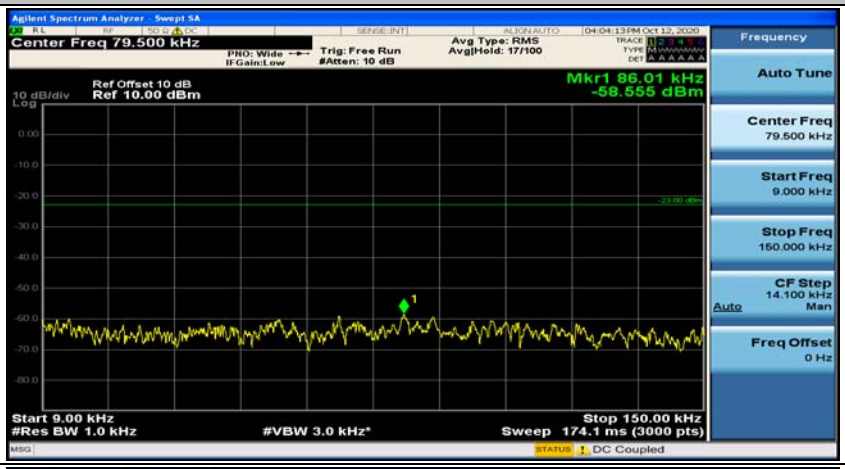
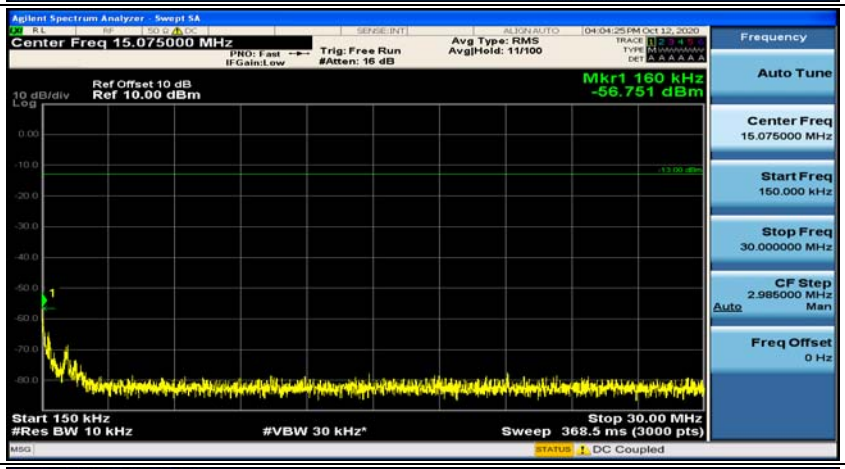
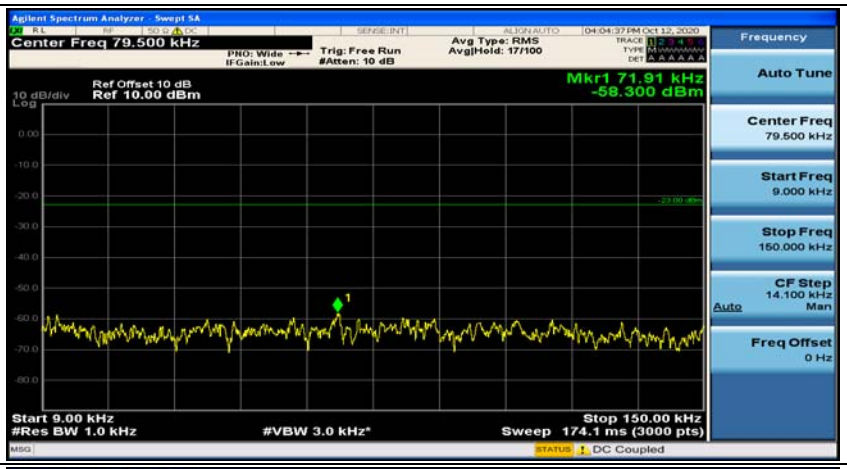
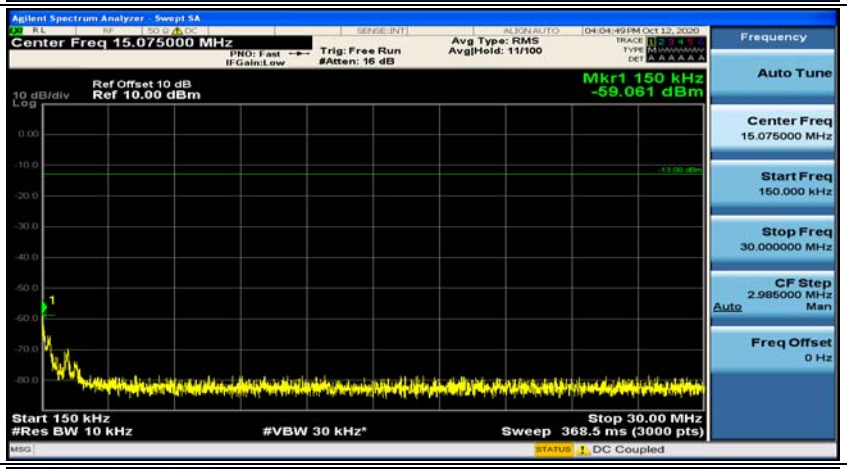
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0



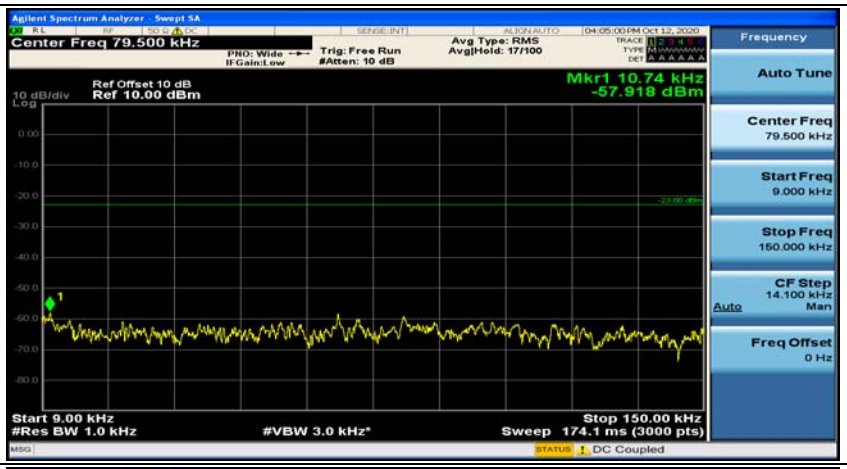


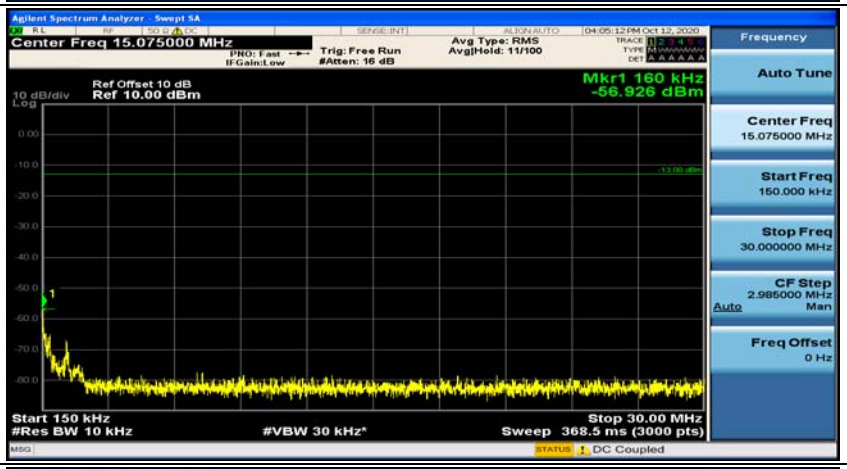
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37





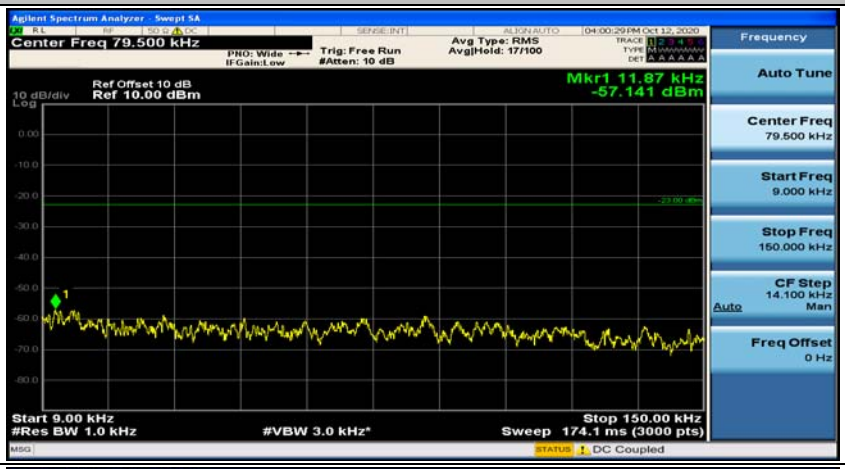
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

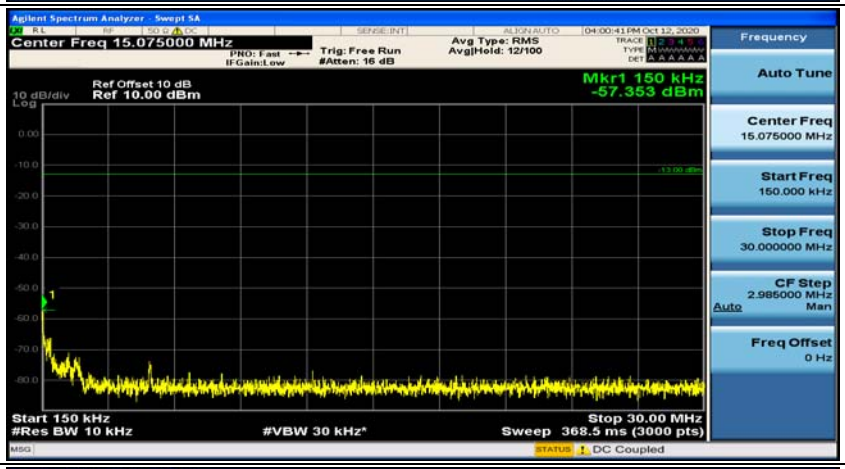

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:05:00 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 10.74 kHz
-57.918 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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: 11/100
04:05:12 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-56.926 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

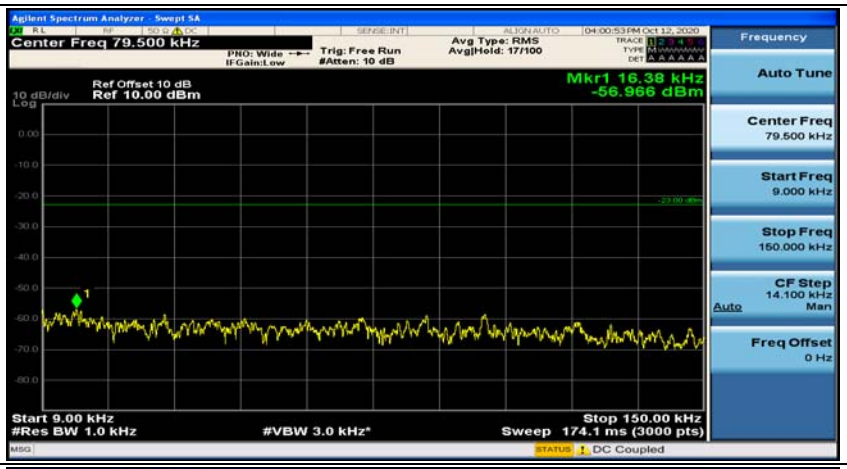
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:05:18 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.212 GHz
-28.932 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

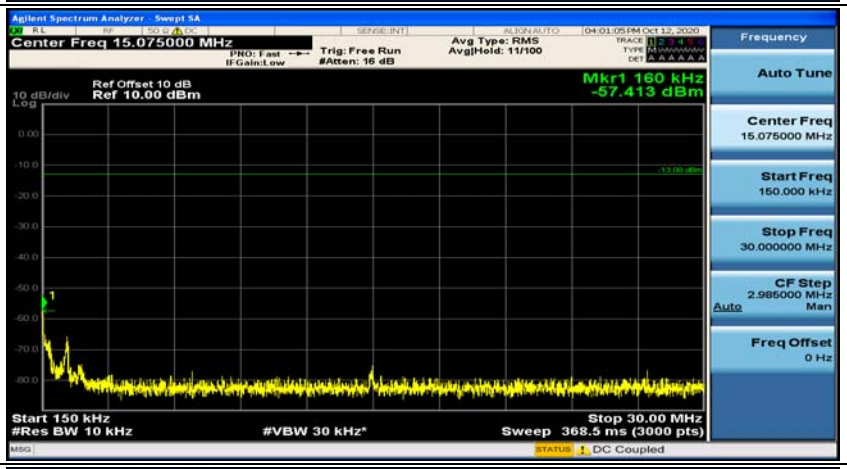
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



