

Appendix for Band 40

Appendix A: Average Power Output Data

Test Result

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.78	PASS
		1	12	22.1	PASS
		1	24	22.76	PASS
		12	0	22.11	PASS
		12	6	22.13	PASS
		12	13	21.79	PASS
		25	0	21.78	PASS
	HCH	1	0	22.81	PASS
		1	12	22.09	PASS
		1	24	22.71	PASS
		12	0	21.74	PASS
		12	6	21.79	PASS
		12	13	21.73	PASS
		25	0	21.76	PASS
16QAM	LCH	1	0	21.91	PASS
		1	12	22.23	PASS
		1	24	20.88	PASS
		12	0	20.81	PASS
		12	6	20.81	PASS
		12	13	20.76	PASS
		25	0	20.71	PASS
	HCH	1	0	22.03	PASS
		1	12	22.32	PASS
		1	24	22.06	PASS
		12	0	20.79	PASS
		12	6	20.83	PASS
		12	13	20.78	PASS
		25	0	20.72	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	MCH	1	0	22.87	PASS
		1	24	22.97	PASS
		1	49	22.78	PASS
		25	0	22.28	PASS
		25	12	21.83	PASS
		25	25	21.79	PASS
		50	0	21.81	PASS
		1	0	22.02	PASS
16QAM	MCH	1	0	22.1	PASS
		1	24	21.91	PASS
		1	49	20.8	PASS
		25	0	20.75	PASS
		25	12	20.74	PASS
		25	25	20.78	PASS
		50	0	22.87	PASS

Appendix B: Peak-to-Average Ratio

Test Result

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	10.14	<13	PASS
		1	12	7.83	<13	PASS
		12	0	9.58	<13	PASS
		12	6	7.88	<13	PASS
		25	0	10.14	<13	PASS
	HCH	1	0	6.65	<13	PASS
		1	12	7.98	<13	PASS
		12	0	9.04	<13	PASS
		12	13	8.56	<13	PASS
		25	0	7.85	<13	PASS
16QAM	LCH	1	0	11.26	<13	PASS
		1	12	9.59	<13	PASS
		12	0	9.76	<13	PASS
		12	6	12.53	<13	PASS
		12	13	8.19	<13	PASS
		25	0	10.19	<13	PASS
	HCH	1	0	8.89	<13	PASS
		1	12	8.31	<13	PASS
		1	24	11.53	<13	PASS
		12	0	8.27	<13	PASS
		12	6	8.48	<13	PASS
		12	13	12.16	<13	PASS

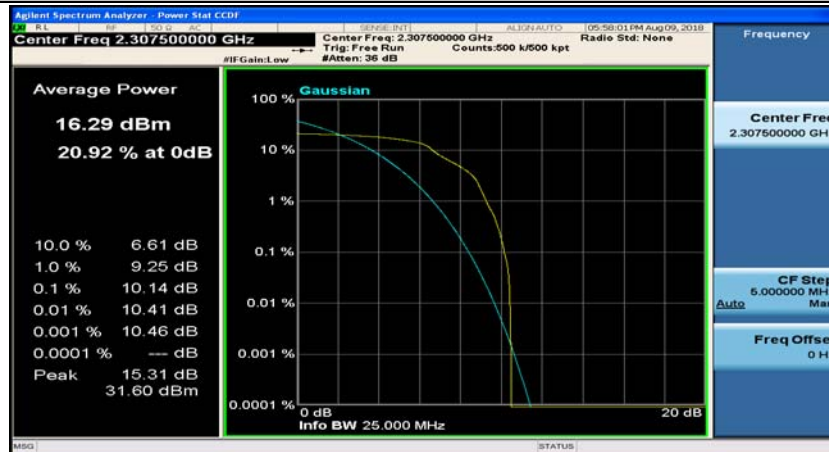
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	7.96	<13	PASS
		1	24	6.05	<13	PASS
		1	49	6.52	<13	PASS
		25	0	8.38	<13	PASS
		25	12	7.54	<13	PASS
		25	25	9.27	<13	PASS
		50	0	7.36	<13	PASS
16QAM	MCH	1	0	7.36	<13	PASS
		1	24	8.56	<13	PASS
		1	49	11.58	<13	PASS
		25	0	10.89	<13	PASS
		25	12	9.13	<13	PASS
		25	25	9.24	<13	PASS
		50	0	10.12	<13	PASS

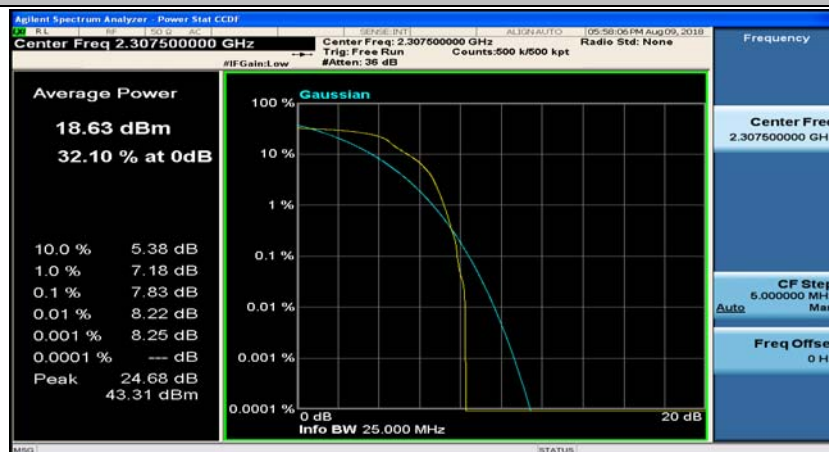
Test Graphs

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_12RB#0



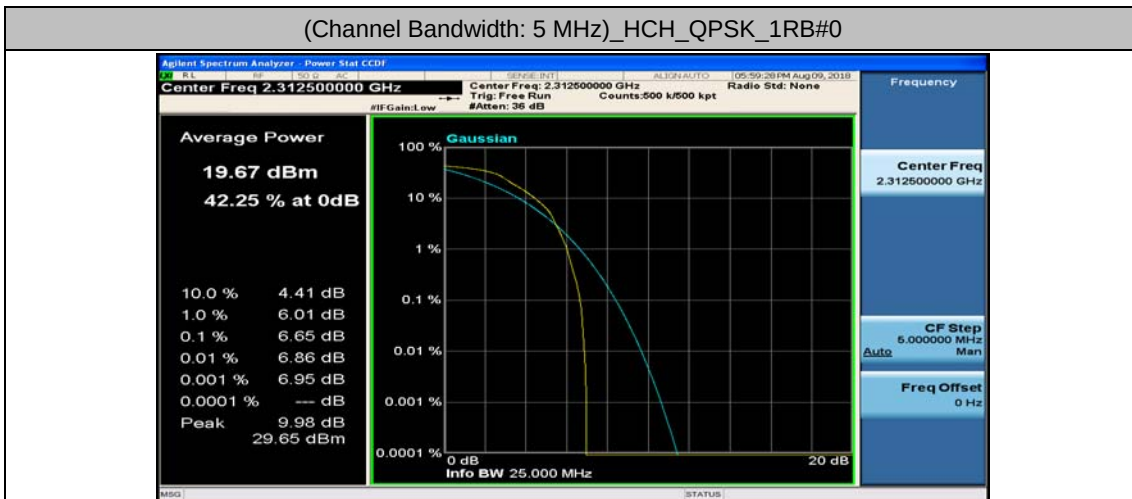
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



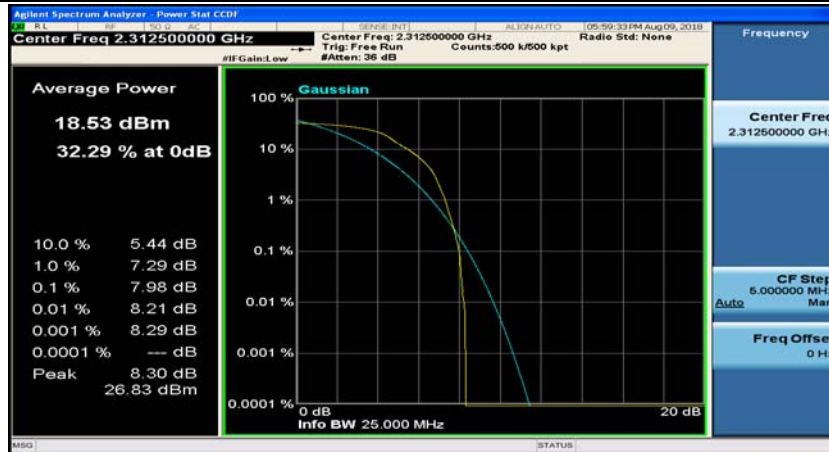
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



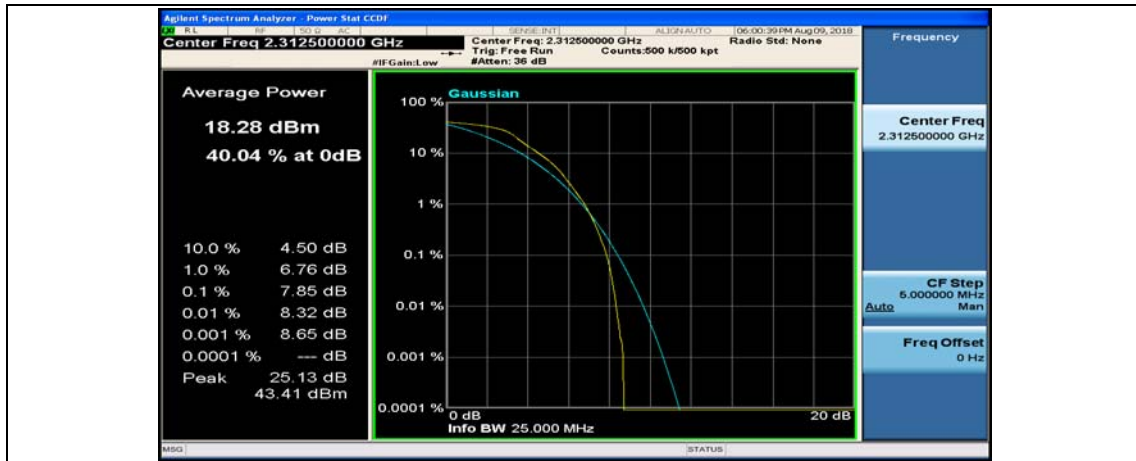
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



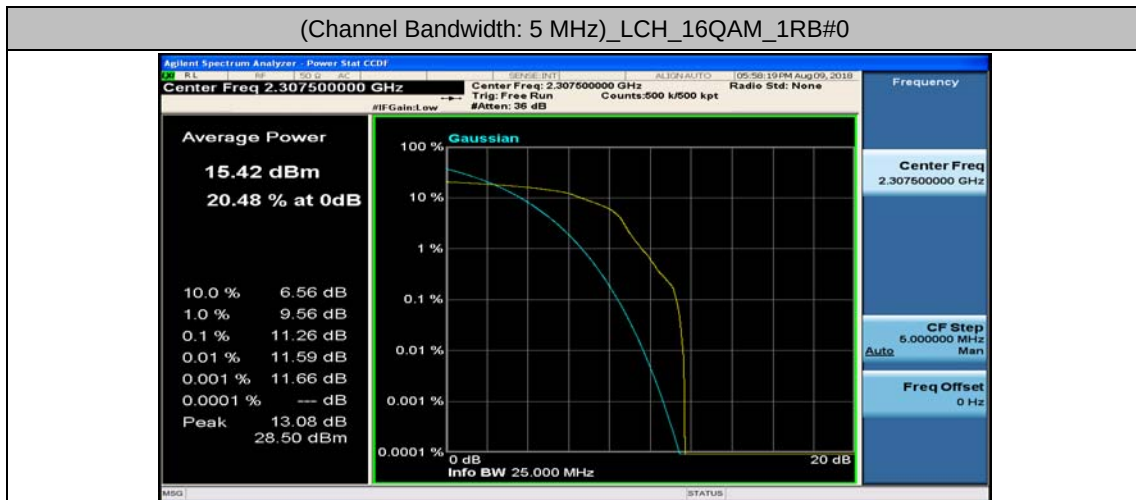
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



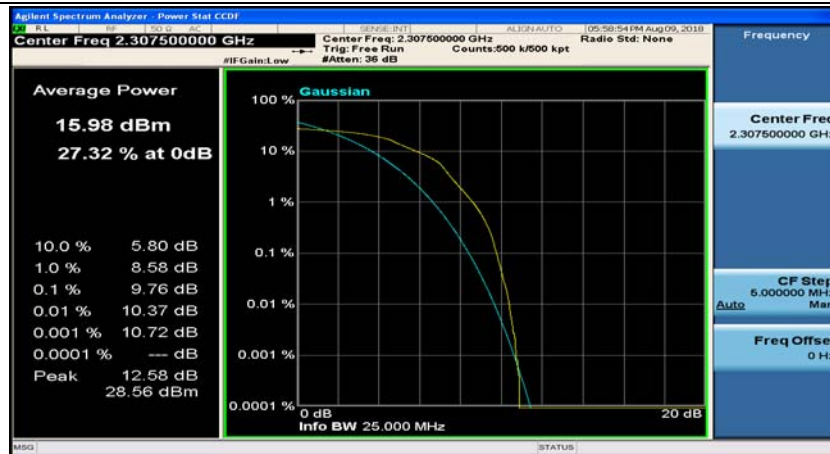
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



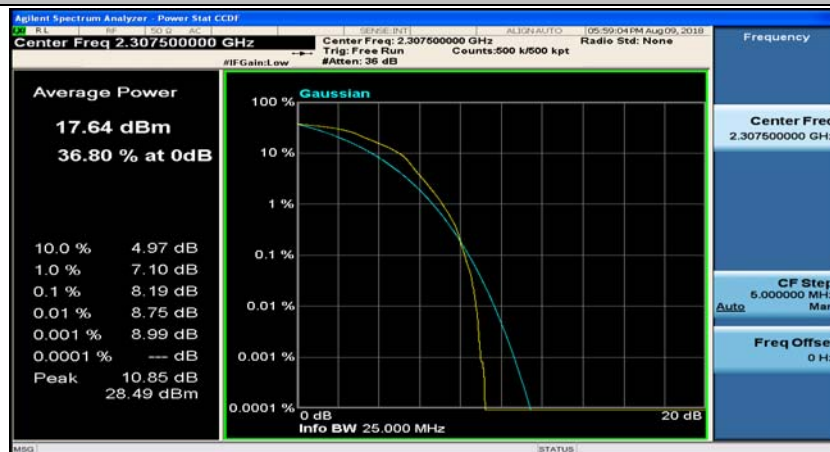
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



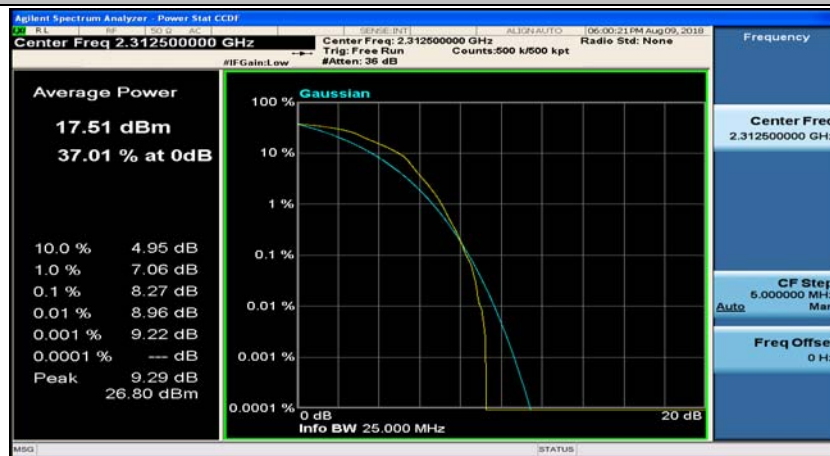
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12



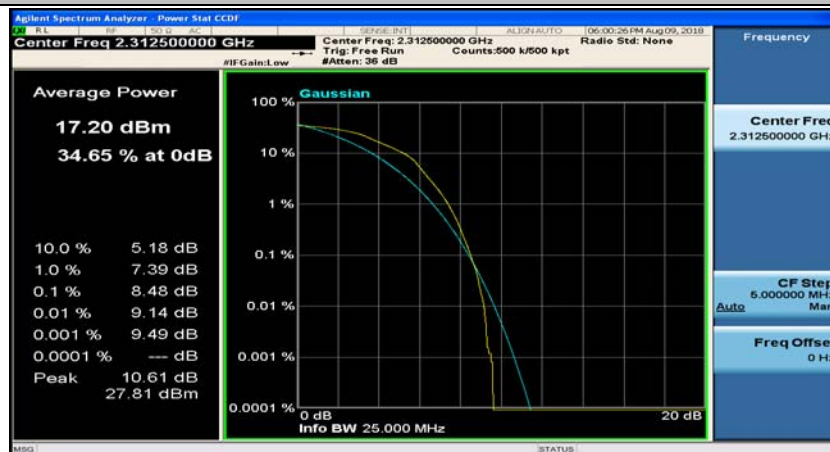
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6

