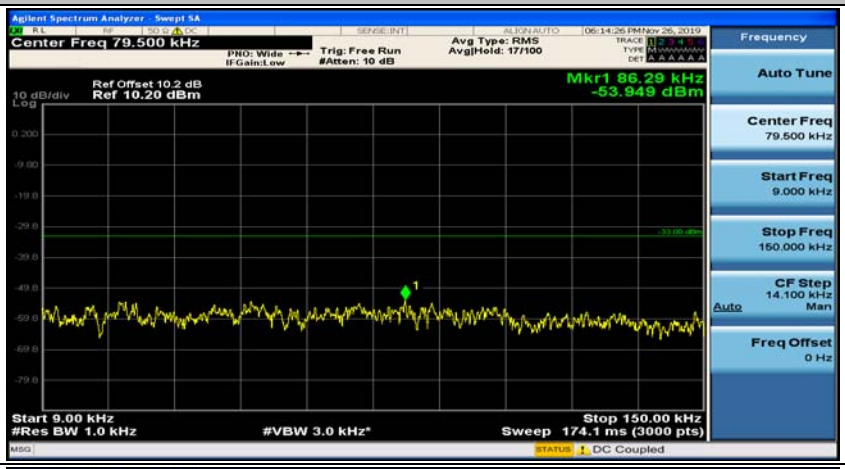
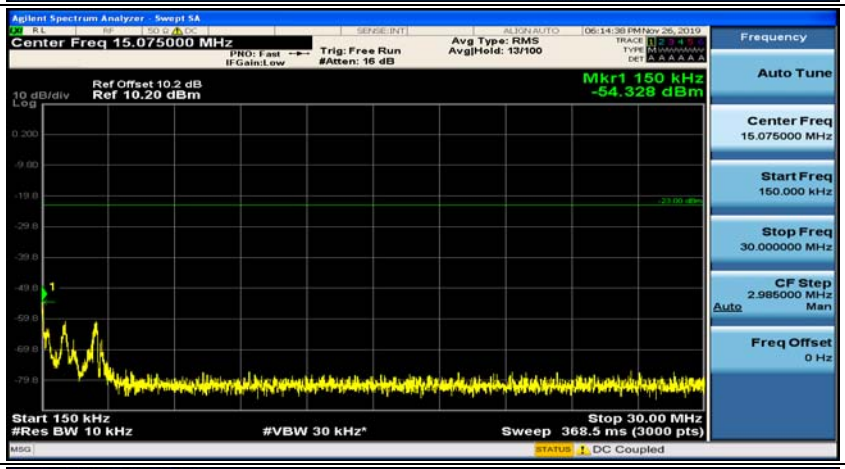
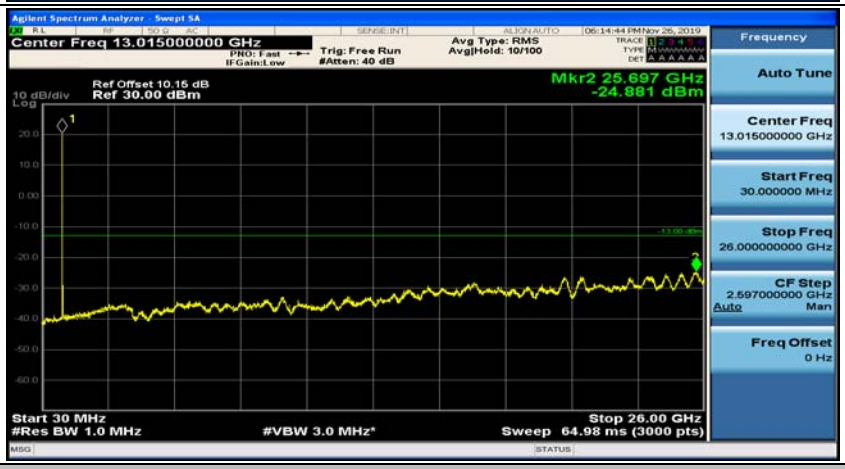
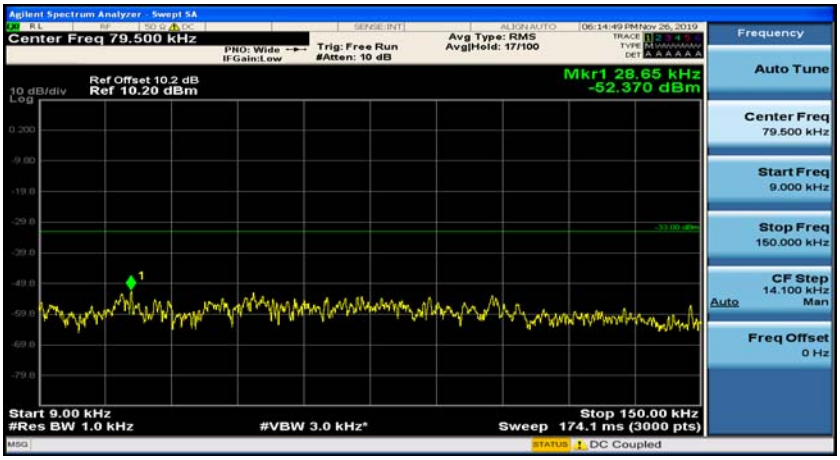
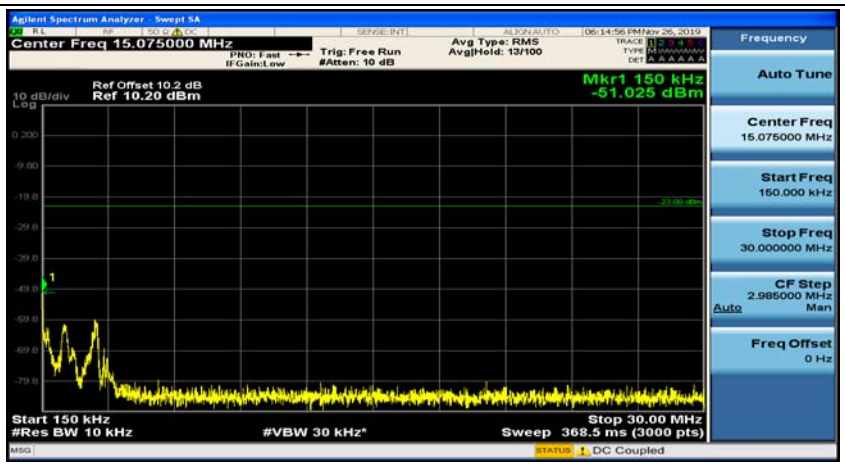
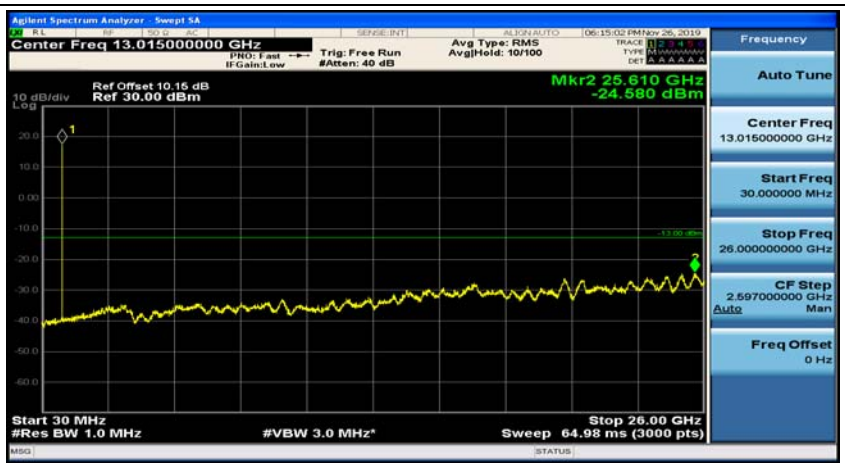
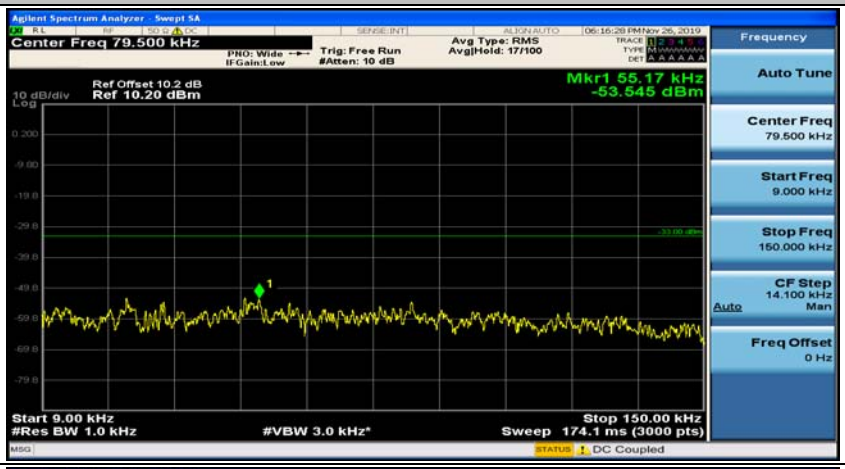
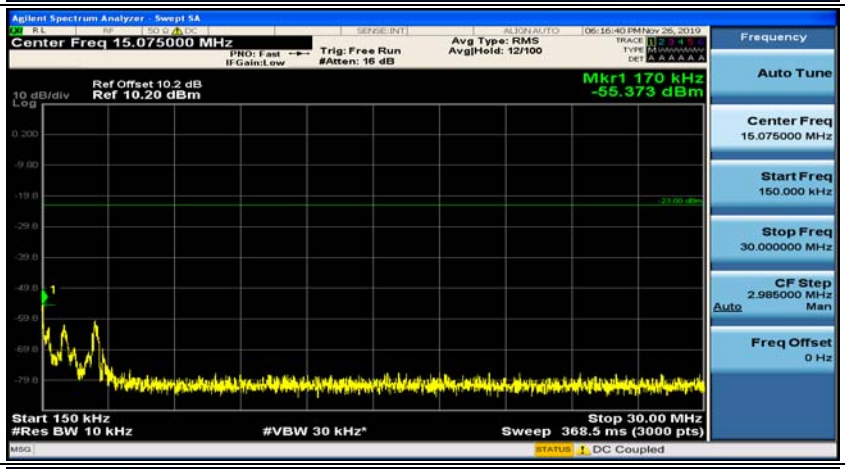
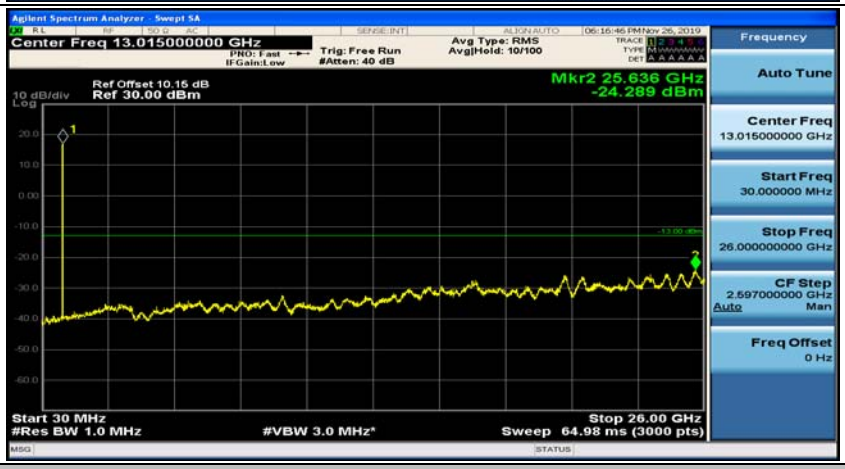
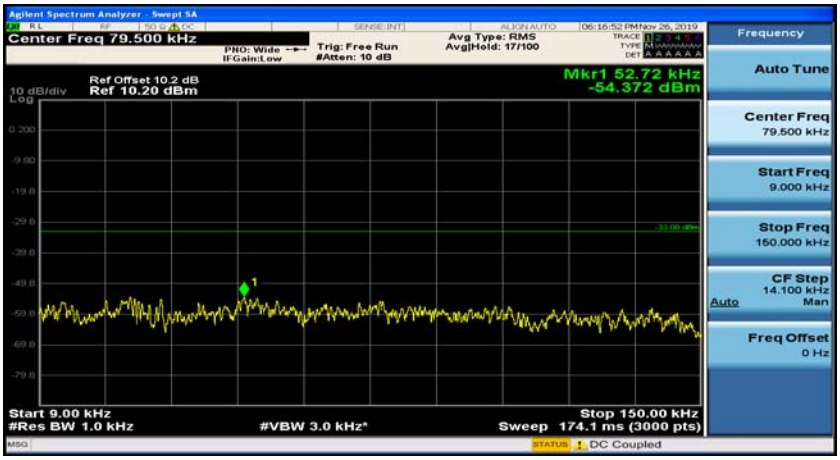
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

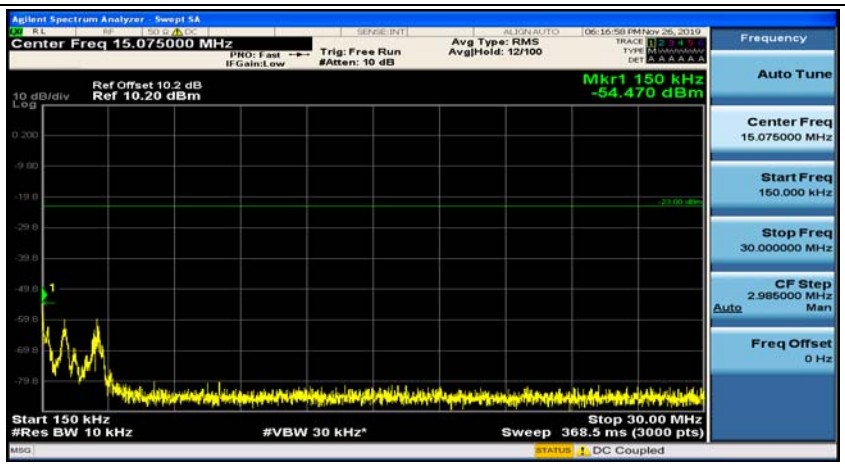

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:14:49 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 28.65 kHz
-52.370 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

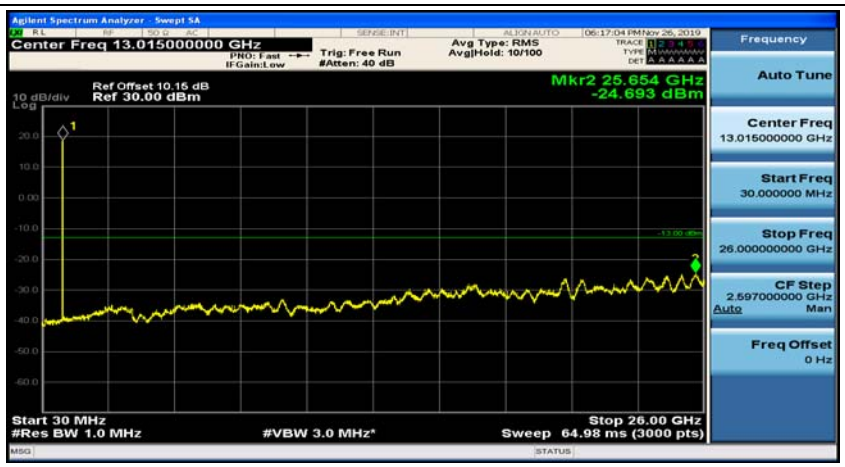

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 13/100
06:14:56 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-51.025 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:15:02 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.610 GHz
-24.580 dBm
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)

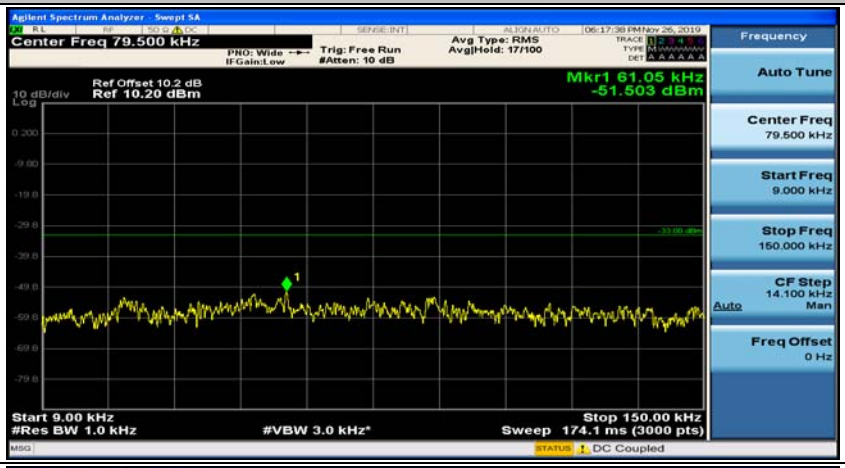
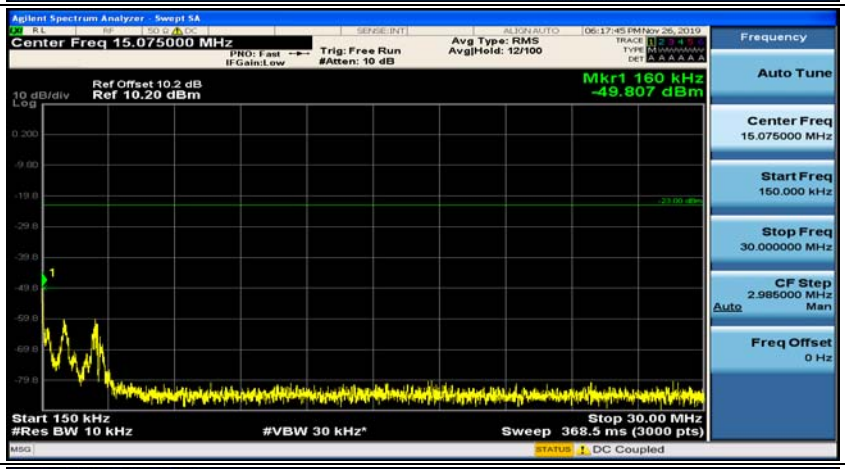
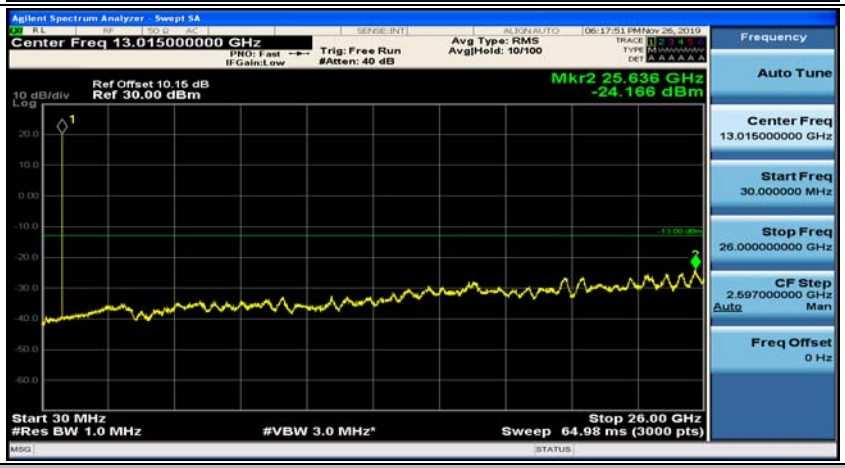
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

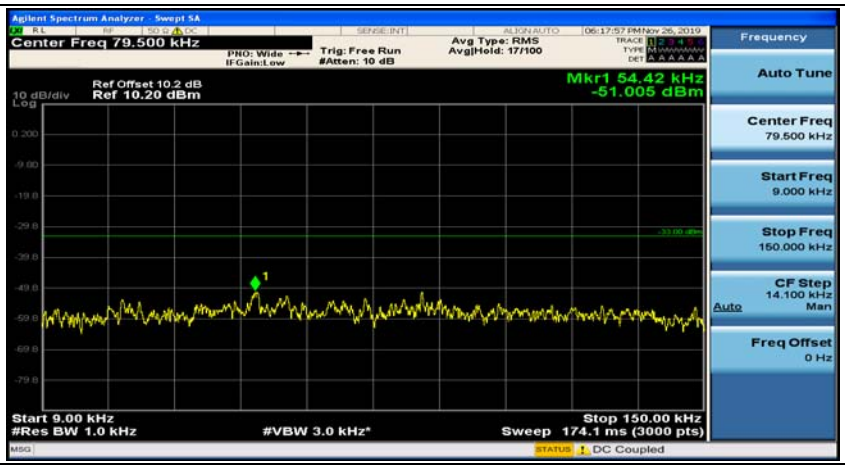

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:16:52 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 52.72 kHz
-54.372 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

