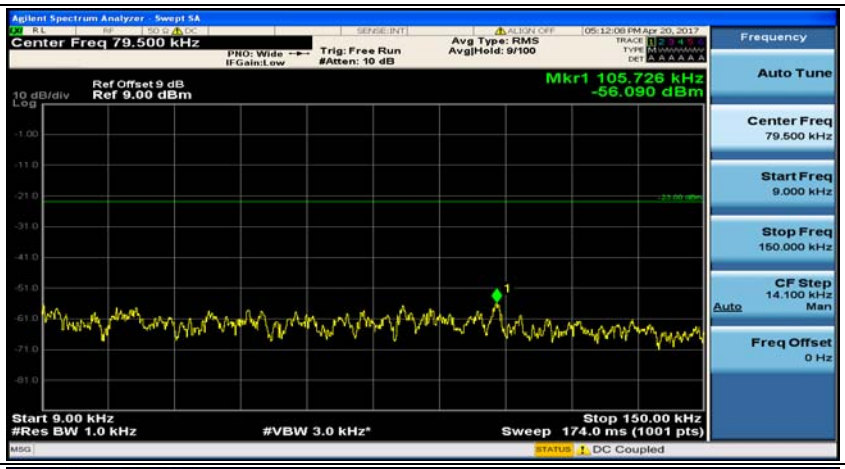
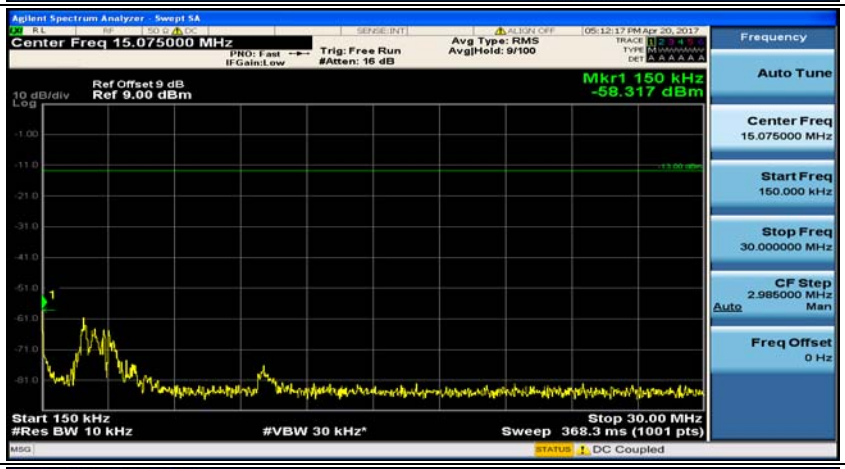
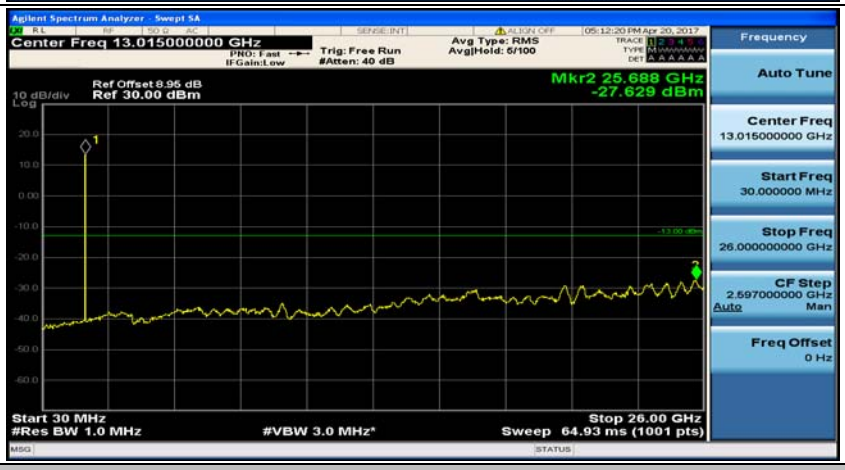
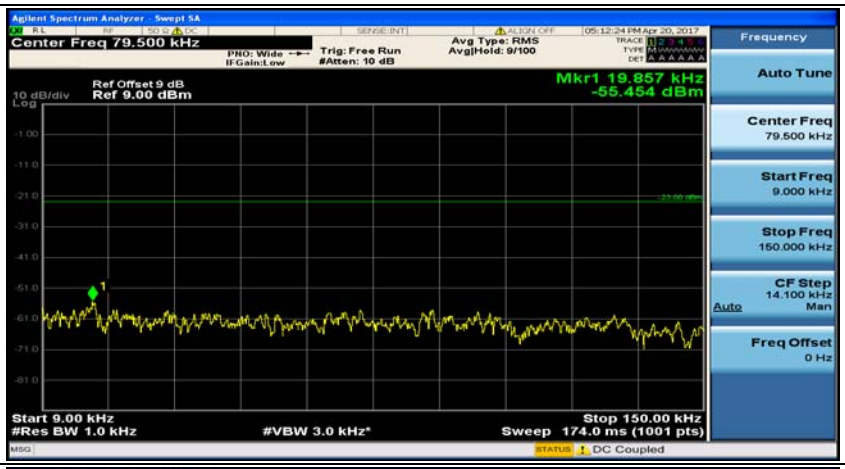
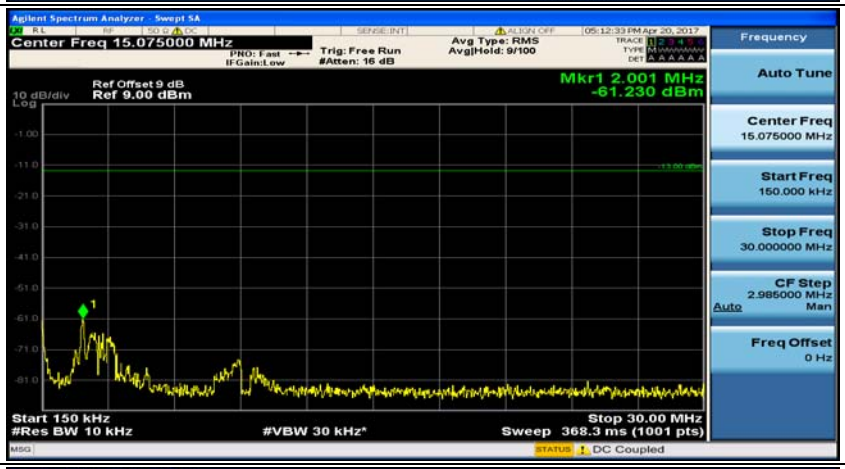


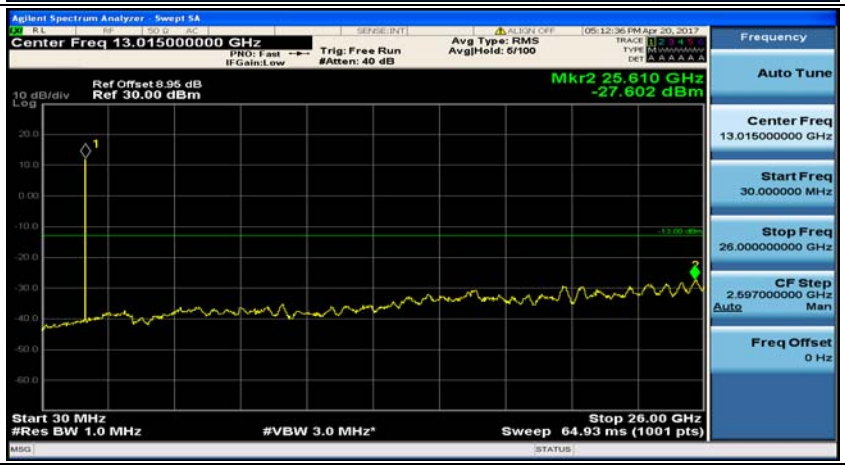




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

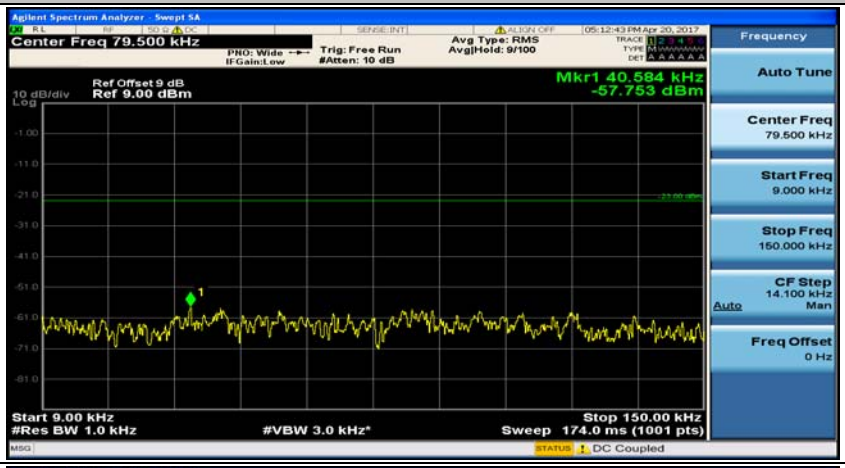

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:12:24 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 19.857 kHz
-55.454 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

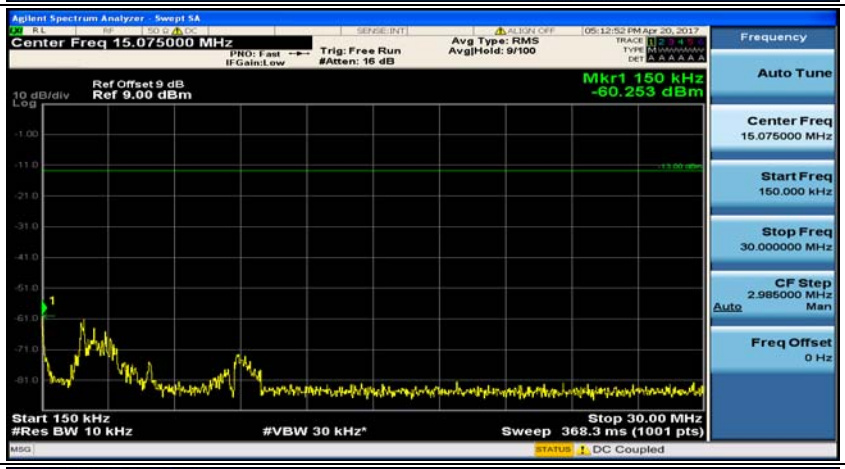

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:12:33 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 2.001 MHz
-61.230 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:12:36 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr2 25.610 GHz
-27.602 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

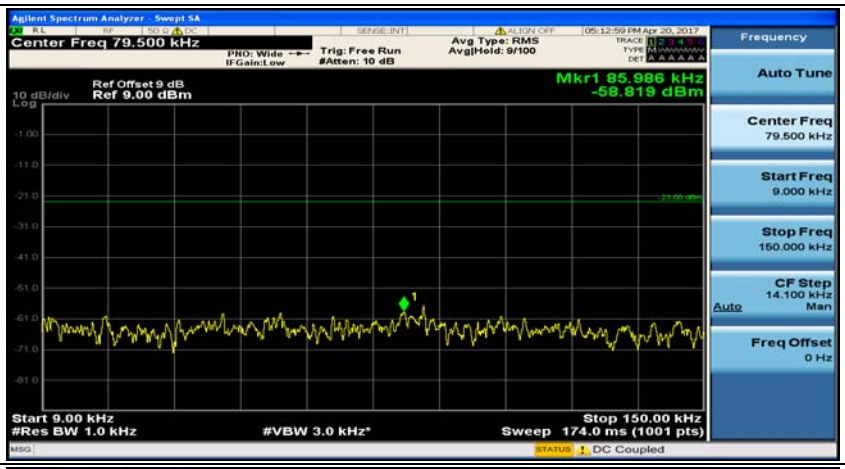
Channel Bandwidth: 15 MHz

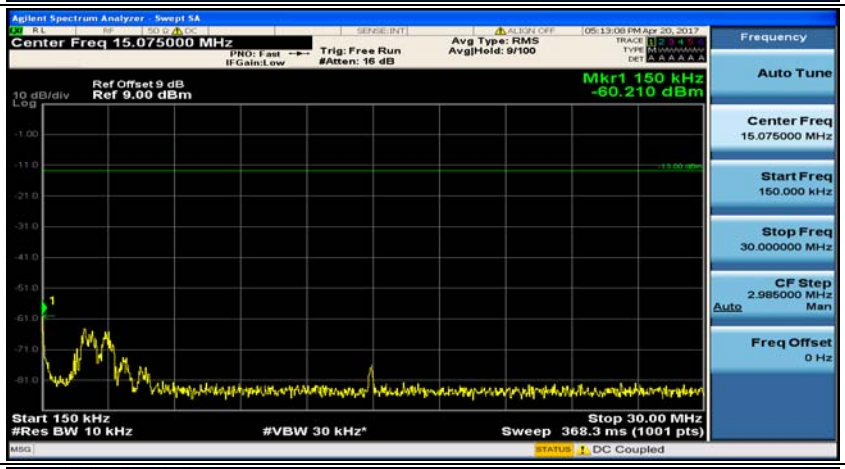
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0



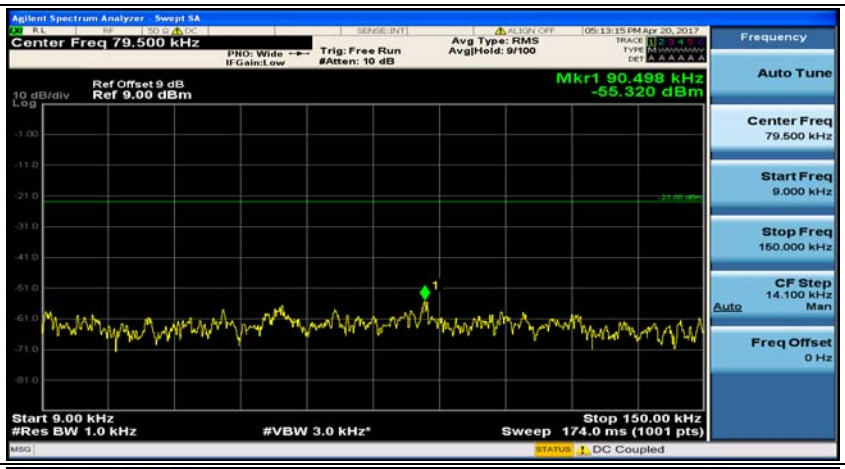


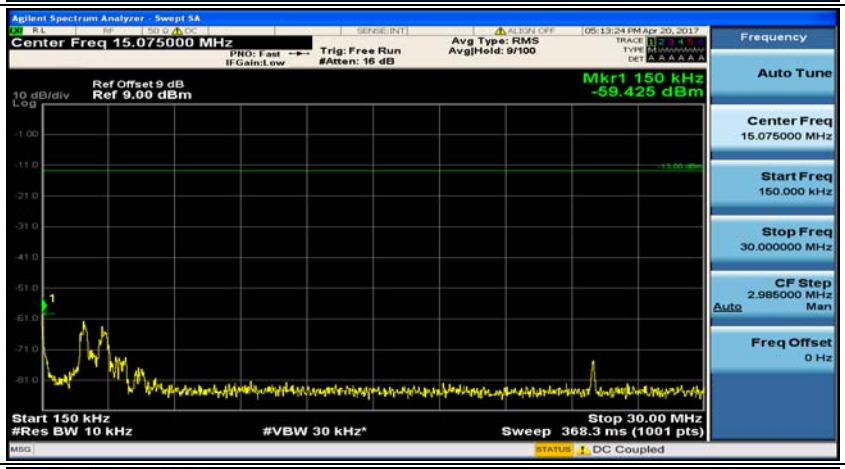
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37

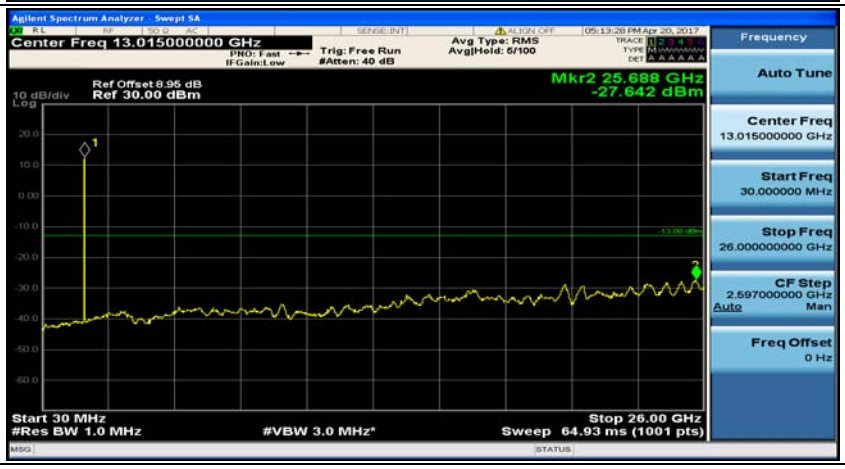




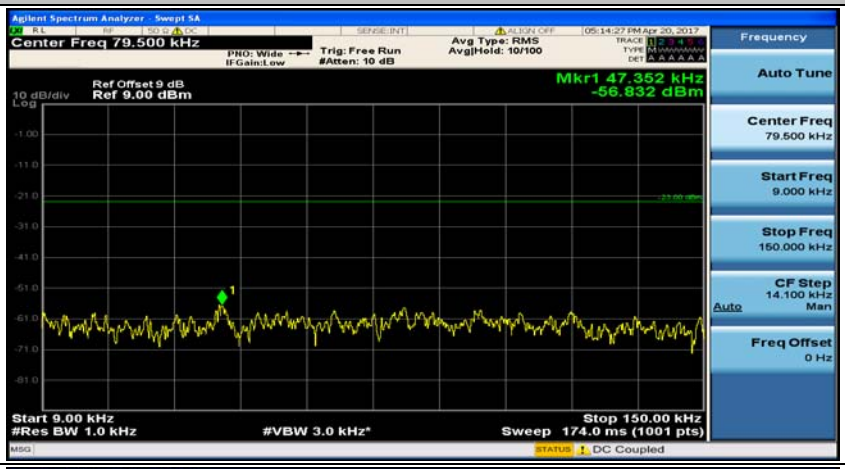
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74

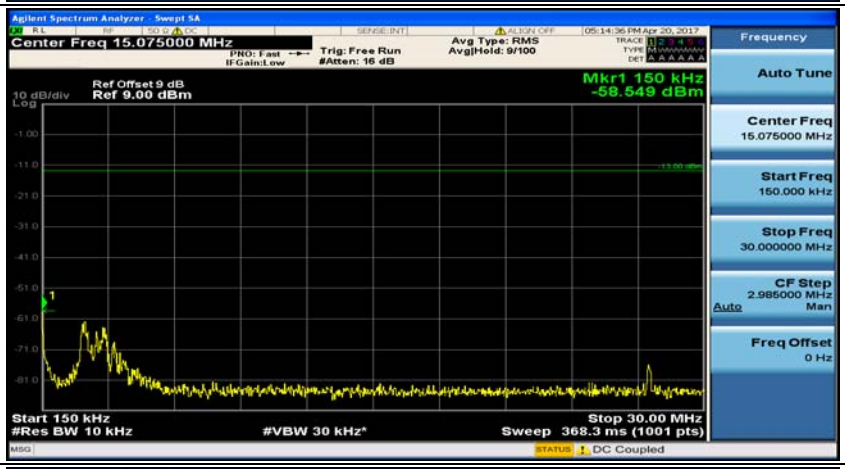

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:13:15 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 90.498 kHz
-55.320 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

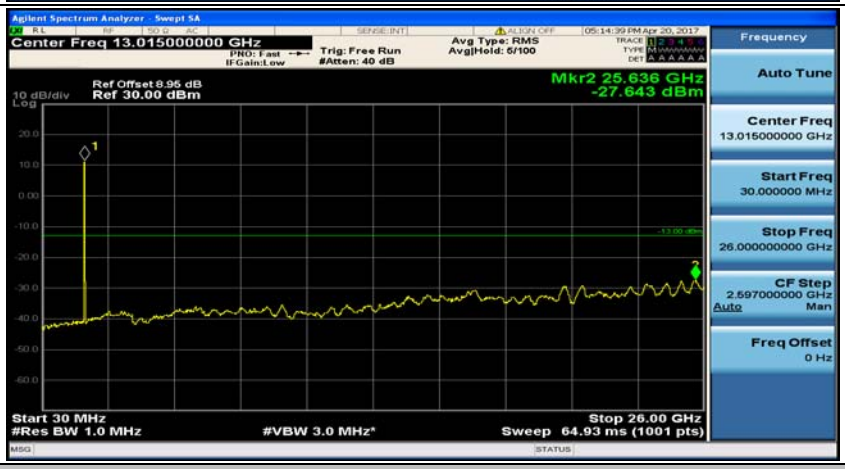

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:13:24 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.425 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:13:28 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-27.642 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

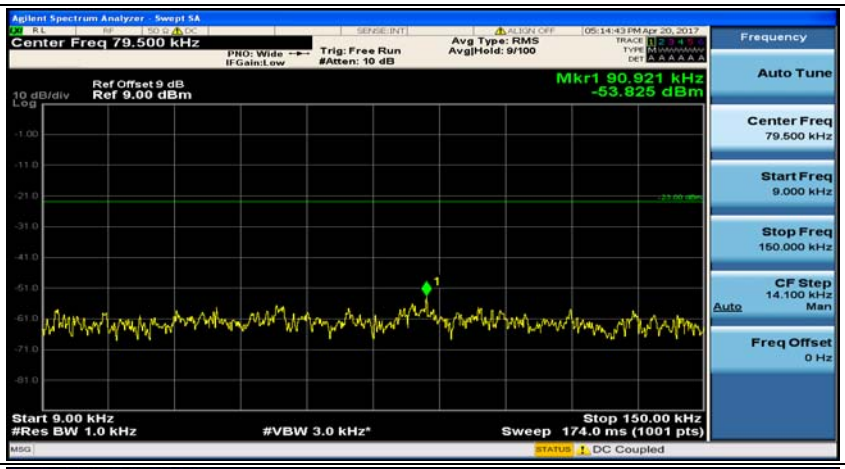
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