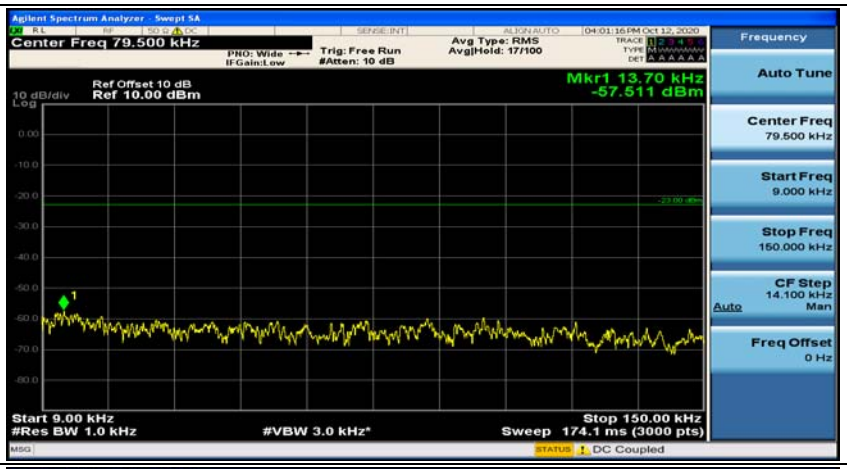


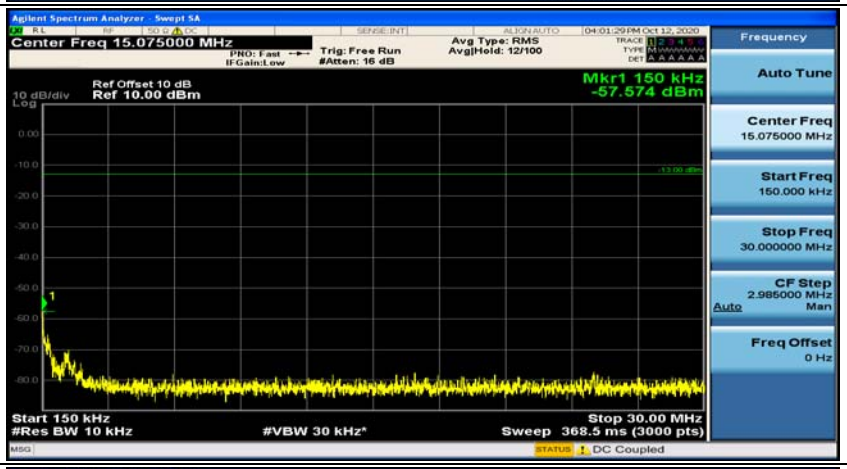
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37





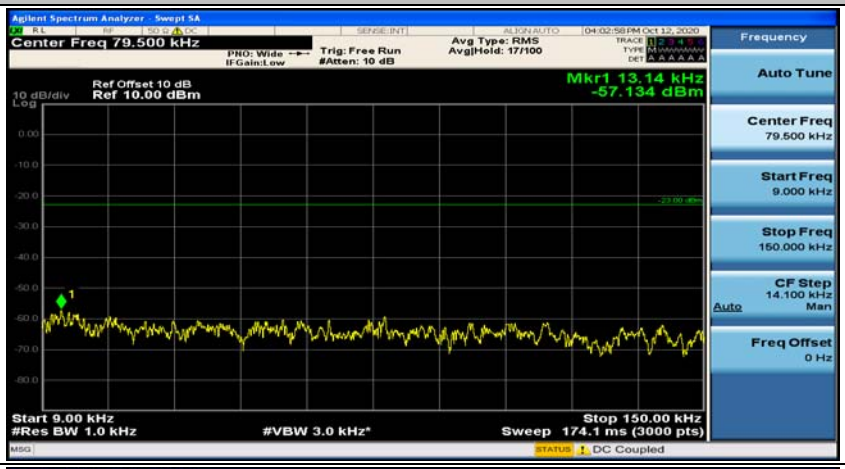
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74

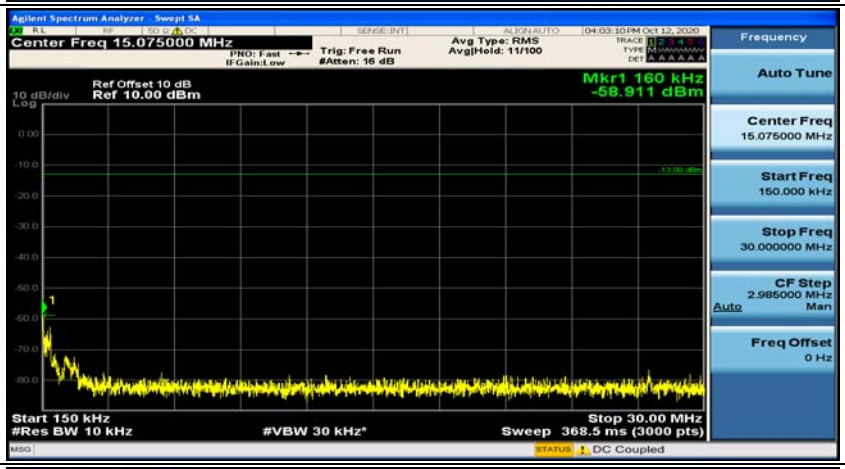

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:01:16 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 13.70 kHz
-57.511 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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
04:01:29 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 150 kHz
-57.574 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

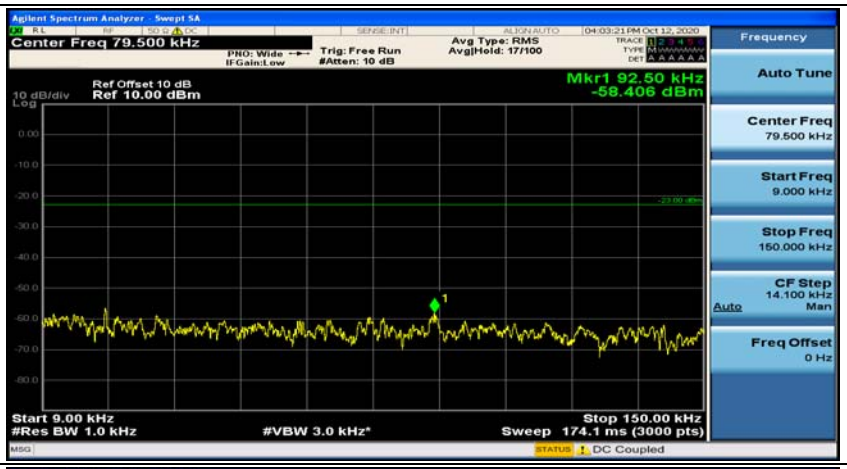
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:01:34 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.506 GHz
-28.911 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq 13.015000000 GHz
Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
CF Step 2.597000000 GHz
Auto Man
Freq Offset 0 Hz

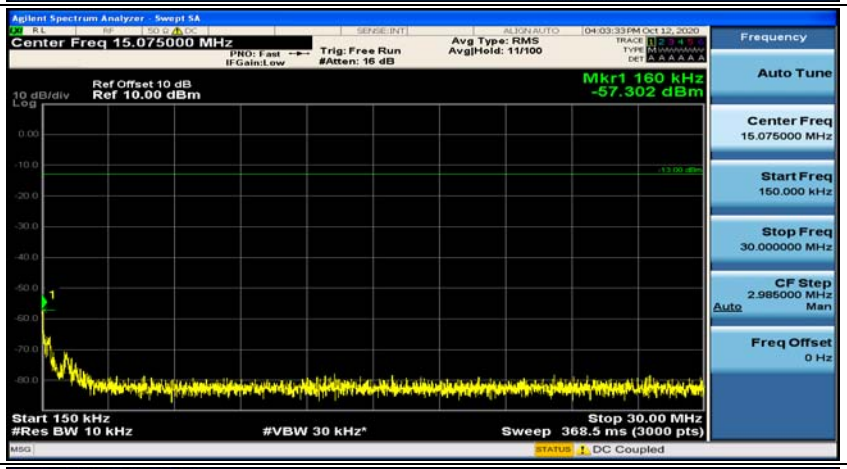
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0



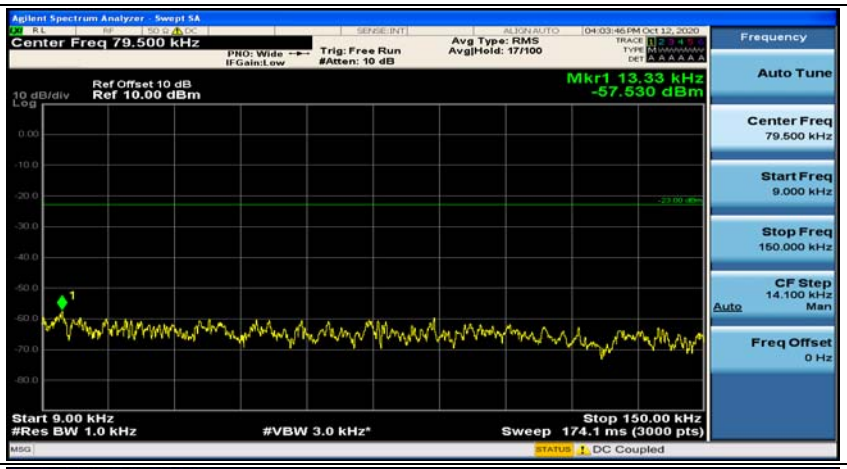


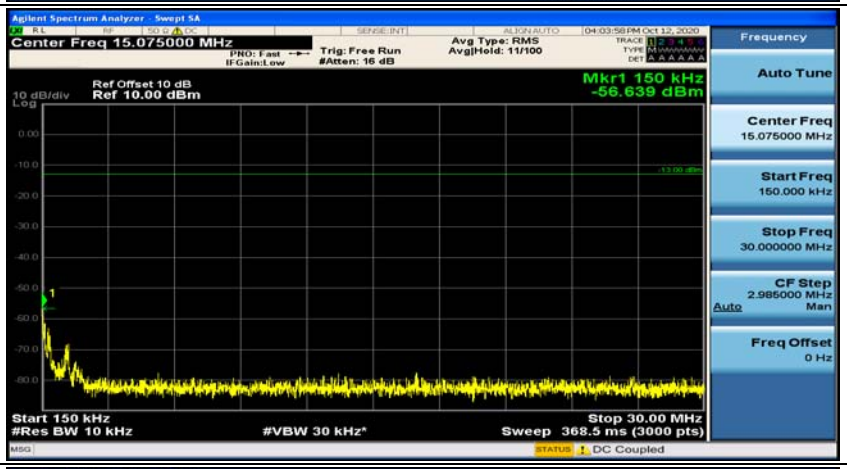
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37





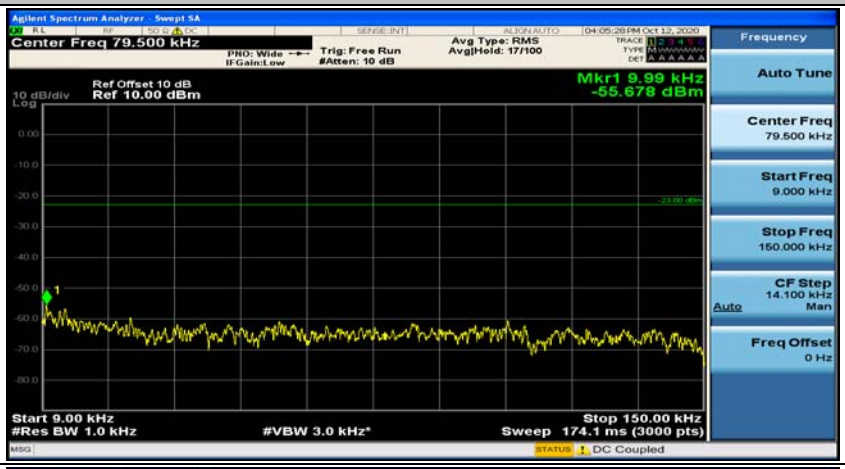
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

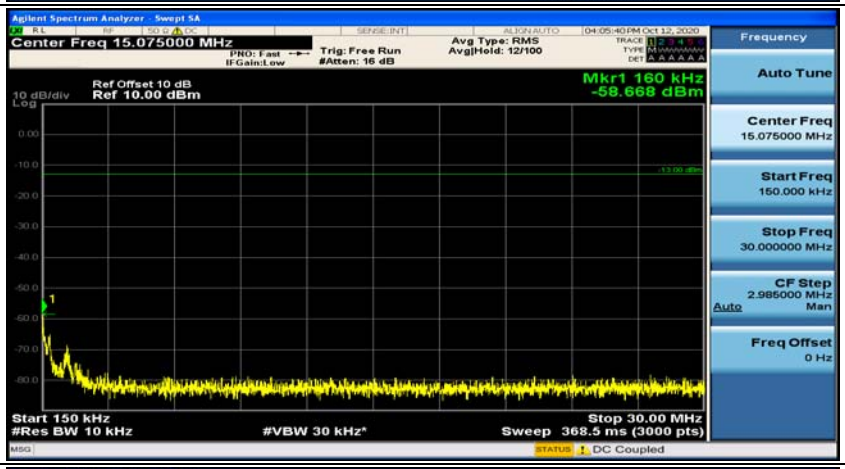

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:03:46 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 13.33 kHz
-57.530 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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
04:03:58 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 150 kHz
-56.639 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

