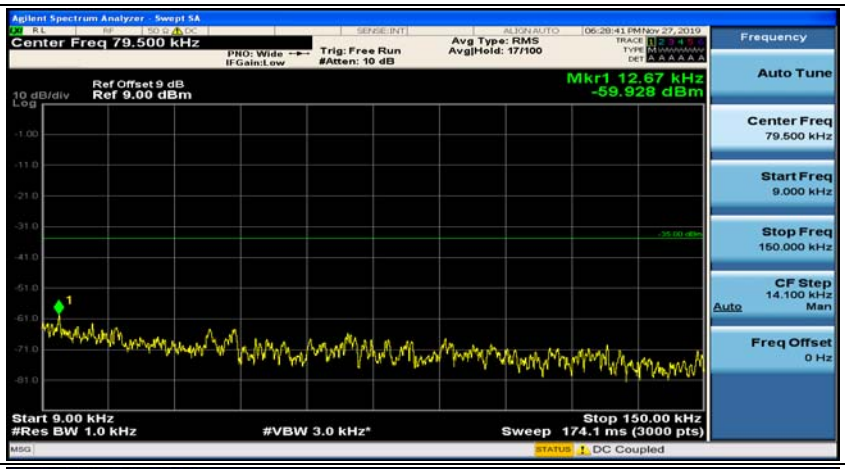
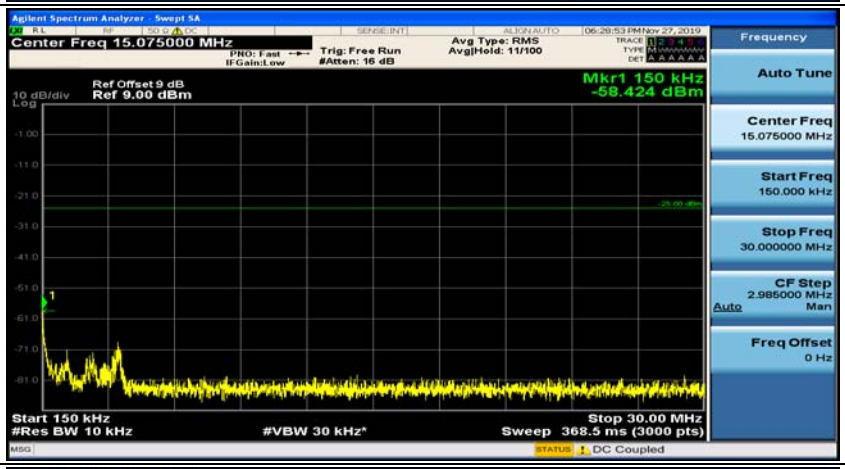
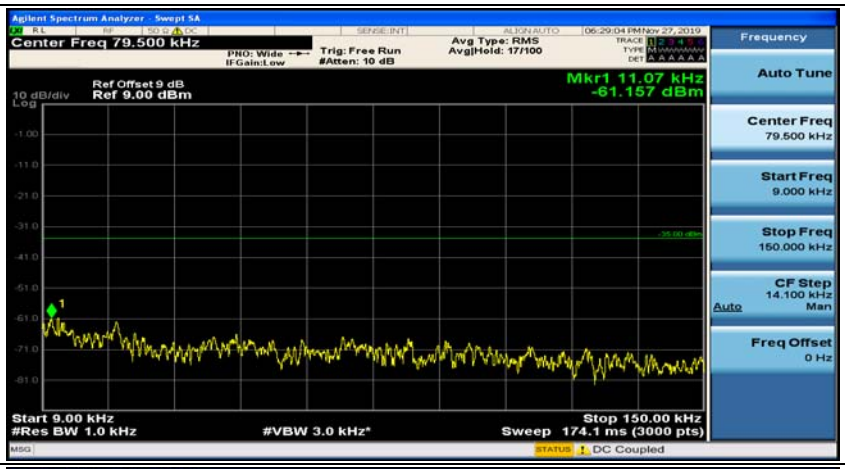
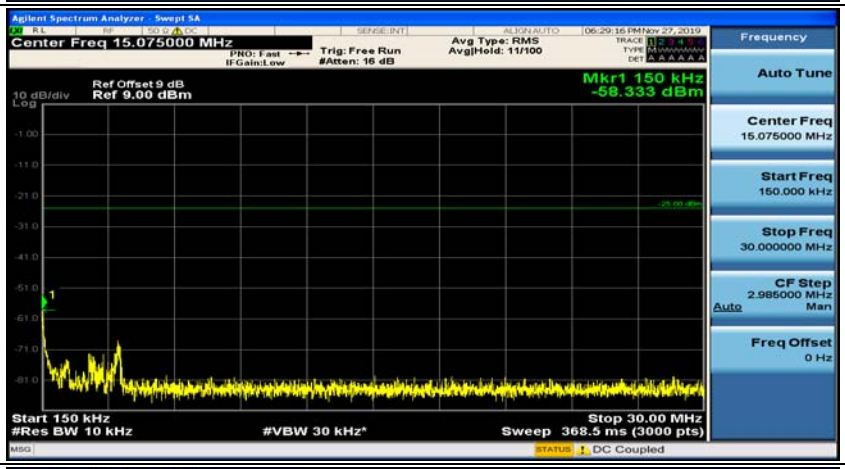
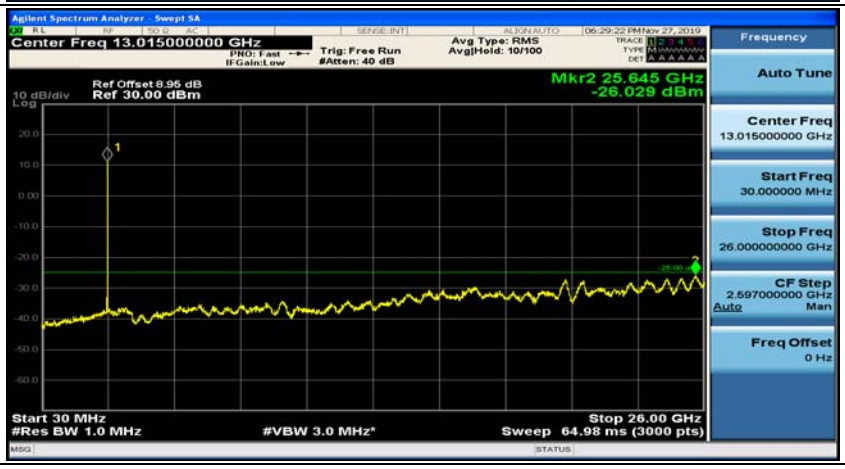


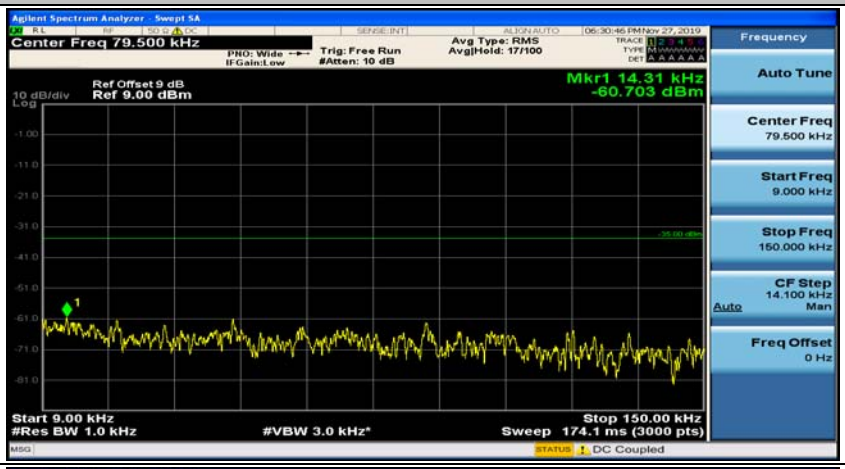
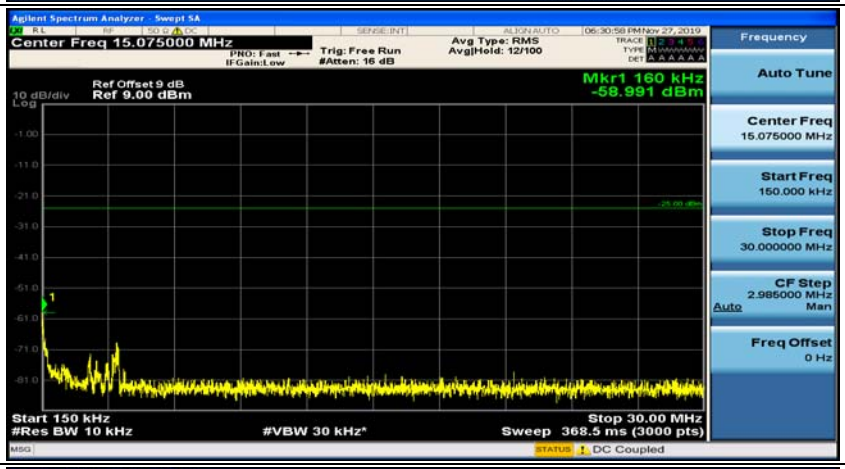
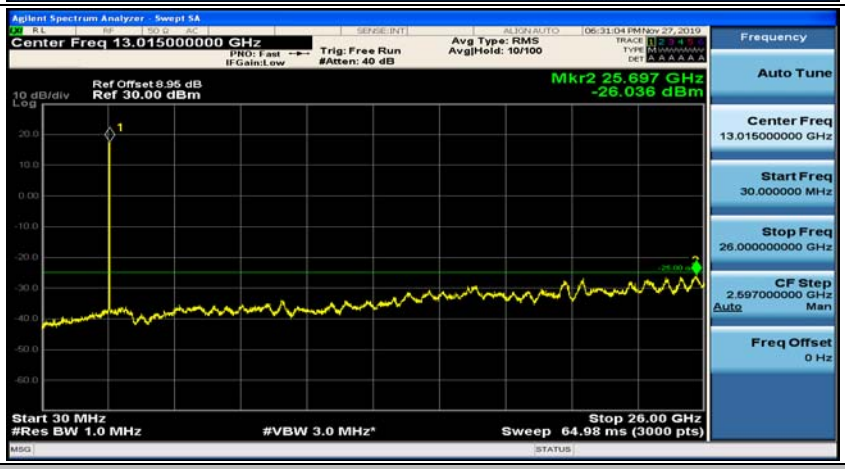


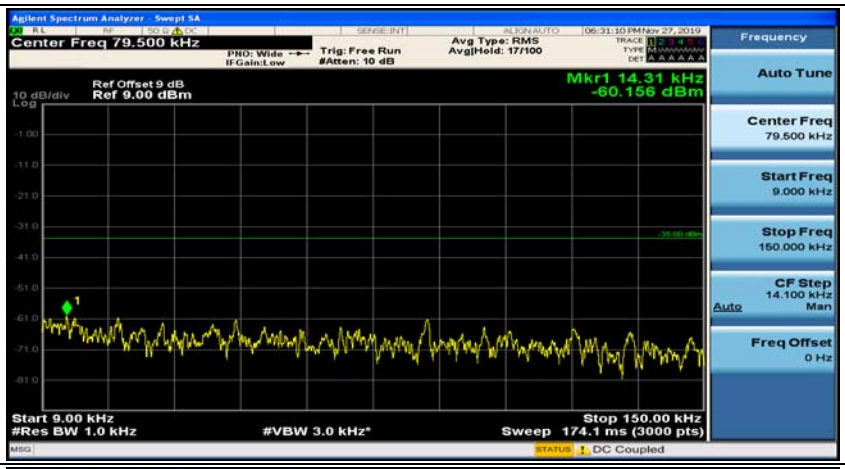
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

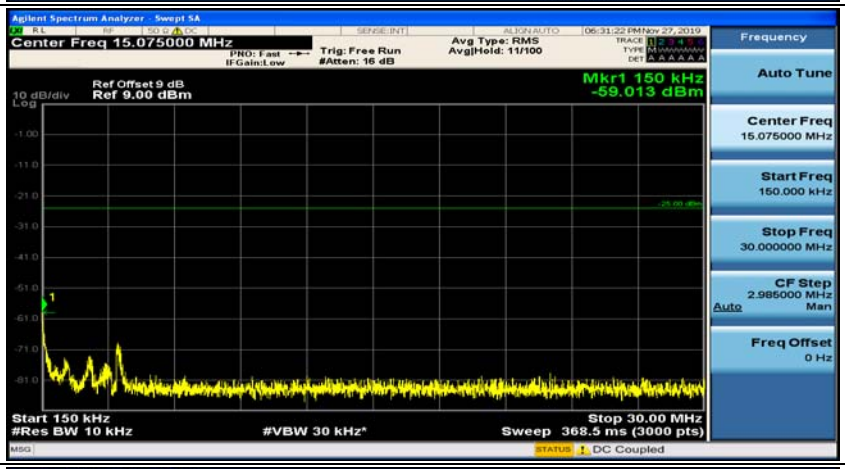

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:29:04 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.07 kHz
-61.157 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

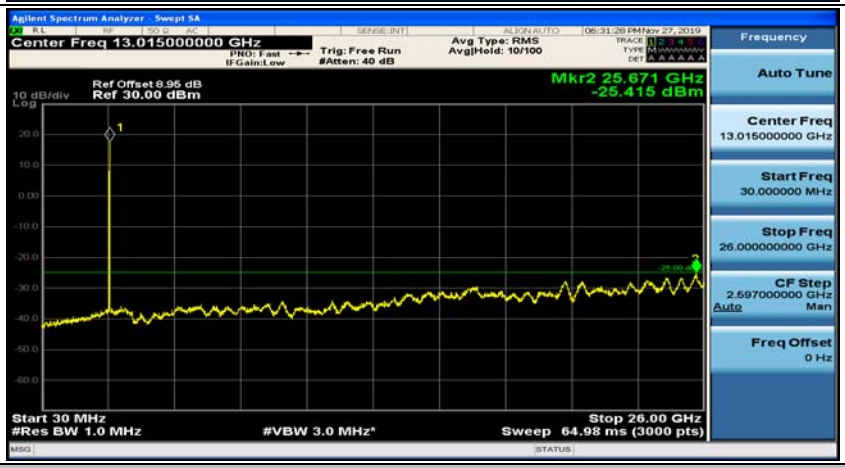

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
06:29:16 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.333 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:29:22 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.645 GHz
-26.029 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

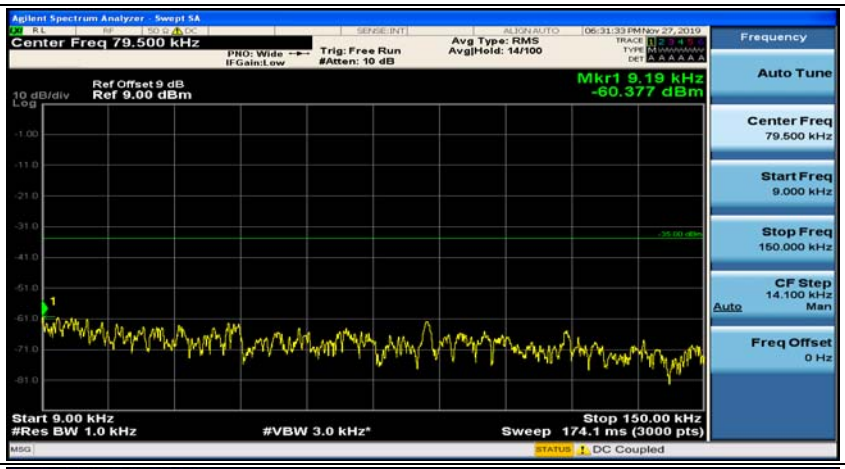
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

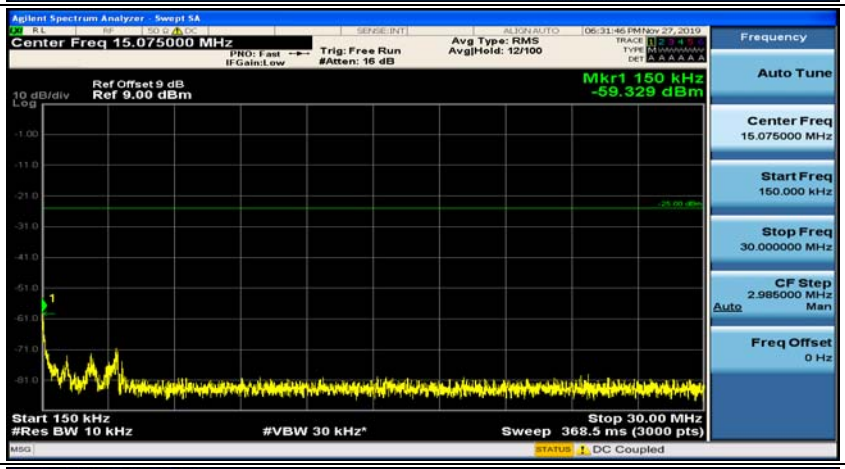


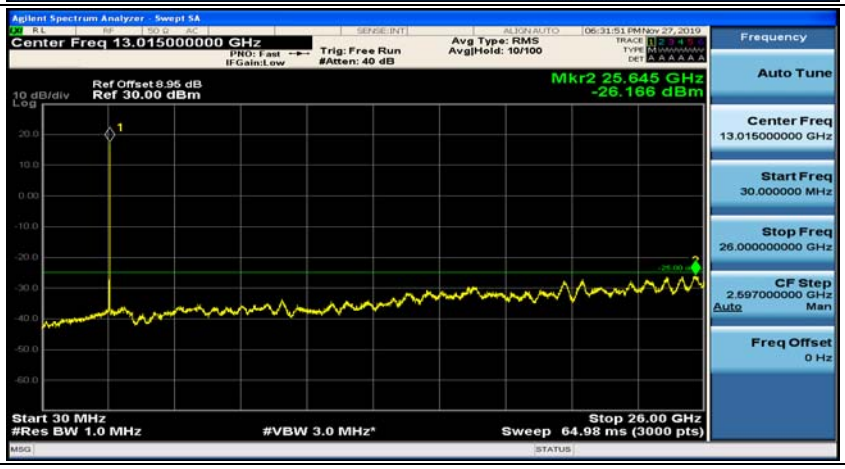




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

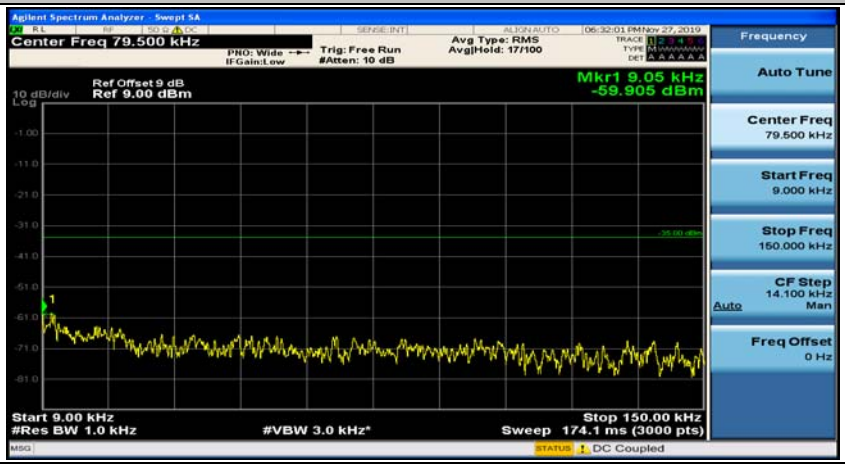

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 14/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.19 kHz
-60.377 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

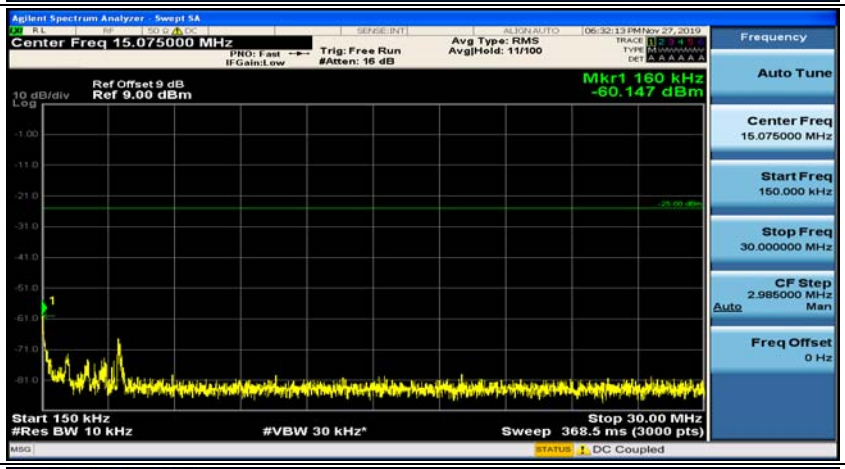

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.329 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.645 GHz
-26.166 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

