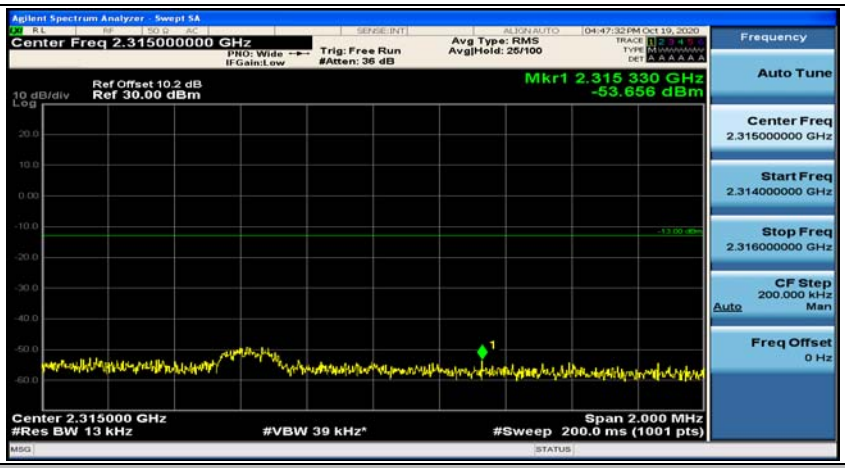
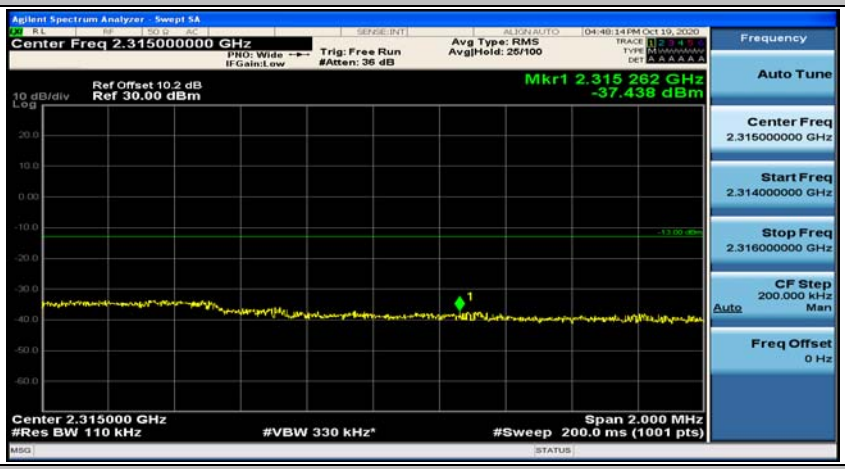
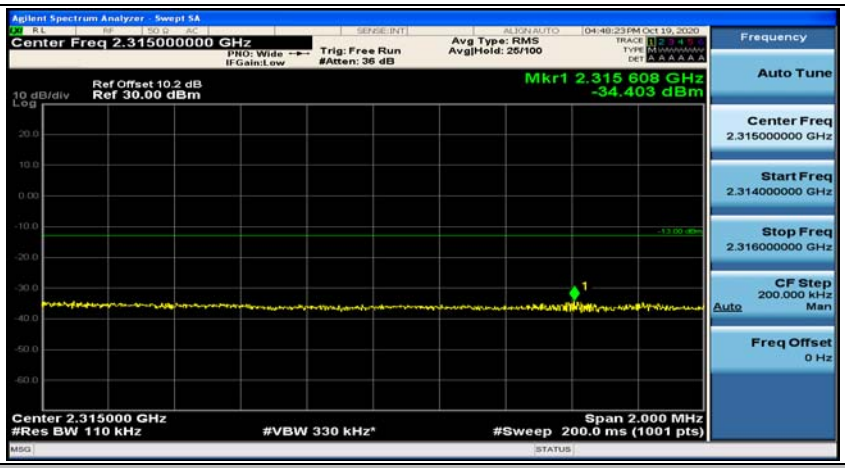


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#0

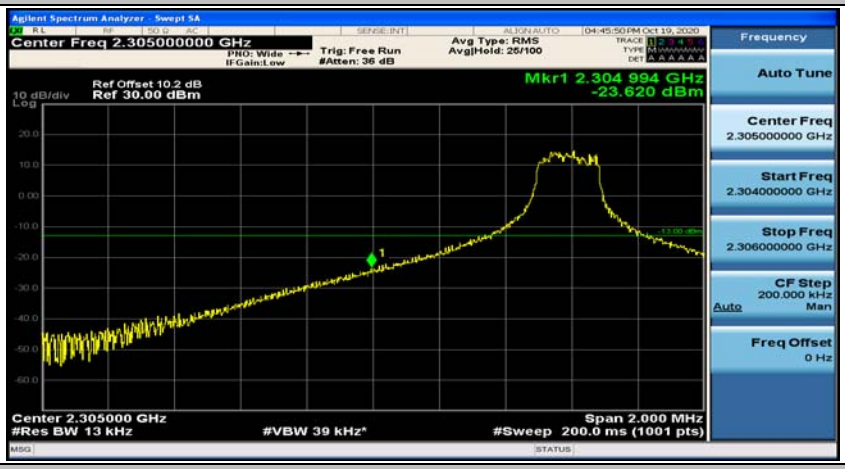
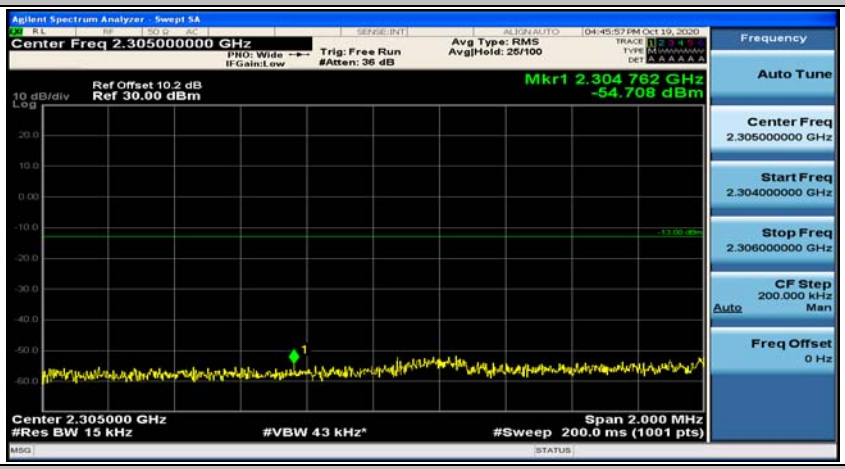
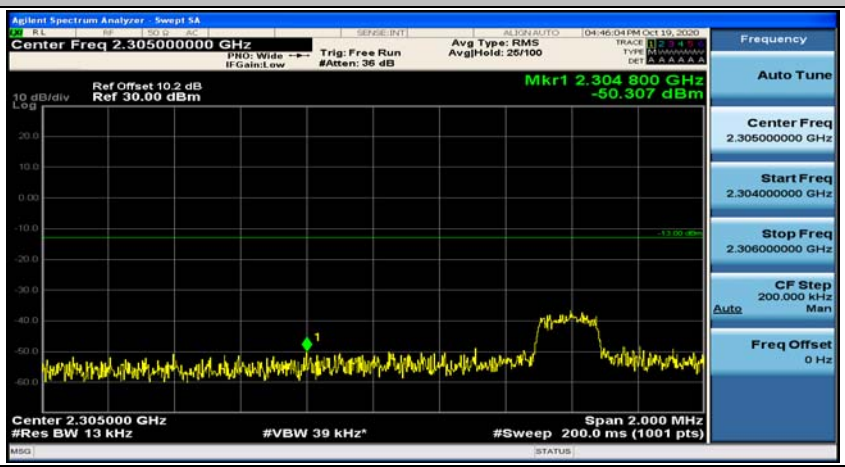


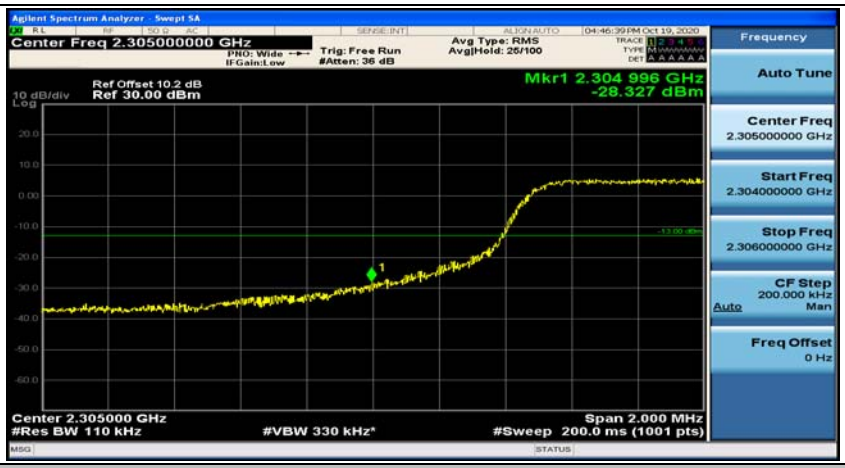
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#12



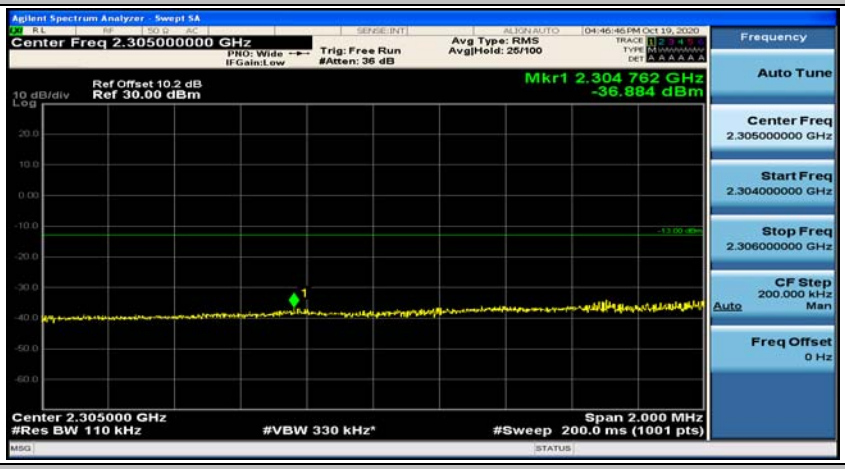
Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#25

Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0

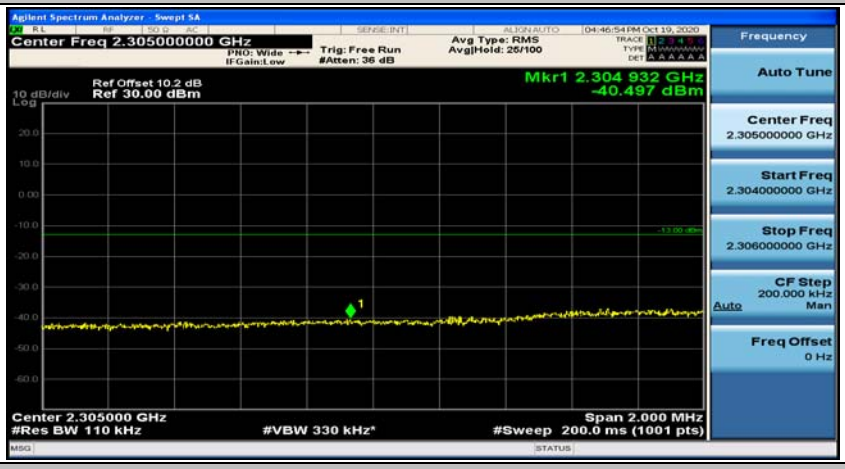
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0