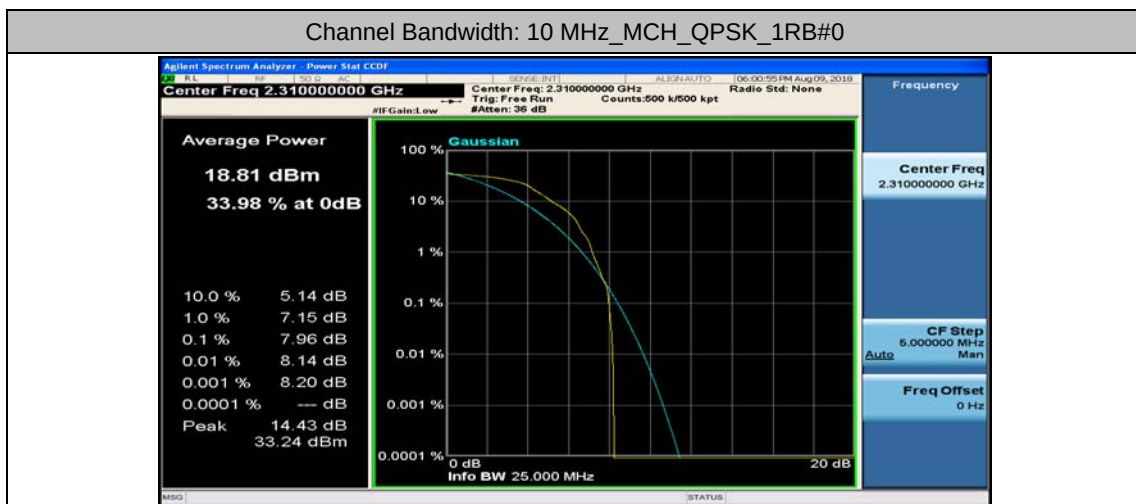


(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13



Channel Bandwidth: 10 MHz

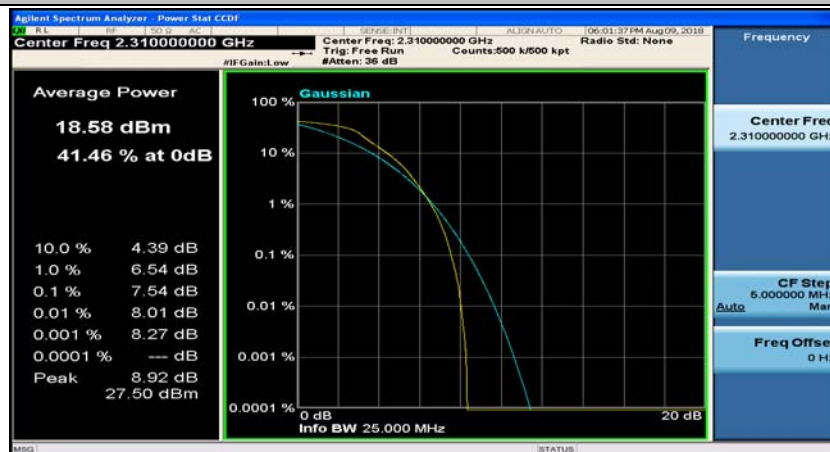
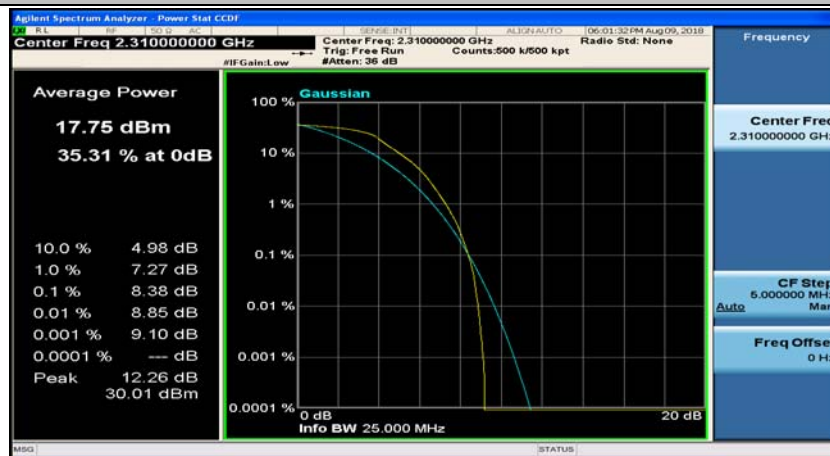
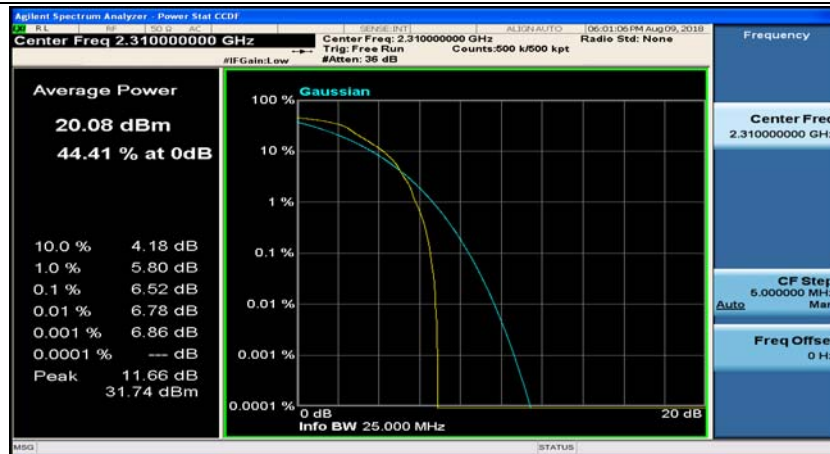
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

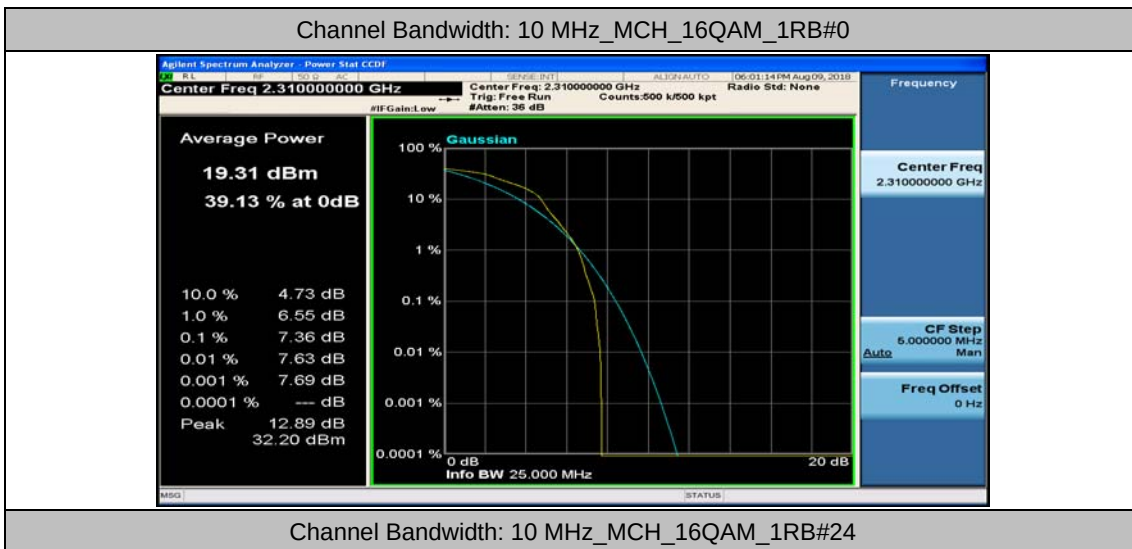


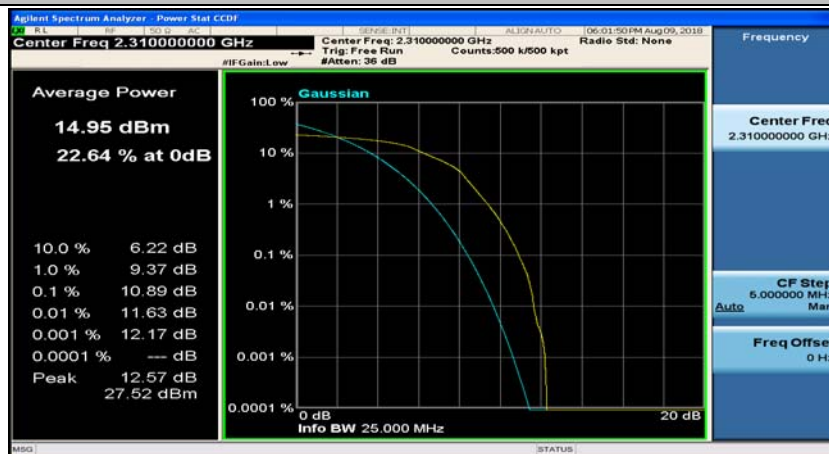
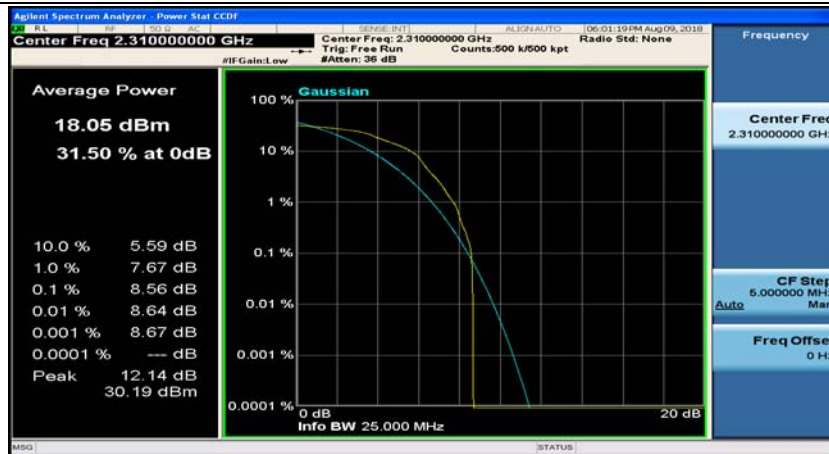
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

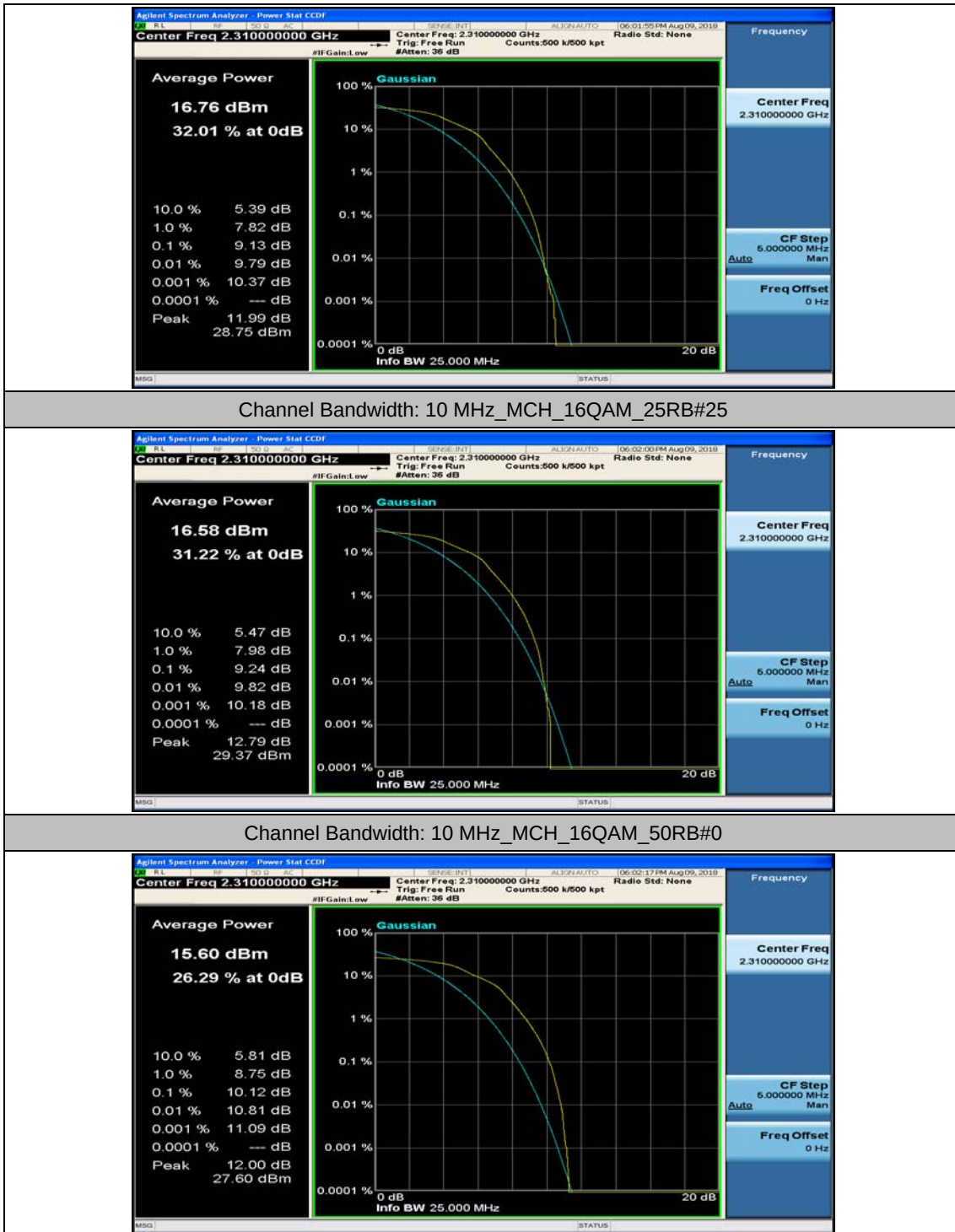


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49









Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Channel Bandwidth: 5 MHz

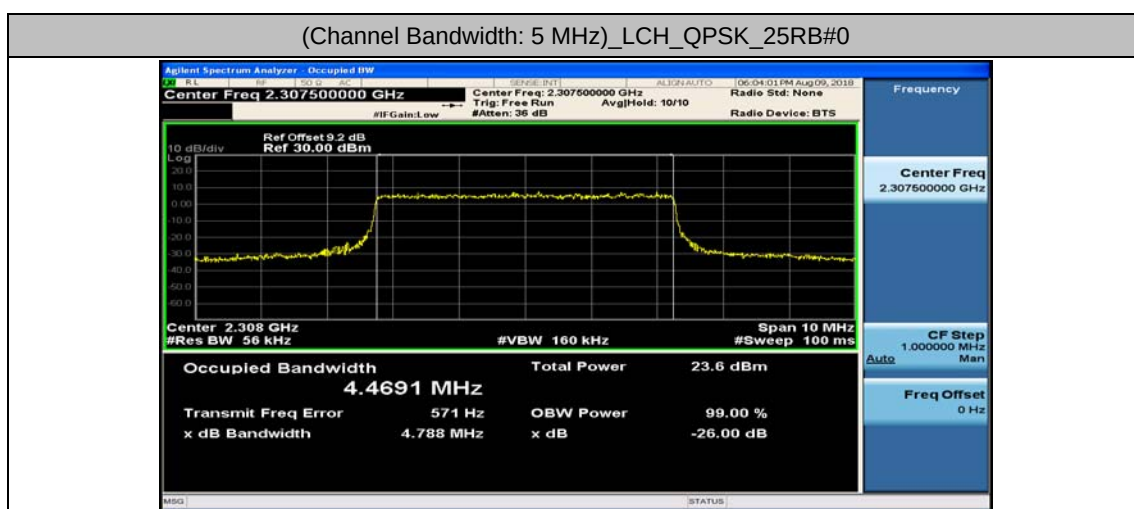
Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	25	0	4.4691	4.788	PASS
	HCH	25	0	4.4839	4.785	PASS
16QAM	LCH	25	0	4.4735	4.879	PASS
	HCH	25	0	4.4699	4.778	PASS

Channel Bandwidth: 10 MHz

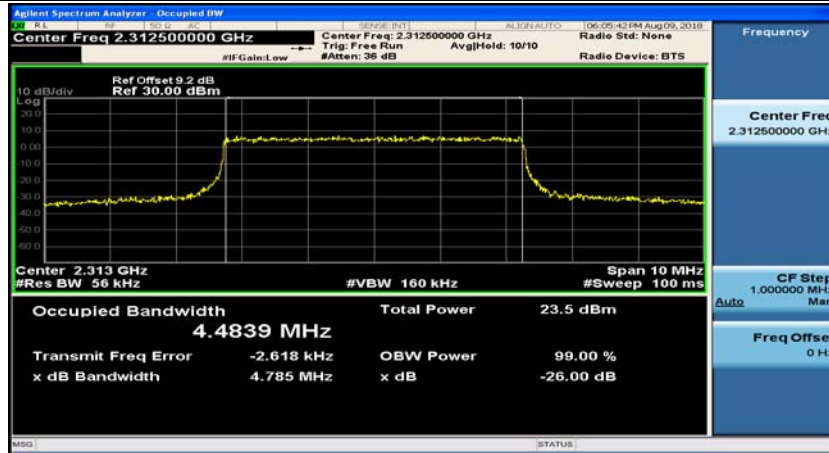
Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	MCH	50	0	8.9423	9.485	PASS
16QAM	HCH	50	0	8.9341	9.507	PASS

Test Graphs

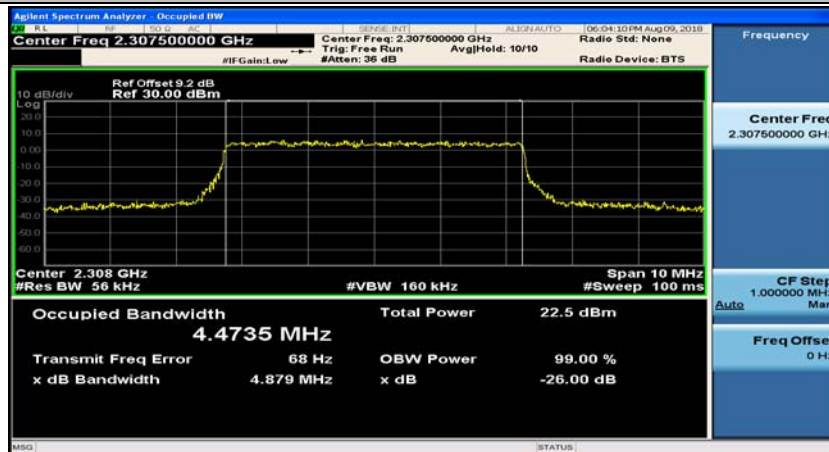
Channel Bandwidth: 5 MHz



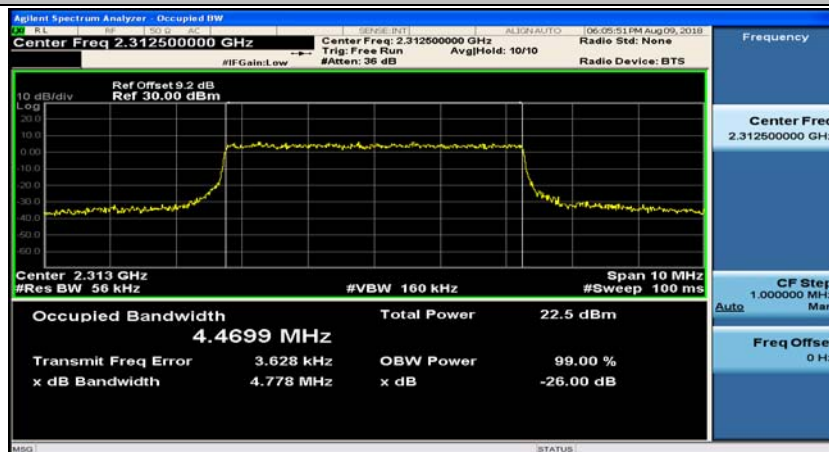
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



