Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.38	PASS
		1	12	23.32	PASS
		1	24	23.20	PASS
		12	0	22.27	PASS
		12	6	22.30	PASS
		12	13	22.19	PASS
		25	0	22.31	PASS
	MCH	1	0	23.36	PASS
		1	12	23.25	PASS
		1	24	23.24	PASS
		12	0	22.29	PASS
		12	6	22.29	PASS
		12	13	22.23	PASS
		25	0	22.28	PASS
	HCH	1	0	23.29	PASS
		1	12	23.26	PASS
		1	24	23.29	PASS
		12	0	22.30	PASS
		12	6	22.27	PASS
		12	13	22.24	PASS
		25	0	22.36	PASS
16QAM	LCH	1	0	22.67	PASS
		1	12	22.60	PASS
		1	24	22.55	PASS
		12	0	21.36	PASS
		12	6	21.39	PASS
		12	13	21.26	PASS
		25	0	21.30	PASS
	MCH	1	0	22.56	PASS
		1	12	22.54	PASS
		1	24	22.53	PASS
		12	0	21.35	PASS

		12	6	21.36	PASS
		12	13	21.29	PASS
		25	0	21.27	PASS
	HCH	1	0	22.62	PASS
		1	12	22.55	PASS
		1	24	22.58	PASS
		12	0	21.38	PASS
		12	6	21.32	PASS
		12	13	21.28	PASS
		25	0	21.34	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	MCH	1	0	23.59	PASS
		1	24	23.21	PASS
		1	49	23.34	PASS
		25	0	22.47	PASS
		25	12	22.35	PASS
		25	25	22.35	PASS
		50	0	22.35	PASS
16QAM	MCH	1	0	22.80	PASS
		1	24	22.46	PASS
		1	49	22.57	PASS
		25	0	21.44	PASS
		25	12	21.28	PASS
		25	25	21.28	PASS
		50	0	21.32	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	MCH	1	0	4.75	<13	PASS
16QAM	MCH	1	0	5.48	<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	4.64	<13	PASS
16QAM	MCH	1	0	5.32	<13	PASS

Test Graphs

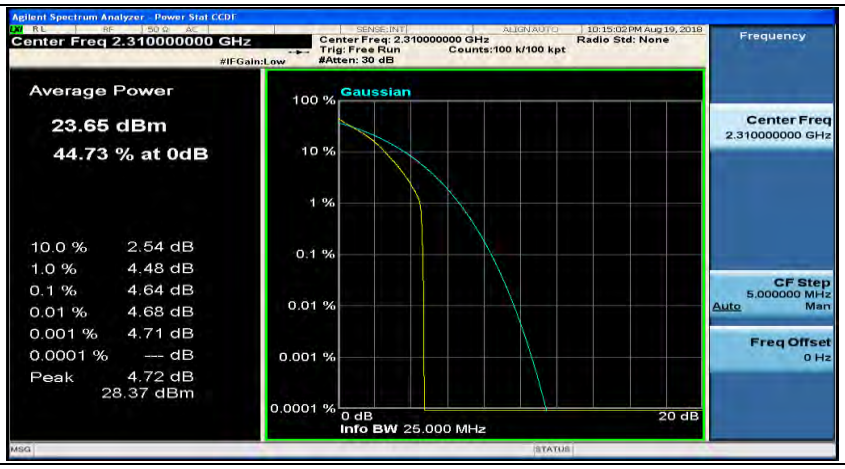
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

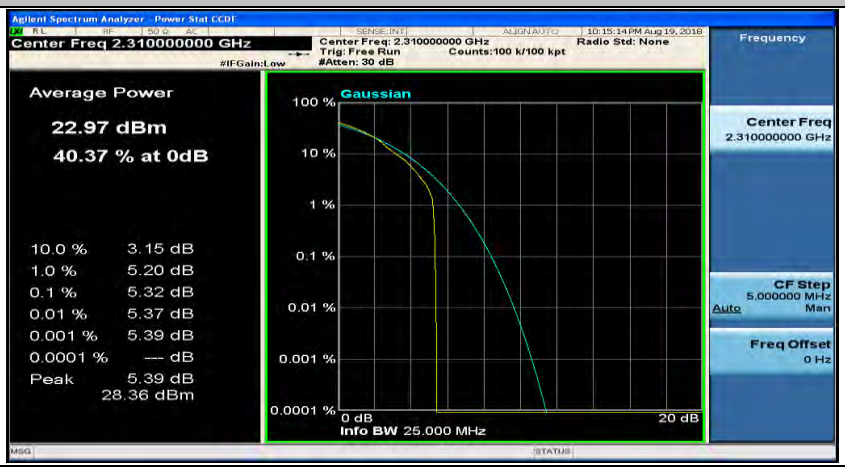

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0


Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Channel Bandwidth: 5 MHz

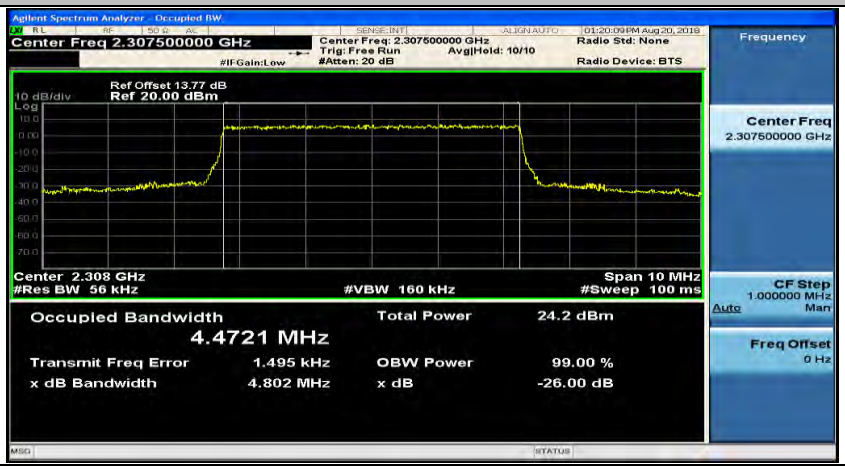
Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	25	0	4.4721	4.802	PASS
	MCH	25	0	4.4729	4.769	PASS
	HCH	25	0	4.4713	4.799	PASS
16QAM	LCH	25	0	4.4784	4.787	PASS
	MCH	25	0	4.4840	4.792	PASS
	HCH	25	0	4.4839	4.802	PASS

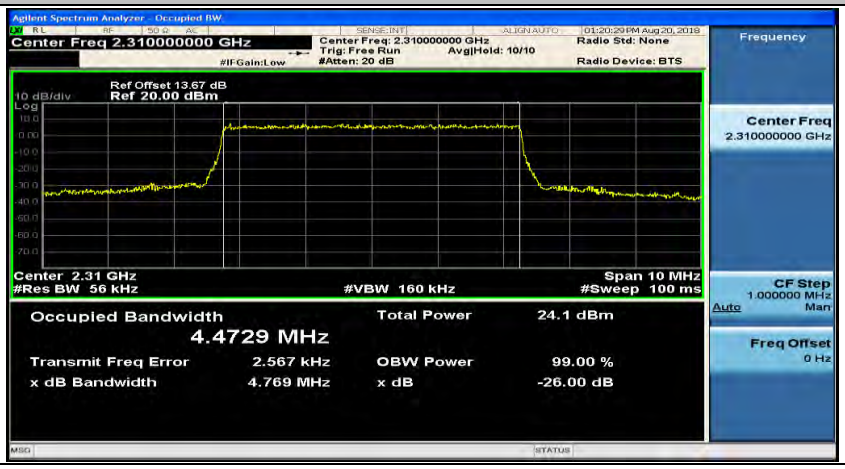
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	MCH	50	0	8.9282	9.417	PASS
16QAM	MCH	50	0	8.9424	9.443	PASS

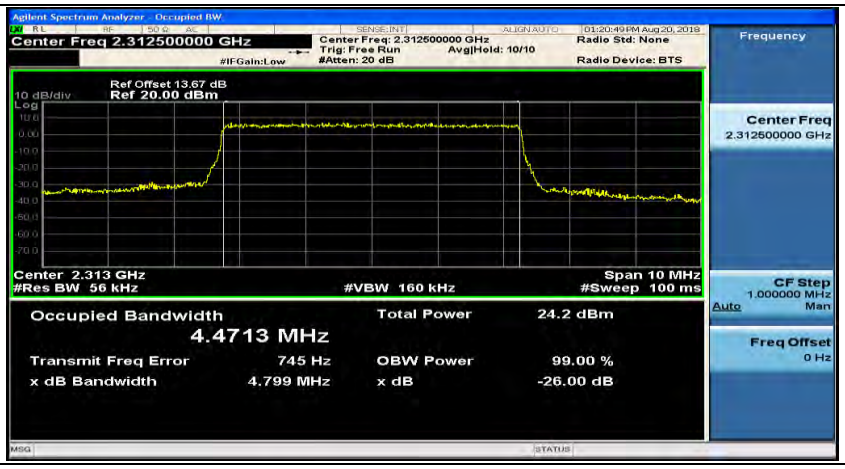
Test Graphs

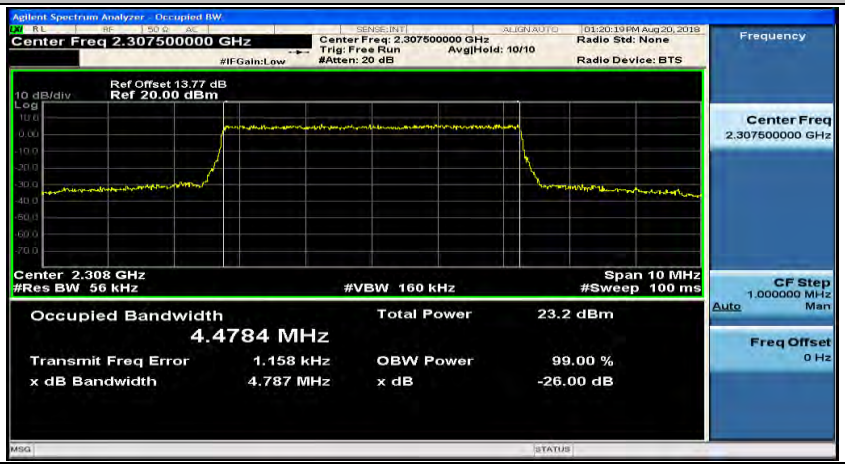
Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0


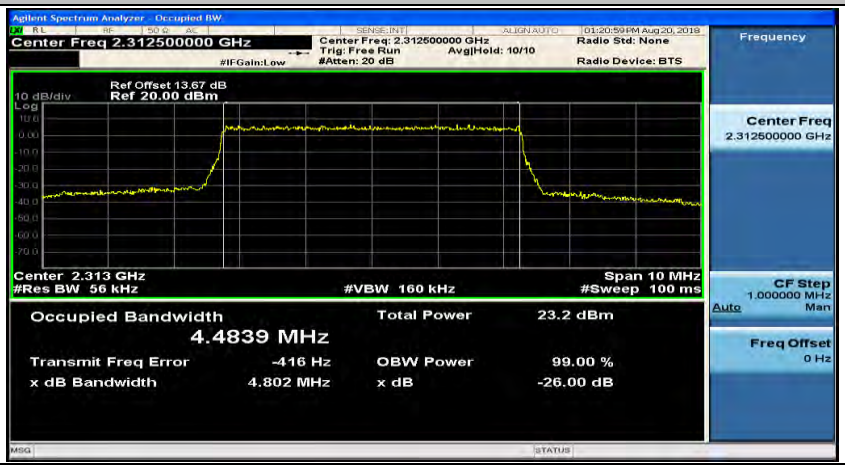
(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0


(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0

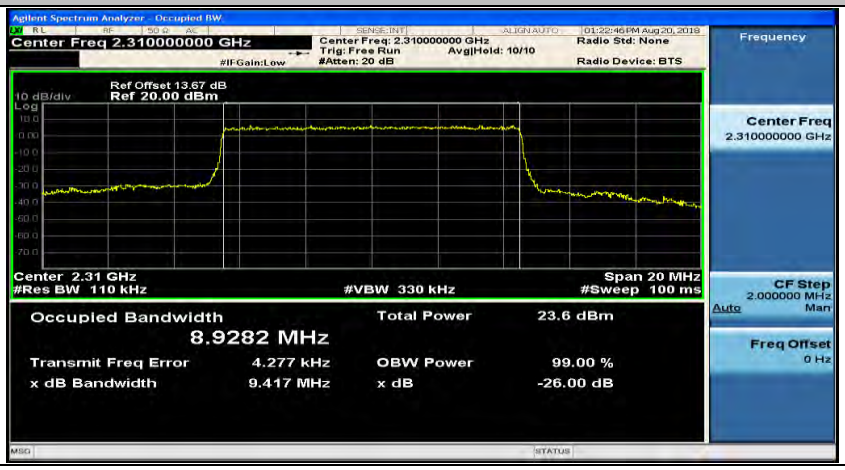

Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.312500000 GHz
Center Freq: 2.312500000 GHz
Trig: Free Run
Avg|Hold: 10/10
#Atten: 20 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 13.67 dB
10 dB/div
Ref 20.00 dBm
Log
Center Freq
2.312500000 GHz
Center 2.313 GHz
#Res BW 56 kHz
#VBW 160 kHz
Span 10 MHz
#Sweep 100 ms
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
Occupied Bandwidth
4.4713 MHz
Total Power
24.2 dBm
Transmit Freq Error
745 Hz
OBW Power
99.00 %
x dB Bandwidth
4.799 MHz
x dB
-26.00 dB
MSG
STATUS

