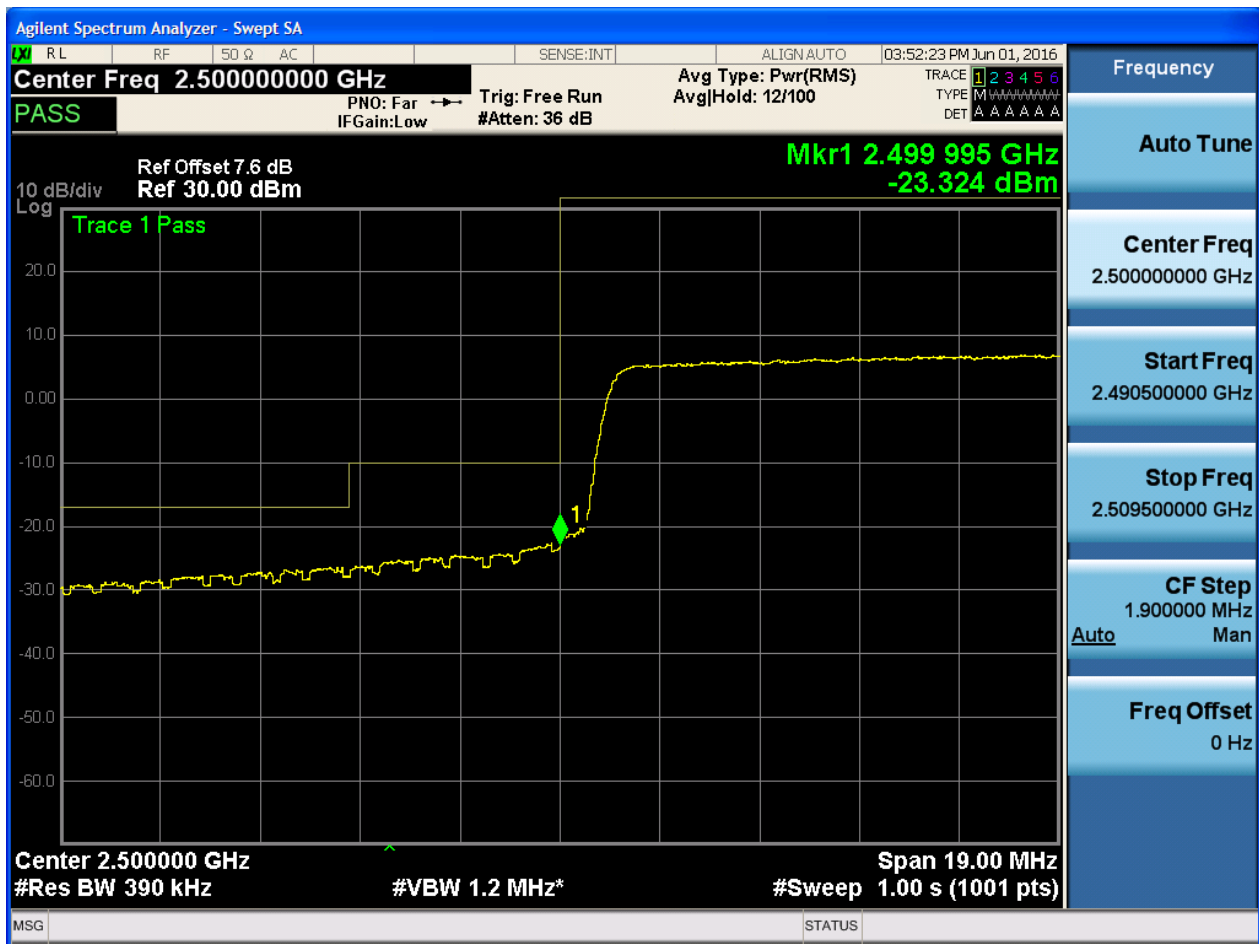




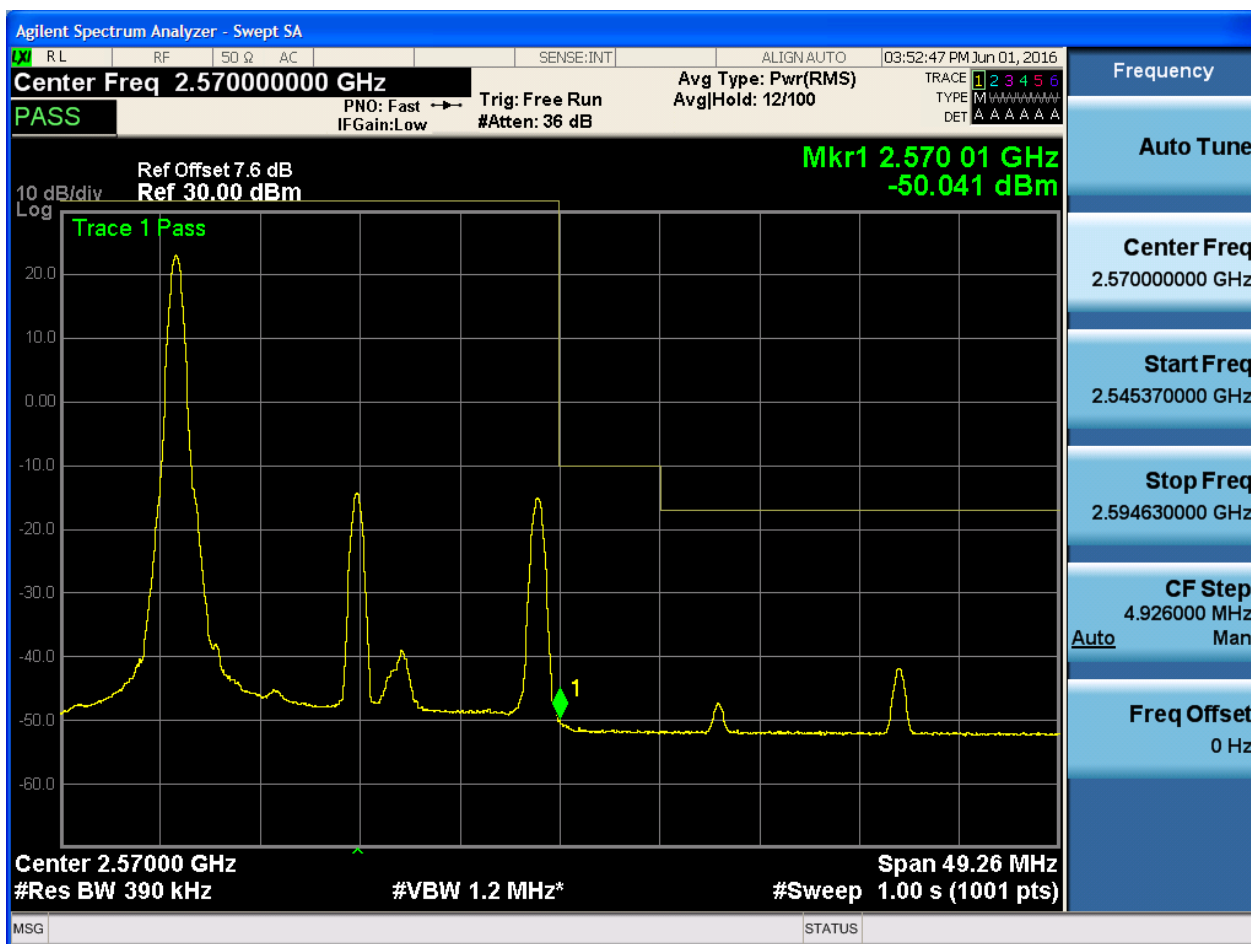
5.1.1.1.4.1.4 Test RB = RB100#0





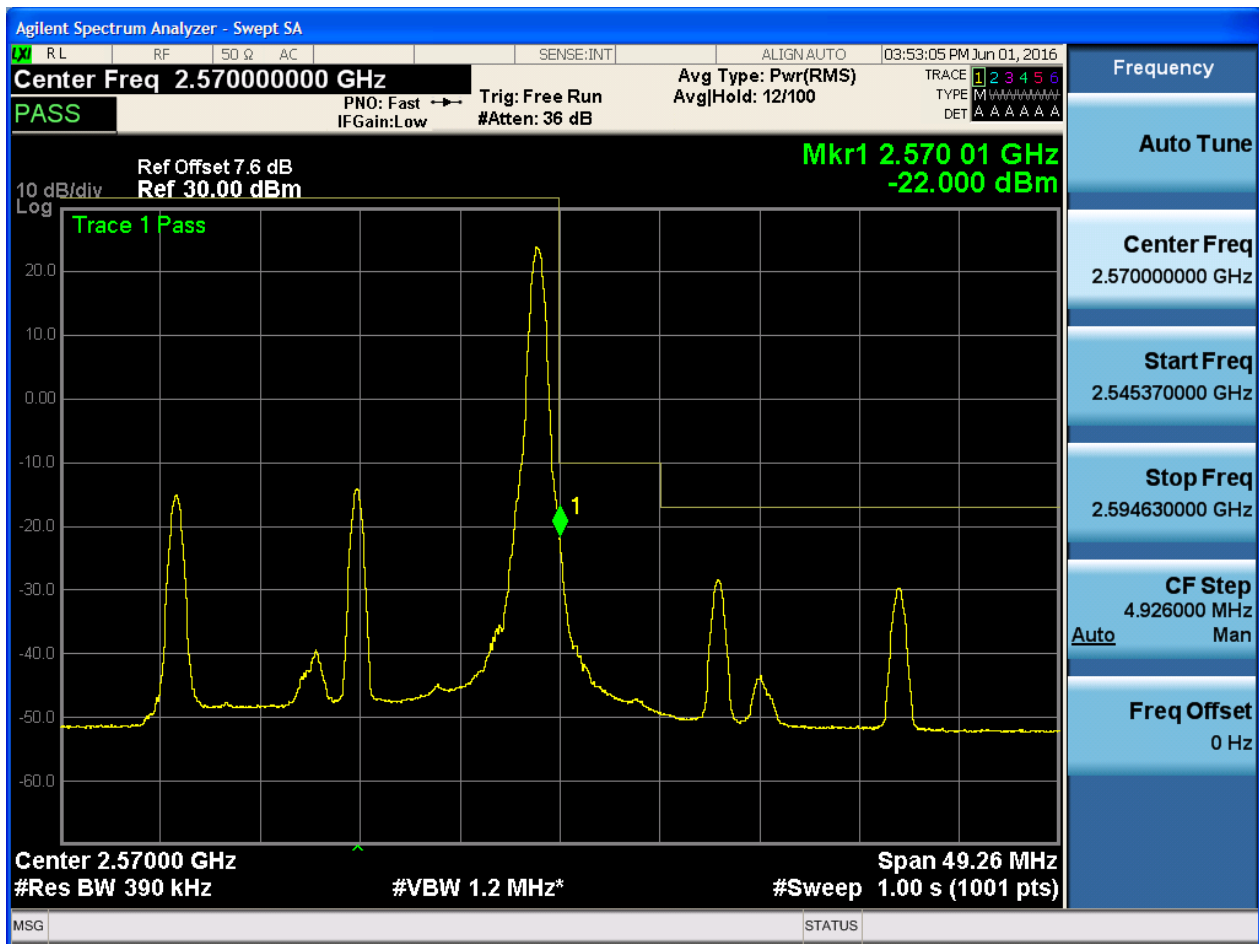
5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0





5.1.1.1.4.2.2 Test RB = RB1#99





5.1.1.1.4.2.3 Test RB = RB50#25





5.1.1.1.4.2.4 Test RB = RB100#0



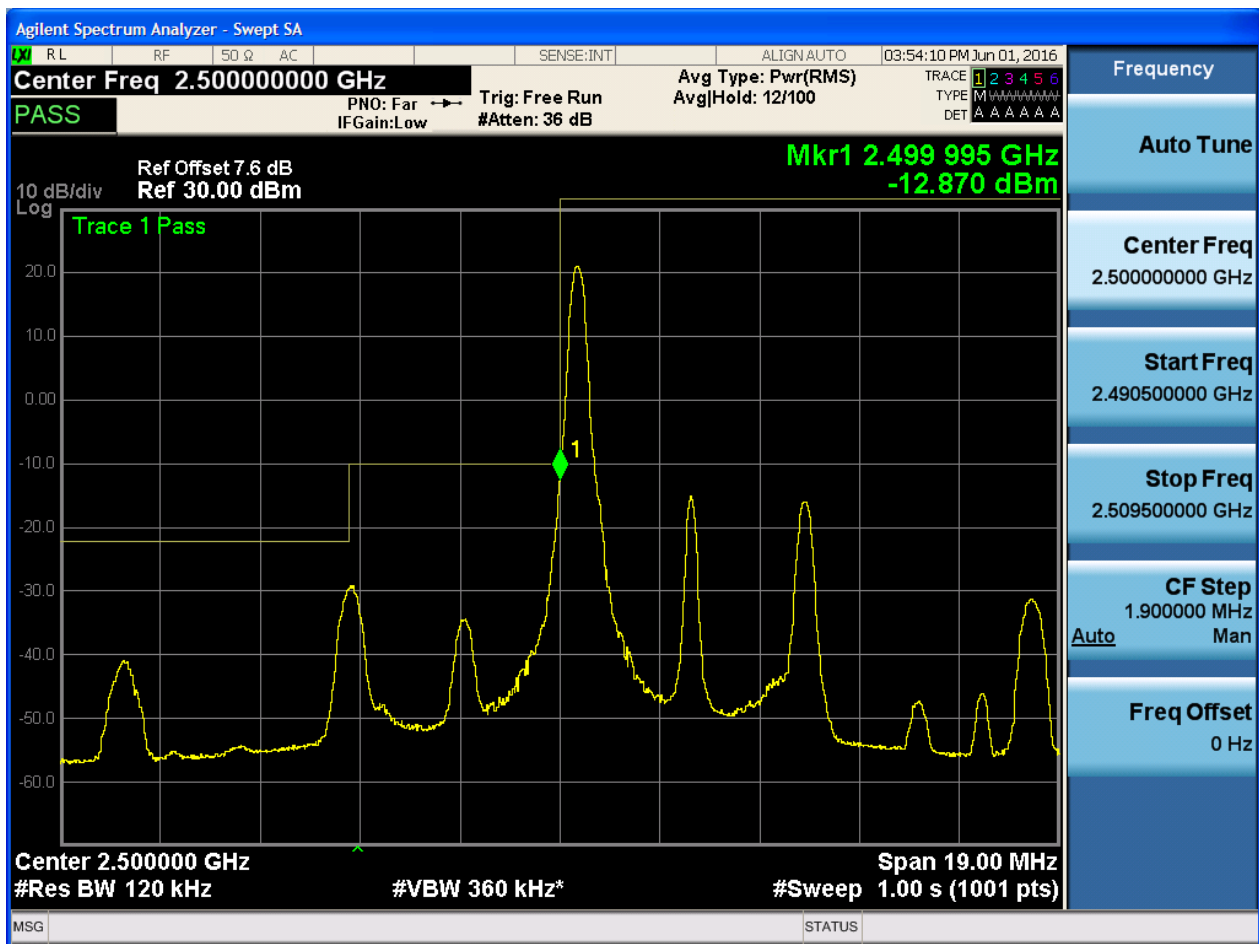


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

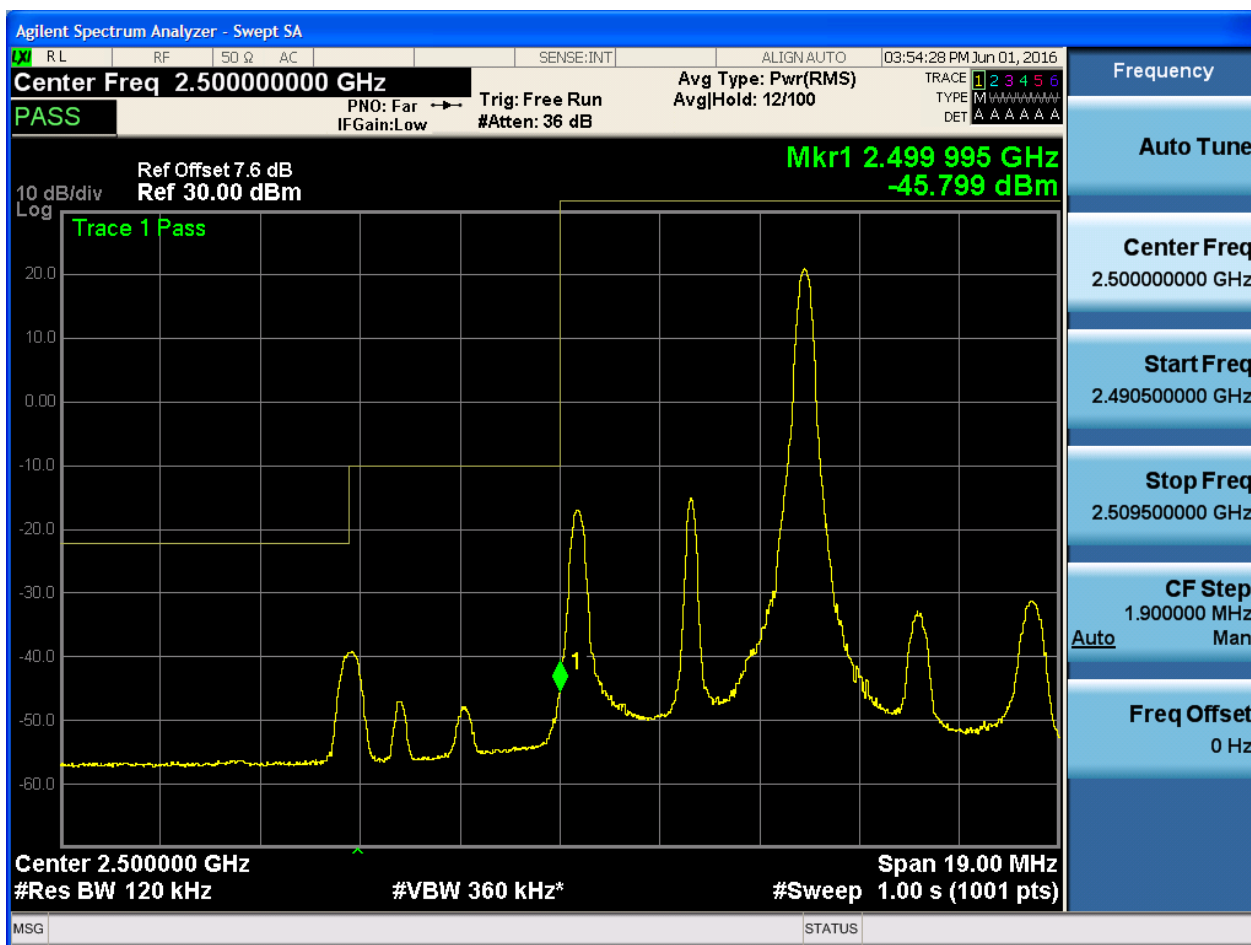
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



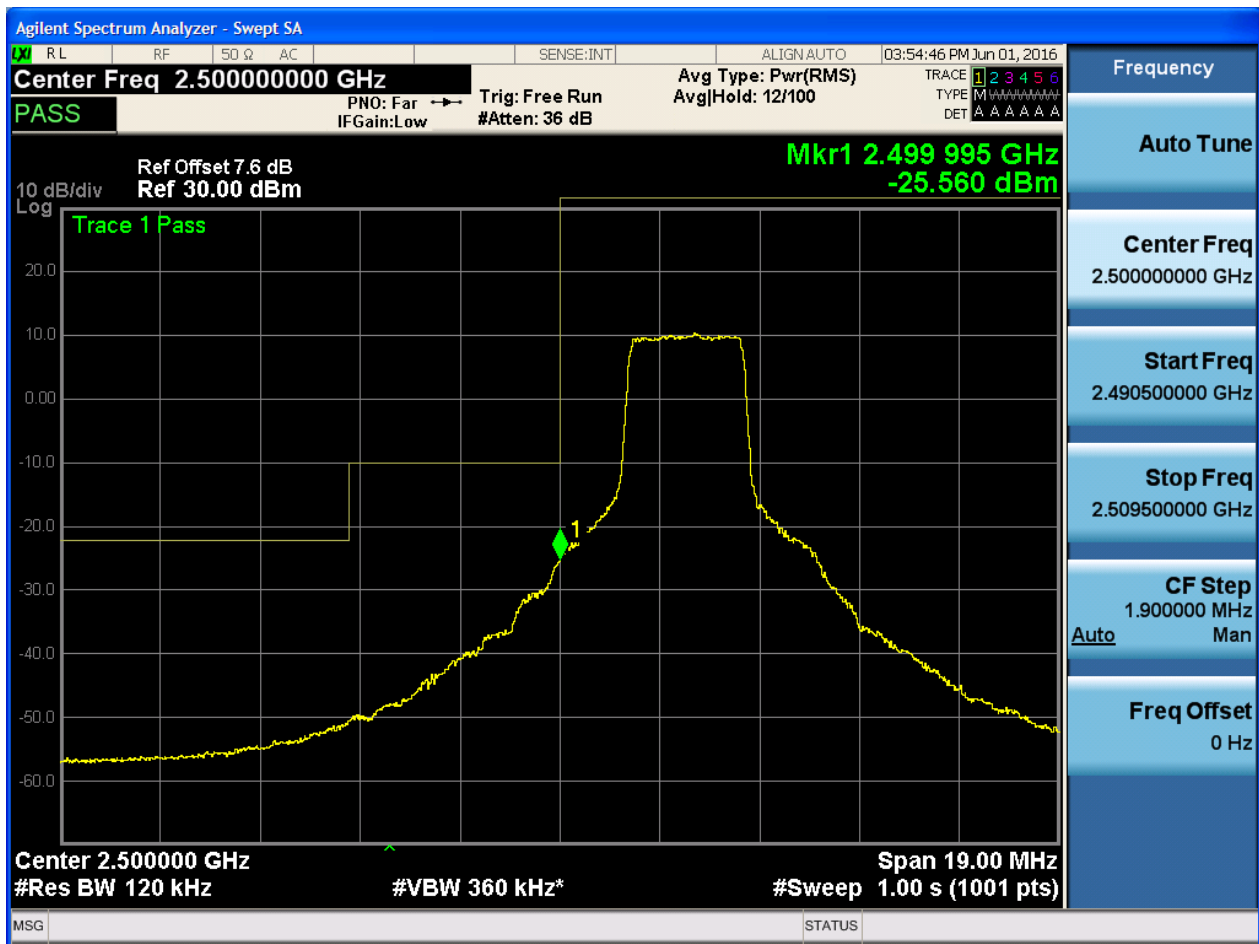


5.1.1.2.1.1.2 Test RB = RB1#24





5.1.1.2.1.1.3 Test RB = RB12#6





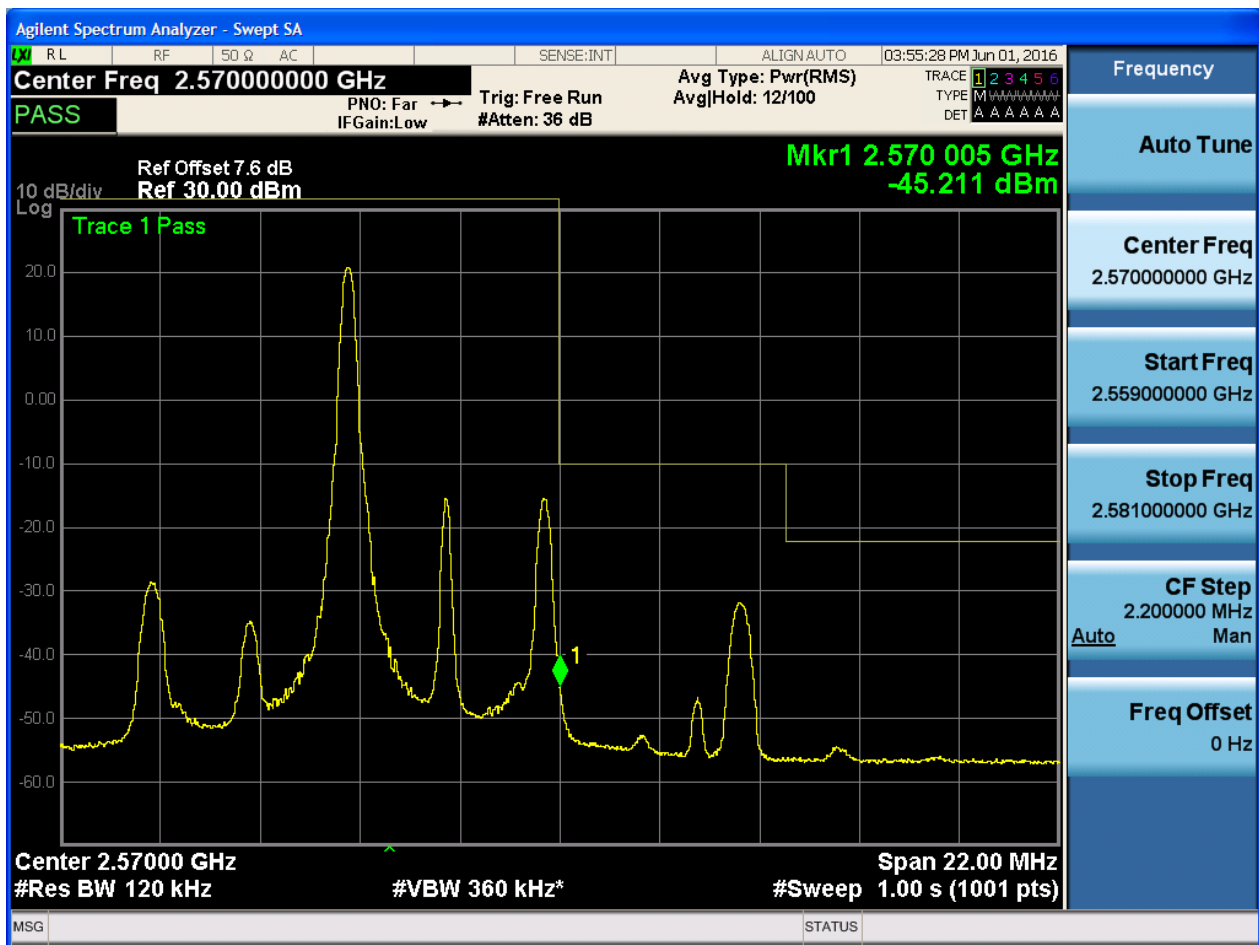
5.1.1.2.1.1.4 Test RB = RB25#0





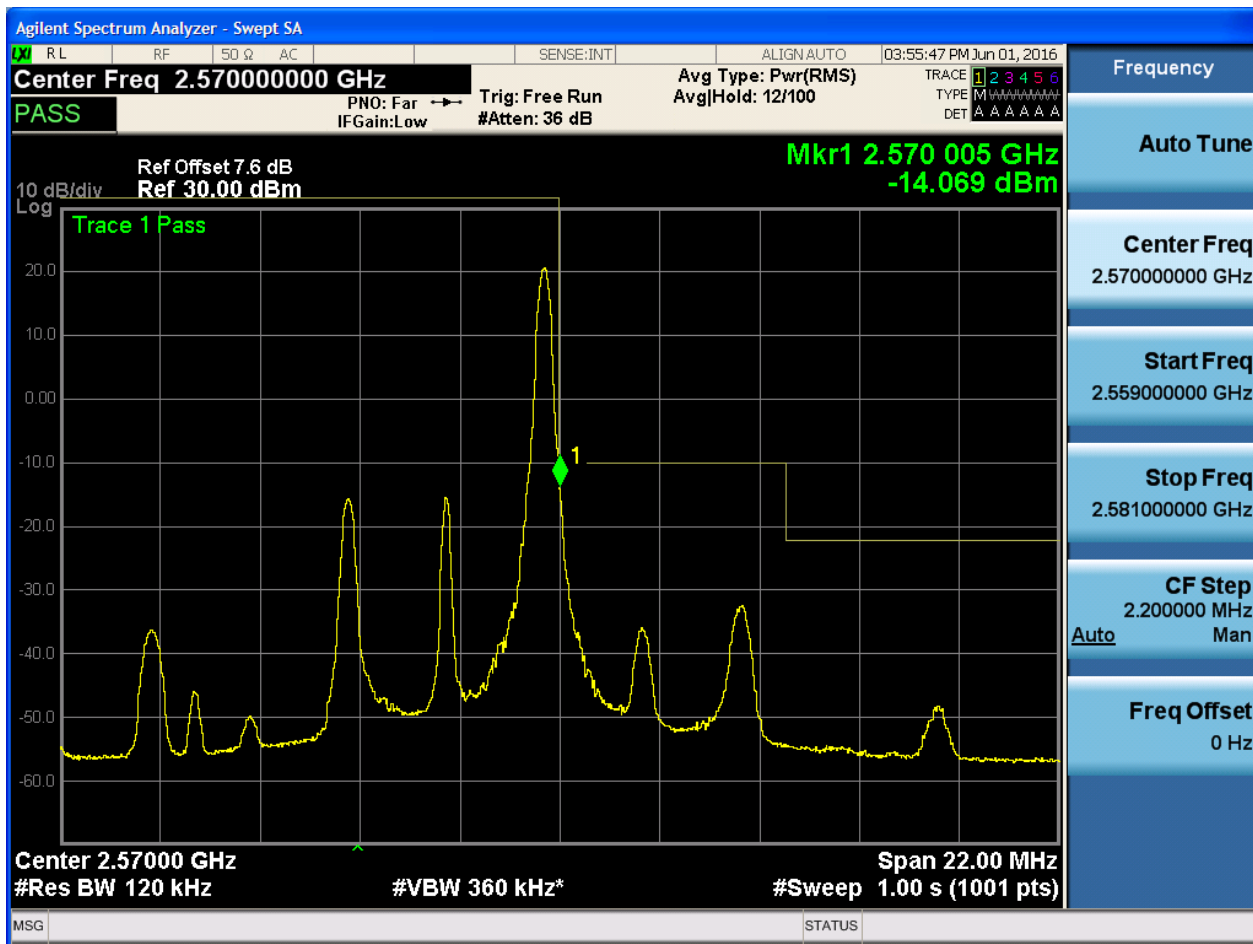
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0



