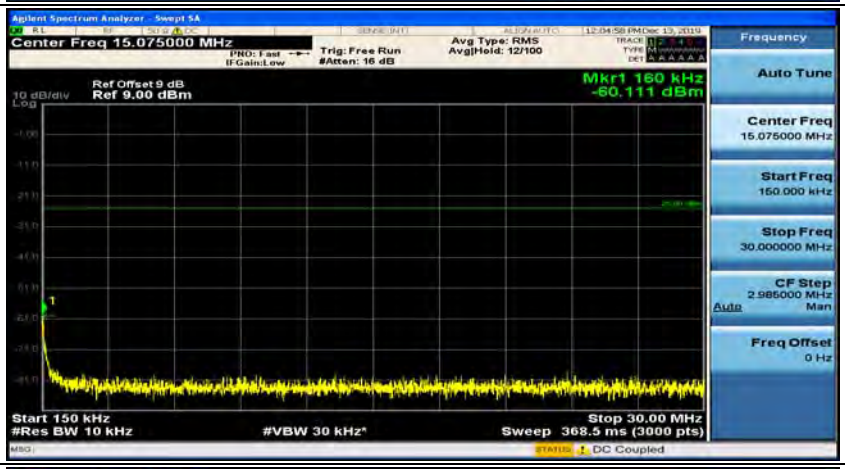
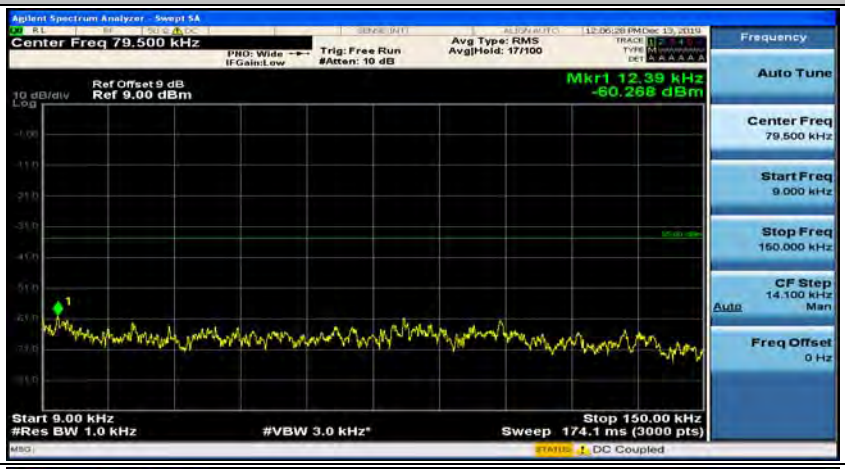
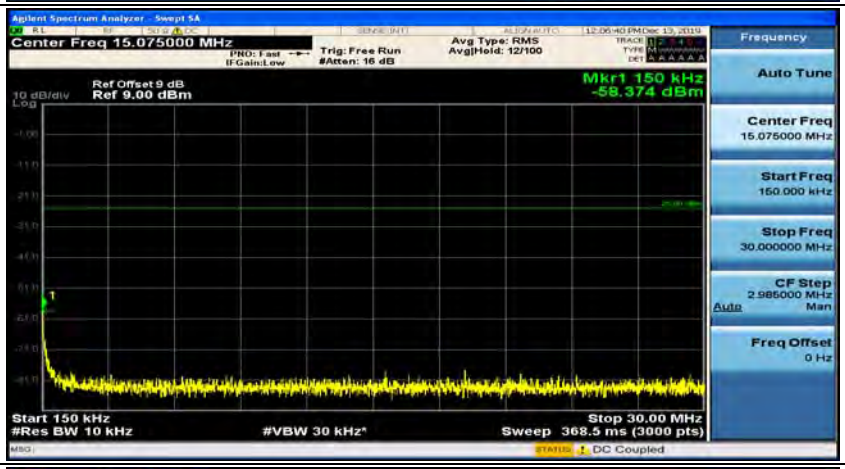
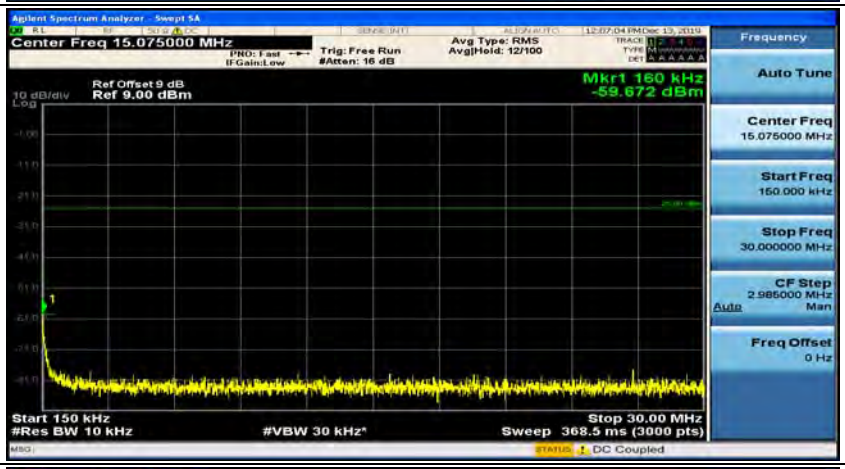
Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.49 kHz
-58.799 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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

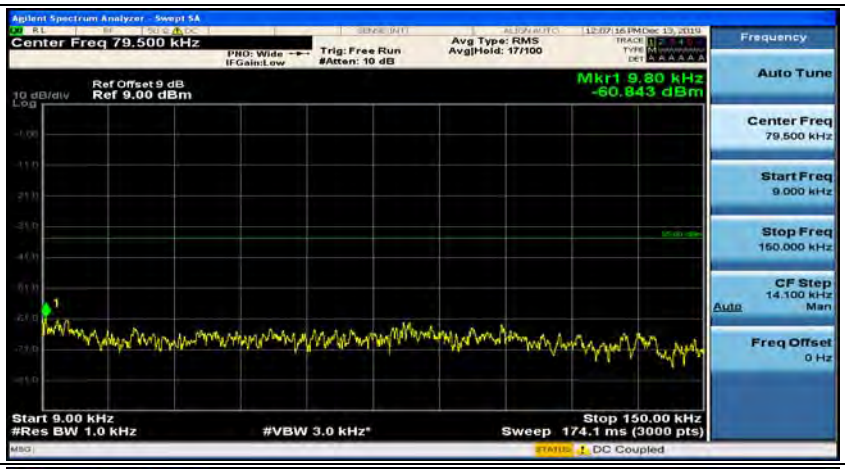

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 160 kHz
-60.111 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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

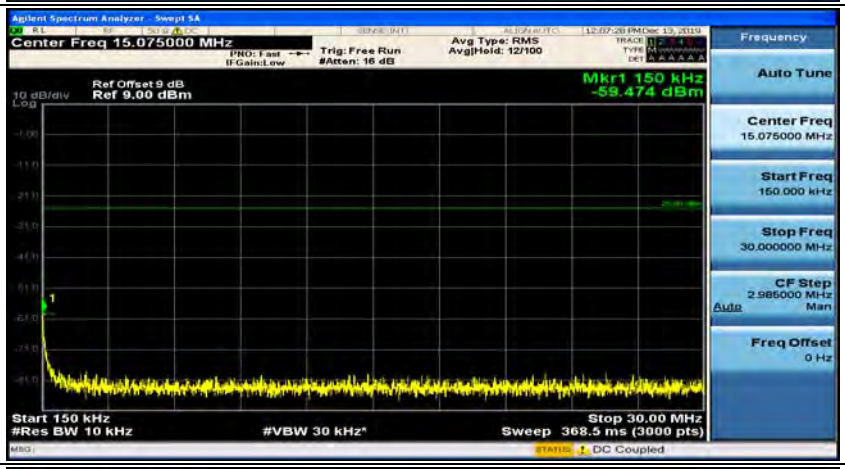
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.619 GHz
-45.353 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

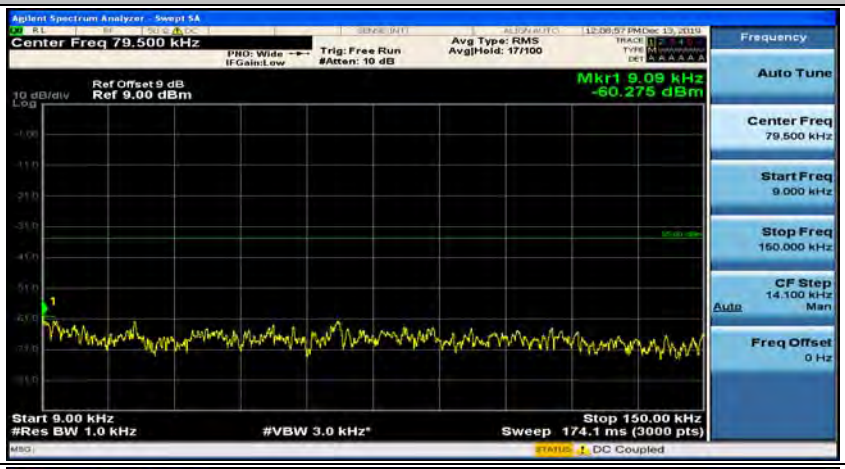
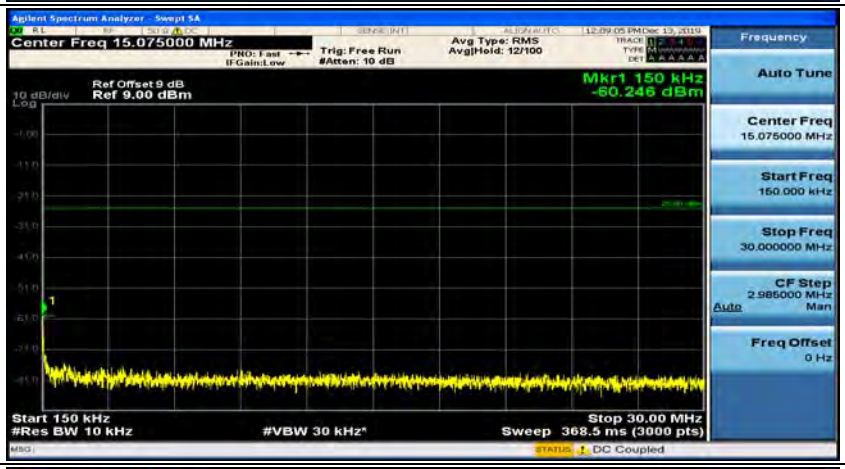


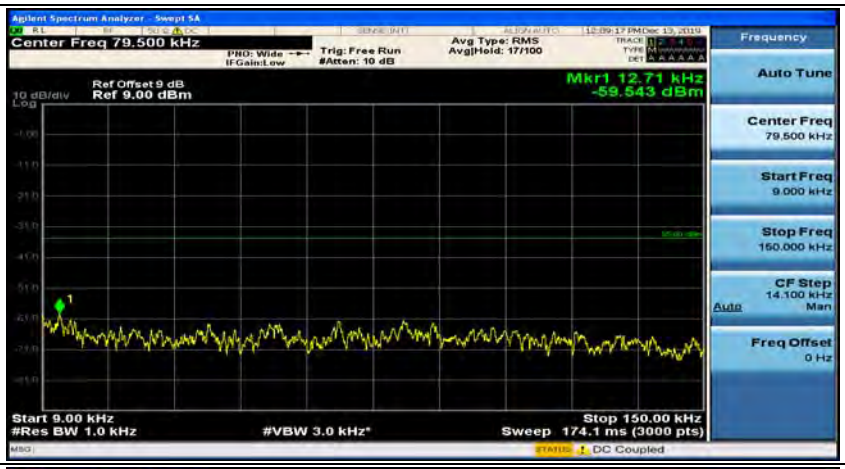
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

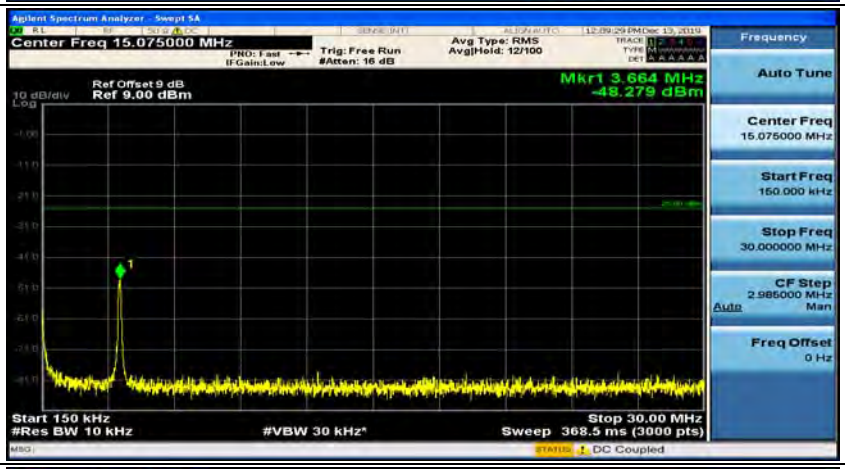

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.80 kHz
-60.843 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.474 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

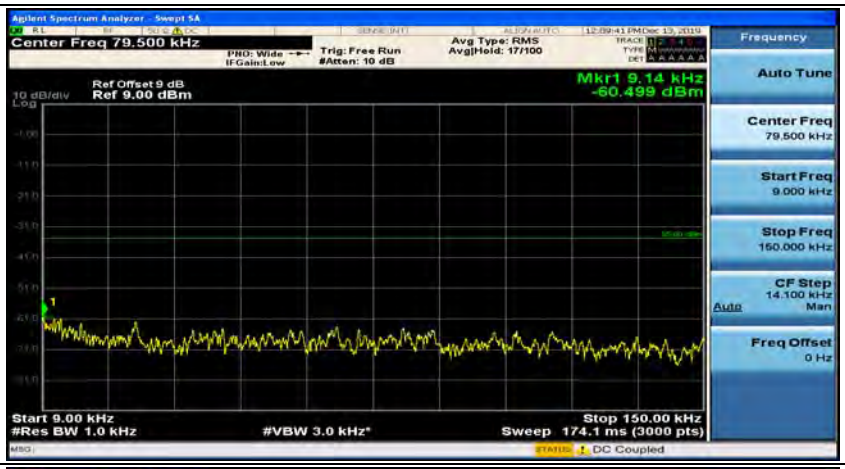
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.671 GHz
-45.526 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

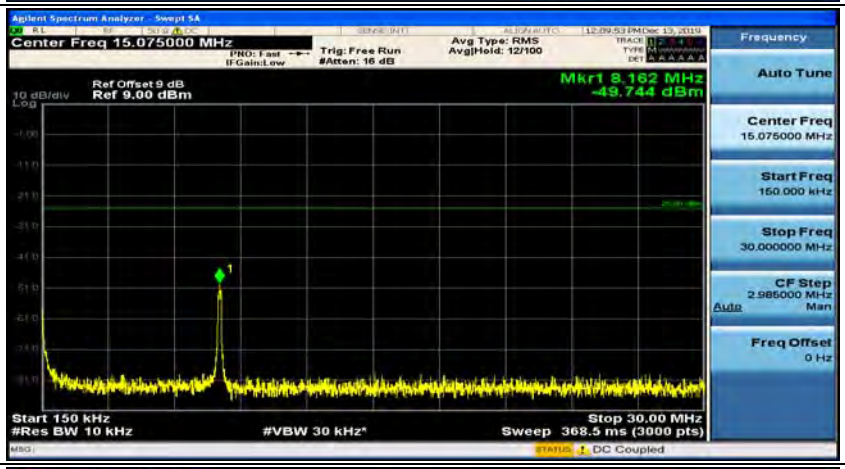
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24



