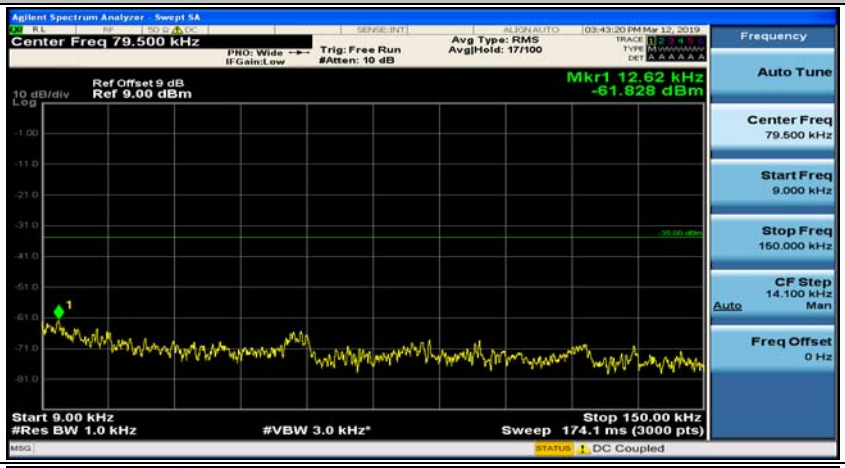
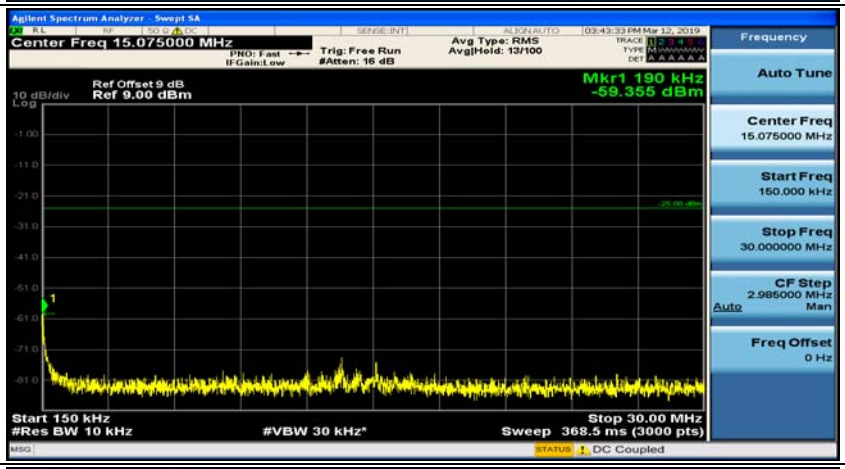
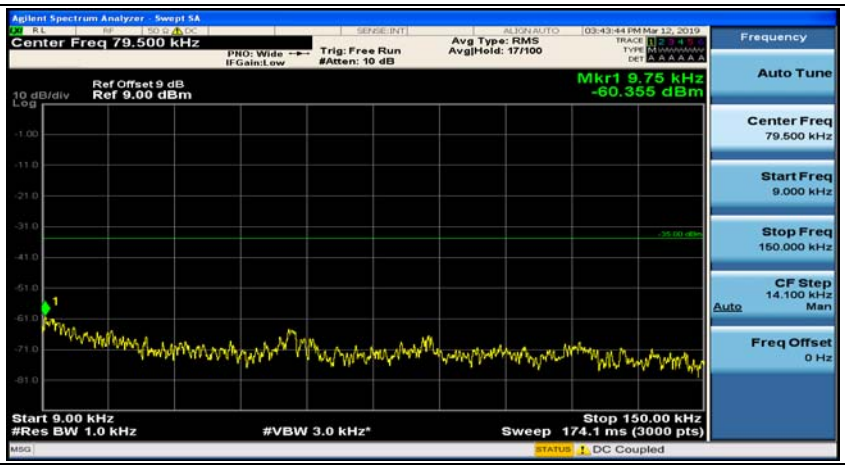
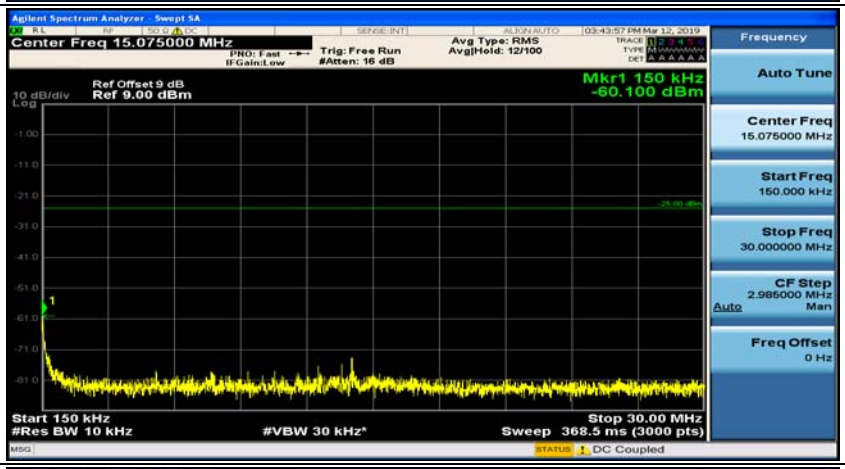
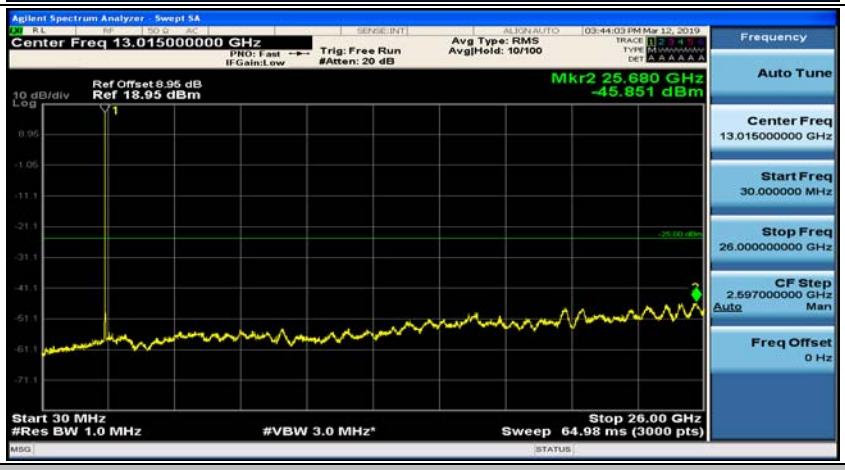
Channel Bandwidth: 15 MHz

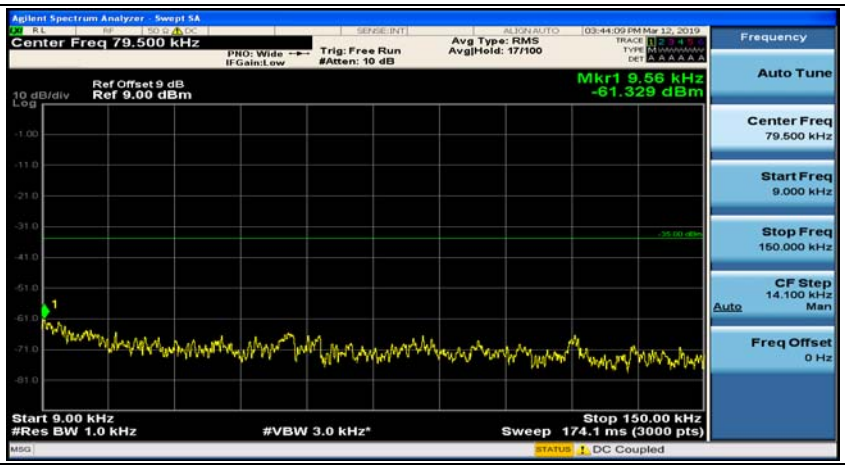
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0


(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37

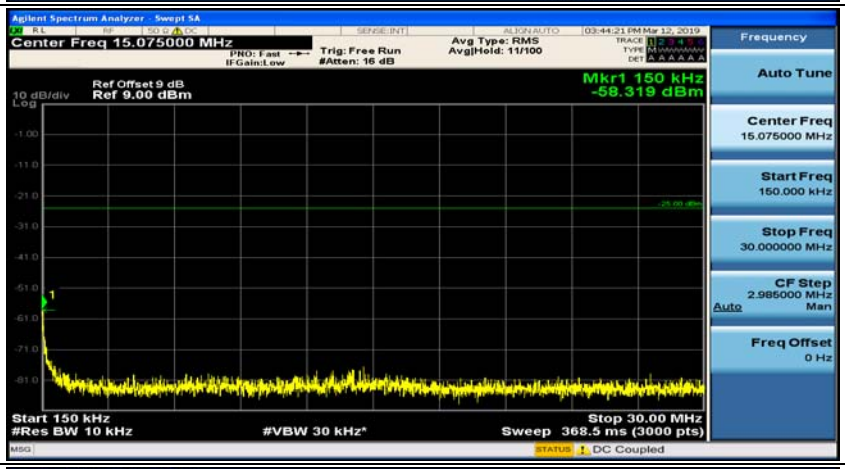




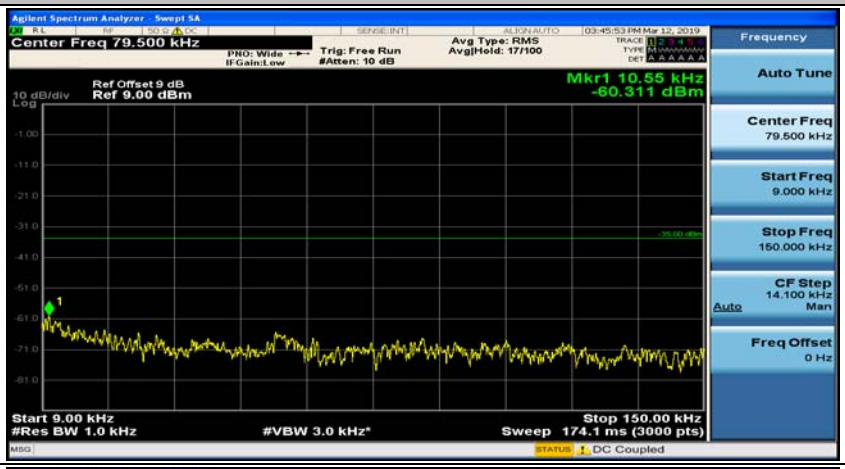
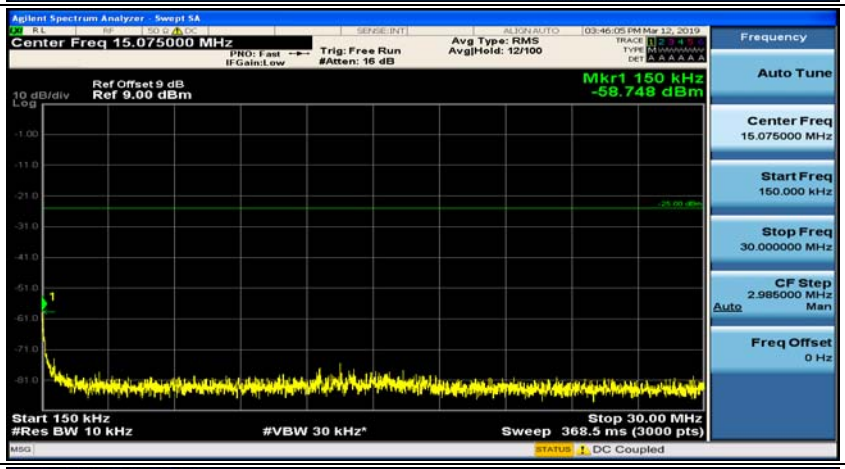
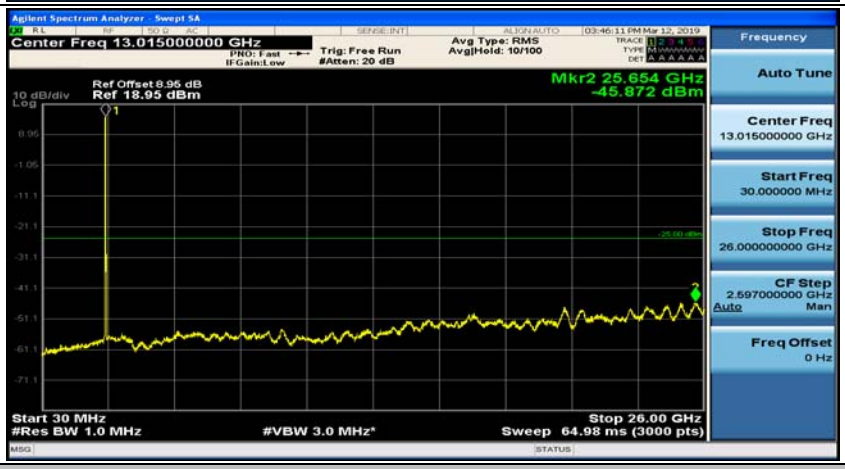


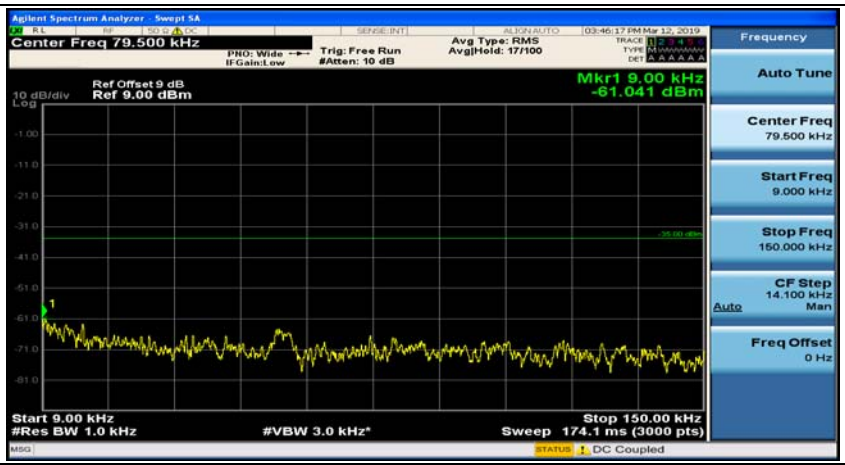
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74

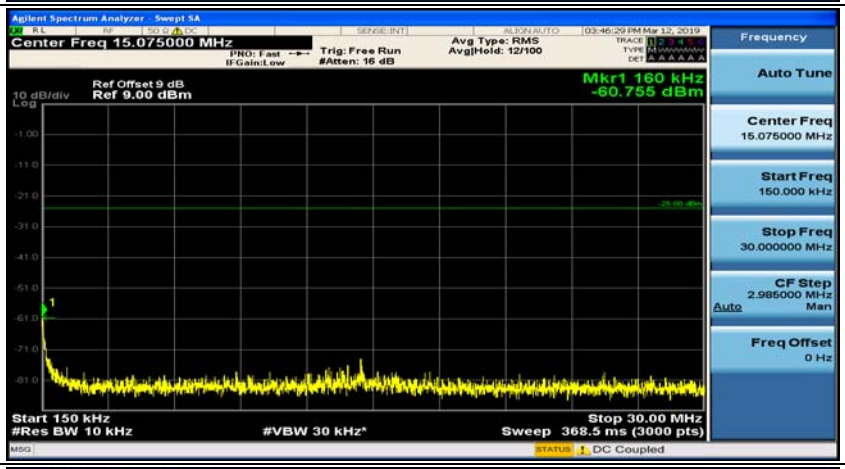

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:44:09 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.56 kHz
-61.329 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

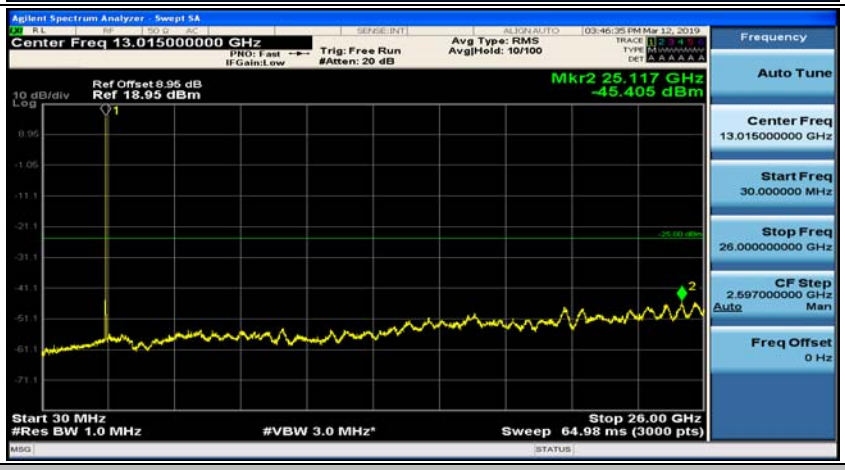

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:44:21 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-58.319 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:44:27 PM Mar 12, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.636 GHz
-45.560 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

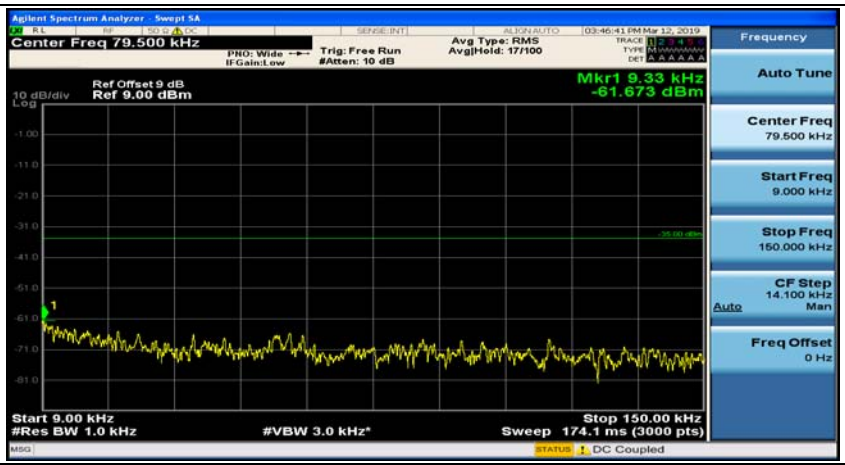
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

