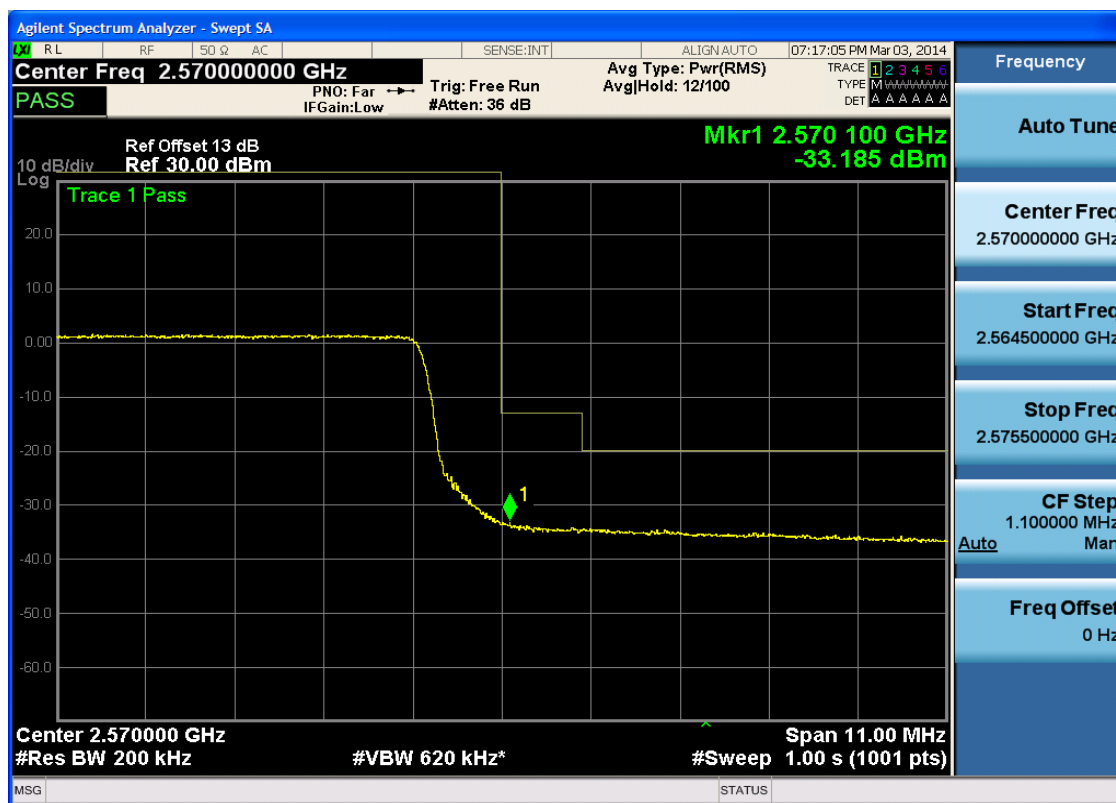




5.3.1.1.4.2.4 Test RB = RB100#0



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.

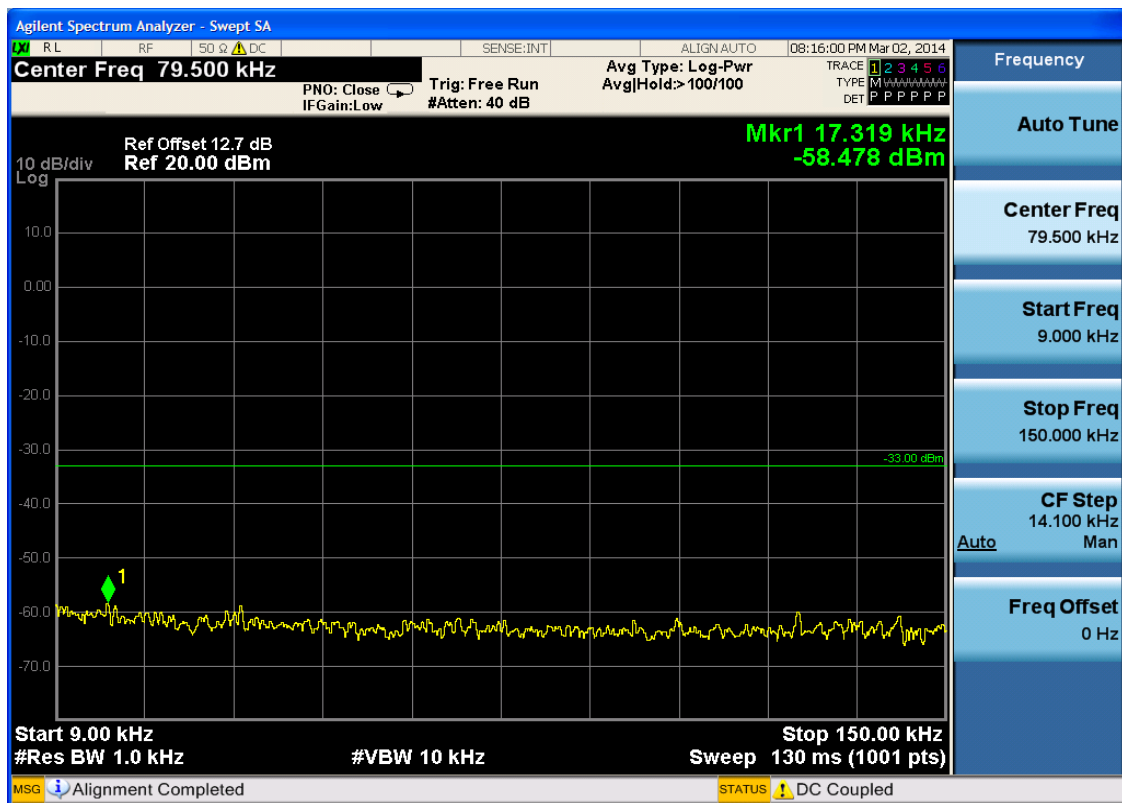
Part I - Test Plots

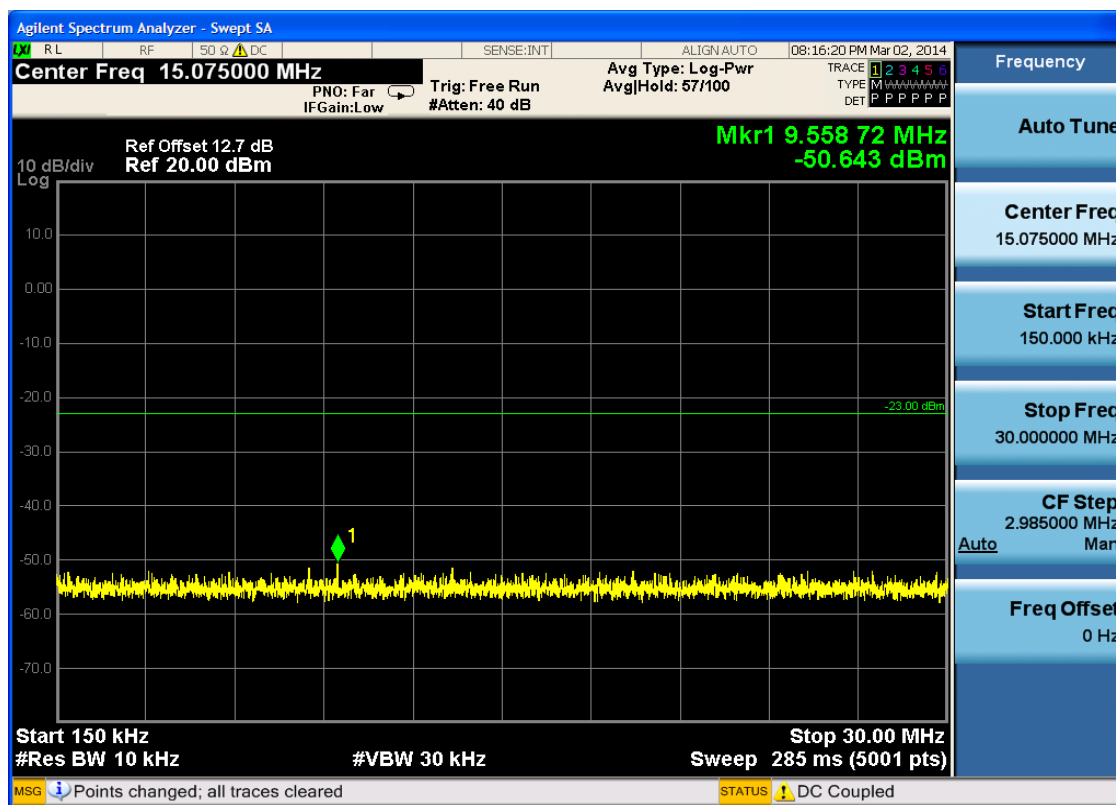
6.1 For GSM

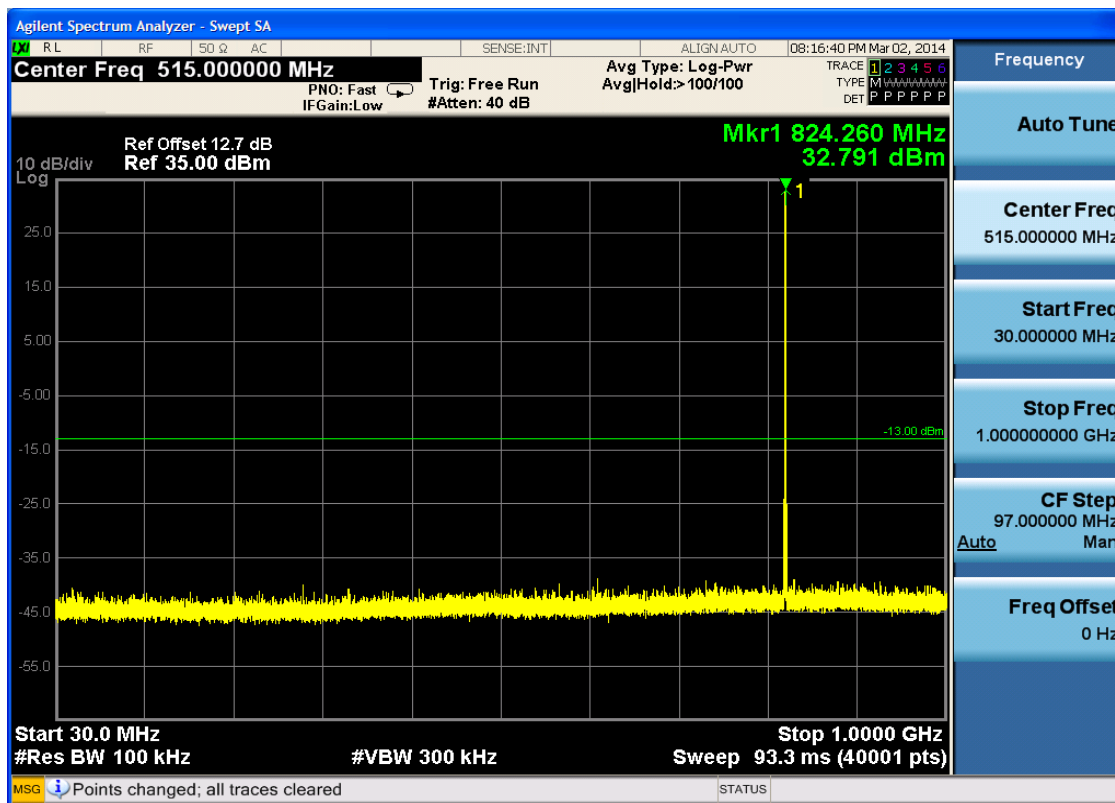
6.1.1 Test Band = GSM850

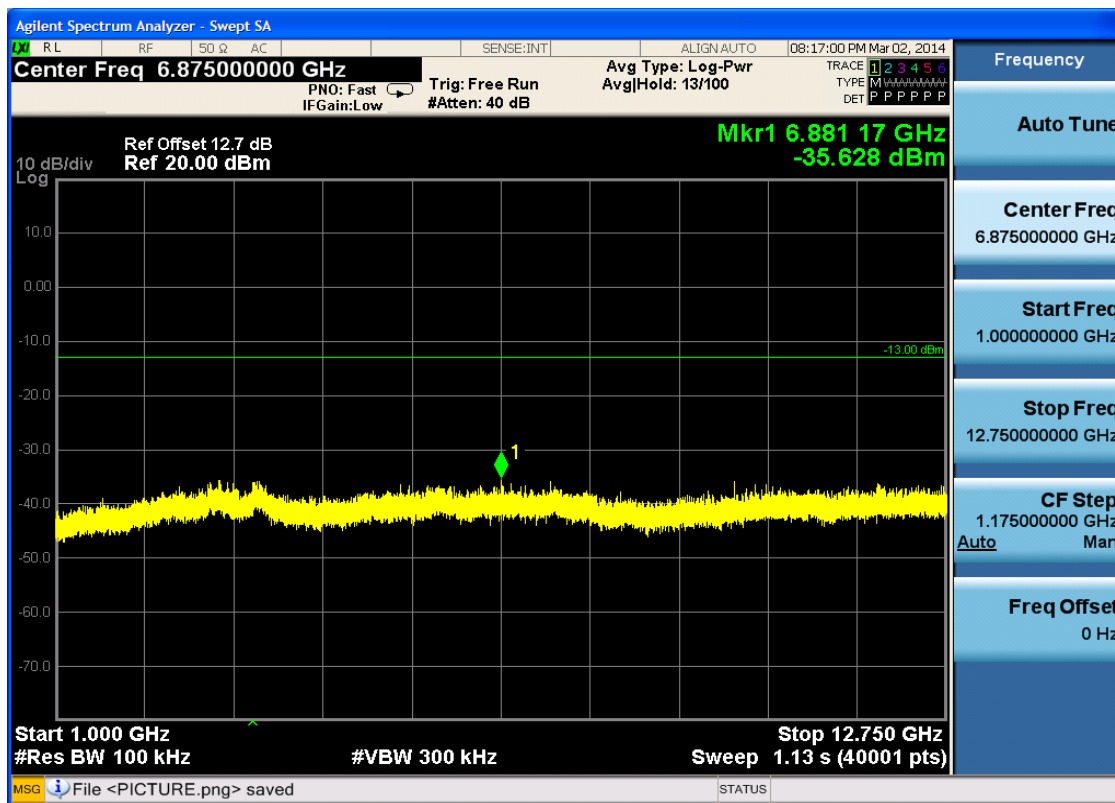
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH



