



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
BAND13	LTE/TM1	5	LCH	RB1#0	22.62	18.21	34.7	PASS
				RB1#13	22.51	18.1	34.7	PASS
				RB1#24	22.29	17.88	34.7	PASS
				RB12#0	21.53	17.12	34.7	PASS
				RB12#6	21.46	17.05	34.7	PASS
				RB12#13	21.34	16.93	34.7	PASS
				RB25#0	21.39	16.98	34.7	PASS
			MCH	RB1#0	22.42	18.01	34.7	PASS
				RB1#13	22.19	17.78	34.7	PASS
				RB1#24	21.97	17.56	34.7	PASS
				RB12#0	21.27	16.86	34.7	PASS
				RB12#6	21.16	16.75	34.7	PASS
				RB12#13	21.03	16.62	34.7	PASS
				RB25#0	21.1	16.69	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	22.16	17.75	34.7	PASS
				RB1#13	21.94	17.53	34.7	PASS
				RB1#24	21.92	17.51	34.7	PASS
				RB12#0	21	16.59	34.7	PASS
				RB12#6	20.9	16.49	34.7	PASS
				RB12#13	20.89	16.48	34.7	PASS
				RB25#0	20.9	16.49	34.7	PASS
		10	LCH	RB1#0	22.5	18.09	34.7	PASS
				RB1#25	22.1	17.69	34.7	PASS
				RB1#49	21.87	17.46	34.7	PASS
				RB25#0	21.35	16.94	34.7	PASS
				RB25#13	21.1	16.69	34.7	PASS
				RB25#25	20.96	16.55	34.7	PASS
				RB50#0	21.16	16.75	34.7	PASS
			MCH	RB1#0	22.51	18.1	34.7	PASS
				RB1#25	22.1	17.69	34.7	PASS
				RB1#49	21.87	17.46	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.35	16.94	34.7	PASS
				RB25#13	21.1	16.69	34.7	PASS
				RB25#25	20.97	16.56	34.7	PASS
				RB50#0	21.16	16.75	34.7	PASS
			HCH	RB1#0	22.49	18.08	34.7	PASS
				RB1#25	22.1	17.69	34.7	PASS
				RB1#49	21.87	17.46	34.7	PASS
				RB25#0	21.35	16.94	34.7	PASS
				RB25#13	21.1	16.69	34.7	PASS
				RB25#25	20.95	16.54	34.7	PASS
				RB50#0	21.17	16.76	34.7	PASS
	LTE/TM2	5	LCH	RB1#0	21.77	17.36	34.7	PASS
				RB1#13	21.64	17.23	34.7	PASS
				RB1#24	21.45	17.04	34.7	PASS
				RB12#0	20.58	16.17	34.7	PASS
				RB12#6	20.51	16.1	34.7	PASS
				RB12#13	20.39	15.98	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.39	15.98	34.7	PASS
			MCH	RB1#0	21.54	17.13	34.7	PASS
				RB1#13	21.32	16.91	34.7	PASS
				RB1#24	21.15	16.74	34.7	PASS
				RB12#0	20.32	15.91	34.7	PASS
				RB12#6	20.22	15.81	34.7	PASS
				RB12#13	20.09	15.68	34.7	PASS
				RB25#0	20.1	15.69	34.7	PASS
			HCH	RB1#0	21.3	16.89	34.7	PASS
				RB1#13	21.12	16.71	34.7	PASS
				RB1#24	21.15	16.74	34.7	PASS
				RB12#0	20.05	15.64	34.7	PASS
				RB12#6	19.98	15.57	34.7	PASS
				RB12#13	19.97	15.56	34.7	PASS
				RB25#0	19.92	15.51	34.7	PASS
		10	LCH	RB1#0	21.89	17.48	34.7	PASS
				RB1#25	21.5	17.09	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	21.29	16.88	34.7	PASS
				RB25#0	20.39	15.98	34.7	PASS
				RB25#13	20.15	15.74	34.7	PASS
				RB25#25	20	15.59	34.7	PASS
				RB50#0	20.23	15.82	34.7	PASS
			MCH	RB1#0	21.87	17.46	34.7	PASS
				RB1#25	21.51	17.1	34.7	PASS
				RB1#49	21.28	16.87	34.7	PASS
				RB25#0	20.41	16	34.7	PASS
				RB25#13	20.15	15.74	34.7	PASS
				RB25#25	19.99	15.58	34.7	PASS
				RB50#0	20.23	15.82	34.7	PASS
			HCH	RB1#0	21.88	17.47	34.7	PASS
				RB1#25	21.51	17.1	34.7	PASS
				RB1#49	21.28	16.87	34.7	PASS
				RB25#0	20.4	15.99	34.7	PASS
				RB25#13	20.14	15.73	34.7	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#25	20	15.59	34.7	PASS
				RB50#0	20.23	15.82	34.7	PASS

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

Note2:

$$\text{SET Span} = 1.5 \times \text{OBW}$$

$$\text{SET RBW} = 1\% \text{ of the OBW, not to exceed 1MHz}$$

$$\text{SET VBW} \geq 3 \times \text{RBW}$$

SET Sweep time=auto-couple.

Detector:RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured [dB]	Limit [dB]	Verdict
BAND13	LTE/TM1	5	LCH	RB1#0	4.28	13	PASS
				RB1#13	4.26	13	PASS
				RB1#24	4.4	13	PASS
				RB12#0	5.67	13	PASS
				RB12#6	5.61	13	PASS
				RB12#13	5.67	13	PASS
				RB25#0	5.67	13	PASS
			MCH	RB1#0	4.3	13	PASS
				RB1#13	4.41	13	PASS
				RB1#24	4.61	13	PASS
				RB12#0	5.76	13	PASS
				RB12#6	5.76	13	PASS
				RB12#13	5.84	13	PASS
				RB25#0	5.84	13	PASS
			HCH	RB1#0	4.46	13	PASS
				RB1#13	4.61	13	PASS
				RB1#24	4.7	13	PASS
				RB12#0	5.86	13	PASS
				RB12#6	5.95	13	PASS
				RB12#13	6.01	13	PASS
				RB25#0	6.18	13	PASS
		10	LCH	RB1#0	4.41	13	PASS
				RB1#25	4.53	13	PASS
				RB1#49	4.83	13	PASS
				RB25#0	5.76	13	PASS
				RB25#13	5.93	13	PASS
				RB25#25	6.08	13	PASS
				RB50#0	6.3	13	PASS
			MCH	RB1#0	4.39	13	PASS
				RB1#25	4.55	13	PASS
				RB1#49	4.83	13	PASS
				RB25#0	5.73	13	PASS
				RB25#13	5.92	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured [dB]	Limit [dB]	Verdict
				RB25#25	6.07	13	PASS
				RB50#0	6.32	13	PASS
			HCH	RB1#0	4.41	13	PASS
				RB1#25	4.55	13	PASS
				RB1#49	4.83	13	PASS
				RB25#0	5.75	13	PASS
				RB25#13	5.97	13	PASS
				RB25#25	6.08	13	PASS
				RB50#0	6.27	13	PASS
	LTE/TM2	5	LCH	RB1#0	5.63	13	PASS
				RB1#13	5.62	13	PASS
				RB1#24	5.79	13	PASS
				RB12#0	6.58	13	PASS
				RB12#6	6.51	13	PASS
				RB12#13	6.58	13	PASS
				RB25#0	6.97	13	PASS
			MCH	RB1#0	5.67	13	PASS
				RB1#13	5.82	13	PASS
				RB1#24	6.08	13	PASS
				RB12#0	6.66	13	PASS
				RB12#6	6.63	13	PASS
				RB12#13	6.8	13	PASS
				RB25#0	7.13	13	PASS
		10	HCH	RB1#0	5.89	13	PASS
				RB1#13	6.08	13	PASS
				RB1#24	6.18	13	PASS
				RB12#0	6.82	13	PASS
				RB12#6	6.87	13	PASS
				RB12#13	6.96	13	PASS
				RB25#0	7.25	13	PASS
			LCH	RB1#0	5.83	13	PASS
				RB1#25	6.01	13	PASS
				RB1#49	6.39	13	PASS
				RB25#0	7.23	13	PASS
				RB25#13	7.47	13	PASS
				RB25#25	7.63	13	PASS
				RB50#0	7.78	13	PASS
			MCH	RB1#0	5.84	13	PASS
				RB1#25	6.02	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured [dB]	Limit [dB]	Verdict
				RB1#49	6.39	13	PASS
				RB25#0	7.21	13	PASS
				RB25#13	7.55	13	PASS
				RB25#25	7.73	13	PASS
				RB50#0	7.77	13	PASS
			HCH	RB1#0	5.83	13	PASS
				RB1#25	6.01	13	PASS
				RB1#49	6.38	13	PASS
				RB25#0	7.29	13	PASS
				RB25#13	7.59	13	PASS
				RB25#25	7.74	13	PASS
				RB50#0	7.5	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

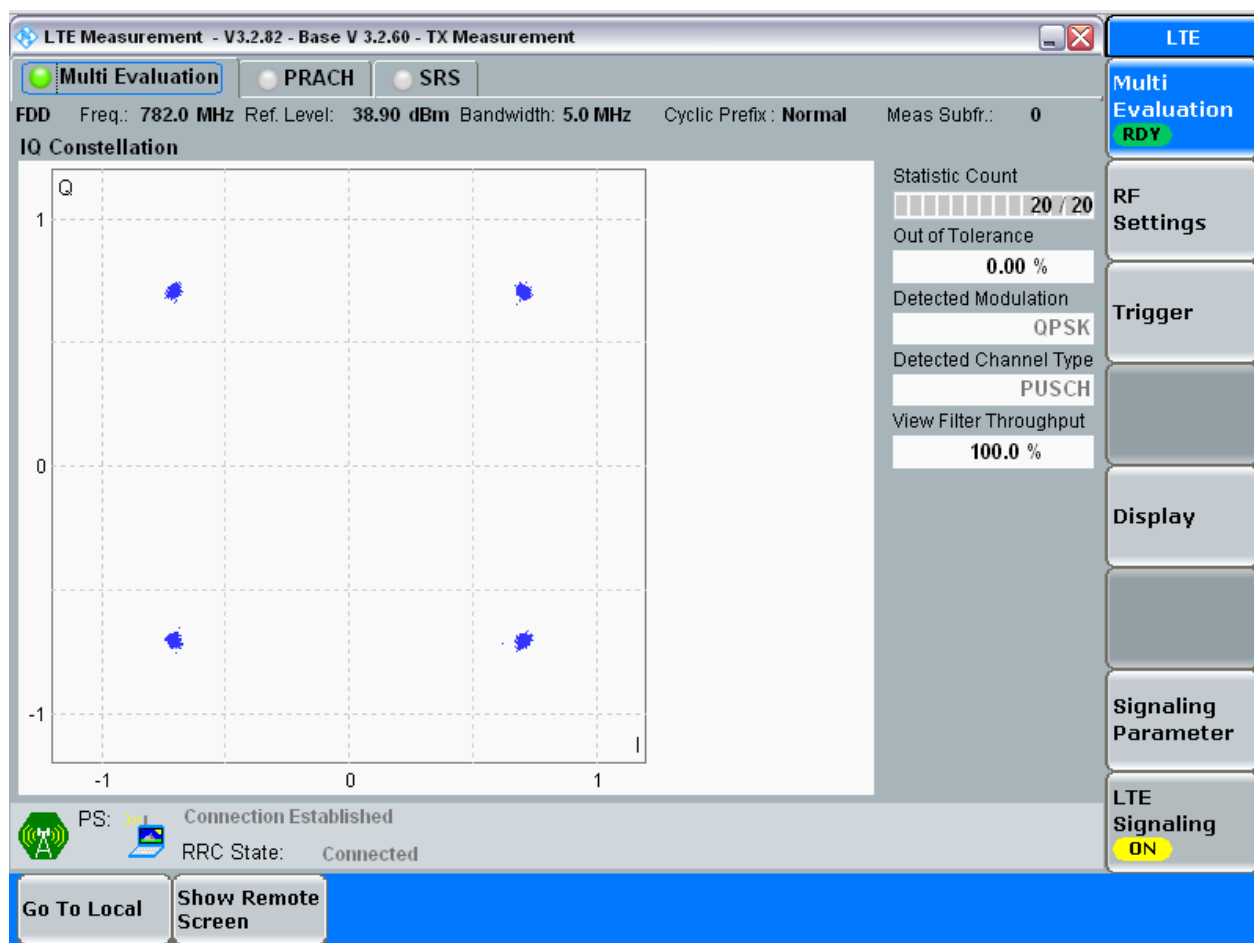
3.1.1 Test Band = BAND13

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 5

3.1.1.1.1.1 Test Channel = MCH

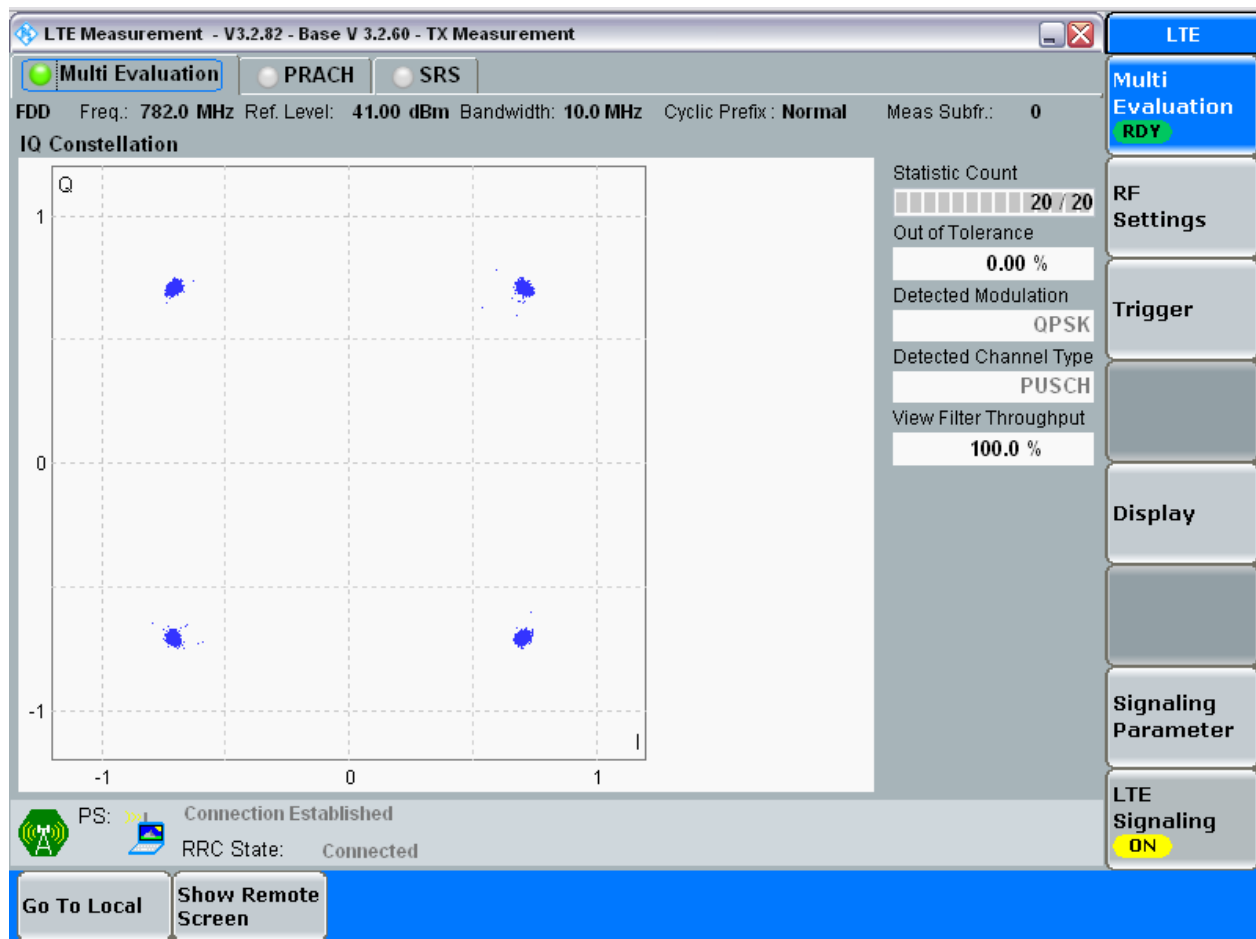
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

3.1.1.1.2.1.1 Test RB = RB50#0

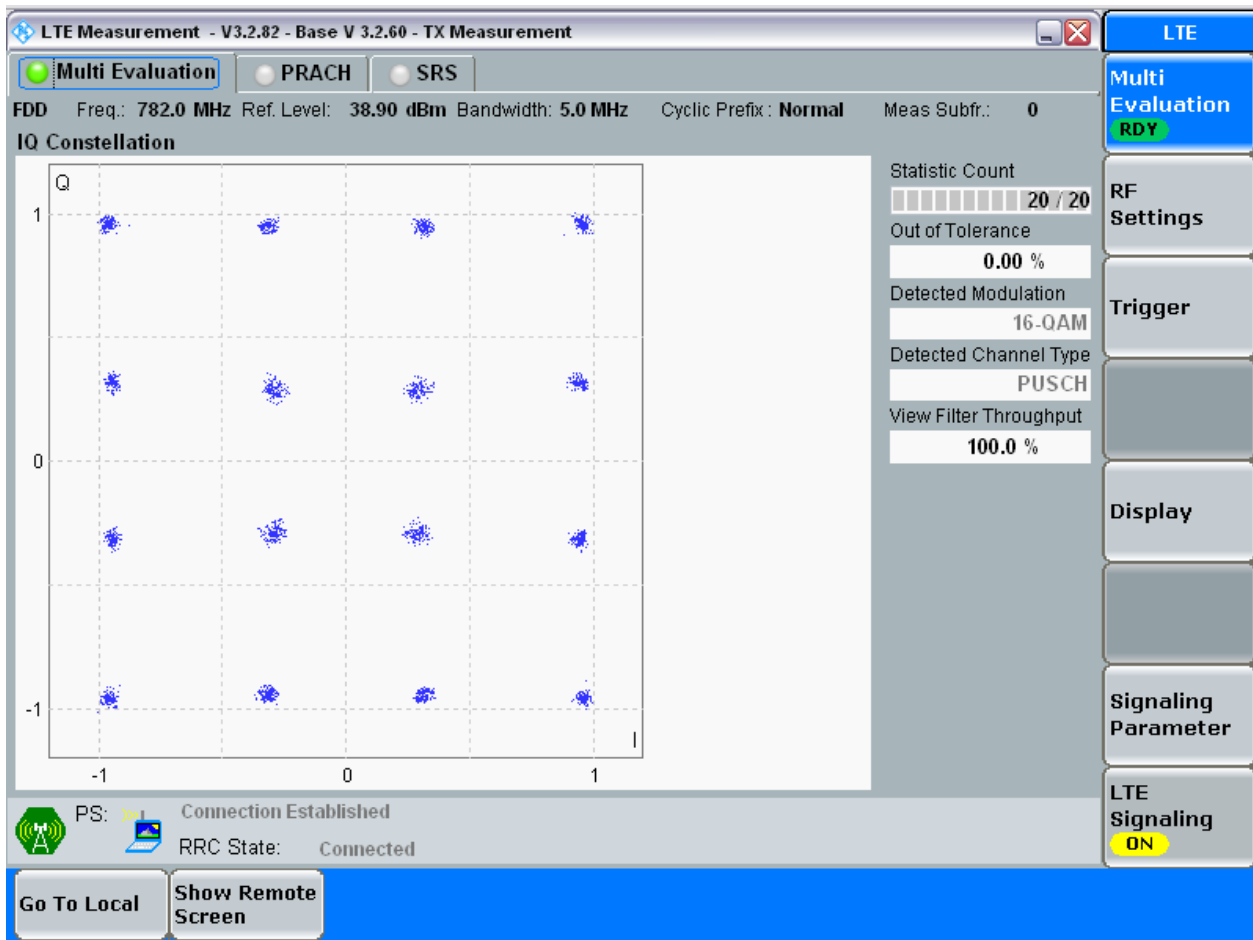


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

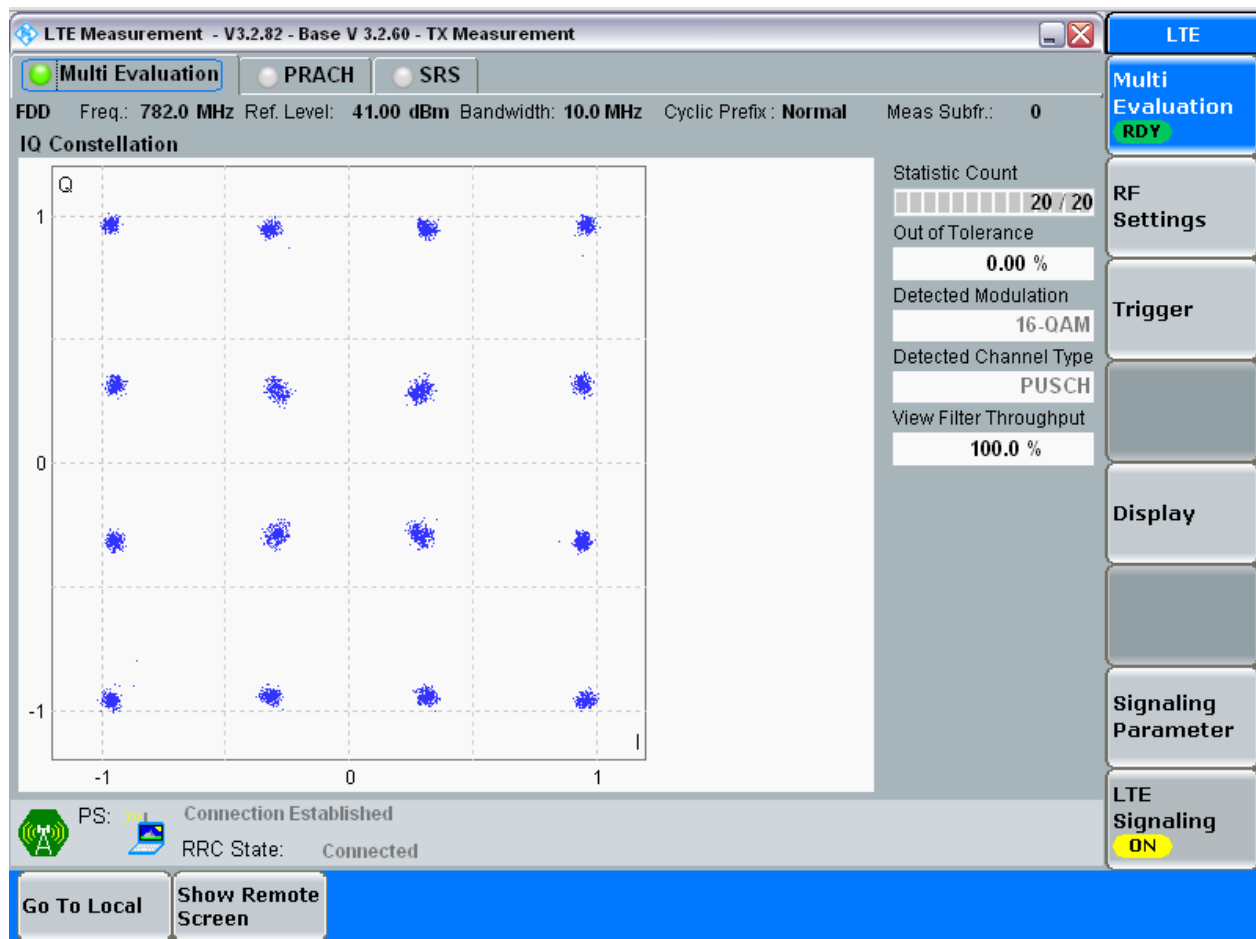
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

3.1.1.2.2.1.1 Test RB = RB50#0



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
BAND13	LTE/TM1	5	LCH	RB25#0	4.51	4.90	Pass
			MCH	RB25#0	4.51	4.91	Pass
			HCH	RB25#0	4.52	4.90	Pass
		10	LCH	RB50#0	9.01	9.58	Pass
			MCH	RB50#0	9.00	9.60	Pass
			HCH	RB50#0	9.00	9.60	Pass
	LTE/TM2	5	LCH	RB25#0	4.51	4.90	Pass
			MCH	RB25#0	4.52	4.90	Pass
			HCH	RB25#0	4.53	4.90	Pass
		10	LCH	RB50#0	9.01	9.63	Pass
			MCH	RB50#0	9.00	9.60	Pass
			HCH	RB50#0	9.00	9.63	Pass