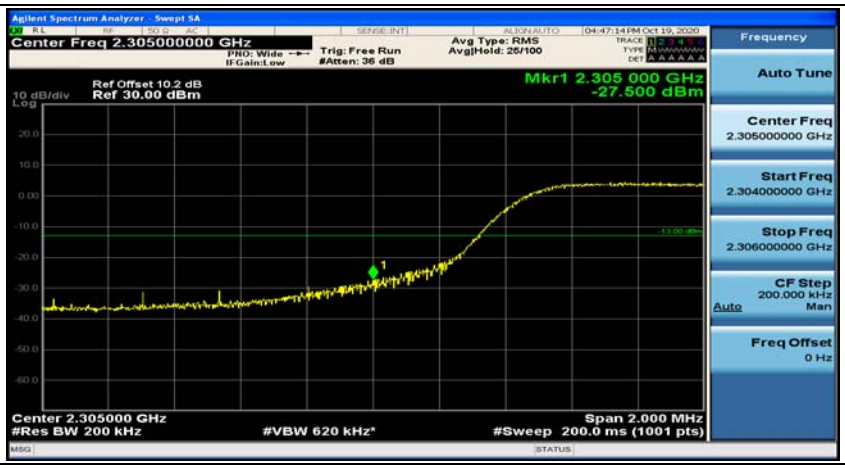
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



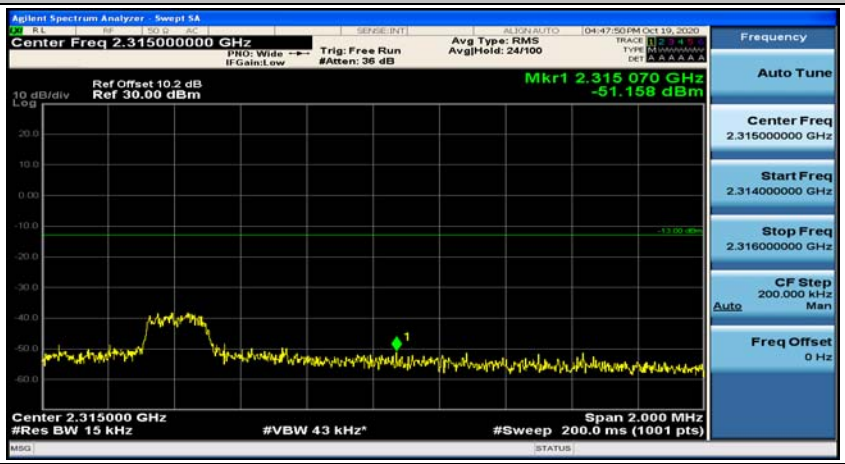
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25



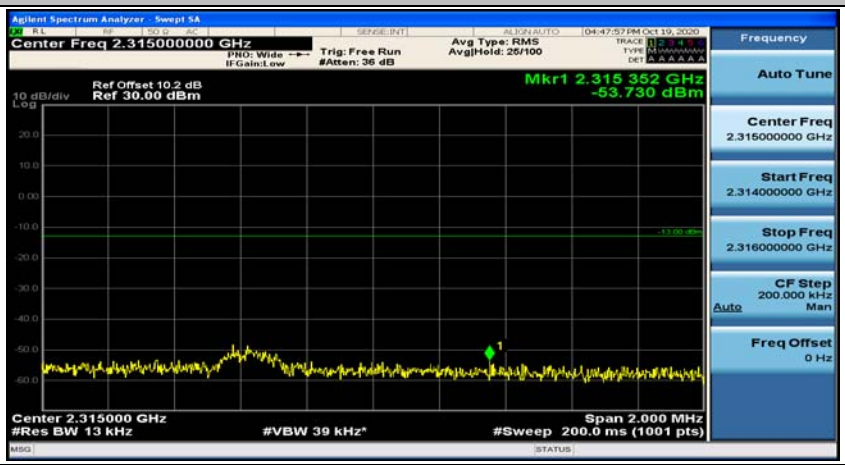
Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

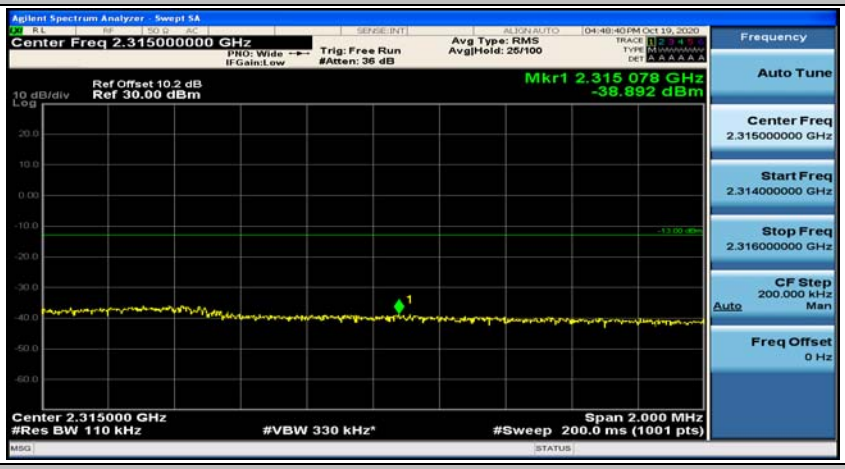


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

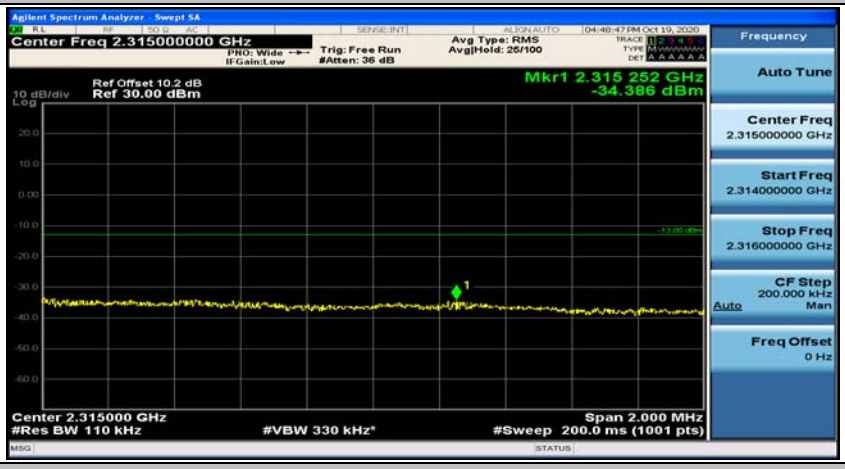


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



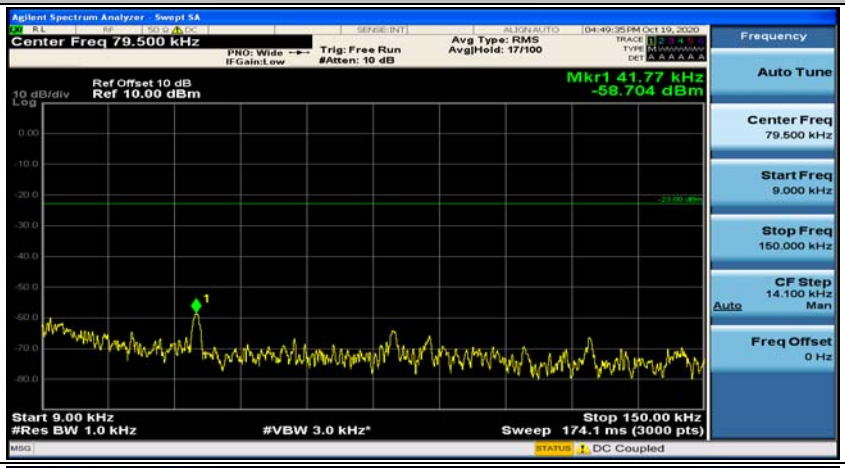
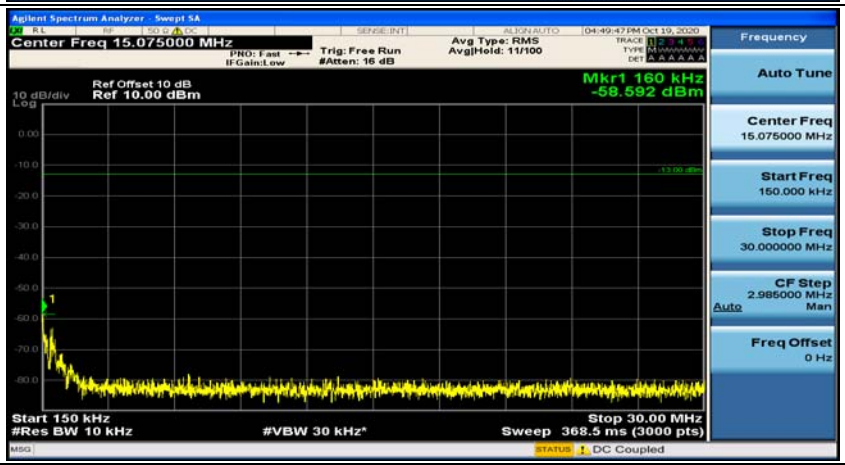
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25

Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0

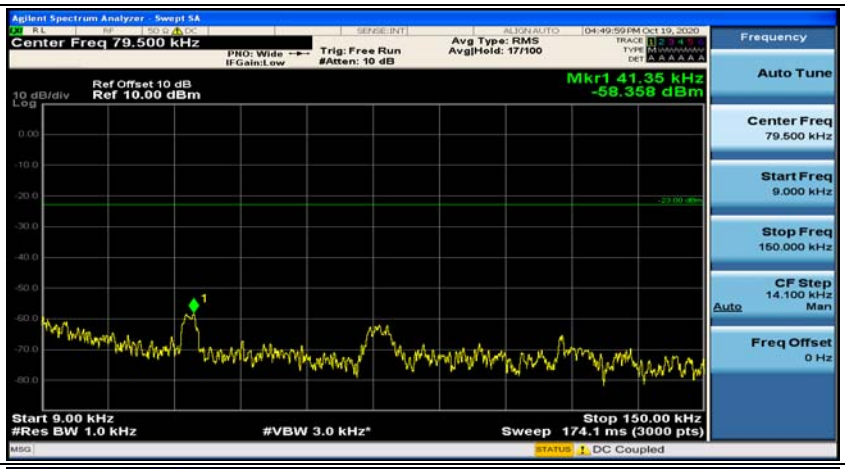
Appendix E: Conducted Spurious Emission

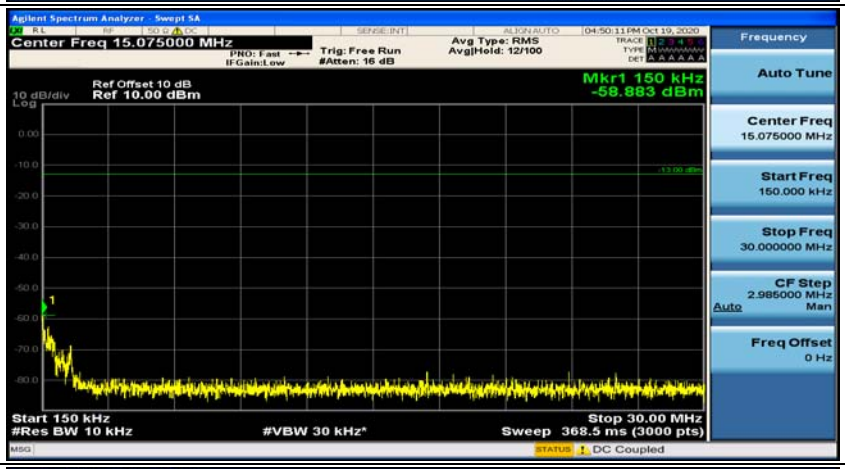
Test Graphs

Channel Bandwidth: 5 MHz

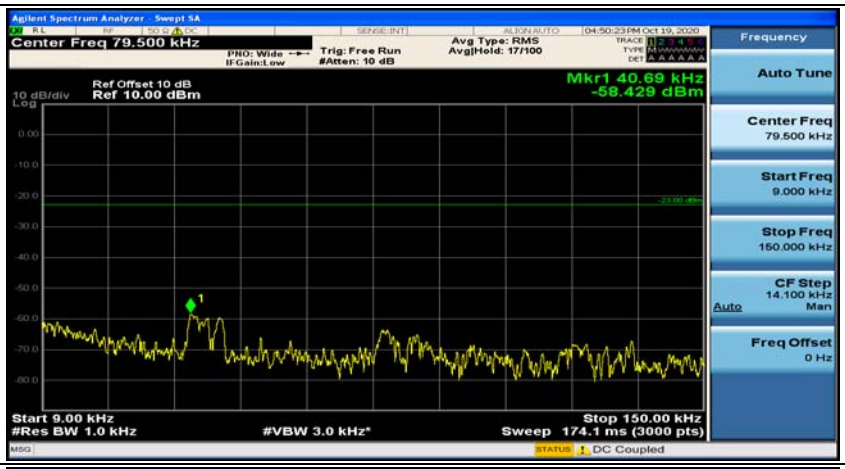
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



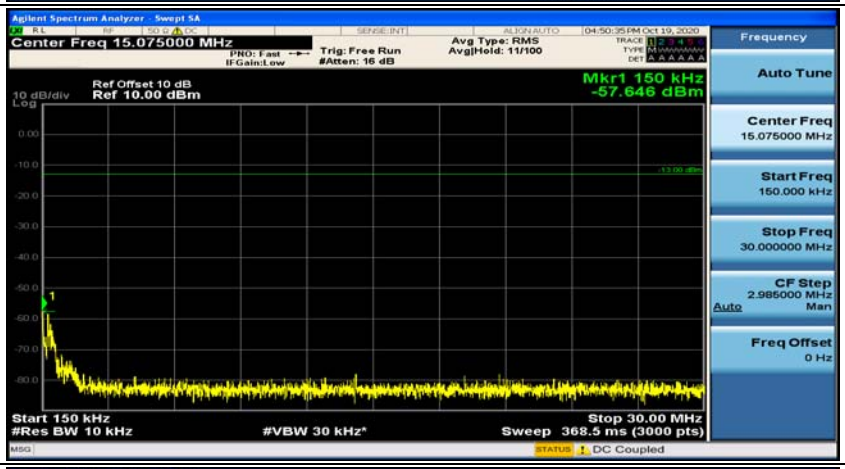
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12





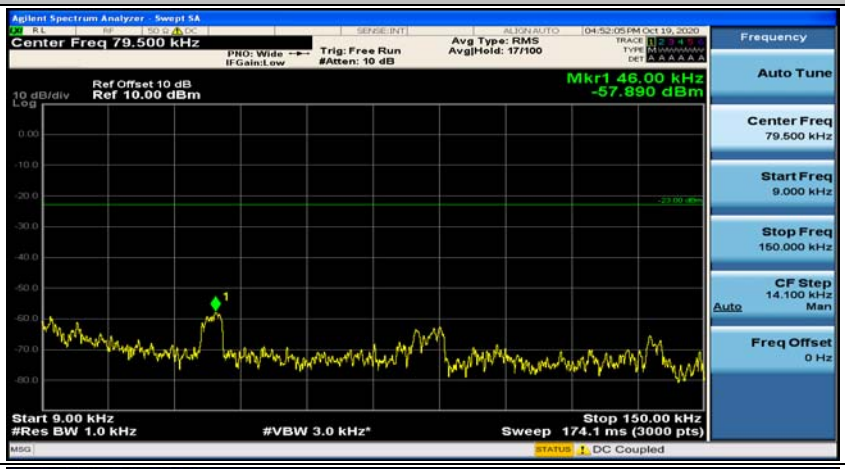
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

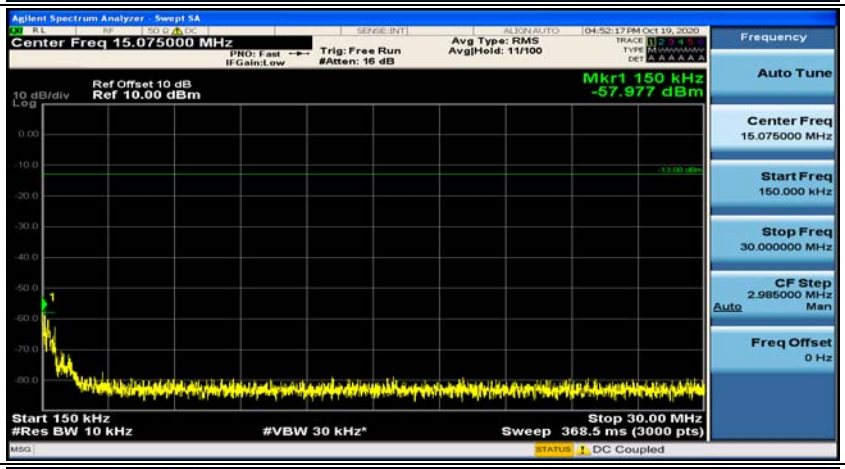

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:50:23 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 40.69 kHz
-58.429 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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


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: 11/100
04:50:35 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 150 kHz
-57.646 dBm
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
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

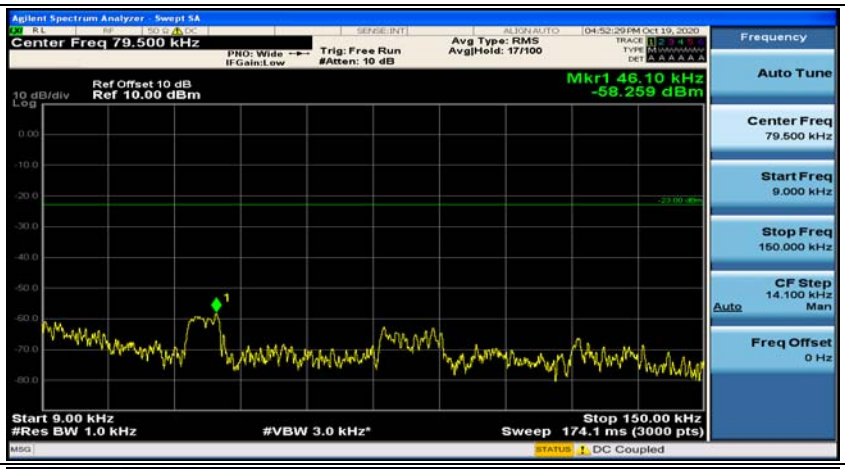

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
04:50:41 PM Oct 19, 2020
Frequency
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.047 GHz
-29.136 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

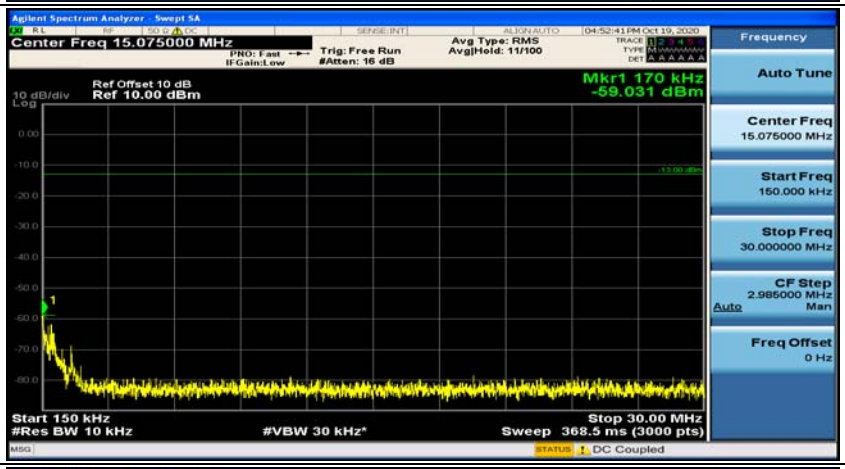
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



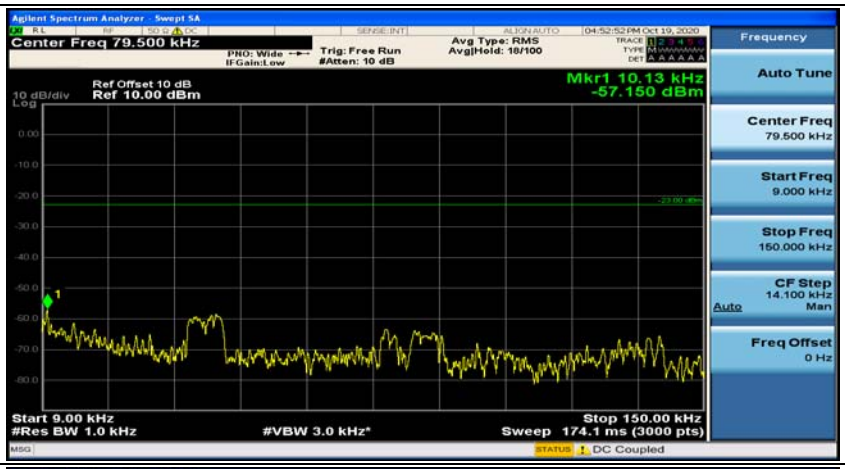


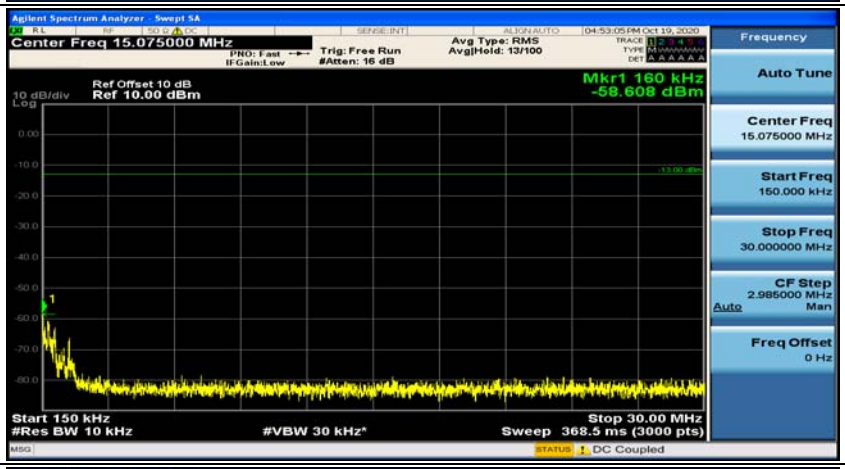
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12



