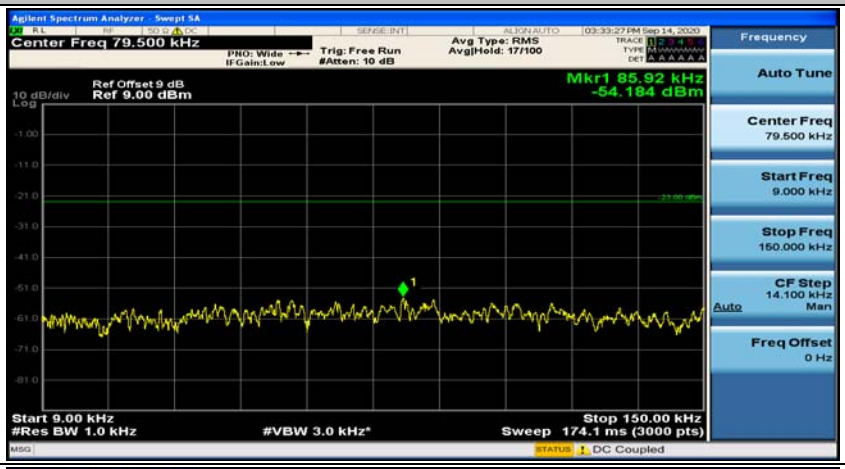
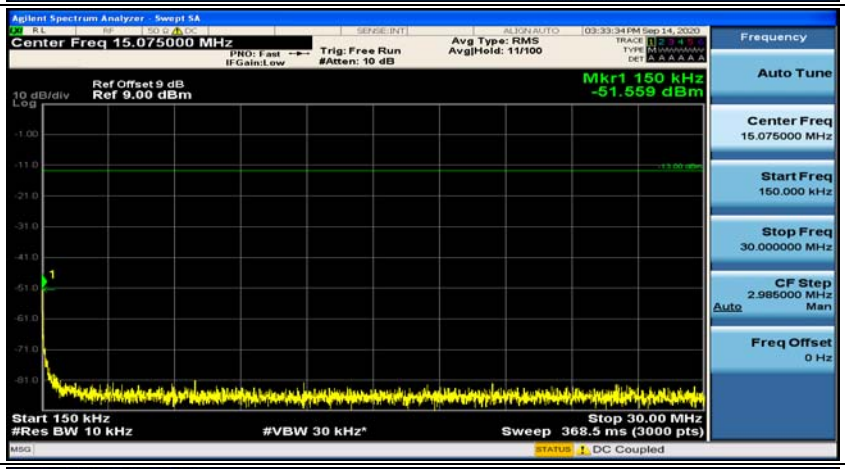
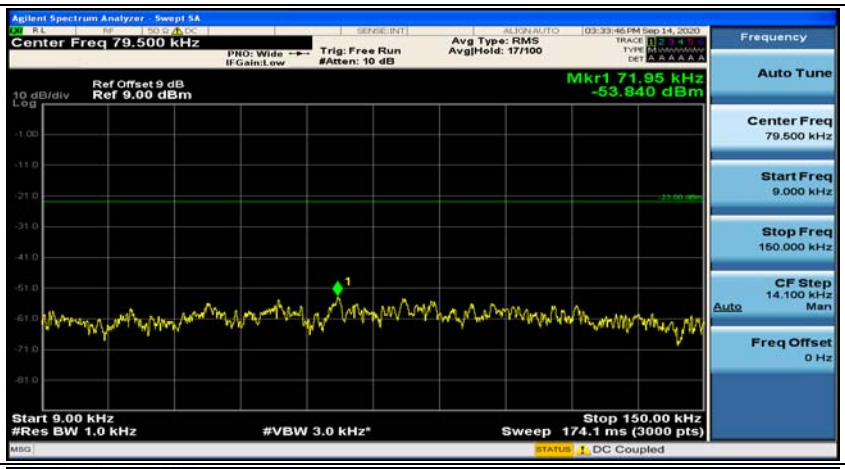
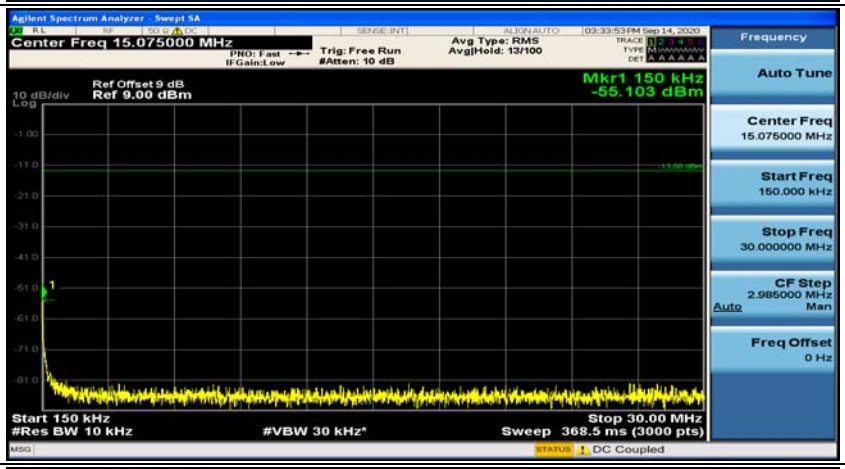
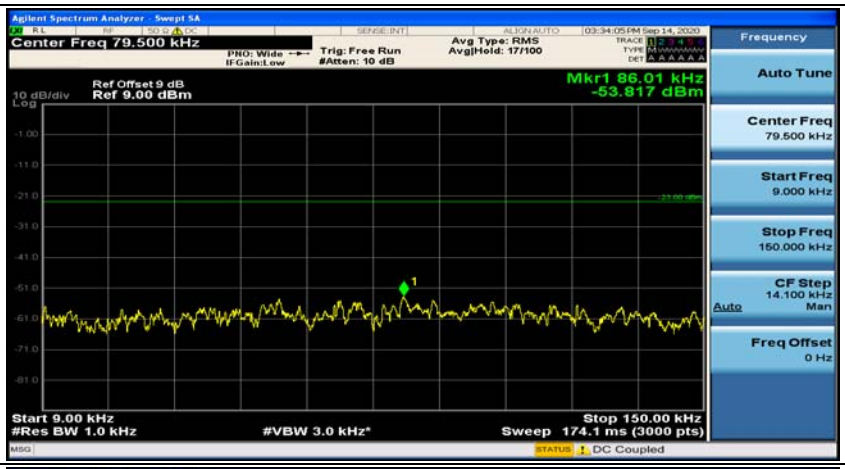
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0



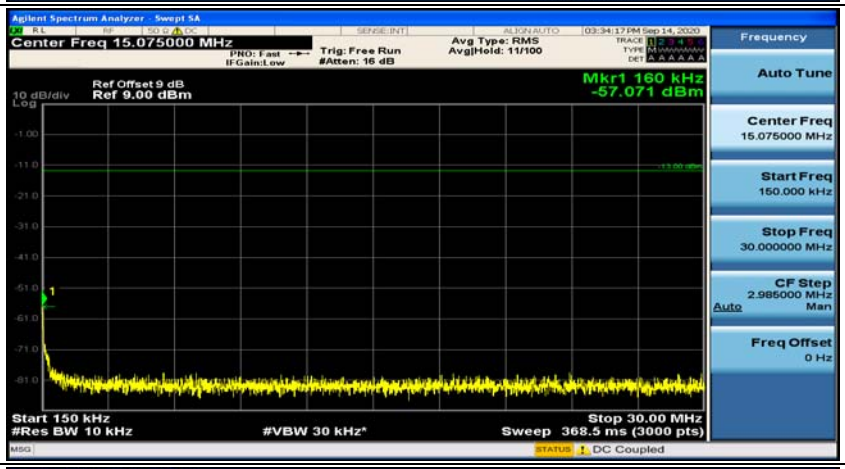
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37



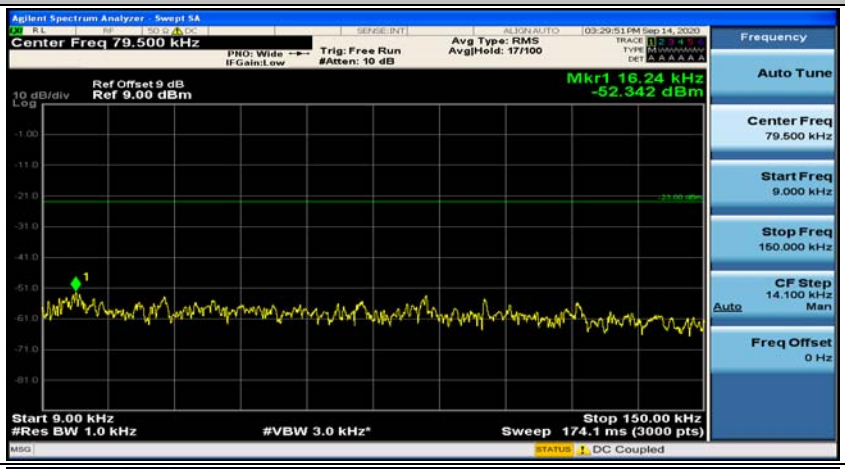
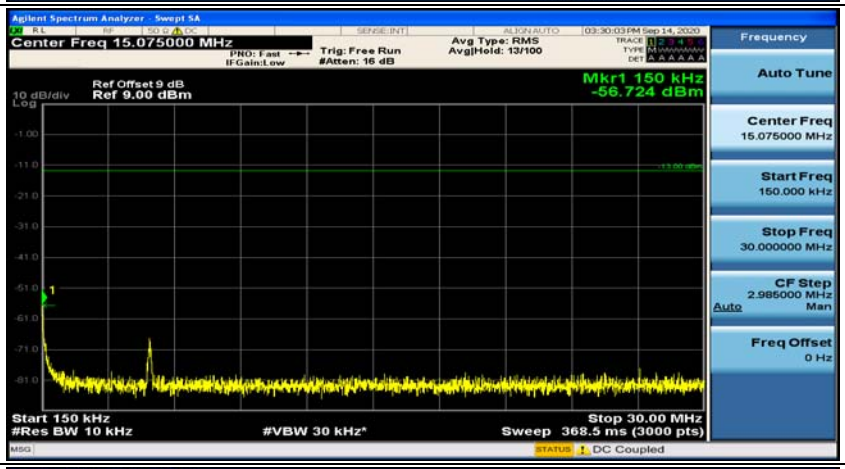


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

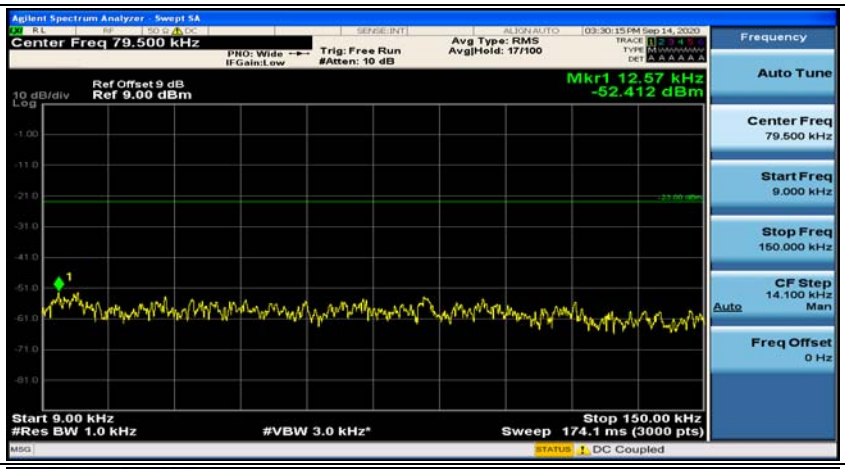

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:34:05 PM Sep 14, 2020
Mkr1 86.01 kHz
-53.817 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

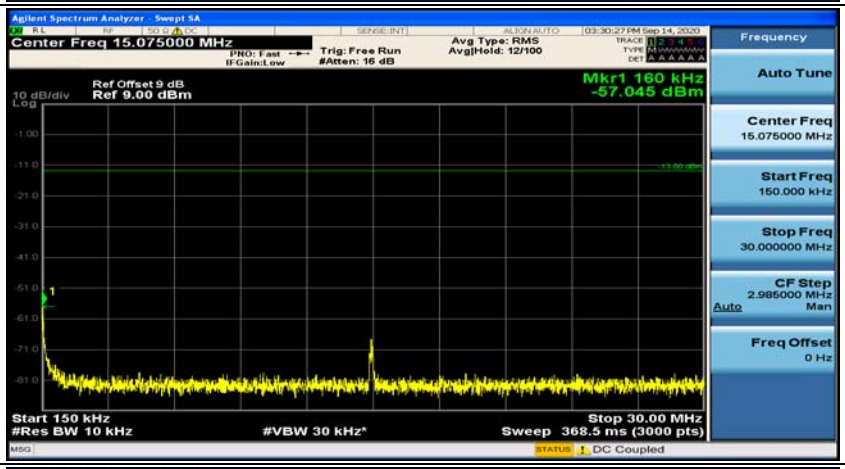

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:34:17 PM Sep 14, 2020
Mkr1 160 kHz
-57.071 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:34:23 PM Sep 14, 2020
Mkr2 25.056 GHz
-29.764 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