Part II - Test Plots

4.1 For LTE

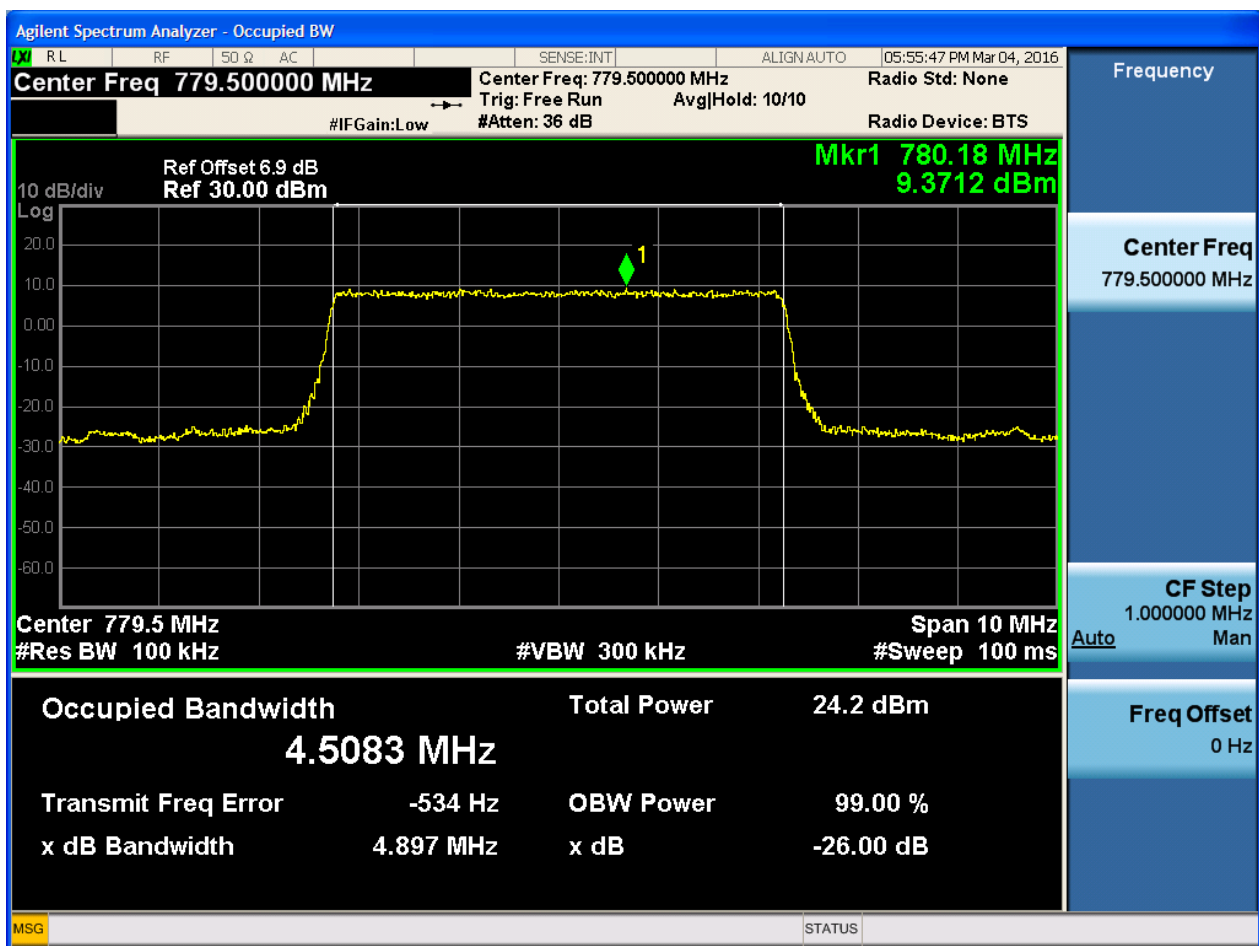
4.1.1 Test Band = BAND13

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

4.1.1.1.1.1 Test Channel = LCH

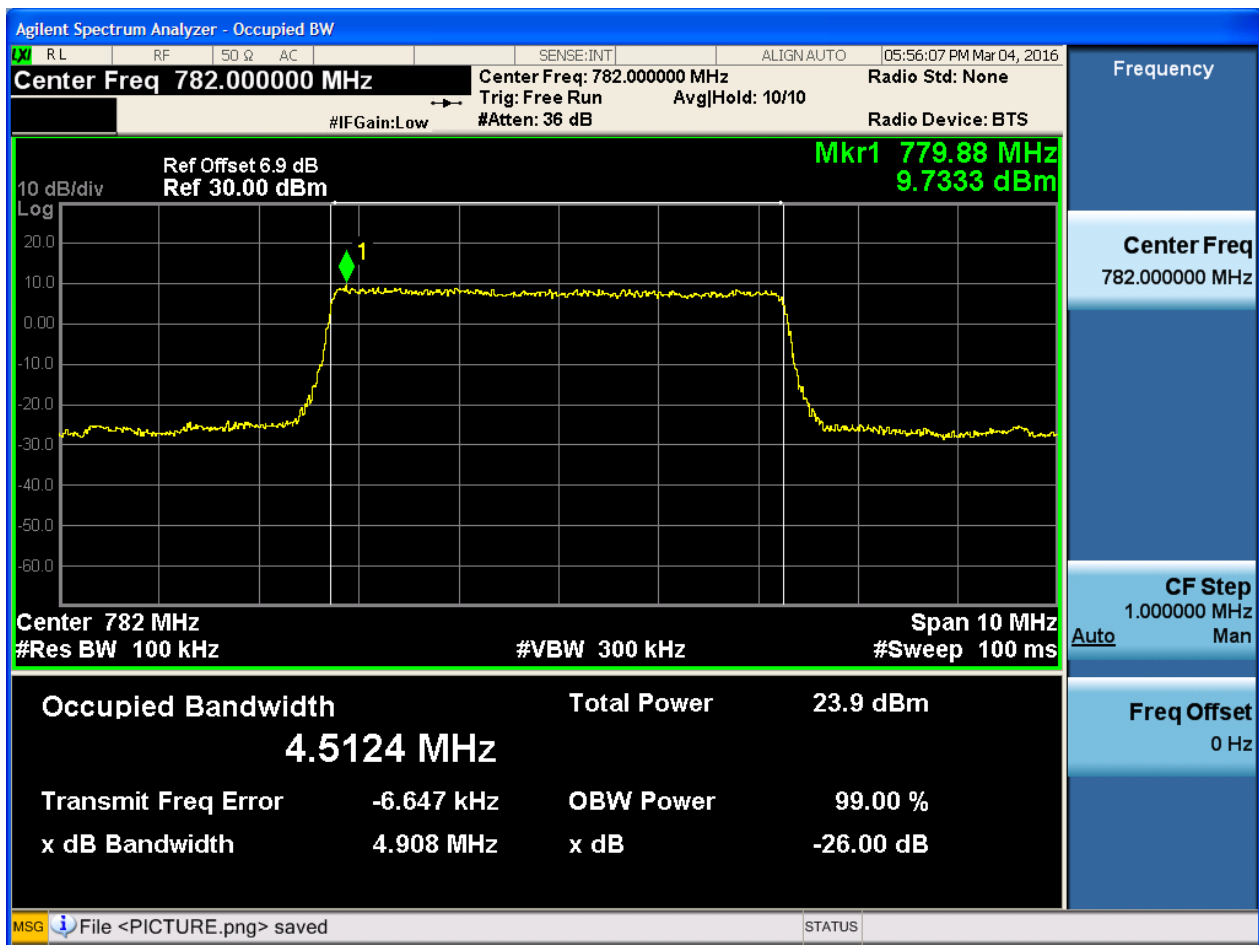
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

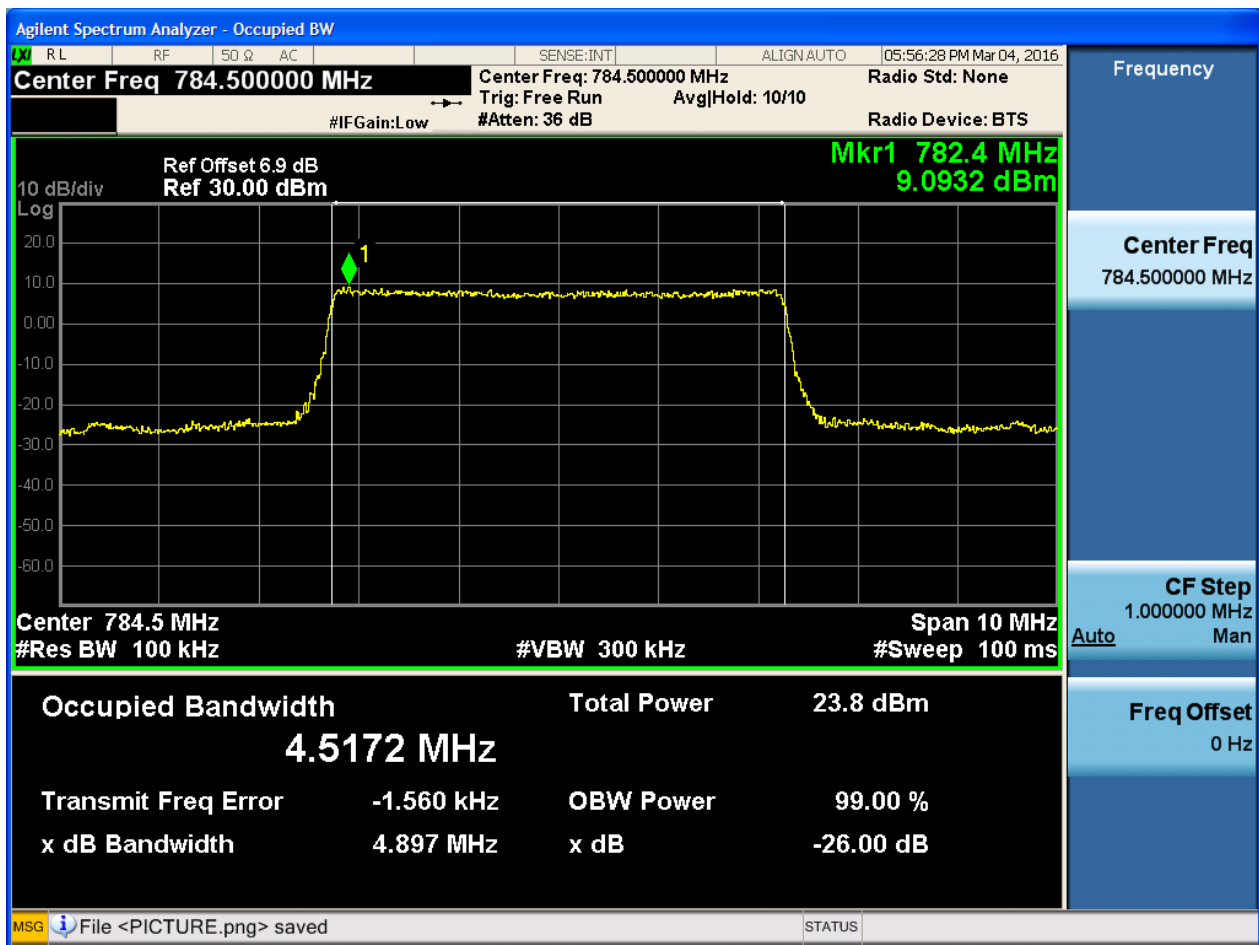
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

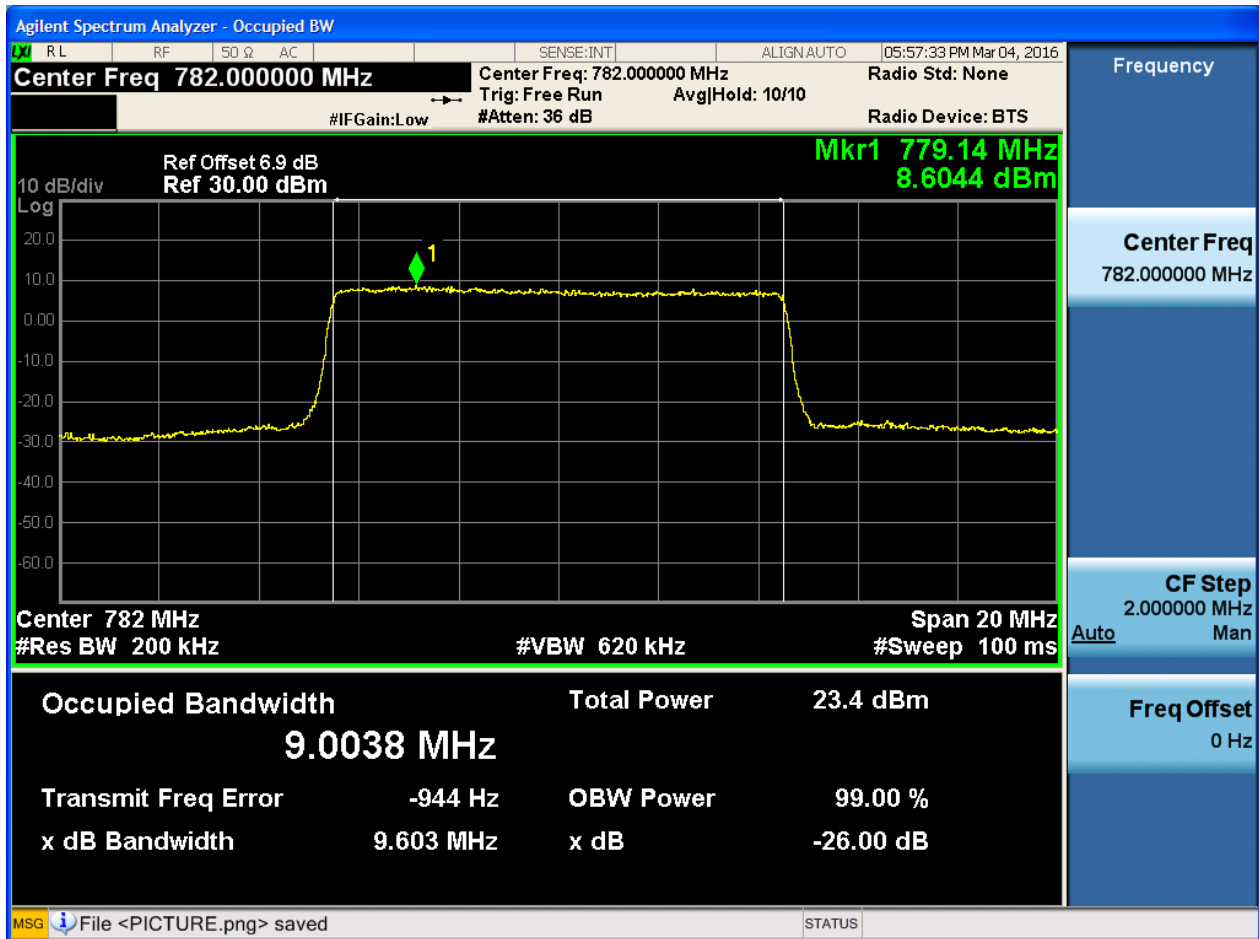




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

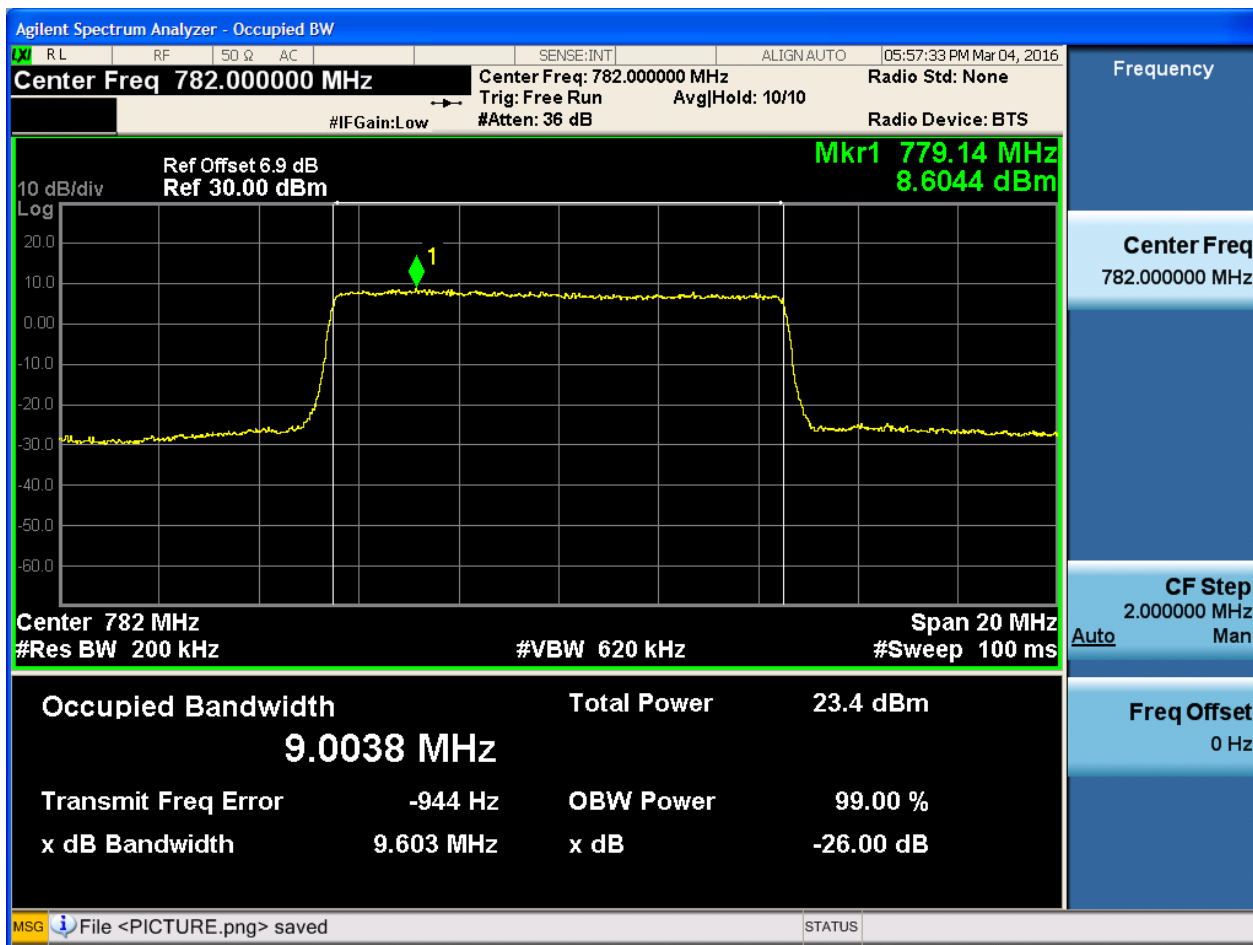
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

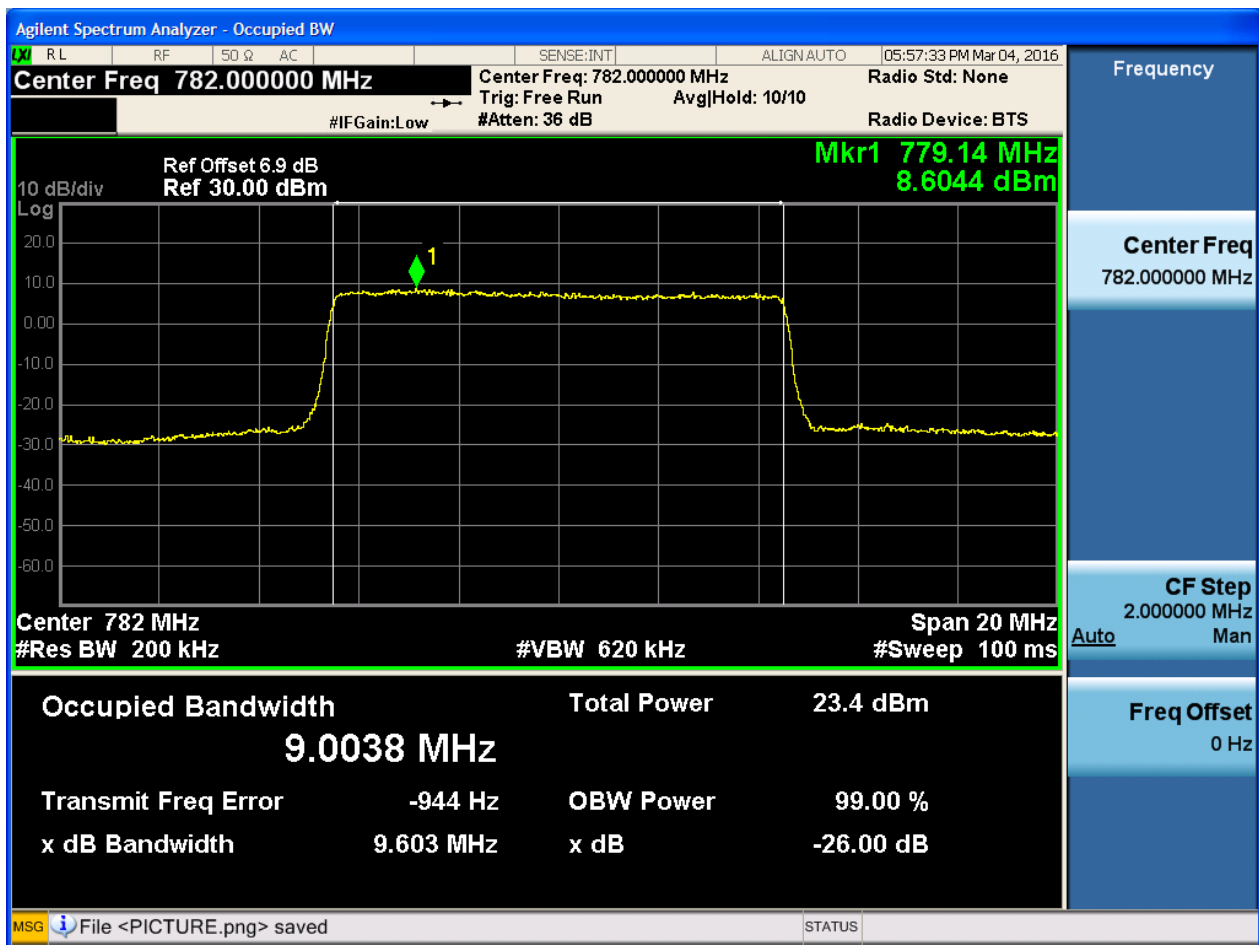
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0



