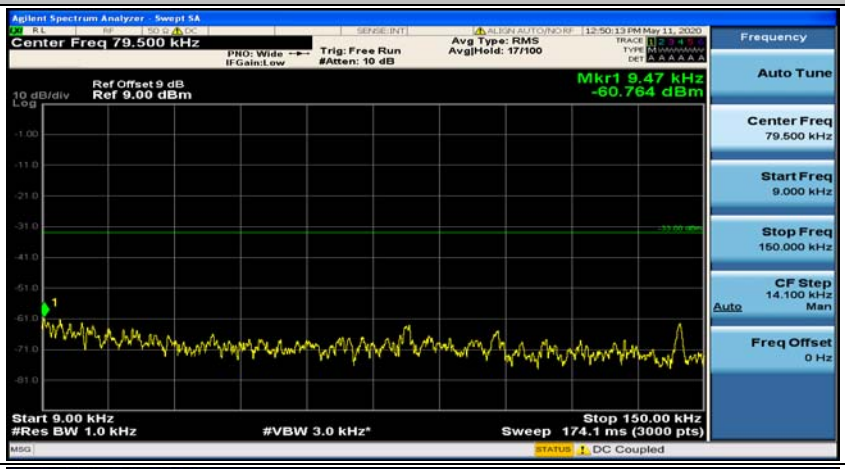
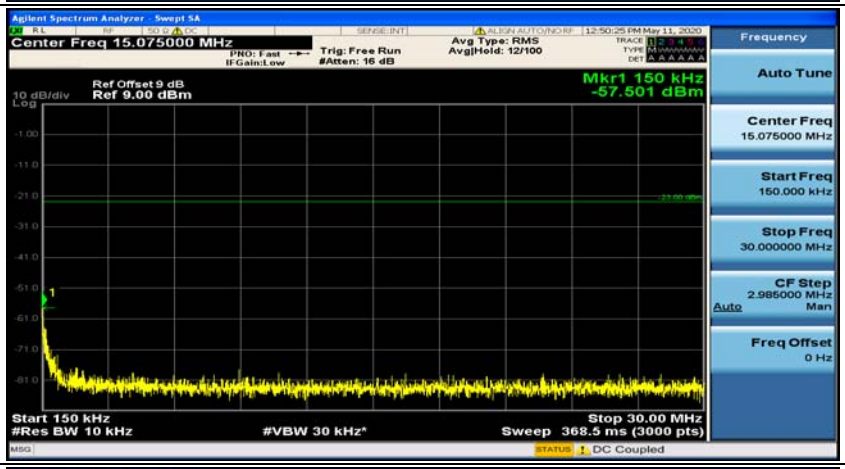
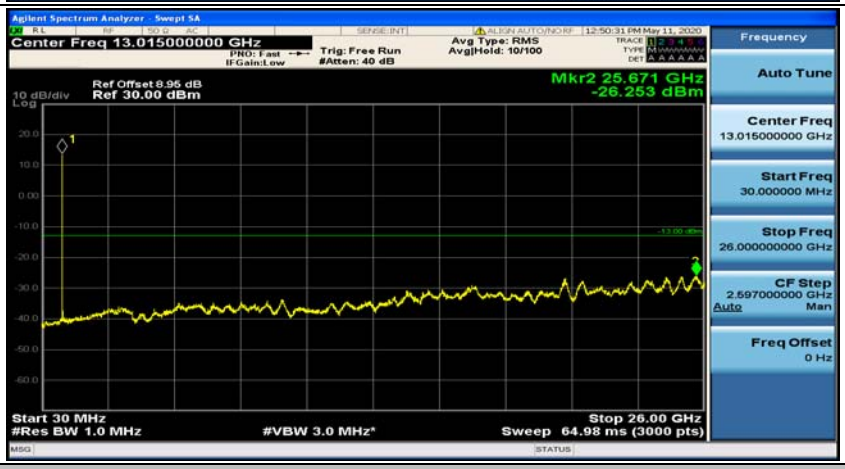
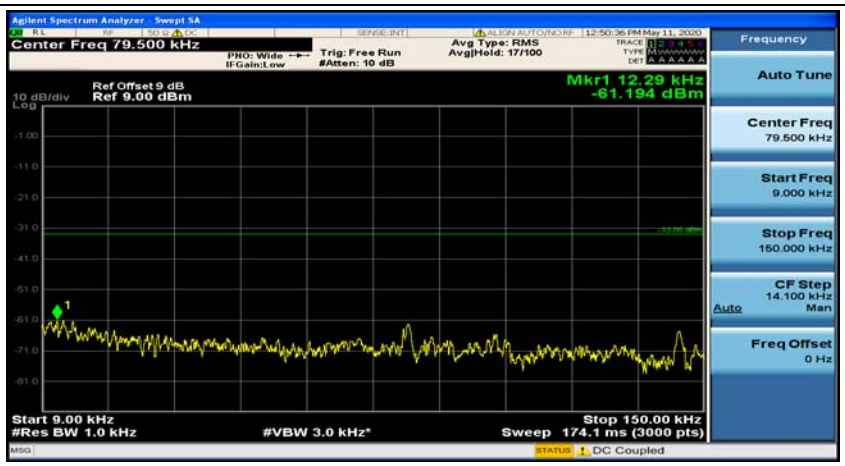
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0

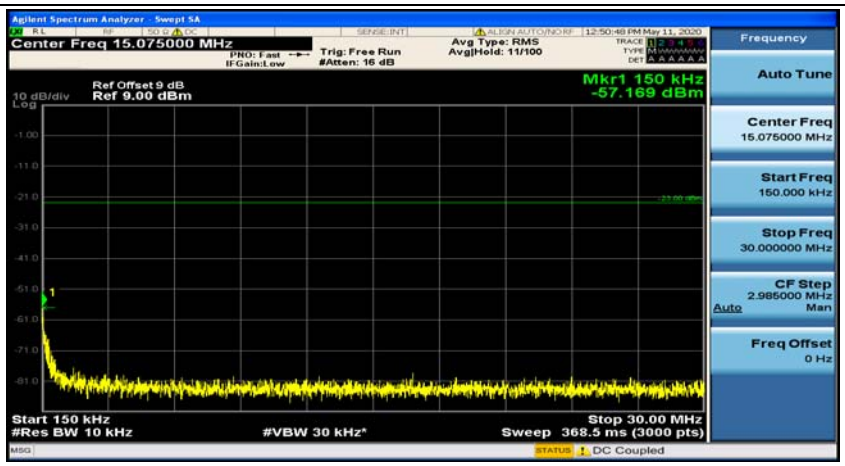






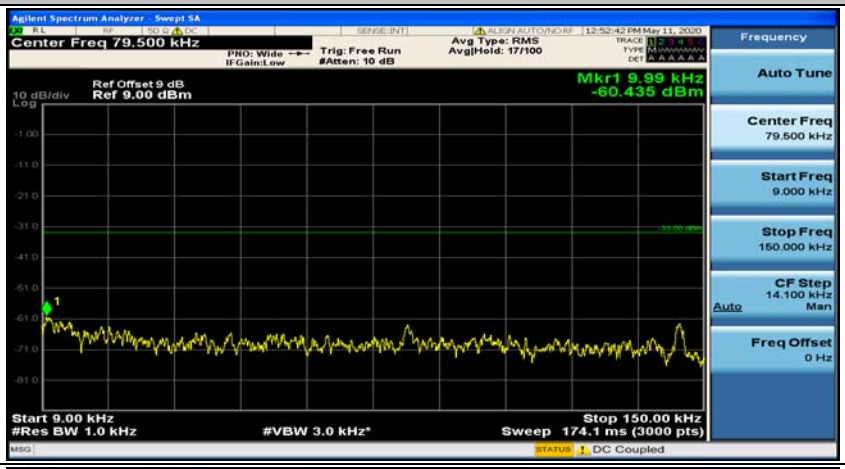
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

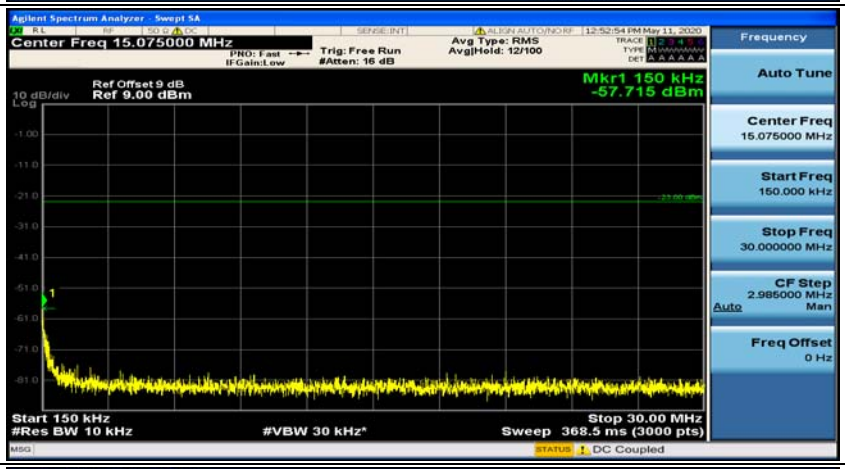

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:50:36 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 12.29 kHz
-61.194 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
12:50:48 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.169 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

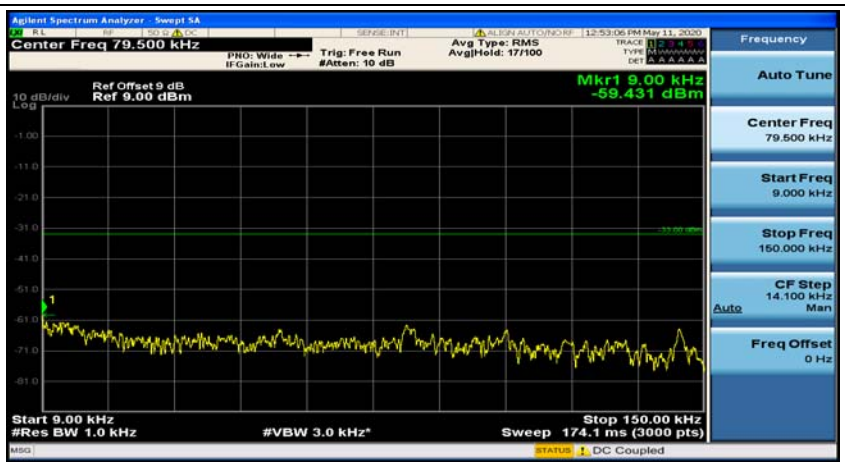
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
12:50:54 PM May 11, 2020
Ref Offset 8.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.628 GHz
-25.755 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

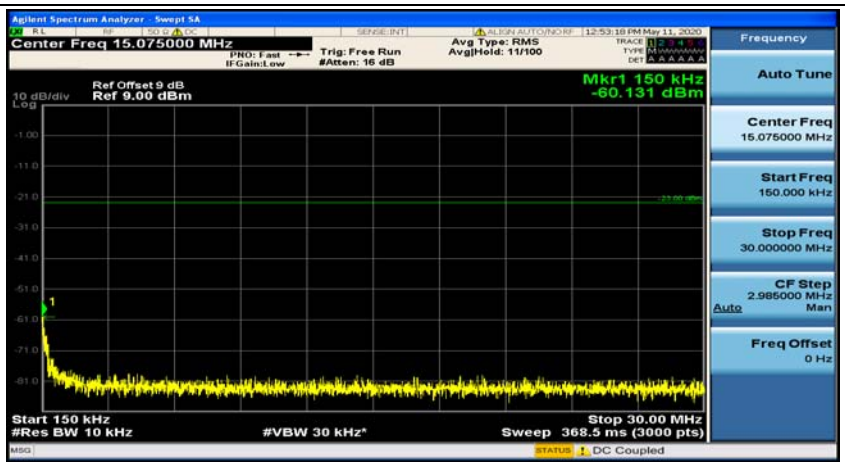
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0

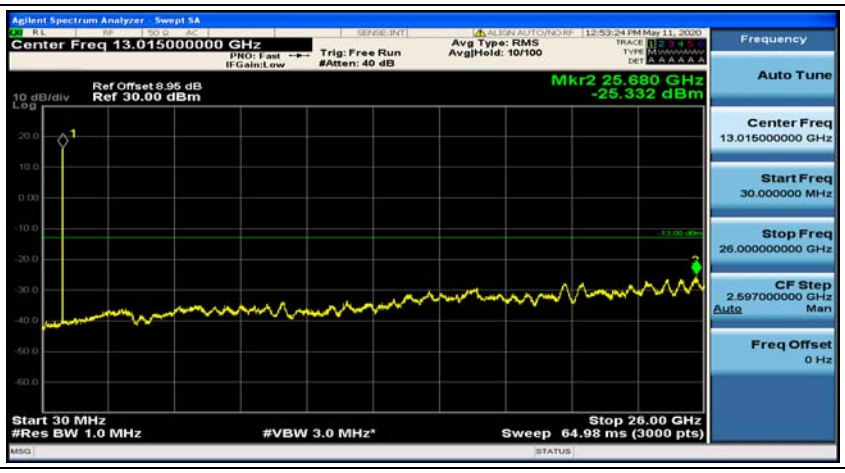




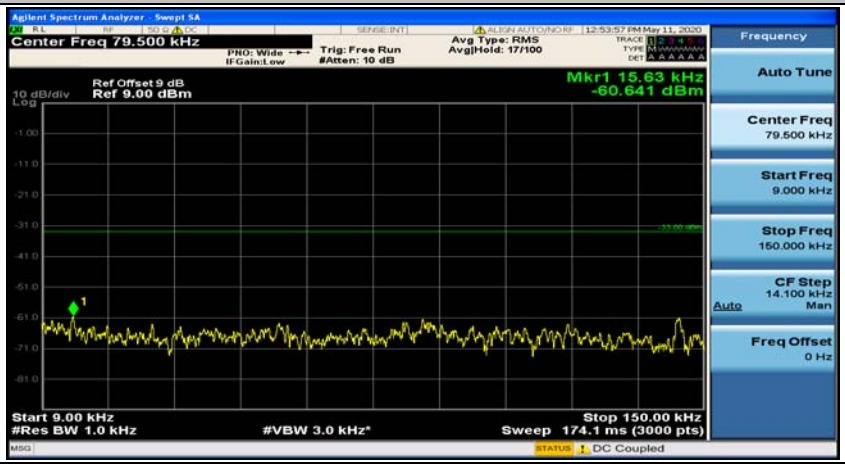
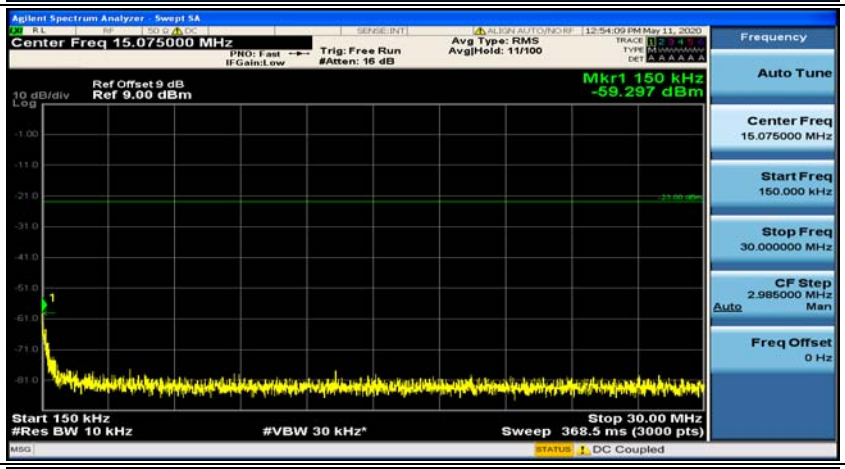
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

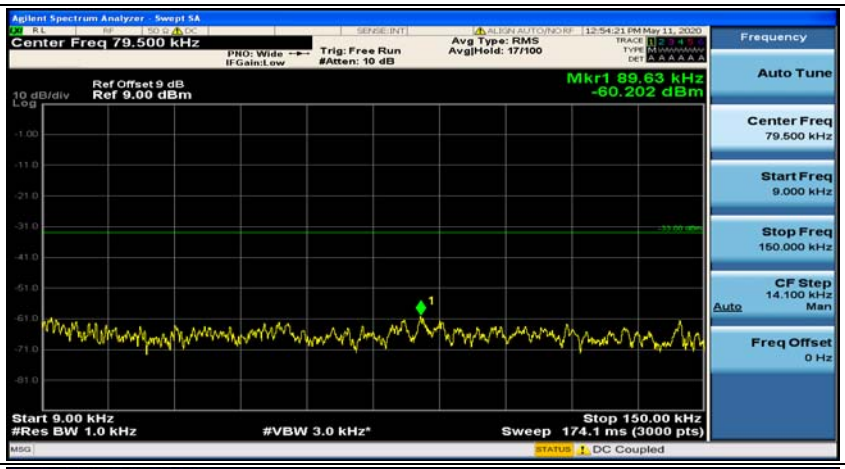

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:53:06 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.00 kHz
-59.431 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

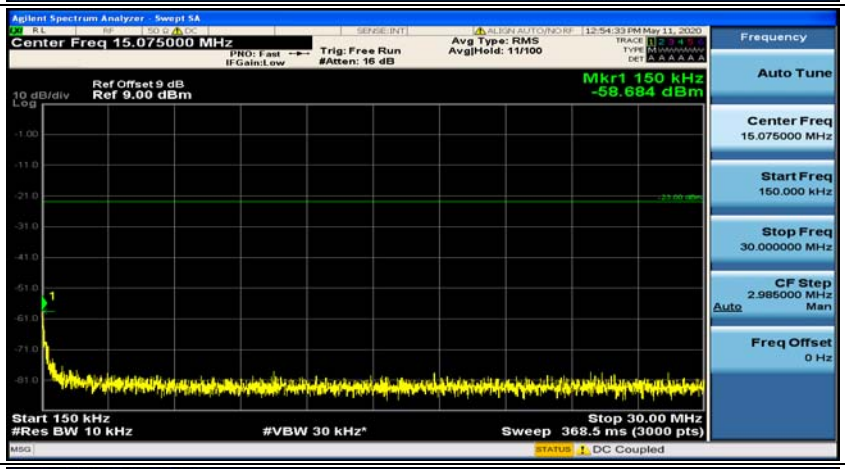

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
12:53:18 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-60.131 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:53:24 PM May 11, 2020
Ref Offset 8.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.680 GHz
-25.332 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