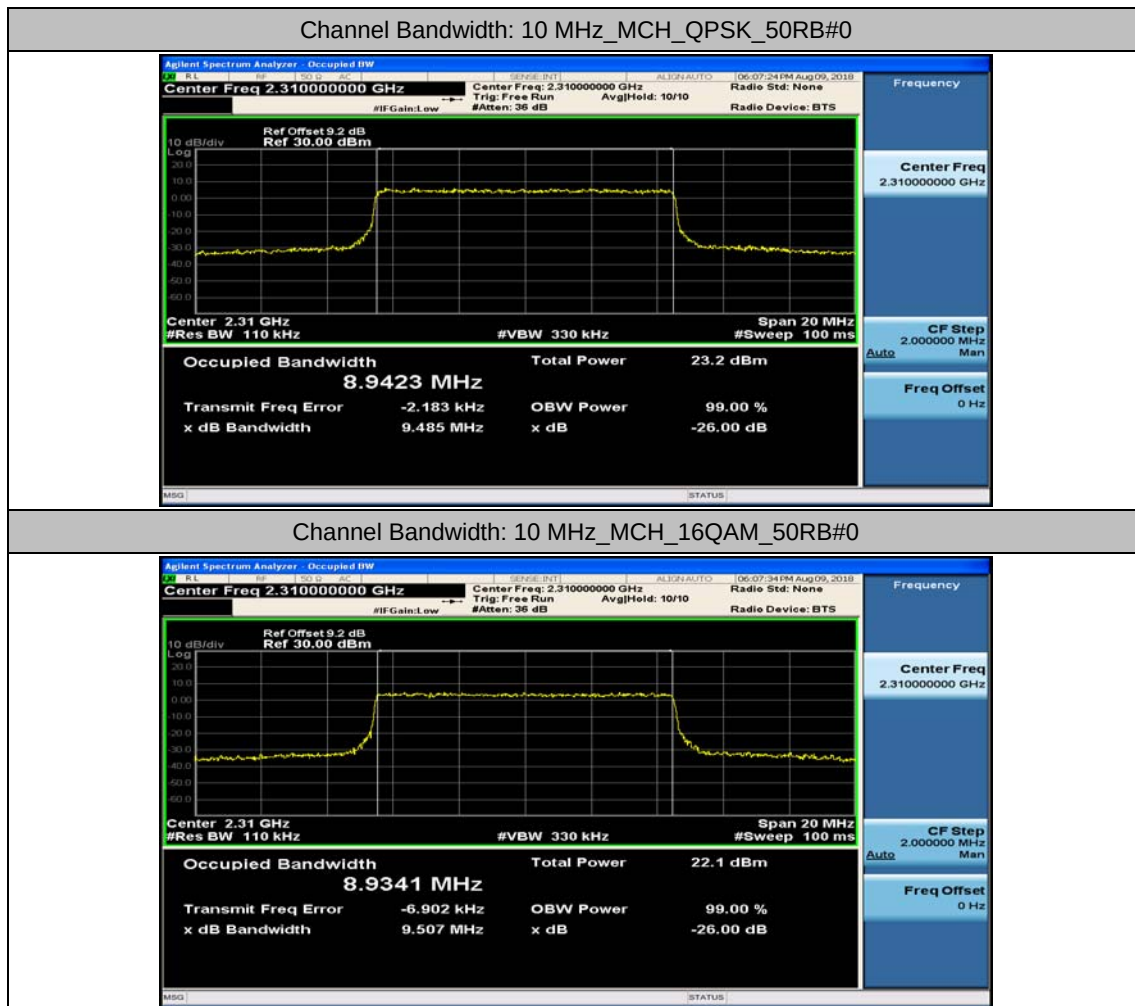
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz

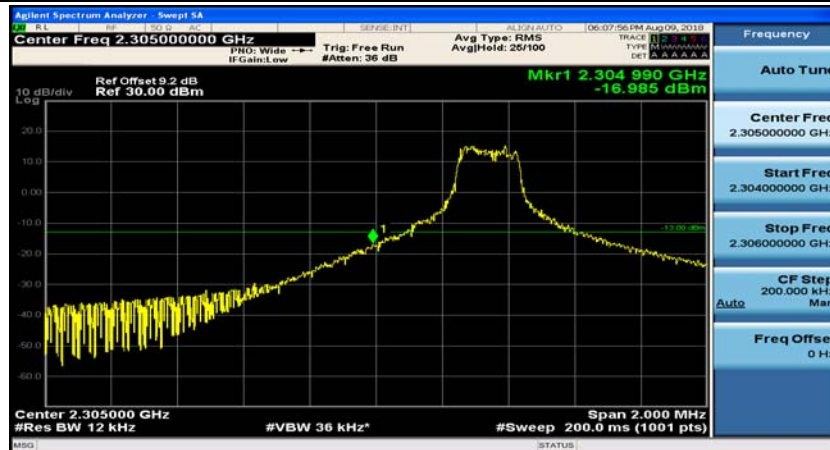


Appendix D: Band Edge

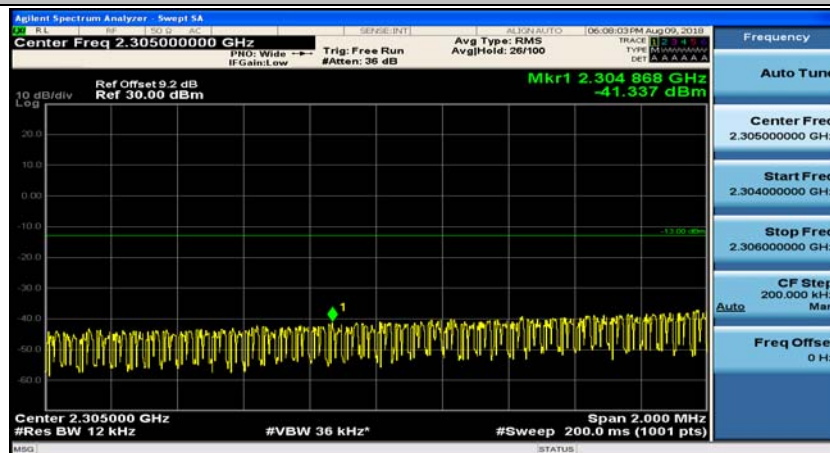
Test Graphs

Channel Bandwidth: 5 MHz

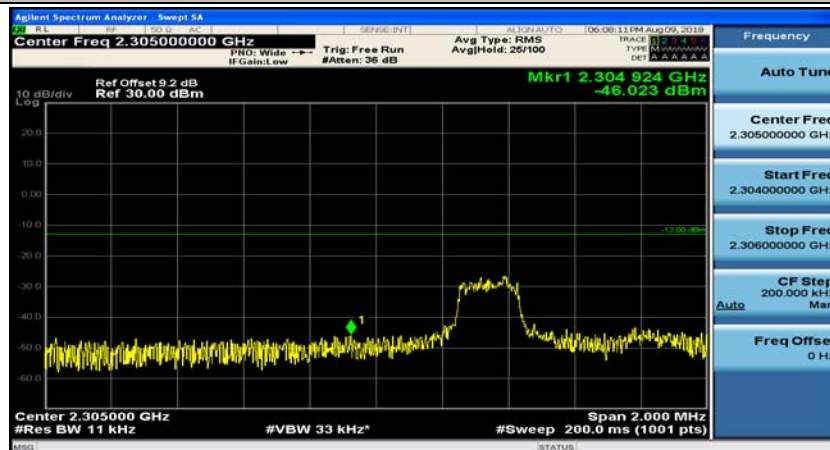
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



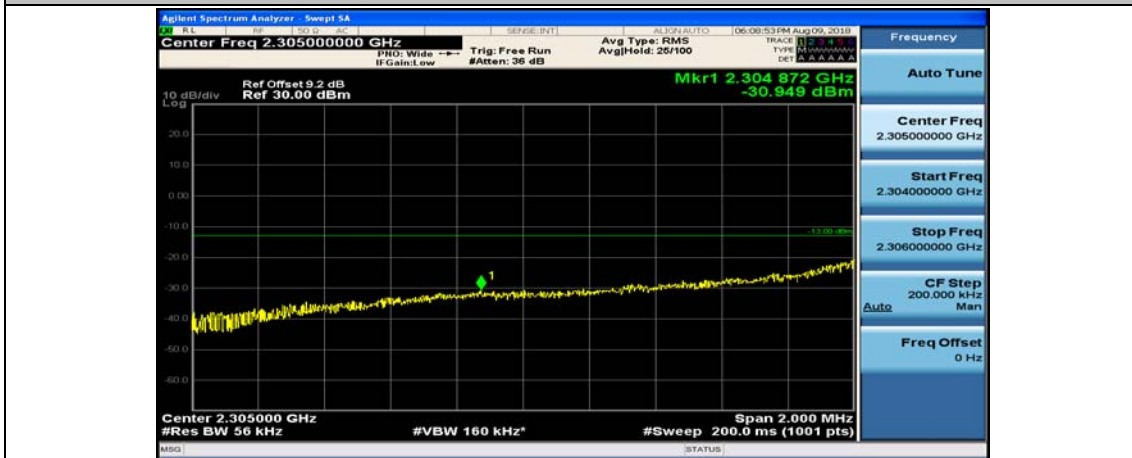
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24



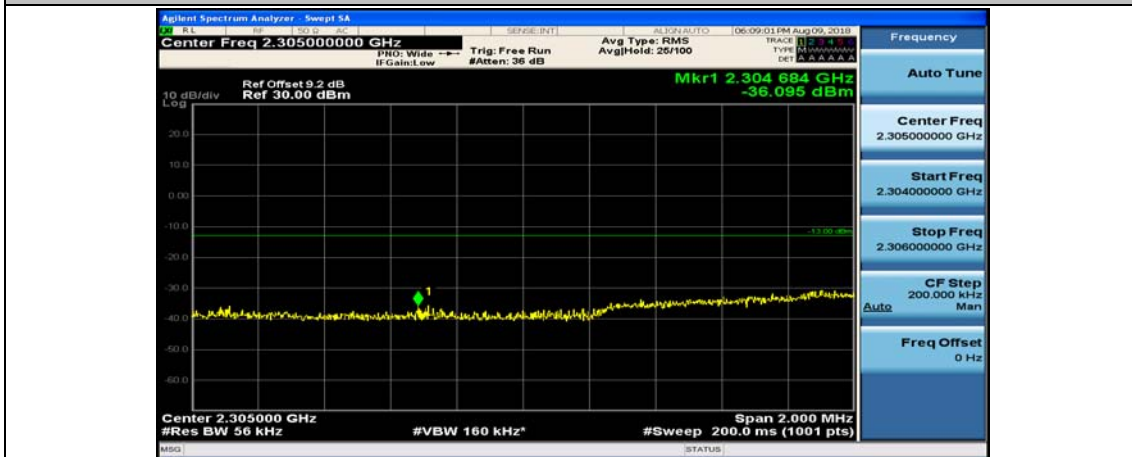
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0



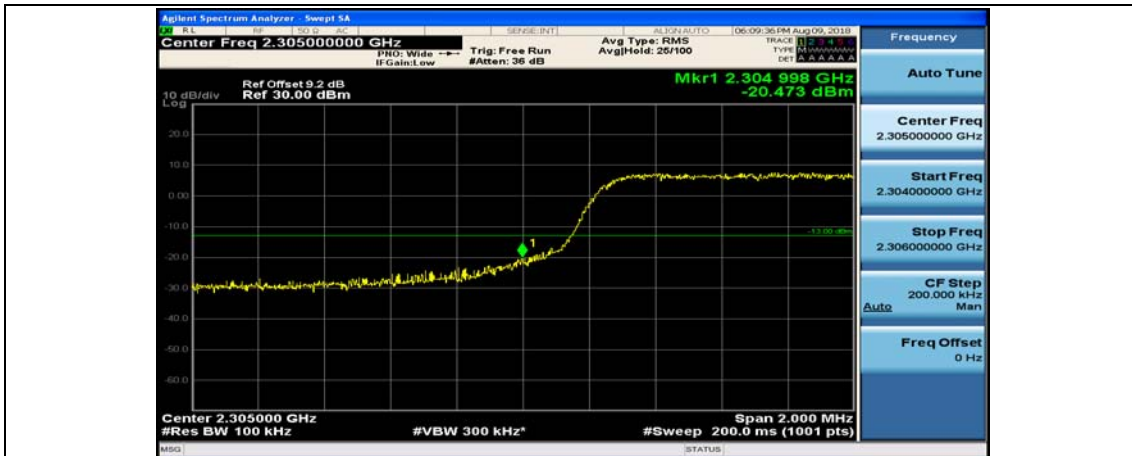
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



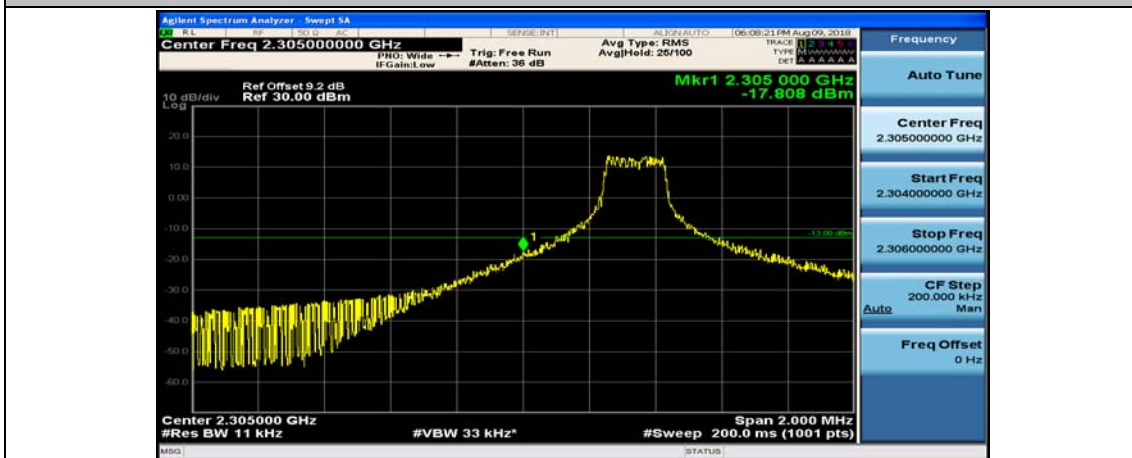
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13



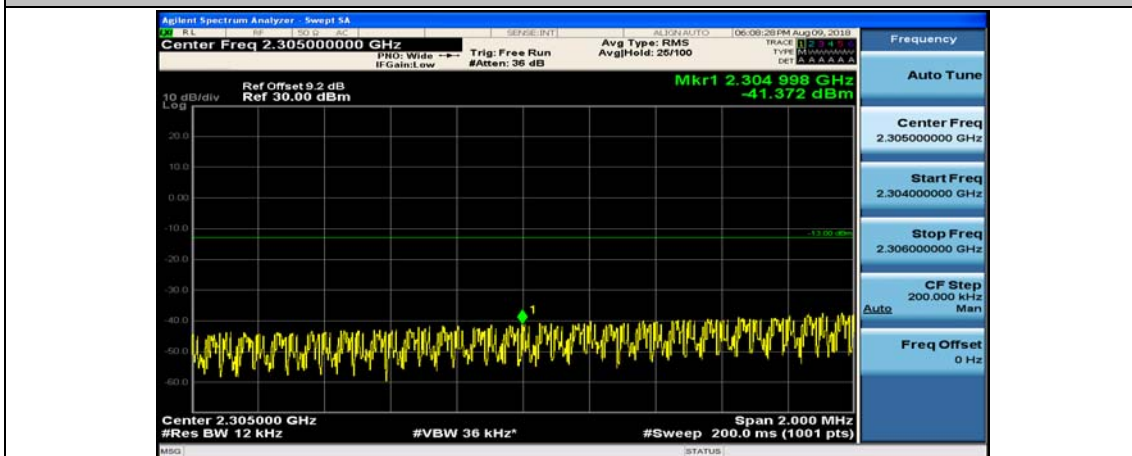
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



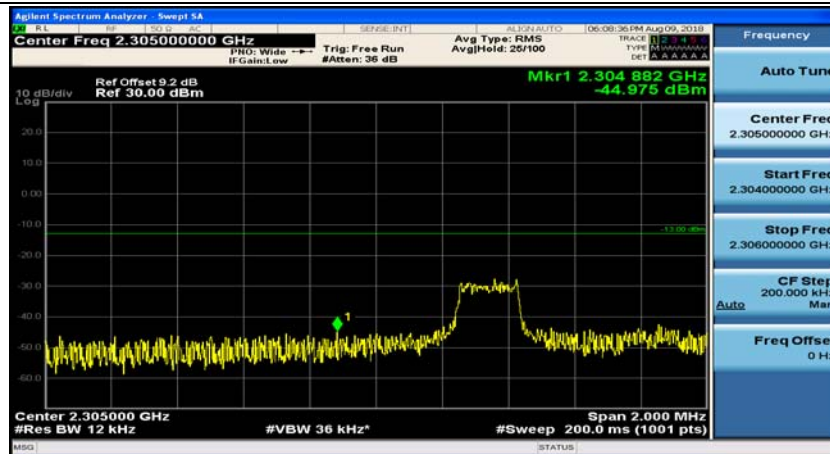
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



