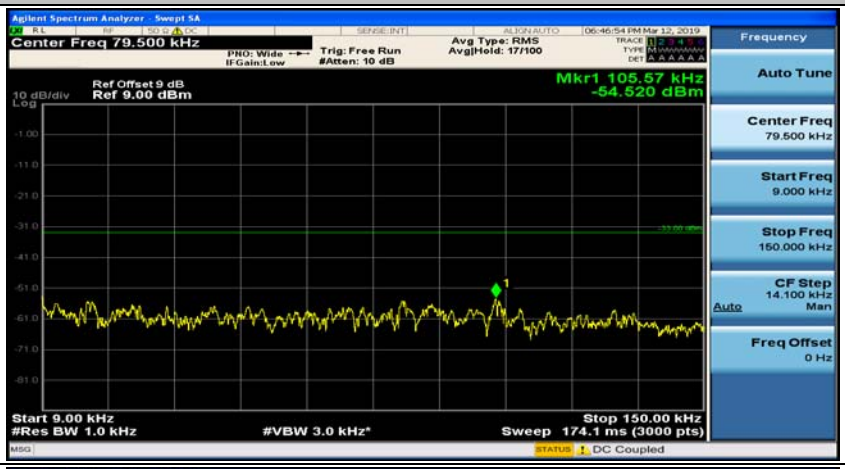
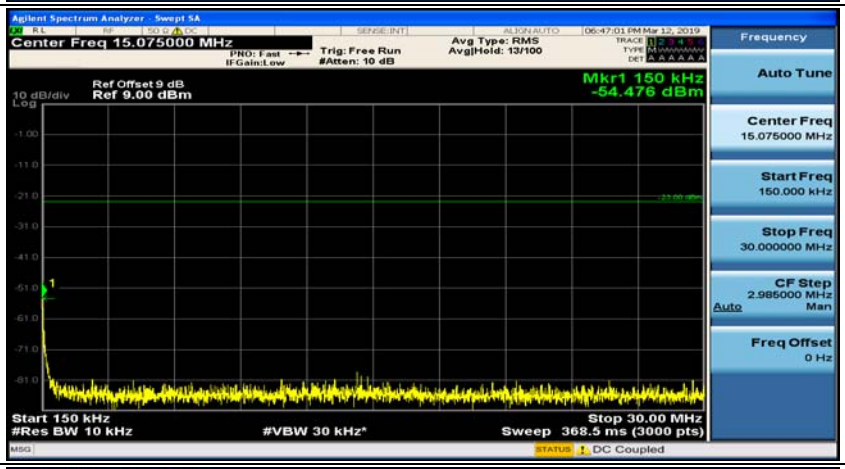
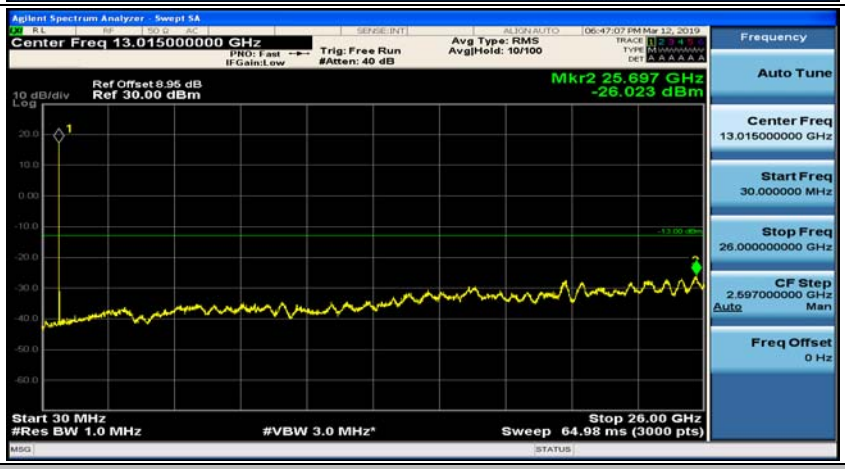
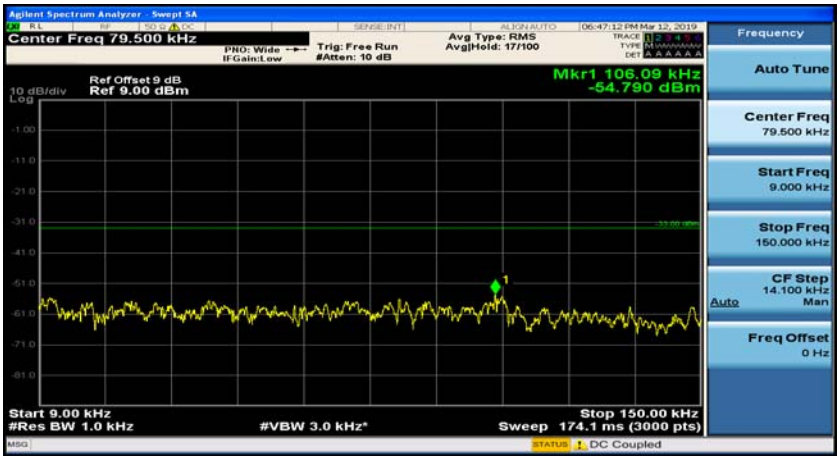
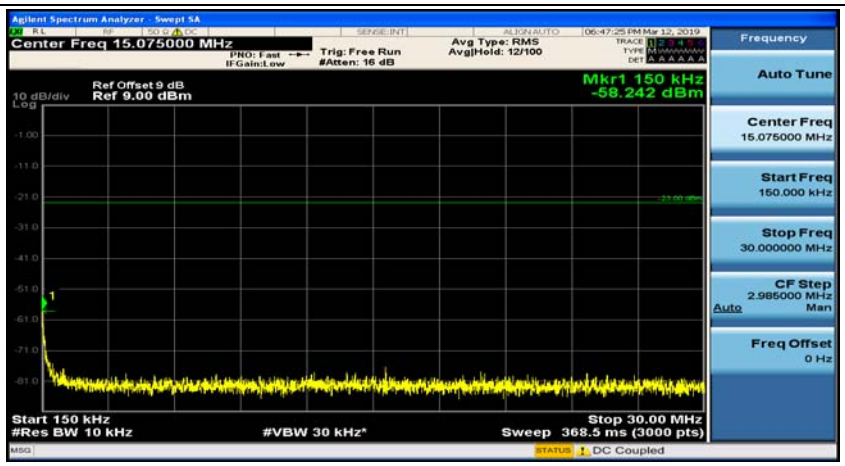
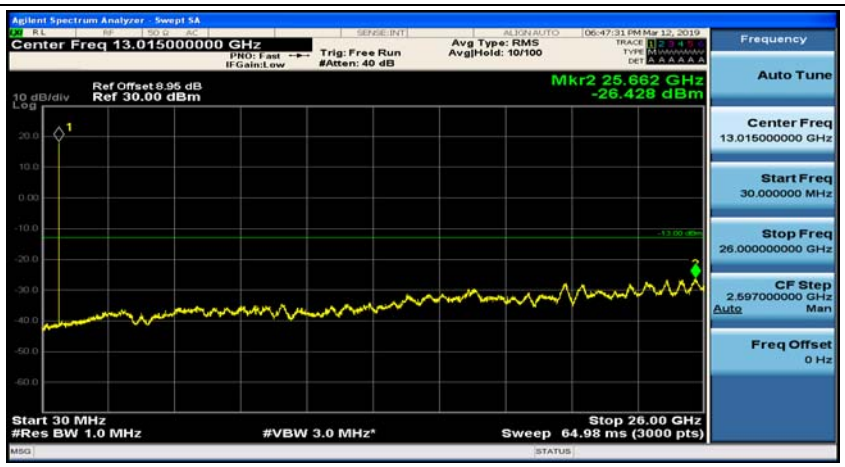
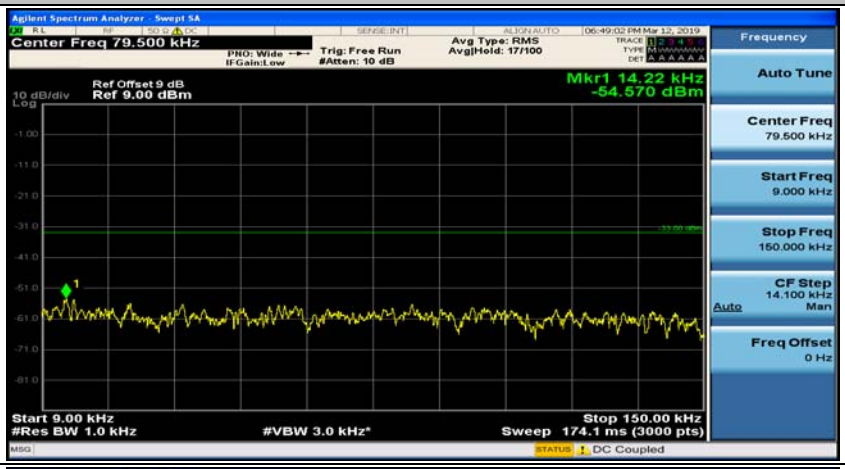
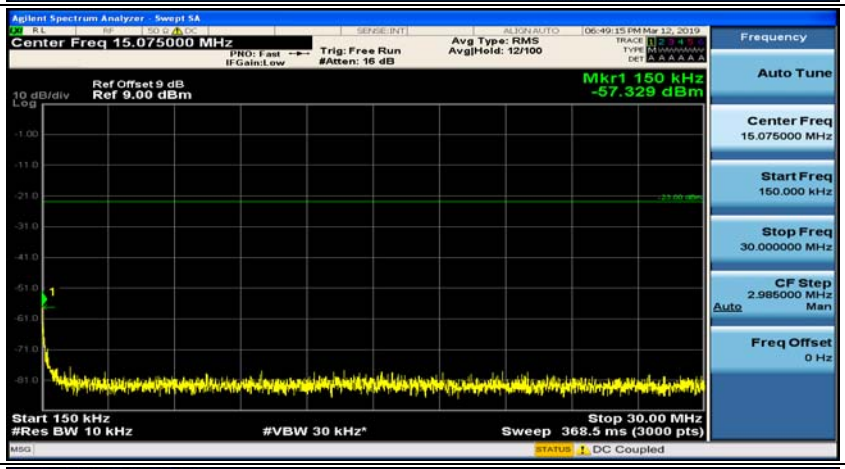
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

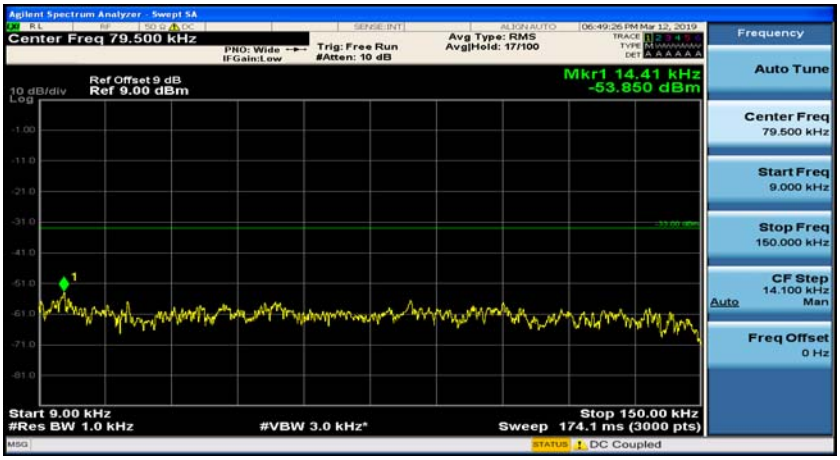

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:47:12 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 106.09 kHz
-54.790 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

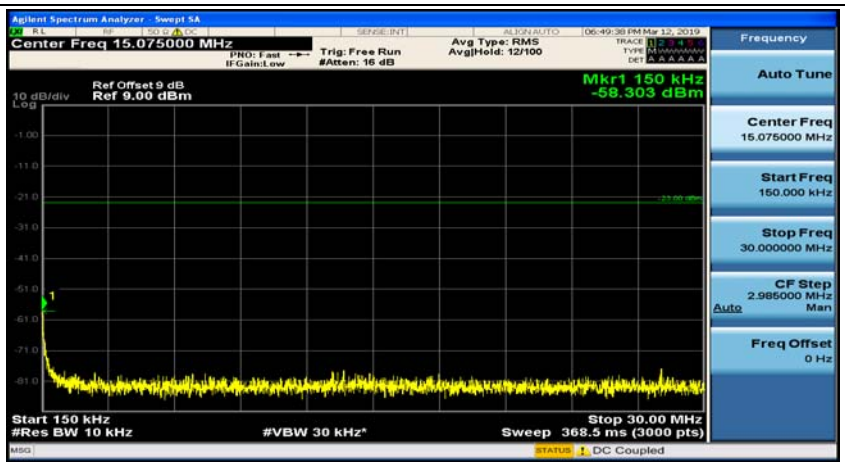

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:47:25 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-58.242 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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

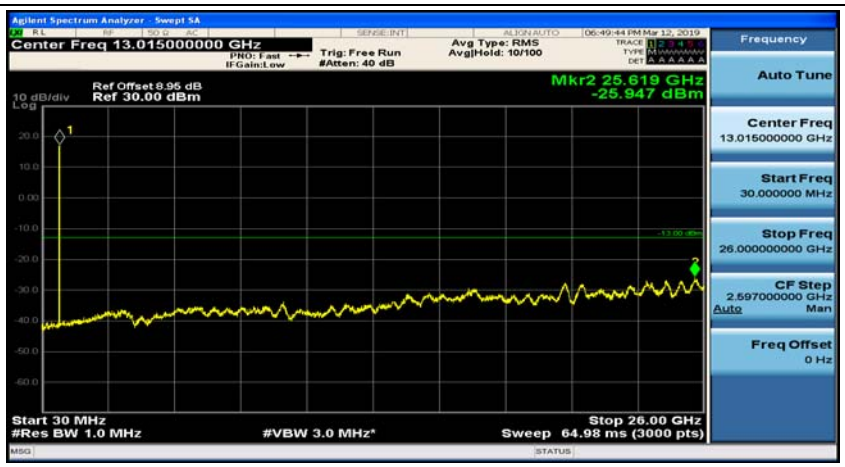

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:47:31 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.662 GHz
-26.428 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start 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: 3 MHz)_HCH_16QAM_1RB#0



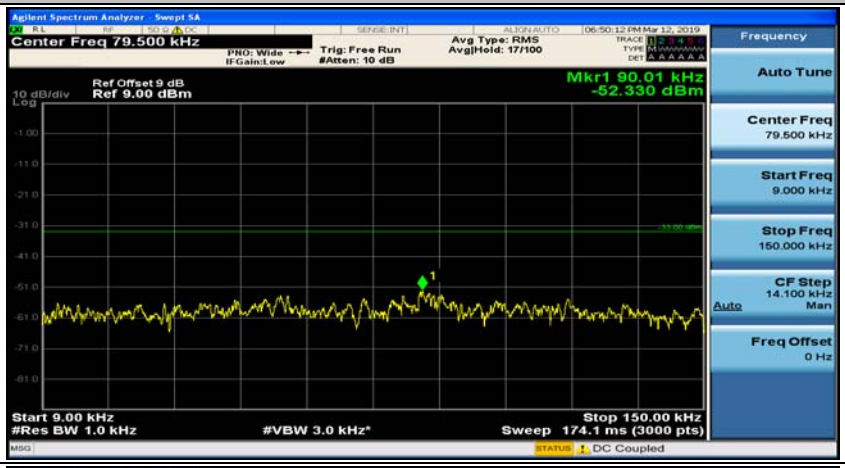
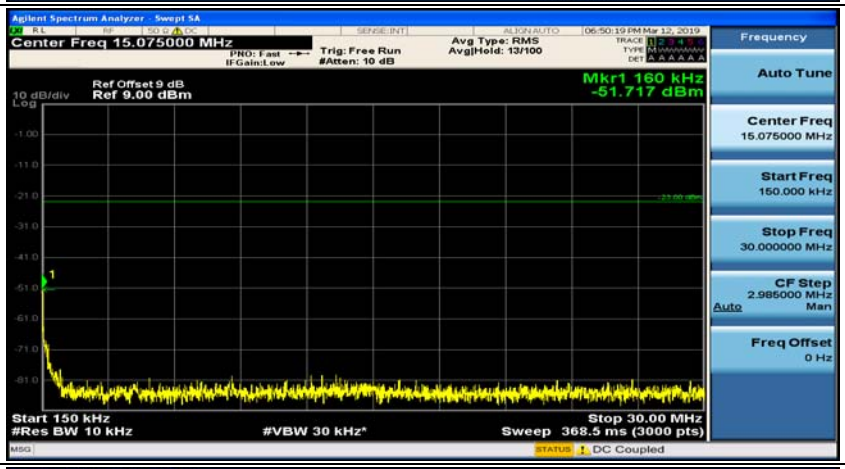
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7


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: 17/100
06:49:26 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 14.41 kHz
-53.850 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

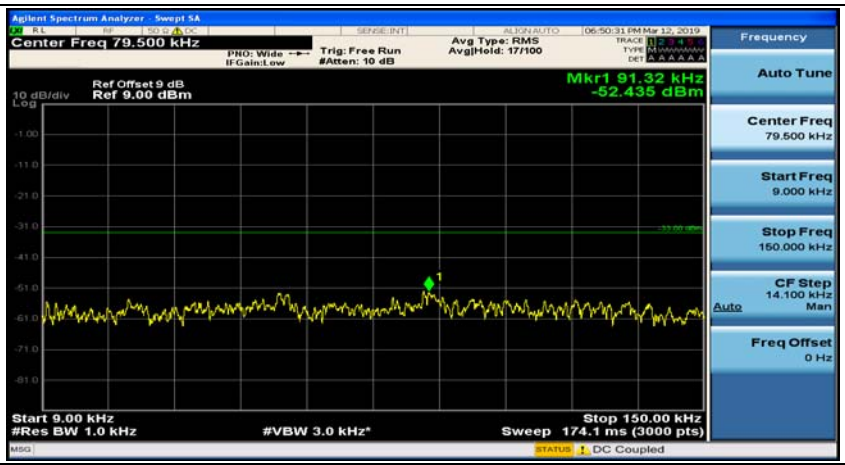

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:49:38 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-58.303 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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

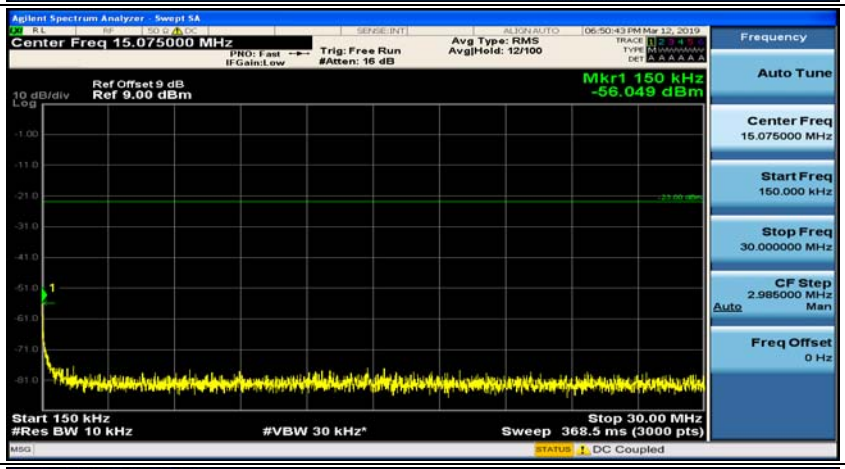

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:49:44 PM Mar 12, 2019
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.619 GHz
-25.947 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 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

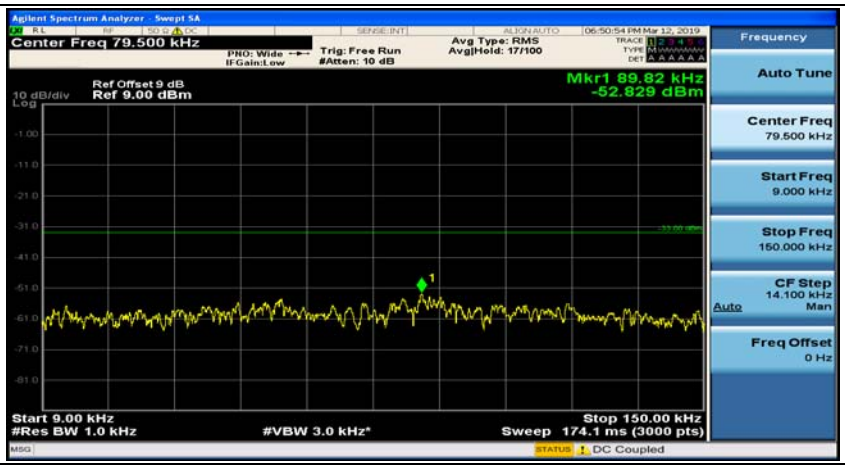
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



