

Appendix for Band 40(2305-2315MHz)

Product Name: Rugged Phone

Model No: CM17XA

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	22.23	PASS
		1	12	22.53	PASS
		1	24	22.15	PASS
		12	0	21.23	PASS
		12	6	21.30	PASS
		12	13	21.28	PASS
		25	0	21.30	PASS
	MCH	1	0	22.25	PASS
		1	12	22.60	PASS
		1	24	22.29	PASS
		12	0	21.26	PASS
		12	6	21.25	PASS
		12	13	21.26	PASS
		25	0	21.29	PASS
	HCH	1	0	22.25	PASS
		1	12	22.62	PASS
		1	24	22.28	PASS
		12	0	21.27	PASS
		12	6	21.31	PASS
		12	13	21.29	PASS
		25	0	21.29	PASS
16QAM	LCH	1	0	21.42	PASS
		1	12	21.71	PASS
		1	24	21.39	PASS
		12	0	20.58	PASS
		12	6	20.53	PASS
		12	13	20.37	PASS
		25	0	20.48	PASS
	MCH	1	0	21.56	PASS
		1	12	21.87	PASS
		1	24	21.57	PASS
		12	0	20.44	PASS
		12	6	20.41	PASS

		12	13	20.40	PASS
		25	0	20.42	PASS
	HCH	1	0	21.47	PASS
		1	12	21.81	PASS
		1	24	21.48	PASS
		12	0	20.57	PASS
		12	6	20.57	PASS
		12	13	20.51	PASS
		25	0	20.40	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	MCH	1	0	22.68	PASS
		1	24	22.33	PASS
		1	49	22.32	PASS
		25	0	21.21	PASS
		25	12	21.31	PASS
		25	25	21.30	PASS
		50	0	21.26	PASS
16QAM	MCH	1	0	21.52	PASS
		1	24	21.55	PASS
		1	49	21.52	PASS
		25	0	20.69	PASS
		25	12	20.52	PASS
		25	25	20.73	PASS
		50	0	20.77	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	7.15	<13	PASS
		1	12	7.94	<13	PASS
		1	24	9.2	<13	PASS
		12	0	8.78	<13	PASS
		12	6	8.05	<13	PASS
		12	13	7.72	<13	PASS
		25	0	7.23	<13	PASS
	MCH	1	0	6.62	<13	PASS
		1	12	7.7	<13	PASS
		1	24	9.16	<13	PASS
		12	0	9.5	<13	PASS
		12	6	7.86	<13	PASS
		12	13	9.98	<13	PASS
		25	0	7.72	<13	PASS
	HCH	1	0	7.25	<13	PASS
		1	12	9.38	<13	PASS
		1	24	7.92	<13	PASS
		12	0	9.93	<13	PASS
		12	6	9.07	<13	PASS
		12	13	8.5	<13	PASS
		25	0	11.82	<13	PASS
16QAM	LCH	1	0	10.02	<13	PASS
		1	12	10.16	<13	PASS
		1	24	11.76	<13	PASS
		12	0	8.36	<13	PASS
		12	6	10.34	<13	PASS
		12	13	11.27	<13	PASS
		25	0	11.83	<13	PASS
	MCH	1	0	10.69	<13	PASS
		1	12	10.07	<13	PASS
1		24	10.15	<13	PASS	

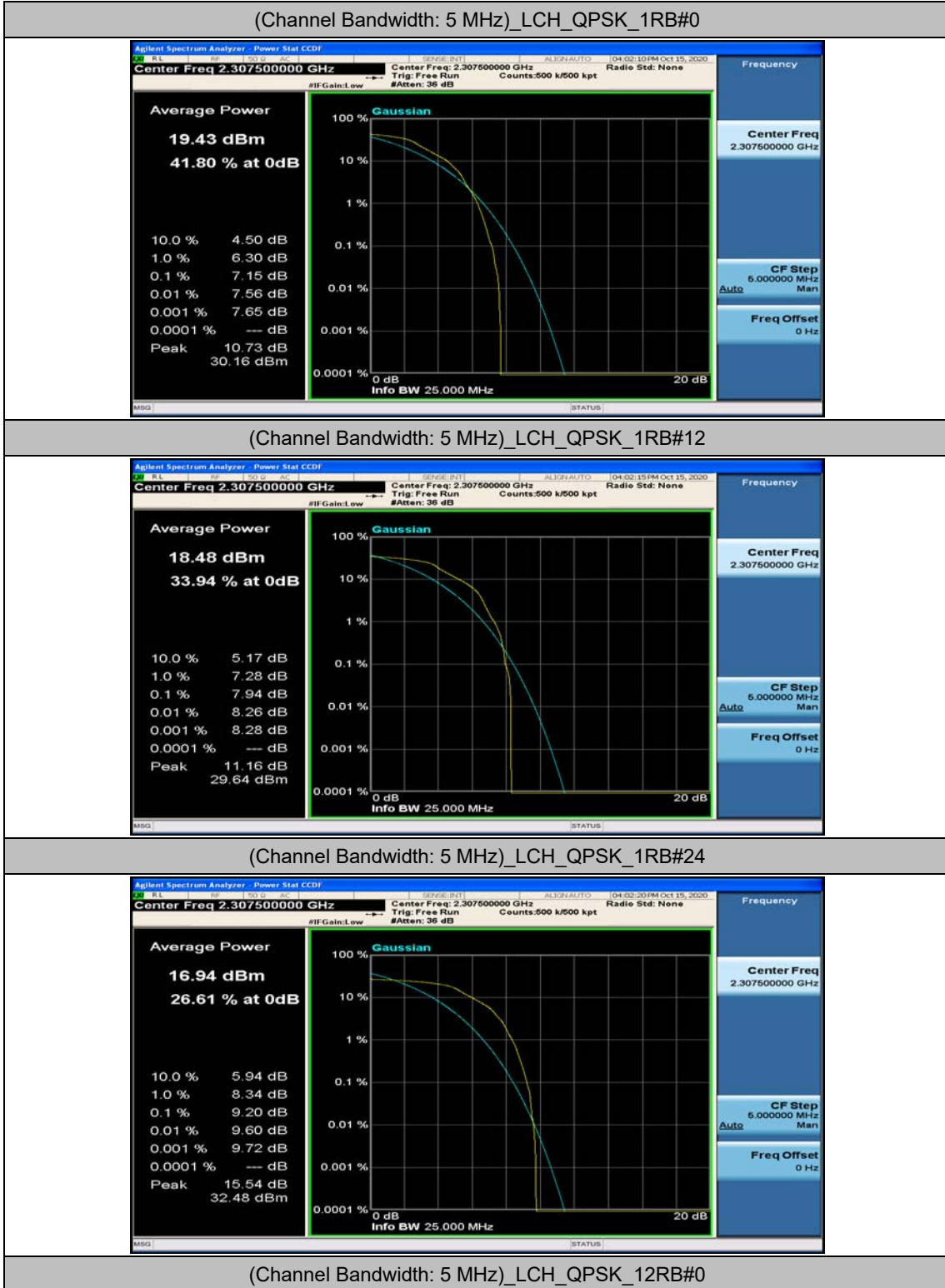
		12	0	10.14	<13	PASS
		12	6	8.89	<13	PASS
		12	13	8.5	<13	PASS
		25	0	9.15	<13	PASS
	HCH	1	0	8.53	<13	PASS
		1	12	7.85	<13	PASS
		1	24	8.79	<13	PASS
		12	0	9.19	<13	PASS
		12	6	8.81	<13	PASS
		12	13	11.08	<13	PASS
		25	0	8.47	<13	PASS

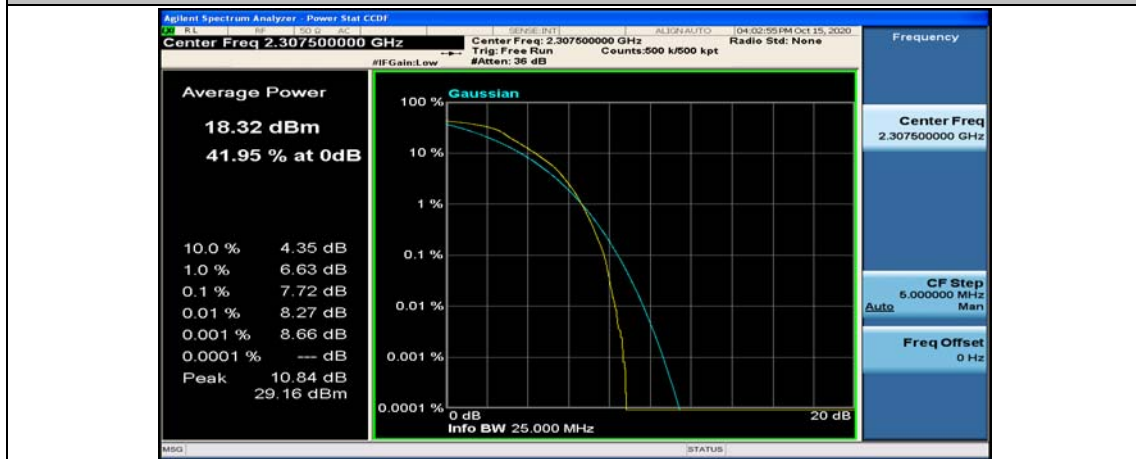
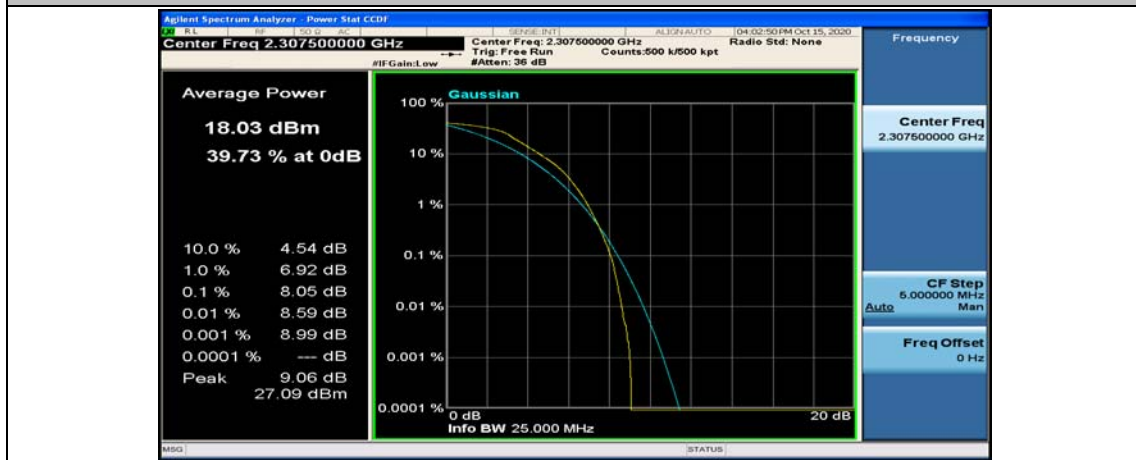
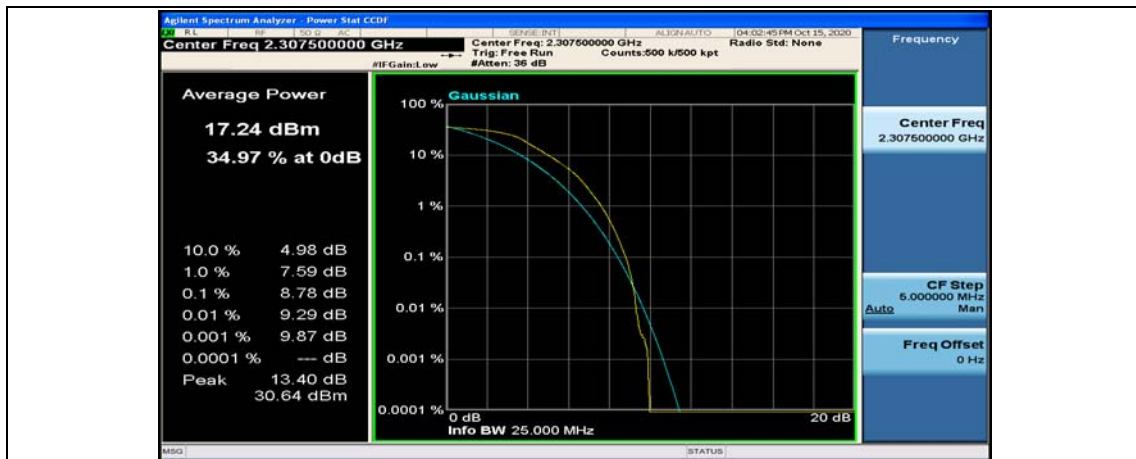
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	MCH	1	0	11.1	<13	PASS
		1	24	7.32	<13	PASS
		1	49	11.31	<13	PASS
		25	0	10.01	<13	PASS
		25	12	10.21	<13	PASS
		25	25	7.01	<13	PASS
		50	0	9.12	<13	PASS
16QAM	MCH	1	0	9.68	<13	PASS
		1	24	7.43	<13	PASS
		1	49	9.57	<13	PASS
		25	0	12.42	<13	PASS
		25	12	9.02	<13	PASS
		25	25	9.72	<13	PASS
		50	0	8.04	<13	PASS

