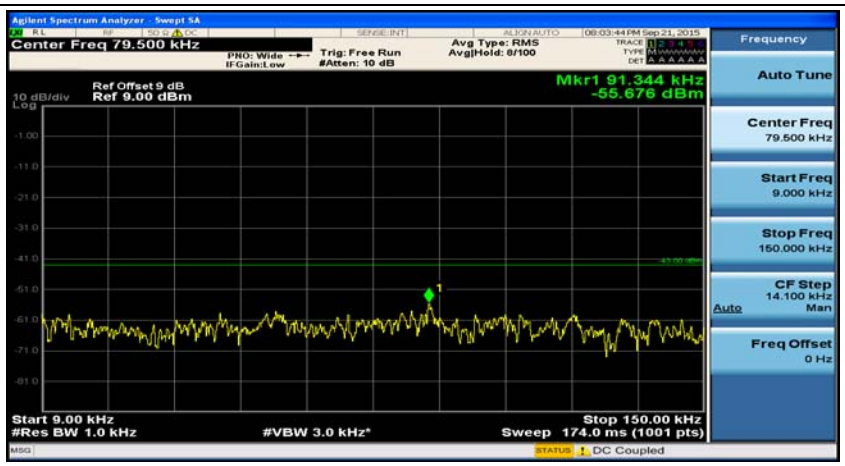
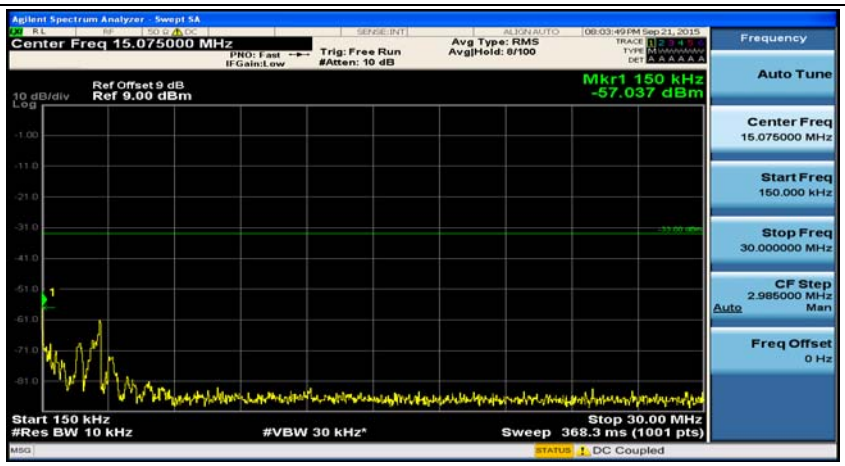
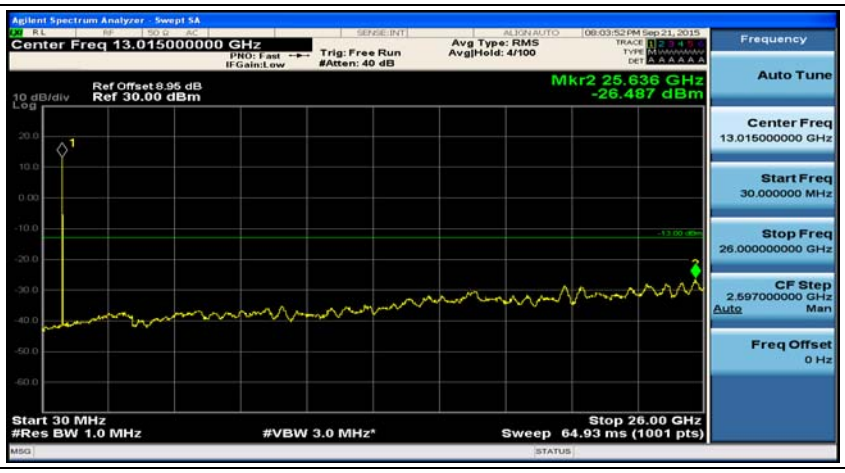
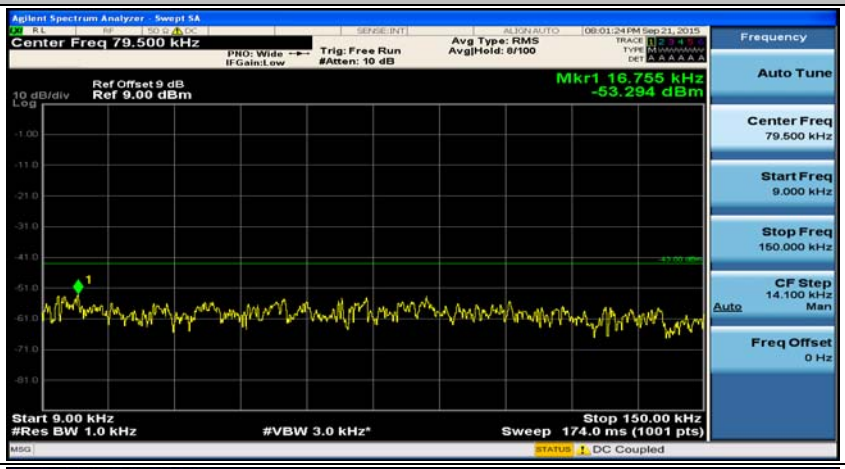
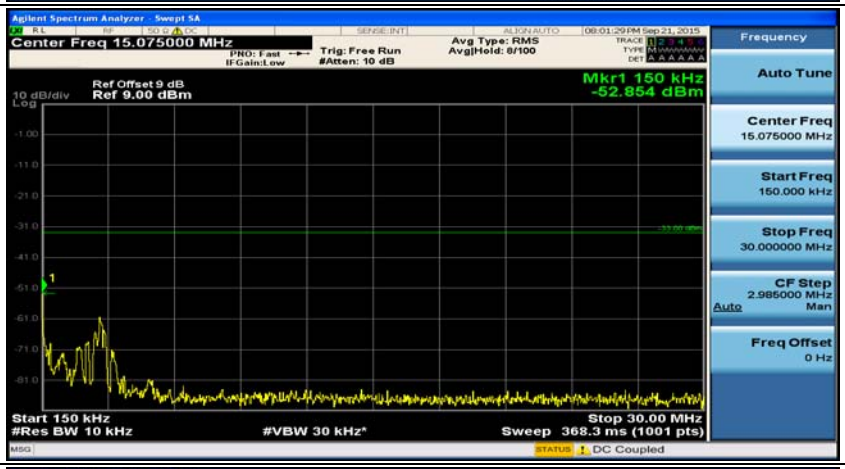

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:03:44 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 91.344 kHz
-55.676 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

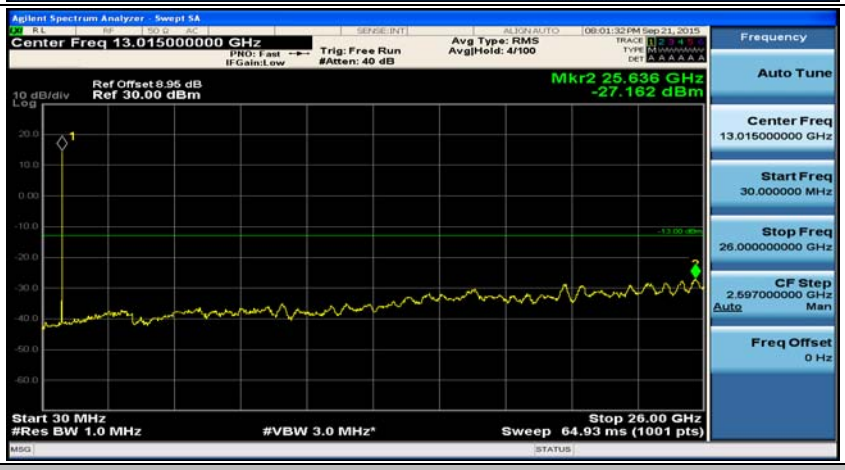

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:03:49 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.037 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:03:52 PM Sep 21, 2015
Ref Offset 8.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-26.487 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

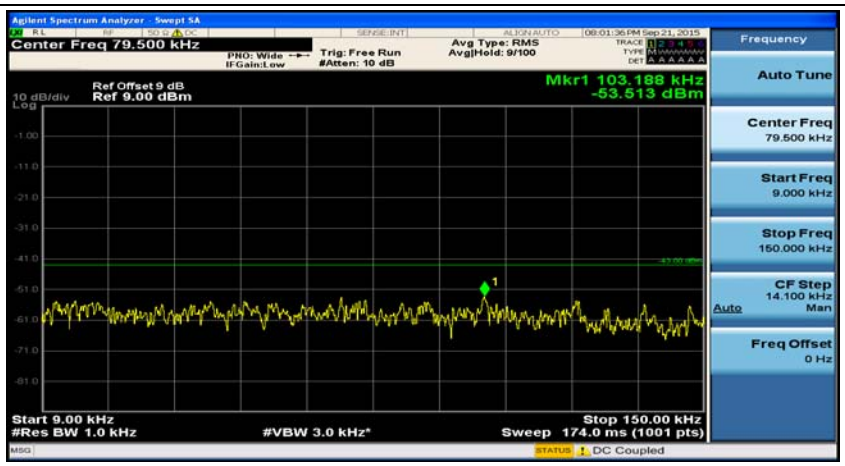
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0

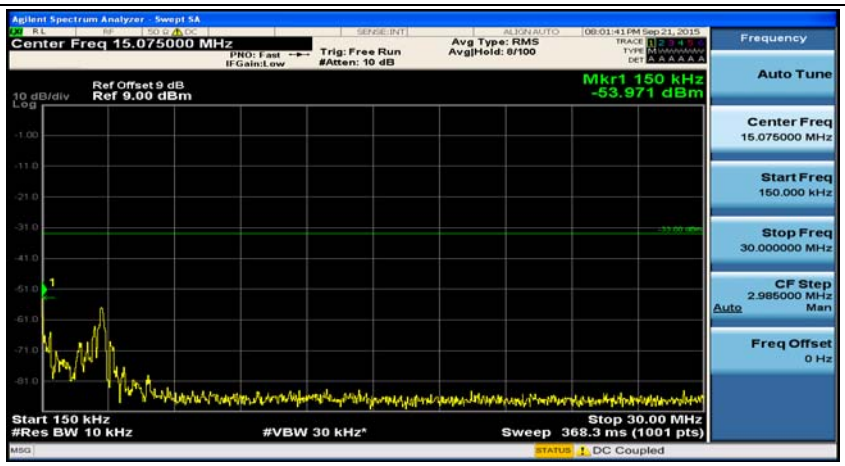


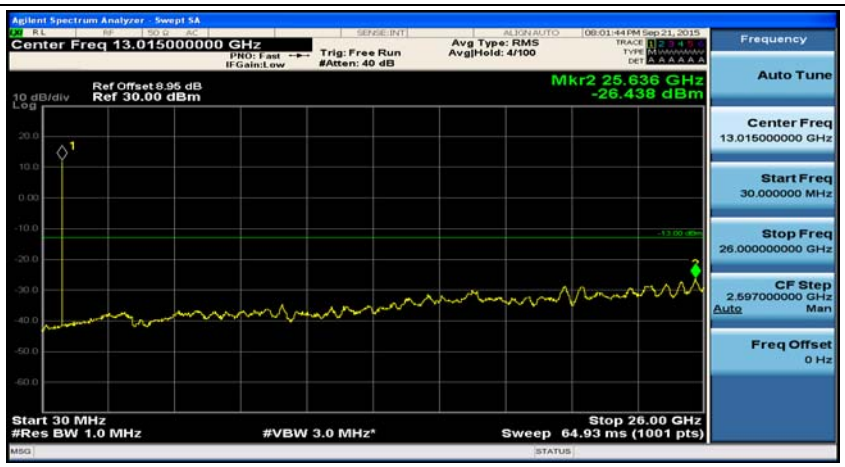




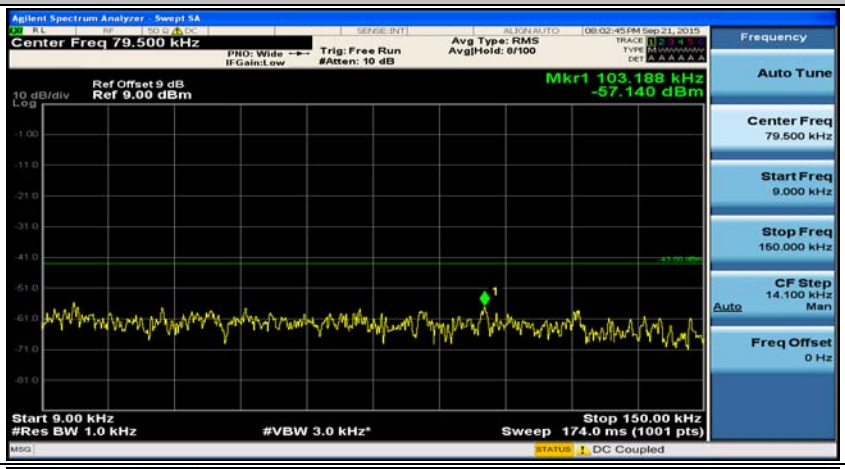
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#7

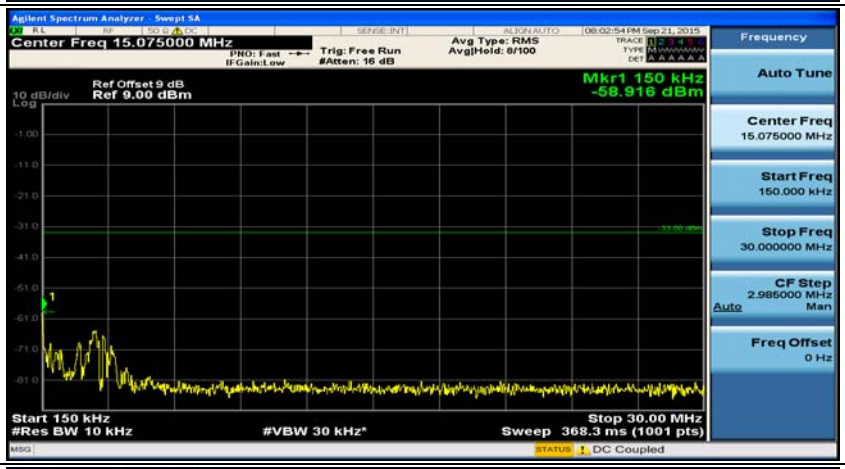

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
08:01:36 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 103.188 kHz
-53.513 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

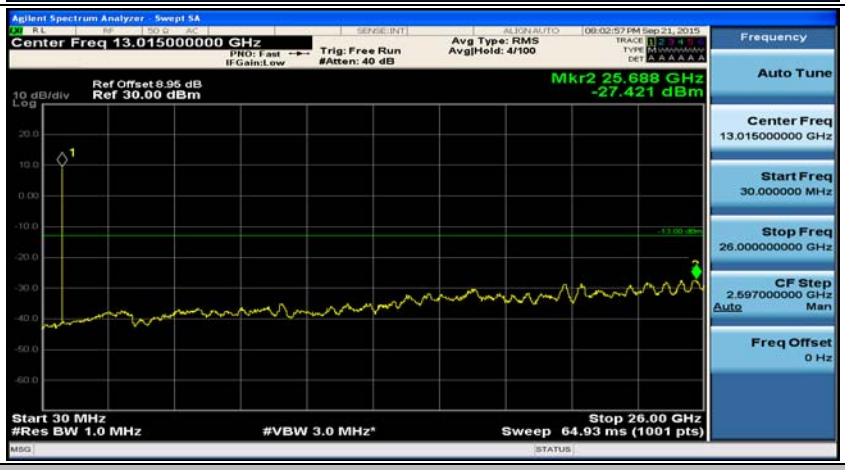

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:01:41 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-53.971 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:01:44 PM Sep 21, 2015
Ref Offset 8.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-26.438 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

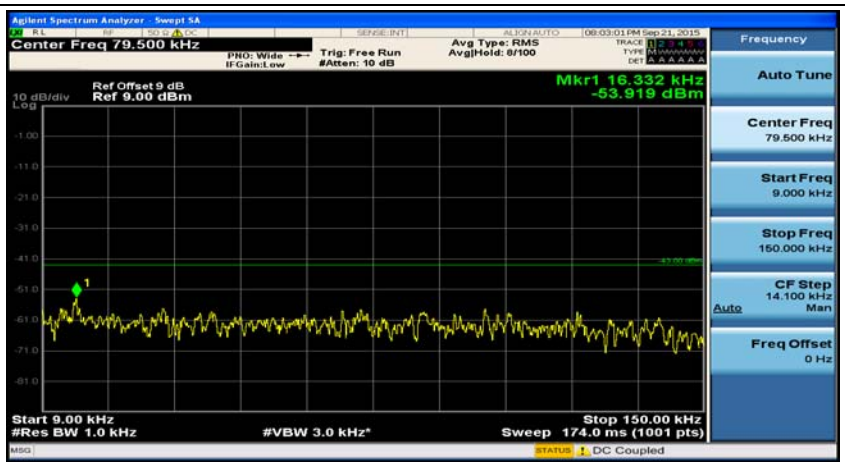
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0

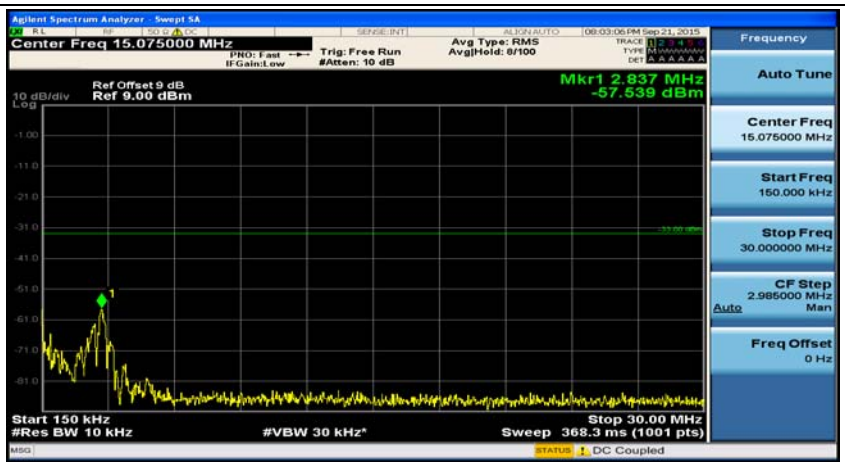


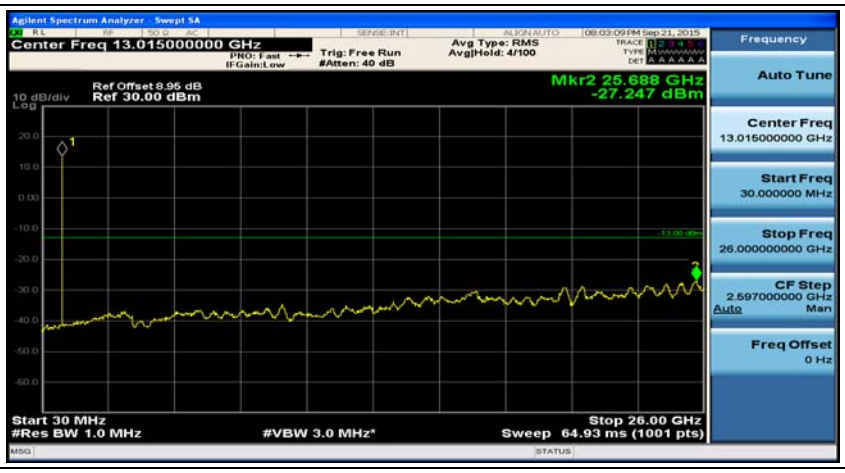




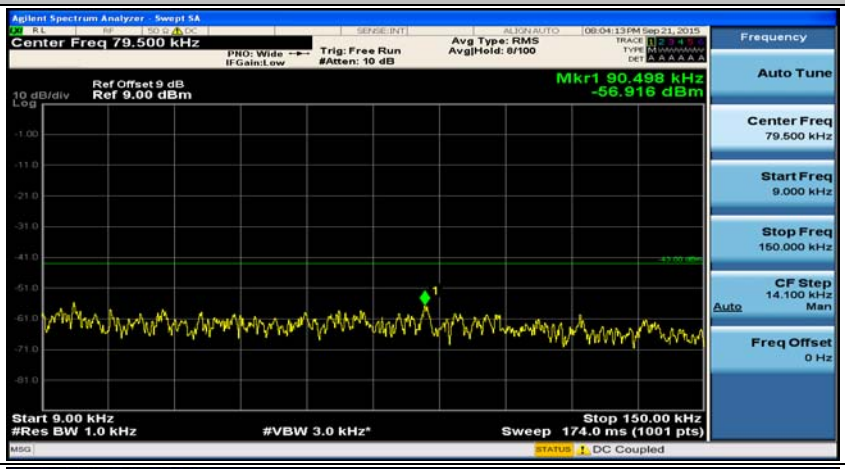
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

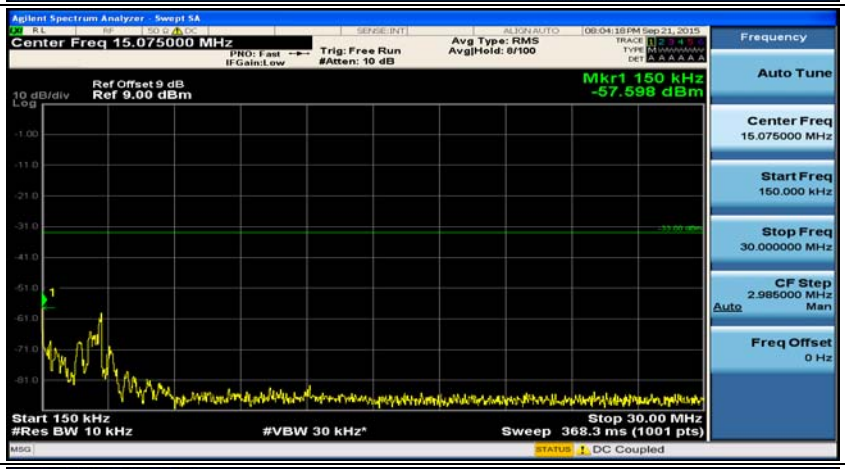

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 16.332 kHz
-53.919 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

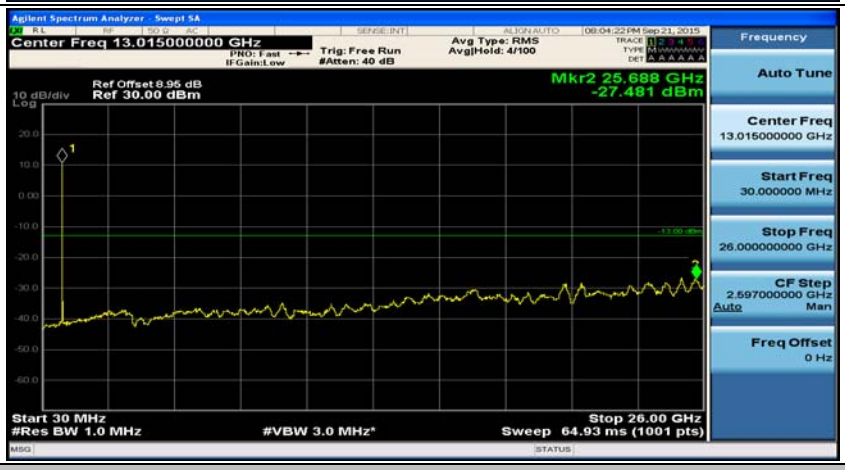

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 2.837 MHz
-57.539 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 4/100
Ref Offset 8.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-27.247 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