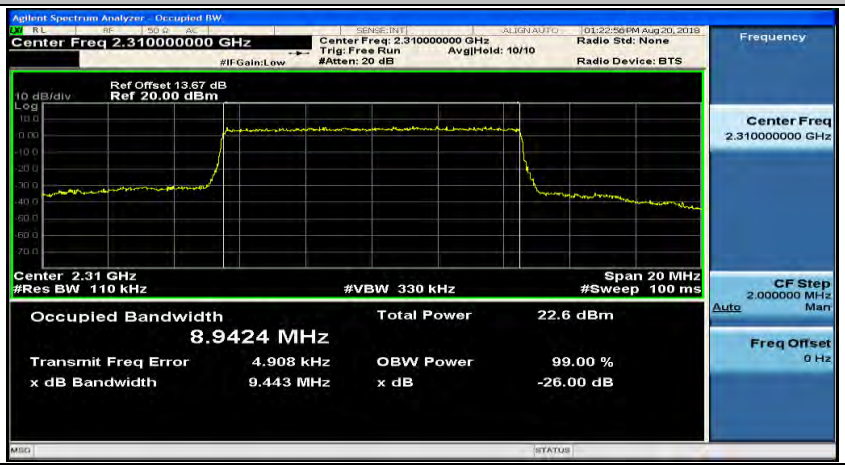
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0


(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


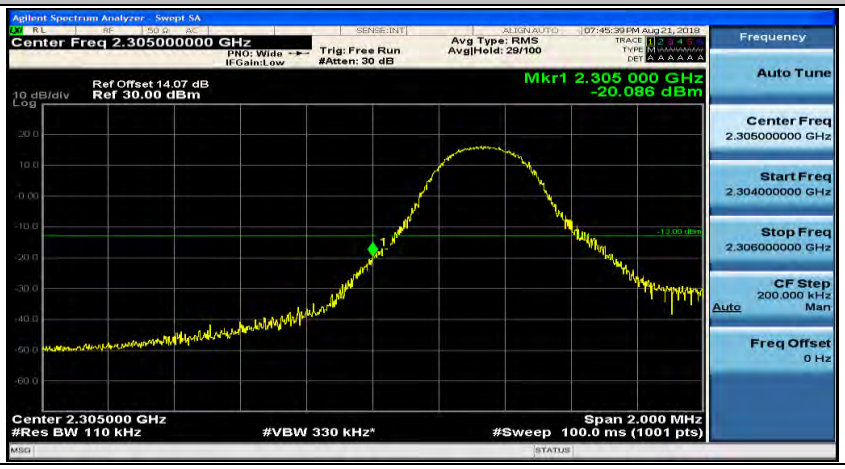
(Channel Bandwidth: 10 MHz)_MCH_16QAM_50RB#0


Appendix D: Band Edge

Test Graphs

Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

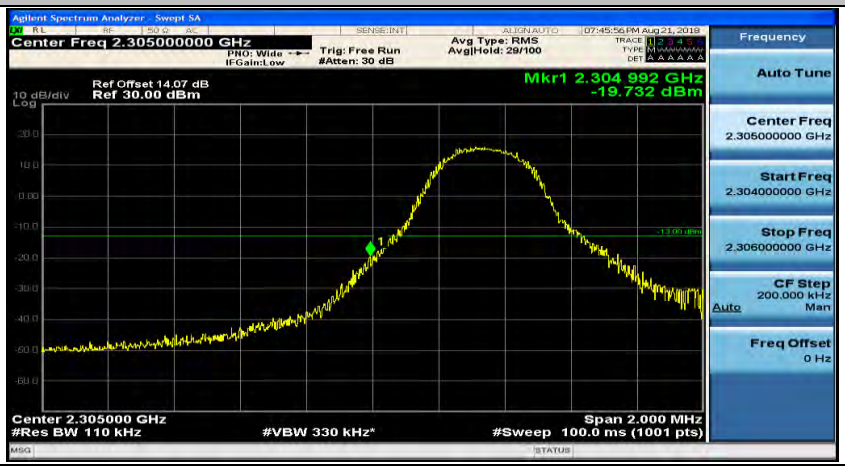


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

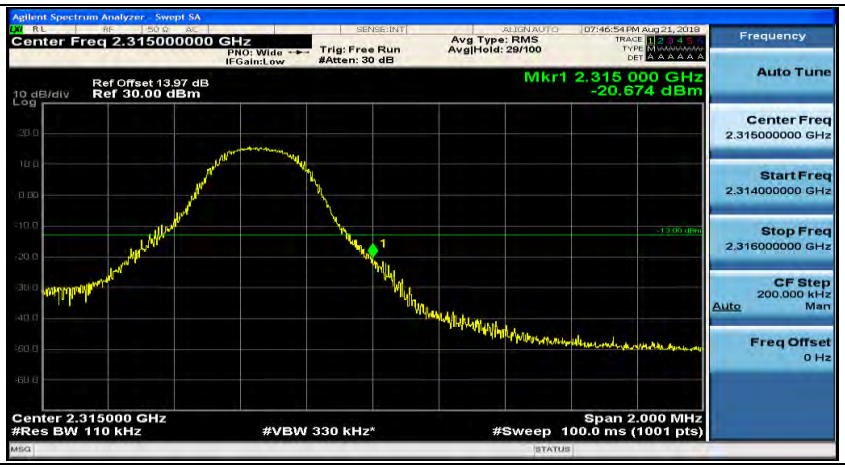
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0

(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0

(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

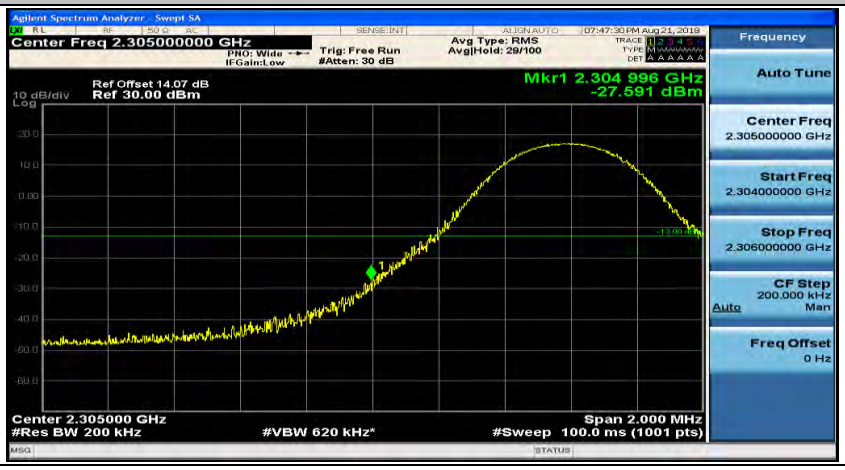


(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0

(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0

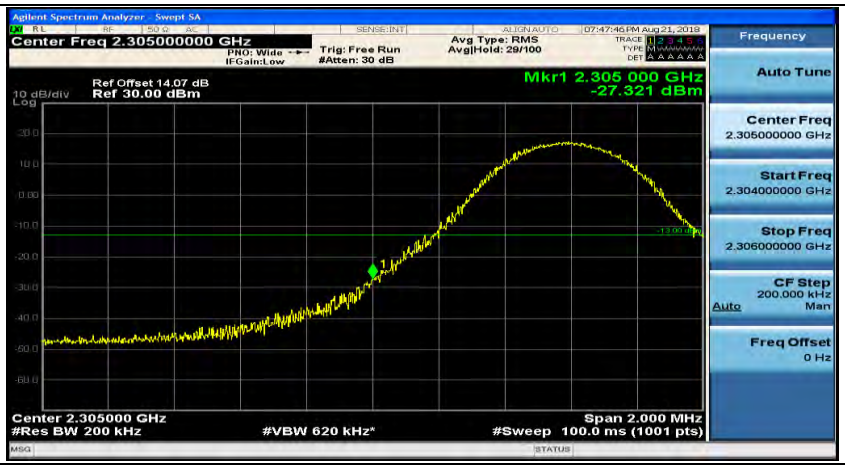


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

(Channel Bandwidth: 10 MHz)_LCH_QPSK_50RB#0

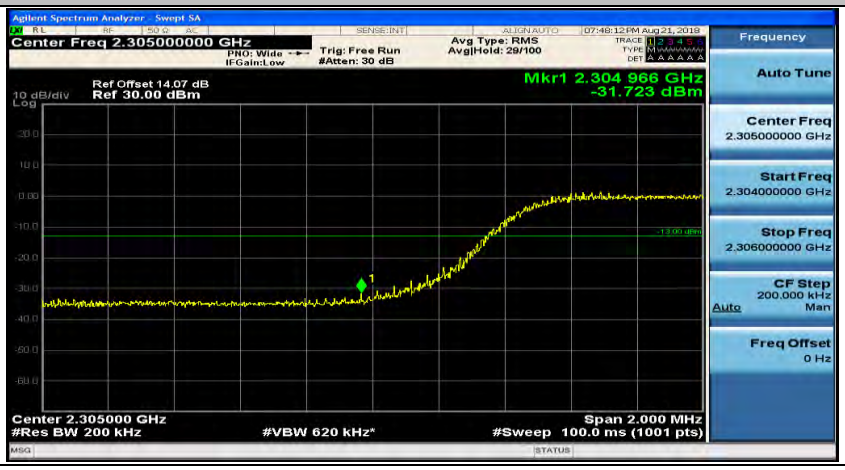

(Channel Bandwidth: 10 MHz)_HCH_QPSK_50RB#0


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

(Channel Bandwidth: 10 MHz)_LCH_16QAM_50RB#0

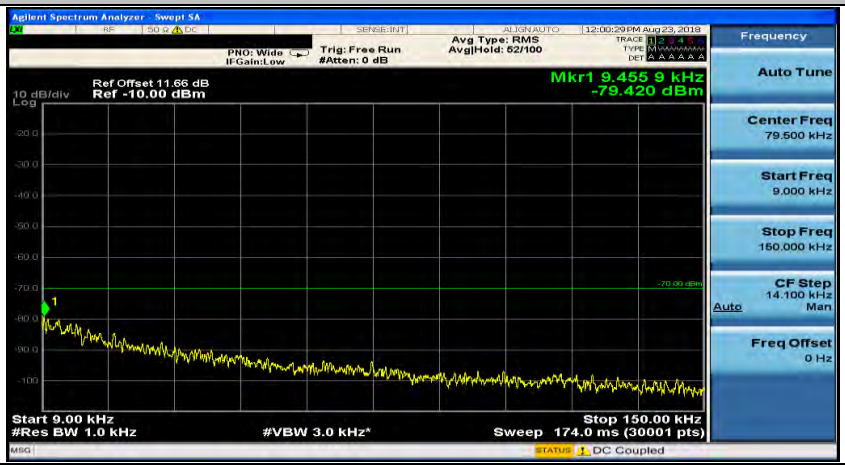


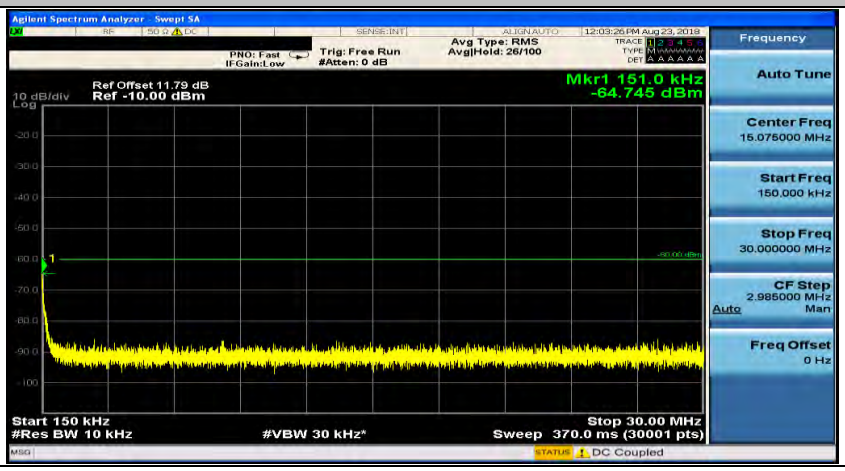
(Channel Bandwidth: 10 MHz)_HCH_16QAM_50RB#0