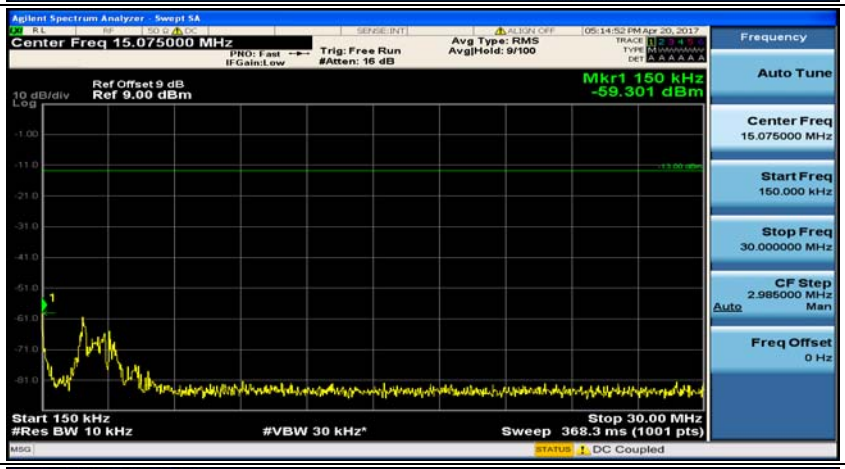


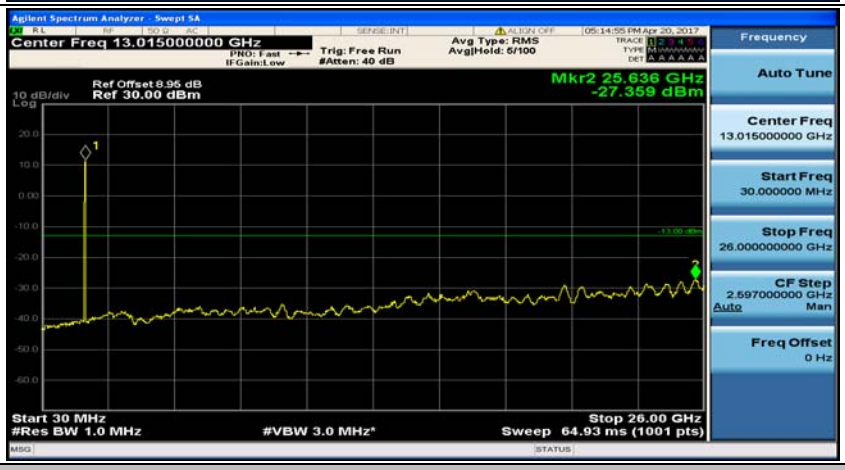




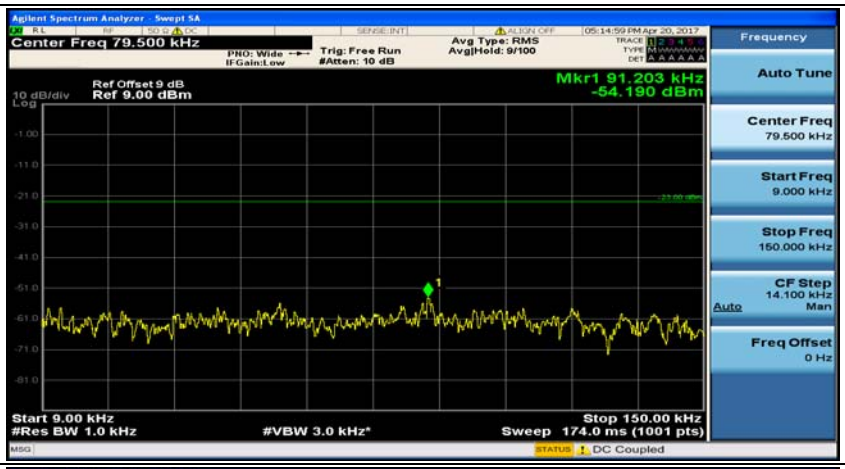
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

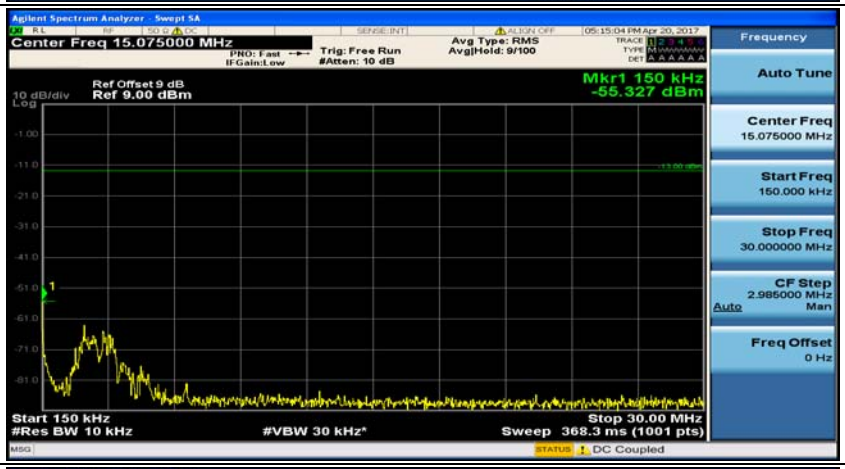


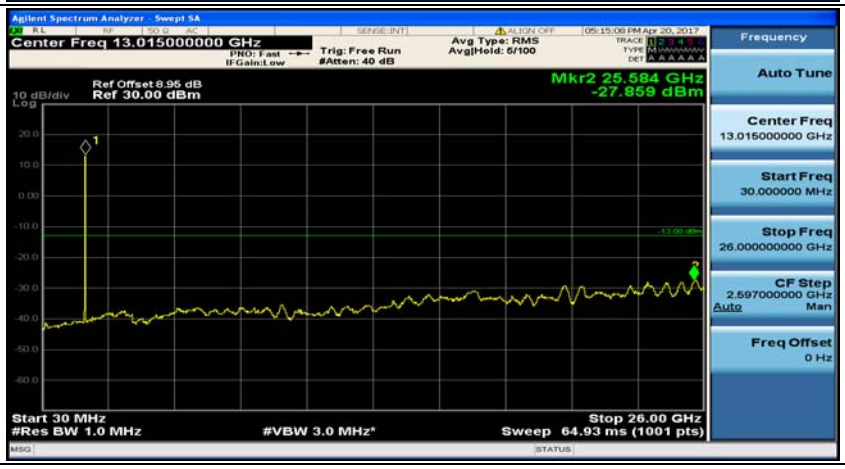




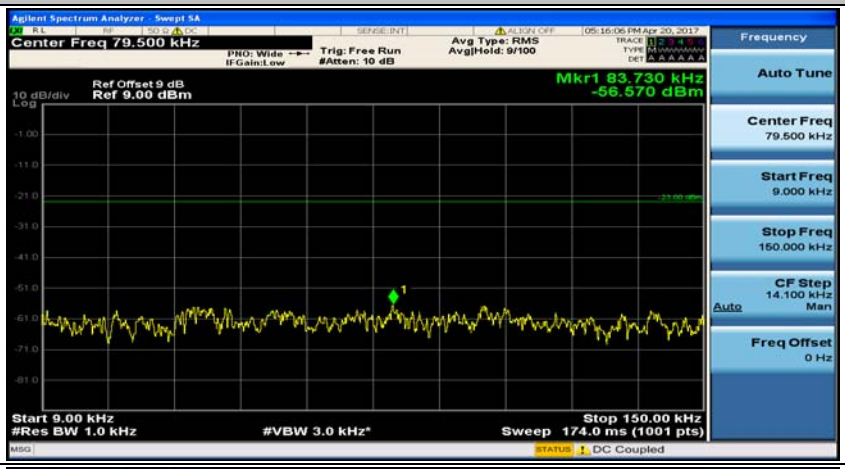
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74

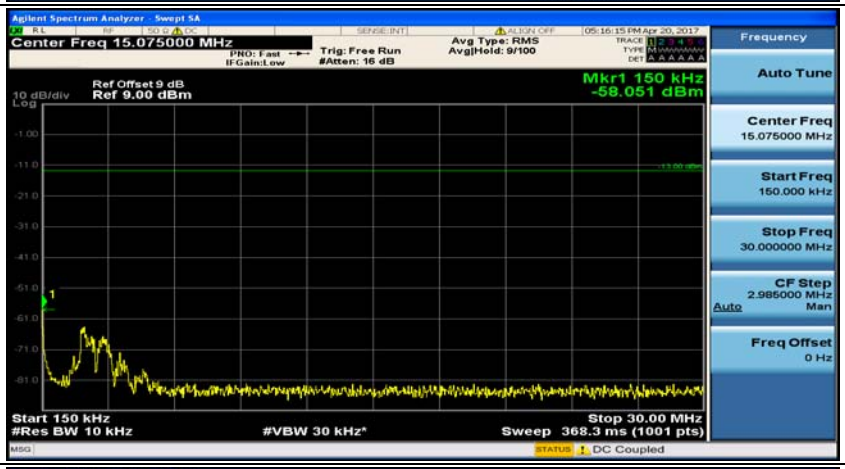

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:14:59 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 91.203 kHz
-54.190 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

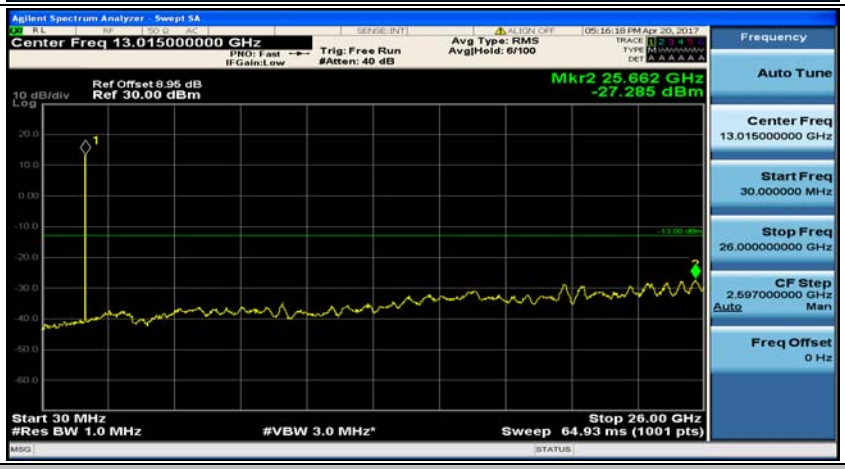

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:15:04 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-55.327 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:15:08 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.584 GHz
-27.859 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

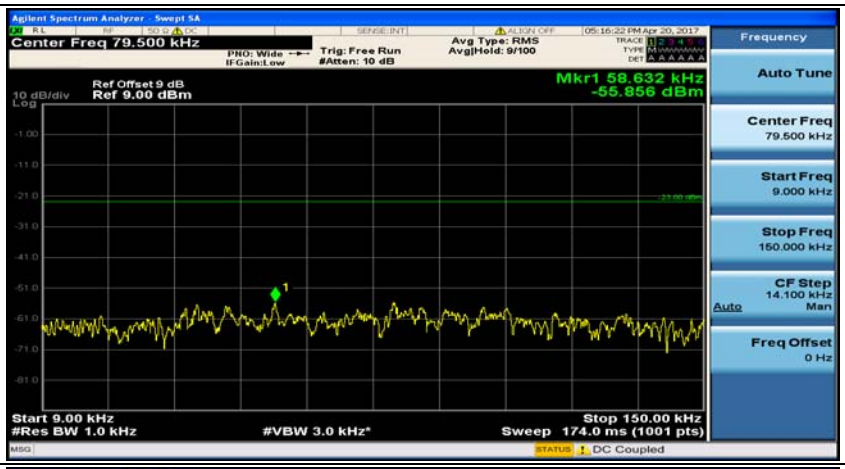
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

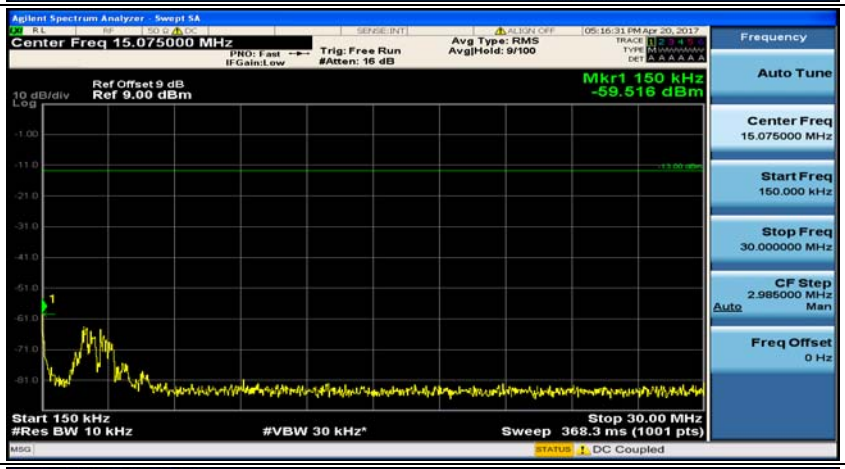


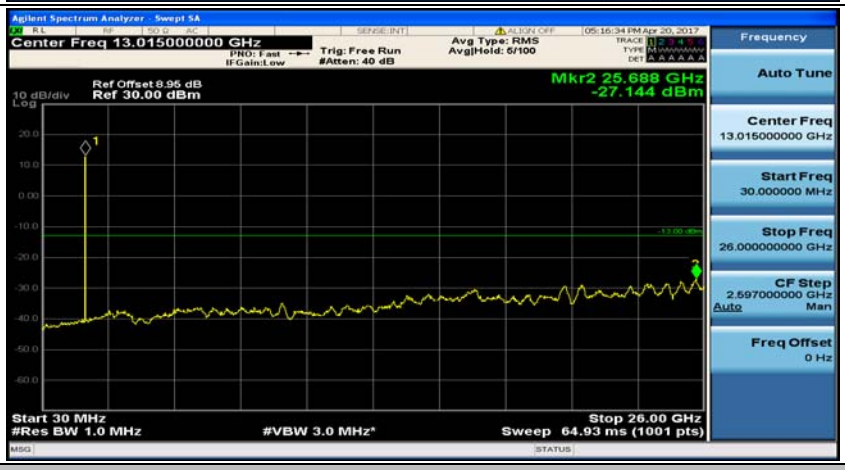




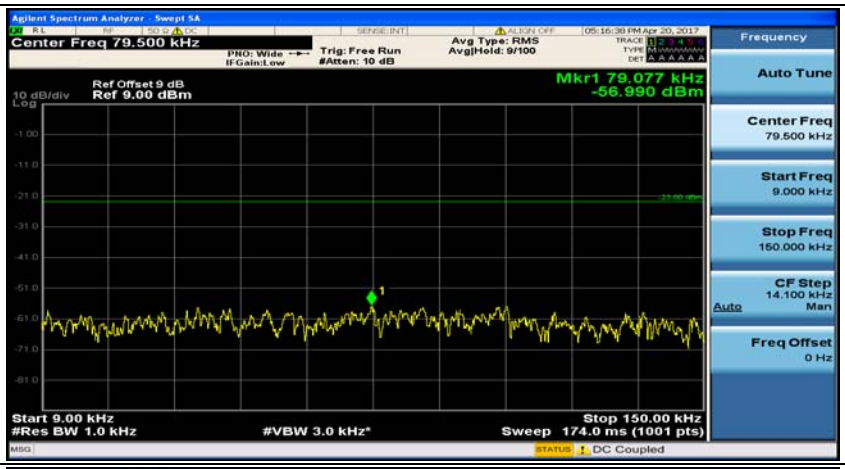
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

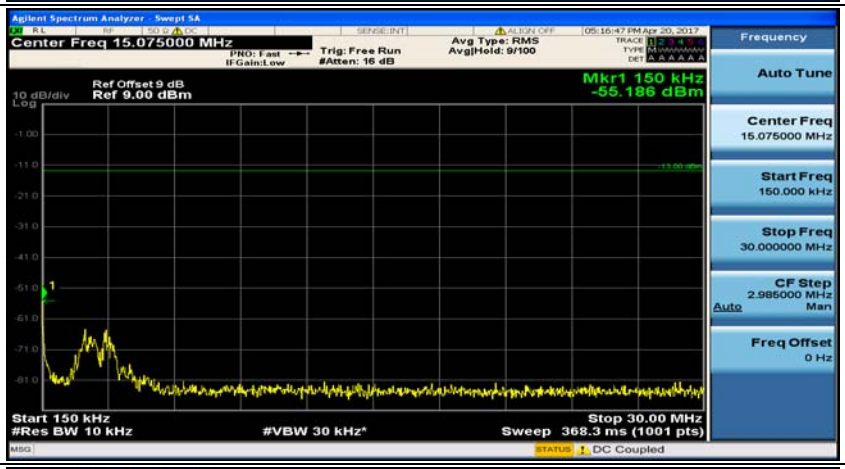


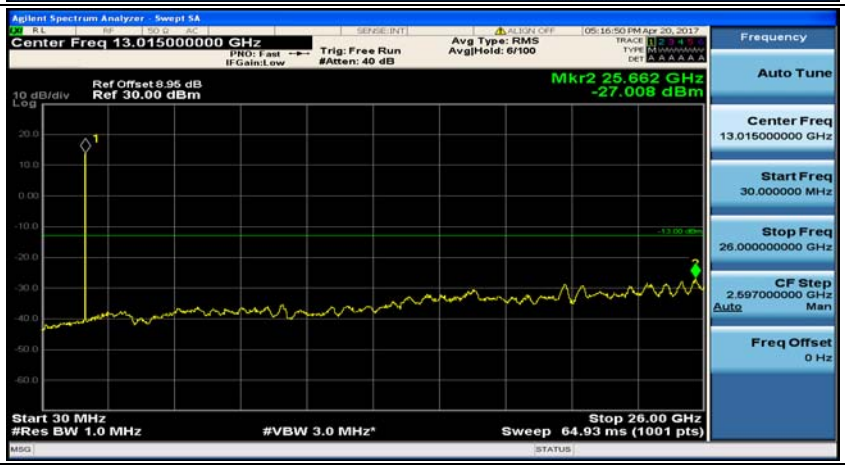




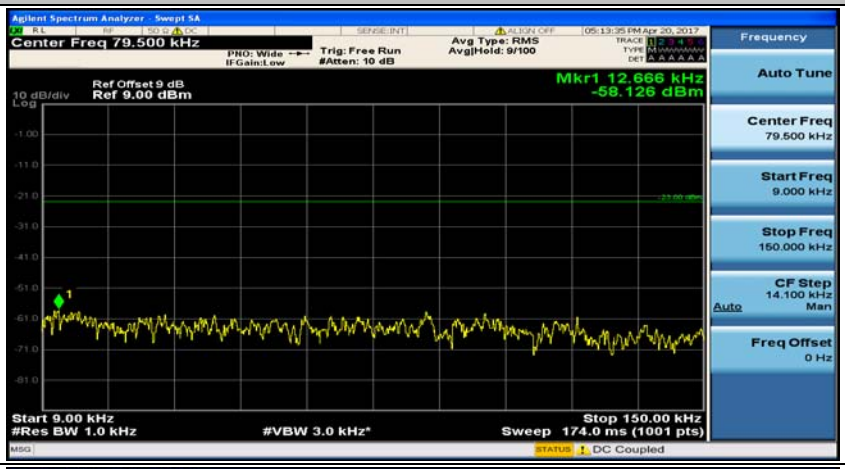
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

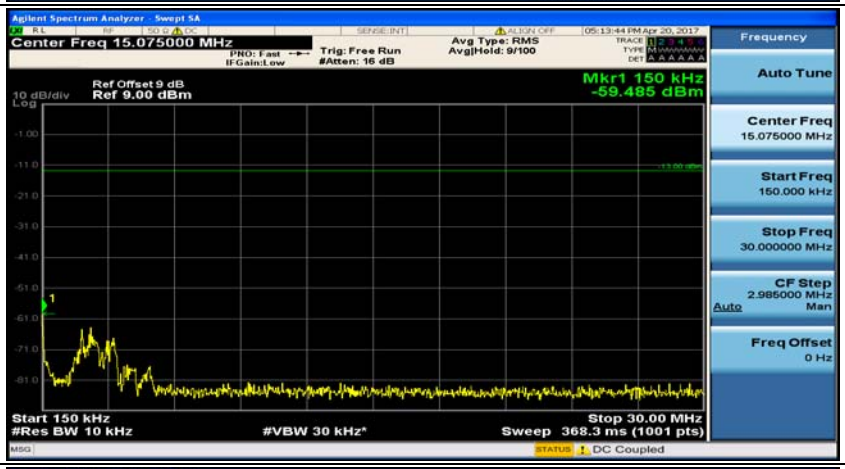

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:16:38 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 79.077 kHz
-56.990 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