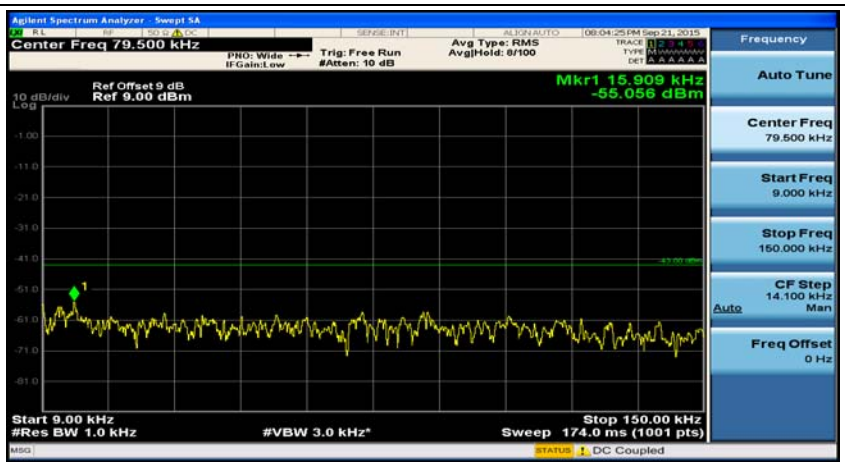
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0

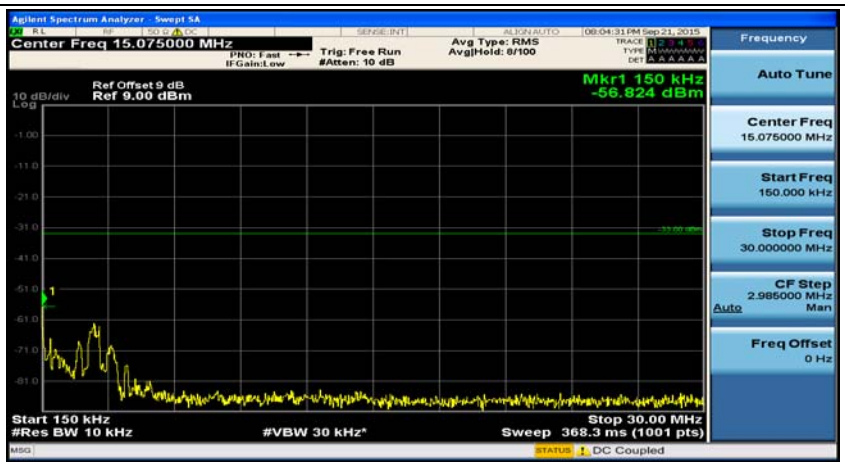


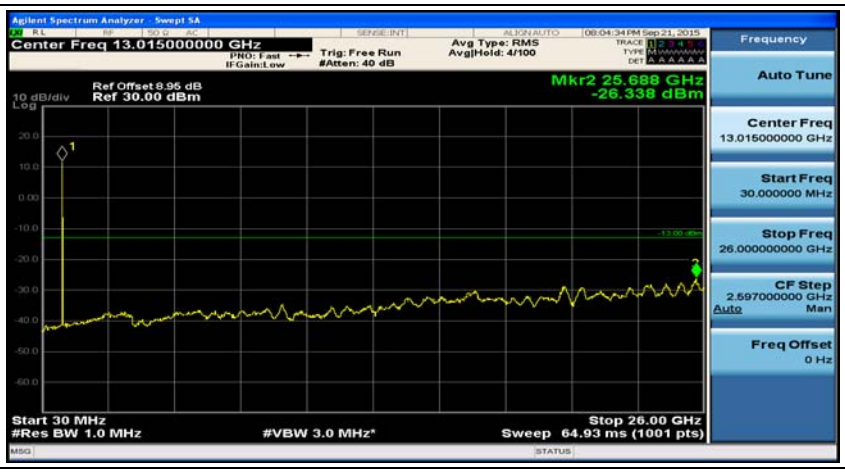




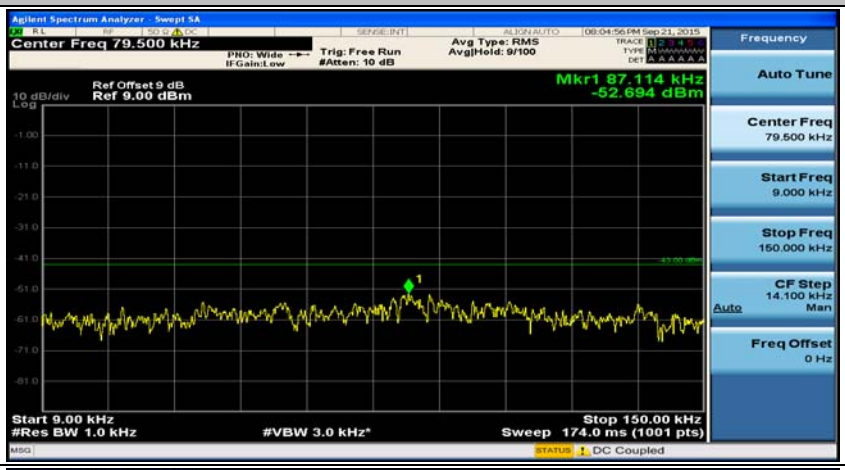
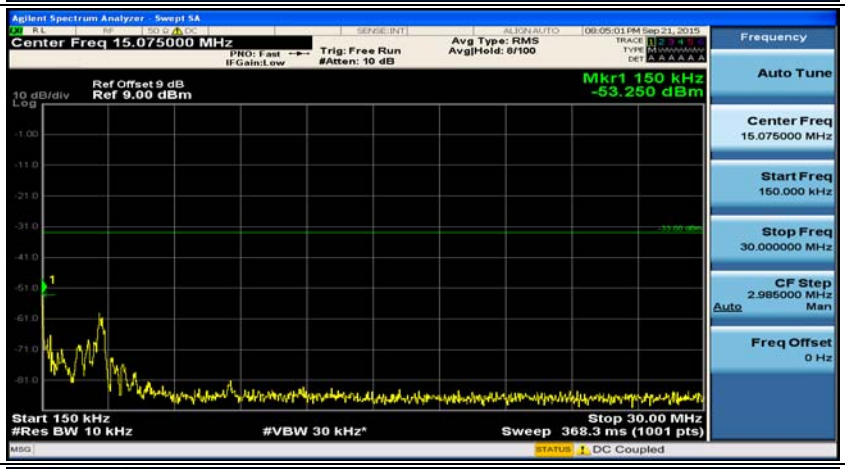
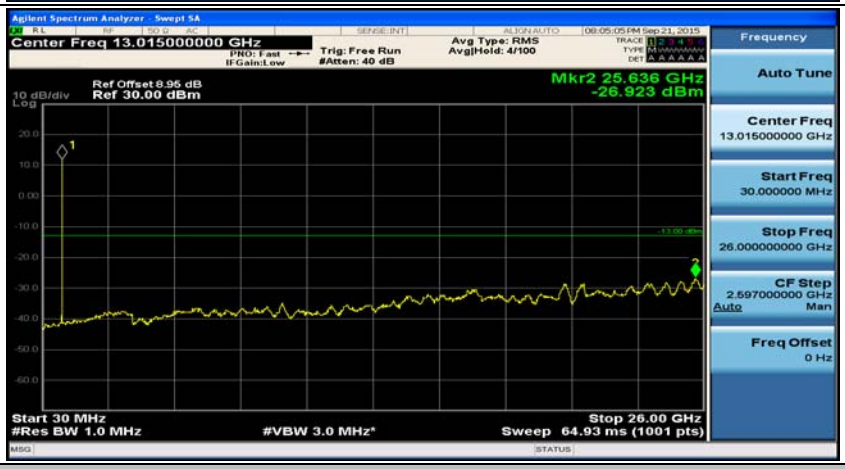
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

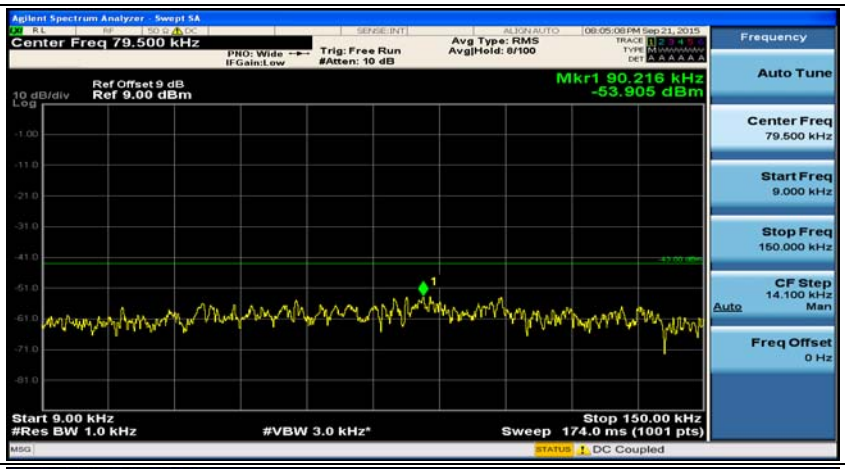

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:04:25 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 15.909 kHz
-55.056 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

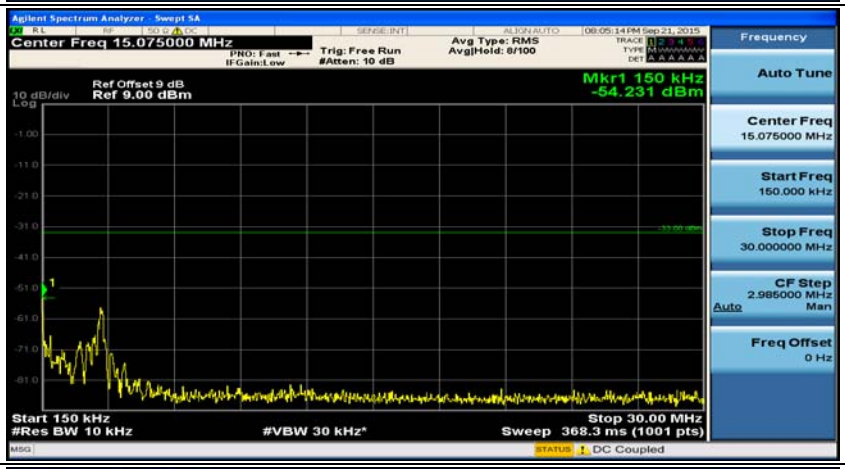

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:04:31 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-56.824 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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

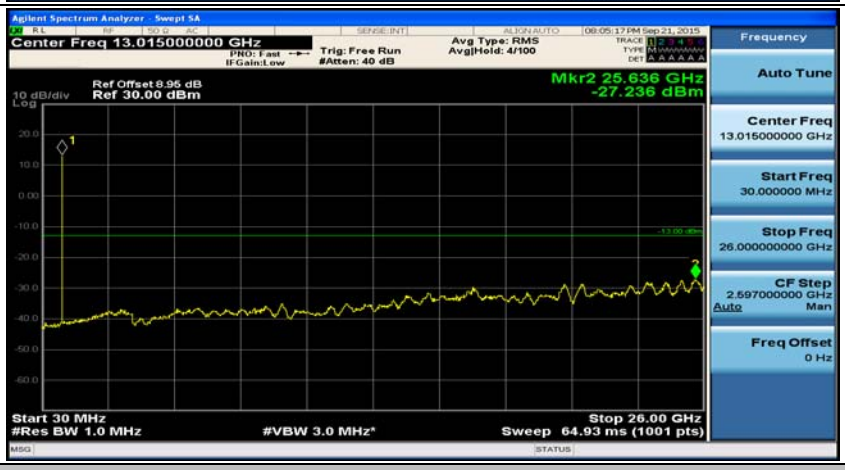

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 4/100
08:04:34 PM Sep 21, 2015
Ref Offset 8.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-26.338 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 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: 5 MHz

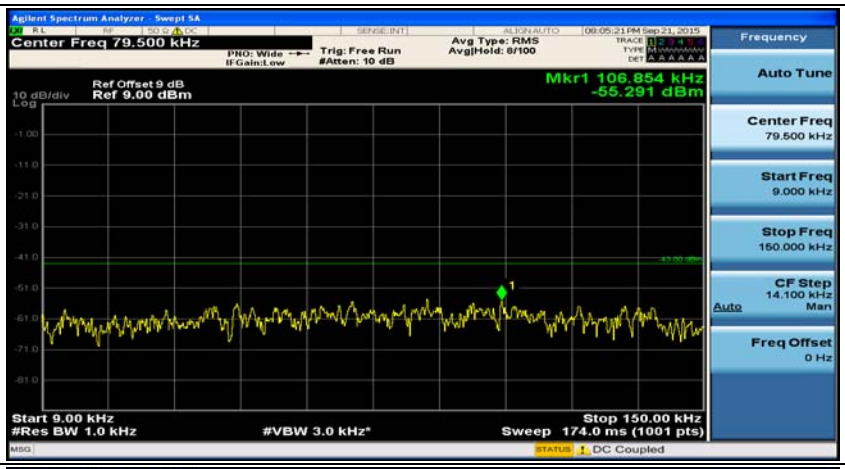
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

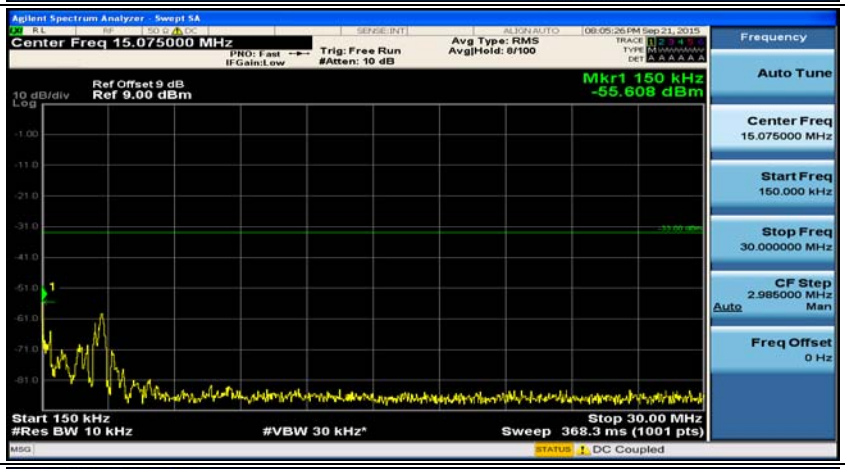


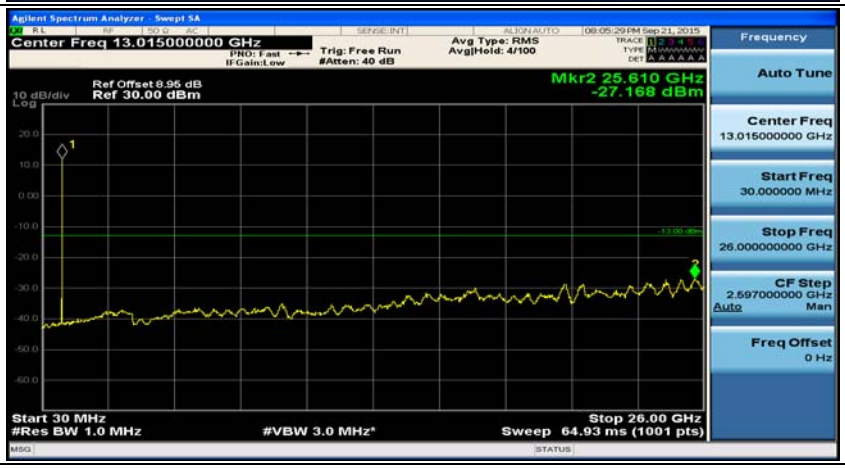




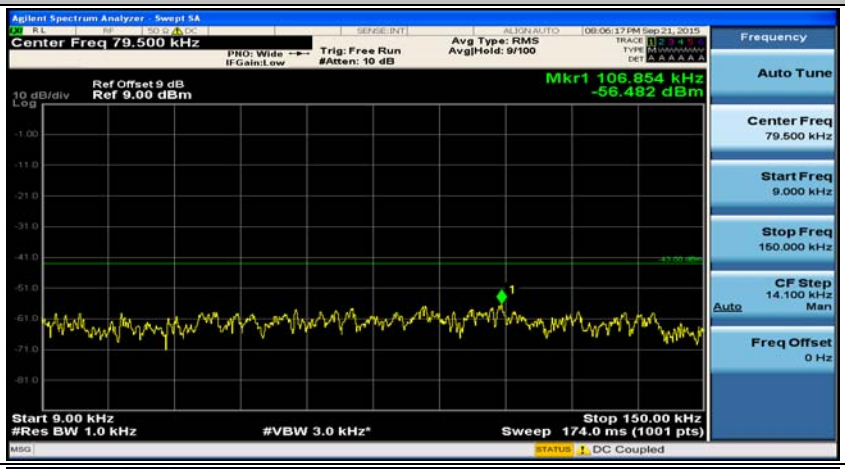
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

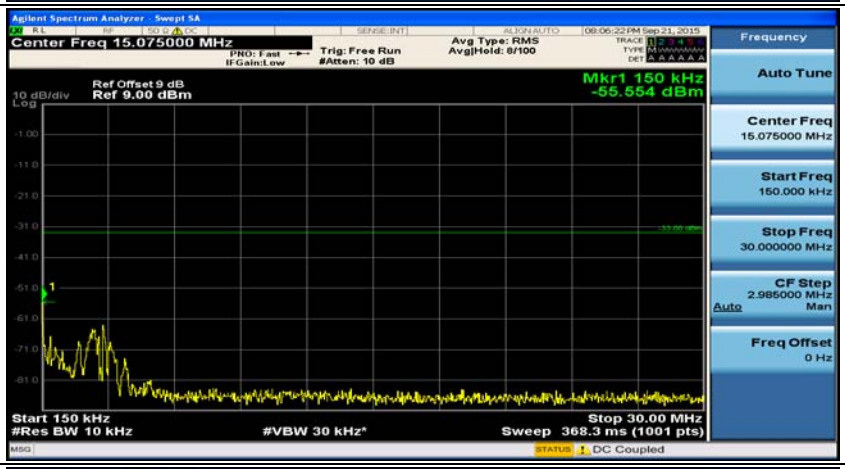

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:05:21 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 106.854 kHz
-55.291 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

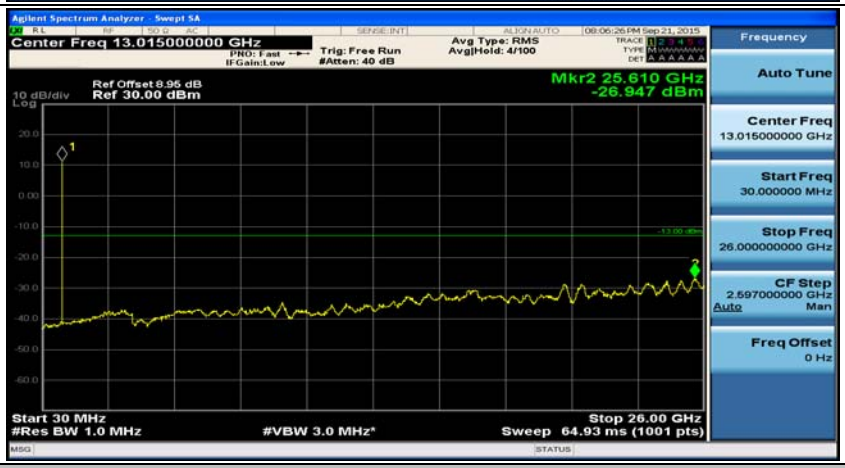

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:05:26 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-55.608 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:05:29 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.610 GHz
-27.168 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

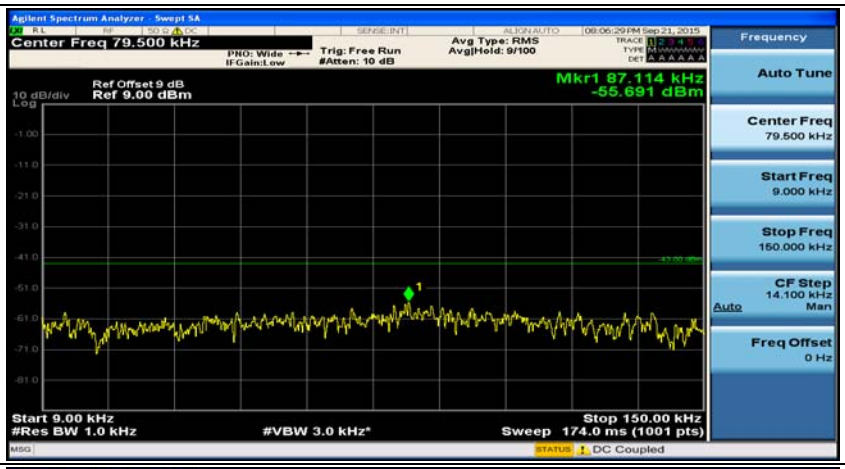
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

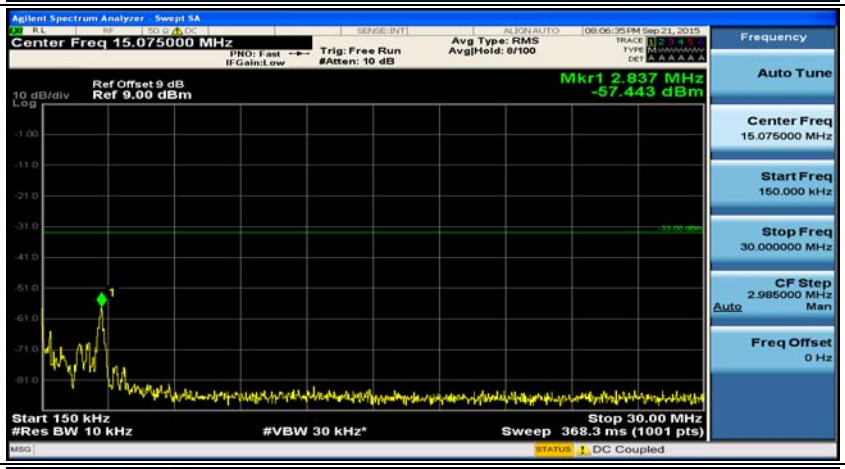


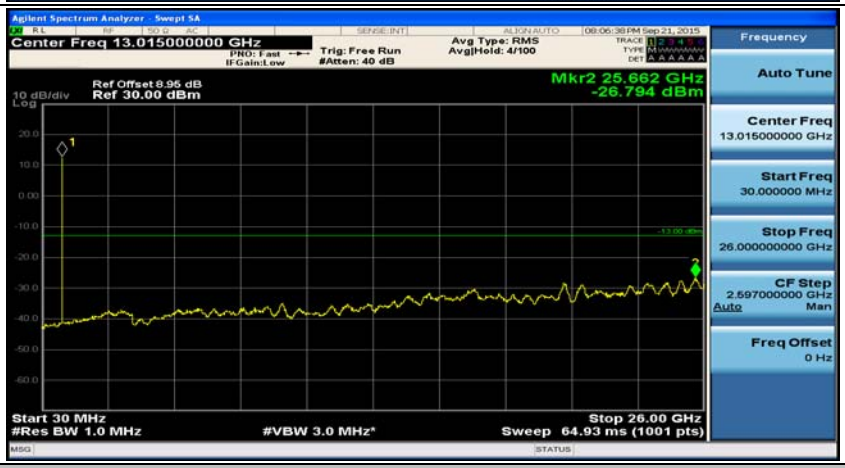




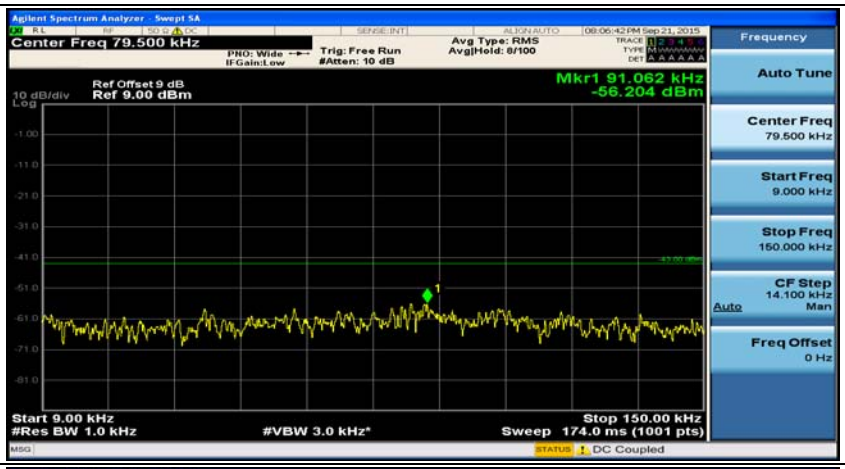
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

