Channel Bandwidth: 20 MHz
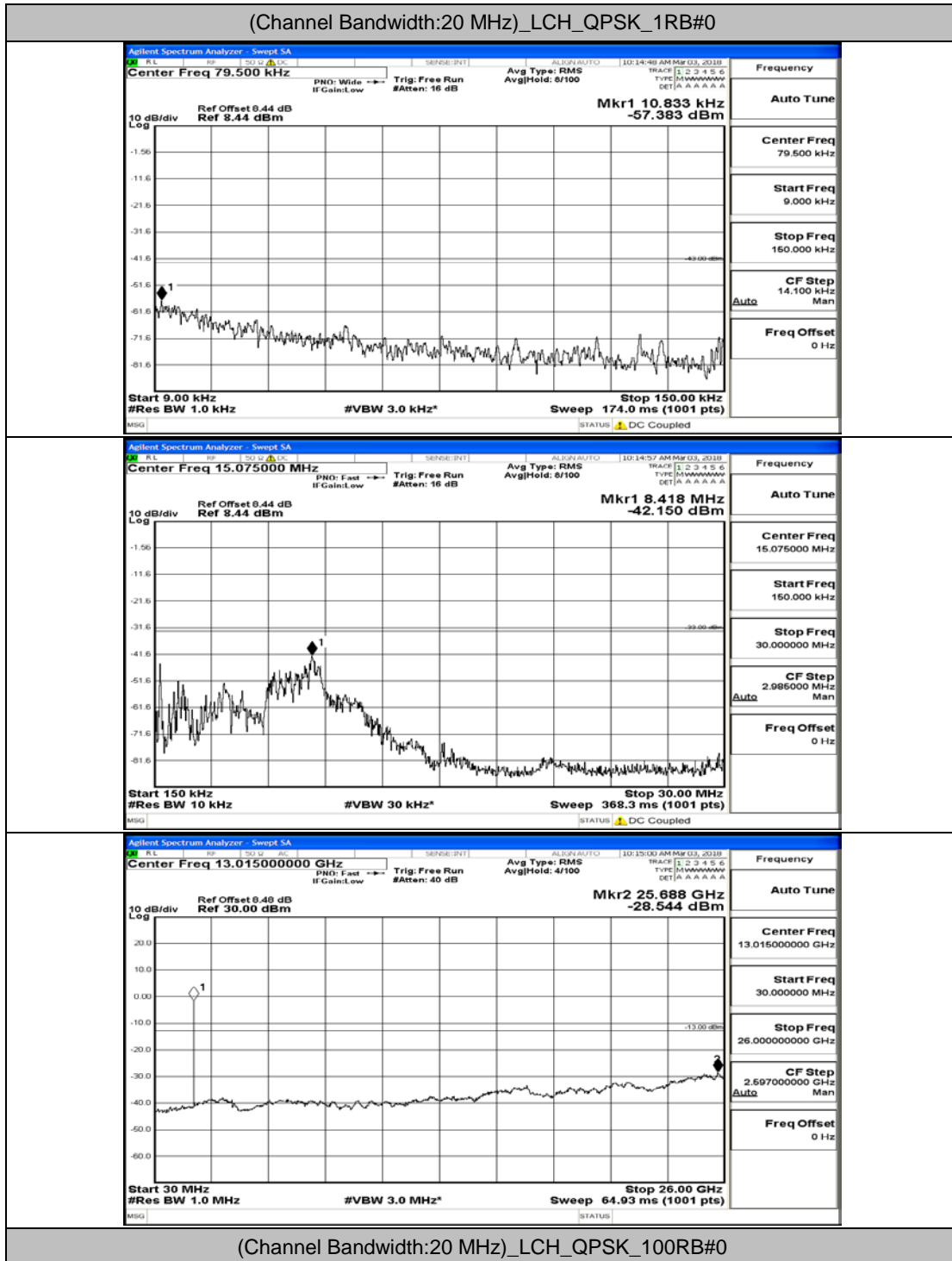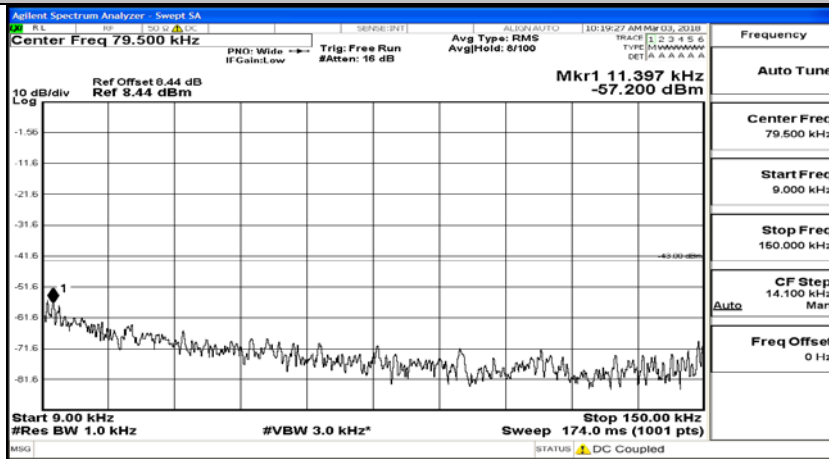
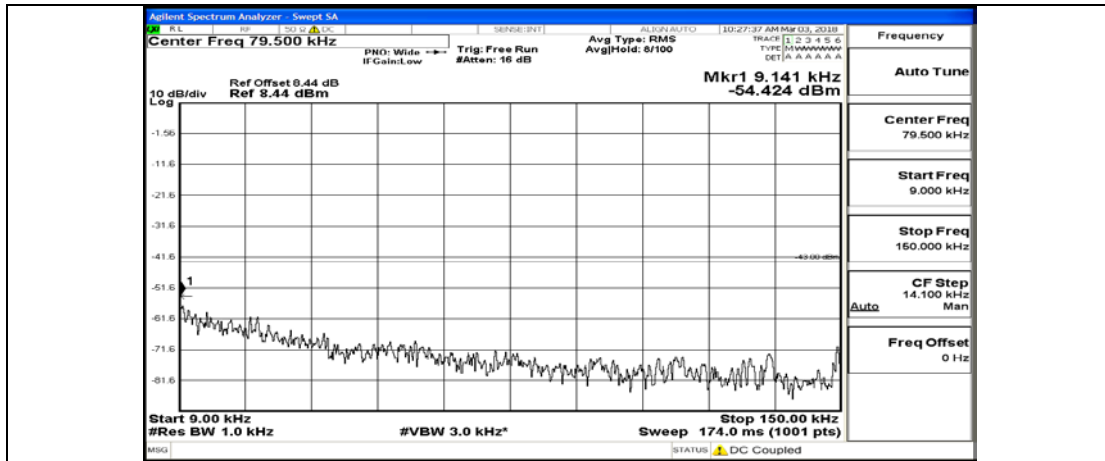| (Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0 |
|---|
| |
| |
| |
| (Channel Bandwidth:20 MHz)_LCH_QPSK_100RB#0 |

