Appendix for Band 30

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	23.52	PASS
		1	12	23.88	PASS
		1	24	23.55	PASS
		12	0	22.53	PASS
		12	6	22.62	PASS
		12	13	22.57	PASS
		25	0	22.53	PASS
	MCH	1	0	23.65	PASS
		1	12	23.95	PASS
		1	24	23.54	PASS
		12	0	22.64	PASS
		12	6	22.65	PASS
		12	13	22.62	PASS
		25	0	22.52	PASS
	HCH	1	0	23.58	PASS
		1	12	23.88	PASS
		1	24	23.42	PASS
		12	0	22.42	PASS
		12	6	22.46	PASS
		12	13	22.39	PASS
		25	0	22.39	PASS
16QAM	LCH	1	0	22.73	PASS
		1	12	22.96	PASS
		1	24	22.60	PASS
		12	0	21.55	PASS
		12	6	21.62	PASS
		12	13	21.57	PASS
		25	0	21.55	PASS
	MCH	1	0	22.80	PASS
		1	12	22.85	PASS
		1	24	22.68	PASS
		12	0	21.53	PASS

		12	6	21.53	PASS
		12	13	21.46	PASS
		25	0	21.38	PASS
	HCH	1	0	22.66	PASS
		1	12	22.90	PASS
		1	24	22.50	PASS
		12	0	21.36	PASS
		12	6	21.37	PASS
		12	13	21.30	PASS
		25	0	21.37	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	MCH	1	0	23.89	PASS
		1	24	23.65	PASS
		1	49	23.40	PASS
		25	0	22.49	PASS
		25	12	22.48	PASS
		25	25	22.44	PASS
		50	0	22.40	PASS
16QAM	MCH	1	0	22.75	PASS
		1	24	22.72	PASS
		1	49	22.51	PASS
		25	0	21.46	PASS
		25	12	21.43	PASS
		25	25	21.39	PASS
		50	0	21.40	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	8.17	<13	PASS
		1	12	6.06	<13	PASS
		1	24	6.92	<13	PASS
		12	0	8.34	<13	PASS
		12	6	8.53	<13	PASS
		12	13	10.22	<13	PASS
		25	0	6.71	<13	PASS
	MCH	1	0	8.79	<13	PASS
		1	12	9.35	<13	PASS
		1	24	7.3	<13	PASS
		12	0	6.96	<13	PASS
		12	6	8.49	<13	PASS
		12	13	8.44	<13	PASS
		25	0	6.82	<13	PASS
	HCH	1	0	9.63	<13	PASS
		1	12	5.05	<13	PASS
		1	24	6.66	<13	PASS
		12	0	8.57	<13	PASS
		12	6	8.19	<13	PASS
		12	13	6.99	<13	PASS
		25	0	8.71	<13	PASS
16QAM	LCH	1	0	7.36	<13	PASS
		1	12	9.02	<13	PASS
		1	24	8.51	<13	PASS
		12	0	8.31	<13	PASS
		12	6	7.36	<13	PASS
		12	13	8.55	<13	PASS
		25	0	7.27	<13	PASS
	MCH	1	0	7.85	<13	PASS
		1	12	7.52	<13	PASS
		1	24	5.93	<13	PASS
		12	0	8.16	<13	PASS

		12	6	12.04	<13	PASS
		12	13	9.42	<13	PASS
		25	0	8.59	<13	PASS
	HCH	1	0	7.29	<13	PASS
		1	12	6.92	<13	PASS
		1	24	7.45	<13	PASS
		12	0	8.49	<13	PASS
		12	6	8.8	<13	PASS
		12	13	7.36	<13	PASS
		25	0	8.24	<13	PASS

Channel Bandwidth: 10 MHz

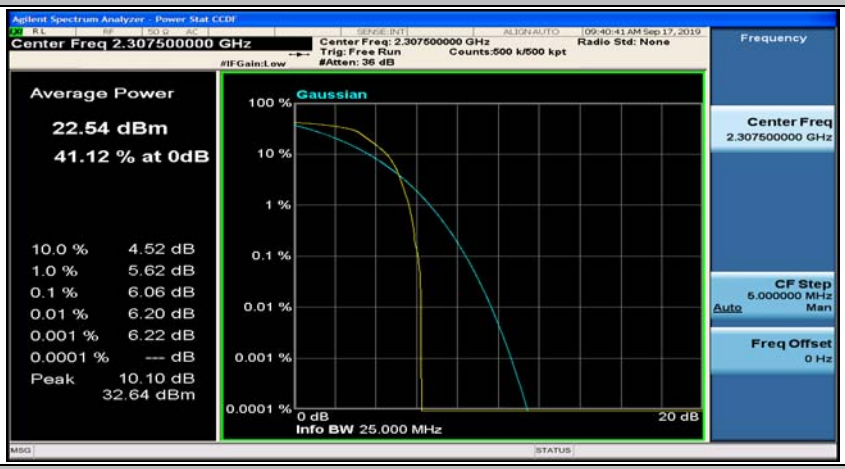
Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio	Limit	Verdict
		Size	Offset	[dB]	[dB]	
QPSK	MCH	1	0	6.94	<13	PASS
		1	24	7.24	<13	PASS
		1	49	7.16	<13	PASS
		25	12	8.72	<13	PASS
		25	25	6.78	<13	PASS
		50	0	7.39	<13	PASS
		1	0	6.94	<13	PASS
16QAM	MCH	1	0	7.52	<13	PASS
		1	24	8.05	<13	PASS
		1	49	7.6	<13	PASS
		25	0	12.8	<13	PASS
		25	12	9.07	<13	PASS
		25	25	8.43	<13	PASS
		50	0	9.15	<13	PASS
		25	25	8.45	<13	PASS
		50	0	11.24	<13	PASS

Test Graphs

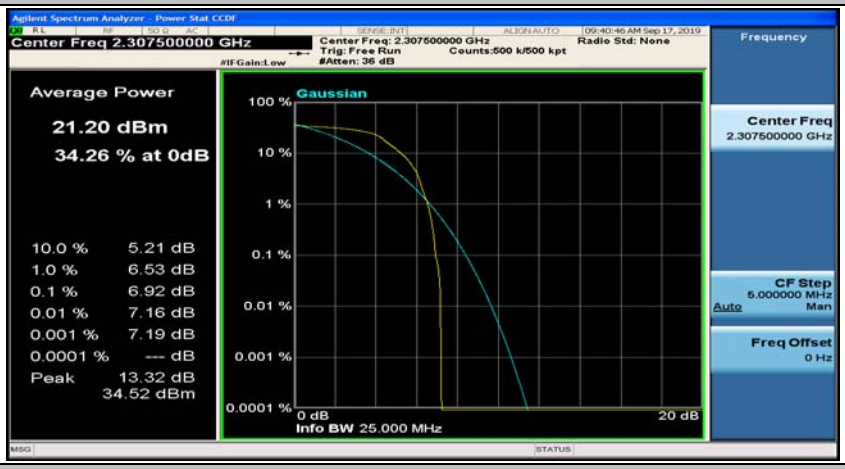
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

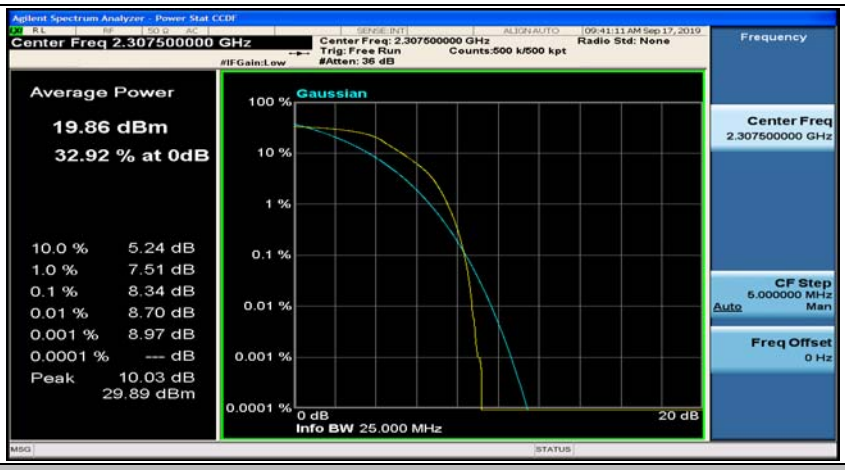
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



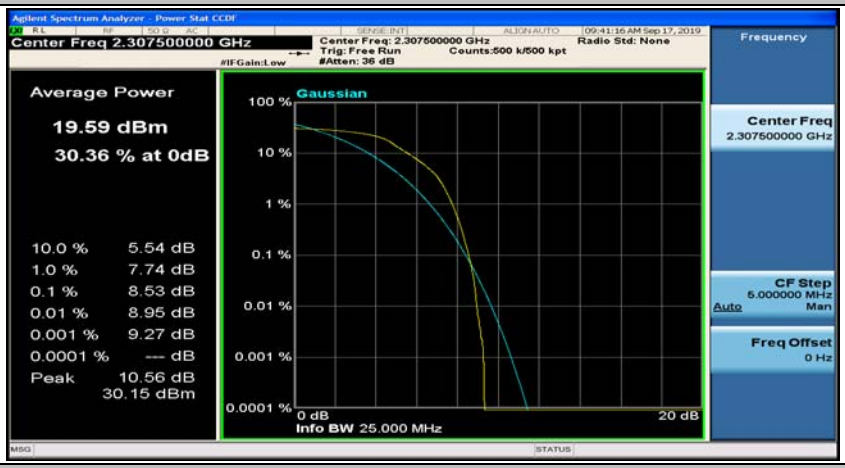
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0

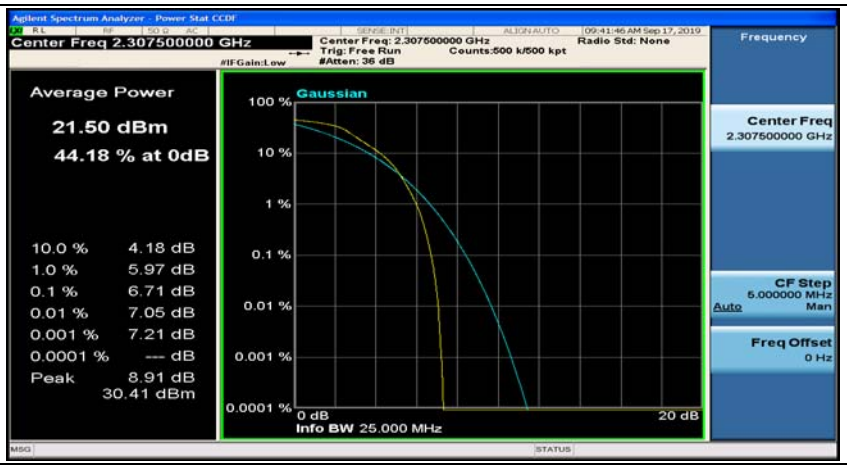


(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



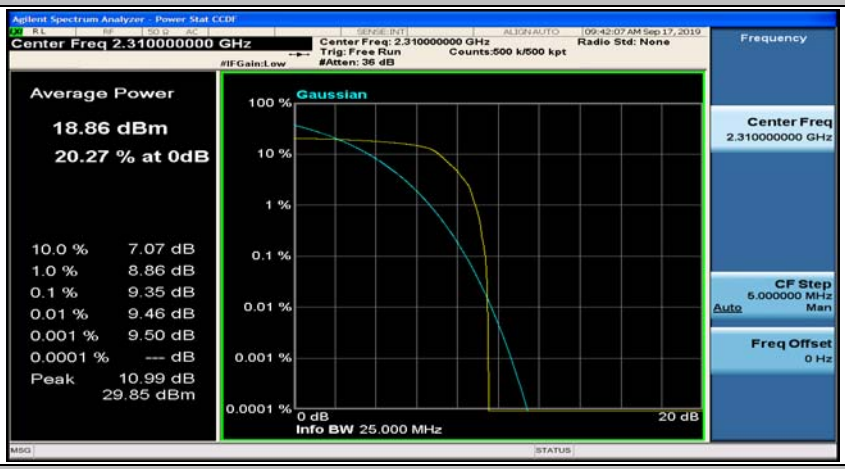
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13

(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0

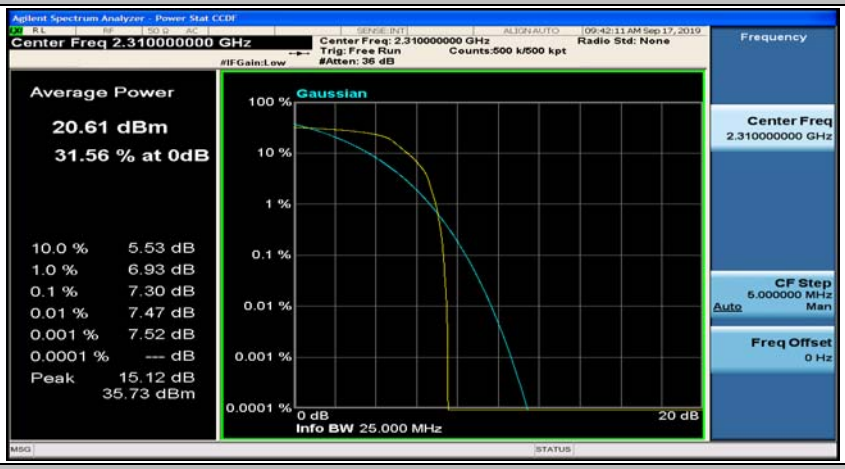

Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 2.307500000 GHz
Center Freq: 2.307500000 GHz
Trig: Free Run
Counts:500 k/500 kpt
#Atten: 36 dB
Radio Std: None
Frequency
Average Power
21.50 dBm
44.18 % at 0dB
10.0 % 4.18 dB
1.0 % 5.97 dB
0.1 % 6.71 dB
0.01 % 7.05 dB
0.001 % 7.21 dB
0.0001 % --- dB
Peak 8.91 dB
30.41 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz
Center Freq
2.307500000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

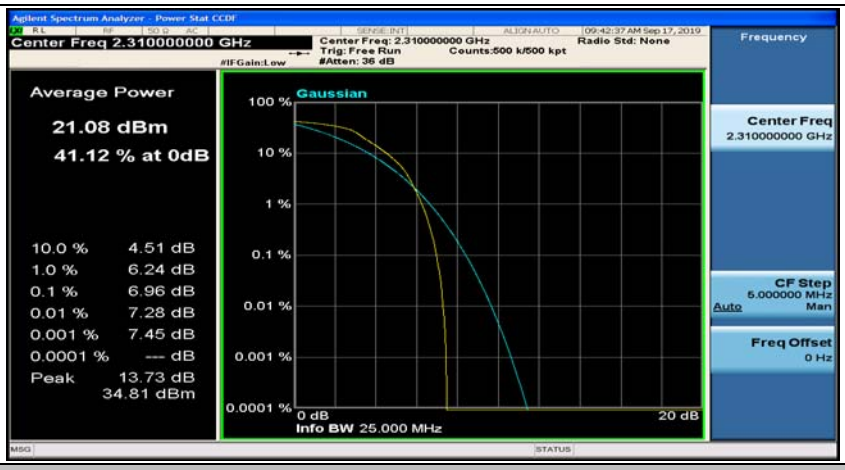
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12