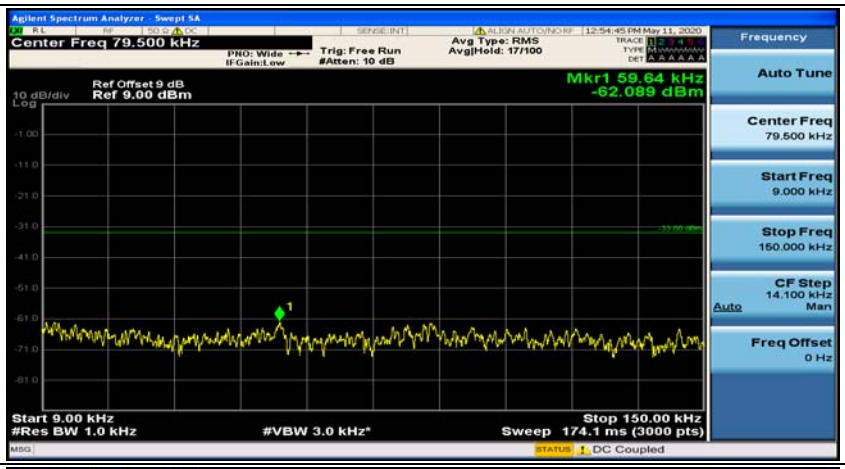
Channel Bandwidth: 5 MHz

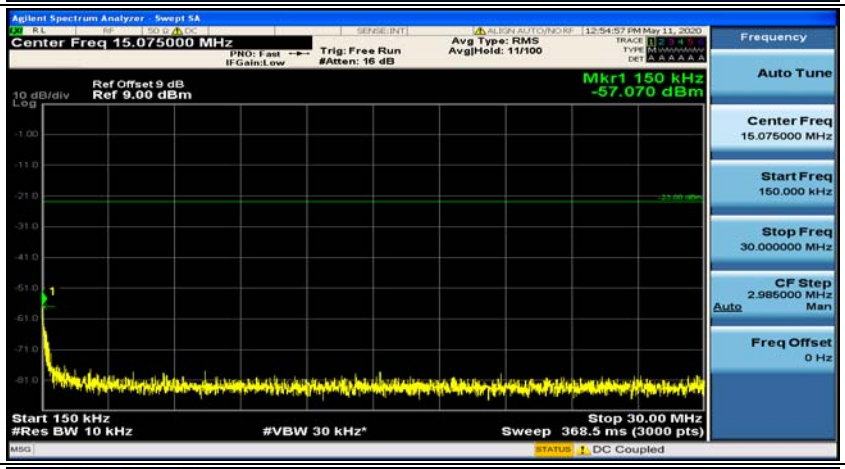
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0


(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

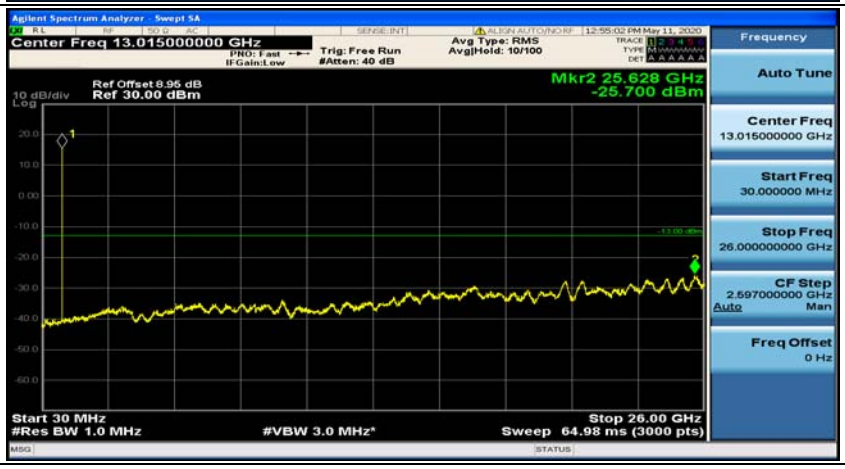




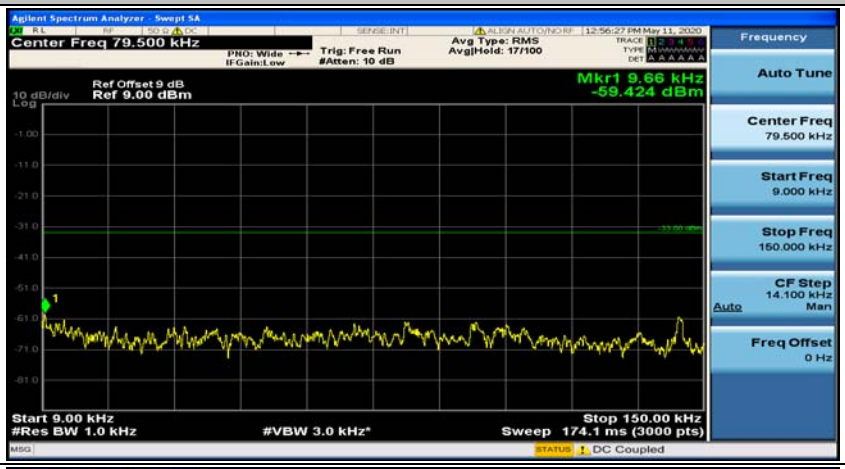
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

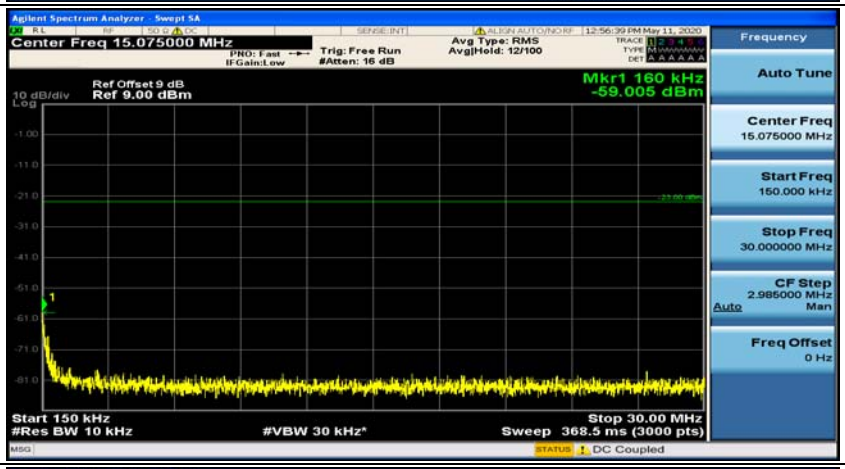

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:54:45 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 59.64 kHz
-62.089 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

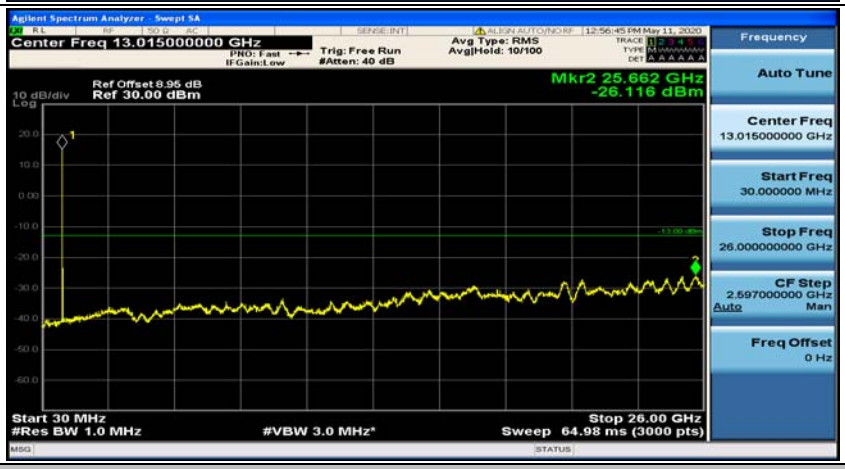

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
12:54:57 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.070 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:55:02 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.628 GHz
-25.700 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

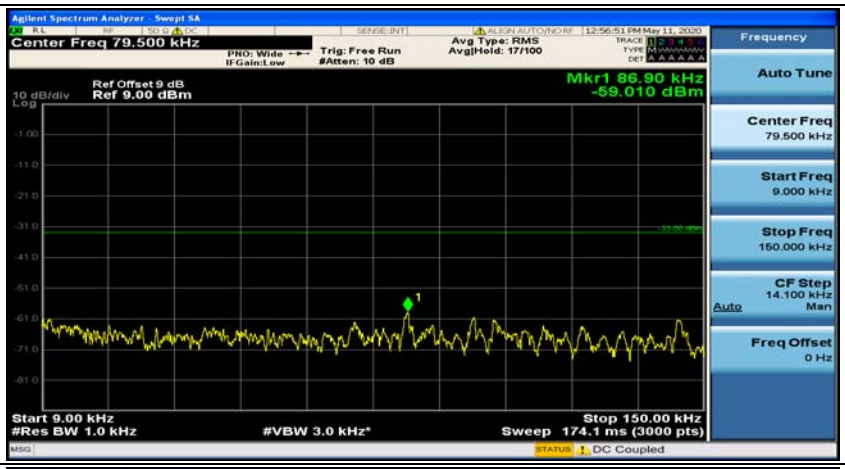
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

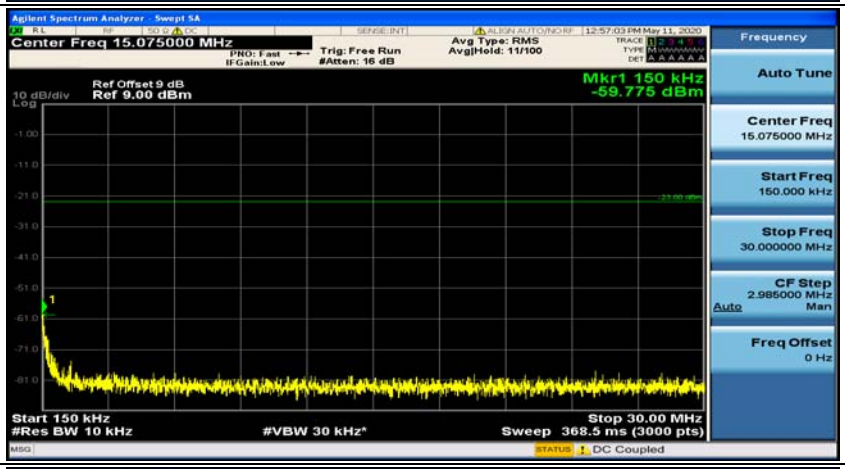




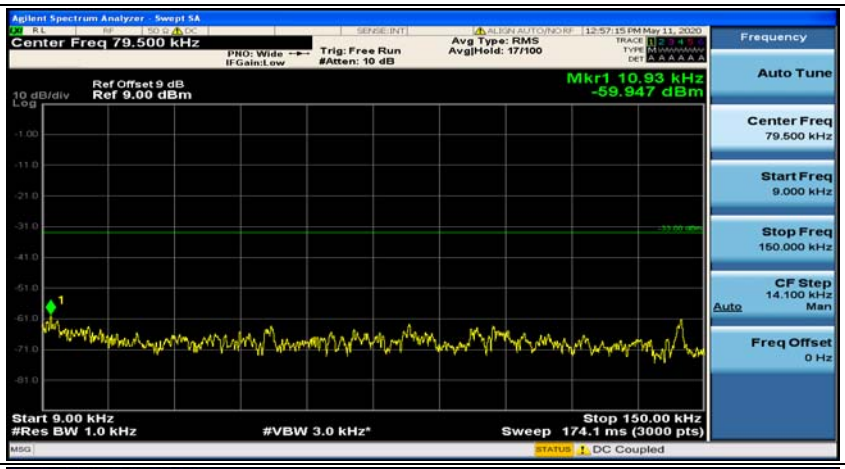


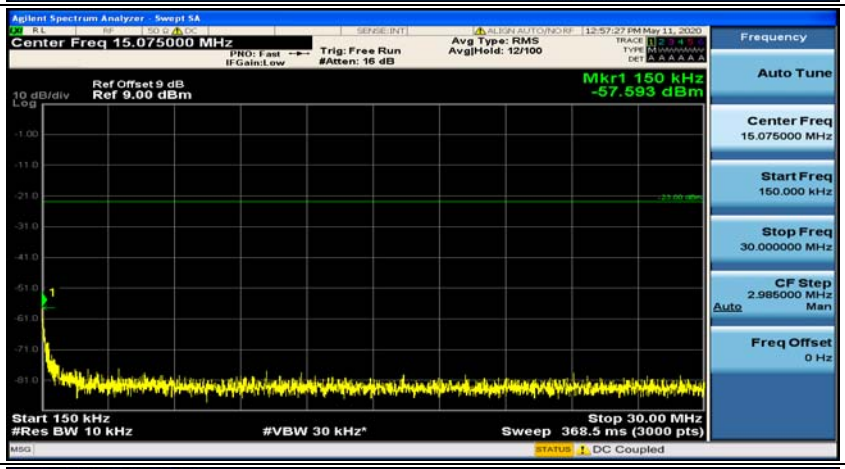
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12





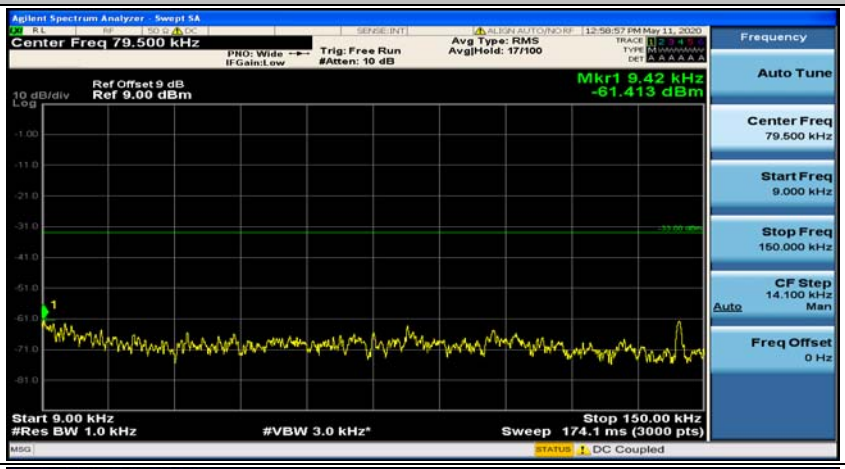
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

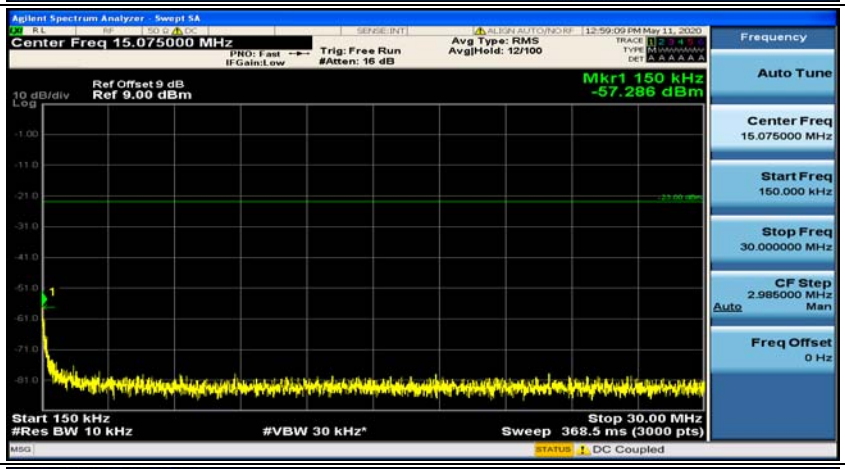

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:57:15 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.93 kHz
-59.947 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

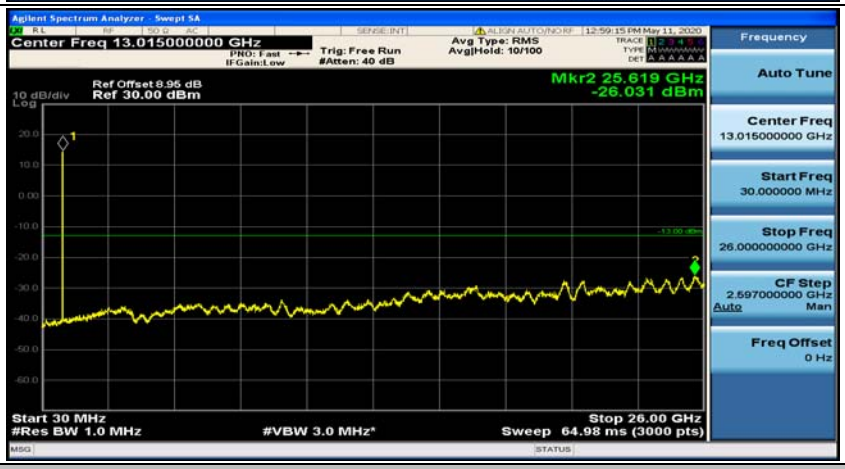

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
12:57:27 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.593 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:57:33 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.584 GHz
-26.069 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

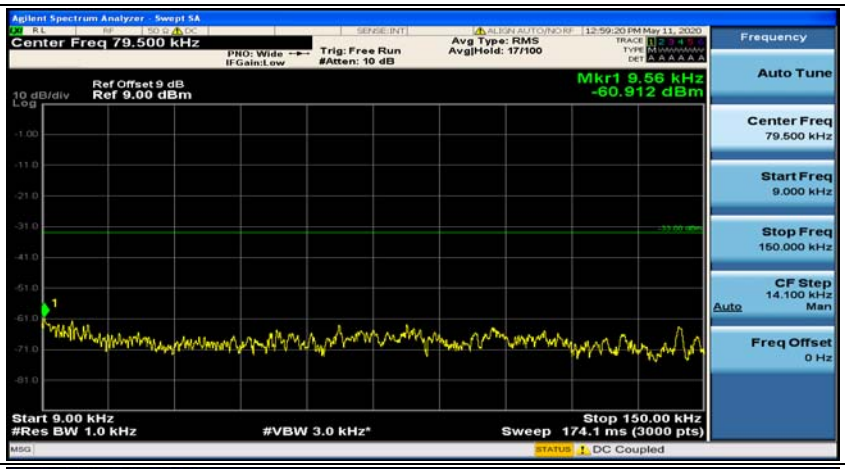
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

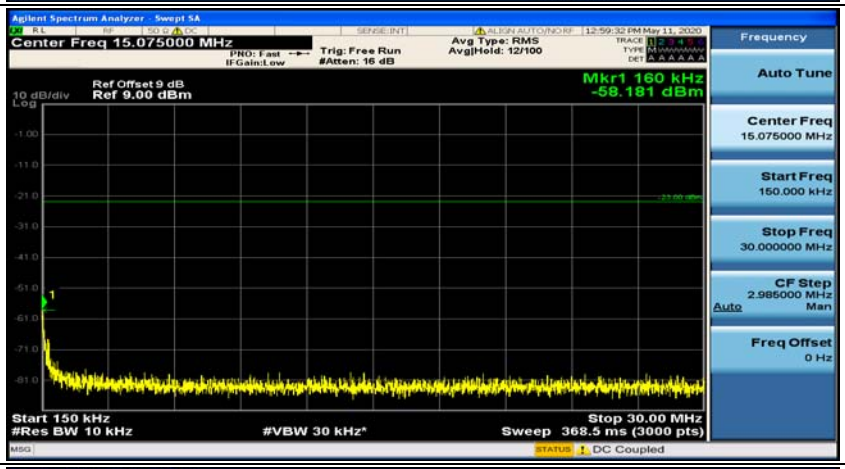


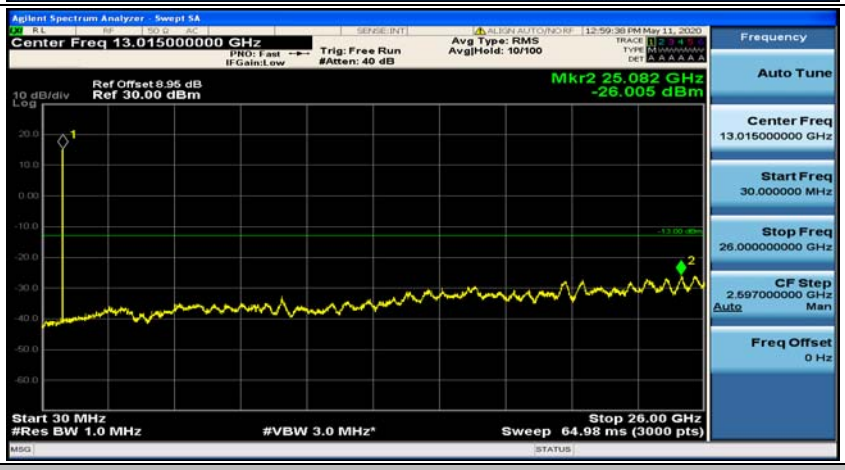




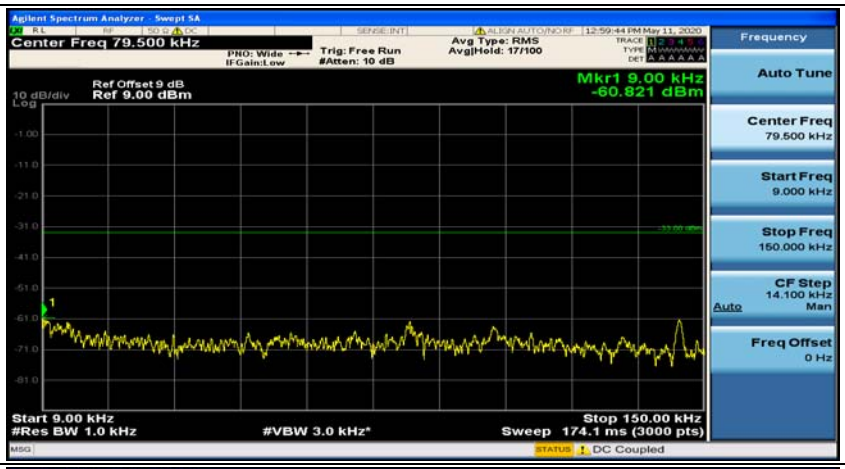
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

