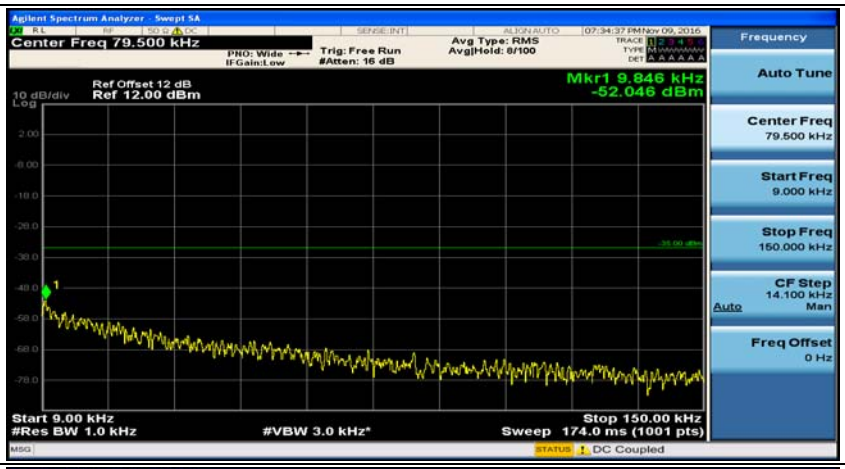
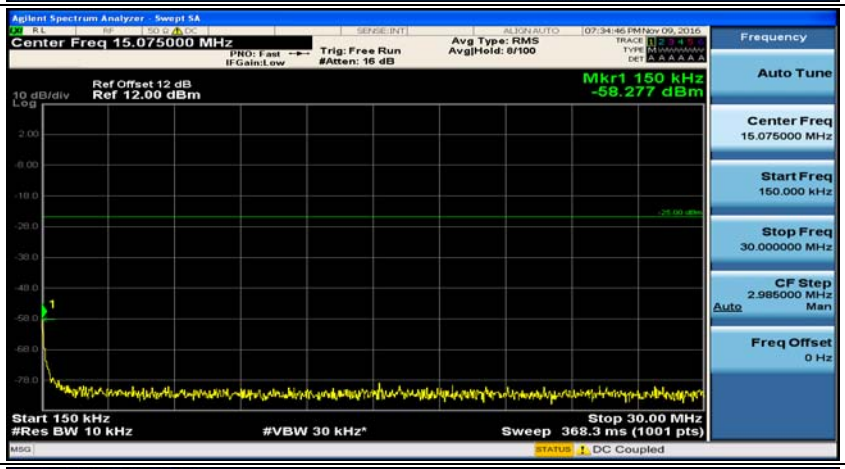
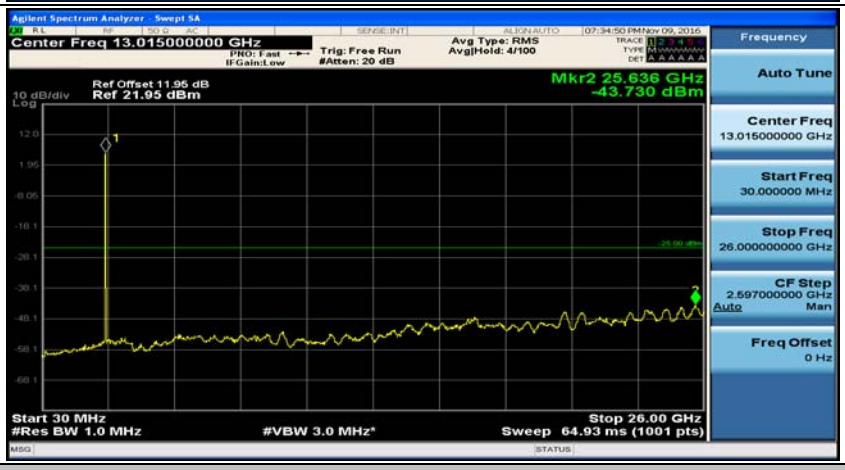
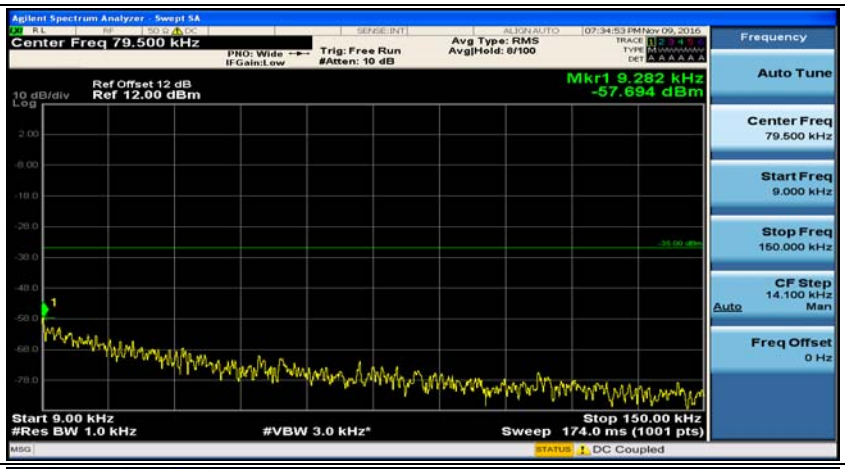
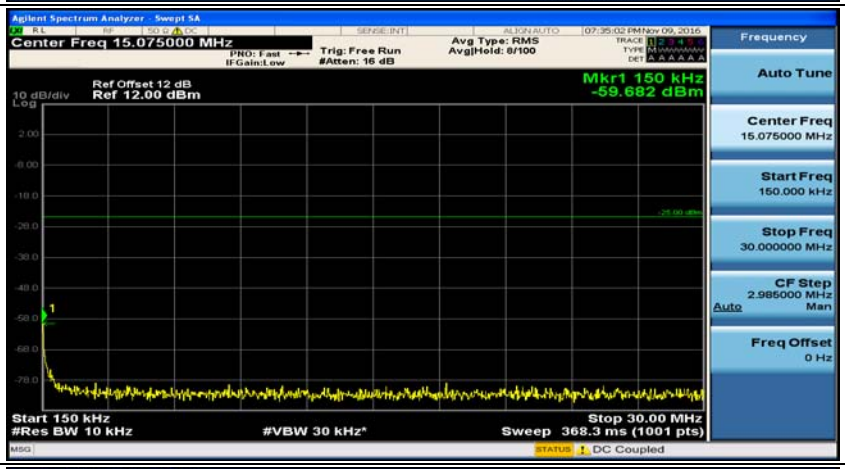


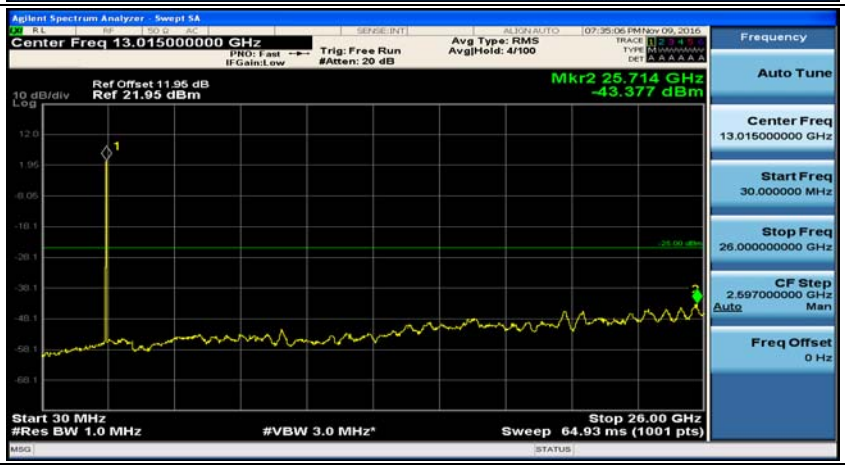


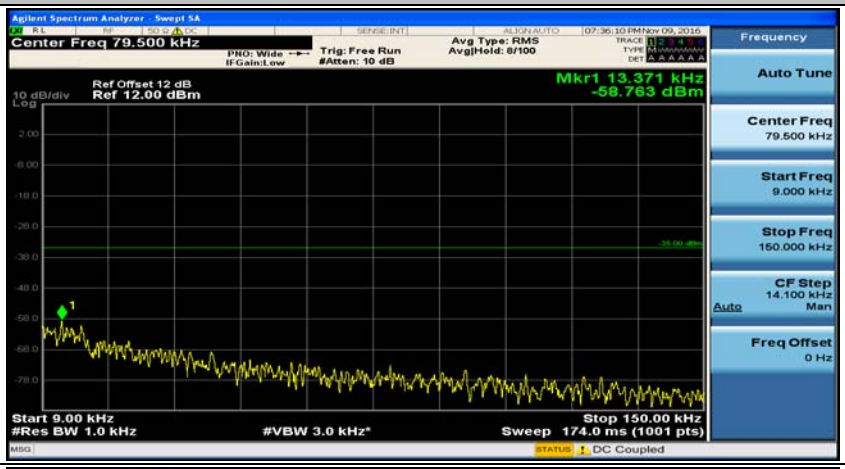
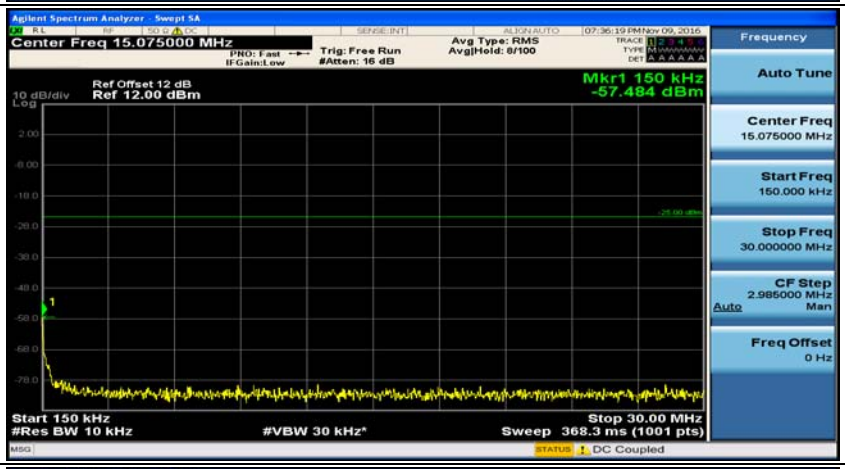
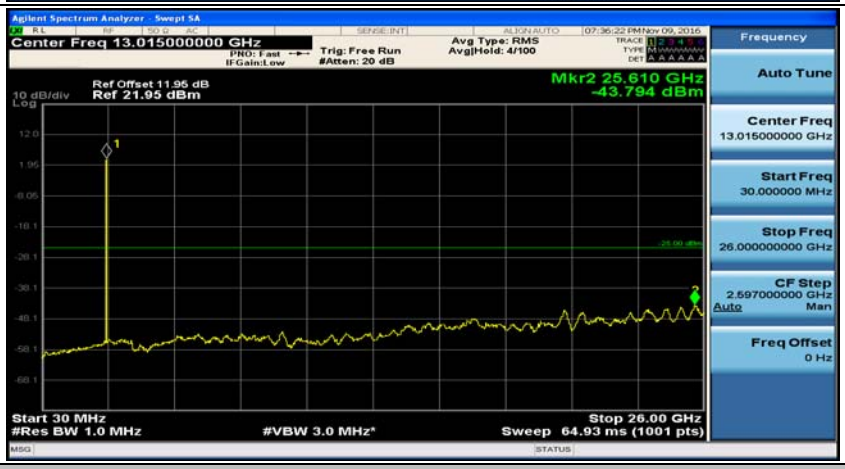


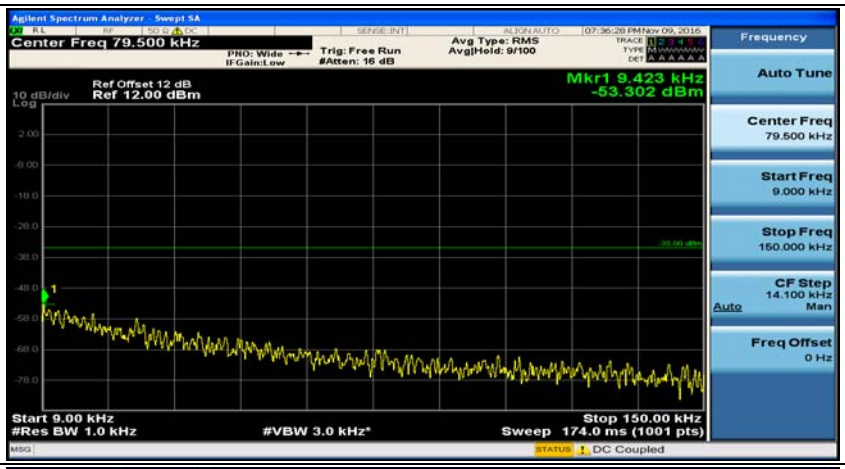
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

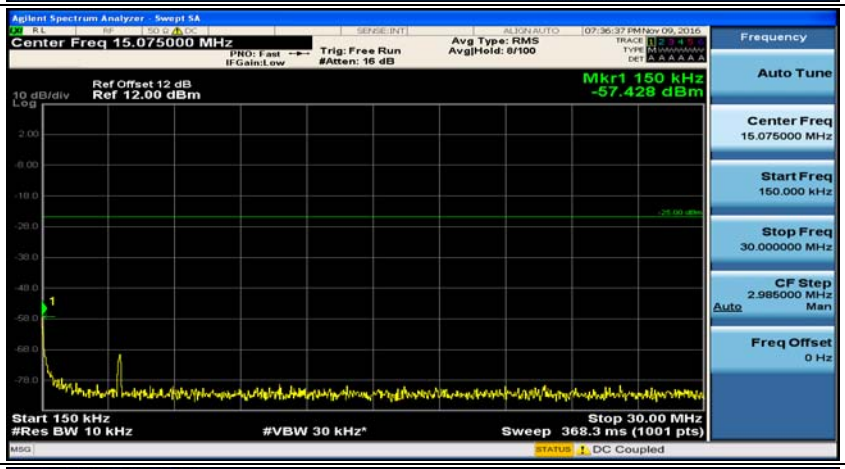

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 6/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.282 kHz
-57.694 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

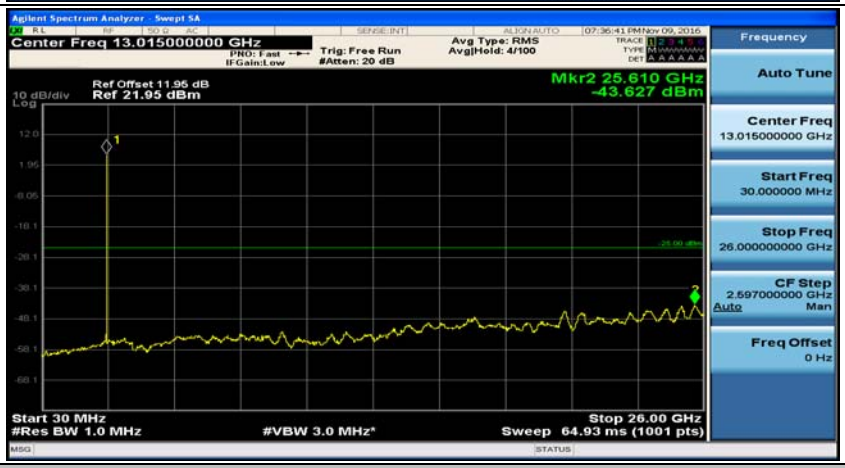

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-59.682 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.714 GHz
-43.377 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

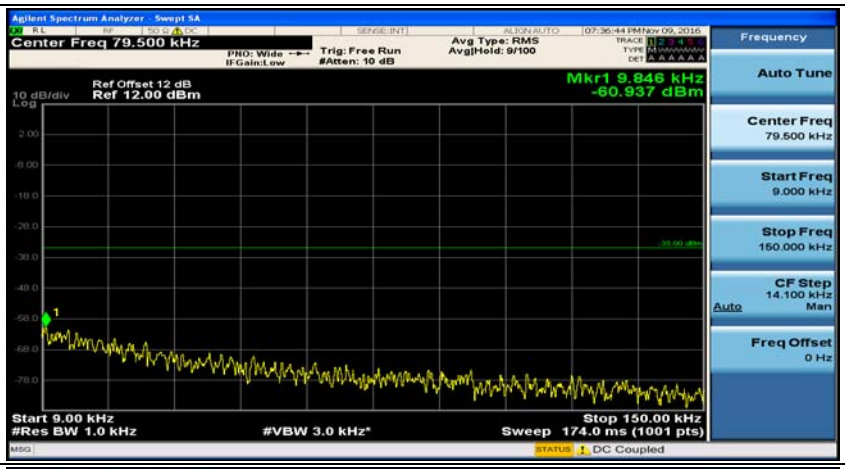
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

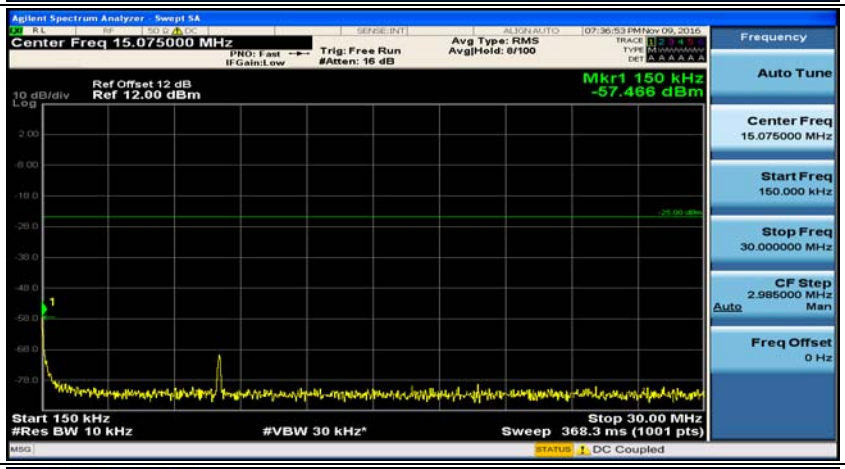


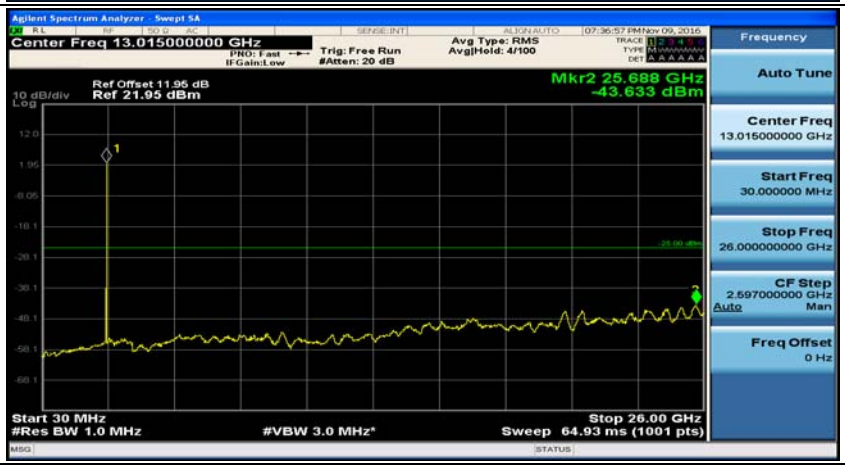




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

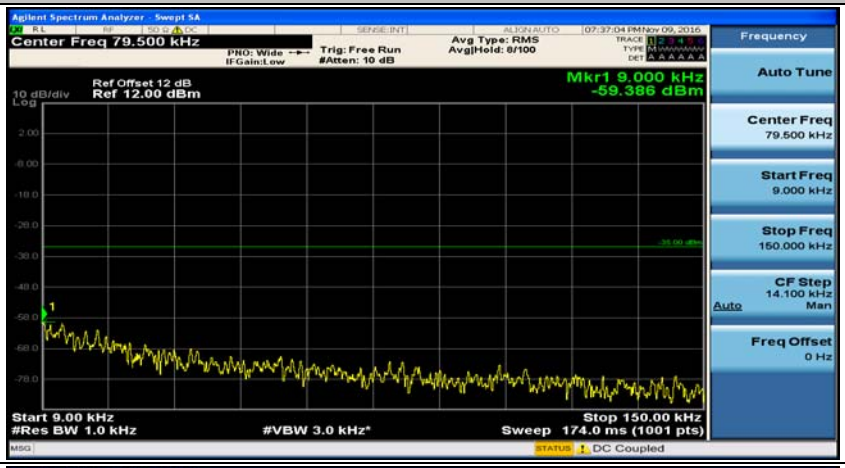

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.846 kHz
-60.937 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

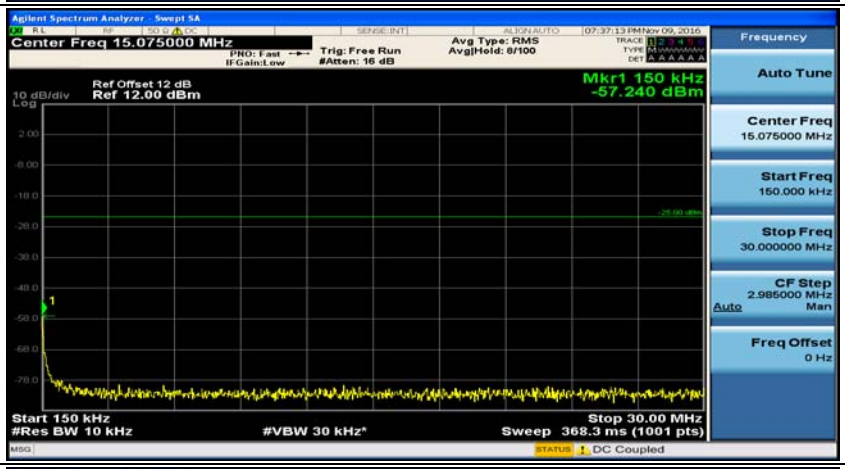

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-57.466 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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

