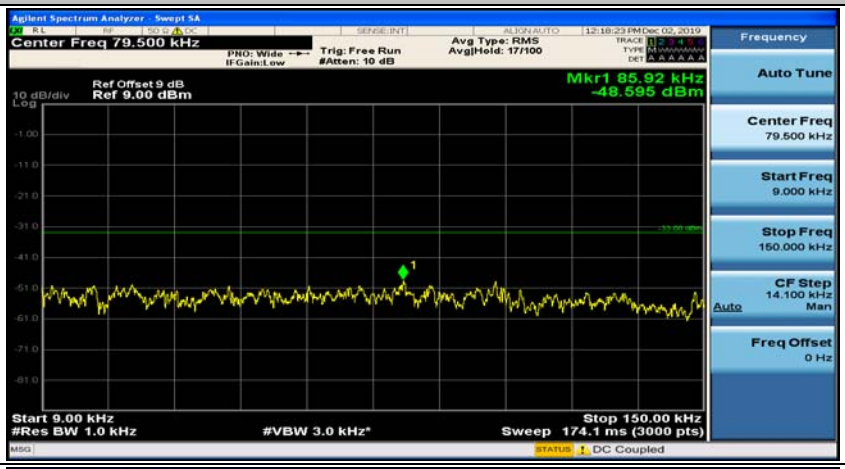
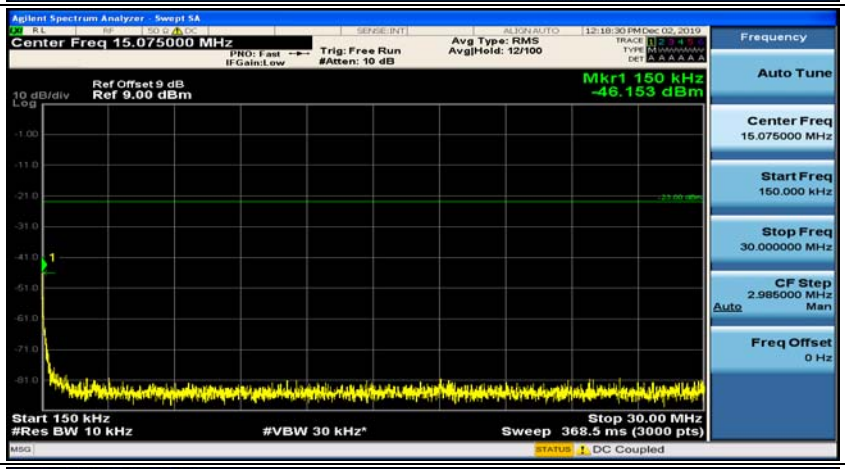
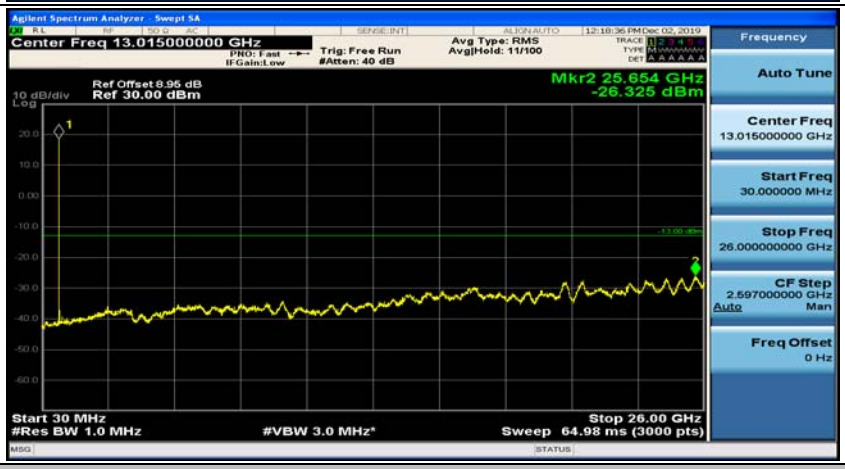
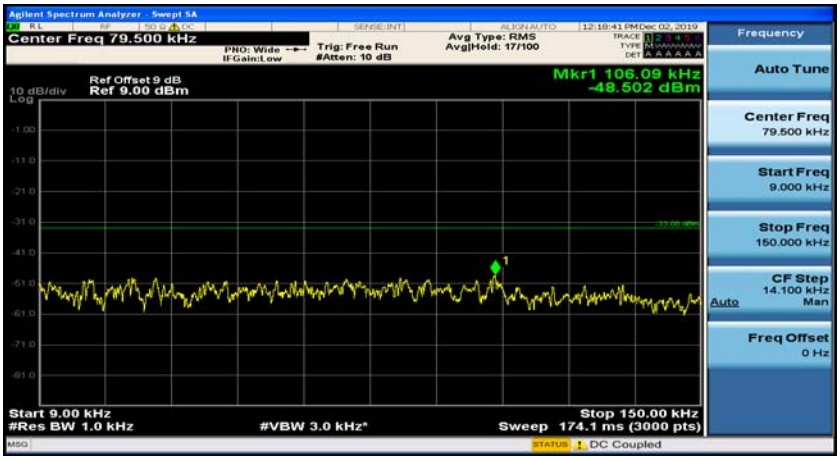
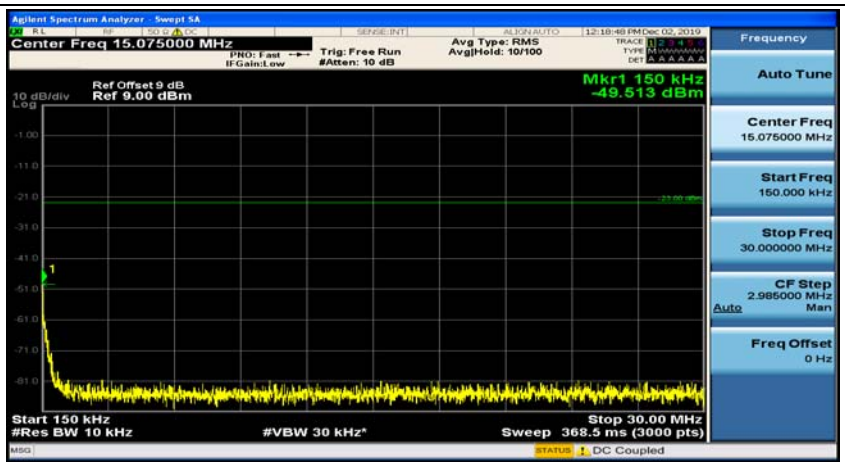
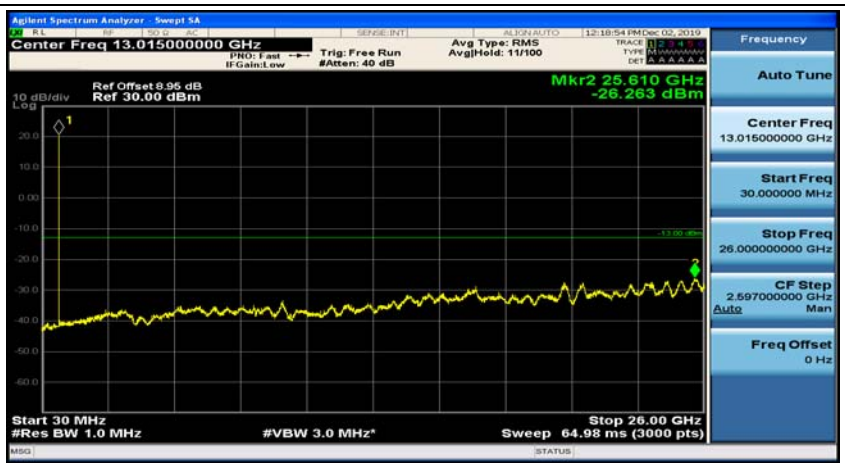
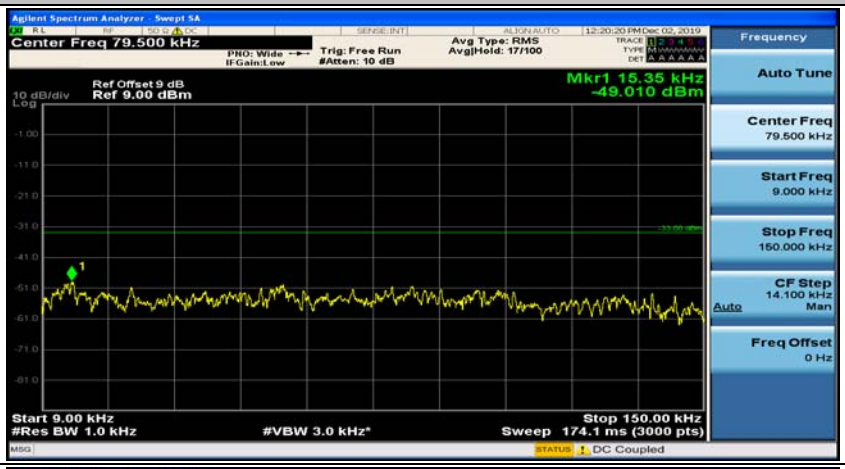
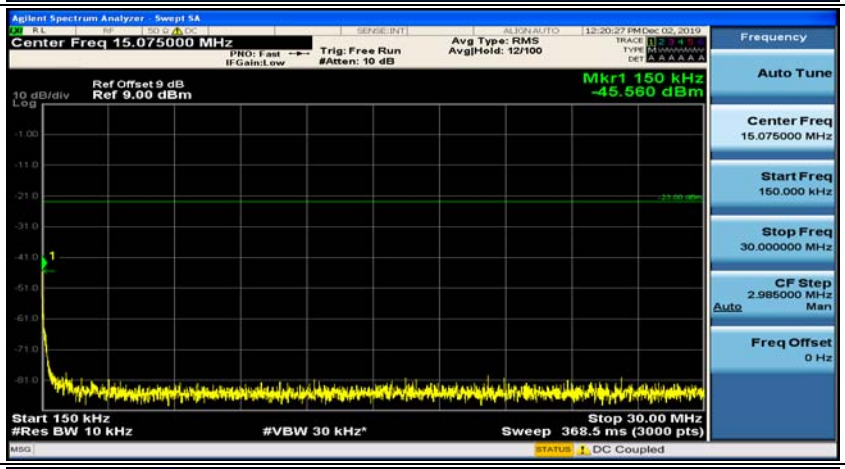
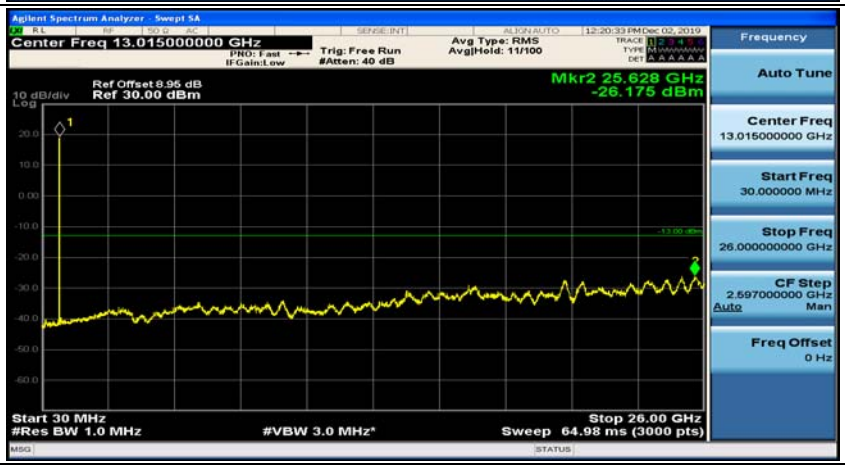
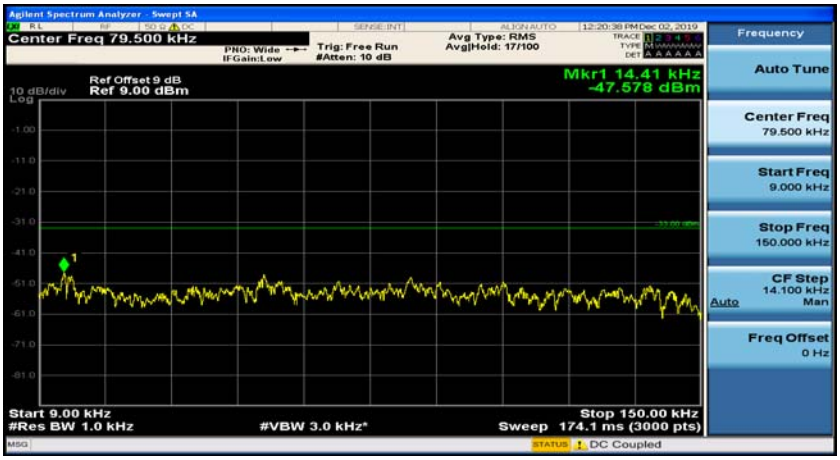
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

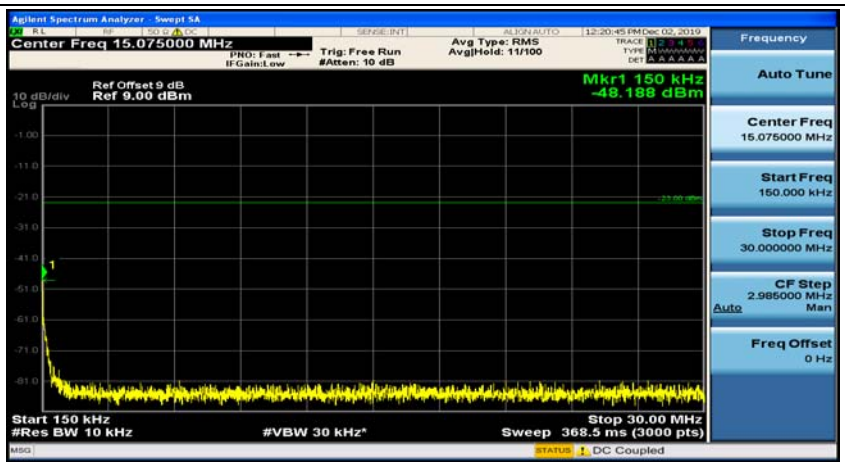

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:10:41 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 106.09 kHz
-48.502 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

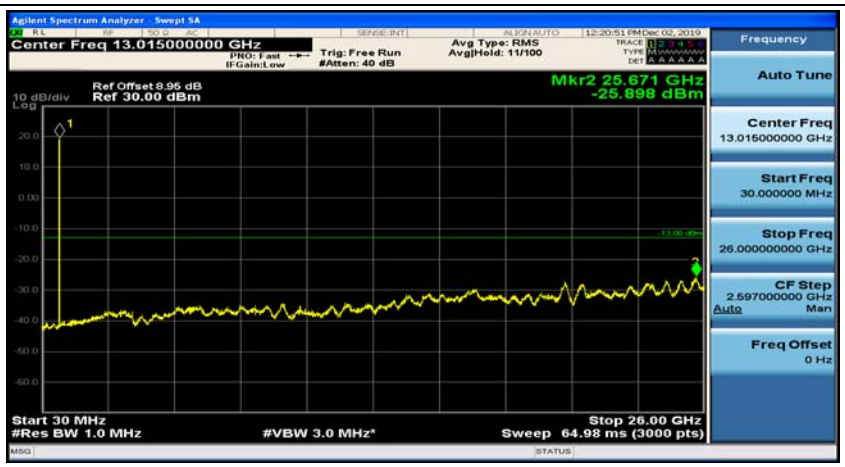

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 10/100
12:10:48 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-49.513 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:10:54 PM Dec 02, 2019
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.610 GHz
-26.263 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

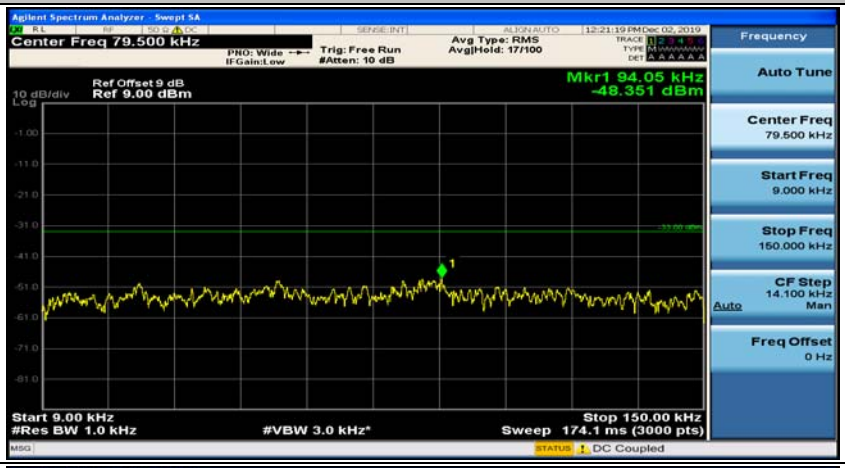
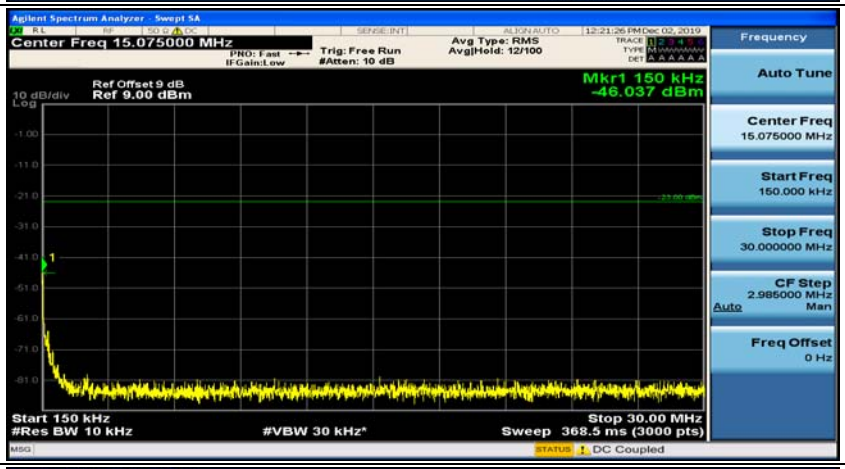
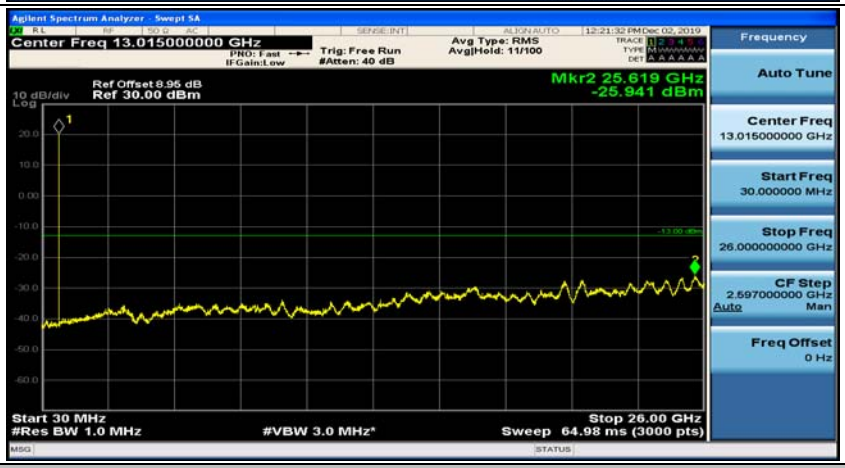
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

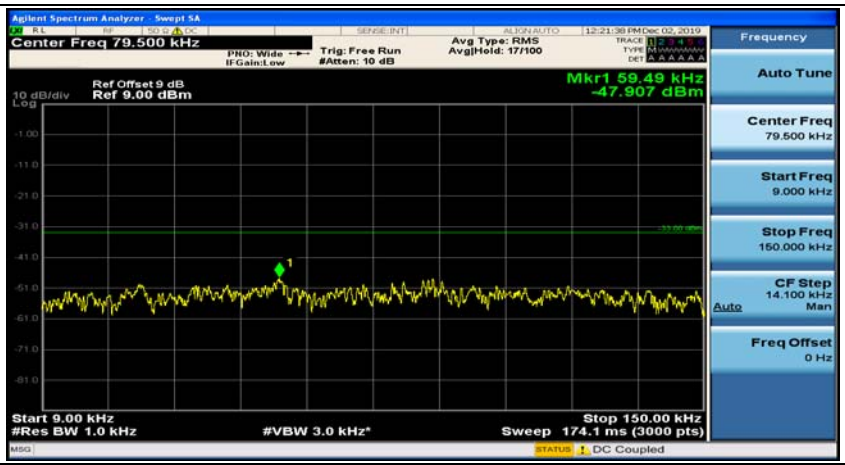

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:20:38 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 14.41 kHz
-47.578 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