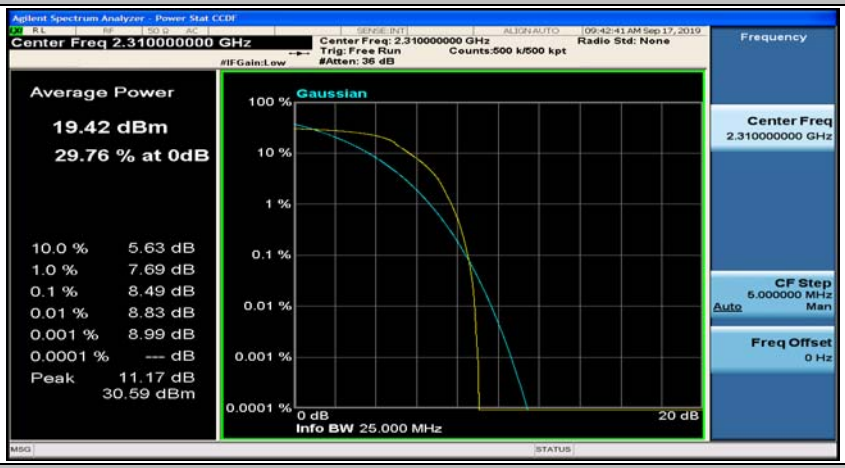
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#0

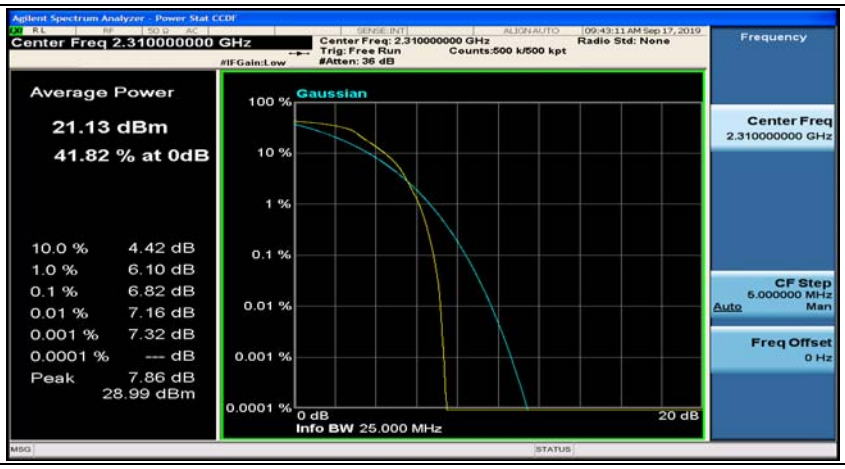


(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#6



(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#13

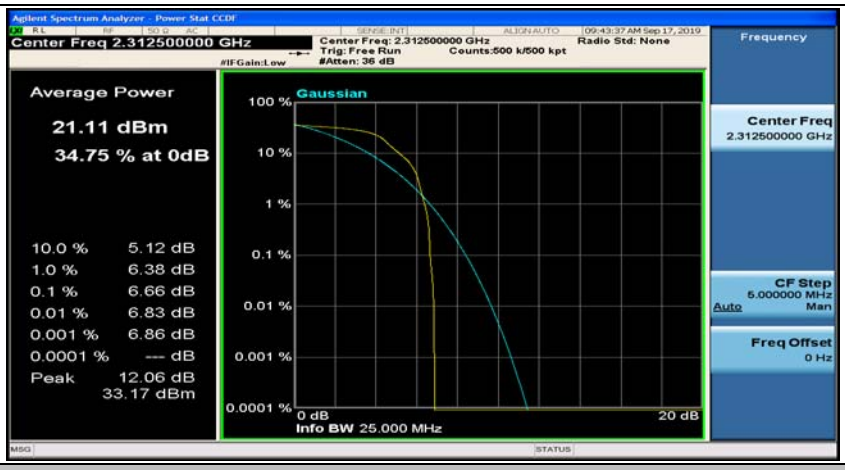
(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

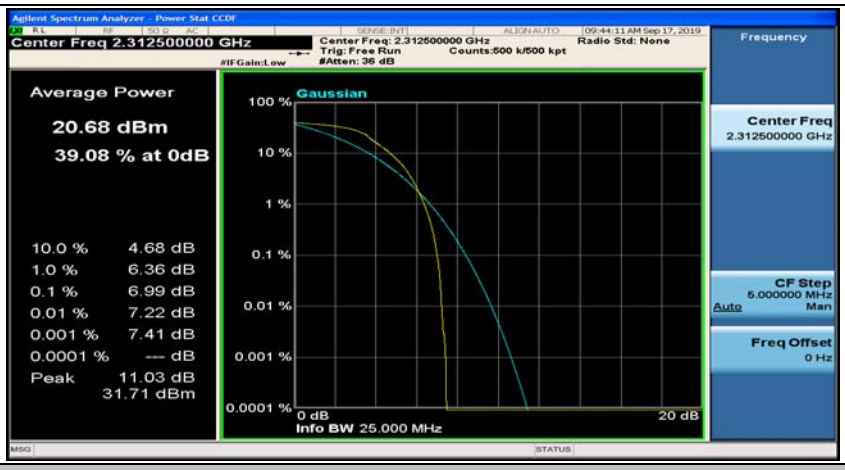
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



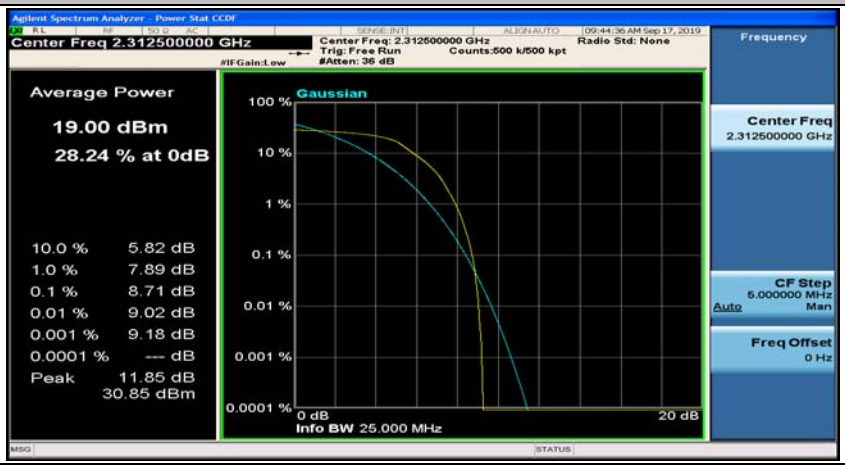
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0

(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#6

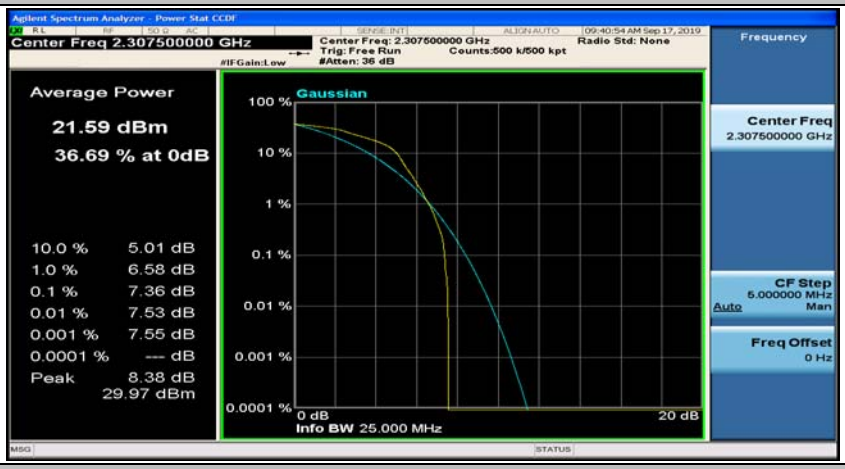
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



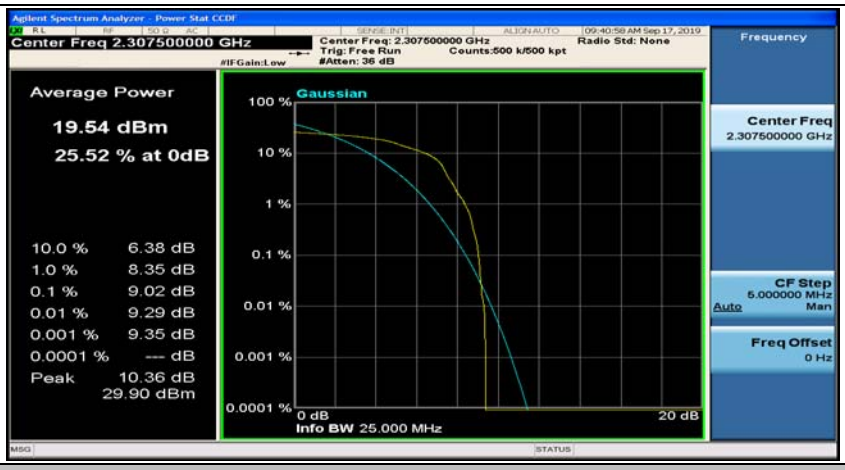
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



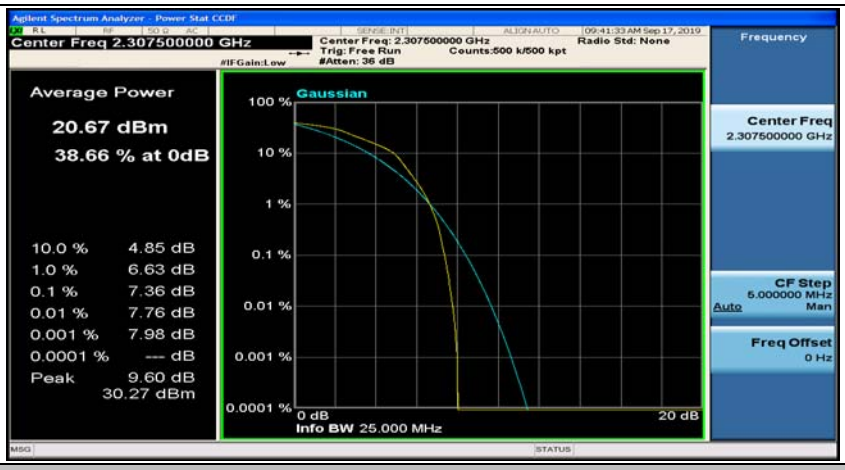
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0

(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6

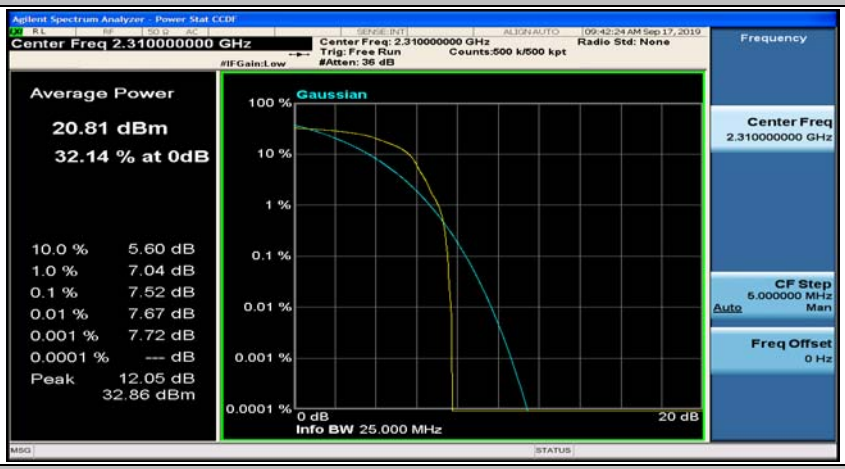


(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13

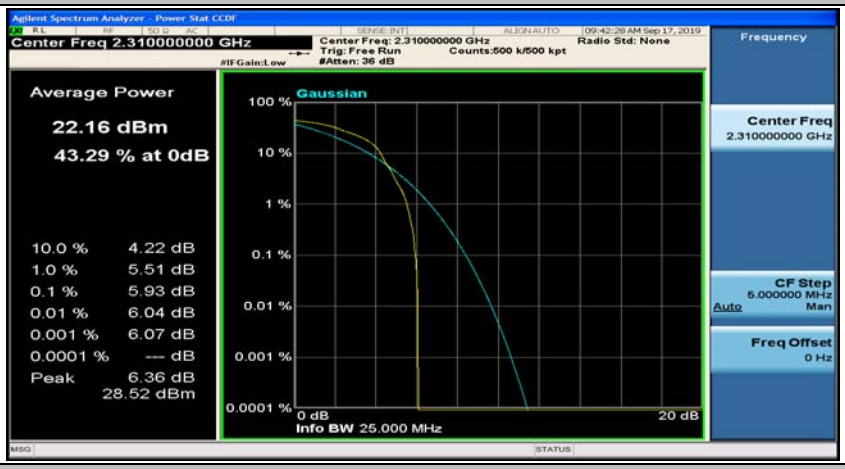
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

