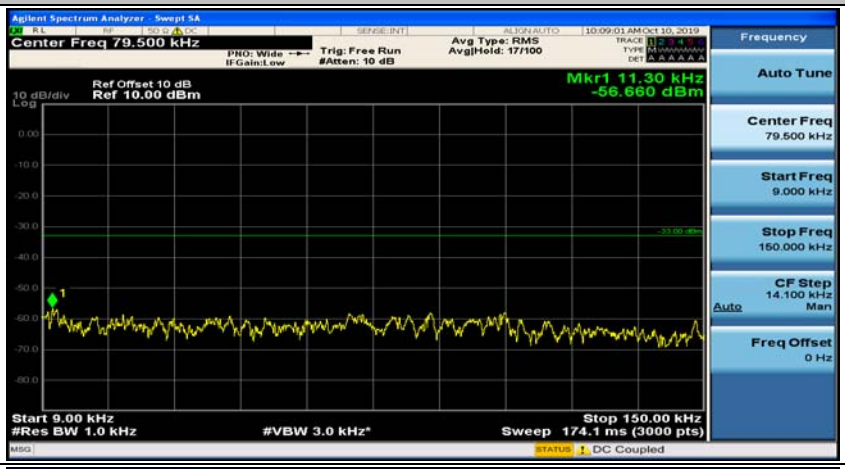
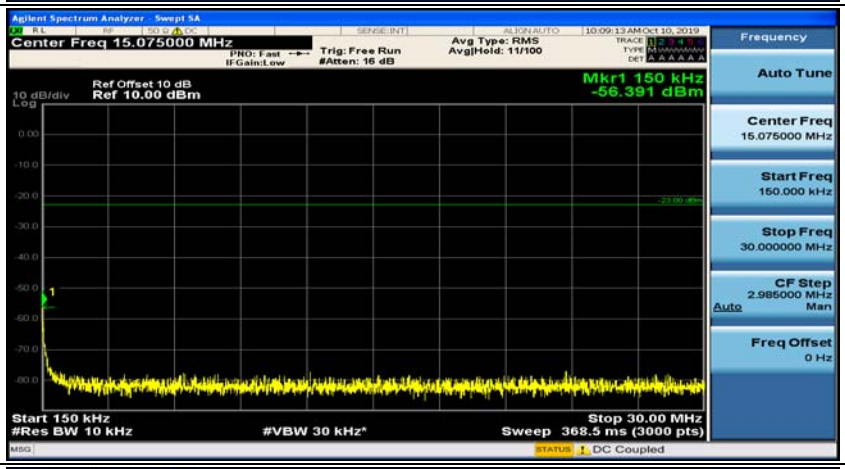
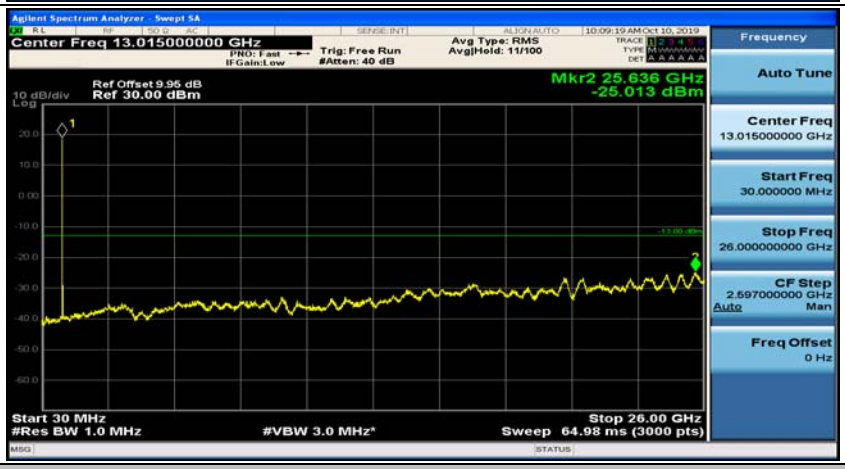
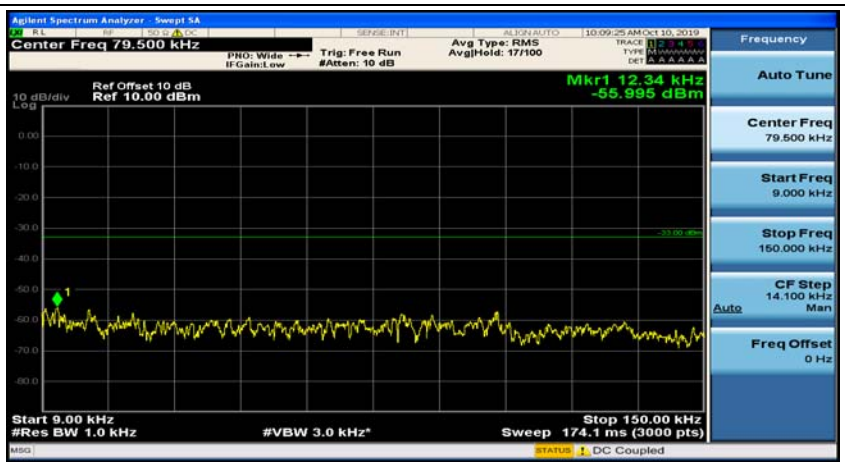
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0

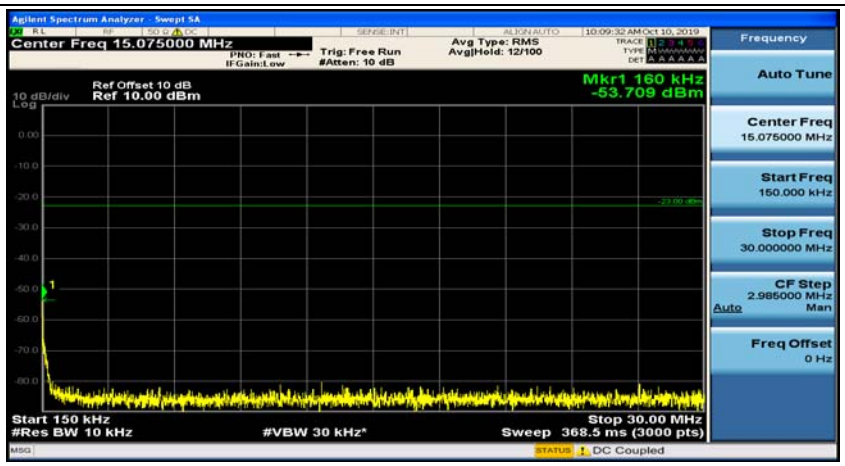






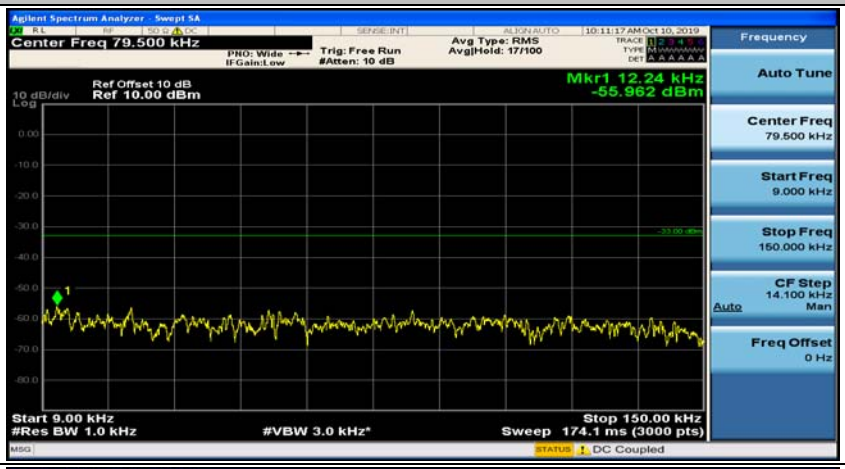
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

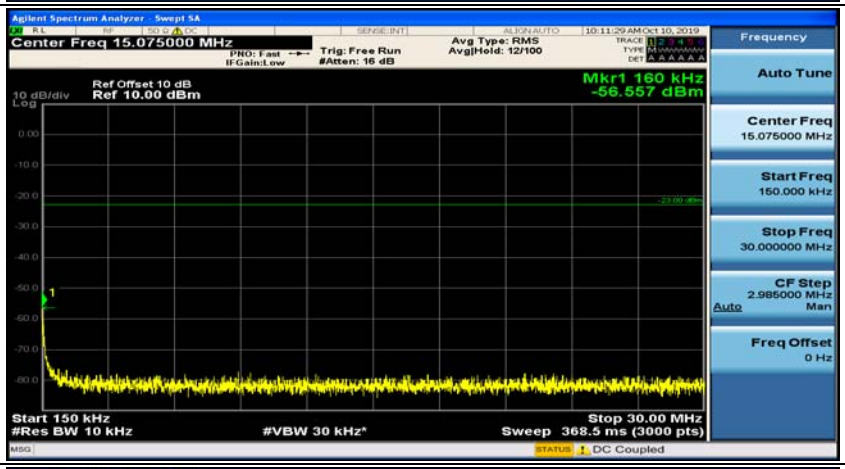

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:09:25 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 12.34 kHz
-55.995 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

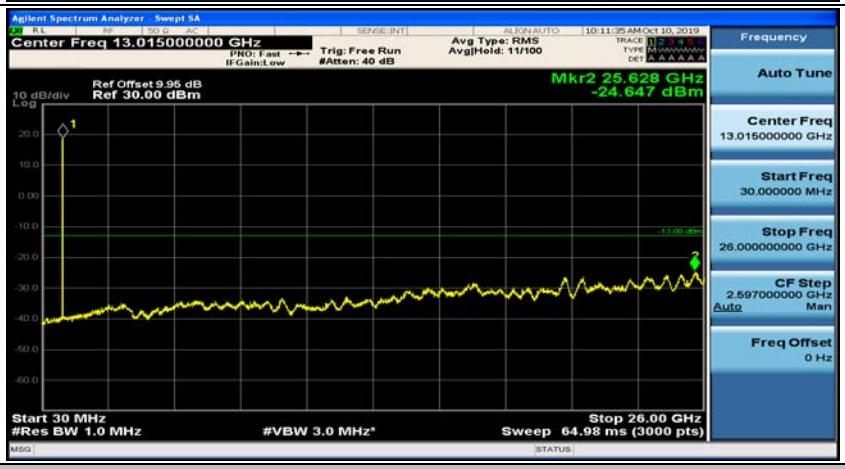

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
10:09:32 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-53.709 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
10:09:38 AM Oct 10, 2019
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.628 GHz
-24.874 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

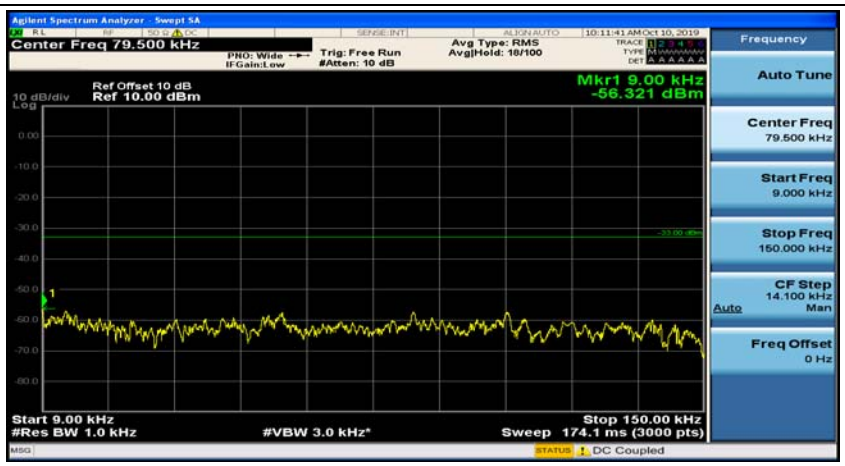
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0

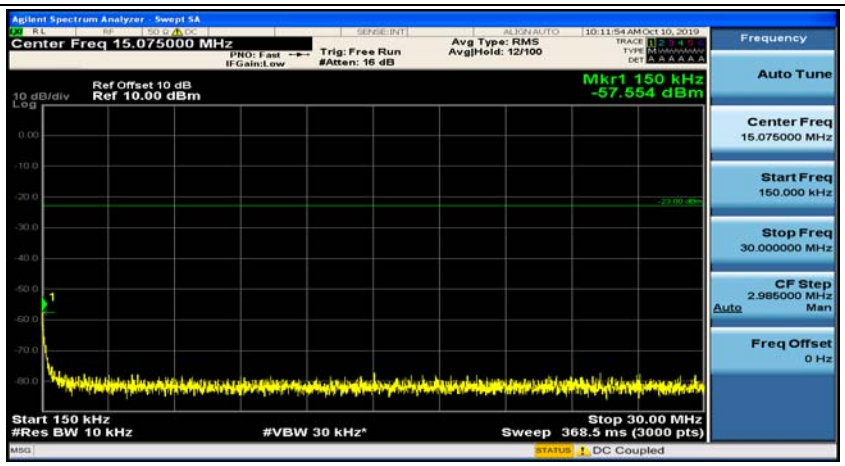


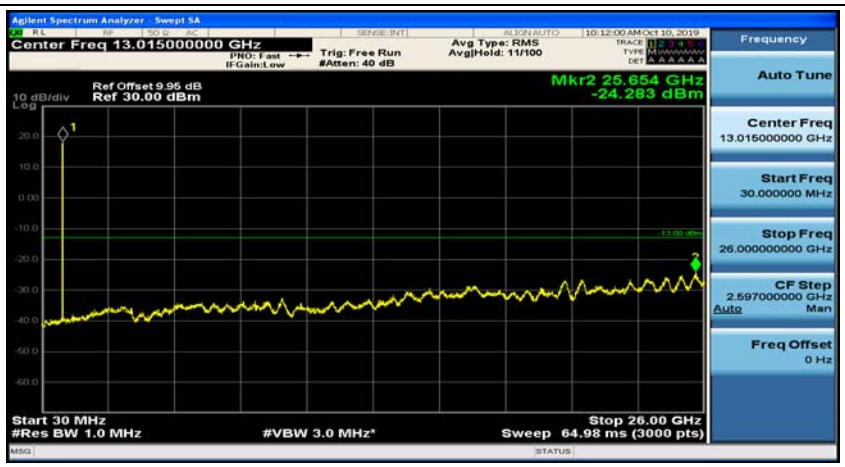




(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

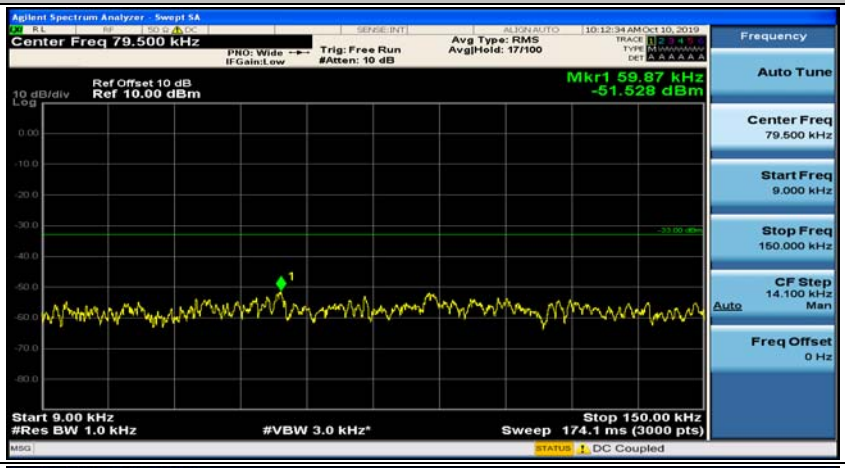

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 18/100
10:11:41 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 9.00 kHz
-56.321 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

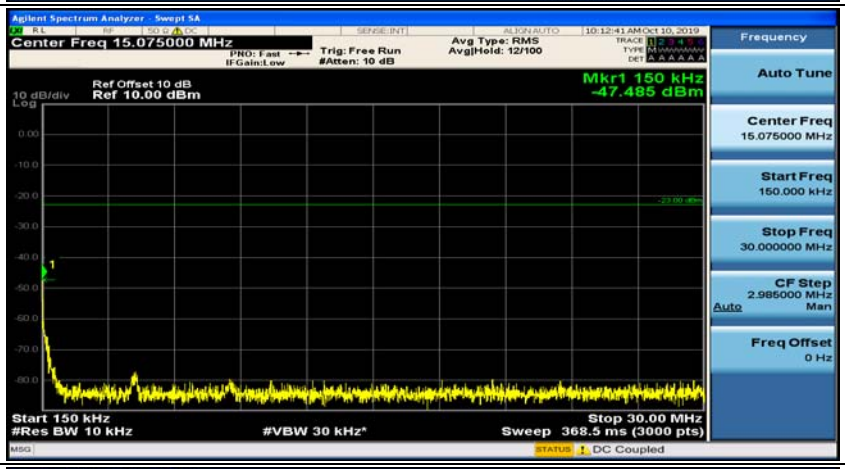

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
10:11:54 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-57.554 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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

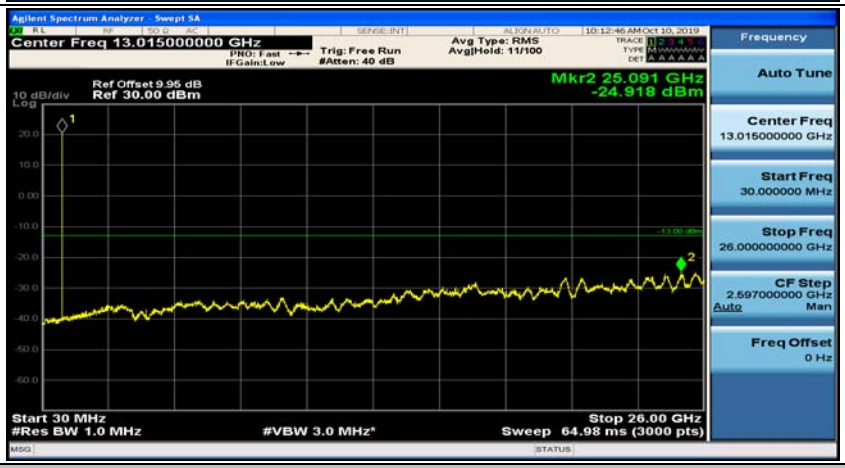

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
10:12:00 AM Oct 10, 2019
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.654 GHz
-24.283 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

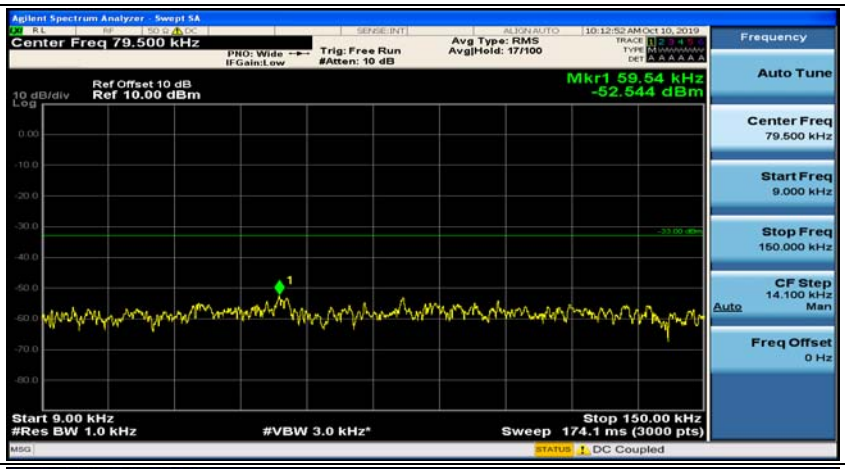
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