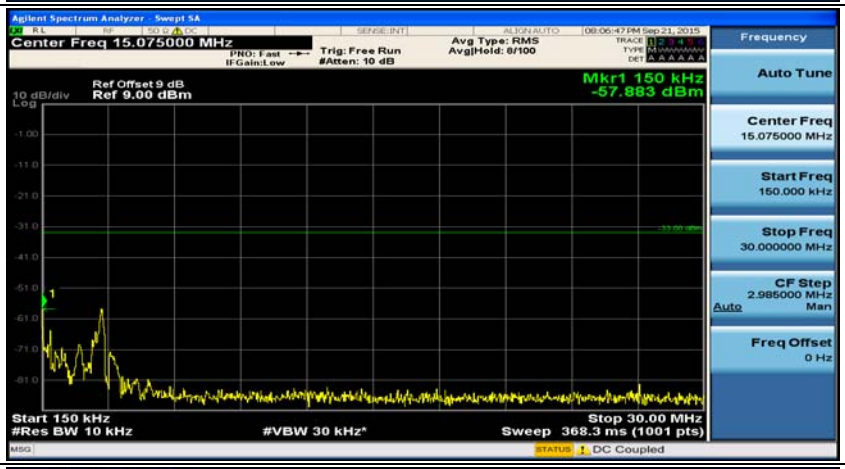


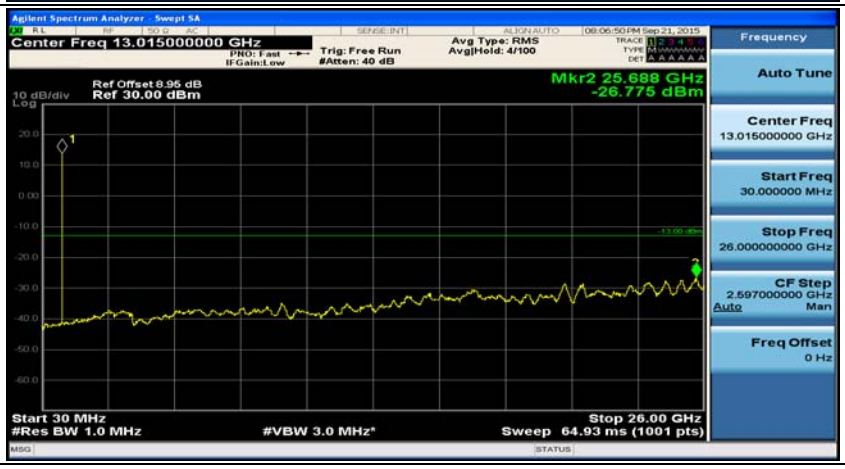




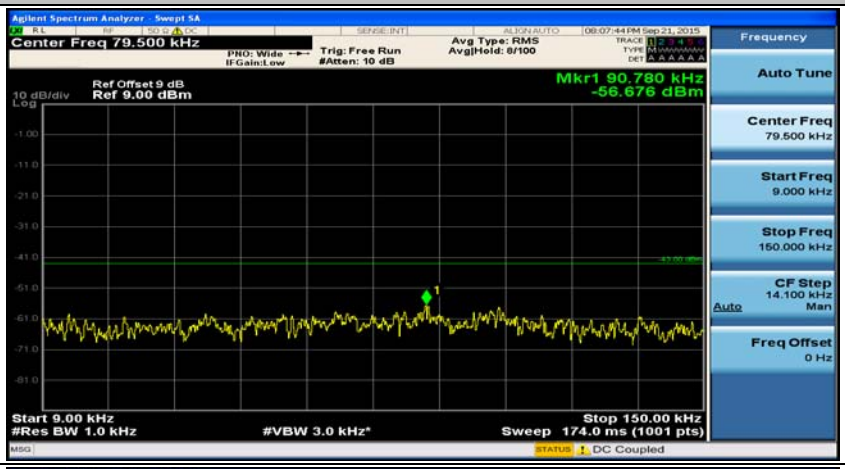
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

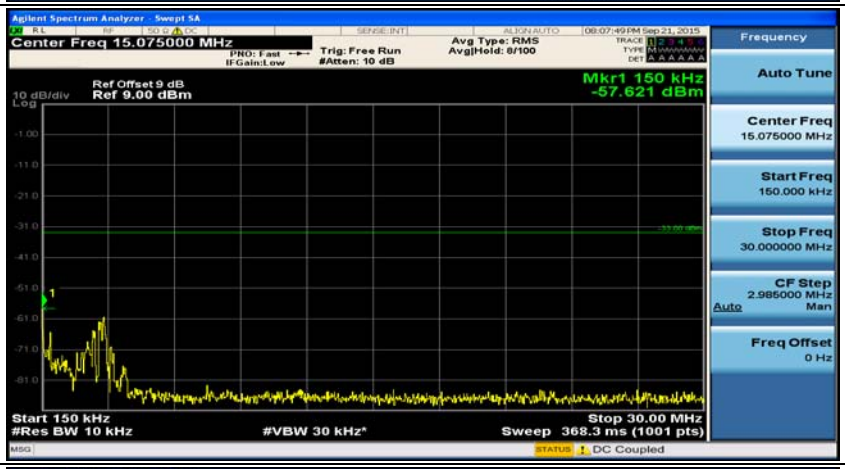

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:06:42 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 91.062 kHz
-56.204 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

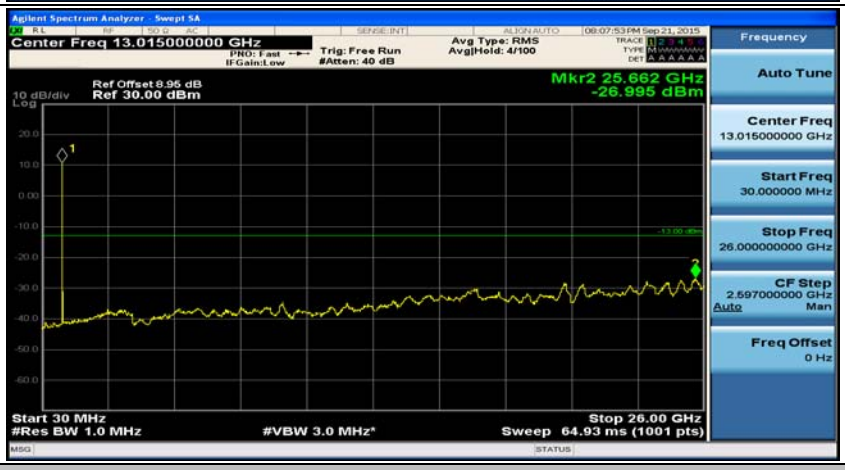

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:06:47 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.883 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:06:50 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-26.775 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

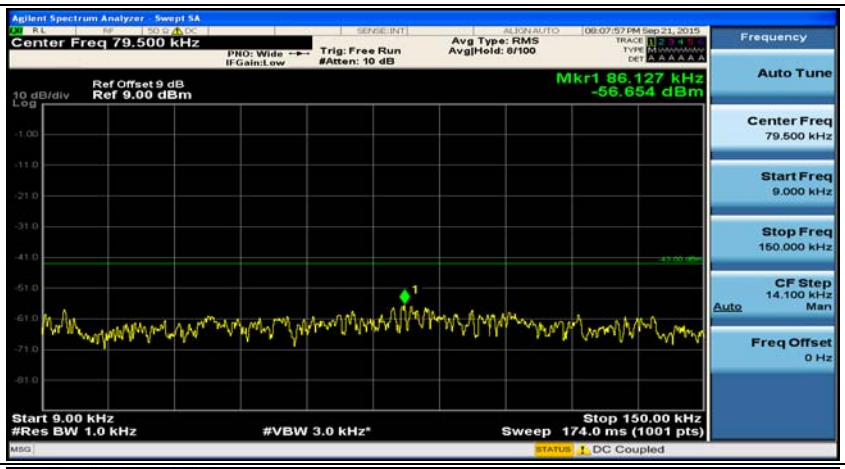
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

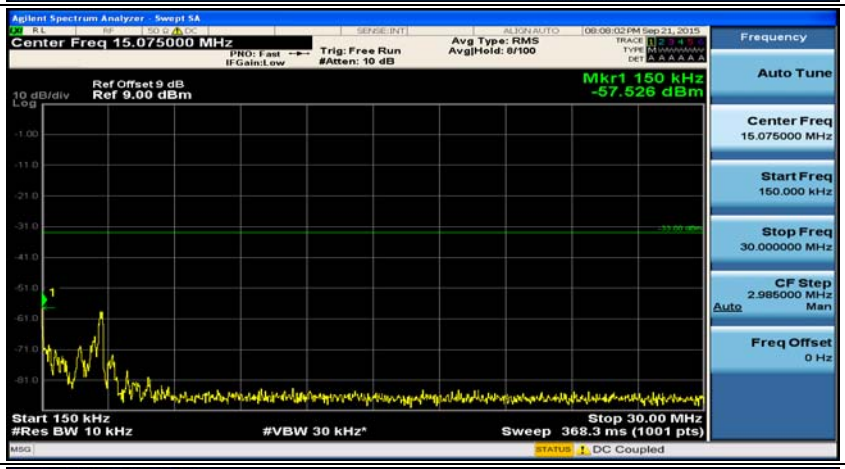


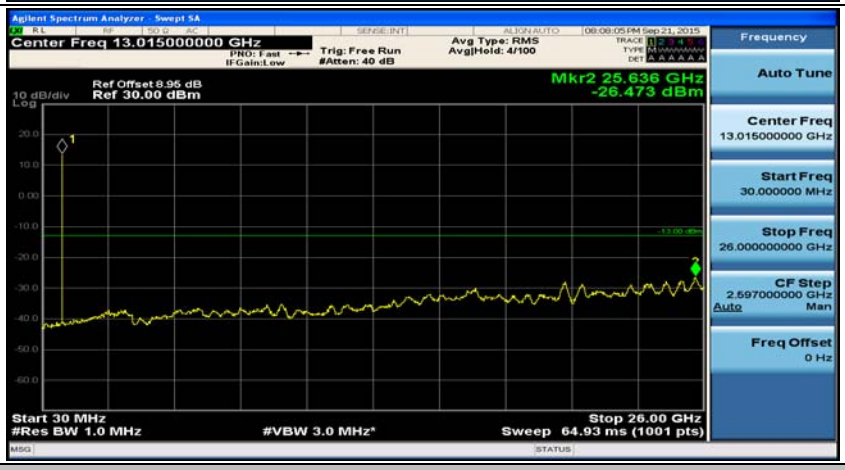




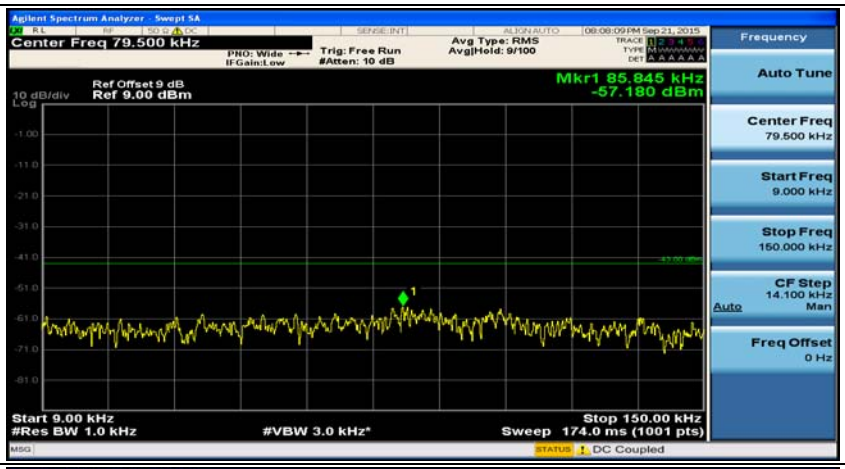
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

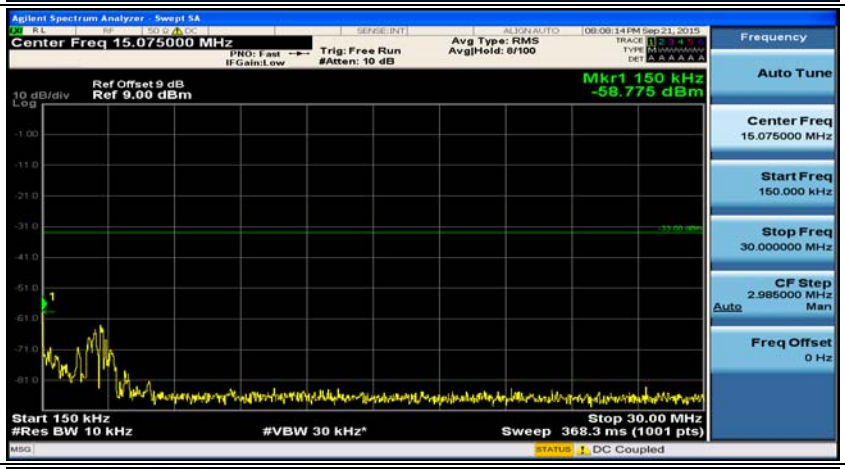


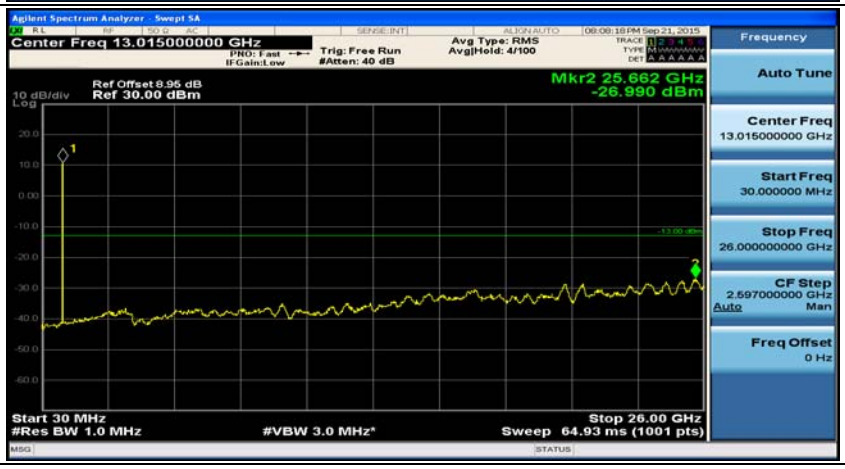




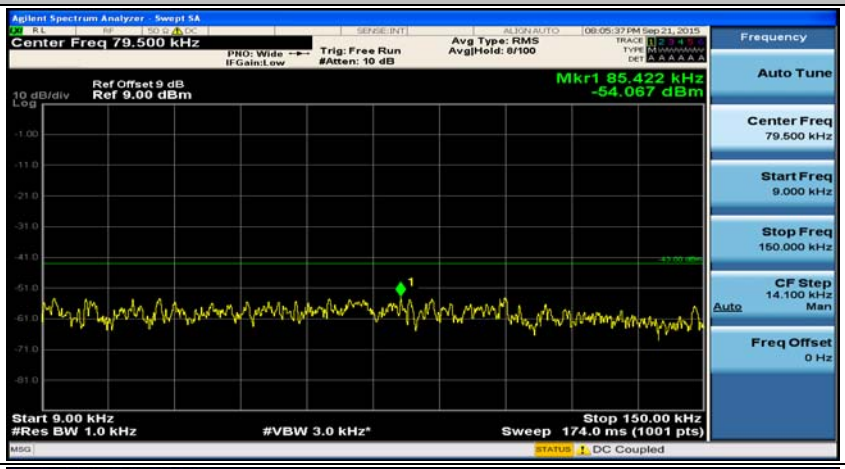
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

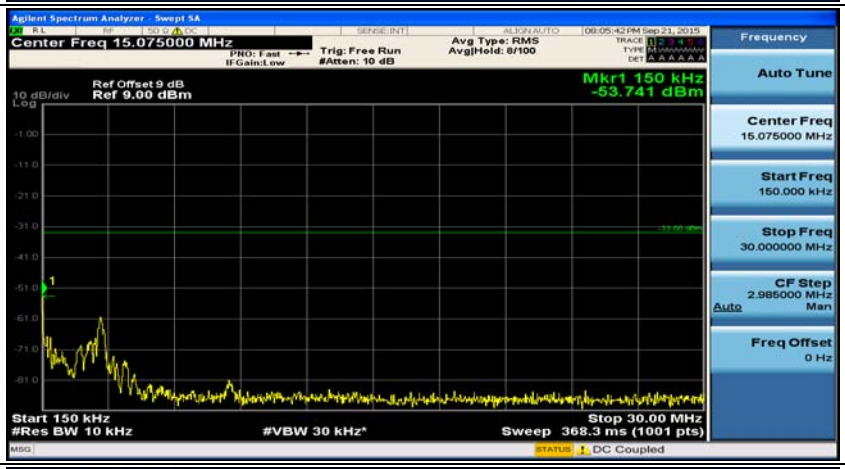

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 85.845 kHz
-57.180 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

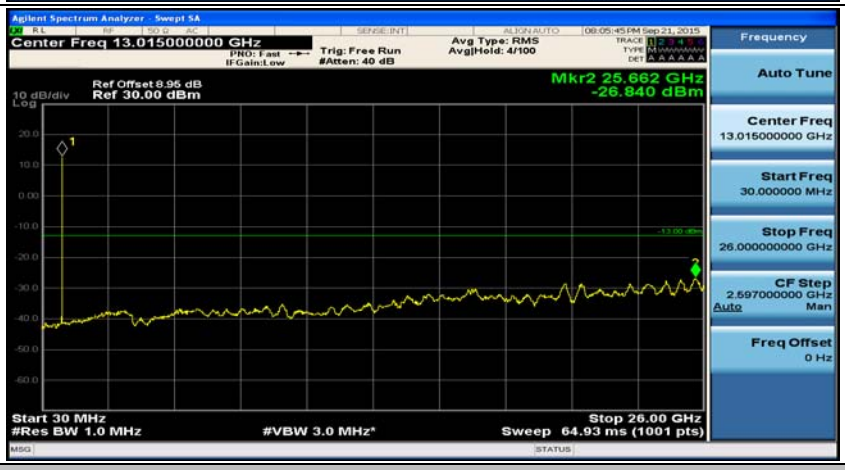

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 6/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.775 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 4/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-26.990 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

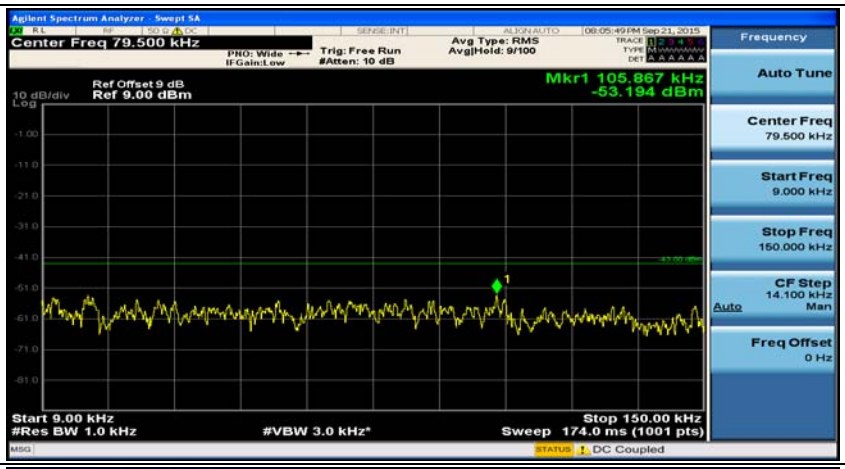
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

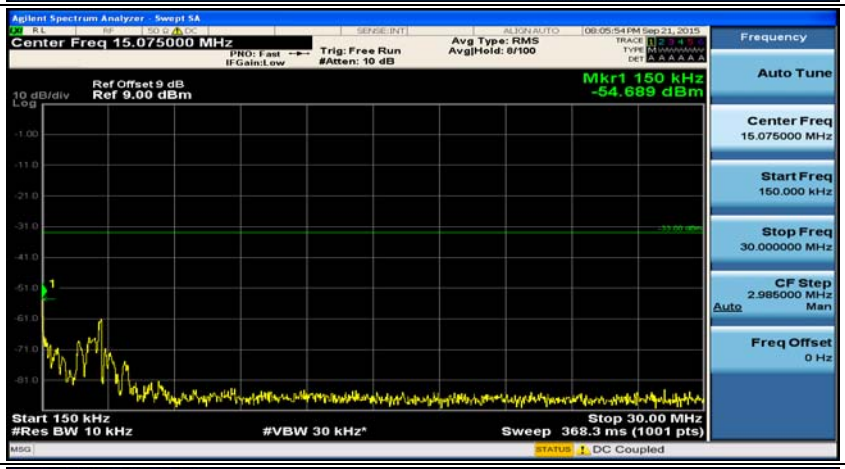


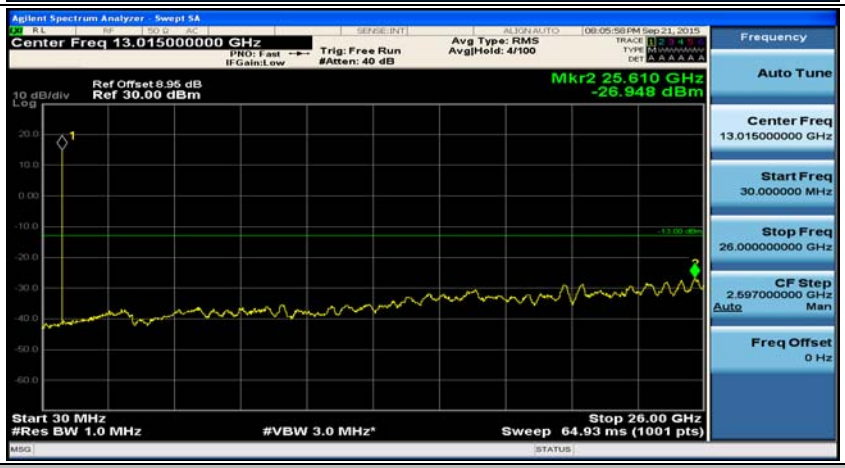




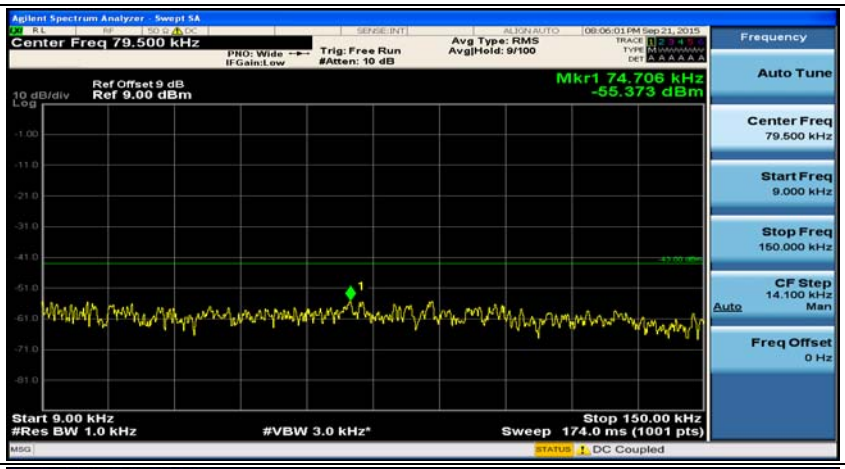
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