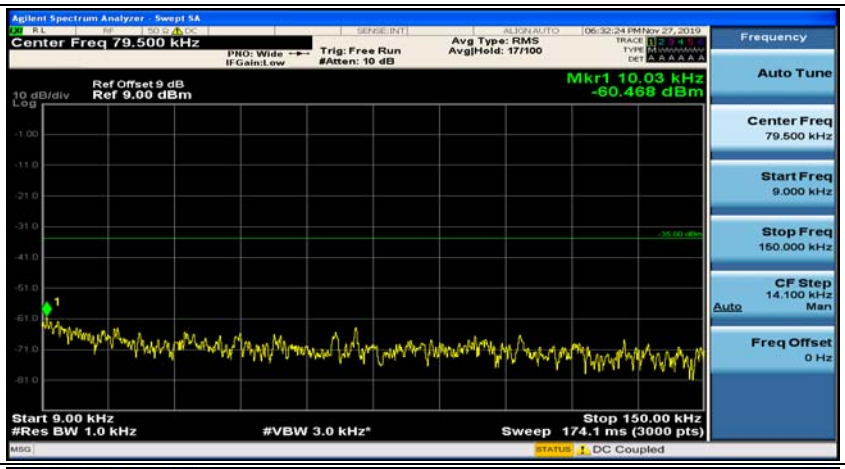
Channel Bandwidth: 15 MHz

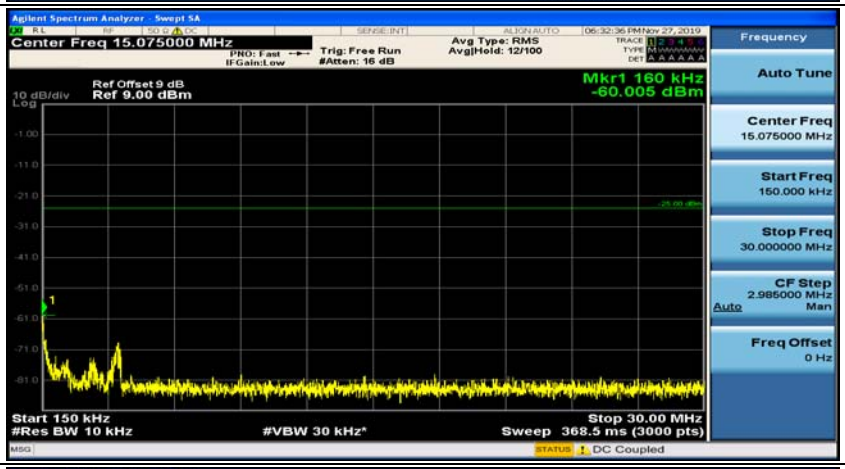
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0

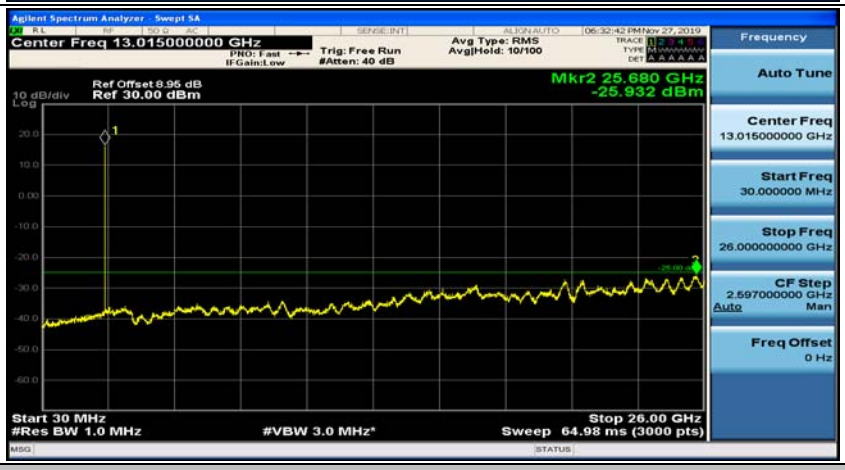




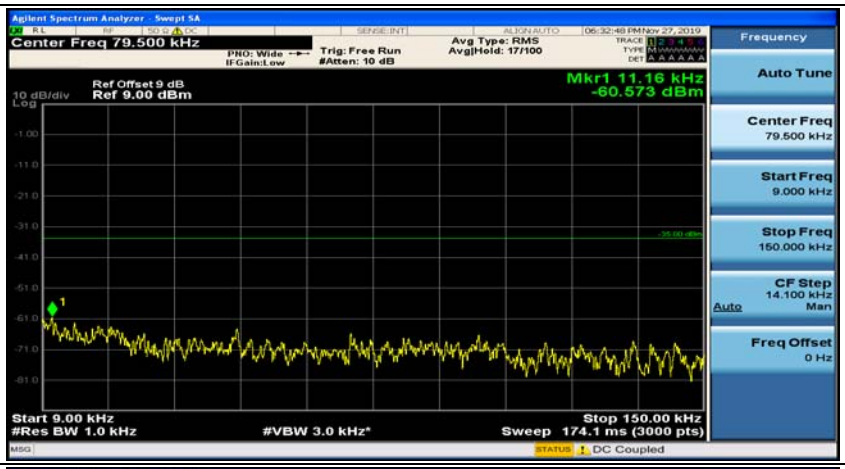
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37

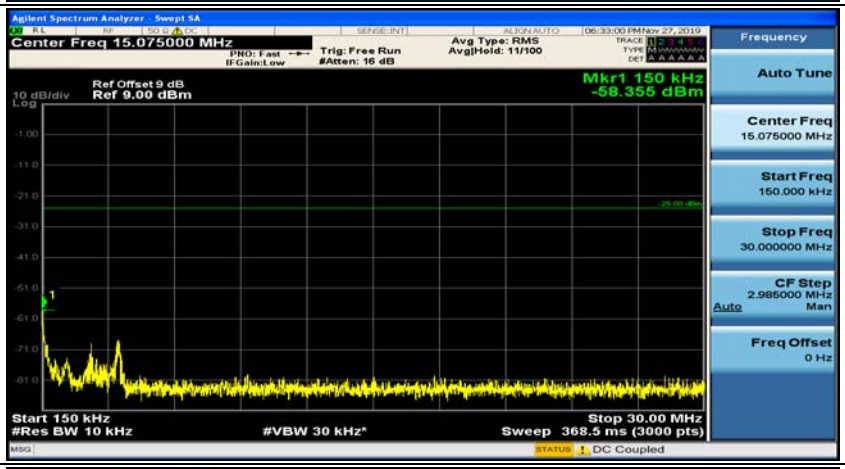


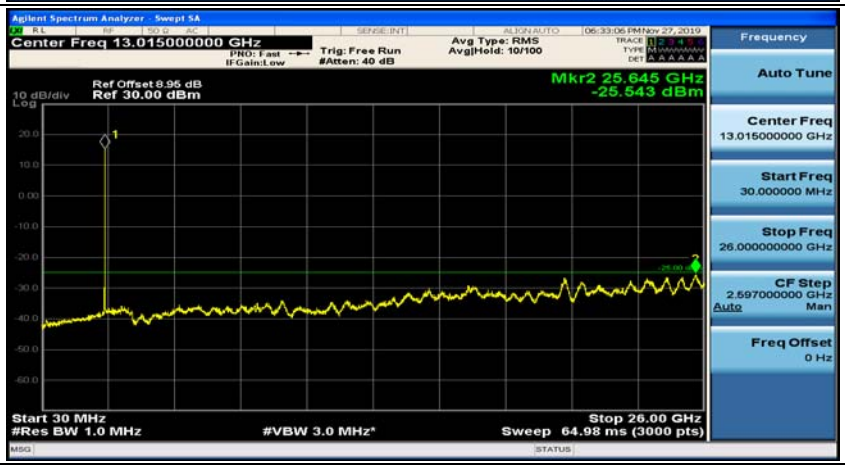




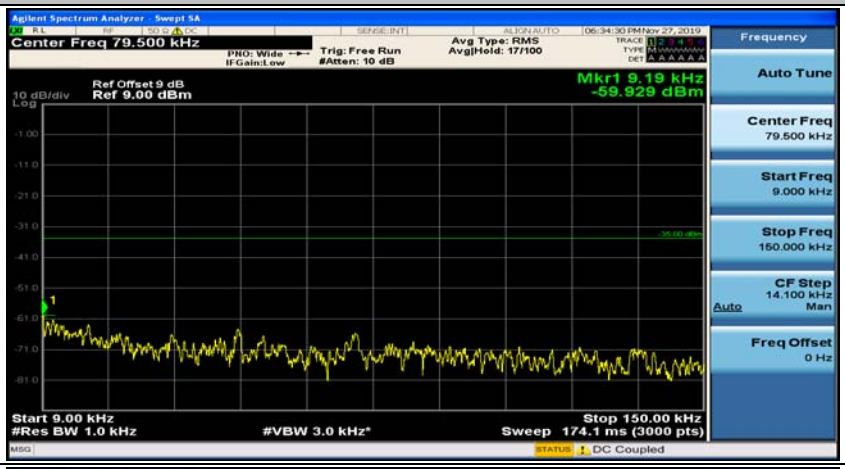
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74

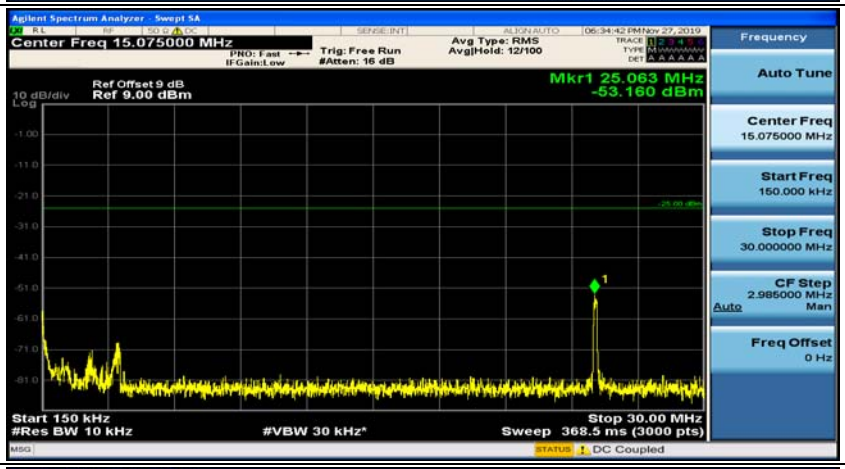

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.16 kHz
-60.573 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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

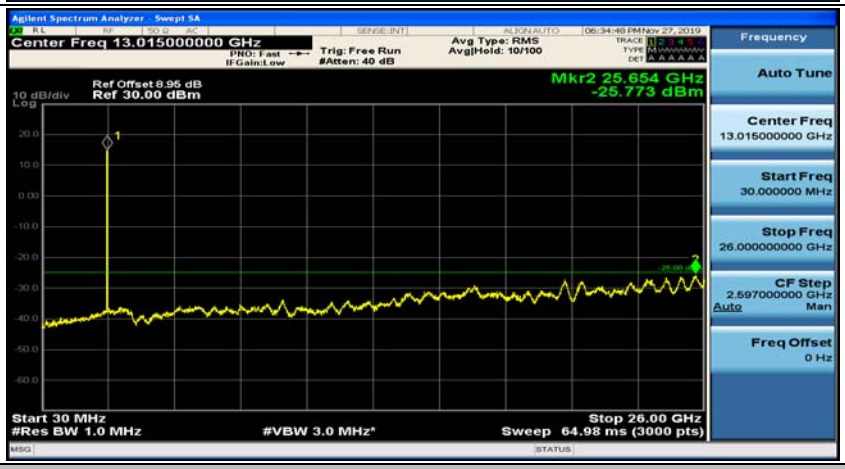

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.355 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.645 GHz
-25.543 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

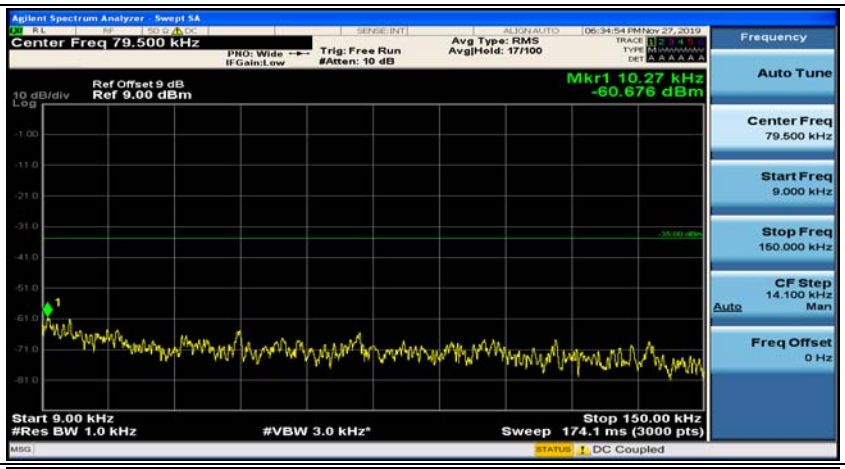
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

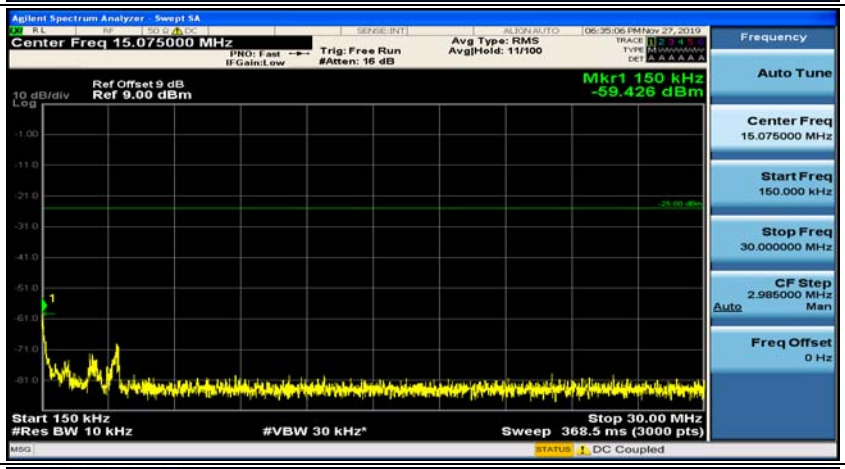


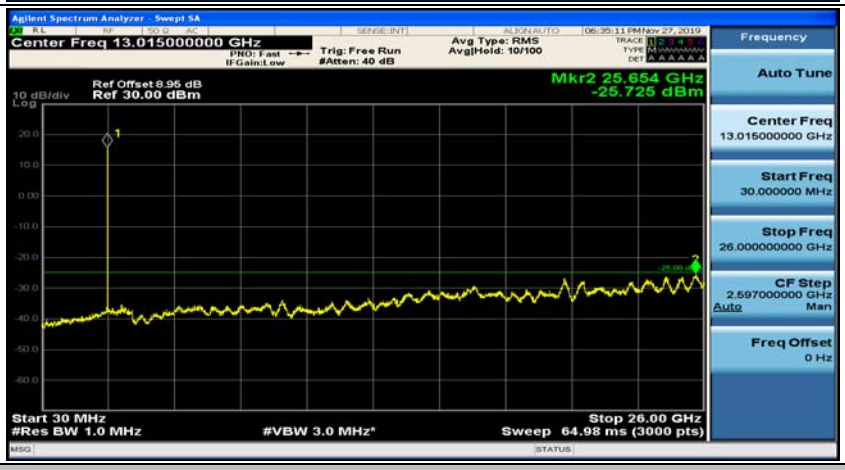




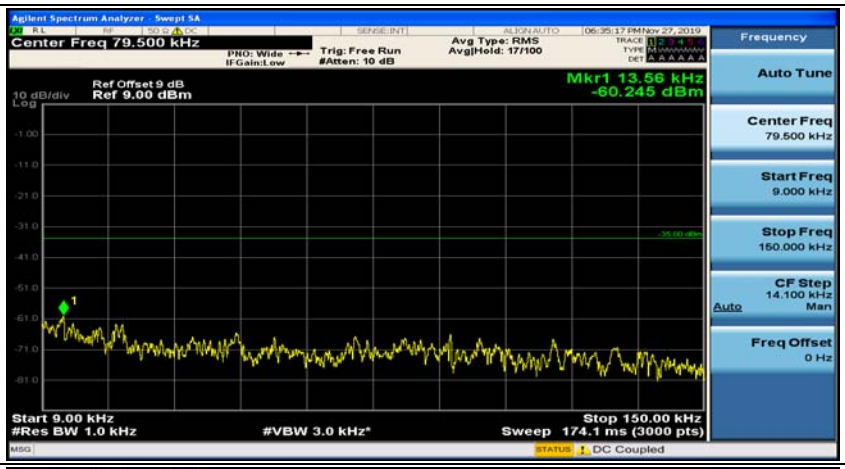
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

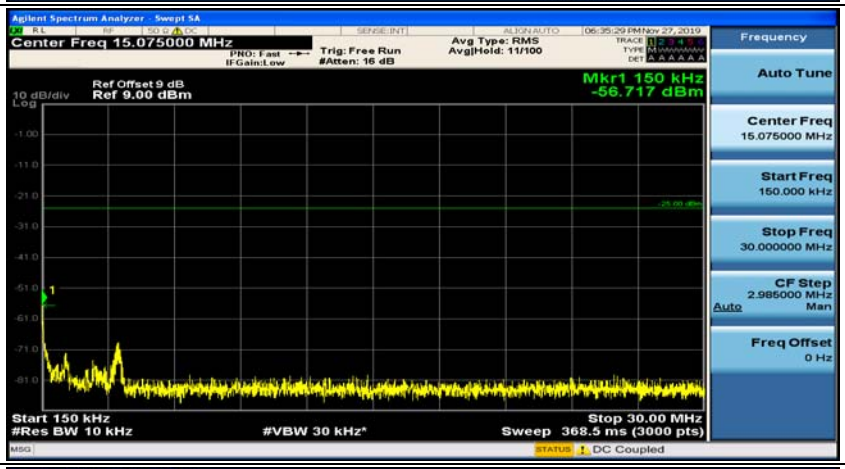






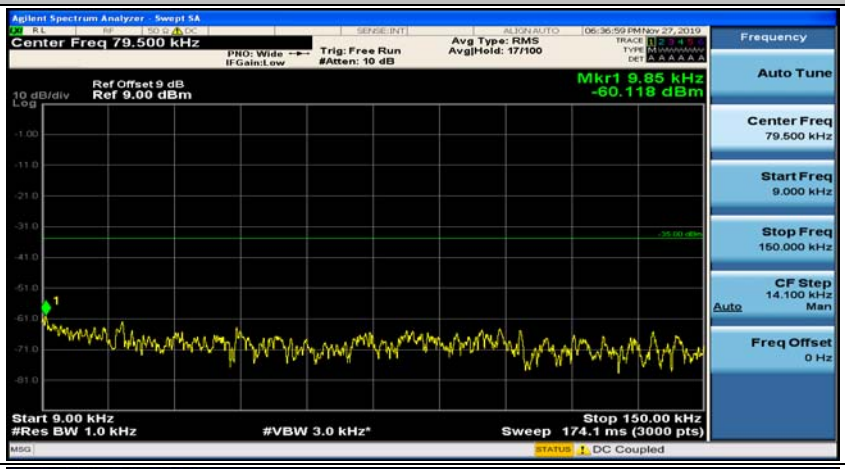
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74