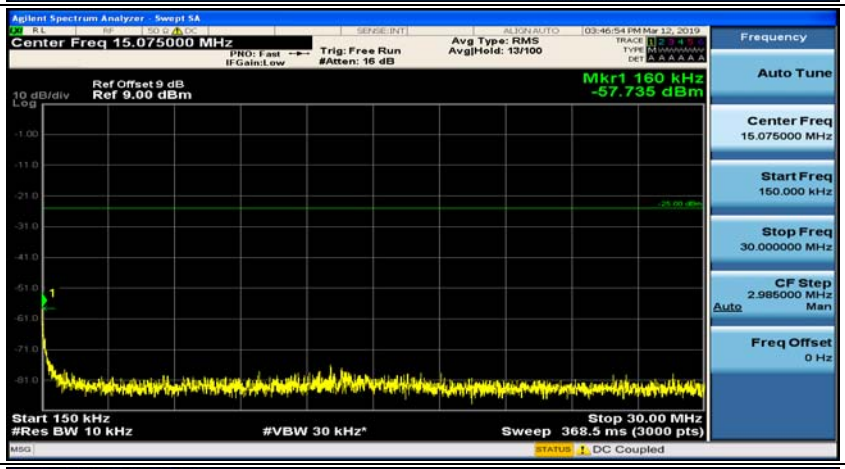


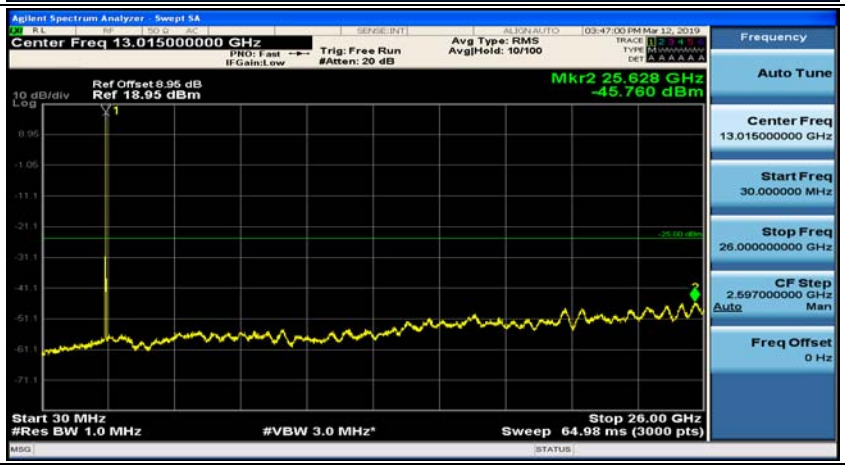


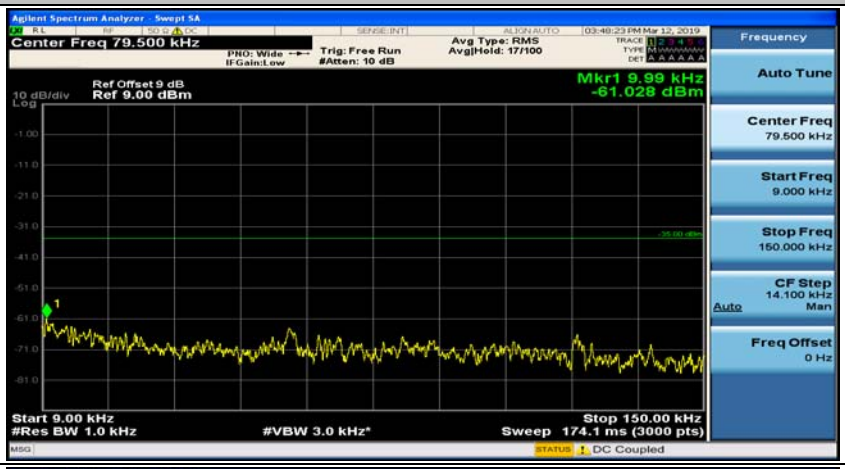
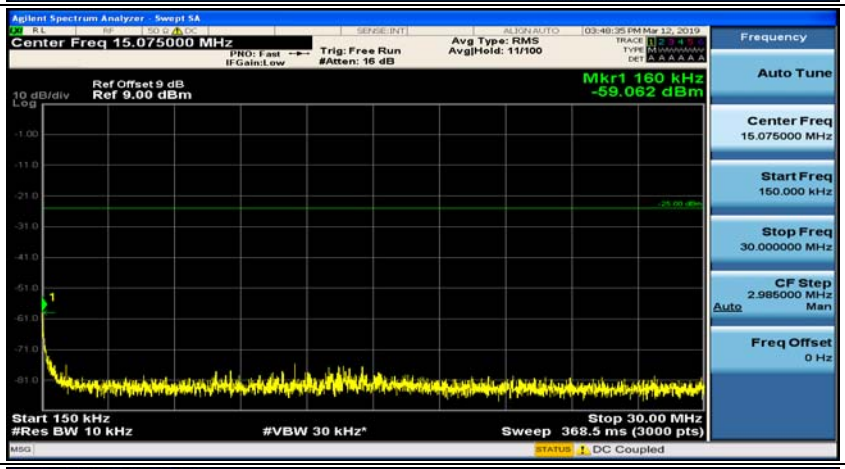
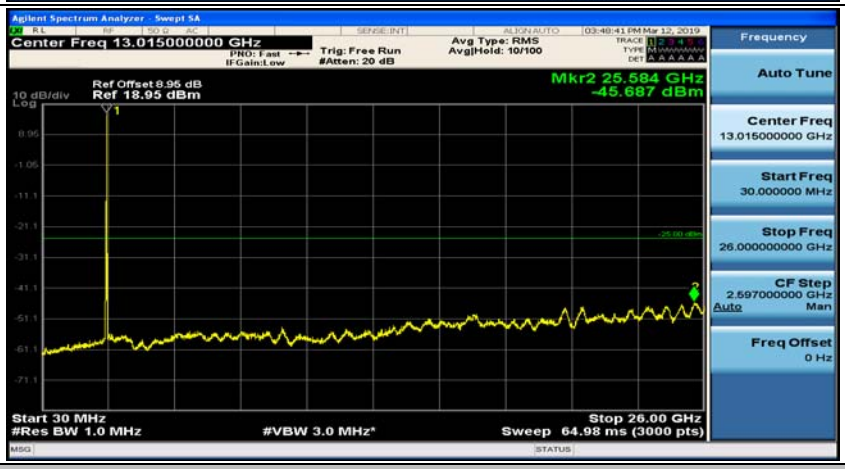


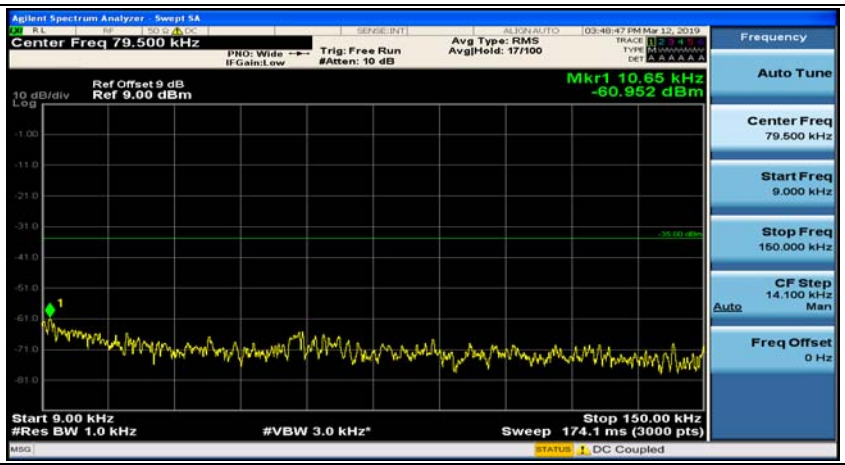
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74

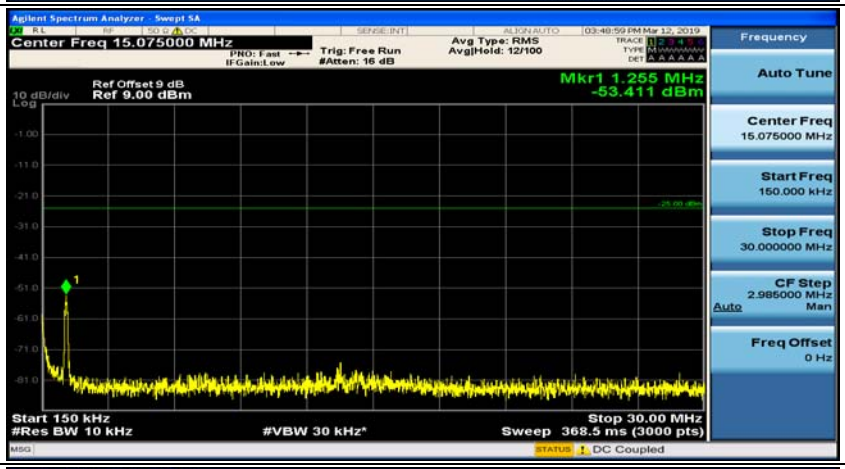

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:46:41 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.33 kHz
-61.673 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

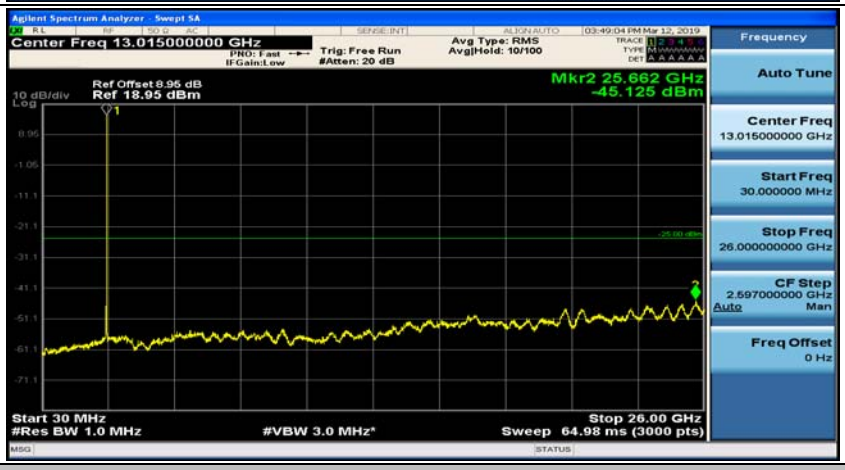

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:46:54 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 160 kHz
-57.735 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:47:00 PM Mar 12, 2019
Frequency
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.628 GHz
-45.760 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)

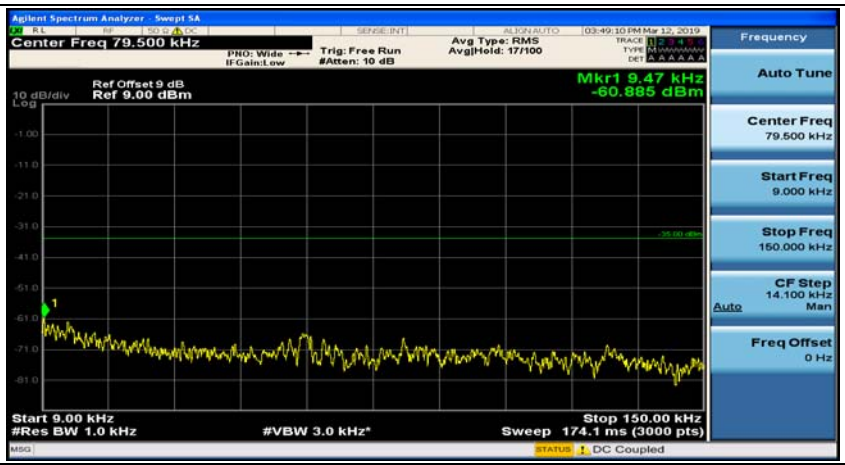
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

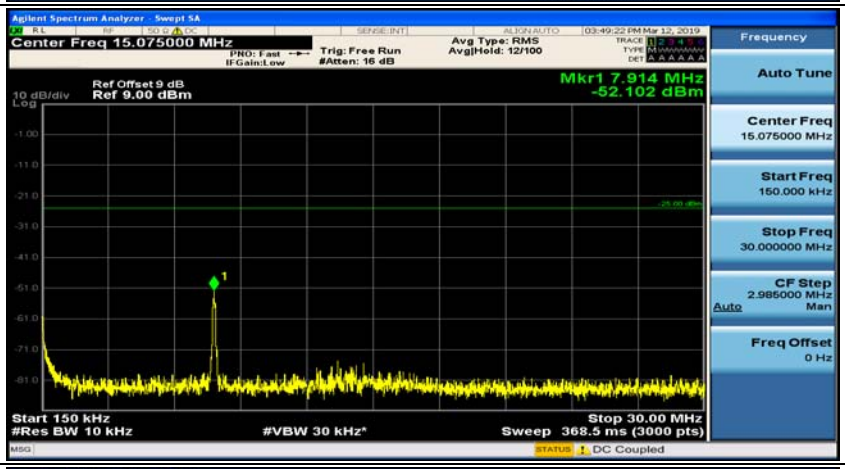




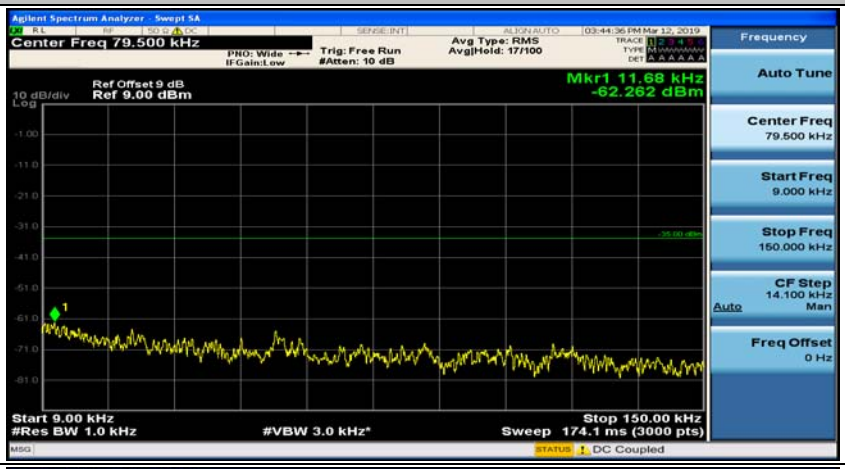
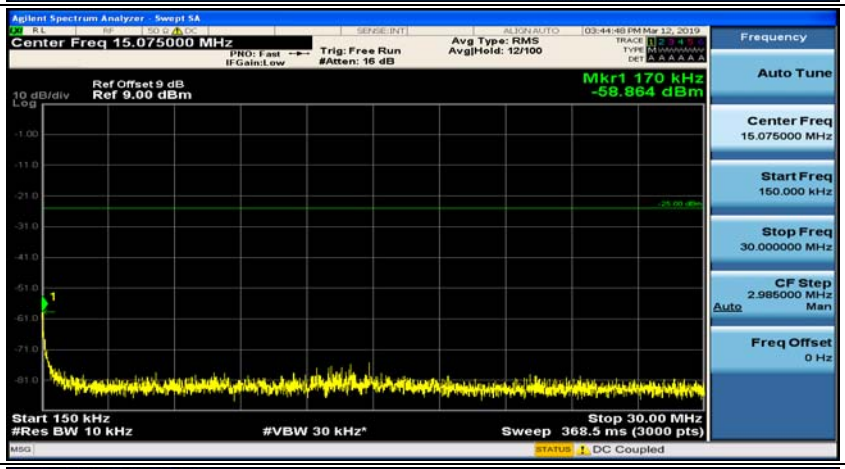
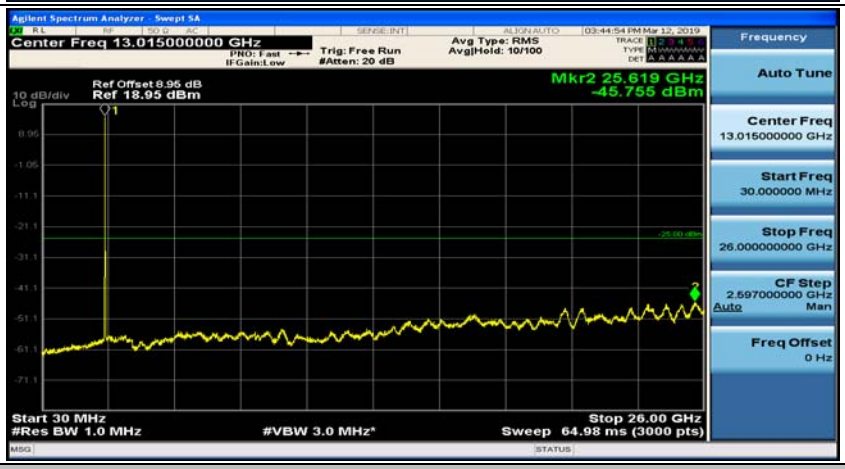


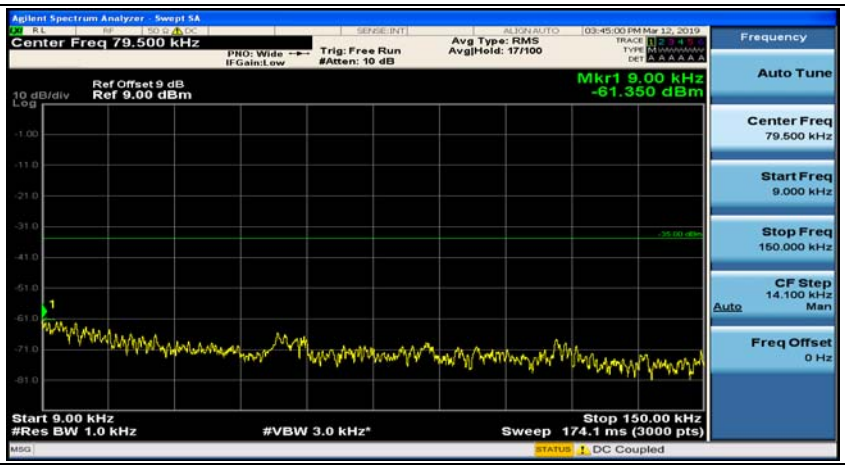
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

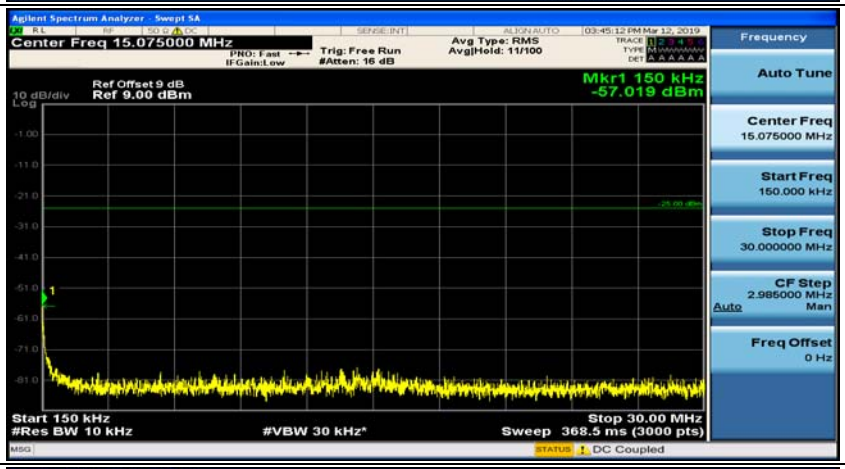

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:49:10 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.47 kHz
-60.885 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