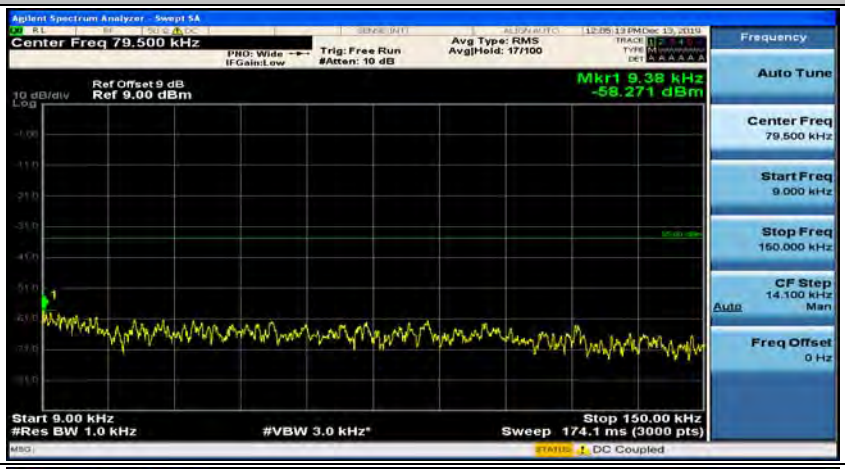
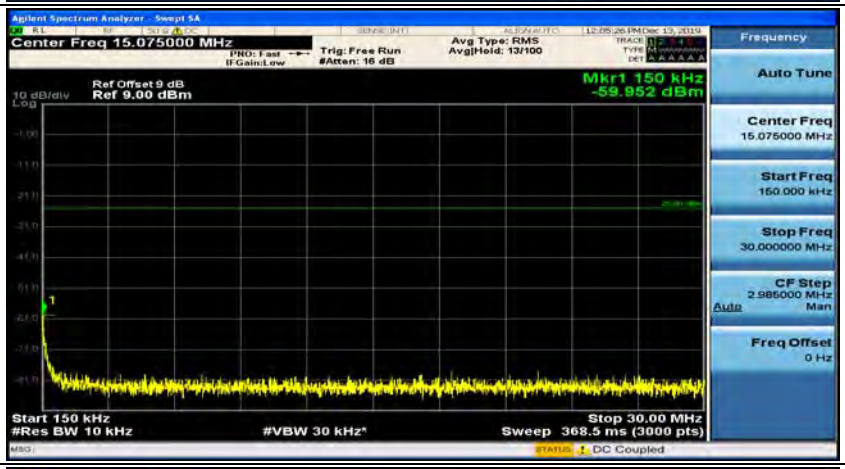


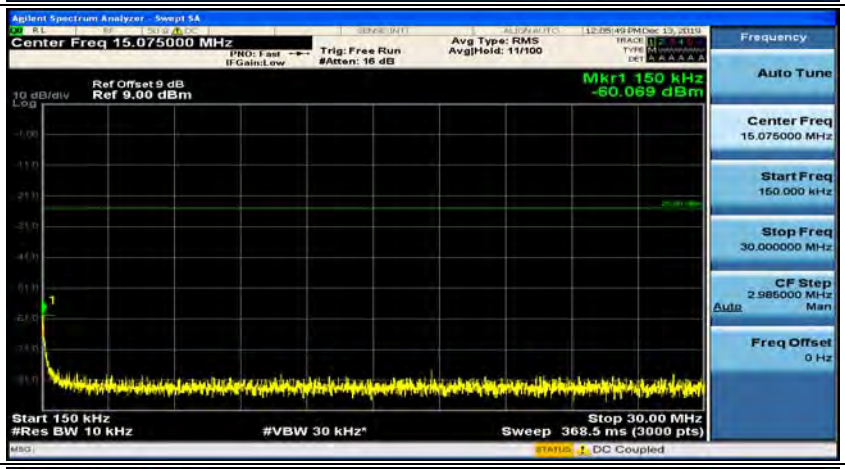
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.14 kHz
-60.499 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

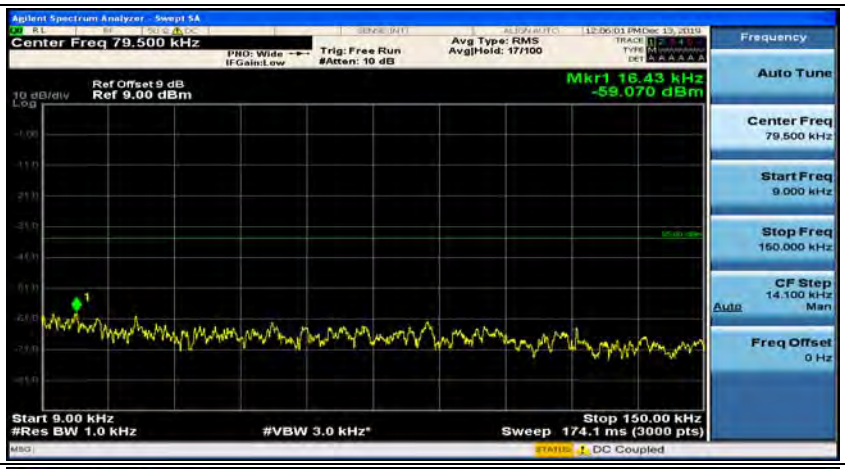

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 8.162 MHz
-49.744 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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

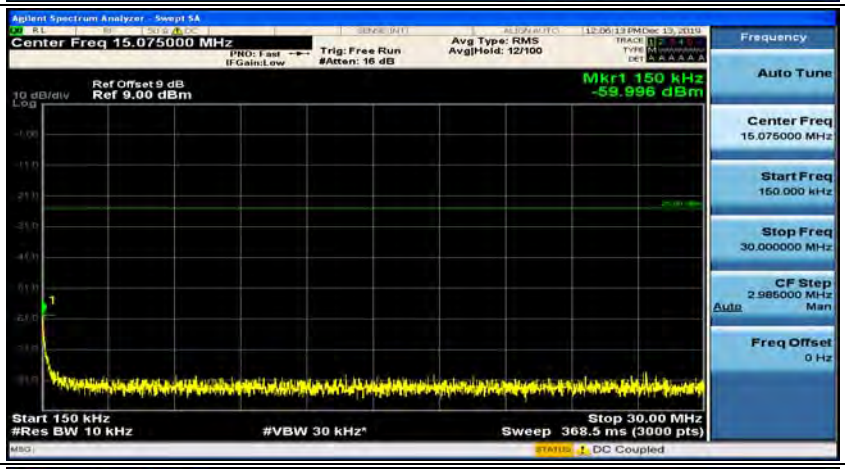
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.688 GHz
-45.156 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

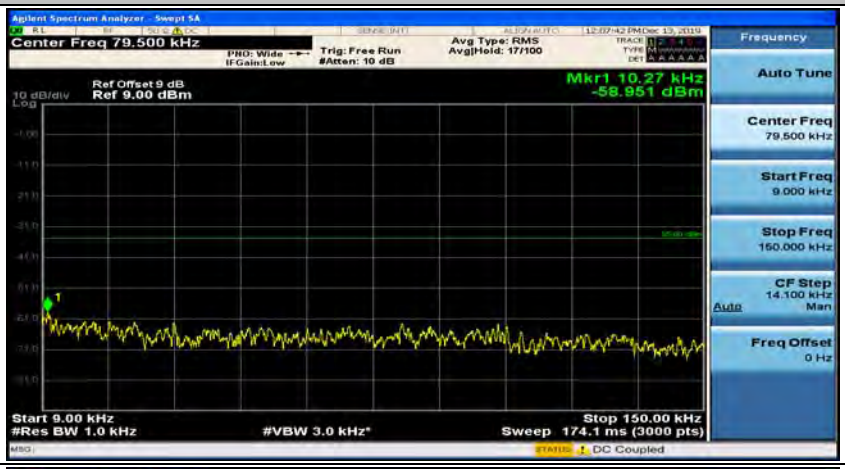
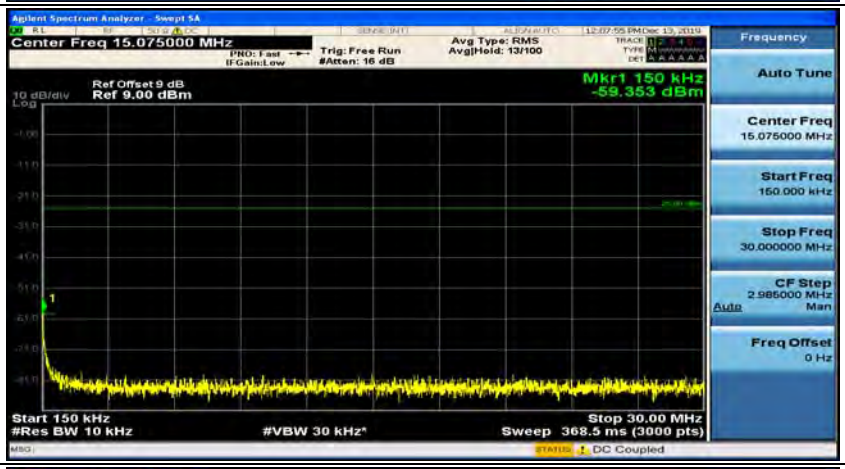


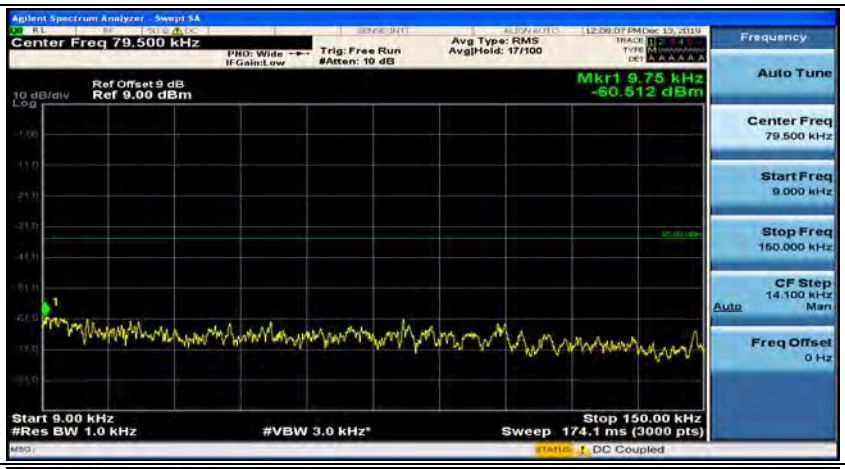
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

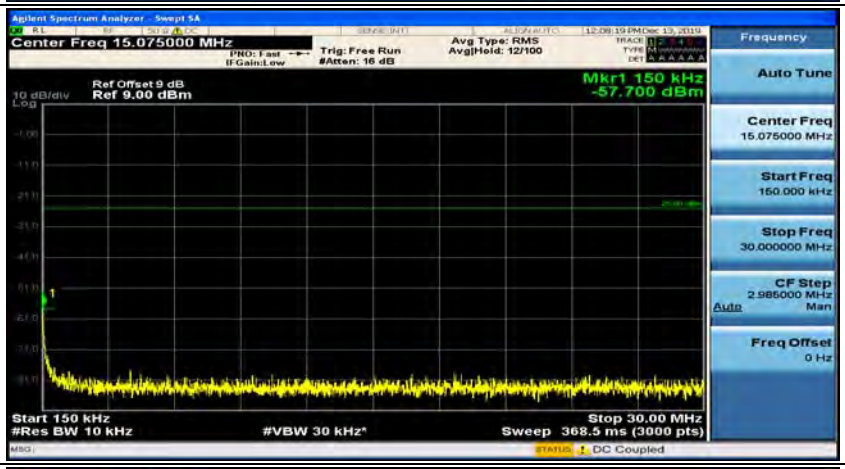

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 16.43 kHz
-59.070 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.996 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: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.134 GHz
-45.415 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

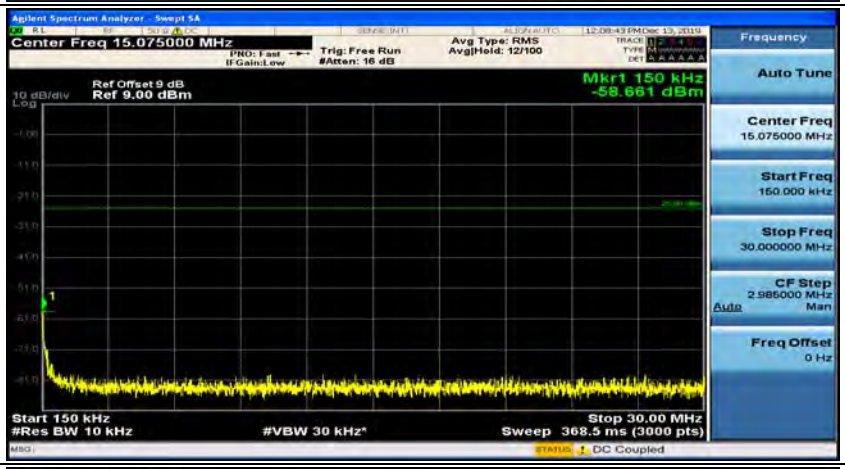
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



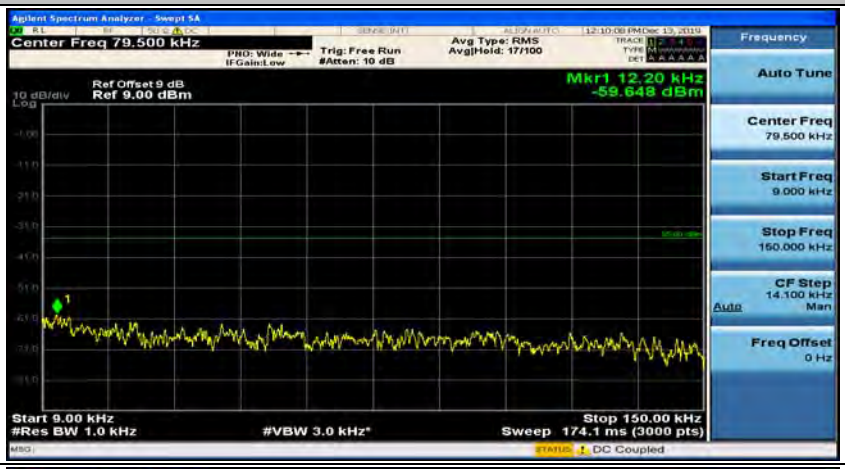
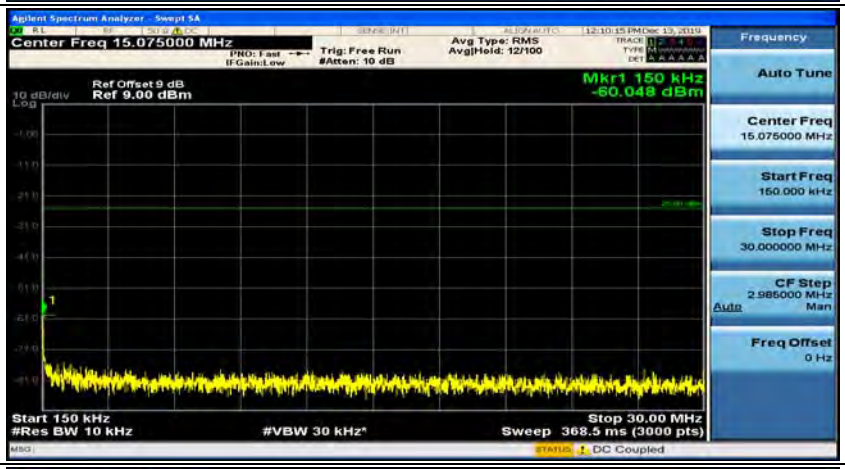