Screen 1

Agilent Spectrum Analyzer - Swept SA

LXI R L RF 50 Ω DC   SENSE:INT   ALIGN AUTO   10:18:43 AM Mar 03, 2018

Center Freq 79.500 kHz   PNO: Wide   Trig: Free Run   Avg Type: RMS   Avg|Hold: 6/100   TRACE 1 2 3 4 5 6 / TYPE M W W W W W / DET A A A A A A

IF Gain:Low   #Atten: 16 dB

Mkr1 9.987 kHz
-56.286 dBm

10 dB/div
Log   Ref Offset 8.44 dB   Ref 8.44 dBm

-1.56
-11.6
-21.6
-31.6
-41.6   -43.00 dBm
-51.6   1
-61.6
-71.6
-81.6

Start 9.00 kHz   Stop 150.00 kHz
#Res BW 1.0 kHz   #VBW 3.0 kHz*   Sweep 174.0 ms (1001 pts)

MSG   STATUS ⚠ 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

Screen 2

Agilent Spectrum Analyzer - Swept SA

LXI R L RF 50 Ω DC   SENSE:INT   ALIGN AUTO   10:18:52 AM Mar 03, 2018

Center Freq 15.075000 MHz   PNO: Fast   Trig: Free Run   Avg Type: RMS   Avg|Hold: 8/100   TRACE 1 2 3 4 5 6 / TYPE M W W W W W / DET A A A A A A

IF Gain:Low   #Atten: 16 dB

Mkr1 8.538 MHz
-42.705 dBm

10 dB/div
Log   Ref Offset 8.44 dB   Ref 8.44 dBm

-1.56
-11.6
-21.6
-31.6   -33.00 dBm
-41.6   1
-51.6
-61.6
-71.6
-81.6

Start 150 kHz   Stop 30.00 MHz
#Res BW 10 kHz   #VBW 30 kHz*   Sweep 368.3 ms (1001 pts)

MSG   STATUS ⚠ 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

Screen 3

Agilent Spectrum Analyzer - Swept SA

LXI R L RF 50 Ω AC   SENSE:INT   ALIGN AUTO   10:18:56 AM Mar 03, 2018

Center Freq 13.015000000 GHz   PNO: Fast   Trig: Free Run   Avg Type: RMS   Avg|Hold: 4/100   TRACE 1 2 3 4 5 6 / TYPE M W W W W W / DET A A A A A A