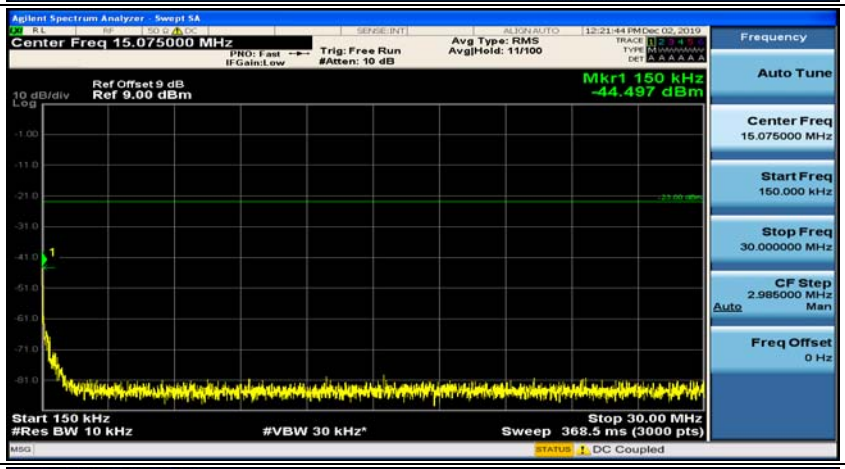

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
12:20:45 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-48.188 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:20:51 PM Dec 02, 2019
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.671 GHz
-25.898 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

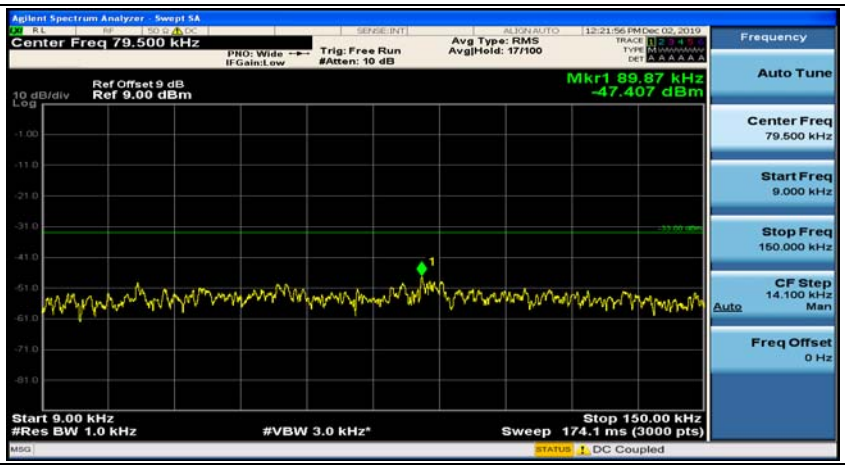
Channel Bandwidth: 5 MHz

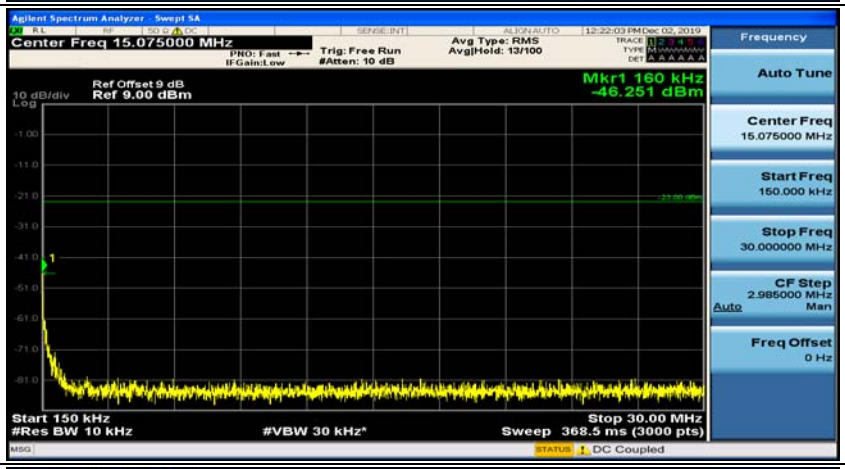
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

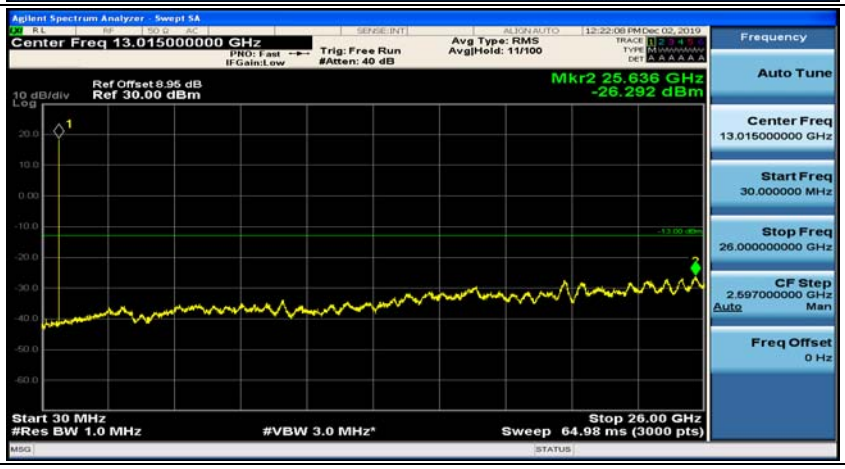


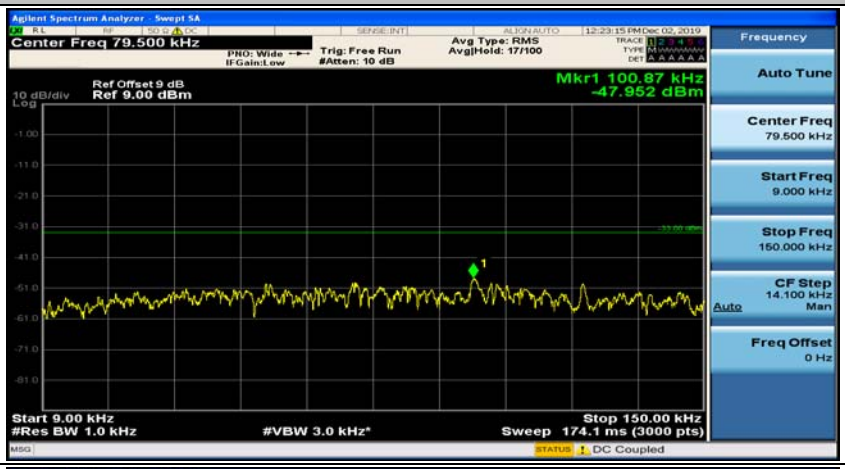
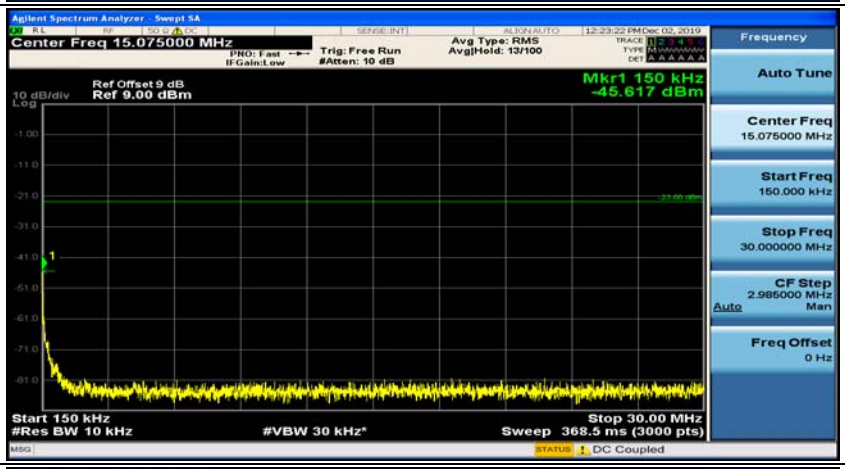
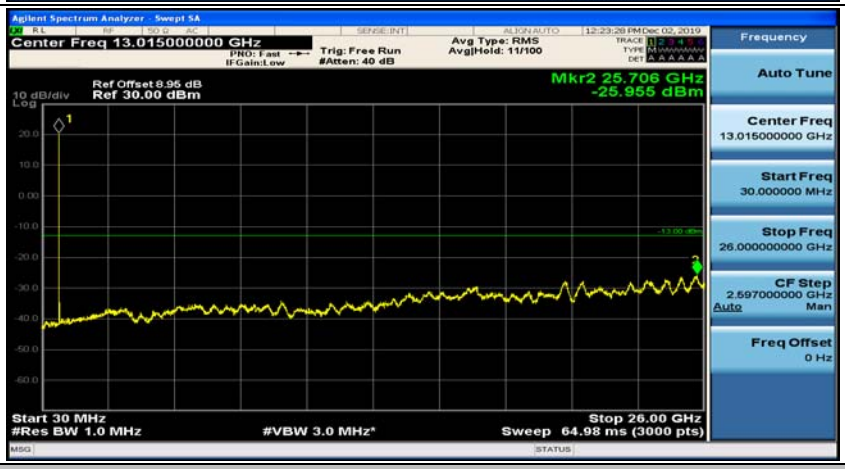


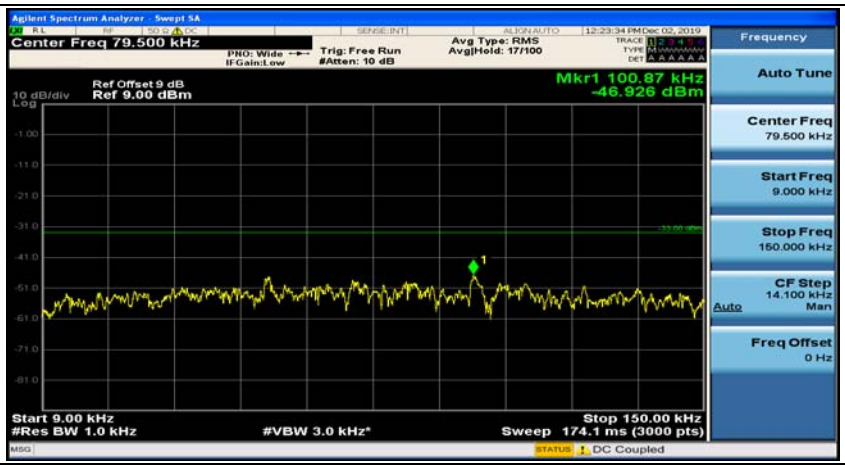
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

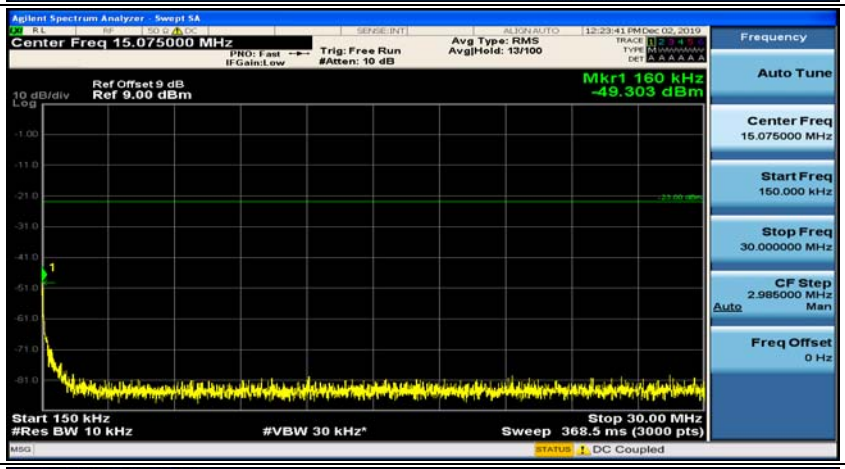

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:21:56 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 89.87 kHz
-47.407 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

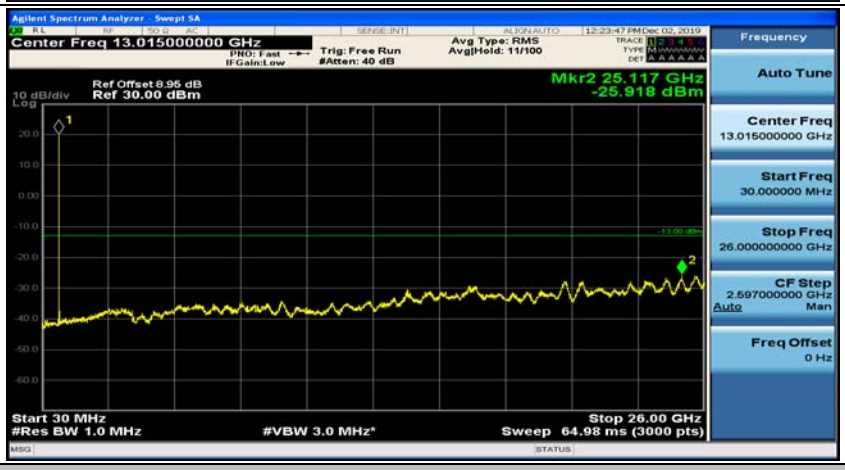

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 13/100
12:22:03 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 160 kHz
-46.251 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 11/100
12:22:08 PM Dec 02, 2019
Frequency
Auto Tune
Mkr2 25.636 GHz
-26.292 dBm
Ref Offset 8.95 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)

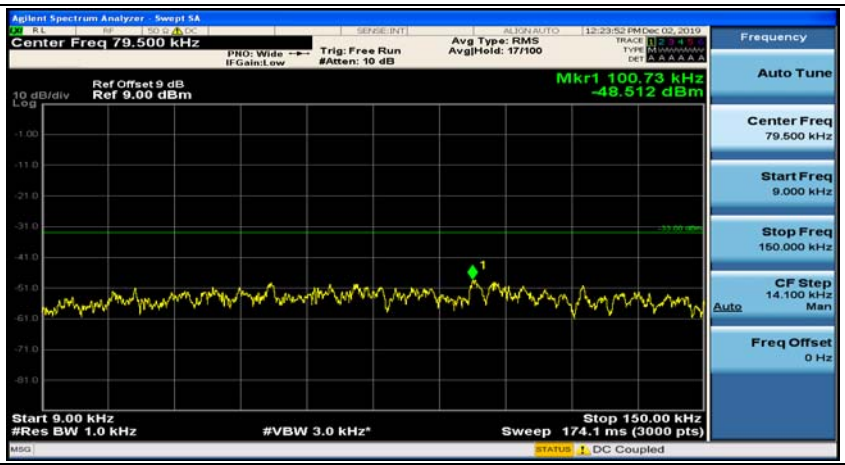
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

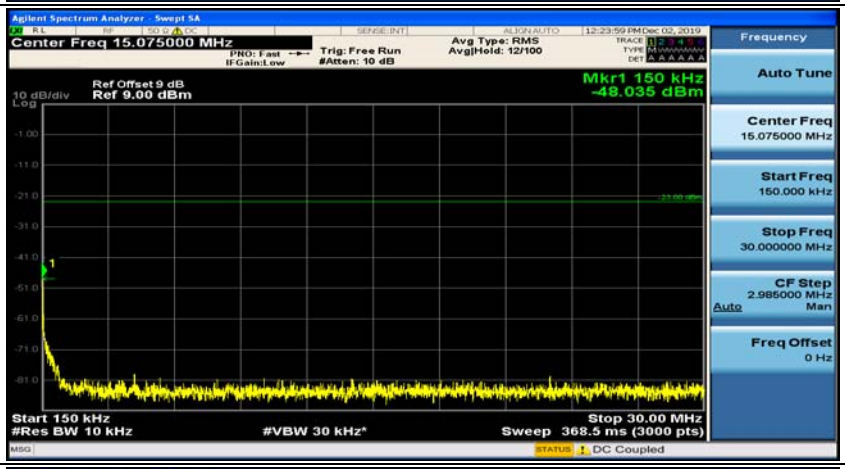


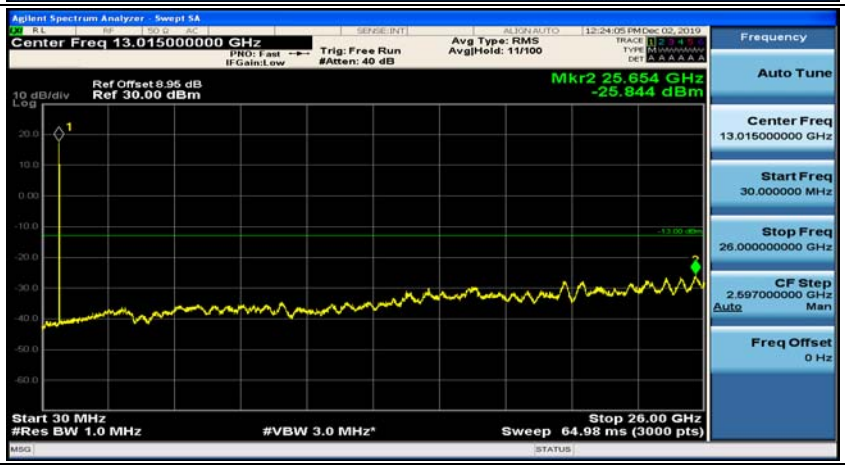


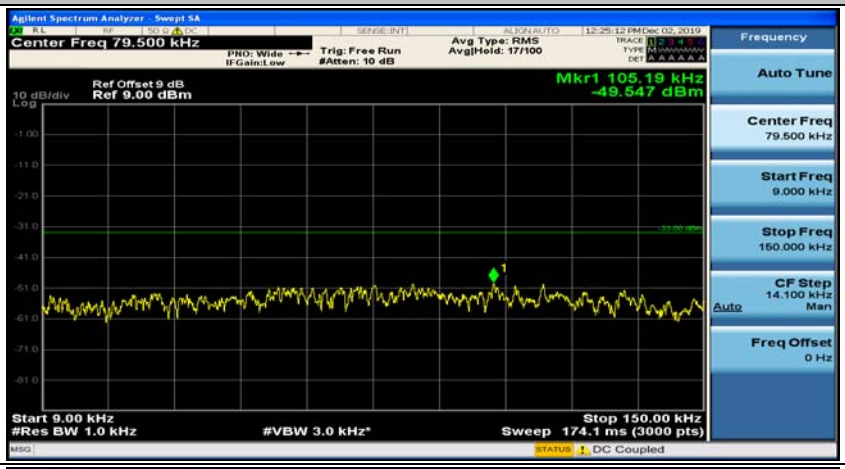
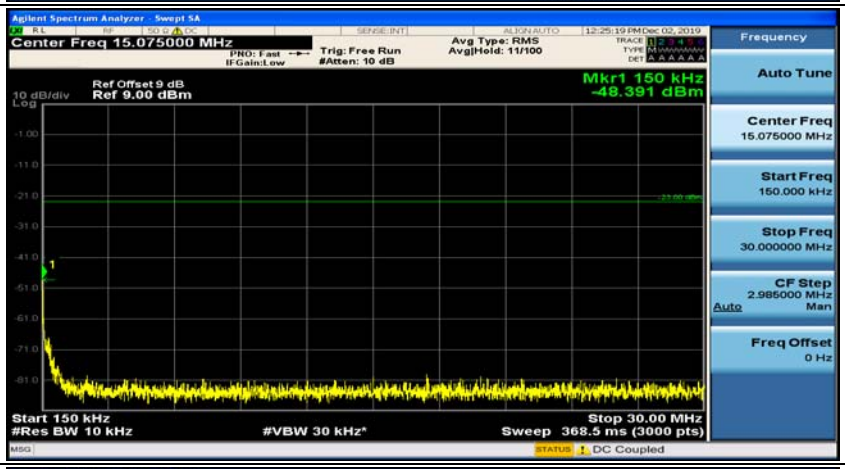
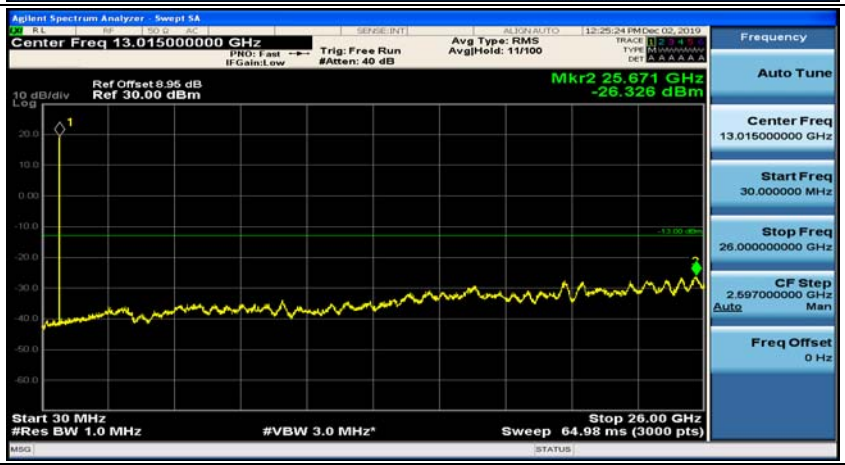