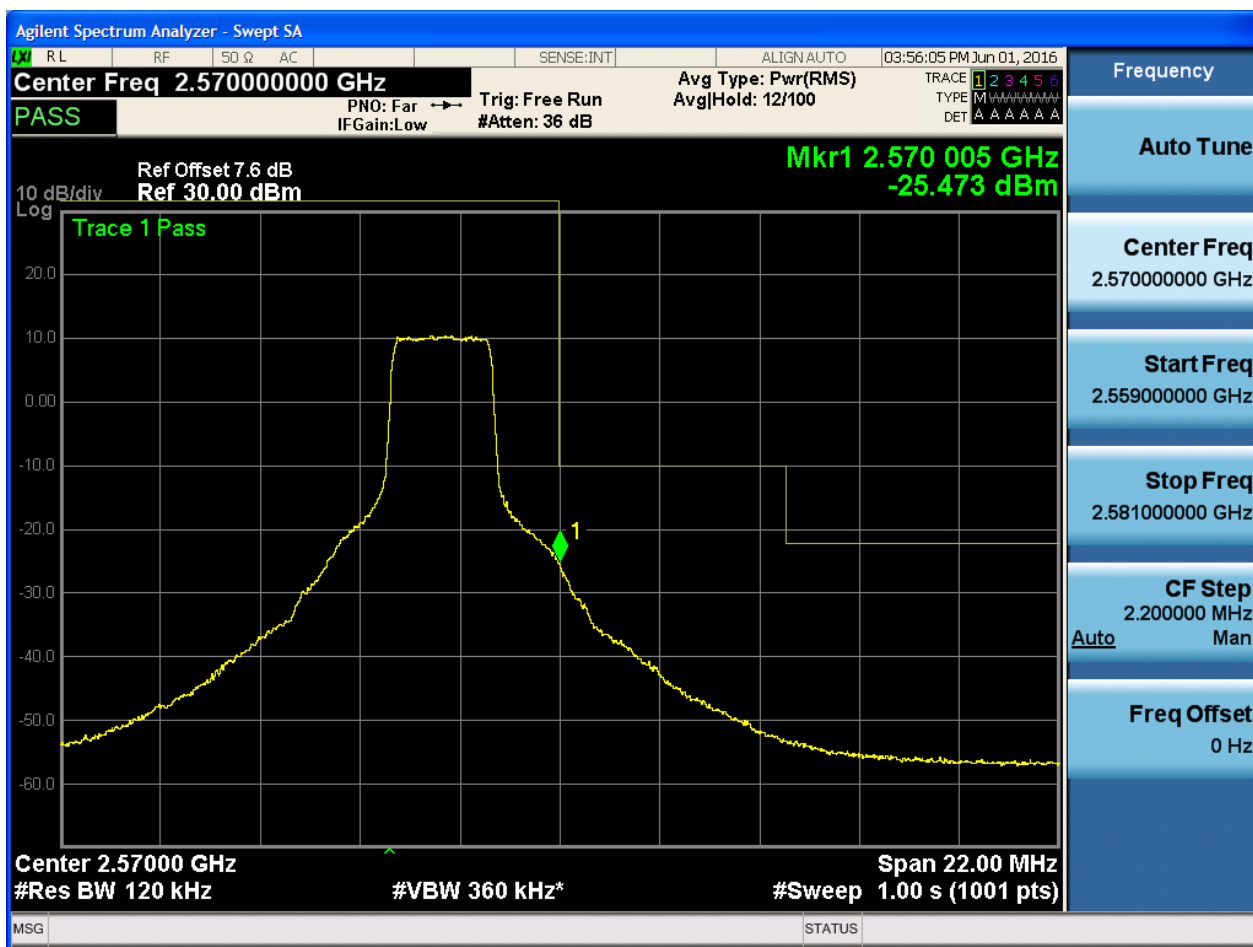


5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





5.1.1.2.1.2.4 Test RB = RB25#0

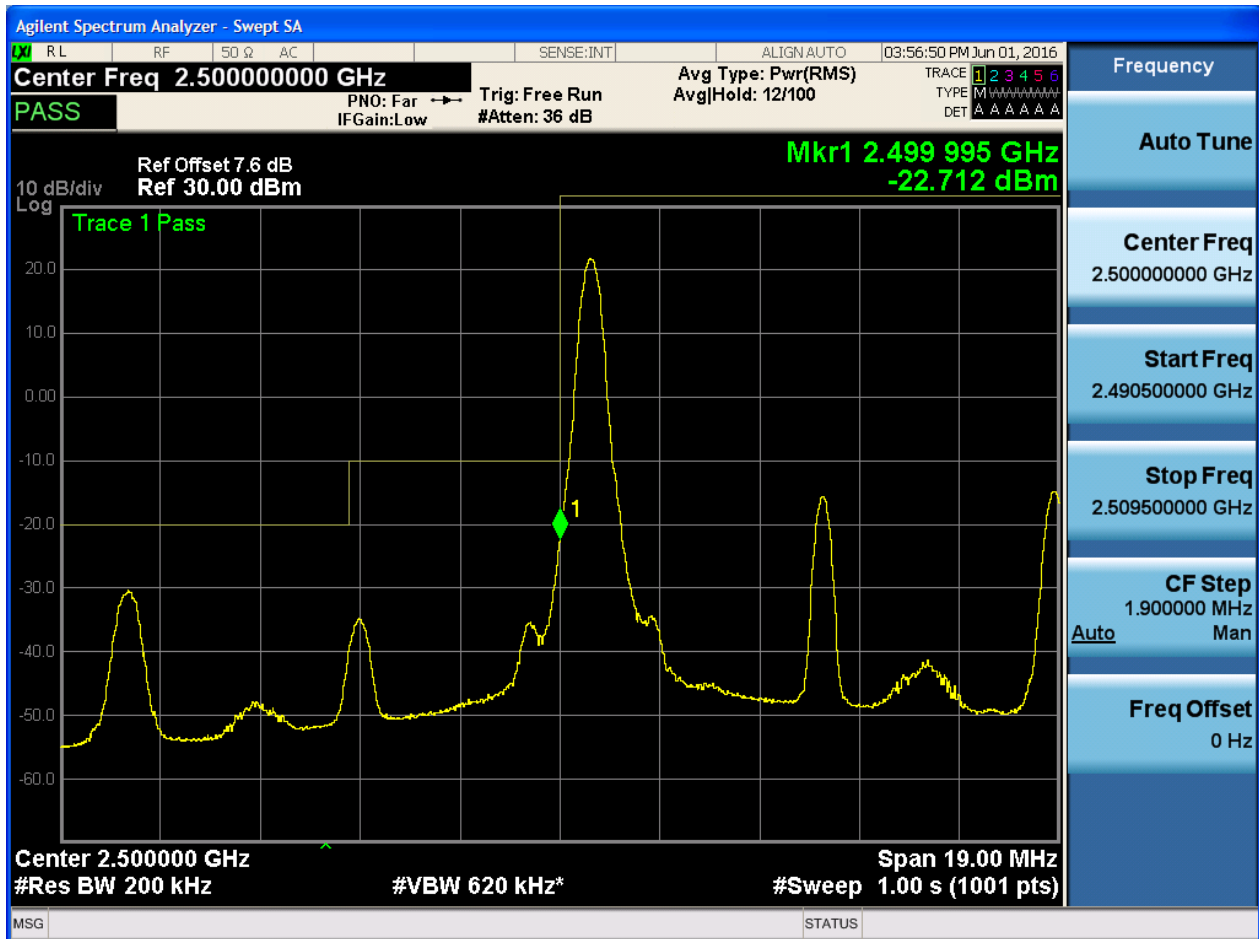




5.1.1.2.2 Test Bandwidth = 10

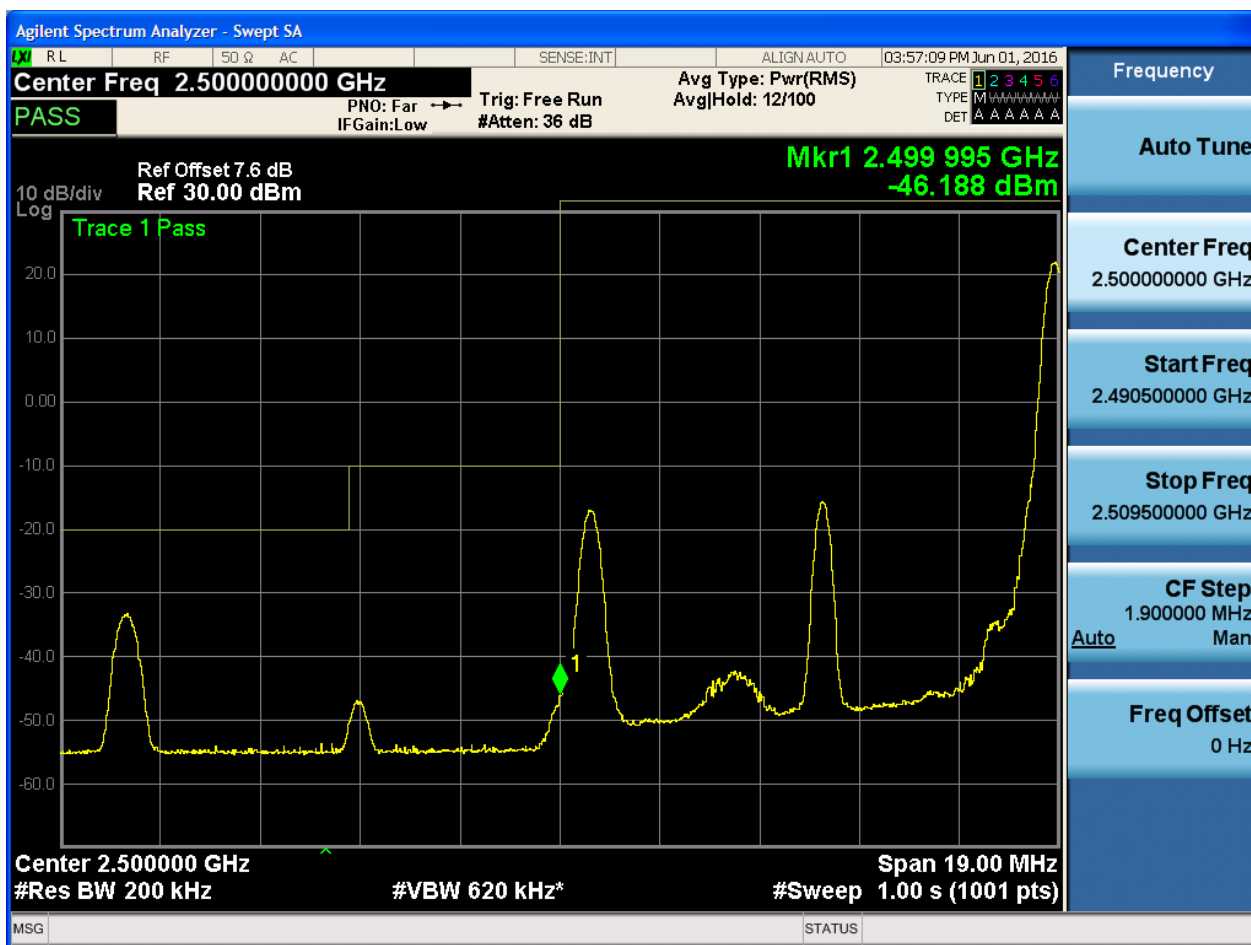
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0





5.1.1.2.2.1.2 Test RB = RB1#49





5.1.1.2.2.1.3 Test RB = RB25#13





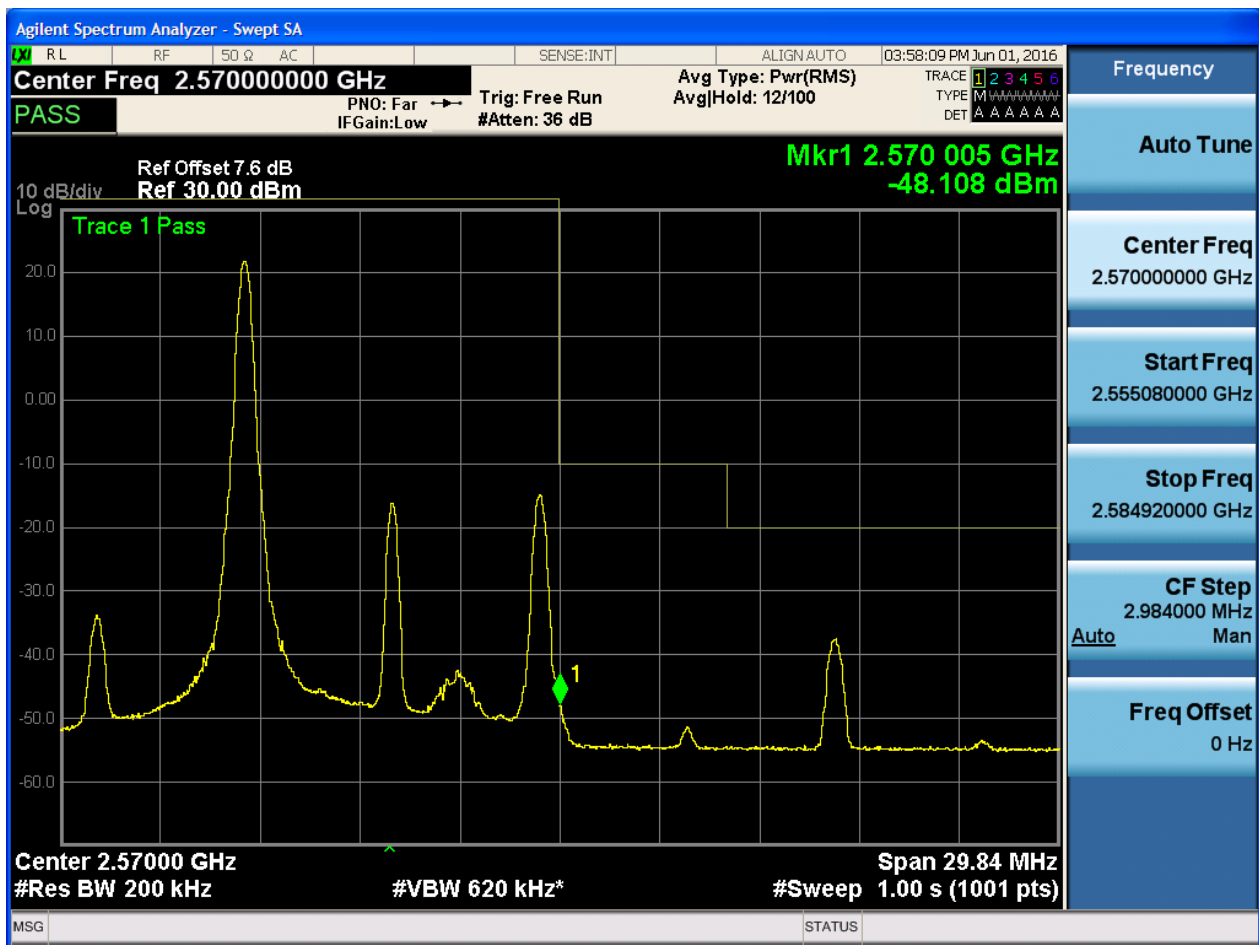
5.1.1.2.2.1.4 Test RB = RB50#0





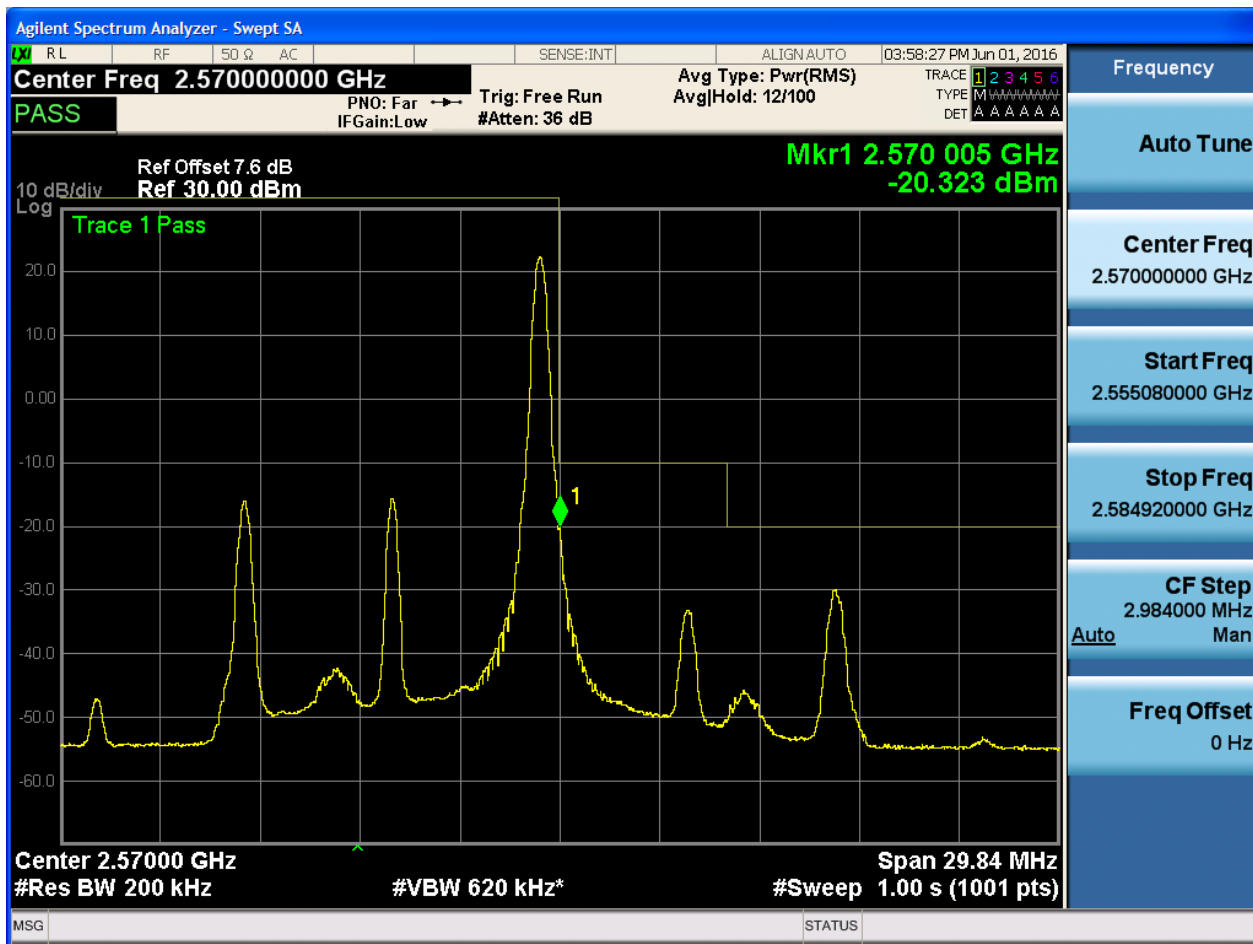
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



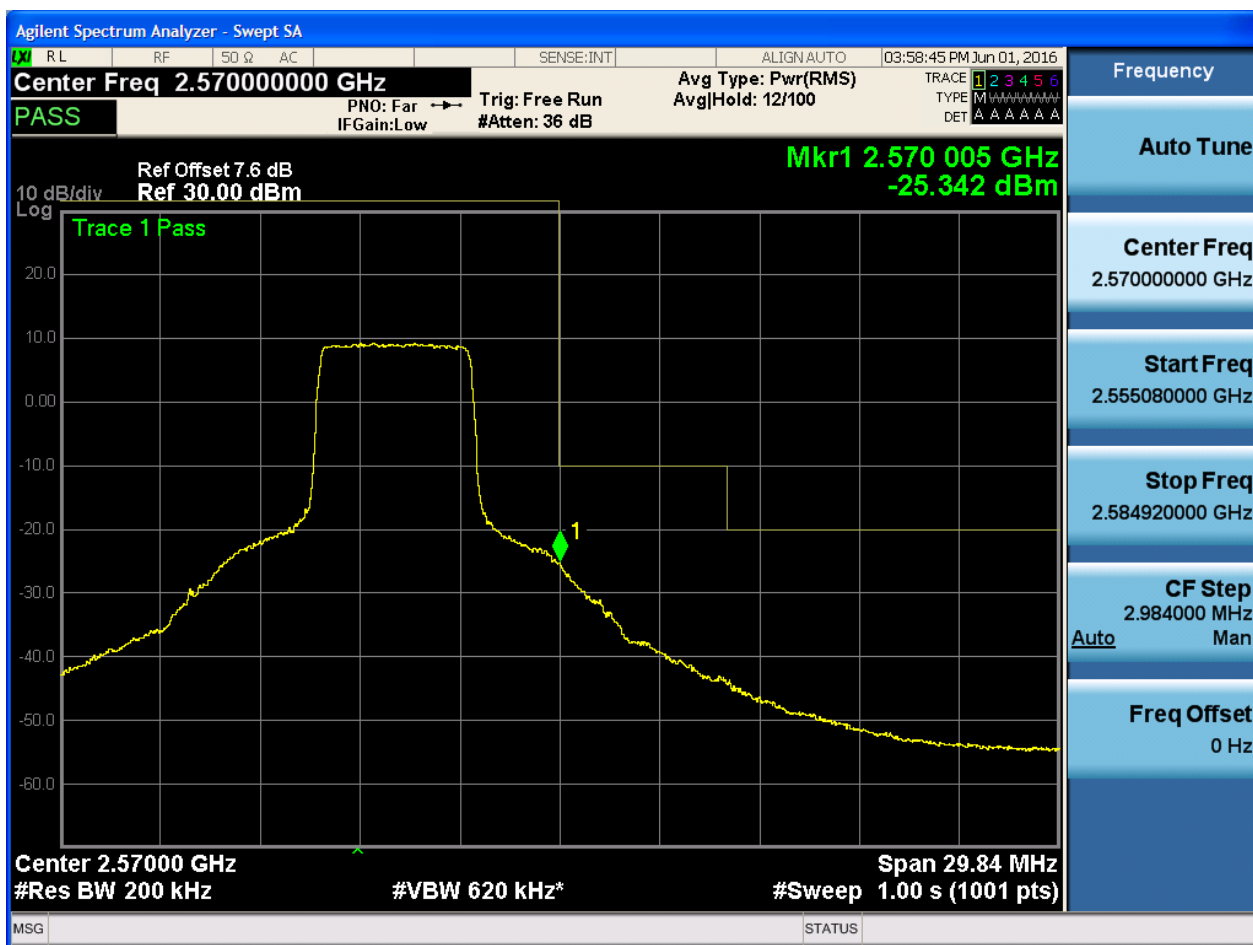


5.1.1.2.2.2 Test RB = RB1#49





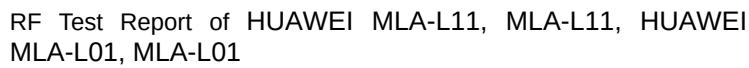
5.1.1.2.2.3 Test RB = RB25#13



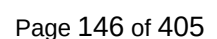


5.1.1.2.2.4 Test RB = RB50#0



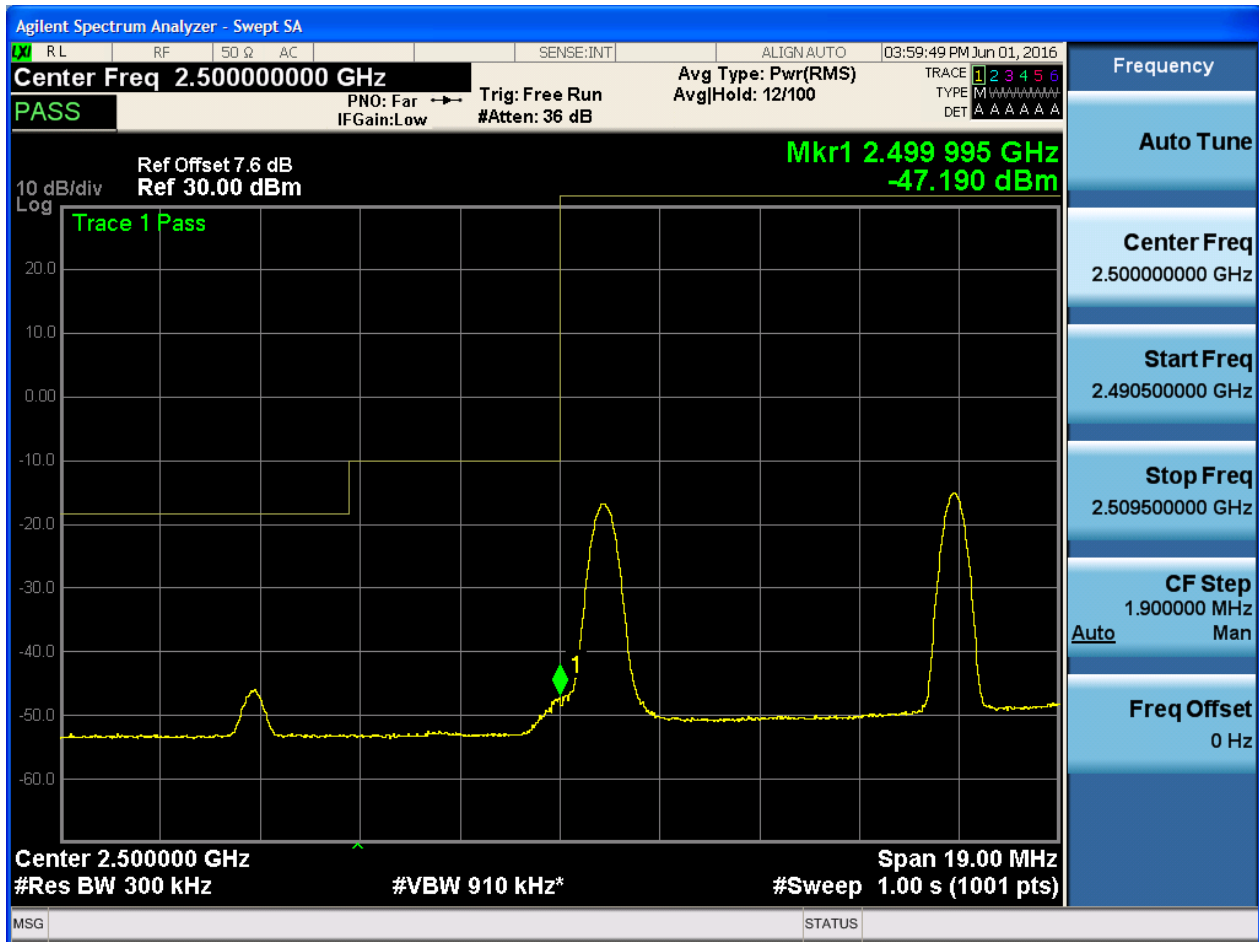


5.1.1.2.3.1.1 Test RB = RB1#0





5.1.1.2.3.1.2 Test RB = RB1#74





5.1.1.2.3.1.3 Test RB = RB36#18





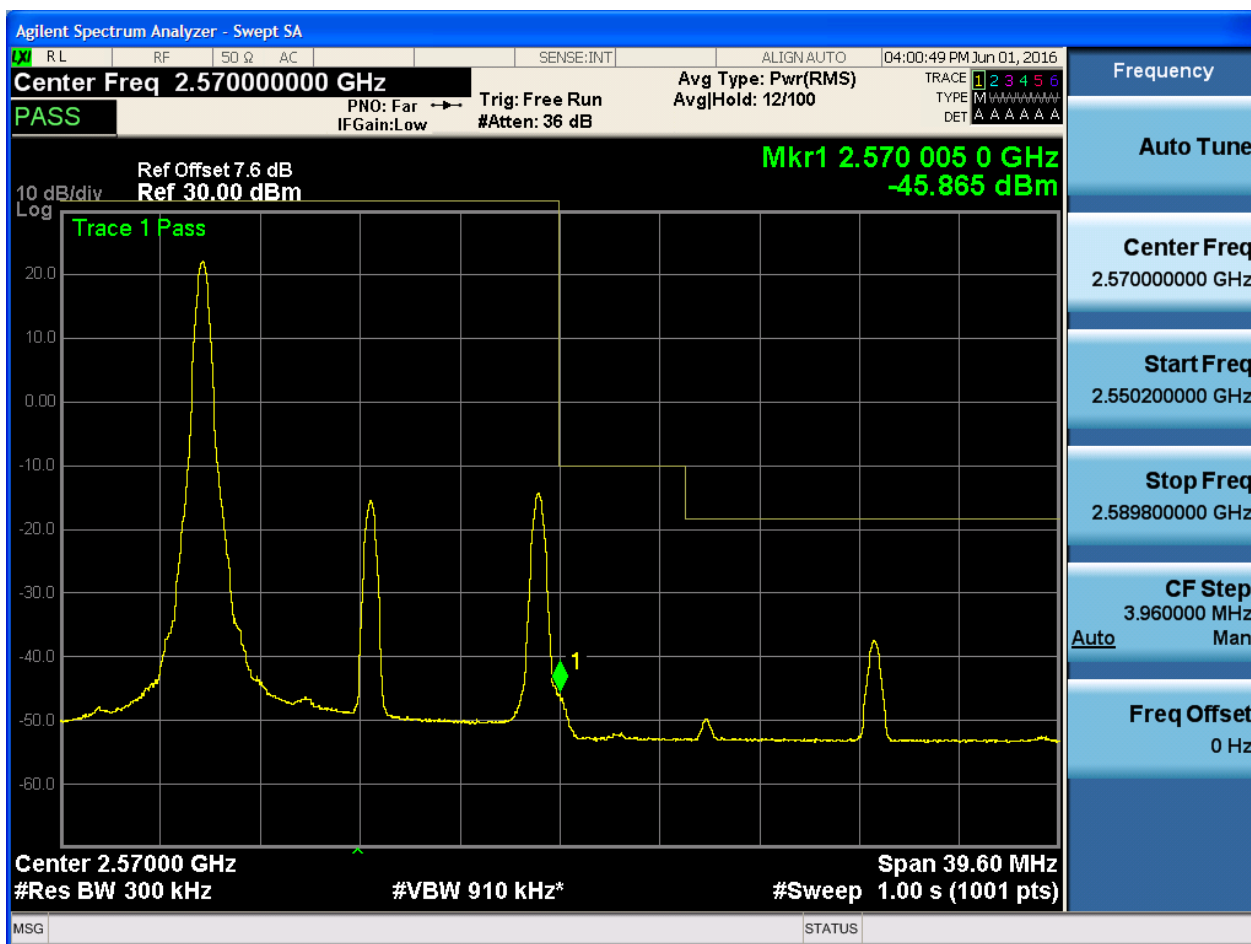
5.1.1.2.3.1.4 Test RB = RB75#0





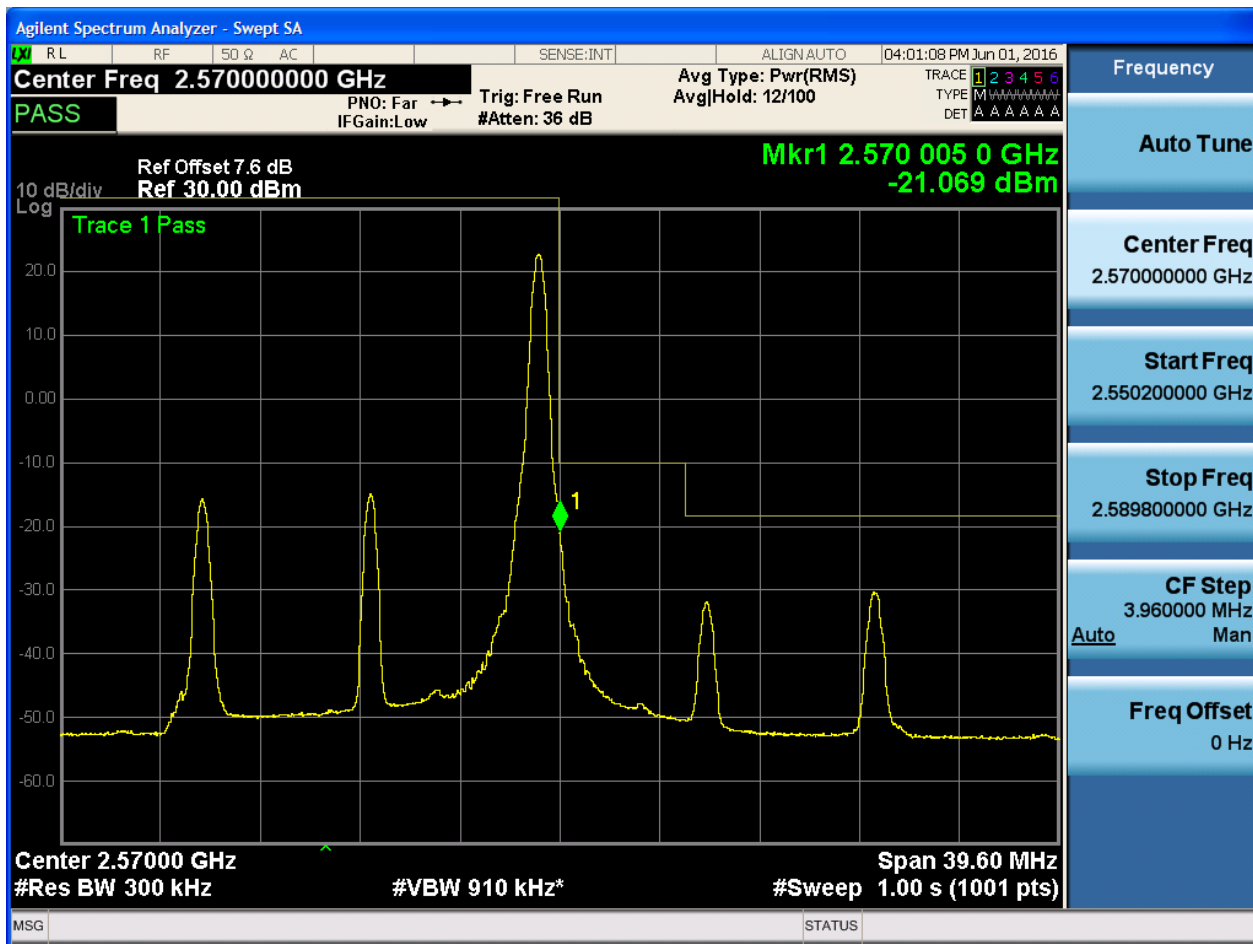
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#74