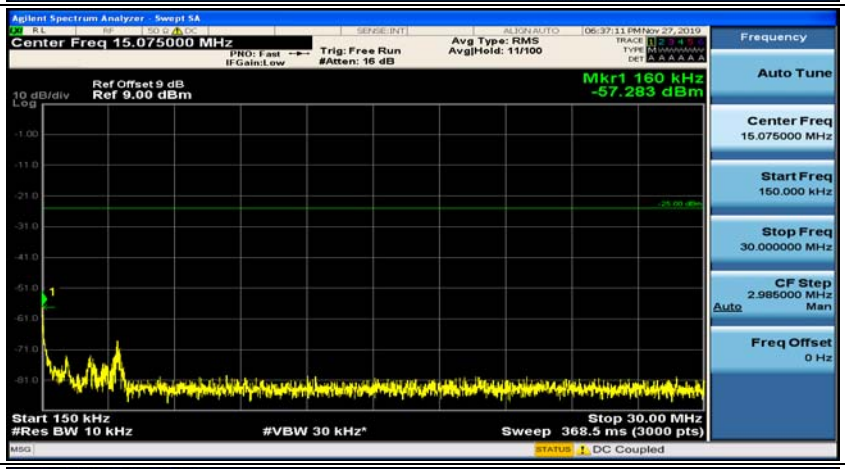

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.56 kHz
-60.245 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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

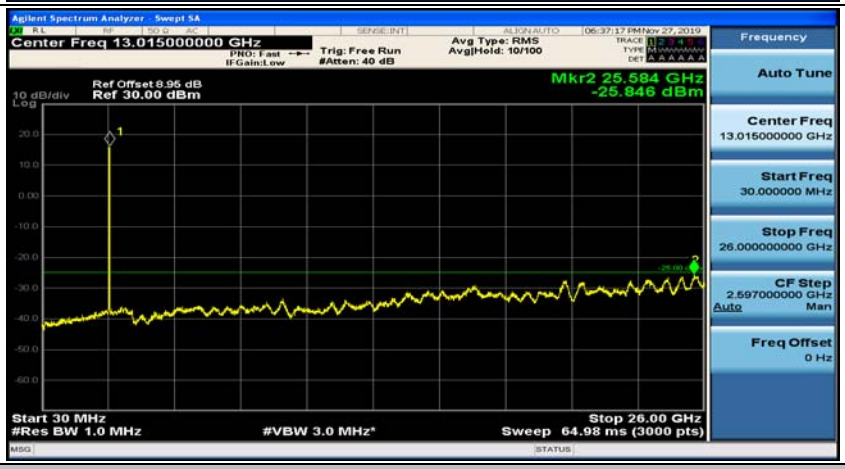

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-56.717 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.680 GHz
-25.861 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

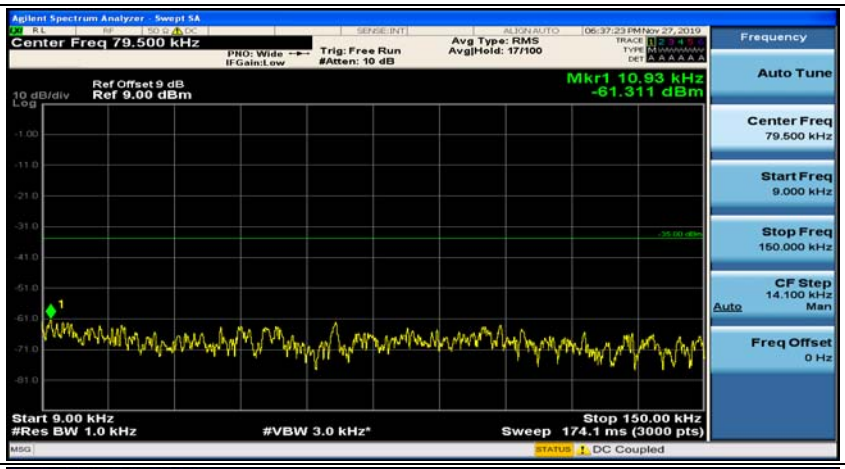
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

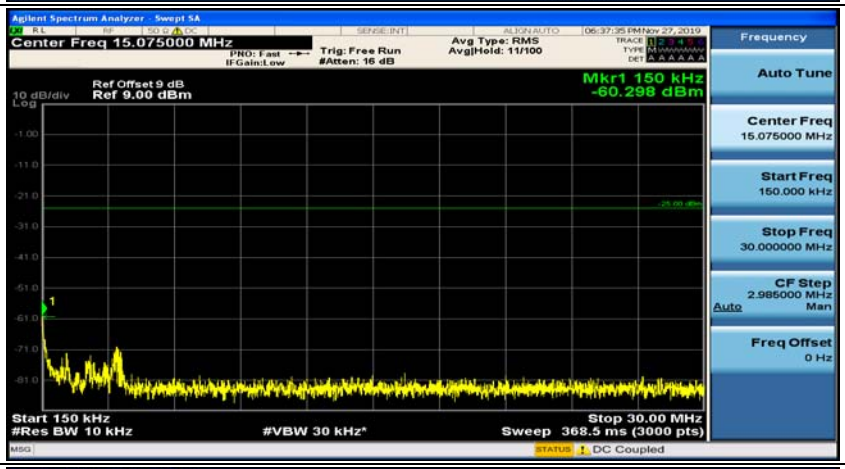




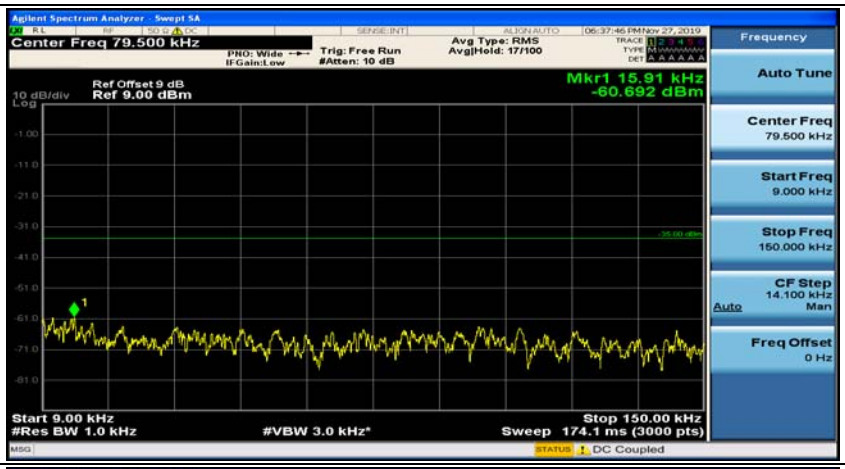


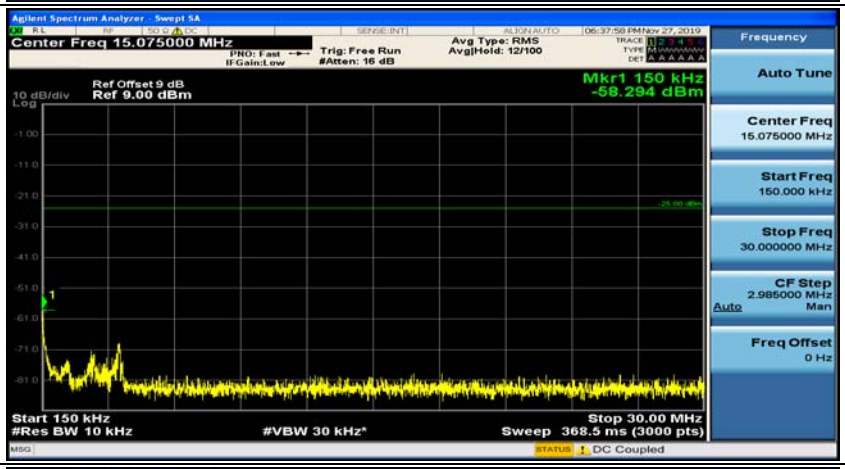
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

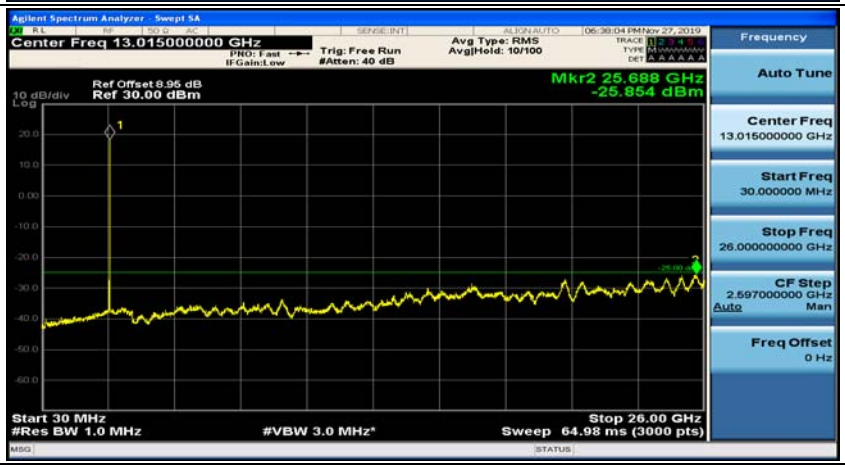




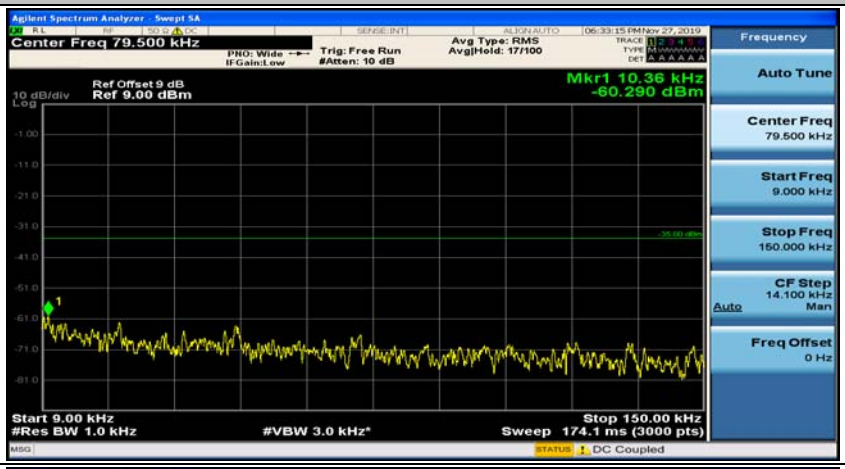
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

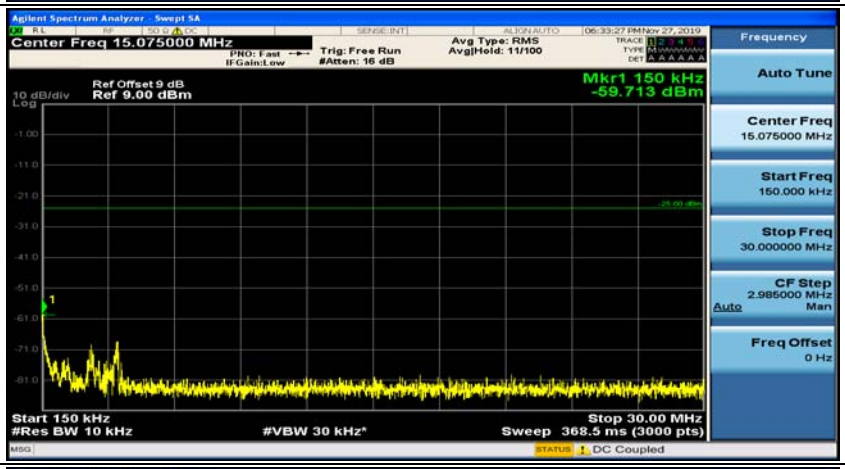

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 15.91 kHz
-60.692 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

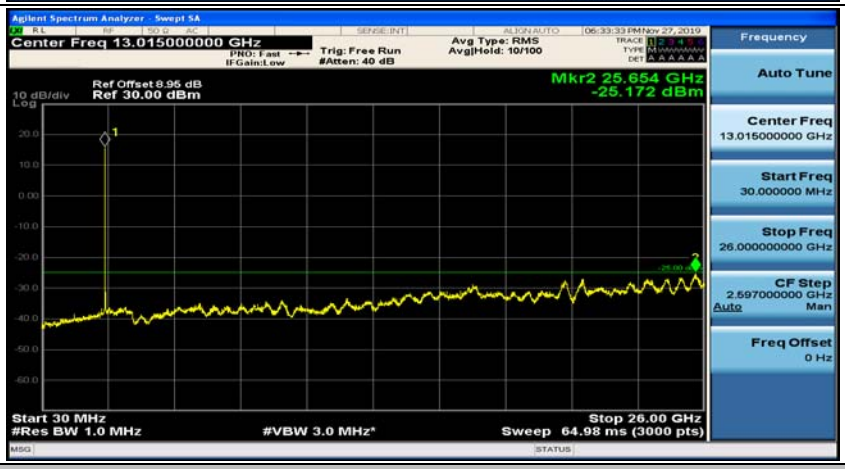

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.294 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-25.854 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

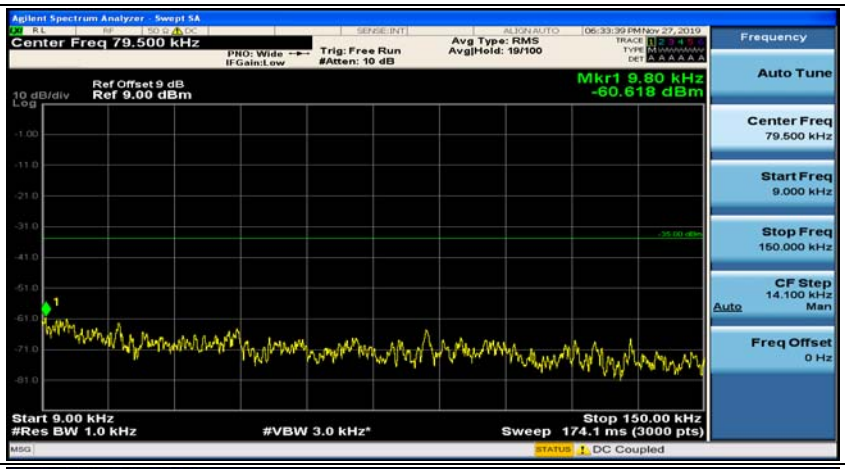
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

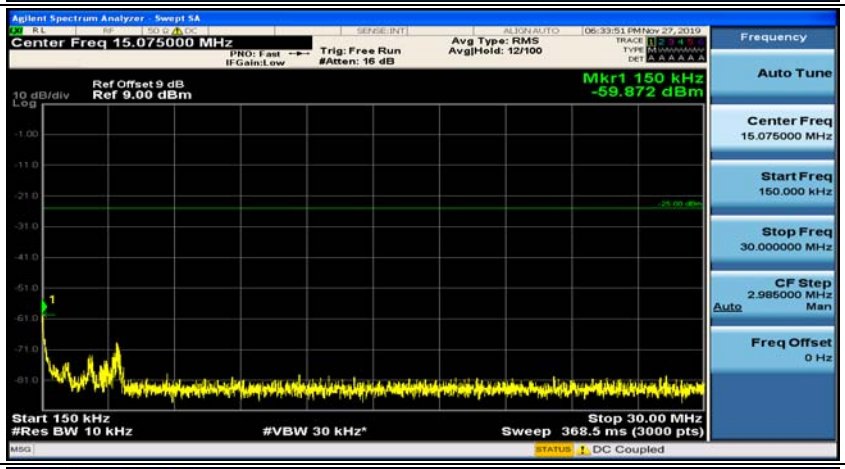


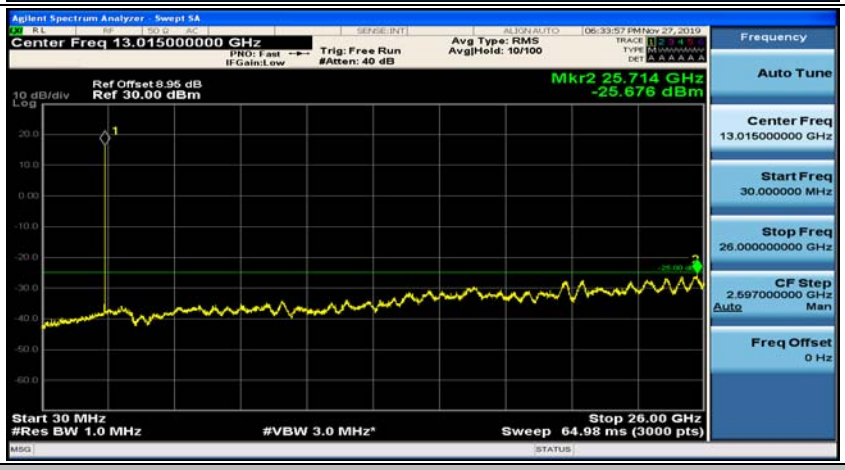




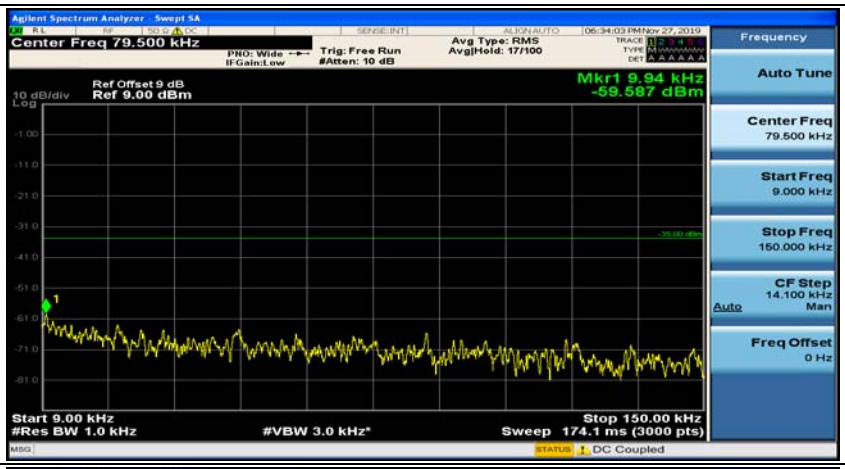
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

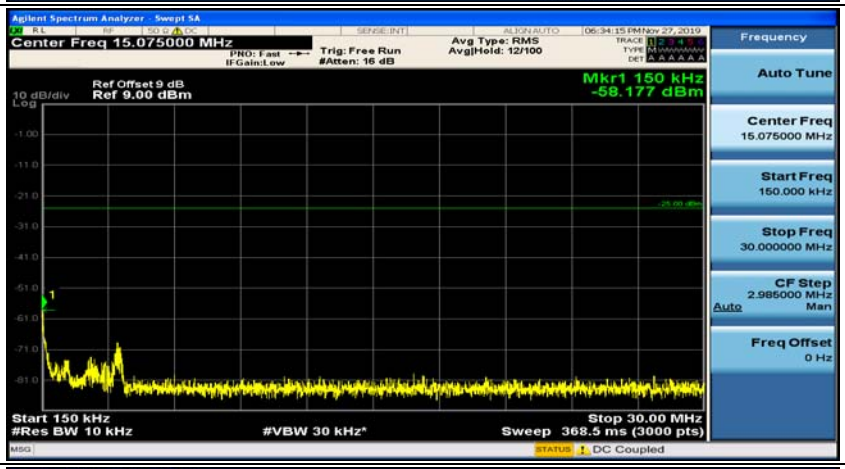


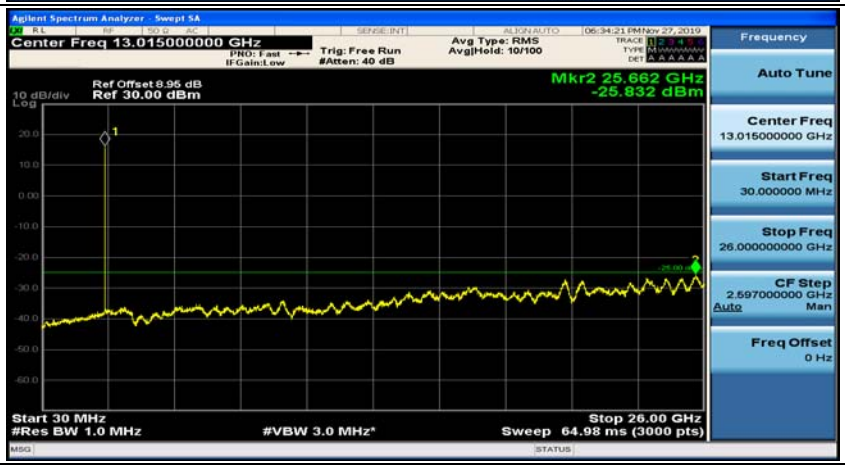




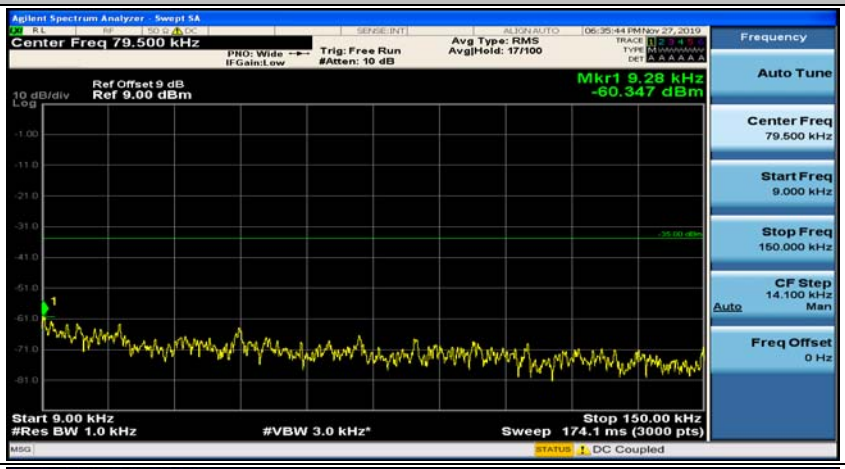
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74