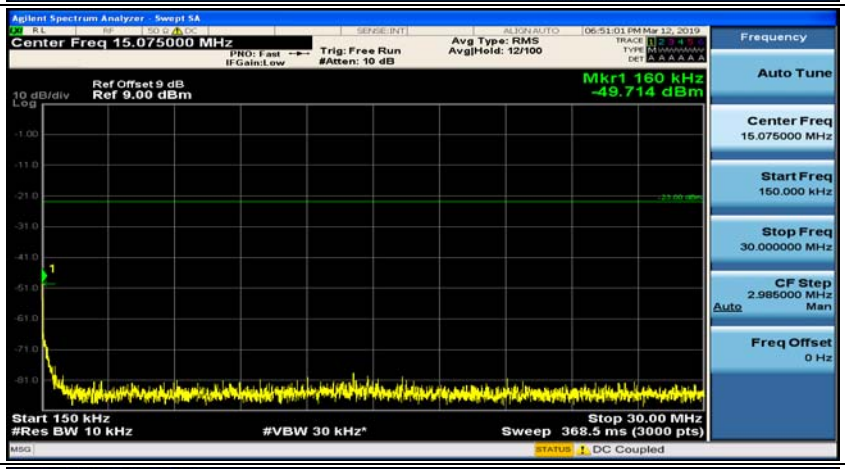
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

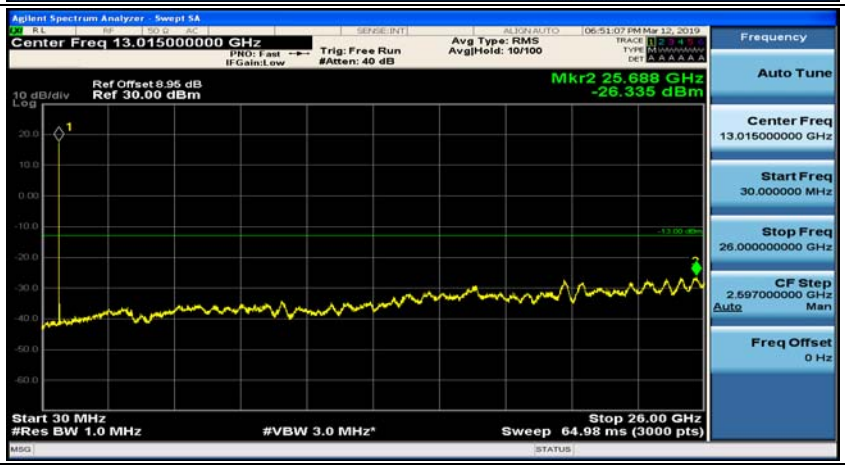


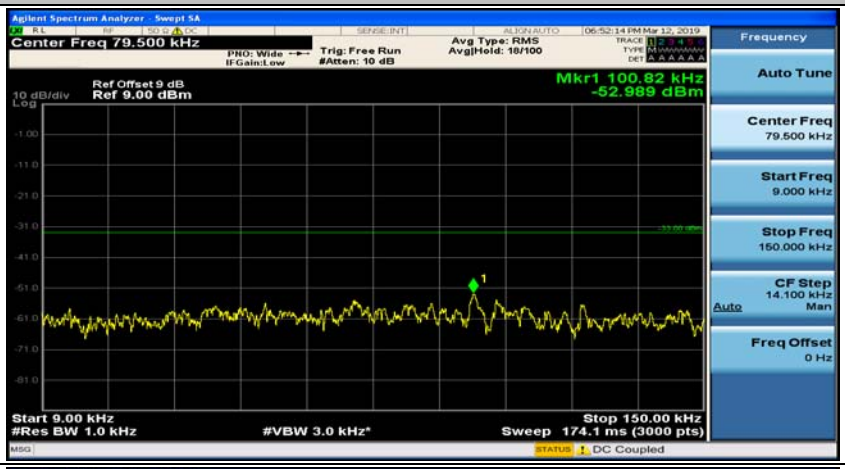
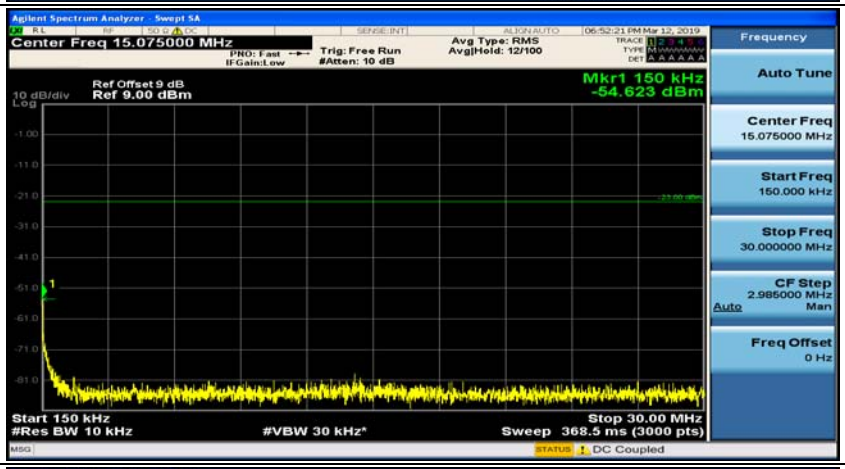
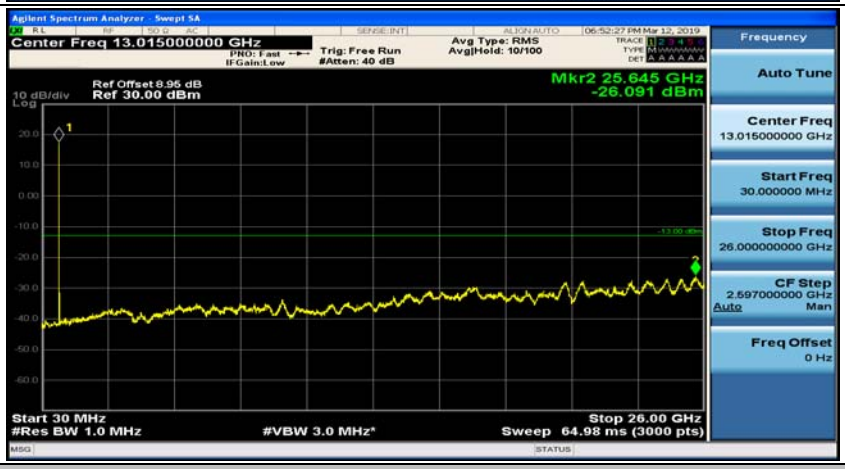


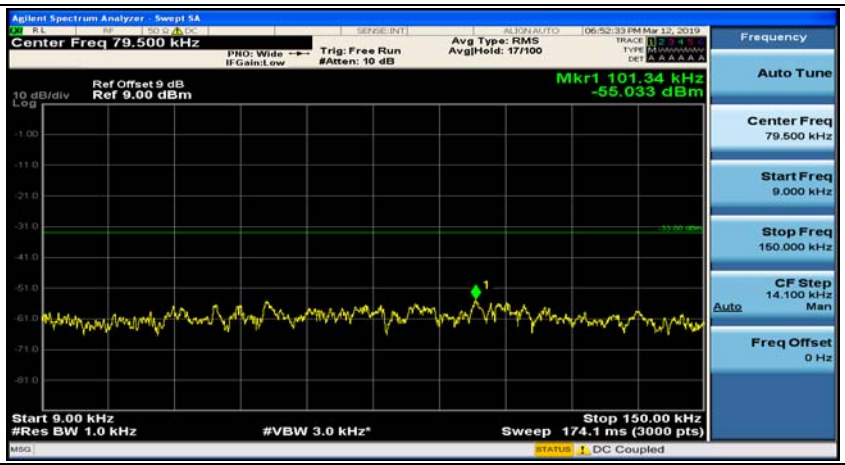
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

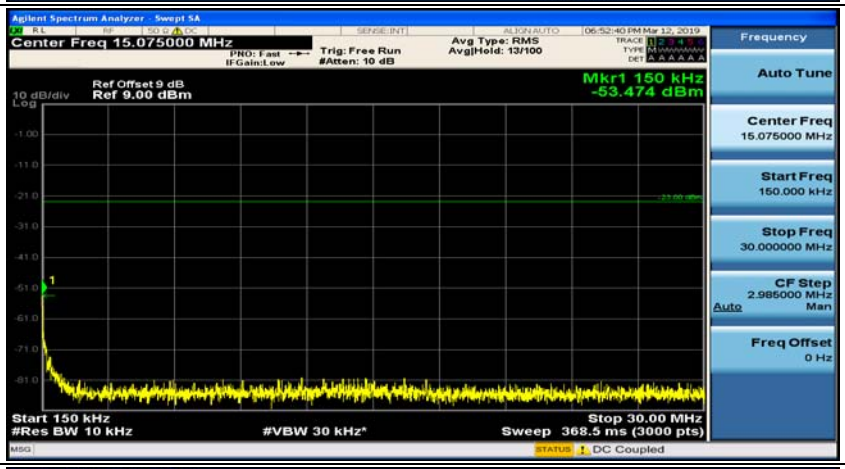

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:50:54 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 89.82 kHz
-52.829 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:51:01 PM Mar 12, 2019
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 160 kHz
-49.714 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

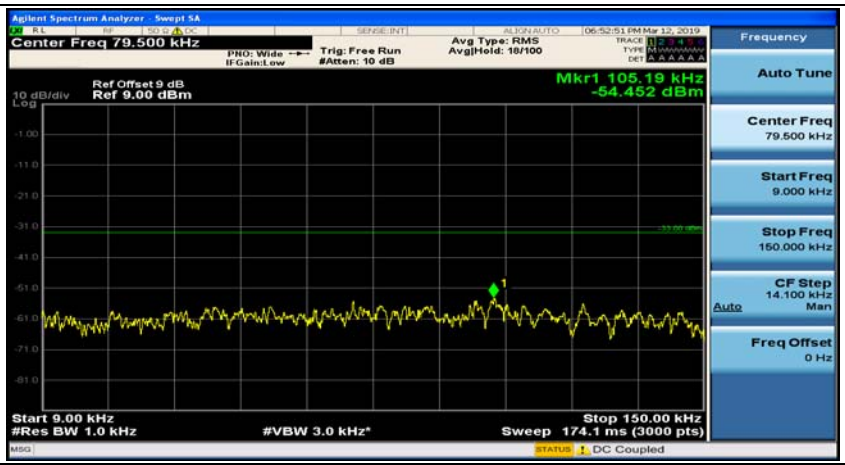

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:51:07 PM Mar 12, 2019
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.688 GHz
-26.335 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 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

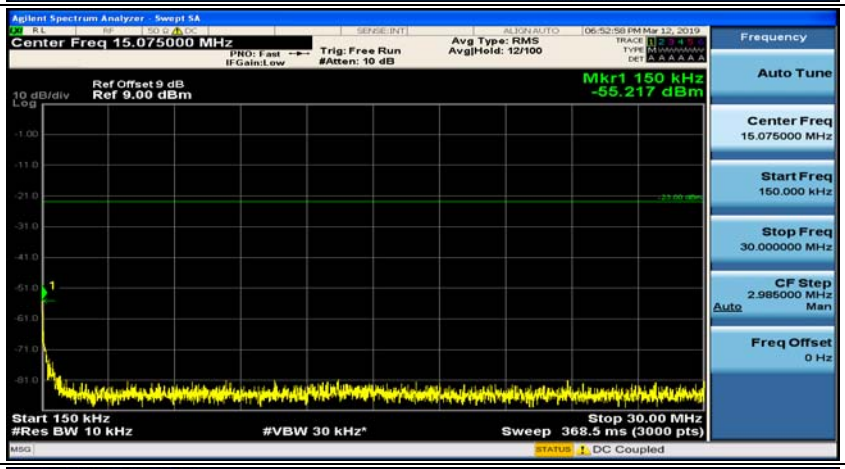
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

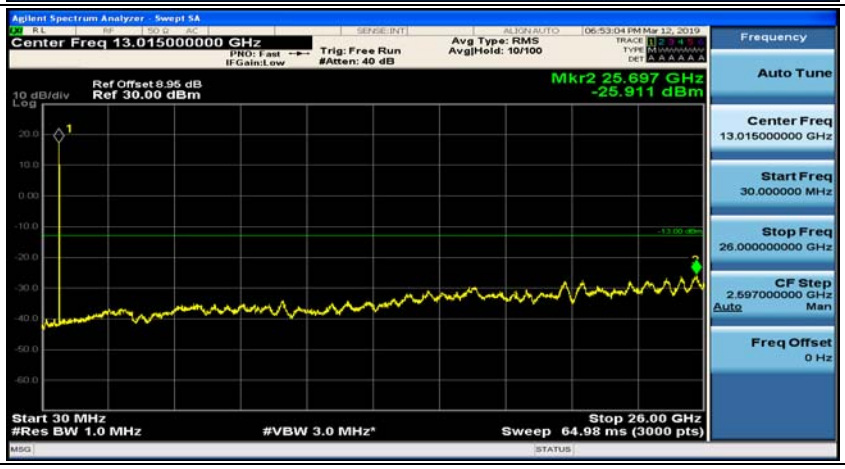


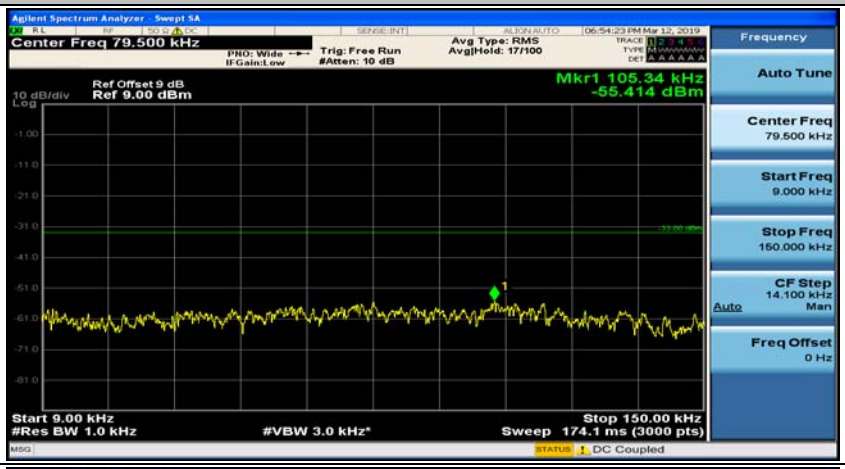
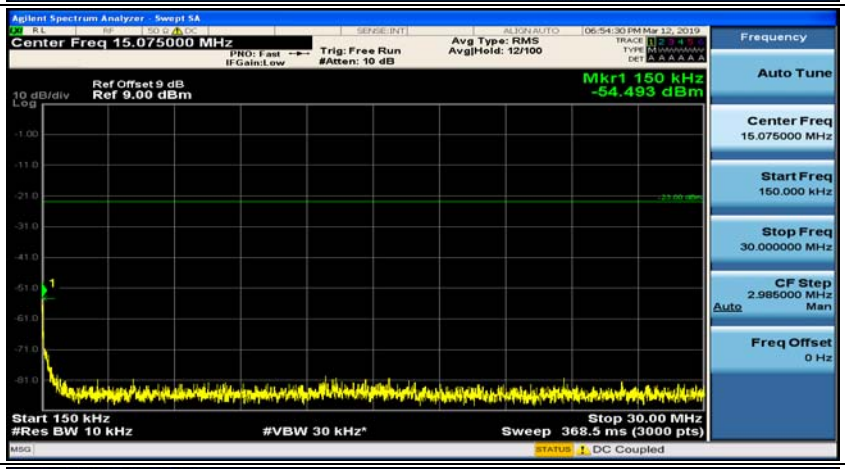
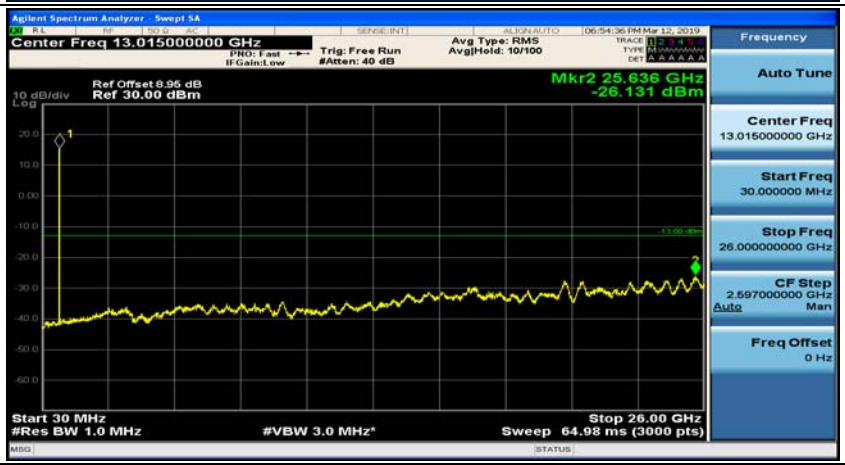


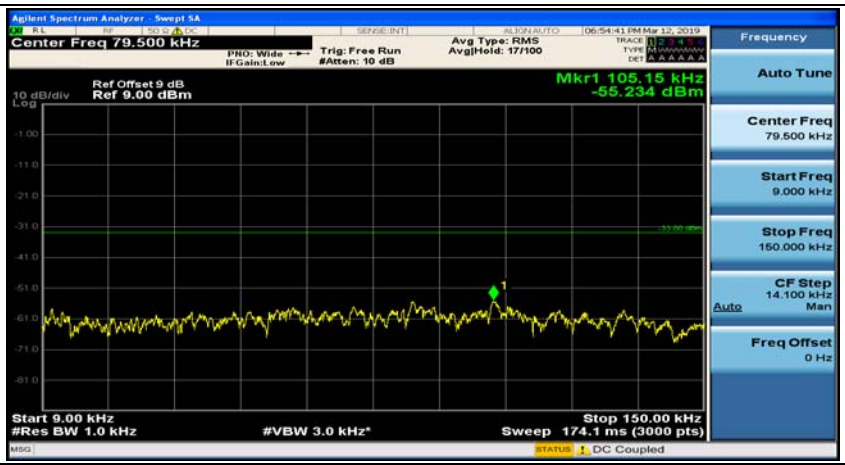
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

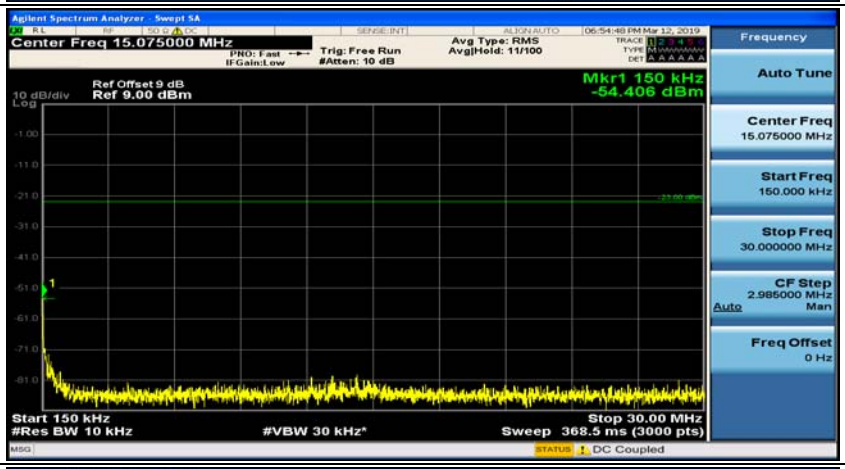

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 18/100
06:52:51 PM Mar 12, 2019
Frequency
Mkr1 105.19 kHz
-54.452 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

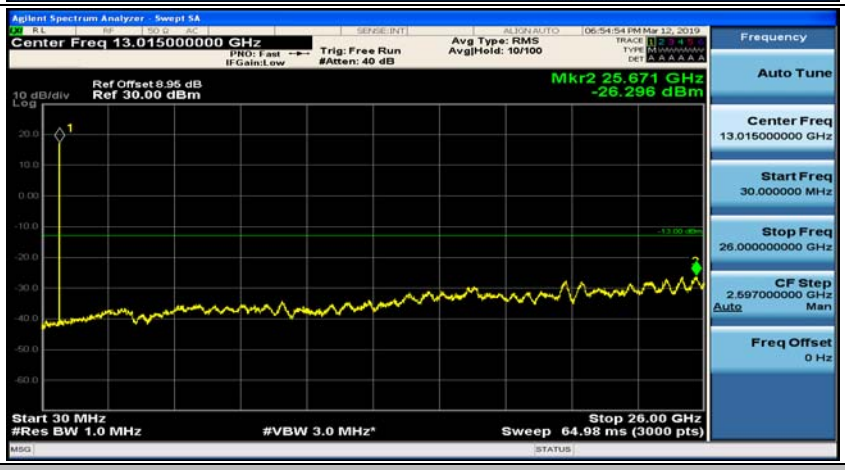

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:52:58 PM Mar 12, 2019
Frequency
Mkr1 150 kHz
-55.217 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:53:04 PM Mar 12, 2019
Frequency
Mkr2 25.697 GHz
-25.911 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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)