5.1.1.2.3.2.3 Test RB = RB36#18





5.1.1.2.3.2.4 Test RB = RB75#0

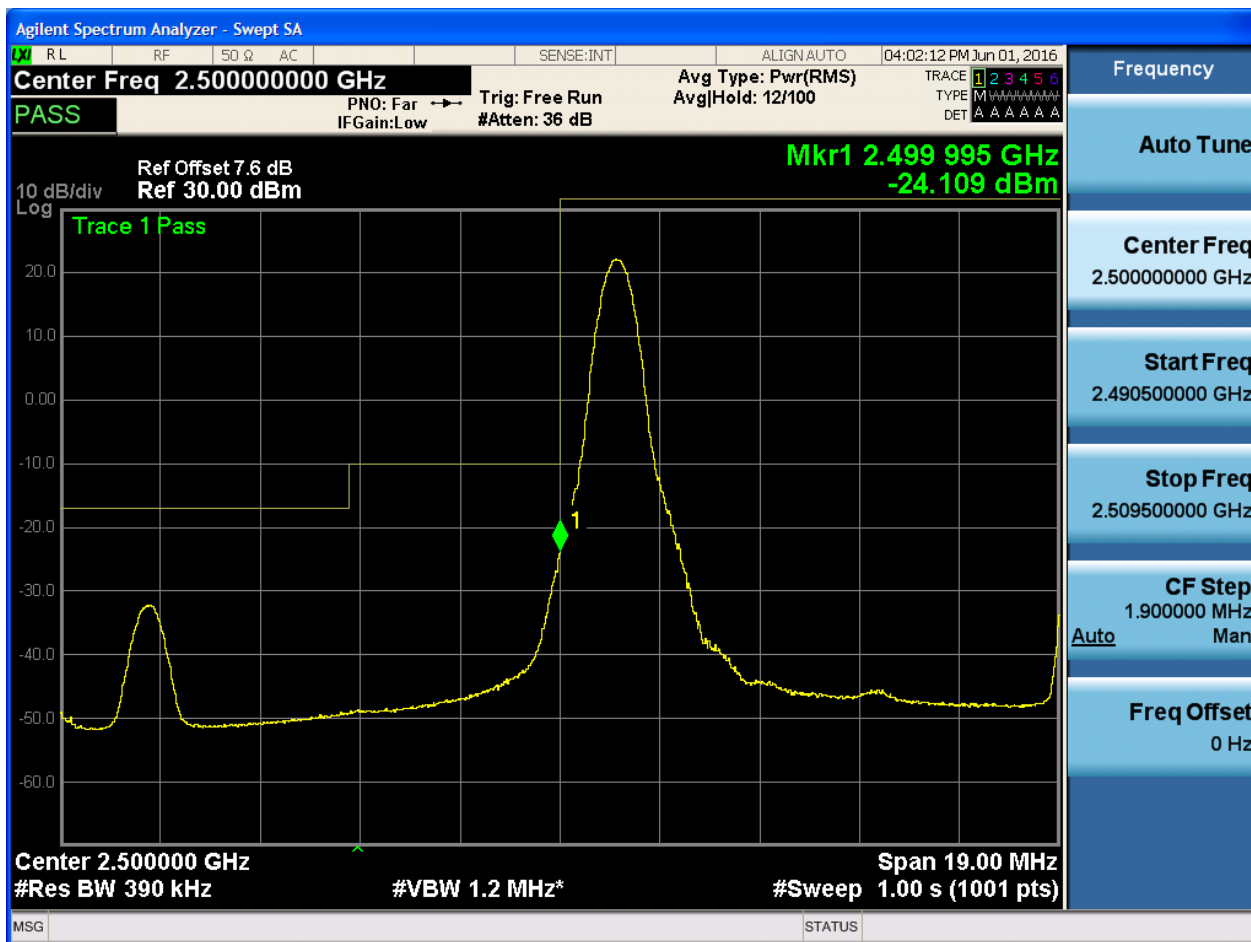




5.1.1.2.4 Test Bandwidth = 20

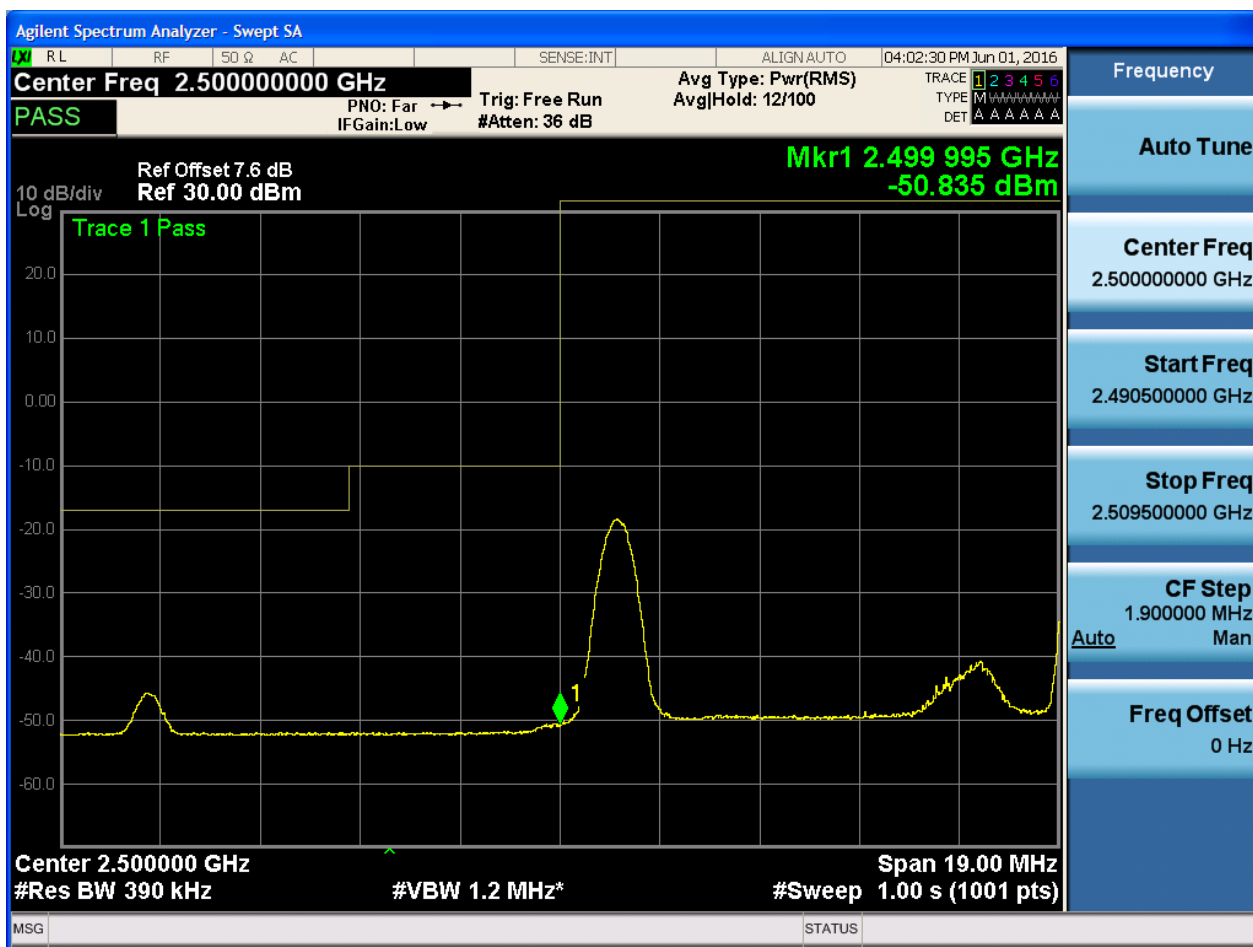
5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0





5.1.1.2.4.1.2 Test RB = RB1#99





5.1.1.2.4.1.3 Test RB = RB50#25





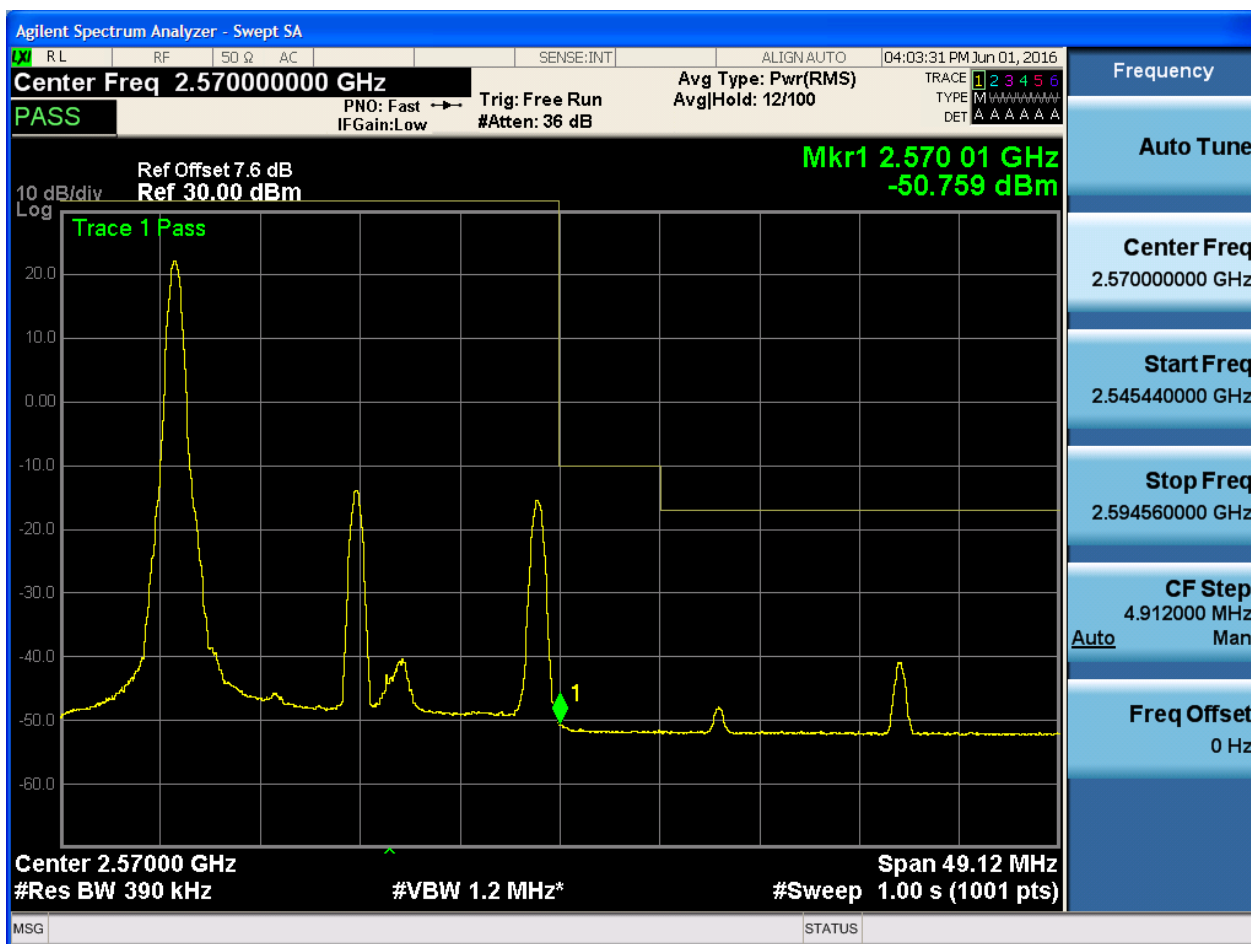
5.1.1.2.4.1.4 Test RB = RB100#0





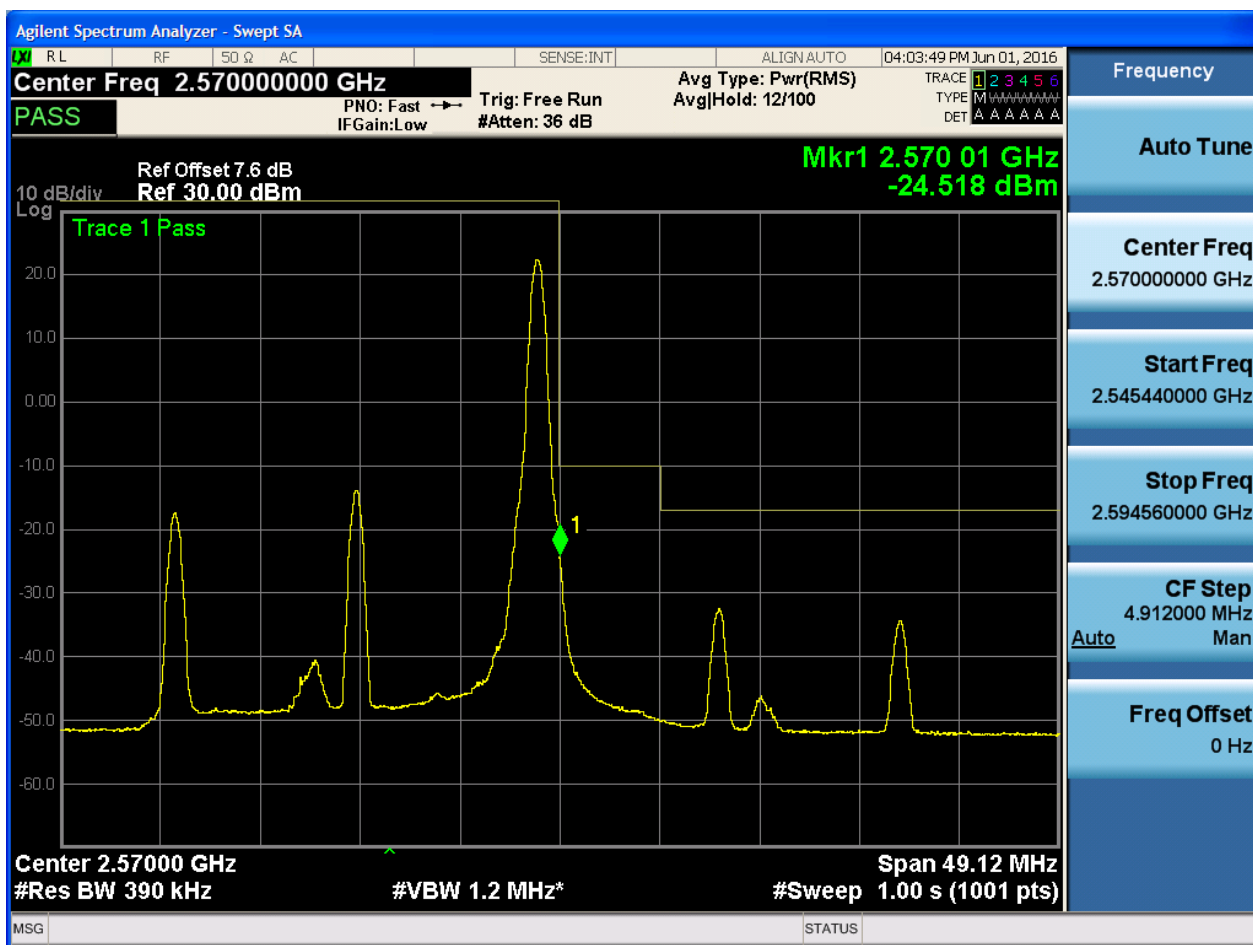
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0





5.1.1.2.4.2.2 Test RB = RB1#99





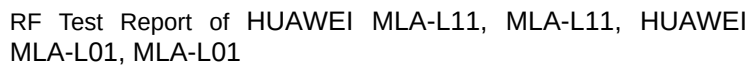
5.1.1.2.4.2.3 Test RB = RB50#25



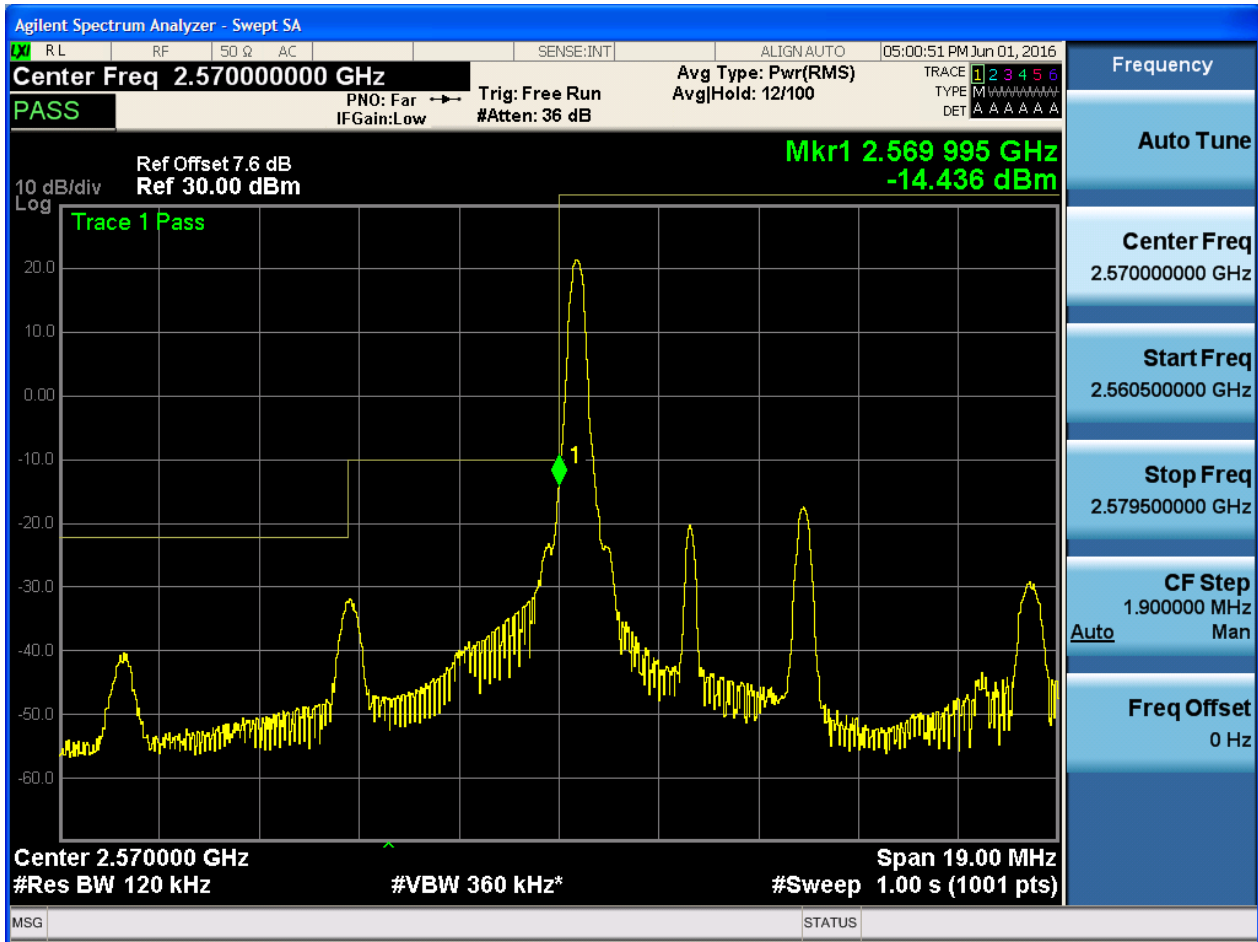


5.1.1.2.4.2.4 Test RB = RB100#0



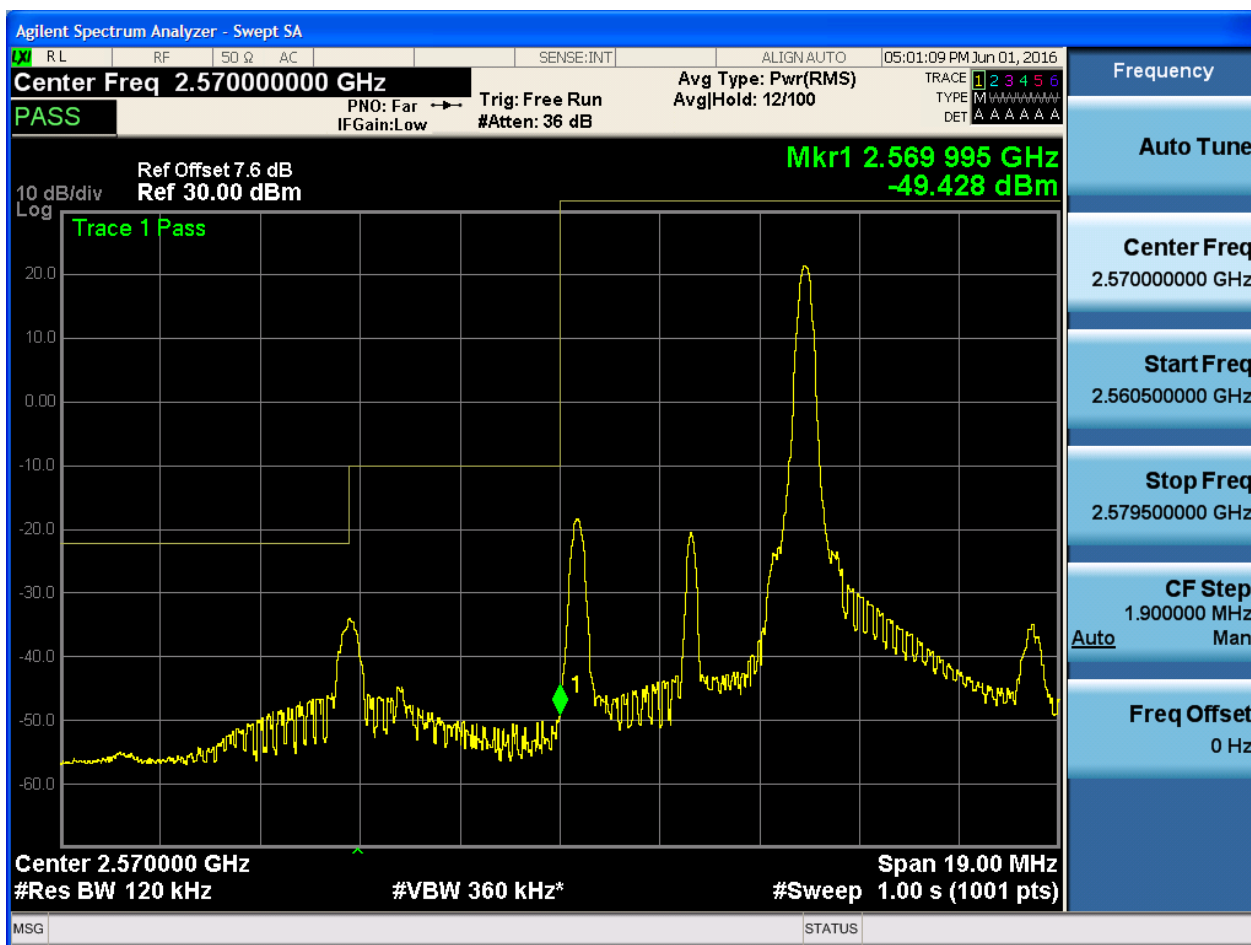


5.1.2.1.1.1.1 Test RB = RB1#0



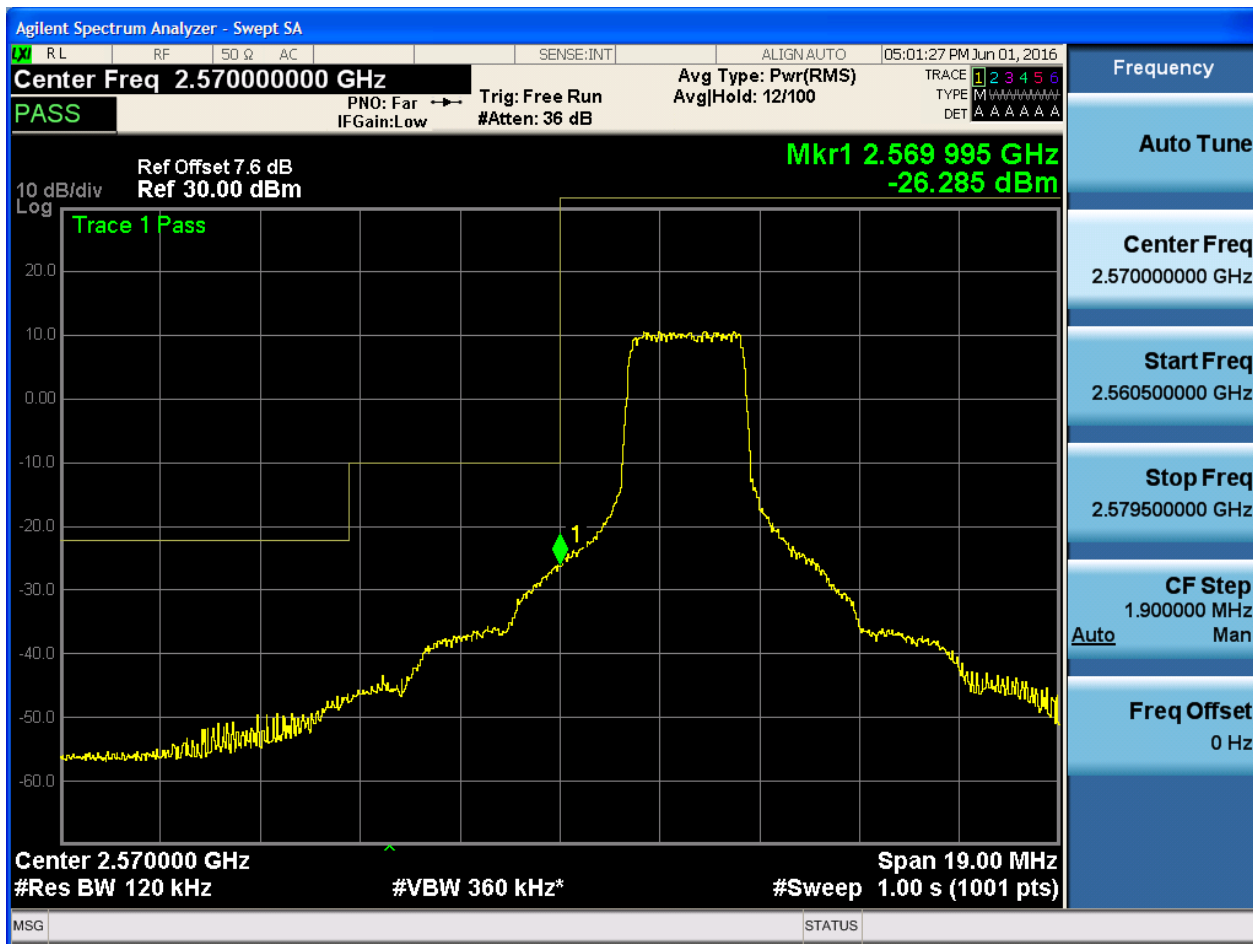


5.1.2.1.1.2 Test RB = RB1#24





5.1.2.1.1.3 Test RB = RB12#6





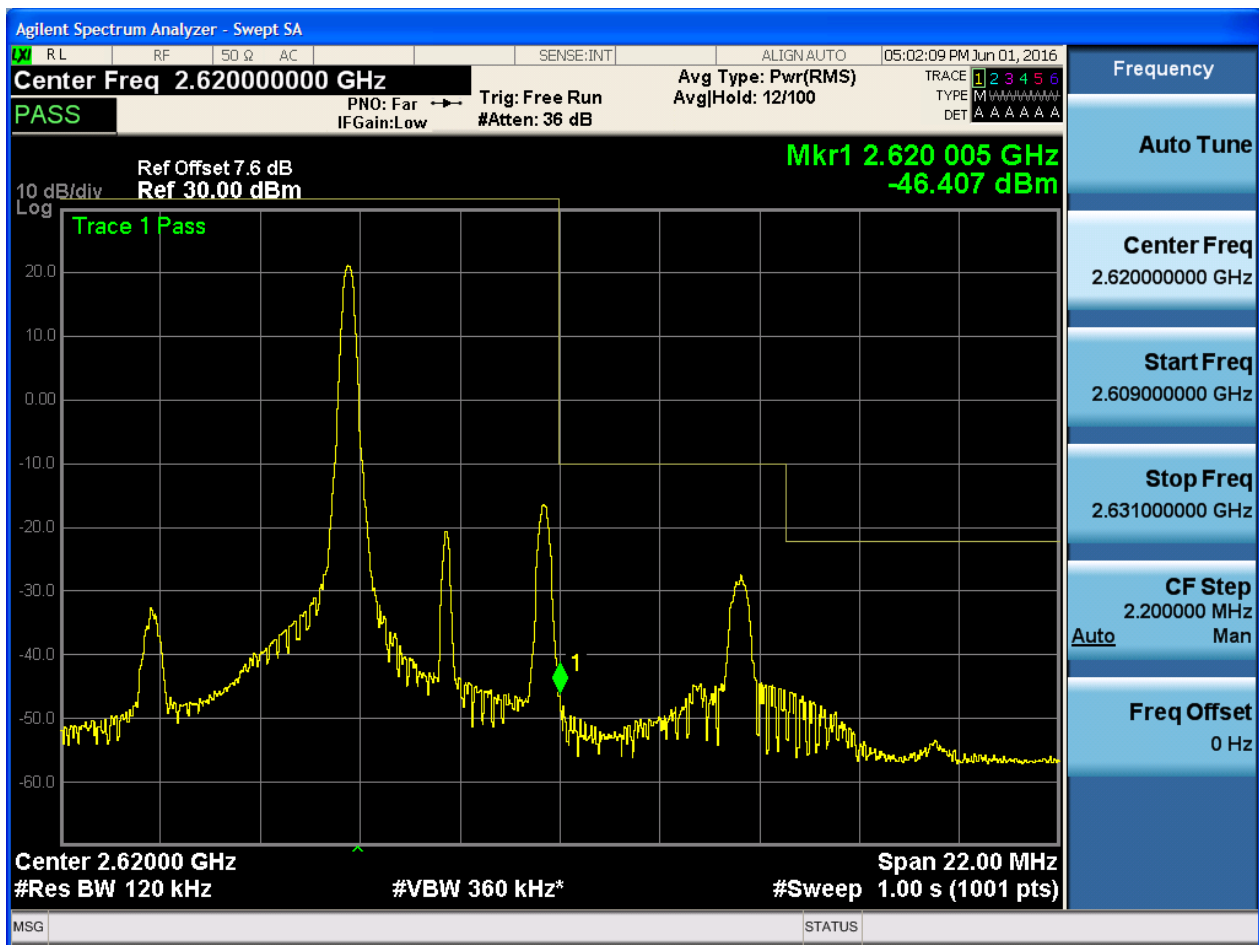
5.1.2.1.1.4 Test RB = RB25#0

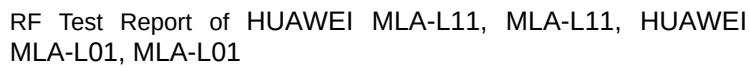




5.1.2.1.1.2 Test Channel = HCH

5.1.2.1.1.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.62000000 GHz

Ref Offset 7.6 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-14.898 dBm

Trace 1 Pass

Center 2.62000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 22.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.609000000 GHz