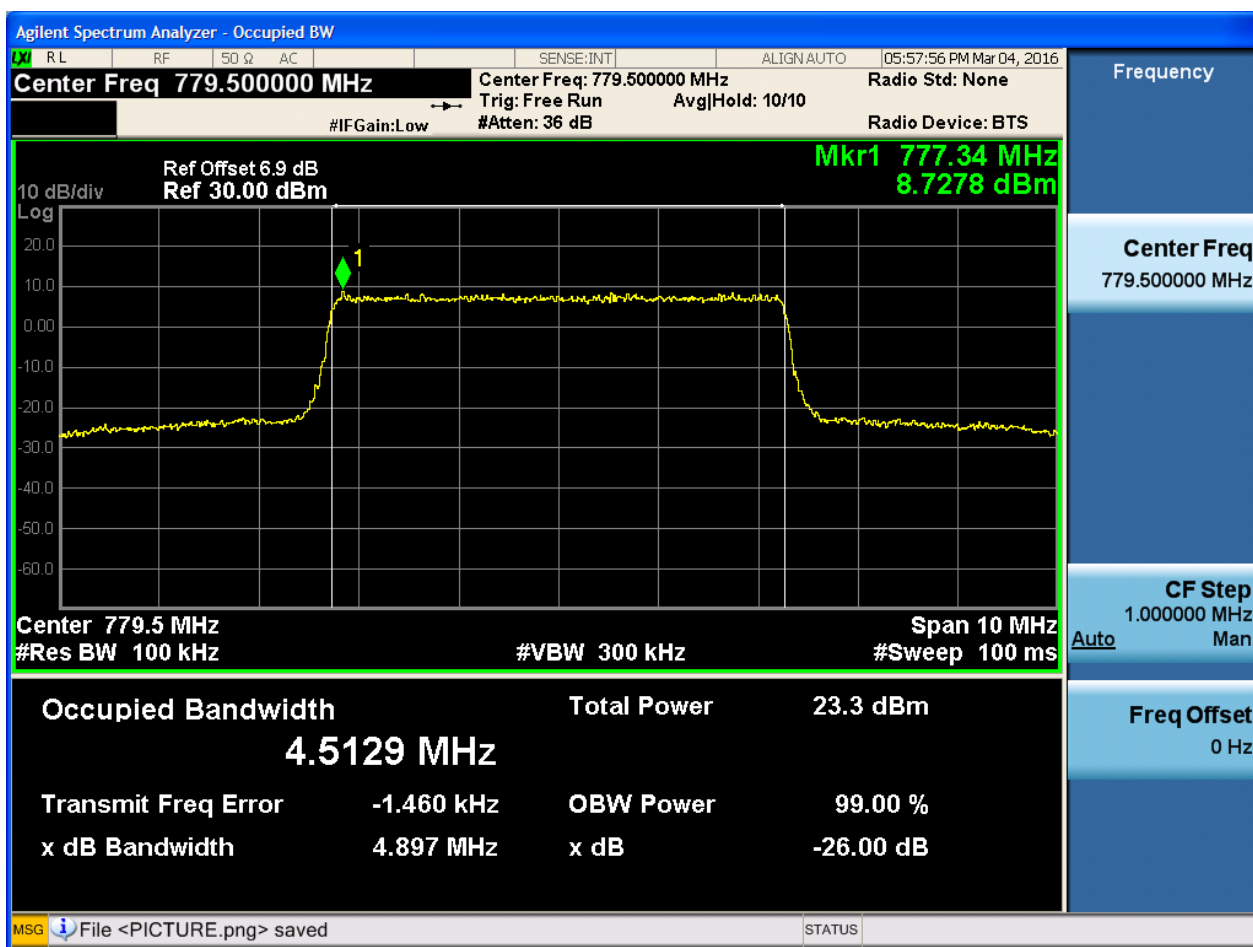


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

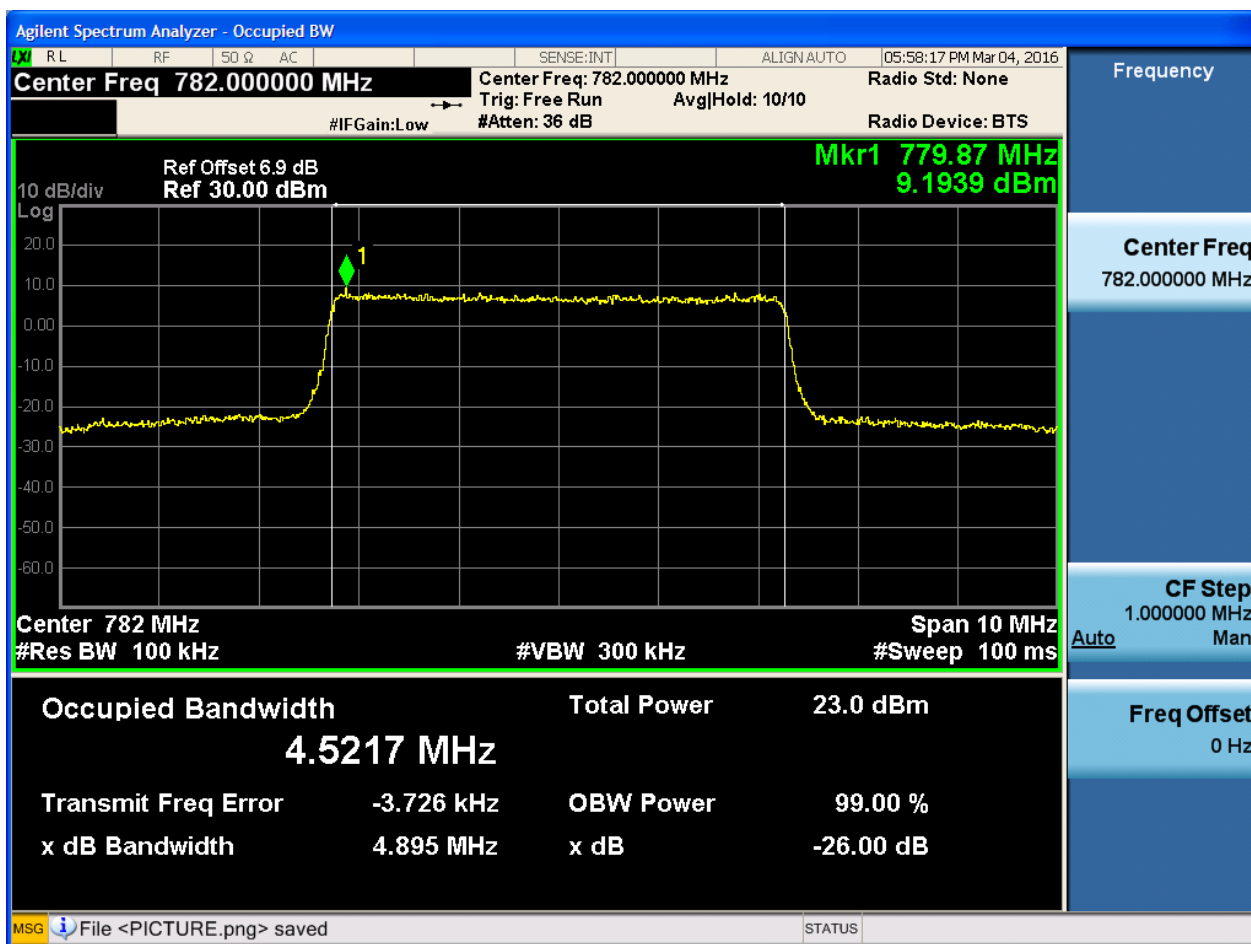
4.1.1.2.1.1 Test Channel = LCH

4.1.1.2.1.1.1 Test RB = RB25#0



4.1.1.2.1.2 Test Channel = MCH

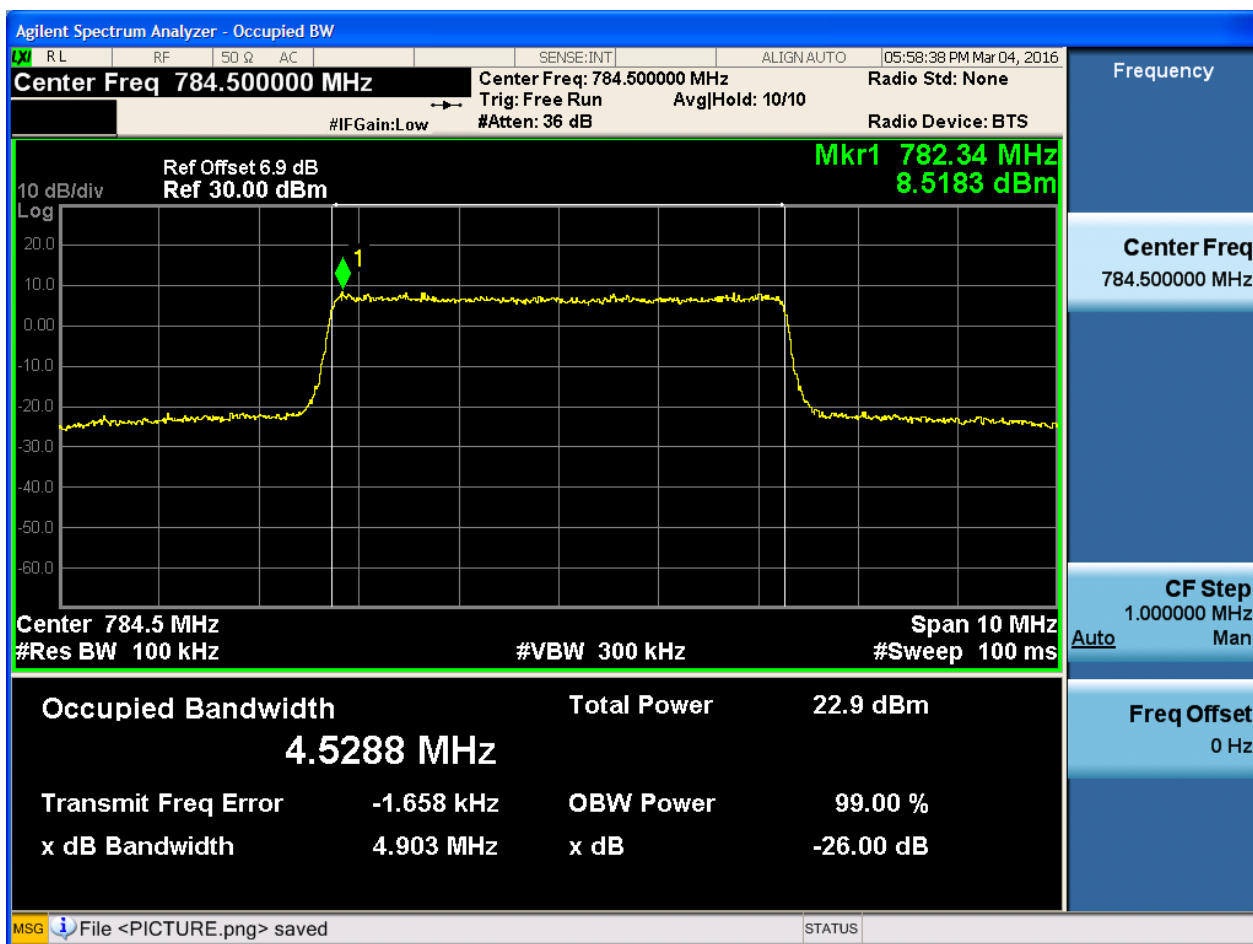
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

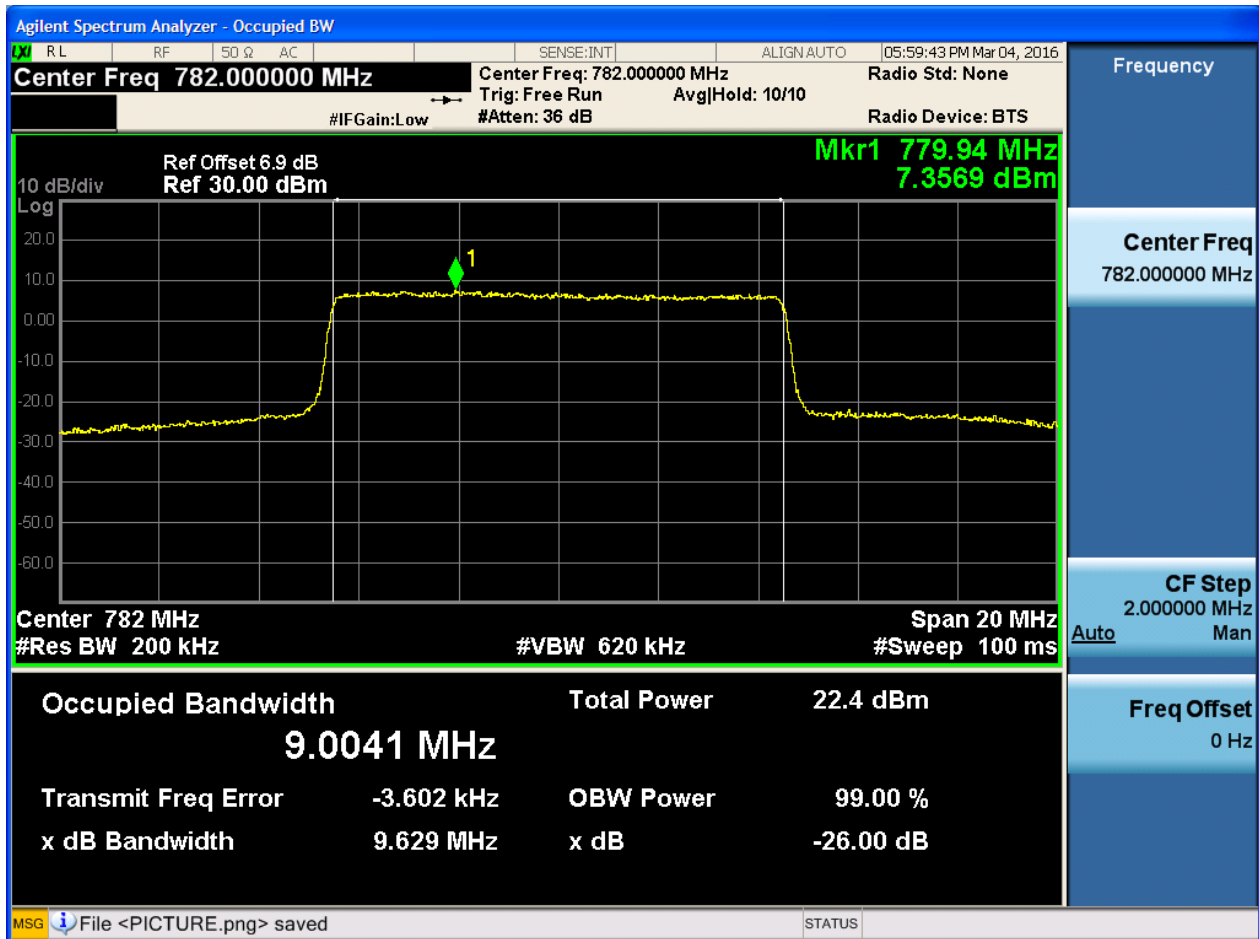




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

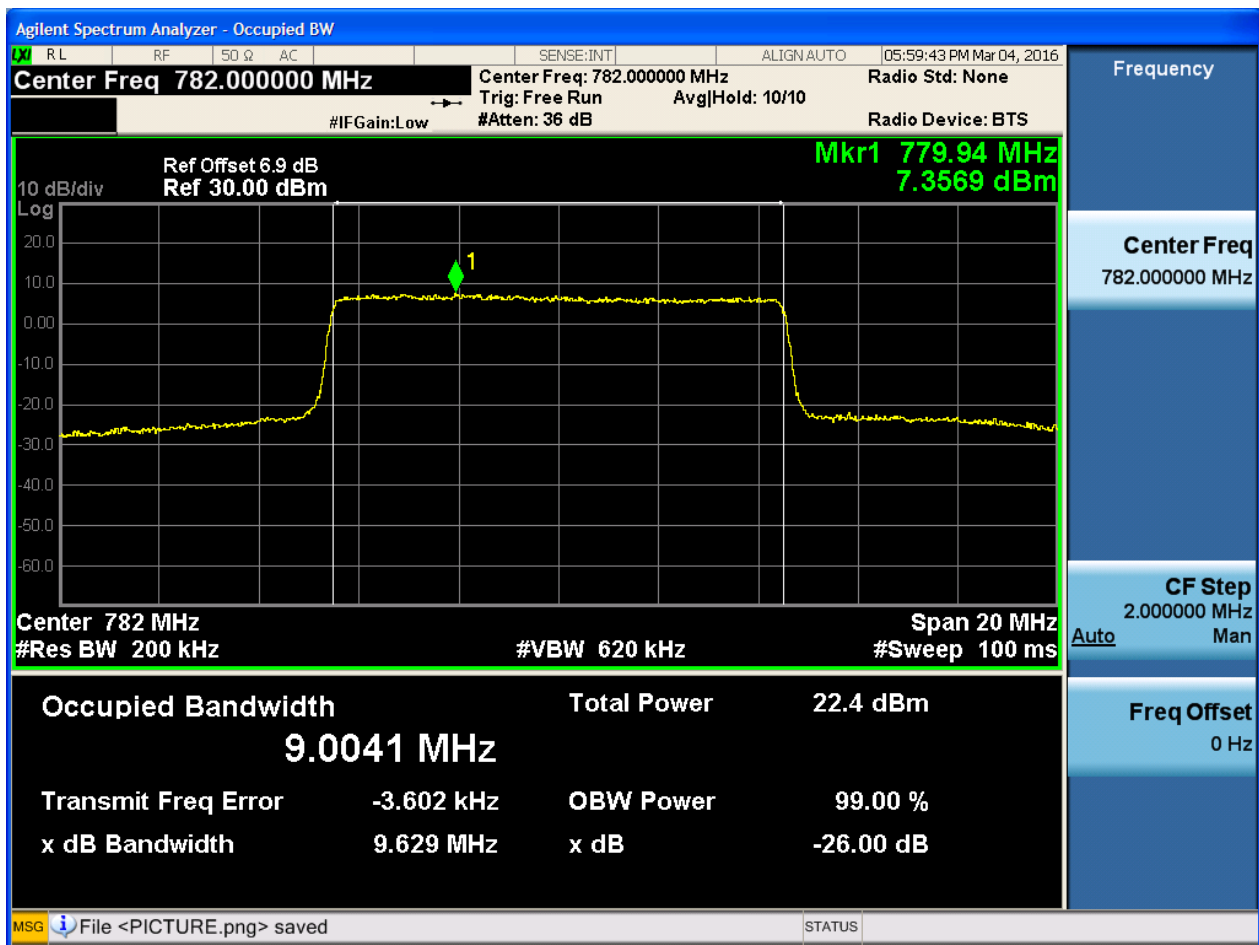
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

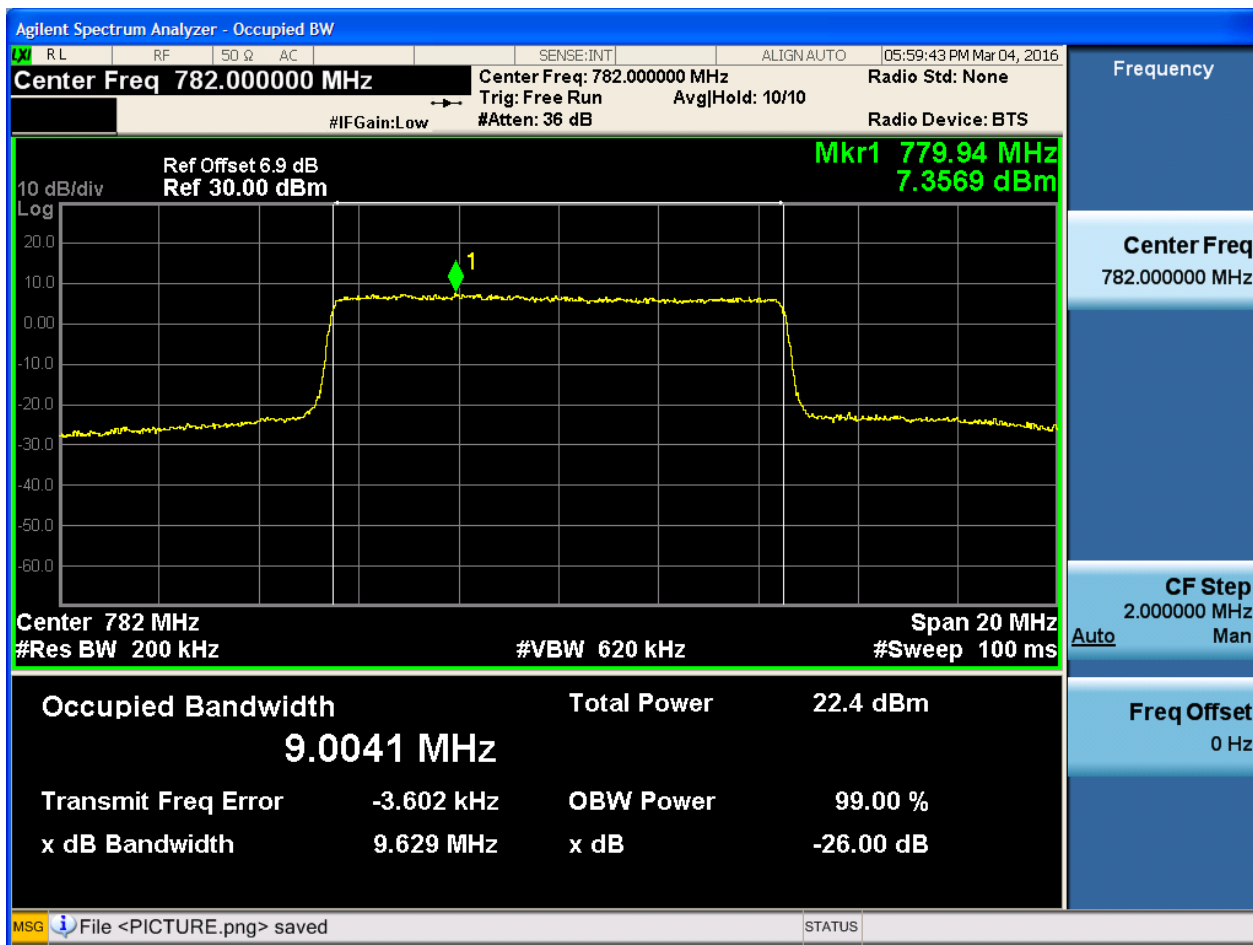
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

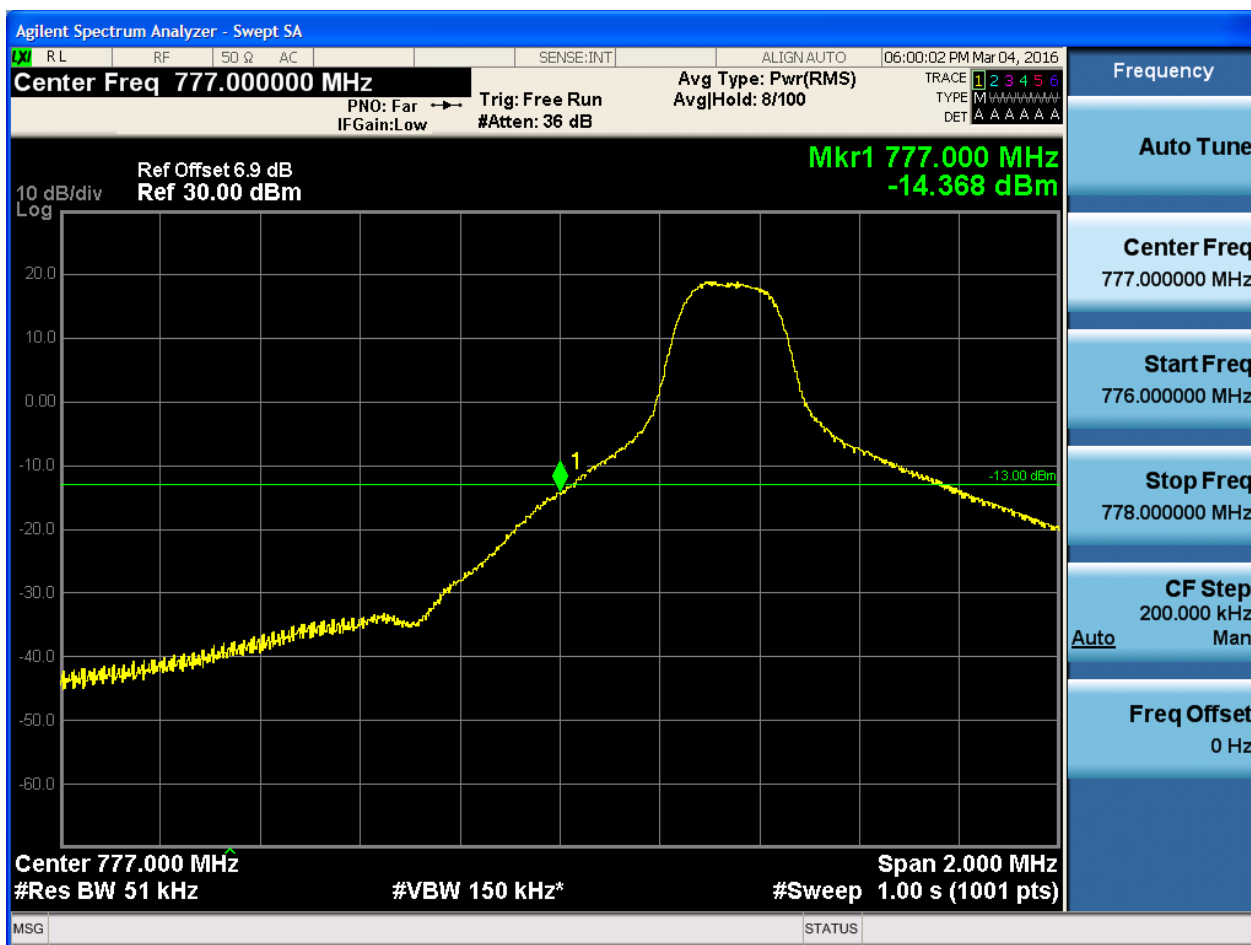
5.1.1 Test Band = BAND13

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

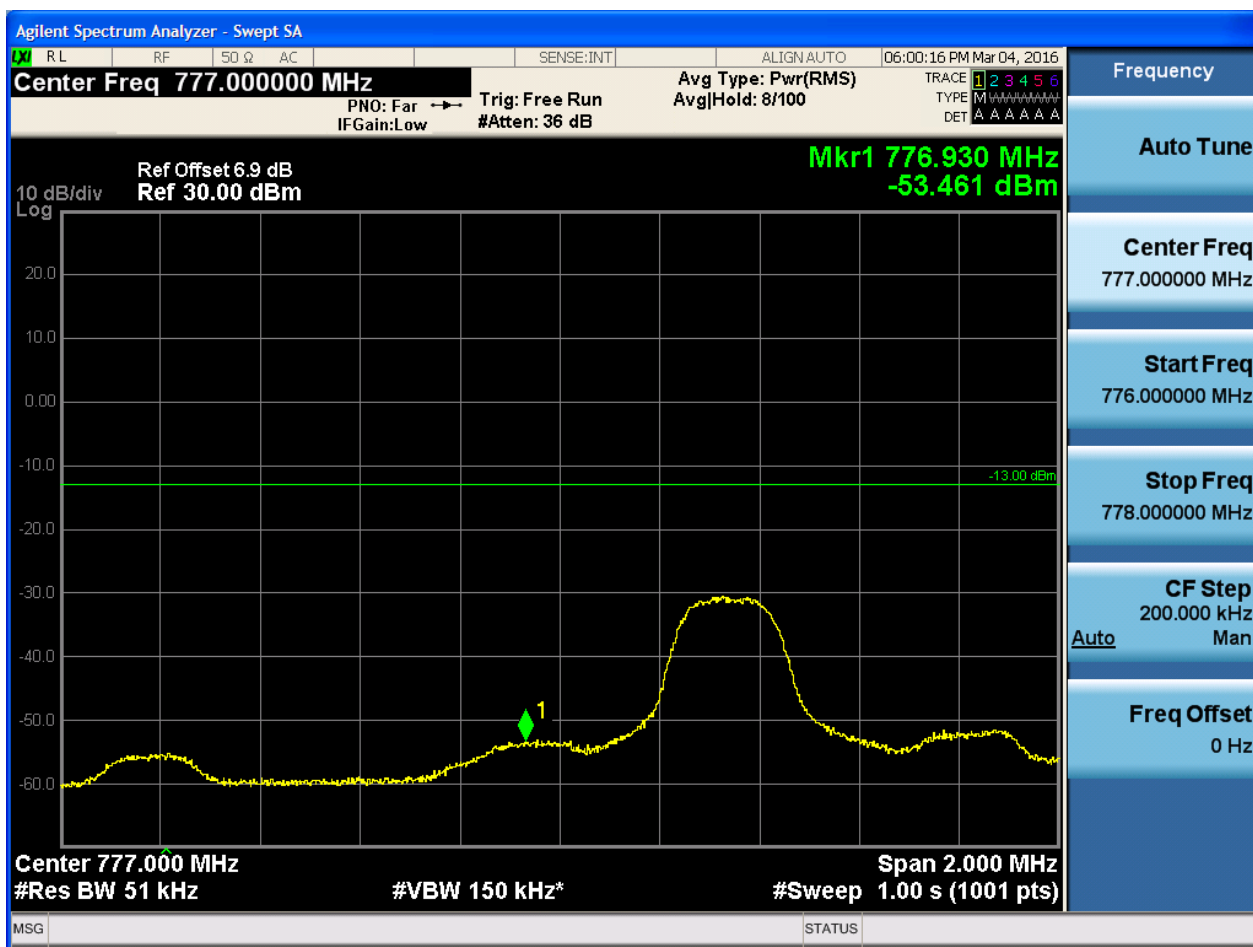
5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