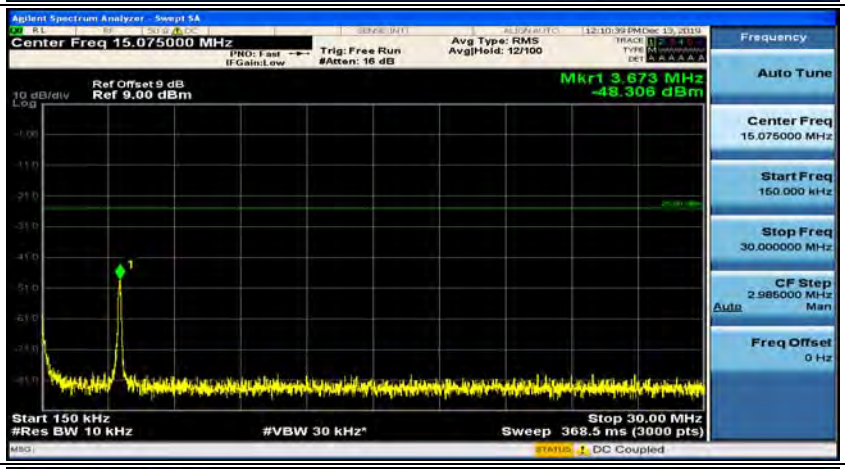
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.89 kHz
-59.054 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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.661 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

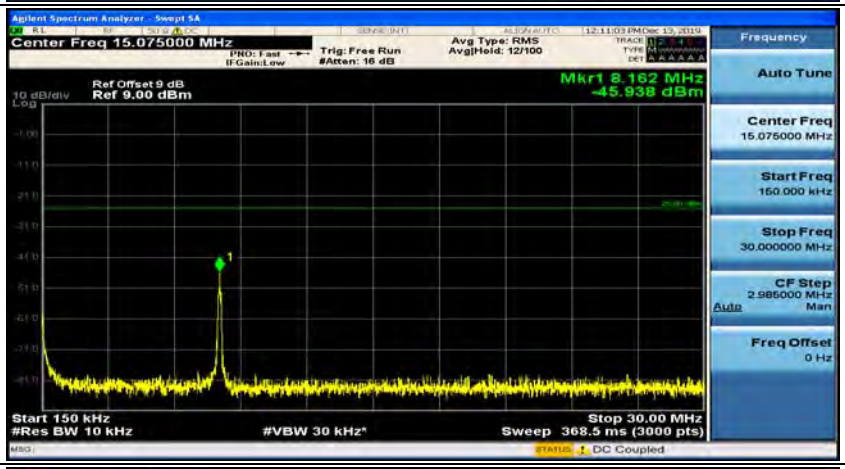
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.697 GHz
-45.121 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

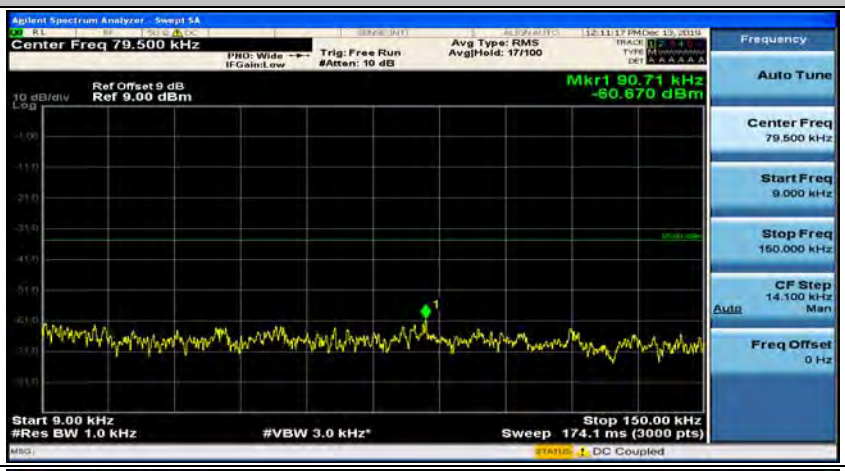
Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
12:10:50 PM Dec 13, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 11.30 kHz
-60.062 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

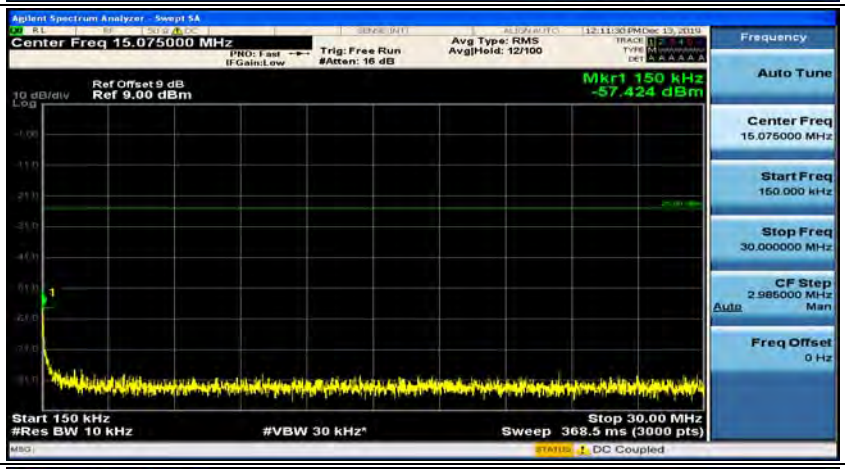

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
12:11:03 PM Dec 13, 2019
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Log
Mkr1 8.162 MHz
-45.938 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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: 11/100
12:11:08 PM Dec 13, 2019
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Log
Mkr2 25.671 GHz
-45.401 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

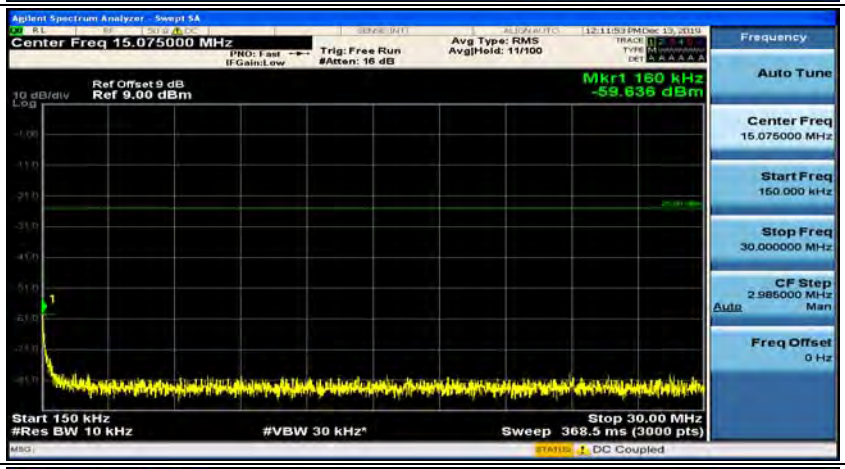
Channel Bandwidth: 15 MHz

(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0

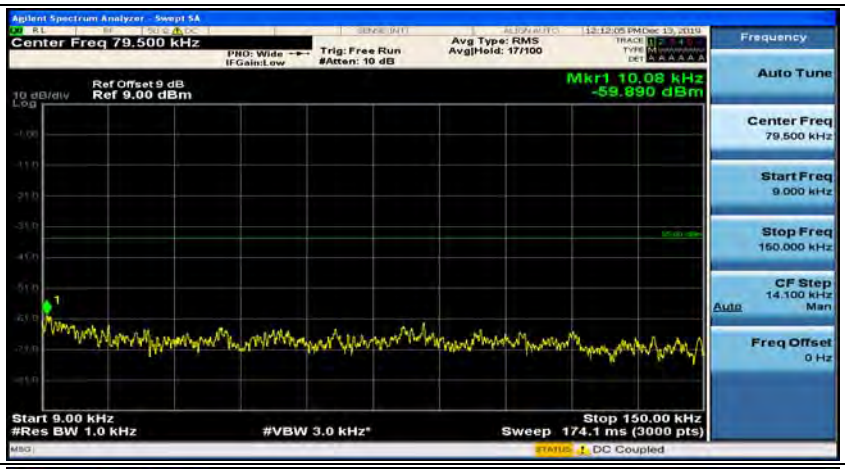


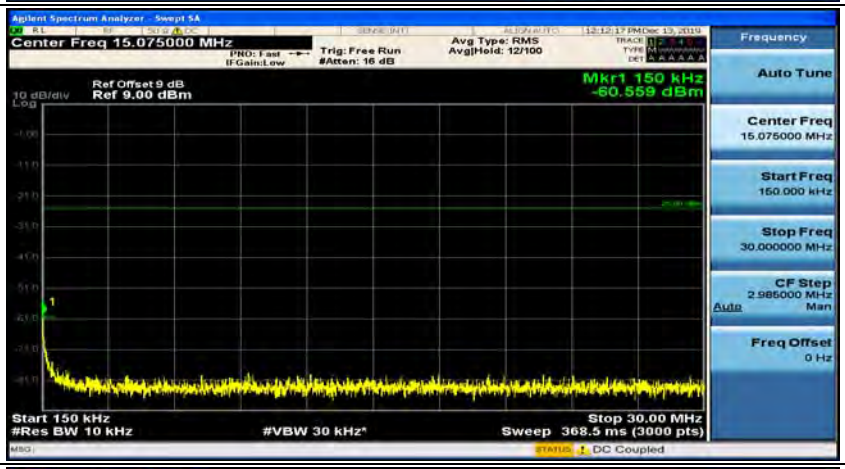


(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37



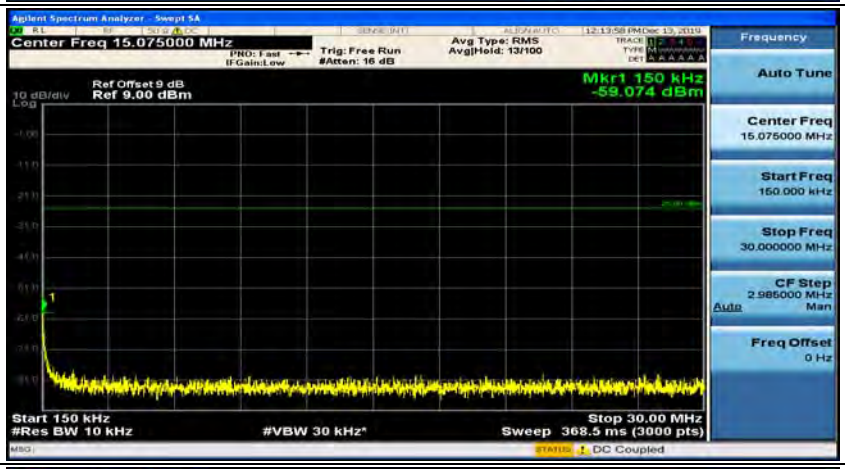
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.08 kHz
-59.890 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

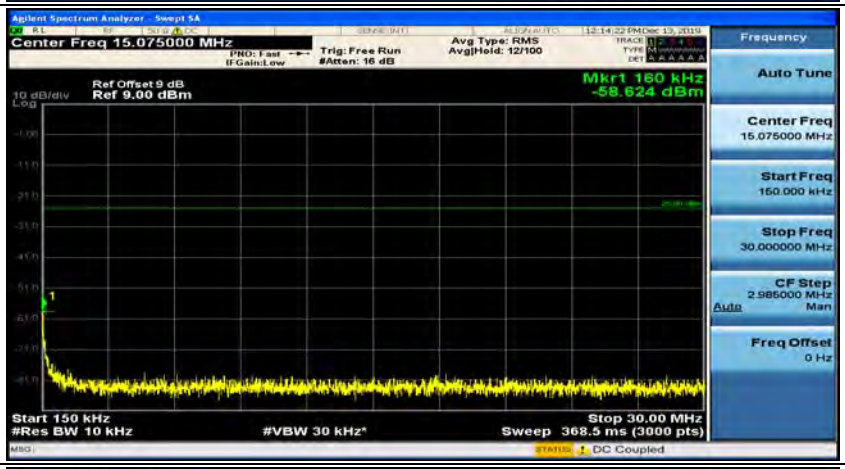

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-60.559 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.654 GHz
-45.320 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

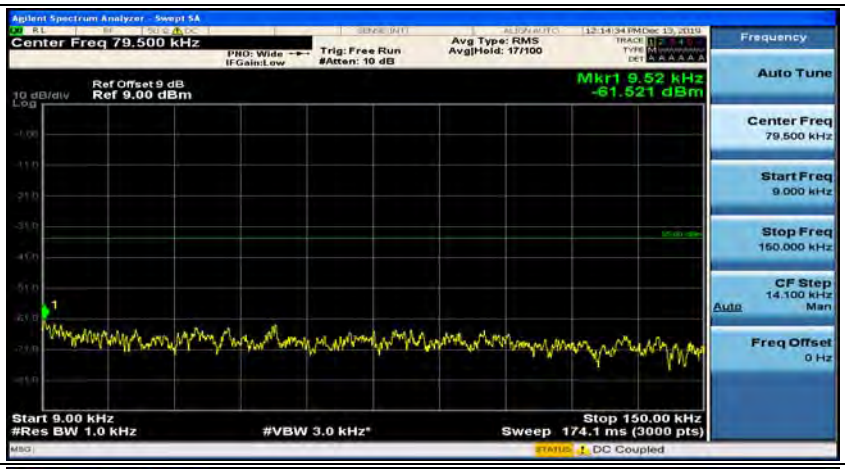
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

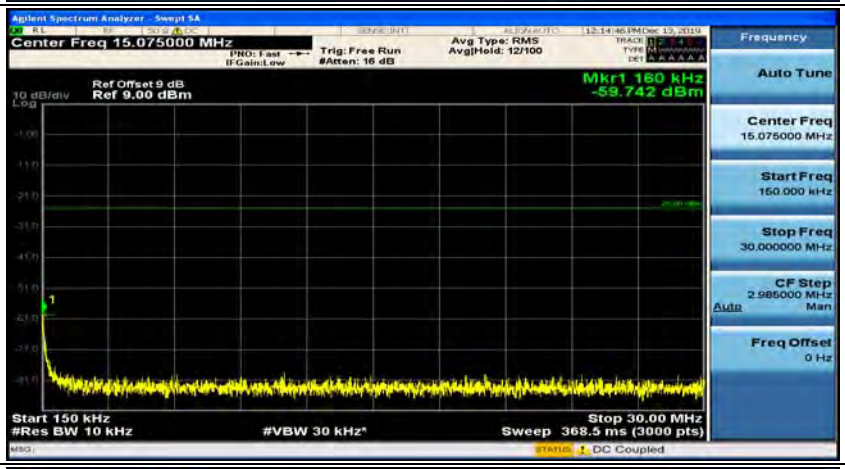


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37



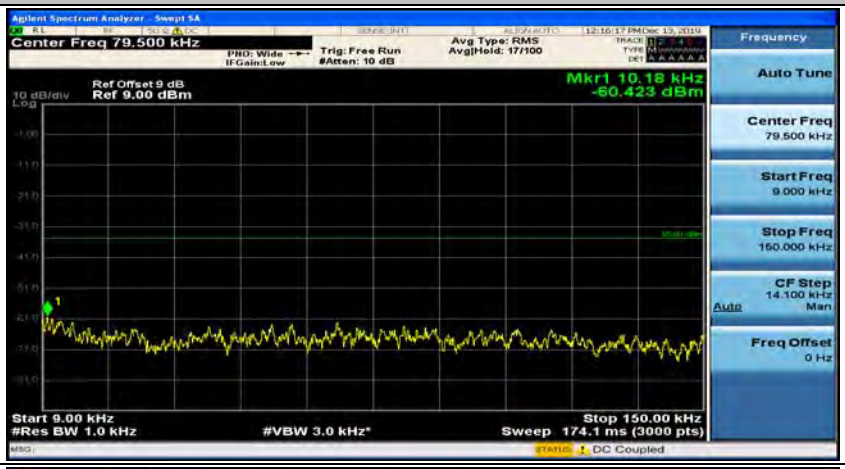
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74