Stop Freq
2.631000000 GHz

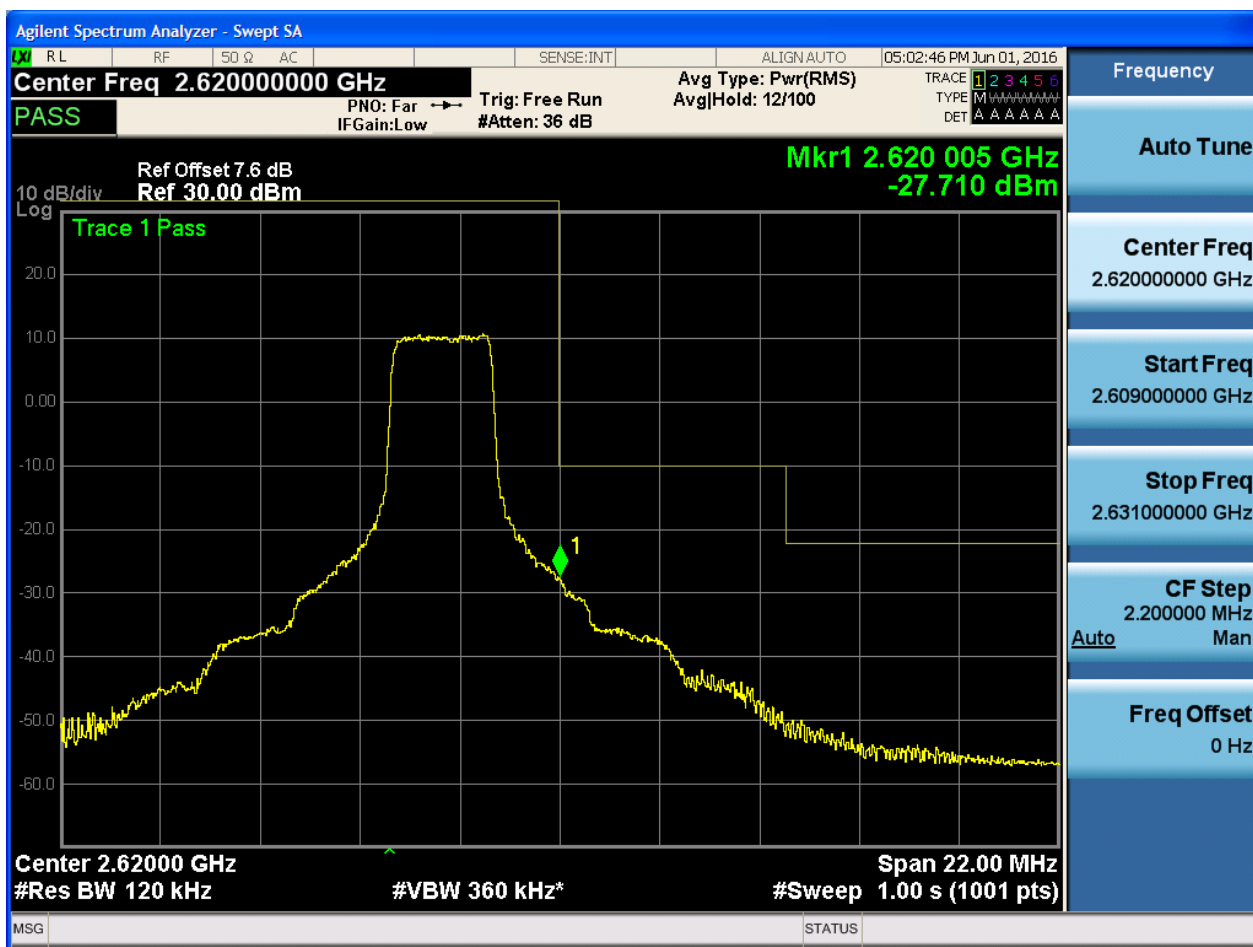
CF Step
2.200000 MHz
Man

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer in a swept SA mode. The main display is a frequency spectrum plot with a yellow trace. The x-axis represents frequency, ranging from 2.609 GHz to 2.631 GHz, with a center frequency of 2.620 GHz. The y-axis represents power in dBm, ranging from -60.0 to 20.0. A prominent peak is visible at 2.620005 GHz, marked with a green diamond and labeled 'Mkr1 2.620 005 GHz -14.898 dBm'. The trace is labeled 'Trace 1 Pass'. The plot shows a noisy baseline with several smaller peaks. The right side of the screen features a blue sidebar with various settings and parameters, including 'Auto Tune', 'Center Freq', 'Start Freq', 'Stop Freq', 'CF Step', and 'Freq Offset'. The top of the screen displays the instrument name 'Agilent Spectrum Analyzer - Swept SA' and the date '05:02:28 PM Jun 01, 2016'.



5.1.2.1.1.2.3 Test RB = RB12#6





5.1.2.1.1.2.4 Test RB = RB25#0

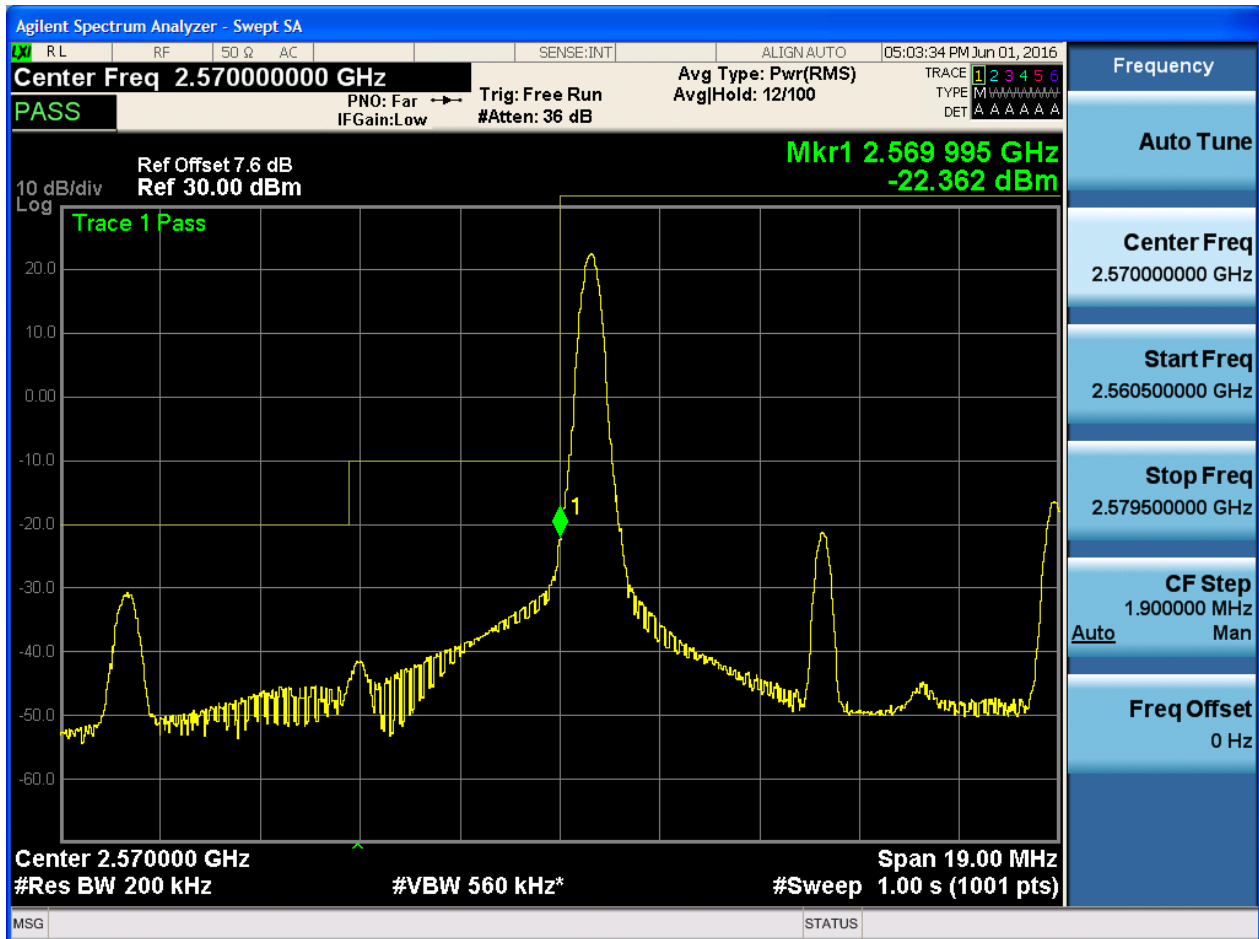




5.1.2.1.2 Test Bandwidth = 10

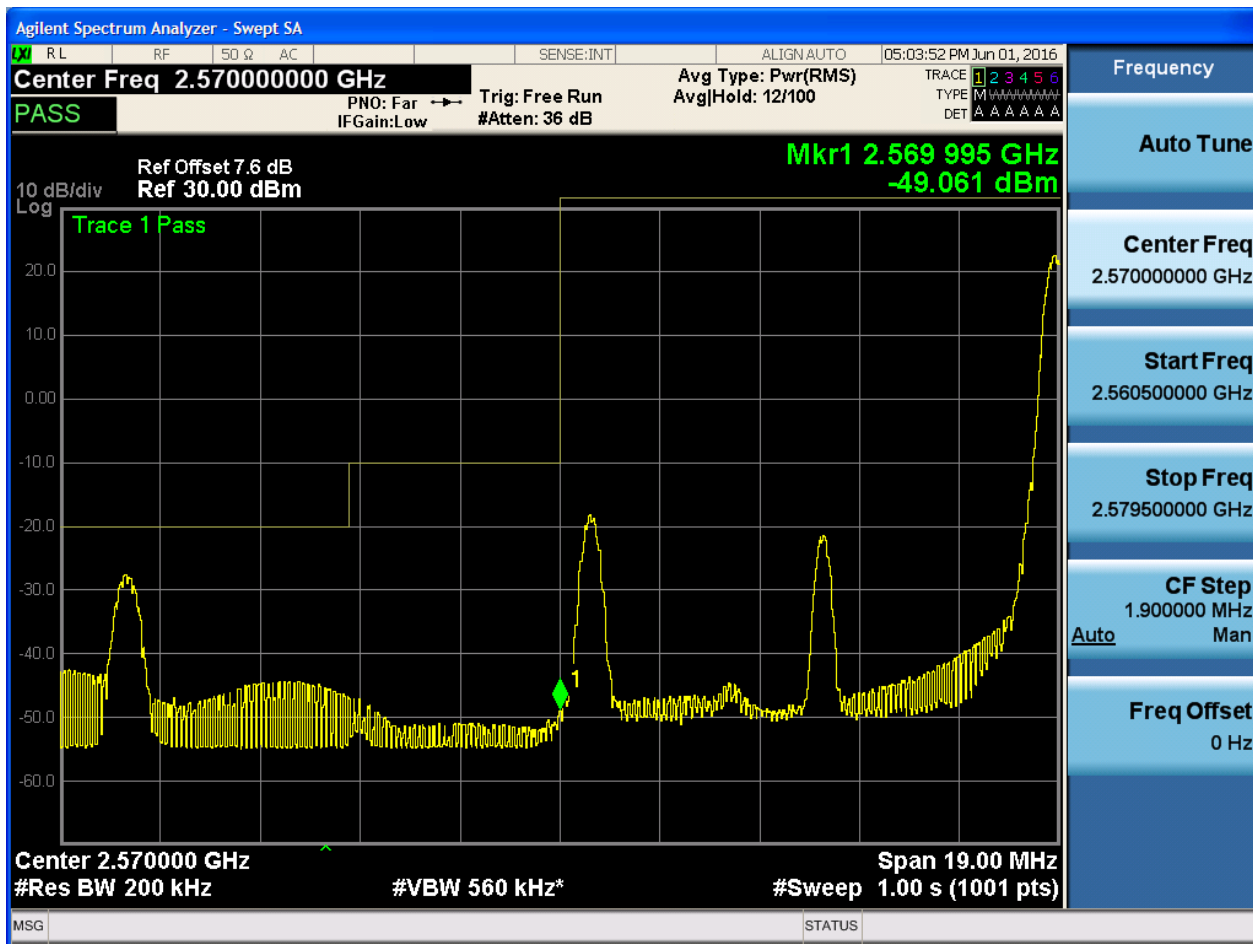
5.1.2.1.2.1 Test Channel = LCH

5.1.2.1.2.1.1 Test RB = RB1#0



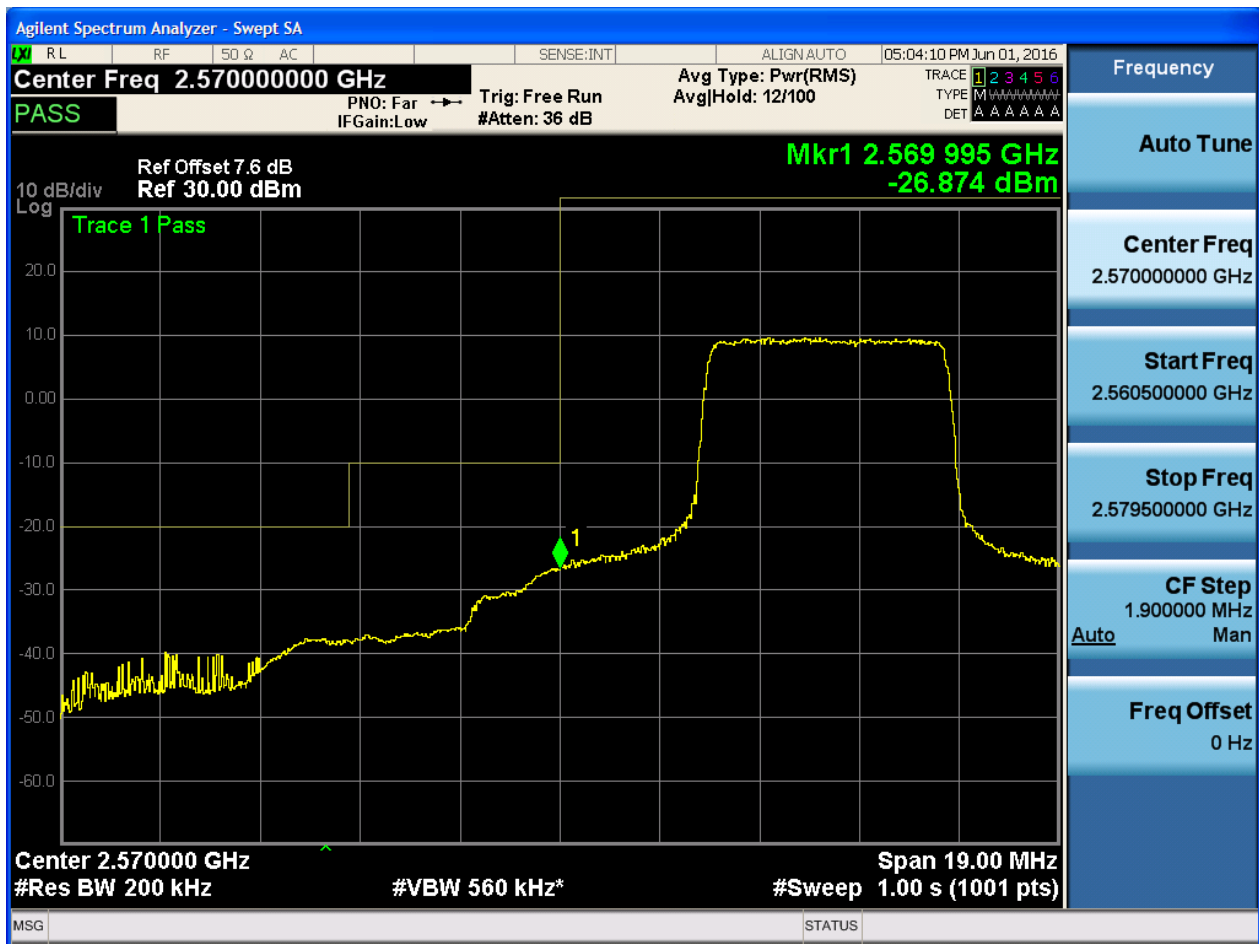


5.1.2.1.2.1.2 Test RB = RB1#49



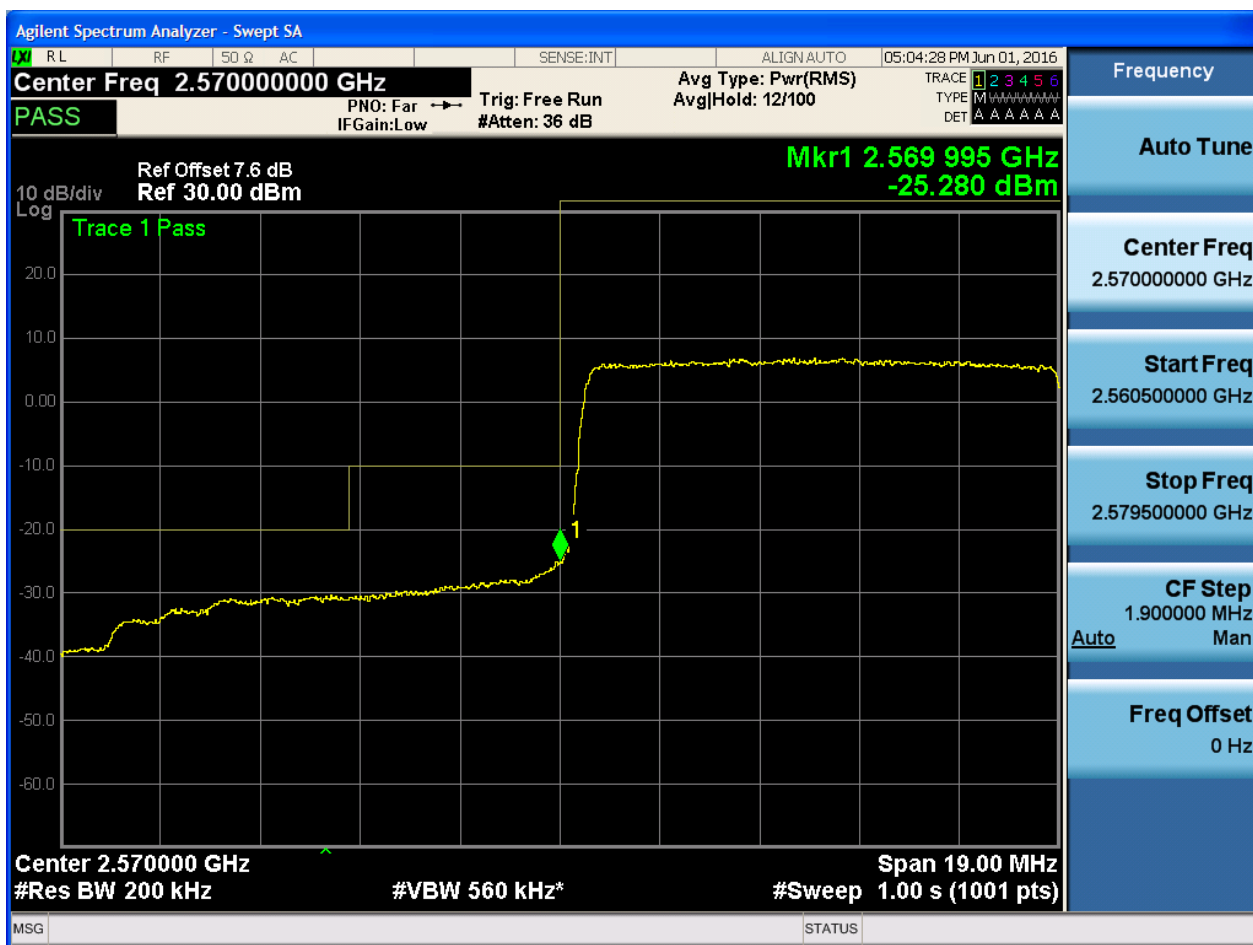


5.1.2.1.2.1.3 Test RB = RB25#13





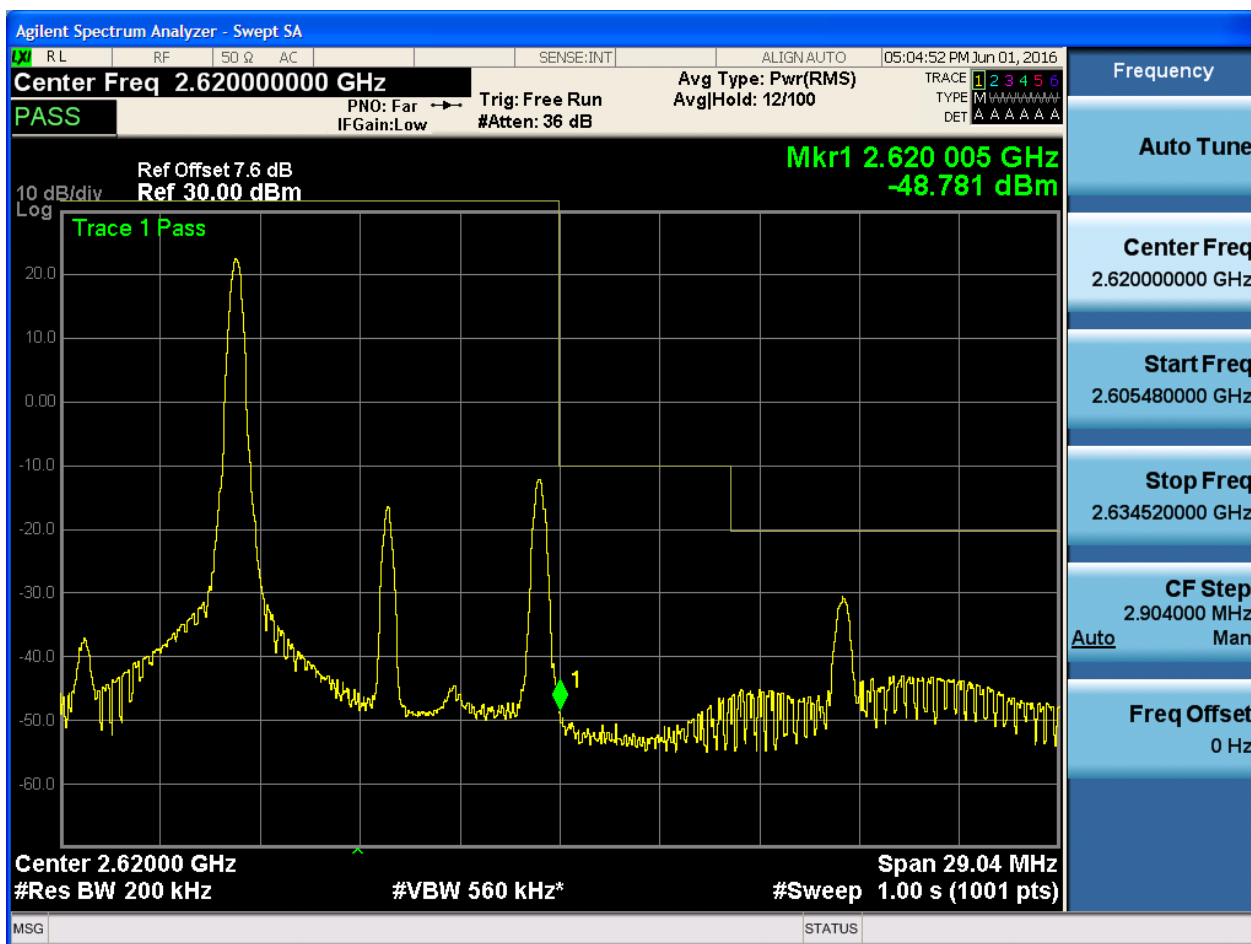
5.1.2.1.2.1.4 Test RB = RB50#0

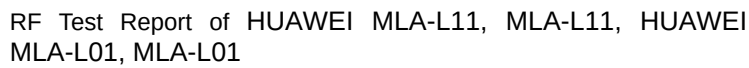




5.1.2.1.2.2 Test Channel = HCH

5.1.2.1.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.62000000 GHz

PASS

Ref Offset 7.6 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-23.353 dBm

Trace 1 Pass

Center 2.62000 GHz
#Res BW 200 kHz
#VBW 560 kHz*
Span 29.04 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.62000000 GHz

Start Freq
2.605480000 GHz

Stop Freq
2.634520000 GHz

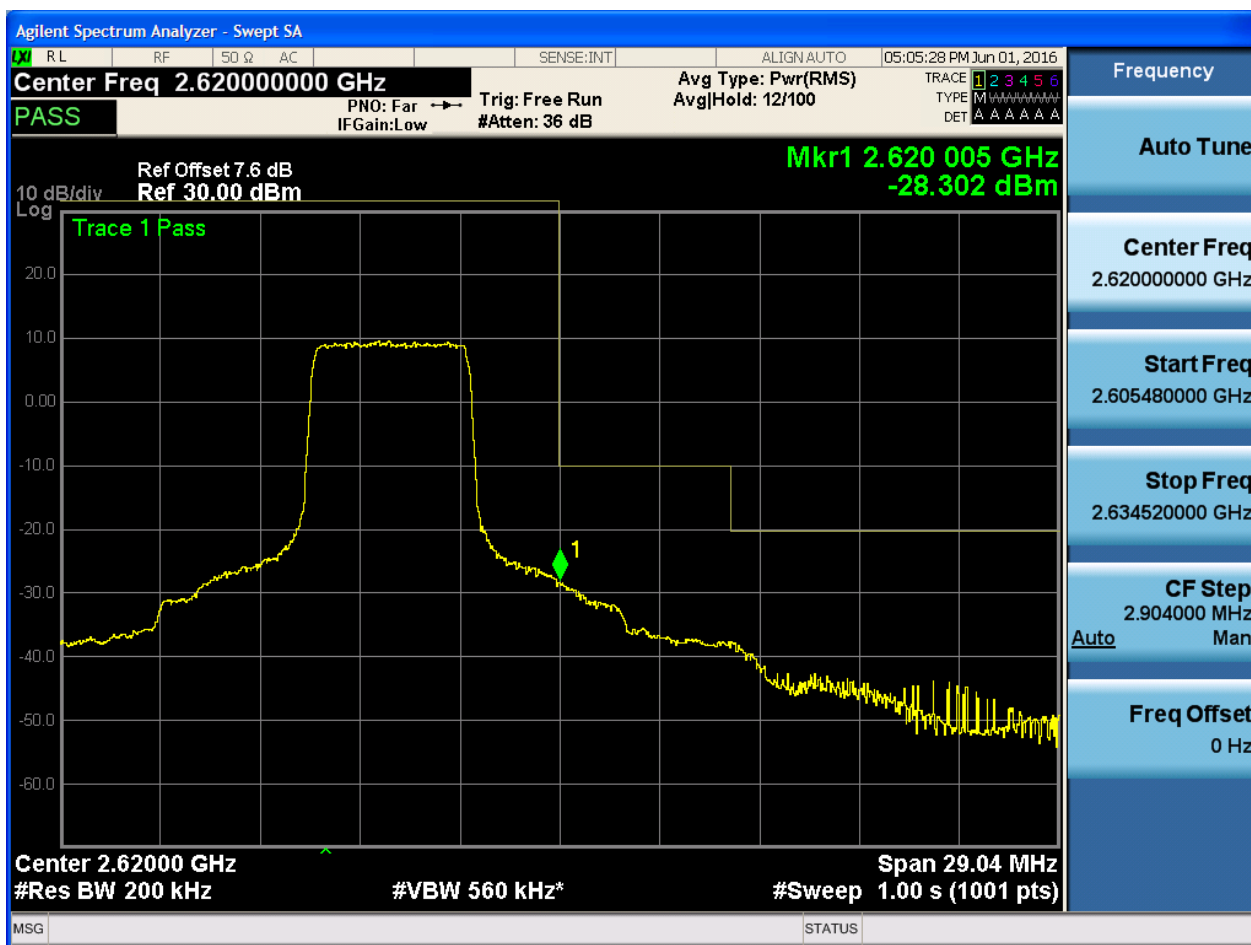
CF Step
2.904000 MHz
Auto Man

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer. The main display is a log-frequency plot with a yellow trace. The x-axis represents frequency, and the y-axis represents power in dBm. A prominent peak is visible at 2.620005 GHz, marked with a green diamond and labeled '1'. The peak power is -23.353 dBm. The display includes various control parameters such as Center Freq (2.62000000 GHz), Span (29.04 MHz), Res BW (200 kHz), and VBW (560 kHz). The status bar at the bottom shows 'MSG' and 'STATUS'.



