

Appendix J: Test Data for E-UTRA Band 7

Product Name: Smart Phone

Trade Mark: HYUNDAI

Test Model: Eternity P7

Environmental Conditions

Temperature:	22.5°C
Relative Humidity:	51.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Tom.Liu

J.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	20.16	19.42	PASS
		1	12	20.62	18.88	PASS
		1	24	20.55	17.83	PASS
		12	0	20.88	17.96	PASS
		12	6	20.51	17.57	PASS
		12	13	20.95	17.03	PASS
		25	0	20.45	17.47	PASS
	MCH	1	0	21.01	19.88	PASS
		1	12	20.76	19.63	PASS
		1	24	20.89	18.78	PASS
		12	0	20.77	18.78	PASS
		12	6	20.52	18.53	PASS
		12	13	20.11	18.11	PASS
		25	0	20.47	18.46	PASS
	HCH	1	0	20.31	19.42	PASS
		1	12	20.57	19.58	PASS
		1	24	20.06	19.12	PASS
		12	0	20.42	18.38	PASS
		12	6	20.45	18.40	PASS
		12	13	20.20	18.20	PASS
		25	0	20.33	18.35	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	20.09	19.24	PASS
		1	24	20.66	17.88	PASS
		1	49	20.35	16.60	PASS
		25	0	20.39	17.41	PASS
		25	12	20.59	16.64	PASS
		25	25	20.89	15.93	PASS
		50	0	20.70	16.70	PASS
	MCH	1	0	21.14	20.35	PASS
		1	24	20.63	19.77	PASS
		1	49	20.07	18.32	PASS
		25	0	20.99	18.95	PASS
		25	12	20.52	18.50	PASS
		25	25	20.77	17.81	PASS
		50	0	20.41	18.36	PASS
	HCH	1	0	20.68	18.99	PASS
		1	24	20.59	19.86	PASS
		1	49	20.16	19.44	PASS
		25	0	20.20	18.17	PASS
		25	12	20.41	18.40	PASS
		25	25	20.38	18.37	PASS
		50	0	20.26	18.28	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	20.87	19.07	PASS
		1	37	20.00	17.08	PASS
		1	74	20.12	16.35	PASS
		37	0	20.06	16.98	PASS
		37	18	20.01	15.98	PASS
		37	38	20.44	15.35	PASS
		75	0	20.27	16.21	PASS
	MCH	1	0	20.85	20.04	PASS
		1	37	20.66	19.80	PASS
		1	74	18.33	17.60	PASS
		37	0	20.14	19.05	PASS
		37	18	20.63	18.54	PASS
		37	38	20.56	17.48	PASS
		75	0	2.43	18.36	PASS
	HCH	1	0	20.21	17.48	PASS
		1	37	20.38	19.39	PASS
		1	74	20.14	19.28	PASS
		37	0	20.27	17.27	PASS
		37	18	20.11	18.10	PASS
		37	38	20.47	18.42	PASS
		75	0	20.91	17.87	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)

Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	20.65	18.79	PASS
		1	49	20.56	16.70	PASS
		1	99	20.93	17.05	PASS
		50	0	20.44	16.42	PASS
		50	25	20.50	15.51	PASS
		50	50	20.64	15.63	PASS
		100	0	20.98	16.00	PASS
	MCH	1	0	20.26	19.38	PASS
		1	49	20.70	19.80	PASS
		1	99	20.70	16.84	PASS
		50	0	20.89	18.84	PASS
		50	25	20.37	18.34	PASS
		50	50	20.06	17.02	PASS
		100	0	20.12	18.09	PASS
	HCH	1	0	20.32	16.64	PASS
		1	49	20.73	18.94	PASS
		1	99	20.96	19.20	PASS
		50	0	20.26	16.31	PASS
		50	25	20.49	17.55	PASS
		50	50	20.05	18.10	PASS
		100	0	20.30	17.30	PASS

J.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	4.88	<13	PASS
	MCH	4.91	<13	PASS
	HCH	4.77	<13	PASS
16QAM	LCH	5.7	<13	PASS
	MCH	5.74	<13	PASS
	HCH	5.52	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.96	<13	PASS
	MCH	4.95	<13	PASS
	HCH	4.9	<13	PASS
16QAM	LCH	5.76	<13	PASS
	MCH	5.79	<13	PASS
	HCH	5.68	<13	PASS

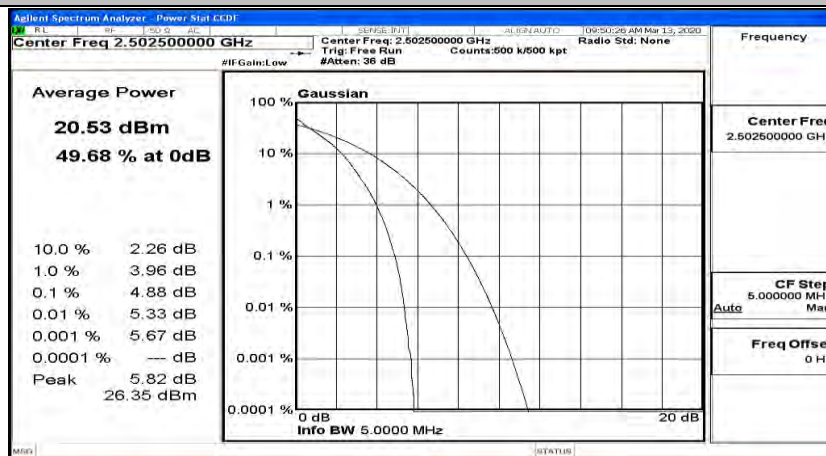
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.93	<13	PASS
	MCH	4.92	<13	PASS
	HCH	5.03	<13	PASS
16QAM	LCH	5.93	<13	PASS
	MCH	5.93	<13	PASS
	HCH	6.08	<13	PASS

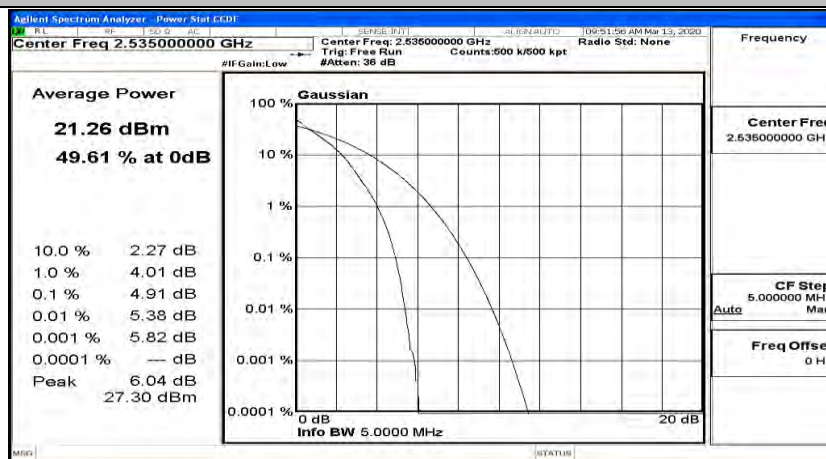
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)

Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.66	<13	PASS
	MCH	5.77	<13	PASS
	HCH	5.78	<13	PASS
16QAM	LCH	6.53	<13	PASS
	MCH	6.57	<13	PASS
	HCH	6.6	<13	PASS

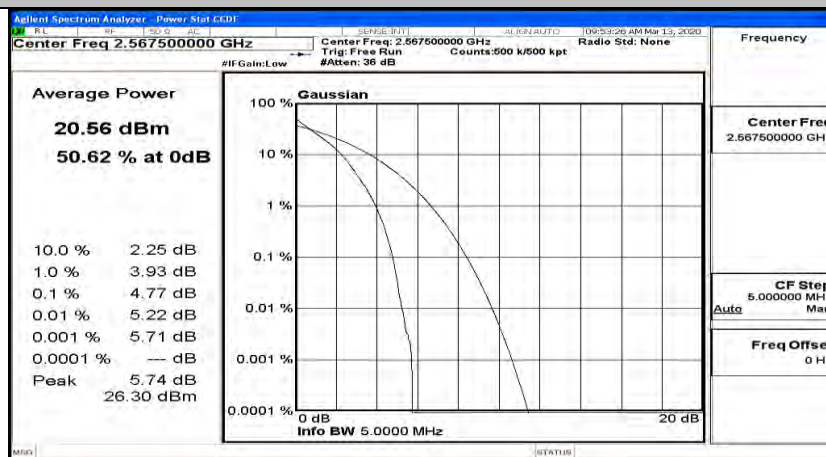
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



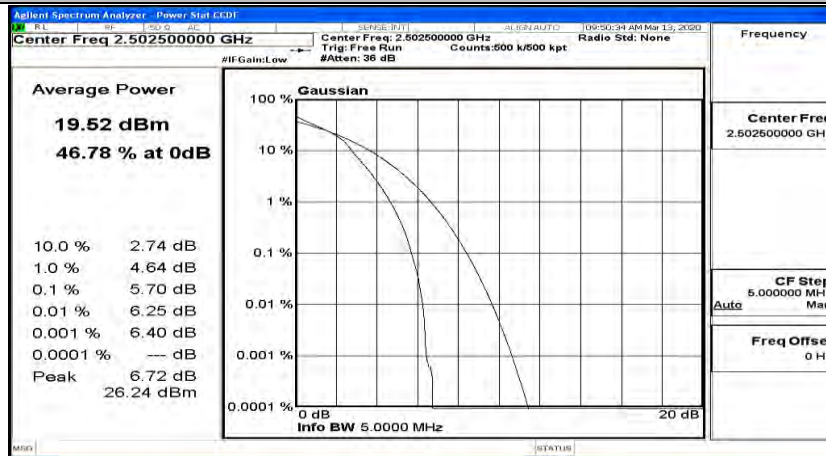
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



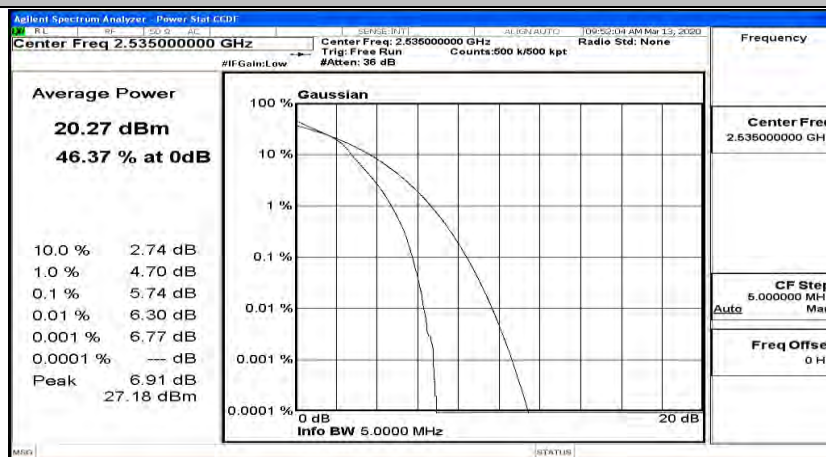
Peak-to-Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



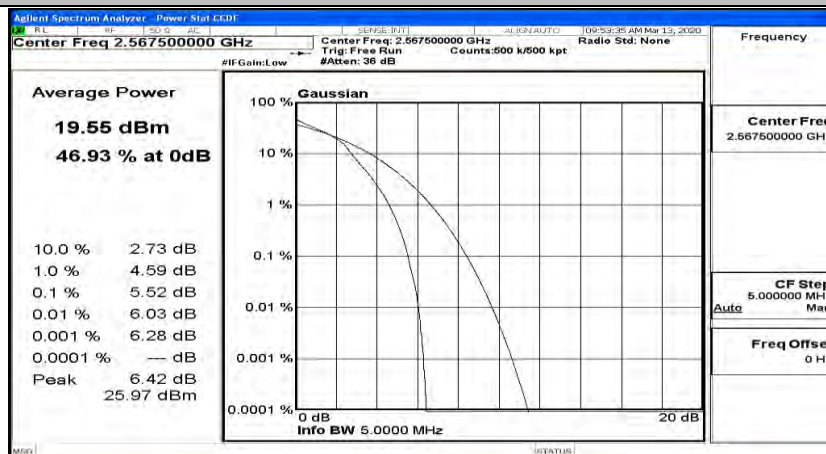
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



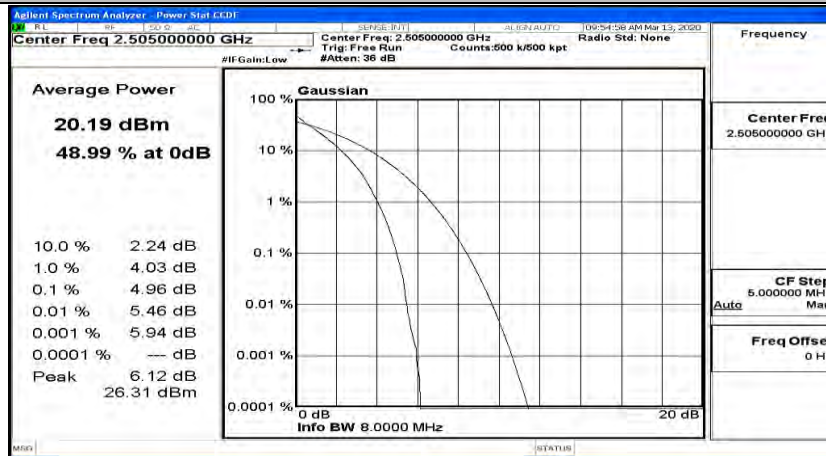
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



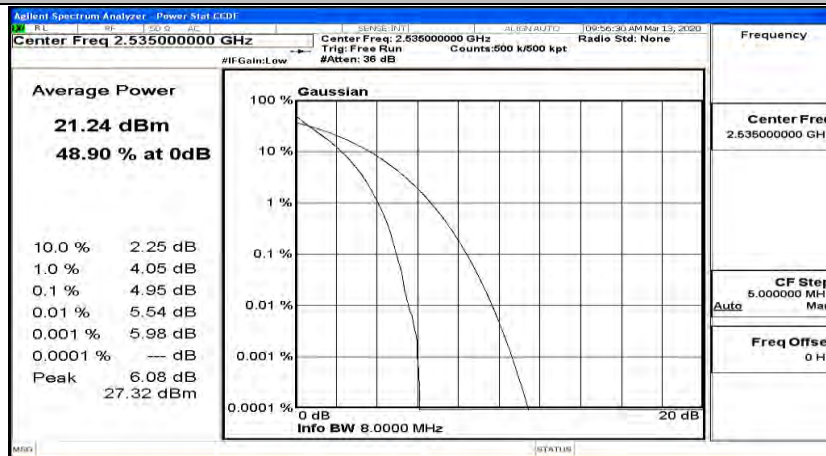
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



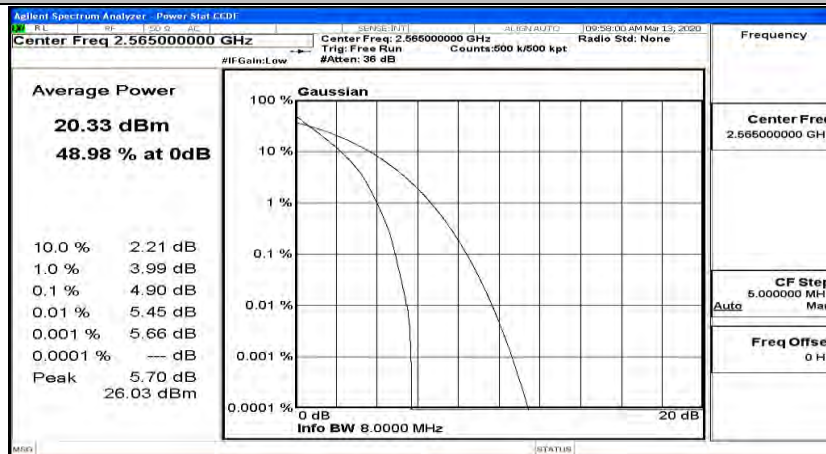
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



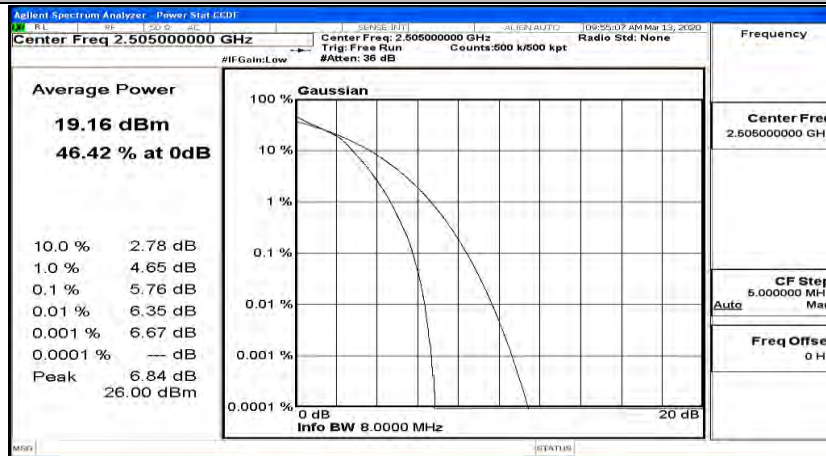
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



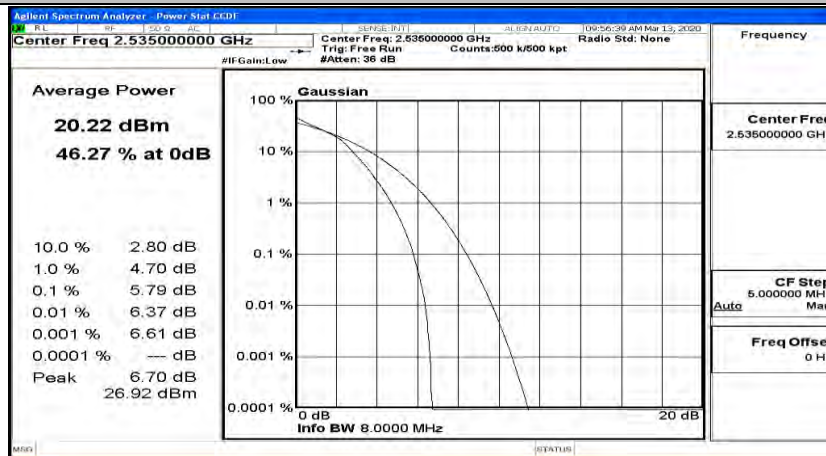
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



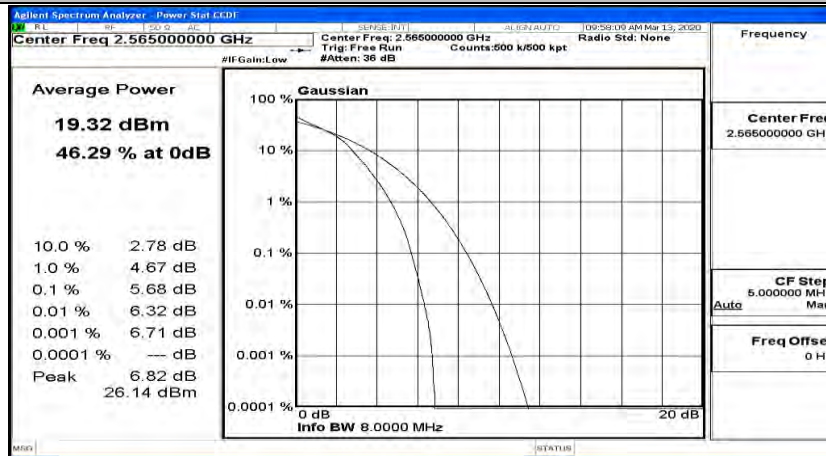
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



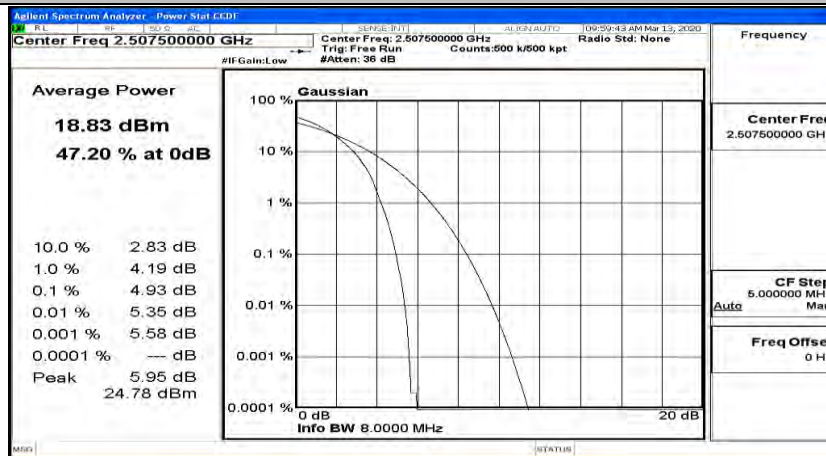
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



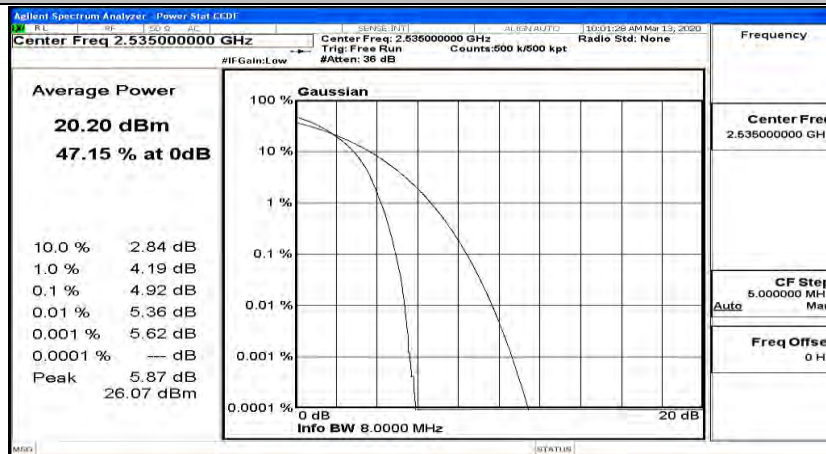
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



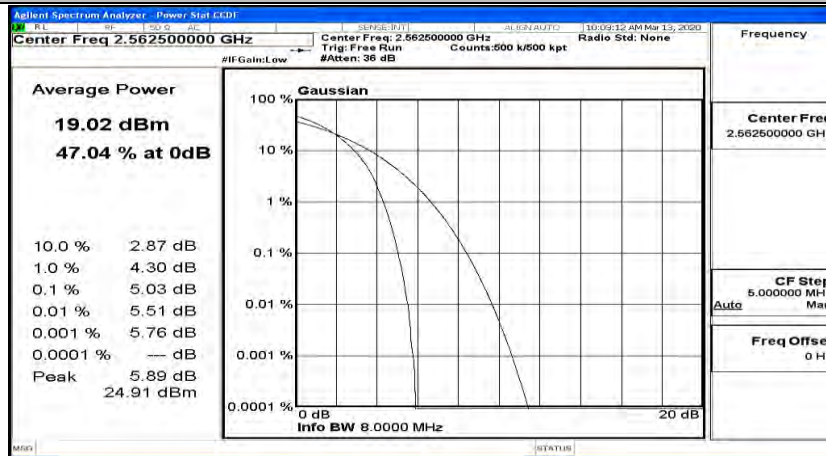
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



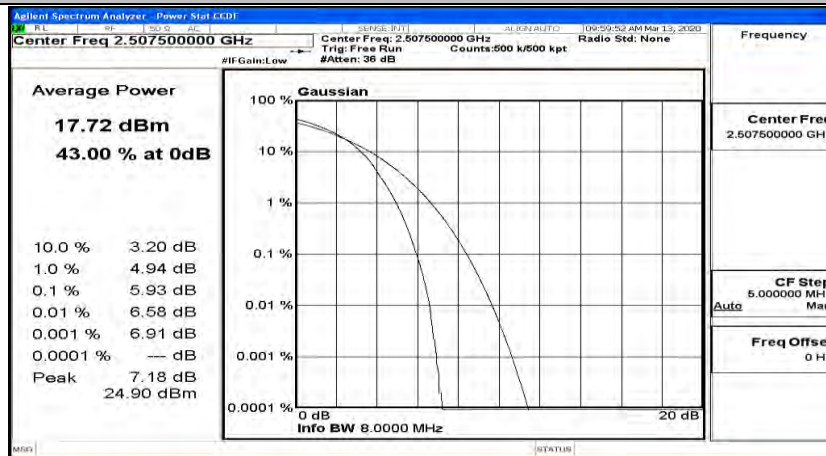
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