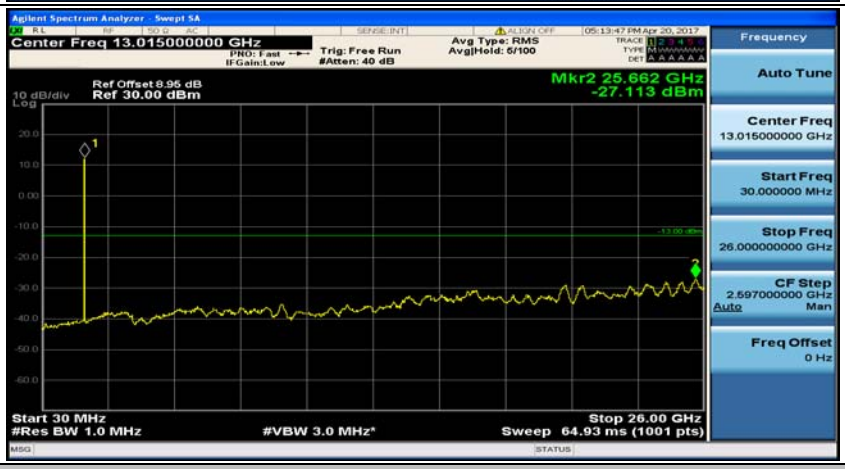

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:16:47 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-55.186 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 6/100
05:16:50 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-27.008 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

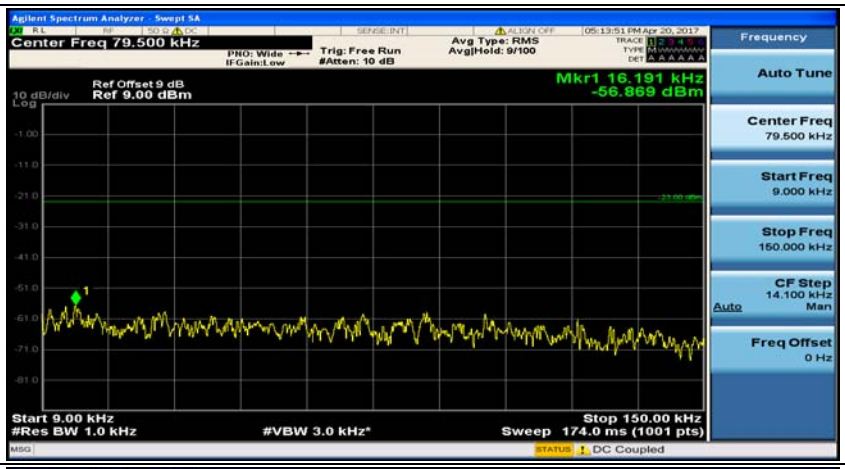
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

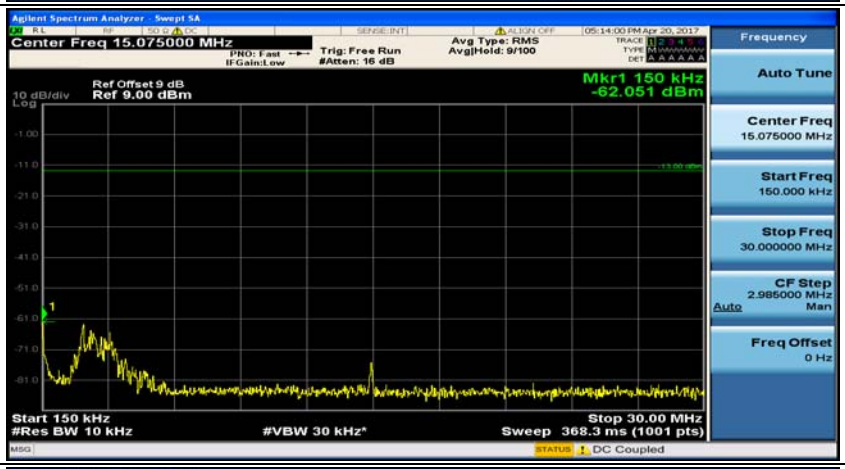


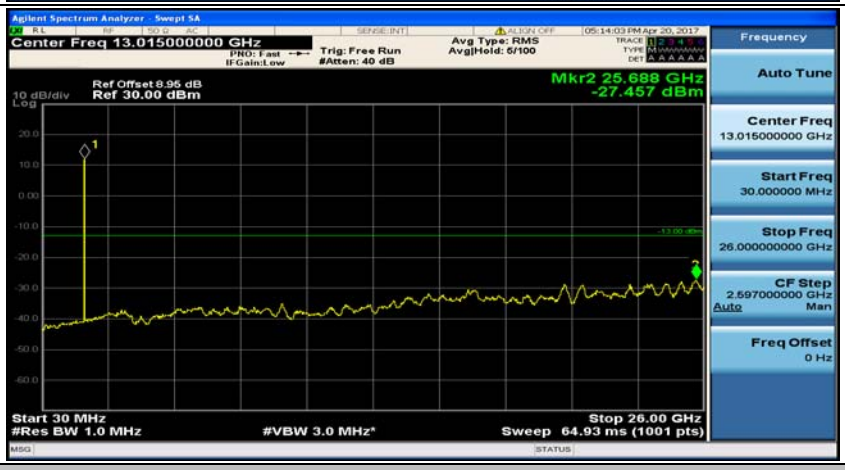




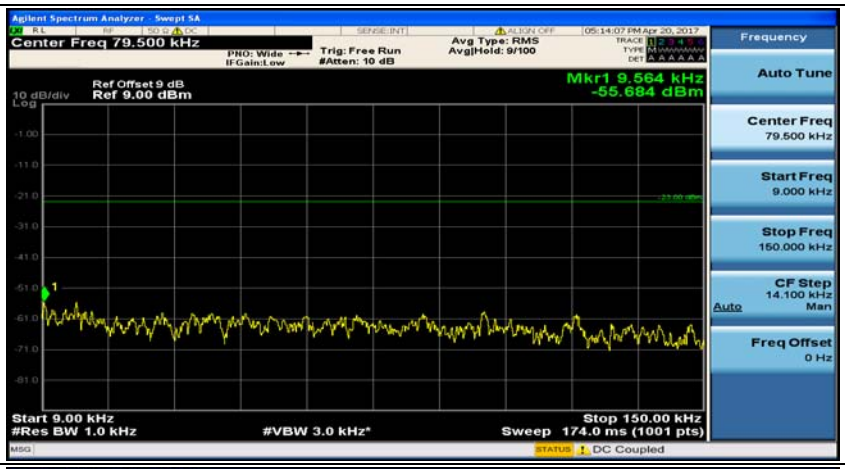
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

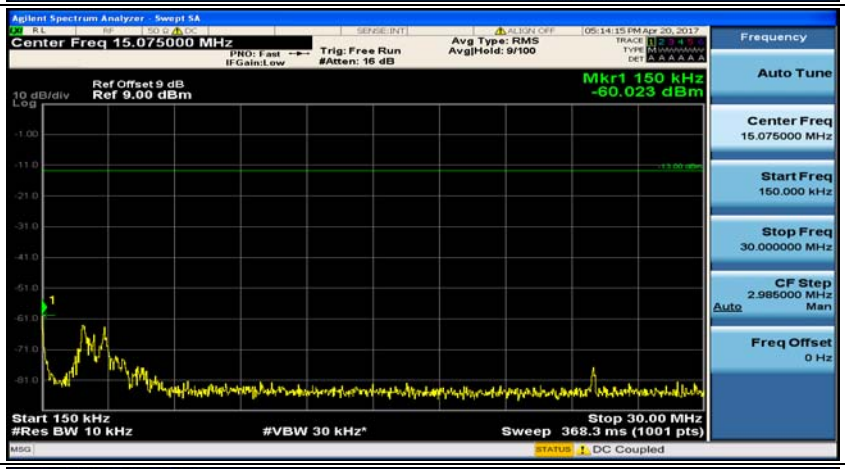


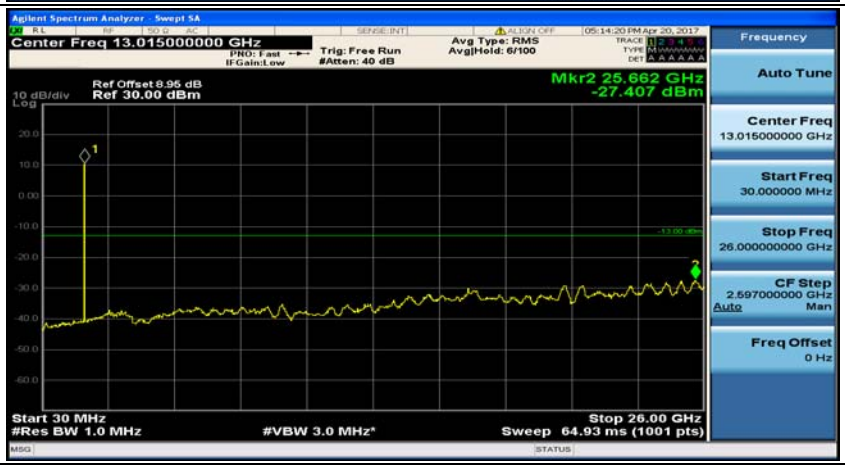




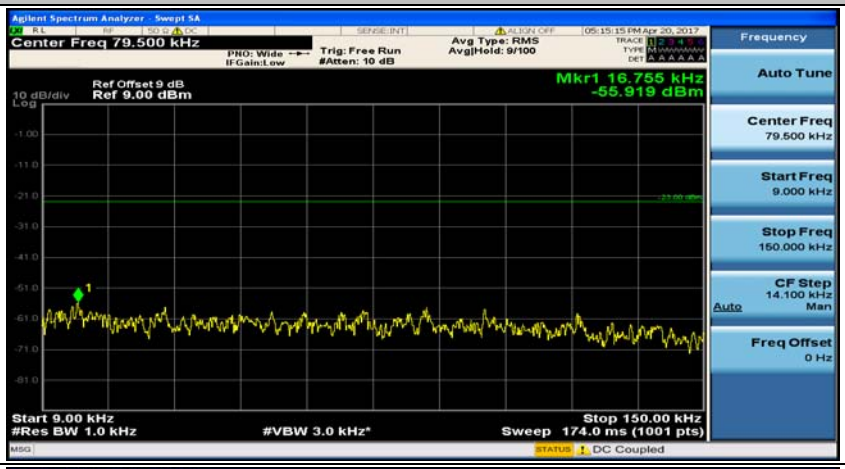
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74

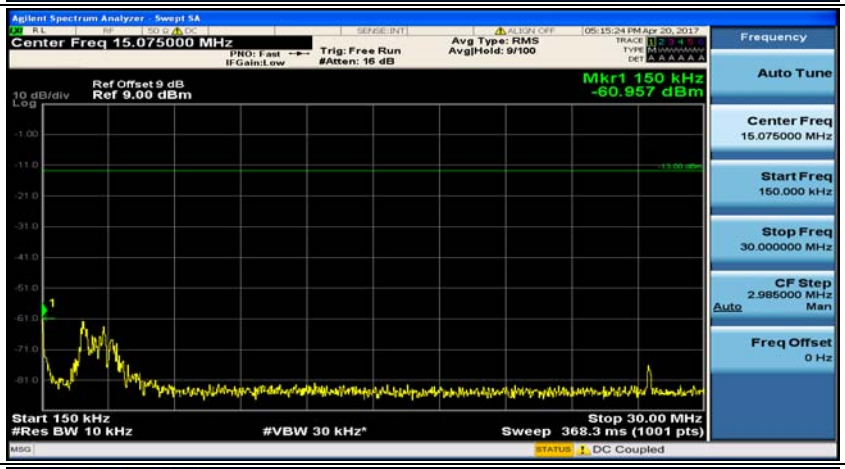

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:14:07 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.564 kHz
-55.684 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

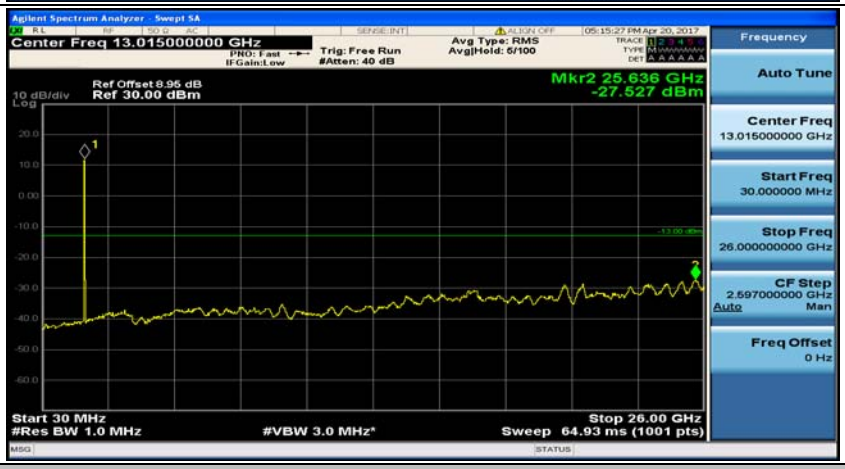

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:14:15 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-60.023 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 6/100
05:14:20 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-27.407 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

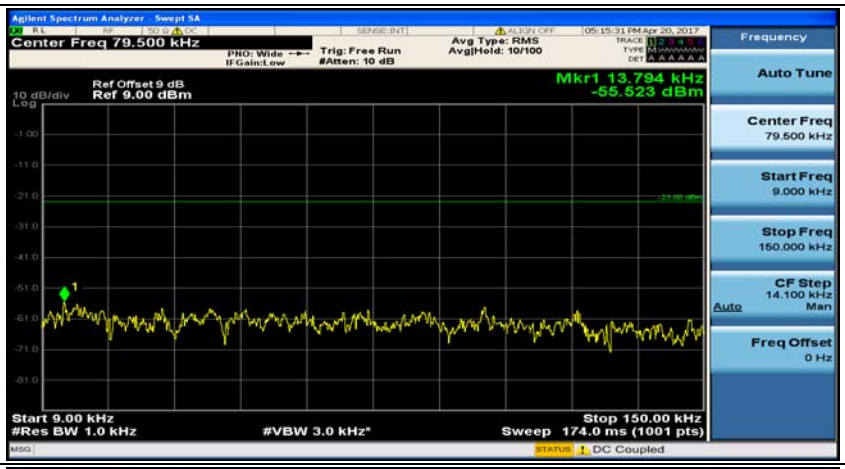
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

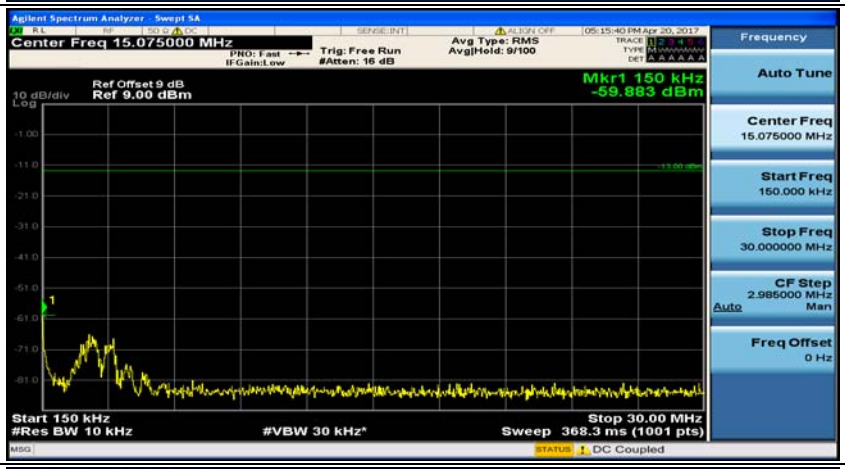


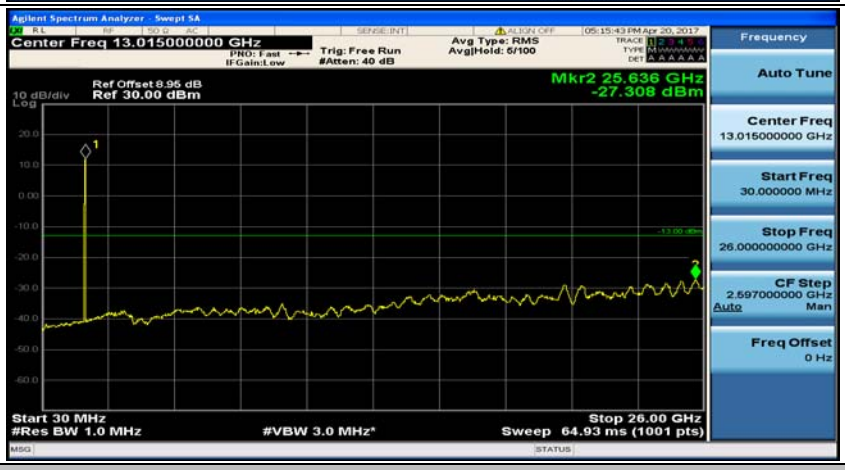




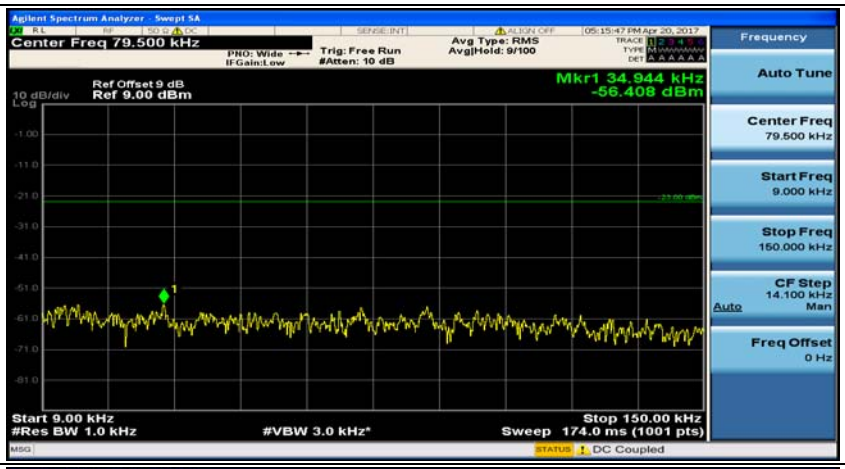
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

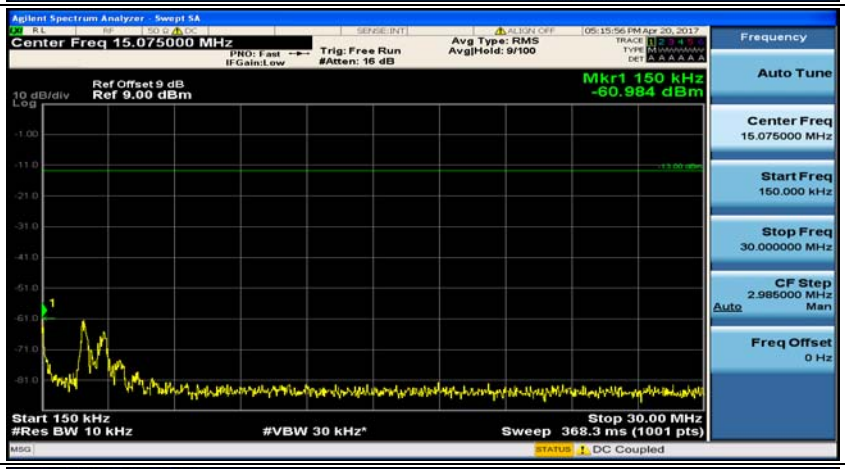


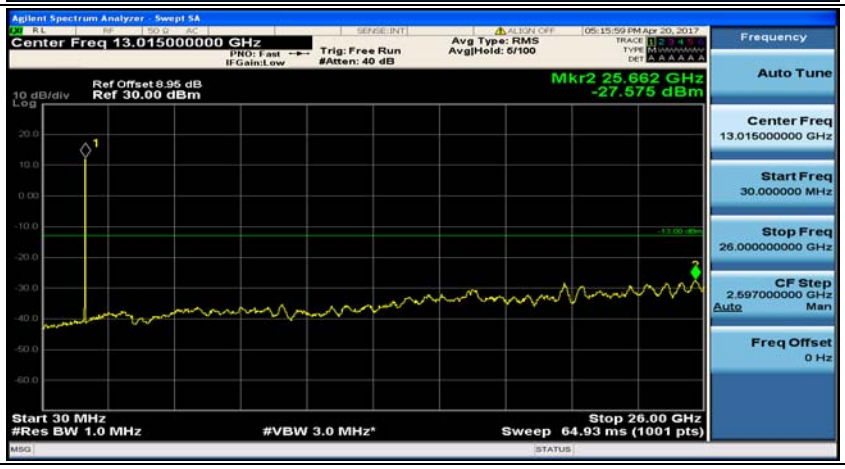




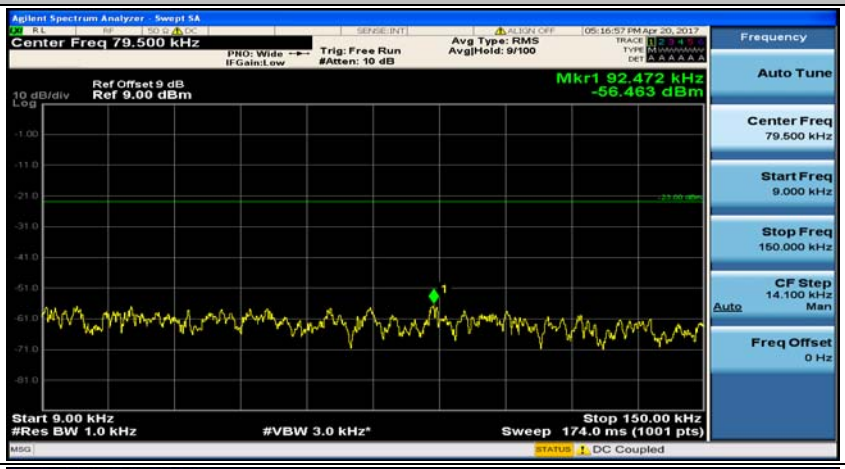
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