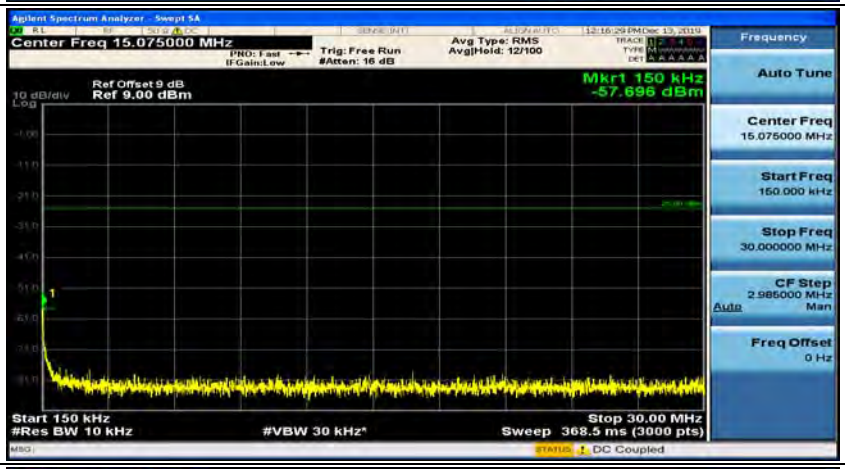

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.52 kHz
-61.521 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 160 kHz
-59.742 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

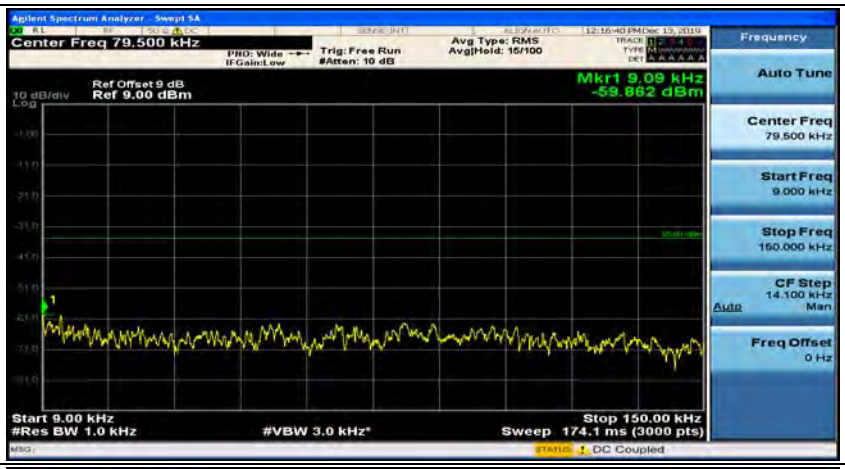
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.628 GHz
-45.229 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
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

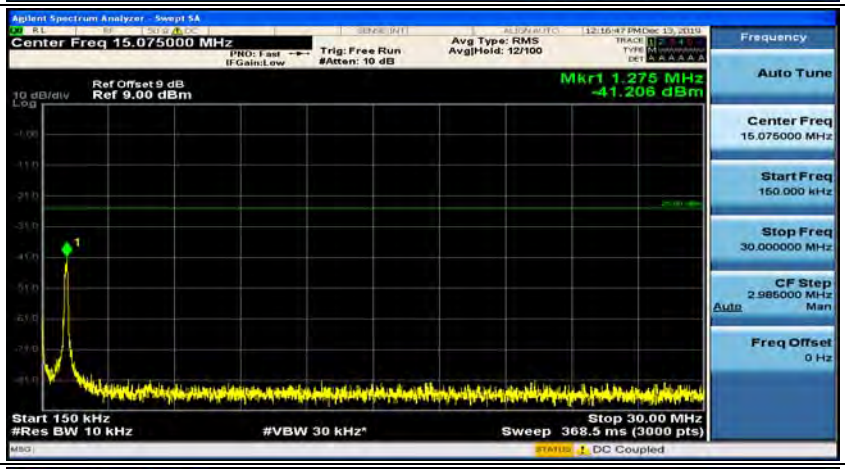
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0



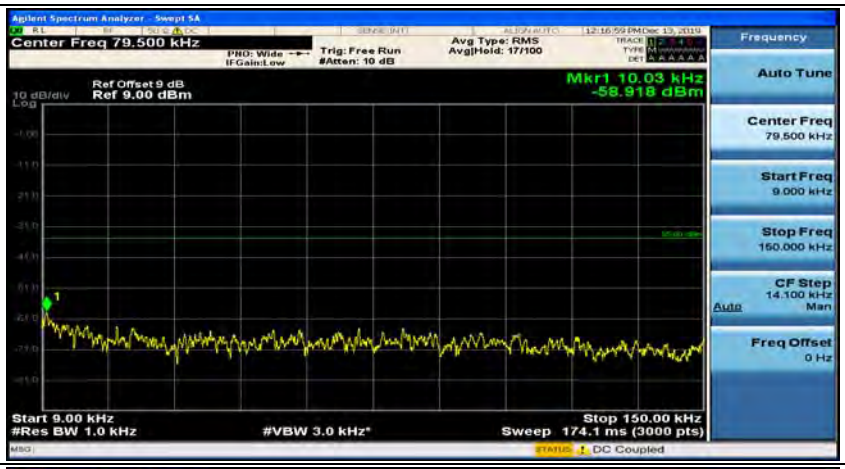


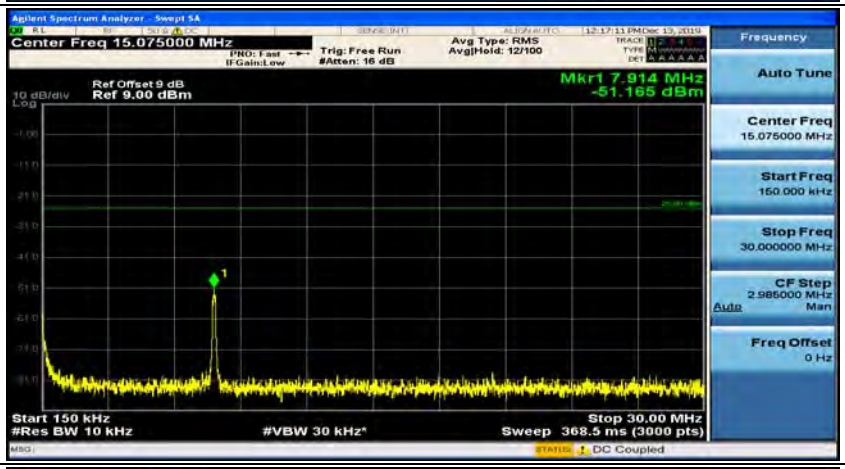
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37



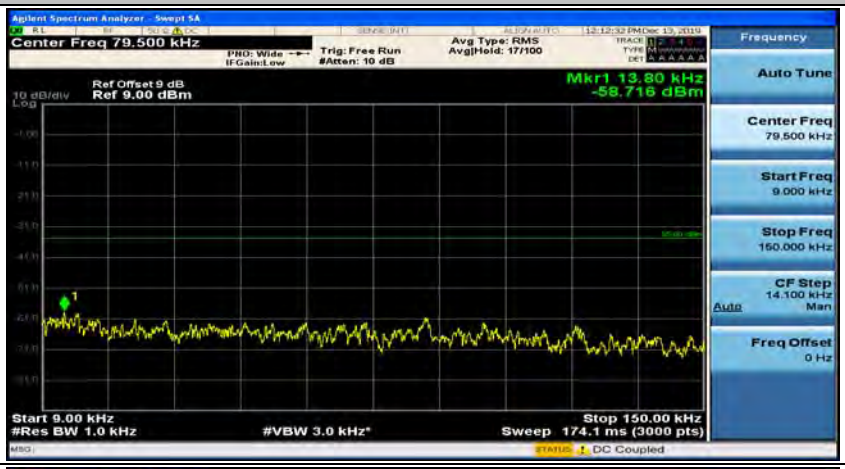
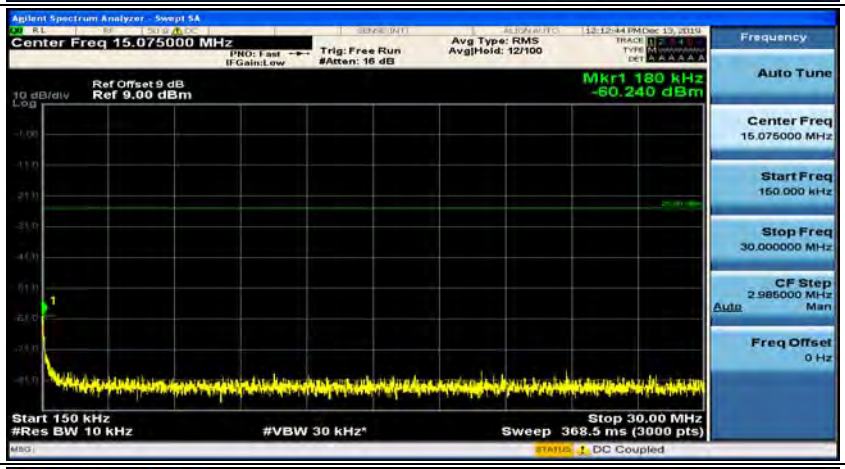


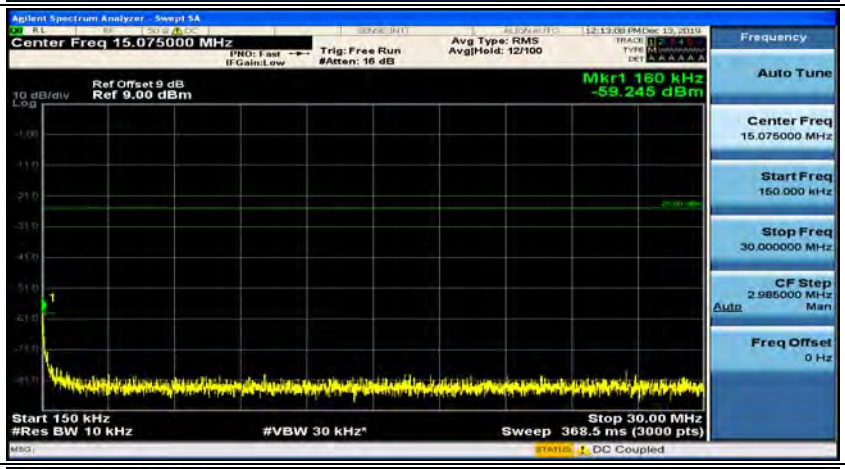
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74


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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.03 kHz
-58.918 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

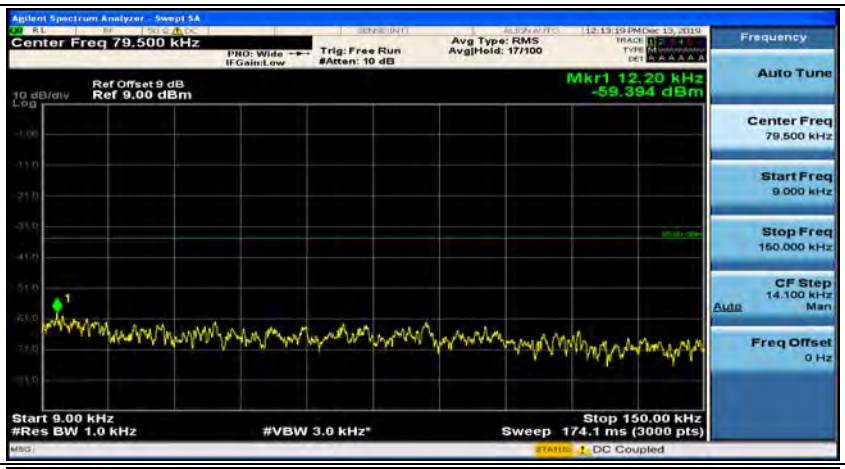

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 7.914 MHz
-51.165 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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

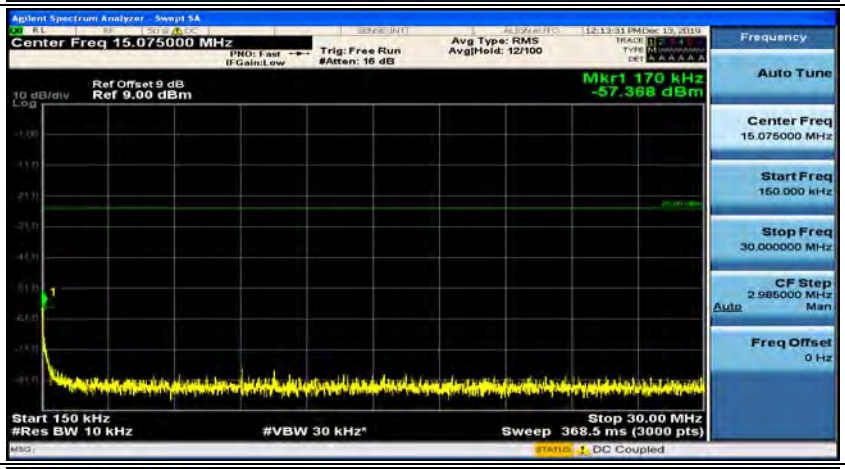
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.688 GHz
-45.518 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
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

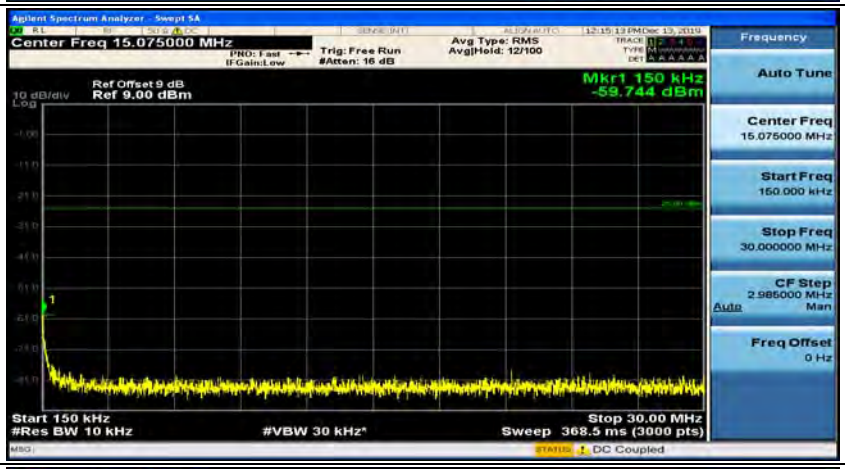


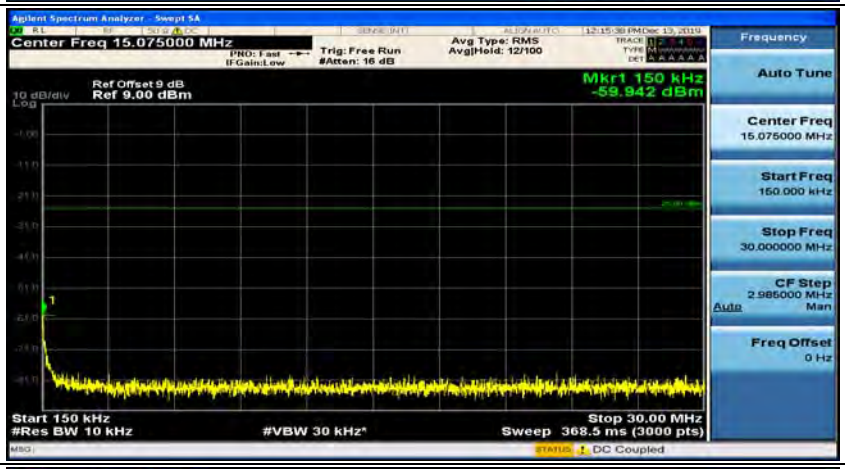
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74


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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 12.20 kHz
-59.394 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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 170 kHz
-57.368 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