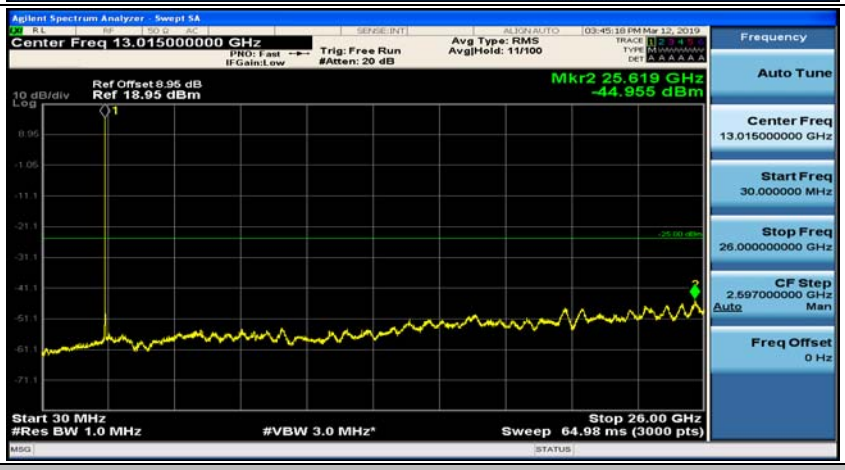

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:49:22 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 7.914 MHz
-52.102 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:49:28 PM Mar 12, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.602 GHz
-45.747 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

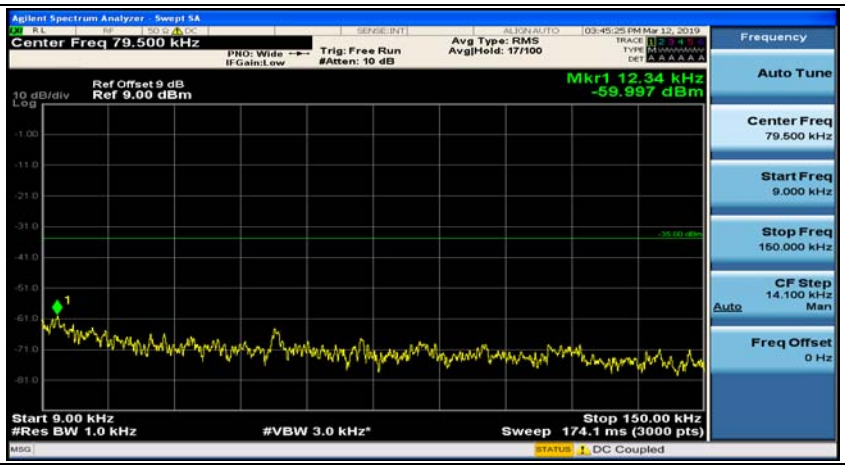
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

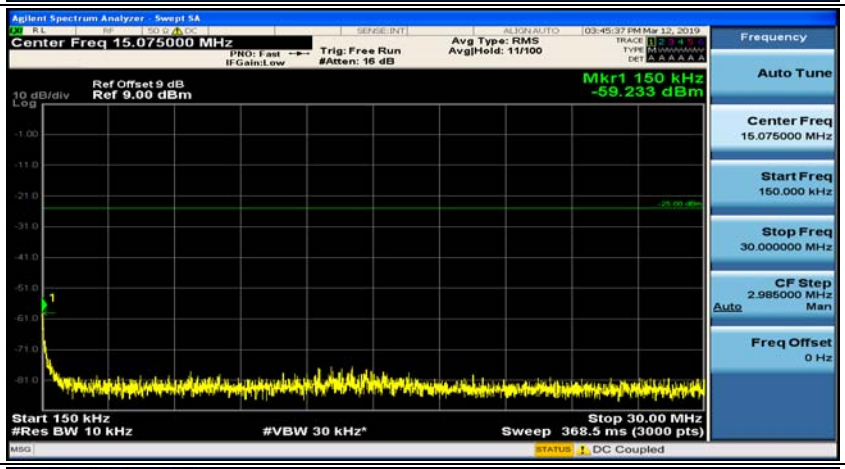


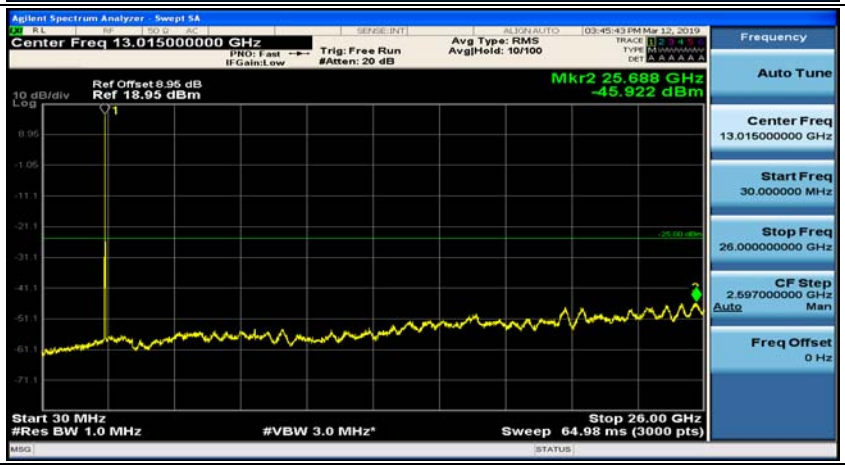


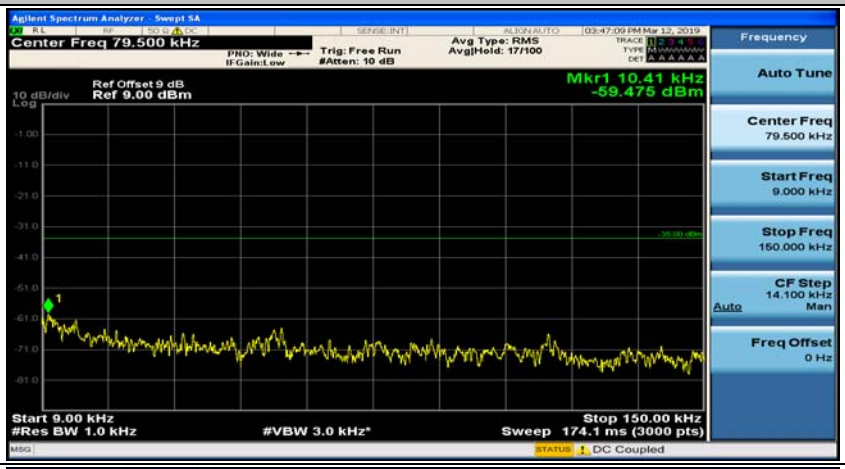
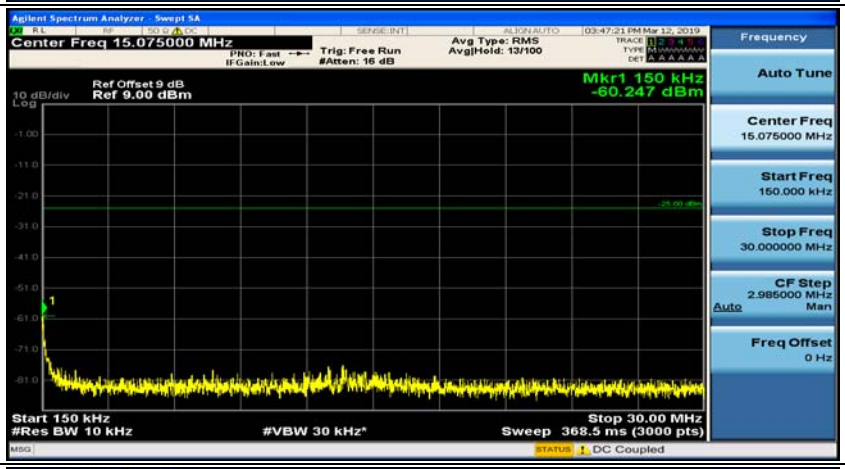
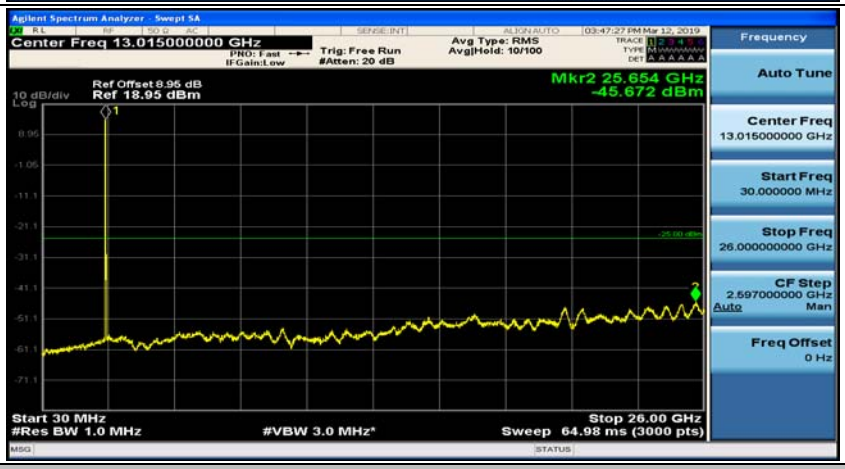


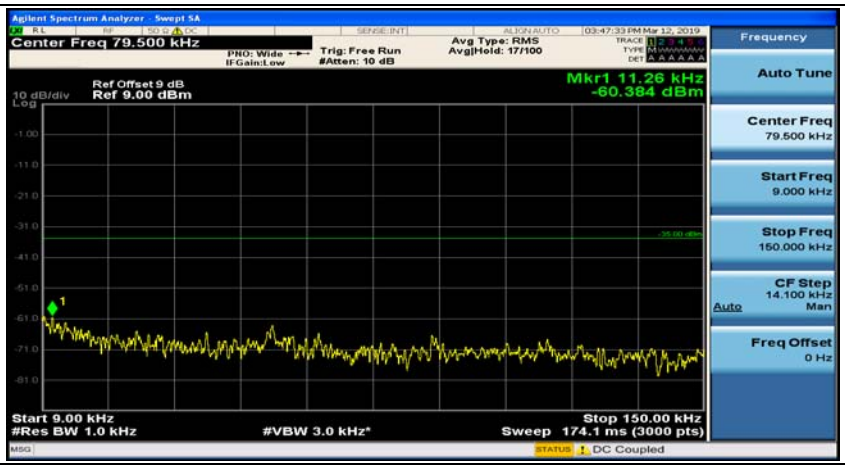
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74

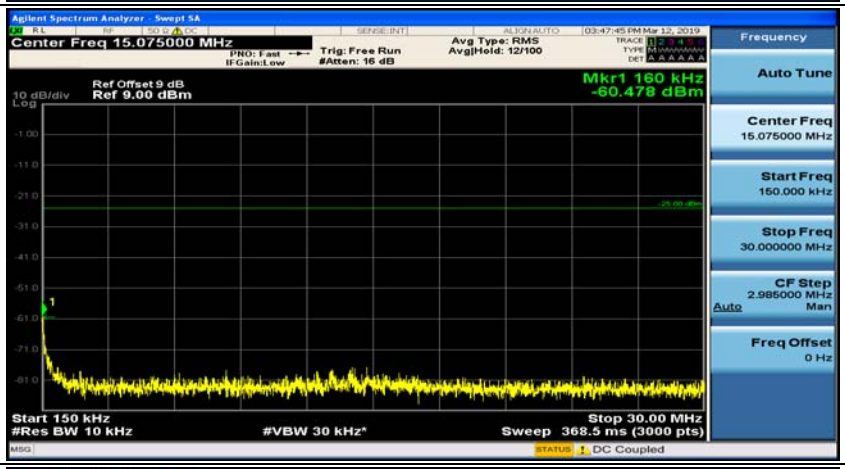

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:45:25 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 12.34 kHz
-59.997 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:45:37 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-59.233 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

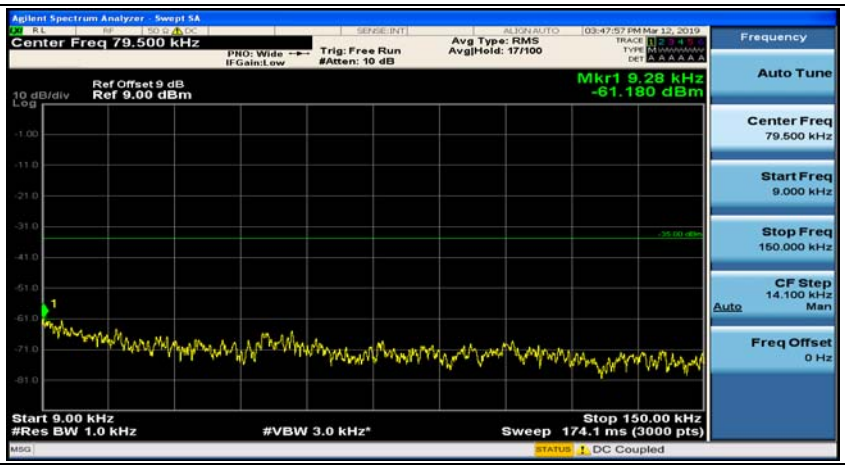

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:45:43 PM Mar 12, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.688 GHz
-45.922 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

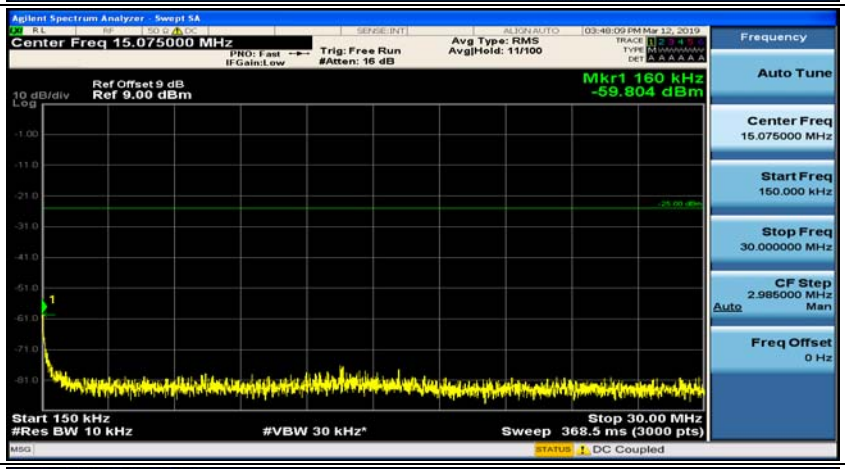
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

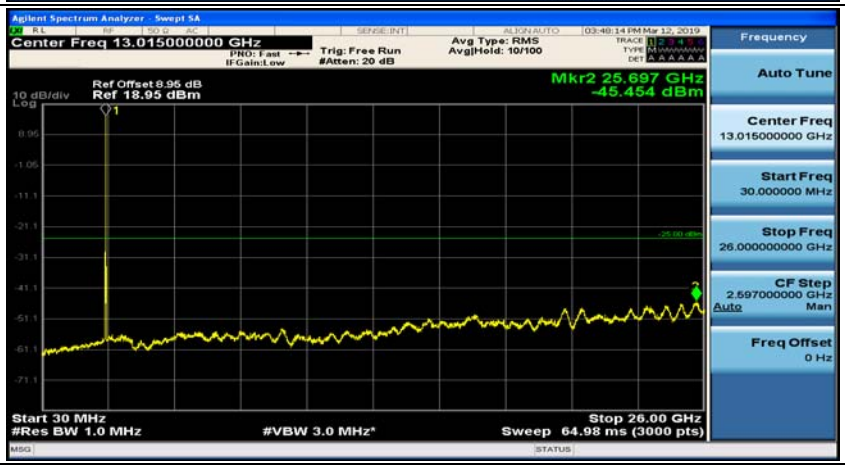


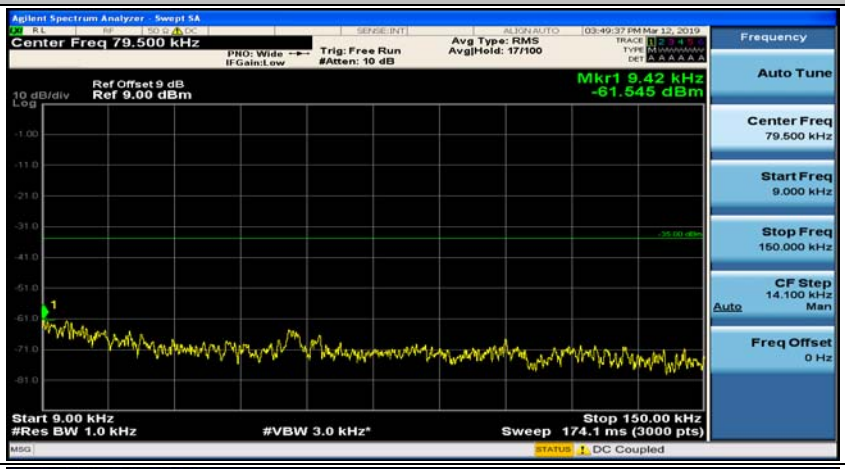
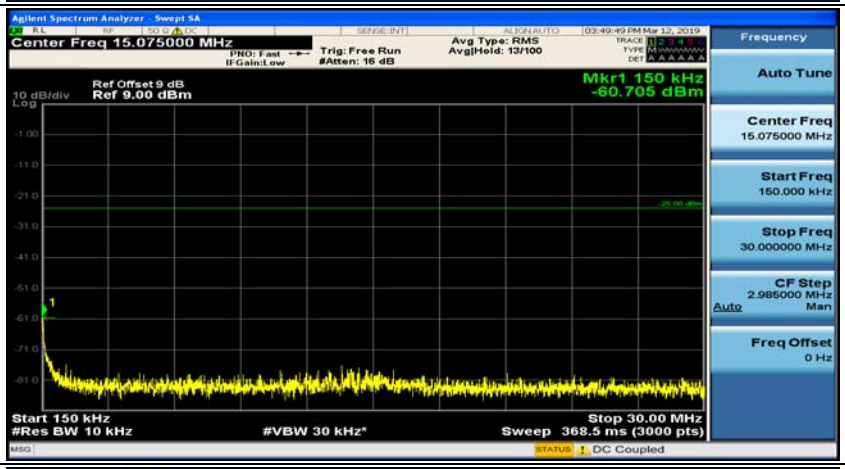
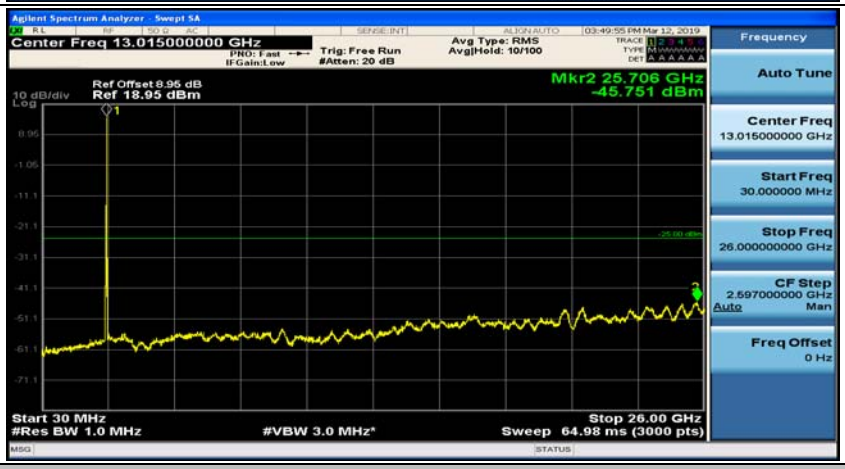