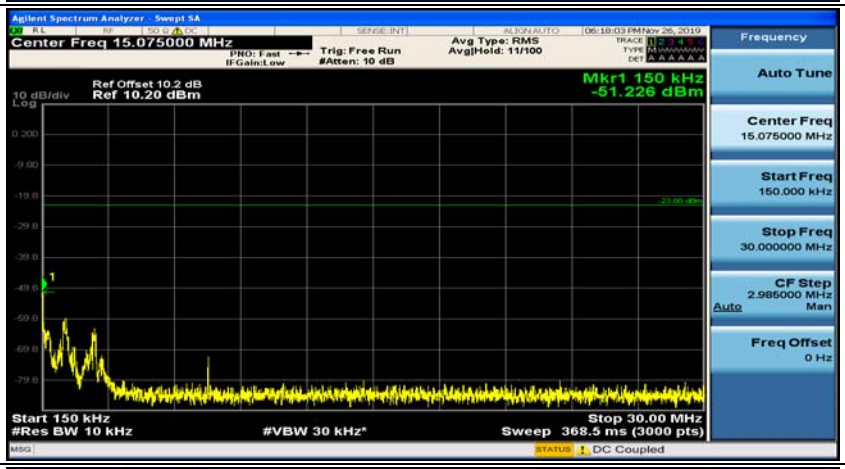

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:16:58 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-54.470 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:17:04 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.654 GHz
-24.693 dBm
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)

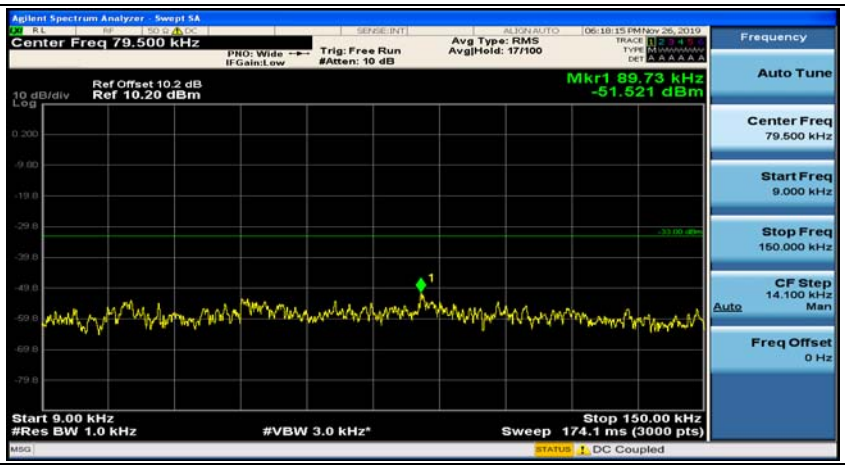
Channel Bandwidth: 5 MHz

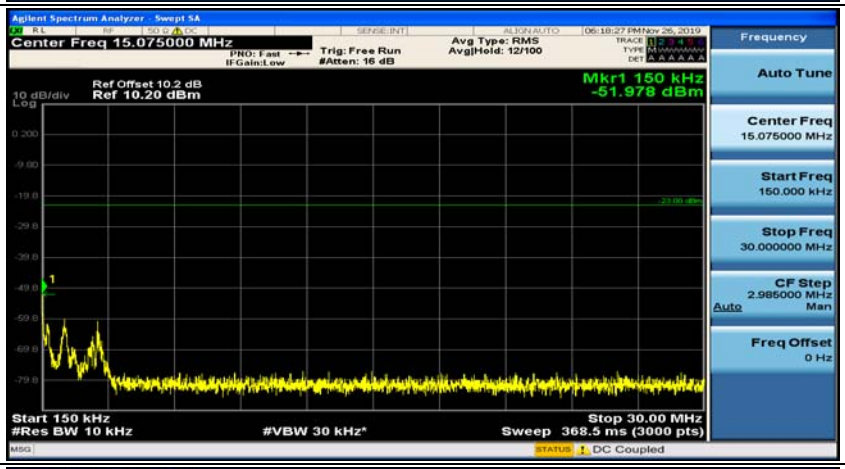
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

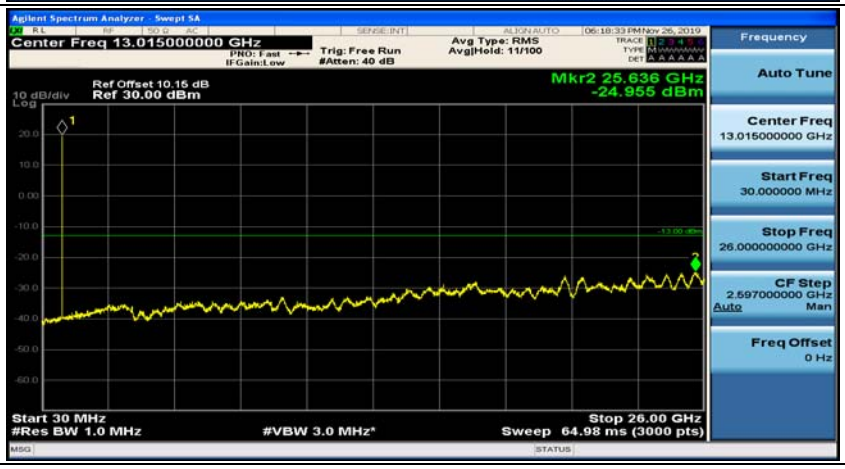


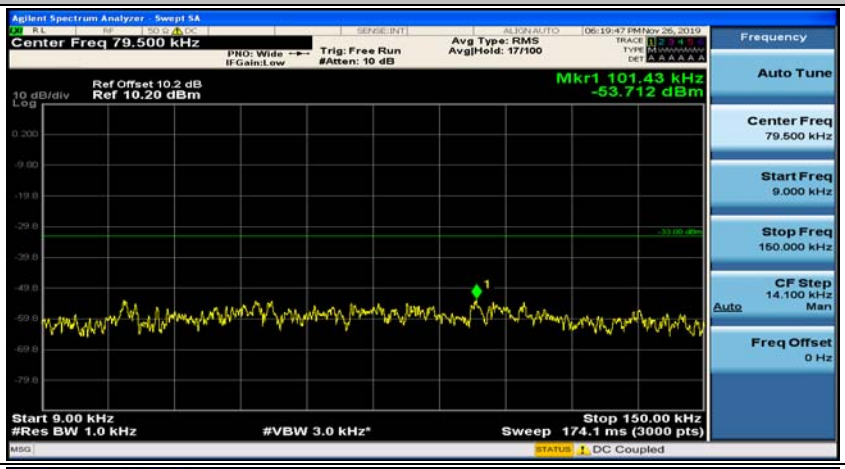
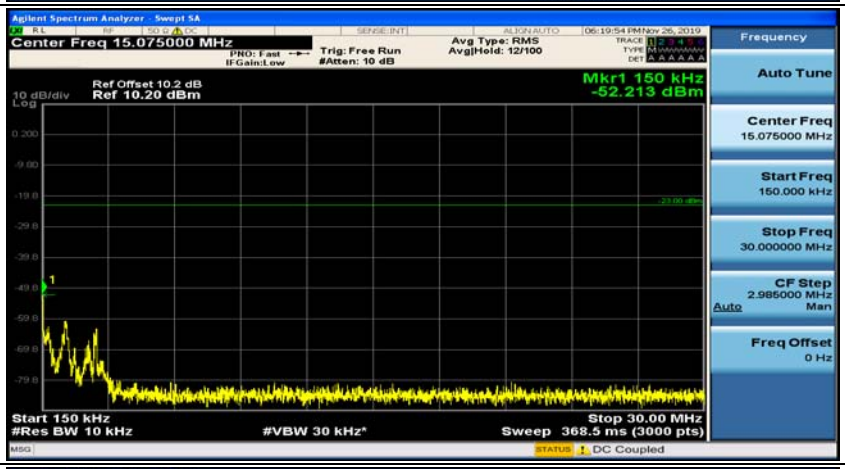
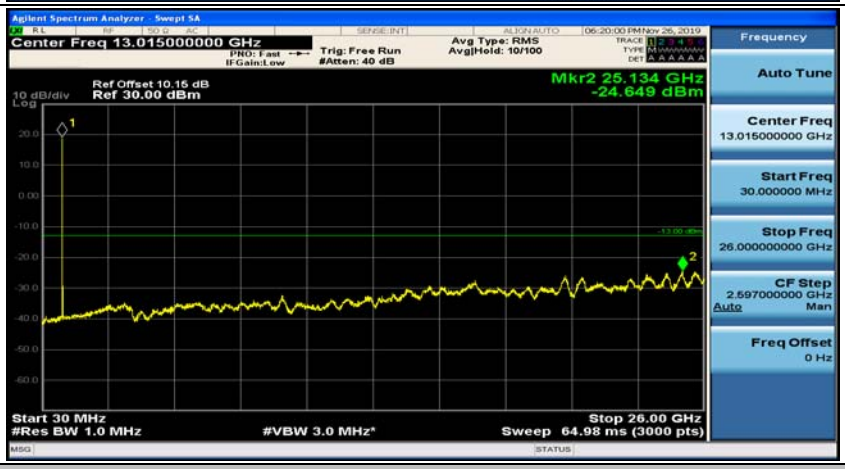


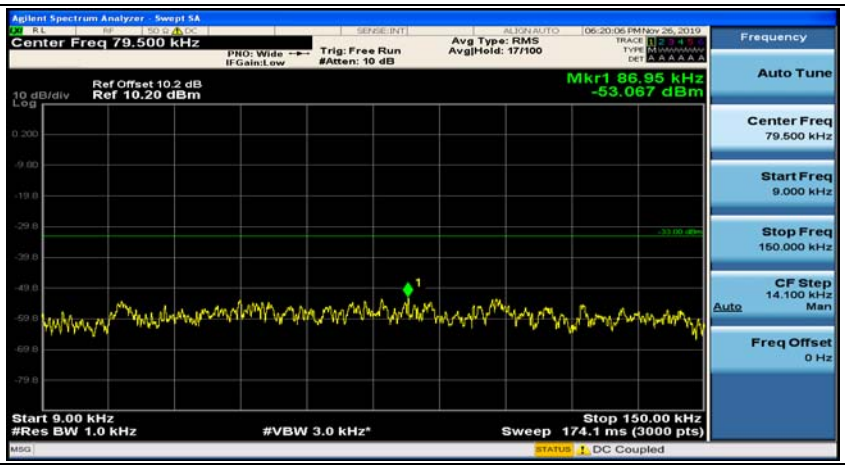
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

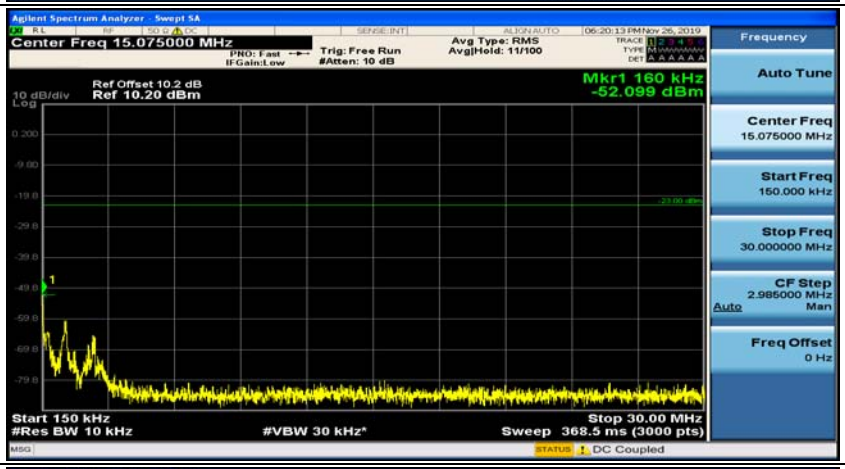

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:18:15 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 89.73 kHz
-51.521 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

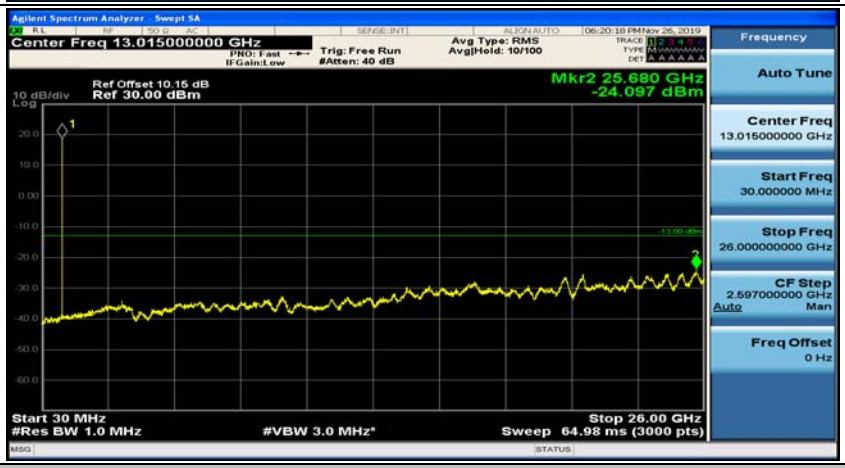

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:18:27 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 150 kHz
-51.978 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:18:33 PM Nov 26, 2019
Frequency
Ref Offset 10.15 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-24.955 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)

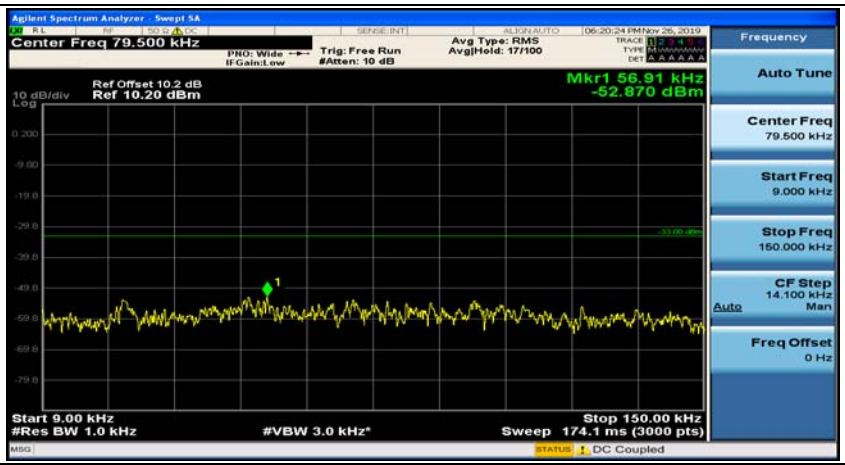
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

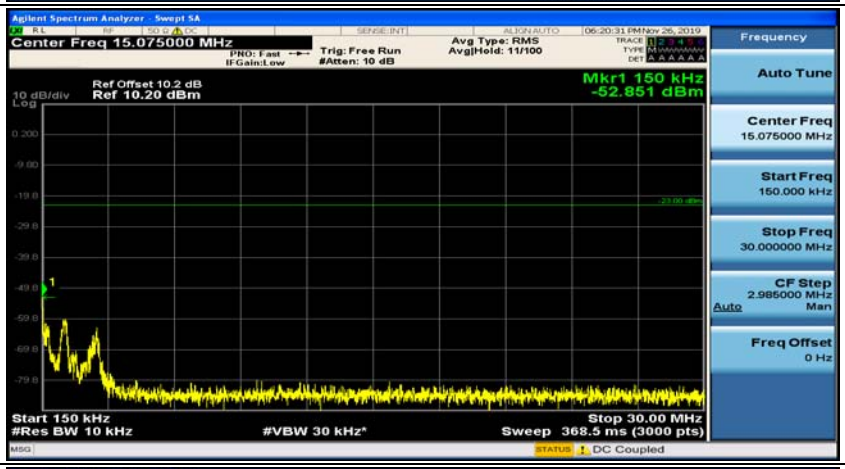


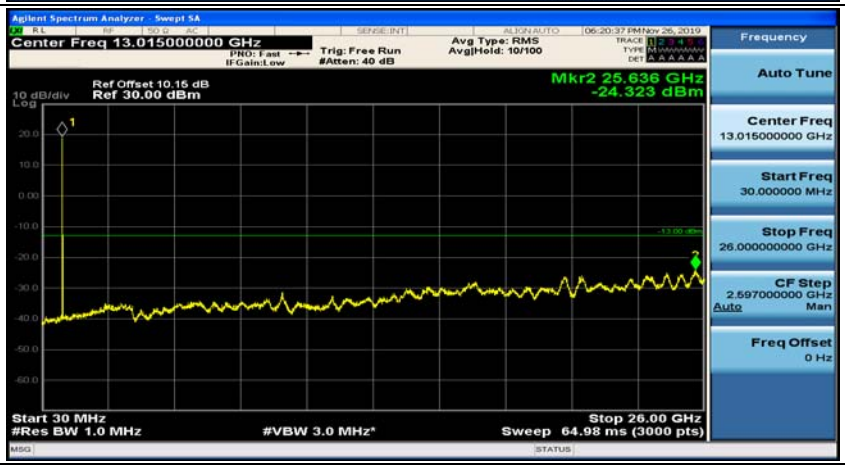


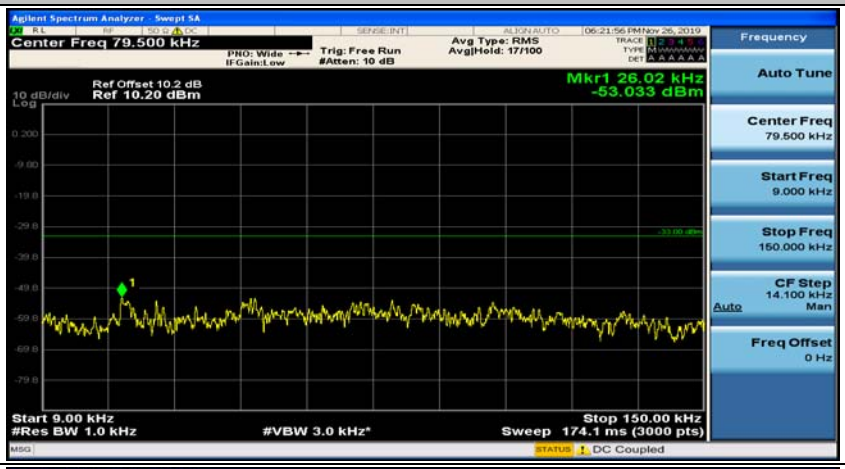
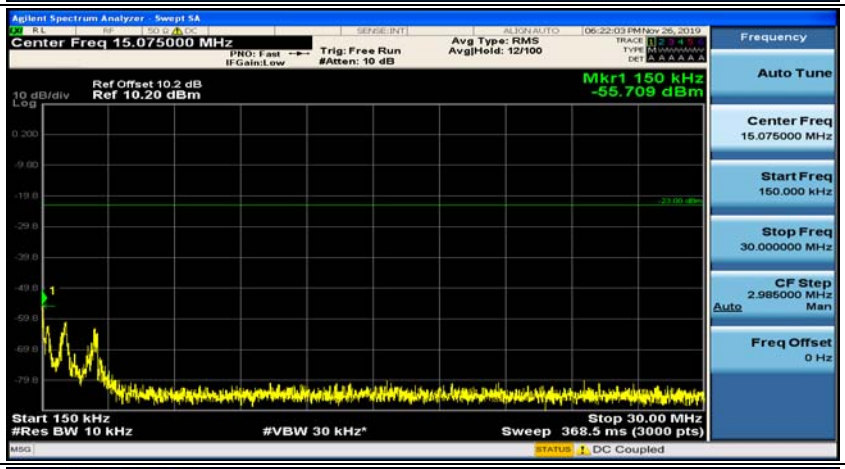
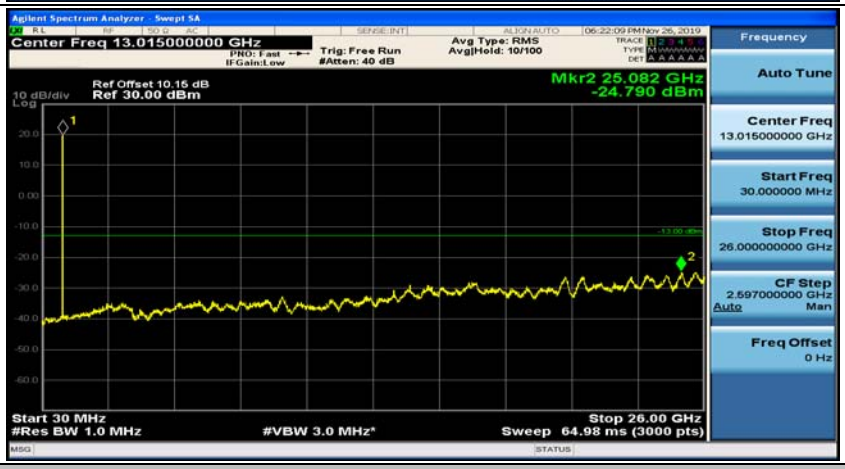