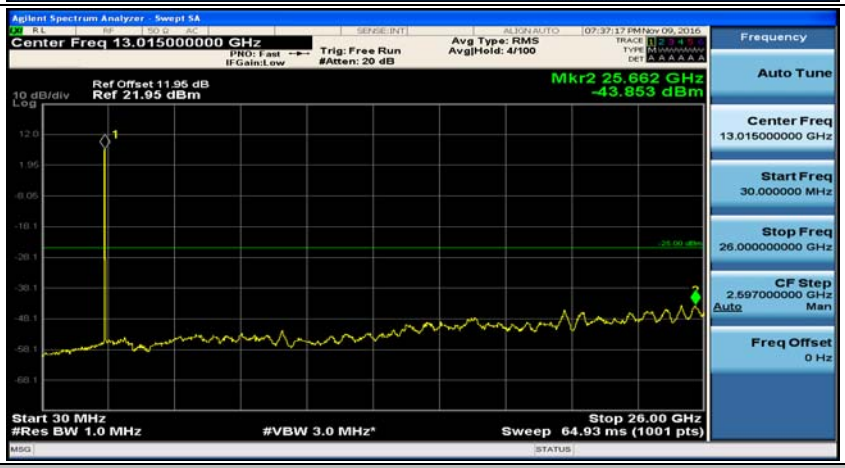

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.688 GHz
-43.633 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 pts)
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

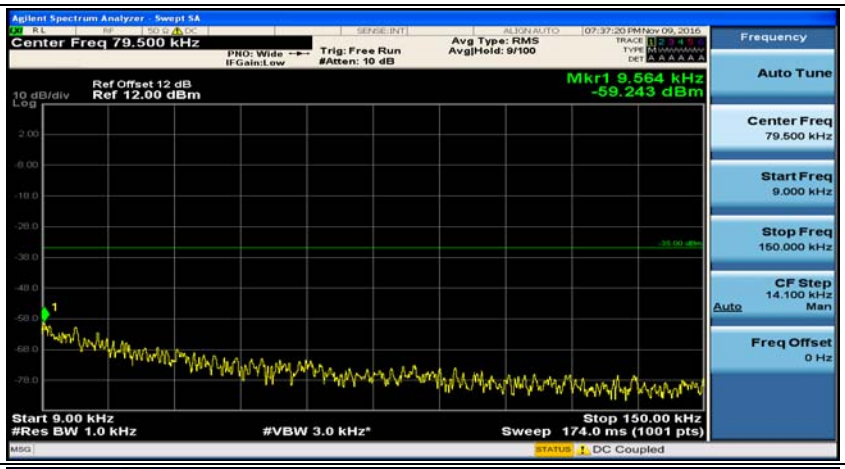
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0

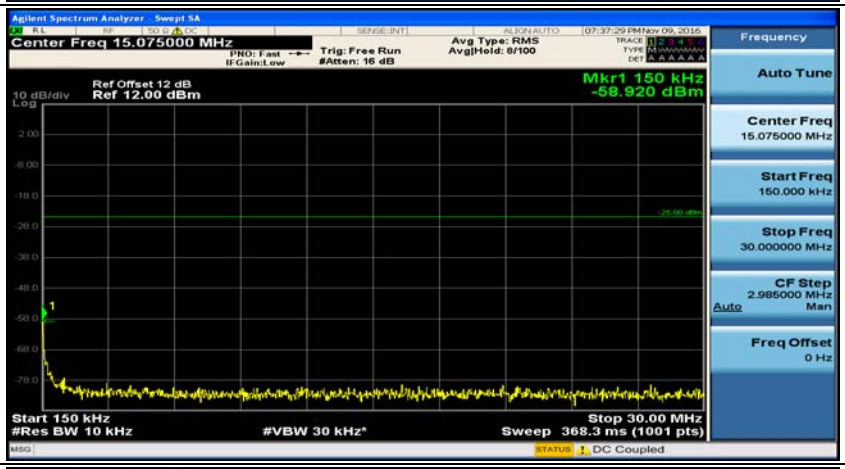


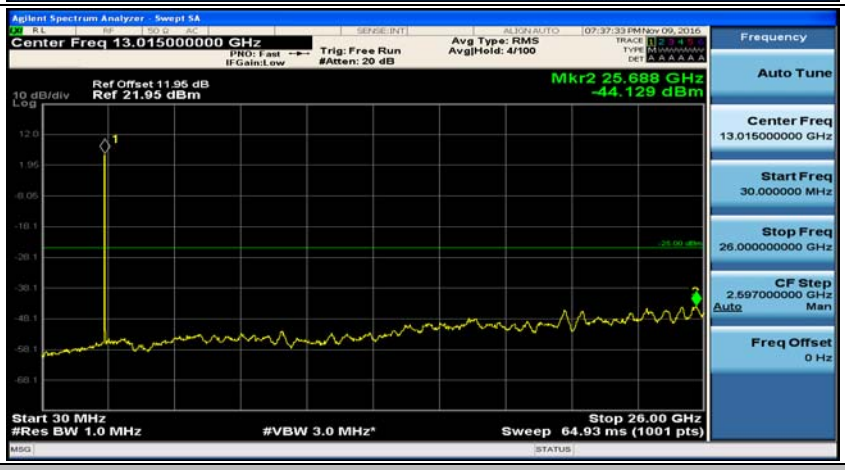




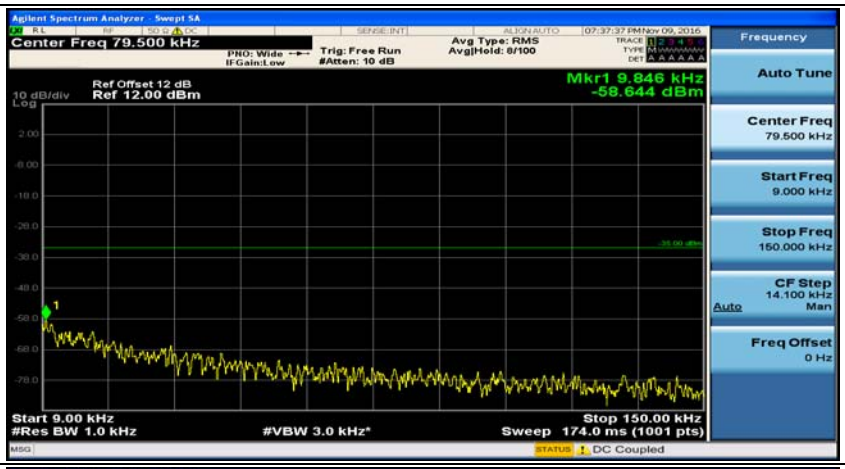
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37

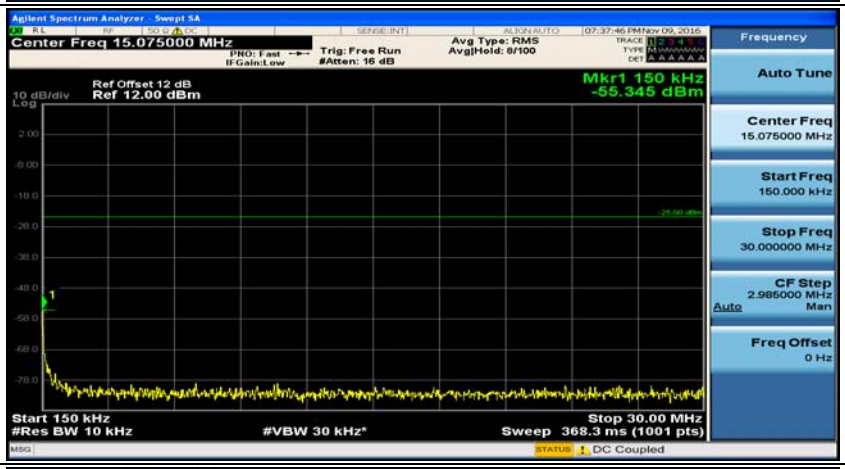


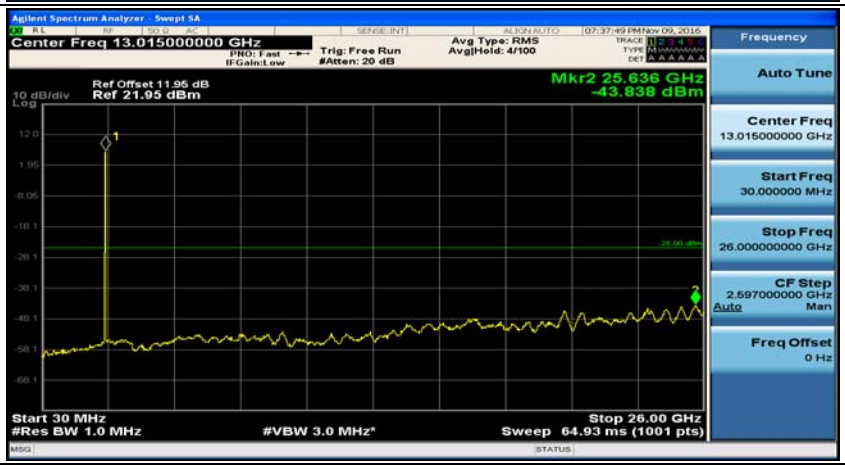




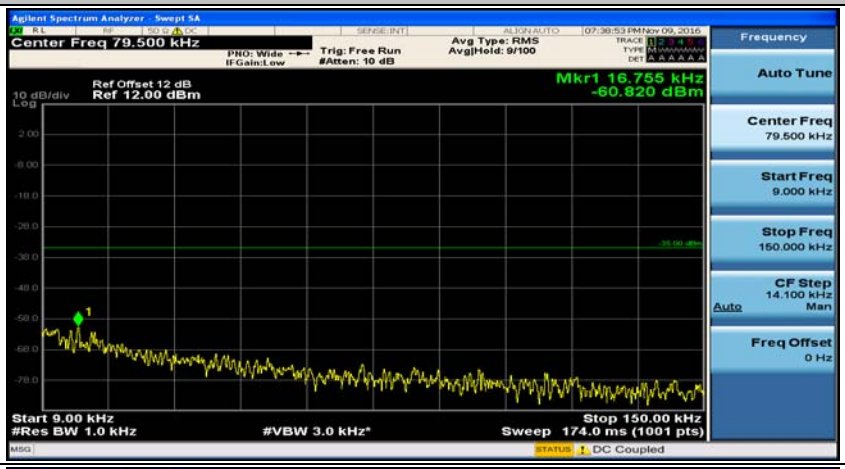
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74

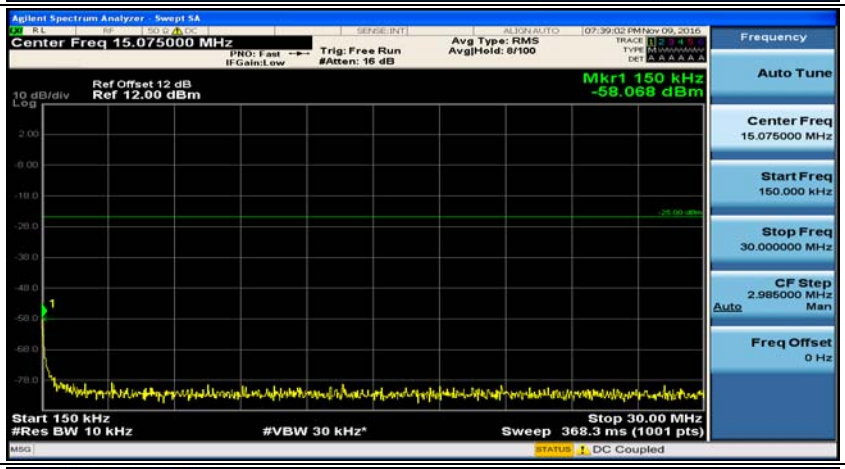

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
07:37:37 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.846 kHz
-58.644 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

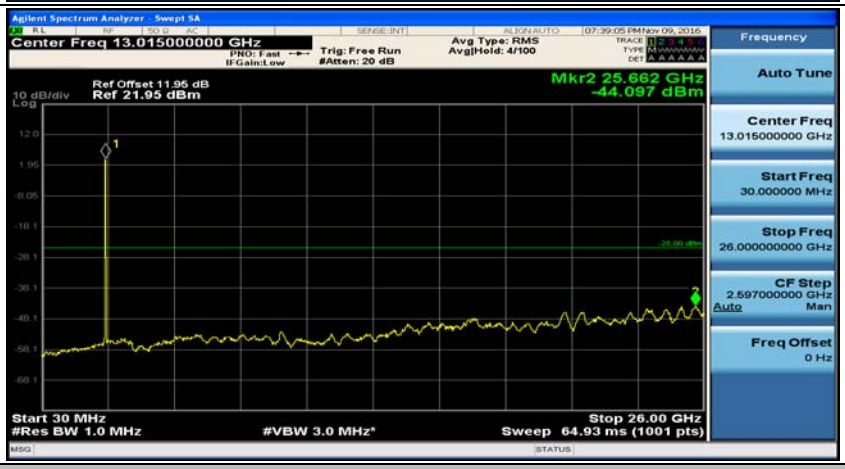

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:37:46 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-55.345 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:37:49 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.636 GHz
-43.838 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

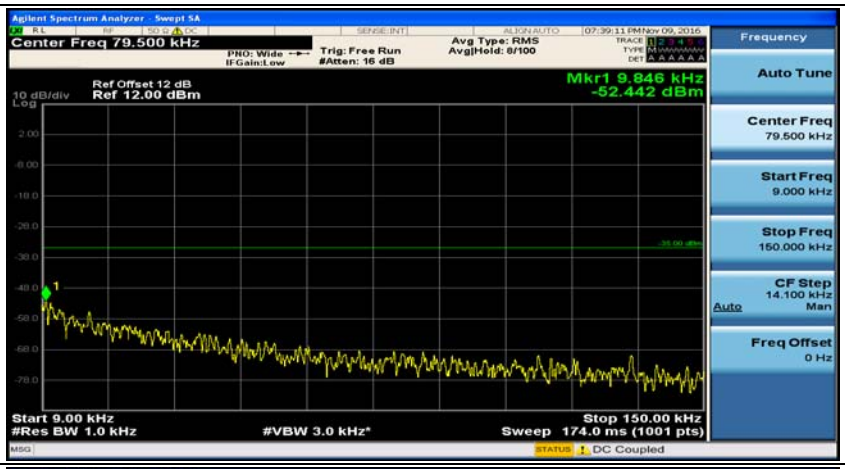
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

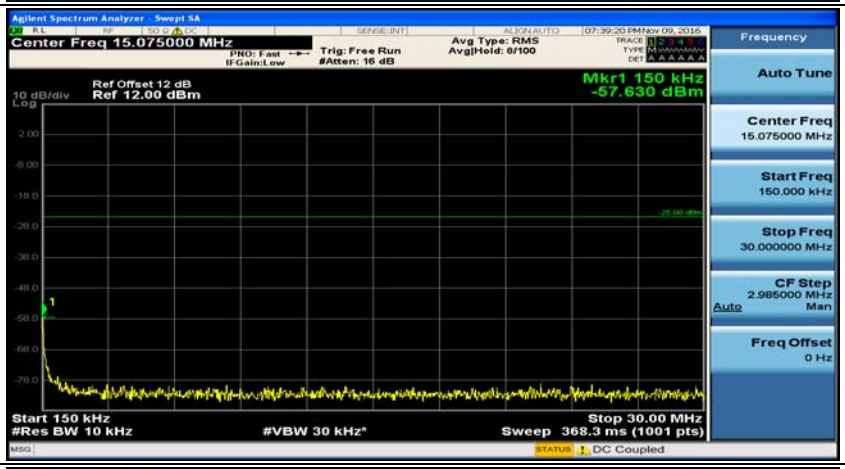


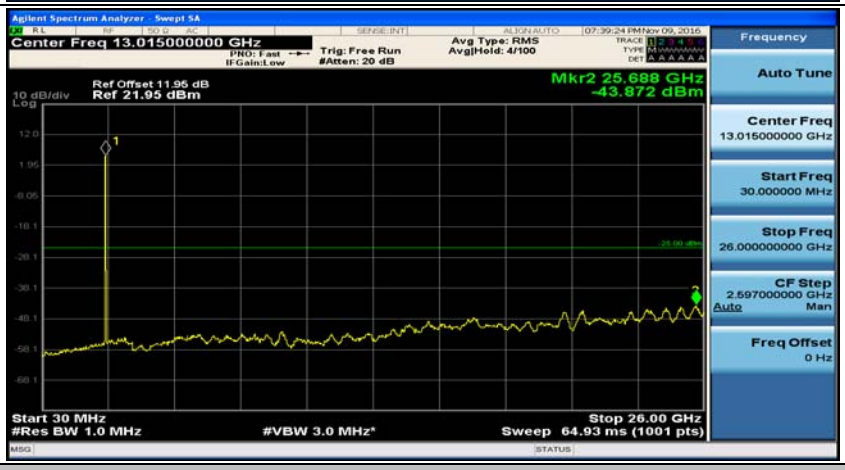




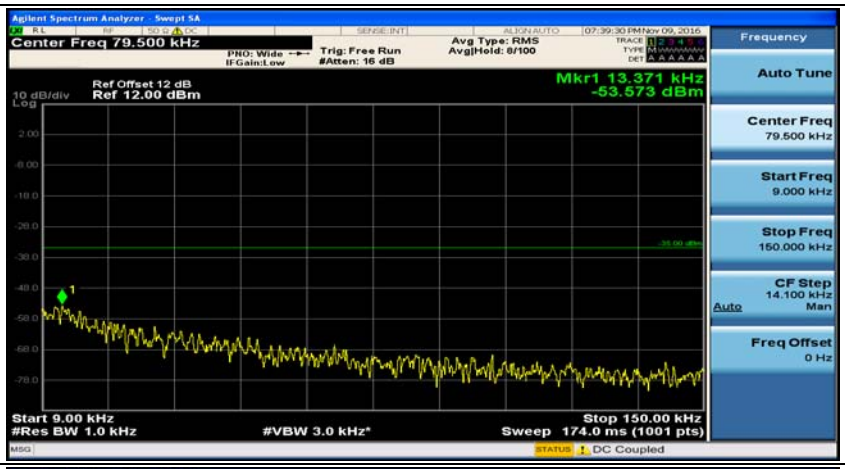
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

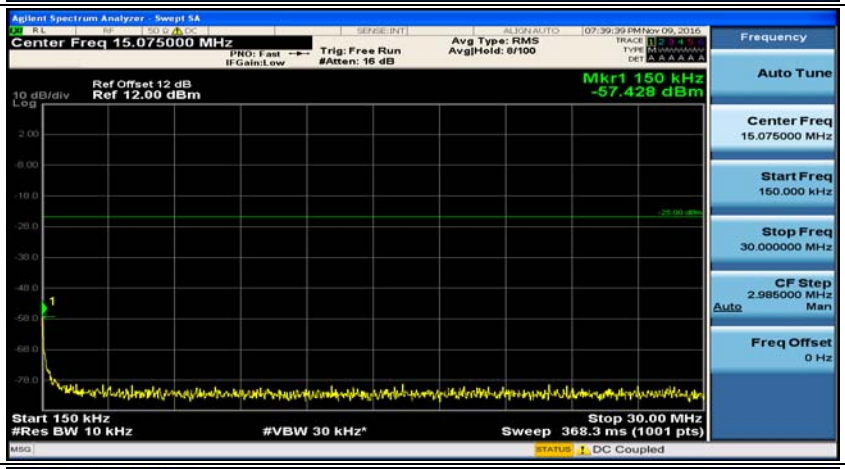


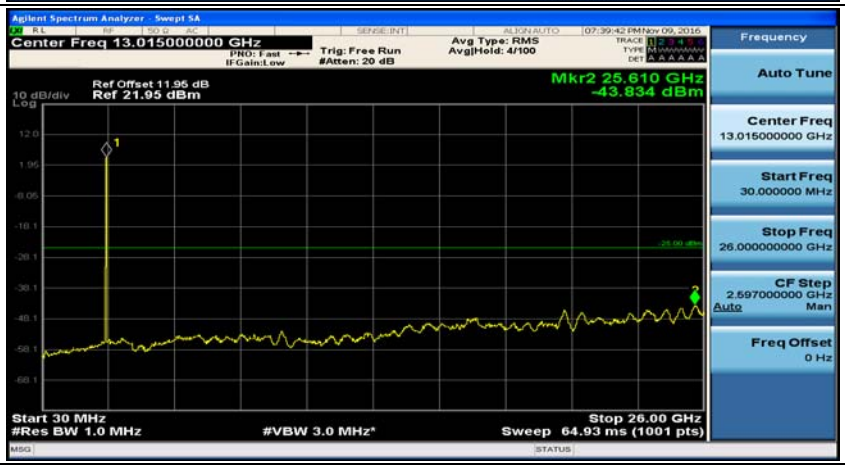




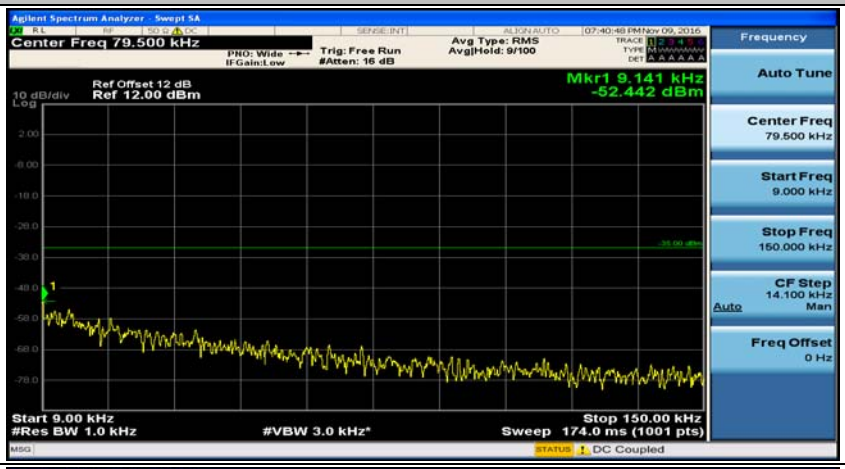
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74