Test Graphs

Channel Bandwidth: 5 MHz



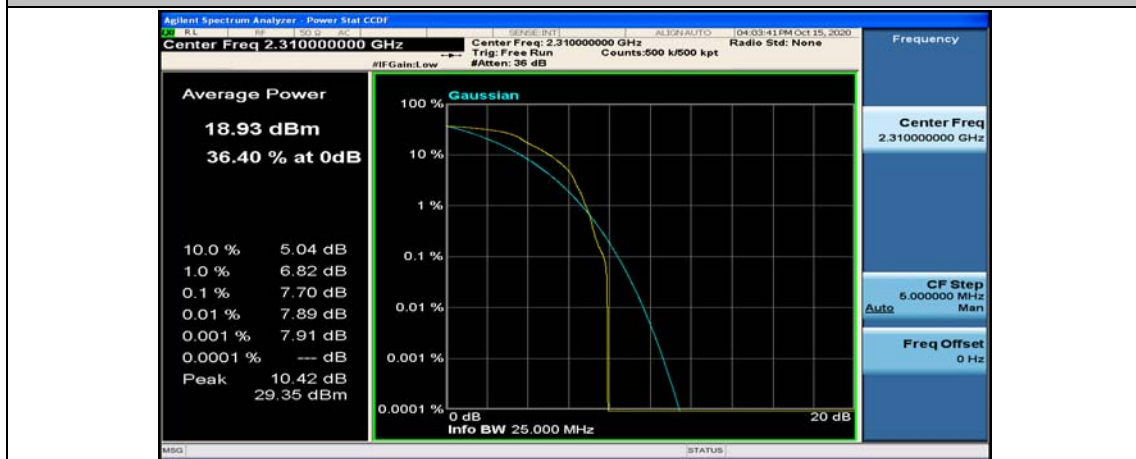




(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



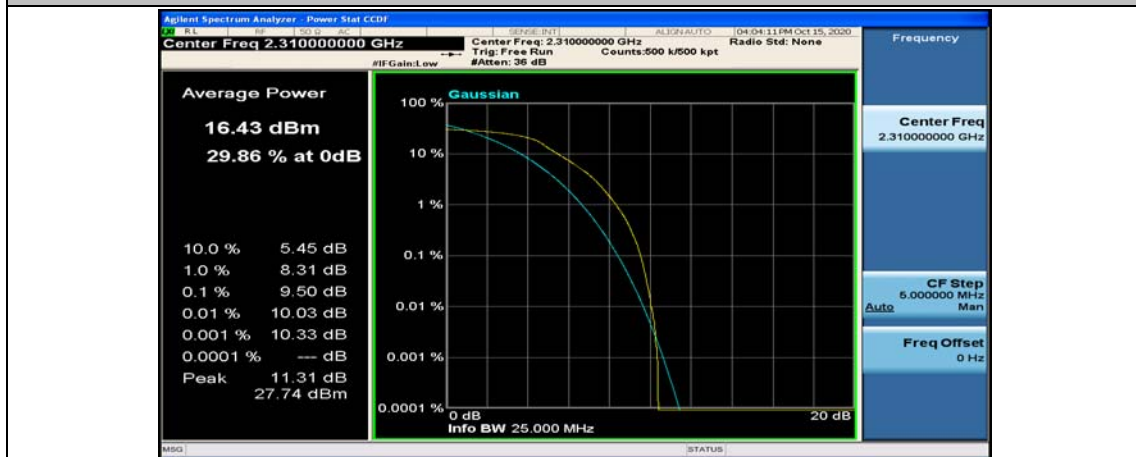
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24



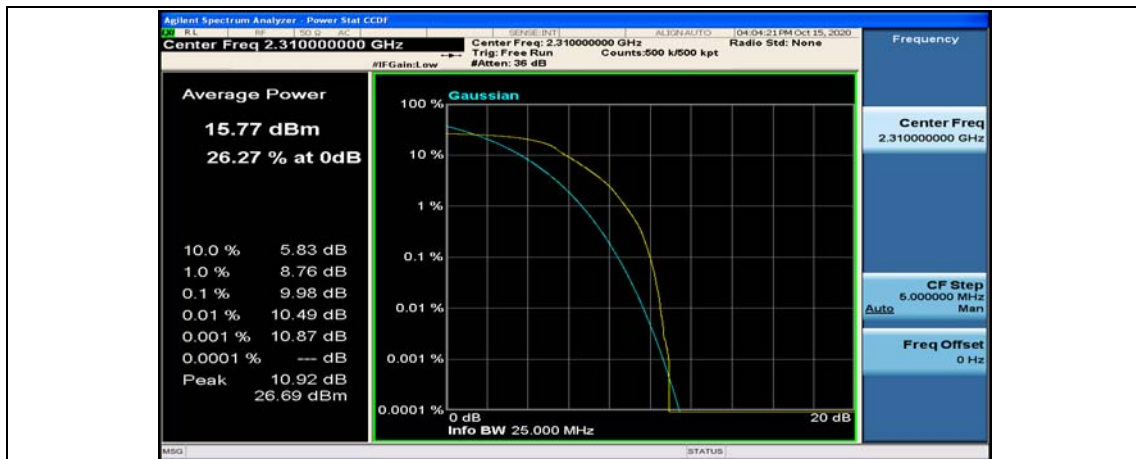
(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#0



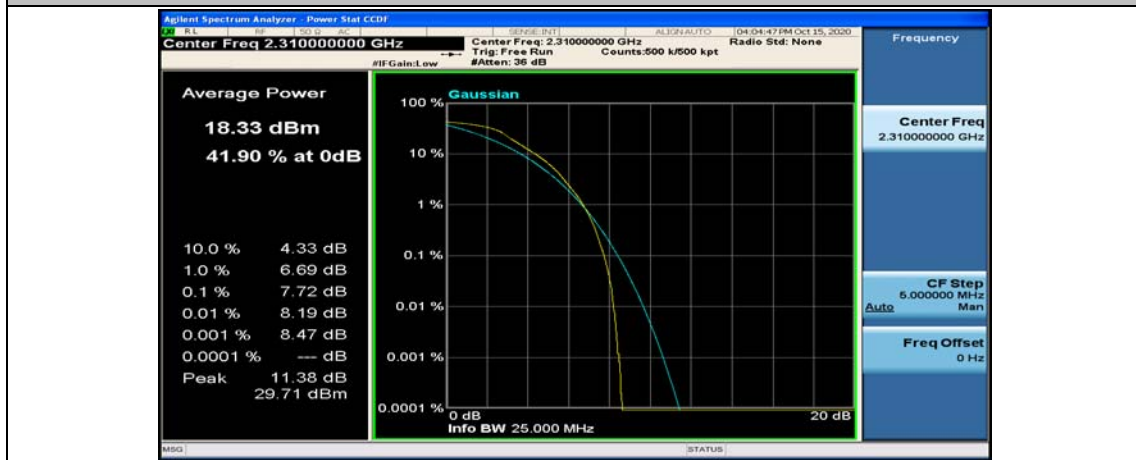
(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#6



(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#13



(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



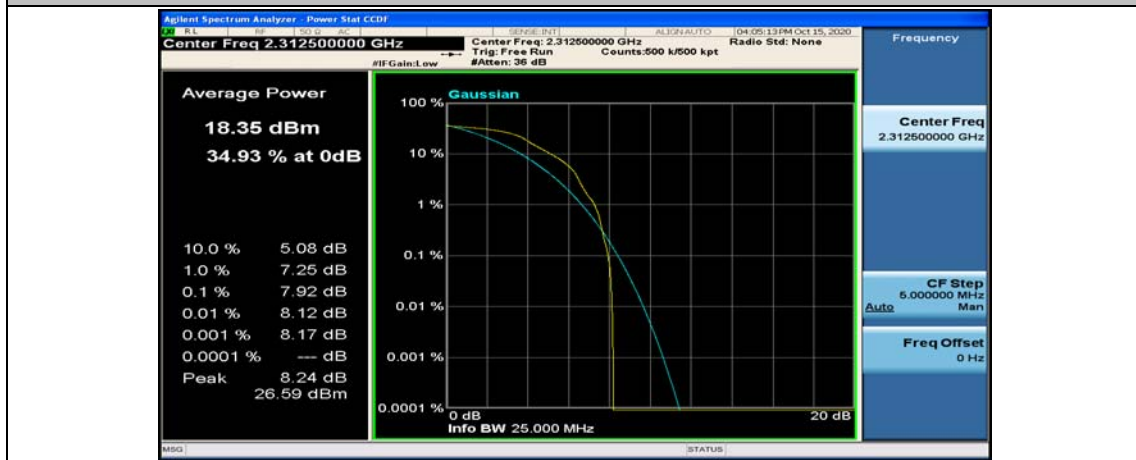
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(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#6



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



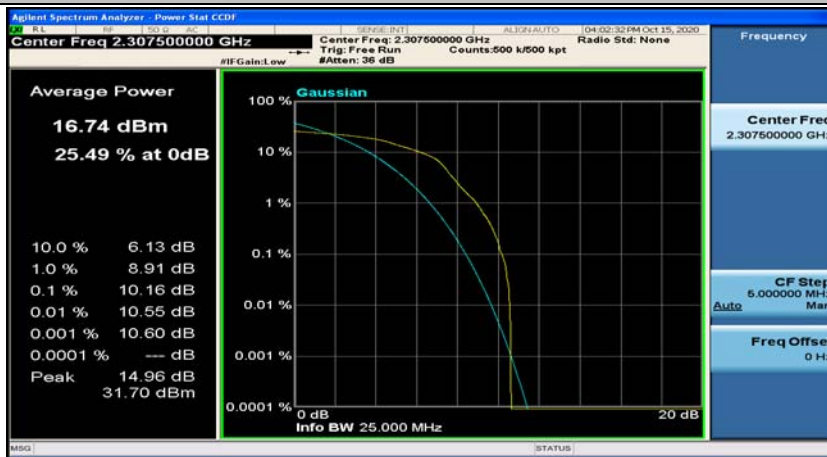
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