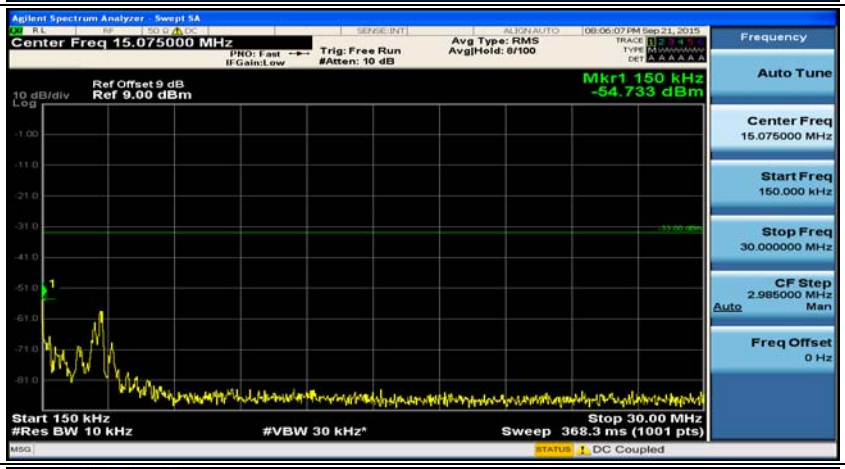


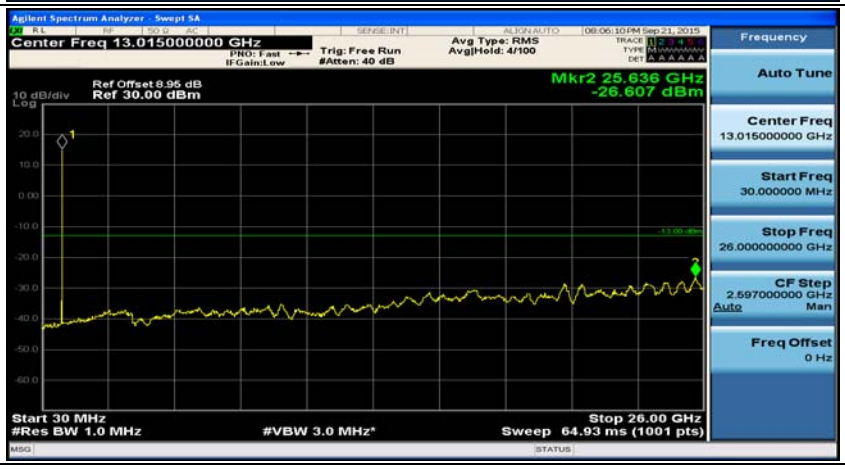




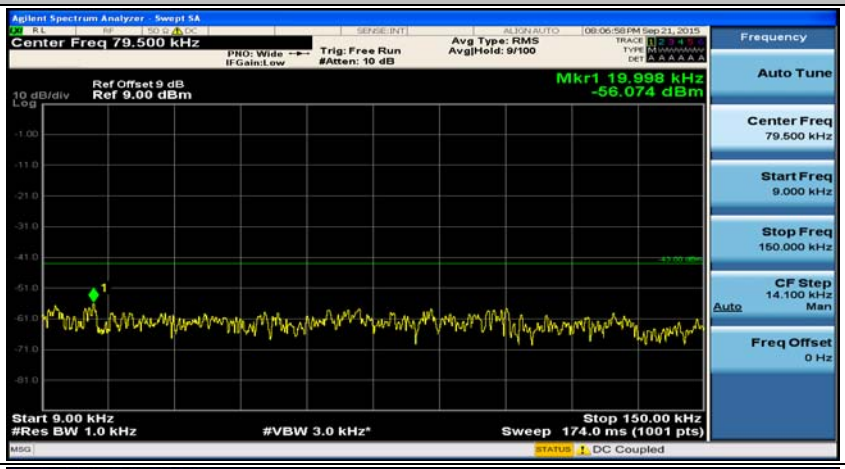
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

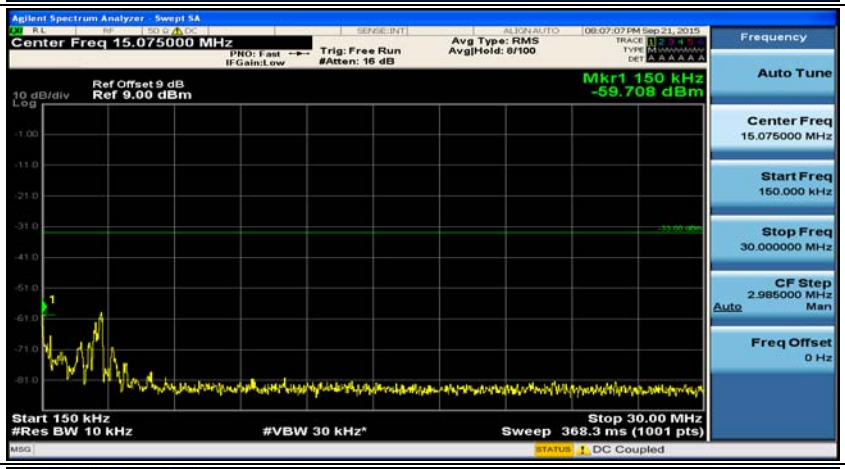

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
08:06:01 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 74.706 kHz
-55.373 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

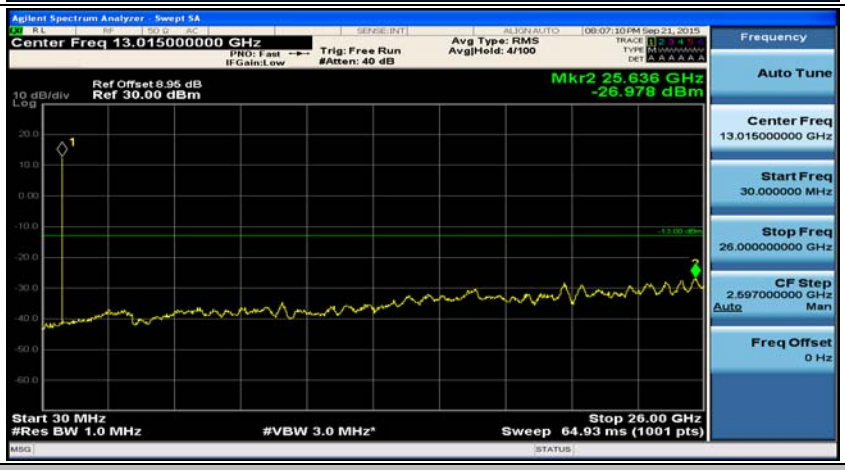

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 6/100
08:06:07 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-54.733 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:06:10 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-26.607 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

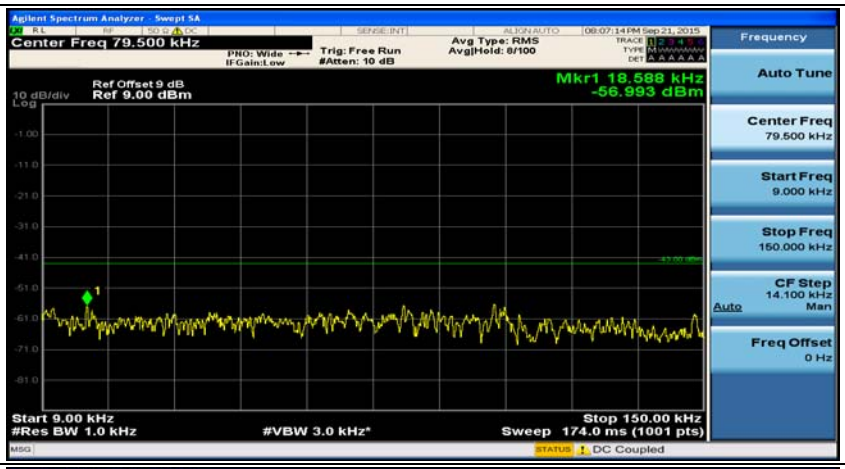
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

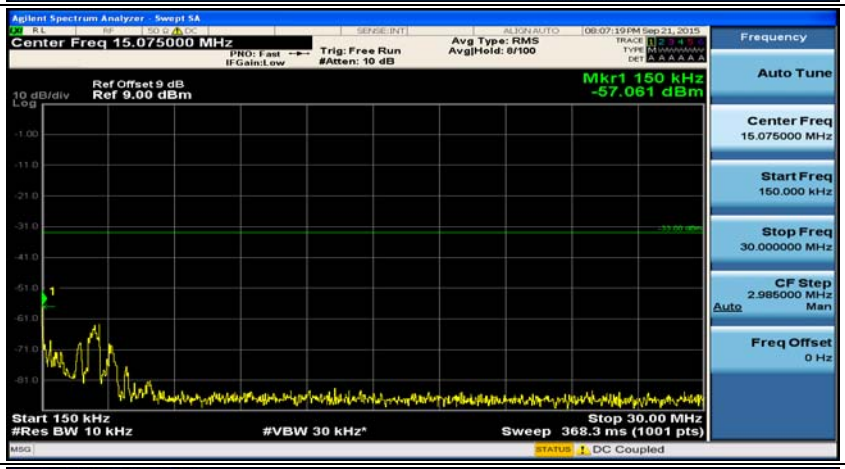


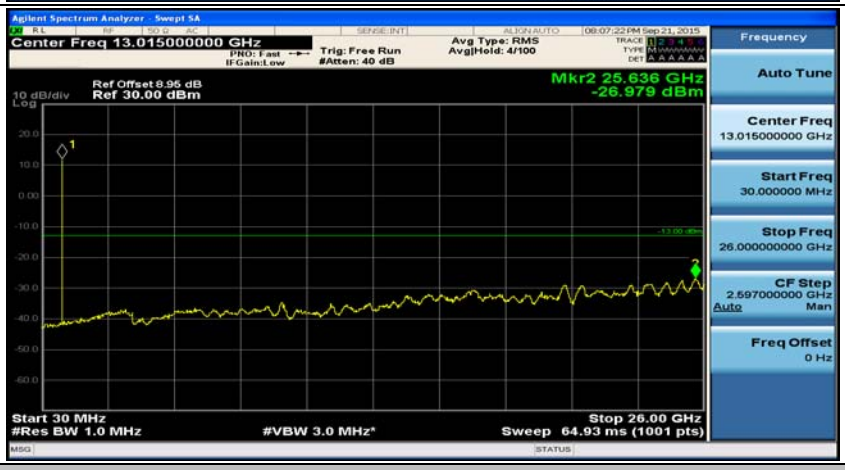




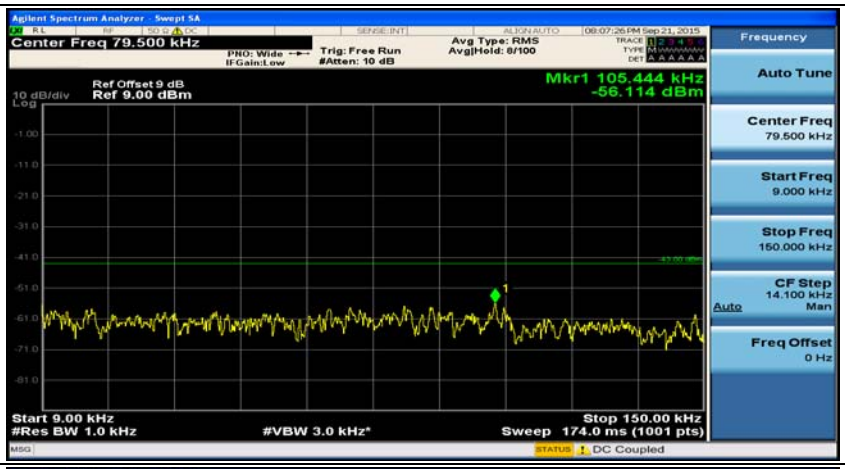
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

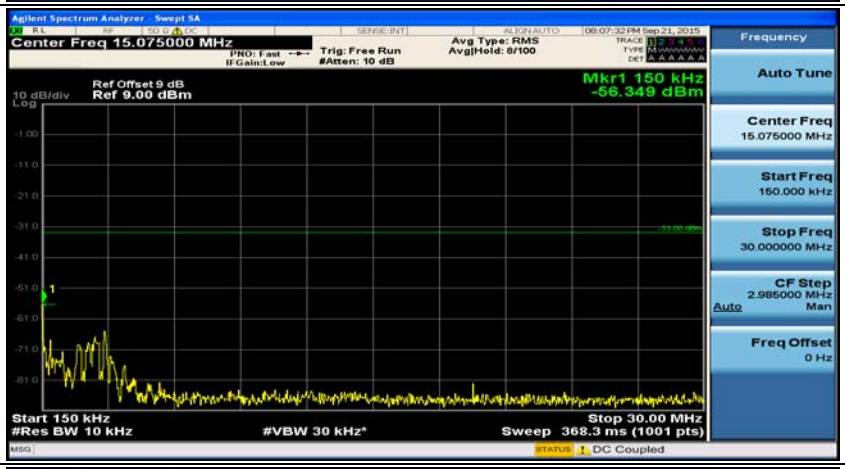


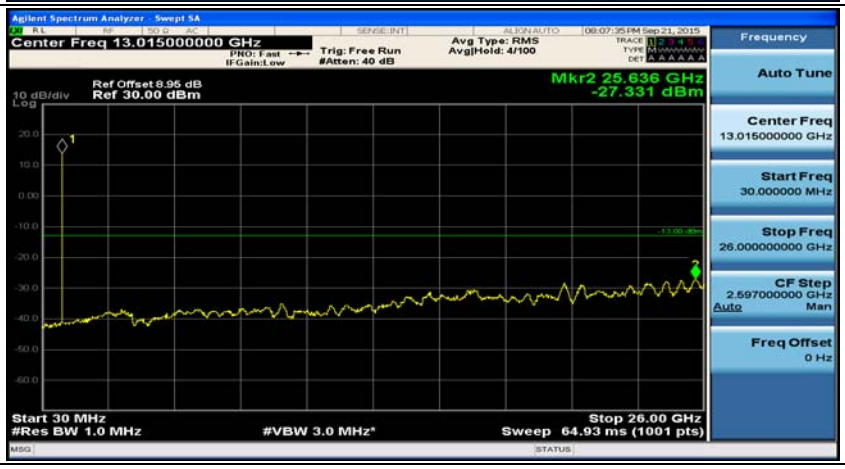




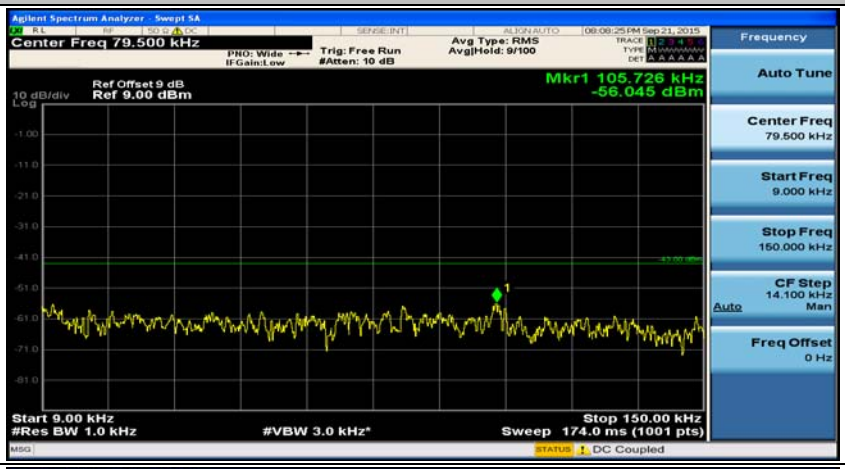
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

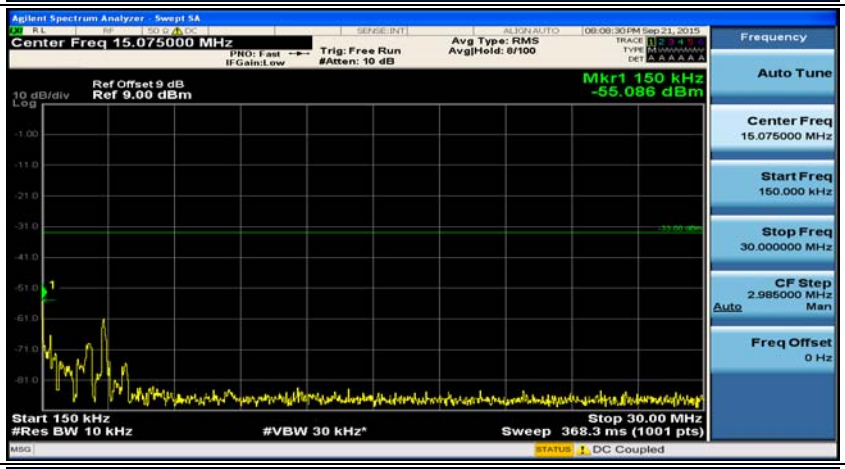

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 105.444 kHz
-56.114 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

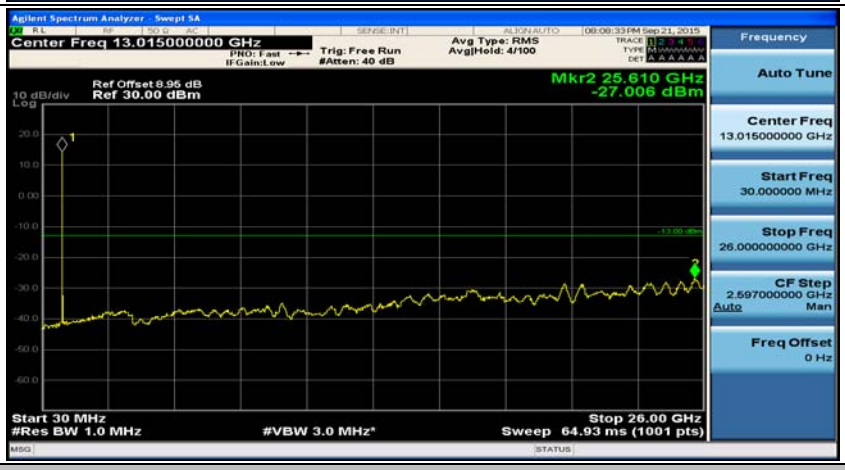

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-56.349 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 4/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-27.331 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

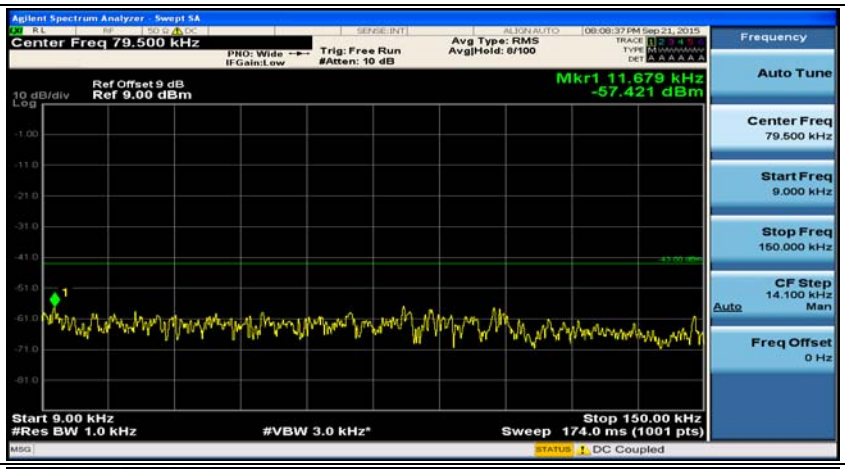
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

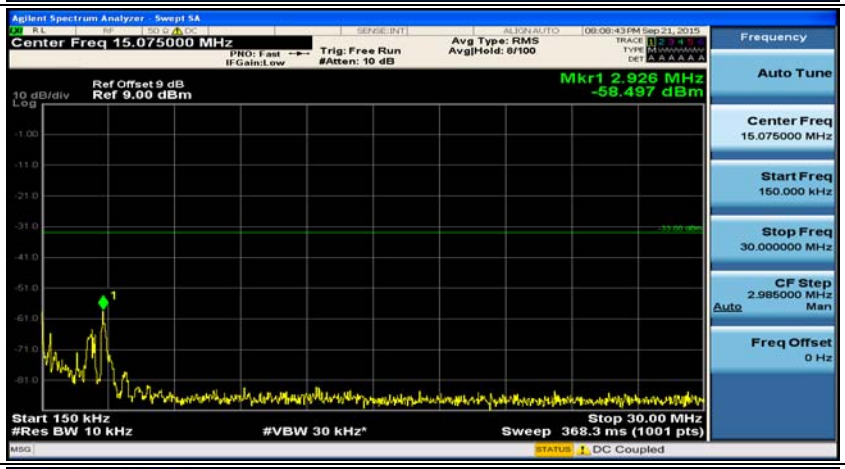


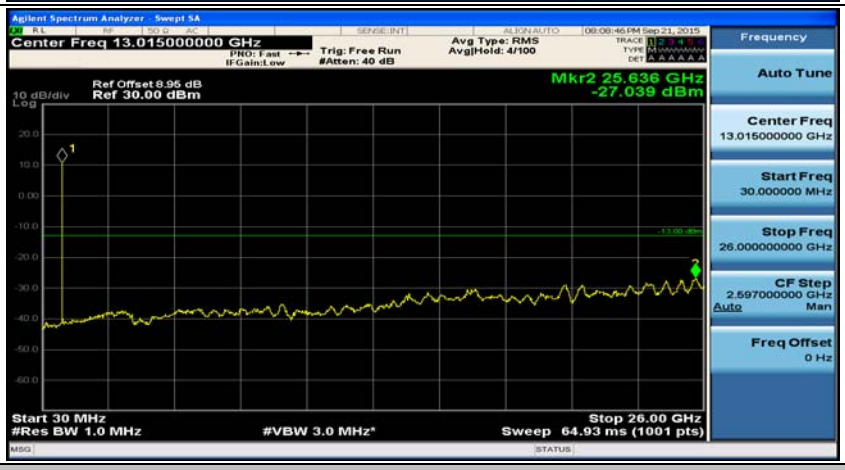




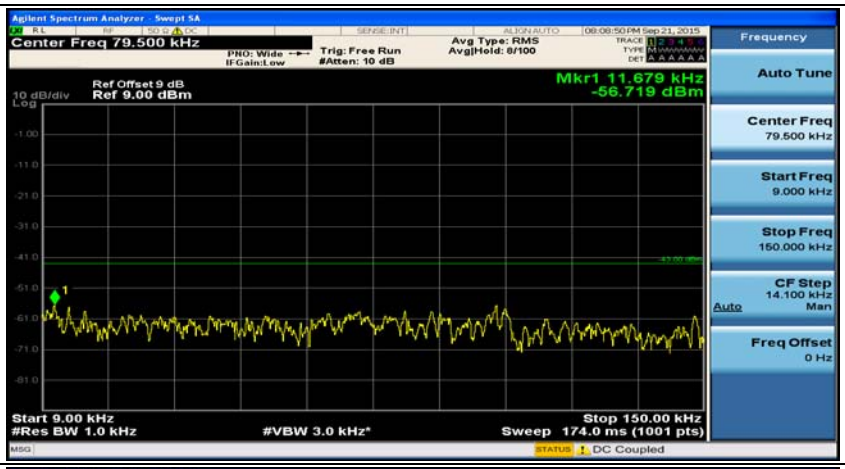
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