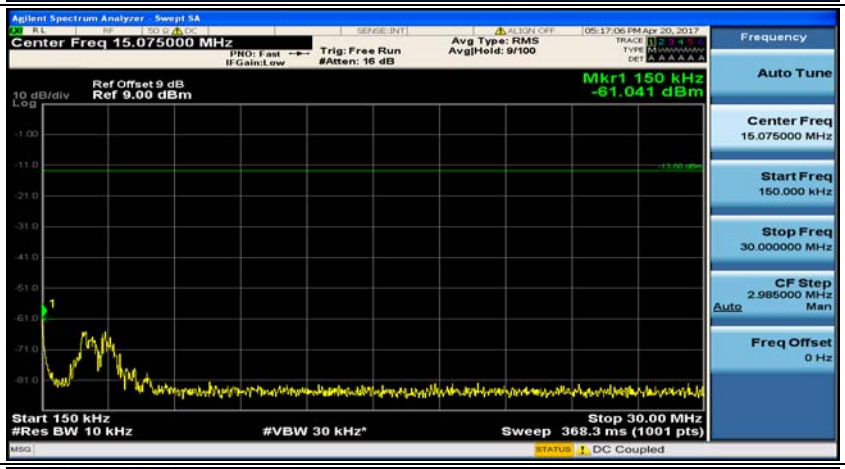

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:15:47 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 34.944 kHz
-56.408 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

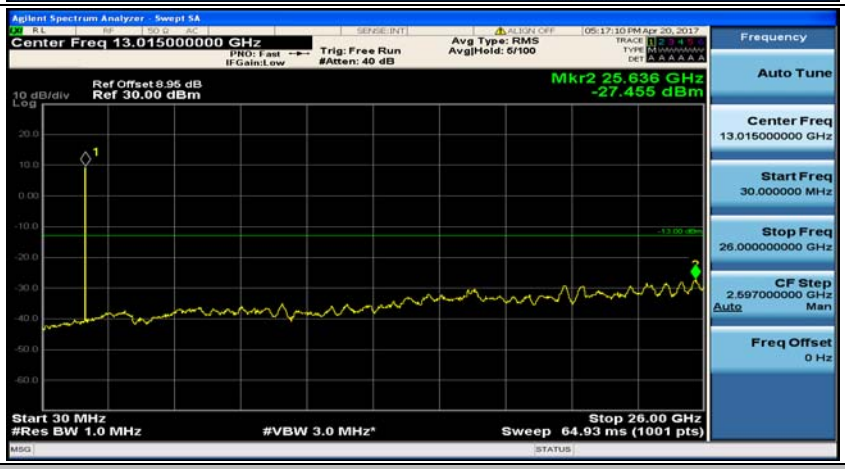

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:15:56 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-60.984 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:15:59 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-27.575 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

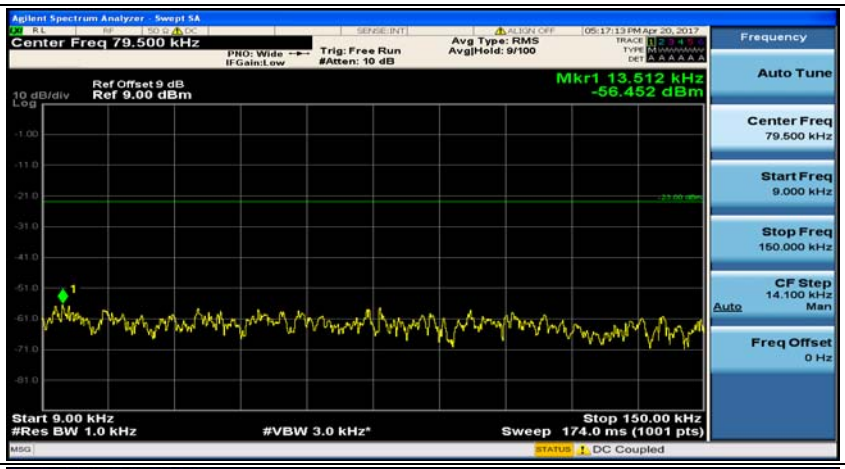
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

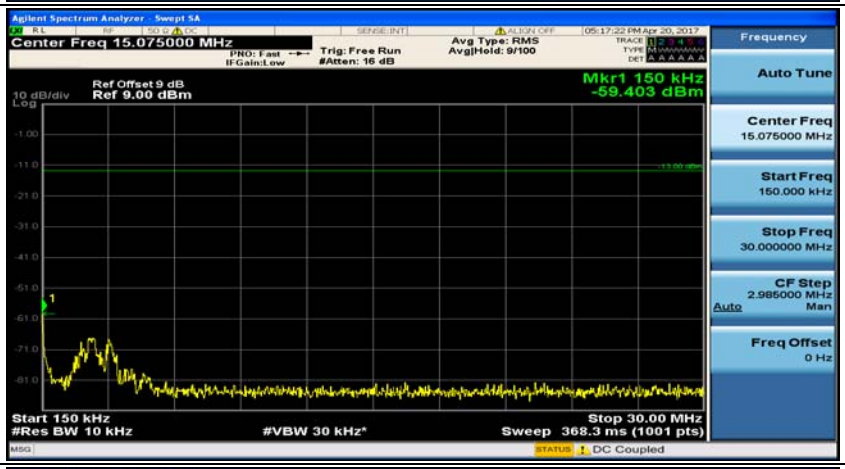


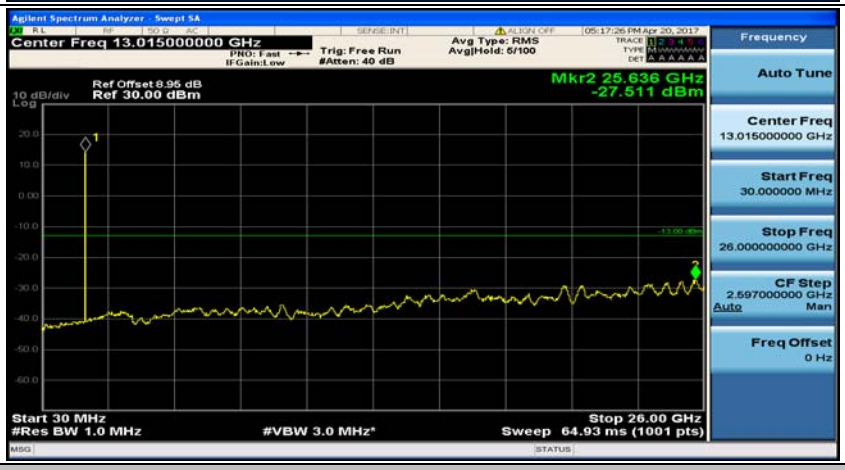




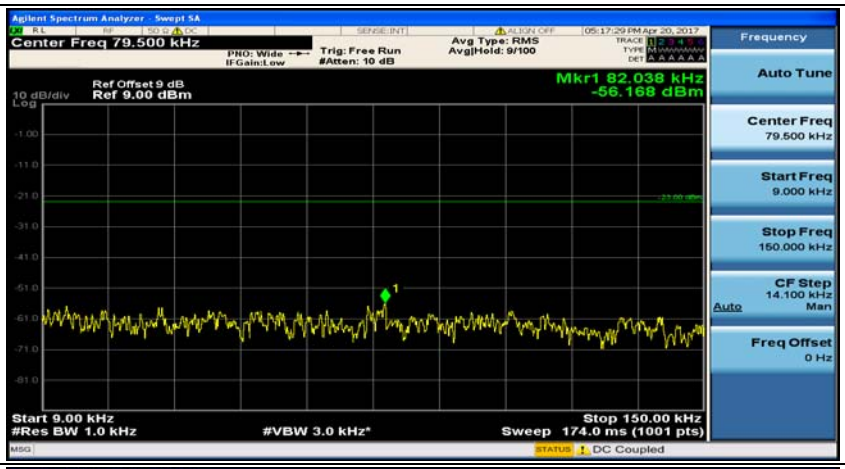
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

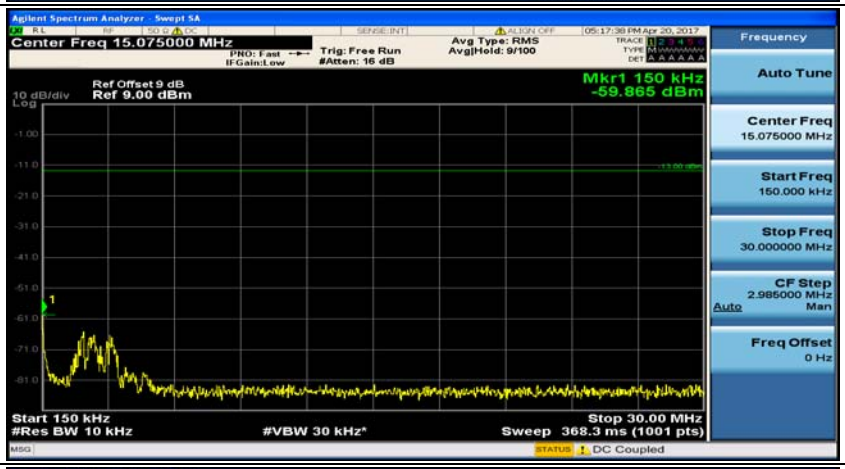


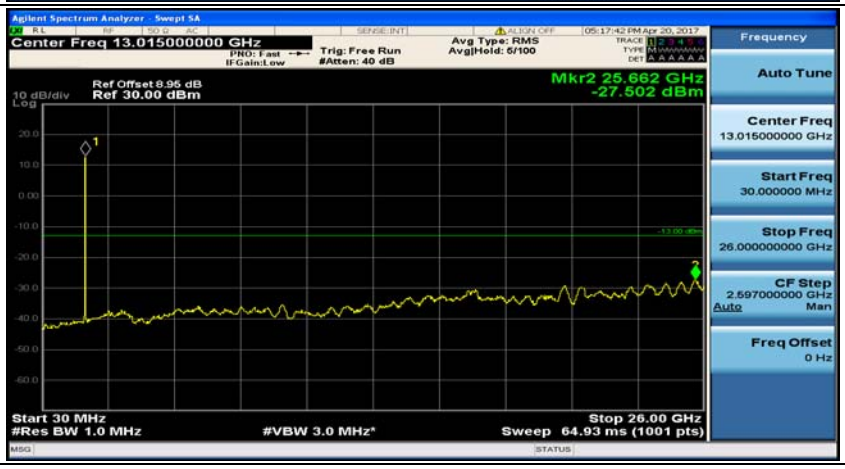




(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

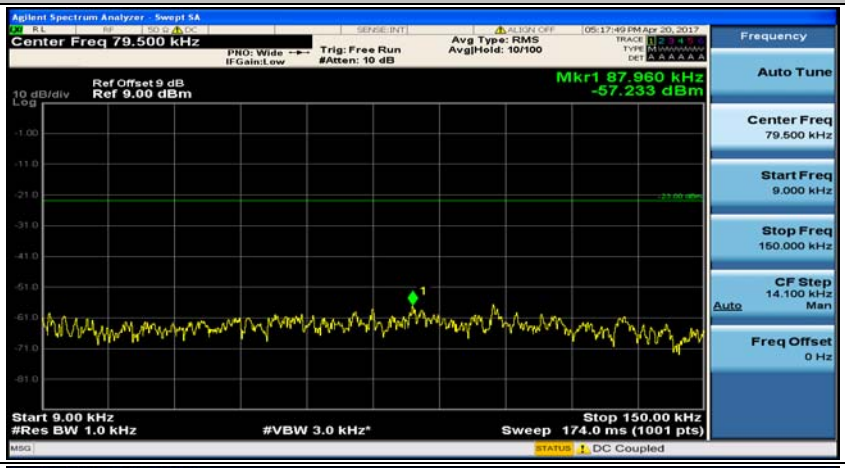

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:17:29 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 82.038 kHz
-56.168 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

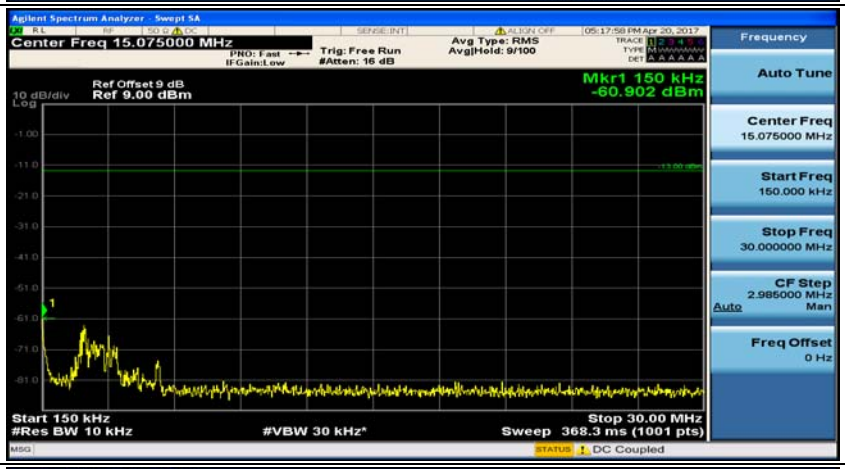

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:17:38 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 150 kHz
-59.865 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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

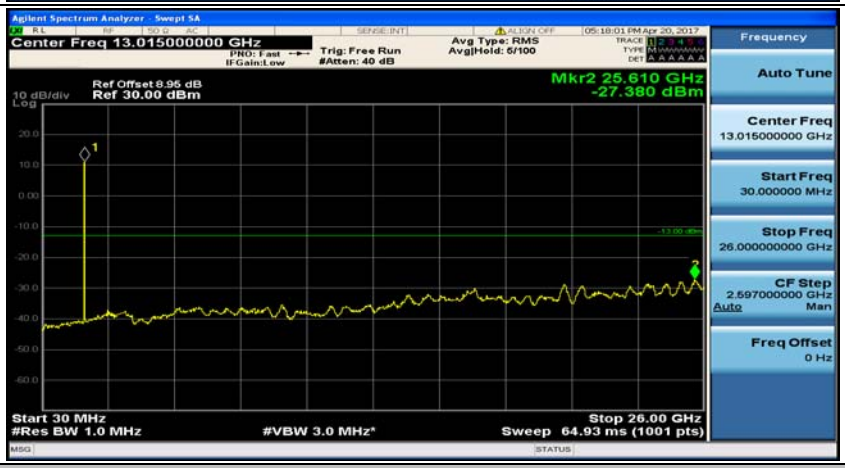

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:17:42 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr2 25.662 GHz
-27.502 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

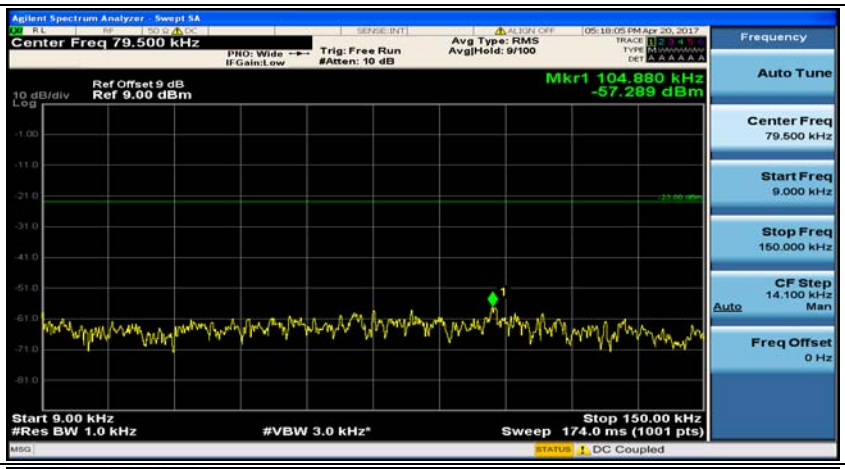
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0

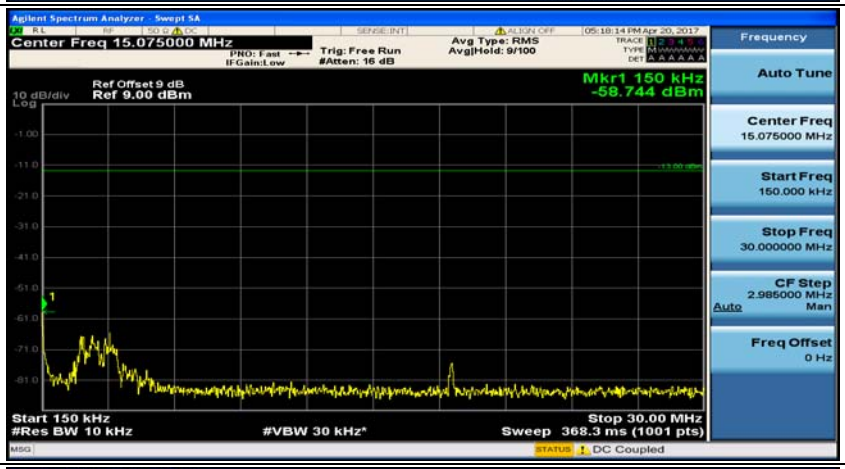


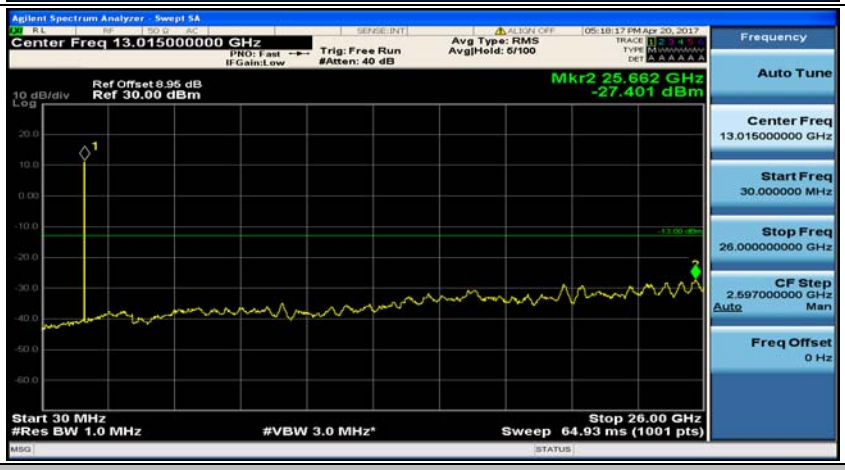




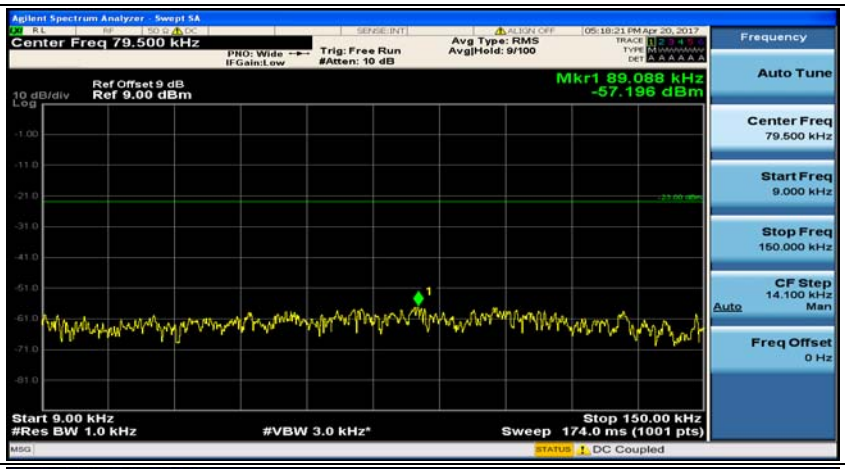
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49

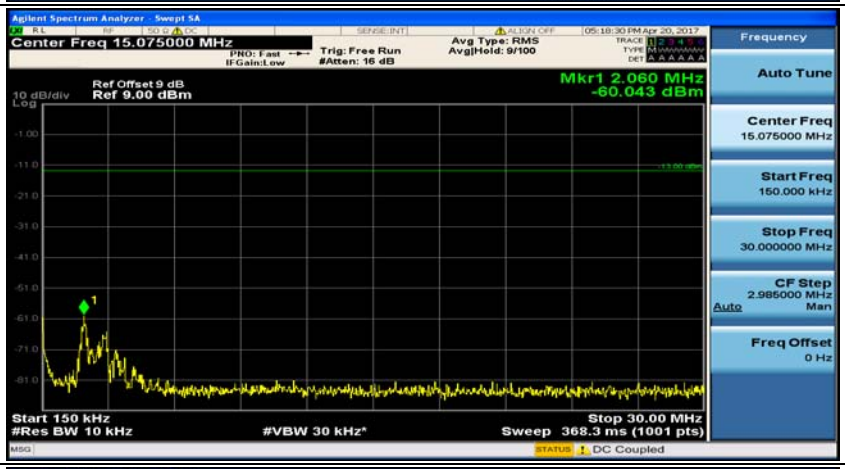


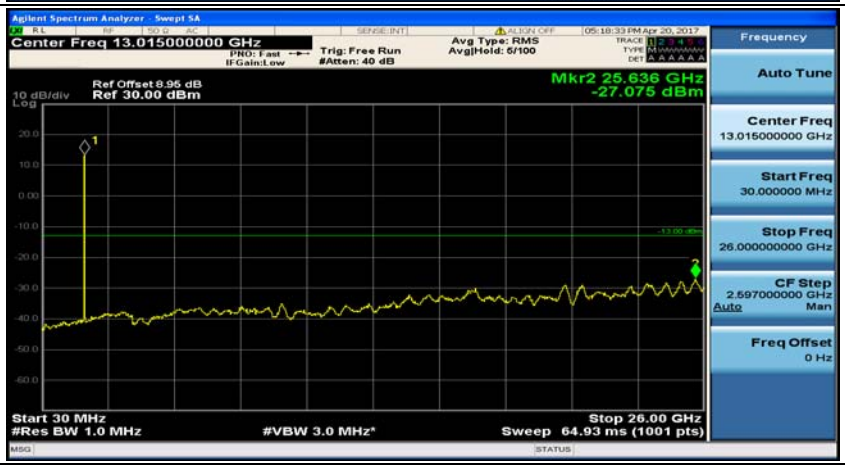




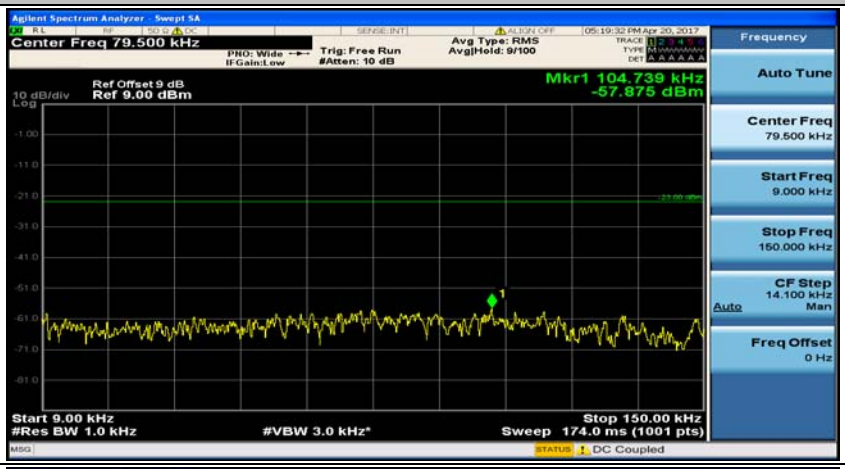
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