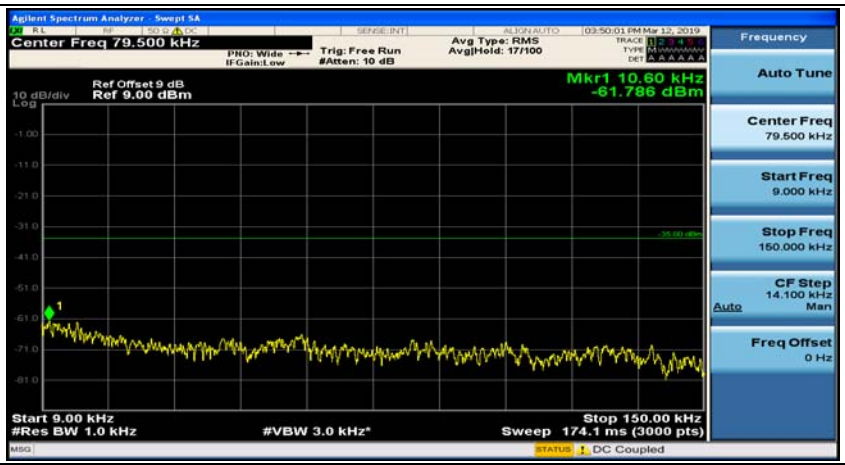
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

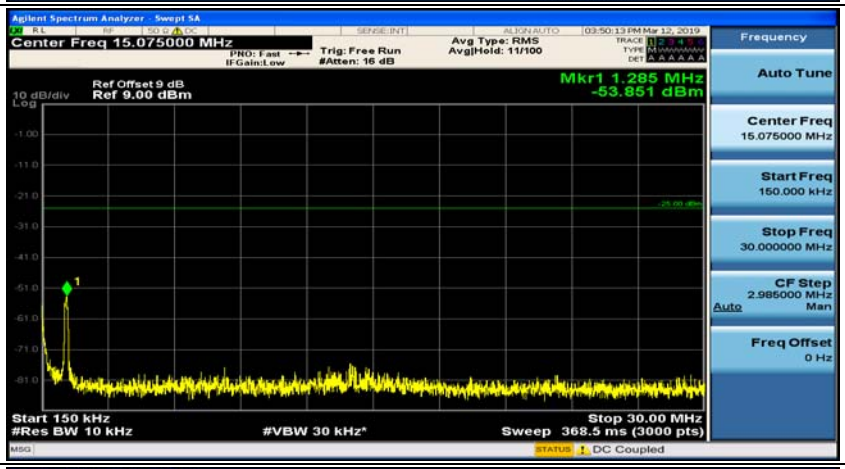

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:47:57 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.28 kHz
-61.180 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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: 11/100
03:48:09 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 160 kHz
-59.804 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

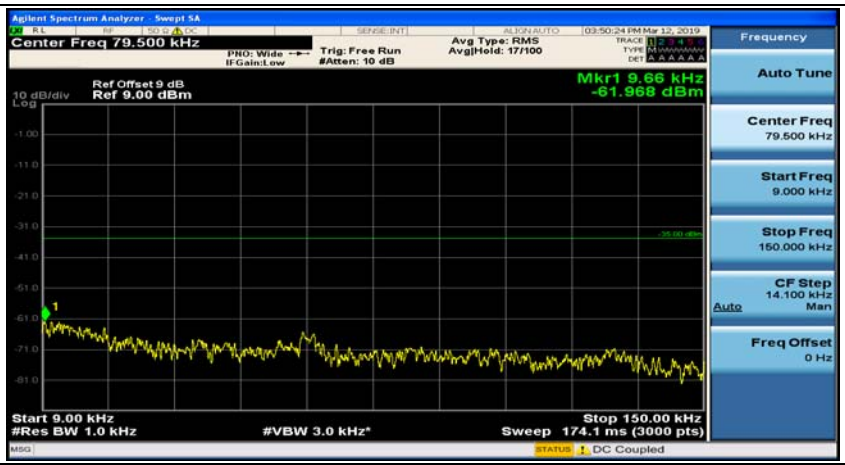

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:48:14 PM Mar 12, 2019
Frequency
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.697 GHz
-45.454 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start 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)

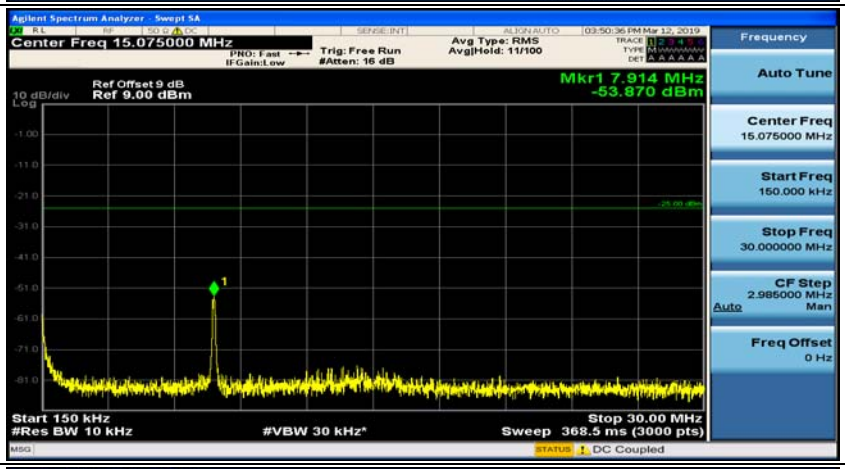
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

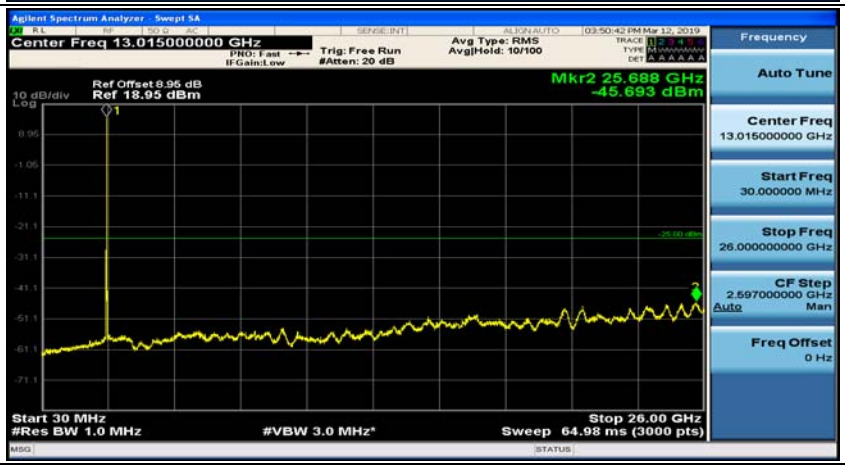




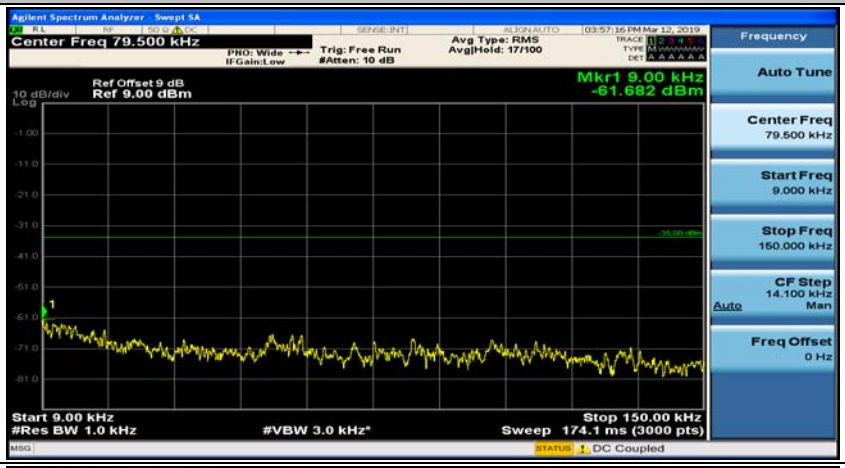
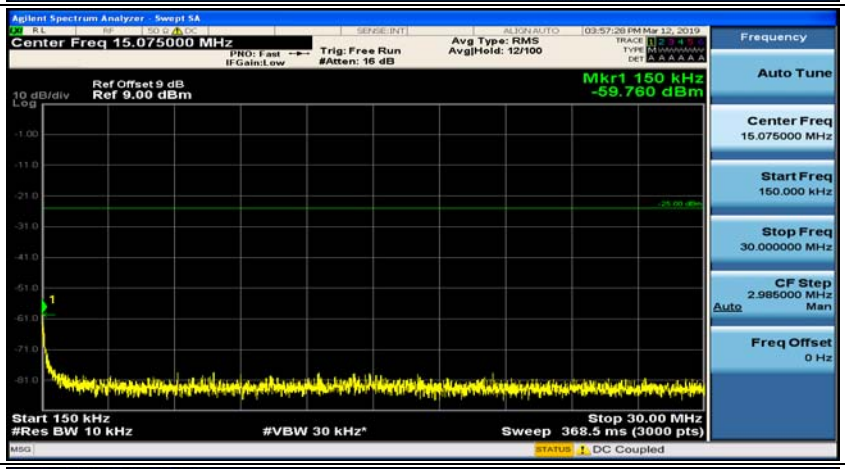
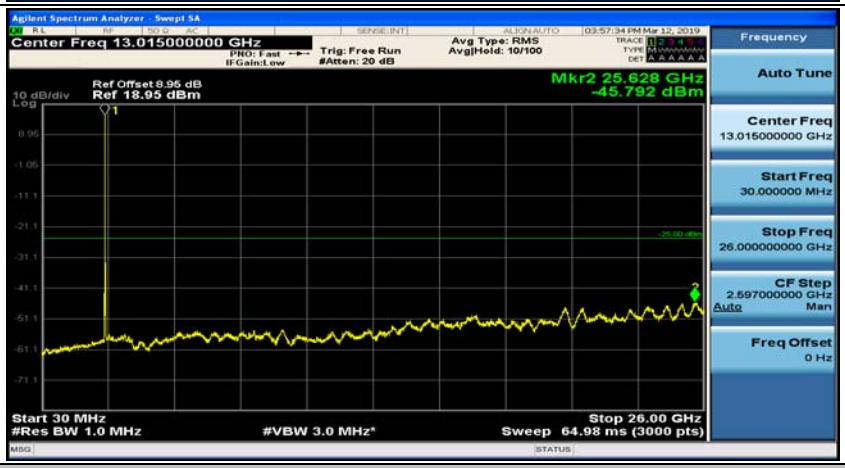
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

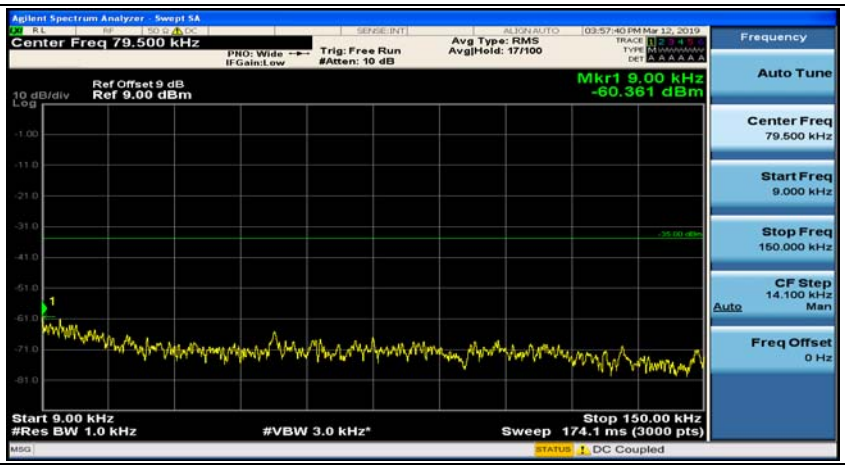

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:50:24 PM Mar 12, 2019
Frequency
Auto Tune
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.66 kHz
-61.968 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

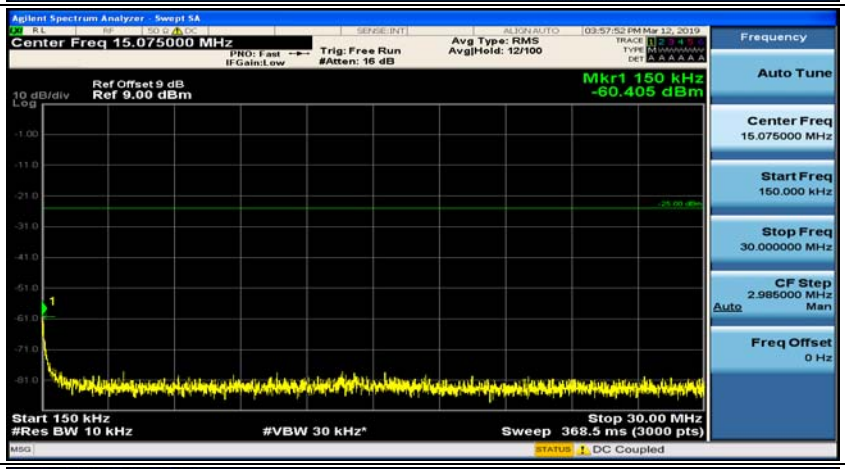

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:50:36 PM Mar 12, 2019
Frequency
Auto Tune
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 7.914 MHz
-53.870 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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

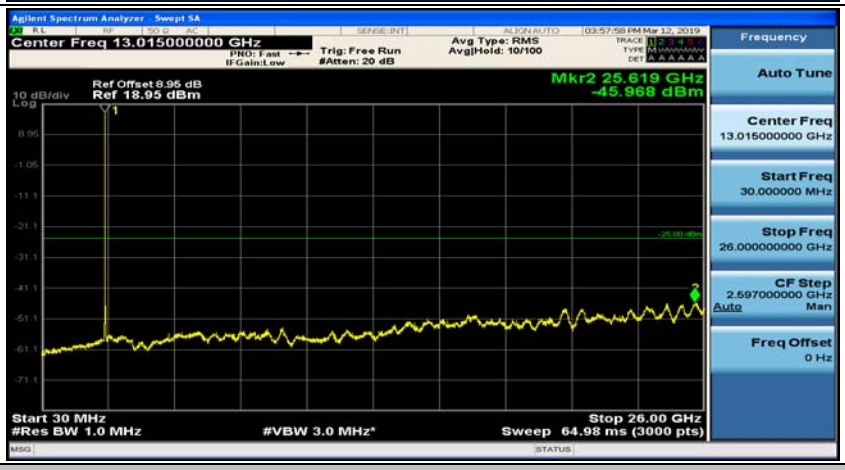

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:50:42 PM Mar 12, 2019
Frequency
Auto Tune
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.688 GHz
-45.693 dBm
Center Freq
13.015000000 GHz
Start 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: 20 MHz

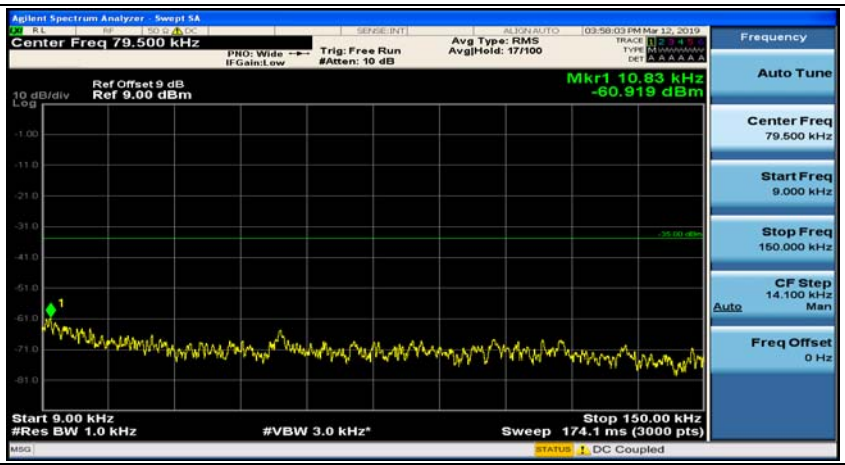
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49

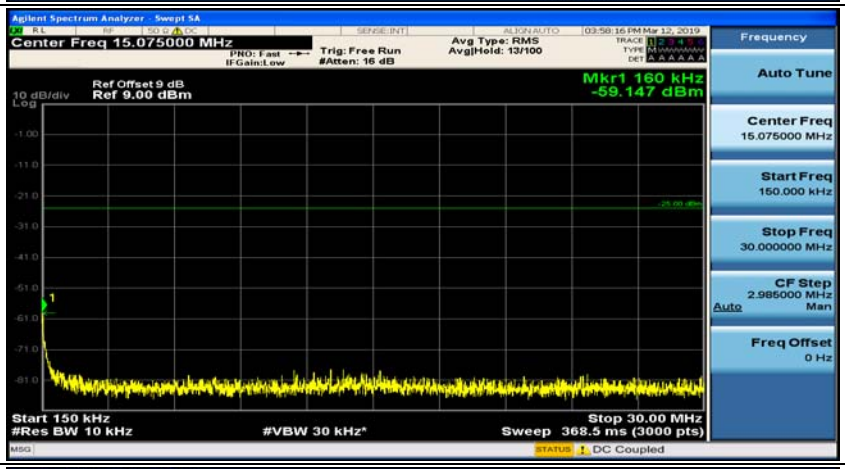


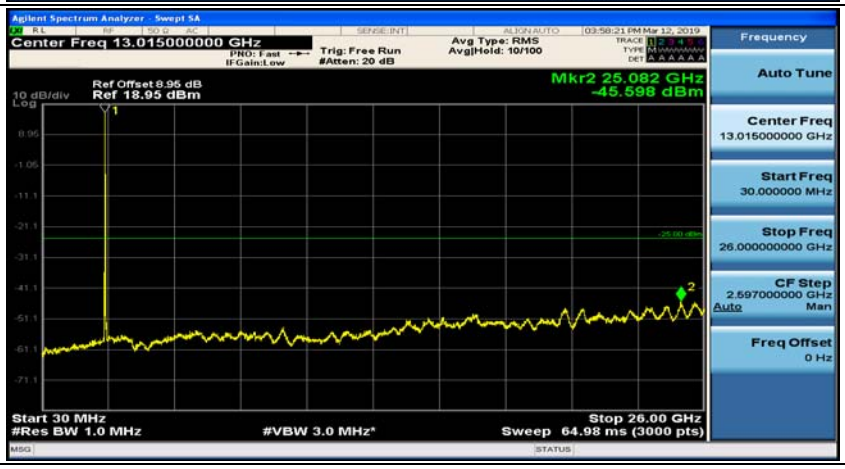




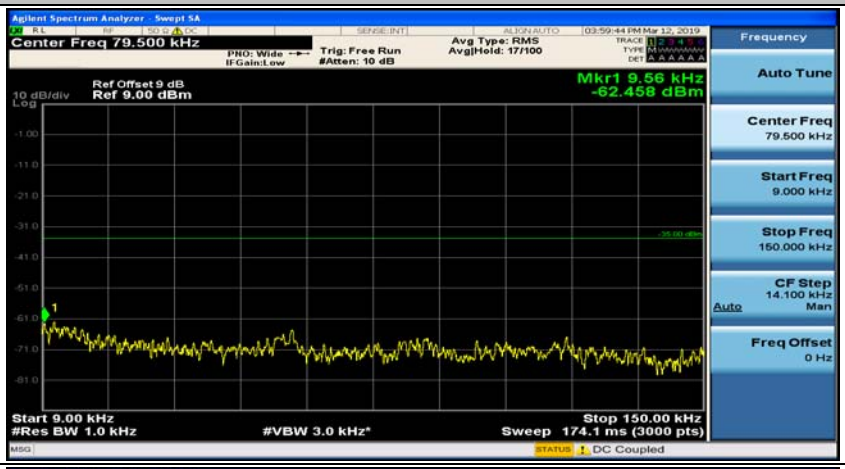
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