IF Gain:Low   #Atten: 40 dB

Mkr2 25.662 GHz
-28.994 dBm

10 dB/div
Log   Ref Offset 8.48 dB   Ref 30.00 dBm

20.0
10.0
0.00   1
-10.0   -13.00 dBm
-20.0
-30.0   2
-40.0
-50.0
-60.0

Start 30 MHz   Stop 26.00 GHz
#Res BW 1.0 MHz   #VBW 3.0 MHz*   Sweep 64.93 ms (1001 pts)

MSG   STATUS

Frequency
Auto Tune
Center Freq 13.015000000 GHz
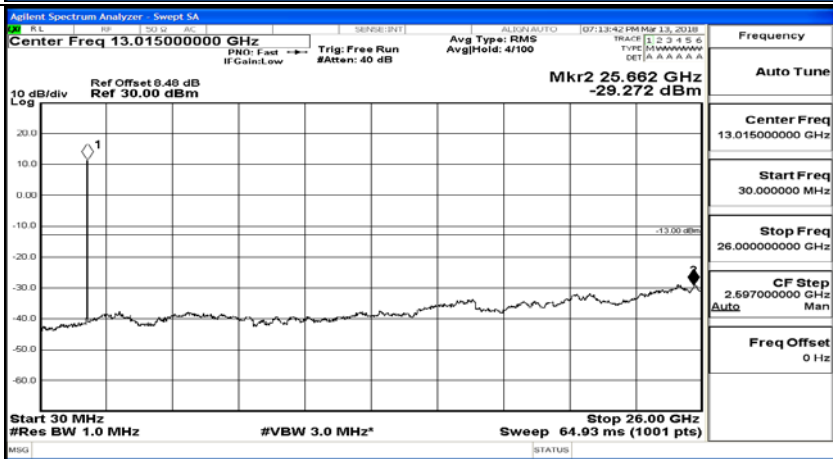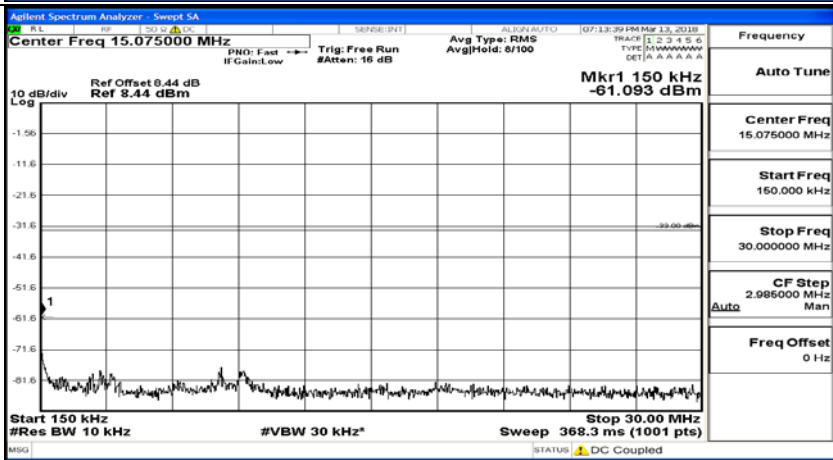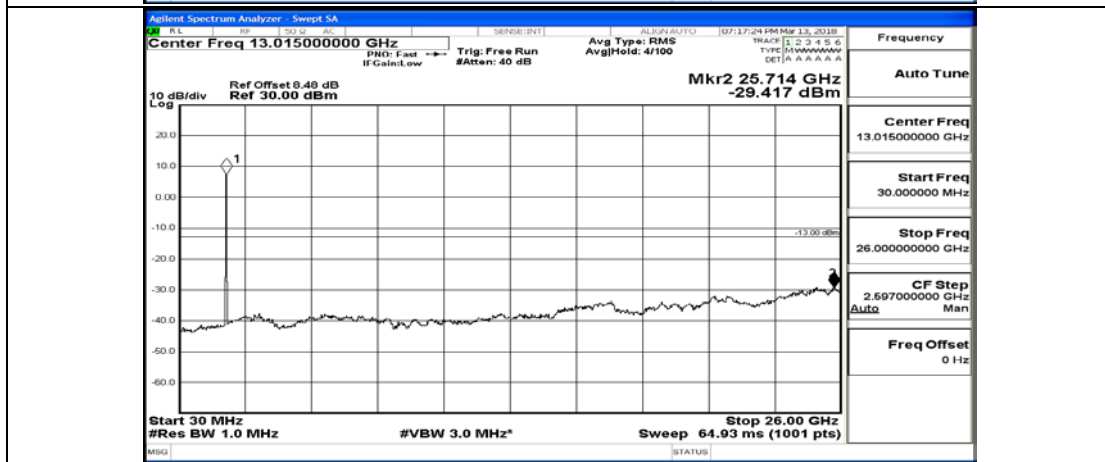Start Freq 30.000000 MHz
Stop Freq 26.000000000 GHz
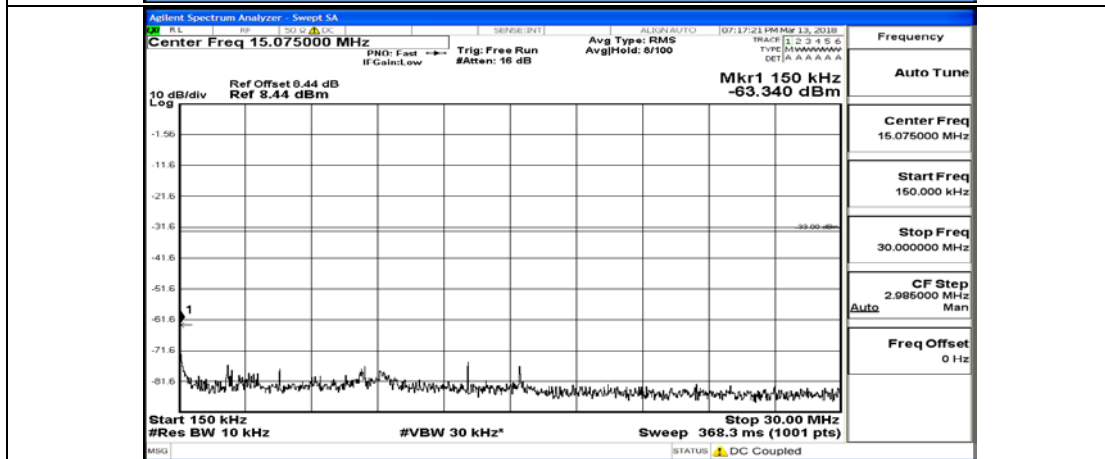CF Step 2.697000000 GHz Auto / Man
Freq Offset 0 Hz