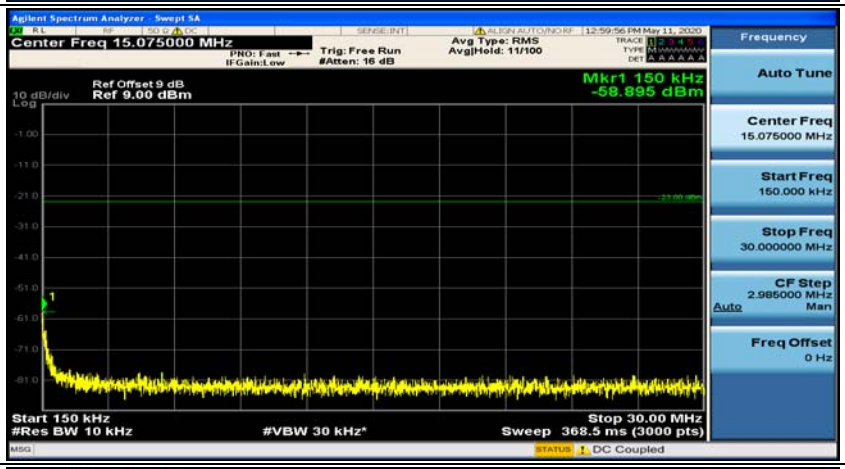


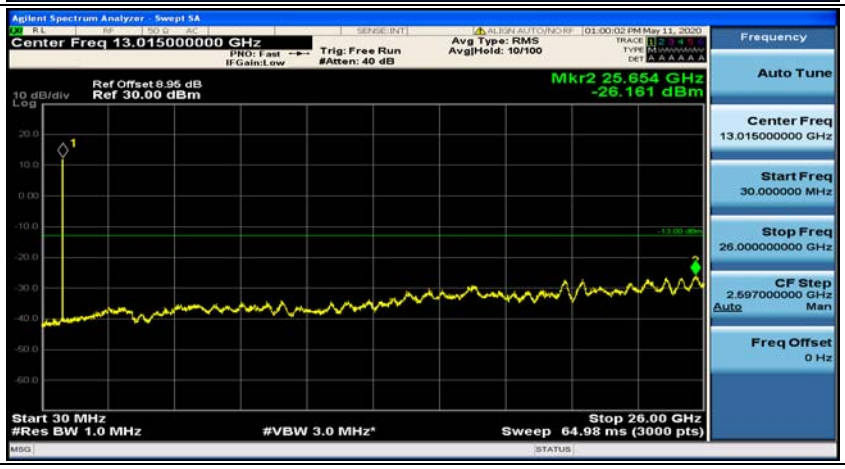




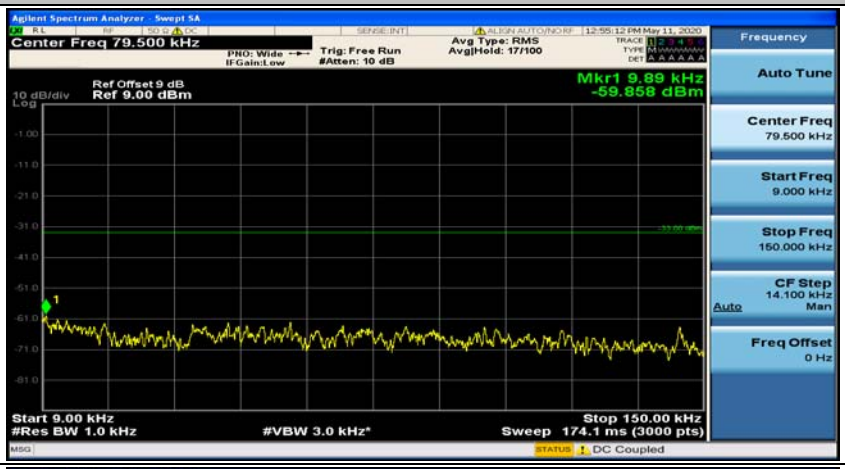
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

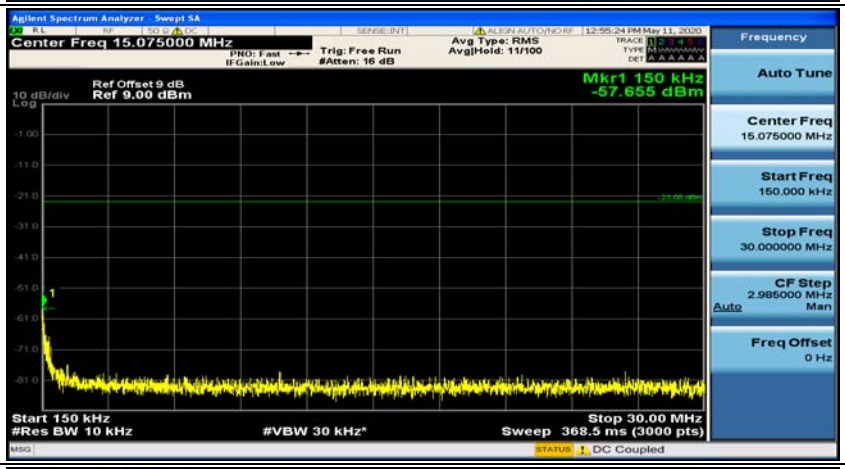

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:59:44 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.00 kHz
-60.821 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

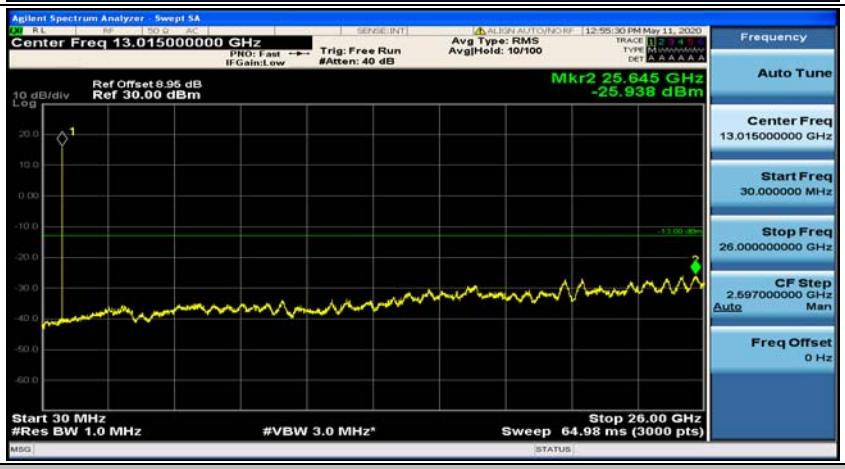

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
12:59:56 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.895 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
01:00:02 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.654 GHz
-26.161 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

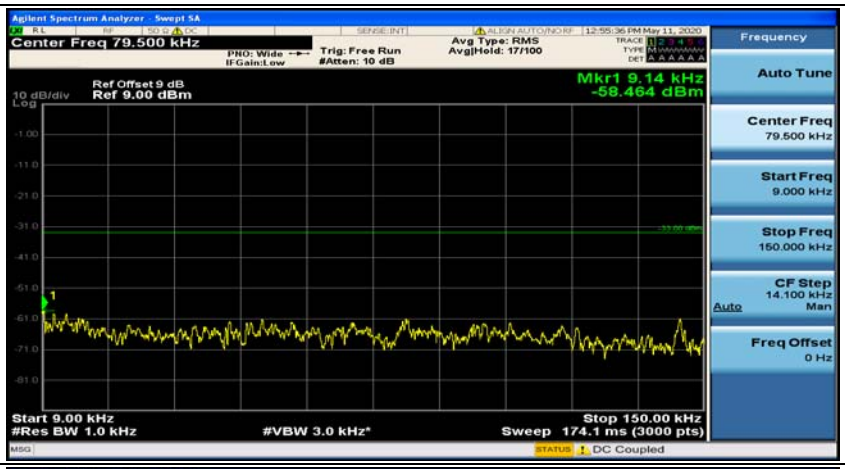
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

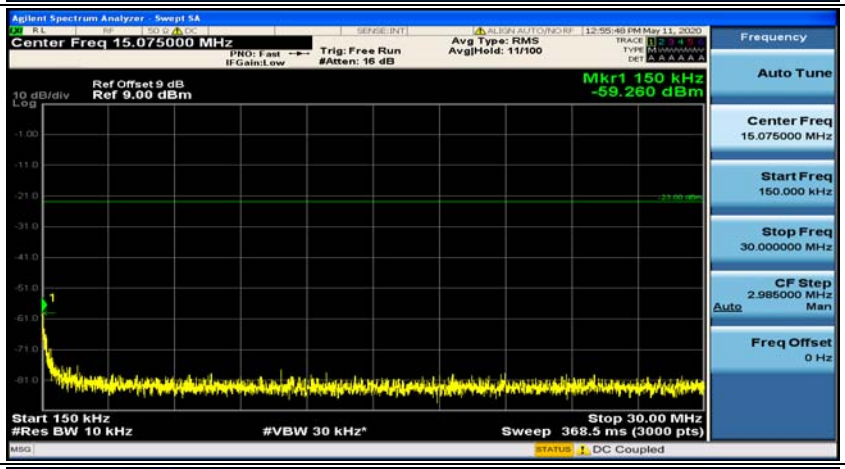




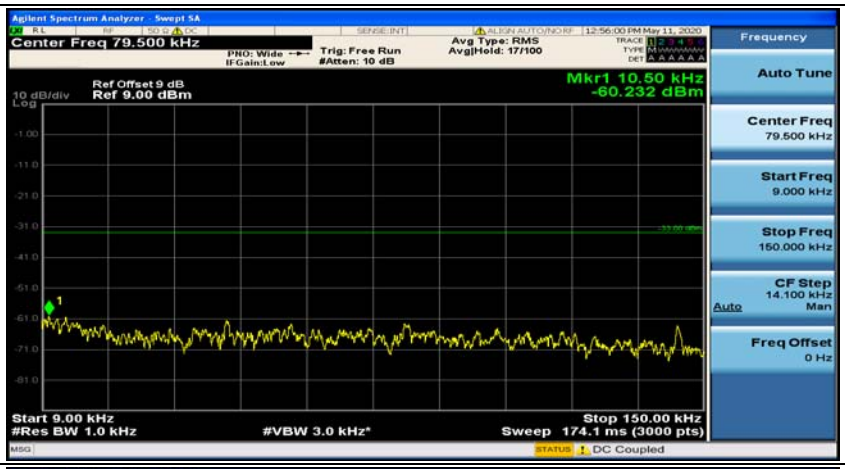


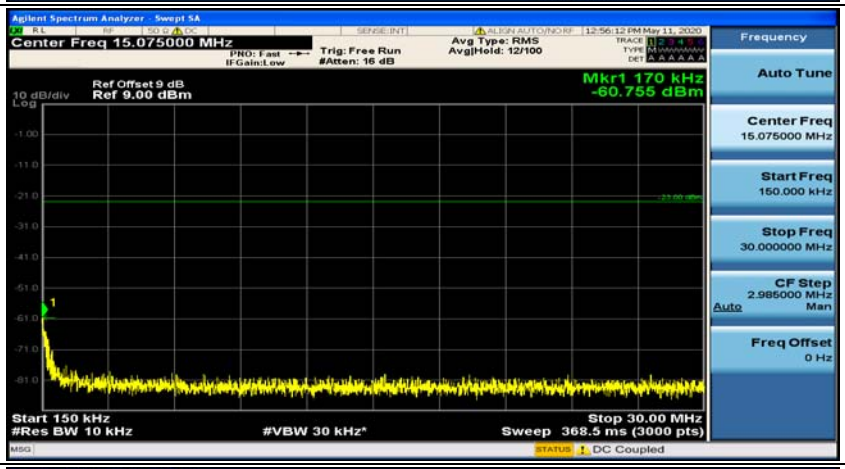
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

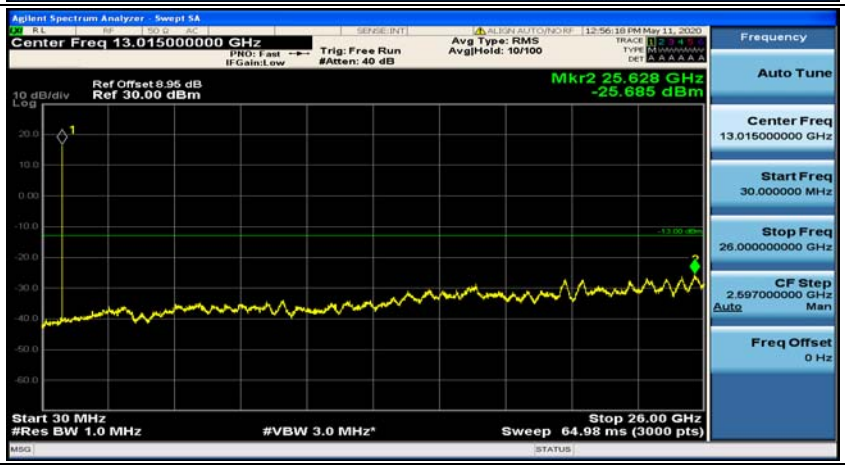




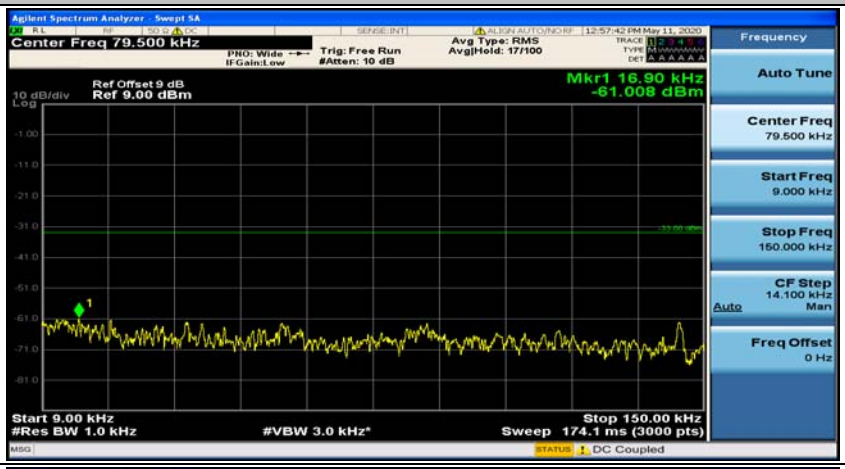
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

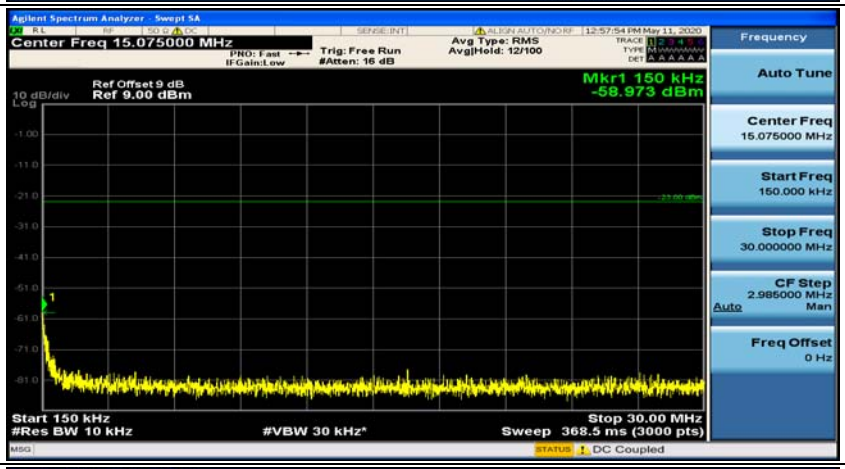

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:56:00 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 10.50 kHz
-60.232 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

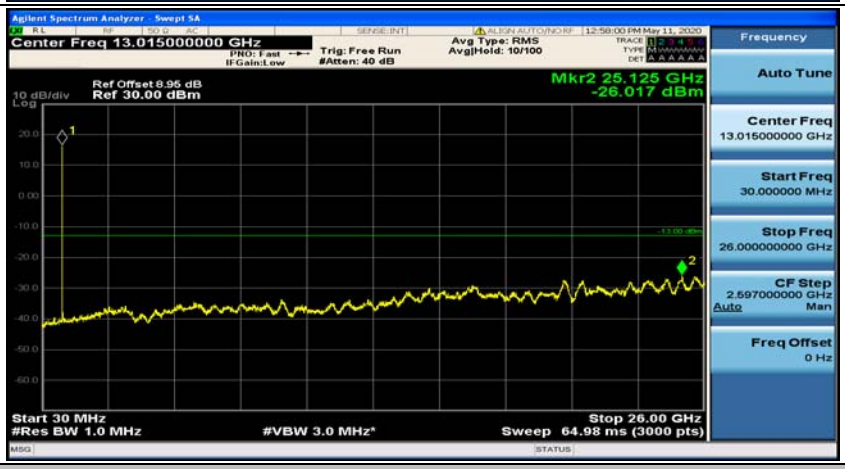

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
12:56:12 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 170 kHz
-60.755 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:56:18 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr2 25.628 GHz
-25.685 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

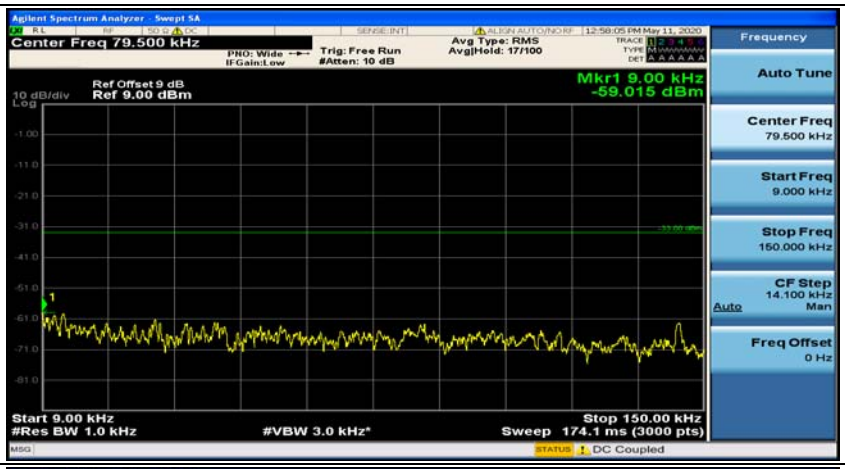
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