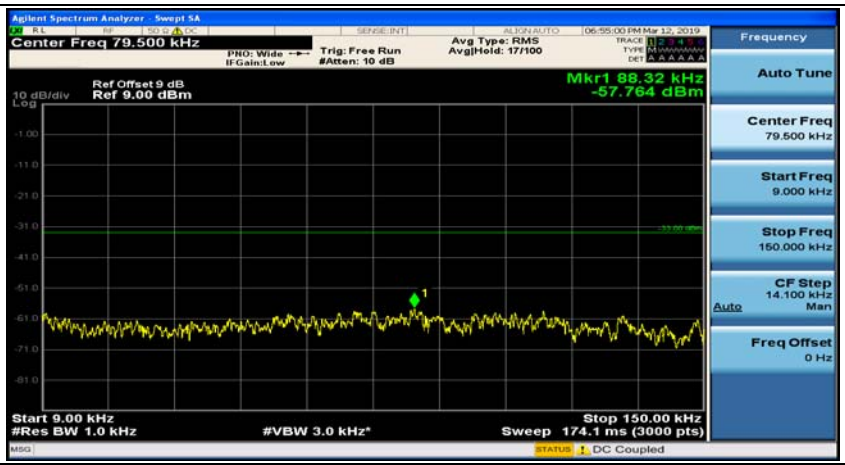
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

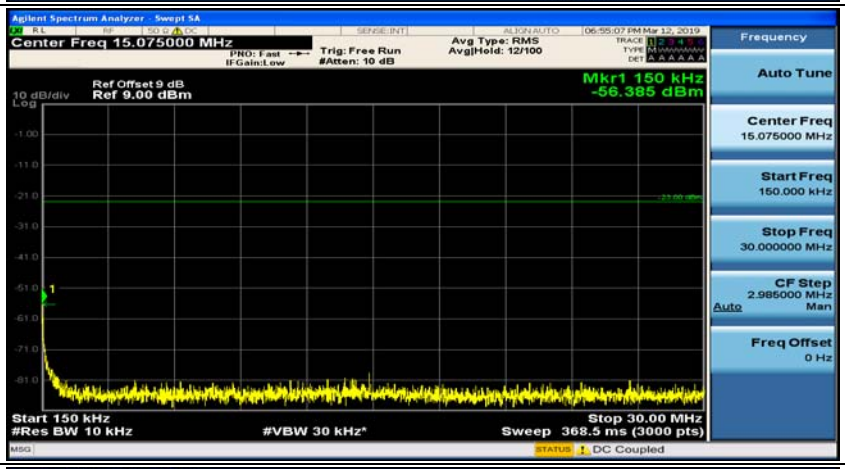


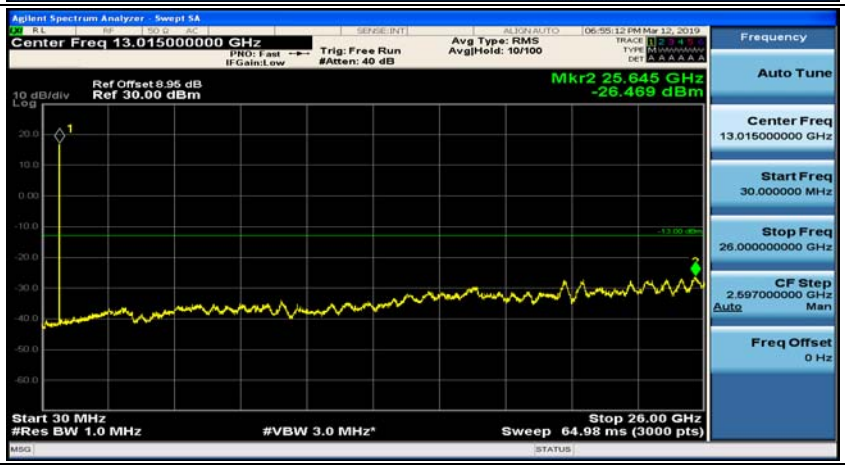


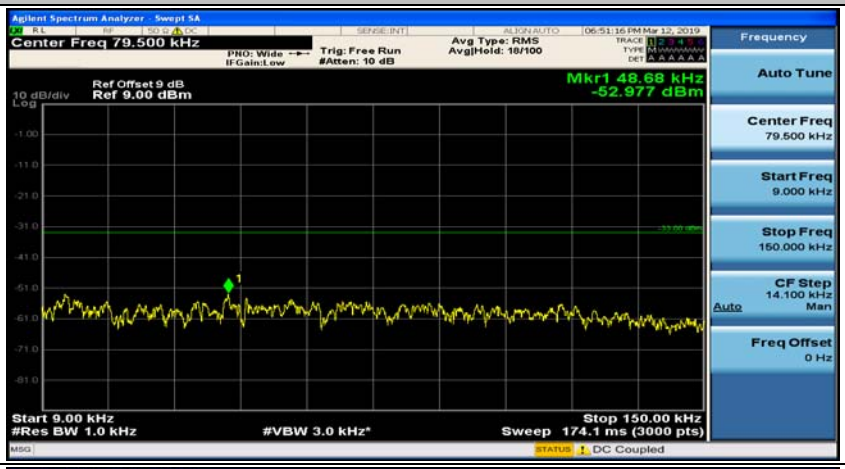
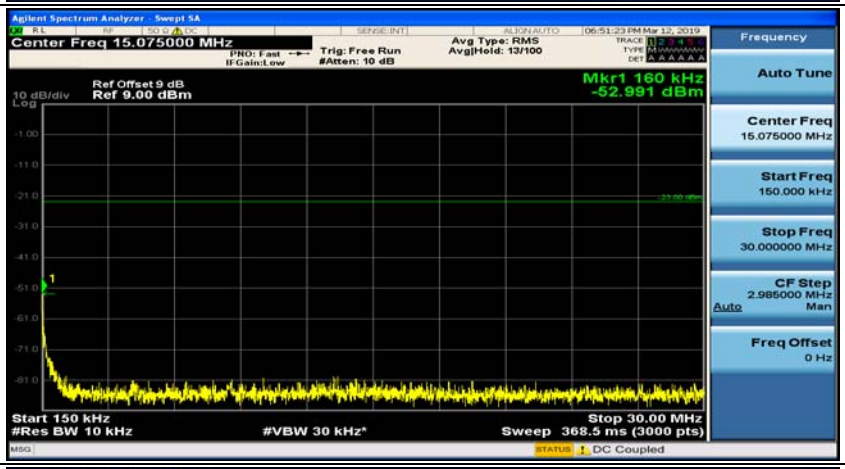
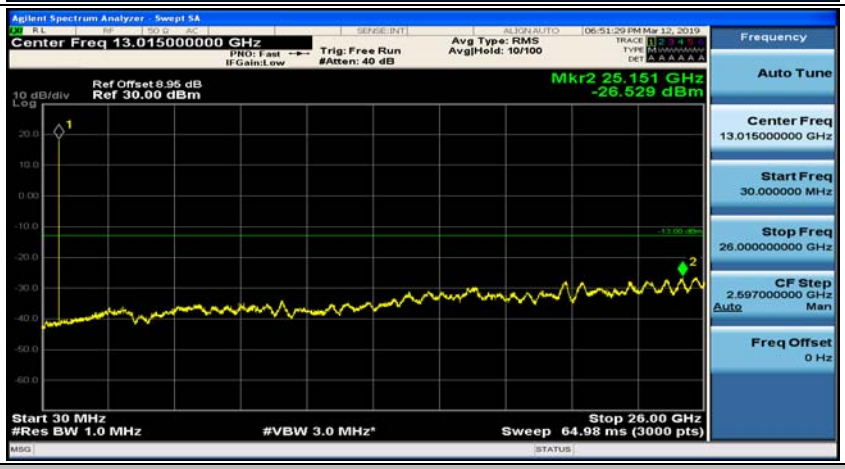


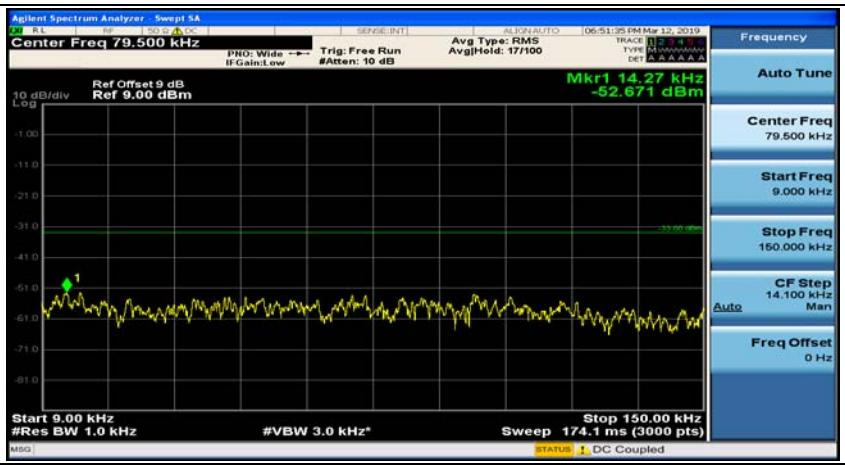
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

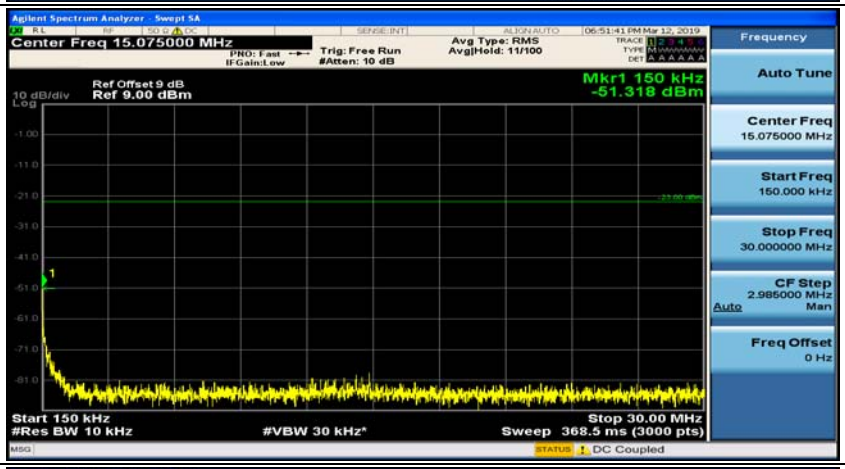

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:55:00 PM Mar 12, 2019
Frequency
Mkr1 88.32 kHz
-57.764 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

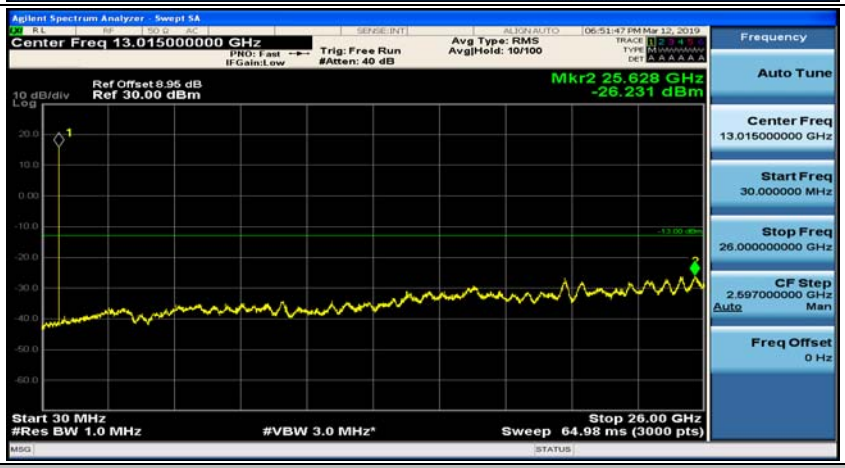

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:55:07 PM Mar 12, 2019
Frequency
Mkr1 150 kHz
-56.385 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:55:12 PM Mar 12, 2019
Frequency
Mkr2 25.645 GHz
-26.469 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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)

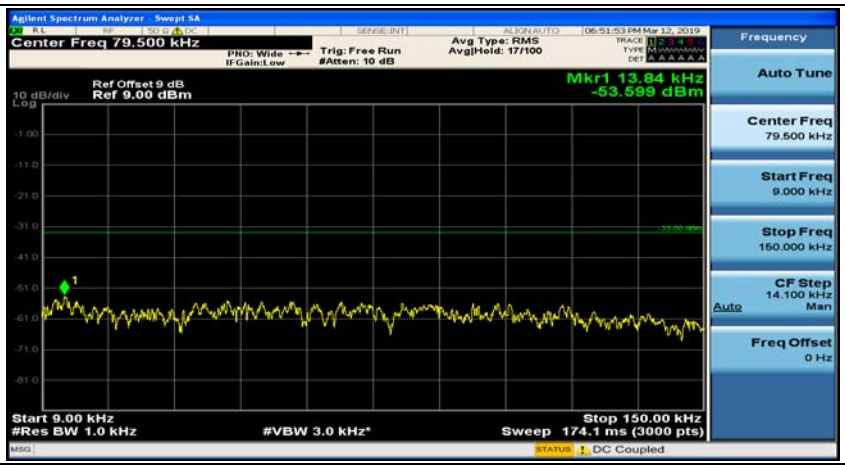
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

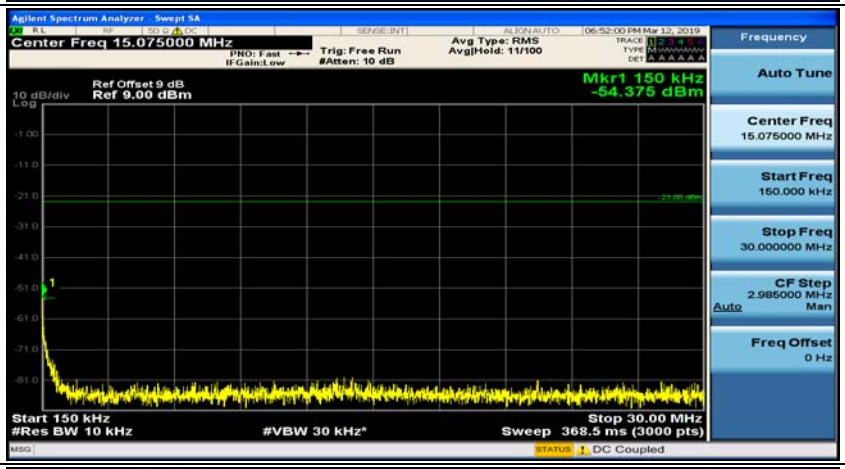


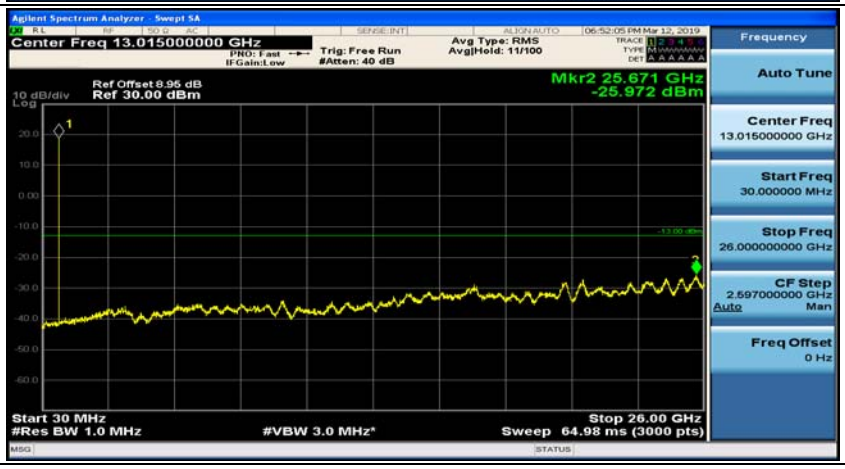


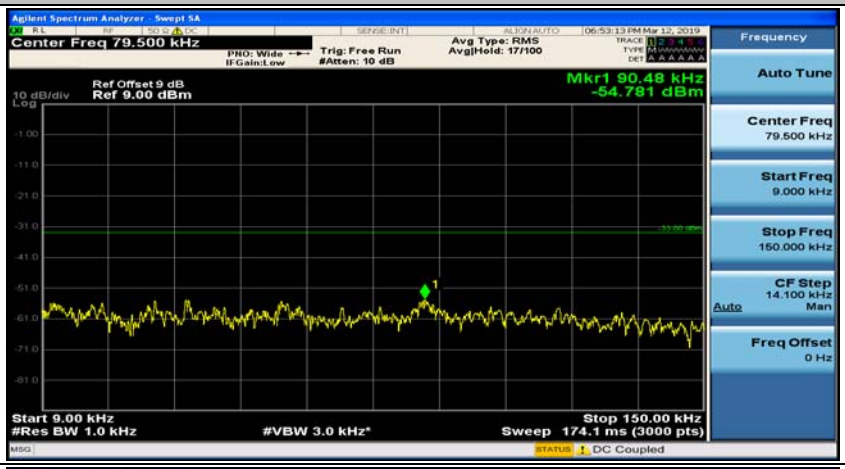
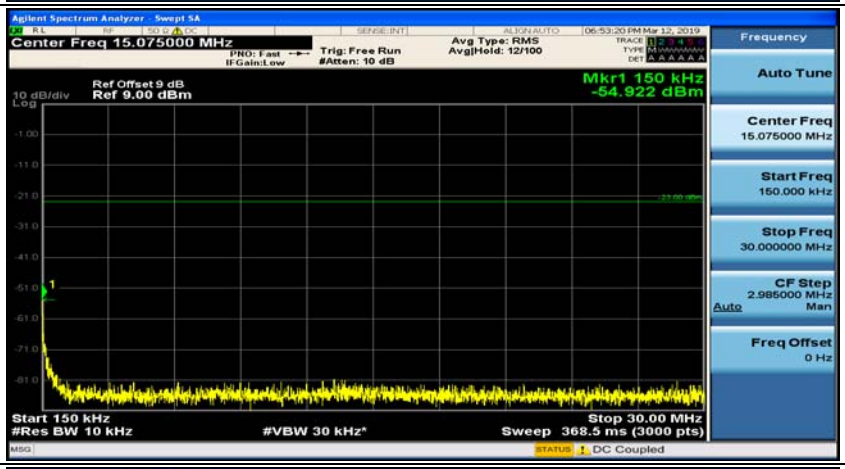
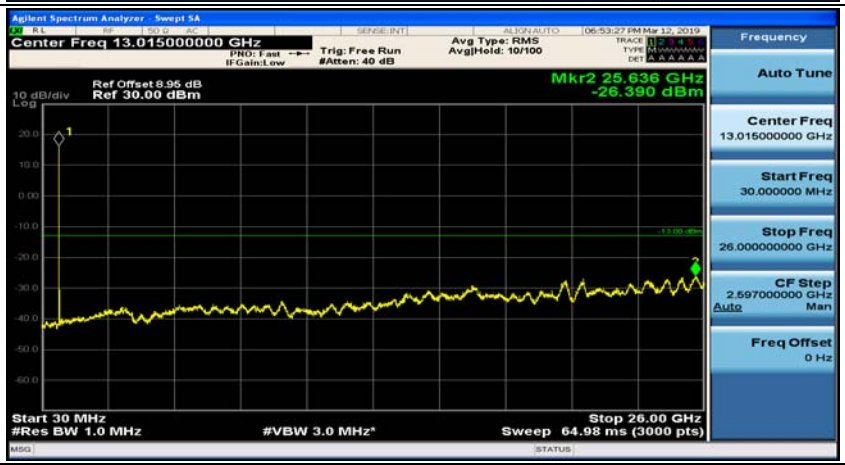


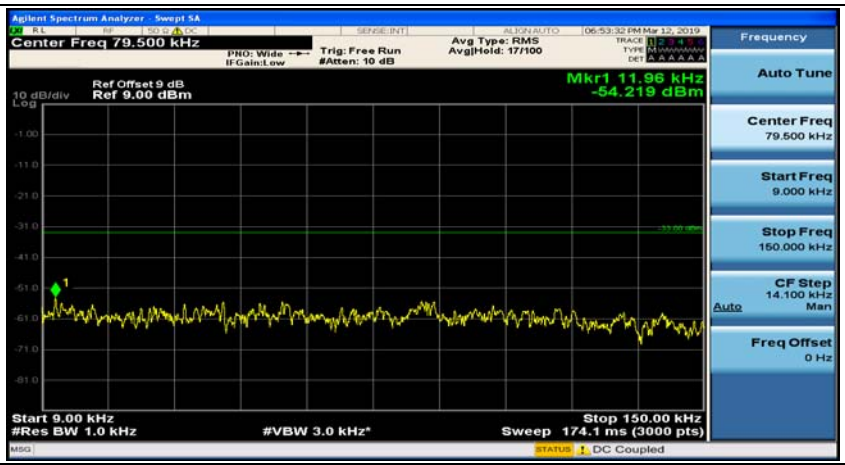
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