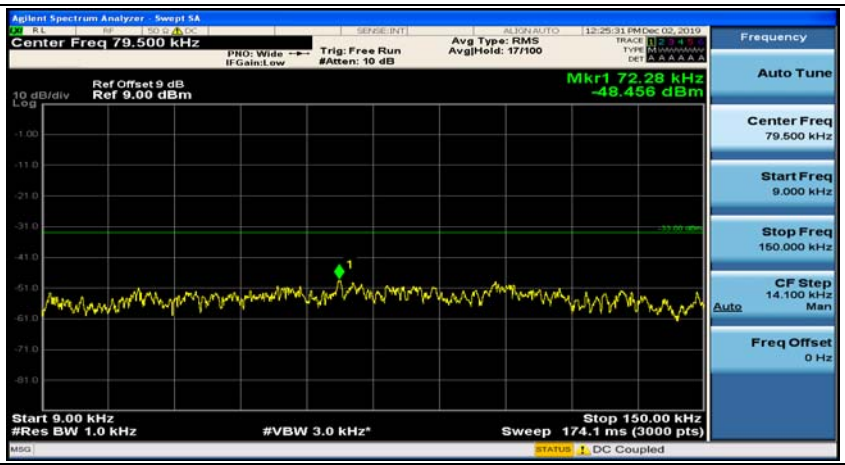
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

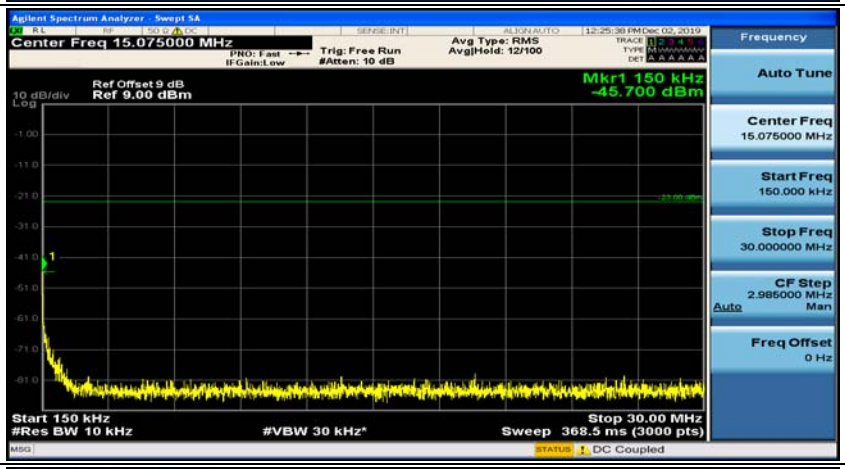

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:23:52 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 100.73 kHz
-48.512 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

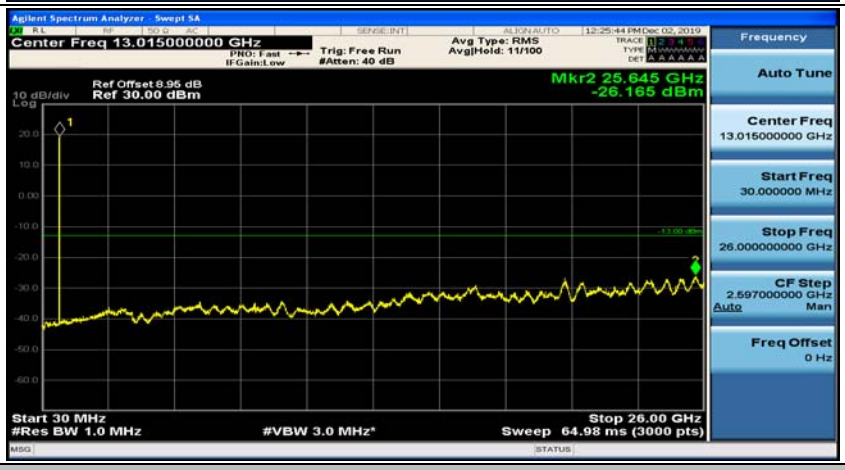

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
12:23:59 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-48.035 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 11/100
12:24:05 PM Dec 02, 2019
Frequency
Auto Tune
Mkr2 25.654 GHz
-25.844 dBm
Ref Offset 8.95 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)

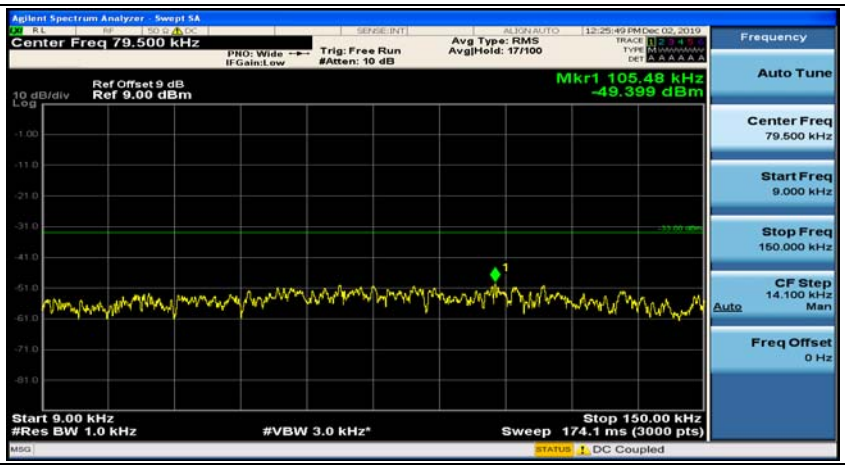
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

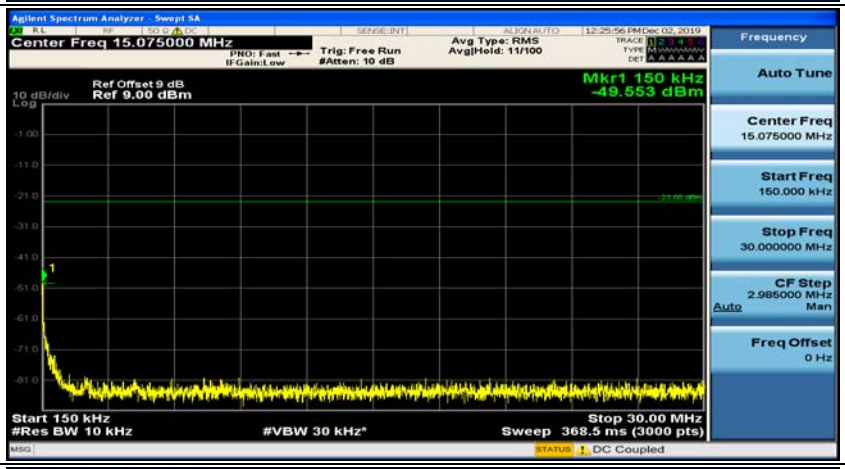


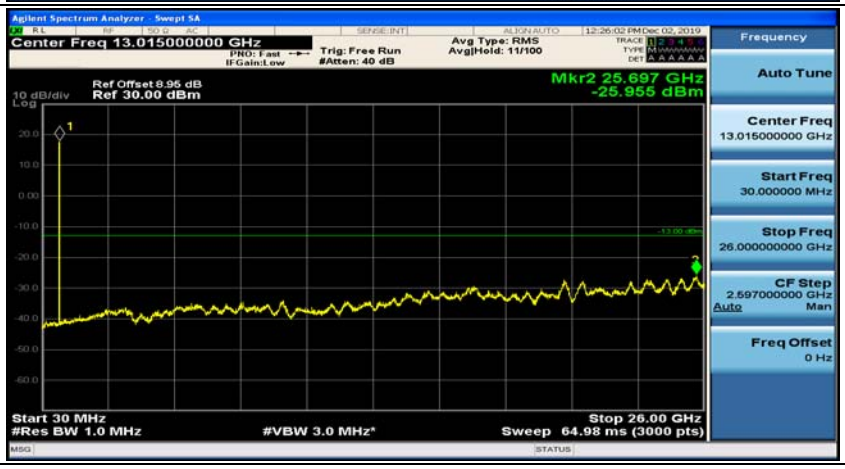


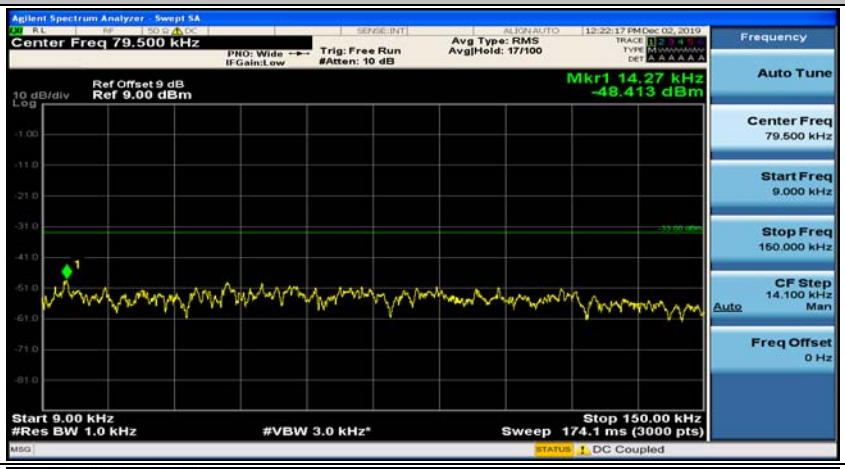
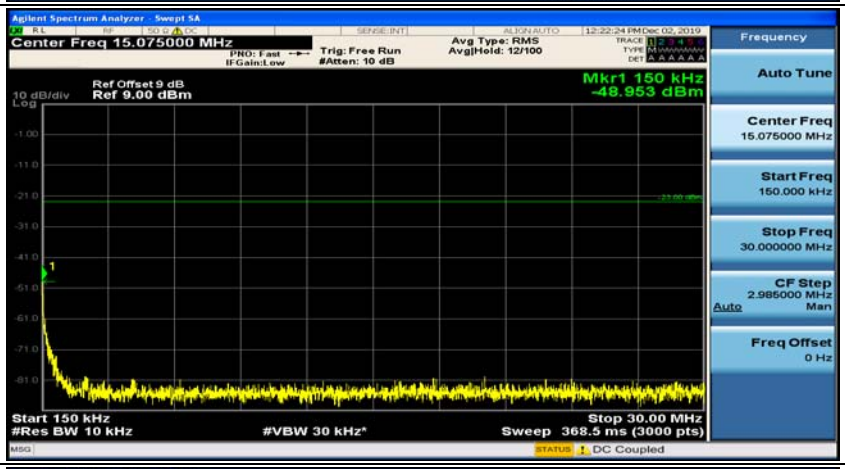
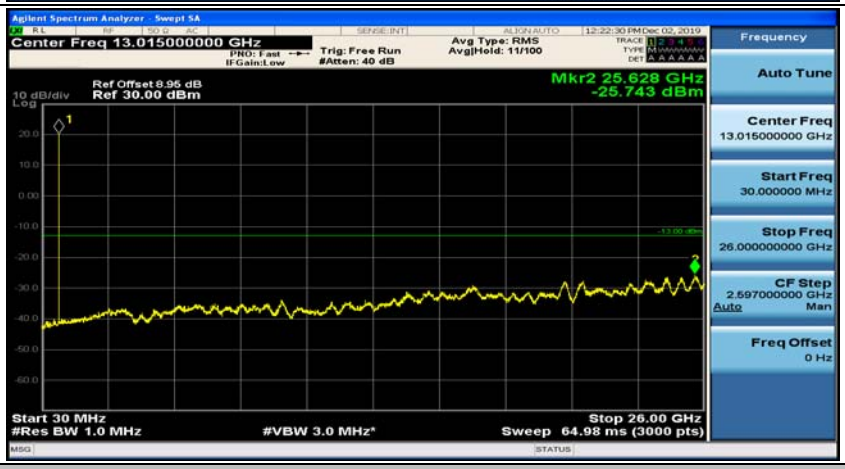


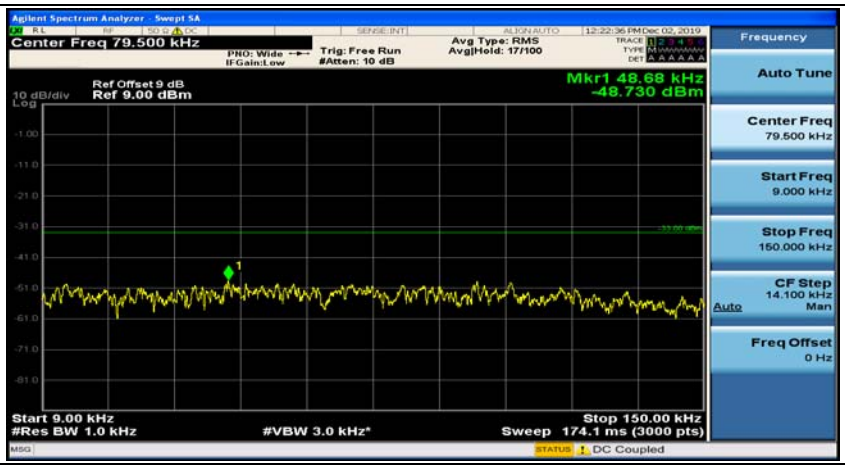
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

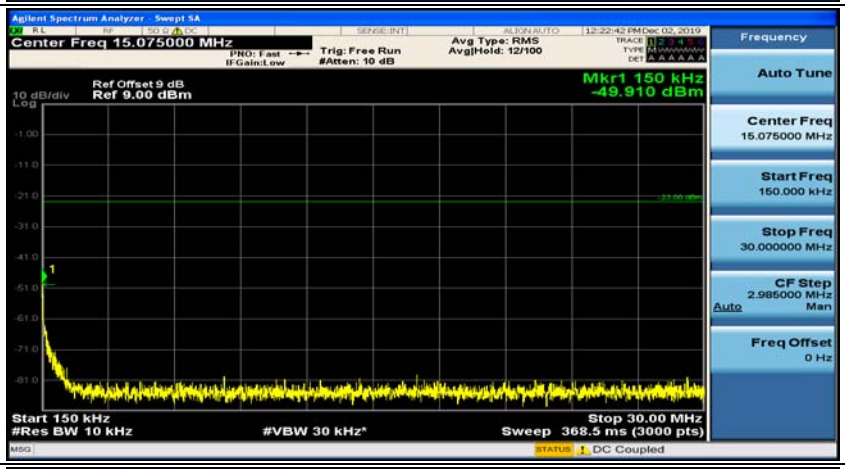

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:25:49 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 105.48 kHz
-49.399 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

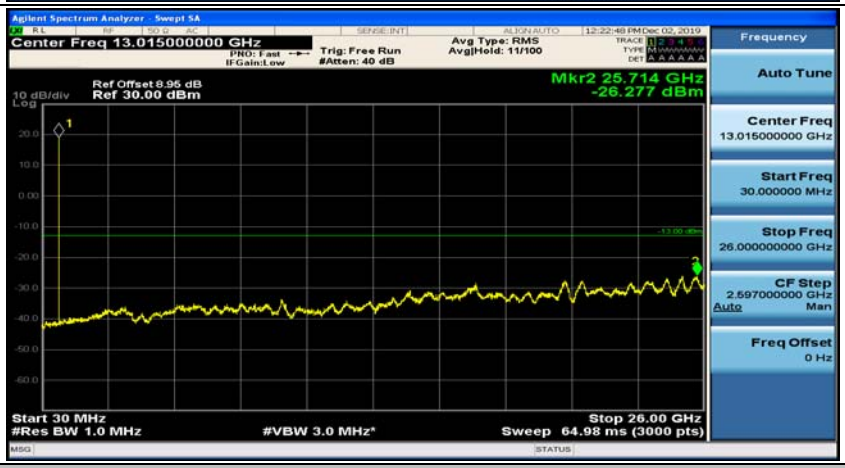

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
12:25:56 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-49.553 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 11/100
12:26:02 PM Dec 02, 2019
Frequency
Auto Tune
Mkr2 25.697 GHz
-25.955 dBm
Ref Offset 8.95 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)

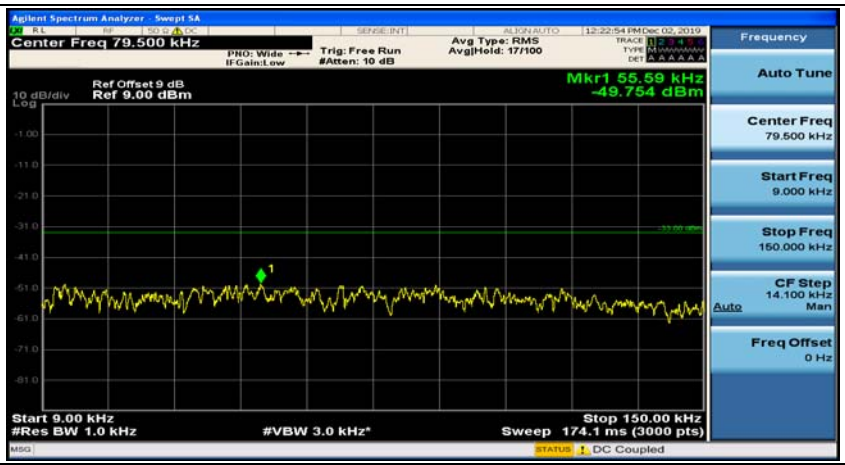
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

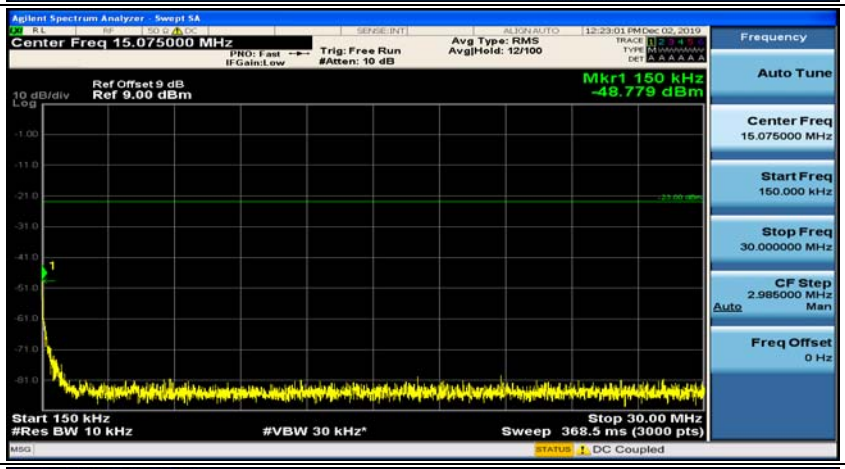




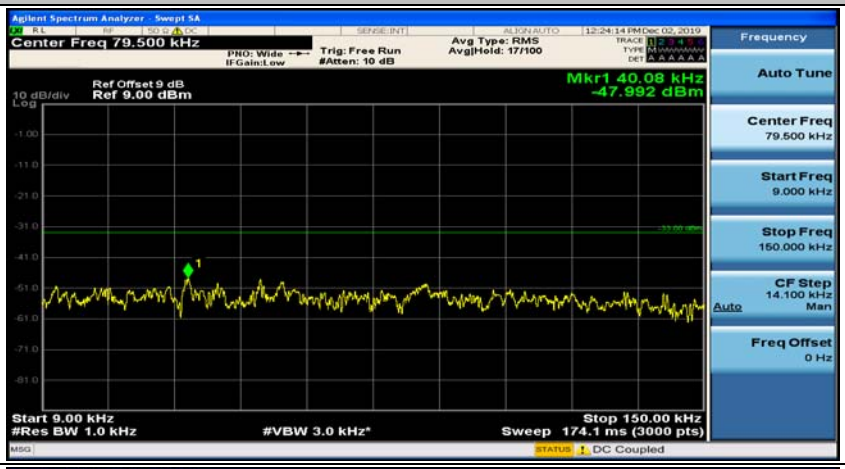
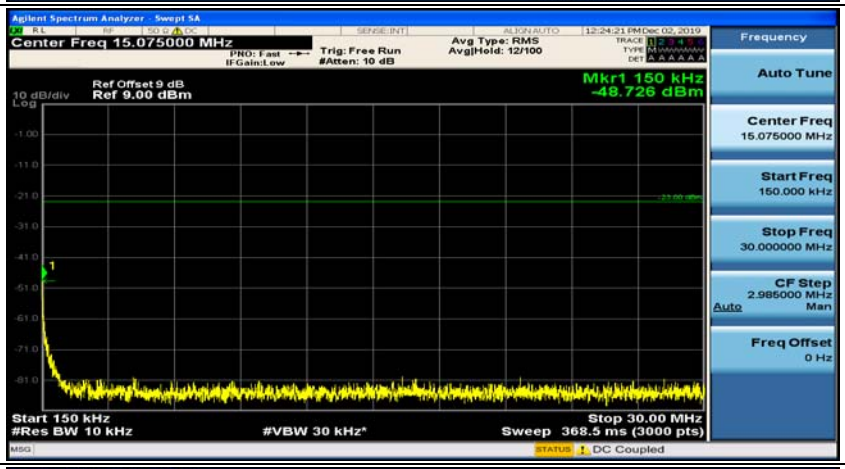
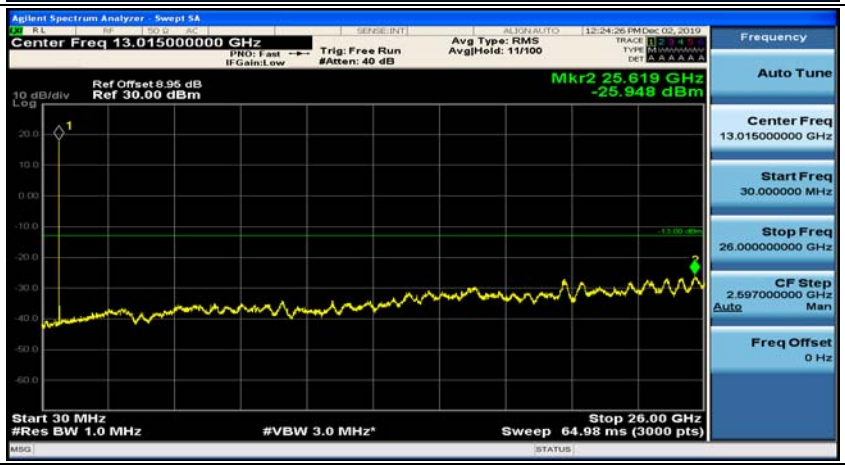