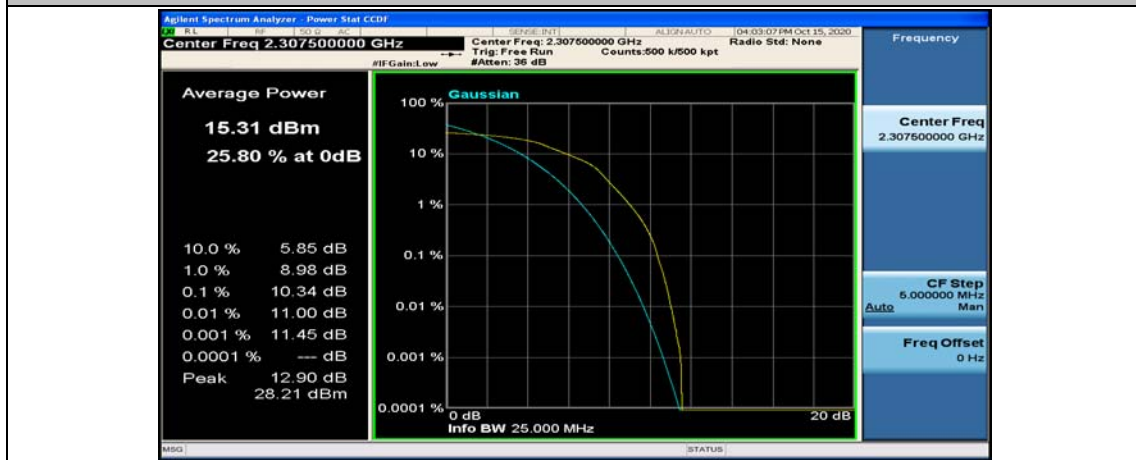
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6



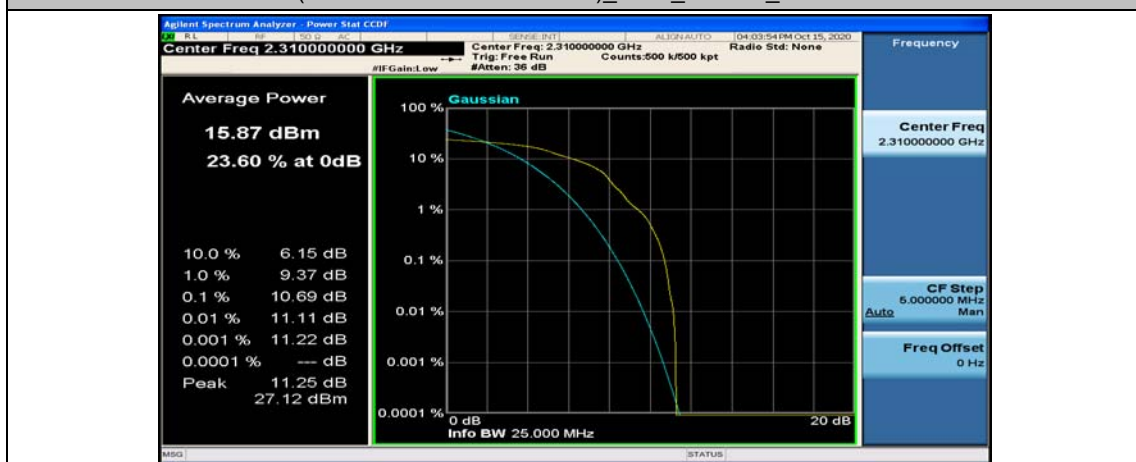
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



(Channel Bandwidth: 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)_MCH_16QAM_12RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#6



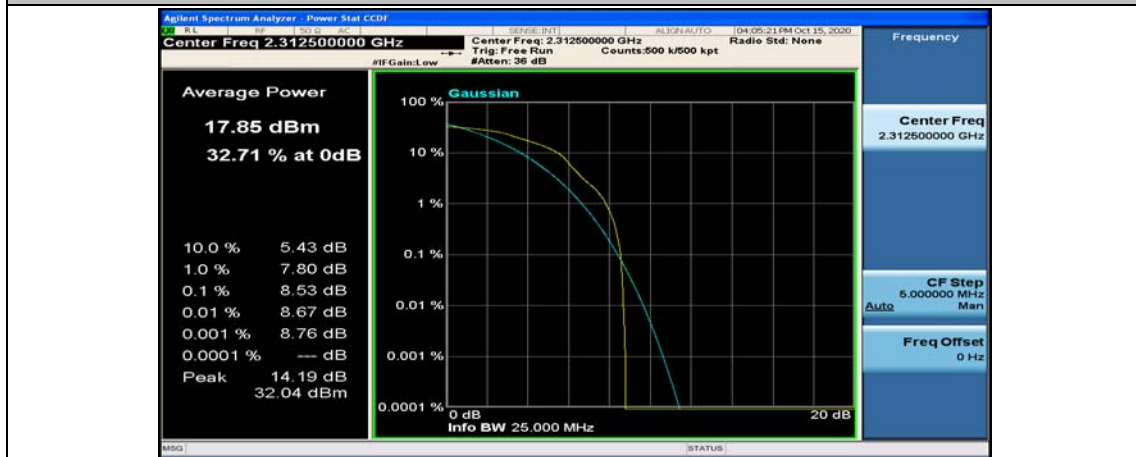
(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#13



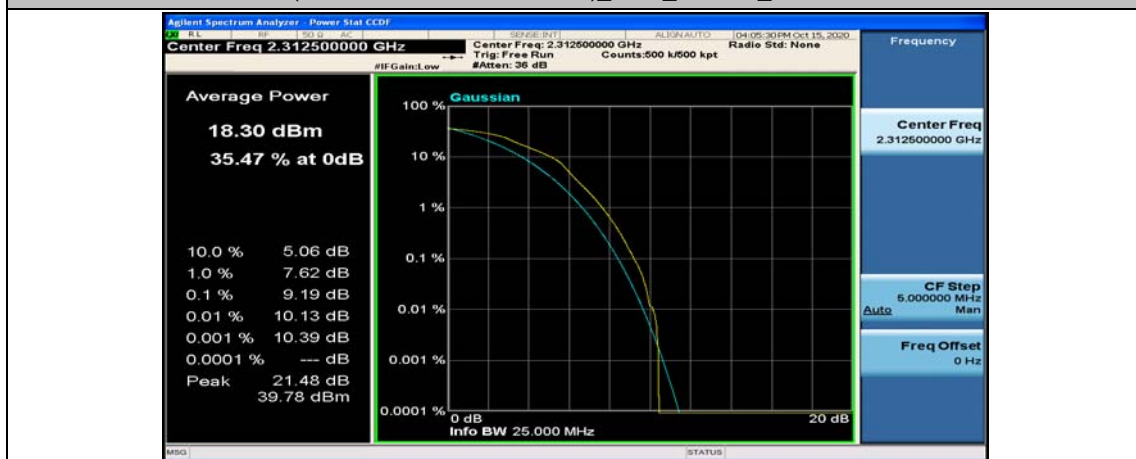
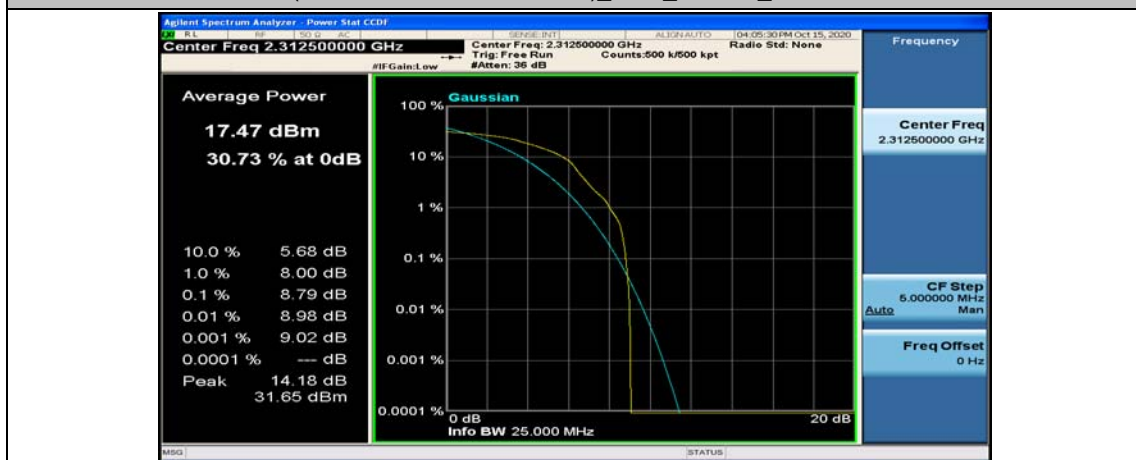
(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0