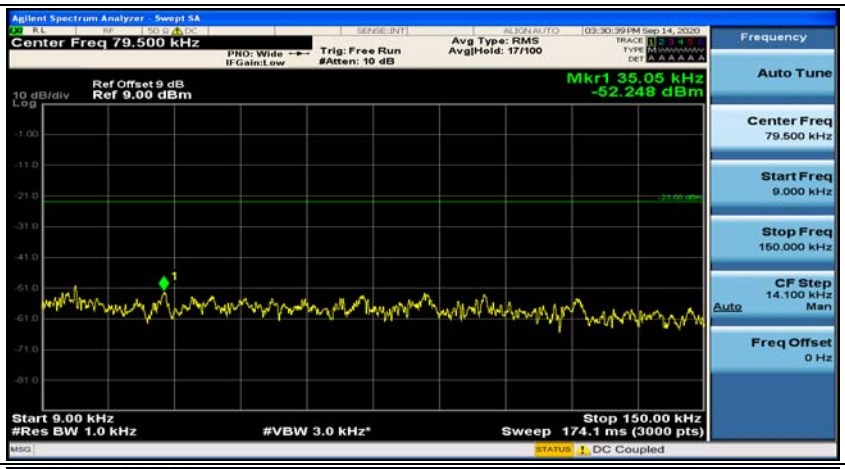
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



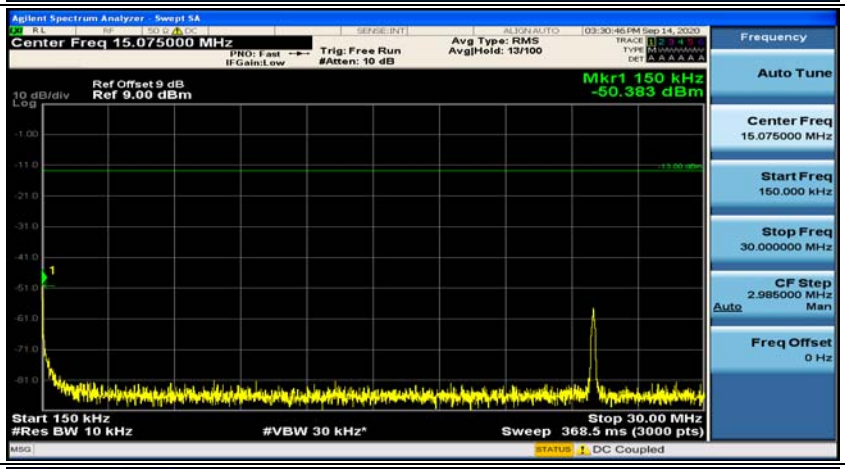
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37



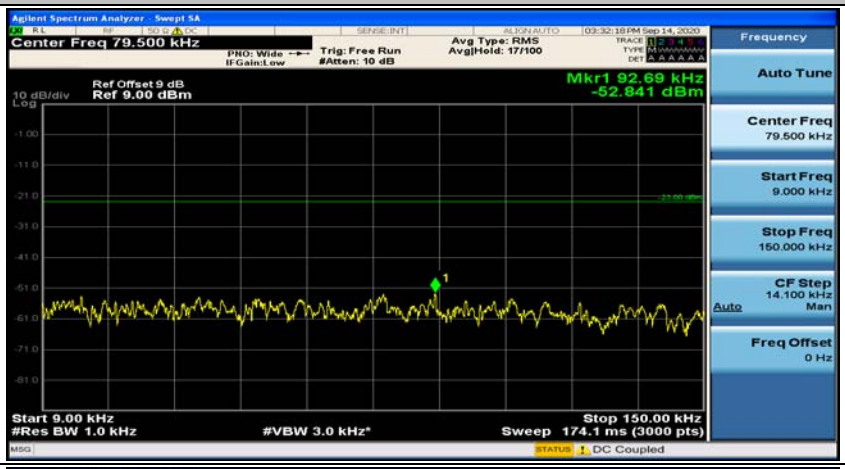
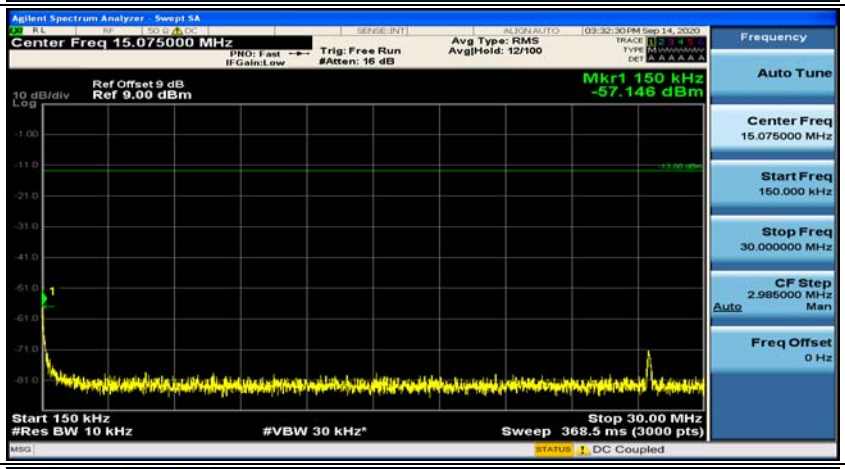


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74

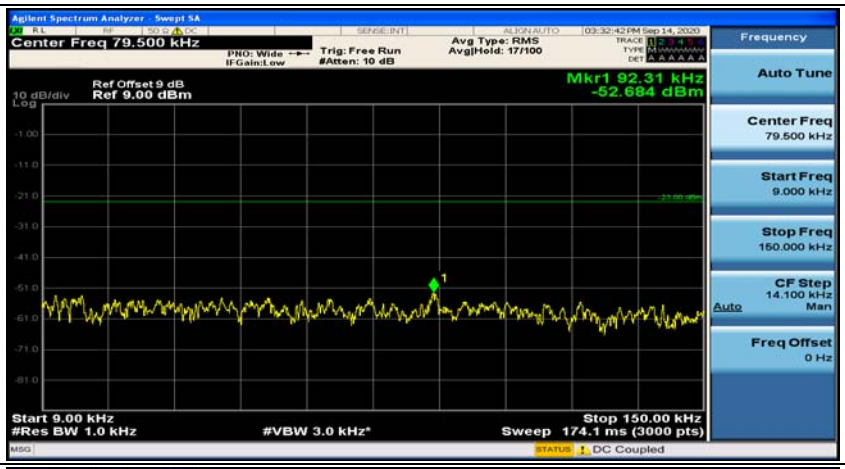

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:30:39 PM Sep 14, 2020
Mkr1 35.05 kHz
-52.248 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

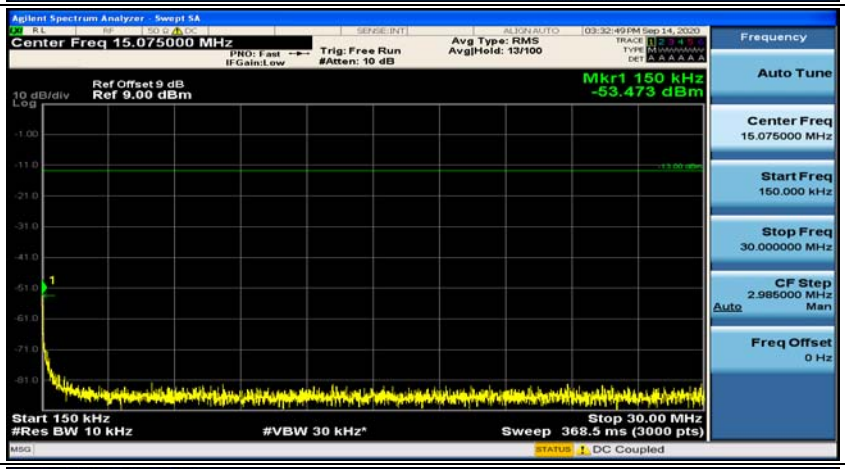

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 13/100
03:30:46 PM Sep 14, 2020
Mkr1 150 kHz
-50.383 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:30:52 PM Sep 14, 2020
Mkr2 25.368 GHz
-29.496 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

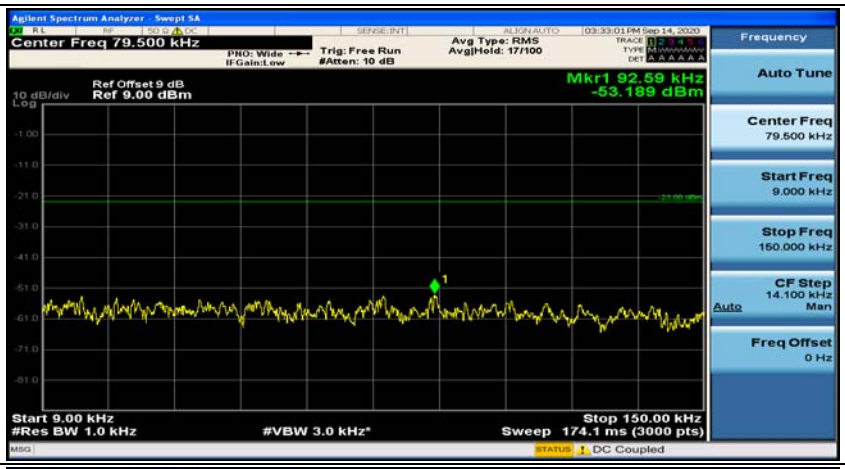
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0



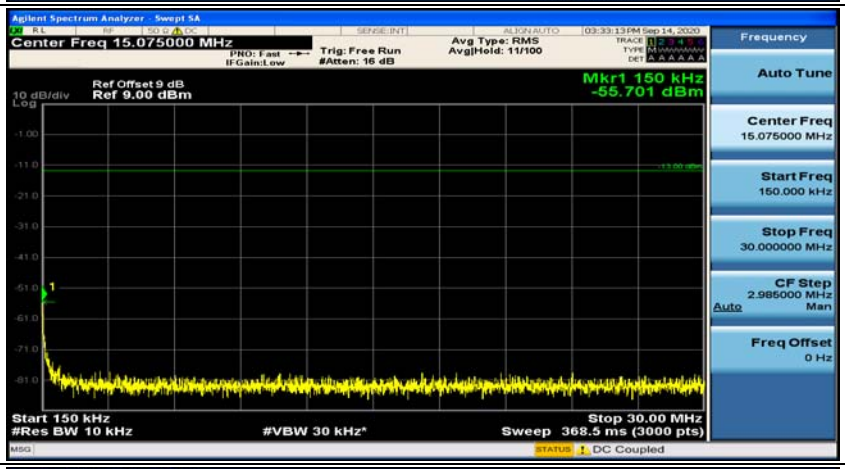
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37



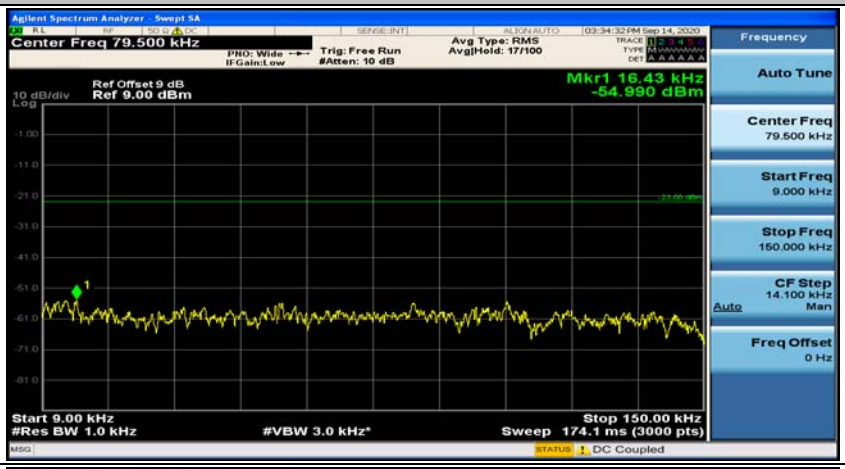
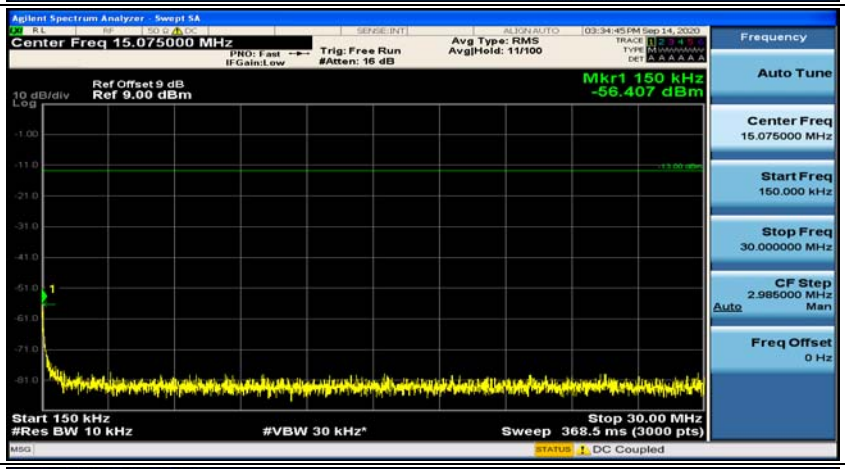


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74

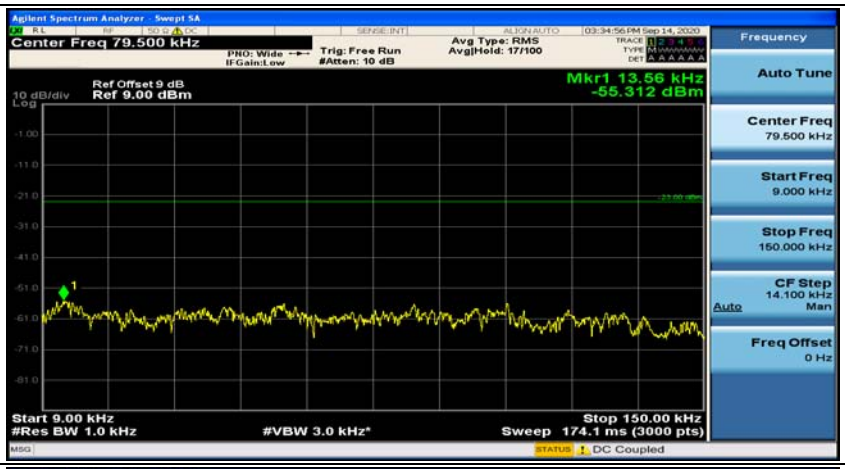

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:33:01 PM Sep 14, 2020
Mkr1 92.59 kHz
-53.189 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

