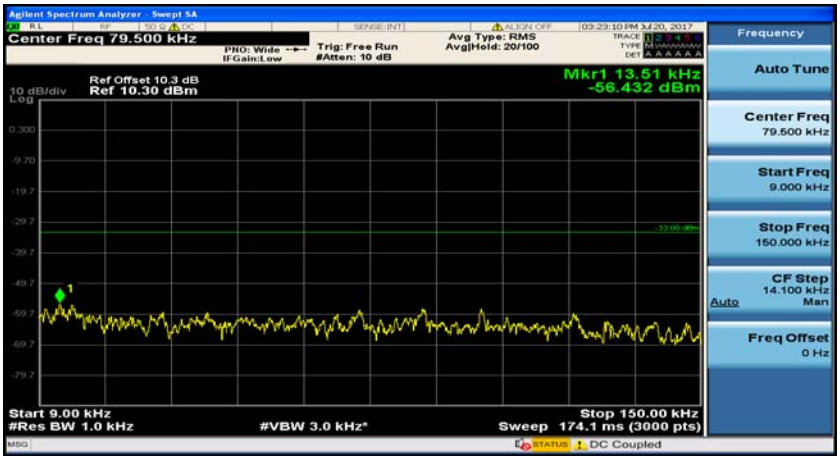
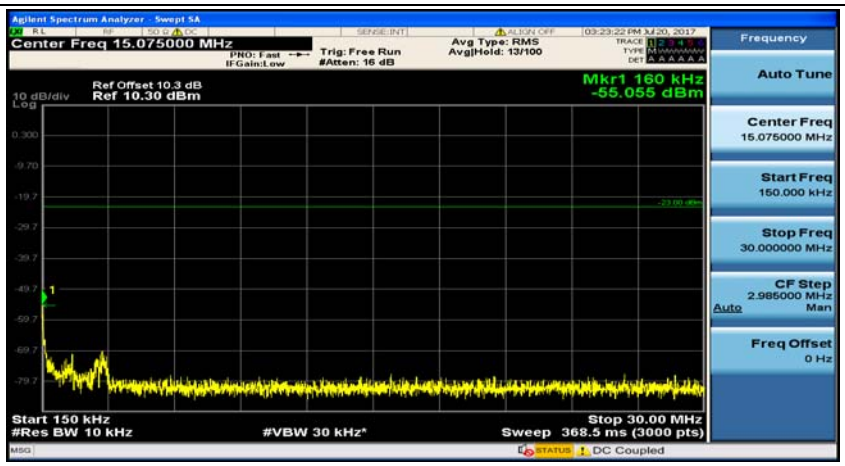
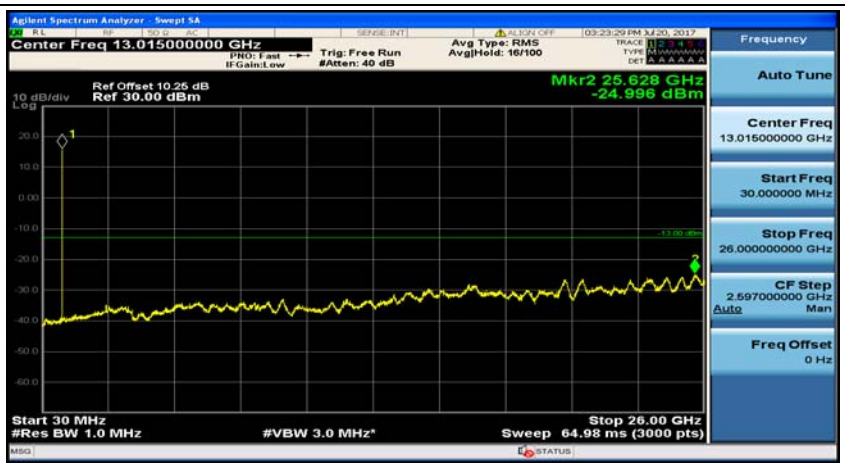
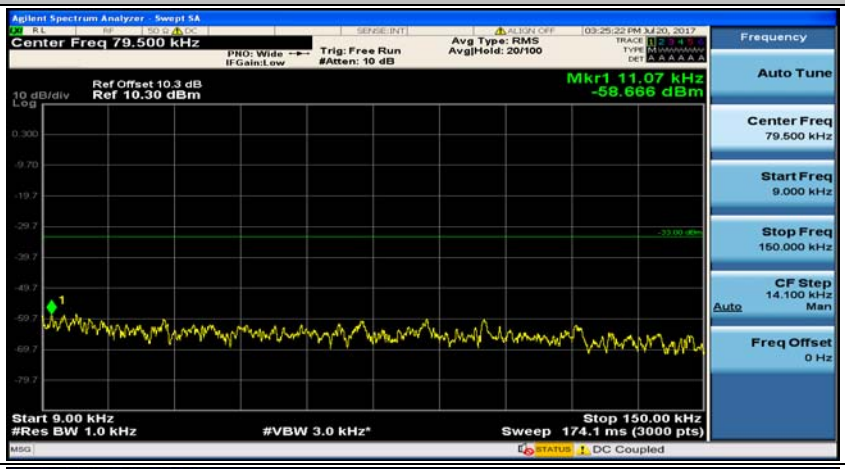
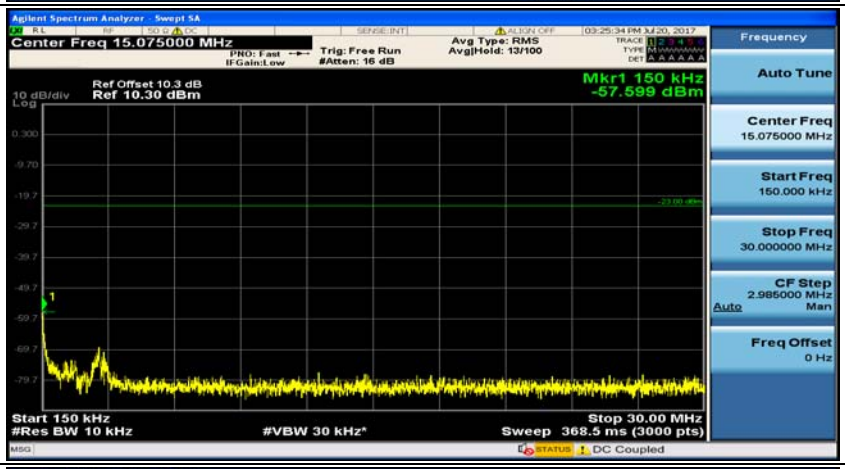
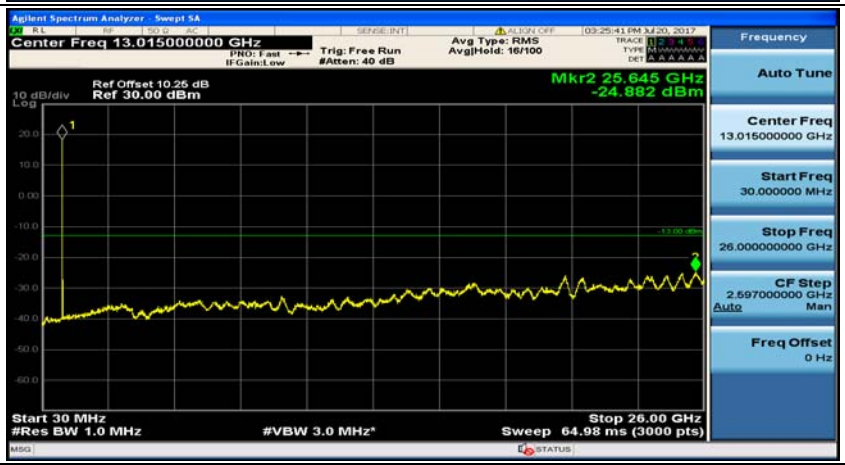
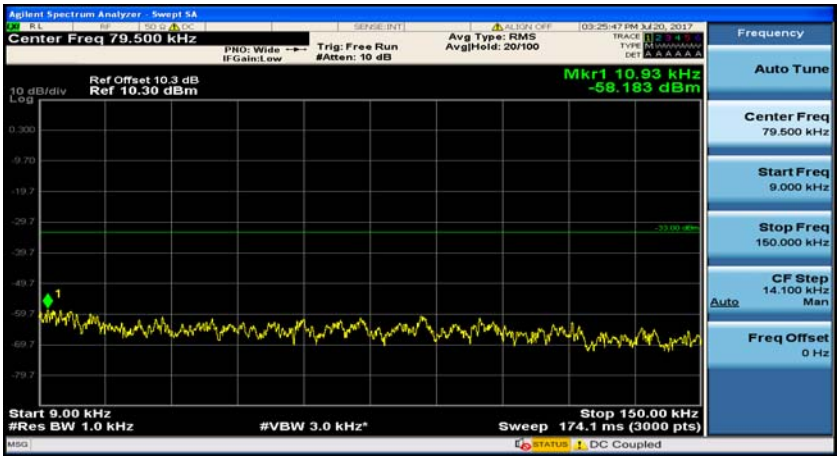
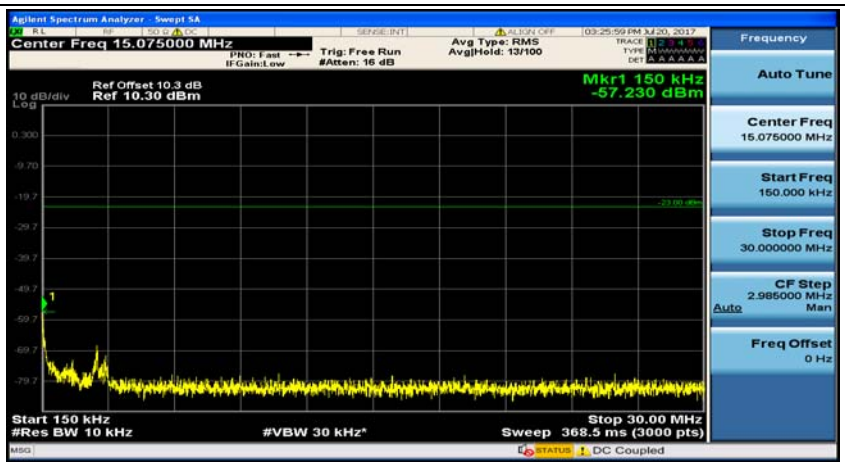

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:23:10 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 13.51 kHz
-56.432 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled

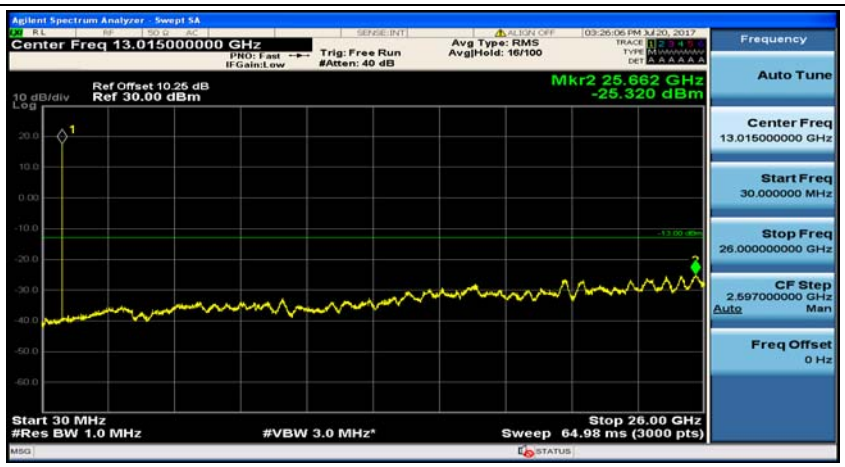

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:23:22 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 160 kHz
-55.055 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

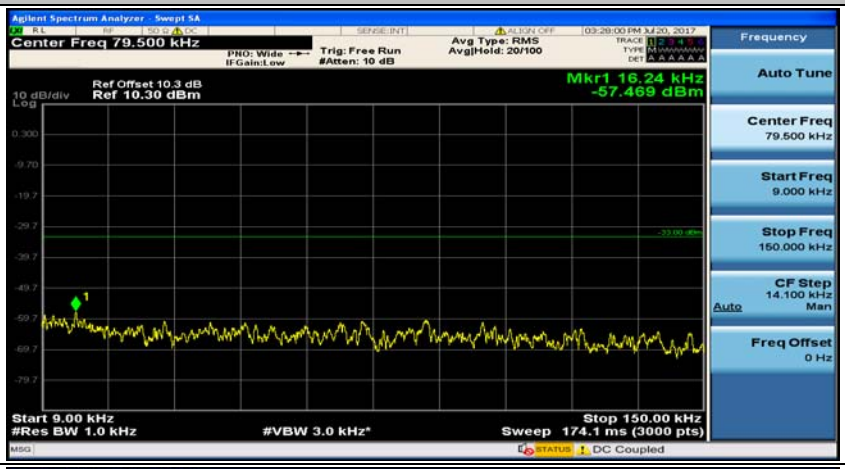
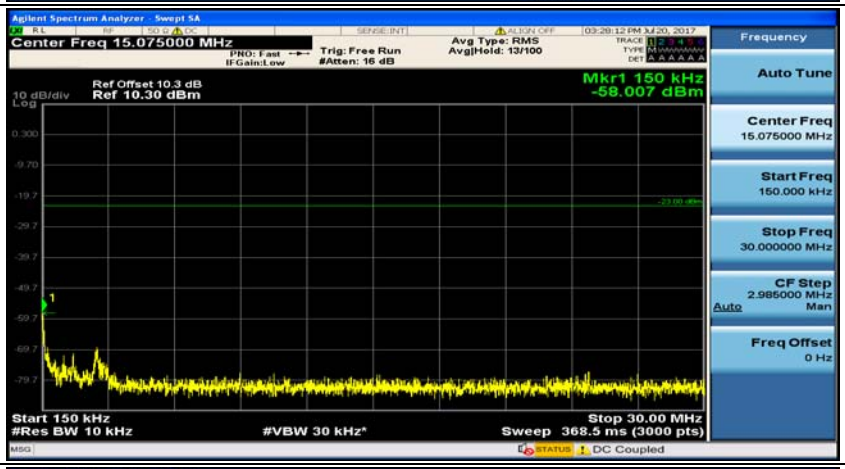
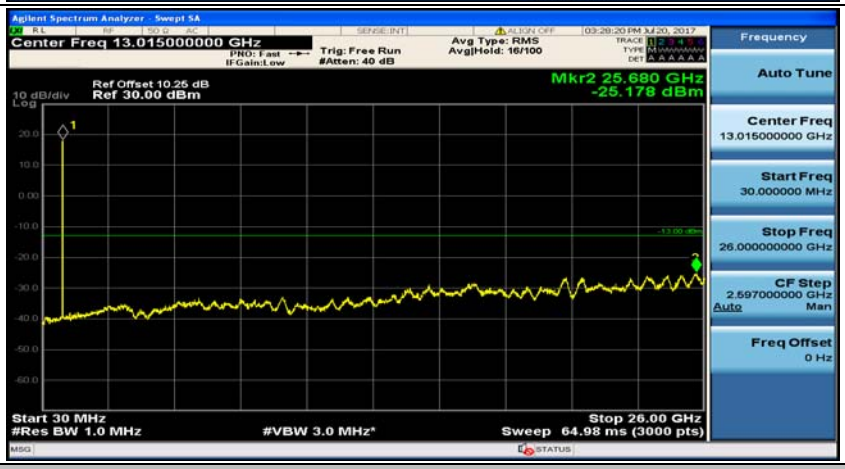

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:23:29 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.628 GHz
-24.996 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

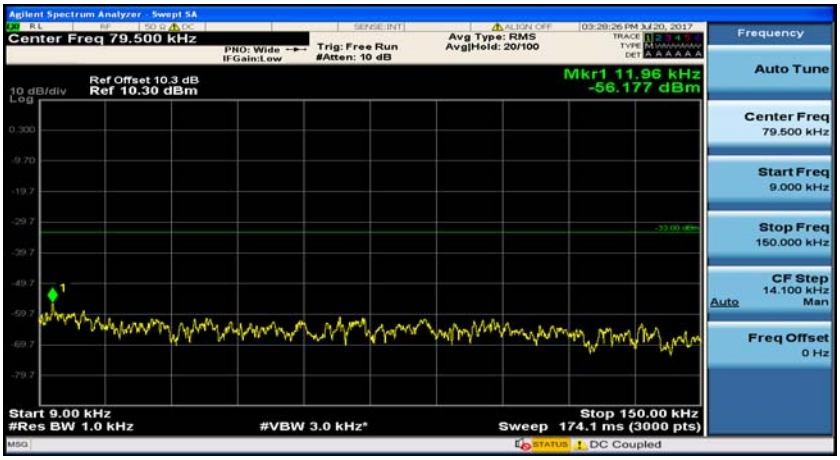
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

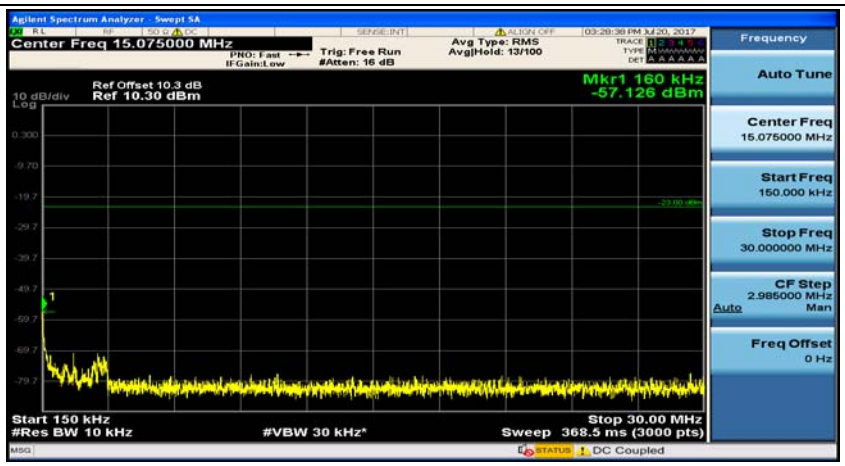

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:25:47 PM Jul 20, 2017
Frequency
Auto Tune
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 10.93 kHz
-58.183 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled

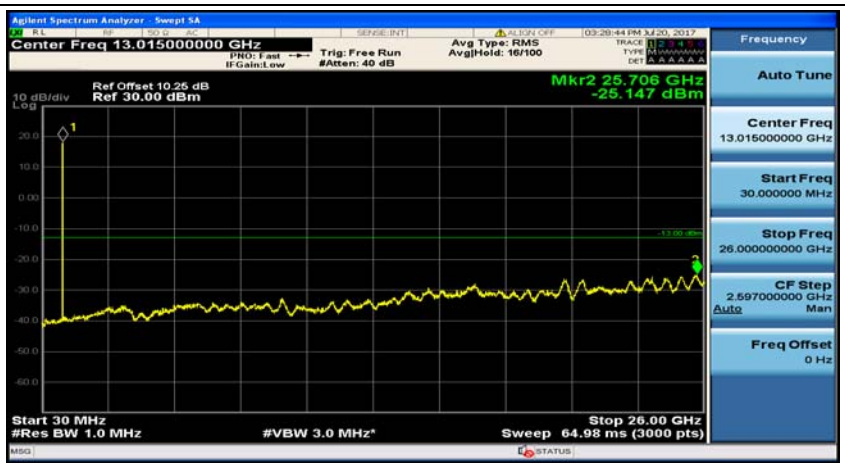

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:25:59 PM Jul 20, 2017
Frequency
Auto Tune
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 150 kHz
-57.230 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 16/100
03:26:06 PM Jul 20, 2017
Frequency
Auto Tune
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.662 GHz
-25.320 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