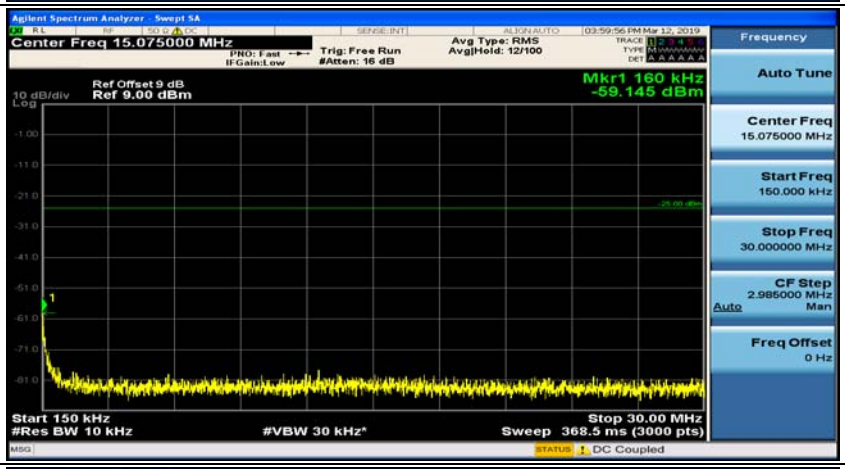

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:58:03 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 10.83 kHz
-60.919 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

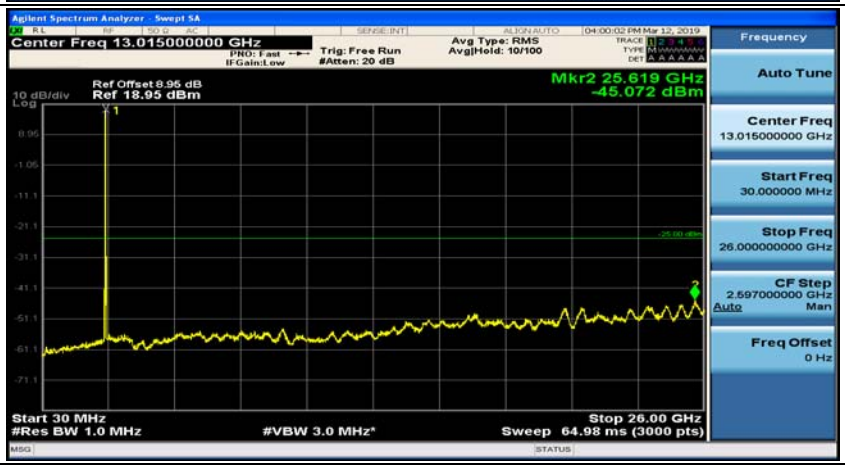

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
03:58:16 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 160 kHz
-59.147 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:58:21 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.082 GHz
-45.598 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 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)

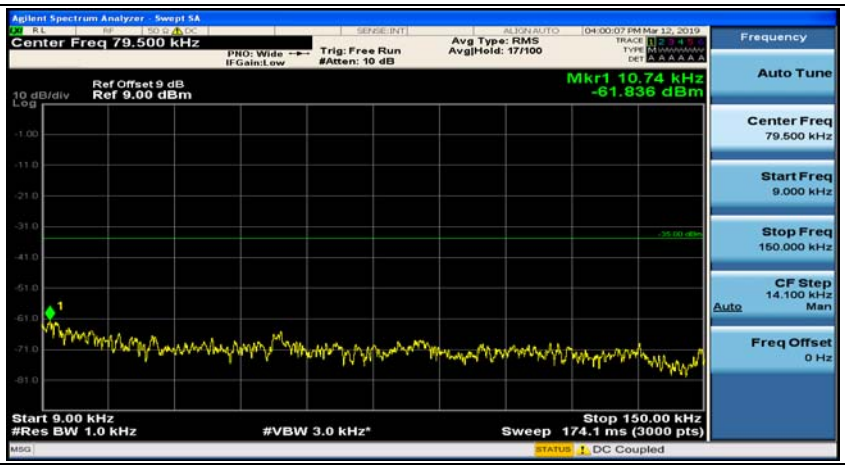
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

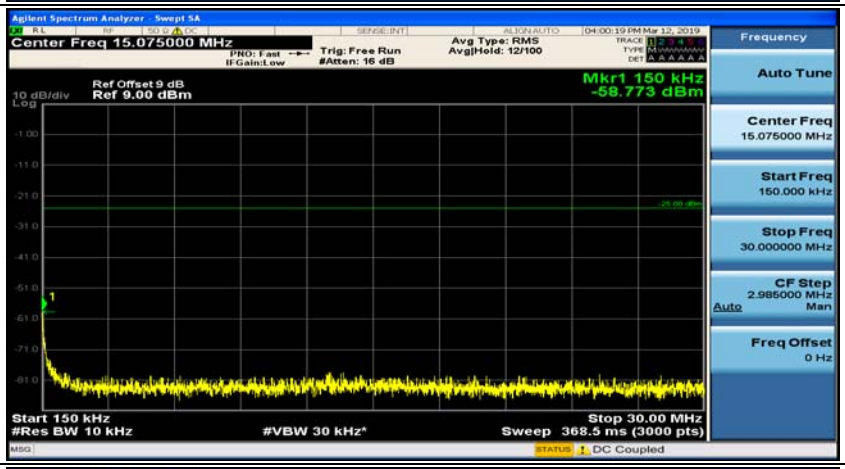




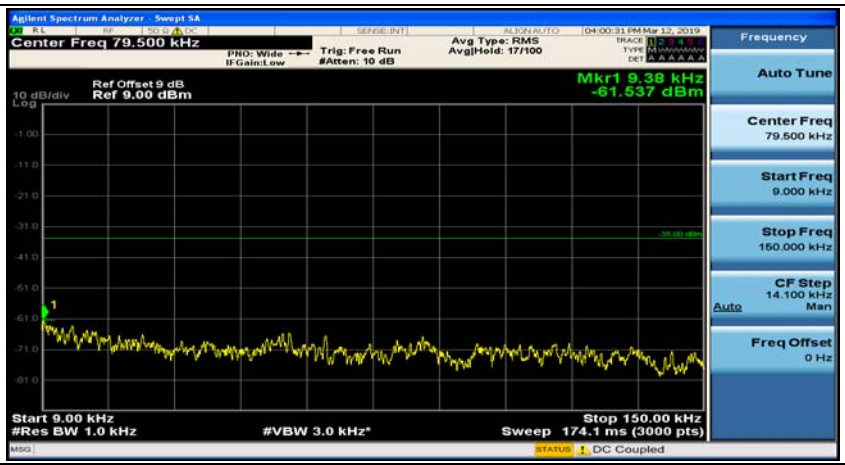


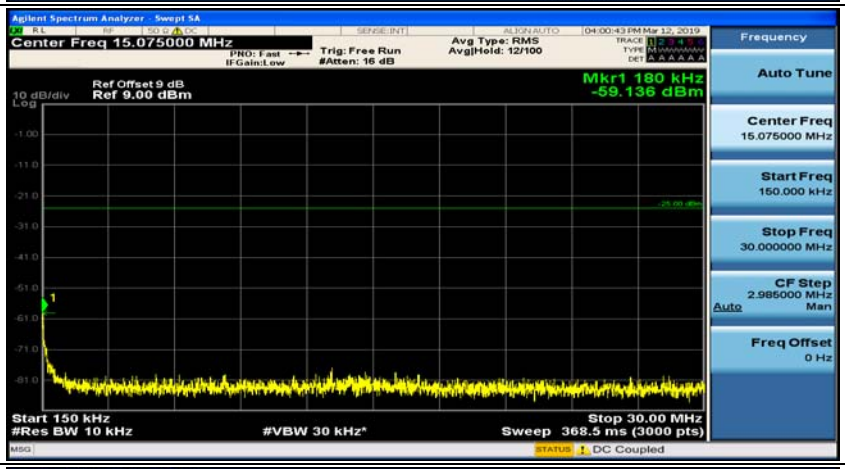
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

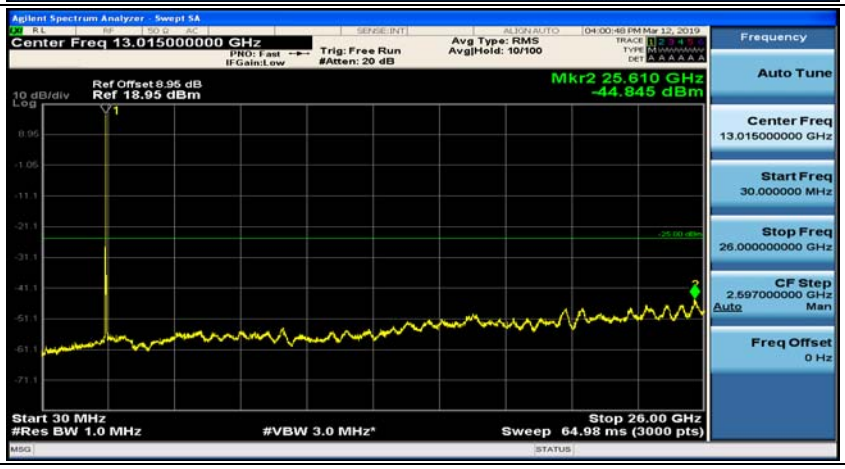


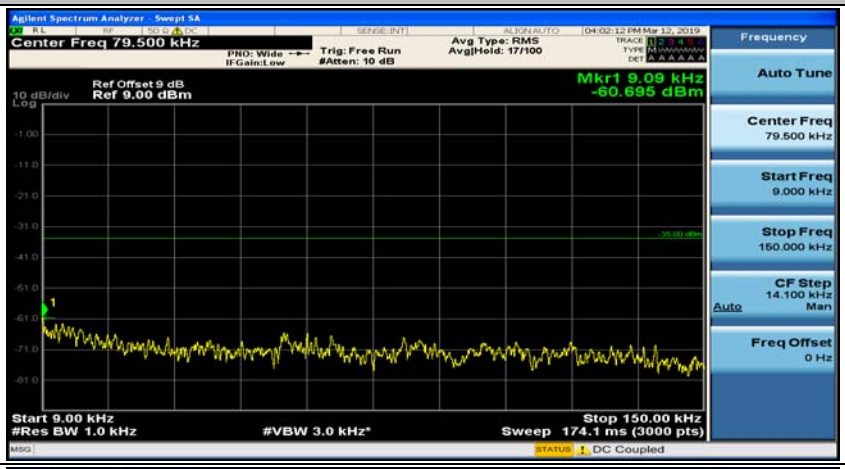
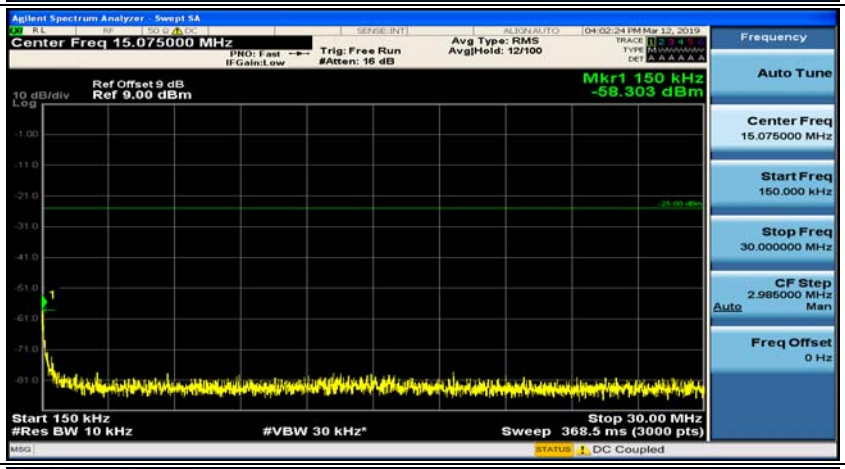
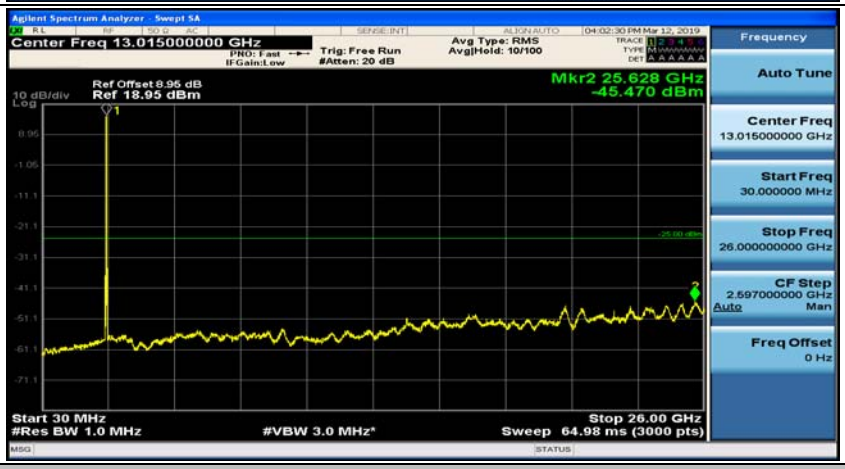


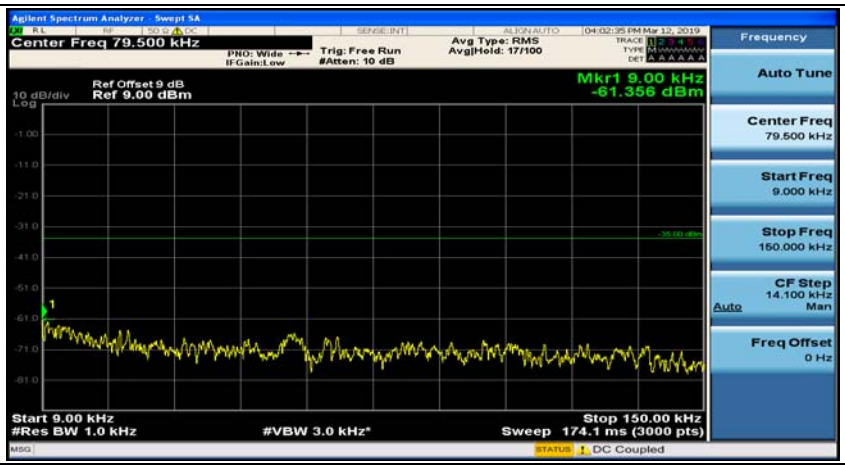
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

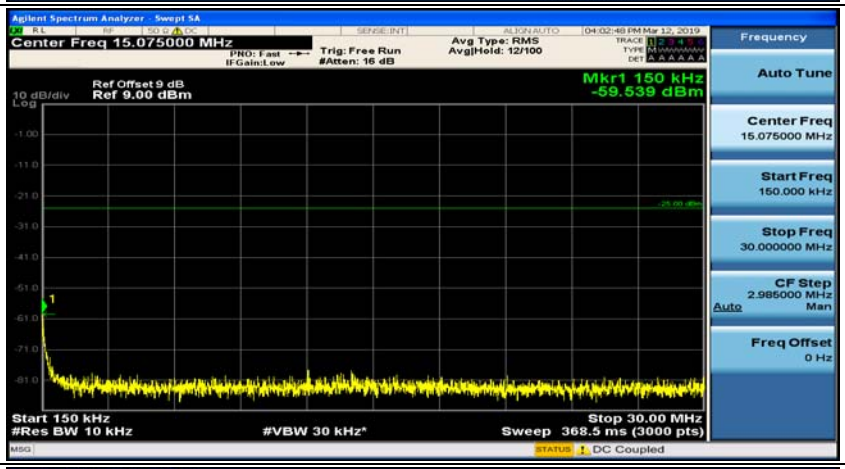

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:00:31 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 9.38 kHz
-61.537 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

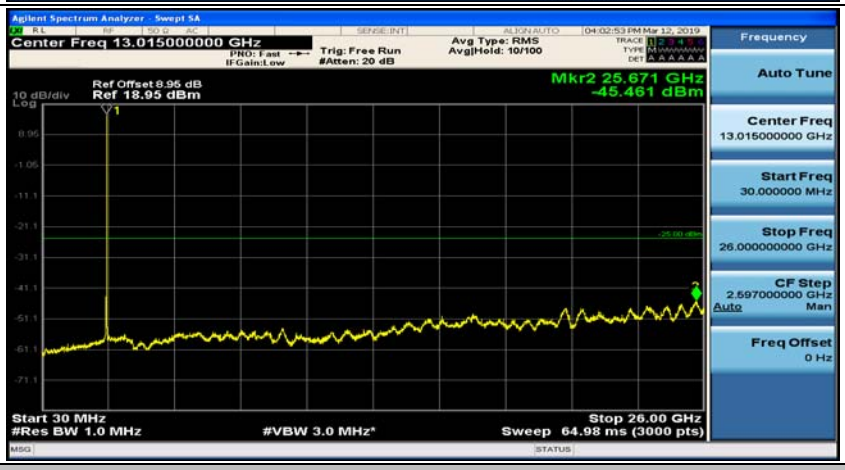

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
04:00:43 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 180 kHz
-59.136 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
04:00:48 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.610 GHz
-44.845 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 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)