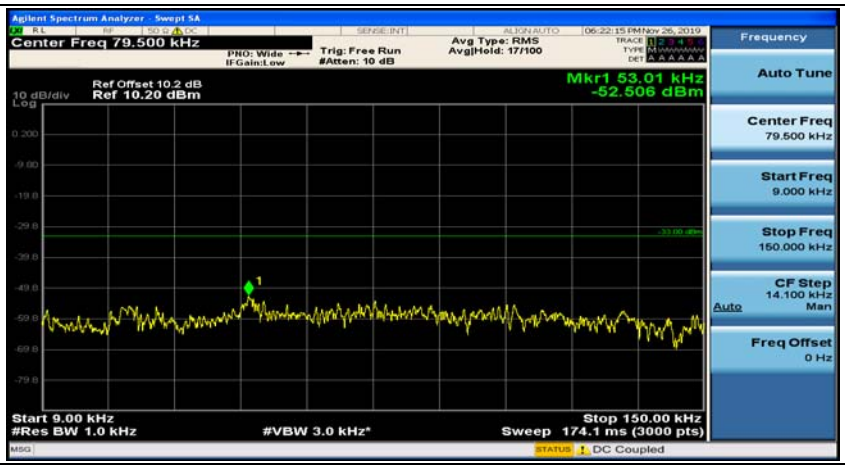
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

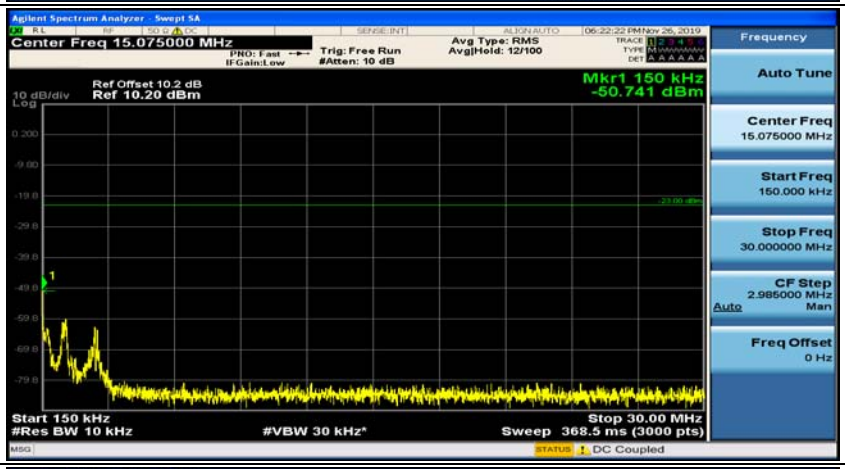

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:20:24 PM Nov 26, 2019
Frequency
Auto Tune
Mkr1 56.91 kHz
-52.870 dBm
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

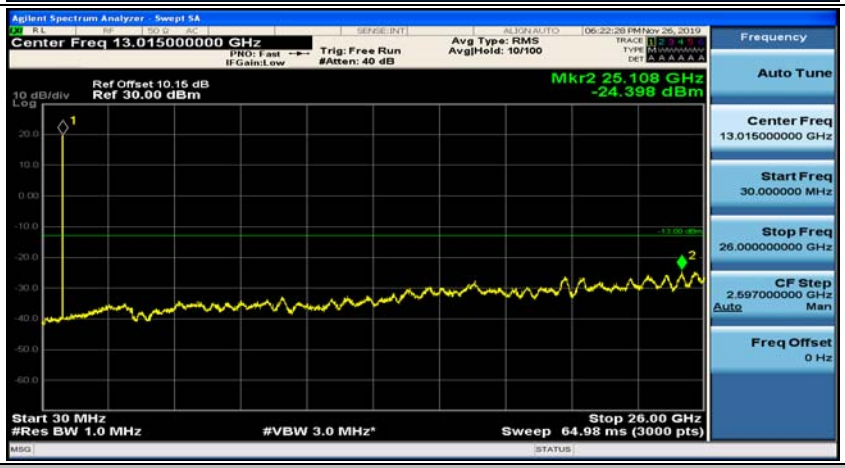

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:20:31 PM Nov 26, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-52.851 dBm
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:20:37 PM Nov 26, 2019
Frequency
Auto Tune
Mkr2 25.636 GHz
-24.323 dBm
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
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)

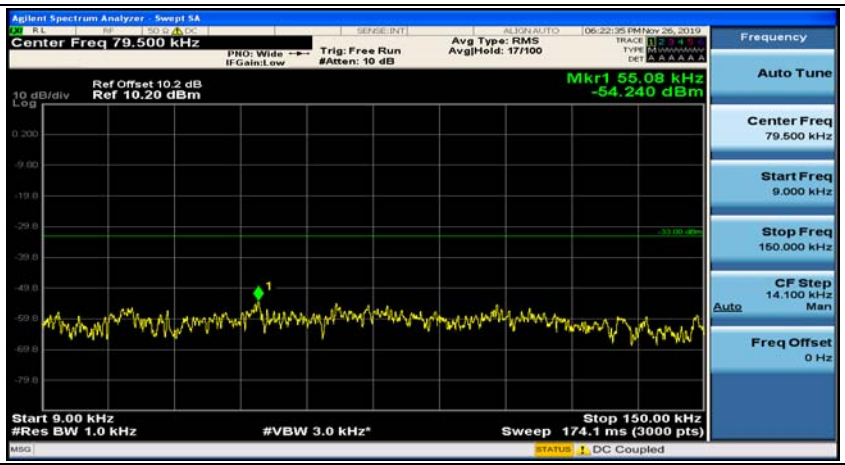
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

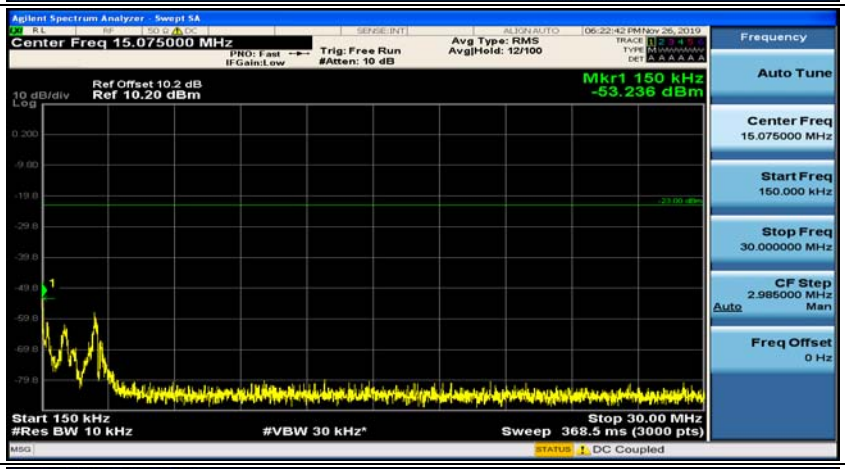


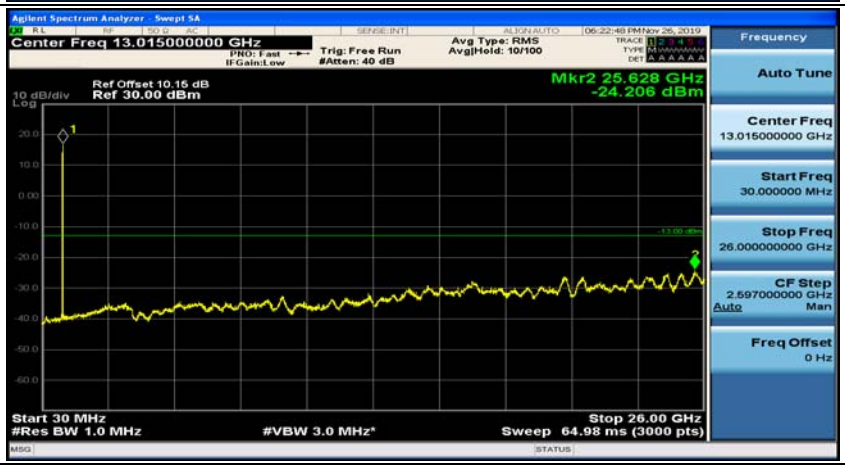


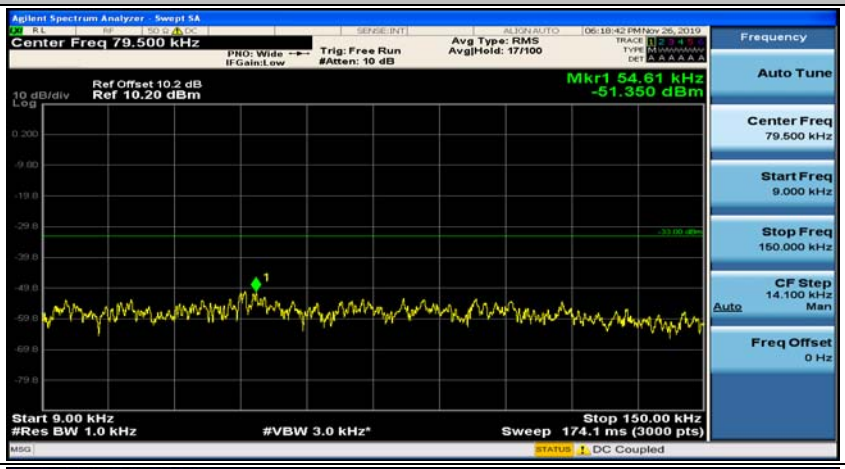
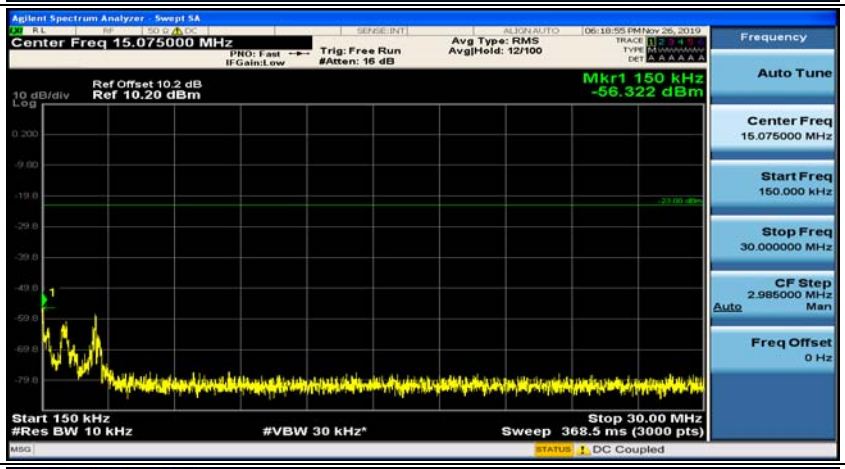
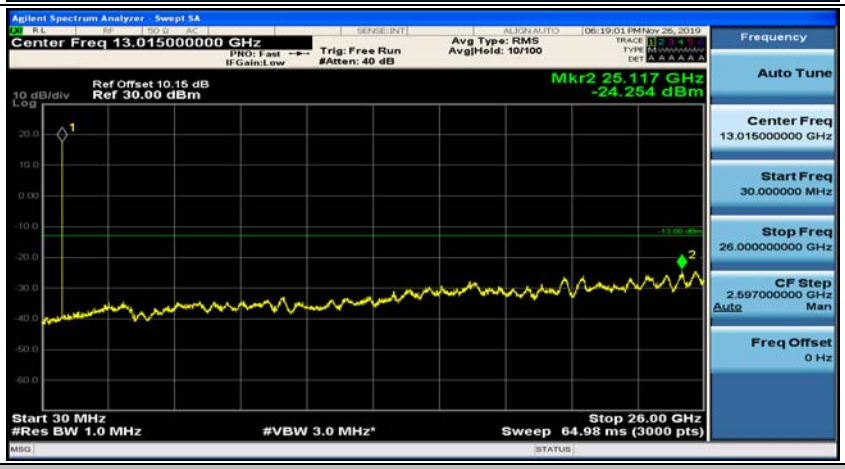


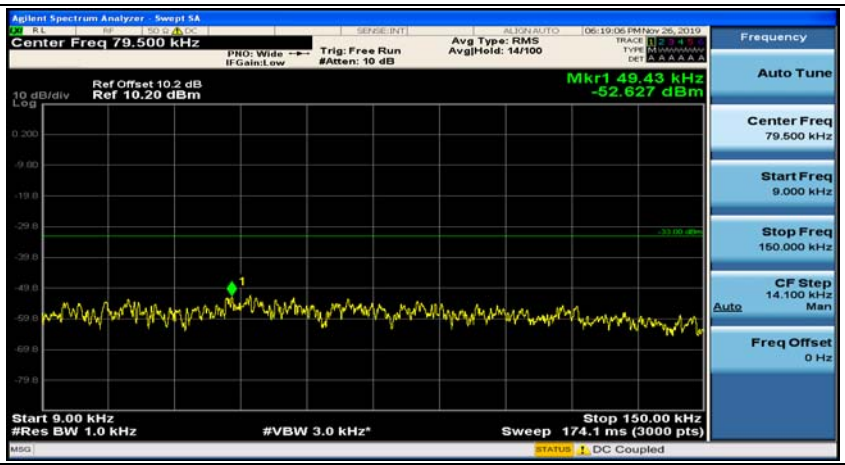
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

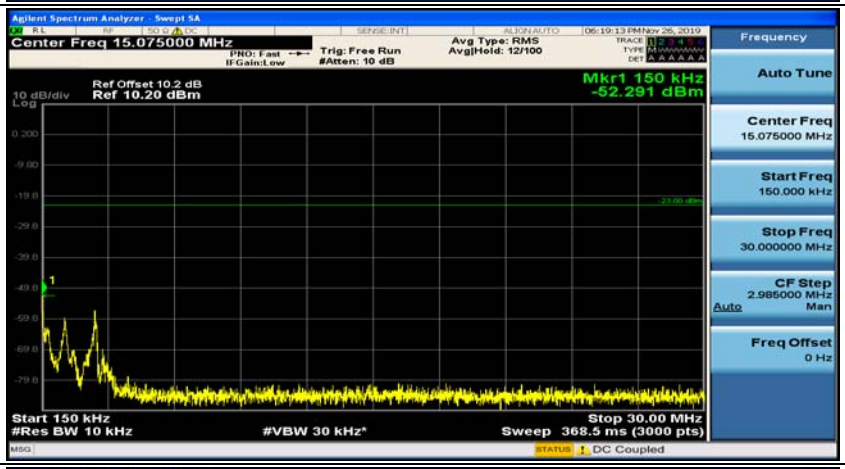

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:22:35 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 55.08 kHz
-54.240 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:22:42 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 150 kHz
-53.236 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

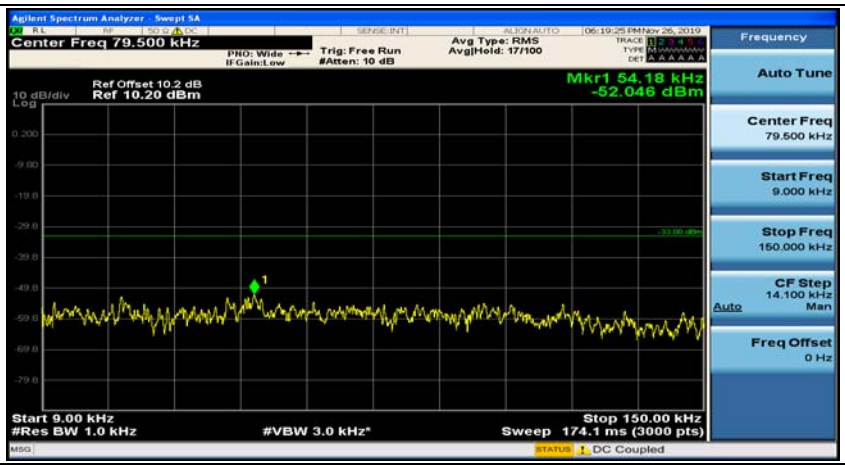

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:22:48 PM Nov 26, 2019
Frequency
Ref Offset 10.15 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.628 GHz
-24.206 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
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)

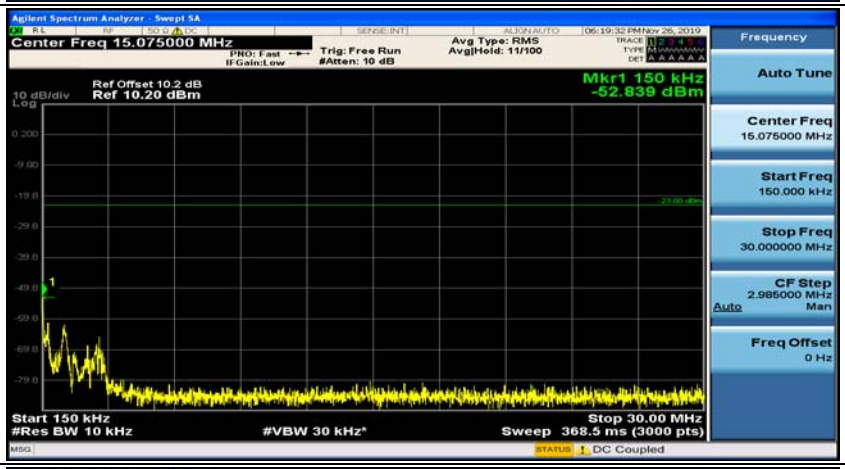
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

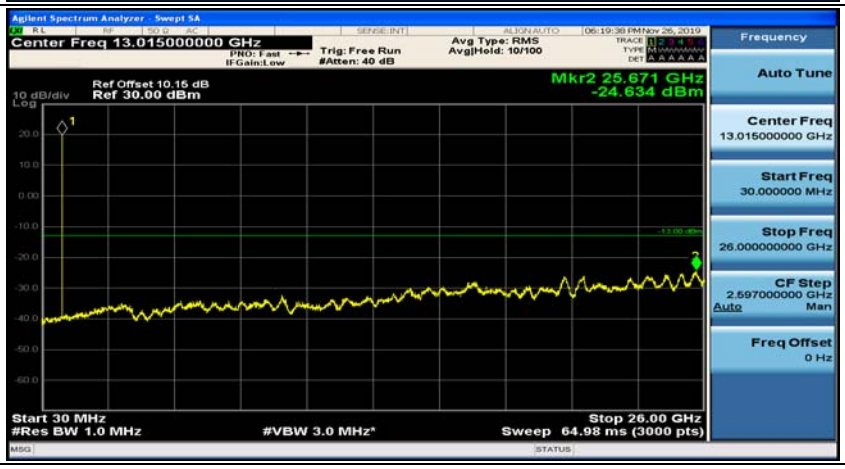


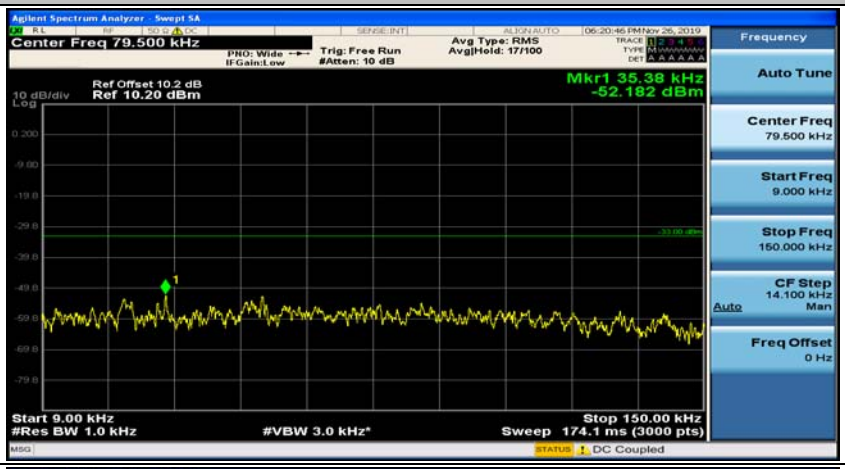
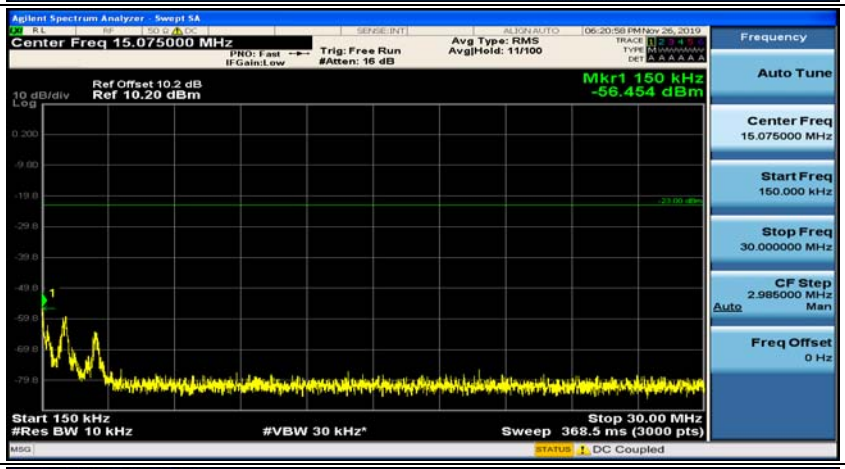
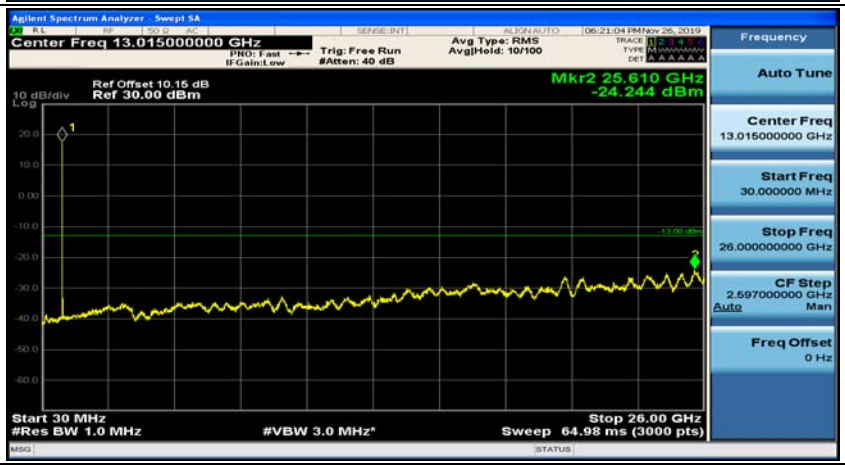