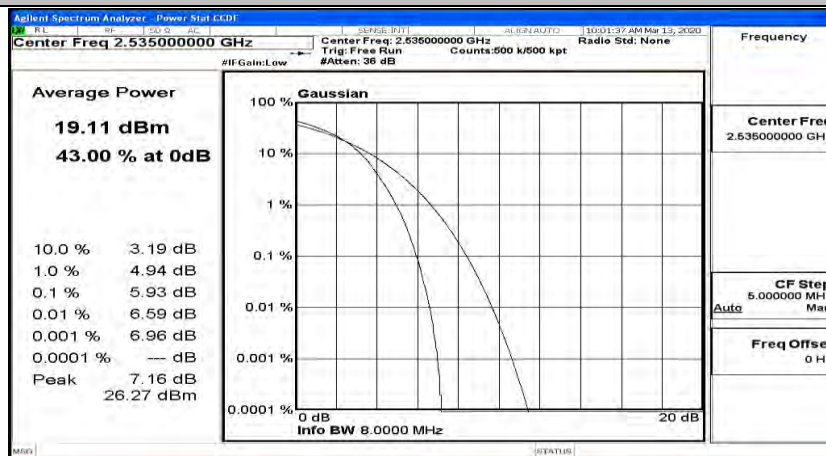
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



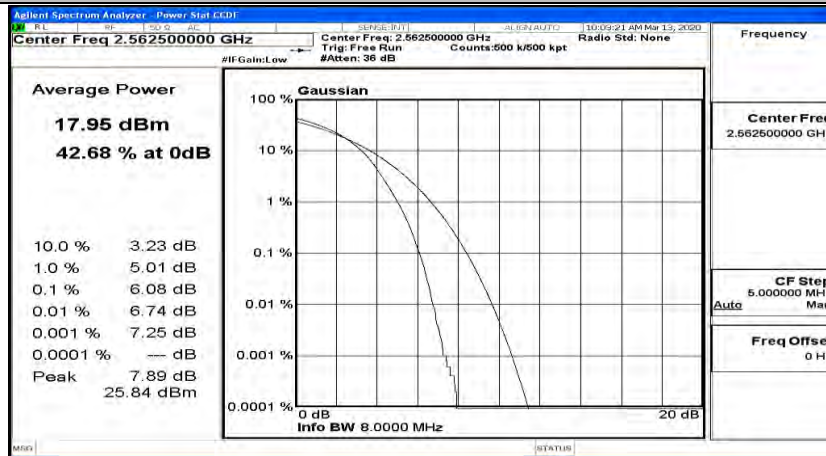
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



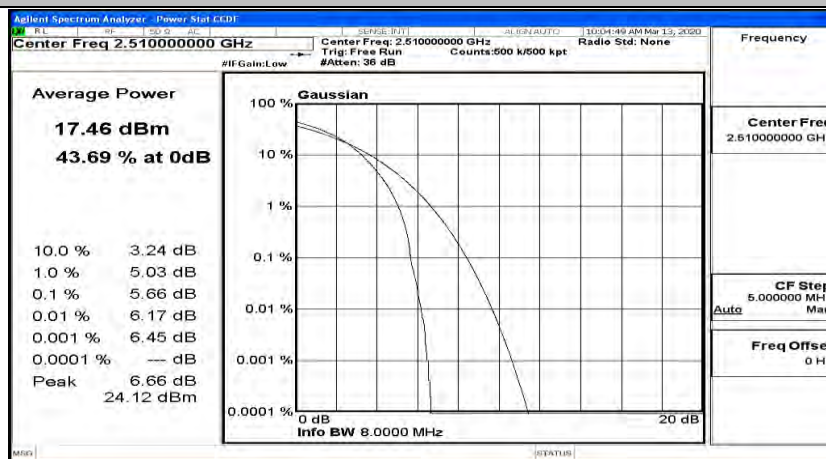
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



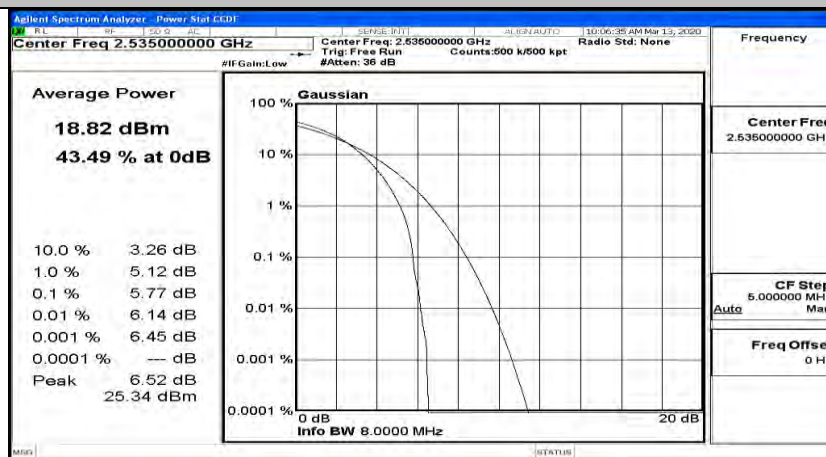
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



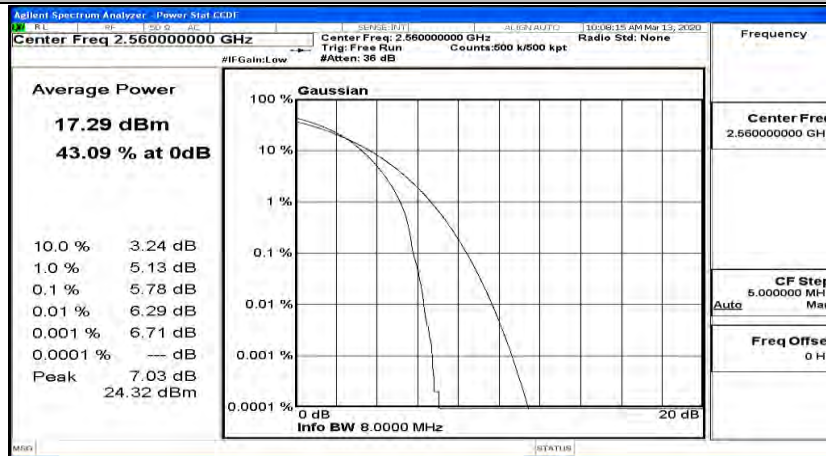
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



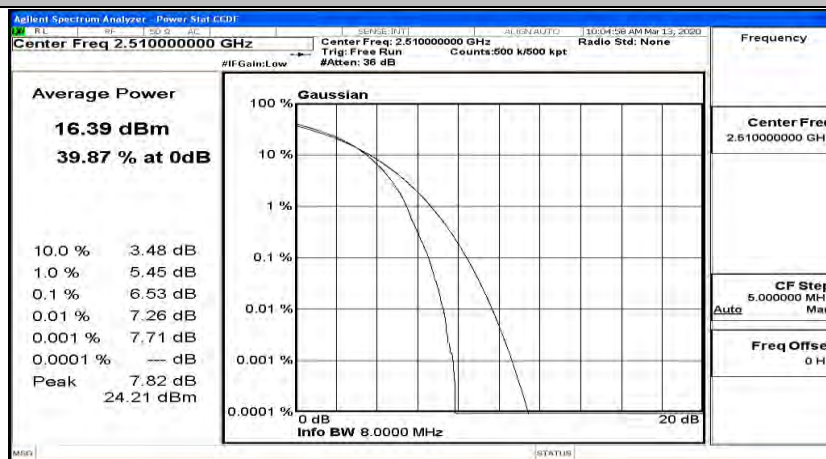
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



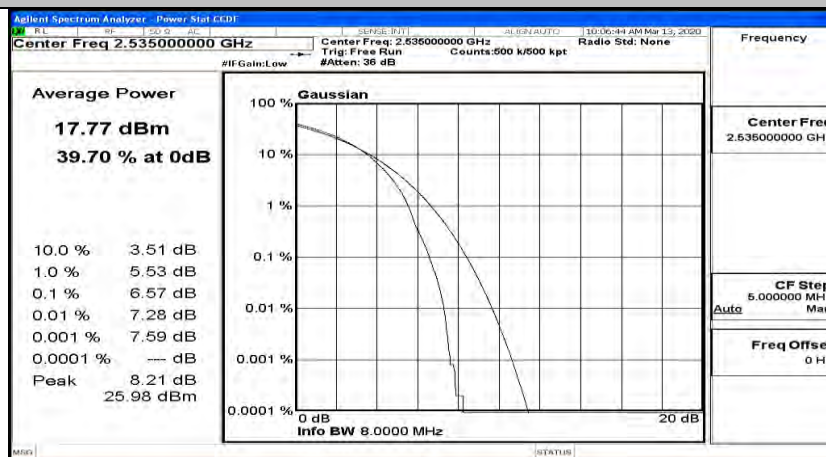
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



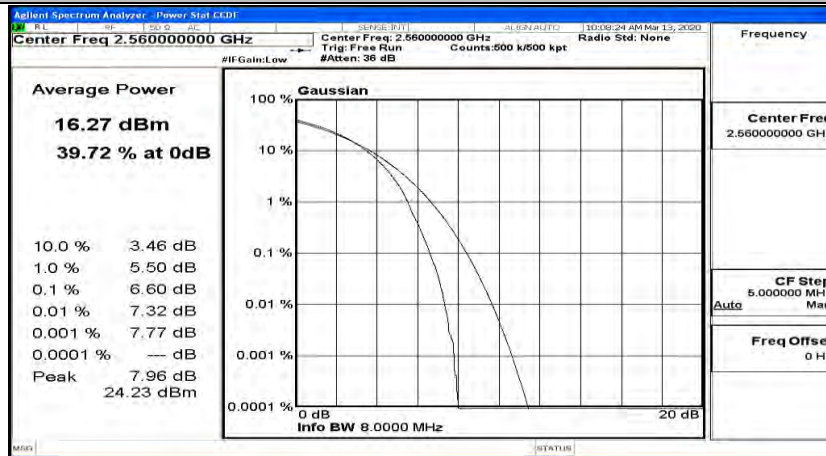
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM



J.3 26dB Bandwidth and Occupied Bandwidth

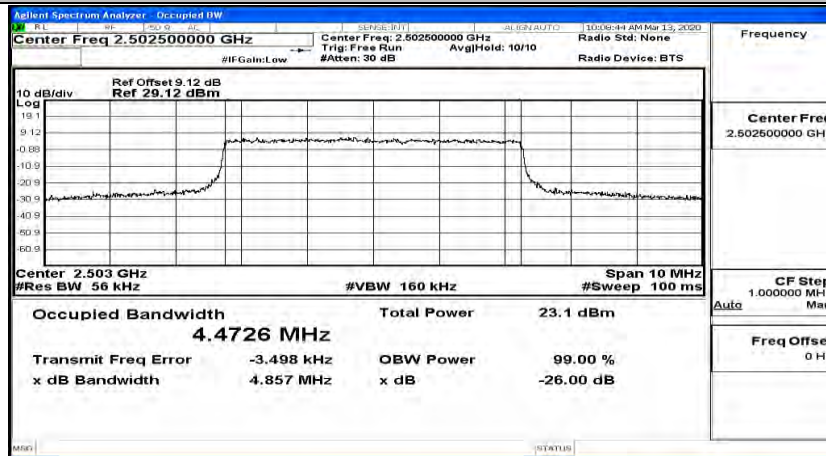
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4726	4.857	PASS
	MCH	4.4733	4.809	PASS
	HCH	4.4746	4.822	PASS
16QAM	LCH	4.4740	4.816	PASS
	MCH	4.4761	4.824	PASS
	HCH	4.4704	4.831	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9653	9.603	PASS
	MCH	8.9377	9.501	PASS
	HCH	8.9410	9.464	PASS
16QAM	LCH	8.9445	9.576	PASS
	MCH	8.9424	9.521	PASS
	HCH	8.9480	9.500	PASS

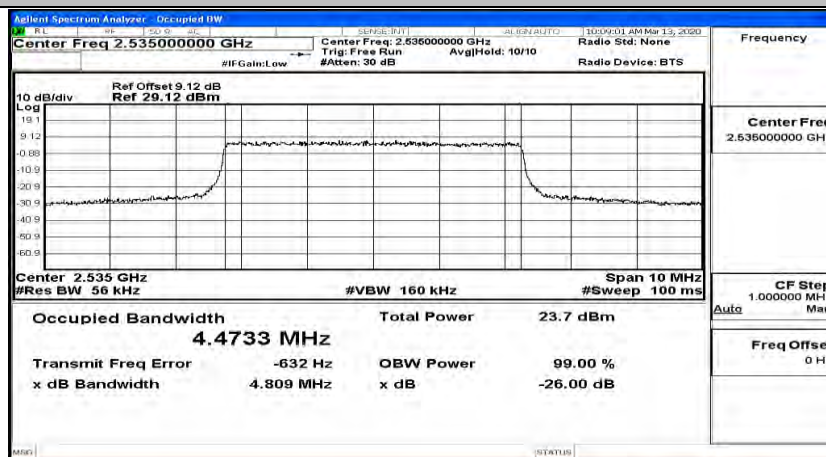
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.434	14.26	PASS
	MCH	13.410	14.11	PASS
	HCH	13.447	14.25	PASS
16QAM	LCH	13.418	14.15	PASS
	MCH	13.397	14.07	PASS
	HCH	13.427	14.16	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.857	18.70	PASS
	MCH	17.859	18.54	PASS
	HCH	17.909	18.71	PASS
16QAM	LCH	17.857	18.71	PASS
	MCH	17.866	18.67	PASS
	HCH	17.928	18.73	PASS

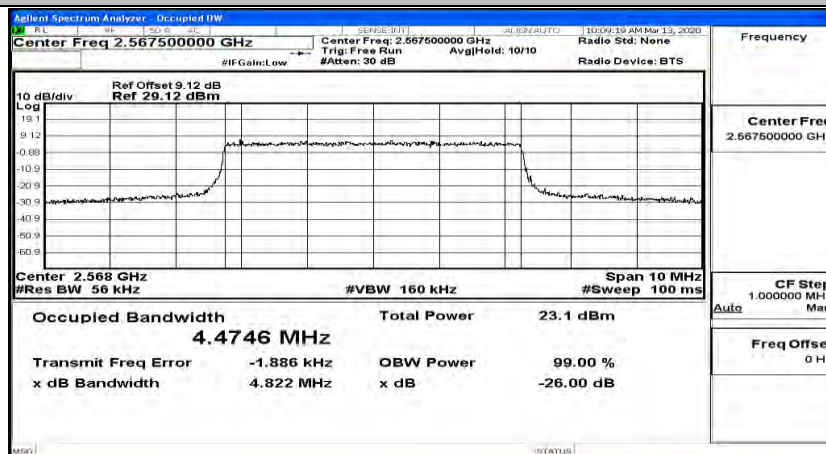
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



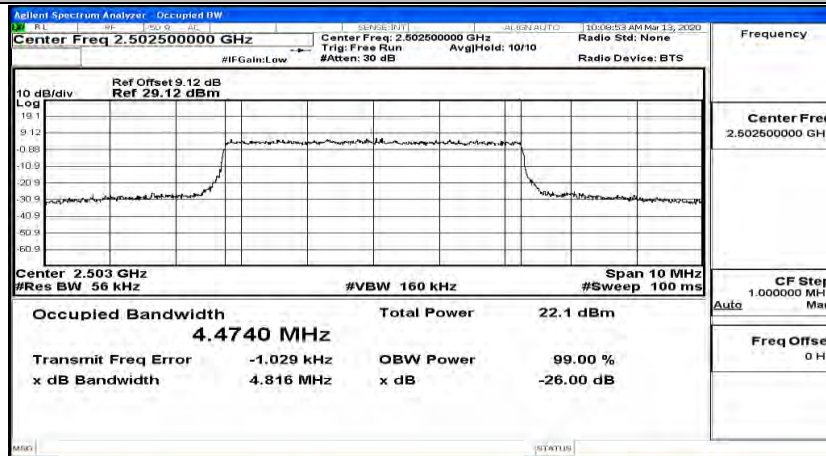
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



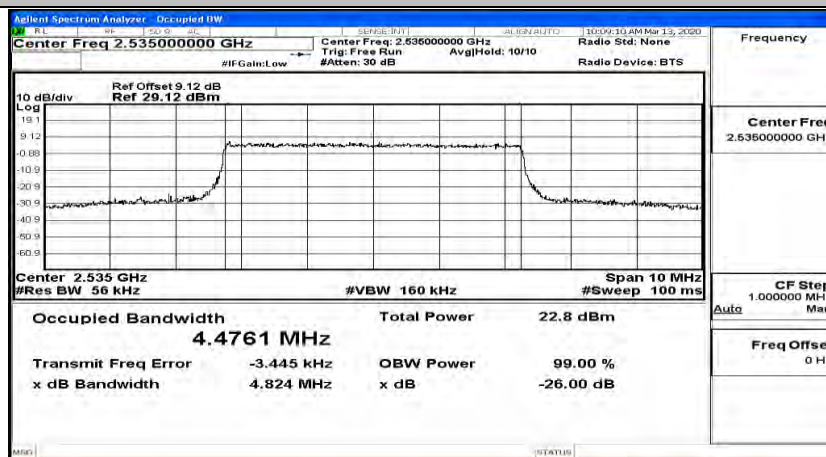
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



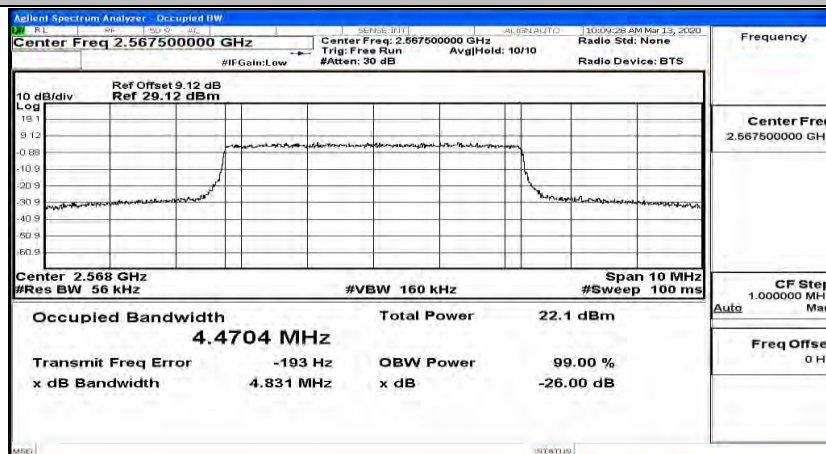
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



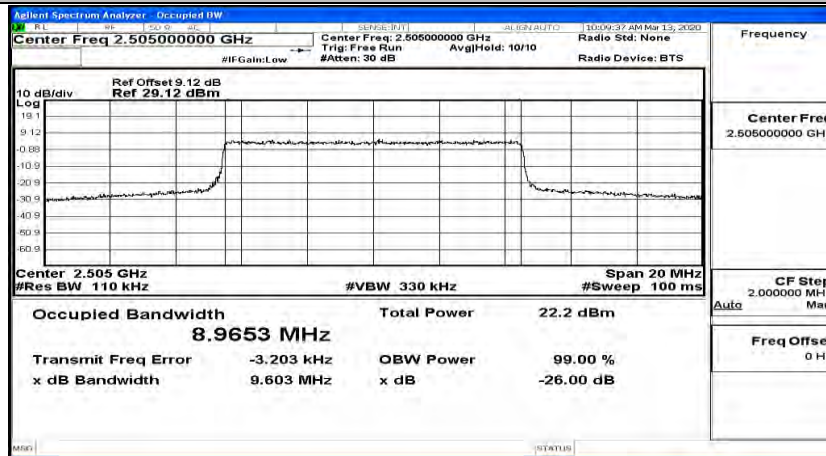
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



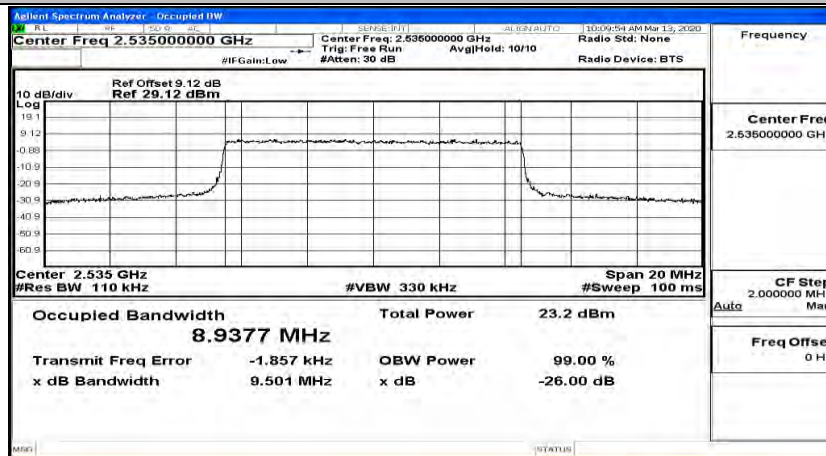
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



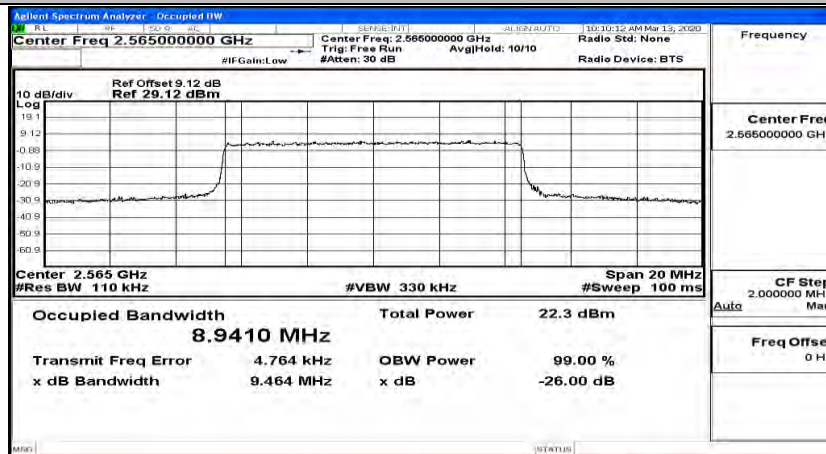
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



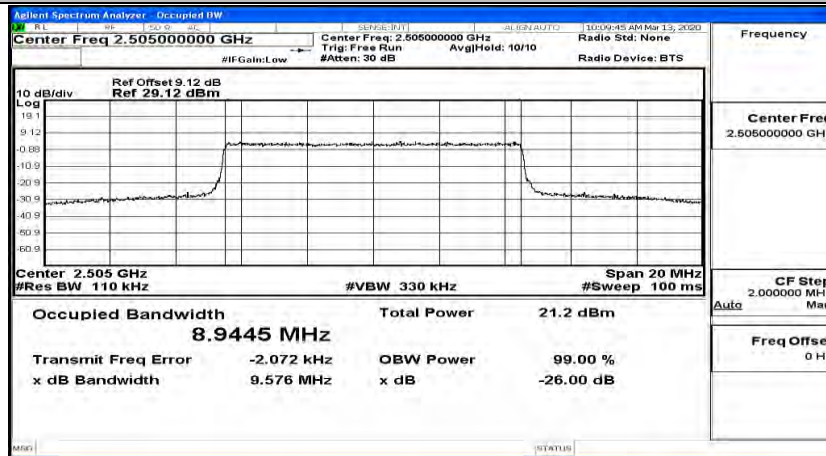
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



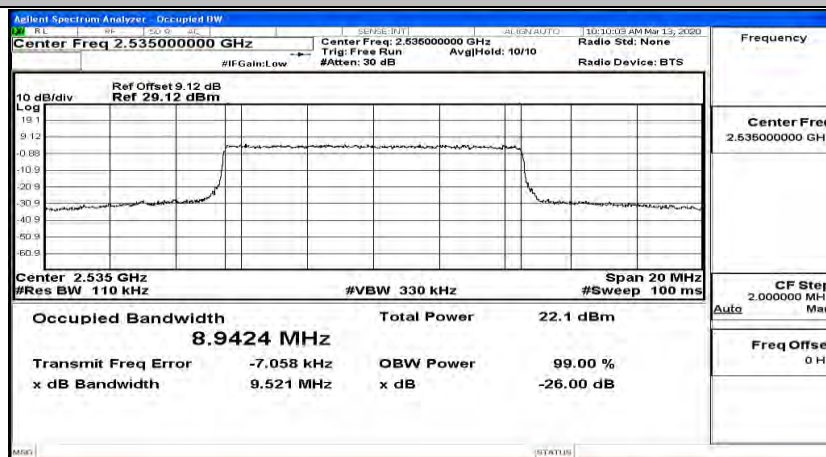
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