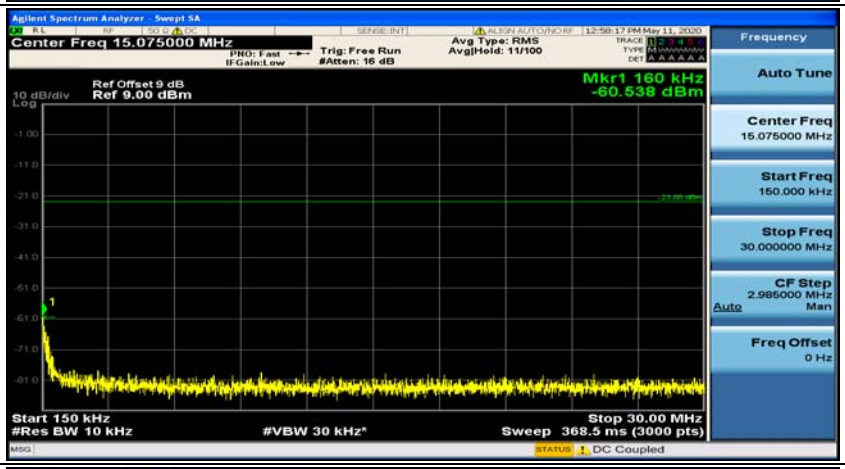




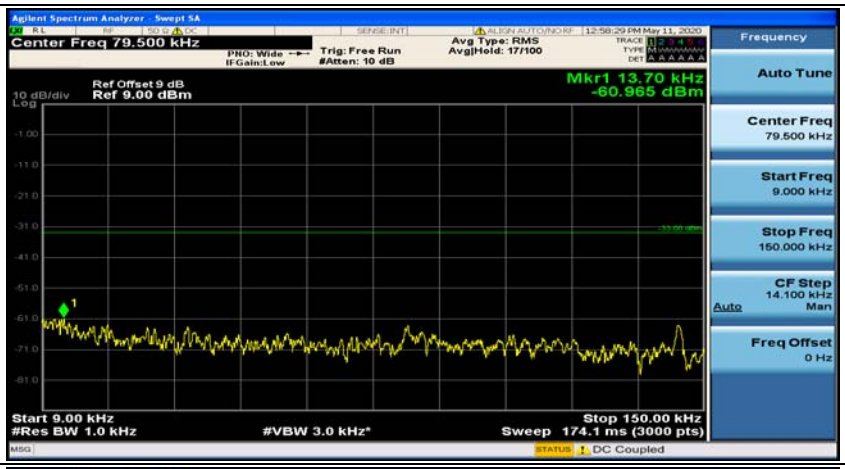


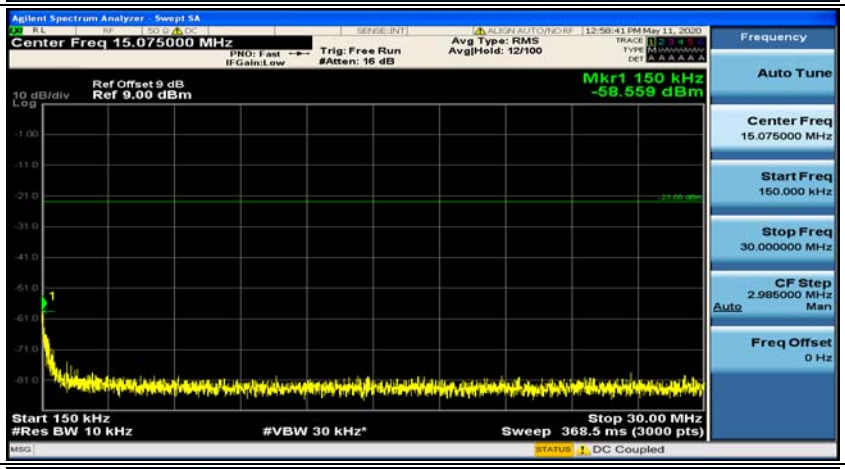
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12





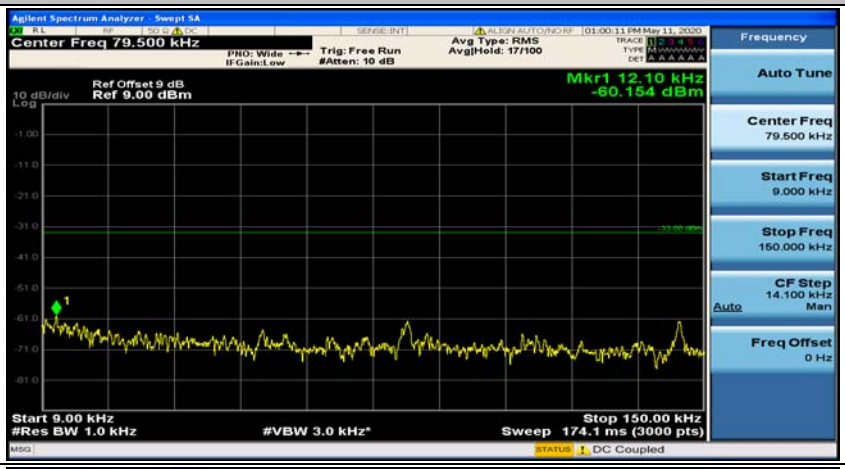
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

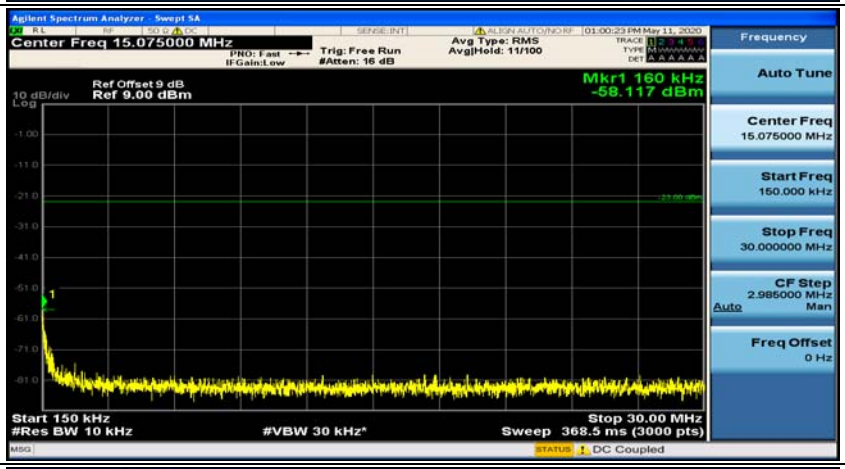

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:58:29 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.70 kHz
-60.965 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

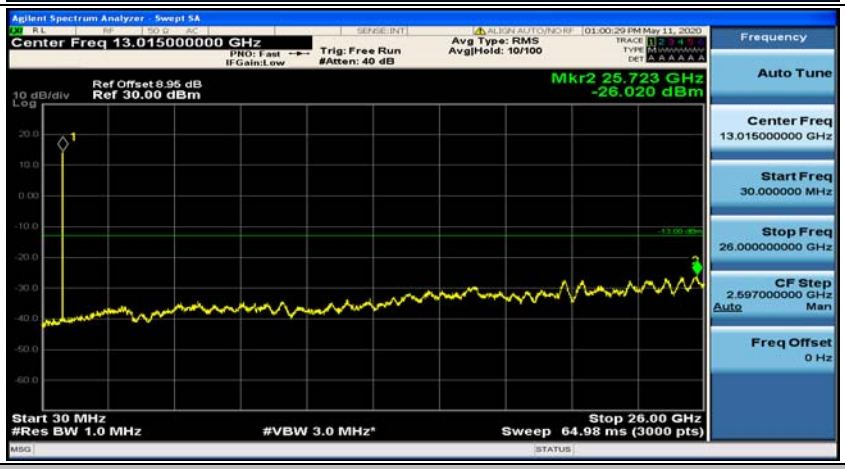

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
12:58:41 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.559 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:58:47 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.619 GHz
-26.098 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

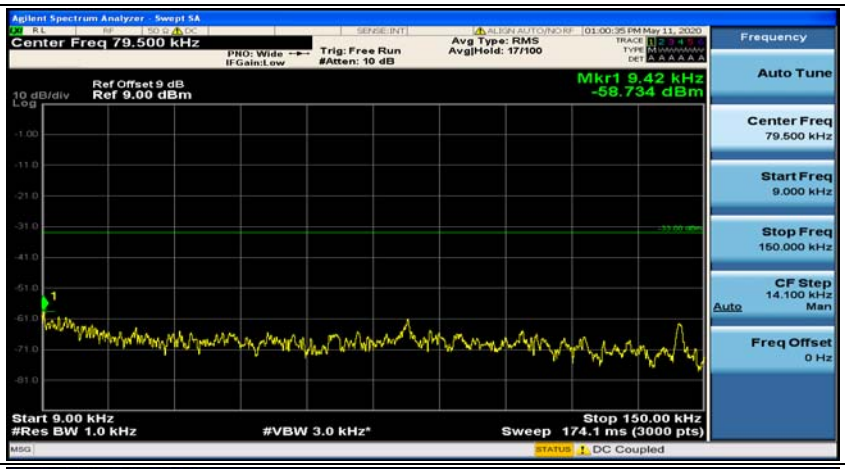
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

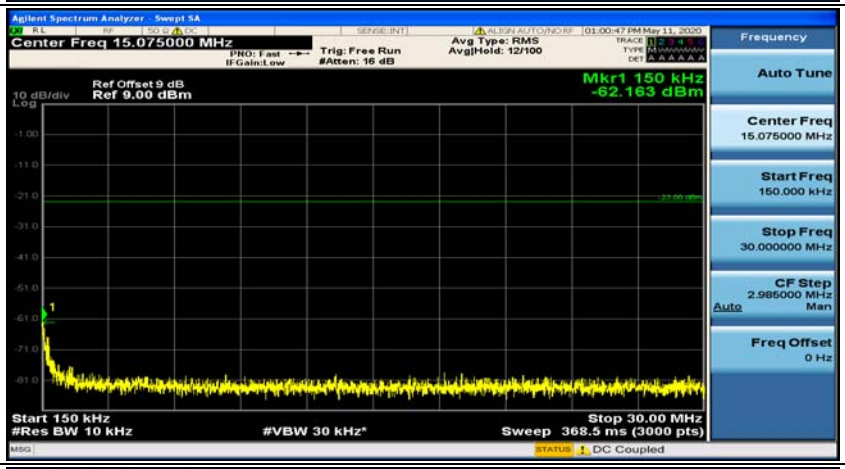




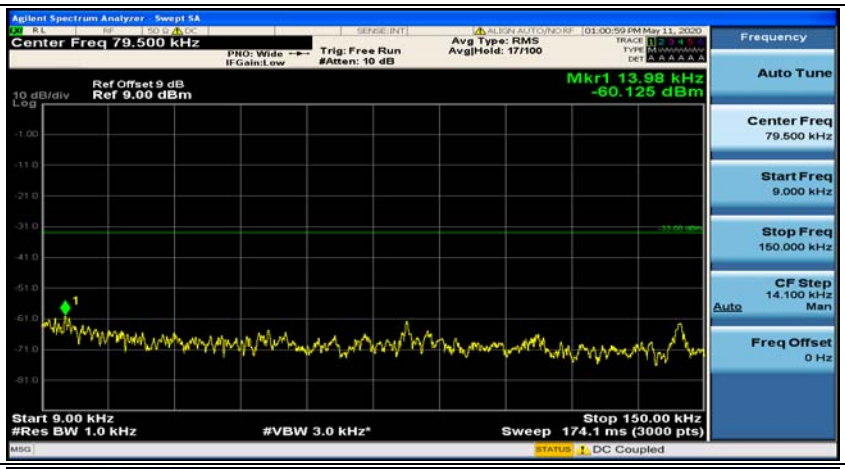


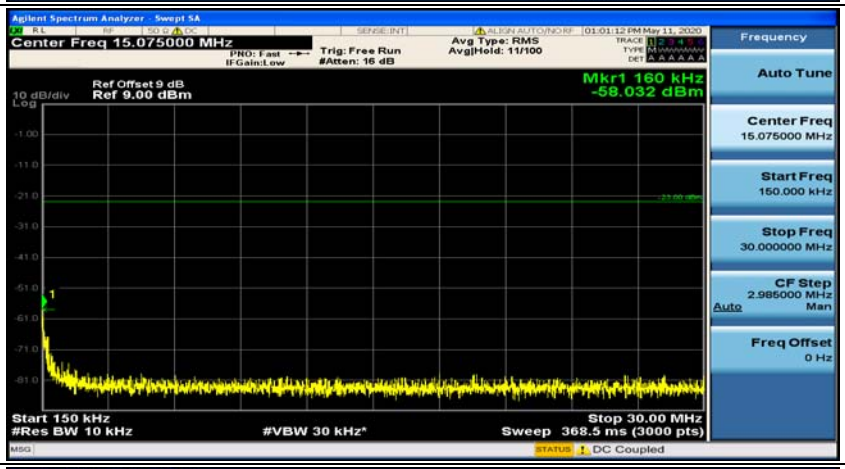
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

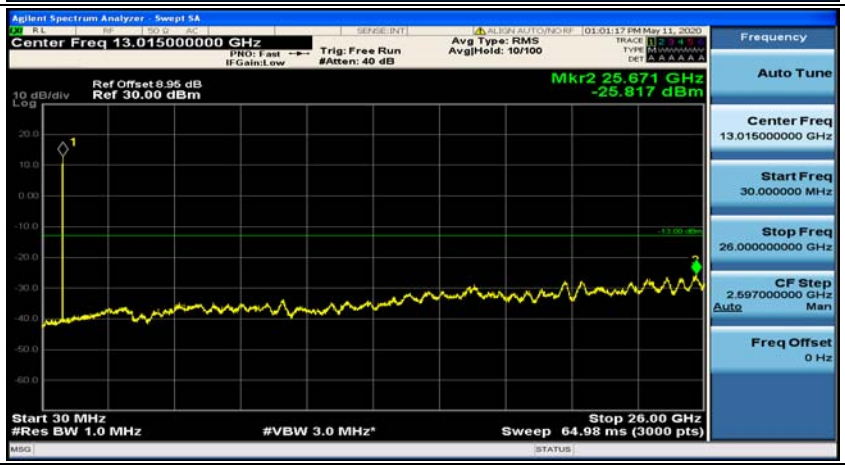




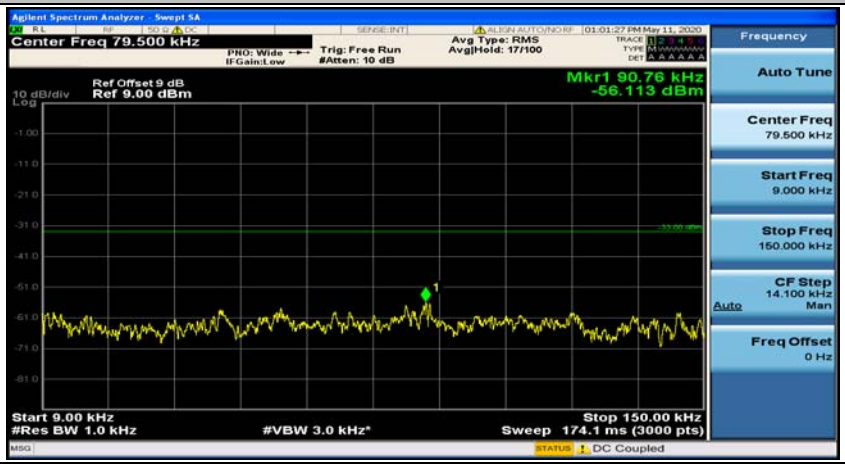
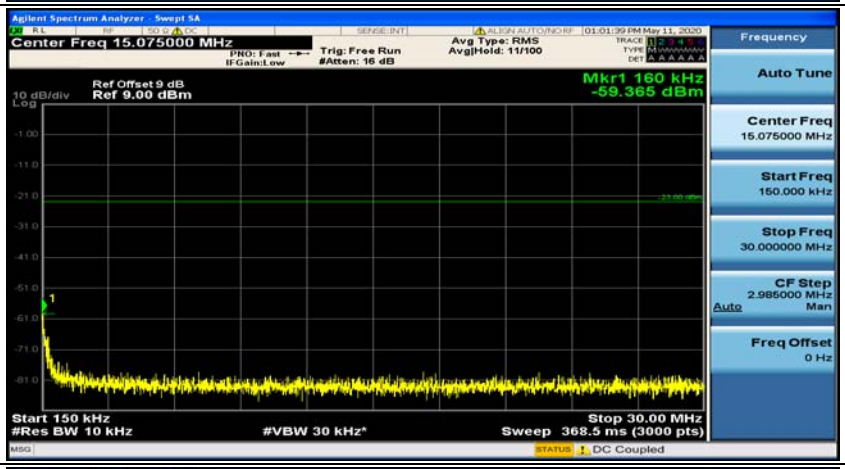
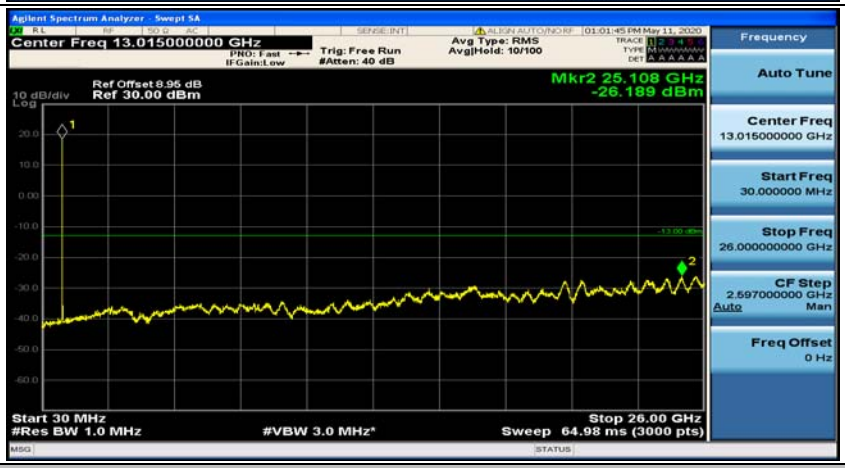
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

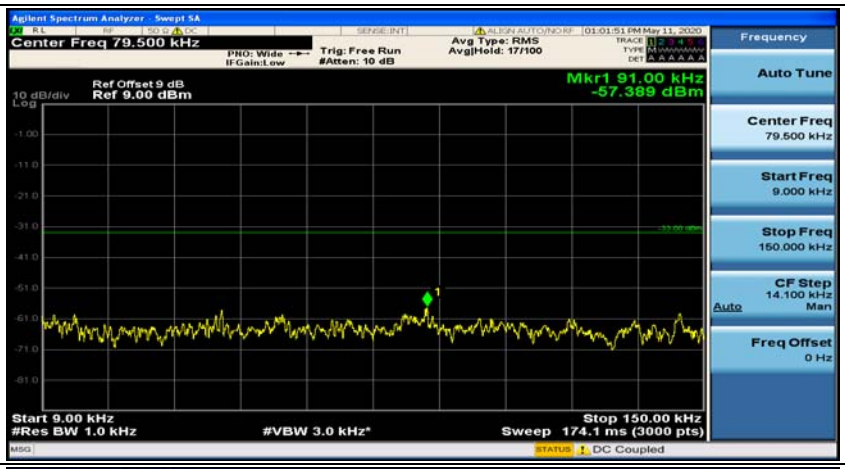

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
01:00:59 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.98 kHz
-60.125 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