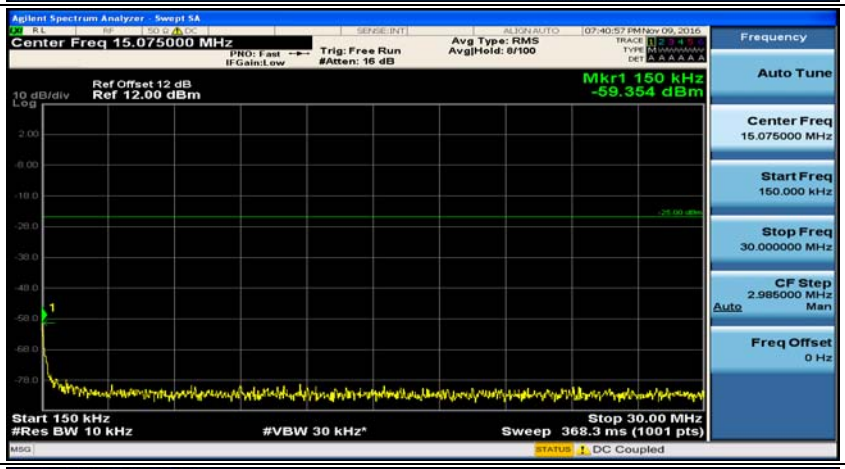

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 13.371 kHz
-53.573 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

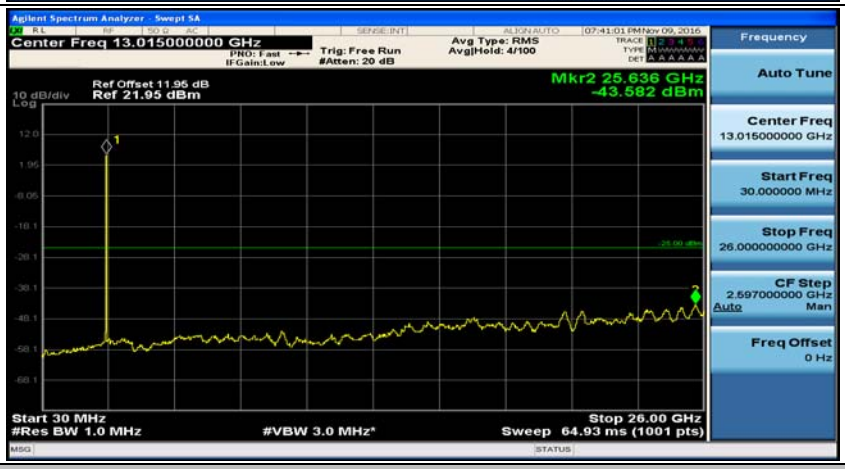

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-57.428 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.610 GHz
-43.834 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

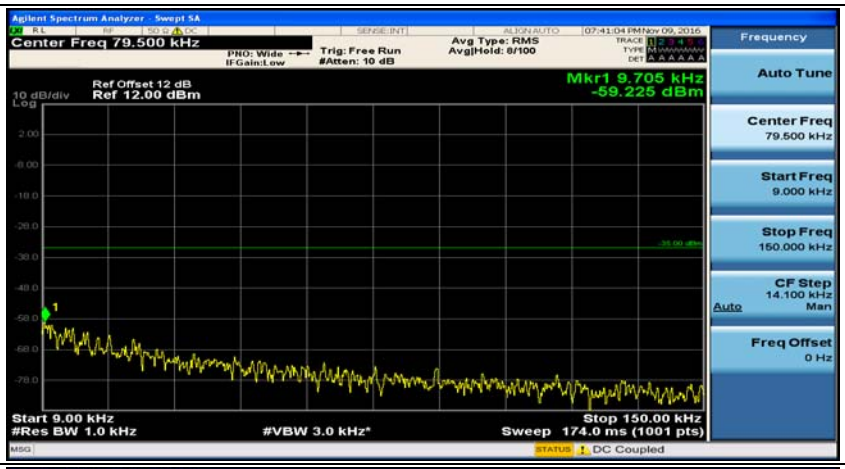
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

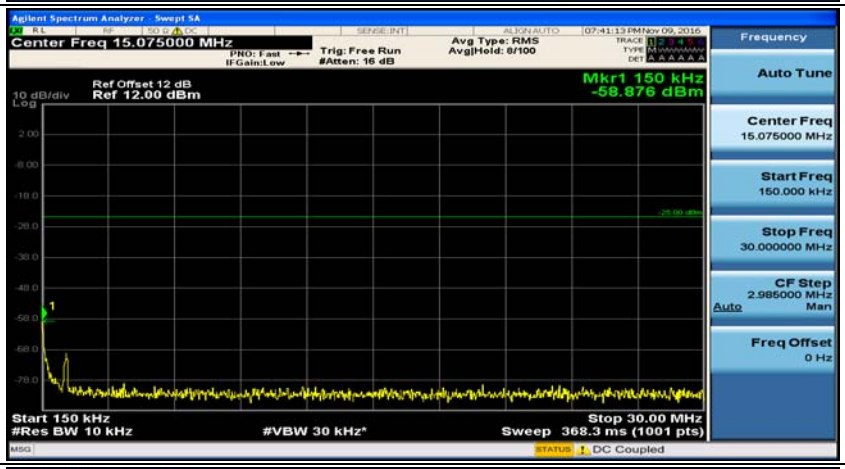


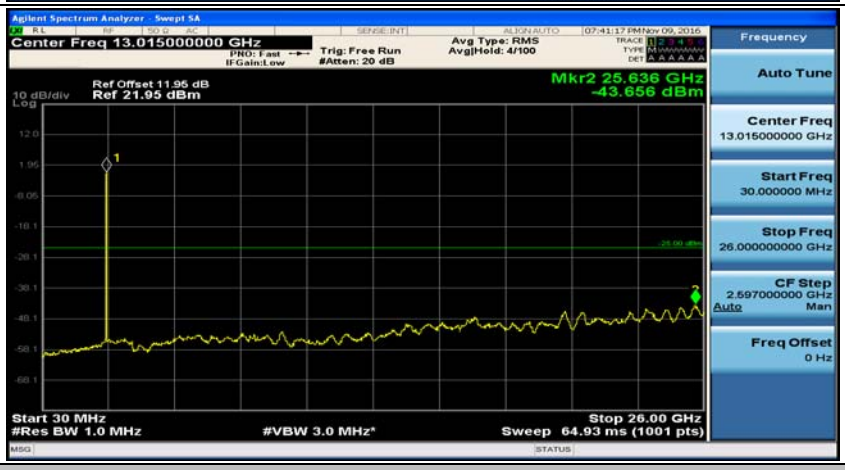




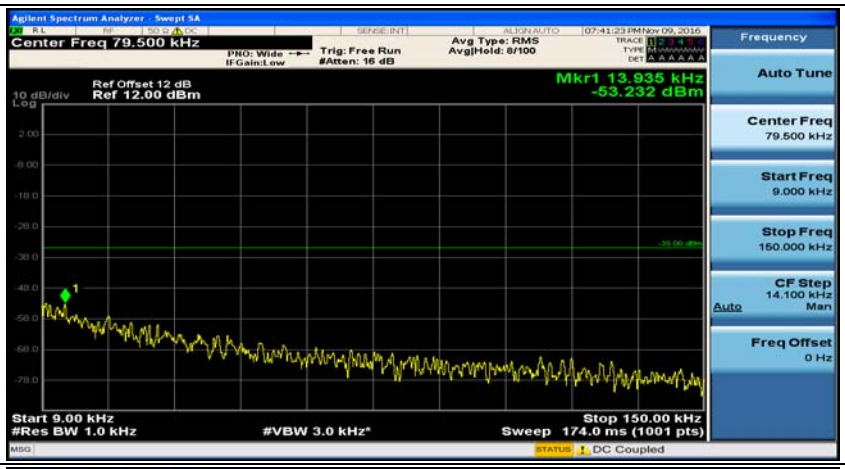
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

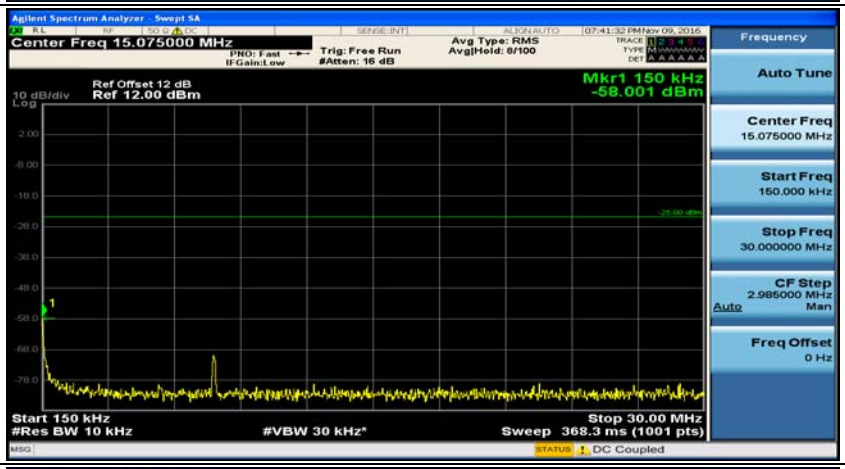


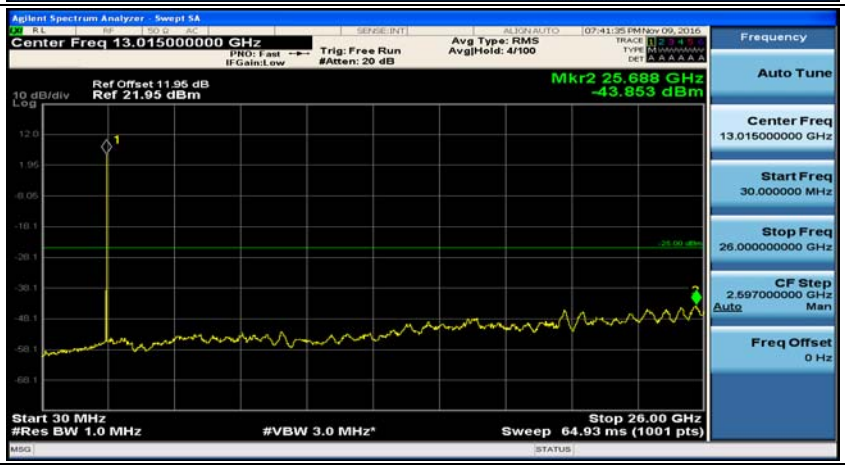




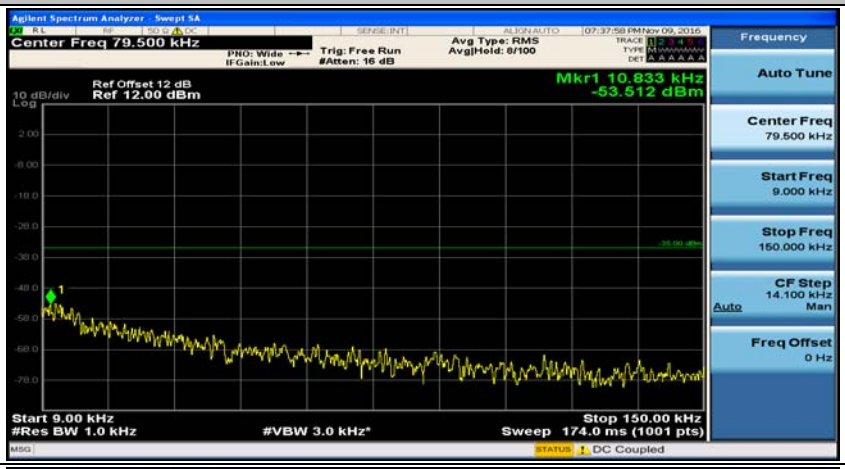
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

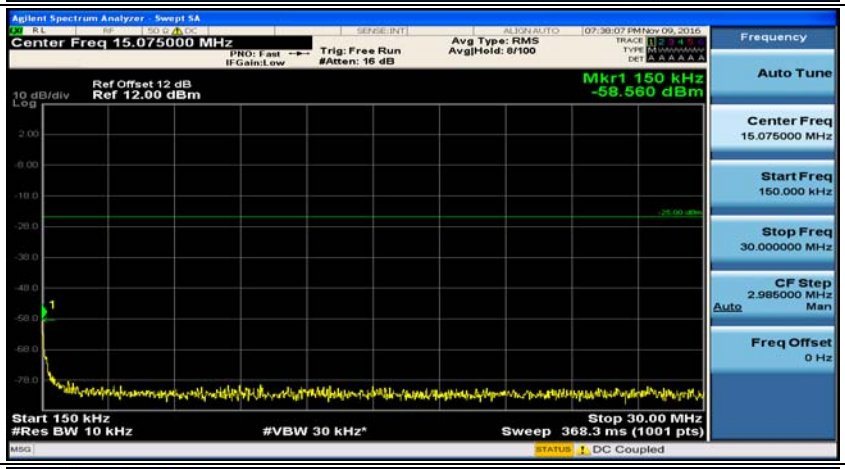

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:41:23 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 13.935 kHz
-53.232 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

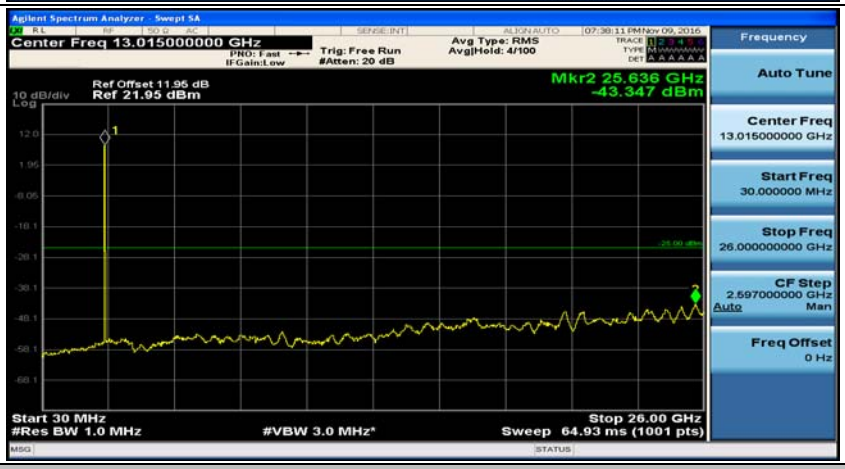

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:41:32 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.001 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:41:35 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.688 GHz
-43.853 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

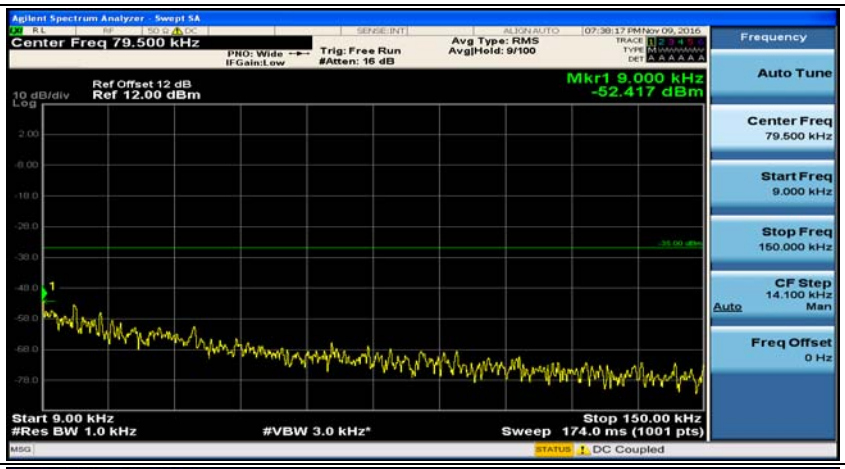
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

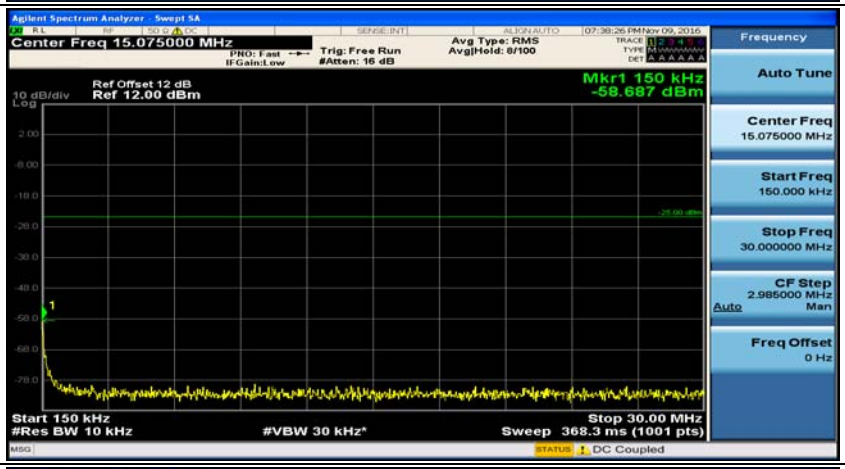


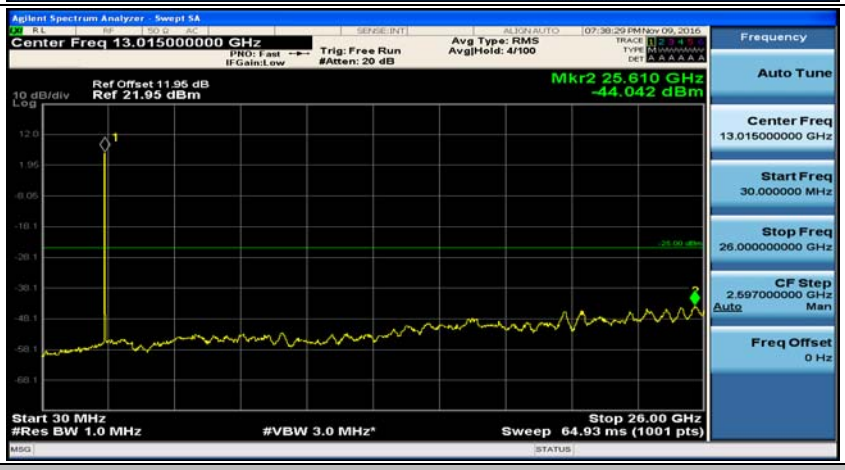




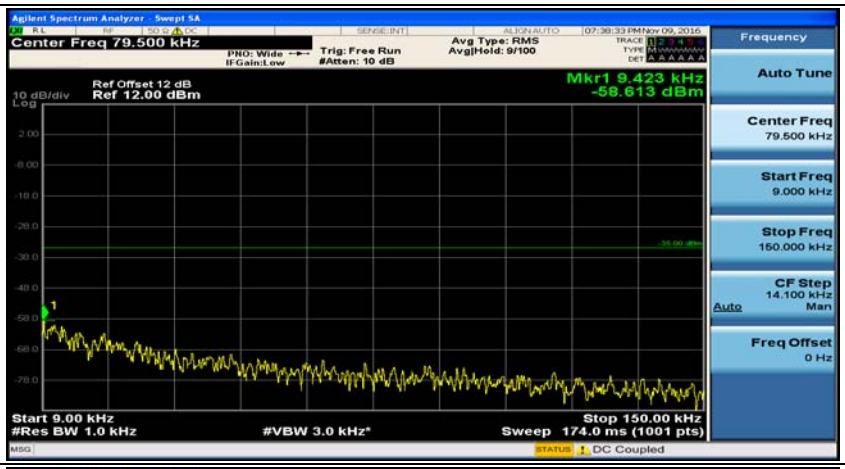
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

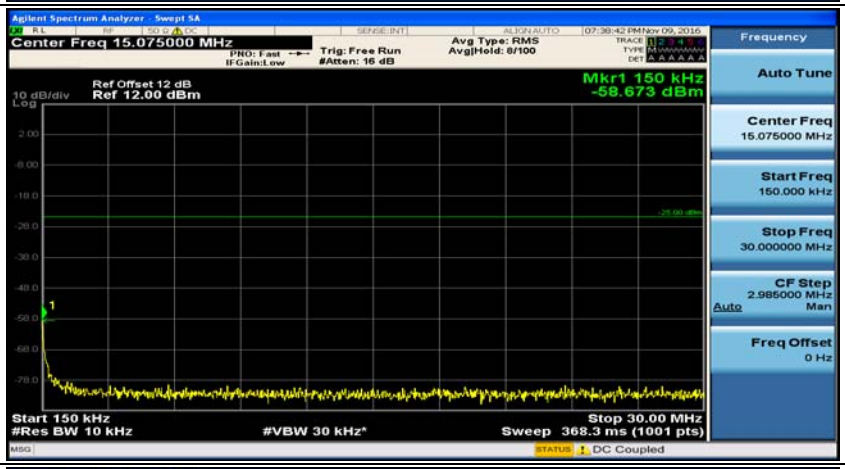


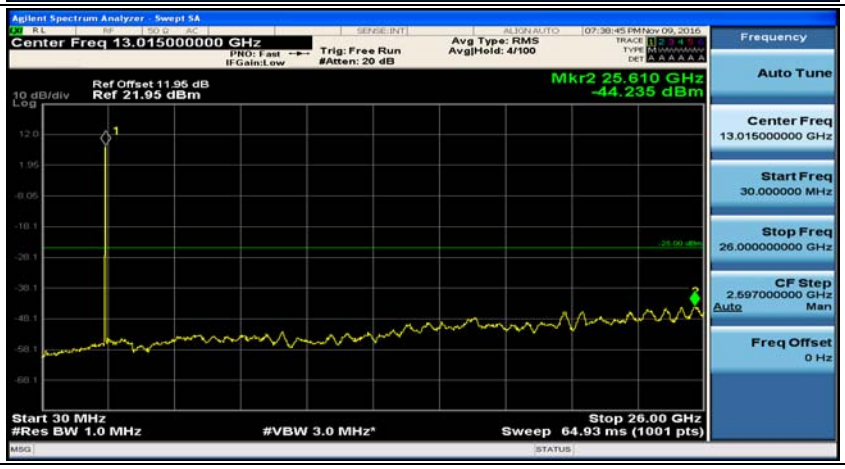




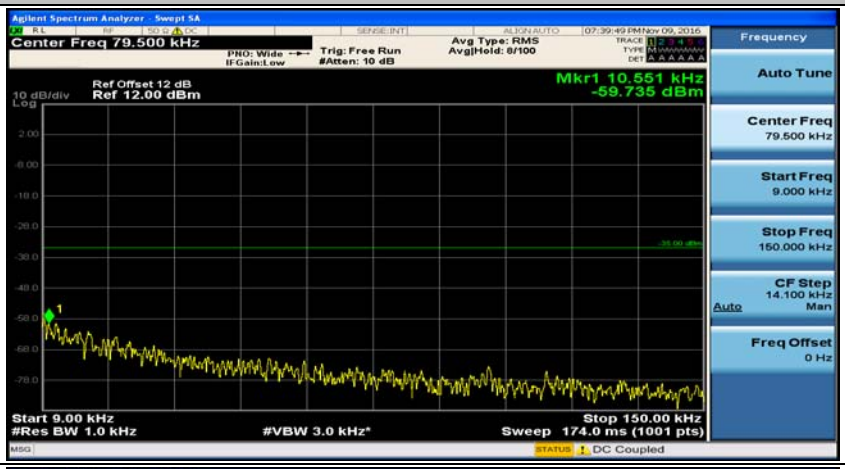
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74