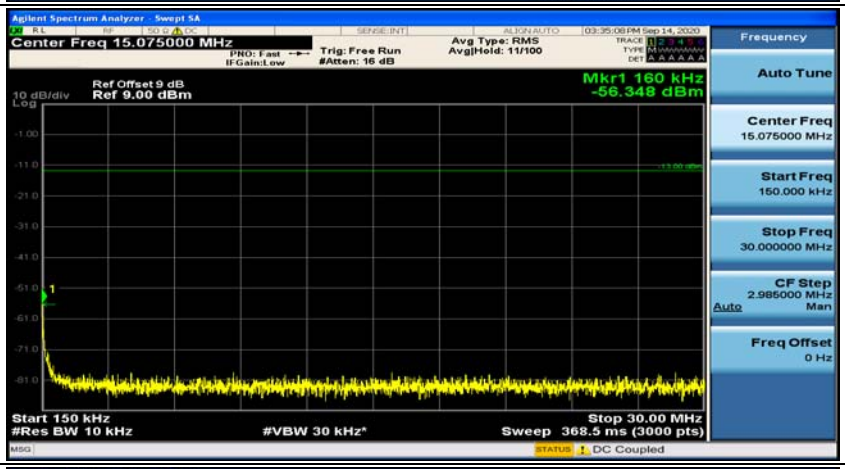

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:33:13 PM Sep 14, 2020
Mkr1 150 kHz
-55.701 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:33:16 PM Sep 14, 2020
Mkr2 25.887 GHz
-29.725 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

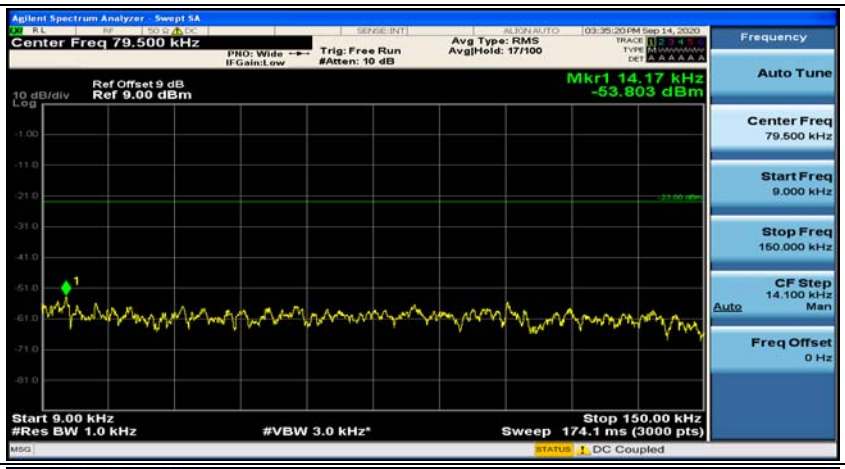
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0



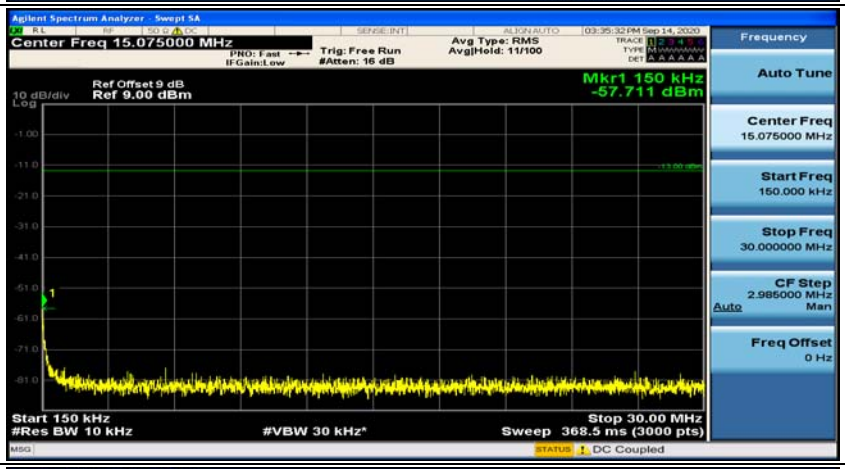
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37





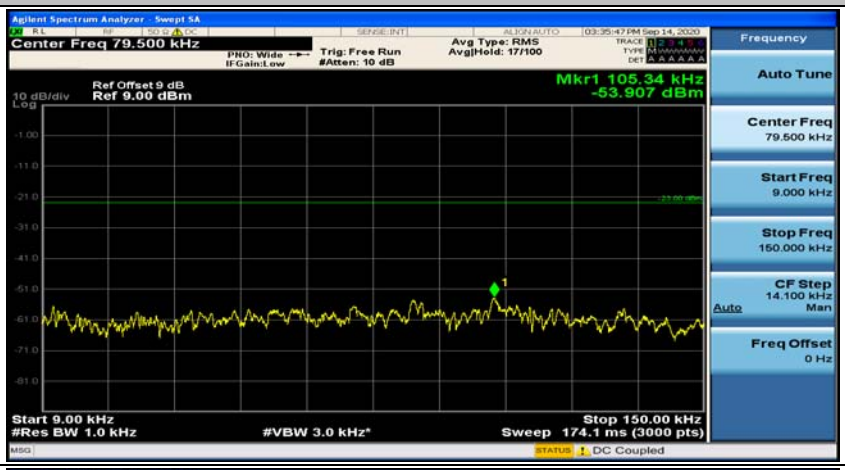
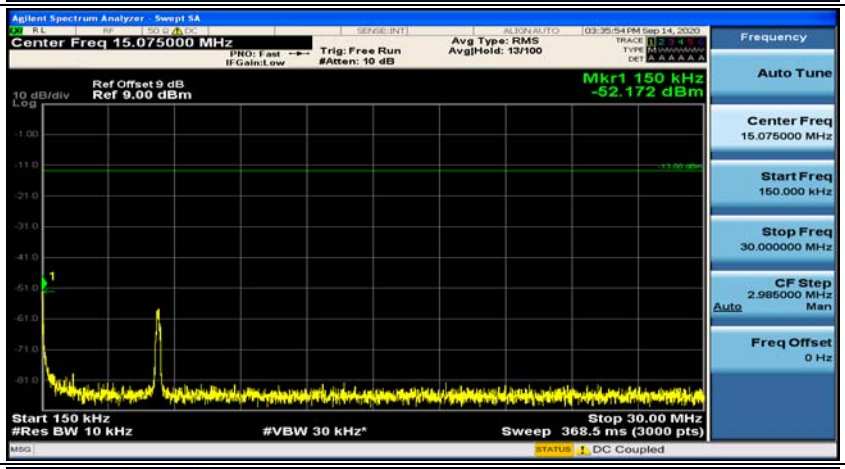
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74


Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:35:20 PM Sep 14, 2020
Mkr1 14.17 kHz
-53.803 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

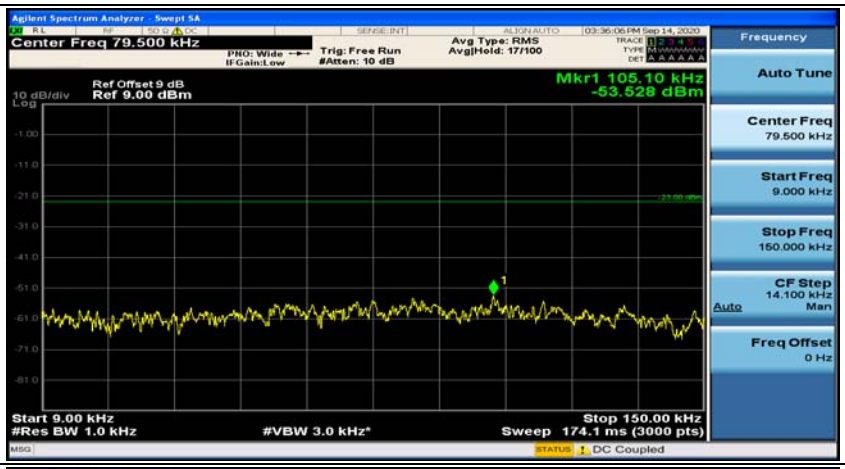

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 11/100
03:35:32 PM Sep 14, 2020
Mkr1 150 kHz
-57.711 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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

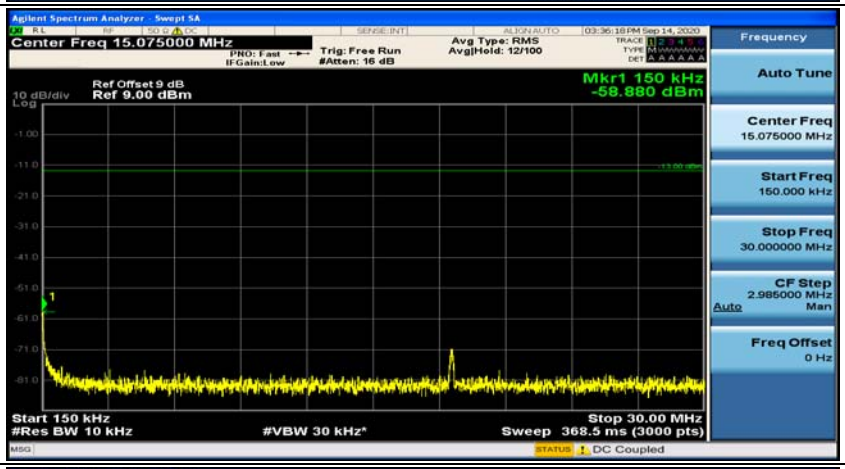

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 11/100
03:35:38 PM Sep 14, 2020
Mkr2 25.740 GHz
-29.795 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Channel Bandwidth: 20 MHz

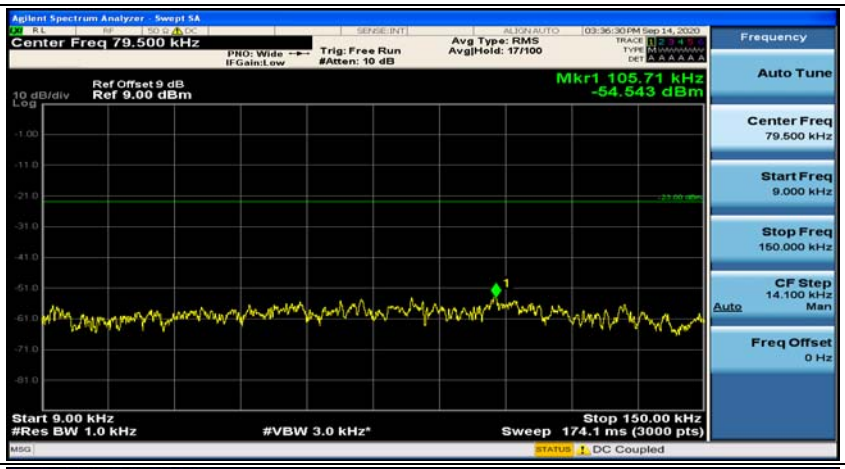
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



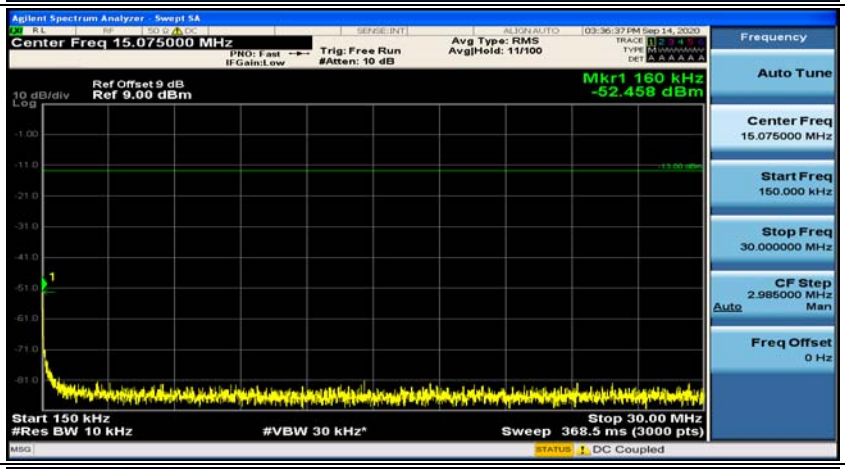
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49