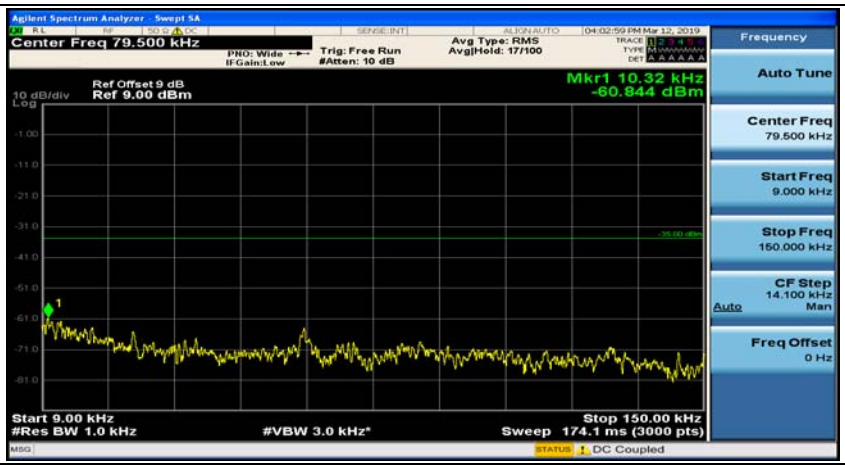
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

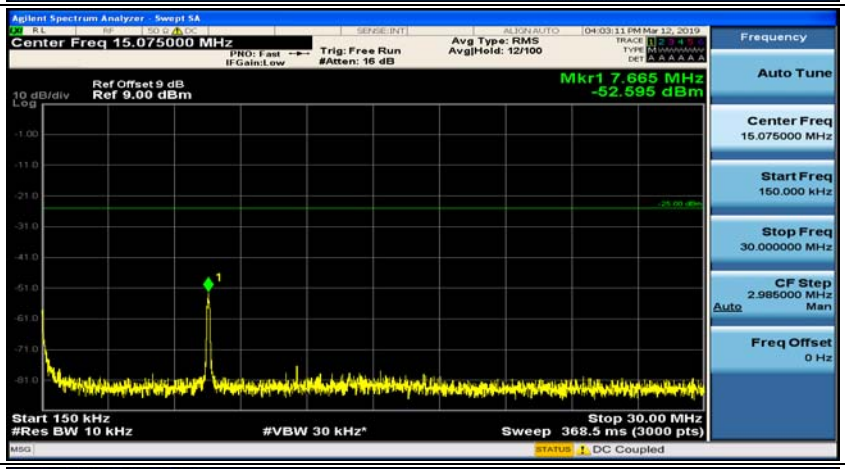


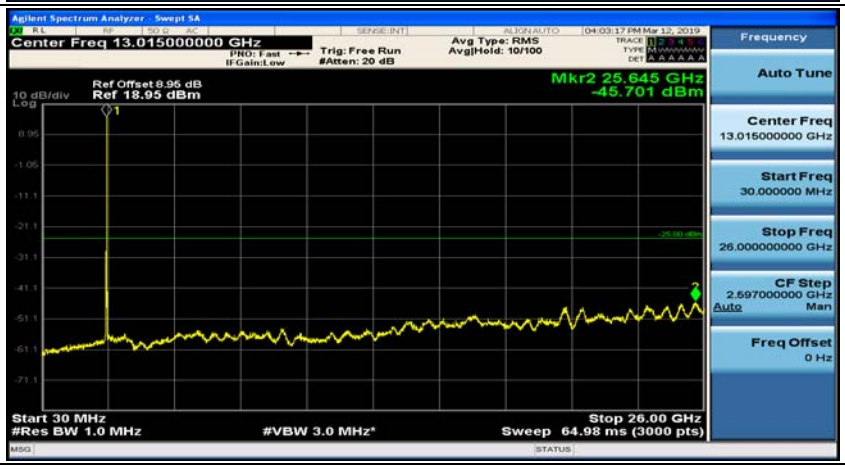


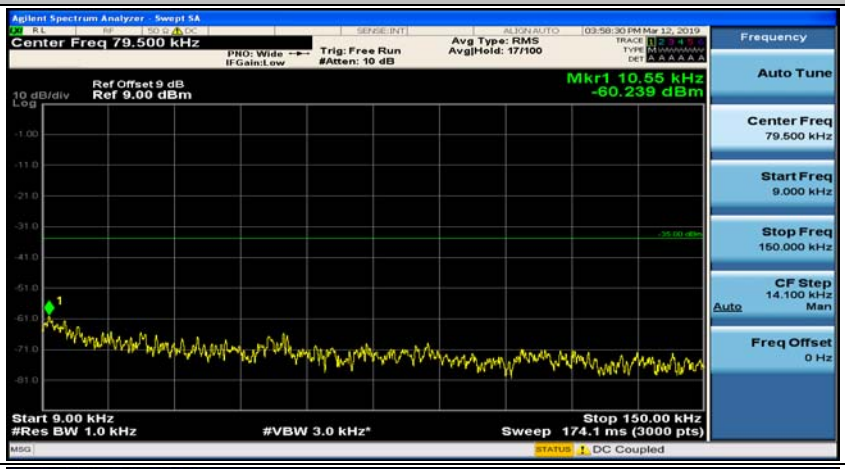
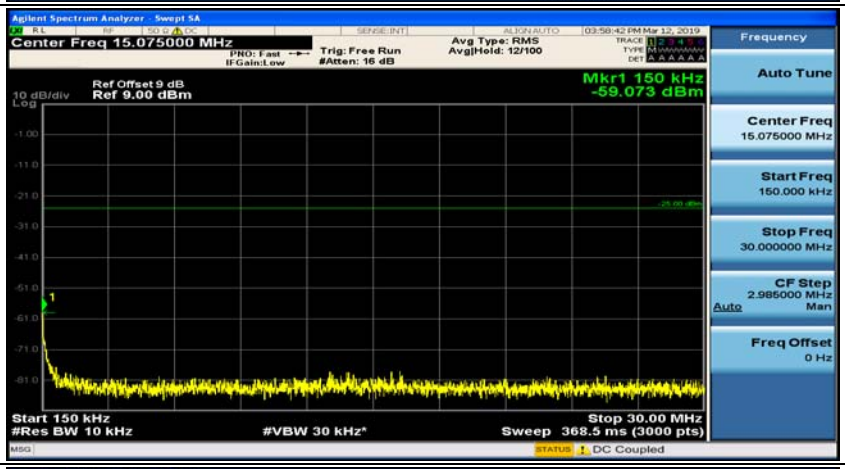
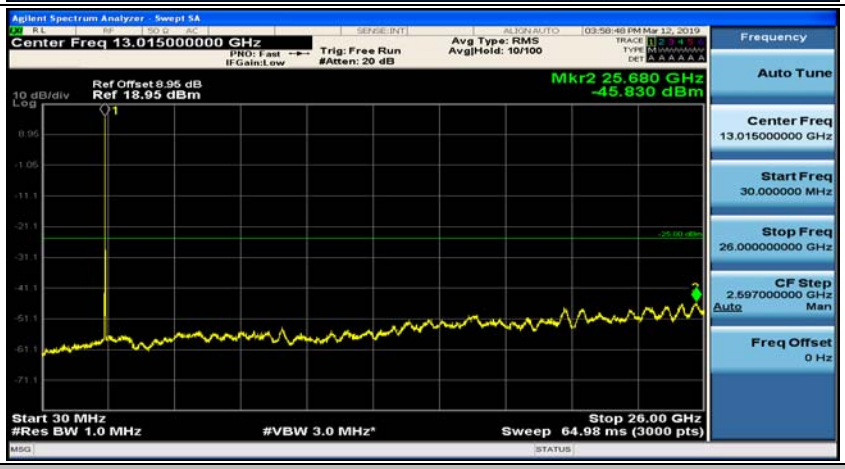


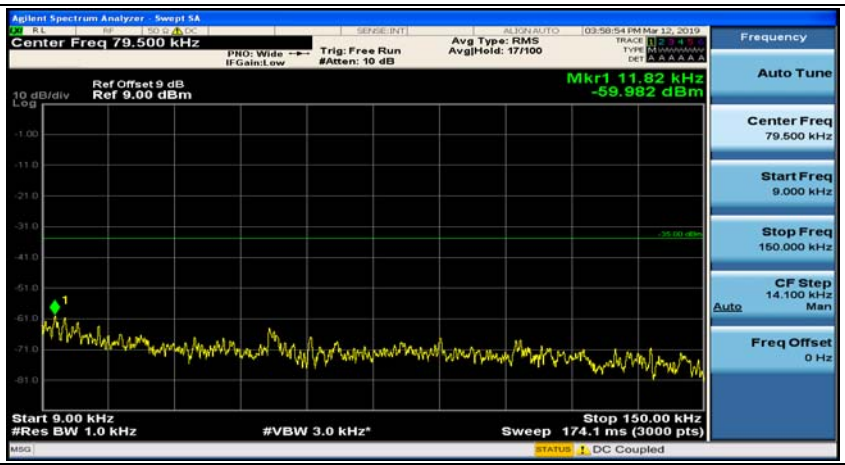
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

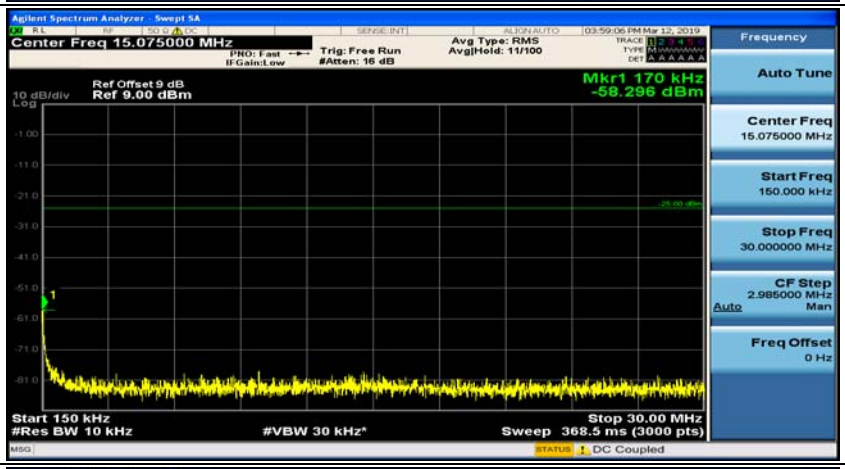

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:02:59 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 10.32 kHz
-60.844 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

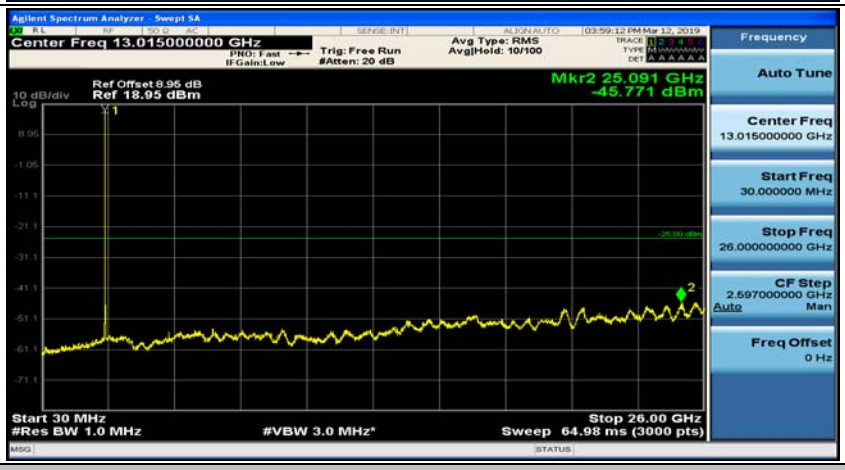

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
04:03:11 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 7.665 MHz
-52.595 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
04:03:17 PM Mar 12, 2019
Frequency
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.645 GHz
-45.701 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)

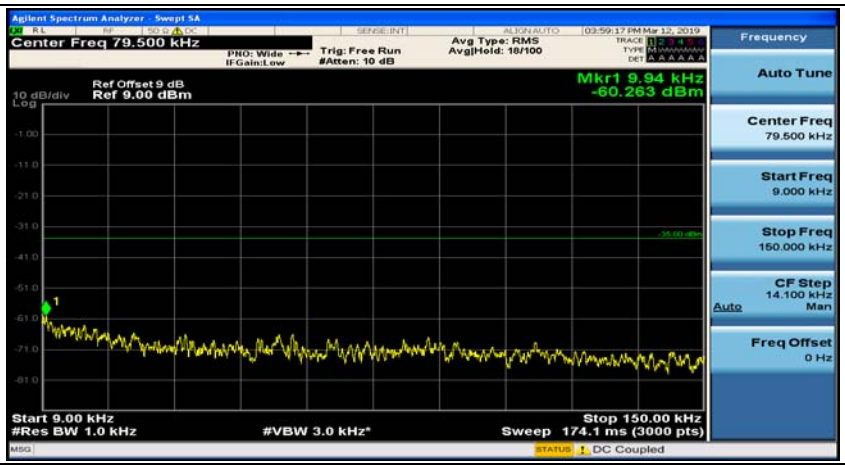
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

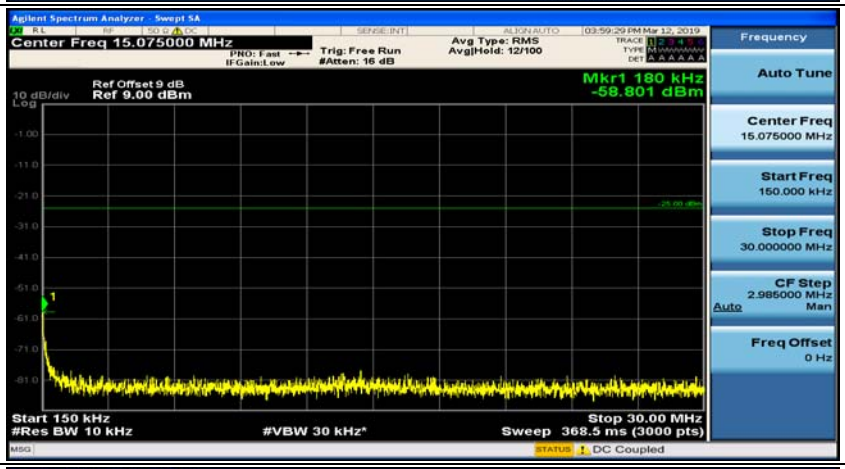


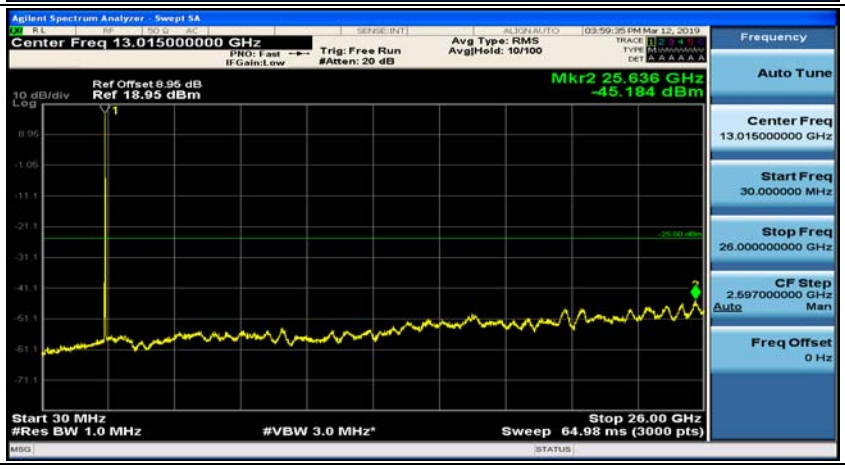


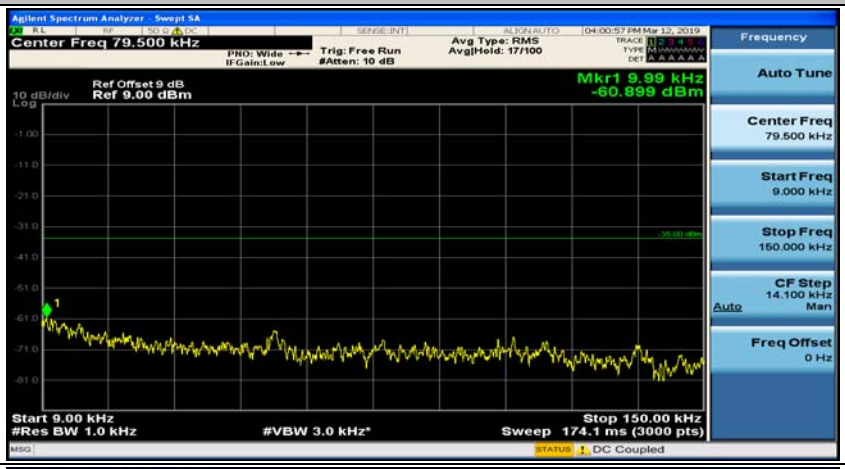
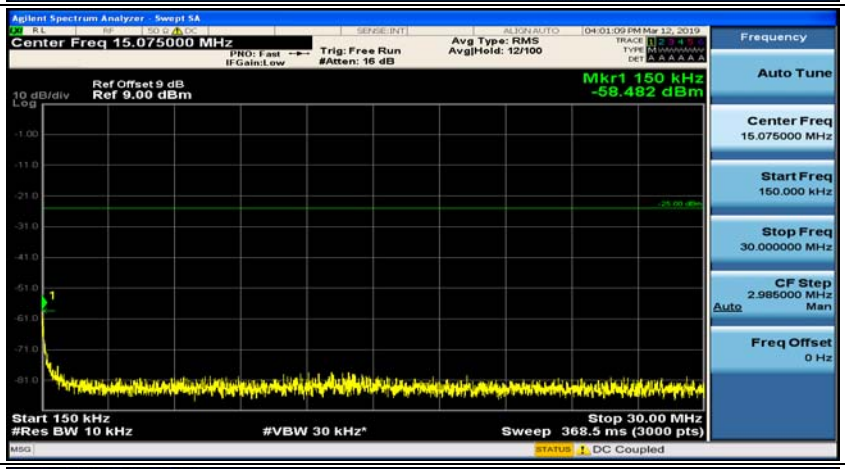
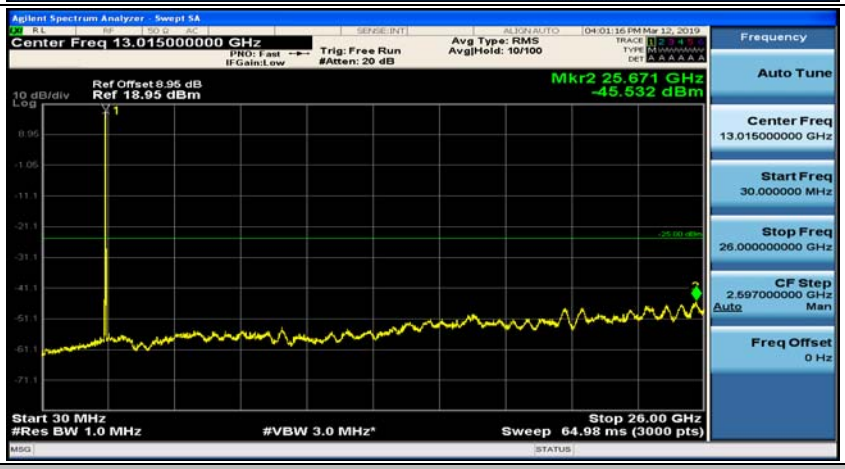