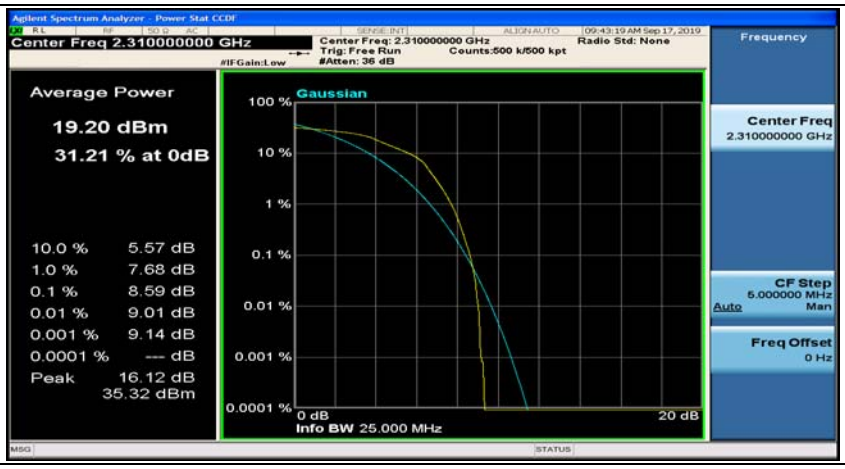


(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#0

(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#6

(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#13

(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0

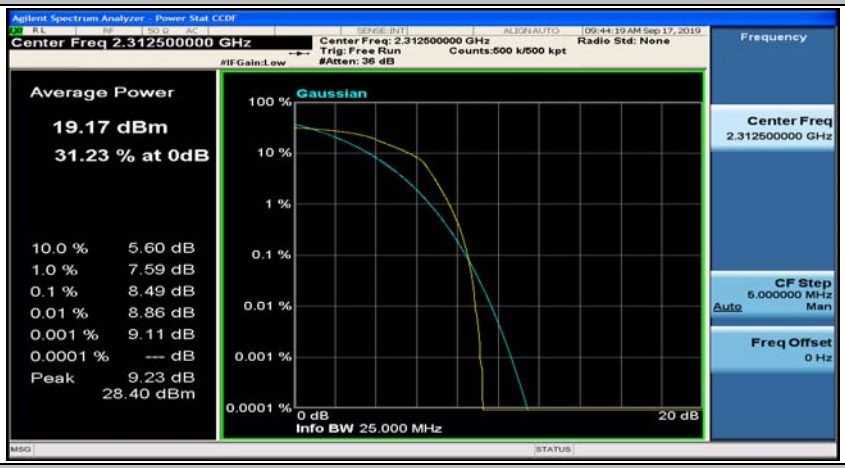


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

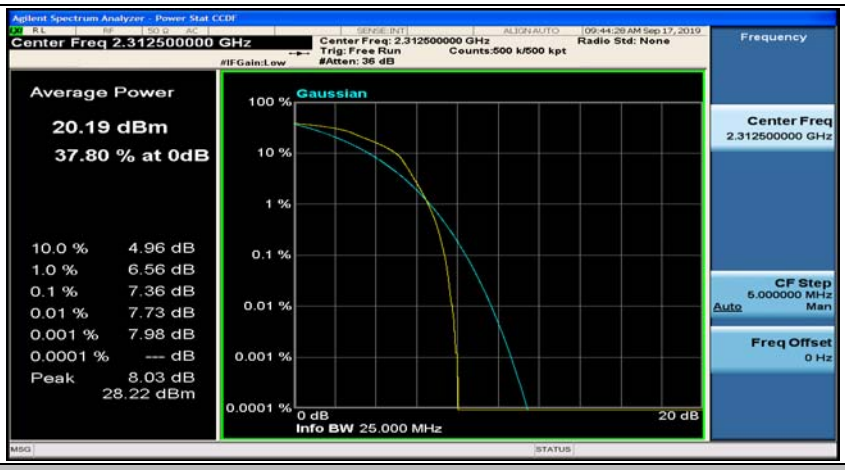
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0

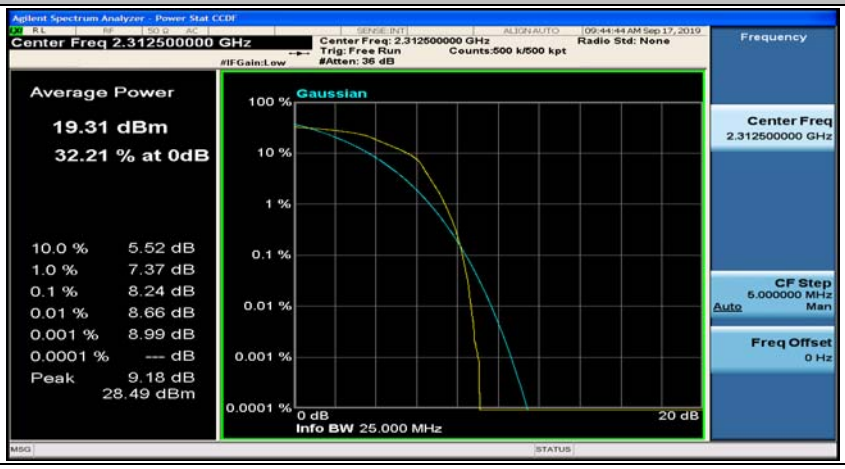


(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6

(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13



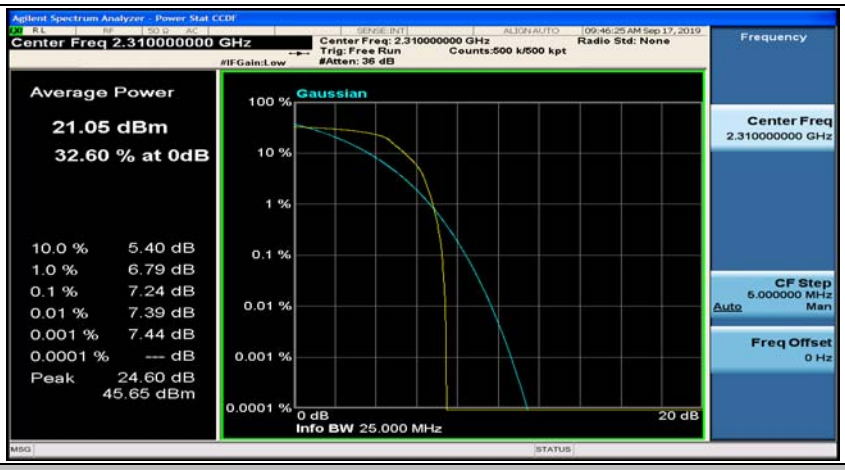
(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



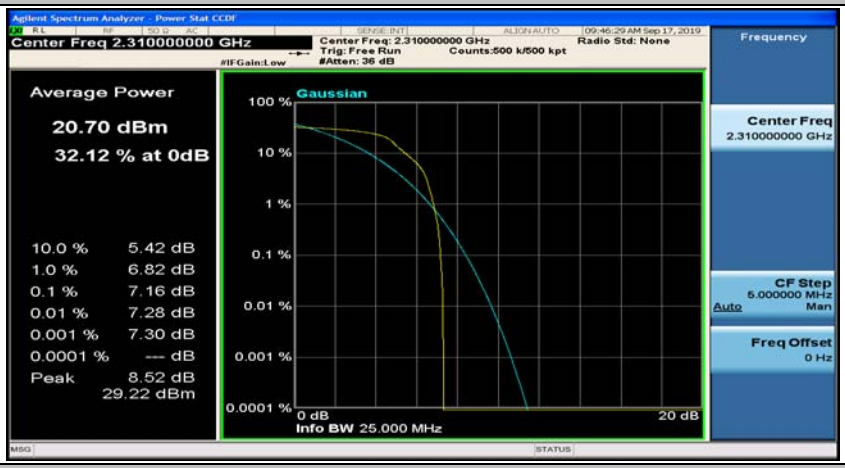
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

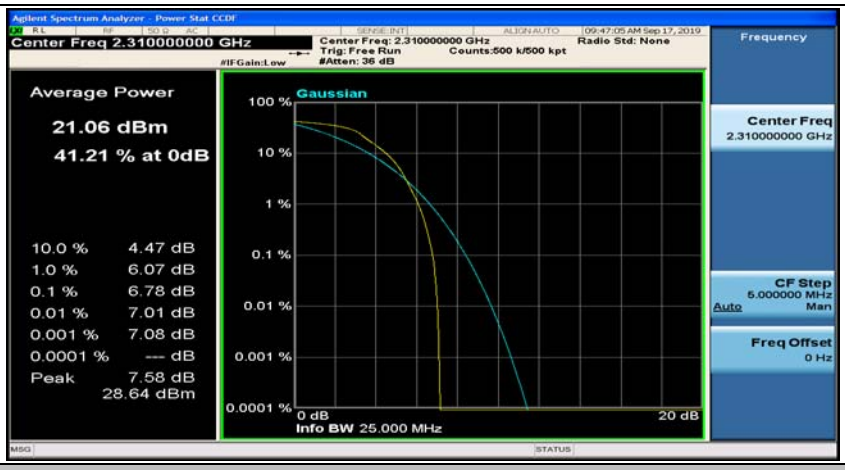


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

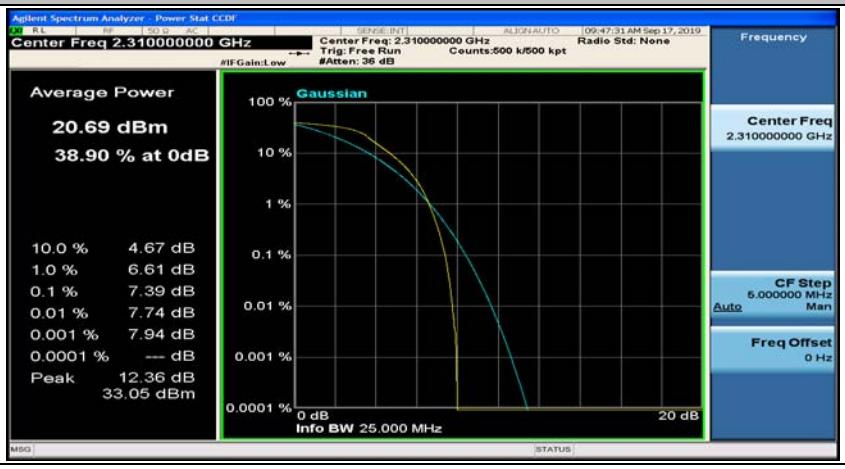


Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#12

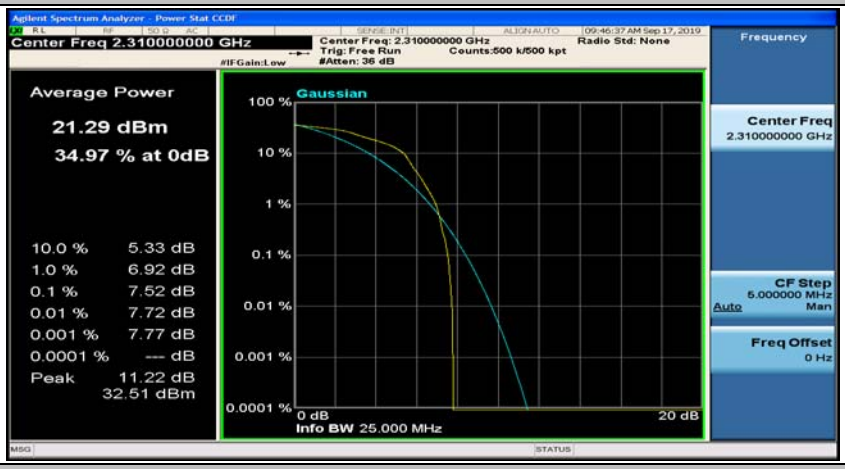
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#25



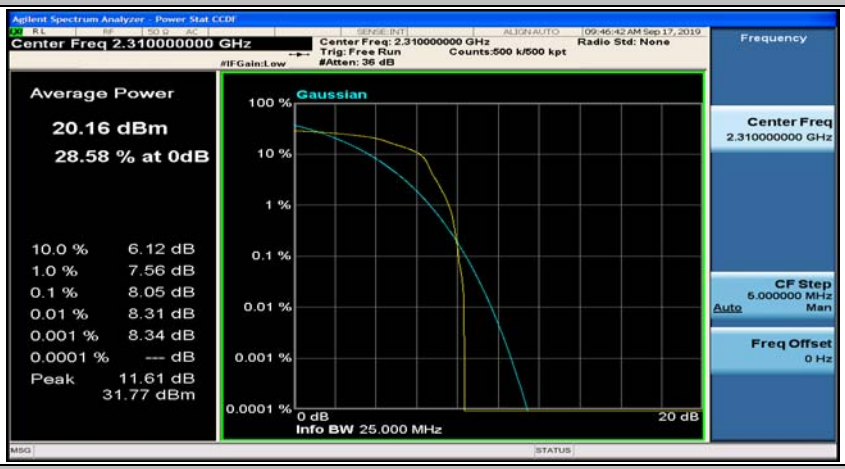
Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

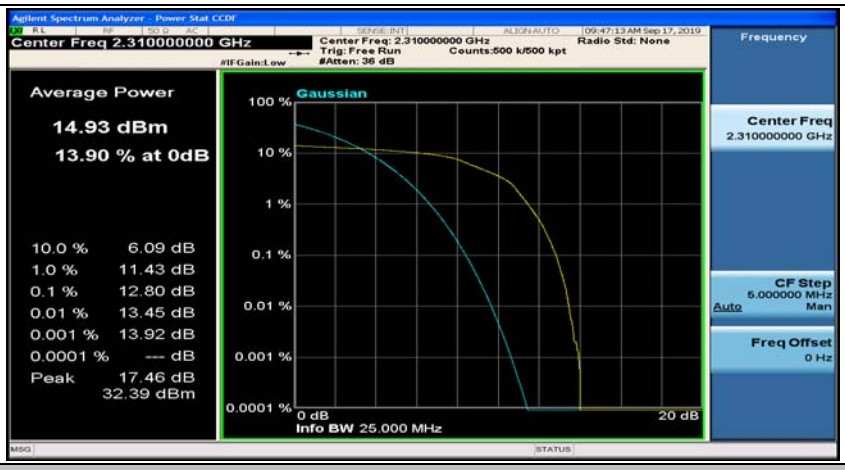


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

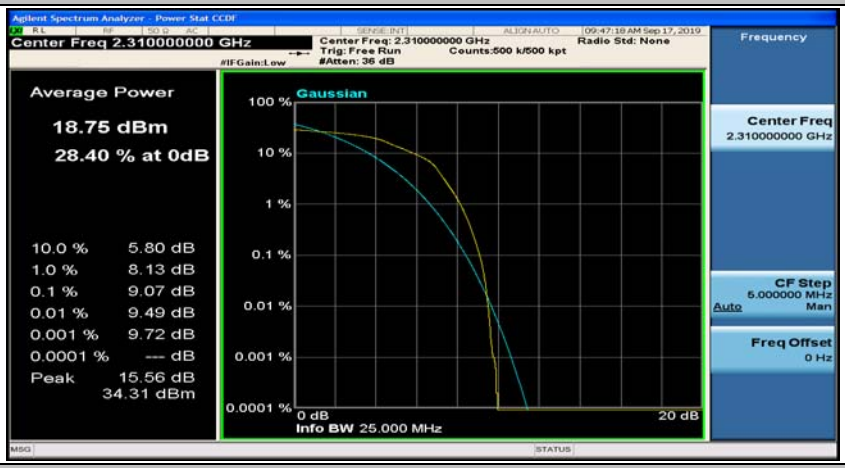


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0

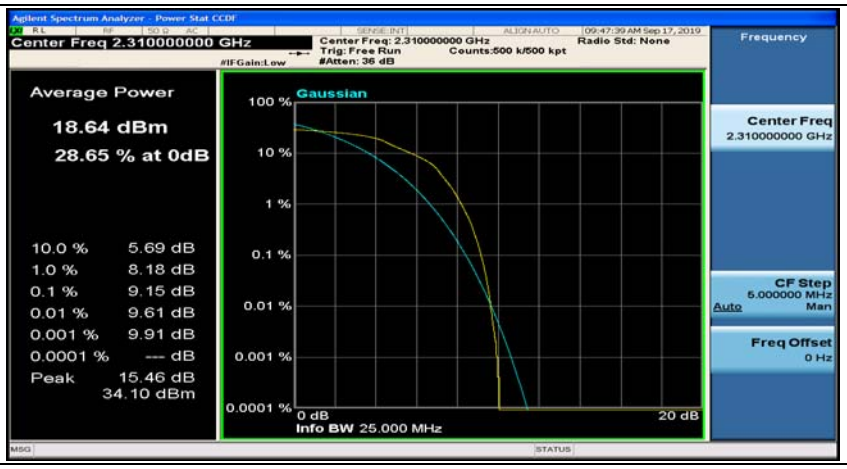


Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25

Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0


Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 2.310000000 GHz
Center Freq: 2.310000000 GHz
Trig: Free Run
Counts:500 k/500 kpt
#Atten: 36 dB
#IFGain:Low
Radio Std: None
Frequency
Average Power
18.64 dBm
28.65 % at 0dB
10.0 % 5.69 dB
1.0 % 8.18 dB
0.1 % 9.15 dB
0.01 % 9.61 dB
0.001 % 9.91 dB
0.0001 % --- dB
Peak 15.46 dB
34.10 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz
Center Freq
2.310000000 GHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