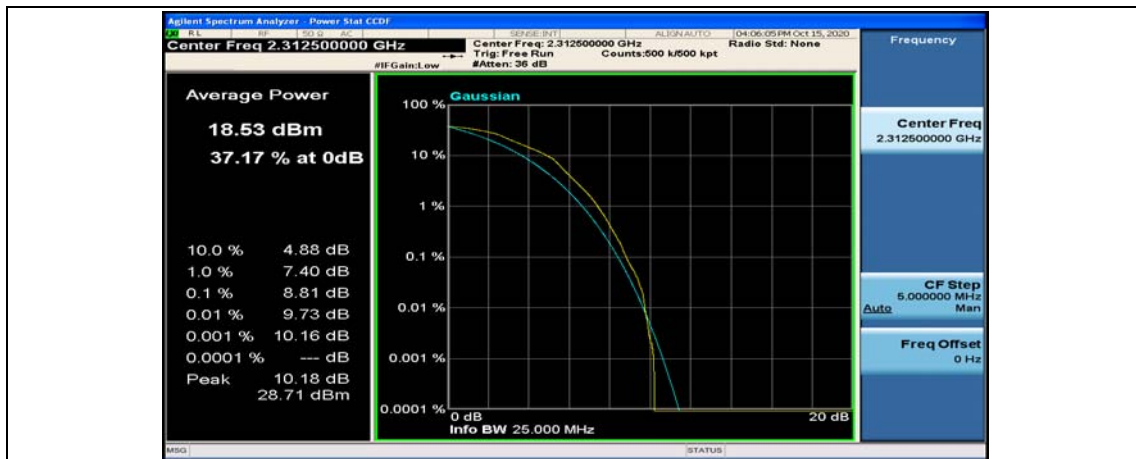


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12





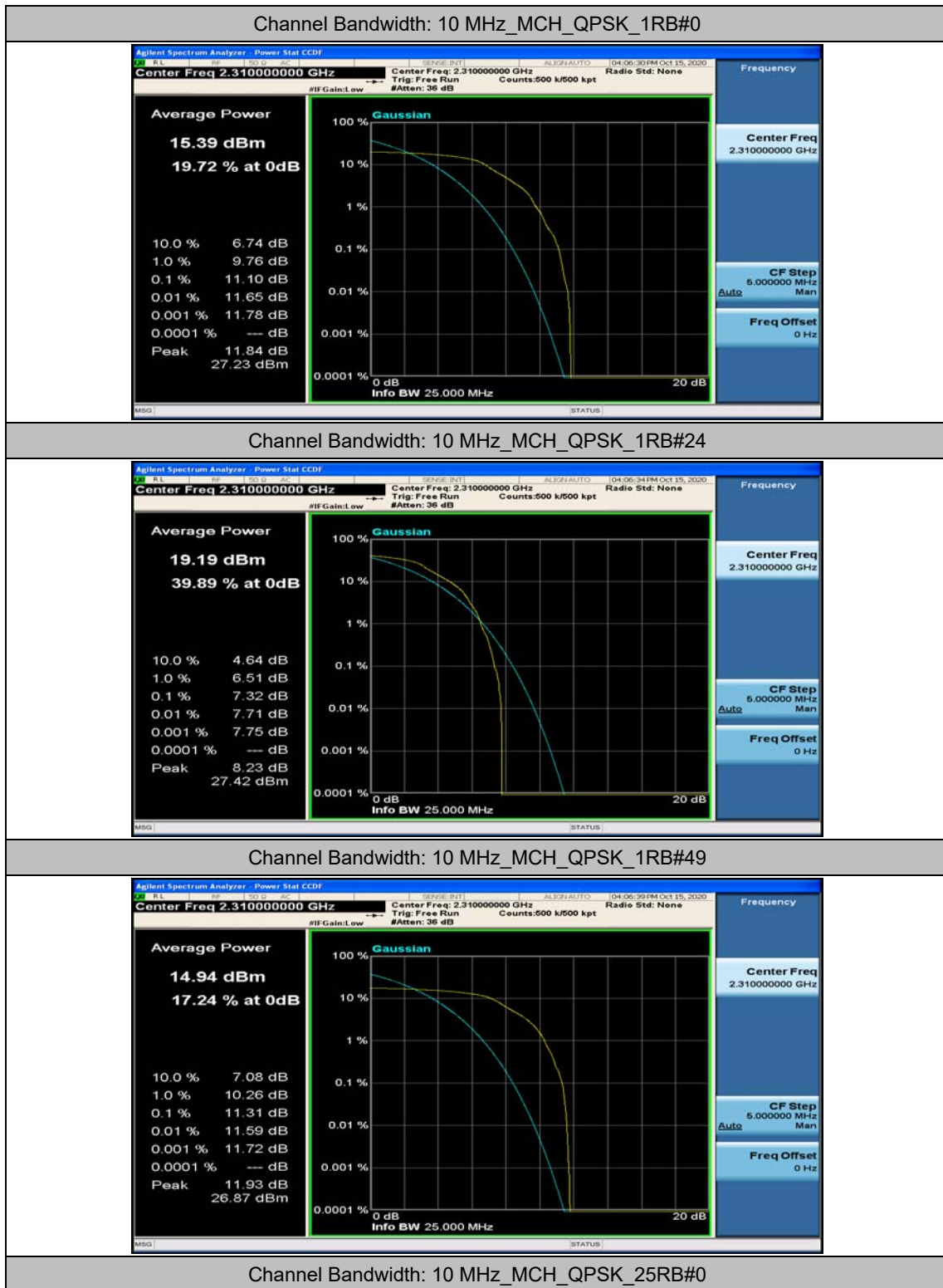
(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13



(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz



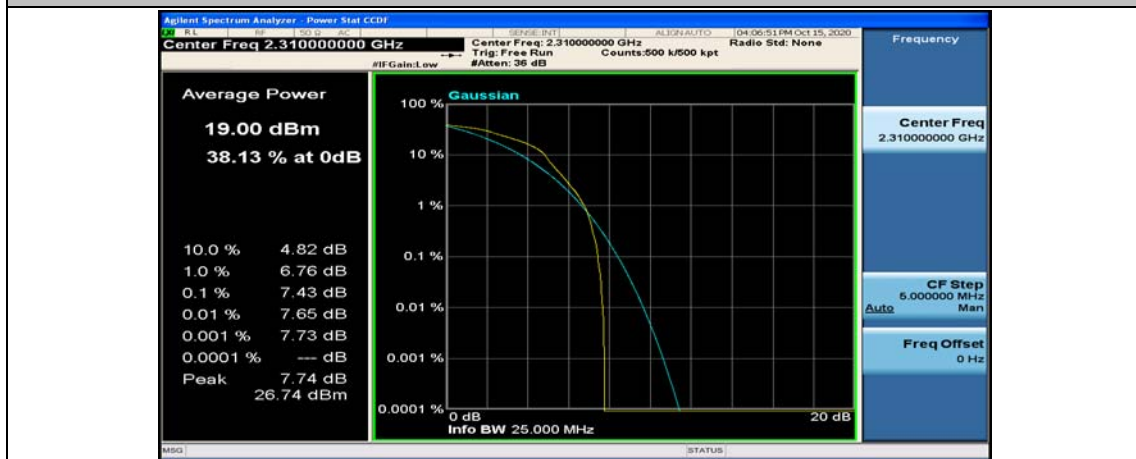




Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49



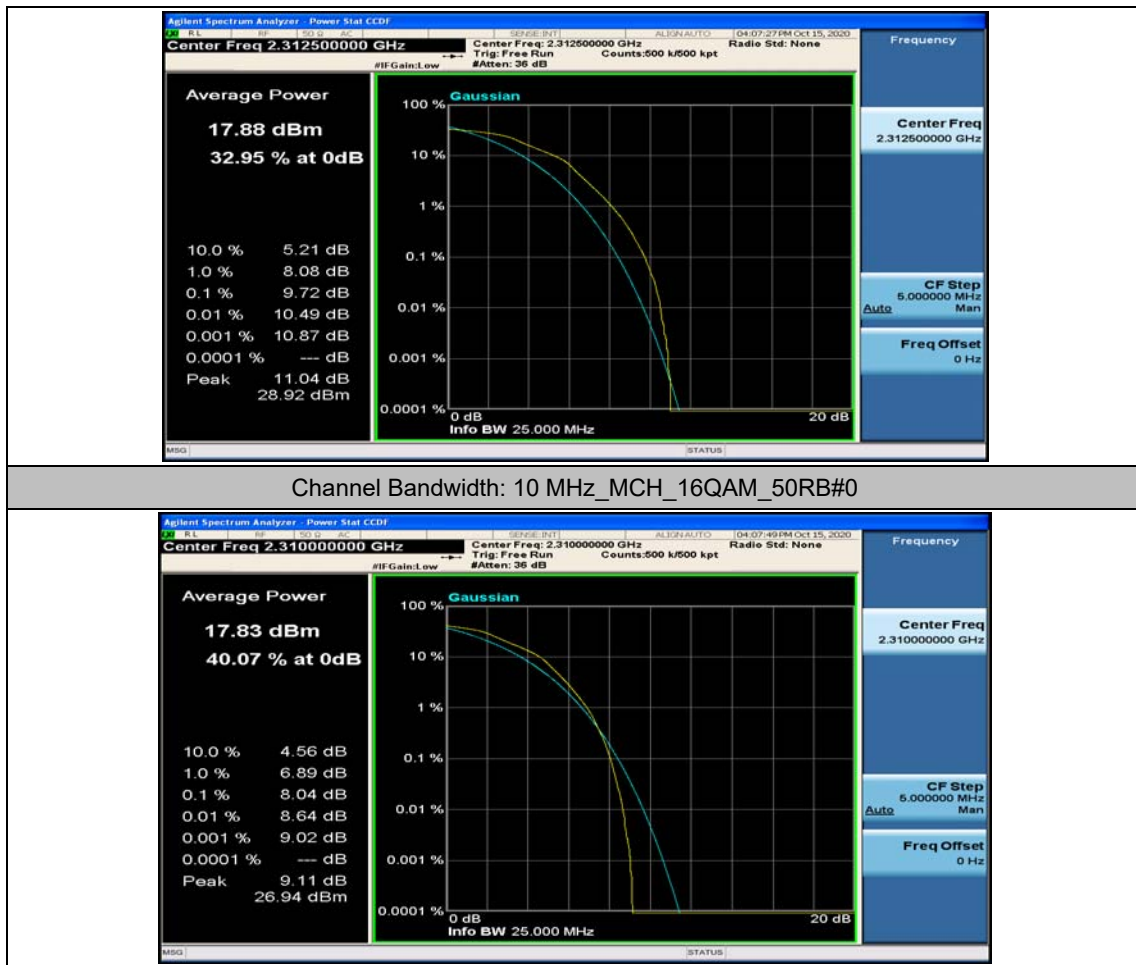
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25



Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Channel Bandwidth: 5 MHz

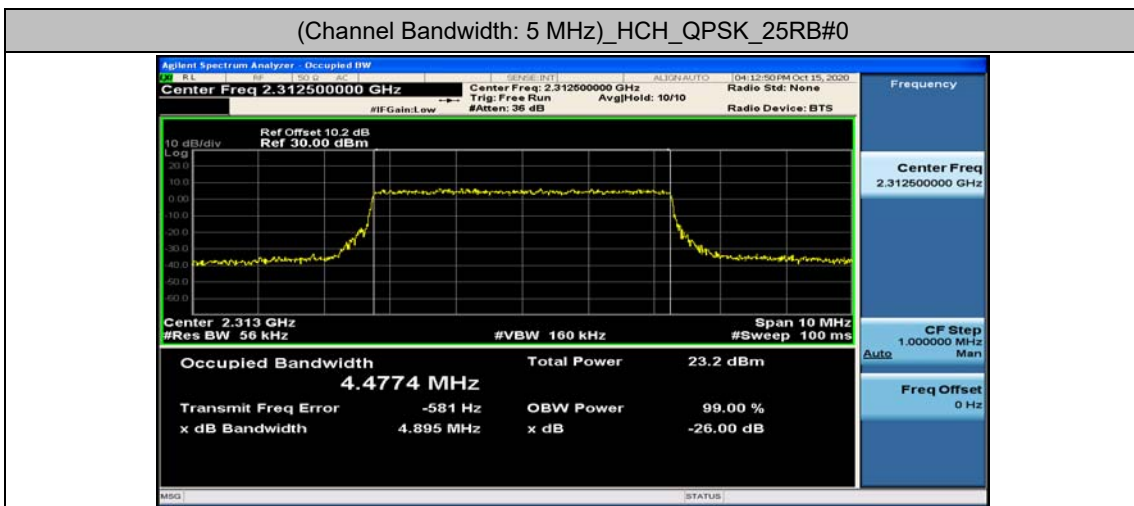
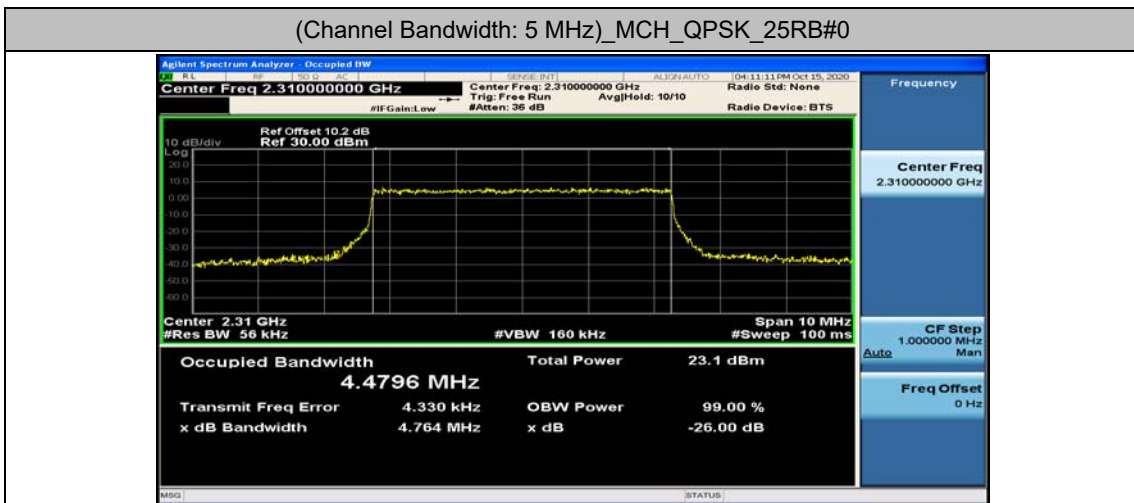
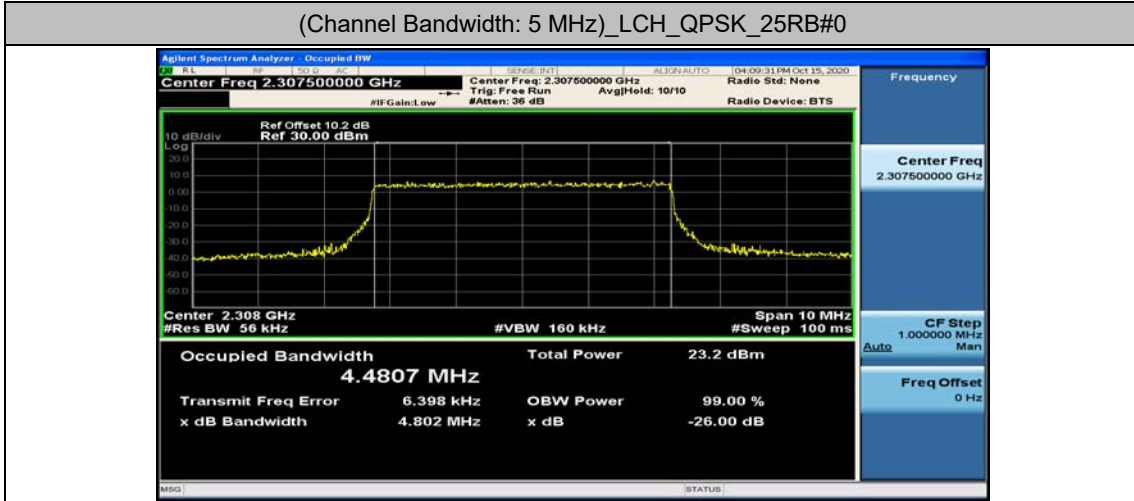
Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	25	0	4.4807	4.802	PASS
	MCH	25	0	4.4796	4.764	PASS
	HCH	25	0	4.4774	4.895	PASS
16QAM	LCH	25	0	4.4704	4.890	PASS
	MCH	25	0	4.4660	4.802	PASS
	HCH	25	0	4.4722	4.795	PASS