Appendix E: Conducted Spurious Emission

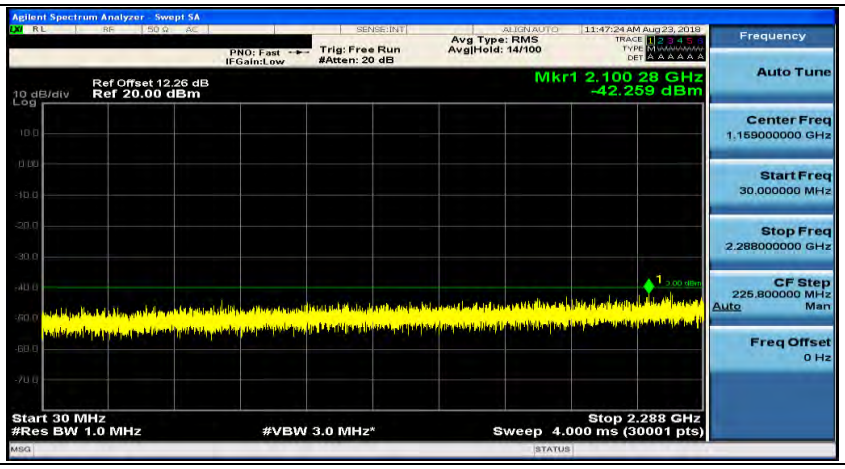
Test Graphs

Channel Bandwidth: 5 MHz

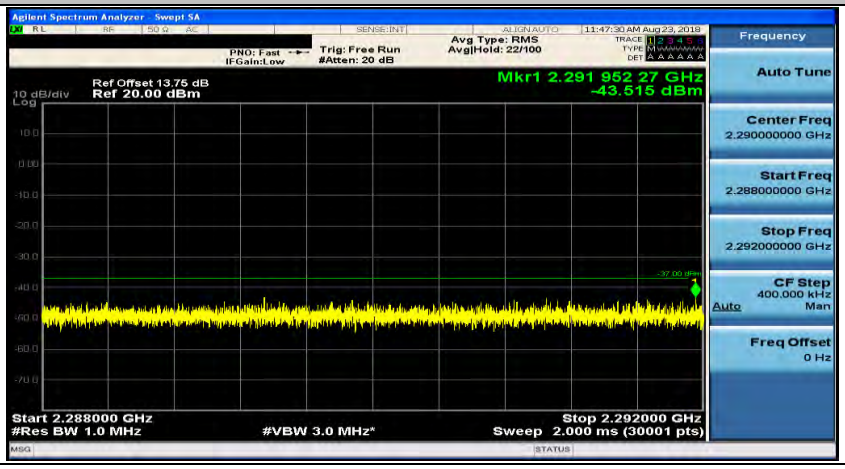
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0


(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0


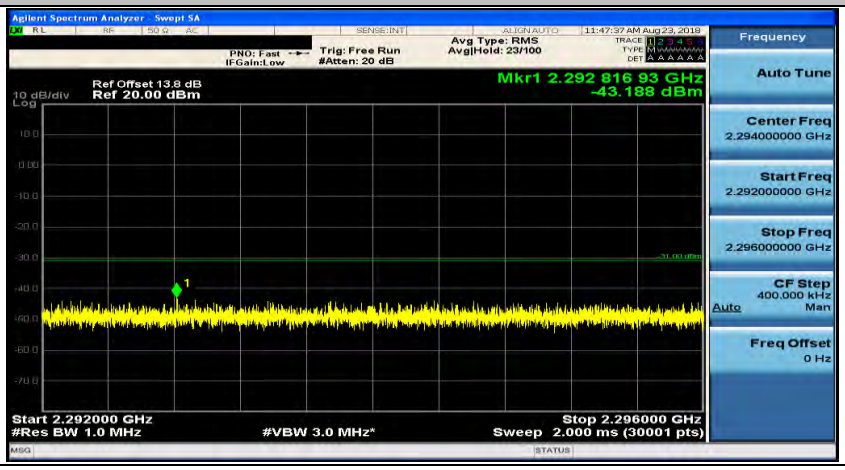
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



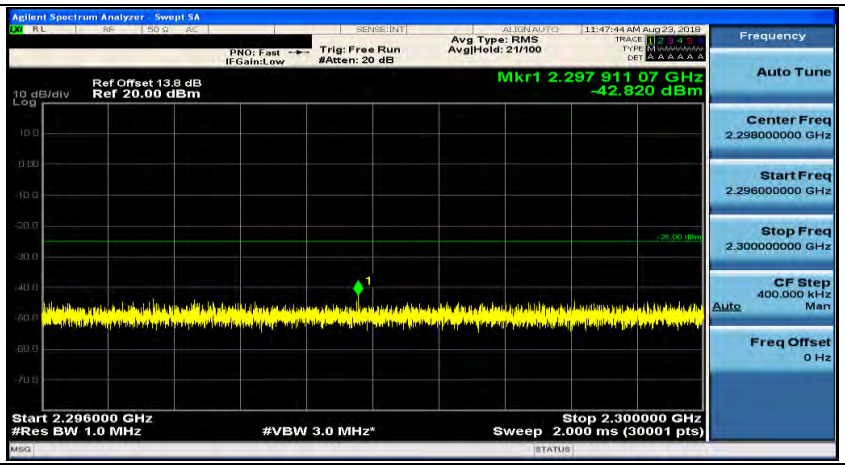
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



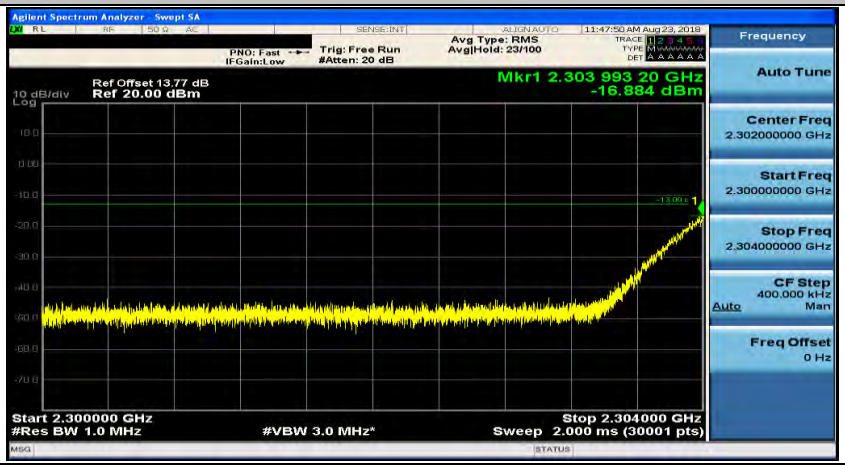
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



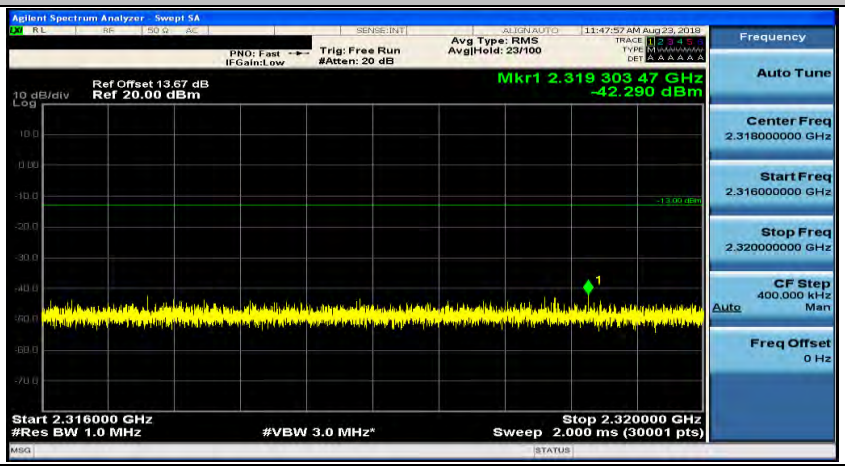
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



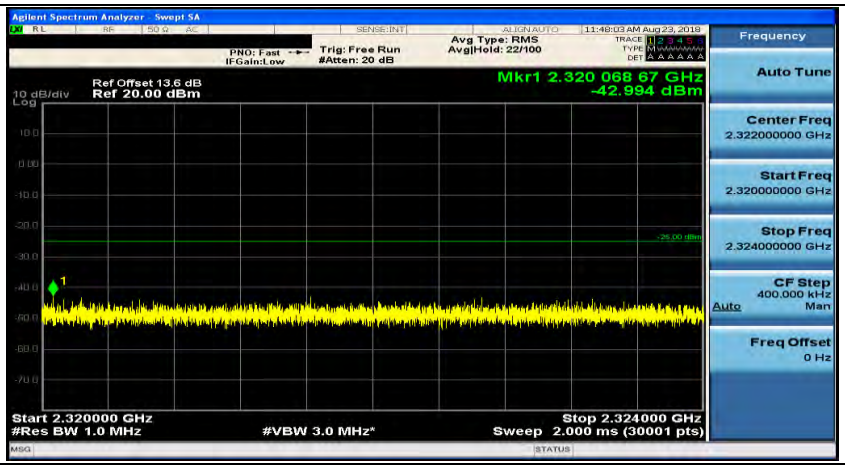
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



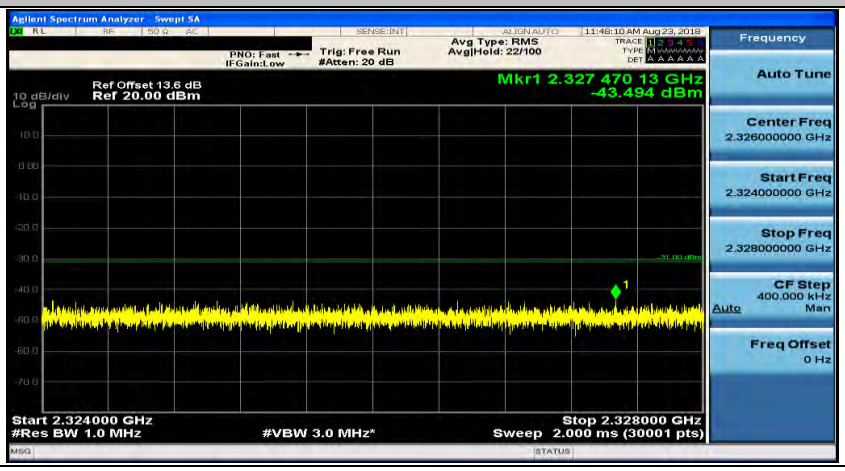
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



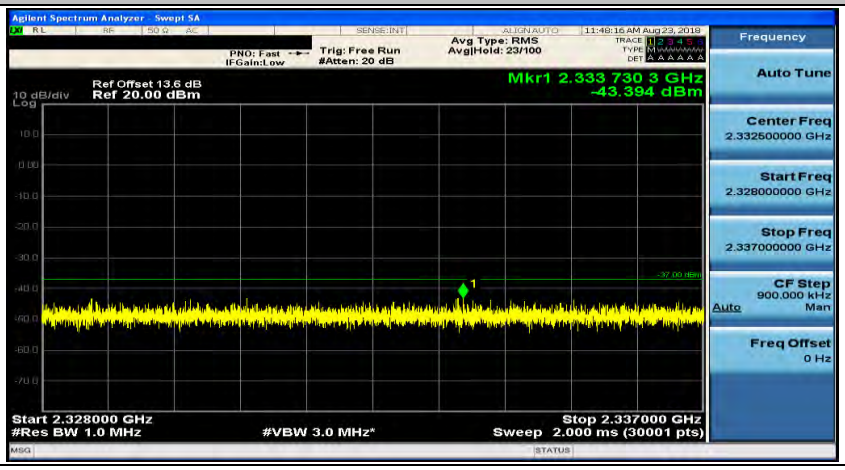
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



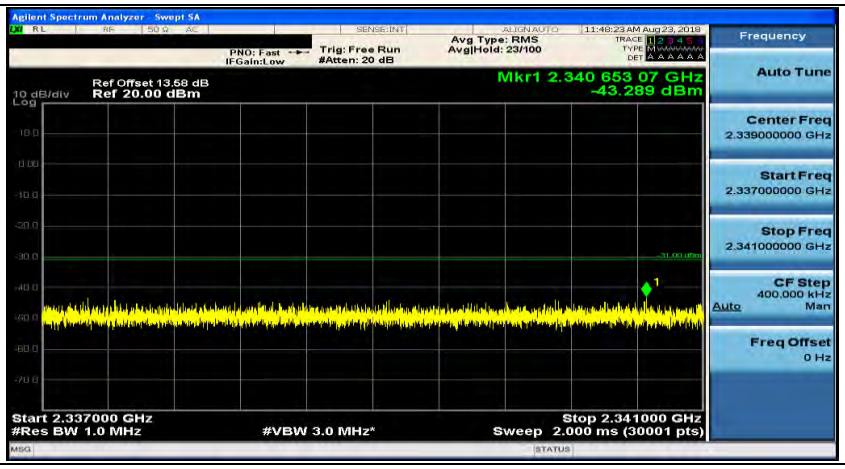
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



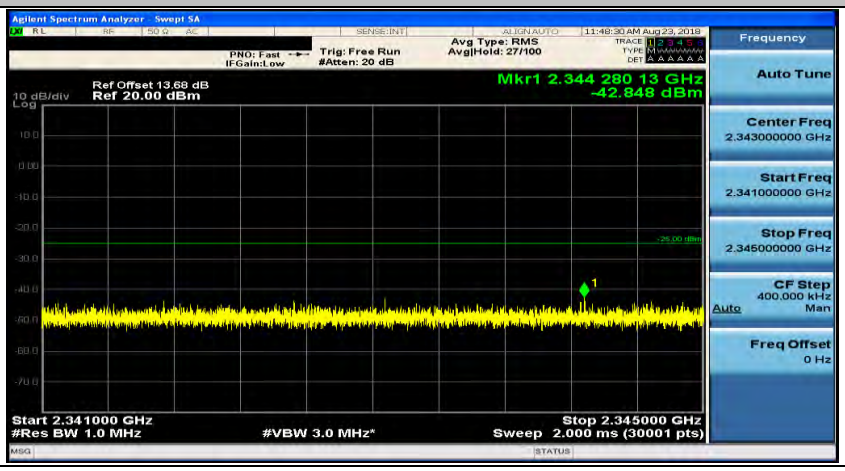
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