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

Agilent Spectrum Analyzer - Swept SA
Center Freq 79.500 kHz
PNO: Wide — Trig: Free Run
IF Gain:Low #Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
10:19:27 AM Mar 03, 2018
Ref Offset 8.44 dB
Ref 8.44 dBm
10 dB/div Log
Mkr1 11.397 kHz
-57.200 dBm
Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
STATUS DC Coupled

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.075000 MHz
PNO: Fast — Trig: Free Run
IF Gain:Low #Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
10:19:36 AM Mar 03, 2018
Ref Offset 8.44 dB
Ref 8.44 dBm
10 dB/div Log
Mkr1 8.389 MHz
-41.390 dBm
Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
STATUS DC Coupled

Agilent Spectrum Analyzer - Swept SA
Center Freq 13.015000000 GHz
PNO: Fast — Trig: Free Run
IF Gain:Low #Atten: 40 dB
Avg Type: RMS
Avg|Hold: 4/100
10:19:40 AM Mar 03, 2018
Ref Offset 8.48 dB
Ref 30.00 dBm
10 dB/div Log
Mkr2 25.688 GHz
-28.949 dBm
Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
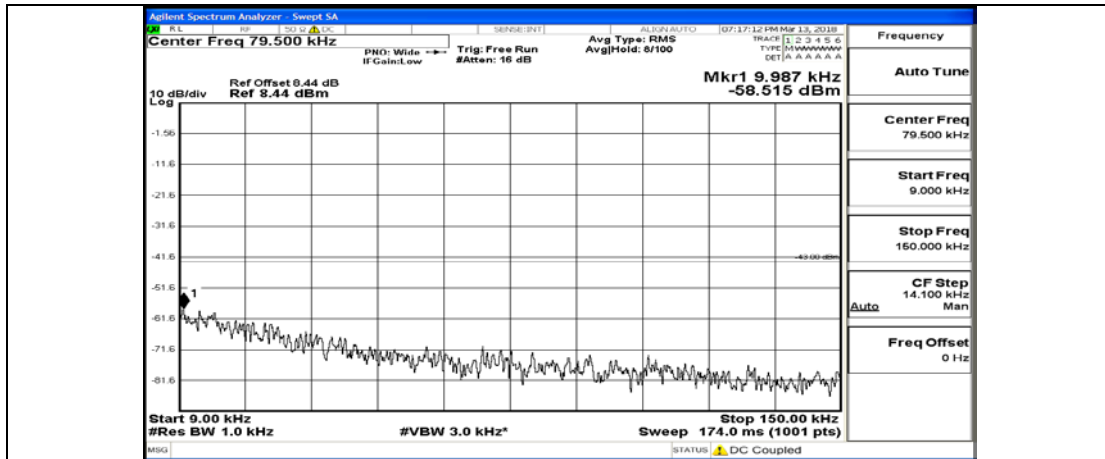Stop 26.00 GHz
Sweep 64.93 ms (1001 pts)
STATUS