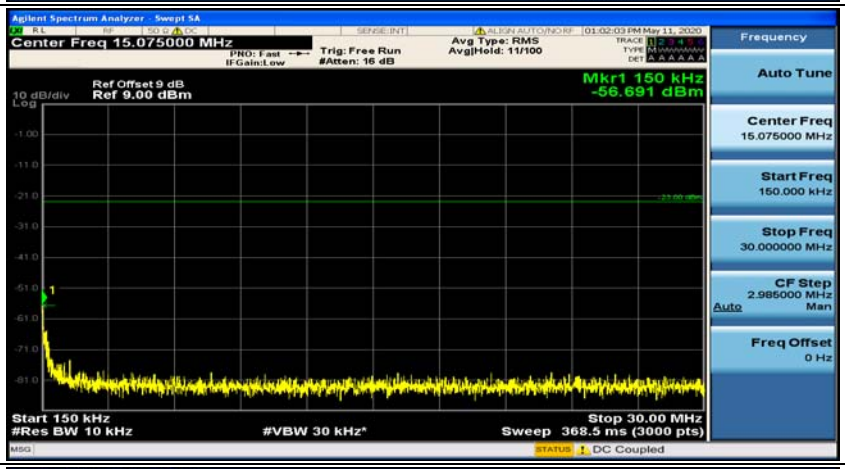

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
01:01:12 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 160 kHz
-58.032 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
01:01:17 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.671 GHz
-25.817 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

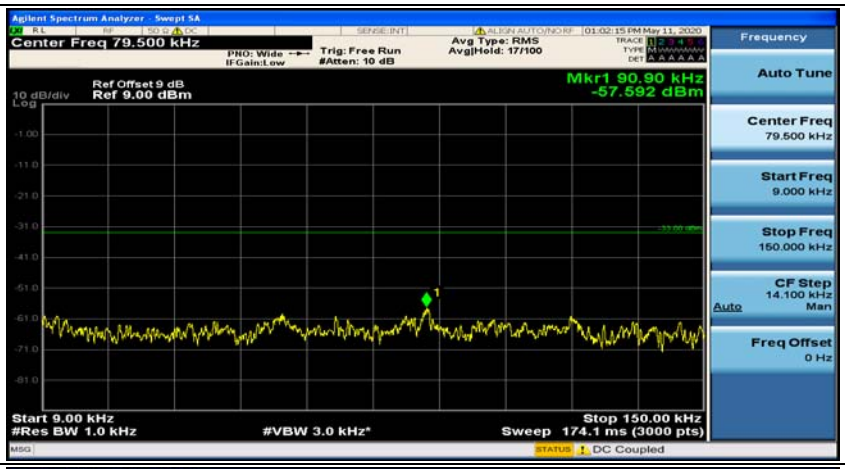
Channel Bandwidth: 10 MHz

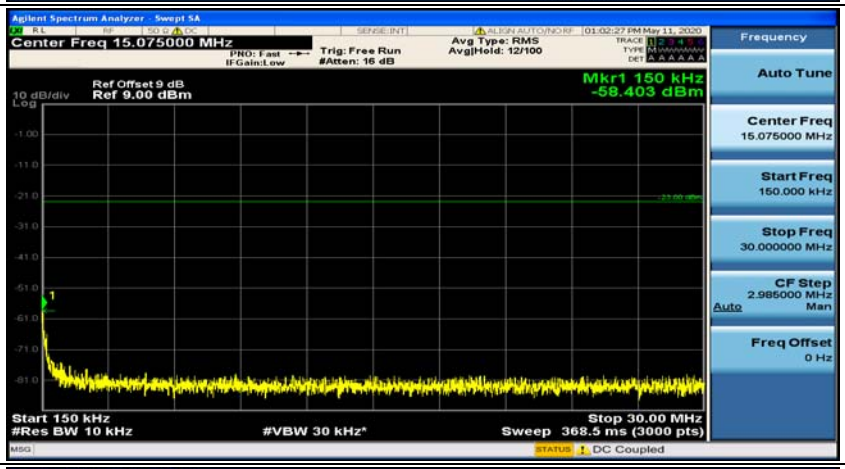
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

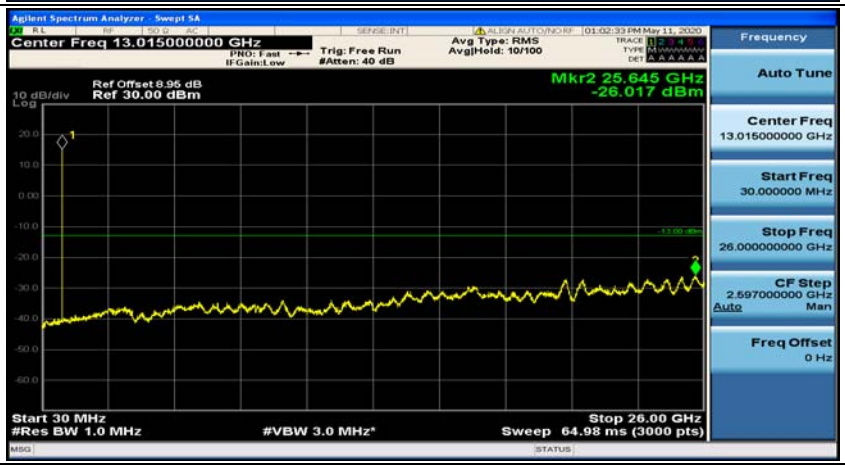


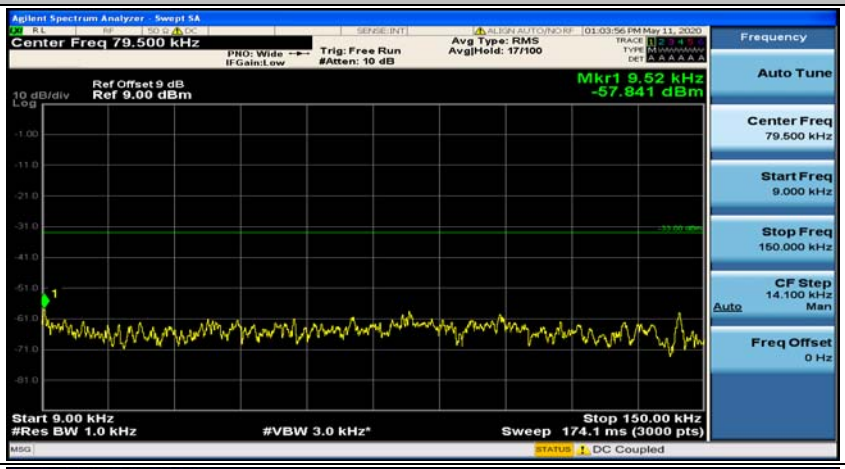
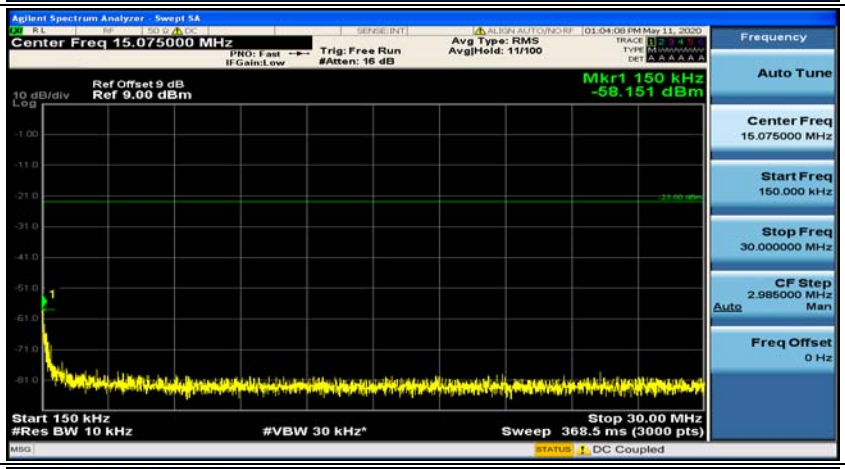
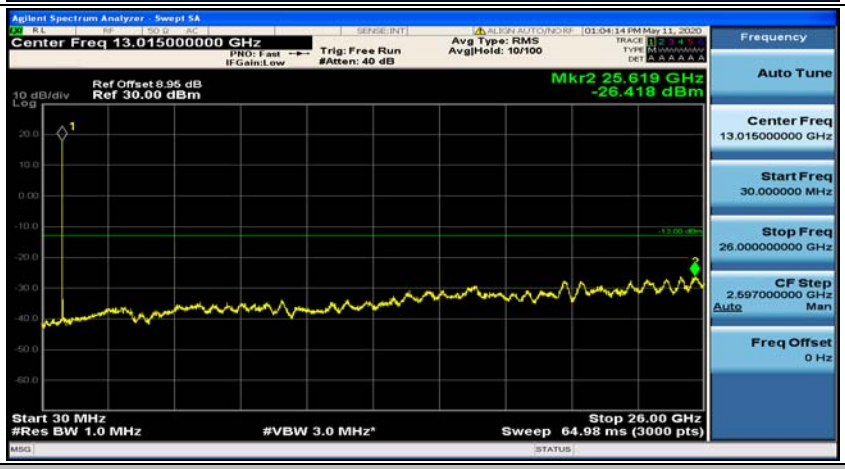


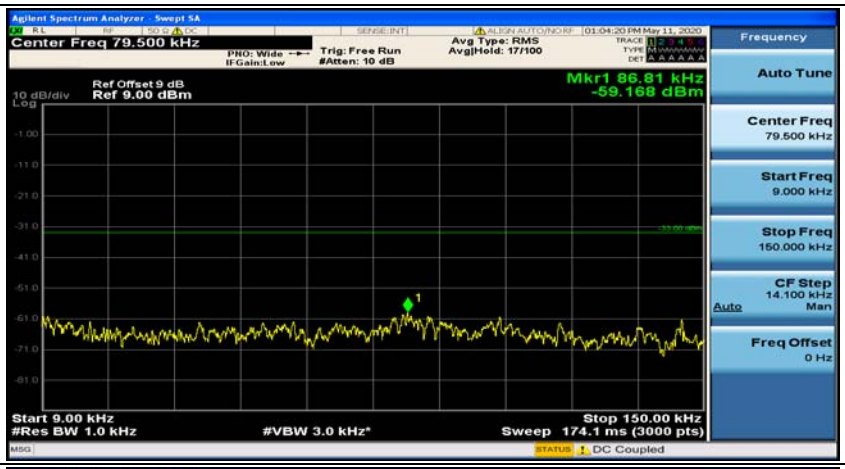
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

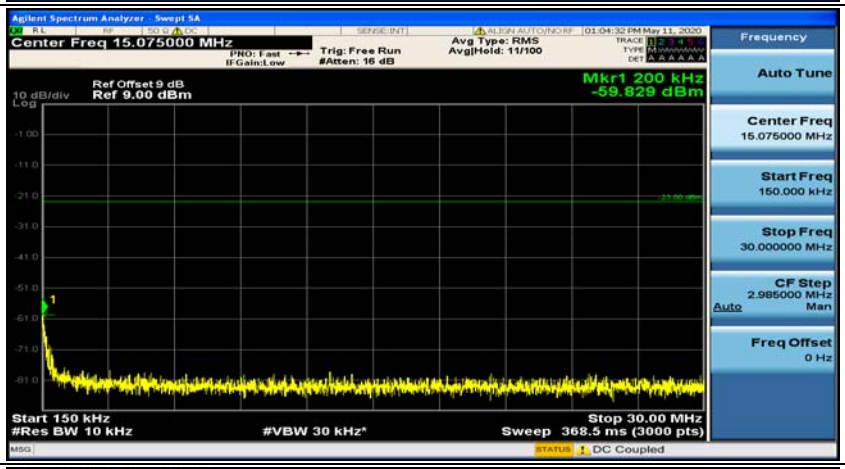

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
01:02:15 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 90.90 kHz
-57.592 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
01:02:27 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.403 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

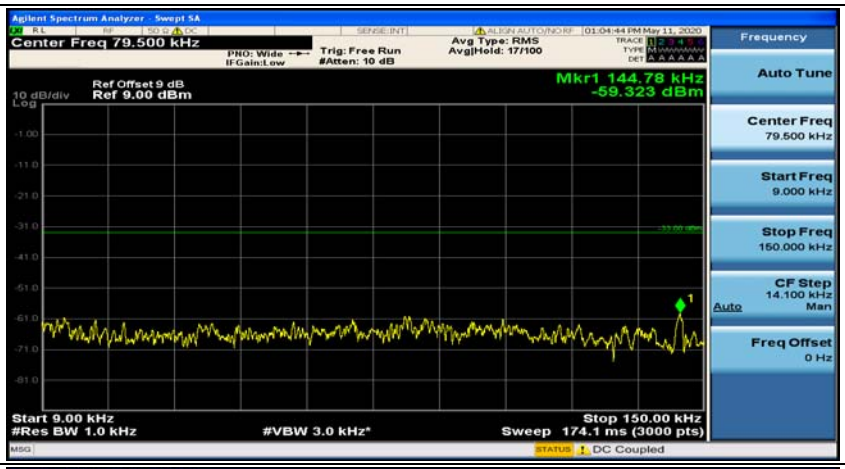

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
01:02:33 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.645 GHz
-26.017 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

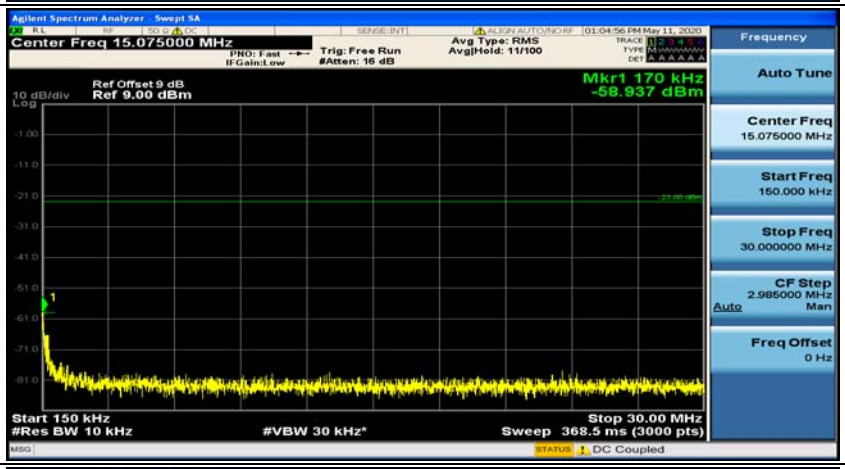
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

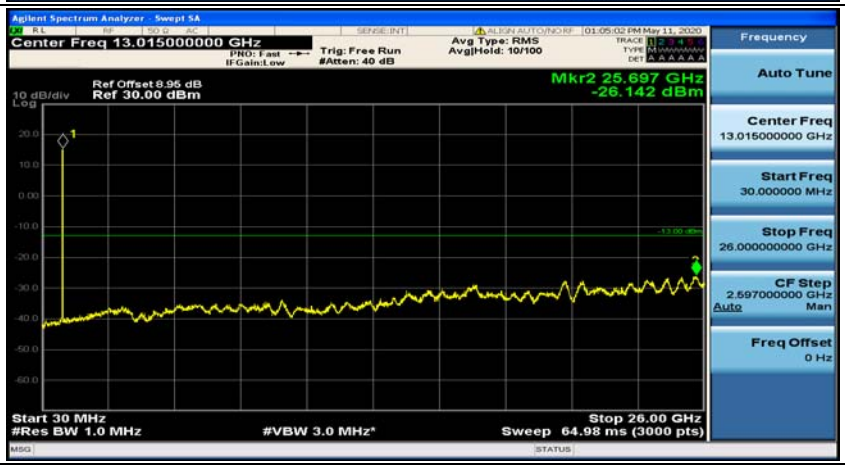


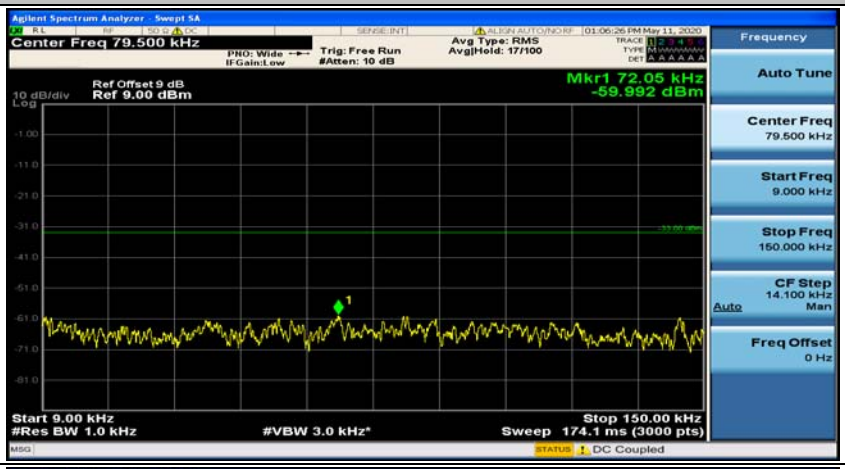
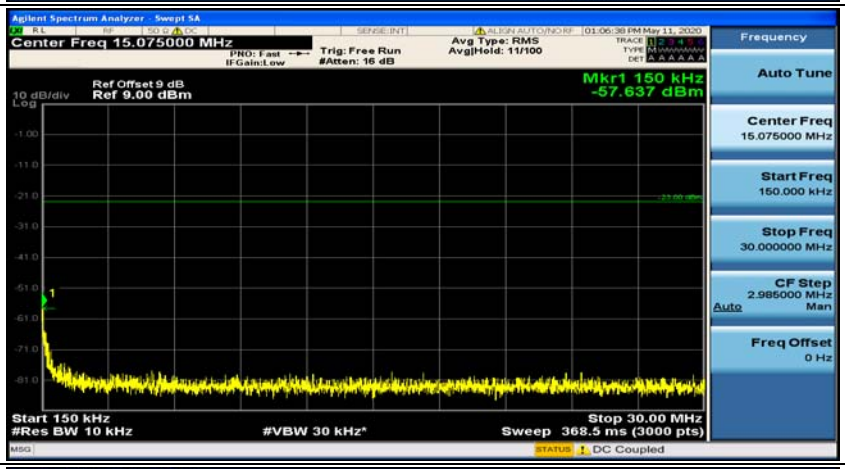
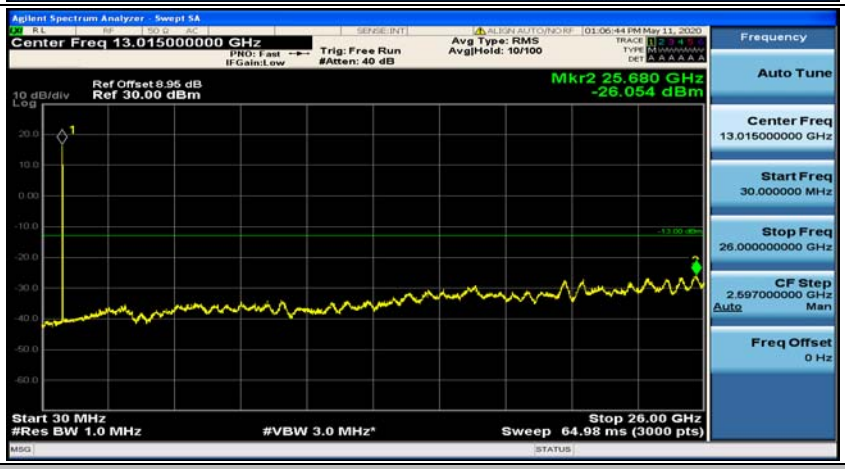