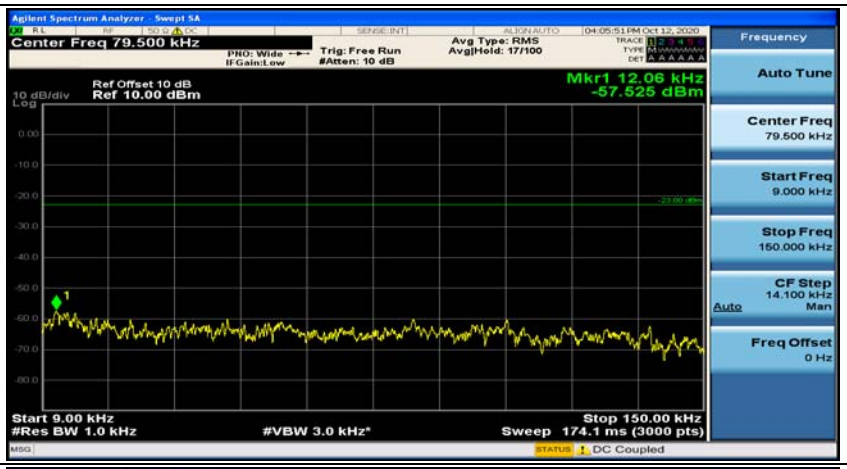
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:04:04 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.636 GHz
-29.082 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 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

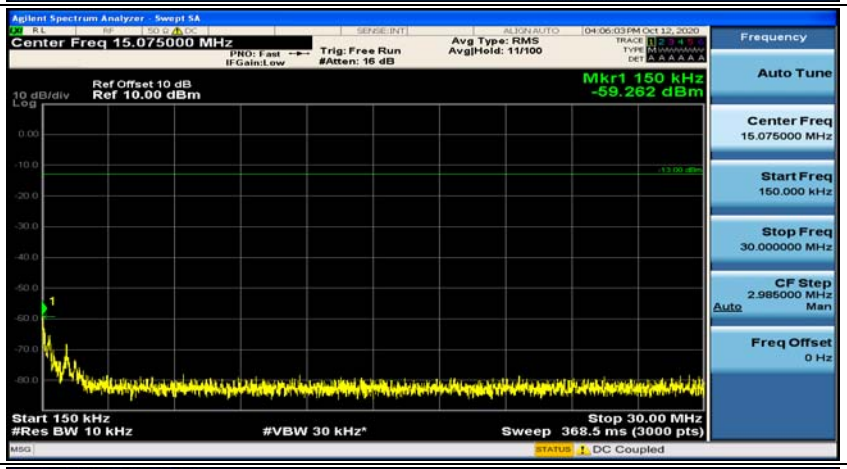
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0



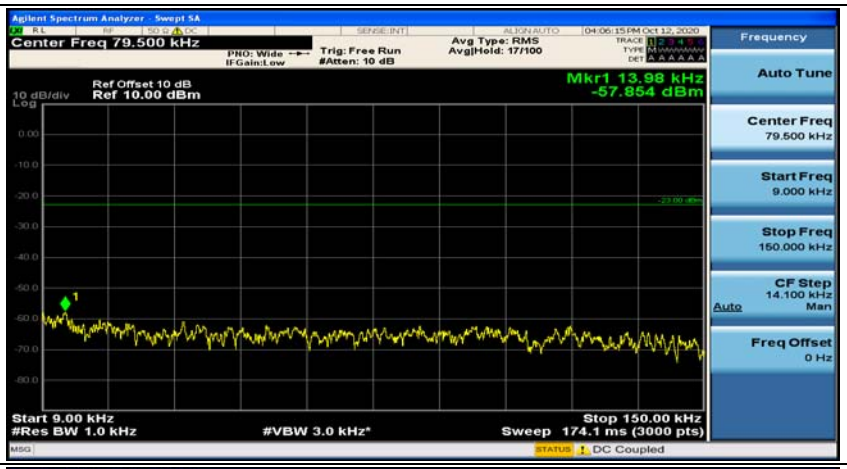


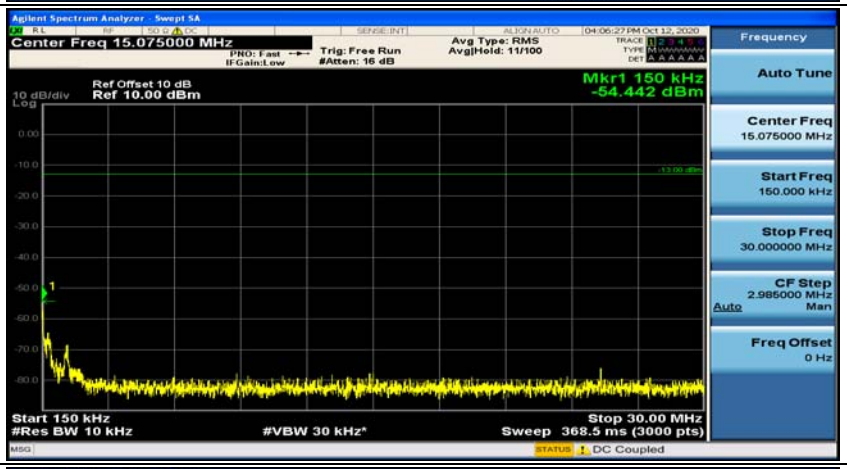
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37





(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

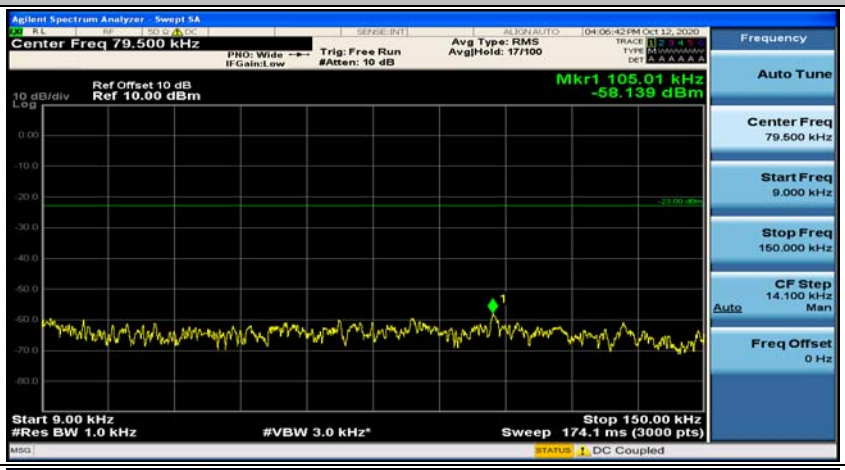

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:06:15 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 13.98 kHz
-57.854 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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

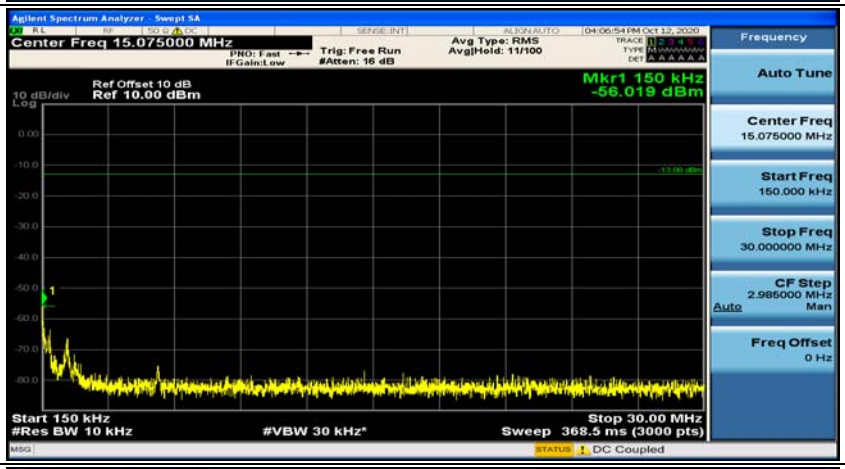

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
04:06:27 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 150 kHz
-54.442 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 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
04:06:33 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.576 GHz
-28.920 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

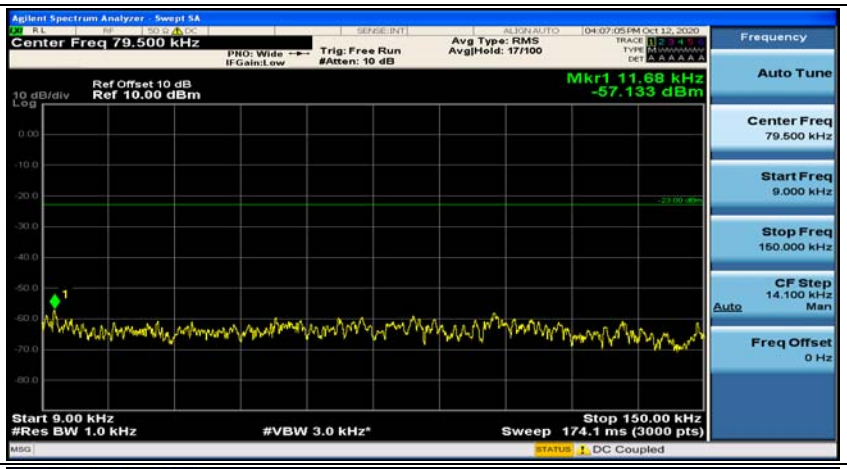
Channel Bandwidth: 20 MHz

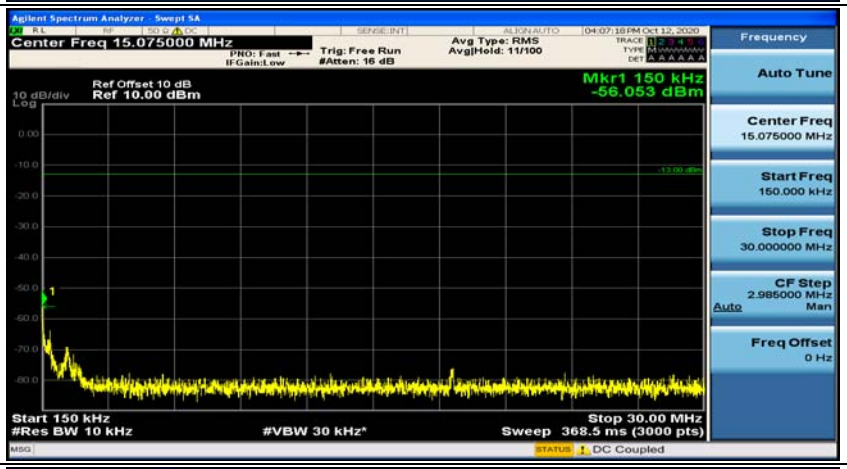
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



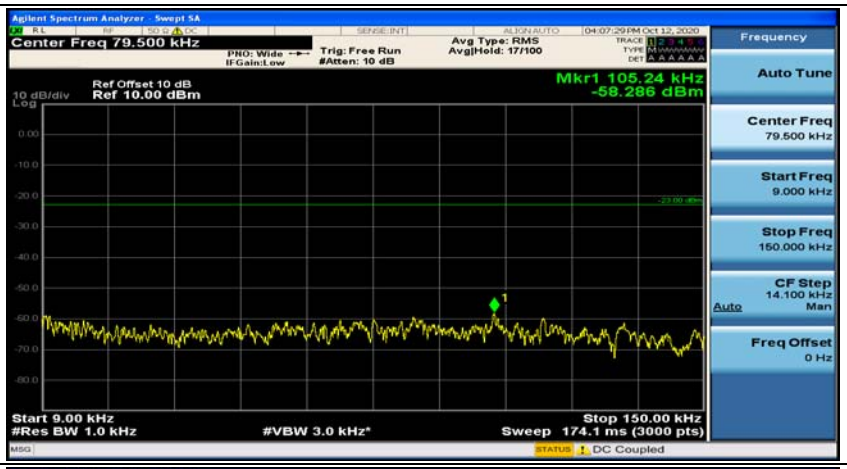


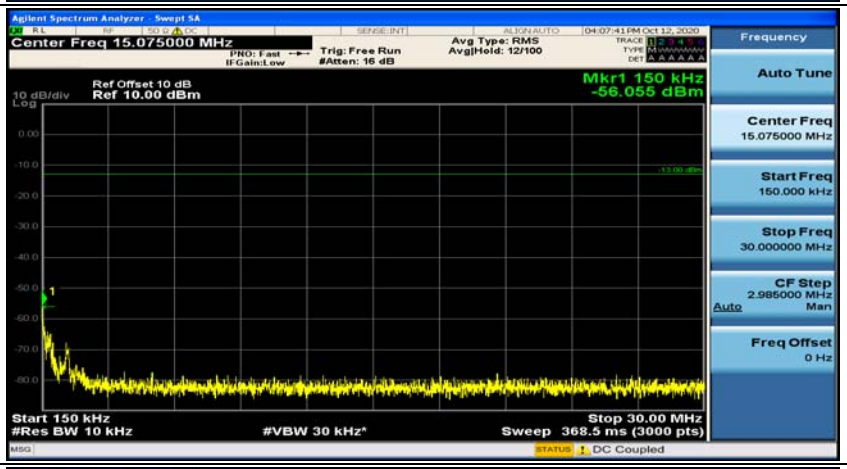
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49





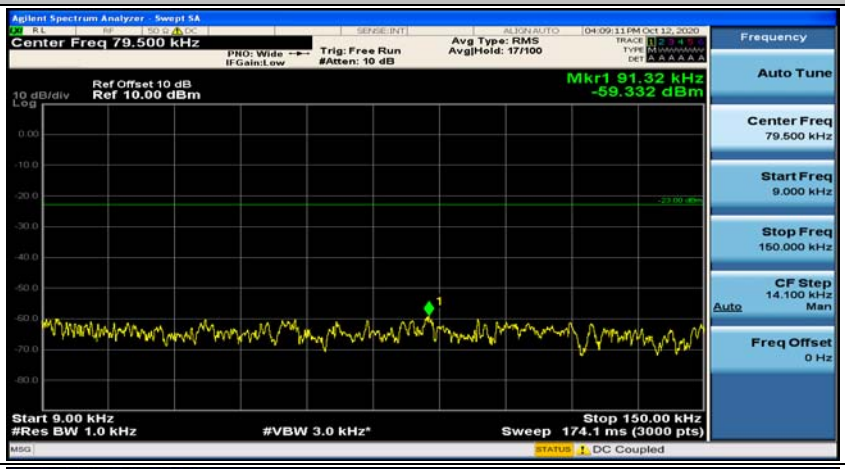
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