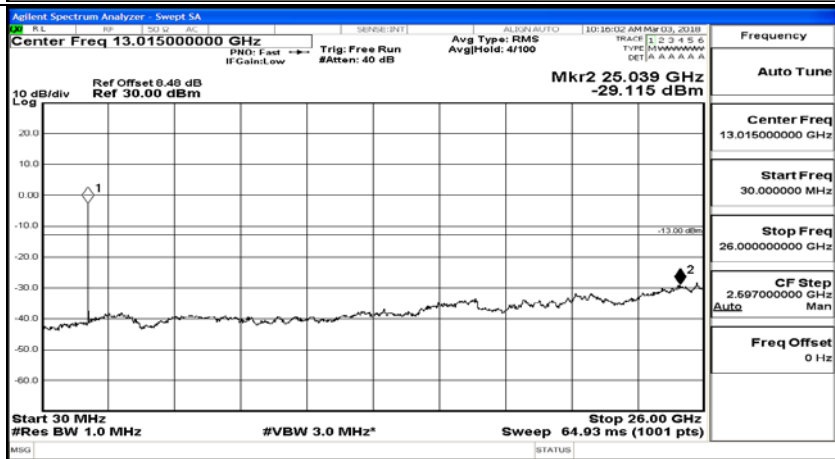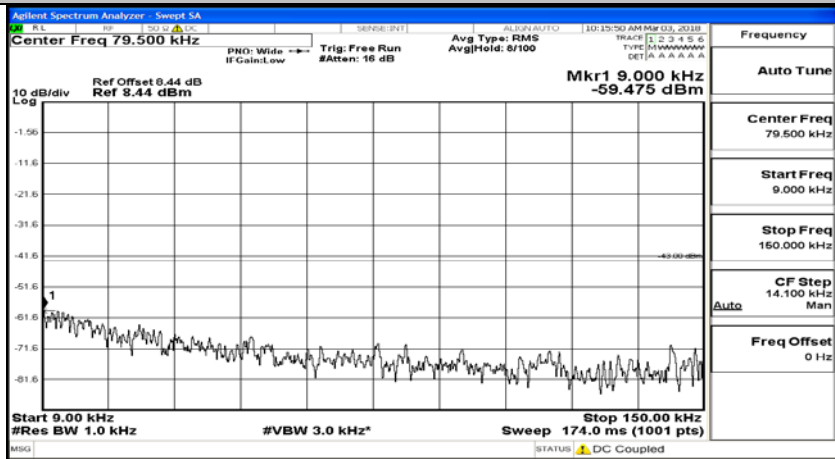| (Channel Bandwidth:20 MHz)_MCH_QPSK_100RB#0 |
|---|

(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

(Channel Bandwidth:20 MHz)_HCH_QPSK_100RB#0

Screen 1

Agilent Spectrum Analyzer - Swept SA

LXI R L RF 50 Ω DC   SENSE:INT   ALIGN AUTO   07:17:12 PM Mar 13, 2018

Center Freq 79.500 kHz

PNO: Wide →   Trig: Free Run   Avg Type: RMS   TRACE 1 2 3 4 5 6
IF Gain:Low   #Atten: 16 dB   Avg|Hold: 6/100   TYPE W W W W W W   DET A A A A A A

Mkr1 9.987 kHz
-58.515 dBm

Ref Offset 8.44 dB

10 dB/div   **Ref 8.44 dBm**
Log

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

-1.56
-11.6
-21.6
-31.6
-41.6   -43.00 dBm
-51.6
-61.6
-71.6
-81.6

1

Start 9.00 kHz   **Stop 150.00 kHz**
#Res BW 1.0 kHz   #VBW 3.0 kHz*   Sweep 174.0 ms (1001 pts)
MSG   STATUS ⚠ DC Coupled

Screen 2

Agilent Spectrum Analyzer - Swept SA

LXI R L RF 50 Ω DC   SENSE:INT   ALIGN AUTO   07:17:21 PM Mar 13, 2018

Center Freq 15.075000 MHz

PNO: Fast →   Trig: Free Run   Avg Type: RMS   TRACE 1 2 3 4 5 6
IF Gain:Low   #Atten: 16 dB   Avg|Hold: 8/100   TYPE W W W W W W   DET A A A A A A