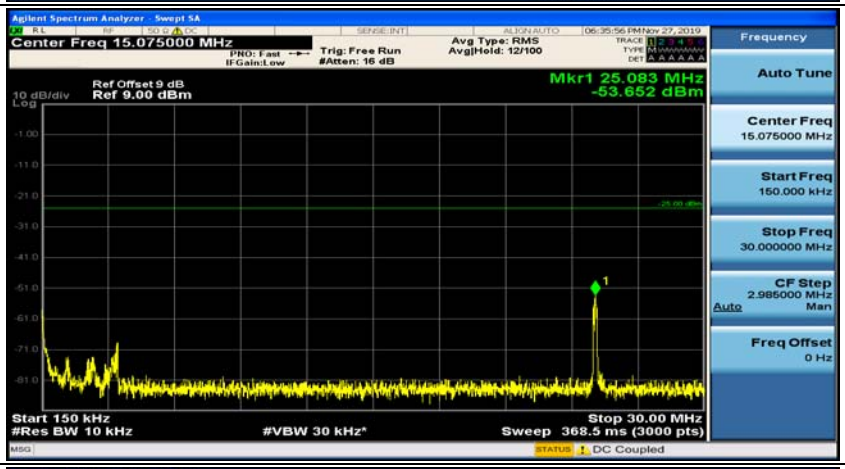

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:34:03 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.94 kHz
-59.587 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

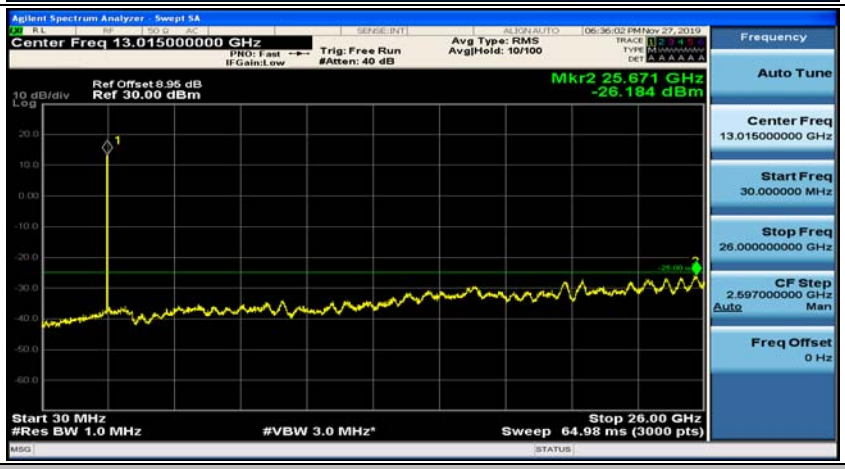

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:34:15 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.177 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:34:21 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-25.832 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

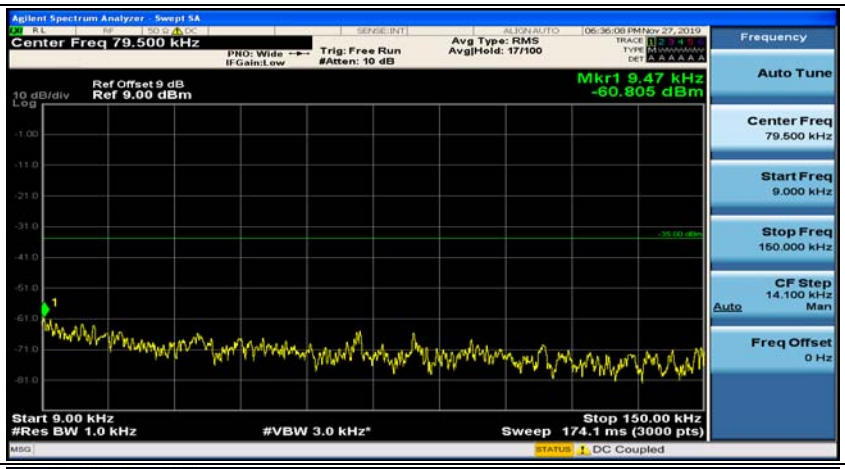
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

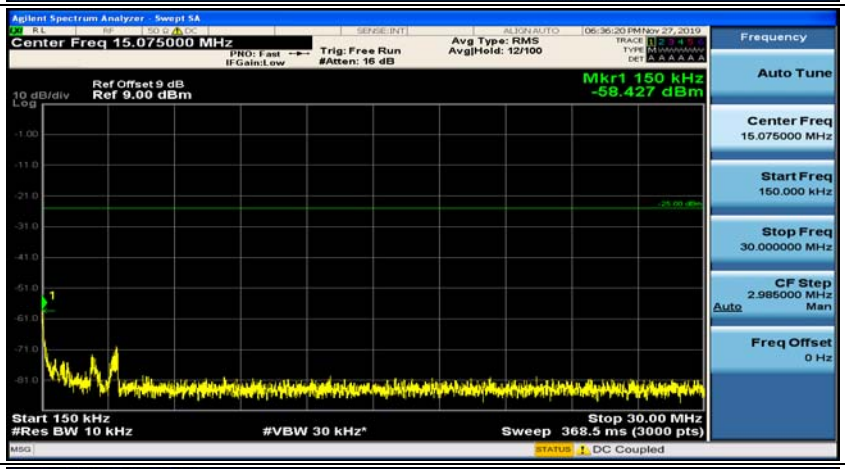




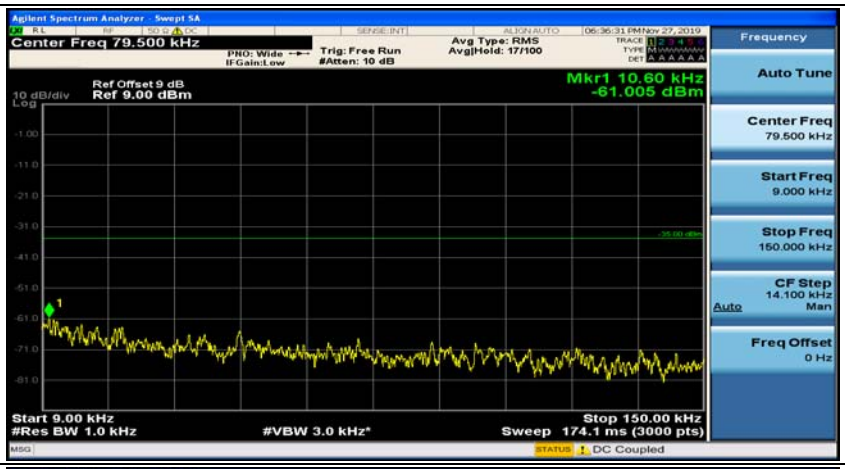


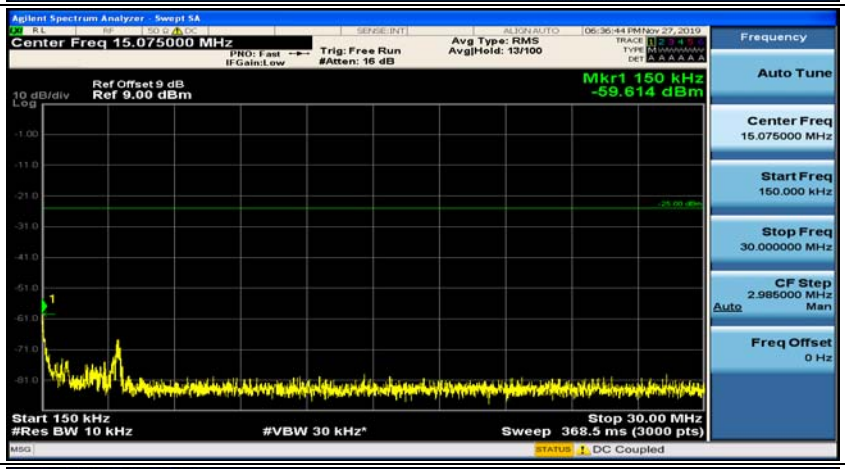
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37





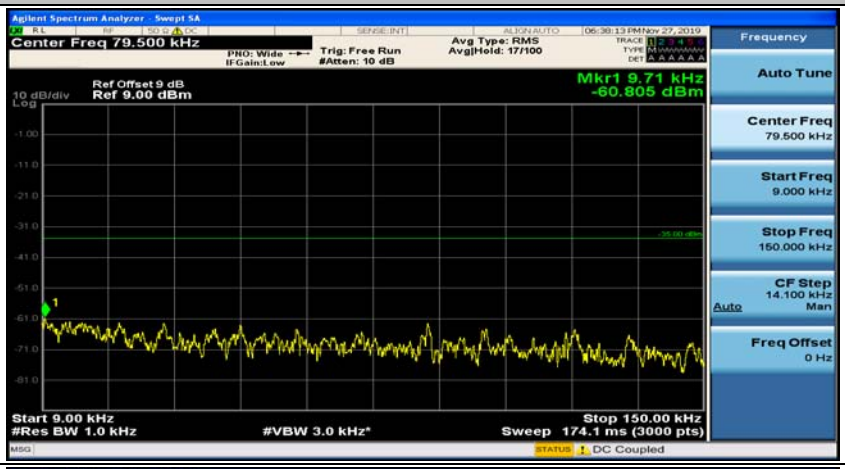
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

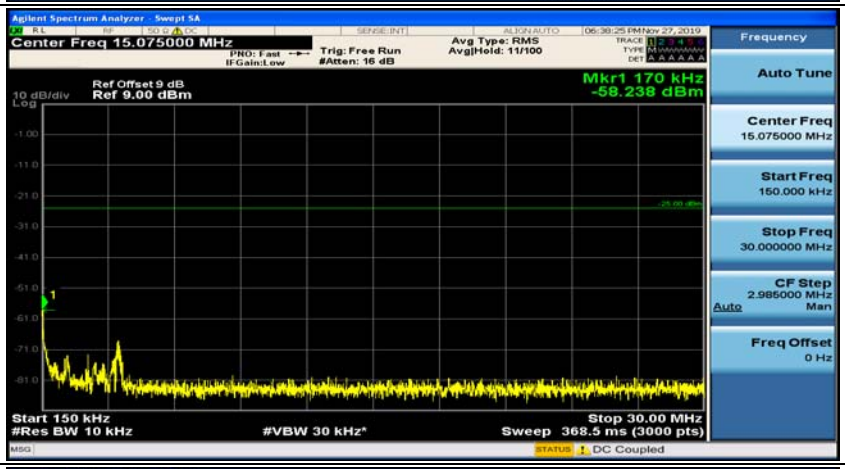

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:36:31 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.60 kHz
-61.005 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

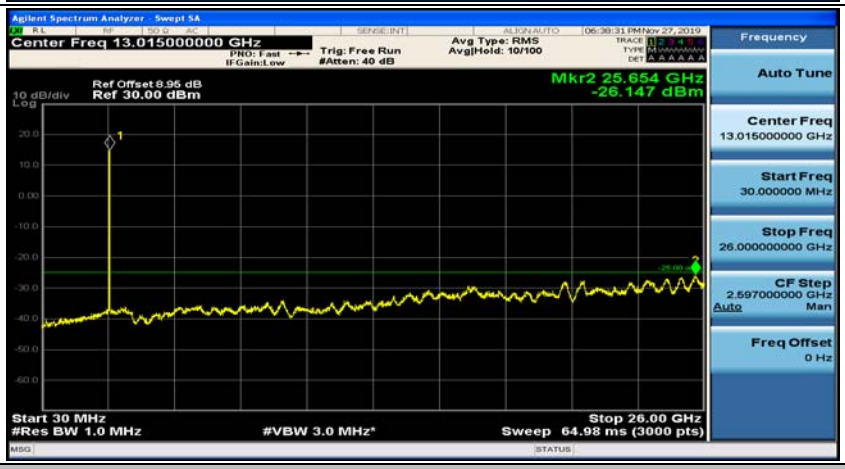

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
06:36:44 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.614 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:36:50 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.654 GHz
-25.879 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

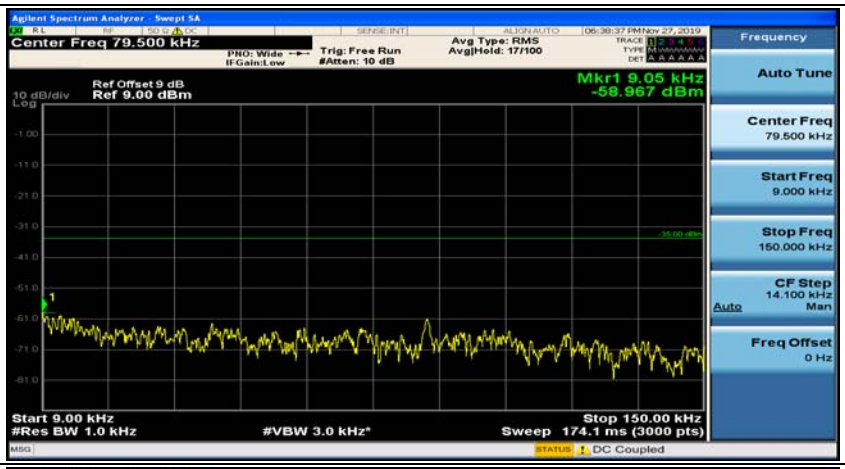
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

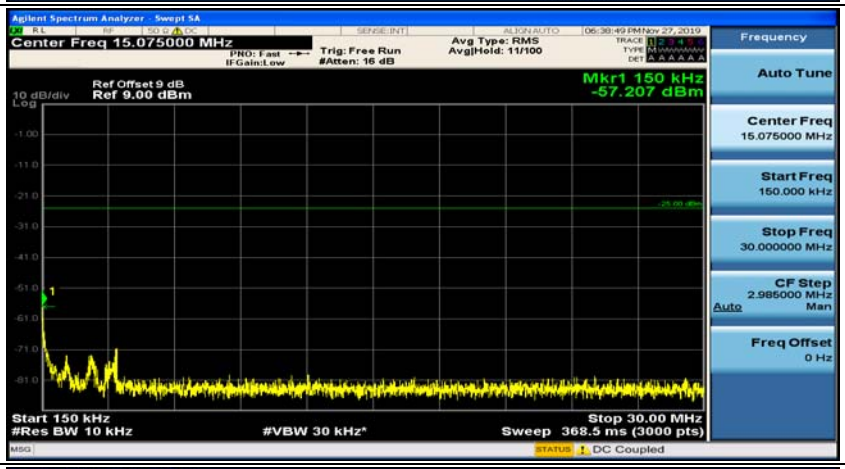


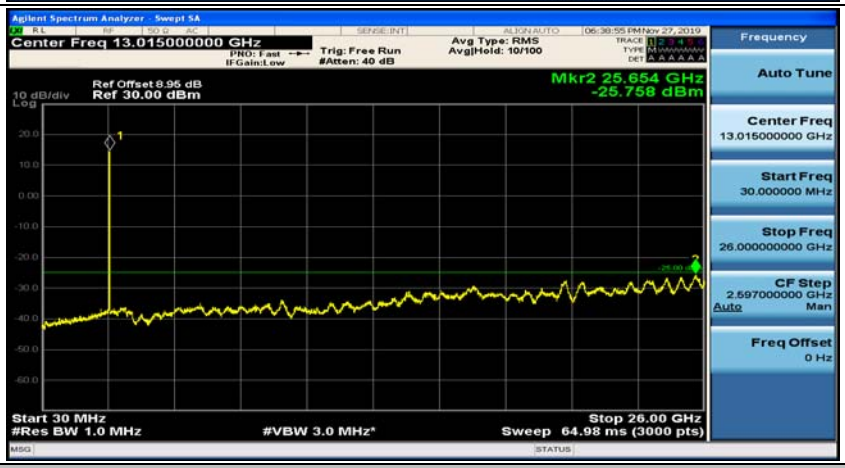




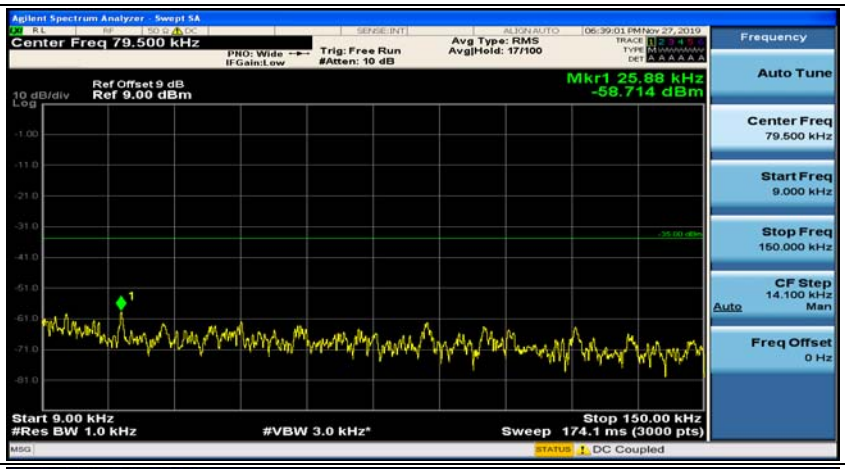
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