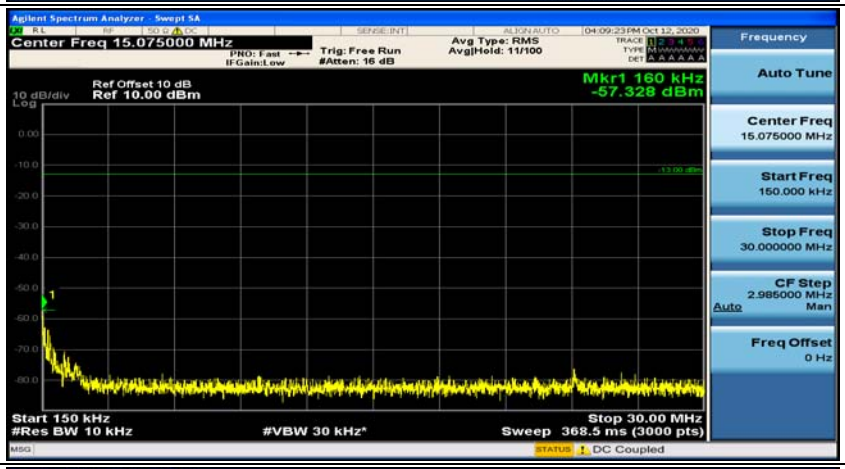

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:07:29 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 105.24 kHz
-58.286 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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
04:07:41 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-56.055 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

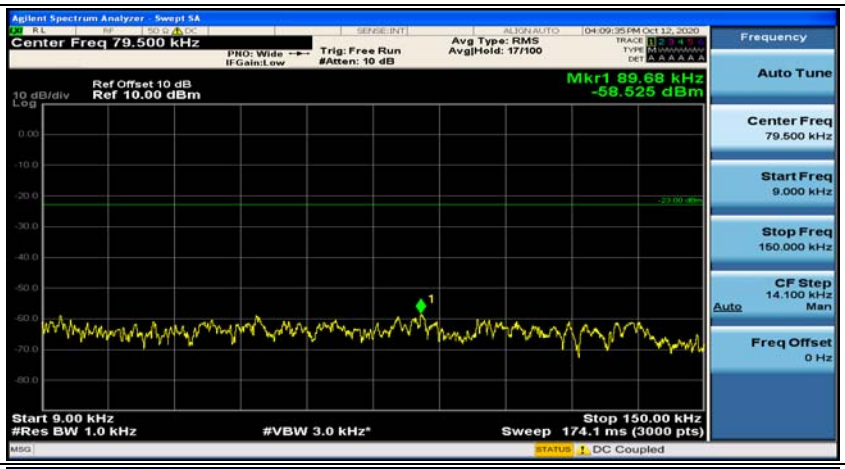
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:07:47 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.377 GHz
-28.858 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

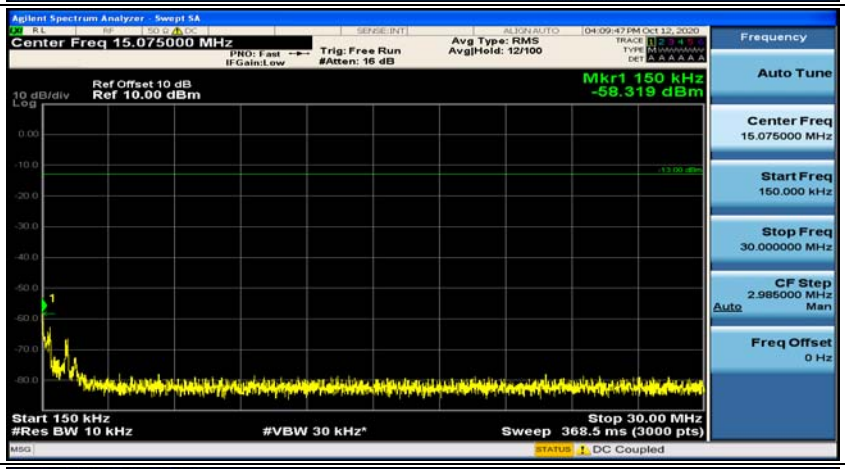
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0



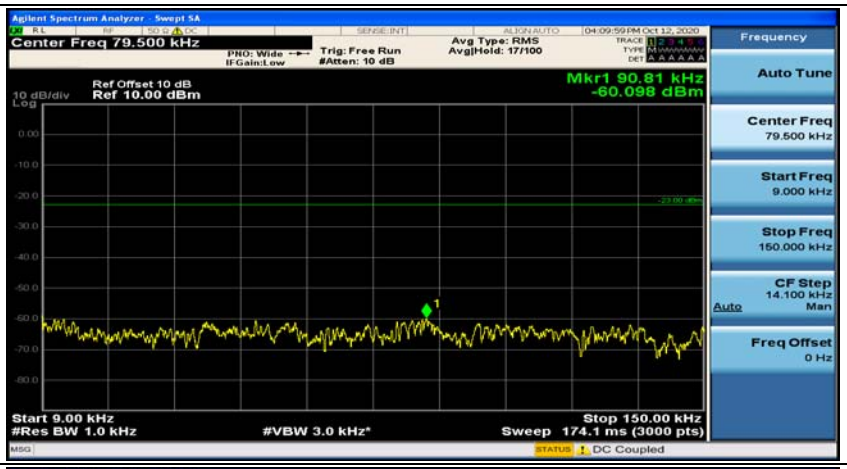


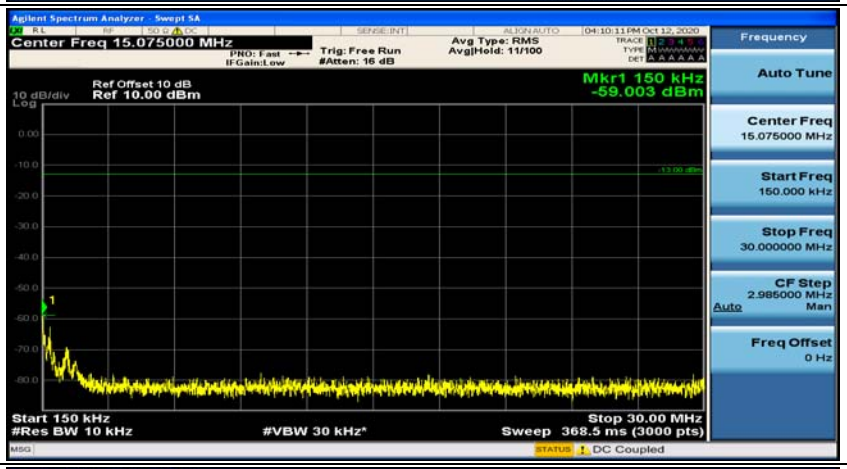
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49





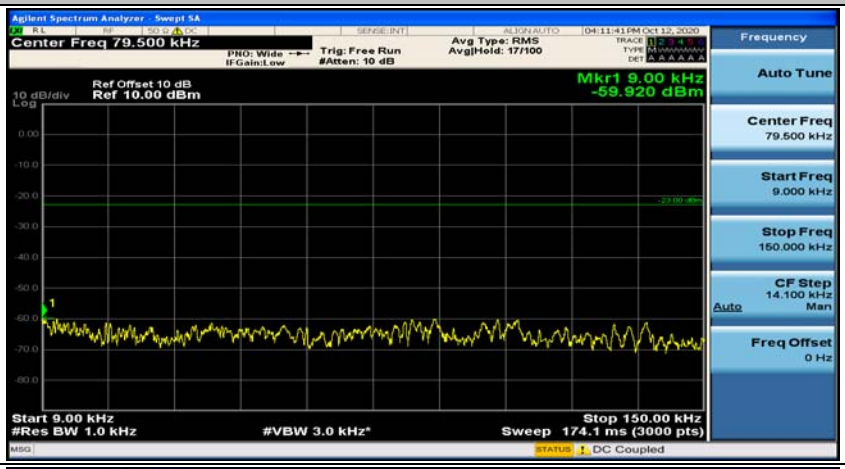
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

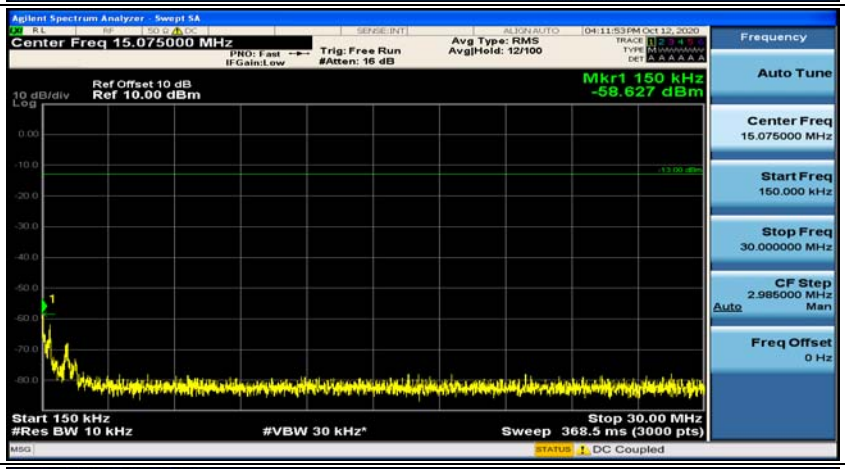

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:09:59 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 90.81 kHz
-60.098 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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: 11/100
04:10:11 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-59.003 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

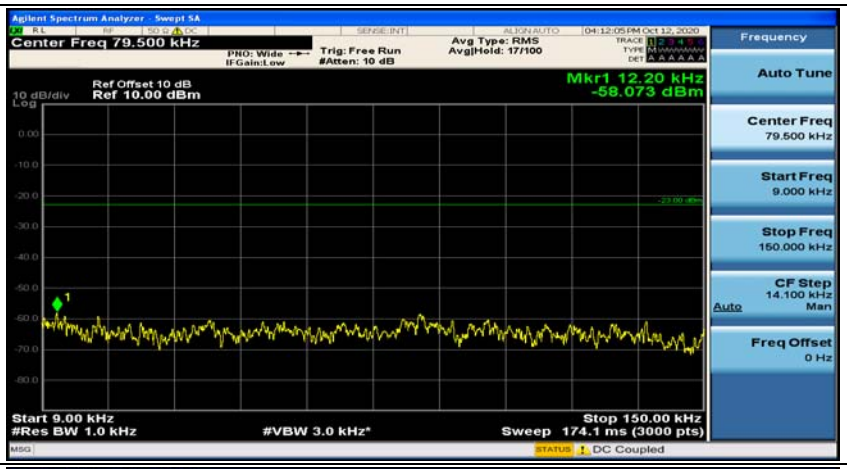
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:10:16 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 23.463 GHz
-28.817 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

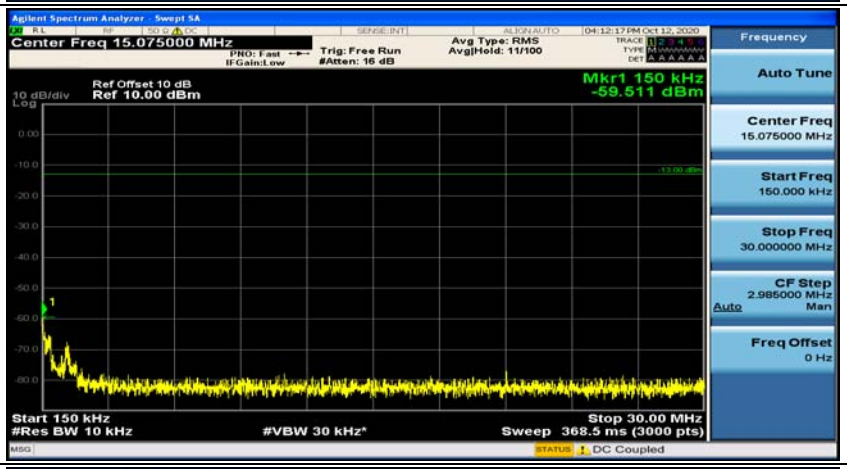
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0