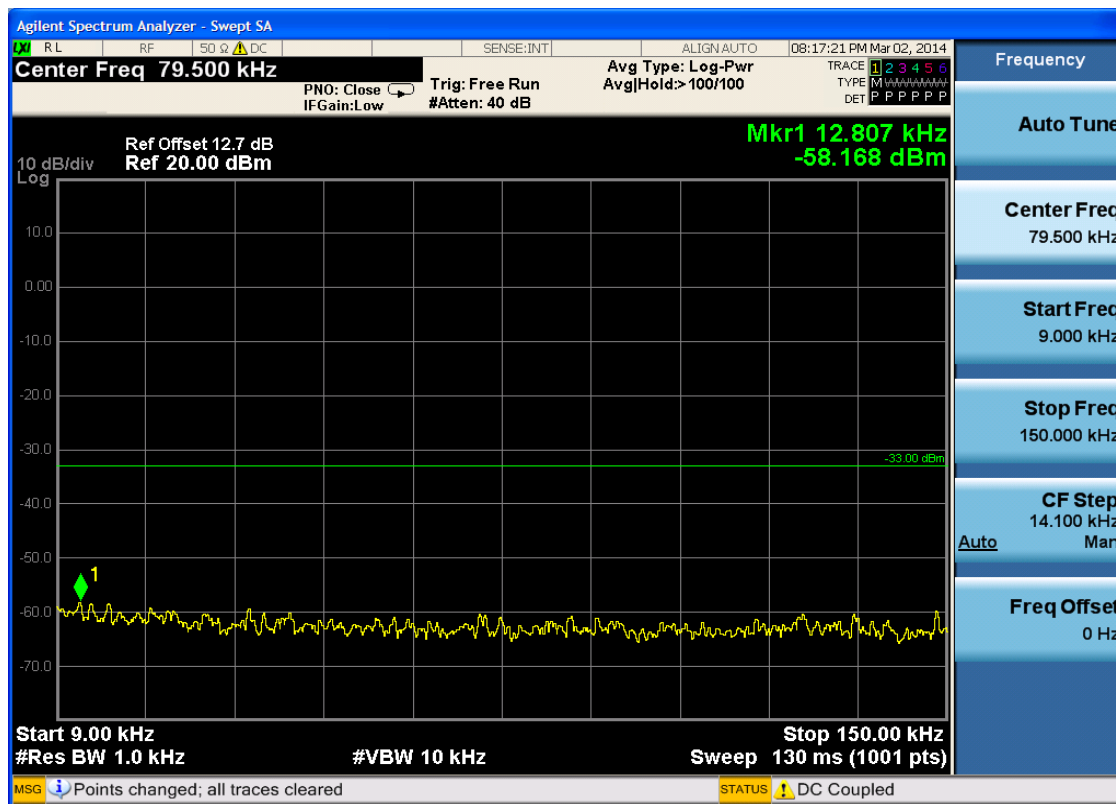


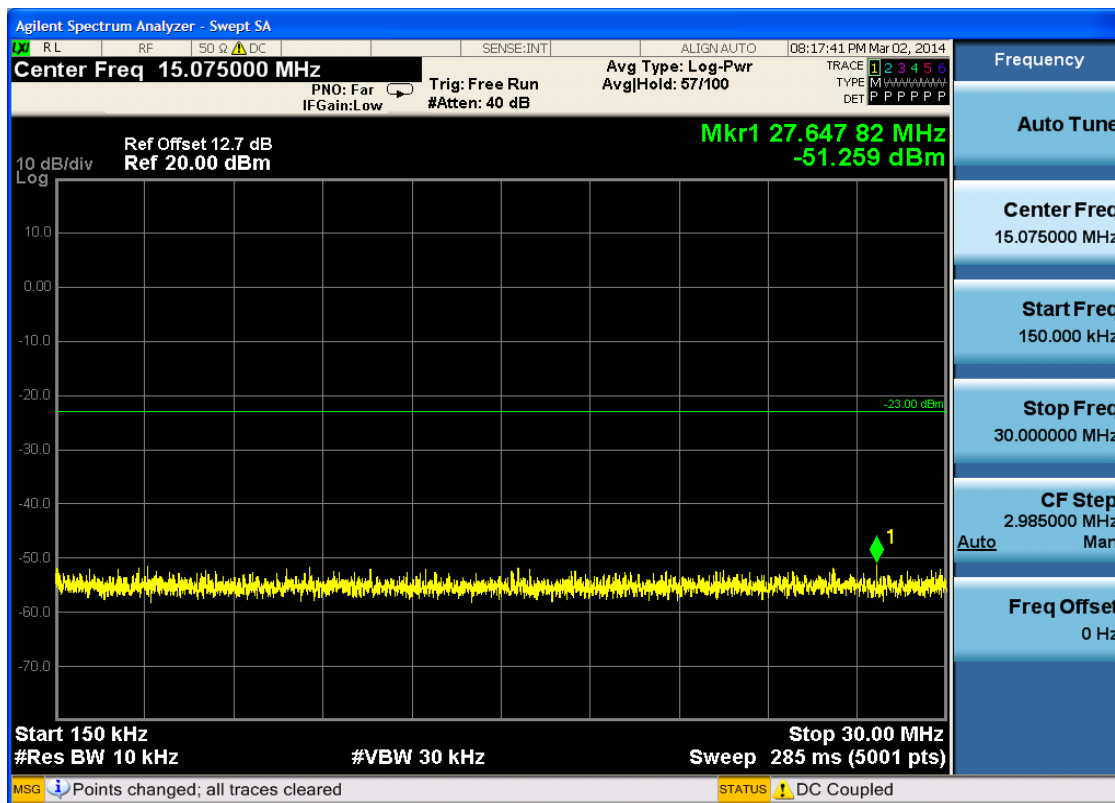


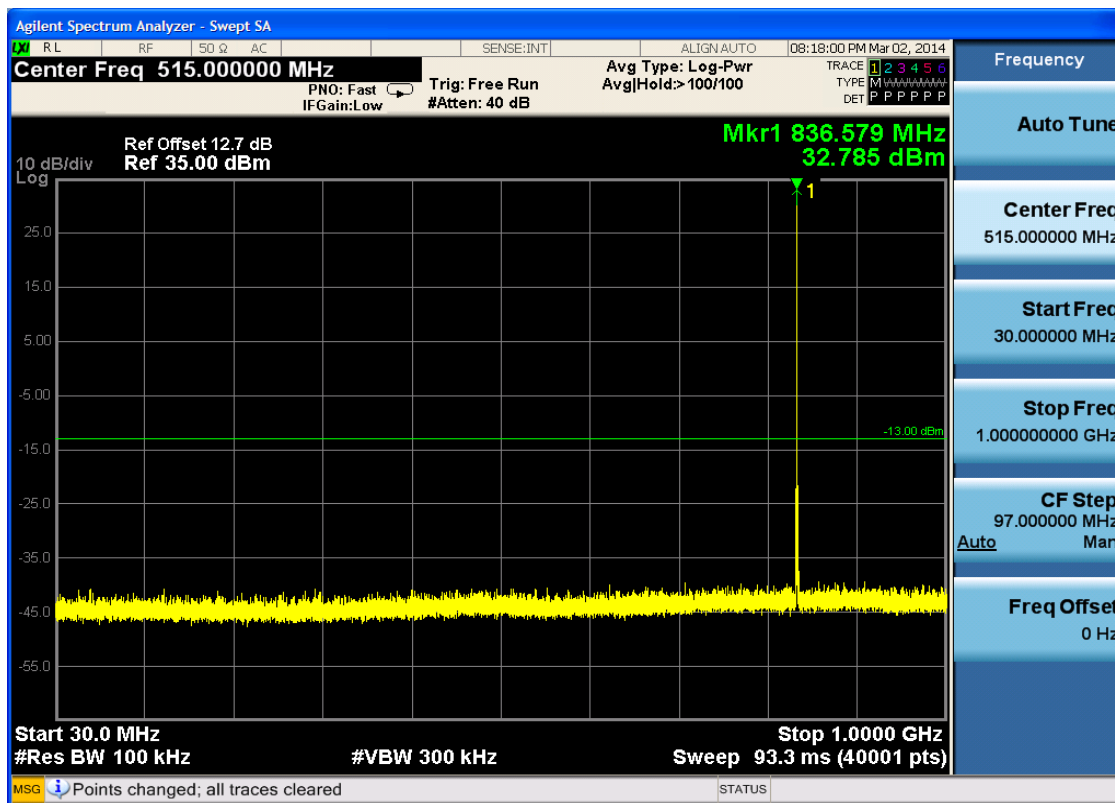


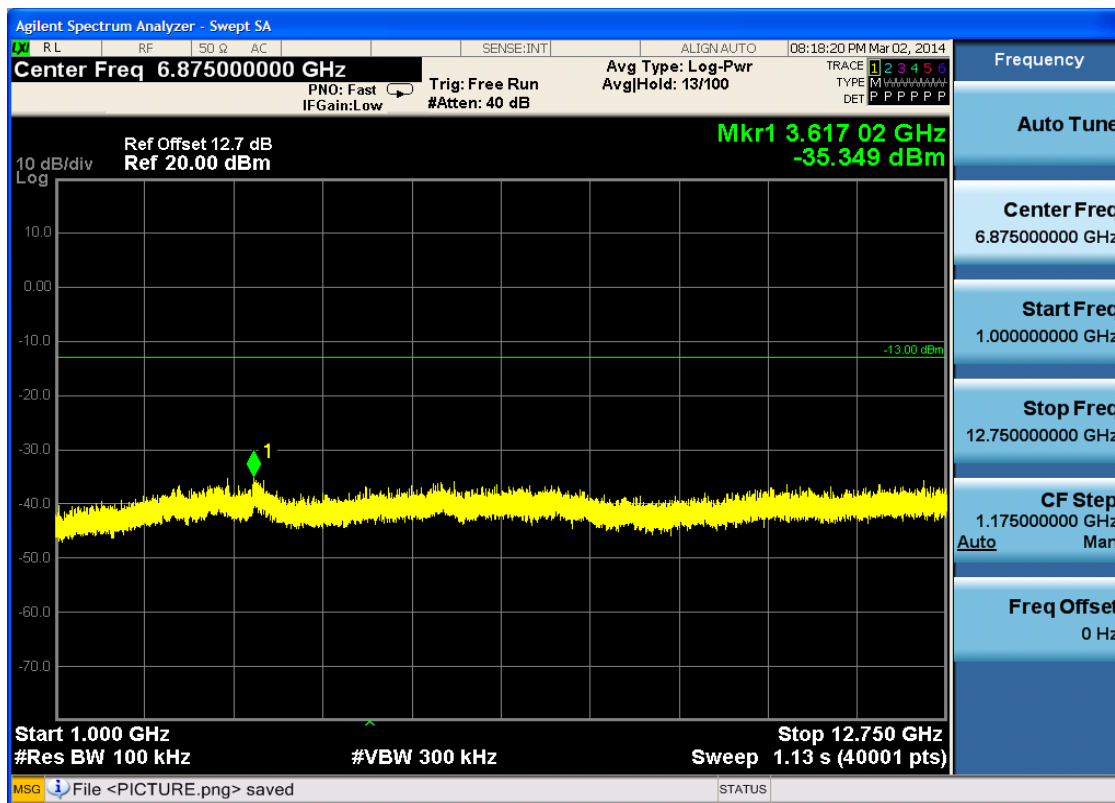


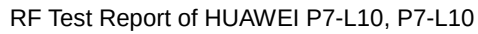
6.1.1.1.2 Test Channel = MCH











Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN:AUTO 08:18:41 PM Mar 02, 2014

Center Freq 79.500 kHz PNO: Close IF Gain: Low Trig: Free Run Avg Type: Log-Pwr Avg/Hold: 100/100

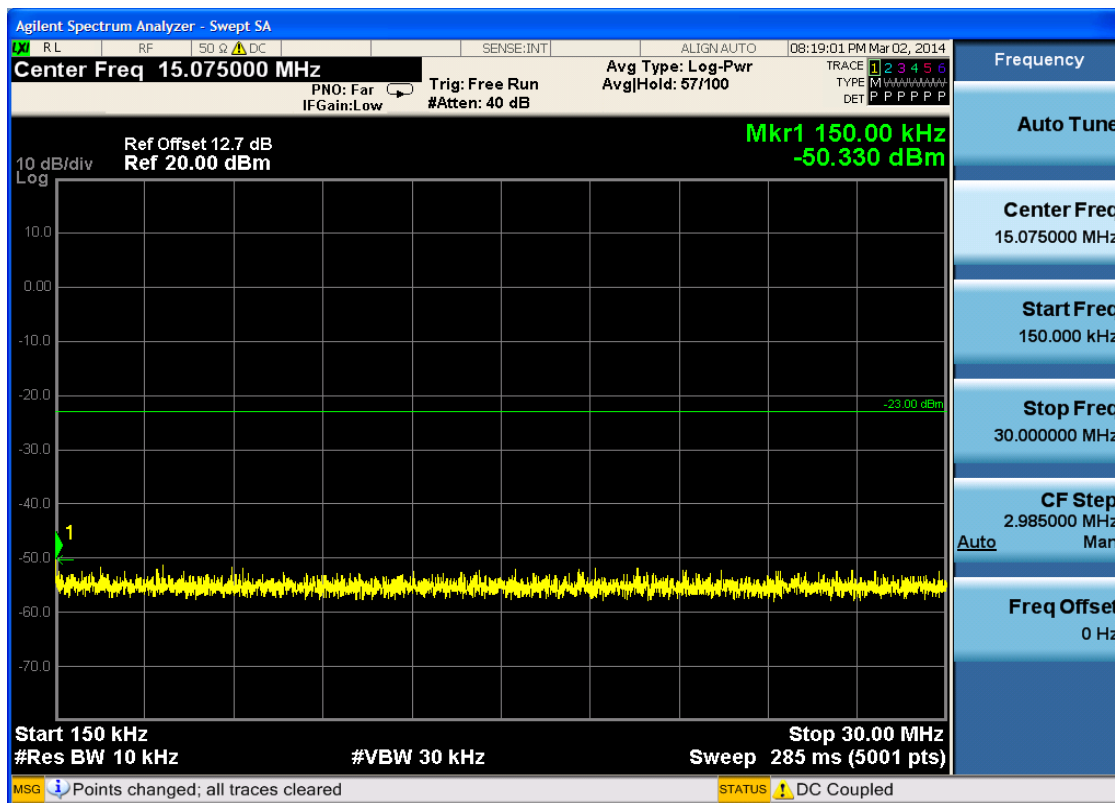
TRACE 1 2 3 4 5 6 TYPE M M M M M M M M DET P P P P P P

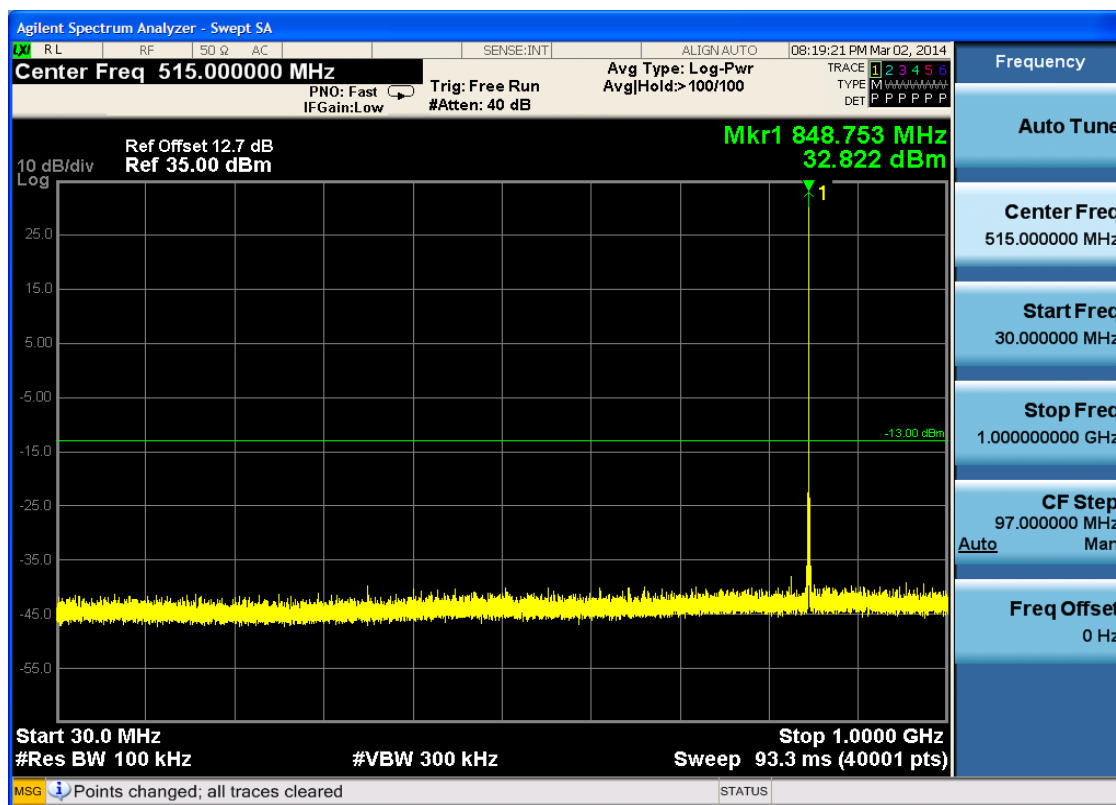
Ref Offset 12.7 dB Ref 20.00 dBm Mkr1 10.128 kHz -57.490 dBm

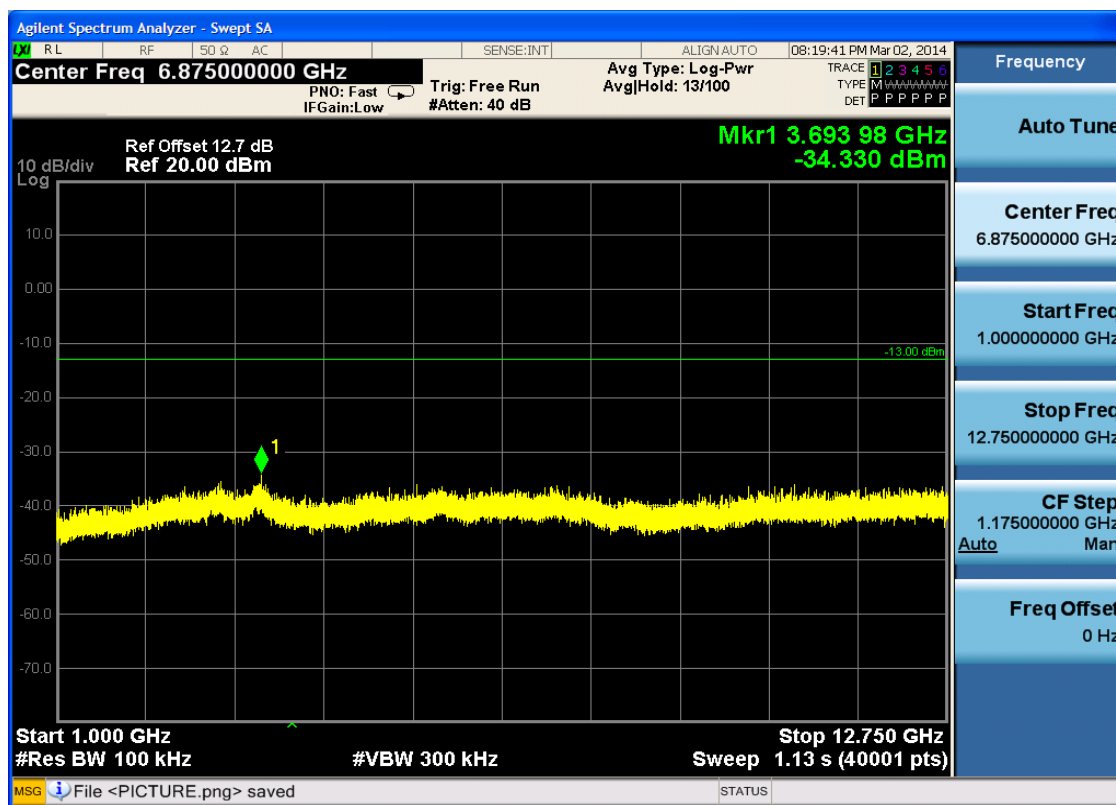
10 dB/div Log

Start 9.00 kHz #Res BW 1.0 kHz #VBW 10 kHz Stop 150.00 kHz Sweep 130 ms (1001 pts)

MSG Points changed; all traces cleared STATUS DC Coupled

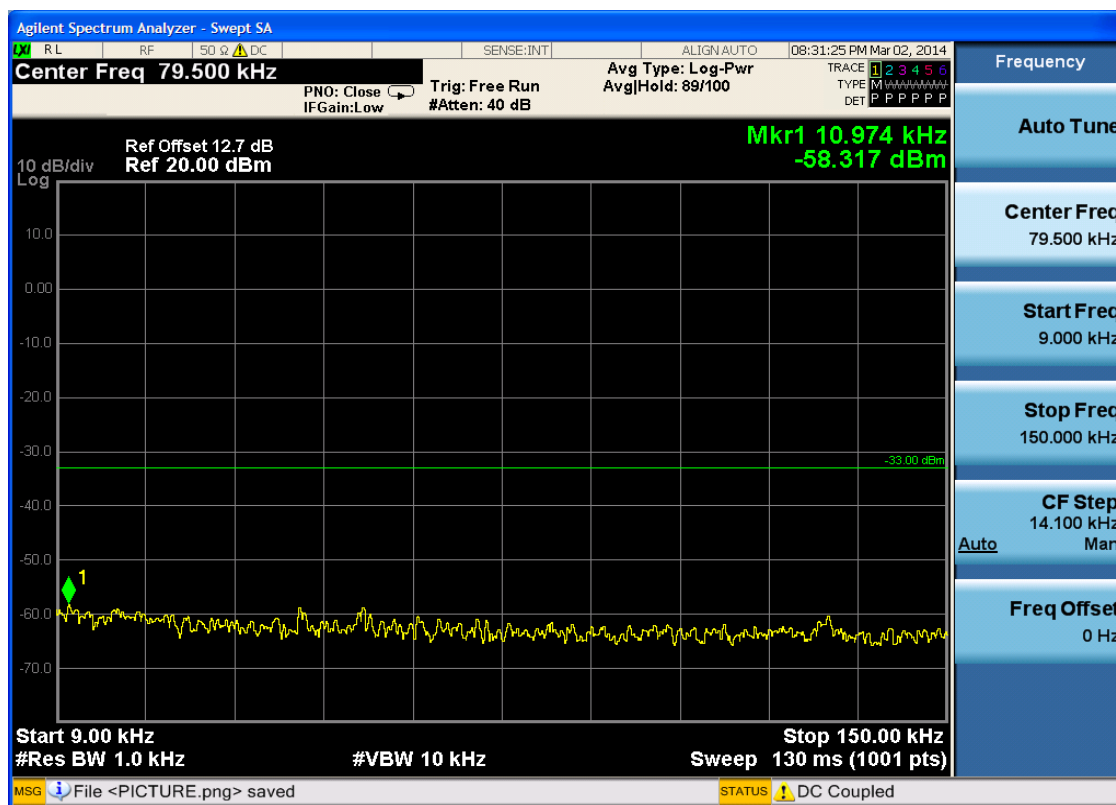


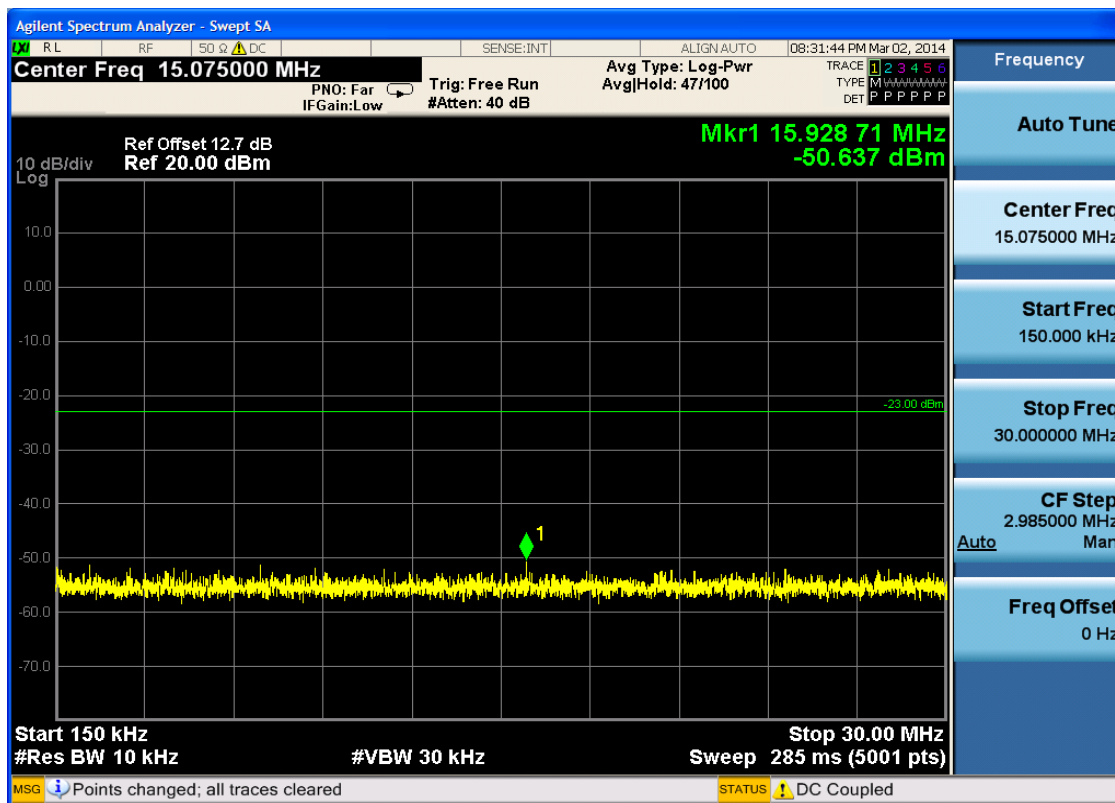


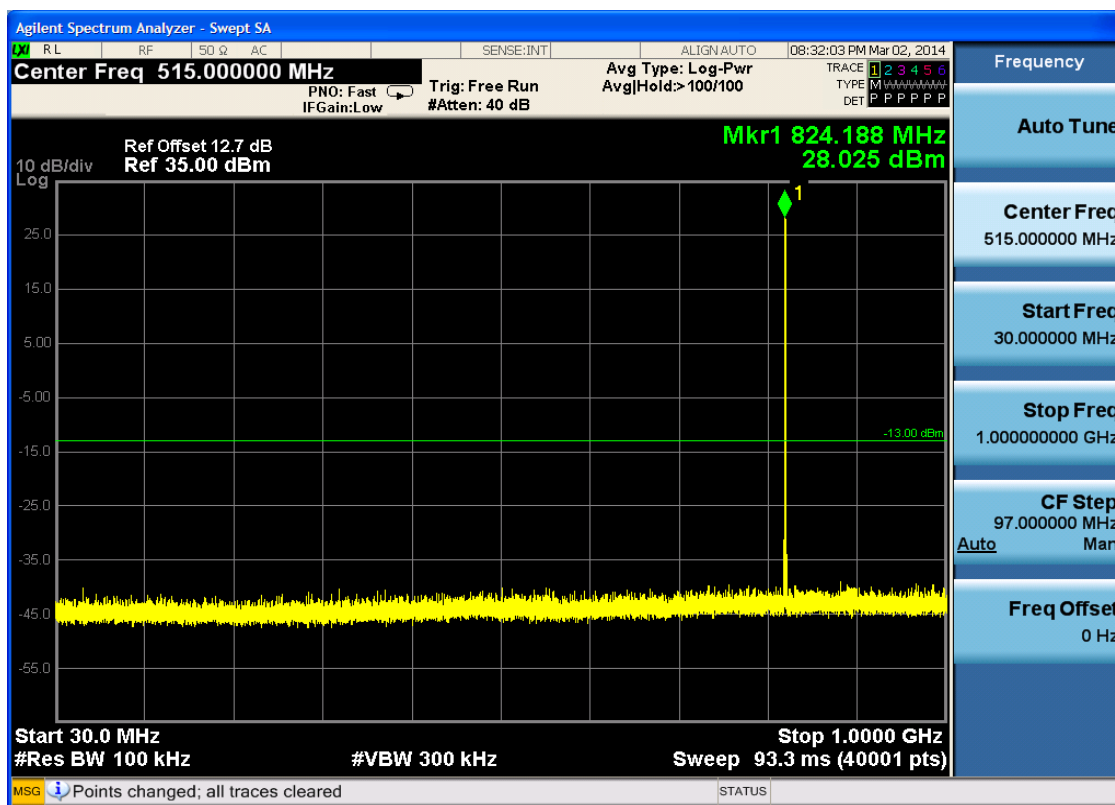


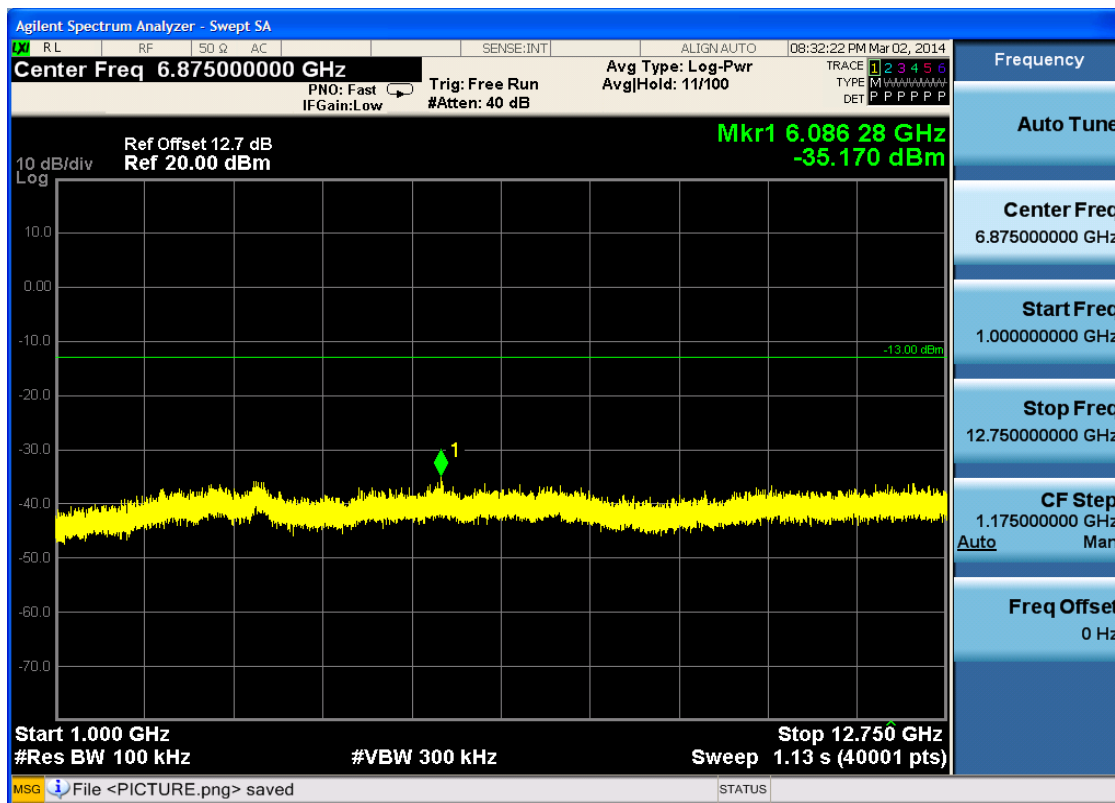
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH











