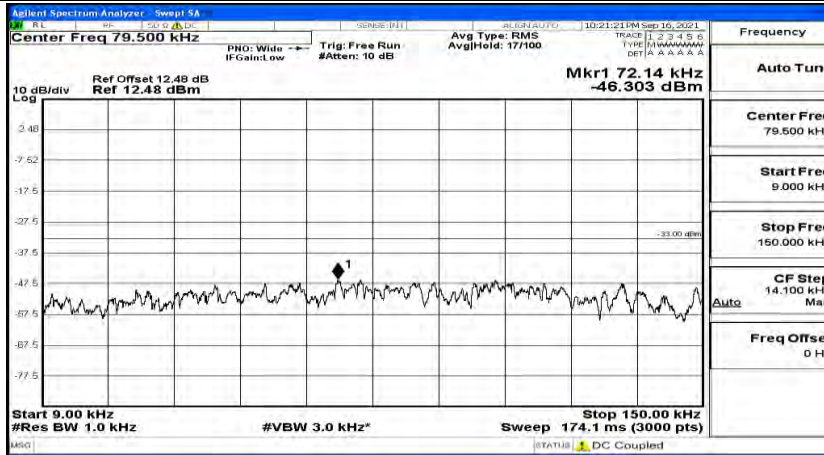


(Channel Bandwidth: 5 MHz)_MCH_QPSK



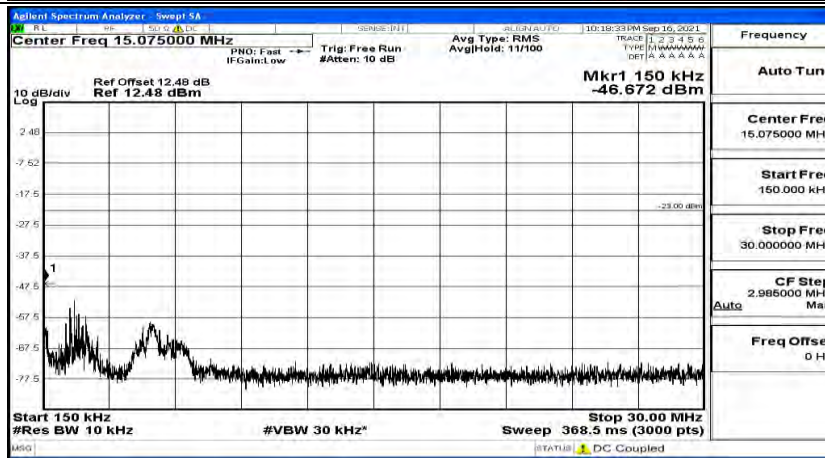
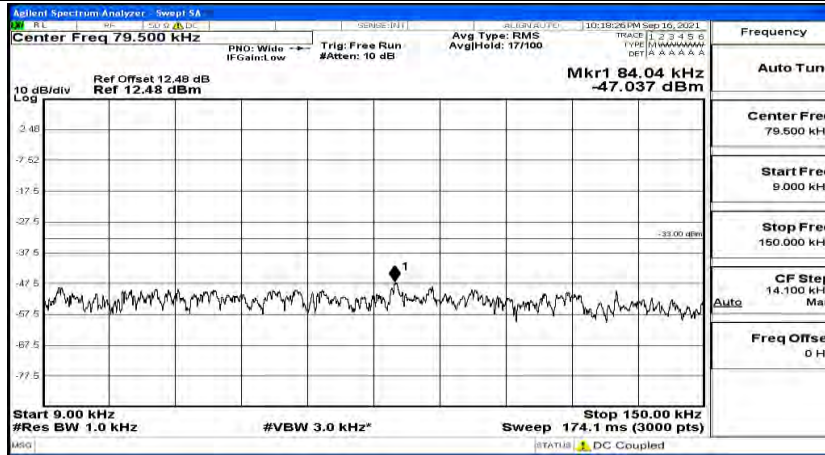