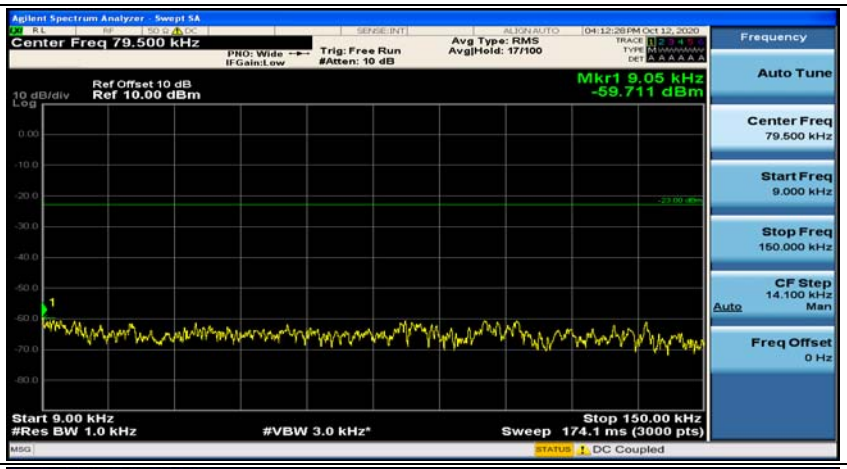


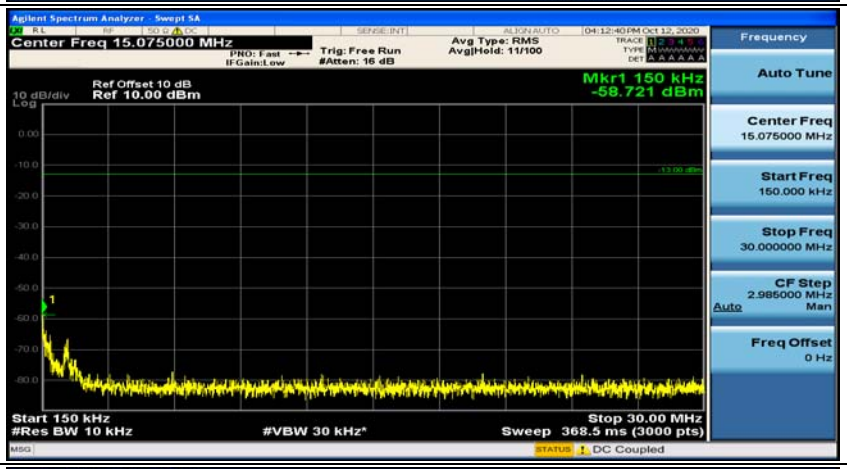
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49





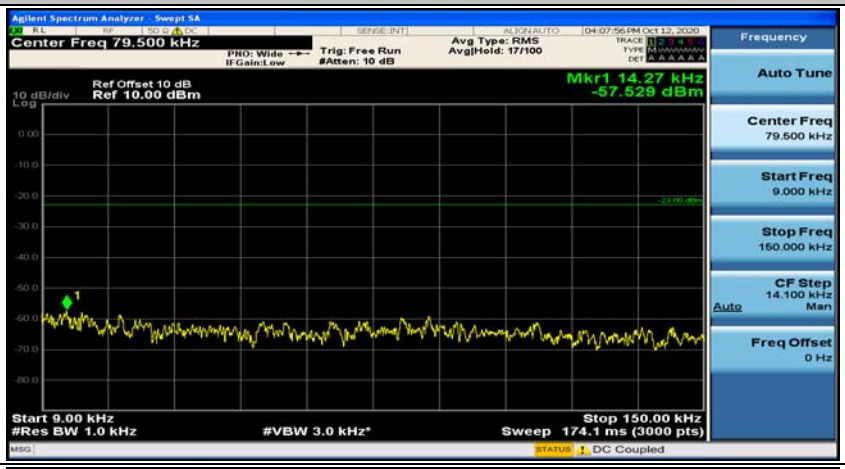
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

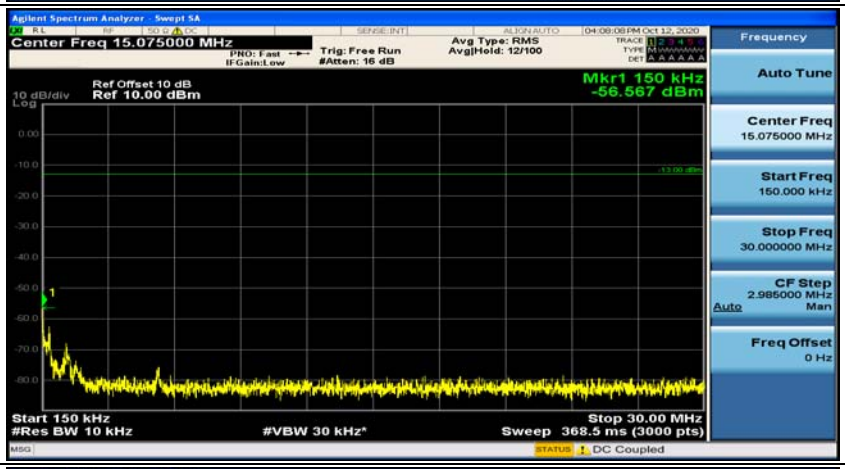

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:12:28 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 9.05 kHz
-59.711 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 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
04:12:40 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-58.721 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

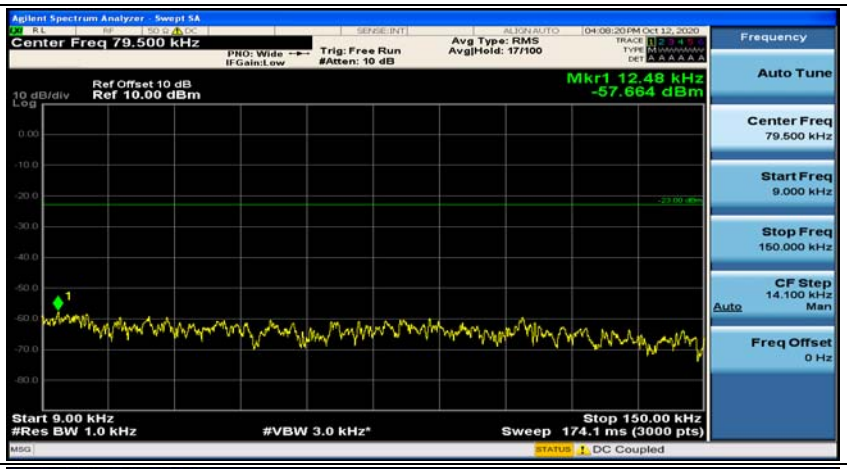
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:12:46 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 23.437 GHz
-28.825 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

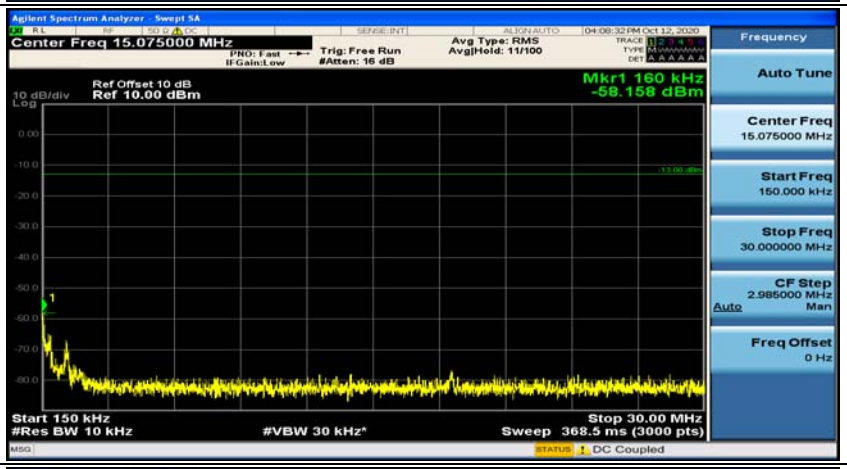
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



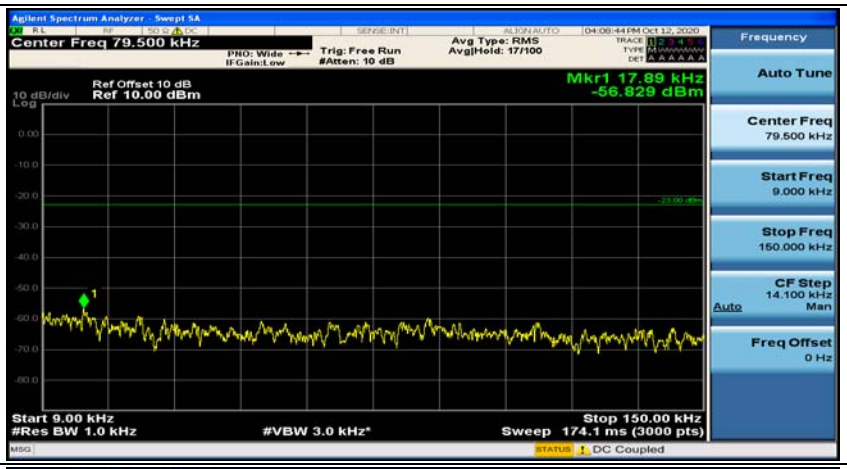


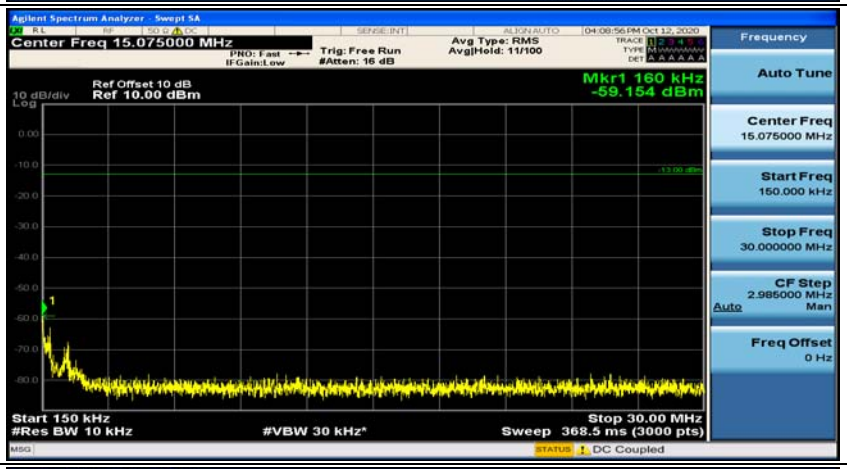
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49





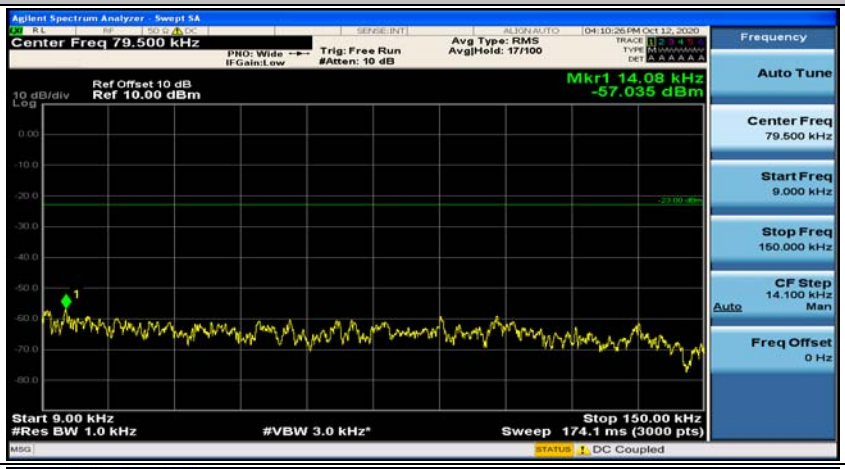
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99

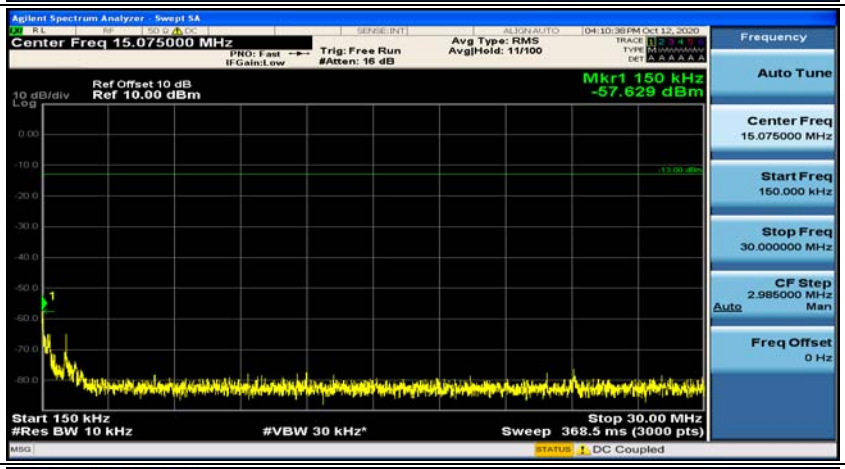

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:08:44 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 17.89 kHz
-56.829 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
04:08:56 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 160 kHz
-59.154 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

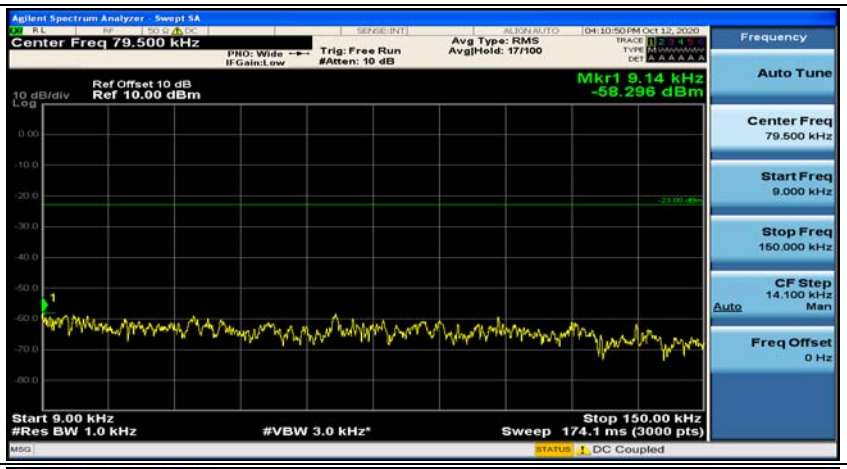
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
04:09:02 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.991 GHz
-28.975 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