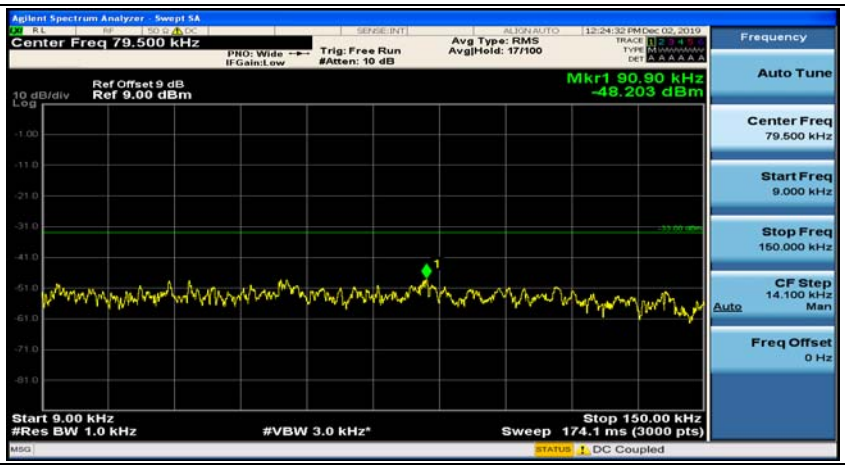
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

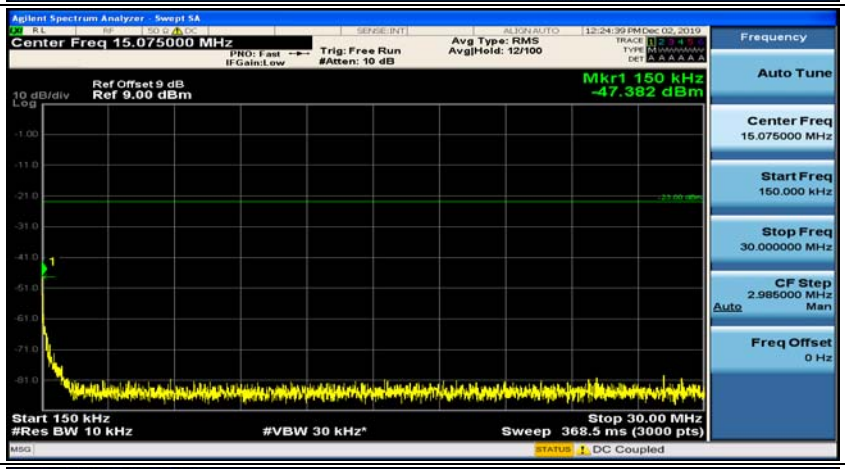

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:22:54 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 55.59 kHz
-49.754 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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: 12/100
12:23:01 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-48.779 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

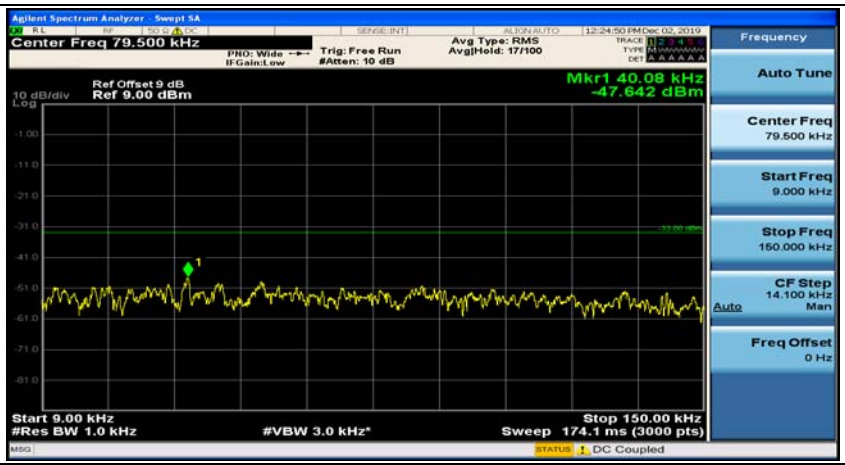

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
12:23:06 PM Dec 02, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.593 GHz
-26.265 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 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

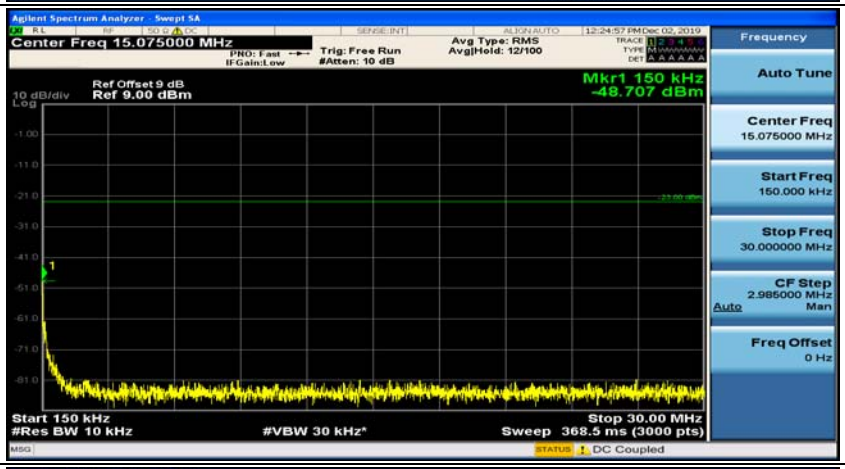
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

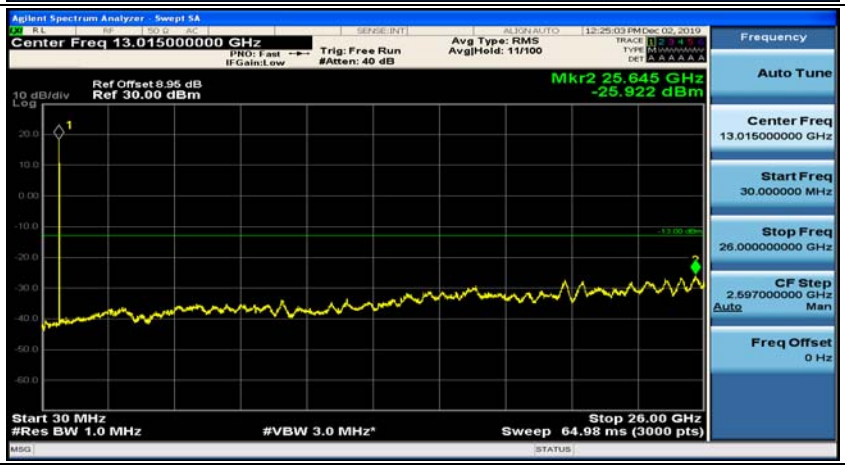


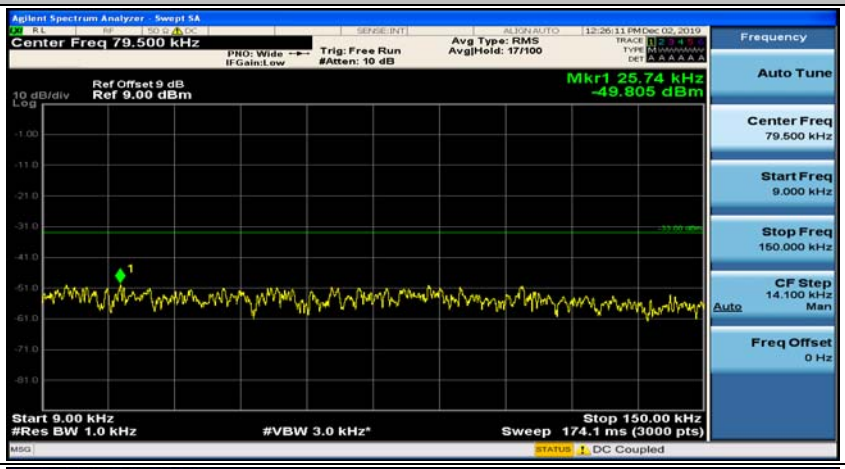
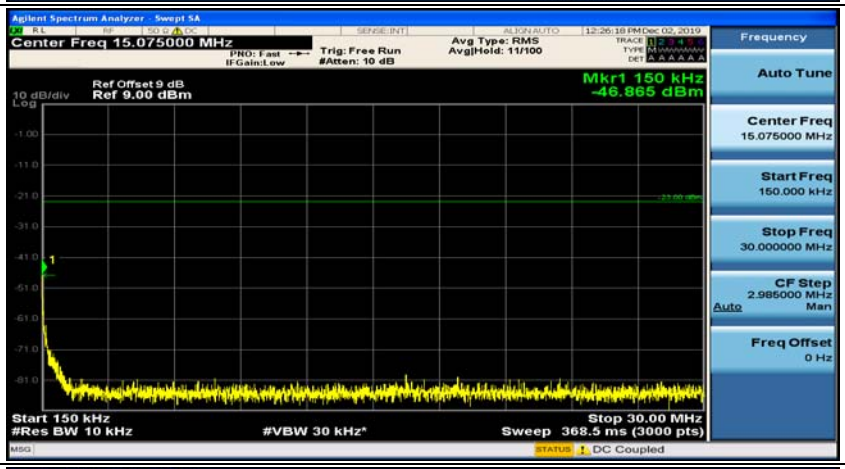
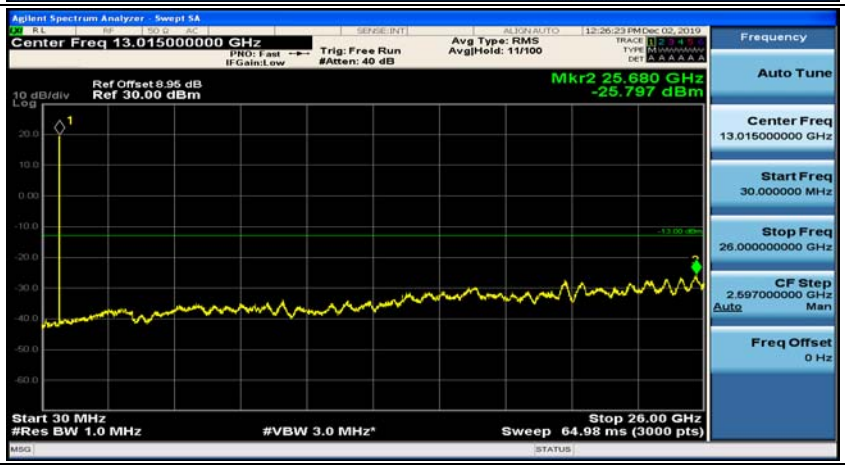


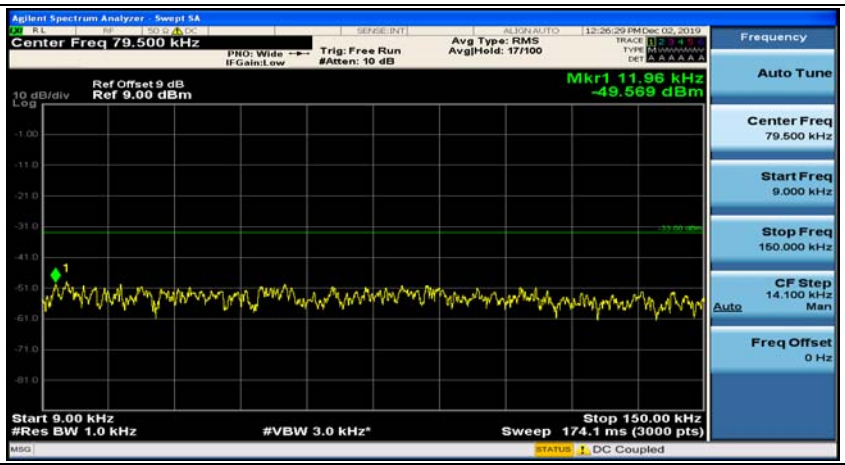
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

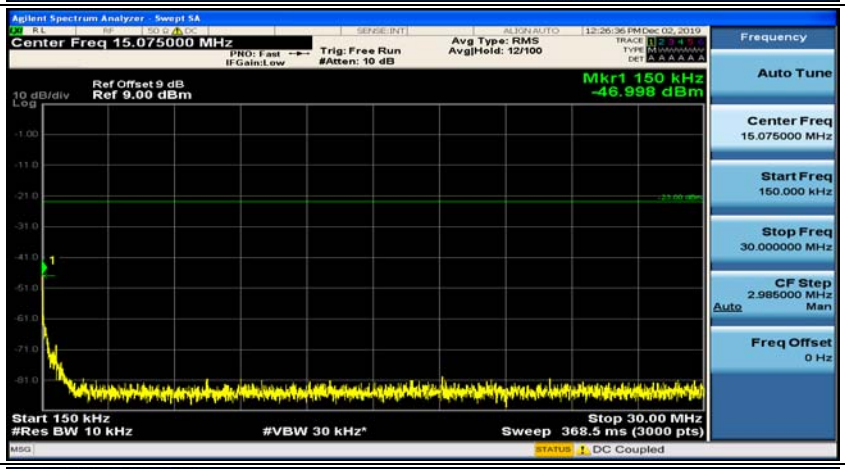

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:24:50 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 40.08 kHz
-47.642 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

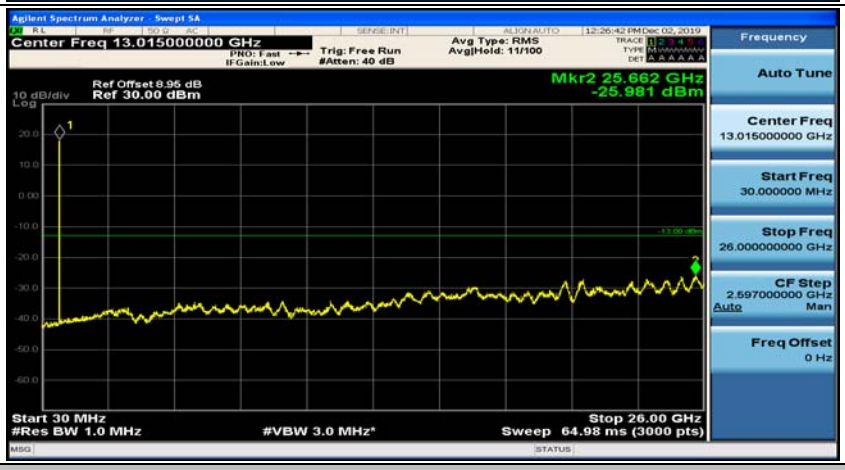

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
12:24:57 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-48.707 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:25:03 PM Dec 02, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.645 GHz
-25.922 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

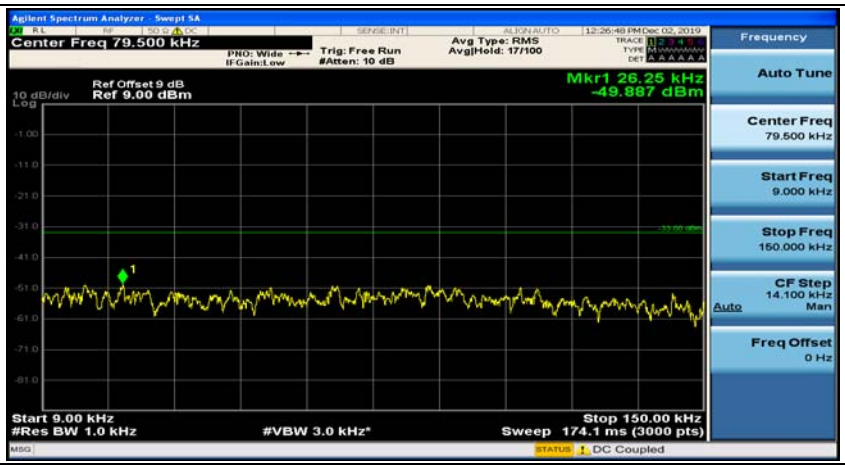
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

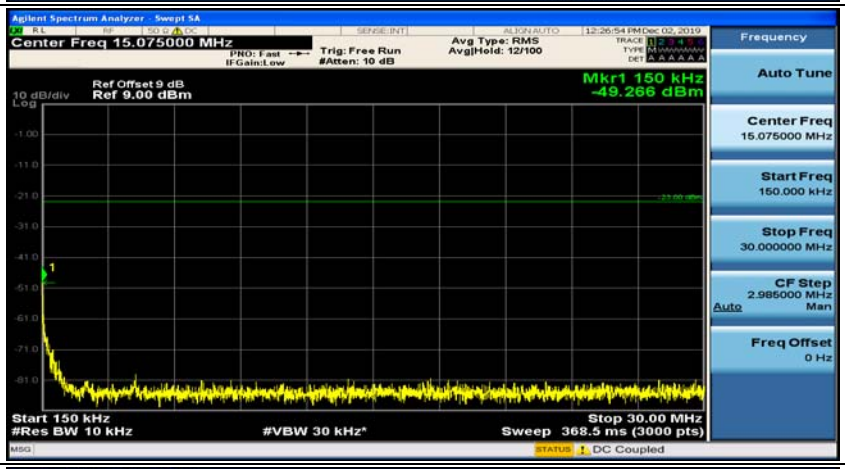


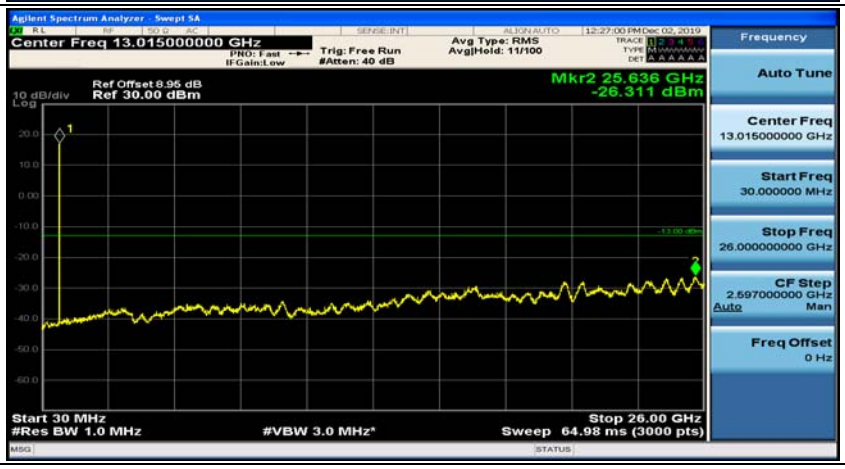




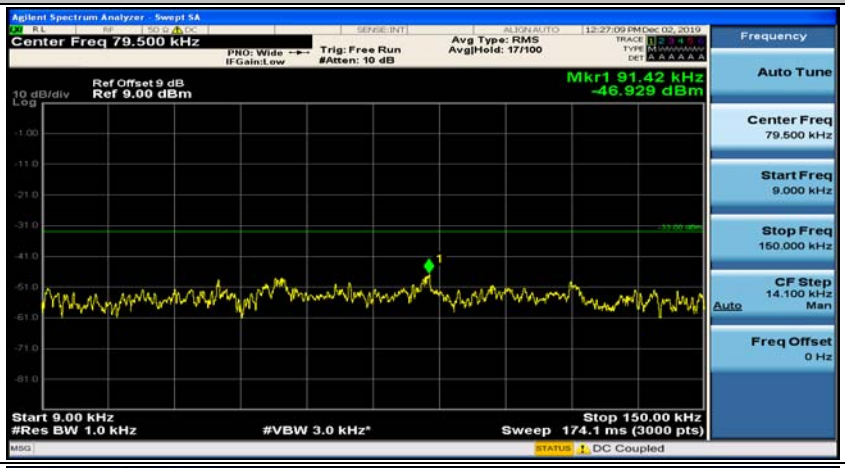
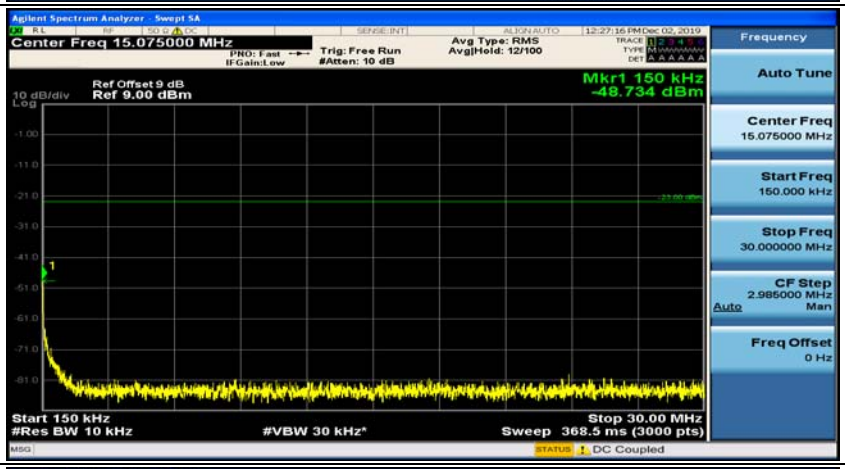
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24