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	4.4735	4.855	PASS
	MCH	25	0	4.4724	4.882	PASS
	HCH	25	0	4.4801	4.895	PASS
16QAM	LCH	25	0	4.4808	4.973	PASS
	MCH	25	0	4.4665	4.857	PASS
	HCH	25	0	4.4722	4.884	PASS

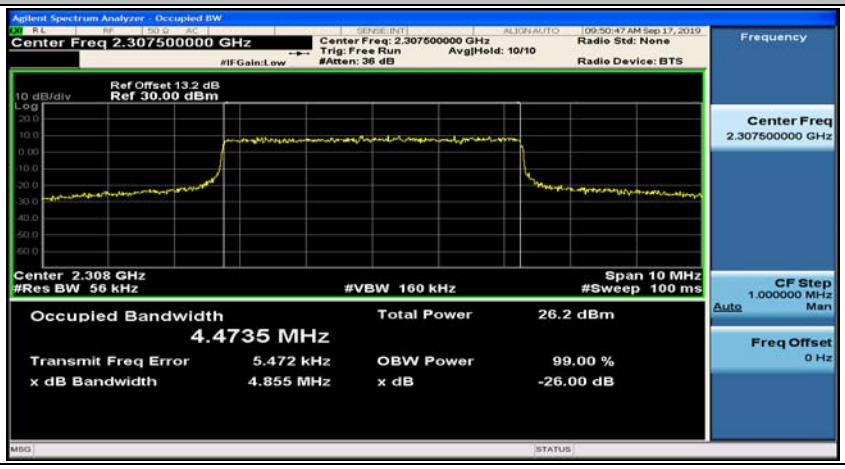
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	MCH	50	0	8.9346	9.429	PASS
16QAM	MCH	50	0	8.9322	9.495	PASS

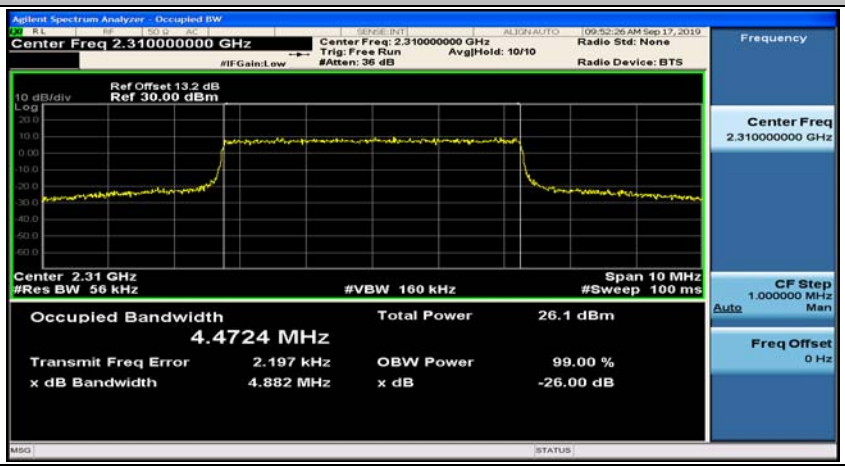
Test Graphs

Channel Bandwidth: 5 MHz

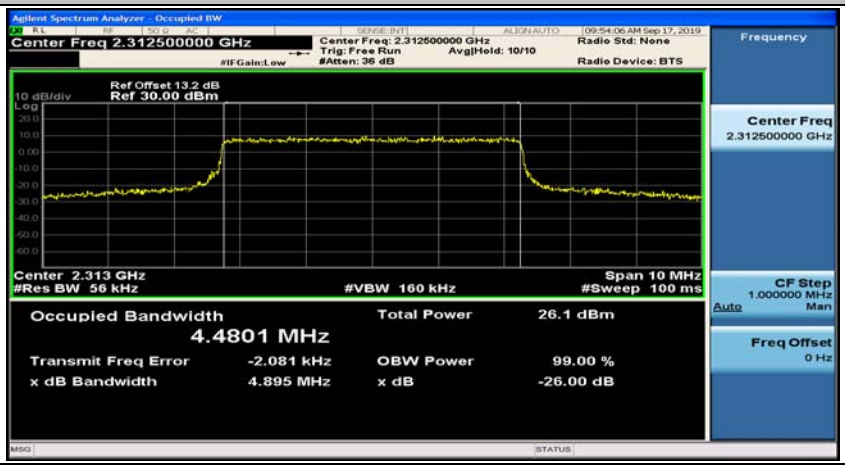
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



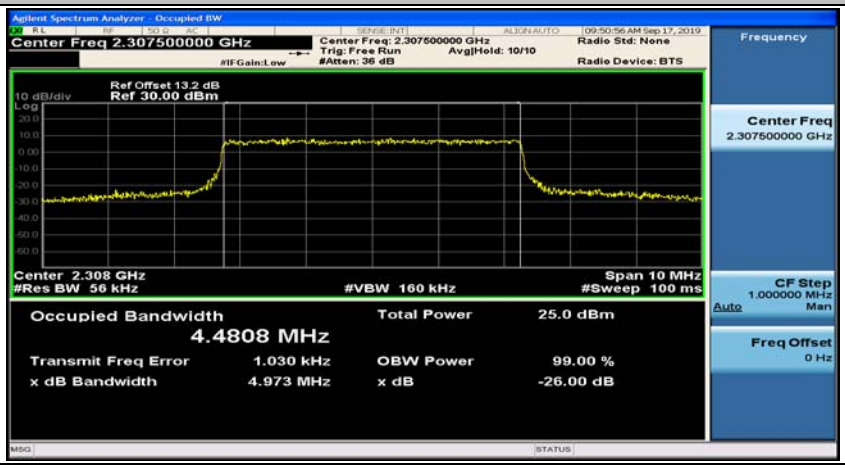
(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



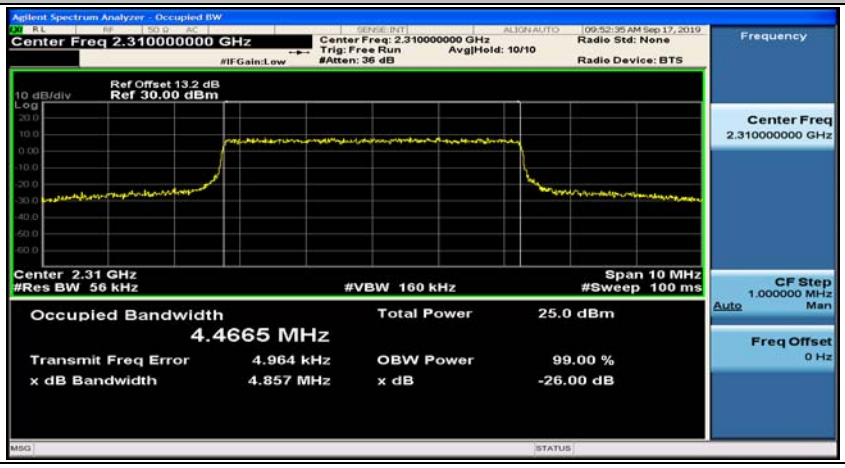
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



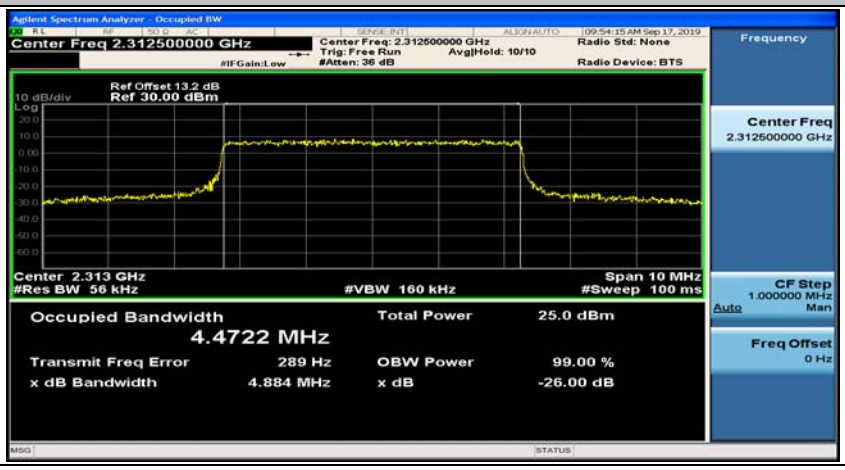
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



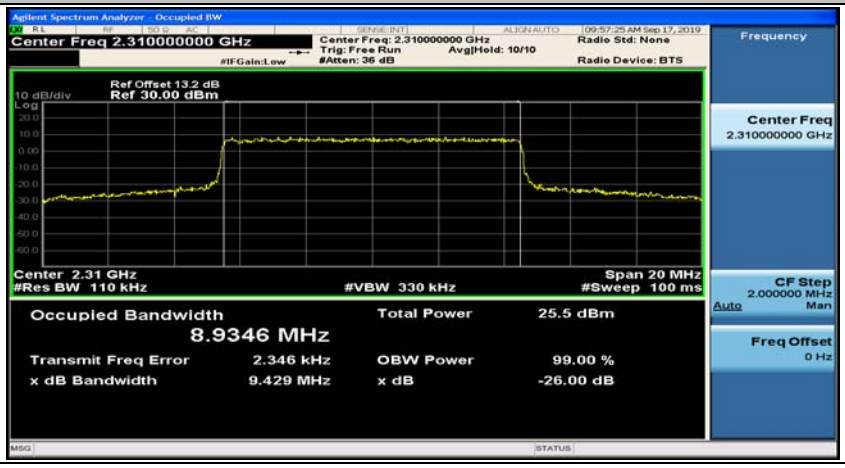
(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0

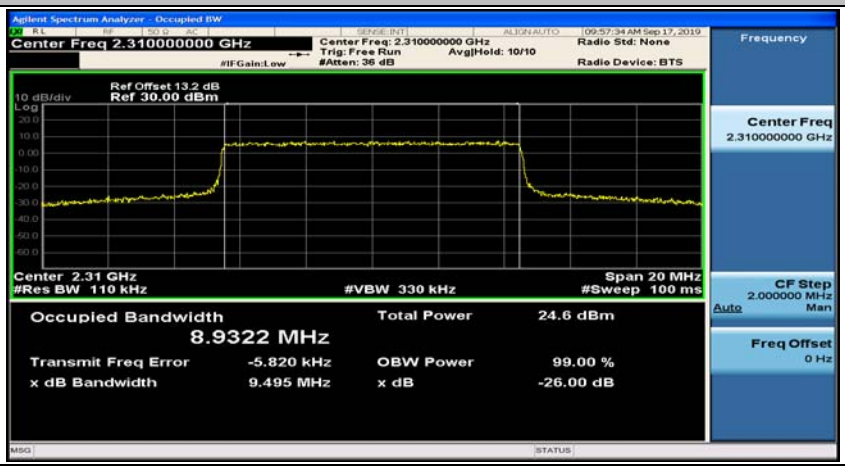


(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0


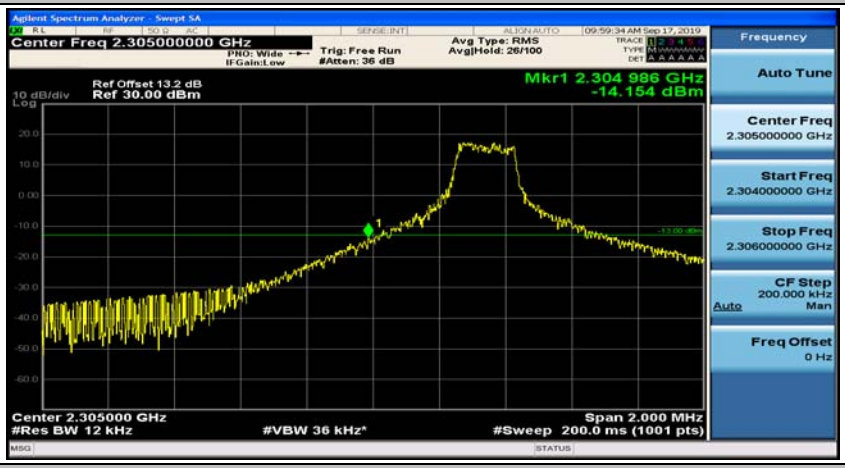
Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0