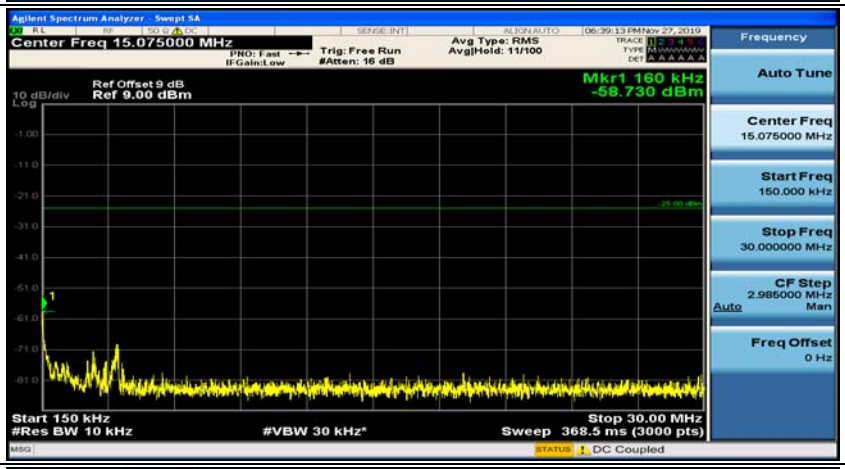


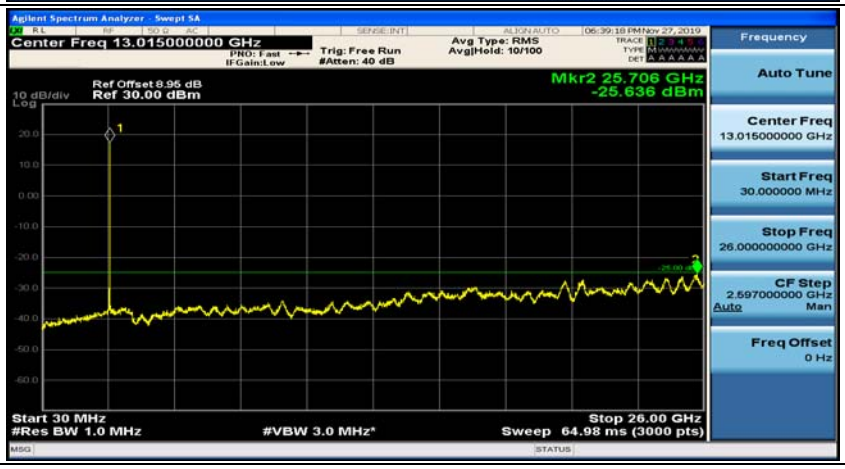




(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

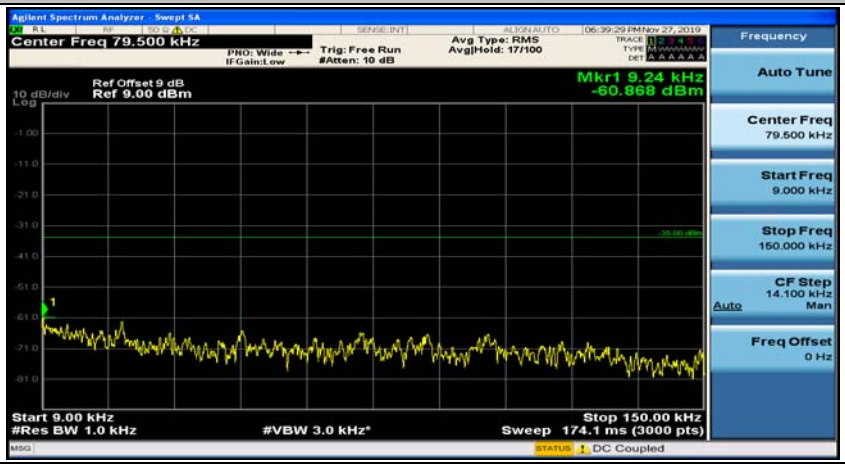

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:39:01 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 25.88 kHz
-58.714 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

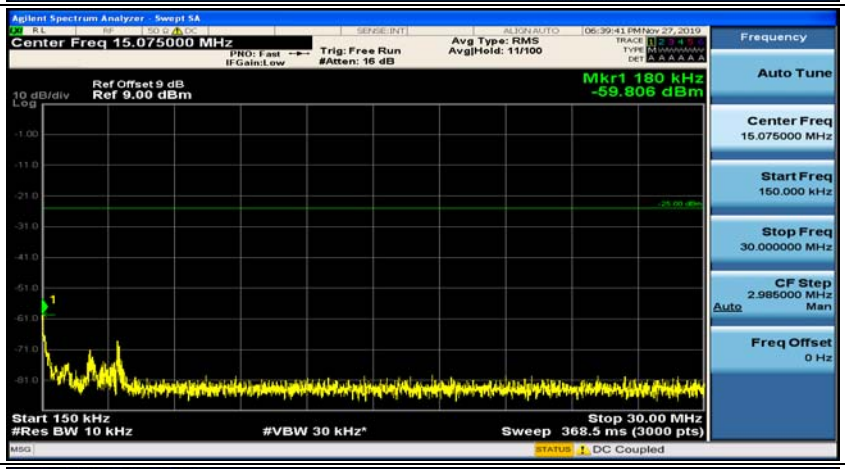

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
06:39:13 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 160 kHz
-58.730 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

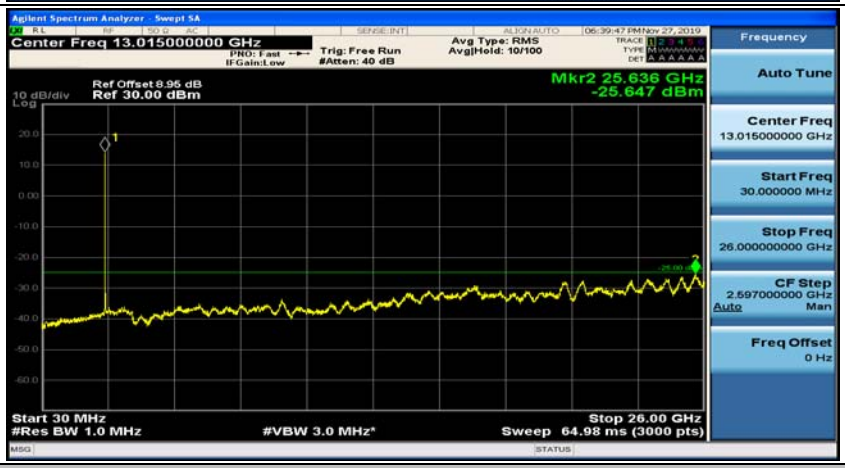

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:39:18 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.706 GHz
-25.636 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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: 20 MHz

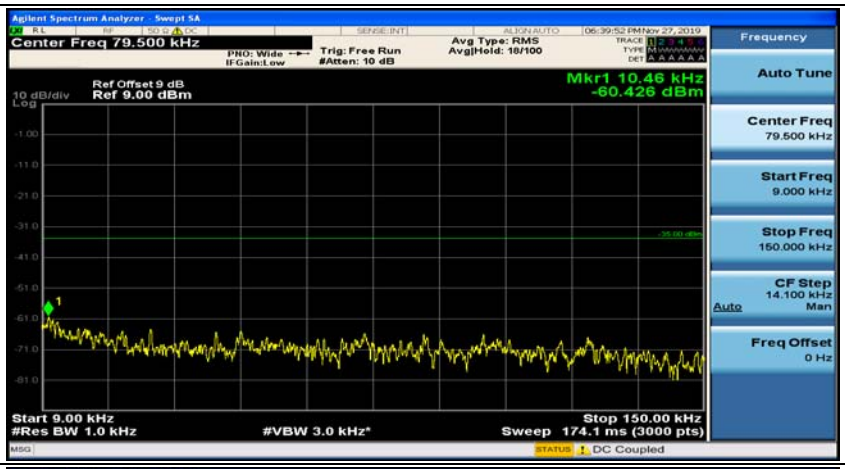
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0

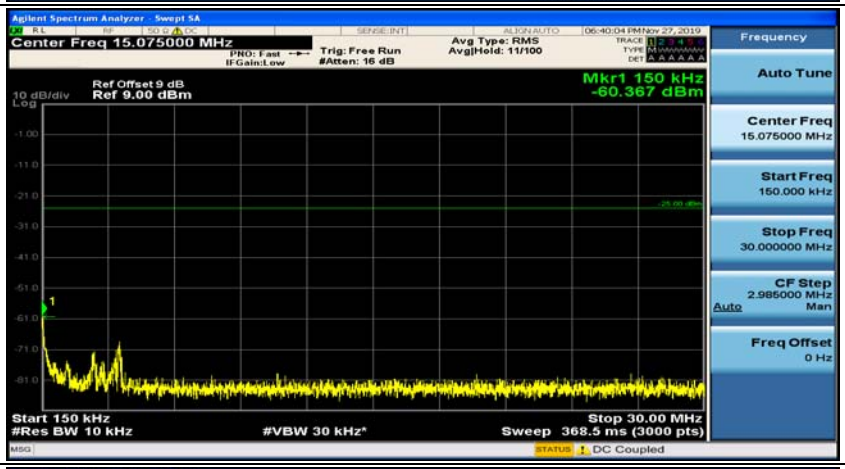




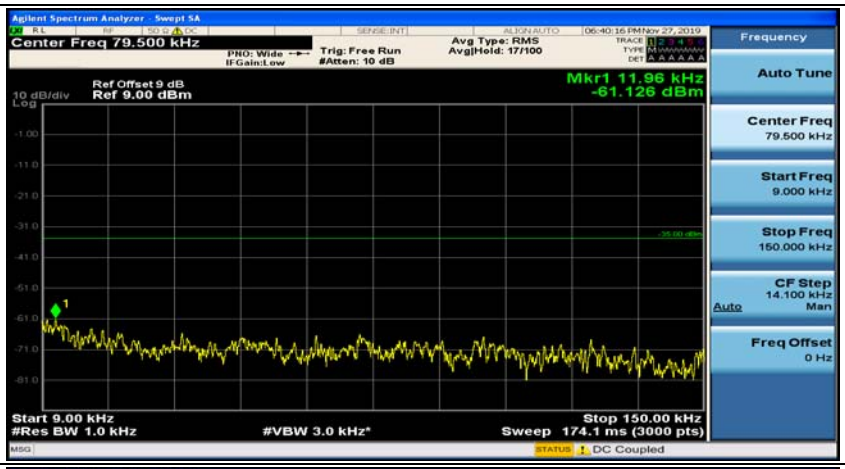


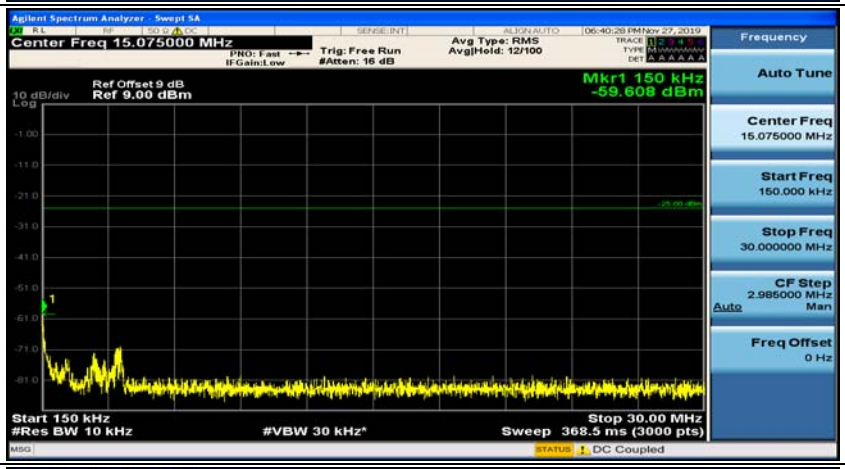
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49

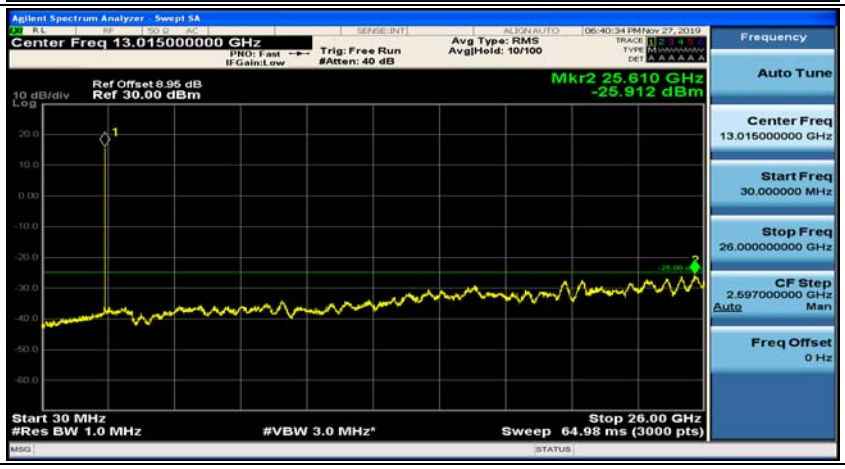




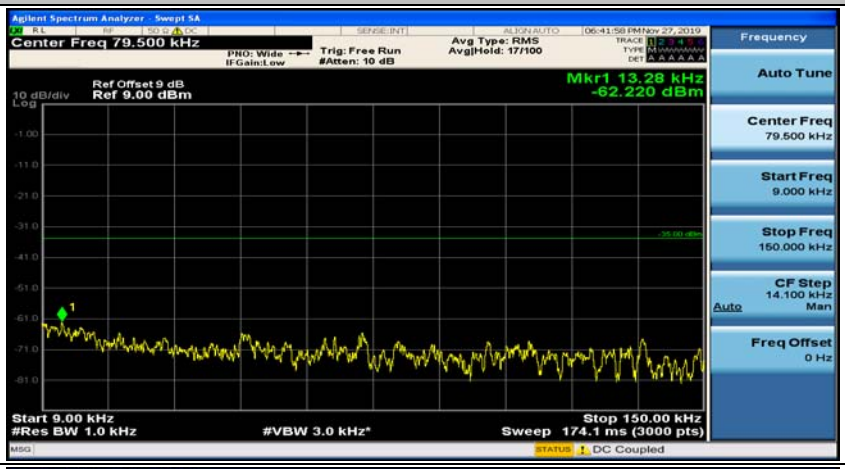
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

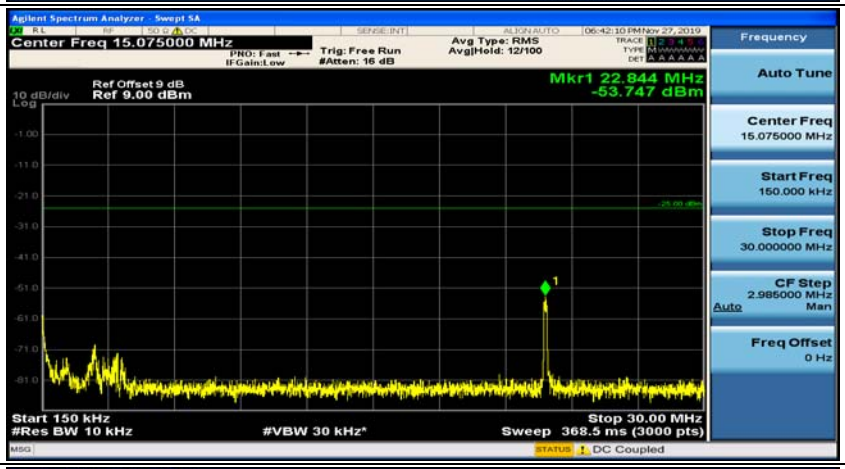

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:40:16 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.96 kHz
-61.126 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

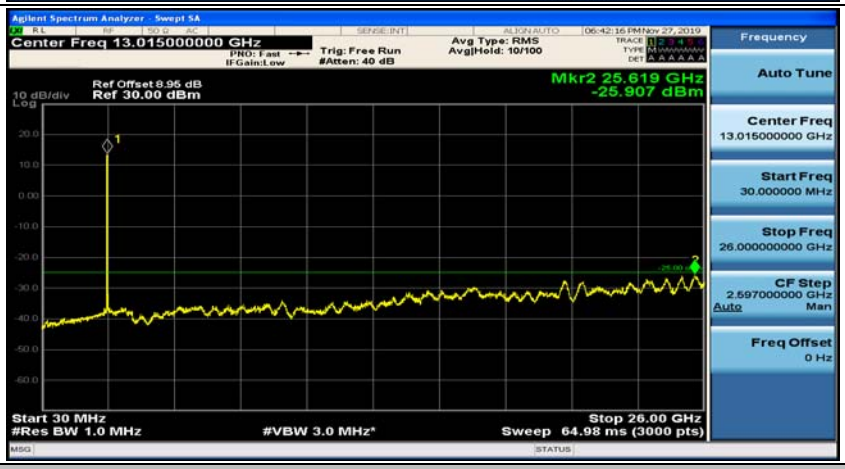

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:40:28 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.608 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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: 10/100
06:40:34 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.610 GHz
-25.912 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

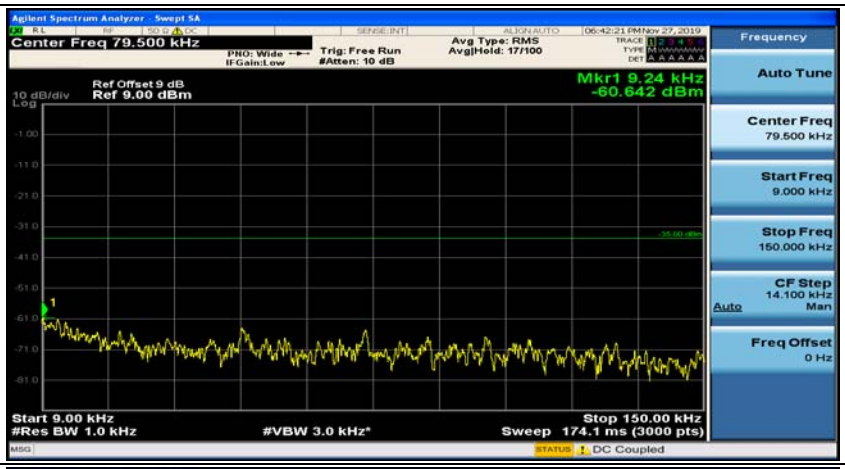
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

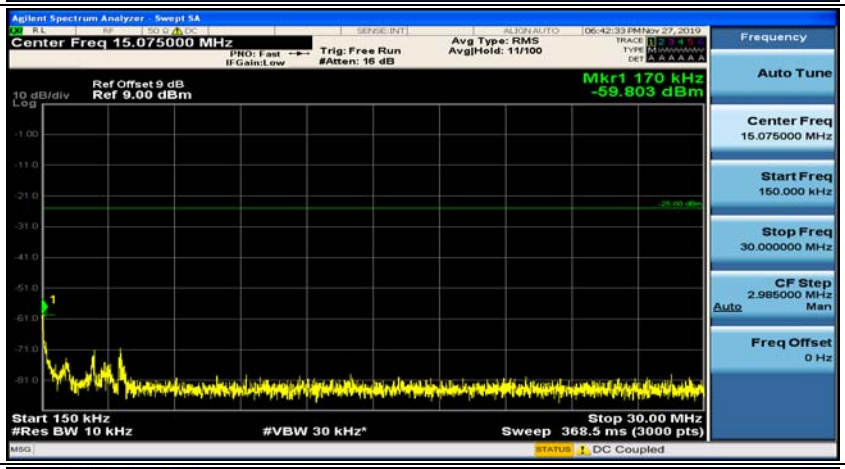


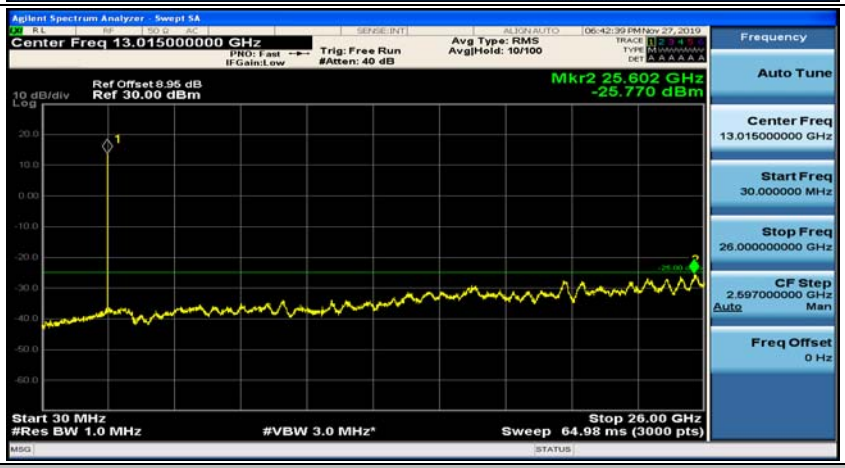




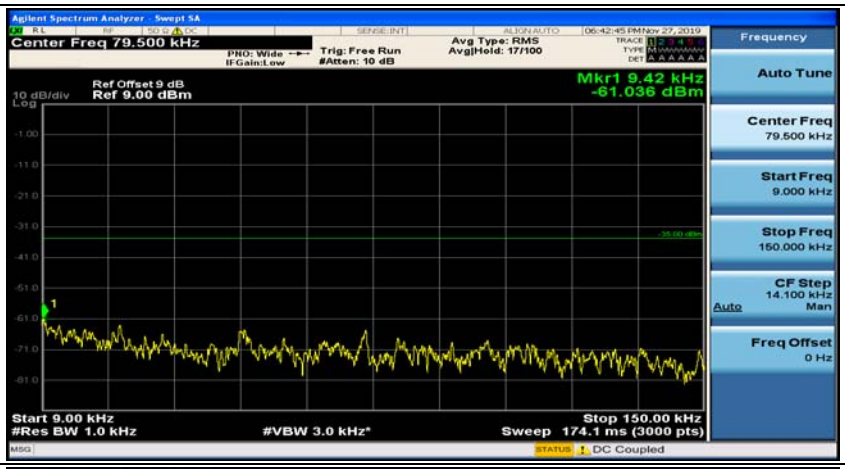
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