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
12:26:46 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 26.25 kHz
-49.887 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 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

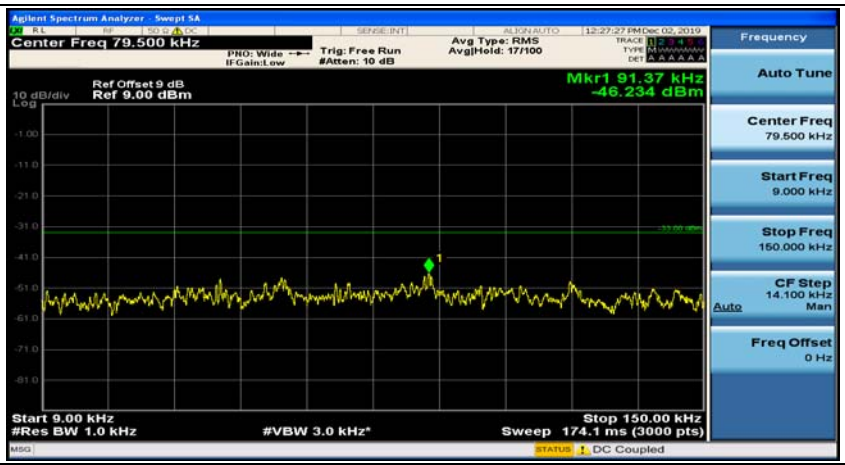

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
12:26:54 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-49.266 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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

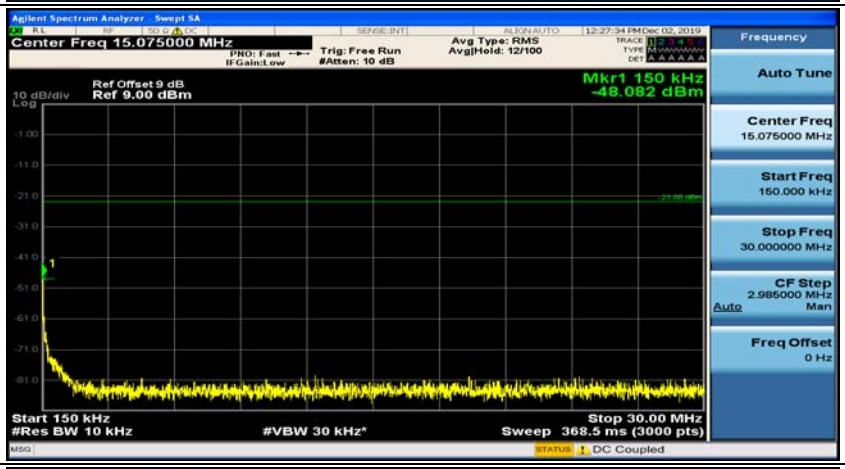

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
12:27:00 PM Dec 02, 2019
Frequency
Auto Tune
Mkr2 25.636 GHz
-26.311 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start 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)

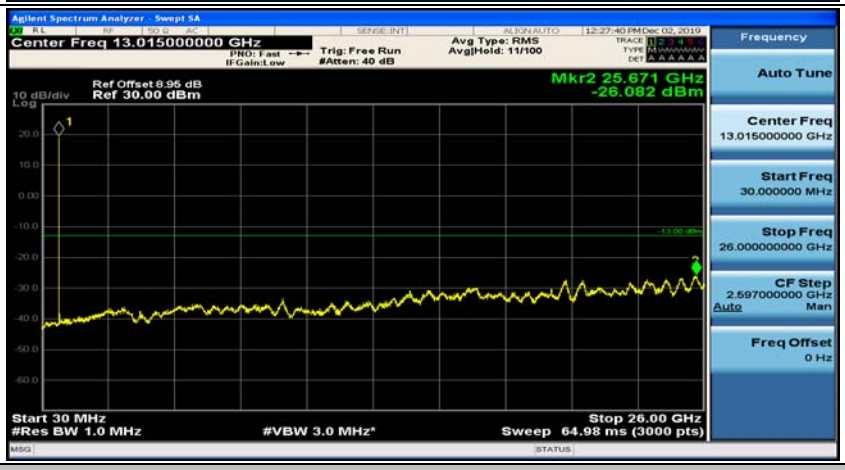
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



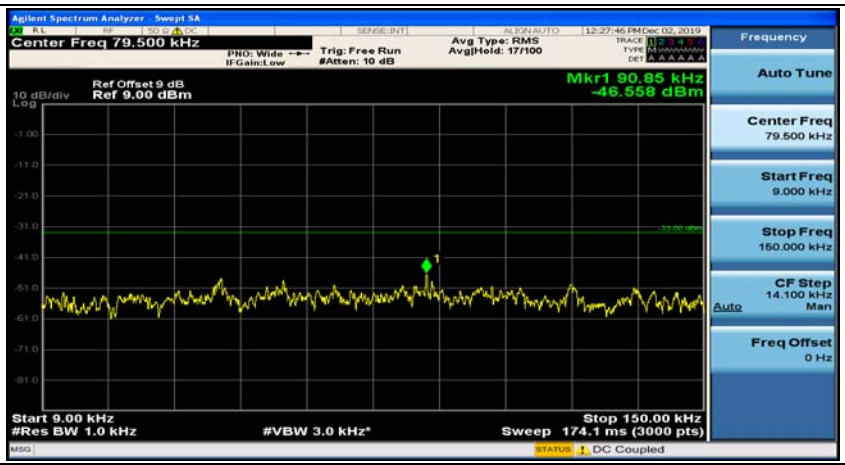
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

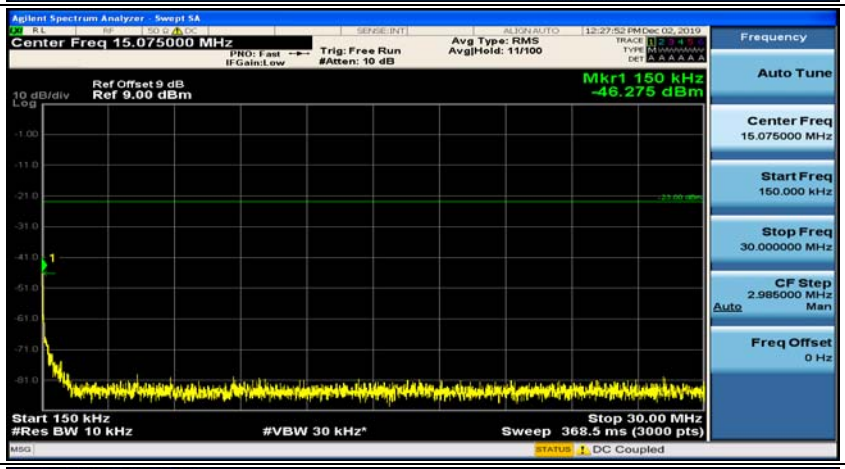


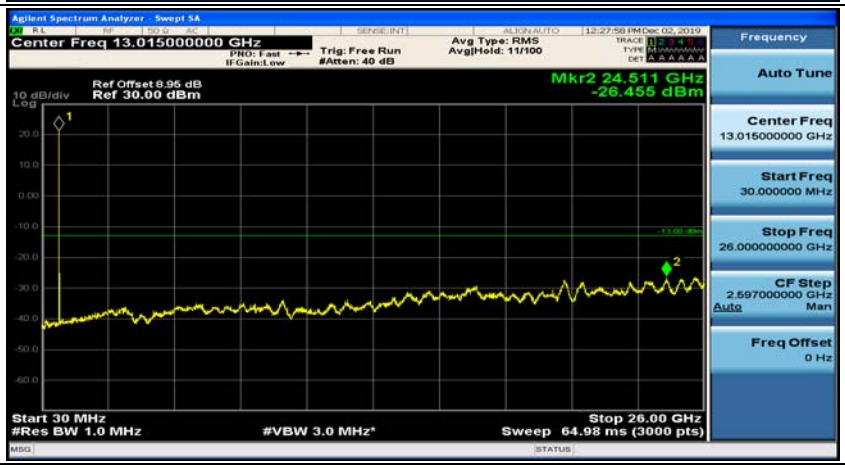


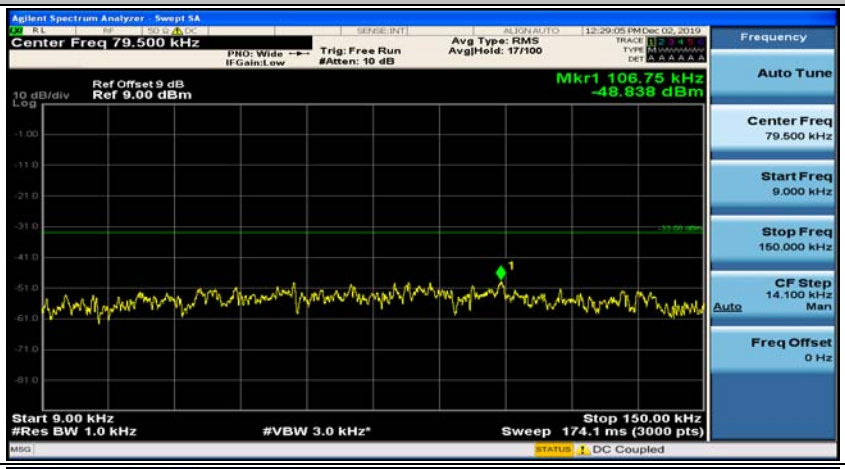
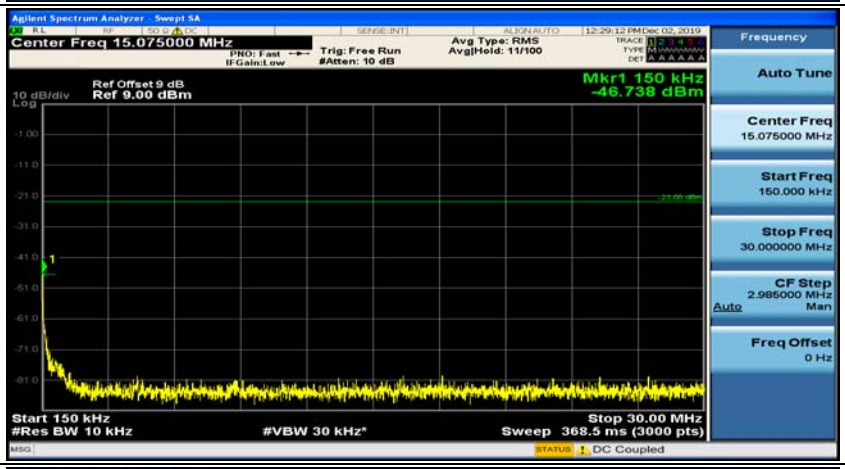
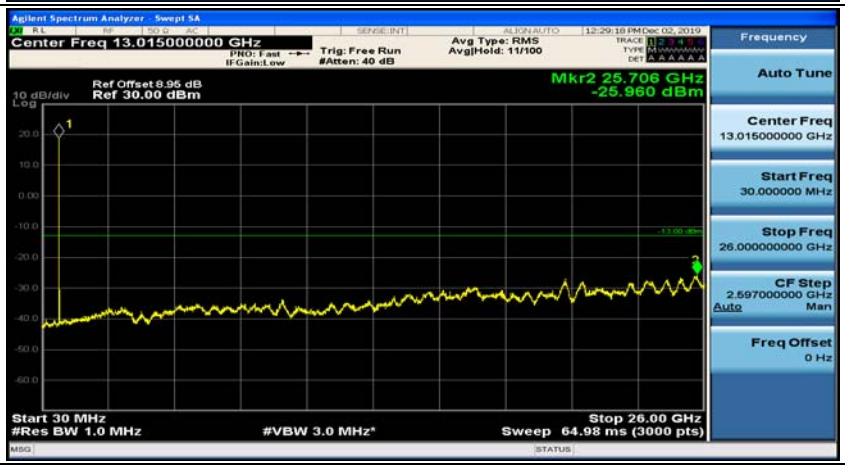


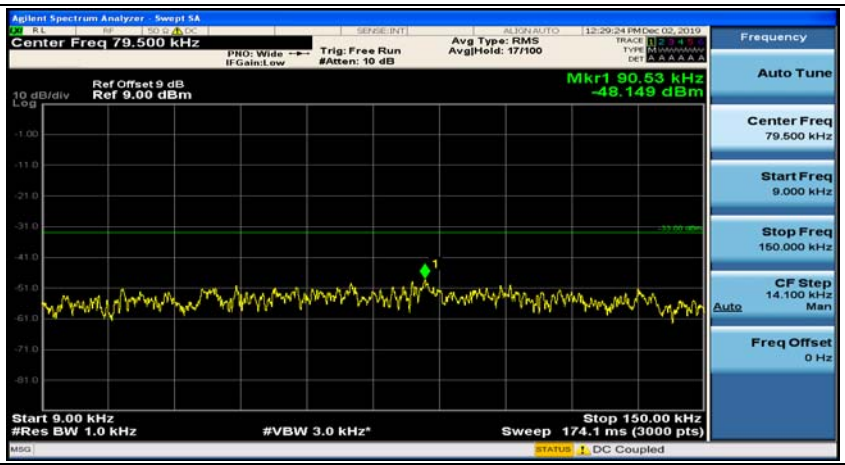
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

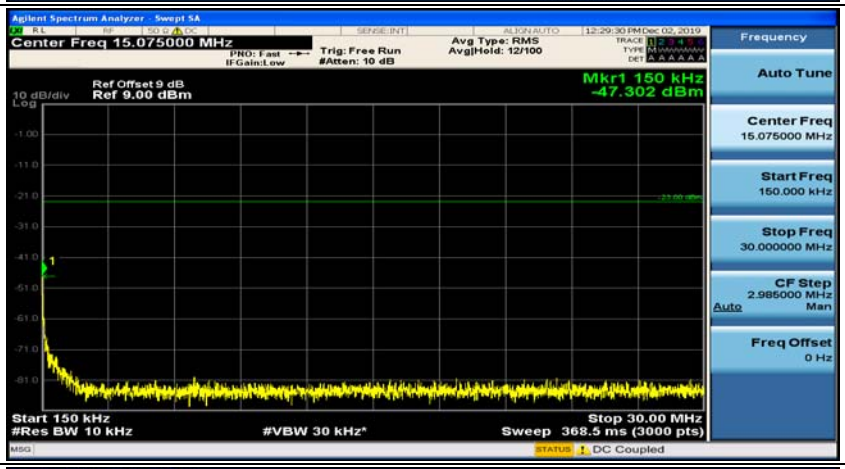

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:27:46 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 90.85 kHz
-46.558 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
12:27:52 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-46.275 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

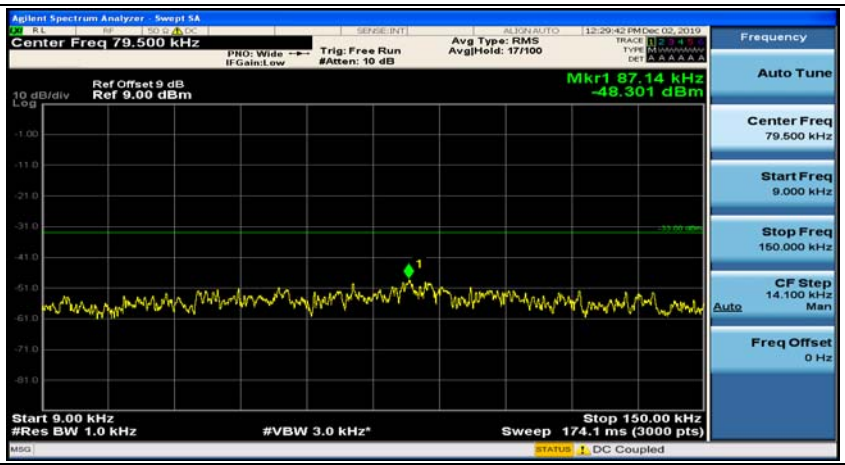

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
12:27:58 PM Dec 02, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 24.511 GHz
-26.455 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

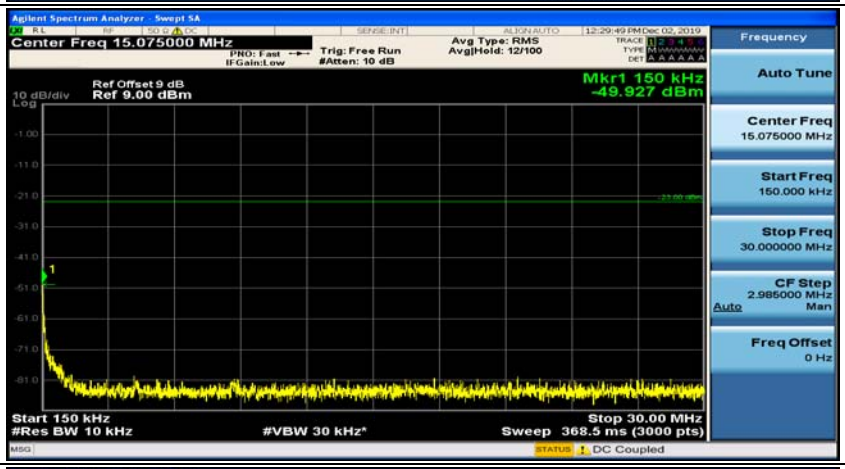
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

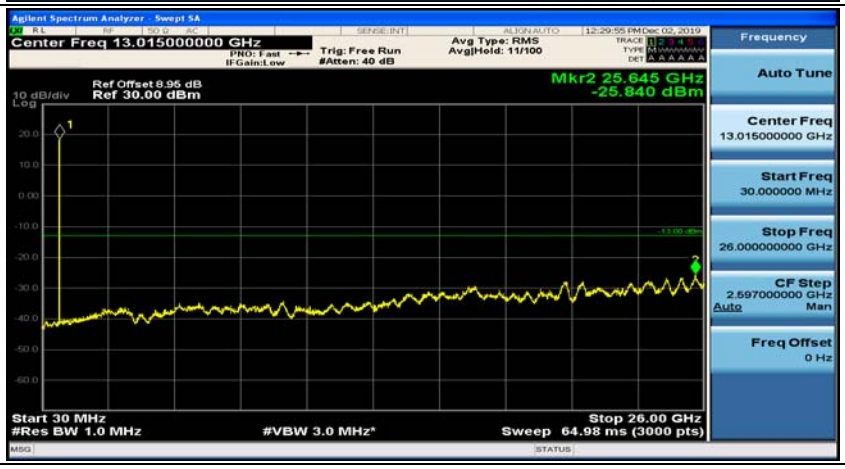


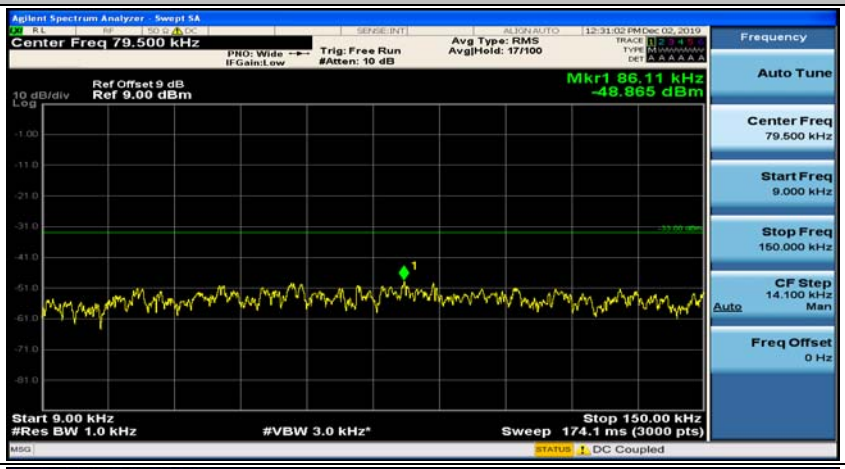
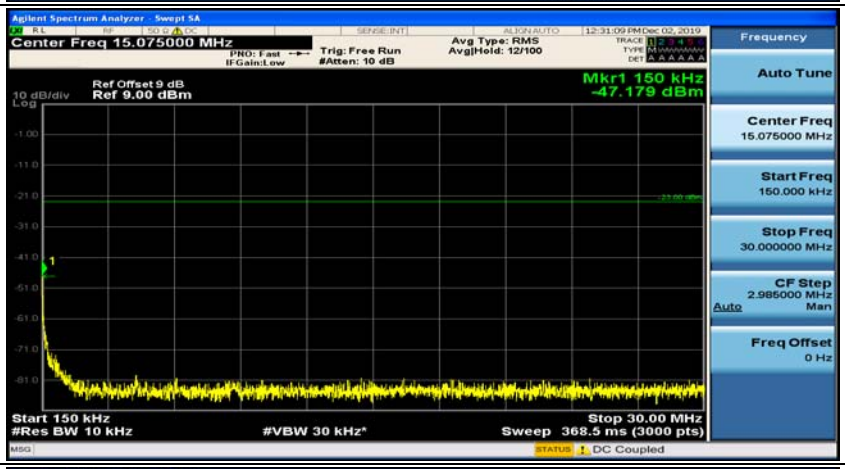
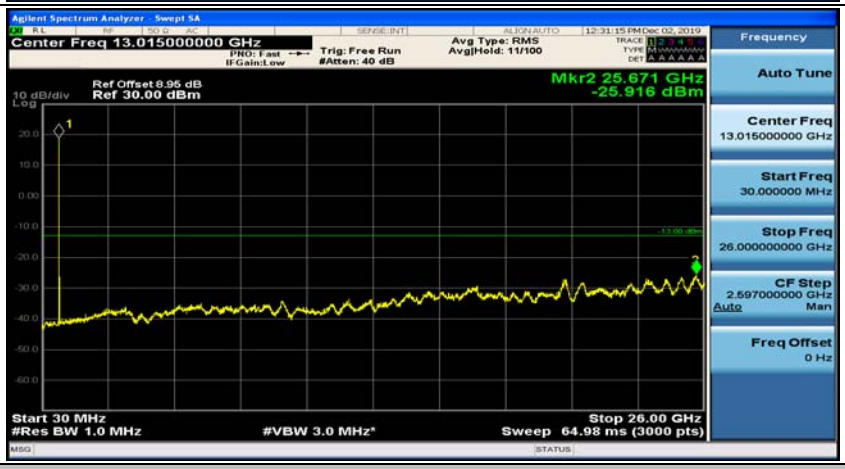