Appendix D: Band Edge

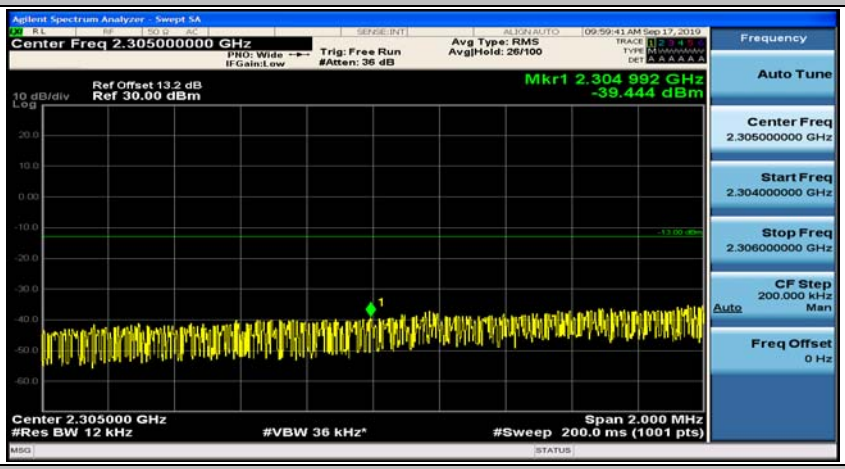
Test Graphs

Channel Bandwidth: 5 MHz

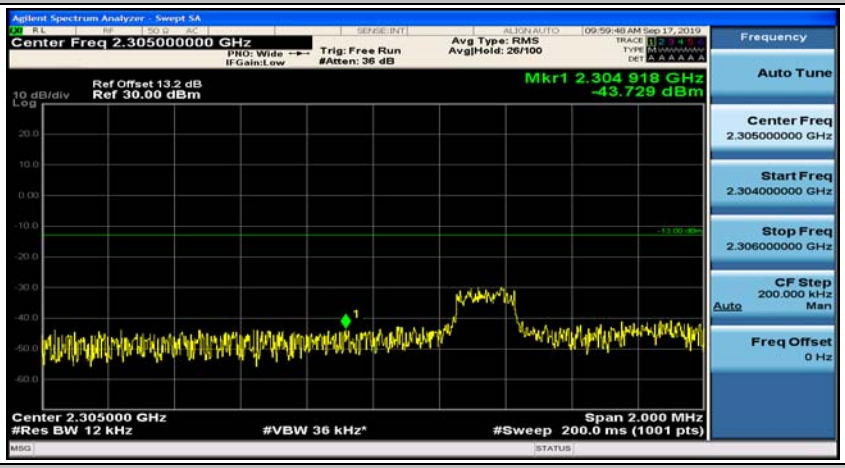
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

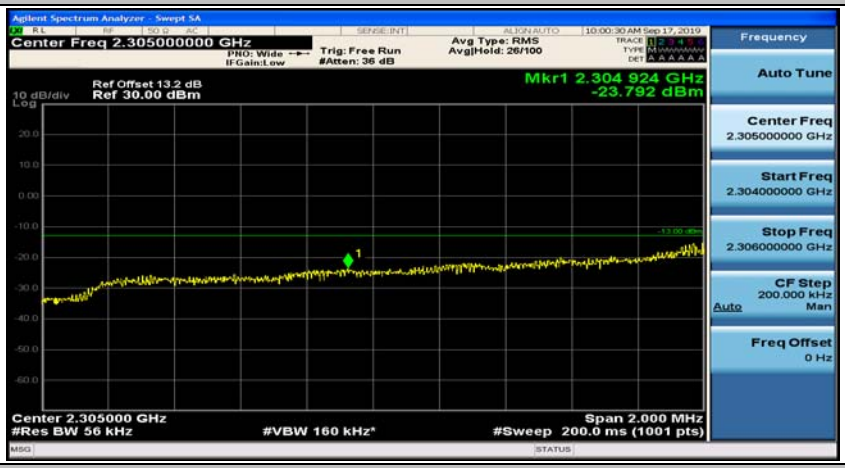


(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

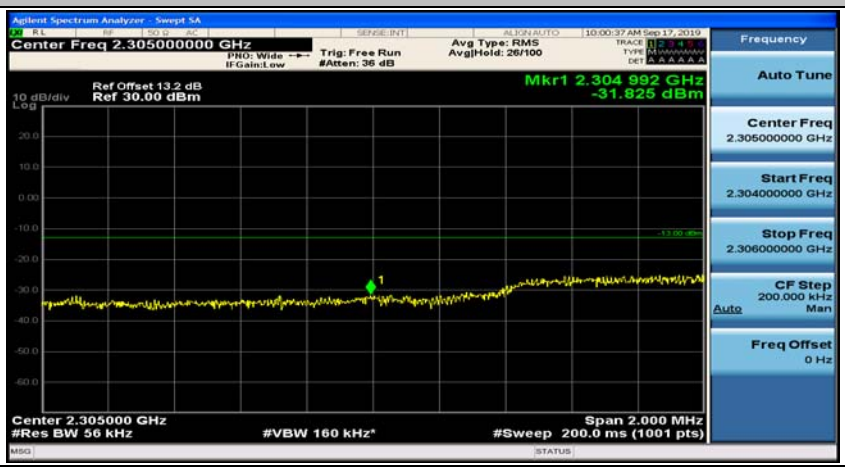


(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0

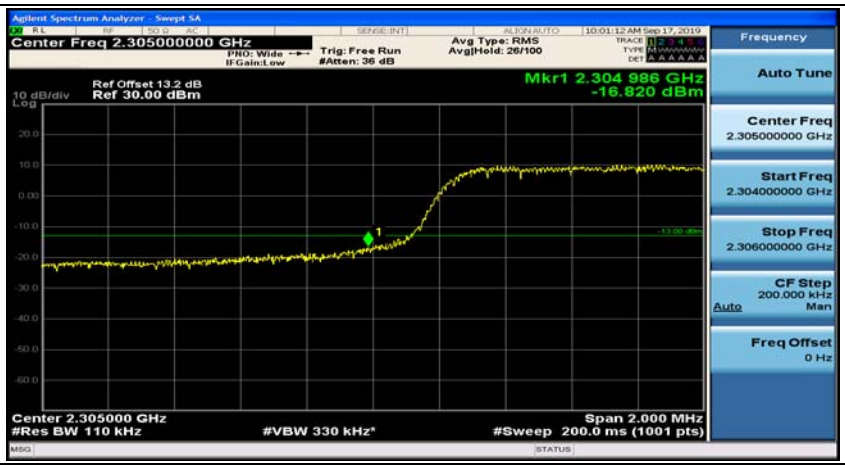
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



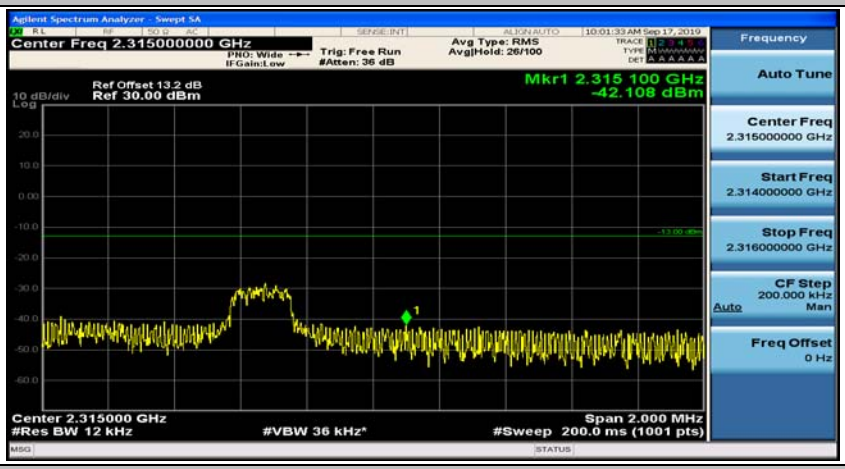
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13



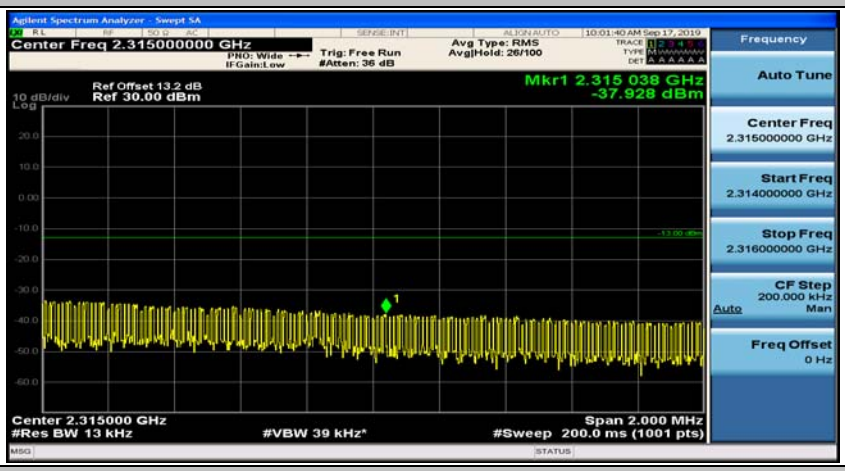
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

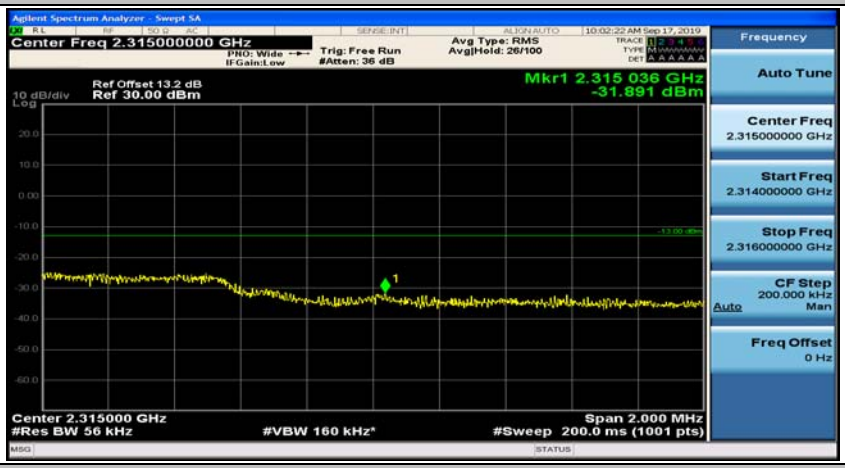


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



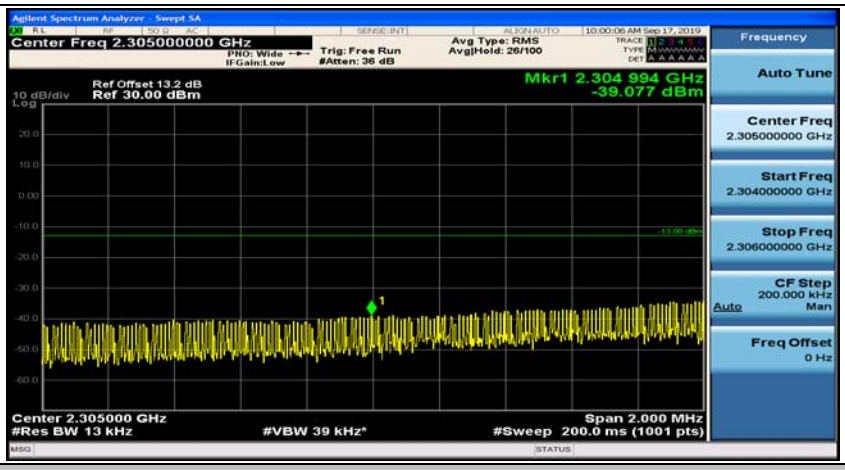
(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#6

(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13

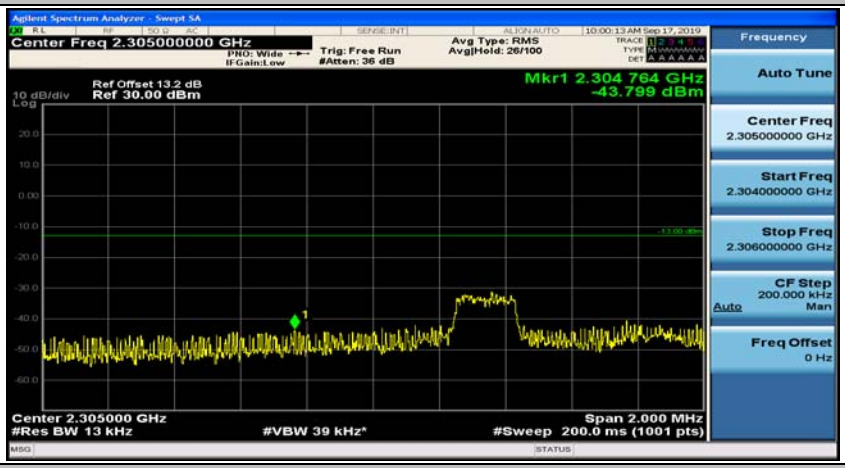
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0

(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

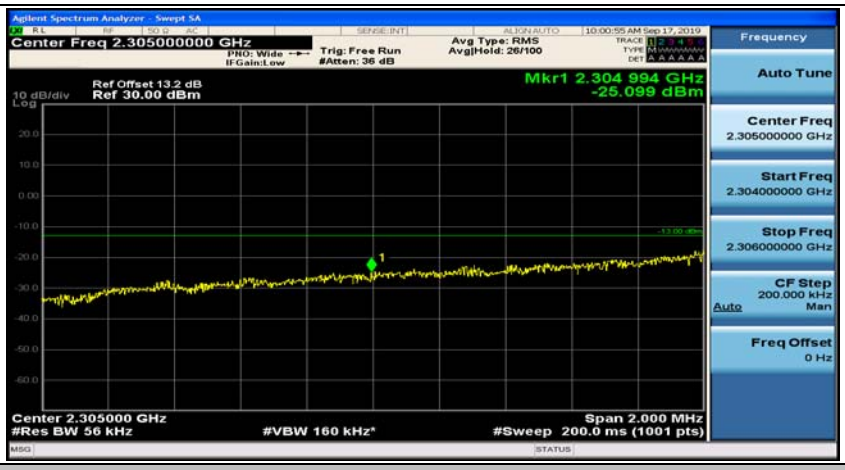


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

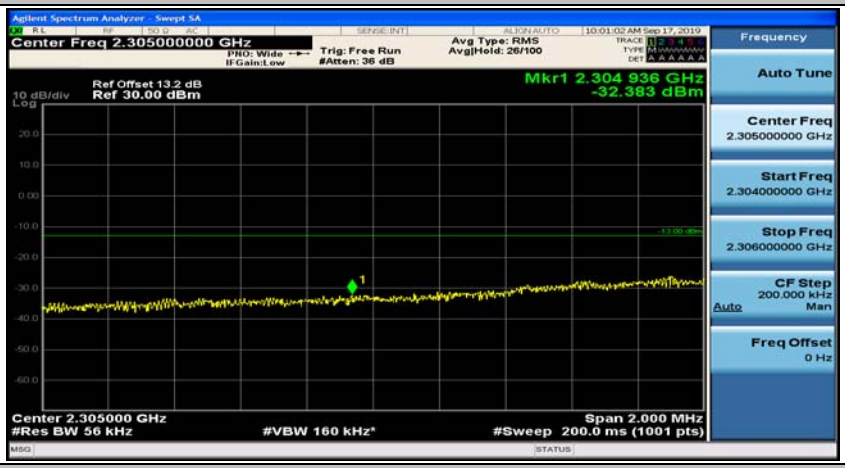


(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0

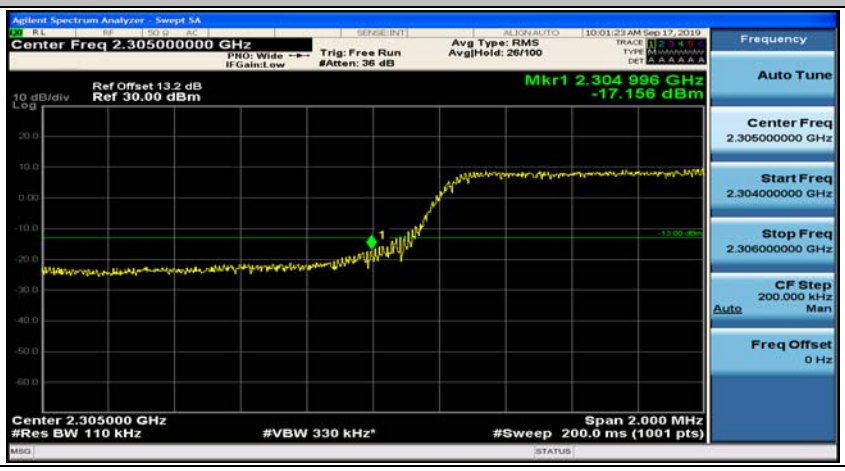
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#6