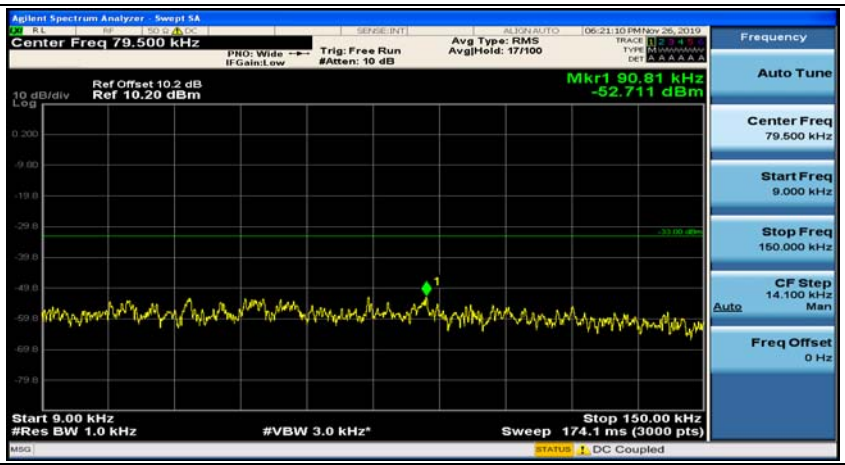
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

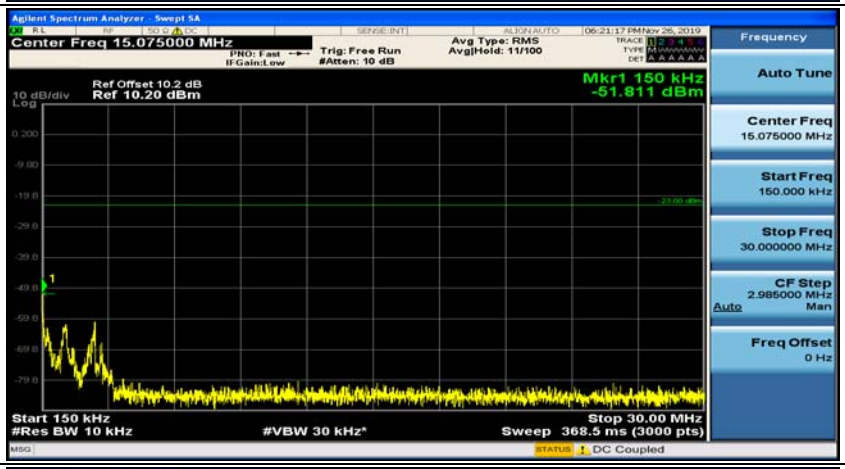

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:19:25 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 54.18 kHz
-52.046 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:19:32 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-52.839 dBm
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

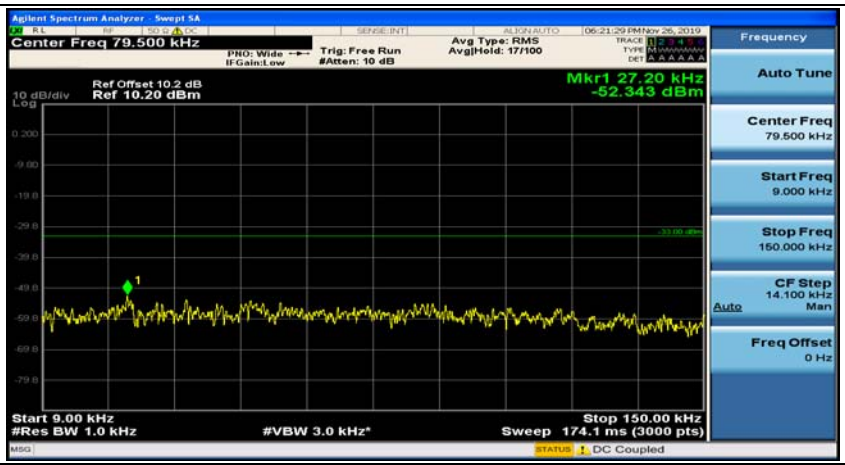

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:19:38 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.671 GHz
-24.634 dBm
Center Freq
13.015000000 GHz
Start 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)

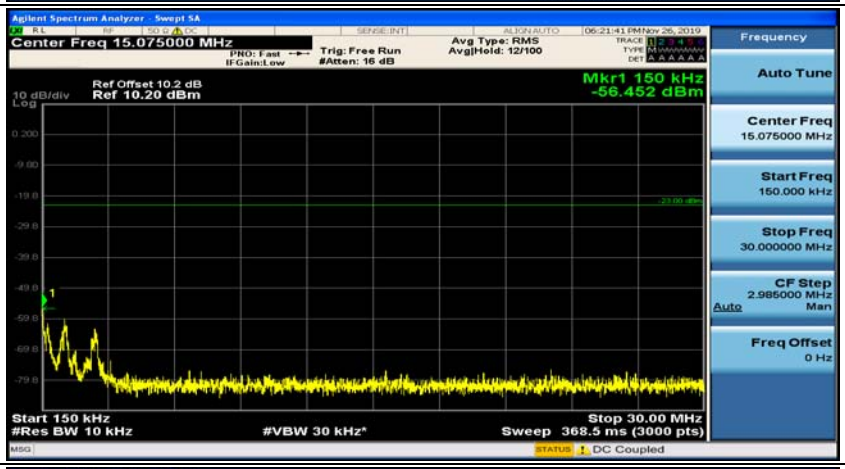
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

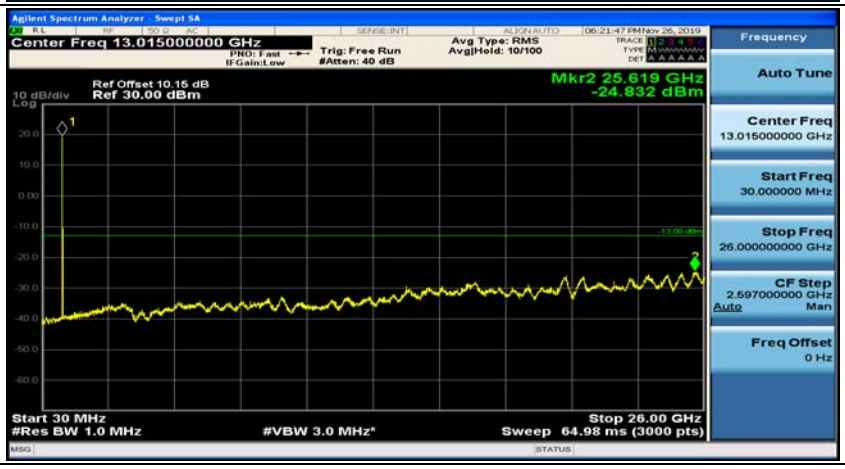


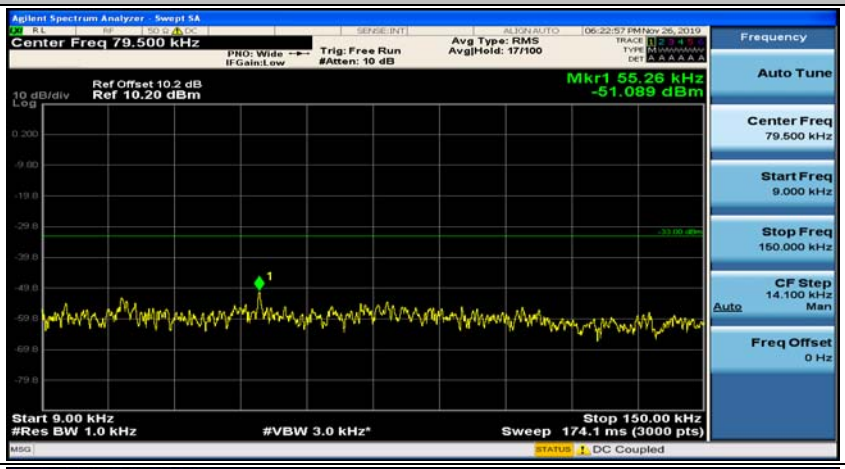
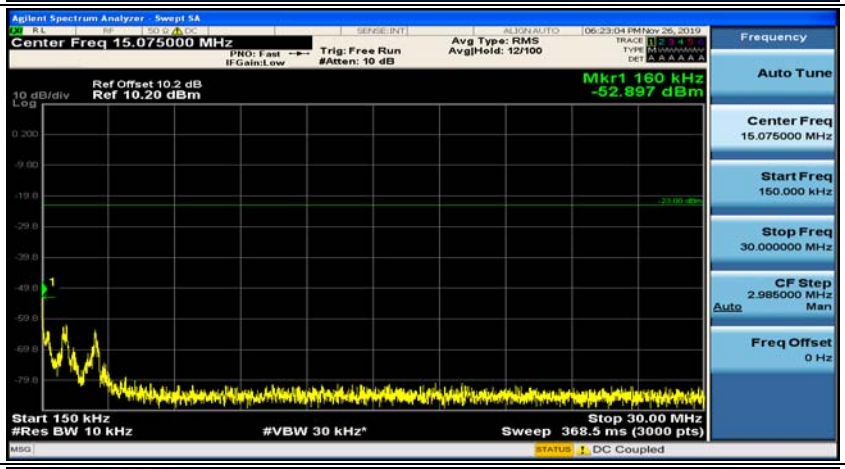
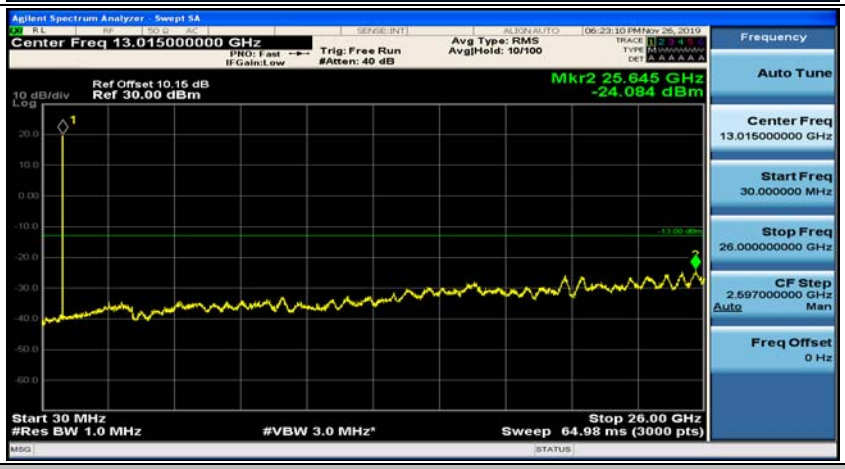


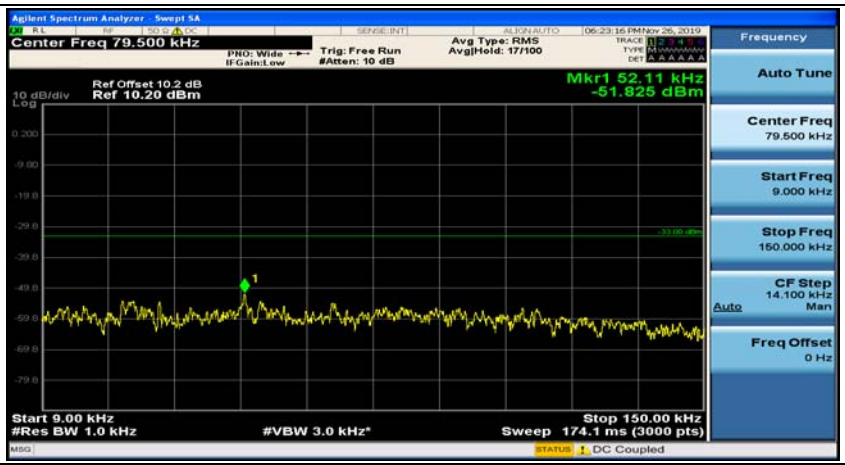
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

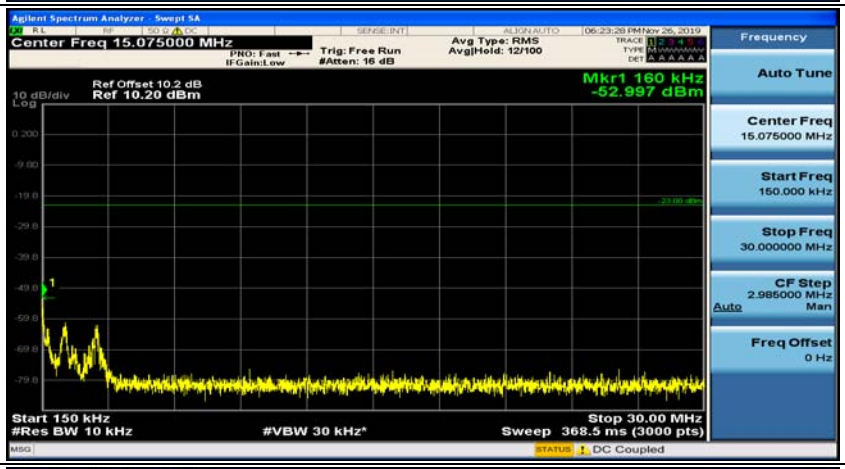

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:21:29 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 27.20 kHz
-52.343 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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
06:21:41 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-56.452 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

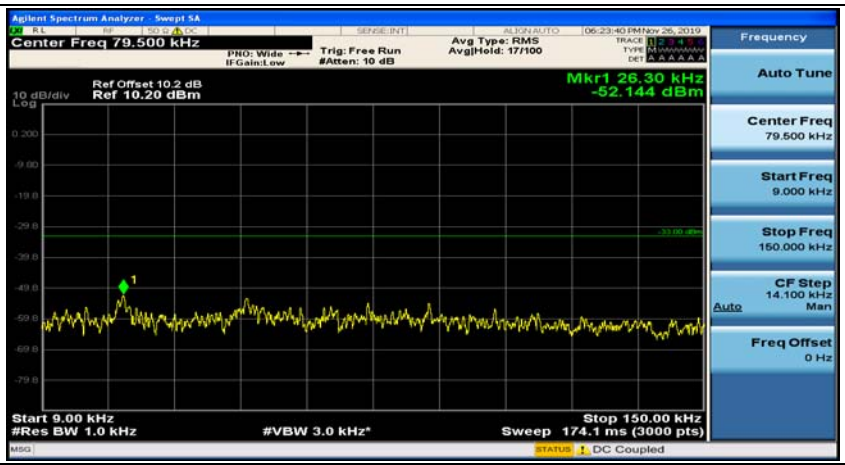

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:21:47 PM Nov 26, 2019
Frequency
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.619 GHz
-24.832 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start 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)

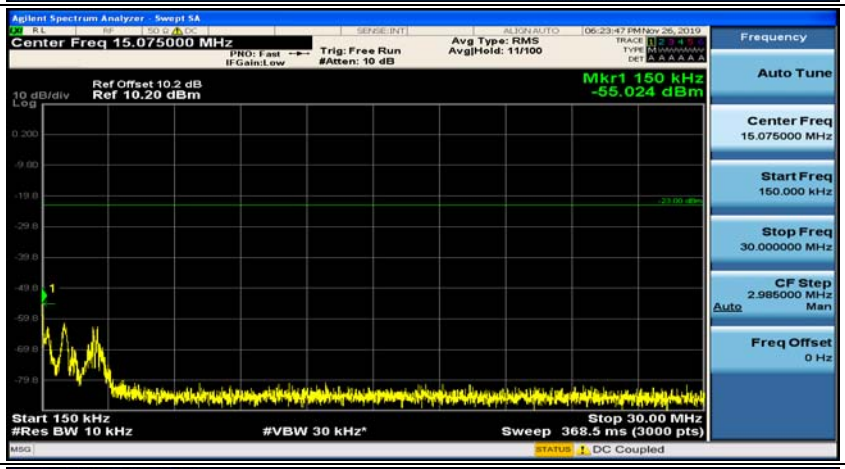
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

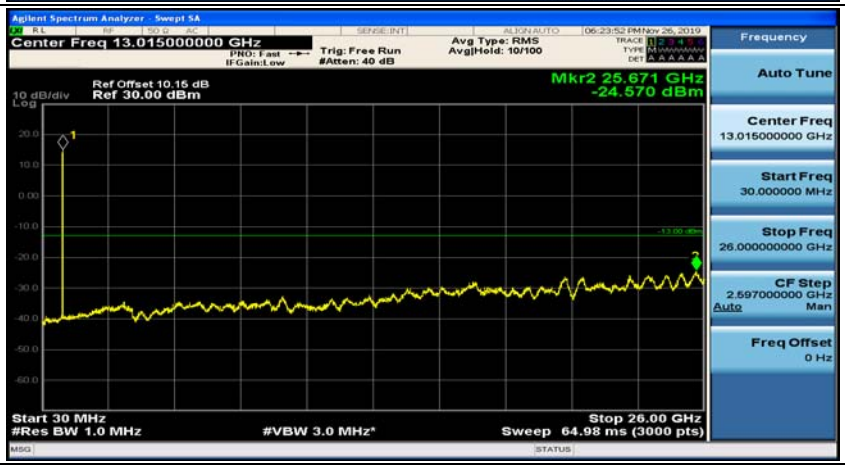




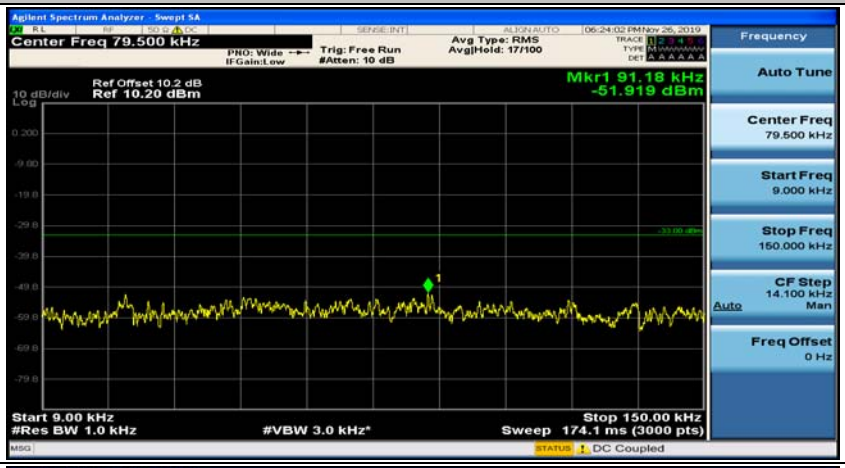
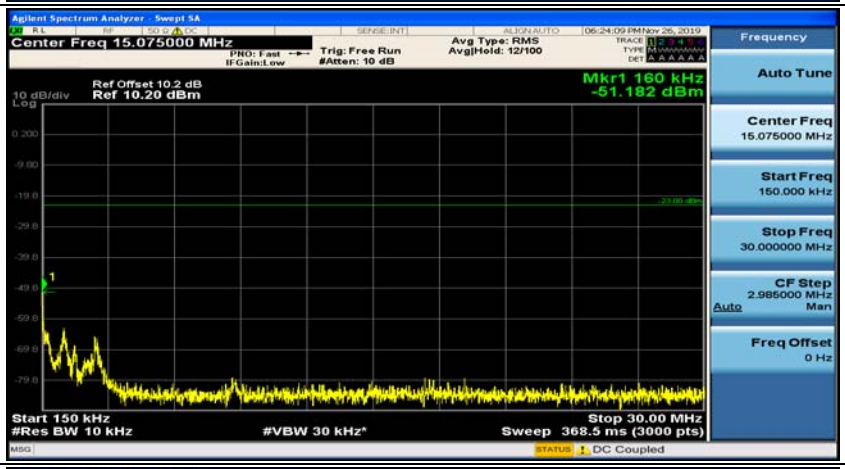
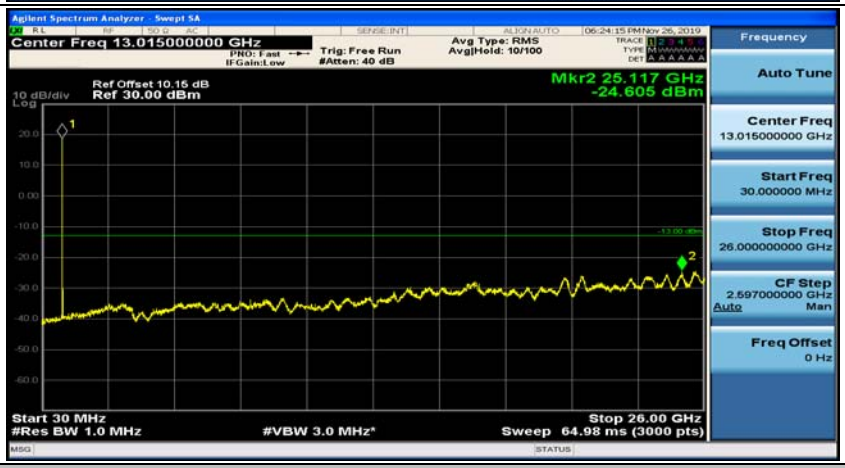
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