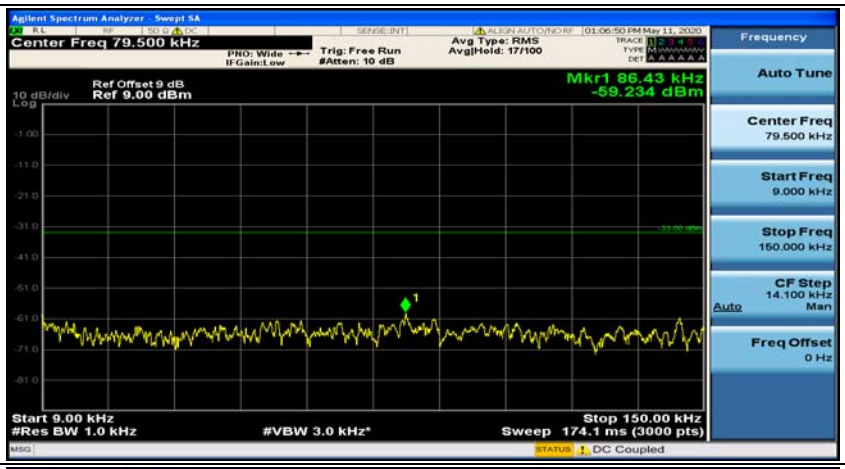
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

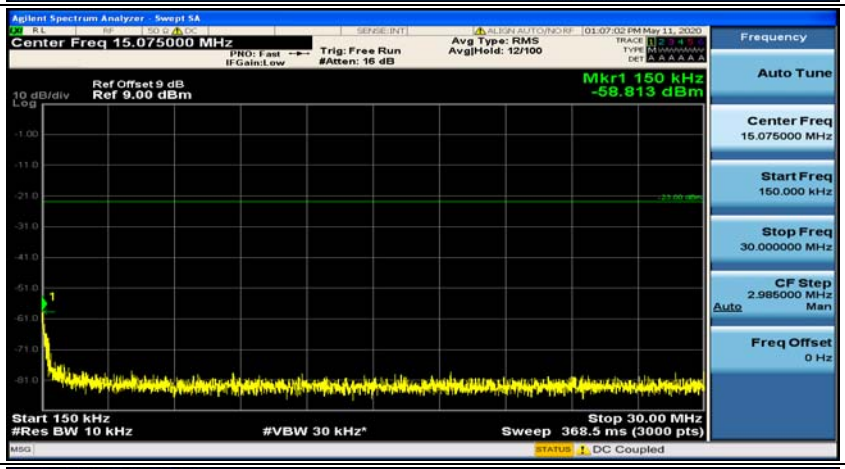

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
01:04:44 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 144.78 kHz
-59.323 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
01:04:56 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 170 kHz
-58.937 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

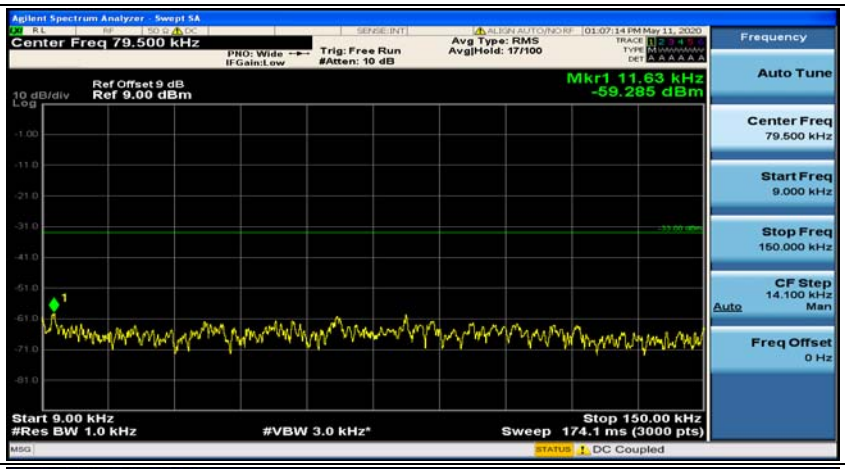

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
01:05:02 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.697 GHz
-26.142 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

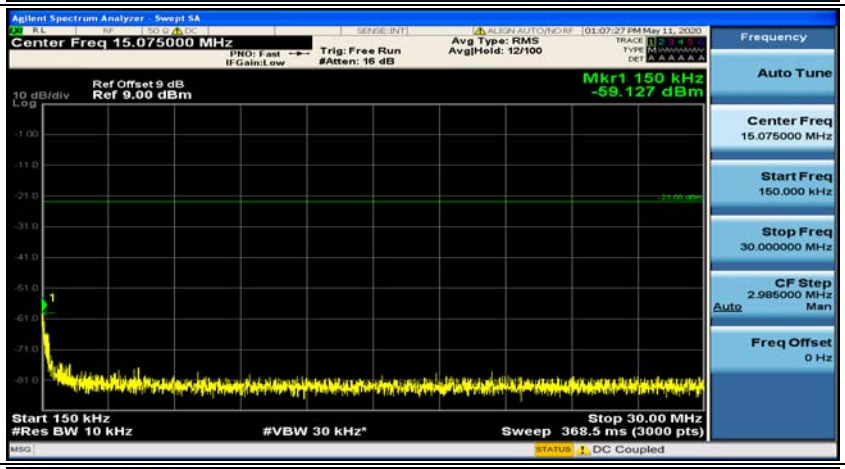
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

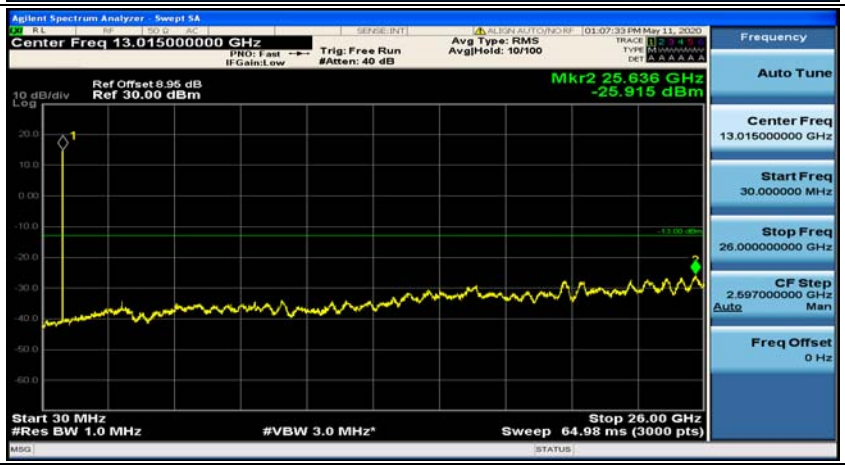


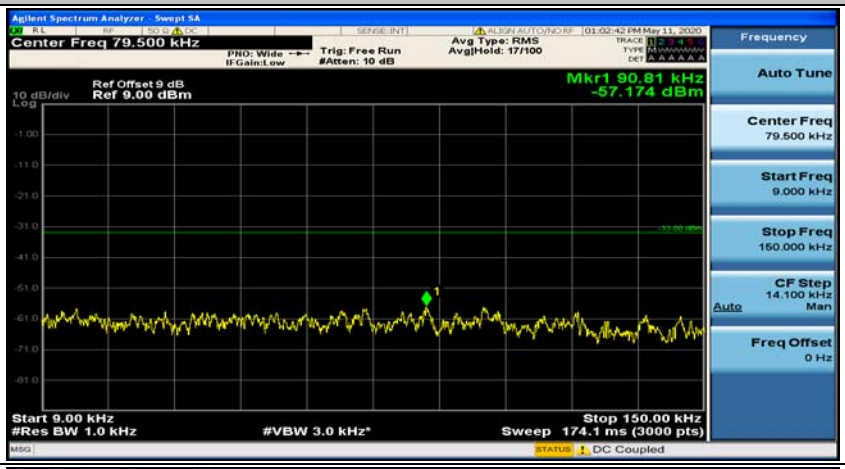
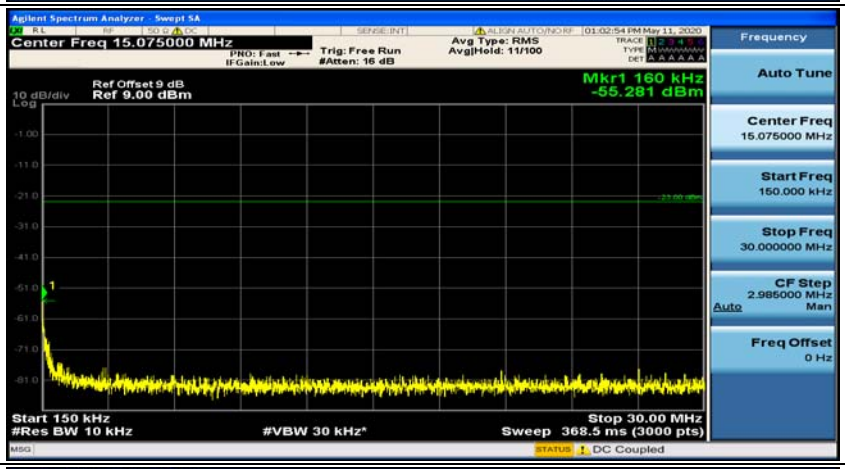
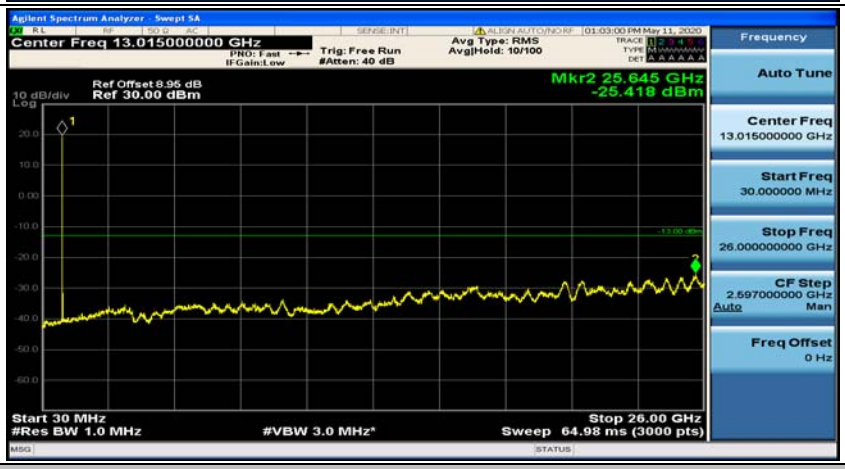


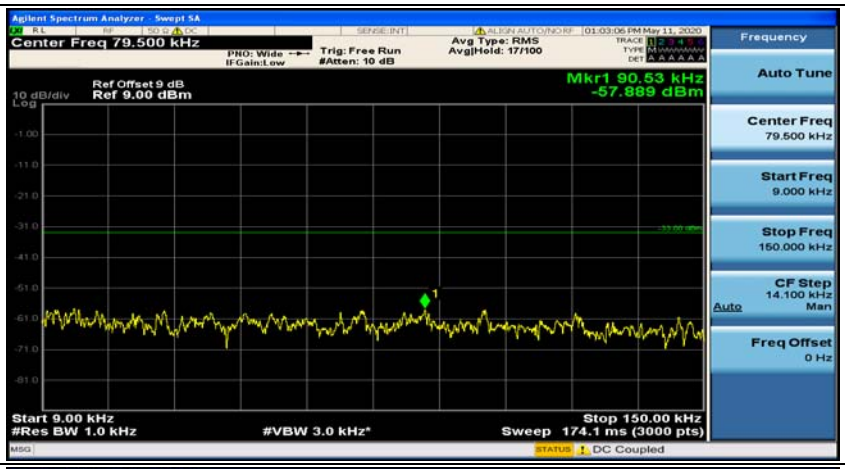
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

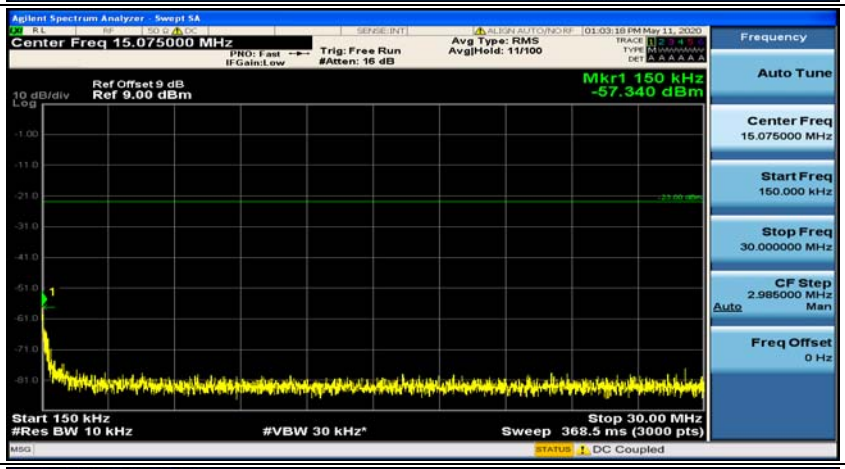

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
01:07:14 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.63 kHz
-59.285 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
01:07:27 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.127 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

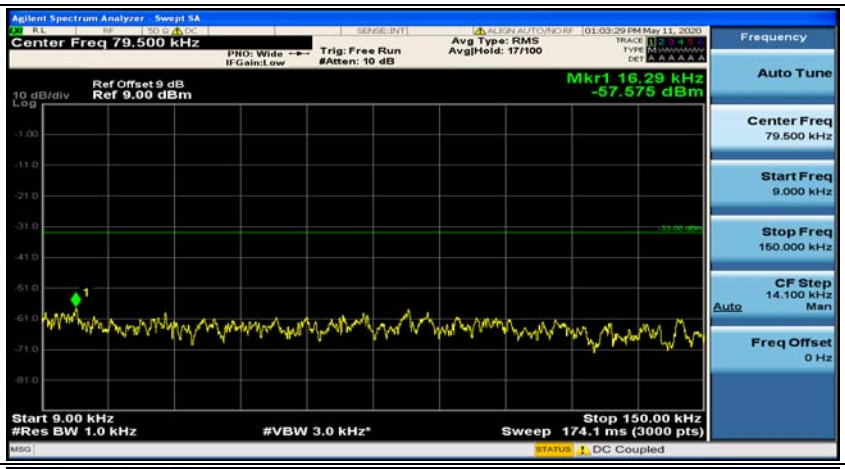

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
01:07:33 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-25.915 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

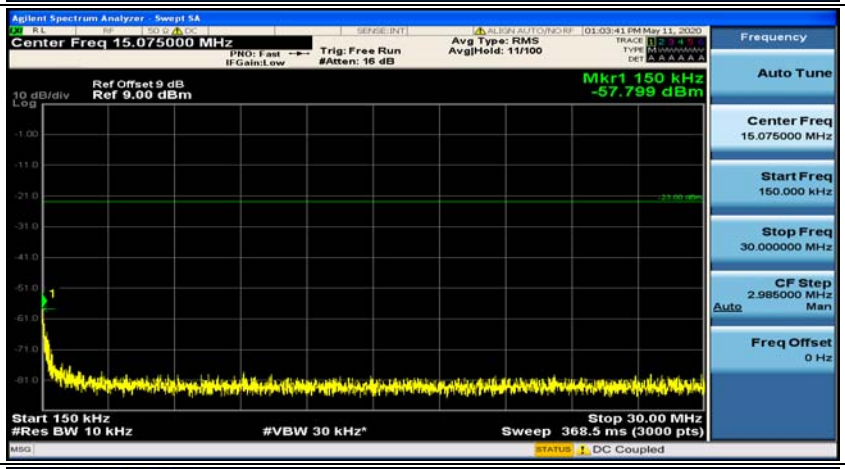
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

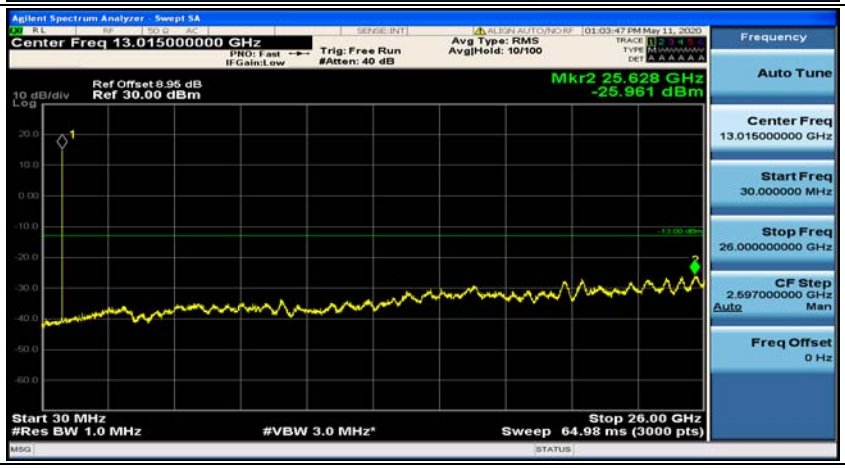


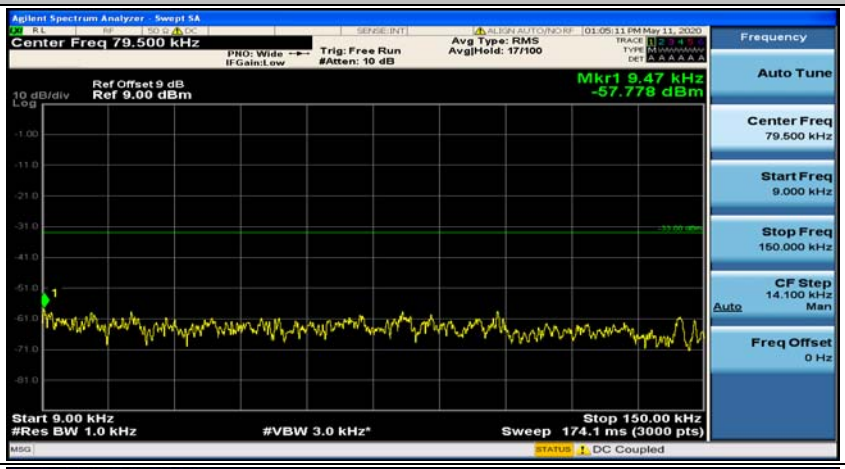
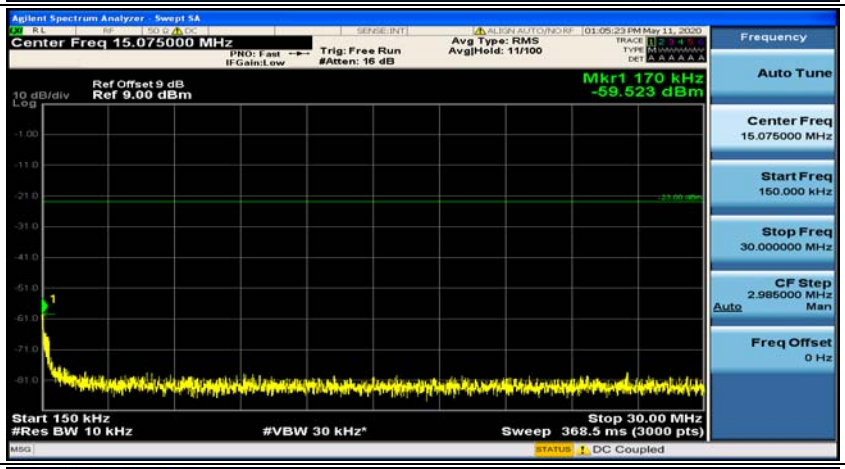
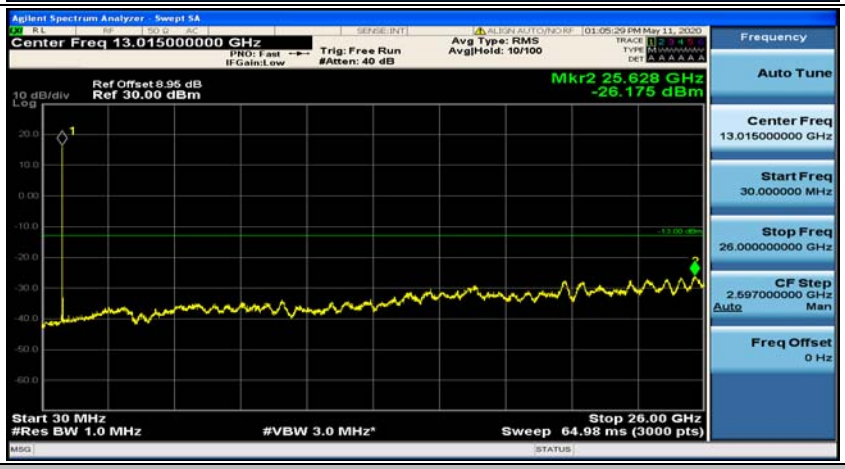