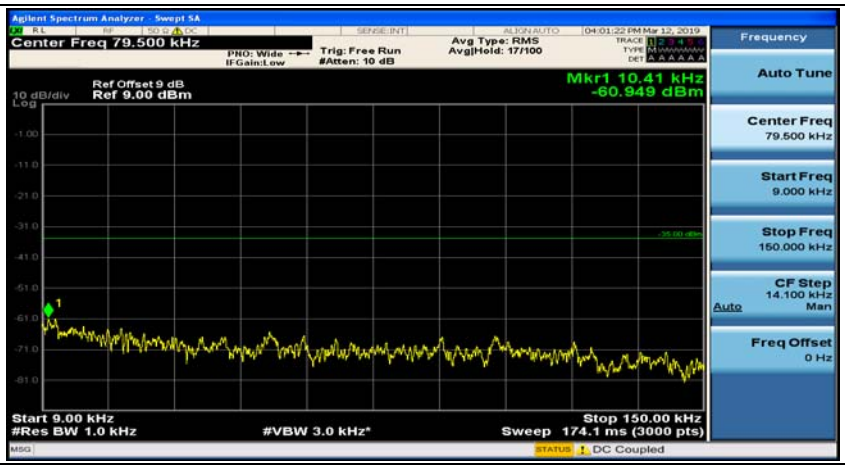
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99

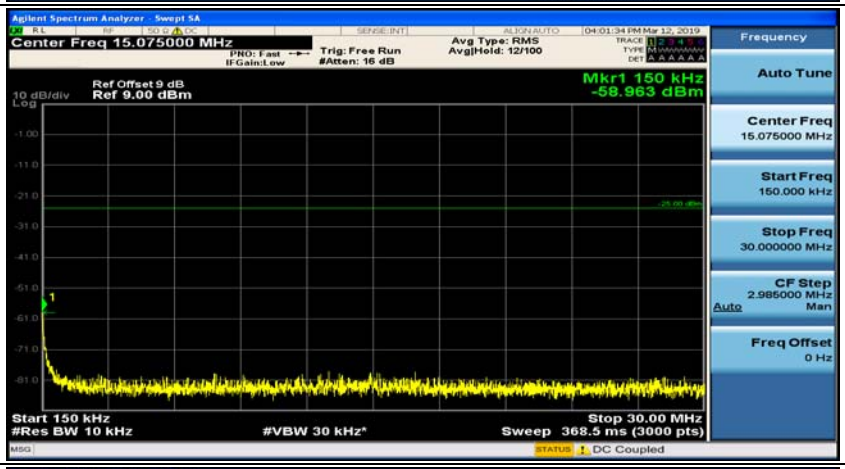

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 18/100
03:59:17 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.94 kHz
-60.263 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

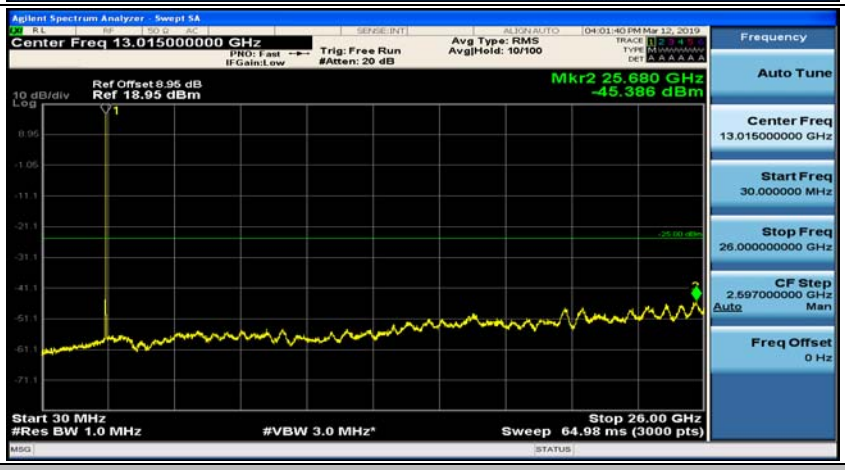

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:59:29 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 180 kHz
-58.801 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
03:59:35 PM Mar 12, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.636 GHz
-45.184 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

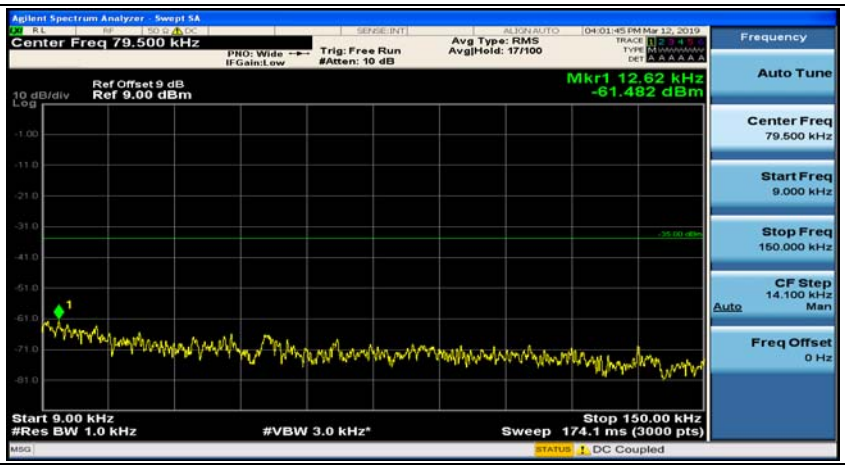
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

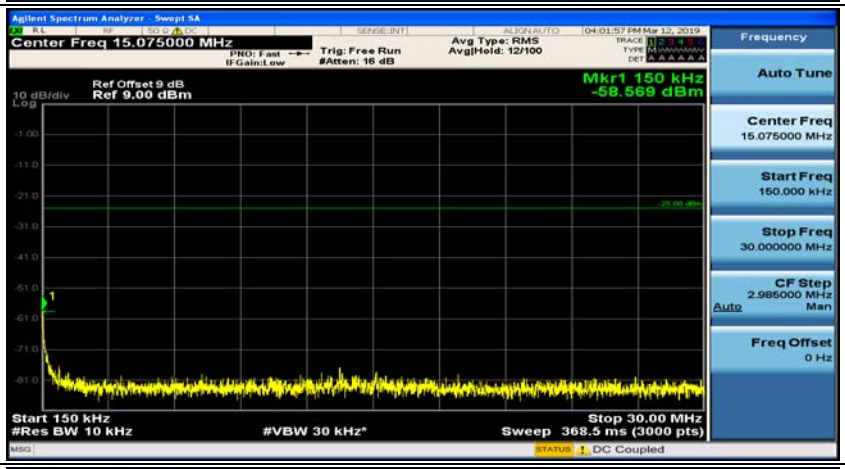


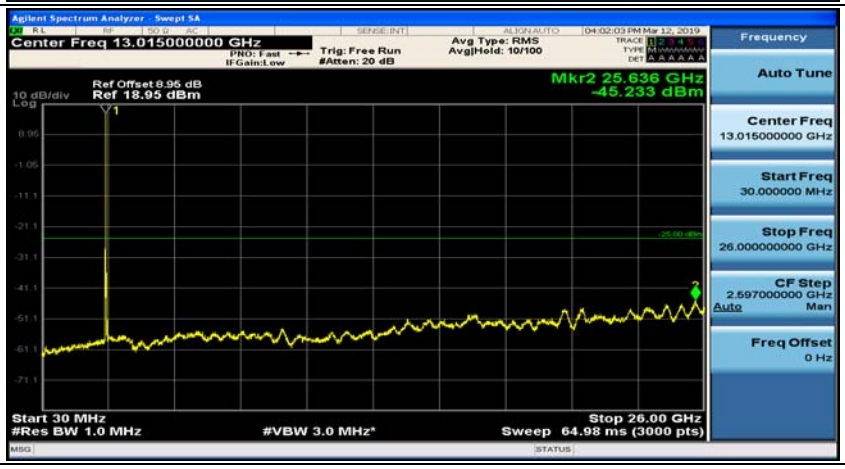


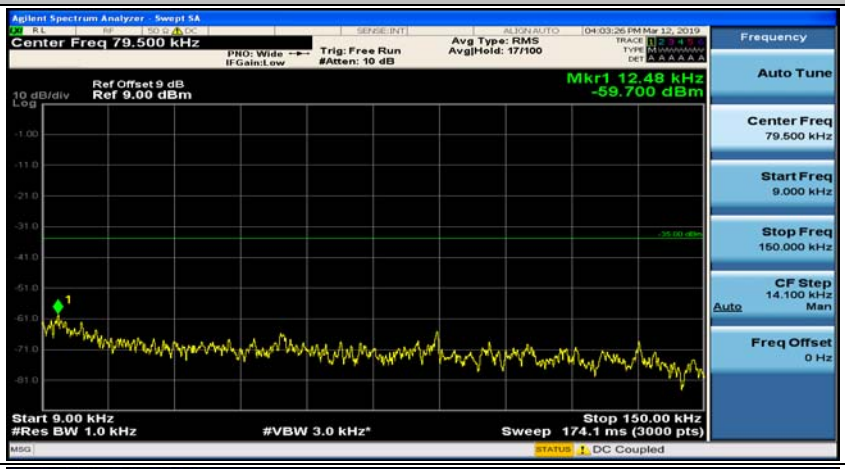
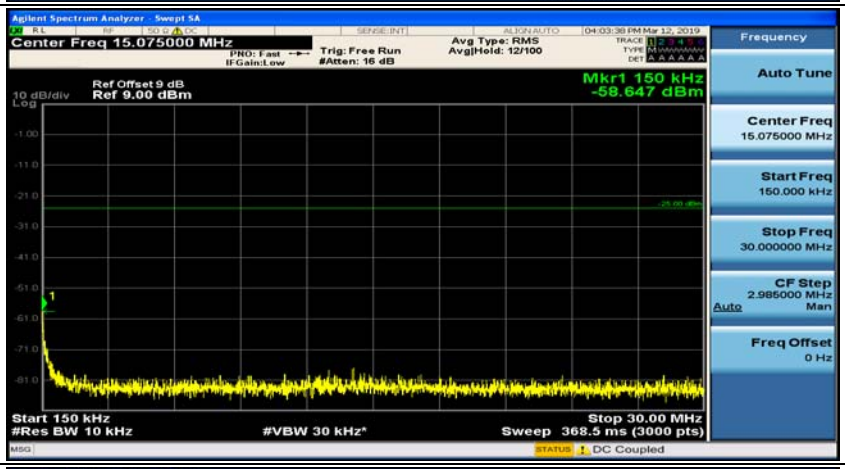
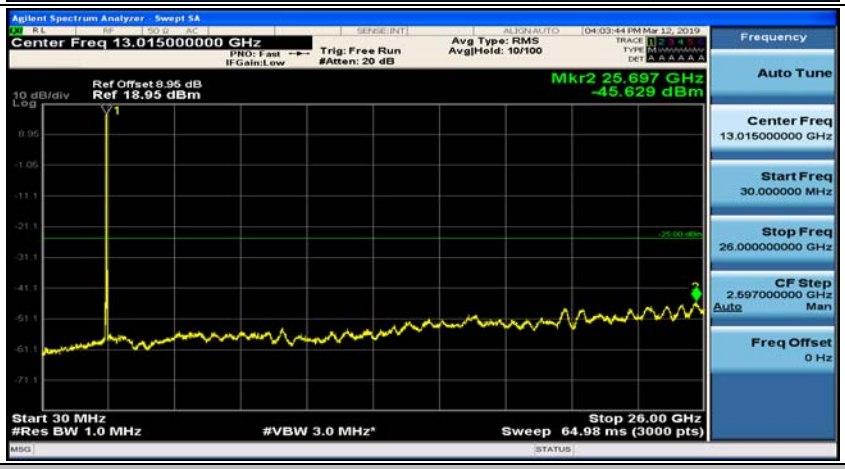


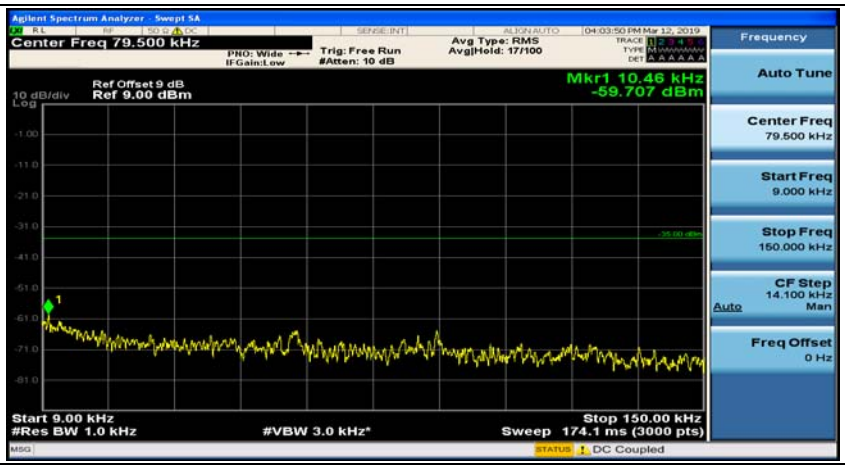
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

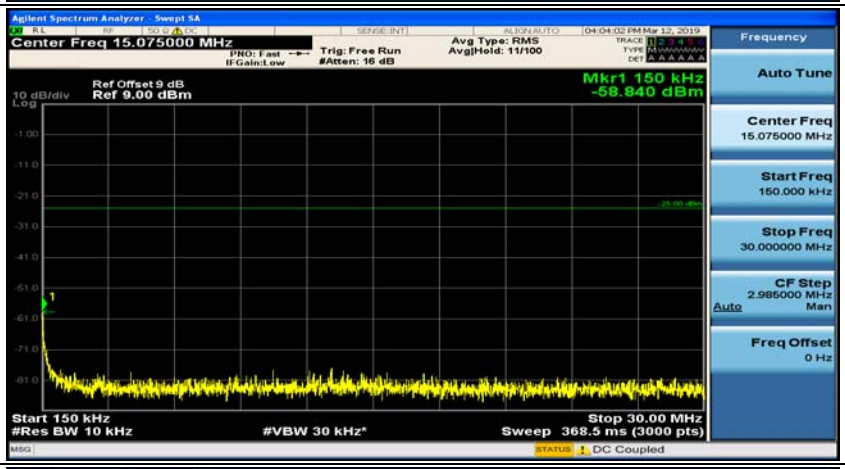

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:01:45 PM Mar 12, 2019
Frequency
Mkr1 12.62 kHz
-61.482 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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: 12/100
04:01:57 PM Mar 12, 2019
Frequency
Mkr1 150 kHz
-58.569 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 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

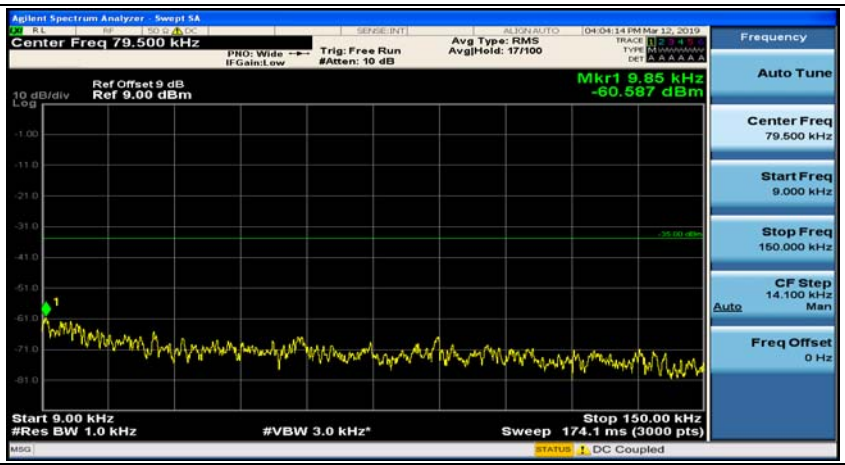

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
04:02:03 PM Mar 12, 2019
Frequency
Mkr2 25.636 GHz
-45.233 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Auto Tune
Center Freq
13.015000000 GHz
Start 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)

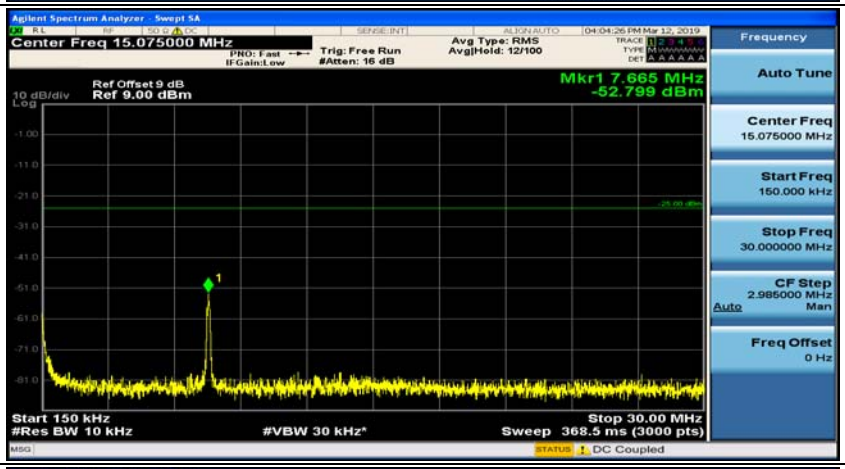
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49