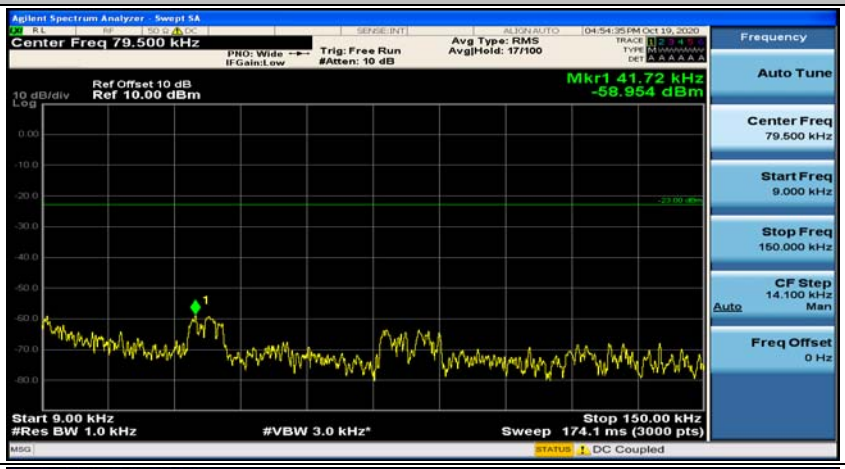
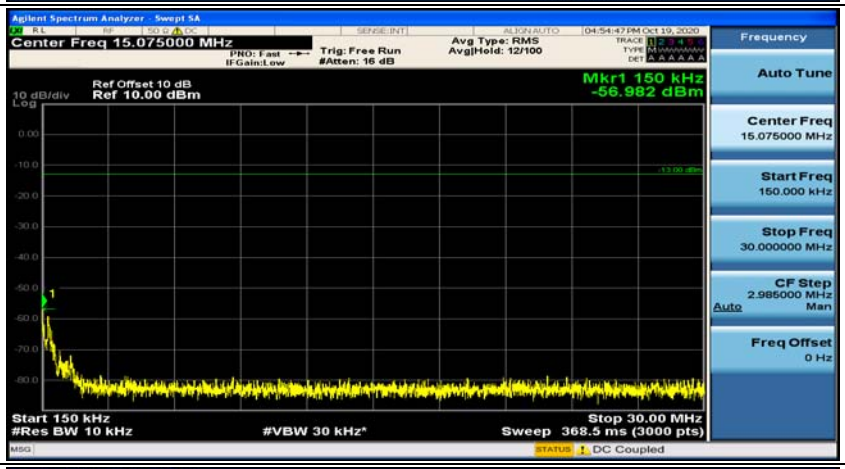


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

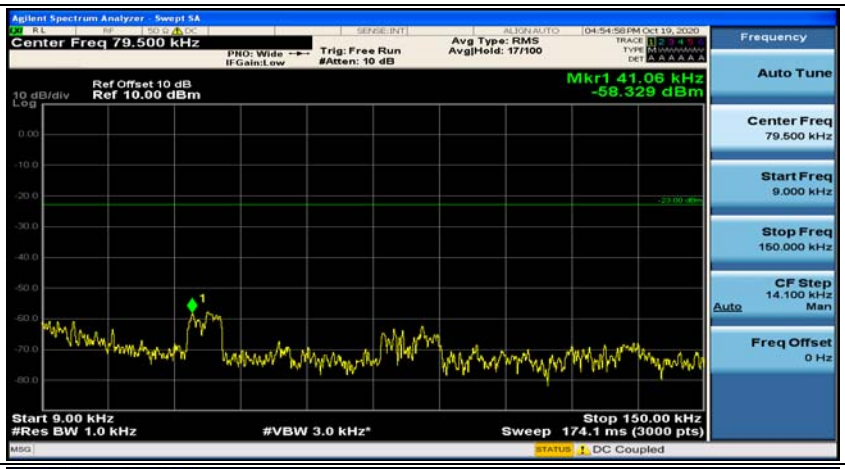

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 18/100
04:52:52 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 10.13 kHz
-57.150 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

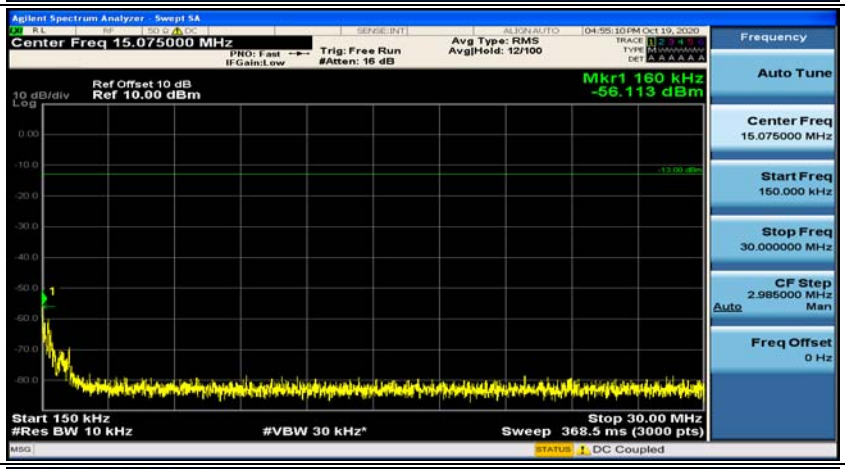

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
04:53:05 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-58.608 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 10/100
04:53:10 PM Oct 19, 2020
Frequency
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.195 GHz
-28.880 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

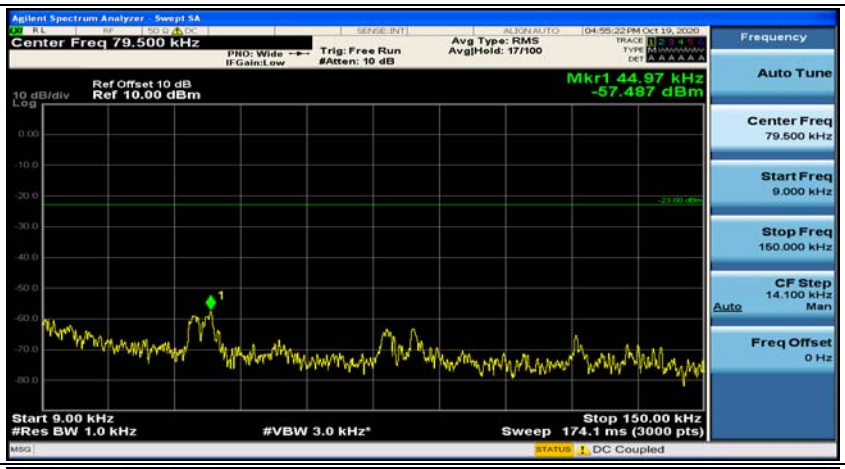
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



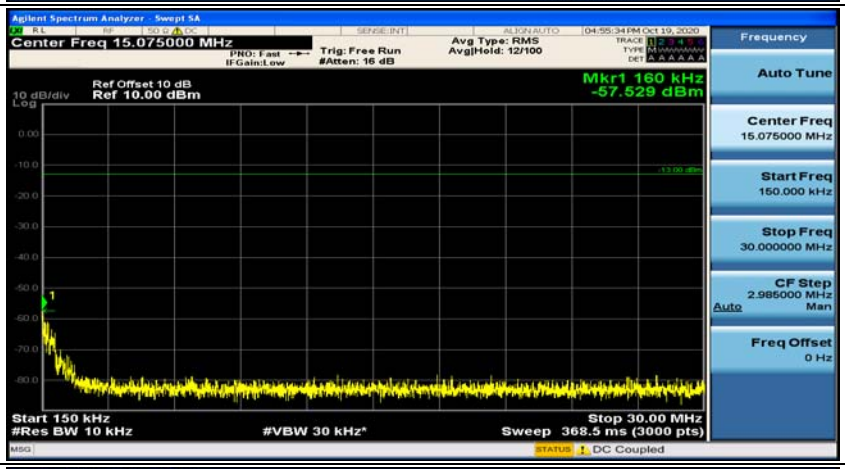
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



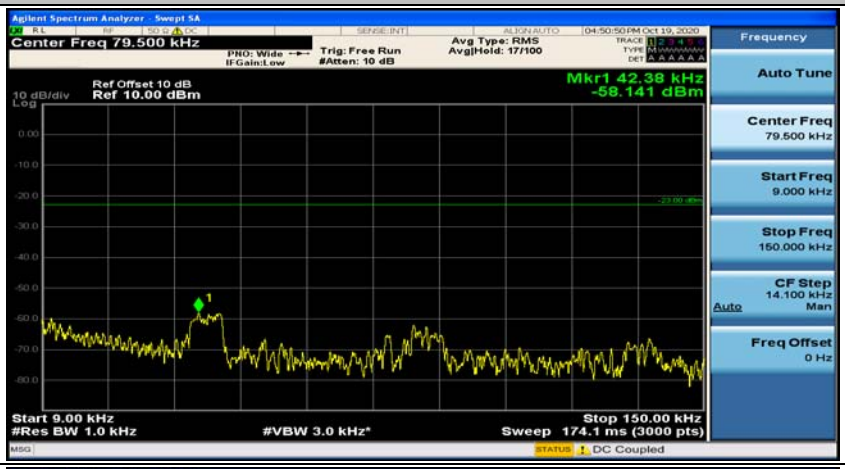
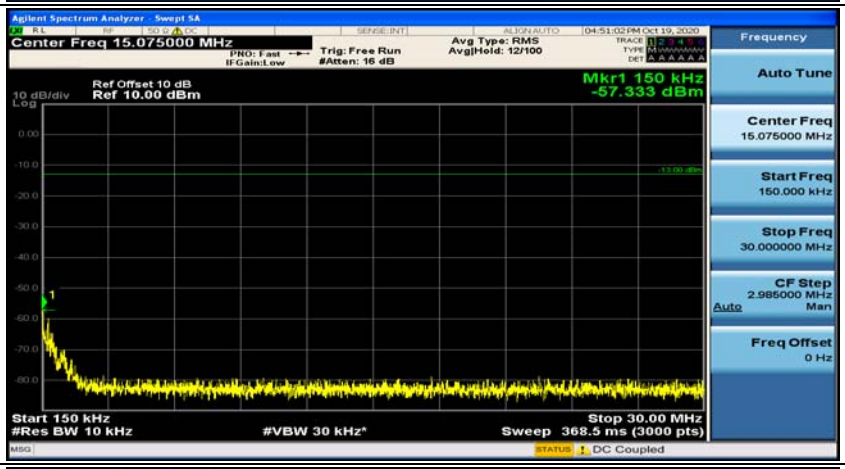