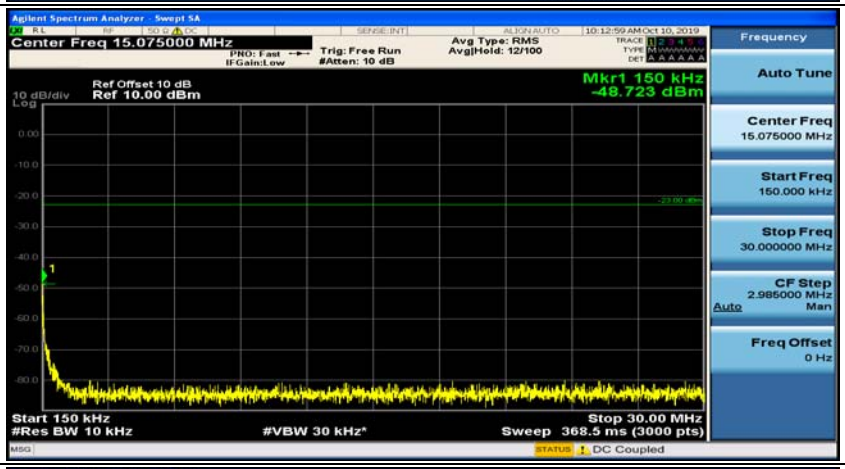




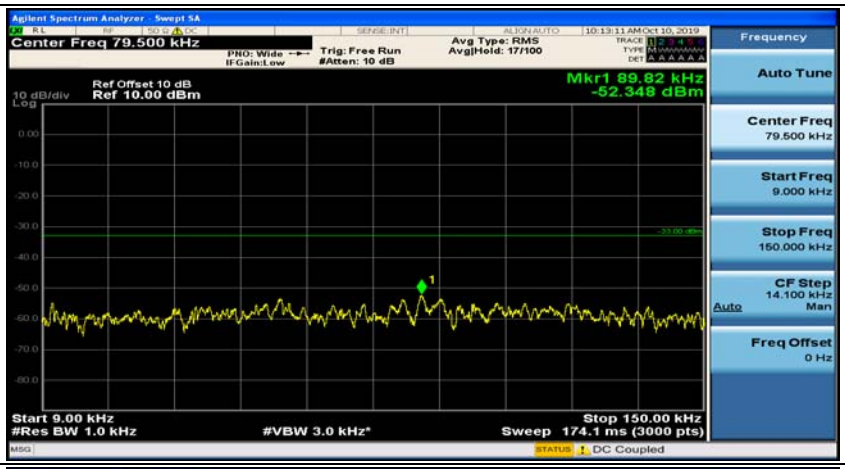


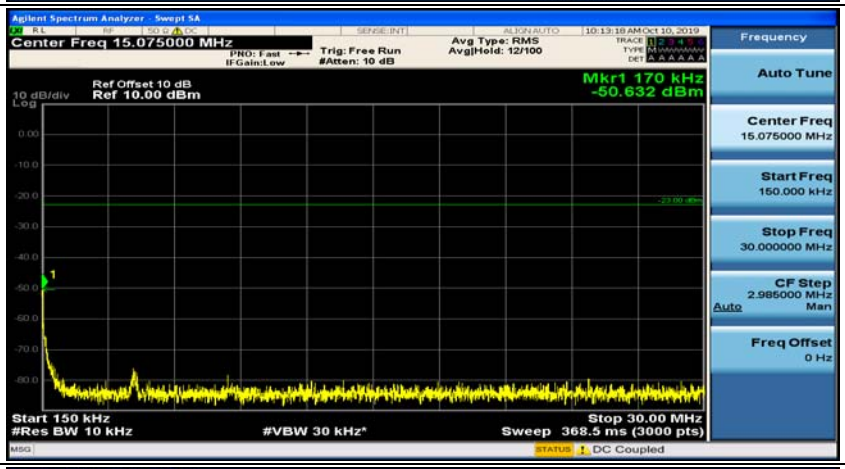
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

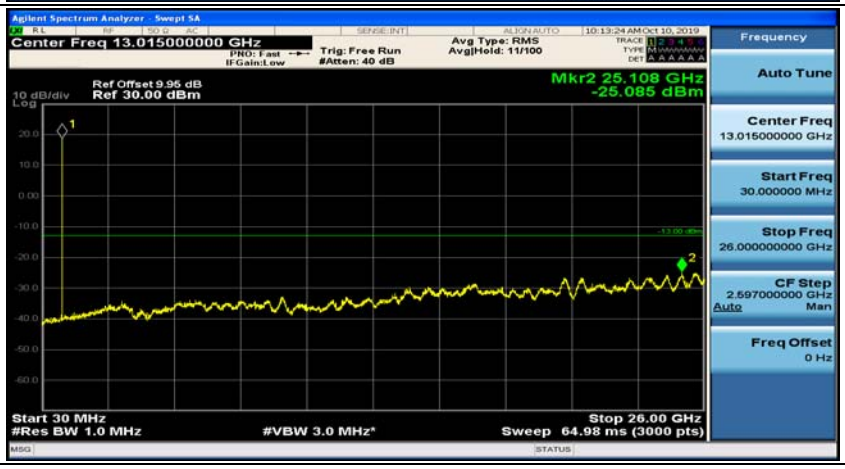




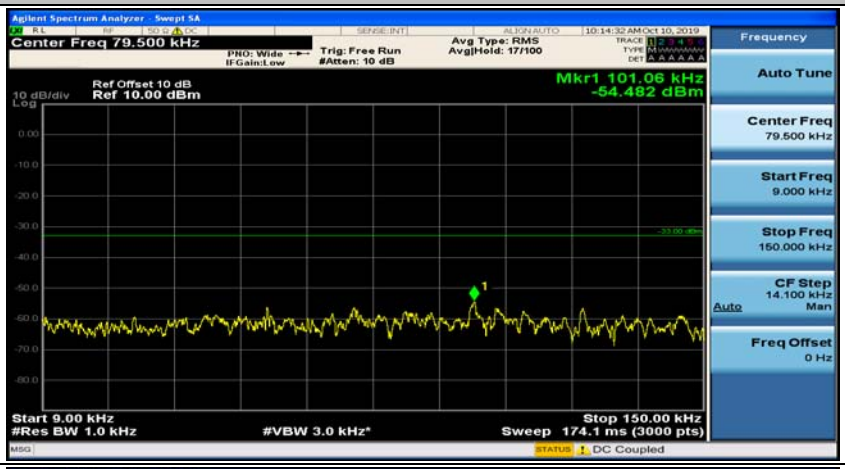
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

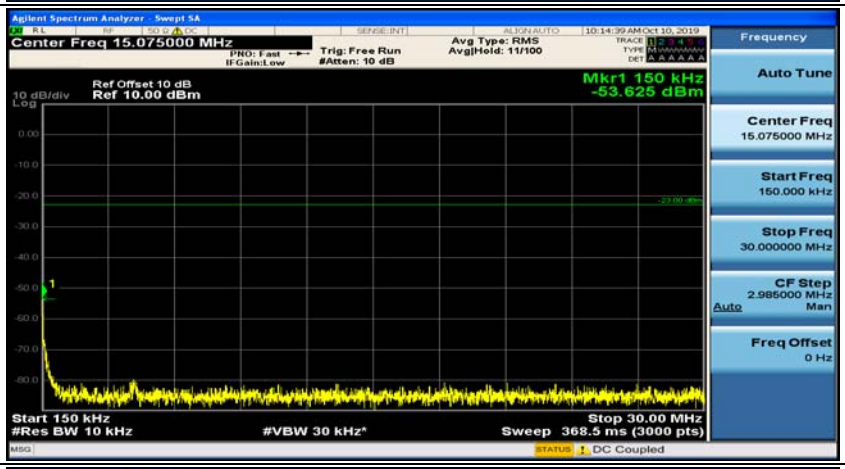

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:13:11 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 89.82 kHz
-52.348 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

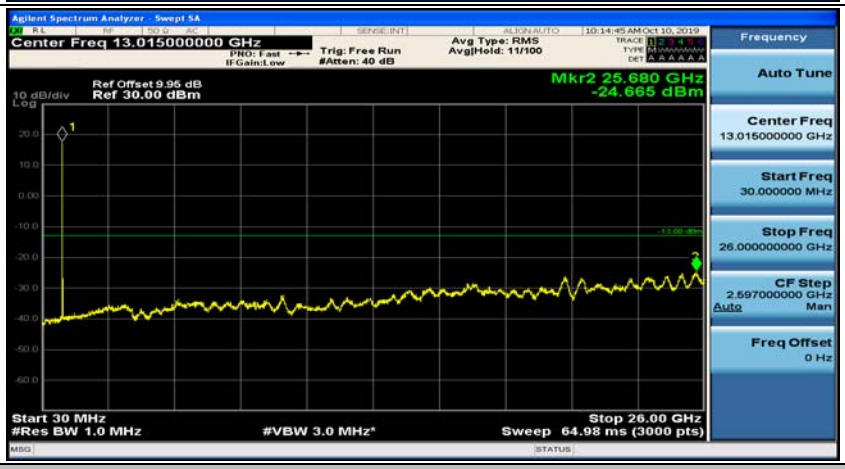

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
10:13:18 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 170 kHz
-50.632 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
10:13:24 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.108 GHz
-25.085 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

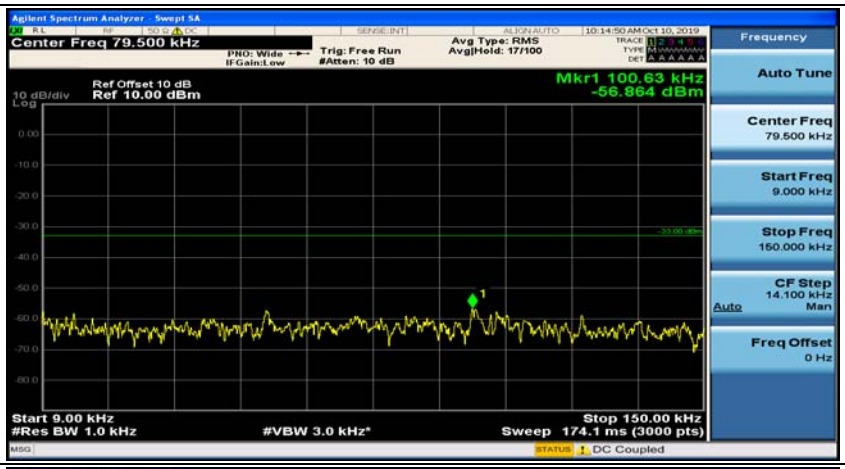
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

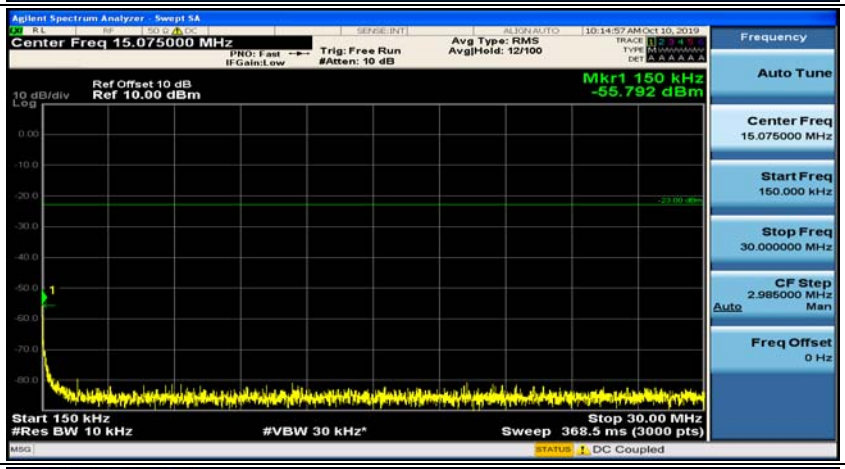




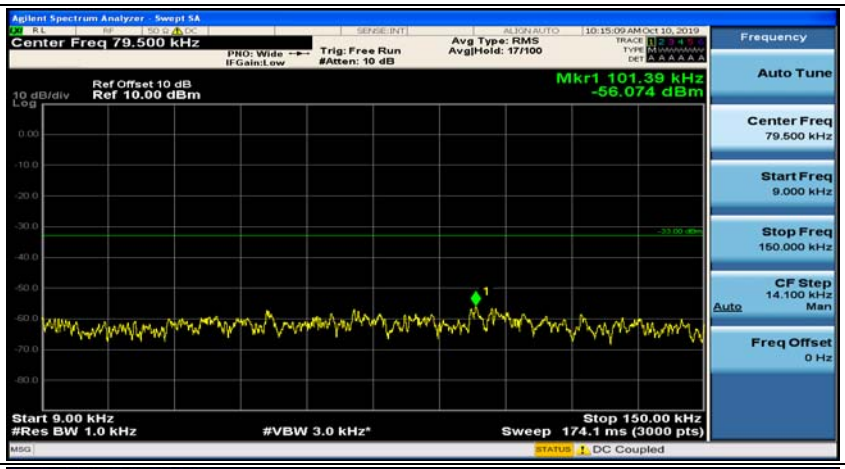


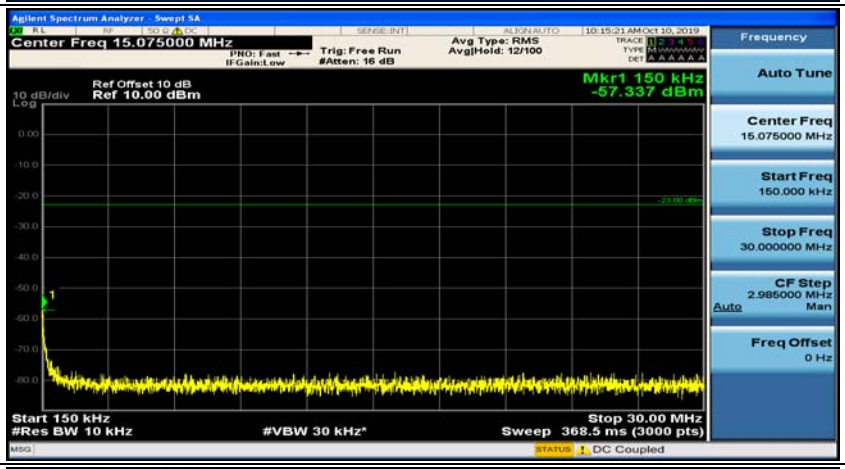
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

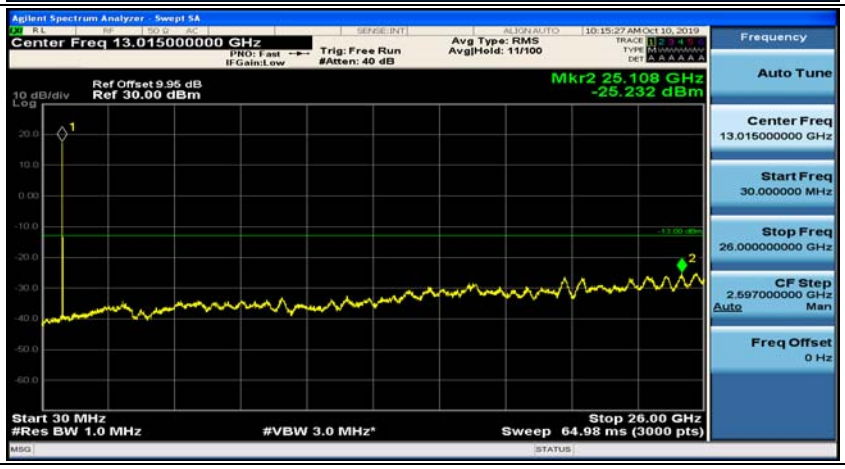




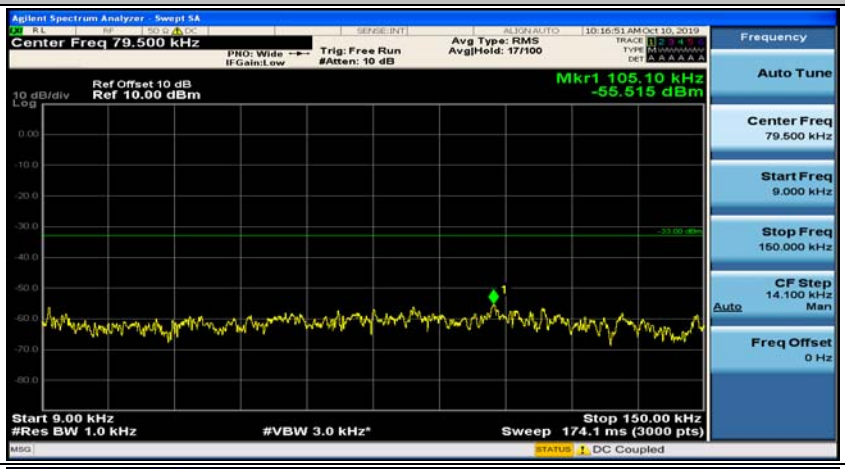
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

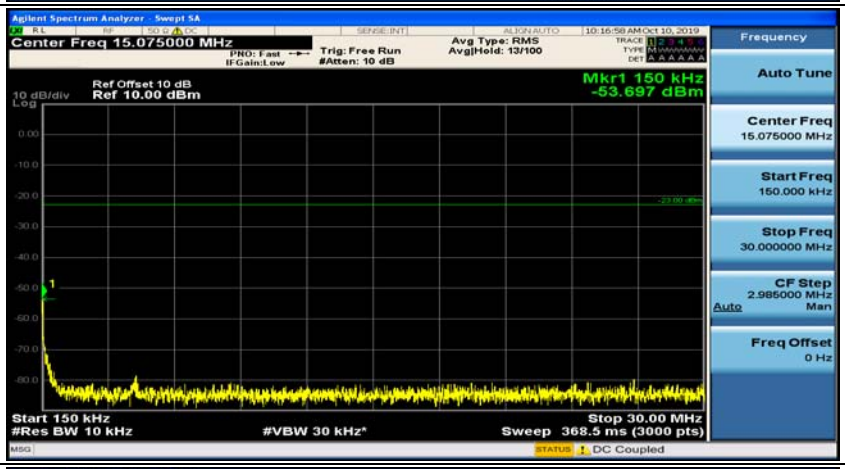

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:15:09 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 101.39 kHz
-56.074 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

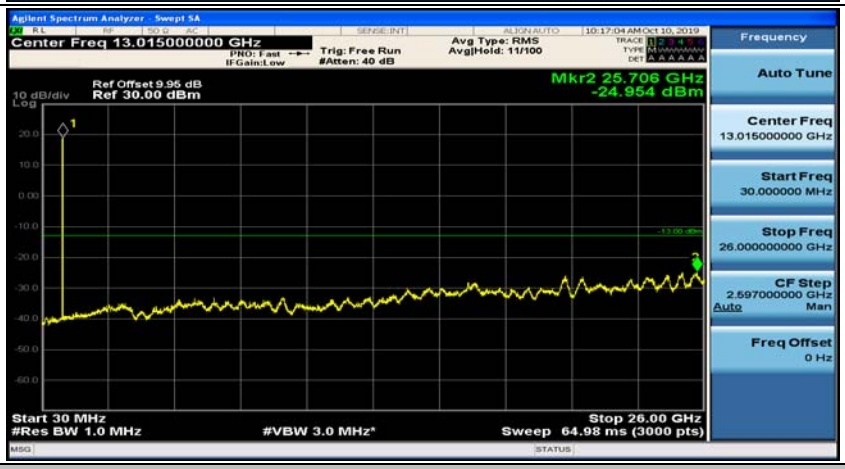

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
10:15:21 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-57.337 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
10:15:27 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.108 GHz
-25.232 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

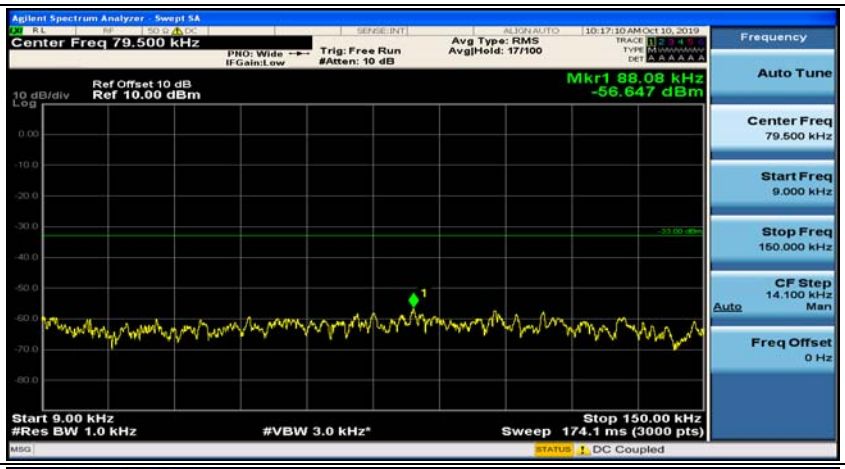
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