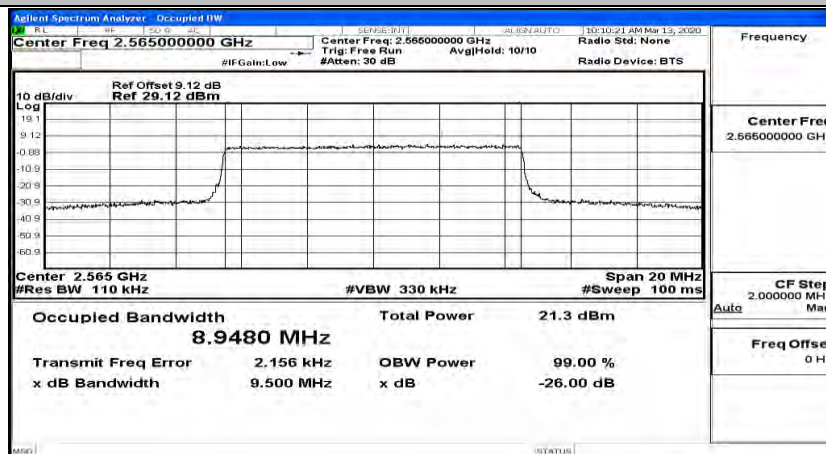
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



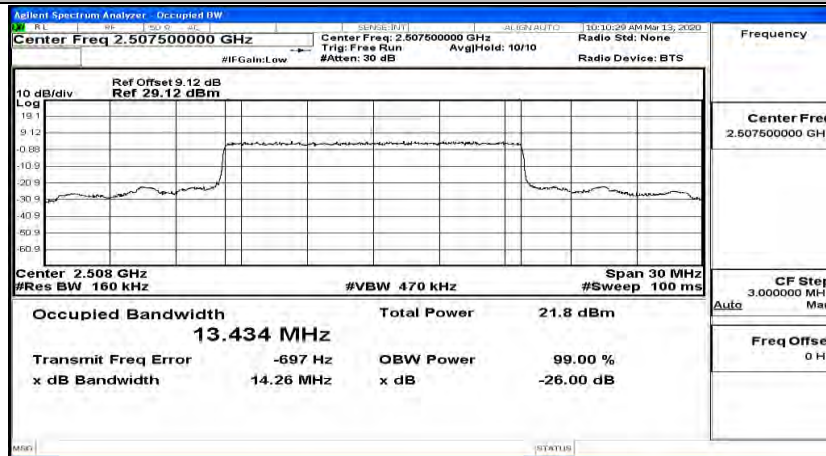
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



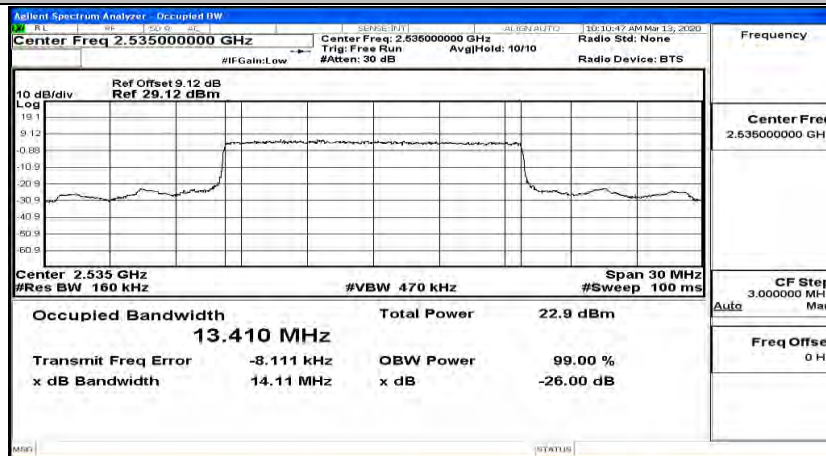
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



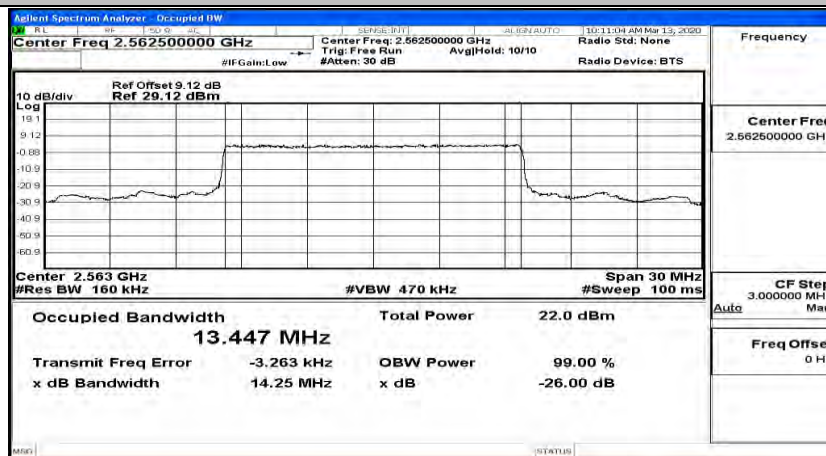
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



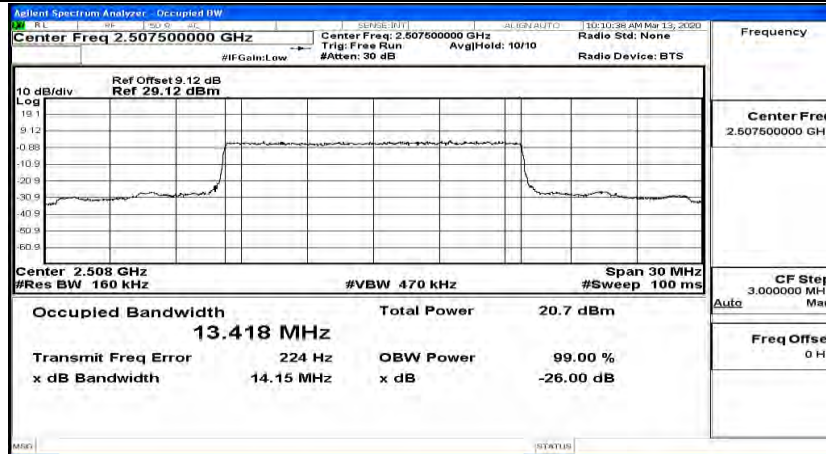
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



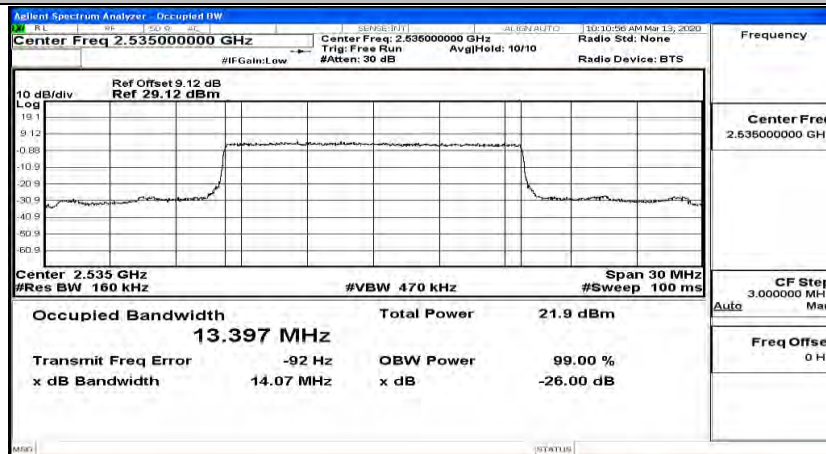
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



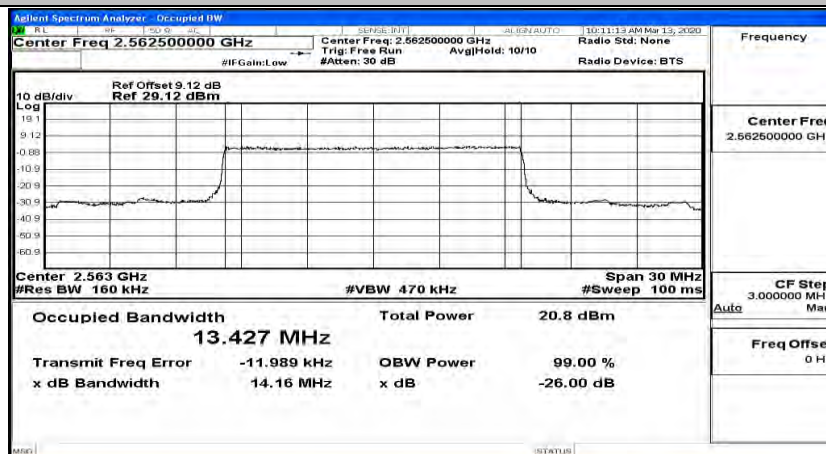
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



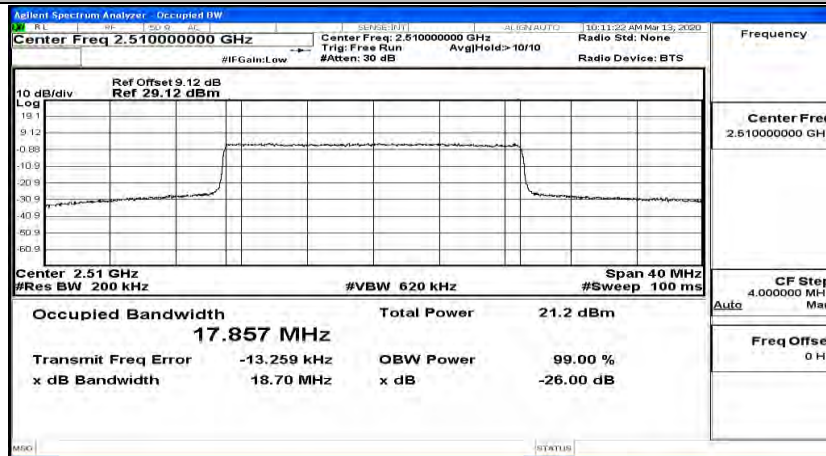
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



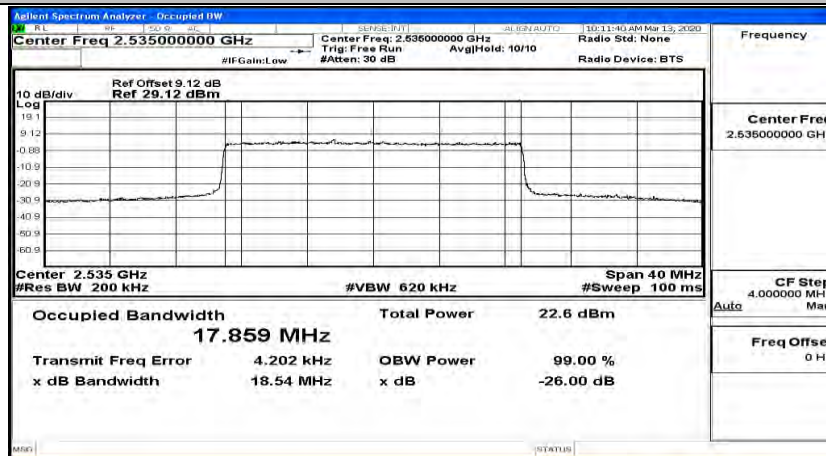
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



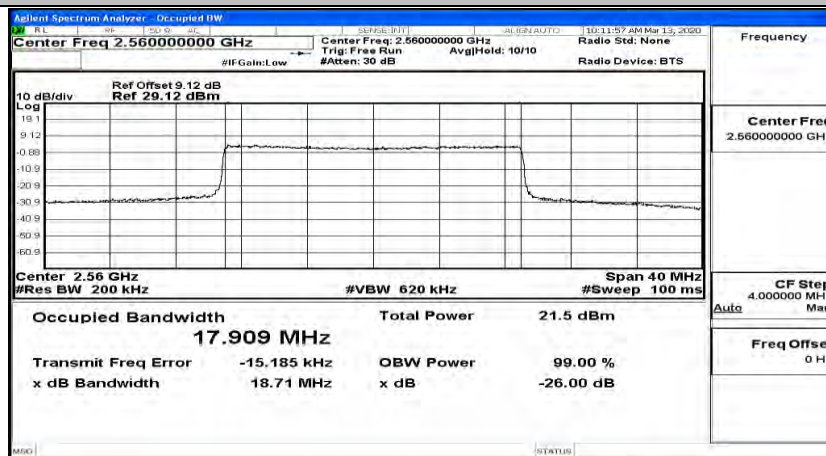
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



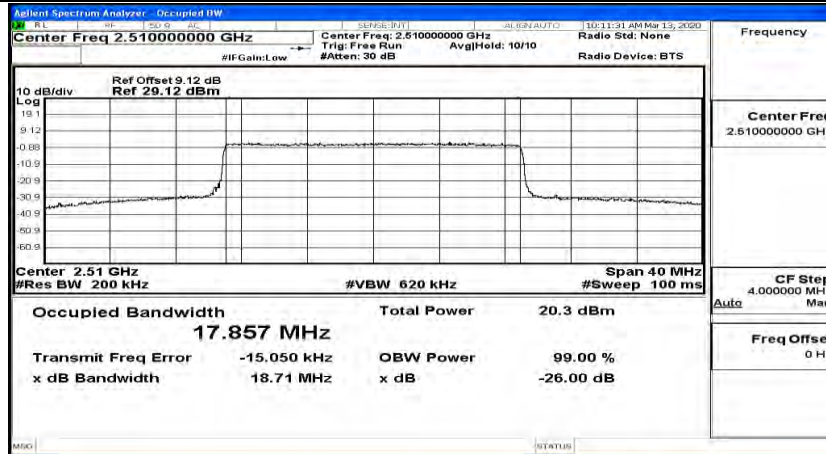
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



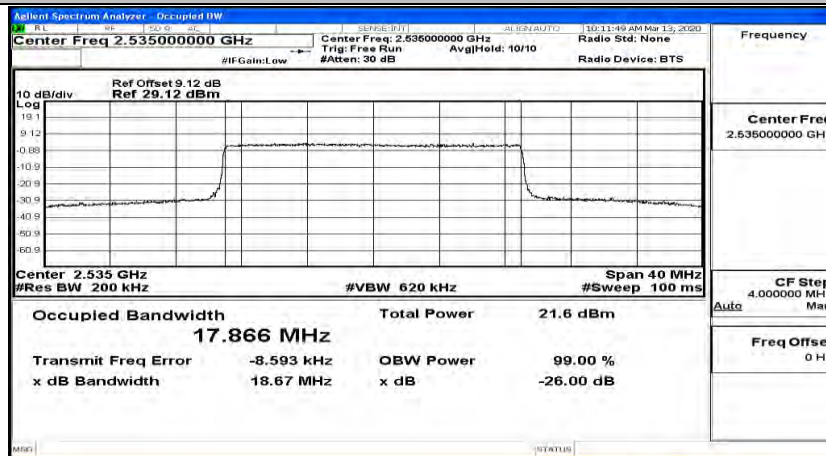
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



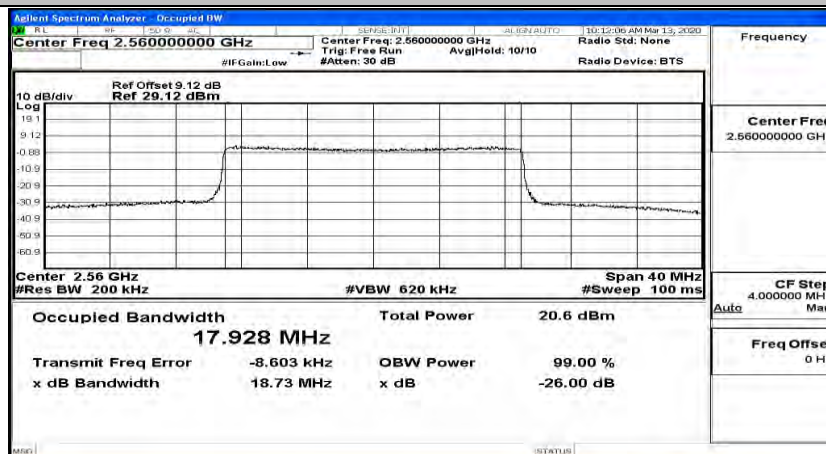
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM

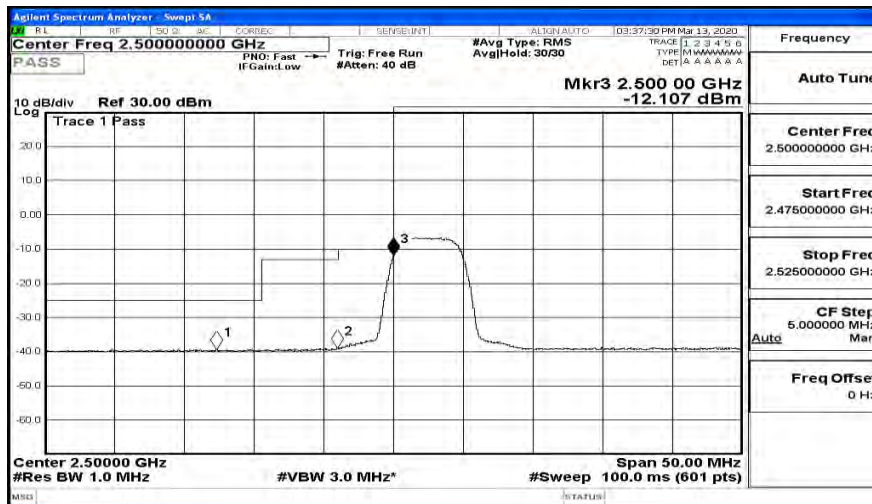


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

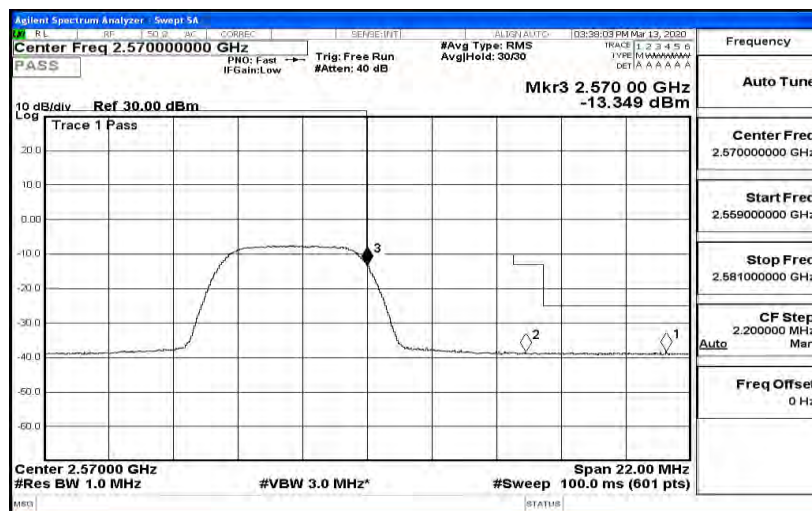


J.4 Band Edge

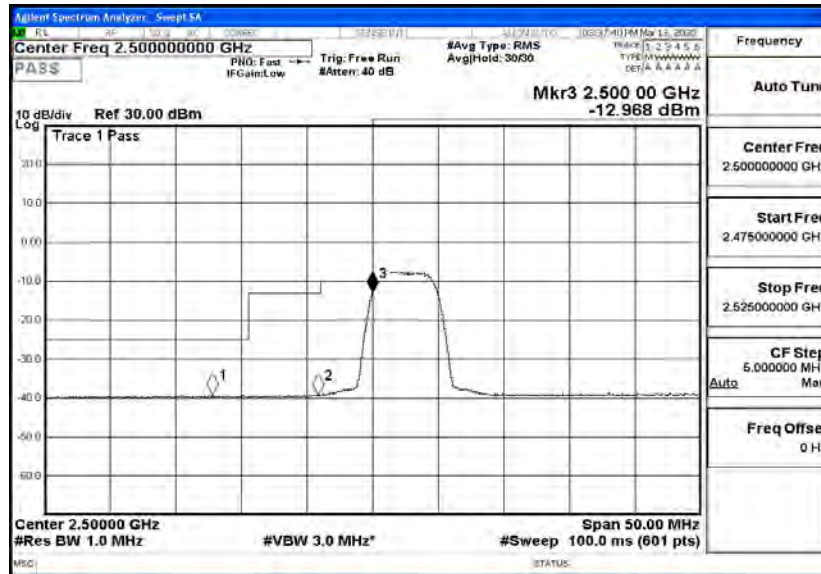
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



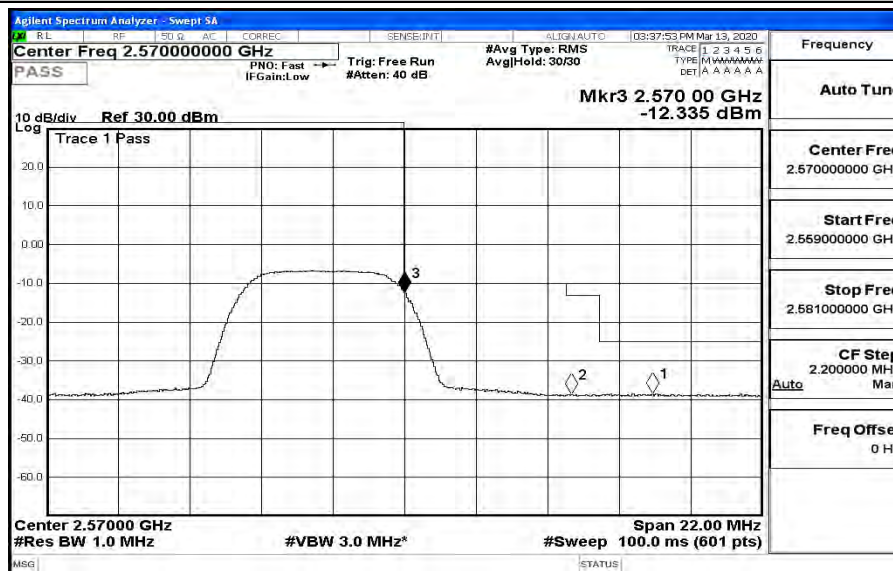
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



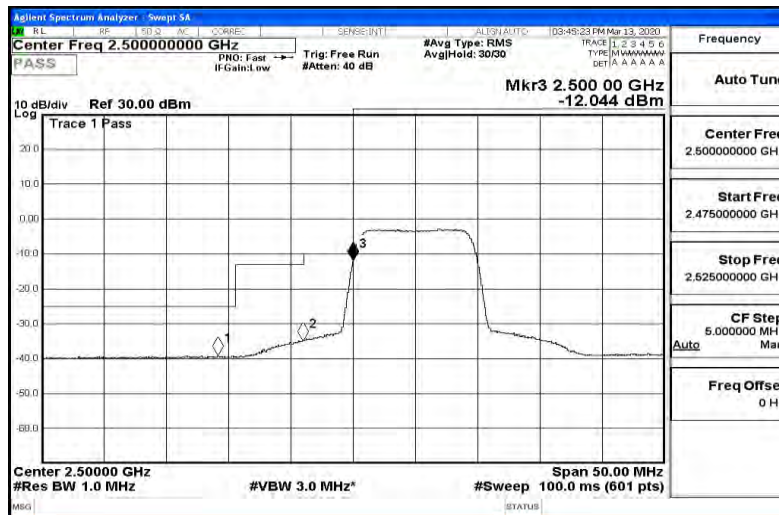
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



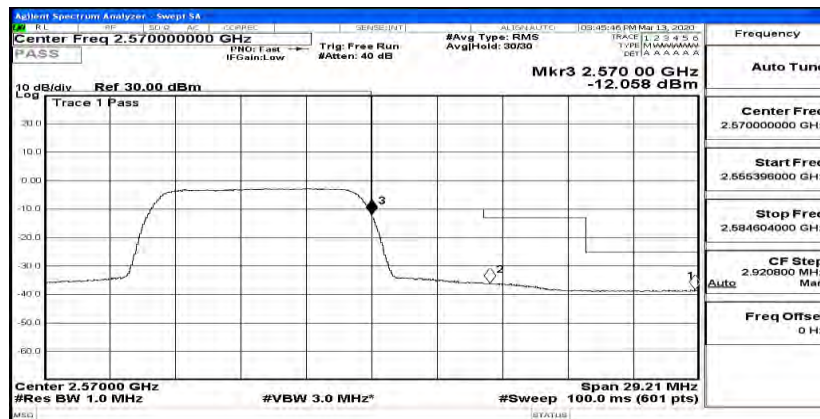
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