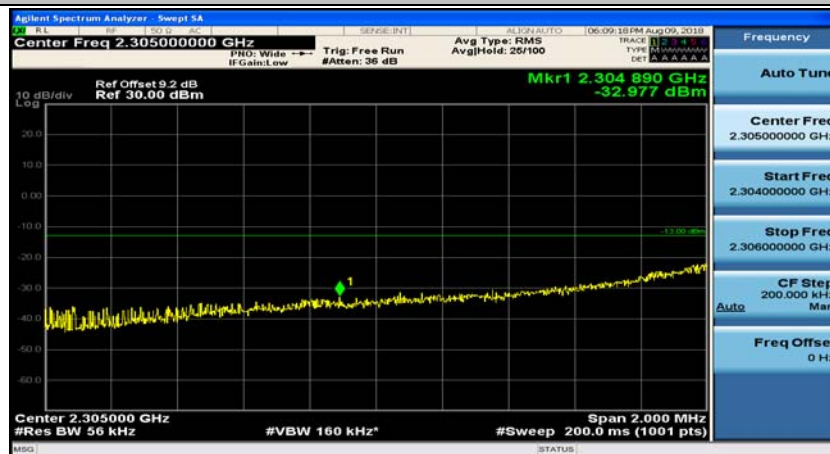
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



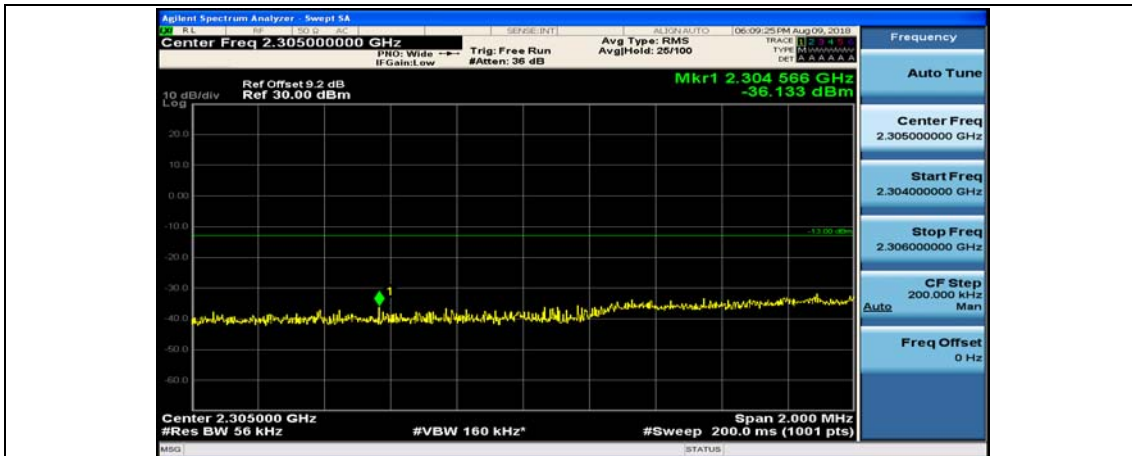
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0



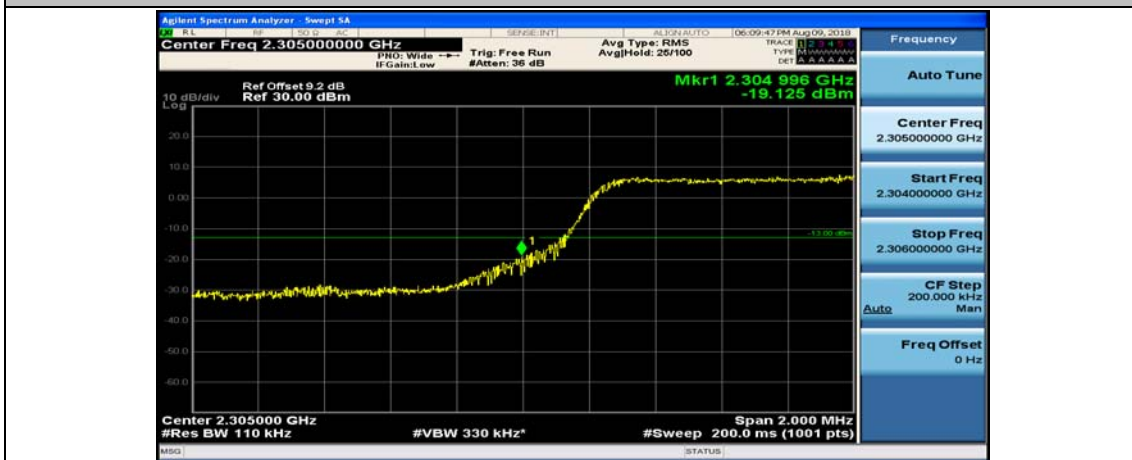
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6



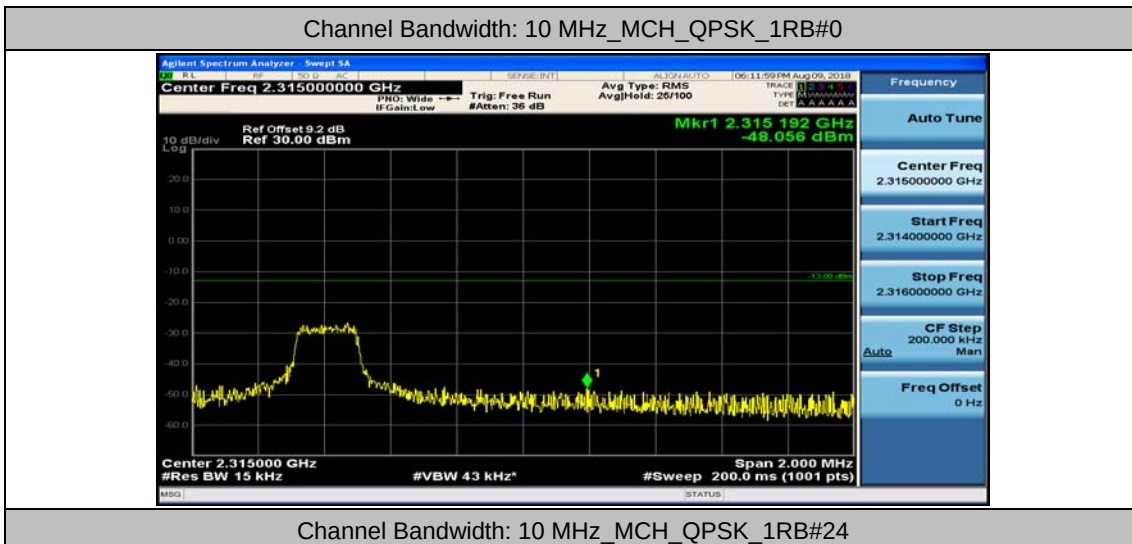
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



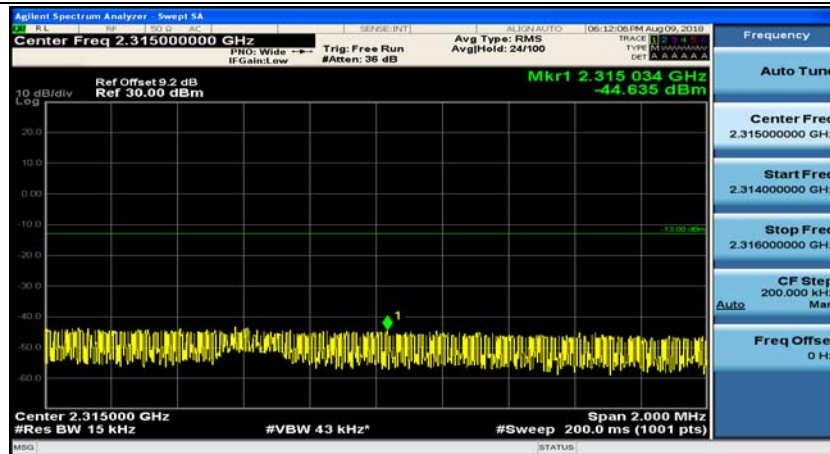
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz



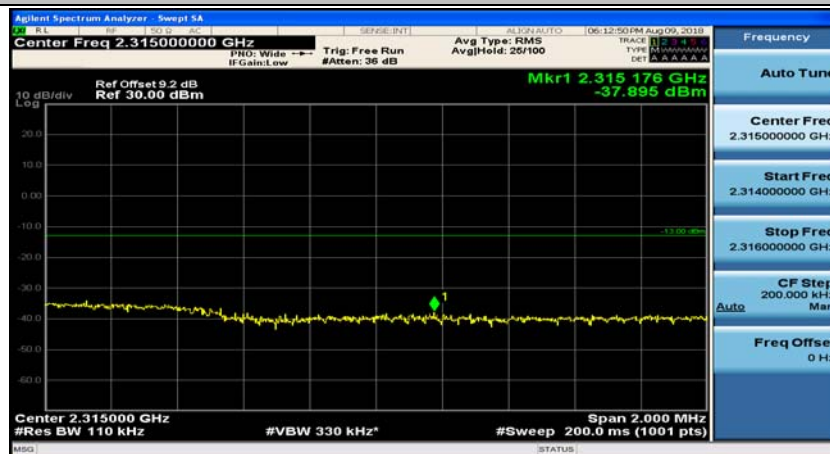
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24



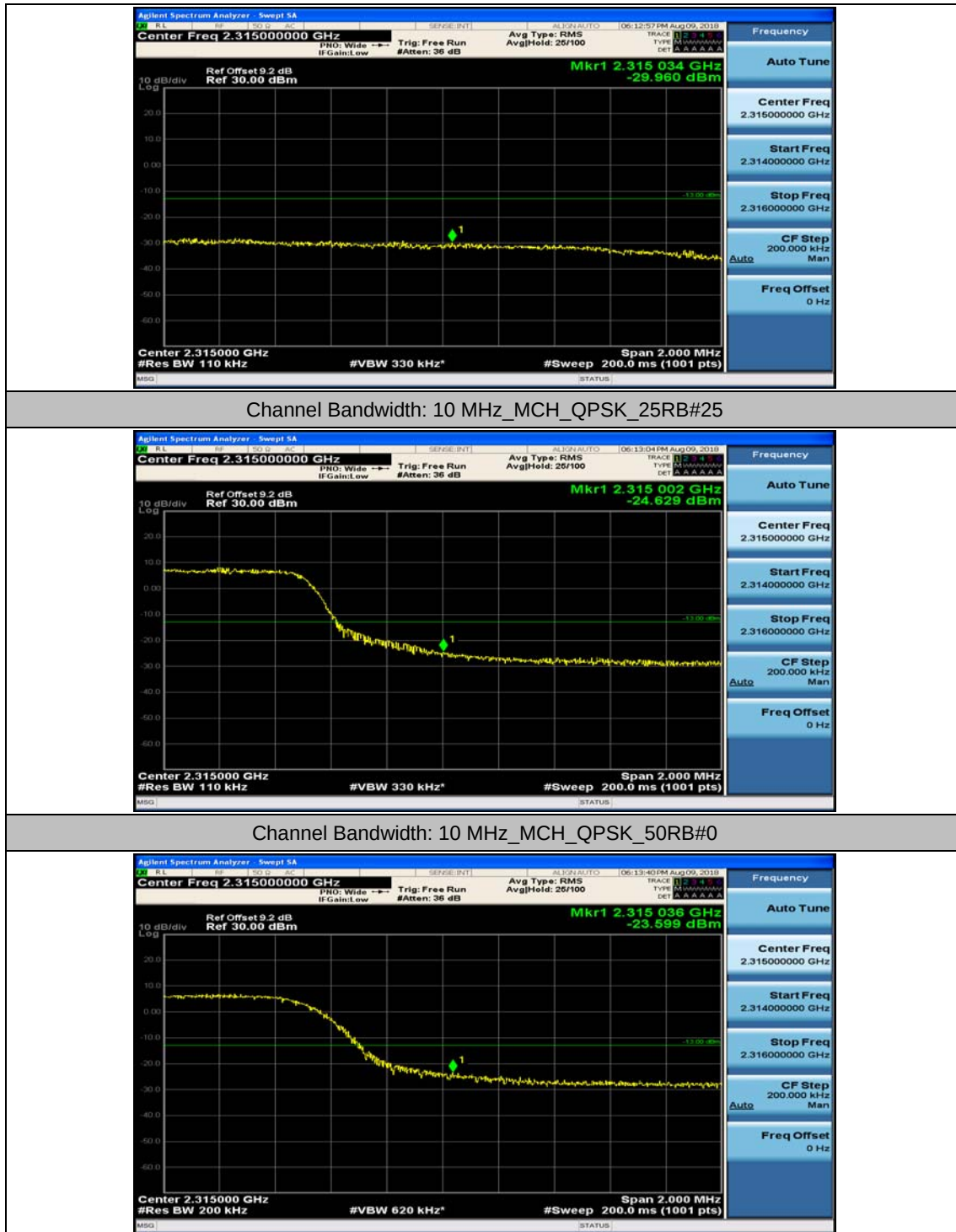
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49



Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#0



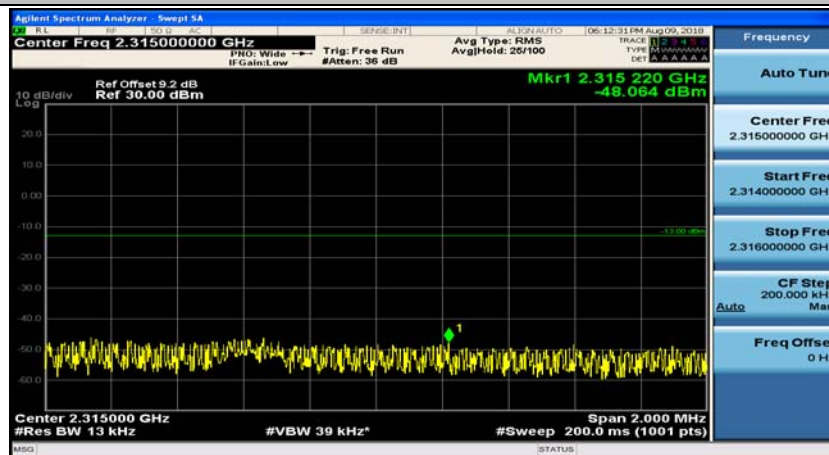
Channel Bandwidth: 10 MHz_HCH_QPSK_25RB#12



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



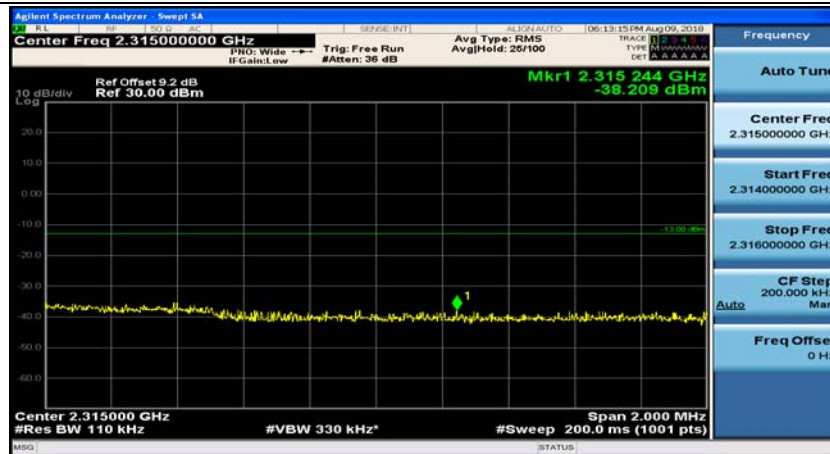
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



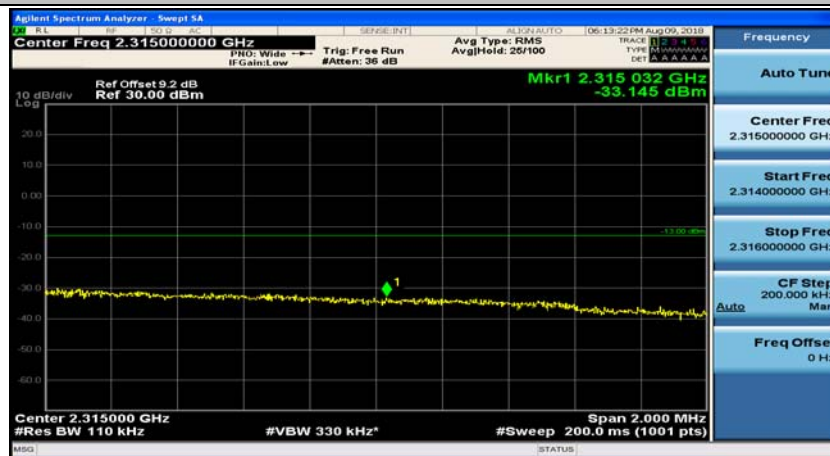
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25



Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0

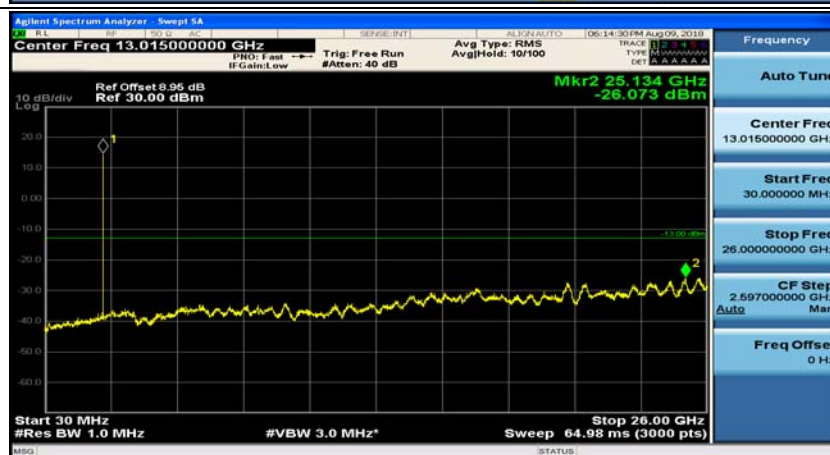
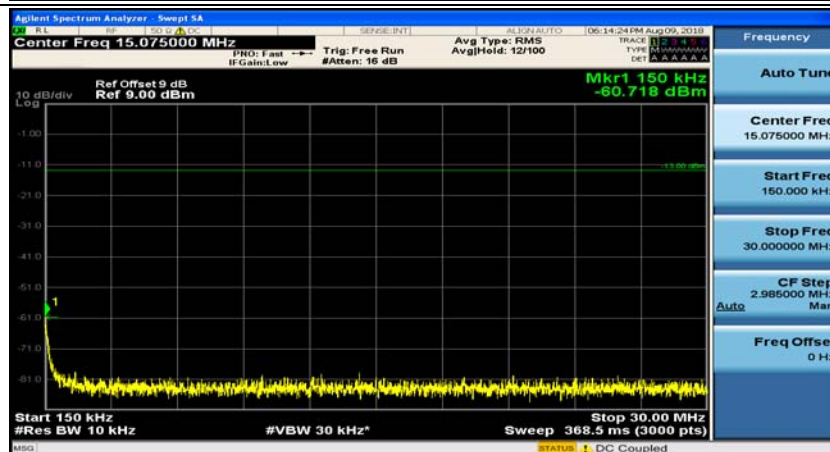
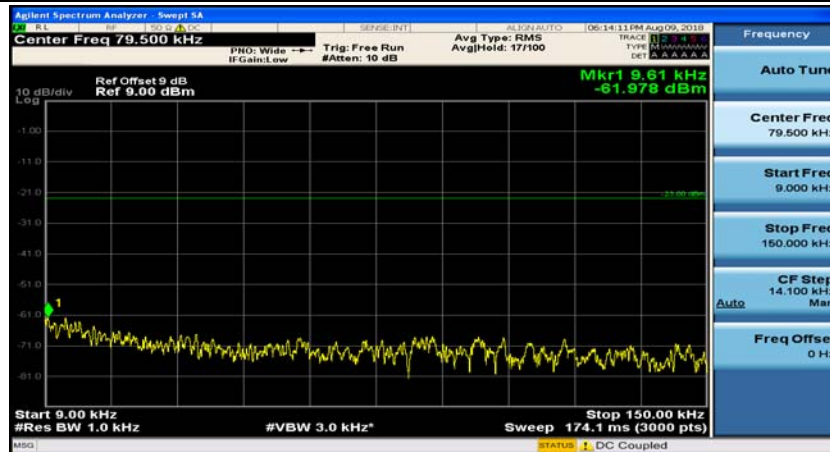


Appendix E: Conducted Spurious Emission

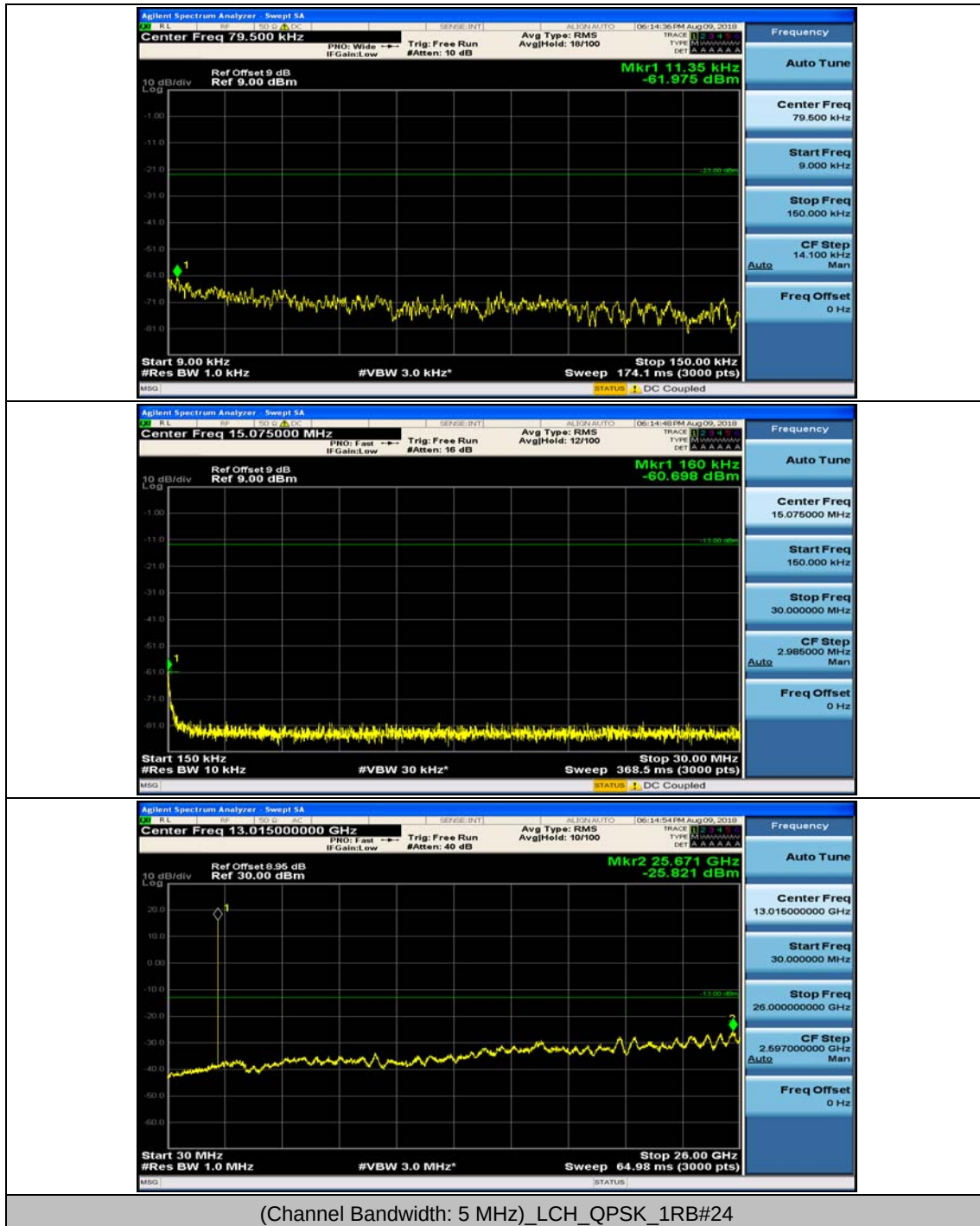
Test Graphs

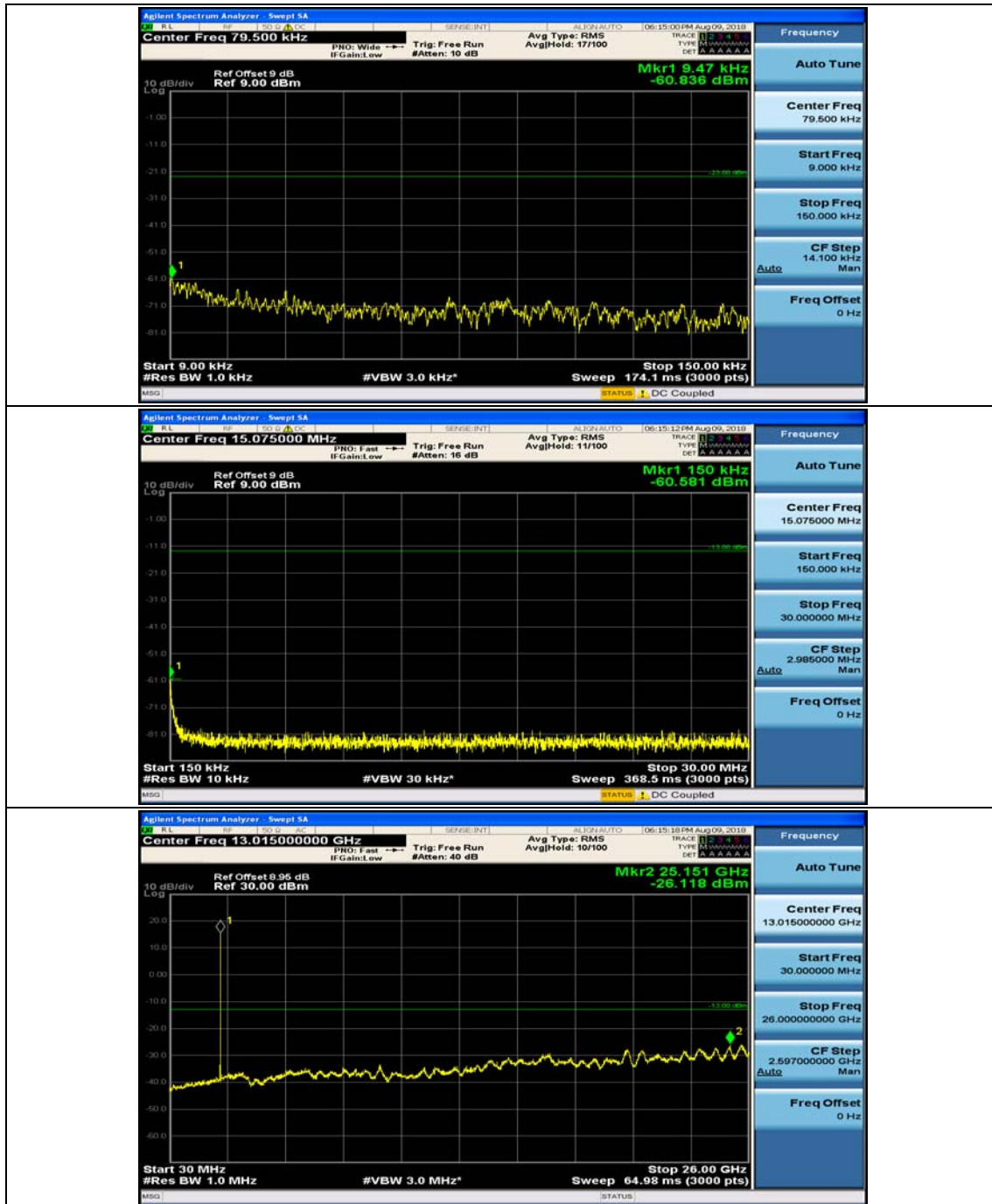
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

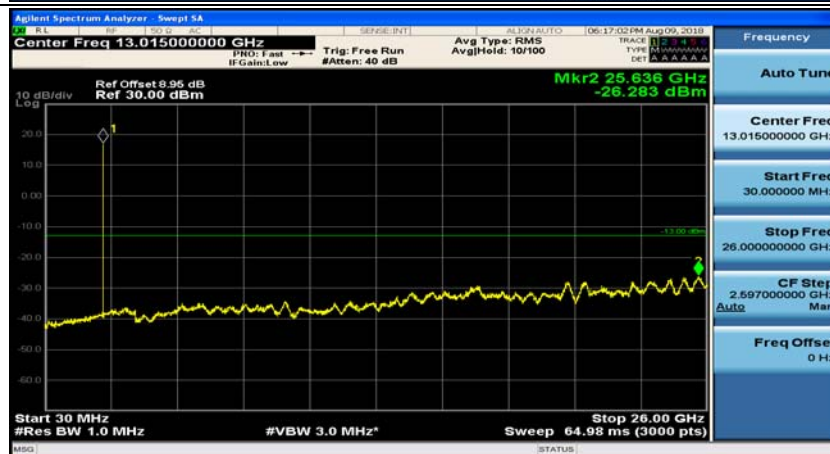
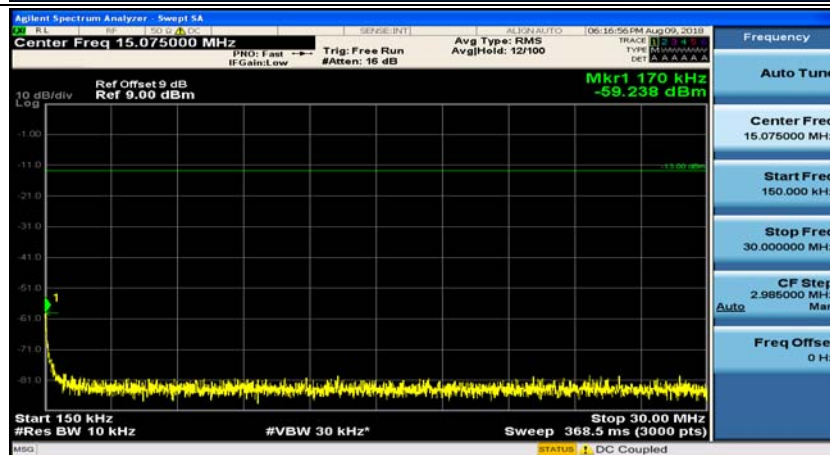
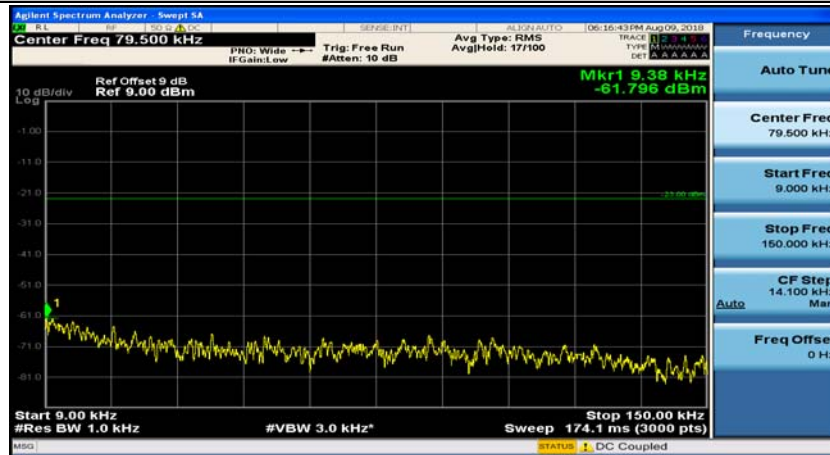