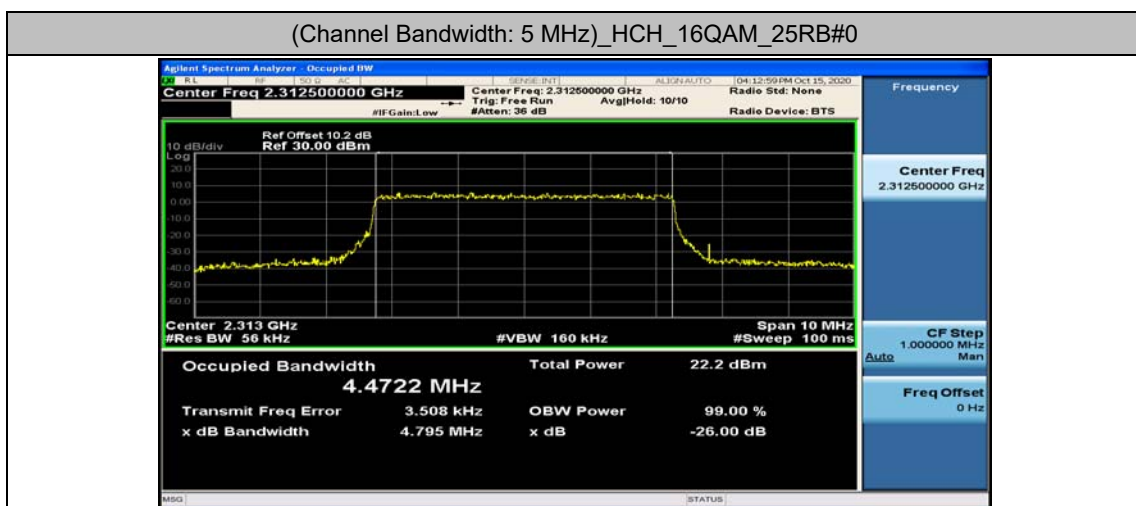
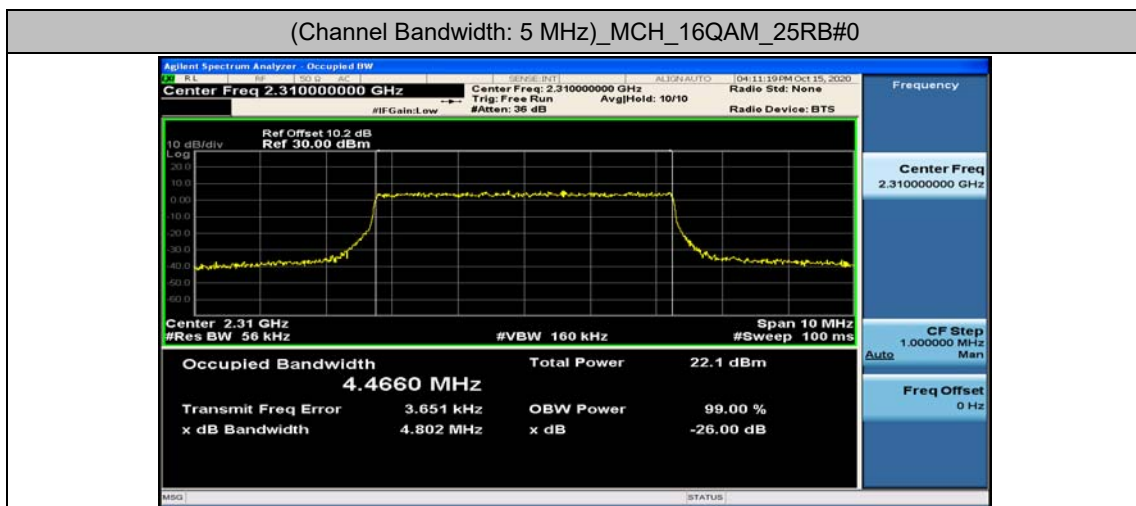
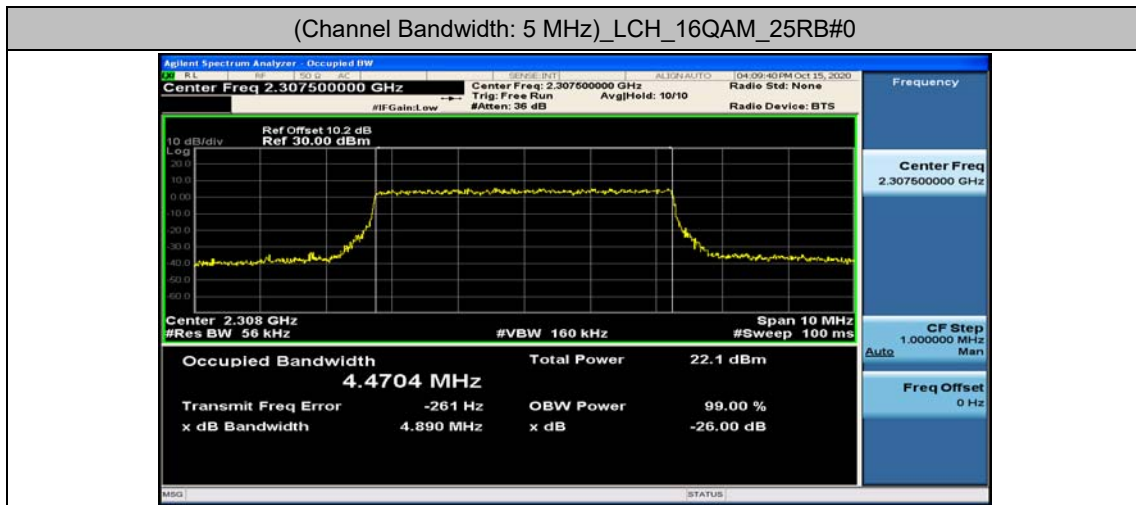
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	MCH	50	0	8.9071	9.437	PASS
16QAM	MCH	50	0	8.9270	9.425	PASS

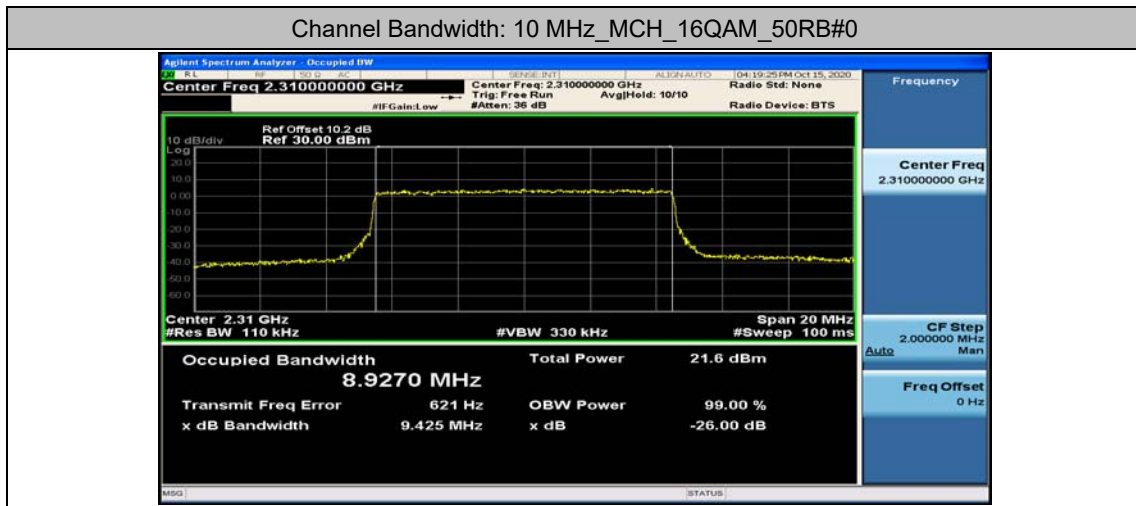
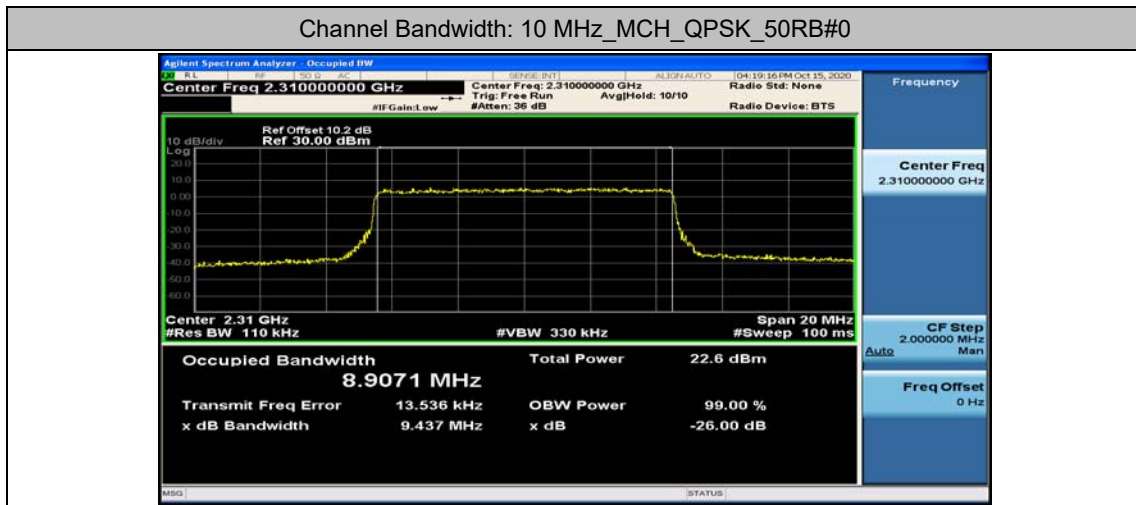
Test Graphs