Mkr1 150 kHz
-63.340 dBm

Ref Offset 8.44 dB

10 dB/div   **Ref 8.44 dBm**
Log

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

-1.56
-11.6
-21.6
-31.6   -33.00 dBm
-41.6
-51.6
-61.6
-71.6
-81.6

1

Start 150 kHz   **Stop 30.00 MHz**
#Res BW 10 kHz   #VBW 30 kHz*   Sweep 368.3 ms (1001 pts)
MSG   STATUS ⚠ DC Coupled

Screen 3

Agilent Spectrum Analyzer - Swept SA

LXI R L RF 50 Ω AC   SENSE:INT   ALIGN AUTO   07:17:24 PM Mar 13, 2018

Center Freq 13.015000000 GHz

PNO: Fast →   Trig: Free Run   Avg Type: RMS   TRACE 1 2 3 4 5 6
IF Gain:Low   #Atten: 40 dB   Avg|Hold: 4/100   TYPE W W W W W W   DET A A A A A A

Mkr2 25.714 GHz
-29.417 dBm

Ref Offset 8.48 dB

10 dB/div   **Ref 30.00 dBm**
Log

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

20.0
10.0
0.00
-10.0   -13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0

1   2

Start 30 MHz   **Stop 26.00 GHz**
#Res BW 1.0 MHz   #VBW 3.0 MHz*   Sweep 64.93 ms (1001 pts)
MSG   STATUS

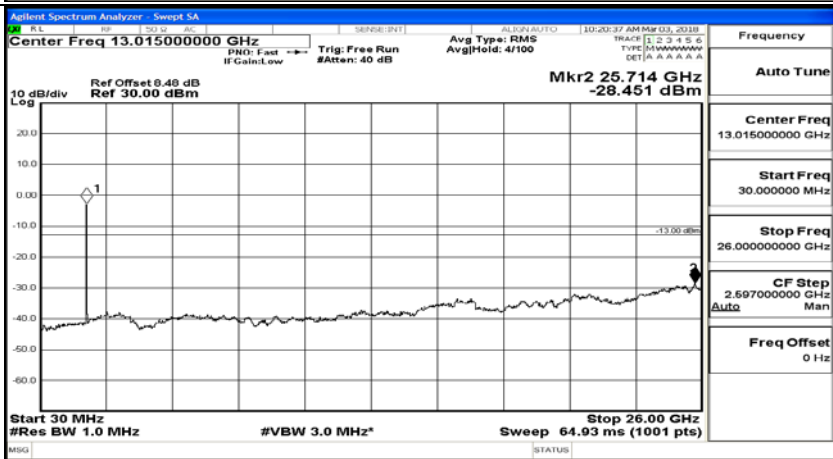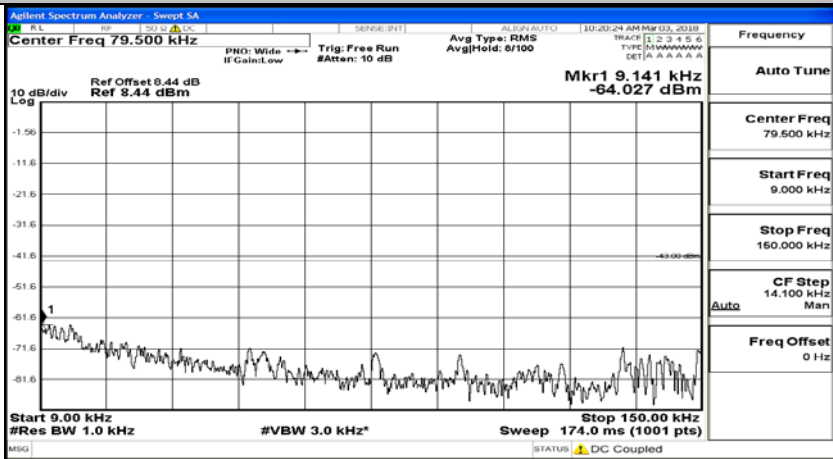| (Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0 |
|---|

(Channel Bandwidth:20 MHz)_LCH_16QAM_100RB#0

Agilent Spectrum Analyzer - Swept SA

Center Freq 79.500 kHz
PNO: Wide → Trig: Free Run
IF Gain:Low #Atten: 16 dB
Avg Type: RMS
Avg|Hold: 6/100
10:19:05 AM Mar 03, 2018
SENSE:INT ALIGN AUTO
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A A A A A A