(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

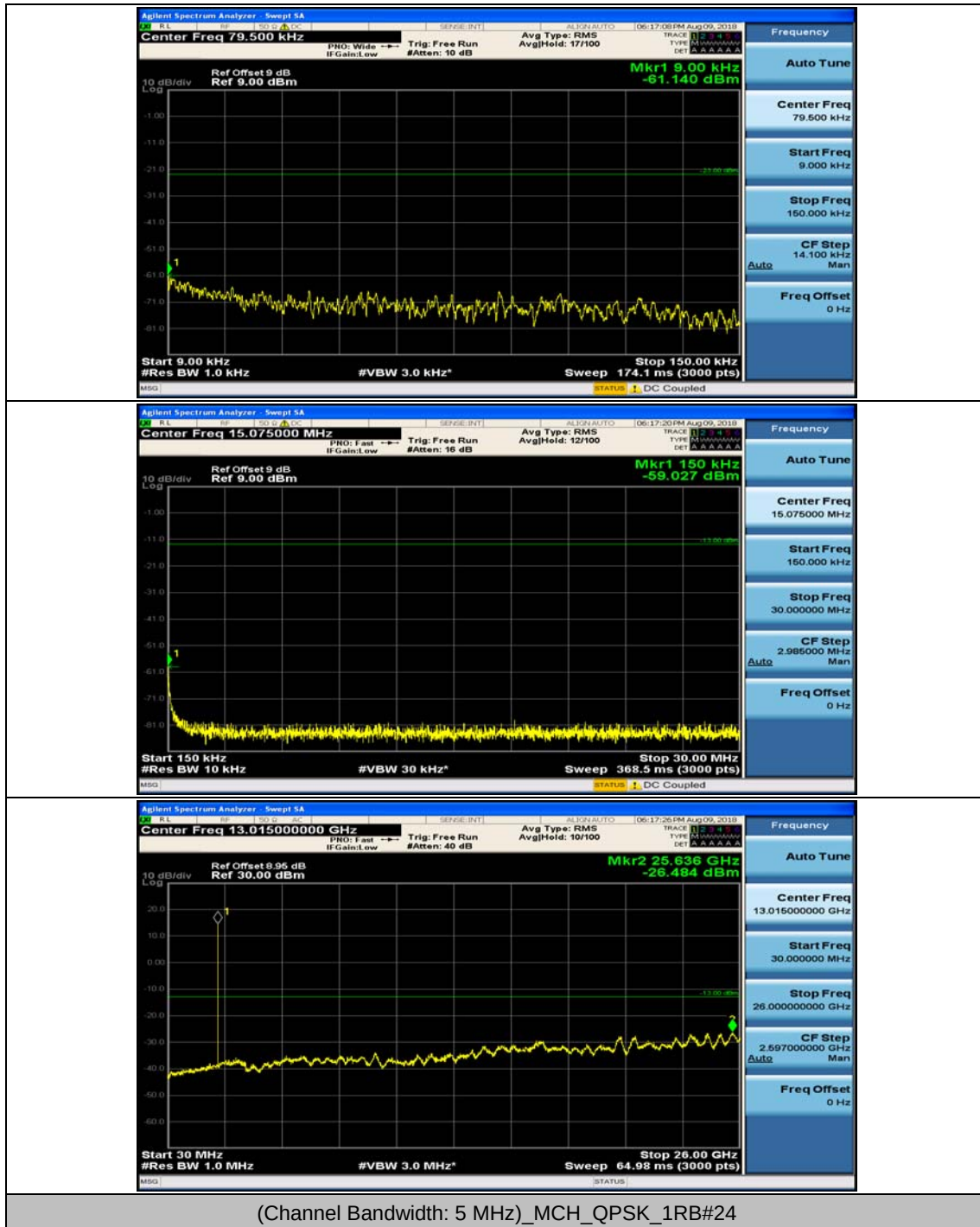


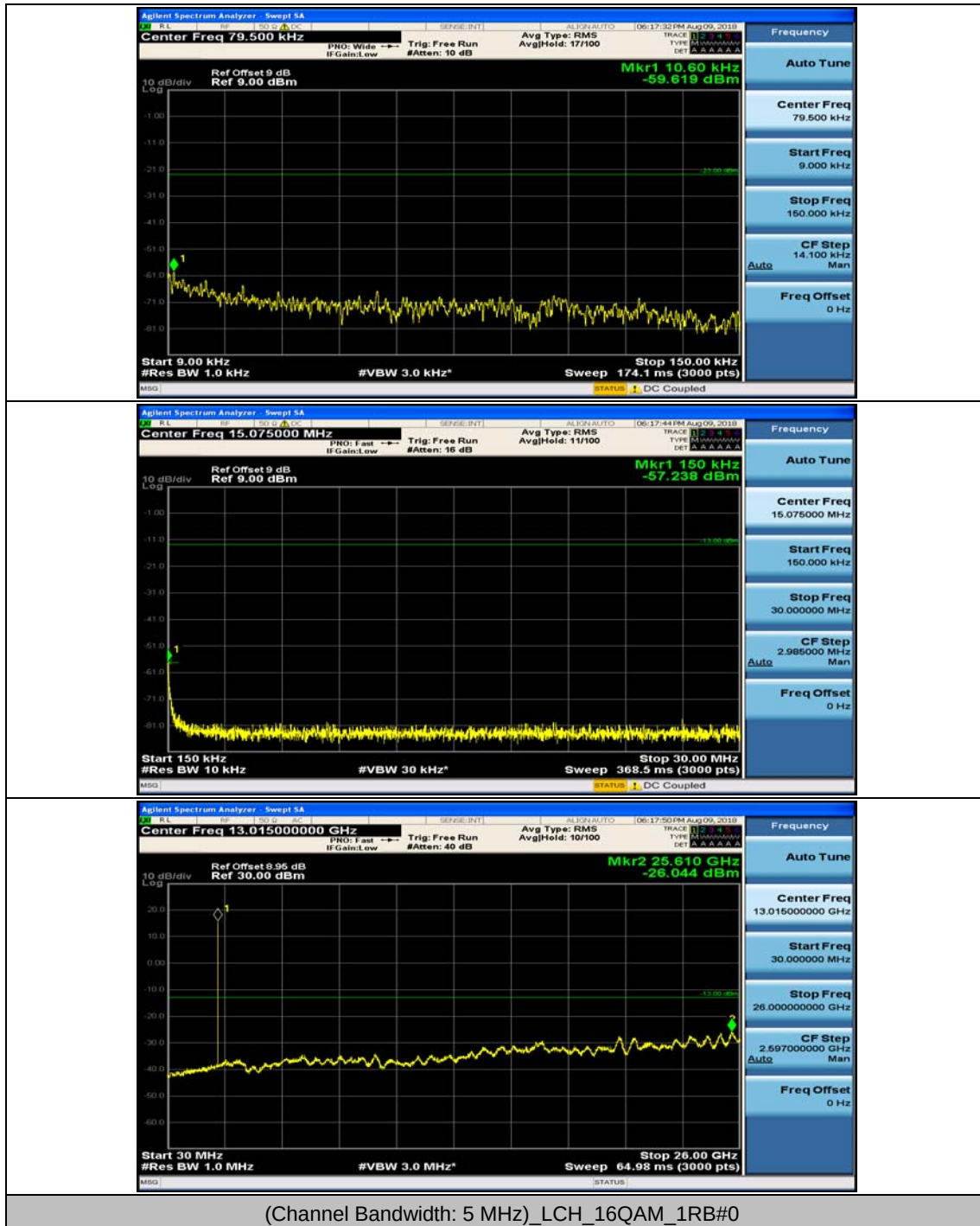


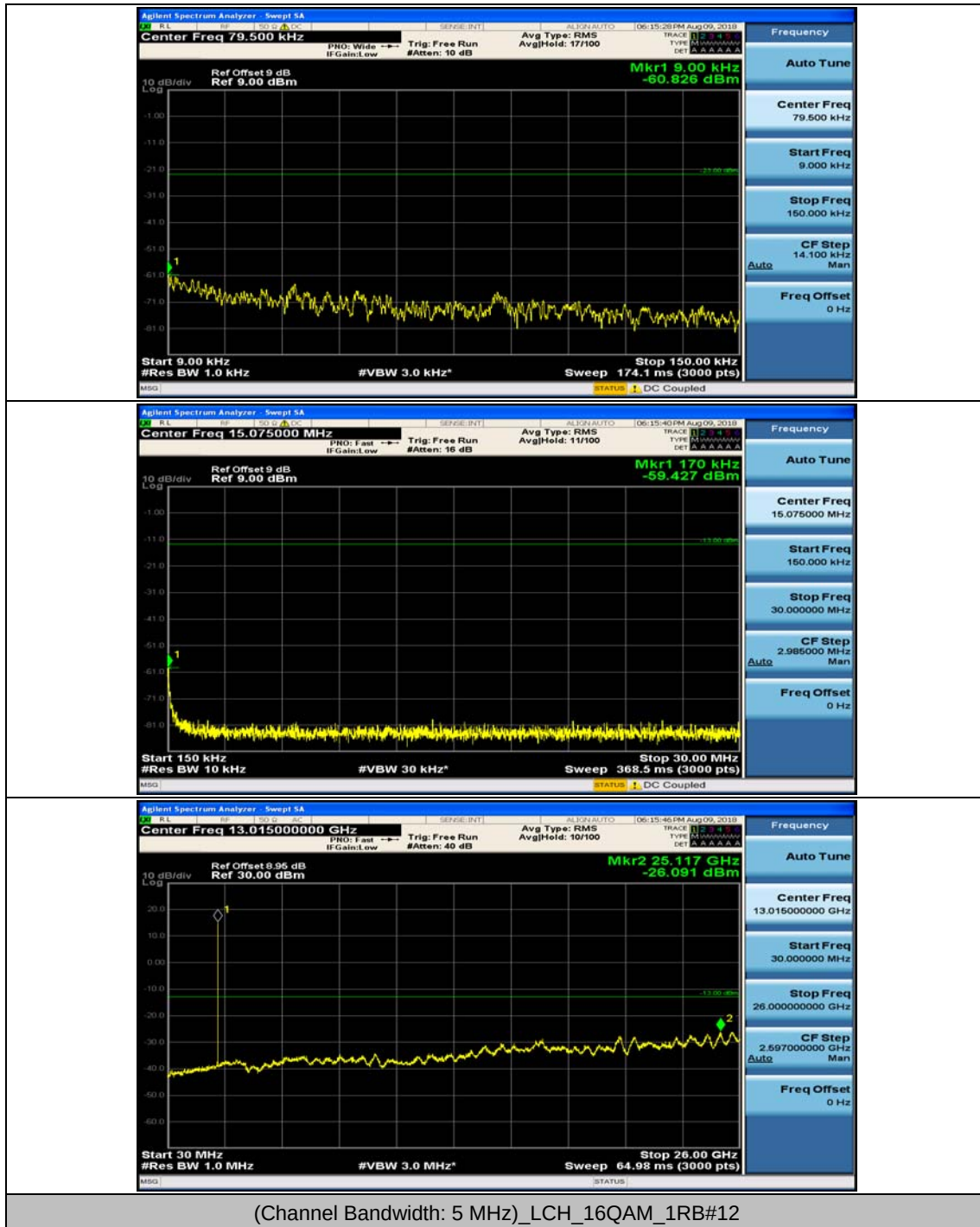
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

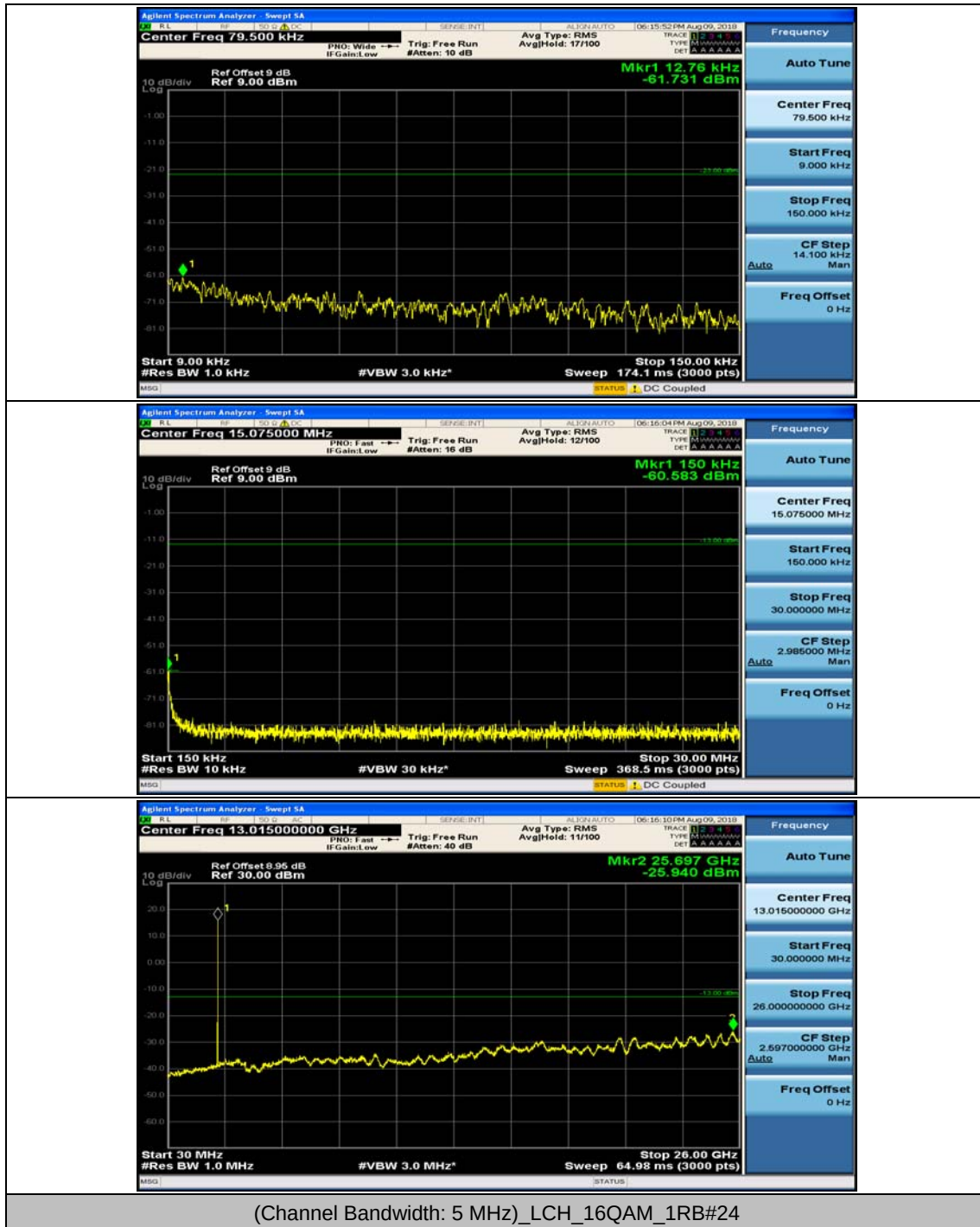


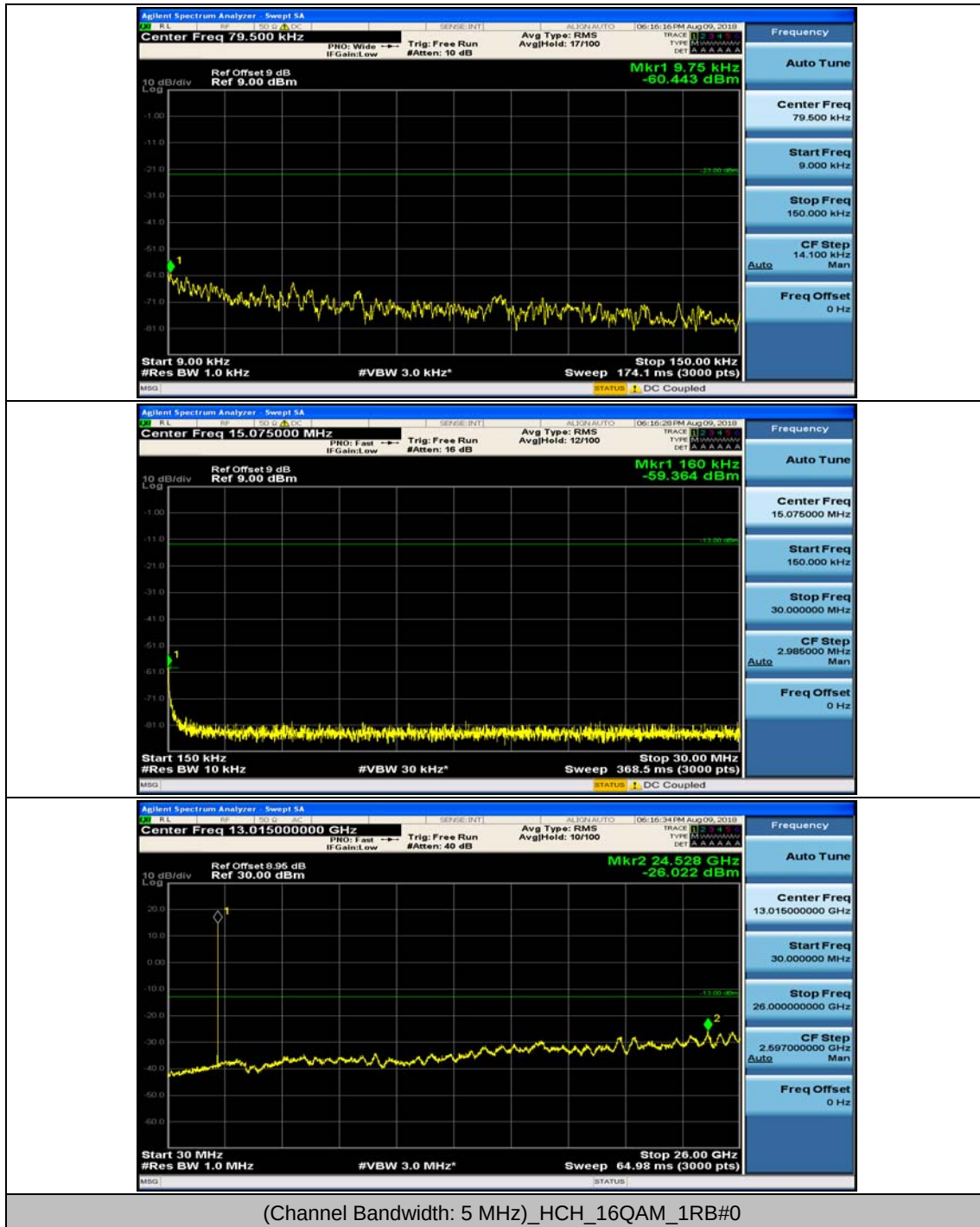
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