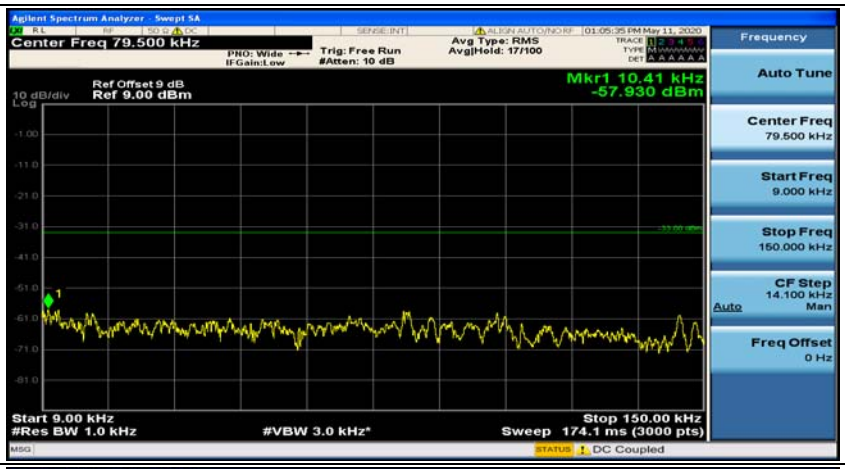
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

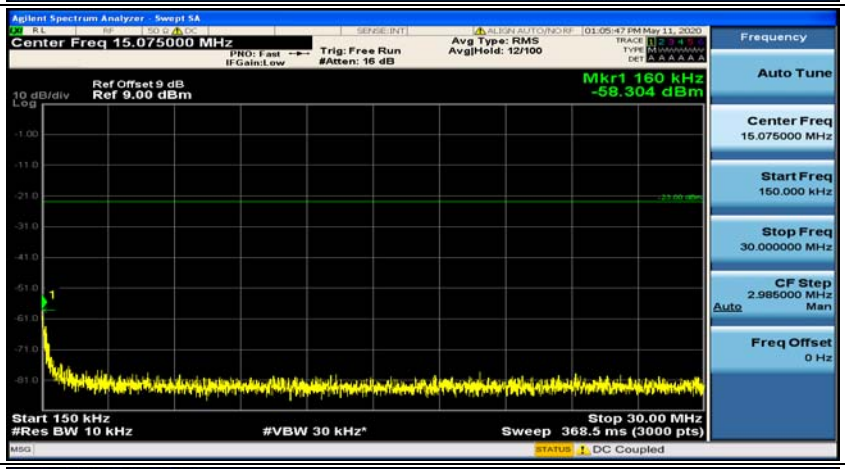

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
01:03:29 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 16.29 kHz
-57.575 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
01:03:41 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.799 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

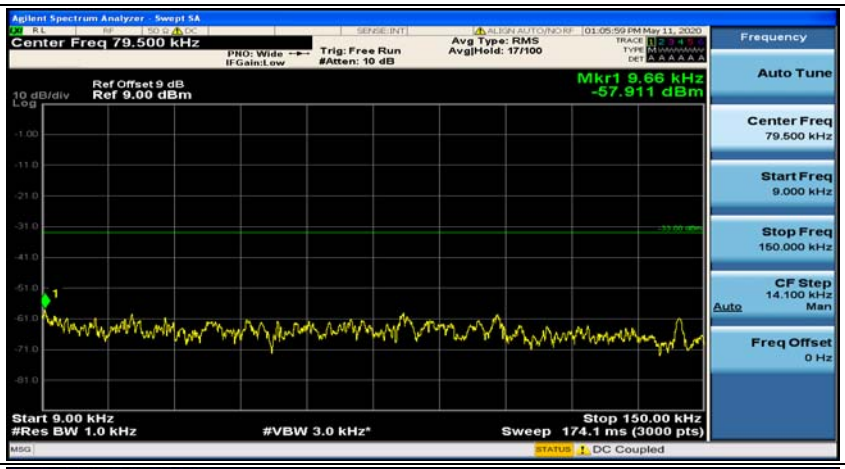

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
01:03:47 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.628 GHz
-25.961 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

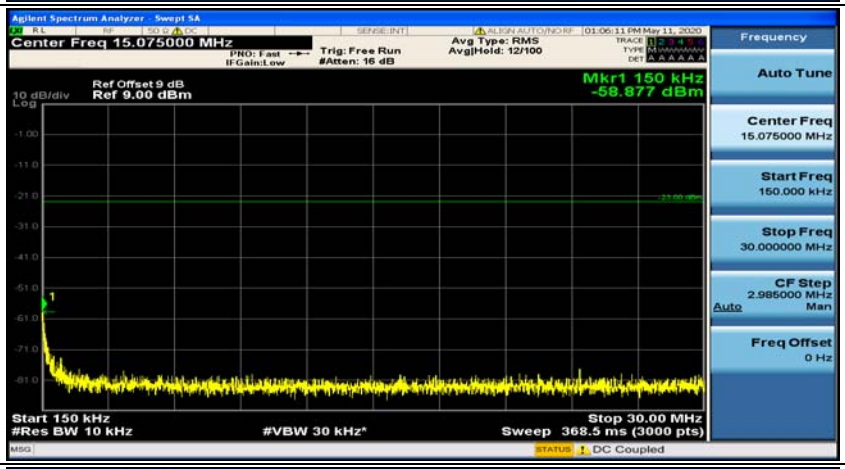
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

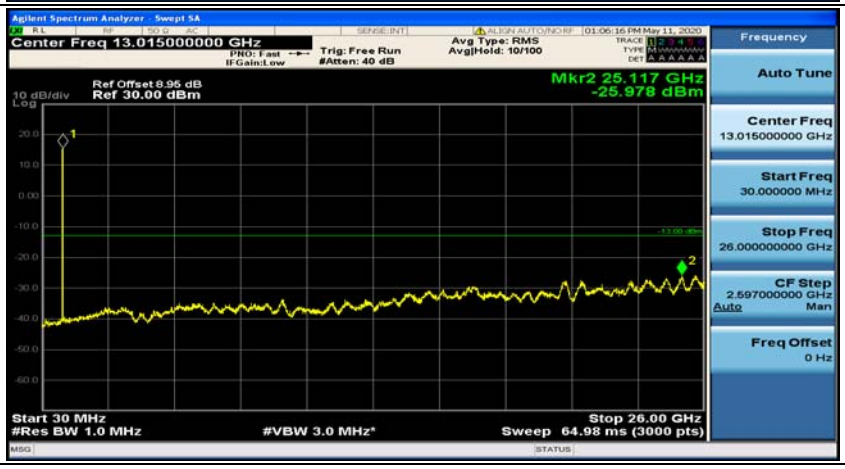




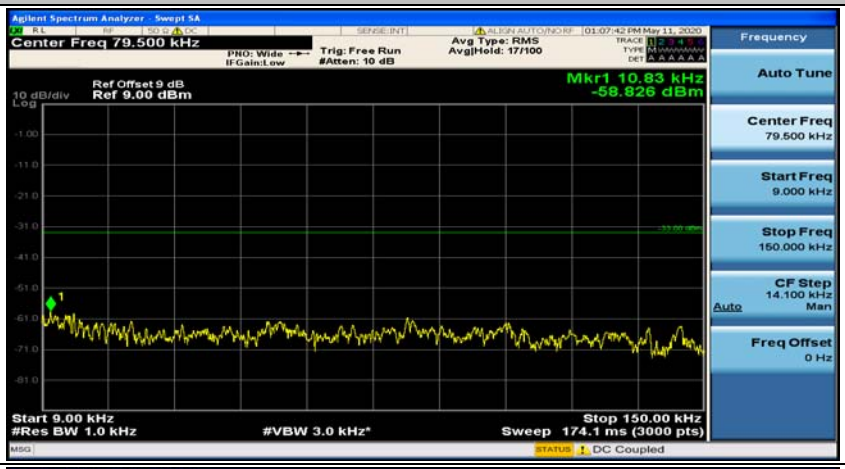
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

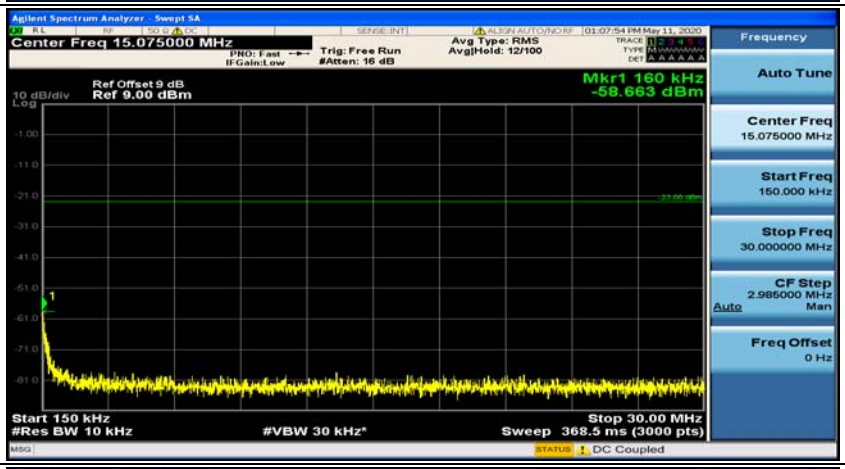

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.66 kHz
-57.911 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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

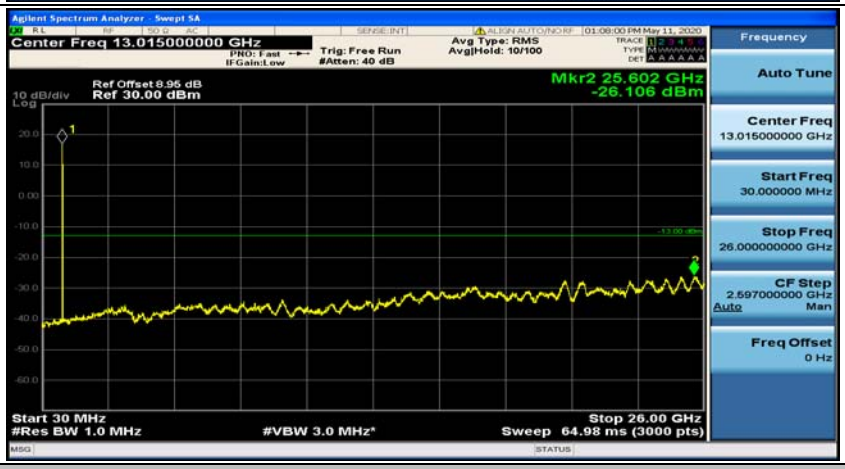

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.877 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.117 GHz
-25.978 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

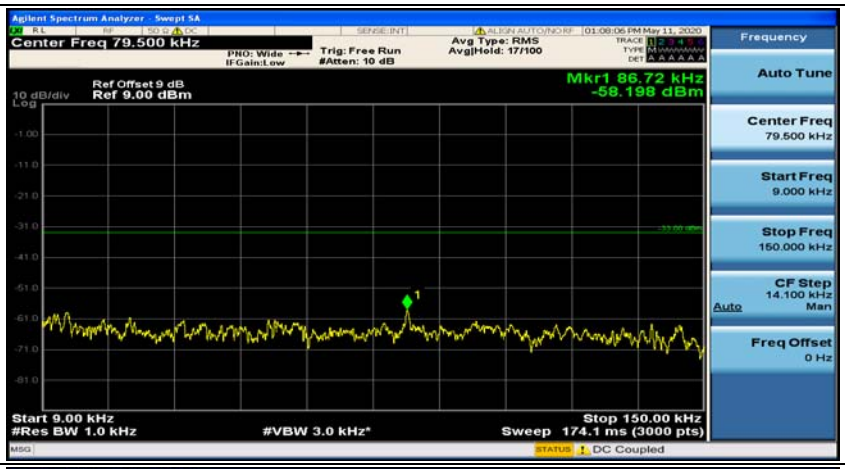
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

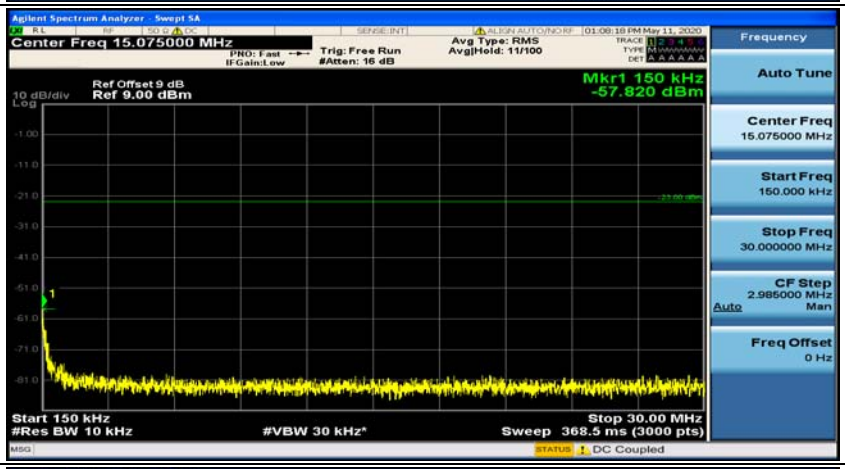


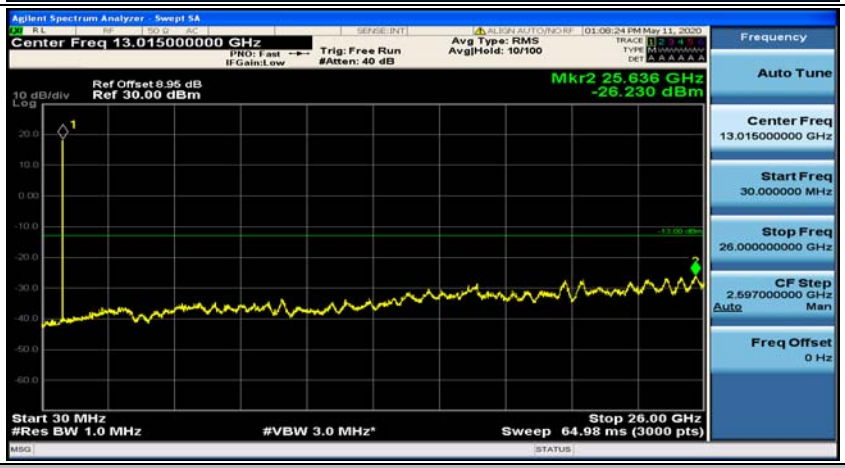




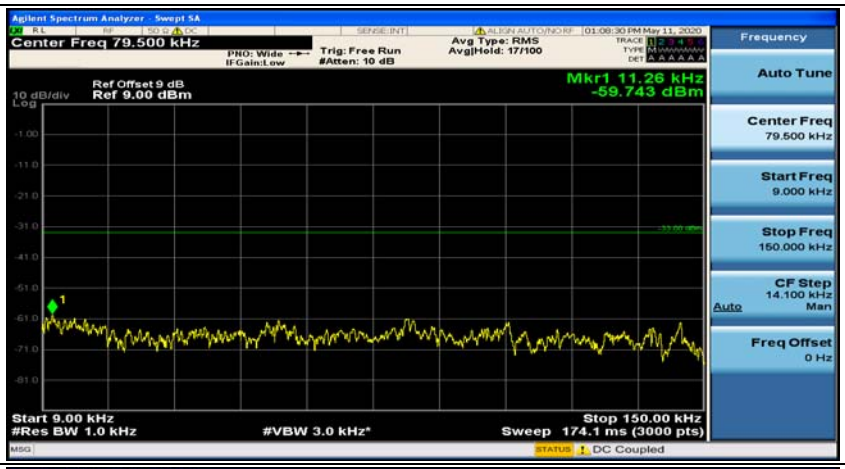
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