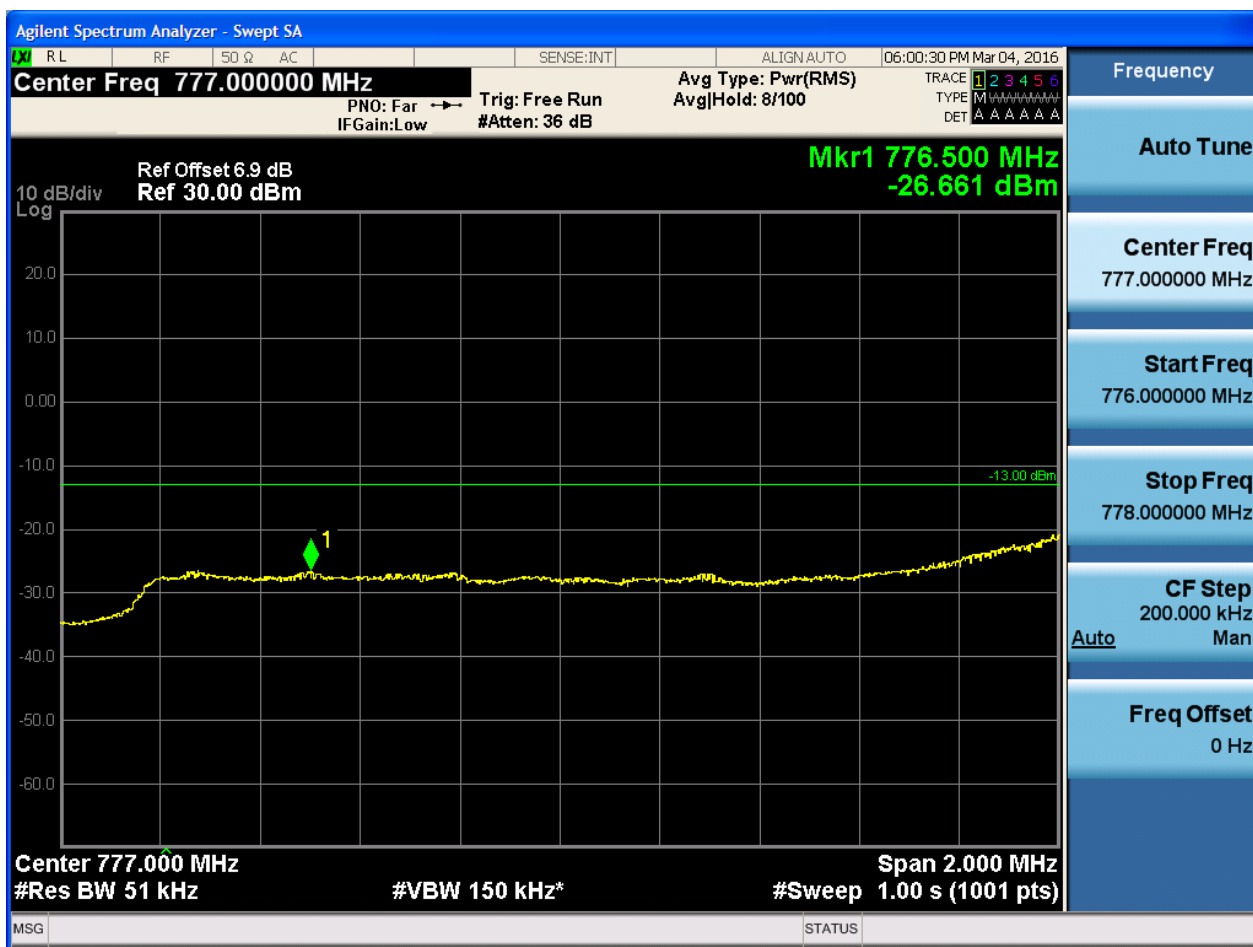


5.1.1.1.1.2 Test RB = RB1#24





5.1.1.1.1.3 Test RB = RB12#6





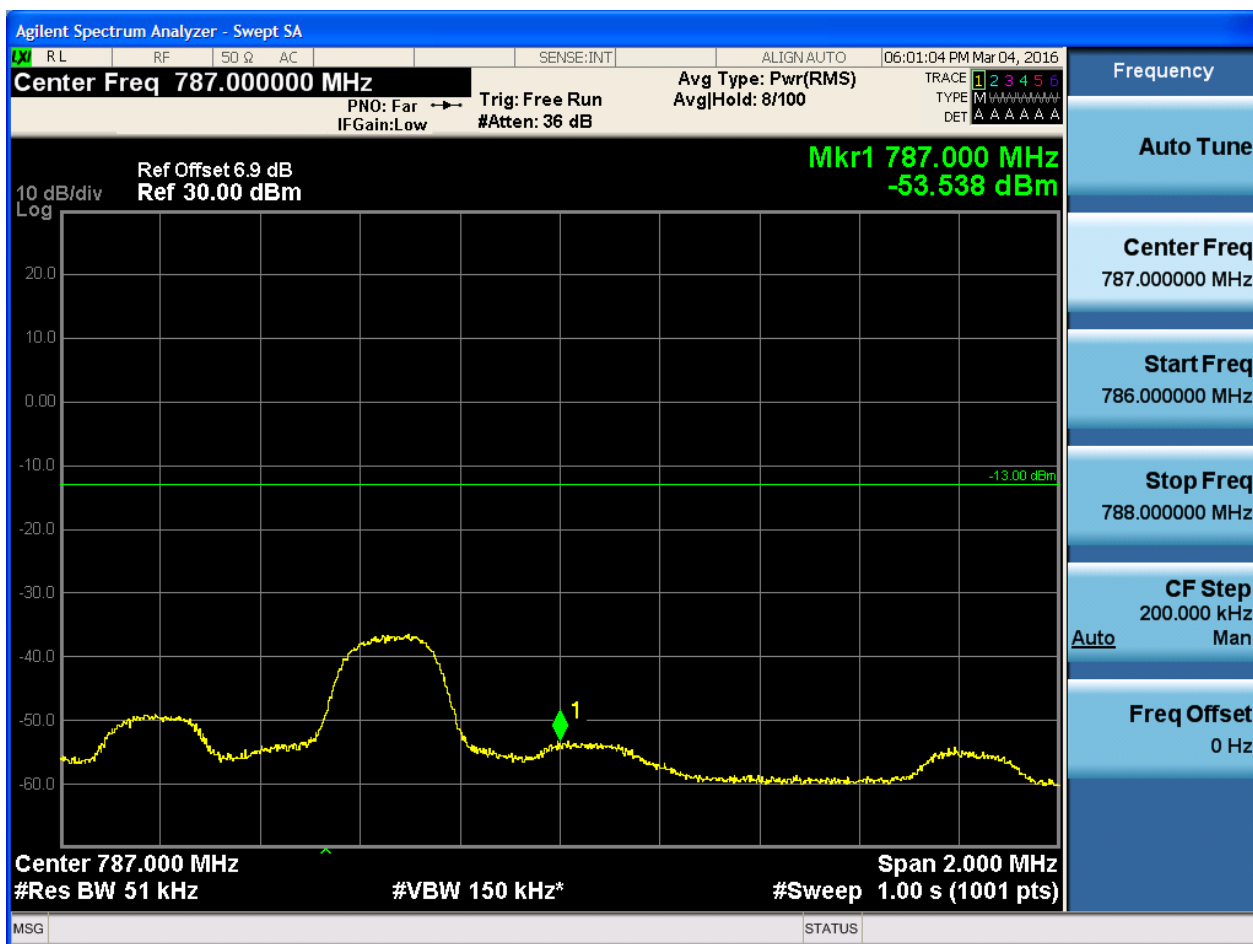
5.1.1.1.1.4 Test RB = RB25#0





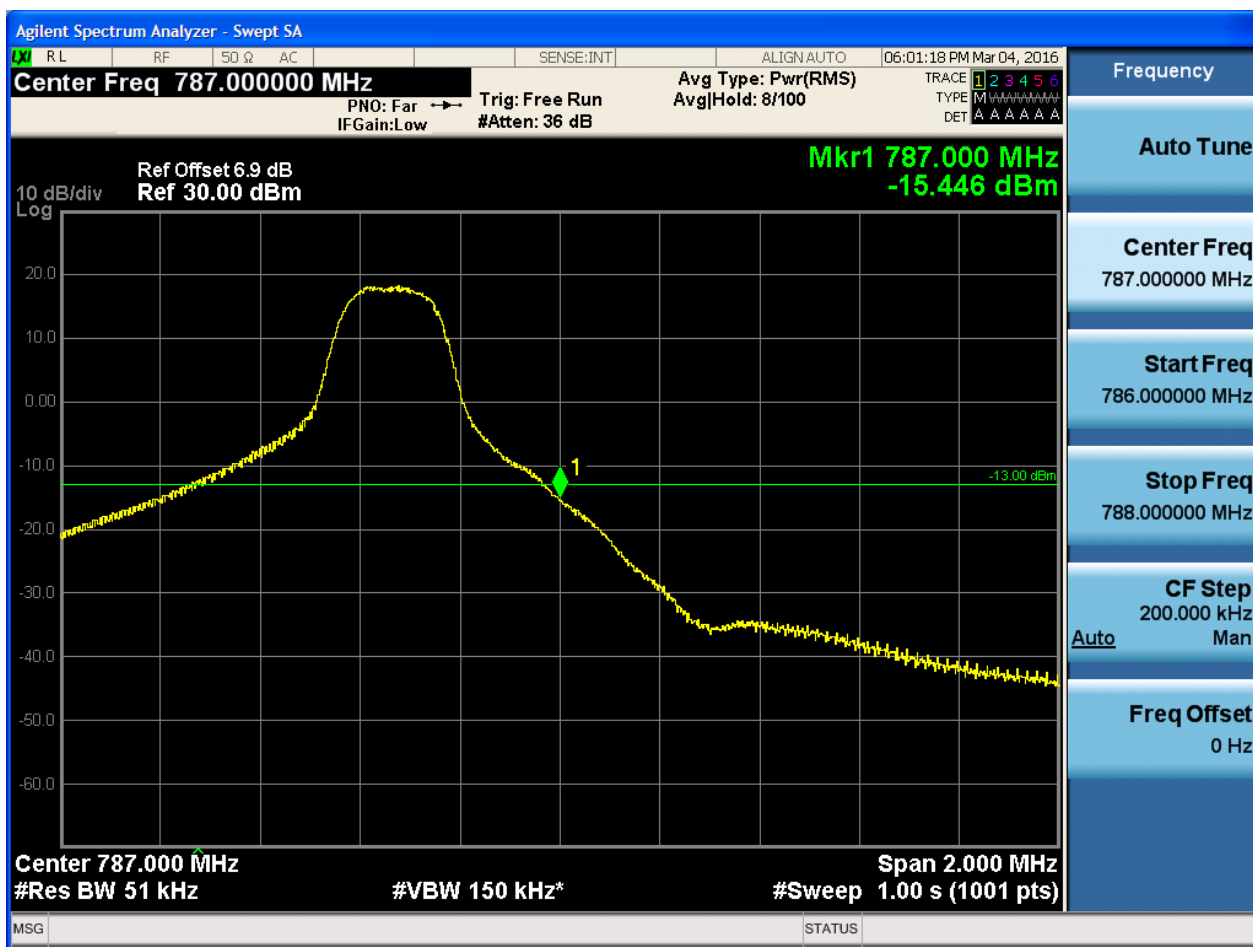
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.2.2 Test RB = RB1#24





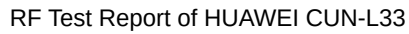
5.1.1.1.2.3 Test RB = RB12#6





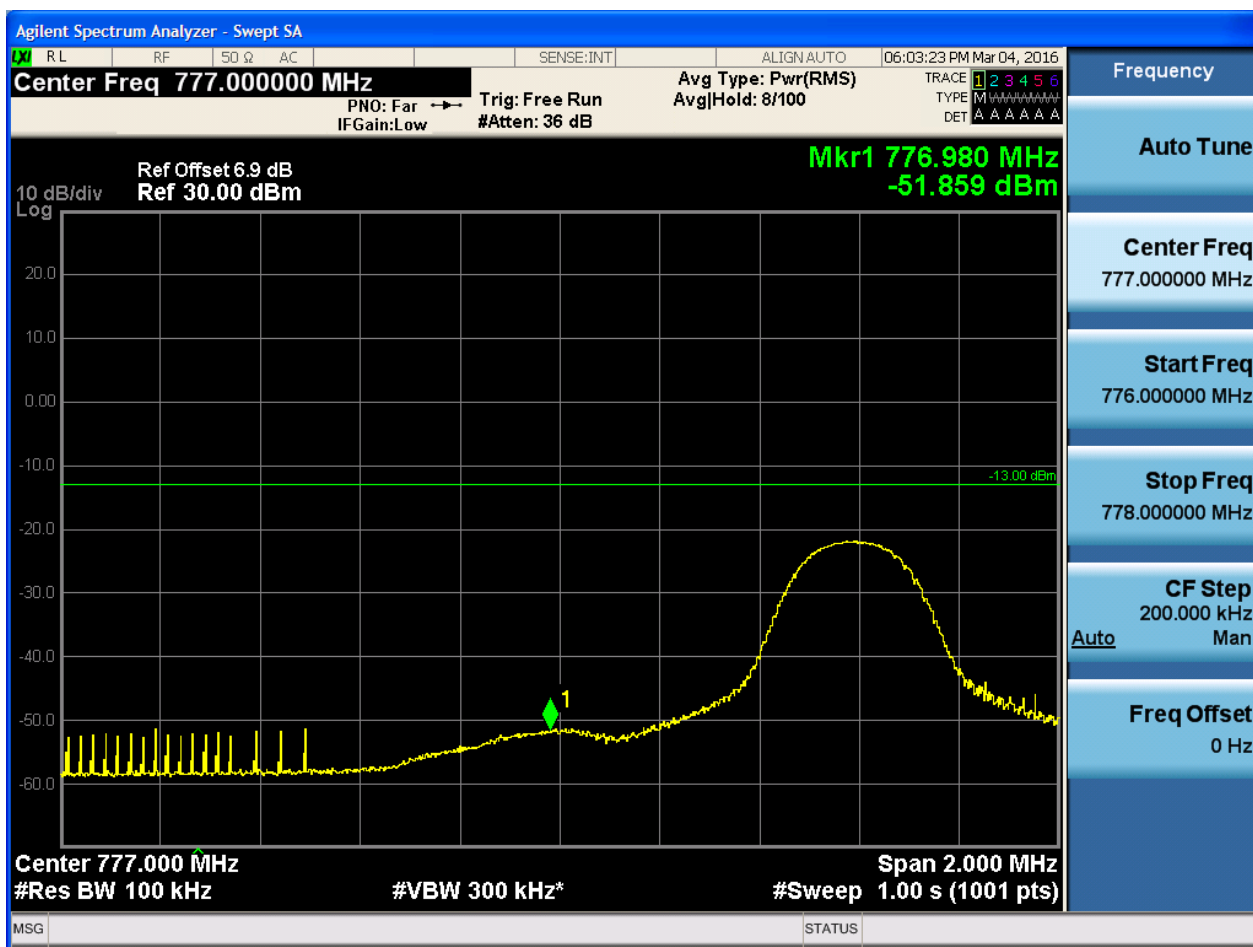
5.1.1.1.2.4 Test RB = RB25#0





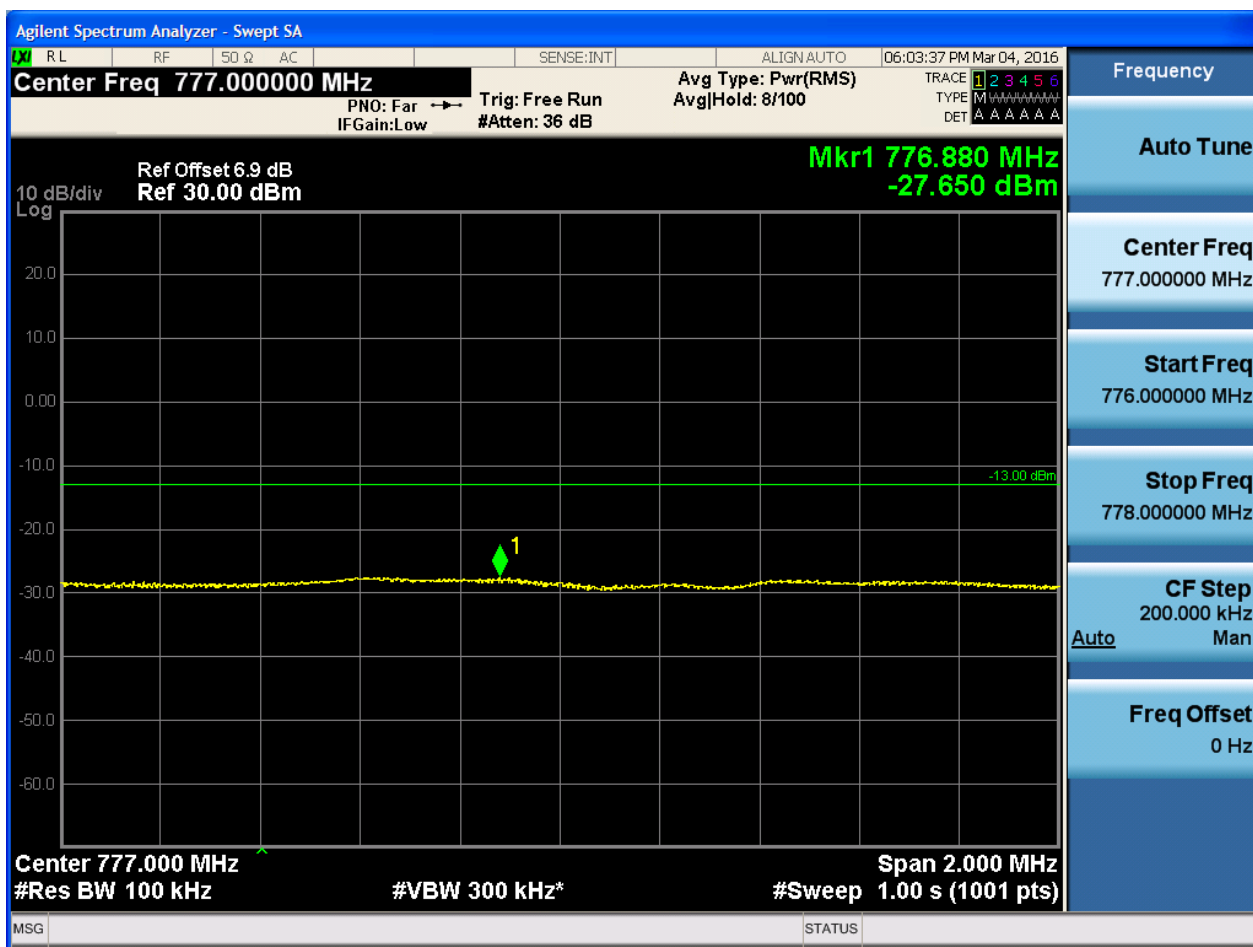


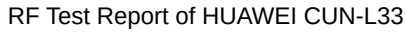
5.1.1.1.2.1.2 Test RB = RB1#49





5.1.1.1.2.1.3 Test RB = RB25#13





Agilent Spectrum Analyzer - Swept SA

Center Freq 777.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 777.000 MHz
-29.455 dBm

Center 777.000 MHz
#Res BW 100 kHz

#VBW 300 kHz*

Span 2.000 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
777.000000 MHz

Start Freq
776.000000 MHz

Stop Freq
778.000000 MHz

CF Step
200.000 kHz
Man

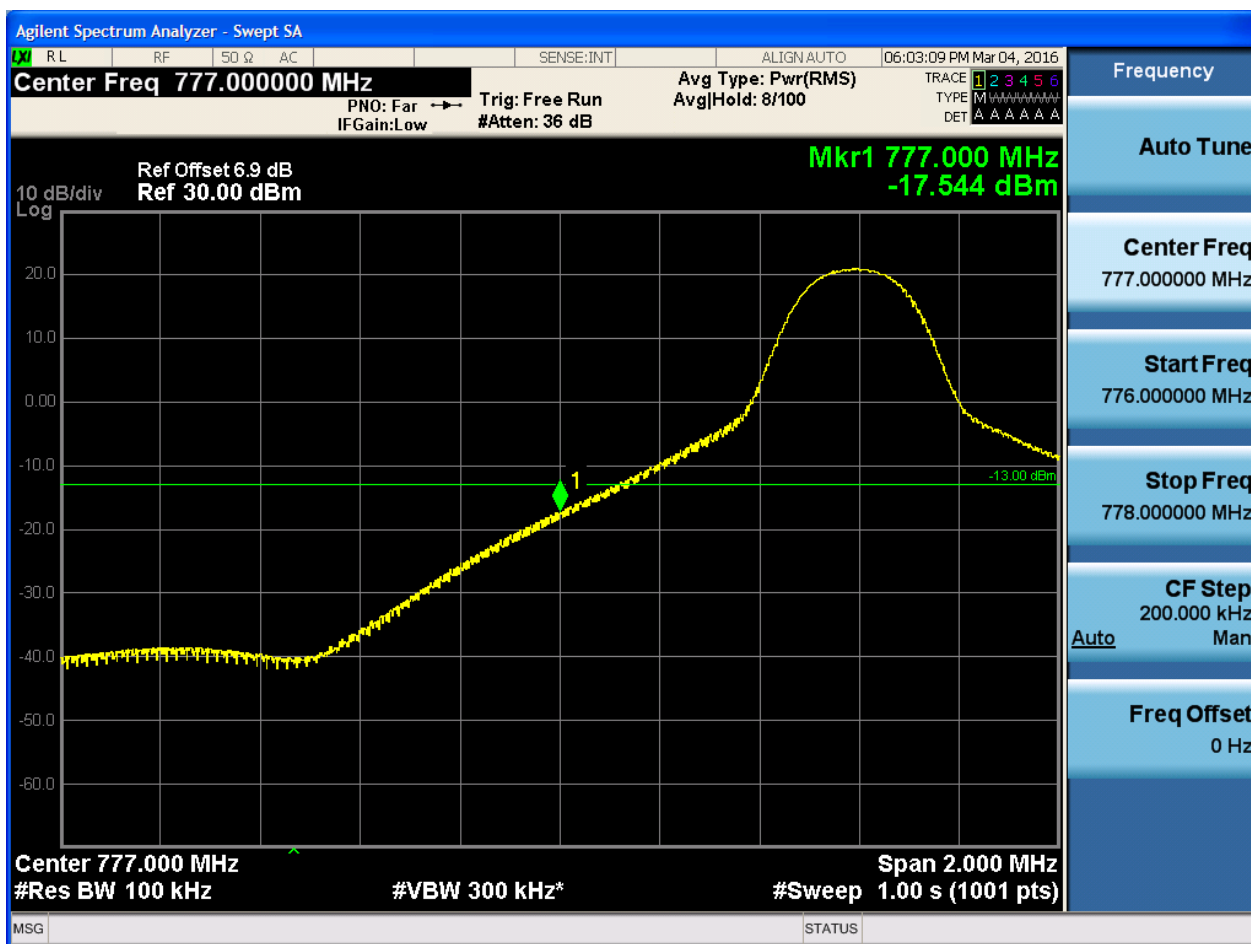
Auto

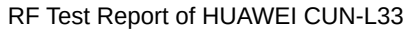
Freq Offset
0 Hz



5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 777.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 776.980 MHz
-51.859 dBm