Channel Bandwidth: 5 MHz





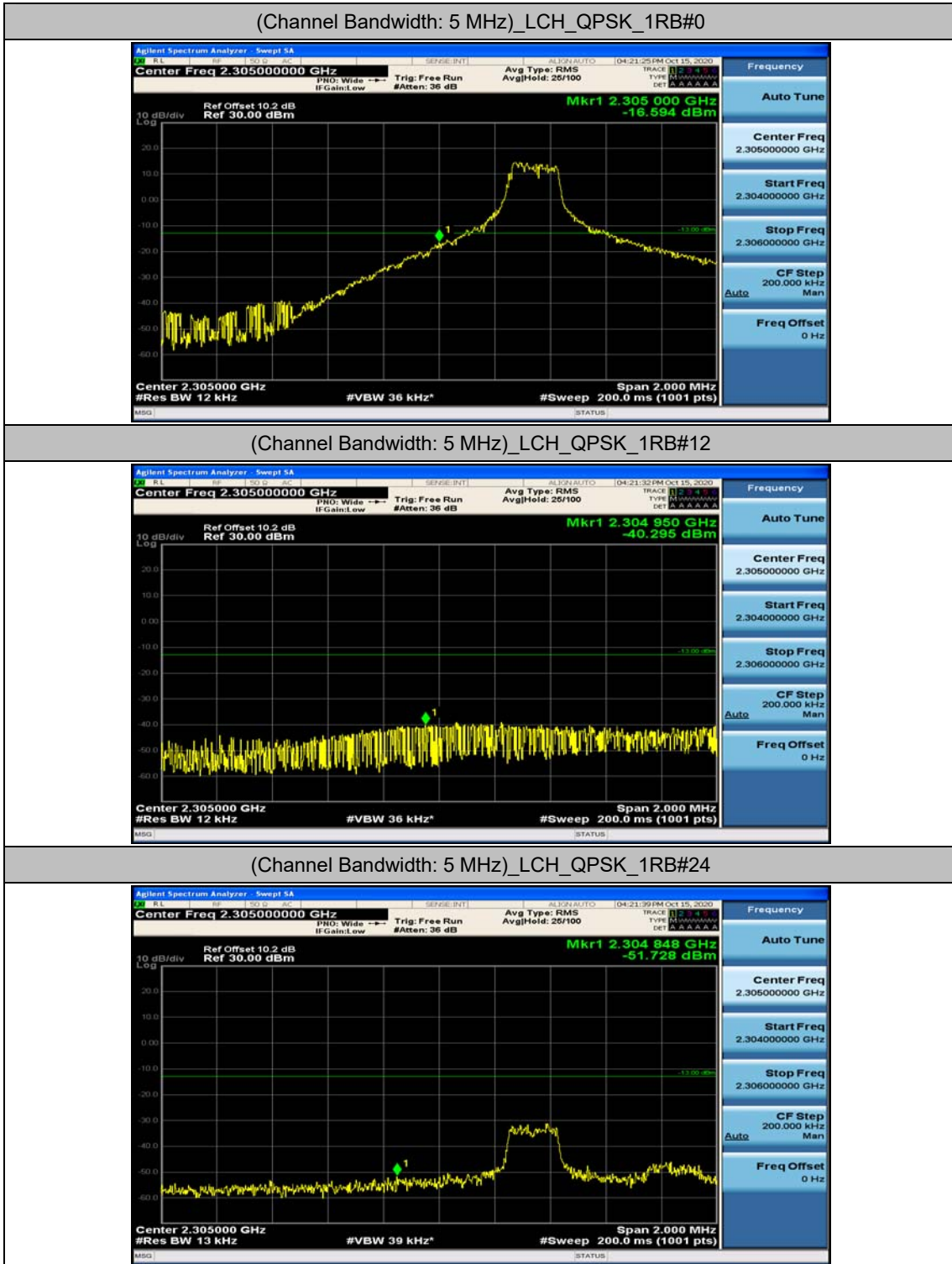
Channel Bandwidth: 10 MHz



Appendix D: Band Edge

Test Graphs

Channel Bandwidth: 5 MHz



(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0



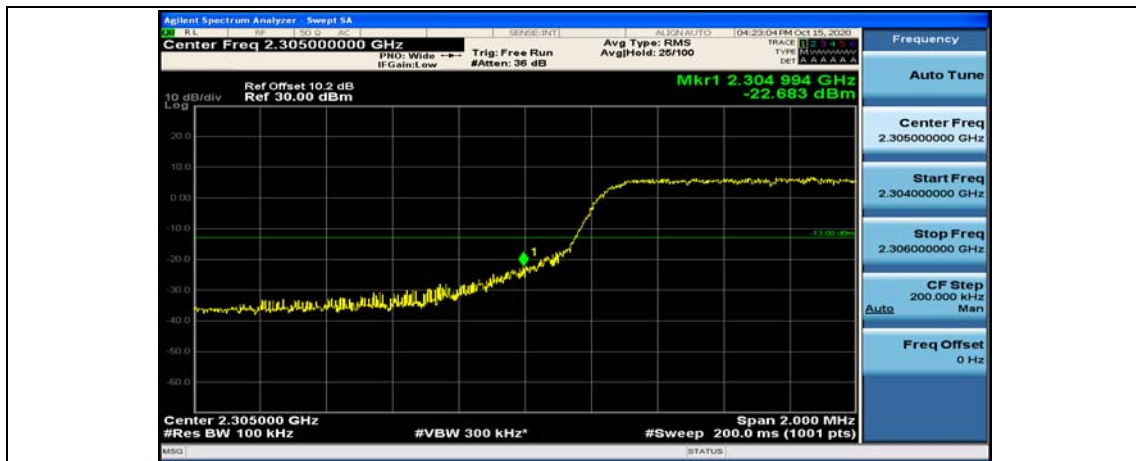
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



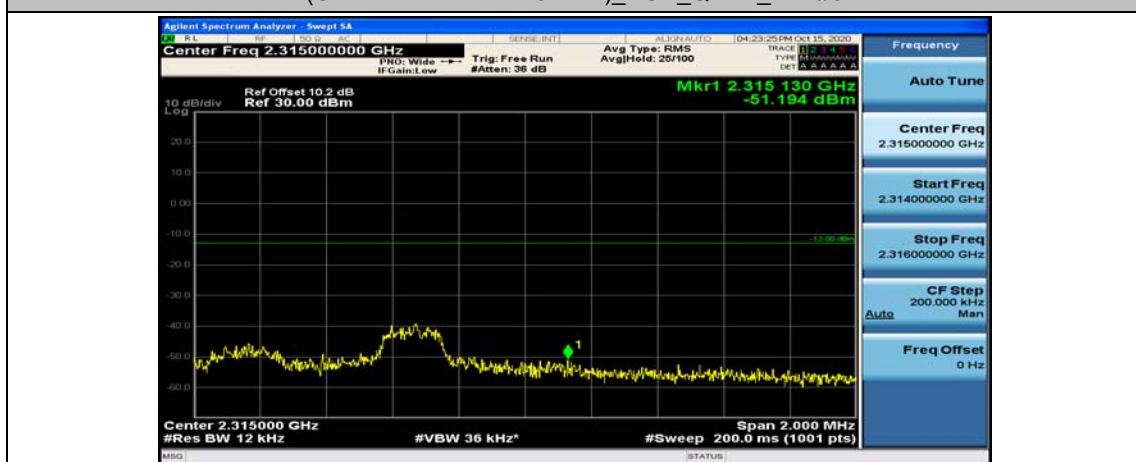
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13



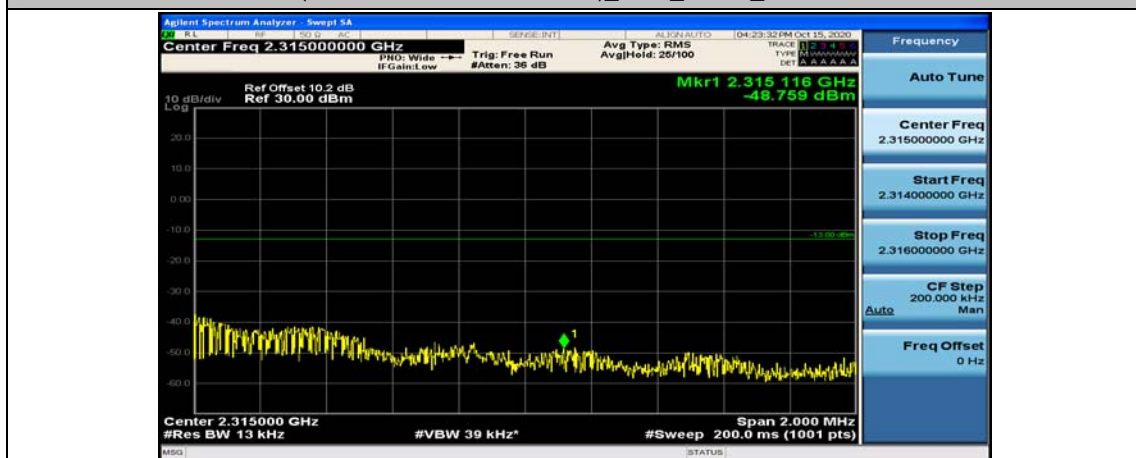
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



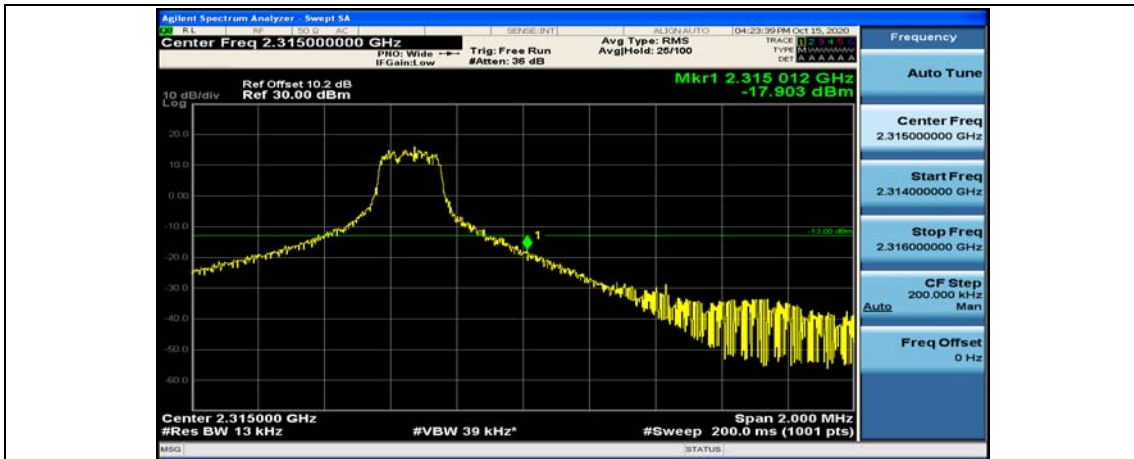
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



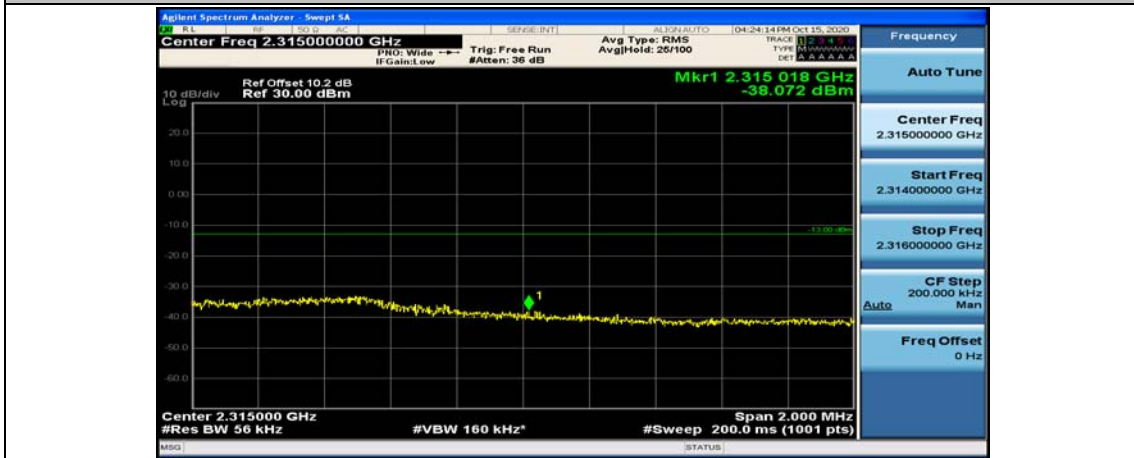
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