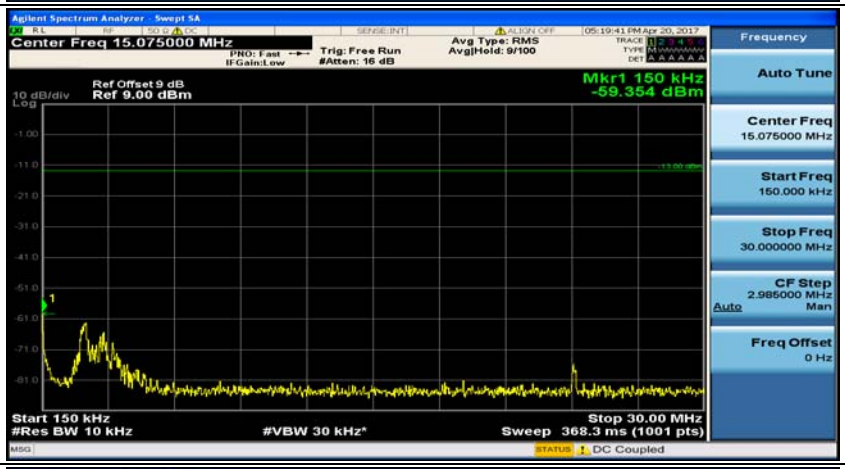

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:18:21 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 89.088 kHz
-57.196 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

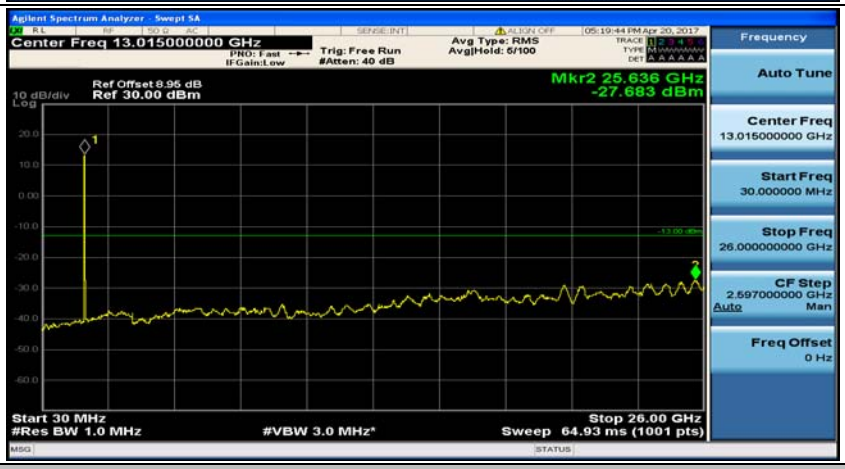

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:18:30 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 2.060 MHz
-60.043 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:18:33 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-27.075 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

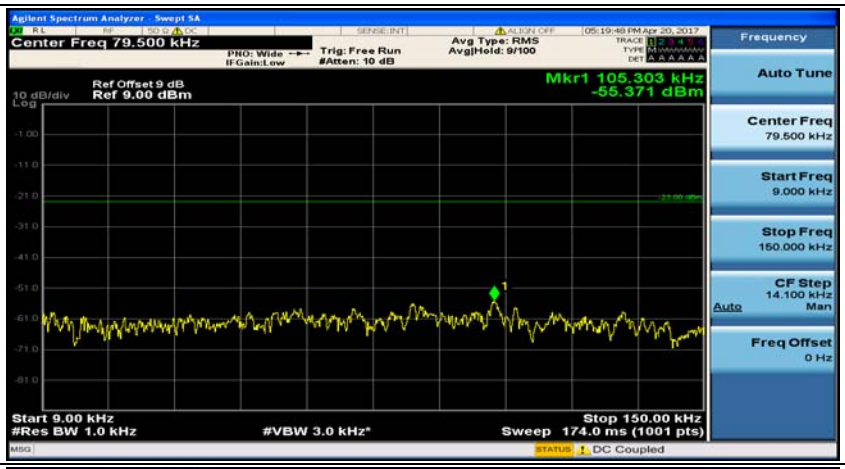
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

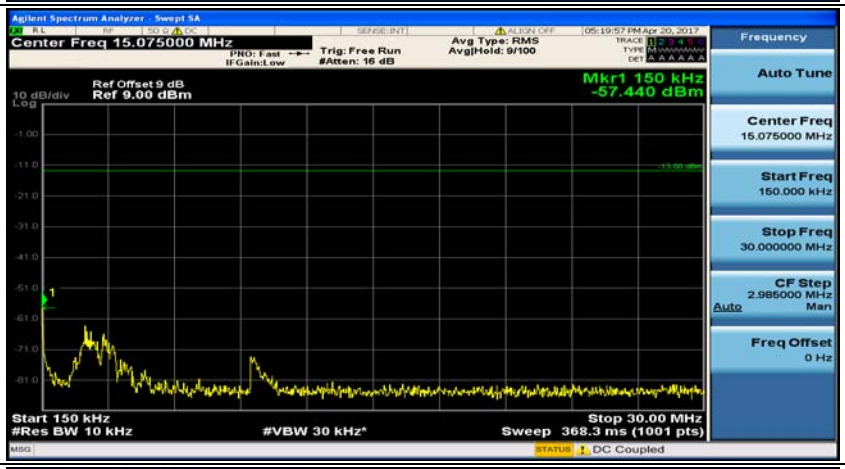


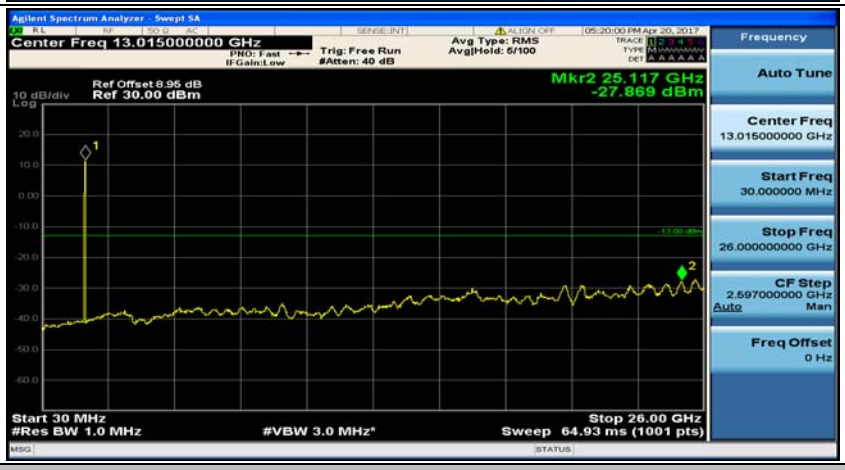




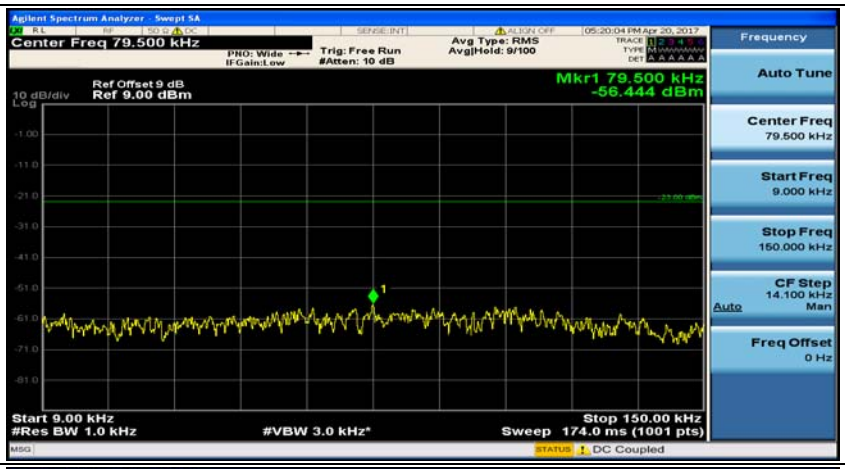
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

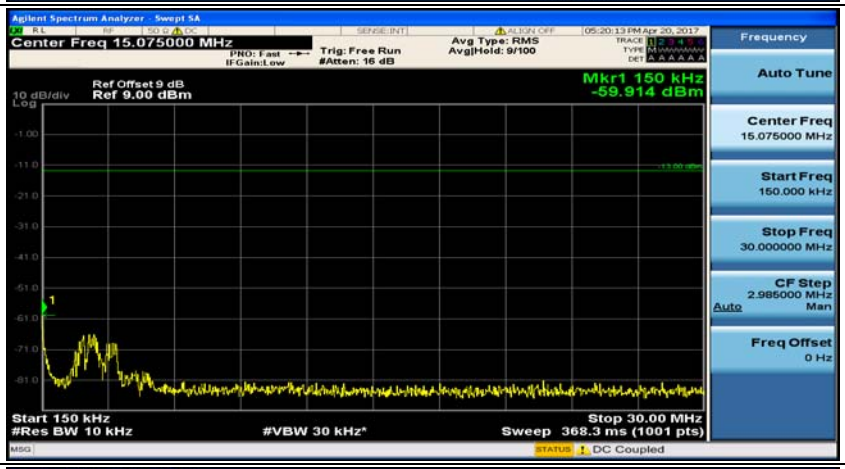


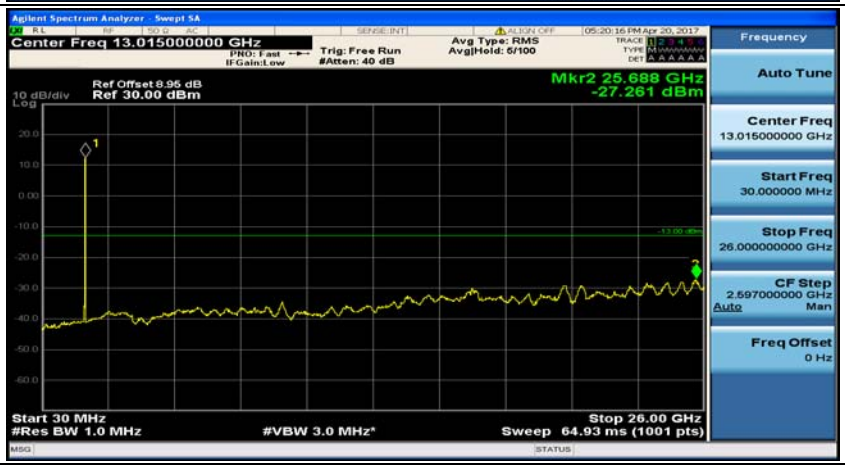




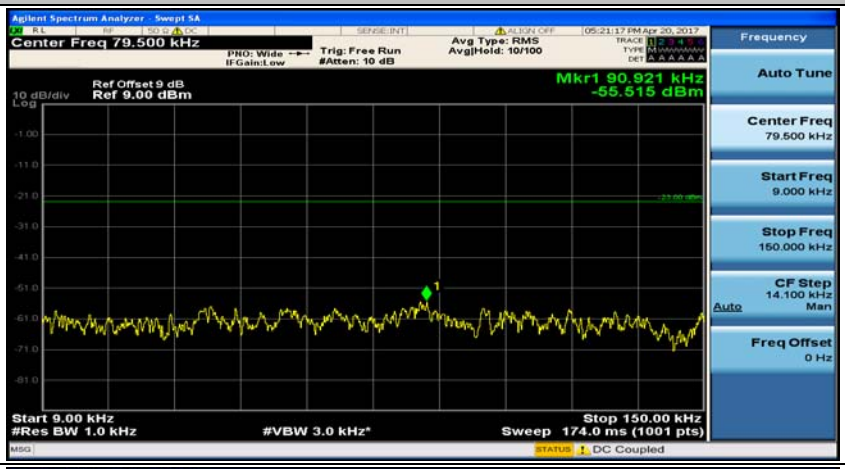
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

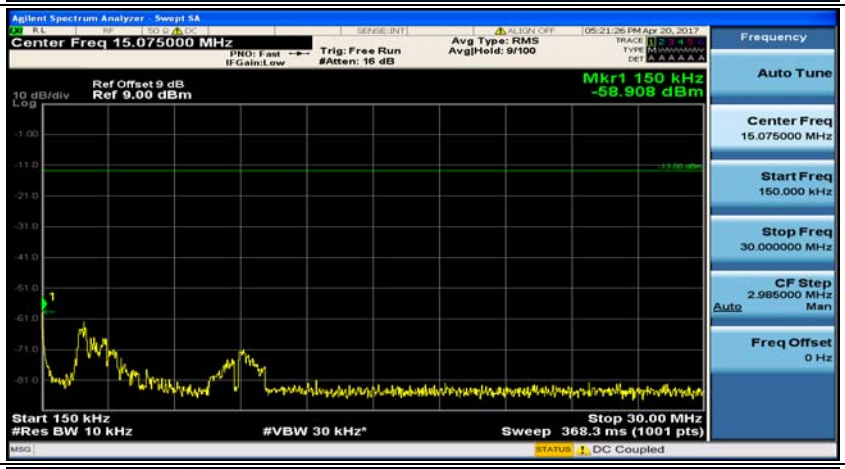

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
05:20:04 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 79.500 kHz
-56.444 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

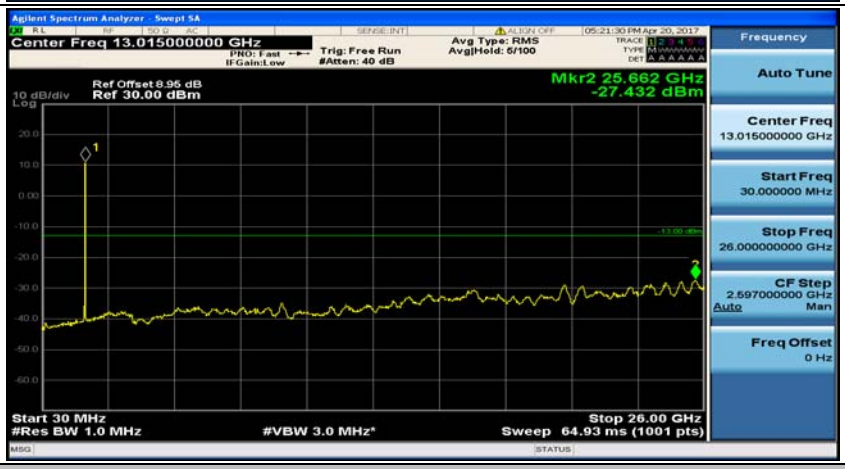

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:20:13 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.914 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:20:16 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-27.261 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

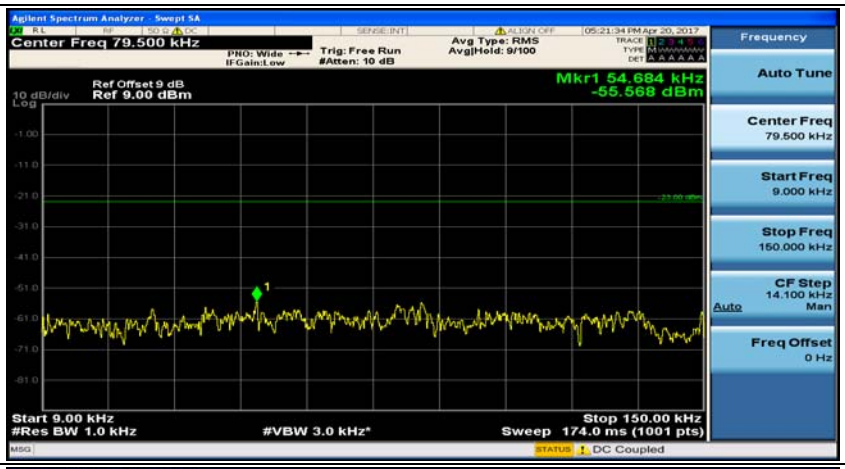
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

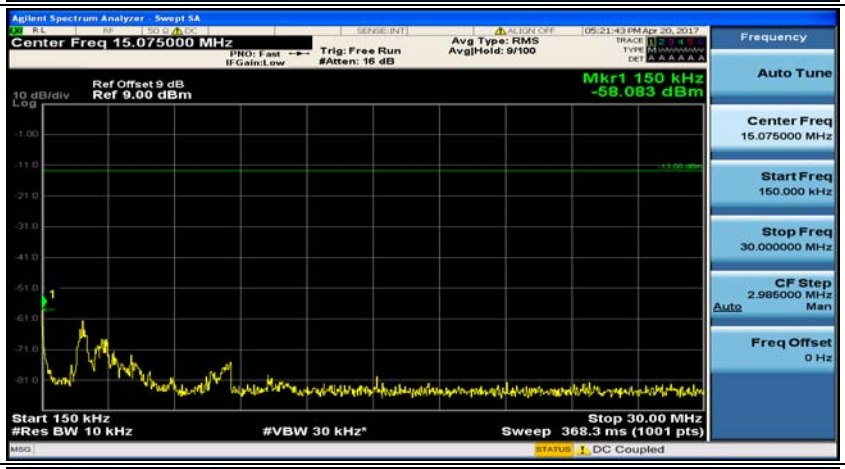


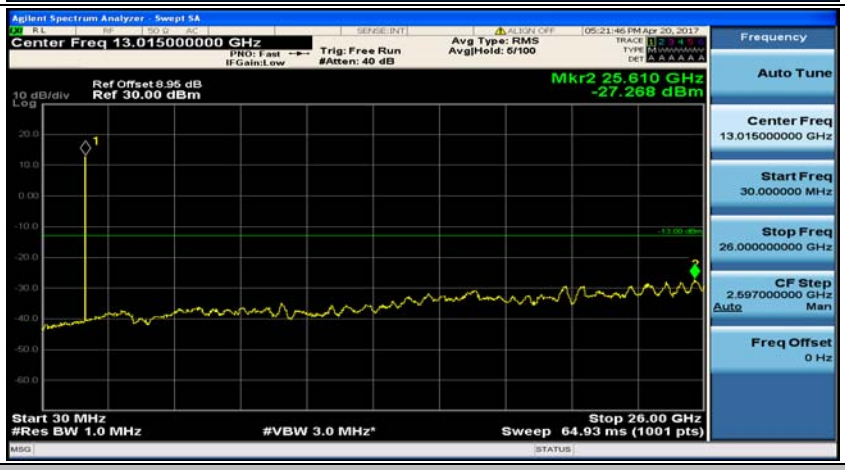




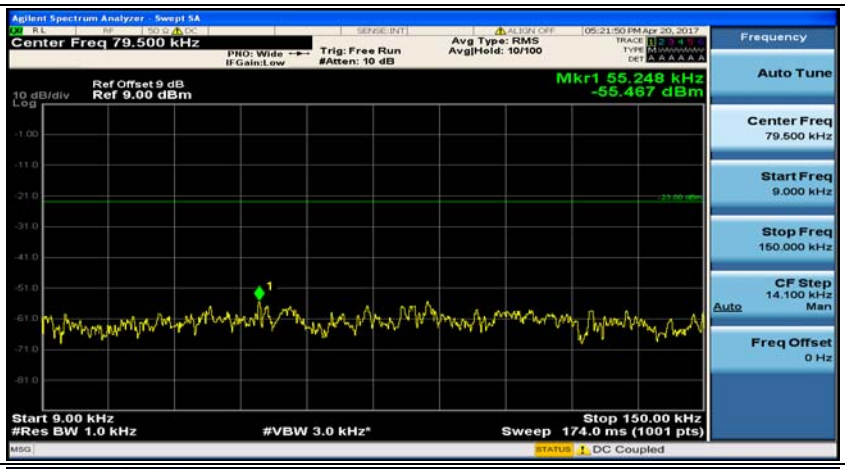
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