Center 777.000 MHz
#Res BW 100 kHz

#VBW 300 kHz*

Span 2.000 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
777.000000 MHz

Start Freq
776.000000 MHz

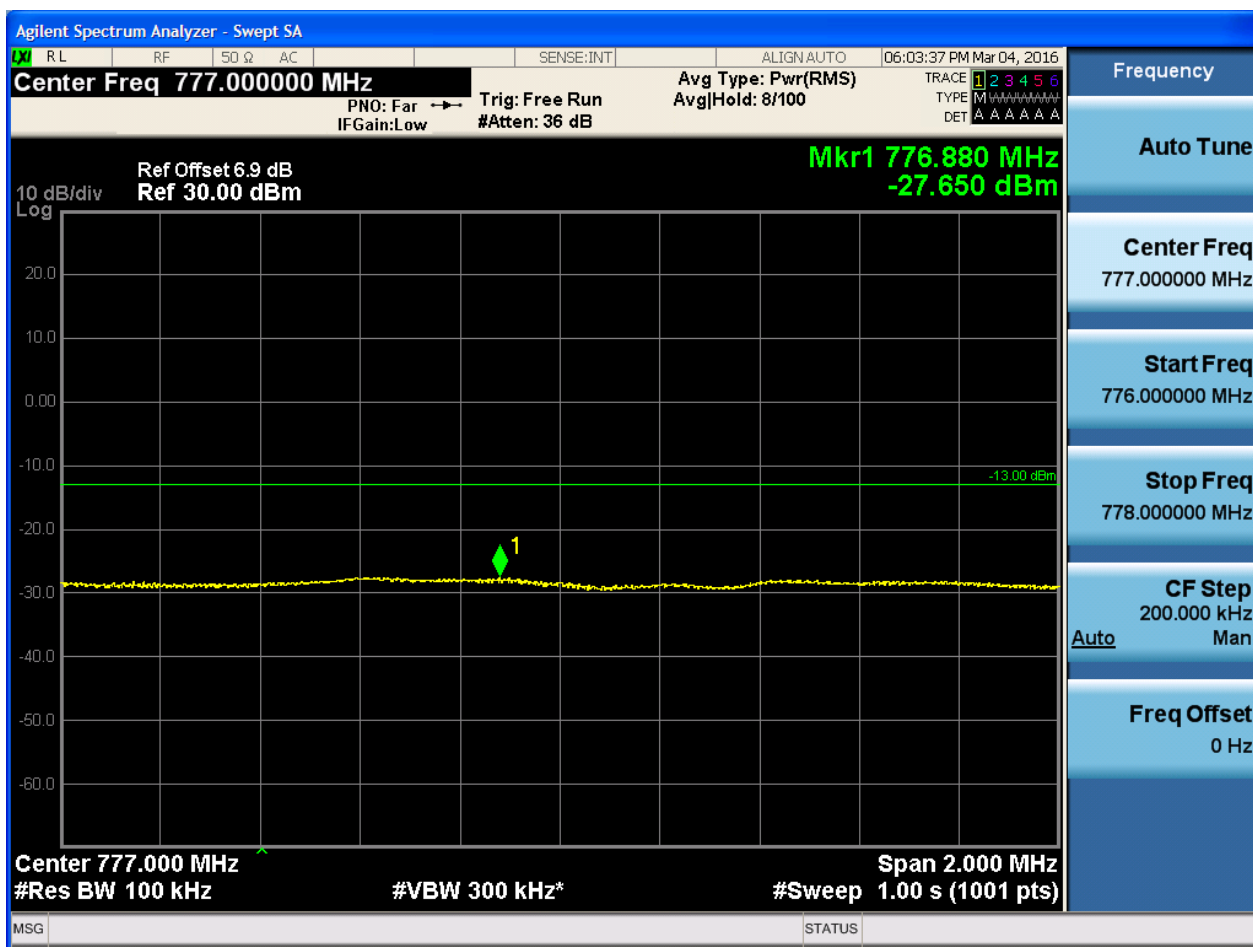
Stop Freq
778.000000 MHz

CF Step
200.000 kHz
Man

Freq Offset
0 Hz

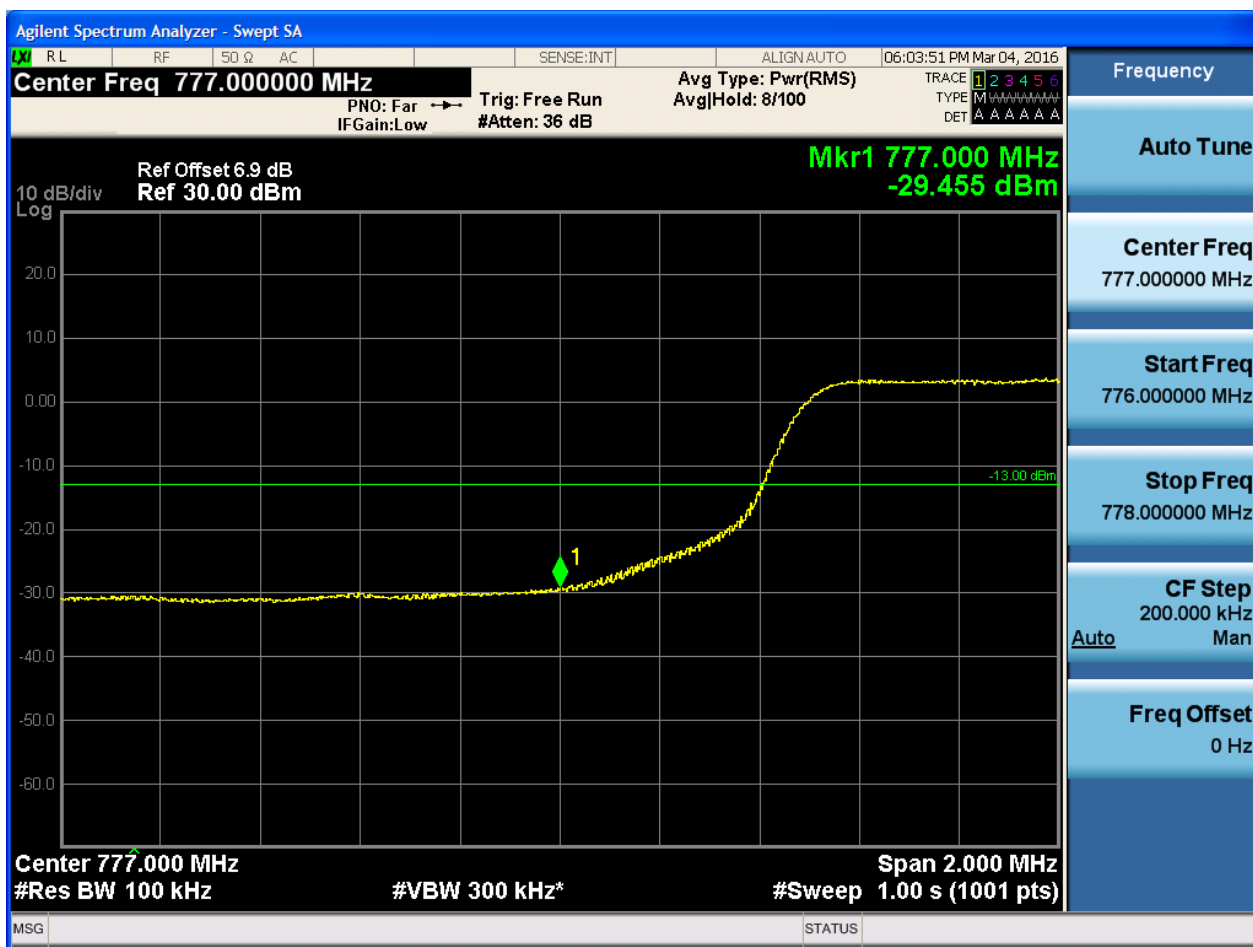


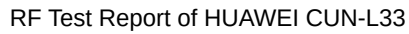
5.1.1.1.2.3 Test RB = RB25#13





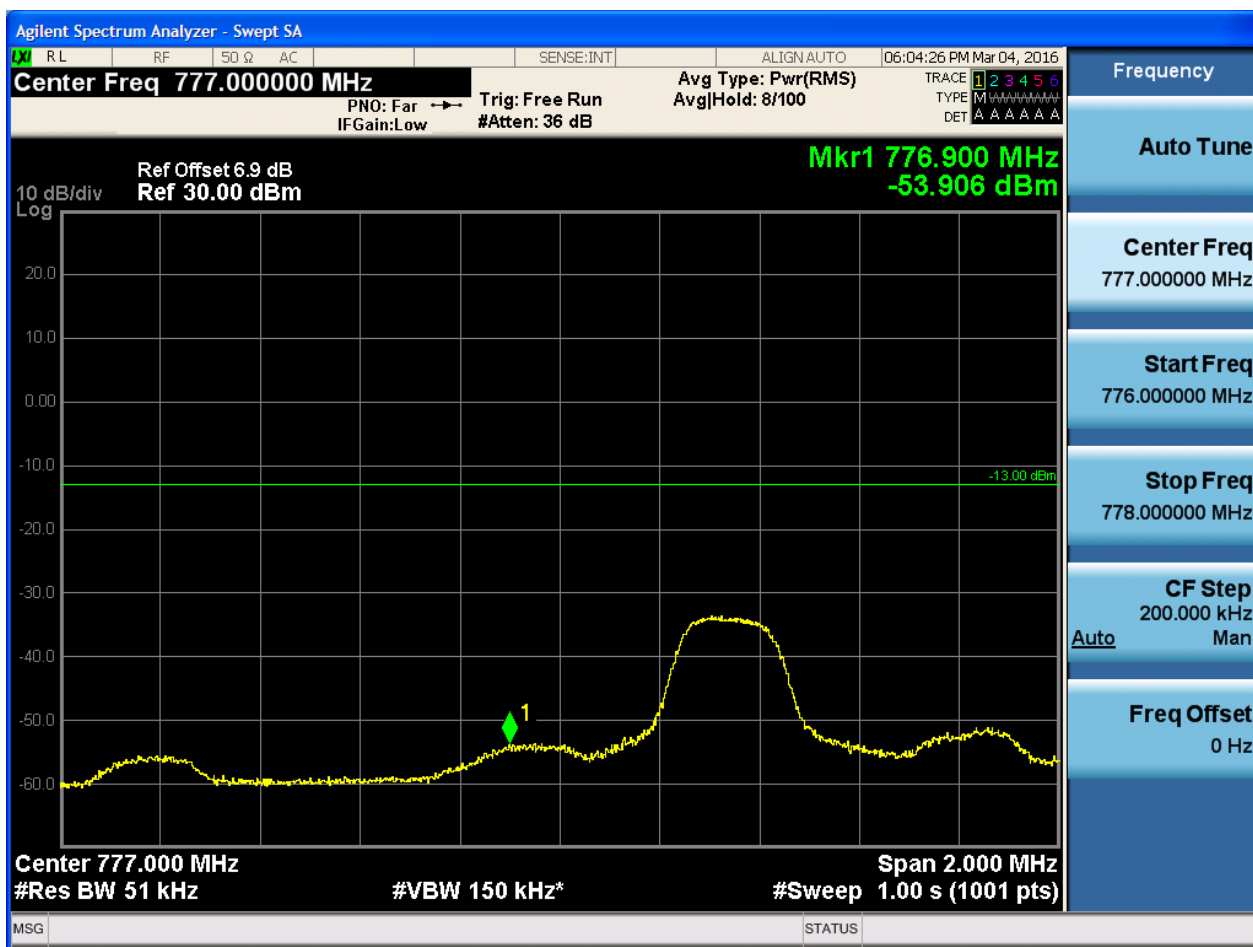
5.1.1.1.2.2.4 Test RB = RB50#0





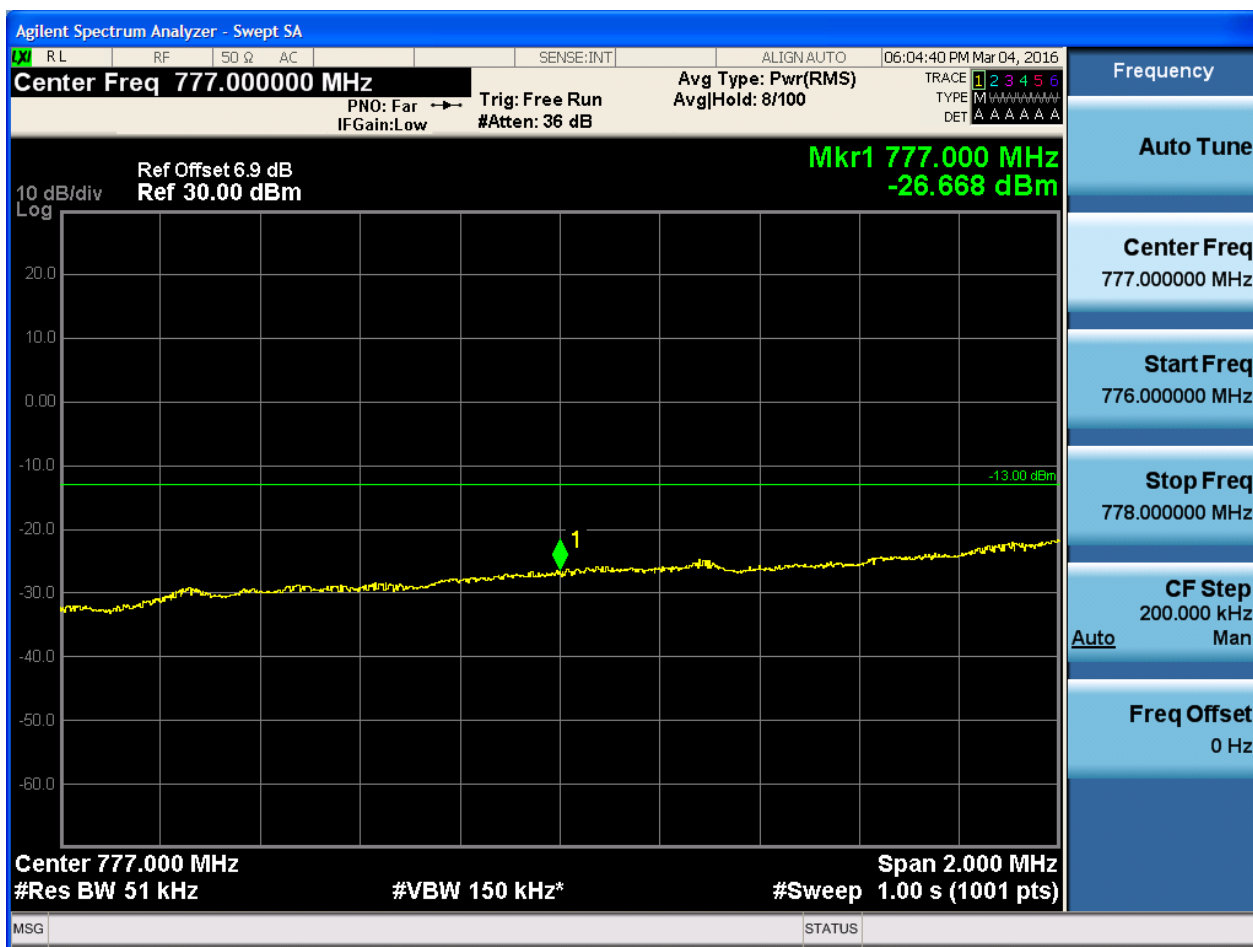


5.1.1.2.1.2 Test RB = RB1#24



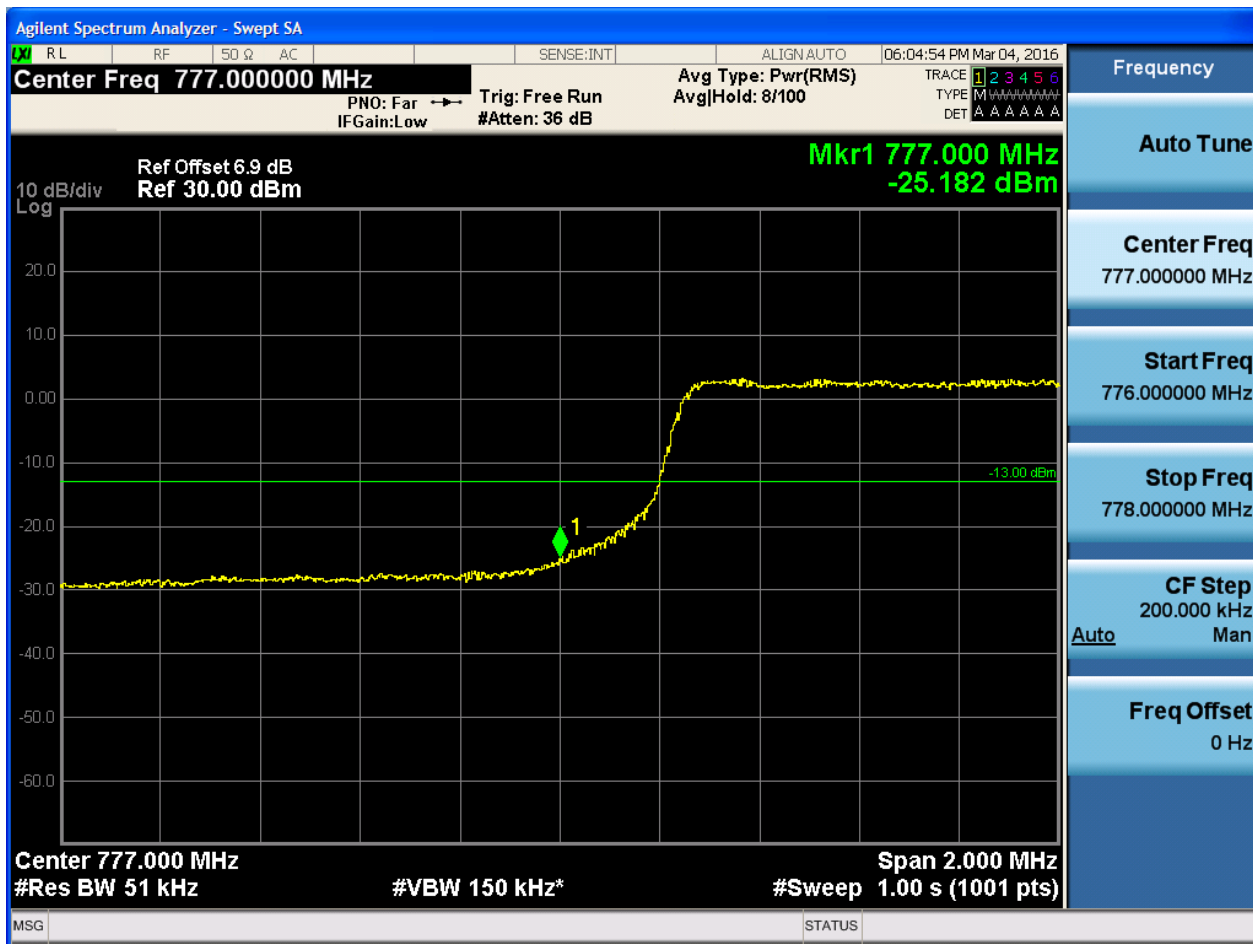


5.1.1.2.1.1.3 Test RB = RB12#6



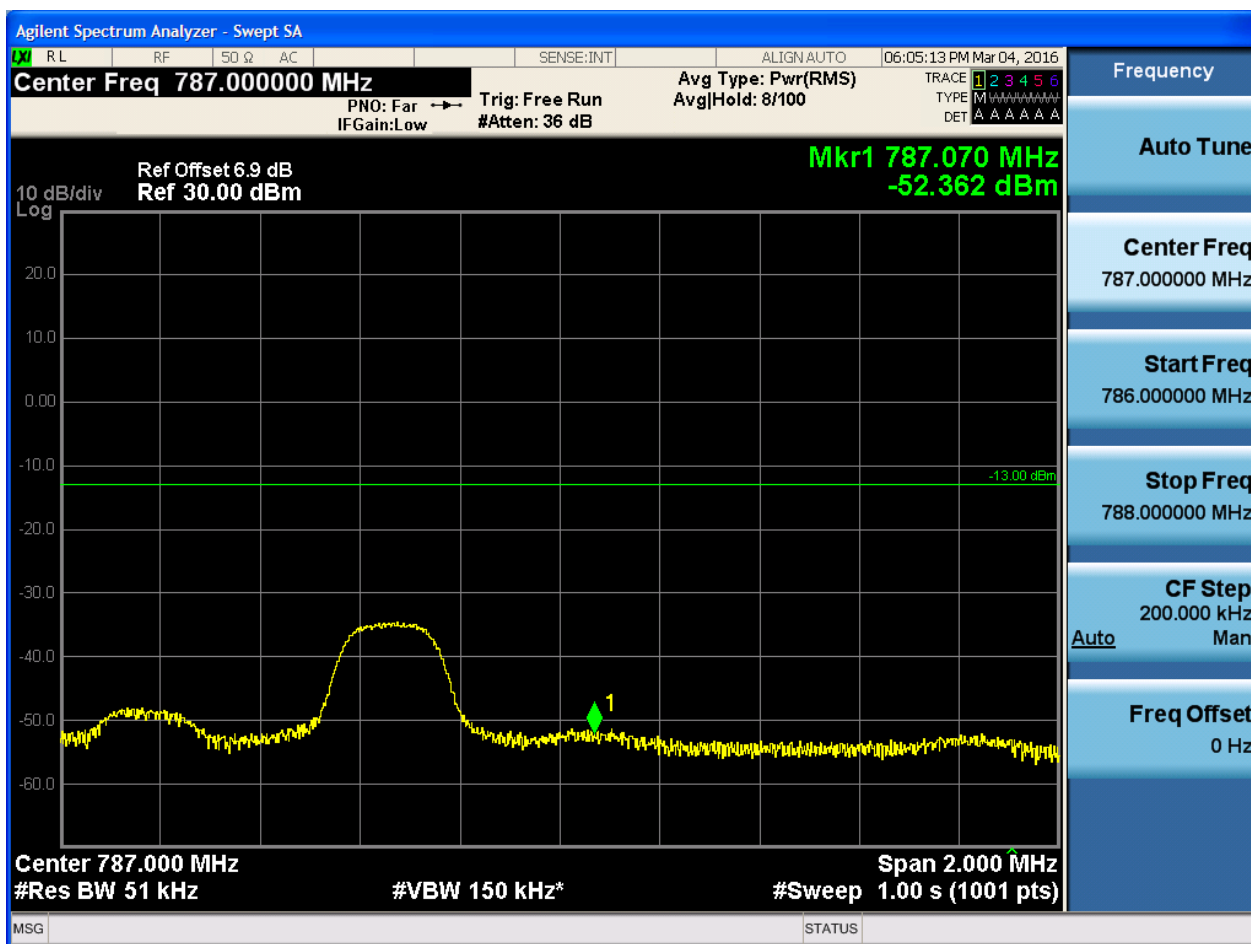


5.1.1.2.1.1.4 Test RB = RB25#0



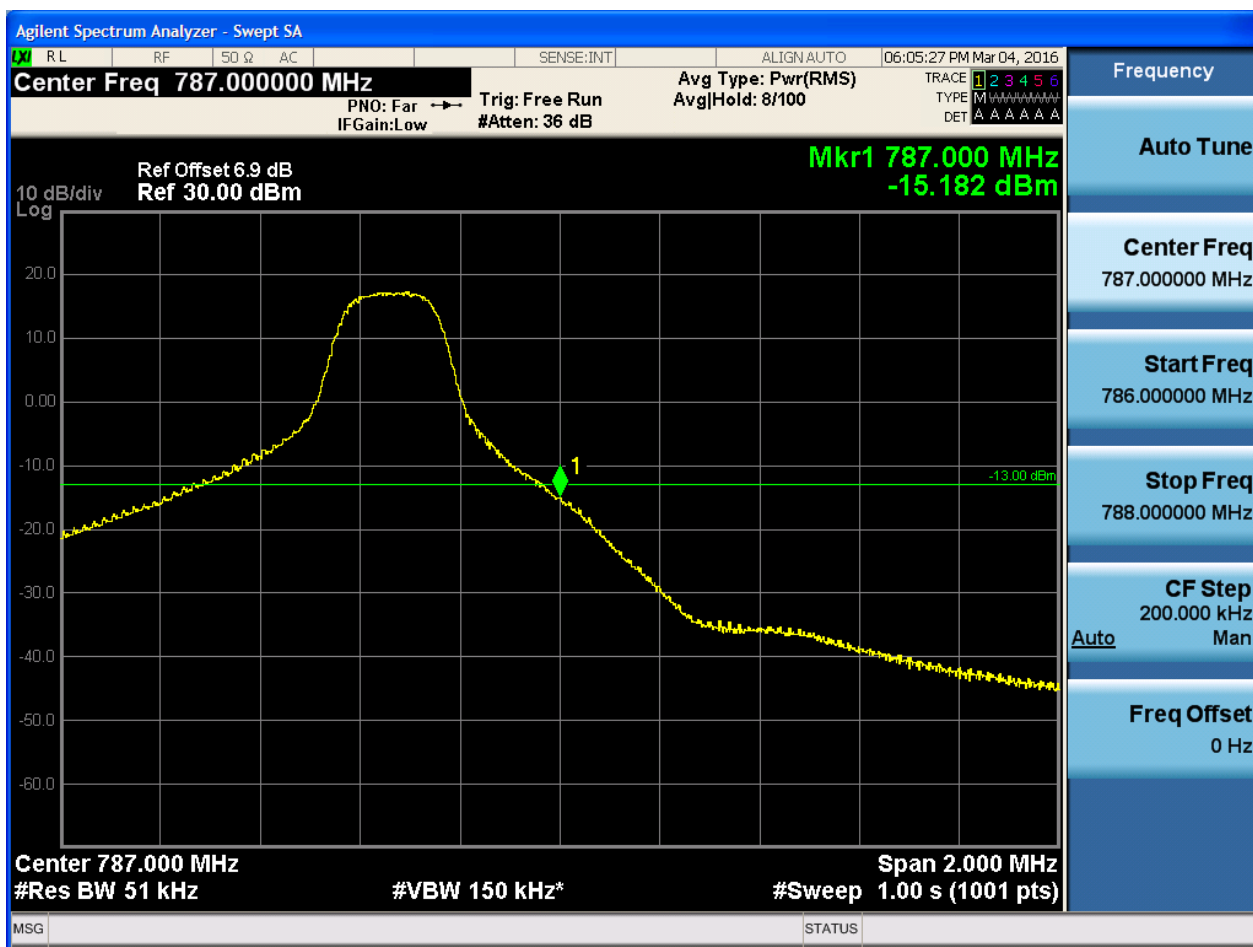
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





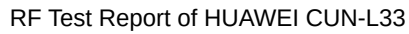
5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 06:05:54 PM Mar 04, 2016

Center Freq 787.000000 MHz Avg Type: Pwr(RMS) TRACE 1 2 3 4 5 6
PNO: Far Trig: Free Run Avg|Hold: 8/100 TYPE M W W W W W W W
IFGain:Low #Atten: 36 dB DET A A A A A A

Ref Offset 6.9 dB Mkr1 787.000 MHz
Ref 30.00 dBm -25.298 dBm

10 dB/div Log

Center 787.000 MHz Span 2.000 MHz
#Res BW 51 kHz #VBW 150 kHz* #Sweep 1.00 s (1001 pts)

MSG STATUS

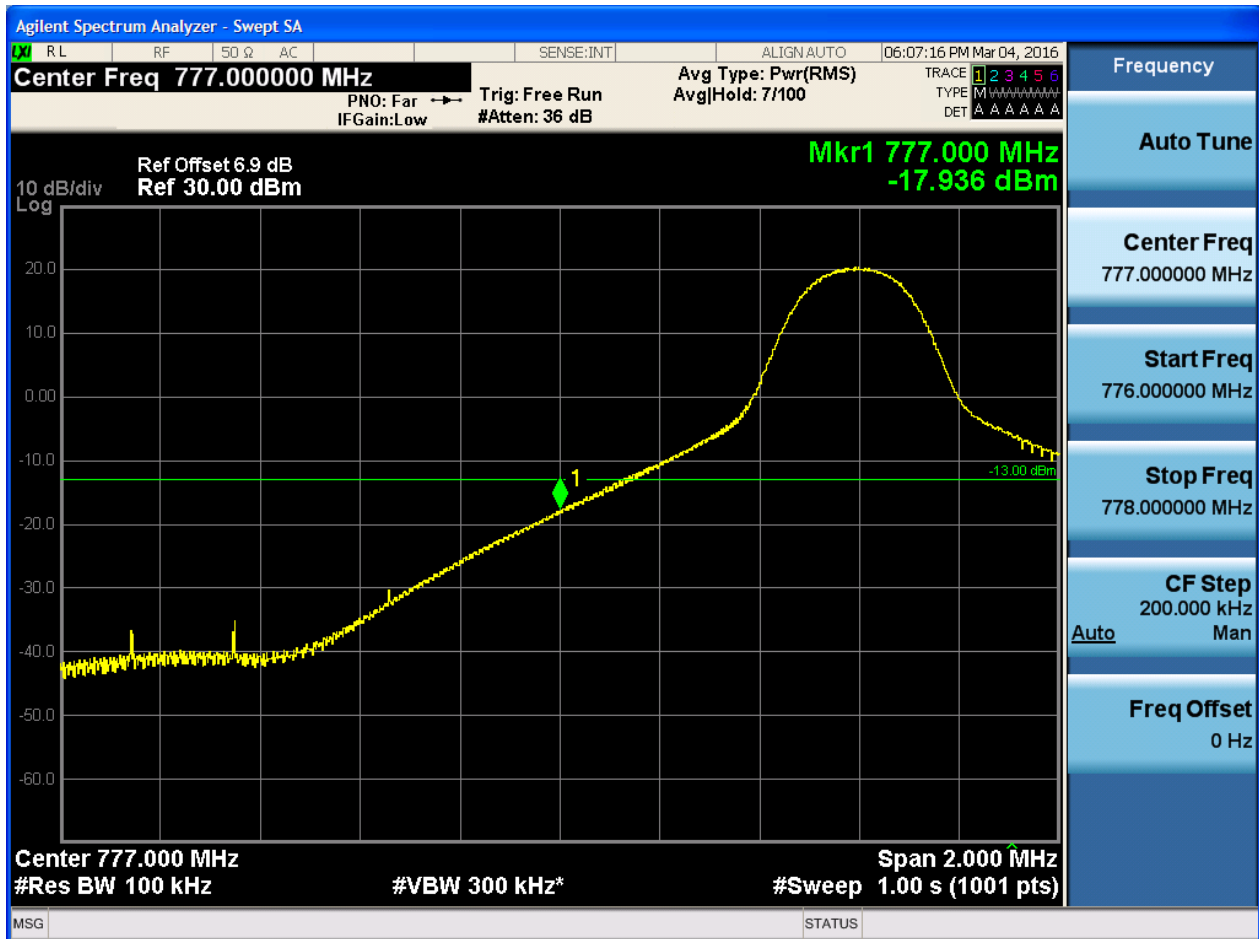
Frequency
Auto Tune
Center Freq 787.000000 MHz
Start Freq 786.000000 MHz
Stop Freq 788.000000 MHz
CF Step 200.000 kHz Auto
Freq Offset 0 Hz