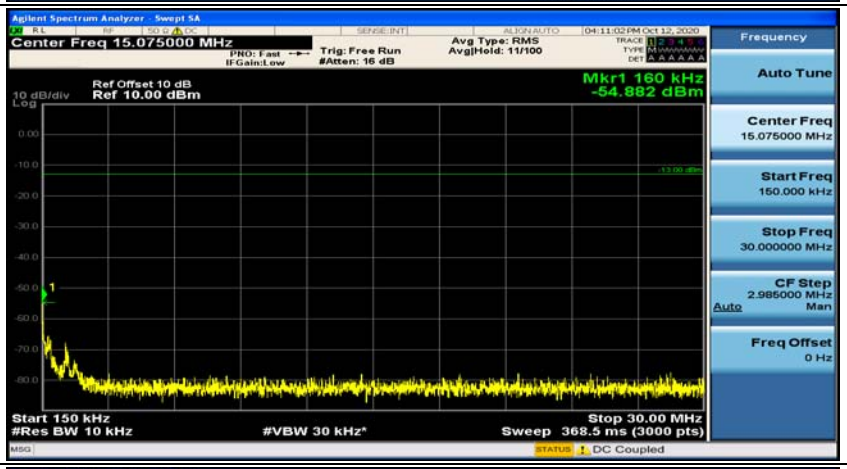
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0



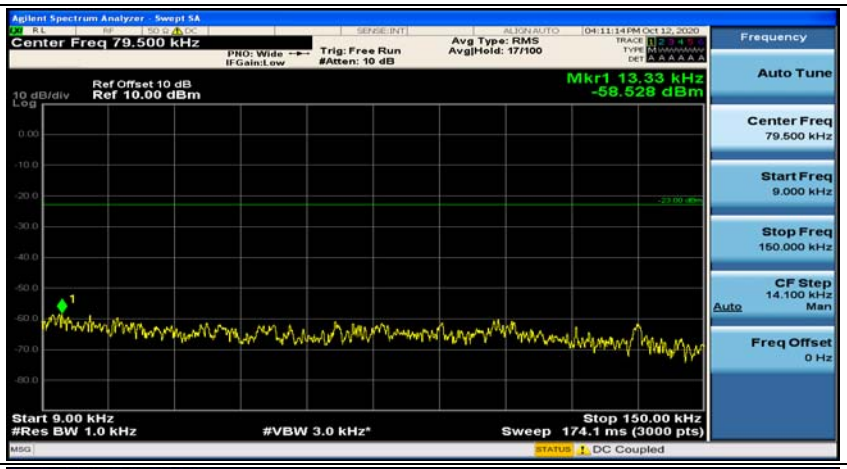


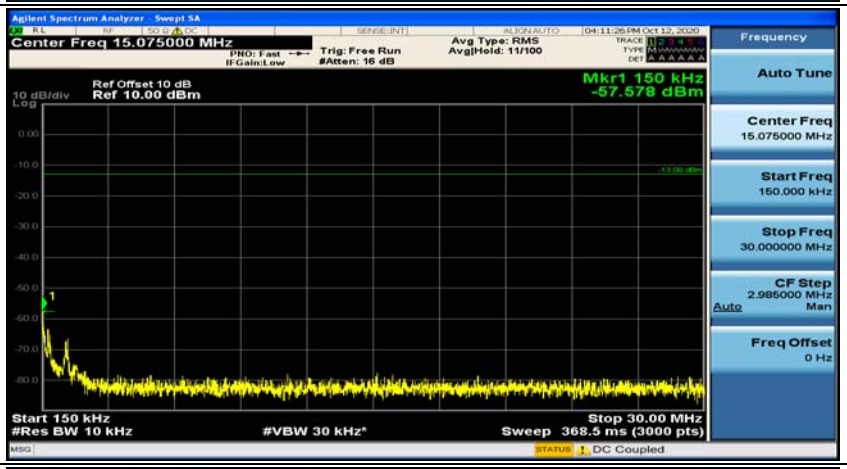
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49





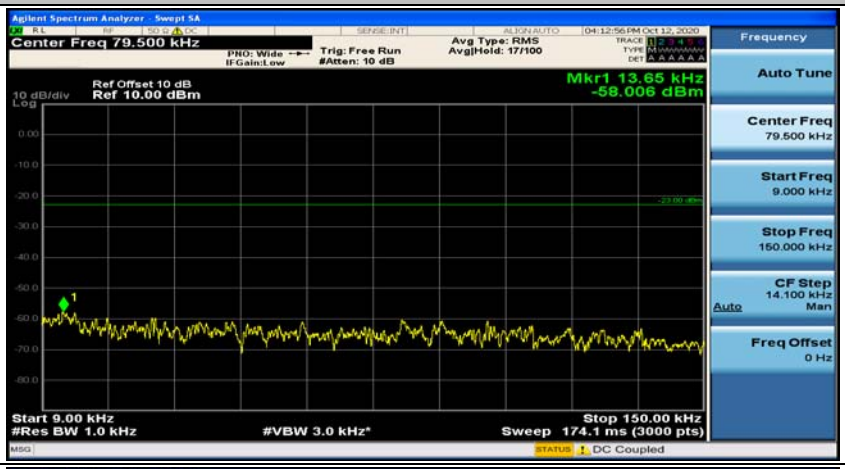
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

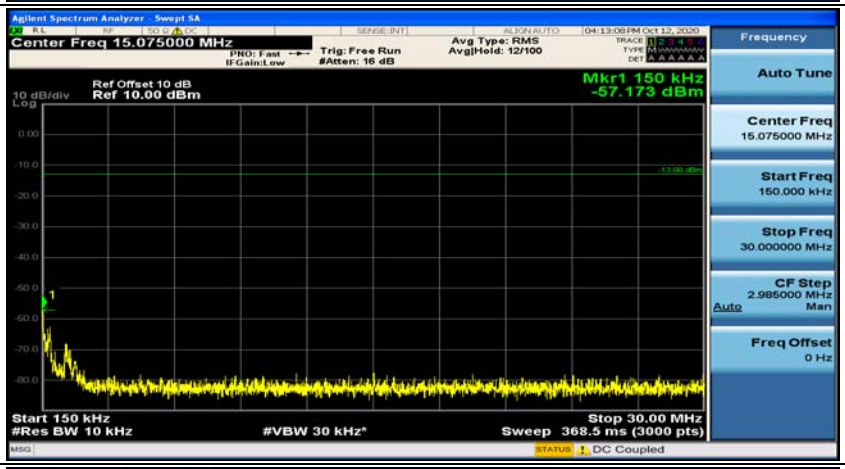

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
04:11:14 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 13.33 kHz
-58.528 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 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
04:11:26 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div
Ref 10.00 dBm
Mkr1 150 kHz
-57.578 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

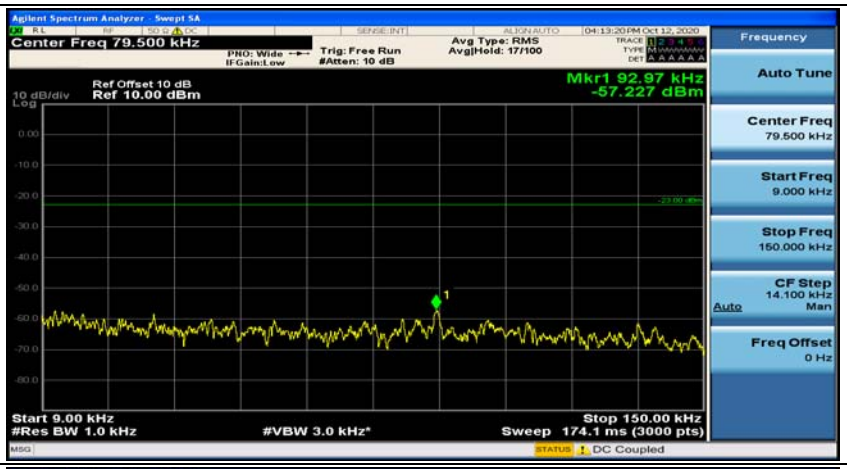
Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
04:11:32 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div
Ref 30.00 dBm
Mkr2 25.619 GHz
-28.758 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
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

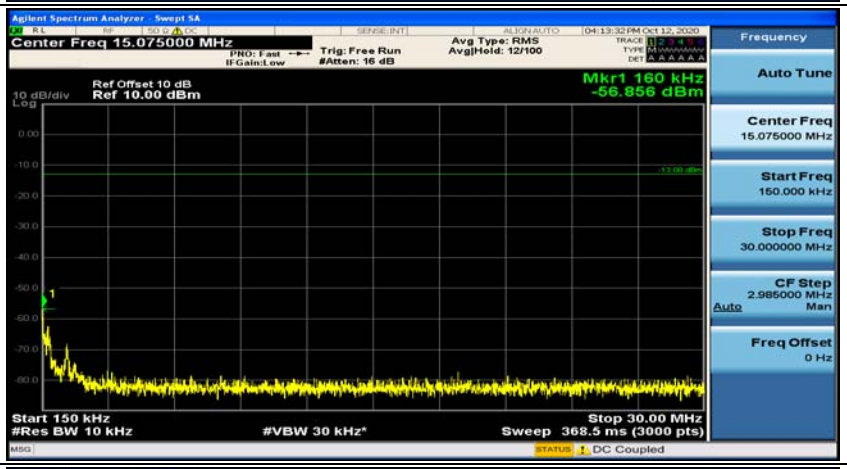
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



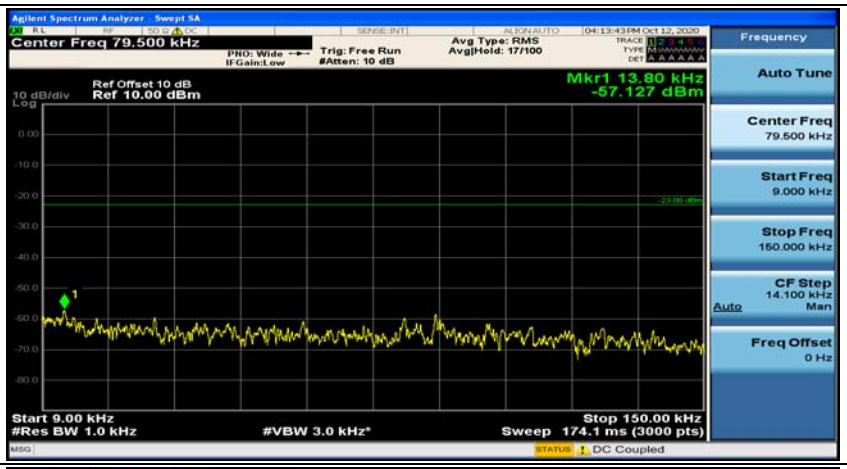


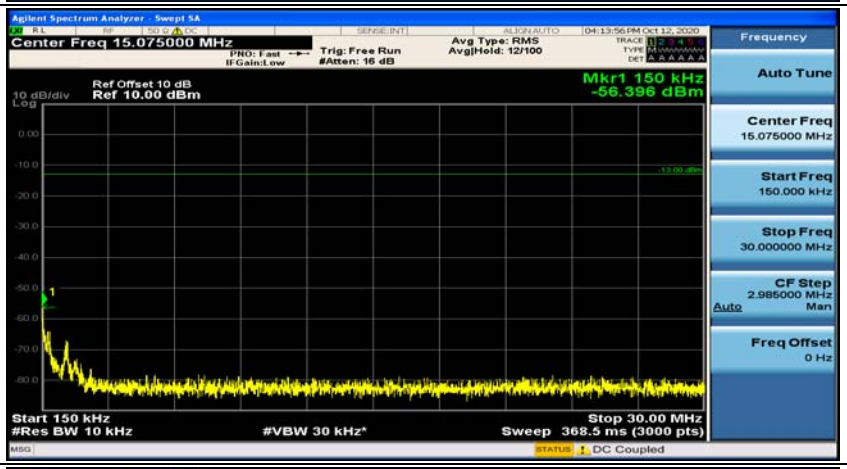
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49





(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
04:13:43 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 13.80 kHz
-57.127 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
04:13:56 PM Oct 12, 2020
Ref Offset 10 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 150 kHz
-56.396 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
04:14:01 PM Oct 12, 2020
Ref Offset 9.96 dB
10 dB/div Ref 30.00 dBm
Log
Mkr2 25.558 GHz
-29.149 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 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	-0.99	-0.000579	± 2.5	PASS
		VN	TN	-0.8	-0.000468	± 2.5	PASS
		VH	TN	-0.82	-0.000479	± 2.5	PASS
	MCH	VL	TN	-0.81	-0.000468	± 2.5	PASS
		VN	TN	2.09	0.001206	± 2.5	PASS
		VH	TN	-1.5	-0.000866	± 2.5	PASS
	HCH	VL	TN	0.06	0.000034	± 2.5	PASS
		VN	TN	3.24	0.001847	± 2.5	PASS
		VH	TN	2.15	0.001226	± 2.5	PASS
16QAM	LCH	VL	TN	4.57	0.002671	± 2.5	PASS
		VN	TN	2.14	0.001251	± 2.5	PASS
		VH	TN	2.04	0.001192	± 2.5	PASS
	MCH	VL	TN	-1.92	-0.001108	± 2.5	PASS
		VN	TN	-0.86	-0.000496	± 2.5	PASS
		VH	TN	1.21	0.000698	± 2.5	PASS
	HCH	VL	TN	-1.26	-0.000718	± 2.5	PASS
		VN	TN	0.58	0.000331	± 2.5	PASS
		VH	TN	2.62	0.001493	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.12	0.001239	± 2.5	PASS
		VN	-20	4.45	0.002601	± 2.5	PASS
		VN	-10	-1.94	-0.001134	± 2.5	PASS
		VN	0	-0.66	-0.000386	± 2.5	PASS
		VN	10	1.06	0.000620	± 2.5	PASS
		VN	20	-2	-0.001169	± 2.5	PASS
		VN	30	-0.64	-0.000374	± 2.5	PASS
		VN	40	4.79	0.002800	± 2.5	PASS
		VN	50	3.28	0.001917	± 2.5	PASS