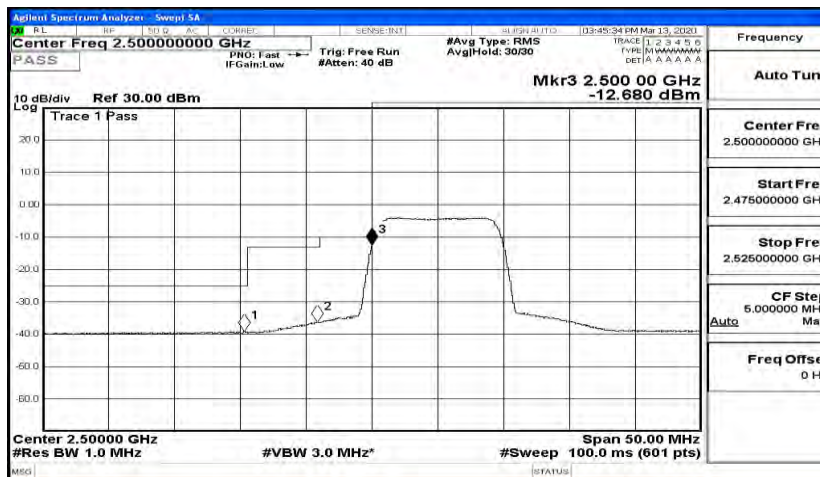
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



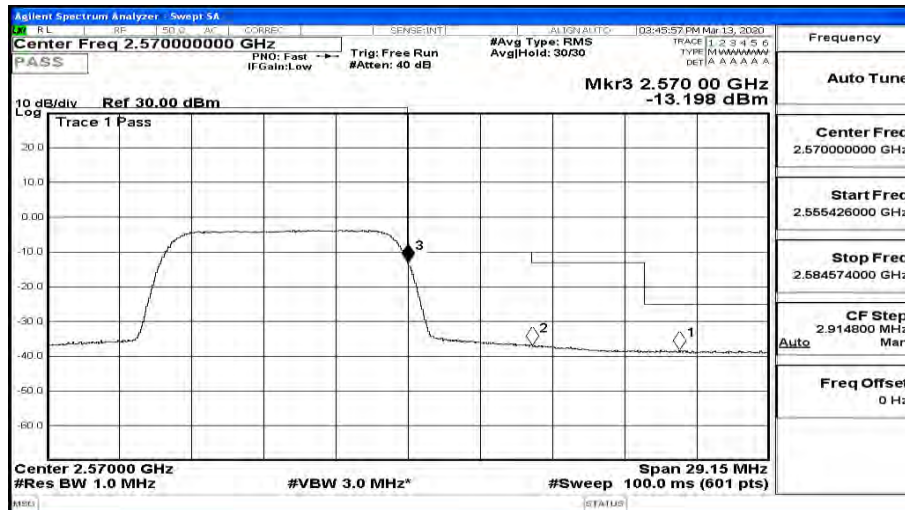
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



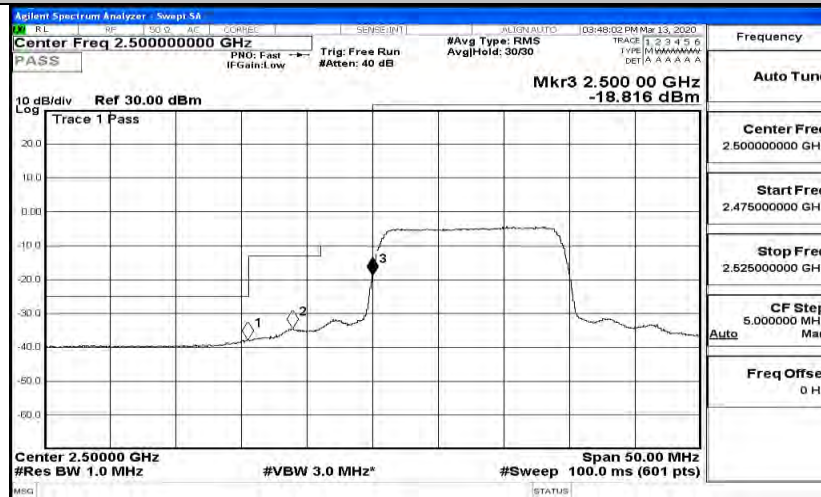
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



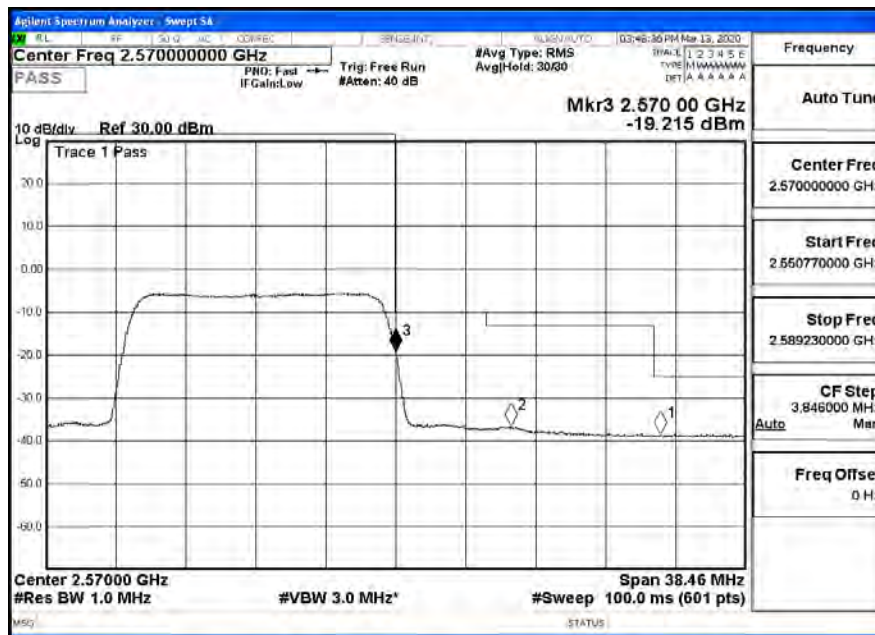
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



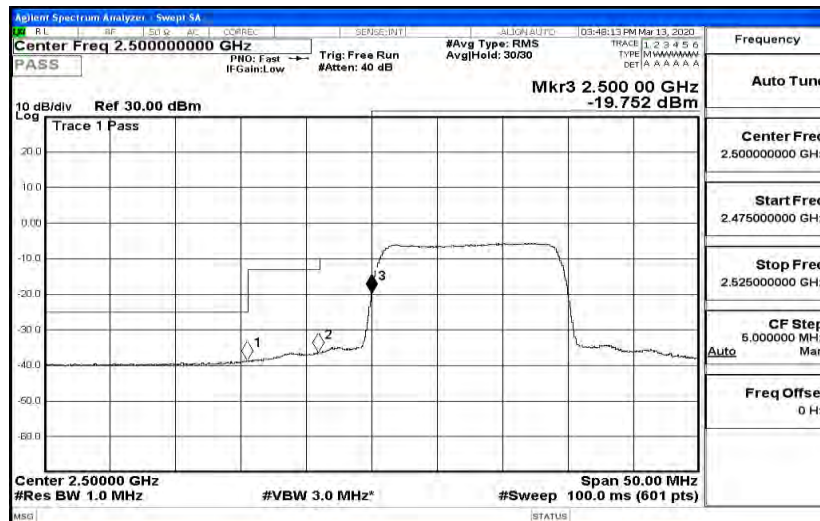
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



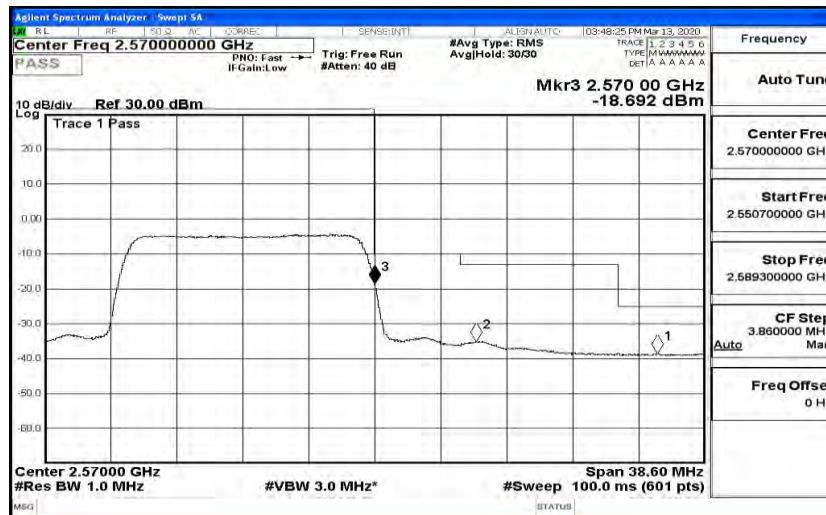
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



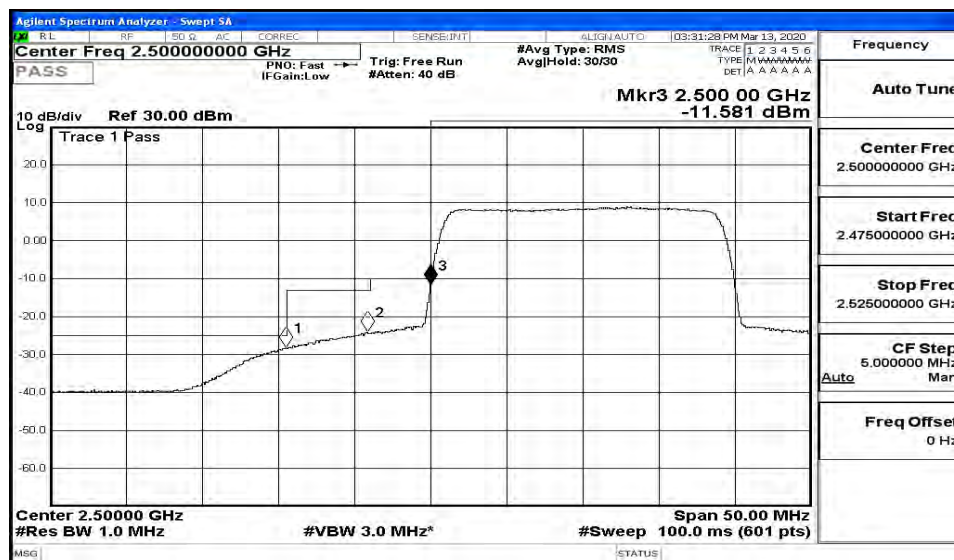
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



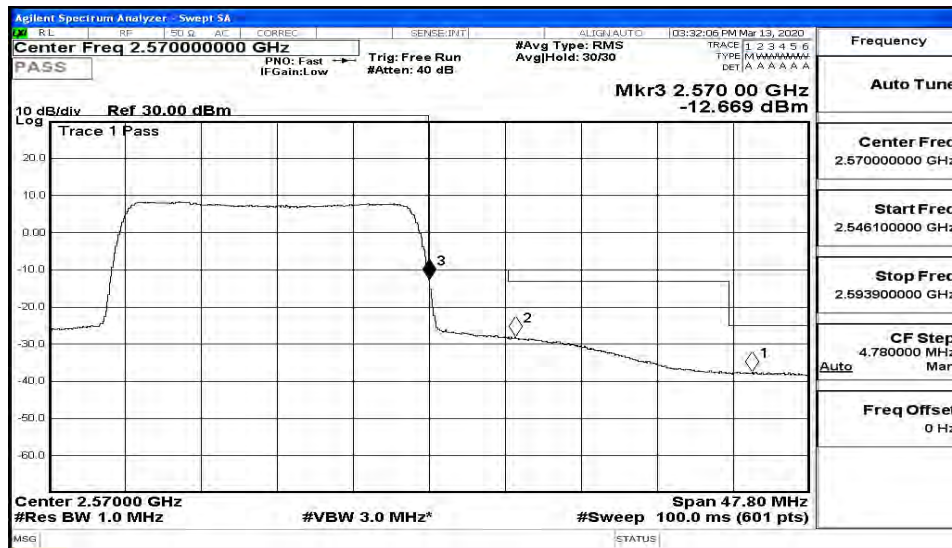
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



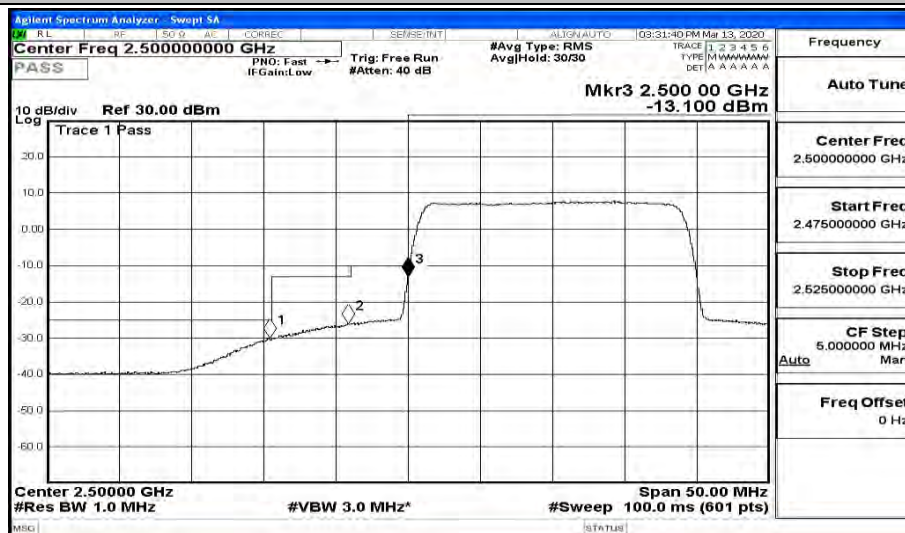
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



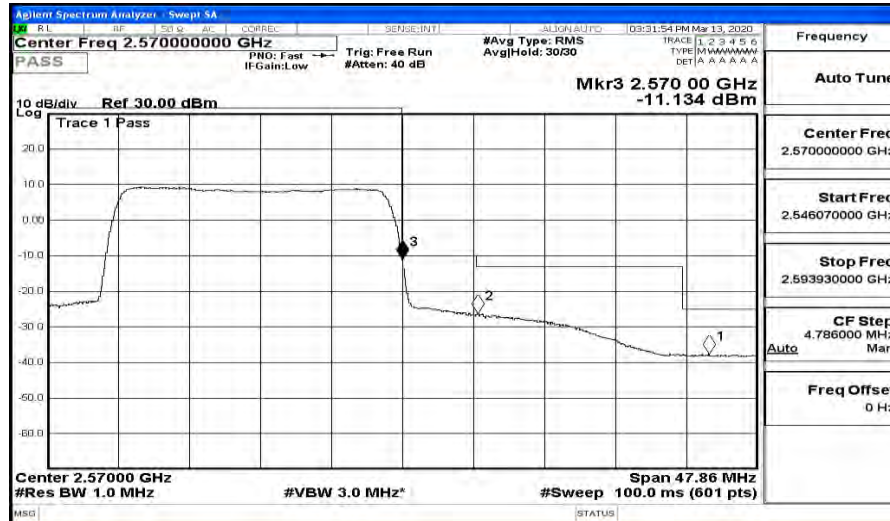
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



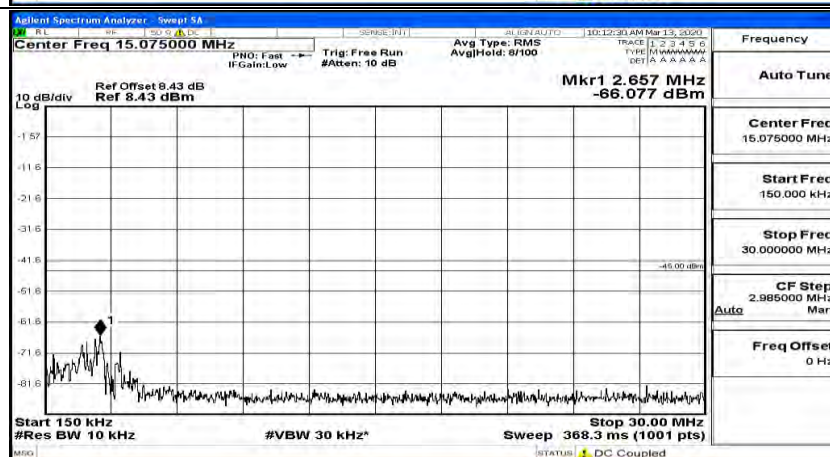
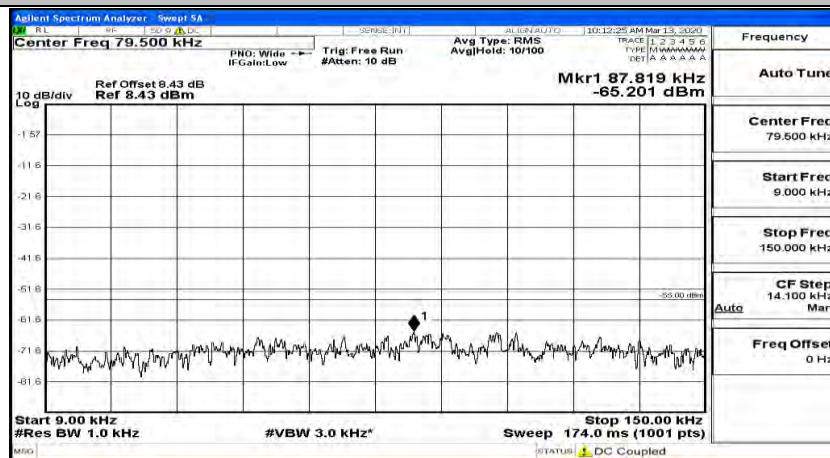
Band Edge Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM



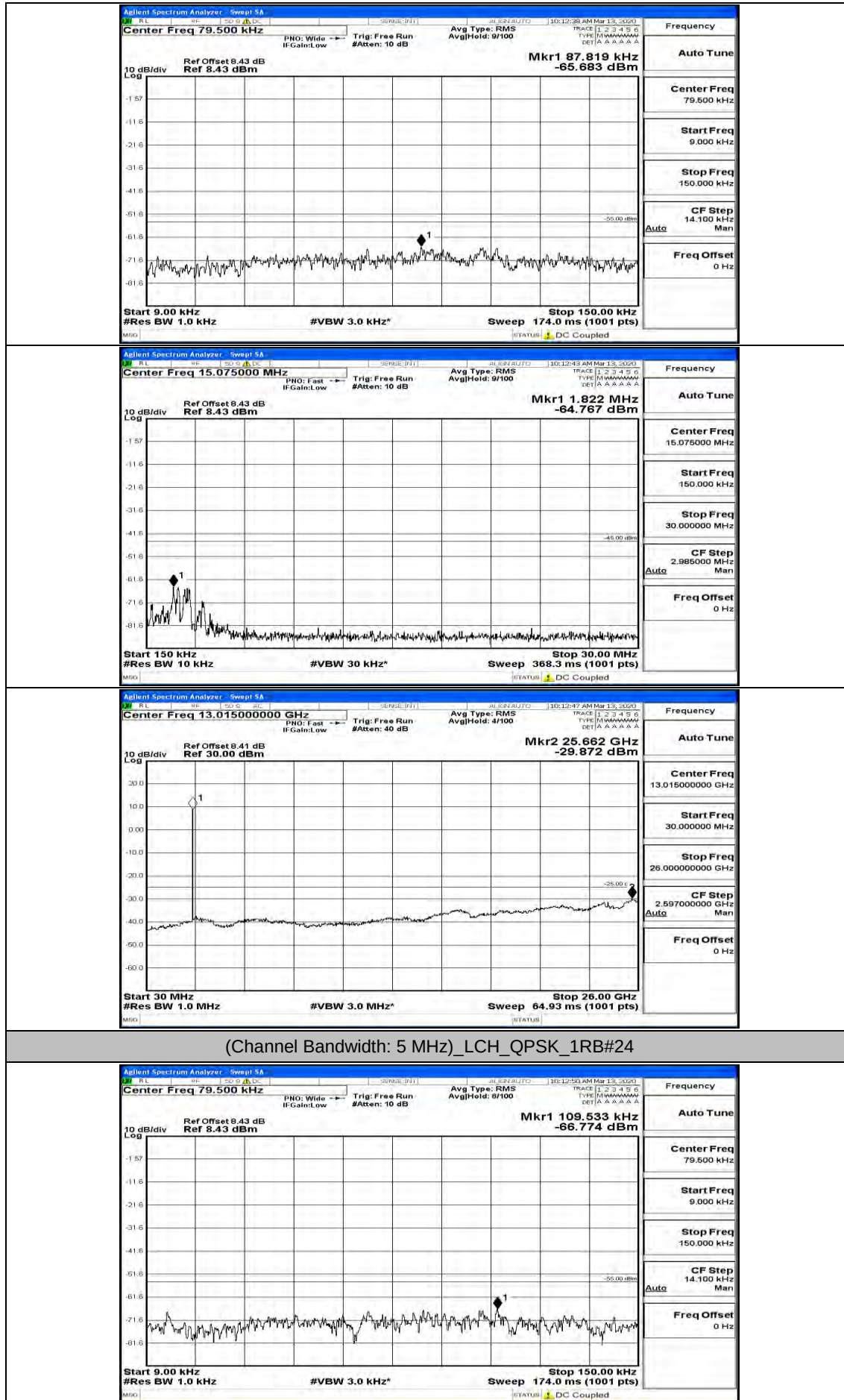
J.5 Conducted Spurious Emission

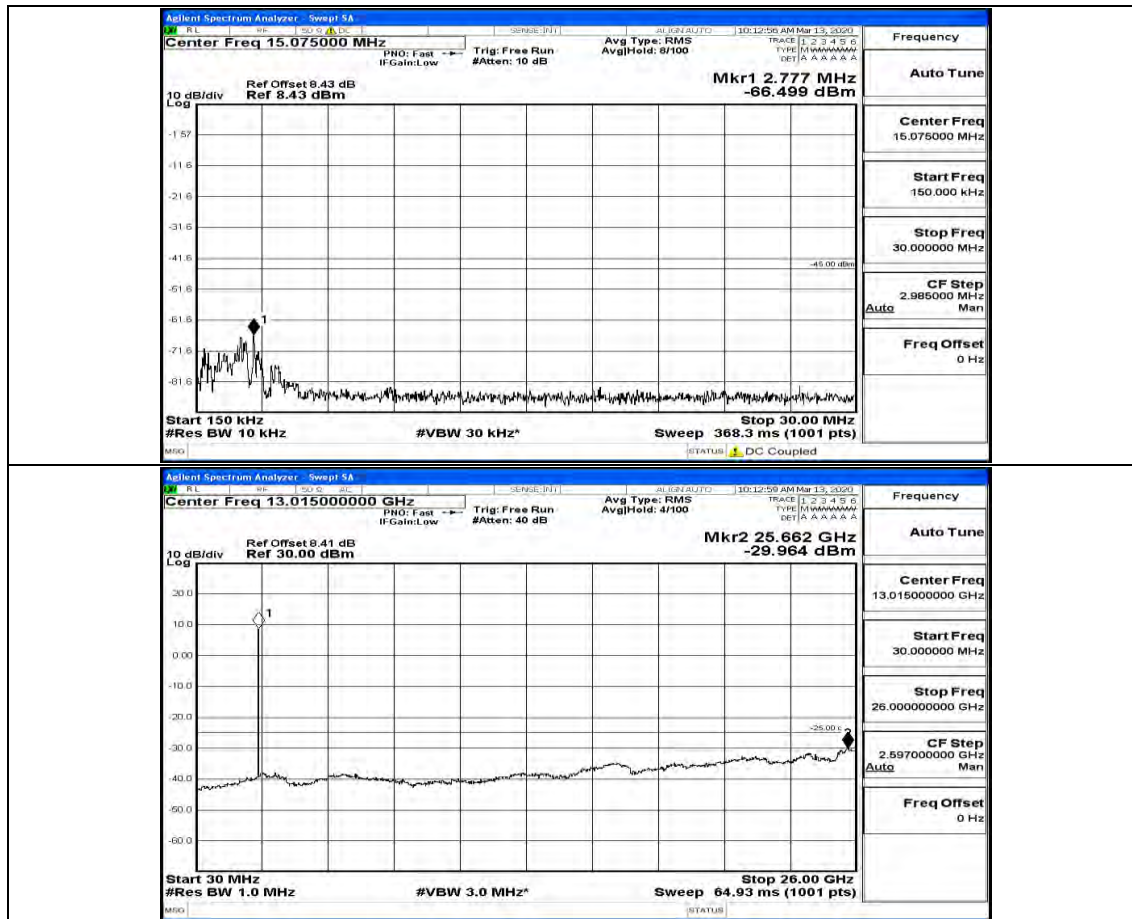
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