5.1.1.2.2 Test Bandwidth = 10

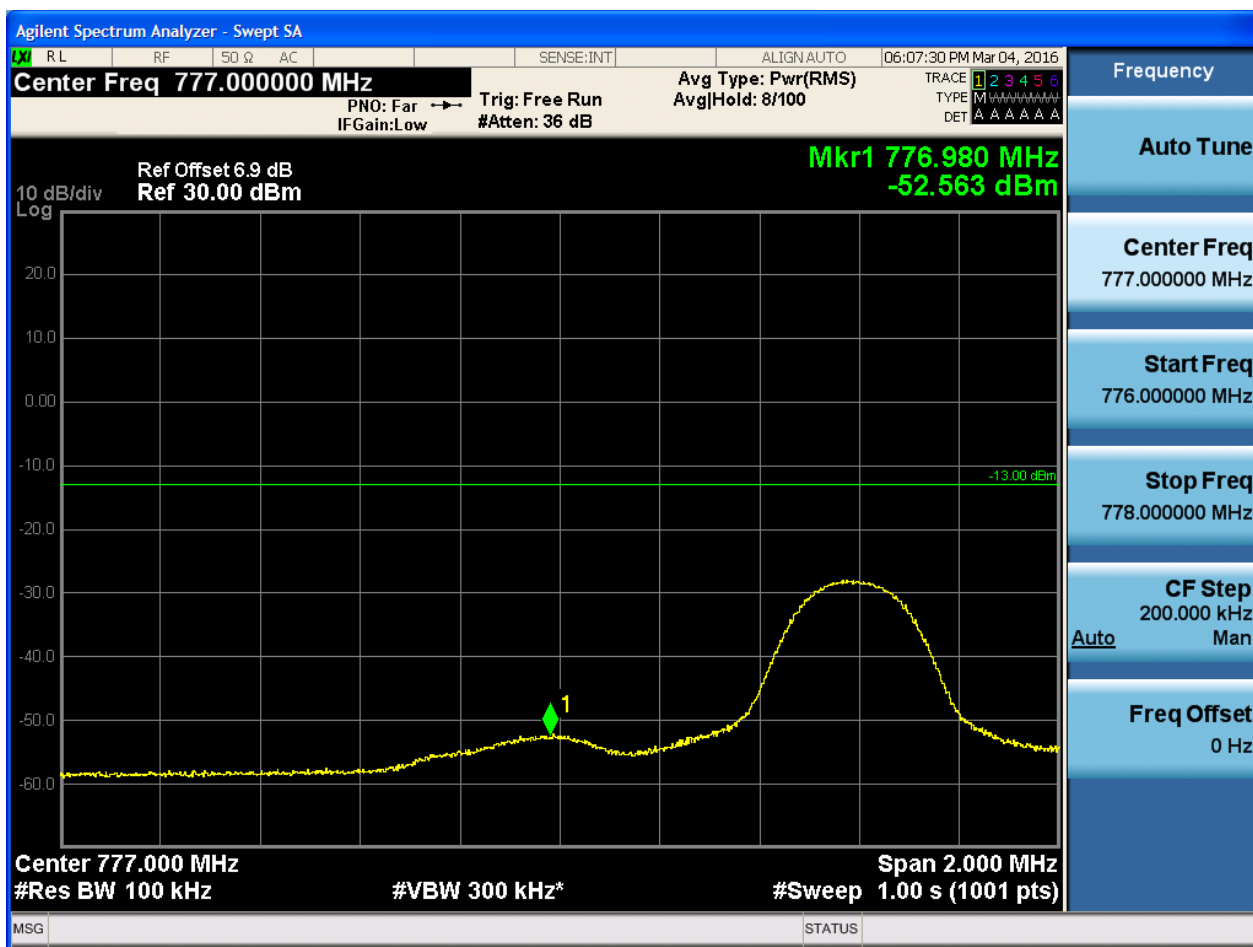
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0



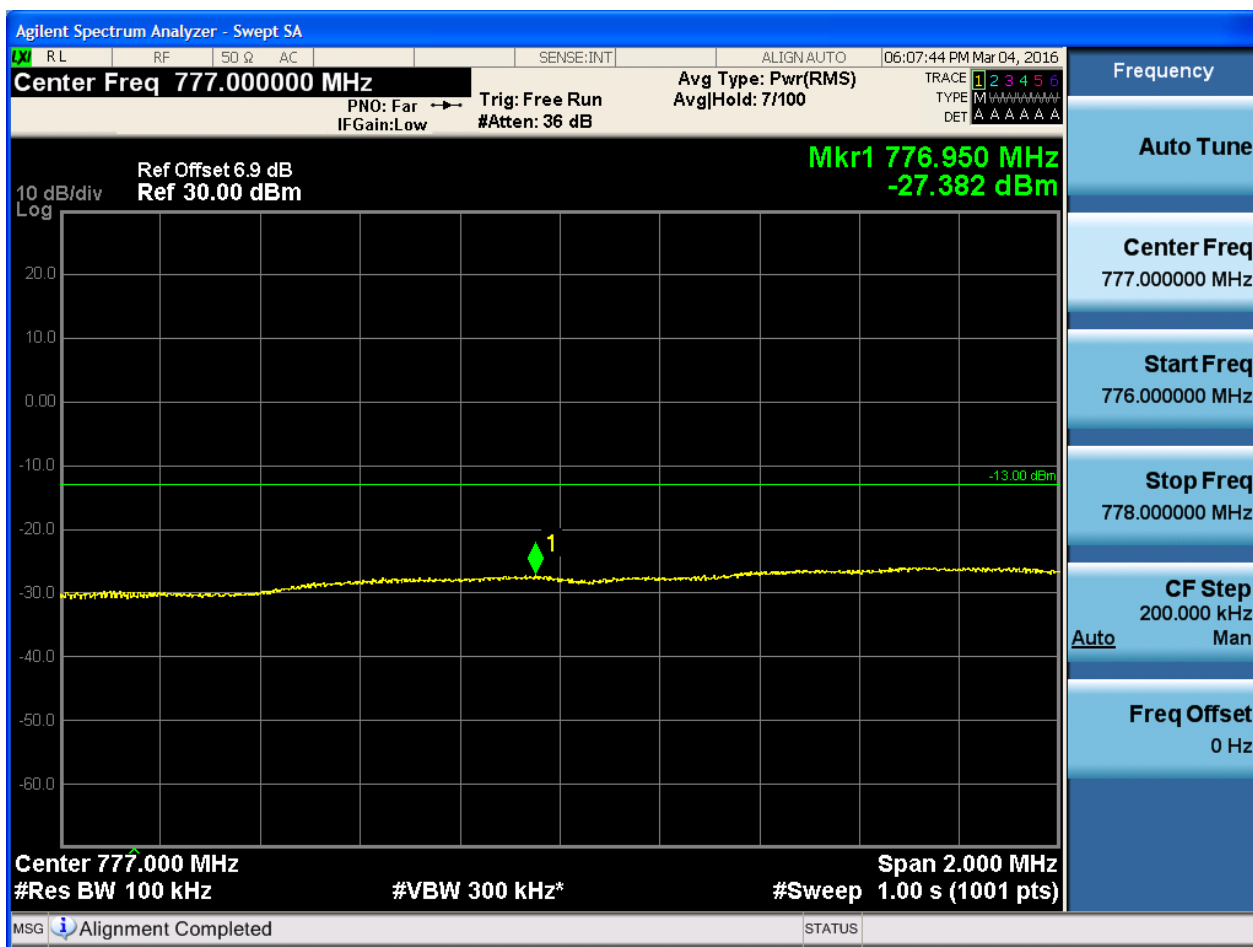


5.1.1.2.2.1.2 Test RB = RB1#49



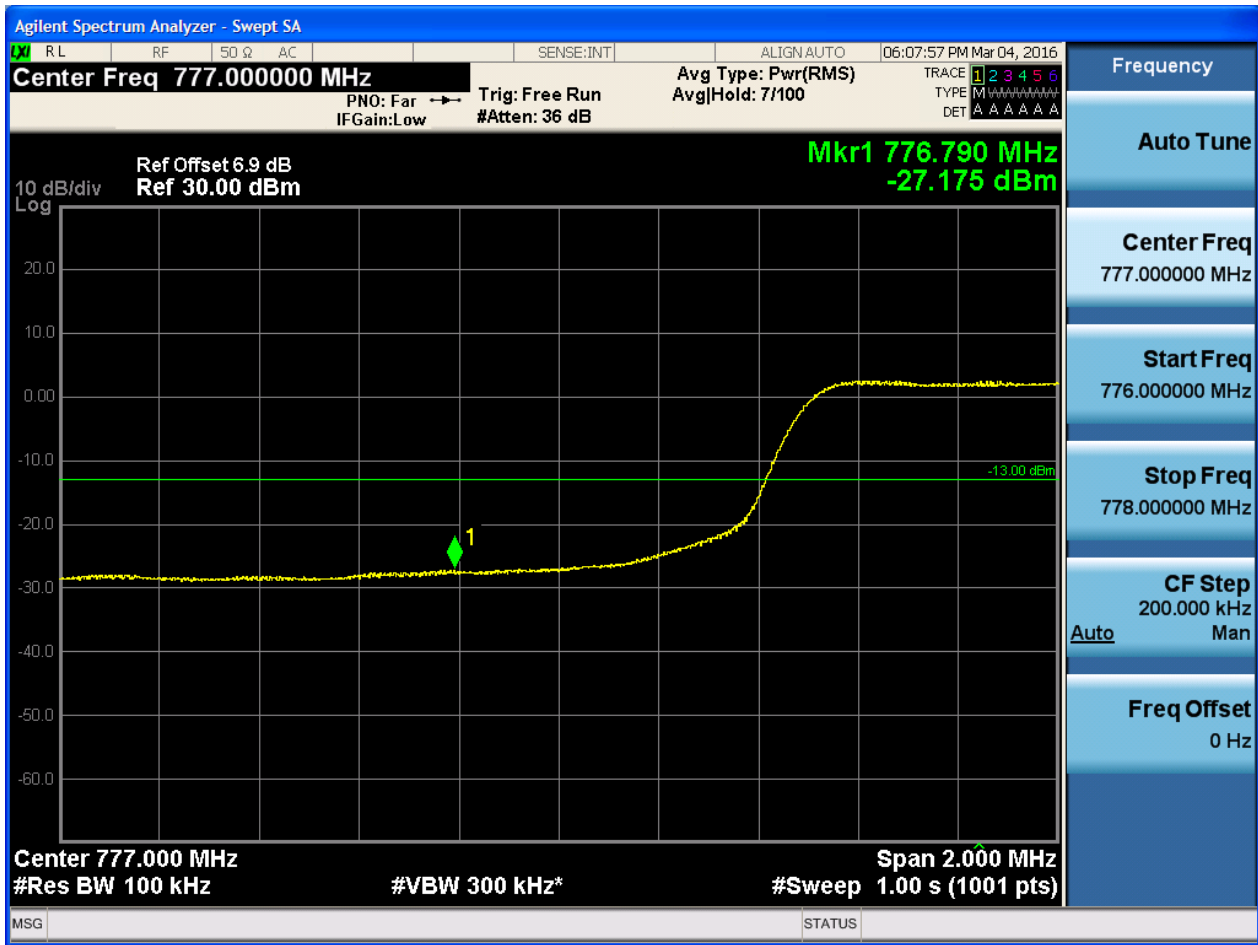


5.1.1.2.2.1.3 Test RB = RB25#13



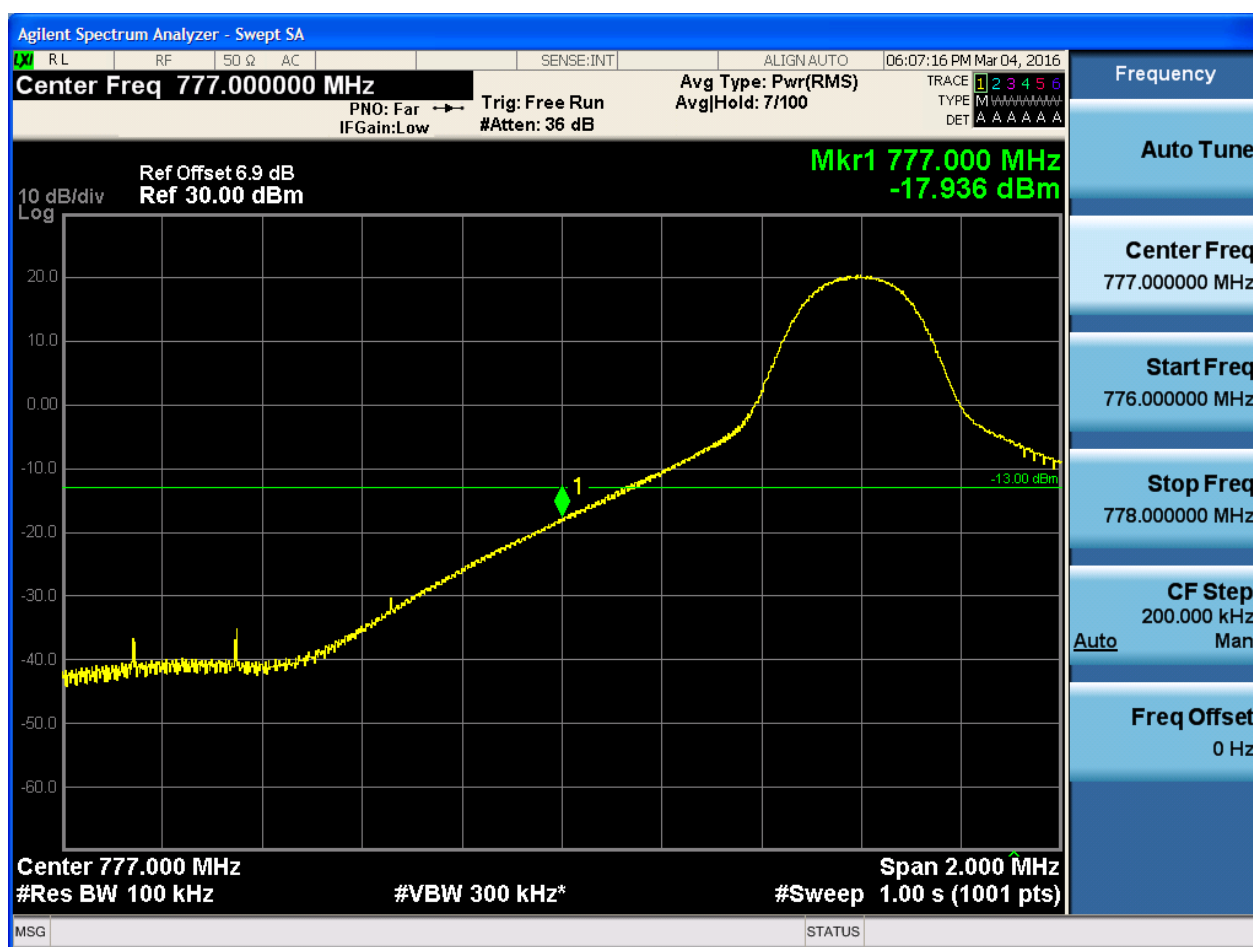


5.1.1.2.2.1.4 Test RB = RB50#0



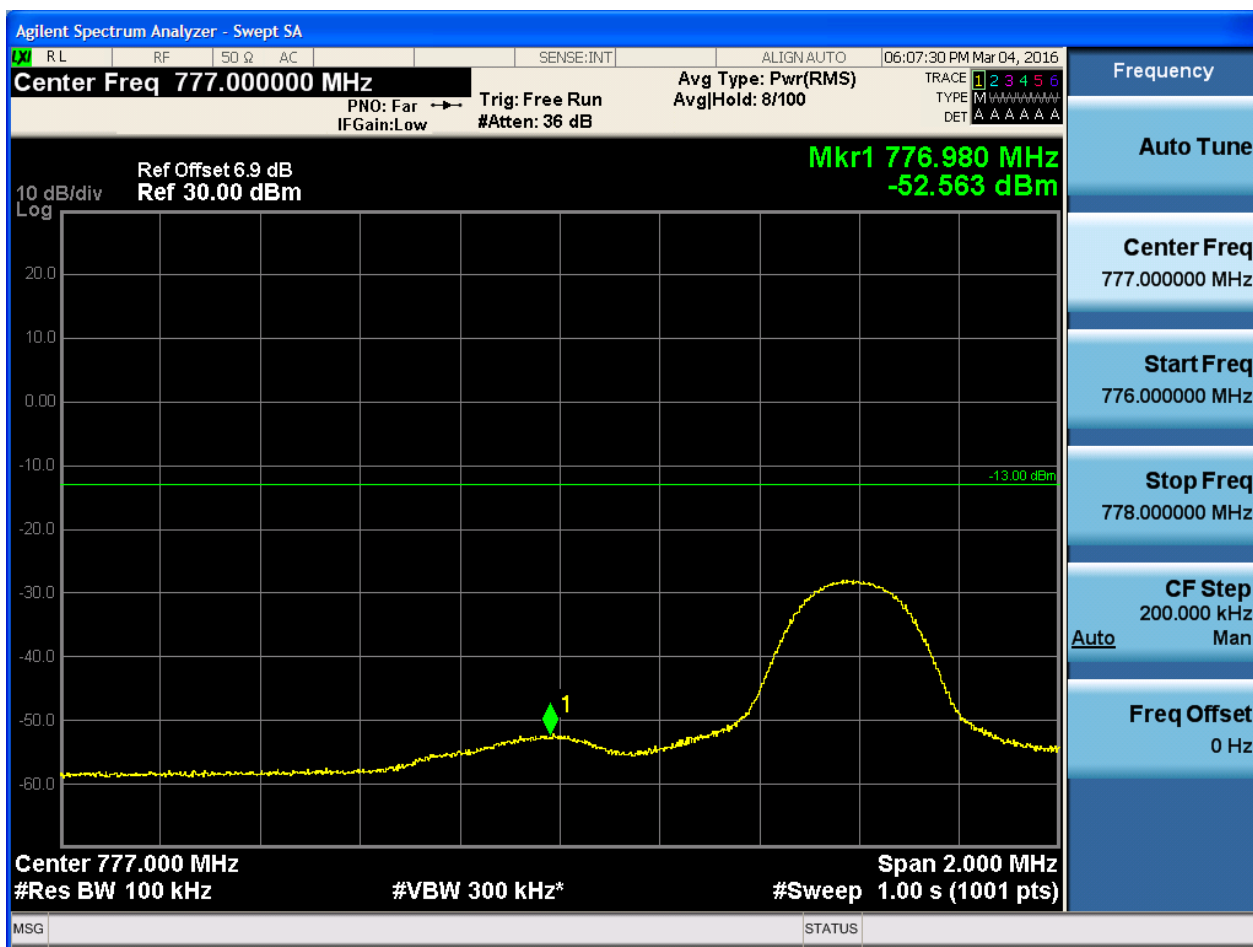
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