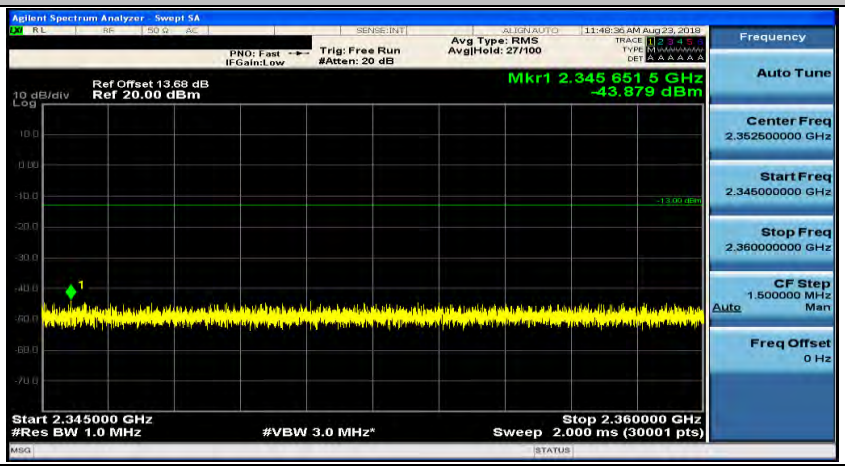
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



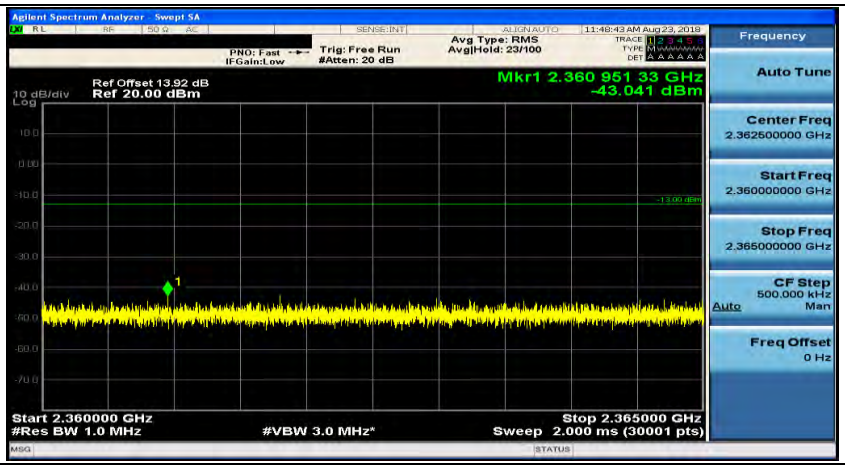
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



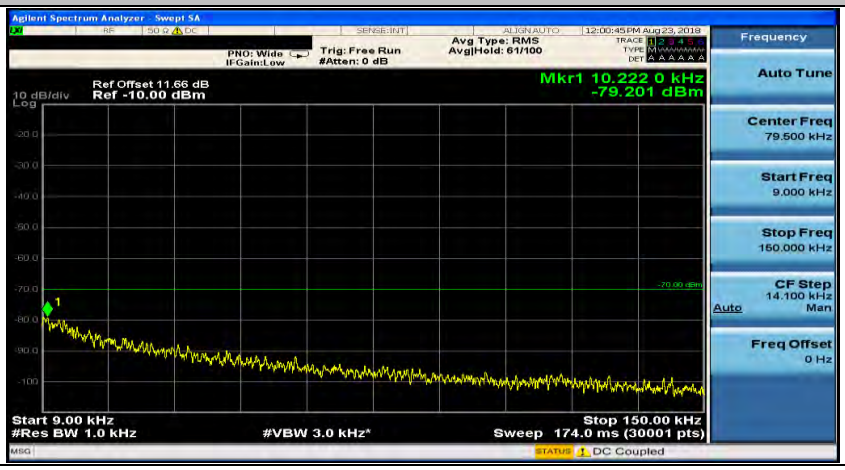
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

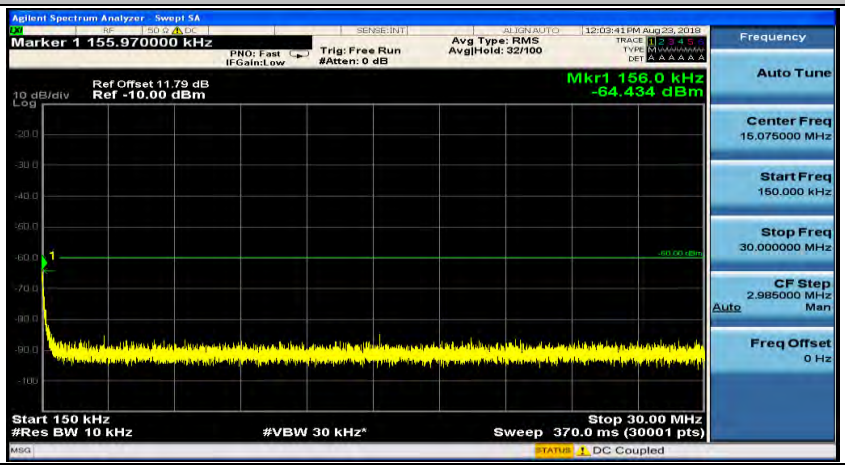


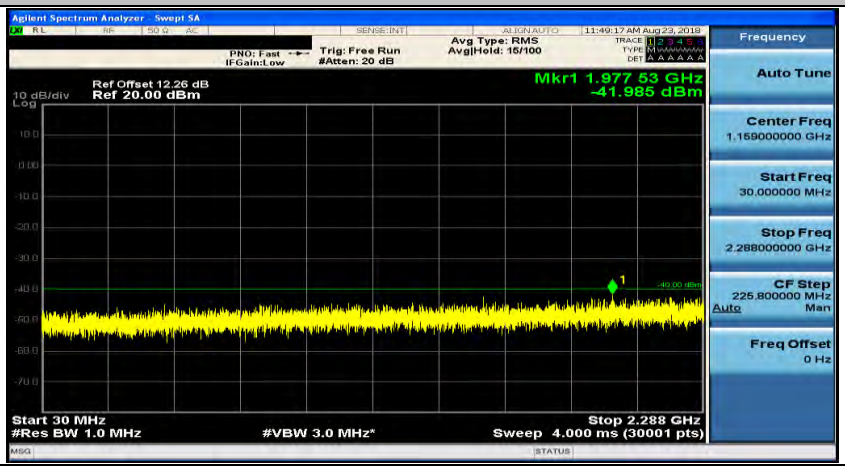
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

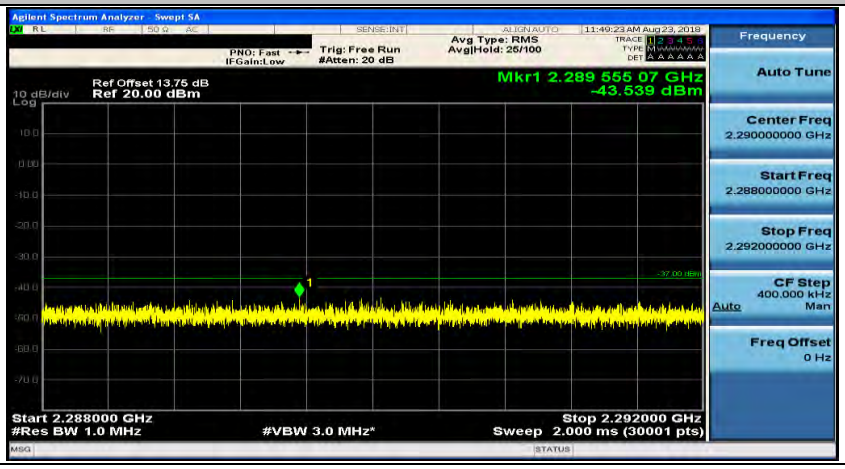


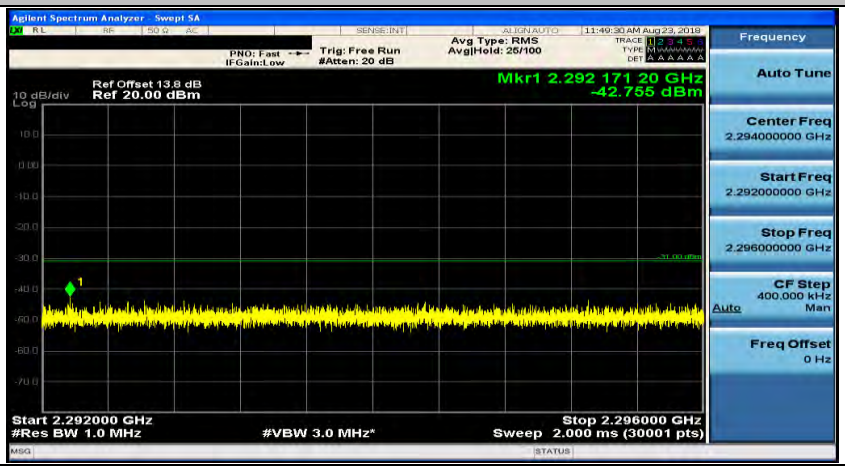
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0


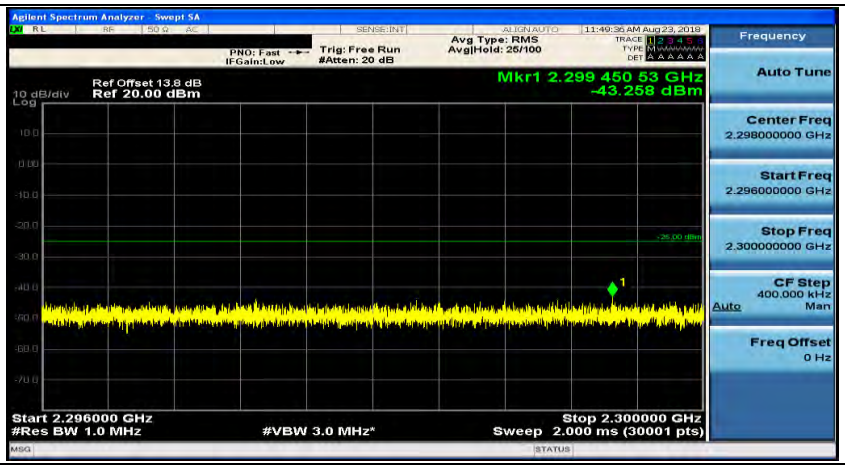
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0


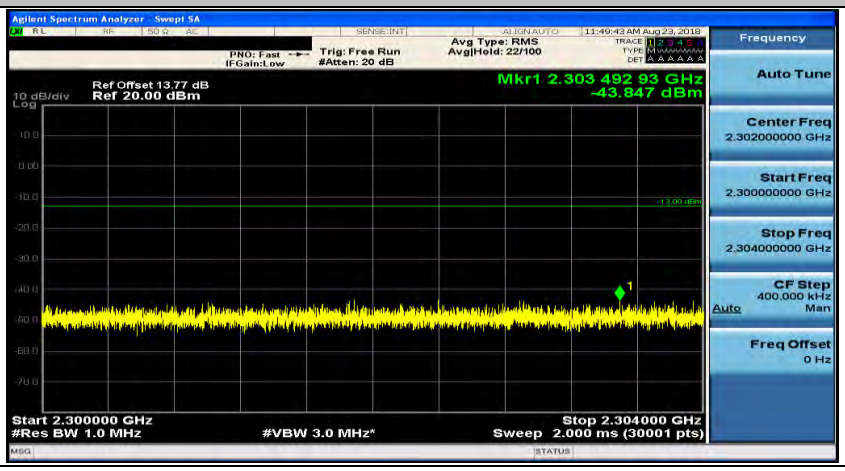
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0


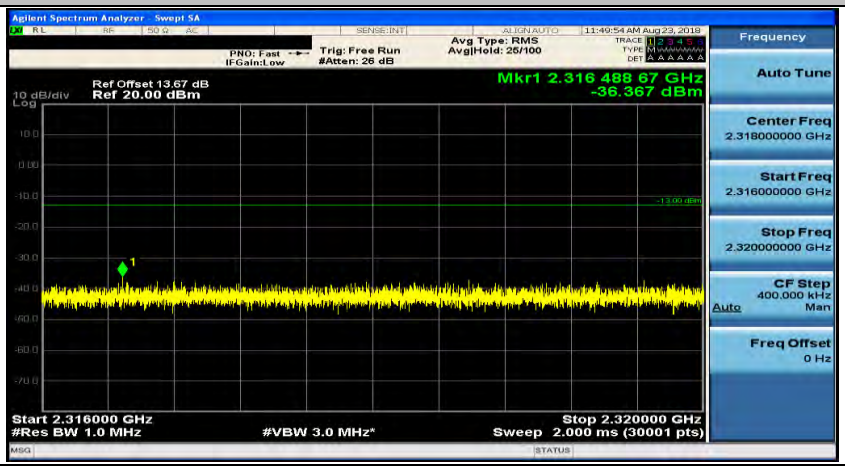
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