5.1.2.1.2.2.3 Test RB = RB25#13





5.1.2.1.2.2.4 Test RB = RB50#0

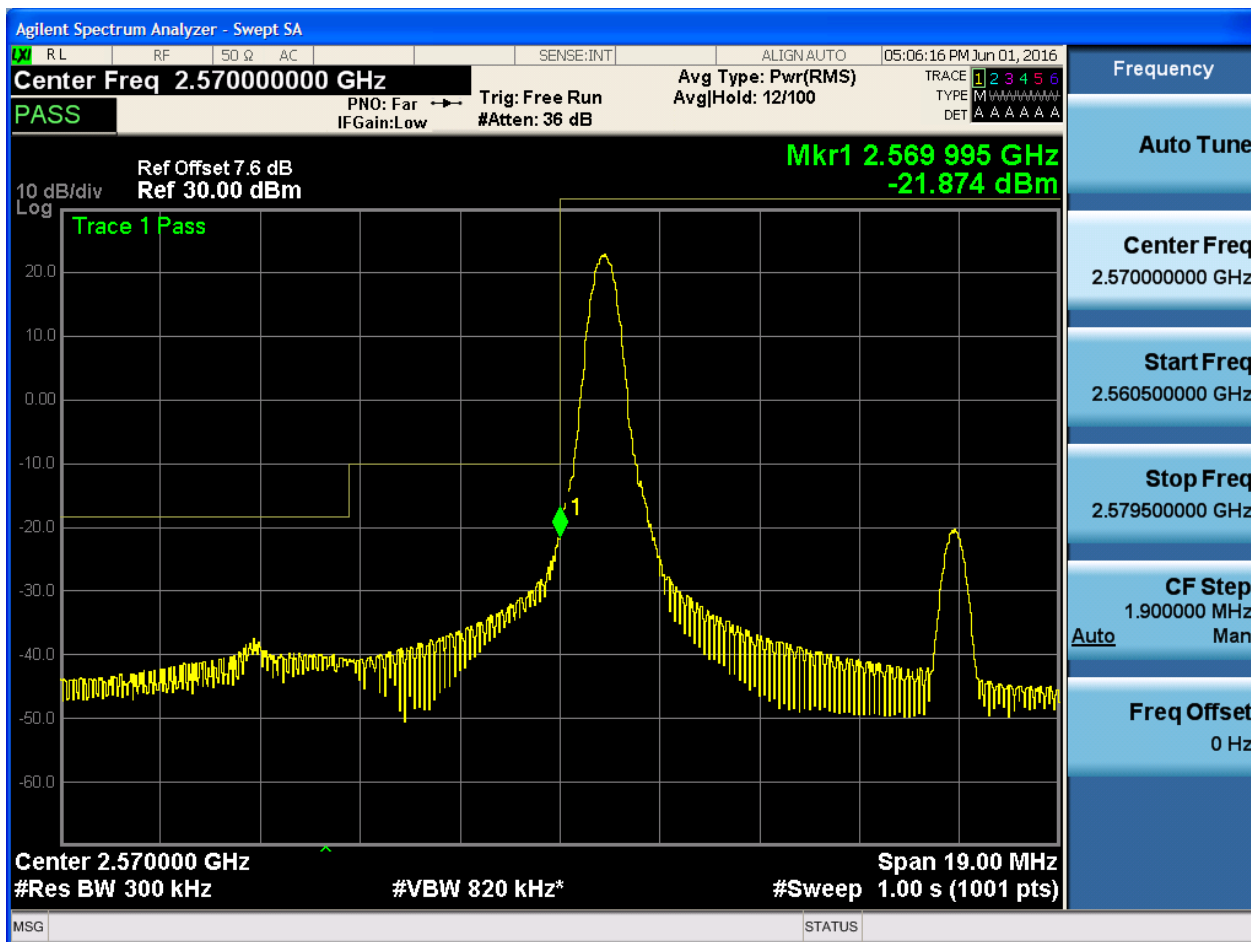




5.1.2.1.3 Test Bandwidth = 15

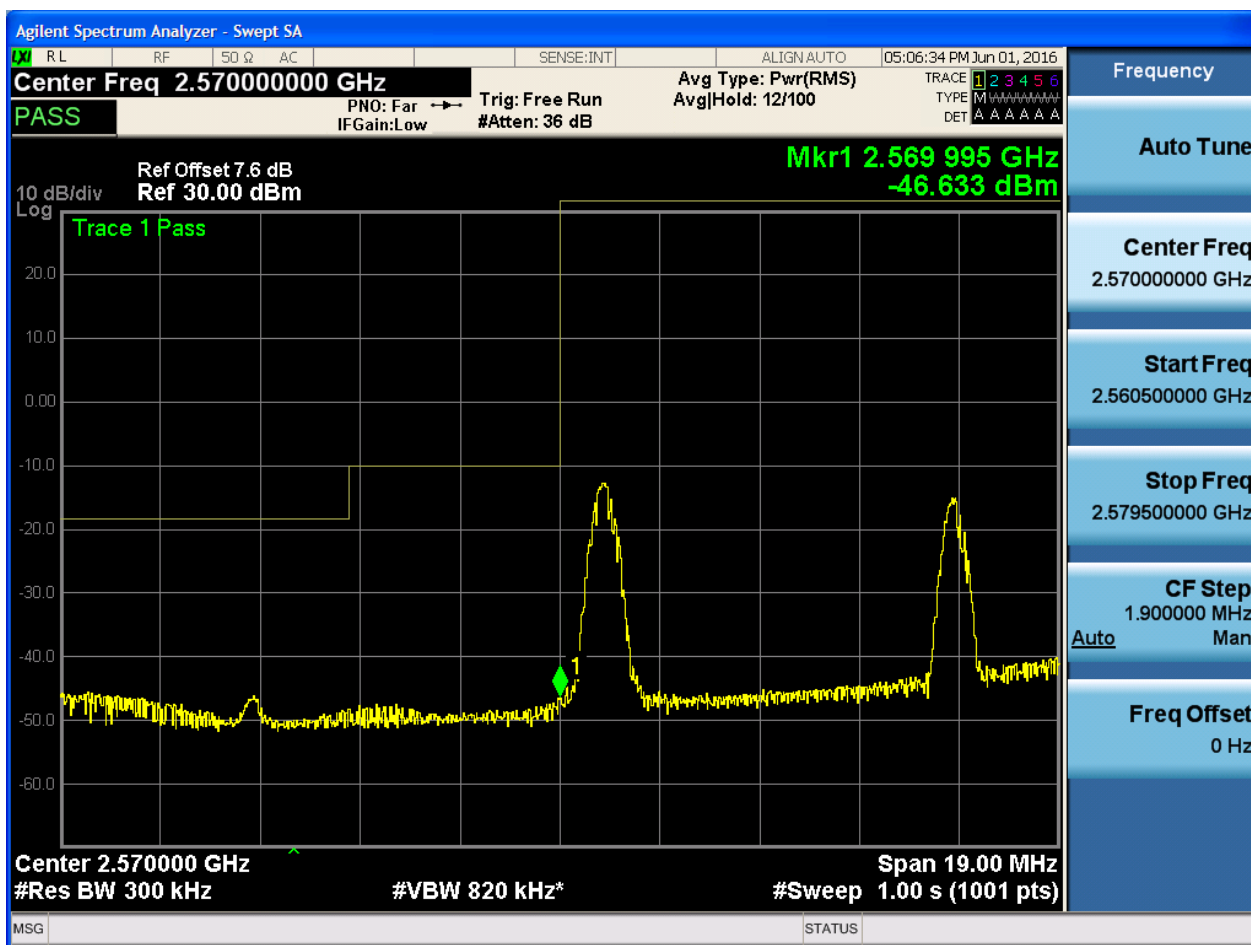
5.1.2.1.3.1 Test Channel = LCH

5.1.2.1.3.1.1 Test RB = RB1#0





5.1.2.1.3.1.2 Test RB = RB1#74





5.1.2.1.3.1.3 Test RB = RB36#18





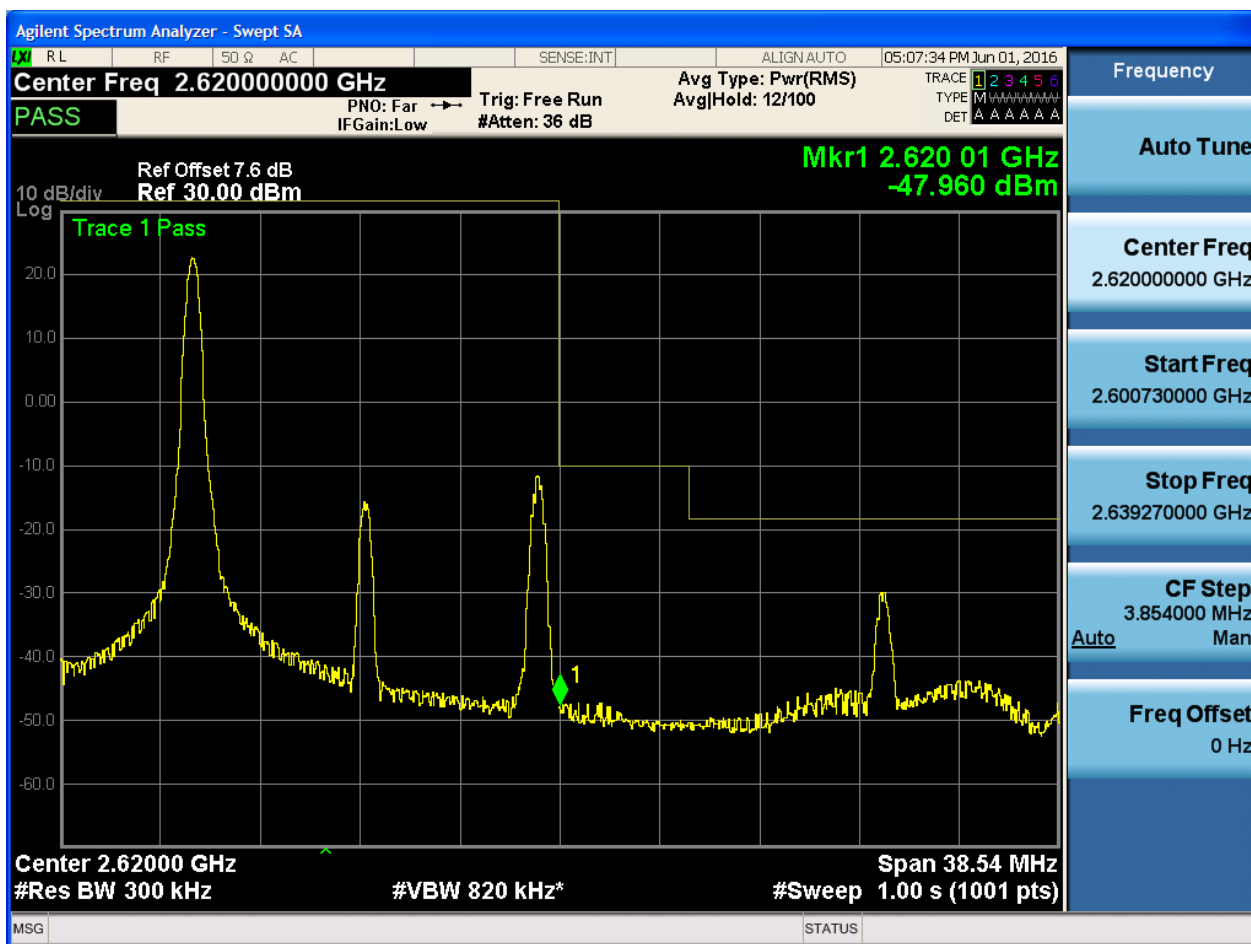
5.1.2.1.3.1.4 Test RB = RB75#0





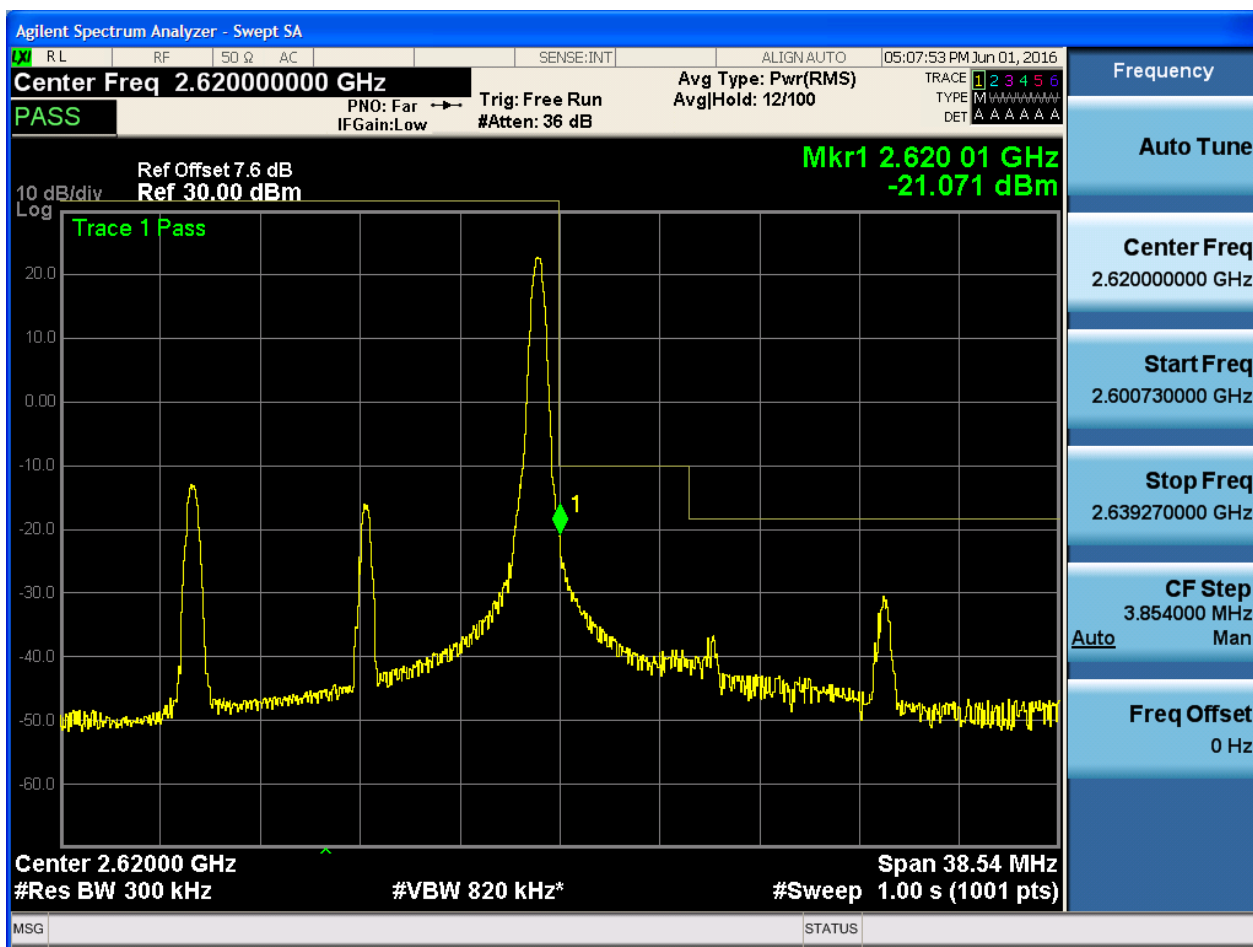
5.1.2.1.3.2 Test Channel = HCH

5.1.2.1.3.2.1 Test RB = RB1#0



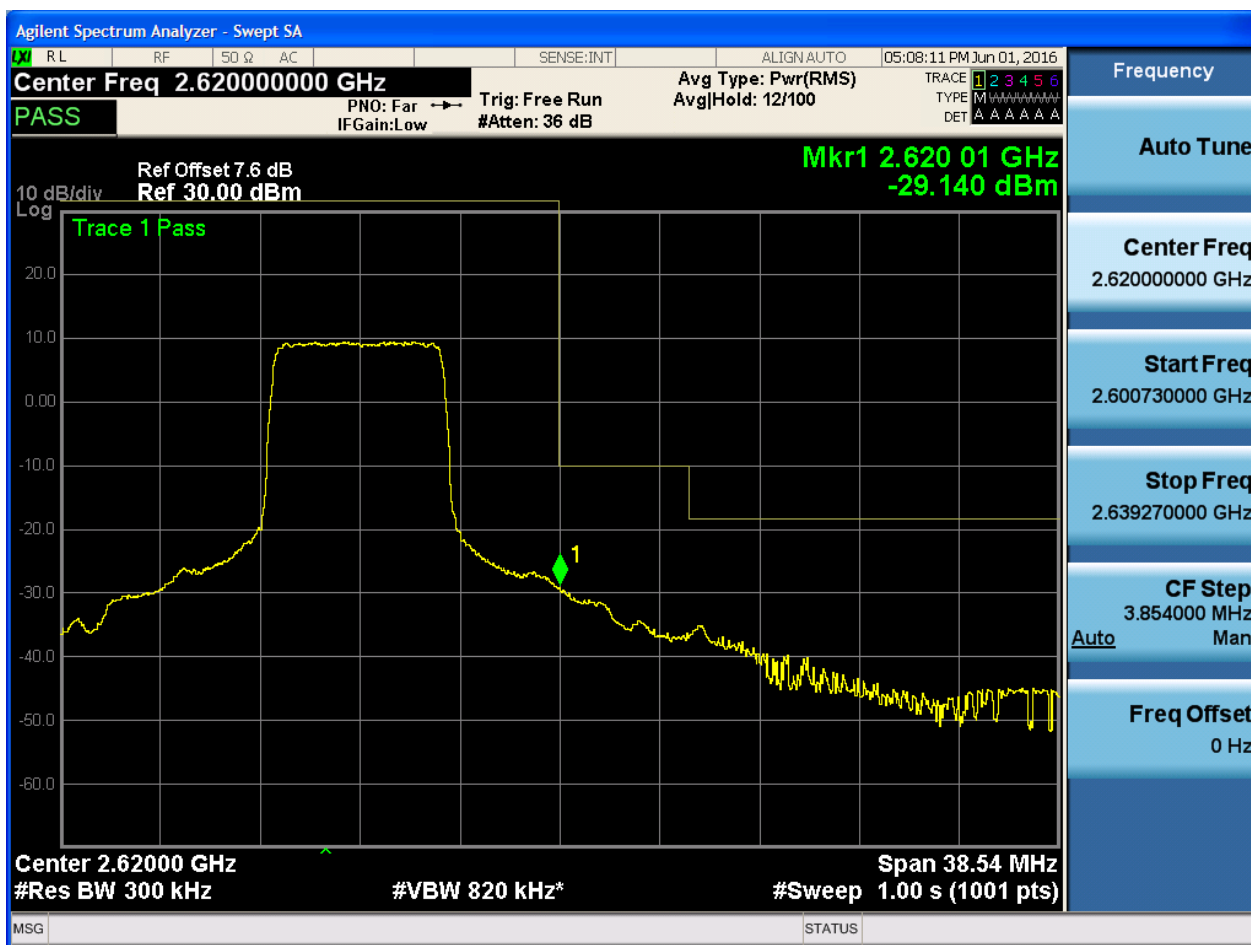


5.1.2.1.3.2.2 Test RB = RB1#74





5.1.2.1.3.2.3 Test RB = RB36#18





5.1.2.1.3.2.4 Test RB = RB75#0

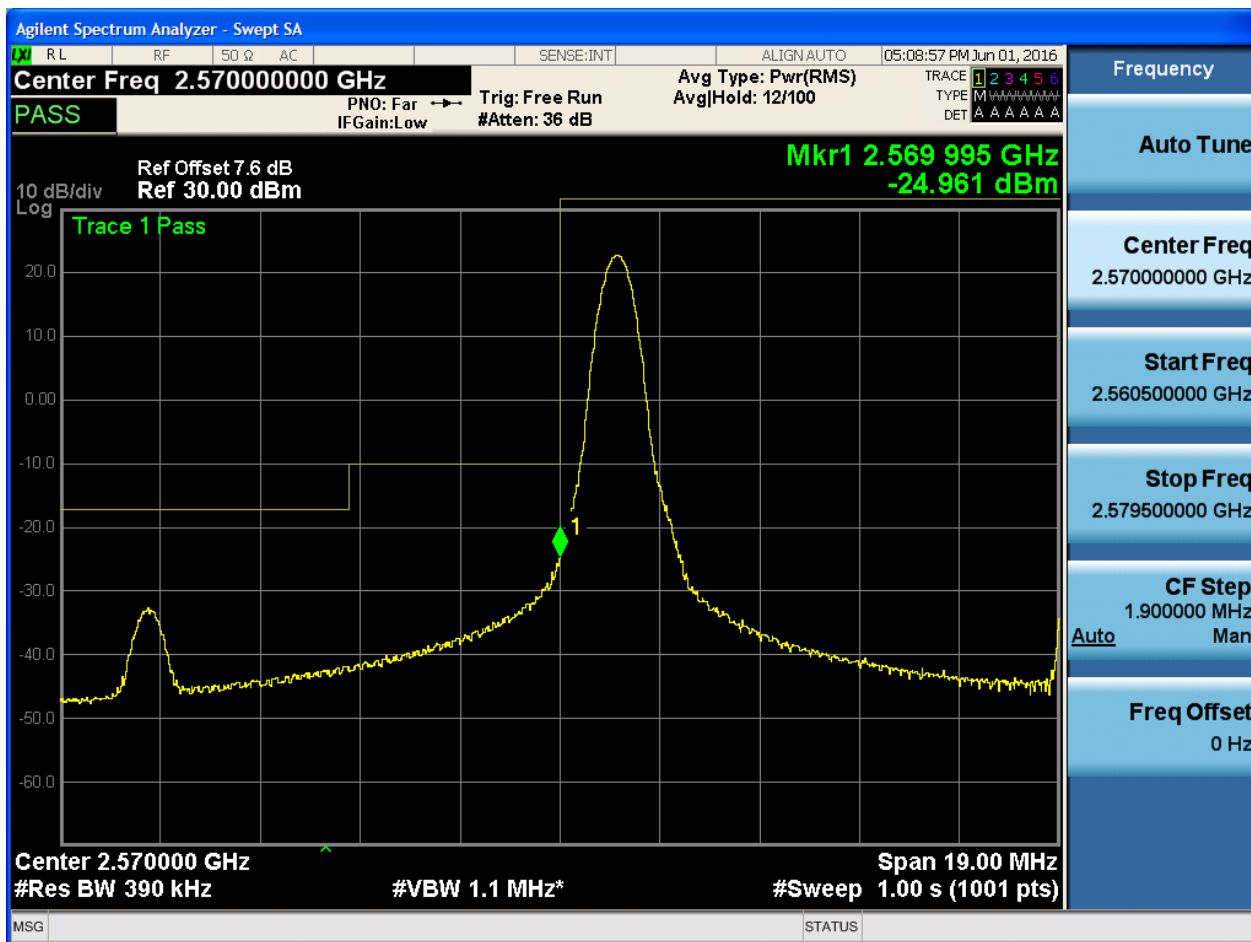




5.1.2.1.4 Test Bandwidth = 20

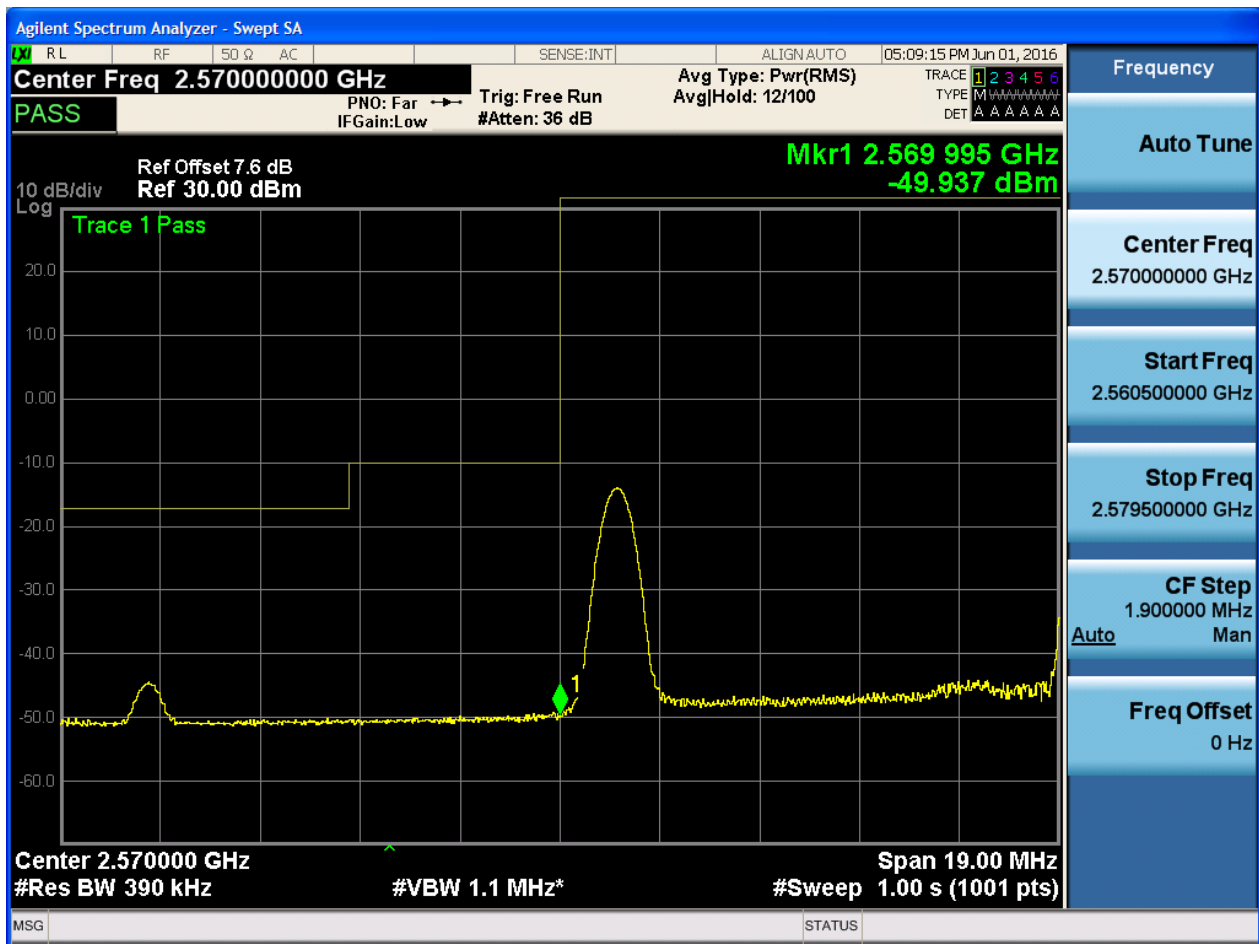
5.1.2.1.4.1 Test Channel = LCH

5.1.2.1.4.1.1 Test RB = RB1#0





5.1.2.1.4.1.2 Test RB = RB1#99



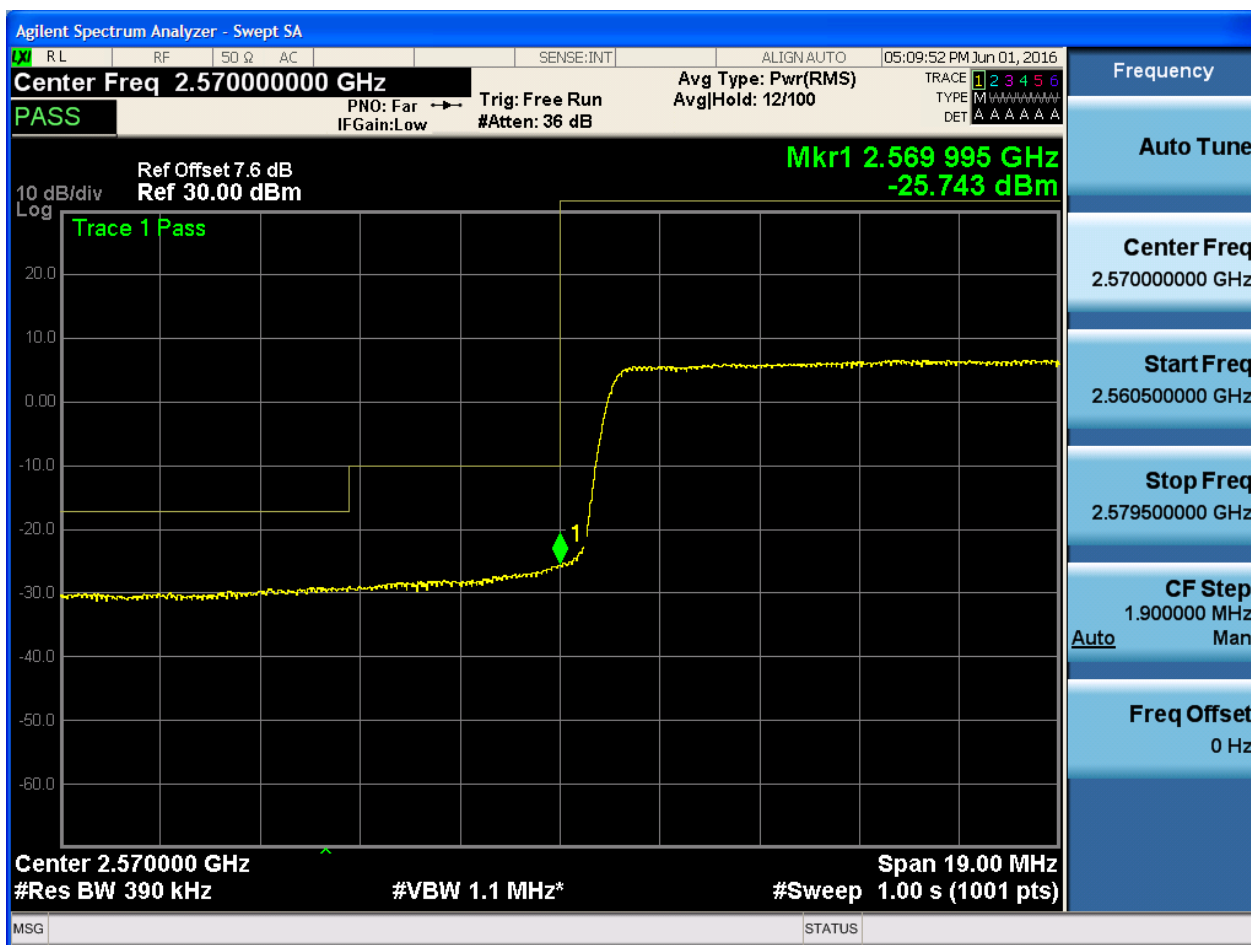


5.1.2.1.4.1.3 Test RB = RB50#25





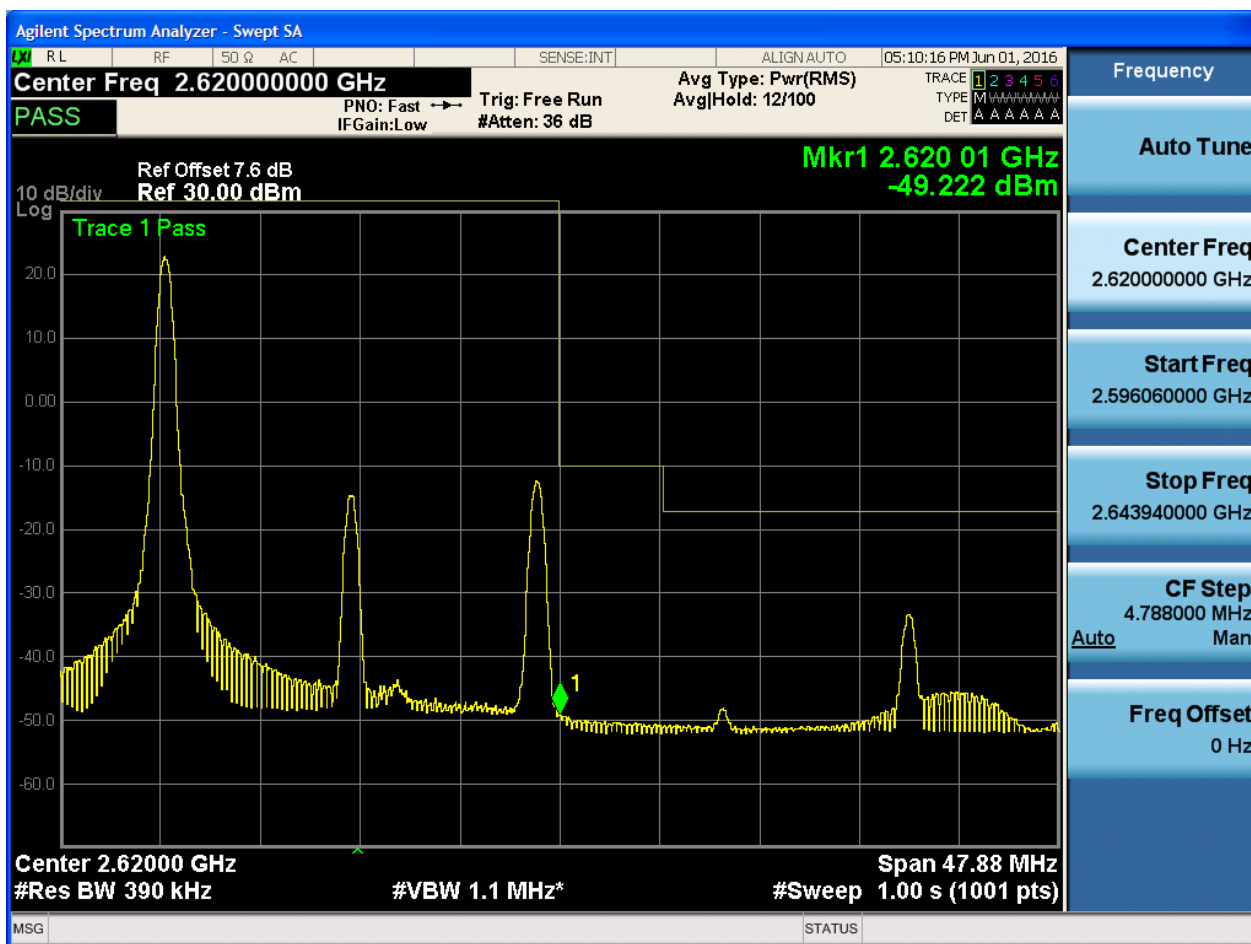
5.1.2.1.4.1.4 Test RB = RB100#0





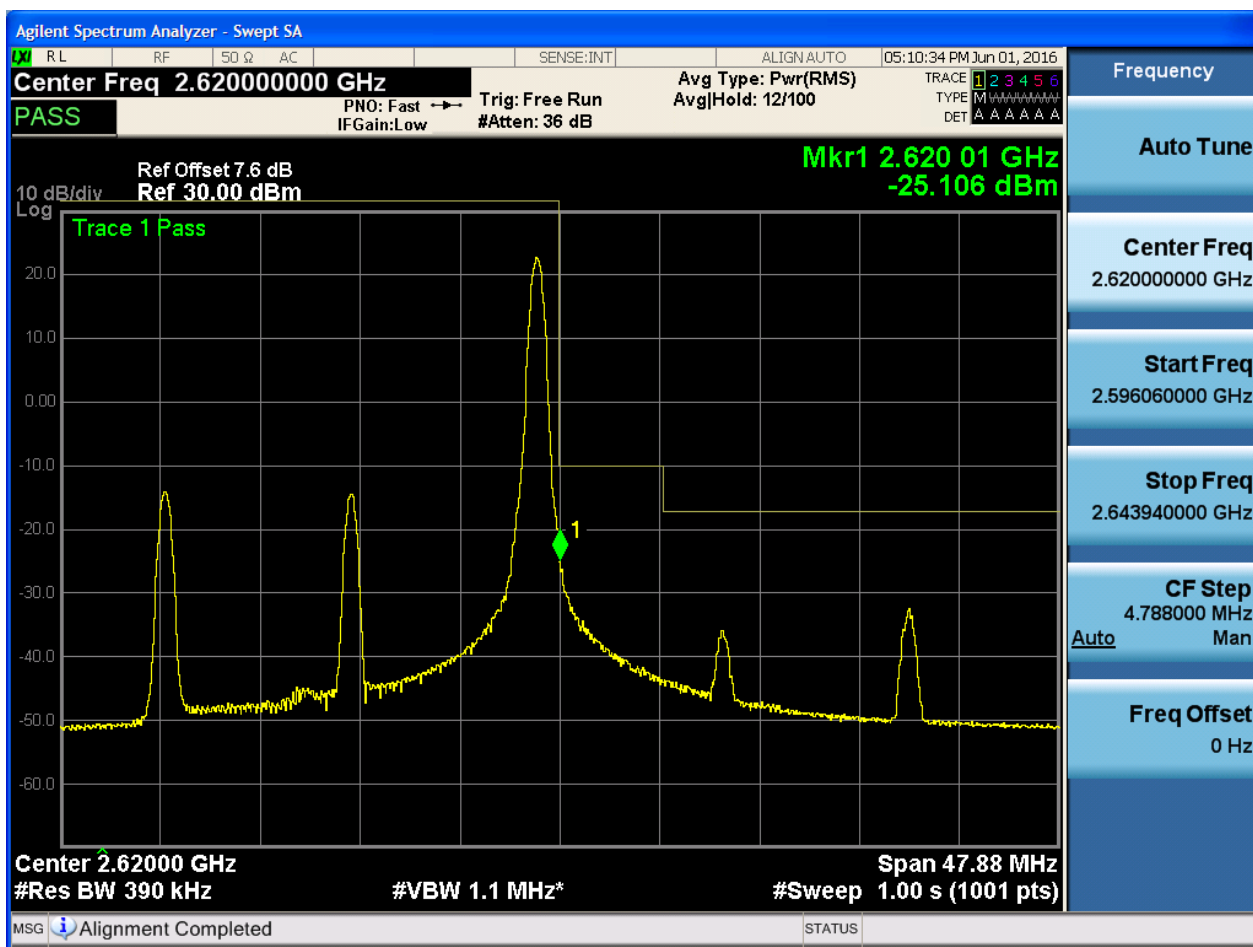