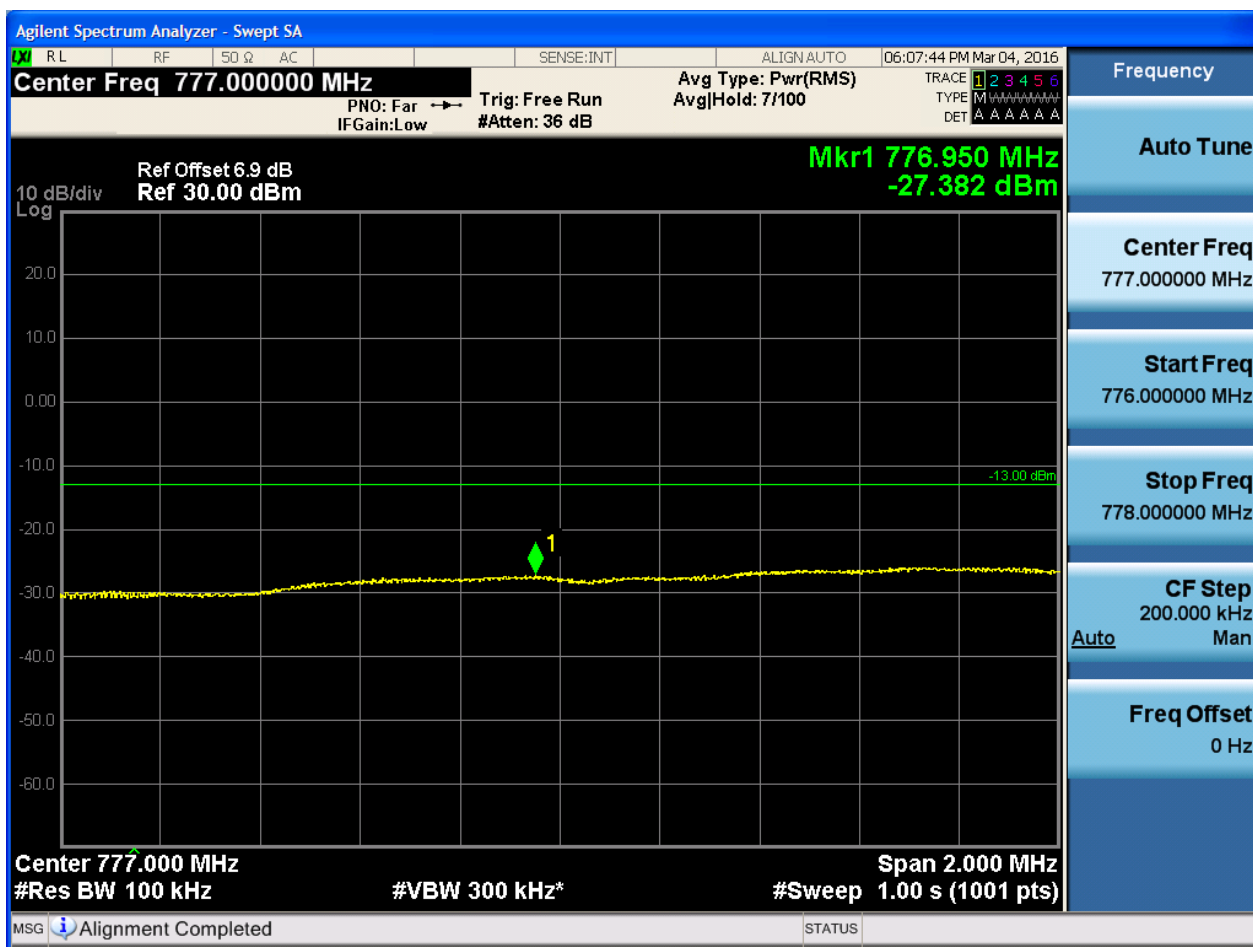


5.1.1.2.2.2 Test RB = RB1#49



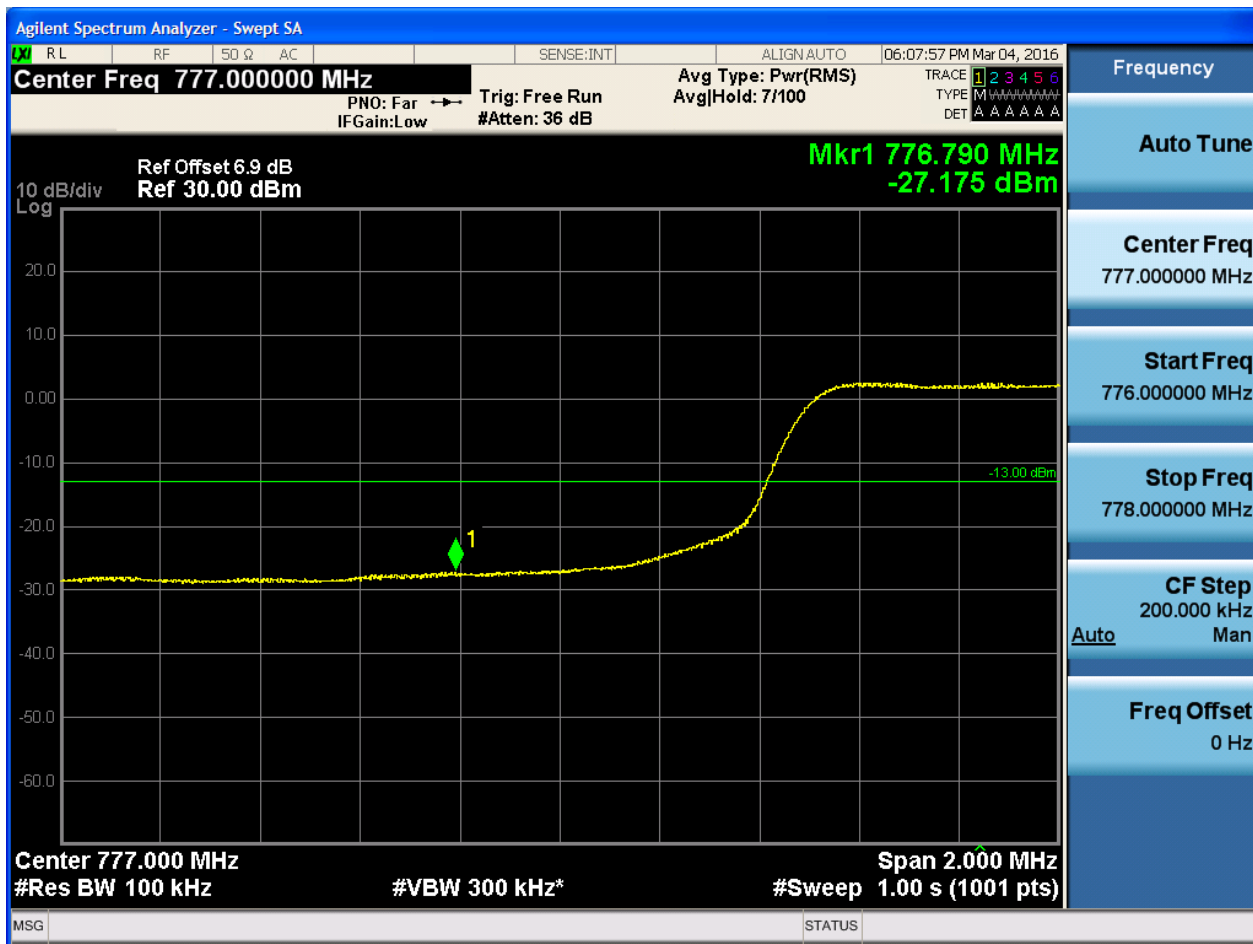


5.1.1.2.2.3 Test RB = RB25#13





5.1.1.2.2.4 Test RB = RB50#0



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

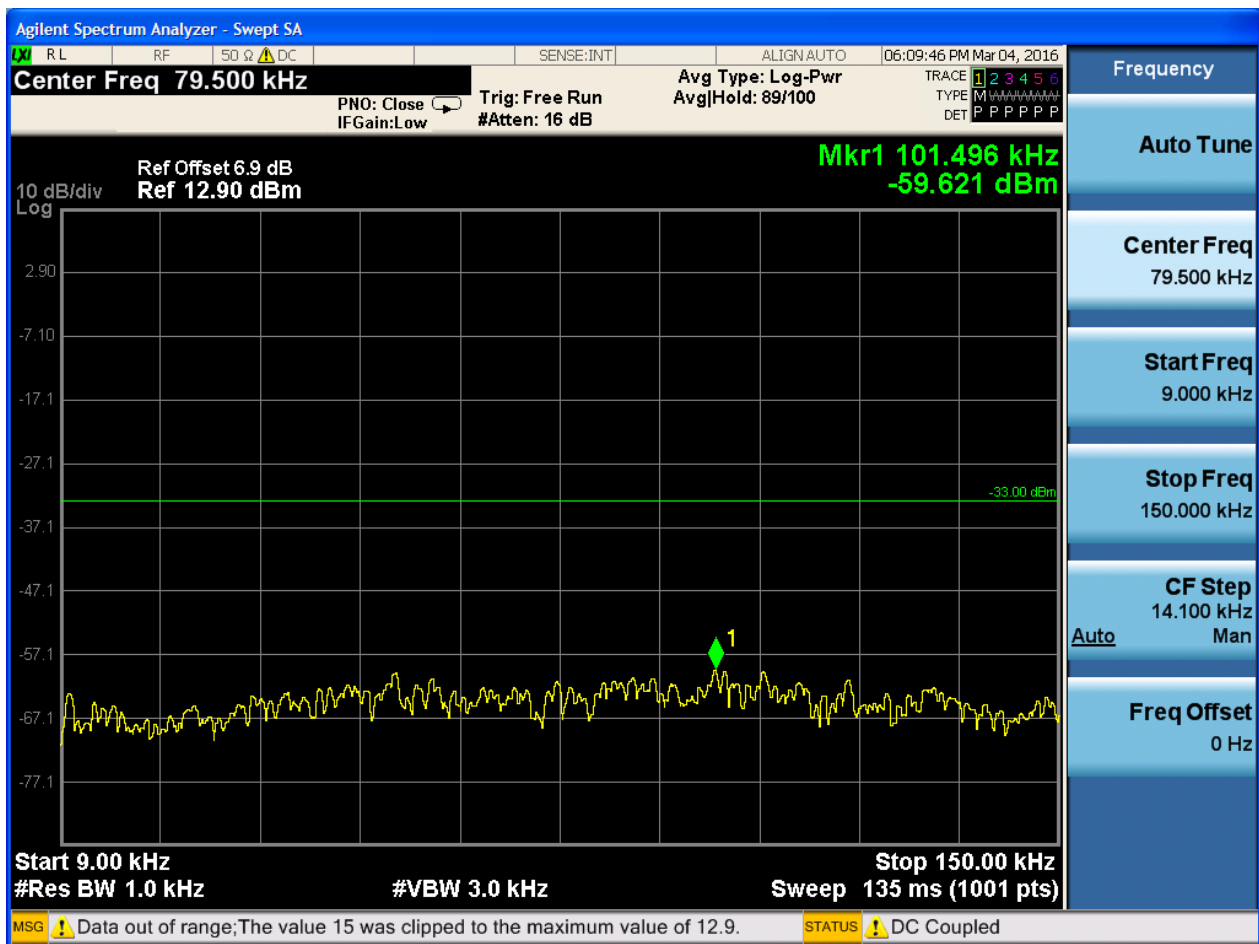
6.1.1 Test Band = BAND13

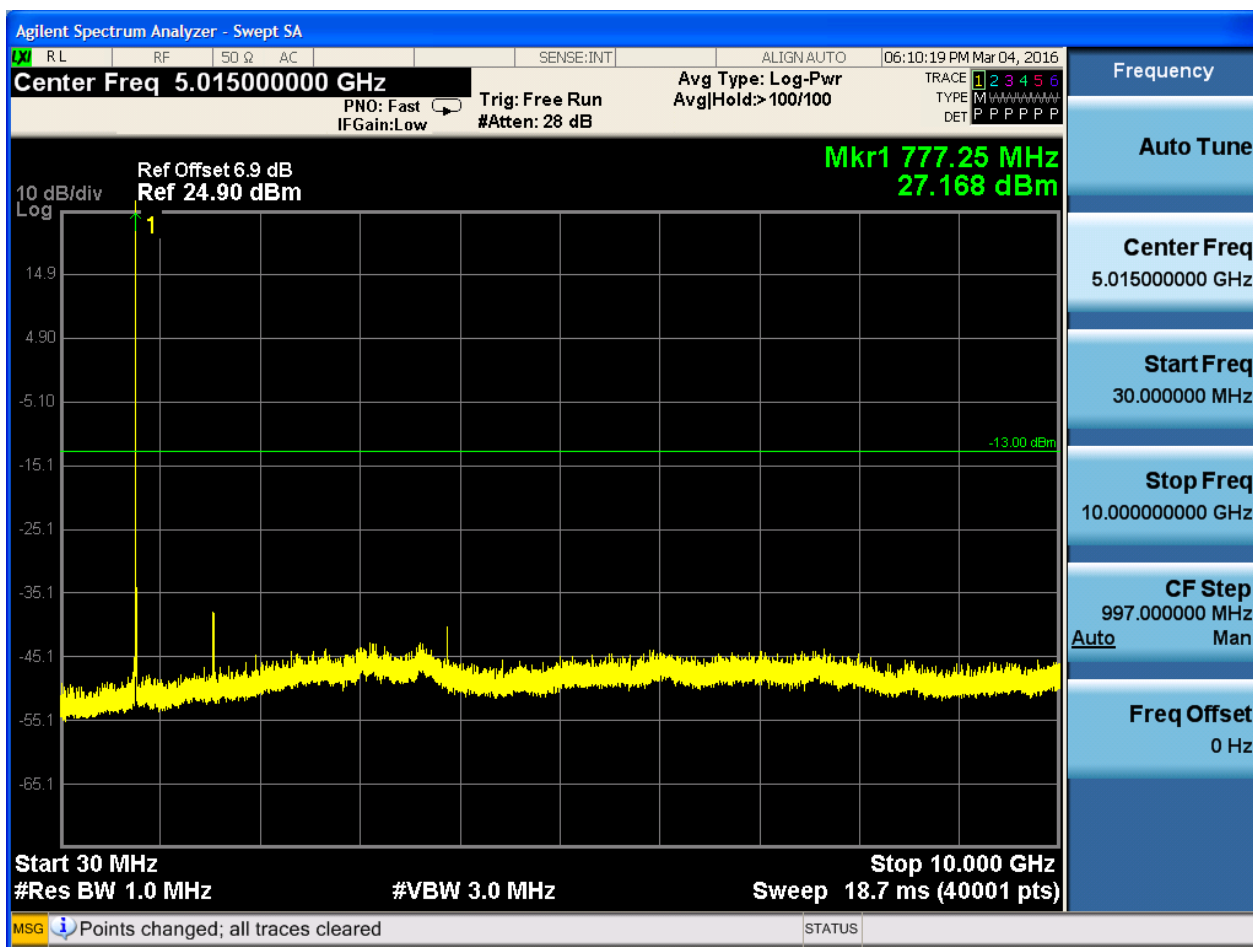
6.1.1.1 Test Mode = LTE/TM1

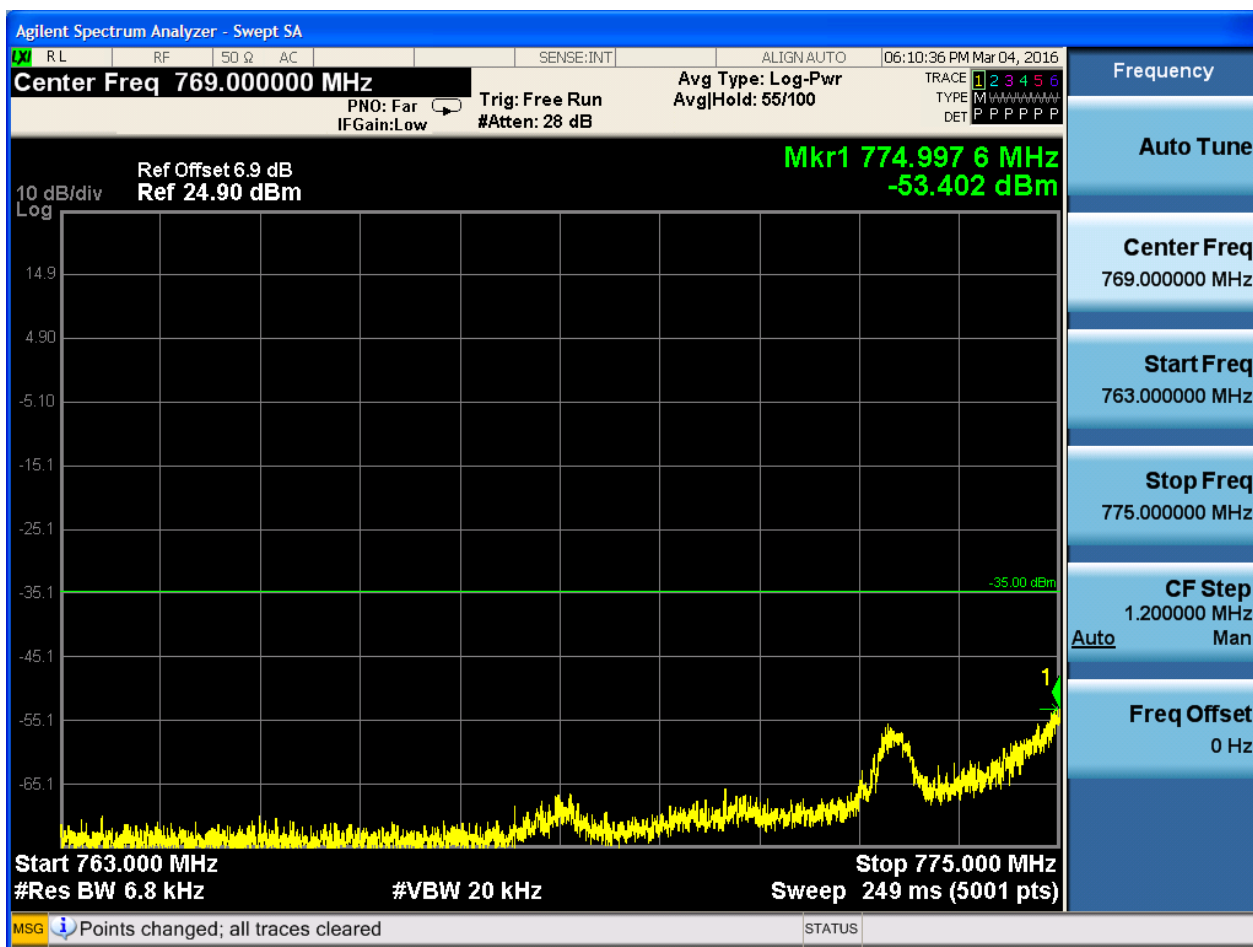
6.1.1.1.1 Test Bandwidth = 5

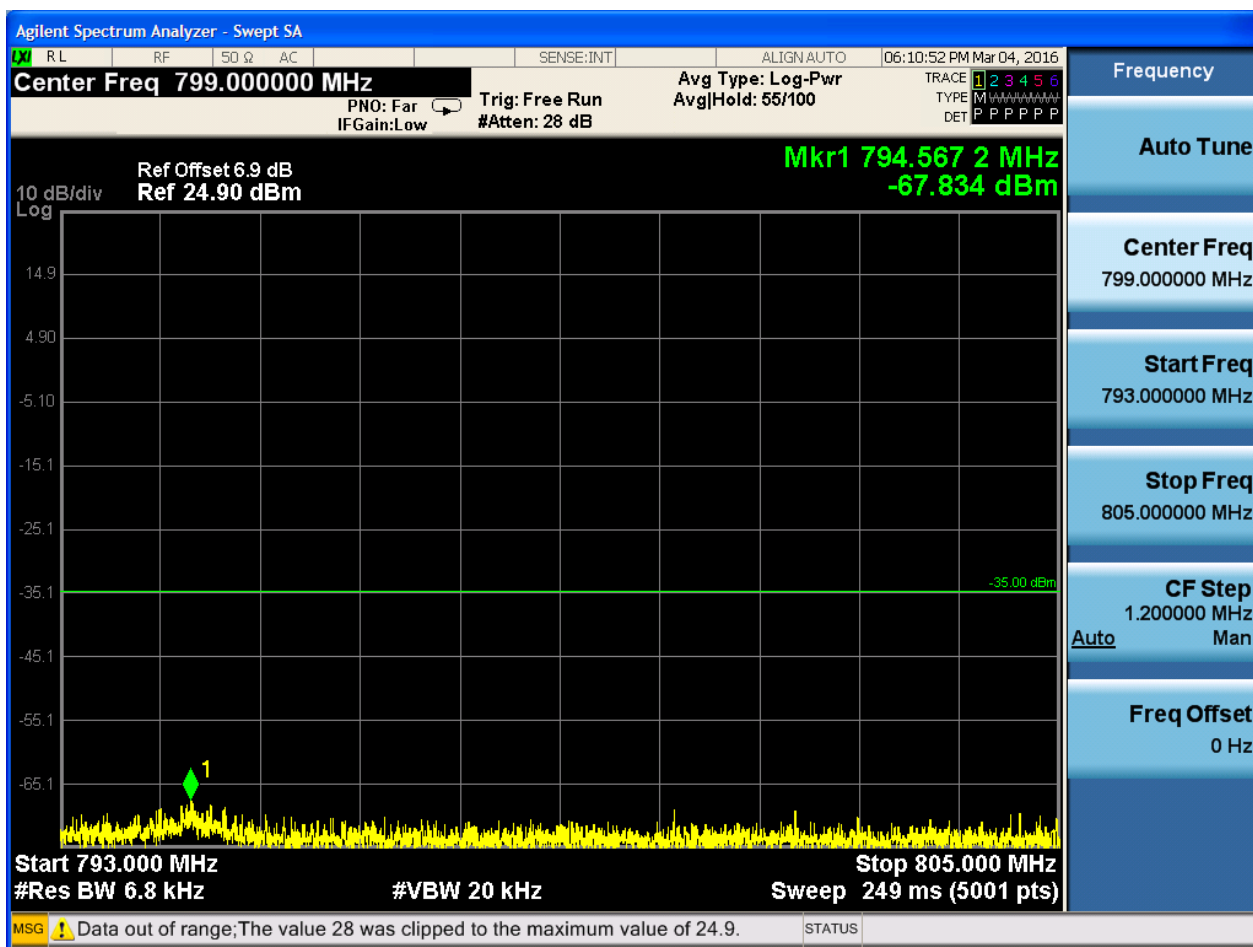
6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0