(Channel Bandwidth: 5 MHz)_HCH_QPSK



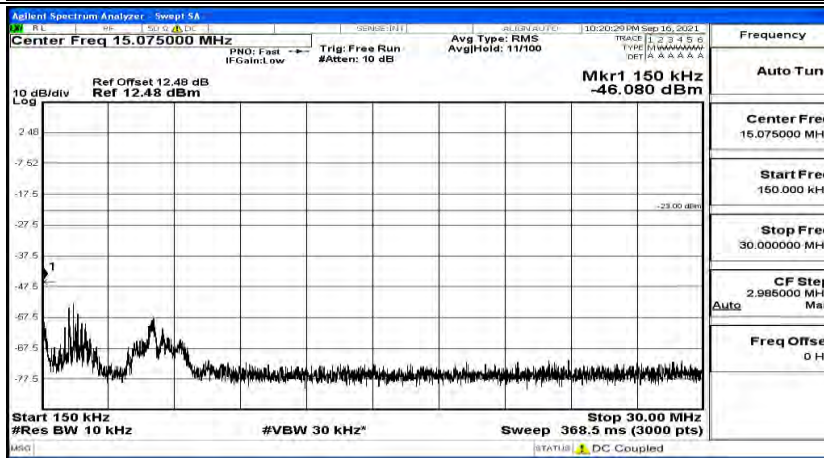
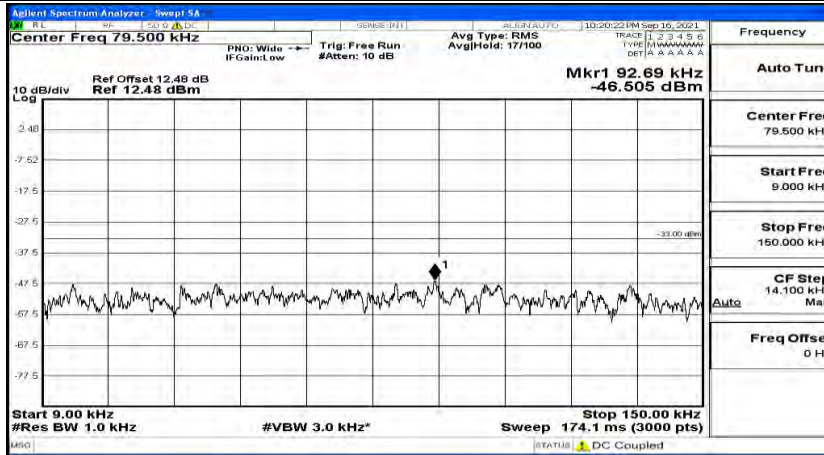