5.1.2.1.4.2 Test Channel = HCH

5.1.2.1.4.2.1 Test RB = RB1#0





5.1.2.1.4.2.2 Test RB = RB1#99





5.1.2.1.4.2.3 Test RB = RB50#25





5.1.2.1.4.2.4 Test RB = RB100#0



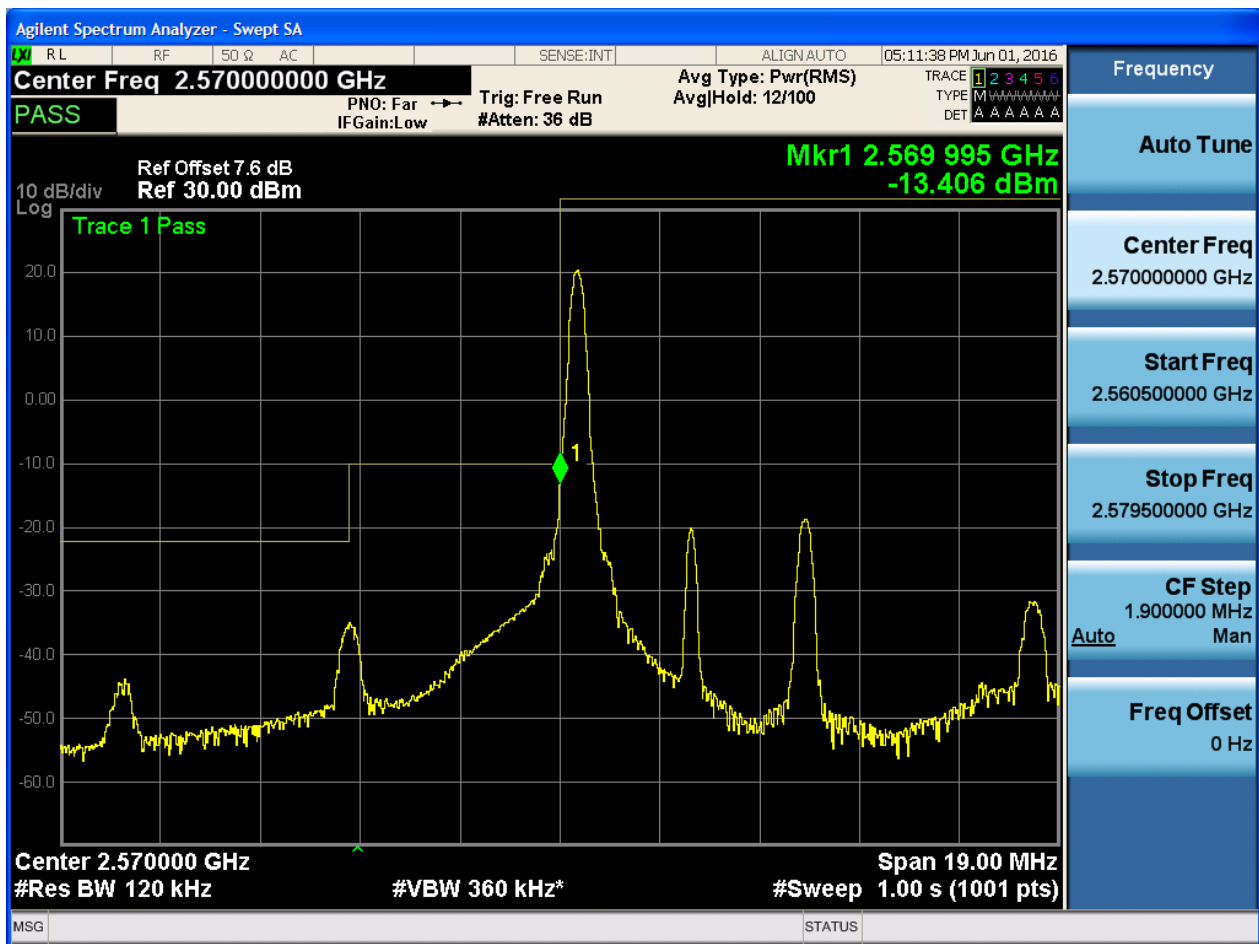


5.1.2.2 Test Mode = LTE/TM2

5.1.2.2.1 Test Bandwidth = 5

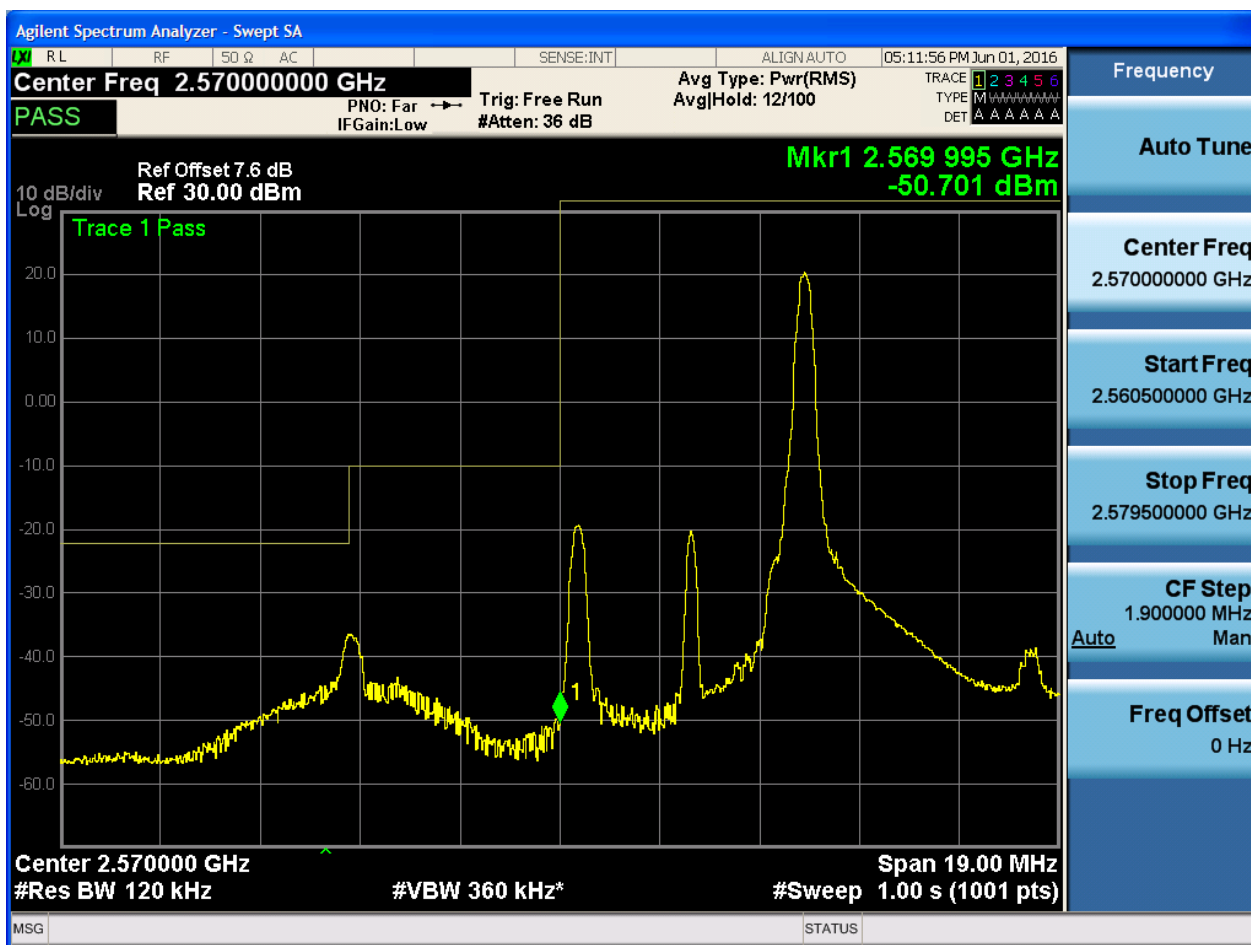
5.1.2.2.1.1 Test Channel = LCH

5.1.2.2.1.1.1 Test RB = RB1#0



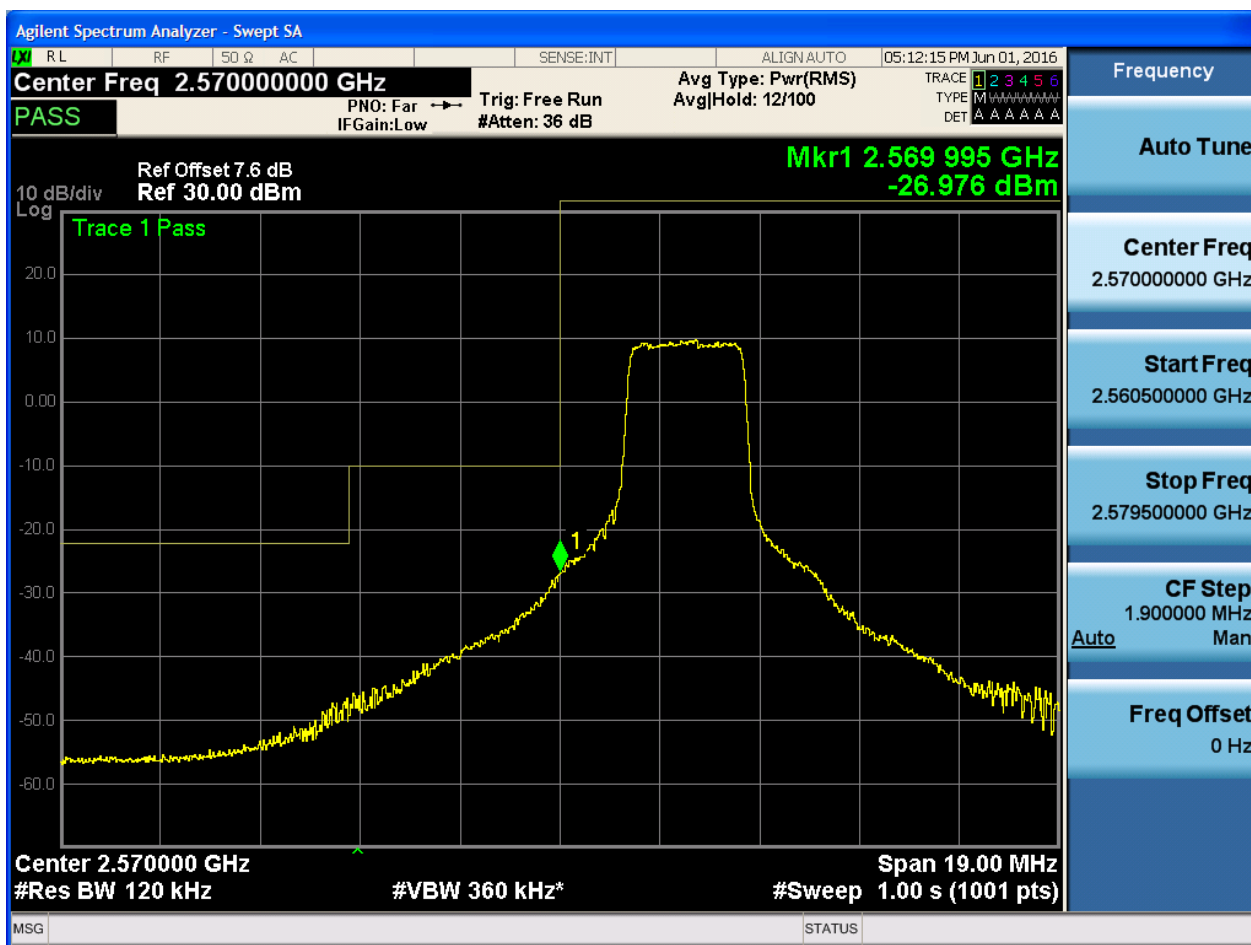


5.1.2.2.1.1.2 Test RB = RB1#24





5.1.2.2.1.1.3 Test RB = RB12#6





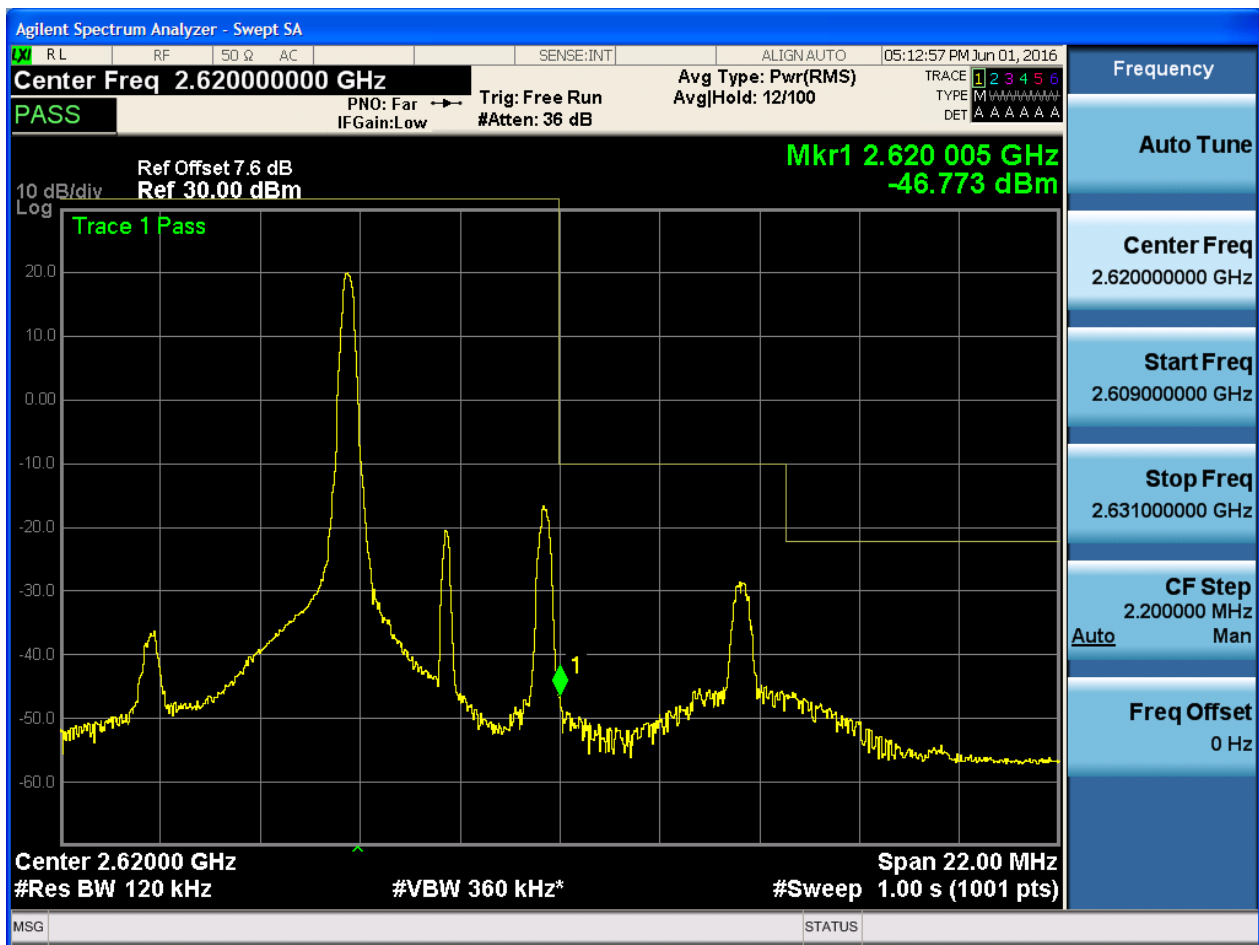
5.1.2.2.1.1.4 Test RB = RB25#0

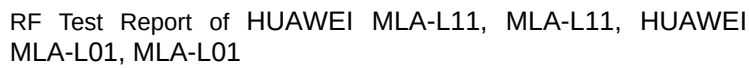




5.1.2.2.1.2 Test Channel = HCH

5.1.2.2.1.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 05:13:15 PM Jun 01, 2016

Center Freq 2.62000000 GHz Avg Type: Pwr(RMS) Avg|Hold: 12/100

PASS PNO: Far Trg: Free Run IFGain: Low #Atten: 36 dB

TRACE 1 2 3 4 5 6 TYPE M DET A A A A A A

Ref Offset 7.6 dB Mkr1 2.620 005 GHz
Ref 30.00 dBm -16.227 dBm

10 dB/div Log

Trace 1 Pass

Center 2.62000 GHz Span 22.00 MHz
#Res BW 120 kHz #VBW 360 kHz* #Sweep 1.00 s (1001 pts)