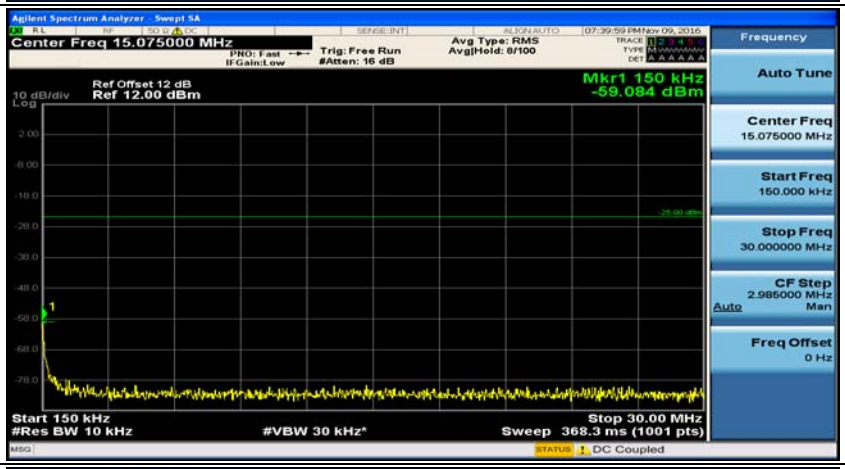

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.423 kHz
-58.613 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

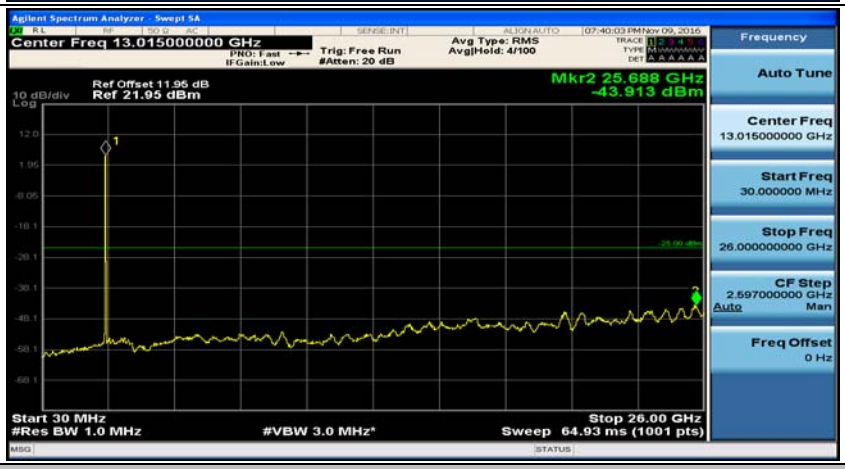

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.673 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.610 GHz
-44.235 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

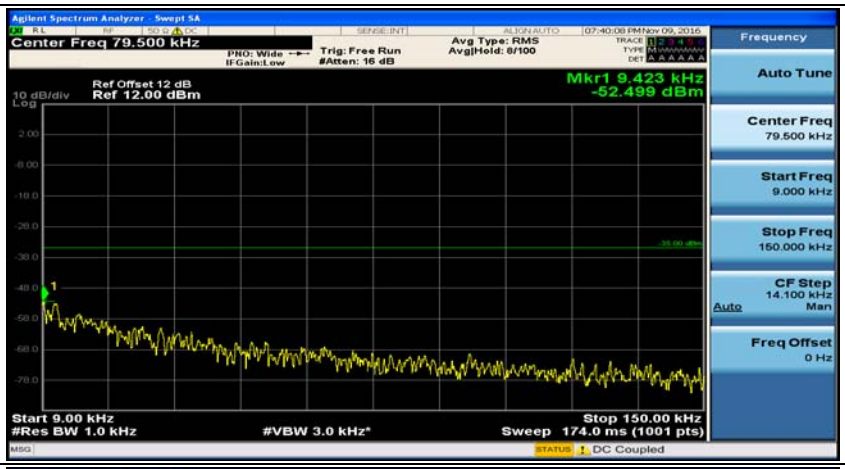
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

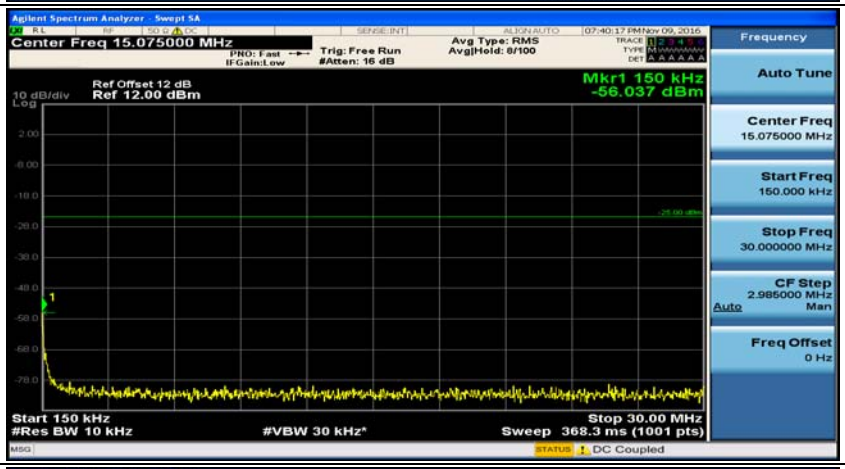


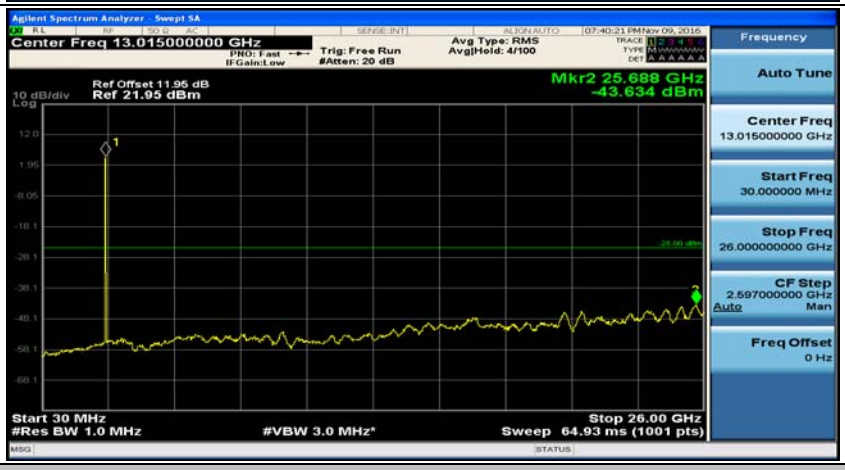




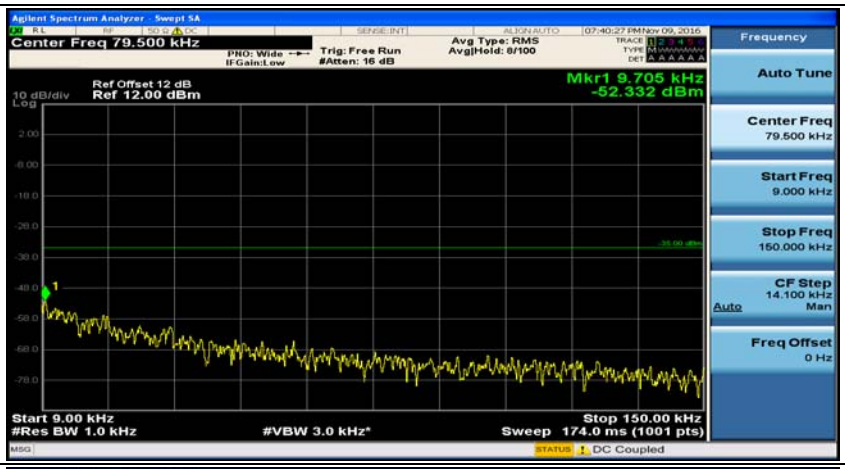
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

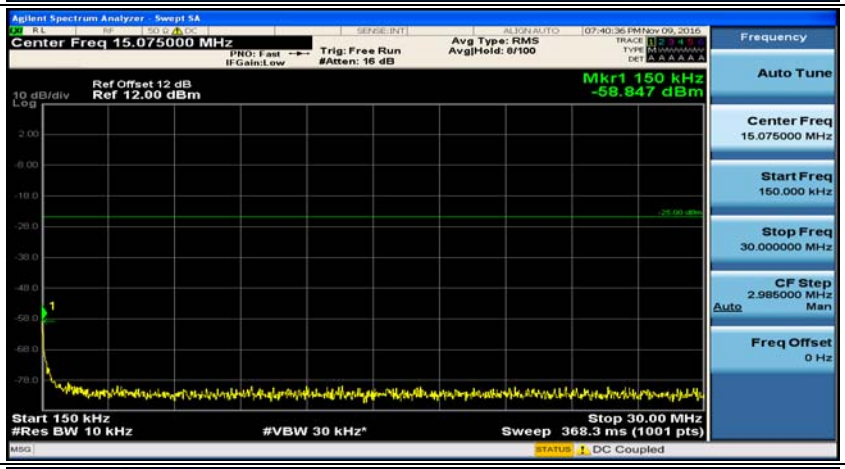


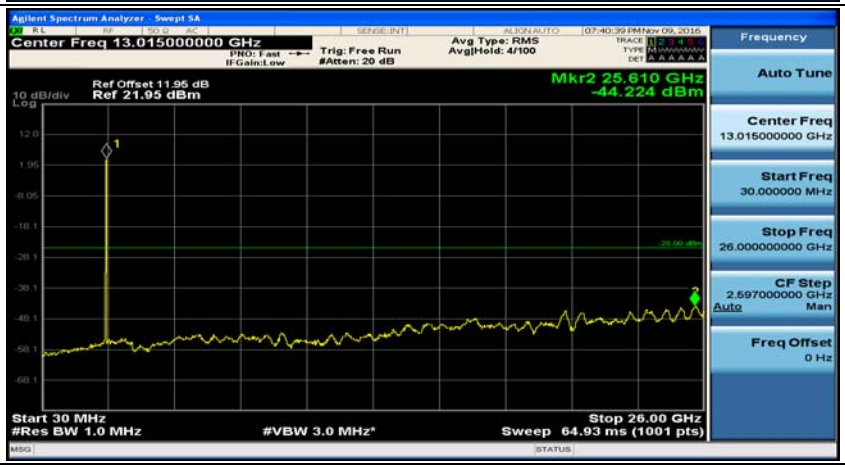




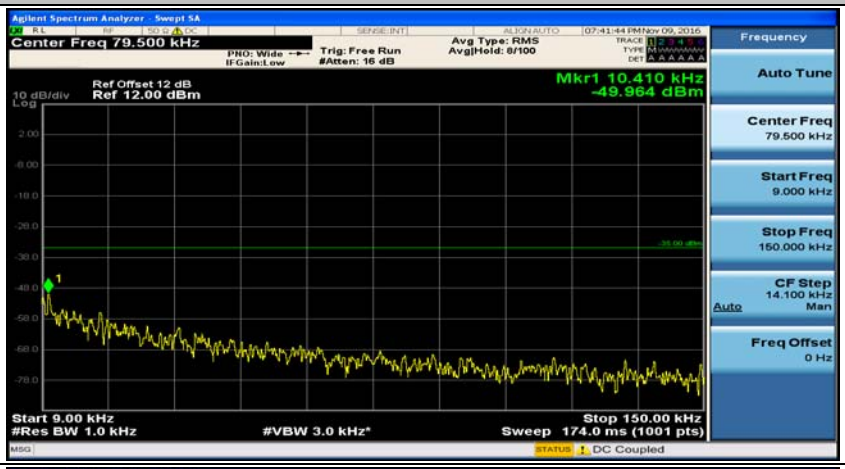
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

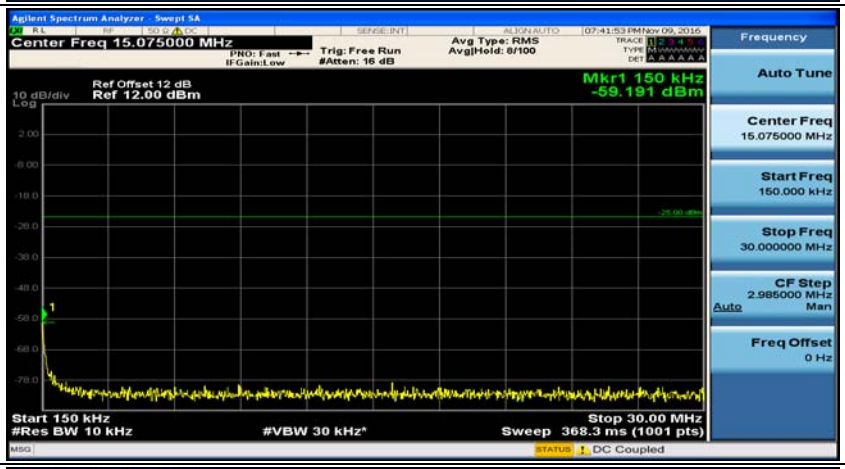

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:40:27 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.705 kHz
-52.332 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

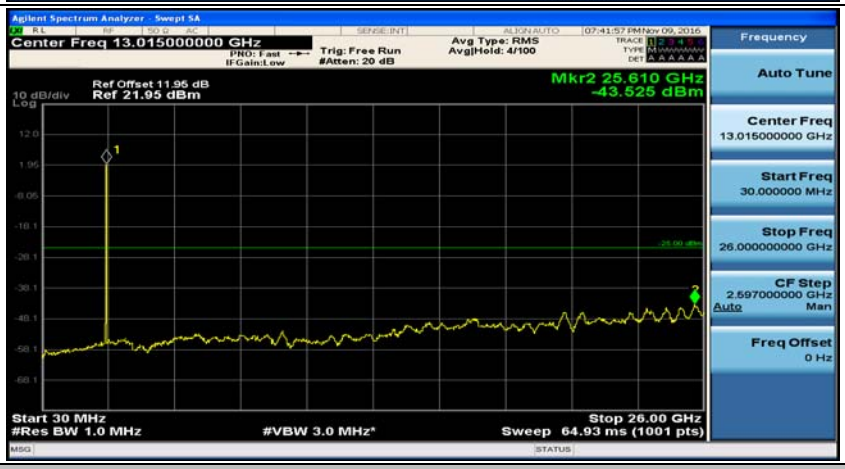

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:40:36 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.847 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:40:39 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.610 GHz
-44.224 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

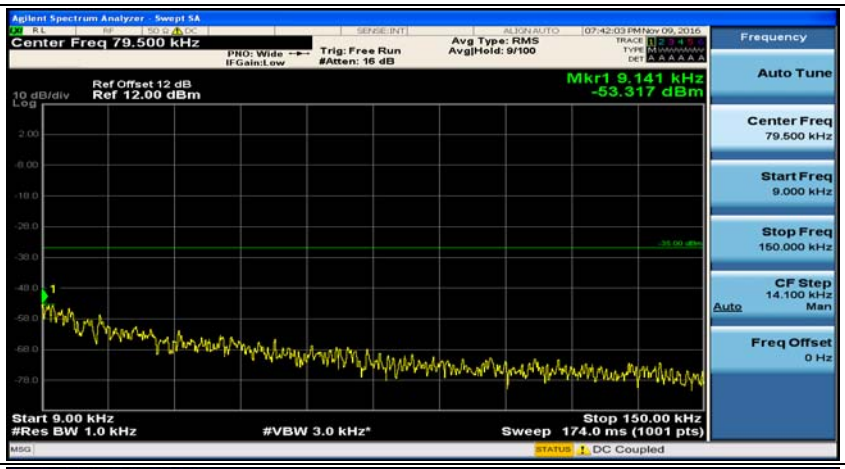
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

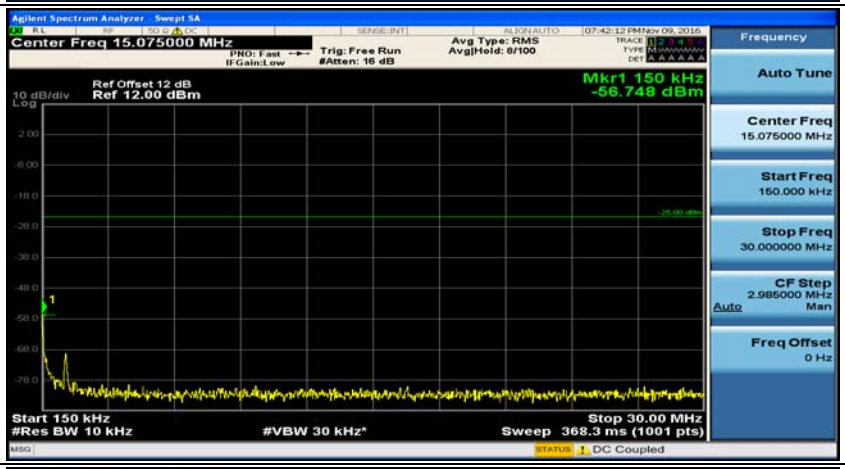


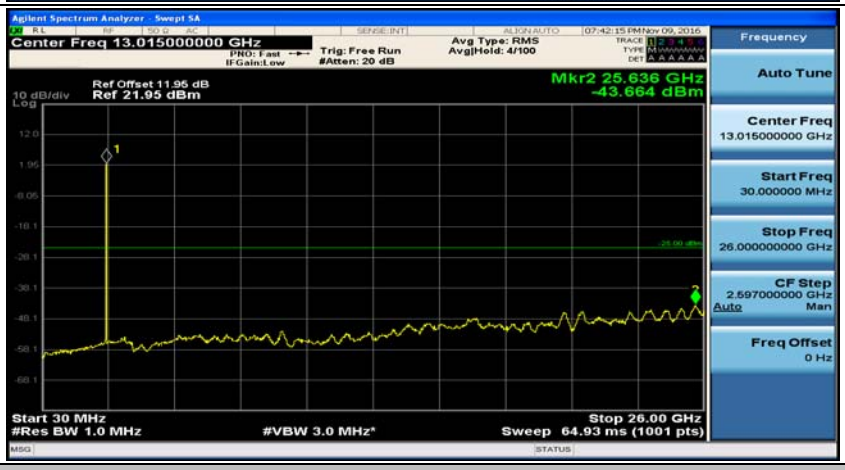




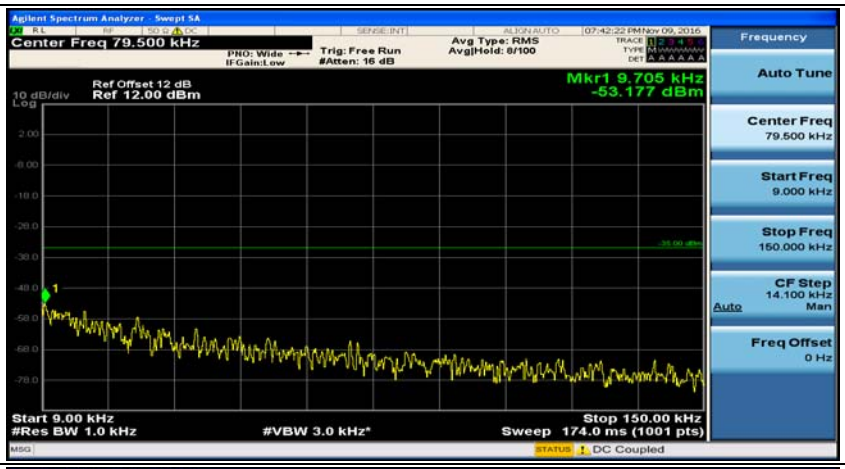
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

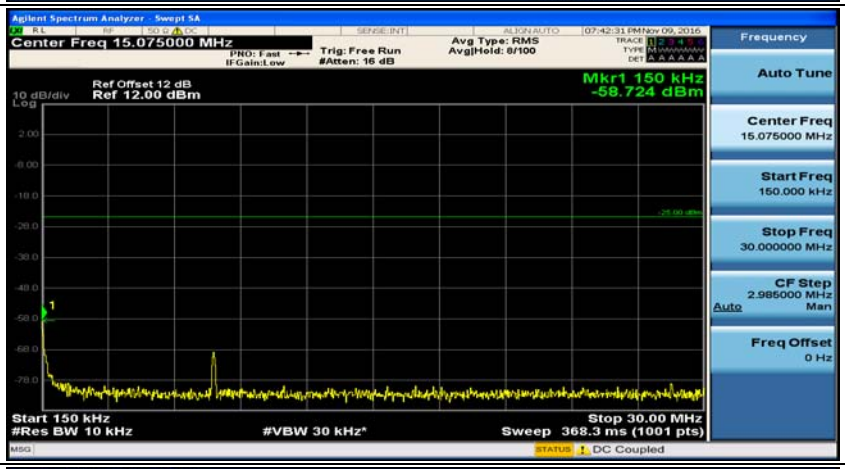


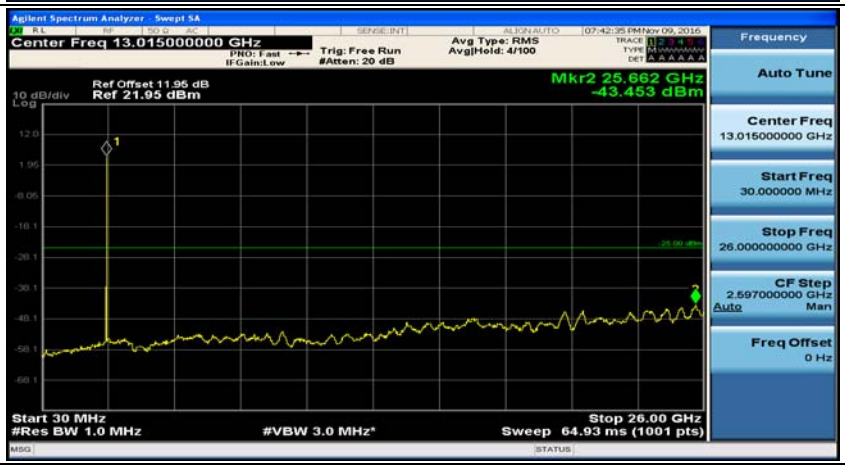




(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

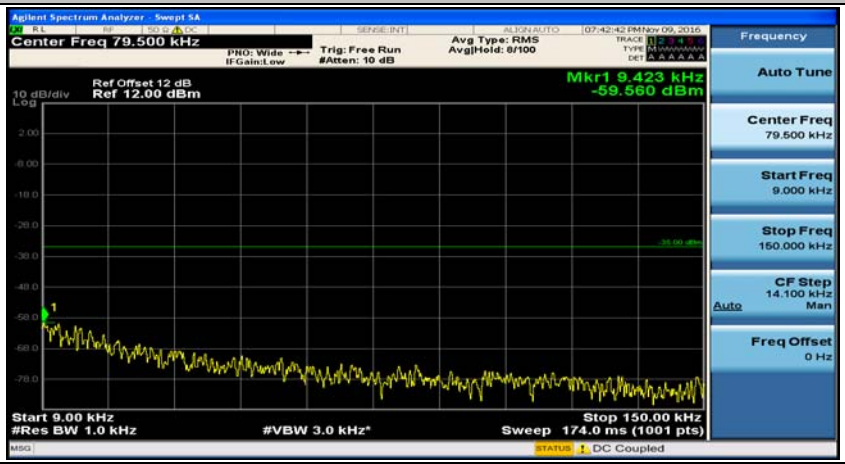

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:42:22 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.705 kHz
-53.177 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