Agilent Spectrum Analyzer - Swept SA

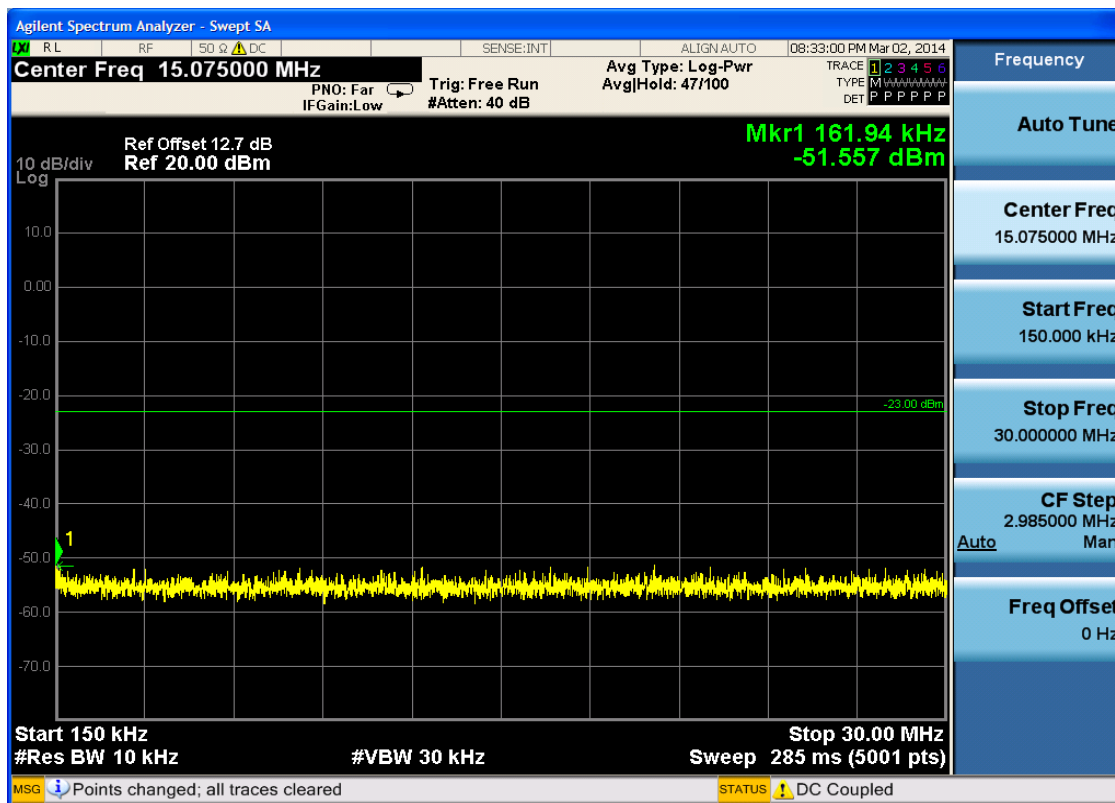
☒ R.L. RF 50 Ω DC SENSE:INT ALIGN:AUTO 08:32:41 PM Mar 02, 2014
 Center Freq 79.500 kHz PNO: Close Trig: Free Run Avg Type: Log-Pwr TRACE 1 2 3 4 5 6
 IFGain:Low #Atten: 40 dB Avg|Hold: 89/100 TYPE M DET P P P P P P

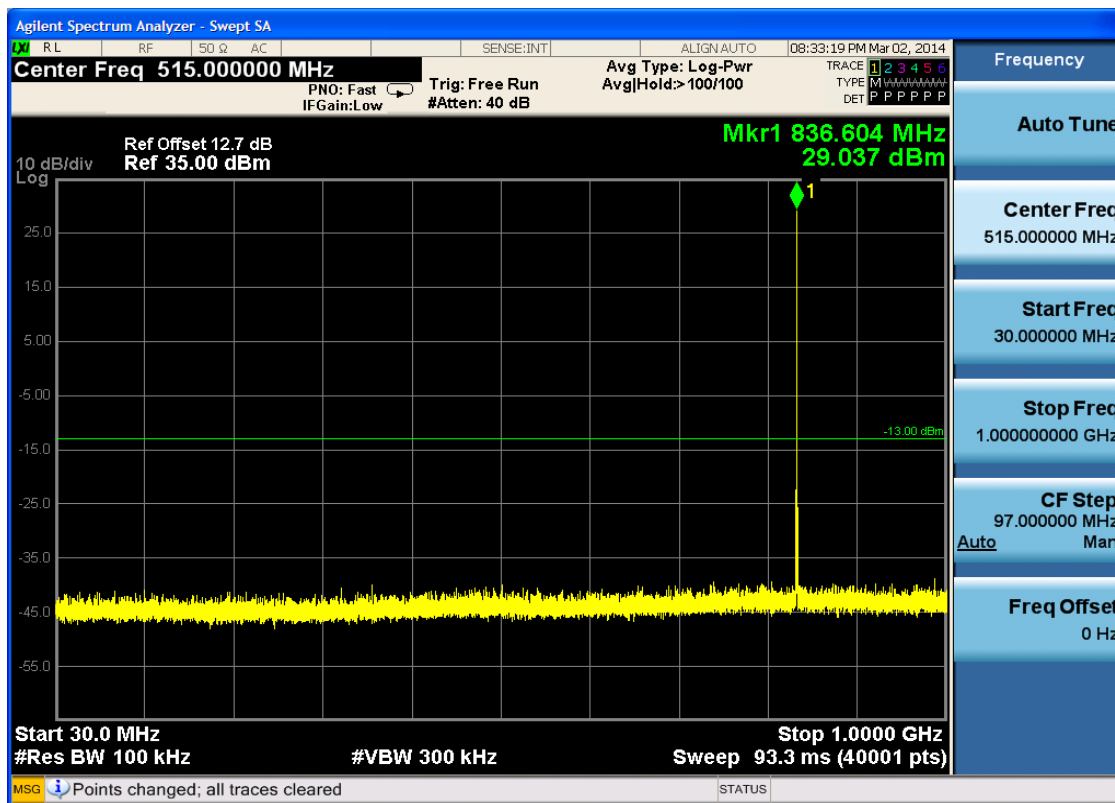
10 dB/div Ref Offset 12.7 dB Mkr1 10.974 kHz
 Log Ref 20.00 dBm -58.892 dBm

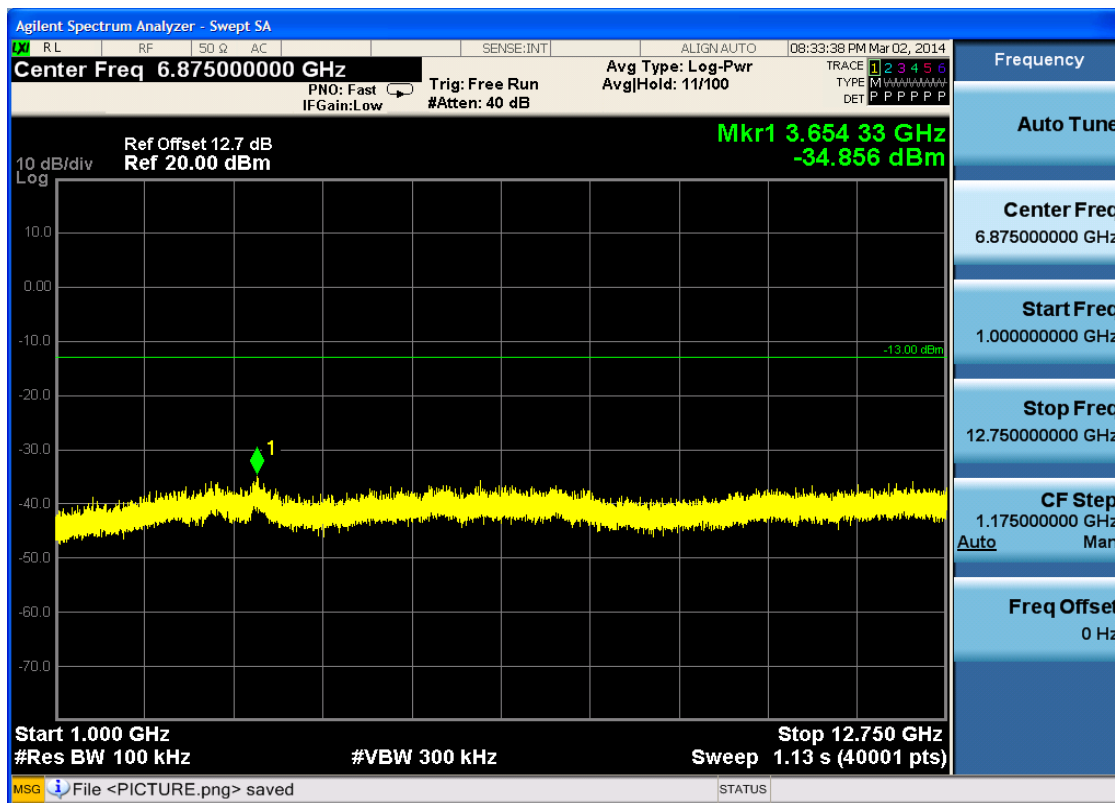
Start 9.00 kHz Stop 150.00 kHz
 #Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

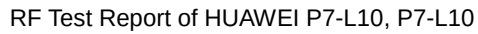
MSG Points changed; all traces cleared STATUS DC Coupled

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









Agilent Spectrum Analyzer - Swept SA

R/L	RF	50 Ω DC	SENSE:INT	ALIGN AUTO	08:33:58 PM Mar 02, 2014
-----	----	---------	-----------	------------	--------------------------

Center Freq 79.500 kHz PNO: Close IF Gain: Low Trig: Free Run #Atten: 40 dB Avg Type: Log-Pwr AvgHld: 89/100 TRACE 1 2 3 4 5 6 TYPE M M M M M M M M DET P P P P P P

Ref Offset 12.7 dB
Ref 20.00 dBm

Mkr1 9.705 kHz
-58.552 dBm

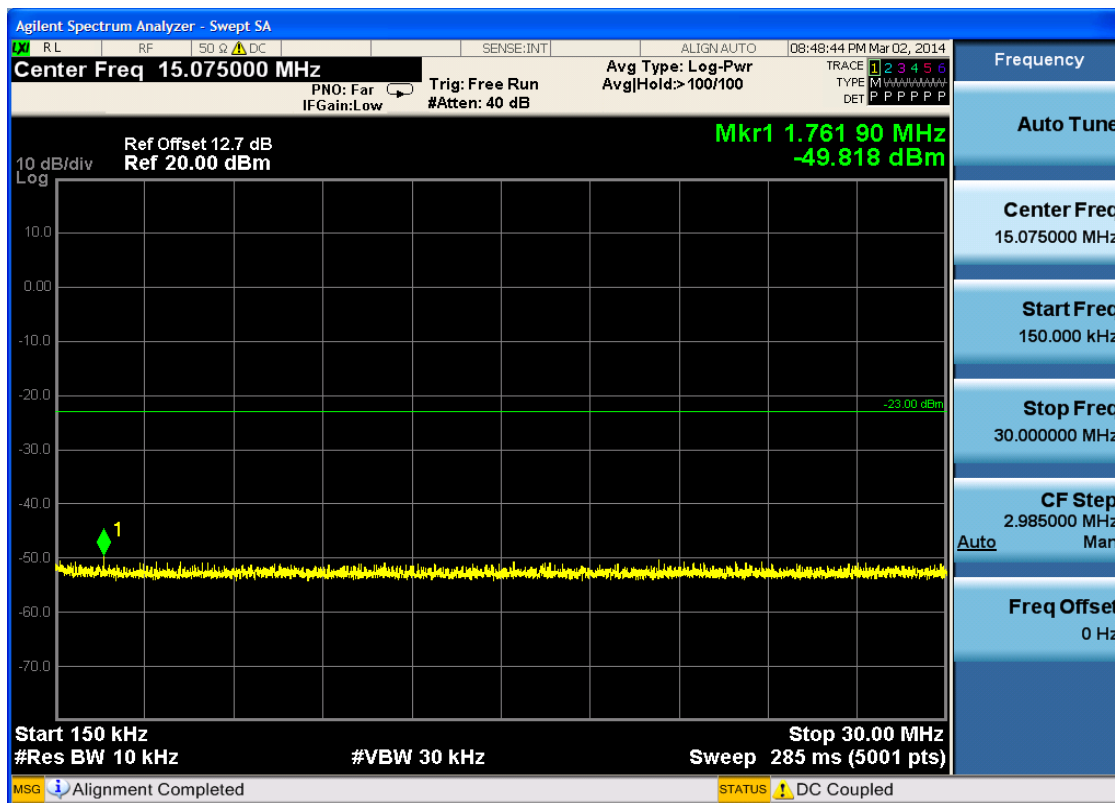
10 dB/div
Log

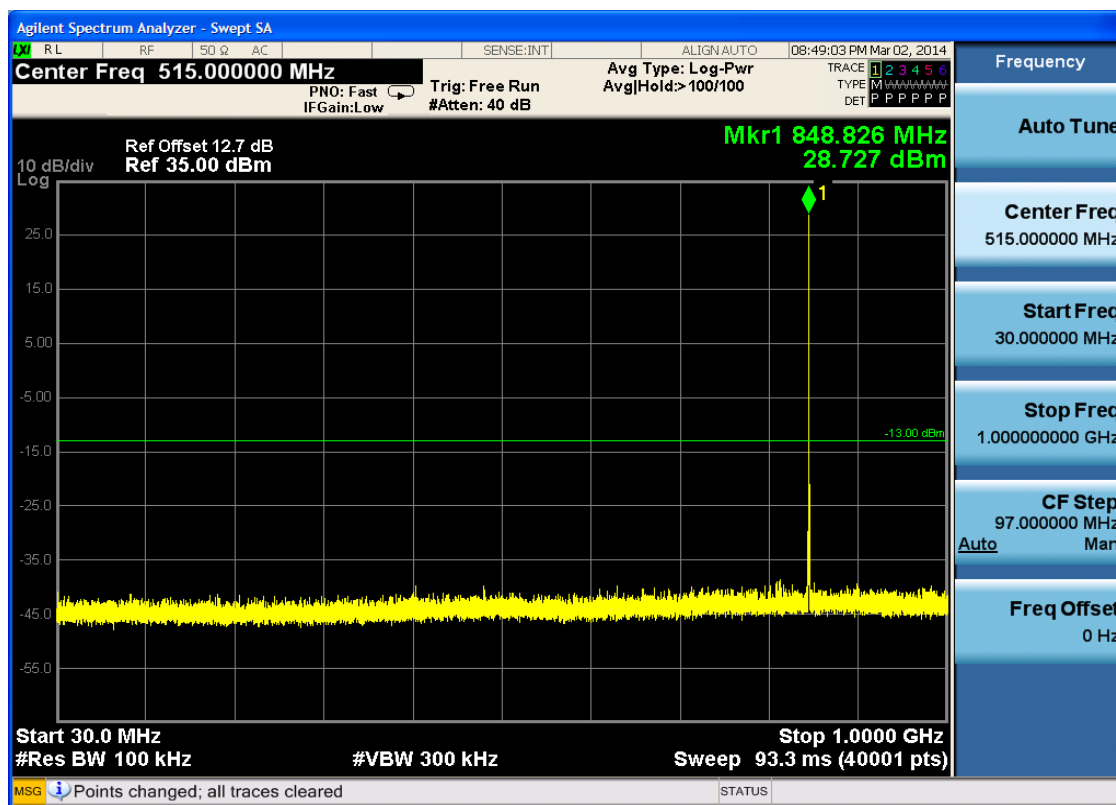
Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

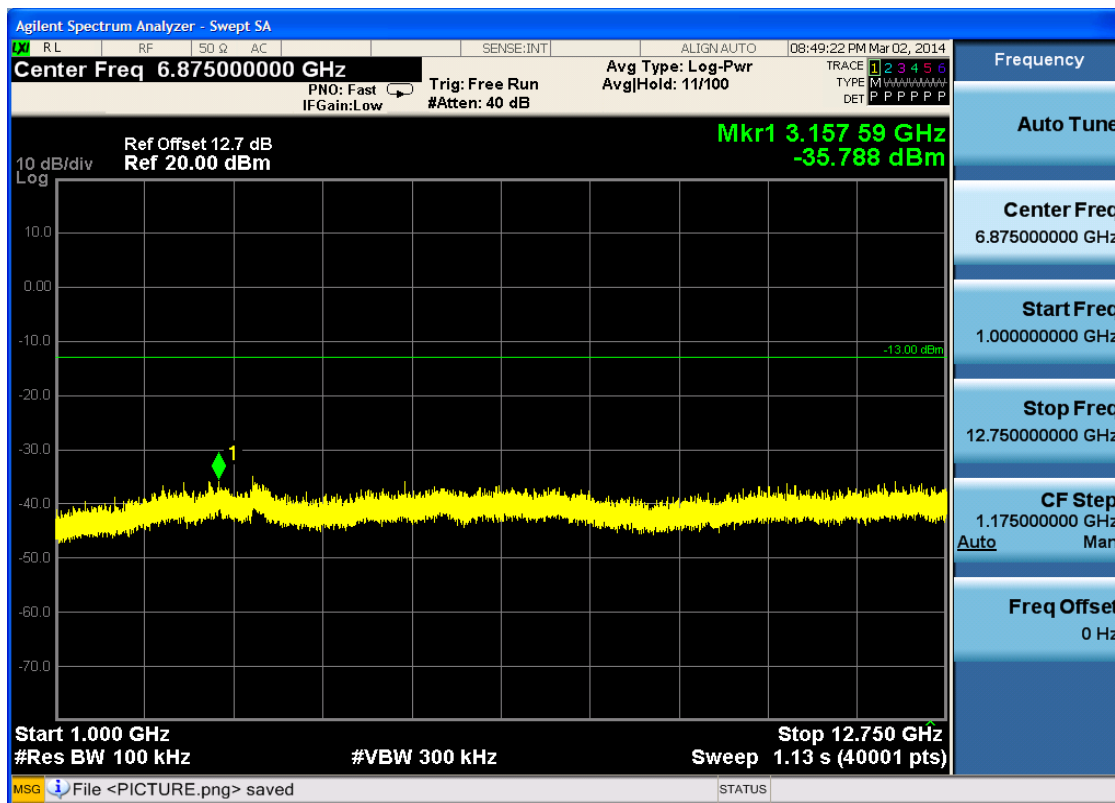
MSG Points changed; all traces cleared STATUS DC Coupled

Frequency

- Auto Tune
- Center Freq 79.500 kHz
- Start Freq 9.000 kHz
- Stop Freq 150.000 kHz
- CF Step 14.100 kHz Man
- Freq Offset 0 Hz