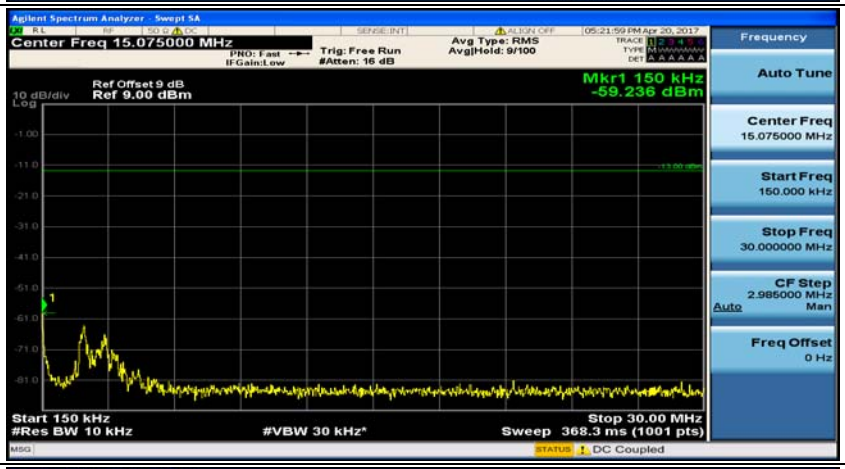


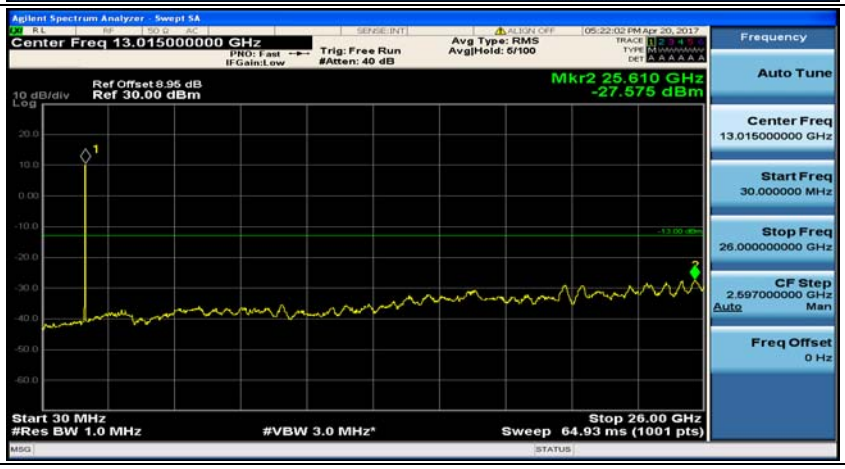




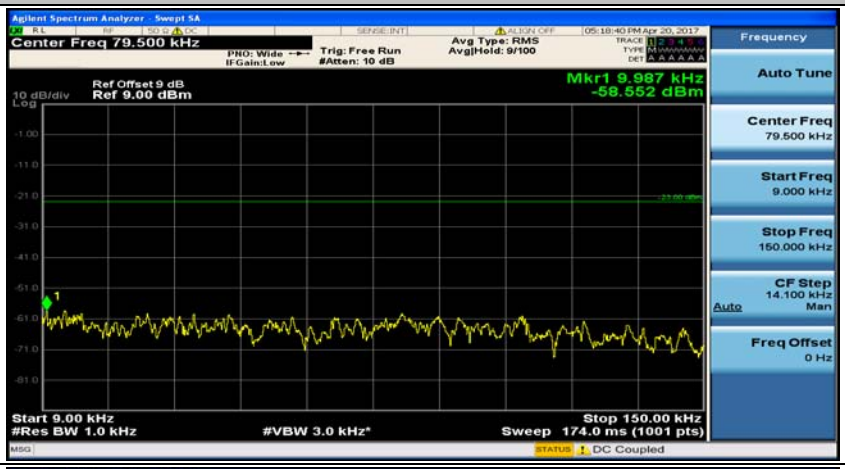
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

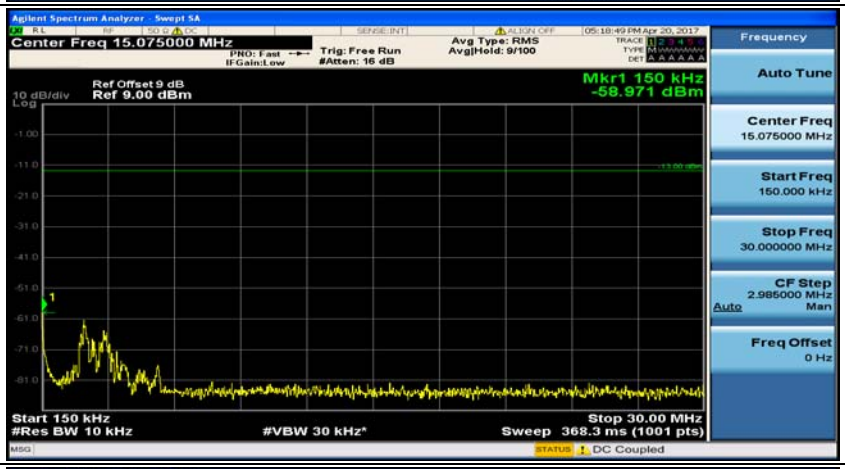

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 10/100
05:21:50 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 55.248 kHz
-55.467 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

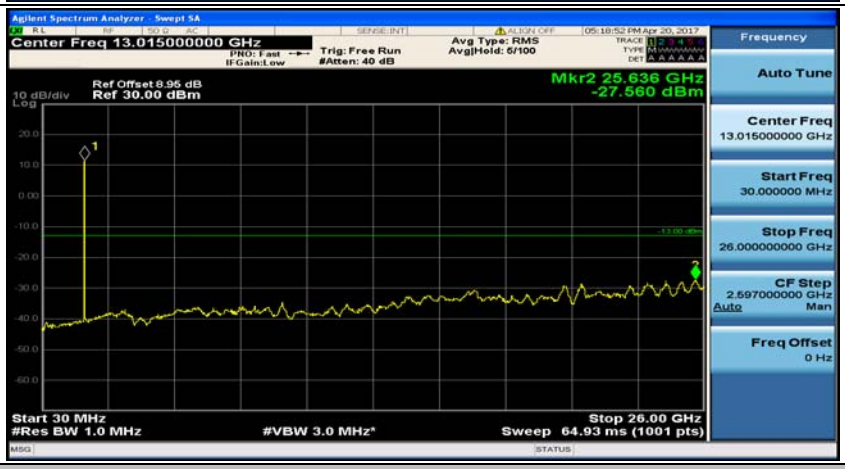

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:21:59 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.236 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:22:02 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.610 GHz
-27.575 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

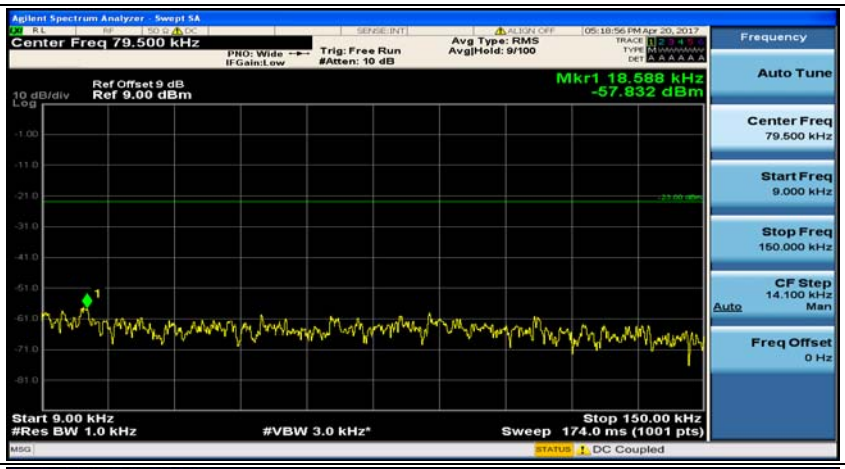
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

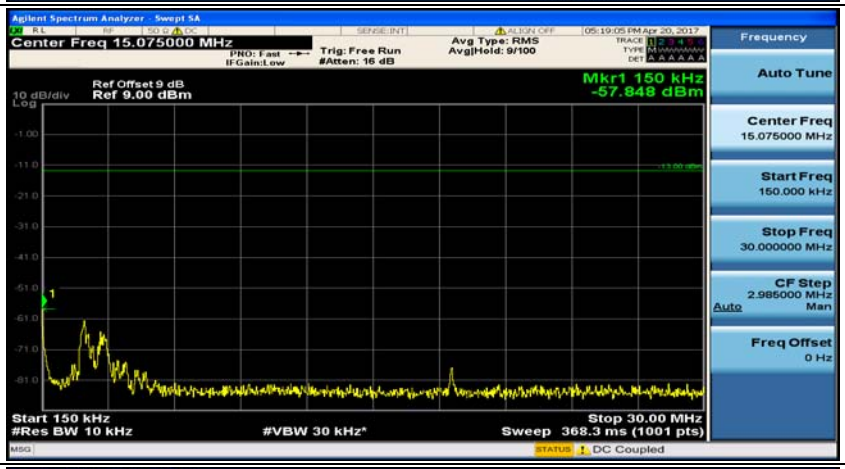


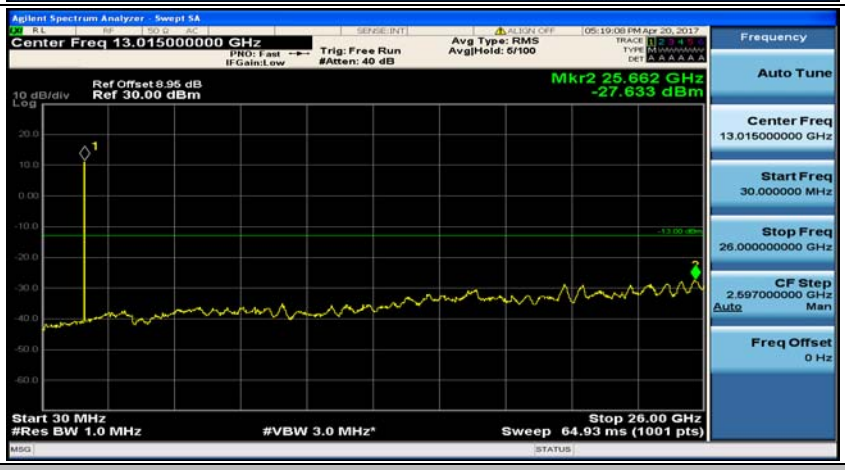




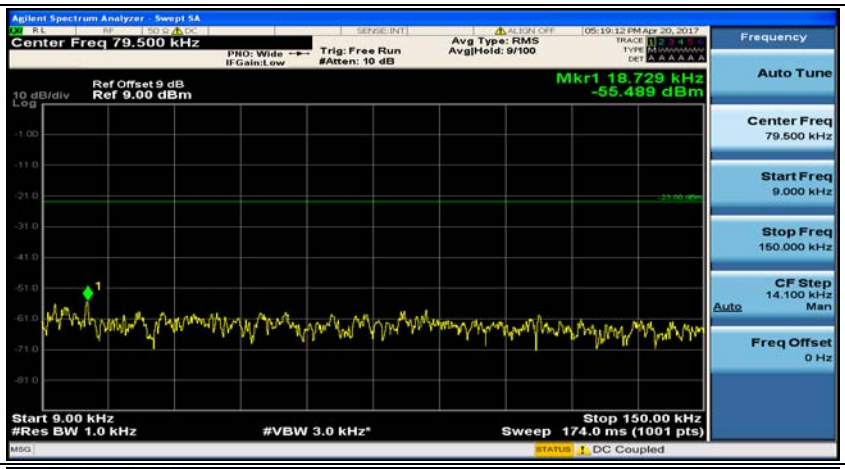
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

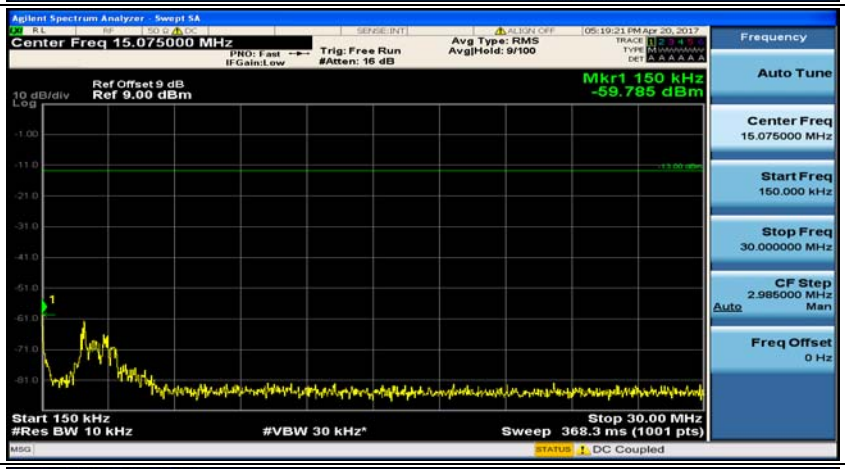


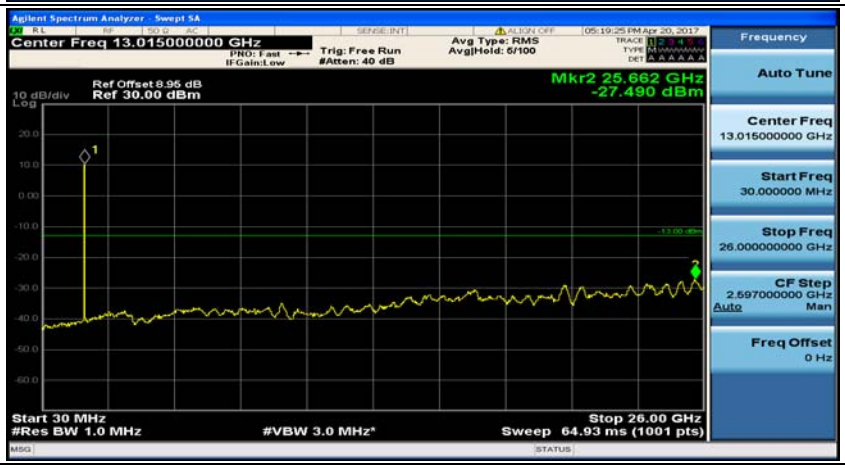




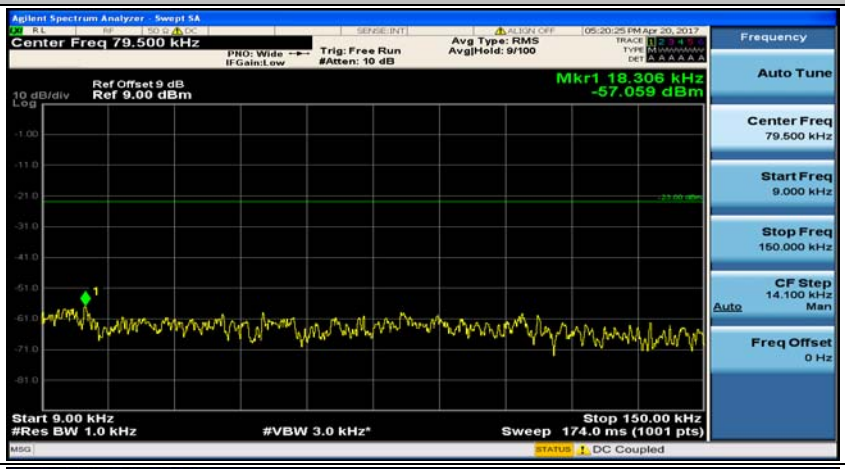
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99

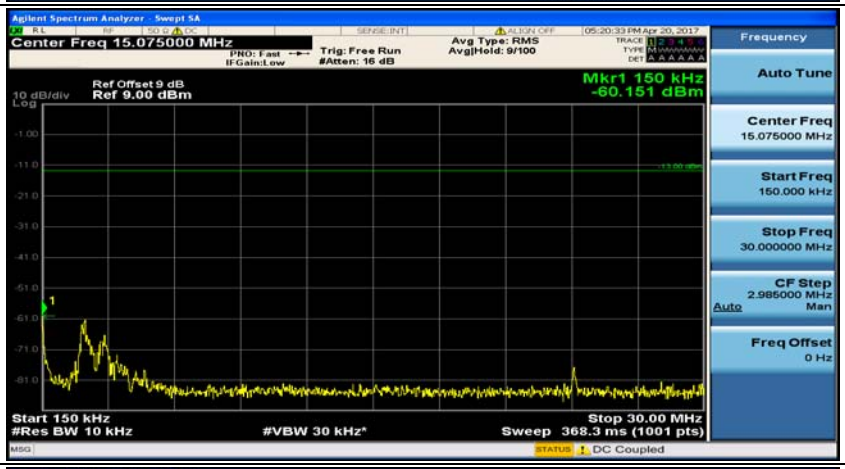

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 18.729 kHz
-55.489 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

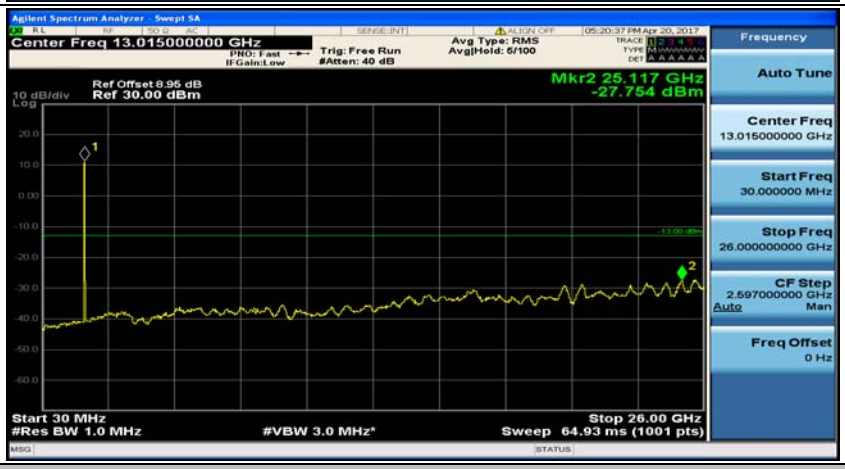

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.785 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-27.490 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

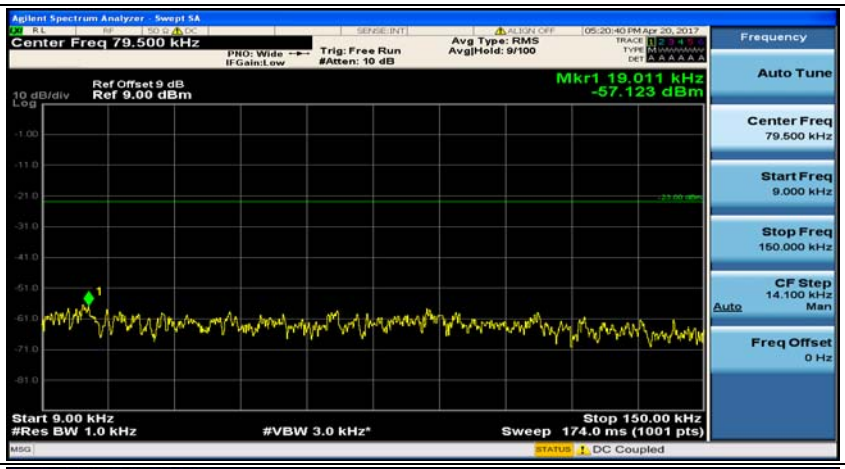
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

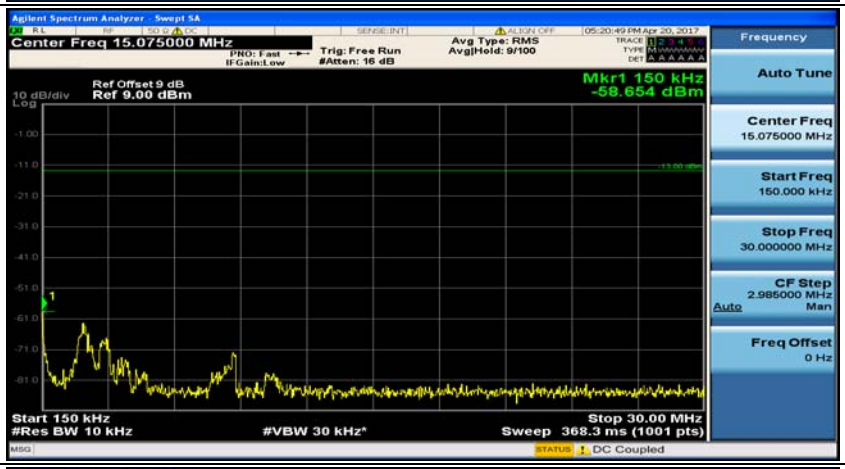


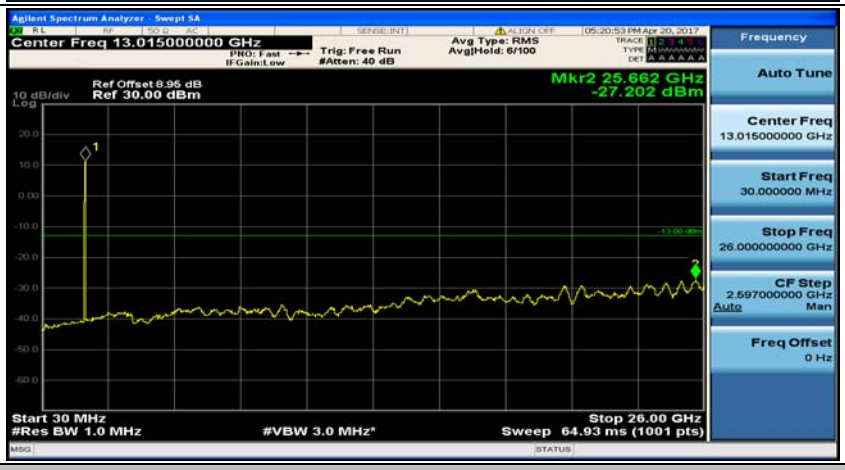




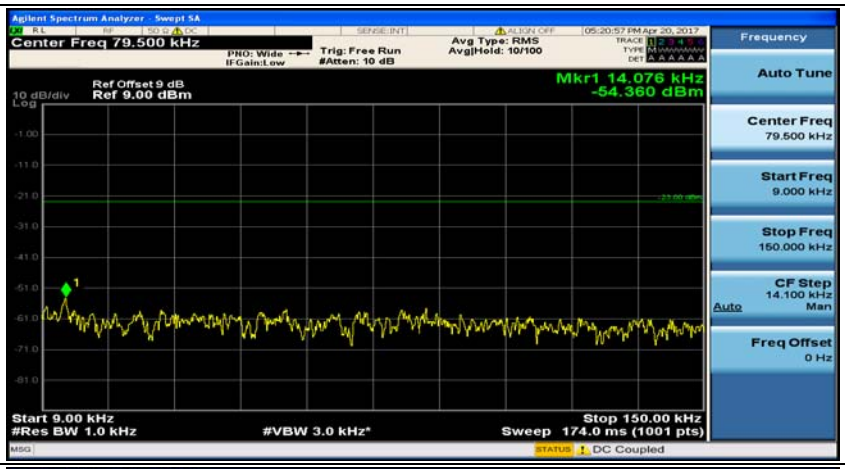
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