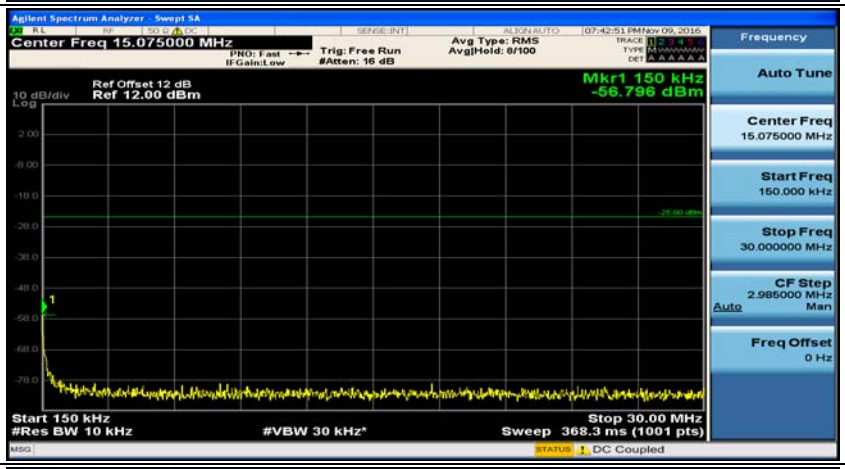

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:42:31 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.724 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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

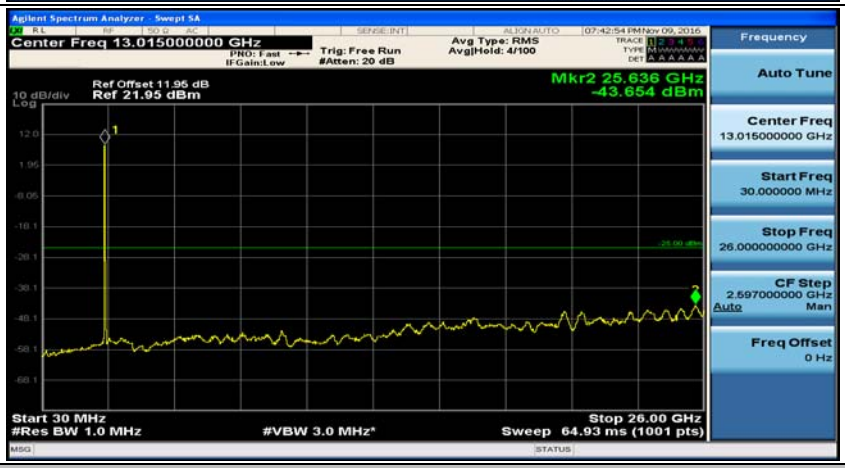

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:42:35 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.662 GHz
-43.453 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

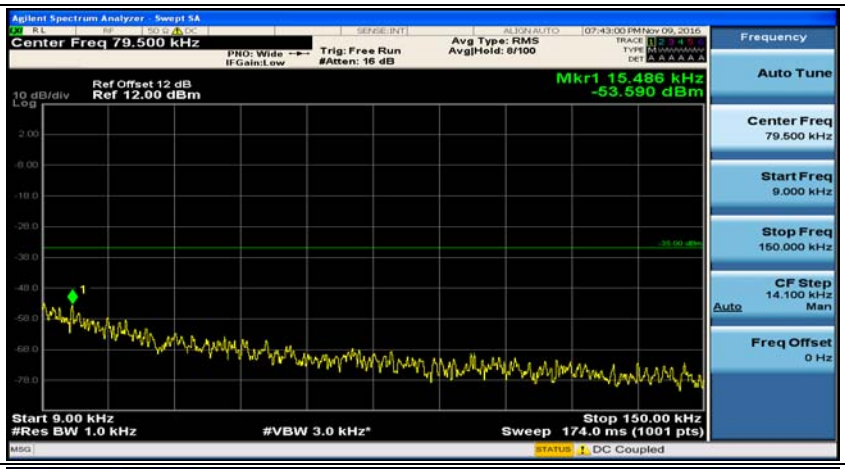
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0

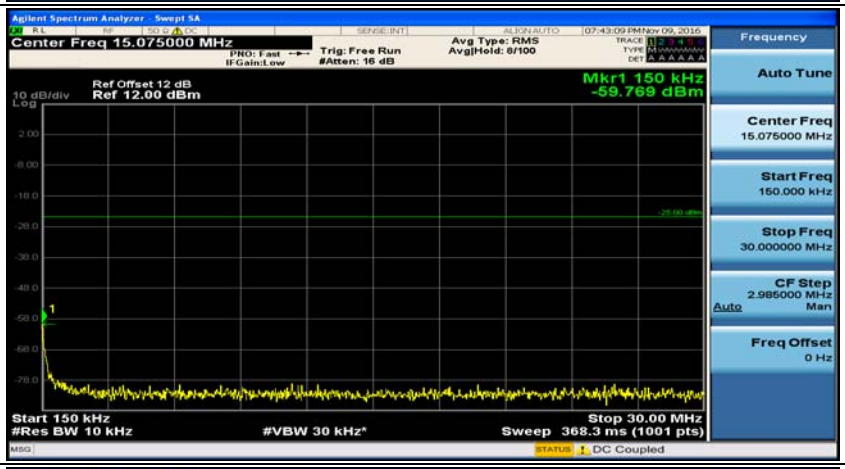


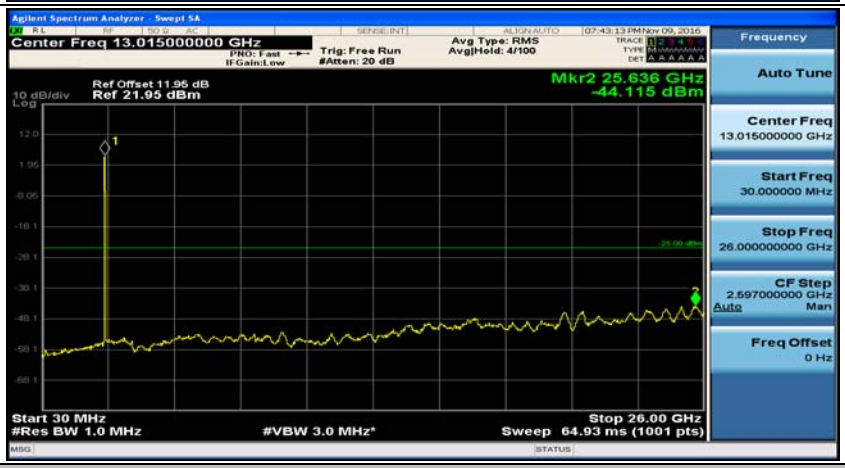




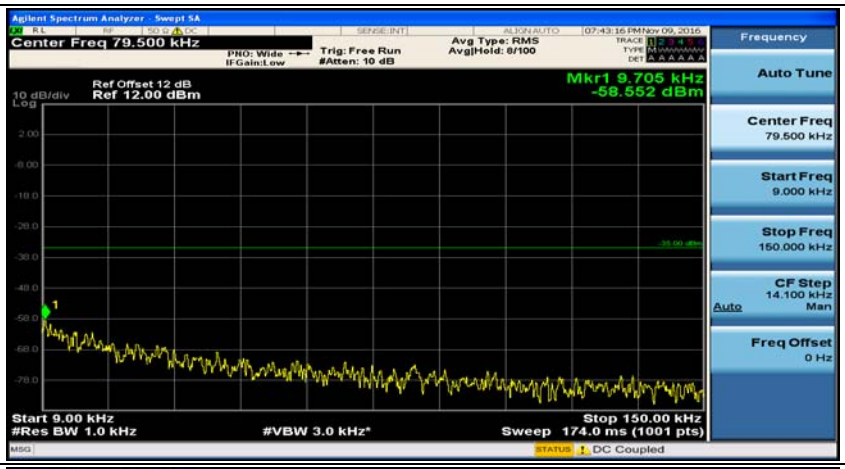
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49

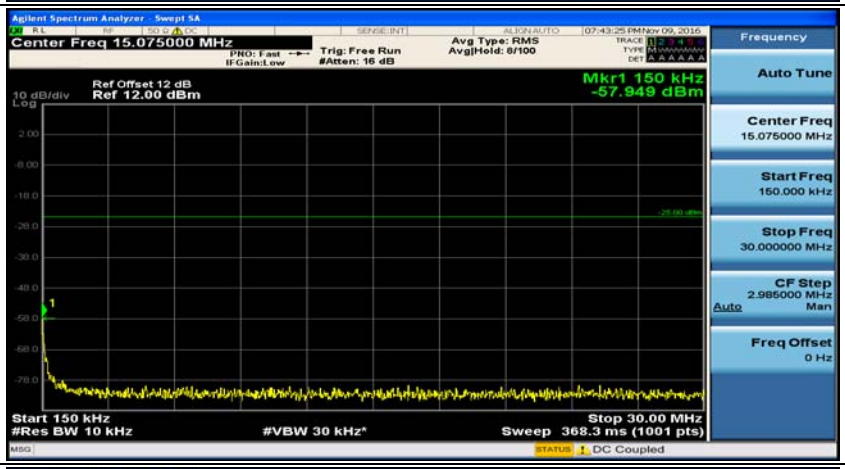


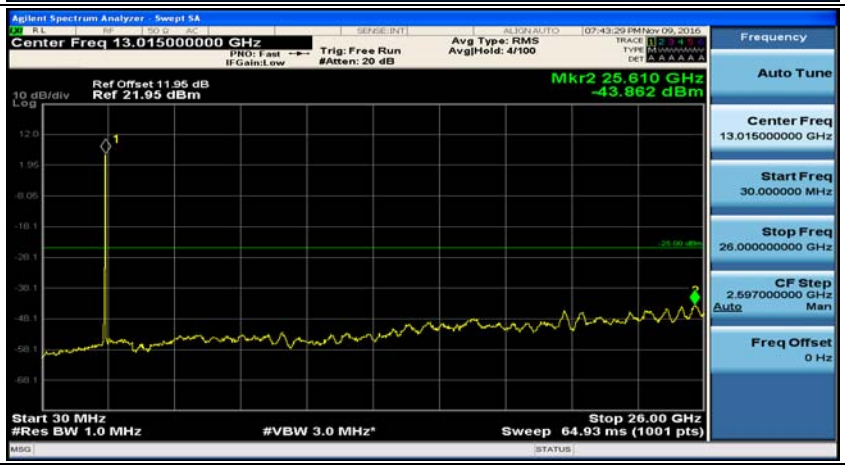




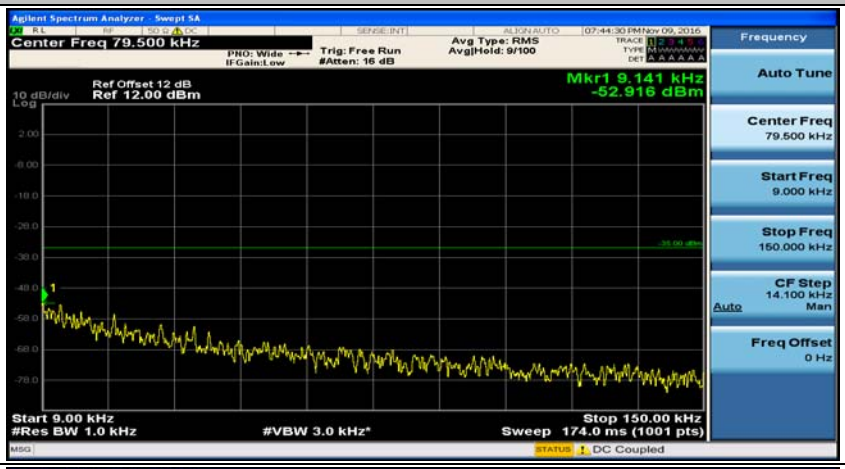
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

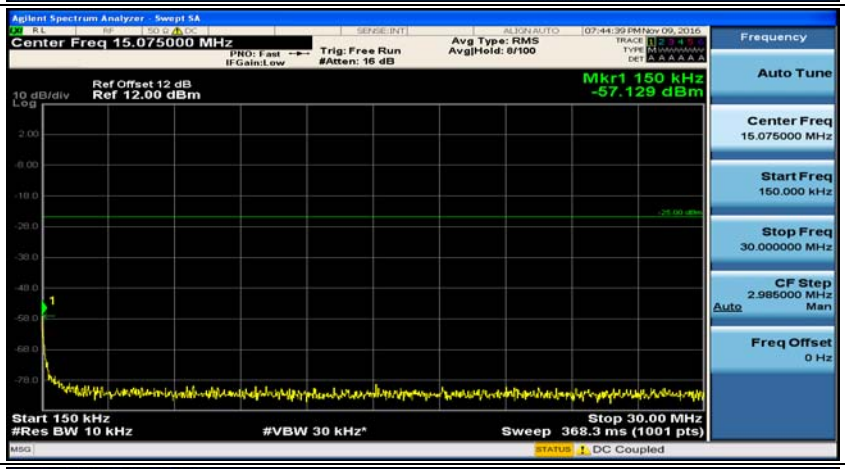

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
07:43:16 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.705 kHz
-58.552 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

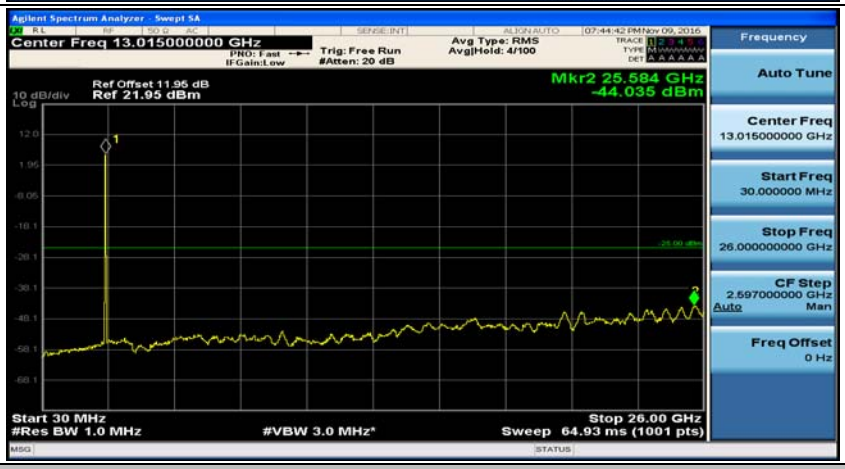

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:43:25 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-57.949 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:43:29 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.610 GHz
-43.862 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

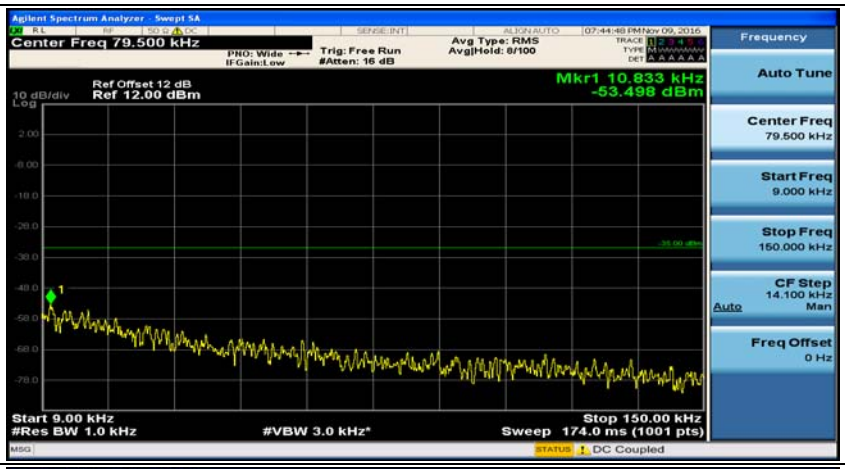
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

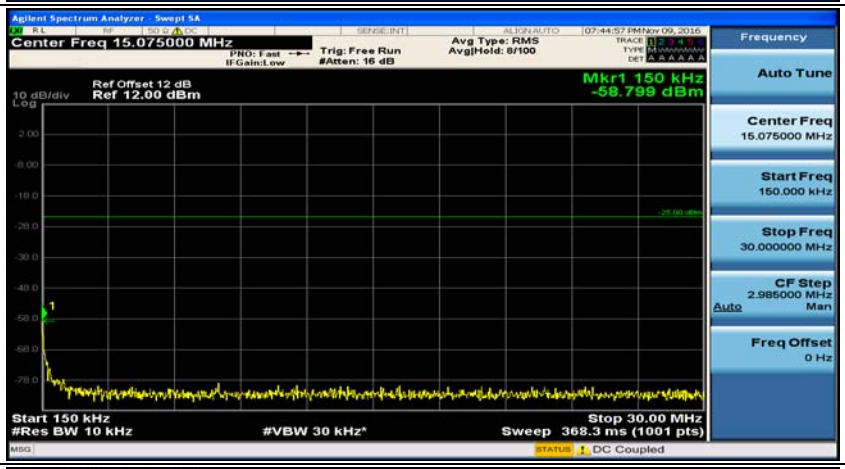


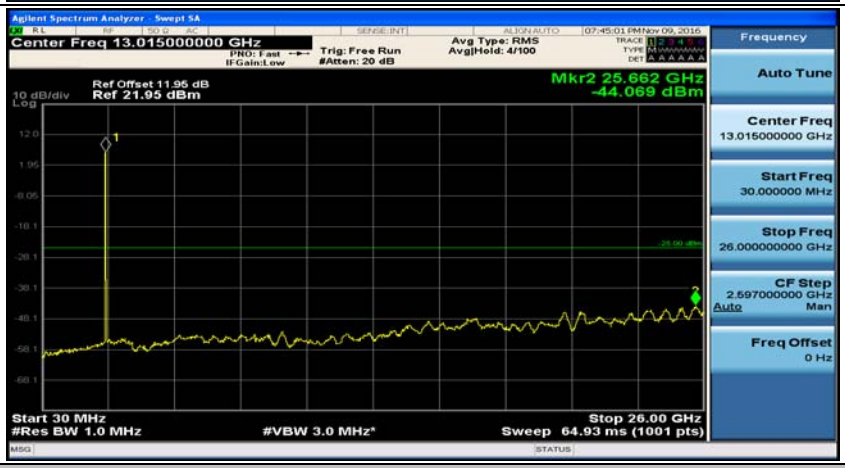




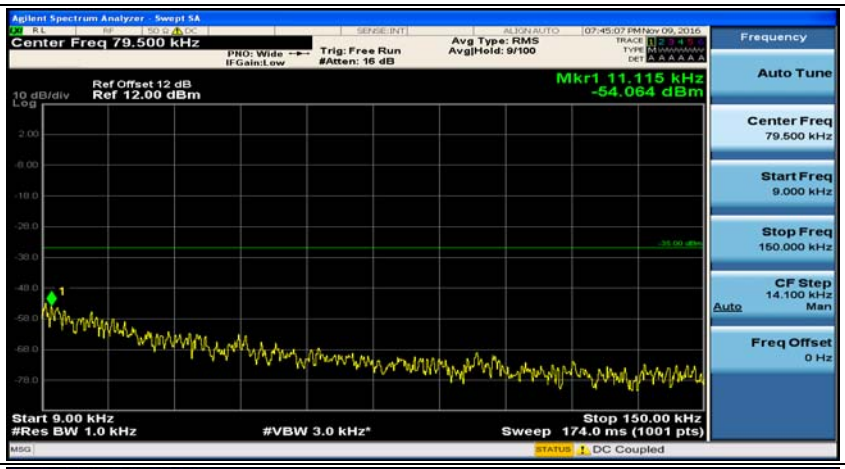
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