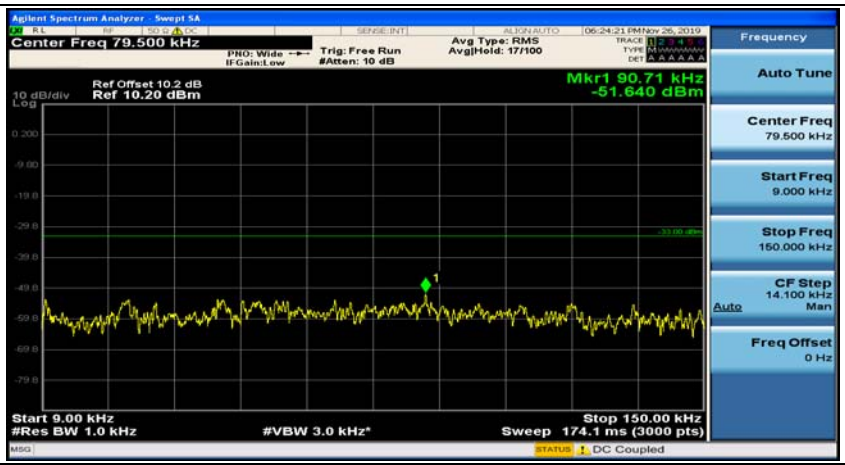

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:23:40 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 26.30 kHz
-52.144 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

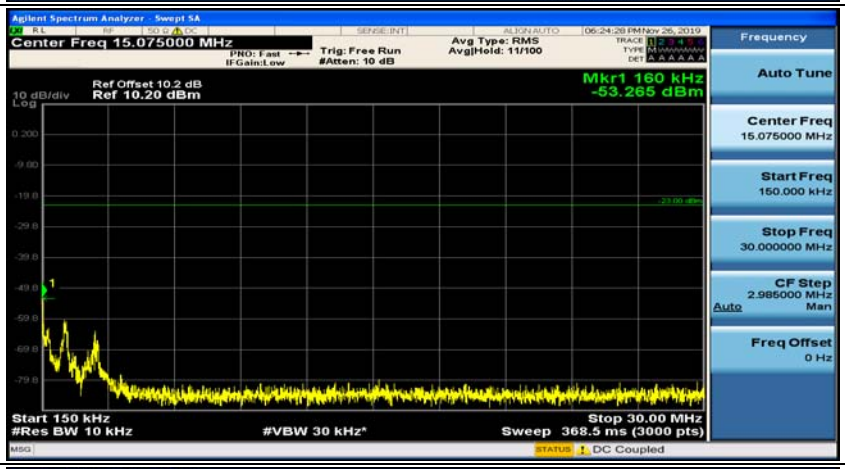

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:23:47 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-55.024 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:23:52 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.671 GHz
-24.570 dBm
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)

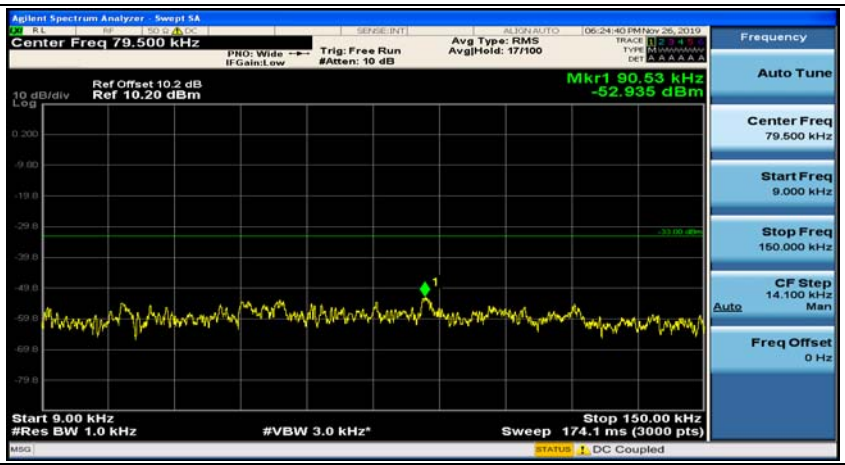
Channel Bandwidth: 10 MHz

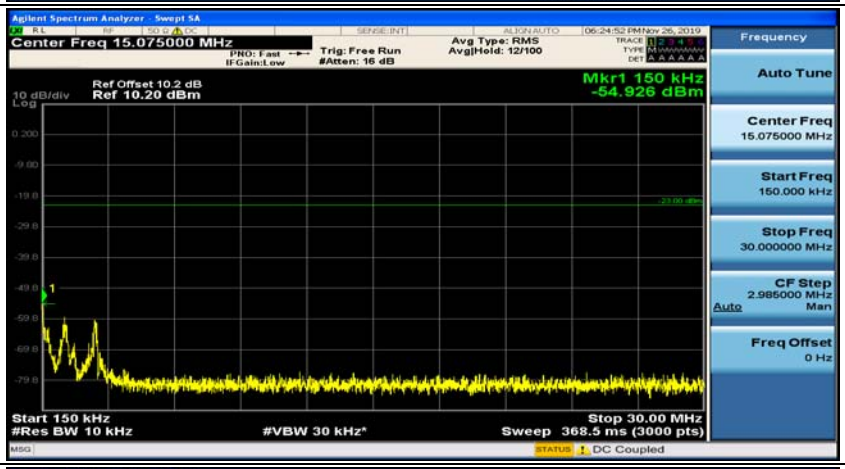
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

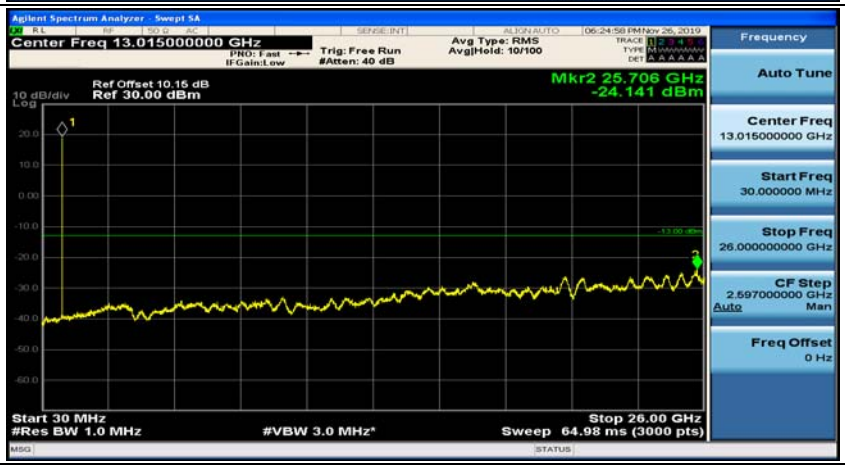


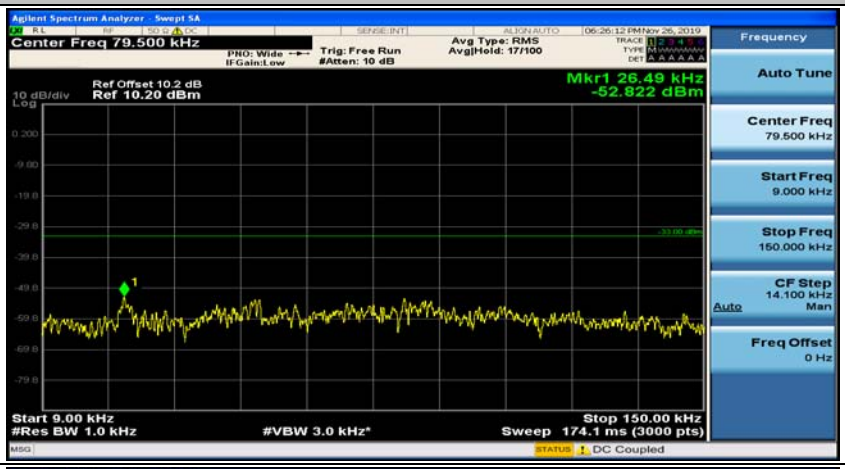
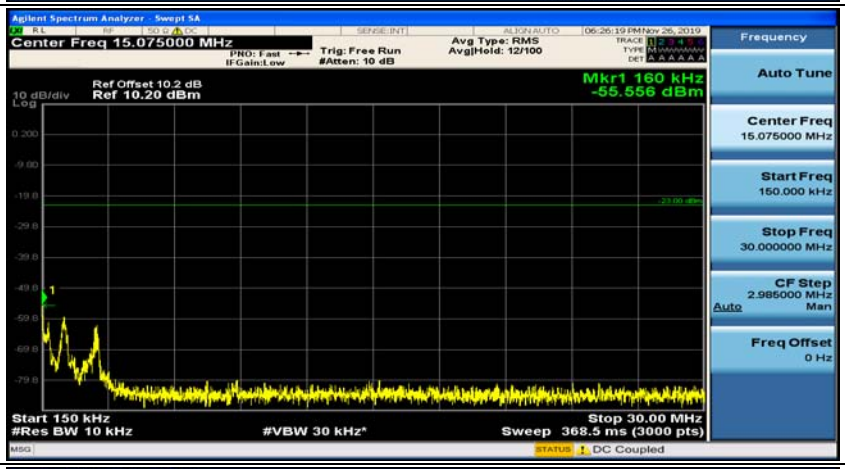
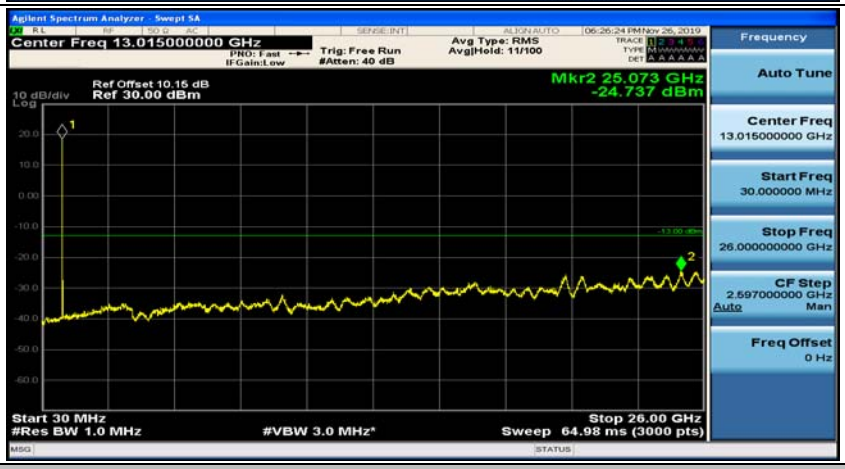


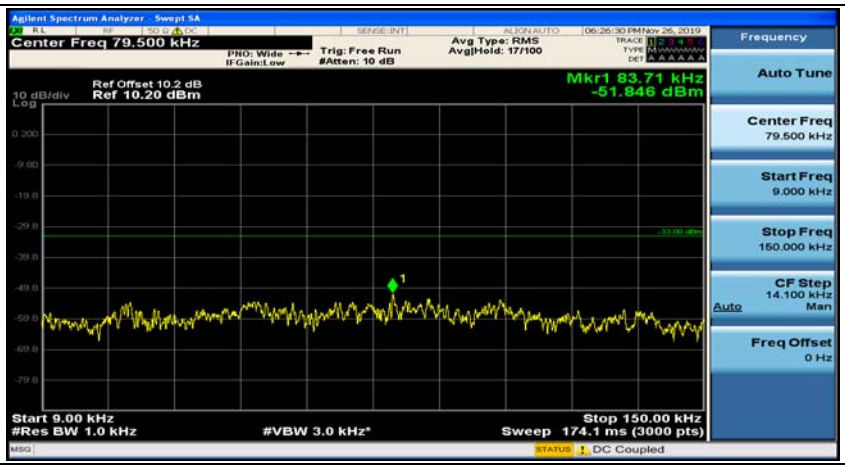
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

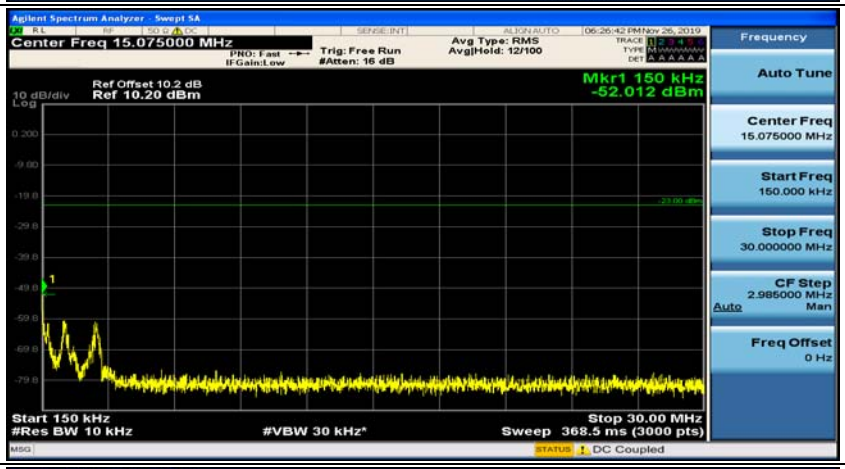

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:24:40 PM Nov 26, 2019
Frequency
Auto Tune
Mkr1 90.53 kHz
-52.935 dBm
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

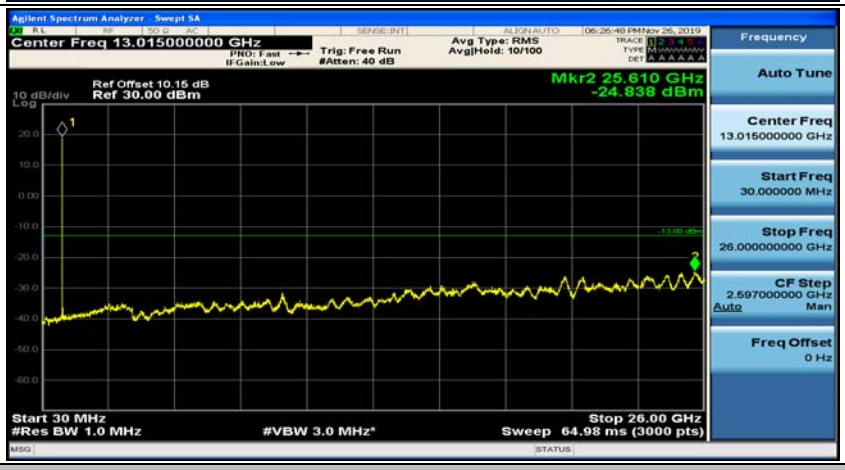

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:24:52 PM Nov 26, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-54.926 dBm
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:24:58 PM Nov 26, 2019
Frequency
Auto Tune
Mkr2 25.706 GHz
-24.141 dBm
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
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)

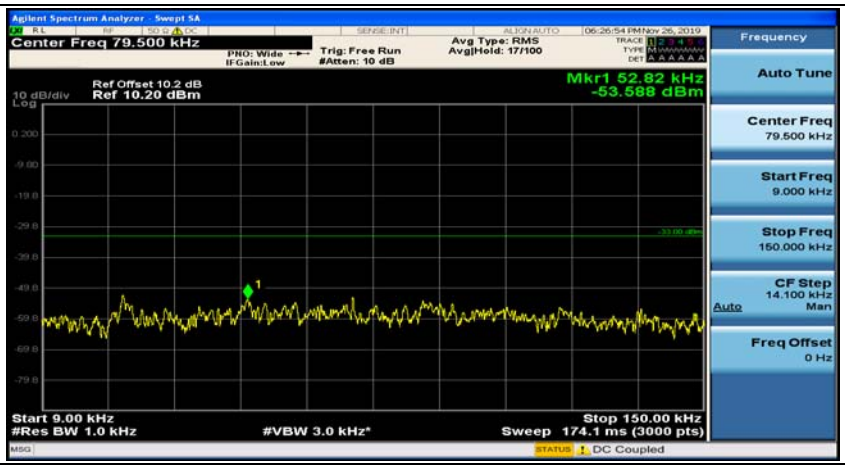
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