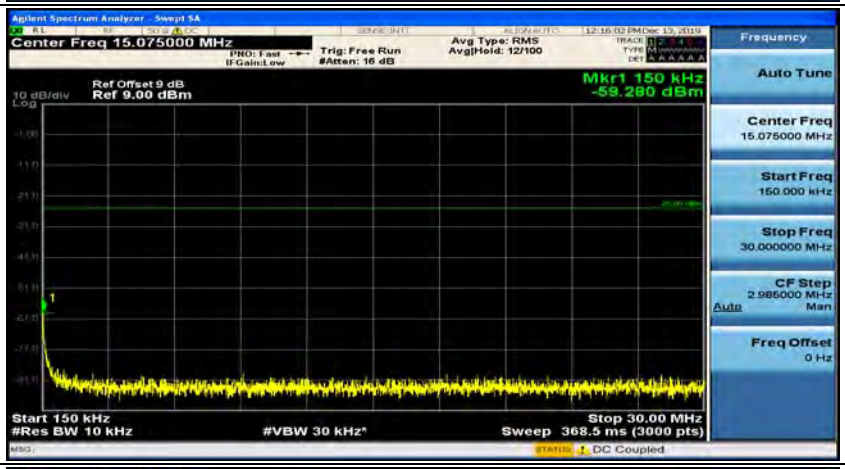
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.688 GHz
-45.184 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
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

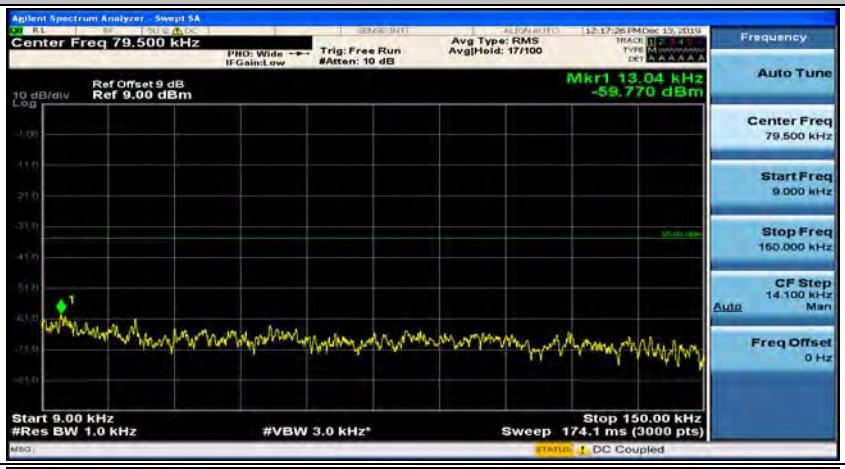
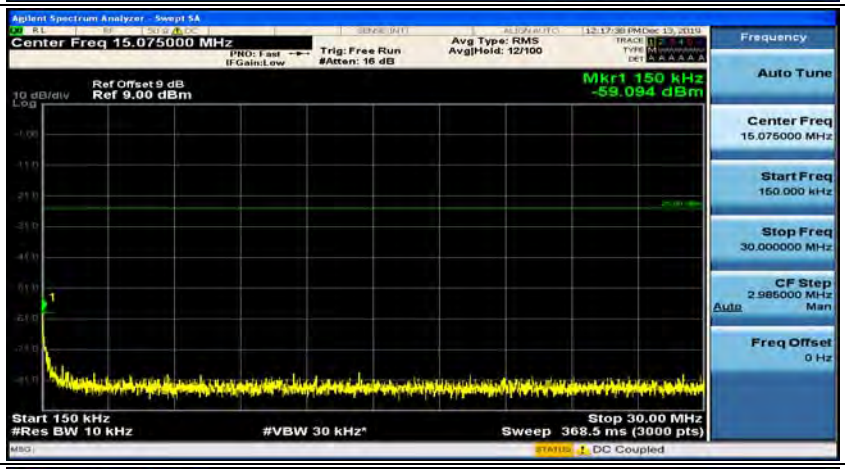


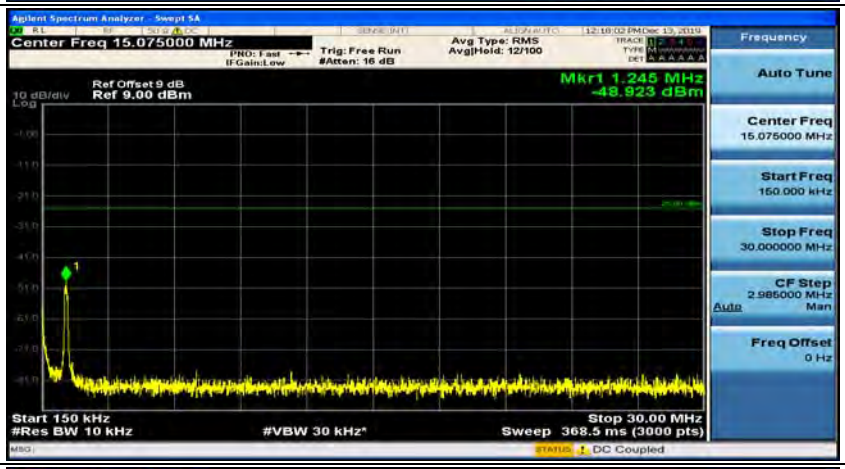
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 11.26 kHz
-60.098 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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-59.280 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

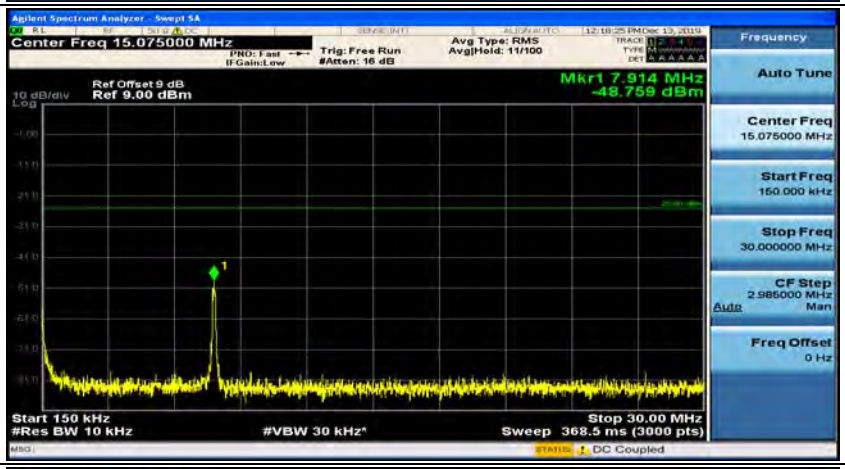
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.706 GHz
-45.098 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37



(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

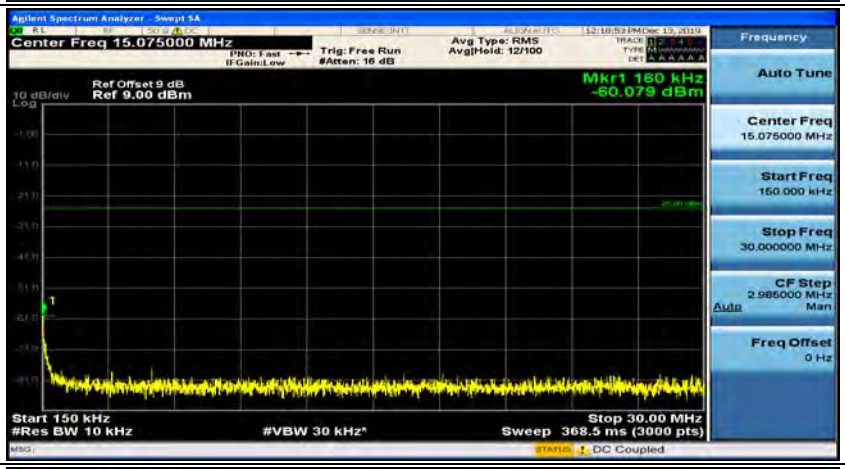
Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.37 kHz
-58.686 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 7.914 MHz
-48.759 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

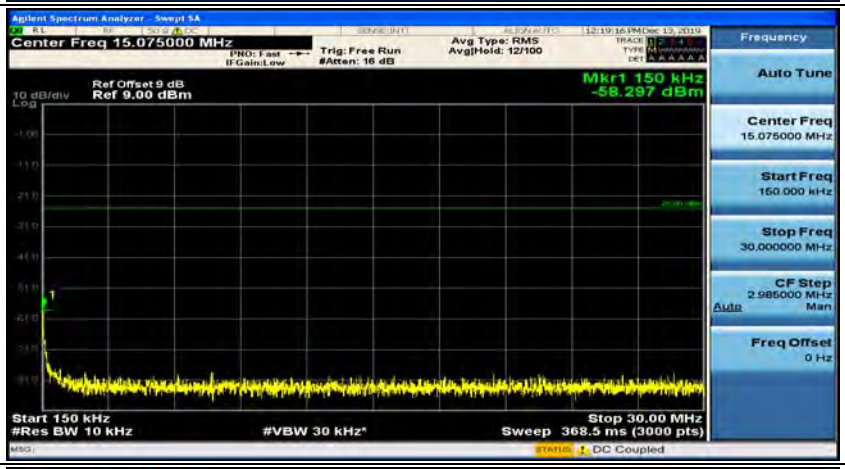
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.688 GHz
-45.200 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0

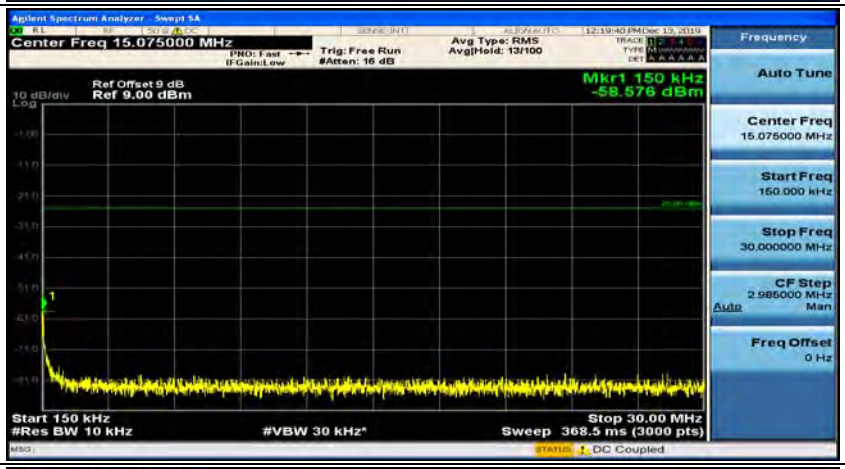


(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49



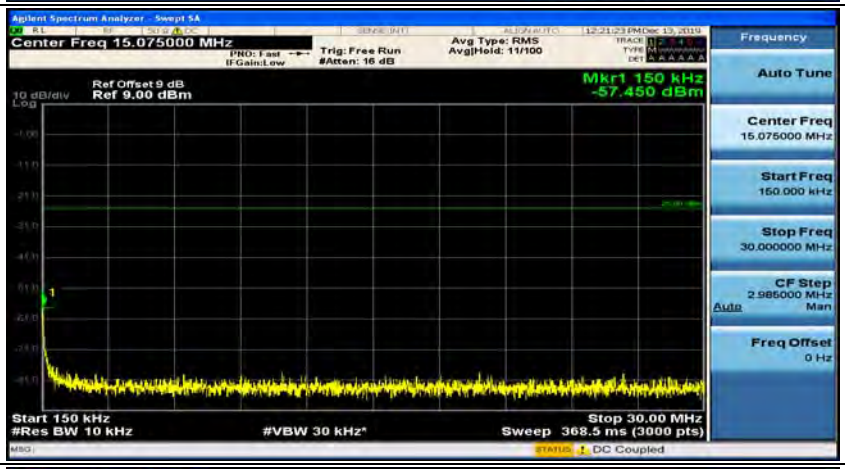
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.00 kHz
-61.518 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

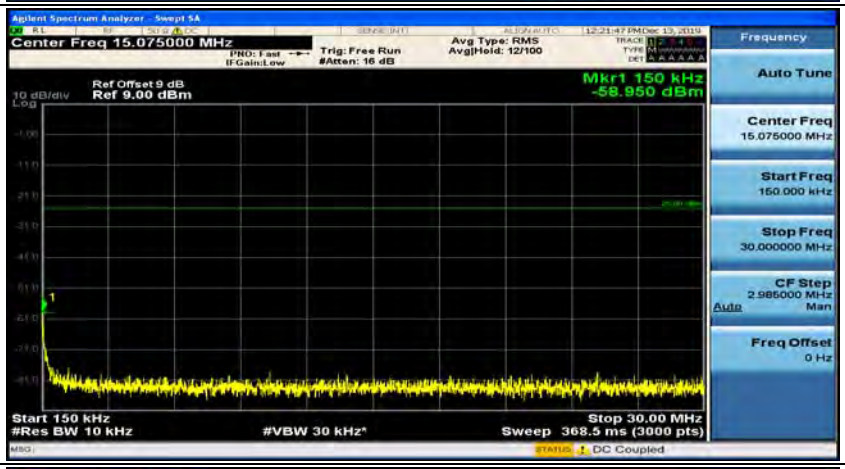

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 13/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.576 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.636 GHz
-45.331 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

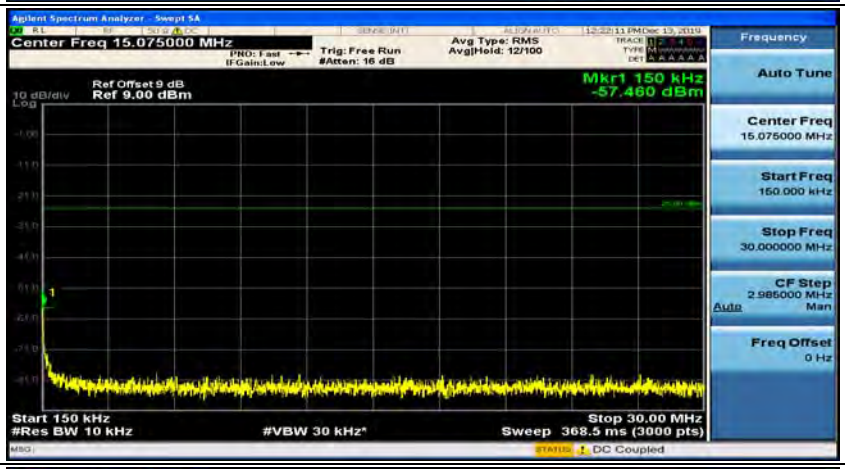


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49



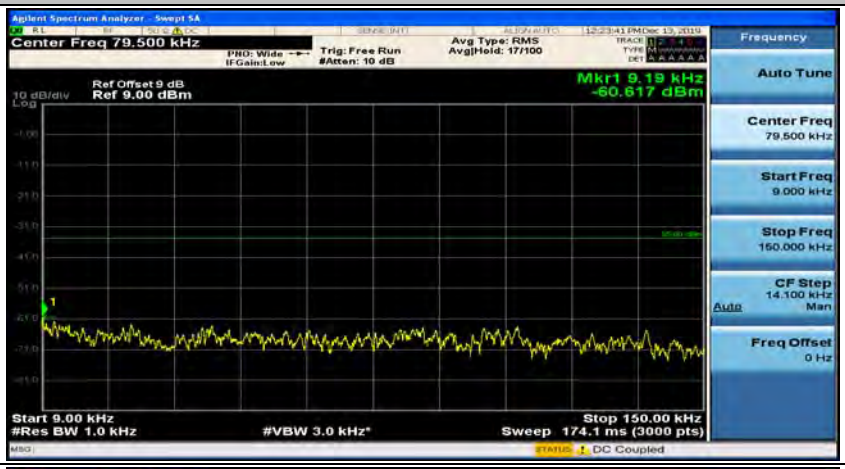
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