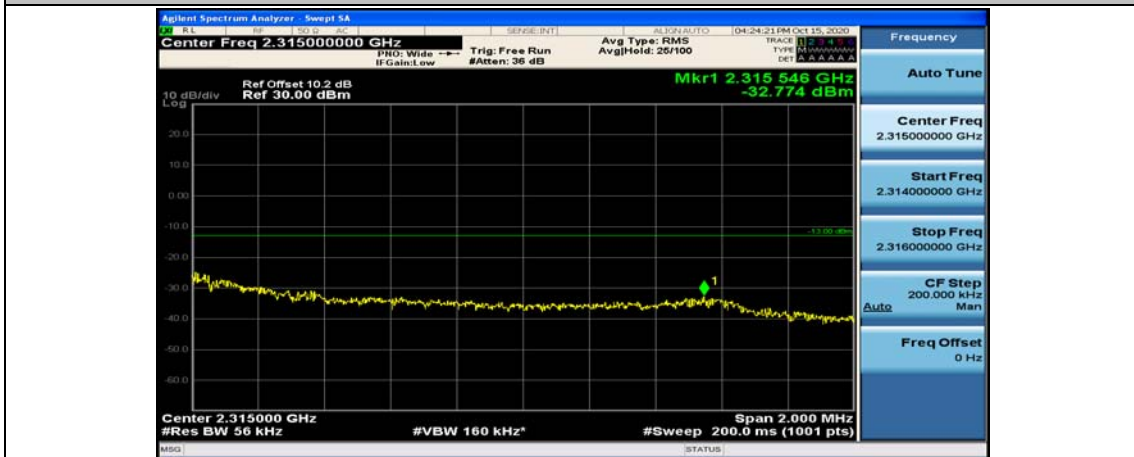
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#6



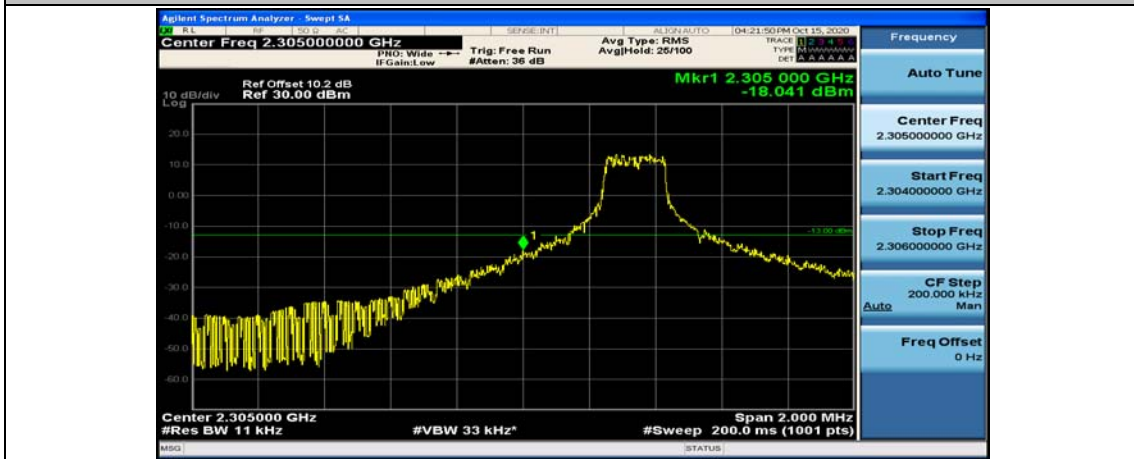
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



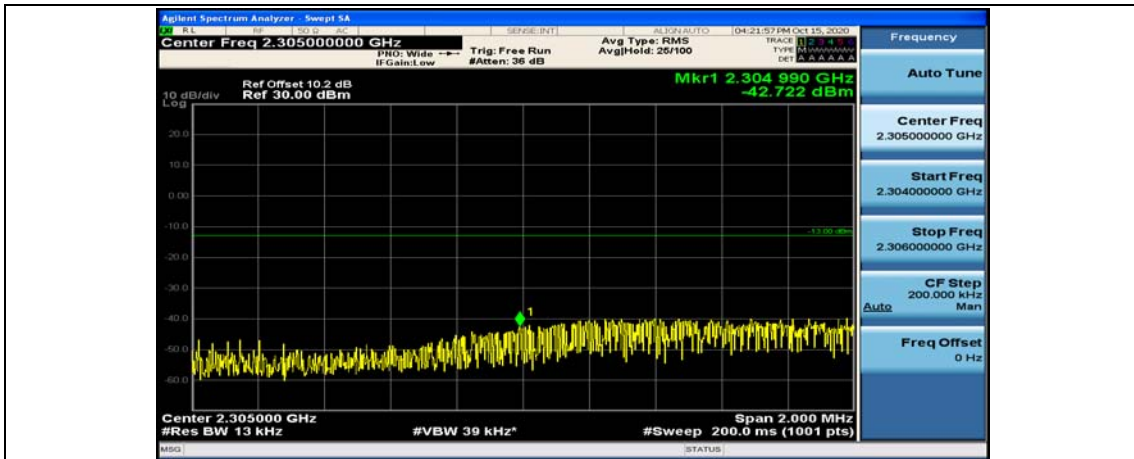
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



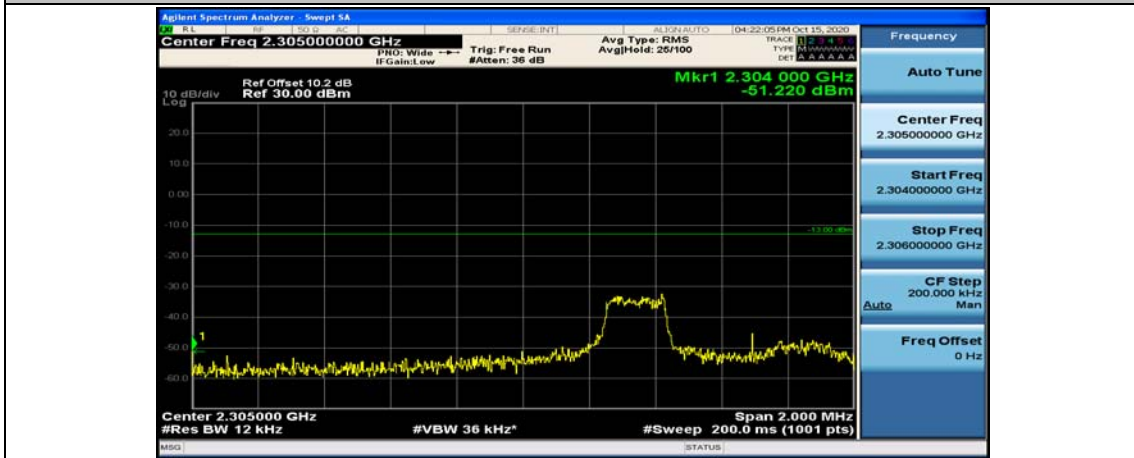
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



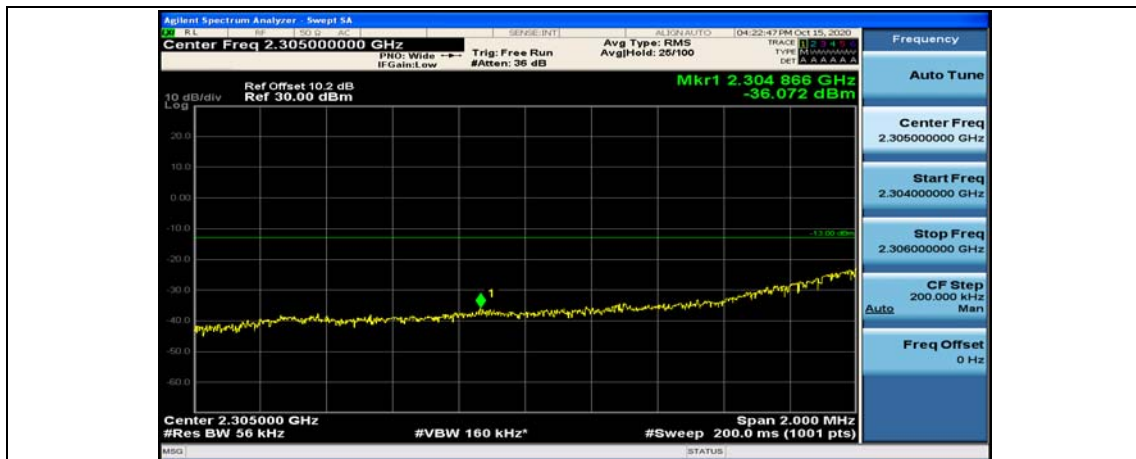
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0



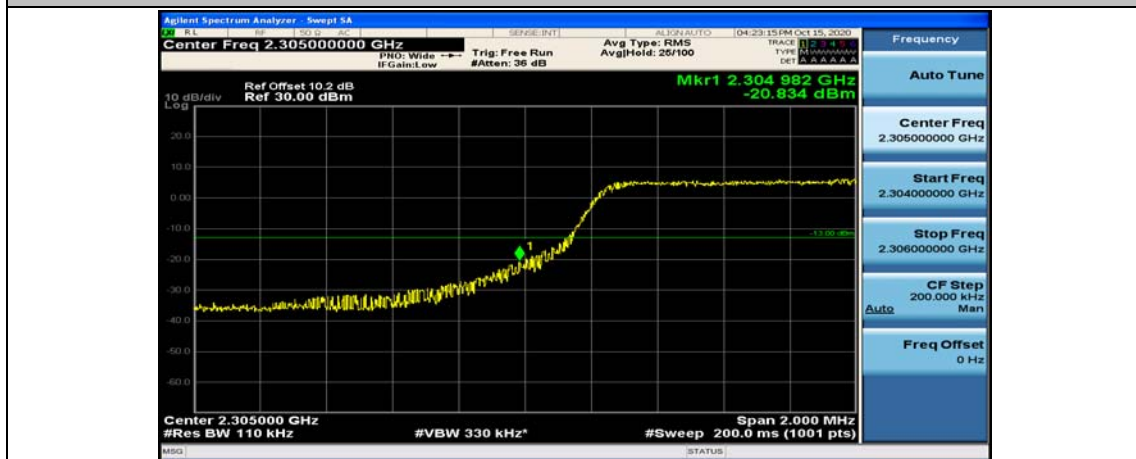
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



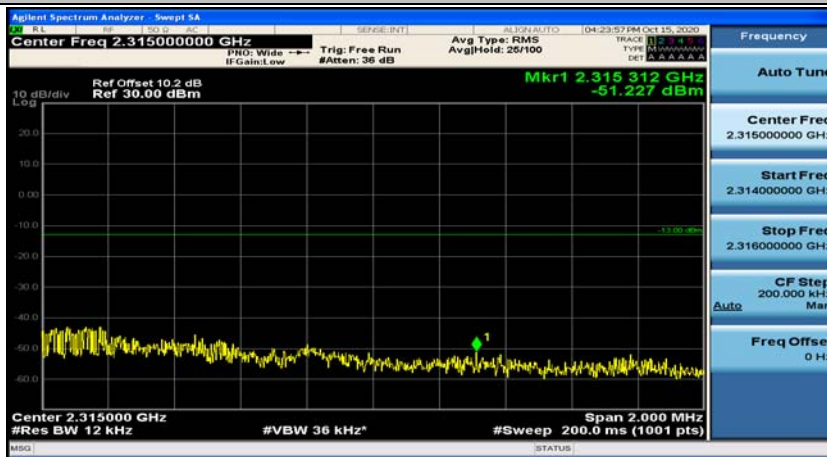
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