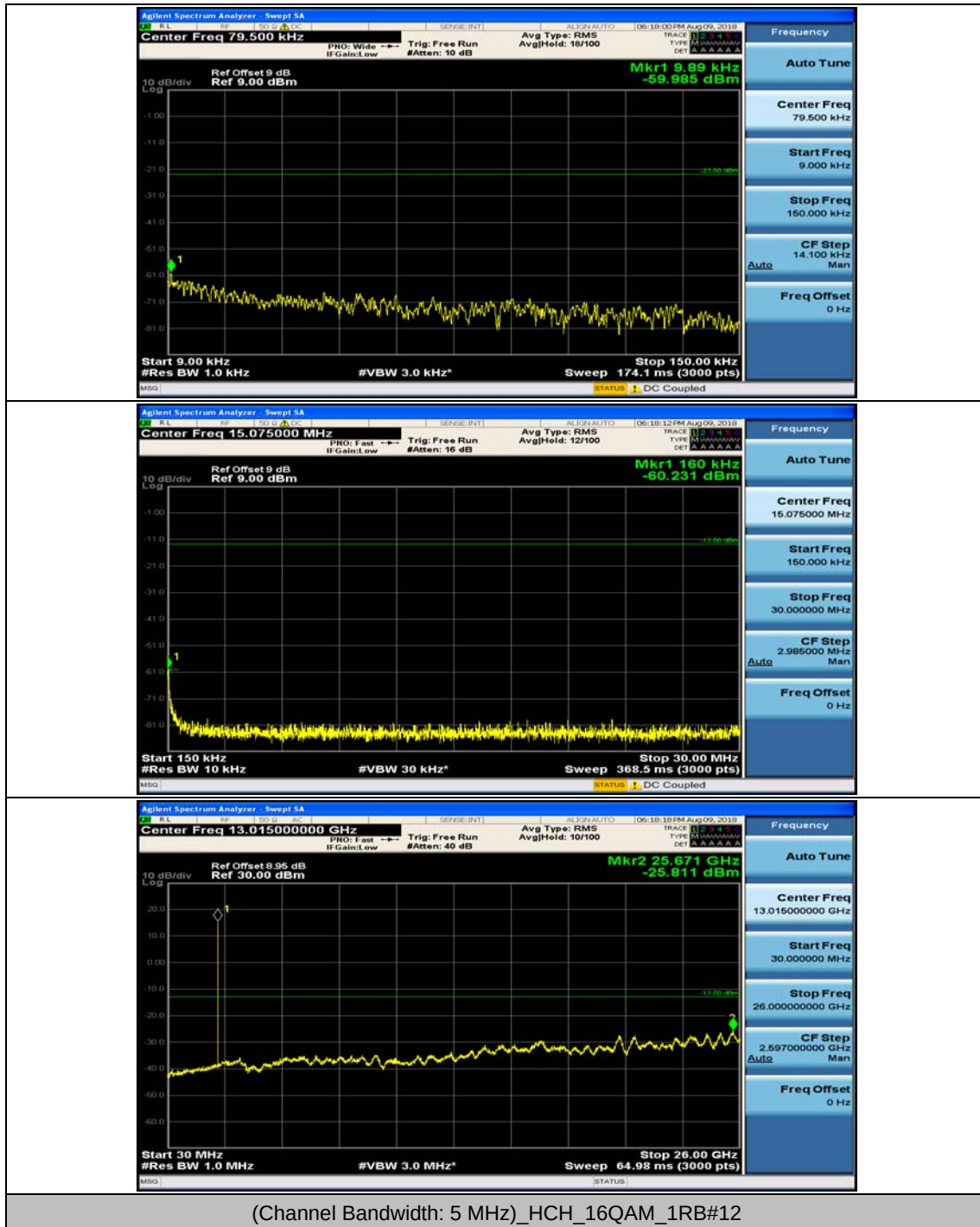


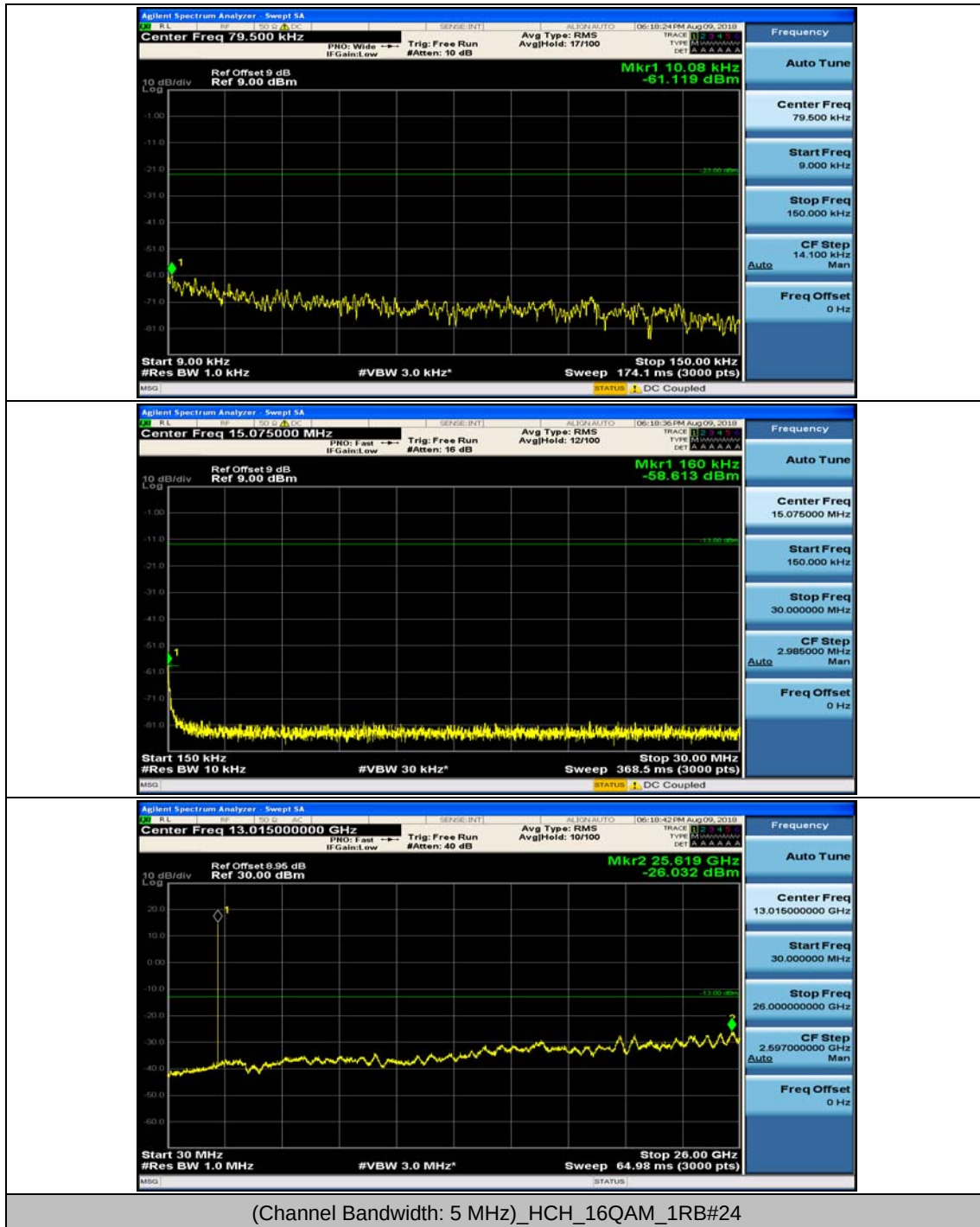


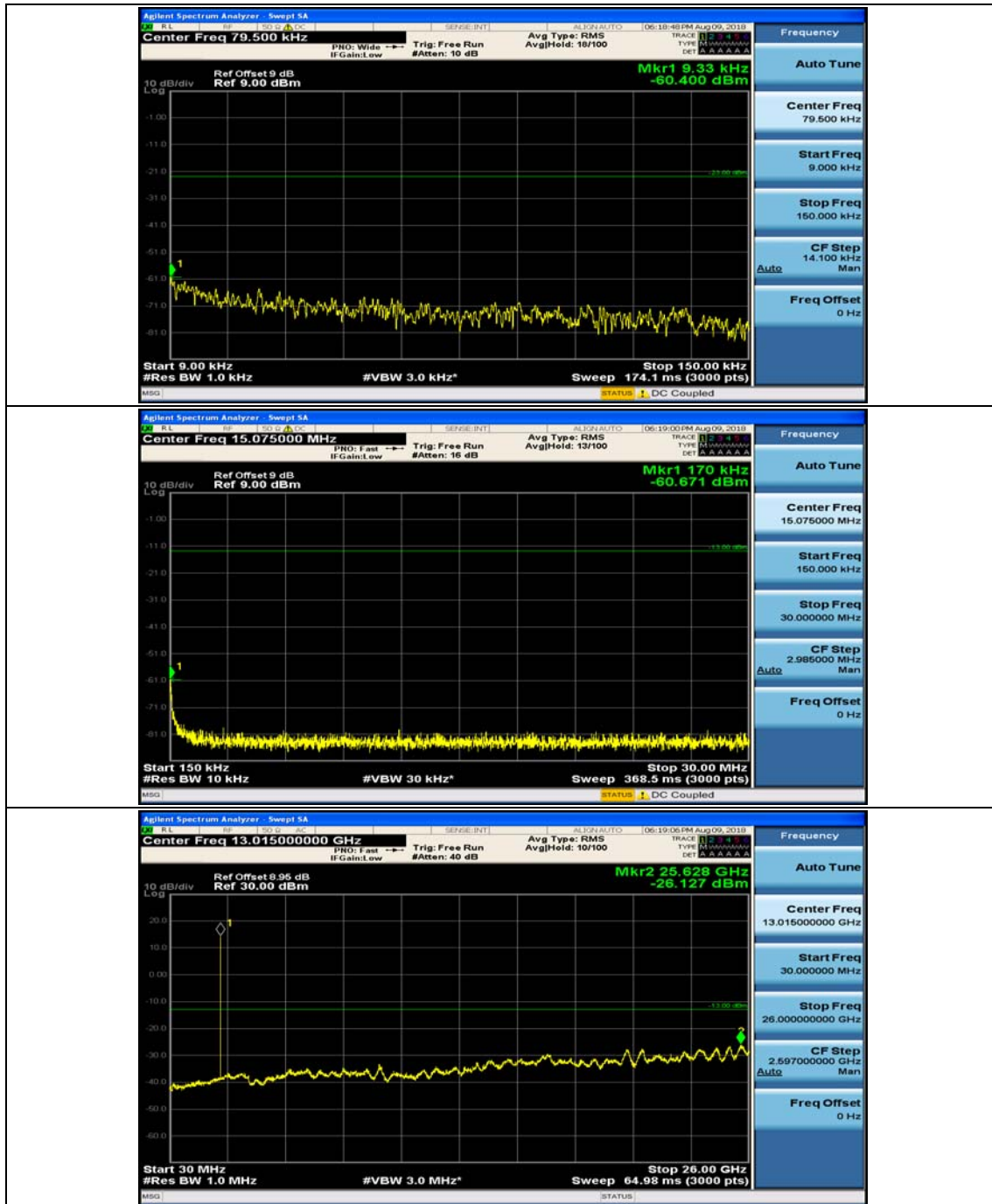




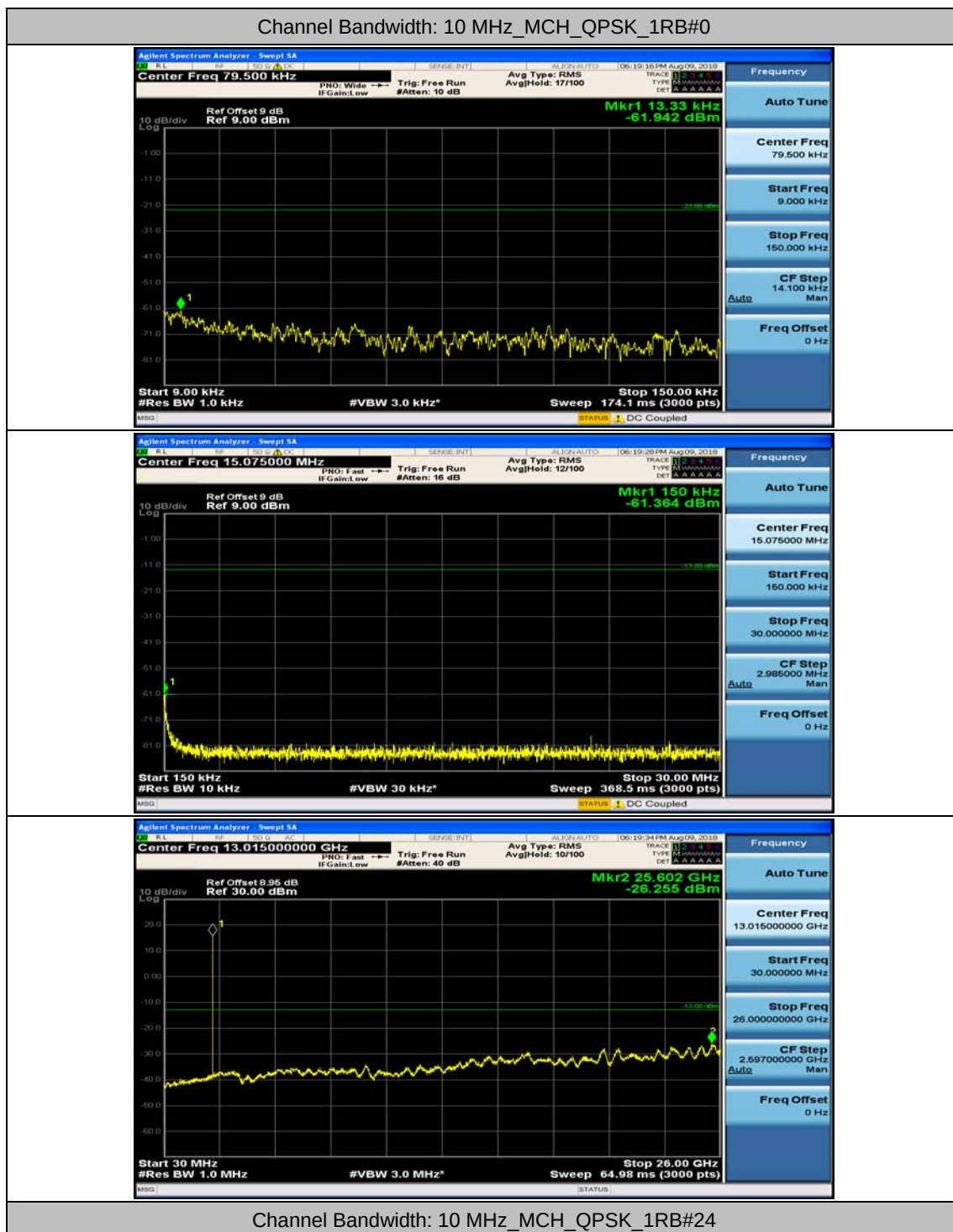


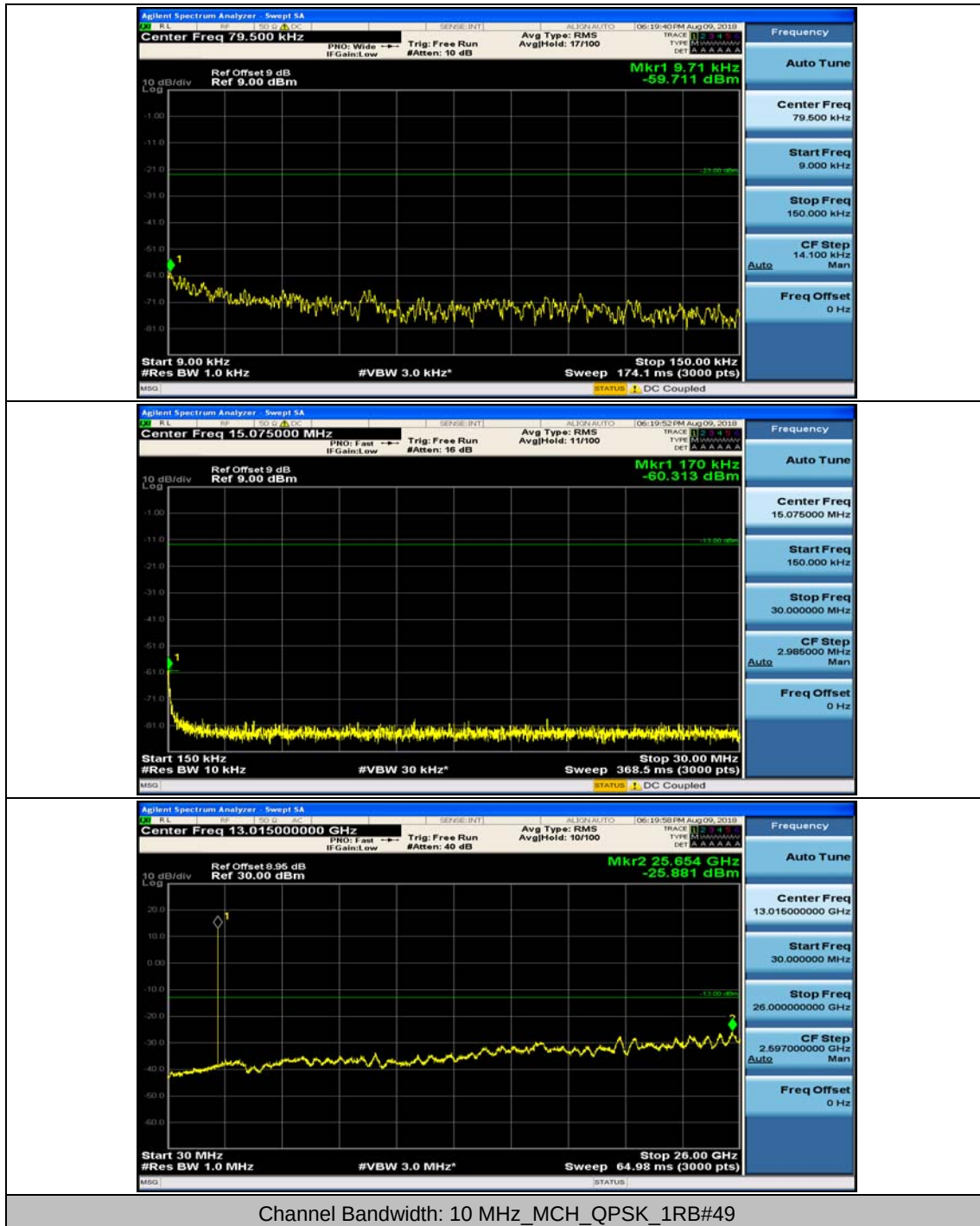


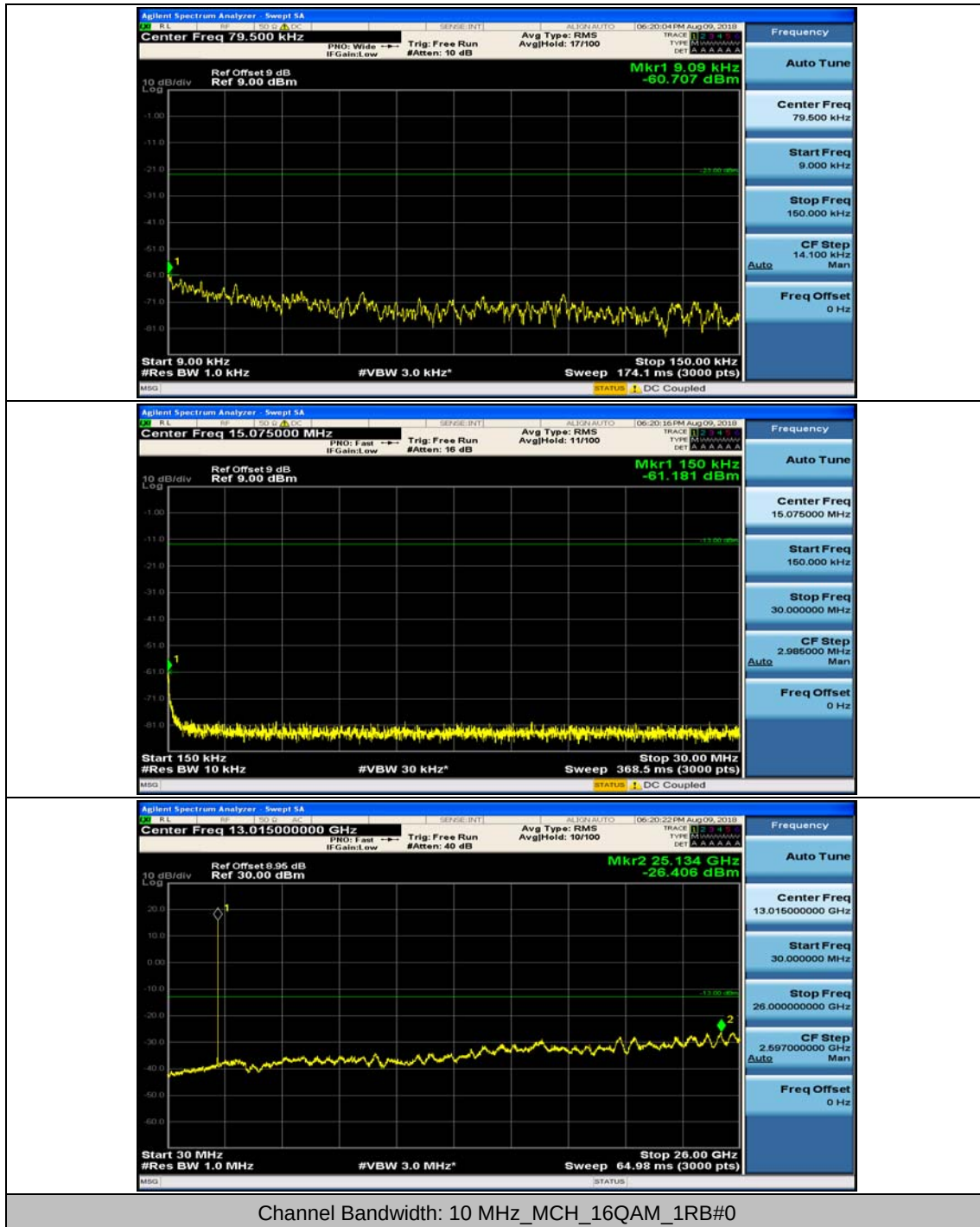


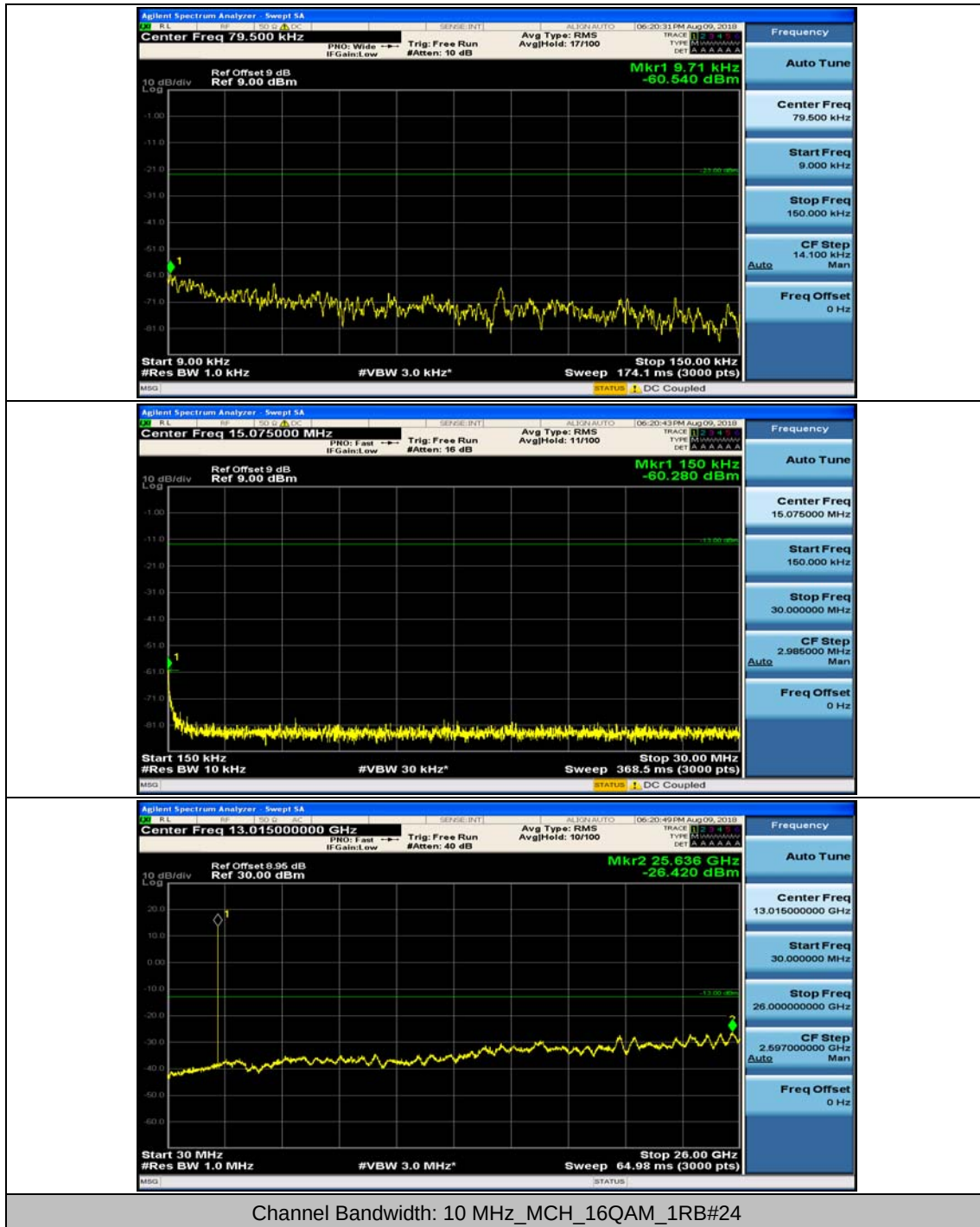


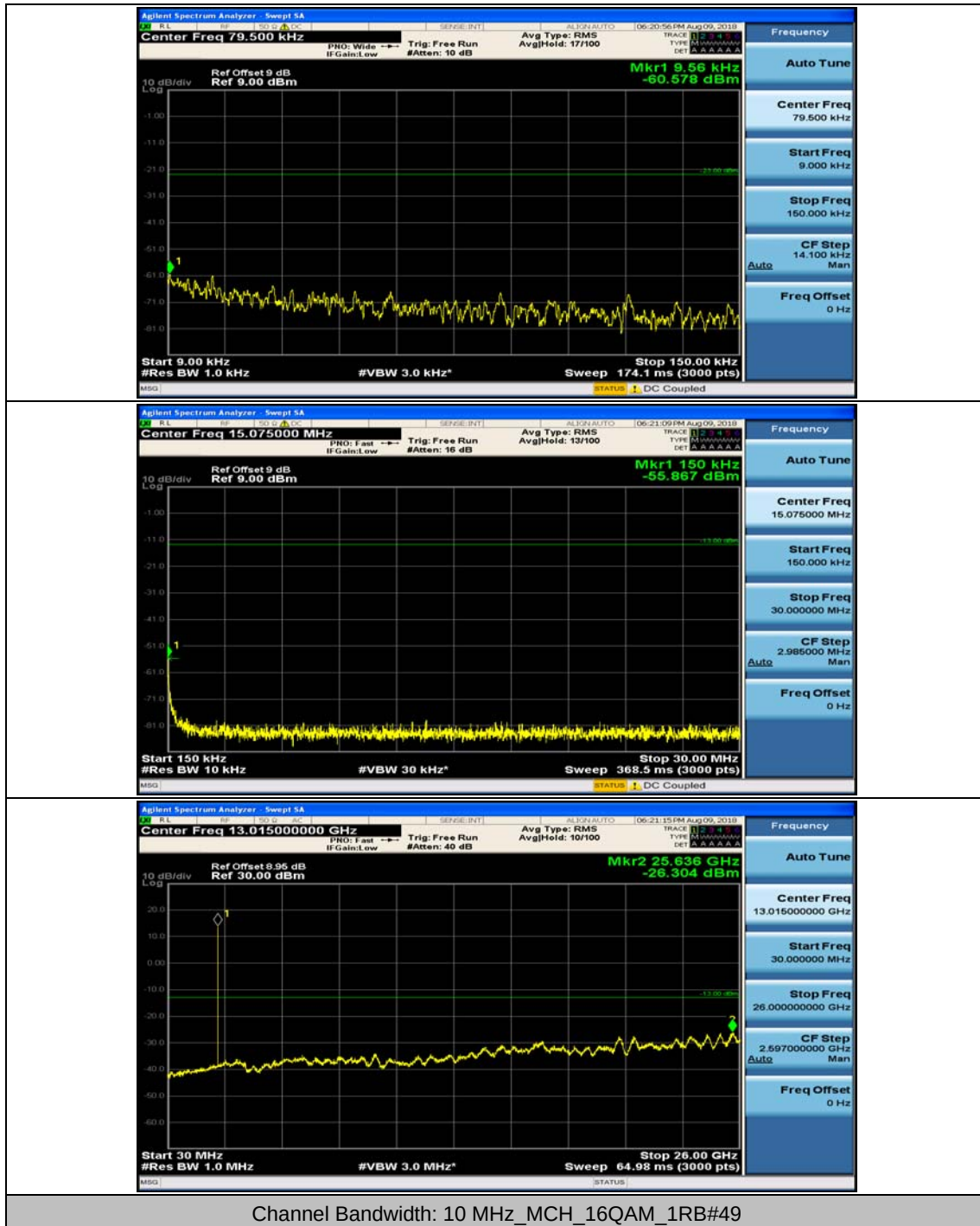
Channel Bandwidth: 10 MHz

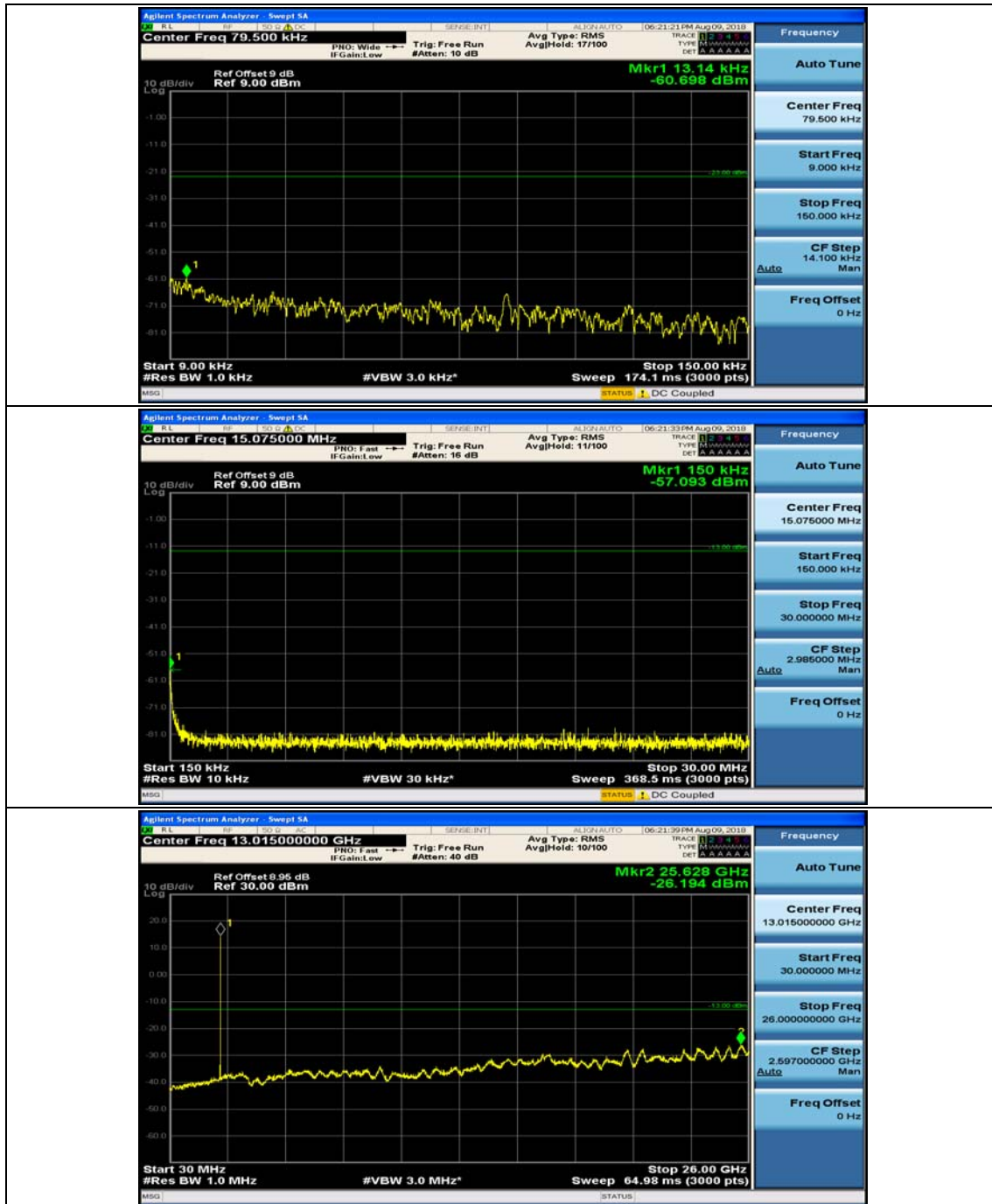












Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.000940	0.000940	± 2.5	PASS
		VN	TN	0.001651	0.001651	± 2.5	PASS
		VH	TN	0.001222	0.001222	± 2.5	PASS
	HCH	VL	TN	0.63	0.000272	± 2.5	PASS
		VN	TN	3.72	0.001609	± 2.5	PASS
		VH	TN	4.56	0.001972	± 2.5	PASS
16QAM	LCH	VL	TN	-1.09	-0.000472	± 2.5	PASS
		VN	TN	2	0.000867	± 2.5	PASS
		VH	TN	-0.47	-0.000204	± 2.5	PASS
	HCH	VL	TN	3.19	0.001379	± 2.5	PASS
		VN	TN	0.08	0.000035	± 2.5	PASS
		VH	TN	3.06	0.001323	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.51	0.001954	± 2.5	PASS
		VN	-20	2.65	0.001148	± 2.5	PASS
		VN	-10	3.03	0.001313	± 2.5	PASS
		VN	0	-1.38	-0.000598	± 2.5	PASS
		VN	10	4.09	0.001772	± 2.5	PASS
		VN	20	1.95	0.000845	± 2.5	PASS
		VN	30	-1.66	-0.000719	± 2.5	PASS
		VN	40	3.76	0.001629	± 2.5	PASS
		VN	50	1.34	0.000581	± 2.5	PASS
	HCH	VN	-30	4.73	0.002045	± 2.5	PASS
		VN	-20	0.75	0.000324	± 2.5	PASS
		VN	-10	-1.59	-0.000688	± 2.5	PASS
		VN	0	4.52	0.001955	± 2.5	PASS
		VN	10	0.12	0.000052	± 2.5	PASS
VN	20	2.65	0.001146	± 2.5	PASS		
VN	30	3.33	0.001440	± 2.5	PASS		

		VN	40	0.09	0.000039	± 2.5	PASS
		VN	50	-1.73	-0.000748	± 2.5	PASS
16QAM	LCH	VN	-30	2.66	0.001153	± 2.5	PASS