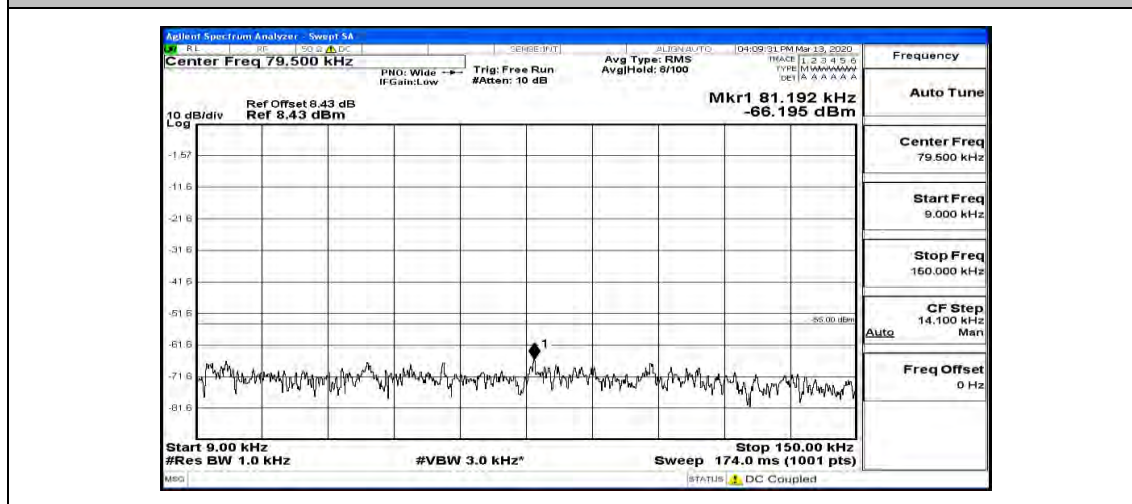


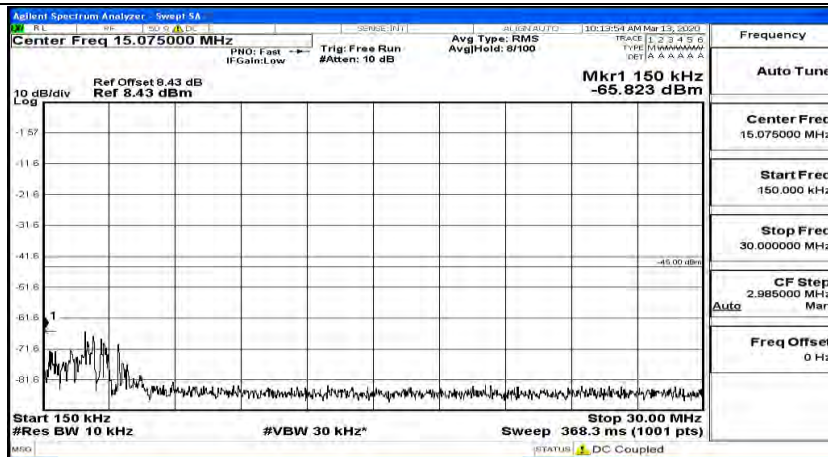
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



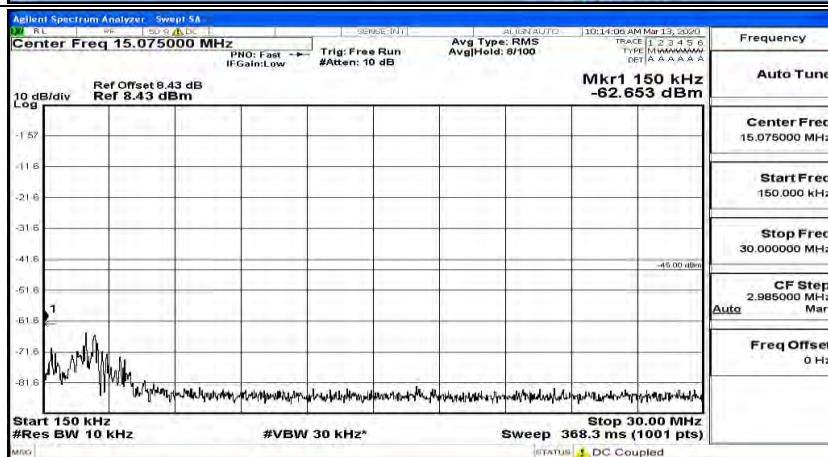
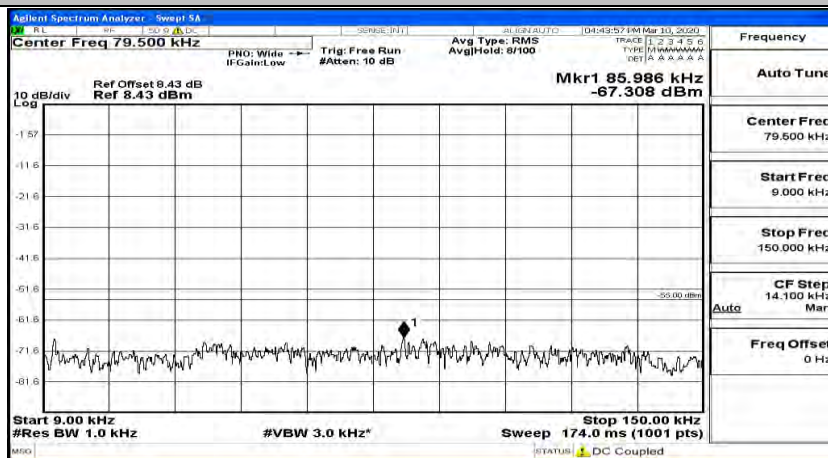


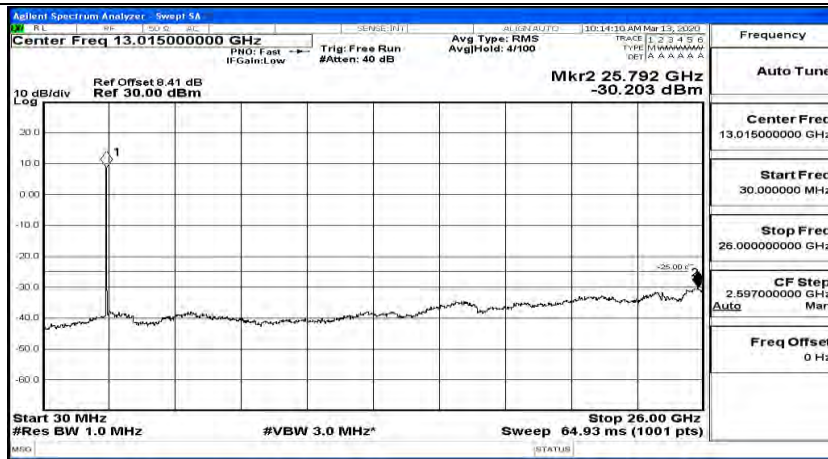
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



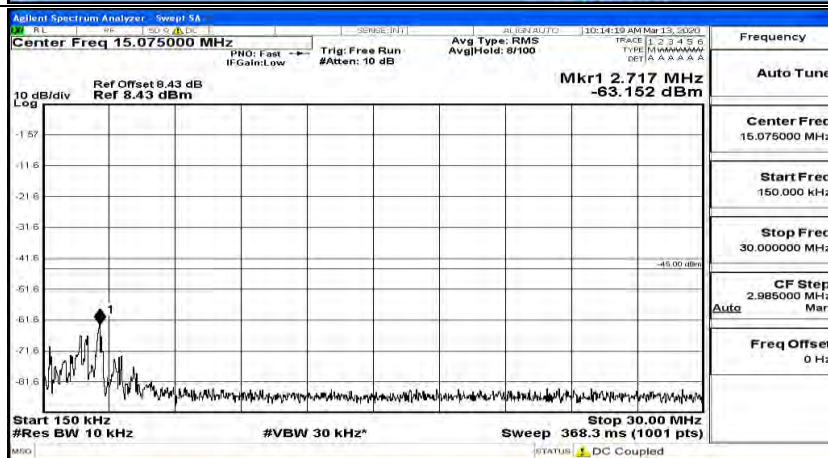
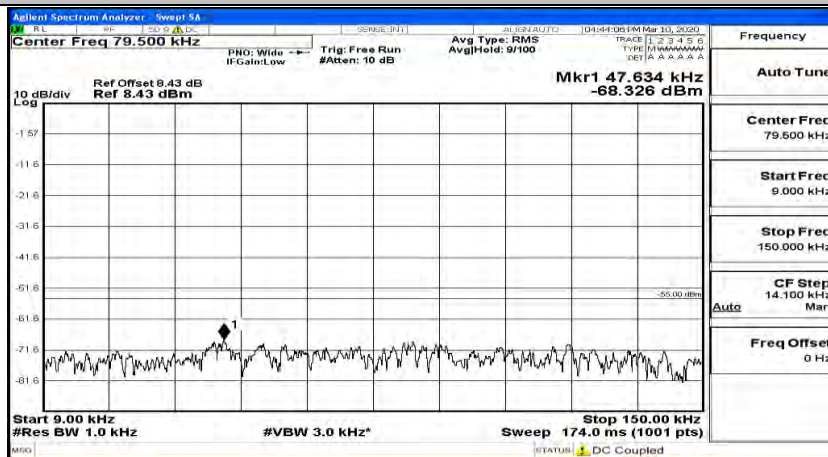


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

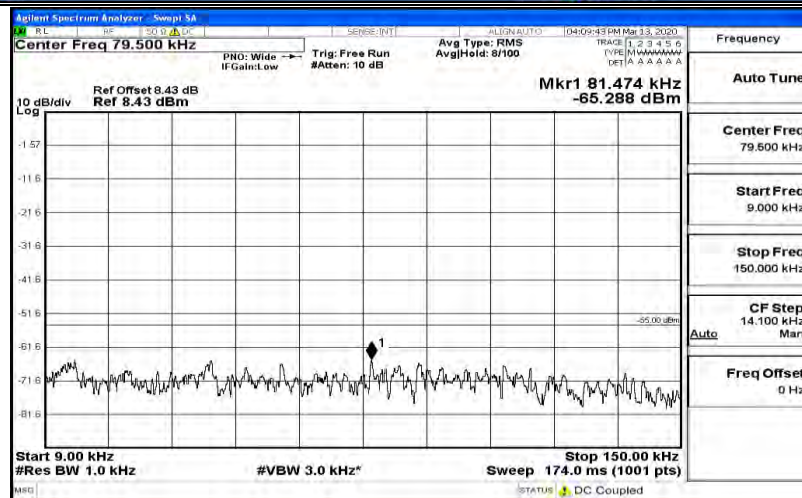
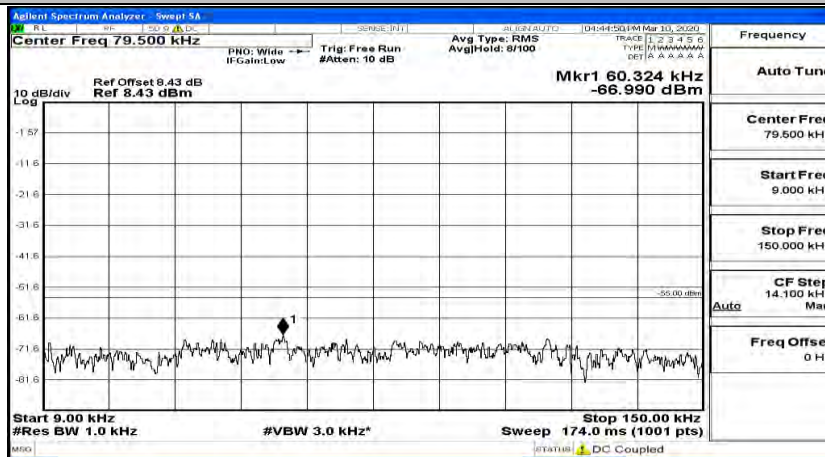




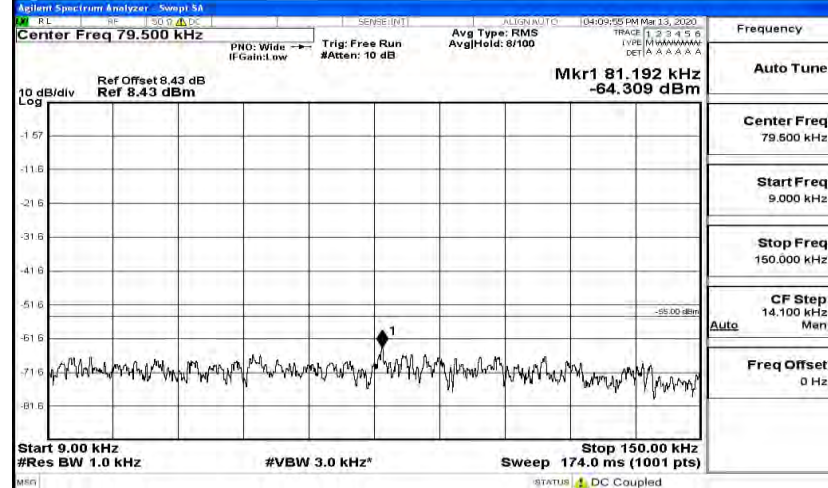
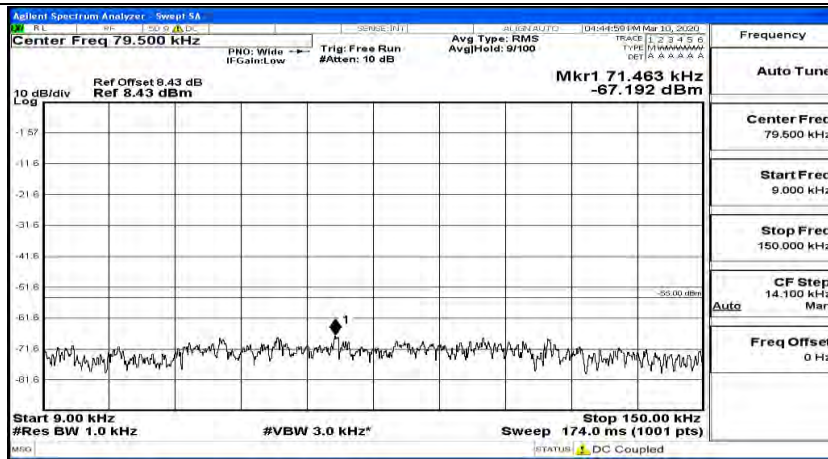
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24



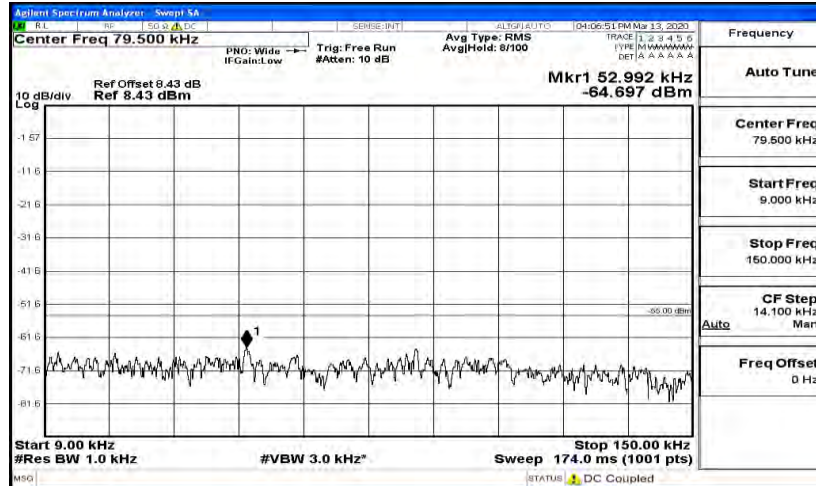
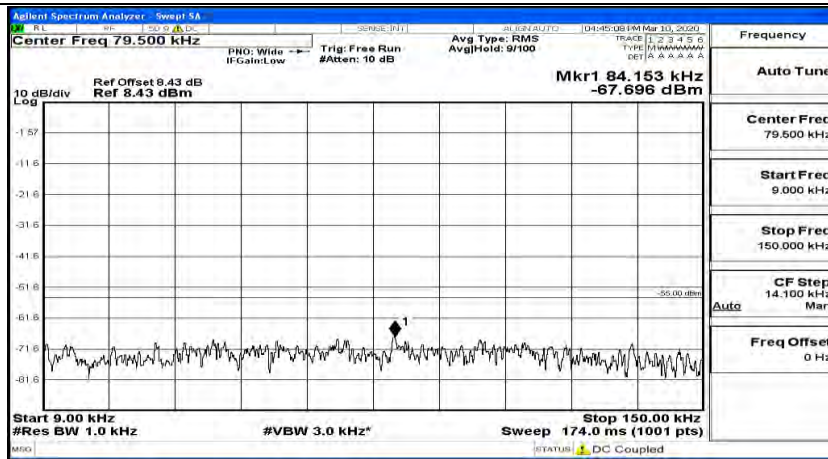
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



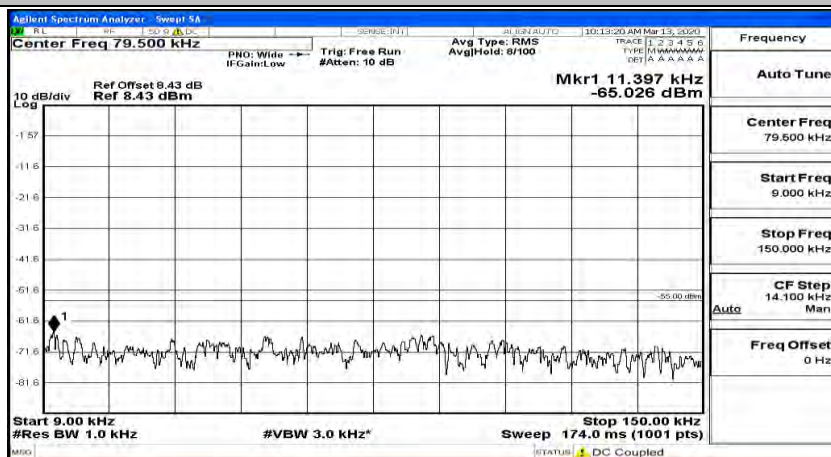
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

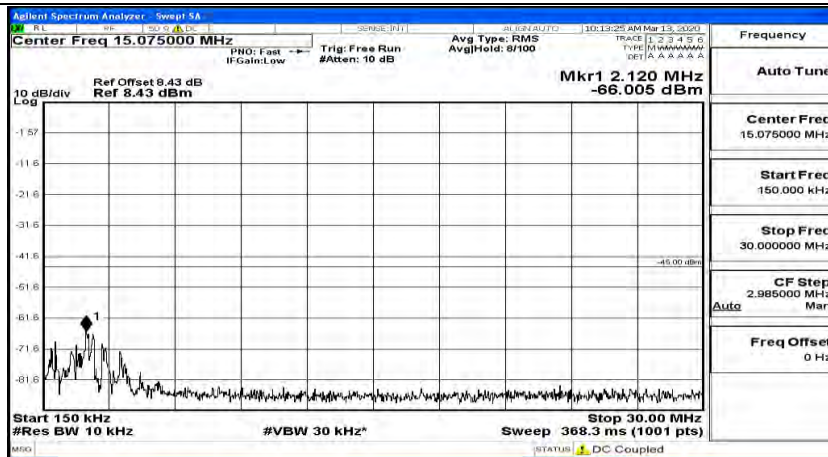


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

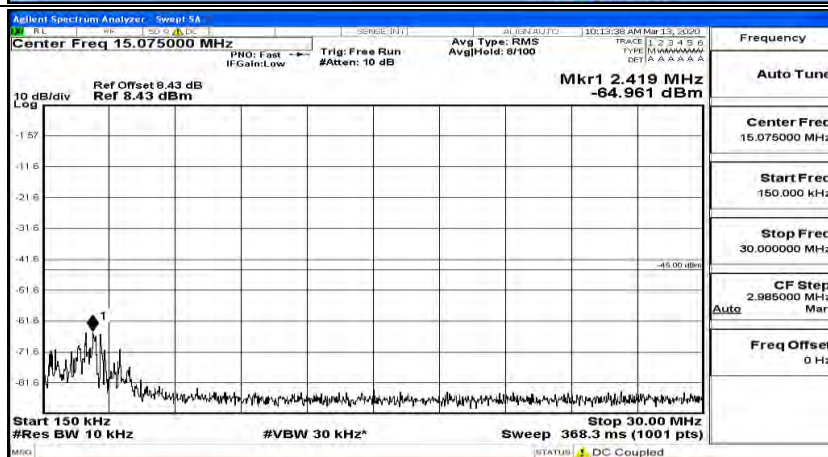
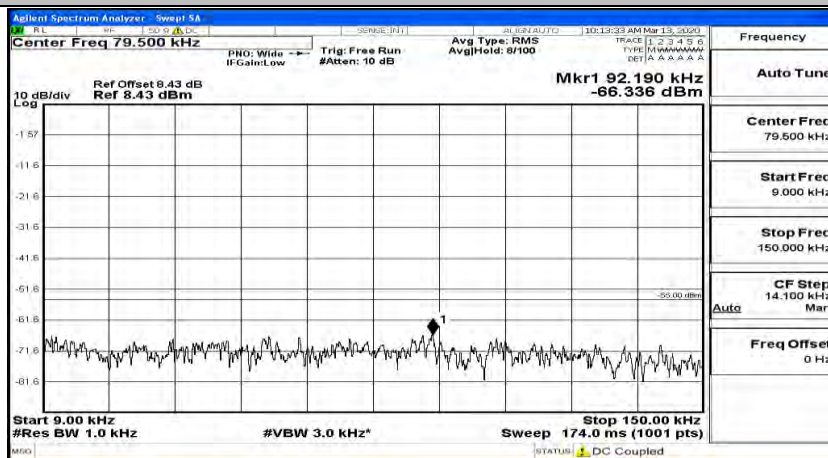