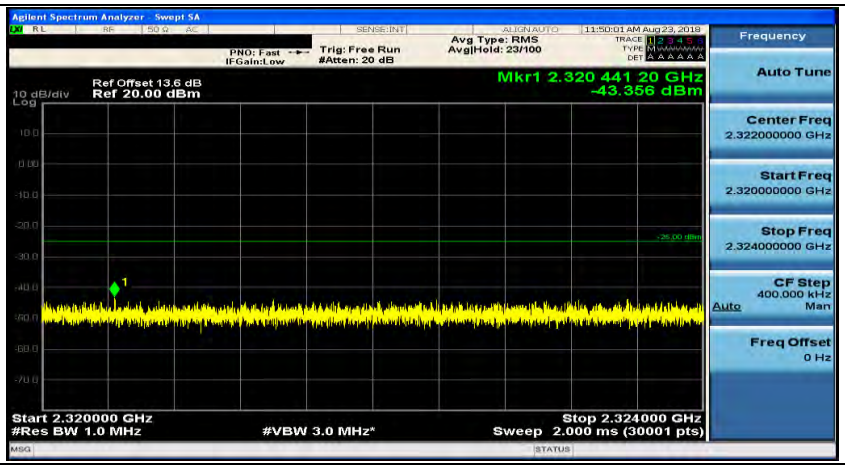
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



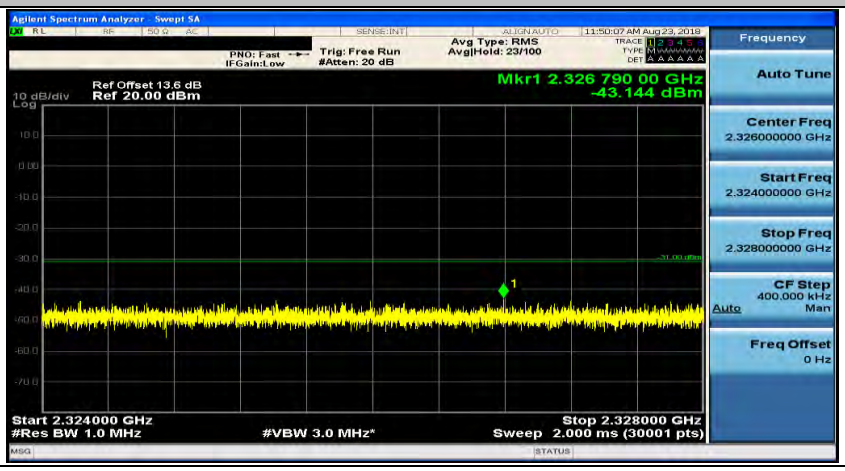
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



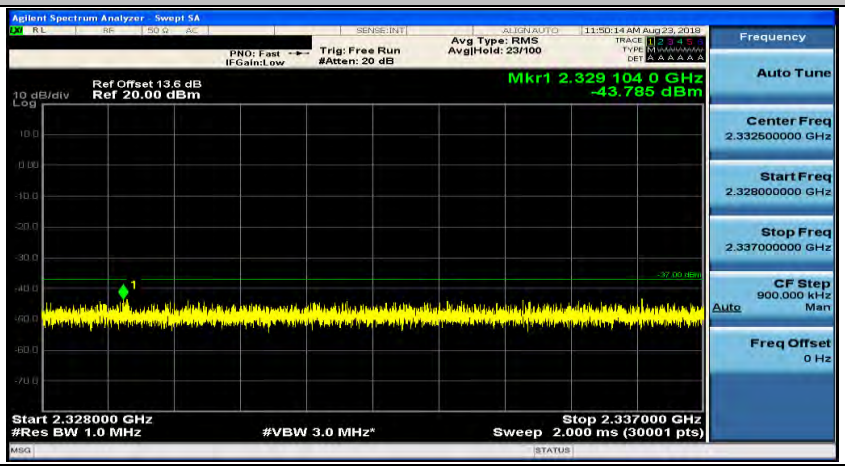
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



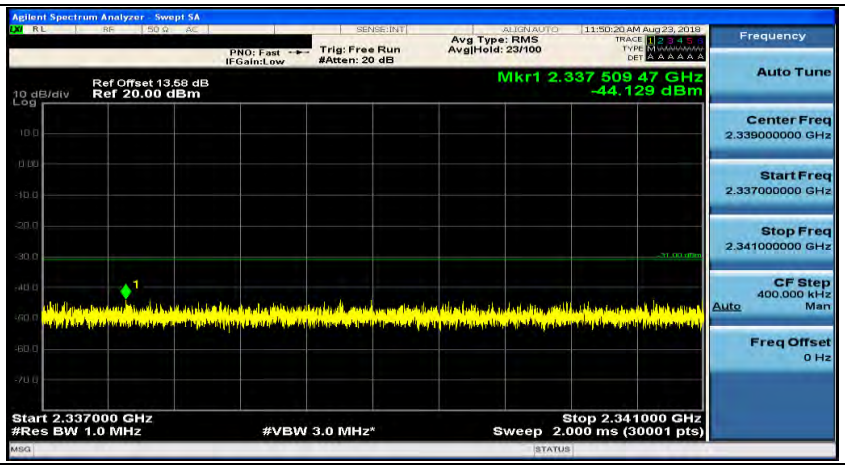
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



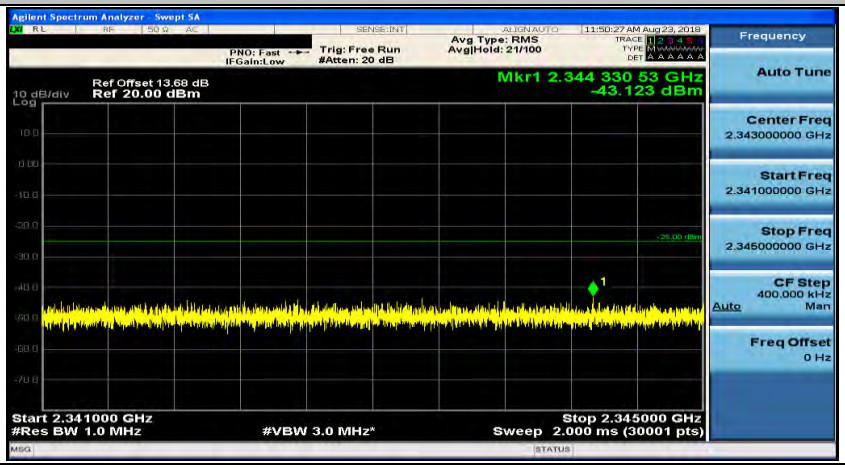
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



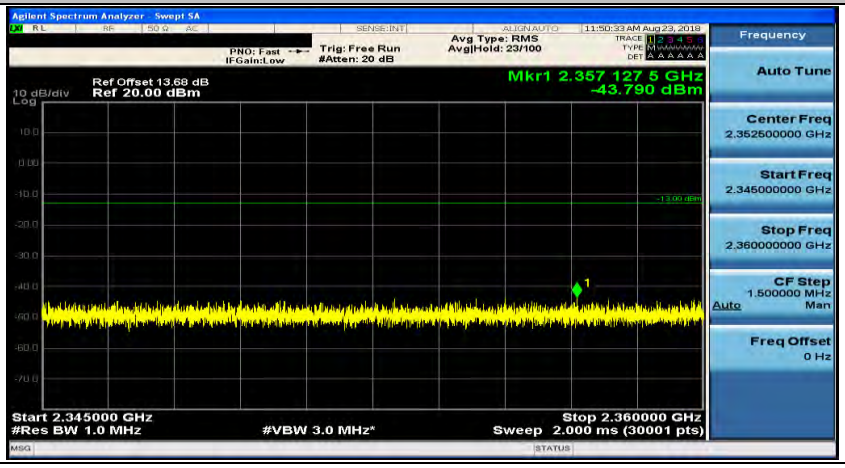
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



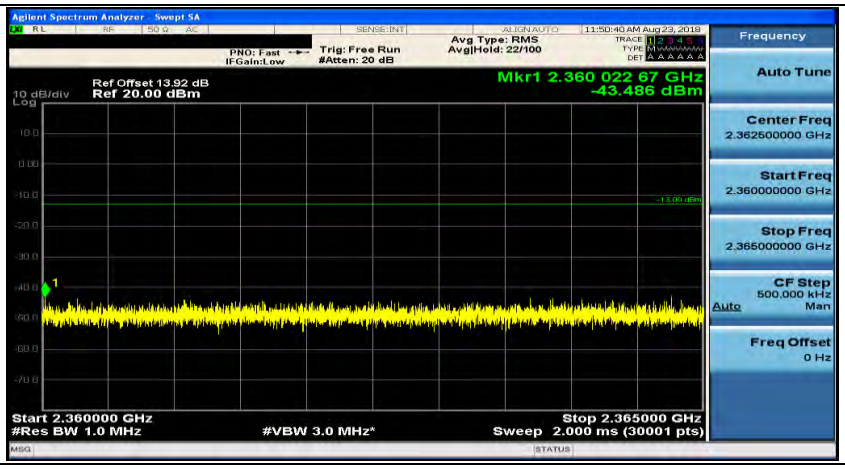
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

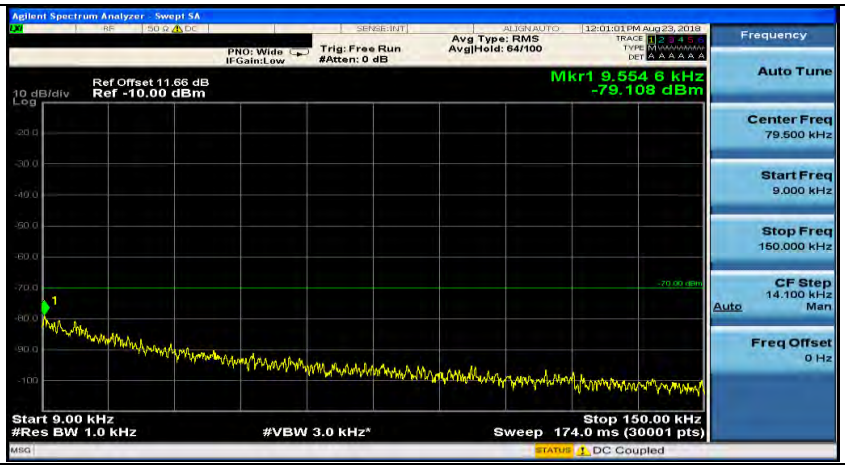


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

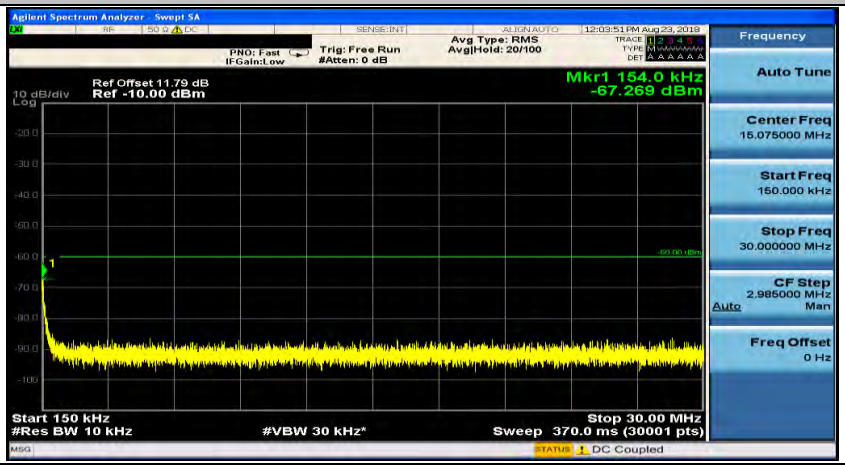


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

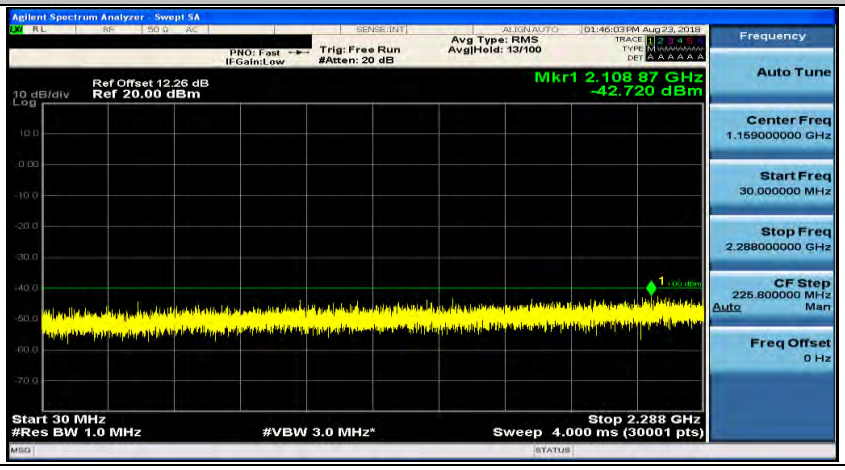
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