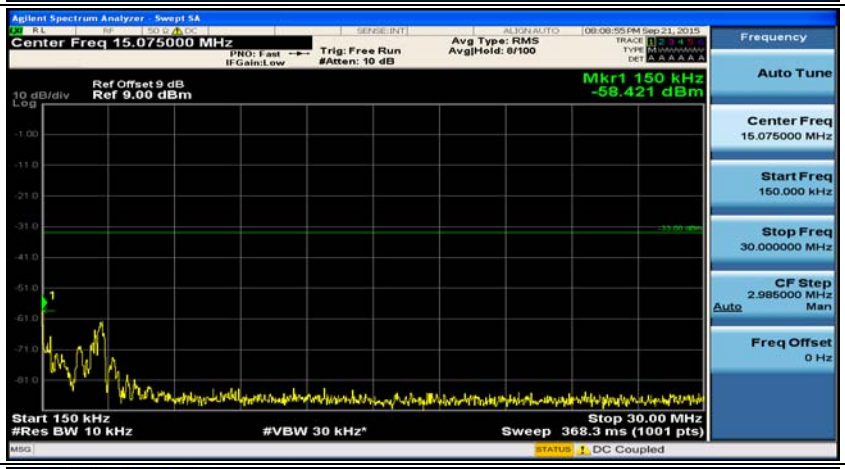


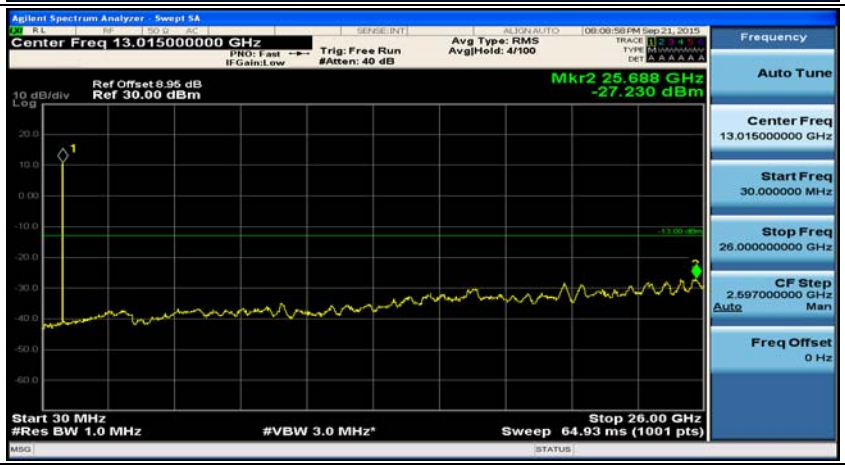




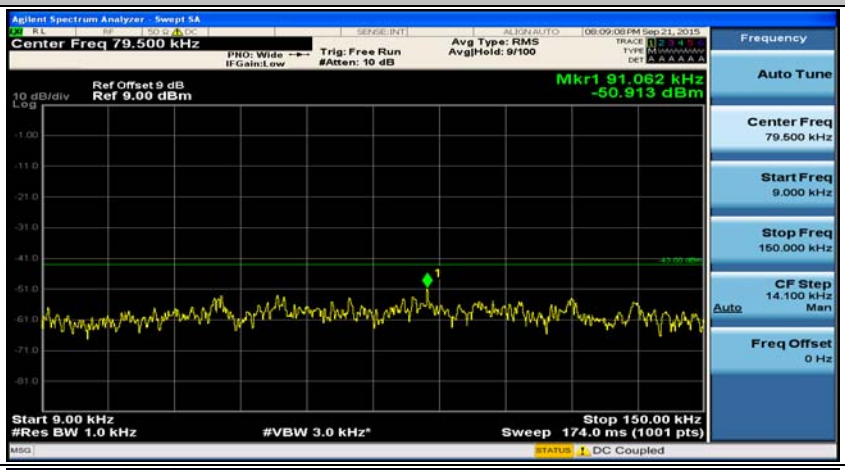
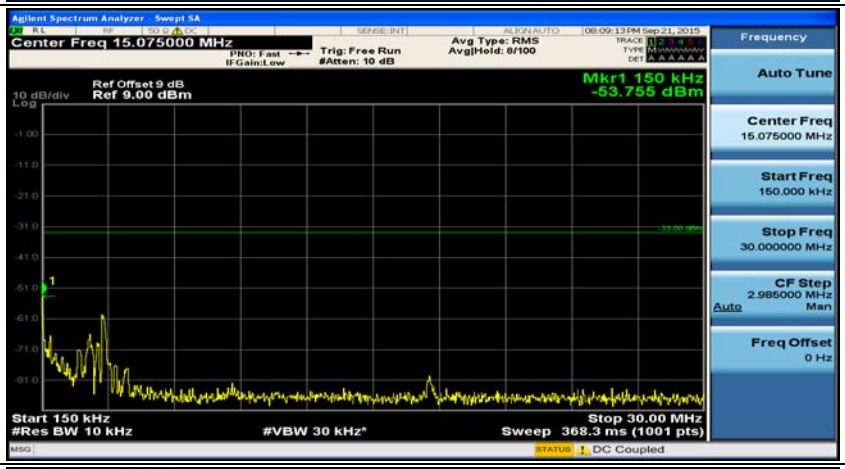
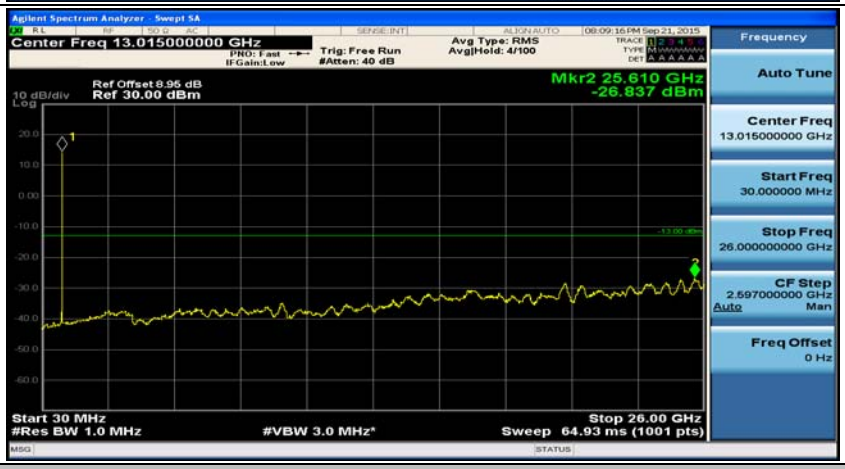
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

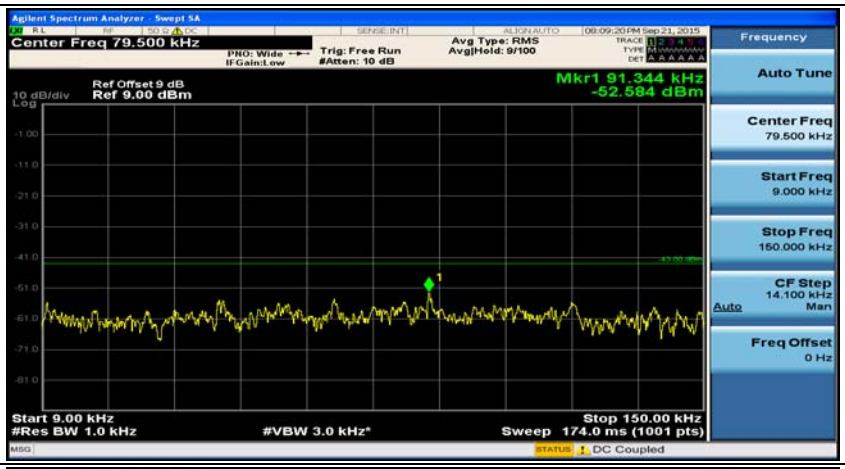

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.679 kHz
-56.719 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

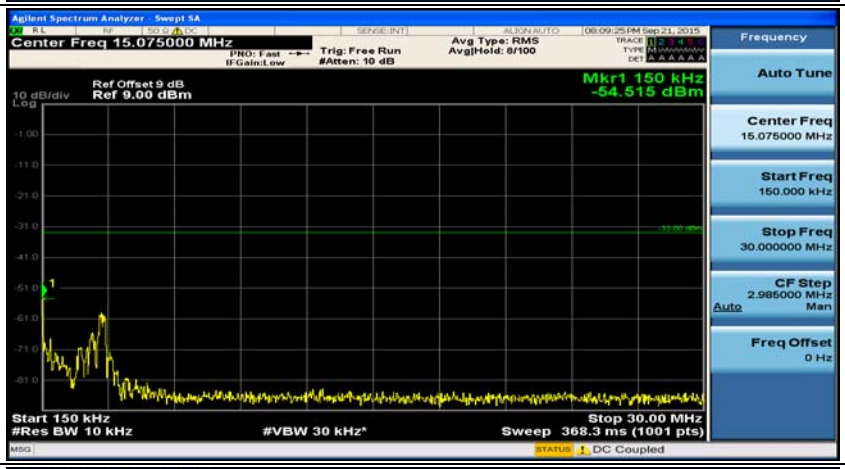

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.421 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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

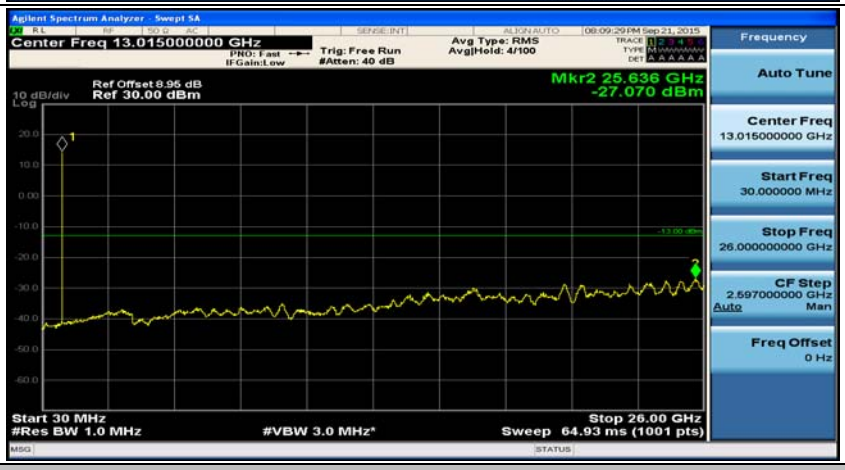

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 4/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-27.230 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 pts)
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

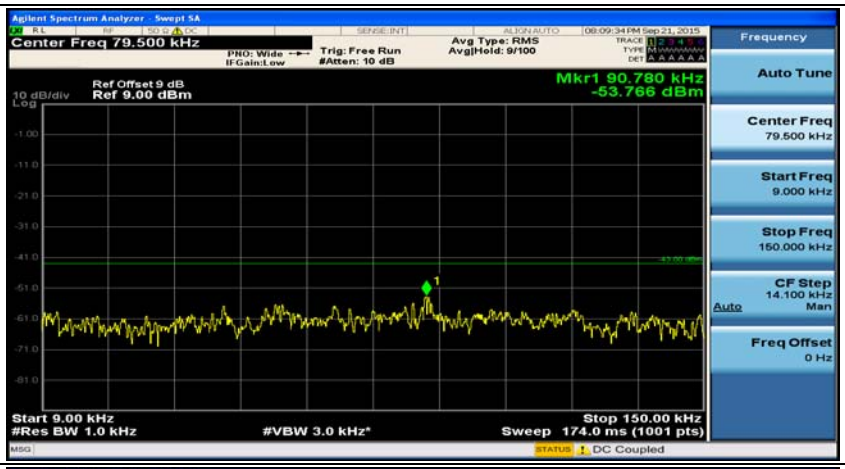
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

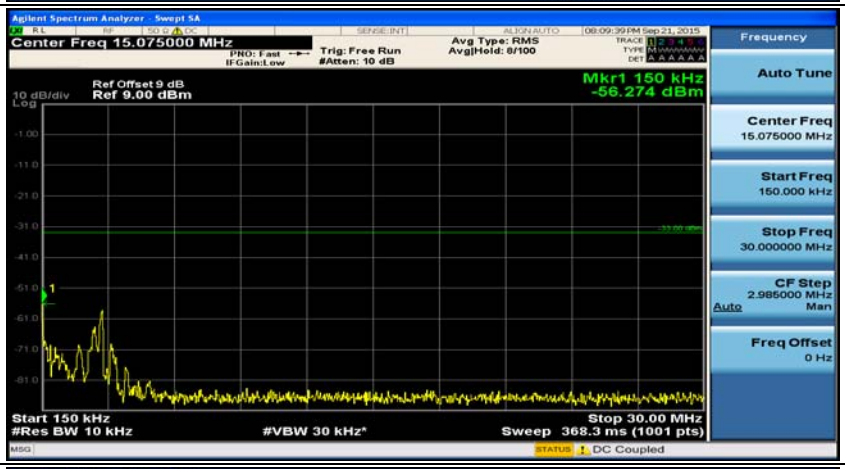


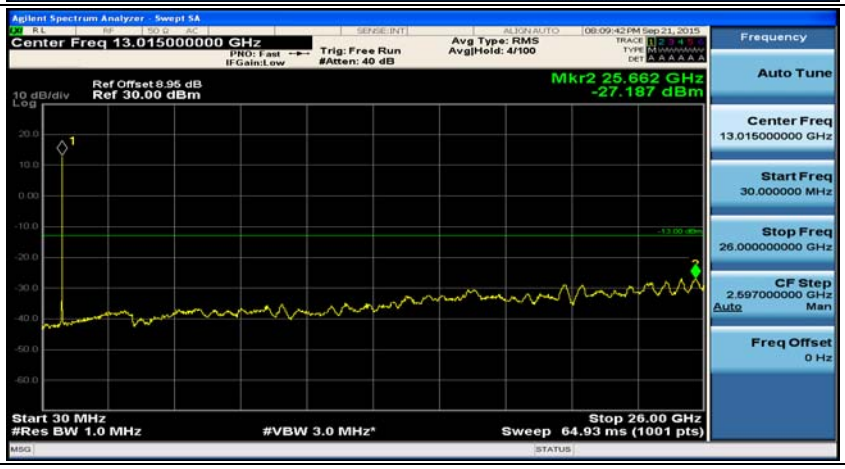


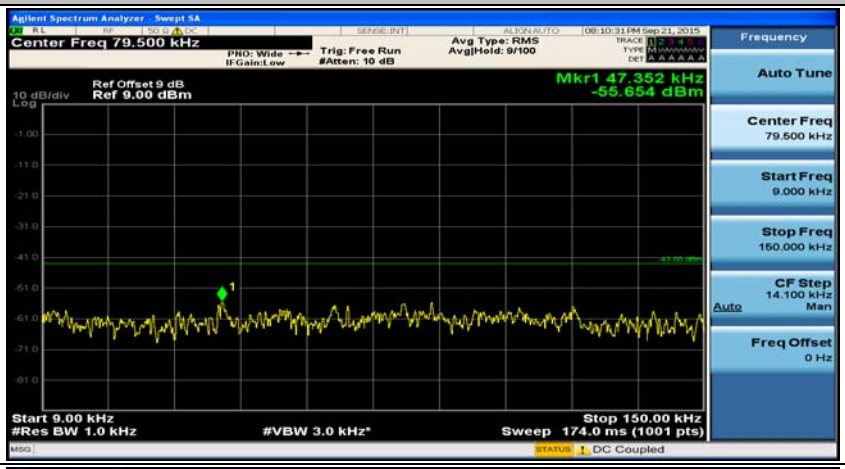
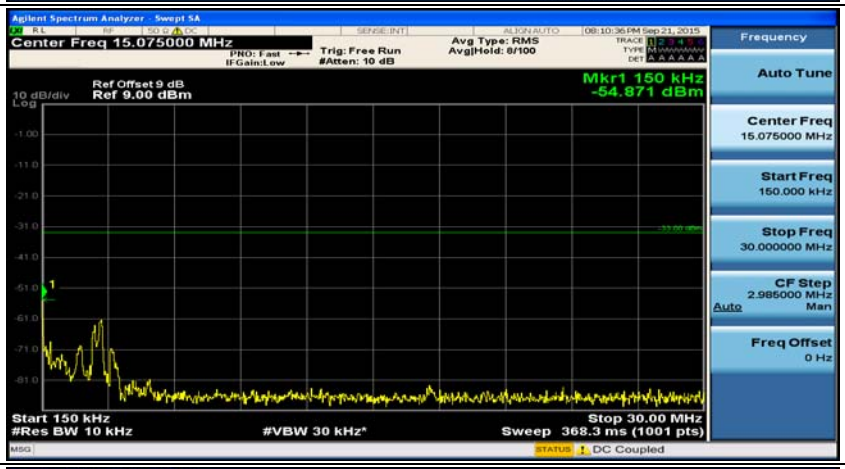
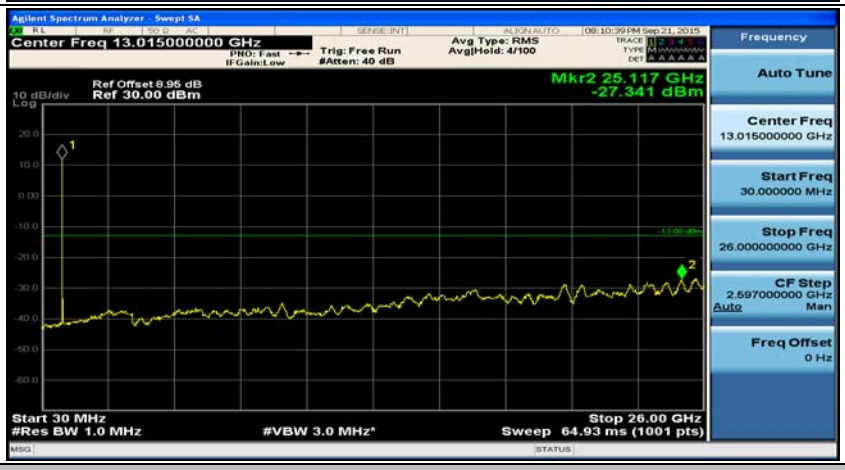


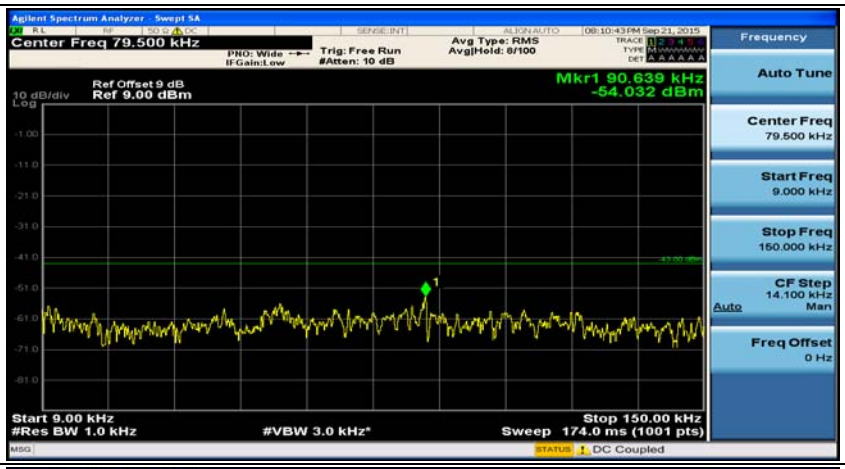
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

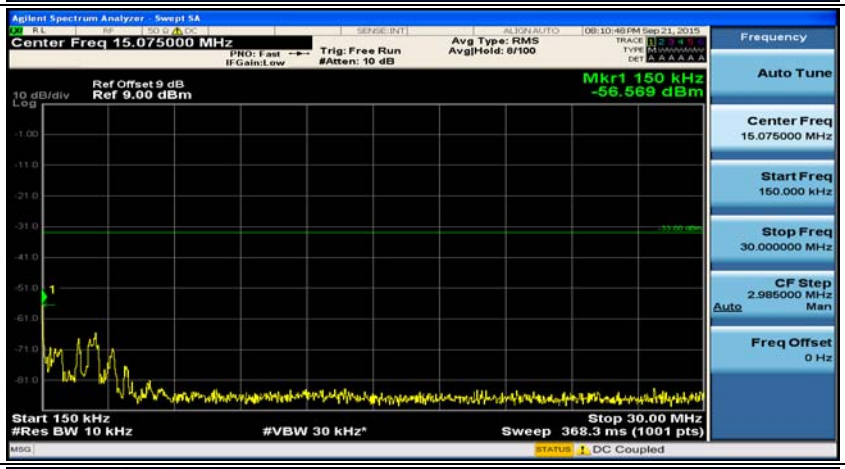

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 90.780 kHz
-53.766 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
DC Coupled
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

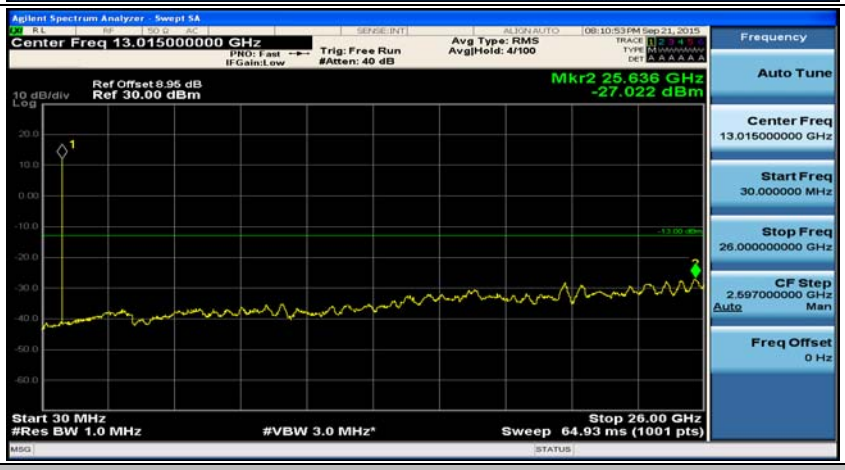

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 6/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-56.274 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
DC Coupled
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: 4/100
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.662 GHz
-27.187 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