(Channel Bandwidth: 5 MHz)_LCH_16QAM



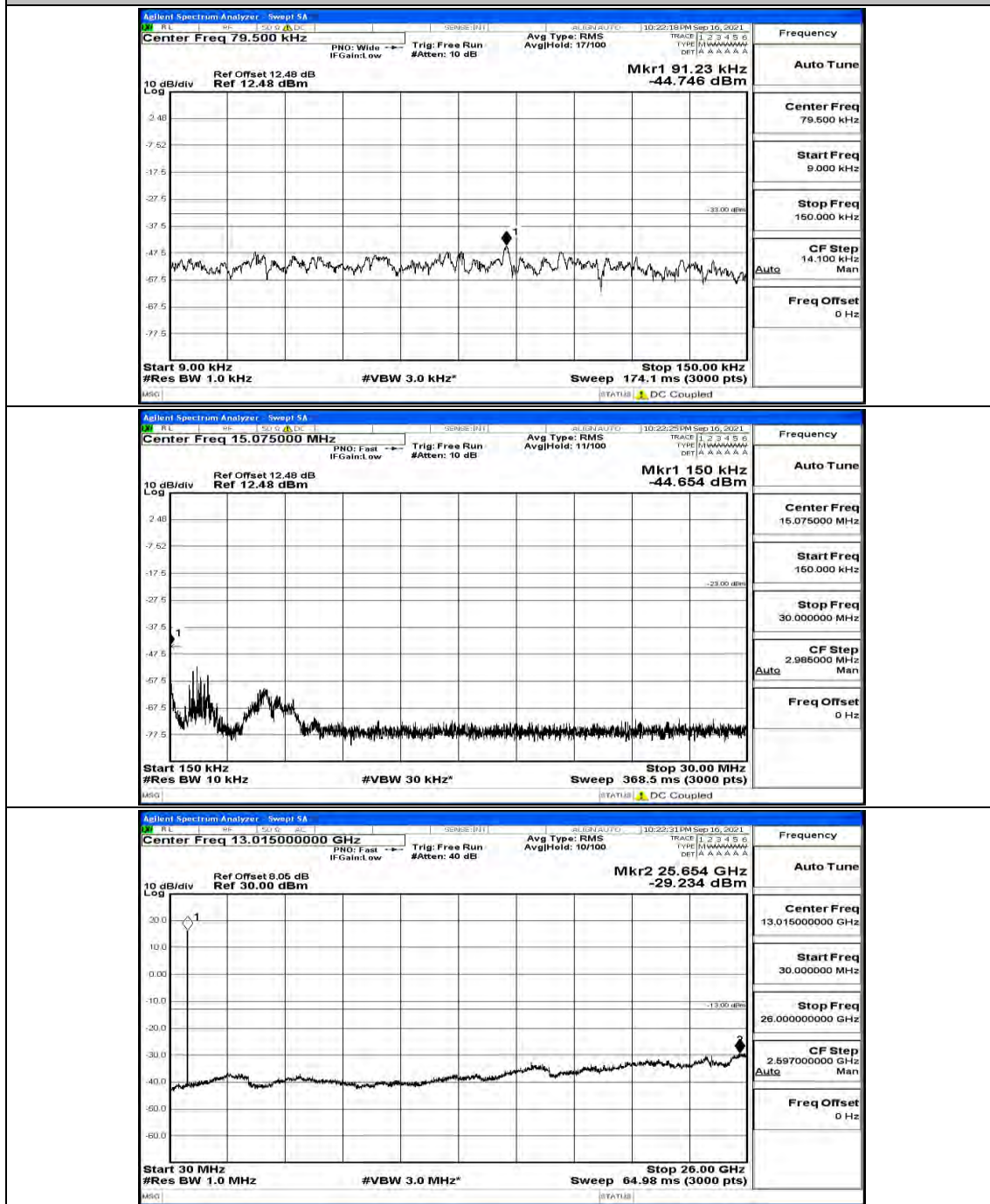


(Channel Bandwidth: 5 MHz)_MCH_16QAM