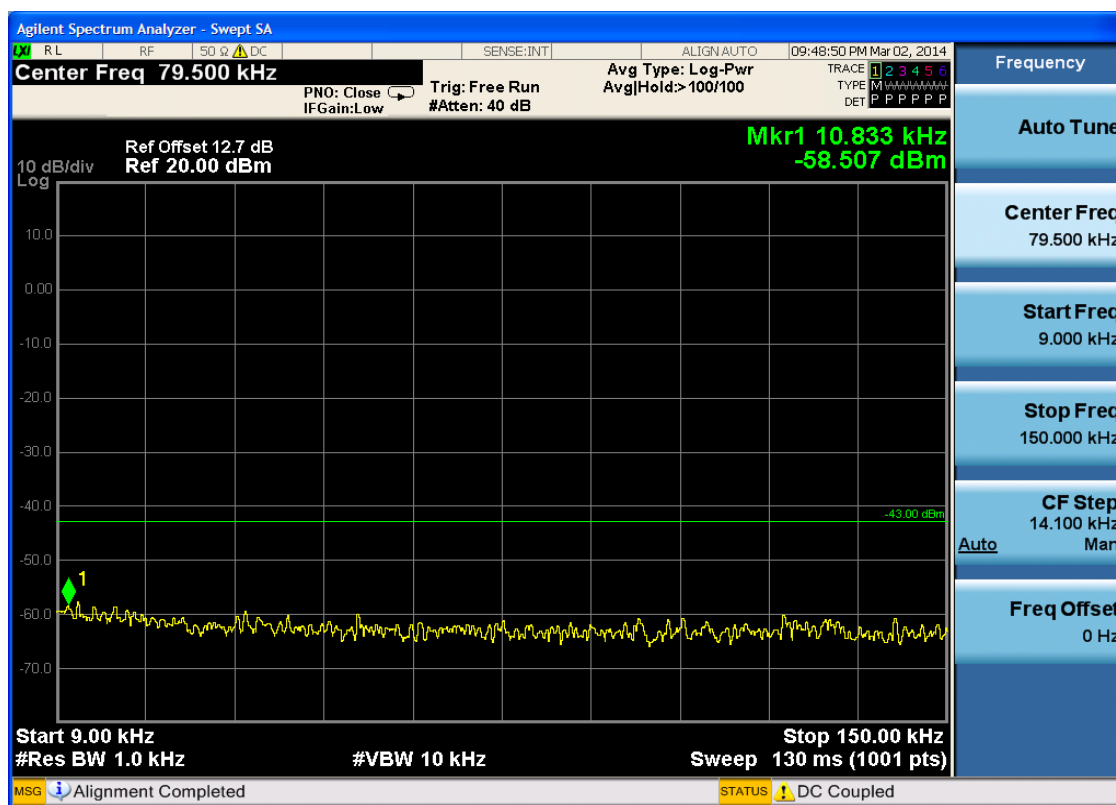


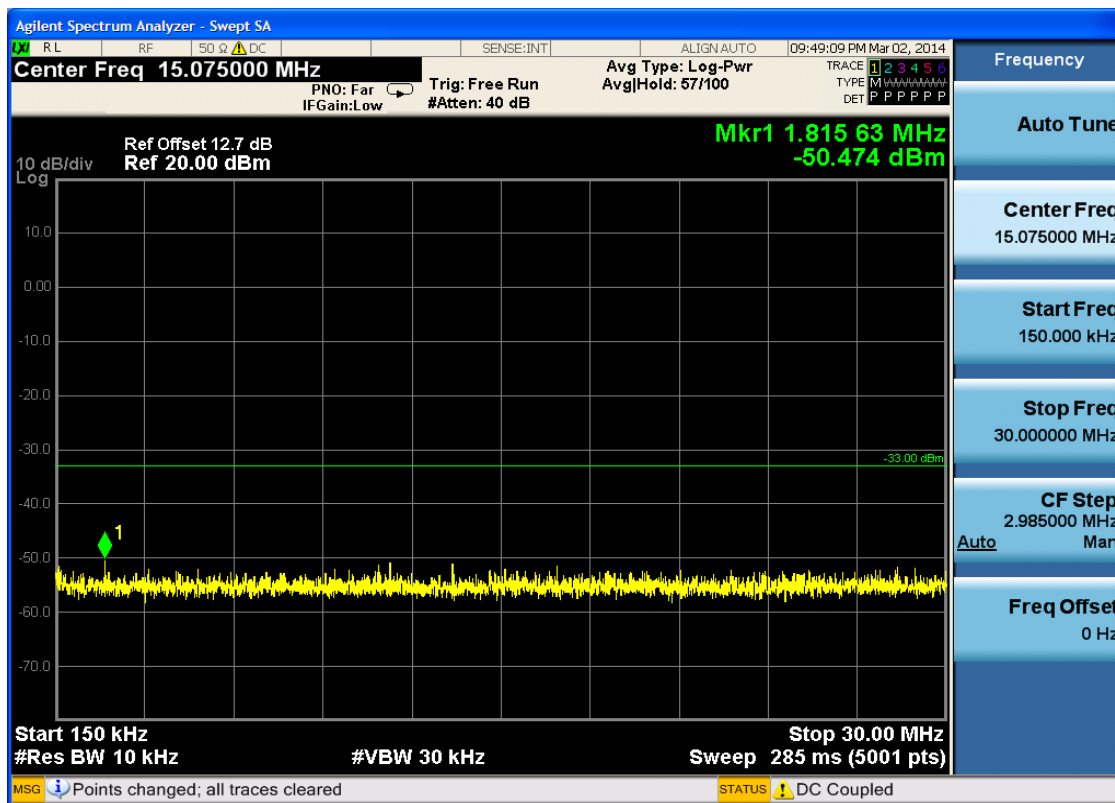


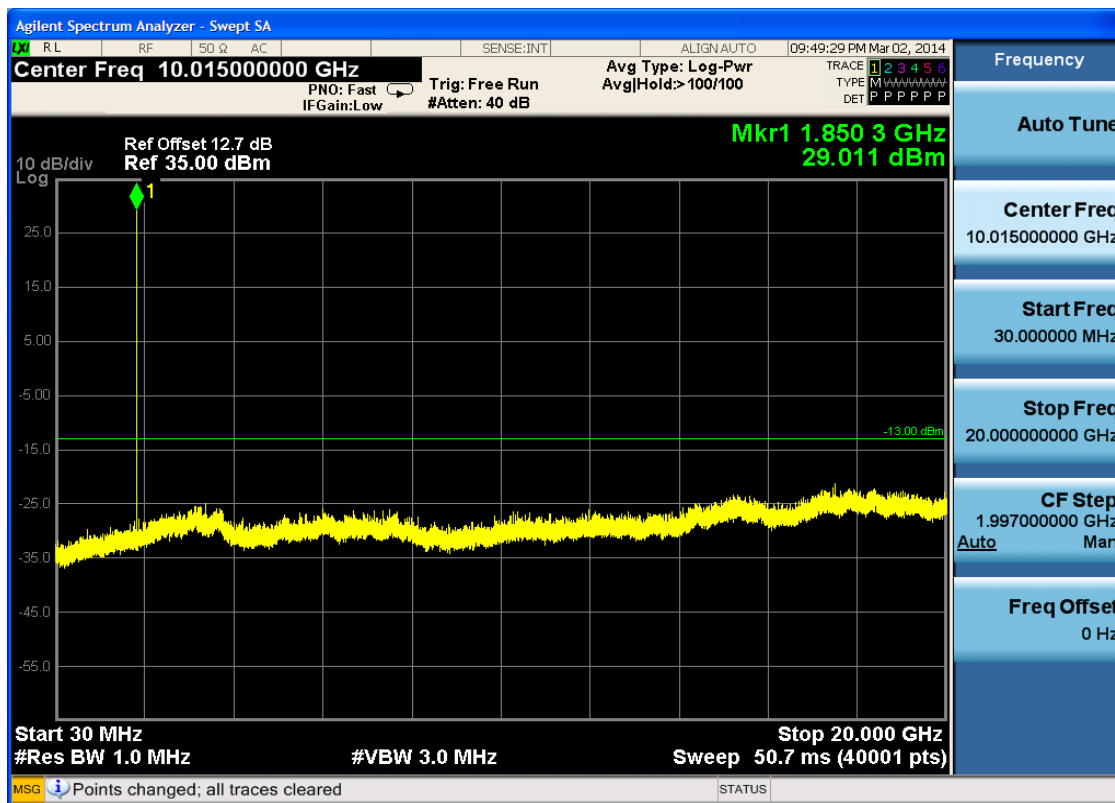
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