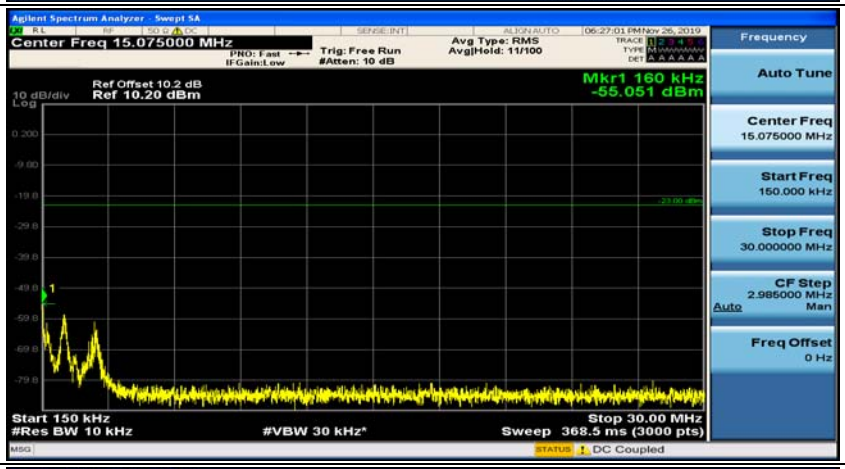


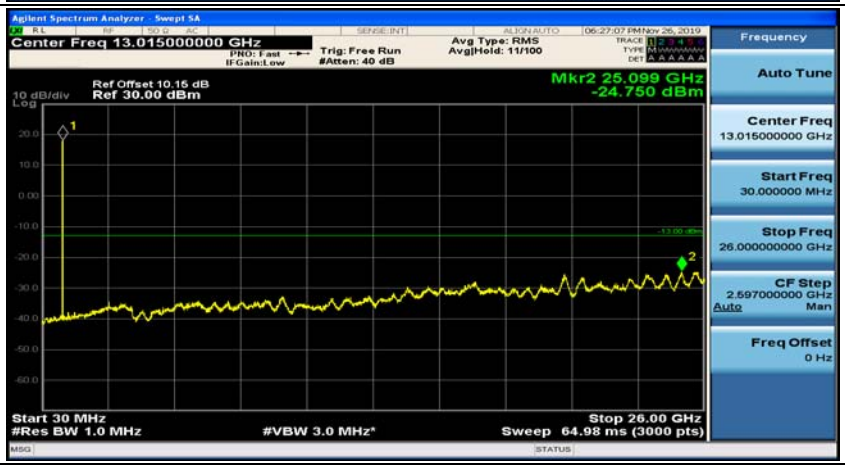


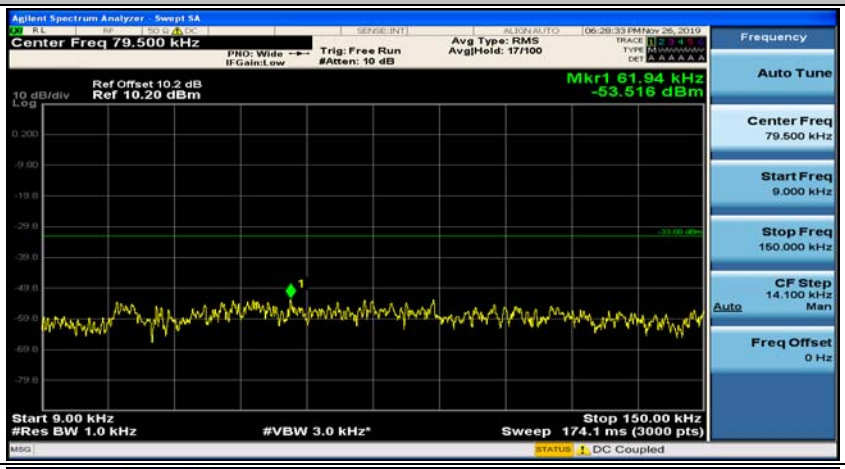
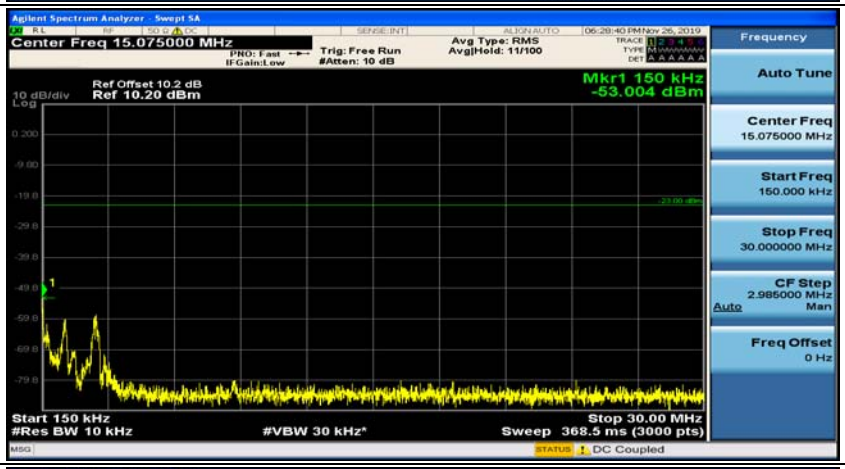
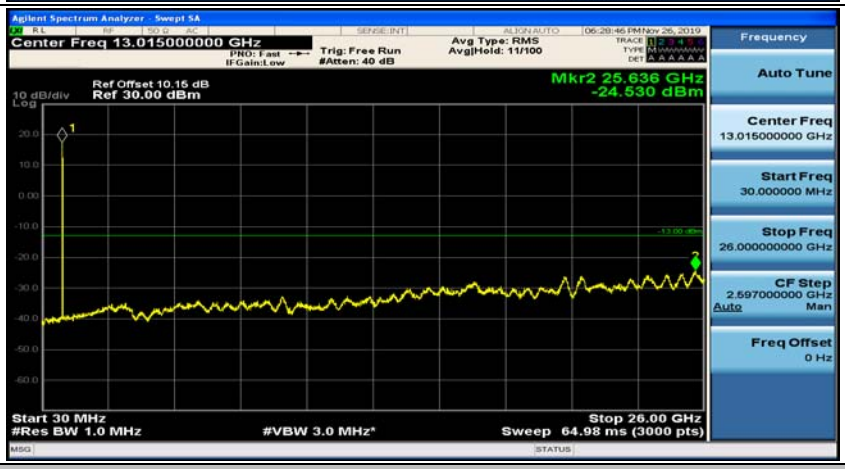


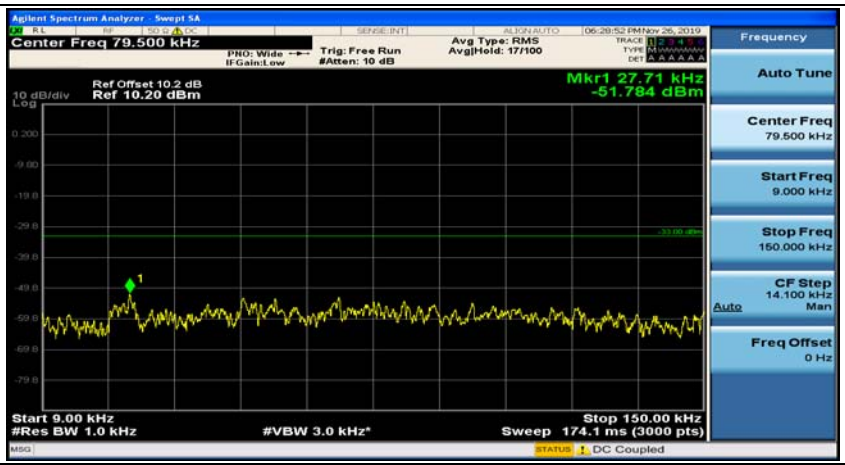
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

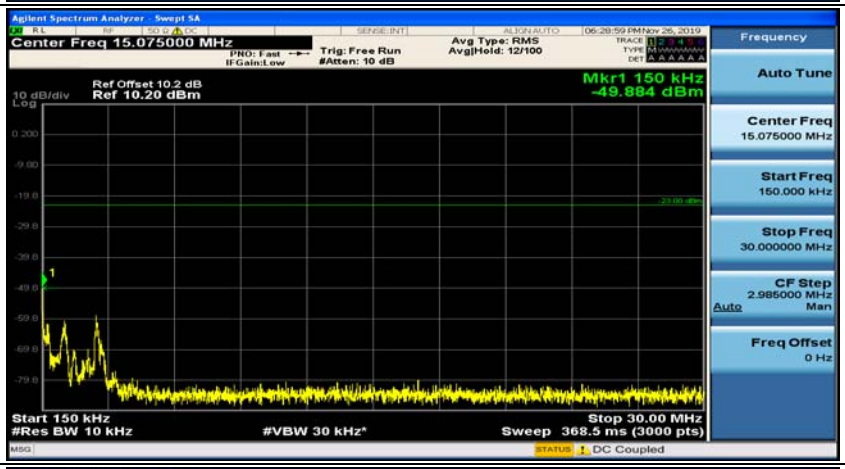

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:26:54 PM Nov 26, 2019
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 52.82 kHz
-53.588 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

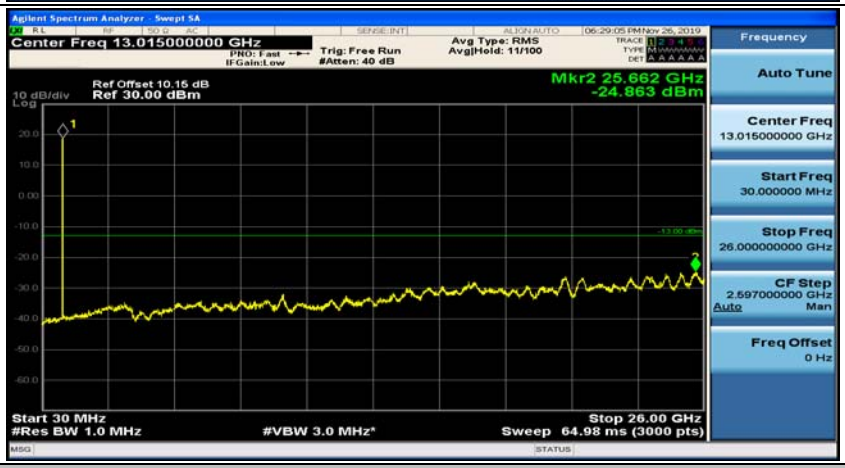

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:27:01 PM Nov 26, 2019
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 160 kHz
-55.051 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
06:27:07 PM Nov 26, 2019
Ref Offset 10.15 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.099 GHz
-24.750 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

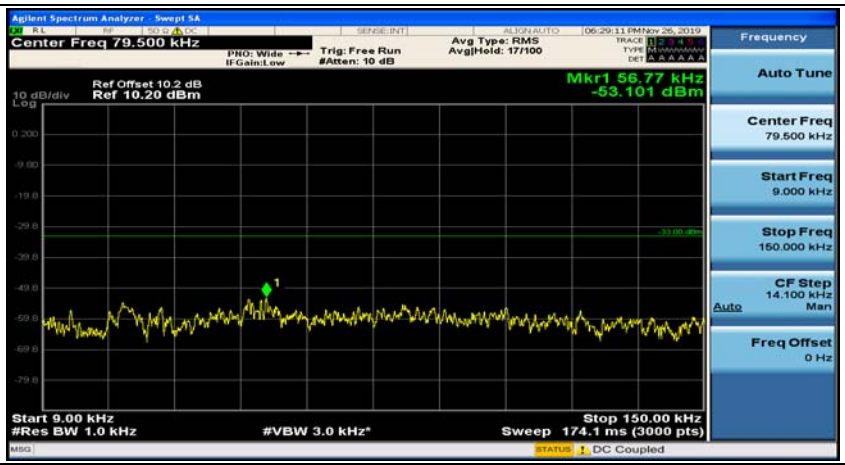
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

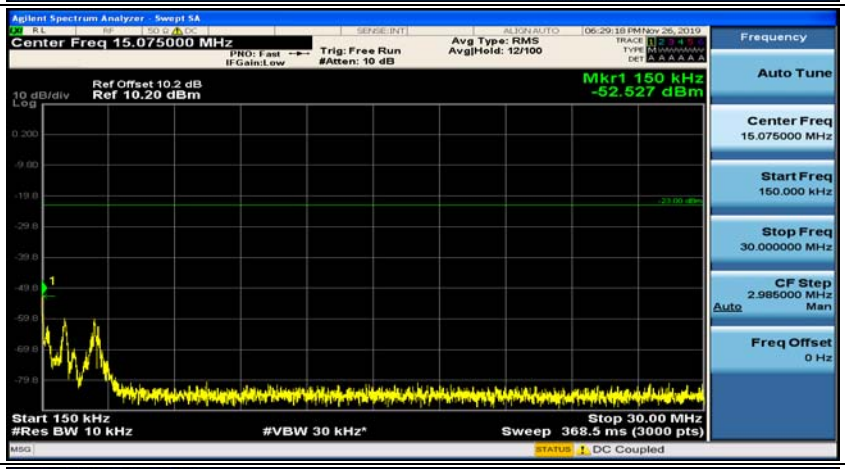


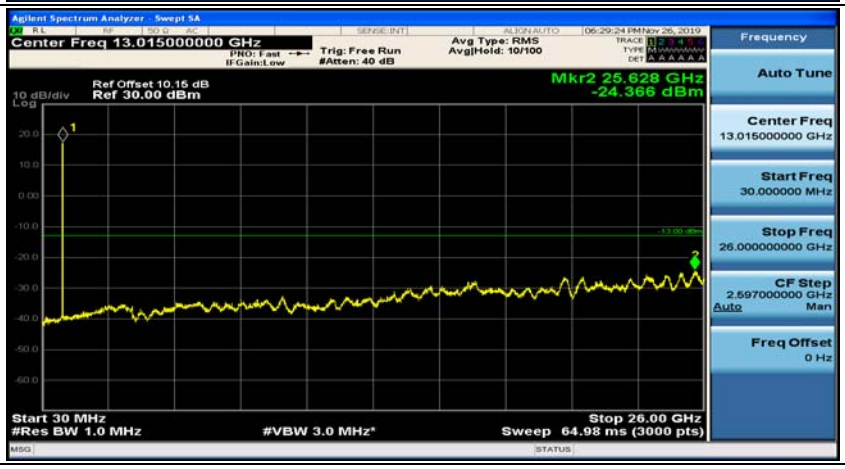


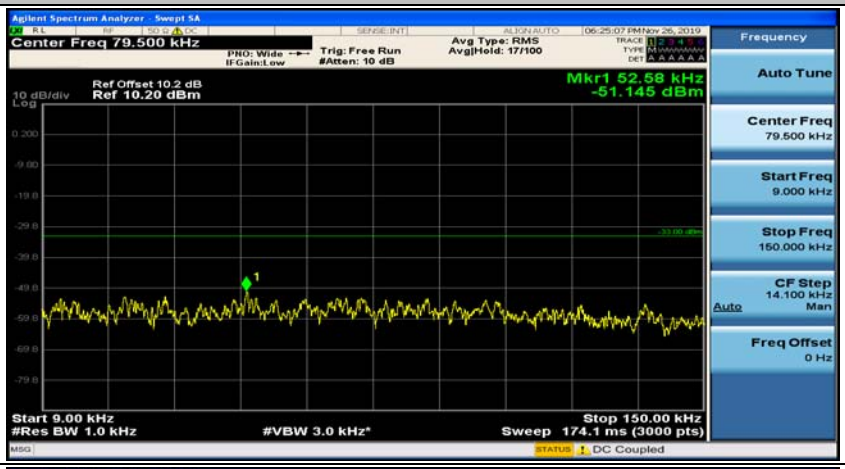
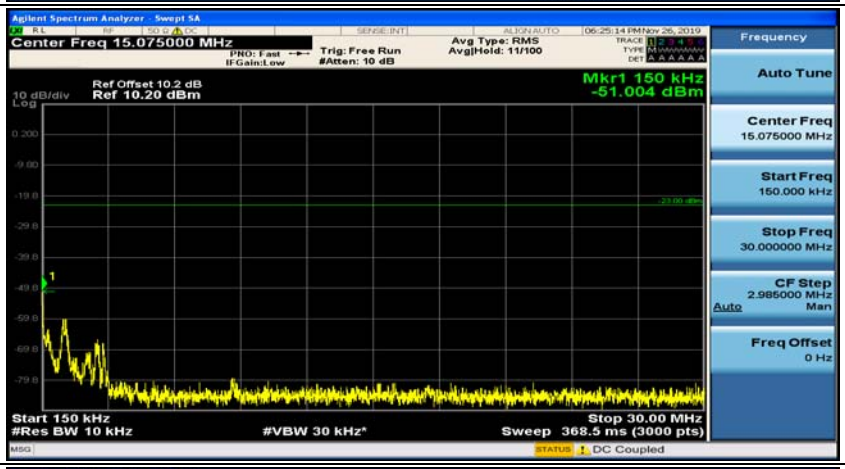
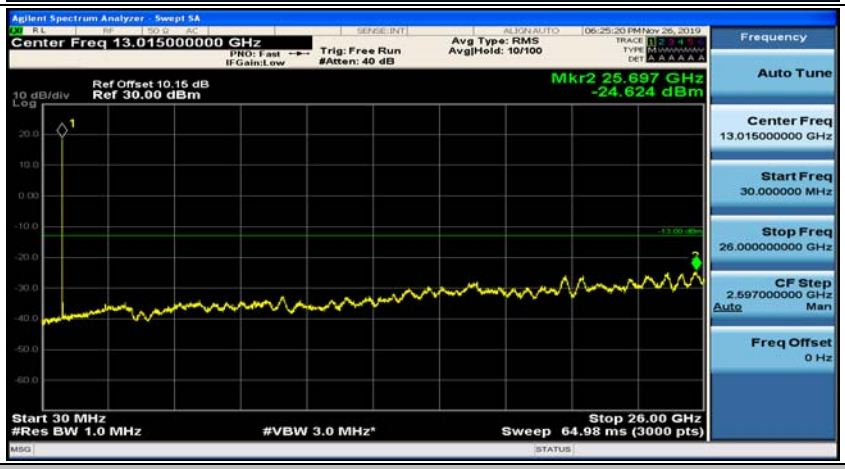


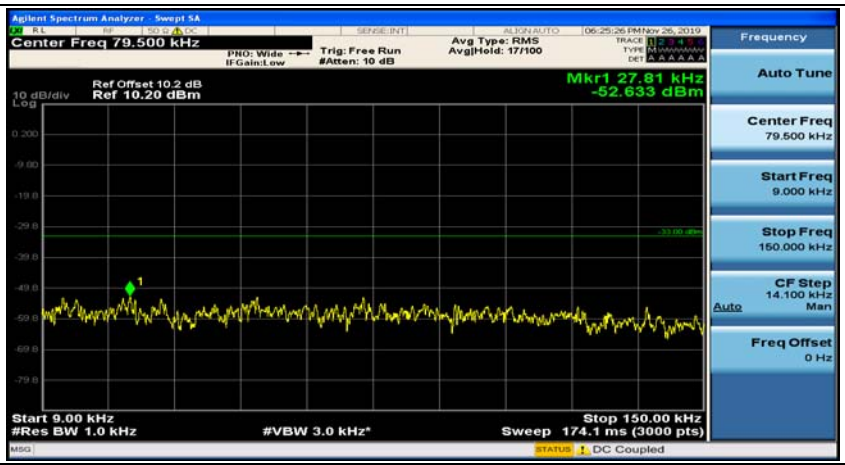
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

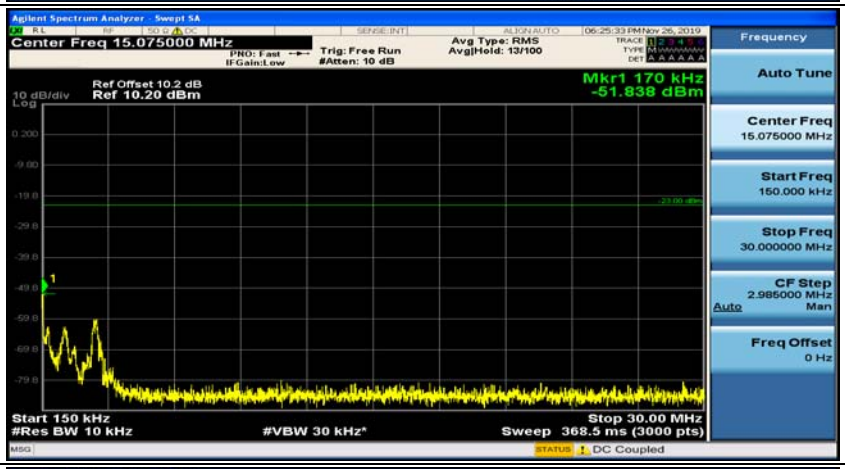

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:29:11 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 56.77 kHz
-53.101 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:29:18 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-52.527 dBm
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

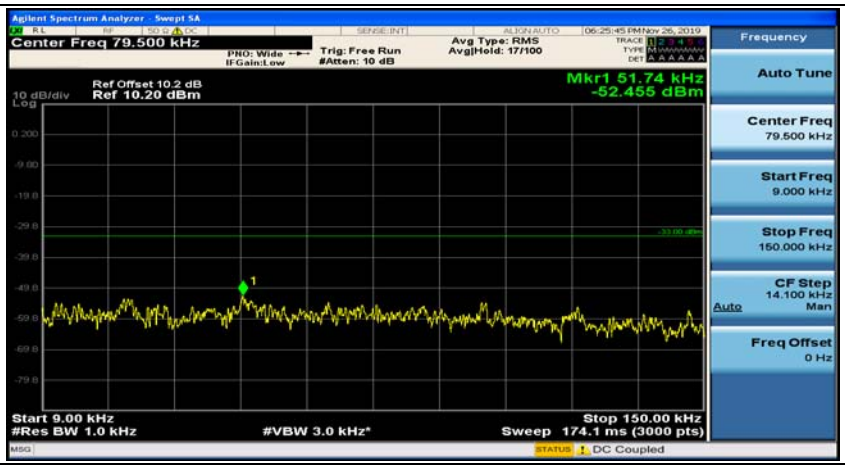

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:29:24 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.628 GHz
-24.366 dBm
Center Freq
13.015000000 GHz
Start 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)

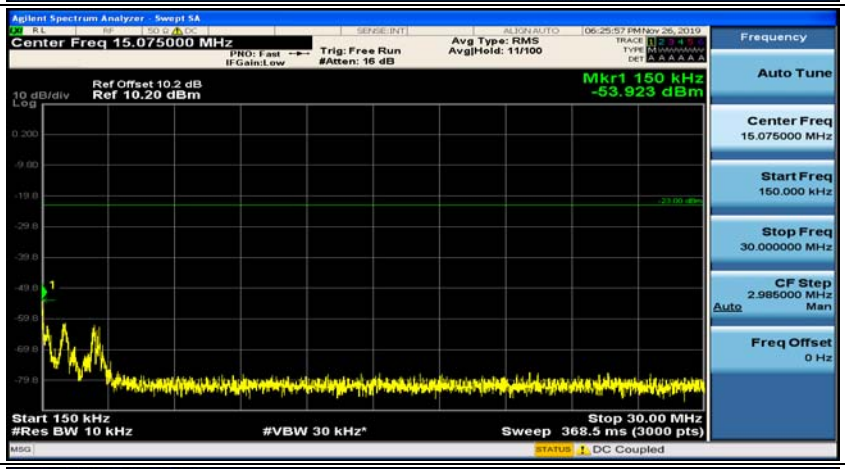
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