	MCH	VN	-30	3.34	0.001928	± 2.5	PASS
		VN	-20	3.71	0.002141	± 2.5	PASS
		VN	-10	-1.03	-0.000595	± 2.5	PASS
		VN	0	-0.33	-0.000190	± 2.5	PASS
		VN	10	4.61	0.002661	± 2.5	PASS
		VN	20	-0.78	-0.000450	± 2.5	PASS
		VN	30	-1.79	-0.001033	± 2.5	PASS
		VN	40	-0.09	-0.000052	± 2.5	PASS
		VN	50	0.98	0.000566	± 2.5	PASS
	HCH	VN	-30	4.68	0.002668	± 2.5	PASS
		VN	-20	4.91	0.002799	± 2.5	PASS
		VN	-10	-0.72	-0.000410	± 2.5	PASS
		VN	0	4.21	0.002400	± 2.5	PASS
		VN	10	-0.54	-0.000308	± 2.5	PASS
		VN	20	-0.07	-0.000040	± 2.5	PASS
		VN	30	-1.12	-0.000638	± 2.5	PASS
		VN	40	-1.03	-0.000587	± 2.5	PASS
		VN	50	4.79	0.002730	± 2.5	PASS
16QAM	LCH	VN	-30	3.53	0.002063	± 2.5	PASS
		VN	-20	2.35	0.001374	± 2.5	PASS
		VN	-10	4.52	0.002642	± 2.5	PASS
		VN	0	0.4	0.000234	± 2.5	PASS
		VN	10	-0.52	-0.000304	± 2.5	PASS
		VN	20	4.82	0.002818	± 2.5	PASS
		VN	30	-0.77	-0.000450	± 2.5	PASS
		VN	40	-1.39	-0.000813	± 2.5	PASS
		VN	50	3	0.001754	± 2.5	PASS
	MCH	VN	-30	4.52	0.002577	± 2.5	PASS
		VN	-20	4.4	0.002508	± 2.5	PASS
		VN	-10	-0.3	-0.000171	± 2.5	PASS
		VN	0	3.14	0.001790	± 2.5	PASS
		VN	10	-1.26	-0.000718	± 2.5	PASS
		VN	20	-0.91	-0.000519	± 2.5	PASS
		VN	30	3.96	0.002257	± 2.5	PASS
		VN	40	-1.22	-0.000695	± 2.5	PASS
		VN	50	-1.51	-0.000861	± 2.5	PASS
	HCH	VN	-30	3.29	0.001875	± 2.5	PASS
		VN	-20	3.47	0.001978	± 2.5	PASS
		VN	-10	-0.01	-0.000006	± 2.5	PASS
		VN	0	-0.85	-0.000485	± 2.5	PASS
		VN	10	2.05	0.001169	± 2.5	PASS

		VN	20	4.37	0.002491	± 2.5	PASS
		VN	30	-0.16	-0.000091	± 2.5	PASS
		VN	40	-1.22	-0.000695	± 2.5	PASS
		VN	50	1.84	0.001049	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.81	-0.000473	± 2.5	PASS
		VN	TN	-1.71	-0.000999	± 2.5	PASS
		VH	TN	3.28	0.001916	± 2.5	PASS
	MCH	VL	TN	-1.27	-0.000733	± 2.5	PASS
		VN	TN	-0.32	-0.000185	± 2.5	PASS
		VH	TN	0.81	0.000468	± 2.5	PASS
	HCH	VL	TN	-0.85	-0.000485	± 2.5	PASS
		VN	TN	4.77	0.002720	± 2.5	PASS
		VH	TN	2.59	0.001477	± 2.5	PASS
16QAM	LCH	VL	TN	0.61	0.000356	± 2.5	PASS
		VN	TN	3.66	0.002138	± 2.5	PASS
		VH	TN	-0.45	-0.000263	± 2.5	PASS
	MCH	VL	TN	2.99	0.001726	± 2.5	PASS
		VN	TN	1.22	0.000704	± 2.5	PASS
		VH	TN	4.8	0.002771	± 2.5	PASS
	HCH	VL	TN	4.52	0.002578	± 2.5	PASS
		VN	TN	2.79	0.001591	± 2.5	PASS
		VH	TN	1.74	0.000992	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.65	0.002717	± 2.5	PASS
		VN	-20	-0.9	-0.000526	± 2.5	PASS
		VN	-10	-1.72	-0.001005	± 2.5	PASS
		VN	0	3.4	0.001987	± 2.5	PASS
		VN	10	3.6	0.002103	± 2.5	PASS
		VN	20	1.38	0.000806	± 2.5	PASS
		VN	30	1.11	0.000649	± 2.5	PASS
		VN	40	-0.48	-0.000280	± 2.5	PASS
		VN	50	-0.74	-0.000432	± 2.5	PASS
	MCH	VN	-30	1.73	0.000999	± 2.5	PASS

		VN	-20	-1.12	-0.000646	± 2.5	PASS
		VN	-10	2.14	0.001235	± 2.5	PASS
		VN	0	-1.12	-0.000646	± 2.5	PASS
		VN	10	1.29	0.000745	± 2.5	PASS
		VN	20	-0.76	-0.000439	± 2.5	PASS
		VN	30	-1.52	-0.000877	± 2.5	PASS
		VN	40	-1.98	-0.001143	± 2.5	PASS
		VN	50	4.91	0.002834	± 2.5	PASS
	HCH	VN	-30	2.85	0.001625	± 2.5	PASS
		VN	-20	-0.95	-0.000542	± 2.5	PASS
		VN	-10	-0.36	-0.000205	± 2.5	PASS
		VN	0	-0.98	-0.000559	± 2.5	PASS
		VN	10	1.99	0.001135	± 2.5	PASS
		VN	20	4.58	0.002612	± 2.5	PASS
		VN	30	-1.31	-0.000747	± 2.5	PASS
		VN	40	3.06	0.001745	± 2.5	PASS
		VN	50	4.42	0.002521	± 2.5	PASS
16QAM	LCH	VN	-30	-0.4	-0.000231	± 2.5	PASS
		VN	-20	-1.31	-0.000756	± 2.5	PASS
		VN	-10	-1.7	-0.000981	± 2.5	PASS
		VN	0	-0.72	-0.000416	± 2.5	PASS
		VN	10	-1.52	-0.000877	± 2.5	PASS
		VN	20	2.78	0.001605	± 2.5	PASS
		VN	30	0.22	0.000127	± 2.5	PASS
		VN	40	3.42	0.001974	± 2.5	PASS
		VN	50	4.05	0.002338	± 2.5	PASS
	MCH	VN	-30	-0.52	-0.000297	± 2.5	PASS
		VN	-20	3.4	0.001939	± 2.5	PASS
		VN	-10	2.98	0.001699	± 2.5	PASS
		VN	0	4.21	0.002401	± 2.5	PASS
		VN	10	-1.34	-0.000764	± 2.5	PASS
		VN	20	1.84	0.001049	± 2.5	PASS
		VN	30	4.08	0.002327	± 2.5	PASS
		VN	40	3.54	0.002019	± 2.5	PASS
		VN	50	4.67	0.002663	± 2.5	PASS
	HCH	VN	-30	0.02	0.000011	± 2.5	PASS
		VN	-20	-0.44	-0.000251	± 2.5	PASS
		VN	-10	0.96	0.000547	± 2.5	PASS
		VN	0	4.51	0.002572	± 2.5	PASS
		VN	10	4.5	0.002566	± 2.5	PASS
		VN	20	-0.44	-0.000251	± 2.5	PASS

		VN	30	0.53	0.000302	± 2.5	PASS
		VN	40	1.55	0.000884	± 2.5	PASS
		VN	50	-0.15	-0.000086	± 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	4.4	0.002569	± 2.5	PASS
		VN	TN	3	0.001752	± 2.5	PASS
		VH	TN	-1.48	-0.000864	± 2.5	PASS
	MCH	VL	TN	-1.42	-0.000820	± 2.5	PASS
		VN	TN	-0.08	-0.000046	± 2.5	PASS
		VH	TN	3.62	0.002089	± 2.5	PASS
	HCH	VL	TN	3.43	0.001957	± 2.5	PASS
		VN	TN	0.62	0.000354	± 2.5	PASS
		VH	TN	3.27	0.001866	± 2.5	PASS
16QAM	LCH	VL	TN	0.76	0.000444	± 2.5	PASS
		VN	TN	2.35	0.001372	± 2.5	PASS
		VH	TN	3.34	0.001950	± 2.5	PASS
	MCH	VL	TN	3.68	0.002124	± 2.5	PASS
		VN	TN	-1.84	-0.001062	± 2.5	PASS
		VH	TN	-0.03	-0.000017	± 2.5	PASS
	HCH	VL	TN	-0.23	-0.000131	± 2.5	PASS
		VN	TN	-0.5	-0.000285	± 2.5	PASS
		VH	TN	0.86	0.000491	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.95	0.002891	± 2.5	PASS
		VN	-20	2.21	0.001291	± 2.5	PASS
		VN	-10	-0.12	-0.000070	± 2.5	PASS
		VN	0	-0.6	-0.000350	± 2.5	PASS
		VN	10	-0.38	-0.000222	± 2.5	PASS
		VN	20	0.32	0.000187	± 2.5	PASS
		VN	30	1.92	0.001121	± 2.5	PASS
		VN	40	0.43	0.000251	± 2.5	PASS
		VN	50	3.57	0.002085	± 2.5	PASS
	MCH	VN	-30	0.15	0.000087	± 2.5	PASS
		VN	-20	0.75	0.000433	± 2.5	PASS

		VN	-10	2.28	0.001316	± 2.5	PASS
		VN	0	-0.95	-0.000548	± 2.5	PASS
		VN	10	2.56	0.001478	± 2.5	PASS
		VN	20	0.47	0.000271	± 2.5	PASS
		VN	30	1.01	0.000583	± 2.5	PASS
		VN	40	-1.94	-0.001120	± 2.5	PASS
		VN	50	2.94	0.001697	± 2.5	PASS
	HCH	VN	-30	2.63	0.001501	± 2.5	PASS
		VN	-20	2.09	0.001096	± 2.5	PASS
		VN	-10	0.48	0.000252	± 2.5	PASS
		VN	0	4.92	0.002579	± 2.5	PASS
		VN	10	-0.42	-0.000220	± 2.5	PASS
		VN	20	0.51	0.000267	± 2.5	PASS
		VN	30	4.11	0.002155	± 2.5	PASS
		VN	40	2.3	0.001206	± 2.5	PASS
		VN	50	3.46	0.001814	± 2.5	PASS
16QAM	LCH	VN	-30	3.87	0.002234	± 2.5	PASS
		VN	-20	0.25	0.000144	± 2.5	PASS
		VN	-10	-1.35	-0.000779	± 2.5	PASS
		VN	0	1.07	0.000618	± 2.5	PASS
		VN	10	1.07	0.000618	± 2.5	PASS
		VN	20	-1.42	-0.000820	± 2.5	PASS
		VN	30	4	0.002309	± 2.5	PASS
		VN	40	1.55	0.000895	± 2.5	PASS
		VN	50	3.3	0.001905	± 2.5	PASS
	MCH	VN	-30	2.1	0.001198	± 2.5	PASS
		VN	-20	1.48	0.000845	± 2.5	PASS
		VN	-10	4.59	0.002619	± 2.5	PASS
		VN	0	-1.37	-0.000782	± 2.5	PASS
		VN	10	3.12	0.001780	± 2.5	PASS
		VN	20	3.58	0.002043	± 2.5	PASS
		VN	30	4.27	0.002437	± 2.5	PASS
		VN	40	4.31	0.002459	± 2.5	PASS
		VN	50	-1.99	-0.001136	± 2.5	PASS
	HCH	VN	-30	-0.49	-0.000257	± 2.5	PASS
		VN	-20	-0.46	-0.000241	± 2.5	PASS
		VN	-10	1.53	0.000802	± 2.5	PASS
		VN	0	-0.51	-0.000267	± 2.5	PASS
		VN	10	3.88	0.002034	± 2.5	PASS
		VN	20	2.9	0.001520	± 2.5	PASS
		VN	30	3.8	0.001992	± 2.5	PASS