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

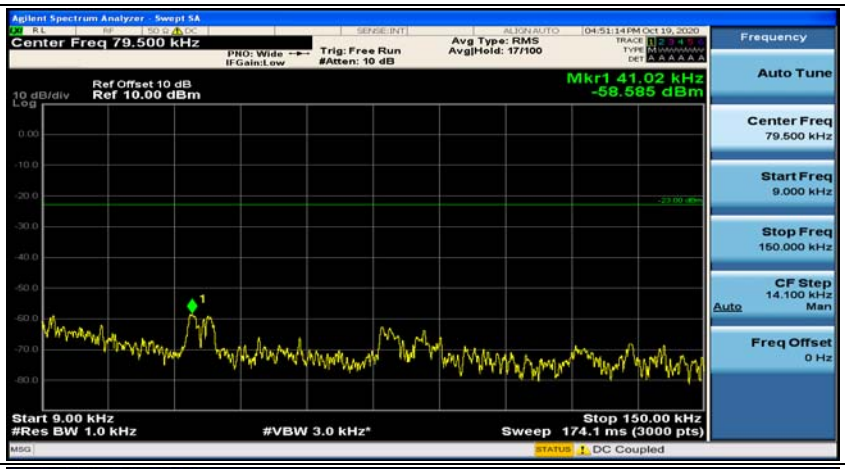

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:55:22 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 44.97 kHz
-57.487 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

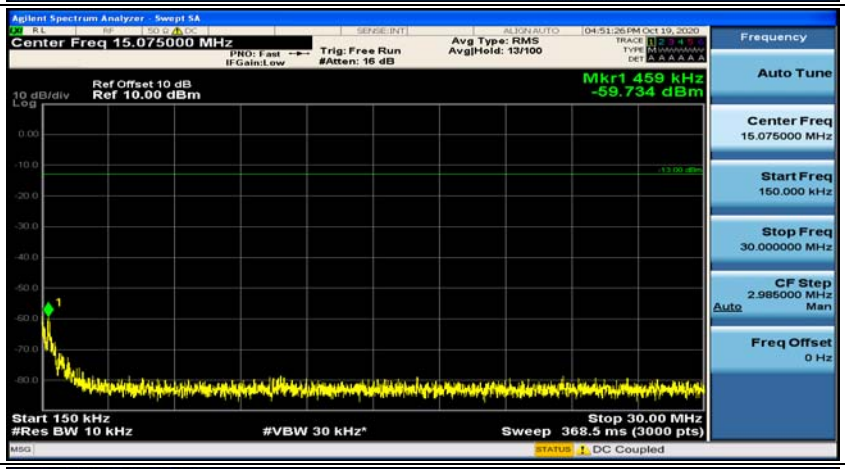

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
04:55:34 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-57.529 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 10/100
04:55:40 PM Oct 19, 2020
Frequency
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.420 GHz
-29.041 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

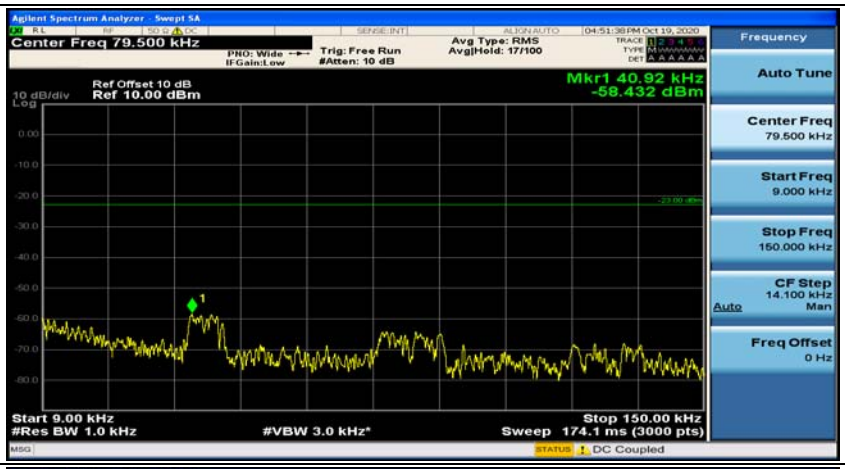
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



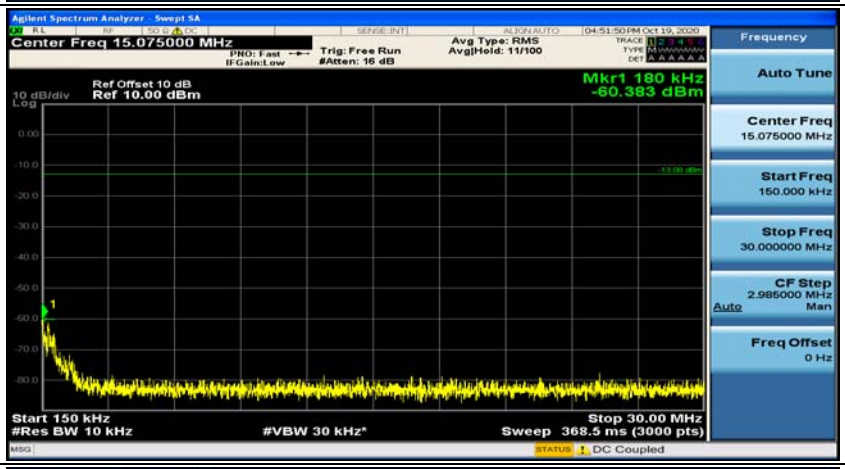
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12



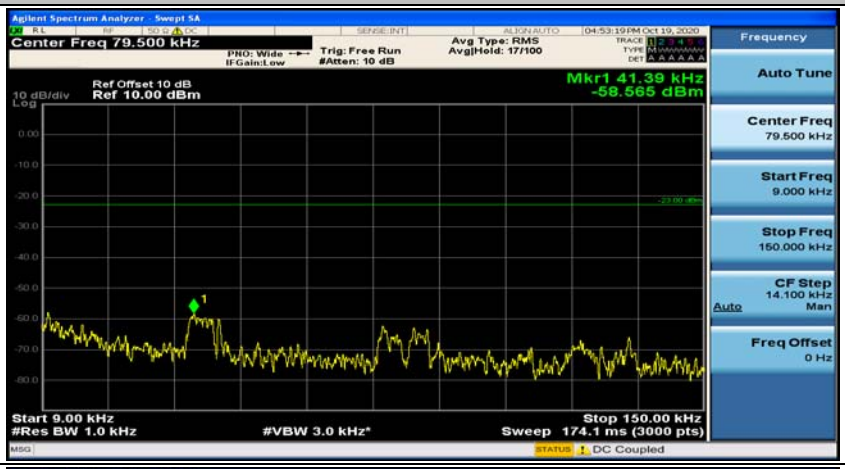
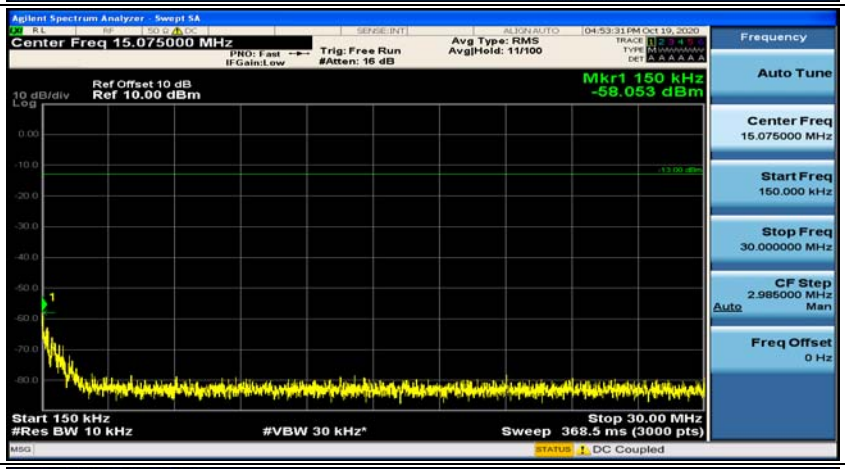


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

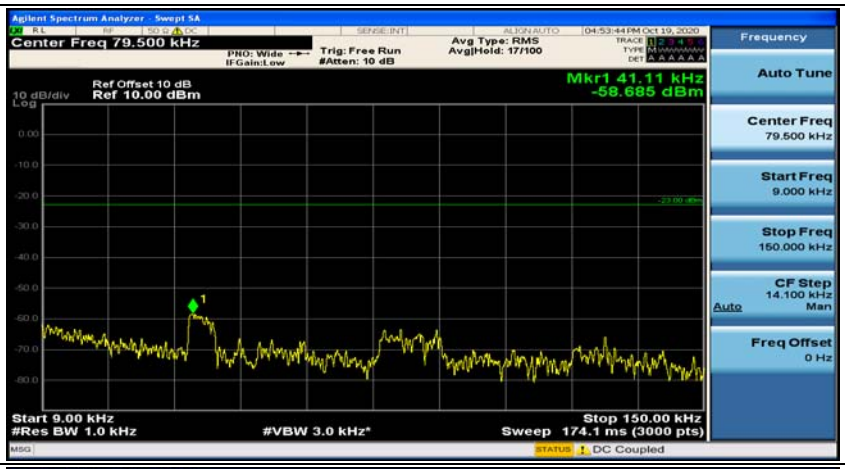

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:51:36 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 40.92 kHz
-58.432 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
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

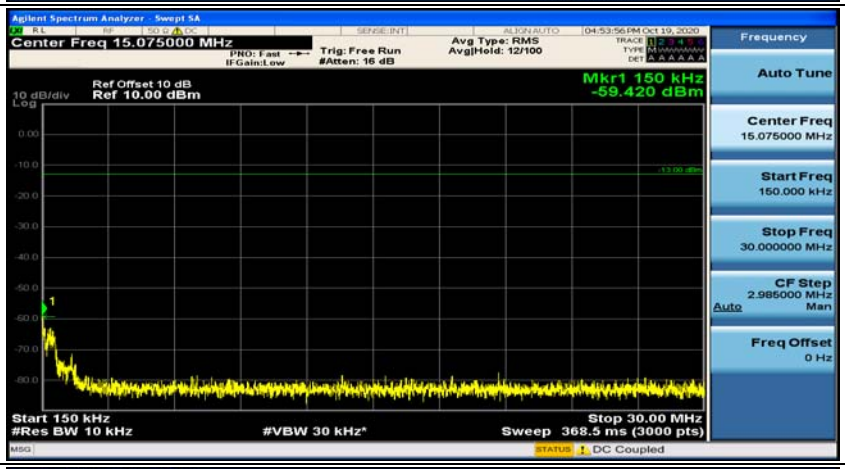

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
04:51:50 PM Oct 19, 2020
Frequency
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 180 kHz
-60.383 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 10/100
04:51:56 PM Oct 19, 2020
Frequency
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.515 GHz
-29.134 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