6.1.2.1.1 Test Channel = LCH

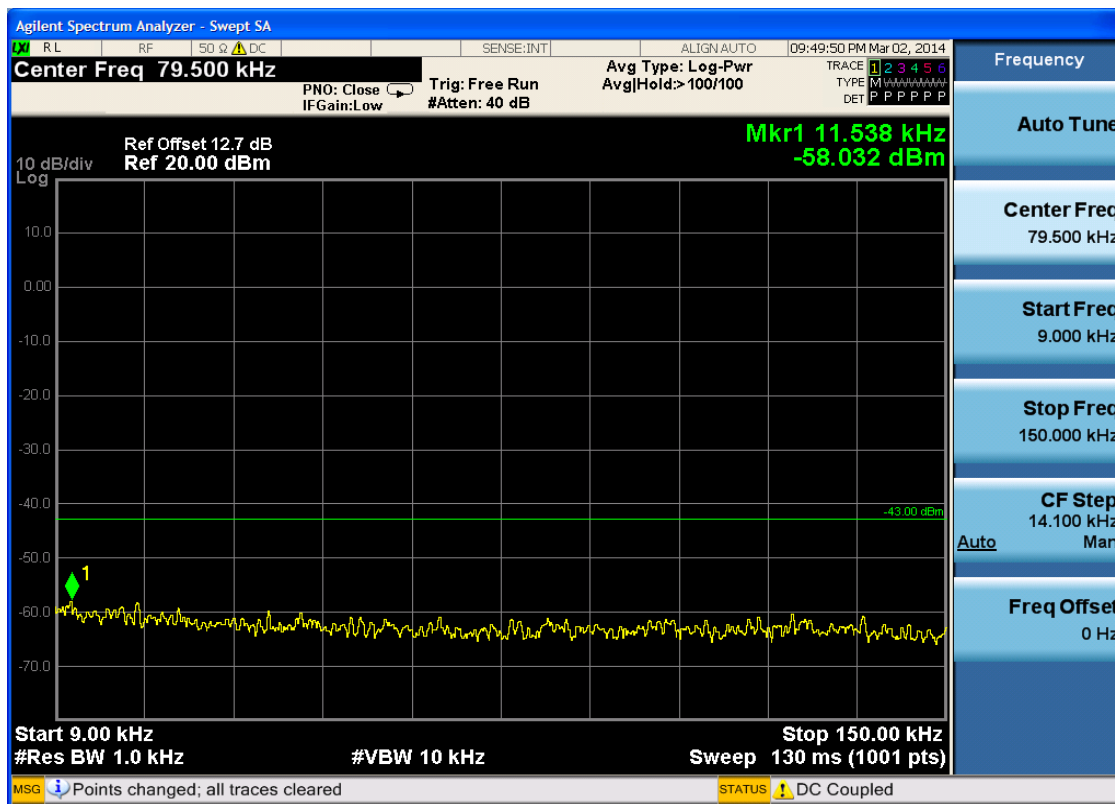


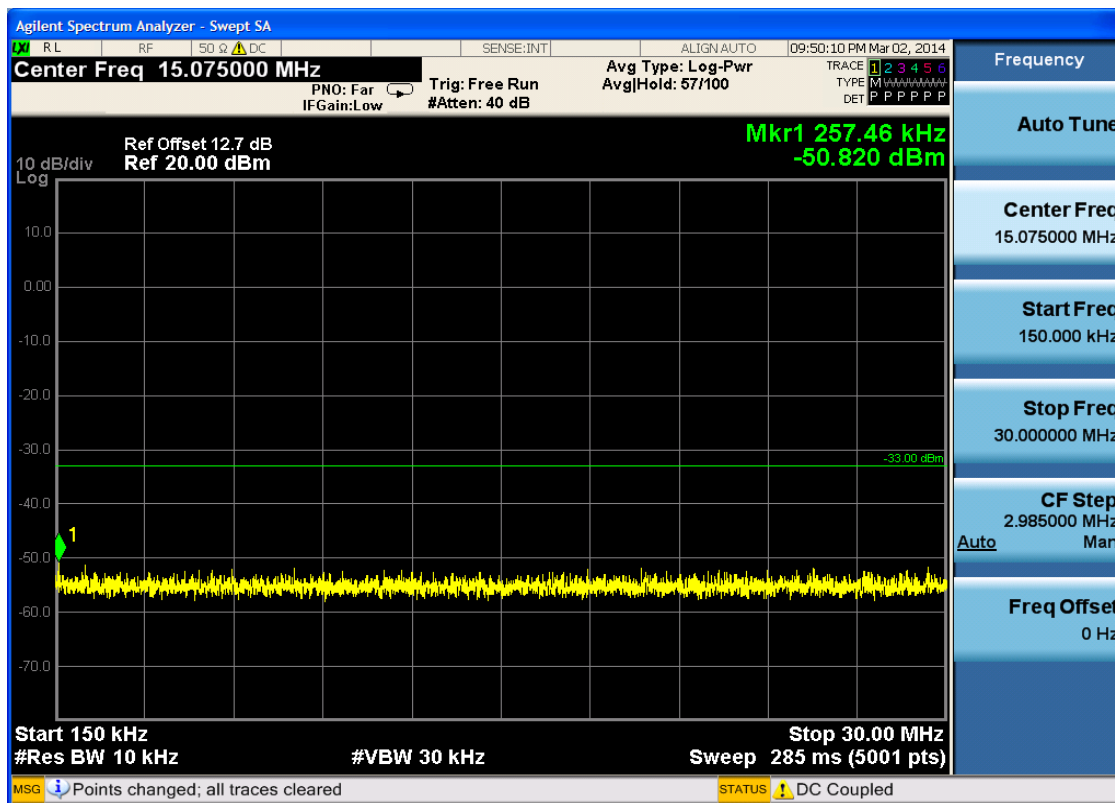


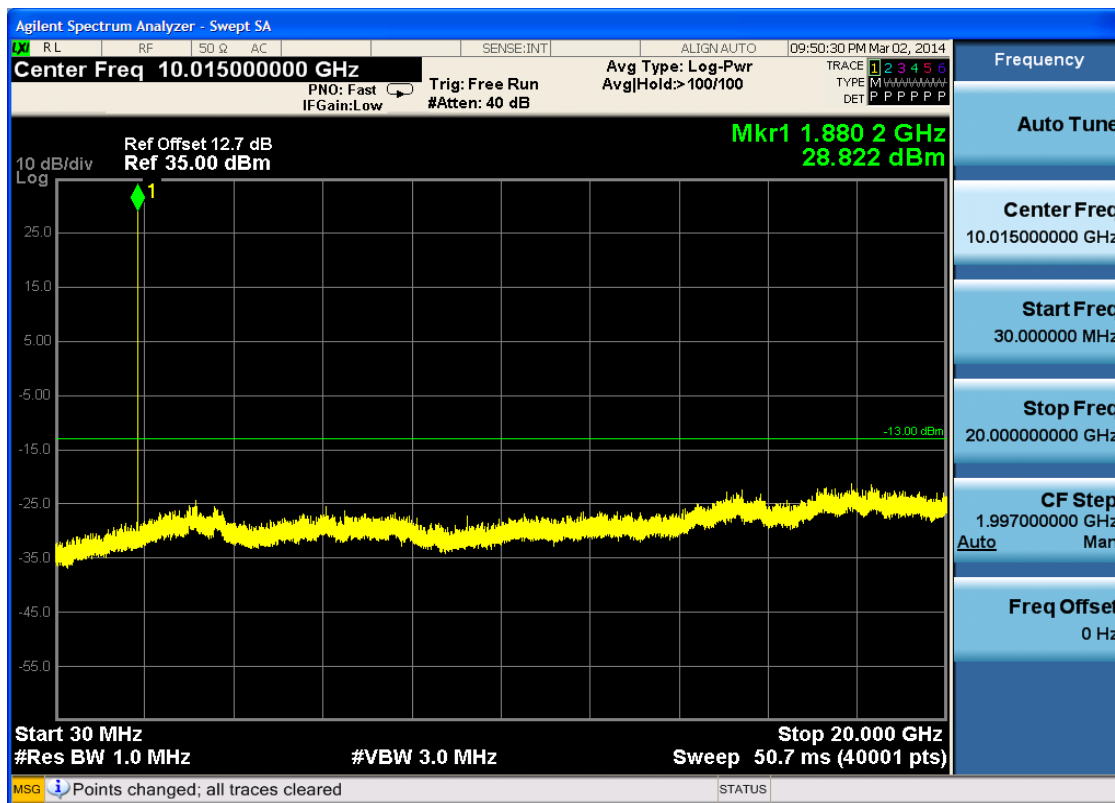




6.1.2.1.2 Test Channel = MCH

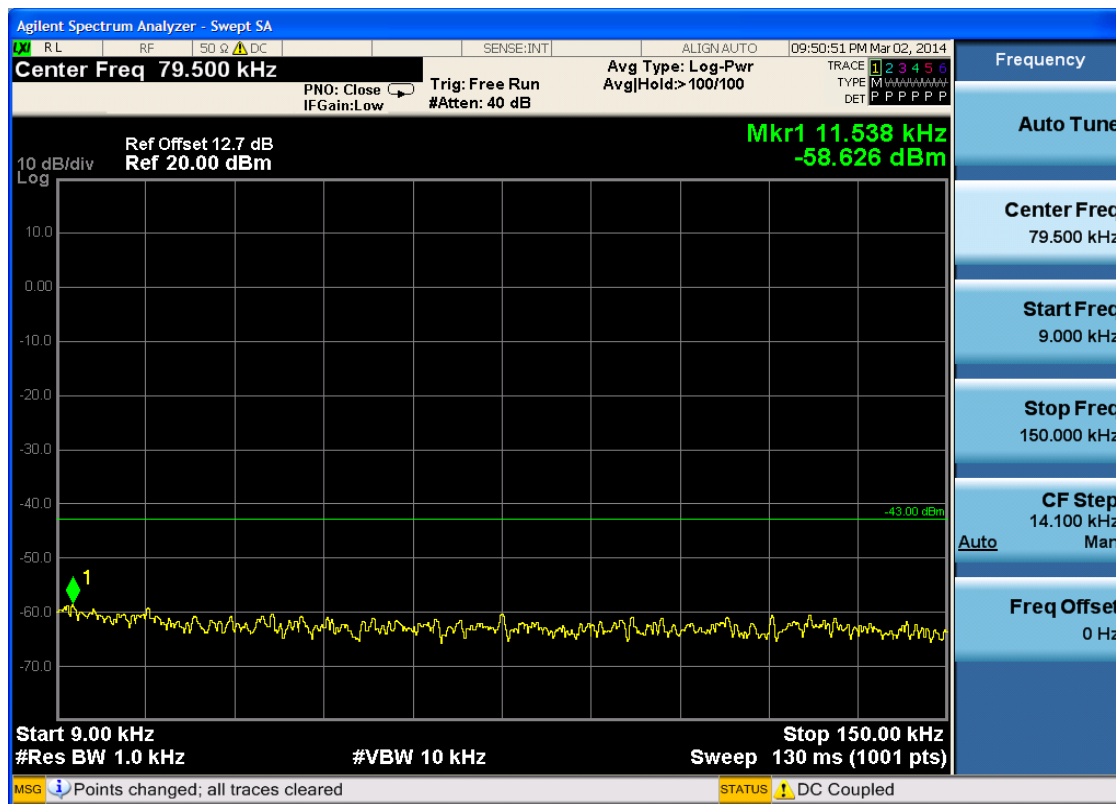


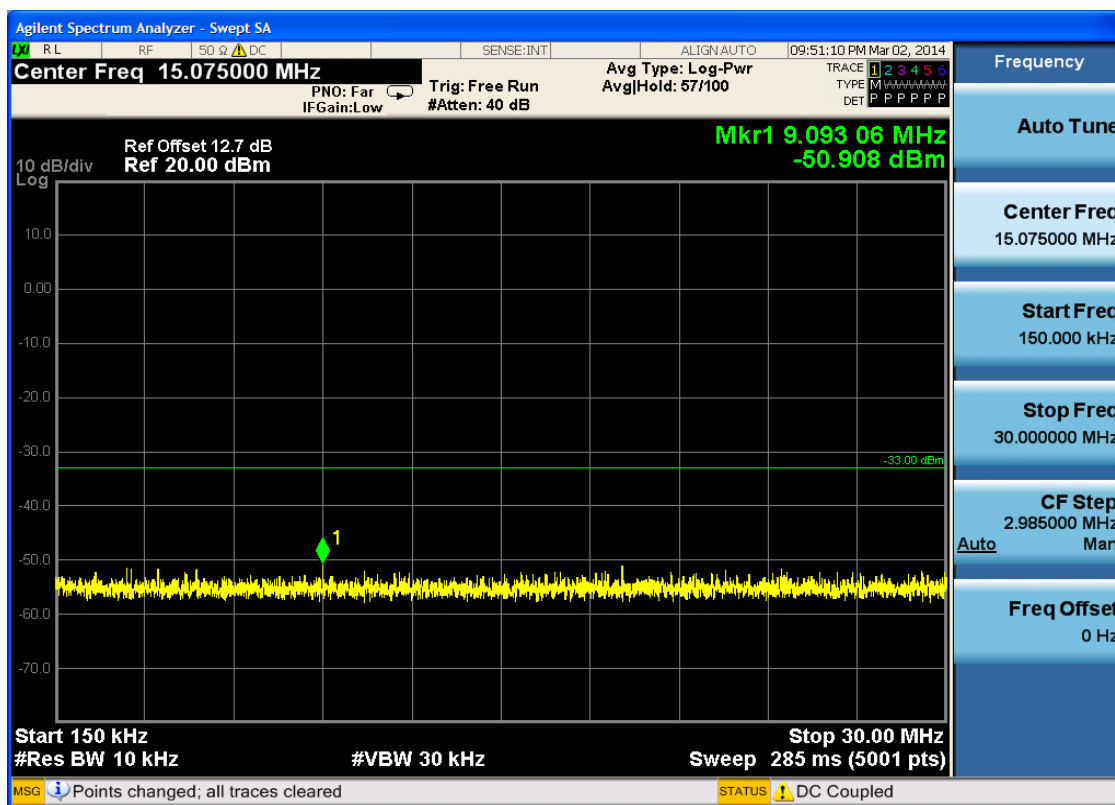


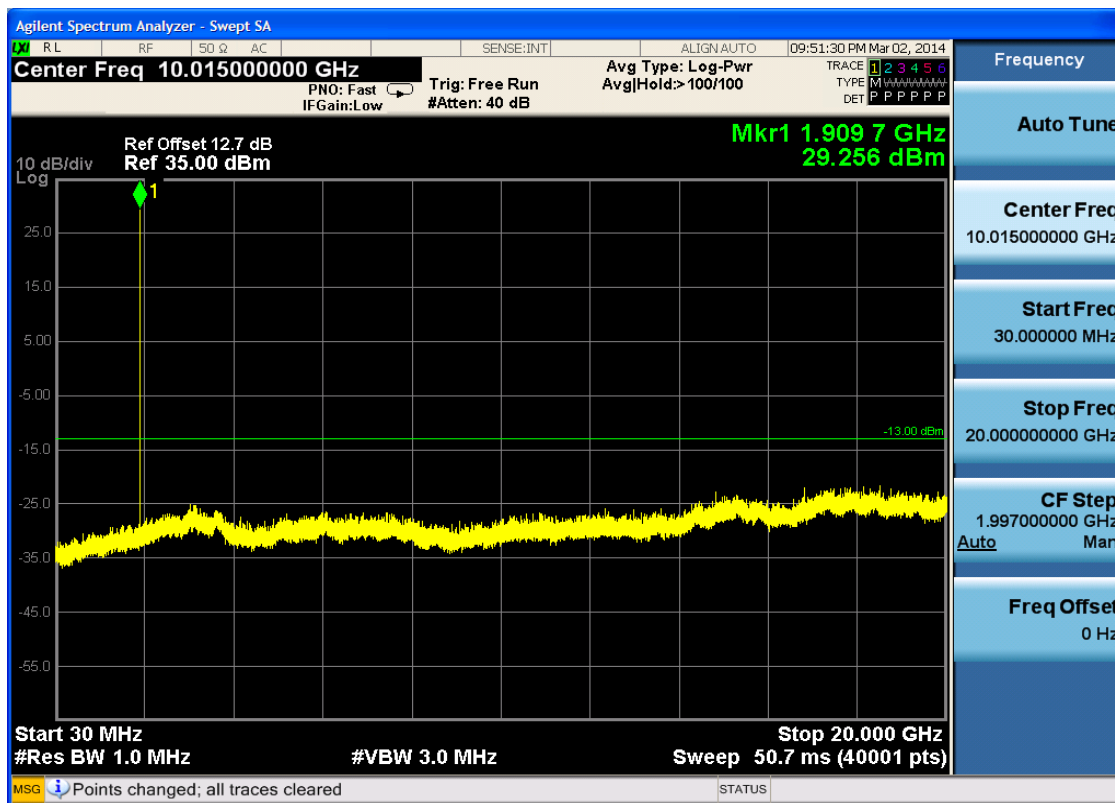




6.1.2.1.3 Test Channel = HCH

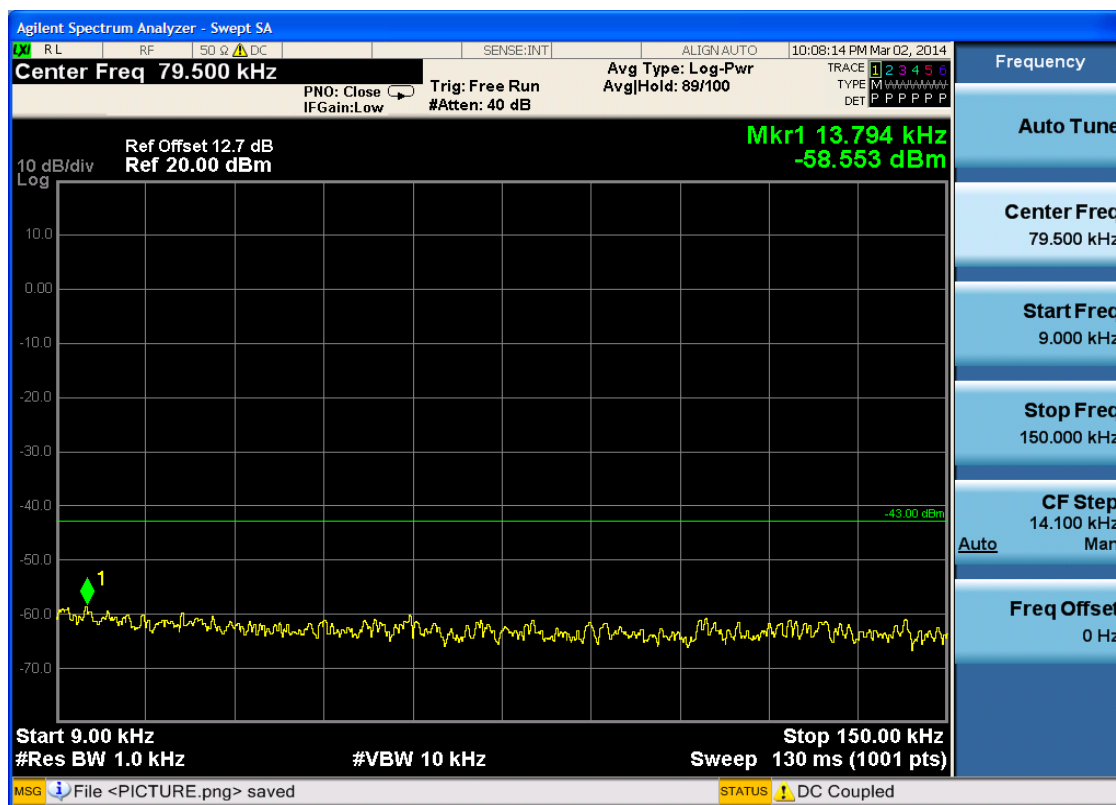


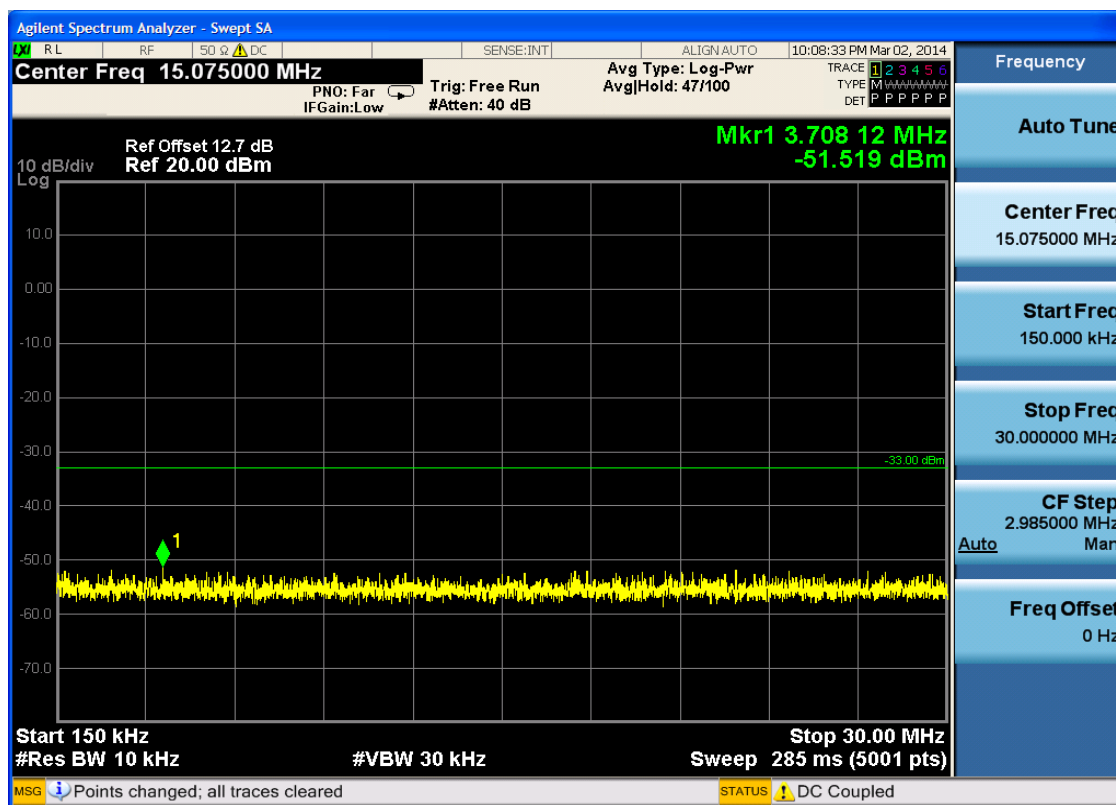


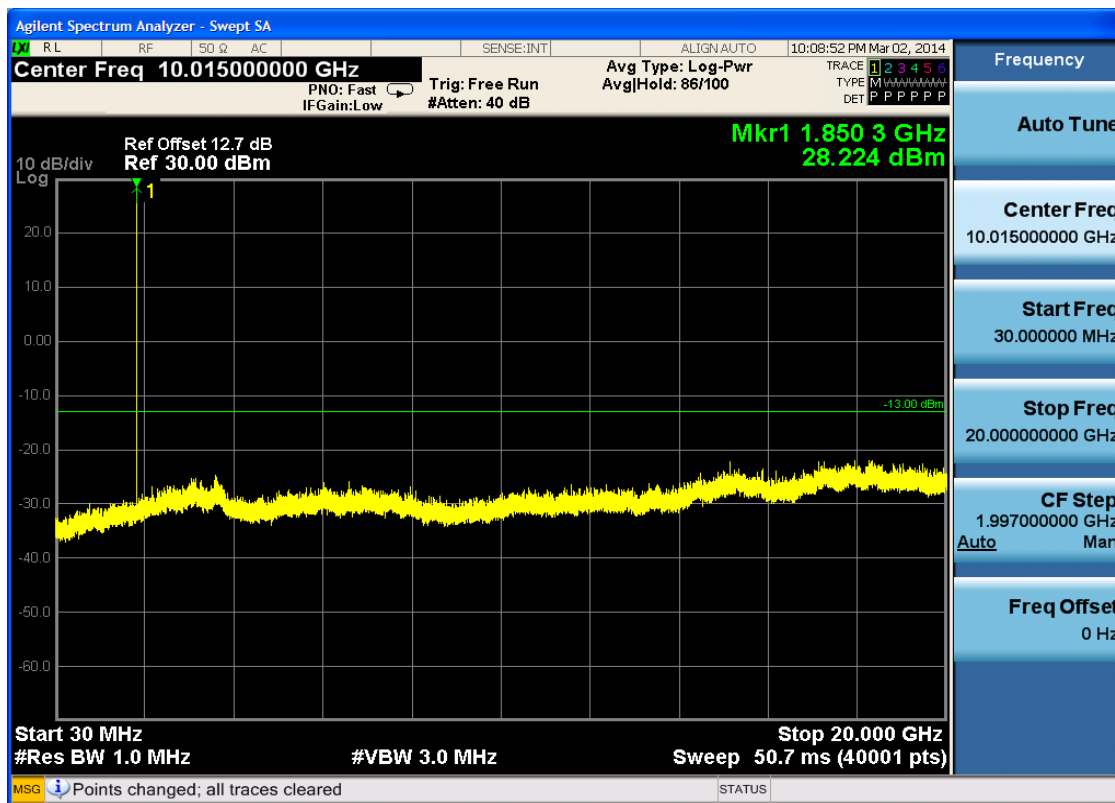


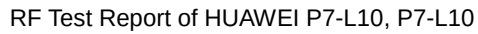
6.1.2.2 Test Mode = GSM/TM2

6.1.2.2.1 Test Channel = LCH









Agilent Spectrum Analyzer - Swept SA

R/L	RF	50 Ω DC	SENSE:INT	ALIGN:AUTO	10:09:12 PM Mar 02, 2014
-----	----	---------	-----------	------------	--------------------------

Center Freq 79.500 kHz PNO: Close IF Gain: Low Trig: Free Run #Atten: 40 dB Avg Type: Log-Pwr Avg/Hold: 89/100 TRACE 1 2 3 4 5 6 TYPE M M M M M M M M DET P P P P P P

Ref Offset 12.7 dB
Ref 20.00 dBm

Mkr1 10.128 kHz -57.705 dBm

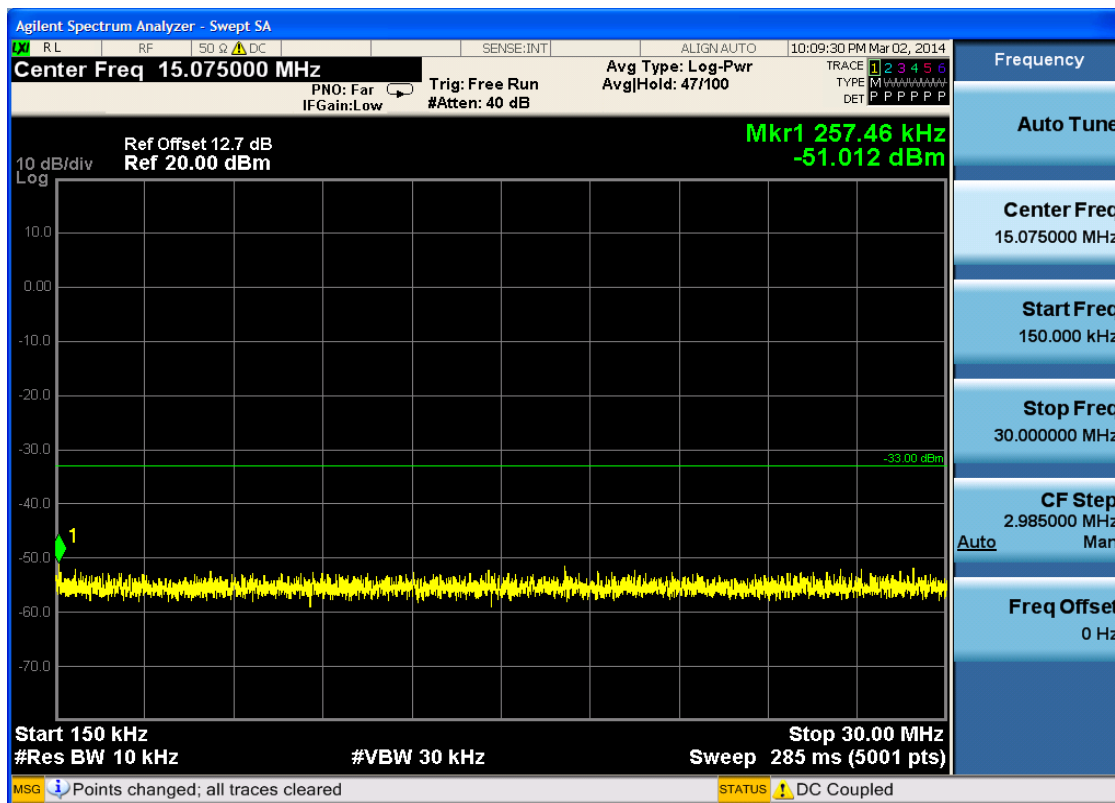
10 dB/div
Log

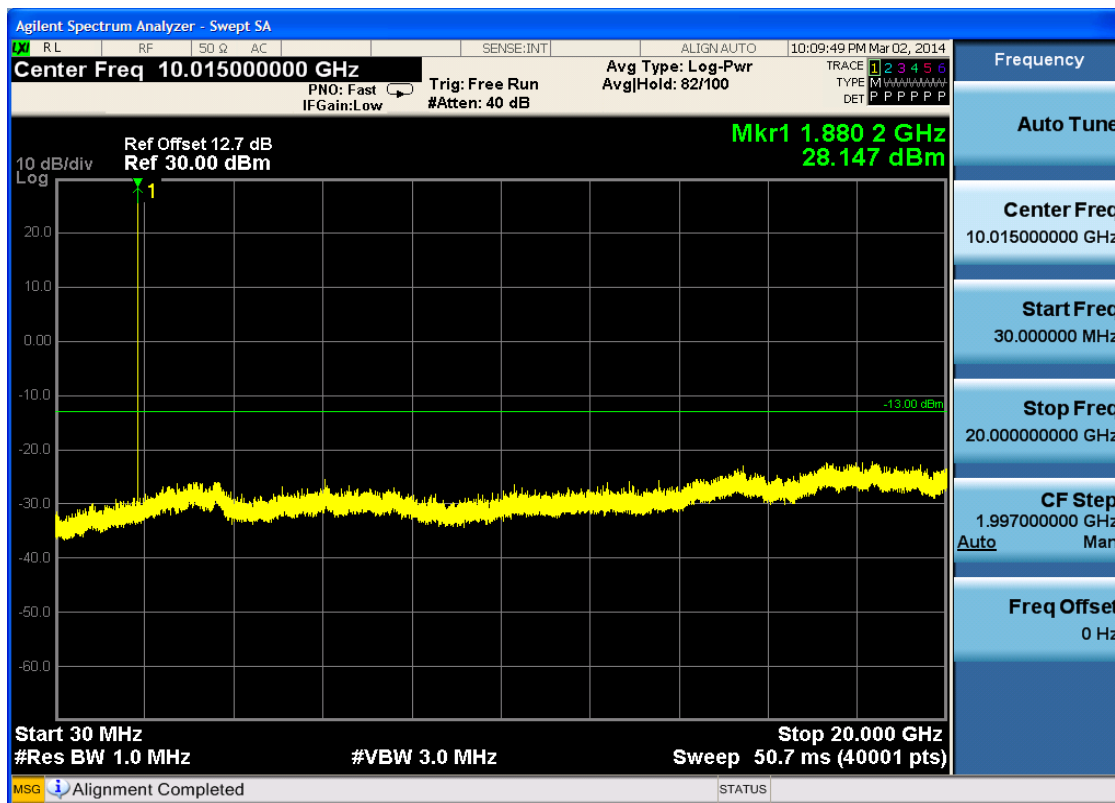
Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

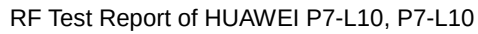
MSG ⓘ Points changed; all traces cleared STATUS ⚠ DC Coupled

Frequency

- Auto Tune
- Center Freq 79.500 kHz
- Start Freq 9.000 kHz
- Stop Freq 150.000 kHz
- CF Step 14.100 kHz Man
- Freq Offset 0 Hz







Agilent Spectrum Analyzer - Sweep SA

R/L	RF	50 Ω DC	SENSE:INT	ALIGN:AUTO	10:10:09 PM Mar 02, 2014
-----	----	---------	-----------	------------	--------------------------

Center Freq 79.500 kHz

PNO: Close IF Gain: Low Trig: Free Run Avg Type: Log-Pwr
#Atten: 40 dB AvgjHold: 89/100