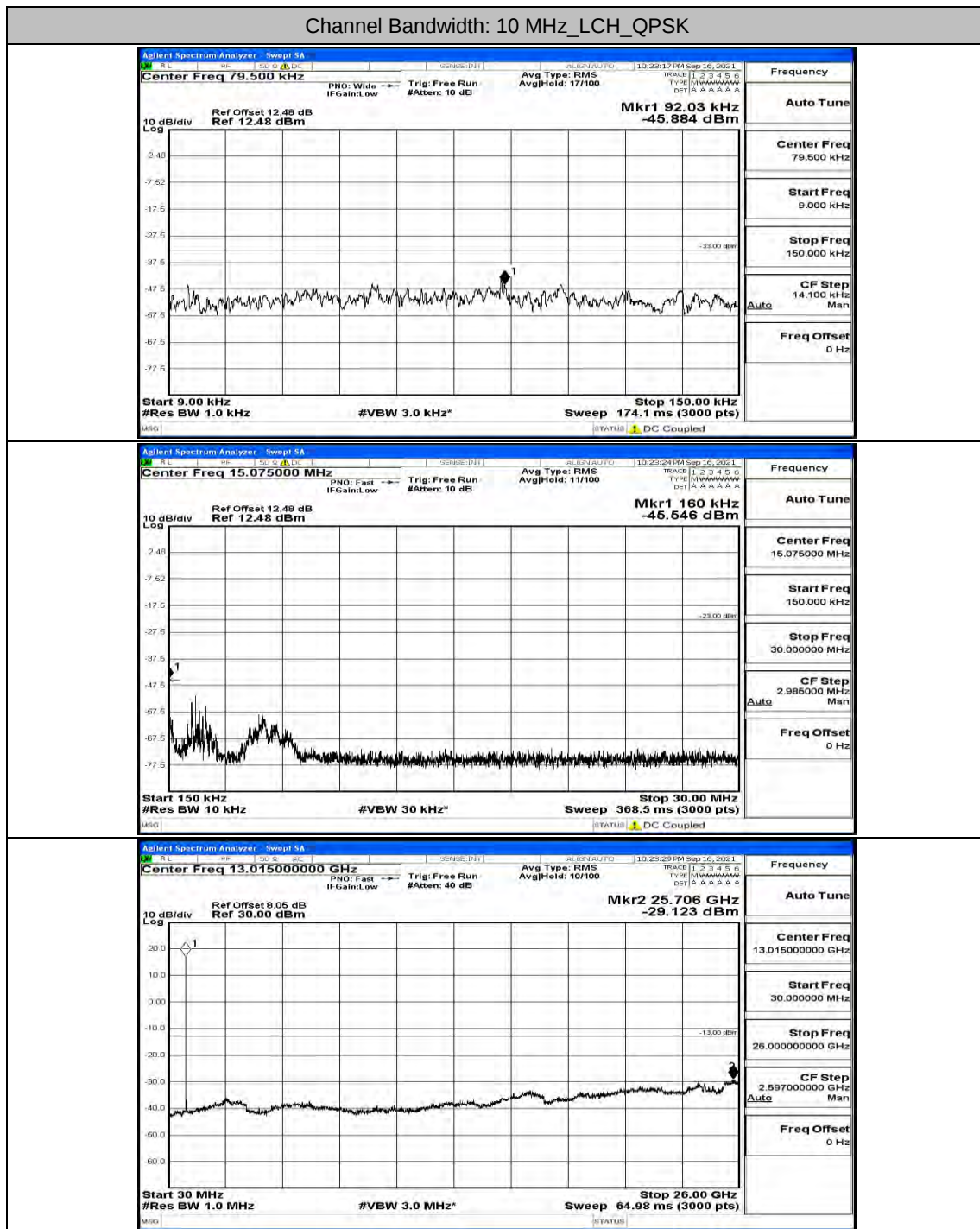


(Channel Bandwidth: 5 MHz)_HCH_16QAM



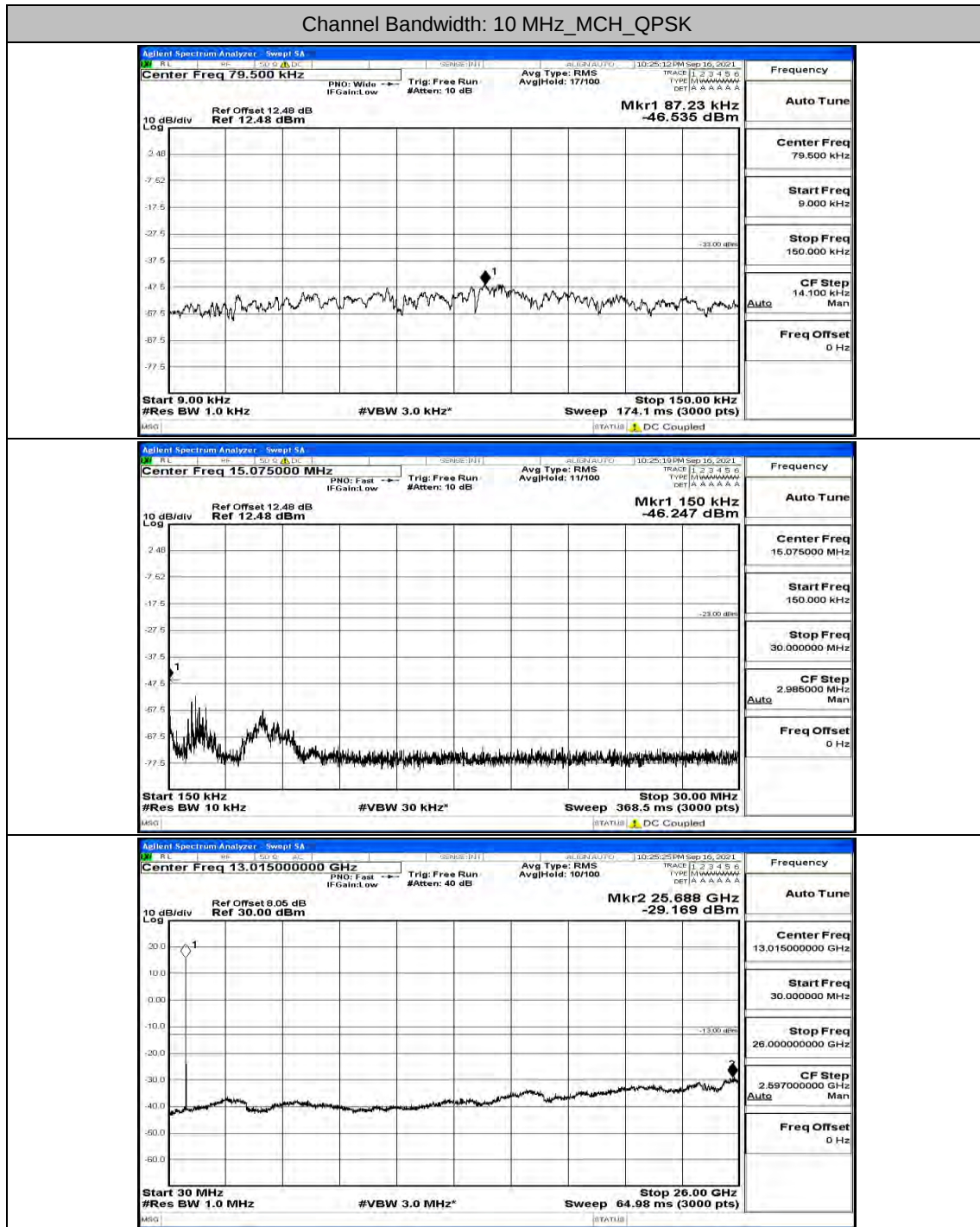