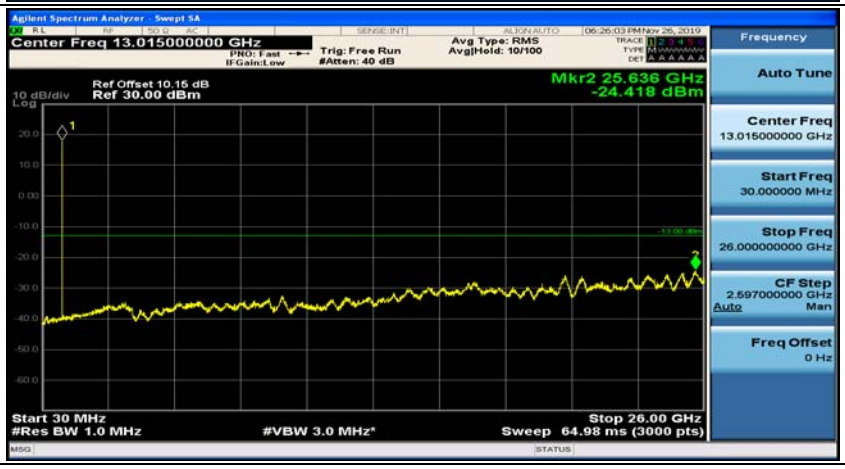


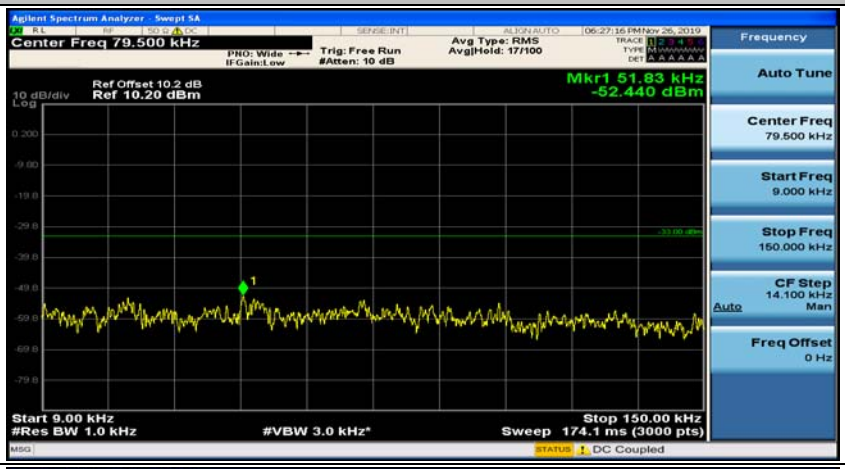
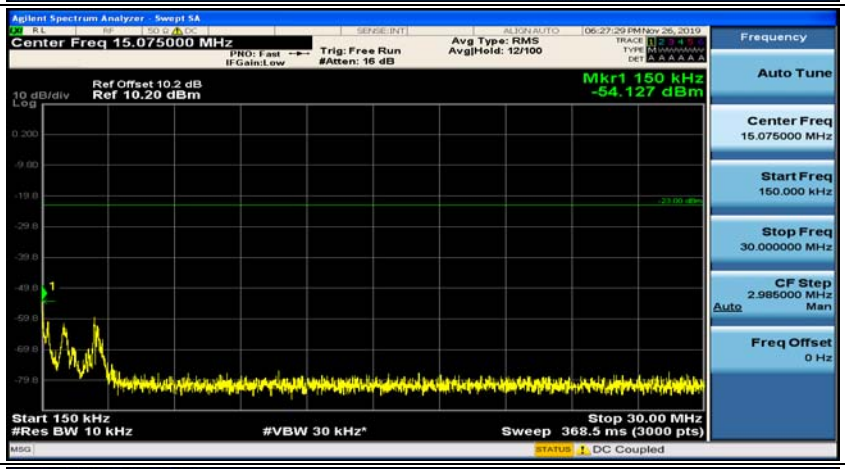
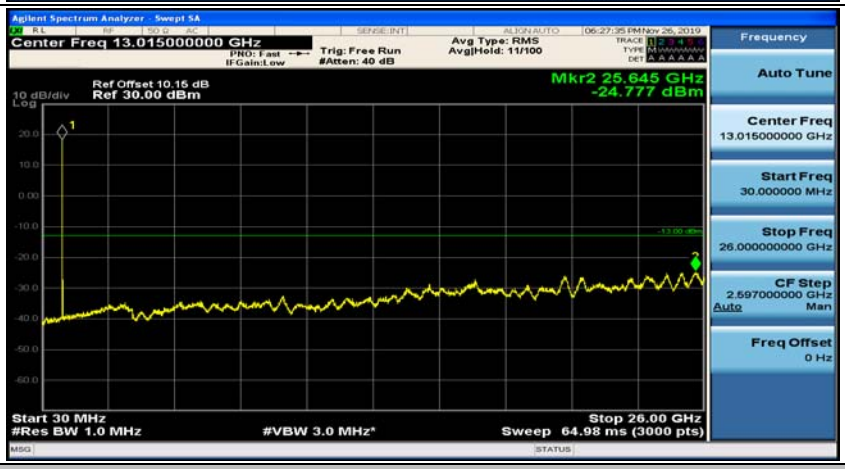


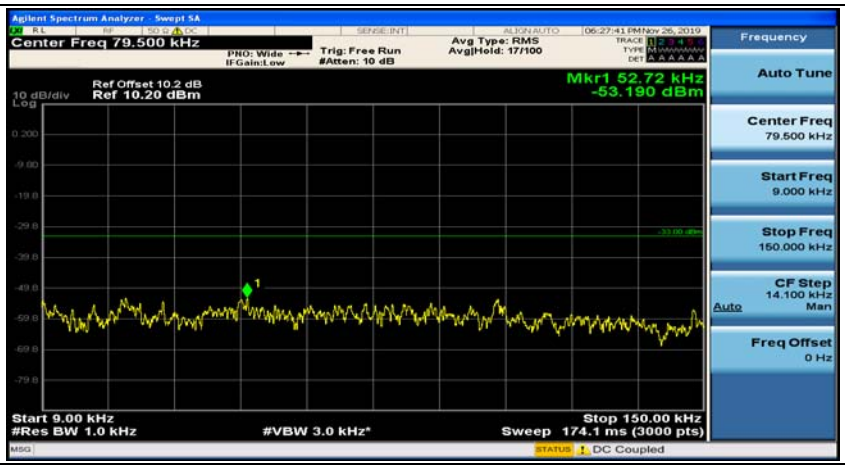
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

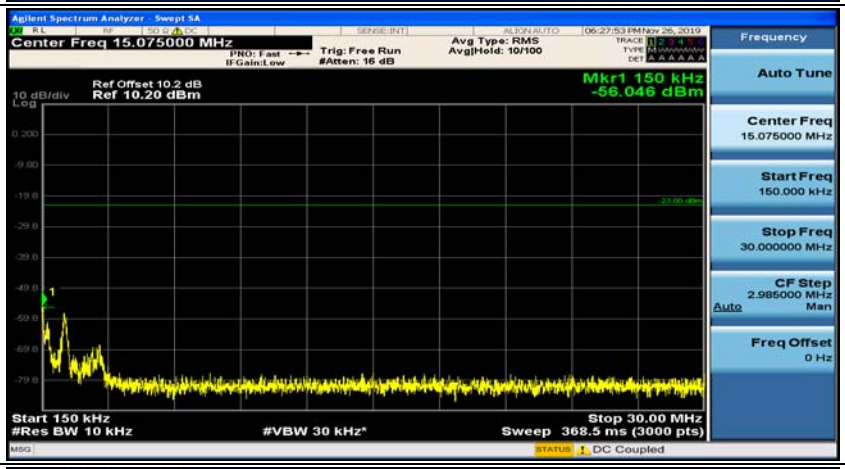

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:25:45 PM Nov 26, 2019
Frequency
Auto Tune
Mkr1 51.74 kHz
-52.455 dBm
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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
06:25:57 PM Nov 26, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-53.923 dBm
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
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

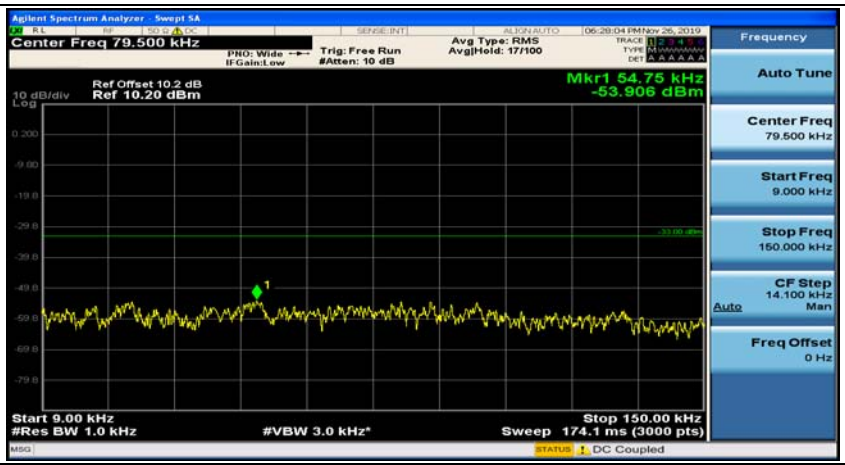

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:26:03 PM Nov 26, 2019
Frequency
Auto Tune
Mkr2 25.636 GHz
-24.418 dBm
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start 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)

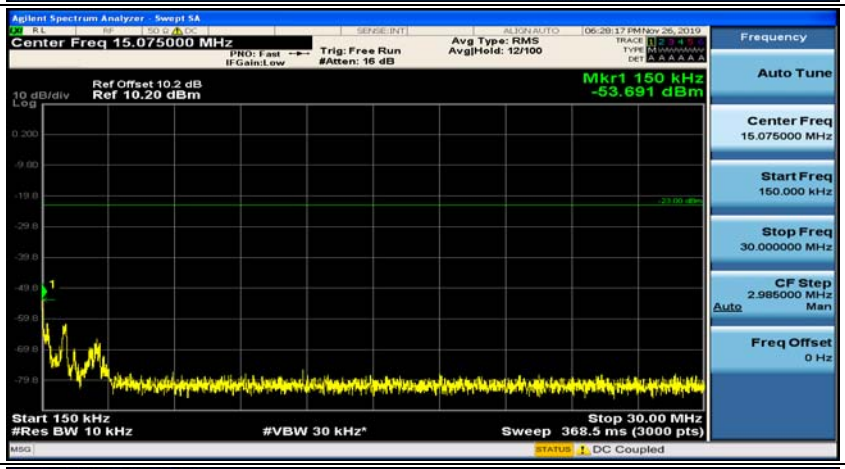
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

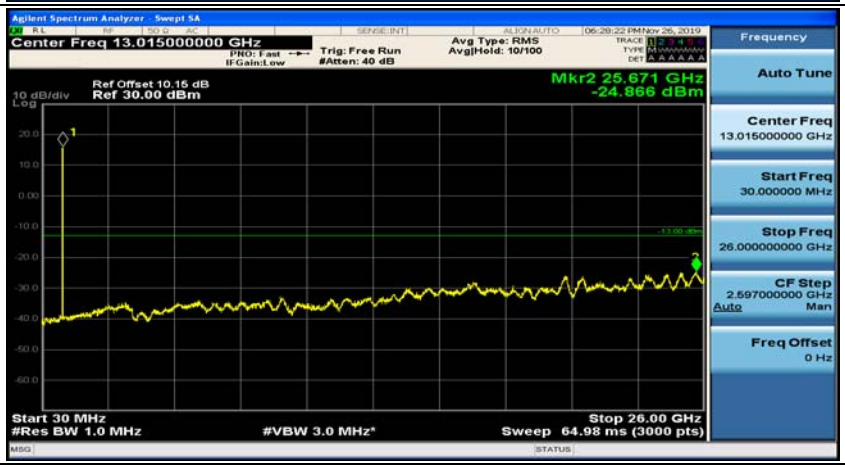


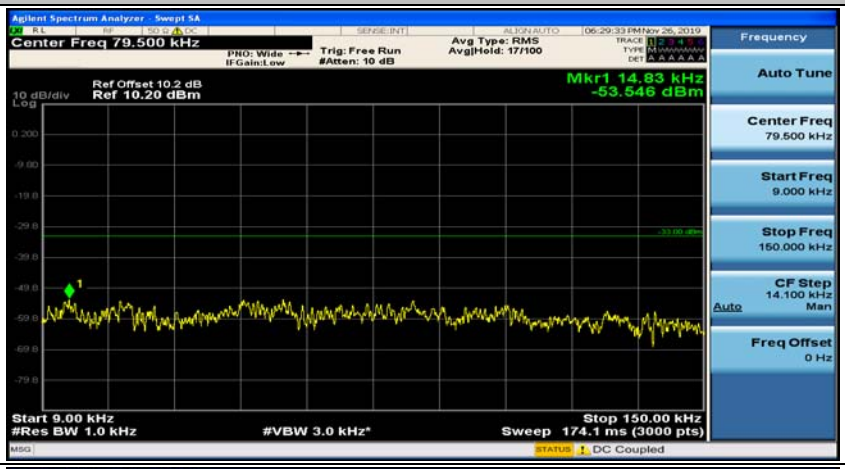
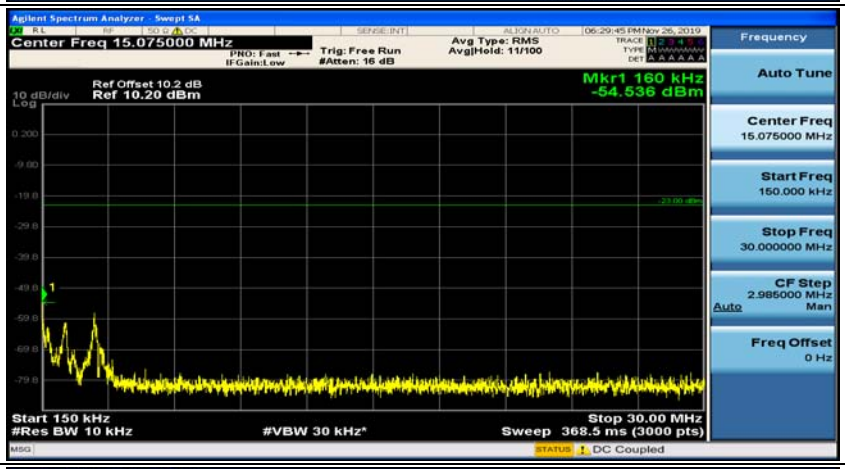
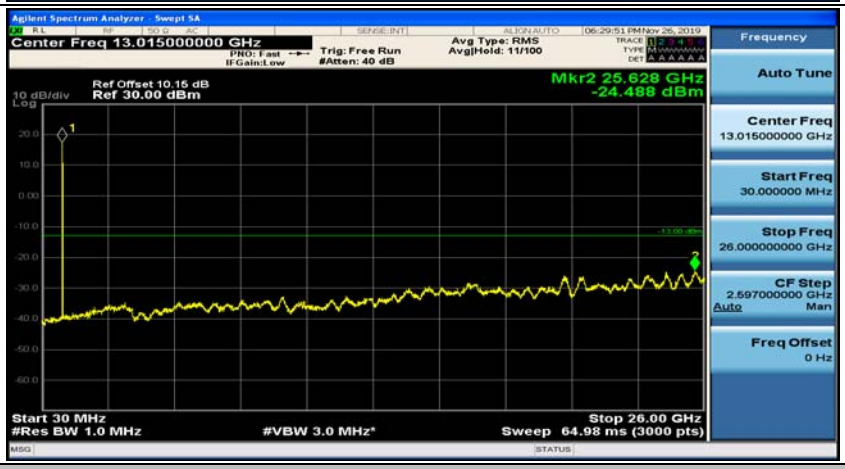


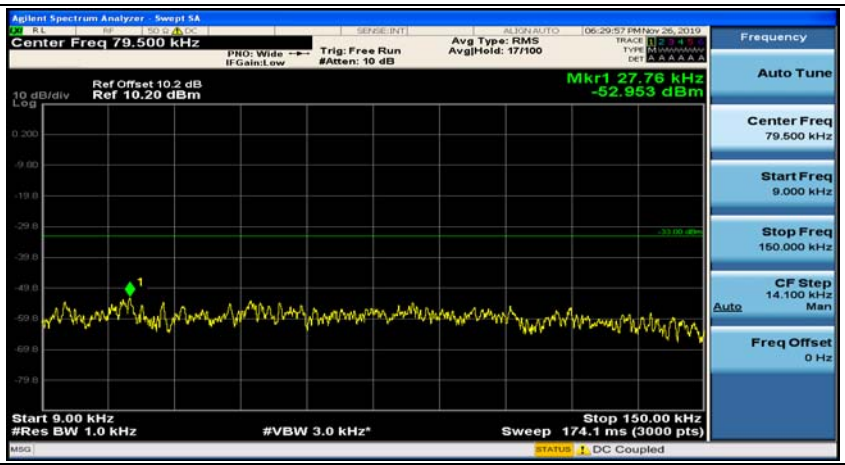
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

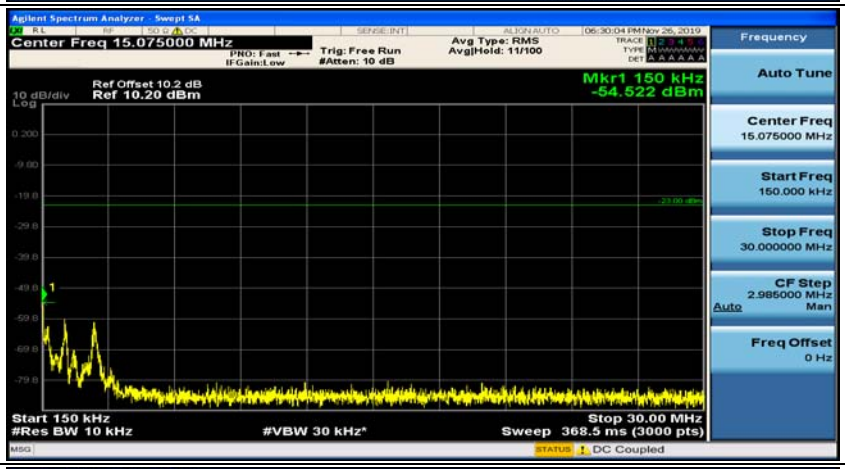

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:28:04 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 54.75 kHz
-53.906 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

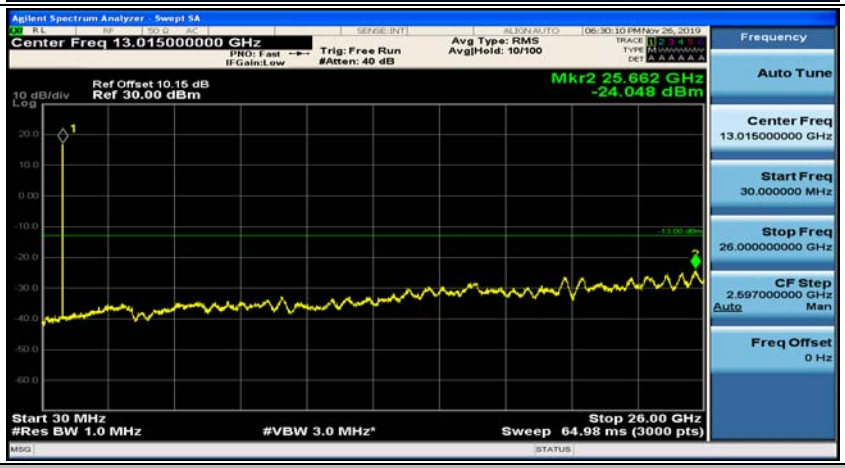

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:28:17 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.2 dB
10 dB/div
Log
Ref 10.20 dBm
Mkr1 150 kHz
-53.691 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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
06:28:22 PM Nov 26, 2019
Frequency
Auto Tune
Ref Offset 10.15 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.671 GHz
-24.866 dBm
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)