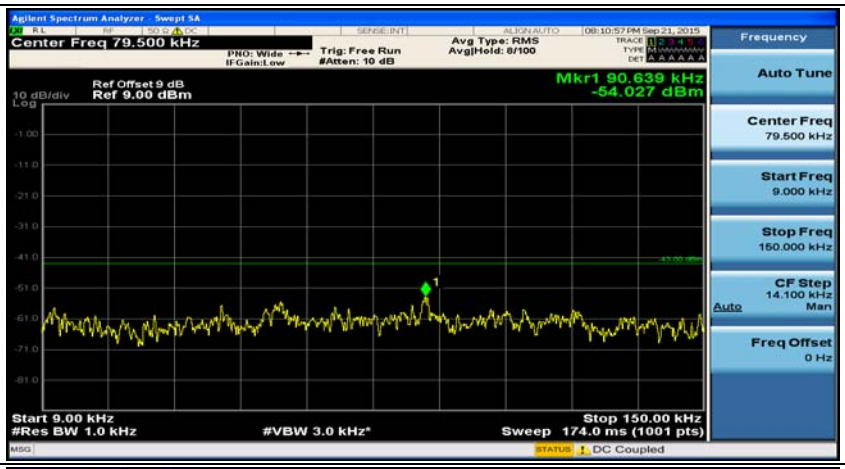
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

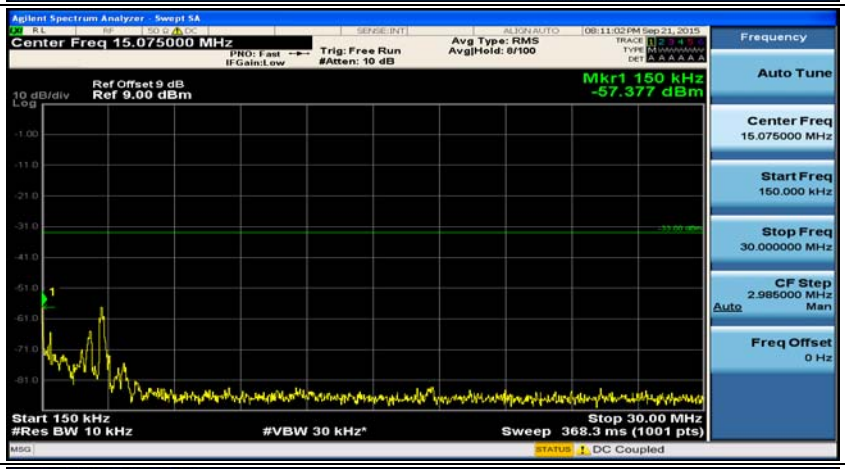


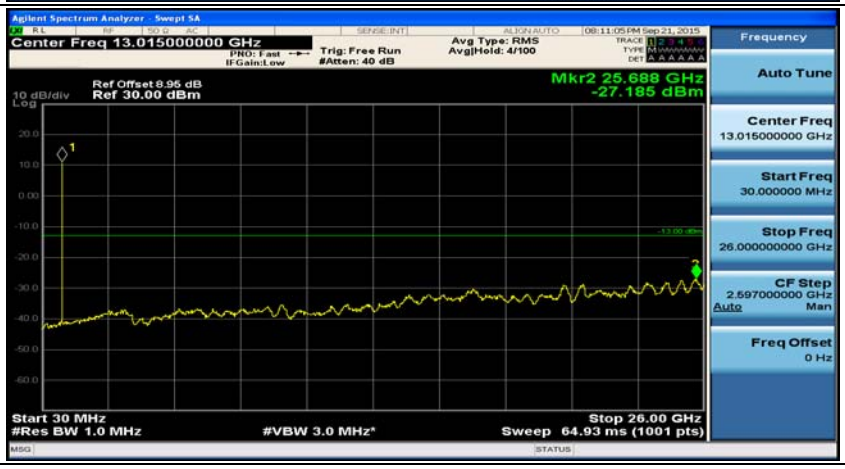


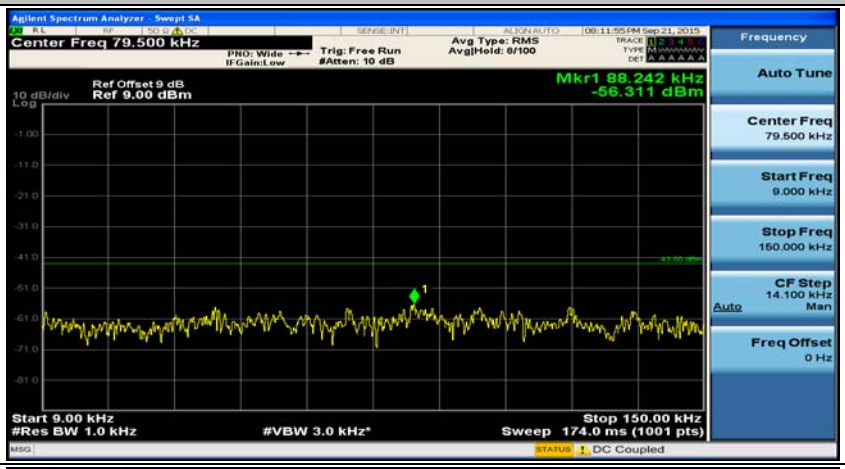
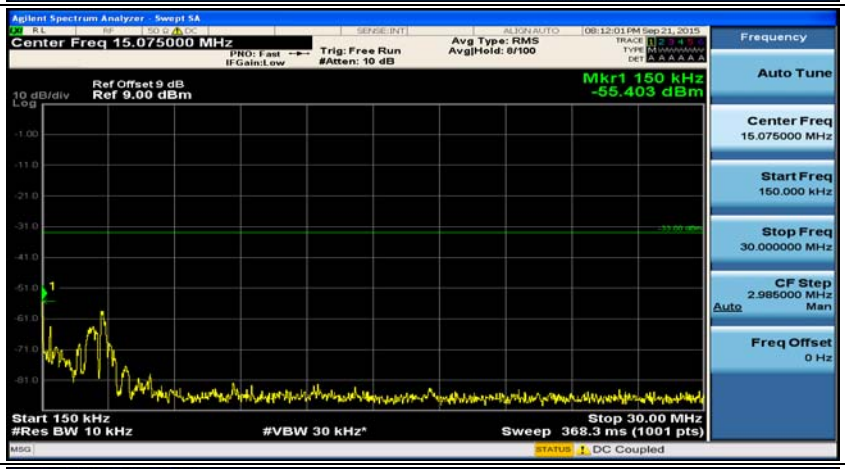
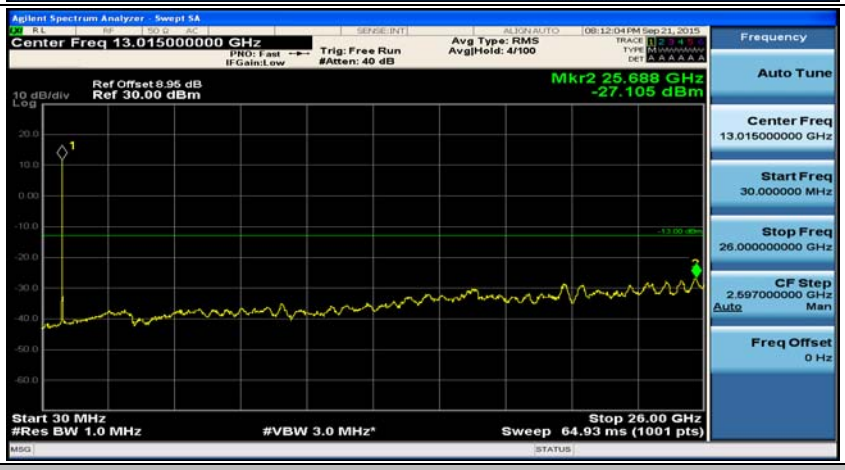


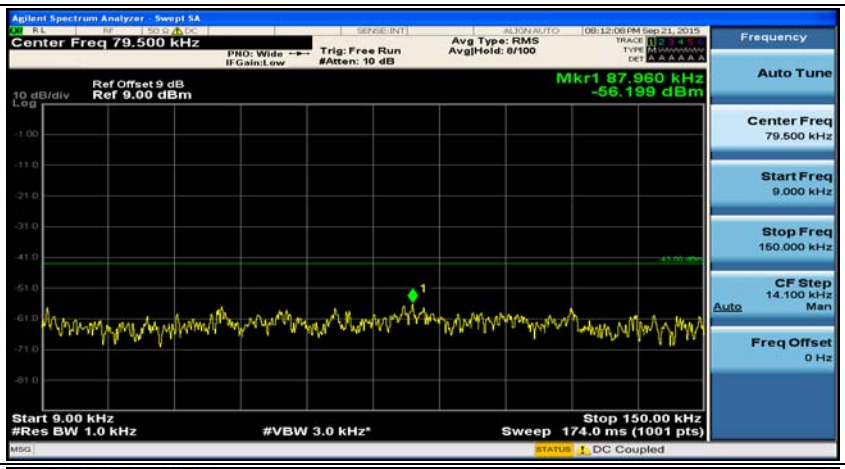
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

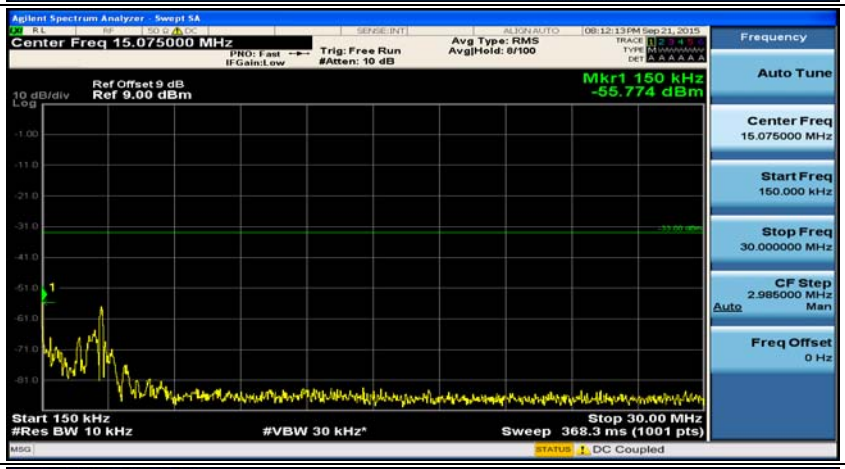

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:10:57 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 90.639 kHz
-54.027 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

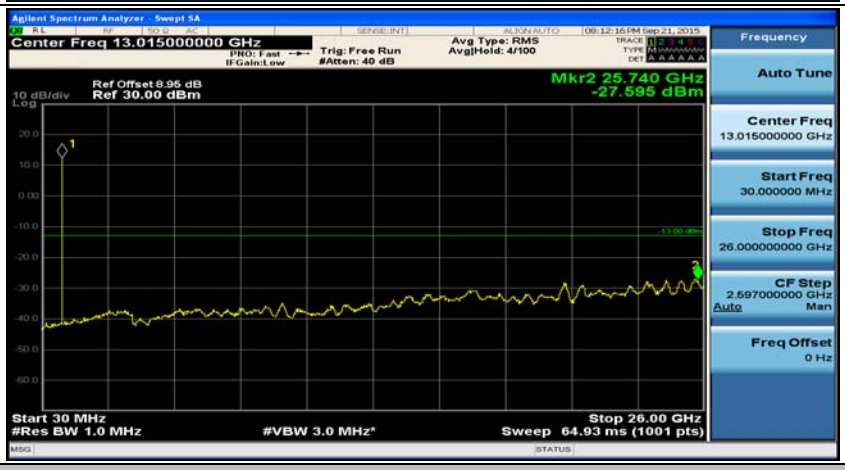

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:11:02 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 150 kHz
-57.377 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:11:05 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr2 25.688 GHz
-27.185 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

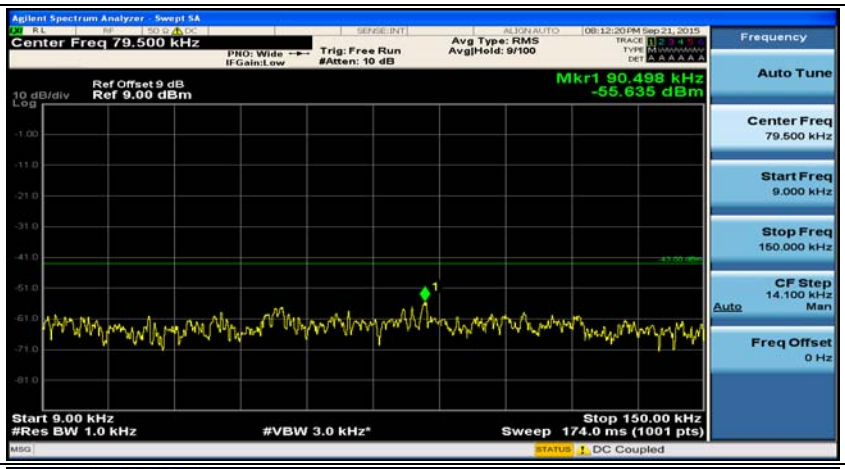
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

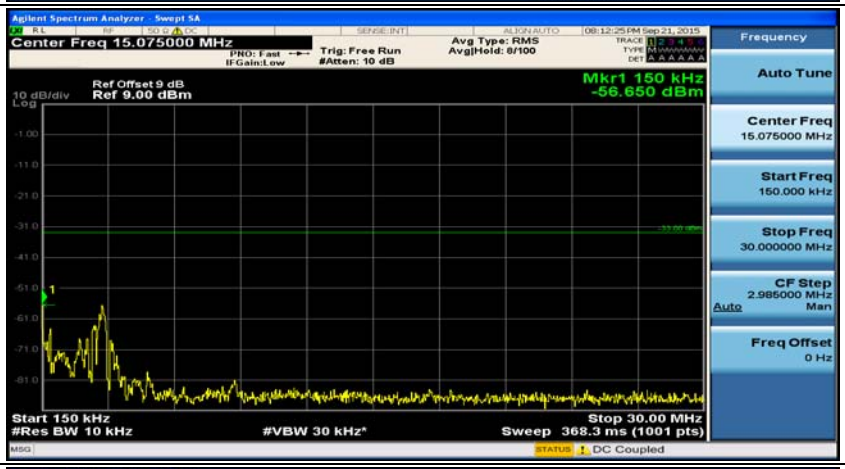


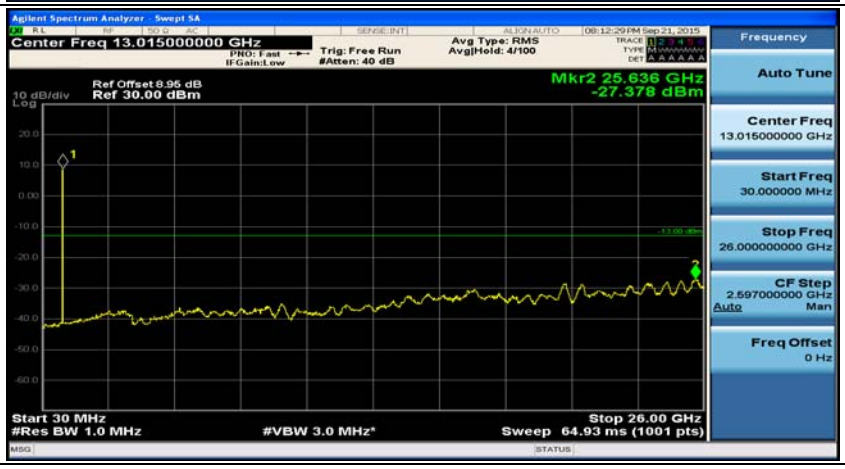


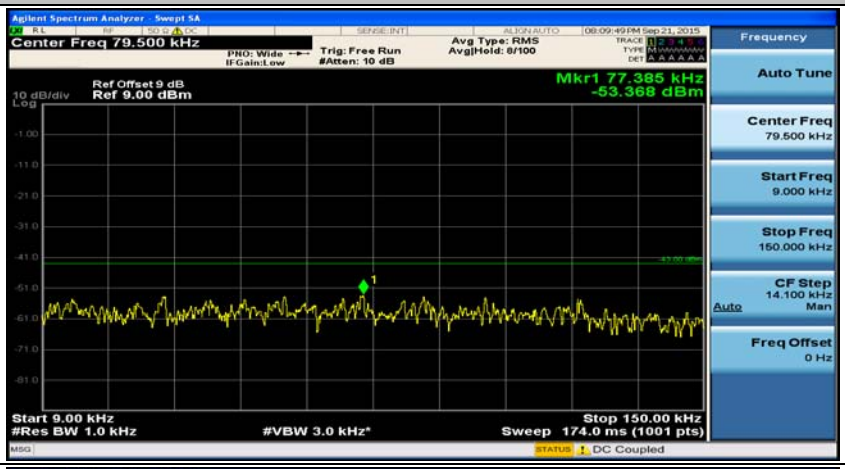
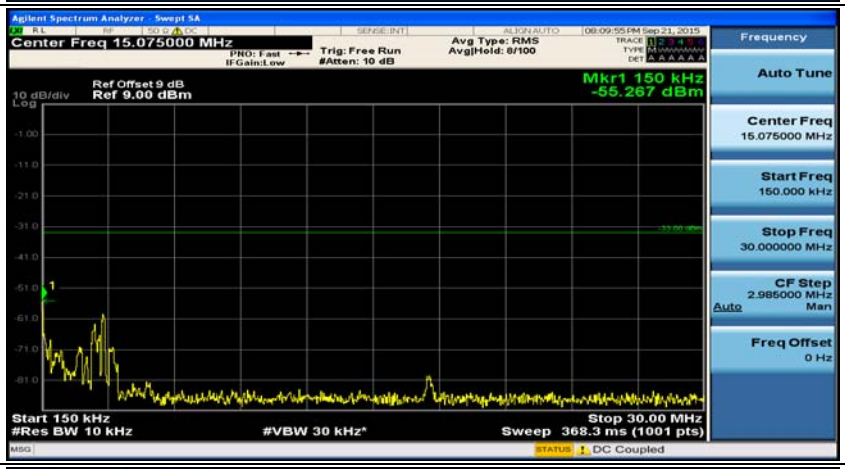
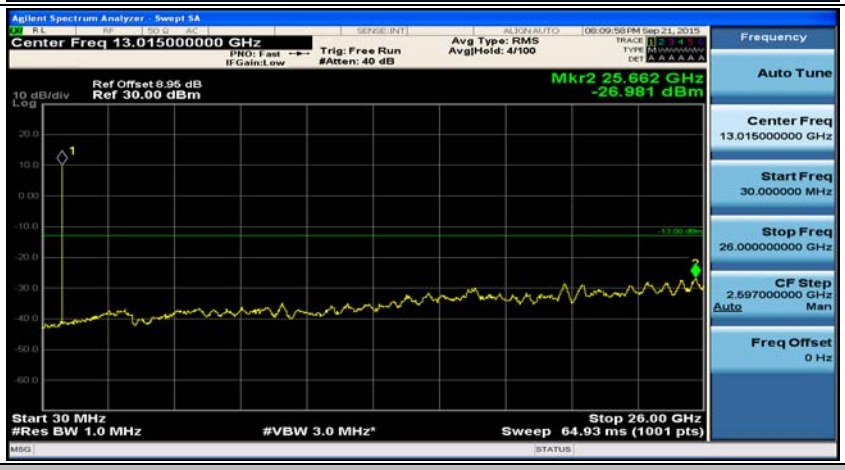


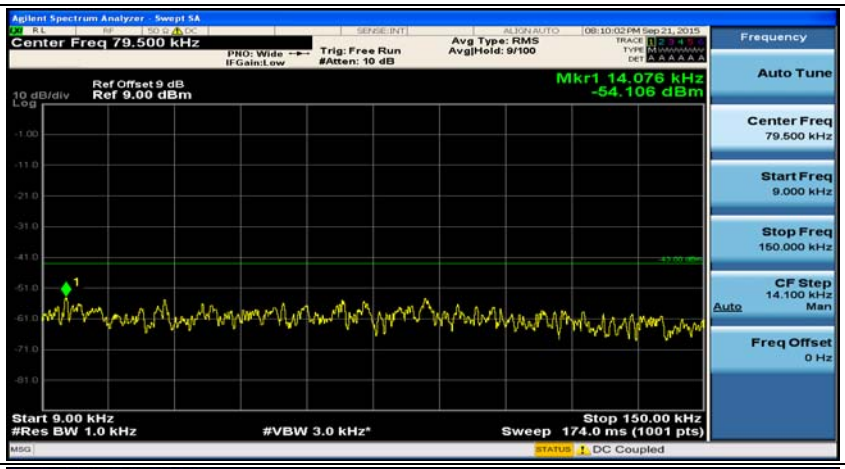
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

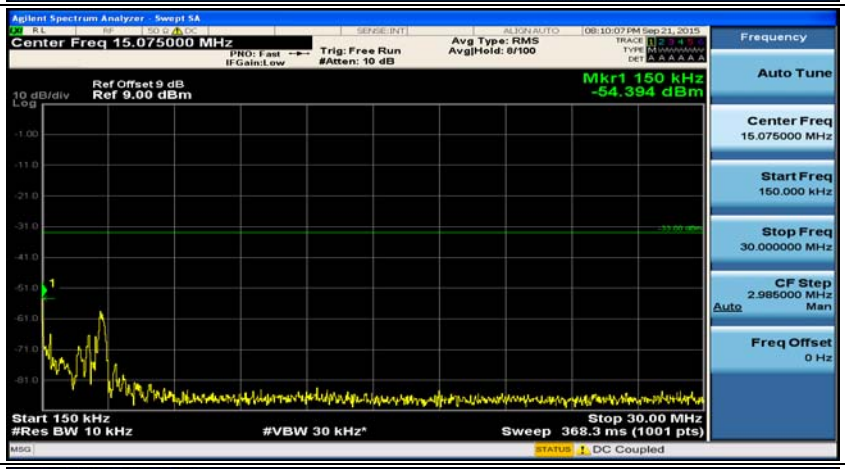

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
08:12:20 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div Ref 9.00 dBm
Log
Mkr1 90.498 kHz
-55.635 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

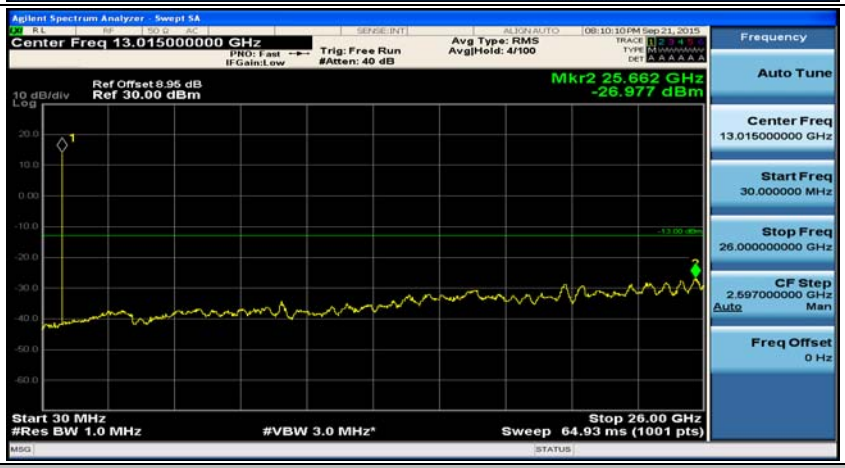

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 6/100
08:12:25 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div Ref 9.00 dBm
Log
Mkr1 150 kHz
-56.650 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:12:29 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.636 GHz
-27.378 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