MSG STATUS

Frequency Auto Tune

Center Freq 2.62000000 GHz

Start Freq 2.609000000 GHz

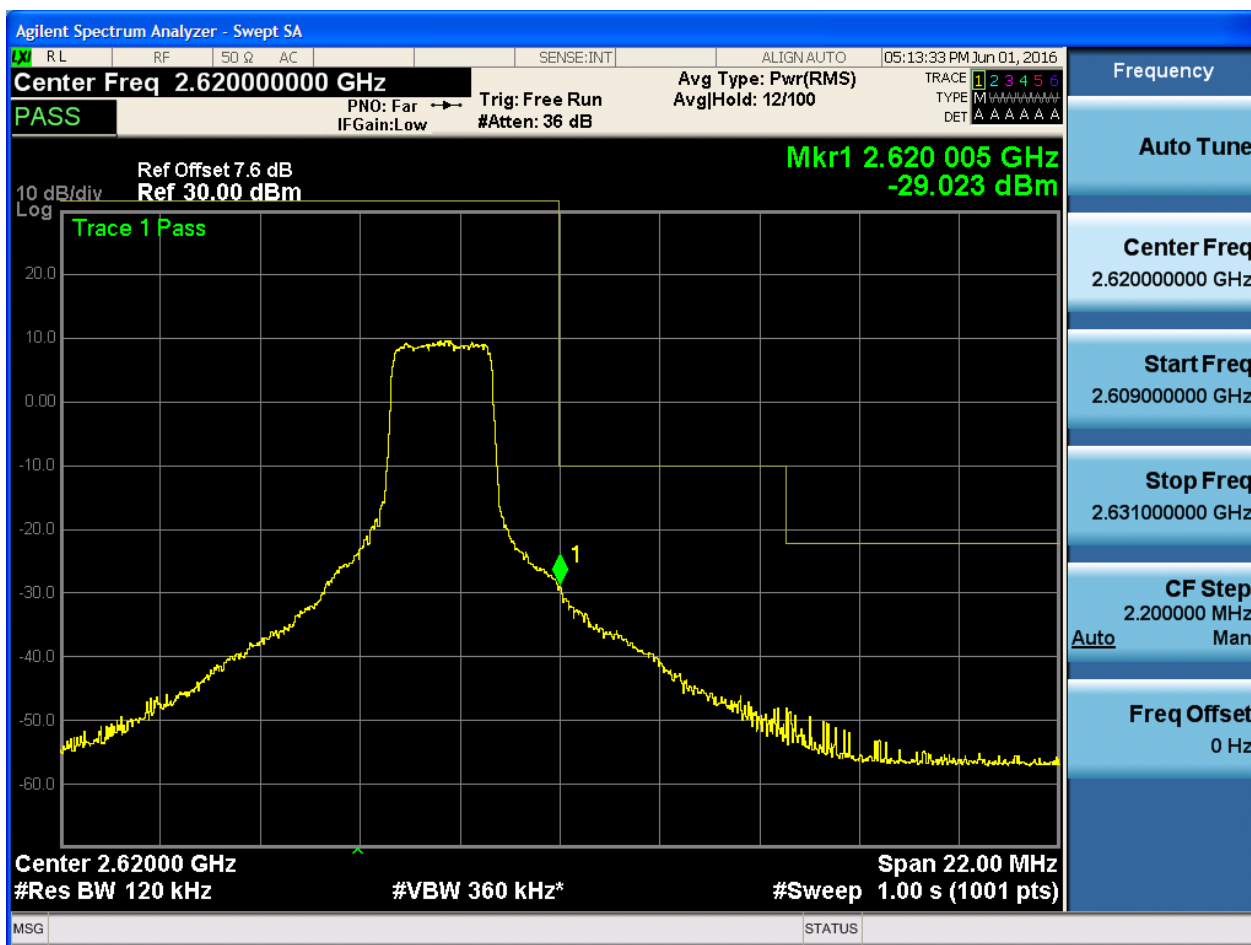
Stop Freq 2.631000000 GHz

CF Step 2.200000 MHz Auto Man

Freq Offset 0 Hz



5.1.2.2.1.2.3 Test RB = RB12#6





5.1.2.2.1.2.4 Test RB = RB25#0

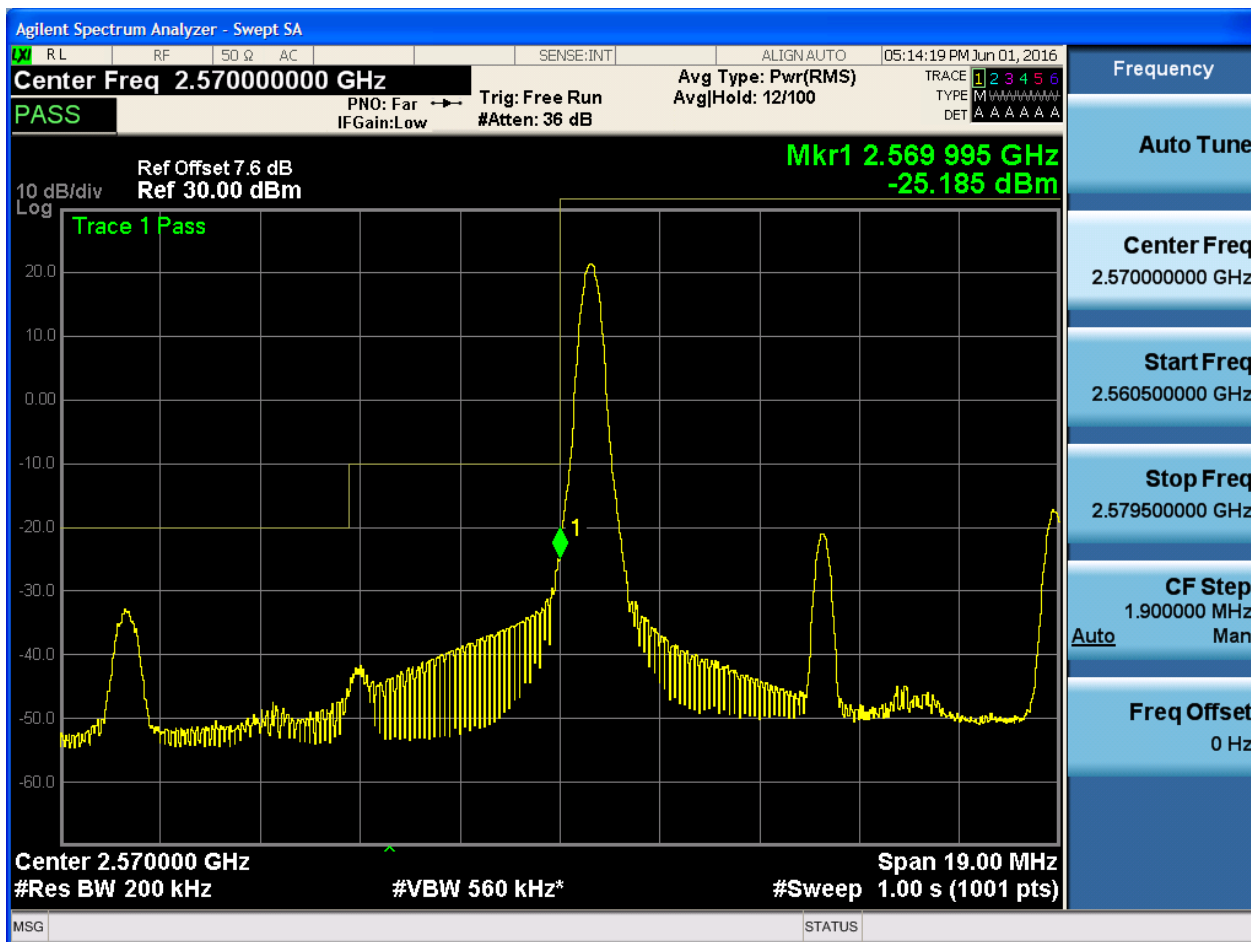




5.1.2.2.2 Test Bandwidth = 10

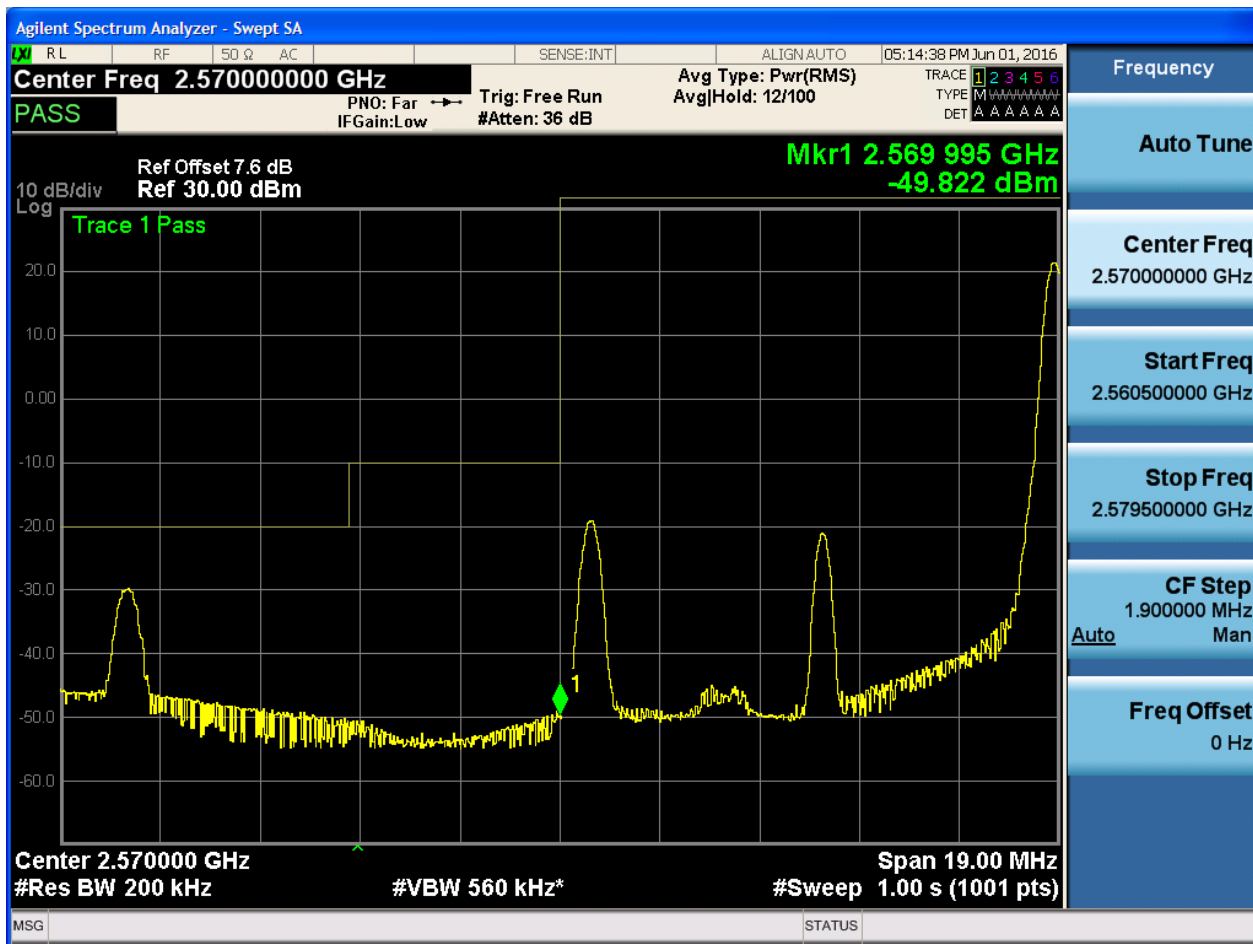
5.1.2.2.2.1 Test Channel = LCH

5.1.2.2.2.1.1 Test RB = RB1#0



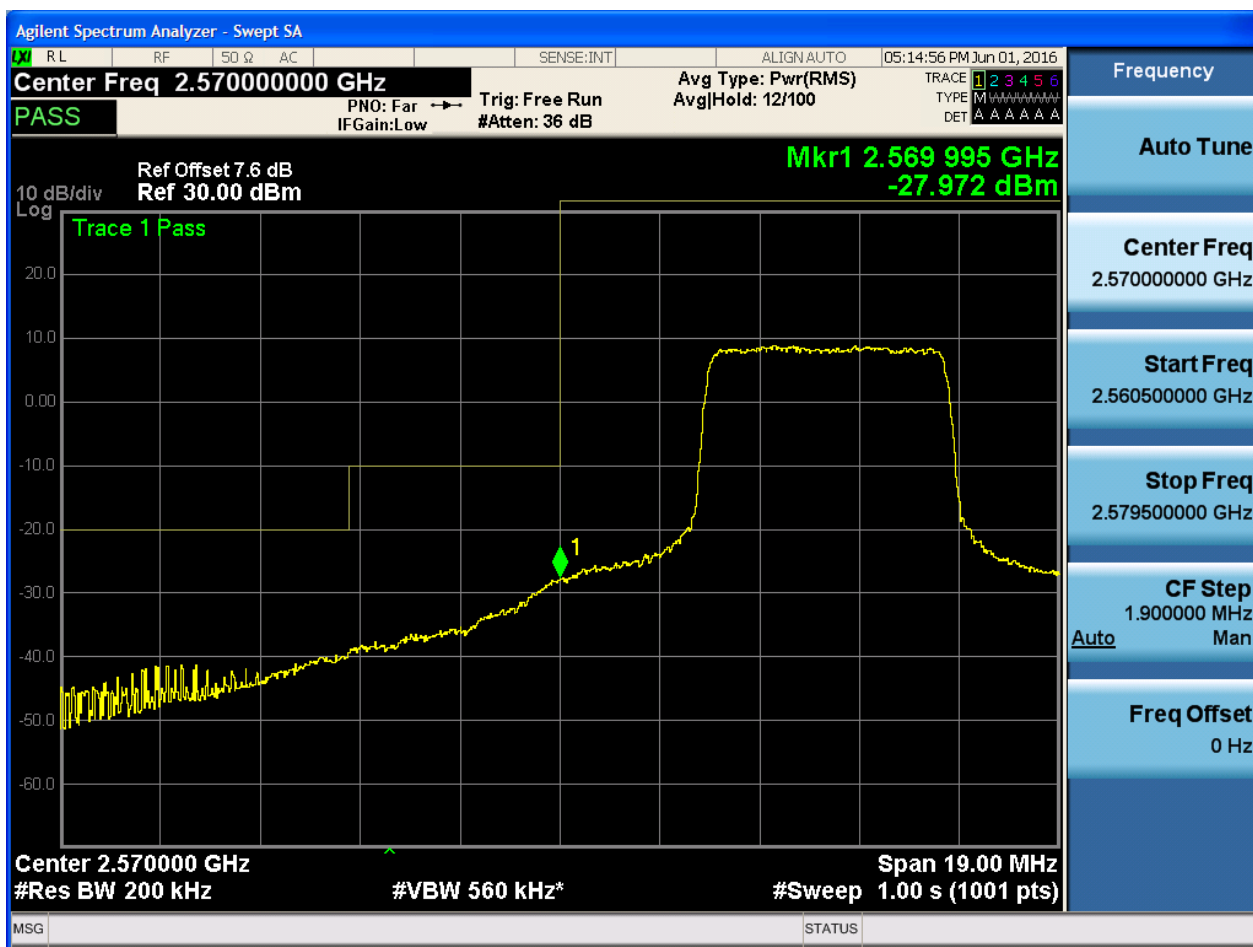


5.1.2.2.1.2 Test RB = RB1#49



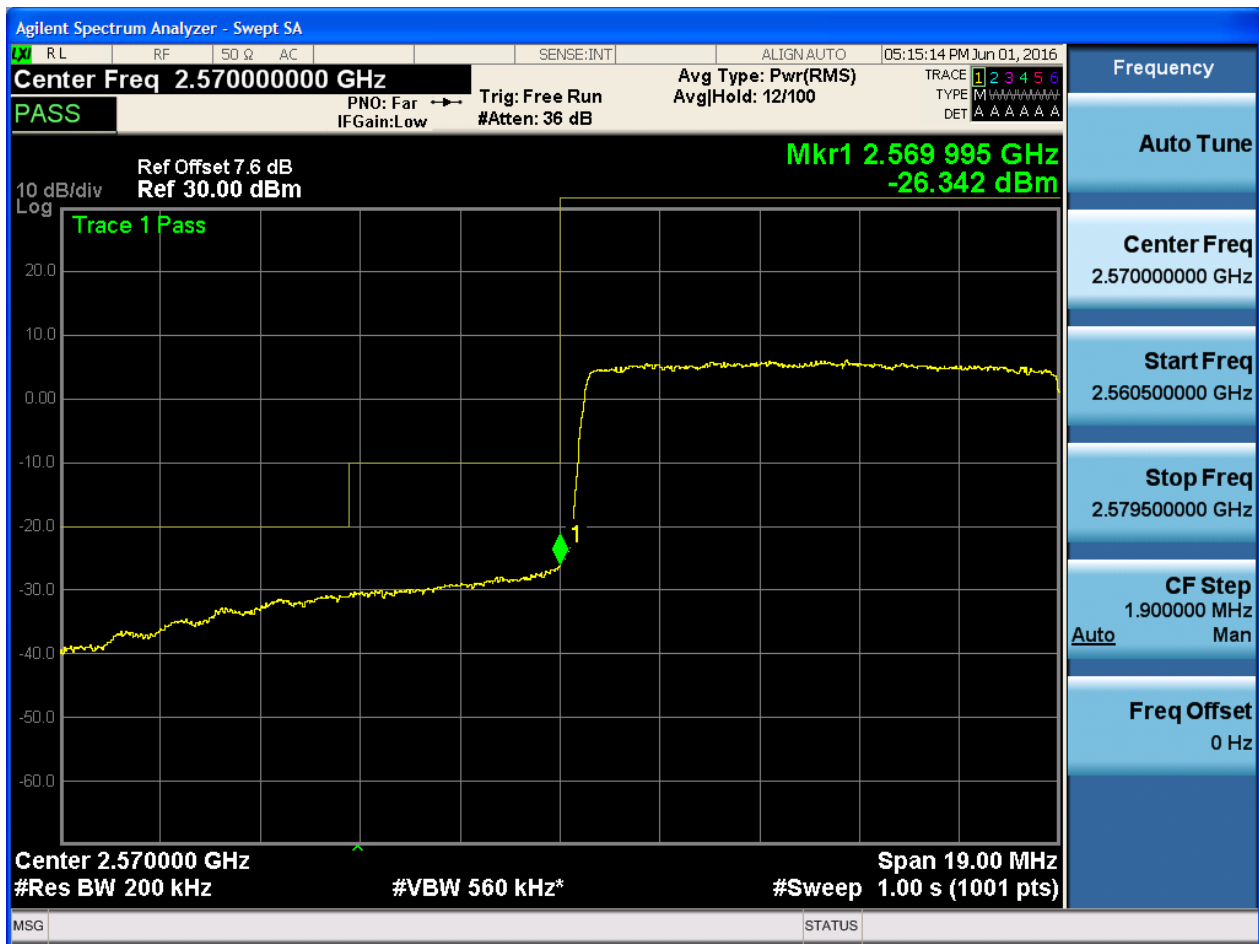


5.1.2.2.1.3 Test RB = RB25#13





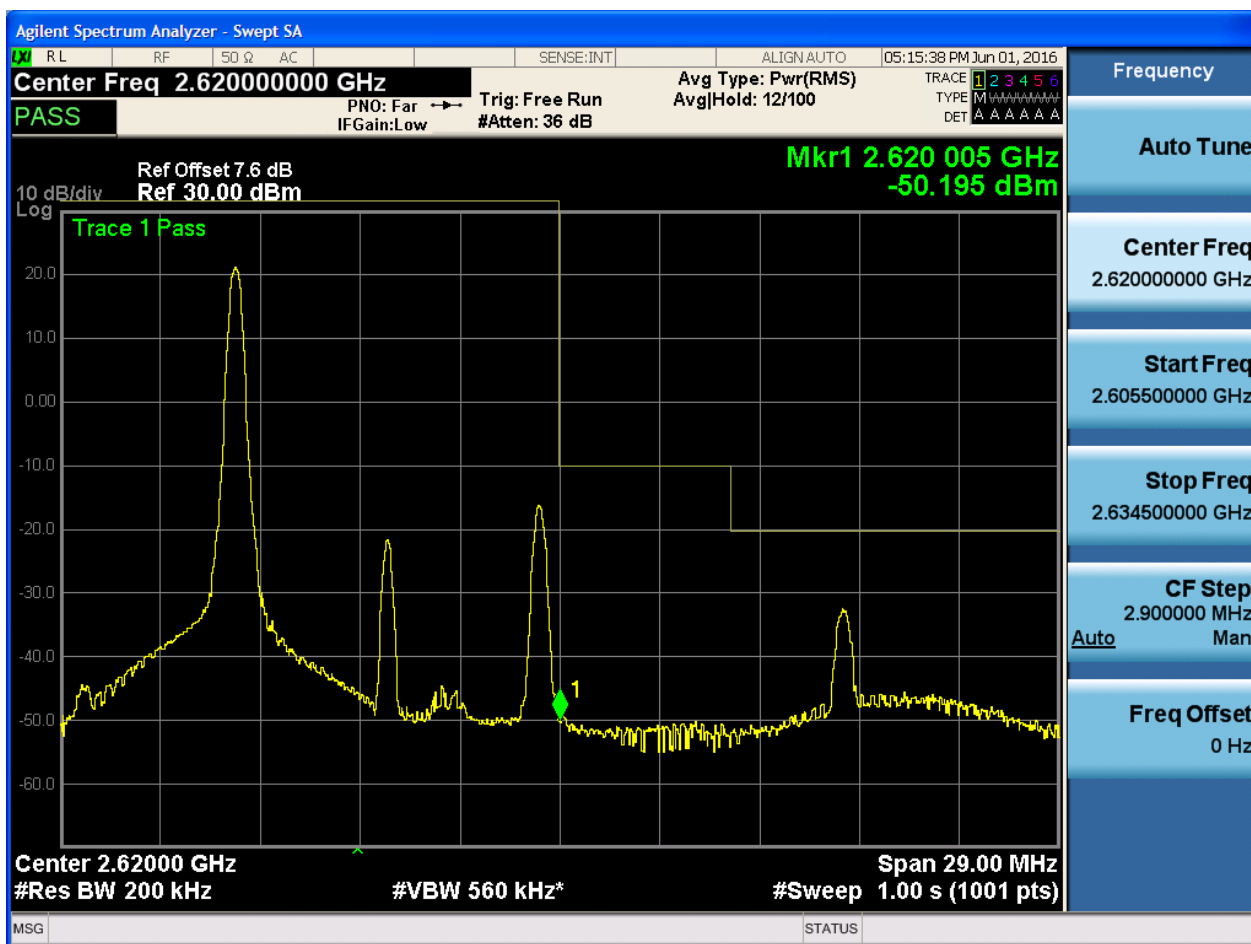
5.1.2.2.1.4 Test RB = RB50#0





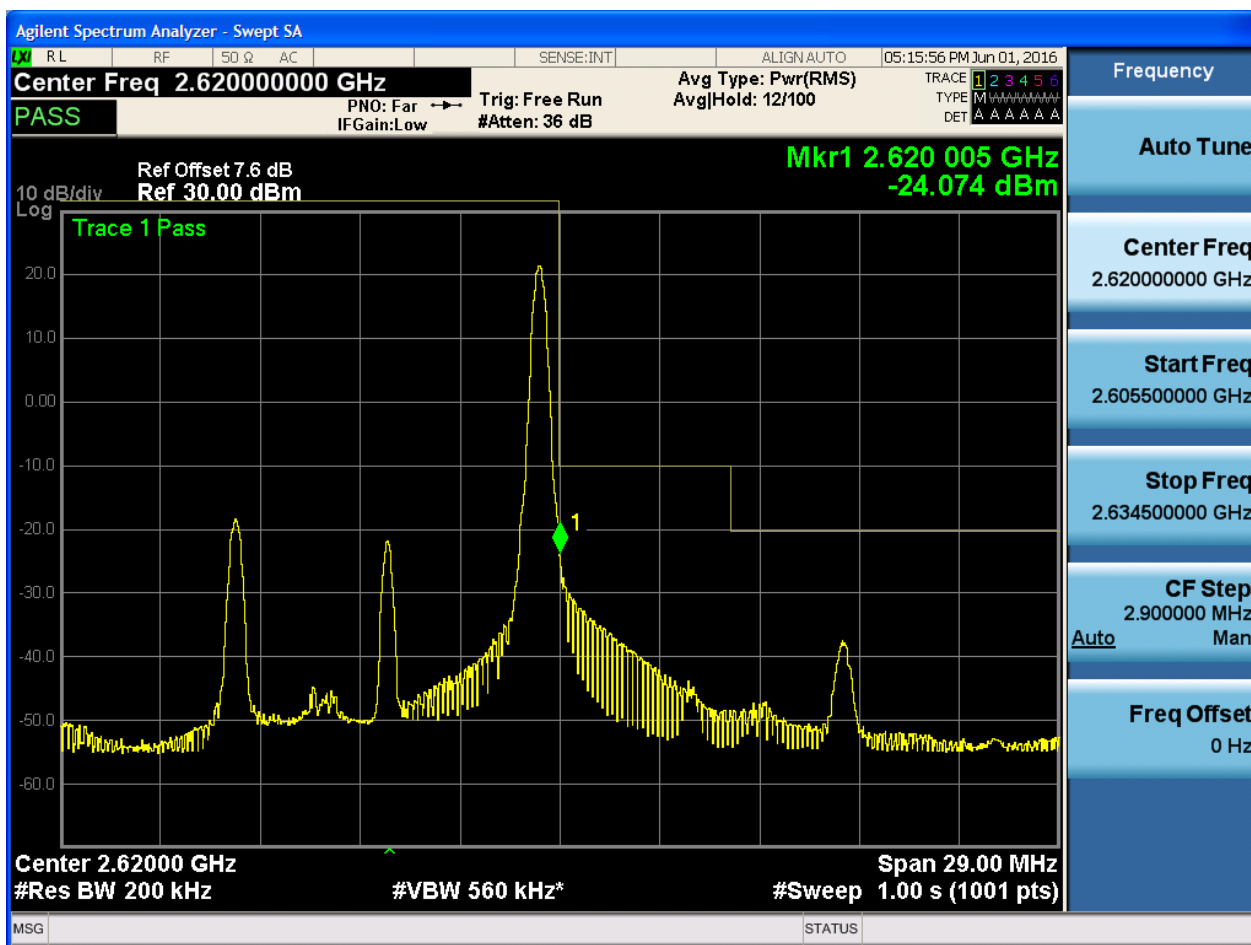
5.1.2.2.2 Test Channel = HCH

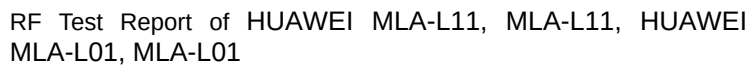
5.1.2.2.2.1 Test RB = RB1#0





5.1.2.2.2.2 Test RB = RB1#49





The screenshot displays the Agilent Spectrum Analyzer interface. The top status bar shows the instrument name "Agilent Spectrum Analyzer - Swept SA", various input/output ports (R L, RF, 50 Ω, AC), SENSE:INT, ALIGN AUTO, and the date/time "05:16:14 PM Jun 01, 2016".

The main display area shows a swept frequency spectrum plot. The horizontal axis represents frequency, centered at 2.62000000 GHz. The vertical axis represents power level in dBm, ranging from -60.0 to 20.0. A yellow trace labeled "Trace 1 Pass" shows a rectangular pulse-like response, indicating a pass filter characteristic. The peak of the signal is approximately 8 dBm.

Key parameters displayed include:

- Center Freq:** 2.62000000 GHz
- Avg Type:** Pwr(RMS)
- Avg/Hold:** 12/100
- PNO:** Far →
- IFGain:** Low
- Trig:** Free Run
- #Atten:** 36 dB
- Mkr1:** 2.620 005 GHz, -30.242 dBm
- Ref Offset:** 7.6 dB
- Ref:** 30.00 dBm
- Span:** 29.00 MHz
- #Res BW:** 200 kHz
- #VBW:** 560 kHz*
- #Sweep:** 1.00 s (1001 pts)

On the right side, there are several control buttons and indicators:

- Frequency:** A dropdown menu showing the current center frequency.
- Auto Tune:** A button to automatically tune the analyzer.
- Center Freq:** A field displaying the current center frequency (2.62000000 GHz).
- Start Freq:** A field displaying the start frequency (2.605500000 GHz).
- Stop Freq:** A field displaying the stop frequency (2.634500000 GHz).
- CF Step:** A field displaying the center frequency step (2.900000 MHz Man).
- Freq Offset:** A field displaying the frequency offset (0 Hz).