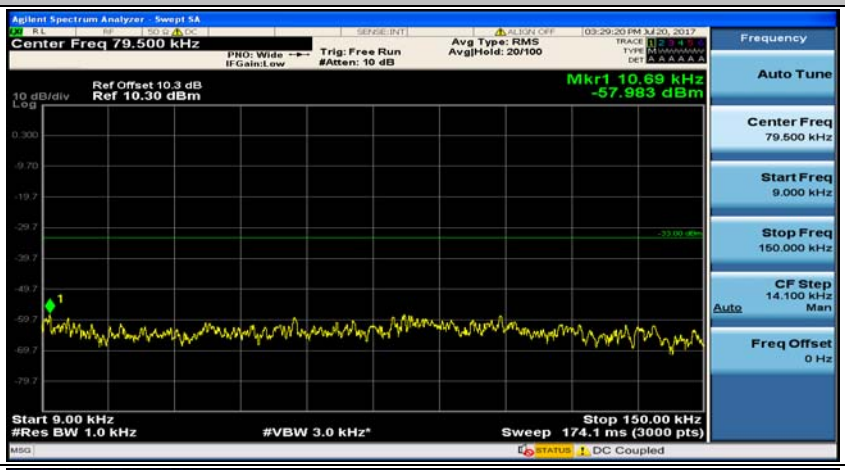
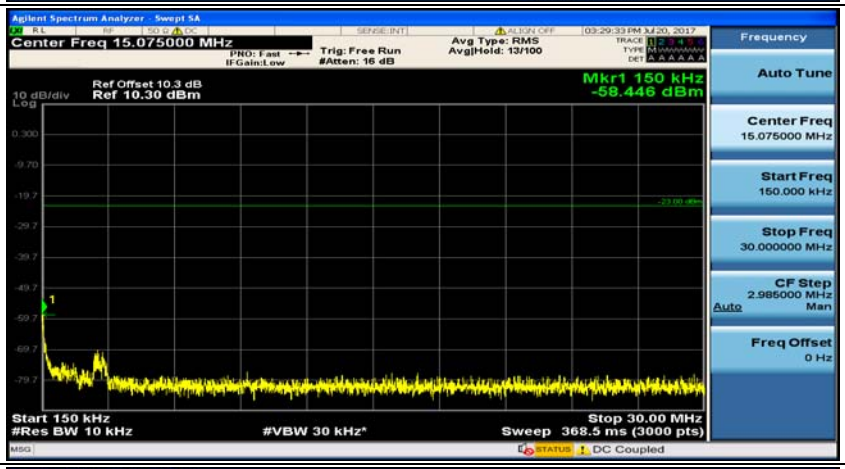
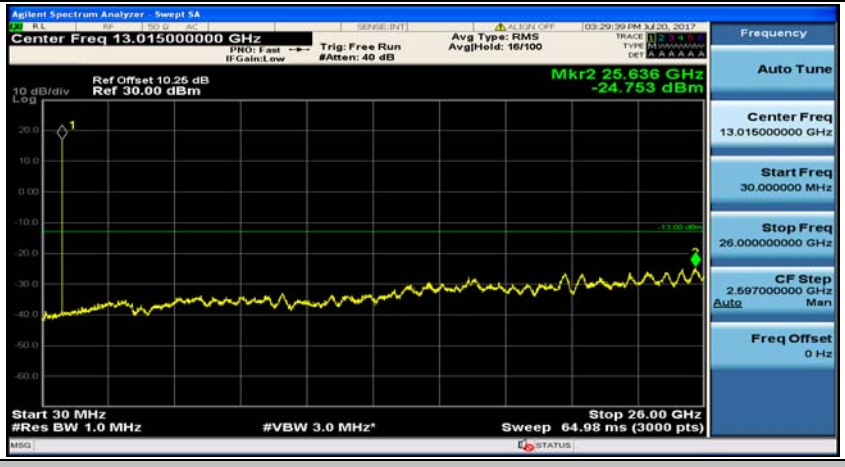
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

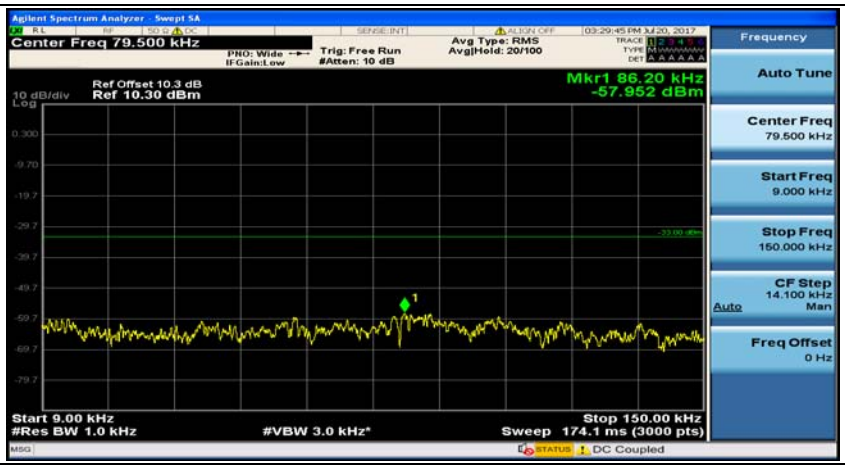

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:20:26 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 11.96 kHz
-56.177 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled

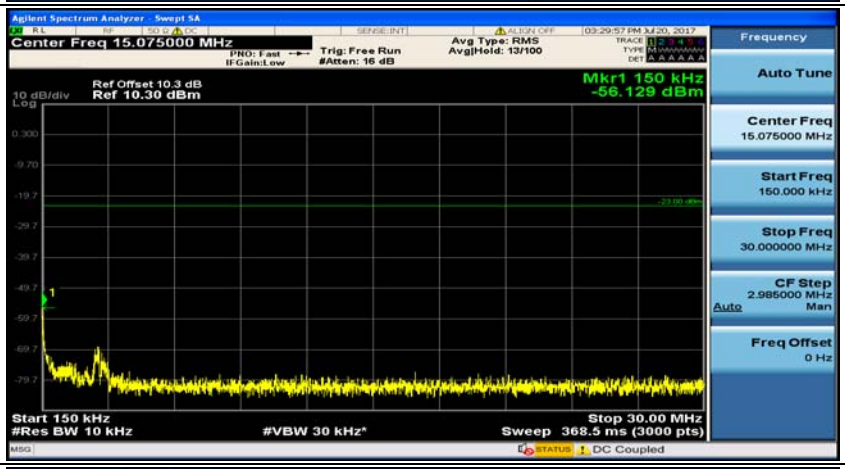

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:20:36 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 160 kHz
-57.126 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

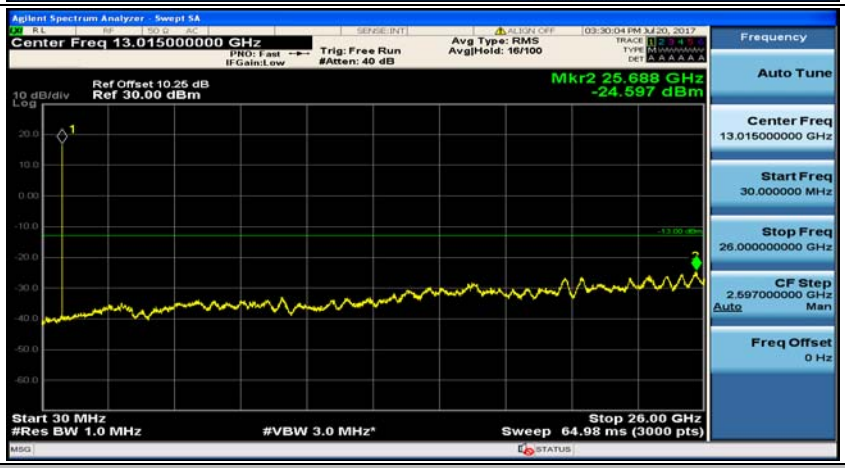

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:20:44 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.706 GHz
-25.147 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

Channel Bandwidth: 5 MHz

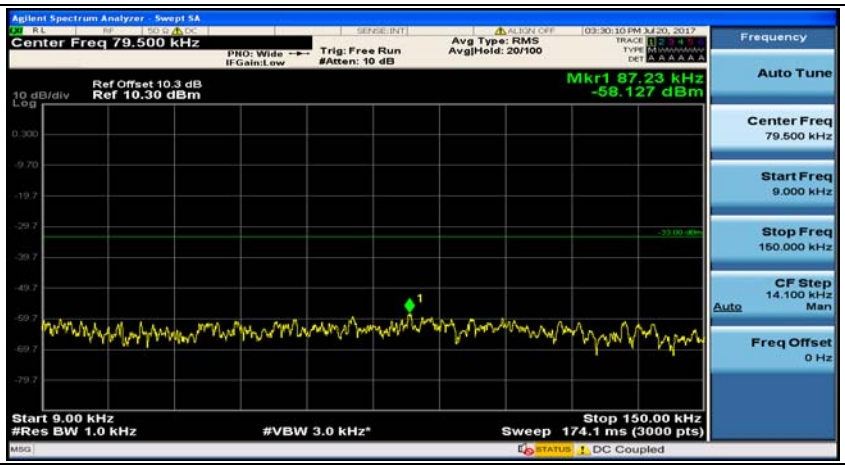
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

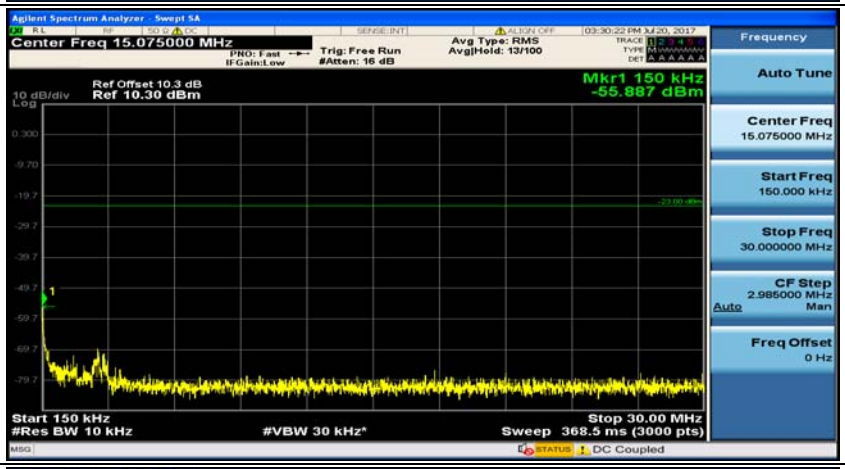


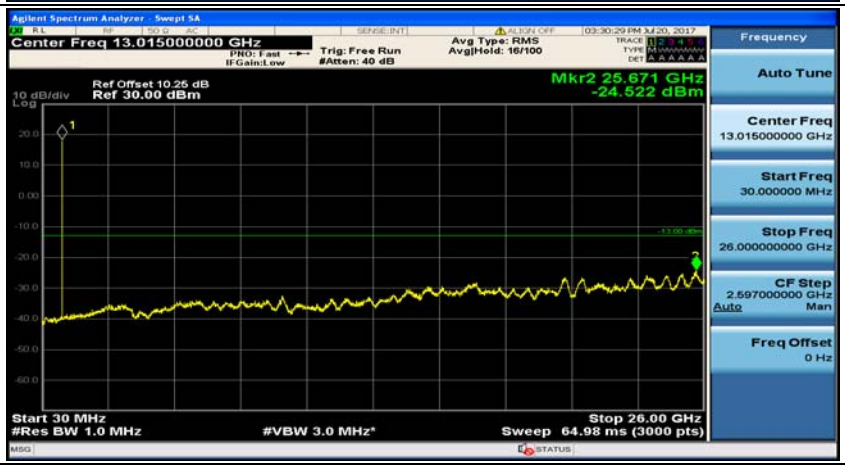


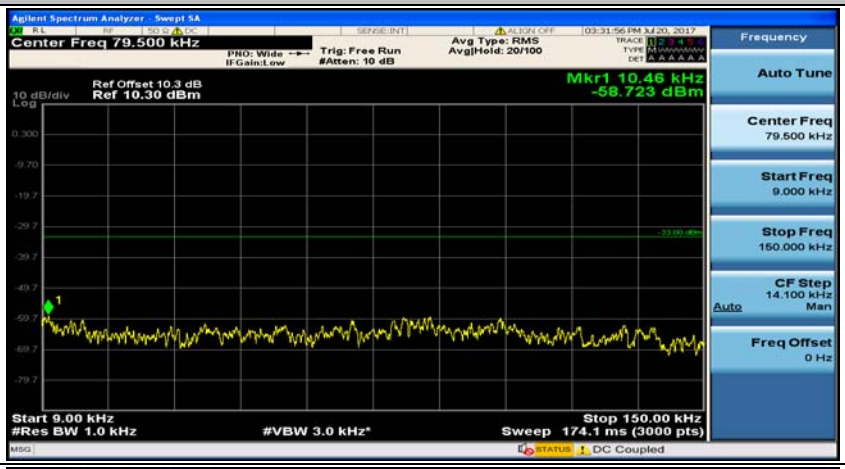
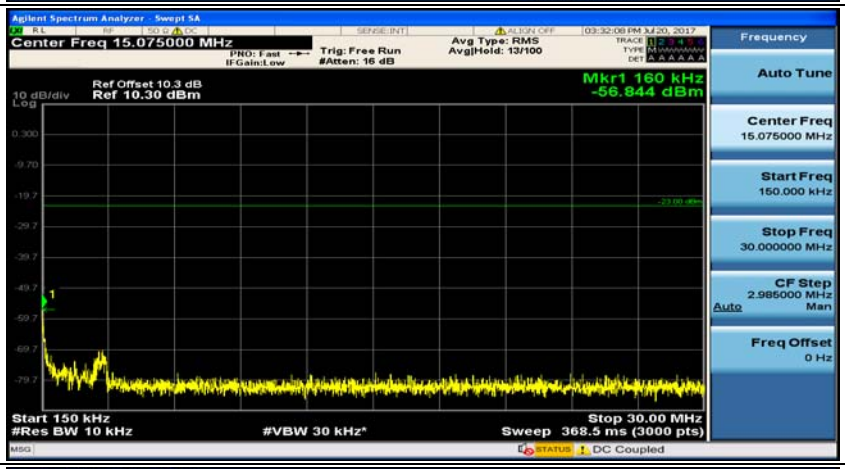
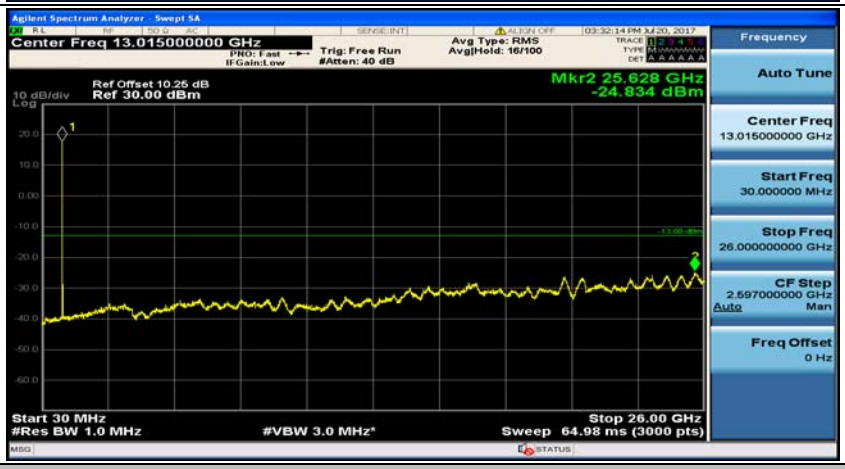


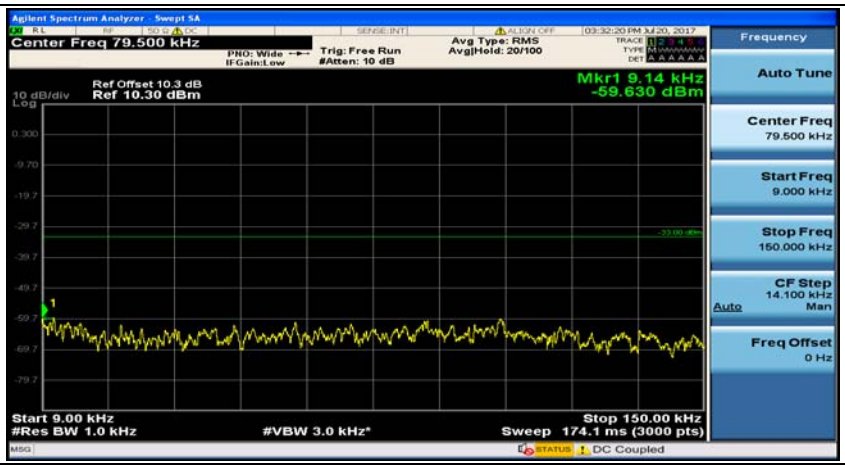
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

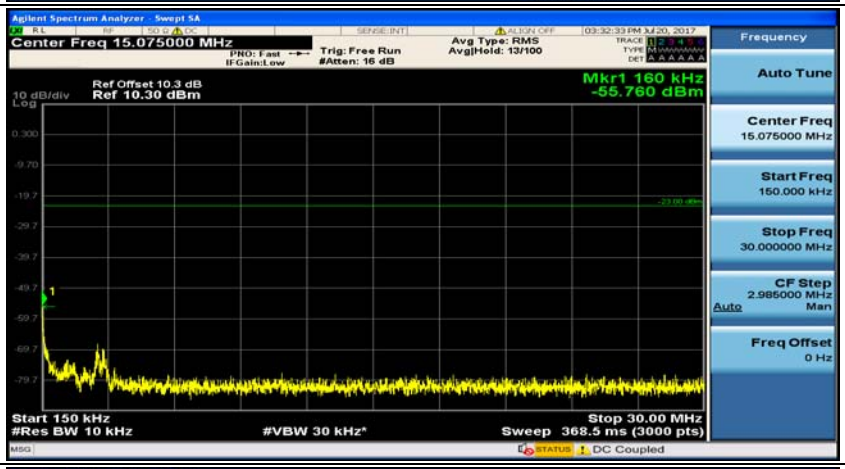

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:30:10 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 87.23 kHz
-58.127 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:30:22 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 150 kHz
-55.887 dBm
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
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

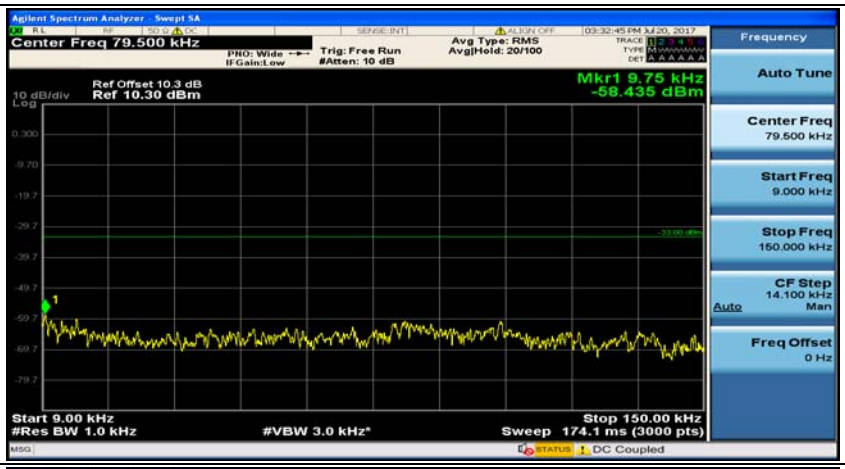

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:30:29 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.671 GHz
-24.522 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

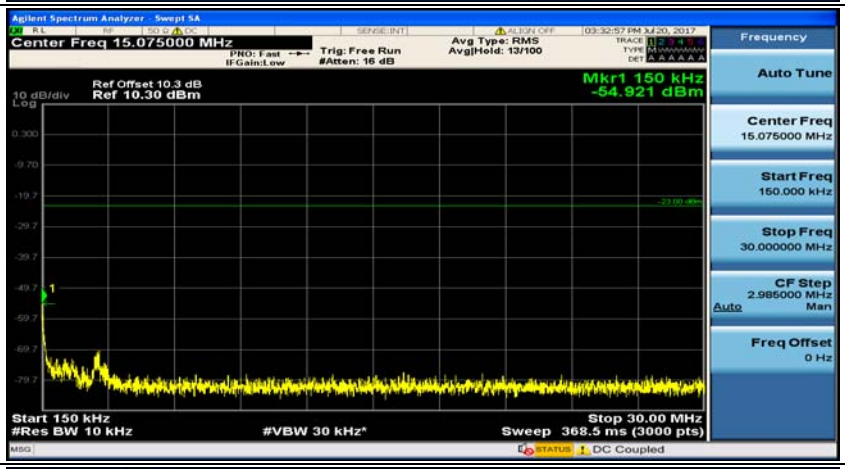
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