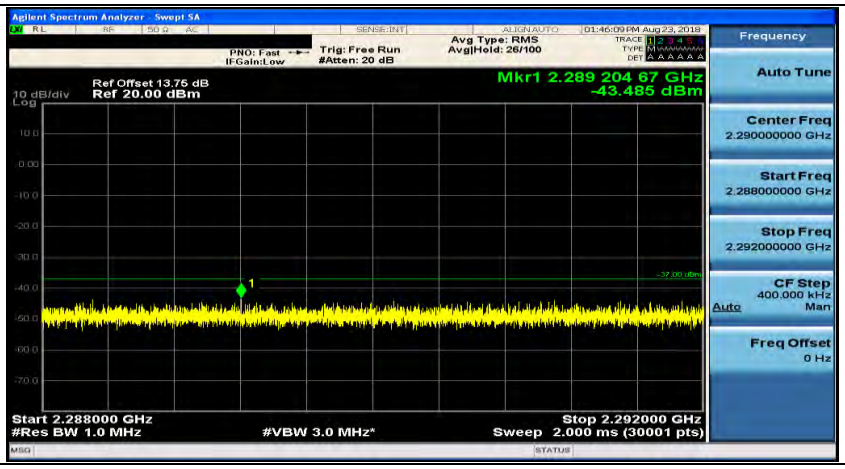
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



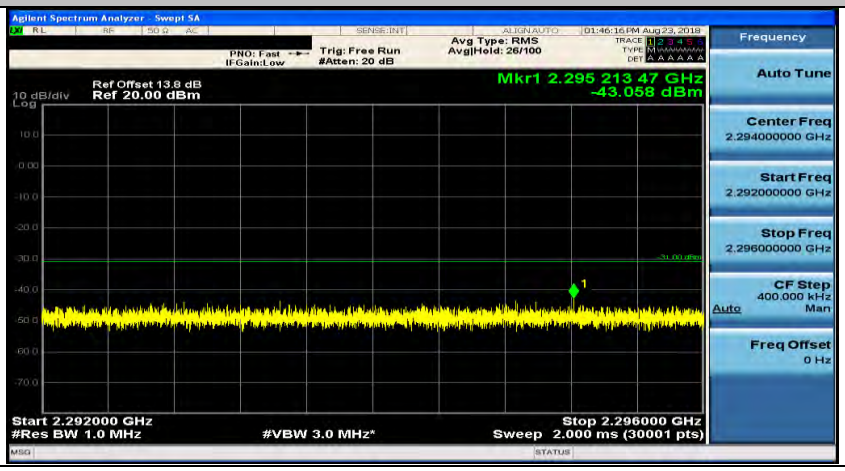
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



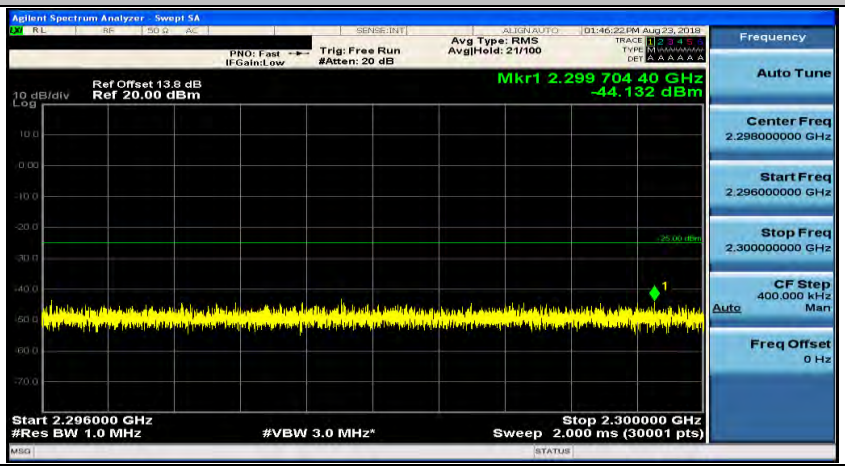
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



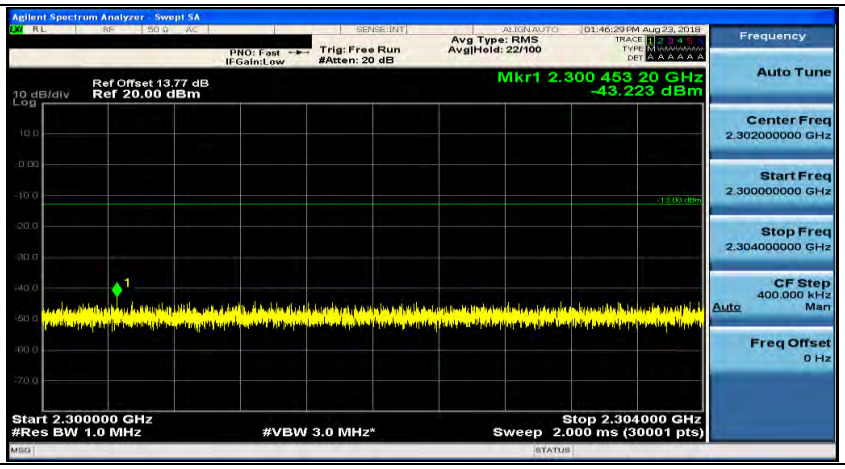
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



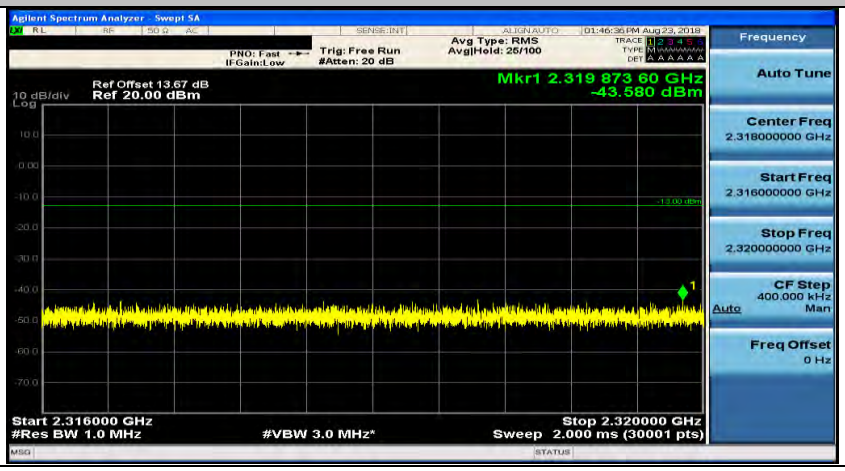
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



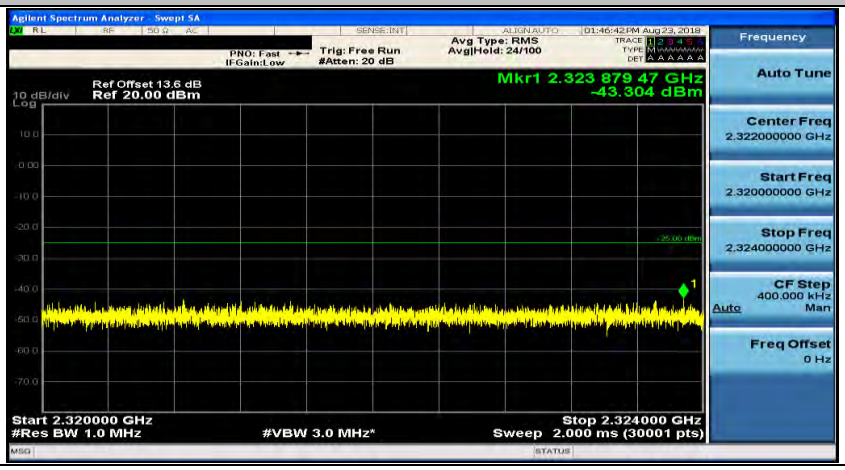
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



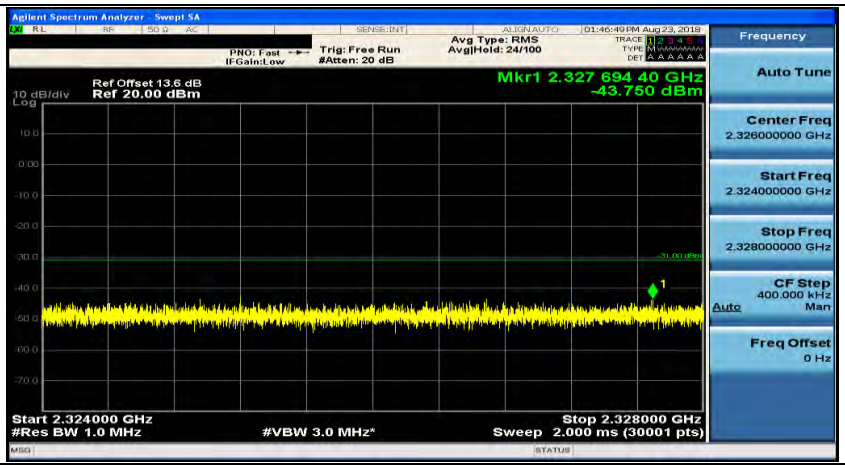
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



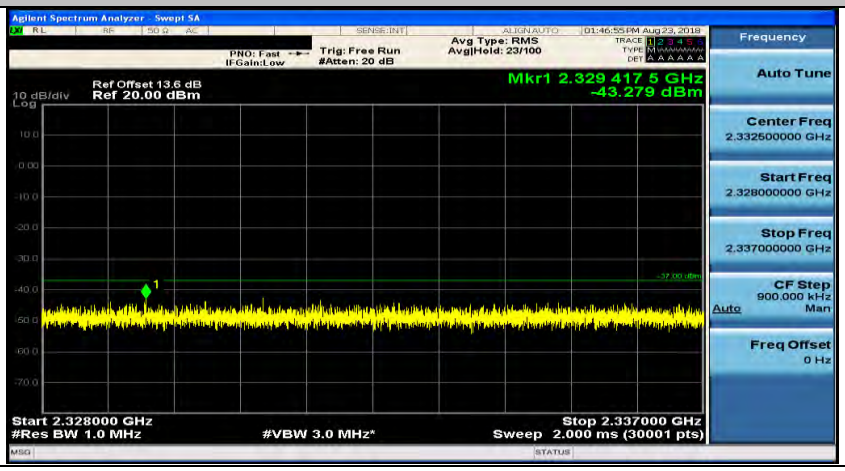
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



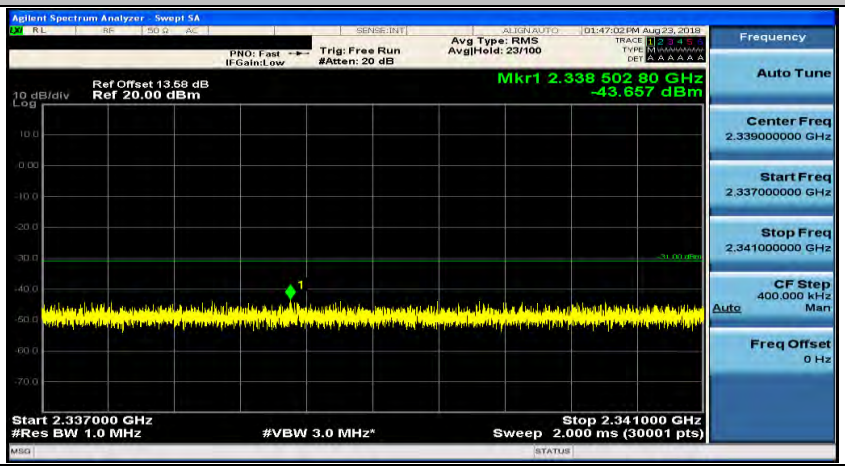
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



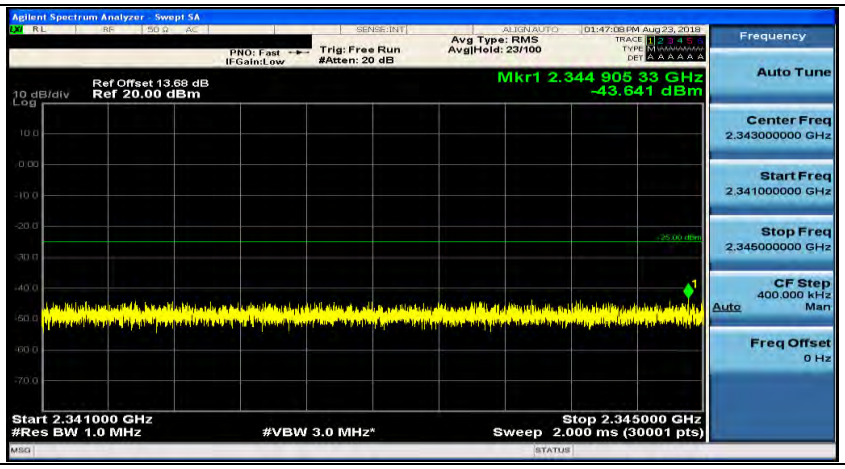
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