		VN	40	-0.58	-0.000304	± 2.5	PASS
		VN	50	0.58	0.000304	± 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	3.81	0.002222	± 2.5	PASS
		VN	TN	2.72	0.001586	± 2.5	PASS
		VH	TN	-0.7	-0.000408	± 2.5	PASS
	MCH	VL	TN	2.75	0.001587	± 2.5	PASS
		VN	TN	-0.8	-0.000462	± 2.5	PASS
		VH	TN	-0.44	-0.000254	± 2.5	PASS
	HCH	VL	TN	1.99	0.001137	± 2.5	PASS
		VN	TN	-0.62	-0.000354	± 2.5	PASS
		VH	TN	2.13	0.001217	± 2.5	PASS
16QAM	LCH	VL	TN	0.7	0.000408	± 2.5	PASS
		VN	TN	4.27	0.002490	± 2.5	PASS
		VH	TN	1.06	0.000618	± 2.5	PASS
	MCH	VL	TN	2.98	0.001720	± 2.5	PASS
		VN	TN	4.73	0.002730	± 2.5	PASS
		VH	TN	-1.12	-0.000646	± 2.5	PASS
	HCH	VL	TN	2.22	0.001269	± 2.5	PASS
		VN	TN	4.44	0.002537	± 2.5	PASS
		VH	TN	3.81	0.002177	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.64	0.000956	± 2.5	PASS
		VN	-20	2.75	0.001603	± 2.5	PASS
		VN	-10	1.3	0.000758	± 2.5	PASS
		VN	0	0.28	0.000163	± 2.5	PASS
		VN	10	4.57	0.002665	± 2.5	PASS
		VN	20	-0.94	-0.000548	± 2.5	PASS
		VN	30	-0.05	-0.000029	± 2.5	PASS
		VN	40	-1.97	-0.001149	± 2.5	PASS
		VN	50	-0.03	-0.000017	± 2.5	PASS
	MCH	VN	-30	-0.27	-0.000156	± 2.5	PASS
		VN	-20	0.74	0.000427	± 2.5	PASS
		VN	-10	2.53	0.001460	± 2.5	PASS

		VN	0	4.79	0.002765	± 2.5	PASS
		VN	10	0.79	0.000456	± 2.5	PASS
		VN	20	0.44	0.000254	± 2.5	PASS
		VN	30	-0.87	-0.000502	± 2.5	PASS
		VN	40	-1.36	-0.000785	± 2.5	PASS
		VN	50	-1.8	-0.001039	± 2.5	PASS
	HCH	VN	-30	-0.91	-0.000520	± 2.5	PASS
		VN	-20	-1.86	-0.001063	± 2.5	PASS
		VN	-10	-1.75	-0.001000	± 2.5	PASS
		VN	0	0.53	0.000303	± 2.5	PASS
		VN	10	-1.73	-0.000989	± 2.5	PASS
		VN	20	2.8	0.001600	± 2.5	PASS
		VN	30	4.88	0.002789	± 2.5	PASS
		VN	40	-1.33	-0.000760	± 2.5	PASS
		VN	50	4.03	0.002303	± 2.5	PASS
16QAM	LCH	VN	-30	-1.05	-0.000606	± 2.5	PASS
		VN	-20	2.91	0.001680	± 2.5	PASS
		VN	-10	-1.48	-0.000854	± 2.5	PASS
		VN	0	-0.05	-0.000029	± 2.5	PASS
		VN	10	3.45	0.001991	± 2.5	PASS
		VN	20	0.75	0.000433	± 2.5	PASS
		VN	30	2.91	0.001680	± 2.5	PASS
		VN	40	0.94	0.000543	± 2.5	PASS
		VN	50	0.27	0.000156	± 2.5	PASS
	MCH	VN	-30	2.62	0.001497	± 2.5	PASS
		VN	-20	-1.15	-0.000657	± 2.5	PASS
		VN	-10	0.26	0.000149	± 2.5	PASS
		VN	0	-1.02	-0.000583	± 2.5	PASS
		VN	10	-1.94	-0.001109	± 2.5	PASS
		VN	20	2.97	0.001697	± 2.5	PASS
		VN	30	4.1	0.002343	± 2.5	PASS
		VN	40	4.29	0.002451	± 2.5	PASS
		VN	50	-1.44	-0.000823	± 2.5	PASS
	HCH	VN	-30	3.11	0.001777	± 2.5	PASS
		VN	-20	1.59	0.000909	± 2.5	PASS
		VN	-10	1.15	0.000657	± 2.5	PASS
		VN	0	0.65	0.000371	± 2.5	PASS
		VN	10	-1.96	-0.001120	± 2.5	PASS
		VN	20	-1.62	-0.000926	± 2.5	PASS
		VN	30	3.88	0.002217	± 2.5	PASS
		VN	40	-0.05	-0.000029	± 2.5	PASS

		VN	50	1.1	0.000629	± 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	3.74	0.002178	± 2.5	PASS
		VN	TN	-1.25	-0.000728	± 2.5	PASS
		VH	TN	1.51	0.000879	± 2.5	PASS
	MCH	VL	TN	4.32	0.002494	± 2.5	PASS
		VN	TN	4.37	0.002522	± 2.5	PASS
		VH	TN	2.22	0.001281	± 2.5	PASS
	HCH	VL	TN	-1.16	-0.000664	± 2.5	PASS
		VN	TN	-1.89	-0.001082	± 2.5	PASS
		VH	TN	-0.2	-0.000114	± 2.5	PASS
16QAM	LCH	VL	TN	3.41	0.001985	± 2.5	PASS
		VN	TN	0.06	0.000035	± 2.5	PASS
		VH	TN	-1.33	-0.000774	± 2.5	PASS
	MCH	VL	TN	-0.08	-0.000046	± 2.5	PASS
		VN	TN	0.83	0.000479	± 2.5	PASS
		VH	TN	4.1	0.002367	± 2.5	PASS
	HCH	VL	TN	0.58	0.000332	± 2.5	PASS
		VN	TN	4.81	0.002753	± 2.5	PASS
		VH	TN	1.97	0.001127	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.35	-0.000786	± 2.5	PASS
		VN	-20	-0.06	-0.000035	± 2.5	PASS
		VN	-10	4.32	0.002515	± 2.5	PASS
		VN	0	3.7	0.002154	± 2.5	PASS
		VN	10	0.92	0.000536	± 2.5	PASS
		VN	20	-1.87	-0.001089	± 2.5	PASS
		VN	30	-1.25	-0.000728	± 2.5	PASS
		VN	40	3.44	0.002003	± 2.5	PASS
		VN	50	-1.19	-0.000693	± 2.5	PASS
	MCH	VN	-30	3.85	0.002222	± 2.5	PASS
		VN	-20	3.72	0.002147	± 2.5	PASS
		VN	-10	3.65	0.002107	± 2.5	PASS
		VN	0	4.38	0.002528	± 2.5	PASS

		VN	10	3.72	0.002147	± 2.5	PASS
		VN	20	1.12	0.000646	± 2.5	PASS
		VN	30	-1.44	-0.000831	± 2.5	PASS
		VN	40	0.59	0.000341	± 2.5	PASS
		VN	50	3.93	0.002268	± 2.5	PASS
	HCH	VN	-30	2.13	0.001219	± 2.5	PASS
		VN	-20	0.82	0.000469	± 2.5	PASS
		VN	-10	-1.39	-0.000795	± 2.5	PASS
		VN	0	2.26	0.001293	± 2.5	PASS
		VN	10	1.5	0.000858	± 2.5	PASS
		VN	20	2.97	0.001700	± 2.5	PASS
		VN	30	2.51	0.001436	± 2.5	PASS
		VN	40	-1.29	-0.000738	± 2.5	PASS
		VN	50	-0.85	-0.000486	± 2.5	PASS
16QAM	LCH	VN	-30	-1.05	-0.000606	± 2.5	PASS
		VN	-20	-1.73	-0.000999	± 2.5	PASS
		VN	-10	3.67	0.002118	± 2.5	PASS
		VN	0	2.69	0.001553	± 2.5	PASS
		VN	10	1.13	0.000652	± 2.5	PASS
		VN	20	0.67	0.000387	± 2.5	PASS
		VN	30	-0.9	-0.000519	± 2.5	PASS
		VN	40	3.23	0.001864	± 2.5	PASS
		VN	50	4.58	0.002644	± 2.5	PASS
	MCH	VN	-30	-1.46	-0.000835	± 2.5	PASS
		VN	-20	-1.37	-0.000784	± 2.5	PASS
		VN	-10	4.79	0.002741	± 2.5	PASS
		VN	0	-0.22	-0.000126	± 2.5	PASS
		VN	10	-1.7	-0.000973	± 2.5	PASS
		VN	20	-0.42	-0.000240	± 2.5	PASS
		VN	30	4.4	0.002518	± 2.5	PASS
		VN	40	0.08	0.000046	± 2.5	PASS
		VN	50	-1.57	-0.000898	± 2.5	PASS
	HCH	VN	-30	-1.48	-0.000847	± 2.5	PASS
		VN	-20	2.33	0.001333	± 2.5	PASS
		VN	-10	3.57	0.002043	± 2.5	PASS
		VN	0	-1.74	-0.000996	± 2.5	PASS
		VN	10	2.25	0.001288	± 2.5	PASS
		VN	20	4.59	0.002627	± 2.5	PASS
		VN	30	-1.15	-0.000658	± 2.5	PASS
		VN	40	-1.69	-0.000967	± 2.5	PASS
		VN	50	3.3	0.001888	± 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	4.38	0.002547	± 2.5	PASS
		VN	TN	1.46	0.000849	± 2.5	PASS
		VH	TN	3.82	0.002221	± 2.5	PASS
	MCH	VL	TN	2.16	0.001247	± 2.5	PASS
		VN	TN	3.59	0.002072	± 2.5	PASS
		VH	TN	0.33	0.000190	± 2.5	PASS
	HCH	VL	TN	4.07	0.002332	± 2.5	PASS
		VN	TN	-1.64	-0.000940	± 2.5	PASS
		VH	TN	4.15	0.002378	± 2.5	PASS
16QAM	LCH	VL	TN	1.48	0.000860	± 2.5	PASS
		VN	TN	2.69	0.001564	± 2.5	PASS
		VH	TN	2.77	0.001610	± 2.5	PASS
	MCH	VL	TN	-1.07	-0.000618	± 2.5	PASS
		VN	TN	-1.65	-0.000952	± 2.5	PASS
		VH	TN	0.8	0.000462	± 2.5	PASS
	HCH	VL	TN	3.31	0.001897	± 2.5	PASS
		VN	TN	-1.1	-0.000630	± 2.5	PASS
		VH	TN	-0.83	-0.000476	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.84	0.000488	± 2.5	PASS
		VN	-20	3.27	0.001901	± 2.5	PASS
		VN	-10	4.5	0.002616	± 2.5	PASS
		VN	0	-1.36	-0.000791	± 2.5	PASS
		VN	10	0.08	0.000047	± 2.5	PASS
		VN	20	0.36	0.000209	± 2.5	PASS
		VN	30	-0.69	-0.000401	± 2.5	PASS
		VN	40	4.67	0.002715	± 2.5	PASS
		VN	50	0.25	0.000145	± 2.5	PASS
	MCH	VN	-30	2.14	0.001235	± 2.5	PASS
		VN	-20	1.17	0.000675	± 2.5	PASS
		VN	-10	0.62	0.000358	± 2.5	PASS
		VN	0	1.32	0.000762	± 2.5	PASS
		VN	10	4.67	0.002696	± 2.5	PASS

		VN	20	0.54	0.000312	± 2.5	PASS
		VN	30	0.97	0.000560	± 2.5	PASS
		VN	40	2.6	0.001501	± 2.5	PASS
		VN	50	1.87	0.001079	± 2.5	PASS
	HCH	VN	-30	2.48	0.001421	± 2.5	PASS
		VN	-20	-1.14	-0.000653	± 2.5	PASS
		VN	-10	-1.04	-0.000596	± 2.5	PASS
		VN	0	3.36	0.001926	± 2.5	PASS
		VN	10	0.32	0.000183	± 2.5	PASS
		VN	20	4.5	0.002579	± 2.5	PASS
		VN	30	0.88	0.000504	± 2.5	PASS
		VN	40	3.36	0.001926	± 2.5	PASS
		VN	50	-1.62	-0.000928	± 2.5	PASS
16QAM	LCH	VN	-30	0.25	0.000144	± 2.5	PASS
		VN	-20	-1.52	-0.000877	± 2.5	PASS
		VN	-10	-1.84	-0.001062	± 2.5	PASS
		VN	0	2.14	0.001235	± 2.5	PASS
		VN	10	4.21	0.002430	± 2.5	PASS
		VN	20	2.88	0.001662	± 2.5	PASS
		VN	30	1.56	0.000900	± 2.5	PASS
		VN	40	-2	-0.001154	± 2.5	PASS
		VN	50	4.64	0.002678	± 2.5	PASS
	MCH	VN	-30	-1.65	-0.000946	± 2.5	PASS
		VN	-20	0.28	0.000160	± 2.5	PASS
		VN	-10	3.94	0.002258	± 2.5	PASS
		VN	0	1.42	0.000814	± 2.5	PASS
		VN	10	-1.84	-0.001054	± 2.5	PASS
		VN	20	4.59	0.002630	± 2.5	PASS
		VN	30	-0.86	-0.000493	± 2.5	PASS
		VN	40	4.49	0.002573	± 2.5	PASS
		VN	50	4.52	0.002590	± 2.5	PASS
	HCH	VN	-30	1.66	0.000951	± 2.5	PASS
		VN	-20	-0.92	-0.000527	± 2.5	PASS
		VN	-10	1.46	0.000837	± 2.5	PASS
		VN	0	4	0.002292	± 2.5	PASS
		VN	10	-0.11	-0.000063	± 2.5	PASS
		VN	20	4.1	0.002350	± 2.5	PASS
		VN	30	0.13	0.000074	± 2.5	PASS
		VN	40	-0.74	-0.000424	± 2.5	PASS
		VN	50	4.17	0.002390	± 2.5	PASS