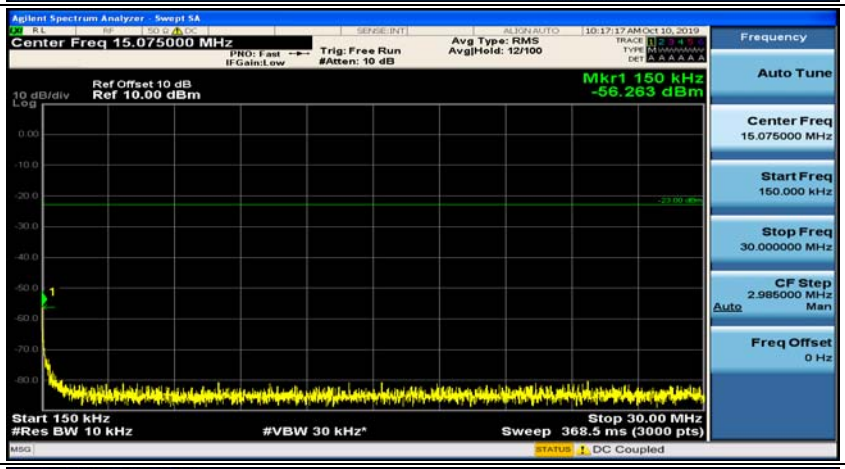




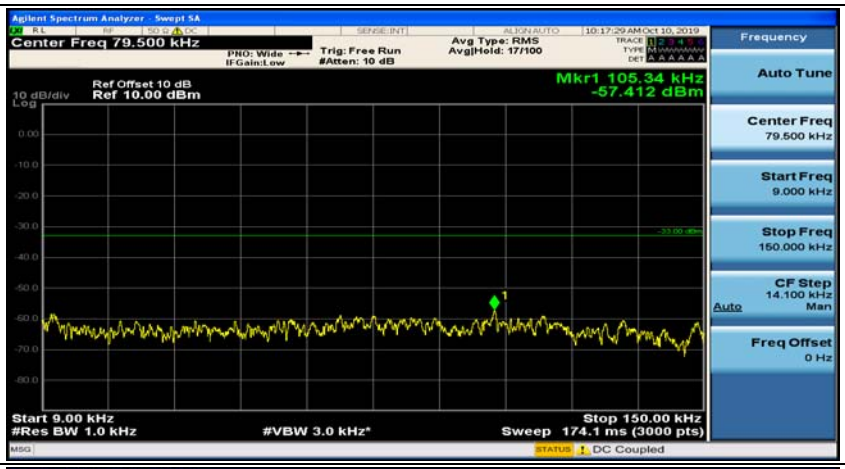


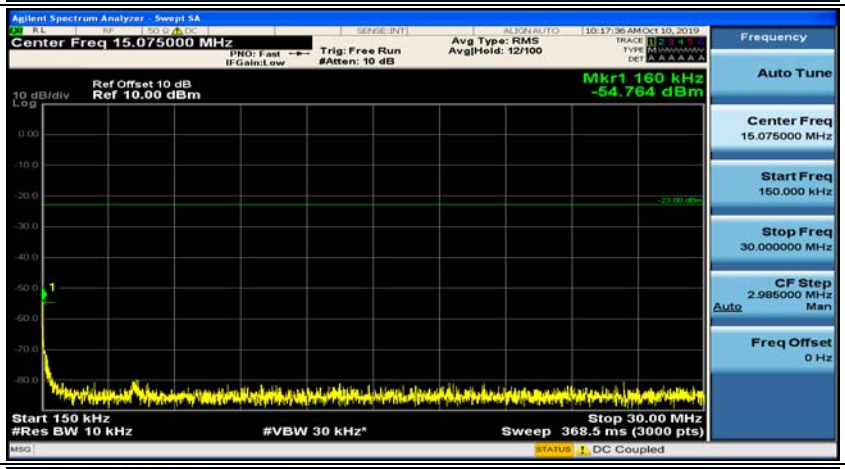
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

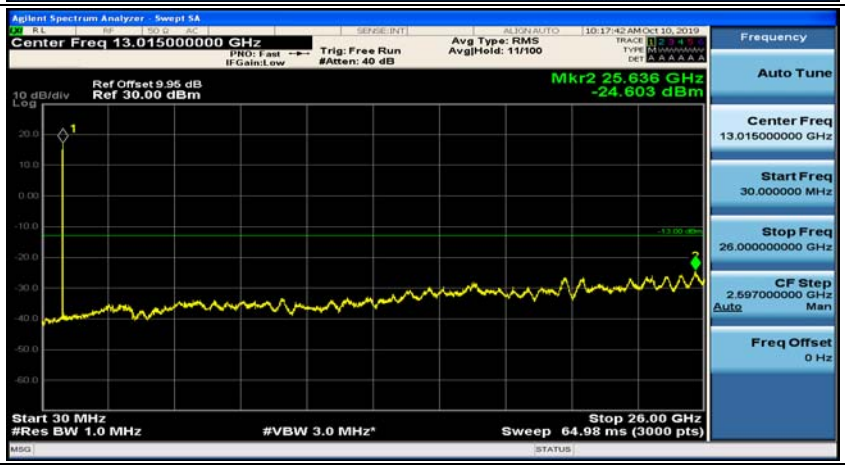




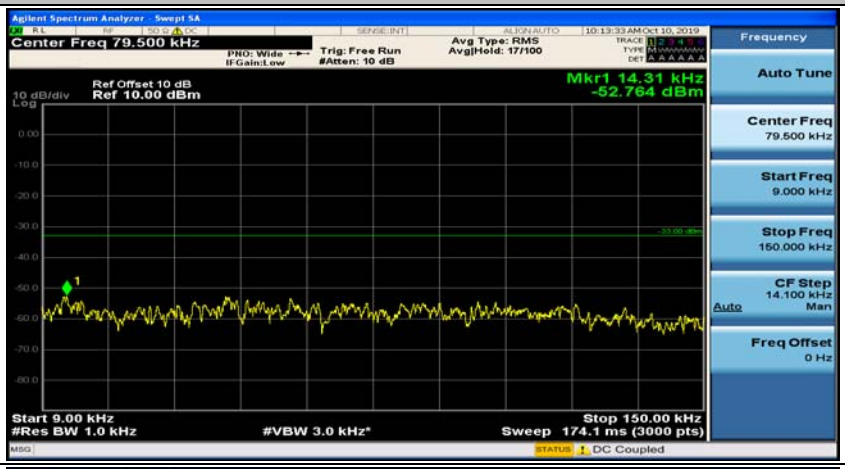
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

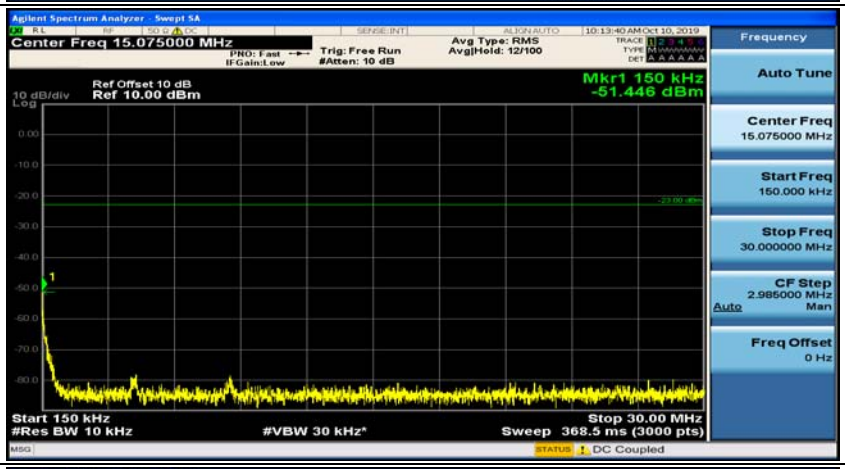

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:17:29 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 105.34 kHz
-57.412 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

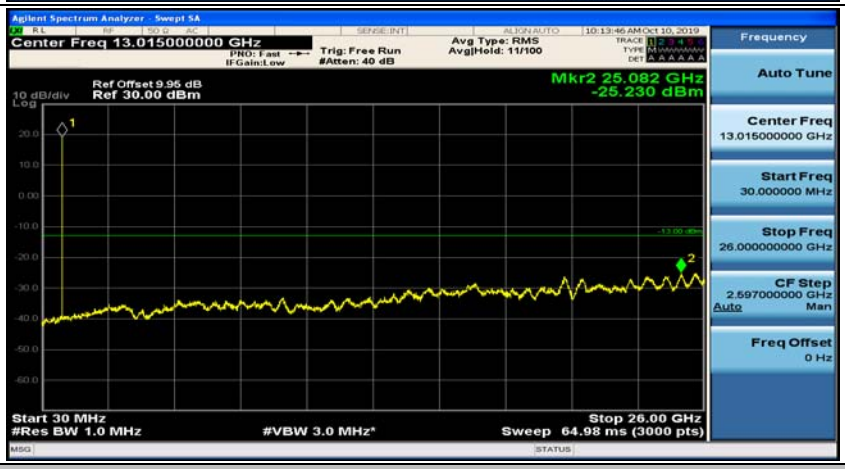

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
10:17:36 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-54.764 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
10:17:42 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-24.603 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

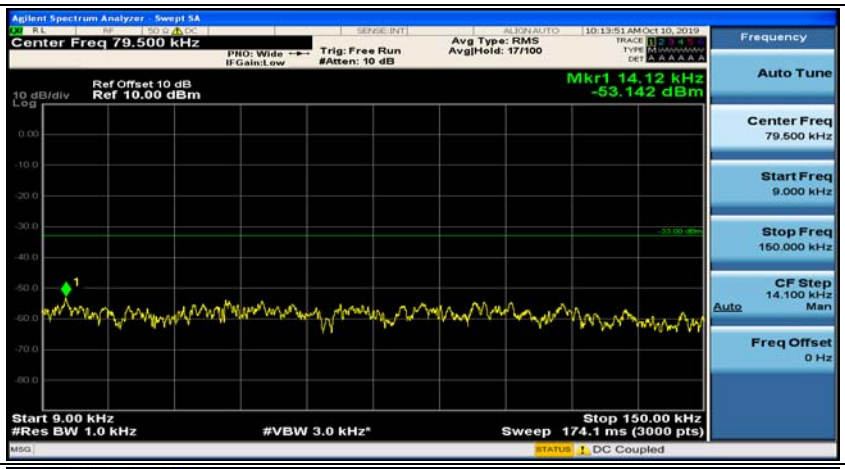
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

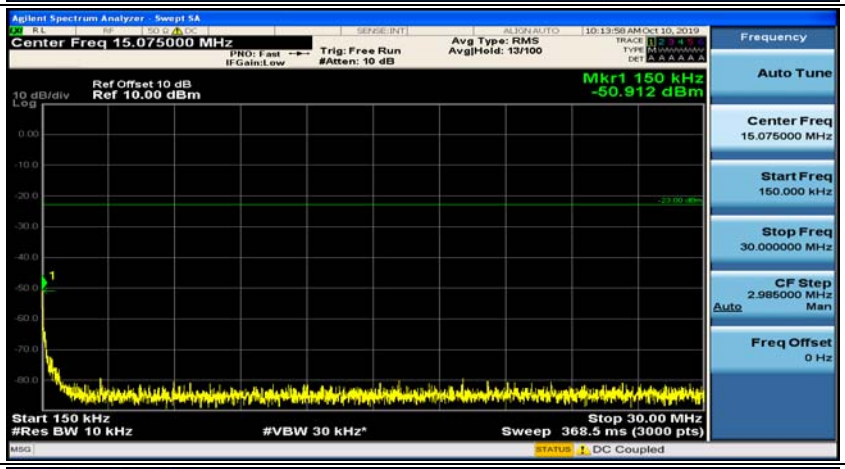


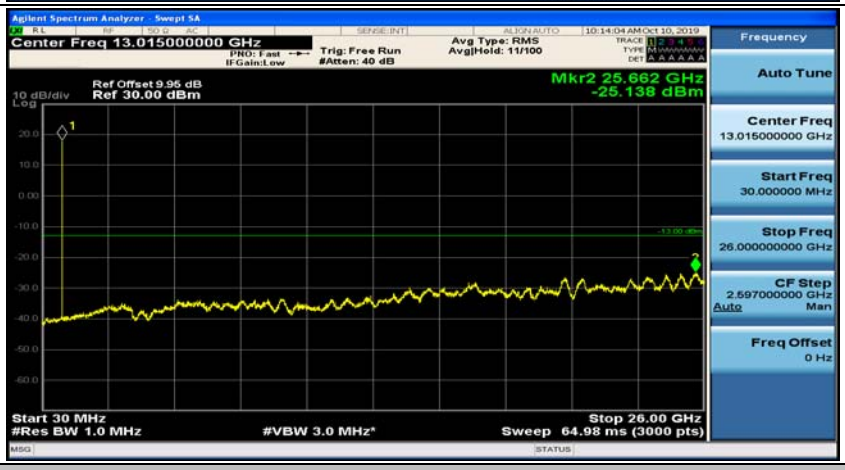




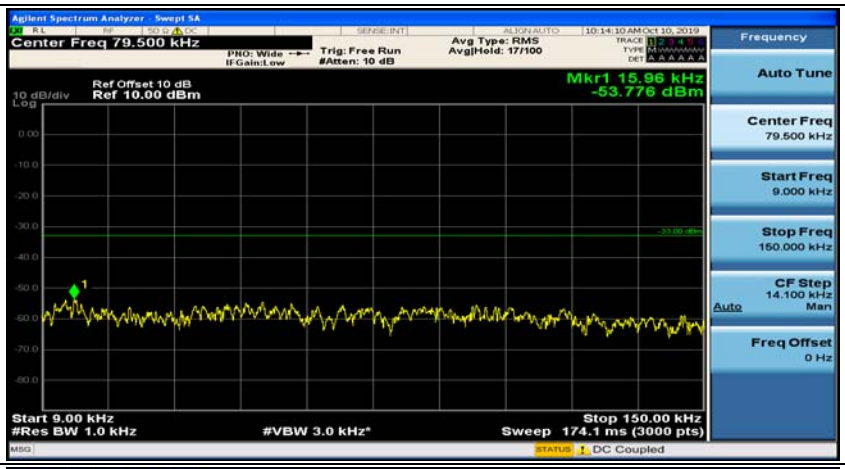
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

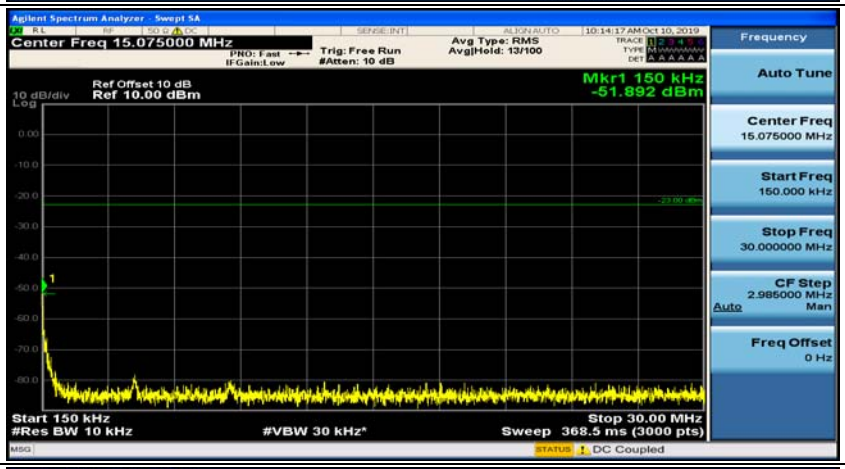


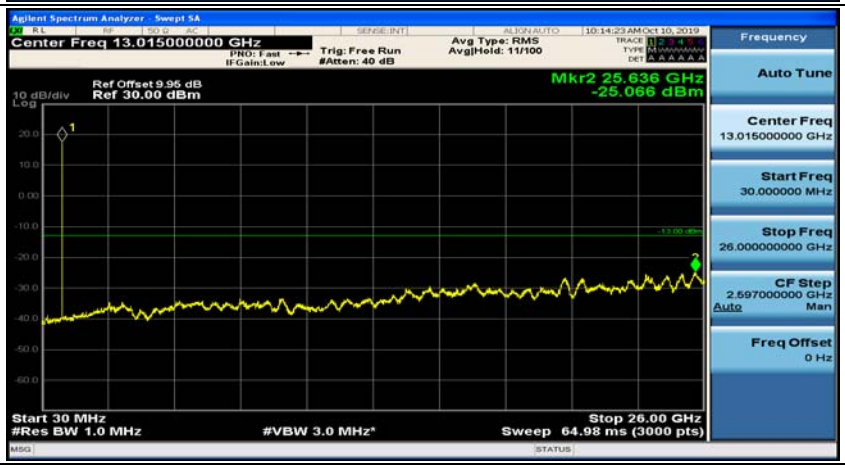




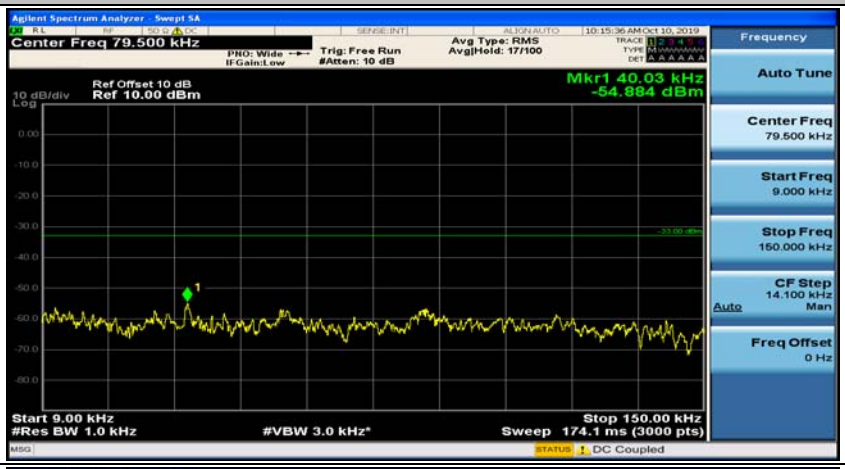
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

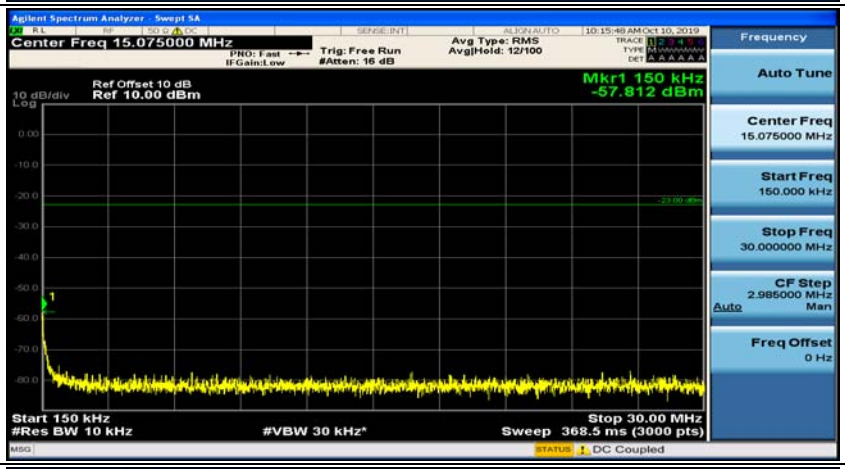

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:14:10 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 15.96 kHz
-53.776 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

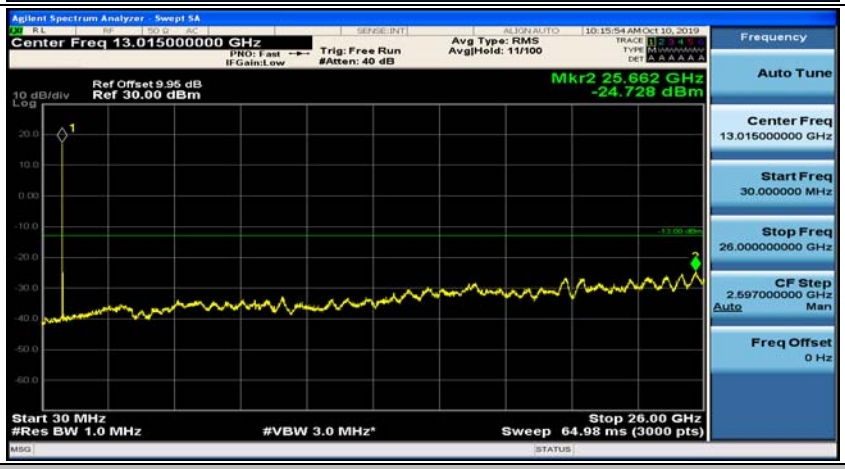

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 13/100
10:14:17 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 150 kHz
-51.892 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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
10:14:23 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.636 GHz
-25.066 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

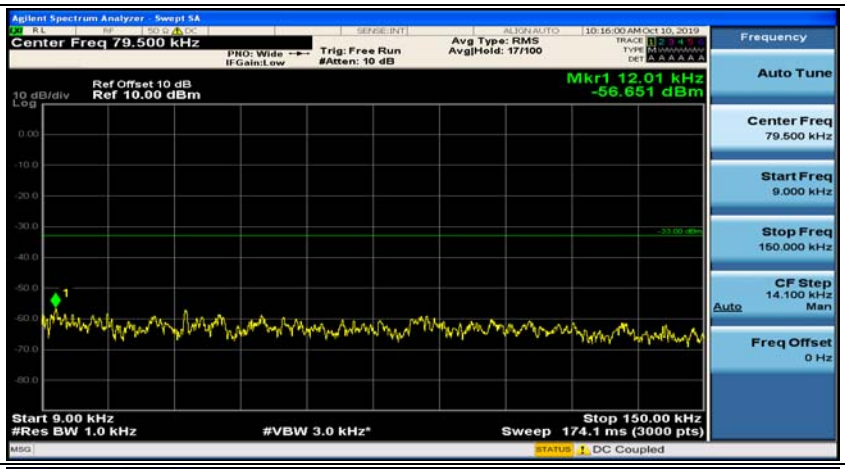
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