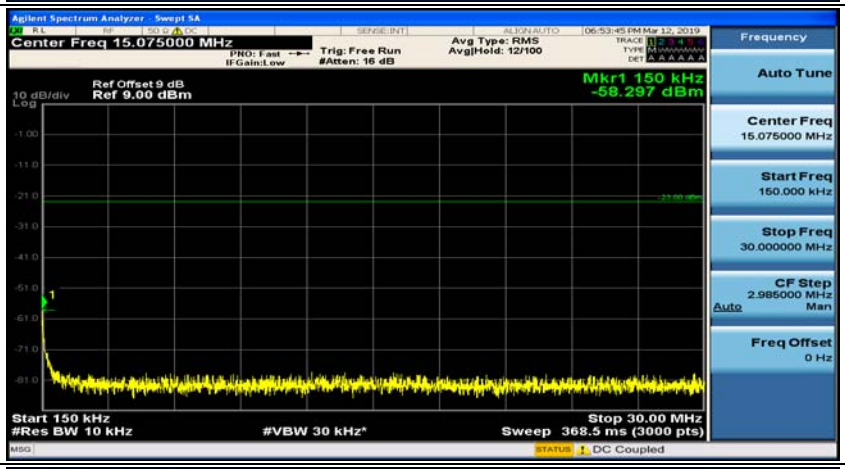

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:51:53 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 13.84 kHz
-53.599 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

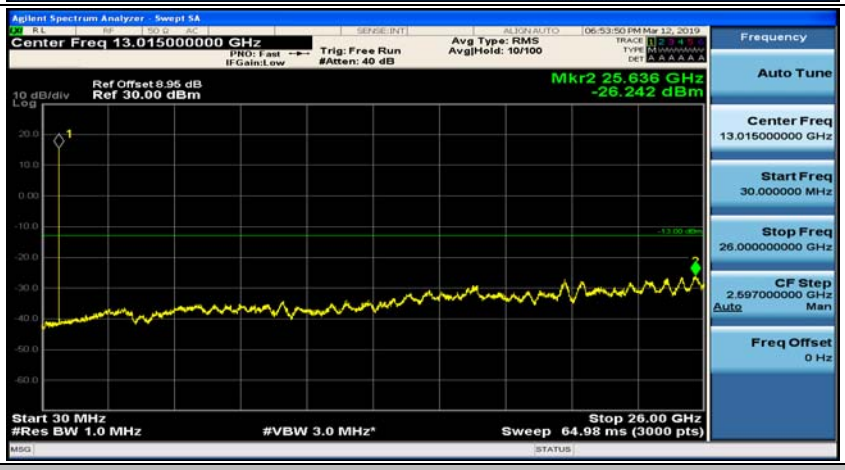

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:52:00 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-54.375 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
06:52:05 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.671 GHz
-25.972 dBm
Ref Offset 8.95 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)

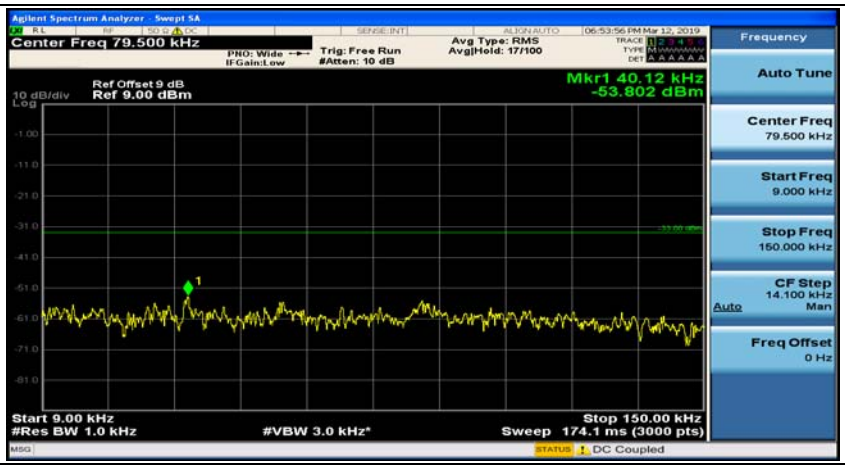
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

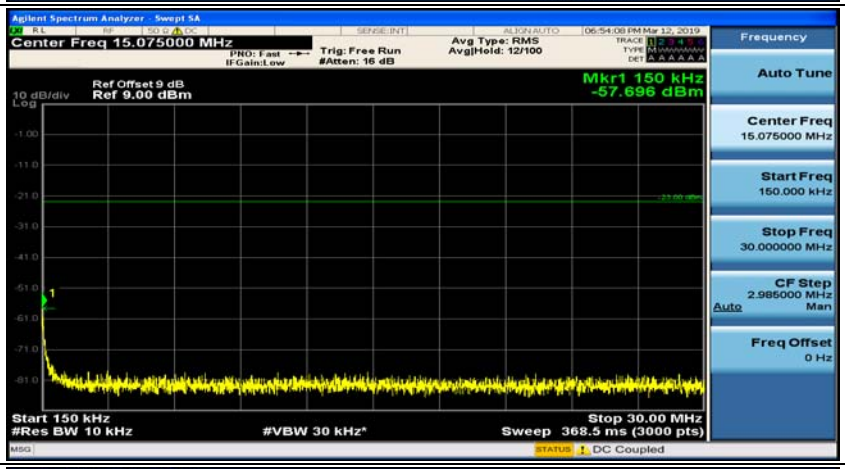


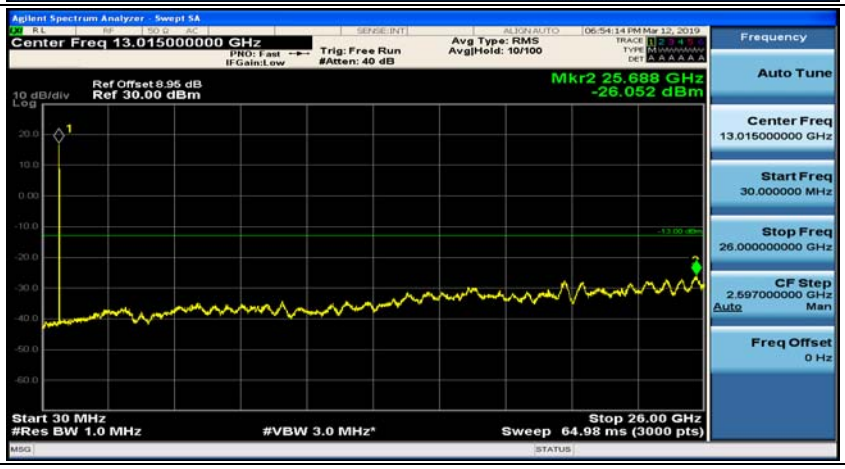


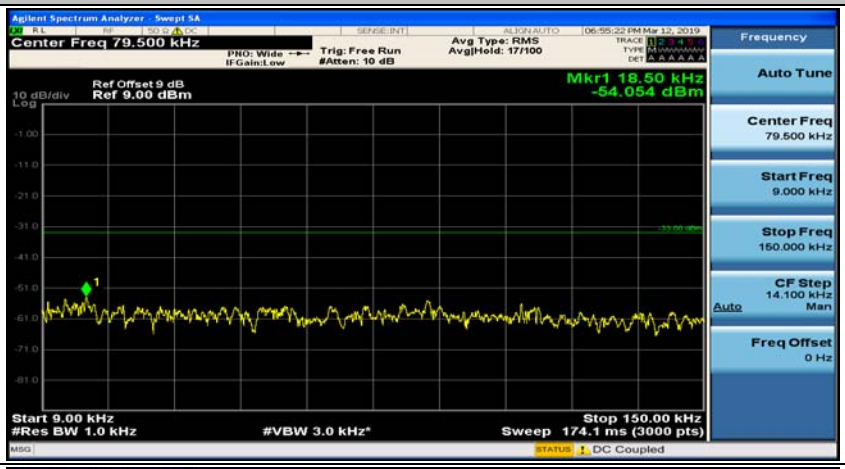
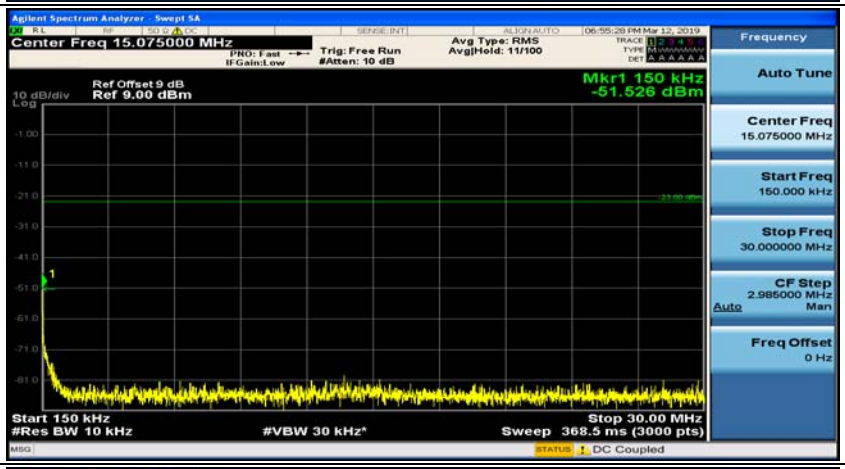
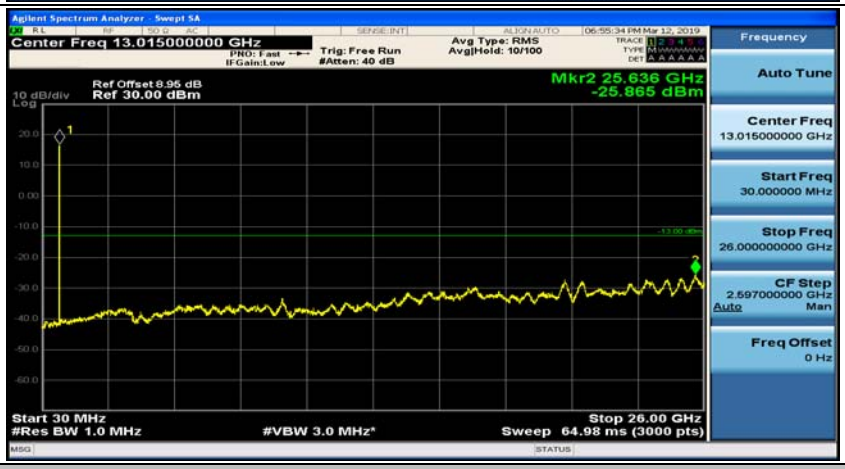


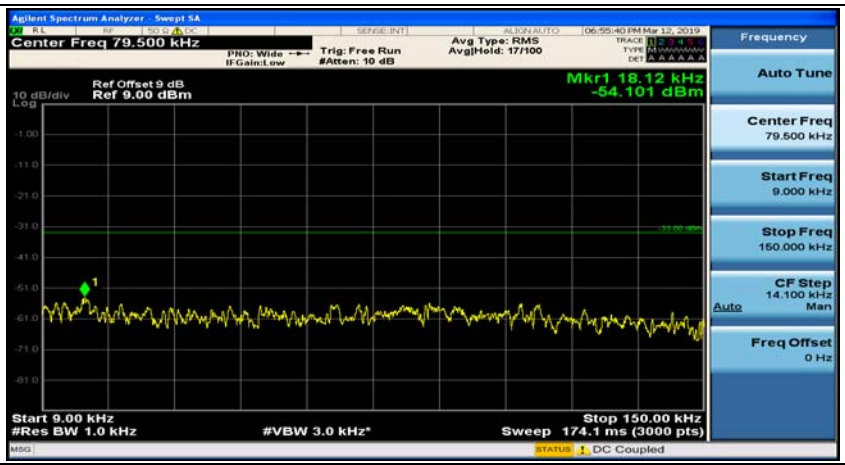
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

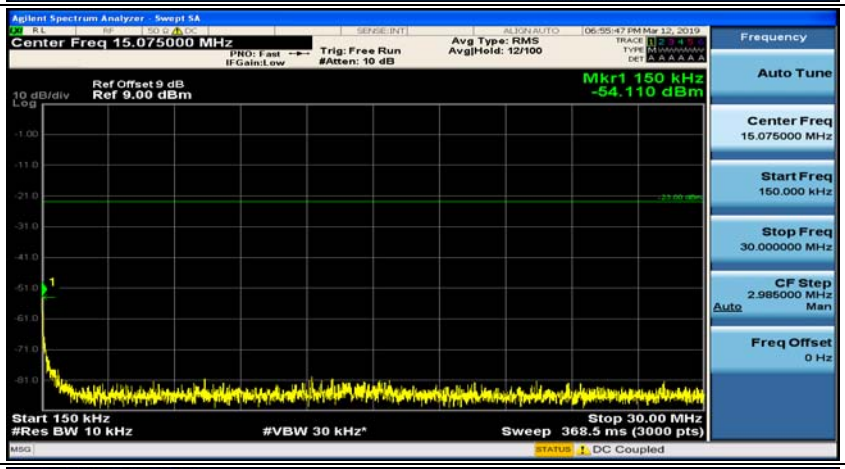

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:53:56 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 40.12 kHz
-53.802 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

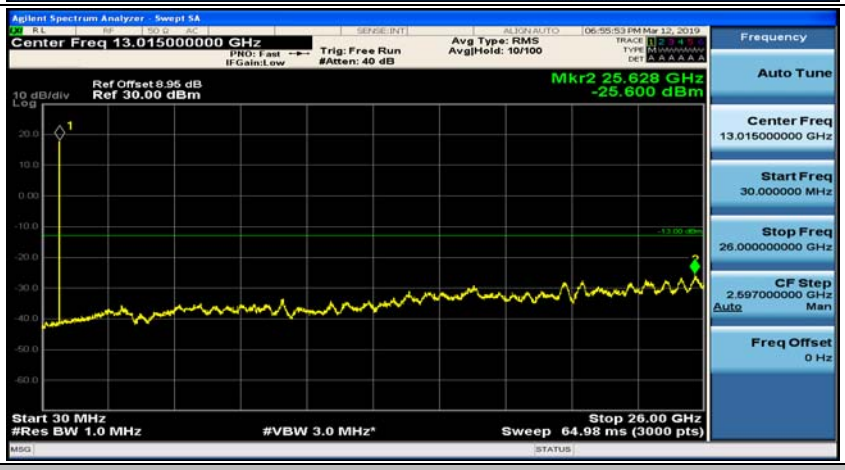

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
06:54:08 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-57.696 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:54:14 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.688 GHz
-26.052 dBm
Ref Offset 8.95 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)

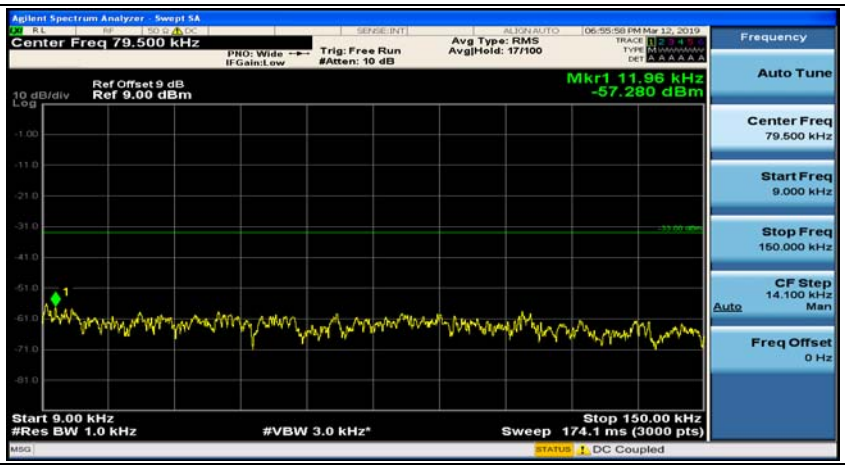
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

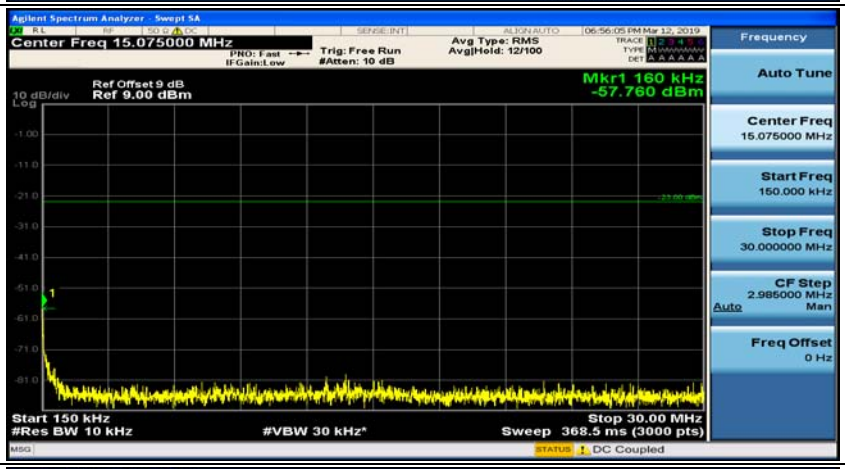


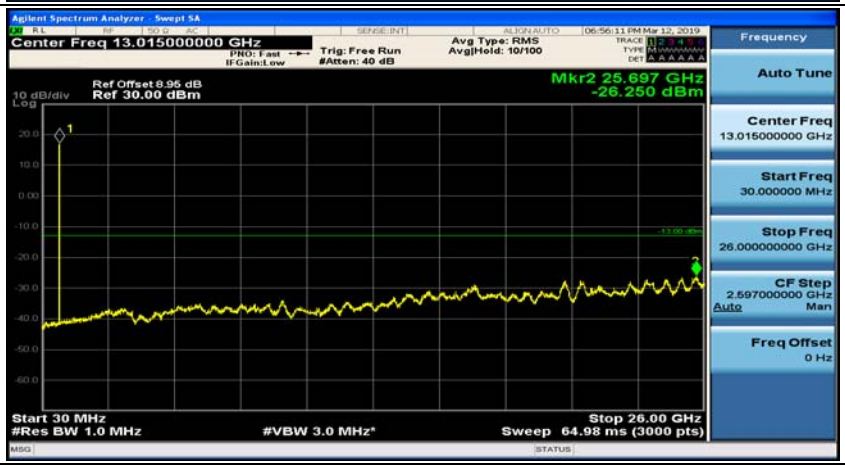




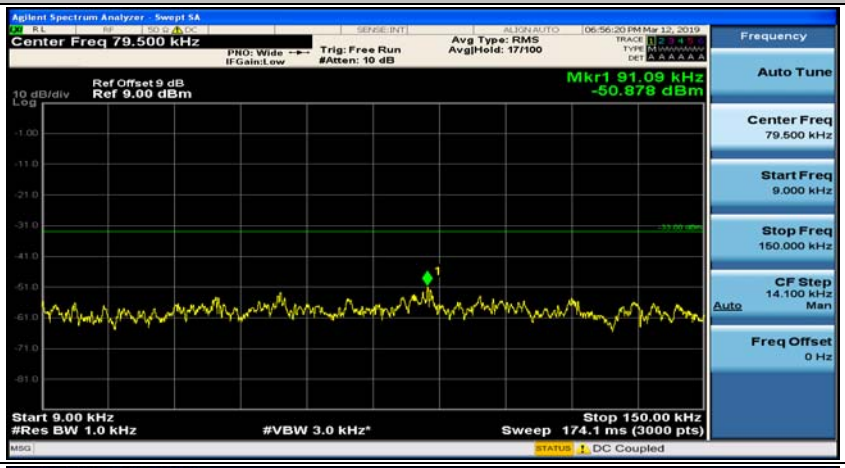
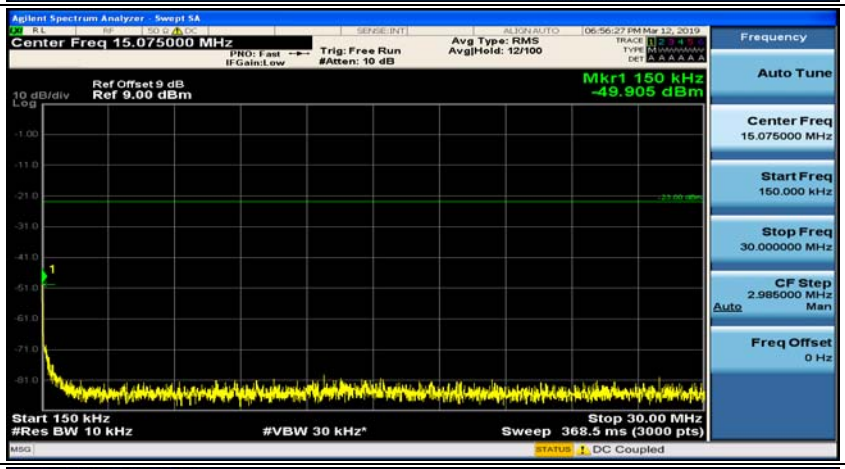
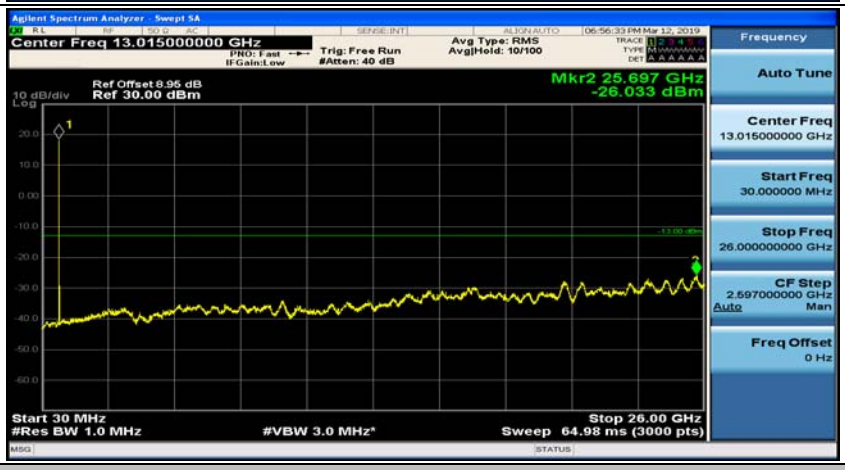
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