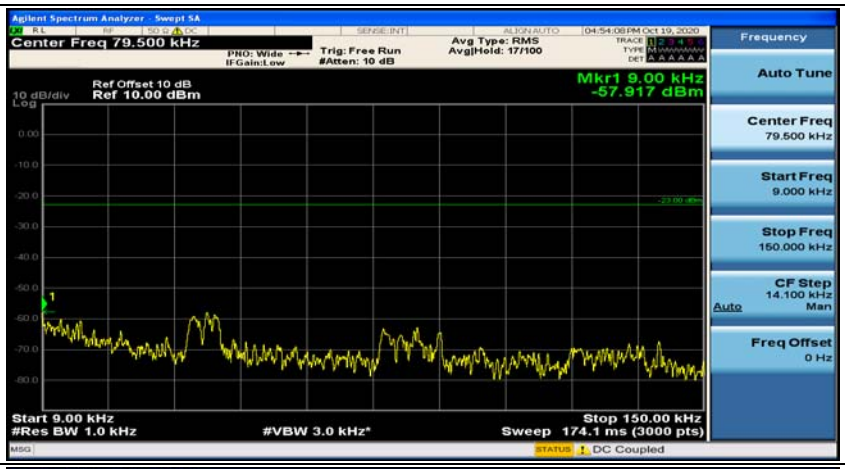
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



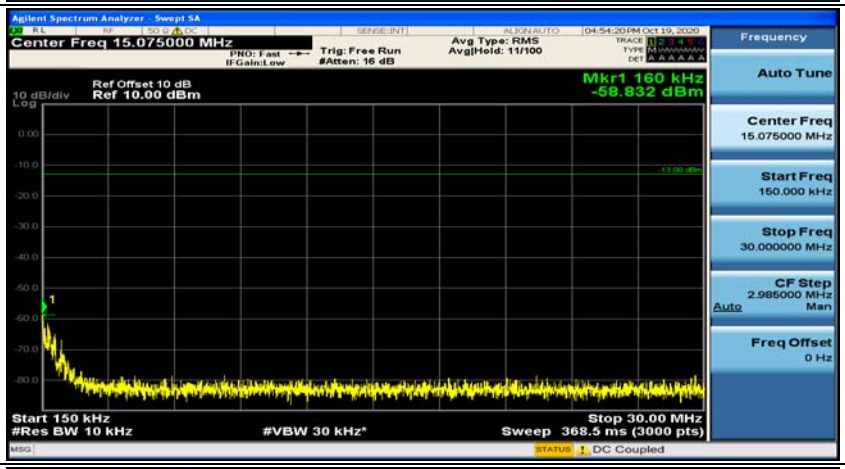
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



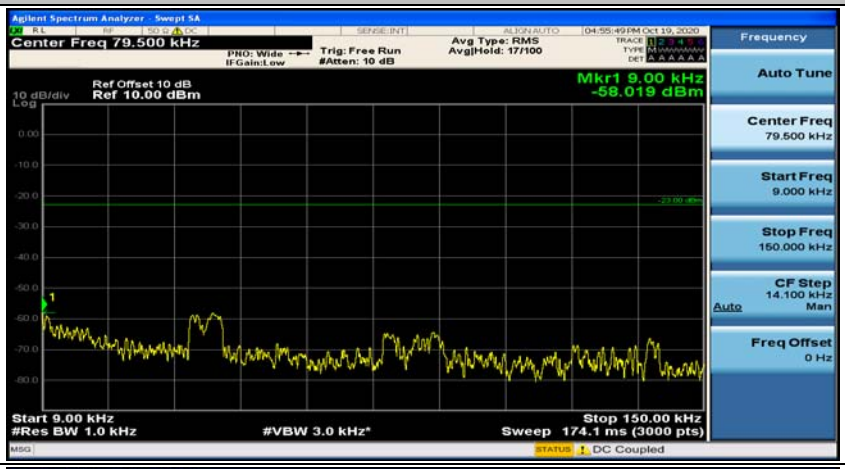
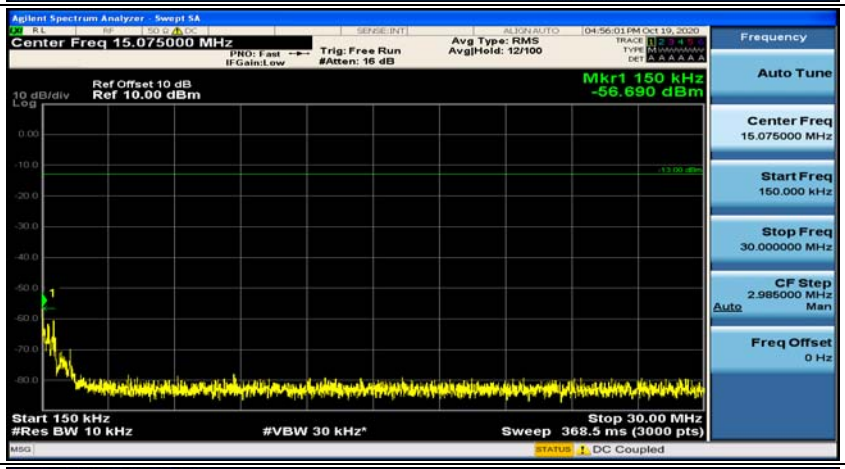


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

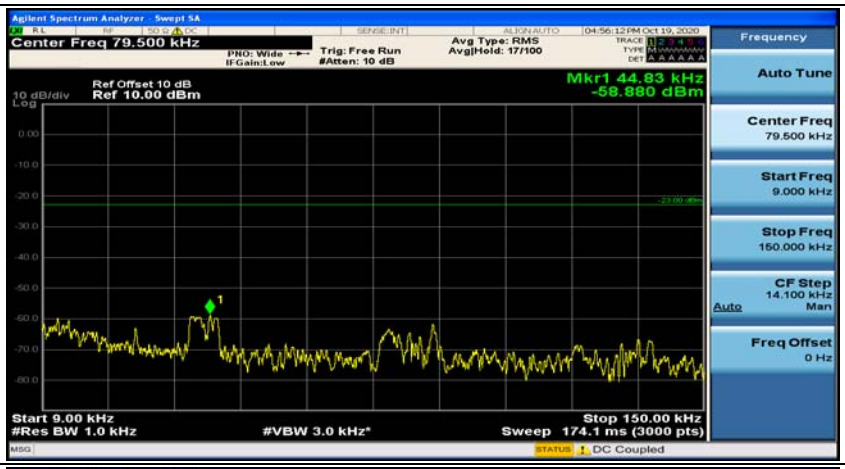

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:54:08 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 9.00 kHz
-57.917 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

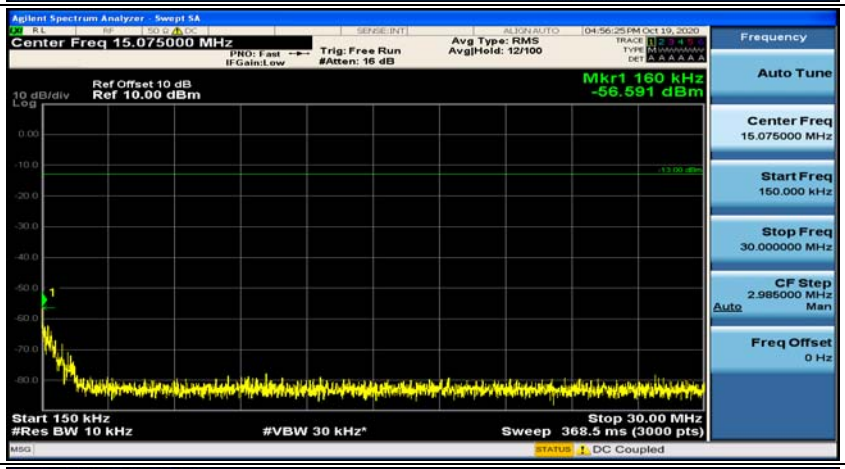

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
04:54:20 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-58.832 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 11/100
04:54:26 PM Oct 19, 2020
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 23.515 GHz
-28.765 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

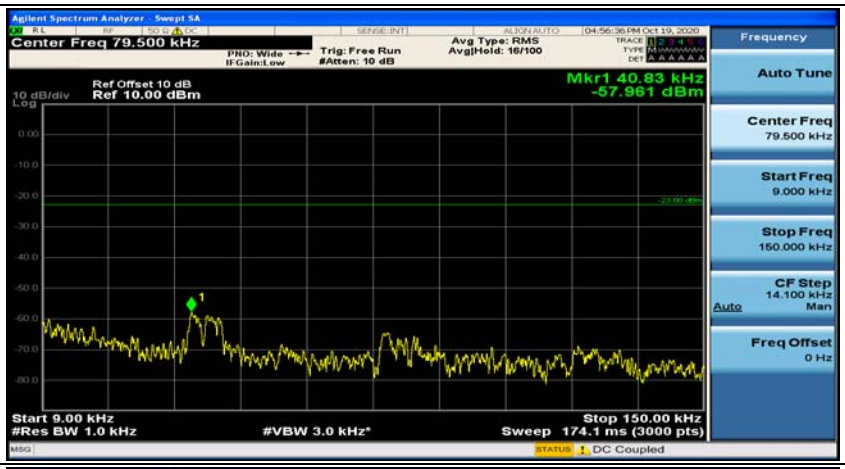
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



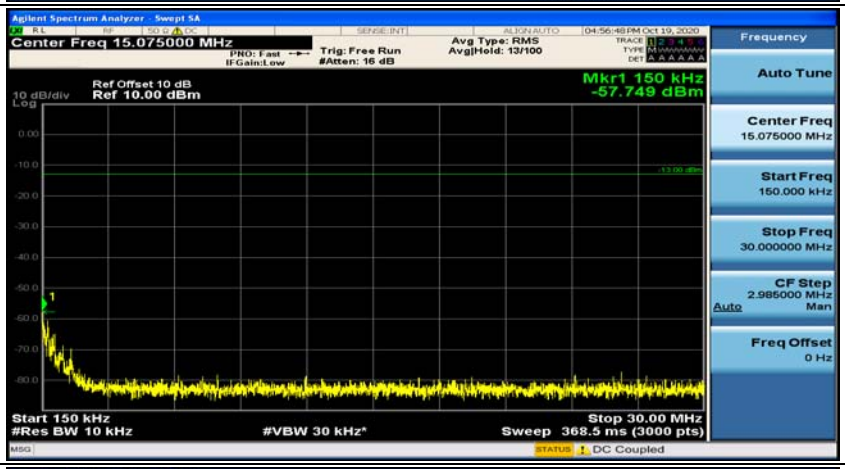
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12