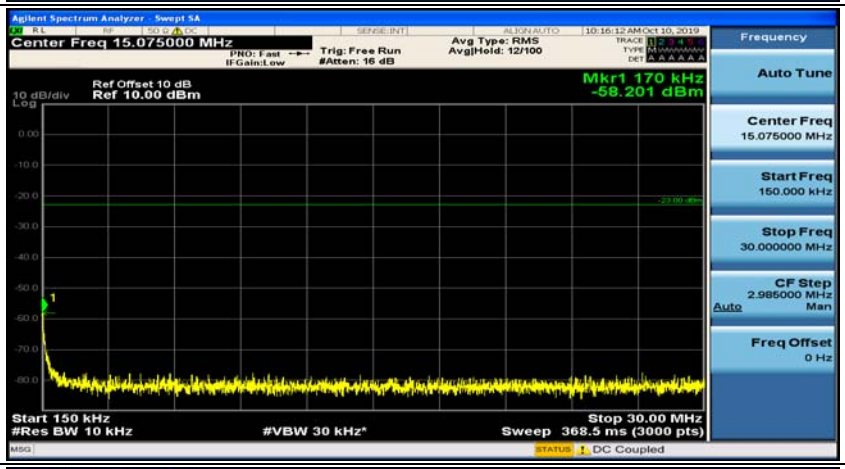




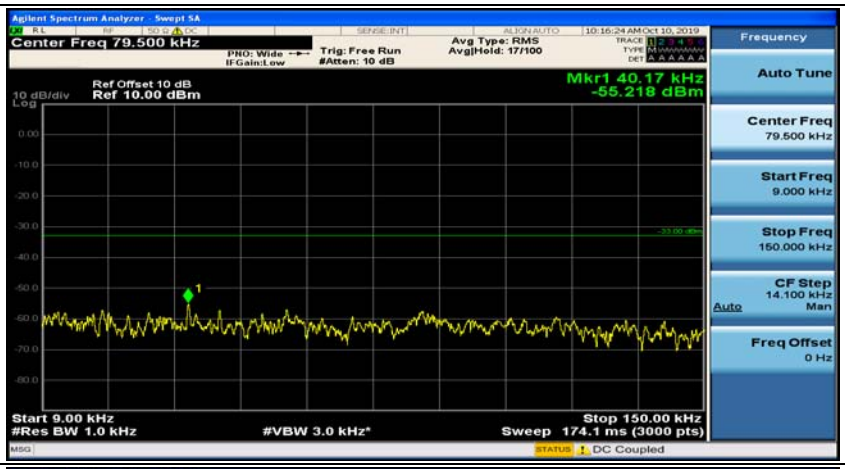


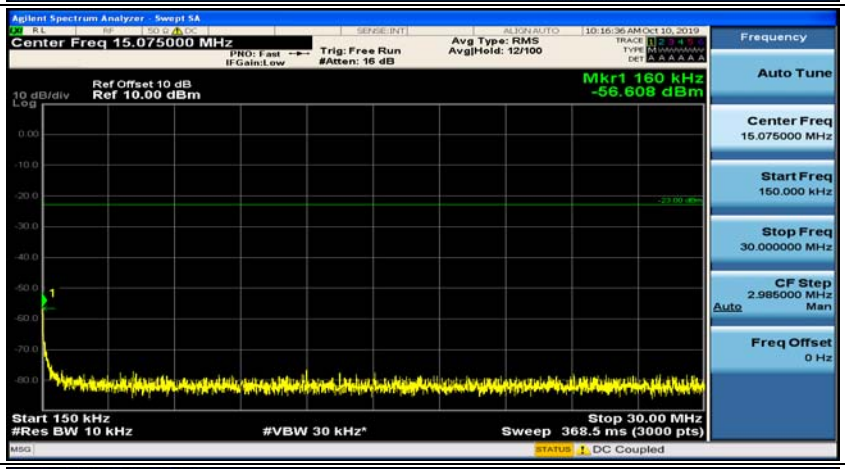
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

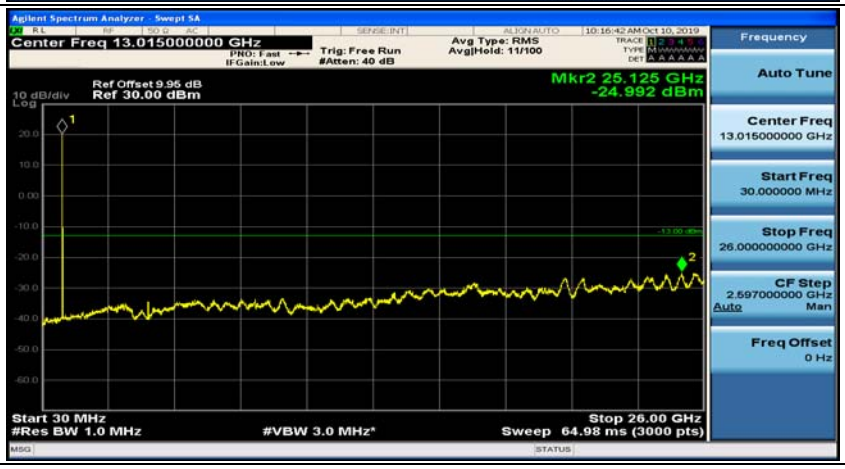




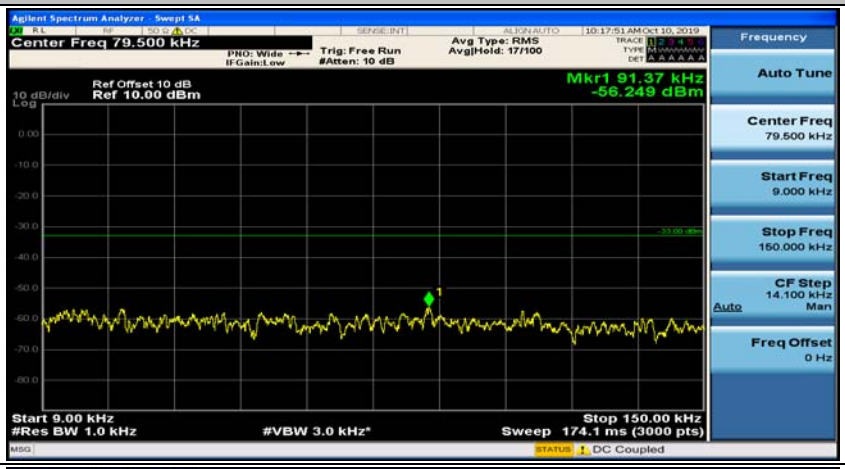
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

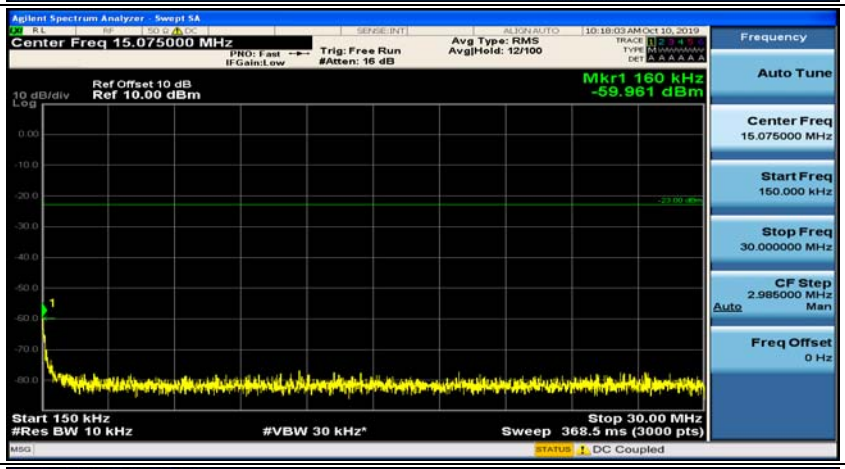

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:16:24 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 40.17 kHz
-55.218 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

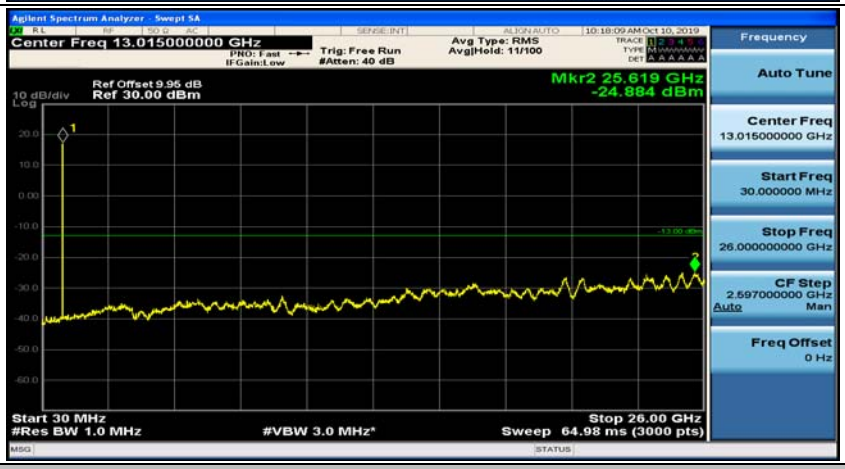

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
10:16:36 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-56.608 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
10:16:42 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.125 GHz
-24.992 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

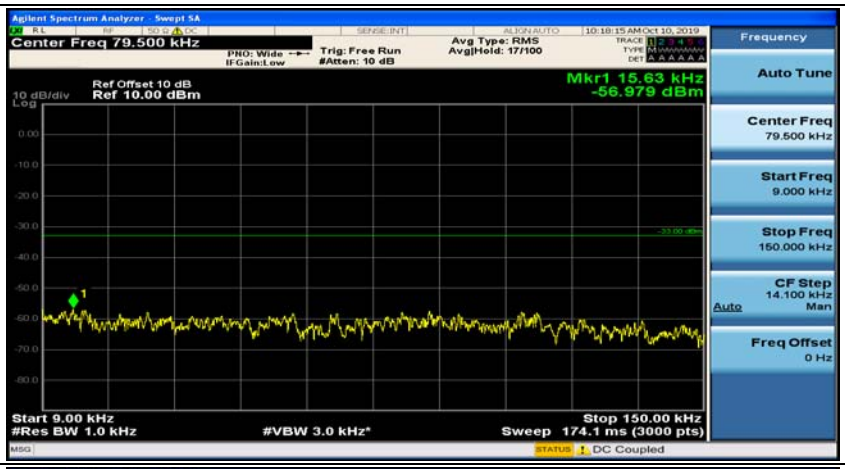
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

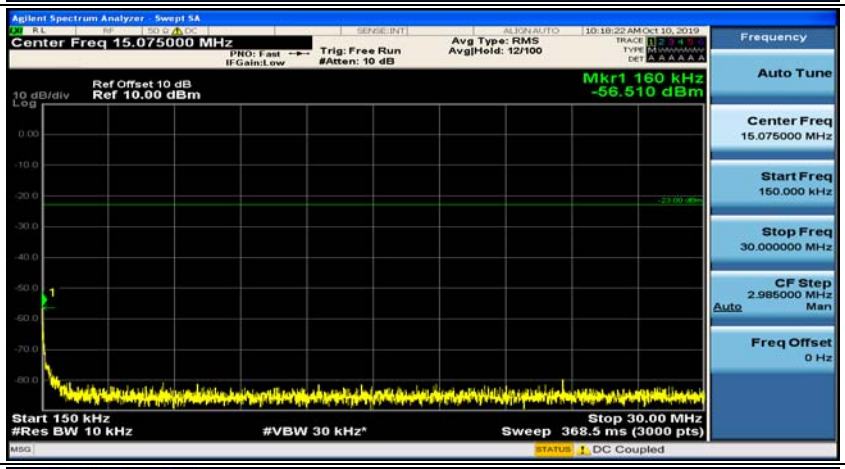


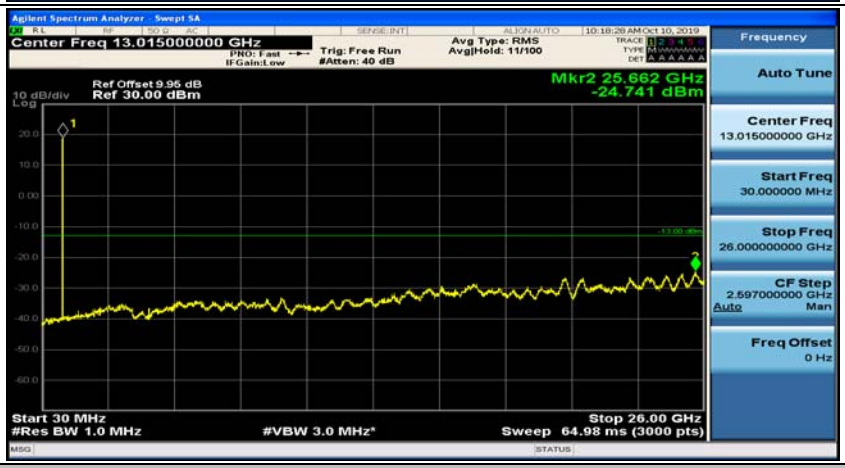




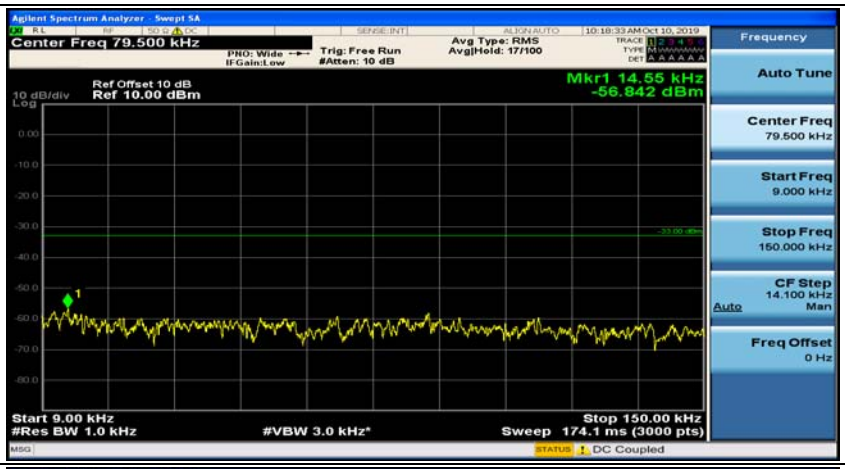
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

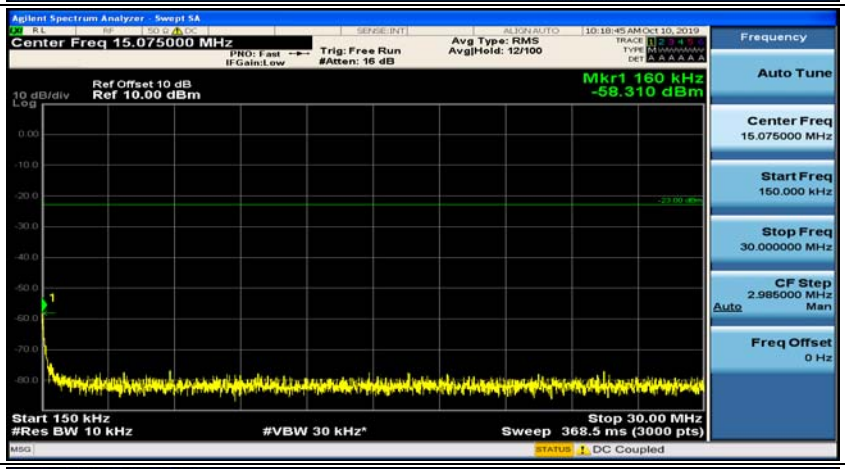


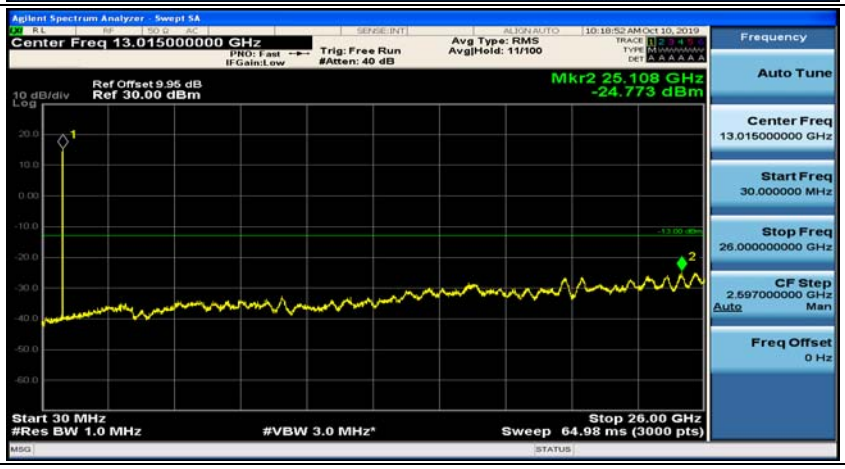




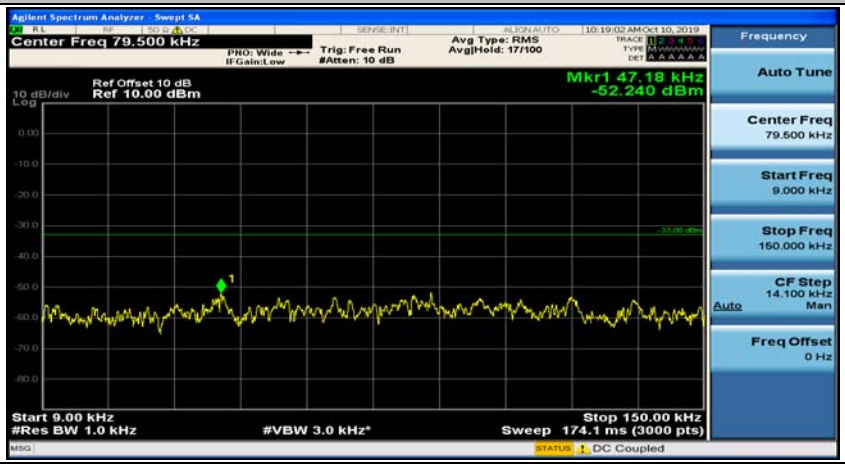
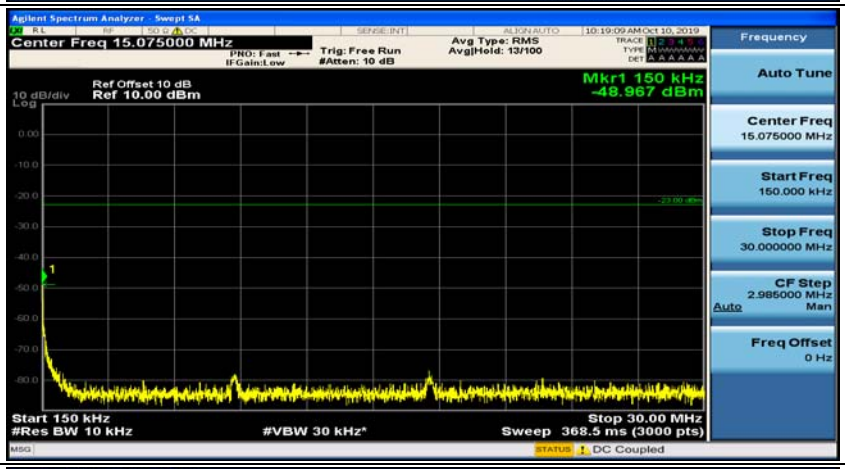
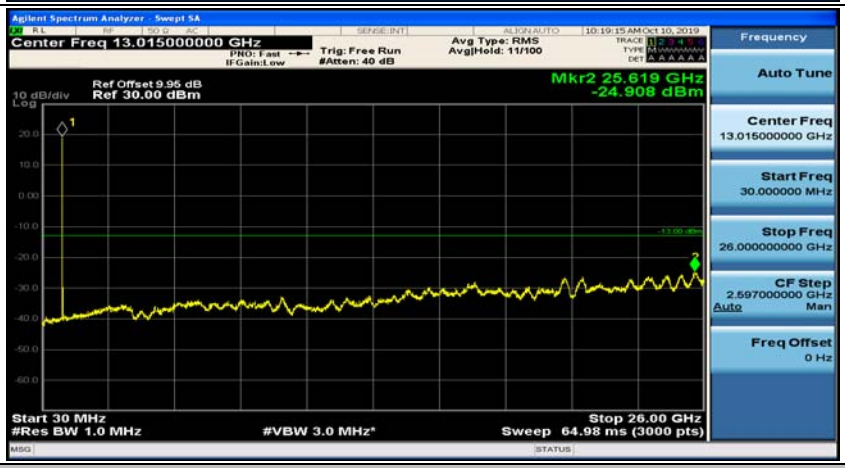
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