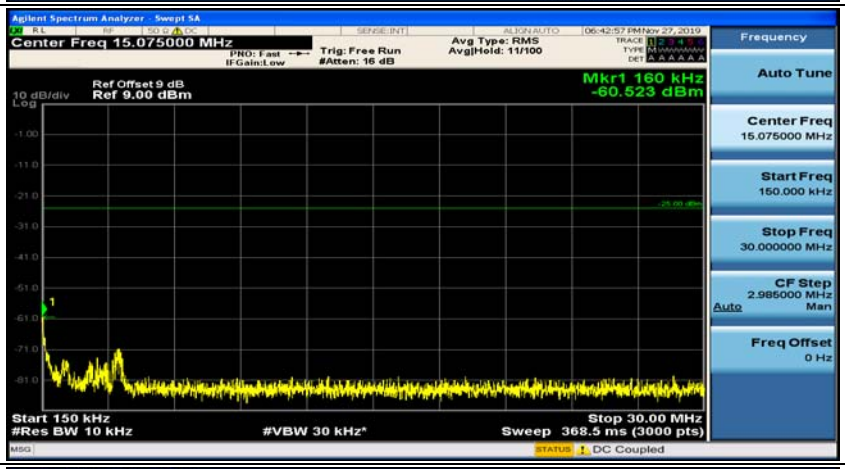






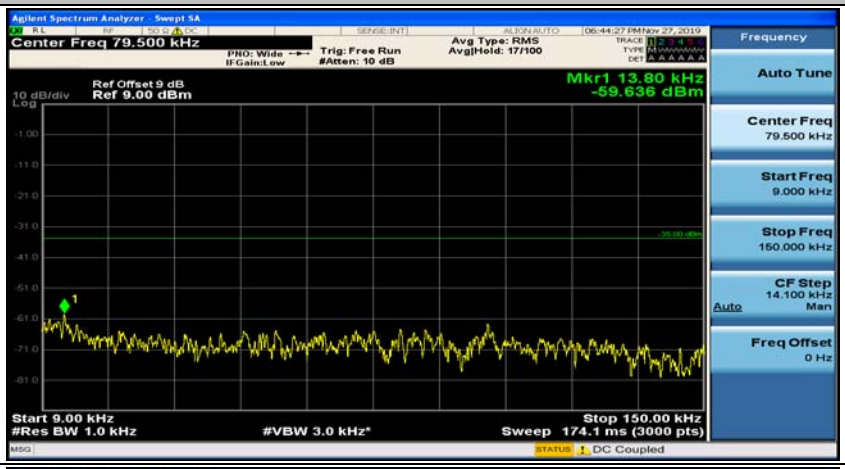
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

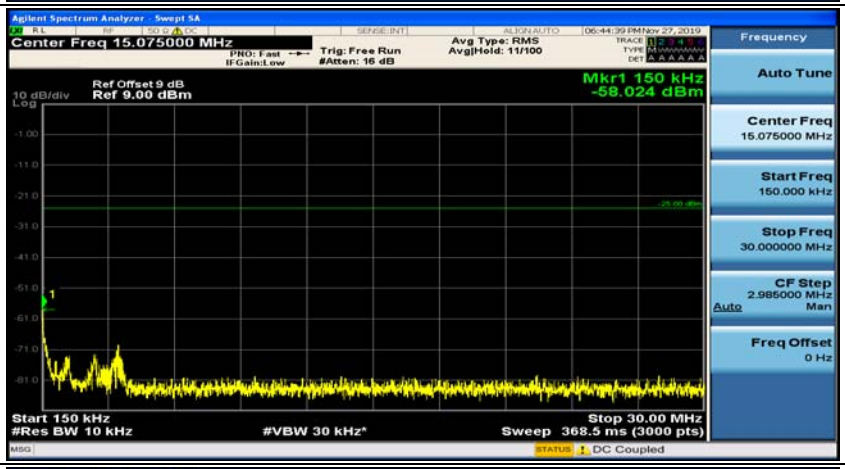

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:42:45 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.42 kHz
-61.036 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

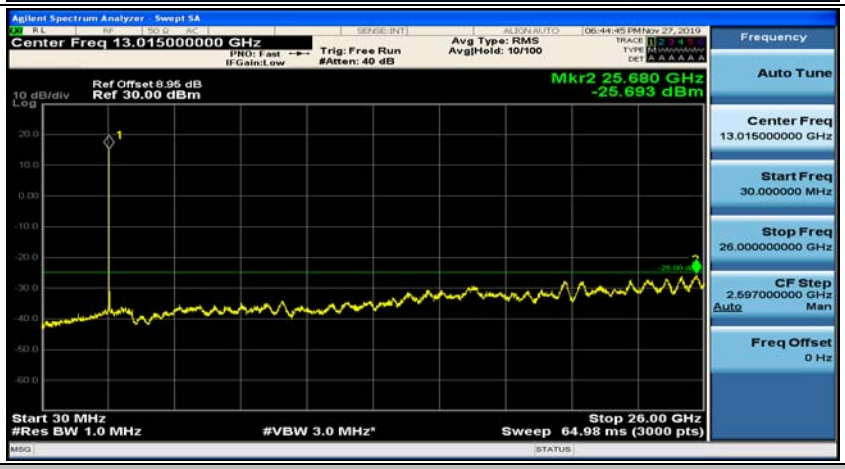

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
06:42:57 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 160 kHz
-60.523 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:43:03 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.117 GHz
-25.804 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

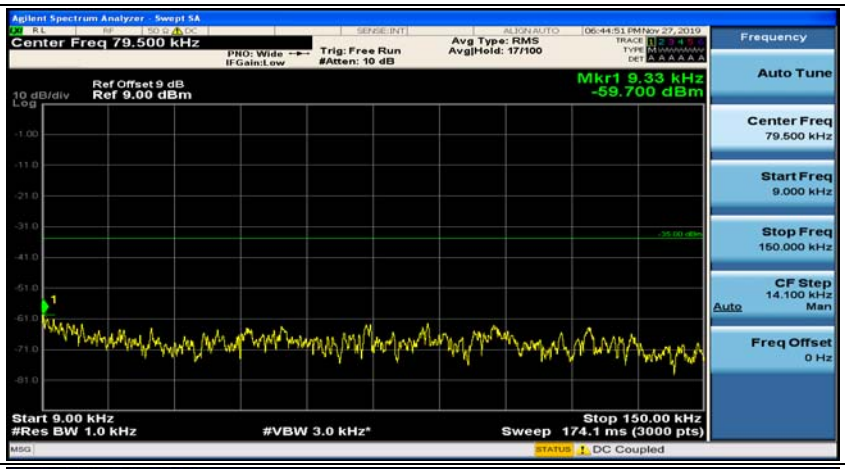
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

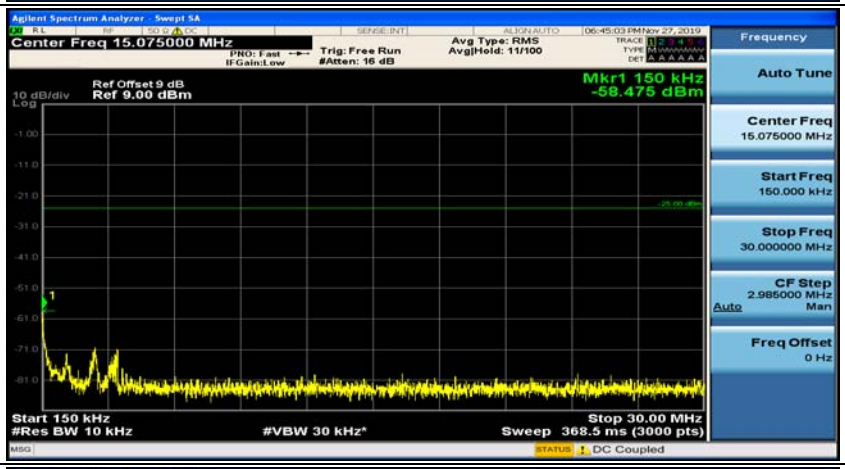




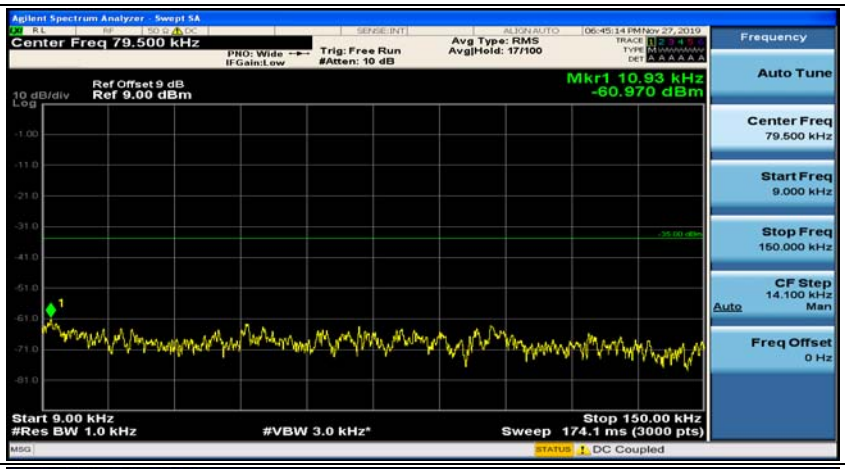


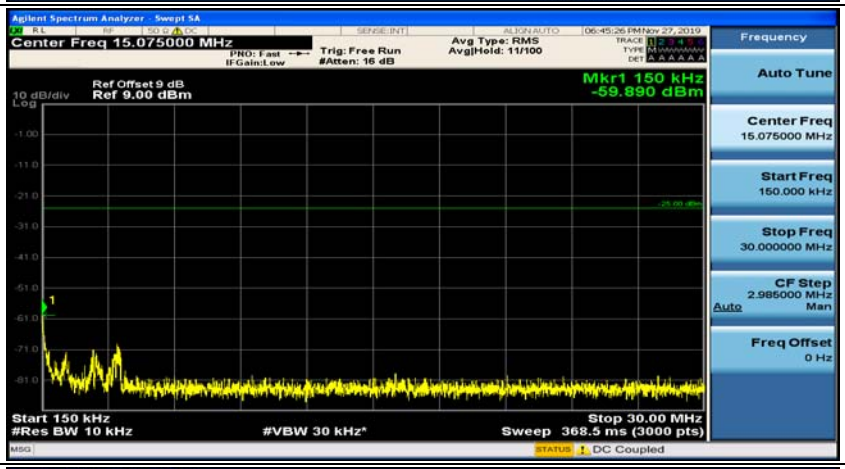
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49





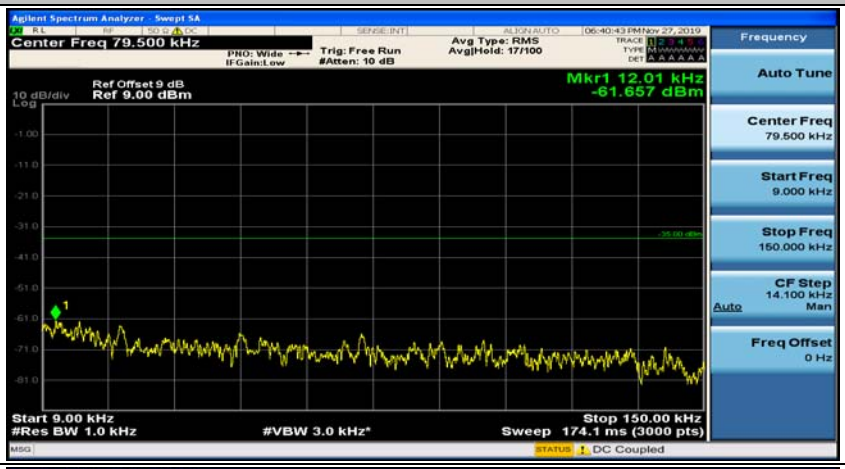
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

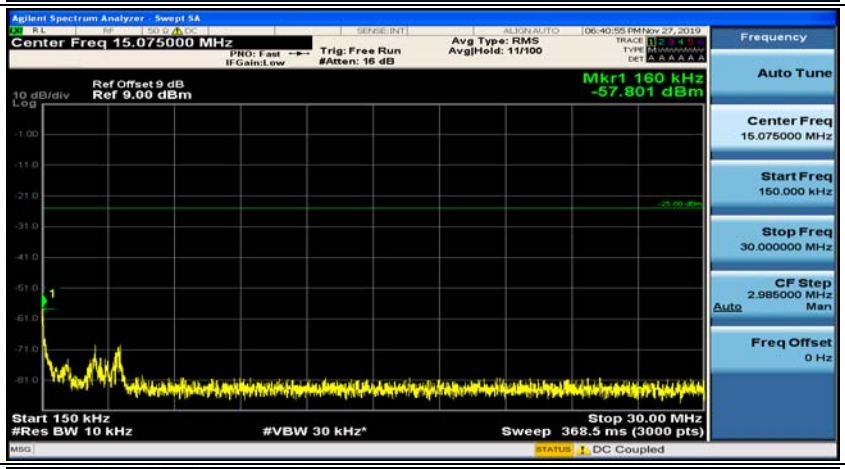

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:45:14 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.93 kHz
-60.970 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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

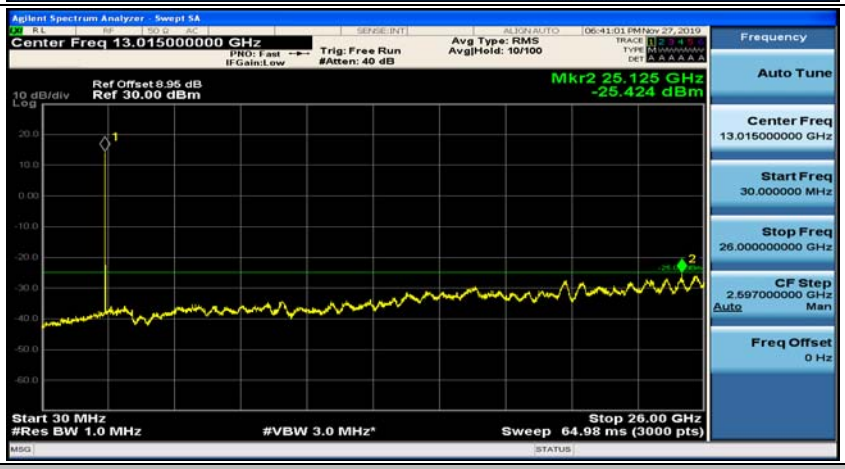

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
06:45:26 PM Nov 27, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.890 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:45:32 PM Nov 27, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.697 GHz
-25.623 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

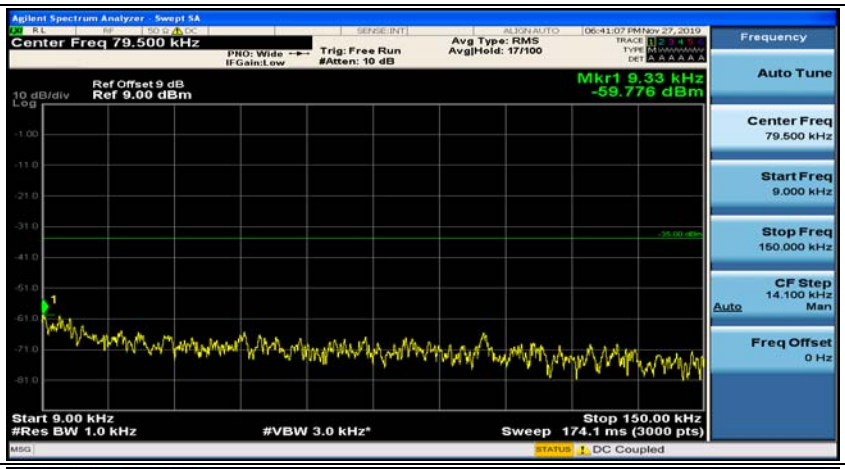
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

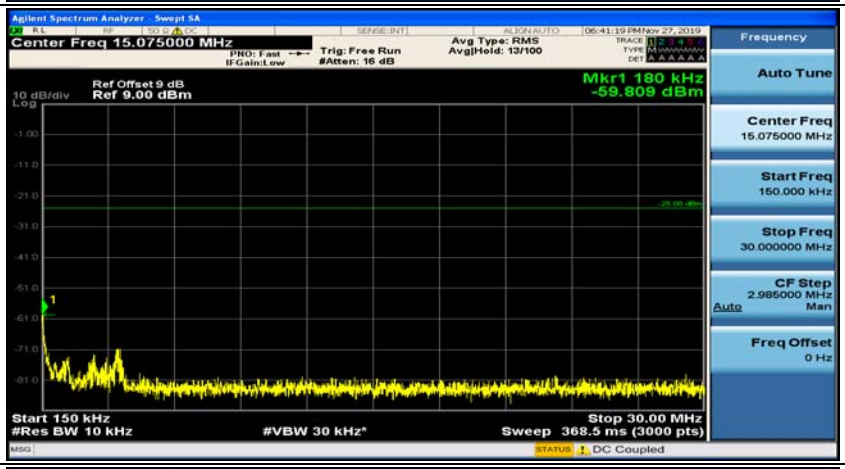




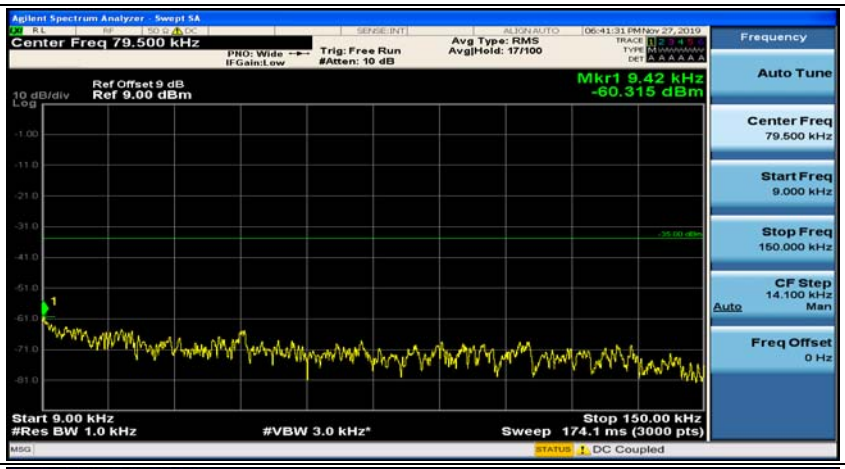


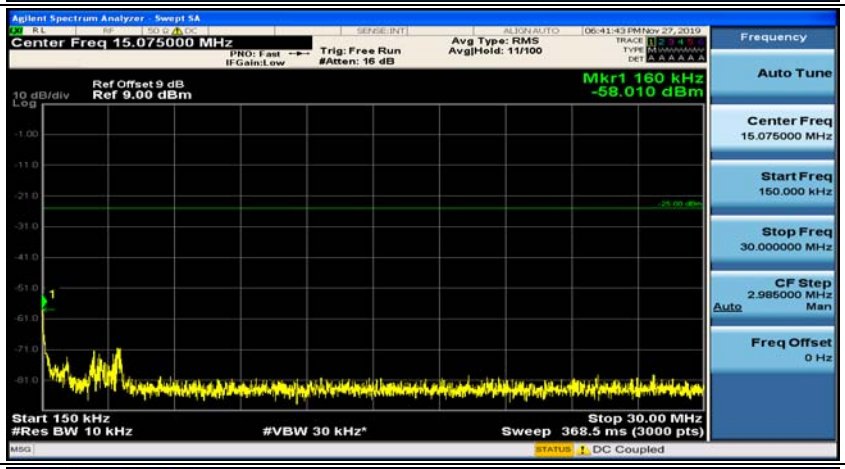
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