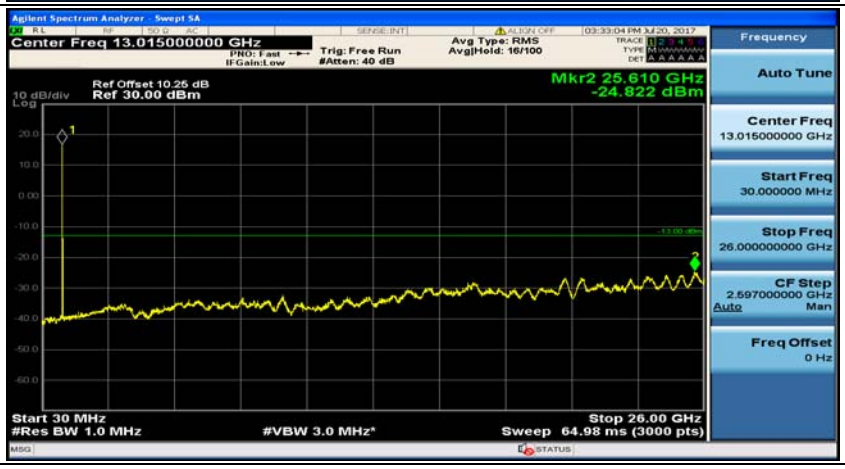


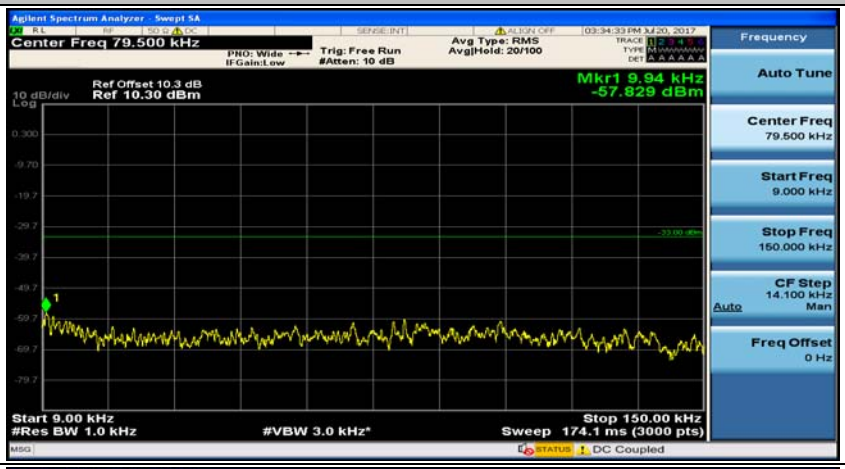
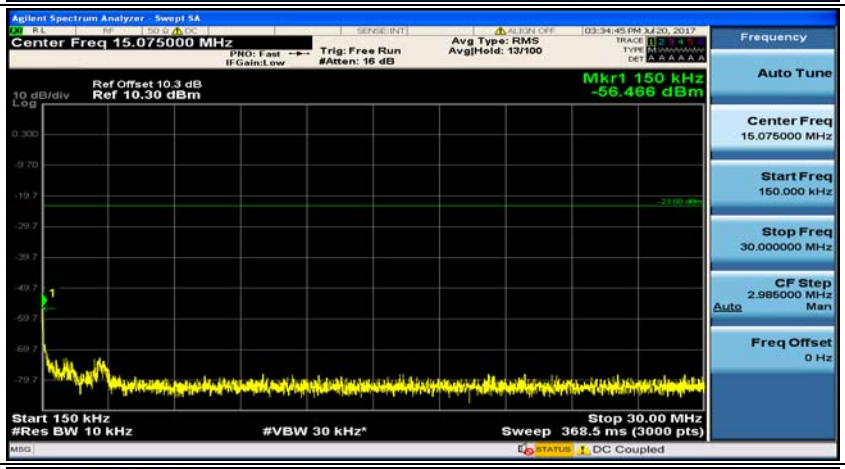
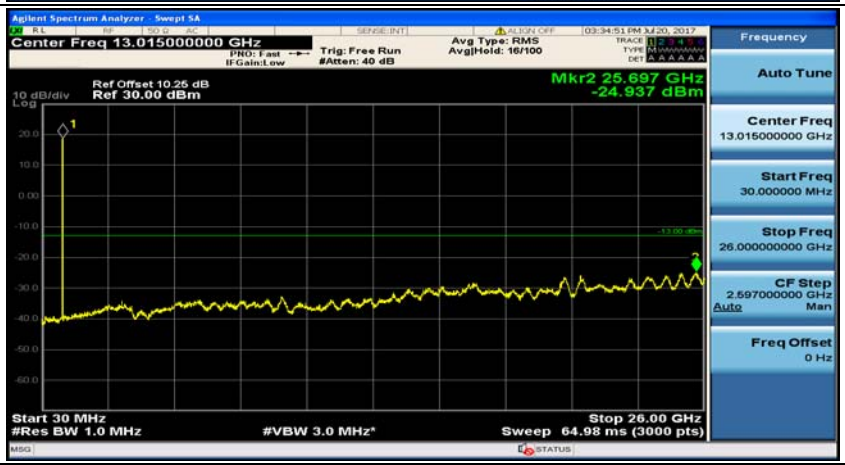


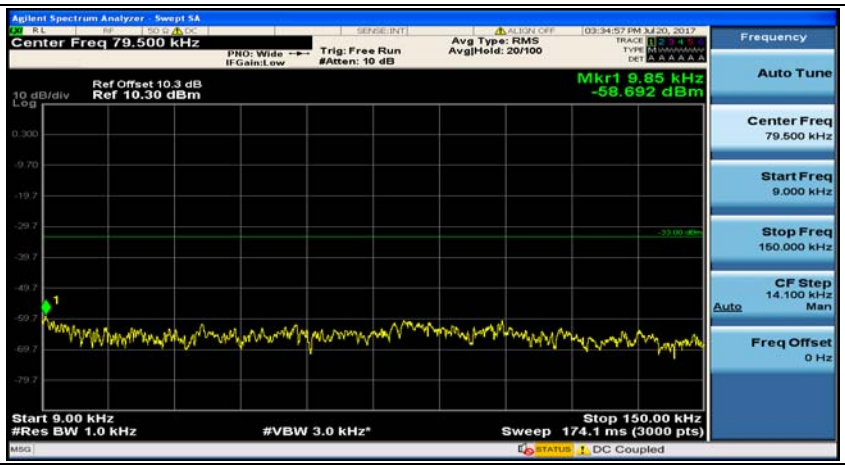
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

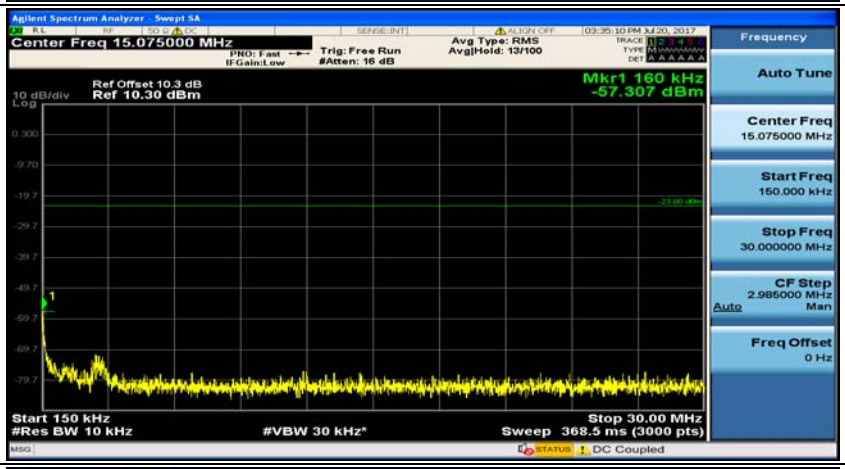

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:32:45 PM Jul 20, 2017
Mkr1 9.75 kHz
-58.435 dBm
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

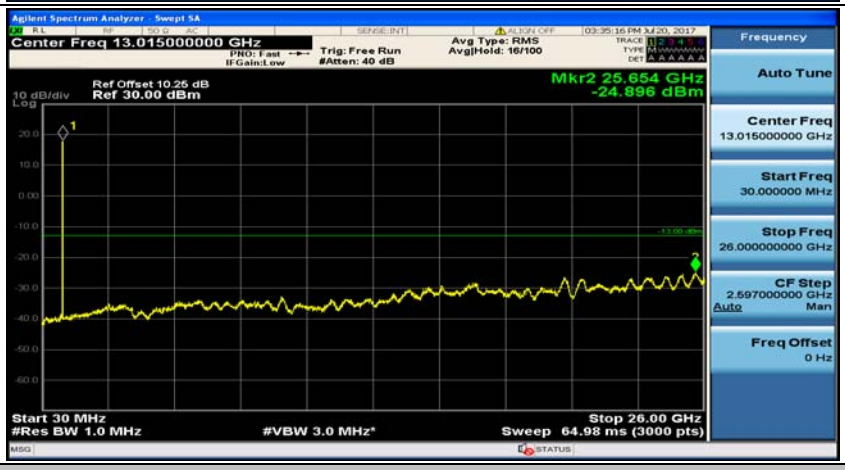

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:32:57 PM Jul 20, 2017
Mkr1 150 kHz
-54.921 dBm
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:33:04 PM Jul 20, 2017
Mkr2 25.610 GHz
-24.822 dBm
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

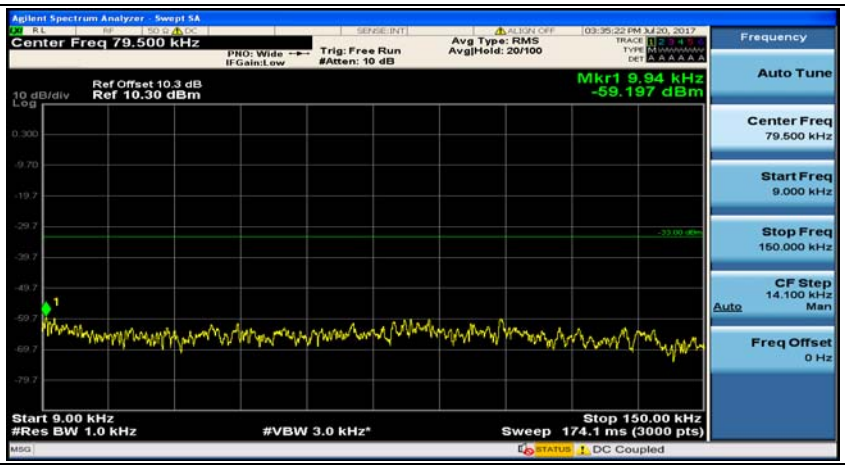
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

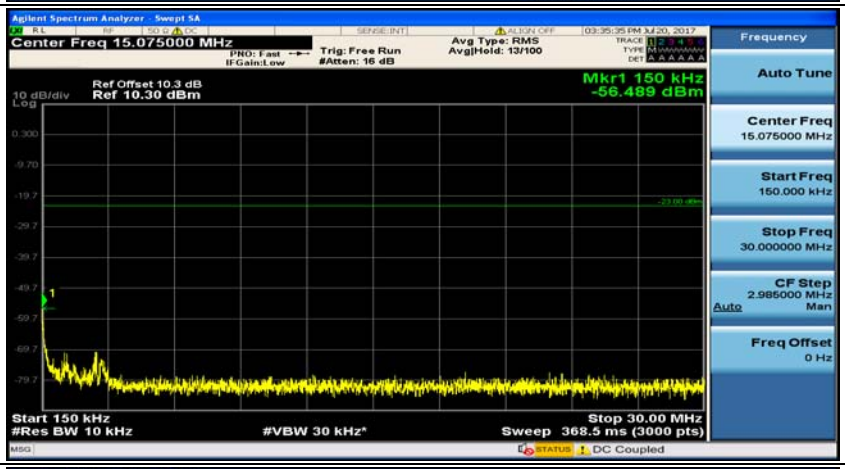


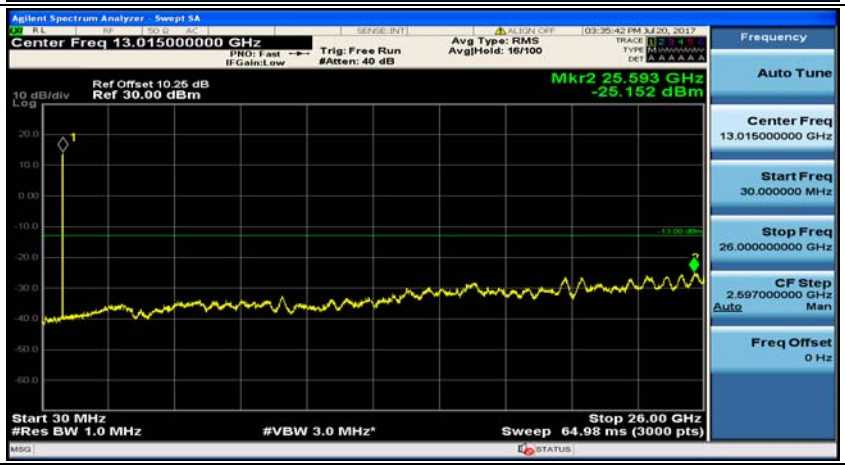


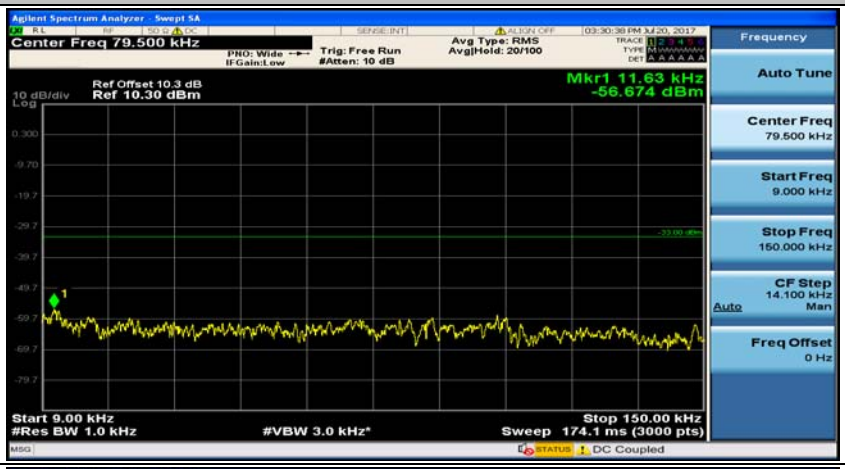
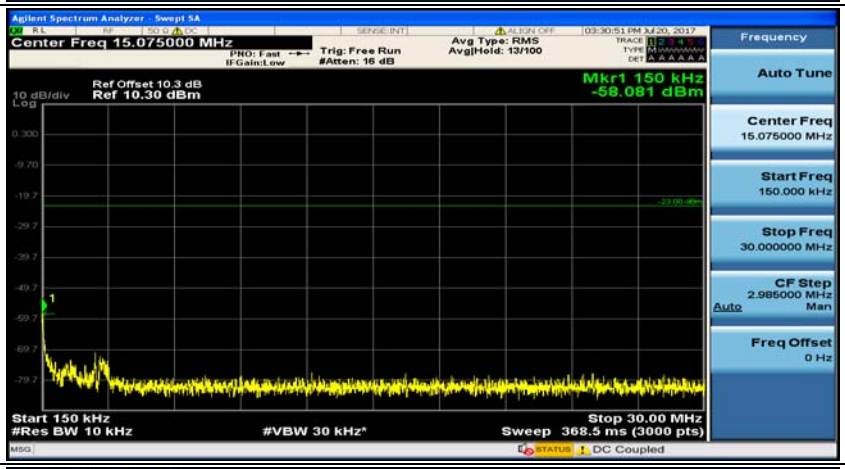
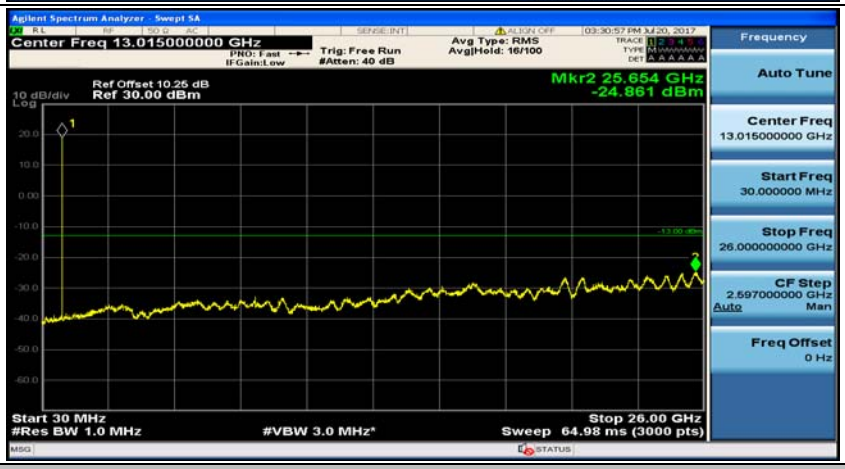


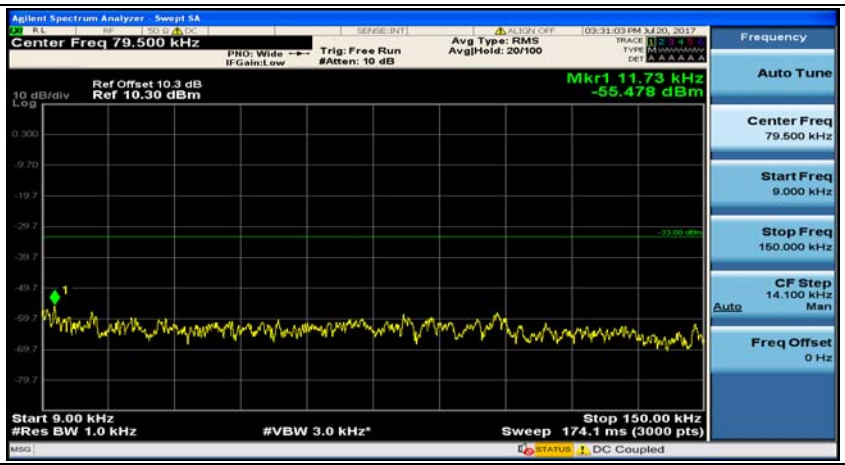
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

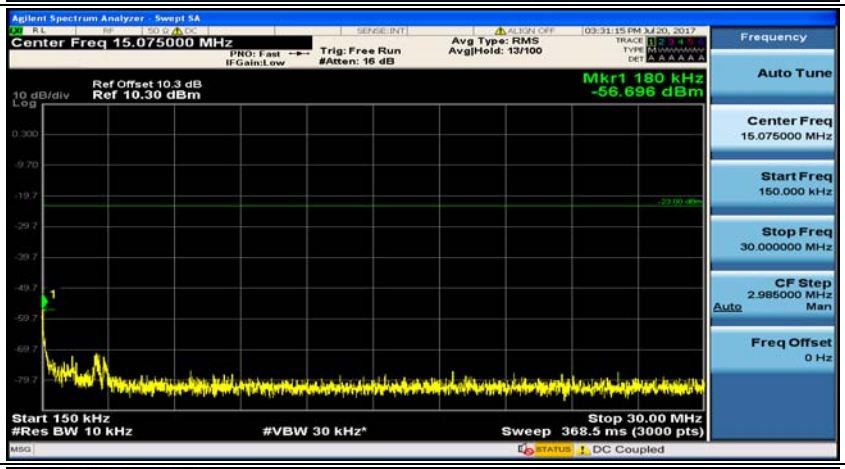

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:35:22 PM Jul 20, 2017
Frequency
Auto Tune
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 9.94 kHz
-59.197 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:35:35 PM Jul 20, 2017
Frequency
Auto Tune
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 150 kHz
-56.489 dBm
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
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

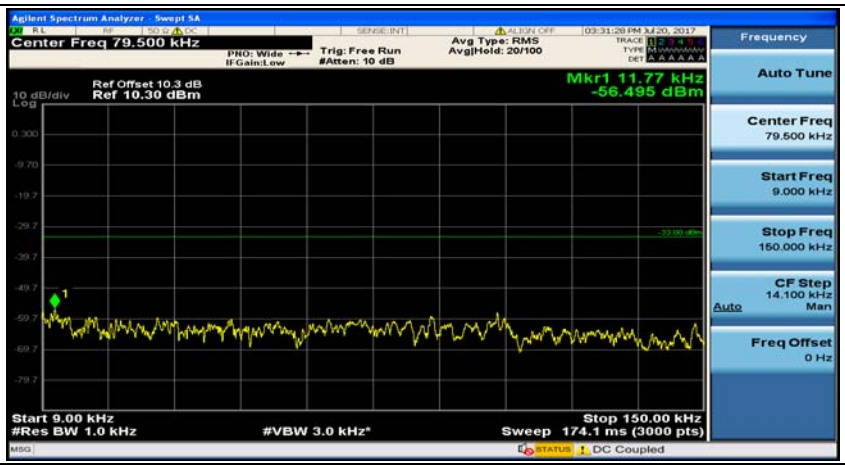

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:35:42 PM Jul 20, 2017
Frequency
Auto Tune
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.593 GHz
-25.152 dBm
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

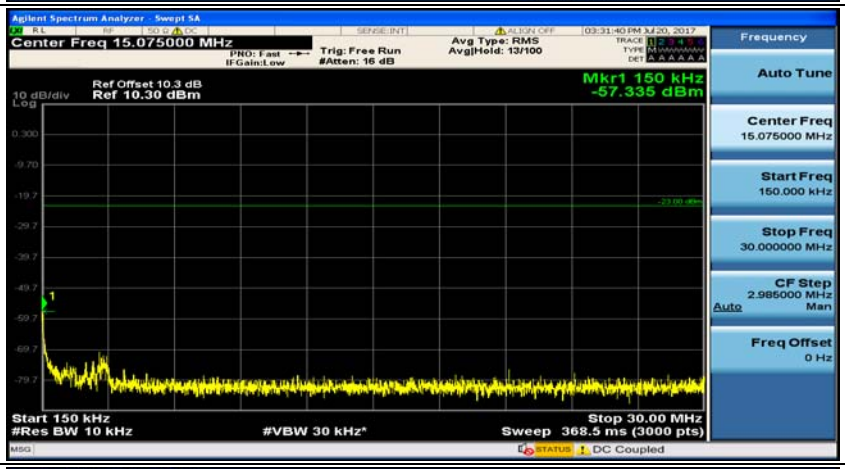
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