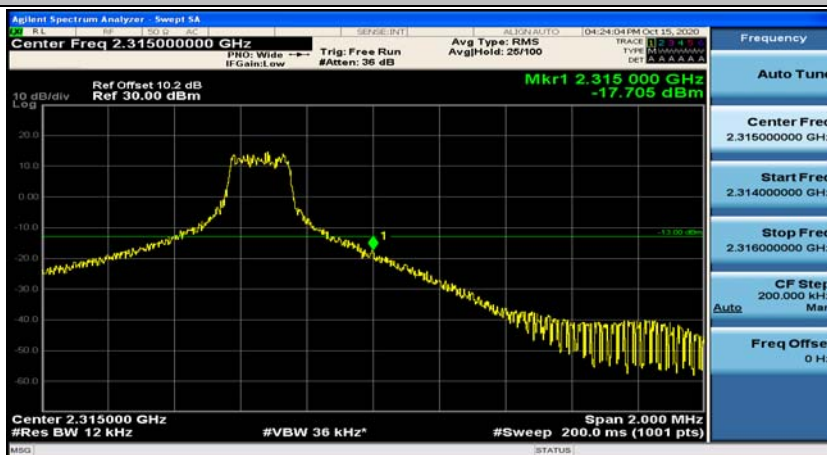
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



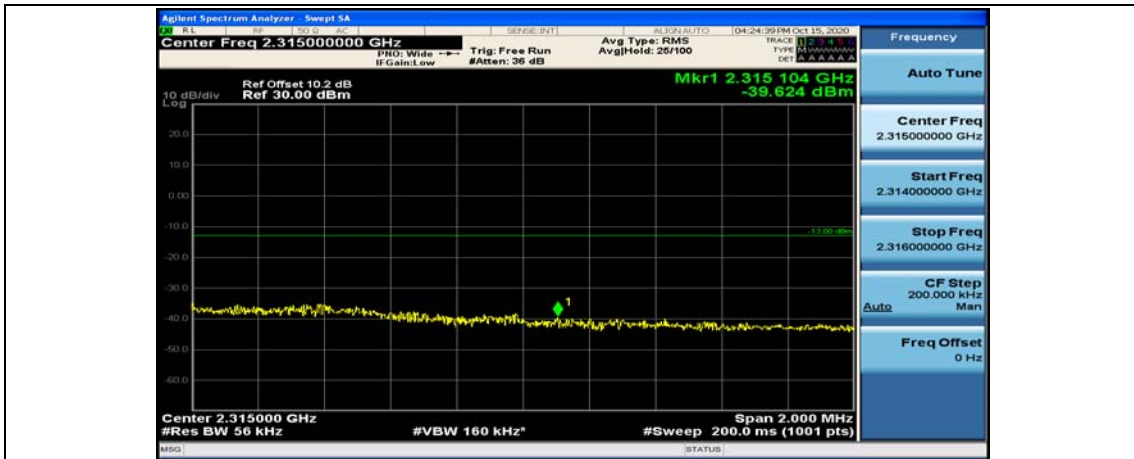
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6



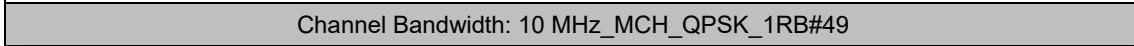
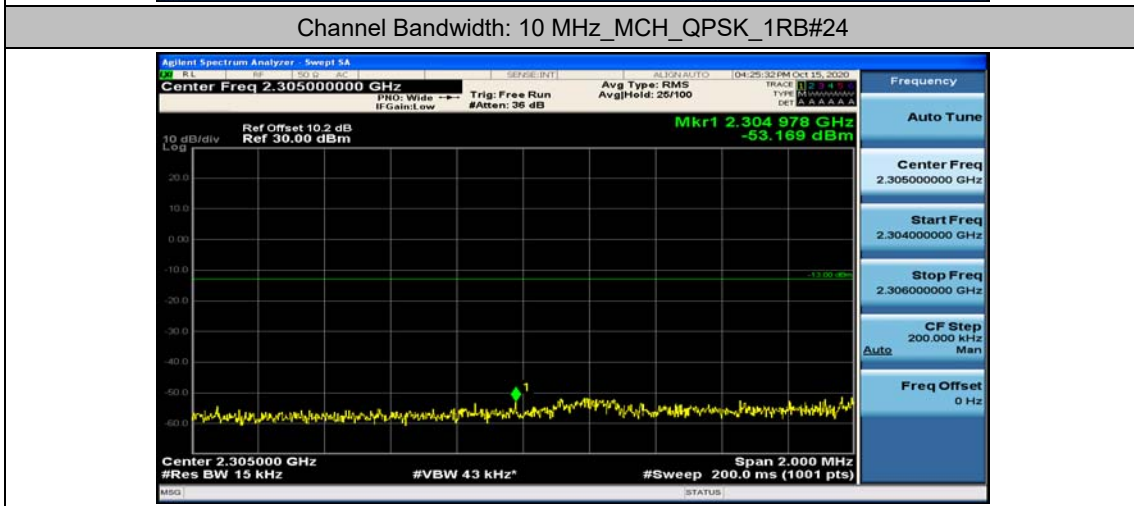
(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13

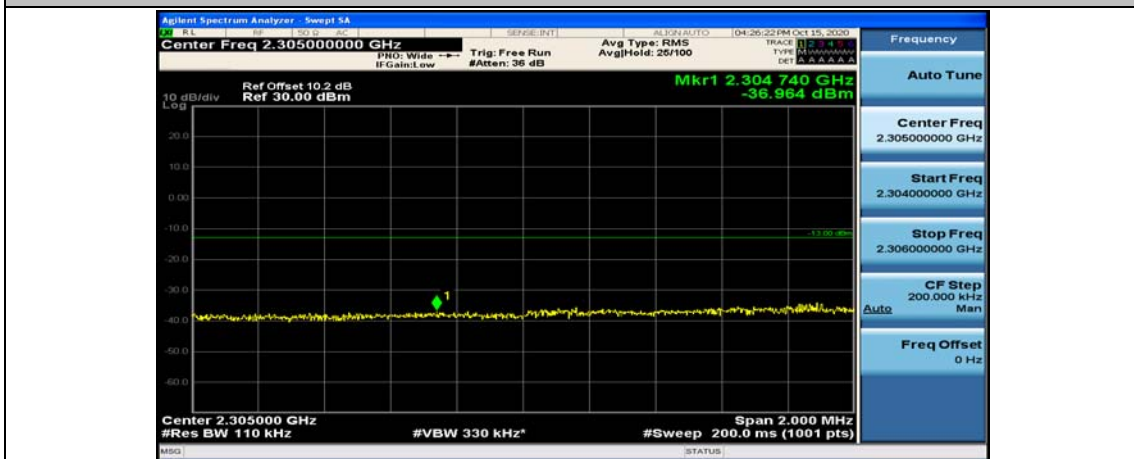
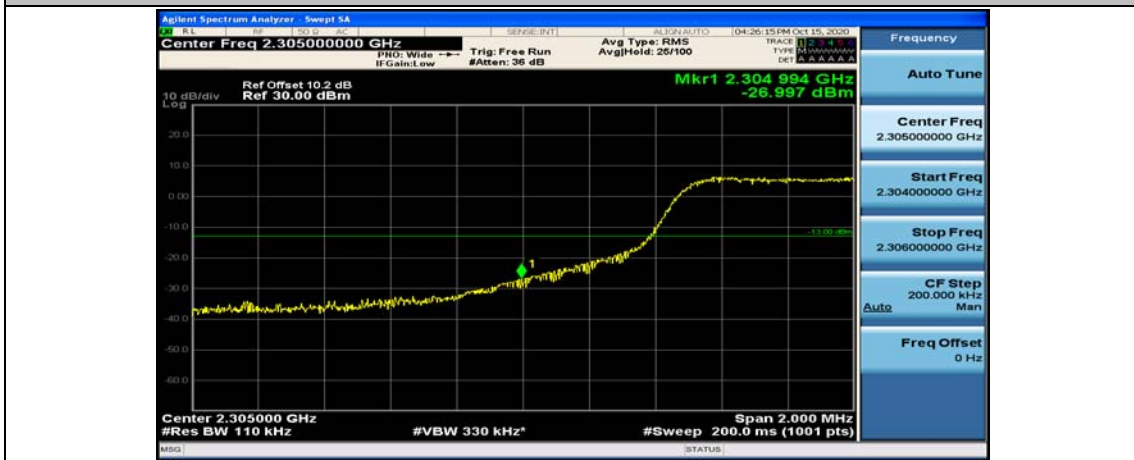
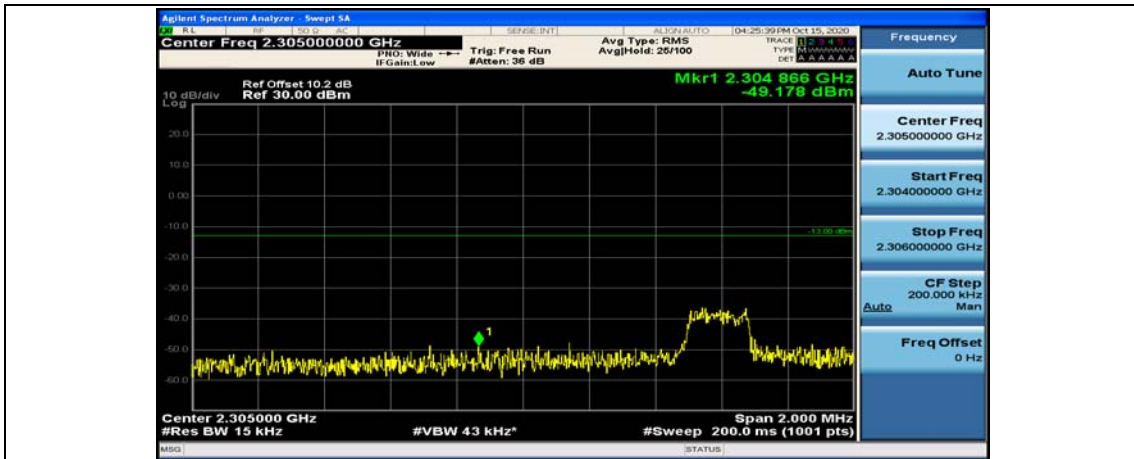


(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz



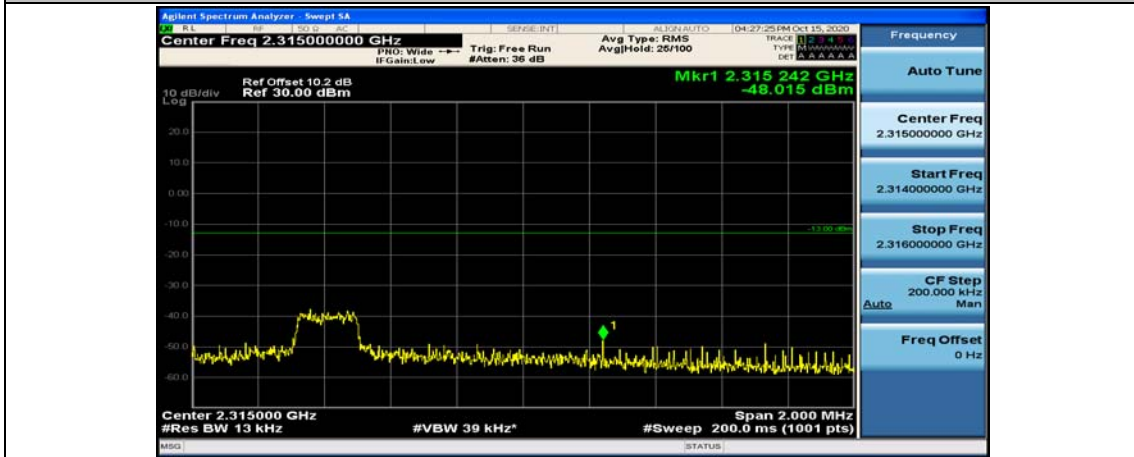




Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24