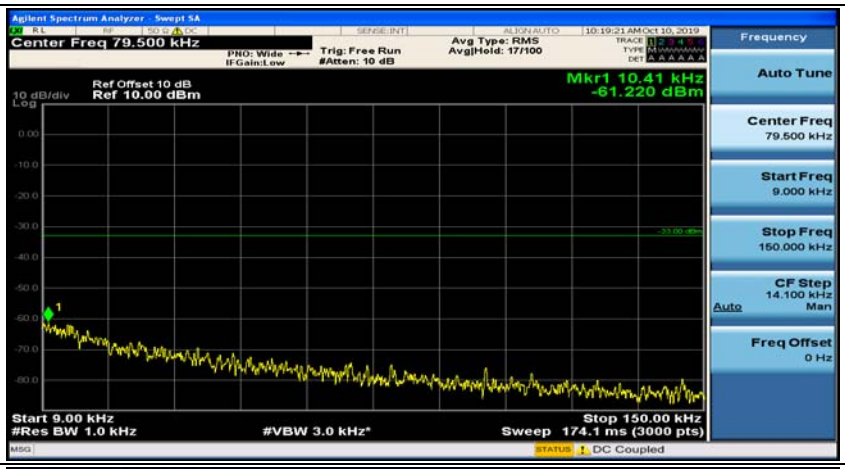

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:18:33 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 14.55 kHz
-56.842 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq 79.500 kHz
Start Freq 9.000 kHz
Stop Freq 150.000 kHz
CF Step 14.100 kHz
Auto Man
Freq Offset 0 Hz

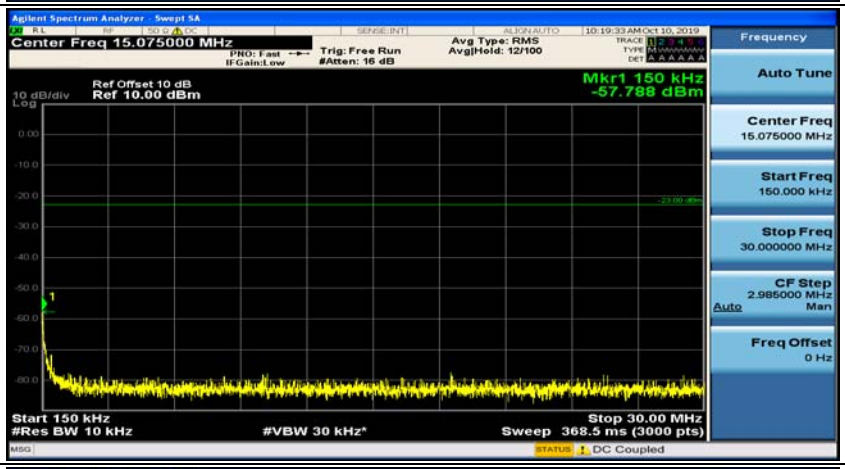

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
10:18:45 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 160 kHz
-58.310 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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
10:18:52 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.108 GHz
-24.773 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq 13.015000000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
CF Step 2.597000000 GHz
Auto Man
Freq Offset 0 Hz

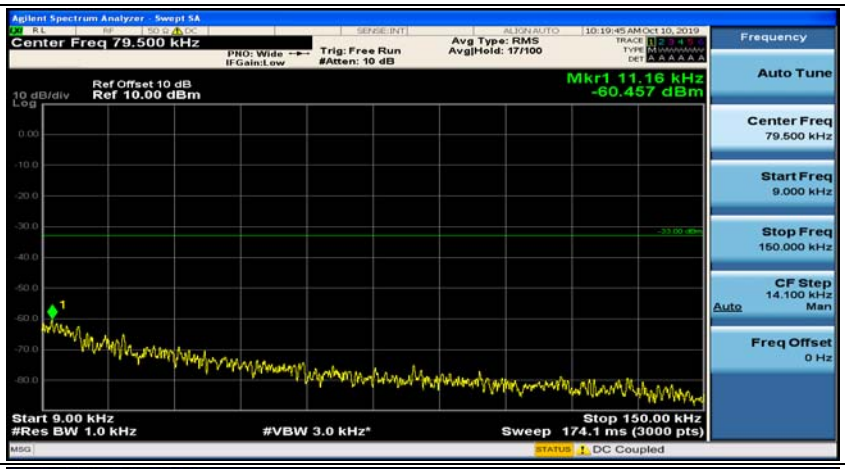
Channel Bandwidth: 10 MHz

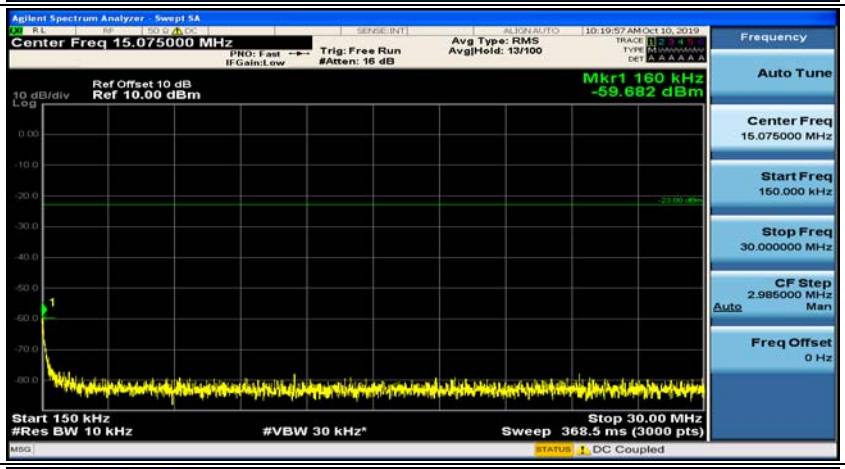
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

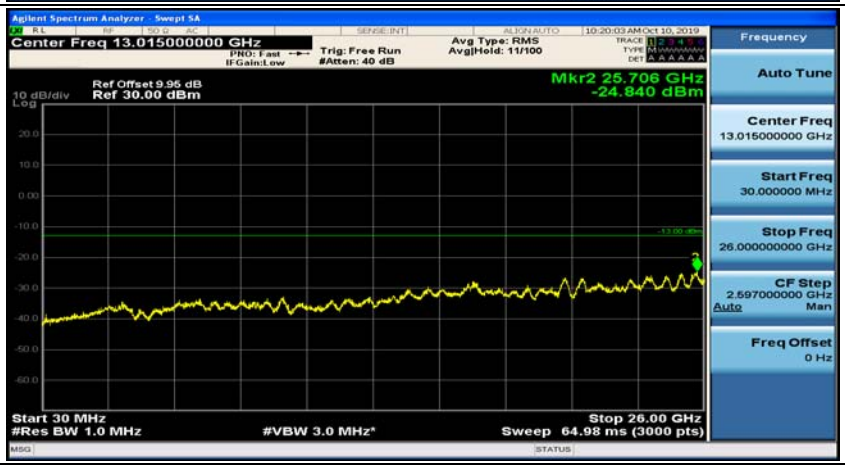


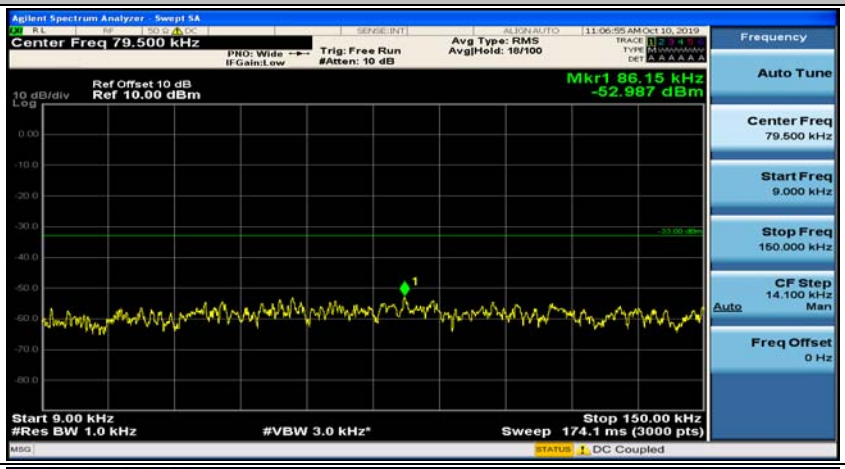
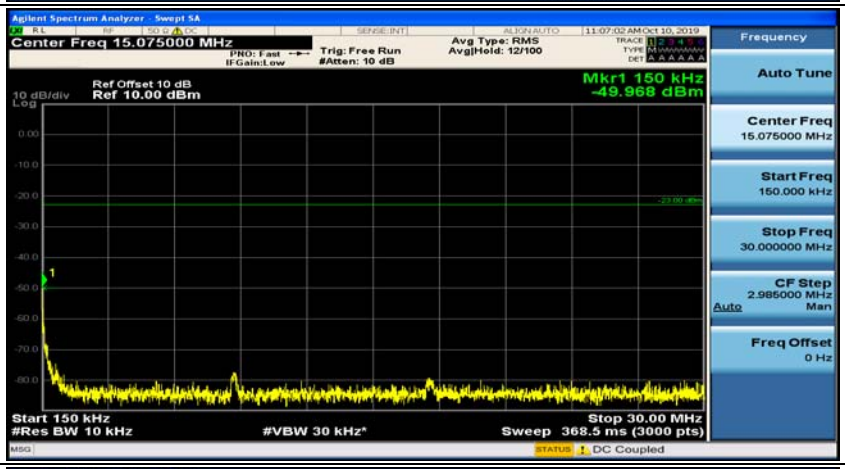
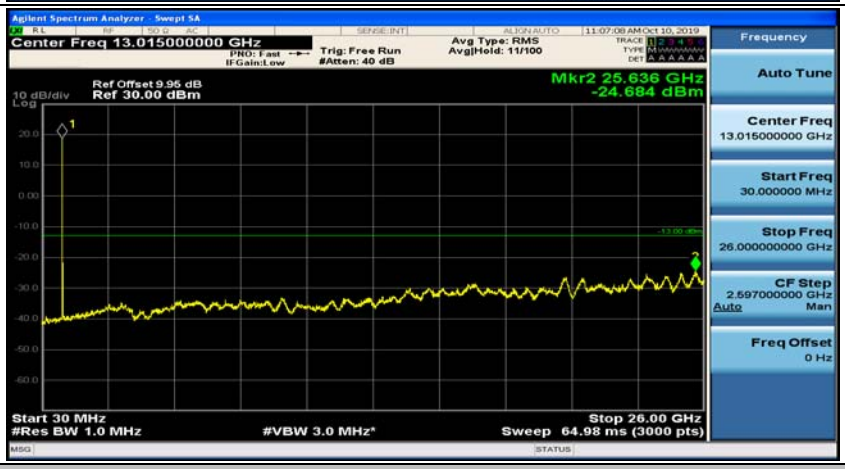


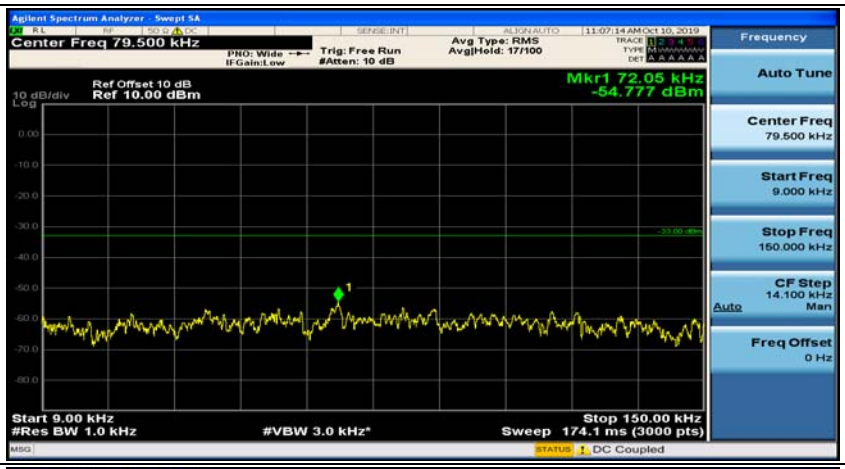
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

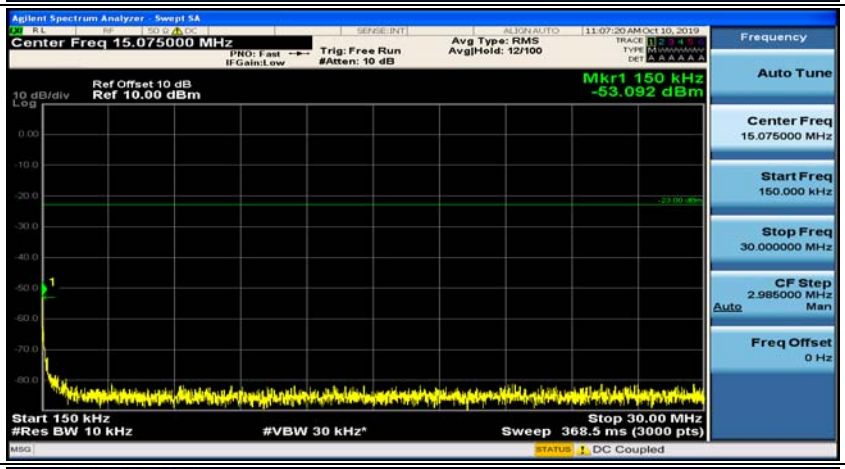

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
10:19:45 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 11.16 kHz
-60.457 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

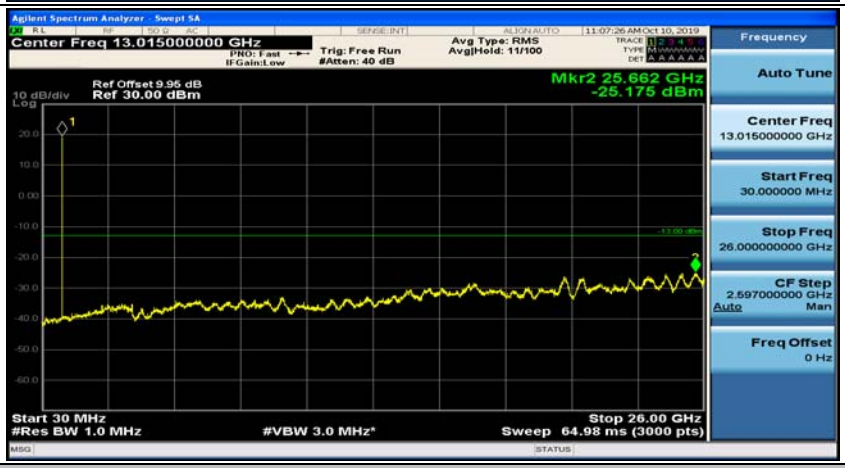

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
10:19:57 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-59.682 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
10:20:03 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.706 GHz
-24.840 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

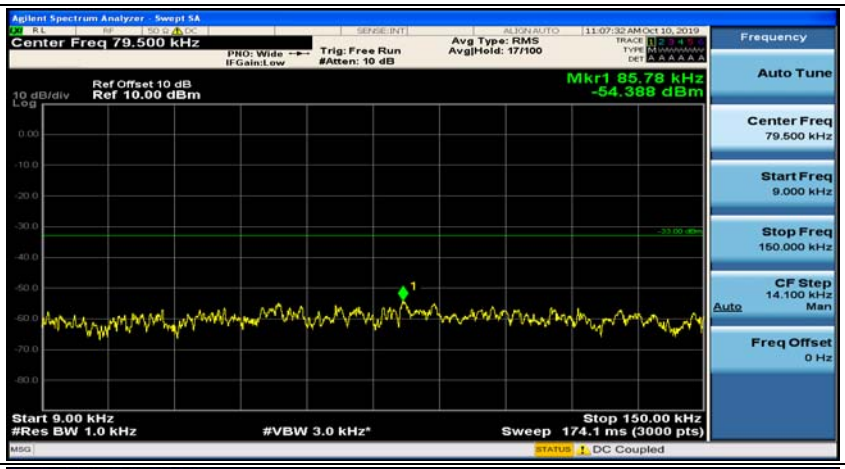
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

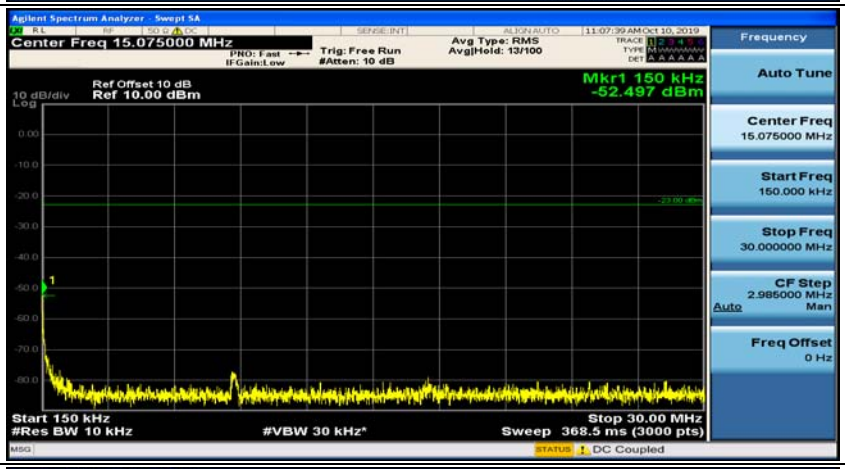


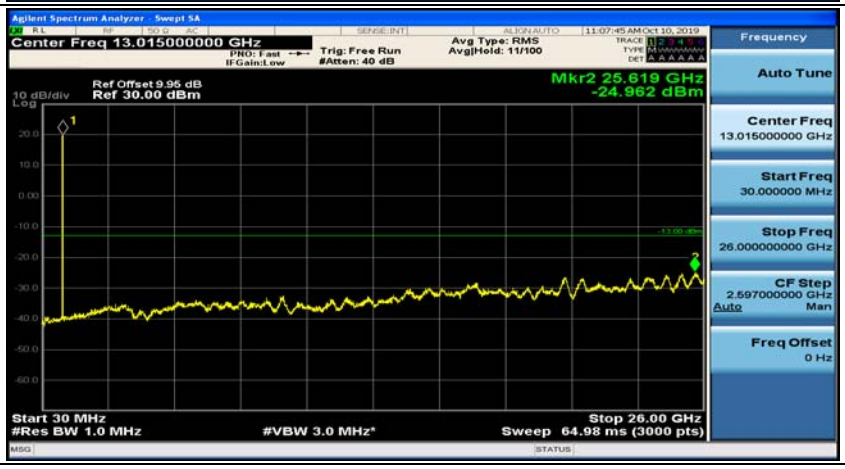


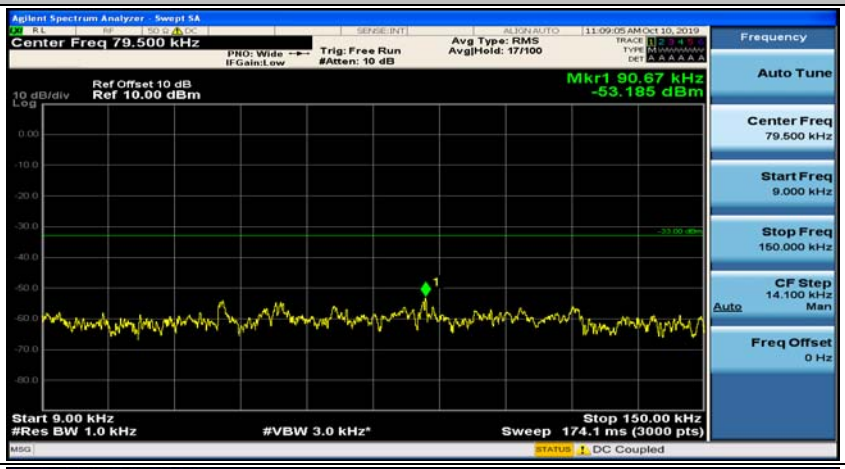
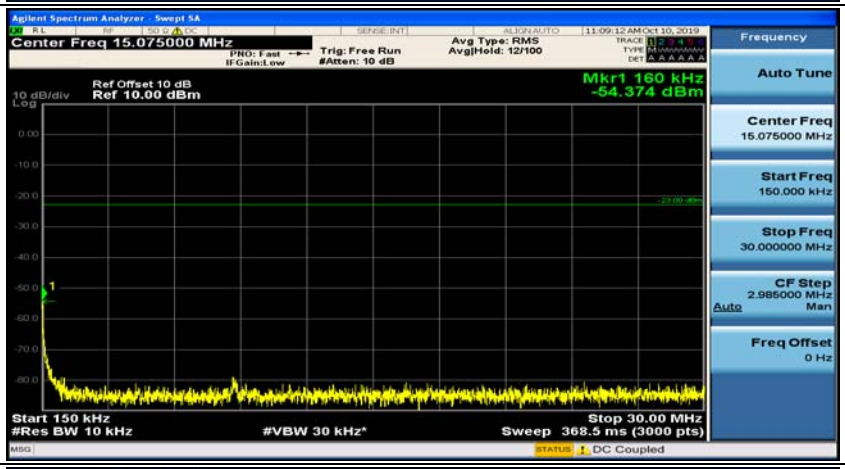
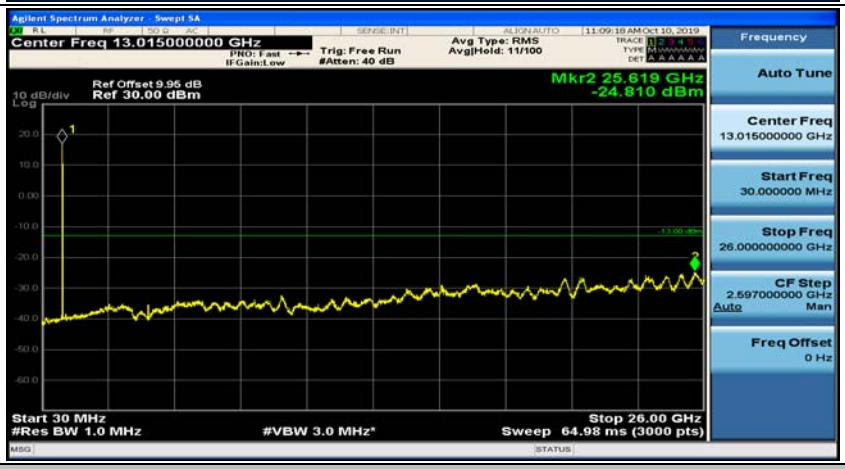