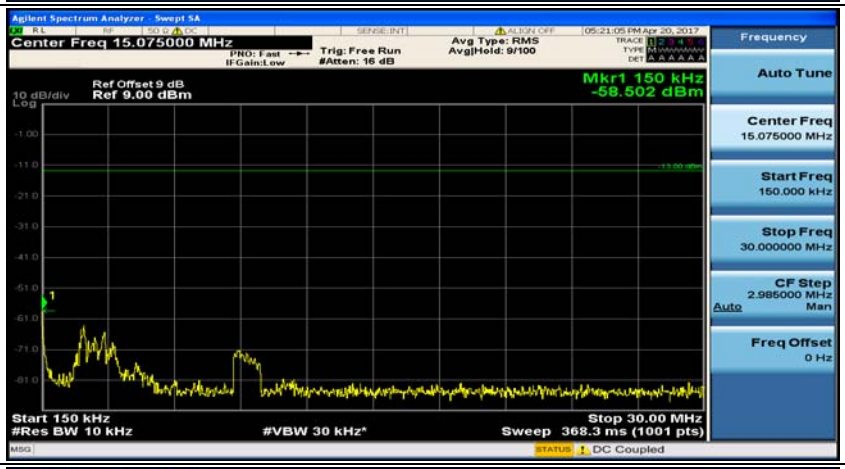


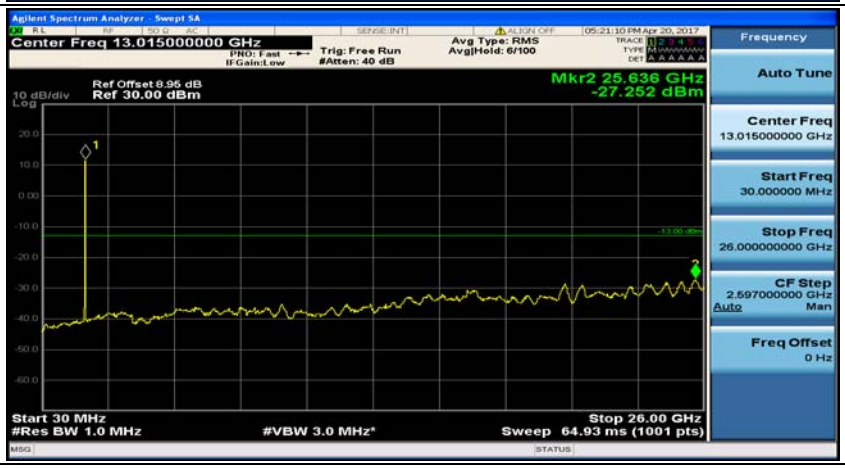




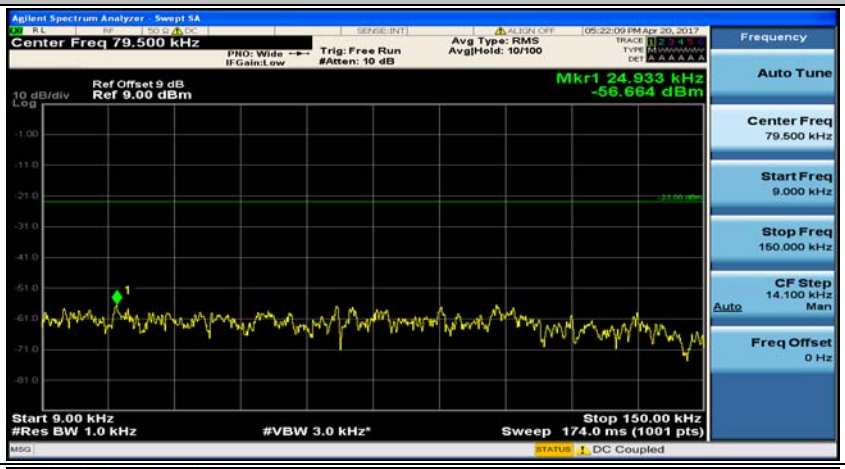
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

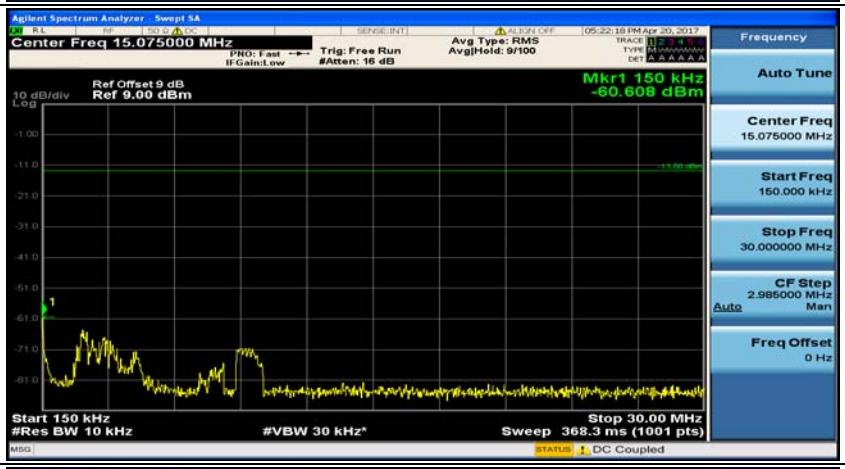

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 10/100
05:20:57 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 14.076 kHz
-54.360 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

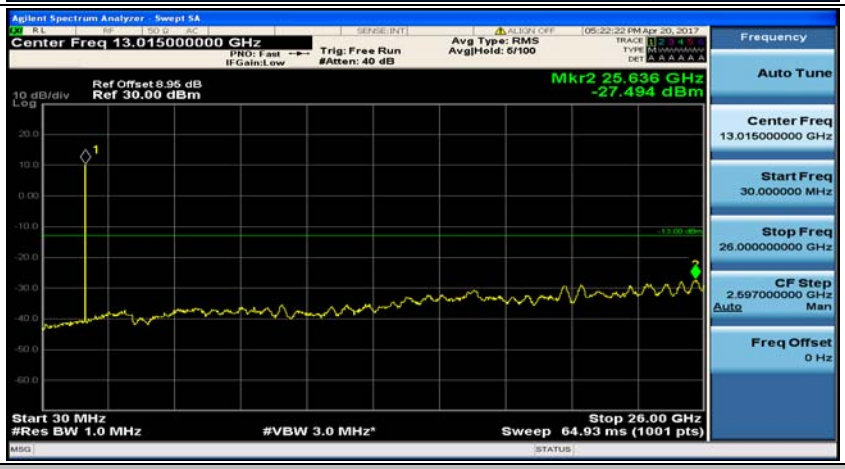

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 9/100
05:21:05 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.502 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 40 dB
Avg Type: RMS
Avg|Hold: 6/100
05:21:10 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-27.252 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

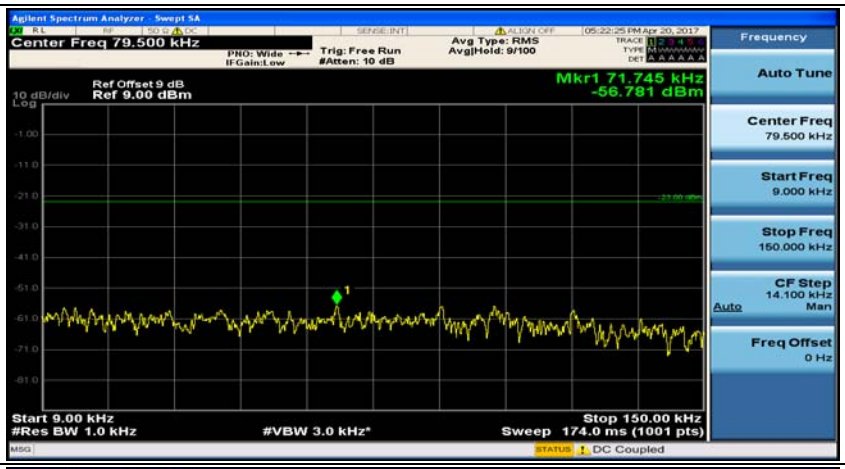
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0

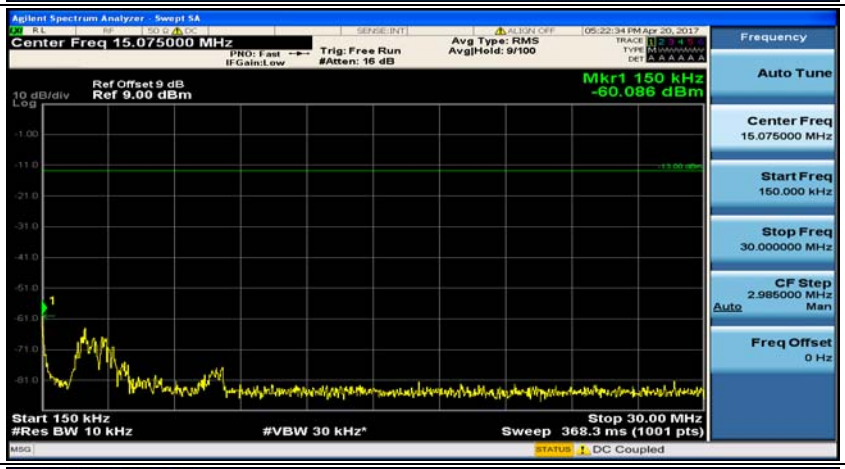


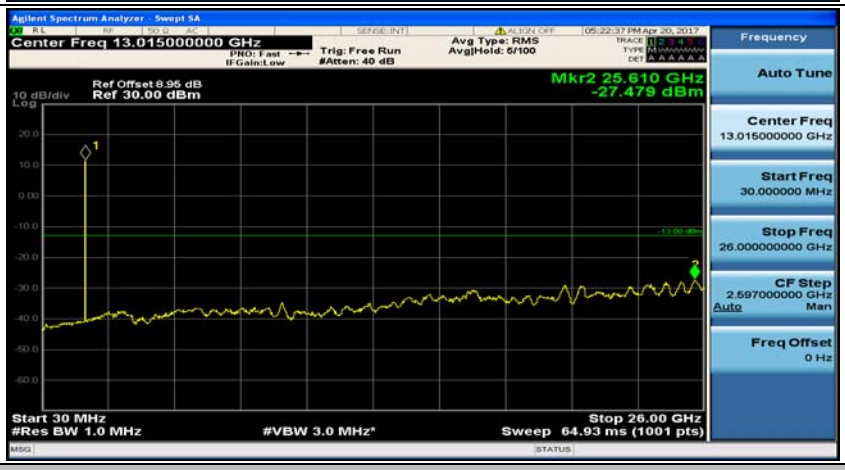




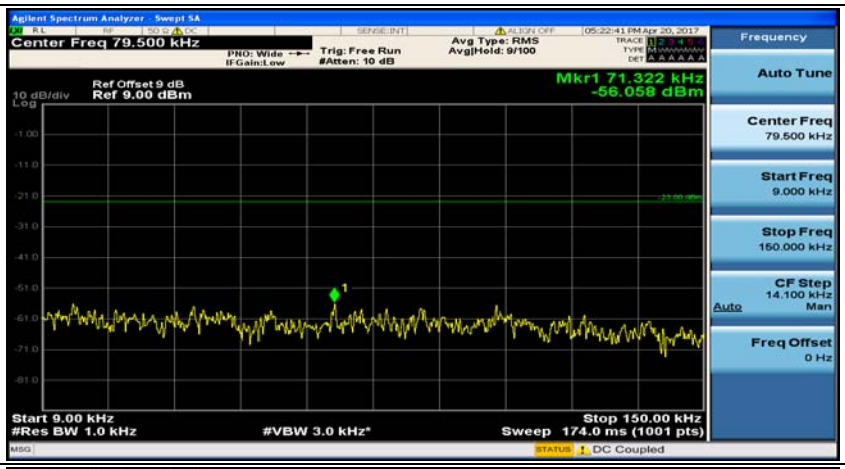
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49

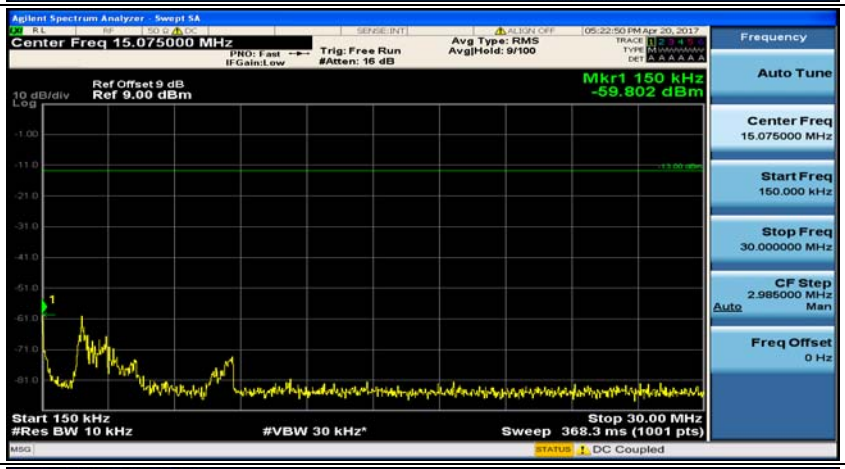


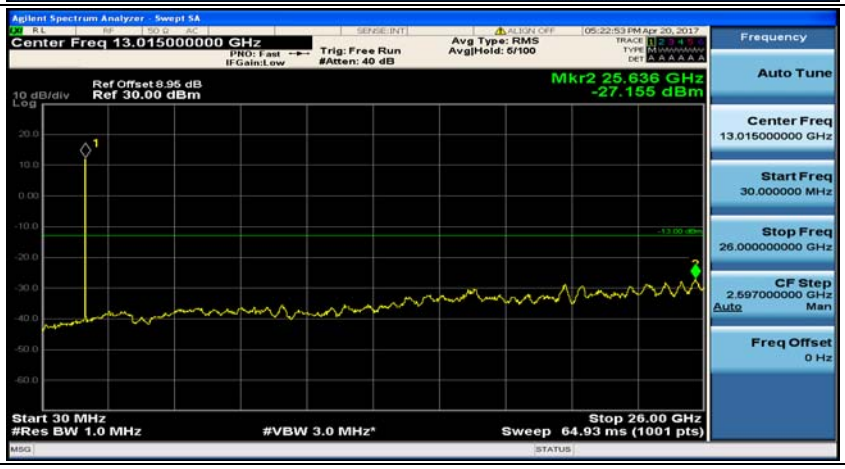




(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99


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
05:22:41 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 71.322 kHz
-56.058 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: 9/100
05:22:50 PM Apr 20, 2017
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 150 kHz
-59.802 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: 40 dB
Avg Type: RMS
Avg|Hold: 5/100
05:22:53 PM Apr 20, 2017
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr2 25.636 GHz
-27.155 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: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.99	0.001163	± 2.5	PASS
		VN	TN	4.94	0.002888	± 2.5	PASS
		VH	TN	-1.59	-0.000929	± 2.5	PASS
	MCH	VL	TN	3.57	0.002061	± 2.5	PASS
		VN	TN	-1.4	-0.000808	± 2.5	PASS
		VH	TN	4.24	0.002447	± 2.5	PASS
	HCH	VL	TN	-0.35	-0.000200	± 2.5	PASS
		VN	TN	4	0.002280	± 2.5	PASS
		VH	TN	4.28	0.002440	± 2.5	PASS
16QAM	LCH	VL	TN	-1.11	-0.000649	± 2.5	PASS
		VN	TN	1.84	0.001076	± 2.5	PASS
		VH	TN	-0.22	-0.000129	± 2.5	PASS
	MCH	VL	TN	0.94	0.000543	± 2.5	PASS
		VN	TN	-1.99	-0.001149	± 2.5	PASS
		VH	TN	0.51	0.000294	± 2.5	PASS
	HCH	VL	TN	2.14	0.001220	± 2.5	PASS
		VN	TN	1.47	0.000838	± 2.5	PASS
		VH	TN	-0.07	-0.000040	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.31	-0.000181	± 2.5	PASS
		VN	-20	2.52	0.001473	± 2.5	PASS
		VN	-10	2.1	0.001228	± 2.5	PASS
		VN	0	2.41	0.001409	± 2.5	PASS
		VN	10	0	0.000000	± 2.5	PASS
		VN	20	-0.68	-0.000397	± 2.5	PASS
		VN	30	1.55	0.000906	± 2.5	PASS
		VN	40	-1.56	-0.000912	± 2.5	PASS
		VN	50	-1.79	-0.001046	± 2.5	PASS
	MCH	VN	-30	4.44	0.002563	± 2.5	PASS
		VN	-20	-1.67	-0.000964	± 2.5	PASS

		VN	-10	1.71	0.000987	± 2.5	PASS
		VN	0	2.38	0.001374	± 2.5	PASS
		VN	10	1.08	0.000623	± 2.5	PASS
		VN	20	-1.19	-0.000687	± 2.5	PASS
		VN	30	-1.4	-0.000808	± 2.5	PASS
		VN	40	3.04	0.001755	± 2.5	PASS
		VN	50	4.27	0.002465	± 2.5	PASS
	HCH	VN	-30	2.76	0.001573	± 2.5	PASS
		VN	-20	3.46	0.001972	± 2.5	PASS
		VN	-10	0.83	0.000473	± 2.5	PASS
		VN	0	0.43	0.000245	± 2.5	PASS
		VN	10	1.17	0.000667	± 2.5	PASS
		VN	20	1.22	0.000695	± 2.5	PASS
		VN	30	1.32	0.000752	± 2.5	PASS
		VN	40	2.57	0.001465	± 2.5	PASS
		VN	50	0.78	0.000445	± 2.5	PASS
16QAM	LCH	VN	-30	-0.7	-0.000409	± 2.5	PASS
		VN	-20	4.52	0.002642	± 2.5	PASS
		VN	-10	4.36	0.002549	± 2.5	PASS
		VN	0	3.87	0.002262	± 2.5	PASS
		VN	10	4.66	0.002724	± 2.5	PASS
		VN	20	-1.27	-0.000742	± 2.5	PASS
		VN	30	-0.43	-0.000251	± 2.5	PASS
		VN	40	1.1	0.000643	± 2.5	PASS
		VN	50	2.86	0.001672	± 2.5	PASS
	MCH	VN	-30	-1.29	-0.000735	± 2.5	PASS
		VN	-20	4.17	0.002377	± 2.5	PASS
		VN	-10	4.65	0.002651	± 2.5	PASS
		VN	0	1.11	0.000633	± 2.5	PASS
		VN	10	0.52	0.000296	± 2.5	PASS
		VN	20	4.64	0.002645	± 2.5	PASS
		VN	30	-0.85	-0.000485	± 2.5	PASS
		VN	40	1.81	0.001032	± 2.5	PASS
		VN	50	0.72	0.000410	± 2.5	PASS
	HCH	VN	-30	-1.58	-0.000901	± 2.5	PASS
		VN	-20	-1.62	-0.000923	± 2.5	PASS
		VN	-10	-1.13	-0.000644	± 2.5	PASS
		VN	0	1.09	0.000621	± 2.5	PASS
		VN	10	-1.32	-0.000752	± 2.5	PASS
		VN	20	-1.51	-0.000861	± 2.5	PASS
		VN	30	2.82	0.001607	± 2.5	PASS

		VN	40	0.71	0.000405	± 2.5	PASS
		VN	50	3.66	0.002086	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.59	0.001513	± 2.5	PASS
		VN	TN	-0.56	-0.000327	± 2.5	PASS
		VH	TN	4.47	0.002612	± 2.5	PASS
	MCH	VL	TN	4.04	0.002332	± 2.5	PASS
		VN	TN	2.7	0.001558	± 2.5	PASS
		VH	TN	4.18	0.002413	± 2.5	PASS
	HCH	VL	TN	2.56	0.001460	± 2.5	PASS
		VN	TN	1.2	0.000684	± 2.5	PASS
		VH	TN	-1.47	-0.000838	± 2.5	PASS
16QAM	LCH	VL	TN	-1.09	-0.000637	± 2.5	PASS
		VN	TN	0.52	0.000304	± 2.5	PASS
		VH	TN	4.27	0.002495	± 2.5	PASS
	MCH	VL	TN	3.84	0.002216	± 2.5	PASS
		VN	TN	4	0.002309	± 2.5	PASS
		VH	TN	3.17	0.001830	± 2.5	PASS
	HCH	VL	TN	2.04	0.001163	± 2.5	PASS
		VN	TN	4.07	0.002321	± 2.5	PASS
		VH	TN	3.6	0.002053	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.46	0.000269	± 2.5	PASS
		VN	-20	1.41	0.000824	± 2.5	PASS
		VN	-10	2.29	0.001338	± 2.5	PASS
		VN	0	-1.14	-0.000666	± 2.5	PASS
		VN	10	-1.64	-0.000958	± 2.5	PASS
		VN	20	4.19	0.002448	± 2.5	PASS
		VN	30	2.24	0.001309	± 2.5	PASS
		VN	40	2.03	0.001186	± 2.5	PASS
		VN	50	-0.64	-0.000374	± 2.5	PASS
	MCH	VN	-30	0.3	0.000173	± 2.5	PASS
		VN	-20	4.23	0.002442	± 2.5	PASS
		VN	-10	1.35	0.000779	± 2.5	PASS