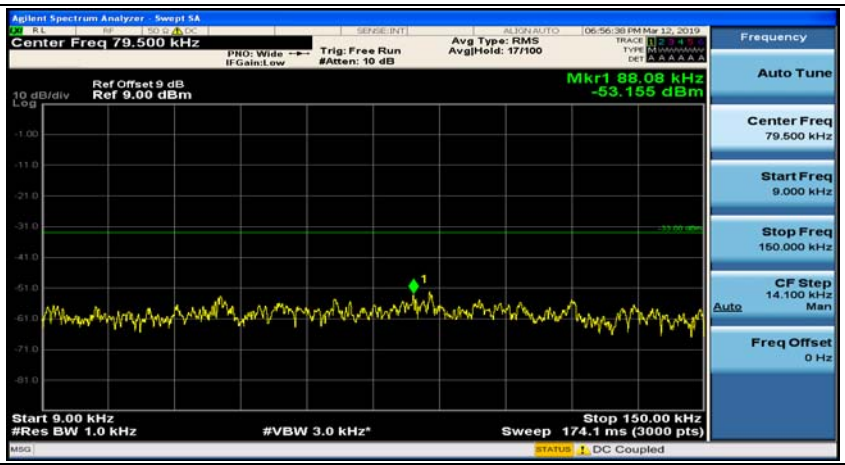

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:55:58 PM Mar 12, 2019
Frequency
Mkr1 11.96 kHz
-57.280 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

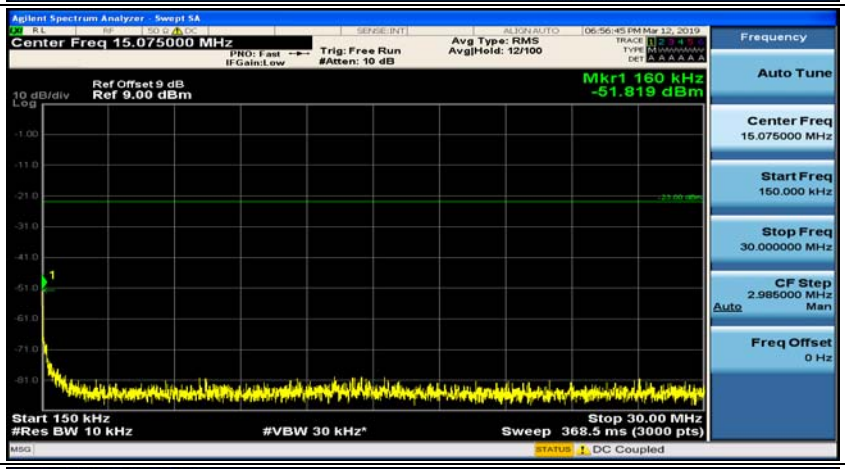

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:56:05 PM Mar 12, 2019
Frequency
Mkr1 160 kHz
-57.760 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:56:11 PM Mar 12, 2019
Frequency
Mkr2 25.697 GHz
-26.250 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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)

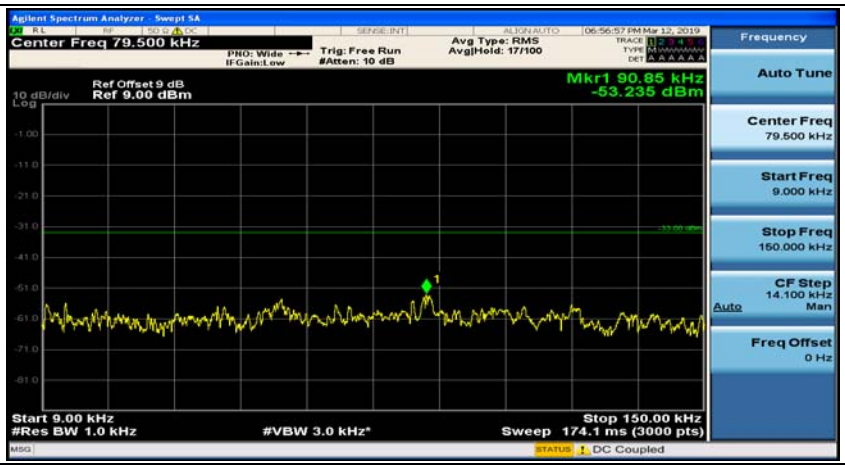
Channel Bandwidth: 10 MHz

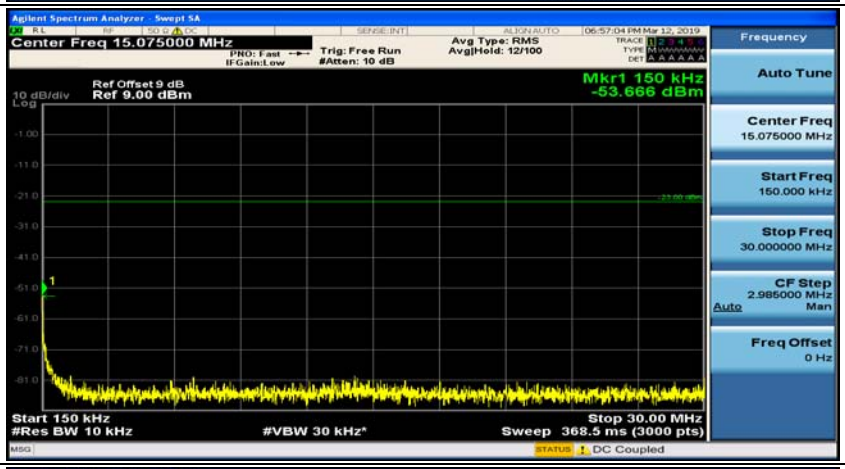
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

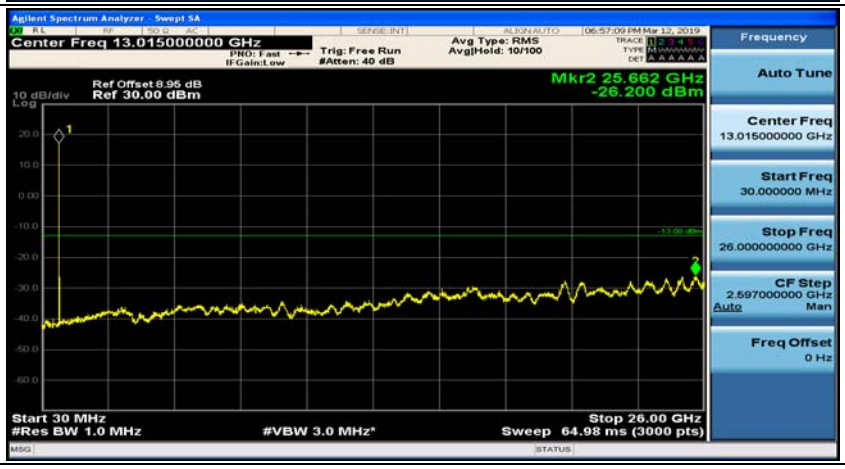


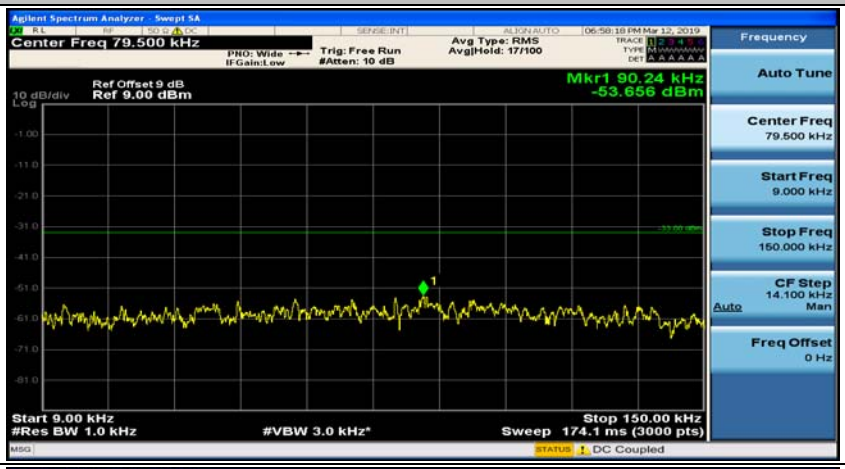
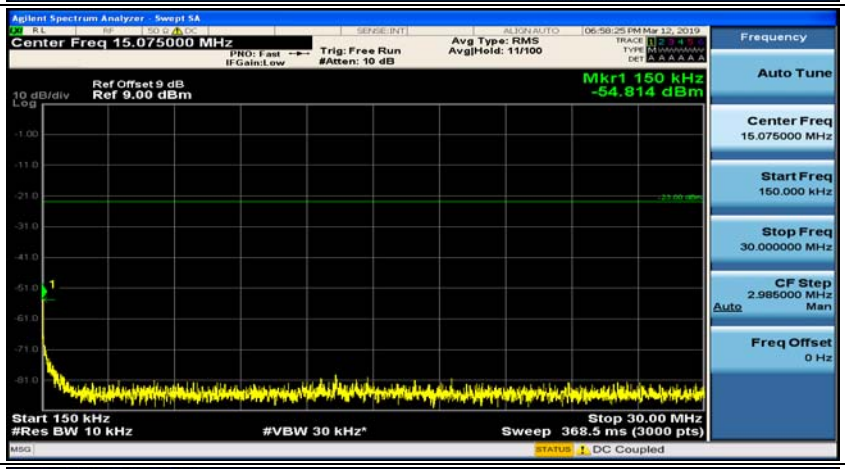
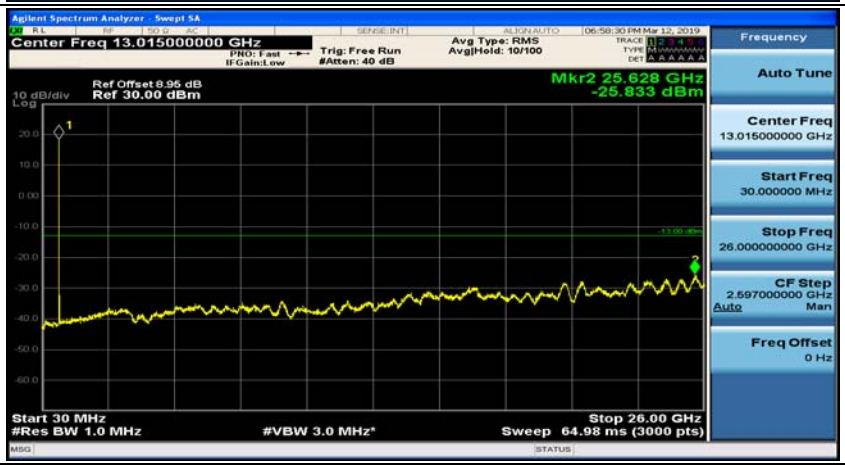


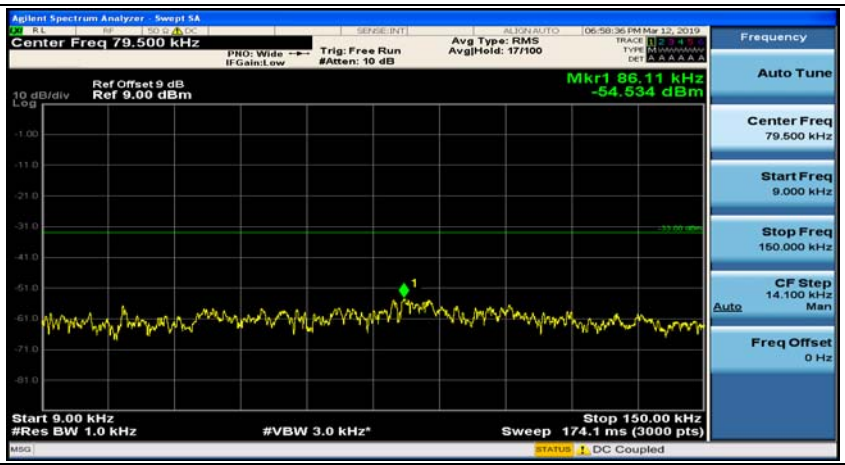
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

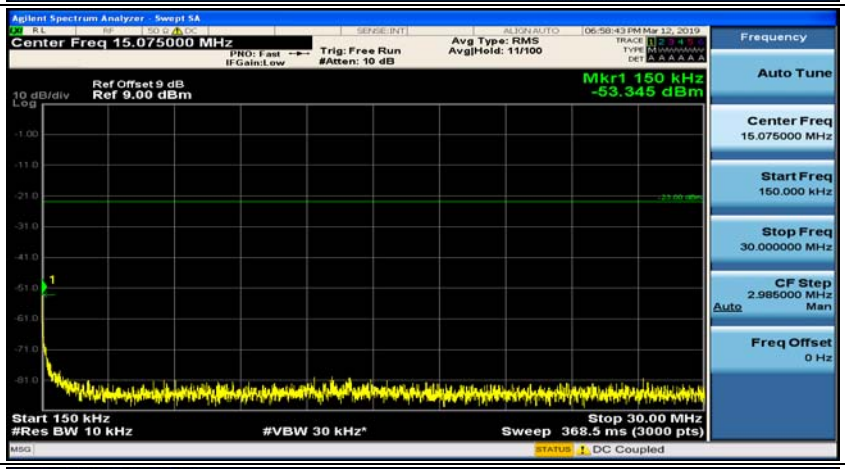

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:56:57 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 90.85 kHz
-53.235 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

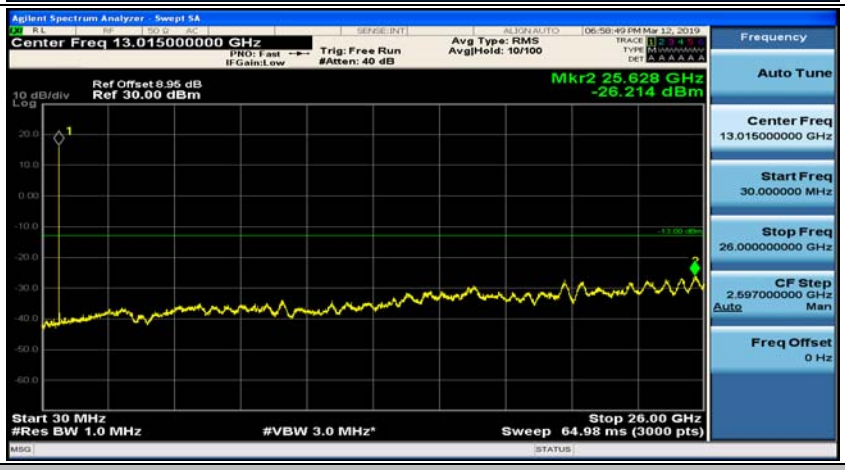

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:57:04 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 150 kHz
-53.666 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:57:09 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.662 GHz
-26.200 dBm
Ref Offset 8.95 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)

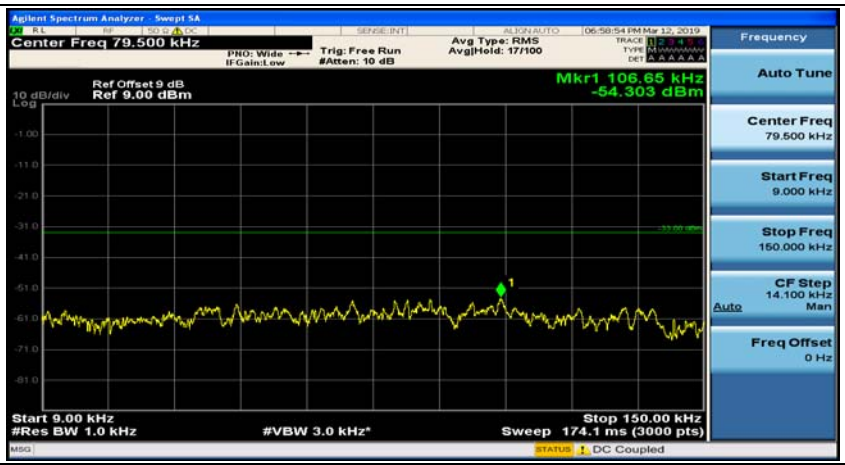
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

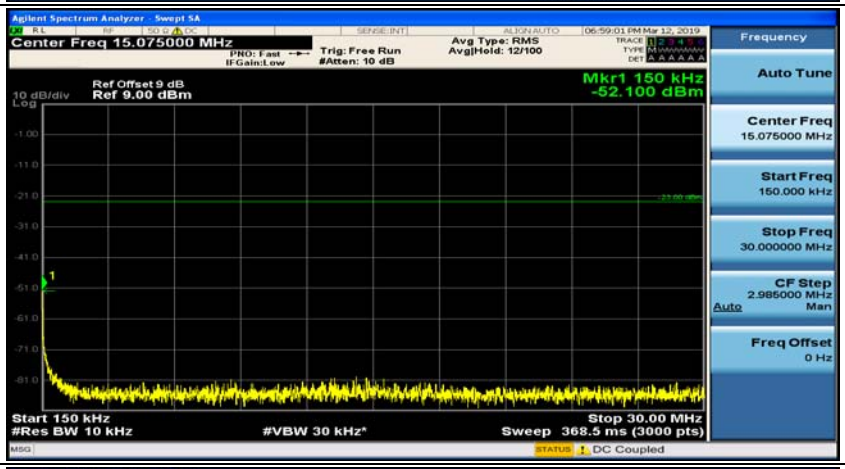




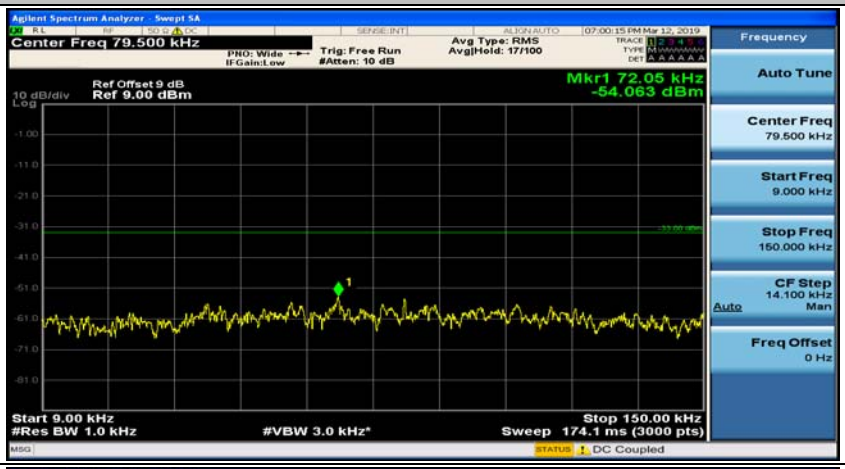
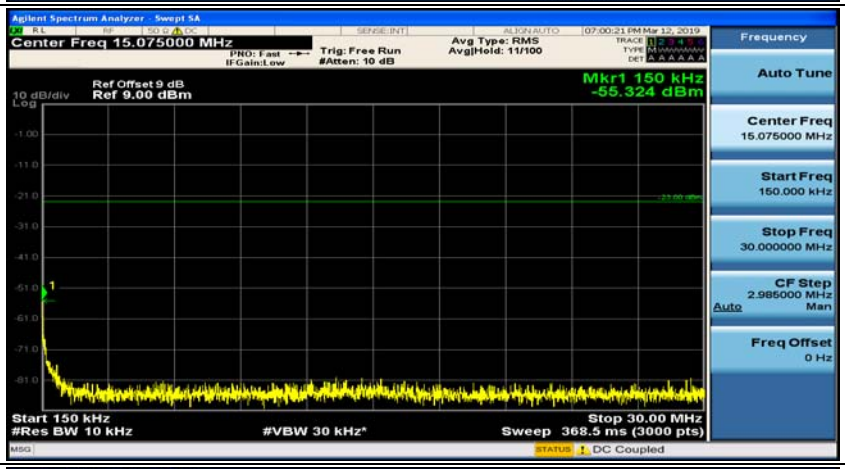
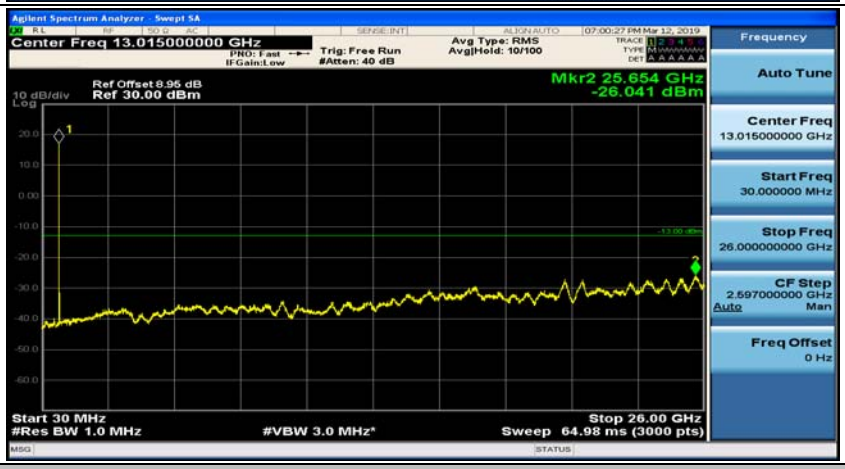