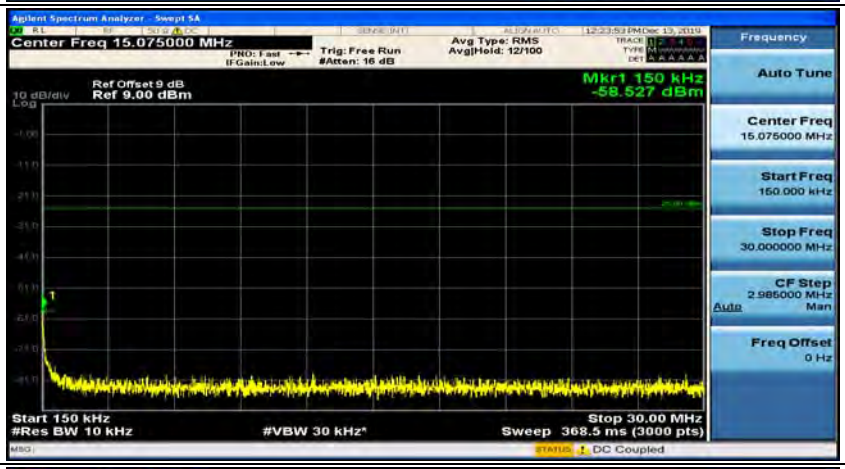
Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 14.97 kHz
-61.755 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-57.460 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

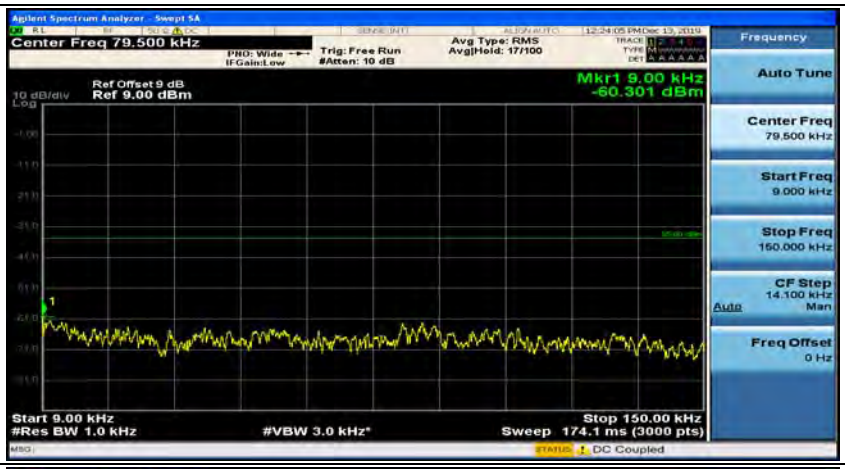
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.091 GHz
-45.505 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

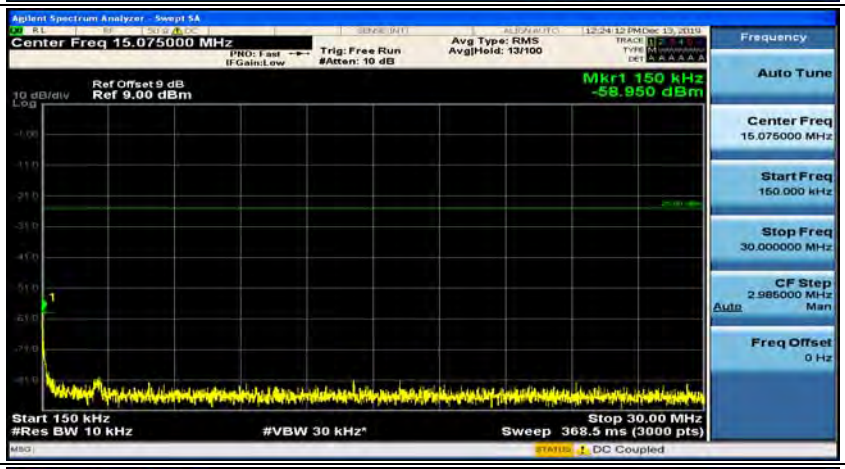
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0



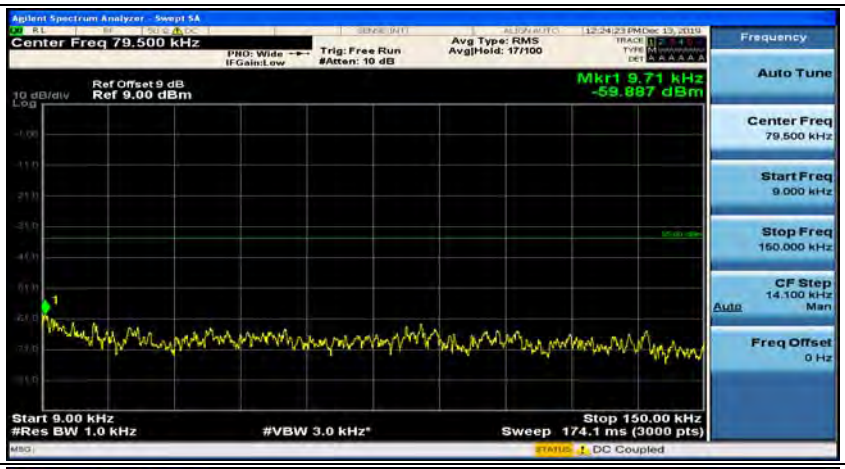


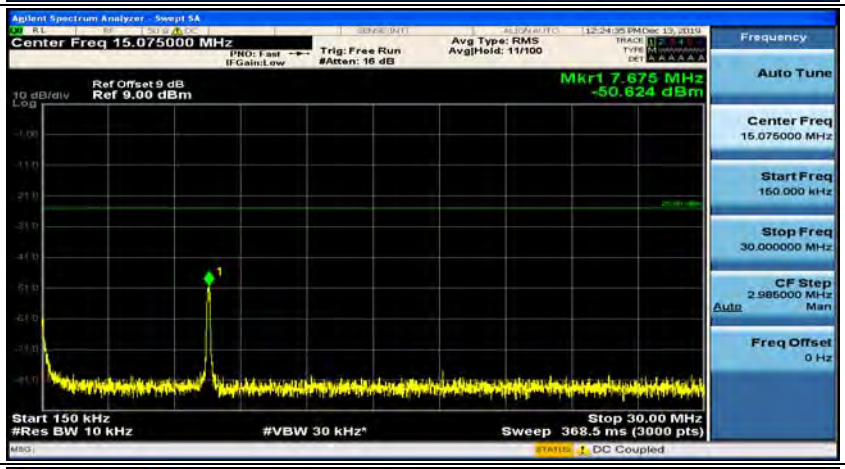
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49





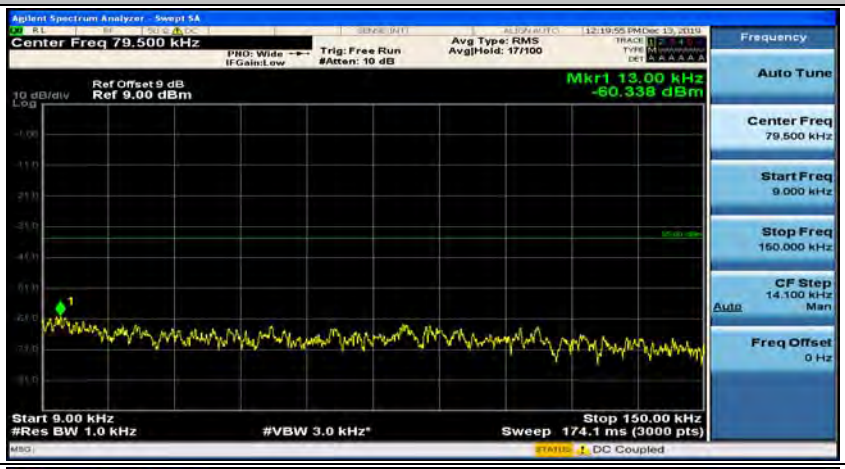
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

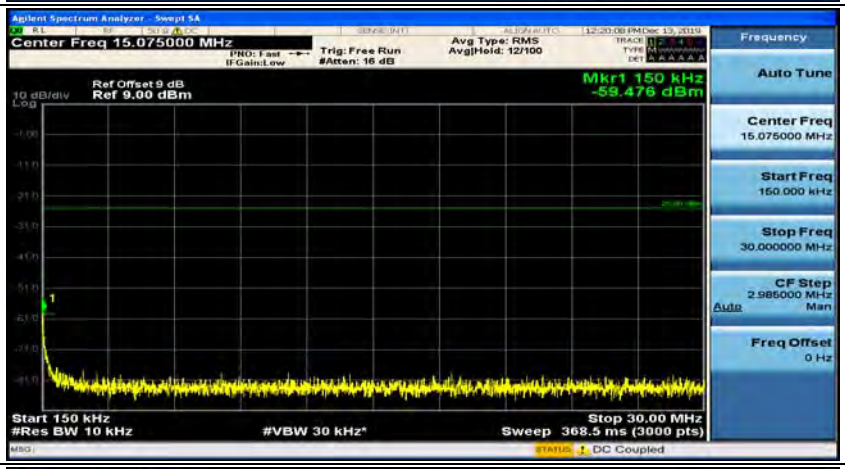

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.71 kHz
-59.887 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 7.675 MHz
-50.624 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

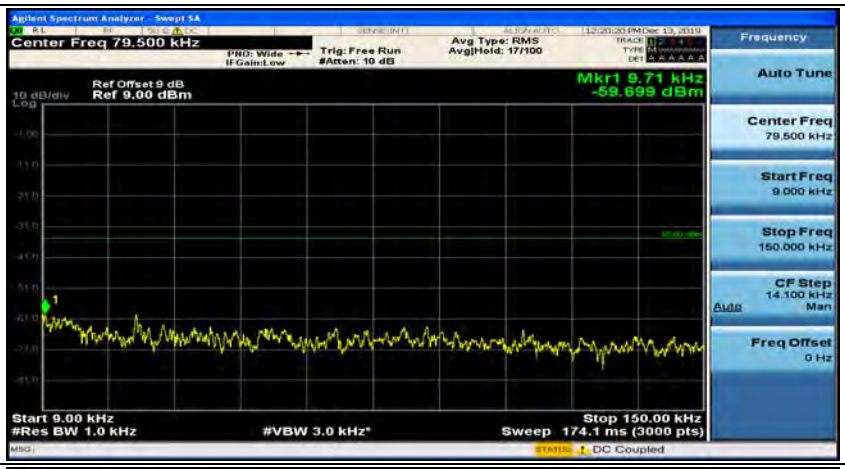
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 10/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.108 GHz
-45.390 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
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

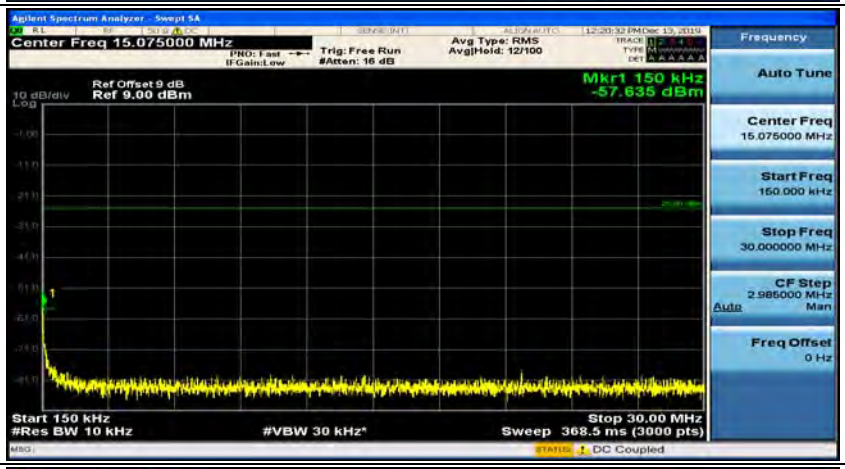
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



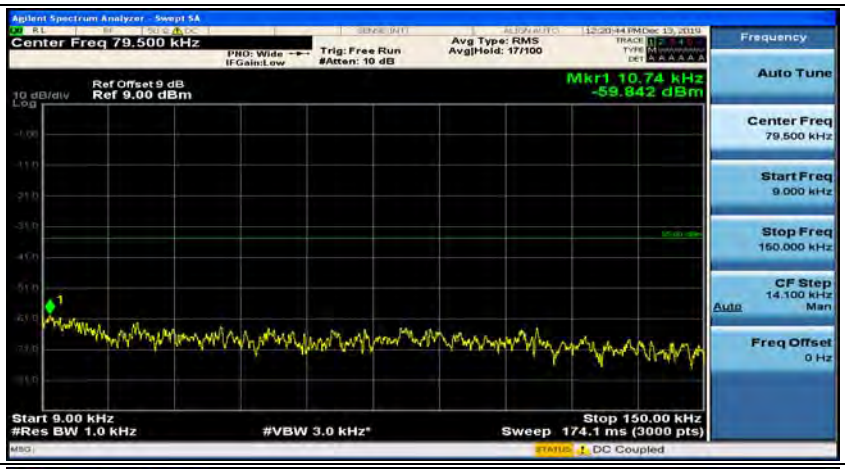


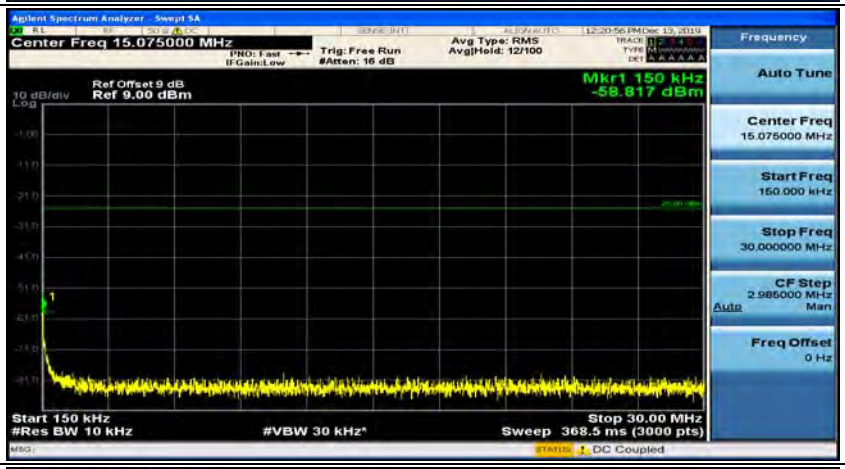
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49





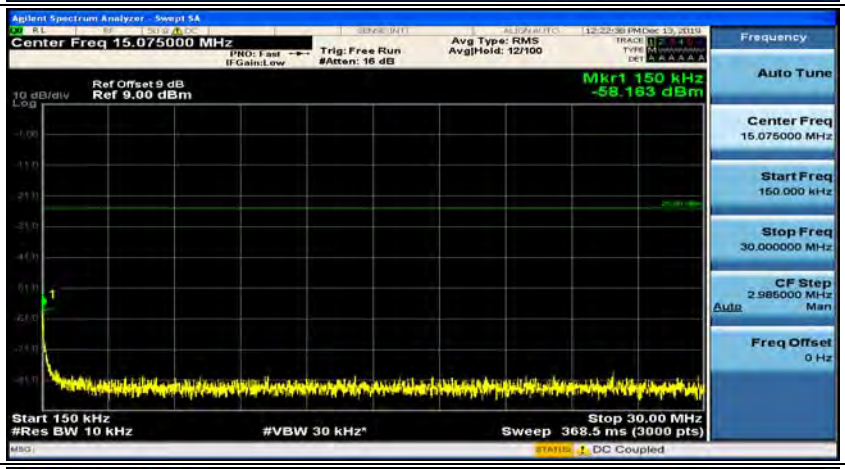
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99


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: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 10.74 kHz
-59.842 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