Frequency
Auto Tune

10 dB/div
Log
Ref Offset 8.44 dB
Ref 8.44 dBm

Mkr1 12.525 kHz
-56.558 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

-1.56
-11.6
-21.6
-31.6
-41.6
-43.00 dBm
-51.6
-61.6
-71.6
-81.6

Start 9.00 kHz
#Res BW 1.0 kHz
#VBW 3.0 kHz*
Stop 150.00 kHz
Sweep 174.0 ms (1001 pts)
MSG   STATUS ⚠ DC Coupled

Agilent Spectrum Analyzer - Swept SA

Center Freq 15.075000 MHz
PNO: Fast → Trig: Free Run
IF Gain:Low #Atten: 16 dB
Avg Type: RMS
Avg|Hold: 8/100
10:19:14 AM Mar 03, 2018
SENSE:INT ALIGN AUTO
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A A A A A A

Frequency
Auto Tune

10 dB/div
Log
Ref Offset 8.44 dB
Ref 8.44 dBm

Mkr1 8.329 MHz
-40.388 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

-1.56
-11.6
-21.6
-31.6
-29.00 dBm
-41.6
-51.6
-61.6
-71.6
-81.6

Start 150 kHz
#Res BW 10 kHz
#VBW 30 kHz*
Stop 30.00 MHz
Sweep 368.3 ms (1001 pts)
MSG   STATUS ⚠ DC Coupled

Agilent Spectrum Analyzer - Swept SA

Center Freq 13.015000000 GHz
PNO: Fast → Trig: Free Run
IF Gain:Low #Atten: 40 dB
Avg Type: RMS
Avg|Hold: 4/100
10:19:18 AM Mar 03, 2018
SENSE:INT ALIGN AUTO
TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET A A A A A A

Frequency
Auto Tune

10 dB/div
Log
Ref Offset 8.48 dB
Ref 30.00 dBm

Mkr2 25.117 GHz
-29.245 dBm

Center Freq
13.015000000 GHz

Start Freq
30.000000 MHz

Stop Freq
26.000000000 GHz

CF Step
2.697000000 GHz
Auto   Man

Freq Offset
0 Hz

20.0
10.0
0.00
-10.0
-13.00 dBm
-20.0
-30.0
-40.0
-50.0
-60.0

Start 30 MHz
#Res BW 1.0 MHz
#VBW 3.0 MHz*
Stop 26.00 GHz
Sweep 64.93 ms (1001 pts)
MSG   STATUS

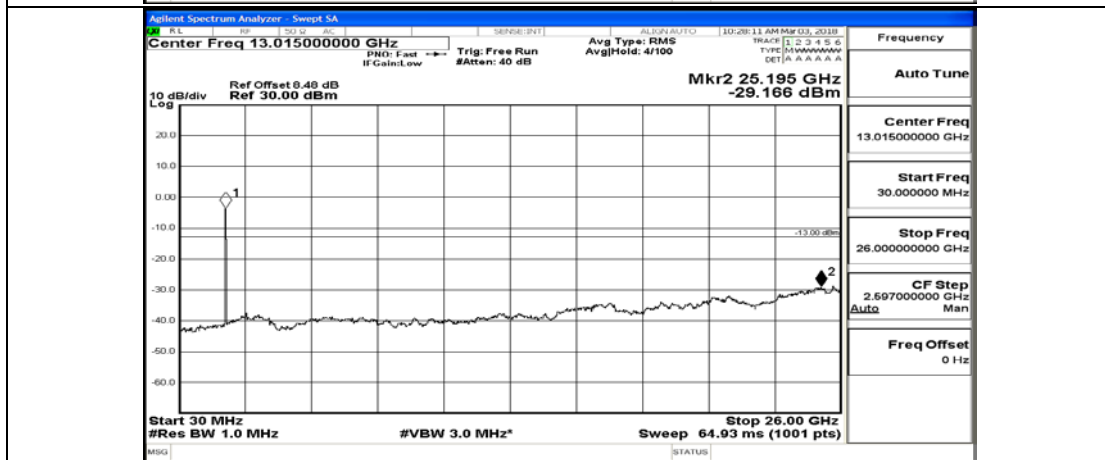| (Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0 |
|---|