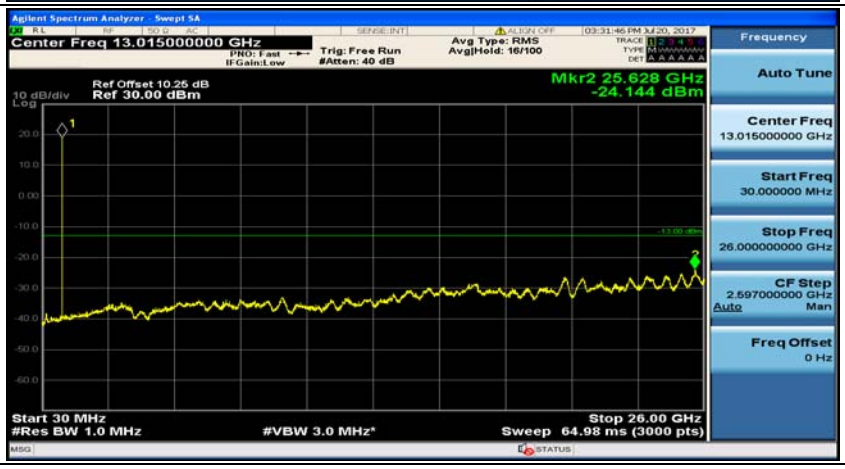


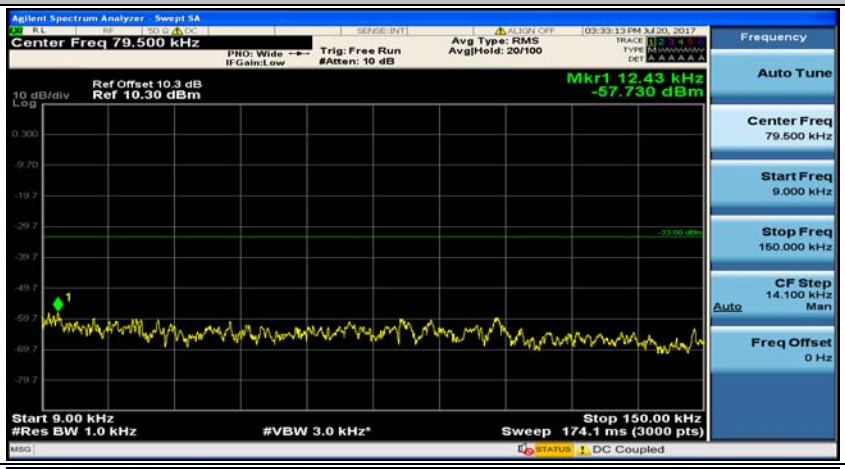
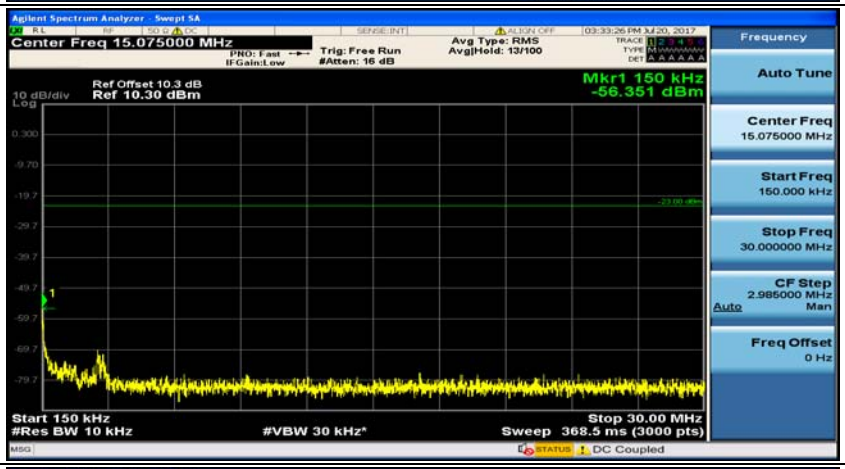
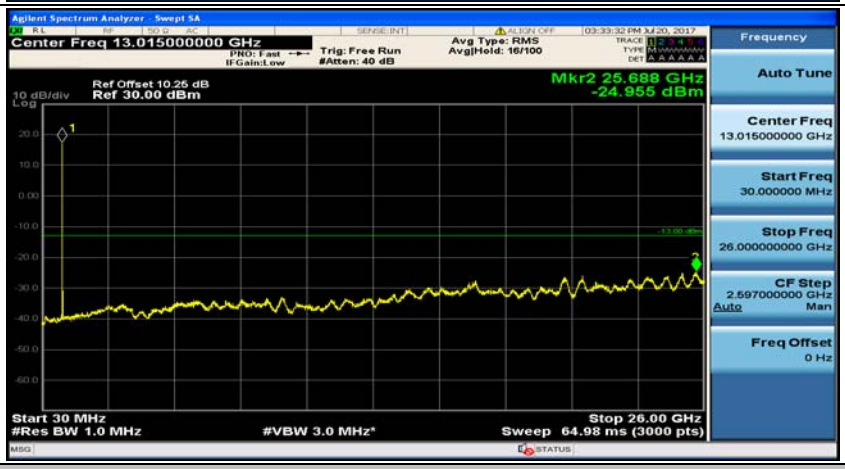


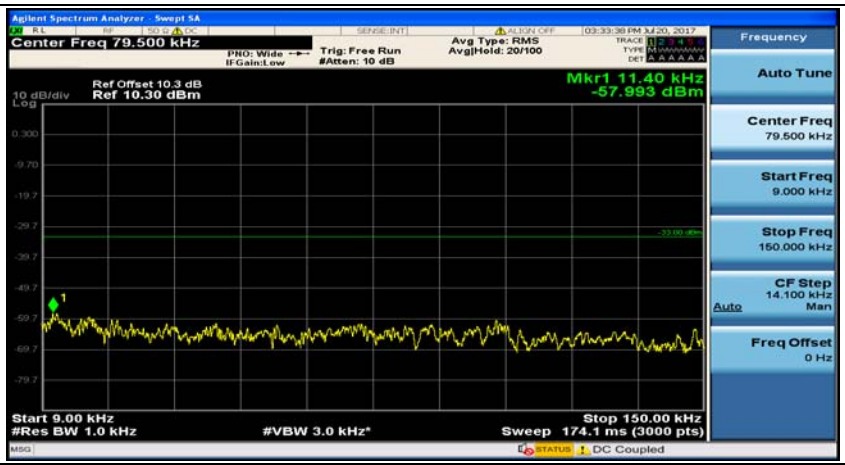
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

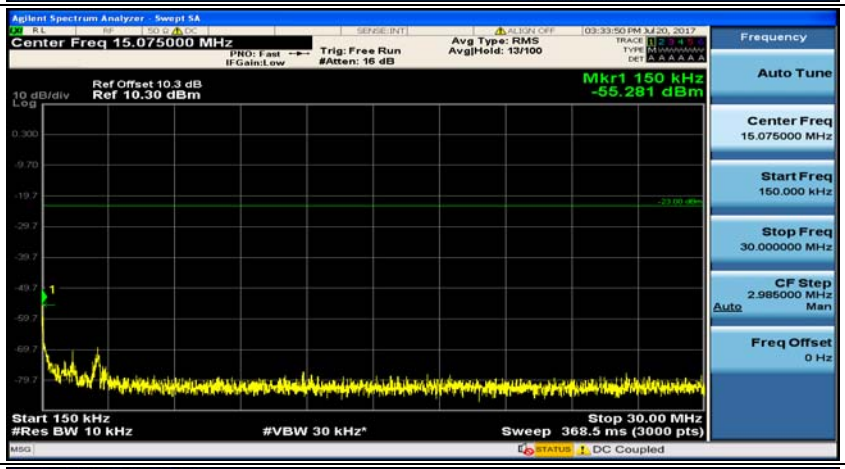

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:31:28 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 11.77 kHz
-56.495 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

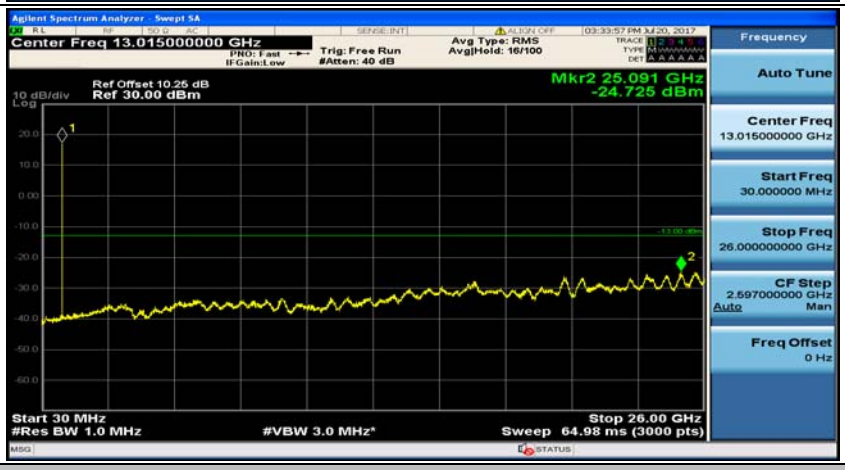

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:31:40 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 150 kHz
-57.335 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:31:46 PM Jul 20, 2017
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.628 GHz
-24.144 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

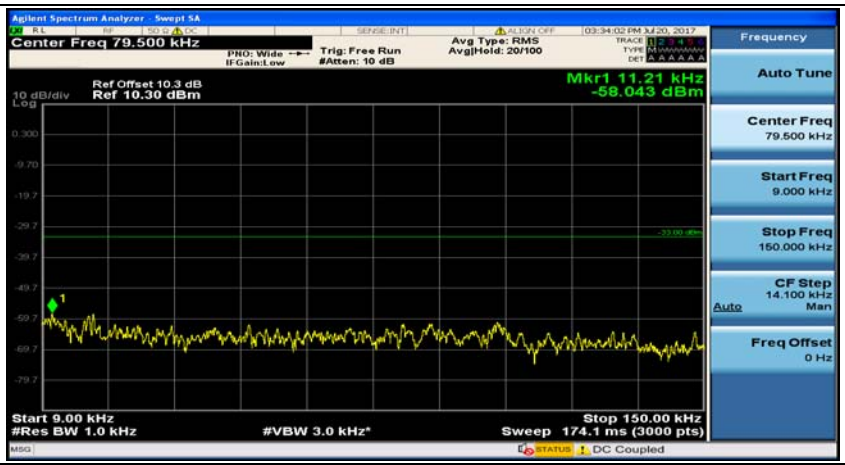
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

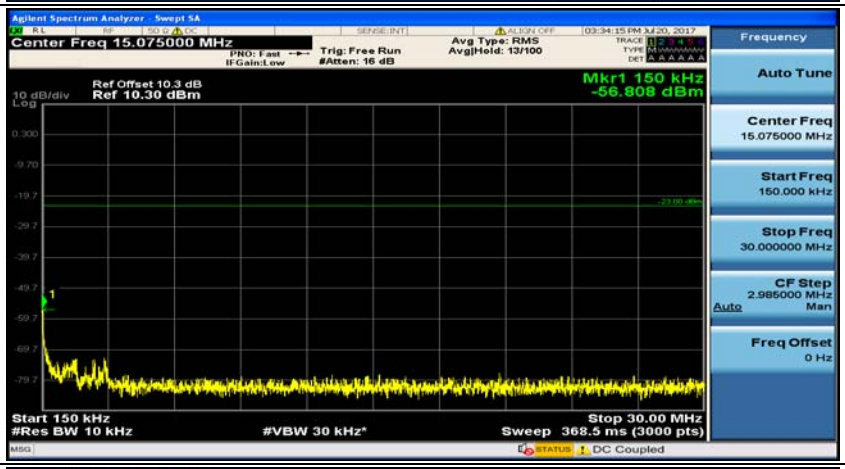


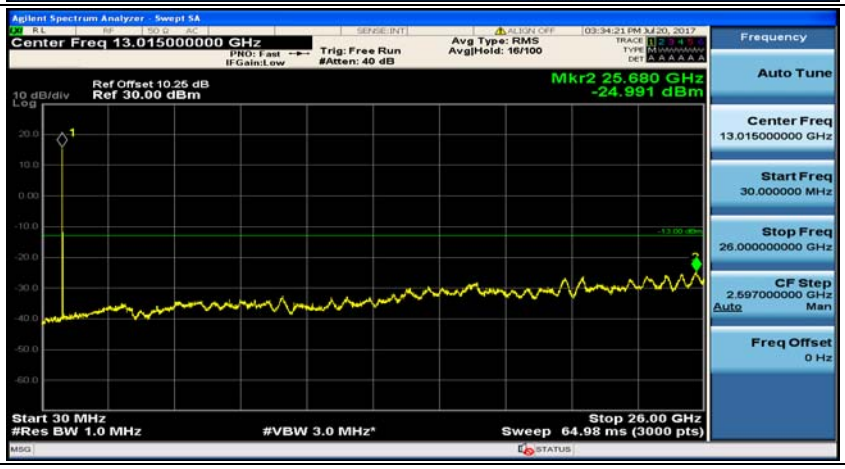


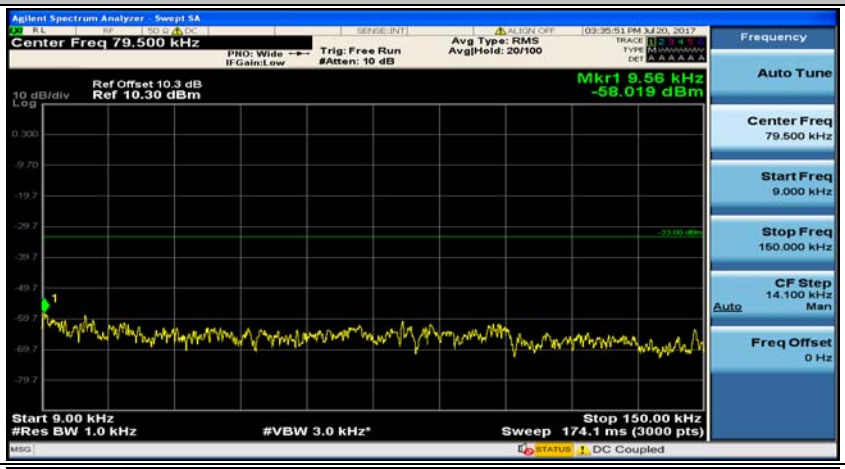
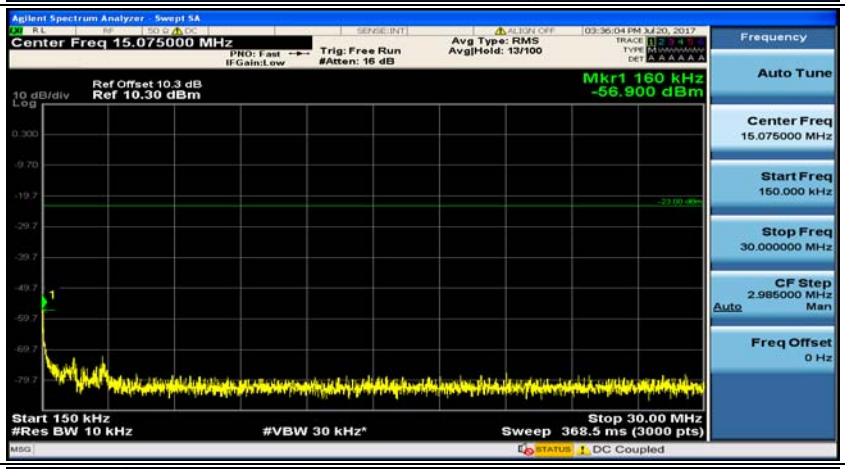
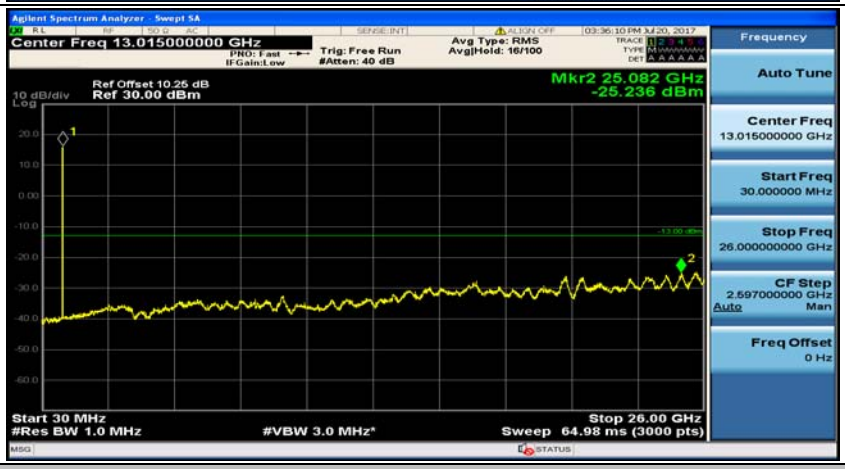


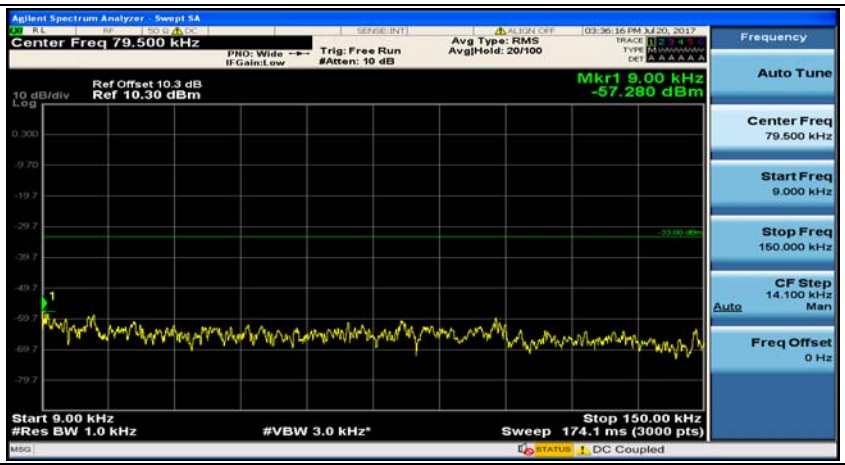
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

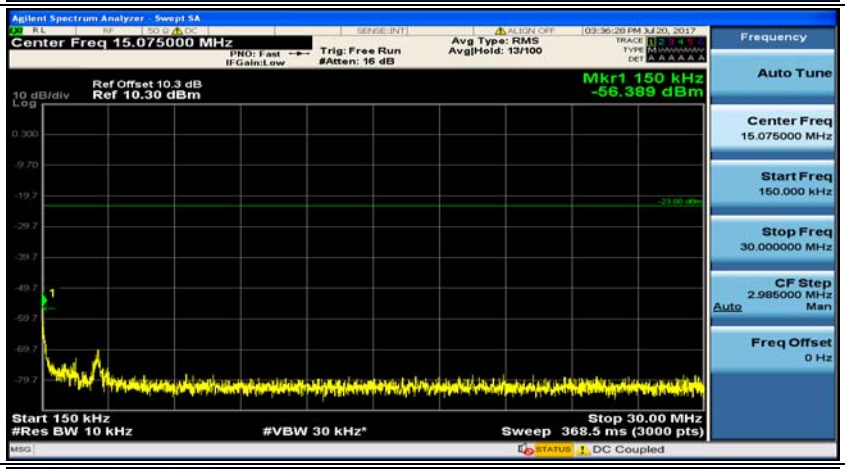

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:34:02 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 11.21 kHz
-58.043 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

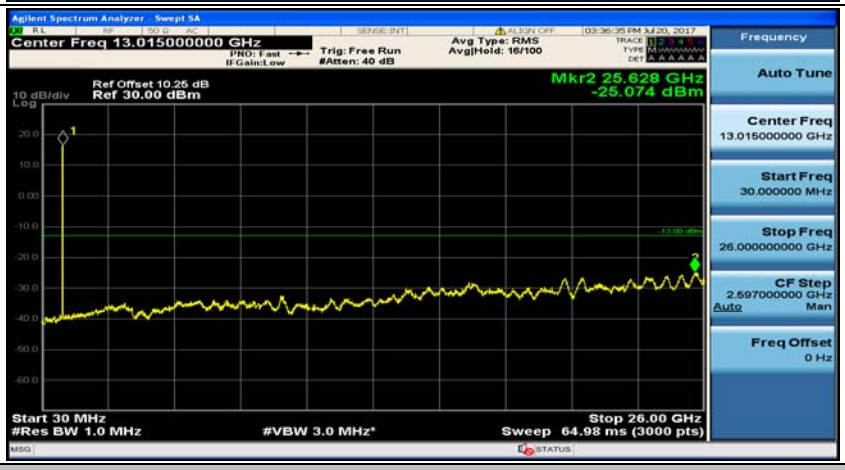

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:34:15 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Mkr1 150 kHz
-56.808 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:34:21 PM Jul 20, 2017
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.680 GHz
-24.991 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

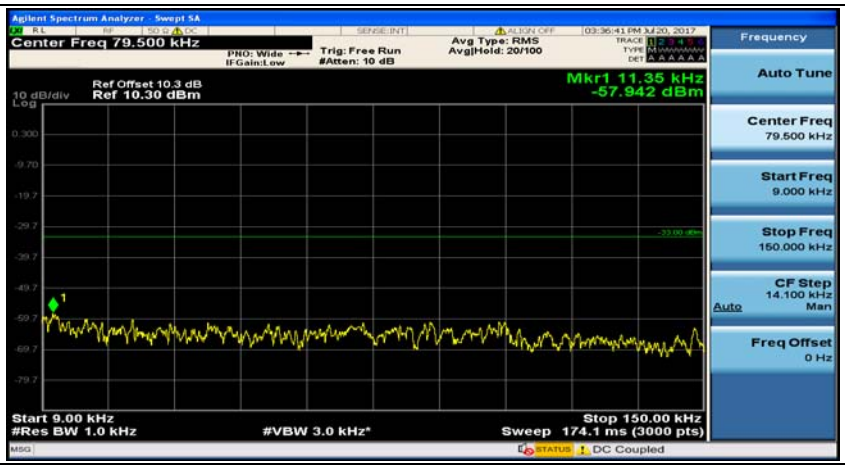
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