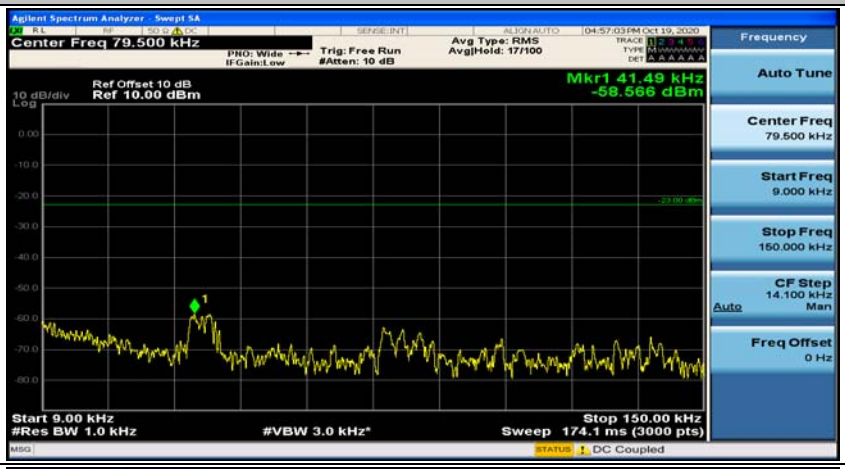
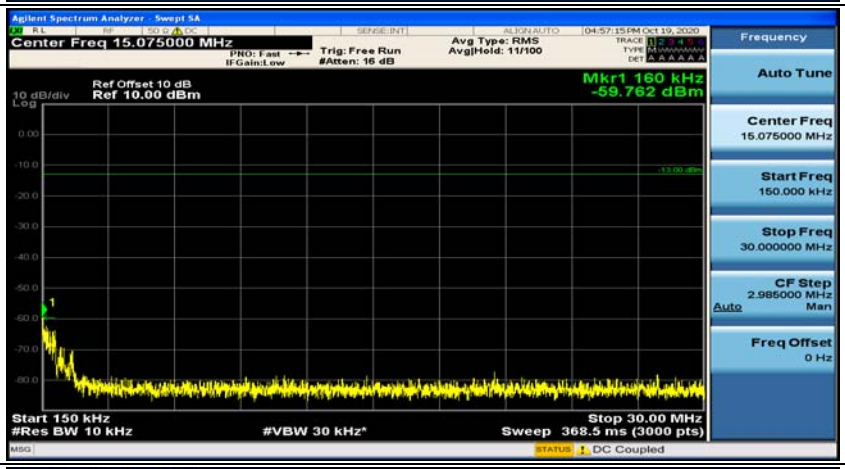


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

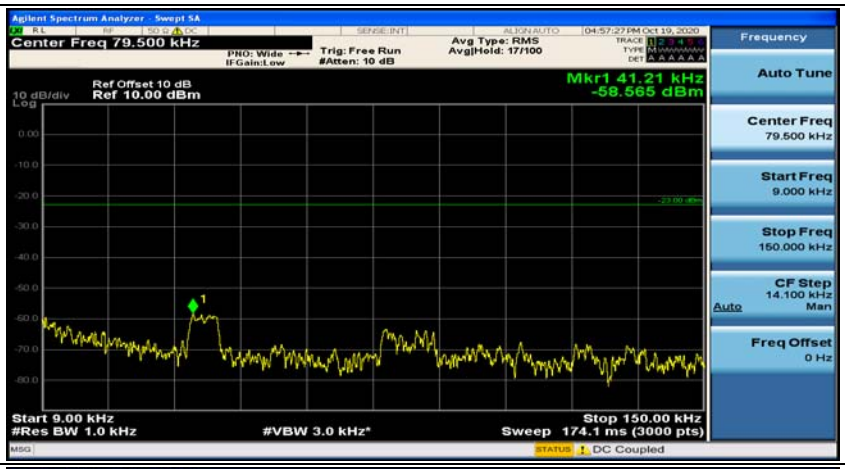

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 16/100
04:56:36 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 40.83 kHz
-57.961 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

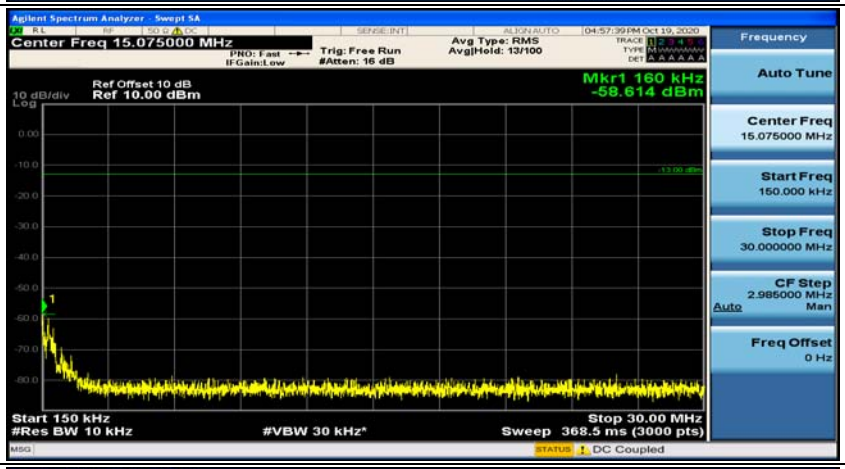

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
04:56:48 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 150 kHz
-57.749 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 10/100
04:56:54 PM Oct 19, 2020
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.454 GHz
-29.046 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

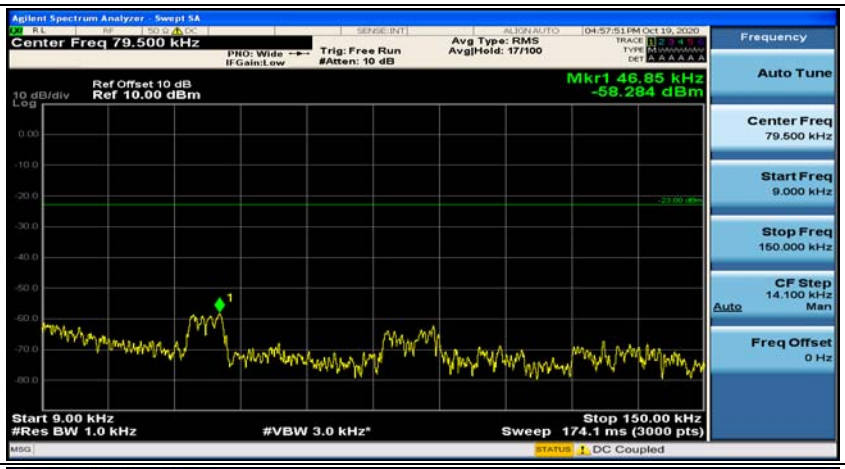
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



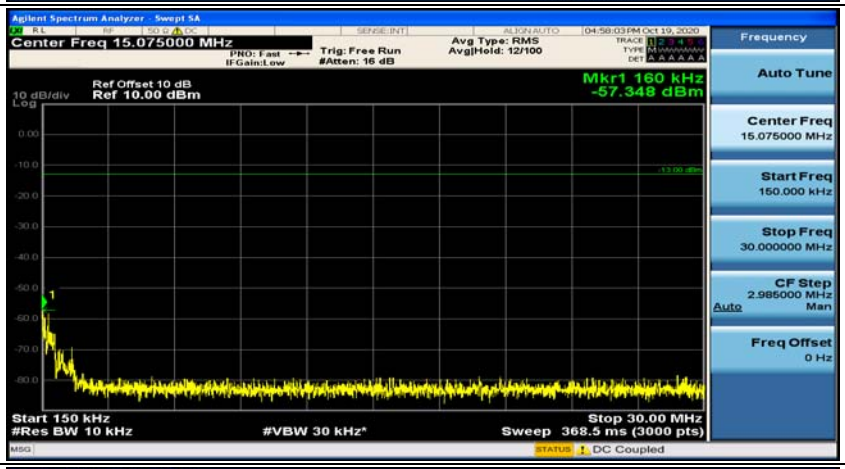
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24



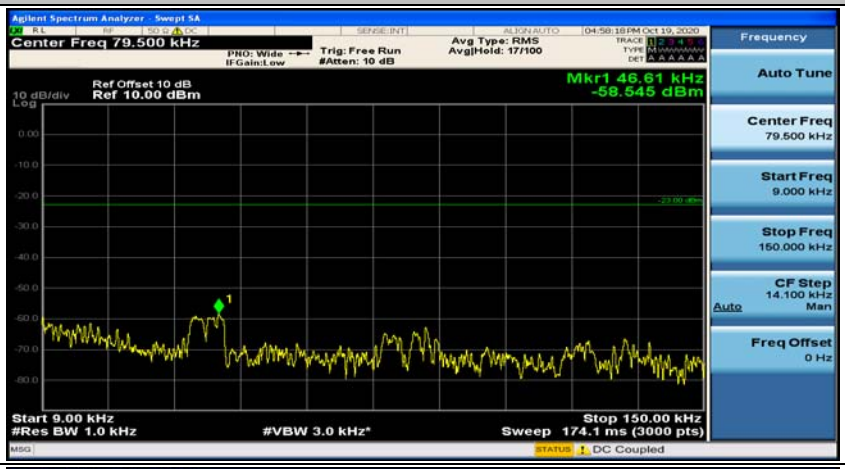
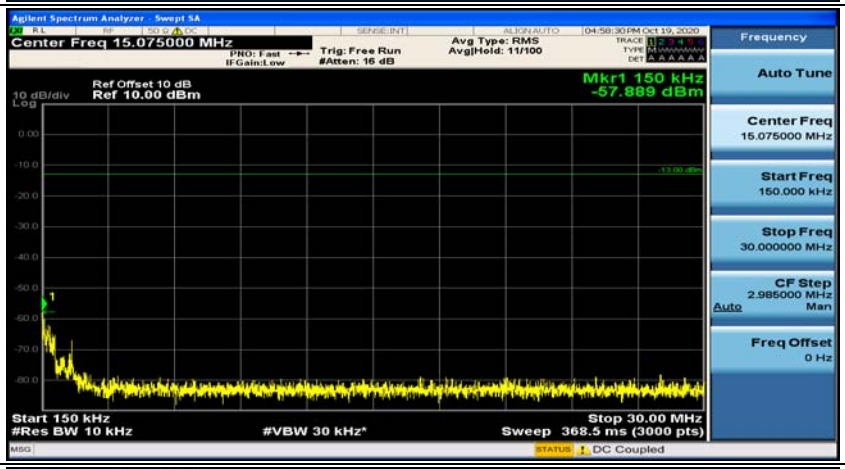


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

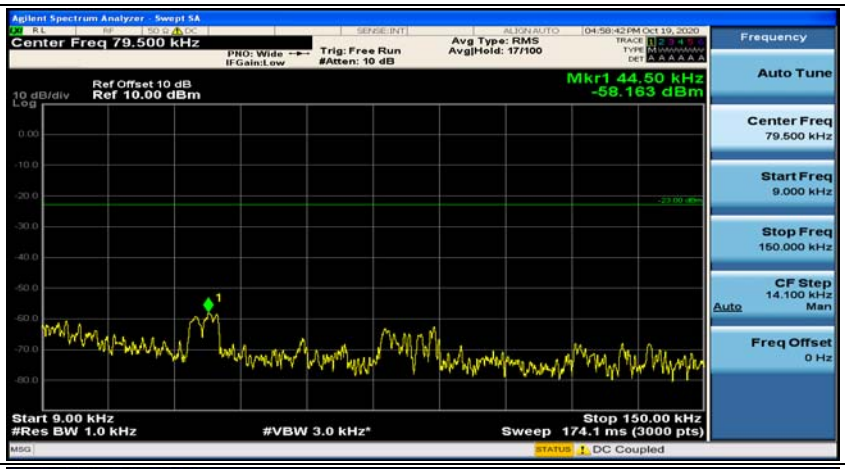

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:57:51 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 46.85 kHz
-58.284 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