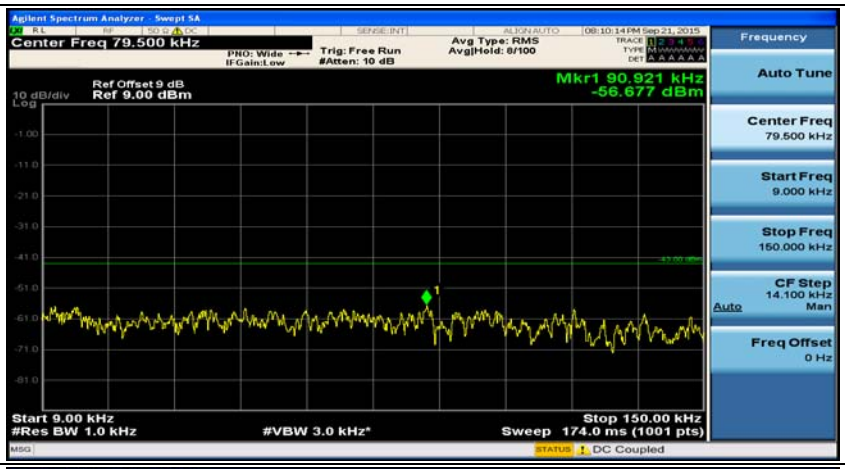
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

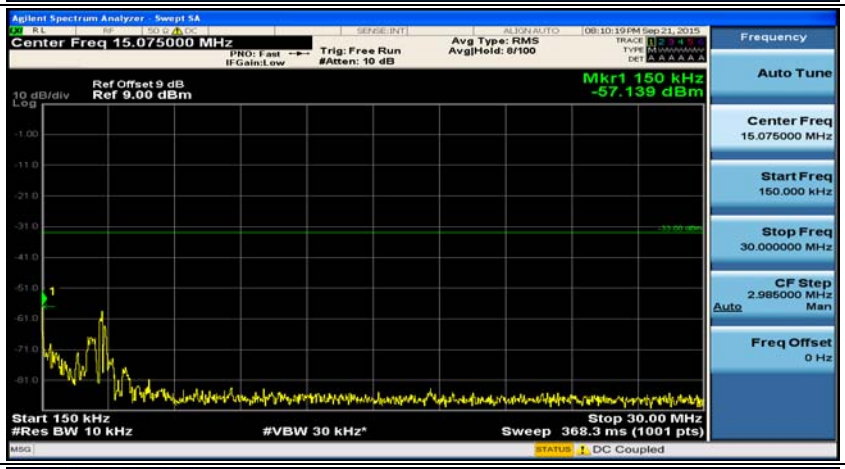


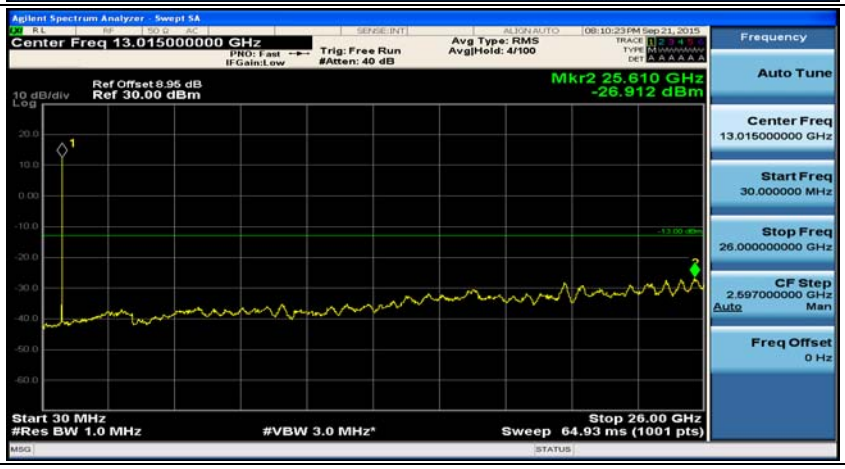


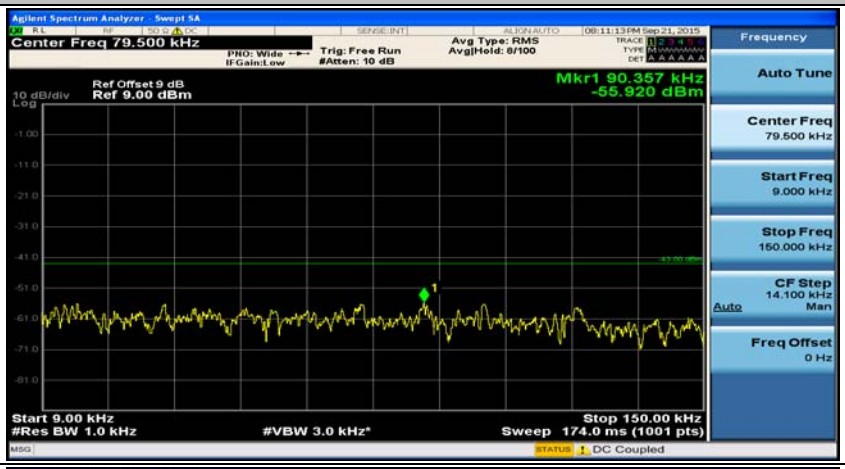
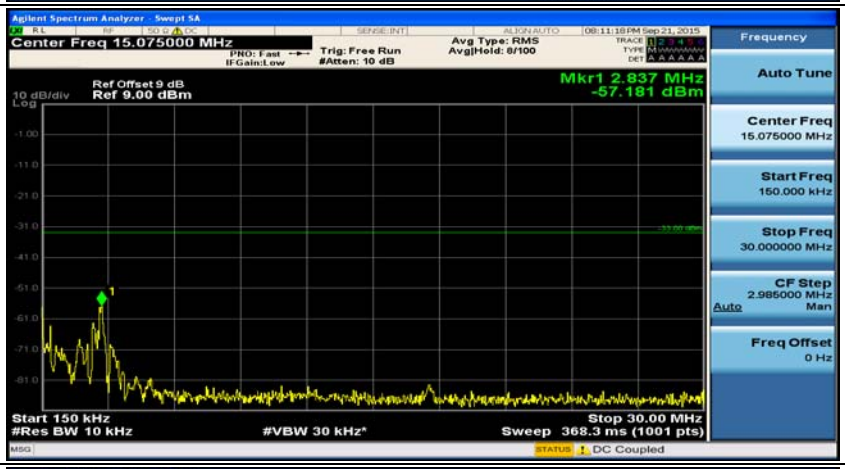
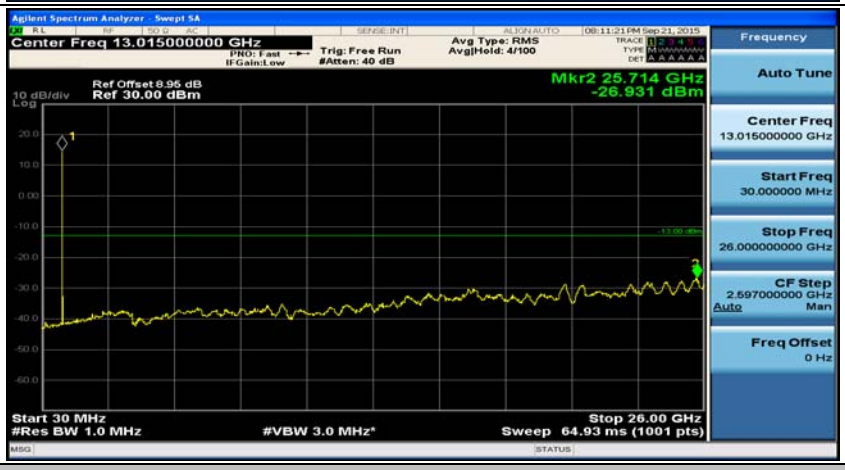


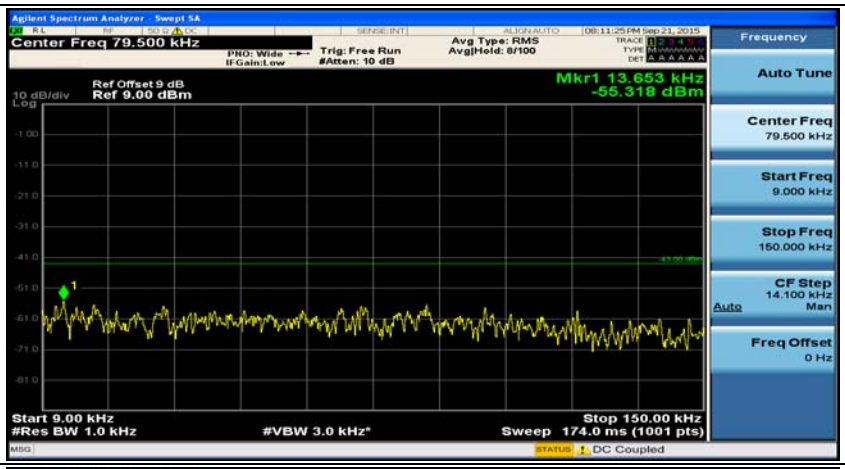
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

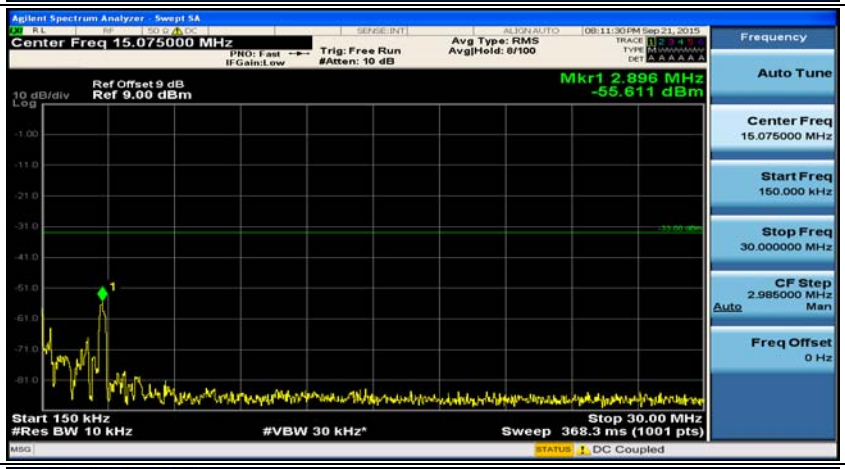

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:10:14 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 90.921 kHz
-56.677 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

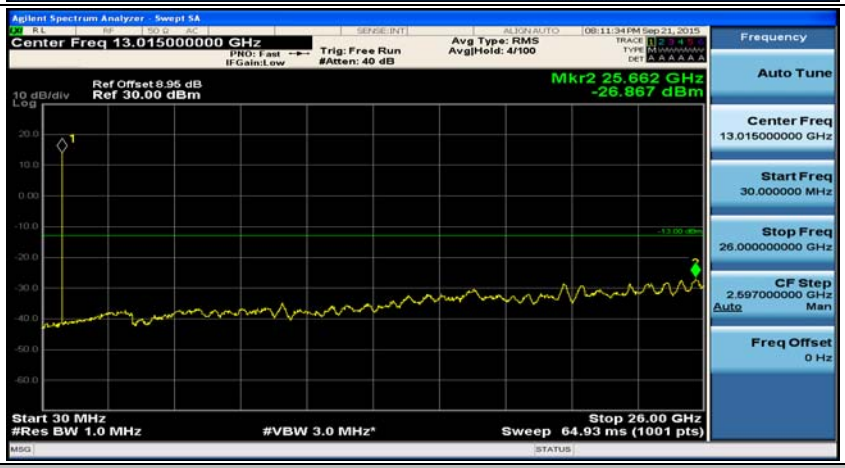

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 8/100
08:10:19 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 150 kHz
-57.139 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:10:23 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr2 25.610 GHz
-26.912 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

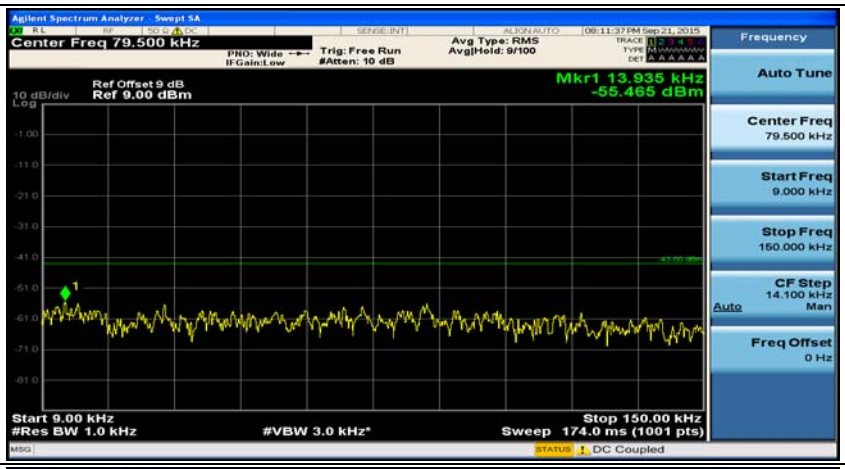
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

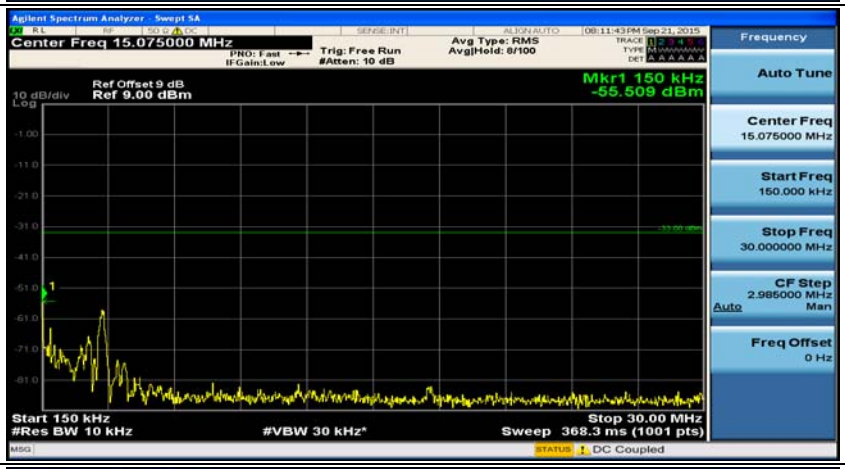


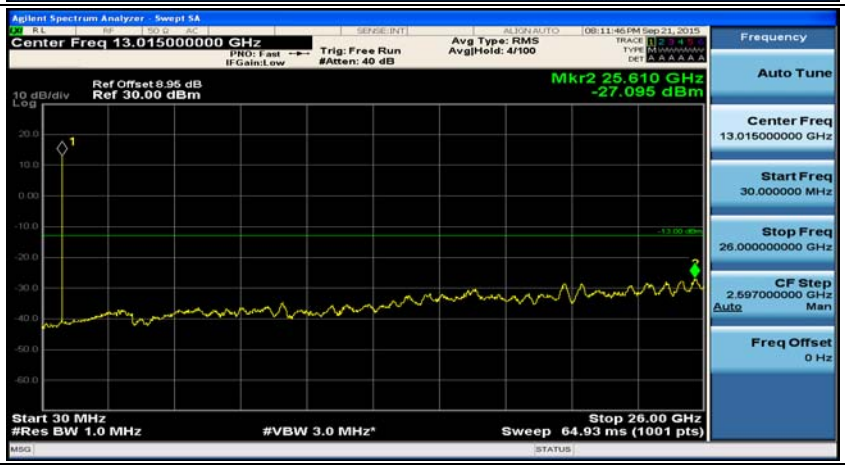


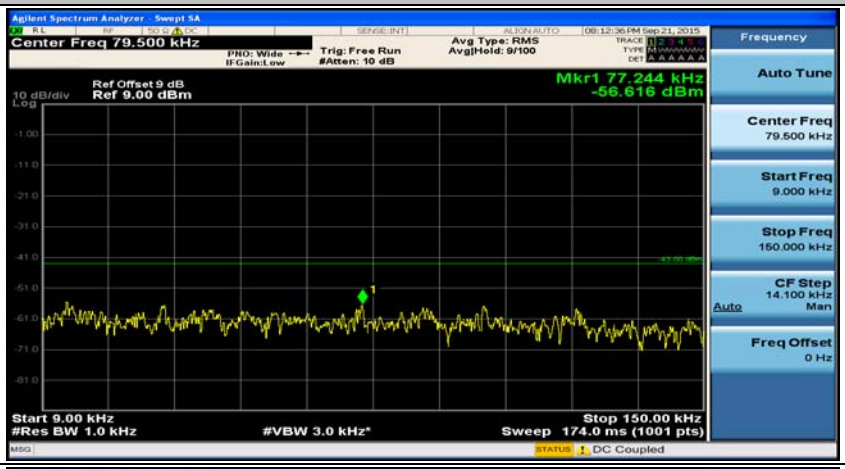
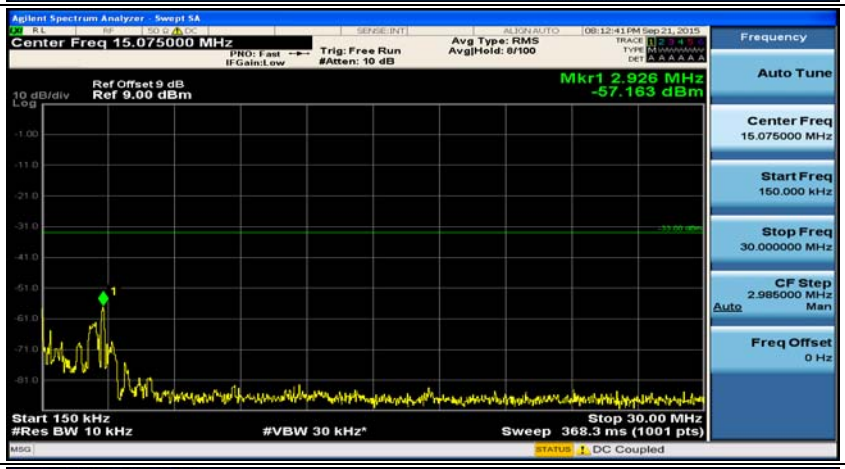
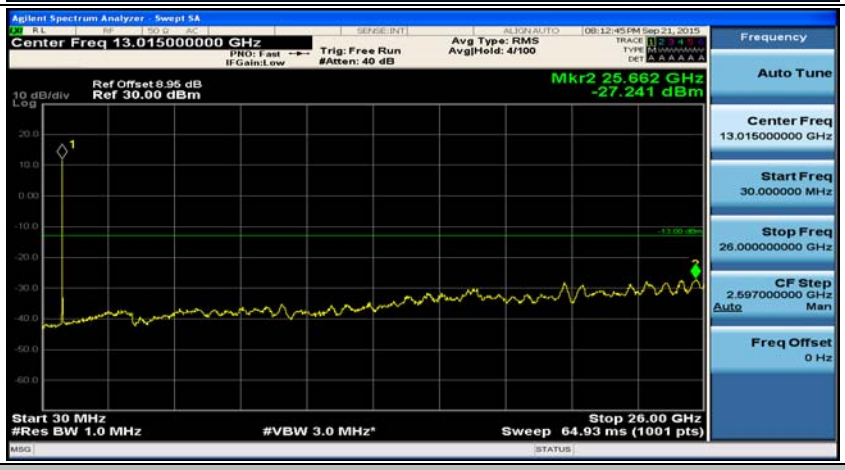


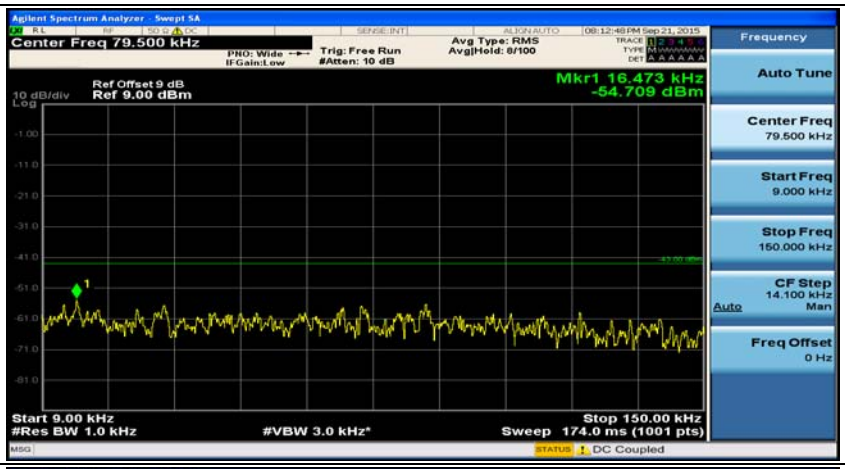
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

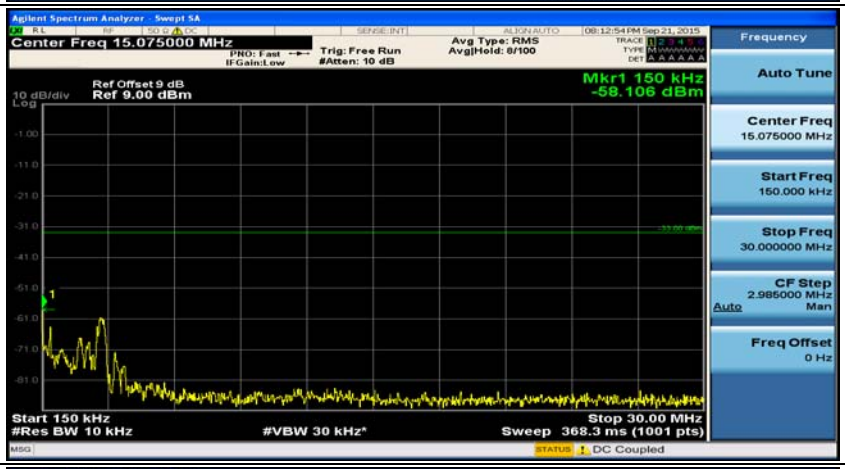

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 9/100
08:11:37 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.935 kHz
-55.465 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 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