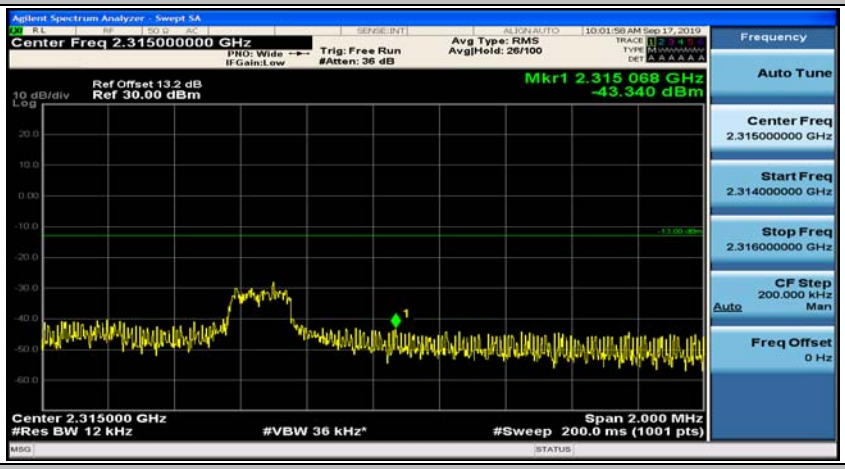
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#13



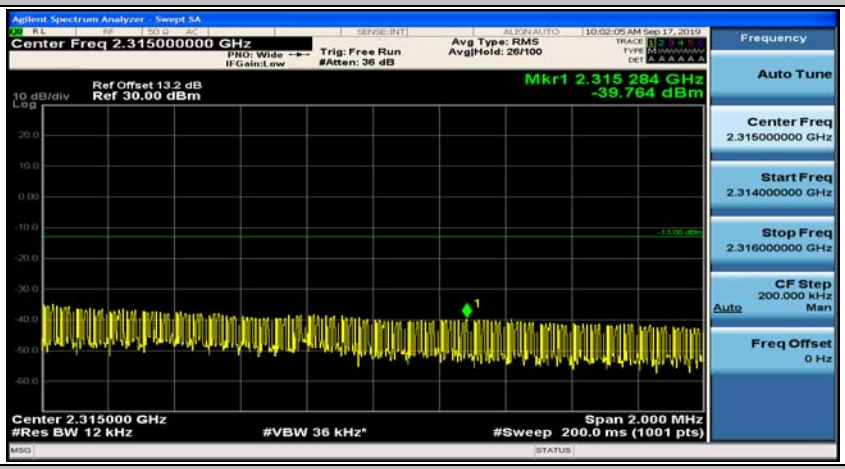
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

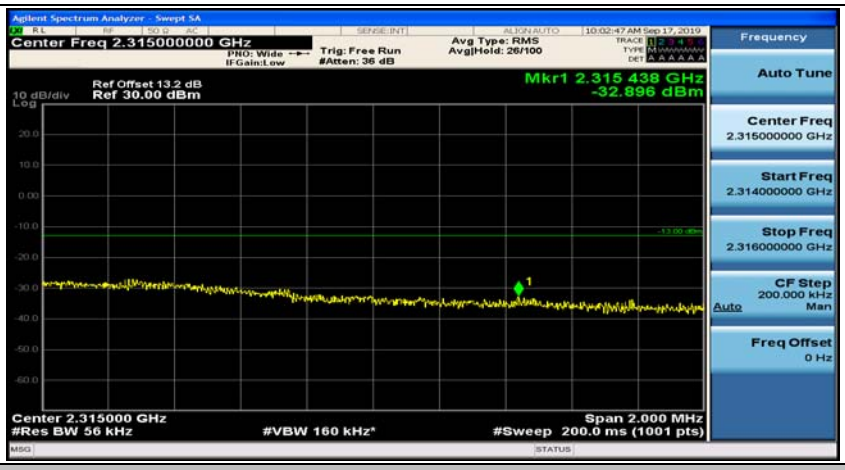


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0

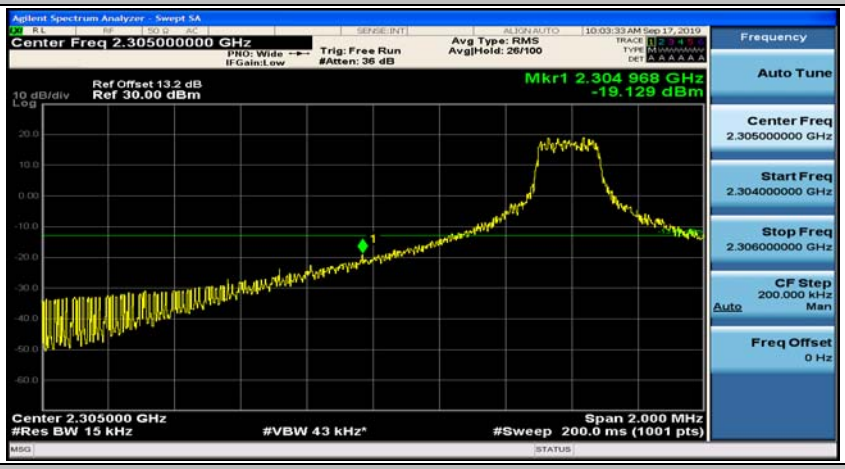
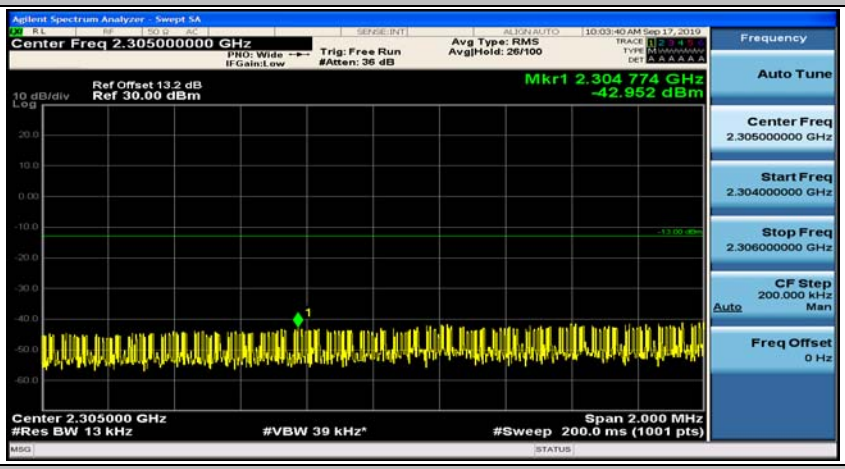


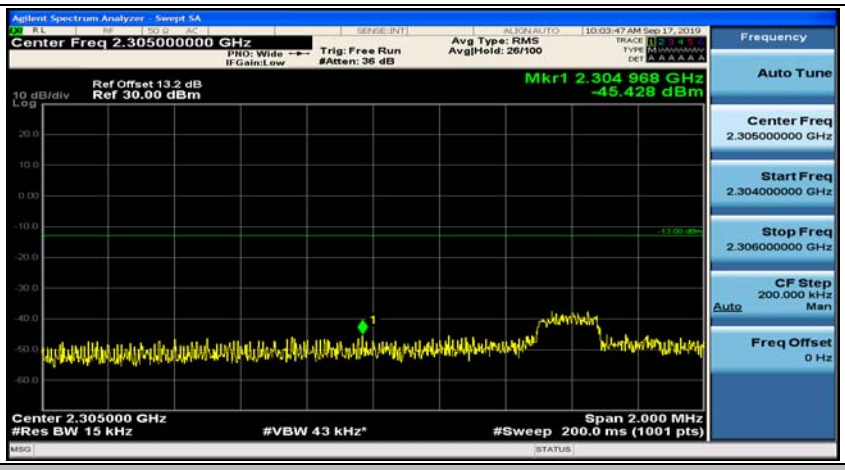
(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#6

(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#13

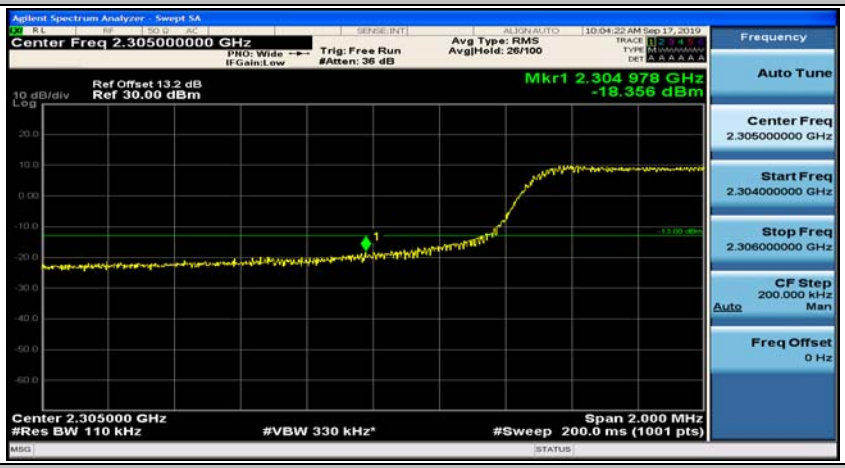
(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0

Channel Bandwidth: 10 MHz

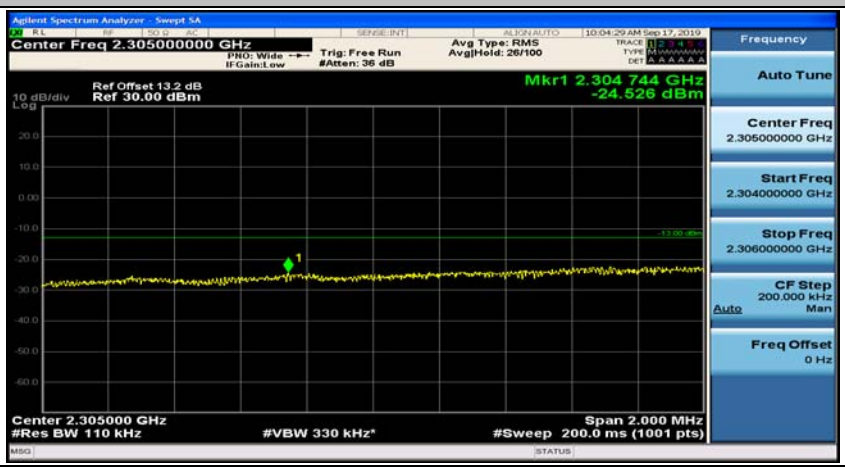
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49



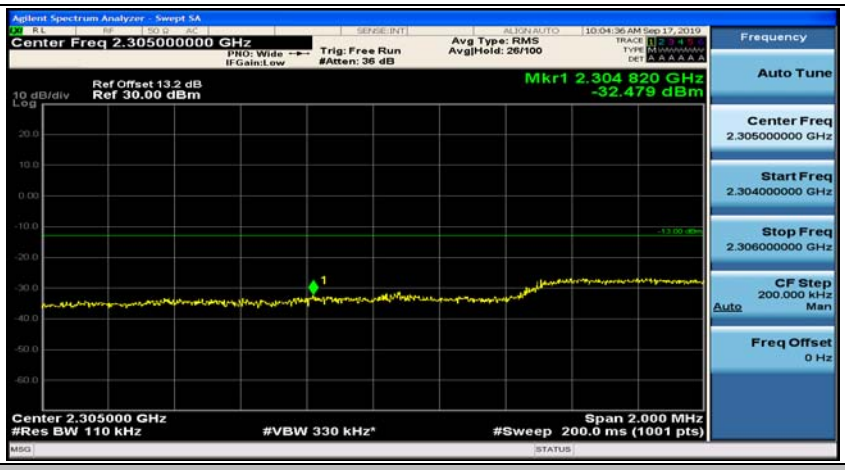
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#0



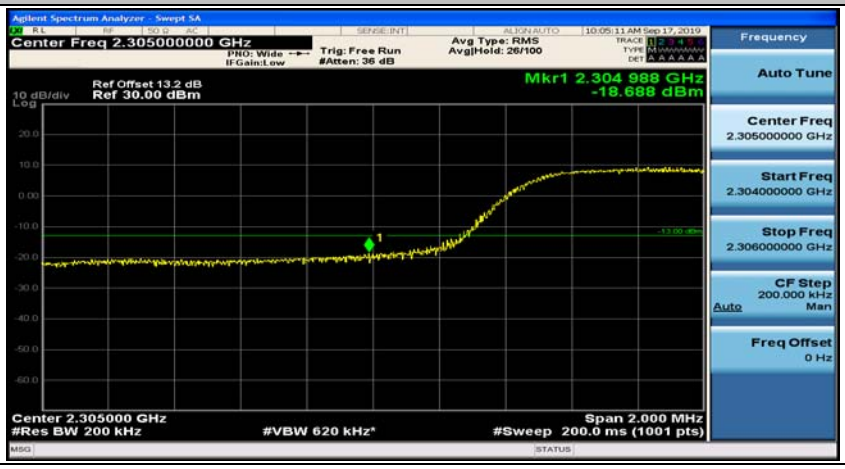
Channel Bandwidth: 10 MHz_MCH_PSK_25RB#12