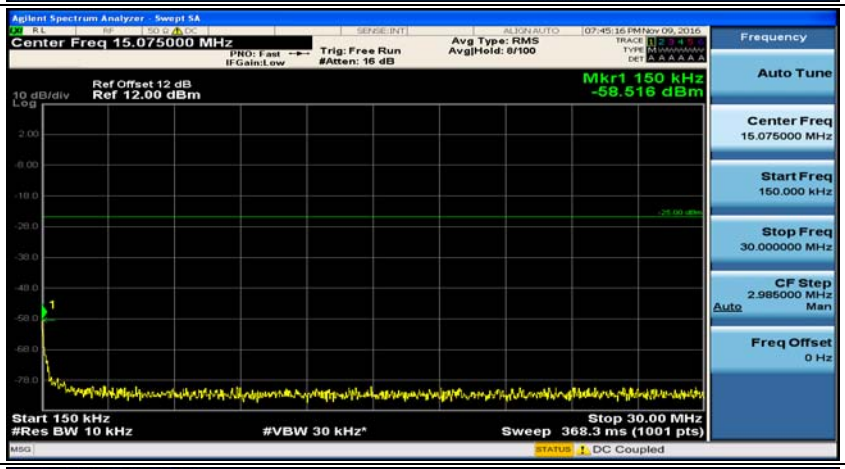


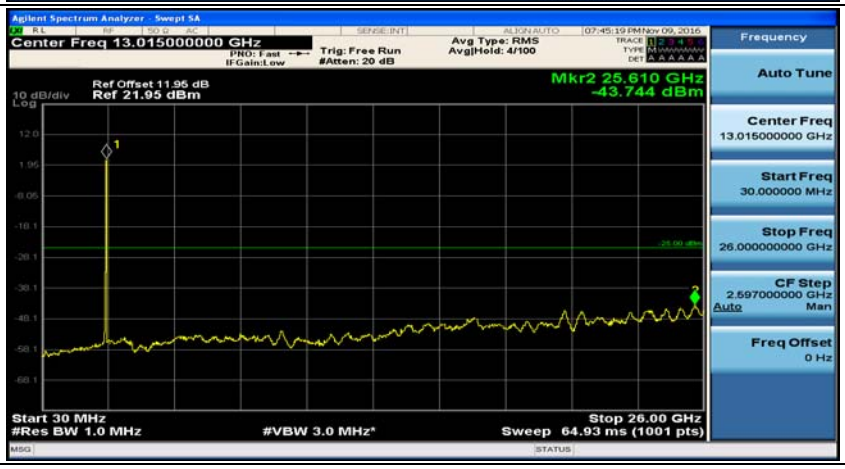




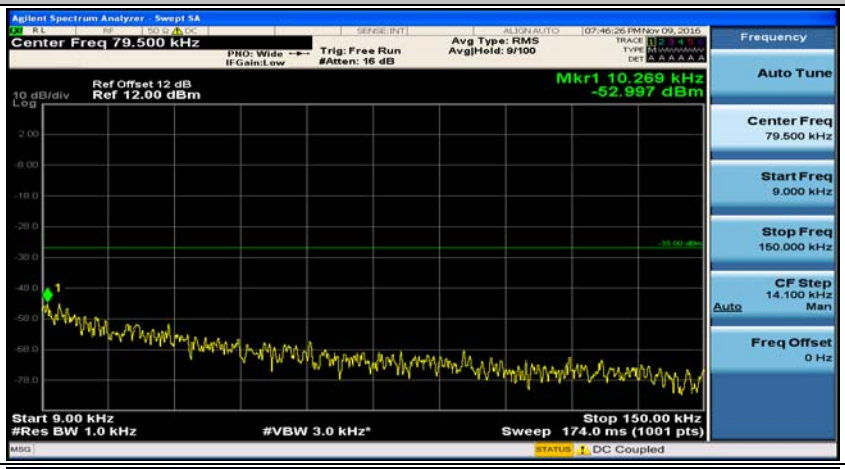
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

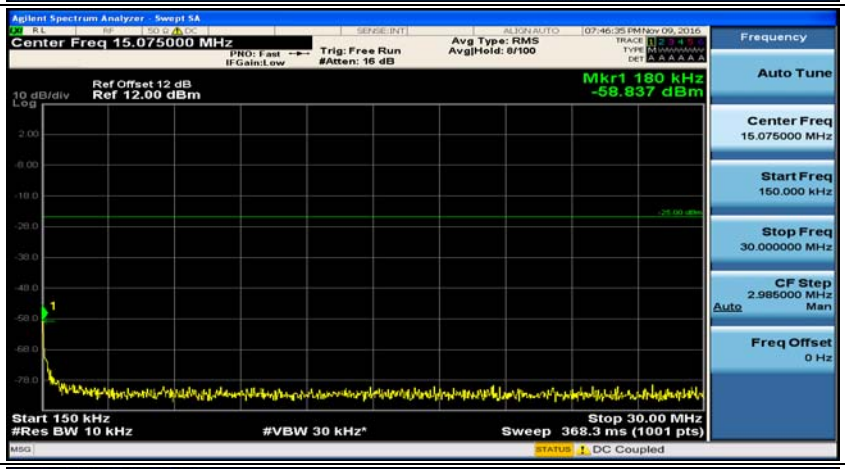

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
07:45:07 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 11.115 kHz
-54.064 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

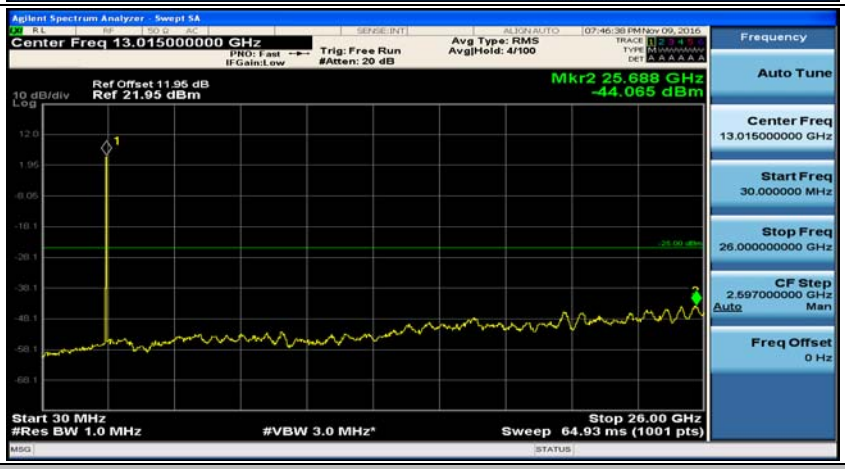

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
07:45:16 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.516 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:45:19 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.610 GHz
-43.744 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

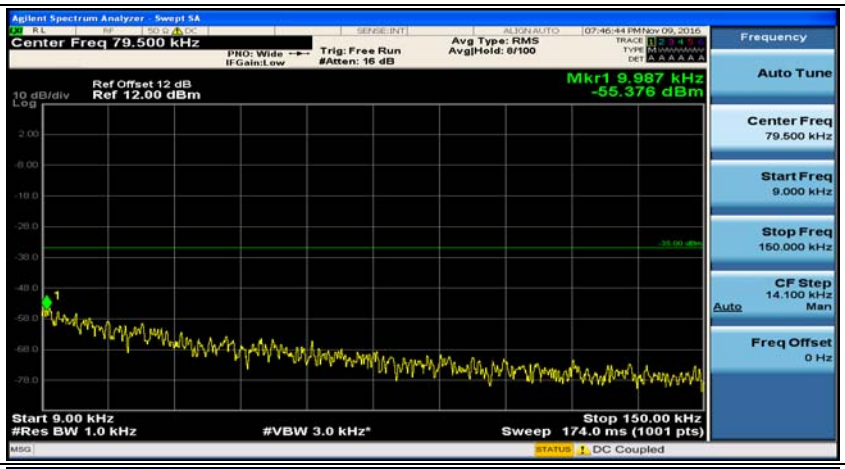
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

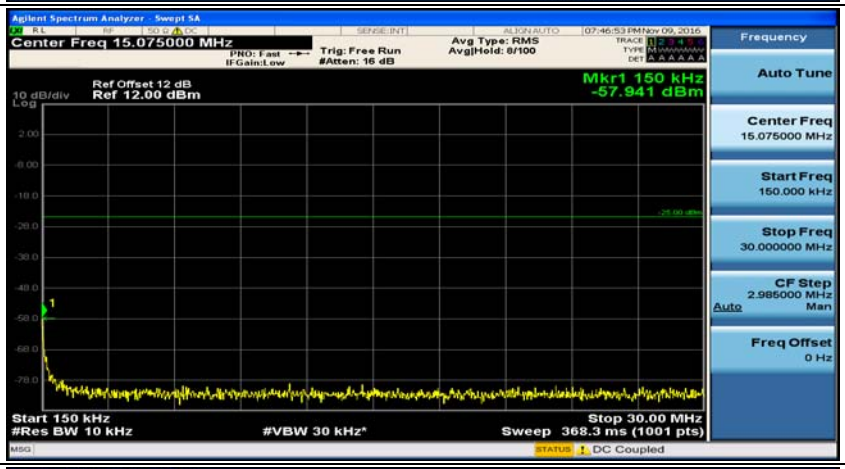


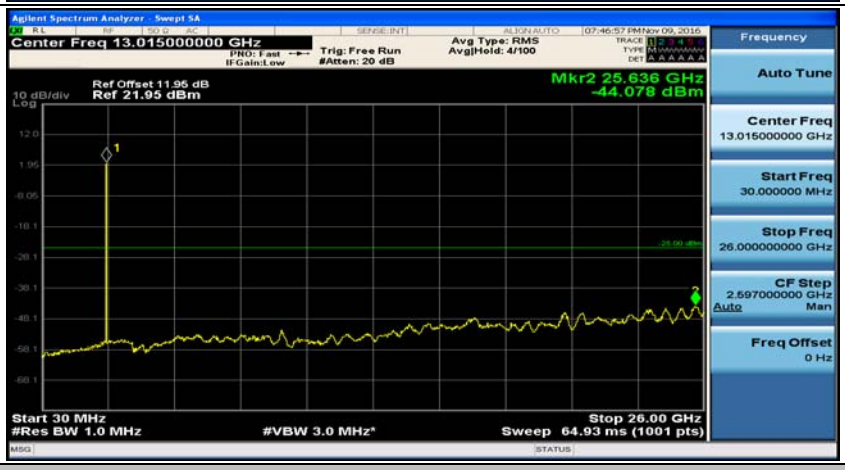




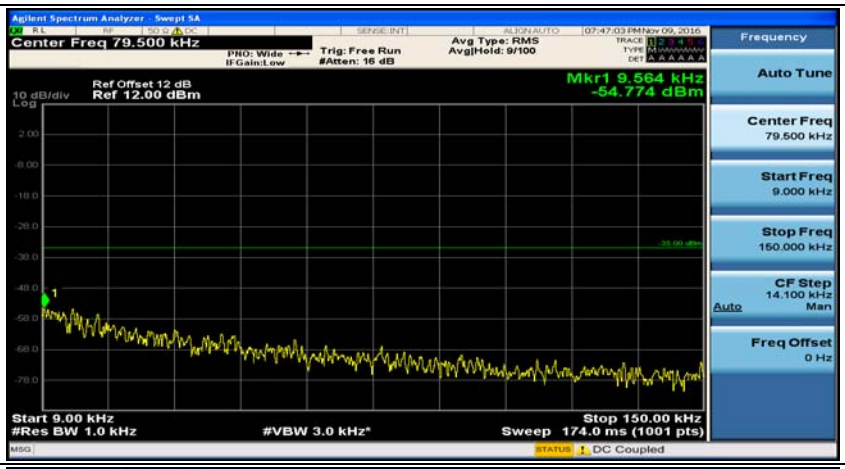
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

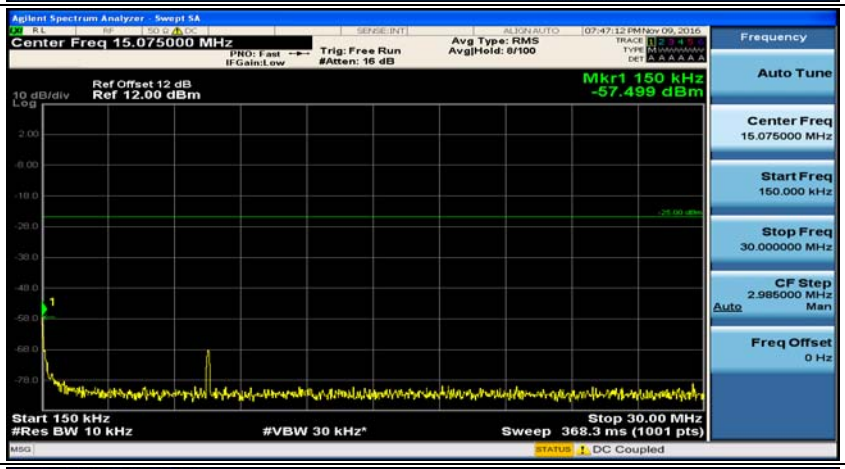


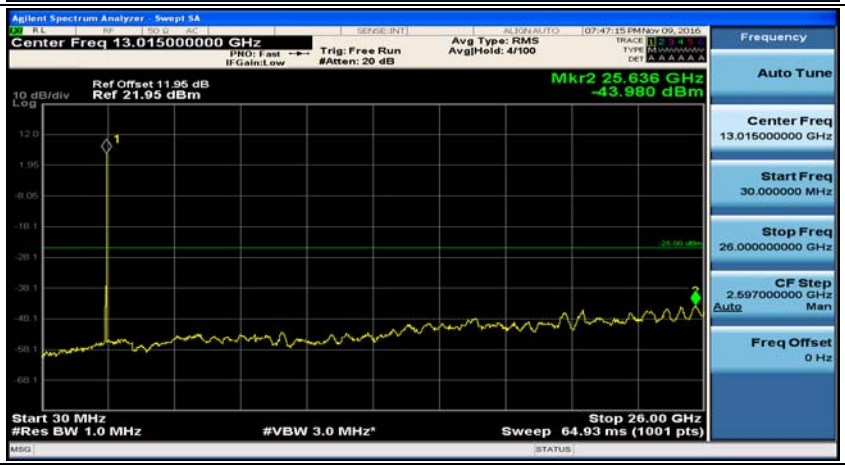




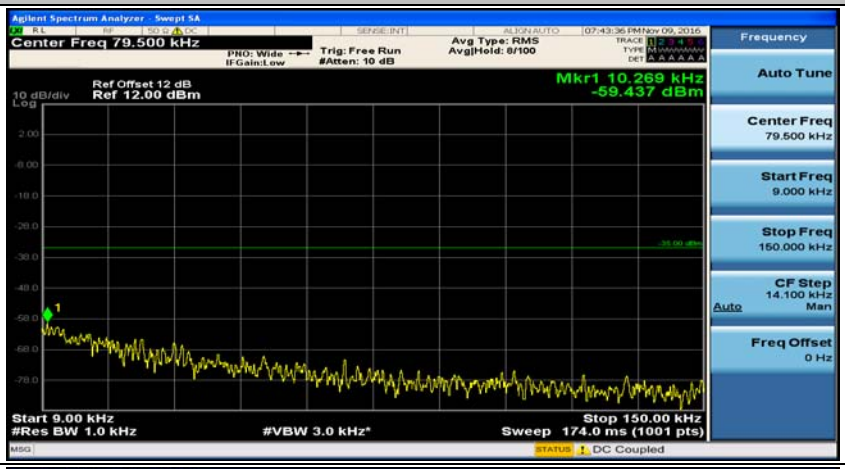
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

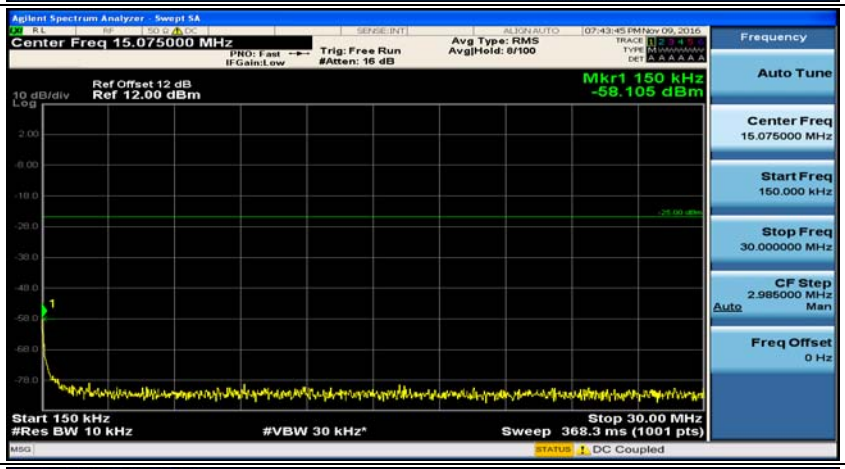

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
07:47:03 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.564 kHz
-54.774 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

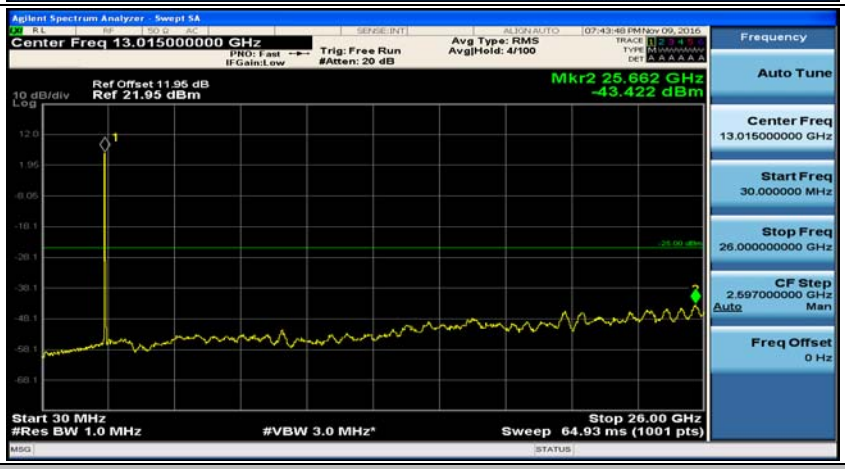

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
07:47:12 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-57.499 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:47:15 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.636 GHz
-43.980 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

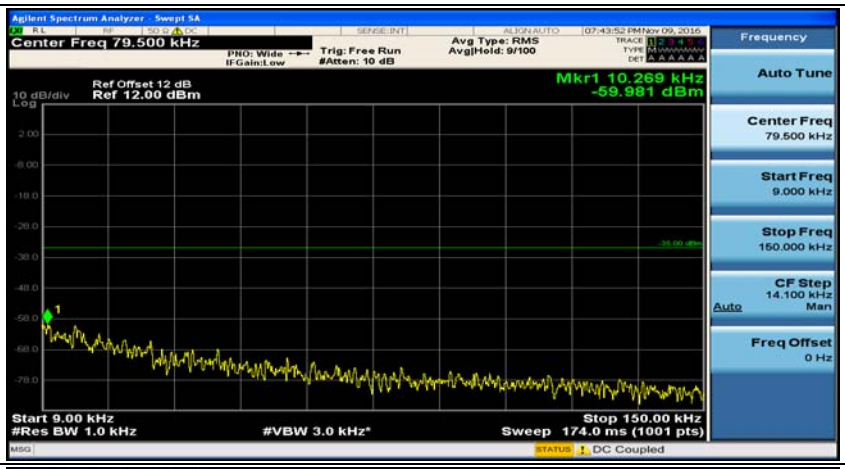
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

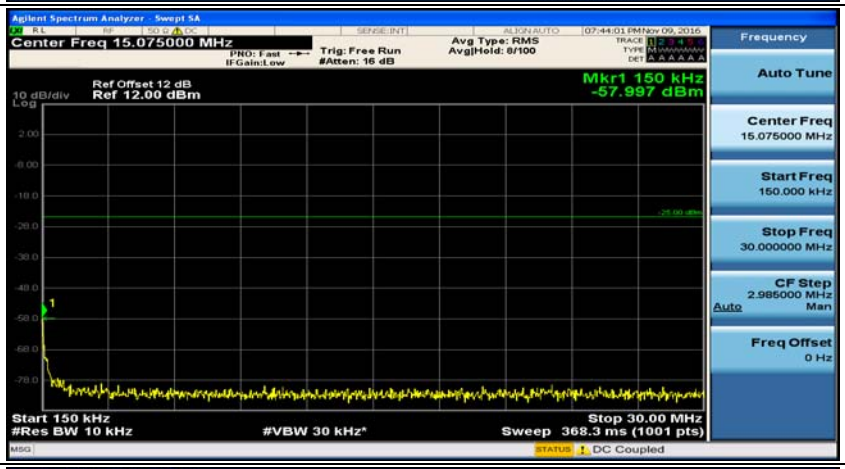


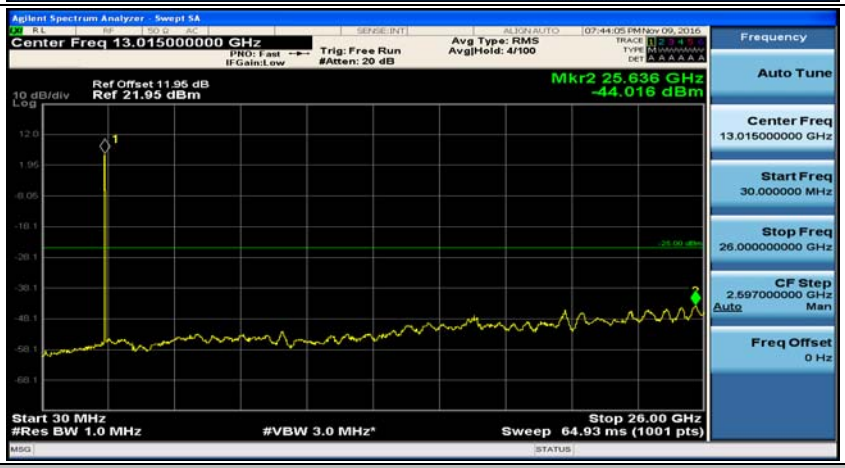




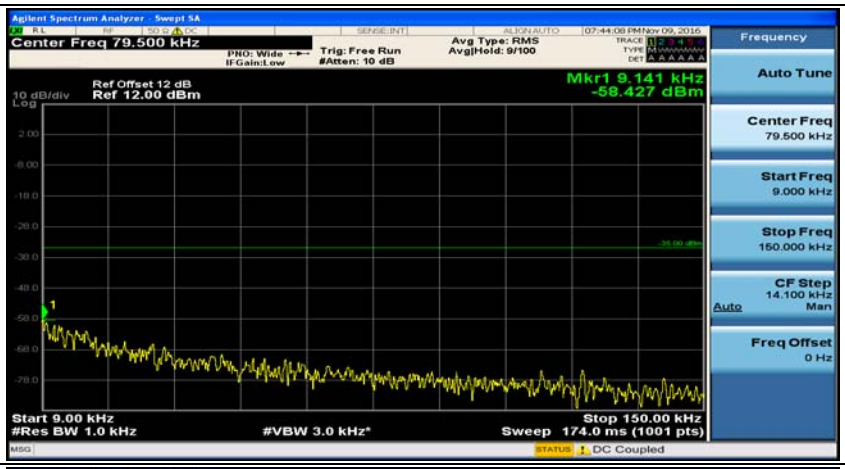
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