TRACE 1 2 3 4 5 6
TYPE M A N I F E R
DET P P P P P P

Mkr1 14.498 kHz -57.853 dBm

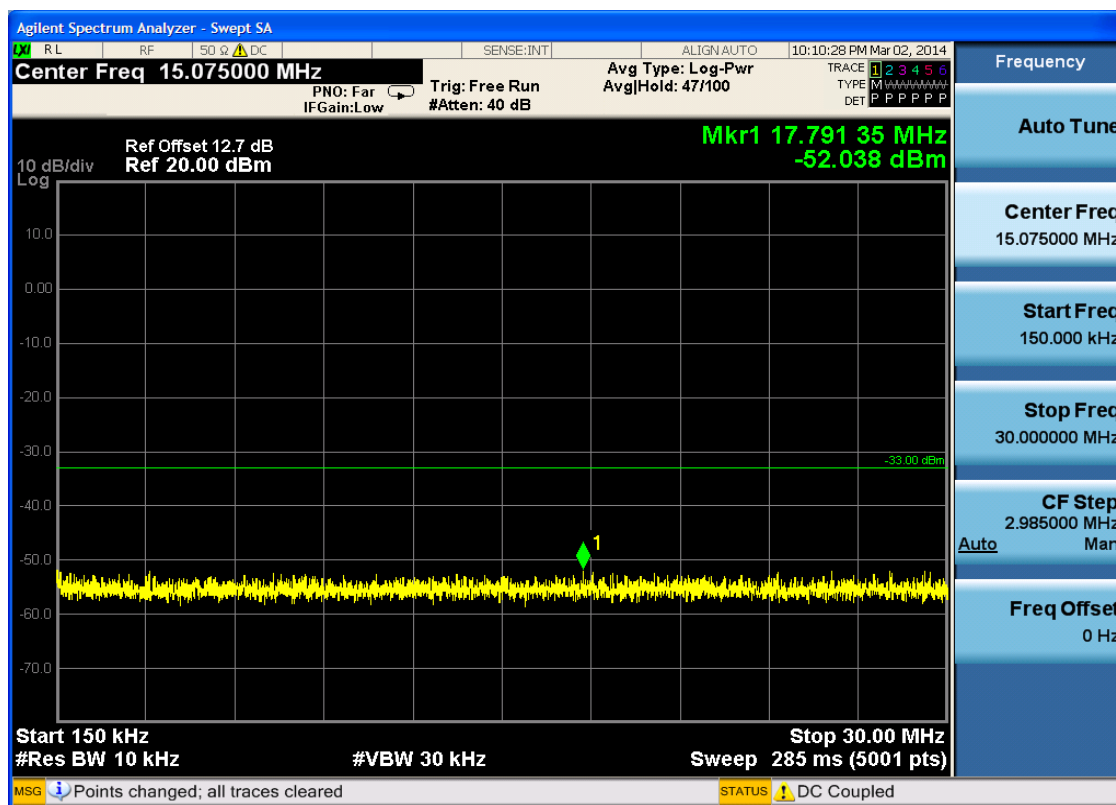
Ref Offset 12.7 dB
Ref 20.00 dBm

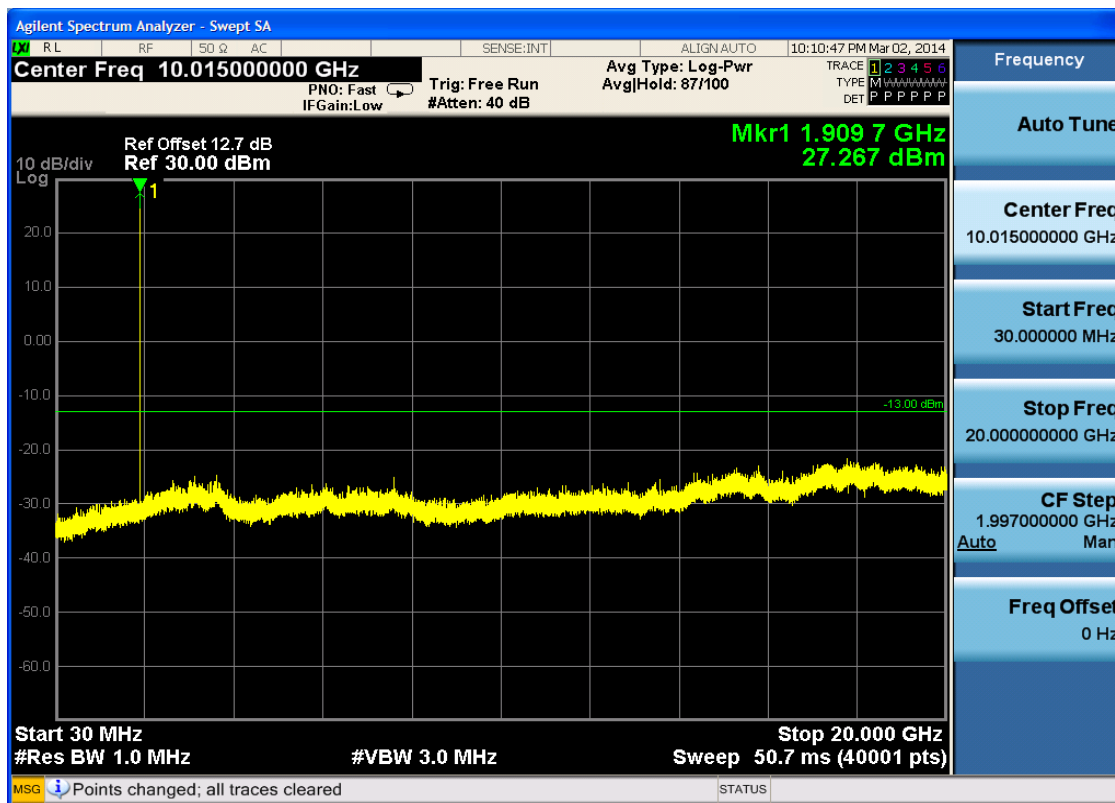
10 dB/div
Log

Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

Auto Tune Center Freq 79.500 kHz Start Freq 9.000 kHz Stop Freq 150.000 kHz CF Step 14.100 kHz Man Auto Freq Offset 0 Hz

MSG Points changed; all traces cleared STATUS DC Coupled



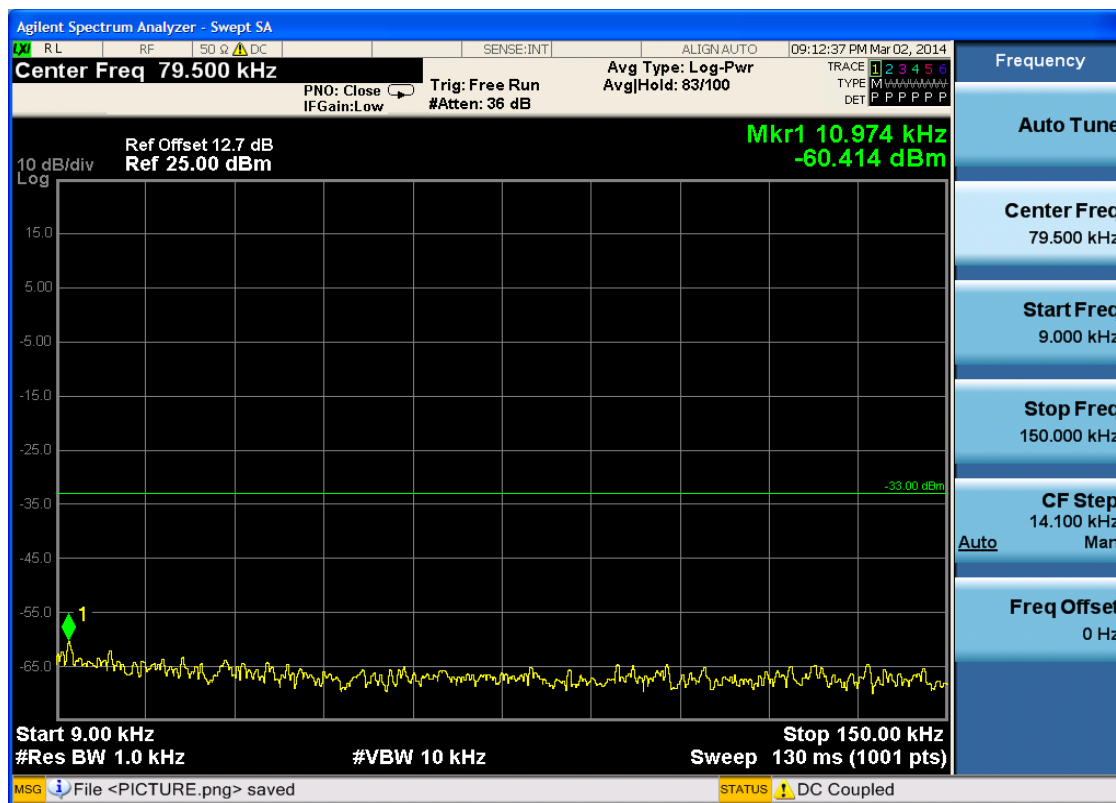


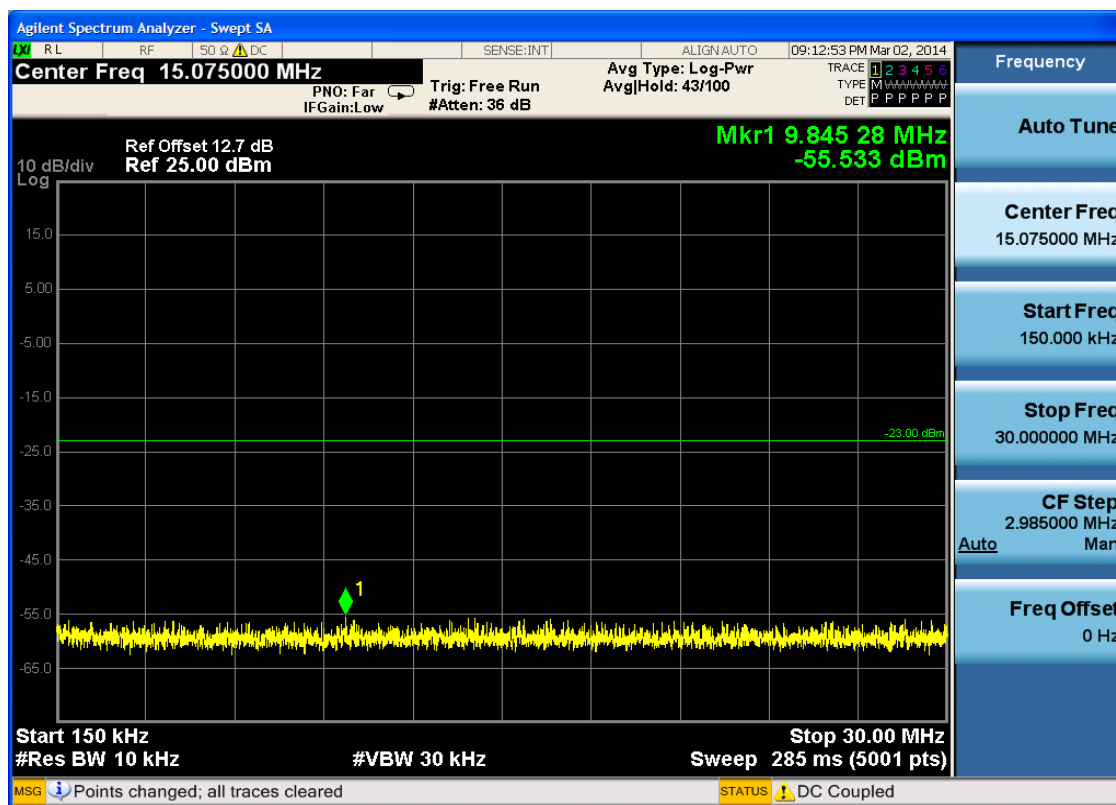
6.2 For UMTS

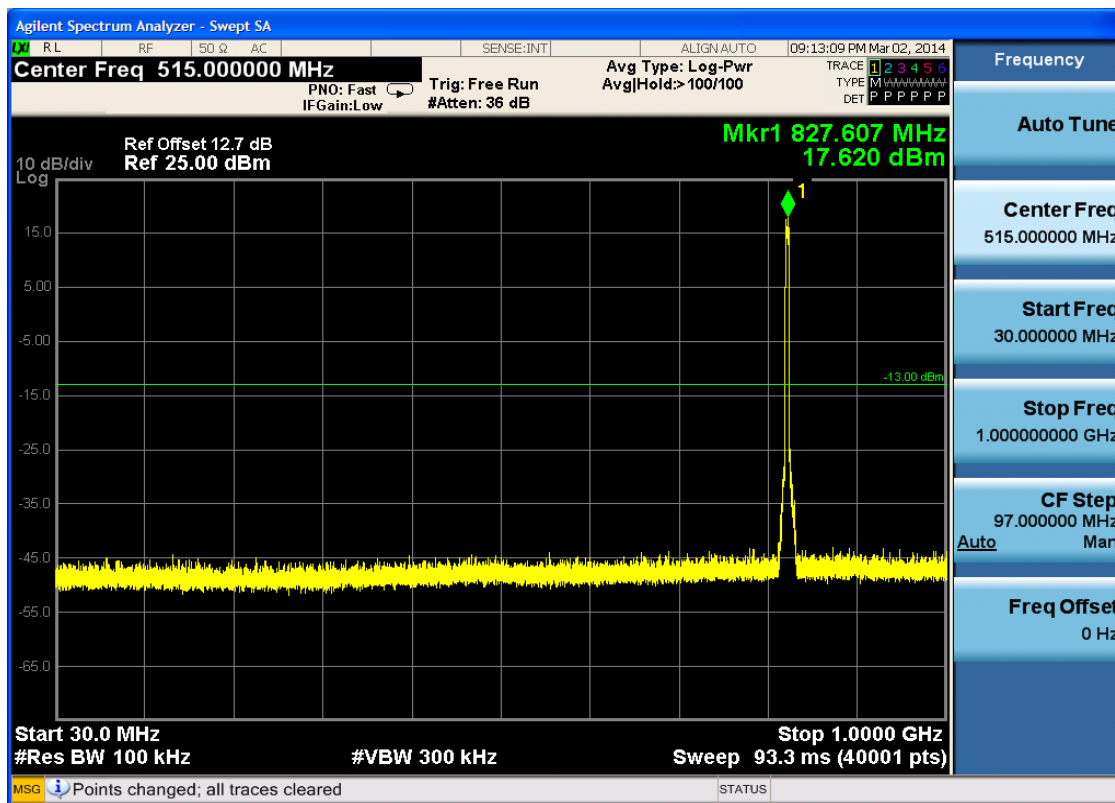
6.2.1 Test Band = WCDMA850

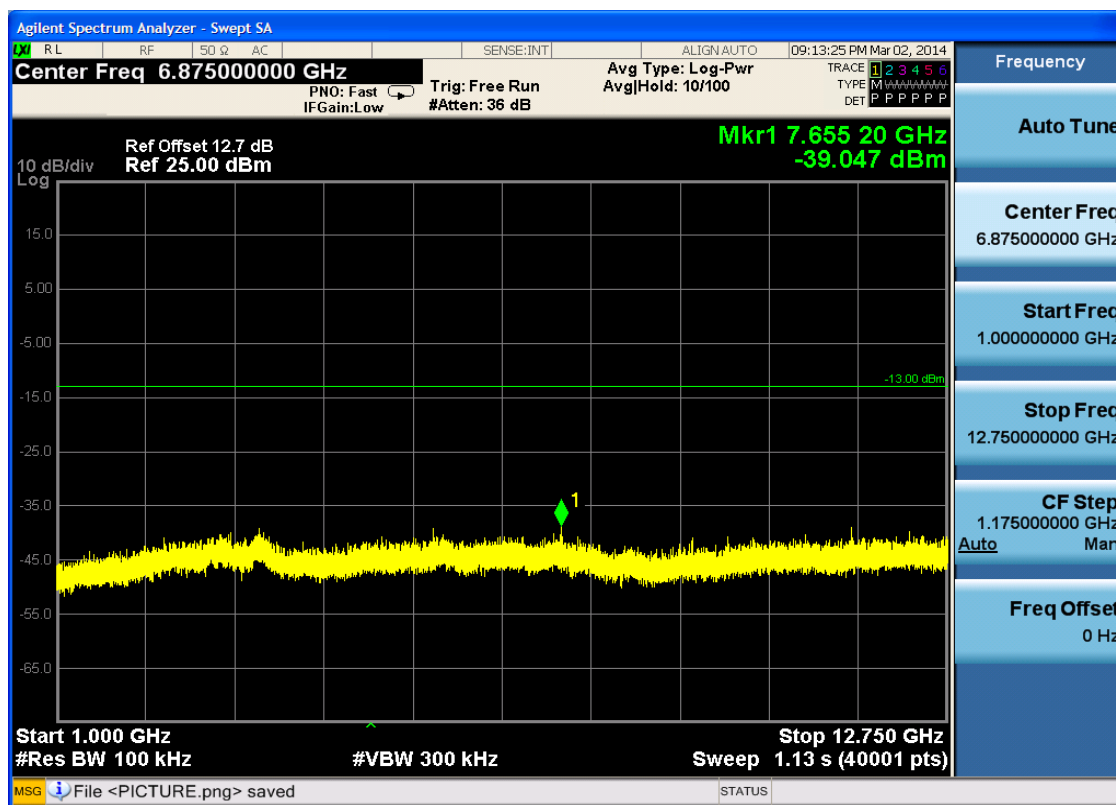
6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH











Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω Δ DC SENSE:INT ALIGN:AUTO 09:13:42 PM Mar 02, 2014

Center Freq 79.500 kHz PNO: Close Trig: Free Run Avg Type: Log-Pwr Avg|Hold: 83/100