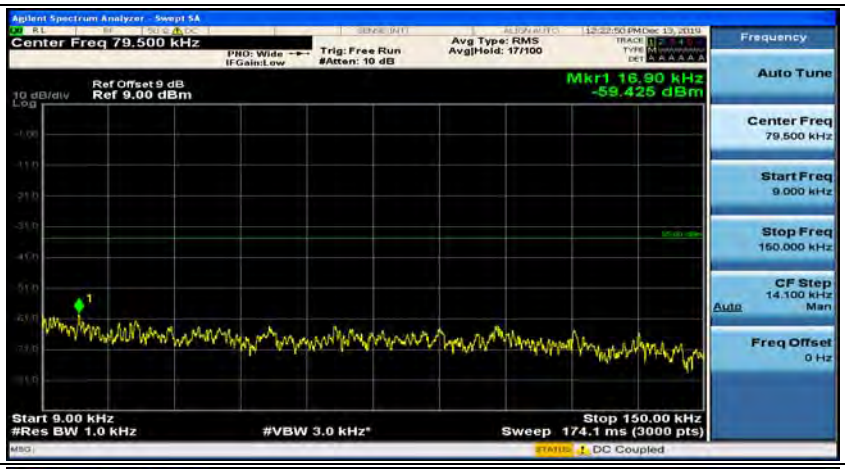

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 150 kHz
-58.817 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled
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

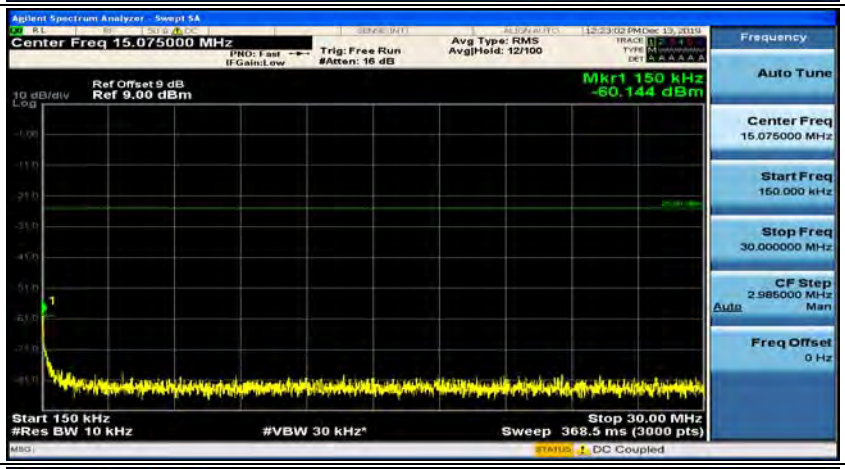
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.671 GHz
-45.473 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Input Overload;ADC over range
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

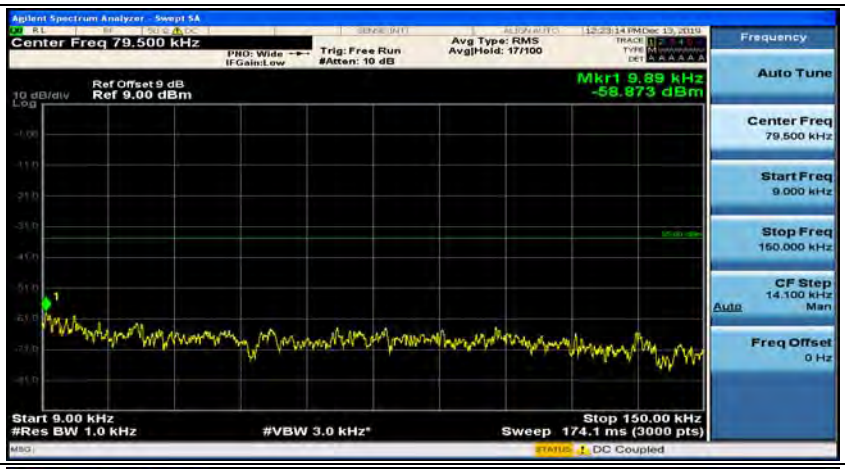


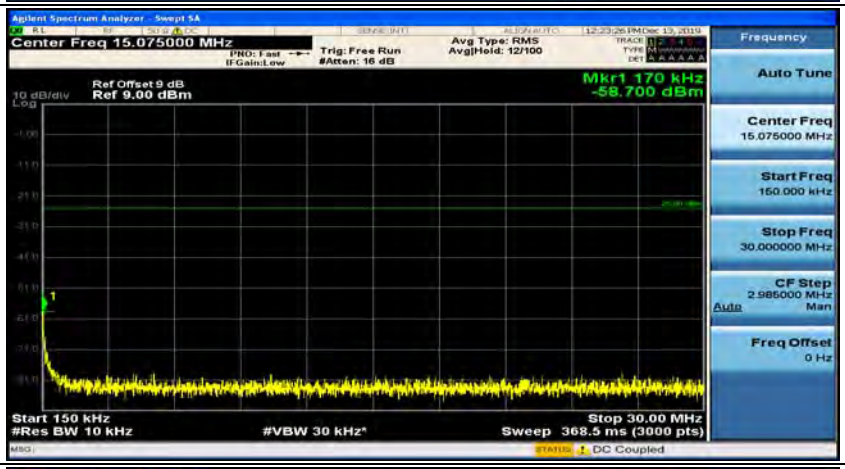
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49



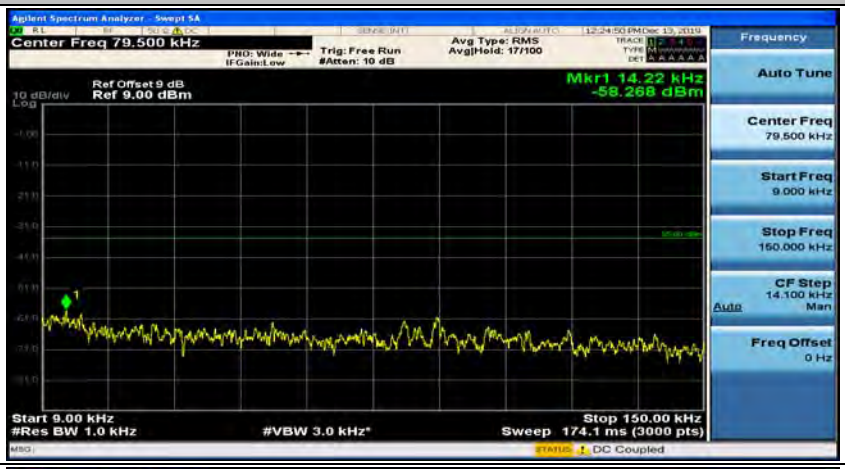
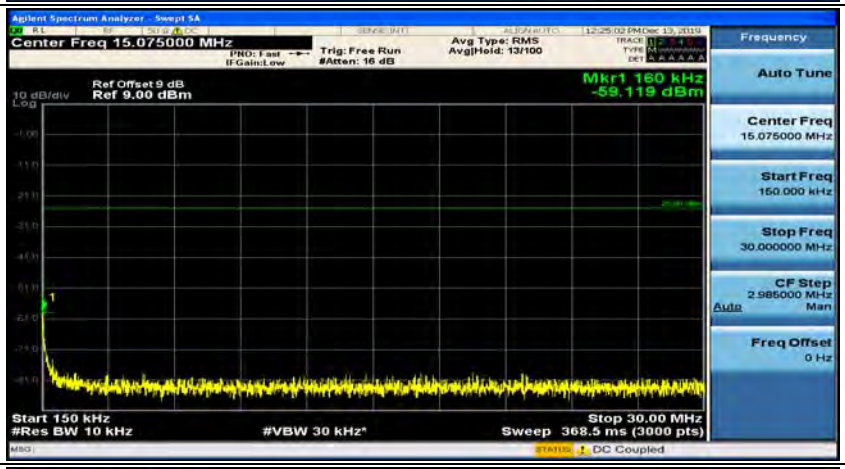


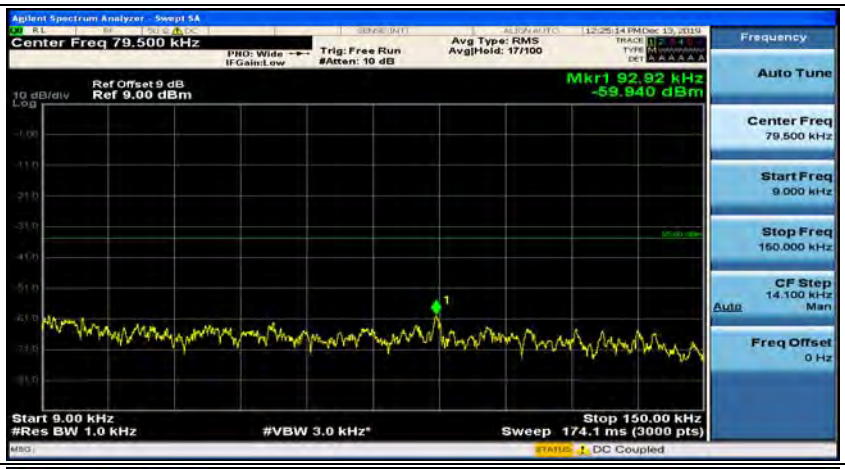
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

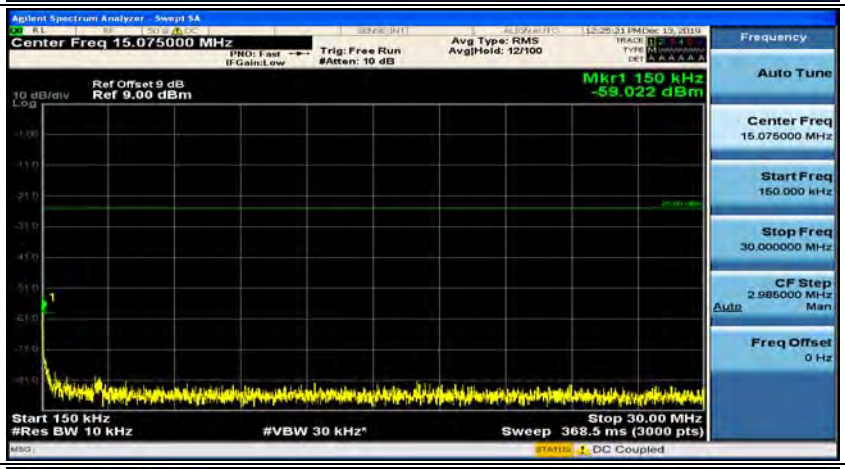

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 9.89 kHz
-58.873 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 170 kHz
-58.700 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

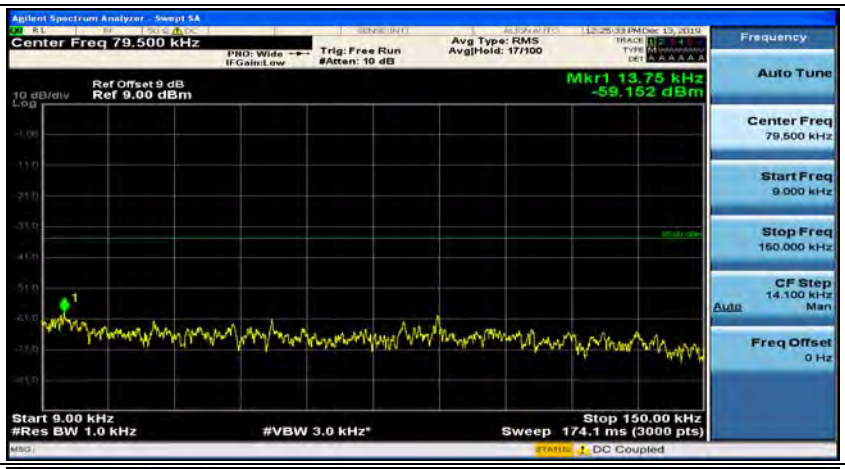
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.593 GHz
-45.439 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
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

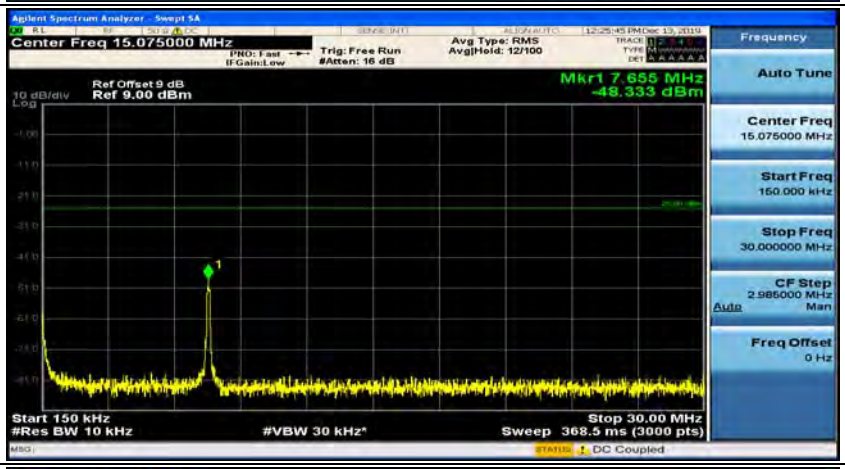
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0


(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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 13.75 kHz
-59.152 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
Ref Offset 9 dB
10 dB/div
Ref 9.00 dBm
Mkr1 7.655 MHz
-48.333 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: 11/100
Ref Offset 8.95 dB
10 dB/div
Ref 18.95 dBm
Mkr2 25.697 GHz
-45.288 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

Appendix F: Frequency Stability

Test Resul

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	2.83	0.001131	± 2.5	PASS
		VN	TN	2.95	0.001179	± 2.5	PASS
		VH	TN	0.87	0.000348	± 2.5	PASS
	MCH	VL	TN	1.13	0.000446	± 2.5	PASS
		VN	TN	1.79	0.000706	± 2.5	PASS
		VH	TN	0.01	0.000004	± 2.5	PASS
	HCH	VL	TN	-1.74	-0.000678	± 2.5	PASS
		VN	TN	-1.42	-0.000553	± 2.5	PASS
		VH	TN	2.94	0.001145	± 2.5	PASS
16QAM	LCH	VL	TN	-0.91	-0.000364	± 2.5	PASS
		VN	TN	1.25	0.000500	± 2.5	PASS
		VH	TN	-1.95	-0.000779	± 2.5	PASS
	MCH	VL	TN	-0.67	-0.000264	± 2.5	PASS
		VN	TN	4.29	0.001692	± 2.5	PASS
		VH	TN	-1.83	-0.000722	± 2.5	PASS
	HCH	VL	TN	3.54	0.001379	± 2.5	PASS
		VN	TN	-0.94	-0.000366	± 2.5	PASS
		VH	TN	3.12	0.001215	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.63	0.001051	± 2.5	PASS
		VN	-20	-1.4	-0.000559	± 2.5	PASS
		VN	-10	4.02	0.001606	± 2.5	PASS
		VN	0	4.63	0.001850	± 2.5	PASS
		VN	10	4	0.001598	± 2.5	PASS
		VN	20	-1.35	-0.000539	± 2.5	PASS
		VN	30	-0.89	-0.000356	± 2.5	PASS
		VN	40	0.52	0.000208	± 2.5	PASS
		VN	50	1.8	0.000719	± 2.5	PASS
	MCH	VN	-30	1.57	0.000619	± 2.5	PASS
		VN	-20	4.84	0.001909	± 2.5	PASS