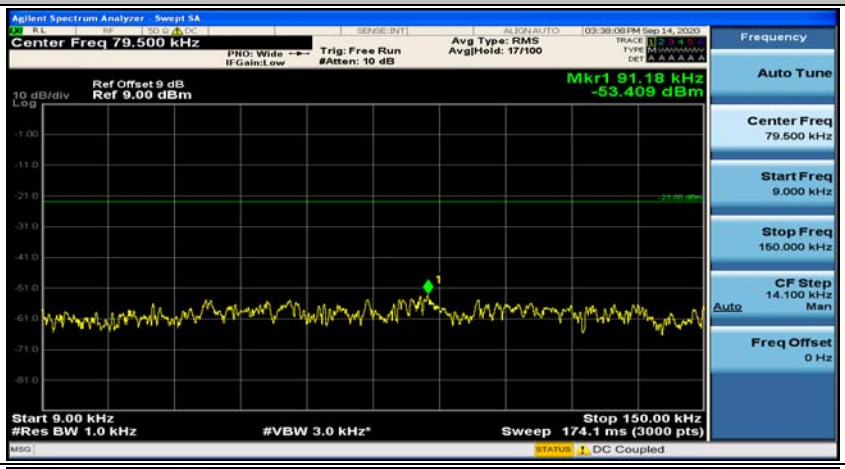
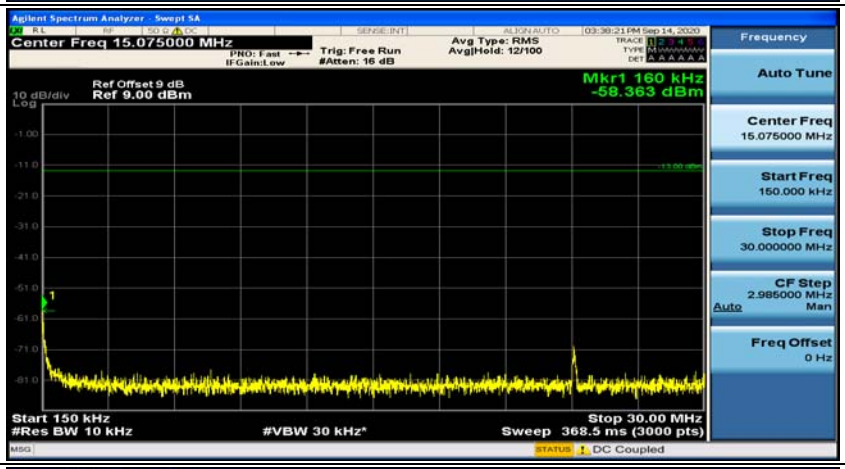


(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99

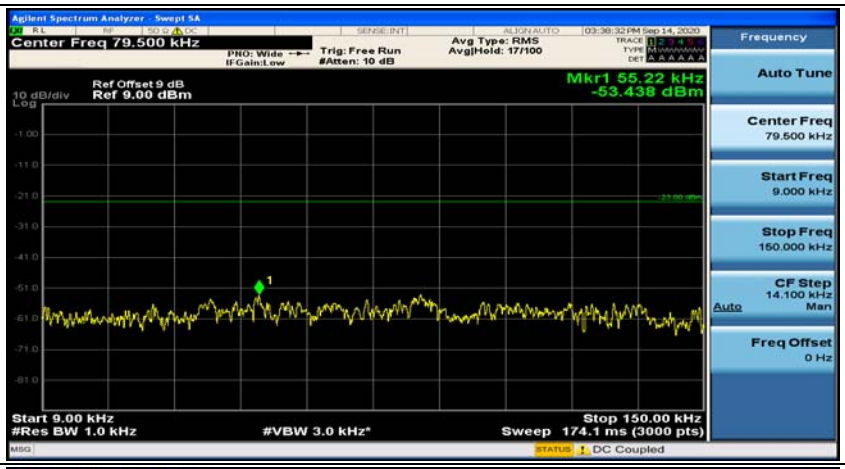

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:36:30 PM Sep 14, 2020
Frequency
Auto Tune
Mkr1 105.71 kHz
-54.543 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled

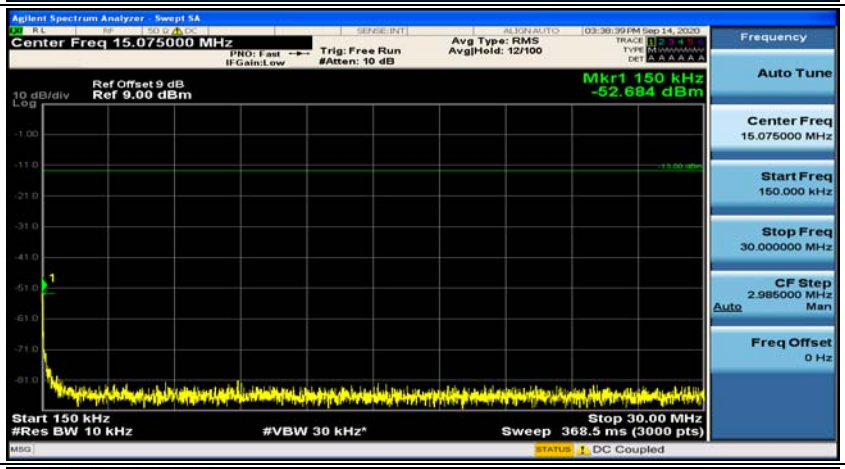

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
03:36:37 PM Sep 14, 2020
Frequency
Auto Tune
Mkr1 160 kHz
-52.458 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Center Freq
15.075000 MHz
Start Freq
150.000 kHz
Stop Freq
30.000000 MHz
CF Step
2.985000 MHz
Auto
Man
Freq Offset
0 Hz
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 ms (3000 pts)
DC Coupled


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold: 10/100
03:36:43 PM Sep 14, 2020
Frequency
Auto Tune
Mkr2 25.368 GHz
-29.361 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)

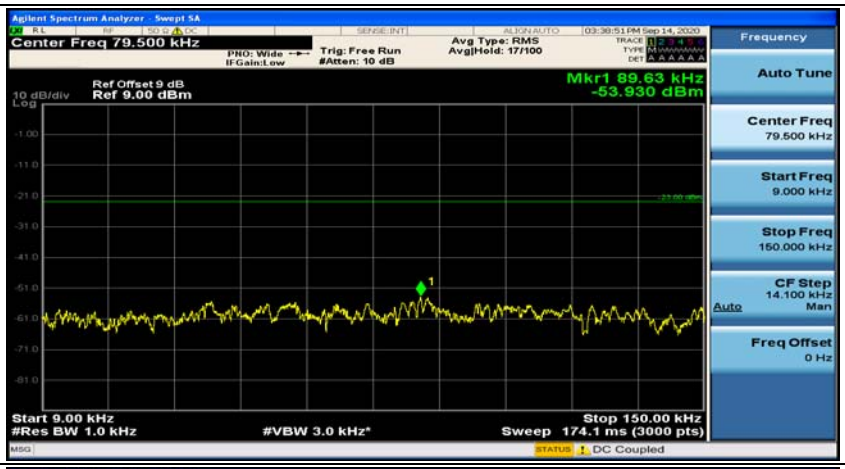
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0



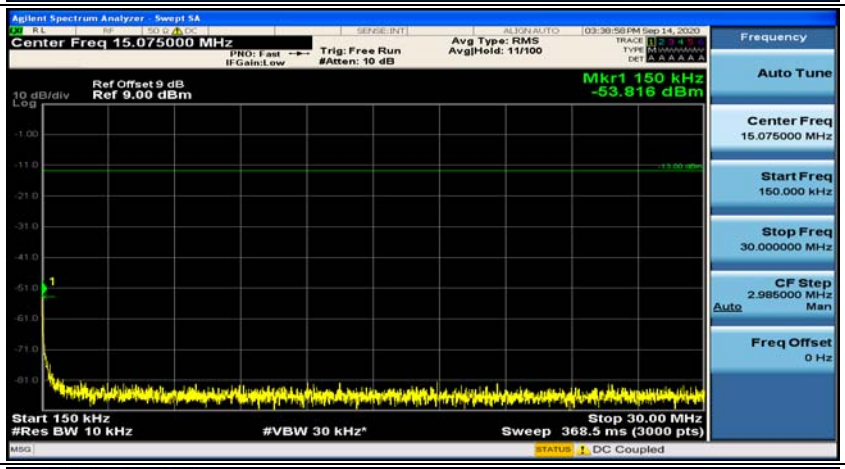
(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49



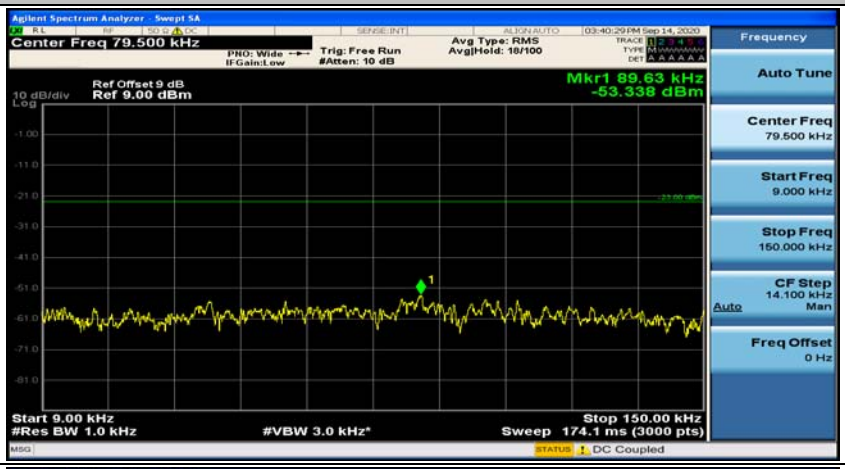
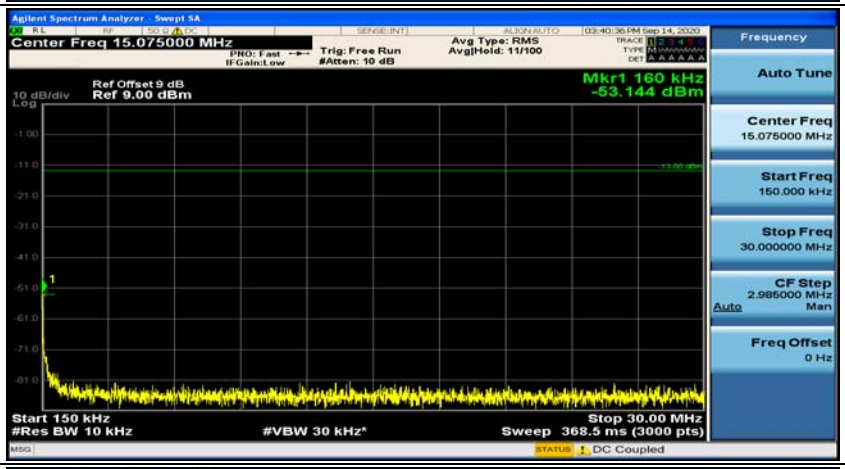


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#99

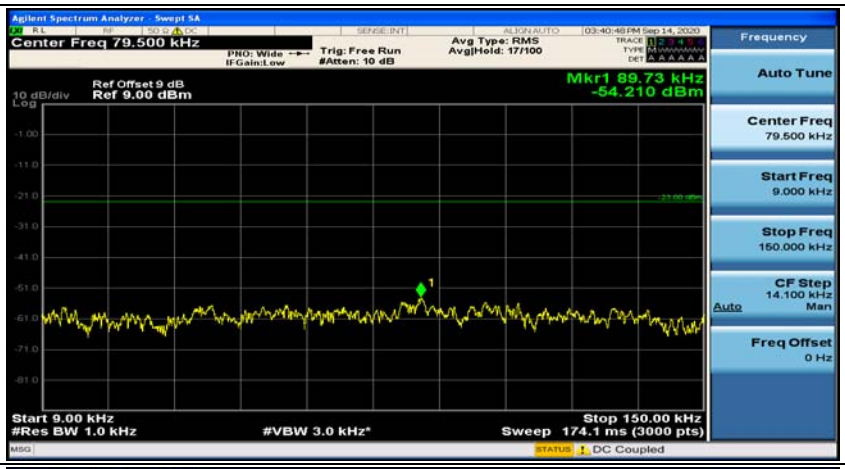

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:30:51 PM Sep 14, 2020
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 89.63 kHz
-53.930 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

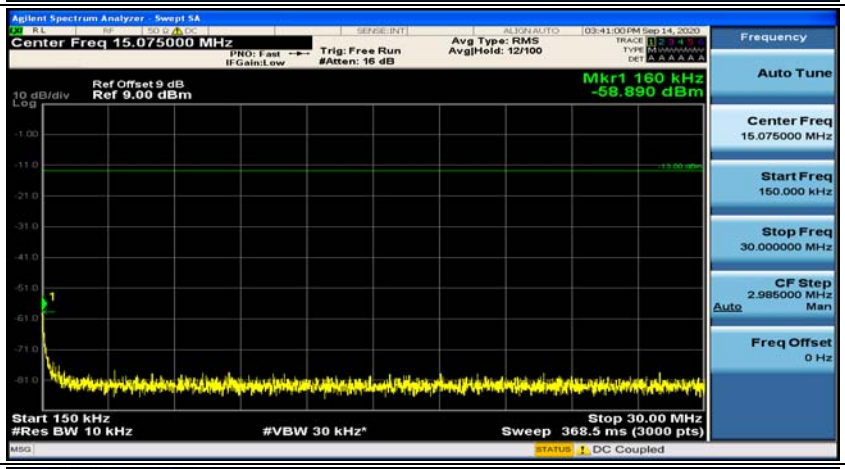

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 11/100
03:30:58 PM Sep 14, 2020
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 150 kHz
-53.816 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:39:04 PM Sep 14, 2020
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.108 GHz
-29.760 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

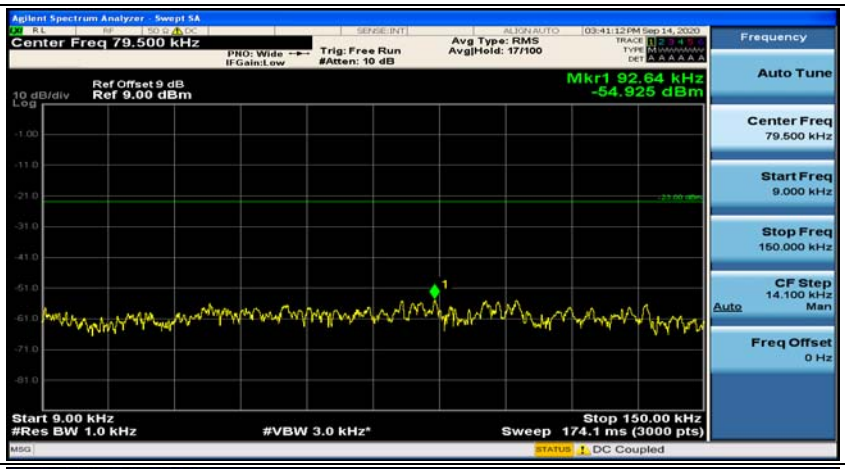
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0