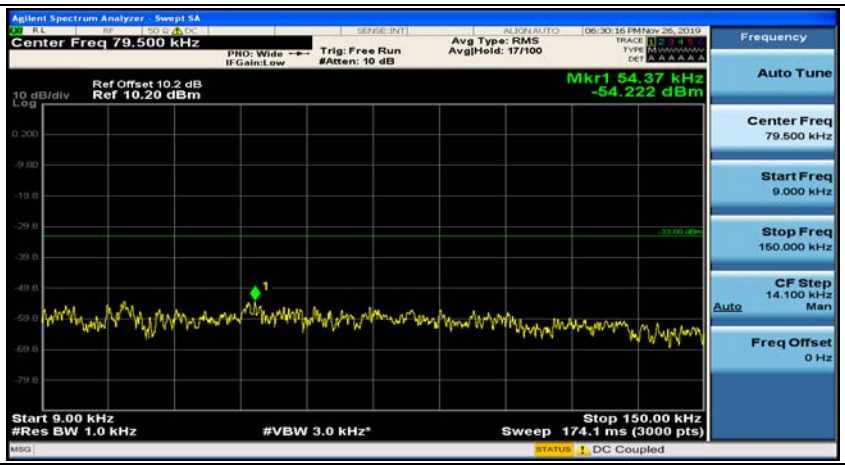
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

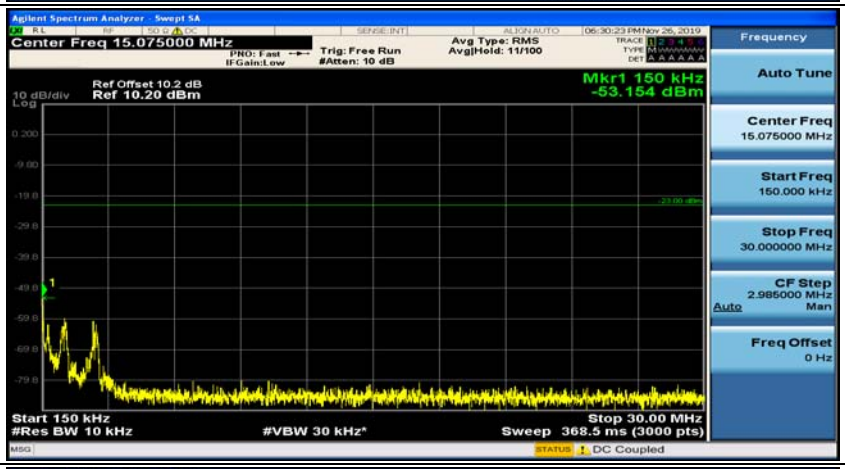






Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


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
06:30:16 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 54.37 kHz
-54.222 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: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:30:23 PM Nov 26, 2019
Frequency
Ref Offset 10.2 dB
10 dB/div
Ref 10.20 dBm
Mkr1 150 kHz
-53.154 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
06:30:28 PM Nov 26, 2019
Frequency
Ref Offset 10.15 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.134 GHz
-24.397 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)

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	0.08	0.000097	± 2.5	PASS
		VN	TN	0.64	0.000776	± 2.5	PASS
		VH	TN	-0.76	-0.000922	± 2.5	PASS
	MCH	VL	TN	4.36	0.005212	± 2.5	PASS
		VN	TN	2.56	0.003060	± 2.5	PASS
		VH	TN	4.79	0.005726	± 2.5	PASS
	HCH	VL	TN	-1.38	-0.001627	± 2.5	PASS
		VN	TN	-1.92	-0.002263	± 2.5	PASS
		VH	TN	1.88	0.002216	± 2.5	PASS
16QAM	LCH	VL	TN	4.19	0.005081	± 2.5	PASS
		VN	TN	0.91	0.001103	± 2.5	PASS
		VH	TN	-0.55	-0.000667	± 2.5	PASS
	MCH	VL	TN	-1.88	-0.002247	± 2.5	PASS
		VN	TN	0.47	0.000562	± 2.5	PASS
		VH	TN	1.5	0.001793	± 2.5	PASS
	HCH	VL	TN	2.01	0.002369	± 2.5	PASS
		VN	TN	2.06	0.002428	± 2.5	PASS
		VH	TN	1.11	0.001308	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.19	0.005081	± 2.5	PASS
		VN	-20	1.33	0.001613	± 2.5	PASS
		VN	-10	0.4	0.000485	± 2.5	PASS
		VN	0	0.37	0.000449	± 2.5	PASS
		VN	10	3.57	0.004329	± 2.5	PASS
		VN	20	-1.44	-0.001746	± 2.5	PASS
		VN	30	2.89	0.003504	± 2.5	PASS
		VN	40	-1.45	-0.001758	± 2.5	PASS
		VN	50	2.95	0.003577	± 2.5	PASS
	MCH	VN	-30	2	0.002391	± 2.5	PASS
		VN	-20	2.37	0.002833	± 2.5	PASS

		VN	-10	3.28	0.003921	± 2.5	PASS
		VN	0	-1.8	-0.002152	± 2.5	PASS
		VN	10	2.89	0.003455	± 2.5	PASS
		VN	20	2.49	0.002977	± 2.5	PASS
		VN	30	4.57	0.005463	± 2.5	PASS
		VN	40	1.19	0.001423	± 2.5	PASS
		VN	50	-0.25	-0.000299	± 2.5	PASS
	HCH	VN	-30	1.43	0.001686	± 2.5	PASS
		VN	-20	0.37	0.000436	± 2.5	PASS
		VN	-10	-1.97	-0.002322	± 2.5	PASS
		VN	0	0.28	0.000330	± 2.5	PASS
		VN	10	4.11	0.004845	± 2.5	PASS
		VN	20	1.26	0.001485	± 2.5	PASS
		VN	30	4.1	0.004833	± 2.5	PASS
		VN	40	2.34	0.002758	± 2.5	PASS
		VN	50	3	0.003536	± 2.5	PASS
16QAM	LCH	VN	-30	3.03	0.003674	± 2.5	PASS
		VN	-20	3.63	0.004402	± 2.5	PASS
		VN	-10	2.32	0.002813	± 2.5	PASS
		VN	0	2.36	0.002862	± 2.5	PASS
		VN	10	-1.27	-0.001540	± 2.5	PASS
		VN	20	1.44	0.001746	± 2.5	PASS
		VN	30	1.16	0.001407	± 2.5	PASS
		VN	40	1.24	0.001504	± 2.5	PASS
		VN	50	1.95	0.002364	± 2.5	PASS
	MCH	VN	-30	4.16	0.004904	± 2.5	PASS
		VN	-20	0.48	0.000566	± 2.5	PASS
		VN	-10	-1.82	-0.002145	± 2.5	PASS
		VN	0	1.39	0.001639	± 2.5	PASS
		VN	10	2.48	0.002923	± 2.5	PASS
		VN	20	3.02	0.003560	± 2.5	PASS
		VN	30	-0.88	-0.001037	± 2.5	PASS
		VN	40	2.44	0.002876	± 2.5	PASS
		VN	50	3.82	0.004503	± 2.5	PASS
	HCH	VN	-30	2.63	0.003100	± 2.5	PASS
		VN	-20	1.76	0.002075	± 2.5	PASS
		VN	-10	2.55	0.003006	± 2.5	PASS
		VN	0	1.37	0.001615	± 2.5	PASS
		VN	10	1.8	0.002122	± 2.5	PASS
		VN	20	-0.27	-0.000318	± 2.5	PASS
		VN	30	4.06	0.004786	± 2.5	PASS

		VN	40	0.41	0.000483	± 2.5	PASS
		VN	50	3.63	0.004279	± 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	1.71	0.002071	± 2.5	PASS
		VN	TN	3.3	0.003998	± 2.5	PASS
		VH	TN	4.7	0.005694	± 2.5	PASS
	MCH	VL	TN	-1.13	-0.001351	± 2.5	PASS
		VN	TN	1.79	0.002140	± 2.5	PASS
		VH	TN	-0.48	-0.000574	± 2.5	PASS
	HCH	VL	TN	-0.79	-0.000932	± 2.5	PASS
		VN	TN	3.93	0.004637	± 2.5	PASS
		VH	TN	-0.37	-0.000437	± 2.5	PASS
16QAM	LCH	VL	TN	0.39	0.000472	± 2.5	PASS
		VN	TN	0.1	0.000121	± 2.5	PASS
		VH	TN	-1.82	-0.002205	± 2.5	PASS
	MCH	VL	TN	3.21	0.003837	± 2.5	PASS
		VN	TN	4.78	0.005714	± 2.5	PASS
		VH	TN	4.15	0.004961	± 2.5	PASS
	HCH	VL	TN	4.37	0.005156	± 2.5	PASS
		VN	TN	0.4	0.000472	± 2.5	PASS
		VH	TN	-1.15	-0.001357	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.54	0.003077	± 2.5	PASS
		VN	-20	4.46	0.005403	± 2.5	PASS
		VN	-10	2.79	0.003380	± 2.5	PASS
		VN	0	0.97	0.001175	± 2.5	PASS
		VN	10	0.26	0.000315	± 2.5	PASS
		VN	20	-0.48	-0.000581	± 2.5	PASS
		VN	30	2	0.002423	± 2.5	PASS
		VN	40	4.7	0.005694	± 2.5	PASS
		VN	50	3.55	0.004300	± 2.5	PASS
	MCH	VN	-30	4.74	0.005666	± 2.5	PASS
		VN	-20	-1.7	-0.002032	± 2.5	PASS
		VN	-10	-0.31	-0.000371	± 2.5	PASS

		VN	0	4.5	0.005380	± 2.5	PASS
		VN	10	-1.04	-0.001243	± 2.5	PASS
		VN	20	0.12	0.000143	± 2.5	PASS
		VN	30	3.88	0.004638	± 2.5	PASS
		VN	40	1.24	0.001482	± 2.5	PASS
		VN	50	-1.01	-0.001207	± 2.5	PASS
	HCH	VN	-30	3.02	0.003563	± 2.5	PASS
		VN	-20	3.92	0.004625	± 2.5	PASS
		VN	-10	2.12	0.002501	± 2.5	PASS
		VN	0	2.82	0.003327	± 2.5	PASS
		VN	10	0.45	0.000531	± 2.5	PASS
		VN	20	0.81	0.000956	± 2.5	PASS
		VN	30	1.99	0.002348	± 2.5	PASS
		VN	40	1.73	0.002041	± 2.5	PASS
		VN	50	3.38	0.003988	± 2.5	PASS
16QAM	LCH	VN	-30	3.19	0.003814	± 2.5	PASS
		VN	-20	4.59	0.005487	± 2.5	PASS
		VN	-10	-1.15	-0.001375	± 2.5	PASS
		VN	0	-0.69	-0.000825	± 2.5	PASS
		VN	10	0.8	0.000956	± 2.5	PASS
		VN	20	2.56	0.003060	± 2.5	PASS
		VN	30	2.68	0.003204	± 2.5	PASS
		VN	40	1.22	0.001458	± 2.5	PASS
		VN	50	1.61	0.001925	± 2.5	PASS
	MCH	VN	-30	1.81	0.002136	± 2.5	PASS
		VN	-20	3.66	0.004319	± 2.5	PASS
		VN	-10	4.31	0.005086	± 2.5	PASS
		VN	0	-1.23	-0.001451	± 2.5	PASS
		VN	10	3.13	0.003693	± 2.5	PASS
		VN	20	2.75	0.003245	± 2.5	PASS
		VN	30	-1.67	-0.001971	± 2.5	PASS
		VN	40	3.92	0.004625	± 2.5	PASS
		VN	50	1.65	0.001947	± 2.5	PASS
	HCH	VN	-30	1.73	0.002041	± 2.5	PASS
		VN	-20	-0.91	-0.001074	± 2.5	PASS
		VN	-10	-1.07	-0.001263	± 2.5	PASS
		VN	0	-1.19	-0.001404	± 2.5	PASS
		VN	10	-1.65	-0.001947	± 2.5	PASS
		VN	20	1.84	0.002171	± 2.5	PASS
		VN	30	-1.11	-0.001310	± 2.5	PASS
		VN	40	1.08	0.001274	± 2.5	PASS

		VN	50	-1.46	-0.001723	± 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	0.2	0.000242	± 2.5	PASS
		VN	TN	2.21	0.002674	± 2.5	PASS
		VH	TN	1.77	0.002142	± 2.5	PASS
	MCH	VL	TN	0.99	0.001184	± 2.5	PASS
		VN	TN	0.87	0.001040	± 2.5	PASS
		VH	TN	-1.53	-0.001829	± 2.5	PASS
	HCH	VL	TN	0.96	0.001134	± 2.5	PASS
		VN	TN	1.15	0.001359	± 2.5	PASS
		VH	TN	-0.56	-0.000662	± 2.5	PASS
16QAM	LCH	VL	TN	-1.67	-0.002021	± 2.5	PASS
		VN	TN	0.47	0.000569	± 2.5	PASS
		VH	TN	0.87	0.001053	± 2.5	PASS
	MCH	VL	TN	4.84	0.005786	± 2.5	PASS
		VN	TN	0.63	0.000753	± 2.5	PASS
		VH	TN	1.32	0.001578	± 2.5	PASS
	HCH	VL	TN	4.03	0.004761	± 2.5	PASS
		VN	TN	-1.97	-0.002327	± 2.5	PASS
		VH	TN	-1.92	-0.002268	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.92	0.001113	± 2.5	PASS
		VN	-20	-1.75	-0.002117	± 2.5	PASS
		VN	-10	4.19	0.005070	± 2.5	PASS
		VN	0	4.74	0.005735	± 2.5	PASS
		VN	10	0.75	0.000907	± 2.5	PASS
		VN	20	-1.2	-0.001452	± 2.5	PASS
		VN	30	-1.19	-0.001440	± 2.5	PASS
		VN	40	4.79	0.005796	± 2.5	PASS
		VN	50	4.51	0.005457	± 2.5	PASS
	MCH	VN	-30	-1.39	-0.001662	± 2.5	PASS
		VN	-20	1.13	0.001351	± 2.5	PASS
		VN	-10	1.26	0.001506	± 2.5	PASS
		VN	0	2.2	0.002630	± 2.5	PASS

		VN	10	1.2	0.001435	± 2.5	PASS
		VN	20	3.04	0.003634	± 2.5	PASS
		VN	30	0.17	0.000203	± 2.5	PASS
		VN	40	4.8	0.005738	± 2.5	PASS
		VN	50	4.93	0.005894	± 2.5	PASS
	HCH	VN	-30	2.69	0.003178	± 2.5	PASS
		VN	-20	0.84	0.000992	± 2.5	PASS
		VN	-10	3.77	0.004454	± 2.5	PASS
		VN	0	2.92	0.003449	± 2.5	PASS
		VN	10	0.64	0.000756	± 2.5	PASS
		VN	20	-0.1	-0.000118	± 2.5	PASS
		VN	30	4.68	0.005529	± 2.5	PASS
		VN	40	0.23	0.000272	± 2.5	PASS
		VN	50	4.21	0.004973	± 2.5	PASS
16QAM	LCH	VN	-30	0.13	0.000155	± 2.5	PASS
		VN	-20	0.47	0.000562	± 2.5	PASS
		VN	-10	-0.13	-0.000155	± 2.5	PASS
		VN	0	3.85	0.004603	± 2.5	PASS
		VN	10	2.21	0.002642	± 2.5	PASS
		VN	20	4.57	0.005463	± 2.5	PASS
		VN	30	-0.09	-0.000108	± 2.5	PASS
		VN	40	-1.66	-0.001984	± 2.5	PASS
		VN	50	3.5	0.004184	± 2.5	PASS
	MCH	VN	-30	-0.48	-0.000567	± 2.5	PASS
		VN	-20	-0.17	-0.000201	± 2.5	PASS
		VN	-10	1.82	0.002150	± 2.5	PASS
		VN	0	3.93	0.004643	± 2.5	PASS
		VN	10	2.41	0.002847	± 2.5	PASS
		VN	20	0.04	0.000047	± 2.5	PASS
		VN	30	0.09	0.000106	± 2.5	PASS
		VN	40	3.41	0.004028	± 2.5	PASS
		VN	50	1.31	0.001548	± 2.5	PASS
	HCH	VN	-30	-1.9	-0.002245	± 2.5	PASS
		VN	-20	0.65	0.000768	± 2.5	PASS
		VN	-10	4.91	0.005800	± 2.5	PASS
		VN	0	2.26	0.002670	± 2.5	PASS
		VN	10	-1.98	-0.002339	± 2.5	PASS
		VN	20	4.6	0.005434	± 2.5	PASS
		VN	30	0.38	0.000449	± 2.5	PASS
		VN	40	3.59	0.004241	± 2.5	PASS
		VN	50	-1.5	-0.001772	± 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	4.1	0.004946	± 2.5	PASS
		VN	TN	4.53	0.005464	± 2.5	PASS
		VH	TN	1.79	0.002159	± 2.5	PASS
	MCH	VL	TN	3.12	0.003730	± 2.5	PASS
		VN	TN	-0.62	-0.000741	± 2.5	PASS
		VH	TN	3.15	0.003766	± 2.5	PASS
	HCH	VL	TN	4.09	0.004846	± 2.5	PASS
		VN	TN	3.41	0.004040	± 2.5	PASS
		VH	TN	-0.91	-0.001078	± 2.5	PASS
16QAM	LCH	VL	TN	-1.34	-0.001616	± 2.5	PASS
		VN	TN	3.63	0.004379	± 2.5	PASS
		VH	TN	3.46	0.004174	± 2.5	PASS
	MCH	VL	TN	0.88	0.001052	± 2.5	PASS
		VN	TN	2.82	0.003371	± 2.5	PASS
		VH	TN	-0.11	-0.000132	± 2.5	PASS
	HCH	VL	TN	4.89	0.005794	± 2.5	PASS
		VN	TN	1.57	0.001860	± 2.5	PASS
		VH	TN	-0.59	-0.000699	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.8	-0.000965	± 2.5	PASS
		VN	-20	3.58	0.004318	± 2.5	PASS
		VN	-10	3.28	0.003957	± 2.5	PASS
		VN	0	3.69	0.004451	± 2.5	PASS
		VN	10	2.76	0.003329	± 2.5	PASS
		VN	20	1.66	0.002002	± 2.5	PASS
		VN	30	2.56	0.003088	± 2.5	PASS
		VN	40	0.06	0.000072	± 2.5	PASS
		VN	50	0.41	0.000495	± 2.5	PASS
	MCH	VN	-30	4.25	0.005081	± 2.5	PASS
		VN	-20	2.75	0.003288	± 2.5	PASS
		VN	-10	0.04	0.000048	± 2.5	PASS
		VN	0	1.36	0.001626	± 2.5	PASS
		VN	10	2.26	0.002702	± 2.5	PASS
		VN	20	1.02	0.001219	± 2.5	PASS

		VN	30	-1.17	-0.001399	± 2.5	PASS
		VN	40	-1.94	-0.002319	± 2.5	PASS
		VN	50	-1.54	-0.001841	± 2.5	PASS
	HCH	VN	-30	2.94	0.003483	± 2.5	PASS
		VN	-20	1.99	0.002358	± 2.5	PASS
		VN	-10	1.91	0.002263	± 2.5	PASS
		VN	0	2.23	0.002642	± 2.5	PASS
		VN	10	2.71	0.003211	± 2.5	PASS
		VN	20	0.15	0.000178	± 2.5	PASS
		VN	30	2.58	0.003057	± 2.5	PASS
		VN	40	-0.2	-0.000237	± 2.5	PASS
		VN	50	4.45	0.005273	± 2.5	PASS
QPSK	LCH	VN	-30	-0.23	-0.000275	± 2.5	PASS
		VN	-20	2.98	0.003562	± 2.5	PASS
		VN	-10	1.34	0.001602	± 2.5	PASS
		VN	0	1.5	0.001793	± 2.5	PASS
		VN	10	3.93	0.004698	± 2.5	PASS
		VN	20	2.3	0.002750	± 2.5	PASS
		VN	30	-1	-0.001195	± 2.5	PASS
		VN	40	3.16	0.003778	± 2.5	PASS
		VN	50	-0.34	-0.000406	± 2.5	PASS
	MCH	VN	-30	-0.27	-0.000320	± 2.5	PASS
		VN	-20	-1.84	-0.002180	± 2.5	PASS
		VN	-10	-1.47	-0.001742	± 2.5	PASS
		VN	0	4.89	0.005794	± 2.5	PASS
		VN	10	1.85	0.002192	± 2.5	PASS
		VN	20	-1.27	-0.001505	± 2.5	PASS
		VN	30	-0.82	-0.000972	± 2.5	PASS
		VN	40	-0.09	-0.000107	± 2.5	PASS
		VN	50	3.89	0.004609	± 2.5	PASS
	HCH	VN	-30	0.89	0.001055	± 2.5	PASS
		VN	-20	2.96	0.003507	± 2.5	PASS
		VN	-10	0.75	0.000889	± 2.5	PASS
		VN	0	-0.17	-0.000201	± 2.5	PASS
		VN	10	4.55	0.005391	± 2.5	PASS
		VN	20	0.46	0.000545	± 2.5	PASS
		VN	30	1.6	0.001896	± 2.5	PASS
		VN	40	3.71	0.004396	± 2.5	PASS
		VN	50	4.86	0.005758	± 2.5	PASS