Channel Bandwidth: 10 MHz



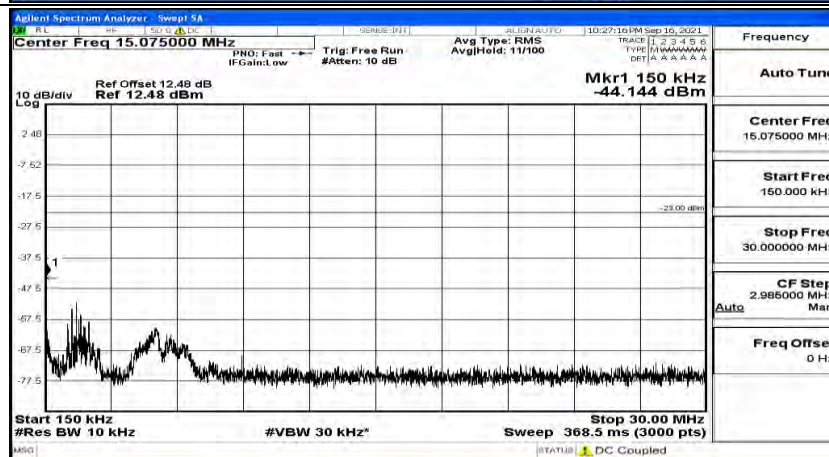
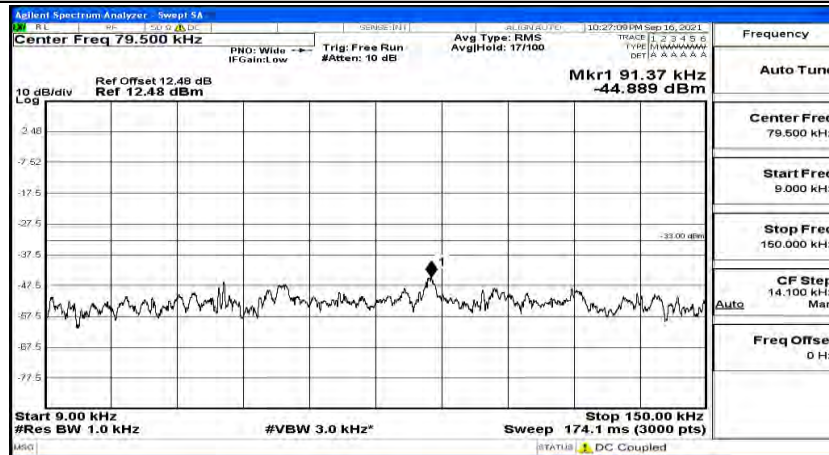