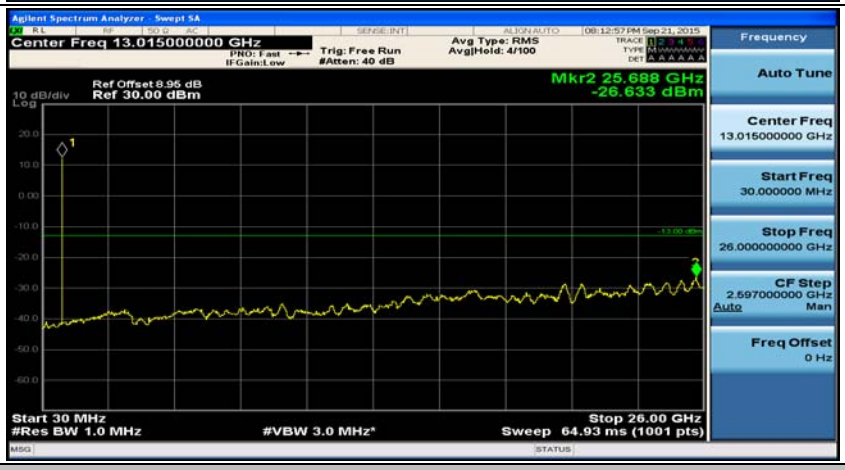

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 6/100
08:11:43 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-55.509 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 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: 4/100
08:11:46 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.610 GHz
-27.095 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

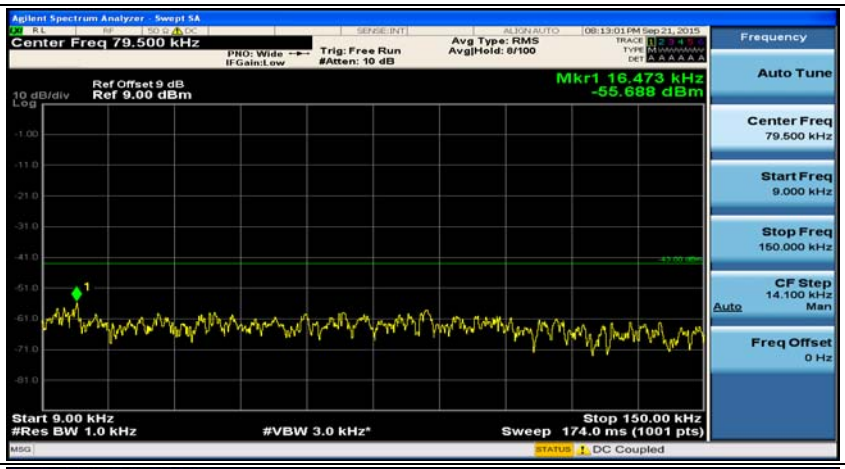
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

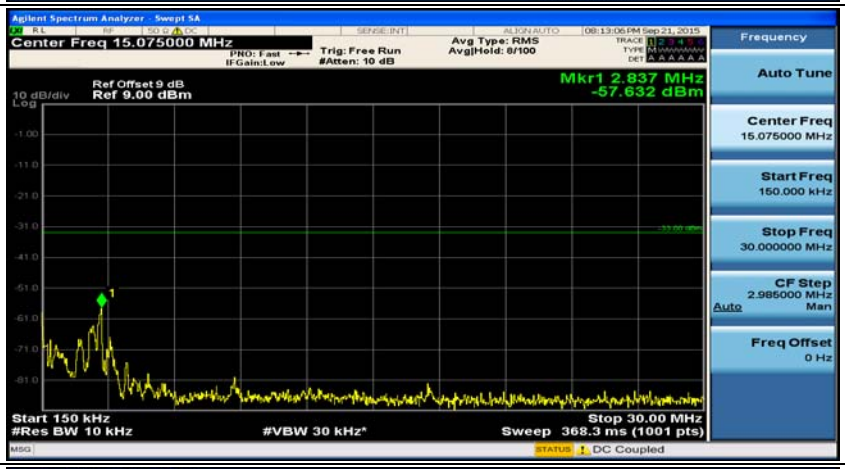


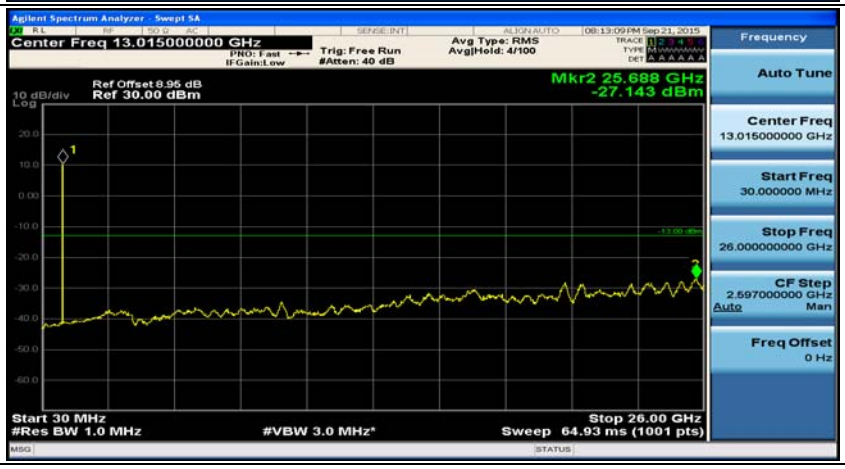




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


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: 8/100
08:13:01 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 16.473 kHz
-55.688 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: 8/100
08:13:06 PM Sep 21, 2015
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 2.837 MHz
-57.632 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: 4/100
08:13:09 PM Sep 21, 2015
Ref Offset 8.95 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-27.143 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	1.83	0.002220	± 2.5	PASS
		VN	TN	1.19	0.001440	± 2.5	PASS
		VH	TN	0.87	0.001056	± 2.5	PASS
	MCH	VL	TN	-1.89	-0.002257	± 2.5	PASS
		VN	TN	0.06	0.000068	± 2.5	PASS
		VH	TN	3.25	0.003882	± 2.5	PASS
	HCH	VL	TN	2.06	0.002428	± 2.5	PASS
		VN	TN	2.30	0.002715	± 2.5	PASS
		VH	TN	1.75	0.002062	± 2.5	PASS
16QAM	LCH	VL	TN	1.96	0.002376	± 2.5	PASS
		VN	TN	1.09	0.001318	± 2.5	PASS
		VH	TN	-1.60	-0.001939	± 2.5	PASS
	MCH	VL	TN	1.10	0.001317	± 2.5	PASS
		VN	TN	-1.04	-0.001248	± 2.5	PASS
		VH	TN	1.39	0.001659	± 2.5	PASS
	HCH	VL	TN	1.92	0.002260	± 2.5	PASS
		VN	TN	0.07	0.000084	± 2.5	PASS
		VH	TN	2.22	0.002619	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.76	0.002134	± 2.5	PASS
		VN	-20	2.26	0.002741	± 2.5	PASS
		VN	-10	2.02	0.002446	± 2.5	PASS
		VN	0	0.53	0.000642	± 2.5	PASS
		VN	10	-2.05	-0.002475	± 2.5	PASS
		VN	20	2.90	0.003521	± 2.5	PASS
		VN	30	0.01	0.000017	± 2.5	PASS
		VN	40	4.12	0.004996	± 2.5	PASS
		VN	50	0.24	0.000295	± 2.5	PASS
	MCH	VN	-30	-1.47	-0.001761	± 2.5	PASS
		VN	-20	-1.70	-0.002035	± 2.5	PASS
		VN	-10	1.73	0.002069	± 2.5	PASS
		VN	0	1.66	0.001984	± 2.5	PASS
		VN	10	1.86	0.002250	± 2.5	PASS
		VN	20	3.73	0.004463	± 2.5	PASS
		VN	30	0.69	0.000821	± 2.5	PASS

		VN	40	0.26	0.000308	± 2.5	PASS
		VN	50	0.64	0.000770	± 2.5	PASS
	HCH	VN	-30	0.04	0.000051	± 2.5	PASS
		VN	-20	-0.11	-0.000135	± 2.5	PASS
		VN	-10	3.91	0.004604	± 2.5	PASS
		VN	0	0.31	0.000371	± 2.5	PASS
		VN	10	-1.29	-0.001558	± 2.5	PASS
		VN	20	0.62	0.000725	± 2.5	PASS
		VN	30	1.29	0.001518	± 2.5	PASS
		VN	40	1.92	0.002260	± 2.5	PASS
		VN	50	2.85	0.003356	± 2.5	PASS
16QAM	LCH	VN	-30	4.28	0.005186	± 2.5	PASS
		VN	-20	3.83	0.004649	± 2.5	PASS
		VN	-10	0.11	0.000139	± 2.5	PASS
		VN	0	3.79	0.004597	± 2.5	PASS
		VN	10	-1.04	-0.001263	± 2.5	PASS
		VN	20	3.72	0.004510	± 2.5	PASS
		VN	30	2.80	0.003400	± 2.5	PASS
		VN	40	2.65	0.003209	± 2.5	PASS
		VN	50	1.80	0.002186	± 2.5	PASS
	MCH	VN	-30	1.02	0.001214	± 2.5	PASS
		VN	-20	1.36	0.001625	± 2.5	PASS
		VN	-10	0.49	0.000581	± 2.5	PASS
		VN	0	1.20	0.001436	± 2.5	PASS
		VN	10	0.82	0.000975	± 2.5	PASS
		VN	20	0.74	0.000889	± 2.5	PASS
		VN	30	0.13	0.000154	± 2.5	PASS
		VN	40	0.49	0.000581	± 2.5	PASS
		VN	50	0.49	0.000581	± 2.5	PASS
	HCH	VN	-30	2.96	0.003491	± 2.5	PASS
		VN	-20	2.83	0.003339	± 2.5	PASS
		VN	-10	2.02	0.002378	± 2.5	PASS
		VN	0	1.40	0.001653	± 2.5	PASS
		VN	10	0.82	0.000975	± 2.5	PASS
		VN	20	-0.97	-0.001147	± 2.5	PASS
		VN	30	1.32	0.001551	± 2.5	PASS
		VN	40	0.94	0.001113	± 2.5	PASS
		VN	50	0.96	0.001130	± 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	-0.07	-0.000087	± 2.5	PASS
		VN	TN	0.62	0.000745	± 2.5	PASS
		VH	TN	1.20	0.001436	± 2.5	PASS
	MCH	VL	TN	0.47	0.000564	± 2.5	PASS

		VN	TN	0.17	0.000205	± 2.5	PASS
		VH	TN	1.03	0.001231	± 2.5	PASS
	HCH	VL	TN	-0.26	-0.000304	± 2.5	PASS
		VN	TN	-0.34	-0.000405	± 2.5	PASS
		VH	TN	-0.72	-0.000845	± 2.5	PASS
16QAM	LCH	VL	TN	-2.35	-0.002842	± 2.5	PASS
		VN	TN	-1.20	-0.001456	± 2.5	PASS
		VH	TN	2.39	0.002822	± 2.5	PASS
	MCH	VL	TN	1.13	0.001351	± 2.5	PASS
		VN	TN	1.20	0.001436	± 2.5	PASS
		VH	TN	2.19	0.002586	± 2.5	PASS
	HCH	VL	TN	3.45	0.004068	± 2.5	PASS
		VN	TN	-0.27	-0.000321	± 2.5	PASS
		VH	TN	0.09	0.000101	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.02	0.001230	± 2.5	PASS
		VN	-20	1.90	0.002305	± 2.5	PASS
		VN	-10	-1.20	-0.001456	± 2.5	PASS
		VN	0	-0.74	-0.000901	± 2.5	PASS
		VN	10	-3.18	-0.003842	± 2.5	PASS
		VN	20	2.53	0.003067	± 2.5	PASS
		VN	30	0.73	0.000884	± 2.5	PASS
		VN	40	2.50	0.003033	± 2.5	PASS
		VN	50	-1.03	-0.001248	± 2.5	PASS
	MCH	VN	-30	1.02	0.001214	± 2.5	PASS
		VN	-20	1.07	0.001283	± 2.5	PASS
		VN	-10	1.53	0.001830	± 2.5	PASS
		VN	0	1.62	0.001932	± 2.5	PASS
		VN	10	0.01	0.000017	± 2.5	PASS
		VN	20	1.19	0.001419	± 2.5	PASS
		VN	30	1.89	0.002257	± 2.5	PASS
		VN	40	1.66	0.001984	± 2.5	PASS
		VN	50	2.43	0.002907	± 2.5	PASS
	HCH	VN	-30	0.41	0.000489	± 2.5	PASS
		VN	-20	0.90	0.001063	± 2.5	PASS
		VN	-10	0.73	0.000861	± 2.5	PASS
		VN	0	0.80	0.000945	± 2.5	PASS
		VN	10	-0.19	-0.000225	± 2.5	PASS
		VN	20	4.33	0.005114	± 2.5	PASS
		VN	30	1.56	0.001840	± 2.5	PASS
		VN	40	2.75	0.003241	± 2.5	PASS
		VN	50	-0.97	-0.001148	± 2.5	PASS
QPSK	LCH	VN	-30	0.62	0.000745	± 2.5	PASS
		VN	-20	0.24	0.000295	± 2.5	PASS
		VN	-10	-0.93	-0.001126	± 2.5	PASS
		VN	0	-0.24	-0.000295	± 2.5	PASS
		VN	10	-0.62	-0.000744	± 2.5	PASS
		VN	20	1.16	0.001404	± 2.5	PASS

		VN	30	-0.44	-0.000537	± 2.5	PASS
		VN	40	-0.29	-0.000347	± 2.5	PASS
		VN	50	2.42	0.002929	± 2.5	PASS
	MCH	VN	-30	0.14	0.000171	± 2.5	PASS
		VN	-20	3.13	0.003745	± 2.5	PASS
		VN	-10	-0.69	-0.000821	± 2.5	PASS
		VN	0	-0.76	-0.000906	± 2.5	PASS
		VN	10	2.86	0.003420	± 2.5	PASS
		VN	20	2.02	0.002411	± 2.5	PASS
		VN	30	2.85	0.003403	± 2.5	PASS
		VN	40	3.45	0.004121	± 2.5	PASS
		VN	50	3.16	0.003779	± 2.5	PASS
	HCH	VN	-30	2.92	0.003443	± 2.5	PASS
		VN	-20	1.43	0.001688	± 2.5	PASS
		VN	-10	2.37	0.002802	± 2.5	PASS
		VN	0	2.10	0.002481	± 2.5	PASS
		VN	10	-0.87	-0.001043	± 2.5	PASS
		VN	20	-1.34	-0.001587	± 2.5	PASS
		VN	30	2.23	0.002633	± 2.5	PASS
		VN	40	1.24	0.001468	± 2.5	PASS
		VN	50	-0.16	-0.000186	± 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	1.93	0.002281	± 2.5	PASS
		VN	TN	-0.47	-0.000571	± 2.5	PASS
		VH	TN	2.20	0.002634	± 2.5	PASS
	MCH	VL	TN	1.53	0.001830	± 2.5	PASS
		VN	TN	1.06	0.001265	± 2.5	PASS
		VH	TN	1.93	0.002281	± 2.5	PASS
	HCH	VL	TN	1.57	0.001859	± 2.5	PASS
		VN	TN	0.89	0.001048	± 2.5	PASS
		VH	TN	1.10	0.001301	± 2.5	PASS
16QAM	LCH	VL	TN	0.76	0.000896	± 2.5	PASS
		VN	TN	0.54	0.000658	± 2.5	PASS
		VH	TN	1.57	0.001859	± 2.5	PASS
	MCH	VL	TN	1.10	0.001301	± 2.5	PASS
		VN	TN	0.83	0.000992	± 2.5	PASS
		VH	TN	0.76	0.000896	± 2.5	PASS
	HCH	VL	TN	2.20	0.002634	± 2.5	PASS
		VN	TN	-0.36	-0.000422	± 2.5	PASS
		VH	TN	1.76	0.002134	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict

QPSK	LCH	VN	-30	1.76	0.002134	± 2.5	PASS
		VN	-20	2.26	0.002741	± 2.5	PASS
		VN	-10	2.02	0.002446	± 2.5	PASS
		VN	0	0.53	0.000642	± 2.5	PASS
		VN	10	1.17	0.001419	± 2.5	PASS
		VN	20	1.17	0.001419	± 2.5	PASS
		VN	30	0.37	0.000450	± 2.5	PASS
		VN	40	-0.57	-0.000692	± 2.5	PASS
		VN	50	0.20	0.000242	± 2.5	PASS
	MCH	VN	-30	-1.47	-0.001761	± 2.5	PASS
		VN	-20	-1.70	-0.002035	± 2.5	PASS
		VN	-10	1.73	0.002069	± 2.5	PASS
		VN	0	1.66	0.001984	± 2.5	PASS
		VN	10	-0.11	-0.000135	± 2.5	PASS
		VN	20	0.73	0.000872	± 2.5	PASS
		VN	30	1.65	0.001967	± 2.5	PASS
		VN	40	1.67	0.002001	± 2.5	PASS
		VN	50	-1.04	-0.001248	± 2.5	PASS
	HCH	VN	-30	0.04	0.000051	± 2.5	PASS
		VN	-20	-0.11	-0.000135	± 2.5	PASS
		VN	-10	3.91	0.004604	± 2.5	PASS
		VN	0	0.31	0.000371	± 2.5	PASS
		VN	10	-0.93	-0.001098	± 2.5	PASS
		VN	20	0.66	0.000777	± 2.5	PASS
		VN	30	-0.93	-0.001098	± 2.5	PASS
		VN	40	-0.34	-0.000406	± 2.5	PASS
		VN	50	0.54	0.000642	± 2.5	PASS
16QAM	LCH	VN	-30	4.28	0.005186	± 2.5	PASS
		VN	-20	3.83	0.004649	± 2.5	PASS
		VN	-10	0.11	0.000139	± 2.5	PASS
		VN	0	3.79	0.004597	± 2.5	PASS
		VN	10	-0.04	-0.000052	± 2.5	PASS
		VN	20	-0.04	-0.000052	± 2.5	PASS
		VN	30	0.03	0.000035	± 2.5	PASS
		VN	40	-0.46	-0.000554	± 2.5	PASS
		VN	50	2.75	0.003323	± 2.5	PASS
	MCH	VN	-30	1.02	0.001214	± 2.5	PASS
		VN	-20	1.36	0.001625	± 2.5	PASS
		VN	-10	0.49	0.000581	± 2.5	PASS
		VN	0	1.20	0.001436	± 2.5	PASS
		VN	10	0.39	0.000462	± 2.5	PASS
		VN	20	0.56	0.000667	± 2.5	PASS
		VN	30	0.39	0.000462	± 2.5	PASS
		VN	40	0.86	0.001026	± 2.5	PASS
		VN	50	0.87	0.001043	± 2.5	PASS
	HCH	VN	-30	2.96	0.003491	± 2.5	PASS
		VN	-20	2.83	0.003339	± 2.5	PASS
		VN	-10	2.02	0.002378	± 2.5	PASS
		VN	0	1.40	0.001653	± 2.5	PASS
		VN	10	2.96	0.003491	± 2.5	PASS

		VN	20	-0.53	-0.000625	± 2.5	PASS
		VN	30	2.57	0.003042	± 2.5	PASS
		VN	40	-0.26	-0.000304	± 2.5	PASS
		VN	50	-0.92	-0.001082	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.30	0.000162	± 2.5	PASS
		VN	TN	-0.20	-0.000108	± 2.5	PASS
		VH	TN	0.26	0.000139	± 2.5	PASS
	MCH	VL	TN	-0.76	-0.000403	± 2.5	PASS
		VN	TN	0.21	0.000114	± 2.5	PASS
		VH	TN	0.40	0.000213	± 2.5	PASS
	HCH	VL	TN	-1.62	-0.000849	± 2.5	PASS
		VN	TN	1.36	0.000713	± 2.5	PASS
		VH	TN	-1.49	-0.000781	± 2.5	PASS
16QAM	LCH	VL	TN	-0.94	-0.000509	± 2.5	PASS
		VN	TN	-2.36	-0.001272	± 2.5	PASS
		VH	TN	0.19	0.000100	± 2.5	PASS
	MCH	VL	TN	-1.19	-0.000632	± 2.5	PASS
		VN	TN	0.14	0.000076	± 2.5	PASS
		VH	TN	1.17	0.000624	± 2.5	PASS
	HCH	VL	TN	0.74	0.000390	± 2.5	PASS
		VN	TN	0.77	0.000405	± 2.5	PASS
		VH	TN	-1.06	-0.000556	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	0.40	0.000216	± 2.5	PASS
		VN	-20	-0.19	-0.000100	± 2.5	PASS
		VN	-10	-0.01	-0.000008	± 2.5	PASS
		VN	0	-1.24	-0.000671	± 2.5	PASS
		VN	10	-0.01	-0.000008	± 2.5	PASS
		VN	20	0.09	0.000046	± 2.5	PASS
		VN	30	-1.73	-0.000933	± 2.5	PASS
		VN	40	-1.24	-0.000671	± 2.5	PASS
		VN	50	0.31	0.000170	± 2.5	PASS
	MCH	VN	-30	-0.17	-0.000091	± 2.5	PASS
		VN	-20	-1.43	-0.000761	± 2.5	PASS
		VN	-10	-0.44	-0.000236	± 2.5	PASS
		VN	0	-0.17	-0.000091	± 2.5	PASS
		VN	10	-0.26	-0.000137	± 2.5	PASS
		VN	20	0.33	0.000175	± 2.5	PASS
		VN	30	0.64	0.000342	± 2.5	PASS
		VN	40	1.16	0.000616	± 2.5	PASS

		VN	50	1.43	0.000761	± 2.5	PASS
	HCH	VN	-30	0.07	0.000038	± 2.5	PASS
		VN	-20	-0.90	-0.000473	± 2.5	PASS
		VN	-10	-0.92	-0.000481	± 2.5	PASS
		VN	0	-0.23	-0.000120	± 2.5	PASS
		VN	10	0.96	0.000503	± 2.5	PASS
		VN	20	1.52	0.000796	± 2.5	PASS
		VN	30	1.26	0.000661	± 2.5	PASS
		VN	40	0.84	0.000443	± 2.5	PASS
		VN	50	1.04	0.000548	± 2.5	PASS
QPSK	LCH	VN	-30	-1.27	-0.000686	± 2.5	PASS
		VN	-20	-1.34	-0.000725	± 2.5	PASS
		VN	-10	-0.01	-0.000008	± 2.5	PASS
		VN	0	-0.70	-0.000378	± 2.5	PASS
		VN	10	-0.10	-0.000054	± 2.5	PASS
		VN	20	0.07	0.000039	± 2.5	PASS
		VN	30	0.24	0.000131	± 2.5	PASS
		VN	40	-1.19	-0.000640	± 2.5	PASS
		VN	50	-1.46	-0.000787	± 2.5	PASS
	MCH	VN	-30	0.04	0.000023	± 2.5	PASS
		VN	-20	-0.17	-0.000091	± 2.5	PASS
		VN	-10	-0.76	-0.000403	± 2.5	PASS
		VN	0	-0.46	-0.000243	± 2.5	PASS
		VN	10	-1.70	-0.000905	± 2.5	PASS
		VN	20	0.50	0.000266	± 2.5	PASS
		VN	30	-0.39	-0.000205	± 2.5	PASS
		VN	40	1.66	0.000883	± 2.5	PASS
		VN	50	0.50	0.000266	± 2.5	PASS
	HCH	VN	-30	0.96	0.000503	± 2.5	PASS
		VN	-20	-0.53	-0.000278	± 2.5	PASS
		VN	-10	-0.76	-0.000398	± 2.5	PASS
		VN	0	-0.13	-0.000068	± 2.5	PASS
		VN	10	-1.19	-0.000623	± 2.5	PASS
		VN	20	0.31	0.000165	± 2.5	PASS
		VN	30	0.29	0.000150	± 2.5	PASS
		VN	40	0.50	0.000263	± 2.5	PASS
		VN	50	1.06	0.000556	± 2.5	PASS