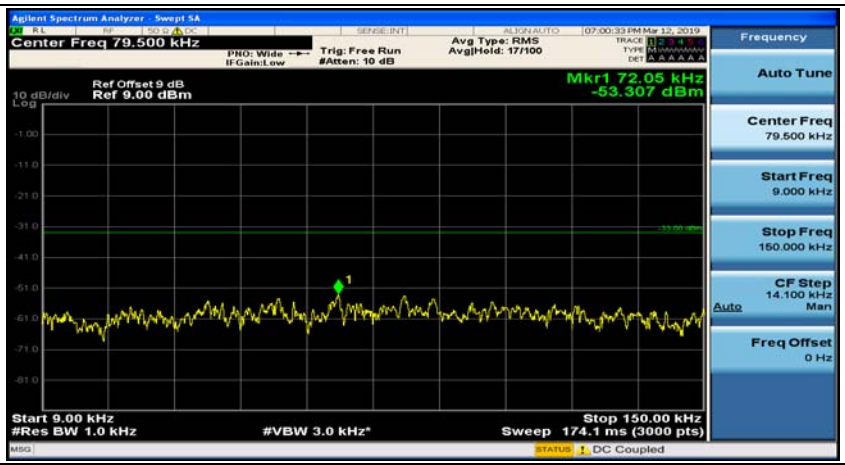
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

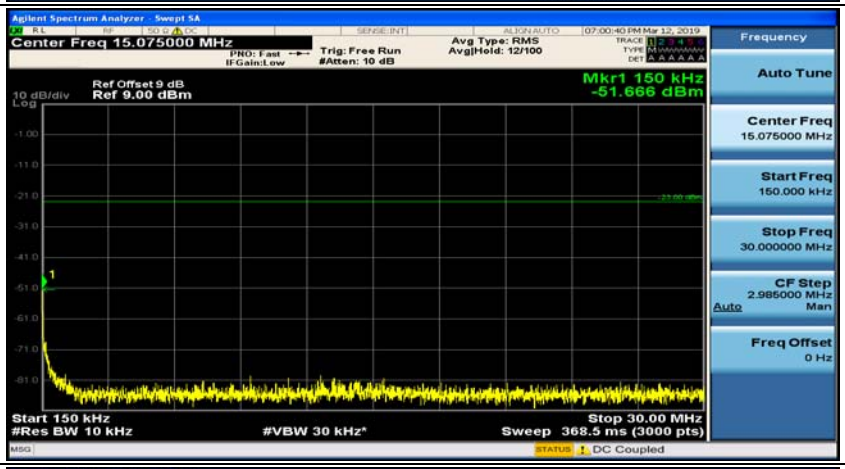

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:58:54 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 106.65 kHz
-54.303 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

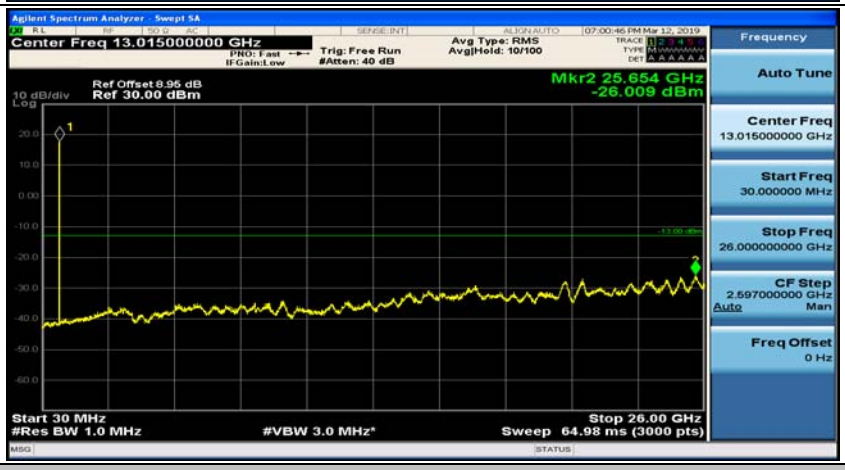

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
06:59:01 PM Mar 12, 2019
Frequency
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-52.100 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 10/100
06:59:07 PM Mar 12, 2019
Frequency
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.662 GHz
-26.093 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)

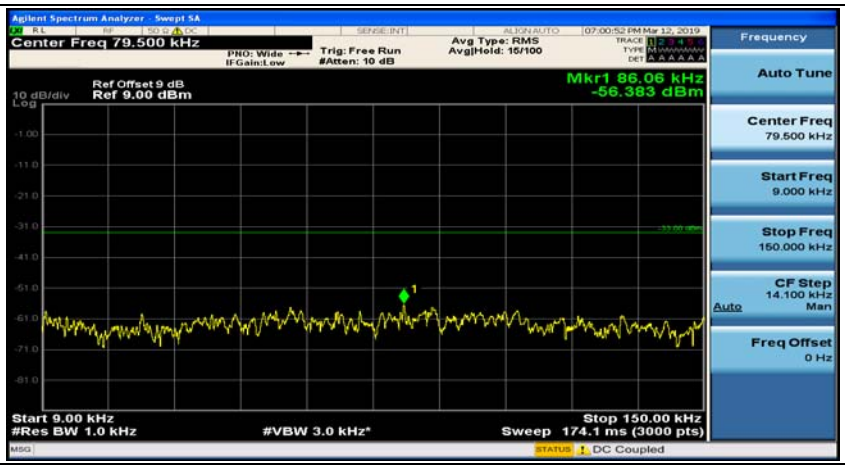
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

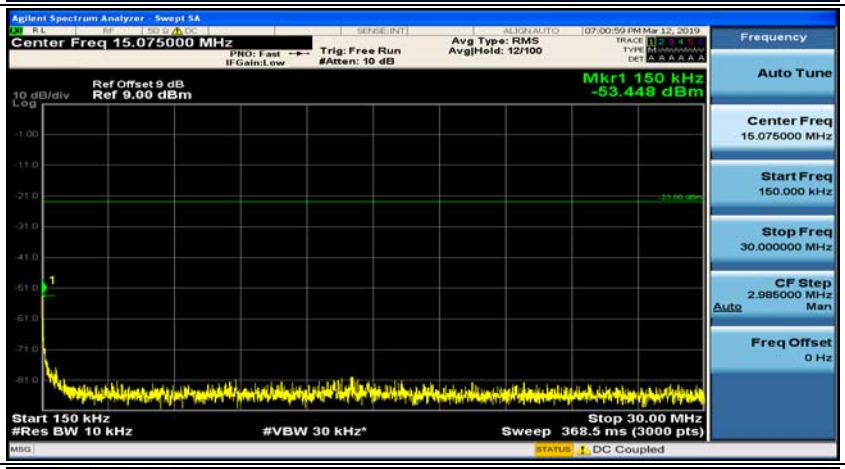


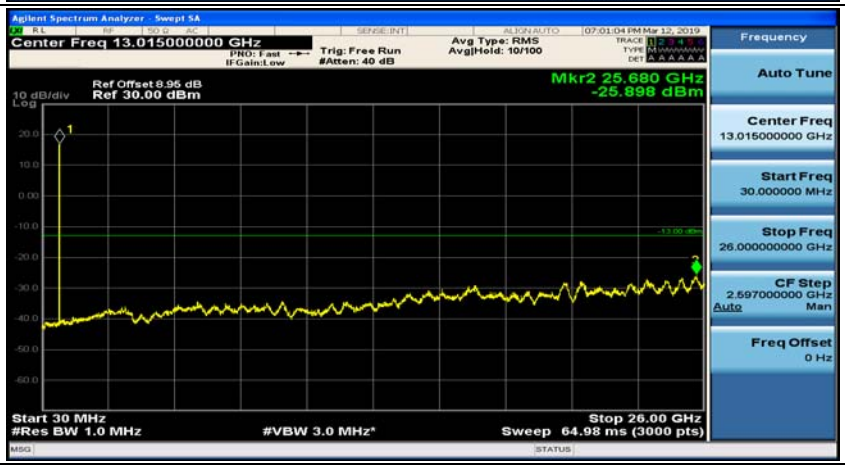


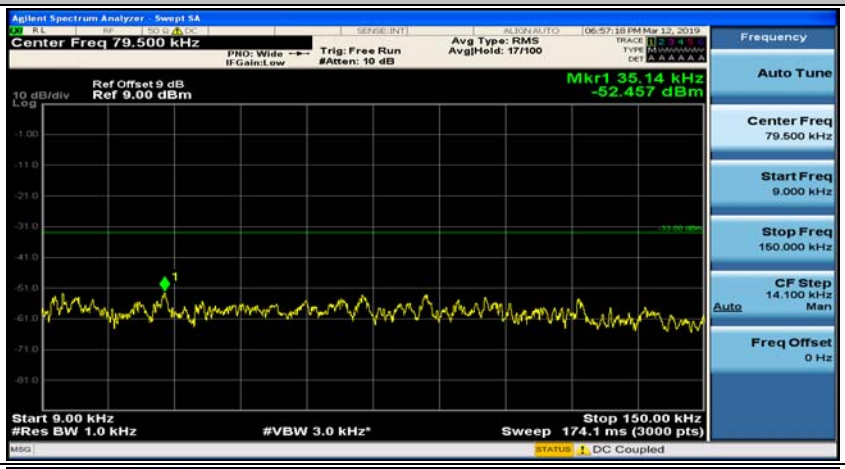
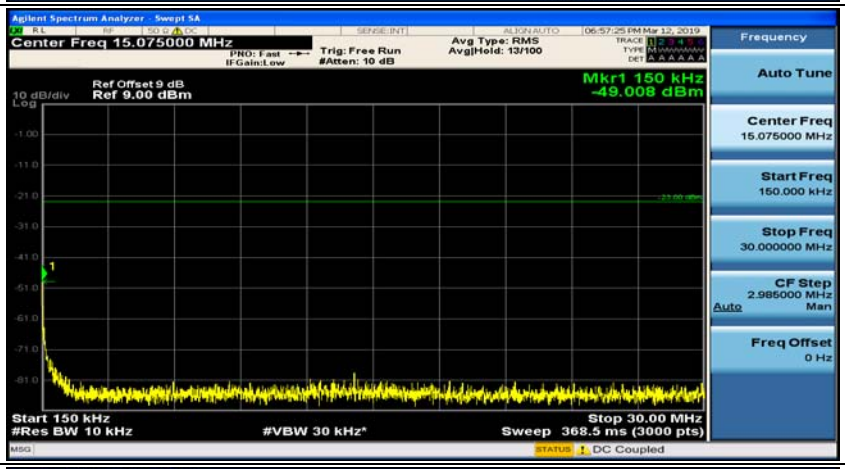
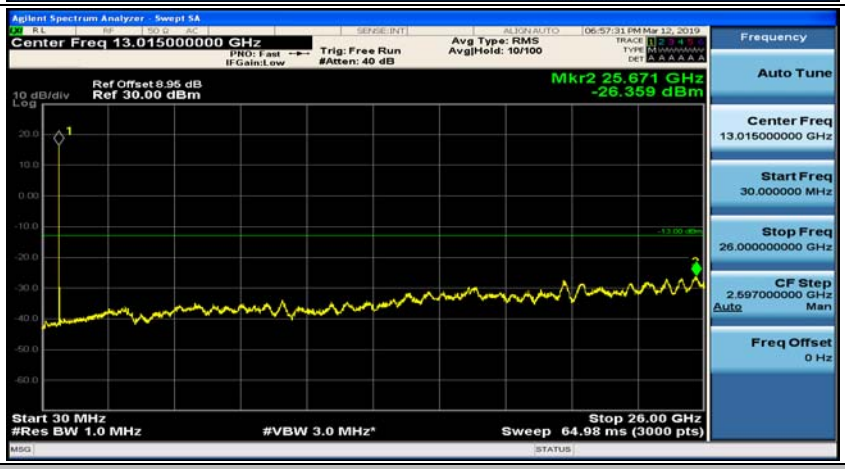


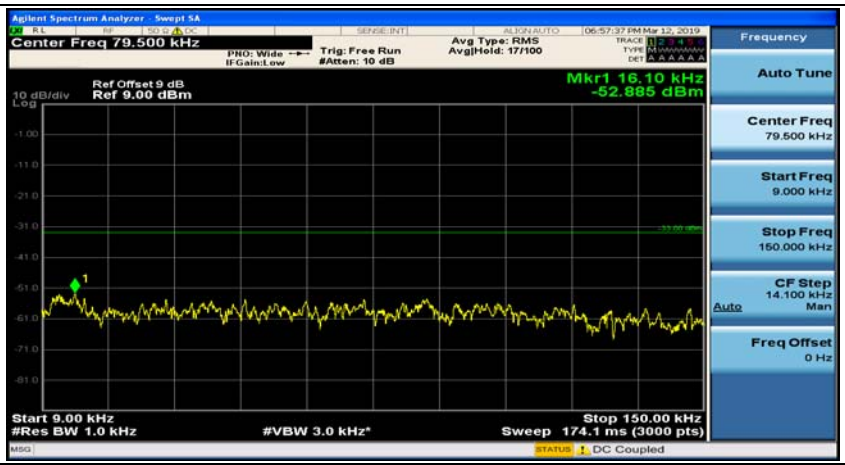
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

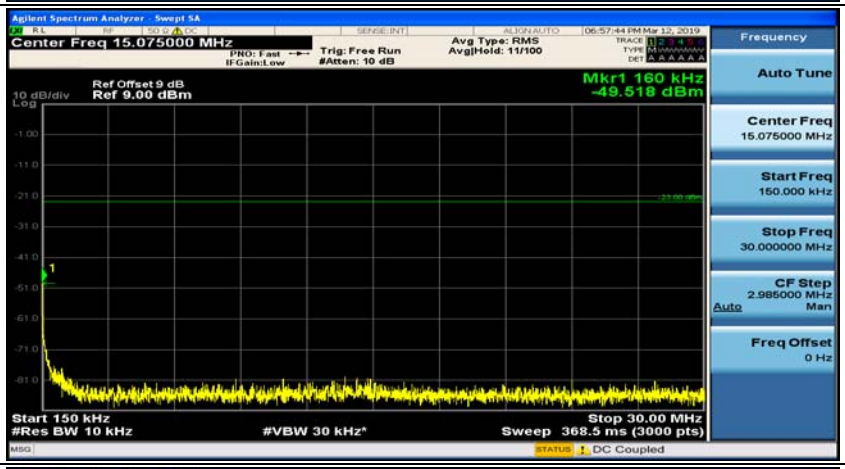

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 16/100
07:00:52 PM Mar 12, 2019
Frequency
Mkr1 86.06 kHz
-56.383 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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

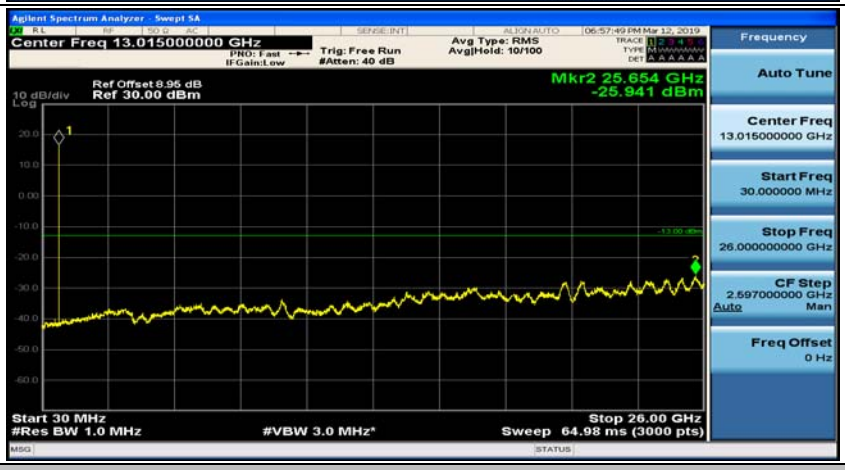

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
07:00:59 PM Mar 12, 2019
Frequency
Mkr1 150 kHz
-53.448 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Auto Tune
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
07:01:04 PM Mar 12, 2019
Frequency
Mkr2 25.680 GHz
-25.898 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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)

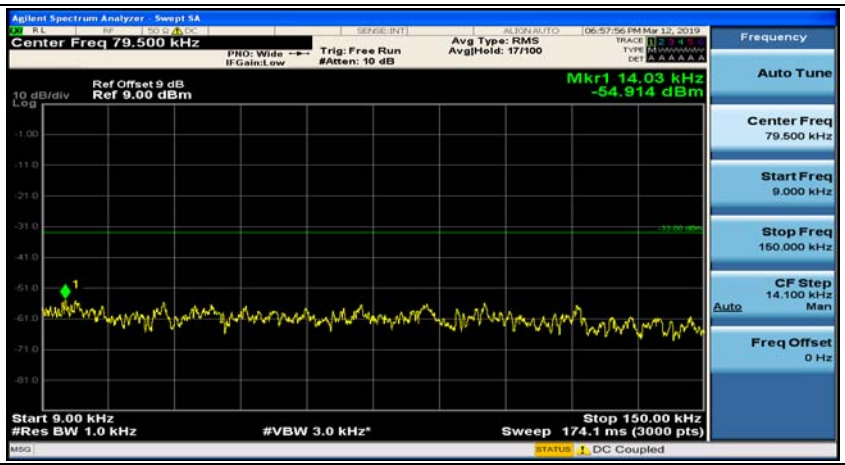
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