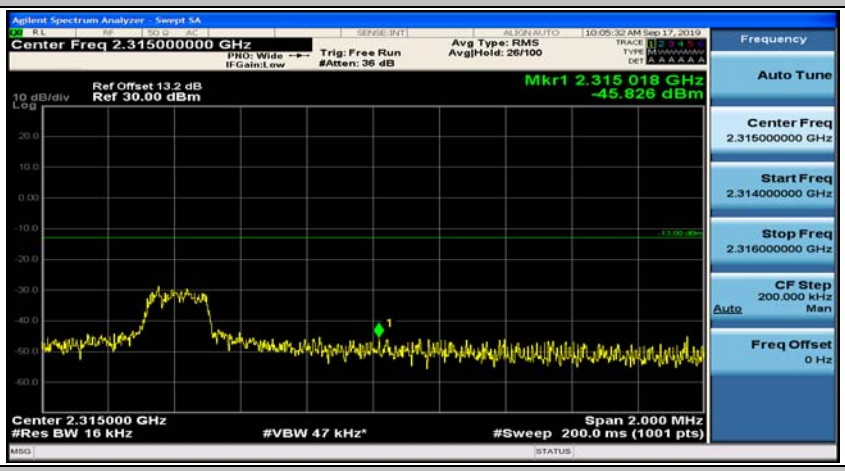
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#25



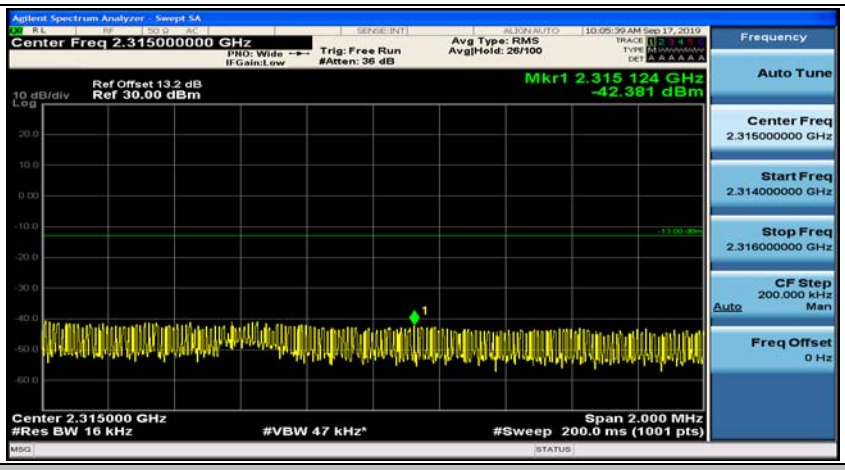
Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0



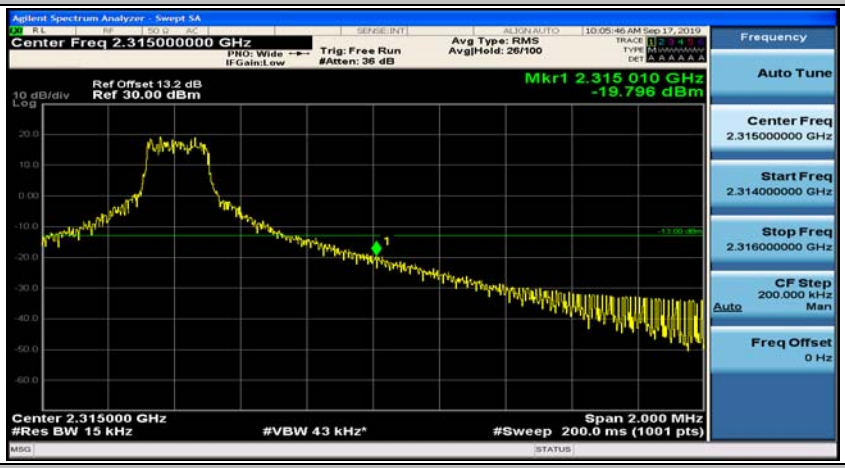
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



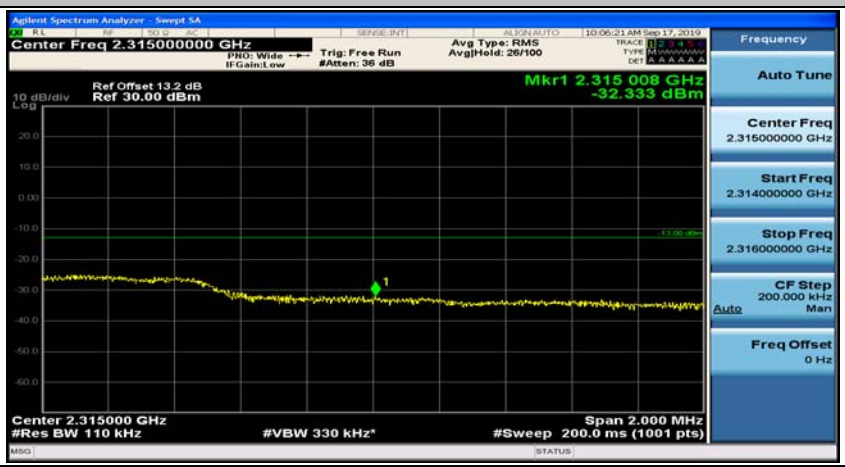
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24



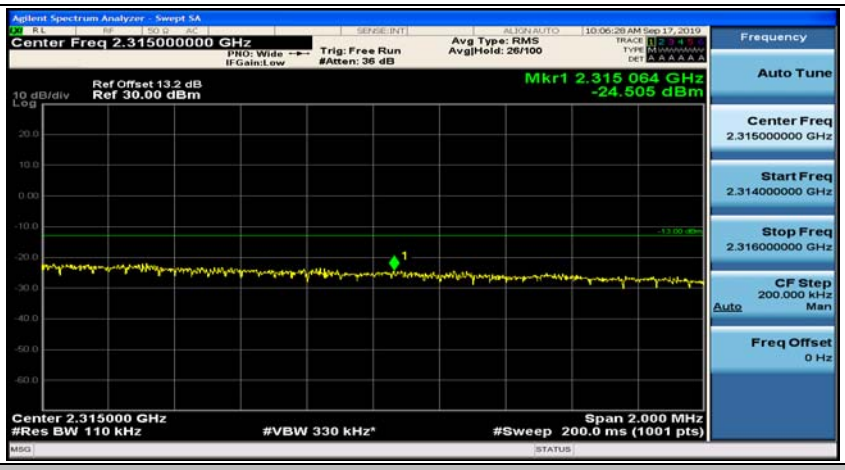
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49



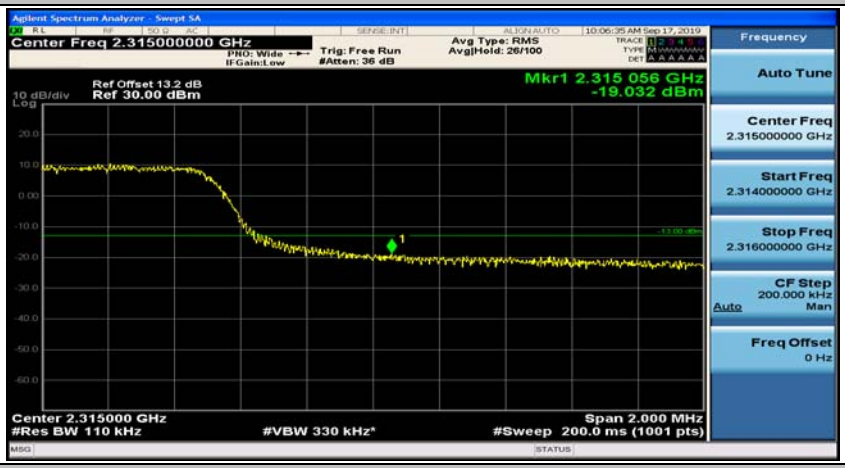
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#0



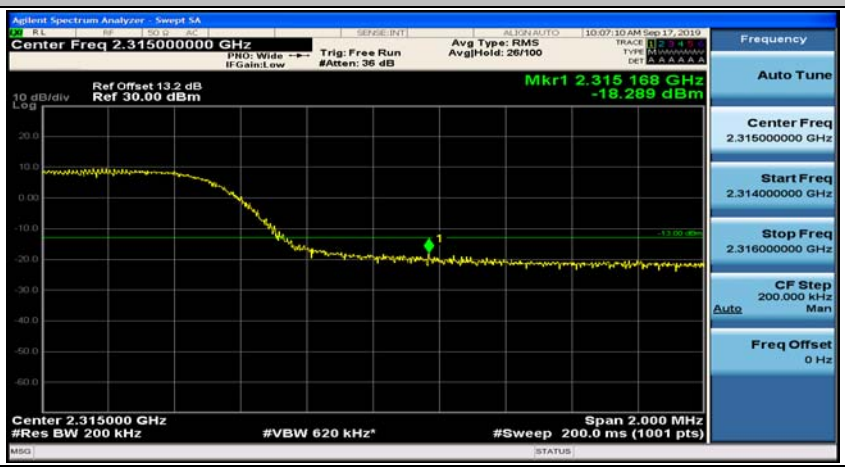
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#12



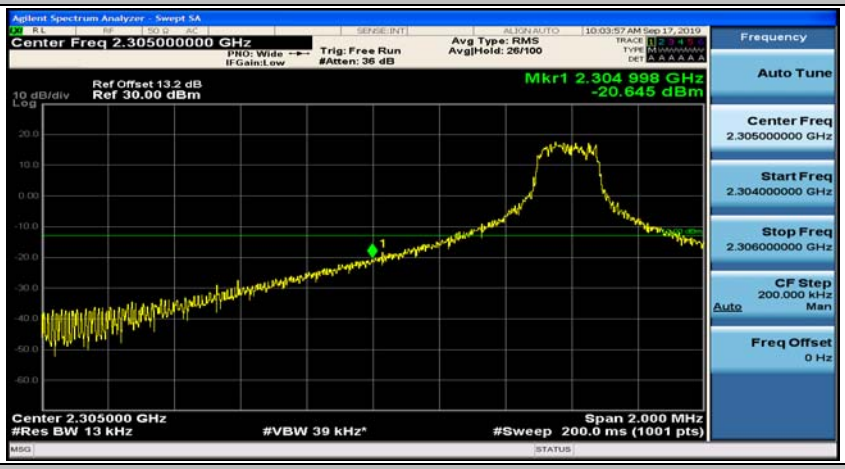
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#25



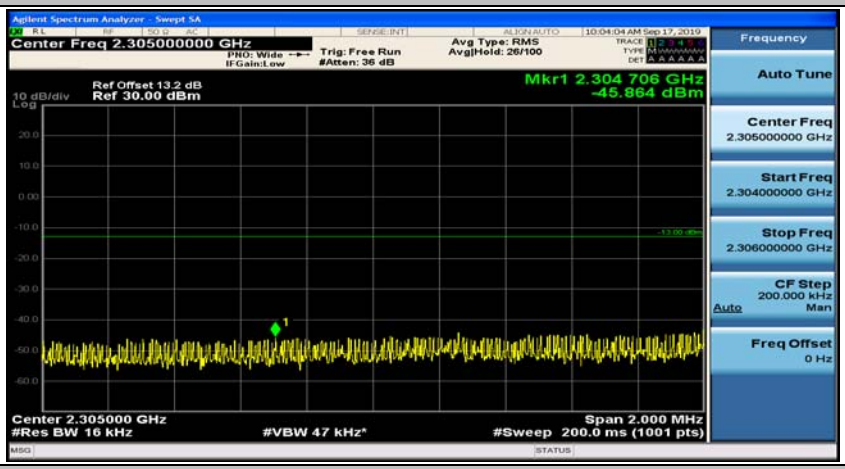
Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0



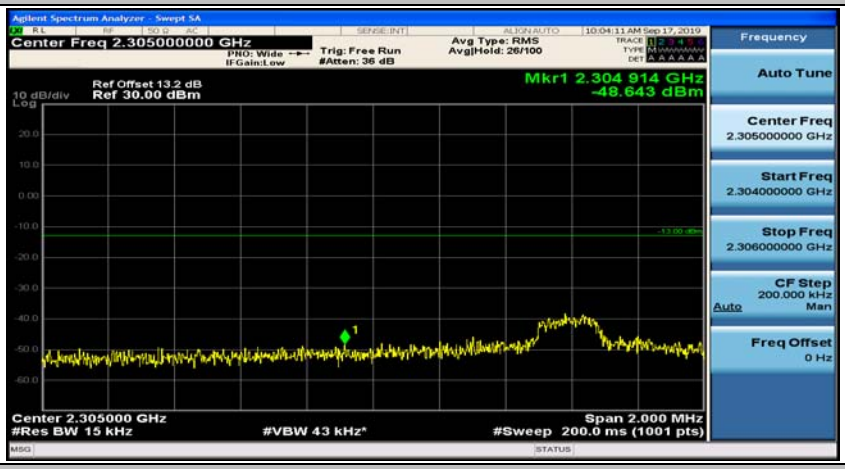
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



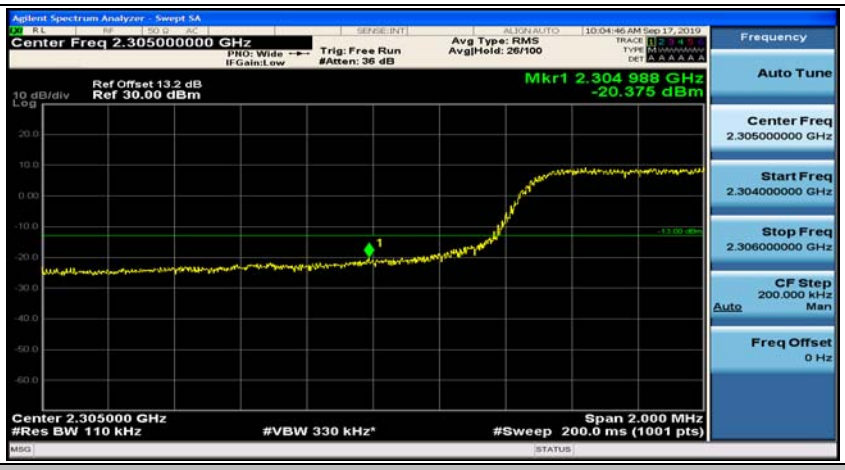
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