(Channel Bandwidth: 5 MHz) LCH 16QAM 1RB#12



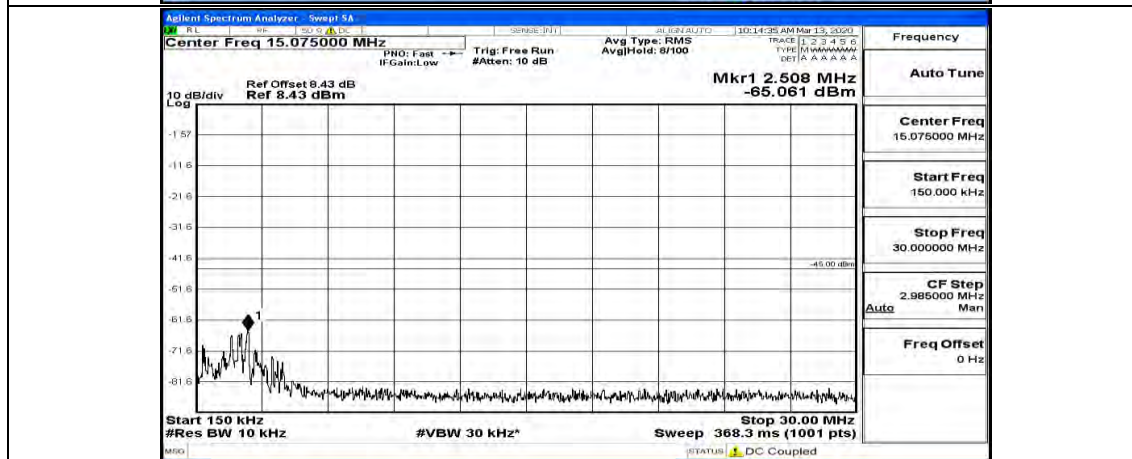
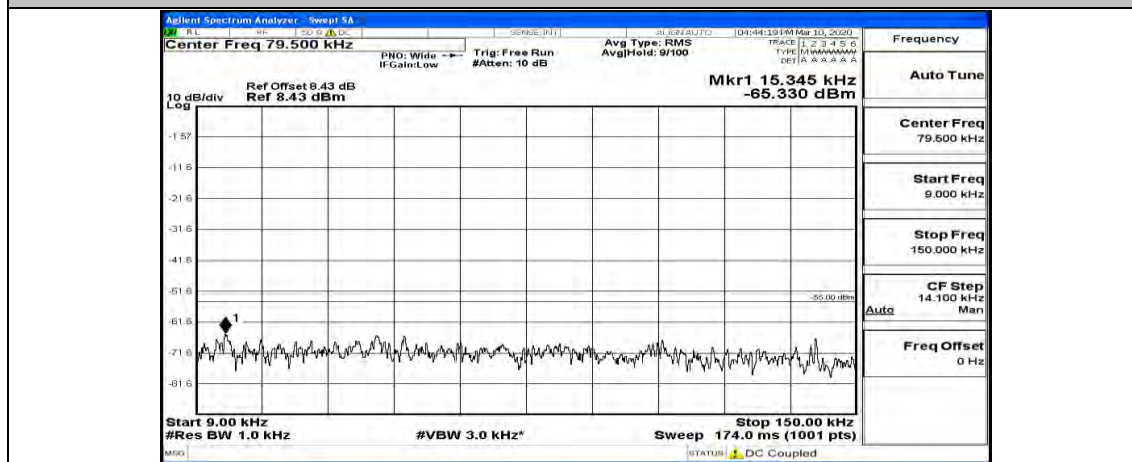


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



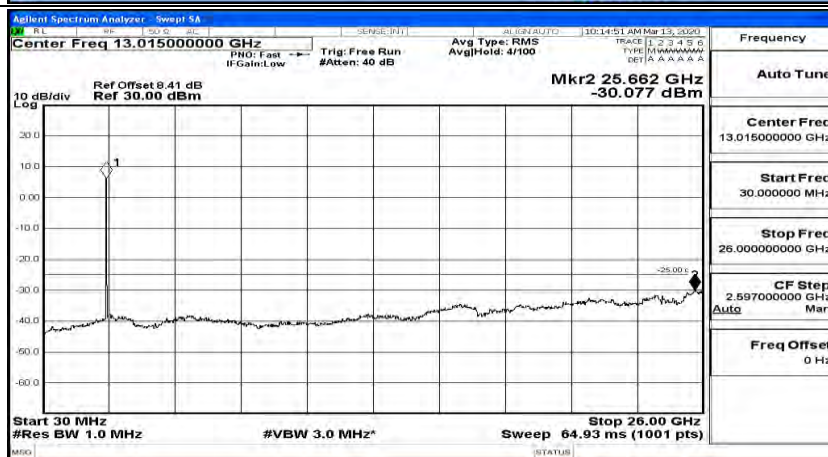
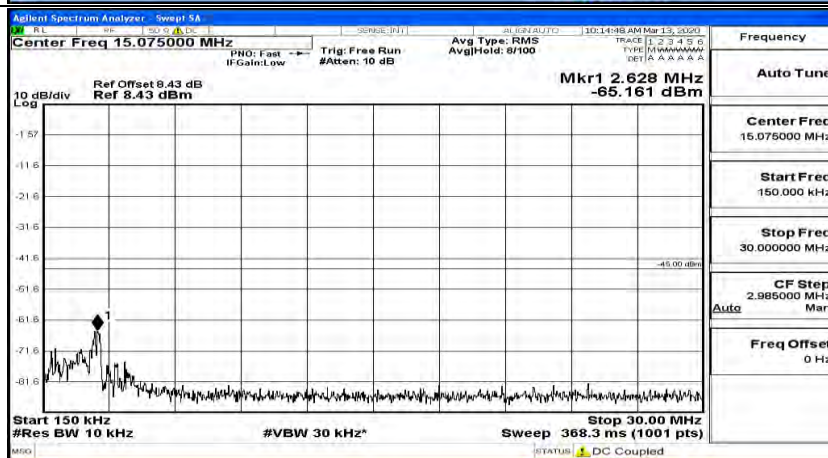
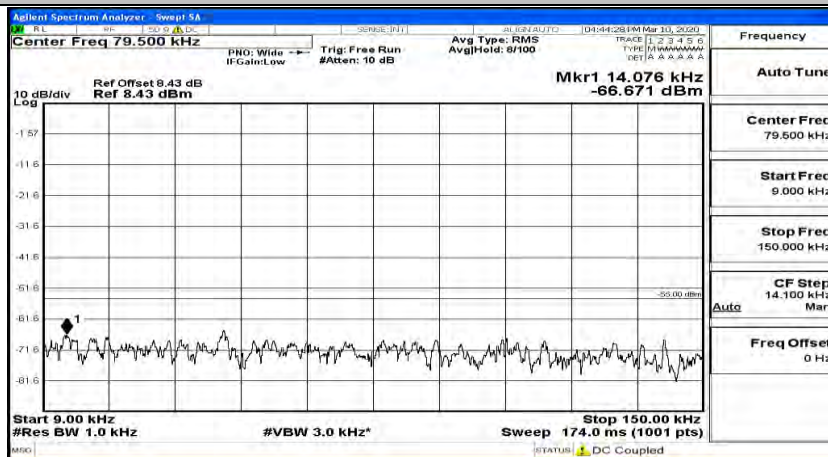


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

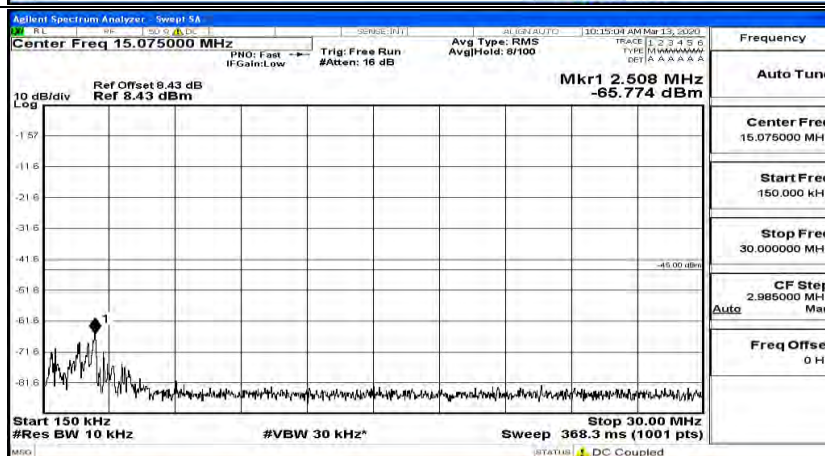
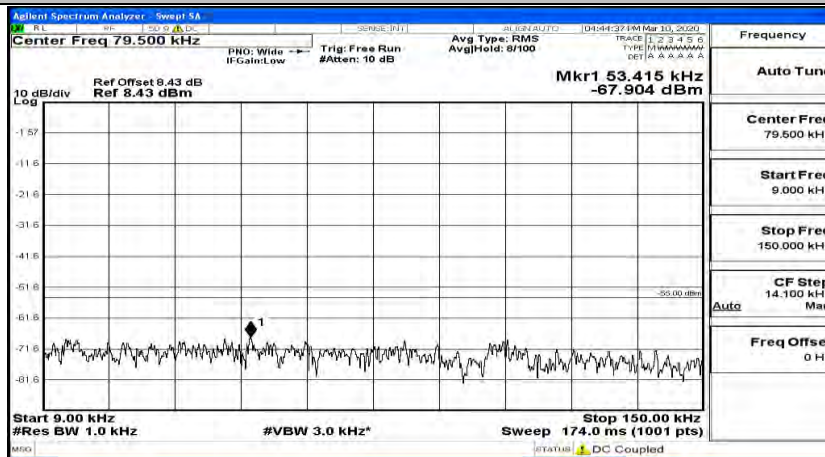




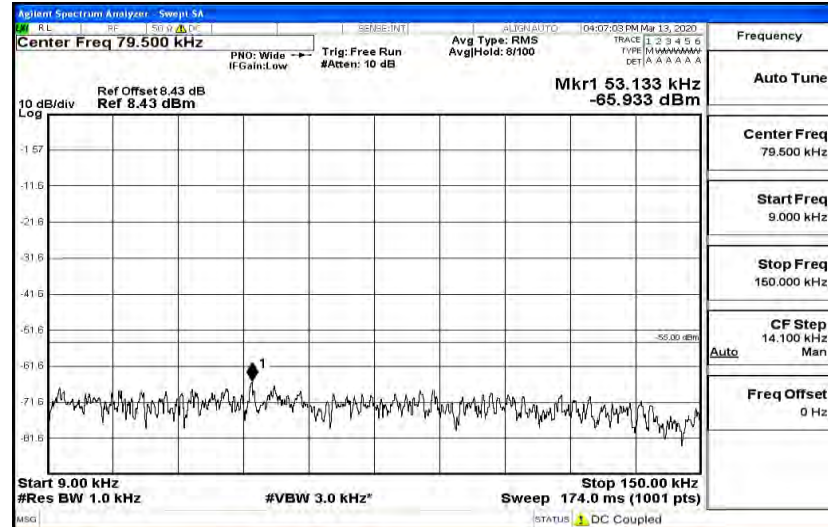
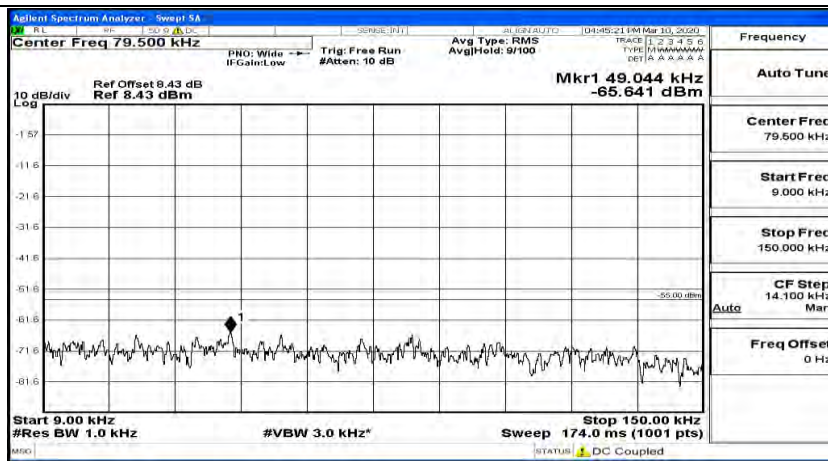
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



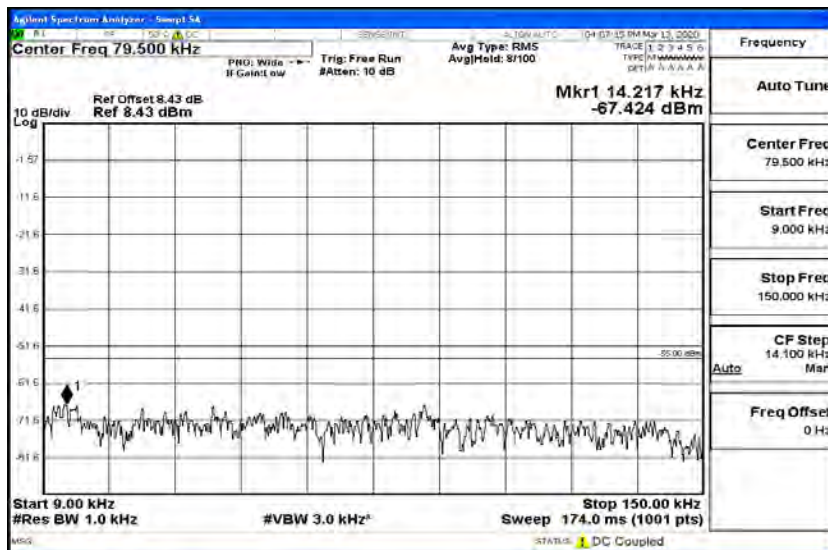
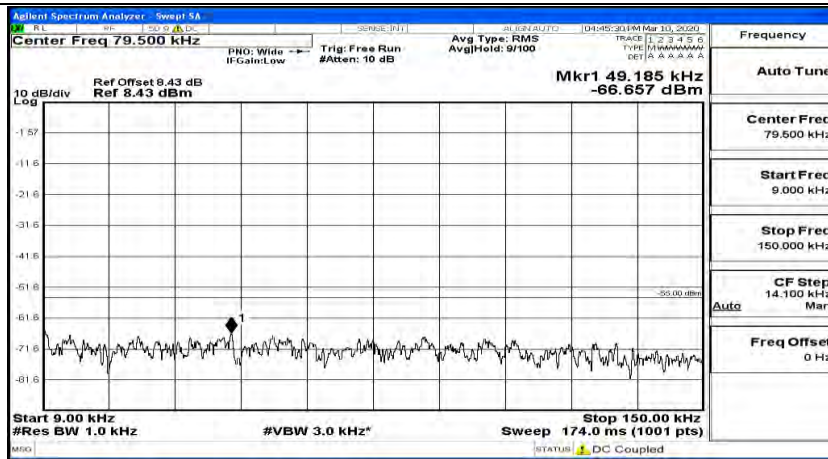
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24



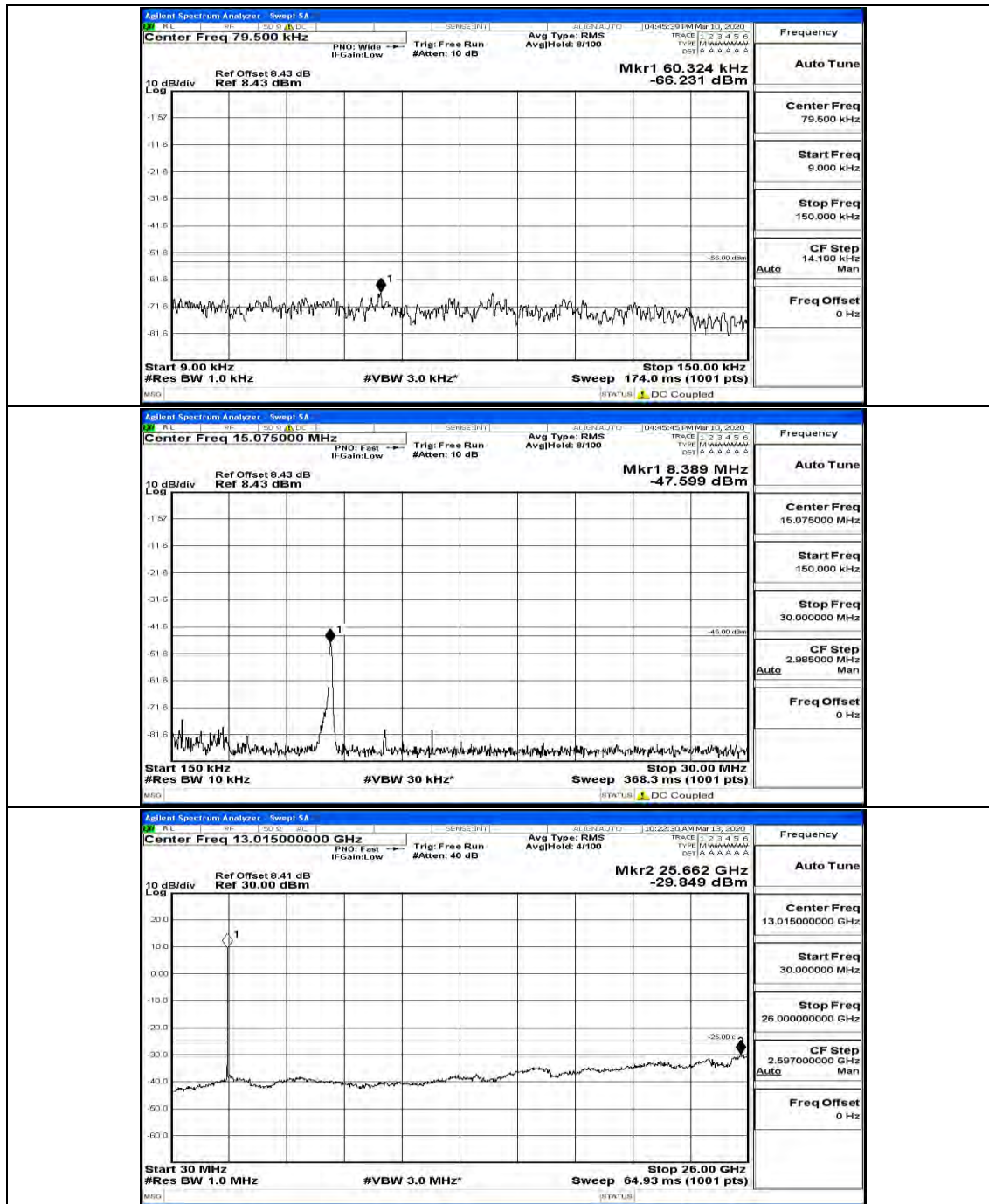
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



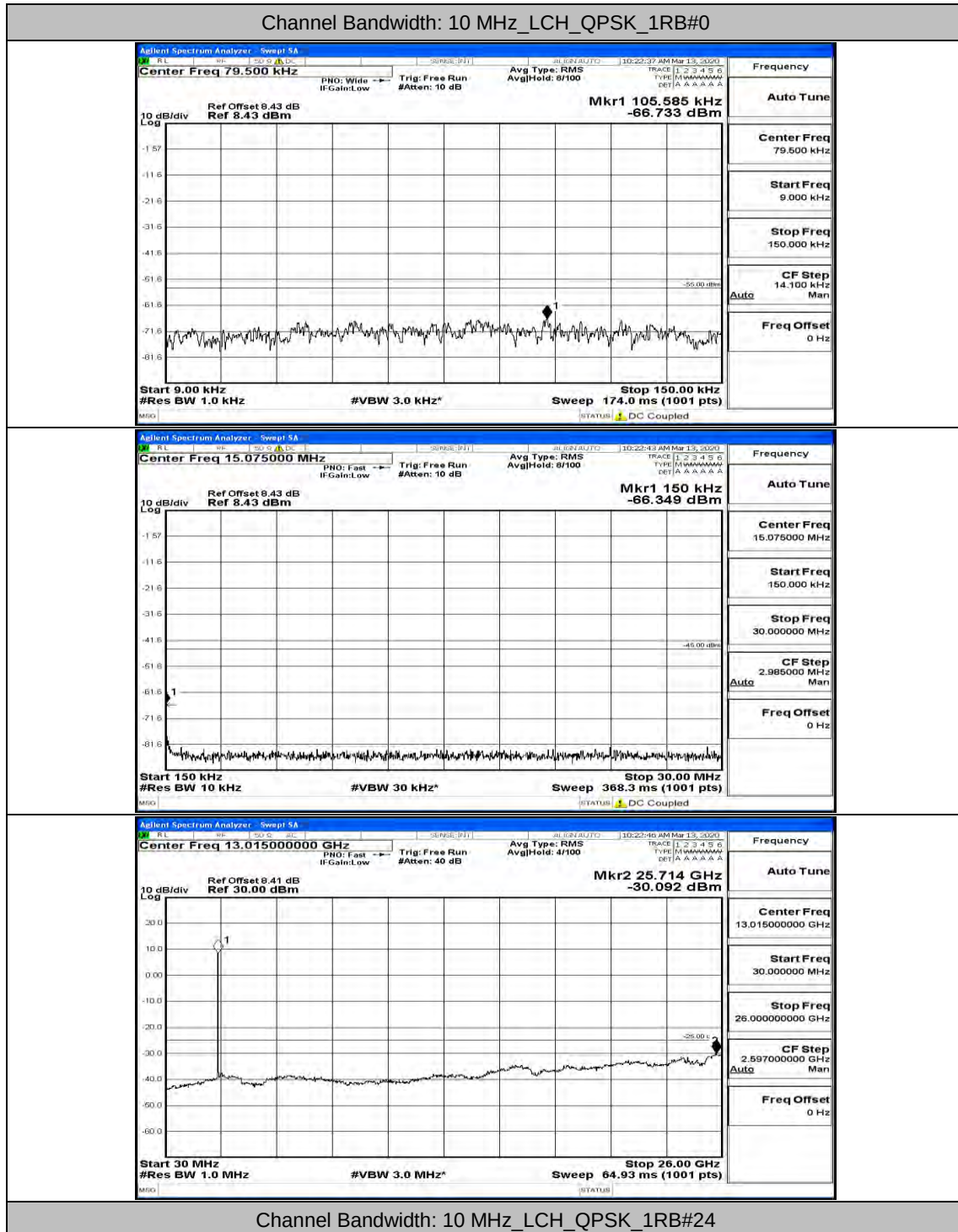
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

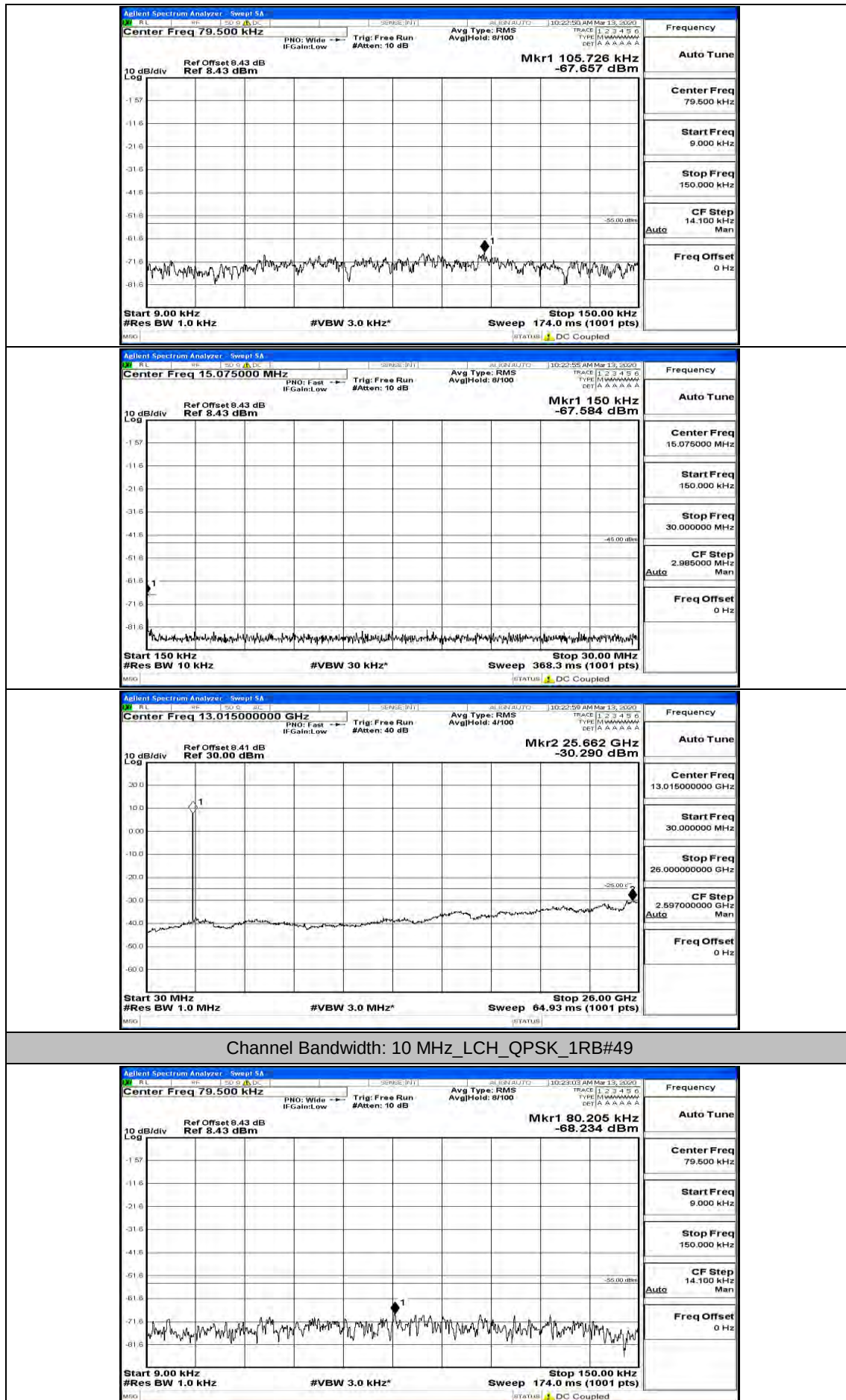


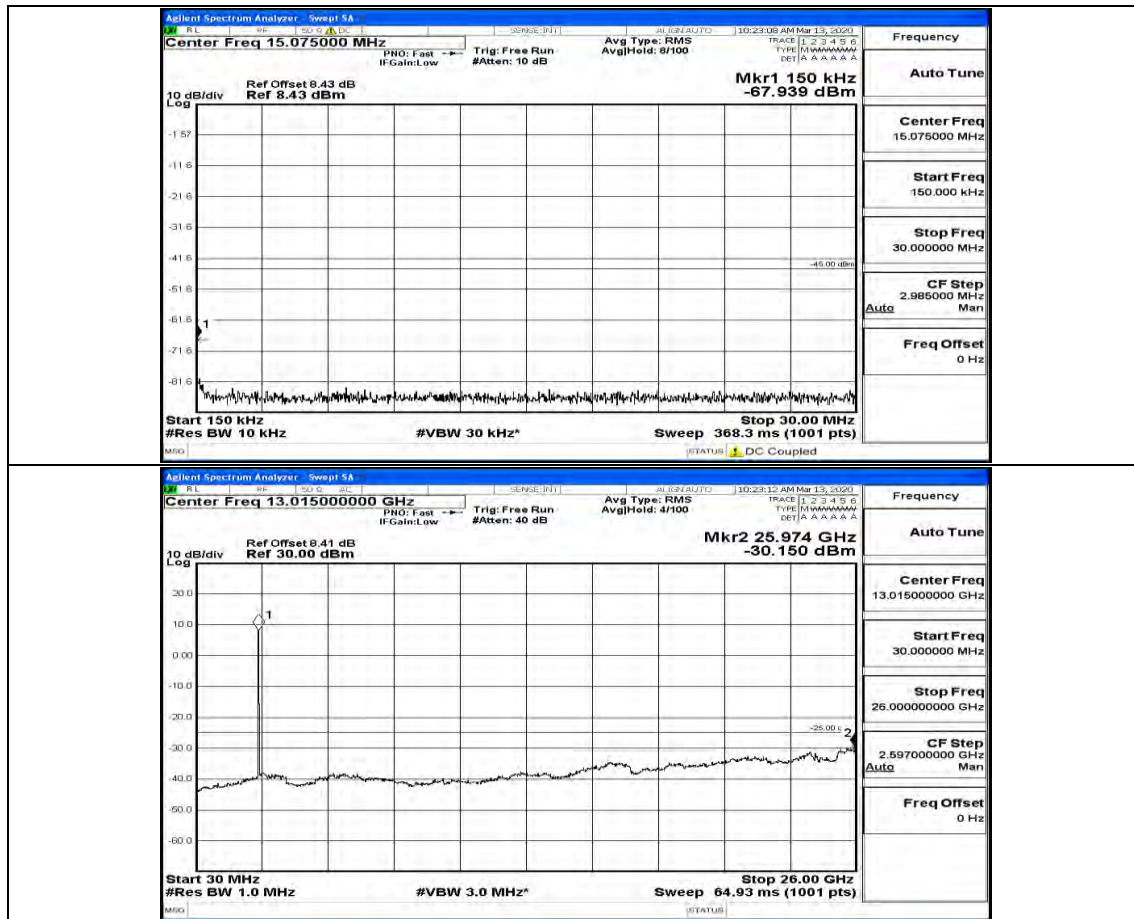
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