		VN	-20	-1.93	-0.000836	± 2.5	PASS
		VN	-10	4.69	0.002033	± 2.5	PASS
		VN	0	0.08	0.000035	± 2.5	PASS
		VN	10	2.12	0.000919	± 2.5	PASS
		VN	20	-1.72	-0.000745	± 2.5	PASS
		VN	30	-1.85	-0.000802	± 2.5	PASS
		VN	40	1.03	0.000446	± 2.5	PASS
		VN	50	0.23	0.000100	± 2.5	PASS
	HCH	VN	-30	-0.68	-0.000294	± 2.5	PASS
		VN	-20	-0.52	-0.000225	± 2.5	PASS
		VN	-10	0.48	0.000208	± 2.5	PASS
		VN	0	3.02	0.001306	± 2.5	PASS
		VN	10	1.77	0.000765	± 2.5	PASS
		VN	20	-1.17	-0.000506	± 2.5	PASS
		VN	30	1.85	0.000800	± 2.5	PASS
		VN	40	3.54	0.001531	± 2.5	PASS
		VN	50	0.03	0.000013	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	MCH	VL	TN	0.001494	0.001494	± 2.5	PASS
		VN	TN	-0.000455	-0.000455	± 2.5	PASS
		VH	TN	0.000299	0.000299	± 2.5	PASS
16QAM	MCH	VL	TN	0.001390	0.001390	± 2.5	PASS
		VN	TN	0.001061	0.001061	± 2.5	PASS
		VH	TN	0.000316	0.000316	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	MCH	VN	-30	0.001160	0.001160	± 2.5	PASS
		VN	-20	-0.000082	-0.000082	± 2.5	PASS
		VN	-10	0.000398	0.000398	± 2.5	PASS
		VN	0	0.001944	0.001944	± 2.5	PASS
		VN	10	0.000935	0.000935	± 2.5	PASS
		VN	20	0.001931	0.001931	± 2.5	PASS
		VN	30	0.000983	0.000983	± 2.5	PASS
		VN	40	0.001026	0.001026	± 2.5	PASS
		VN	50	0.000550	0.000550	± 2.5	PASS
QPSK	MCH	VN	-30	0.000273	0.000273	± 2.5	PASS
		VN	-20	0.001961	0.001961	± 2.5	PASS
		VN	-10	0.000156	0.000156	± 2.5	PASS
		VN	0	0.001329	0.001329	± 2.5	PASS
		VN	10	0.000013	0.000013	± 2.5	PASS
		VN	20	0.001268	0.001268	± 2.5	PASS
		VN	30	0.000329	0.000329	± 2.5	PASS
		VN	40	0.000385	0.000385	± 2.5	PASS
		VN	50	0.000498	0.000498	± 2.5	PASS