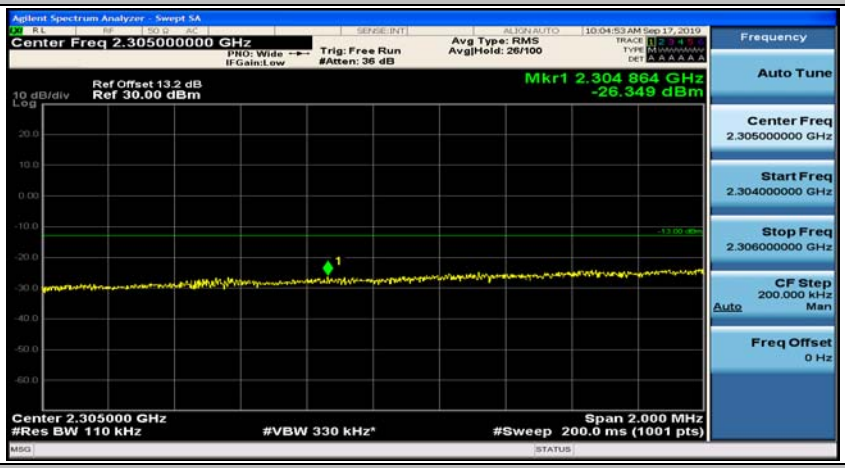
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49



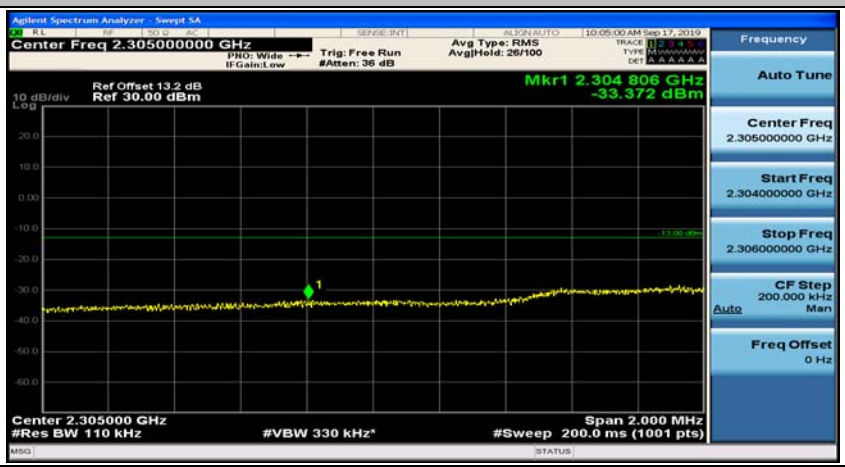
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0



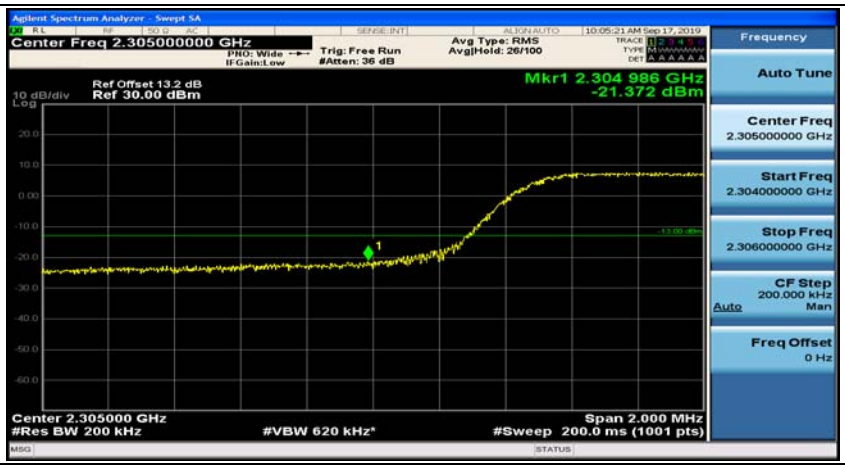
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



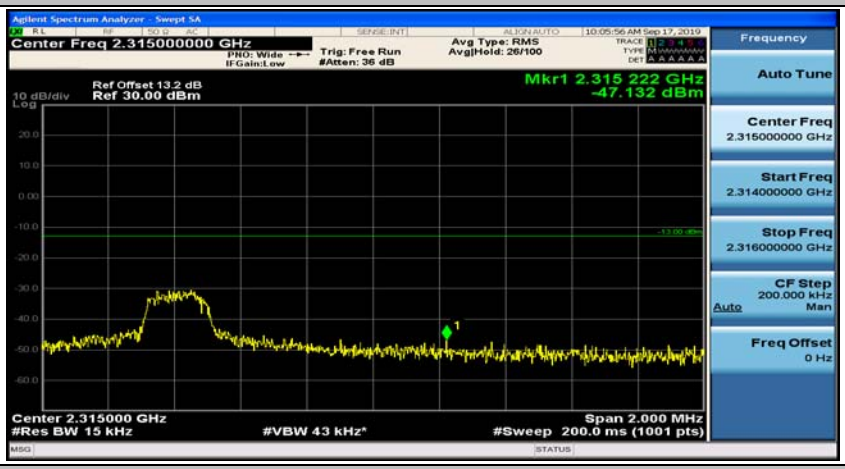
Channel Bandwidth: 10 MHz_MCH_6QAM_25RB#25



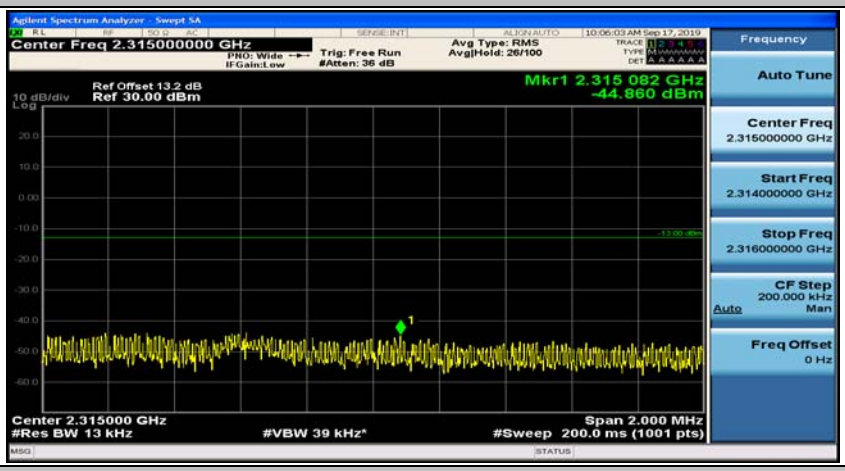
Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

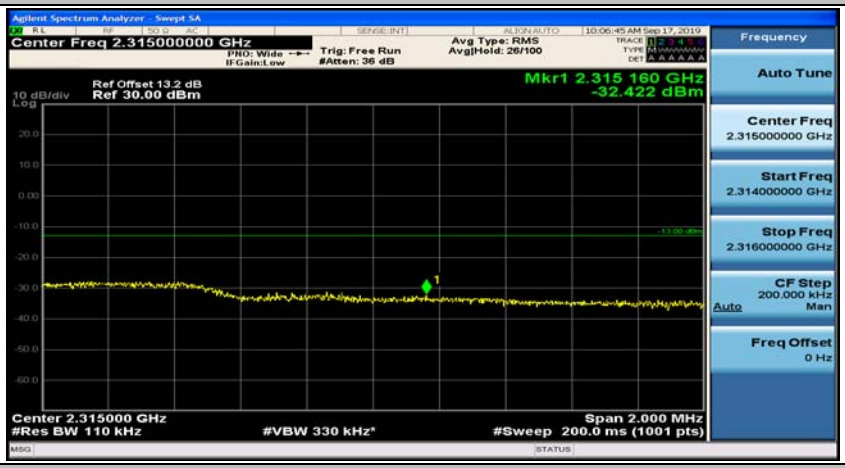


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

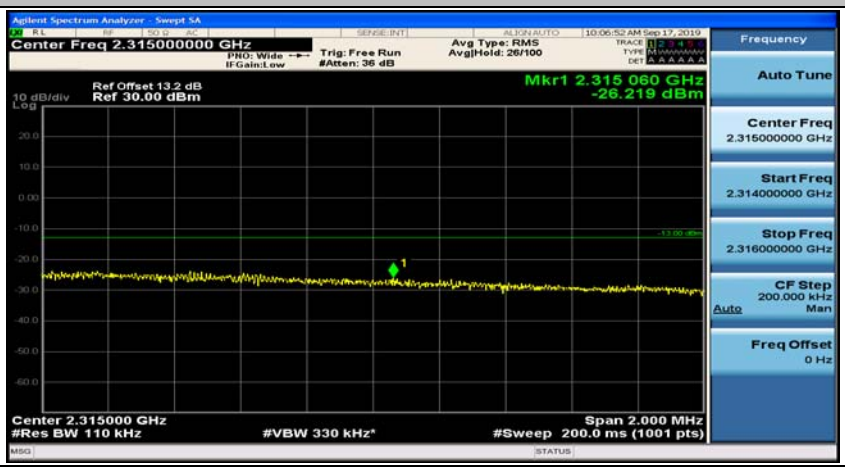


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0

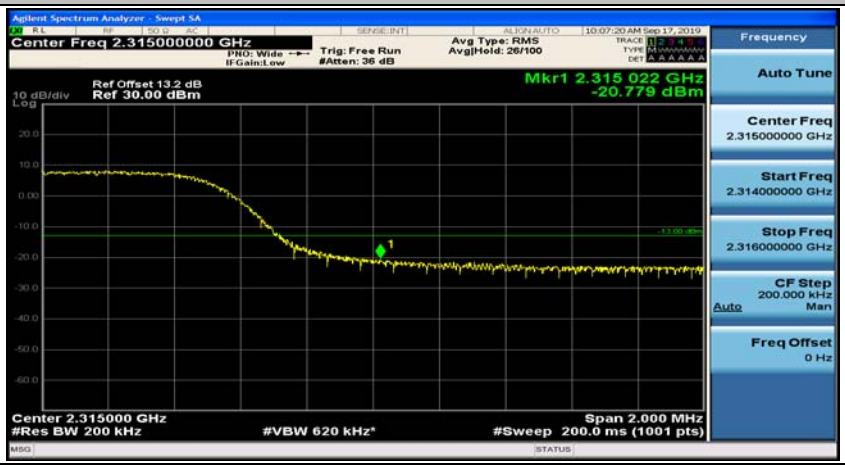


Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25

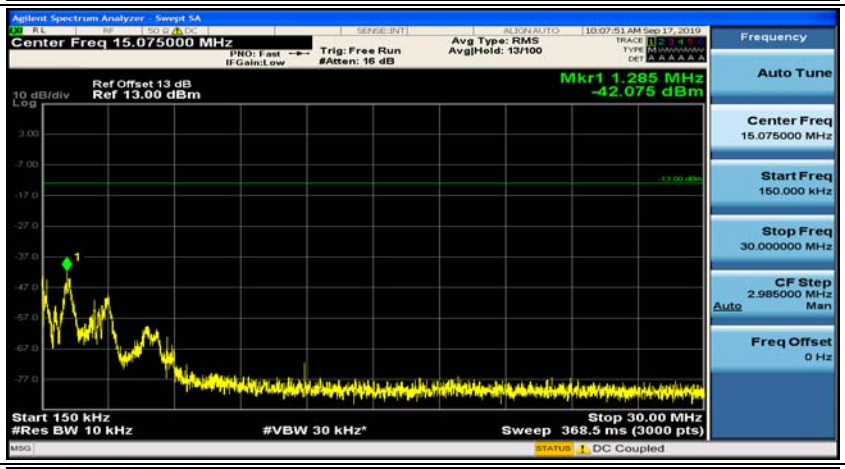
Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0

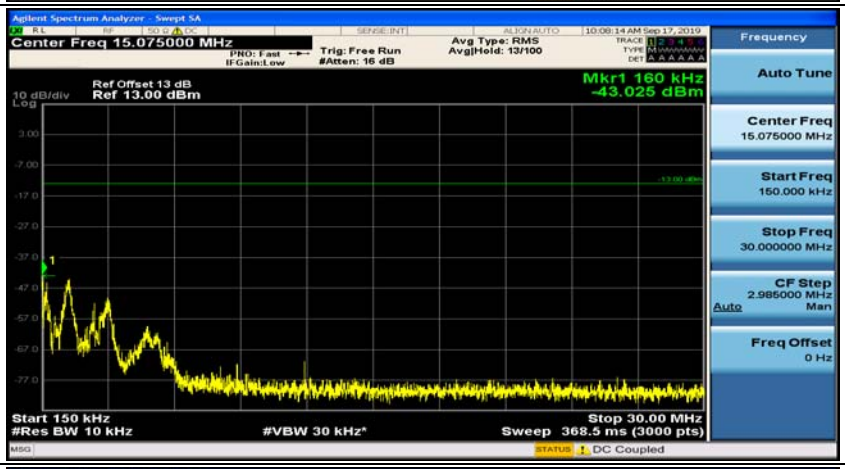


Appendix E: Conducted Spurious Emission

Test Graphs

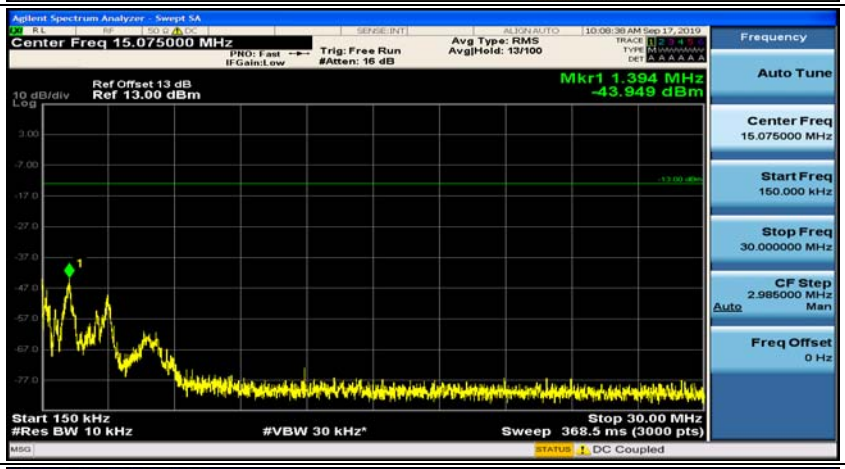
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 18/100
10:08:26 AM Sep 17, 2019
Ref Offset 13 dB
10 dB/div Ref 13.00 dBm
Log
Mkr1 35.14 kHz
-37.488 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq 79.500 kHz
Start Freq 9.000 kHz
Stop Freq 150.000 kHz
CF Step 14.100 kHz
Auto Man
Freq Offset 0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
10:08:38 AM Sep 17, 2019
Ref Offset 13 dB
10 dB/div Ref 13.00 dBm
Log
Mkr1 1.394 MHz
-43.949 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq 15.075000 MHz
Start Freq 150.000 kHz
Stop Freq 30.000000 MHz
CF Step 2.985000 MHz
Auto Man
Freq Offset 0 Hz

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 17/100
10:08:43 AM Sep 17, 2019
Ref Offset 12.95 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 24.857 GHz
-20.477 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq 13.015000000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
CF Step 2.597000000 GHz
Auto Man
Freq Offset 0 Hz