		VN	-10	1.33	0.000525	± 2.5	PASS
		VN	0	1.75	0.000690	± 2.5	PASS
		VN	10	-0.64	-0.000252	± 2.5	PASS
		VN	20	-1.73	-0.000682	± 2.5	PASS
		VN	30	2.77	0.001093	± 2.5	PASS
		VN	40	3.56	0.001404	± 2.5	PASS
		VN	50	2.36	0.000931	± 2.5	PASS
	HCH	VN	-30	0.9	0.000351	± 2.5	PASS
		VN	-20	2.37	0.000923	± 2.5	PASS
		VN	-10	-0.25	-0.000097	± 2.5	PASS
		VN	0	4.07	0.001585	± 2.5	PASS
		VN	10	1.5	0.000584	± 2.5	PASS
		VN	20	4.93	0.001920	± 2.5	PASS
		VN	30	-1.85	-0.000721	± 2.5	PASS
		VN	40	2.71	0.001056	± 2.5	PASS
		VN	50	-1.33	-0.000518	± 2.5	PASS
16QAM	LCH	VN	-30	3.59	0.001435	± 2.5	PASS
		VN	-20	2.73	0.001091	± 2.5	PASS
		VN	-10	-1.86	-0.000743	± 2.5	PASS
		VN	0	4.67	0.001866	± 2.5	PASS
		VN	10	4.61	0.001842	± 2.5	PASS
		VN	20	0.58	0.000232	± 2.5	PASS
		VN	30	4.57	0.001826	± 2.5	PASS
		VN	40	4.13	0.001650	± 2.5	PASS
		VN	50	0.44	0.000176	± 2.5	PASS
	MCH	VN	-30	-0.71	-0.000280	± 2.5	PASS
		VN	-20	-0.88	-0.000347	± 2.5	PASS
		VN	-10	2.59	0.001022	± 2.5	PASS
		VN	0	0.28	0.000110	± 2.5	PASS
		VN	10	0.93	0.000367	± 2.5	PASS
		VN	20	0.48	0.000189	± 2.5	PASS
		VN	30	4.89	0.001929	± 2.5	PASS
		VN	40	3.54	0.001396	± 2.5	PASS
		VN	50	1.6	0.000631	± 2.5	PASS
	HCH	VN	-30	3.85	0.001500	± 2.5	PASS
		VN	-20	4.64	0.001807	± 2.5	PASS
		VN	-10	1.04	0.000405	± 2.5	PASS
		VN	0	0.09	0.000035	± 2.5	PASS
		VN	10	4.89	0.001905	± 2.5	PASS
		VN	20	-1.7	-0.000662	± 2.5	PASS
		VN	30	-1.34	-0.000522	± 2.5	PASS

		VN	40	4.64	0.001807	± 2.5	PASS
		VN	50	1.37	0.000534	± 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	2.19	0.000874	± 2.5	PASS
		VN	TN	-0.6	-0.000240	± 2.5	PASS
		VH	TN	1.82	0.000727	± 2.5	PASS
	MCH	VL	TN	1.78	0.000702	± 2.5	PASS
		VN	TN	-1.33	-0.000525	± 2.5	PASS
		VH	TN	2.76	0.001089	± 2.5	PASS
	HCH	VL	TN	1.36	0.000530	± 2.5	PASS
		VN	TN	2.5	0.000975	± 2.5	PASS
		VH	TN	4.32	0.001684	± 2.5	PASS
16QAM	LCH	VL	TN	-0.64	-0.000255	± 2.5	PASS
		VN	TN	3.46	0.001381	± 2.5	PASS
		VH	TN	1.87	0.000747	± 2.5	PASS
	MCH	VL	TN	4.98	0.001964	± 2.5	PASS
		VN	TN	1.88	0.000742	± 2.5	PASS
		VH	TN	2.03	0.000801	± 2.5	PASS
	HCH	VL	TN	1.43	0.000558	± 2.5	PASS
		VN	TN	2.65	0.001033	± 2.5	PASS
		VH	TN	-1.72	-0.000671	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.82	-0.000727	± 2.5	PASS
		VN	-20	0.96	0.000383	± 2.5	PASS
		VN	-10	-1.52	-0.000607	± 2.5	PASS
		VN	0	0.52	0.000208	± 2.5	PASS
		VN	10	-1.17	-0.000467	± 2.5	PASS
		VN	20	-1.92	-0.000766	± 2.5	PASS
		VN	30	2.57	0.001026	± 2.5	PASS
		VN	40	-1.8	-0.000719	± 2.5	PASS
		VN	50	1.7	0.000679	± 2.5	PASS
	MCH	VN	-30	1.54	0.000607	± 2.5	PASS
		VN	-20	1.78	0.000702	± 2.5	PASS
		VN	-10	0.74	0.000292	± 2.5	PASS

		VN	0	2.25	0.000888	± 2.5	PASS
		VN	10	4.34	0.001712	± 2.5	PASS
		VN	20	1.03	0.000406	± 2.5	PASS
		VN	30	-1.74	-0.000686	± 2.5	PASS
		VN	40	1.78	0.000702	± 2.5	PASS
		VN	50	1.88	0.000742	± 2.5	PASS
	HCH	VN	-30	-0.03	-0.000012	± 2.5	PASS
		VN	-20	0.21	0.000082	± 2.5	PASS
		VN	-10	-1.16	-0.000452	± 2.5	PASS
		VN	0	2.19	0.000854	± 2.5	PASS
		VN	10	4.44	0.001731	± 2.5	PASS
		VN	20	0.26	0.000101	± 2.5	PASS
		VN	30	4.04	0.001575	± 2.5	PASS
		VN	40	1.46	0.000569	± 2.5	PASS
		VN	50	1.45	0.000565	± 2.5	PASS
QPSK	LCH	VN	-30	2.21	0.000882	± 2.5	PASS
		VN	-20	1.31	0.000523	± 2.5	PASS
		VN	-10	4.23	0.001689	± 2.5	PASS
		VN	0	0.51	0.000204	± 2.5	PASS
		VN	10	4.9	0.001956	± 2.5	PASS
		VN	20	0.57	0.000228	± 2.5	PASS
		VN	30	3.53	0.001409	± 2.5	PASS
		VN	40	3.41	0.001361	± 2.5	PASS
		VN	50	-0.6	-0.000240	± 2.5	PASS
	MCH	VN	-30	3.21	0.001266	± 2.5	PASS
		VN	-20	1.16	0.000458	± 2.5	PASS
		VN	-10	-1.18	-0.000465	± 2.5	PASS
		VN	0	-0.68	-0.000268	± 2.5	PASS
		VN	10	3.46	0.001365	± 2.5	PASS
		VN	20	-1.32	-0.000521	± 2.5	PASS
		VN	30	3.77	0.001487	± 2.5	PASS
		VN	40	0.63	0.000249	± 2.5	PASS
		VN	50	4.76	0.001878	± 2.5	PASS
	HCH	VN	-30	4.61	0.001797	± 2.5	PASS
		VN	-20	2.63	0.001025	± 2.5	PASS
		VN	-10	0.07	0.000027	± 2.5	PASS
		VN	0	-0.41	-0.000160	± 2.5	PASS
		VN	10	2.63	0.001025	± 2.5	PASS
		VN	20	3.24	0.001263	± 2.5	PASS
		VN	30	-1.47	-0.000573	± 2.5	PASS
		VN	40	-1.4	-0.000546	± 2.5	PASS

		VN	50	2.5	0.000975	± 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	4.88	0.001946	± 2.5	PASS
		VN	TN	4.75	0.001894	± 2.5	PASS
		VH	TN	1.18	0.000471	± 2.5	PASS
	MCH	VL	TN	0.05	0.000020	± 2.5	PASS
		VN	TN	1.97	0.000777	± 2.5	PASS
		VH	TN	-0.53	-0.000209	± 2.5	PASS
	HCH	VL	TN	0.82	0.000320	± 2.5	PASS
		VN	TN	2.23	0.000870	± 2.5	PASS
		VH	TN	3.5	0.001366	± 2.5	PASS
16QAM	LCH	VL	TN	1.18	0.000471	± 2.5	PASS
		VN	TN	1.08	0.000431	± 2.5	PASS
		VH	TN	0.38	0.000152	± 2.5	PASS
	MCH	VL	TN	1.36	0.000536	± 2.5	PASS
		VN	TN	1.07	0.000422	± 2.5	PASS
		VH	TN	2.13	0.000840	± 2.5	PASS
	HCH	VL	TN	3.7	0.001444	± 2.5	PASS
		VN	TN	-1.41	-0.000550	± 2.5	PASS
		VH	TN	4.47	0.001744	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.45	0.000179	± 2.5	PASS
		VN	-20	-1.25	-0.000499	± 2.5	PASS
		VN	-10	-1.36	-0.000542	± 2.5	PASS
		VN	0	-0.56	-0.000223	± 2.5	PASS
		VN	10	3.47	0.001384	± 2.5	PASS
		VN	20	1.38	0.000550	± 2.5	PASS
		VN	30	1.69	0.000674	± 2.5	PASS
		VN	40	3.99	0.001591	± 2.5	PASS
		VN	50	3.57	0.001424	± 2.5	PASS
	MCH	VN	-30	4.52	0.001783	± 2.5	PASS
		VN	-20	-1.18	-0.000465	± 2.5	PASS
		VN	-10	4.01	0.001582	± 2.5	PASS
		VN	0	-1.79	-0.000706	± 2.5	PASS

		VN	10	-0.52	-0.000205	± 2.5	PASS
		VN	20	0.25	0.000099	± 2.5	PASS
		VN	30	-0.68	-0.000268	± 2.5	PASS
		VN	40	-0.31	-0.000122	± 2.5	PASS
		VN	50	-0.77	-0.000304	± 2.5	PASS
	HCH	VN	-30	4.78	0.001865	± 2.5	PASS
		VN	-20	4.96	0.001936	± 2.5	PASS
		VN	-10	0	0.000000	± 2.5	PASS
		VN	0	-1.59	-0.000620	± 2.5	PASS
		VN	10	0.15	0.000059	± 2.5	PASS
		VN	20	2.69	0.001050	± 2.5	PASS
		VN	30	1.36	0.000531	± 2.5	PASS
		VN	40	1.04	0.000406	± 2.5	PASS
		VN	50	3.15	0.001229	± 2.5	PASS
16QAM	LCH	VN	-30	0.82	0.000327	± 2.5	PASS
		VN	-20	0.74	0.000295	± 2.5	PASS
		VN	-10	-1	-0.000399	± 2.5	PASS
		VN	0	4.74	0.001890	± 2.5	PASS
		VN	10	2.52	0.001005	± 2.5	PASS
		VN	20	-1.29	-0.000514	± 2.5	PASS
		VN	30	1.34	0.000534	± 2.5	PASS
		VN	40	0.09	0.000036	± 2.5	PASS
		VN	50	-0.51	-0.000203	± 2.5	PASS
	MCH	VN	-30	4.46	0.001759	± 2.5	PASS
		VN	-20	-0.34	-0.000134	± 2.5	PASS
		VN	-10	2.66	0.001049	± 2.5	PASS
		VN	0	1.15	0.000454	± 2.5	PASS
		VN	10	3.24	0.001278	± 2.5	PASS
		VN	20	0.22	0.000087	± 2.5	PASS
		VN	30	3.68	0.001452	± 2.5	PASS
		VN	40	3.92	0.001546	± 2.5	PASS
		VN	50	3.84	0.001515	± 2.5	PASS
	HCH	VN	-30	4.04	0.001577	± 2.5	PASS
		VN	-20	0.82	0.000320	± 2.5	PASS
		VN	-10	1.15	0.000449	± 2.5	PASS
		VN	0	-0.97	-0.000379	± 2.5	PASS
		VN	10	0.09	0.000035	± 2.5	PASS
		VN	20	-0.75	-0.000293	± 2.5	PASS
		VN	30	-1.33	-0.000519	± 2.5	PASS
		VN	40	3.1	0.001210	± 2.5	PASS
		VN	50	0.27	0.000105	± 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	-0.97	-0.000386	± 2.5	PASS
		VN	TN	4.35	0.001733	± 2.5	PASS
		VH	TN	-1.19	-0.000474	± 2.5	PASS
	MCH	VL	TN	2.63	0.001037	± 2.5	PASS
		VN	TN	-0.19	-0.000075	± 2.5	PASS
		VH	TN	-0.93	-0.000367	± 2.5	PASS
	HCH	VL	TN	4.38	0.001711	± 2.5	PASS
		VN	TN	3.21	0.001254	± 2.5	PASS
		VH	TN	3.29	0.001285	± 2.5	PASS
16QAM	LCH	VL	TN	0.24	0.000096	± 2.5	PASS
		VN	TN	4.51	0.001797	± 2.5	PASS
		VH	TN	2.63	0.001048	± 2.5	PASS
	MCH	VL	TN	3.6	0.001420	± 2.5	PASS
		VN	TN	1.71	0.000675	± 2.5	PASS
		VH	TN	0.26	0.000103	± 2.5	PASS
	HCH	VL	TN	1.2	0.000469	± 2.5	PASS
		VN	TN	-1.37	-0.000535	± 2.5	PASS
		VH	TN	-1.52	-0.000594	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.69	0.000673	± 2.5	PASS
		VN	-20	0.69	0.000275	± 2.5	PASS
		VN	-10	2.62	0.001044	± 2.5	PASS
		VN	0	2.16	0.000861	± 2.5	PASS
		VN	10	1.63	0.000649	± 2.5	PASS
		VN	20	4.84	0.001928	± 2.5	PASS
		VN	30	0.67	0.000267	± 2.5	PASS
		VN	40	0.51	0.000203	± 2.5	PASS
		VN	50	4.78	0.001904	± 2.5	PASS
	MCH	VN	-30	3.23	0.001274	± 2.5	PASS
		VN	-20	0.6	0.000237	± 2.5	PASS
		VN	-10	0	0.000000	± 2.5	PASS
		VN	0	-1.77	-0.000698	± 2.5	PASS
		VN	10	1.97	0.000777	± 2.5	PASS
		VN	20	-1.1	-0.000434	± 2.5	PASS

		VN	30	3.98	0.001570	± 2.5	PASS
		VN	40	0.5	0.000197	± 2.5	PASS
		VN	50	-1.25	-0.000493	± 2.5	PASS
	HCH	VN	-30	0.92	0.000359	± 2.5	PASS
		VN	-20	2.55	0.000996	± 2.5	PASS
		VN	-10	0.64	0.000250	± 2.5	PASS
		VN	0	1.22	0.000477	± 2.5	PASS
		VN	10	3.27	0.001277	± 2.5	PASS
		VN	20	0.61	0.000238	± 2.5	PASS
		VN	30	3.6	0.001406	± 2.5	PASS
		VN	40	-0.38	-0.000148	± 2.5	PASS
		VN	50	0.83	0.000324	± 2.5	PASS
16QAM	LCH	VN	-30	-0.51	-0.000203	± 2.5	PASS
		VN	-20	2.32	0.000924	± 2.5	PASS
		VN	-10	-1.23	-0.000490	± 2.5	PASS
		VN	0	2.15	0.000857	± 2.5	PASS
		VN	10	4.83	0.001924	± 2.5	PASS
		VN	20	-0.24	-0.000096	± 2.5	PASS
		VN	30	4.83	0.001924	± 2.5	PASS
		VN	40	2.61	0.001040	± 2.5	PASS
		VN	50	1.27	0.000506	± 2.5	PASS
	MCH	VN	-30	4.91	0.001937	± 2.5	PASS
		VN	-20	1.33	0.000525	± 2.5	PASS
		VN	-10	-0.94	-0.000371	± 2.5	PASS
		VN	0	1.34	0.000529	± 2.5	PASS
		VN	10	3.5	0.001381	± 2.5	PASS
		VN	20	2.28	0.000899	± 2.5	PASS
		VN	30	-1.47	-0.000580	± 2.5	PASS
		VN	40	1.78	0.000702	± 2.5	PASS
		VN	50	-1.11	-0.000438	± 2.5	PASS
	HCH	VN	-30	4.55	0.001777	± 2.5	PASS
		VN	-20	4.8	0.001875	± 2.5	PASS
		VN	-10	-0.27	-0.000105	± 2.5	PASS
		VN	0	4.14	0.001617	± 2.5	PASS
		VN	10	1.08	0.000422	± 2.5	PASS
		VN	20	-0.92	-0.000359	± 2.5	PASS
		VN	30	-0.25	-0.000098	± 2.5	PASS
		VN	40	3.33	0.001301	± 2.5	PASS
		VN	50	2.35	0.000918	± 2.5	PASS