5.1.2.2.2.4 Test RB = RB50#0

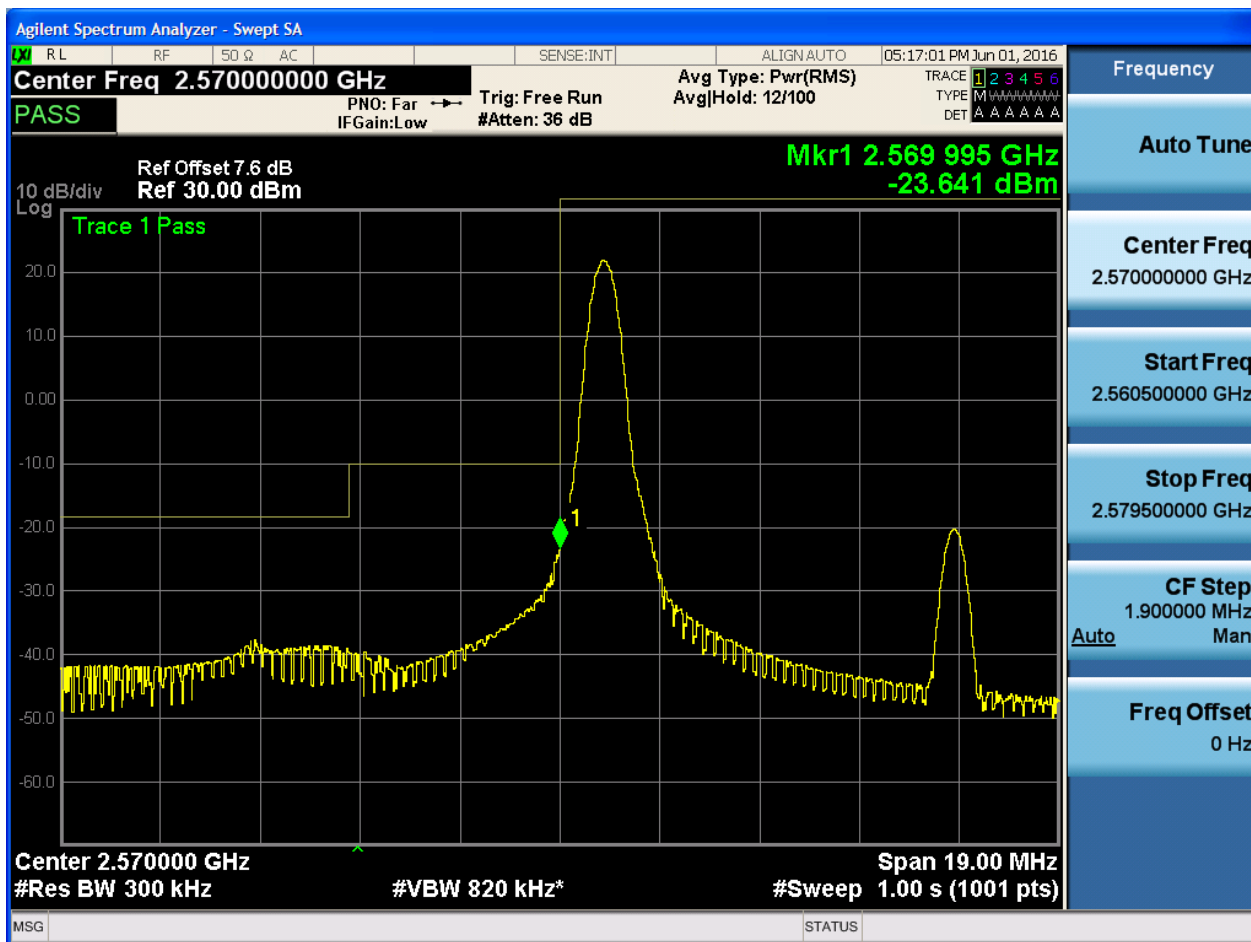




5.1.2.2.3 Test Bandwidth = 15

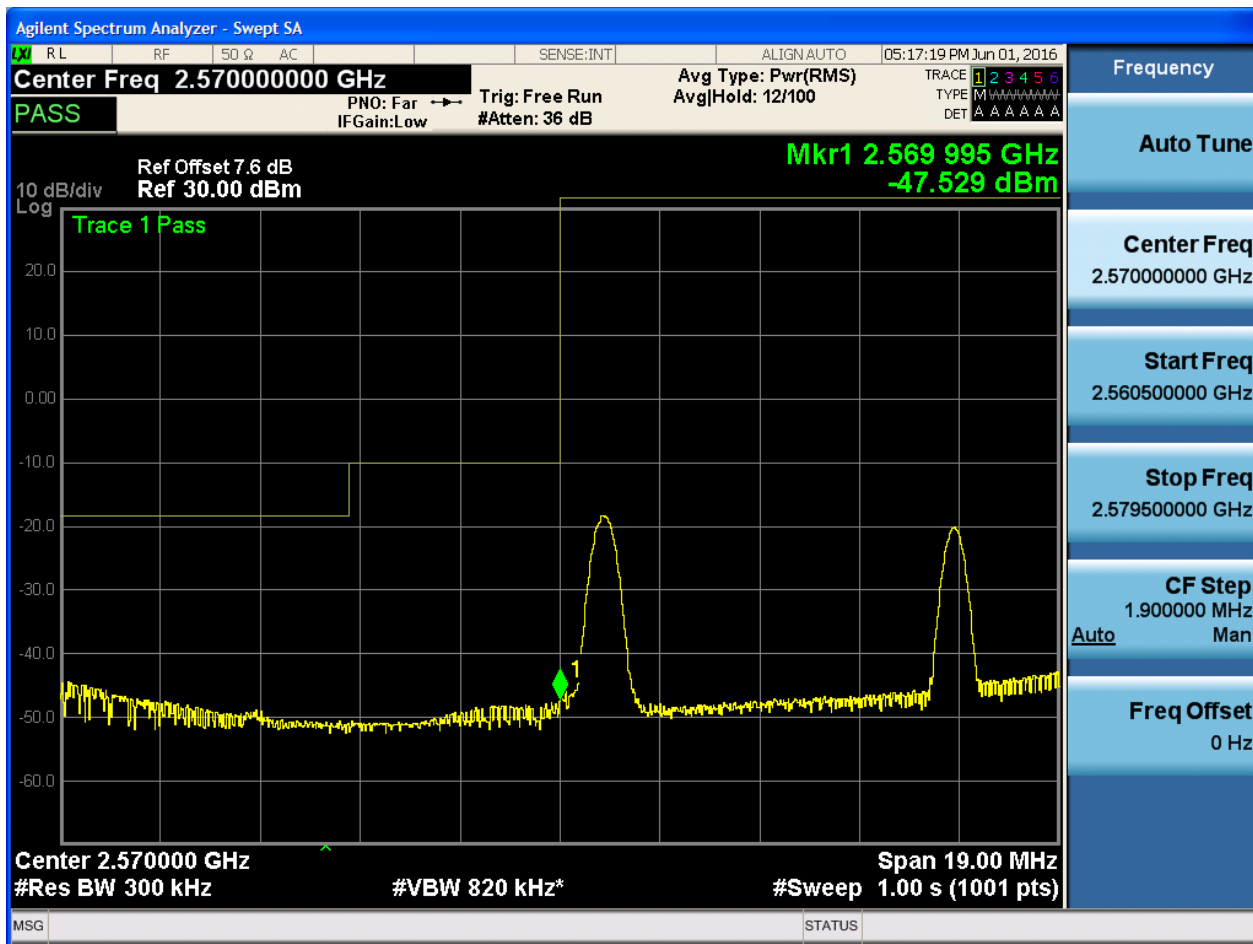
5.1.2.2.3.1 Test Channel = LCH

5.1.2.2.3.1.1 Test RB = RB1#0





5.1.2.2.3.1.2 Test RB = RB1#74



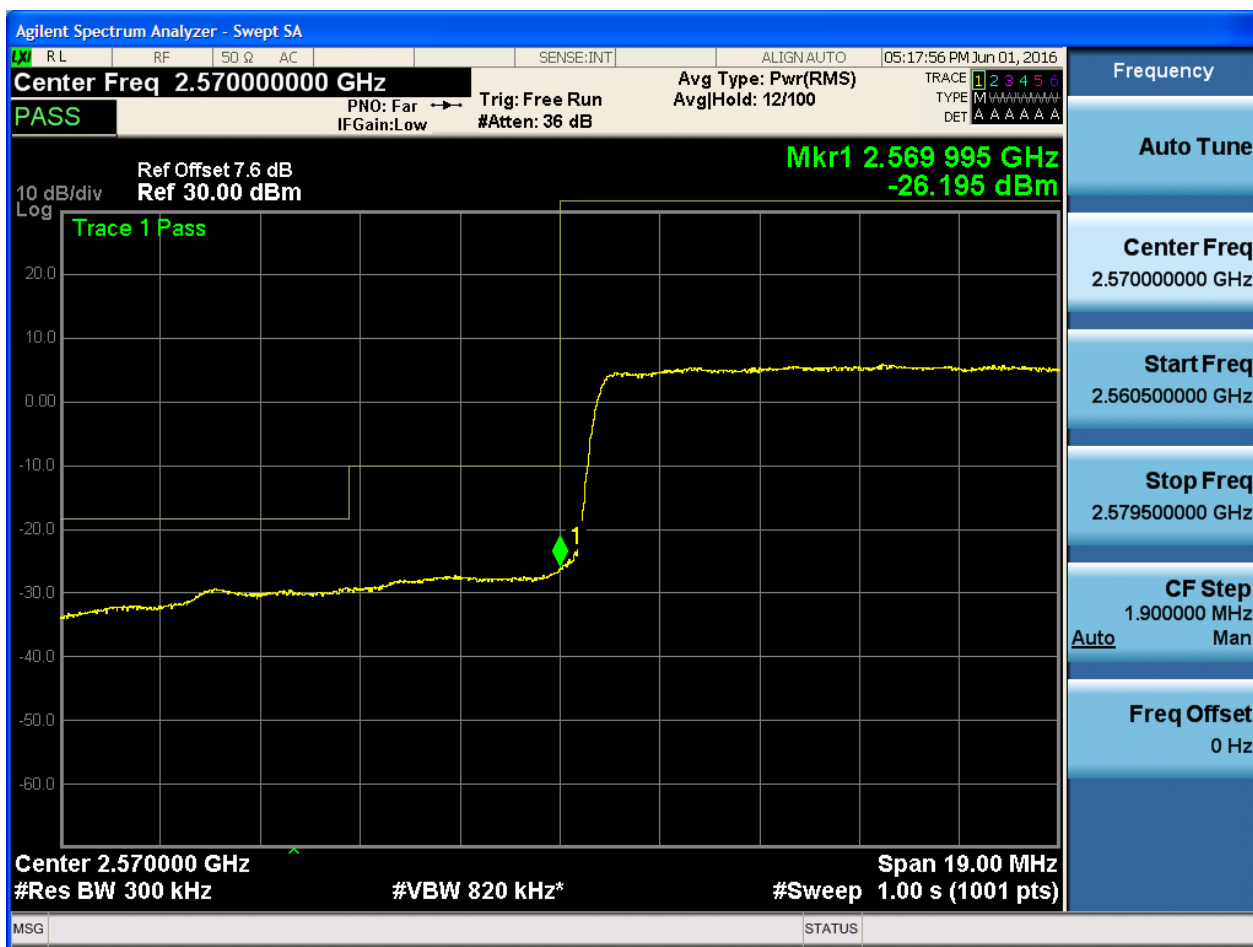


5.1.2.2.3.1.3 Test RB = RB36#18





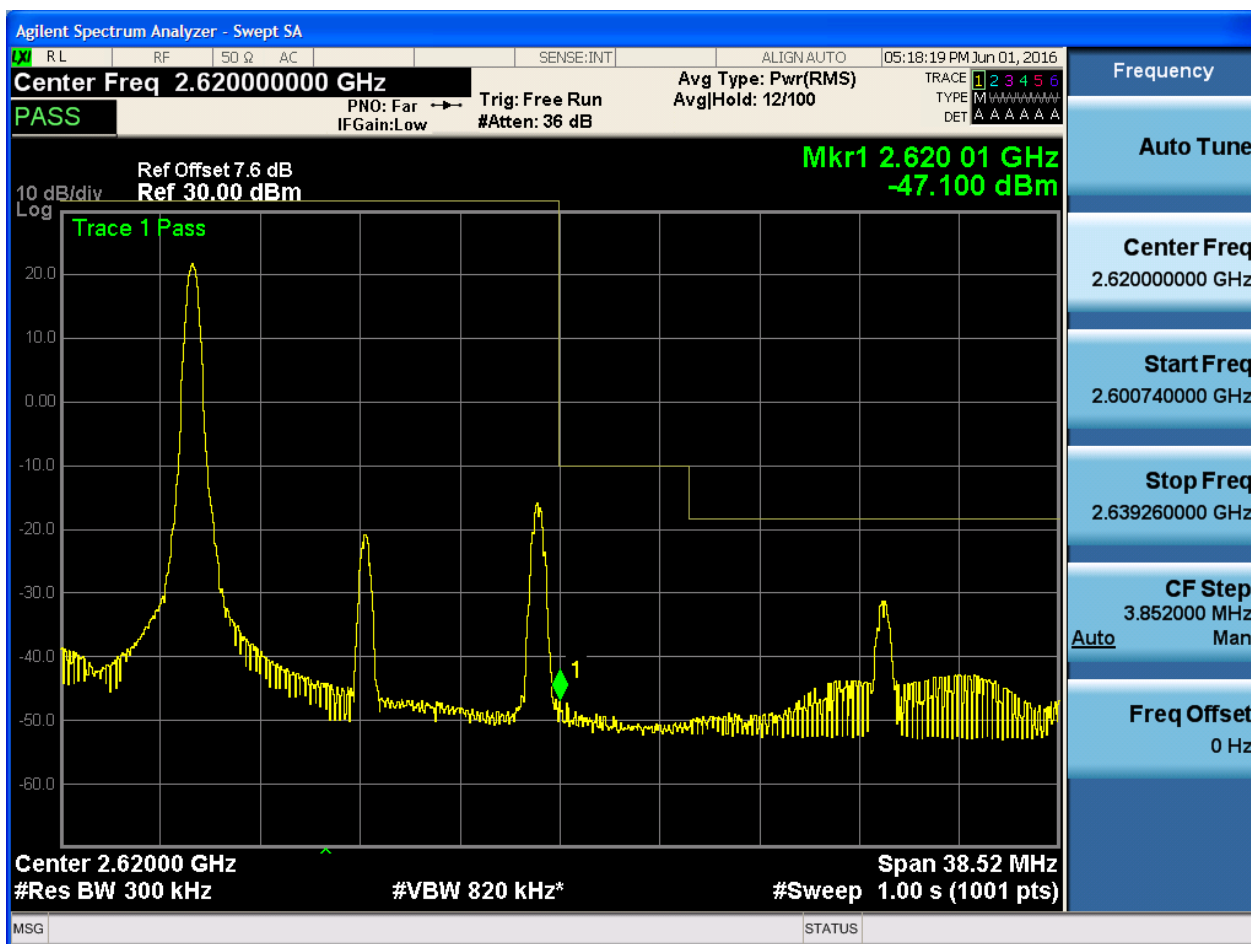
5.1.2.2.3.1.4 Test RB = RB75#0

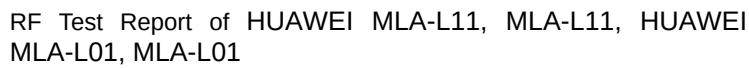




5.1.2.2.3.2 Test Channel = HCH

5.1.2.2.3.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.62000000 GHz

Ref Offset 7.6 dB
Ref 30.00 dBm

Trace 1 Pass

Mkr1 2.620 01 GHz
-22.589 dBm

Center 2.62000 GHz
#Res BW 300 kHz
#VBW 820 kHz*

Span 38.52 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.62000000 GHz

Start Freq
2.600740000 GHz

Stop Freq
2.639260000 GHz

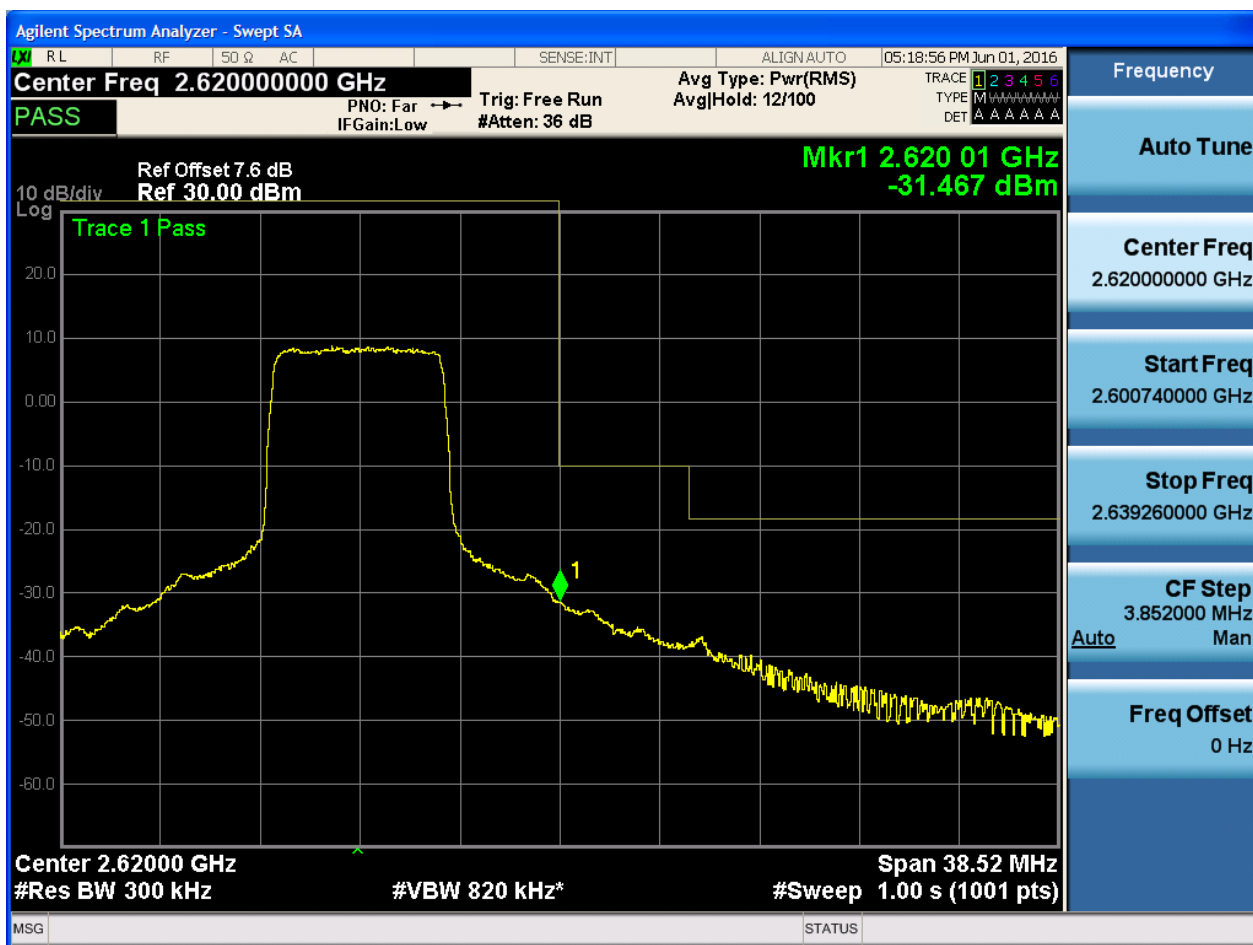
CF Step
3.852000 MHz
Man

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer. The main display is a plot of power spectral density (PSD) in dBm versus frequency in GHz. The plot shows a noisy baseline with several peaks. A prominent peak is marked with a yellow diamond and labeled '1' at 2.62001 GHz with a power of -22.589 dBm. The plot is titled 'Trace 1 Pass'. The frequency range is from 2.60074 GHz to 2.63926 GHz. The center frequency is 2.62000 GHz. The resolution bandwidth (Res BW) is 300 kHz, and the video bandwidth (VBW) is 820 kHz. The span is 38.52 MHz. The sweep time is 1.00 s. The reference level is 30.00 dBm. The offset is 7.6 dB. The display also shows various status indicators and settings, such as 'PASS', 'PNO: Far', 'Trig: Free Run', 'Ave Type: Pwr(RMS)', and 'Align: AUTO'.



5.1.2.2.3.2.3 Test RB = RB36#18





5.1.2.2.3.2.4 Test RB = RB75#0

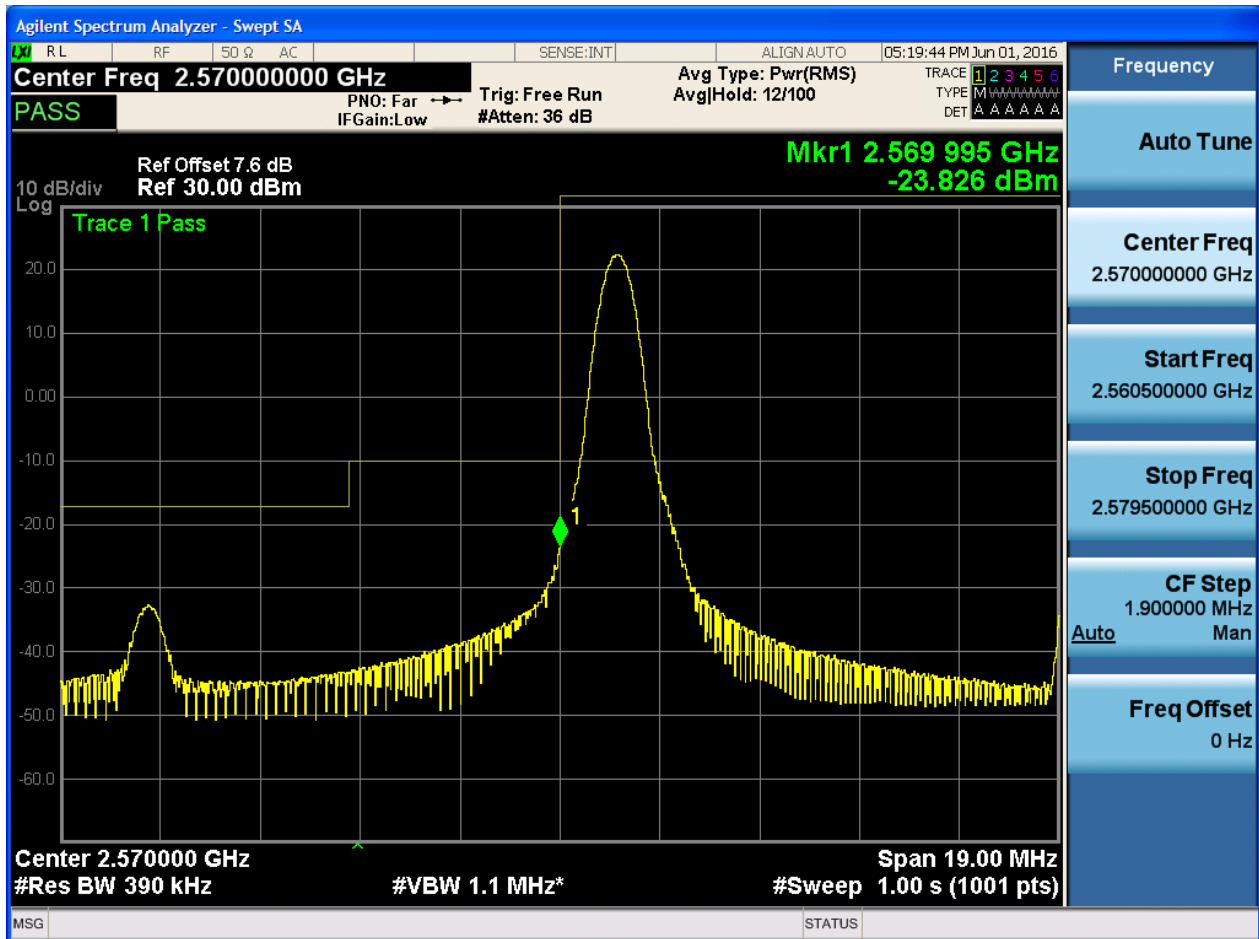




5.1.2.2.4 Test Bandwidth = 20

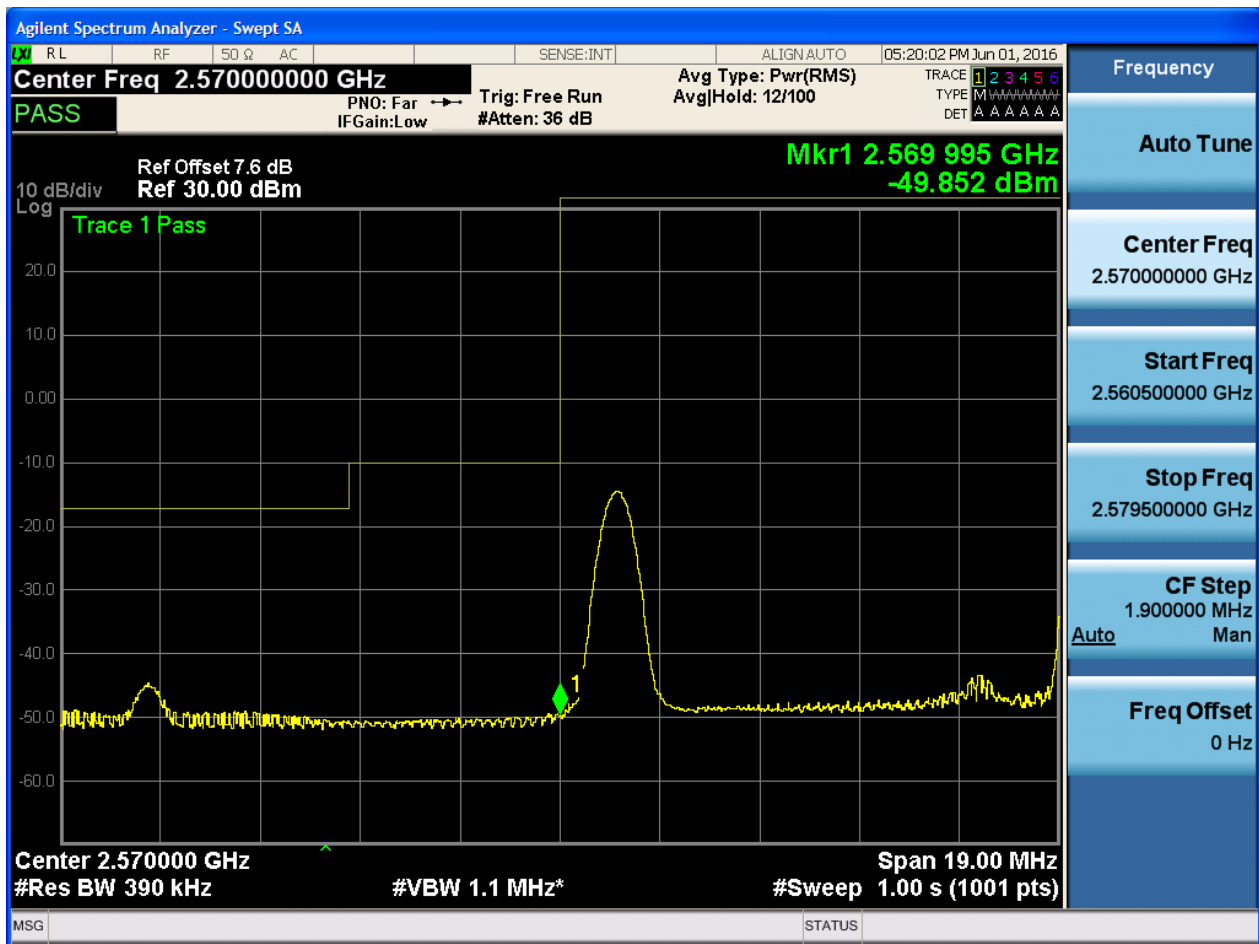
5.1.2.2.4.1 Test Channel = LCH

5.1.2.2.4.1.1 Test RB = RB1#0



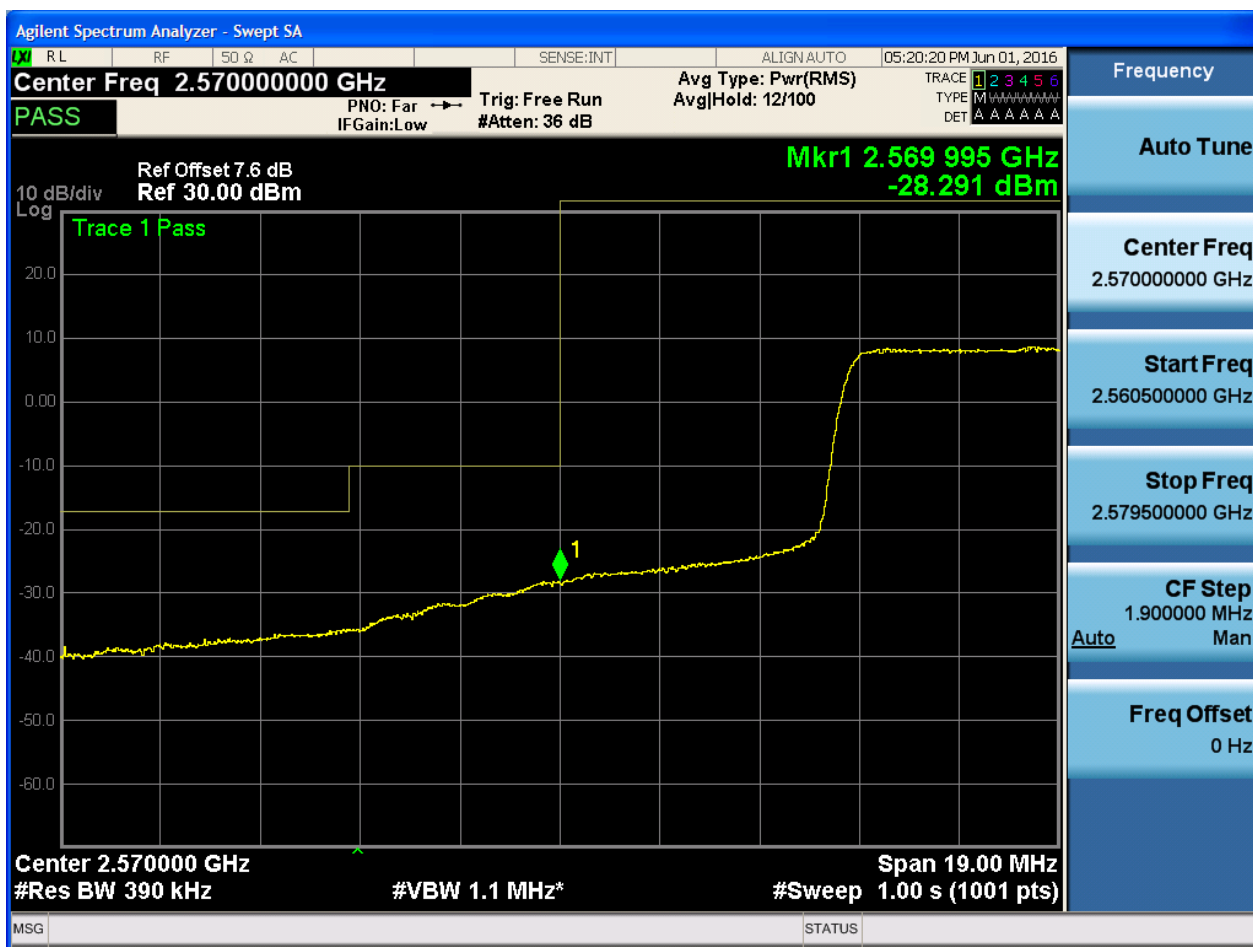


5.1.2.2.4.1.2 Test RB = RB1#99





5.1.2.2.4.1.3 Test RB = RB50#25





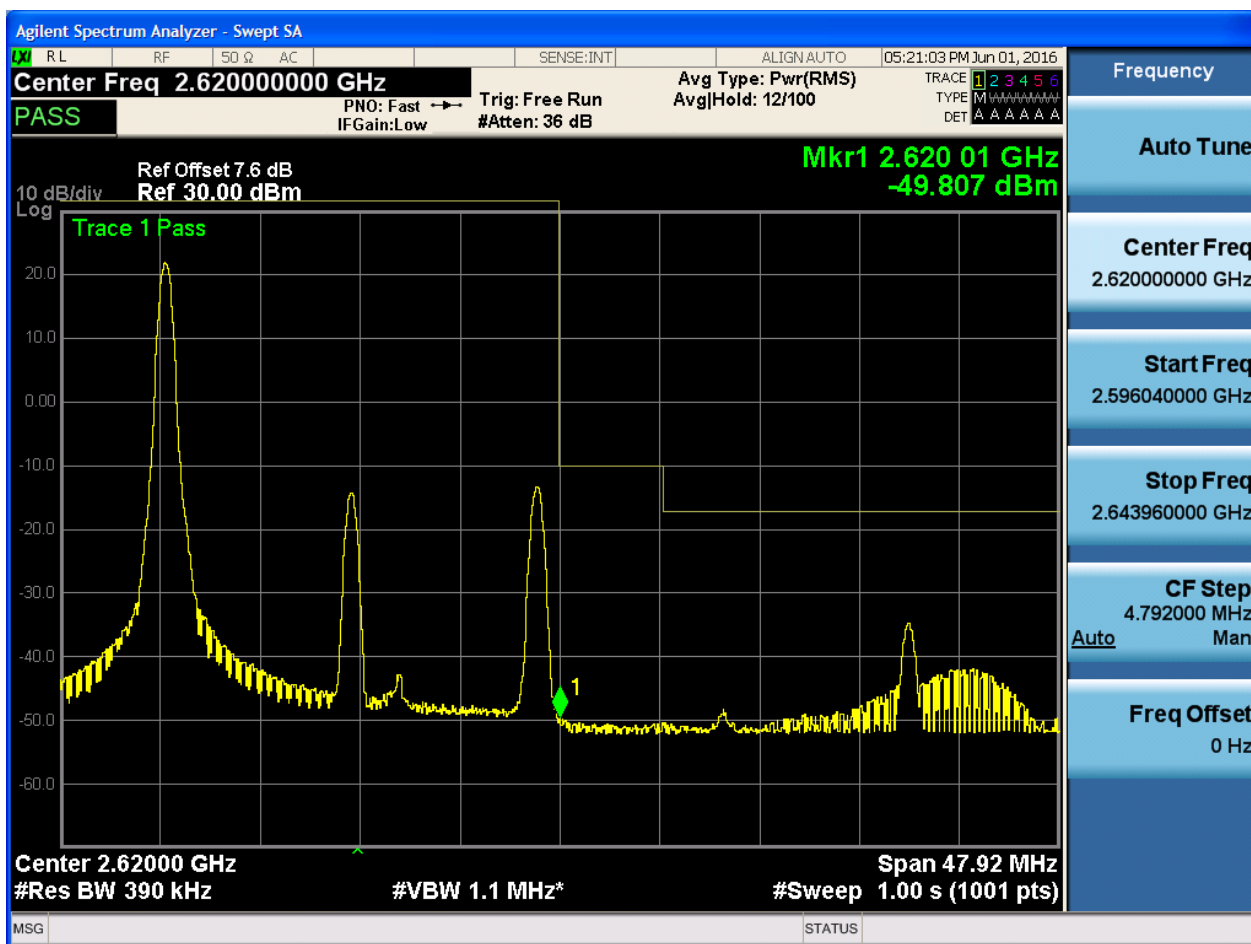
5.1.2.2.4.1.4 Test RB = RB100#0





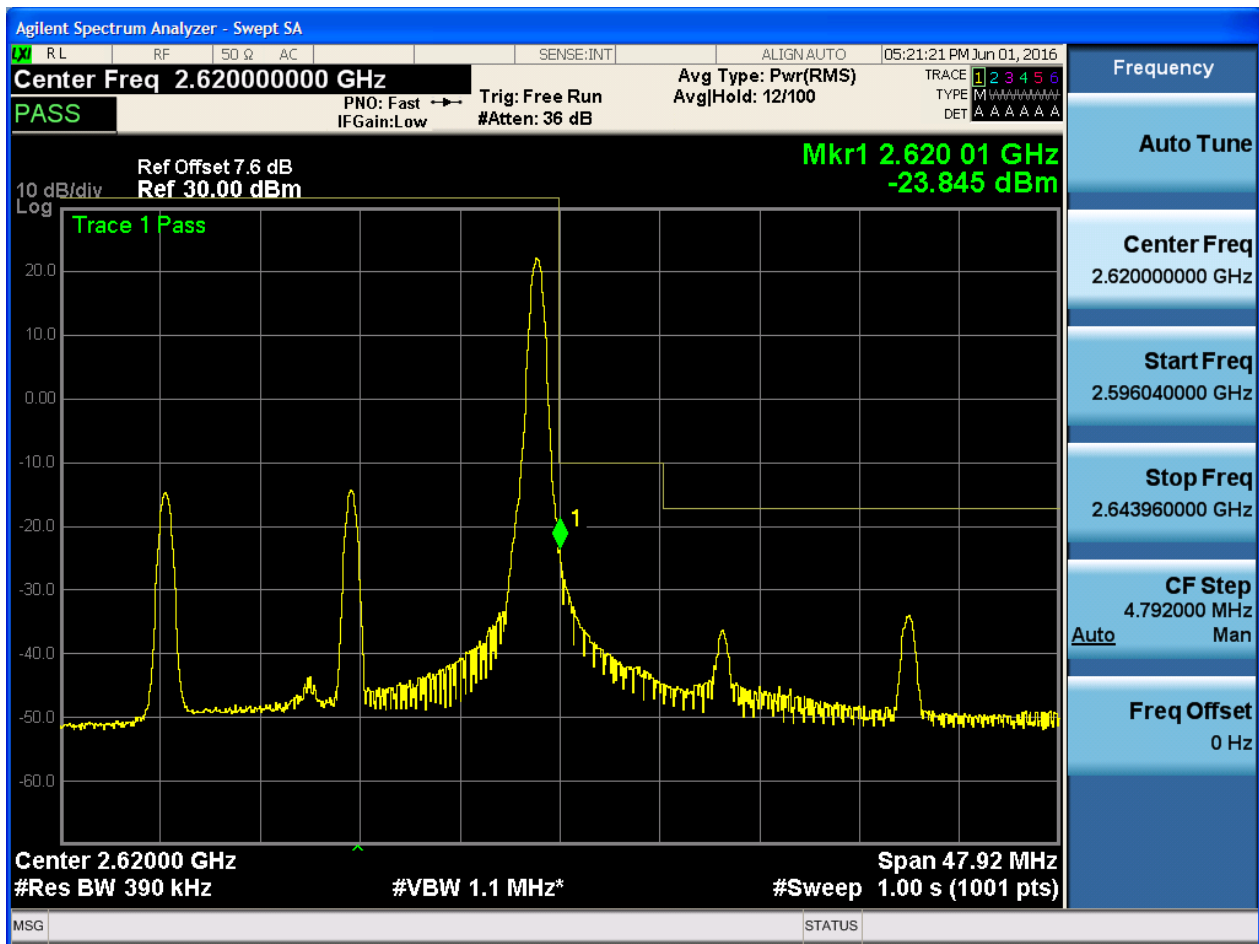
5.1.2.2.4.2 Test Channel = HCH

5.1.2.2.4.2.1 Test RB = RB1#0



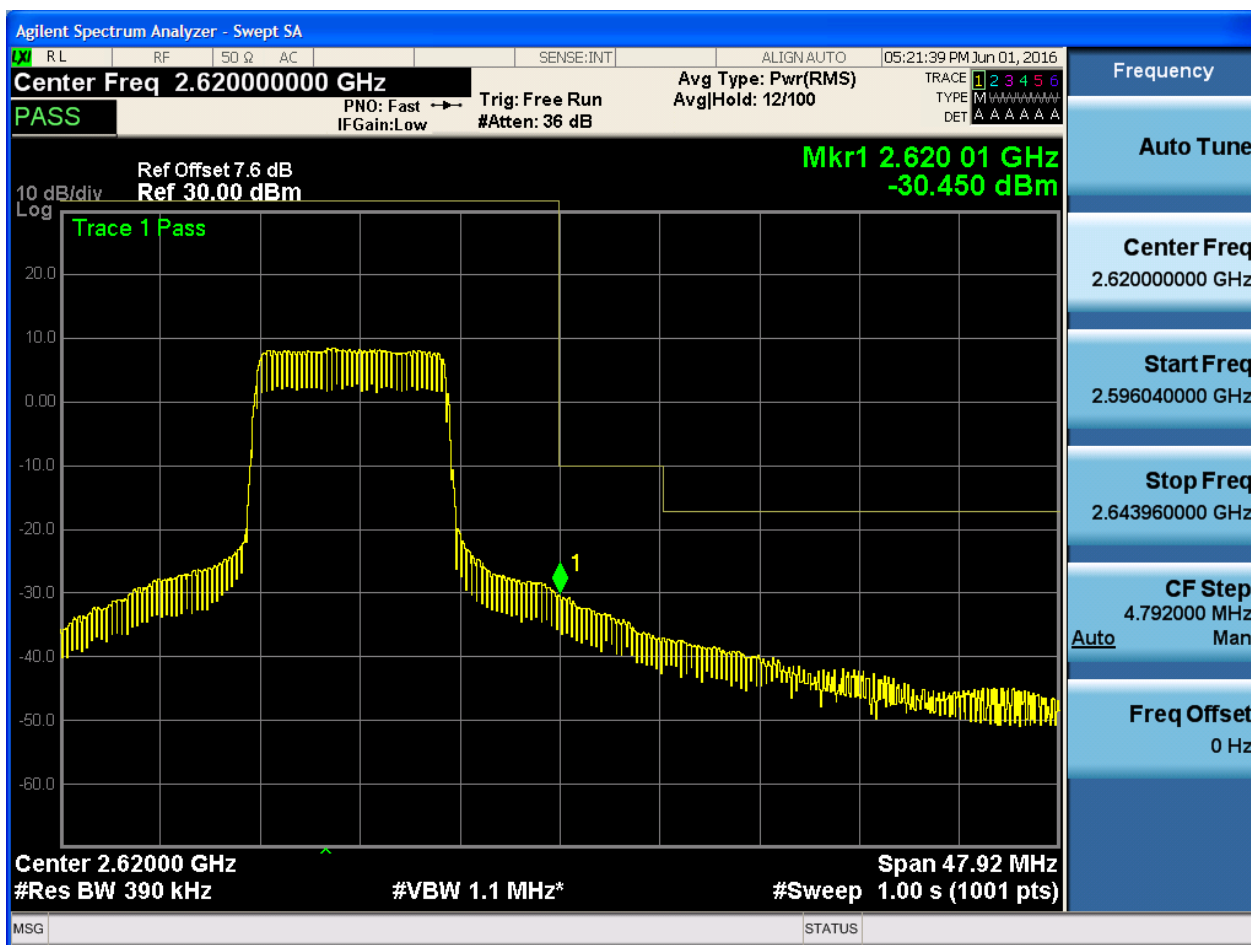


5.1.2.2.4.2.2 Test RB = RB1#99





5.1.2.2.4.2.3 Test RB = RB50#25





5.1.2.2.4.2.4 Test RB = RB100#0





6Appendix_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Part I - Test Plots

6.1 For LTE

6.1.1 Test Band = BAND7

6.1.1.1 Test Mode = LTE/TM1

6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