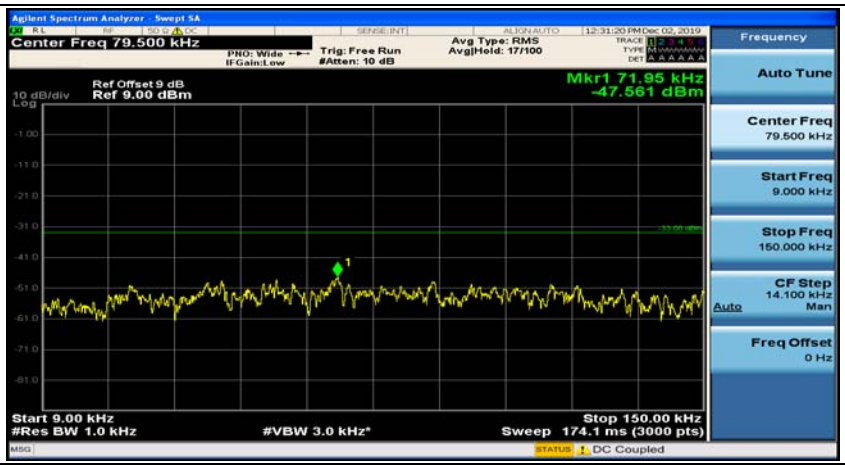
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

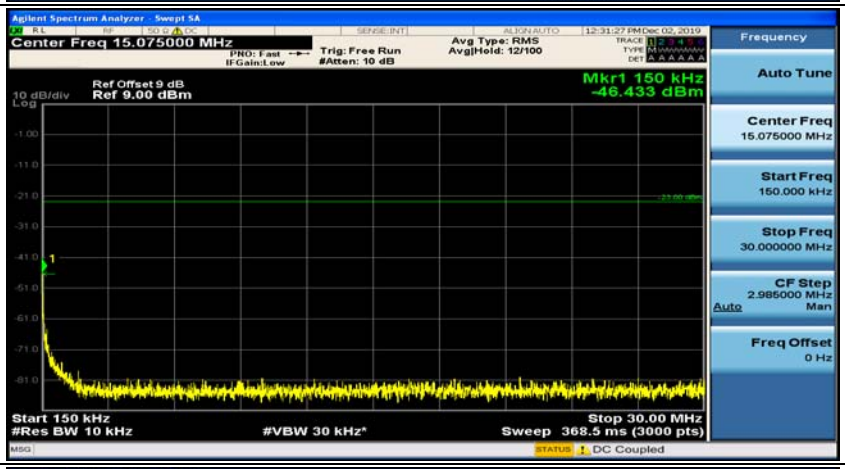

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:29:42 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 87.14 kHz
-48.301 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

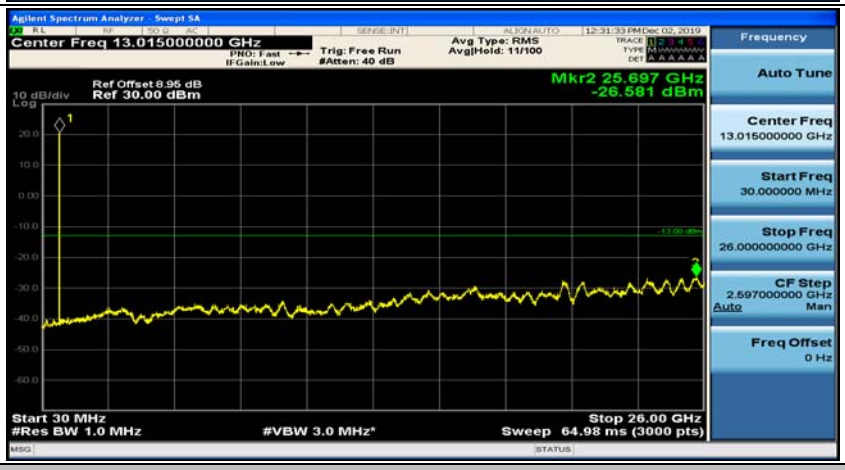

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
12:29:49 PM Dec 02, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-49.927 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
12:29:55 PM Dec 02, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.645 GHz
-25.840 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

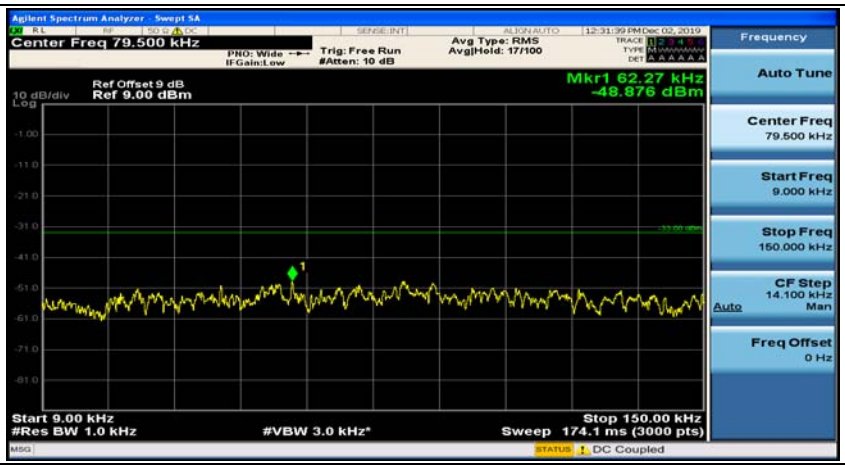
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

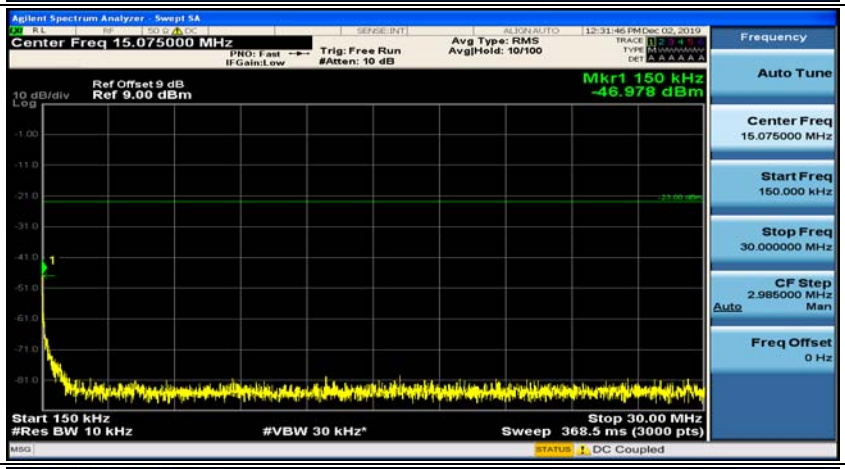


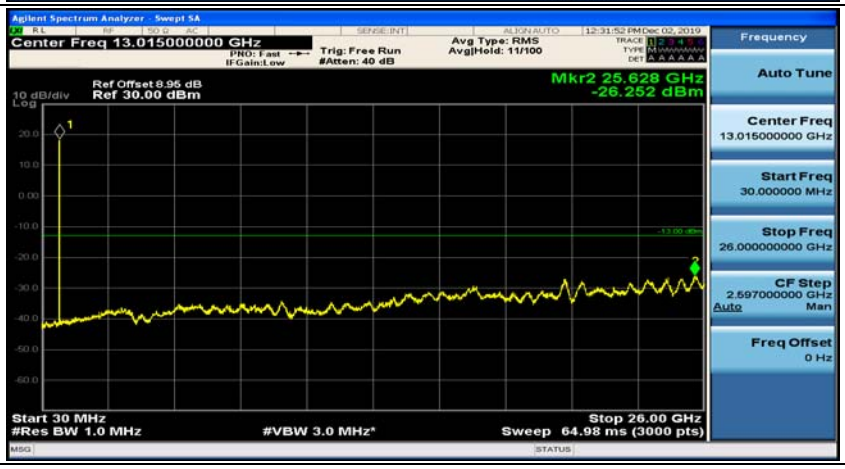


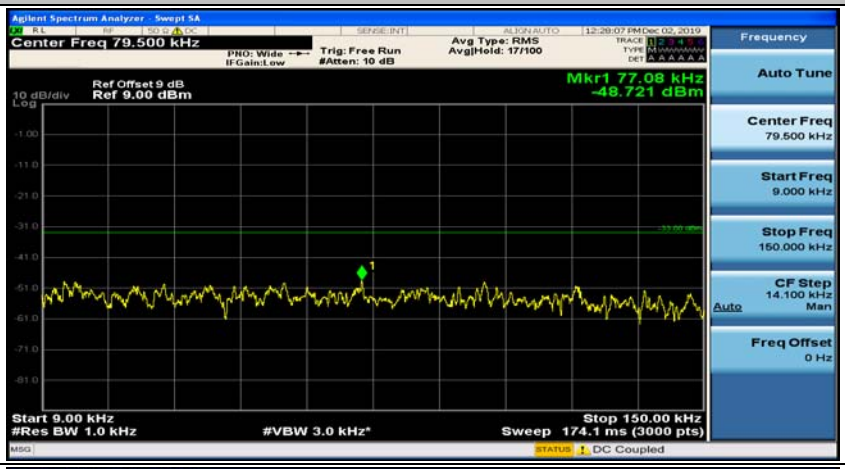
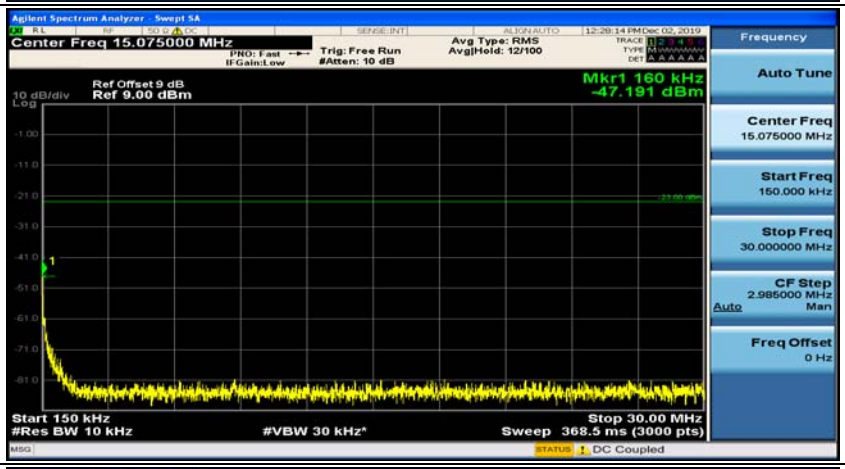
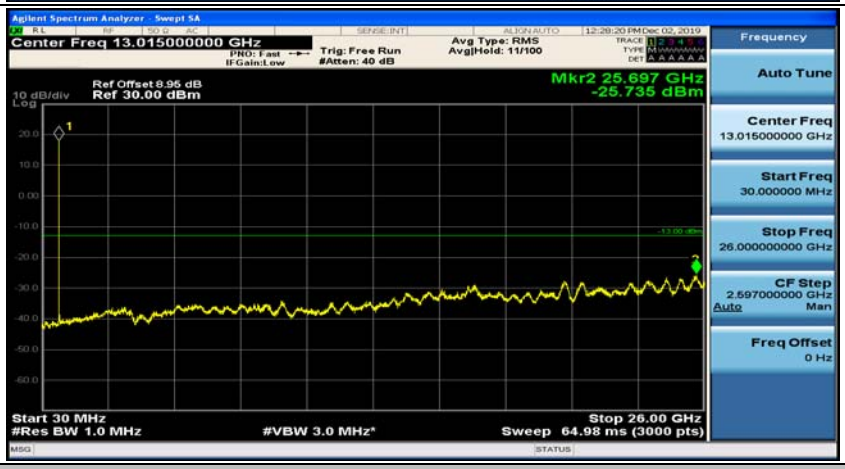


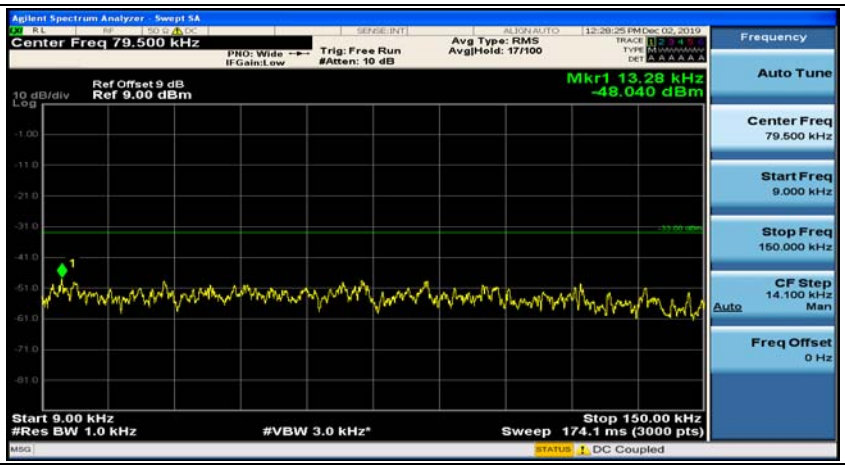
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

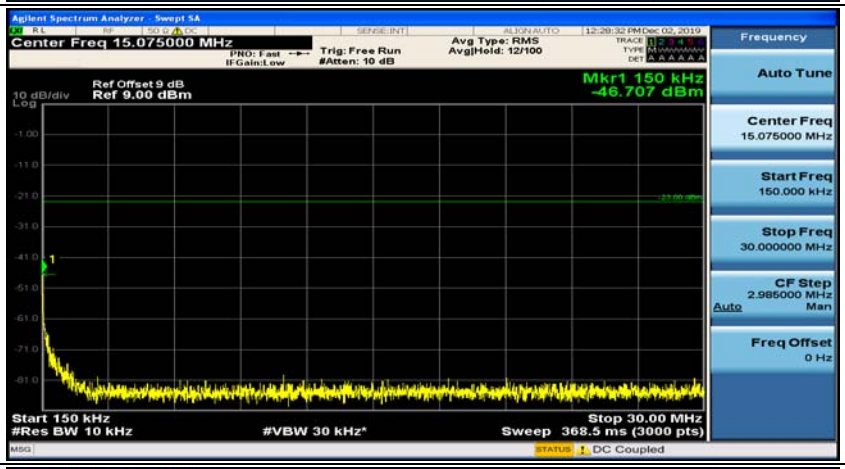

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:31:39 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 62.27 kHz
-48.876 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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: 10/100
12:31:46 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-46.978 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 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

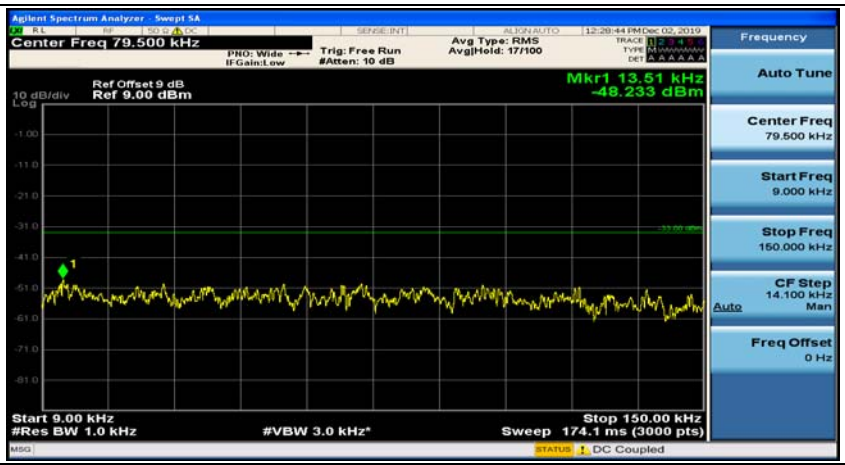

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
12:31:52 PM Dec 02, 2019
Frequency
Auto Tune
Mkr2 25.628 GHz
-26.252 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start 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)

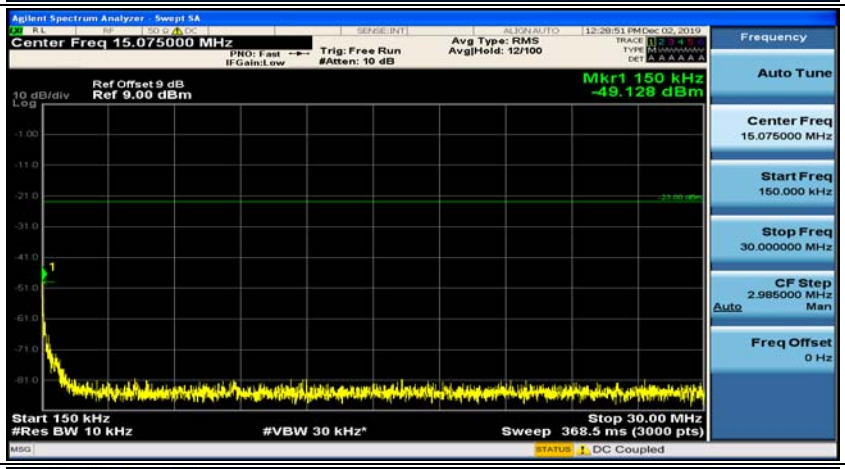
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