(Channel Bandwidth:20 MHz)_MCH_16QAM_100RB#0

(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0
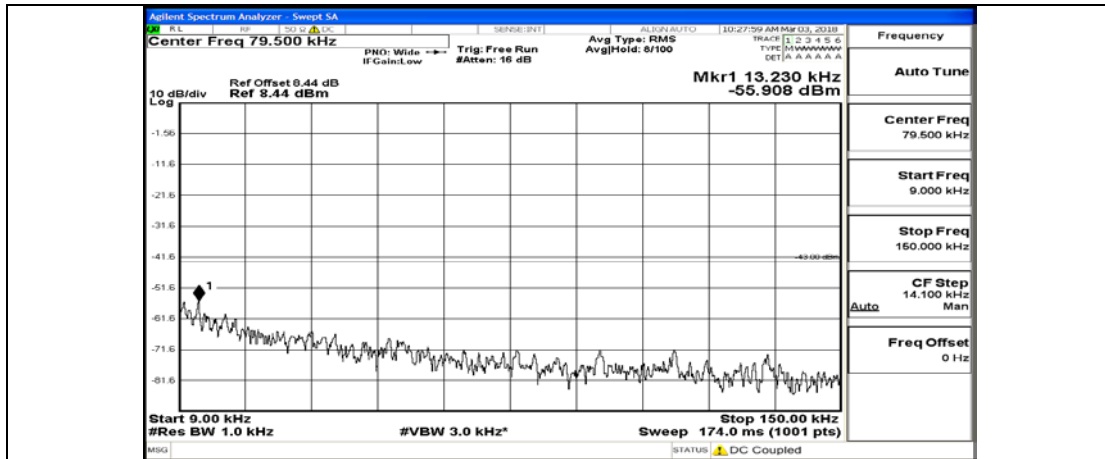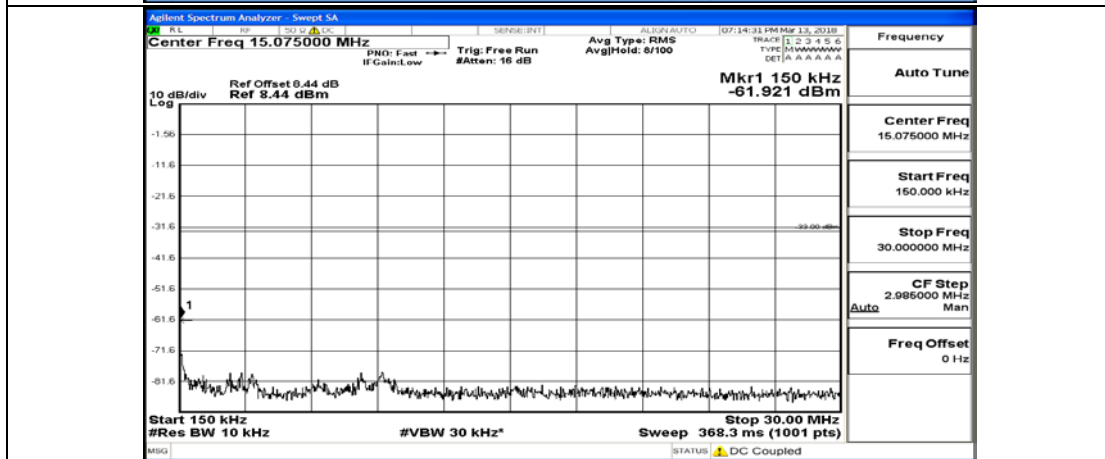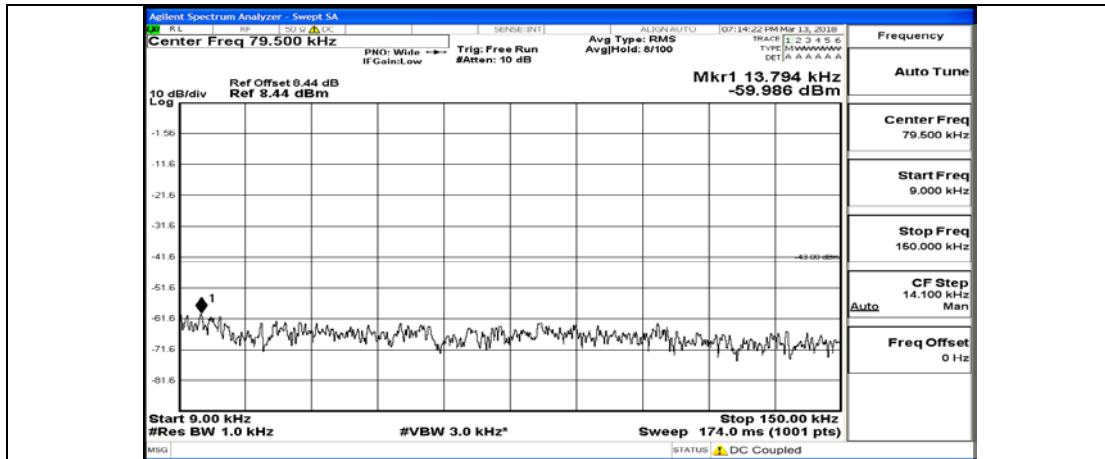
(Channel Bandwidth:20 MHz)_HCH_16QAM_100RB#0