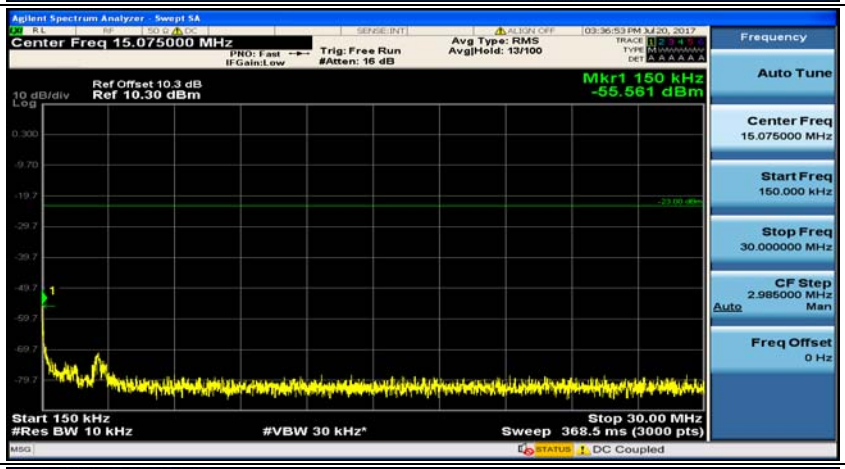


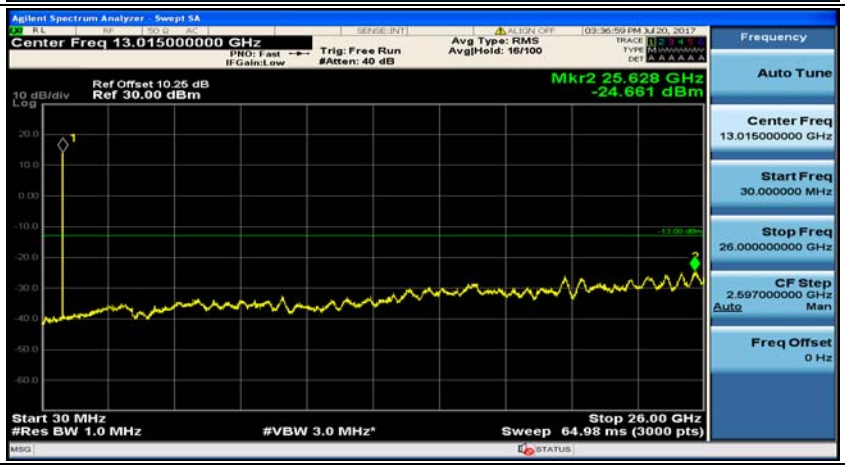




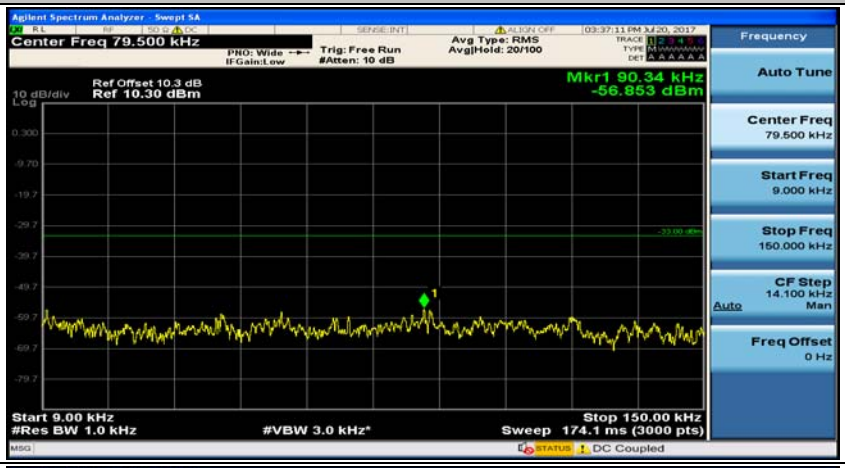
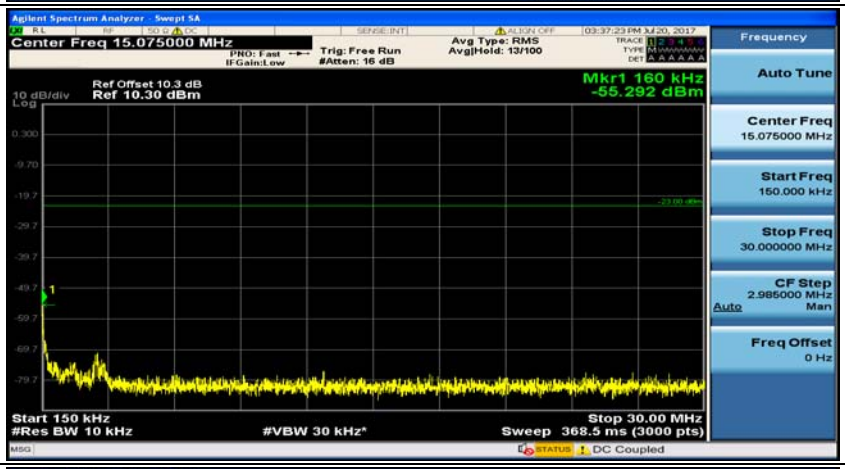
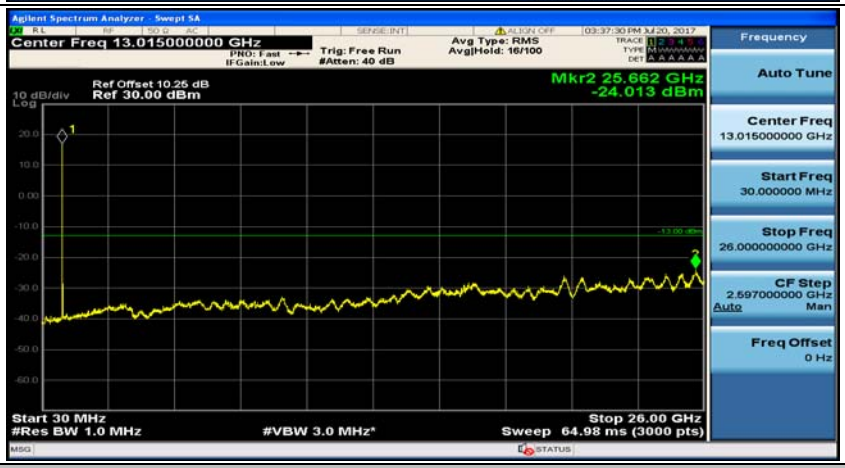
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

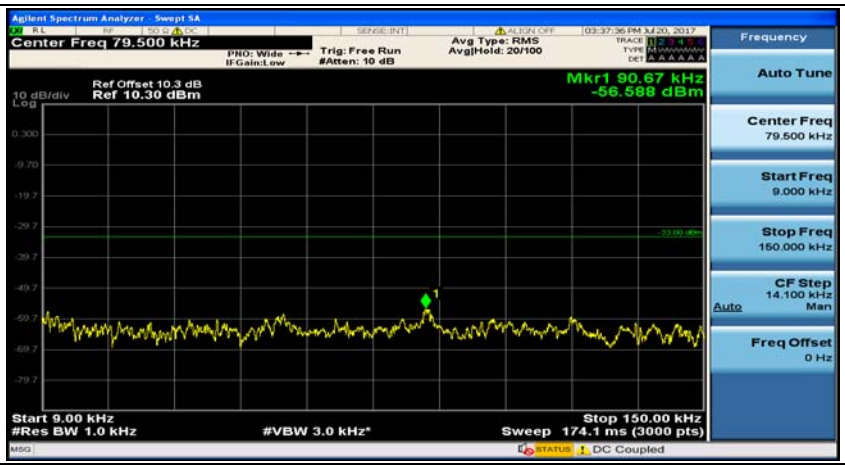

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:36:41 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 11.35 kHz
-57.942 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled

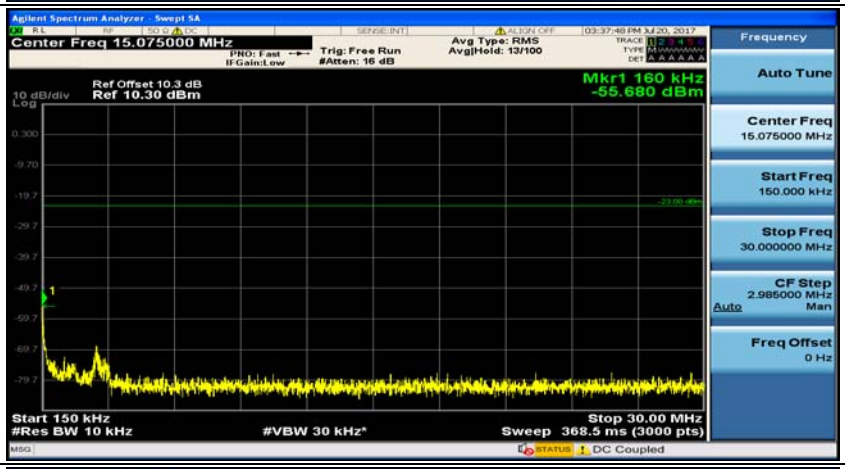

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:36:53 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 150 kHz
-55.561 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

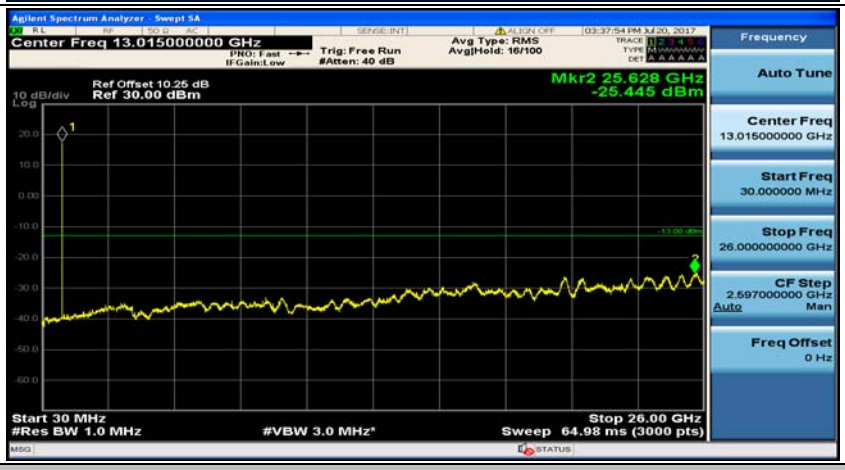

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:36:59 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.628 GHz
-24.661 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

Channel Bandwidth: 10 MHz

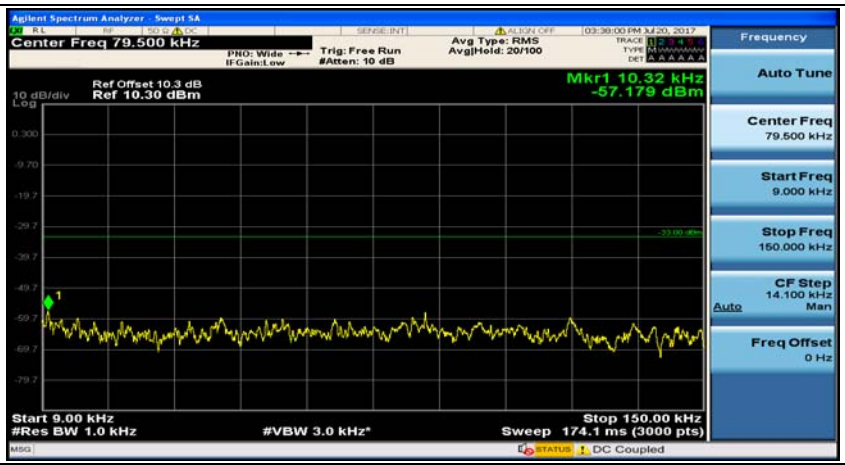
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

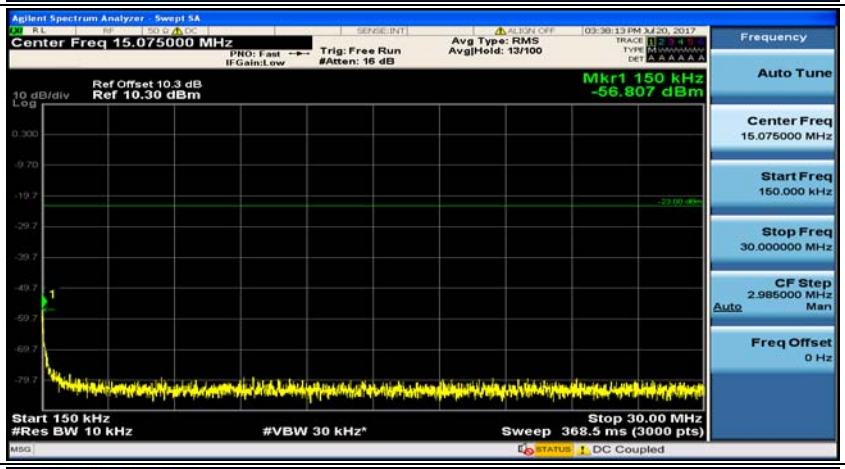


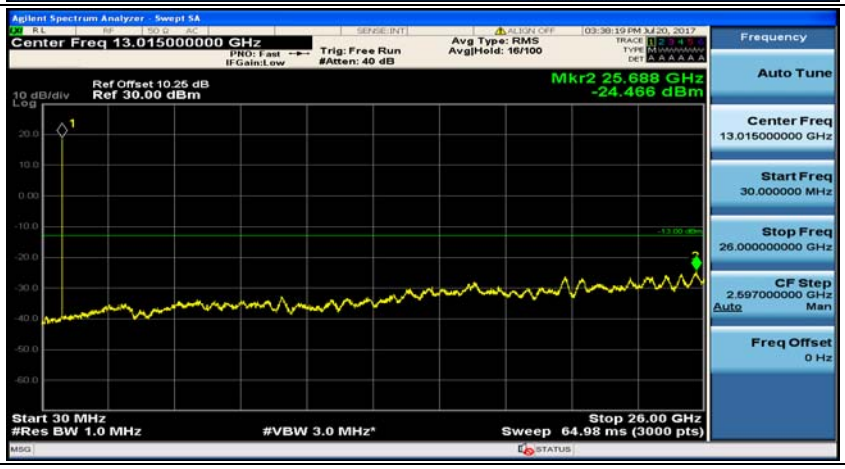


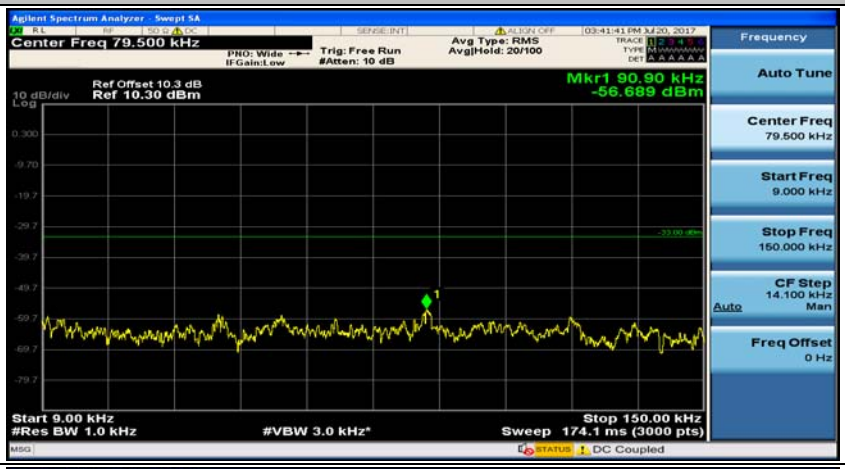
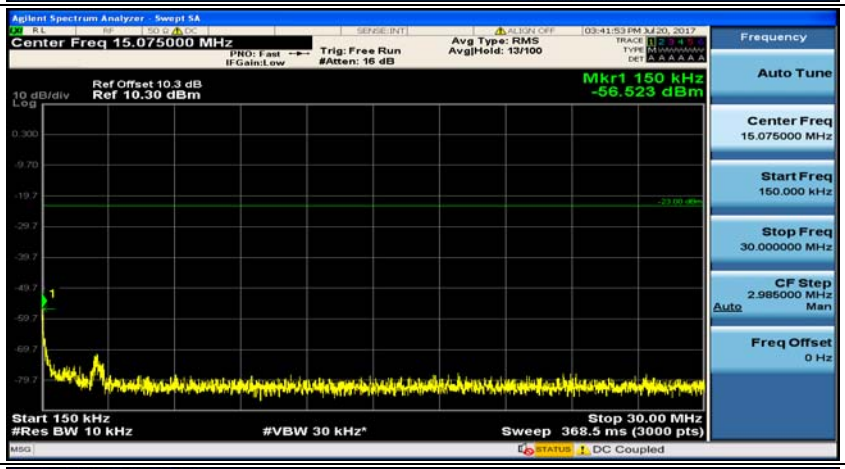
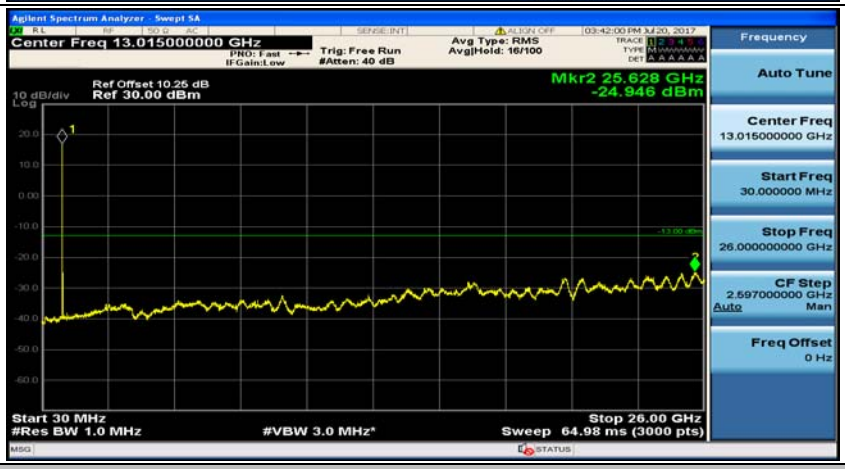


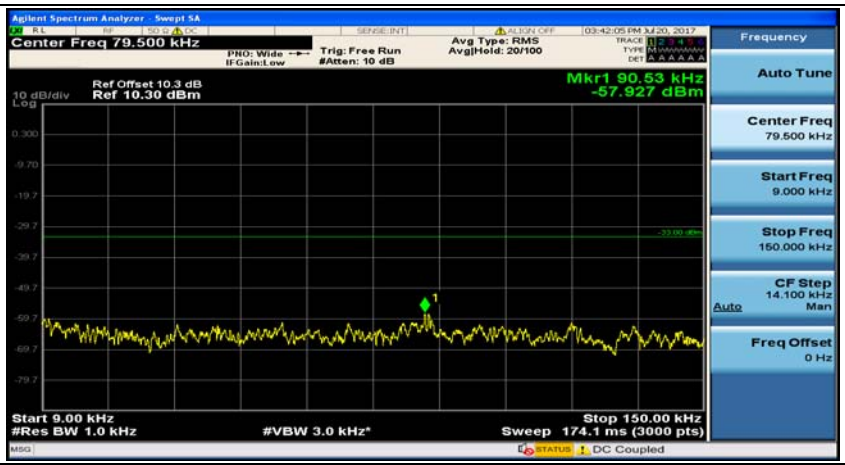
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

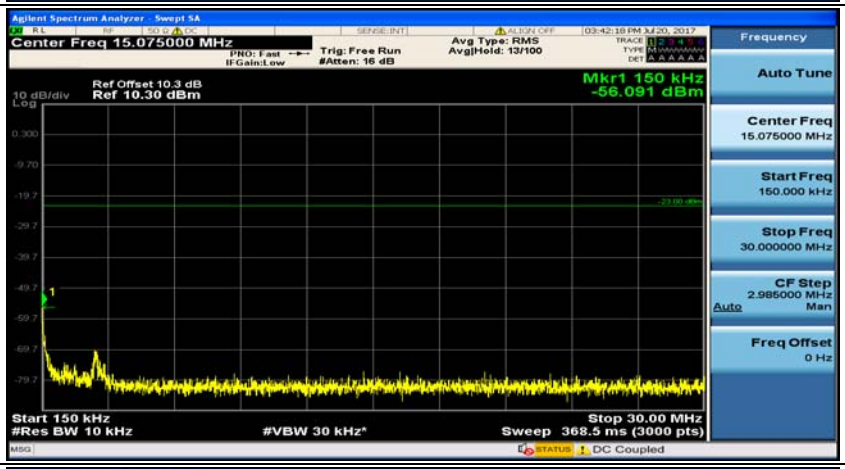

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:38:00 PM Jul 20, 2017
Frequency
Auto Tune
Mkr1 10.32 kHz
-57.179 dBm
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:38:13 PM Jul 20, 2017
Frequency
Auto Tune
Mkr1 150 kHz
-56.807 dBm
Ref Offset 10.3 dB
10 dB/div
Log
Ref 10.30 dBm
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
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

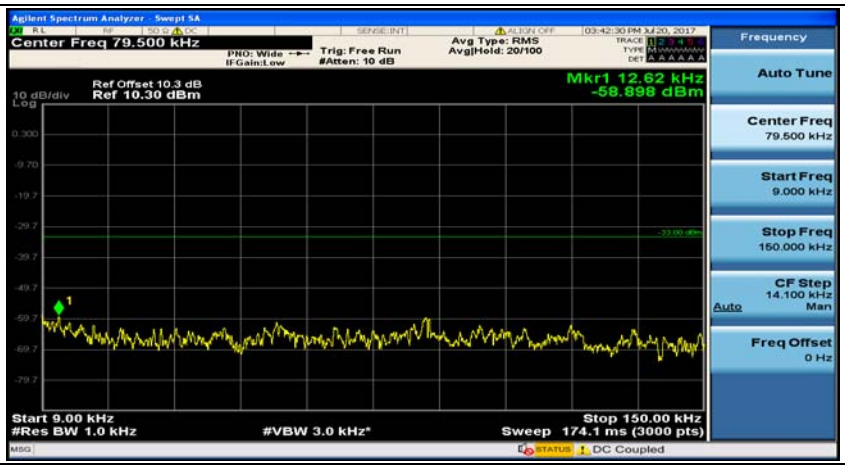

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:38:19 PM Jul 20, 2017
Frequency
Auto Tune
Mkr2 25.688 GHz
-24.466 dBm
Ref Offset 10.25 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