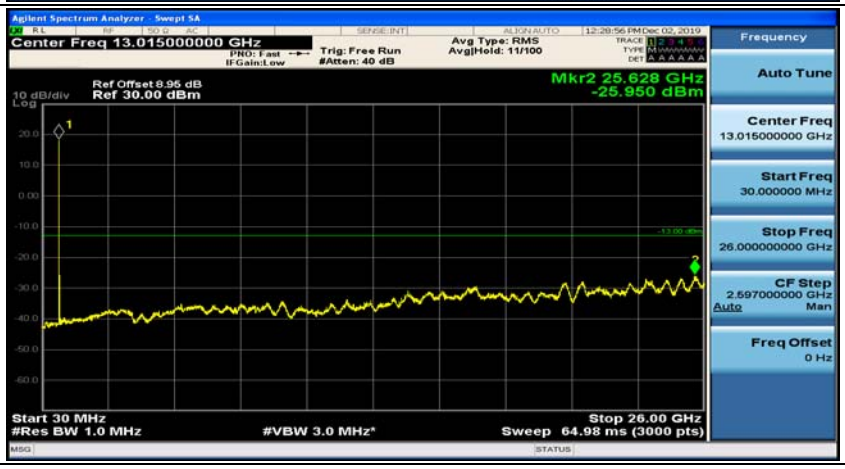


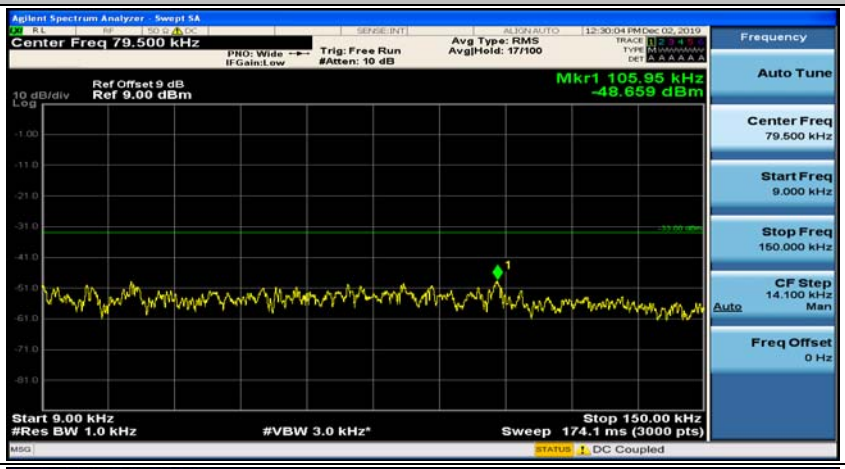
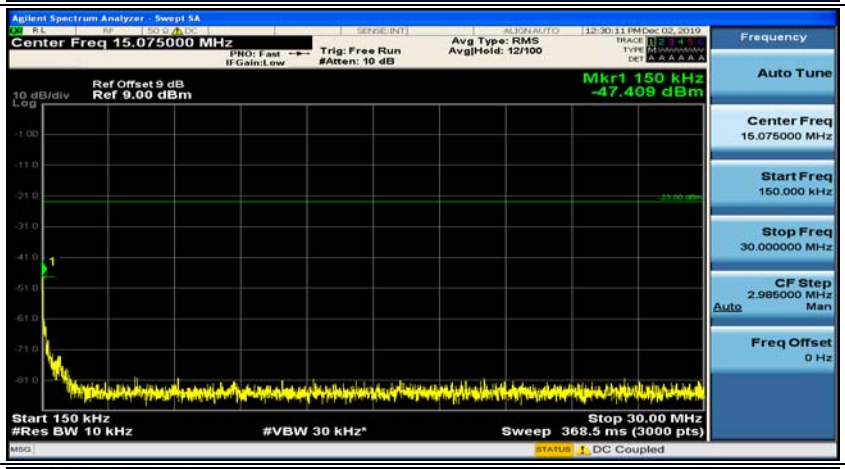
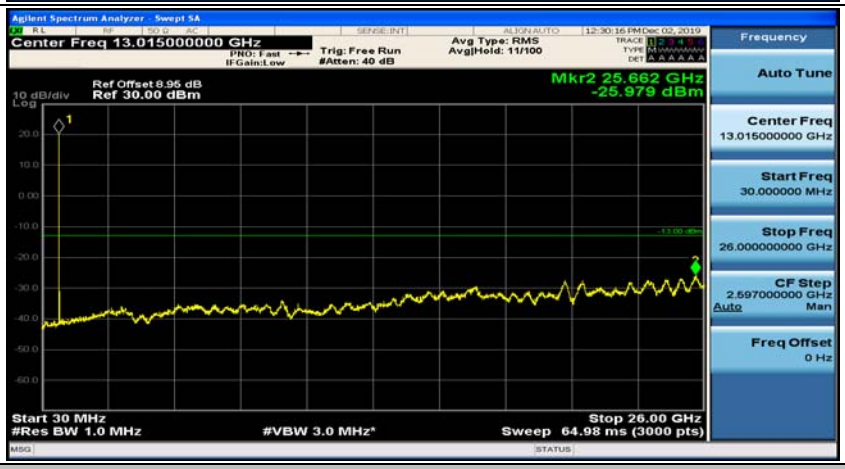


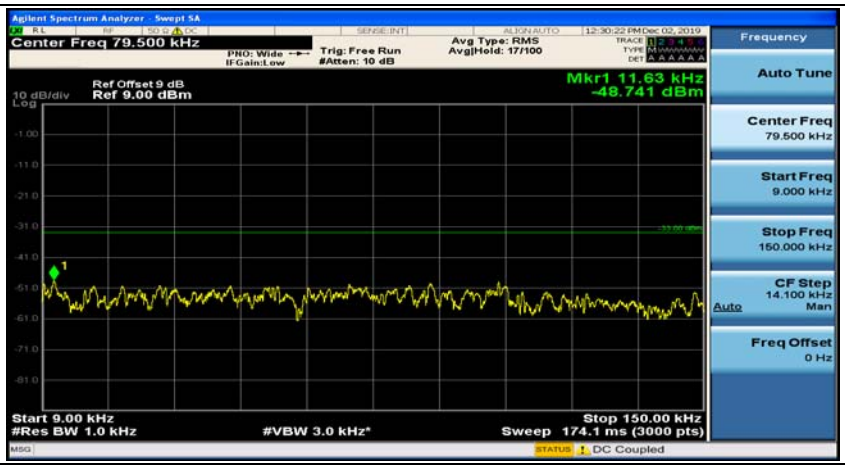
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

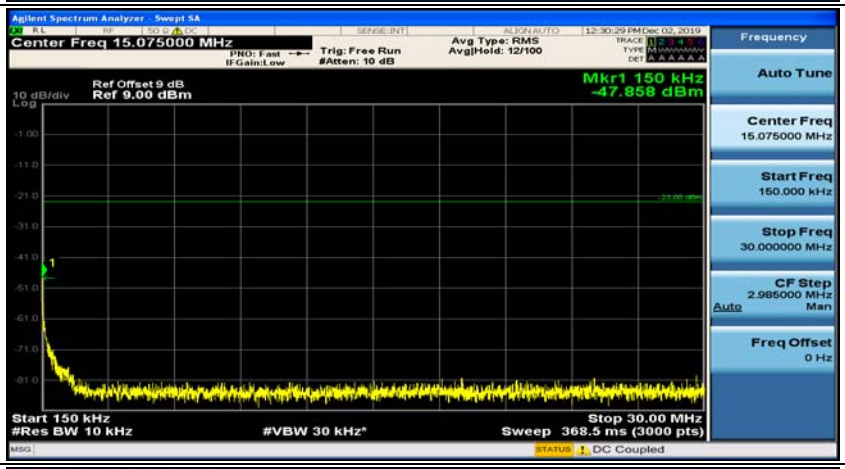

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:28:44 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 13.51 kHz
-48.233 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

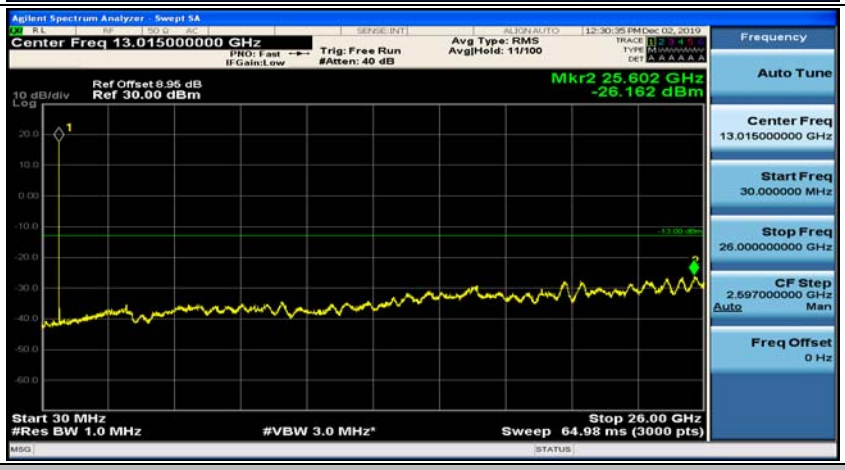

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
12:28:51 PM Dec 02, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-49.128 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 11/100
12:28:56 PM Dec 02, 2019
Frequency
Auto Tune
Mkr2 25.628 GHz
-25.950 dBm
Ref Offset 8.95 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)

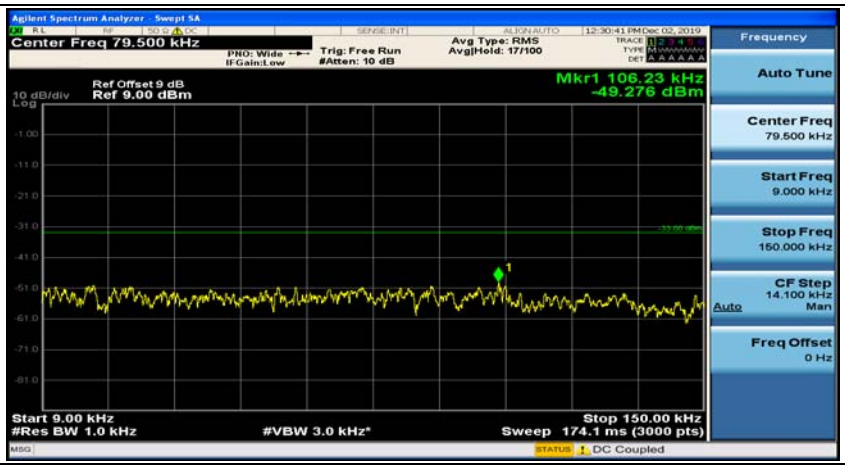
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

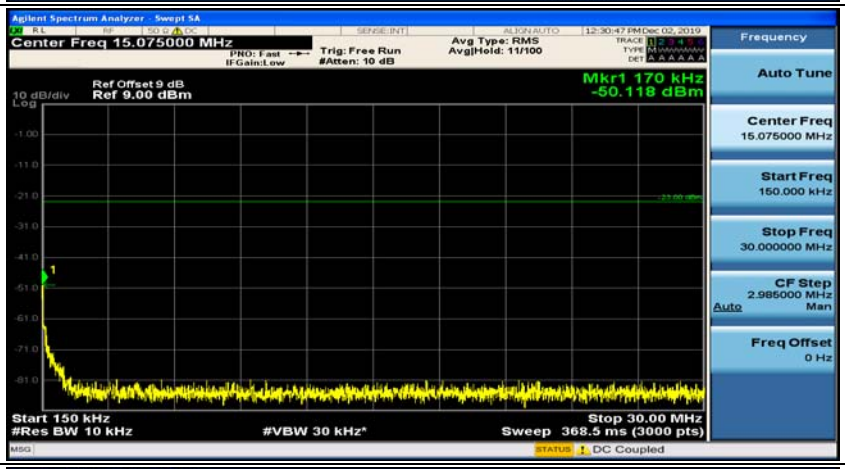


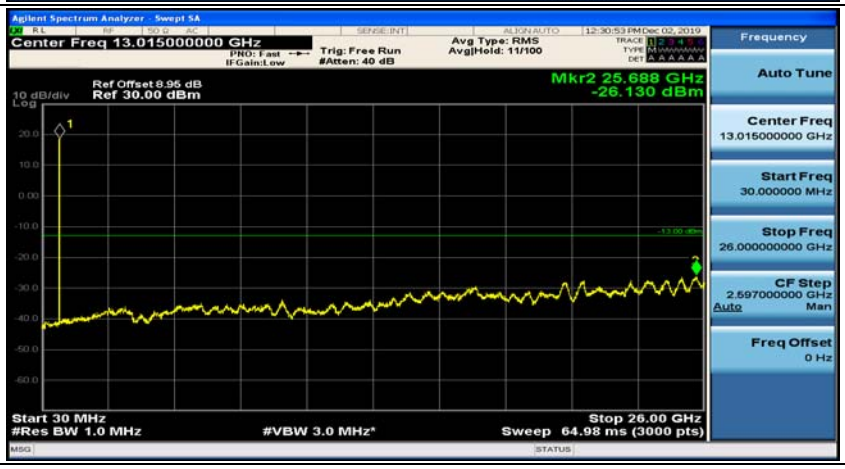


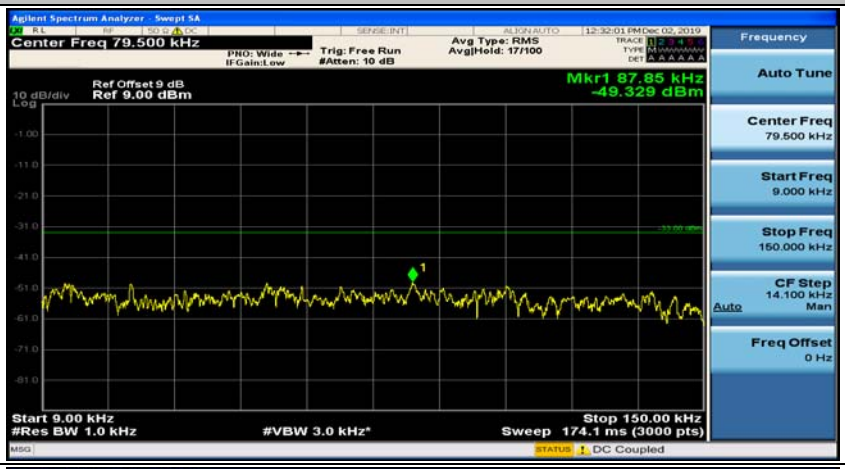
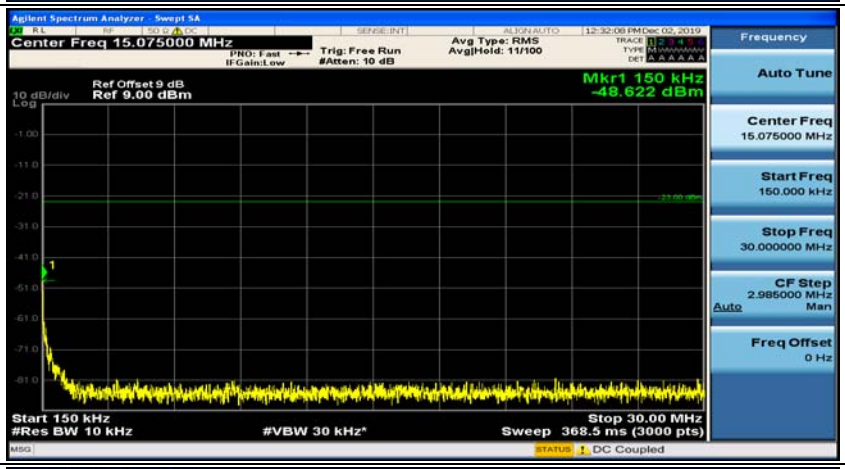
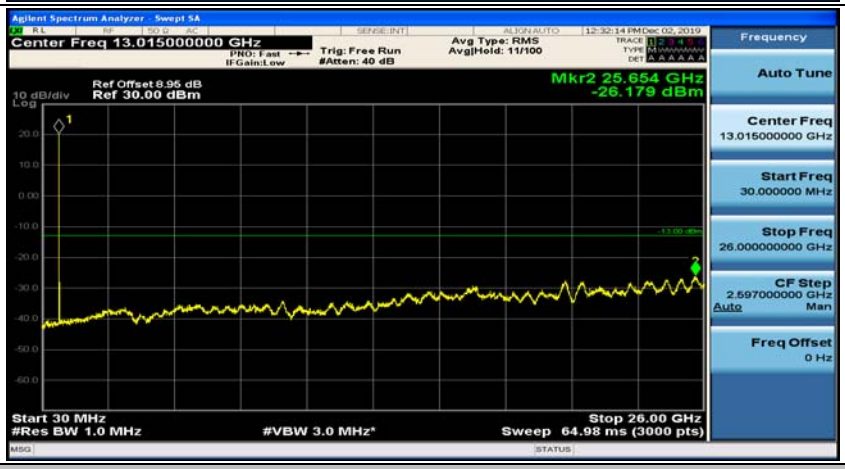


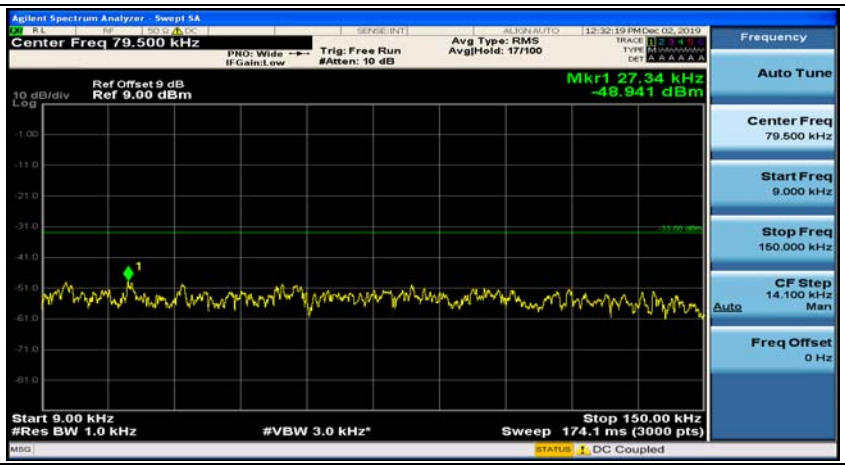
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

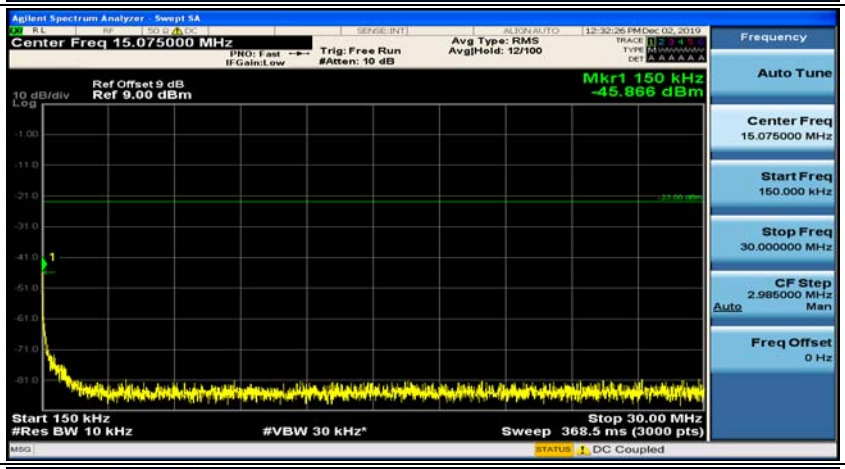

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:30:41 PM Dec 02, 2019
Frequency
Mkr1 106.23 kHz
-49.276 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

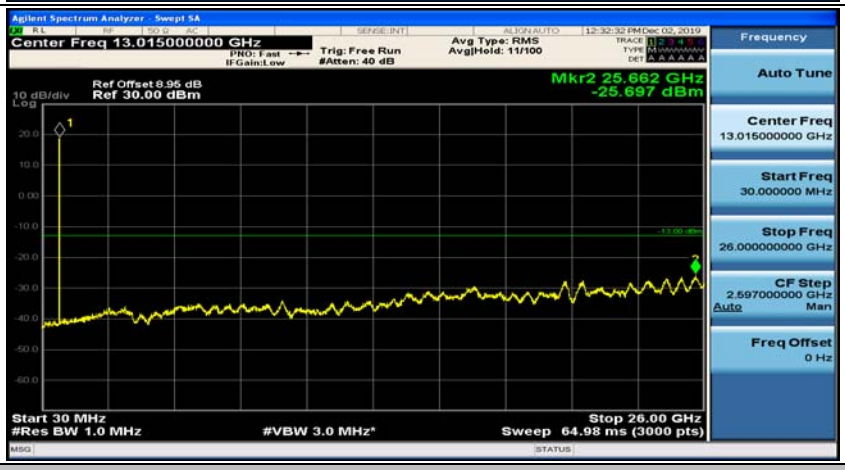

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
12:30:47 PM Dec 02, 2019
Frequency
Mkr1 170 kHz
-50.118 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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
12:30:53 PM Dec 02, 2019
Frequency
Mkr2 25.688 GHz
-26.130 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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)

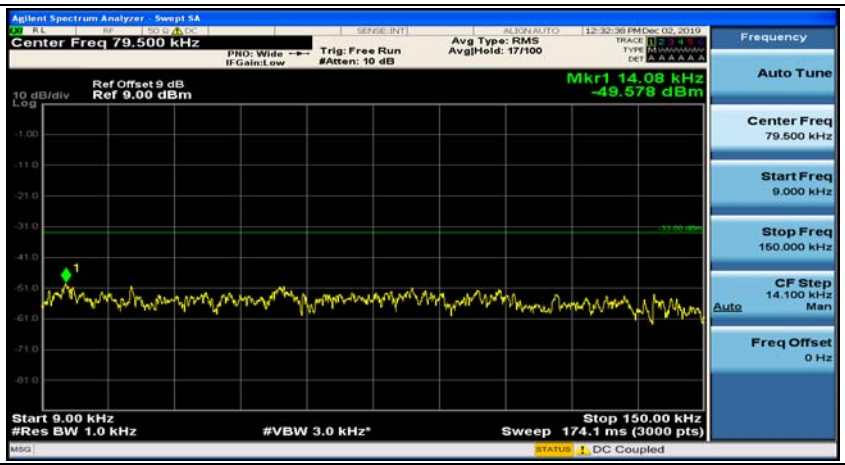
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