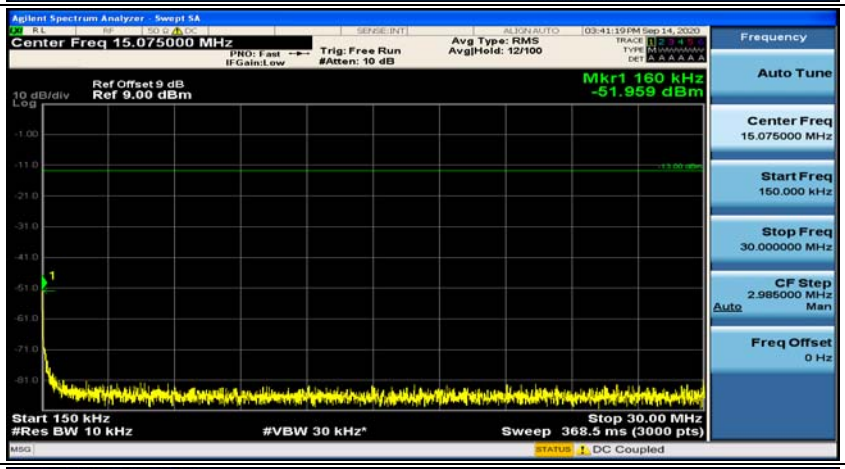
(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49



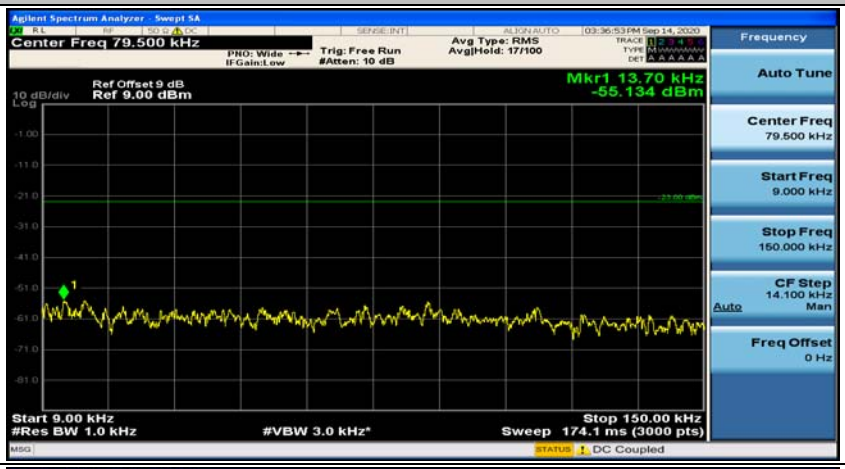
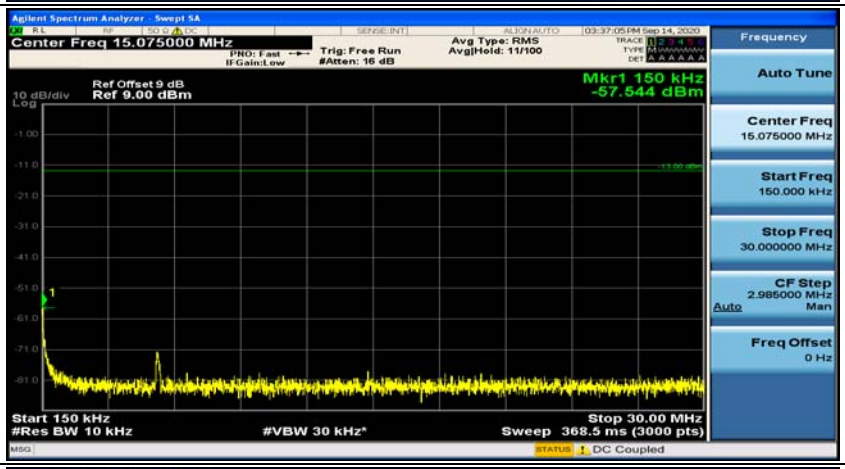


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

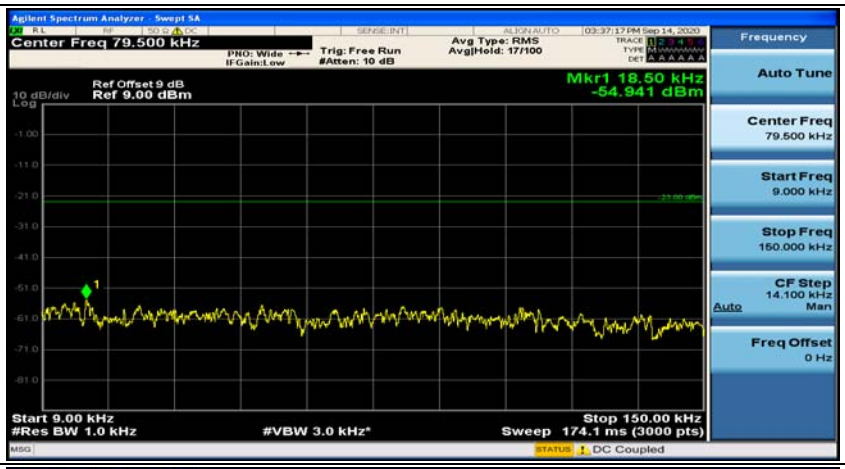

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:41:12 PM Sep 14, 2020
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 92.64 kHz
-54.925 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

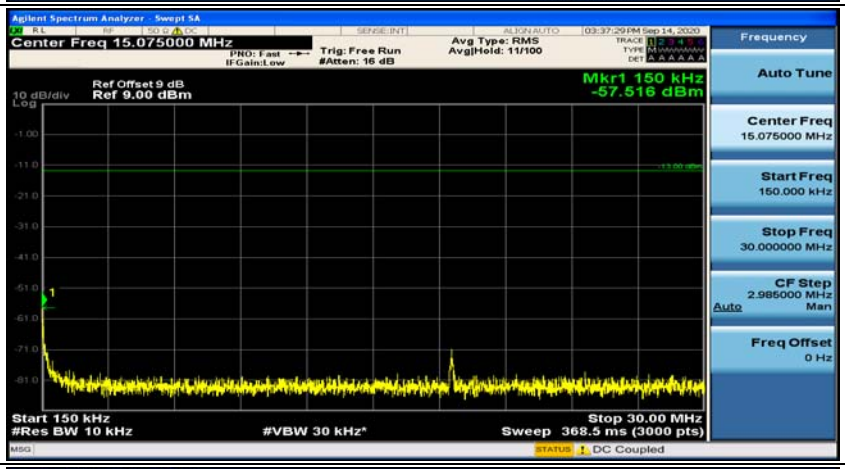

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 12/100
03:41:19 PM Sep 14, 2020
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Mkr1 160 kHz
-51.959 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:41:25 PM Sep 14, 2020
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr2 25.480 GHz
-29.756 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

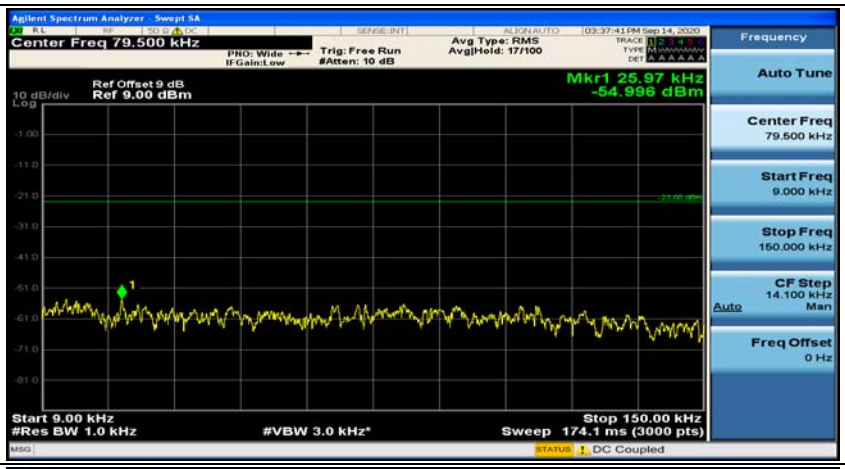
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



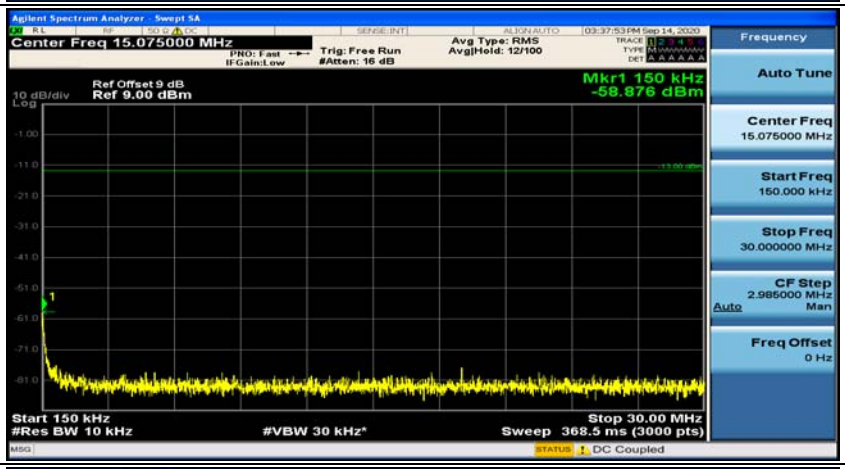
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49



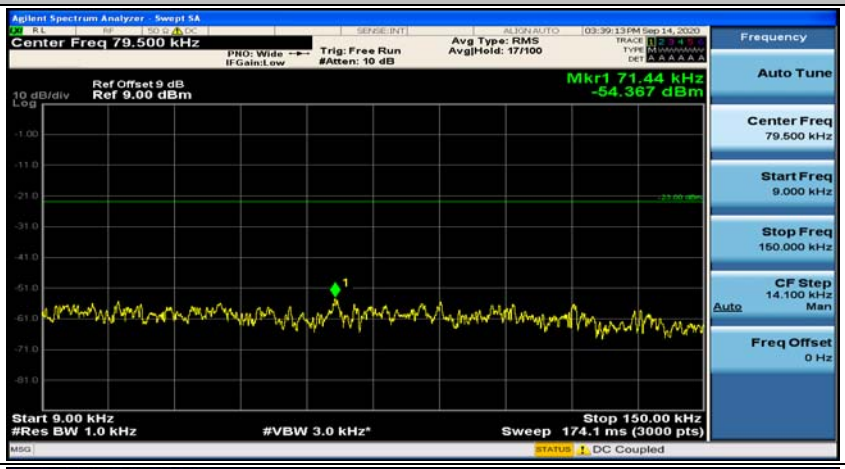
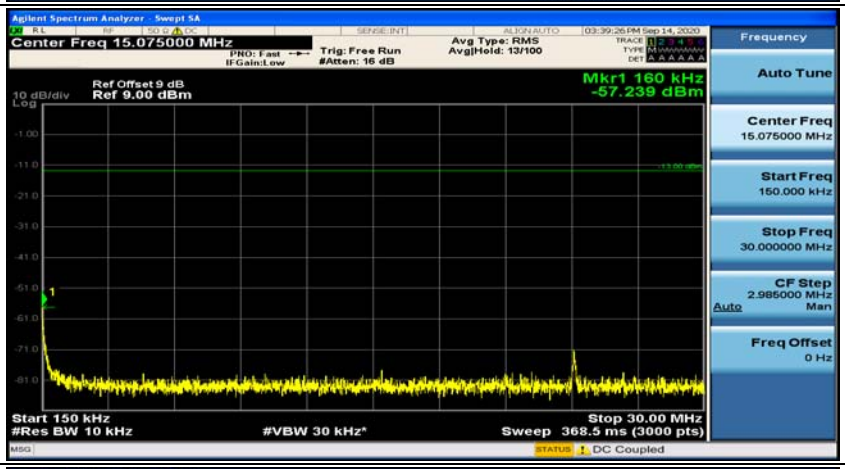


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#99

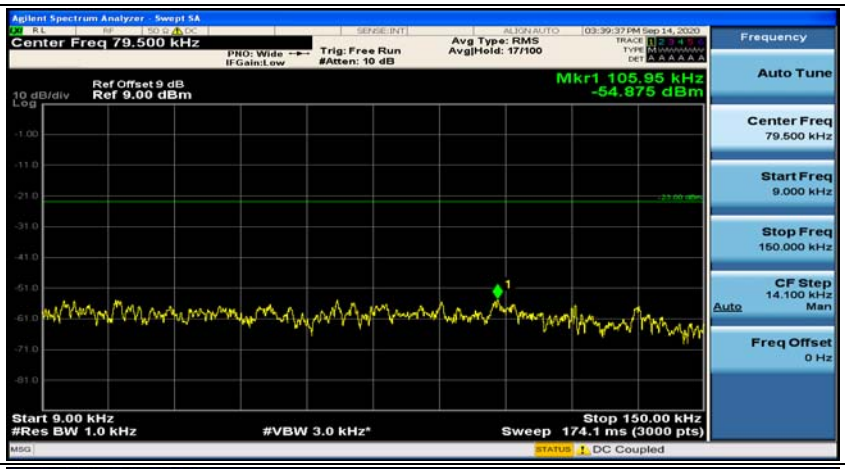

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:37:41 PM Sep 14, 2020
Mkr1 25.97 kHz
-54.996 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