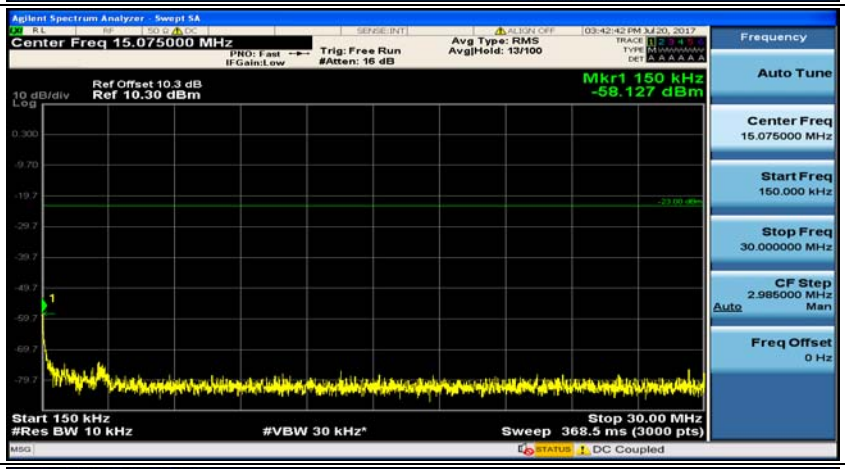
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

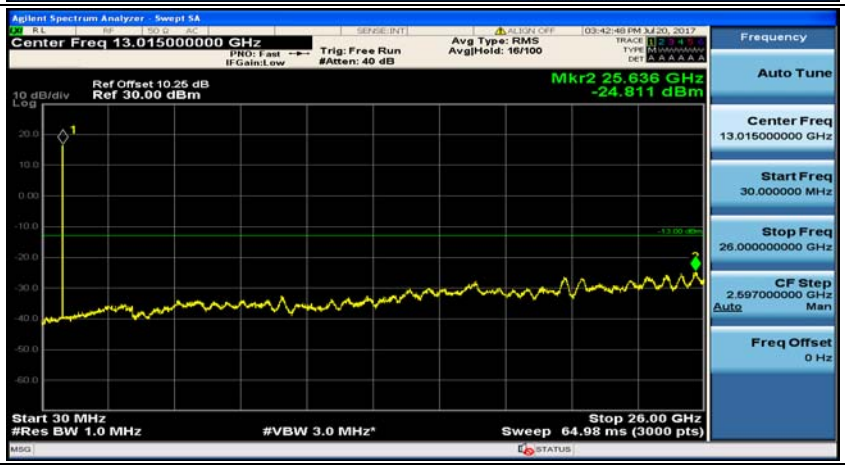


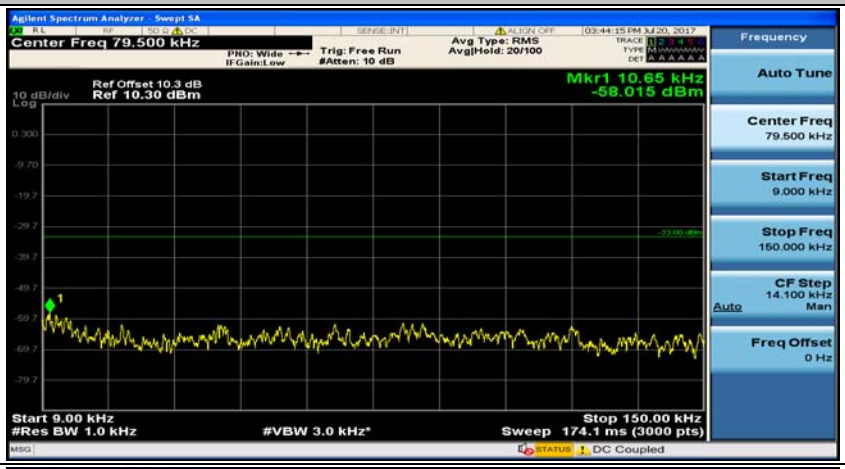
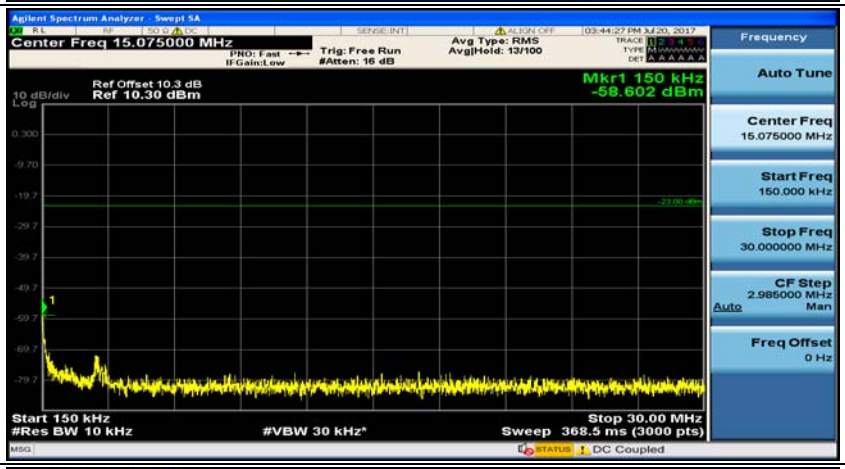
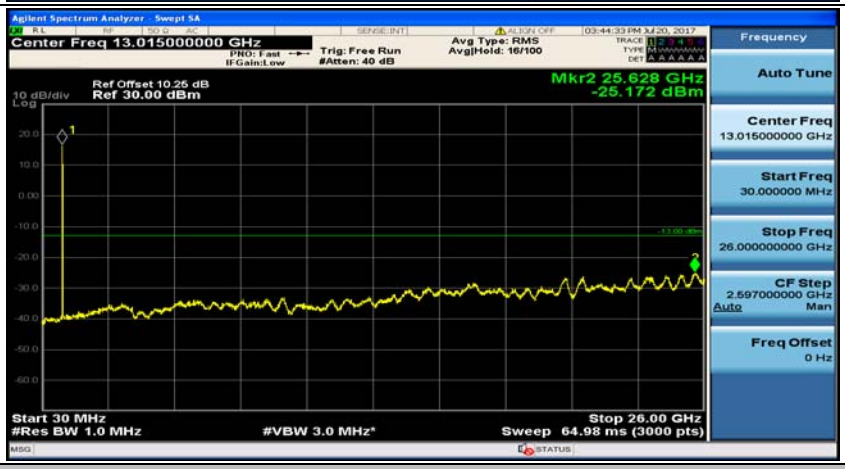


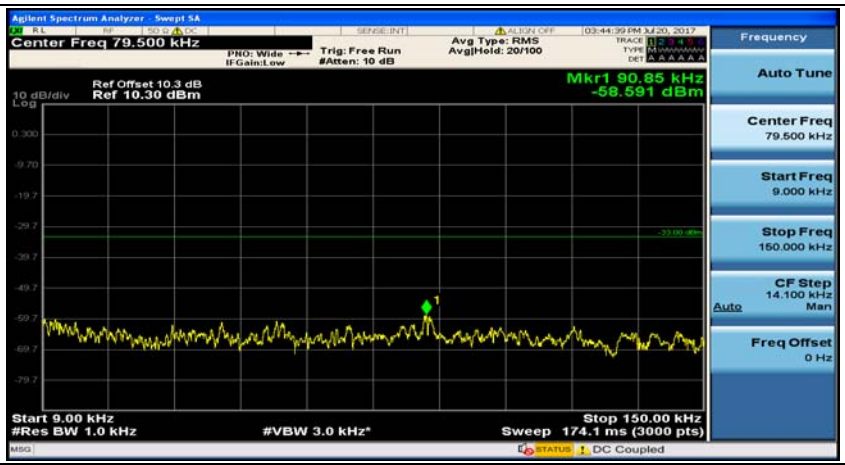
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

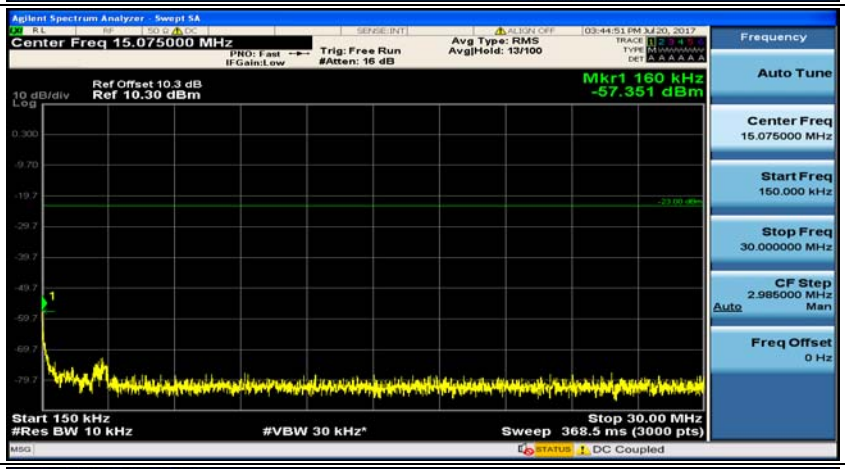

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:42:30 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 12.62 kHz
-58.898 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:42:42 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 150 kHz
-58.127 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

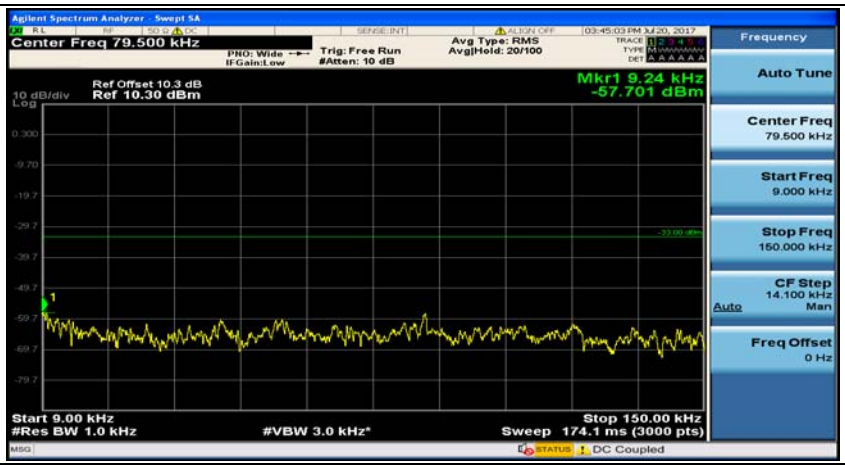

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:42:48 PM Jul 20, 2017
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.636 GHz
-24.811 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

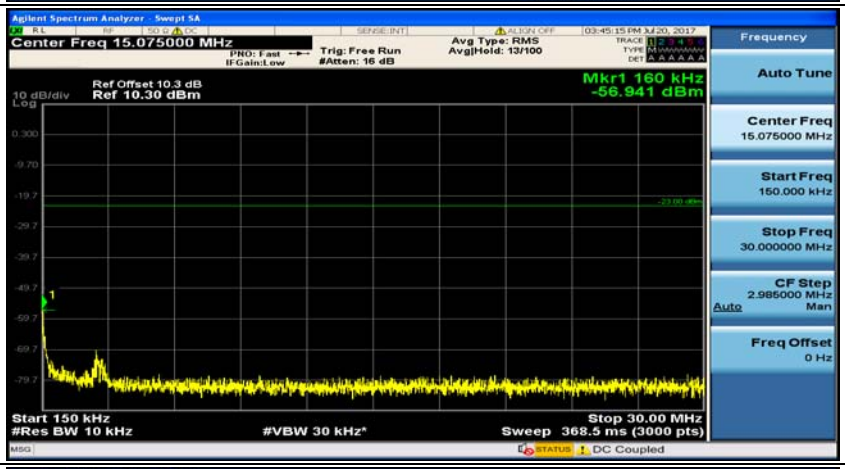
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

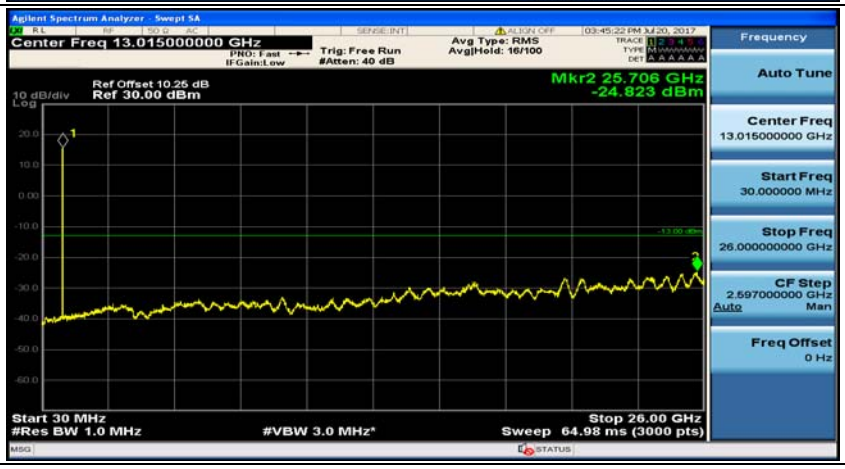


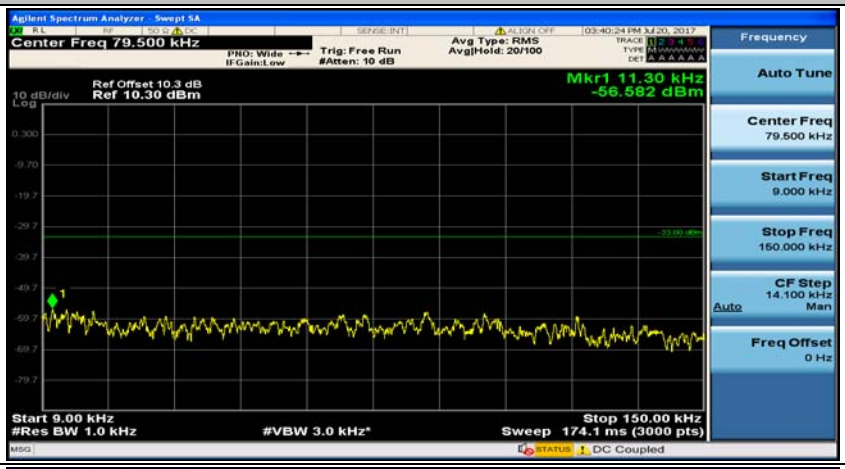
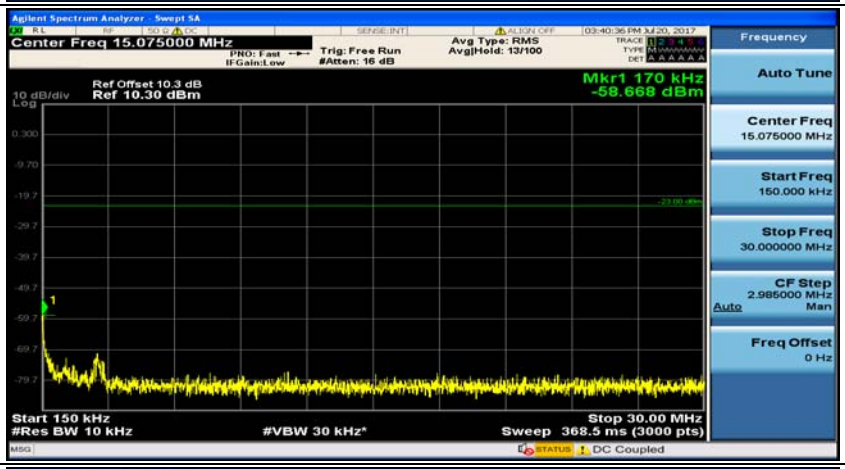
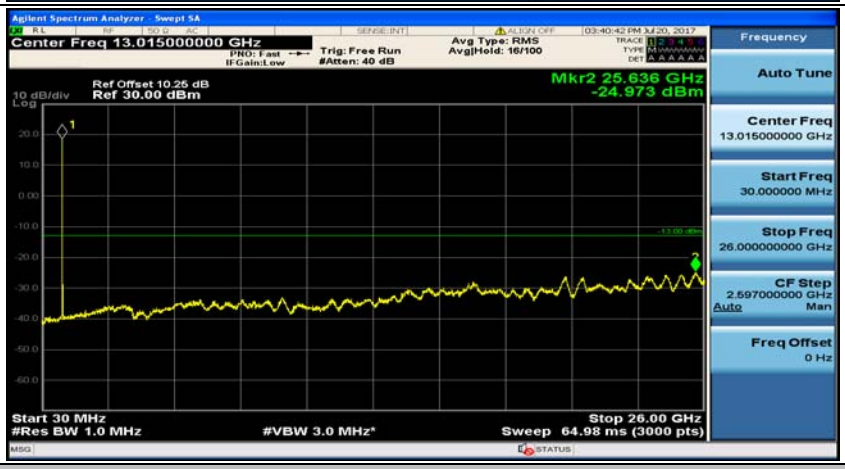


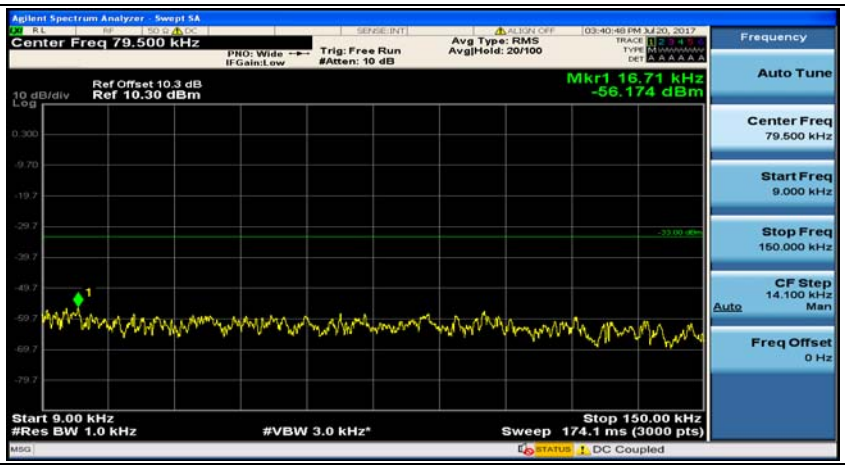
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

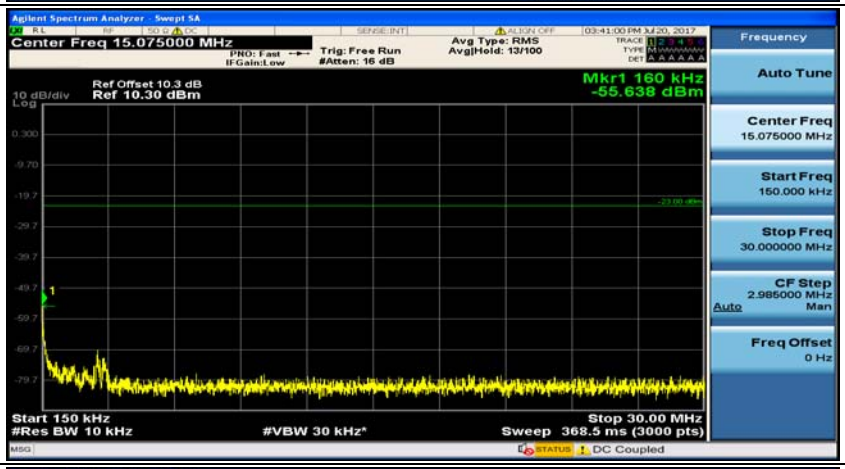

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:45:03 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 9.24 kHz
-57.701 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:45:15 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 160 kHz
-56.941 dBm
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
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled

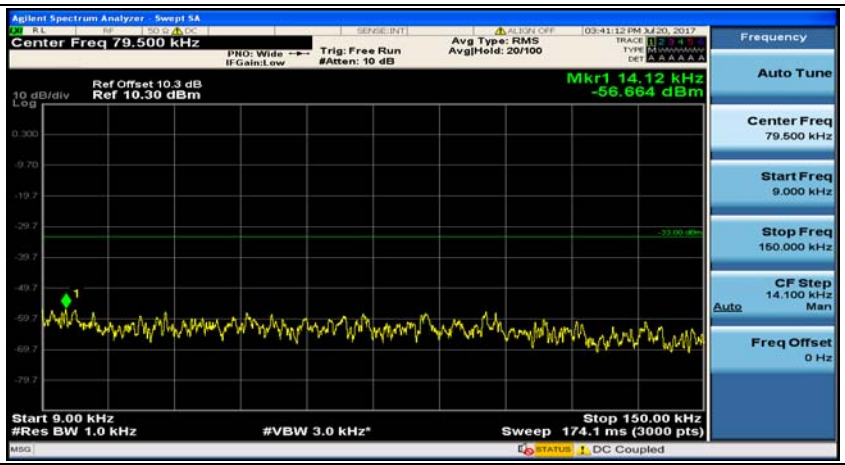

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:45:22 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.706 GHz
-24.823 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