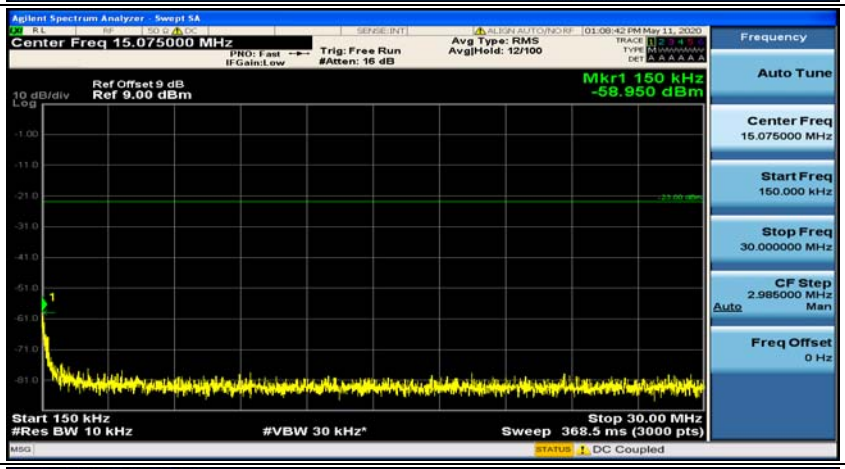


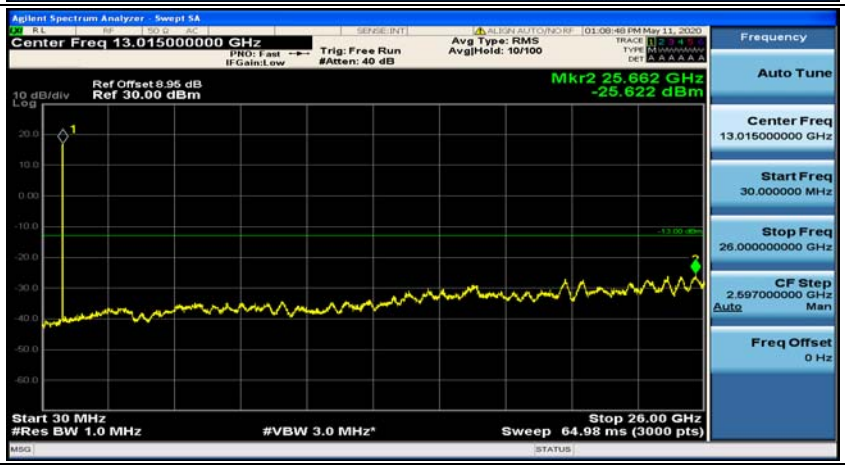




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


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
01:08:30 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.26 kHz
-59.743 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
01:08:42 PM May 11, 2020
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.950 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
01:08:48 PM May 11, 2020
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-25.622 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: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.77	0.003359	± 2.5	PASS
		VN	TN	-1.8	-0.002183	± 2.5	PASS
		VH	TN	-1.59	-0.001928	± 2.5	PASS
	MCH	VL	TN	2.31	0.002762	± 2.5	PASS
		VN	TN	0.56	0.000669	± 2.5	PASS
		VH	TN	2.61	0.003120	± 2.5	PASS
	HCH	VL	TN	3.64	0.004291	± 2.5	PASS
		VN	TN	4.21	0.004963	± 2.5	PASS
		VH	TN	1.91	0.002252	± 2.5	PASS
16QAM	LCH	VL	TN	-0.54	-0.000655	± 2.5	PASS
		VN	TN	-1.51	-0.001831	± 2.5	PASS
		VH	TN	0.6	0.000728	± 2.5	PASS
	MCH	VL	TN	3.96	0.004734	± 2.5	PASS
		VN	TN	-1.92	-0.002295	± 2.5	PASS
		VH	TN	3.2	0.003825	± 2.5	PASS
	HCH	VL	TN	1.59	0.001874	± 2.5	PASS
		VN	TN	-1.08	-0.001273	± 2.5	PASS
		VH	TN	-0.97	-0.001143	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.46	-0.001770	± 2.5	PASS
		VN	-20	3.7	0.004486	± 2.5	PASS
		VN	-10	3.9	0.004729	± 2.5	PASS
		VN	0	2.3	0.002789	± 2.5	PASS
		VN	10	0.07	0.000085	± 2.5	PASS
		VN	20	1.08	0.001310	± 2.5	PASS
		VN	30	0.78	0.000946	± 2.5	PASS
		VN	40	1.26	0.001528	± 2.5	PASS
		VN	50	1.06	0.001285	± 2.5	PASS
	MCH	VN	-30	4.53	0.005415	± 2.5	PASS

		VN	-20	-0.55	-0.000658	± 2.5	PASS
		VN	-10	2.04	0.002439	± 2.5	PASS
		VN	0	3.63	0.004340	± 2.5	PASS
		VN	10	4.98	0.005953	± 2.5	PASS
		VN	20	0.71	0.000849	± 2.5	PASS
		VN	30	0.08	0.000096	± 2.5	PASS
		VN	40	-1.71	-0.002044	± 2.5	PASS
		VN	50	-1.86	-0.002224	± 2.5	PASS
	HCH	VN	-30	4.29	0.005057	± 2.5	PASS
		VN	-20	0.84	0.000990	± 2.5	PASS
		VN	-10	3.1	0.003654	± 2.5	PASS
		VN	0	3.73	0.004397	± 2.5	PASS
		VN	10	4.62	0.005446	± 2.5	PASS
		VN	20	4.71	0.005552	± 2.5	PASS
		VN	30	0.86	0.001014	± 2.5	PASS
		VN	40	4.92	0.005800	± 2.5	PASS
		VN	50	0.14	0.000165	± 2.5	PASS
16QAM	LCH	VN	-30	3.1	0.003759	± 2.5	PASS
		VN	-20	-1.44	-0.001746	± 2.5	PASS
		VN	-10	1.04	0.001261	± 2.5	PASS
		VN	0	-0.41	-0.000497	± 2.5	PASS
		VN	10	4.43	0.005372	± 2.5	PASS
		VN	20	4.48	0.005432	± 2.5	PASS
		VN	30	-1.24	-0.001504	± 2.5	PASS
		VN	40	3.78	0.004583	± 2.5	PASS
		VN	50	2.08	0.002522	± 2.5	PASS
	MCH	VN	-30	0.99	0.001167	± 2.5	PASS
		VN	-20	-1.37	-0.001615	± 2.5	PASS
		VN	-10	-1.09	-0.001285	± 2.5	PASS
		VN	0	1.81	0.002134	± 2.5	PASS
		VN	10	0.45	0.000530	± 2.5	PASS
		VN	20	3.74	0.004409	± 2.5	PASS
		VN	30	4.27	0.005034	± 2.5	PASS
		VN	40	0.91	0.001073	± 2.5	PASS
		VN	50	2.75	0.003242	± 2.5	PASS
	HCH	VN	-30	-0.67	-0.000790	± 2.5	PASS
		VN	-20	4.22	0.004975	± 2.5	PASS
		VN	-10	0.36	0.000424	± 2.5	PASS
		VN	0	2.49	0.002935	± 2.5	PASS
		VN	10	2.04	0.002405	± 2.5	PASS
		VN	20	4.44	0.005234	± 2.5	PASS

		VN	30	-0.27	-0.000318	± 2.5	PASS
		VN	40	4.05	0.004774	± 2.5	PASS
		VN	50	3.12	0.003678	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.77	0.003356	± 2.5	PASS
		VN	TN	1.32	0.001599	± 2.5	PASS
		VH	TN	0.1	0.000121	± 2.5	PASS
	MCH	VL	TN	-1.59	-0.001901	± 2.5	PASS
		VN	TN	4.54	0.005427	± 2.5	PASS
		VH	TN	1.5	0.001793	± 2.5	PASS
	HCH	VL	TN	3.59	0.004236	± 2.5	PASS
		VN	TN	-0.95	-0.001121	± 2.5	PASS
		VH	TN	2.35	0.002773	± 2.5	PASS
16QAM	LCH	VL	TN	-0.74	-0.000896	± 2.5	PASS
		VN	TN	1.3	0.001575	± 2.5	PASS
		VH	TN	4.21	0.005100	± 2.5	PASS
	MCH	VL	TN	0.04	0.000048	± 2.5	PASS
		VN	TN	1.34	0.001602	± 2.5	PASS
		VH	TN	3.9	0.004662	± 2.5	PASS
	HCH	VL	TN	4.53	0.005345	± 2.5	PASS
		VN	TN	0.12	0.000142	± 2.5	PASS
		VH	TN	1.93	0.002277	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.23	0.005124	± 2.5	PASS
		VN	-20	4.54	0.005500	± 2.5	PASS
		VN	-10	0.7	0.000848	± 2.5	PASS
		VN	0	2.1	0.002544	± 2.5	PASS
		VN	10	3.53	0.004276	± 2.5	PASS
		VN	20	1.9	0.002302	± 2.5	PASS
		VN	30	1.93	0.002338	± 2.5	PASS
		VN	40	1.13	0.001369	± 2.5	PASS
		VN	50	0.65	0.000787	± 2.5	PASS
	MCH	VN	-30	3.74	0.004471	± 2.5	PASS
		VN	-20	3.74	0.004471	± 2.5	PASS

		VN	-10	-0.96	-0.001148	± 2.5	PASS
		VN	0	3.75	0.004483	± 2.5	PASS
		VN	10	4.15	0.004961	± 2.5	PASS
		VN	20	4.7	0.005619	± 2.5	PASS
		VN	30	-0.29	-0.000347	± 2.5	PASS
		VN	40	4.45	0.005320	± 2.5	PASS
		VN	50	0.88	0.001052	± 2.5	PASS
	HCH	VN	-30	2.73	0.003221	± 2.5	PASS
		VN	-20	2.8	0.003304	± 2.5	PASS
		VN	-10	-1.02	-0.001204	± 2.5	PASS
		VN	0	2.71	0.003198	± 2.5	PASS
		VN	10	4.39	0.005180	± 2.5	PASS
		VN	20	1.13	0.001333	± 2.5	PASS
		VN	30	1.59	0.001876	± 2.5	PASS
		VN	40	4.43	0.005227	± 2.5	PASS
		VN	50	-1.76	-0.002077	± 2.5	PASS
16QAM	LCH	VN	-30	3.04	0.003634	± 2.5	PASS
		VN	-20	1.79	0.002140	± 2.5	PASS
		VN	-10	3.56	0.004256	± 2.5	PASS
		VN	0	3.24	0.003873	± 2.5	PASS
		VN	10	-1.26	-0.001506	± 2.5	PASS
		VN	20	1.35	0.001614	± 2.5	PASS
		VN	30	-0.94	-0.001124	± 2.5	PASS
		VN	40	0.34	0.000406	± 2.5	PASS
		VN	50	3.54	0.004232	± 2.5	PASS
	MCH	VN	-30	0.39	0.000460	± 2.5	PASS
		VN	-20	-1.89	-0.002230	± 2.5	PASS
		VN	-10	1.54	0.001817	± 2.5	PASS
		VN	0	2.64	0.003115	± 2.5	PASS
		VN	10	4.55	0.005369	± 2.5	PASS
		VN	20	-1.69	-0.001994	± 2.5	PASS
		VN	30	-0.71	-0.000838	± 2.5	PASS
		VN	40	0.42	0.000496	± 2.5	PASS
		VN	50	-0.47	-0.000555	± 2.5	PASS
	HCH	VN	-30	4.13	0.004873	± 2.5	PASS
		VN	-20	-1.87	-0.002206	± 2.5	PASS
		VN	-10	2.57	0.003032	± 2.5	PASS
		VN	0	4.38	0.005168	± 2.5	PASS
		VN	10	4.94	0.005829	± 2.5	PASS
		VN	20	3.08	0.003634	± 2.5	PASS
		VN	30	1.23	0.001451	± 2.5	PASS

		VN	40	2.1	0.002478	± 2.5	PASS
		VN	50	-1.74	-0.002053	± 2.5	PASS

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	2.77	0.003351	± 2.5	PASS
		VN	TN	3.8	0.004598	± 2.5	PASS
		VH	TN	2.95	0.003569	± 2.5	PASS
	MCH	VL	TN	4.56	0.005451	± 2.5	PASS
		VN	TN	3.86	0.004614	± 2.5	PASS
		VH	TN	-0.55	-0.000658	± 2.5	PASS
	HCH	VL	TN	1.6	0.001890	± 2.5	PASS
		VN	TN	-1.63	-0.001926	± 2.5	PASS
		VH	TN	3.01	0.003556	± 2.5	PASS
16QAM	LCH	VL	TN	1.56	0.001887	± 2.5	PASS
		VN	TN	4.02	0.004864	± 2.5	PASS
		VH	TN	-1.84	-0.002226	± 2.5	PASS
	MCH	VL	TN	3.56	0.004256	± 2.5	PASS
		VN	TN	4.74	0.005666	± 2.5	PASS
		VH	TN	3.11	0.003718	± 2.5	PASS
	HCH	VL	TN	-1.14	-0.001347	± 2.5	PASS
		VN	TN	3.67	0.004335	± 2.5	PASS
		VH	TN	0.21	0.000248	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.37	0.004077	± 2.5	PASS
		VN	-20	1.79	0.002166	± 2.5	PASS
		VN	-10	4.8	0.005808	± 2.5	PASS
		VN	0	-0.71	-0.000859	± 2.5	PASS
		VN	10	0.6	0.000726	± 2.5	PASS
		VN	20	1.49	0.001803	± 2.5	PASS
		VN	30	2.46	0.002976	± 2.5	PASS
		VN	40	0.7	0.000847	± 2.5	PASS
		VN	50	4.13	0.004997	± 2.5	PASS
	MCH	VN	-30	1.67	0.001996	± 2.5	PASS
		VN	-20	-1.14	-0.001363	± 2.5	PASS
		VN	-10	-0.06	-0.000072	± 2.5	PASS

		VN	0	-1.88	-0.002247	± 2.5	PASS
		VN	10	1.16	0.001387	± 2.5	PASS
		VN	20	0.32	0.000383	± 2.5	PASS
		VN	30	4.77	0.005702	± 2.5	PASS
		VN	40	3.95	0.004722	± 2.5	PASS
		VN	50	-0.5	-0.000598	± 2.5	PASS
	HCH	VN	-30	0.23	0.000272	± 2.5	PASS
		VN	-20	3.88	0.004584	± 2.5	PASS
		VN	-10	4.15	0.004903	± 2.5	PASS
		VN	0	4.82	0.005694	± 2.5	PASS
		VN	10	0.42	0.000496	± 2.5	PASS
		VN	20	-0.89	-0.001051	± 2.5	PASS
		VN	30	4.28	0.005056	± 2.5	PASS
		VN	40	1.46	0.001725	± 2.5	PASS
		VN	50	4.04	0.004773	± 2.5	PASS
16QAM	LCH	VN	-30	1.62	0.001937	± 2.5	PASS
		VN	-20	0.53	0.000634	± 2.5	PASS
		VN	-10	3.23	0.003861	± 2.5	PASS
		VN	0	4.82	0.005762	± 2.5	PASS
		VN	10	2.23	0.002666	± 2.5	PASS
		VN	20	2.64	0.003156	± 2.5	PASS
		VN	30	4.22	0.005045	± 2.5	PASS
		VN	40	0.62	0.000741	± 2.5	PASS
		VN	50	3.38	0.004041	± 2.5	PASS
	MCH	VN	-30	-1.73	-0.002044	± 2.5	PASS
		VN	-20	1.94	0.002292	± 2.5	PASS
		VN	-10	2.72	0.003213	± 2.5	PASS
		VN	0	2.9	0.003426	± 2.5	PASS
		VN	10	2.96	0.003497	± 2.5	PASS
		VN	20	4.8	0.005670	± 2.5	PASS
		VN	30	3.73	0.004406	± 2.5	PASS
		VN	40	1.52	0.001796	± 2.5	PASS
		VN	50	4.47	0.005281	± 2.5	PASS
	HCH	VN	-30	4.32	0.005103	± 2.5	PASS
		VN	-20	4.92	0.005812	± 2.5	PASS
		VN	-10	-0.98	-0.001158	± 2.5	PASS
		VN	0	1.45	0.001713	± 2.5	PASS
		VN	10	-1.11	-0.001311	± 2.5	PASS
		VN	20	0.89	0.001051	± 2.5	PASS
		VN	30	-0.74	-0.000874	± 2.5	PASS
		VN	40	2.8	0.003308	± 2.5	PASS

		VN	50	3.27	0.003863	± 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	LCH	VL	TN	2.77	0.003341	± 2.5	PASS
		VN	TN	-0.02	-0.000024	± 2.5	PASS
		VH	TN	3.6	0.004343	± 2.5	PASS
	MCH	VL	TN	4.4	0.005260	± 2.5	PASS
		VN	TN	-1.94	-0.002319	± 2.5	PASS
		VH	TN	1.98	0.002367	± 2.5	PASS
	HCH	VL	TN	4.76	0.005640	± 2.5	PASS
		VN	TN	-1.51	-0.001789	± 2.5	PASS
		VH	TN	3.99	0.004727	± 2.5	PASS
16QAM	LCH	VL	TN	4.12	0.004970	± 2.5	PASS
		VN	TN	4.47	0.005392	± 2.5	PASS
		VH	TN	3.21	0.003872	± 2.5	PASS
	MCH	VL	TN	-1.07	-0.001279	± 2.5	PASS
		VN	TN	-1.73	-0.002068	± 2.5	PASS
		VH	TN	0.11	0.000132	± 2.5	PASS
	HCH	VL	TN	0.94	0.001114	± 2.5	PASS
		VN	TN	-1.87	-0.002216	± 2.5	PASS
		VH	TN	-1.19	-0.001410	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.36	0.000434	± 2.5	PASS
		VN	-20	2.42	0.002919	± 2.5	PASS
		VN	-10	0.02	0.000024	± 2.5	PASS
		VN	0	4.32	0.005211	± 2.5	PASS
		VN	10	0.59	0.000712	± 2.5	PASS
		VN	20	1.61	0.001942	± 2.5	PASS
		VN	30	4.55	0.005489	± 2.5	PASS
		VN	40	1.77	0.002135	± 2.5	PASS
		VN	50	3.15	0.003800	± 2.5	PASS
	MCH	VN	-30	-0.82	-0.000980	± 2.5	PASS
		VN	-20	0.46	0.000550	± 2.5	PASS
		VN	-10	3.81	0.004555	± 2.5	PASS
		VN	0	2.07	0.002475	± 2.5	PASS

		VN	10	3.53	0.004220	± 2.5	PASS
		VN	20	4.09	0.004889	± 2.5	PASS
		VN	30	-0.82	-0.000980	± 2.5	PASS
		VN	40	-1.11	-0.001327	± 2.5	PASS
		VN	50	-0.8	-0.000956	± 2.5	PASS
	HCH	VN	-30	4.12	0.004882	± 2.5	PASS
		VN	-20	-1.9	-0.002251	± 2.5	PASS
		VN	-10	-1.09	-0.001291	± 2.5	PASS
		VN	0	0.66	0.000782	± 2.5	PASS
		VN	10	-0.66	-0.000782	± 2.5	PASS
		VN	20	3.58	0.004242	± 2.5	PASS
		VN	30	2.69	0.003187	± 2.5	PASS
		VN	40	1.14	0.001351	± 2.5	PASS
		VN	50	2.47	0.002927	± 2.5	PASS
16QAM	LCH	VN	-30	-1.49	-0.001781	± 2.5	PASS
		VN	-20	-0.58	-0.000693	± 2.5	PASS
		VN	-10	1.12	0.001339	± 2.5	PASS
		VN	0	-1.04	-0.001243	± 2.5	PASS
		VN	10	2.61	0.003120	± 2.5	PASS
		VN	20	4.94	0.005906	± 2.5	PASS
		VN	30	-0.85	-0.001016	± 2.5	PASS
		VN	40	2.95	0.003527	± 2.5	PASS
		VN	50	3.53	0.004220	± 2.5	PASS
	MCH	VN	-30	3.31	0.003922	± 2.5	PASS
		VN	-20	4.35	0.005154	± 2.5	PASS
		VN	-10	0.36	0.000427	± 2.5	PASS
		VN	0	4.92	0.005829	± 2.5	PASS
		VN	10	4.03	0.004775	± 2.5	PASS
		VN	20	-0.78	-0.000924	± 2.5	PASS
		VN	30	1.58	0.001872	± 2.5	PASS
		VN	40	-1.15	-0.001363	± 2.5	PASS
		VN	50	4.25	0.005036	± 2.5	PASS
	HCH	VN	-30	3.64	0.004313	± 2.5	PASS
		VN	-20	2.45	0.002903	± 2.5	PASS
		VN	-10	2.61	0.003092	± 2.5	PASS
		VN	0	2.34	0.002773	± 2.5	PASS
		VN	10	4.88	0.005782	± 2.5	PASS
		VN	20	-1.36	-0.001611	± 2.5	PASS
		VN	30	3.04	0.003602	± 2.5	PASS
		VN	40	-1.38	-0.001635	± 2.5	PASS
		VN	50	1.19	0.001410	± 2.5	PASS