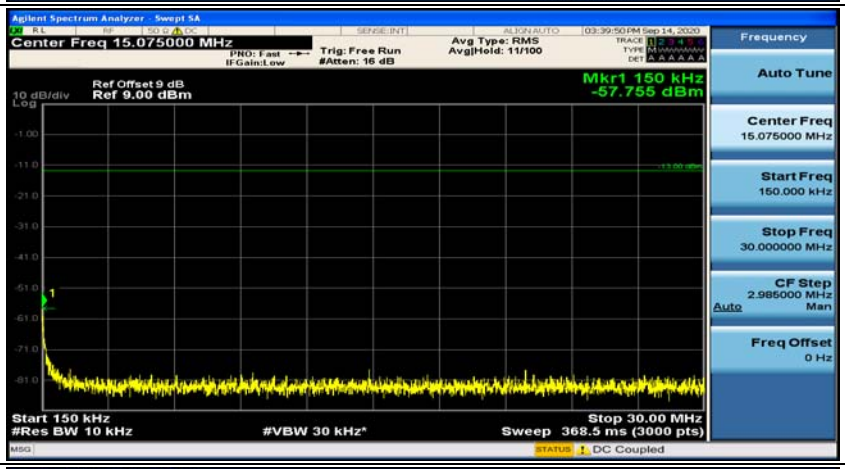

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:37:53 PM Sep 14, 2020
Mkr1 150 kHz
-58.876 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:37:59 PM Sep 14, 2020
Mkr2 25.983 GHz
-29.610 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

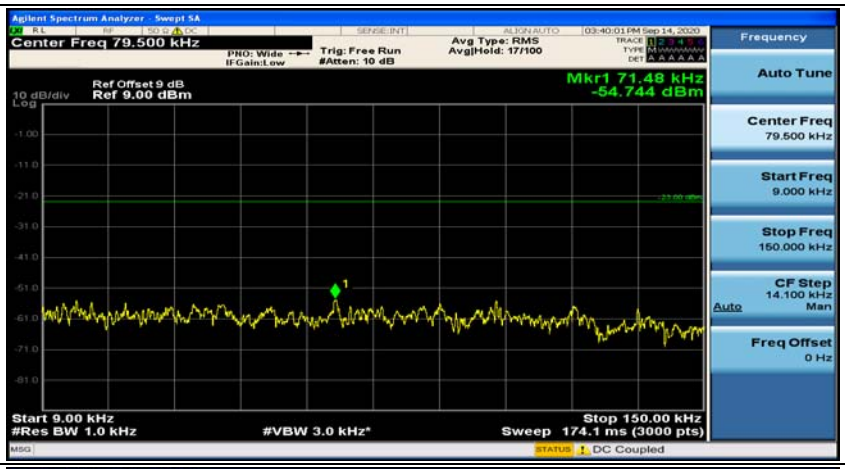
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0



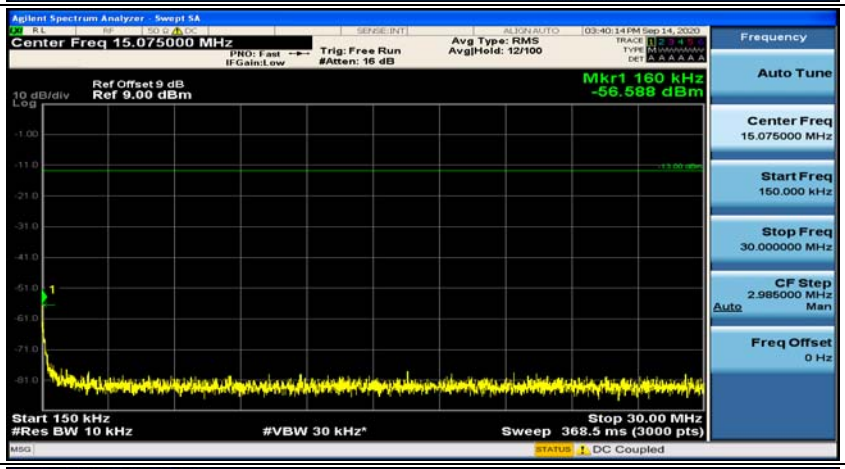
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49



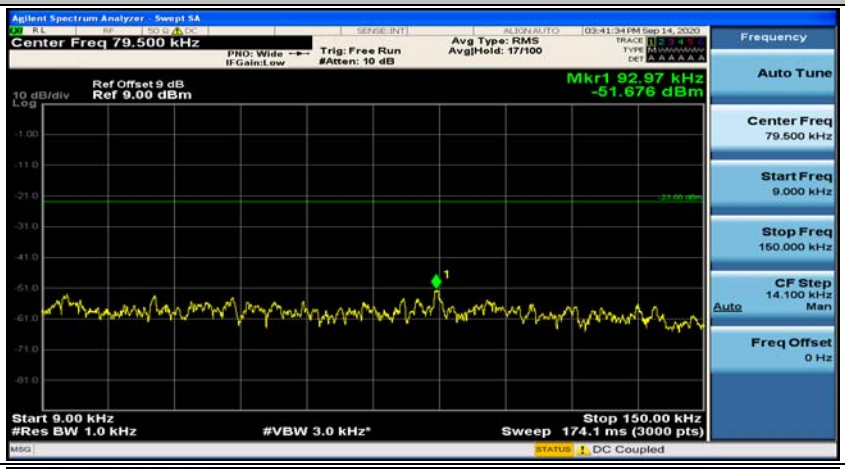
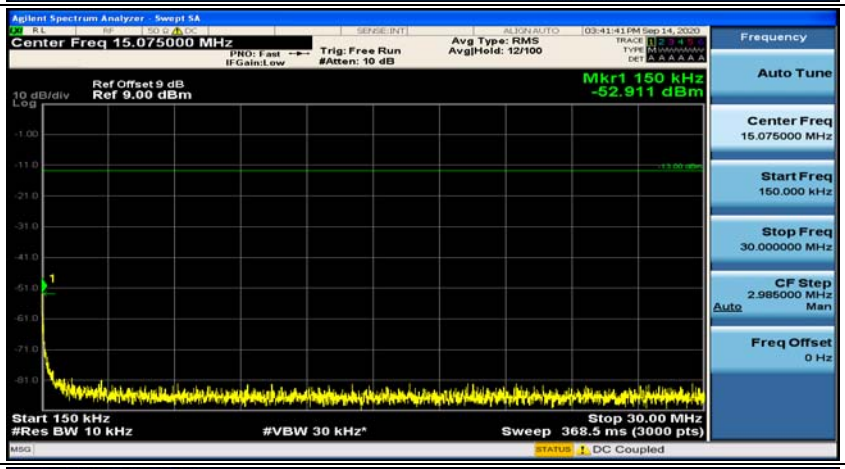


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#99

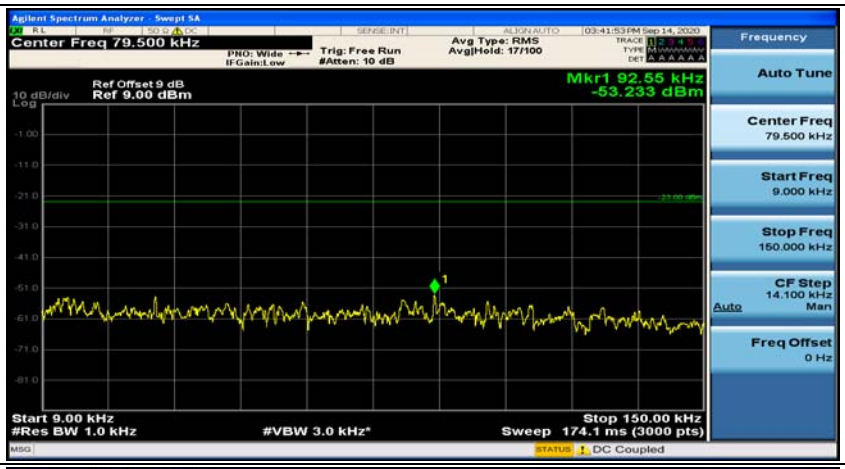

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 17/100
03:40:01 PM Sep 14, 2020
Mkr1 71.48 kHz
-54.744 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz

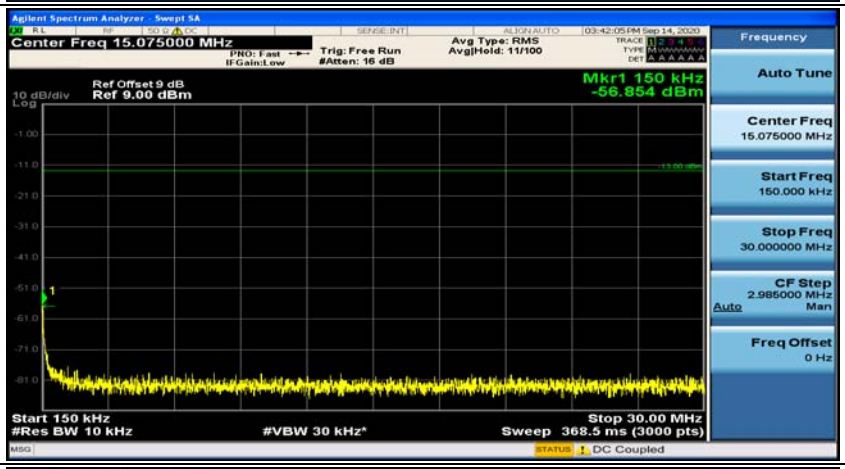

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 16 dB
Avg Type: RMS
Avg|Hold: 12/100
03:40:14 PM Sep 14, 2020
Mkr1 160 kHz
-56.588 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.5 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
03:40:20 PM Sep 14, 2020
Mkr2 25.472 GHz
-29.697 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

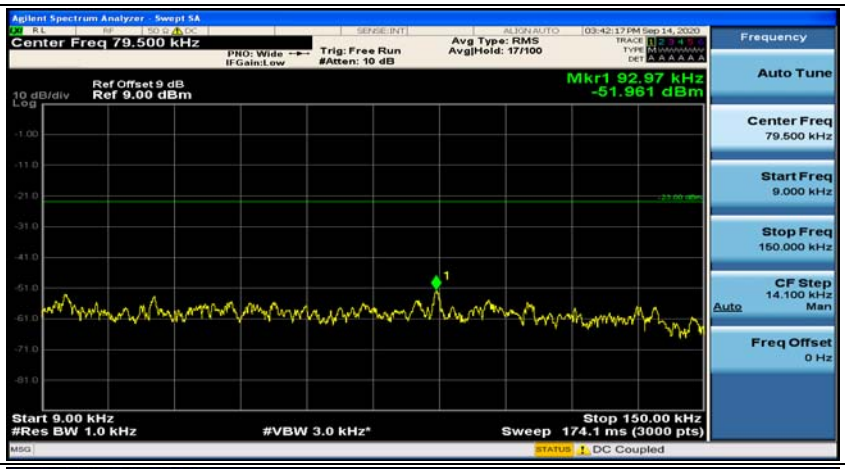
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



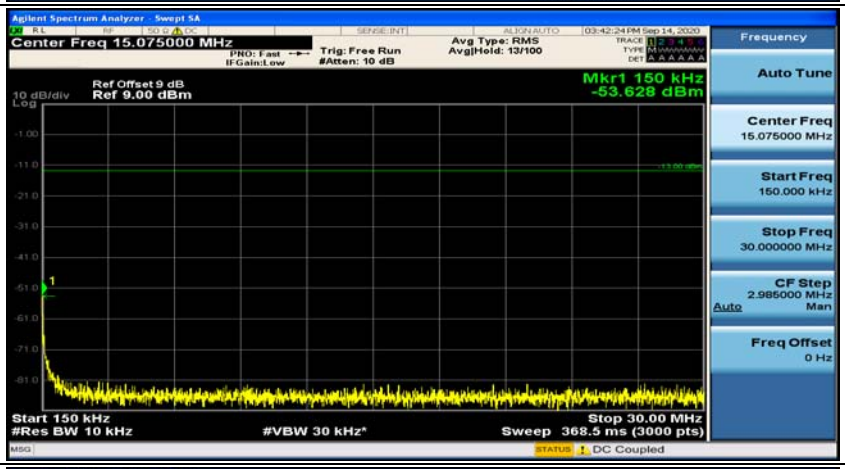
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49





(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
03:42:17 PM Sep 14, 2020
Mkr1 92.97 kHz
-51.961 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.1 ms (3000 pts)
DC Coupled
Frequency
Auto Tune
Center Freq
79.500 kHz
Start Freq
9.000 kHz
Stop Freq
150.000 kHz
CF Step
14.100 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 10 dB
Avg Type: RMS
Avg|Hold: 13/100
03:42:24 PM Sep 14, 2020
Mkr1 150 kHz
-53.628 dBm
Ref Offset 9 dB
10 dB/div
Log
Ref 9.00 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
03:42:30 PM Sep 14, 2020
Mkr2 25.905 GHz
-29.895 dBm
Ref Offset 8.96 dB
10 dB/div
Log
Ref 30.00 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.98 ms (3000 pts)
Frequency
Auto Tune
Center Freq
13.015000000 GHz
Start Freq
30.000000 MHz
Stop Freq
26.000000000 GHz
CF Step
2.597000000 GHz
Auto
Man
Freq Offset
0 Hz

Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.11	0.000649	± 2.5	PASS
		VN	TN	0.81	0.000473	± 2.5	PASS
		VH	TN	-0.4	-0.000234	± 2.5	PASS
	MCH	VL	TN	3.95	0.002280	± 2.5	PASS
		VN	TN	4.91	0.002834	± 2.5	PASS
		VH	TN	4.67	0.002696	± 2.5	PASS
	HCH	VL	TN	1.25	0.000713	± 2.5	PASS
		VN	TN	1.44	0.000821	± 2.5	PASS
		VH	TN	2.88	0.001642	± 2.5	PASS
16QAM	LCH	VL	TN	0.41	0.000240	± 2.5	PASS
		VN	TN	2.22	0.001298	± 2.5	PASS
		VH	TN	-0.52	-0.000304	± 2.5	PASS
	MCH	VL	TN	1.28	0.000739	± 2.5	PASS
		VN	TN	-1.44	-0.000831	± 2.5	PASS
		VH	TN	-0.9	-0.000519	± 2.5	PASS
	HCH	VL	TN	2.49	0.001419	± 2.5	PASS
		VN	TN	2.48	0.001414	± 2.5	PASS
		VH	TN	2.01	0.001146	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.78	0.002210	± 2.5	PASS
		VN	-20	-0.26	-0.000152	± 2.5	PASS
		VN	-10	2.62	0.001532	± 2.5	PASS
		VN	0	1.35	0.000789	± 2.5	PASS
		VN	10	-1.56	-0.000912	± 2.5	PASS
		VN	20	1.69	0.000988	± 2.5	PASS
		VN	30	3.62	0.002116	± 2.5	PASS
		VN	40	2.59	0.001514	± 2.5	PASS
		VN	50	4.89	0.002858	± 2.5	PASS

	MCH	VN	-30	0.21	0.000121	± 2.5	PASS
		VN	-20	0.22	0.000127	± 2.5	PASS
		VN	-10	1.49	0.000860	± 2.5	PASS
		VN	0	4.83	0.002788	± 2.5	PASS
		VN	10	-0.01	-0.000006	± 2.5	PASS
		VN	20	4.74	0.002736	± 2.5	PASS
		VN	30	4.7	0.002713	± 2.5	PASS
		VN	40	4.16	0.002401	± 2.5	PASS
		VN	50	1.68	0.000970	± 2.5	PASS
	HCH	VN	-30	2.14	0.001220	± 2.5	PASS
		VN	-20	3.45	0.001967	± 2.5	PASS
		VN	-10	-1.99	-0.001134	± 2.5	PASS
		VN	0	4.56	0.002599	± 2.5	PASS
		VN	10	2.25	0.001283	± 2.5	PASS
		VN	20	3.24	0.001847	± 2.5	PASS
		VN	30	1.17	0.000667	± 2.5	PASS
		VN	40	3.38	0.001927	± 2.5	PASS
		VN	50	4.38	0.002497	± 2.5	PASS
16QAM	LCH	VN	-30	1.48	0.000865	± 2.5	PASS
		VN	-20	2.86	0.001672	± 2.5	PASS
		VN	-10	1.96	0.001146	± 2.5	PASS
		VN	0	0.12	0.000070	± 2.5	PASS
		VN	10	0.82	0.000479	± 2.5	PASS
		VN	20	4.41	0.002578	± 2.5	PASS
		VN	30	2.74	0.001602	± 2.5	PASS
		VN	40	3.57	0.002087	± 2.5	PASS
		VN	50	4.25	0.002484	± 2.5	PASS
	MCH	VN	-30	-1.48	-0.000844	± 2.5	PASS
		VN	-20	-1.58	-0.000901	± 2.5	PASS
		VN	-10	0.89	0.000507	± 2.5	PASS
		VN	0	-0.52	-0.000296	± 2.5	PASS
		VN	10	-0.8	-0.000456	± 2.5	PASS
		VN	20	3.04	0.001733	± 2.5	PASS
		VN	30	0.69	0.000393	± 2.5	PASS
		VN	40	4.49	0.002559	± 2.5	PASS
		VN	50	3.28	0.001870	± 2.5	PASS
	HCH	VN	-30	-0.45	-0.000257	± 2.5	PASS
		VN	-20	1.29	0.000735	± 2.5	PASS
		VN	-10	2.02	0.001151	± 2.5	PASS
		VN	0	0.73	0.000416	± 2.5	PASS
		VN	10	-1.89	-0.001077	± 2.5	PASS

		VN	20	2.52	0.001436	± 2.5	PASS
		VN	30	3.38	0.001927	± 2.5	PASS
		VN	40	0.34	0.000194	± 2.5	PASS
		VN	50	-0.91	-0.000519	± 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	0.34	0.000199	± 2.5	PASS
		VN	TN	4.25	0.002483	± 2.5	PASS
		VH	TN	-1.74	-0.001017	± 2.5	PASS
	MCH	VL	TN	-1.42	-0.000820	± 2.5	PASS
		VN	TN	1.99	0.001149	± 2.5	PASS
		VH	TN	0.75	0.000433	± 2.5	PASS
	HCH	VL	TN	2.33	0.001329	± 2.5	PASS
		VN	TN	-1.69	-0.000964	± 2.5	PASS
		VH	TN	4.62	0.002635	± 2.5	PASS
16QAM	LCH	VL	TN	1.8	0.001052	± 2.5	PASS
		VN	TN	3.66	0.002138	± 2.5	PASS
		VH	TN	-0.6	-0.000351	± 2.5	PASS
	MCH	VL	TN	-0.56	-0.000323	± 2.5	PASS
		VN	TN	-0.74	-0.000427	± 2.5	PASS
		VH	TN	-1.85	-0.001068	± 2.5	PASS
	HCH	VL	TN	-1.14	-0.000650	± 2.5	PASS
		VN	TN	0.43	0.000245	± 2.5	PASS
		VH	TN	2.27	0.001295	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.65	0.001548	± 2.5	PASS
		VN	-20	-0.08	-0.000047	± 2.5	PASS
		VN	-10	-0.93	-0.000543	± 2.5	PASS
		VN	0	1.9	0.001110	± 2.5	PASS
		VN	10	-1.86	-0.001087	± 2.5	PASS
		VN	20	-1.72	-0.001005	± 2.5	PASS
		VN	30	4.3	0.002512	± 2.5	PASS
		VN	40	-1.41	-0.000824	± 2.5	PASS
		VN	50	4.91	0.002869	± 2.5	PASS
	MCH	VN	-30	4.43	0.002557	± 2.5	PASS

		VN	-20	2.87	0.001657	± 2.5	PASS
		VN	-10	4.21	0.002430	± 2.5	PASS
		VN	0	0.65	0.000375	± 2.5	PASS
		VN	10	1.54	0.000889	± 2.5	PASS
		VN	20	0.09	0.000052	± 2.5	PASS
		VN	30	1.19	0.000687	± 2.5	PASS
		VN	40	-1.5	-0.000866	± 2.5	PASS
		VN	50	1.46	0.000843	± 2.5	PASS
	HCH	VN	-30	2.13	0.001215	± 2.5	PASS
		VN	-20	4.24	0.002418	± 2.5	PASS
		VN	-10	3.07	0.001751	± 2.5	PASS
		VN	0	3.65	0.002082	± 2.5	PASS
		VN	10	0.3	0.000171	± 2.5	PASS
		VN	20	2.83	0.001614	± 2.5	PASS
		VN	30	4.53	0.002583	± 2.5	PASS
		VN	40	3.25	0.001853	± 2.5	PASS
		VN	50	0.86	0.000490	± 2.5	PASS
16QAM	LCH	VN	-30	1.12	0.000646	± 2.5	PASS
		VN	-20	-0.61	-0.000352	± 2.5	PASS
		VN	-10	3.58	0.002066	± 2.5	PASS
		VN	0	0.27	0.000156	± 2.5	PASS
		VN	10	4.95	0.002857	± 2.5	PASS
		VN	20	-1.28	-0.000739	± 2.5	PASS
		VN	30	1.41	0.000814	± 2.5	PASS
		VN	40	1.48	0.000854	± 2.5	PASS
		VN	50	-0.73	-0.000421	± 2.5	PASS
	MCH	VN	-30	-1.31	-0.000747	± 2.5	PASS
		VN	-20	-0.22	-0.000125	± 2.5	PASS
		VN	-10	4.76	0.002715	± 2.5	PASS
		VN	0	2.83	0.001614	± 2.5	PASS
		VN	10	4.84	0.002760	± 2.5	PASS
		VN	20	4.1	0.002338	± 2.5	PASS
		VN	30	-1.34	-0.000764	± 2.5	PASS
		VN	40	0.75	0.000428	± 2.5	PASS
		VN	50	0.59	0.000336	± 2.5	PASS
	HCH	VN	-30	-0.87	-0.000496	± 2.5	PASS
		VN	-20	4.18	0.002384	± 2.5	PASS
		VN	-10	2.42	0.001380	± 2.5	PASS
		VN	0	1.89	0.001078	± 2.5	PASS
		VN	10	3.2	0.001825	± 2.5	PASS
		VN	20	-1.83	-0.001044	± 2.5	PASS

		VN	30	2.28	0.001300	± 2.5	PASS
		VN	40	-0.19	-0.000108	± 2.5	PASS
		VN	50	-1.61	-0.000918	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.95	0.001723	± 2.5	PASS
		VN	TN	0.86	0.000502	± 2.5	PASS
		VH	TN	2.16	0.001261	± 2.5	PASS
	MCH	VL	TN	2.41	0.001391	± 2.5	PASS
		VN	TN	2.38	0.001374	± 2.5	PASS
		VH	TN	-0.73	-0.000421	± 2.5	PASS
	HCH	VL	TN	3.15	0.001797	± 2.5	PASS
		VN	TN	3.73	0.002128	± 2.5	PASS
		VH	TN	3.53	0.002014	± 2.5	PASS
16QAM	LCH	VL	TN	3.14	0.001834	± 2.5	PASS
		VN	TN	2.41	0.001407	± 2.5	PASS
		VH	TN	2.21	0.001291	± 2.5	PASS
	MCH	VL	TN	4.02	0.002320	± 2.5	PASS
		VN	TN	3.42	0.001974	± 2.5	PASS
		VH	TN	3.55	0.002049	± 2.5	PASS
	HCH	VL	TN	-1.92	-0.001096	± 2.5	PASS
		VN	TN	4.63	0.002642	± 2.5	PASS
		VH	TN	4.93	0.002813	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.37	0.001968	± 2.5	PASS
		VN	-20	1.32	0.000771	± 2.5	PASS
		VN	-10	0.21	0.000123	± 2.5	PASS
		VN	0	0.44	0.000257	± 2.5	PASS
		VN	10	1.67	0.000975	± 2.5	PASS
		VN	20	0.94	0.000549	± 2.5	PASS
		VN	30	-0.94	-0.000549	± 2.5	PASS
		VN	40	2.8	0.001635	± 2.5	PASS
		VN	50	0.95	0.000555	± 2.5	PASS
	MCH	VN	-30	2.59	0.001495	± 2.5	PASS
		VN	-20	0.19	0.000110	± 2.5	PASS

		VN	-10	-0.23	-0.000133	± 2.5	PASS
		VN	0	-1.5	-0.000866	± 2.5	PASS
		VN	10	2.96	0.001709	± 2.5	PASS
		VN	20	-0.48	-0.000277	± 2.5	PASS
		VN	30	-0.13	-0.000075	± 2.5	PASS
		VN	40	-1.54	-0.000889	± 2.5	PASS
		VN	50	-1.29	-0.000745	± 2.5	PASS
	HCH	VN	-30	3.26	0.001860	± 2.5	PASS
		VN	-20	3.43	0.001798	± 2.5	PASS
		VN	-10	-1.29	-0.000676	± 2.5	PASS
		VN	0	1.3	0.000682	± 2.5	PASS
		VN	10	-1.28	-0.000671	± 2.5	PASS
		VN	20	2.38	0.001248	± 2.5	PASS
		VN	30	0.36	0.000189	± 2.5	PASS
		VN	40	-0.31	-0.000163	± 2.5	PASS
		VN	50	0.08	0.000042	± 2.5	PASS
16QAM	LCH	VN	-30	1.22	0.000704	± 2.5	PASS
		VN	-20	-1.19	-0.000687	± 2.5	PASS
		VN	-10	1.07	0.000618	± 2.5	PASS
		VN	0	3.55	0.002049	± 2.5	PASS
		VN	10	-0.23	-0.000133	± 2.5	PASS
		VN	20	0.25	0.000144	± 2.5	PASS
		VN	30	1.88	0.001085	± 2.5	PASS
		VN	40	3.13	0.001807	± 2.5	PASS
		VN	50	-1.99	-0.001149	± 2.5	PASS
	MCH	VN	-30	2.56	0.001461	± 2.5	PASS
		VN	-20	4.96	0.002830	± 2.5	PASS
		VN	-10	-1.36	-0.000776	± 2.5	PASS
		VN	0	4.14	0.002362	± 2.5	PASS
		VN	10	1.84	0.001050	± 2.5	PASS
		VN	20	0.01	0.000006	± 2.5	PASS
		VN	30	3.45	0.001969	± 2.5	PASS
		VN	40	-1.65	-0.000942	± 2.5	PASS
		VN	50	0.37	0.000211	± 2.5	PASS
	HCH	VN	-30	1.83	0.000959	± 2.5	PASS
		VN	-20	3.25	0.001704	± 2.5	PASS
		VN	-10	-0.11	-0.000058	± 2.5	PASS
		VN	0	2.54	0.001332	± 2.5	PASS
		VN	10	0.87	0.000456	± 2.5	PASS
		VN	20	4.8	0.002516	± 2.5	PASS
		VN	30	4.47	0.002343	± 2.5	PASS