IFGain:Low #Atten: 36 dB TRACE 1 2 3 4 5 6 TYPE M F F F F F F F DET P P P P P P

Ref Offset 12.7 dB Mkr1 15.486 kHz
Ref 25.00 dBm -62.081 dBm

10 dB/div Log

Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

MSG Points changed; all traces cleared STATUS DC Coupled

Frequency

Auto Tune

Center Freq 79.500 kHz

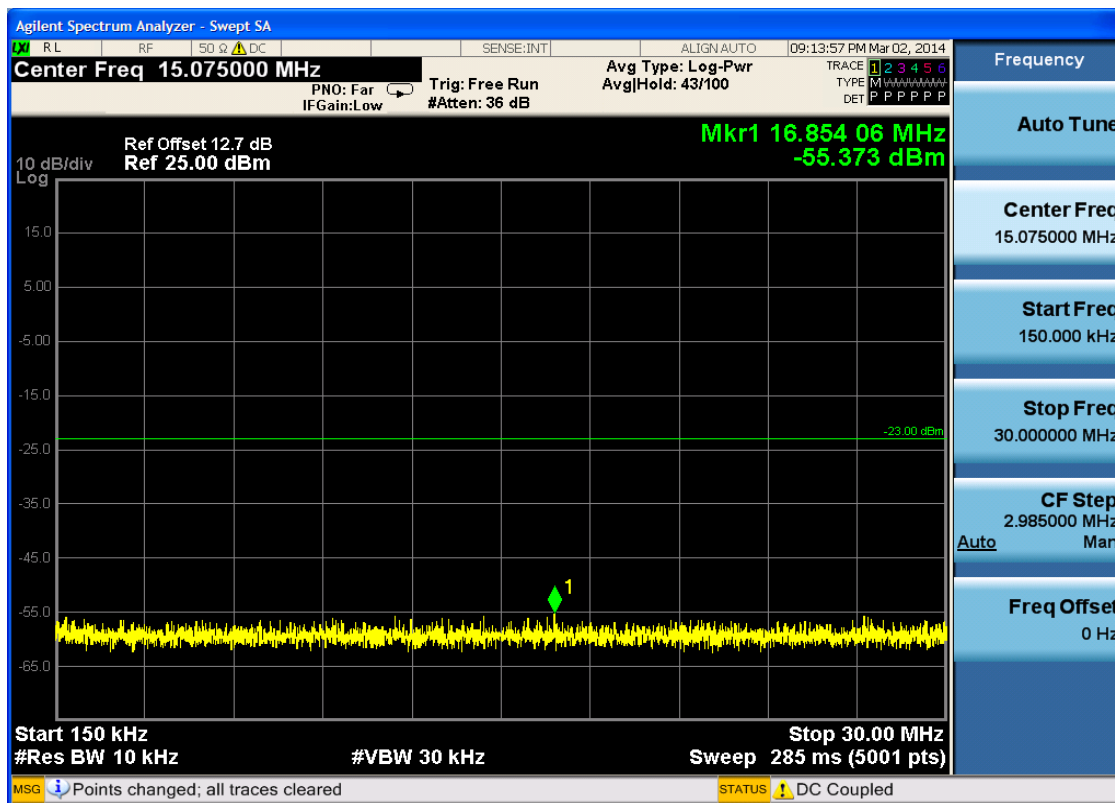
Start Freq 9.000 kHz

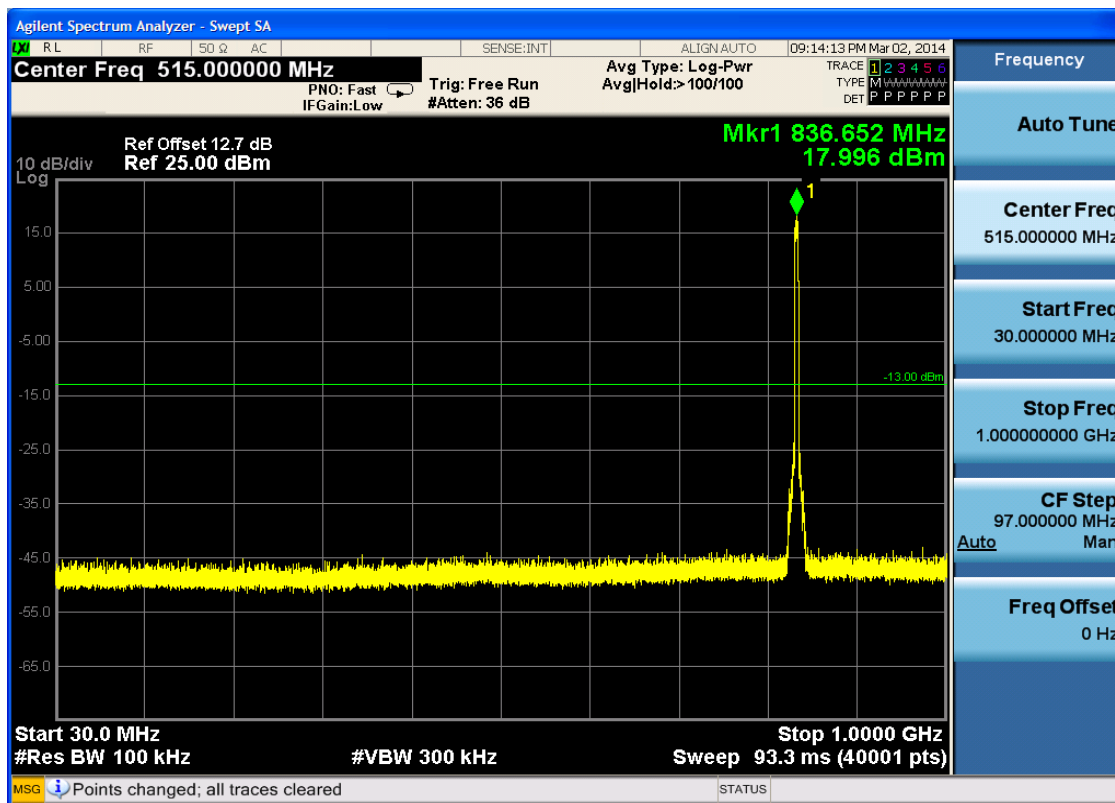
Stop Freq 150.000 kHz

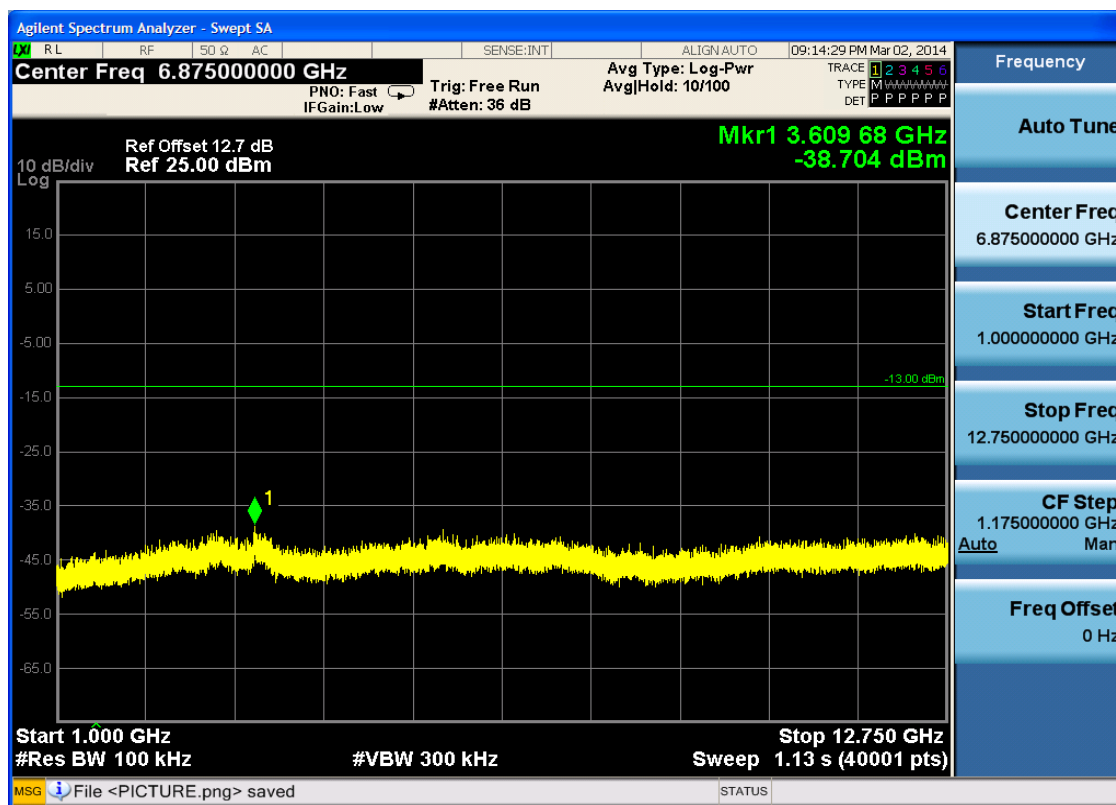
CF Step 14.100 kHz

Auto

Freq Offset 0 Hz

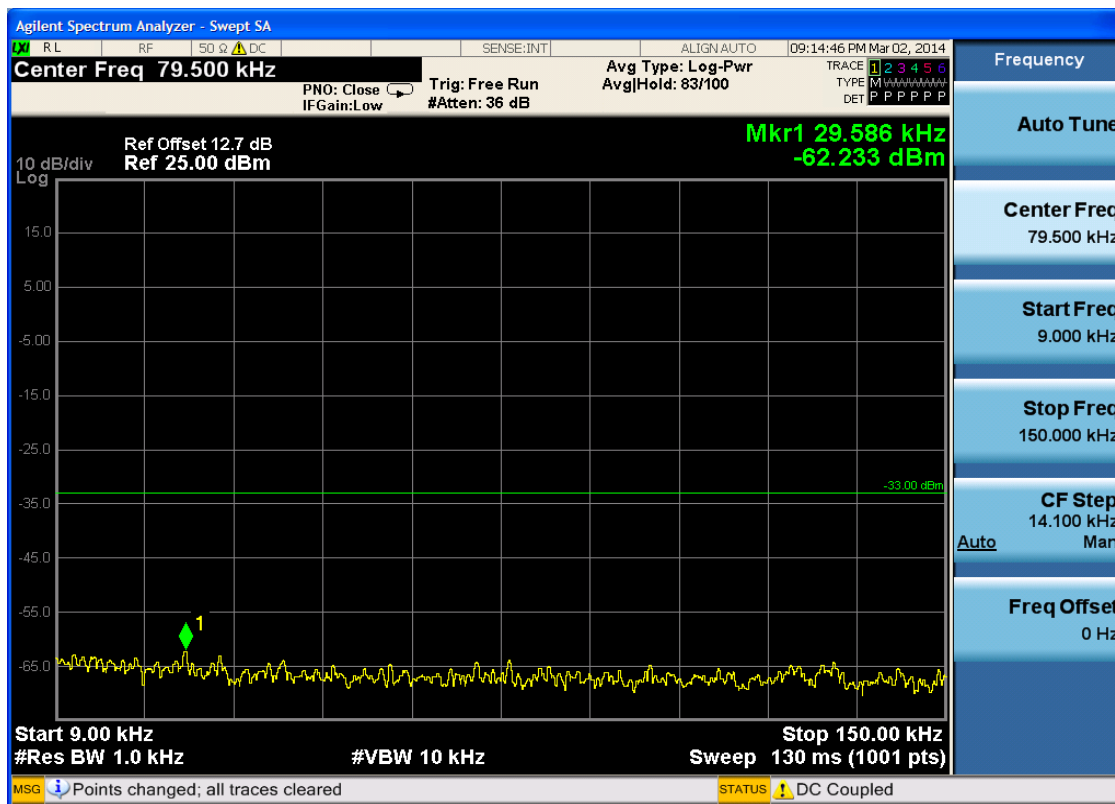


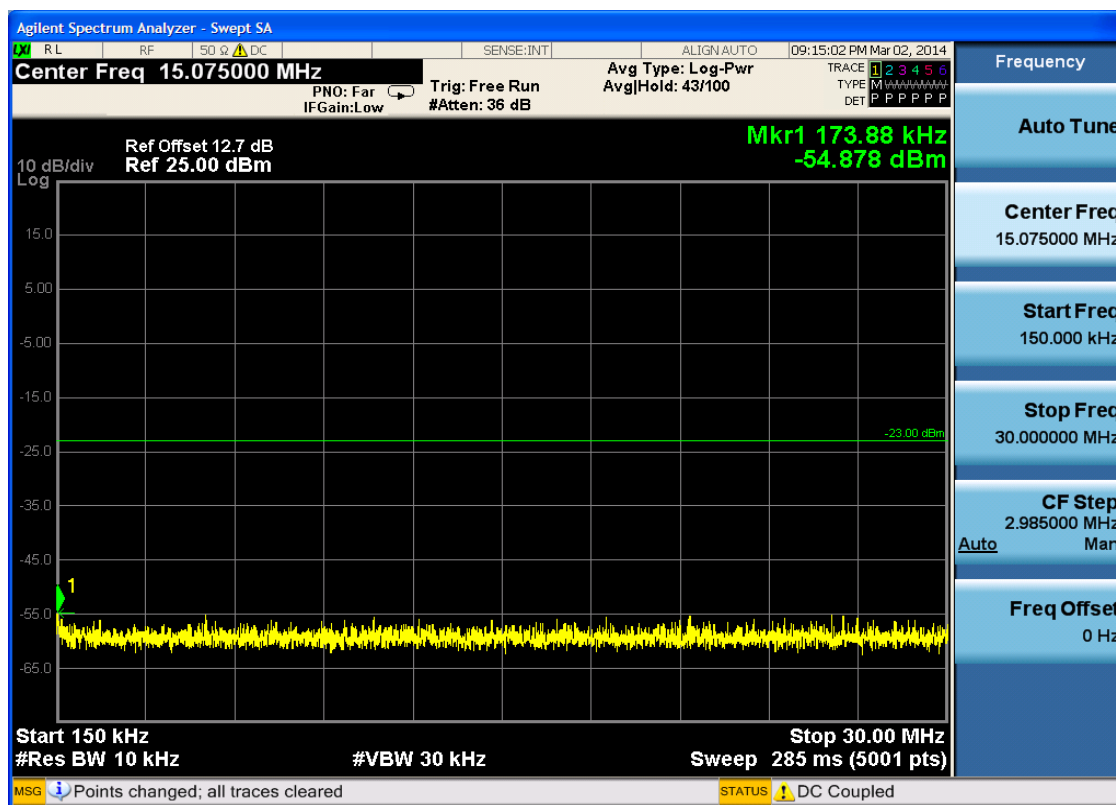


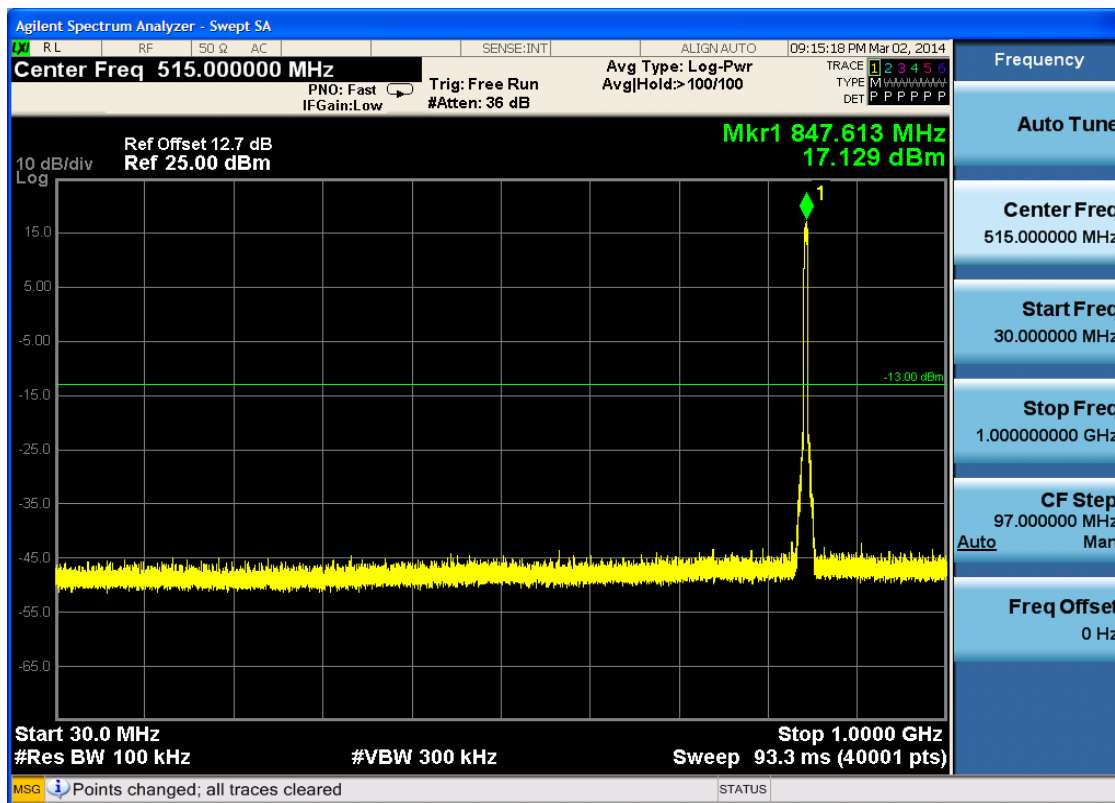


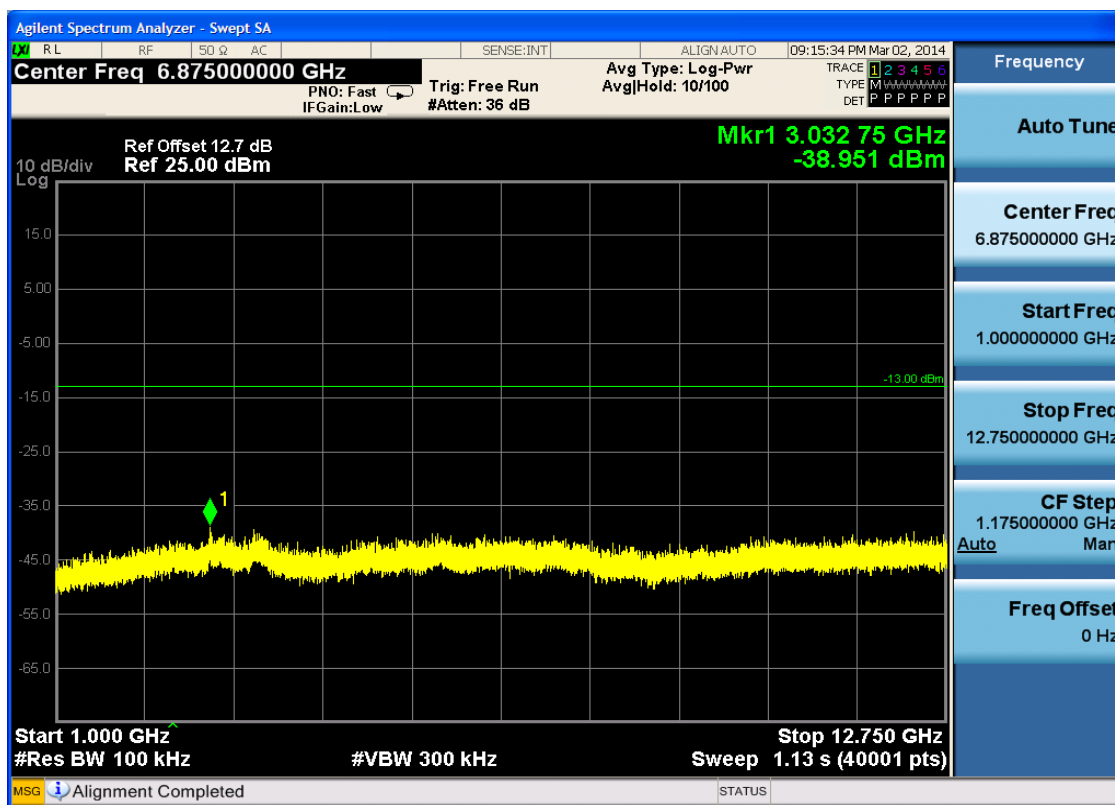


6.2.1.1.3 Test Channel = HCH





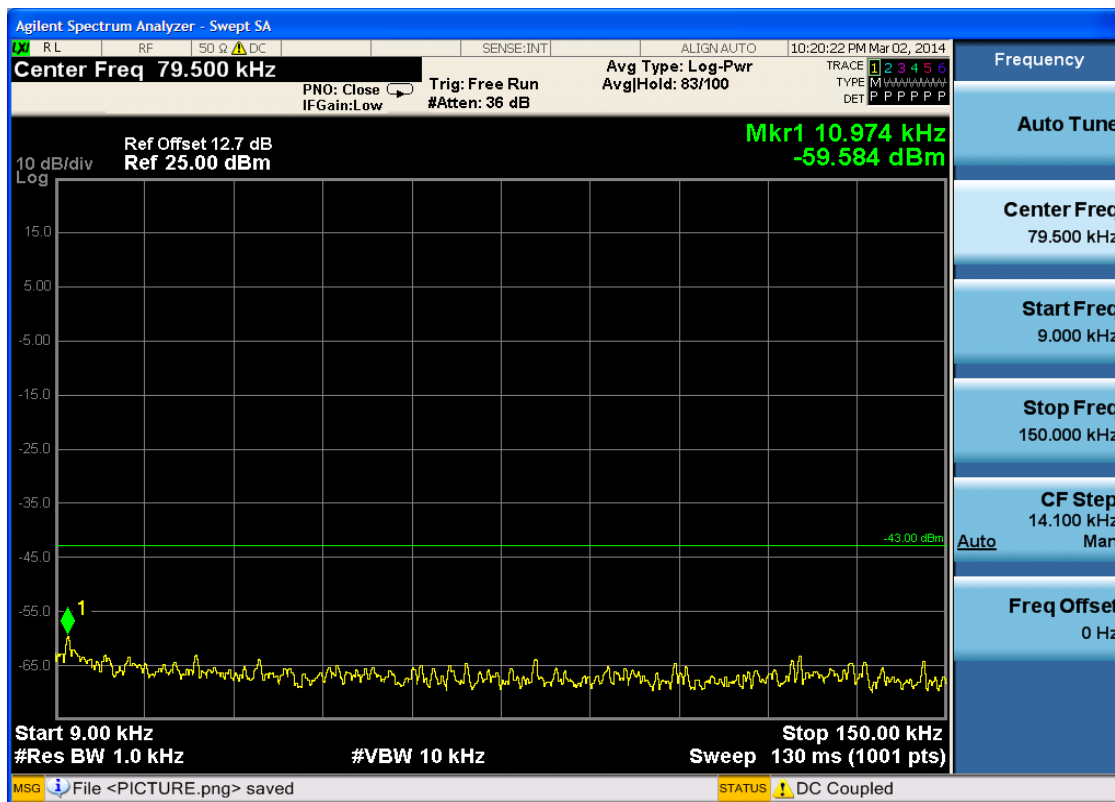


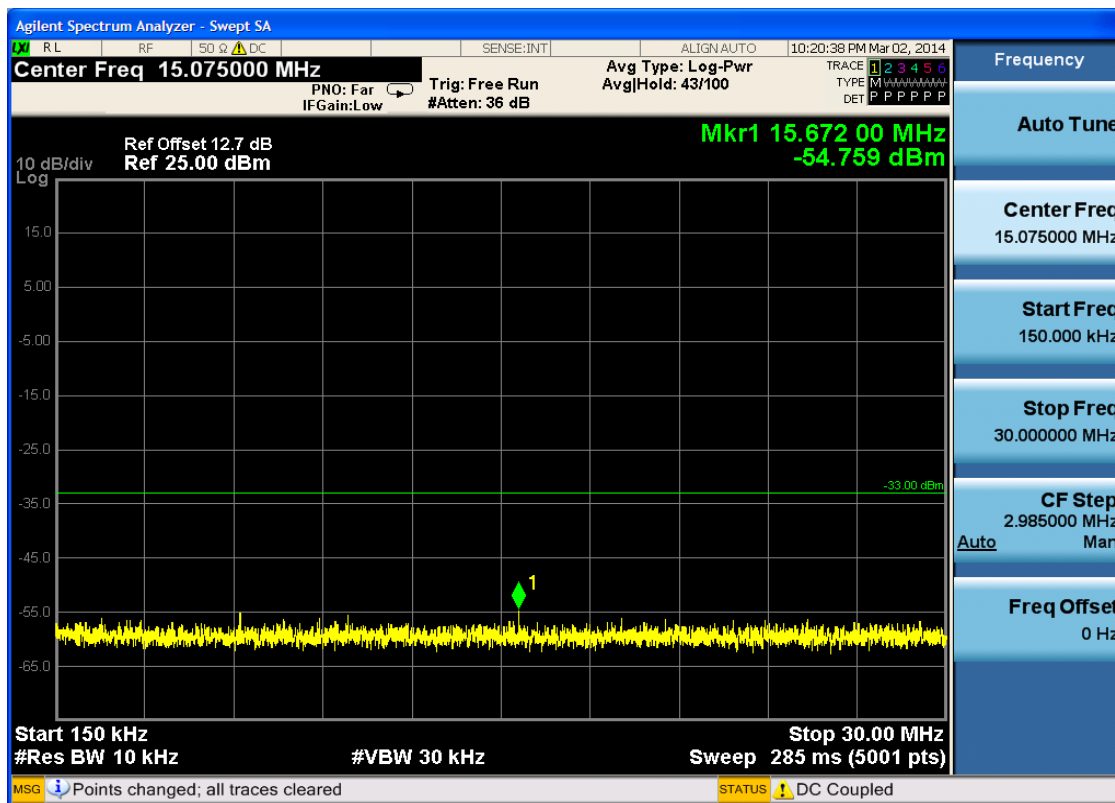


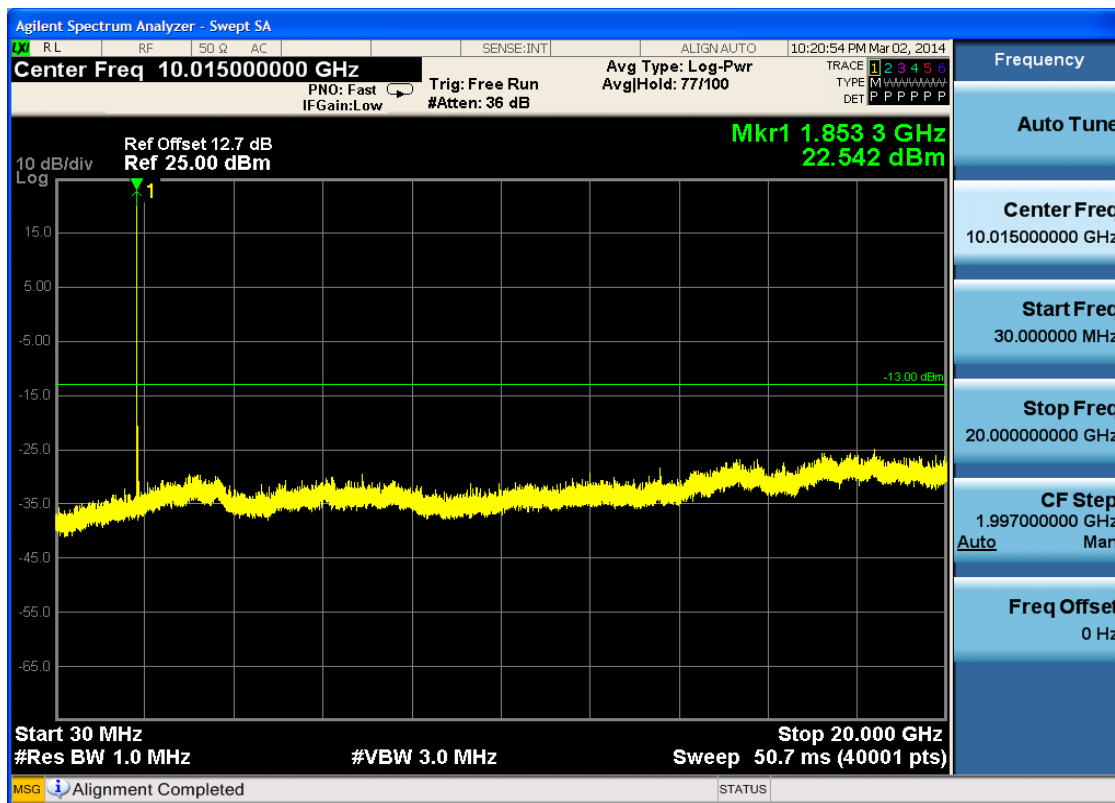
6.2.2 Test Band = WCDMA1900

6.2.2.1 Test Mode = UMTS/TM1

6.2.2.1.1 Test Channel = LCH

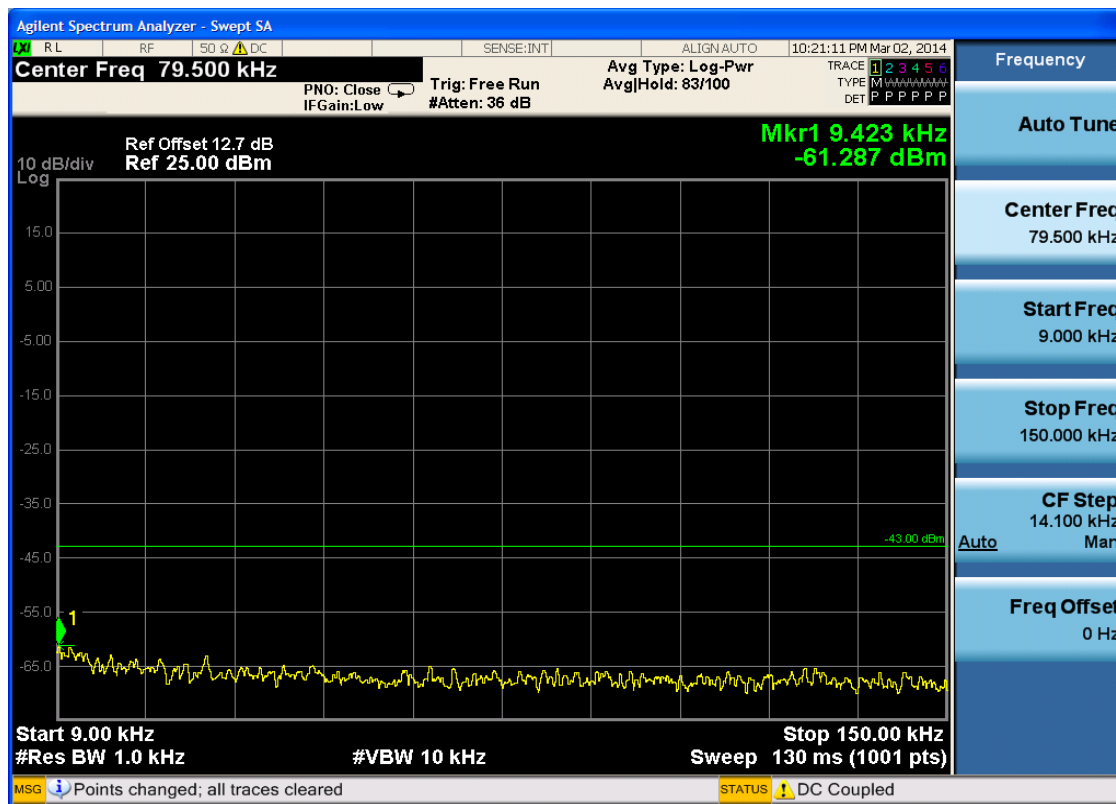


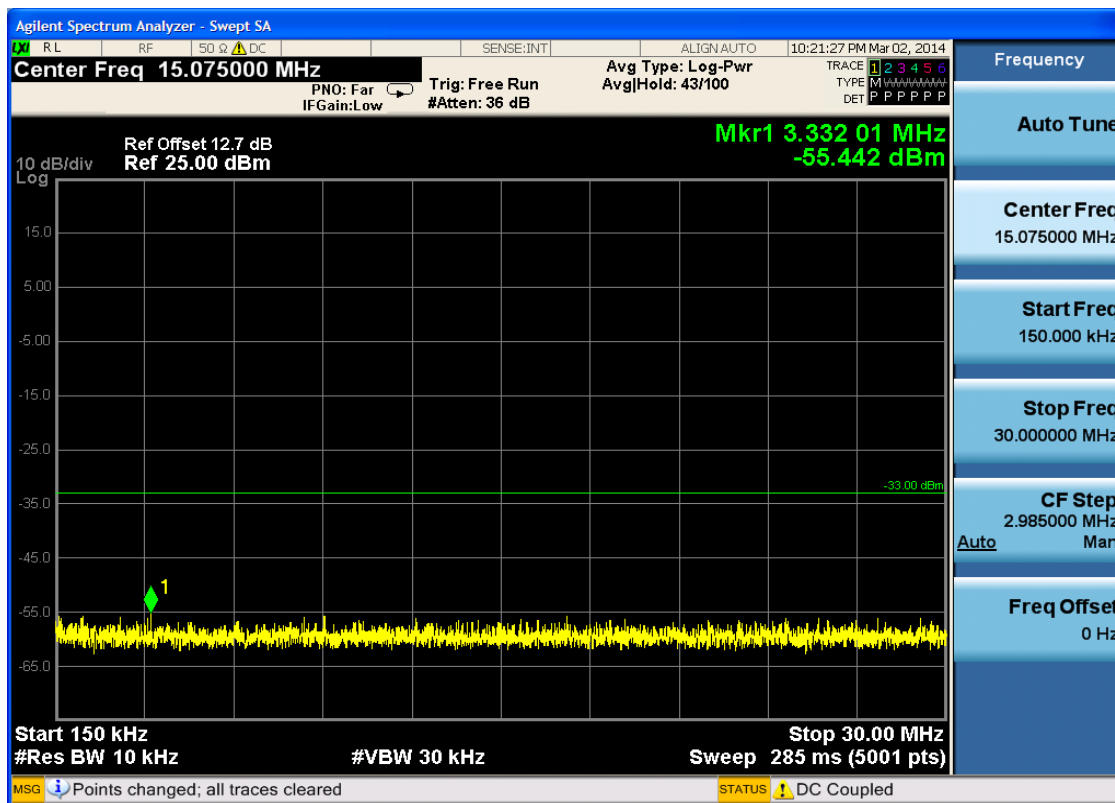


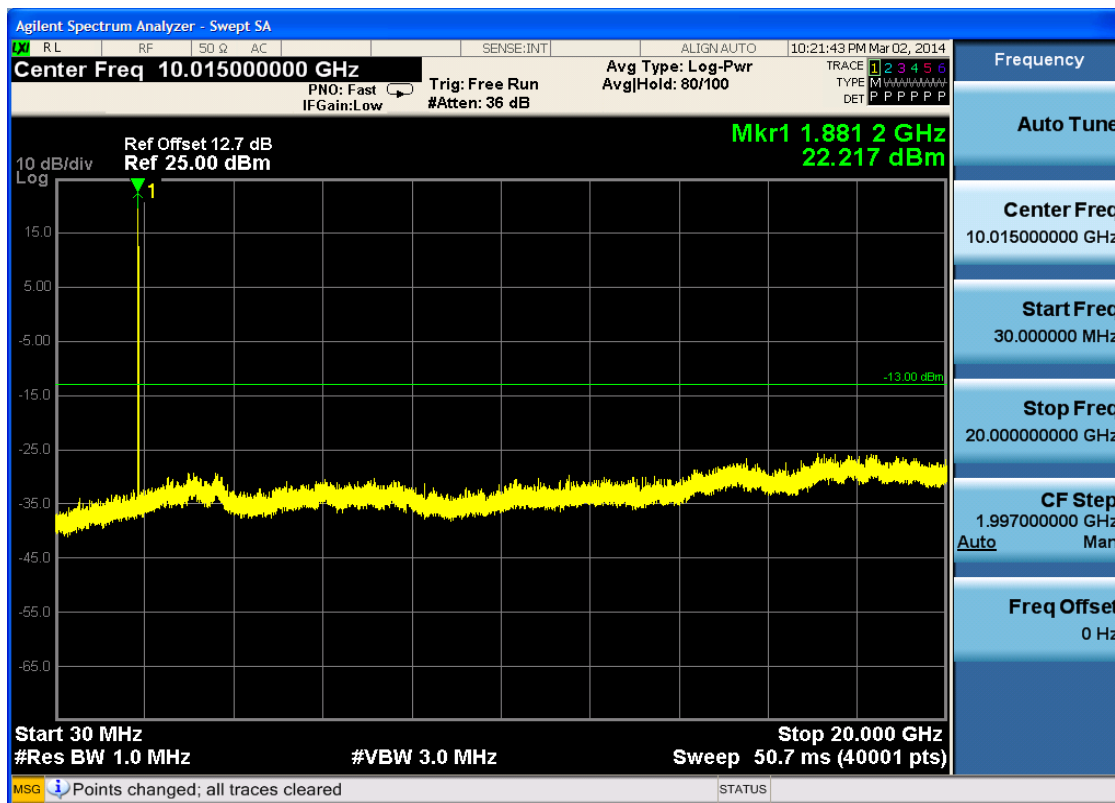