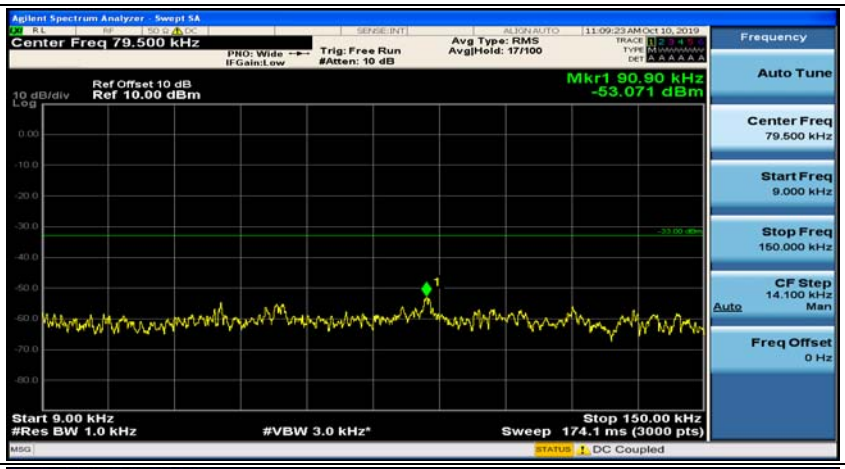
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

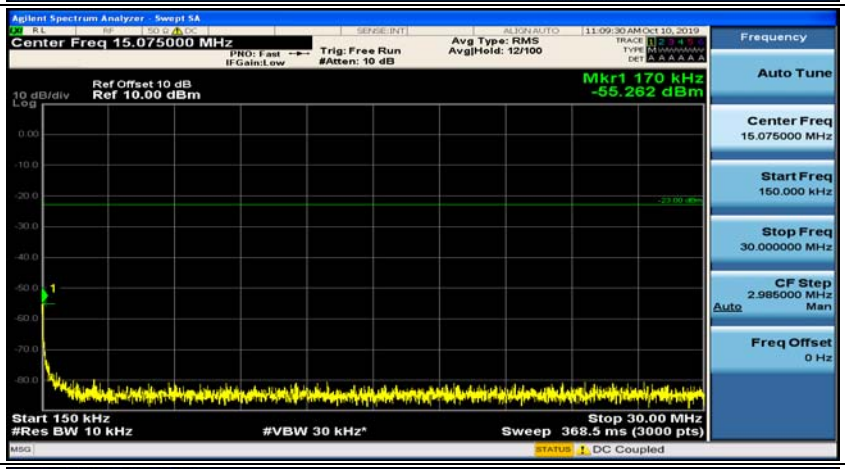

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
11:07:32 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 85.78 kHz
-54.388 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

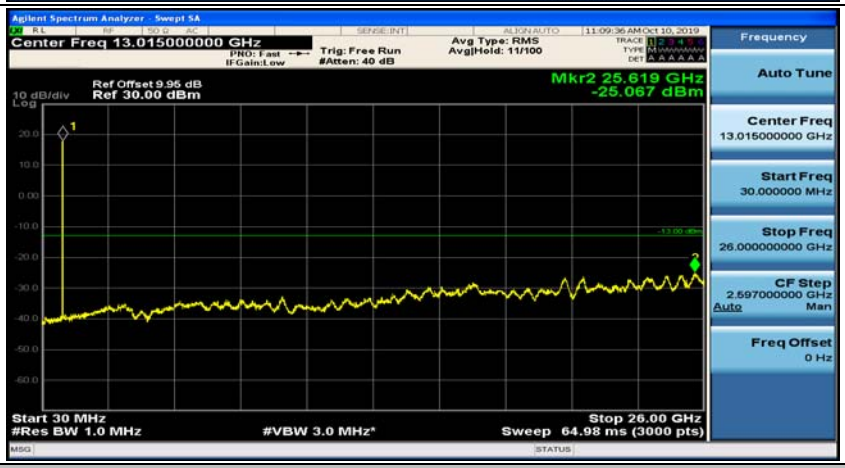

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 13/100
11:07:39 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-52.497 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
11:07:45 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.619 GHz
-24.962 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

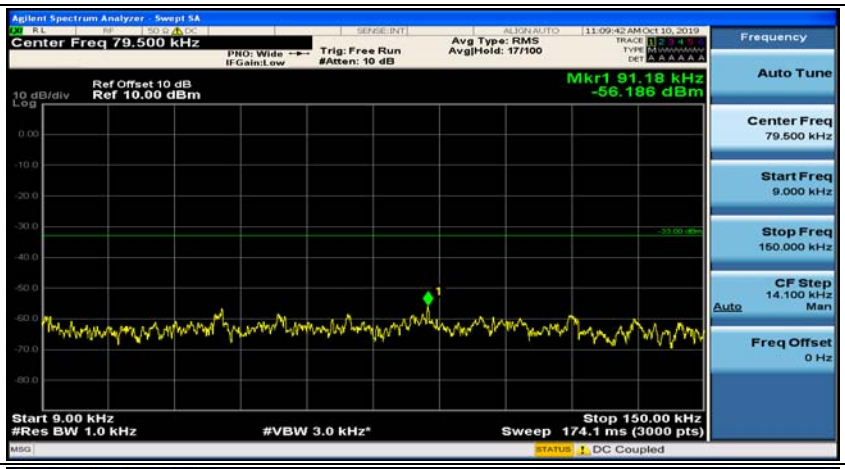
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

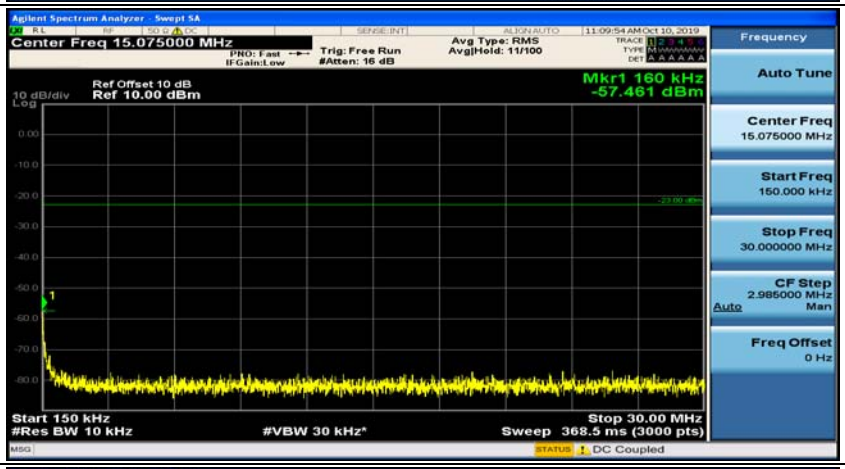


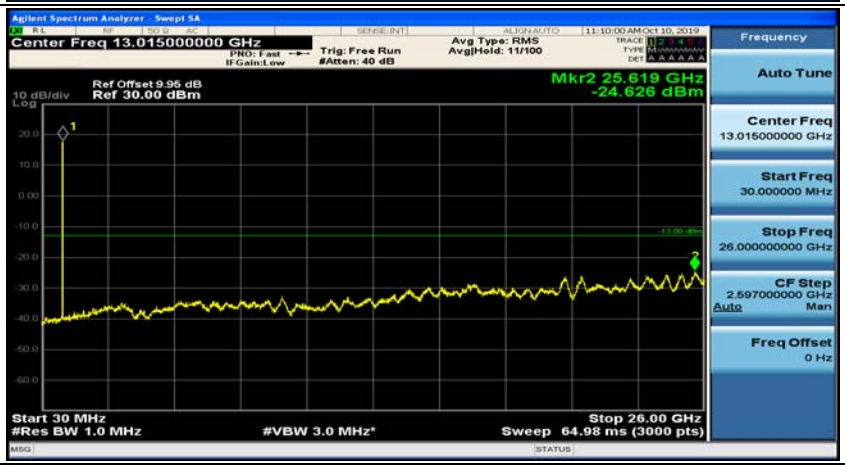


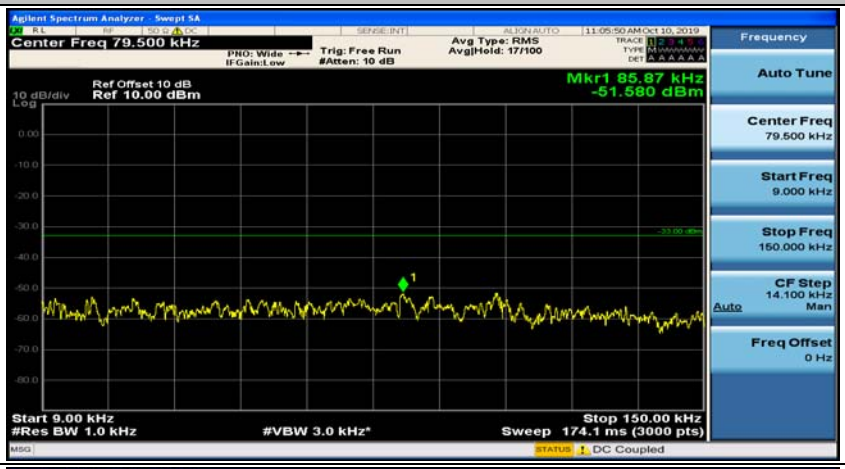
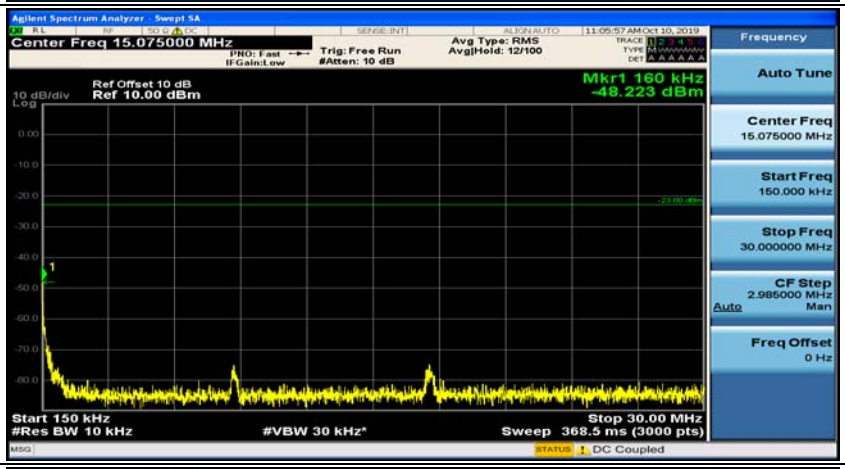
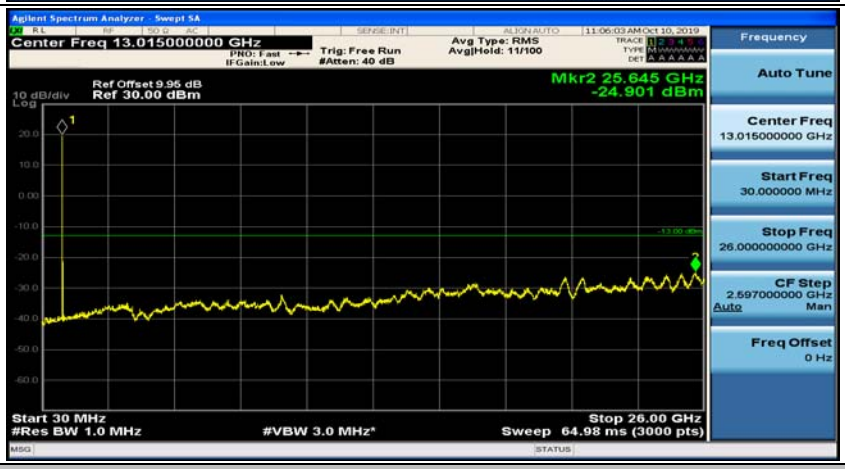


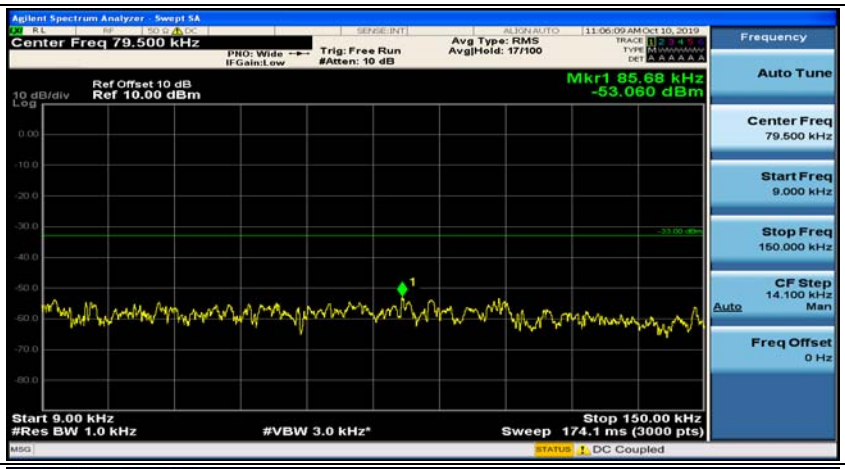
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

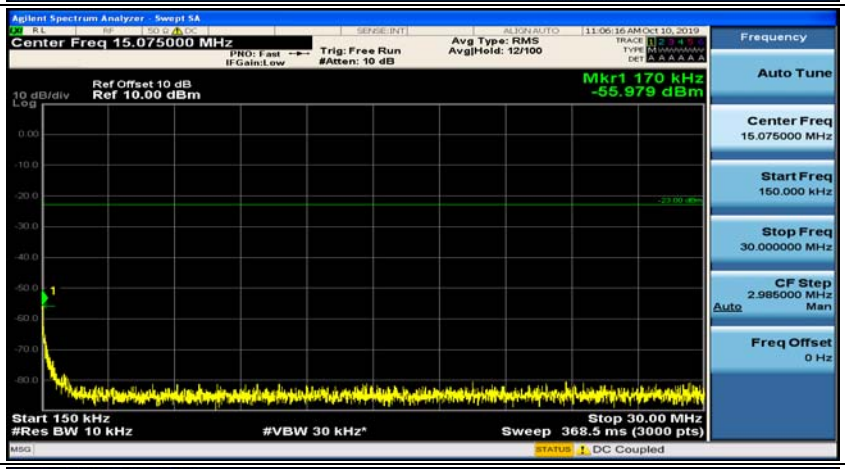

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
11:09:42 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 91.18 kHz
-56.186 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

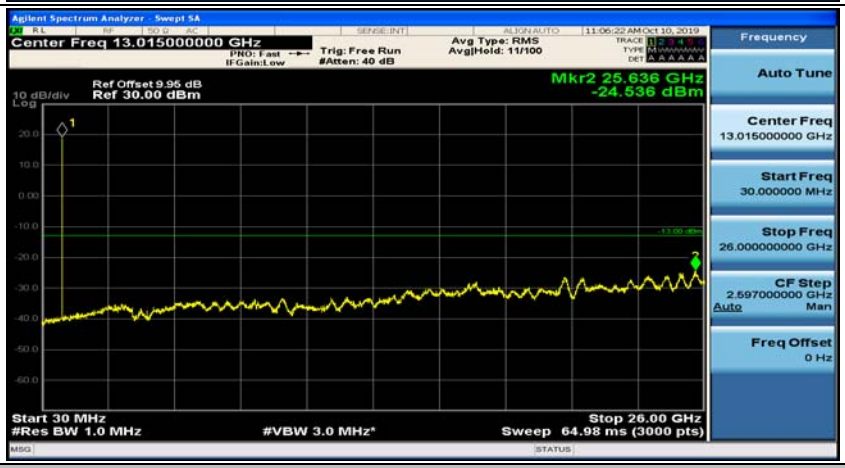

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
11:09:54 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-57.461 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
11:10:00 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.619 GHz
-24.626 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

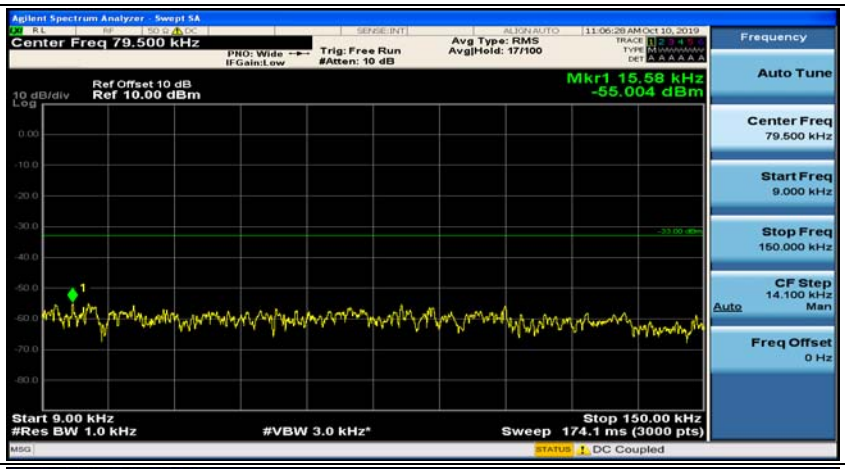
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