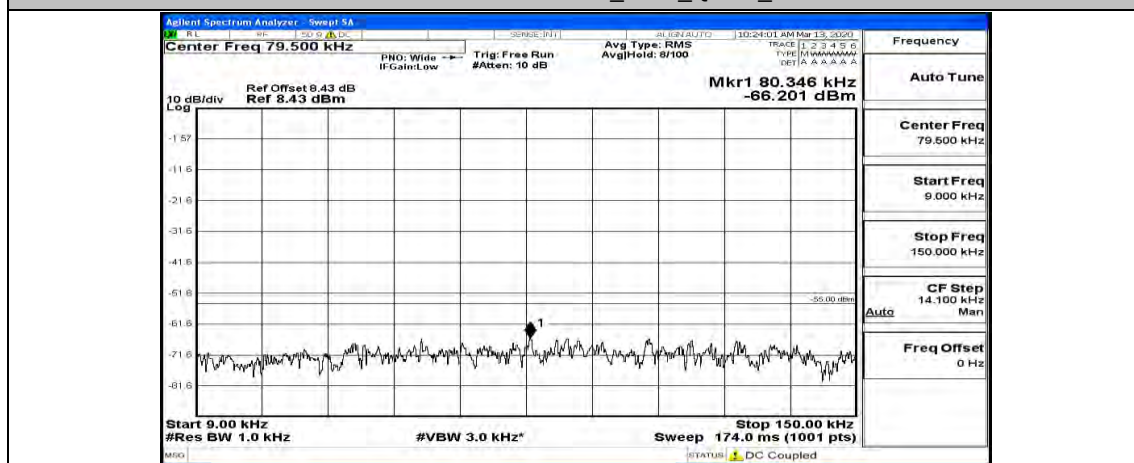
Channel Bandwidth: 10 MHz

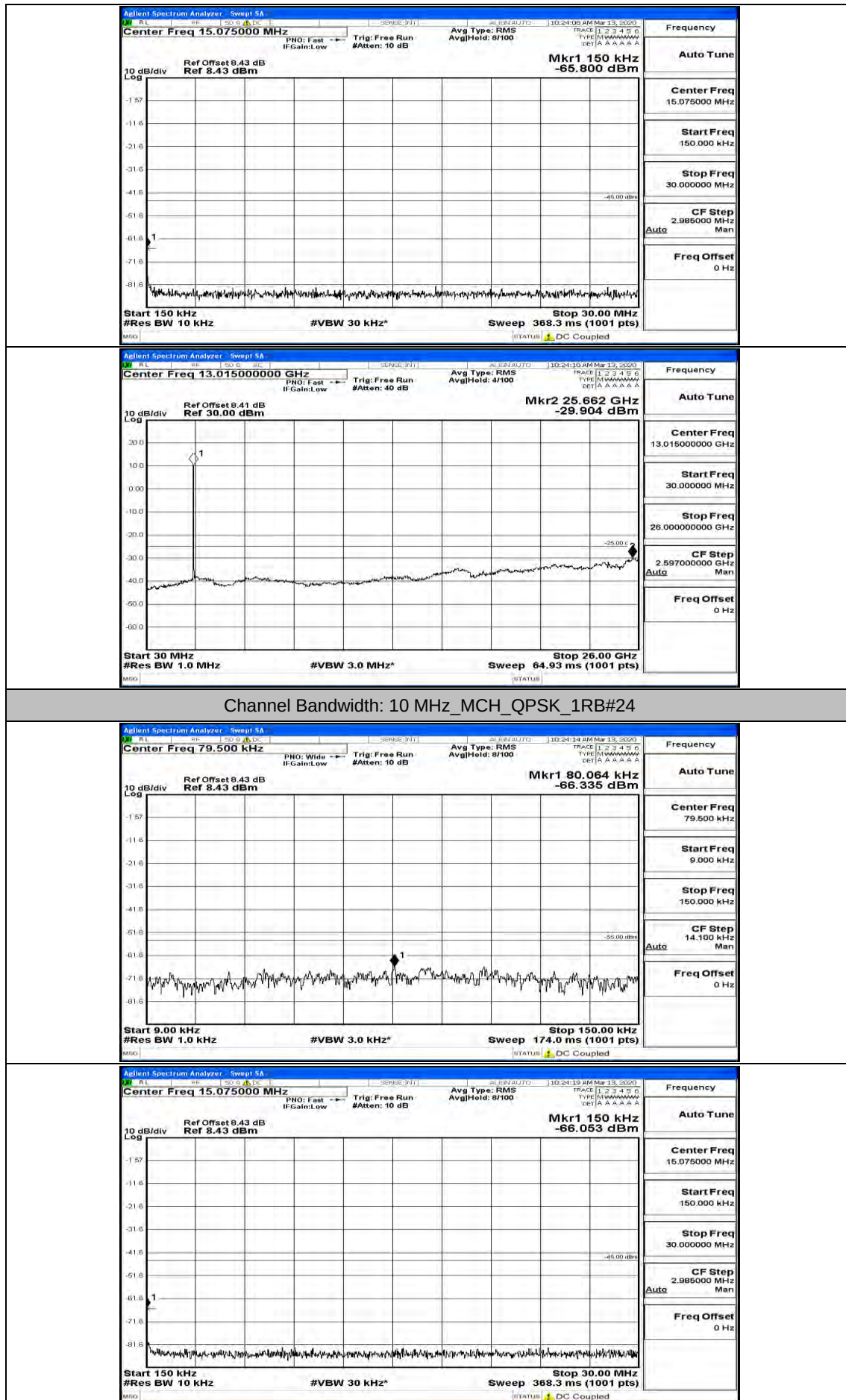


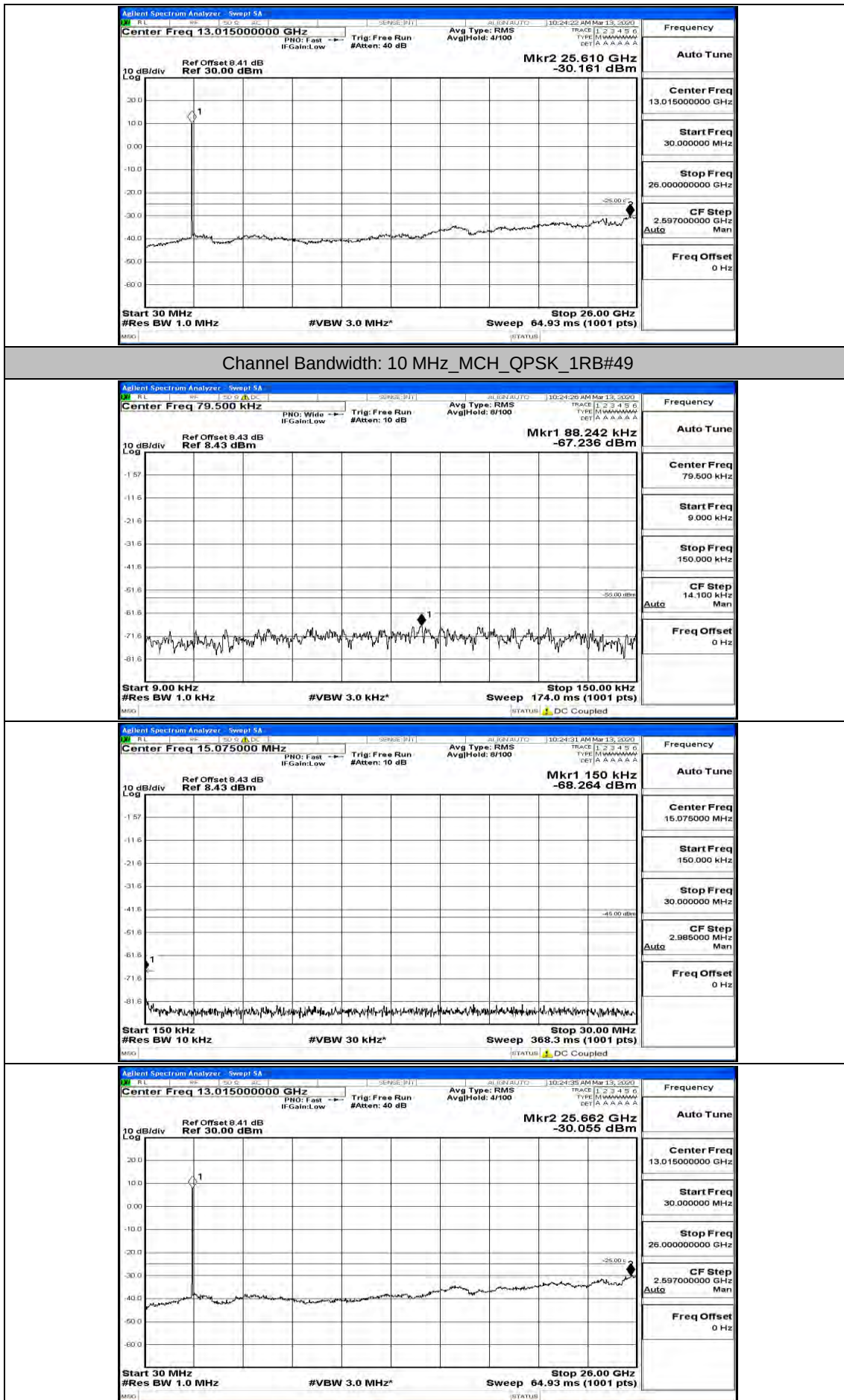




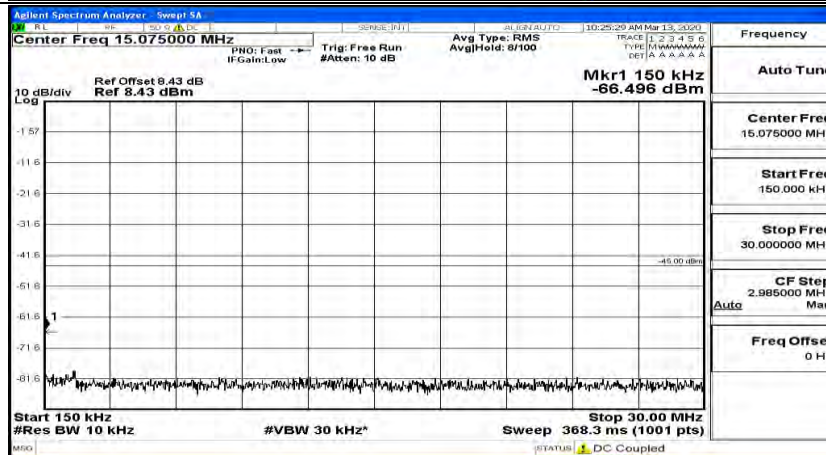
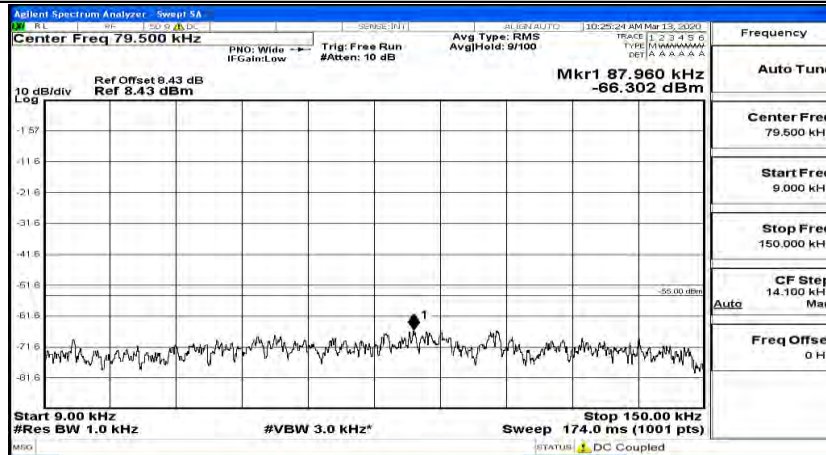
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