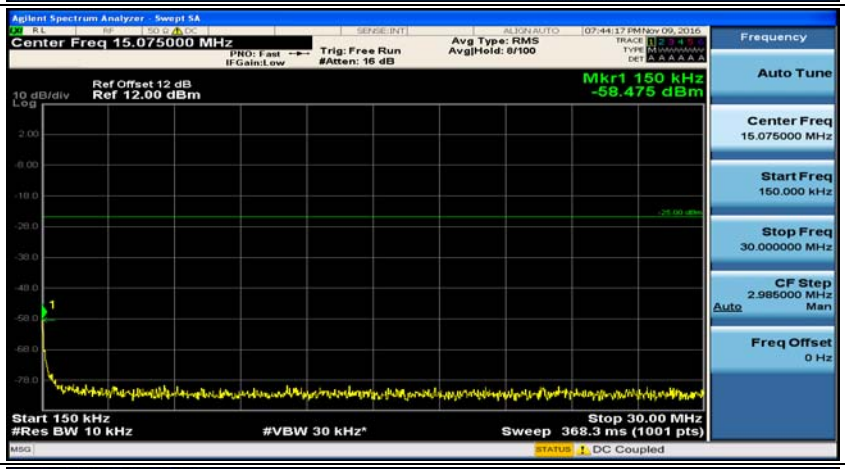


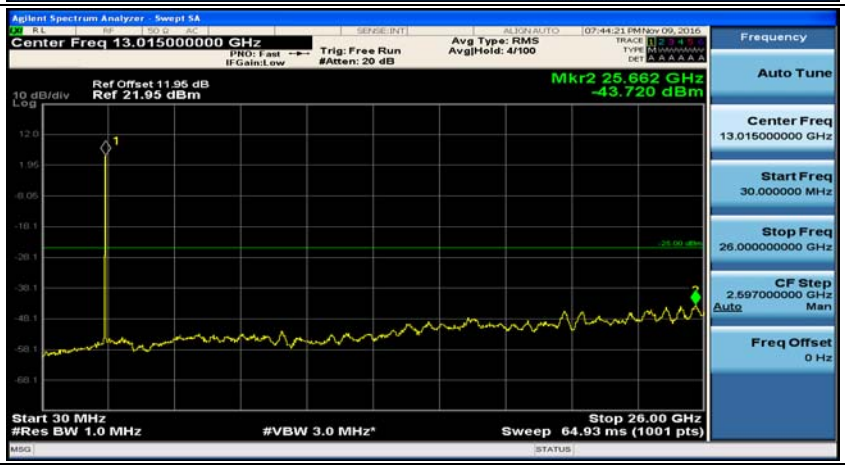




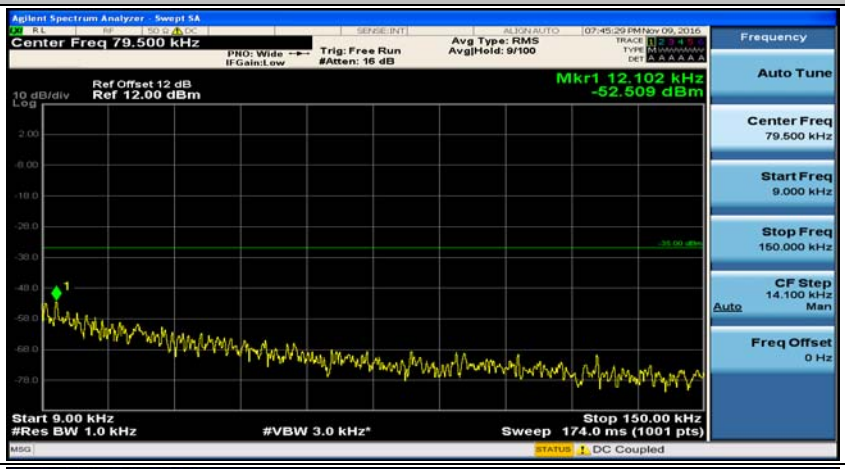
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99

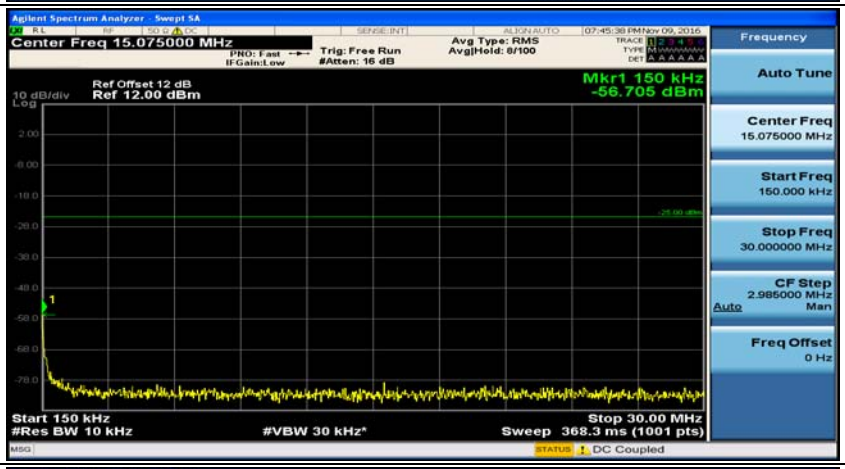

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
07:44:08 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.141 kHz
-58.427 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

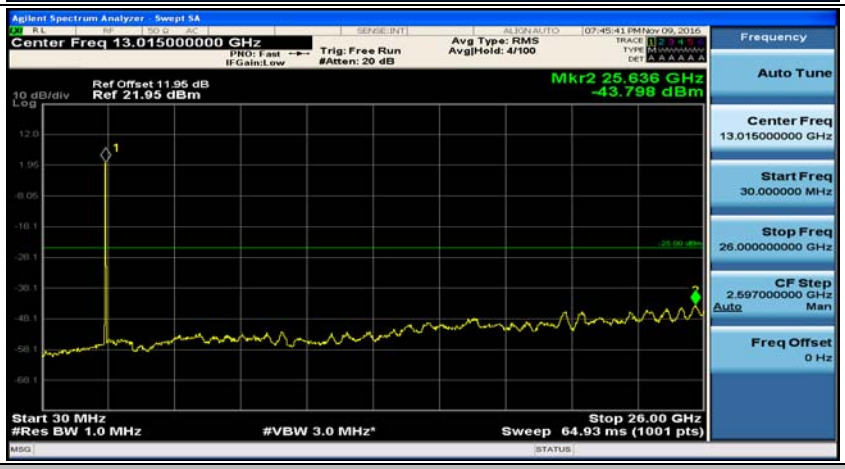

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
07:44:17 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.475 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:44:21 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.662 GHz
-43.720 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

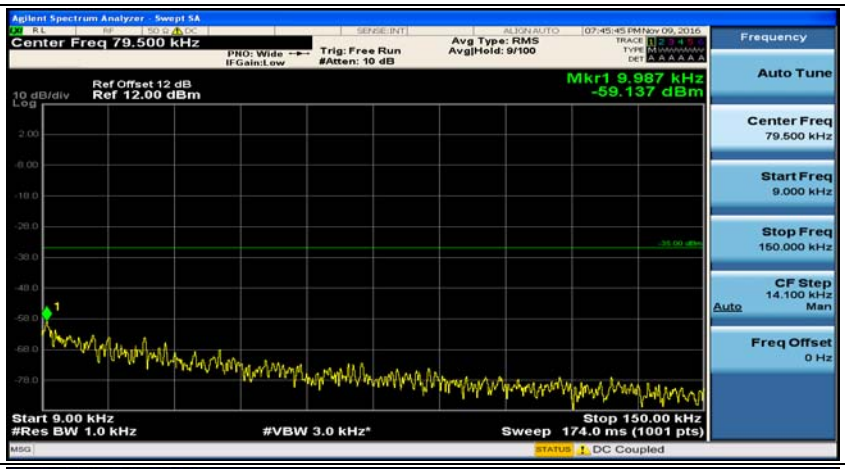
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

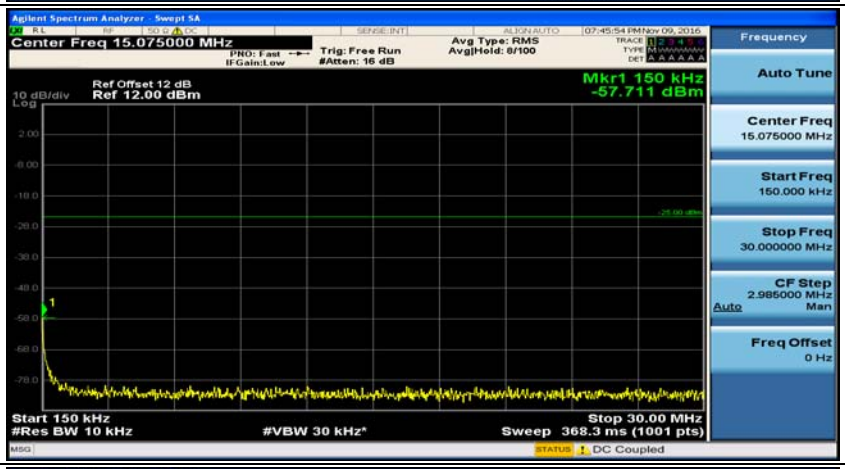


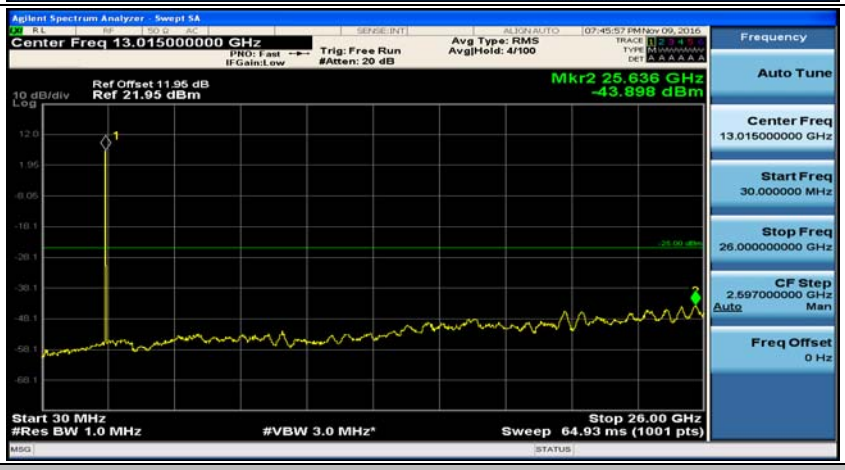




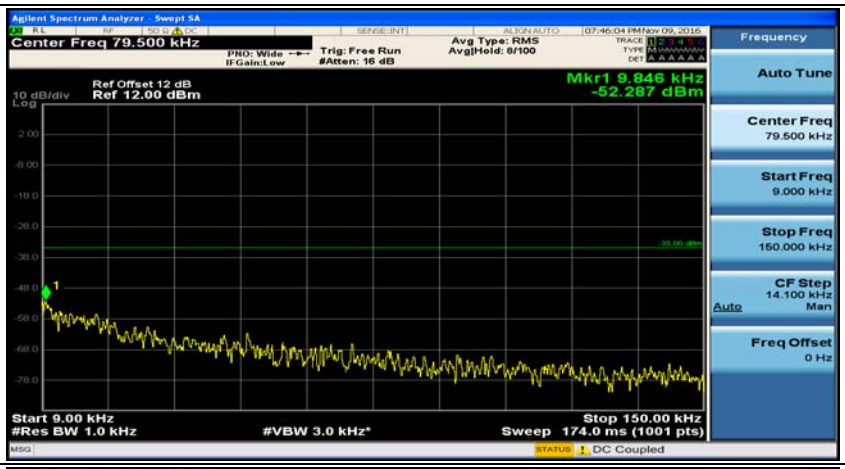
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

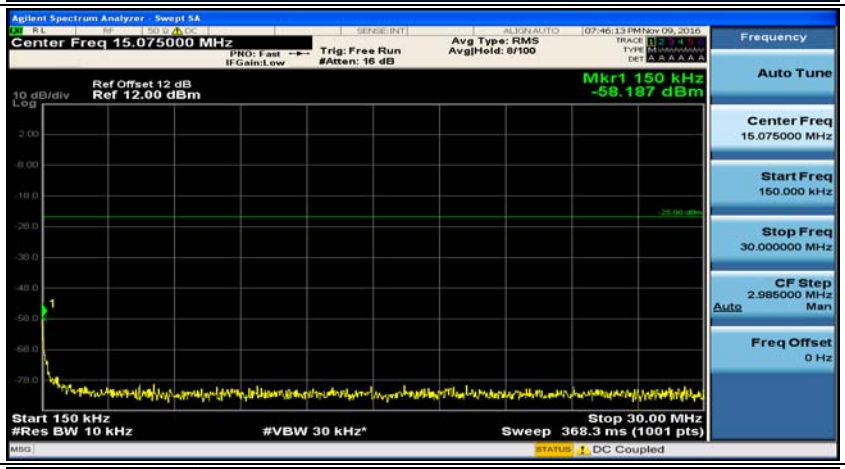


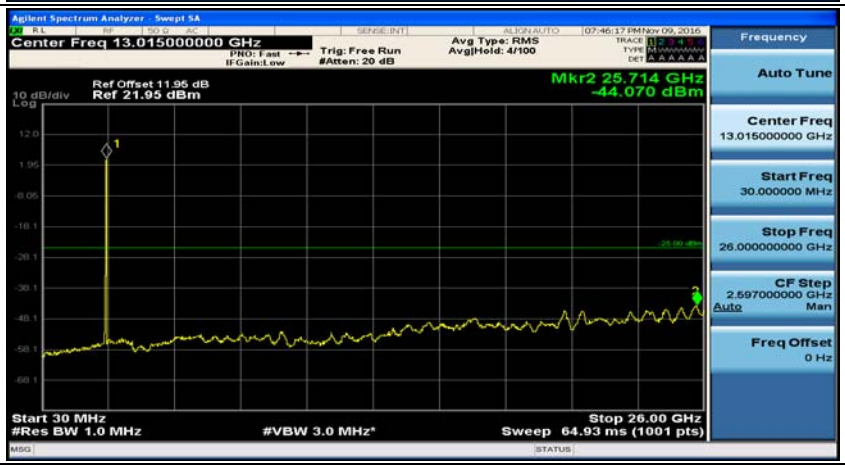




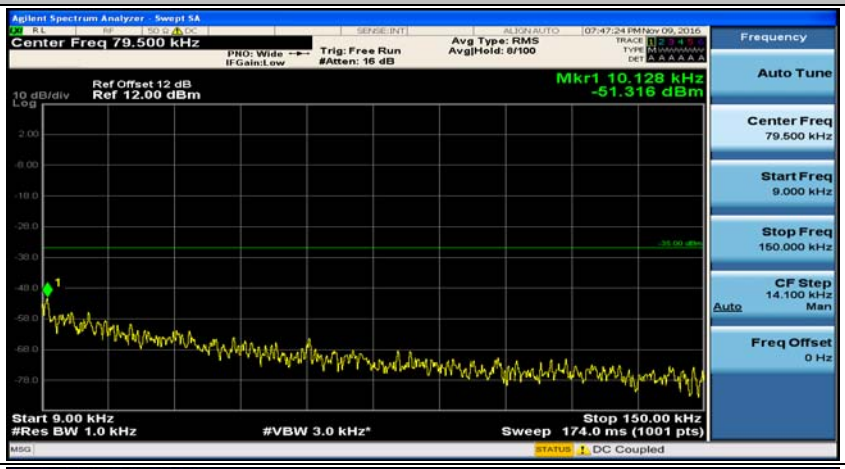
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

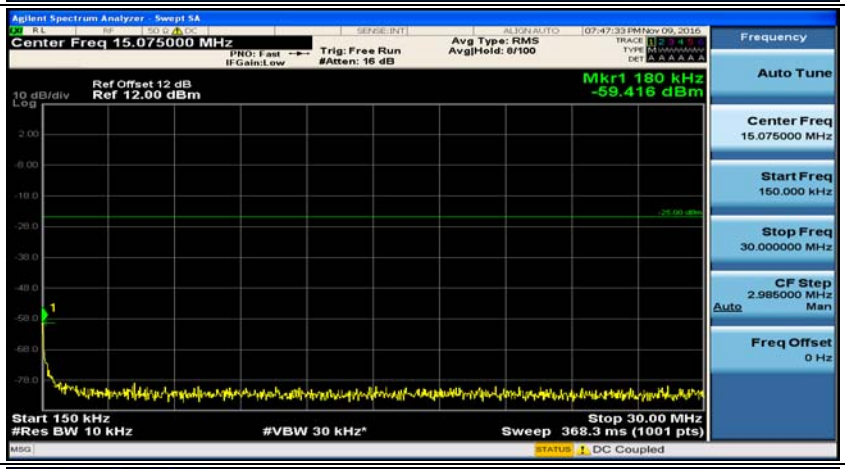

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:46:04 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 9.846 kHz
-52.287 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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

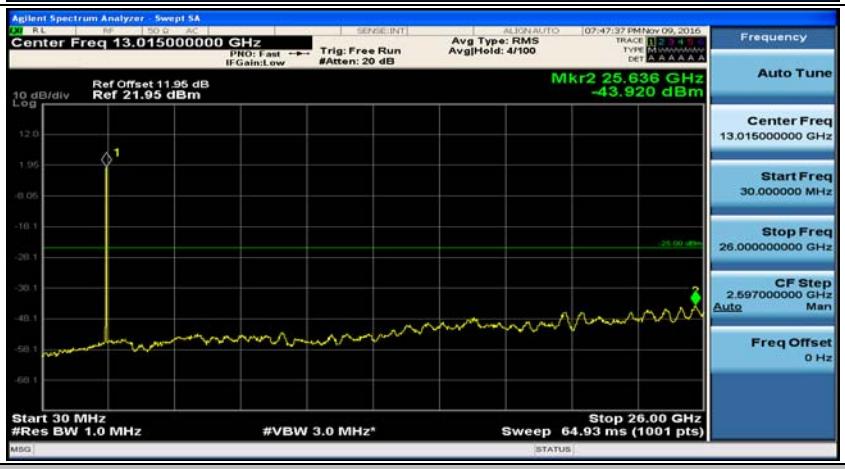

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
07:46:13 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.187 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:46:17 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.714 GHz
-44.070 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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

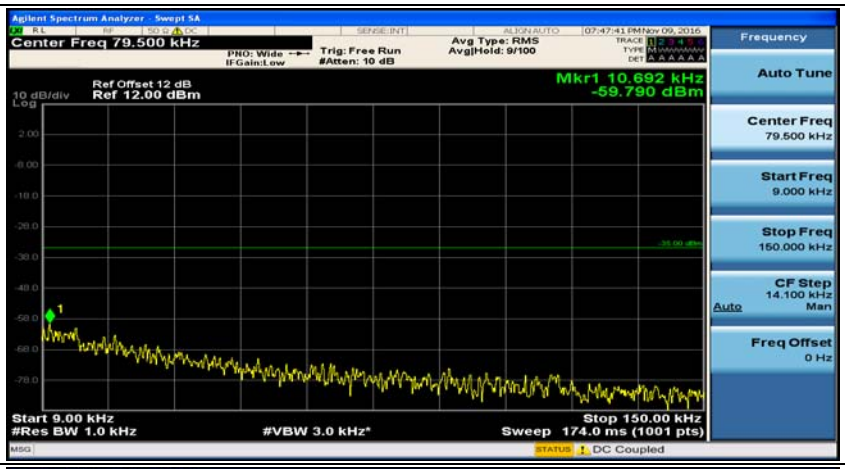
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0

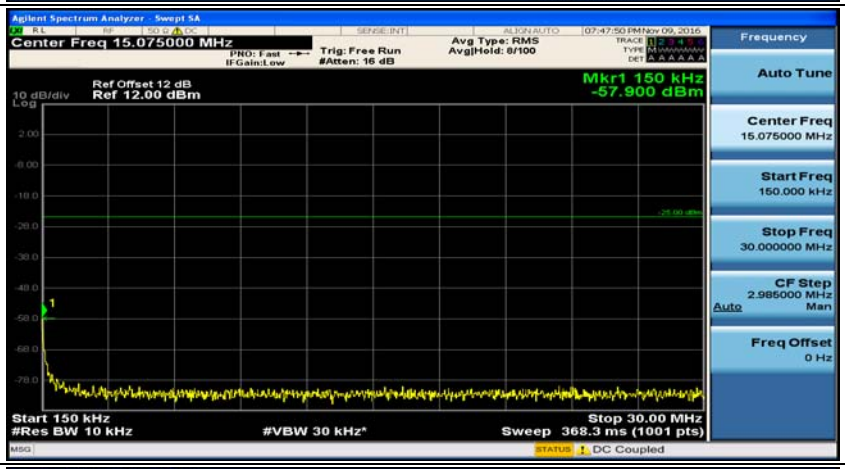


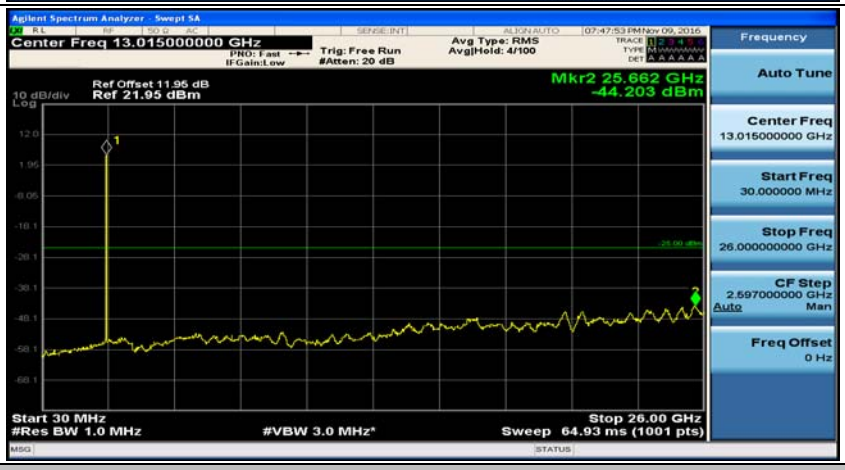




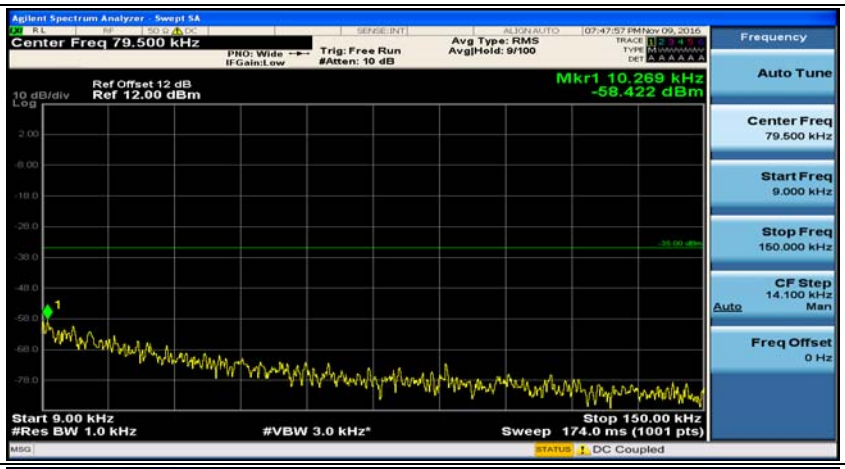
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49