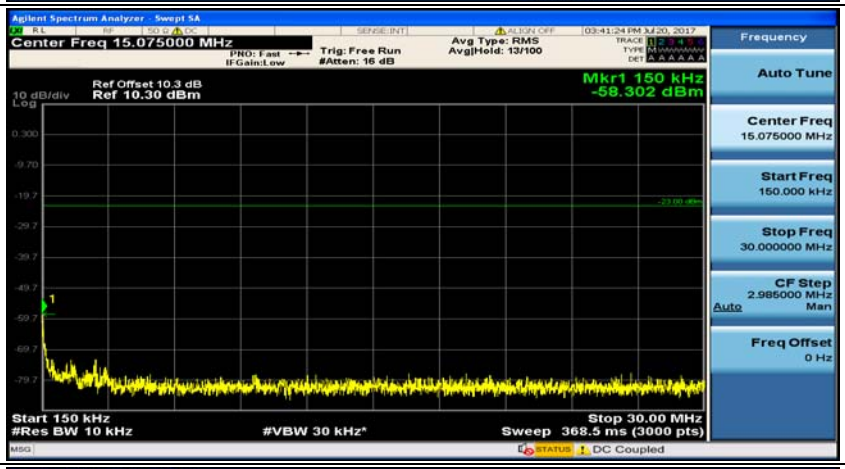
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

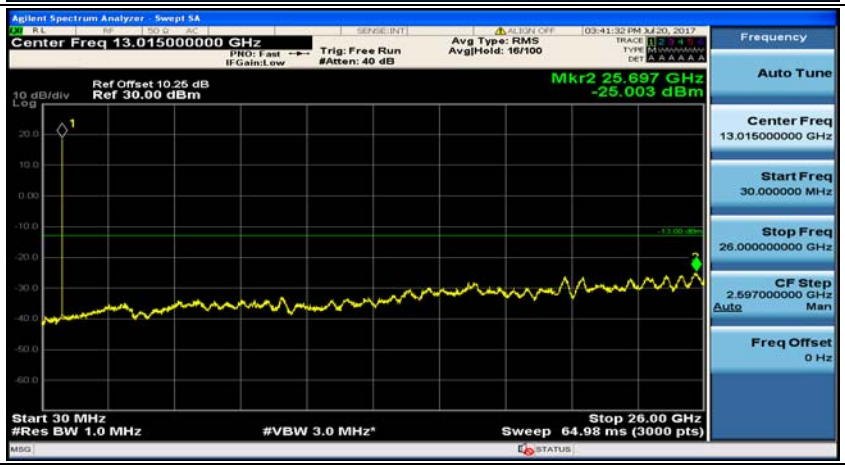


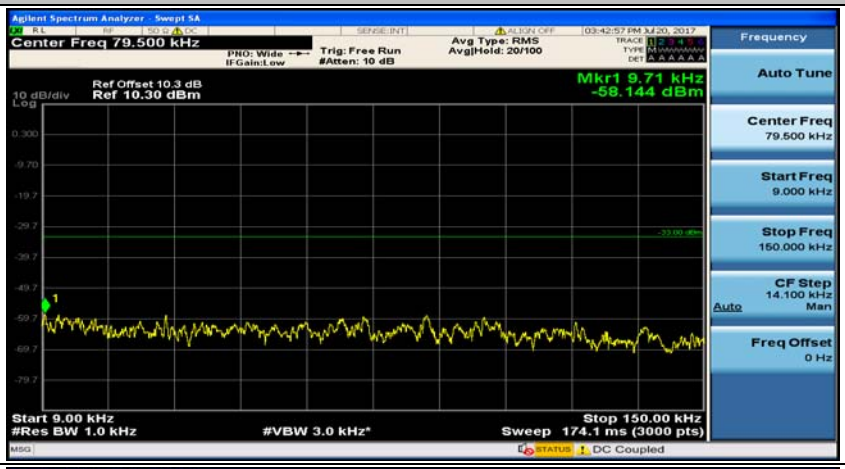
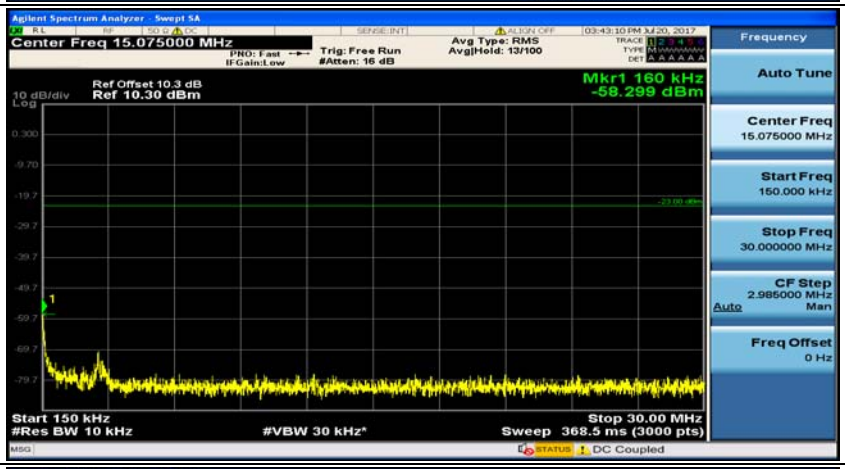
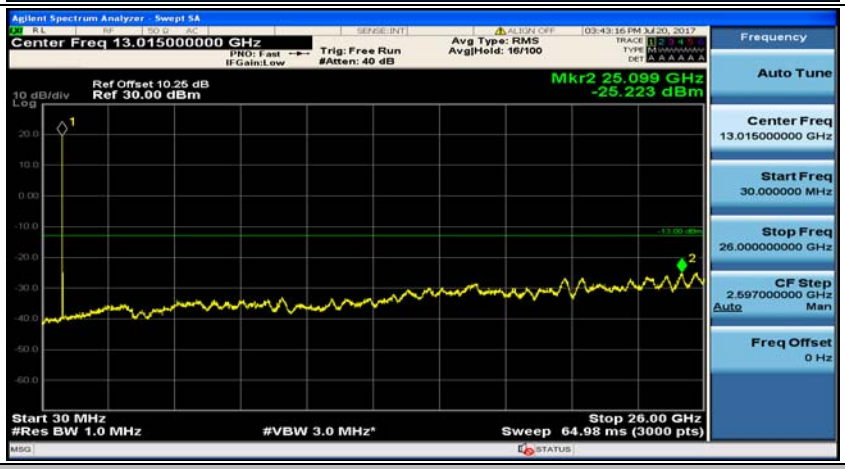


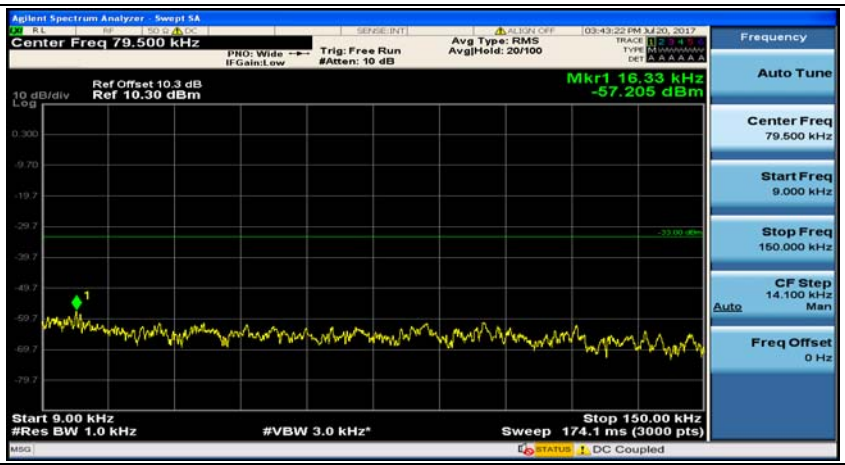
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

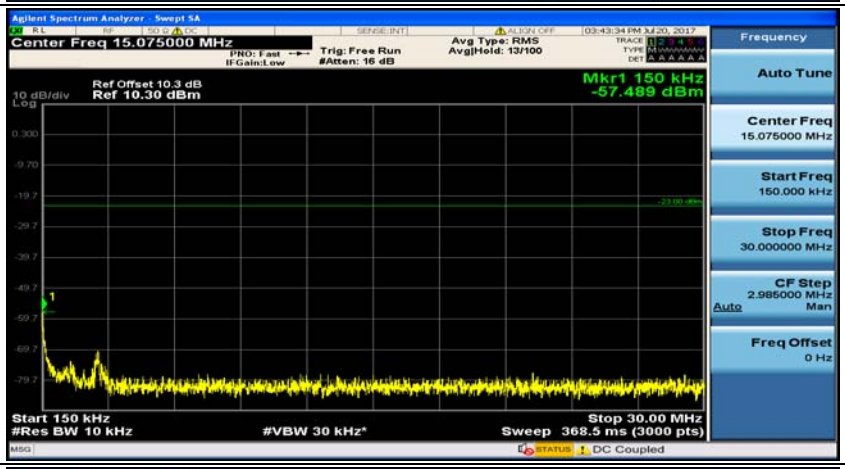

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:41:12 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 14.12 kHz
-56.664 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:41:24 PM Jul 20, 2017
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 150 kHz
-58.302 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz

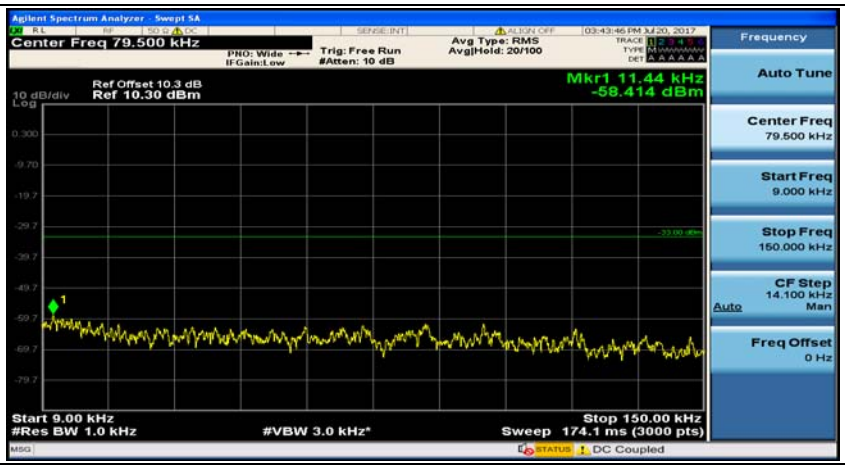

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 16/100
03:41:32 PM Jul 20, 2017
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.697 GHz
-25.003 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

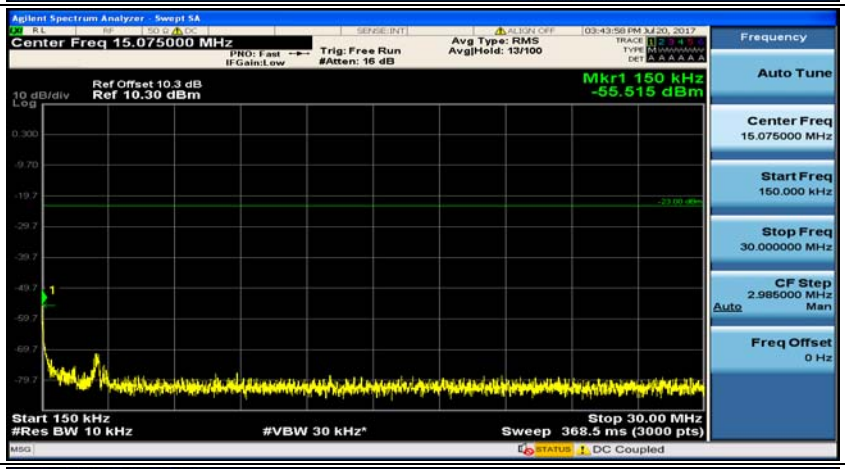
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

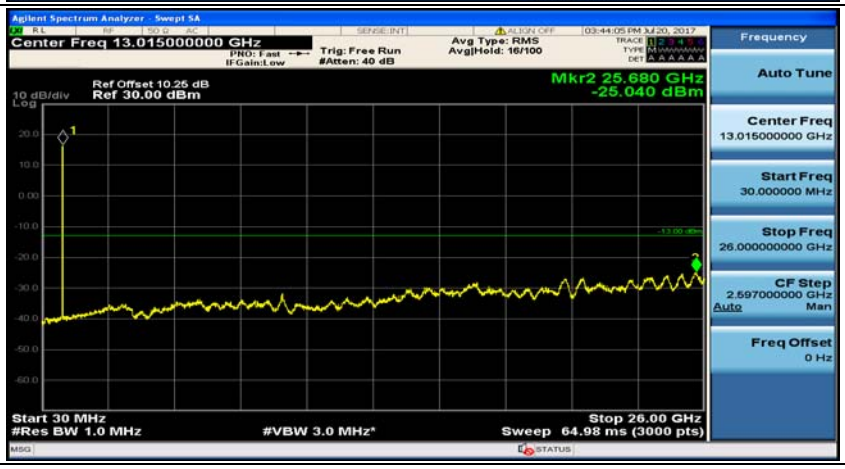


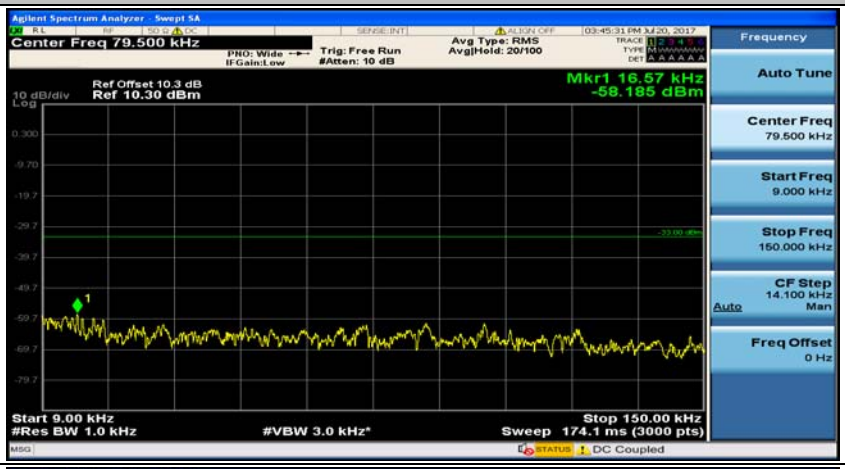
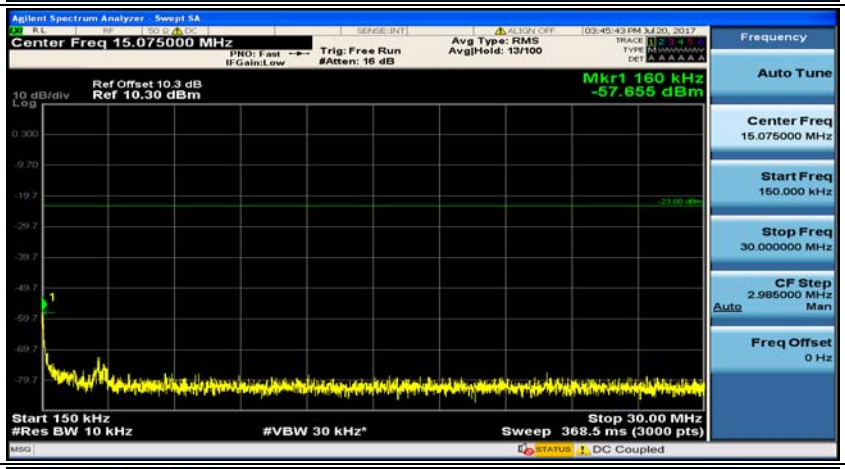
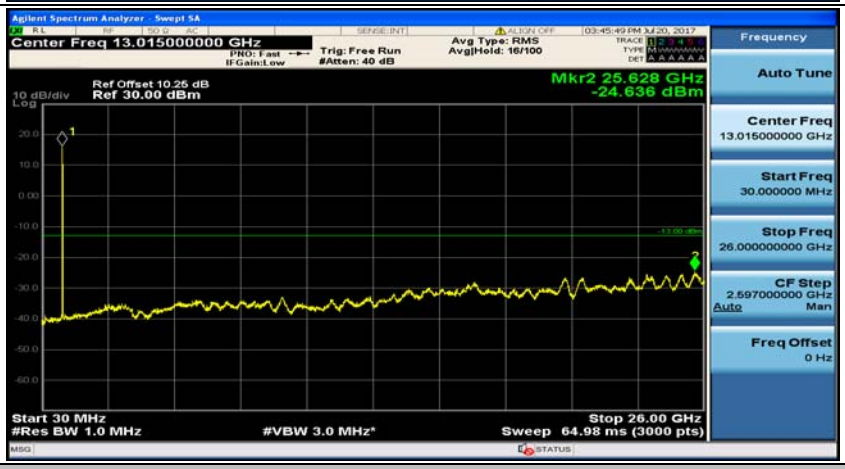


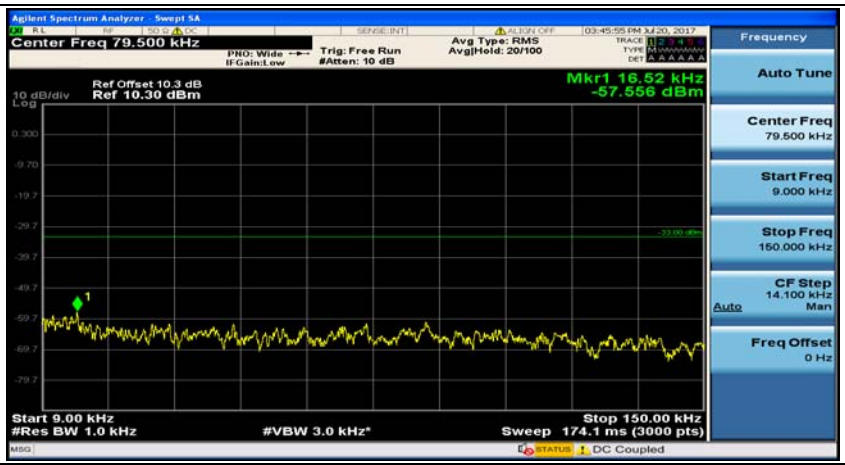
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

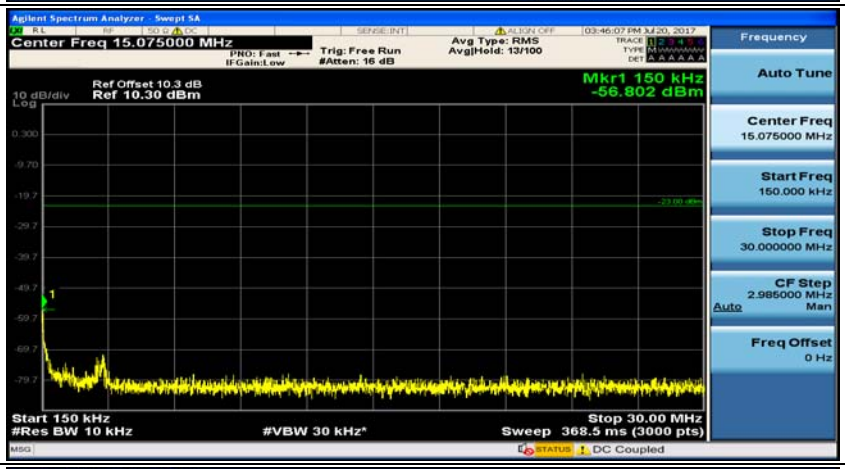

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 20/100
03:43:46 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 11.44 kHz
-58.414 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled

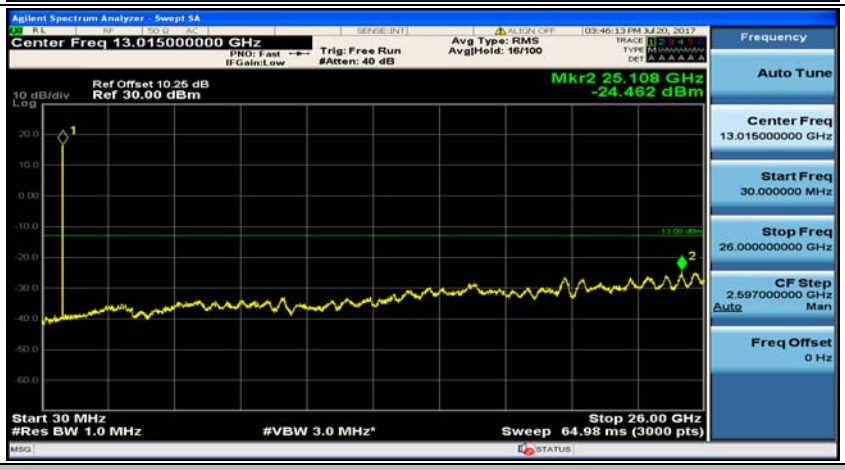

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:43:58 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 150 kHz
-55.515 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 16/100
03:44:05 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.680 GHz
-25.040 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

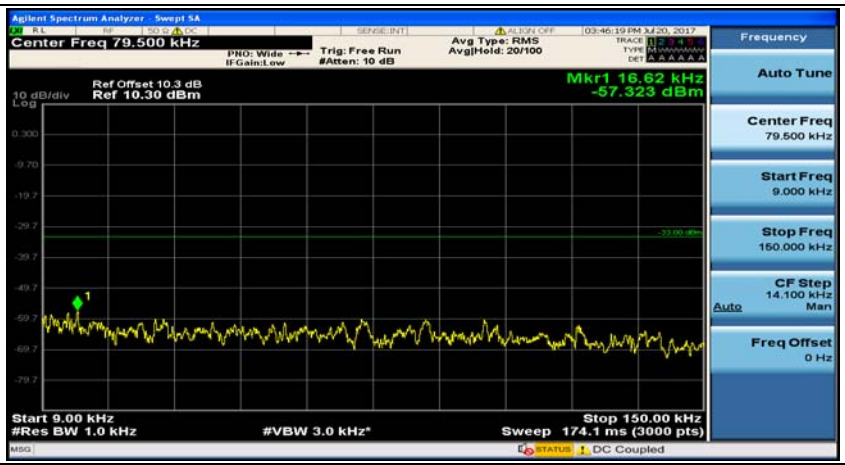
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