		VN	40	2.51	0.001316	± 2.5	PASS
		VN	50	-0.93	-0.000488	± 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	3.8	0.002216	± 2.5	PASS
		VN	TN	0.67	0.000391	± 2.5	PASS
		VH	TN	-0.97	-0.000566	± 2.5	PASS
	MCH	VL	TN	4.19	0.002418	± 2.5	PASS
		VN	TN	-1.42	-0.000820	± 2.5	PASS
		VH	TN	4.4	0.002540	± 2.5	PASS
	HCH	VL	TN	4.98	0.002846	± 2.5	PASS
		VN	TN	0.57	0.000326	± 2.5	PASS
		VH	TN	4.92	0.002811	± 2.5	PASS
16QAM	LCH	VL	TN	3.75	0.002187	± 2.5	PASS
		VN	TN	3.1	0.001808	± 2.5	PASS
		VH	TN	-0.57	-0.000332	± 2.5	PASS
	MCH	VL	TN	0.58	0.000335	± 2.5	PASS
		VN	TN	-1.68	-0.000970	± 2.5	PASS
		VH	TN	0.67	0.000387	± 2.5	PASS
	HCH	VL	TN	3.8	0.002171	± 2.5	PASS
		VN	TN	3.44	0.001966	± 2.5	PASS
		VH	TN	3.43	0.001960	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.71	-0.000414	± 2.5	PASS
		VN	-20	-1.64	-0.000956	± 2.5	PASS
		VN	-10	-0.24	-0.000140	± 2.5	PASS
		VN	0	4.21	0.002455	± 2.5	PASS
		VN	10	1.38	0.000805	± 2.5	PASS
		VN	20	1.5	0.000875	± 2.5	PASS
		VN	30	4.2	0.002449	± 2.5	PASS
		VN	40	2.79	0.001627	± 2.5	PASS
		VN	50	0.32	0.000187	± 2.5	PASS
	MCH	VN	-30	1.5	0.000866	± 2.5	PASS
		VN	-20	3.7	0.002136	± 2.5	PASS
		VN	-10	1.71	0.000987	± 2.5	PASS

		VN	0	-0.56	-0.000323	± 2.5	PASS
		VN	10	-0.46	-0.000266	± 2.5	PASS
		VN	20	-0.67	-0.000387	± 2.5	PASS
		VN	30	-0.93	-0.000537	± 2.5	PASS
		VN	40	-0.09	-0.000052	± 2.5	PASS
		VN	50	-1.06	-0.000612	± 2.5	PASS
	HCH	VN	-30	-1.78	-0.001017	± 2.5	PASS
		VN	-20	1.34	0.000766	± 2.5	PASS
		VN	-10	3.7	0.002114	± 2.5	PASS
		VN	0	1.42	0.000811	± 2.5	PASS
		VN	10	-0.59	-0.000337	± 2.5	PASS
		VN	20	1.03	0.000589	± 2.5	PASS
		VN	30	-0.51	-0.000291	± 2.5	PASS
		VN	40	3.46	0.001977	± 2.5	PASS
		VN	50	-0.51	-0.000291	± 2.5	PASS
16QAM	LCH	VN	-30	0.93	0.000537	± 2.5	PASS
		VN	-20	-0.73	-0.000421	± 2.5	PASS
		VN	-10	-0.62	-0.000358	± 2.5	PASS
		VN	0	1.91	0.001102	± 2.5	PASS
		VN	10	1.52	0.000877	± 2.5	PASS
		VN	20	-0.97	-0.000560	± 2.5	PASS
		VN	30	2.86	0.001651	± 2.5	PASS
		VN	40	-1.56	-0.000900	± 2.5	PASS
		VN	50	2.81	0.001622	± 2.5	PASS
	MCH	VN	-30	4.76	0.002720	± 2.5	PASS
		VN	-20	-1.9	-0.001086	± 2.5	PASS
		VN	-10	0.03	0.000017	± 2.5	PASS
		VN	0	-0.14	-0.000080	± 2.5	PASS
		VN	10	2.47	0.001411	± 2.5	PASS
		VN	20	0.91	0.000520	± 2.5	PASS
		VN	30	4.03	0.002303	± 2.5	PASS
		VN	40	-0.82	-0.000469	± 2.5	PASS
		VN	50	1.01	0.000577	± 2.5	PASS
	HCH	VN	-30	3.92	0.002240	± 2.5	PASS
		VN	-20	0.97	0.000554	± 2.5	PASS
		VN	-10	-0.98	-0.000560	± 2.5	PASS
		VN	0	-1.51	-0.000863	± 2.5	PASS
		VN	10	2.32	0.001326	± 2.5	PASS
		VN	20	3.34	0.001909	± 2.5	PASS
		VN	30	2.65	0.001514	± 2.5	PASS
		VN	40	0.02	0.000011	± 2.5	PASS

		VN	50	-0.1	-0.000057	± 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	2.6	0.001514	± 2.5	PASS
		VN	TN	-0.63	-0.000367	± 2.5	PASS
		VH	TN	4.1	0.002387	± 2.5	PASS
	MCH	VL	TN	1.41	0.000814	± 2.5	PASS
		VN	TN	0.38	0.000219	± 2.5	PASS
		VH	TN	1.76	0.001016	± 2.5	PASS
	HCH	VL	TN	0.65	0.000372	± 2.5	PASS
		VN	TN	4.92	0.002815	± 2.5	PASS
		VH	TN	-1.34	-0.000767	± 2.5	PASS
16QAM	LCH	VL	TN	3.21	0.001869	± 2.5	PASS
		VN	TN	2.67	0.001555	± 2.5	PASS
		VH	TN	0.94	0.000547	± 2.5	PASS
	MCH	VL	TN	3.73	0.002153	± 2.5	PASS
		VN	TN	1.72	0.000993	± 2.5	PASS
		VH	TN	1.97	0.001137	± 2.5	PASS
	HCH	VL	TN	0.4	0.000229	± 2.5	PASS
		VN	TN	4.08	0.002335	± 2.5	PASS
		VH	TN	1.02	0.000584	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.98	0.000571	± 2.5	PASS
		VN	-20	1.13	0.000658	± 2.5	PASS
		VN	-10	1.63	0.000949	± 2.5	PASS
		VN	0	-0.52	-0.000303	± 2.5	PASS
		VN	10	2.21	0.001287	± 2.5	PASS
		VN	20	-1.7	-0.000990	± 2.5	PASS
		VN	30	2.23	0.001298	± 2.5	PASS
		VN	40	-0.91	-0.000530	± 2.5	PASS
		VN	50	-1.85	-0.001077	± 2.5	PASS
	MCH	VN	-30	-0.86	-0.000496	± 2.5	PASS
		VN	-20	-0.87	-0.000502	± 2.5	PASS
		VN	-10	4.5	0.002597	± 2.5	PASS
		VN	0	-1.82	-0.001051	± 2.5	PASS

		VN	10	-1.64	-0.000947	± 2.5	PASS
		VN	20	4.68	0.002701	± 2.5	PASS
		VN	30	3.95	0.002280	± 2.5	PASS
		VN	40	-1.23	-0.000710	± 2.5	PASS
		VN	50	4.99	0.002880	± 2.5	PASS
	HCH	VN	-30	1.98	0.001133	± 2.5	PASS
		VN	-20	-1.79	-0.001024	± 2.5	PASS
		VN	-10	-1.39	-0.000795	± 2.5	PASS
		VN	0	4.57	0.002615	± 2.5	PASS
		VN	10	-0.88	-0.000504	± 2.5	PASS
		VN	20	4.09	0.002340	± 2.5	PASS
		VN	30	-1.38	-0.000790	± 2.5	PASS
		VN	40	-1.11	-0.000635	± 2.5	PASS
		VN	50	1.41	0.000807	± 2.5	PASS
16QAM	LCH	VN	-30	3.1	0.001789	± 2.5	PASS
		VN	-20	-1.27	-0.000733	± 2.5	PASS
		VN	-10	-1.43	-0.000825	± 2.5	PASS
		VN	0	1.02	0.000589	± 2.5	PASS
		VN	10	1.96	0.001131	± 2.5	PASS
		VN	20	-0.33	-0.000190	± 2.5	PASS
		VN	30	-1.48	-0.000854	± 2.5	PASS
		VN	40	3.12	0.001801	± 2.5	PASS
		VN	50	2.3	0.001328	± 2.5	PASS
	MCH	VN	-30	2.15	0.001230	± 2.5	PASS
		VN	-20	1.35	0.000773	± 2.5	PASS
		VN	-10	4.66	0.002667	± 2.5	PASS
		VN	0	-1.2	-0.000687	± 2.5	PASS
		VN	10	1.68	0.000961	± 2.5	PASS
		VN	20	1.18	0.000675	± 2.5	PASS
		VN	30	-1.71	-0.000979	± 2.5	PASS
		VN	40	-0.13	-0.000074	± 2.5	PASS
		VN	50	2.91	0.001665	± 2.5	PASS
	HCH	VN	-30	-0.4	-0.000229	± 2.5	PASS
		VN	-20	1.76	0.001007	± 2.5	PASS
		VN	-10	3.34	0.001911	± 2.5	PASS
		VN	0	-0.6	-0.000343	± 2.5	PASS
		VN	10	3.47	0.001986	± 2.5	PASS
		VN	20	0.12	0.000069	± 2.5	PASS
		VN	30	0.49	0.000280	± 2.5	PASS
		VN	40	2.18	0.001247	± 2.5	PASS
		VN	50	2.37	0.001356	± 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	3.27	0.001901	± 2.5	PASS
		VN	TN	3.85	0.002238	± 2.5	PASS
		VH	TN	-0.57	-0.000331	± 2.5	PASS
	MCH	VL	TN	1.37	0.000791	± 2.5	PASS
		VN	TN	-0.27	-0.000156	± 2.5	PASS
		VH	TN	0.94	0.000543	± 2.5	PASS
	HCH	VL	TN	4.54	0.002602	± 2.5	PASS
		VN	TN	1.92	0.001100	± 2.5	PASS
		VH	TN	0.26	0.000149	± 2.5	PASS
16QAM	LCH	VL	TN	2.05	0.001192	± 2.5	PASS
		VN	TN	3.73	0.002169	± 2.5	PASS
		VH	TN	0.33	0.000192	± 2.5	PASS
	MCH	VL	TN	0.63	0.000364	± 2.5	PASS
		VN	TN	-1.61	-0.000929	± 2.5	PASS
		VH	TN	-1.82	-0.001051	± 2.5	PASS
	HCH	VL	TN	3.52	0.002017	± 2.5	PASS
		VN	TN	1.91	0.001095	± 2.5	PASS
		VH	TN	2.19	0.001255	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.69	0.000401	± 2.5	PASS
		VN	-20	4.05	0.002355	± 2.5	PASS
		VN	-10	-0.41	-0.000238	± 2.5	PASS
		VN	0	1.43	0.000831	± 2.5	PASS
		VN	10	0.63	0.000366	± 2.5	PASS
		VN	20	3.14	0.001826	± 2.5	PASS
		VN	30	3.31	0.001924	± 2.5	PASS
		VN	40	0.16	0.000093	± 2.5	PASS
		VN	50	3.09	0.001797	± 2.5	PASS
	MCH	VN	-30	1.15	0.000664	± 2.5	PASS
		VN	-20	1.55	0.000895	± 2.5	PASS
		VN	-10	1.08	0.000623	± 2.5	PASS
		VN	0	-1.07	-0.000618	± 2.5	PASS
		VN	10	-1.22	-0.000704	± 2.5	PASS

		VN	20	4.02	0.002320	± 2.5	PASS
		VN	30	0.73	0.000421	± 2.5	PASS
		VN	40	2.74	0.001582	± 2.5	PASS
		VN	50	-1.6	-0.000924	± 2.5	PASS
	HCH	VN	-30	-0.02	-0.000011	± 2.5	PASS
		VN	-20	-0.3	-0.000172	± 2.5	PASS
		VN	-10	3.48	0.001994	± 2.5	PASS
		VN	0	1.68	0.000963	± 2.5	PASS
		VN	10	4.43	0.002539	± 2.5	PASS
		VN	20	4.47	0.002562	± 2.5	PASS
		VN	30	2.72	0.001559	± 2.5	PASS
		VN	40	2.5	0.001433	± 2.5	PASS
		VN	50	2	0.001146	± 2.5	PASS
16QAM	LCH	VN	-30	-1.15	-0.000664	± 2.5	PASS
		VN	-20	0.89	0.000514	± 2.5	PASS
		VN	-10	-1.62	-0.000935	± 2.5	PASS
		VN	0	2.43	0.001403	± 2.5	PASS
		VN	10	3.63	0.002095	± 2.5	PASS
		VN	20	1.46	0.000843	± 2.5	PASS
		VN	30	0.79	0.000456	± 2.5	PASS
		VN	40	2.98	0.001720	± 2.5	PASS
		VN	50	1.45	0.000837	± 2.5	PASS
	MCH	VN	-30	-1.81	-0.001037	± 2.5	PASS
		VN	-20	2.96	0.001696	± 2.5	PASS
		VN	-10	3.7	0.002120	± 2.5	PASS
		VN	0	-1.18	-0.000676	± 2.5	PASS
		VN	10	2.7	0.001547	± 2.5	PASS
		VN	20	1.71	0.000980	± 2.5	PASS
		VN	30	3.49	0.002000	± 2.5	PASS
		VN	40	3.68	0.002109	± 2.5	PASS
		VN	50	1.76	0.001009	± 2.5	PASS
	HCH	VN	-30	-1.99	-0.001140	± 2.5	PASS
		VN	-20	-1.68	-0.000963	± 2.5	PASS
		VN	-10	2.03	0.001163	± 2.5	PASS
		VN	0	-0.7	-0.000401	± 2.5	PASS
		VN	10	4.93	0.002825	± 2.5	PASS
		VN	20	1.28	0.000734	± 2.5	PASS
		VN	30	0.17	0.000097	± 2.5	PASS
		VN	40	0.3	0.000172	± 2.5	PASS
		VN	50	2.69	0.001542	± 2.5	PASS