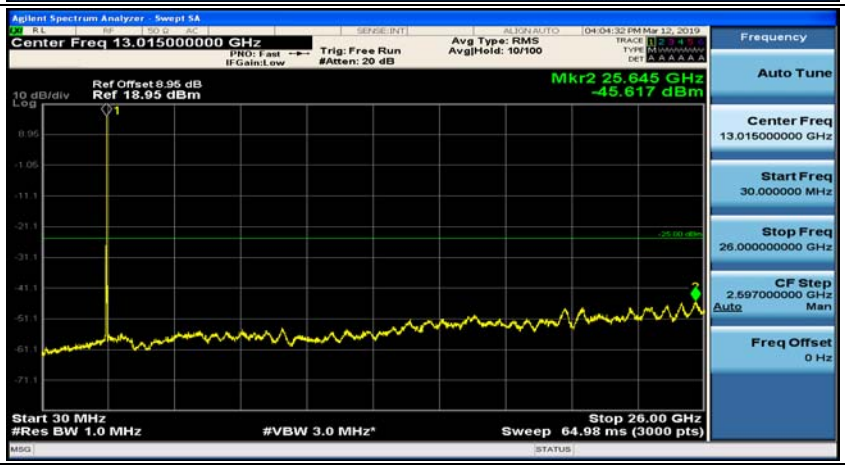




(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:04:14 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 9.85 kHz
-60.587 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: 12/100
04:04:26 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 7.665 MHz
-52.799 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: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
04:04:32 PM Mar 12, 2019
Frequency
Ref Offset 8.95 dB
10 dB/div
Log
Ref 18.95 dBm
Mkr2 25.645 GHz
-45.617 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: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.97	0.001187	± 2.5	PASS
		VN	TN	3.61	0.001443	± 2.5	PASS
		VH	TN	1.21	0.000484	± 2.5	PASS
	MCH	VL	TN	1.91	0.000753	± 2.5	PASS
		VN	TN	-1.88	-0.000742	± 2.5	PASS
		VH	TN	3.47	0.001369	± 2.5	PASS
	HCH	VL	TN	4.8	0.001870	± 2.5	PASS
		VN	TN	4.78	0.001862	± 2.5	PASS
		VH	TN	3.78	0.001472	± 2.5	PASS
16QAM	LCH	VL	TN	2.89	0.001155	± 2.5	PASS
		VN	TN	-0.76	-0.000304	± 2.5	PASS
		VH	TN	0.19	0.000076	± 2.5	PASS
	MCH	VL	TN	2.08	0.000821	± 2.5	PASS
		VN	TN	4.05	0.001598	± 2.5	PASS
		VH	TN	1.12	0.000442	± 2.5	PASS
	HCH	VL	TN	3.66	0.001426	± 2.5	PASS
		VN	TN	2.8	0.001091	± 2.5	PASS
		VH	TN	-1.9	-0.000740	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.05	-0.000020	± 2.5	PASS
		VN	-20	4.7	0.001878	± 2.5	PASS
		VN	-10	2.44	0.000975	± 2.5	PASS
		VN	0	-1.53	-0.000611	± 2.5	PASS
		VN	10	-1.01	-0.000404	± 2.5	PASS
		VN	20	0.75	0.000300	± 2.5	PASS
		VN	30	-1.76	-0.000703	± 2.5	PASS
		VN	40	1.59	0.000635	± 2.5	PASS
		VN	50	3.74	0.001495	± 2.5	PASS
	MCH	VN	-30	2.66	0.001049	± 2.5	PASS

		VN	-20	0.3	0.000118	± 2.5	PASS
		VN	-10	2.41	0.000951	± 2.5	PASS
		VN	0	2.05	0.000809	± 2.5	PASS
		VN	10	3.2	0.001262	± 2.5	PASS
		VN	20	1.34	0.000529	± 2.5	PASS
		VN	30	4.48	0.001767	± 2.5	PASS
		VN	40	-0.8	-0.000316	± 2.5	PASS
		VN	50	3.6	0.001420	± 2.5	PASS
	HCH	VN	-30	1.67	0.000650	± 2.5	PASS
		VN	-20	1.79	0.000697	± 2.5	PASS
		VN	-10	4.31	0.001679	± 2.5	PASS
		VN	0	1.65	0.000643	± 2.5	PASS
		VN	10	-0.4	-0.000156	± 2.5	PASS
		VN	20	4.84	0.001885	± 2.5	PASS
		VN	30	-0.53	-0.000206	± 2.5	PASS
		VN	40	0.07	0.000027	± 2.5	PASS
		VN	50	-0.24	-0.000093	± 2.5	PASS
16QAM	LCH	VN	-30	2.28	0.000911	± 2.5	PASS
		VN	-20	2.91	0.001163	± 2.5	PASS
		VN	-10	1.56	0.000623	± 2.5	PASS
		VN	0	3.28	0.001311	± 2.5	PASS
		VN	10	3.41	0.001363	± 2.5	PASS
		VN	20	2.49	0.000995	± 2.5	PASS
		VN	30	-0.71	-0.000284	± 2.5	PASS
		VN	40	-1.11	-0.000444	± 2.5	PASS
		VN	50	3.14	0.001255	± 2.5	PASS
	MCH	VN	-30	3.94	0.001554	± 2.5	PASS
		VN	-20	-0.17	-0.000067	± 2.5	PASS
		VN	-10	-0.9	-0.000355	± 2.5	PASS
		VN	0	4.07	0.001606	± 2.5	PASS
		VN	10	0.93	0.000367	± 2.5	PASS
		VN	20	-0.97	-0.000383	± 2.5	PASS
		VN	30	3.67	0.001448	± 2.5	PASS
		VN	40	3.05	0.001203	± 2.5	PASS
		VN	50	0.03	0.000012	± 2.5	PASS
	HCH	VN	-30	-0.07	-0.000027	± 2.5	PASS
		VN	-20	-0.69	-0.000269	± 2.5	PASS
		VN	-10	-0.28	-0.000109	± 2.5	PASS
		VN	0	2.33	0.000907	± 2.5	PASS
		VN	10	0.52	0.000203	± 2.5	PASS
		VN	20	1.87	0.000728	± 2.5	PASS

		VN	30	-0.28	-0.000109	± 2.5	PASS
		VN	40	4.22	0.001644	± 2.5	PASS
		VN	50	3.29	0.001281	± 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	3.47	0.001385	± 2.5	PASS
		VN	TN	1.77	0.000707	± 2.5	PASS
		VH	TN	2.7	0.001078	± 2.5	PASS
	MCH	VL	TN	-0.34	-0.000134	± 2.5	PASS
		VN	TN	-1.45	-0.000572	± 2.5	PASS
		VH	TN	0.34	0.000134	± 2.5	PASS
	HCH	VL	TN	1.76	0.000686	± 2.5	PASS
		VN	TN	0.97	0.000378	± 2.5	PASS
		VH	TN	1.54	0.000600	± 2.5	PASS
16QAM	LCH	VL	TN	3.19	0.001273	± 2.5	PASS
		VN	TN	3.48	0.001389	± 2.5	PASS
		VH	TN	2.95	0.001178	± 2.5	PASS
	MCH	VL	TN	0.03	0.000012	± 2.5	PASS
		VN	TN	3.88	0.001531	± 2.5	PASS
		VH	TN	3.42	0.001349	± 2.5	PASS
	HCH	VL	TN	1	0.000390	± 2.5	PASS
		VN	TN	3.06	0.001193	± 2.5	PASS
		VH	TN	0.55	0.000214	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	4.51	0.001800	± 2.5	PASS
		VN	-20	-0.3	-0.000120	± 2.5	PASS
		VN	-10	-0.48	-0.000192	± 2.5	PASS
		VN	0	-0.27	-0.000108	± 2.5	PASS
		VN	10	-0.58	-0.000232	± 2.5	PASS
		VN	20	0.96	0.000383	± 2.5	PASS
		VN	30	-1.92	-0.000766	± 2.5	PASS
		VN	40	-1.38	-0.000551	± 2.5	PASS
		VN	50	-1.2	-0.000479	± 2.5	PASS
	MCH	VN	-30	1.4	0.000552	± 2.5	PASS
		VN	-20	2.03	0.000801	± 2.5	PASS

		VN	-10	4.71	0.001858	± 2.5	PASS
		VN	0	0.32	0.000126	± 2.5	PASS
		VN	10	2.62	0.001034	± 2.5	PASS
		VN	20	0.44	0.000174	± 2.5	PASS
		VN	30	-1.79	-0.000706	± 2.5	PASS
		VN	40	-0.43	-0.000170	± 2.5	PASS
		VN	50	2.46	0.000970	± 2.5	PASS
	HCH	VN	-30	3.92	0.001528	± 2.5	PASS
		VN	-20	-1.92	-0.000749	± 2.5	PASS
		VN	-10	-0.62	-0.000242	± 2.5	PASS
		VN	0	2.67	0.001041	± 2.5	PASS
		VN	10	4.32	0.001684	± 2.5	PASS
		VN	20	3.9	0.001520	± 2.5	PASS
		VN	30	0.87	0.000339	± 2.5	PASS
		VN	40	4.65	0.001813	± 2.5	PASS
		VN	50	-0.36	-0.000140	± 2.5	PASS
QPSK	LCH	VN	-30	-0.35	-0.000140	± 2.5	PASS
		VN	-20	1.8	0.000719	± 2.5	PASS
		VN	-10	0.9	0.000359	± 2.5	PASS
		VN	0	2.56	0.001022	± 2.5	PASS
		VN	10	1.1	0.000439	± 2.5	PASS
		VN	20	1.73	0.000691	± 2.5	PASS
		VN	30	-0.56	-0.000224	± 2.5	PASS
		VN	40	0.62	0.000248	± 2.5	PASS
		VN	50	3.71	0.001481	± 2.5	PASS
	MCH	VN	-30	-0.69	-0.000272	± 2.5	PASS
		VN	-20	1.12	0.000442	± 2.5	PASS
		VN	-10	2.98	0.001176	± 2.5	PASS
		VN	0	4.72	0.001862	± 2.5	PASS
		VN	10	-0.85	-0.000335	± 2.5	PASS
		VN	20	0.59	0.000233	± 2.5	PASS
		VN	30	0.81	0.000320	± 2.5	PASS
		VN	40	1.4	0.000552	± 2.5	PASS
		VN	50	0.11	0.000043	± 2.5	PASS
	HCH	VN	-30	0.86	0.000335	± 2.5	PASS
		VN	-20	1.49	0.000581	± 2.5	PASS
		VN	-10	0.68	0.000265	± 2.5	PASS
		VN	0	-0.99	-0.000386	± 2.5	PASS
		VN	10	1.25	0.000487	± 2.5	PASS
		VN	20	-1.54	-0.000600	± 2.5	PASS
		VN	30	2.02	0.000788	± 2.5	PASS

		VN	40	0.6	0.000234	± 2.5	PASS
		VN	50	-0.72	-0.000281	± 2.5	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.65	0.000658	± 2.5	PASS
		VN	TN	4.62	0.001842	± 2.5	PASS
		VH	TN	1.38	0.000550	± 2.5	PASS
	MCH	VL	TN	1.33	0.000525	± 2.5	PASS
		VN	TN	0.84	0.000331	± 2.5	PASS
		VH	TN	-1.35	-0.000533	± 2.5	PASS
	HCH	VL	TN	1.9	0.000741	± 2.5	PASS
		VN	TN	4.44	0.001733	± 2.5	PASS
		VH	TN	4.18	0.001631	± 2.5	PASS
16QAM	LCH	VL	TN	-0.17	-0.000068	± 2.5	PASS
		VN	TN	2.11	0.000841	± 2.5	PASS
		VH	TN	-1.47	-0.000586	± 2.5	PASS
	MCH	VL	TN	0.78	0.000308	± 2.5	PASS
		VN	TN	0.66	0.000260	± 2.5	PASS
		VH	TN	0.85	0.000335	± 2.5	PASS
	HCH	VL	TN	4.82	0.001881	± 2.5	PASS
		VN	TN	0.96	0.000375	± 2.5	PASS
		VH	TN	2.16	0.000843	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.44	-0.000574	± 2.5	PASS
		VN	-20	1.45	0.000578	± 2.5	PASS
		VN	-10	-1.24	-0.000495	± 2.5	PASS
		VN	0	2.45	0.000977	± 2.5	PASS
		VN	10	-0.26	-0.000104	± 2.5	PASS
		VN	20	2.49	0.000993	± 2.5	PASS
		VN	30	-0.29	-0.000116	± 2.5	PASS
		VN	40	3.25	0.001296	± 2.5	PASS
		VN	50	-1.1	-0.000439	± 2.5	PASS
	MCH	VN	-30	0.3	0.000118	± 2.5	PASS
		VN	-20	0.4	0.000158	± 2.5	PASS
		VN	-10	3.54	0.001396	± 2.5	PASS

		VN	0	1.91	0.000753	± 2.5	PASS
		VN	10	0.75	0.000296	± 2.5	PASS
		VN	20	2.66	0.001049	± 2.5	PASS
		VN	30	1.51	0.000596	± 2.5	PASS
		VN	40	0.47	0.000185	± 2.5	PASS
		VN	50	-0.63	-0.000249	± 2.5	PASS
	HCH	VN	-30	-0.68	-0.000265	± 2.5	PASS
		VN	-20	3.92	0.001530	± 2.5	PASS
		VN	-10	0.74	0.000289	± 2.5	PASS
		VN	0	0.63	0.000246	± 2.5	PASS
		VN	10	3.95	0.001541	± 2.5	PASS
		VN	20	2.5	0.000976	± 2.5	PASS
		VN	30	-1.38	-0.000539	± 2.5	PASS
		VN	40	-0.16	-0.000062	± 2.5	PASS
		VN	50	-1.6	-0.000624	± 2.5	PASS
QPSK	LCH	VN	-30	3.98	0.001587	± 2.5	PASS
		VN	-20	4.54	0.001811	± 2.5	PASS
		VN	-10	1.15	0.000459	± 2.5	PASS
		VN	0	1.23	0.000491	± 2.5	PASS
		VN	10	-0.24	-0.000096	± 2.5	PASS
		VN	20	1.42	0.000566	± 2.5	PASS
		VN	30	4.86	0.001938	± 2.5	PASS
		VN	40	0.34	0.000136	± 2.5	PASS
		VN	50	1.72	0.000686	± 2.5	PASS
	MCH	VN	-30	1.95	0.000769	± 2.5	PASS
		VN	-20	-1.82	-0.000718	± 2.5	PASS
		VN	-10	0.81	0.000320	± 2.5	PASS
		VN	0	0.17	0.000067	± 2.5	PASS
		VN	10	0.2	0.000079	± 2.5	PASS
		VN	20	3.79	0.001495	± 2.5	PASS
		VN	30	-0.97	-0.000383	± 2.5	PASS
		VN	40	-0.95	-0.000375	± 2.5	PASS
		VN	50	1.67	0.000659	± 2.5	PASS
	HCH	VN	-30	-1.27	-0.000496	± 2.5	PASS
		VN	-20	-1.23	-0.000480	± 2.5	PASS
		VN	-10	4.28	0.001670	± 2.5	PASS
		VN	0	3.78	0.001475	± 2.5	PASS
		VN	10	1.99	0.000777	± 2.5	PASS
		VN	20	3.84	0.001499	± 2.5	PASS
		VN	30	-1.1	-0.000429	± 2.5	PASS
		VN	40	2.99	0.001167	± 2.5	PASS

		VN	50	-0.41	-0.000160	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.48	-0.000590	± 2.5	PASS
		VN	TN	4.64	0.001849	± 2.5	PASS
		VH	TN	1.83	0.000729	± 2.5	PASS
	MCH	VL	TN	4.1	0.001617	± 2.5	PASS
		VN	TN	-1.61	-0.000635	± 2.5	PASS
		VH	TN	1.74	0.000686	± 2.5	PASS
	HCH	VL	TN	-0.74	-0.000289	± 2.5	PASS
		VN	TN	-0.56	-0.000219	± 2.5	PASS
		VH	TN	-1.34	-0.000523	± 2.5	PASS
16QAM	LCH	VL	TN	3.24	0.001291	± 2.5	PASS
		VN	TN	4.6	0.001833	± 2.5	PASS
		VH	TN	1.1	0.000438	± 2.5	PASS
	MCH	VL	TN	-1.63	-0.000643	± 2.5	PASS
		VN	TN	4.43	0.001748	± 2.5	PASS
		VH	TN	3.49	0.001377	± 2.5	PASS
	HCH	VL	TN	2.96	0.001156	± 2.5	PASS
		VN	TN	2.94	0.001148	± 2.5	PASS
		VH	TN	-0.92	-0.000359	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.34	-0.000135	± 2.5	PASS
		VN	-20	3.75	0.001494	± 2.5	PASS
		VN	-10	2.75	0.001096	± 2.5	PASS
		VN	0	2.27	0.000904	± 2.5	PASS
		VN	10	3.14	0.001251	± 2.5	PASS
		VN	20	-1.54	-0.000614	± 2.5	PASS
		VN	30	3.97	0.001582	± 2.5	PASS
		VN	40	1.97	0.000785	± 2.5	PASS
		VN	50	3.18	0.001267	± 2.5	PASS
	MCH	VN	-30	-0.13	-0.000051	± 2.5	PASS
		VN	-20	3.82	0.001507	± 2.5	PASS
		VN	-10	3.25	0.001282	± 2.5	PASS
		VN	0	1.23	0.000485	± 2.5	PASS

		VN	10	-0.88	-0.000347	± 2.5	PASS
		VN	20	-0.73	-0.000288	± 2.5	PASS
		VN	30	-0.94	-0.000371	± 2.5	PASS
		VN	40	1.9	0.000750	± 2.5	PASS
		VN	50	1.71	0.000675	± 2.5	PASS
	HCH	VN	-30	4.18	0.001633	± 2.5	PASS
		VN	-20	1.45	0.000566	± 2.5	PASS
		VN	-10	4.25	0.001660	± 2.5	PASS
		VN	0	-0.4	-0.000156	± 2.5	PASS
		VN	10	1.97	0.000770	± 2.5	PASS
		VN	20	3.11	0.001215	± 2.5	PASS
		VN	30	-1.42	-0.000555	± 2.5	PASS
		VN	40	-1.95	-0.000762	± 2.5	PASS
		VN	50	-0.08	-0.000031	± 2.5	PASS
QPSK	LCH	VN	-30	3.88	0.001546	± 2.5	PASS
		VN	-20	-0.4	-0.000159	± 2.5	PASS
		VN	-10	-1.98	-0.000789	± 2.5	PASS
		VN	0	-0.36	-0.000143	± 2.5	PASS
		VN	10	3.35	0.001335	± 2.5	PASS
		VN	20	2.78	0.001108	± 2.5	PASS
		VN	30	2.72	0.001084	± 2.5	PASS
		VN	40	-0.08	-0.000032	± 2.5	PASS
		VN	50	2.63	0.001048	± 2.5	PASS
	MCH	VN	-30	1.27	0.000501	± 2.5	PASS
		VN	-20	4.4	0.001736	± 2.5	PASS
		VN	-10	1.87	0.000738	± 2.5	PASS
		VN	0	3.01	0.001187	± 2.5	PASS
		VN	10	2.13	0.000840	± 2.5	PASS
		VN	20	2.2	0.000868	± 2.5	PASS
		VN	30	2.76	0.001089	± 2.5	PASS
		VN	40	1.43	0.000564	± 2.5	PASS
		VN	50	4.93	0.001945	± 2.5	PASS
	HCH	VN	-30	1.74	0.000680	± 2.5	PASS
		VN	-20	-1.79	-0.000699	± 2.5	PASS
		VN	-10	1.49	0.000582	± 2.5	PASS
		VN	0	2.19	0.000855	± 2.5	PASS
		VN	10	-1.91	-0.000746	± 2.5	PASS
		VN	20	-1.79	-0.000699	± 2.5	PASS
		VN	30	3.12	0.001219	± 2.5	PASS
		VN	40	1.98	0.000773	± 2.5	PASS
		VN	50	1.24	0.000484	± 2.5	PASS