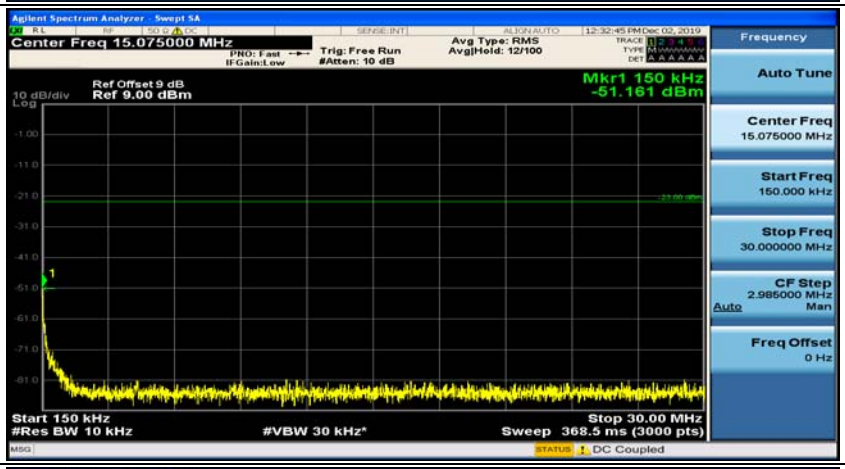


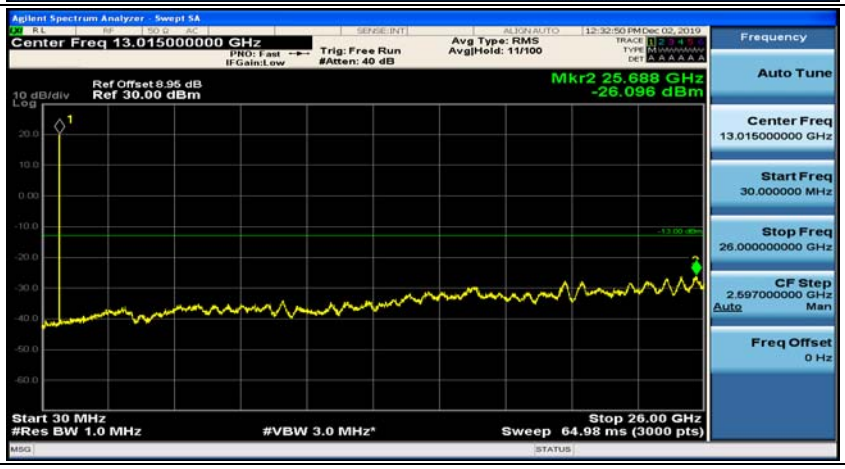




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


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
12:32:36 PM Dec 02, 2019
Frequency
Mkr1 14.08 kHz
-49.578 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 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
12:32:45 PM Dec 02, 2019
Frequency
Mkr1 150 kHz
-51.161 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 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
12:32:50 PM Dec 02, 2019
Frequency
Mkr2 25.688 GHz
-26.096 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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	1.76	0.002515	± 2.5	PASS
		VN	TN	1.58	0.002258	± 2.5	PASS
		VH	TN	0.68	0.000972	± 2.5	PASS
	MCH	VL	TN	1.58	0.002233	± 2.5	PASS
		VN	TN	4.08	0.005767	± 2.5	PASS
		VH	TN	4.41	0.006233	± 2.5	PASS
	HCH	VL	TN	-1.13	-0.001580	± 2.5	PASS
		VN	TN	0.44	0.000615	± 2.5	PASS
		VH	TN	4.62	0.006459	± 2.5	PASS
16QAM	LCH	VL	TN	0.82	0.001172	± 2.5	PASS
		VN	TN	1.7	0.002430	± 2.5	PASS
		VH	TN	-0.78	-0.001115	± 2.5	PASS
	MCH	VL	TN	2.47	0.003491	± 2.5	PASS
		VN	TN	2.62	0.003703	± 2.5	PASS
		VH	TN	1.6	0.002261	± 2.5	PASS
	HCH	VL	TN	4.68	0.006543	± 2.5	PASS
		VN	TN	3.73	0.005215	± 2.5	PASS
		VH	TN	4.83	0.006752	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.94	0.004202	± 2.5	PASS
		VN	-20	-1.28	-0.001829	± 2.5	PASS
		VN	-10	0.07	0.000100	± 2.5	PASS
		VN	0	-1.86	-0.002658	± 2.5	PASS
		VN	10	4.23	0.006045	± 2.5	PASS
		VN	20	0.83	0.001186	± 2.5	PASS
		VN	30	4.56	0.006517	± 2.5	PASS
		VN	40	-1.55	-0.002215	± 2.5	PASS
		VN	50	-1.63	-0.002330	± 2.5	PASS
	MCH	VN	-30	0.64	0.000905	± 2.5	PASS
		VN	-20	4.47	0.006318	± 2.5	PASS

		VN	-10	0.72	0.001018	± 2.5	PASS
		VN	0	2.3	0.003251	± 2.5	PASS
		VN	10	1.47	0.002078	± 2.5	PASS
		VN	20	2.35	0.003322	± 2.5	PASS
		VN	30	3.45	0.004876	± 2.5	PASS
		VN	40	2.14	0.003025	± 2.5	PASS
		VN	50	0.85	0.001201	± 2.5	PASS
	HCH	VN	-30	0.82	0.001146	± 2.5	PASS
		VN	-20	-1.57	-0.002195	± 2.5	PASS
		VN	-10	2.37	0.003313	± 2.5	PASS
		VN	0	3.04	0.004250	± 2.5	PASS
		VN	10	2.68	0.003747	± 2.5	PASS
		VN	20	3.93	0.005494	± 2.5	PASS
		VN	30	4.88	0.006822	± 2.5	PASS
		VN	40	3.44	0.004809	± 2.5	PASS
		VN	50	3.57	0.004991	± 2.5	PASS
16QAM	LCH	VN	-30	-1.51	-0.002158	± 2.5	PASS
		VN	-20	-1.1	-0.001572	± 2.5	PASS
		VN	-10	0.22	0.000314	± 2.5	PASS
		VN	0	-1.36	-0.001944	± 2.5	PASS
		VN	10	1.86	0.002658	± 2.5	PASS
		VN	20	0.27	0.000386	± 2.5	PASS
		VN	30	0.55	0.000786	± 2.5	PASS
		VN	40	3.5	0.005002	± 2.5	PASS
		VN	50	2.82	0.004030	± 2.5	PASS
	MCH	VN	-30	4.72	0.006671	± 2.5	PASS
		VN	-20	4.33	0.006120	± 2.5	PASS
		VN	-10	0.99	0.001399	± 2.5	PASS
		VN	0	0.34	0.000481	± 2.5	PASS
		VN	10	-1.42	-0.002007	± 2.5	PASS
		VN	20	3.93	0.005555	± 2.5	PASS
		VN	30	1.99	0.002813	± 2.5	PASS
		VN	40	-1	-0.001413	± 2.5	PASS
		VN	50	0.27	0.000382	± 2.5	PASS
	HCH	VN	-30	0.38	0.000531	± 2.5	PASS
		VN	-20	1.16	0.001622	± 2.5	PASS
		VN	-10	1.22	0.001706	± 2.5	PASS
		VN	0	3.83	0.005354	± 2.5	PASS
		VN	10	4.29	0.005997	± 2.5	PASS
		VN	20	-1.66	-0.002321	± 2.5	PASS
		VN	30	0.22	0.000308	± 2.5	PASS

		VN	40	3.35	0.004683	± 2.5	PASS
		VN	50	-1.21	-0.001692	± 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	4.76	0.006795	± 2.5	PASS
		VN	TN	-0.95	-0.001356	± 2.5	PASS
		VH	TN	0.16	0.000228	± 2.5	PASS
	MCH	VL	TN	0.12	0.000170	± 2.5	PASS
		VN	TN	-1.54	-0.002177	± 2.5	PASS
		VH	TN	4.52	0.006389	± 2.5	PASS
	HCH	VL	TN	3.33	0.004661	± 2.5	PASS
		VN	TN	3.02	0.004227	± 2.5	PASS
		VH	TN	1.62	0.002267	± 2.5	PASS
16QAM	LCH	VL	TN	2.93	0.004183	± 2.5	PASS
		VN	TN	-0.83	-0.001185	± 2.5	PASS
		VH	TN	0.34	0.000485	± 2.5	PASS
	MCH	VL	TN	-1.31	-0.001852	± 2.5	PASS
		VN	TN	-1.32	-0.001866	± 2.5	PASS
		VH	TN	1.9	0.002686	± 2.5	PASS
	HCH	VL	TN	4.59	0.006424	± 2.5	PASS
		VN	TN	-0.59	-0.000826	± 2.5	PASS
		VH	TN	1.19	0.001666	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.34	-0.000485	± 2.5	PASS
		VN	-20	0.06	0.000086	± 2.5	PASS
		VN	-10	2.58	0.003683	± 2.5	PASS
		VN	0	3.22	0.004597	± 2.5	PASS
		VN	10	-0.91	-0.001299	± 2.5	PASS
		VN	20	3.18	0.004540	± 2.5	PASS
		VN	30	-1.25	-0.001784	± 2.5	PASS
		VN	40	-0.85	-0.001213	± 2.5	PASS
		VN	50	0.88	0.001256	± 2.5	PASS
	MCH	VN	-30	1.92	0.002714	± 2.5	PASS
		VN	-20	0.75	0.001060	± 2.5	PASS
		VN	-10	-0.32	-0.000452	± 2.5	PASS

		VN	0	-1.53	-0.002163	± 2.5	PASS
		VN	10	2.72	0.003845	± 2.5	PASS
		VN	20	0.78	0.001102	± 2.5	PASS
		VN	30	-0.8	-0.001131	± 2.5	PASS
		VN	40	0.79	0.001117	± 2.5	PASS
		VN	50	1.63	0.002304	± 2.5	PASS
	HCH	VN	-30	4.63	0.006480	± 2.5	PASS
		VN	-20	4.47	0.006256	± 2.5	PASS
		VN	-10	4.75	0.006648	± 2.5	PASS
		VN	0	-1.17	-0.001638	± 2.5	PASS
		VN	10	3.06	0.004283	± 2.5	PASS
		VN	20	0.83	0.001162	± 2.5	PASS
		VN	30	0.12	0.000168	± 2.5	PASS
		VN	40	4.68	0.006550	± 2.5	PASS
		VN	50	2.02	0.002827	± 2.5	PASS
16QAM	LCH	VN	-30	4.18	0.005967	± 2.5	PASS
		VN	-20	-0.24	-0.000343	± 2.5	PASS
		VN	-10	-1.91	-0.002727	± 2.5	PASS
		VN	0	2.68	0.003826	± 2.5	PASS
		VN	10	-0.57	-0.000814	± 2.5	PASS
		VN	20	-1.4	-0.001999	± 2.5	PASS
		VN	30	4.17	0.005953	± 2.5	PASS
		VN	40	-0.81	-0.001156	± 2.5	PASS
		VN	50	-1.12	-0.001599	± 2.5	PASS
	MCH	VN	-30	3.57	0.005046	± 2.5	PASS
		VN	-20	2.24	0.003166	± 2.5	PASS
		VN	-10	0.02	0.000028	± 2.5	PASS
		VN	0	1.59	0.002247	± 2.5	PASS
		VN	10	2.66	0.003760	± 2.5	PASS
		VN	20	-1.64	-0.002318	± 2.5	PASS
		VN	30	0.67	0.000947	± 2.5	PASS
		VN	40	0.84	0.001187	± 2.5	PASS
		VN	50	0.47	0.000664	± 2.5	PASS
	HCH	VN	-30	1.4	0.001959	± 2.5	PASS
		VN	-20	4.35	0.006088	± 2.5	PASS
		VN	-10	3.28	0.004591	± 2.5	PASS
		VN	0	3.9	0.005458	± 2.5	PASS
		VN	10	1.9	0.002659	± 2.5	PASS
		VN	20	2.91	0.004073	± 2.5	PASS
		VN	30	2.96	0.004143	± 2.5	PASS
		VN	40	3.12	0.004367	± 2.5	PASS

		VN	50	3.78	0.005290	± 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	2.46	0.003507	± 2.5	PASS
		VN	TN	4.92	0.007014	± 2.5	PASS
		VH	TN	1.43	0.002038	± 2.5	PASS
	MCH	VL	TN	2.7	0.003816	± 2.5	PASS
		VN	TN	-0.75	-0.001060	± 2.5	PASS
		VH	TN	4.53	0.006403	± 2.5	PASS
	HCH	VL	TN	-1.44	-0.002018	± 2.5	PASS
		VN	TN	3.42	0.004793	± 2.5	PASS
		VH	TN	2.78	0.003896	± 2.5	PASS
16QAM	LCH	VL	TN	1.94	0.002766	± 2.5	PASS
		VN	TN	1.3	0.001853	± 2.5	PASS
		VH	TN	2.32	0.003307	± 2.5	PASS
	MCH	VL	TN	1.43	0.002021	± 2.5	PASS
		VN	TN	2.85	0.004028	± 2.5	PASS
		VH	TN	4.45	0.006290	± 2.5	PASS
	HCH	VL	TN	3.87	0.005424	± 2.5	PASS
		VN	TN	3.37	0.004723	± 2.5	PASS
		VH	TN	3.69	0.005172	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.42	0.000599	± 2.5	PASS
		VN	-20	-0.41	-0.000584	± 2.5	PASS
		VN	-10	0.96	0.001368	± 2.5	PASS
		VN	0	-1.3	-0.001853	± 2.5	PASS
		VN	10	-1.76	-0.002509	± 2.5	PASS
		VN	20	-0.12	-0.000171	± 2.5	PASS
		VN	30	1.2	0.001711	± 2.5	PASS
		VN	40	-1.13	-0.001611	± 2.5	PASS
		VN	50	0.81	0.001155	± 2.5	PASS
	MCH	VN	-30	0.95	0.001343	± 2.5	PASS
		VN	-20	-1.37	-0.001936	± 2.5	PASS
		VN	-10	2.43	0.003435	± 2.5	PASS
		VN	0	4.31	0.006092	± 2.5	PASS

		VN	10	4.96	0.007011	± 2.5	PASS
		VN	20	4.74	0.006700	± 2.5	PASS
		VN	30	4.57	0.006459	± 2.5	PASS
		VN	40	-1.18	-0.001668	± 2.5	PASS
		VN	50	-1.47	-0.002078	± 2.5	PASS
	HCH	VN	-30	-1.44	-0.002018	± 2.5	PASS
		VN	-20	-1.97	-0.002761	± 2.5	PASS
		VN	-10	4.69	0.006573	± 2.5	PASS
		VN	0	-0.74	-0.001037	± 2.5	PASS
		VN	10	3.67	0.005144	± 2.5	PASS
		VN	20	-0.89	-0.001247	± 2.5	PASS
		VN	30	4.9	0.006868	± 2.5	PASS
		VN	40	3.27	0.004583	± 2.5	PASS
		VN	50	-0.57	-0.000799	± 2.5	PASS
16QAM	LCH	VN	-30	4.39	0.006258	± 2.5	PASS
		VN	-20	2.44	0.003478	± 2.5	PASS
		VN	-10	1.16	0.001654	± 2.5	PASS
		VN	0	1.57	0.002238	± 2.5	PASS
		VN	10	0.06	0.000086	± 2.5	PASS
		VN	20	-1.14	-0.001625	± 2.5	PASS
		VN	30	2.59	0.003692	± 2.5	PASS
		VN	40	2.74	0.003906	± 2.5	PASS
		VN	50	3.98	0.005674	± 2.5	PASS
	MCH	VN	-30	1.06	0.001498	± 2.5	PASS
		VN	-20	-0.64	-0.000905	± 2.5	PASS
		VN	-10	1.46	0.002064	± 2.5	PASS
		VN	0	-1.22	-0.001724	± 2.5	PASS
		VN	10	-1.45	-0.002049	± 2.5	PASS
		VN	20	-0.77	-0.001088	± 2.5	PASS
		VN	30	2.09	0.002954	± 2.5	PASS
		VN	40	3.91	0.005527	± 2.5	PASS
		VN	50	4.45	0.006290	± 2.5	PASS
	HCH	VN	-30	4.66	0.006531	± 2.5	PASS
		VN	-20	4.72	0.006615	± 2.5	PASS
		VN	-10	1.94	0.002719	± 2.5	PASS
		VN	0	0.88	0.001233	± 2.5	PASS
		VN	10	-0.53	-0.000743	± 2.5	PASS
		VN	20	-1.17	-0.001640	± 2.5	PASS
		VN	30	2.28	0.003196	± 2.5	PASS
		VN	40	3.71	0.005200	± 2.5	PASS
		VN	50	1.12	0.001570	± 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	0.4	0.000568	± 2.5	PASS
		VN	TN	0.59	0.000838	± 2.5	PASS
		VH	TN	-0.64	-0.000909	± 2.5	PASS
	MCH	VL	TN	4.12	0.005823	± 2.5	PASS
		VN	TN	3.6	0.005088	± 2.5	PASS
		VH	TN	2.93	0.004141	± 2.5	PASS
	HCH	VL	TN	-0.29	-0.000408	± 2.5	PASS
		VN	TN	-1.57	-0.002208	± 2.5	PASS
		VH	TN	3.06	0.004304	± 2.5	PASS
16QAM	LCH	VL	TN	1.98	0.002813	± 2.5	PASS
		VN	TN	-0.64	-0.000909	± 2.5	PASS
		VH	TN	1.29	0.001832	± 2.5	PASS
	MCH	VL	TN	3.64	0.005145	± 2.5	PASS
		VN	TN	3.45	0.004876	± 2.5	PASS
		VH	TN	-0.9	-0.001272	± 2.5	PASS
	HCH	VL	TN	-0.95	-0.001336	± 2.5	PASS
		VN	TN	3.24	0.004557	± 2.5	PASS
		VH	TN	2.92	0.004107	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.22	0.003153	± 2.5	PASS
		VN	-20	3.51	0.004986	± 2.5	PASS
		VN	-10	-1.6	-0.002273	± 2.5	PASS
		VN	0	0.12	0.000170	± 2.5	PASS
		VN	10	1.29	0.001832	± 2.5	PASS
		VN	20	1.19	0.001690	± 2.5	PASS
		VN	30	-1.85	-0.002628	± 2.5	PASS
		VN	40	1.75	0.002486	± 2.5	PASS
		VN	50	1.87	0.002656	± 2.5	PASS
	MCH	VN	-30	-0.92	-0.001300	± 2.5	PASS
		VN	-20	2.82	0.003986	± 2.5	PASS
		VN	-10	4.28	0.006049	± 2.5	PASS
		VN	0	-0.68	-0.000961	± 2.5	PASS
		VN	10	3.43	0.004848	± 2.5	PASS
		VN	20	2.46	0.003477	± 2.5	PASS
		VN	30	2.12	0.002996	± 2.5	PASS

		VN	40	-1.25	-0.001767	± 2.5	PASS
		VN	50	0.49	0.000693	± 2.5	PASS
	HCH	VN	-30	4.43	0.006231	± 2.5	PASS
		VN	-20	3.39	0.004768	± 2.5	PASS
		VN	-10	4.16	0.005851	± 2.5	PASS
		VN	0	3.86	0.005429	± 2.5	PASS
		VN	10	-1.42	-0.001997	± 2.5	PASS
		VN	20	4	0.005626	± 2.5	PASS
		VN	30	-1.19	-0.001674	± 2.5	PASS
		VN	40	3.62	0.005091	± 2.5	PASS
		VN	50	-1.49	-0.002096	± 2.5	PASS
16QAM	LCH	VN	-30	2.32	0.003295	± 2.5	PASS
		VN	-20	4.08	0.005795	± 2.5	PASS
		VN	-10	-1.91	-0.002713	± 2.5	PASS
		VN	0	-1.61	-0.002287	± 2.5	PASS
		VN	10	4.69	0.006662	± 2.5	PASS
		VN	20	0.64	0.000909	± 2.5	PASS
		VN	30	2.72	0.003864	± 2.5	PASS
		VN	40	4.51	0.006406	± 2.5	PASS
		VN	50	3.94	0.005597	± 2.5	PASS
	MCH	VN	-30	2.36	0.003336	± 2.5	PASS
		VN	-20	-0.83	-0.001173	± 2.5	PASS
		VN	-10	-0.33	-0.000466	± 2.5	PASS
		VN	0	-1.7	-0.002403	± 2.5	PASS
		VN	10	1.88	0.002657	± 2.5	PASS
		VN	20	2.3	0.003251	± 2.5	PASS
		VN	30	-0.58	-0.000820	± 2.5	PASS
		VN	40	0.32	0.000452	± 2.5	PASS
		VN	50	0.71	0.001004	± 2.5	PASS
	HCH	VN	-30	-1.8	-0.002532	± 2.5	PASS
		VN	-20	0.58	0.000816	± 2.5	PASS
		VN	-10	0.4	0.000563	± 2.5	PASS
		VN	0	0.73	0.001027	± 2.5	PASS
		VN	10	1.99	0.002799	± 2.5	PASS
		VN	20	4.54	0.006385	± 2.5	PASS
		VN	30	4.73	0.006653	± 2.5	PASS
		VN	40	-1.7	-0.002391	± 2.5	PASS
		VN	50	0.25	0.000352	± 2.5	PASS