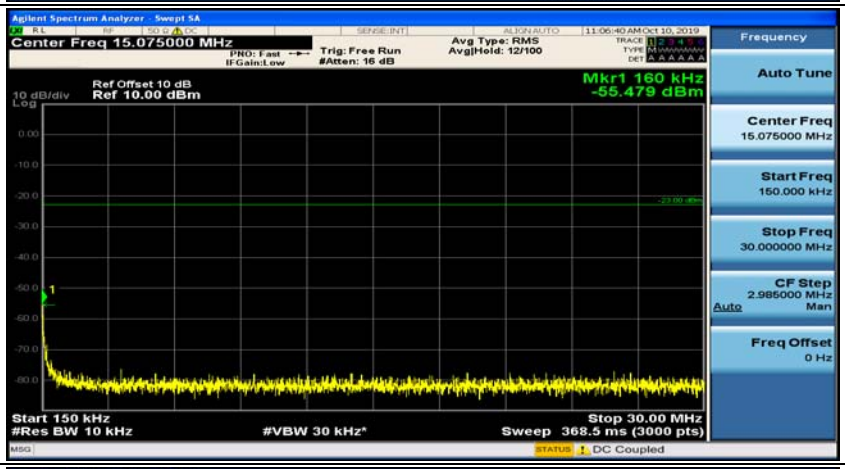


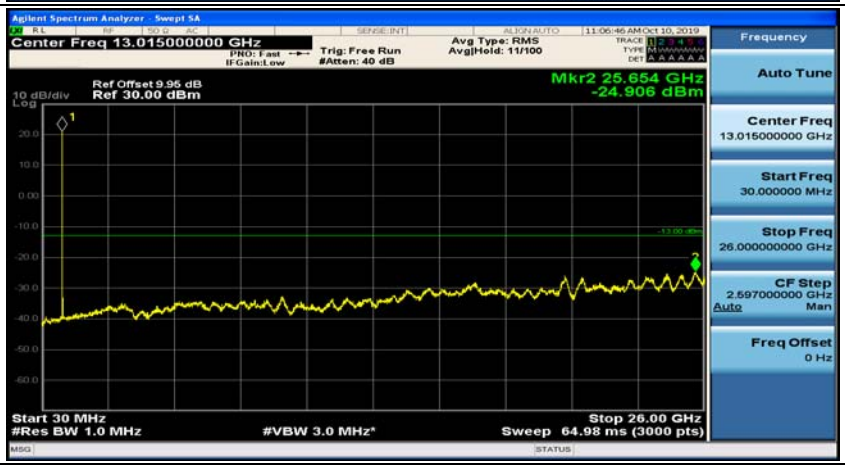


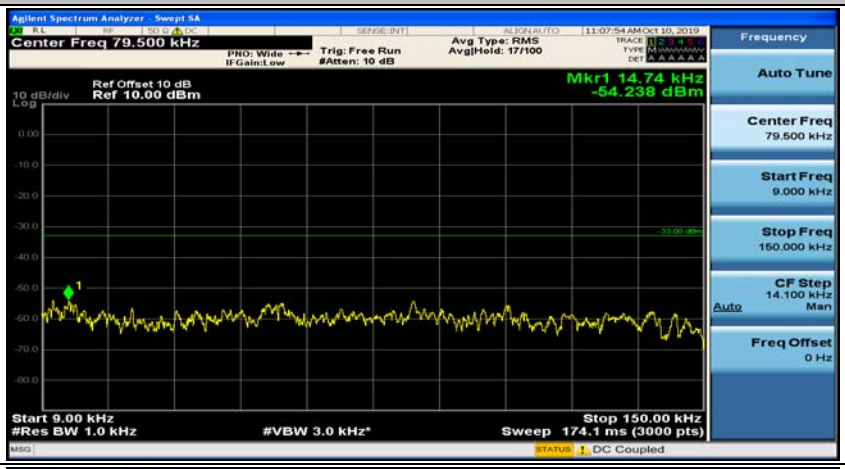
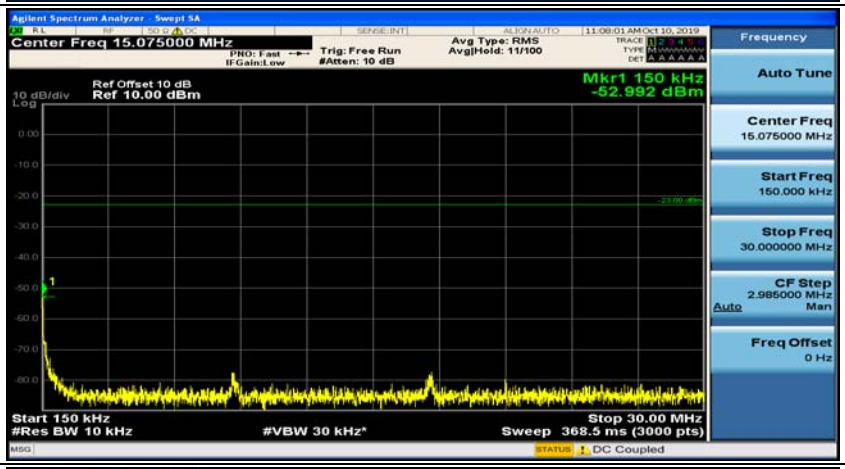
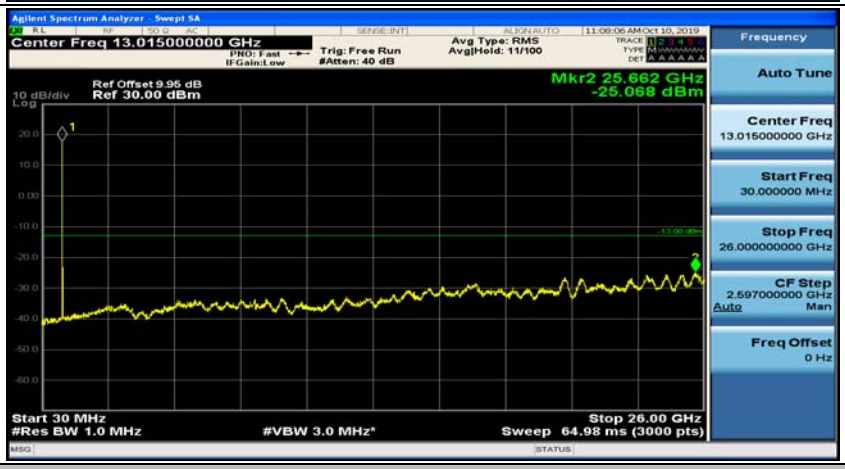


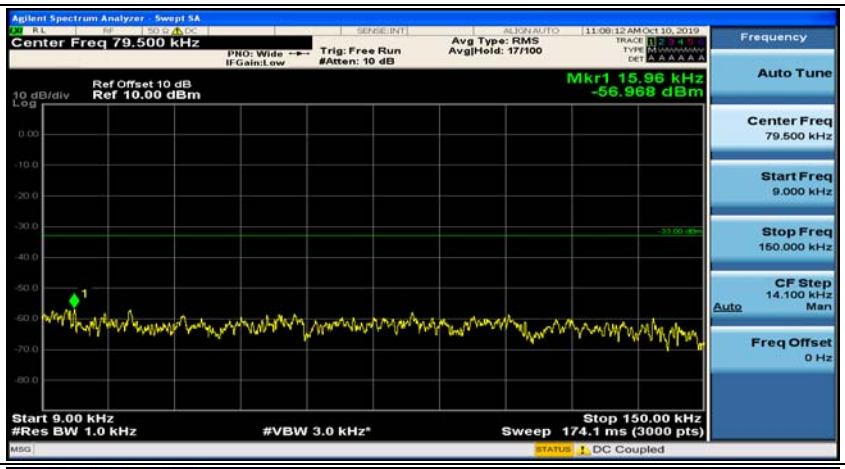
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

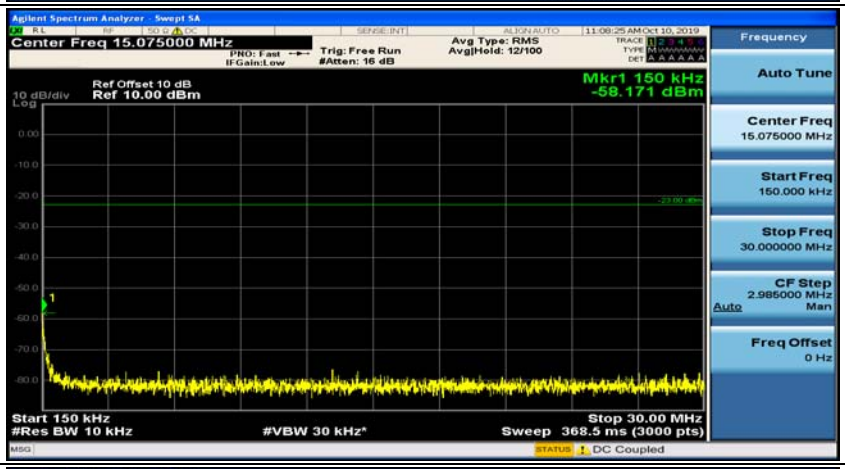

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
11:06:28 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 15.58 kHz
-55.004 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
11:06:40 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-55.479 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

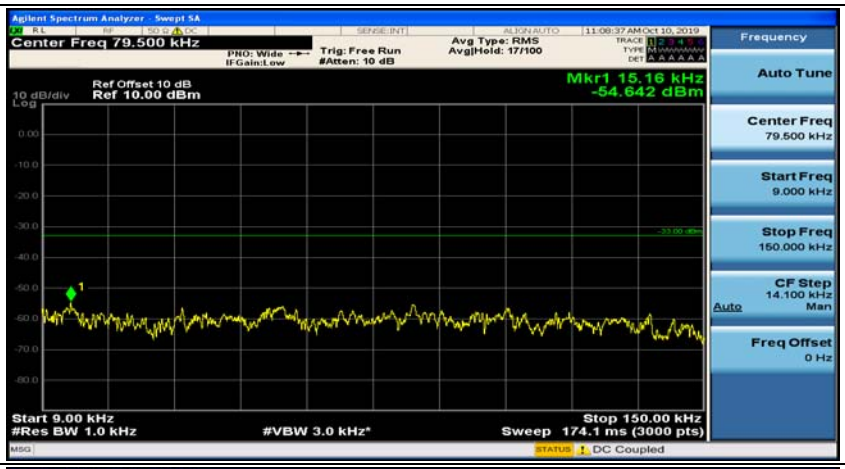

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
11:06:46 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.654 GHz
-24.906 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

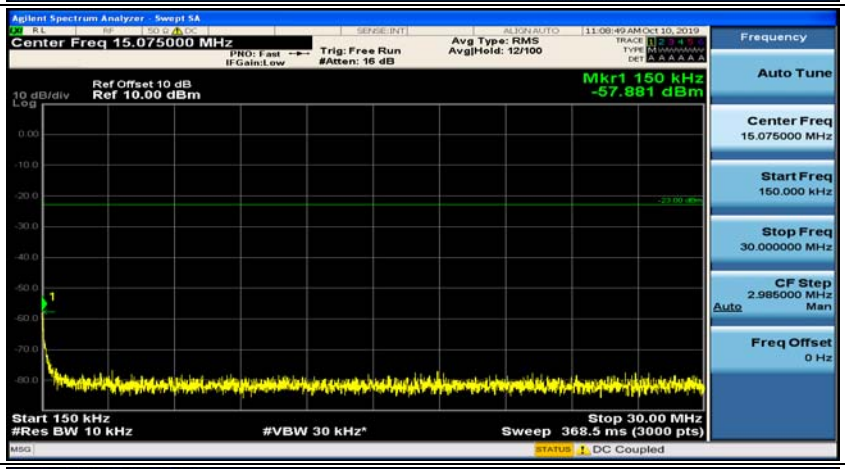
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

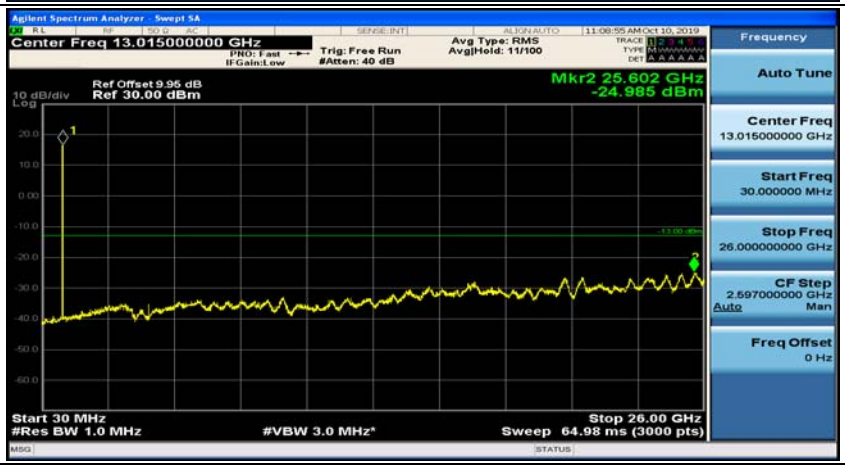


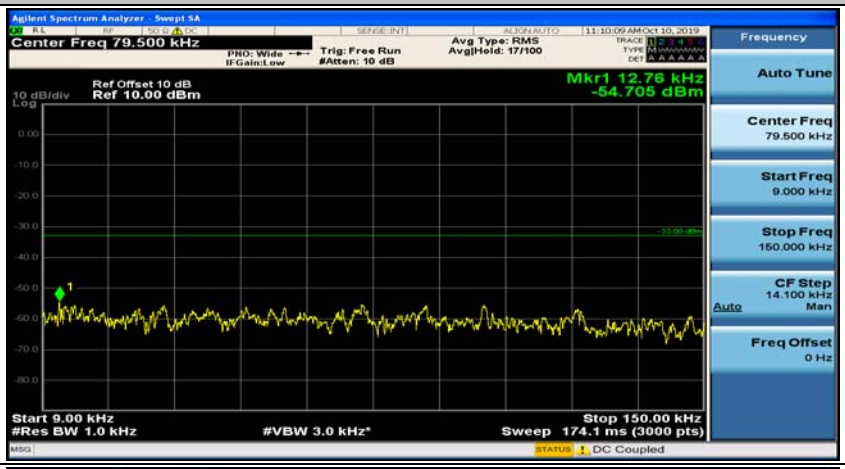
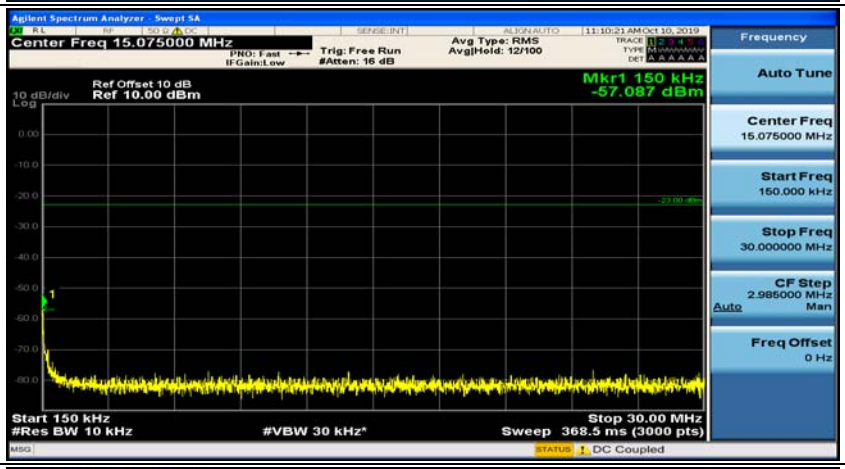
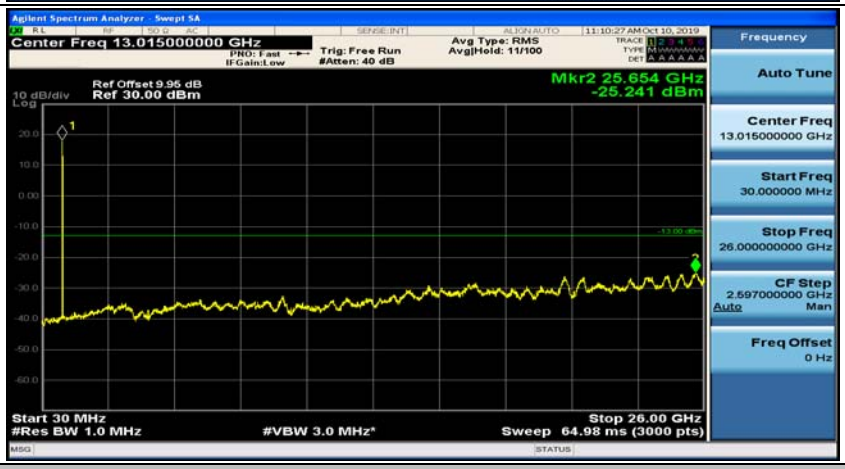


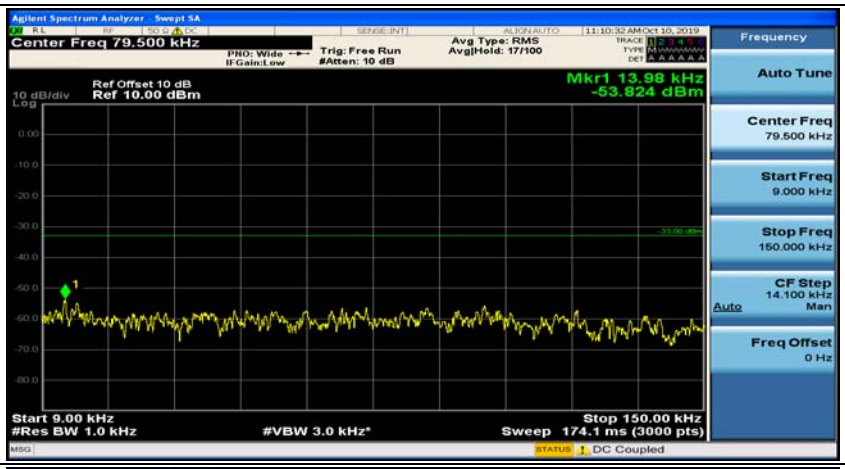
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

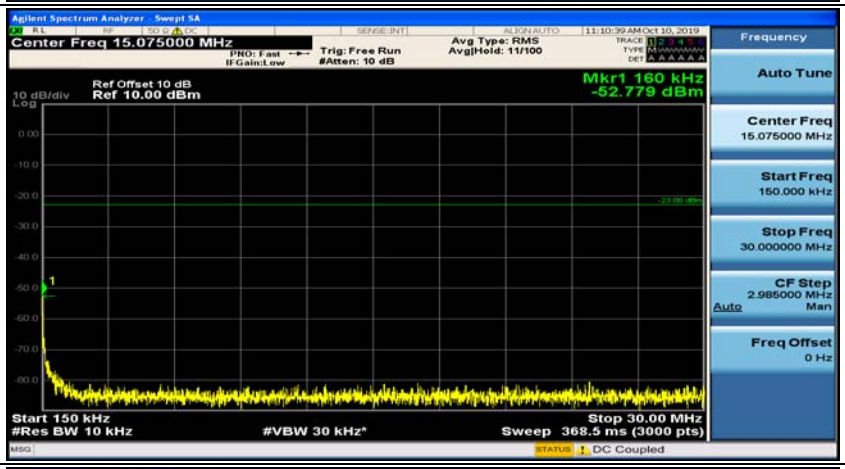

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
11:08:37 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 15.16 kHz
-54.642 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

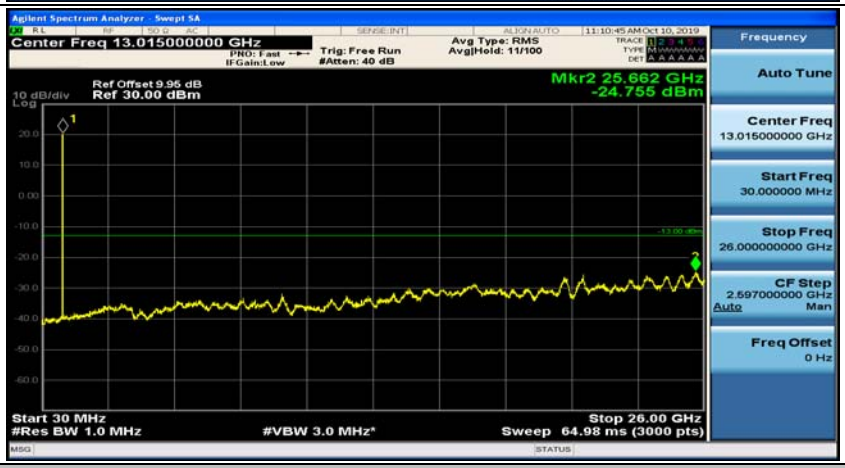

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
11:08:49 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-57.881 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
11:08:55 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.602 GHz
-24.985 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

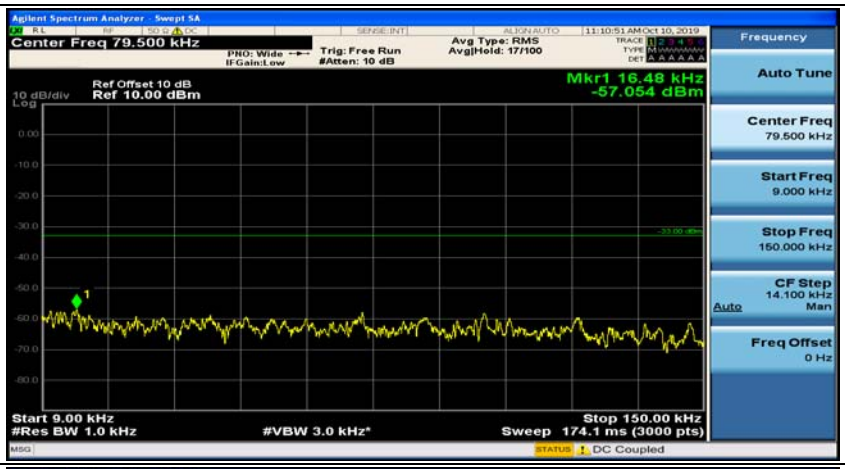
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