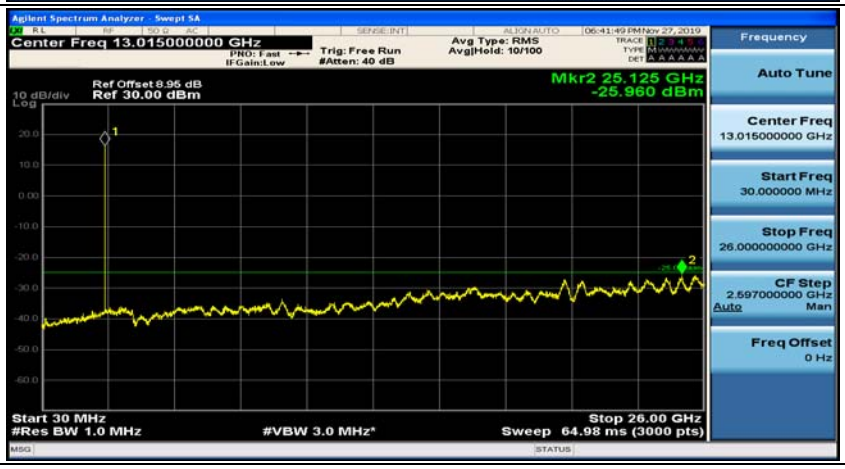




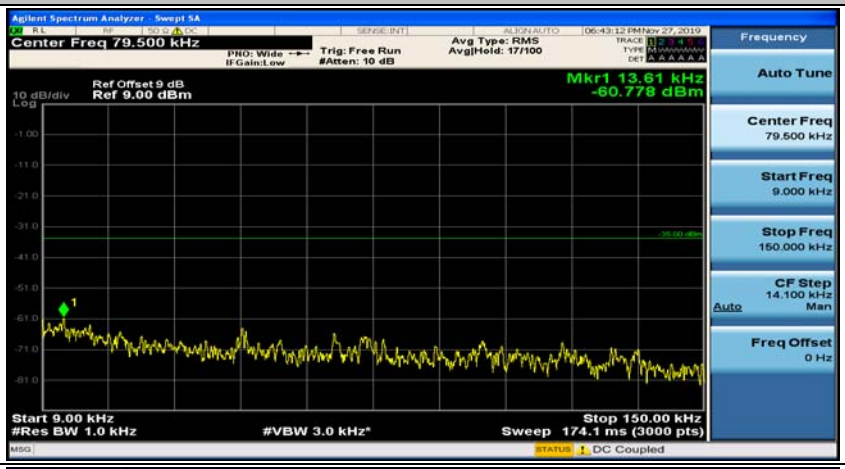
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99

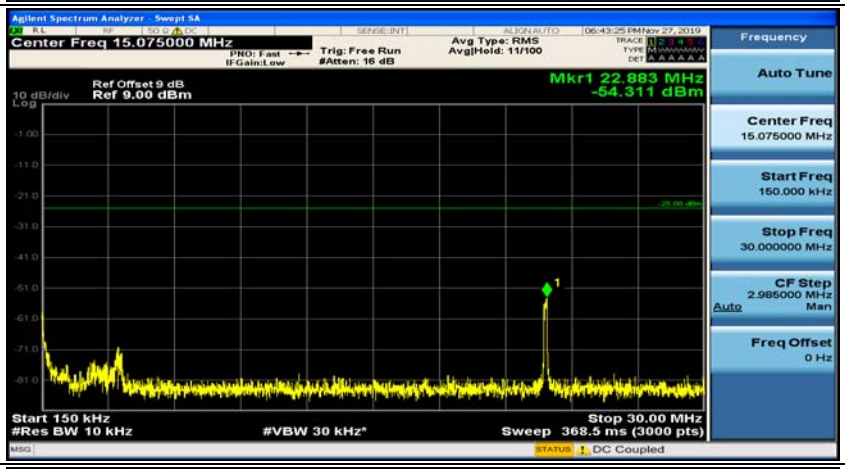

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.42 kHz
-60.315 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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

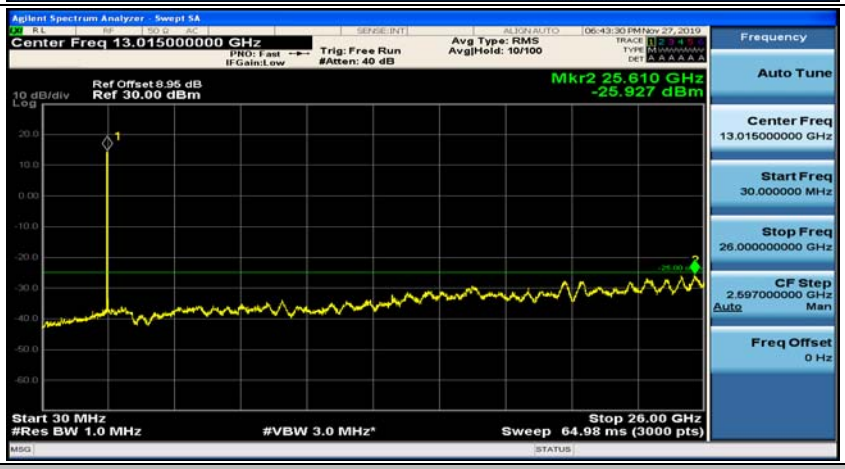

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 160 kHz
-58.010 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.125 GHz
-25.960 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

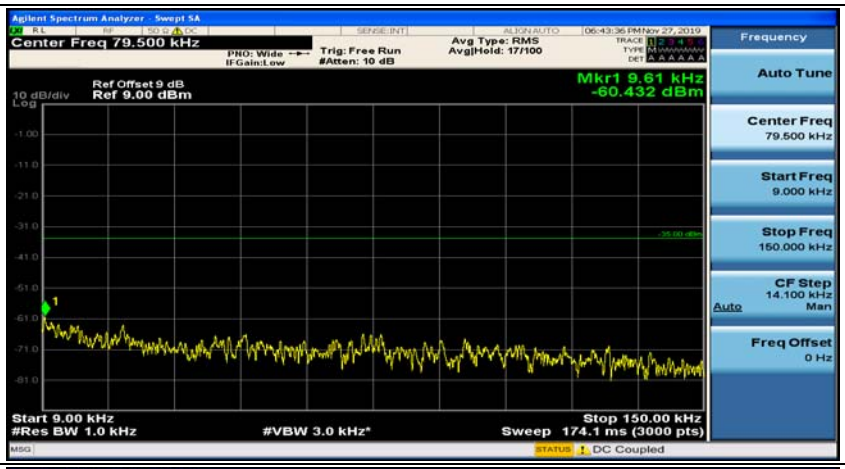
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

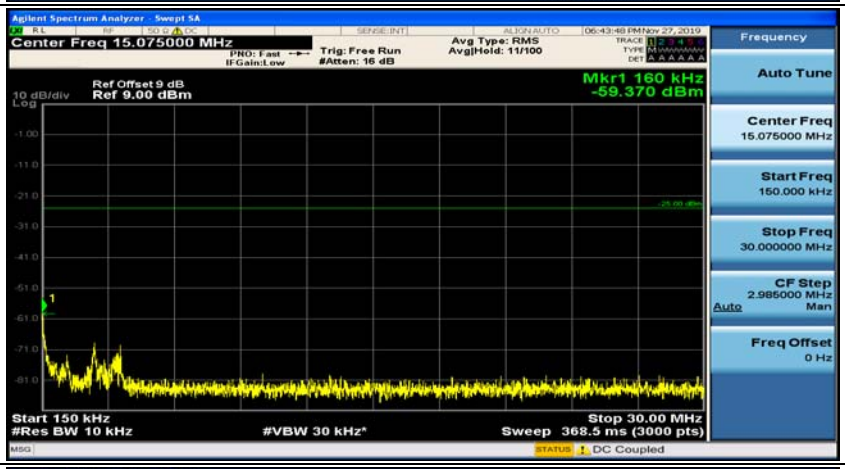




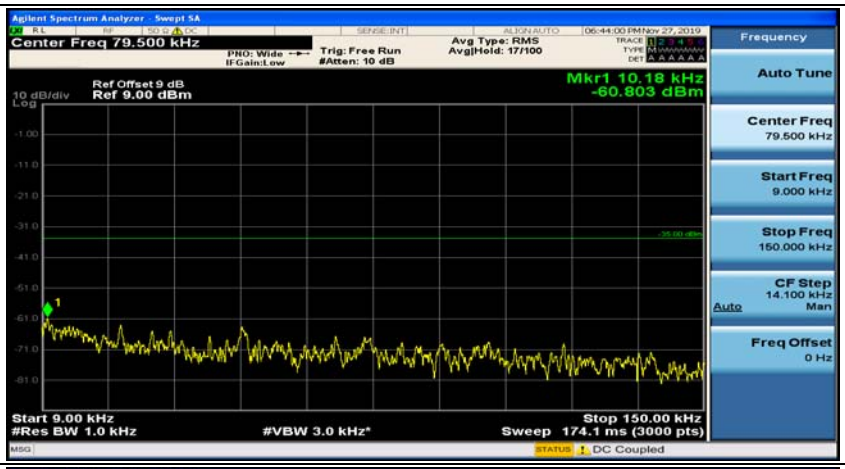


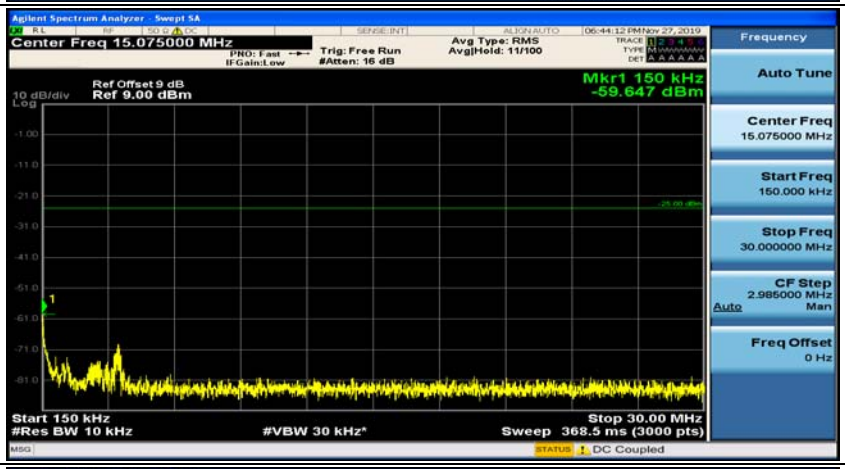
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

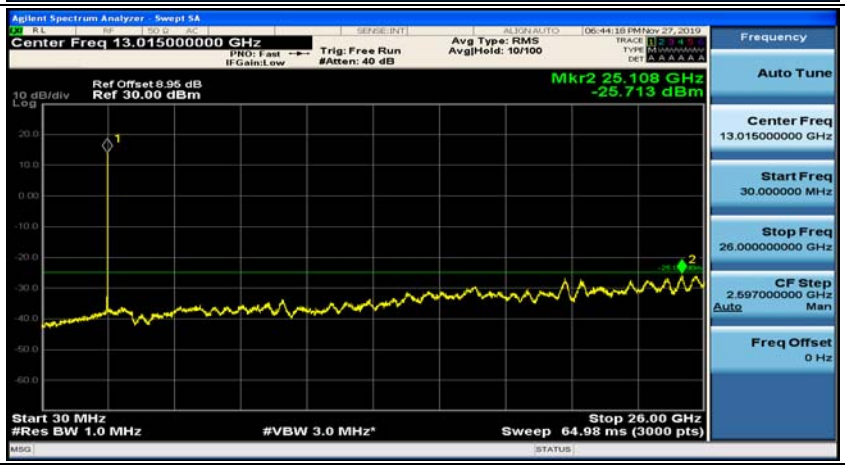




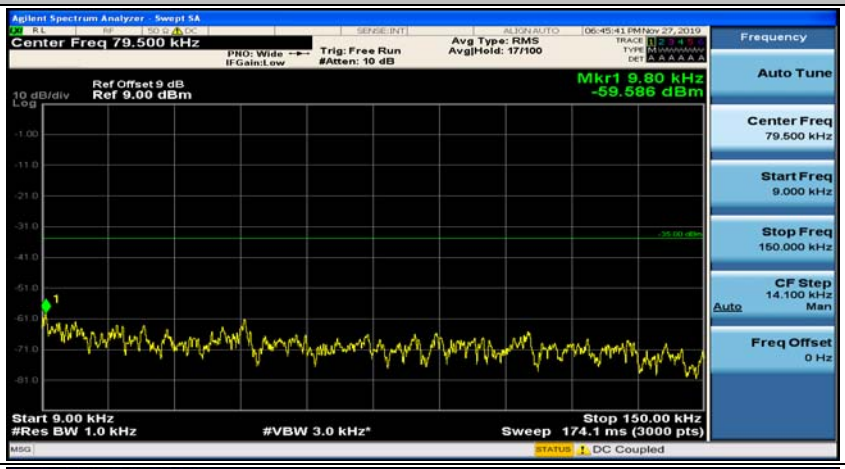
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

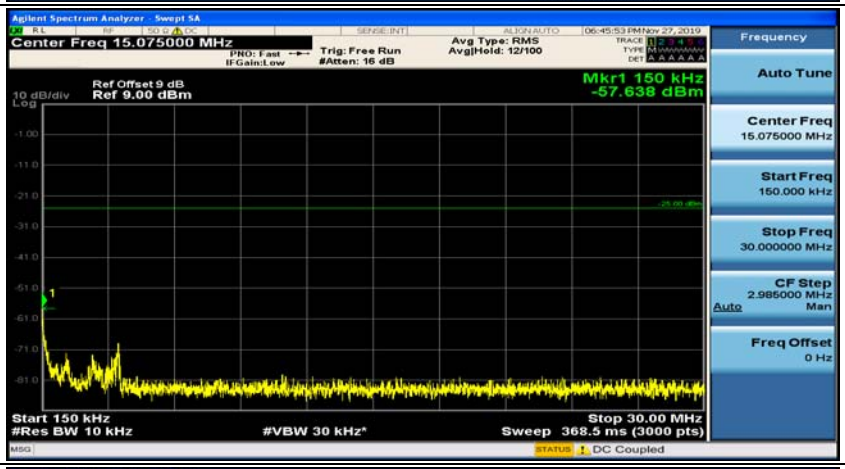

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.18 kHz
-60.803 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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

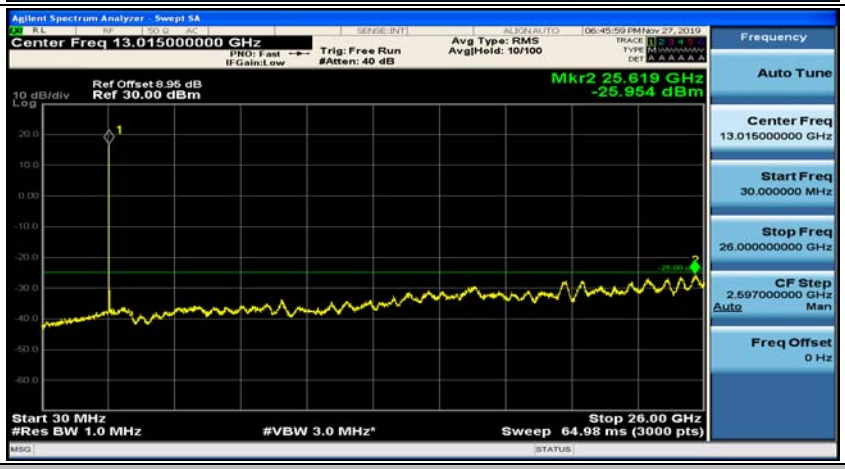

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.647 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.108 GHz
-25.713 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

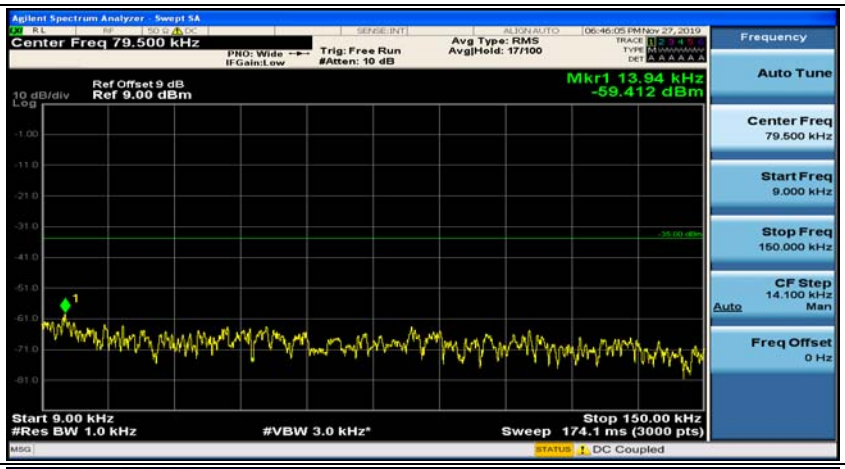
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0

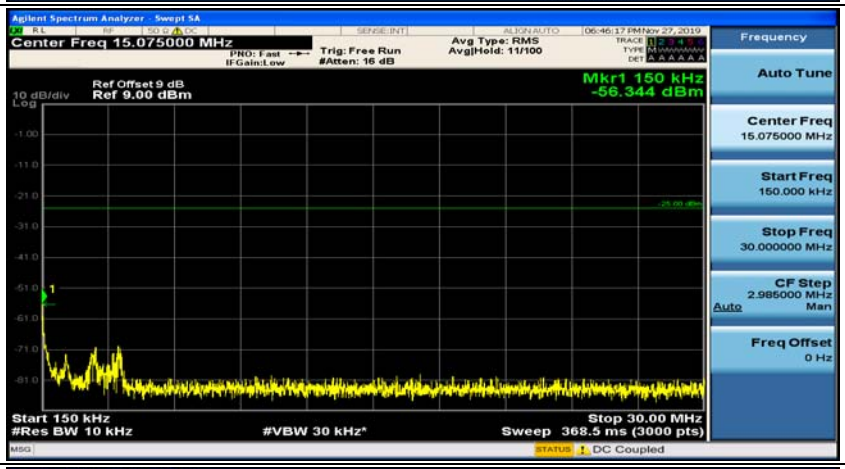




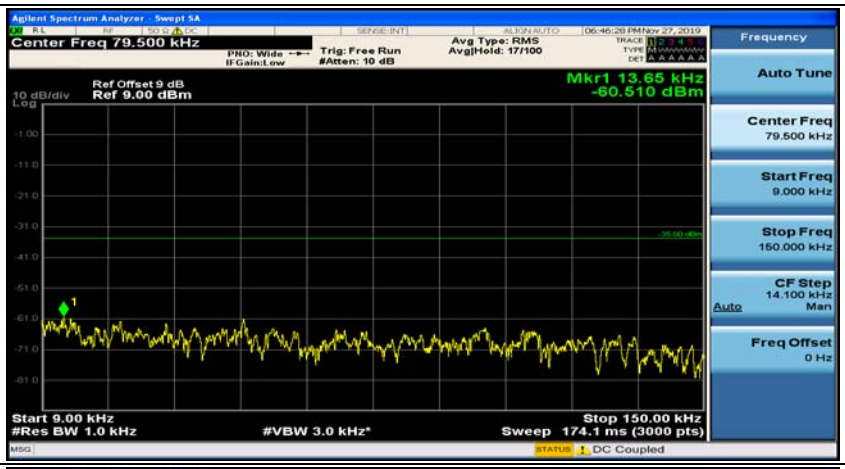


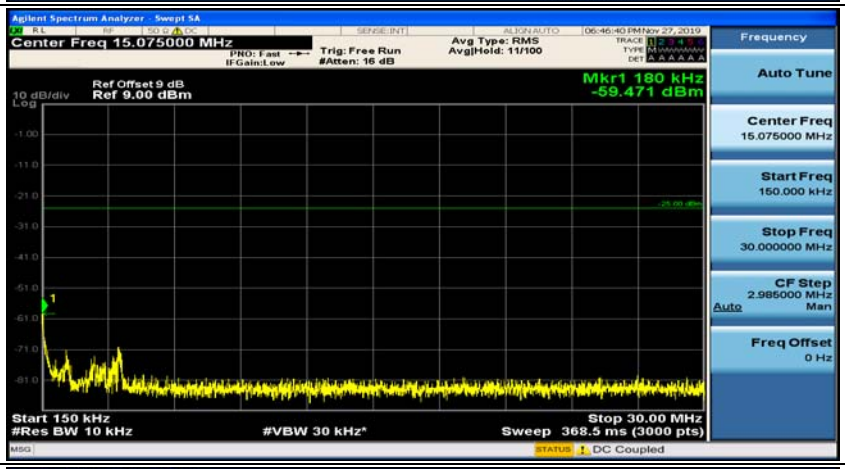
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49