Channel Bandwidth: 10 MHz_MCH_QPSK



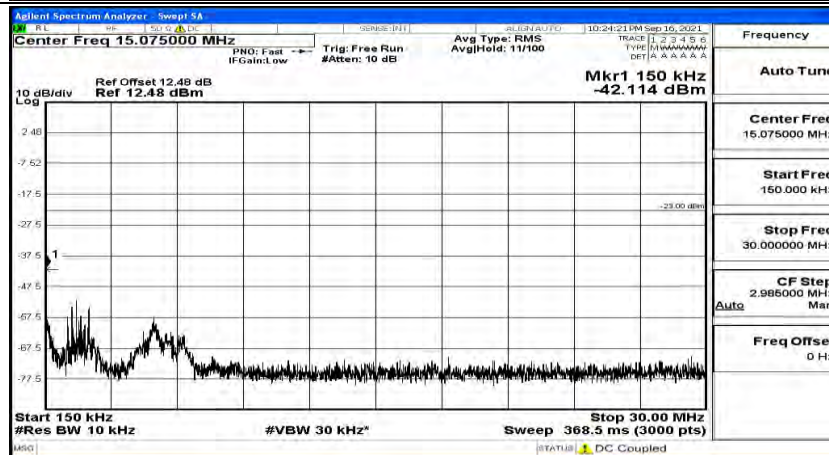
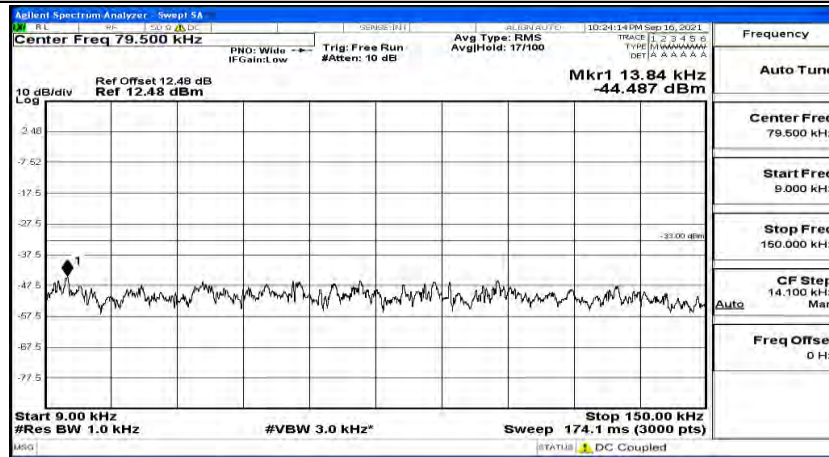


Channel Bandwidth: 10 MHz_HCH_QPSK



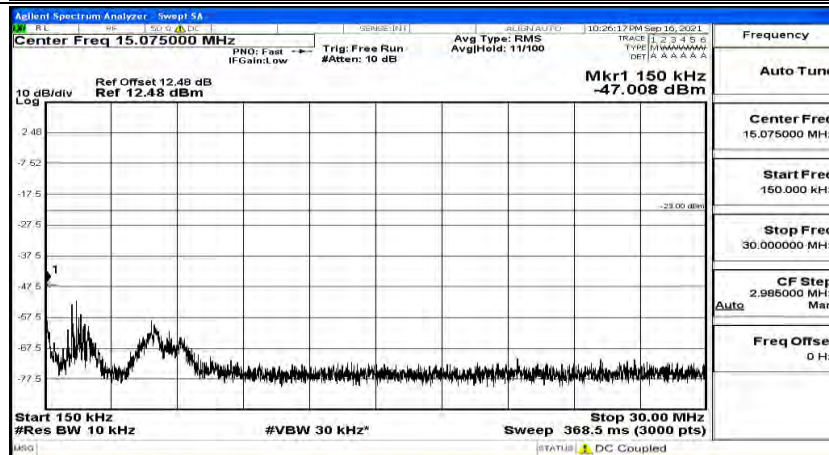
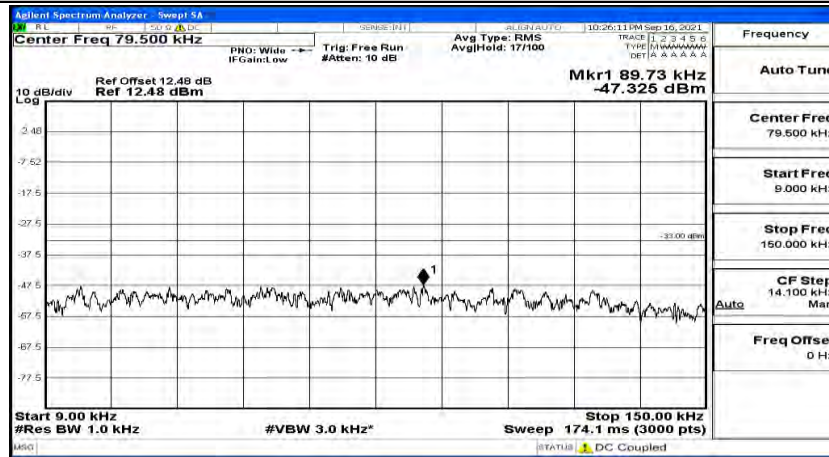


Channel Bandwidth: 10 MHz_LCH_16QAM





Channel Bandwidth: 10 MHz_MCH_16QAM





Channel Bandwidth: 10 MHz_HCH_16QAM