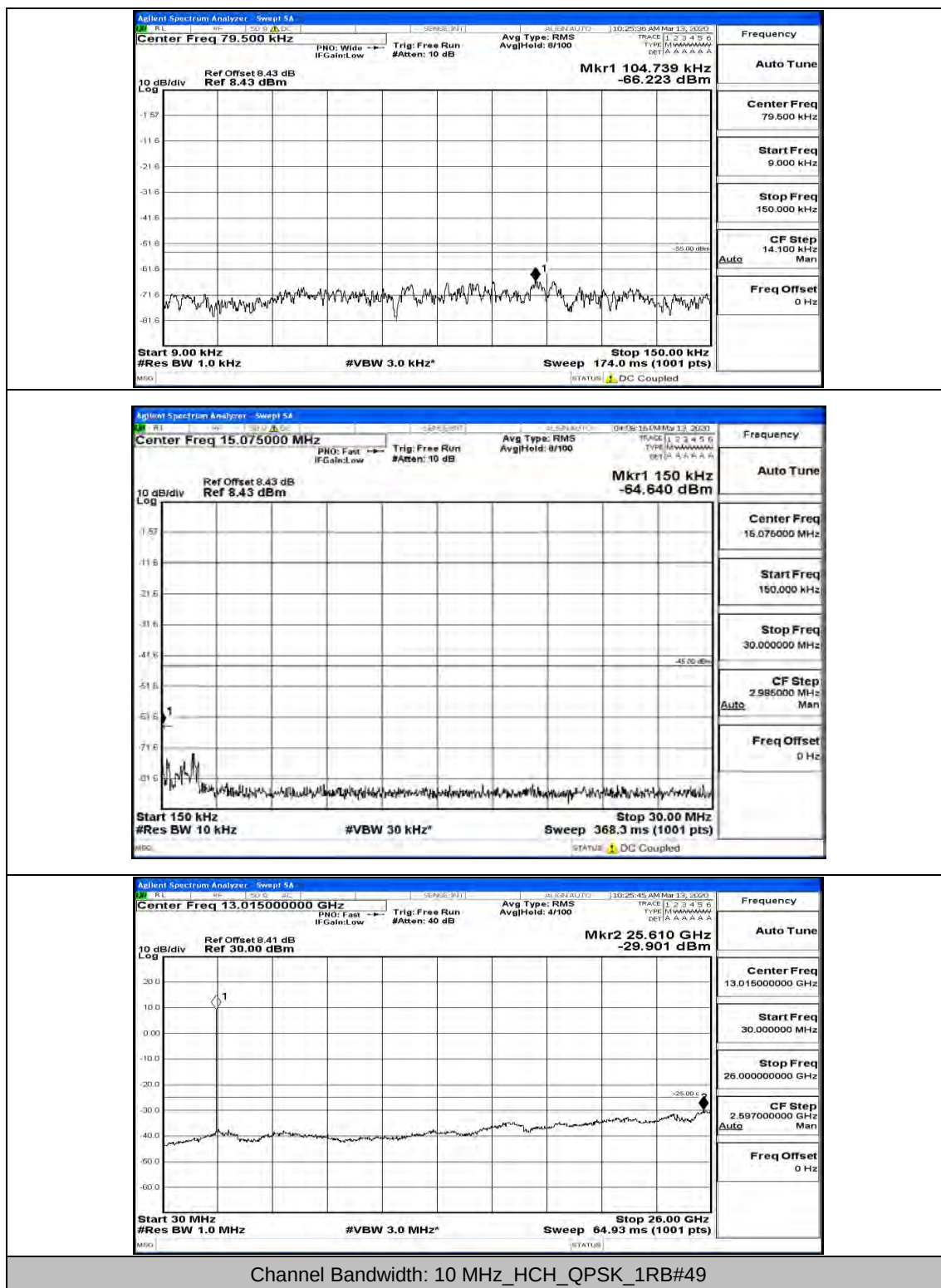


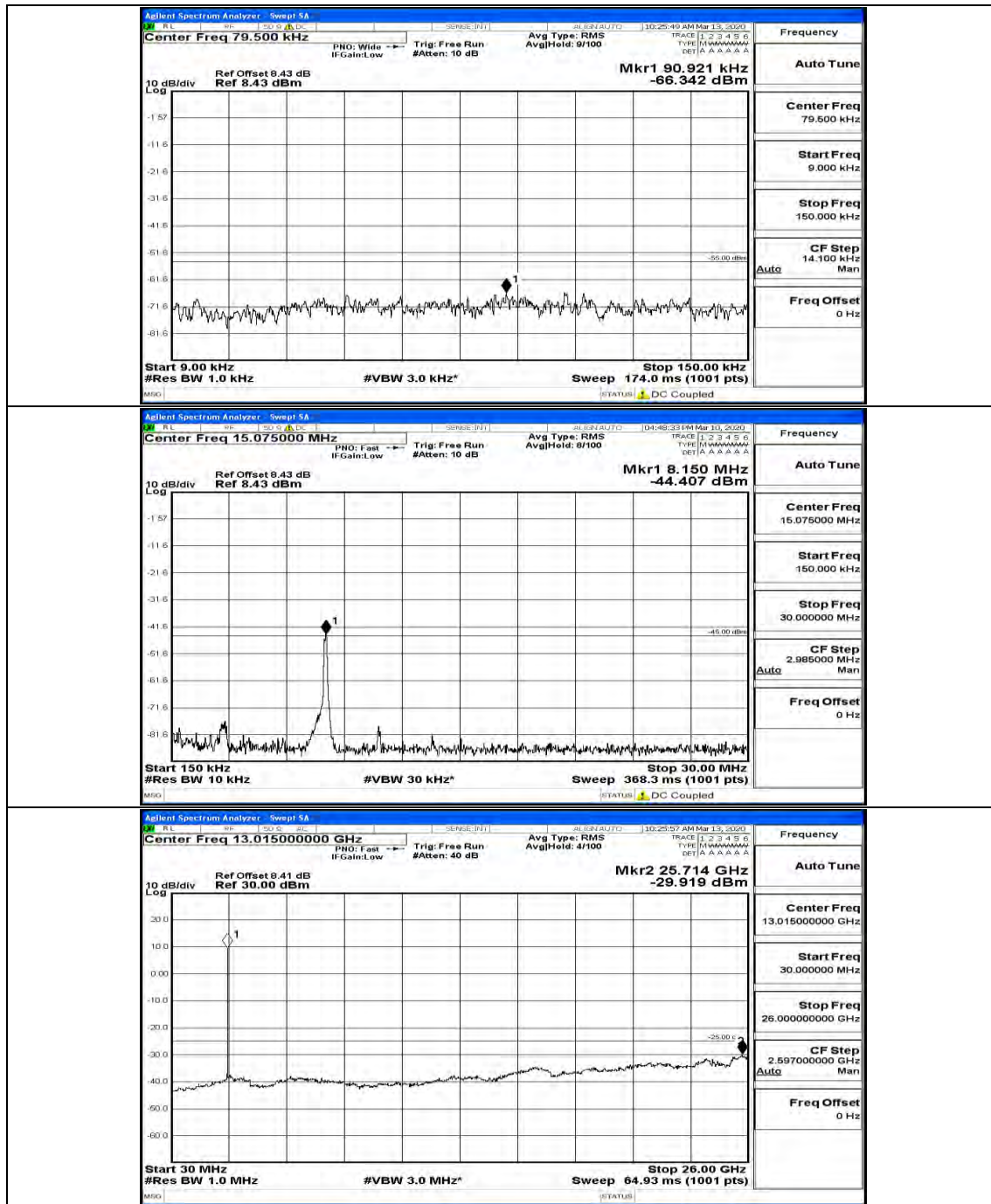


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

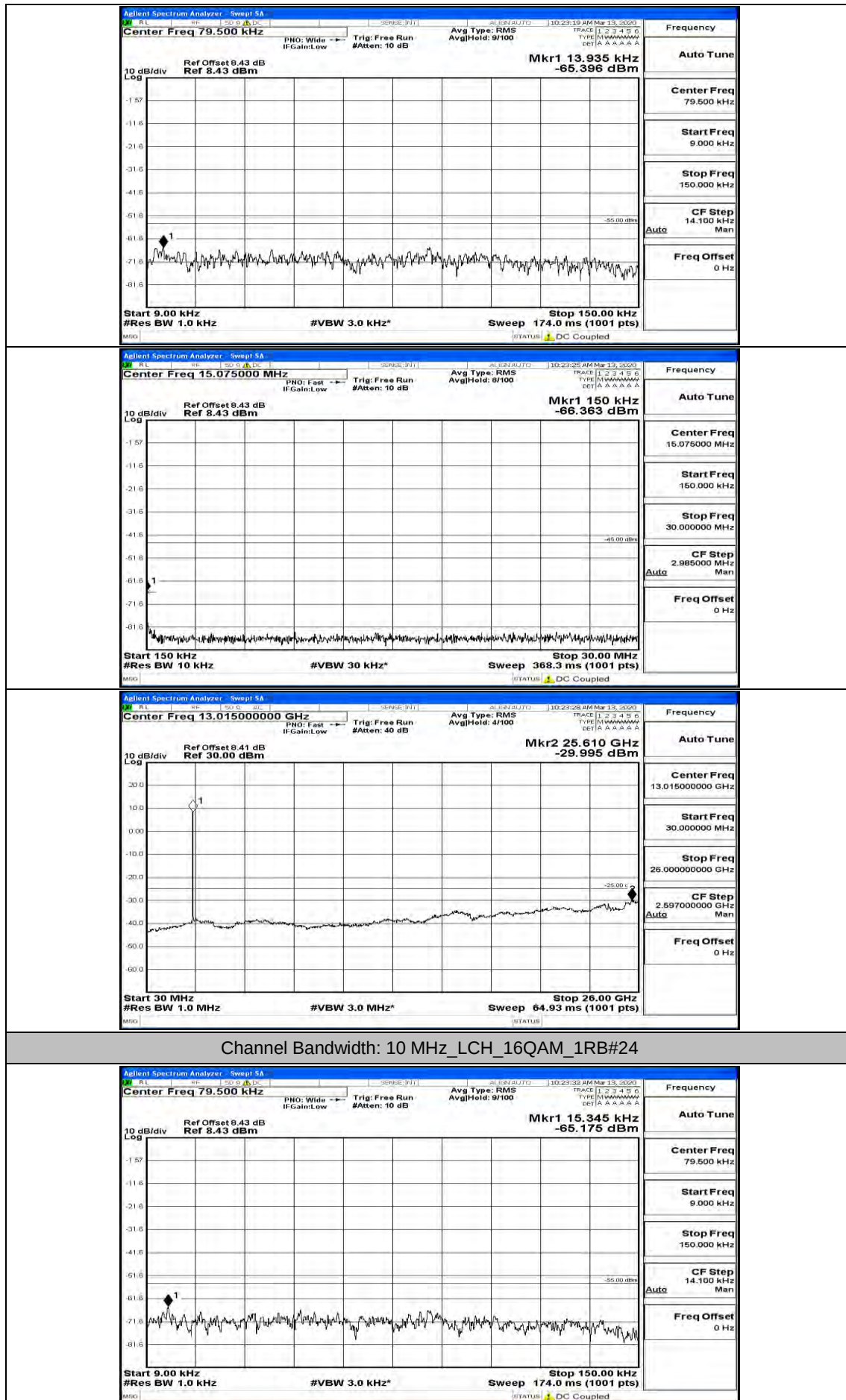


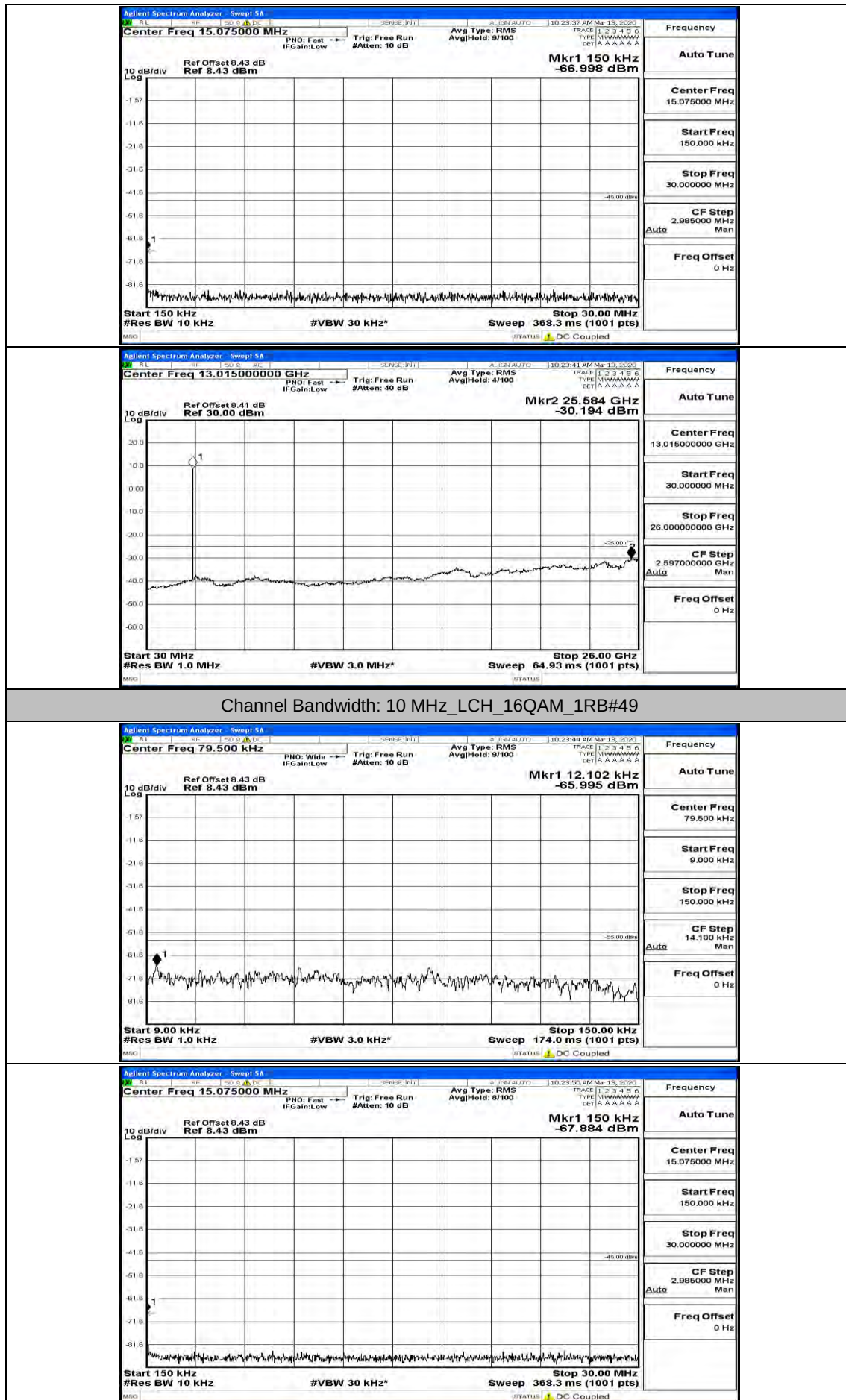
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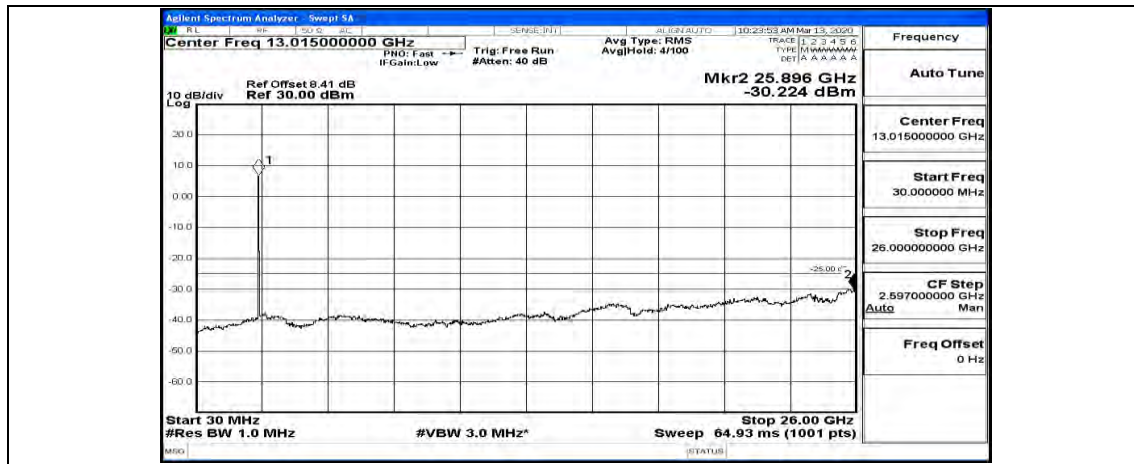




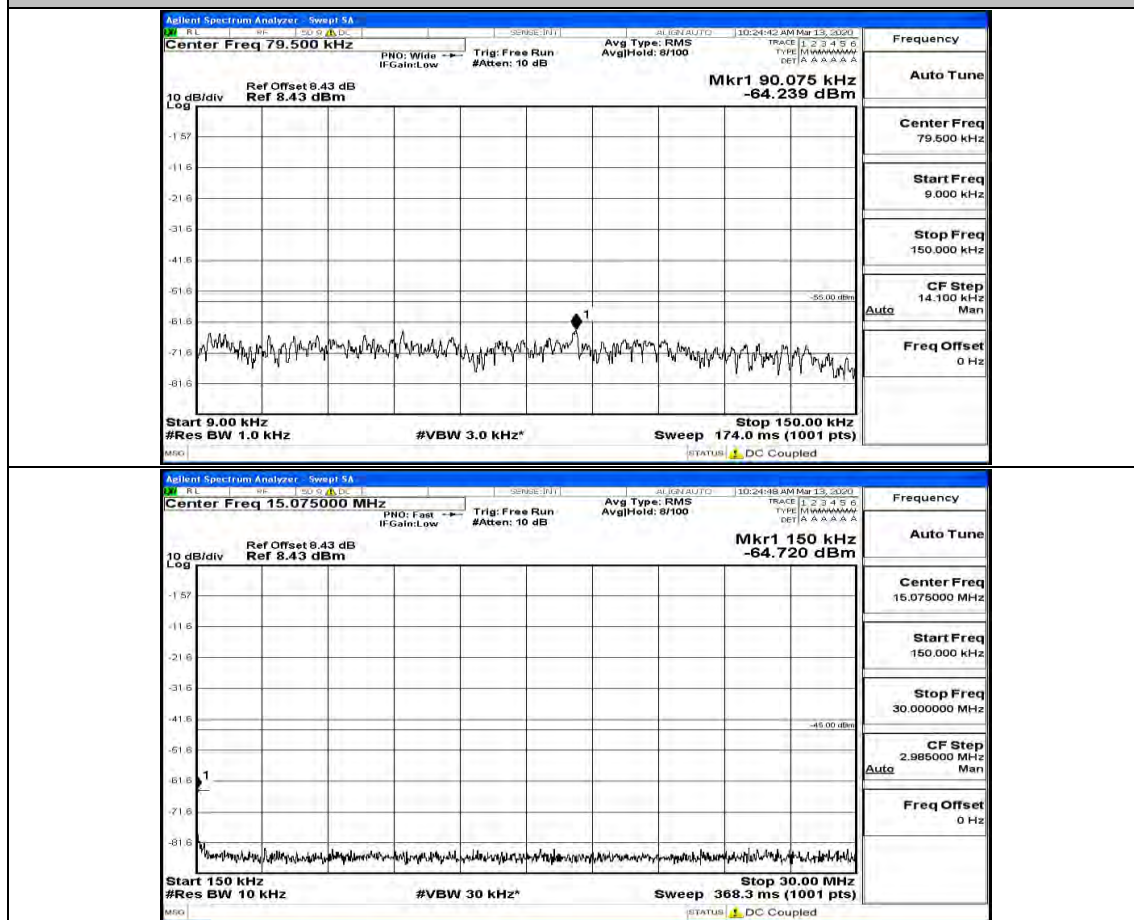
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

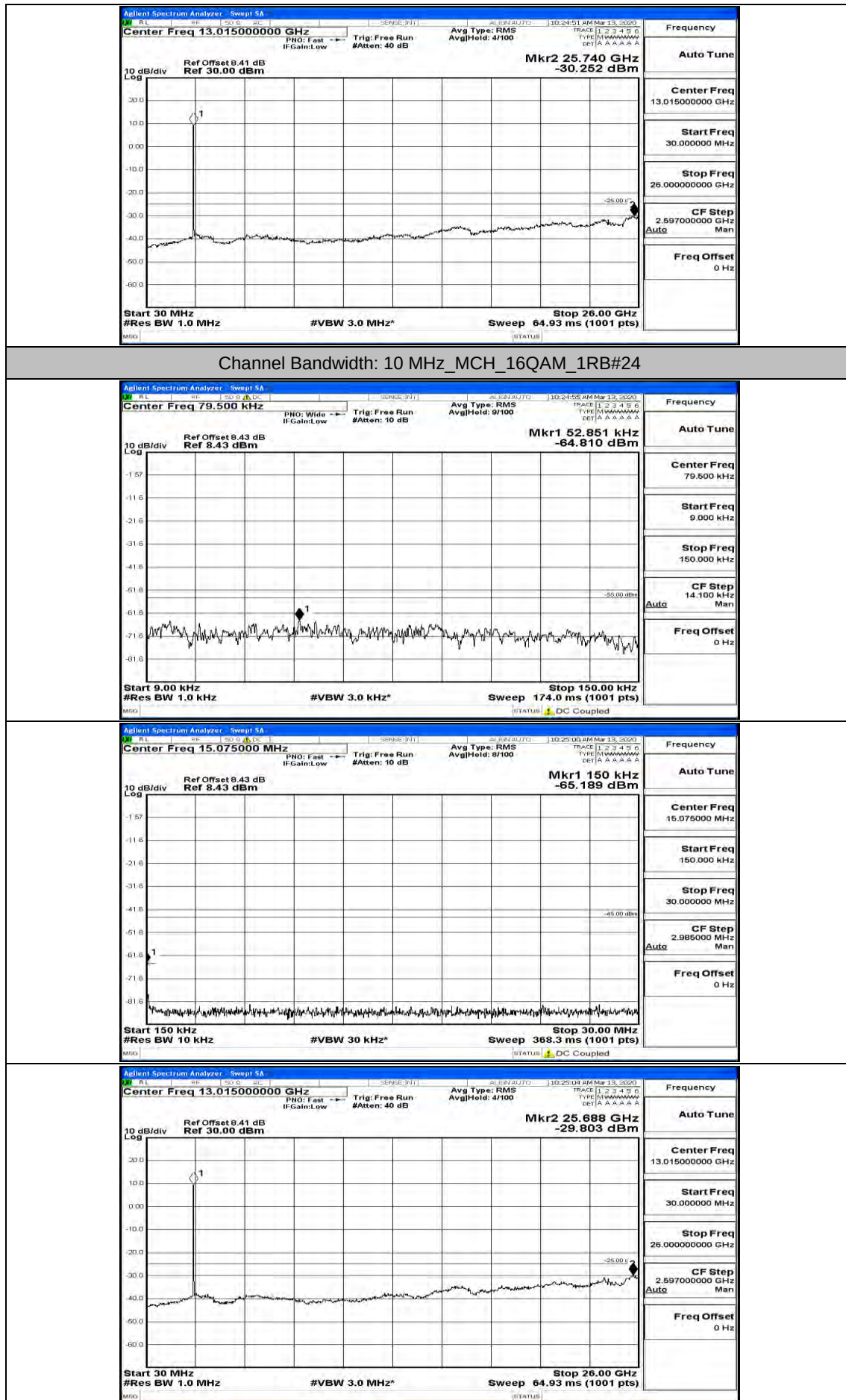




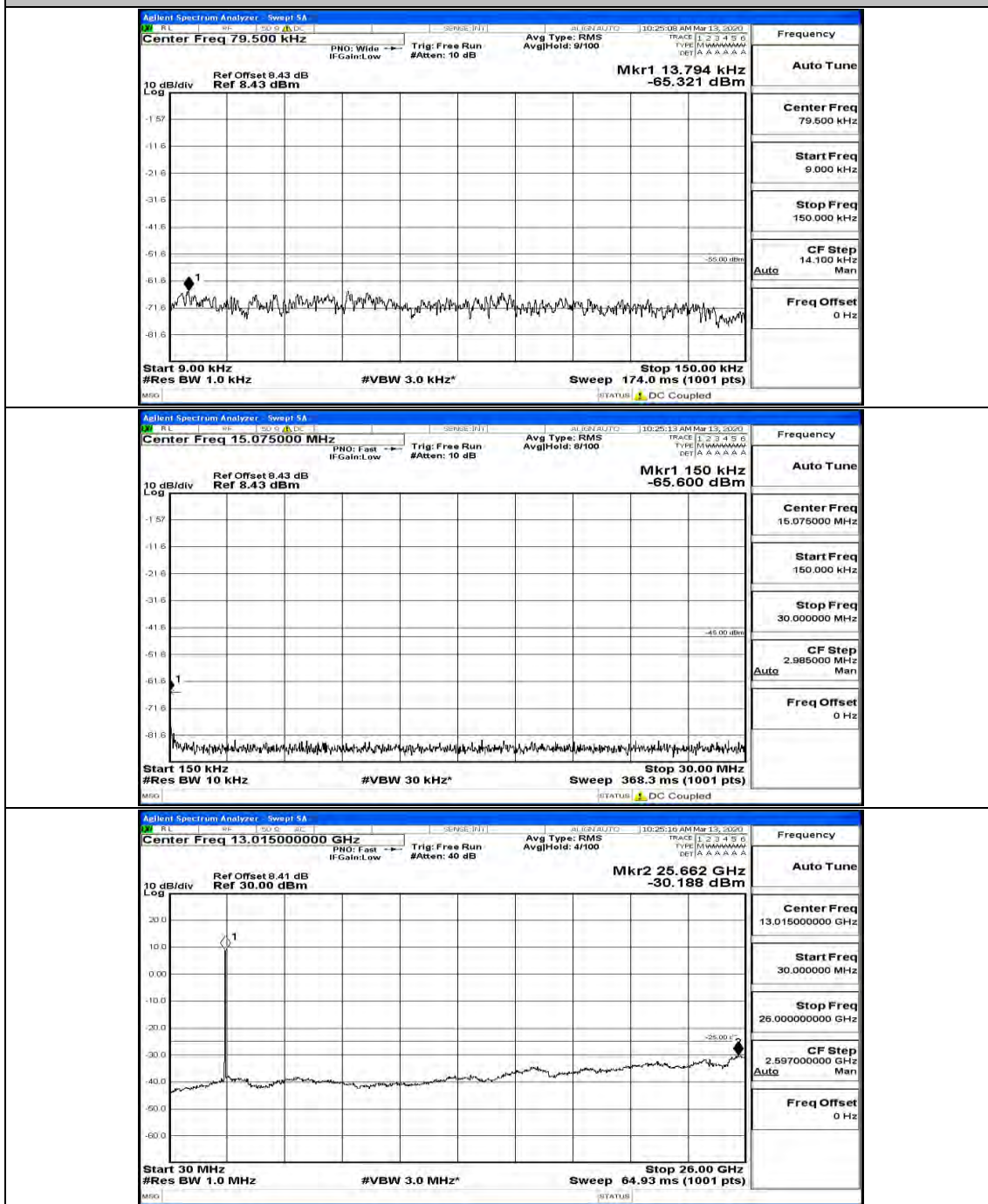


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

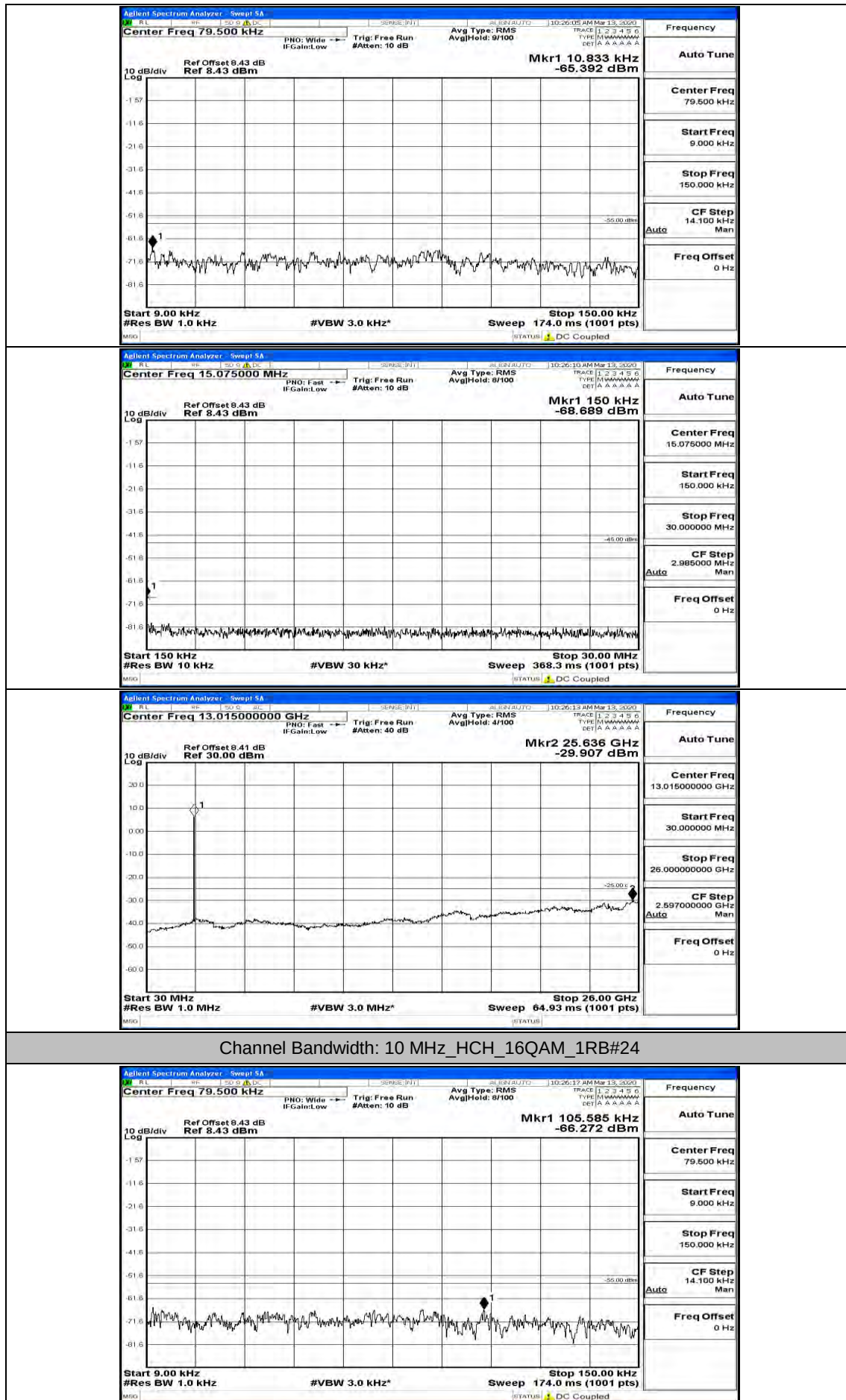


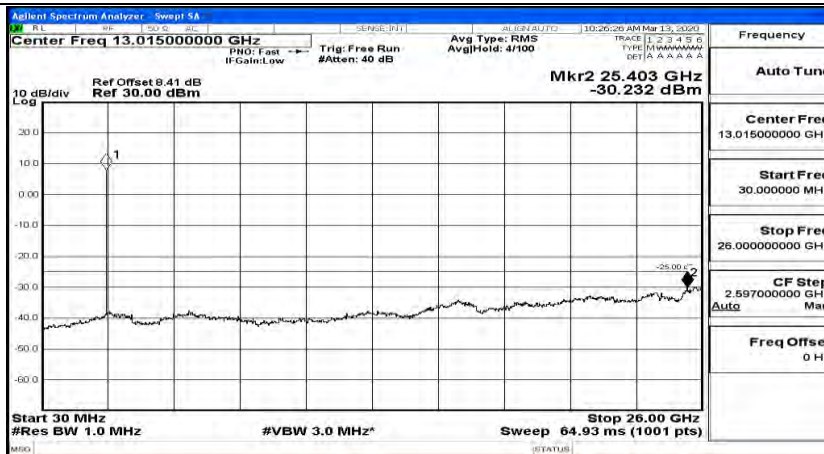
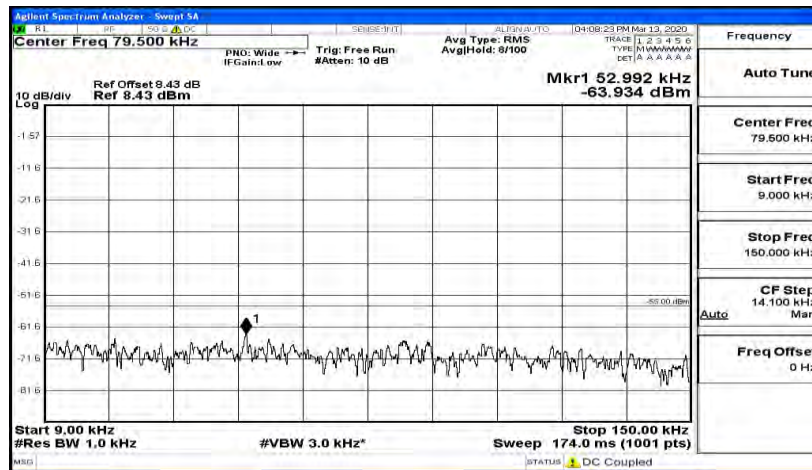


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0





Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