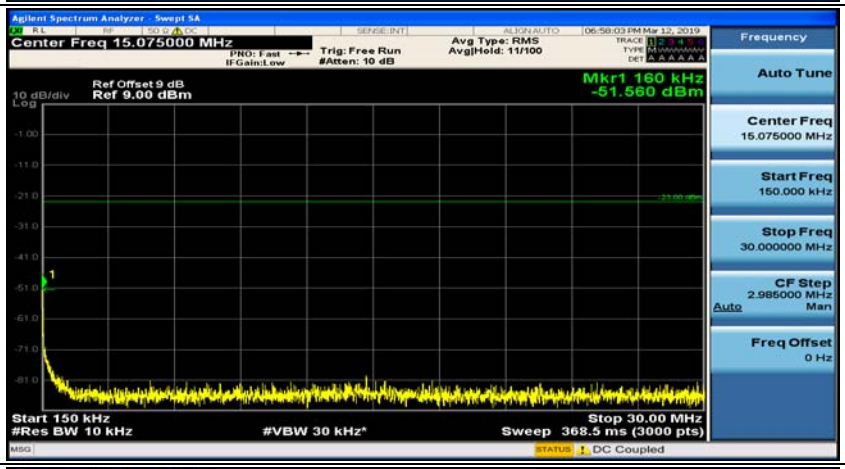


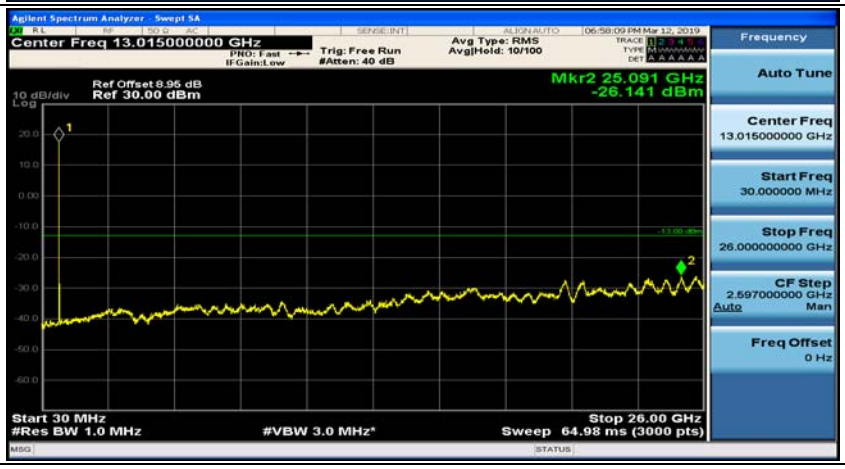


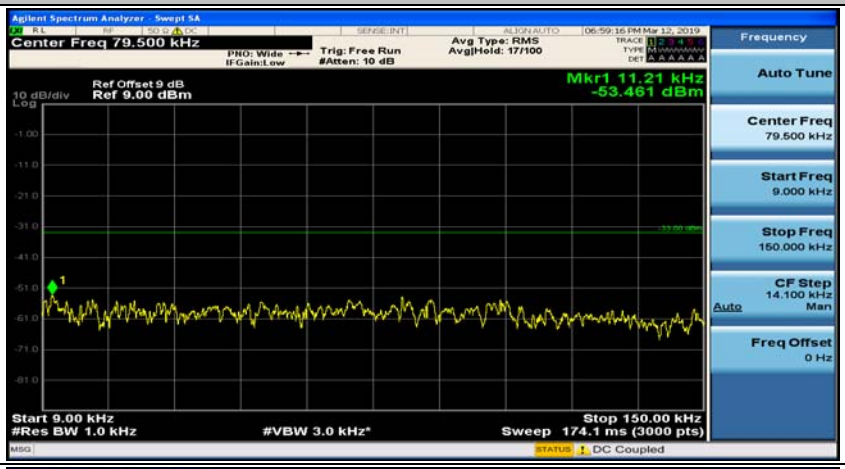
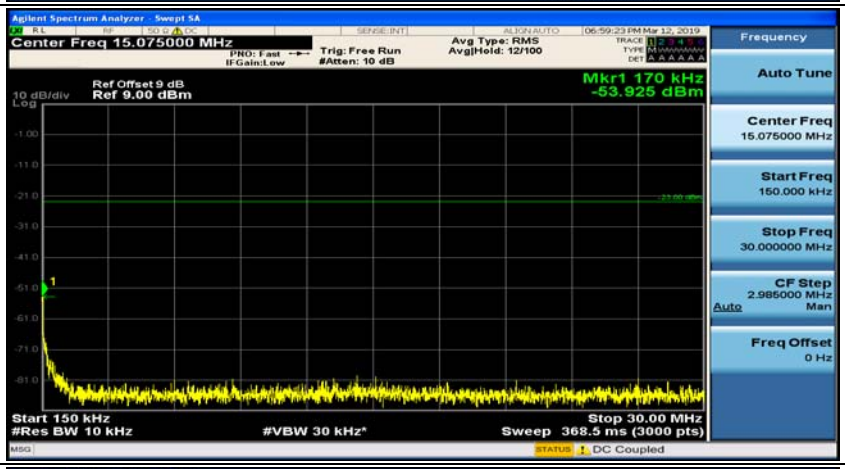
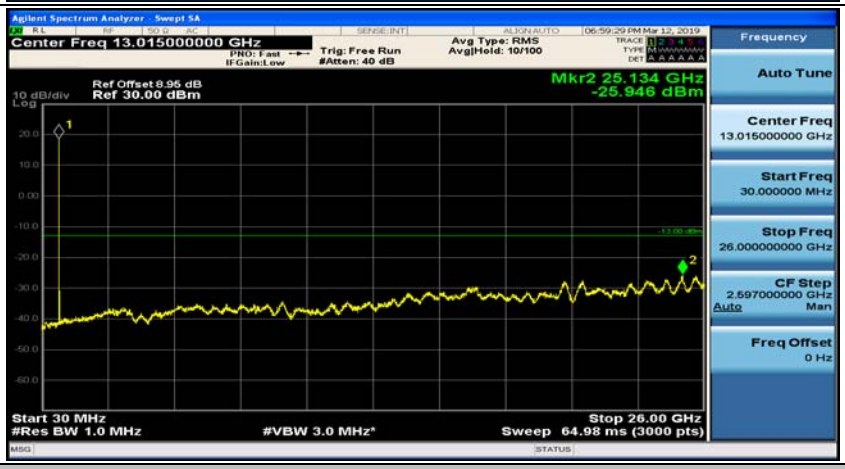


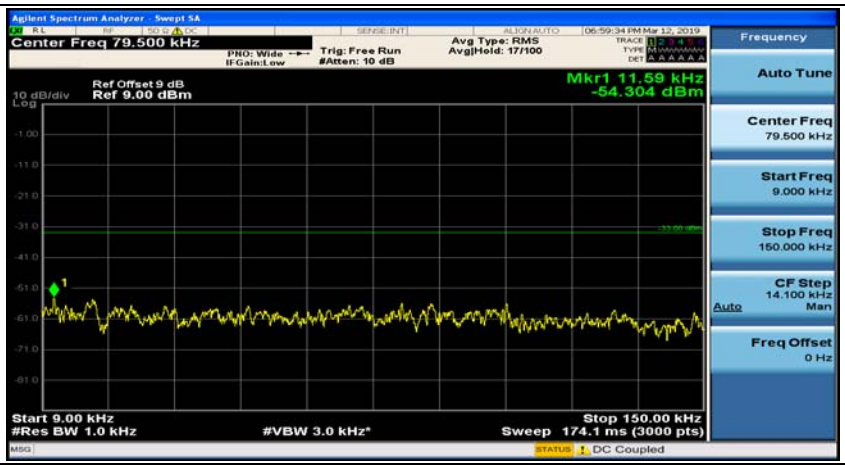
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

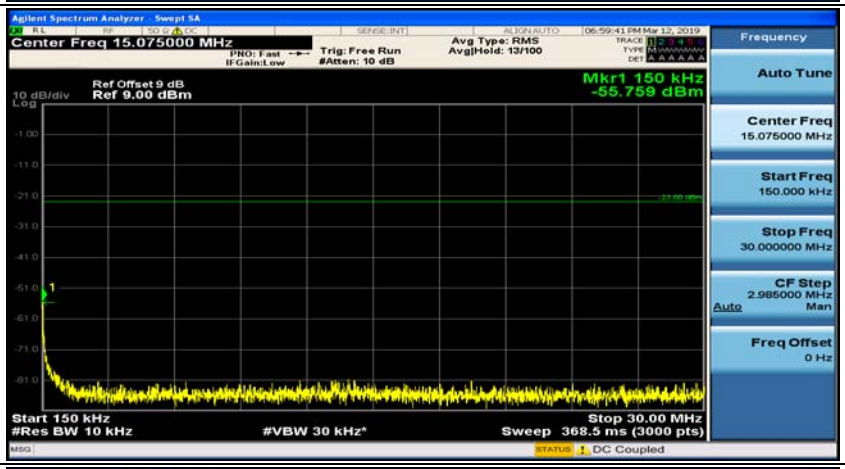

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:57:56 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 14.03 kHz
-54.914 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop 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: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
06:58:03 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 160 kHz
-51.560 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

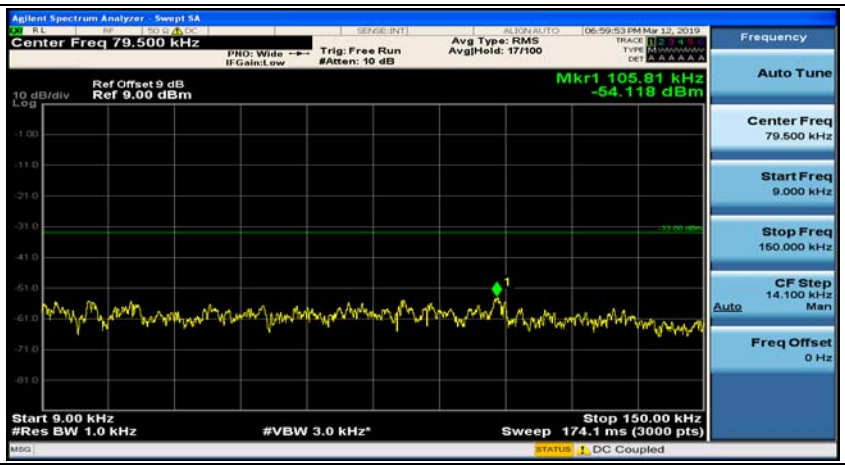

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
06:58:09 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.091 GHz
-26.141 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start 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)

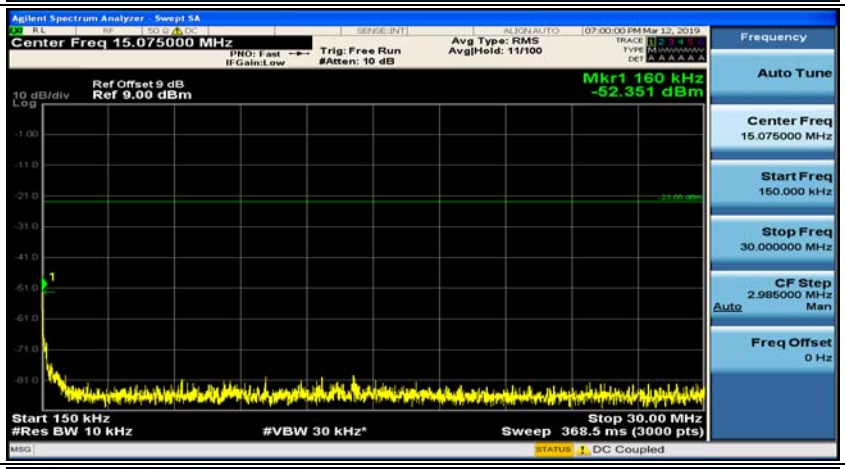
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

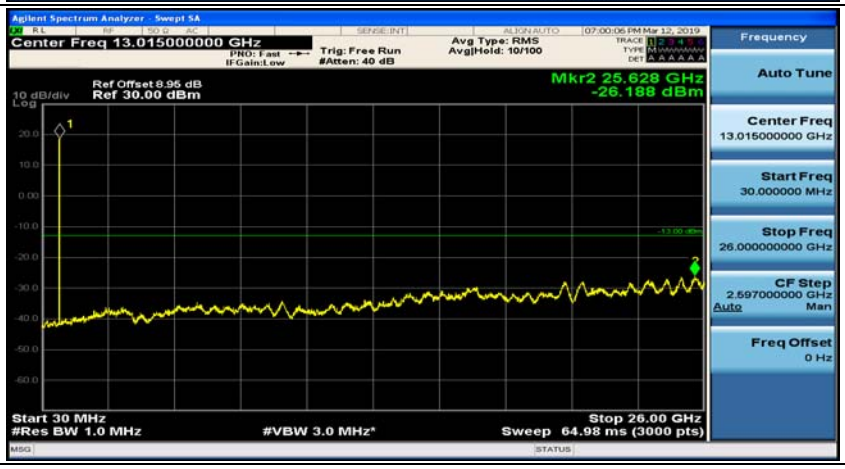


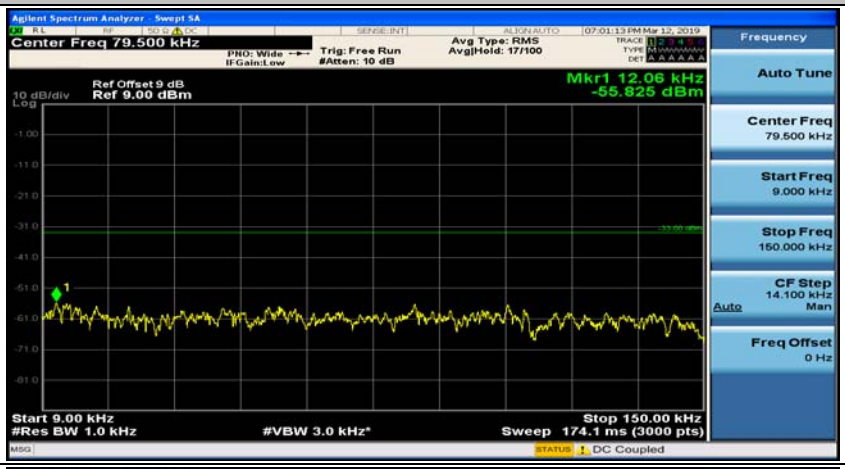
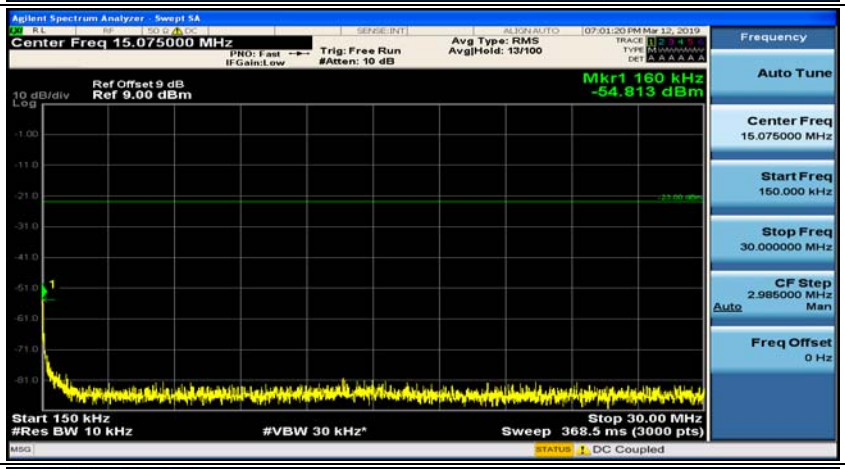
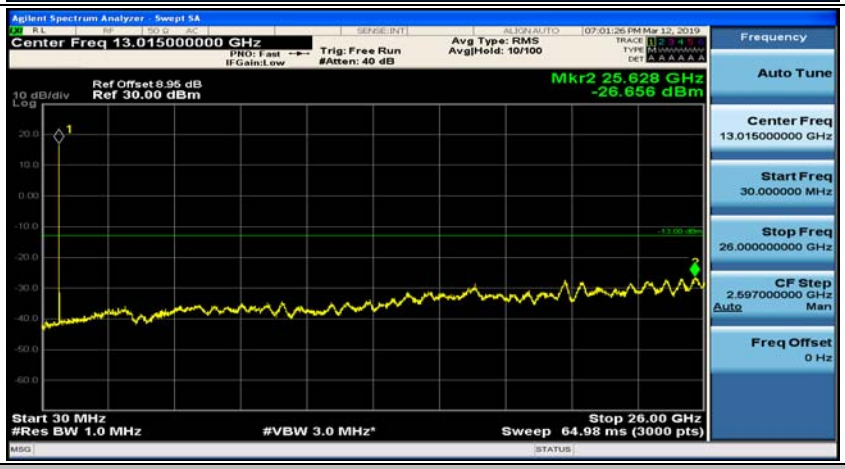


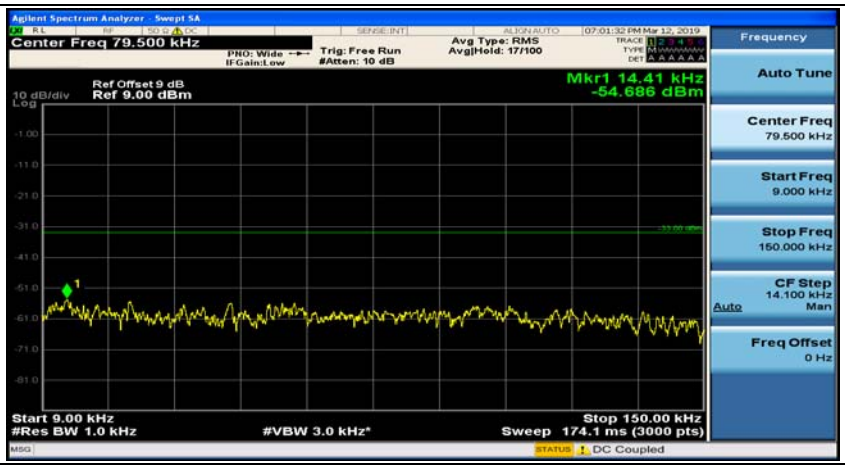
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

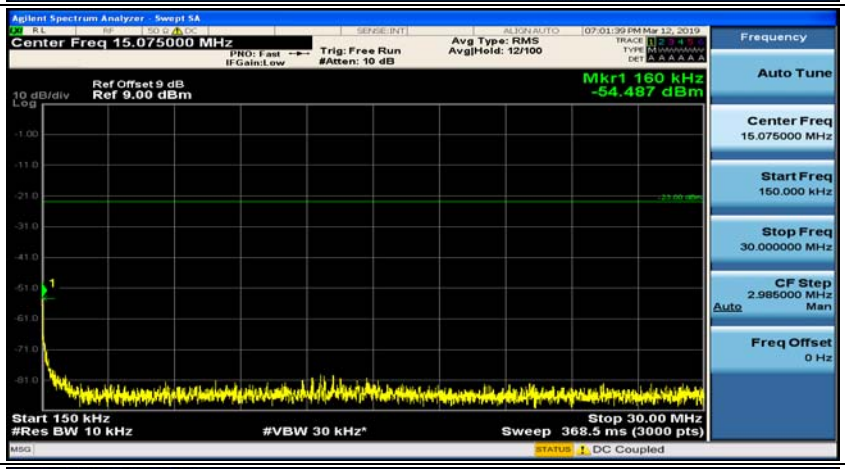

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
06:59:53 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 105.81 kHz
-54.118 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
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

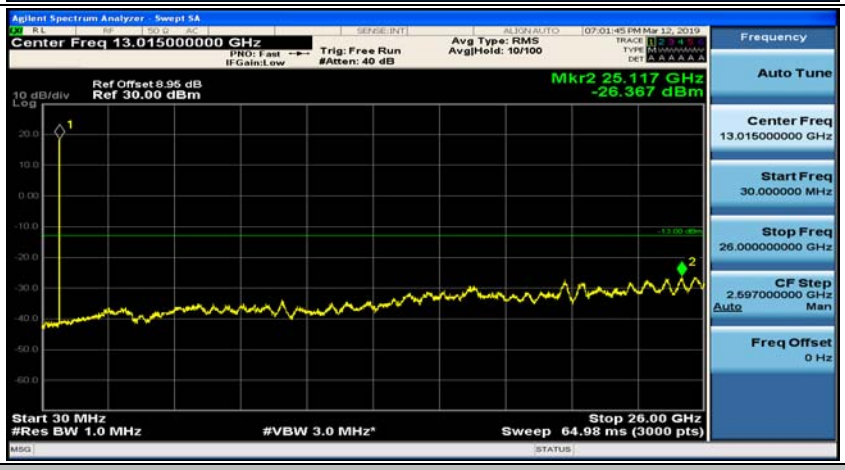

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
07:00:00 PM Mar 12, 2019
Frequency
Auto Tune
Mkr1 160 kHz
-52.351 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
07:00:06 PM Mar 12, 2019
Frequency
Auto Tune
Mkr2 25.628 GHz
-26.188 dBm
Ref Offset 8.95 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)

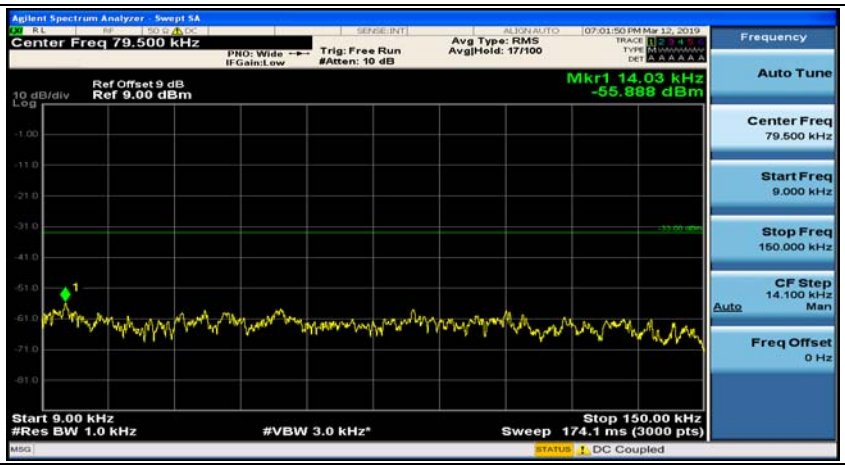
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