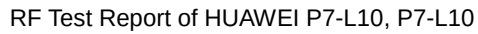


6.2.2.1.2 Test Channel = MCH









Agilent Spectrum Analyzer - Swept SA

RL	RF	50 Ω DC		SENSE:INT	ALIGN:AUTO	10:22:00 PM Mar 02, 2014
----	----	---------	--	-----------	------------	--------------------------

Center Freq 79.500 kHz

PNO: Close IF Gain: Low Trig: Free Run #Atten: 36 dB Avg Type: Log-Pwr Avg/Hold: 83/100

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

Ref Offset 12.7 dB
Ref 25.00 dBm

Mkr1 11.256 kHz
-61.948 dBm

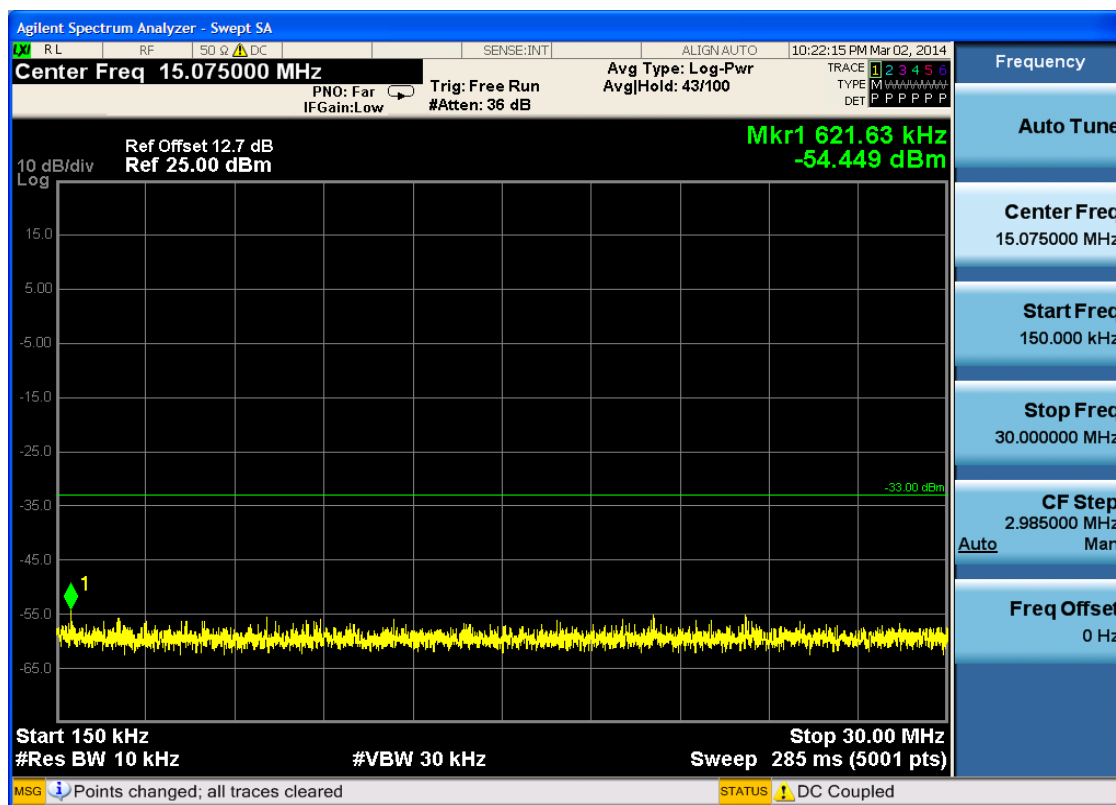
10 dB/div
Log

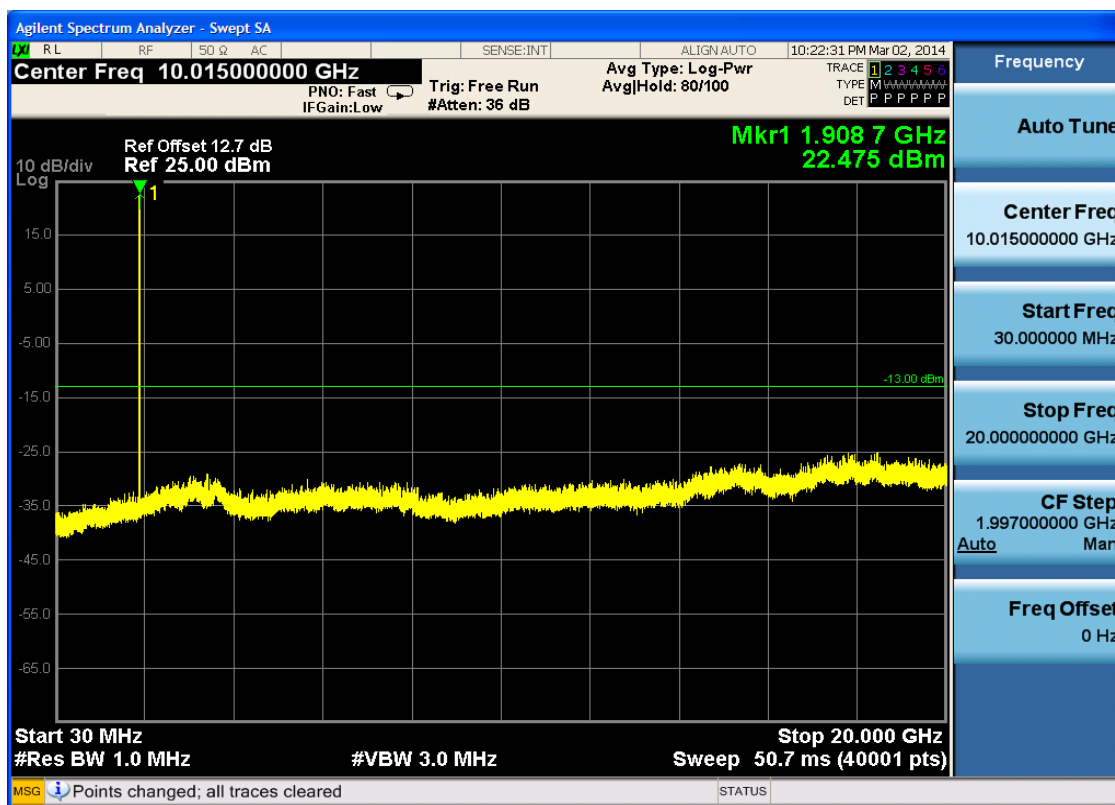
Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

MSG Points changed; all traces cleared 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 Man
- Freq Offset 0 Hz





6.3 For LTE

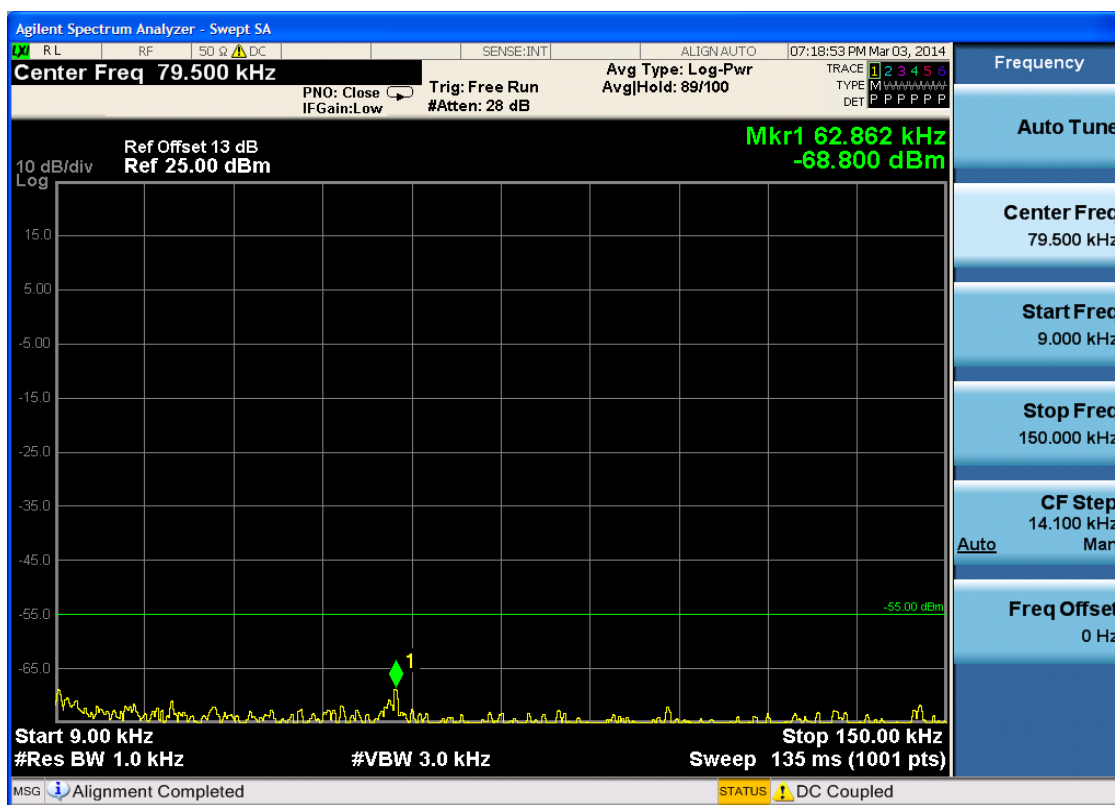
6.3.1 Test Band = BAND7

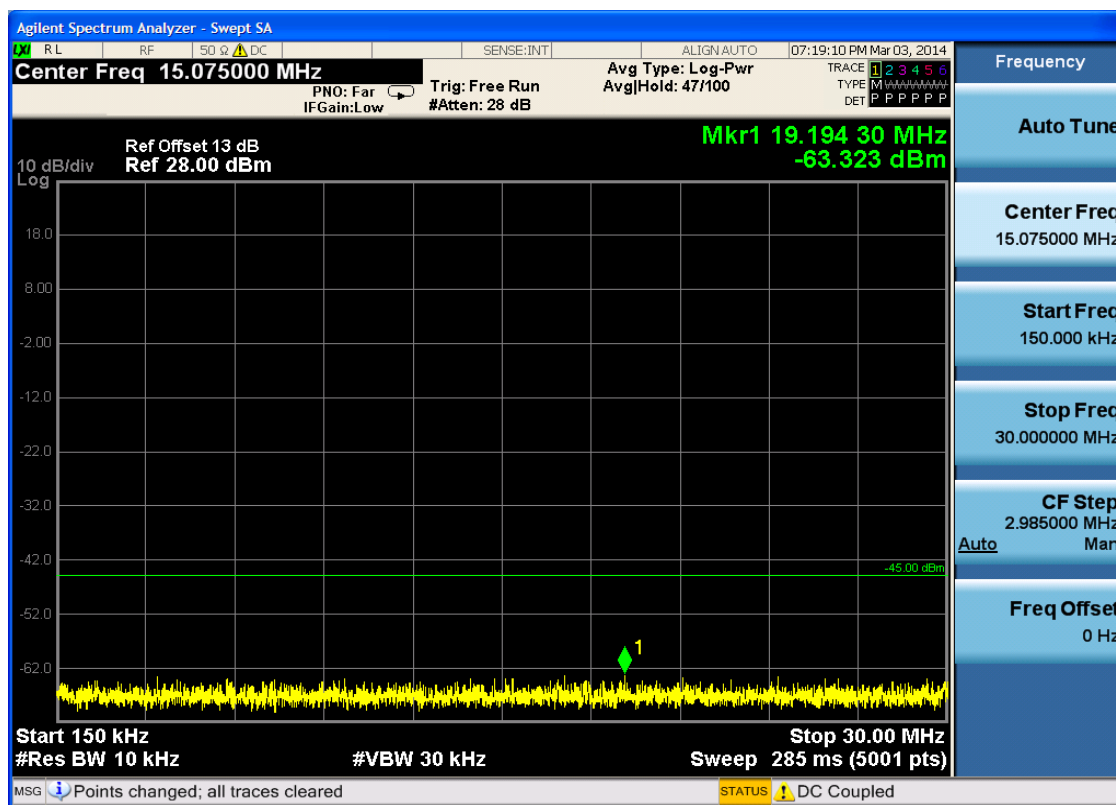
6.3.1.1 Test Mode = LTE/TM1

6.3.1.1.1 Test Bandwidth = 5

6.3.1.1.1.1 Test Channel = LCH

6.3.1.1.1.1.1 Test RB = RB1#0







6.3.1.1.1.2 Test Channel = MCH

6.3.1.1.1.2.1 Test RB = RB1#0