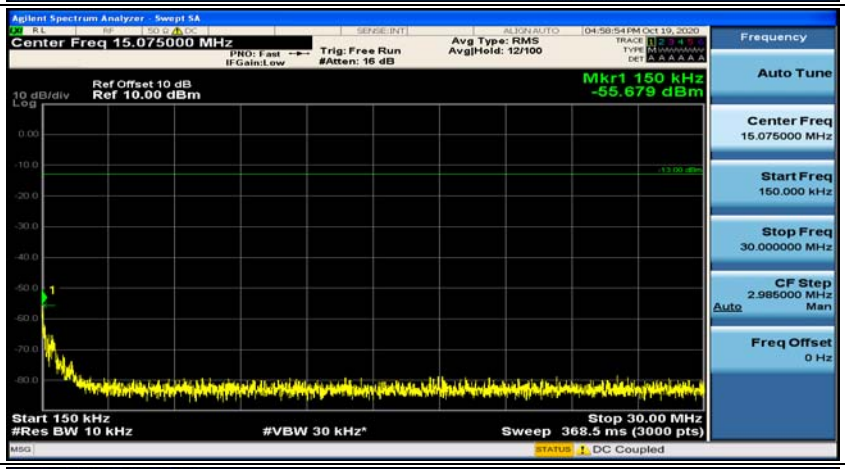

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
04:58:03 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-57.348 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 10/100
04:58:09 PM Oct 19, 2020
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.385 GHz
-28.594 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

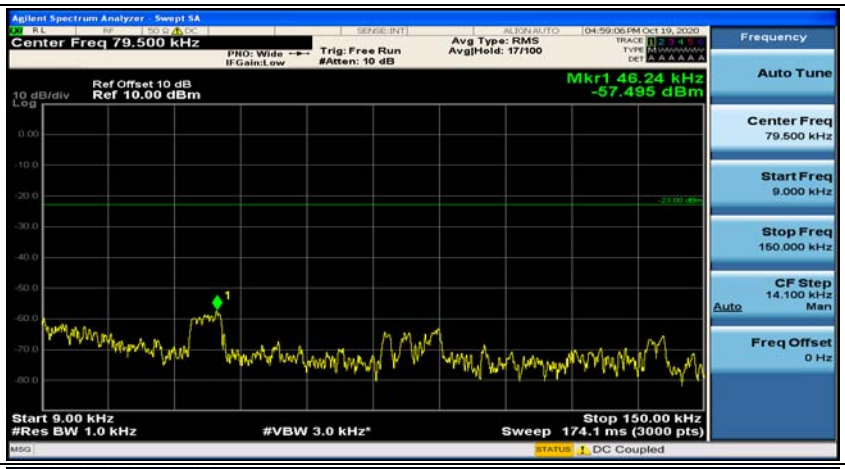
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



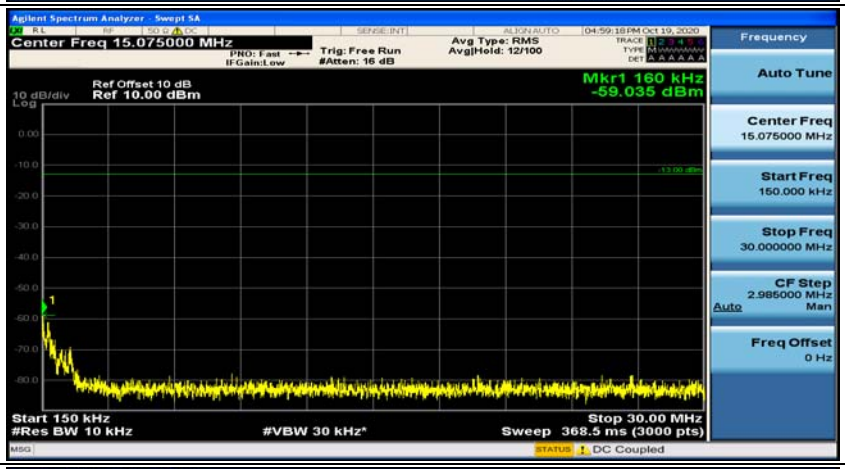
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24





Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49


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: 17/100
04:59:06 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 46.24 kHz
-57.495 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: 12/100
04:59:18 PM Oct 19, 2020
Ref Offset 10 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 160 kHz
-59.035 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: 11/100
04:59:23 PM Oct 19, 2020
Ref Offset 9.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 23.419 GHz
-28.635 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

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	4.49	0.001946	± 2.5	PASS
		VN	TN	3.33	0.001443	± 2.5	PASS
		VH	TN	-0.88	-0.000381	± 2.5	PASS
	MCH	VL	TN	-1.21	-0.000524	± 2.5	PASS
		VN	TN	-0.47	-0.000203	± 2.5	PASS
		VH	TN	0.61	0.000264	± 2.5	PASS
	HCH	VL	TN	-0.2	-0.000086	± 2.5	PASS
		VN	TN	3.39	0.001466	± 2.5	PASS
		VH	TN	4.65	0.002011	± 2.5	PASS
16QAM	LCH	VL	TN	3.05	0.001322	± 2.5	PASS
		VN	TN	-0.78	-0.000338	± 2.5	PASS
		VH	TN	0.41	0.000178	± 2.5	PASS
	MCH	VL	TN	2.55	0.001104	± 2.5	PASS
		VN	TN	-1.73	-0.000749	± 2.5	PASS
		VH	TN	4.69	0.002030	± 2.5	PASS
	HCH	VL	TN	4.7	0.002032	± 2.5	PASS
		VN	TN	0.12	0.000052	± 2.5	PASS
		VH	TN	1.57	0.000679	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.28	-0.000121	± 2.5	PASS
		VN	-20	3.72	0.001612	± 2.5	PASS
		VN	-10	2.94	0.001274	± 2.5	PASS
		VN	0	2.14	0.000927	± 2.5	PASS
		VN	10	1.92	0.000832	± 2.5	PASS
		VN	20	0.37	0.000160	± 2.5	PASS
		VN	30	2.4	0.001040	± 2.5	PASS
		VN	40	3.9	0.001690	± 2.5	PASS
		VN	50	4.1	0.001777	± 2.5	PASS

	MCH	VN	-30	1.1	0.000476	± 2.5	PASS
		VN	-20	3.58	0.001550	± 2.5	PASS
		VN	-10	3.87	0.001675	± 2.5	PASS
		VN	0	1.65	0.000714	± 2.5	PASS
		VN	10	4.71	0.002039	± 2.5	PASS
		VN	20	1.66	0.000719	± 2.5	PASS
		VN	30	1.2	0.000519	± 2.5	PASS
		VN	40	1.77	0.000766	± 2.5	PASS
		VN	50	3.07	0.001329	± 2.5	PASS
	HCH	VN	-30	1.94	0.000839	± 2.5	PASS
		VN	-20	3.61	0.001561	± 2.5	PASS
		VN	-10	3.82	0.001652	± 2.5	PASS
		VN	0	-0.16	-0.000069	± 2.5	PASS
		VN	10	-0.4	-0.000173	± 2.5	PASS
		VN	20	3.08	0.001332	± 2.5	PASS
		VN	30	1.82	0.000787	± 2.5	PASS
		VN	40	1.04	0.000450	± 2.5	PASS
		VN	50	0.73	0.000316	± 2.5	PASS
16QAM	LCH	VN	-30	-1.18	-0.000511	± 2.5	PASS
		VN	-20	4.74	0.002054	± 2.5	PASS
		VN	-10	-0.12	-0.000052	± 2.5	PASS
		VN	0	1.57	0.000680	± 2.5	PASS
		VN	10	3.92	0.001699	± 2.5	PASS
		VN	20	-0.27	-0.000117	± 2.5	PASS
		VN	30	4.77	0.002067	± 2.5	PASS
		VN	40	-0.28	-0.000121	± 2.5	PASS
		VN	50	2.79	0.001209	± 2.5	PASS
	MCH	VN	-30	-0.56	-0.000242	± 2.5	PASS
		VN	-20	3.73	0.001613	± 2.5	PASS
		VN	-10	3.79	0.001639	± 2.5	PASS
		VN	0	-1.06	-0.000458	± 2.5	PASS
		VN	10	2.79	0.001206	± 2.5	PASS
		VN	20	4.64	0.002006	± 2.5	PASS
		VN	30	-0.3	-0.000130	± 2.5	PASS
		VN	40	3.9	0.001686	± 2.5	PASS
		VN	50	3.52	0.001522	± 2.5	PASS
	HCH	VN	-30	3.83	0.001656	± 2.5	PASS
		VN	-20	4.34	0.001877	± 2.5	PASS
		VN	-10	-1.33	-0.000575	± 2.5	PASS
		VN	0	3.79	0.001639	± 2.5	PASS
		VN	10	2.27	0.000982	± 2.5	PASS

		VN	20	2.27	0.000982	± 2.5	PASS
		VN	30	3.12	0.001349	± 2.5	PASS
		VN	40	0.27	0.000117	± 2.5	PASS
		VN	50	-0.13	-0.000056	± 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	-0.32	-0.000139	± 2.5	PASS
		VN	TN	1.1	0.000476	± 2.5	PASS
		VH	TN	-1.41	-0.000610	± 2.5	PASS
16QAM	MCH	VL	TN	1.69	0.000732	± 2.5	PASS
		VN	TN	4.52	0.001957	± 2.5	PASS
		VH	TN	1.15	0.000498	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	MCH	VN	-30	4.02	0.001740	± 2.5	PASS
		VN	-20	0.87	0.000377	± 2.5	PASS
		VN	-10	0.02	0.000009	± 2.5	PASS
		VN	0	-0.71	-0.000307	± 2.5	PASS
		VN	10	3.79	0.001641	± 2.5	PASS
		VN	20	3.09	0.001338	± 2.5	PASS
		VN	30	4.59	0.001987	± 2.5	PASS
		VN	40	3.1	0.001342	± 2.5	PASS
		VN	50	-1.9	-0.000823	± 2.5	PASS
16QAM	MCH	VN	-30	3.57	0.001545	± 2.5	PASS
		VN	-20	0.41	0.000177	± 2.5	PASS
		VN	-10	3.07	0.001329	± 2.5	PASS
		VN	0	3.98	0.001723	± 2.5	PASS
		VN	10	-0.93	-0.000403	± 2.5	PASS
		VN	20	1.88	0.000814	± 2.5	PASS
		VN	30	3.25	0.001407	± 2.5	PASS
		VN	40	4.63	0.002004	± 2.5	PASS
		VN	50	-0.75	-0.000325	± 2.5	PASS