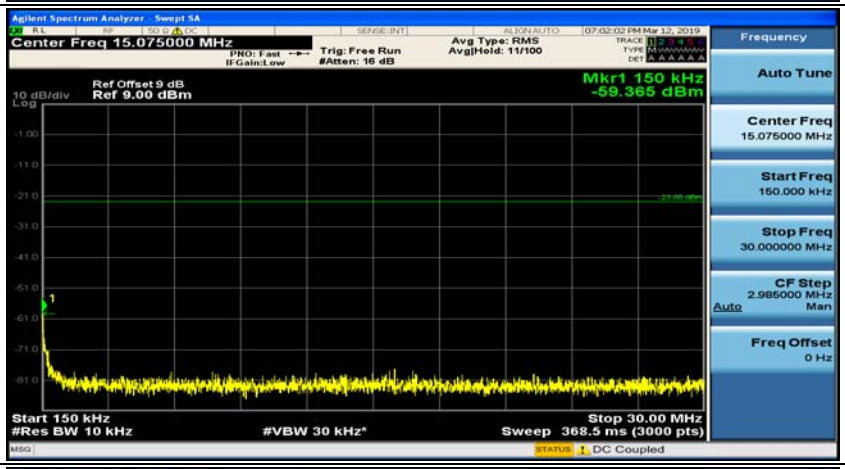


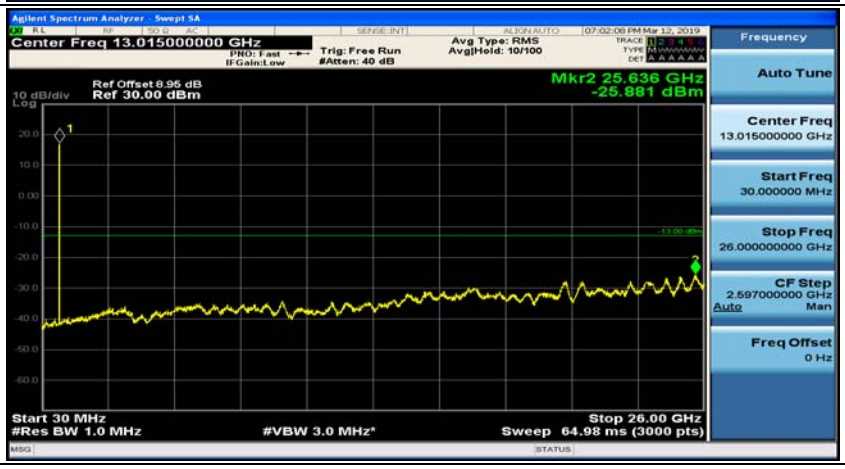




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49


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: 17/100
07:01:50 PM Mar 12, 2019
Frequency
Mkr1 14.03 kHz
-55.888 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: 11/100
07:02:02 PM Mar 12, 2019
Frequency
Mkr1 150 kHz
-59.365 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: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
07:02:08 PM Mar 12, 2019
Frequency
Mkr2 25.636 GHz
-25.881 dBm
Ref Offset 8.95 dB
10 dB/div
Log
Ref 30.00 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	-1.82	-0.002601	± 2.5	PASS
		VN	TN	0.91	0.001301	± 2.5	PASS
		VH	TN	-0.42	-0.000600	± 2.5	PASS
	MCH	VL	TN	4.59	0.006488	± 2.5	PASS
		VN	TN	-1.46	-0.002064	± 2.5	PASS
		VH	TN	1.85	0.002615	± 2.5	PASS
	HCH	VL	TN	-1.53	-0.002139	± 2.5	PASS
		VN	TN	-1.13	-0.001580	± 2.5	PASS
		VH	TN	4.87	0.006808	± 2.5	PASS
16QAM	LCH	VL	TN	-1.39	-0.001987	± 2.5	PASS
		VN	TN	-1.75	-0.002501	± 2.5	PASS
		VH	TN	-1.47	-0.002101	± 2.5	PASS
	MCH	VL	TN	-1.66	-0.002346	± 2.5	PASS
		VN	TN	-1.23	-0.001739	± 2.5	PASS
		VH	TN	4.37	0.006177	± 2.5	PASS
	HCH	VL	TN	-1.6	-0.002237	± 2.5	PASS
		VN	TN	2.22	0.003104	± 2.5	PASS
		VH	TN	-0.96	-0.001342	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.7	-0.001000	± 2.5	PASS
		VN	-20	3.14	0.004488	± 2.5	PASS
		VN	-10	3.59	0.005131	± 2.5	PASS
		VN	0	1.67	0.002387	± 2.5	PASS
		VN	10	-0.59	-0.000843	± 2.5	PASS
		VN	20	4.46	0.006374	± 2.5	PASS
		VN	30	0.28	0.000400	± 2.5	PASS
		VN	40	4.78	0.006831	± 2.5	PASS
		VN	50	0.69	0.000986	± 2.5	PASS
	MCH	VN	-30	4.46	0.006304	± 2.5	PASS

		VN	-20	1.27	0.001795	± 2.5	PASS
		VN	-10	2.82	0.003986	± 2.5	PASS
		VN	0	0.05	0.000071	± 2.5	PASS
		VN	10	-1.6	-0.002261	± 2.5	PASS
		VN	20	4.99	0.007053	± 2.5	PASS
		VN	30	4.57	0.006459	± 2.5	PASS
		VN	40	3.13	0.004424	± 2.5	PASS
		VN	50	1.17	0.001654	± 2.5	PASS
	HCH	VN	-30	2.12	0.002964	± 2.5	PASS
		VN	-20	3.33	0.004655	± 2.5	PASS
		VN	-10	4.39	0.006137	± 2.5	PASS
		VN	0	4.19	0.005858	± 2.5	PASS
		VN	10	2.3	0.003215	± 2.5	PASS
		VN	20	1.4	0.001957	± 2.5	PASS
		VN	30	-0.78	-0.001090	± 2.5	PASS
		VN	40	2.27	0.003173	± 2.5	PASS
		VN	50	1.98	0.002768	± 2.5	PASS
16QAM	LCH	VN	-30	2.72	0.003887	± 2.5	PASS
		VN	-20	-1.76	-0.002515	± 2.5	PASS
		VN	-10	-0.25	-0.000357	± 2.5	PASS
		VN	0	-1.68	-0.002401	± 2.5	PASS
		VN	10	-1.67	-0.002387	± 2.5	PASS
		VN	20	0.43	0.000615	± 2.5	PASS
		VN	30	3.81	0.005445	± 2.5	PASS
		VN	40	1.9	0.002715	± 2.5	PASS
		VN	50	2.09	0.002987	± 2.5	PASS
	MCH	VN	-30	-0.06	-0.000085	± 2.5	PASS
		VN	-20	2.91	0.004113	± 2.5	PASS
		VN	-10	3.19	0.004509	± 2.5	PASS
		VN	0	2.71	0.003830	± 2.5	PASS
		VN	10	-0.31	-0.000438	± 2.5	PASS
		VN	20	-0.24	-0.000339	± 2.5	PASS
		VN	30	2.85	0.004028	± 2.5	PASS
		VN	40	1.75	0.002473	± 2.5	PASS
		VN	50	-1.49	-0.002106	± 2.5	PASS
	HCH	VN	-30	4.99	0.006976	± 2.5	PASS
		VN	-20	2.29	0.003201	± 2.5	PASS
		VN	-10	-1.39	-0.001943	± 2.5	PASS
		VN	0	0.31	0.000433	± 2.5	PASS
		VN	10	3.02	0.004222	± 2.5	PASS
		VN	20	-1.21	-0.001692	± 2.5	PASS

		VN	30	0.77	0.001076	± 2.5	PASS
		VN	40	1.87	0.002614	± 2.5	PASS
		VN	50	2.04	0.002852	± 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	1.26	0.001799	± 2.5	PASS
		VN	TN	0.48	0.000685	± 2.5	PASS
		VH	TN	-0.1	-0.000143	± 2.5	PASS
	MCH	VL	TN	-0.56	-0.000792	± 2.5	PASS
		VN	TN	4.24	0.005993	± 2.5	PASS
		VH	TN	1.23	0.001739	± 2.5	PASS
	HCH	VL	TN	1.83	0.002561	± 2.5	PASS
		VN	TN	-0.38	-0.000532	± 2.5	PASS
		VH	TN	0.71	0.000994	± 2.5	PASS
16QAM	LCH	VL	TN	0.22	0.000314	± 2.5	PASS
		VN	TN	2.06	0.002941	± 2.5	PASS
		VH	TN	-1.11	-0.001585	± 2.5	PASS
	MCH	VL	TN	-1.38	-0.001951	± 2.5	PASS
		VN	TN	2.09	0.002954	± 2.5	PASS
		VH	TN	-1.72	-0.002431	± 2.5	PASS
	HCH	VL	TN	4.94	0.006914	± 2.5	PASS
		VN	TN	2.9	0.004059	± 2.5	PASS
		VH	TN	-1.02	-0.001428	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.99	0.002841	± 2.5	PASS
		VN	-20	3.66	0.005225	± 2.5	PASS
		VN	-10	2.32	0.003312	± 2.5	PASS
		VN	0	-1.67	-0.002384	± 2.5	PASS
		VN	10	0.31	0.000443	± 2.5	PASS
		VN	20	4.12	0.005882	± 2.5	PASS
		VN	30	-1.16	-0.001656	± 2.5	PASS
		VN	40	3.95	0.005639	± 2.5	PASS
		VN	50	2.16	0.003084	± 2.5	PASS
	MCH	VN	-30	4.82	0.006813	± 2.5	PASS
		VN	-20	-1.56	-0.002205	± 2.5	PASS

		VN	-10	1.46	0.002064	± 2.5	PASS
		VN	0	4.41	0.006233	± 2.5	PASS
		VN	10	-1.89	-0.002671	± 2.5	PASS
		VN	20	0.55	0.000777	± 2.5	PASS
		VN	30	0.06	0.000085	± 2.5	PASS
		VN	40	-1.77	-0.002502	± 2.5	PASS
		VN	50	3.17	0.004481	± 2.5	PASS
	HCH	VN	-30	-0.98	-0.001372	± 2.5	PASS
		VN	-20	0.26	0.000364	± 2.5	PASS
		VN	-10	1.83	0.002561	± 2.5	PASS
		VN	0	3.85	0.005388	± 2.5	PASS
		VN	10	-0.9	-0.001260	± 2.5	PASS
		VN	20	1.84	0.002575	± 2.5	PASS
		VN	30	-1.59	-0.002225	± 2.5	PASS
		VN	40	1.82	0.002547	± 2.5	PASS
		VN	50	2.19	0.003065	± 2.5	PASS
QPSK	LCH	VN	-30	-0.28	-0.000400	± 2.5	PASS
		VN	-20	3.25	0.004640	± 2.5	PASS
		VN	-10	-1.42	-0.002027	± 2.5	PASS
		VN	0	-1.77	-0.002527	± 2.5	PASS
		VN	10	2.41	0.003440	± 2.5	PASS
		VN	20	3.59	0.005125	± 2.5	PASS
		VN	30	-0.33	-0.000471	± 2.5	PASS
		VN	40	2.01	0.002869	± 2.5	PASS
		VN	50	2.04	0.002912	± 2.5	PASS
	MCH	VN	-30	3.92	0.005541	± 2.5	PASS
		VN	-20	-1.74	-0.002459	± 2.5	PASS
		VN	-10	3.79	0.005357	± 2.5	PASS
		VN	0	3.28	0.004636	± 2.5	PASS
		VN	10	4.59	0.006488	± 2.5	PASS
		VN	20	-1.34	-0.001894	± 2.5	PASS
		VN	30	3.81	0.005385	± 2.5	PASS
		VN	40	-0.64	-0.000905	± 2.5	PASS
		VN	50	-0.43	-0.000608	± 2.5	PASS
	HCH	VN	-30	3.38	0.004731	± 2.5	PASS
		VN	-20	2.54	0.003555	± 2.5	PASS
		VN	-10	3.28	0.004591	± 2.5	PASS
		VN	0	2.08	0.002911	± 2.5	PASS
		VN	10	2.53	0.003541	± 2.5	PASS
		VN	20	0.07	0.000098	± 2.5	PASS
		VN	30	-0.94	-0.001316	± 2.5	PASS

		VN	40	0.56	0.000784	± 2.5	PASS
		VN	50	-0.78	-0.001092	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.85	0.002637	± 2.5	PASS
		VN	TN	-0.06	-0.000086	± 2.5	PASS
		VH	TN	3.85	0.005488	± 2.5	PASS
	MCH	VL	TN	2.76	0.003901	± 2.5	PASS
		VN	TN	3.42	0.004834	± 2.5	PASS
		VH	TN	3.26	0.004608	± 2.5	PASS
	HCH	VL	TN	-0.79	-0.001107	± 2.5	PASS
		VN	TN	-1.61	-0.002256	± 2.5	PASS
		VH	TN	1.6	0.002242	± 2.5	PASS
16QAM	LCH	VL	TN	-1.84	-0.002623	± 2.5	PASS
		VN	TN	-1.58	-0.002252	± 2.5	PASS
		VH	TN	-0.74	-0.001055	± 2.5	PASS
	MCH	VL	TN	2.15	0.003039	± 2.5	PASS
		VN	TN	2.99	0.004226	± 2.5	PASS
		VH	TN	1.75	0.002473	± 2.5	PASS
	HCH	VL	TN	1.94	0.002719	± 2.5	PASS
		VN	TN	0.57	0.000799	± 2.5	PASS
		VH	TN	0.3	0.000420	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.2	0.004562	± 2.5	PASS
		VN	-20	-1.81	-0.002580	± 2.5	PASS
		VN	-10	-0.08	-0.000114	± 2.5	PASS
		VN	0	3.8	0.005417	± 2.5	PASS
		VN	10	2.55	0.003635	± 2.5	PASS
		VN	20	2.39	0.003407	± 2.5	PASS
		VN	30	3.91	0.005574	± 2.5	PASS
		VN	40	4.45	0.006344	± 2.5	PASS
		VN	50	3.82	0.005445	± 2.5	PASS
	MCH	VN	-30	-0.58	-0.000820	± 2.5	PASS
		VN	-20	3.89	0.005498	± 2.5	PASS
		VN	-10	4.69	0.006629	± 2.5	PASS

		VN	0	3.69	0.005216	± 2.5	PASS
		VN	10	1	0.001413	± 2.5	PASS
		VN	20	-0.3	-0.000424	± 2.5	PASS
		VN	30	2.35	0.003322	± 2.5	PASS
		VN	40	3.43	0.004848	± 2.5	PASS
		VN	50	3.57	0.005046	± 2.5	PASS
	HCH	VN	-30	2.45	0.003434	± 2.5	PASS
		VN	-20	-1.07	-0.001500	± 2.5	PASS
		VN	-10	1.98	0.002775	± 2.5	PASS
		VN	0	1.35	0.001892	± 2.5	PASS
		VN	10	0.93	0.001303	± 2.5	PASS
		VN	20	3.81	0.005340	± 2.5	PASS
		VN	30	-0.49	-0.000687	± 2.5	PASS
		VN	40	-0.64	-0.000897	± 2.5	PASS
		VN	50	0.46	0.000645	± 2.5	PASS
16QAM	LCH	VN	-30	4.26	0.006073	± 2.5	PASS
		VN	-20	4.66	0.006643	± 2.5	PASS
		VN	-10	3.17	0.004519	± 2.5	PASS
		VN	0	2.41	0.003435	± 2.5	PASS
		VN	10	-1.15	-0.001639	± 2.5	PASS
		VN	20	2.2	0.003136	± 2.5	PASS
		VN	30	4.01	0.005716	± 2.5	PASS
		VN	40	3.24	0.004619	± 2.5	PASS
		VN	50	-0.92	-0.001311	± 2.5	PASS
	MCH	VN	-30	0.58	0.000820	± 2.5	PASS
		VN	-20	-1.05	-0.001484	± 2.5	PASS
		VN	-10	1.96	0.002770	± 2.5	PASS
		VN	0	0.66	0.000933	± 2.5	PASS
		VN	10	-0.27	-0.000382	± 2.5	PASS
		VN	20	3.24	0.004580	± 2.5	PASS
		VN	30	-0.8	-0.001131	± 2.5	PASS
		VN	40	3.9	0.005512	± 2.5	PASS
		VN	50	2.75	0.003887	± 2.5	PASS
	HCH	VN	-30	4.35	0.006097	± 2.5	PASS
		VN	-20	1.25	0.001752	± 2.5	PASS
		VN	-10	1.98	0.002775	± 2.5	PASS
		VN	0	1.35	0.001892	± 2.5	PASS
		VN	10	2.5	0.003504	± 2.5	PASS
		VN	20	0.13	0.000182	± 2.5	PASS
		VN	30	3.61	0.005060	± 2.5	PASS
		VN	40	3.99	0.005592	± 2.5	PASS

		VN	50	2.44	0.003420	± 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	3.65	0.005185	± 2.5	PASS
		VN	TN	4.59	0.006520	± 2.5	PASS
		VH	TN	1.11	0.001577	± 2.5	PASS
	MCH	VL	TN	3.76	0.005314	± 2.5	PASS
		VN	TN	2.98	0.004212	± 2.5	PASS
		VH	TN	0.4	0.000565	± 2.5	PASS
	HCH	VL	TN	1.66	0.002335	± 2.5	PASS
		VN	TN	-1.74	-0.002447	± 2.5	PASS
		VH	TN	4.76	0.006695	± 2.5	PASS
16QAM	LCH	VL	TN	0.77	0.001094	± 2.5	PASS
		VN	TN	3.93	0.005582	± 2.5	PASS
		VH	TN	3.76	0.005341	± 2.5	PASS
	MCH	VL	TN	2.05	0.002898	± 2.5	PASS
		VN	TN	-0.19	-0.000269	± 2.5	PASS
		VH	TN	4.37	0.006177	± 2.5	PASS
	HCH	VL	TN	0	0.000000	± 2.5	PASS
		VN	TN	0.83	0.001167	± 2.5	PASS
		VH	TN	3.76	0.005288	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	1.3	0.001847	± 2.5	PASS
		VN	-20	0.39	0.000554	± 2.5	PASS
		VN	-10	0.86	0.001222	± 2.5	PASS
		VN	0	1.18	0.001676	± 2.5	PASS
		VN	10	1.74	0.002472	± 2.5	PASS
		VN	20	0.01	0.000014	± 2.5	PASS
		VN	30	0.6	0.000852	± 2.5	PASS
		VN	40	0.02	0.000028	± 2.5	PASS
		VN	50	-0.07	-0.000099	± 2.5	PASS
	MCH	VN	-30	1.03	0.001456	± 2.5	PASS
		VN	-20	0.67	0.000947	± 2.5	PASS
		VN	-10	1.4	0.001979	± 2.5	PASS
		VN	0	1.8	0.002544	± 2.5	PASS

		VN	10	2.2	0.003110	± 2.5	PASS
		VN	20	1.41	0.001993	± 2.5	PASS
		VN	30	0.42	0.000594	± 2.5	PASS
		VN	40	-1.27	-0.001795	± 2.5	PASS
		VN	50	-0.78	-0.001102	± 2.5	PASS
	HCH	VN	-30	3.15	0.004430	± 2.5	PASS
		VN	-20	3.65	0.005134	± 2.5	PASS
		VN	-10	4.76	0.006695	± 2.5	PASS
		VN	0	3.33	0.004684	± 2.5	PASS
		VN	10	-0.44	-0.000619	± 2.5	PASS
		VN	20	-1.64	-0.002307	± 2.5	PASS
		VN	30	4.58	0.006442	± 2.5	PASS
		VN	40	3.62	0.005091	± 2.5	PASS
		VN	50	1.28	0.001800	± 2.5	PASS
QPSK	LCH	VN	-30	1.6	0.002273	± 2.5	PASS
		VN	-20	4.93	0.007003	± 2.5	PASS
		VN	-10	-1.59	-0.002259	± 2.5	PASS
		VN	0	1.38	0.001960	± 2.5	PASS
		VN	10	0.85	0.001207	± 2.5	PASS
		VN	20	0.2	0.000284	± 2.5	PASS
		VN	30	-1.81	-0.002571	± 2.5	PASS
		VN	40	0.14	0.000199	± 2.5	PASS
		VN	50	-0.31	-0.000440	± 2.5	PASS
	MCH	VN	-30	2.09	0.002954	± 2.5	PASS
		VN	-20	0.34	0.000481	± 2.5	PASS
		VN	-10	4.55	0.006431	± 2.5	PASS
		VN	0	1.54	0.002177	± 2.5	PASS
		VN	10	2.32	0.003279	± 2.5	PASS
		VN	20	4.28	0.006049	± 2.5	PASS
		VN	30	-0.03	-0.000042	± 2.5	PASS
		VN	40	0.44	0.000622	± 2.5	PASS
		VN	50	3.95	0.005583	± 2.5	PASS
	HCH	VN	-30	3.56	0.005007	± 2.5	PASS
		VN	-20	1.35	0.001899	± 2.5	PASS
		VN	-10	-1.8	-0.002532	± 2.5	PASS
		VN	0	3.62	0.005091	± 2.5	PASS
		VN	10	1.47	0.002068	± 2.5	PASS
		VN	20	4.28	0.006020	± 2.5	PASS
		VN	30	3.34	0.004698	± 2.5	PASS
		VN	40	-0.63	-0.000886	± 2.5	PASS
		VN	50	2.73	0.003840	± 2.5	PASS