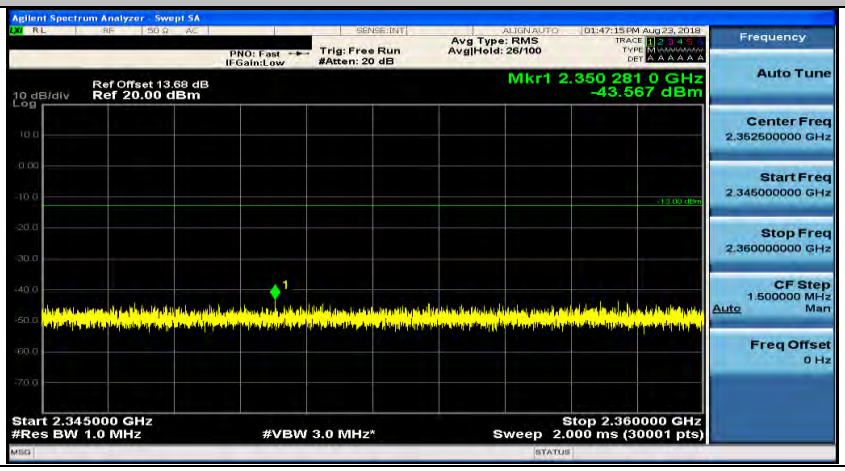
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



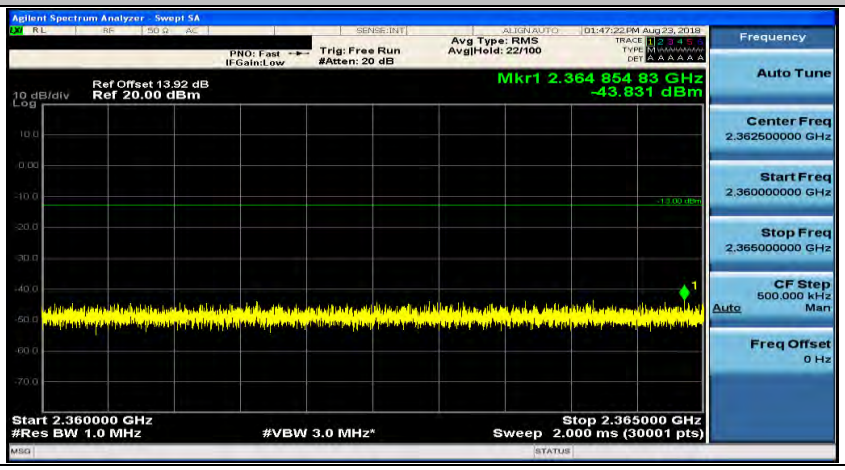
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



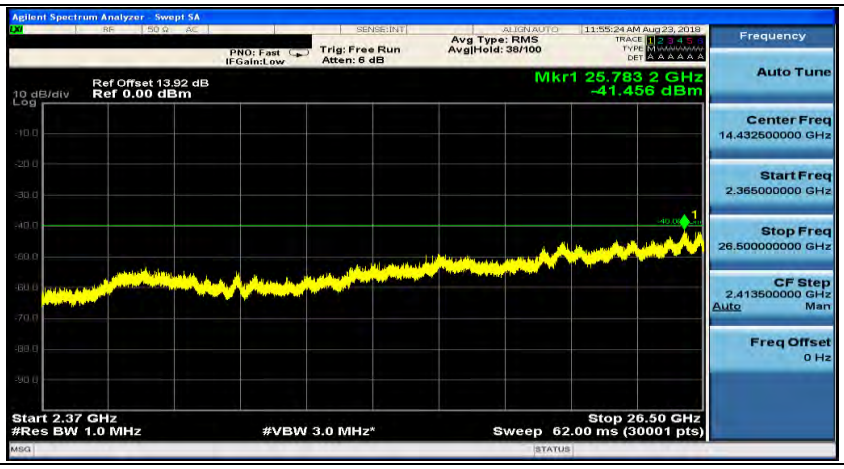
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

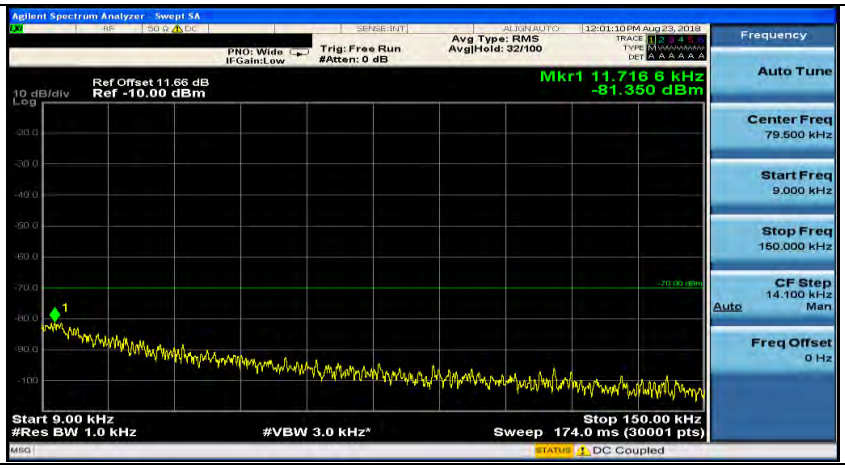


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

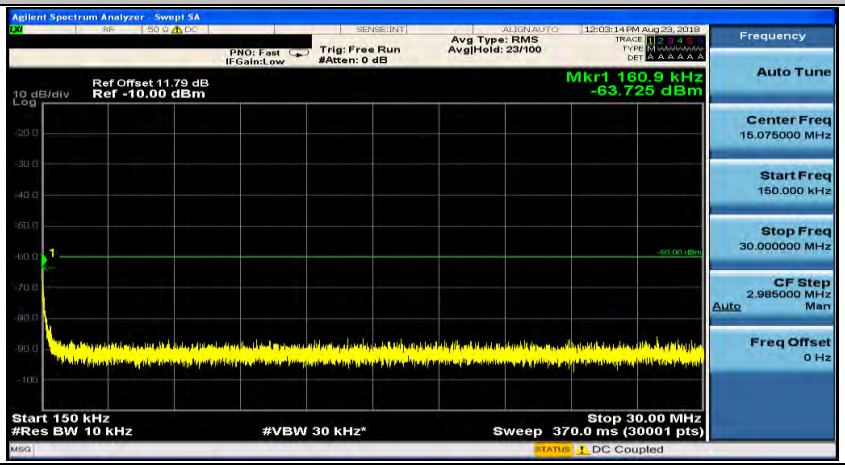


Channel Bandwidth: 10 MHz

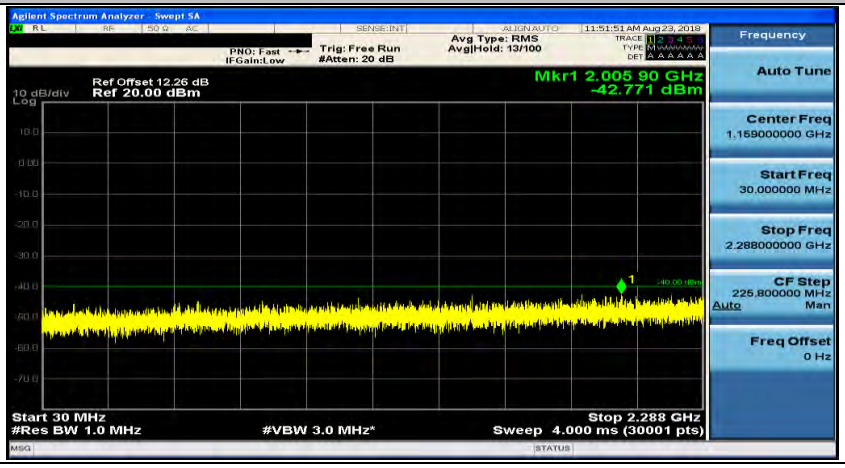
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0



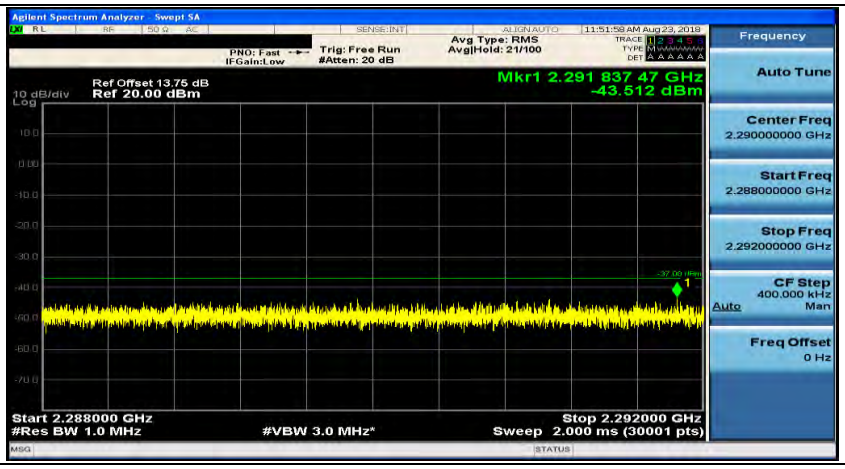
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0



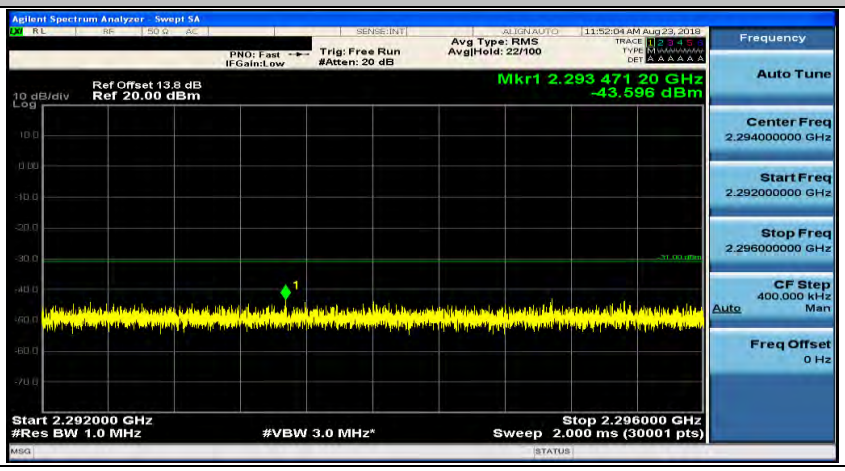
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0



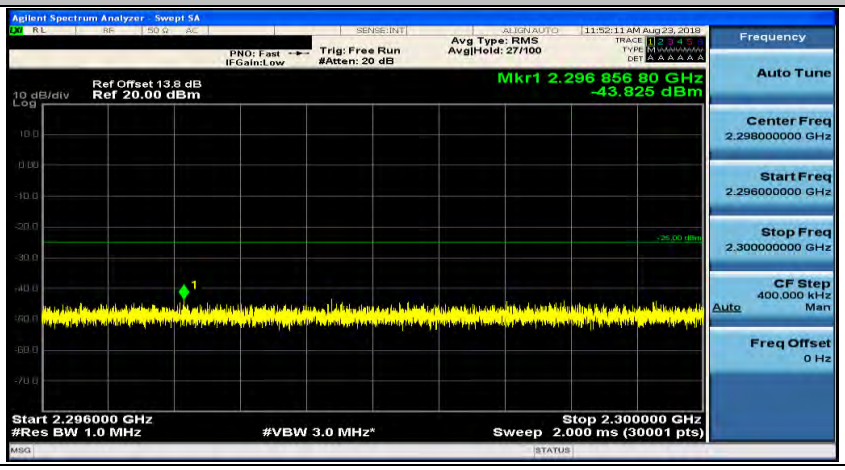
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0

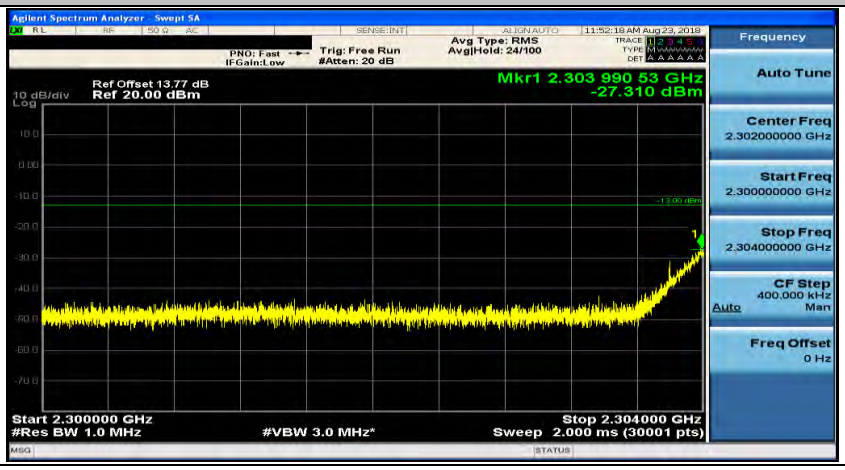


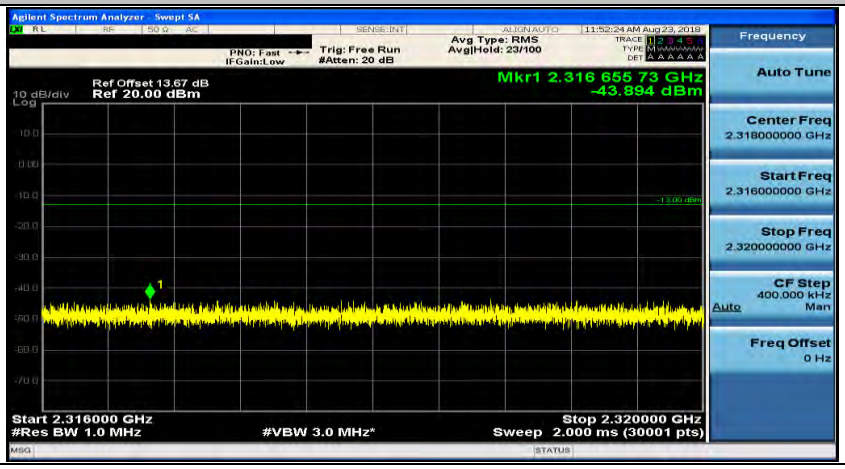
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0