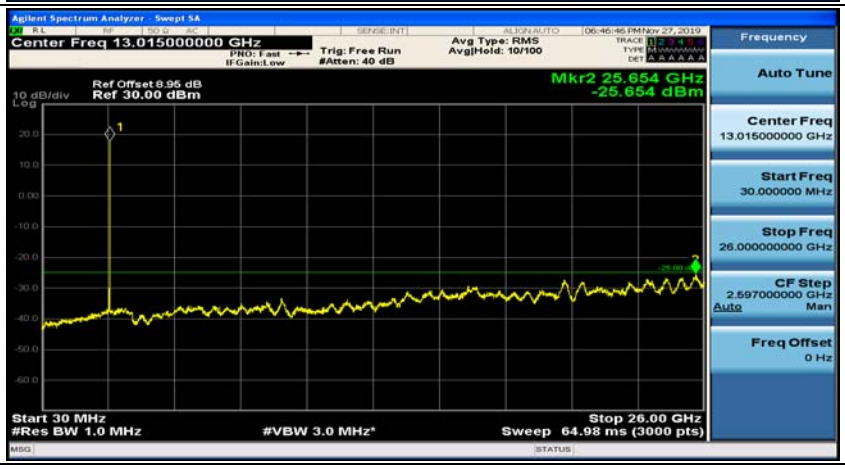




(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.65 kHz
-60.510 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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 180 kHz
-59.471 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.654 GHz
-25.654 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.71	0.001485	± 2.5	PASS
		VN	TN	-0.53	-0.000212	± 2.5	PASS
		VH	TN	4.85	0.001941	± 2.5	PASS
	MCH	VL	TN	-1.05	-0.000405	± 2.5	PASS
		VN	TN	1.5	0.000578	± 2.5	PASS
		VH	TN	1.28	0.000494	± 2.5	PASS
	HCH	VL	TN	1.5	0.000558	± 2.5	PASS
		VN	TN	3.74	0.001392	± 2.5	PASS
		VH	TN	1.51	0.000562	± 2.5	PASS
16QAM	LCH	VL	TN	2.33	0.000933	± 2.5	PASS
		VN	TN	1.15	0.000460	± 2.5	PASS
		VH	TN	0.35	0.000140	± 2.5	PASS
	MCH	VL	TN	3.85	0.001485	± 2.5	PASS
		VN	TN	1.39	0.000536	± 2.5	PASS
		VH	TN	3.33	0.001284	± 2.5	PASS
	HCH	VL	TN	2.46	0.000915	± 2.5	PASS
		VN	TN	2.87	0.001068	± 2.5	PASS
		VH	TN	4.2	0.001563	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.84	-0.000736	± 2.5	PASS
		VN	-20	1.92	0.000768	± 2.5	PASS
		VN	-10	-0.73	-0.000292	± 2.5	PASS
		VN	0	-1.64	-0.000656	± 2.5	PASS
		VN	10	4.02	0.001609	± 2.5	PASS
		VN	20	4.42	0.001769	± 2.5	PASS
		VN	30	0.87	0.000348	± 2.5	PASS
		VN	40	4.17	0.001669	± 2.5	PASS
		VN	50	3.64	0.001457	± 2.5	PASS
	MCH	VN	-30	-1.46	-0.000563	± 2.5	PASS

		VN	-20	0.97	0.000374	± 2.5	PASS
		VN	-10	2.48	0.000956	± 2.5	PASS
		VN	0	2.49	0.000960	± 2.5	PASS
		VN	10	3.86	0.001489	± 2.5	PASS
		VN	20	0	0.000000	± 2.5	PASS
		VN	30	0.19	0.000073	± 2.5	PASS
		VN	40	2.17	0.000837	± 2.5	PASS
		VN	50	-0.86	-0.000332	± 2.5	PASS
	HCH	VN	-30	-0.94	-0.000350	± 2.5	PASS
		VN	-20	1.63	0.000607	± 2.5	PASS
		VN	-10	1.07	0.000398	± 2.5	PASS
		VN	0	2.18	0.000811	± 2.5	PASS
		VN	10	-0.79	-0.000294	± 2.5	PASS
		VN	20	2.4	0.000893	± 2.5	PASS
		VN	30	2.02	0.000752	± 2.5	PASS
		VN	40	2.91	0.001083	± 2.5	PASS
		VN	50	1.85	0.000688	± 2.5	PASS
16QAM	LCH	VN	-30	2.55	0.001021	± 2.5	PASS
		VN	-20	-1.76	-0.000704	± 2.5	PASS
		VN	-10	-0.77	-0.000308	± 2.5	PASS
		VN	0	-1.76	-0.000704	± 2.5	PASS
		VN	10	2.67	0.001069	± 2.5	PASS
		VN	20	0.27	0.000108	± 2.5	PASS
		VN	30	4.47	0.001789	± 2.5	PASS
		VN	40	-0.72	-0.000288	± 2.5	PASS
		VN	50	-1.99	-0.000796	± 2.5	PASS
	MCH	VN	-30	-0.23	-0.000089	± 2.5	PASS
		VN	-20	3.03	0.001169	± 2.5	PASS
		VN	-10	1.36	0.000524	± 2.5	PASS
		VN	0	1.1	0.000424	± 2.5	PASS
		VN	10	-0.41	-0.000158	± 2.5	PASS
		VN	20	-1.52	-0.000586	± 2.5	PASS
		VN	30	0.05	0.000019	± 2.5	PASS
		VN	40	2.04	0.000787	± 2.5	PASS
		VN	50	0.92	0.000355	± 2.5	PASS
	HCH	VN	-30	2.48	0.000923	± 2.5	PASS
		VN	-20	-0.52	-0.000193	± 2.5	PASS
		VN	-10	-1.27	-0.000473	± 2.5	PASS
		VN	0	1.9	0.000707	± 2.5	PASS
		VN	10	-1.66	-0.000618	± 2.5	PASS
		VN	20	3.08	0.001146	± 2.5	PASS

		VN	30	0.06	0.000022	± 2.5	PASS
		VN	40	2.8	0.001042	± 2.5	PASS
		VN	50	-11.63	-0.004327	± 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	1.86	0.000744	± 2.5	PASS
		VN	TN	4.44	0.001775	± 2.5	PASS
		VH	TN	2.25	0.000900	± 2.5	PASS
	MCH	VL	TN	2.14	0.000825	± 2.5	PASS
		VN	TN	4.83	0.001863	± 2.5	PASS
		VH	TN	-0.23	-0.000089	± 2.5	PASS
	HCH	VL	TN	-0.34	-0.000127	± 2.5	PASS
		VN	TN	2.17	0.000808	± 2.5	PASS
		VH	TN	3.23	0.001203	± 2.5	PASS
16QAM	LCH	VL	TN	0.15	0.000060	± 2.5	PASS
		VN	TN	1.09	0.000436	± 2.5	PASS
		VH	TN	3.13	0.001251	± 2.5	PASS
	MCH	VL	TN	3.55	0.001369	± 2.5	PASS
		VN	TN	1.43	0.000551	± 2.5	PASS
		VH	TN	1.73	0.000667	± 2.5	PASS
	HCH	VL	TN	1.54	0.000574	± 2.5	PASS
		VN	TN	4.76	0.001773	± 2.5	PASS
		VH	TN	3.84	0.001430	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.84	0.001136	± 2.5	PASS
		VN	-20	4.77	0.001907	± 2.5	PASS
		VN	-10	-1.81	-0.000724	± 2.5	PASS
		VN	0	-0.1	-0.000040	± 2.5	PASS
		VN	10	-1.67	-0.000668	± 2.5	PASS
		VN	20	1.46	0.000584	± 2.5	PASS
		VN	30	-1.13	-0.000452	± 2.5	PASS
		VN	40	-1.79	-0.000716	± 2.5	PASS
		VN	50	1.68	0.000672	± 2.5	PASS
	MCH	VN	-30	1.02	0.000393	± 2.5	PASS
		VN	-20	-1	-0.000386	± 2.5	PASS

		VN	-10	1.51	0.000582	± 2.5	PASS
		VN	0	3.72	0.001435	± 2.5	PASS
		VN	10	2.9	0.001118	± 2.5	PASS
		VN	20	2.11	0.000814	± 2.5	PASS
		VN	30	2.52	0.000972	± 2.5	PASS
		VN	40	3.97	0.001531	± 2.5	PASS
		VN	50	-0.49	-0.000189	± 2.5	PASS
	HCH	VN	-30	-0.81	-0.000302	± 2.5	PASS
		VN	-20	3.75	0.001397	± 2.5	PASS
		VN	-10	0.69	0.000257	± 2.5	PASS
		VN	0	0.77	0.000287	± 2.5	PASS
		VN	10	4.64	0.001728	± 2.5	PASS
		VN	20	3.48	0.001296	± 2.5	PASS
		VN	30	1.22	0.000454	± 2.5	PASS
		VN	40	3.32	0.001236	± 2.5	PASS
		VN	50	2.08	0.000775	± 2.5	PASS
QPSK	LCH	VN	-30	-1.65	-0.000660	± 2.5	PASS
		VN	-20	0.78	0.000312	± 2.5	PASS
		VN	-10	3.03	0.001212	± 2.5	PASS
		VN	0	0.98	0.000392	± 2.5	PASS
		VN	10	-1.75	-0.000700	± 2.5	PASS
		VN	20	1.74	0.000696	± 2.5	PASS
		VN	30	3.86	0.001543	± 2.5	PASS
		VN	40	-0.07	-0.000028	± 2.5	PASS
		VN	50	3.38	0.001351	± 2.5	PASS
	MCH	VN	-30	1.59	0.000613	± 2.5	PASS
		VN	-20	4.69	0.001809	± 2.5	PASS
		VN	-10	2.14	0.000825	± 2.5	PASS
		VN	0	-0.43	-0.000166	± 2.5	PASS
		VN	10	-0.64	-0.000247	± 2.5	PASS
		VN	20	0.16	0.000062	± 2.5	PASS
		VN	30	0.84	0.000324	± 2.5	PASS
		VN	40	4.61	0.001778	± 2.5	PASS
		VN	50	4.93	0.001901	± 2.5	PASS
	HCH	VN	-30	0.87	0.000324	± 2.5	PASS
		VN	-20	0.03	0.000011	± 2.5	PASS
		VN	-10	4.01	0.001493	± 2.5	PASS
		VN	0	-0.9	-0.000335	± 2.5	PASS
		VN	10	-0.5	-0.000186	± 2.5	PASS
		VN	20	2.79	0.001039	± 2.5	PASS
		VN	30	4.05	0.001508	± 2.5	PASS

		VN	40	3.03	0.001128	± 2.5	PASS
		VN	50	-11.63	-0.004331	± 2.5	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.24	-0.000096	± 2.5	PASS
		VN	TN	2.52	0.001007	± 2.5	PASS
		VH	TN	0.24	0.000096	± 2.5	PASS
	MCH	VL	TN	0.93	0.000359	± 2.5	PASS
		VN	TN	2.18	0.000841	± 2.5	PASS
		VH	TN	-0.4	-0.000154	± 2.5	PASS
	HCH	VL	TN	-1.68	-0.000626	± 2.5	PASS
		VN	TN	3.58	0.001335	± 2.5	PASS
		VH	TN	-1.92	-0.000716	± 2.5	PASS
16QAM	LCH	VL	TN	3.06	0.001222	± 2.5	PASS
		VN	TN	2.13	0.000851	± 2.5	PASS
		VH	TN	0.01	0.000004	± 2.5	PASS
	MCH	VL	TN	2.28	0.000879	± 2.5	PASS
		VN	TN	-1.33	-0.000513	± 2.5	PASS
		VH	TN	-0.92	-0.000355	± 2.5	PASS
	HCH	VL	TN	-1.25	-0.000466	± 2.5	PASS
		VN	TN	1.4	0.000522	± 2.5	PASS
		VH	TN	2.12	0.000790	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.53	0.000611	± 2.5	PASS
		VN	-20	3.37	0.001346	± 2.5	PASS
		VN	-10	2.42	0.000967	± 2.5	PASS
		VN	0	3.51	0.001402	± 2.5	PASS
		VN	10	0.35	0.000140	± 2.5	PASS
		VN	20	3.16	0.001262	± 2.5	PASS
		VN	30	2.72	0.001086	± 2.5	PASS
		VN	40	3.44	0.001374	± 2.5	PASS
		VN	50	1.17	0.000467	± 2.5	PASS
	MCH	VN	-30	1.92	0.000740	± 2.5	PASS
		VN	-20	-0.82	-0.000316	± 2.5	PASS
		VN	-10	0.58	0.000224	± 2.5	PASS

		VN	0	4.24	0.001635	± 2.5	PASS
		VN	10	1.19	0.000459	± 2.5	PASS
		VN	20	-0.39	-0.000150	± 2.5	PASS
		VN	30	-0.68	-0.000262	± 2.5	PASS
		VN	40	1.86	0.000717	± 2.5	PASS
		VN	50	2.96	0.001142	± 2.5	PASS
	HCH	VN	-30	1.71	0.000637	± 2.5	PASS
		VN	-20	-1.47	-0.000548	± 2.5	PASS
		VN	-10	4.39	0.001637	± 2.5	PASS
		VN	0	0.22	0.000082	± 2.5	PASS
		VN	10	-0.43	-0.000160	± 2.5	PASS
		VN	20	1.92	0.000716	± 2.5	PASS
		VN	30	4.33	0.001614	± 2.5	PASS
		VN	40	-1.38	-0.000514	± 2.5	PASS
		VN	50	1.8	0.000671	± 2.5	PASS
16QAM	LCH	VN	-30	0.2	0.000080	± 2.5	PASS
		VN	-20	0.92	0.000367	± 2.5	PASS
		VN	-10	2.67	0.001067	± 2.5	PASS
		VN	0	-1.81	-0.000723	± 2.5	PASS
		VN	10	3.47	0.001386	± 2.5	PASS
		VN	20	0.23	0.000092	± 2.5	PASS
		VN	30	0.65	0.000260	± 2.5	PASS
		VN	40	3.05	0.001218	± 2.5	PASS
		VN	50	0.08	0.000032	± 2.5	PASS
	MCH	VN	-30	0.08	0.000031	± 2.5	PASS
		VN	-20	-1.36	-0.000524	± 2.5	PASS
		VN	-10	0.62	0.000239	± 2.5	PASS
		VN	0	1.1	0.000424	± 2.5	PASS
		VN	10	2.32	0.000895	± 2.5	PASS
		VN	20	2.98	0.001149	± 2.5	PASS
		VN	30	2.38	0.000918	± 2.5	PASS
		VN	40	2.12	0.000818	± 2.5	PASS
		VN	50	4.25	0.001639	± 2.5	PASS
	HCH	VN	-30	2.97	0.001107	± 2.5	PASS
		VN	-20	2.37	0.000884	± 2.5	PASS
		VN	-10	1.79	0.000667	± 2.5	PASS
		VN	0	-1.45	-0.000541	± 2.5	PASS
		VN	10	-1.61	-0.000600	± 2.5	PASS
		VN	20	4.35	0.001622	± 2.5	PASS
		VN	30	0.44	0.000164	± 2.5	PASS
		VN	40	1.83	0.000682	± 2.5	PASS

		VN	50	-11.63	-0.004336	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.79	-0.000714	± 2.5	PASS
		VN	TN	-0.05	-0.000020	± 2.5	PASS
		VH	TN	4.53	0.001808	± 2.5	PASS
	MCH	VL	TN	2.09	0.000806	± 2.5	PASS
		VN	TN	-1.91	-0.000737	± 2.5	PASS
		VH	TN	-1.07	-0.000413	± 2.5	PASS
	HCH	VL	TN	0.12	0.000045	± 2.5	PASS
		VN	TN	4.4	0.001642	± 2.5	PASS
		VH	TN	-0.79	-0.000295	± 2.5	PASS
16QAM	LCH	VL	TN	-1.05	-0.000419	± 2.5	PASS
		VN	TN	3.64	0.001453	± 2.5	PASS
		VH	TN	0.38	0.000152	± 2.5	PASS
	MCH	VL	TN	1.3	0.000501	± 2.5	PASS
		VN	TN	0.98	0.000378	± 2.5	PASS
		VH	TN	-0.73	-0.000282	± 2.5	PASS
	HCH	VL	TN	-1.34	-0.000500	± 2.5	PASS
		VN	TN	1.19	0.000444	± 2.5	PASS
		VH	TN	3.49	0.001302	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.04	0.000814	± 2.5	PASS
		VN	-20	1.01	0.000403	± 2.5	PASS
		VN	-10	-1.25	-0.000499	± 2.5	PASS
		VN	0	4.99	0.001991	± 2.5	PASS
		VN	10	2.78	0.001109	± 2.5	PASS
		VN	20	4.09	0.001632	± 2.5	PASS
		VN	30	3.76	0.001500	± 2.5	PASS
		VN	40	-0.55	-0.000219	± 2.5	PASS
		VN	50	-0.6	-0.000239	± 2.5	PASS
	MCH	VN	-30	-1.71	-0.000659	± 2.5	PASS
		VN	-20	-1.86	-0.000717	± 2.5	PASS
		VN	-10	0.03	0.000012	± 2.5	PASS
		VN	0	4.33	0.001670	± 2.5	PASS

		VN	10	4.8	0.001851	± 2.5	PASS
		VN	20	3.7	0.001427	± 2.5	PASS
		VN	30	3.71	0.001431	± 2.5	PASS
		VN	40	2.39	0.000922	± 2.5	PASS
		VN	50	3.4	0.001311	± 2.5	PASS
	HCH	VN	-30	4.08	0.001522	± 2.5	PASS
		VN	-20	3.73	0.001392	± 2.5	PASS
		VN	-10	2.41	0.000899	± 2.5	PASS
		VN	0	4.15	0.001549	± 2.5	PASS
		VN	10	-0.06	-0.000022	± 2.5	PASS
		VN	20	1.66	0.000619	± 2.5	PASS
		VN	30	4.61	0.001720	± 2.5	PASS
		VN	40	-1.52	-0.000567	± 2.5	PASS
		VN	50	-0.61	-0.000228	± 2.5	PASS
16QAM	LCH	VN	-30	0.54	0.000215	± 2.5	PASS
		VN	-20	4.04	0.001612	± 2.5	PASS
		VN	-10	3.63	0.001449	± 2.5	PASS
		VN	0	4.45	0.001776	± 2.5	PASS
		VN	10	4.87	0.001943	± 2.5	PASS
		VN	20	3.99	0.001592	± 2.5	PASS
		VN	30	0.97	0.000387	± 2.5	PASS
		VN	40	-1.71	-0.000682	± 2.5	PASS
		VN	50	3.85	0.001536	± 2.5	PASS
	MCH	VN	-30	0.77	0.000297	± 2.5	PASS
		VN	-20	3.85	0.001485	± 2.5	PASS
		VN	-10	2.76	0.001064	± 2.5	PASS
		VN	0	-0.21	-0.000081	± 2.5	PASS
		VN	10	-1.51	-0.000582	± 2.5	PASS
		VN	20	2.11	0.000814	± 2.5	PASS
		VN	30	1.81	0.000698	± 2.5	PASS
		VN	40	3.08	0.001188	± 2.5	PASS
		VN	50	-1.4	-0.000540	± 2.5	PASS
	HCH	VN	-30	1.38	0.000515	± 2.5	PASS
		VN	-20	3.86	0.001440	± 2.5	PASS
		VN	-10	1.51	0.000563	± 2.5	PASS
		VN	0	1.57	0.000586	± 2.5	PASS
		VN	10	2.09	0.000780	± 2.5	PASS
		VN	20	1.34	0.000500	± 2.5	PASS
		VN	30	2.61	0.000974	± 2.5	PASS
		VN	40	2.33	0.000869	± 2.5	PASS
		VN	50	-11.63	-0.004340	± 2.5	PASS