		VN	0	0.78	0.000450	± 2.5	PASS
		VN	10	-1.51	-0.000872	± 2.5	PASS
		VN	20	2.98	0.001720	± 2.5	PASS
		VN	30	1.6	0.000924	± 2.5	PASS
		VN	40	3.46	0.001997	± 2.5	PASS
		VN	50	-0.06	-0.000035	± 2.5	PASS
	HCH	VN	-30	1.38	0.000787	± 2.5	PASS
		VN	-20	4.05	0.002310	± 2.5	PASS
		VN	-10	-1.7	-0.000969	± 2.5	PASS
		VN	0	0.15	0.000086	± 2.5	PASS
		VN	10	1.14	0.000650	± 2.5	PASS
		VN	20	4.08	0.002327	± 2.5	PASS
		VN	30	3.34	0.001905	± 2.5	PASS
		VN	40	0.26	0.000148	± 2.5	PASS
		VN	50	0.79	0.000451	± 2.5	PASS
16QAM	LCH	VN	-30	-0.92	-0.000531	± 2.5	PASS
		VN	-20	1.62	0.000935	± 2.5	PASS
		VN	-10	4.46	0.002574	± 2.5	PASS
		VN	0	-0.66	-0.000381	± 2.5	PASS
		VN	10	-1.15	-0.000664	± 2.5	PASS
		VN	20	0.99	0.000571	± 2.5	PASS
		VN	30	2.51	0.001449	± 2.5	PASS
		VN	40	0.14	0.000081	± 2.5	PASS
		VN	50	2.89	0.001668	± 2.5	PASS
	MCH	VN	-30	3.23	0.001842	± 2.5	PASS
		VN	-20	0.17	0.000097	± 2.5	PASS
		VN	-10	3.92	0.002236	± 2.5	PASS
		VN	0	3.25	0.001853	± 2.5	PASS
		VN	10	-1.04	-0.000593	± 2.5	PASS
		VN	20	2.39	0.001363	± 2.5	PASS
		VN	30	4.16	0.002372	± 2.5	PASS
		VN	40	3.96	0.002258	± 2.5	PASS
		VN	50	0.11	0.000063	± 2.5	PASS
	HCH	VN	-30	3.62	0.002064	± 2.5	PASS
		VN	-20	-1.73	-0.000987	± 2.5	PASS
		VN	-10	4.25	0.002424	± 2.5	PASS
		VN	0	-1.07	-0.000610	± 2.5	PASS
		VN	10	4.54	0.002589	± 2.5	PASS
		VN	20	-0.93	-0.000530	± 2.5	PASS
		VN	30	2.87	0.001637	± 2.5	PASS
		VN	40	1.96	0.001118	± 2.5	PASS

		VN	50	-0.8	-0.000456	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.7	0.000409	± 2.5	PASS
		VN	TN	3.77	0.002201	± 2.5	PASS
		VH	TN	-1.49	-0.000870	± 2.5	PASS
	MCH	VL	TN	2.67	0.001541	± 2.5	PASS
		VN	TN	-1.91	-0.001102	± 2.5	PASS
		VH	TN	-1.46	-0.000843	± 2.5	PASS
	HCH	VL	TN	-0.76	-0.000434	± 2.5	PASS
		VN	TN	3.06	0.001746	± 2.5	PASS
		VH	TN	4.1	0.002340	± 2.5	PASS
16QAM	LCH	VL	TN	-0.35	-0.000204	± 2.5	PASS
		VN	TN	2.77	0.001618	± 2.5	PASS
		VH	TN	4.13	0.002412	± 2.5	PASS
	MCH	VL	TN	-1.53	-0.000883	± 2.5	PASS
		VN	TN	4.76	0.002747	± 2.5	PASS
		VH	TN	-0.67	-0.000387	± 2.5	PASS
	HCH	VL	TN	-0.82	-0.000468	± 2.5	PASS
		VN	TN	0.81	0.000462	± 2.5	PASS
		VH	TN	1.23	0.000702	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.57	-0.000333	± 2.5	PASS
		VN	-20	2.22	0.001296	± 2.5	PASS
		VN	-10	4.19	0.002447	± 2.5	PASS
		VN	0	-0.36	-0.000210	± 2.5	PASS
		VN	10	-1.29	-0.000753	± 2.5	PASS
		VN	20	3.25	0.001898	± 2.5	PASS
		VN	30	2.42	0.001413	± 2.5	PASS
		VN	40	-1.43	-0.000835	± 2.5	PASS
		VN	50	-1.91	-0.001115	± 2.5	PASS
	MCH	VN	-30	2.48	0.001431	± 2.5	PASS
		VN	-20	0.21	0.000121	± 2.5	PASS
		VN	-10	-0.96	-0.000554	± 2.5	PASS
		VN	0	2.22	0.001281	± 2.5	PASS

		VN	10	-0.32	-0.000185	± 2.5	PASS
		VN	20	-1.54	-0.000889	± 2.5	PASS
		VN	30	1.45	0.000837	± 2.5	PASS
		VN	40	1.92	0.001108	± 2.5	PASS
		VN	50	-1.13	-0.000652	± 2.5	PASS
	HCH	VN	-30	4.6	0.002625	± 2.5	PASS
		VN	-20	3.32	0.001740	± 2.5	PASS
		VN	-10	-0.69	-0.000362	± 2.5	PASS
		VN	0	1.75	0.000917	± 2.5	PASS
		VN	10	3.69	0.001934	± 2.5	PASS
		VN	20	-0.63	-0.000330	± 2.5	PASS
		VN	30	-0.97	-0.000509	± 2.5	PASS
		VN	40	3.44	0.001803	± 2.5	PASS
		VN	50	-0.72	-0.000377	± 2.5	PASS
16QAM	LCH	VN	-30	-1.65	-0.000952	± 2.5	PASS
		VN	-20	-0.17	-0.000098	± 2.5	PASS
		VN	-10	2.41	0.001391	± 2.5	PASS
		VN	0	0.74	0.000427	± 2.5	PASS
		VN	10	-1	-0.000577	± 2.5	PASS
		VN	20	0.34	0.000196	± 2.5	PASS
		VN	30	2.43	0.001403	± 2.5	PASS
		VN	40	-0.97	-0.000560	± 2.5	PASS
		VN	50	-1.34	-0.000773	± 2.5	PASS
	MCH	VN	-30	-1.69	-0.000964	± 2.5	PASS
		VN	-20	2.1	0.001198	± 2.5	PASS
		VN	-10	1.12	0.000639	± 2.5	PASS
		VN	0	-2	-0.001141	± 2.5	PASS
		VN	10	-1.97	-0.001124	± 2.5	PASS
		VN	20	-1.45	-0.000827	± 2.5	PASS
		VN	30	4.11	0.002345	± 2.5	PASS
		VN	40	2.48	0.001415	± 2.5	PASS
		VN	50	3.25	0.001854	± 2.5	PASS
	HCH	VN	-30	3.49	0.001830	± 2.5	PASS
		VN	-20	-0.93	-0.000488	± 2.5	PASS
		VN	-10	3.24	0.001699	± 2.5	PASS
		VN	0	1.37	0.000718	± 2.5	PASS
		VN	10	-1.54	-0.000807	± 2.5	PASS
		VN	20	0.51	0.000267	± 2.5	PASS
		VN	30	0.03	0.000016	± 2.5	PASS
		VN	40	-1.16	-0.000608	± 2.5	PASS
		VN	50	-0.24	-0.000126	± 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	-1.55	-0.000904	± 2.5	PASS
		VN	TN	-1.57	-0.000915	± 2.5	PASS
		VH	TN	-1.73	-0.001009	± 2.5	PASS
	MCH	VL	TN	-0.02	-0.000012	± 2.5	PASS
		VN	TN	-0.04	-0.000023	± 2.5	PASS
		VH	TN	-1.64	-0.000947	± 2.5	PASS
	HCH	VL	TN	3.87	0.002211	± 2.5	PASS
		VN	TN	2.56	0.001463	± 2.5	PASS
		VH	TN	0.48	0.000274	± 2.5	PASS
16QAM	LCH	VL	TN	1.42	0.000828	± 2.5	PASS
		VN	TN	2.22	0.001294	± 2.5	PASS
		VH	TN	2.89	0.001685	± 2.5	PASS
	MCH	VL	TN	-1.93	-0.001114	± 2.5	PASS
		VN	TN	-0.48	-0.000277	± 2.5	PASS
		VH	TN	2.47	0.001426	± 2.5	PASS
	HCH	VL	TN	-1.7	-0.000971	± 2.5	PASS
		VN	TN	2.13	0.001217	± 2.5	PASS
		VH	TN	-0.65	-0.000371	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.72	-0.001003	± 2.5	PASS
		VN	-20	3.49	0.002035	± 2.5	PASS
		VN	-10	0.08	0.000047	± 2.5	PASS
		VN	0	3.32	0.001936	± 2.5	PASS
		VN	10	1.54	0.000898	± 2.5	PASS
		VN	20	-0.22	-0.000128	± 2.5	PASS
		VN	30	-1.07	-0.000624	± 2.5	PASS
		VN	40	0.57	0.000332	± 2.5	PASS
		VN	50	2.01	0.001172	± 2.5	PASS
	MCH	VN	-30	3.29	0.001899	± 2.5	PASS
		VN	-20	-1.28	-0.000739	± 2.5	PASS
		VN	-10	-0.81	-0.000468	± 2.5	PASS
		VN	0	-0.36	-0.000208	± 2.5	PASS
		VN	10	2.67	0.001541	± 2.5	PASS
		VN	20	1.88	0.001085	± 2.5	PASS

		VN	30	4.5	0.002597	± 2.5	PASS
		VN	40	3.69	0.002130	± 2.5	PASS
		VN	50	0.22	0.000127	± 2.5	PASS
	HCH	VN	-30	4.55	0.002600	± 2.5	PASS
		VN	-20	3.25	0.001857	± 2.5	PASS
		VN	-10	1.11	0.000634	± 2.5	PASS
		VN	0	2.97	0.001697	± 2.5	PASS
		VN	10	-0.19	-0.000109	± 2.5	PASS
		VN	20	-1.38	-0.000789	± 2.5	PASS
		VN	30	1.64	0.000937	± 2.5	PASS
		VN	40	0.84	0.000480	± 2.5	PASS
		VN	50	1.63	0.000931	± 2.5	PASS
16QAM	LCH	VN	-30	-1.35	-0.000779	± 2.5	PASS
		VN	-20	2.08	0.001201	± 2.5	PASS
		VN	-10	-1.08	-0.000623	± 2.5	PASS
		VN	0	1.56	0.000900	± 2.5	PASS
		VN	10	3.39	0.001957	± 2.5	PASS
		VN	20	2.06	0.001189	± 2.5	PASS
		VN	30	1.44	0.000831	± 2.5	PASS
		VN	40	2.32	0.001339	± 2.5	PASS
		VN	50	2.31	0.001333	± 2.5	PASS
	MCH	VN	-30	-1.45	-0.000829	± 2.5	PASS
		VN	-20	3.79	0.002166	± 2.5	PASS
		VN	-10	1.93	0.001103	± 2.5	PASS
		VN	0	-0.01	-0.000006	± 2.5	PASS
		VN	10	-0.93	-0.000531	± 2.5	PASS
		VN	20	2.9	0.001657	± 2.5	PASS
		VN	30	1.4	0.000800	± 2.5	PASS
		VN	40	0.38	0.000217	± 2.5	PASS
		VN	50	1.85	0.001057	± 2.5	PASS
	HCH	VN	-30	2.59	0.001480	± 2.5	PASS
		VN	-20	0.77	0.000440	± 2.5	PASS
		VN	-10	-1.37	-0.000783	± 2.5	PASS
		VN	0	-1.42	-0.000811	± 2.5	PASS
		VN	10	-1.98	-0.001131	± 2.5	PASS
		VN	20	-0.4	-0.000229	± 2.5	PASS
		VN	30	1.13	0.000646	± 2.5	PASS
		VN	40	2.77	0.001583	± 2.5	PASS
		VN	50	0.42	0.000240	± 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	2.02	0.001176	± 2.5	PASS
		VN	TN	2.6	0.001514	± 2.5	PASS
		VH	TN	3.84	0.002236	± 2.5	PASS
	MCH	VL	TN	-0.61	-0.000352	± 2.5	PASS
		VN	TN	4.15	0.002395	± 2.5	PASS
		VH	TN	1.85	0.001068	± 2.5	PASS
	HCH	VL	TN	-0.28	-0.000160	± 2.5	PASS
		VN	TN	-1.37	-0.000784	± 2.5	PASS
		VH	TN	1.45	0.000830	± 2.5	PASS
16QAM	LCH	VL	TN	3.52	0.002049	± 2.5	PASS
		VN	TN	3.14	0.001828	± 2.5	PASS
		VH	TN	-0.25	-0.000146	± 2.5	PASS
	MCH	VL	TN	2.03	0.001172	± 2.5	PASS
		VN	TN	3.99	0.002303	± 2.5	PASS
		VH	TN	-1.85	-0.001068	± 2.5	PASS
	HCH	VL	TN	-0.43	-0.000246	± 2.5	PASS
		VN	TN	0.27	0.000155	± 2.5	PASS
		VH	TN	-1.65	-0.000944	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.84	-0.000489	± 2.5	PASS
		VN	-20	2.22	0.001293	± 2.5	PASS
		VN	-10	4.18	0.002434	± 2.5	PASS
		VN	0	3.04	0.001770	± 2.5	PASS
		VN	10	2.38	0.001386	± 2.5	PASS
		VN	20	-1.54	-0.000897	± 2.5	PASS
		VN	30	4.06	0.002364	± 2.5	PASS
		VN	40	0.65	0.000378	± 2.5	PASS
		VN	50	0.35	0.000204	± 2.5	PASS
	MCH	VN	-30	2.18	0.001258	± 2.5	PASS
		VN	-20	3.26	0.001882	± 2.5	PASS
		VN	-10	-1.49	-0.000860	± 2.5	PASS
		VN	0	3.65	0.002107	± 2.5	PASS
		VN	10	3.48	0.002009	± 2.5	PASS
		VN	20	3.01	0.001737	± 2.5	PASS

		VN	30	3.5	0.002020	± 2.5	PASS
		VN	40	-1.35	-0.000779	± 2.5	PASS
		VN	50	-1.96	-0.001131	± 2.5	PASS
	HCH	VN	-30	-0.47	-0.000269	± 2.5	PASS
		VN	-20	-0.6	-0.000343	± 2.5	PASS
		VN	-10	2.88	0.001648	± 2.5	PASS
		VN	0	2.9	0.001660	± 2.5	PASS
		VN	10	4.99	0.002856	± 2.5	PASS
		VN	20	0.05	0.000029	± 2.5	PASS
		VN	30	3.88	0.002220	± 2.5	PASS
		VN	40	-0.82	-0.000469	± 2.5	PASS
		VN	50	1.07	0.000612	± 2.5	PASS
16QAM	LCH	VN	-30	-1.84	-0.001062	± 2.5	PASS
		VN	-20	0.92	0.000531	± 2.5	PASS
		VN	-10	1.36	0.000785	± 2.5	PASS
		VN	0	-1.87	-0.001079	± 2.5	PASS
		VN	10	1.88	0.001085	± 2.5	PASS
		VN	20	-1.43	-0.000825	± 2.5	PASS
		VN	30	1.91	0.001102	± 2.5	PASS
		VN	40	-1.89	-0.001091	± 2.5	PASS
		VN	50	3.81	0.002199	± 2.5	PASS
	MCH	VN	-30	3.71	0.002123	± 2.5	PASS
		VN	-20	-0.58	-0.000332	± 2.5	PASS
		VN	-10	2.1	0.001202	± 2.5	PASS
		VN	0	1.05	0.000601	± 2.5	PASS
		VN	10	3.47	0.001986	± 2.5	PASS
		VN	20	3.33	0.001906	± 2.5	PASS
		VN	30	3.51	0.002009	± 2.5	PASS
		VN	40	-0.29	-0.000166	± 2.5	PASS
		VN	50	3.86	0.002209	± 2.5	PASS
	HCH	VN	-30	3.39	0.001940	± 2.5	PASS
		VN	-20	0.74	0.000423	± 2.5	PASS
		VN	-10	-1.36	-0.000778	± 2.5	PASS
		VN	0	-0.32	-0.000183	± 2.5	PASS
		VN	10	0.26	0.000149	± 2.5	PASS
		VN	20	3.95	0.002260	± 2.5	PASS
		VN	30	3.03	0.001734	± 2.5	PASS
		VN	40	1.01	0.000578	± 2.5	PASS
		VN	50	-1.22	-0.000698	± 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	2.29	0.001331	± 2.5	PASS
		VN	TN	-0.67	-0.000390	± 2.5	PASS
		VH	TN	-1.78	-0.001035	± 2.5	PASS
	MCH	VL	TN	3.04	0.001755	± 2.5	PASS
		VN	TN	-0.43	-0.000248	± 2.5	PASS
		VH	TN	-1.17	-0.000675	± 2.5	PASS
	HCH	VL	TN	4.62	0.002648	± 2.5	PASS
		VN	TN	-0.17	-0.000097	± 2.5	PASS
		VH	TN	3.67	0.002103	± 2.5	PASS
16QAM	LCH	VL	TN	1.31	0.000762	± 2.5	PASS
		VN	TN	-0.33	-0.000192	± 2.5	PASS
		VH	TN	2.59	0.001506	± 2.5	PASS
	MCH	VL	TN	-1.07	-0.000618	± 2.5	PASS
		VN	TN	-1.33	-0.000768	± 2.5	PASS
		VH	TN	-1.66	-0.000958	± 2.5	PASS
	HCH	VL	TN	3.94	0.002258	± 2.5	PASS
		VN	TN	2.45	0.001404	± 2.5	PASS
		VH	TN	3.46	0.001983	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.91	0.002273	± 2.5	PASS
		VN	-20	-0.03	-0.000017	± 2.5	PASS
		VN	-10	1	0.000581	± 2.5	PASS
		VN	0	1.19	0.000692	± 2.5	PASS
		VN	10	2.66	0.001547	± 2.5	PASS
		VN	20	2	0.001163	± 2.5	PASS
		VN	30	0.52	0.000302	± 2.5	PASS
		VN	40	3.16	0.001837	± 2.5	PASS
		VN	50	0.71	0.000413	± 2.5	PASS
	MCH	VN	-30	0.97	0.000560	± 2.5	PASS
		VN	-20	2.83	0.001633	± 2.5	PASS
		VN	-10	3.82	0.002205	± 2.5	PASS
		VN	0	-1.09	-0.000629	± 2.5	PASS
		VN	10	1.69	0.000975	± 2.5	PASS
		VN	20	2.19	0.001264	± 2.5	PASS

		VN	30	4.14	0.002390	± 2.5	PASS
		VN	40	4.01	0.002315	± 2.5	PASS
		VN	50	0.88	0.000508	± 2.5	PASS
	HCH	VN	-30	3.6	0.002063	± 2.5	PASS
		VN	-20	4.19	0.002401	± 2.5	PASS
		VN	-10	2.94	0.001685	± 2.5	PASS
		VN	0	4.81	0.002756	± 2.5	PASS
		VN	10	4.42	0.002533	± 2.5	PASS
		VN	20	1.81	0.001037	± 2.5	PASS
		VN	30	1.48	0.000848	± 2.5	PASS
		VN	40	1.18	0.000676	± 2.5	PASS
		VN	50	-0.62	-0.000355	± 2.5	PASS
16QAM	LCH	VN	-30	-0.17	-0.000098	± 2.5	PASS
		VN	-20	0.74	0.000427	± 2.5	PASS
		VN	-10	1.66	0.000958	± 2.5	PASS
		VN	0	1.67	0.000964	± 2.5	PASS
		VN	10	-0.8	-0.000462	± 2.5	PASS
		VN	20	4.96	0.002863	± 2.5	PASS
		VN	30	1.75	0.001010	± 2.5	PASS
		VN	40	0.82	0.000473	± 2.5	PASS
		VN	50	2.11	0.001218	± 2.5	PASS
	MCH	VN	-30	0.71	0.000407	± 2.5	PASS
		VN	-20	4.3	0.002464	± 2.5	PASS
		VN	-10	2.03	0.001163	± 2.5	PASS
		VN	0	-1	-0.000573	± 2.5	PASS
		VN	10	4.87	0.002791	± 2.5	PASS
		VN	20	2.63	0.001507	± 2.5	PASS
		VN	30	-0.37	-0.000212	± 2.5	PASS
		VN	40	3.6	0.002063	± 2.5	PASS
		VN	50	1.83	0.001049	± 2.5	PASS
	HCH	VN	-30	3.22	0.001845	± 2.5	PASS
		VN	-20	2.54	0.001456	± 2.5	PASS
		VN	-10	-0.2	-0.000115	± 2.5	PASS
		VN	0	-1.05	-0.000602	± 2.5	PASS
		VN	10	3.91	0.002241	± 2.5	PASS
		VN	20	1.78	0.001020	± 2.5	PASS
		VN	30	2.27	0.001301	± 2.5	PASS
		VN	40	-0.7	-0.000401	± 2.5	PASS
		VN	50	0.76	0.000436	± 2.5	PASS