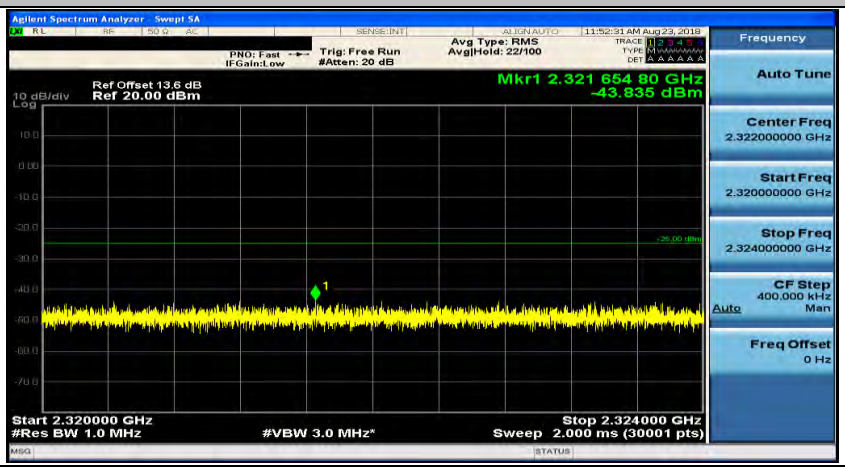


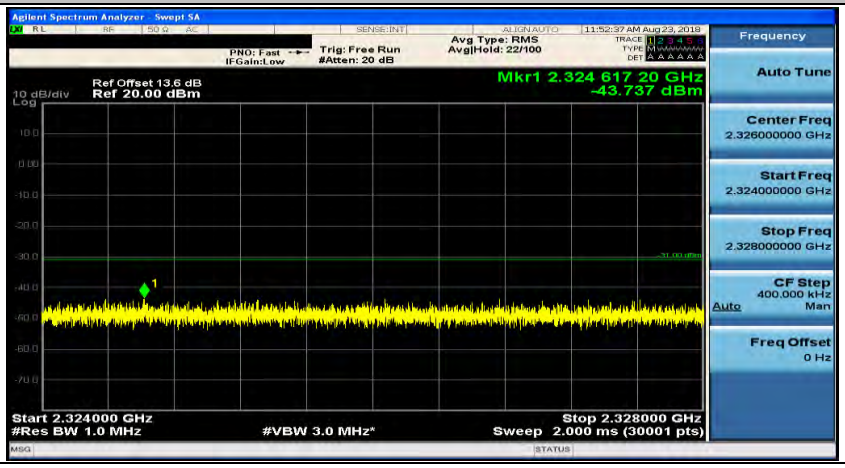
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0

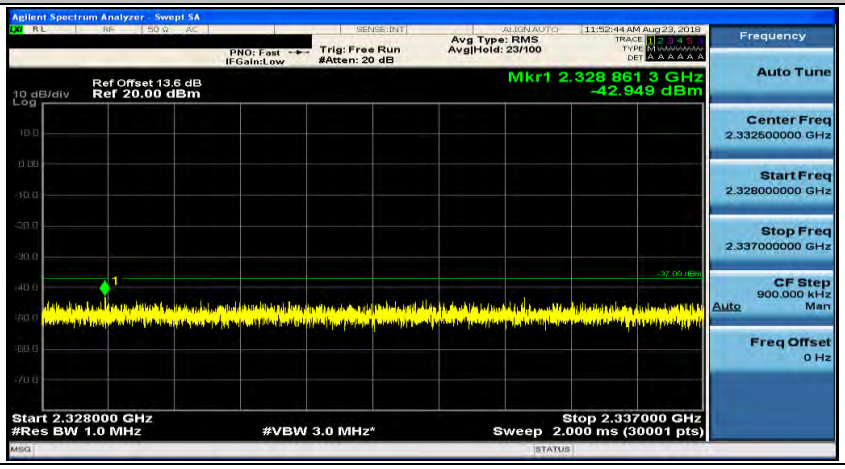


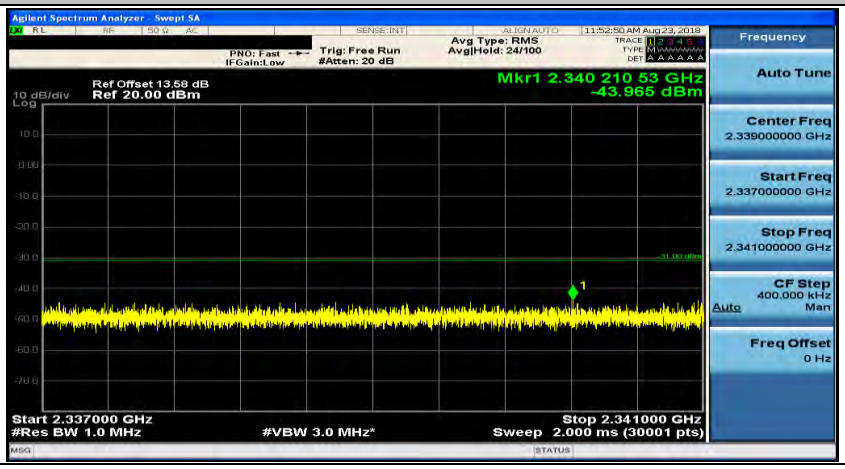
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


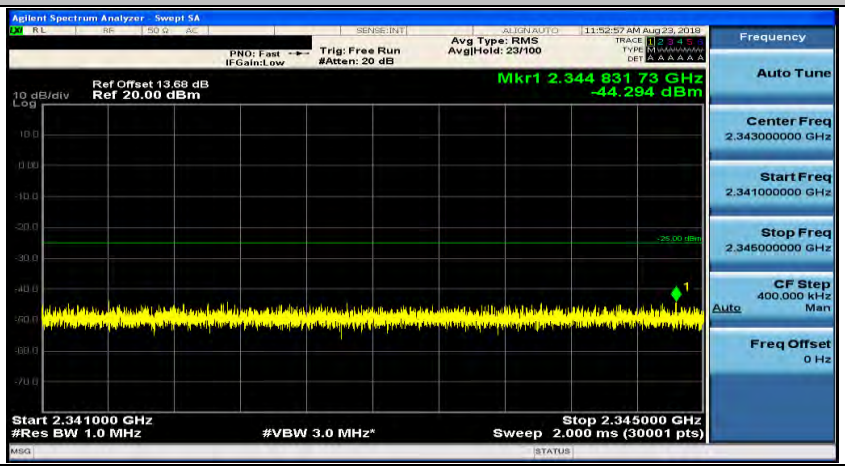
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


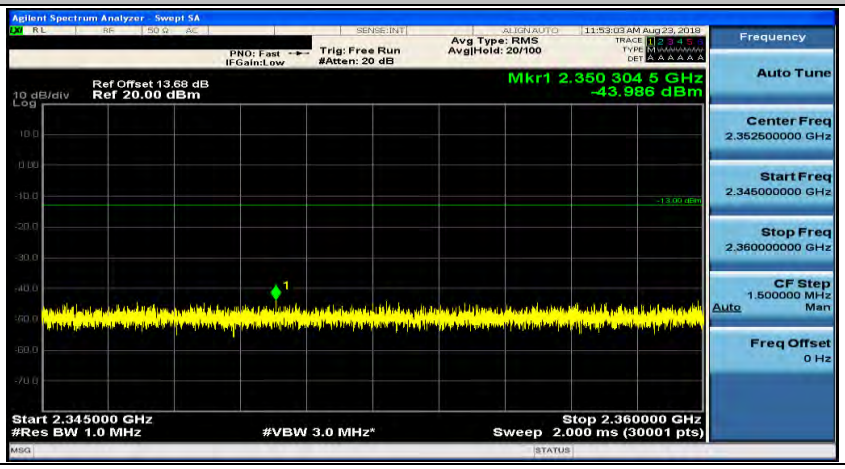
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


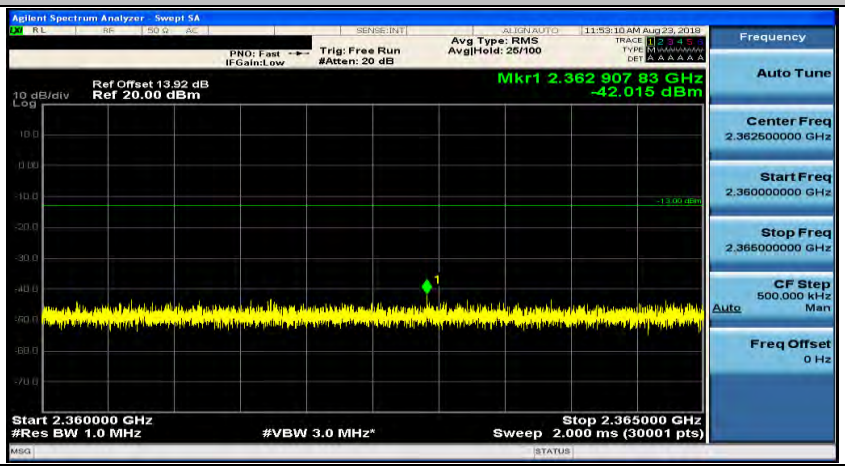
(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0


Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz

Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.10	-0.000043	± 2.5	PASS
		VN	TN	4.40	0.001907	± 2.5	PASS
		VH	TN	1.70	0.000737	± 2.5	PASS
	MCH	VL	TN	-5.40	-0.002338	± 2.5	PASS
		VN	TN	-3.50	-0.001515	± 2.5	PASS
		VH	TN	-3.10	-0.001342	± 2.5	PASS
	HCH	VL	TN	0.90	0.000389	± 2.5	PASS
		VN	TN	-2.00	-0.000865	± 2.5	PASS
		VH	TN	0.50	0.000216	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.10	0.000043	± 2.5	PASS
		VN	-20	2.70	0.001170	± 2.5	PASS
		VN	-10	0.90	0.000390	± 2.5	PASS
		VN	0	0.70	0.000303	± 2.5	PASS
		VN	10	-0.30	-0.000130	± 2.5	PASS
		VN	20	0.40	0.000173	± 2.5	PASS
		VN	30	0.10	0.000043	± 2.5	PASS
		VN	40	2.80	0.001213	± 2.5	PASS
		VN	50	-1.20	-0.000520	± 2.5	PASS
	MCH	VN	-30	-4.90	-0.002121	± 2.5	PASS
		VN	-20	-2.40	-0.001039	± 2.5	PASS
		VN	-10	-5.30	-0.002294	± 2.5	PASS
		VN	0	-5.30	-0.002294	± 2.5	PASS
		VN	10	-3.40	-0.001472	± 2.5	PASS
		VN	20	-5.70	-0.002468	± 2.5	PASS
		VN	30	-4.20	-0.001818	± 2.5	PASS
		VN	40	-2.60	-0.001126	± 2.5	PASS
		VN	50	-4.50	-0.001948	± 2.5	PASS
	HCH	VN	-30	1.40	0.000605	± 2.5	PASS
		VN	-20	1.50	0.000649	± 2.5	PASS
		VN	-10	2.30	0.000995	± 2.5	PASS
		VN	0	1.10	0.000476	± 2.5	PASS
		VN	10	0.80	0.000346	± 2.5	PASS
		VN	20	2.10	0.000908	± 2.5	PASS
		VN	30	-1.10	-0.000476	± 2.5	PASS
		VN	40	-2.20	-0.000951	± 2.5	PASS
		VN	50	1.90	0.000822	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz
Voltage

Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	MCH	VL	TN	-1.90	-0.000823	± 2.5	PASS
		VN	TN	-0.30	-0.000130	± 2.5	PASS
		VH	TN	-4.10	-0.001775	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	MCH	VN	-30	-4.40	-0.001905	± 2.5	PASS
		VN	-20	-2.20	-0.000952	± 2.5	PASS
		VN	-10	-2.20	-0.000952	± 2.5	PASS
		VN	0	-5.20	-0.002251	± 2.5	PASS
		VN	10	-5.00	-0.002165	± 2.5	PASS
		VN	20	-5.60	-0.002424	± 2.5	PASS
		VN	30	-4.70	-0.002035	± 2.5	PASS
		VN	40	-4.40	-0.001905	± 2.5	PASS
		VN	50	-1.90	-0.000823	± 2.5	PASS