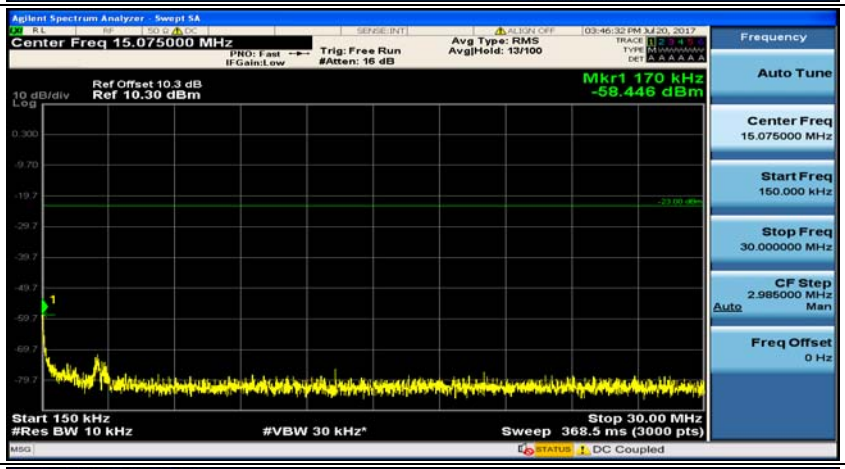


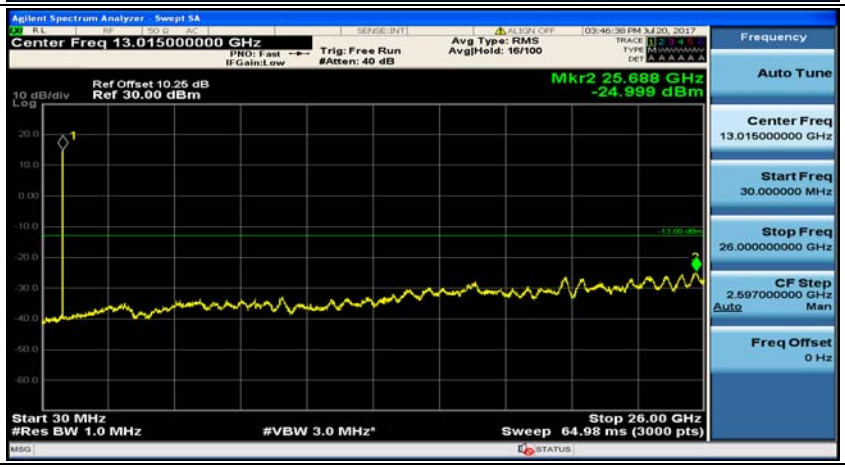




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


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: 20/100
03:46:19 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 16.62 kHz
-57.323 dBm
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
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:46:32 PM Jul 20, 2017
Frequency
Ref Offset 10.3 dB
10 dB/div
Ref 10.30 dBm
Mkr1 170 kHz
-58.446 dBm
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
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


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: 16/100
03:46:38 PM Jul 20, 2017
Frequency
Ref Offset 10.25 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.688 GHz
-24.999 dBm
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
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

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	4.36	0.005287	± 2.5	PASS
		VN	TN	2.62	0.003177	± 2.5	PASS
		VH	TN	2.19	0.002656	± 2.5	PASS
	MCH	VL	TN	0.93	0.001112	± 2.5	PASS
		VN	TN	4.85	0.005798	± 2.5	PASS
		VH	TN	4.26	0.005093	± 2.5	PASS
	HCH	VL	TN	2.87	0.003383	± 2.5	PASS
		VN	TN	4.94	0.005823	± 2.5	PASS
		VH	TN	-0.45	-0.000530	± 2.5	PASS
16QAM	LCH	VL	TN	-1.99	-0.002413	± 2.5	PASS
		VN	TN	3.39	0.004111	± 2.5	PASS
		VH	TN	4.47	0.005420	± 2.5	PASS
	MCH	VL	TN	3.8	0.004543	± 2.5	PASS
		VN	TN	3.37	0.004029	± 2.5	PASS
		VH	TN	0.29	0.000347	± 2.5	PASS
	HCH	VL	TN	1.73	0.002039	± 2.5	PASS
		VN	TN	-1.92	-0.002263	± 2.5	PASS
		VH	TN	3.93	0.004633	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.91	0.001103	± 2.5	PASS
		VN	-20	-0.09	-0.000109	± 2.5	PASS
		VN	-10	0.93	0.001128	± 2.5	PASS
		VN	0	1.55	0.001879	± 2.5	PASS
		VN	10	-0.33	-0.000400	± 2.5	PASS
		VN	20	2.91	0.003529	± 2.5	PASS
		VN	30	0.37	0.000449	± 2.5	PASS
		VN	40	4.49	0.005444	± 2.5	PASS
		VN	50	3.2	0.003880	± 2.5	PASS
	MCH	VN	-30	-1.5	-0.001793	± 2.5	PASS

		VN	-20	4.81	0.005750	± 2.5	PASS
		VN	-10	3.59	0.004292	± 2.5	PASS
		VN	0	0.68	0.000813	± 2.5	PASS
		VN	10	3.14	0.003754	± 2.5	PASS
		VN	20	4.32	0.005164	± 2.5	PASS
		VN	30	4.91	0.005870	± 2.5	PASS
		VN	40	2.96	0.003539	± 2.5	PASS
		VN	50	-1.34	-0.001602	± 2.5	PASS
	HCH	VN	-30	3.57	0.004208	± 2.5	PASS
		VN	-20	4.36	0.005140	± 2.5	PASS
		VN	-10	3.92	0.004621	± 2.5	PASS
		VN	0	-0.78	-0.000919	± 2.5	PASS
		VN	10	-0.17	-0.000200	± 2.5	PASS
		VN	20	0.84	0.000990	± 2.5	PASS
		VN	30	4.97	0.005859	± 2.5	PASS
		VN	40	-1.48	-0.001745	± 2.5	PASS
		VN	50	1.02	0.001202	± 2.5	PASS
16QAM	LCH	VN	-30	-1.85	-0.002243	± 2.5	PASS
		VN	-20	4.87	0.005905	± 2.5	PASS
		VN	-10	4.49	0.005444	± 2.5	PASS
		VN	0	3.96	0.004802	± 2.5	PASS
		VN	10	2.18	0.002643	± 2.5	PASS
		VN	20	-0.88	-0.001067	± 2.5	PASS
		VN	30	-1.29	-0.001564	± 2.5	PASS
		VN	40	3.9	0.004729	± 2.5	PASS
		VN	50	0.5	0.000606	± 2.5	PASS
	MCH	VN	-30	-0.71	-0.000837	± 2.5	PASS
		VN	-20	-1.94	-0.002287	± 2.5	PASS
		VN	-10	0	0.000000	± 2.5	PASS
		VN	0	-0.44	-0.000519	± 2.5	PASS
		VN	10	-0.65	-0.000766	± 2.5	PASS
		VN	20	3.43	0.004043	± 2.5	PASS
		VN	30	0.45	0.000530	± 2.5	PASS
		VN	40	4.53	0.005340	± 2.5	PASS
		VN	50	3.18	0.003749	± 2.5	PASS
	HCH	VN	-30	4.35	0.005128	± 2.5	PASS
		VN	-20	0.71	0.000837	± 2.5	PASS
		VN	-10	1.54	0.001815	± 2.5	PASS
		VN	0	3.94	0.004645	± 2.5	PASS
		VN	10	1.95	0.002299	± 2.5	PASS
		VN	20	3.85	0.004538	± 2.5	PASS

		VN	30	2.49	0.002935	± 2.5	PASS
		VN	40	0.62	0.000731	± 2.5	PASS
		VN	50	-0.65	-0.000766	± 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	1.82	0.002207	± 2.5	PASS
		VN	TN	-1.81	-0.002195	± 2.5	PASS
		VH	TN	1.87	0.002267	± 2.5	PASS
	MCH	VL	TN	4.6	0.005499	± 2.5	PASS
		VN	TN	4.1	0.004901	± 2.5	PASS
		VH	TN	1.6	0.001913	± 2.5	PASS
	HCH	VL	TN	4.33	0.005104	± 2.5	PASS
		VN	TN	3.23	0.003808	± 2.5	PASS
		VH	TN	4.47	0.005269	± 2.5	PASS
16QAM	LCH	VL	TN	-0.35	-0.000424	± 2.5	PASS
		VN	TN	-0.64	-0.000776	± 2.5	PASS
		VH	TN	-1.86	-0.002255	± 2.5	PASS
	MCH	VL	TN	0.89	0.001064	± 2.5	PASS
		VN	TN	2.97	0.003551	± 2.5	PASS
		VH	TN	4.24	0.005069	± 2.5	PASS
	HCH	VL	TN	1.56	0.001839	± 2.5	PASS
		VN	TN	2.75	0.003242	± 2.5	PASS
		VH	TN	1.03	0.001214	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.88	0.001067	± 2.5	PASS
		VN	-20	-0.22	-0.000267	± 2.5	PASS
		VN	-10	1.96	0.002377	± 2.5	PASS
		VN	0	-1.73	-0.002098	± 2.5	PASS
		VN	10	-1.48	-0.001795	± 2.5	PASS
		VN	20	2.11	0.002559	± 2.5	PASS
		VN	30	1.03	0.001249	± 2.5	PASS
		VN	40	4.25	0.005153	± 2.5	PASS
		VN	50	4.11	0.004984	± 2.5	PASS
	MCH	VN	-30	4.85	0.005798	± 2.5	PASS
		VN	-20	-0.51	-0.000610	± 2.5	PASS

		VN	-10	0.96	0.001148	± 2.5	PASS
		VN	0	2.39	0.002857	± 2.5	PASS
		VN	10	2.7	0.003228	± 2.5	PASS
		VN	20	1.74	0.002080	± 2.5	PASS
		VN	30	3.87	0.004626	± 2.5	PASS
		VN	40	-1.07	-0.001279	± 2.5	PASS
		VN	50	-0.73	-0.000873	± 2.5	PASS
	HCH	VN	-30	4.2	0.004951	± 2.5	PASS
		VN	-20	0.55	0.000648	± 2.5	PASS
		VN	-10	4.29	0.005057	± 2.5	PASS
		VN	0	4.81	0.005670	± 2.5	PASS
		VN	10	-1.03	-0.001214	± 2.5	PASS
		VN	20	-1.95	-0.002299	± 2.5	PASS
		VN	30	4.17	0.004916	± 2.5	PASS
		VN	40	0.67	0.000790	± 2.5	PASS
		VN	50	4.54	0.005352	± 2.5	PASS
16QAM	LCH	VN	-30	-0.5	-0.000606	± 2.5	PASS
		VN	-20	3.34	0.004050	± 2.5	PASS
		VN	-10	1.42	0.001722	± 2.5	PASS
		VN	0	-1.04	-0.001261	± 2.5	PASS
		VN	10	4.07	0.004935	± 2.5	PASS
		VN	20	2.66	0.003225	± 2.5	PASS
		VN	30	-1.86	-0.002255	± 2.5	PASS
		VN	40	4.39	0.005323	± 2.5	PASS
		VN	50	0.12	0.000146	± 2.5	PASS
	MCH	VN	-30	2.17	0.002558	± 2.5	PASS
		VN	-20	-1.53	-0.001804	± 2.5	PASS
		VN	-10	4.13	0.004869	± 2.5	PASS
		VN	0	1.04	0.001226	± 2.5	PASS
		VN	10	4.3	0.005069	± 2.5	PASS
		VN	20	1.12	0.001320	± 2.5	PASS
		VN	30	-0.54	-0.000637	± 2.5	PASS
		VN	40	2.29	0.002700	± 2.5	PASS
		VN	50	-0.42	-0.000495	± 2.5	PASS
	HCH	VN	-30	0.53	0.000625	± 2.5	PASS
		VN	-20	1.05	0.001238	± 2.5	PASS
		VN	-10	3.09	0.003643	± 2.5	PASS
		VN	0	0.03	0.000035	± 2.5	PASS
		VN	10	4.12	0.004857	± 2.5	PASS
		VN	20	4.86	0.005729	± 2.5	PASS
		VN	30	-0.07	-0.000083	± 2.5	PASS

		VN	40	4.06	0.004786	± 2.5	PASS
		VN	50	1.41	0.001662	± 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	2.1	0.002546	± 2.5	PASS
		VN	TN	-0.08	-0.000097	± 2.5	PASS
		VH	TN	4.8	0.005820	± 2.5	PASS
	MCH	VL	TN	-0.99	-0.001184	± 2.5	PASS
		VN	TN	1.8	0.002152	± 2.5	PASS
		VH	TN	2.67	0.003192	± 2.5	PASS
	HCH	VL	TN	3.38	0.003984	± 2.5	PASS
		VN	TN	-1.09	-0.001285	± 2.5	PASS
		VH	TN	1.31	0.001544	± 2.5	PASS
16QAM	LCH	VL	TN	0.61	0.000740	± 2.5	PASS
		VN	TN	2.31	0.002801	± 2.5	PASS
		VH	TN	-1.7	-0.002061	± 2.5	PASS
	MCH	VL	TN	3.03	0.003622	± 2.5	PASS
		VN	TN	1.14	0.001363	± 2.5	PASS
		VH	TN	4.64	0.005547	± 2.5	PASS
	HCH	VL	TN	2.71	0.003195	± 2.5	PASS
		VN	TN	1.46	0.001721	± 2.5	PASS
		VH	TN	0.87	0.001026	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.65	0.004426	± 2.5	PASS
		VN	-20	1.54	0.001867	± 2.5	PASS
		VN	-10	1.04	0.001261	± 2.5	PASS
		VN	0	2.09	0.002534	± 2.5	PASS
		VN	10	4.06	0.004923	± 2.5	PASS
		VN	20	-1.48	-0.001795	± 2.5	PASS
		VN	30	-1.01	-0.001225	± 2.5	PASS
		VN	40	-0.09	-0.000109	± 2.5	PASS
		VN	50	3.27	0.003965	± 2.5	PASS
	MCH	VN	-30	2.42	0.002893	± 2.5	PASS
		VN	-20	2.5	0.002989	± 2.5	PASS
		VN	-10	3.52	0.004208	± 2.5	PASS

		VN	0	1.85	0.002212	± 2.5	PASS
		VN	10	2.81	0.003359	± 2.5	PASS
		VN	20	4.31	0.005152	± 2.5	PASS
		VN	30	-1.48	-0.001769	± 2.5	PASS
		VN	40	3.39	0.004053	± 2.5	PASS
		VN	50	3.86	0.004614	± 2.5	PASS
	HCH	VN	-30	-0.52	-0.000613	± 2.5	PASS
		VN	-20	4.65	0.005482	± 2.5	PASS
		VN	-10	-0.99	-0.001167	± 2.5	PASS
		VN	0	1.51	0.001780	± 2.5	PASS
		VN	10	-1.4	-0.001650	± 2.5	PASS
		VN	20	3.45	0.004067	± 2.5	PASS
		VN	30	2.99	0.003525	± 2.5	PASS
		VN	40	-0.77	-0.000908	± 2.5	PASS
		VN	50	-1.31	-0.001544	± 2.5	PASS
16QAM	LCH	VN	-30	2	0.002425	± 2.5	PASS
		VN	-20	-0.89	-0.001079	± 2.5	PASS
		VN	-10	4.21	0.005105	± 2.5	PASS
		VN	0	-0.25	-0.000303	± 2.5	PASS
		VN	10	1.54	0.001867	± 2.5	PASS
		VN	20	4.97	0.006026	± 2.5	PASS
		VN	30	-0.1	-0.000121	± 2.5	PASS
		VN	40	-0.63	-0.000764	± 2.5	PASS
		VN	50	-1.93	-0.002340	± 2.5	PASS
	MCH	VN	-30	-1.83	-0.002157	± 2.5	PASS
		VN	-20	3.15	0.003713	± 2.5	PASS
		VN	-10	3.15	0.003713	± 2.5	PASS
		VN	0	2.22	0.002617	± 2.5	PASS
		VN	10	-1.02	-0.001202	± 2.5	PASS
		VN	20	-0.6	-0.000707	± 2.5	PASS
		VN	30	4.42	0.005210	± 2.5	PASS
		VN	40	-0.31	-0.000365	± 2.5	PASS
		VN	50	1.64	0.001933	± 2.5	PASS
	HCH	VN	-30	-1.88	-0.002216	± 2.5	PASS
		VN	-20	2.68	0.003159	± 2.5	PASS
		VN	-10	-0.84	-0.000990	± 2.5	PASS
		VN	0	0.83	0.000978	± 2.5	PASS
		VN	10	1.41	0.001662	± 2.5	PASS
		VN	20	-0.91	-0.001073	± 2.5	PASS
		VN	30	-0.5	-0.000589	± 2.5	PASS
		VN	40	-0.82	-0.000967	± 2.5	PASS

		VN	50	-0.02	-0.000024	± 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	-1.09	-0.001322	± 2.5	PASS
		VN	TN	4.67	0.005663	± 2.5	PASS
		VH	TN	4.62	0.005602	± 2.5	PASS
	MCH	VL	TN	3.95	0.004722	± 2.5	PASS
		VN	TN	4.02	0.004806	± 2.5	PASS
		VH	TN	1.05	0.001255	± 2.5	PASS
	HCH	VL	TN	-0.56	-0.000660	± 2.5	PASS
		VN	TN	2.18	0.002570	± 2.5	PASS
		VH	TN	4.94	0.005823	± 2.5	PASS
16QAM	LCH	VL	TN	4.38	0.005311	± 2.5	PASS
		VN	TN	3.21	0.003892	± 2.5	PASS
		VH	TN	-1.87	-0.002267	± 2.5	PASS
	MCH	VL	TN	4.68	0.005595	± 2.5	PASS
		VN	TN	3.26	0.003897	± 2.5	PASS
		VH	TN	3.98	0.004758	± 2.5	PASS
	HCH	VL	TN	1.06	0.001250	± 2.5	PASS
		VN	TN	2.79	0.003289	± 2.5	PASS
		VH	TN	0.1	0.000118	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.09	0.003747	± 2.5	PASS
		VN	-20	2.34	0.002837	± 2.5	PASS
		VN	-10	3.71	0.004499	± 2.5	PASS
		VN	0	-1.03	-0.001249	± 2.5	PASS
		VN	10	1.3	0.001576	± 2.5	PASS
		VN	20	-1.28	-0.001552	± 2.5	PASS
		VN	30	-1.94	-0.002352	± 2.5	PASS
		VN	40	1.29	0.001564	± 2.5	PASS
		VN	50	-1.48	-0.001795	± 2.5	PASS
	MCH	VN	-30	4.65	0.005559	± 2.5	PASS
		VN	-20	-1.49	-0.001781	± 2.5	PASS
		VN	-10	4.09	0.004889	± 2.5	PASS
		VN	0	1.62	0.001937	± 2.5	PASS

		VN	10	0.66	0.000789	± 2.5	PASS
		VN	20	2.75	0.003288	± 2.5	PASS
		VN	30	-1.24	-0.001482	± 2.5	PASS
		VN	40	-1.54	-0.001841	± 2.5	PASS
		VN	50	-1.15	-0.001375	± 2.5	PASS
	HCH	VN	-30	-1.86	-0.002193	± 2.5	PASS
		VN	-20	-0.28	-0.000330	± 2.5	PASS
		VN	-10	3.24	0.003819	± 2.5	PASS
		VN	0	4.12	0.004857	± 2.5	PASS
		VN	10	-1.74	-0.002051	± 2.5	PASS
		VN	20	-1.92	-0.002263	± 2.5	PASS
		VN	30	1.46	0.001721	± 2.5	PASS
		VN	40	-1.96	-0.002311	± 2.5	PASS
		VN	50	3.37	0.003973	± 2.5	PASS
16QAM	LCH	VN	-30	-0.02	-0.000024	± 2.5	PASS
		VN	-20	3.53	0.004280	± 2.5	PASS
		VN	-10	-0.46	-0.000558	± 2.5	PASS
		VN	0	1.89	0.002292	± 2.5	PASS
		VN	10	-0.45	-0.000546	± 2.5	PASS
		VN	20	2.76	0.003347	± 2.5	PASS
		VN	30	1.1	0.001334	± 2.5	PASS
		VN	40	1.08	0.001310	± 2.5	PASS
		VN	50	1.87	0.002267	± 2.5	PASS
	MCH	VN	-30	-0.66	-0.000778	± 2.5	PASS
		VN	-20	2.48	0.002923	± 2.5	PASS
		VN	-10	-1.87	-0.002204	± 2.5	PASS
		VN	0	2.62	0.003089	± 2.5	PASS
		VN	10	3.22	0.003796	± 2.5	PASS
		VN	20	4.94	0.005823	± 2.5	PASS
		VN	30	-1.48	-0.001745	± 2.5	PASS
		VN	40	0.7	0.000825	± 2.5	PASS
		VN	50	2.47	0.002912	± 2.5	PASS
	HCH	VN	-30	3.46	0.004079	± 2.5	PASS
		VN	-20	2.37	0.002794	± 2.5	PASS
		VN	-10	-1.04	-0.001226	± 2.5	PASS
		VN	0	3.98	0.004692	± 2.5	PASS
		VN	10	-1.94	-0.002287	± 2.5	PASS
		VN	20	2.02	0.002381	± 2.5	PASS
		VN	30	2.57	0.003030	± 2.5	PASS
		VN	40	1.79	0.002110	± 2.5	PASS
		VN	50	-0.93	-0.001096	± 2.5	PASS