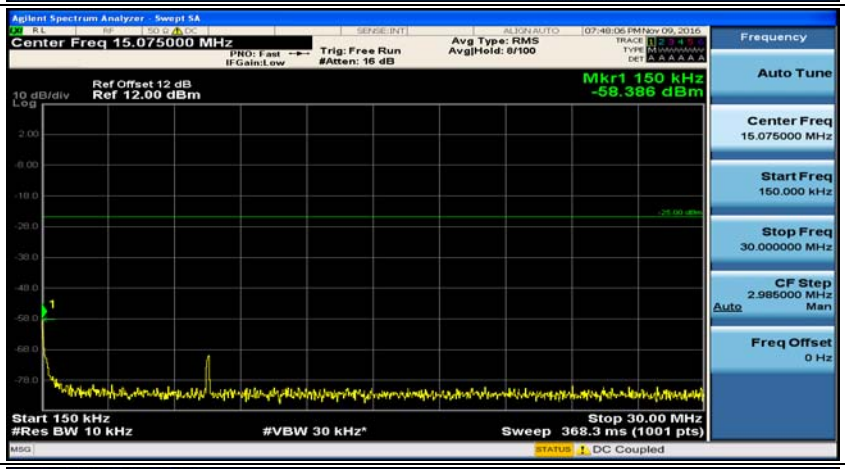


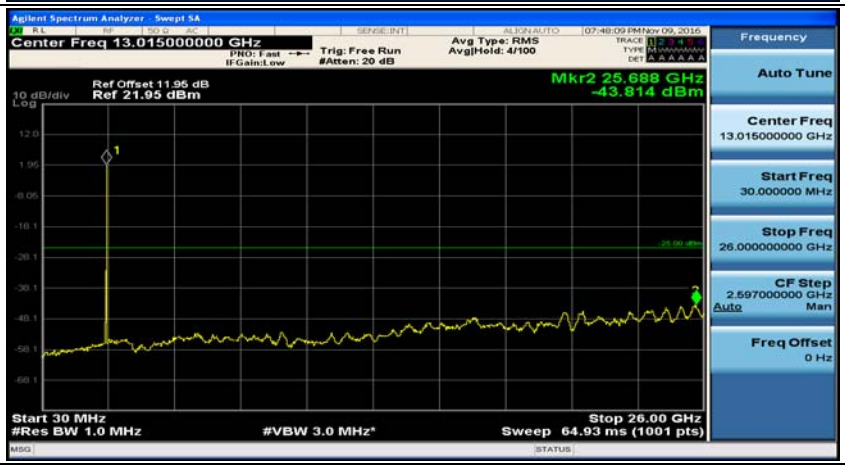




(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99


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: 9/100
07:47:57 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 10.269 kHz
-58.422 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 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: 6/100
07:48:06 PM Nov 09, 2016
Ref Offset 12 dB
10 dB/div
Ref 12.00 dBm
Mkr1 150 kHz
-58.386 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 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: 20 dB
Avg Type: RMS
Avg|Hold: 4/100
07:48:09 PM Nov 09, 2016
Ref Offset 11.95 dB
10 dB/div
Ref 21.95 dBm
Mkr2 25.688 GHz
-43.814 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 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	5.94	0.002372	± 2.5	PASS
		VN	TN	2.83	0.001132	± 2.5	PASS
		VH	TN	2.95	0.001178	± 2.5	PASS
	MCH	VL	TN	1.07	0.000423	± 2.5	PASS
		VN	TN	1.75	0.000688	± 2.5	PASS
		VH	TN	3.15	0.001241	± 2.5	PASS
	HCH	VL	TN	0.84	0.000329	± 2.5	PASS
		VN	TN	3.53	0.001376	± 2.5	PASS
		VH	TN	3.40	0.001326	± 2.5	PASS
16QAM	LCH	VL	TN	-0.96	-0.000383	± 2.5	PASS
		VN	TN	-1.20	-0.000480	± 2.5	PASS
		VH	TN	1.90	0.000760	± 2.5	PASS
	MCH	VL	TN	0.24	0.000096	± 2.5	PASS
		VN	TN	1.26	0.000497	± 2.5	PASS
		VH	TN	2.26	0.000892	± 2.5	PASS
	HCH	VL	TN	5.52	0.002151	± 2.5	PASS
		VN	TN	5.31	0.002067	± 2.5	PASS
		VH	TN	0.89	0.000345	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.33	0.001732	± 2.5	PASS
		VN	-20	2.99	0.001195	± 2.5	PASS
		VN	-10	0.77	0.000309	± 2.5	PASS
		VN	0	2.92	0.001166	± 2.5	PASS
		VN	10	-1.24	-0.000497	± 2.5	PASS
		VN	20	-1.66	-0.000663	± 2.5	PASS
		VN	30	4.12	0.001646	± 2.5	PASS
		VN	40	1.59	0.000635	± 2.5	PASS
		VN	50	3.06	0.001223	± 2.5	PASS
	MCH	VN	-30	3.22	0.001270	± 2.5	PASS
		VN	-20	5.21	0.002054	± 2.5	PASS

		VN	-10	3.93	0.001552	± 2.5	PASS
		VN	0	-0.56	-0.000220	± 2.5	PASS
		VN	10	0.30	0.000119	± 2.5	PASS
		VN	20	4.23	0.001670	± 2.5	PASS
		VN	30	2.12	0.000835	± 2.5	PASS
		VN	40	2.63	0.001038	± 2.5	PASS
		VN	50	-2.45	-0.000965	± 2.5	PASS
	HCH	VN	-30	2.13	0.000830	± 2.5	PASS
		VN	-20	0.90	0.000351	± 2.5	PASS
		VN	-10	1.09	0.000423	± 2.5	PASS
		VN	0	1.66	0.000646	± 2.5	PASS
		VN	10	1.56	0.000607	± 2.5	PASS
		VN	20	1.97	0.000769	± 2.5	PASS
		VN	30	2.25	0.000875	± 2.5	PASS
		VN	40	1.24	0.000485	± 2.5	PASS
		VN	50	-0.01	-0.000006	± 2.5	PASS
16QAM	LCH	VN	-30	-1.24	-0.000497	± 2.5	PASS
		VN	-20	-0.21	-0.000086	± 2.5	PASS
		VN	-10	2.60	0.001040	± 2.5	PASS
		VN	0	-1.46	-0.000583	± 2.5	PASS
		VN	10	-0.33	-0.000131	± 2.5	PASS
		VN	20	-1.22	-0.000486	± 2.5	PASS
		VN	30	0.79	0.000314	± 2.5	PASS
		VN	40	1.47	0.000589	± 2.5	PASS
		VN	50	3.02	0.001206	± 2.5	PASS
	MCH	VN	-30	2.15	0.000846	± 2.5	PASS
		VN	-20	4.85	0.001913	± 2.5	PASS
		VN	-10	-0.26	-0.000102	± 2.5	PASS
		VN	0	0.11	0.000045	± 2.5	PASS
		VN	10	0.53	0.000209	± 2.5	PASS
		VN	20	1.97	0.000779	± 2.5	PASS
		VN	30	2.05	0.000807	± 2.5	PASS
		VN	40	2.39	0.000942	± 2.5	PASS
		VN	50	1.13	0.000446	± 2.5	PASS
	HCH	VN	-30	3.89	0.001515	± 2.5	PASS
		VN	-20	-1.70	-0.000663	± 2.5	PASS
		VN	-10	6.84	0.002663	± 2.5	PASS
		VN	0	0.89	0.000345	± 2.5	PASS
		VN	10	1.23	0.000479	± 2.5	PASS
		VN	20	-0.97	-0.000379	± 2.5	PASS
		VN	30	-2.33	-0.000908	± 2.5	PASS
		VN	40	-1.32	-0.000513	± 2.5	PASS
		VN	50	1.33	0.000518	± 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	1.39	0.000554	± 2.5	PASS
		VN	TN	2.42	0.000965	± 2.5	PASS
		VH	TN	1.39	0.000554	± 2.5	PASS
	MCH	VL	TN	3.29	0.001298	± 2.5	PASS
		VN	TN	1.46	0.000576	± 2.5	PASS
		VH	TN	1.83	0.000722	± 2.5	PASS
	HCH	VL	TN	2.78	0.001082	± 2.5	PASS
		VN	TN	3.46	0.001350	± 2.5	PASS
		VH	TN	3.76	0.001467	± 2.5	PASS
16QAM	LCH	VL	TN	2.73	0.001091	± 2.5	PASS
		VN	TN	3.15	0.001256	± 2.5	PASS
		VH	TN	3.30	0.001319	± 2.5	PASS
	MCH	VL	TN	0.33	0.000130	± 2.5	PASS
		VN	TN	1.20	0.000474	± 2.5	PASS
		VH	TN	2.13	0.000841	± 2.5	PASS
	HCH	VL	TN	4.29	0.001673	± 2.5	PASS
		VN	TN	3.99	0.001556	± 2.5	PASS
		VH	TN	2.30	0.000898	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	1.19	0.000474	± 2.5	PASS
		VN	-20	1.32	0.000525	± 2.5	PASS
		VN	-10	2.79	0.001114	± 2.5	PASS
		VN	0	1.33	0.000531	± 2.5	PASS
		VN	10	2.35	0.000937	± 2.5	PASS
		VN	20	3.03	0.001211	± 2.5	PASS
		VN	30	1.53	0.000611	± 2.5	PASS
		VN	40	1.62	0.000645	± 2.5	PASS
		VN	50	1.65	0.000657	± 2.5	PASS
	MCH	VN	-30	3.85	0.001518	± 2.5	PASS
		VN	-20	1.82	0.000717	± 2.5	PASS
		VN	-10	0.20	0.000079	± 2.5	PASS
		VN	0	1.62	0.000638	± 2.5	PASS
		VN	10	1.97	0.000779	± 2.5	PASS
		VN	20	1.09	0.000429	± 2.5	PASS
		VN	30	2.25	0.000886	± 2.5	PASS
		VN	40	1.10	0.000435	± 2.5	PASS
		VN	50	1.72	0.000677	± 2.5	PASS
	HCH	VN	-30	1.79	0.000697	± 2.5	PASS
		VN	-20	4.01	0.001562	± 2.5	PASS
		VN	-10	1.10	0.000429	± 2.5	PASS
		VN	0	2.29	0.000892	± 2.5	PASS
		VN	10	2.69	0.001048	± 2.5	PASS
		VN	20	3.65	0.001422	± 2.5	PASS
		VN	30	0.62	0.000240	± 2.5	PASS
		VN	40	1.07	0.000418	± 2.5	PASS
		VN	50	1.76	0.000686	± 2.5	PASS

QPSK	LCH	VN	-30	2.86	0.001142	± 2.5	PASS
		VN	-20	2.68	0.001068	± 2.5	PASS
		VN	-10	2.57	0.001028	± 2.5	PASS
		VN	0	3.08	0.001228	± 2.5	PASS
		VN	10	-0.07	-0.000029	± 2.5	PASS
		VN	20	0.92	0.000365	± 2.5	PASS
		VN	30	2.47	0.000988	± 2.5	PASS
		VN	40	0.64	0.000257	± 2.5	PASS
		VN	50	3.18	0.001268	± 2.5	PASS
	MCH	VN	-30	1.20	0.000474	± 2.5	PASS
		VN	-20	2.49	0.000982	± 2.5	PASS
		VN	-10	1.04	0.000412	± 2.5	PASS
		VN	0	4.29	0.001693	± 2.5	PASS
		VN	10	3.55	0.001399	± 2.5	PASS
		VN	20	0.93	0.000367	± 2.5	PASS
		VN	30	0.90	0.000356	± 2.5	PASS
		VN	40	2.86	0.001129	± 2.5	PASS
		VN	50	1.39	0.000547	± 2.5	PASS
	HCH	VN	-30	2.29	0.000892	± 2.5	PASS
		VN	-20	3.71	0.001444	± 2.5	PASS
		VN	-10	1.59	0.000619	± 2.5	PASS
		VN	0	3.39	0.001322	± 2.5	PASS
		VN	10	1.70	0.000664	± 2.5	PASS
		VN	20	1.89	0.000736	± 2.5	PASS
		VN	30	2.88	0.001121	± 2.5	PASS
		VN	40	3.96	0.001545	± 2.5	PASS
		VN	50	2.60	0.001015	± 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	2.05	0.000816	± 2.5	PASS
		VN	TN	2.52	0.001004	± 2.5	PASS
		VH	TN	1.30	0.000519	± 2.5	PASS
	MCH	VL	TN	3.12	0.001230	± 2.5	PASS
		VN	TN	2.57	0.001016	± 2.5	PASS
		VH	TN	5.15	0.002031	± 2.5	PASS
	HCH	VL	TN	1.22	0.000475	± 2.5	PASS
		VN	TN	0.92	0.000357	± 2.5	PASS
		VH	TN	2.25	0.000876	± 2.5	PASS
16QAM	LCH	VL	TN	2.68	0.001067	± 2.5	PASS
		VN	TN	3.66	0.001460	± 2.5	PASS
		VH	TN	1.04	0.000416	± 2.5	PASS
	MCH	VL	TN	2.37	0.000937	± 2.5	PASS
		VN	TN	2.93	0.001157	± 2.5	PASS
		VH	TN	2.15	0.000846	± 2.5	PASS

	HCH	VL	TN	1.32	0.000514	± 2.5	PASS
		VN	TN	4.22	0.001647	± 2.5	PASS
		VH	TN	2.86	0.001116	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.95	0.000776	± 2.5	PASS
		VN	-20	2.10	0.000839	± 2.5	PASS
		VN	-10	1.79	0.000713	± 2.5	PASS
		VN	0	1.10	0.000439	± 2.5	PASS
		VN	10	2.73	0.001090	± 2.5	PASS
		VN	20	0.94	0.000377	± 2.5	PASS
		VN	30	2.66	0.001061	± 2.5	PASS
		VN	40	0.44	0.000177	± 2.5	PASS
		VN	50	1.63	0.000650	± 2.5	PASS
	MCH	VN	-30	1.62	0.000638	± 2.5	PASS
		VN	-20	1.42	0.000559	± 2.5	PASS
		VN	-10	0.89	0.000350	± 2.5	PASS
		VN	0	2.47	0.000976	± 2.5	PASS
		VN	10	1.77	0.000700	± 2.5	PASS
		VN	20	3.39	0.001337	± 2.5	PASS
		VN	30	3.05	0.001202	± 2.5	PASS
		VN	40	1.59	0.000626	± 2.5	PASS
		VN	50	1.67	0.000660	± 2.5	PASS
	HCH	VN	-30	2.29	0.000893	± 2.5	PASS
		VN	-20	2.29	0.000893	± 2.5	PASS
		VN	-10	2.06	0.000804	± 2.5	PASS
		VN	0	2.49	0.000971	± 2.5	PASS
		VN	10	0.57	0.000223	± 2.5	PASS
		VN	20	1.90	0.000742	± 2.5	PASS
		VN	30	2.16	0.000843	± 2.5	PASS
		VN	40	1.76	0.000687	± 2.5	PASS
		VN	50	0.99	0.000385	± 2.5	PASS
16QAM	LCH	VN	-30	1.89	0.000753	± 2.5	PASS
		VN	-20	1.73	0.000690	± 2.5	PASS
		VN	-10	1.62	0.000645	± 2.5	PASS
		VN	0	2.66	0.001061	± 2.5	PASS
		VN	10	4.13	0.001649	± 2.5	PASS
		VN	20	2.40	0.000958	± 2.5	PASS
		VN	30	1.82	0.000725	± 2.5	PASS
		VN	40	1.34	0.000536	± 2.5	PASS
		VN	50	2.13	0.000850	± 2.5	PASS
	MCH	VN	-30	1.67	0.000660	± 2.5	PASS
		VN	-20	0.70	0.000277	± 2.5	PASS
		VN	-10	3.96	0.001563	± 2.5	PASS
		VN	0	1.32	0.000519	± 2.5	PASS
		VN	10	3.18	0.001253	± 2.5	PASS
		VN	20	2.68	0.001055	± 2.5	PASS
		VN	30	1.76	0.000694	± 2.5	PASS
		VN	40	1.97	0.000779	± 2.5	PASS

		VN	50	1.20	0.000474	± 2.5	PASS
	HCH	VN	-30	1.14	0.000447	± 2.5	PASS
		VN	-20	2.35	0.000916	± 2.5	PASS
		VN	-10	1.62	0.000631	± 2.5	PASS
		VN	0	2.17	0.000849	± 2.5	PASS
		VN	10	1.99	0.000776	± 2.5	PASS
		VN	20	0.53	0.000207	± 2.5	PASS
		VN	30	1.79	0.000698	± 2.5	PASS
		VN	40	2.85	0.001111	± 2.5	PASS
		VN	50	2.22	0.000865	± 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	1.97	0.000786	± 2.5	PASS
		VN	TN	2.25	0.000895	± 2.5	PASS
		VH	TN	-2.12	-0.000843	± 2.5	PASS
	MCH	VL	TN	3.48	0.001371	± 2.5	PASS
		VN	TN	3.00	0.001185	± 2.5	PASS
		VH	TN	2.75	0.001083	± 2.5	PASS
	HCH	VL	TN	-0.41	-0.000162	± 2.5	PASS
		VN	TN	-1.39	-0.000542	± 2.5	PASS
		VH	TN	-2.12	-0.000827	± 2.5	PASS
16QAM	LCH	VL	TN	3.45	0.001374	± 2.5	PASS
		VN	TN	2.47	0.000986	± 2.5	PASS
		VH	TN	1.57	0.000627	± 2.5	PASS
	MCH	VL	TN	2.13	0.000841	± 2.5	PASS
		VN	TN	-1.07	-0.000423	± 2.5	PASS
		VH	TN	0.21	0.000085	± 2.5	PASS
	HCH	VL	TN	-1.53	-0.000598	± 2.5	PASS
		VN	TN	-3.19	-0.001246	± 2.5	PASS
		VH	TN	-1.22	-0.000475	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.79	0.000313	± 2.5	PASS
		VN	-20	1.43	0.000570	± 2.5	PASS
		VN	-10	1.67	0.000667	± 2.5	PASS
		VN	0	1.76	0.000701	± 2.5	PASS
		VN	10	2.10	0.000838	± 2.5	PASS
		VN	20	2.80	0.001117	± 2.5	PASS
		VN	30	2.59	0.001032	± 2.5	PASS
		VN	40	0.67	0.000268	± 2.5	PASS
		VN	50	2.46	0.000980	± 2.5	PASS
	MCH	VN	-30	2.30	0.000909	± 2.5	PASS
		VN	-20	2.65	0.001044	± 2.5	PASS

		VN	-10	2.25	0.000886	± 2.5	PASS
		VN	0	0.97	0.000384	± 2.5	PASS
		VN	10	0.56	0.000220	± 2.5	PASS
		VN	20	1.26	0.000497	± 2.5	PASS
		VN	30	2.27	0.000897	± 2.5	PASS
		VN	40	1.95	0.000767	± 2.5	PASS
		VN	50	1.23	0.000485	± 2.5	PASS
	HCH	VN	-30	-3.00	-0.001173	± 2.5	PASS
		VN	-20	-1.37	-0.000536	± 2.5	PASS
		VN	-10	-1.20	-0.000469	± 2.5	PASS
		VN	0	-0.86	-0.000335	± 2.5	PASS
		VN	10	-0.46	-0.000179	± 2.5	PASS
		VN	20	-0.51	-0.000201	± 2.5	PASS
		VN	30	-0.14	-0.000056	± 2.5	PASS
		VN	40	-0.92	-0.000358	± 2.5	PASS
		VN	50	-2.92	-0.001140	± 2.5	PASS
16QAM	LCH	VN	-30	2.33	0.000929	± 2.5	PASS
		VN	-20	3.25	0.001294	± 2.5	PASS
		VN	-10	3.39	0.001351	± 2.5	PASS
		VN	0	2.02	0.000804	± 2.5	PASS
		VN	10	1.16	0.000462	± 2.5	PASS
		VN	20	1.42	0.000564	± 2.5	PASS
		VN	30	2.65	0.001054	± 2.5	PASS
		VN	40	1.43	0.000570	± 2.5	PASS
		VN	50	1.09	0.000433	± 2.5	PASS
	MCH	VN	-30	1.79	0.000705	± 2.5	PASS
		VN	-20	0.82	0.000322	± 2.5	PASS
		VN	-10	3.03	0.001196	± 2.5	PASS
		VN	0	2.57	0.001016	± 2.5	PASS
		VN	10	1.10	0.000435	± 2.5	PASS
		VN	20	3.25	0.001281	± 2.5	PASS
		VN	30	2.66	0.001050	± 2.5	PASS
		VN	40	0.80	0.000316	± 2.5	PASS
		VN	50	3.75	0.001478	± 2.5	PASS
	HCH	VN	-30	0.43	0.000168	± 2.5	PASS
		VN	-20	-0.54	-0.000212	± 2.5	PASS
		VN	-10	-1.90	-0.000743	± 2.5	PASS
		VN	0	-0.14	-0.000056	± 2.5	PASS
		VN	10	-0.66	-0.000257	± 2.5	PASS
		VN	20	-1.04	-0.000408	± 2.5	PASS
		VN	30	-1.39	-0.000542	± 2.5	PASS
		VN	40	-1.13	-0.000441	± 2.5	PASS
		VN	50	-0.80	-0.000313	± 2.5	PASS