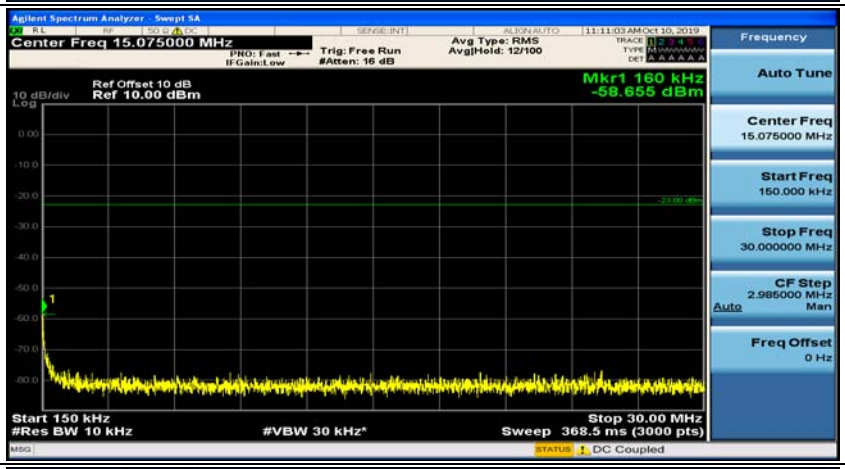


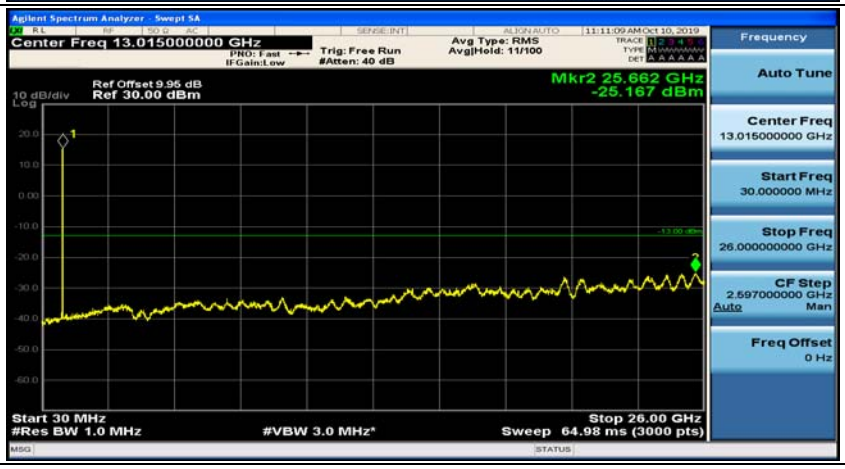




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
11:10:51 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 16.48 kHz
-57.054 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
11:11:03 AM Oct 10, 2019
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-58.655 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
11:11:09 AM Oct 10, 2019
Ref Offset 9.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-25.167 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.11	0.000133	± 2.5	PASS
		VN	TN	4.97	0.006026	± 2.5	PASS
		VH	TN	1.72	0.002086	± 2.5	PASS
	MCH	VL	TN	2.16	0.002582	± 2.5	PASS
		VN	TN	-0.61	-0.000729	± 2.5	PASS
		VH	TN	0.11	0.000132	± 2.5	PASS
	HCH	VL	TN	4.2	0.004951	± 2.5	PASS
		VN	TN	0.34	0.000401	± 2.5	PASS
		VH	TN	-1.95	-0.002299	± 2.5	PASS
16QAM	LCH	VL	TN	4.35	0.005275	± 2.5	PASS
		VN	TN	3.81	0.004620	± 2.5	PASS
		VH	TN	2.61	0.003165	± 2.5	PASS
	MCH	VL	TN	2.74	0.003276	± 2.5	PASS
		VN	TN	0.51	0.000610	± 2.5	PASS
		VH	TN	4.83	0.005774	± 2.5	PASS
	HCH	VL	TN	-0.76	-0.000896	± 2.5	PASS
		VN	TN	0.93	0.001096	± 2.5	PASS
		VH	TN	2.44	0.002876	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.46	0.005408	± 2.5	PASS
		VN	-20	3.88	0.004705	± 2.5	PASS
		VN	-10	-1.03	-0.001249	± 2.5	PASS
		VN	0	0.18	0.000218	± 2.5	PASS
		VN	10	0.1	0.000121	± 2.5	PASS
		VN	20	4.64	0.005626	± 2.5	PASS
		VN	30	0.61	0.000740	± 2.5	PASS
		VN	40	3.98	0.004826	± 2.5	PASS
		VN	50	2.97	0.003601	± 2.5	PASS
	MCH	VN	-30	4.49	0.005368	± 2.5	PASS
		VN	-20	2.36	0.002821	± 2.5	PASS

		VN	-10	0.39	0.000466	± 2.5	PASS
		VN	0	4.88	0.005834	± 2.5	PASS
		VN	10	2.05	0.002451	± 2.5	PASS
		VN	20	1.61	0.001925	± 2.5	PASS
		VN	30	0.32	0.000383	± 2.5	PASS
		VN	40	3.19	0.003814	± 2.5	PASS
		VN	50	2.97	0.003551	± 2.5	PASS
	HCH	VN	-30	3.87	0.004562	± 2.5	PASS
		VN	-20	1.09	0.001285	± 2.5	PASS
		VN	-10	0.44	0.000519	± 2.5	PASS
		VN	0	0.22	0.000259	± 2.5	PASS
		VN	10	4.02	0.004739	± 2.5	PASS
		VN	20	0.92	0.001085	± 2.5	PASS
		VN	30	-0.45	-0.000530	± 2.5	PASS
		VN	40	1.57	0.001851	± 2.5	PASS
		VN	50	0.23	0.000271	± 2.5	PASS
16QAM	LCH	VN	-30	-1.35	-0.001637	± 2.5	PASS
		VN	-20	-0.4	-0.000485	± 2.5	PASS
		VN	-10	-0.57	-0.000691	± 2.5	PASS
		VN	0	4.31	0.005226	± 2.5	PASS
		VN	10	1.49	0.001807	± 2.5	PASS
		VN	20	2.1	0.002546	± 2.5	PASS
		VN	30	-1.57	-0.001904	± 2.5	PASS
		VN	40	-1.1	-0.001334	± 2.5	PASS
		VN	50	2.41	0.002922	± 2.5	PASS
	MCH	VN	-30	2.4	0.002829	± 2.5	PASS
		VN	-20	1.05	0.001238	± 2.5	PASS
		VN	-10	3.75	0.004421	± 2.5	PASS
		VN	0	1.97	0.002322	± 2.5	PASS
		VN	10	2.07	0.002440	± 2.5	PASS
		VN	20	2.67	0.003147	± 2.5	PASS
		VN	30	0.06	0.000071	± 2.5	PASS
		VN	40	4.26	0.005022	± 2.5	PASS
		VN	50	-0.15	-0.000177	± 2.5	PASS
	HCH	VN	-30	0.79	0.000931	± 2.5	PASS
		VN	-20	-0.02	-0.000024	± 2.5	PASS
		VN	-10	0.59	0.000696	± 2.5	PASS
		VN	0	-0.18	-0.000212	± 2.5	PASS
		VN	10	3.66	0.004315	± 2.5	PASS
		VN	20	2.31	0.002723	± 2.5	PASS
		VN	30	-1.17	-0.001379	± 2.5	PASS

		VN	40	4.57	0.005387	± 2.5	PASS
		VN	50	2.13	0.002511	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.05	0.002483	± 2.5	PASS
		VN	TN	3.32	0.004022	± 2.5	PASS
		VH	TN	0.29	0.000351	± 2.5	PASS
	MCH	VL	TN	-0.09	-0.000108	± 2.5	PASS
		VN	TN	-0.26	-0.000311	± 2.5	PASS
		VH	TN	-1.79	-0.002140	± 2.5	PASS
	HCH	VL	TN	3.83	0.004519	± 2.5	PASS
		VN	TN	2.91	0.003434	± 2.5	PASS
		VH	TN	-0.14	-0.000165	± 2.5	PASS
16QAM	LCH	VL	TN	0.91	0.001102	± 2.5	PASS
		VN	TN	4.7	0.005694	± 2.5	PASS
		VH	TN	-0.17	-0.000206	± 2.5	PASS
	MCH	VL	TN	0.46	0.000550	± 2.5	PASS
		VN	TN	2.45	0.002929	± 2.5	PASS
		VH	TN	2.87	0.003431	± 2.5	PASS
	HCH	VL	TN	3.32	0.003917	± 2.5	PASS
		VN	TN	2.28	0.002690	± 2.5	PASS
		VH	TN	0.93	0.001097	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.71	0.004494	± 2.5	PASS
		VN	-20	1.68	0.002035	± 2.5	PASS
		VN	-10	2.99	0.003622	± 2.5	PASS
		VN	0	1.73	0.002096	± 2.5	PASS
		VN	10	-0.33	-0.000400	± 2.5	PASS
		VN	20	0.63	0.000763	± 2.5	PASS
		VN	30	-0.05	-0.000061	± 2.5	PASS
		VN	40	3.61	0.004373	± 2.5	PASS
		VN	50	1.53	0.001853	± 2.5	PASS
	MCH	VN	-30	0.87	0.001040	± 2.5	PASS
		VN	-20	3.48	0.004160	± 2.5	PASS
		VN	-10	2.05	0.002451	± 2.5	PASS

		VN	0	4.17	0.004985	± 2.5	PASS
		VN	10	-1.47	-0.001757	± 2.5	PASS
		VN	20	3.16	0.003778	± 2.5	PASS
		VN	30	2.83	0.003383	± 2.5	PASS
		VN	40	-1.12	-0.001339	± 2.5	PASS
		VN	50	2.12	0.002534	± 2.5	PASS
	HCH	VN	-30	1.83	0.002159	± 2.5	PASS
		VN	-20	3.05	0.003599	± 2.5	PASS
		VN	-10	-0.86	-0.001015	± 2.5	PASS
		VN	0	3.67	0.004330	± 2.5	PASS
		VN	10	1.61	0.001900	± 2.5	PASS
		VN	20	0.48	0.000566	± 2.5	PASS
		VN	30	-1.1	-0.001298	± 2.5	PASS
		VN	40	3.99	0.004708	± 2.5	PASS
		VN	50	-1.49	-0.001758	± 2.5	PASS
16QAM	LCH	VN	-30	1.22	0.001458	± 2.5	PASS
		VN	-20	4.19	0.005009	± 2.5	PASS
		VN	-10	-0.35	-0.000418	± 2.5	PASS
		VN	0	2.34	0.002797	± 2.5	PASS
		VN	10	-0.67	-0.000801	± 2.5	PASS
		VN	20	-0.15	-0.000179	± 2.5	PASS
		VN	30	-0.86	-0.001028	± 2.5	PASS
		VN	40	3.5	0.004184	± 2.5	PASS
		VN	50	2.69	0.003216	± 2.5	PASS
	MCH	VN	-30	-0.32	-0.000378	± 2.5	PASS
		VN	-20	4.43	0.005227	± 2.5	PASS
		VN	-10	1.36	0.001605	± 2.5	PASS
		VN	0	2.79	0.003292	± 2.5	PASS
		VN	10	0.84	0.000991	± 2.5	PASS
		VN	20	0.16	0.000189	± 2.5	PASS
		VN	30	2.67	0.003150	± 2.5	PASS
		VN	40	3.88	0.004578	± 2.5	PASS
		VN	50	1.2	0.001416	± 2.5	PASS
	HCH	VN	-30	1.08	0.001274	± 2.5	PASS
		VN	-20	-1.89	-0.002230	± 2.5	PASS
		VN	-10	4.07	0.004802	± 2.5	PASS
		VN	0	-1.68	-0.001982	± 2.5	PASS
		VN	10	3.4	0.004012	± 2.5	PASS
		VN	20	-0.91	-0.001074	± 2.5	PASS
		VN	30	-1.48	-0.001746	± 2.5	PASS
		VN	40	-1.89	-0.002230	± 2.5	PASS

		VN	50	4.07	0.004802	± 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	-0.57	-0.000690	± 2.5	PASS
		VN	TN	-0.05	-0.000060	± 2.5	PASS
		VH	TN	4.94	0.005977	± 2.5	PASS
	MCH	VL	TN	0.2	0.000239	± 2.5	PASS
		VN	TN	4.67	0.005583	± 2.5	PASS
		VH	TN	4.84	0.005786	± 2.5	PASS
	HCH	VL	TN	-0.82	-0.000969	± 2.5	PASS
		VN	TN	-0.12	-0.000142	± 2.5	PASS
		VH	TN	3.17	0.003745	± 2.5	PASS
16QAM	LCH	VL	TN	0.67	0.000811	± 2.5	PASS
		VN	TN	-0.42	-0.000508	± 2.5	PASS
		VH	TN	0.3	0.000363	± 2.5	PASS
	MCH	VL	TN	0.03	0.000036	± 2.5	PASS
		VN	TN	2.4	0.002869	± 2.5	PASS
		VH	TN	4.44	0.005308	± 2.5	PASS
	HCH	VL	TN	2.4	0.002835	± 2.5	PASS
		VN	TN	-0.79	-0.000933	± 2.5	PASS
		VH	TN	-1.87	-0.002209	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.44	-0.000532	± 2.5	PASS
		VN	-20	2.52	0.003049	± 2.5	PASS
		VN	-10	3.68	0.004453	± 2.5	PASS
		VN	0	2.05	0.002480	± 2.5	PASS
		VN	10	2.39	0.002892	± 2.5	PASS
		VN	20	2.08	0.002517	± 2.5	PASS
		VN	30	-0.44	-0.000532	± 2.5	PASS
		VN	40	4.36	0.005275	± 2.5	PASS
		VN	50	-1.49	-0.001803	± 2.5	PASS
	MCH	VN	-30	1.25	0.001494	± 2.5	PASS
		VN	-20	-0.77	-0.000921	± 2.5	PASS
		VN	-10	4.58	0.005475	± 2.5	PASS
		VN	0	1.41	0.001686	± 2.5	PASS

		VN	10	1.65	0.001973	± 2.5	PASS
		VN	20	2.74	0.003276	± 2.5	PASS
		VN	30	-0.71	-0.000849	± 2.5	PASS
		VN	40	3.94	0.004710	± 2.5	PASS
		VN	50	-1.35	-0.001614	± 2.5	PASS
	HCH	VN	-30	3.03	0.003579	± 2.5	PASS
		VN	-20	1.14	0.001347	± 2.5	PASS
		VN	-10	-1.13	-0.001335	± 2.5	PASS
		VN	0	-1.39	-0.001642	± 2.5	PASS
		VN	10	1.43	0.001689	± 2.5	PASS
		VN	20	-0.8	-0.000945	± 2.5	PASS
		VN	30	-1.65	-0.001949	± 2.5	PASS
		VN	40	-0.95	-0.001122	± 2.5	PASS
		VN	50	3.03	0.003579	± 2.5	PASS
16QAM	LCH	VN	-30	2.14	0.002558	± 2.5	PASS
		VN	-20	1.13	0.001351	± 2.5	PASS
		VN	-10	3.92	0.004686	± 2.5	PASS
		VN	0	3.05	0.003646	± 2.5	PASS
		VN	10	-1.72	-0.002056	± 2.5	PASS
		VN	20	-1.9	-0.002271	± 2.5	PASS
		VN	30	4.53	0.005415	± 2.5	PASS
		VN	40	2.32	0.002773	± 2.5	PASS
		VN	50	-0.78	-0.000932	± 2.5	PASS
	MCH	VN	-30	0.8	0.000945	± 2.5	PASS
		VN	-20	2.4	0.002835	± 2.5	PASS
		VN	-10	-1.49	-0.001760	± 2.5	PASS
		VN	0	3.42	0.004040	± 2.5	PASS
		VN	10	3.15	0.003721	± 2.5	PASS
		VN	20	1.72	0.002032	± 2.5	PASS
		VN	30	1.73	0.002044	± 2.5	PASS
		VN	40	2.8	0.003308	± 2.5	PASS
		VN	50	2.56	0.003024	± 2.5	PASS
	HCH	VN	-30	-1.22	-0.001441	± 2.5	PASS
		VN	-20	-0.78	-0.000921	± 2.5	PASS
		VN	-10	2.37	0.002800	± 2.5	PASS
		VN	0	3.74	0.004418	± 2.5	PASS
		VN	10	-0.99	-0.001170	± 2.5	PASS
		VN	20	-0.26	-0.000307	± 2.5	PASS
		VN	30	0.97	0.001146	± 2.5	PASS
		VN	40	2.87	0.003390	± 2.5	PASS
		VN	50	1.7	0.002008	± 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	-0.000820	-0.000820	± 2.5	PASS
		VN	TN	0.000157	0.000157	± 2.5	PASS
		VH	TN	0.000193	0.000193	± 2.5	PASS
	MCH	VL	TN	-0.001638	-0.001638	± 2.5	PASS
		VN	TN	-0.002331	-0.002331	± 2.5	PASS
		VH	TN	0.005643	0.005643	± 2.5	PASS
	HCH	VL	TN	0.004384	0.004384	± 2.5	PASS
		VN	TN	-0.002346	-0.002346	± 2.5	PASS
		VH	TN	-0.002299	-0.002299	± 2.5	PASS
16QAM	LCH	VL	TN	0.003269	0.003269	± 2.5	PASS
		VN	TN	-0.000398	-0.000398	± 2.5	PASS
		VH	TN	0.005223	0.005223	± 2.5	PASS
	MCH	VL	TN	0.003551	0.003551	± 2.5	PASS
		VN	TN	-0.000753	-0.000753	± 2.5	PASS
		VH	TN	0.003455	0.003455	± 2.5	PASS
	HCH	VL	TN	0.000118	0.000118	± 2.5	PASS
		VN	TN	-0.000533	-0.000533	± 2.5	PASS
		VH	TN	0.001588	0.001588	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.68	0.004439	± 2.5	PASS
		VN	-20	3.68	0.004439	± 2.5	PASS
		VN	-10	-0.71	-0.000856	± 2.5	PASS
		VN	0	1.28	0.001544	± 2.5	PASS
		VN	10	0.13	0.000157	± 2.5	PASS
		VN	20	0.26	0.000314	± 2.5	PASS
		VN	30	-0.14	-0.000169	± 2.5	PASS
		VN	40	0.58	0.000700	± 2.5	PASS
		VN	50	2.49	0.003004	± 2.5	PASS
	MCH	VN	-30	0.4	0.000478	± 2.5	PASS
		VN	-20	3.11	0.003718	± 2.5	PASS
		VN	-10	1.74	0.002080	± 2.5	PASS
		VN	0	-1.75	-0.002092	± 2.5	PASS
		VN	10	2.28	0.002726	± 2.5	PASS
		VN	20	-0.24	-0.000287	± 2.5	PASS

		VN	30	0.11	0.000132	± 2.5	PASS
		VN	40	4.95	0.005918	± 2.5	PASS
		VN	50	2.41	0.002881	± 2.5	PASS
	HCH	VN	-30	2.96	0.003507	± 2.5	PASS
		VN	-20	0.36	0.000427	± 2.5	PASS
		VN	-10	0.52	0.000616	± 2.5	PASS
		VN	0	-1.29	-0.001528	± 2.5	PASS
		VN	10	1.37	0.001623	± 2.5	PASS
		VN	20	-1.67	-0.001979	± 2.5	PASS
		VN	30	2.86	0.003389	± 2.5	PASS
		VN	40	3.35	0.003969	± 2.5	PASS
		VN	50	3.31	0.003922	± 2.5	PASS
16QAM	LCH	VN	-30	2.01	0.002403	± 2.5	PASS
		VN	-20	2.65	0.003168	± 2.5	PASS
		VN	-10	1.49	0.001781	± 2.5	PASS
		VN	0	3.86	0.004614	± 2.5	PASS
		VN	10	4.77	0.005702	± 2.5	PASS
		VN	20	2.18	0.002606	± 2.5	PASS
		VN	30	4.56	0.005451	± 2.5	PASS
		VN	40	0.5	0.000598	± 2.5	PASS
		VN	50	-0.97	-0.001160	± 2.5	PASS
	MCH	VN	-30	2.61	0.003092	± 2.5	PASS
		VN	-20	3.59	0.004254	± 2.5	PASS
		VN	-10	4.05	0.004799	± 2.5	PASS
		VN	0	2.95	0.003495	± 2.5	PASS
		VN	10	-1.7	-0.002014	± 2.5	PASS
		VN	20	4.14	0.004905	± 2.5	PASS
		VN	30	0.84	0.000995	± 2.5	PASS
		VN	40	-0.51	-0.000604	± 2.5	PASS
		VN	50	0.43	0.000509	± 2.5	PASS
	HCH	VN	-30	0.53	0.000628	± 2.5	PASS
		VN	-20	1.75	0.002073	± 2.5	PASS
		VN	-10	3.95	0.004680	± 2.5	PASS
		VN	0	1.85	0.002192	± 2.5	PASS
		VN	10	1.91	0.002263	± 2.5	PASS
		VN	20	3.19	0.003780	± 2.5	PASS
		VN	30	4.15	0.004917	± 2.5	PASS
		VN	40	1.69	0.002002	± 2.5	PASS
		VN	50	-0.36	-0.000427	± 2.5	PASS