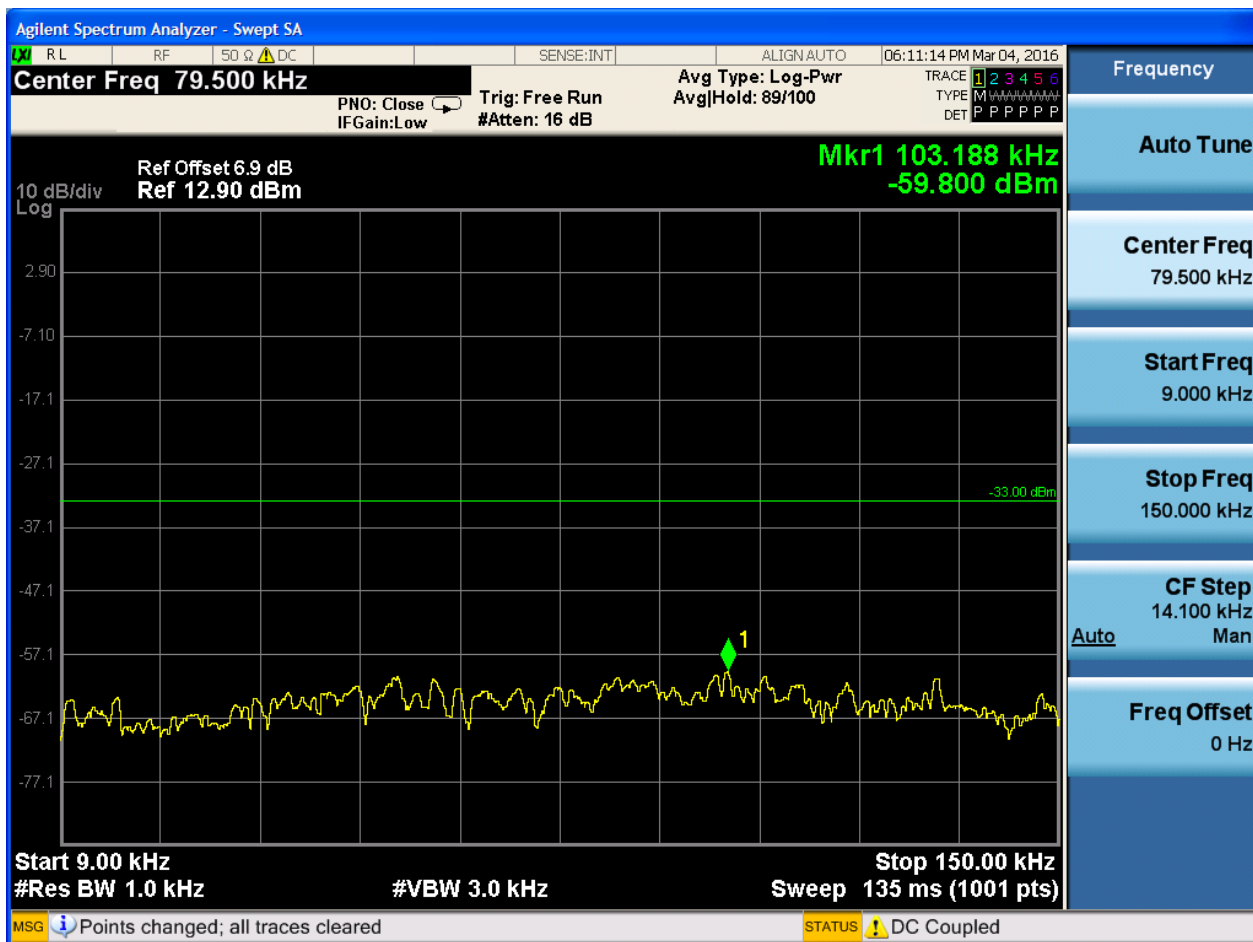


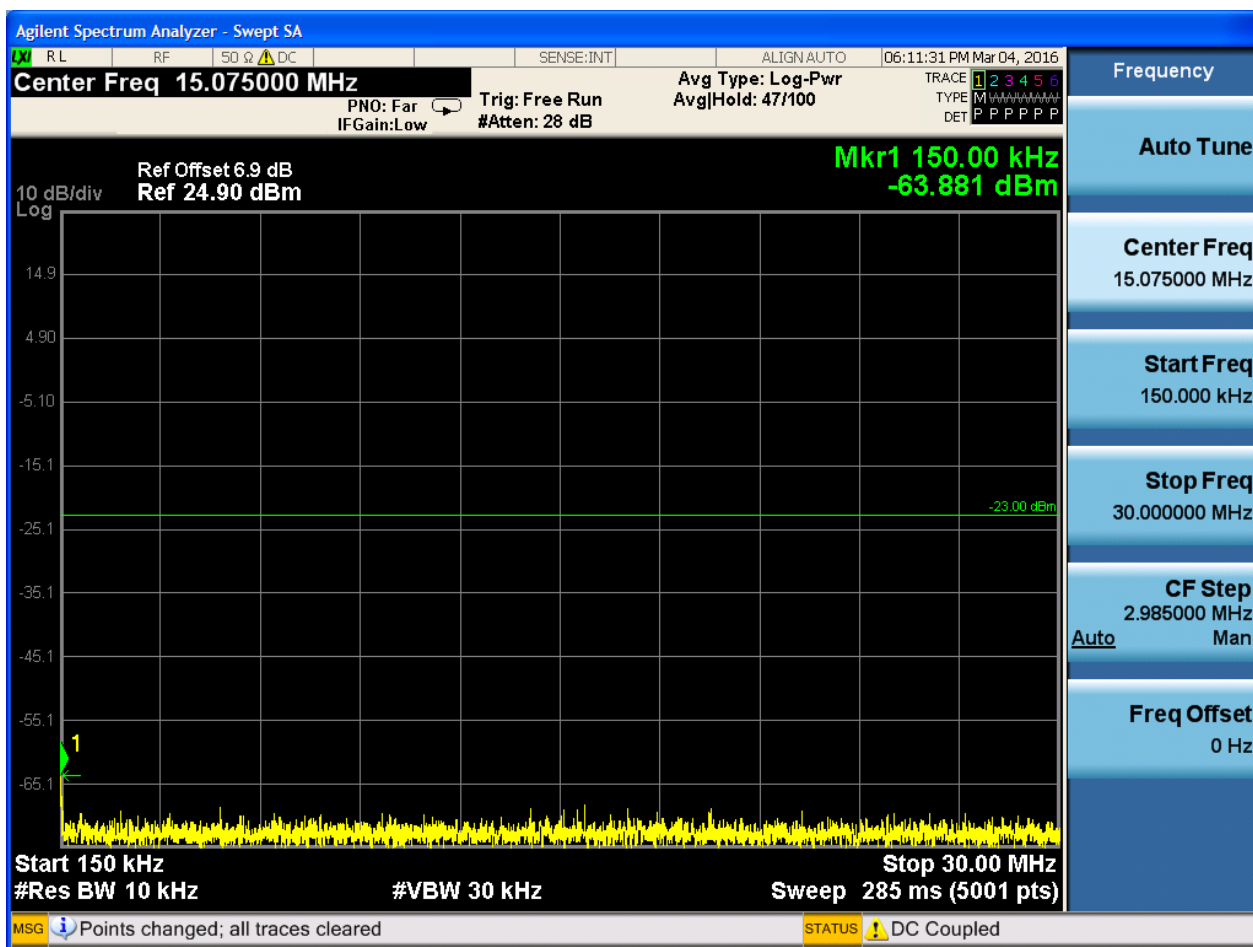


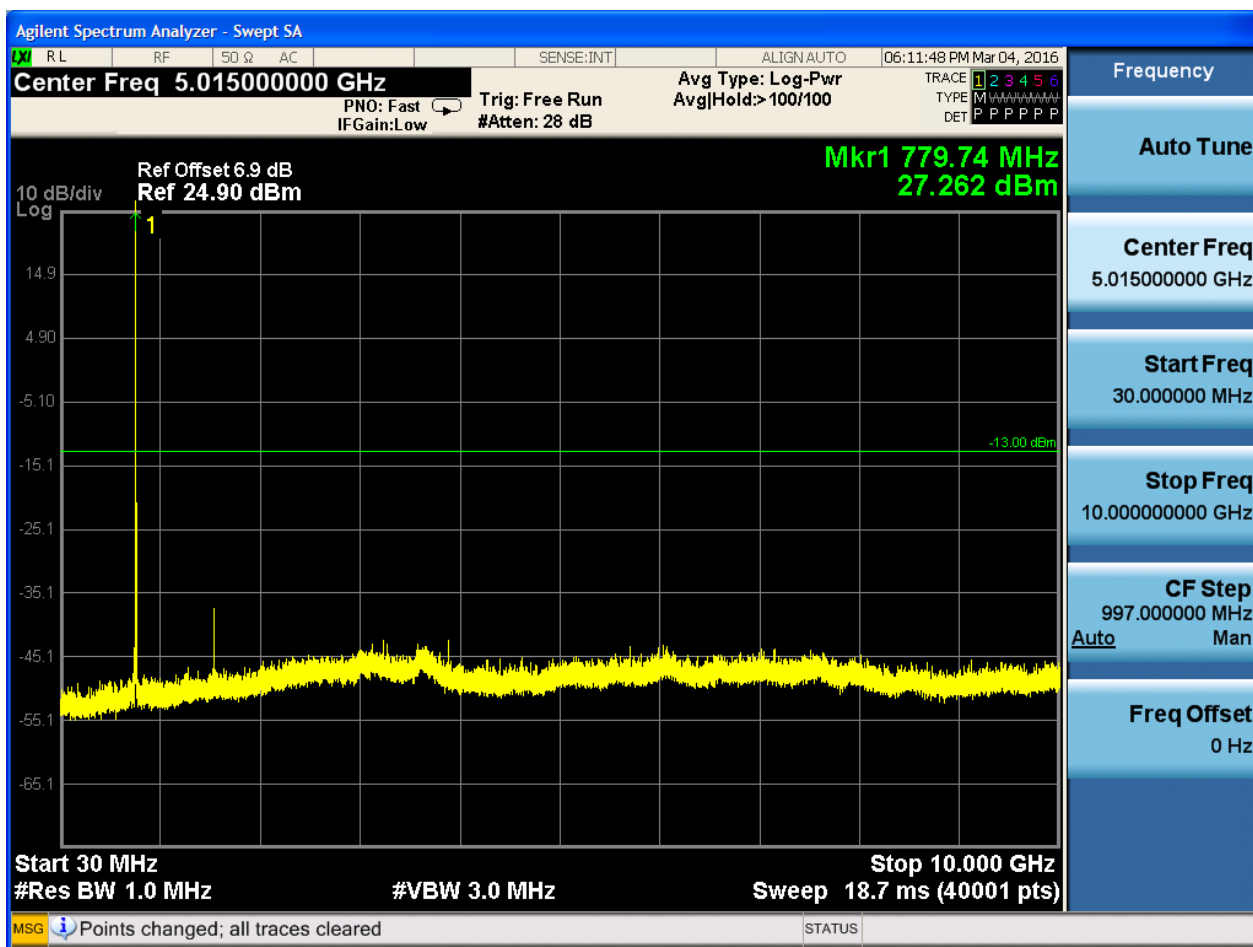


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0







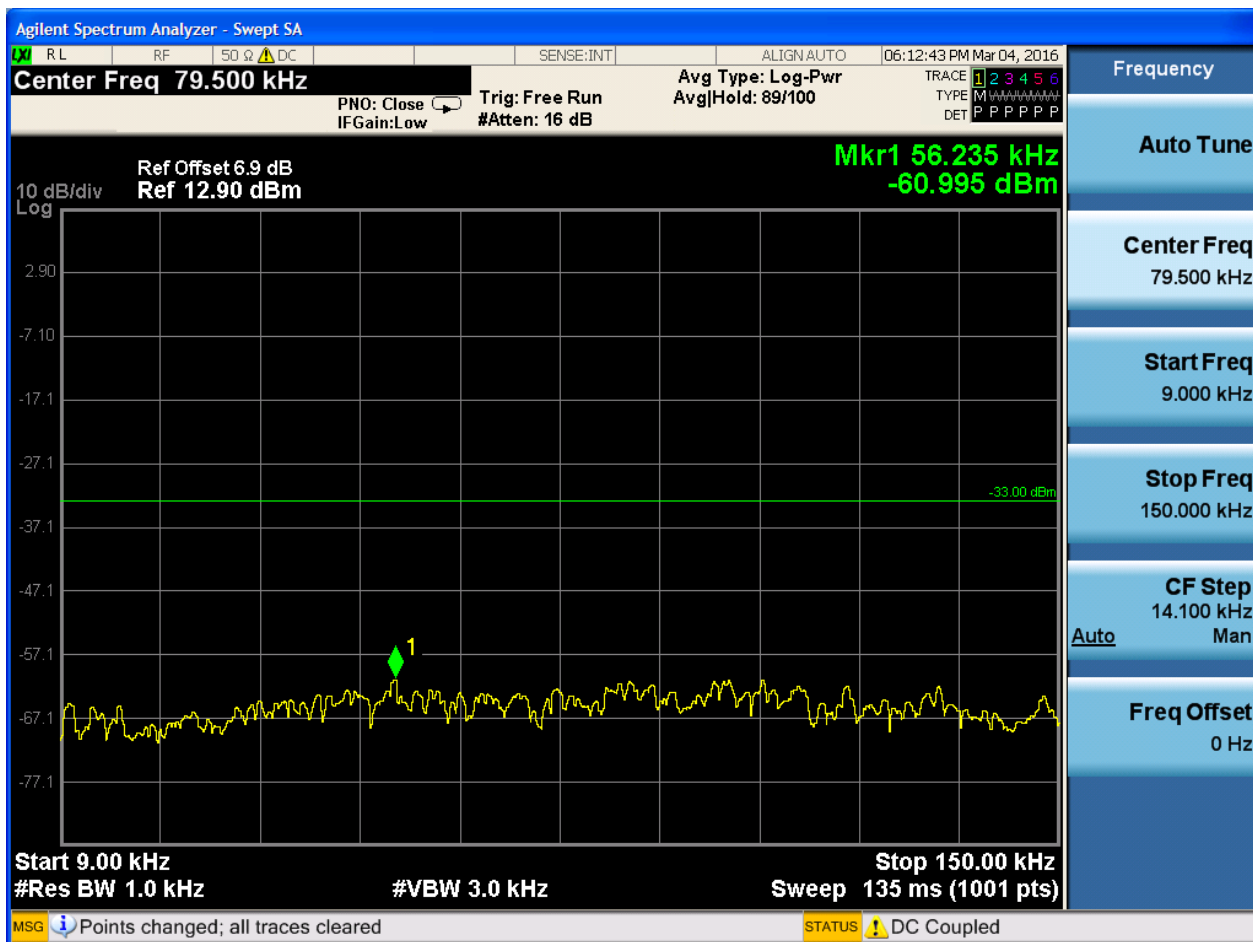


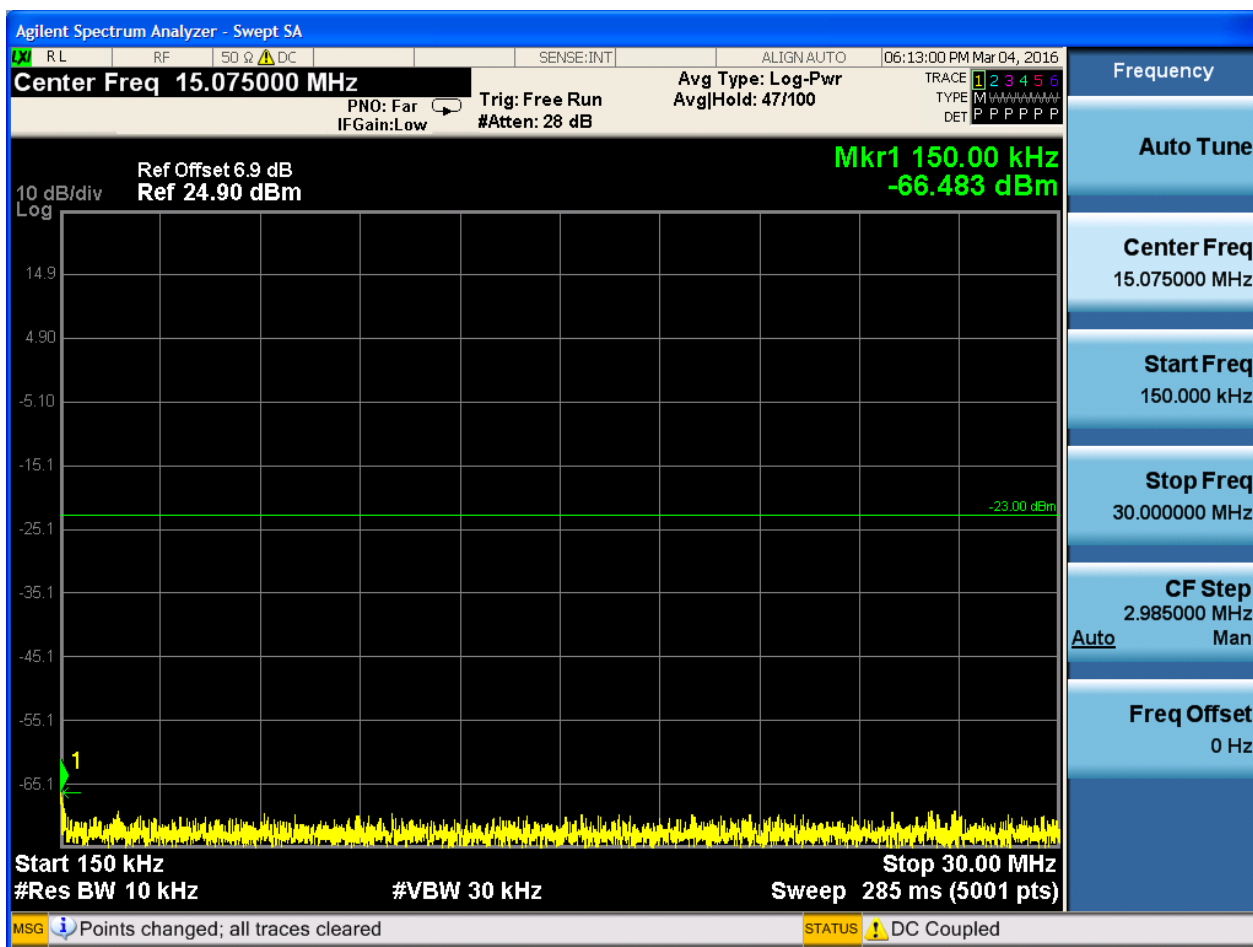


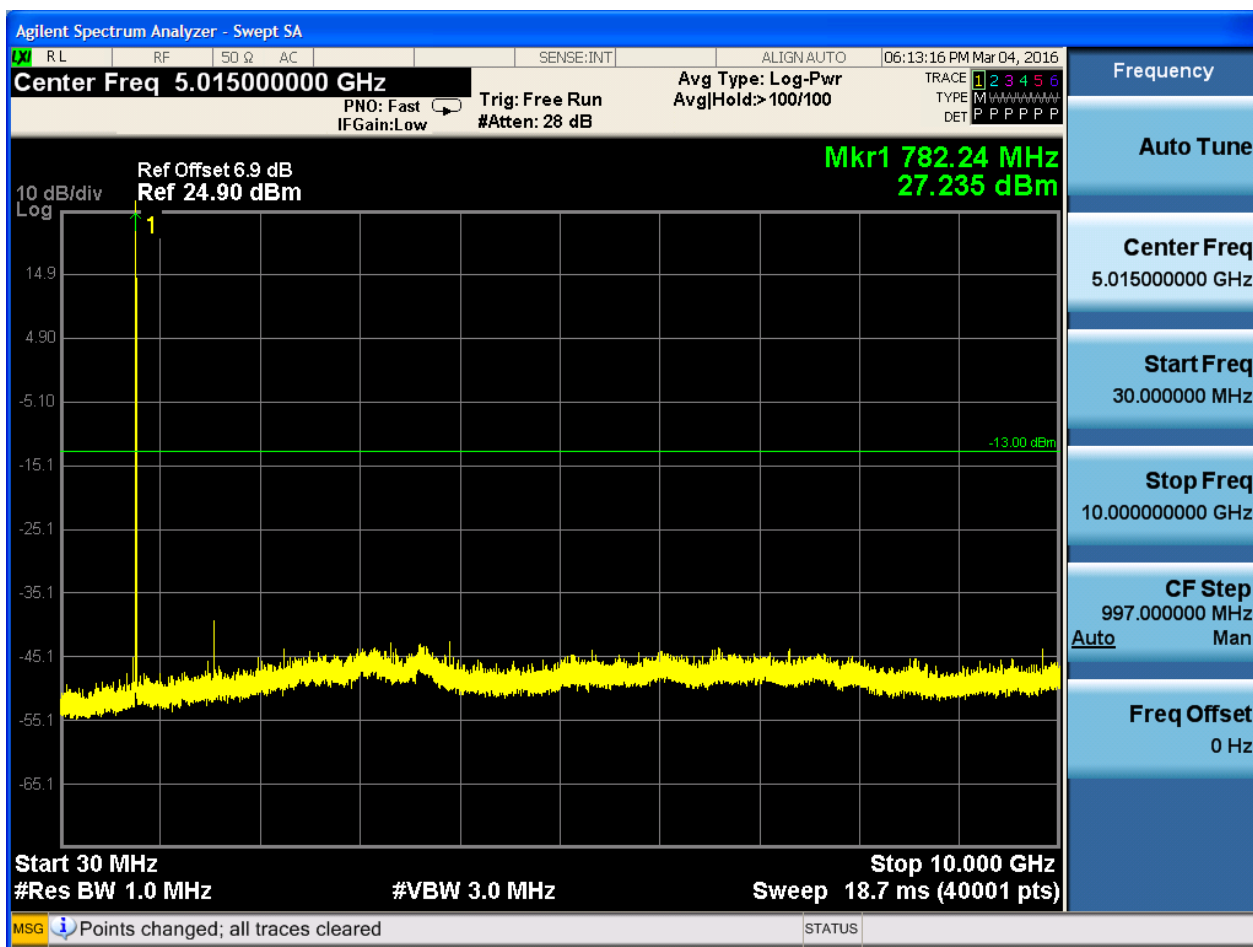


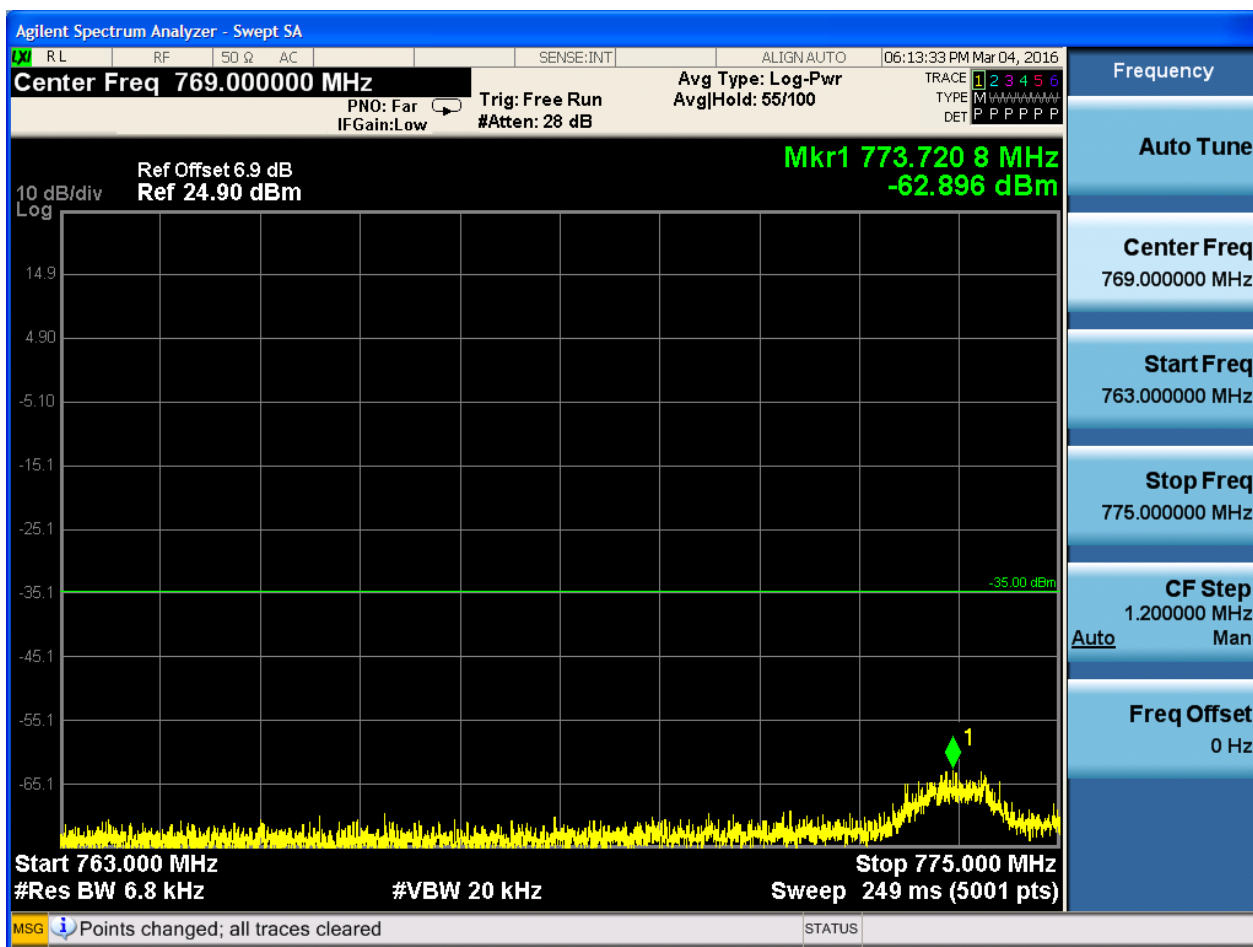
6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0







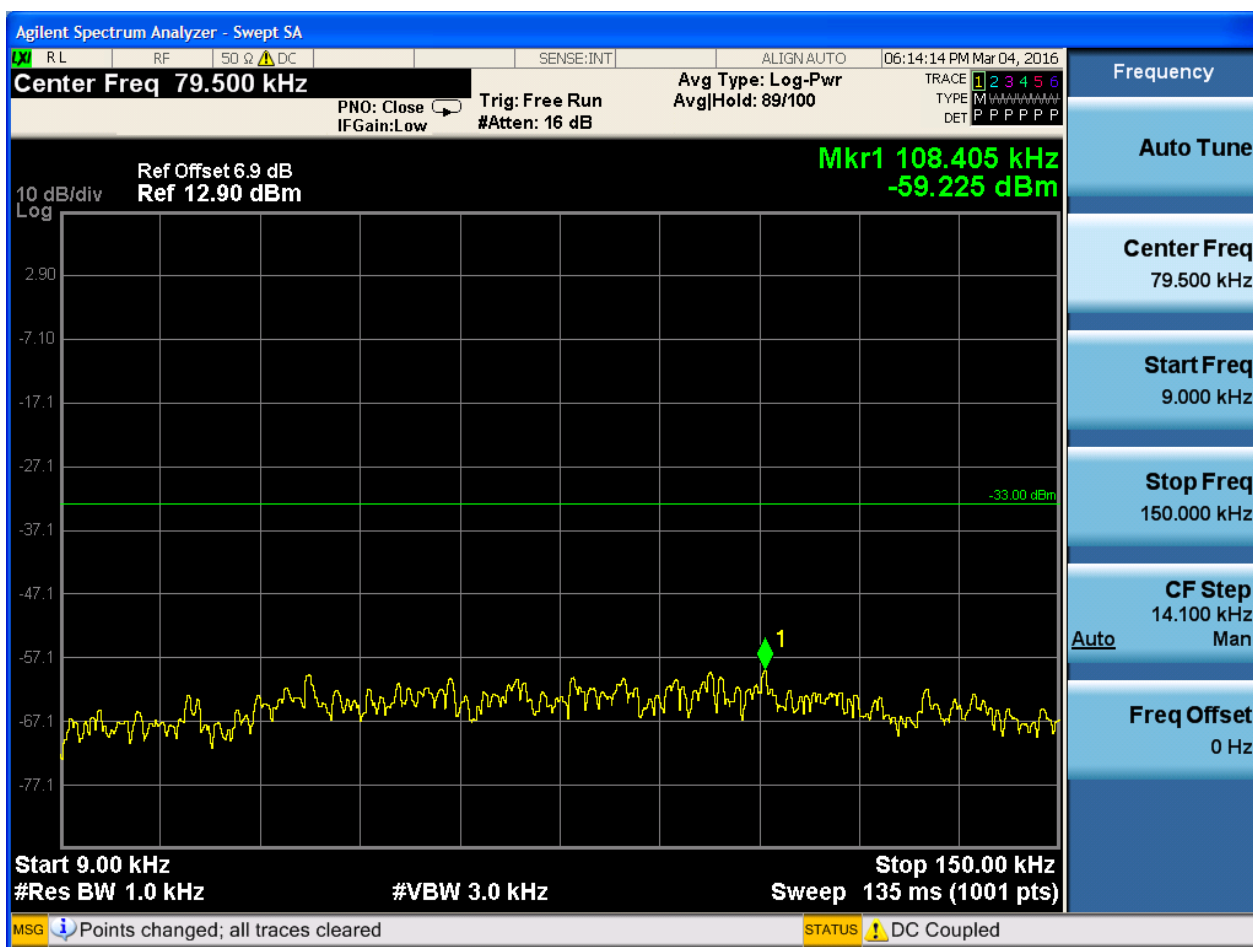


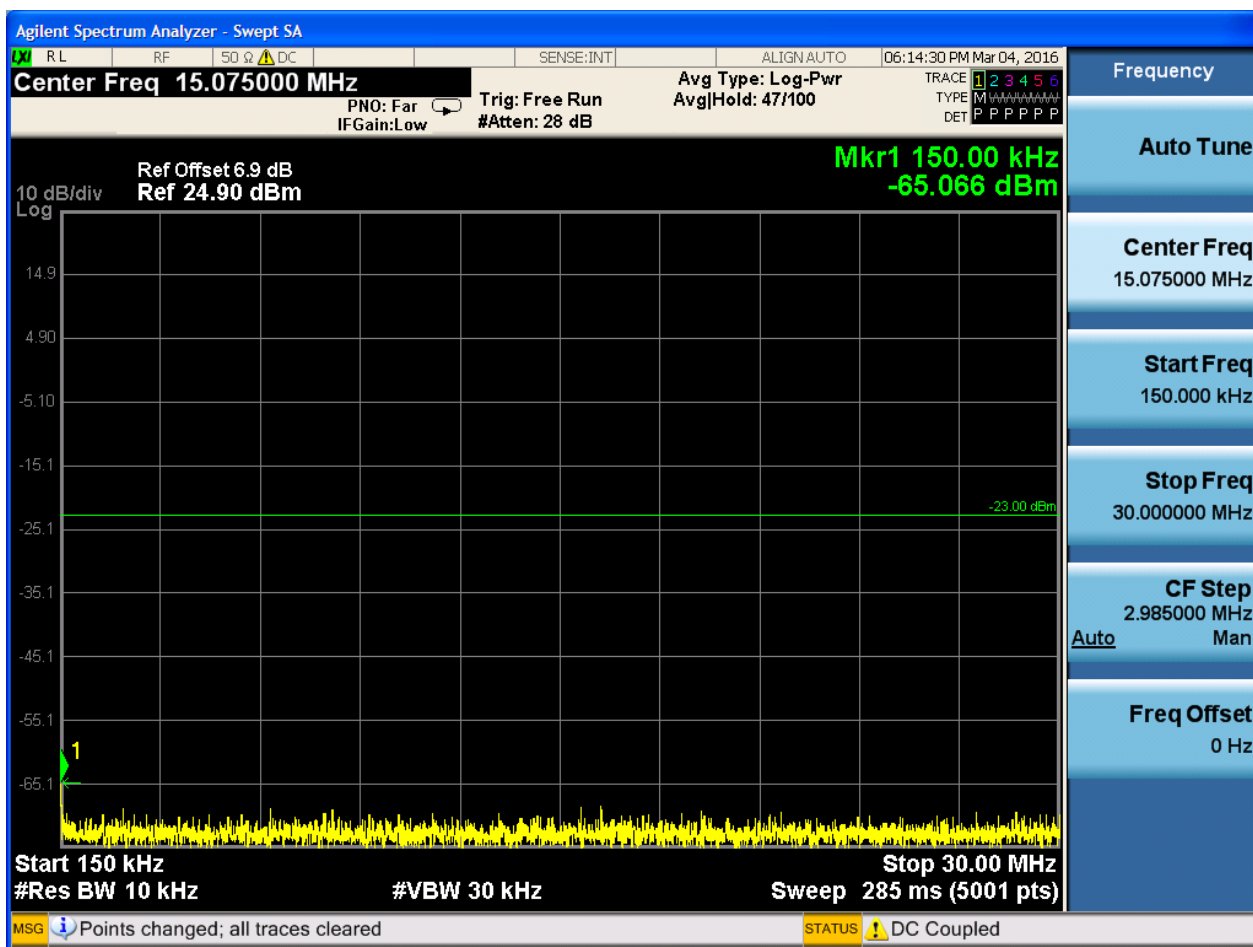


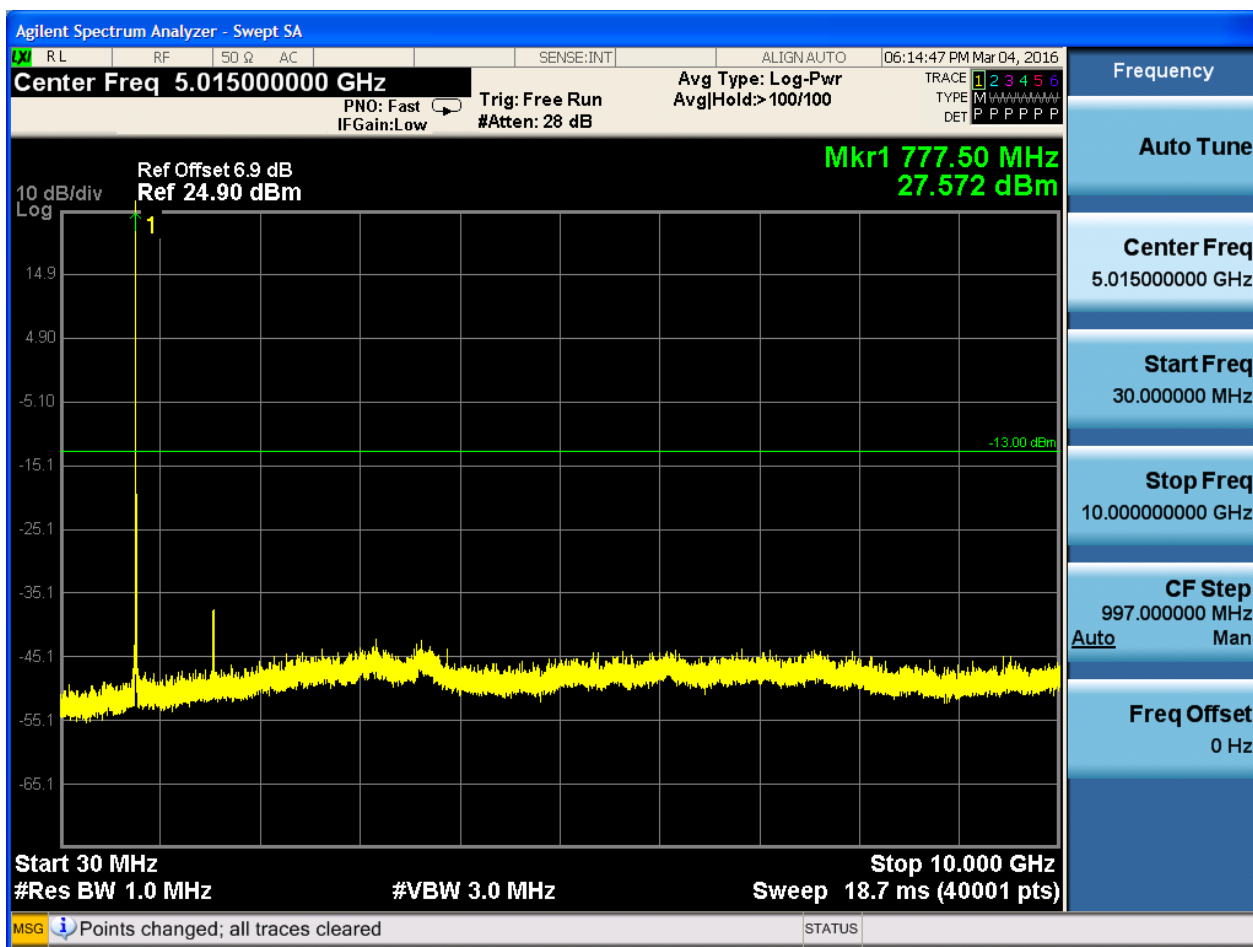
6.1.1.1.2 Test Bandwidth = 10

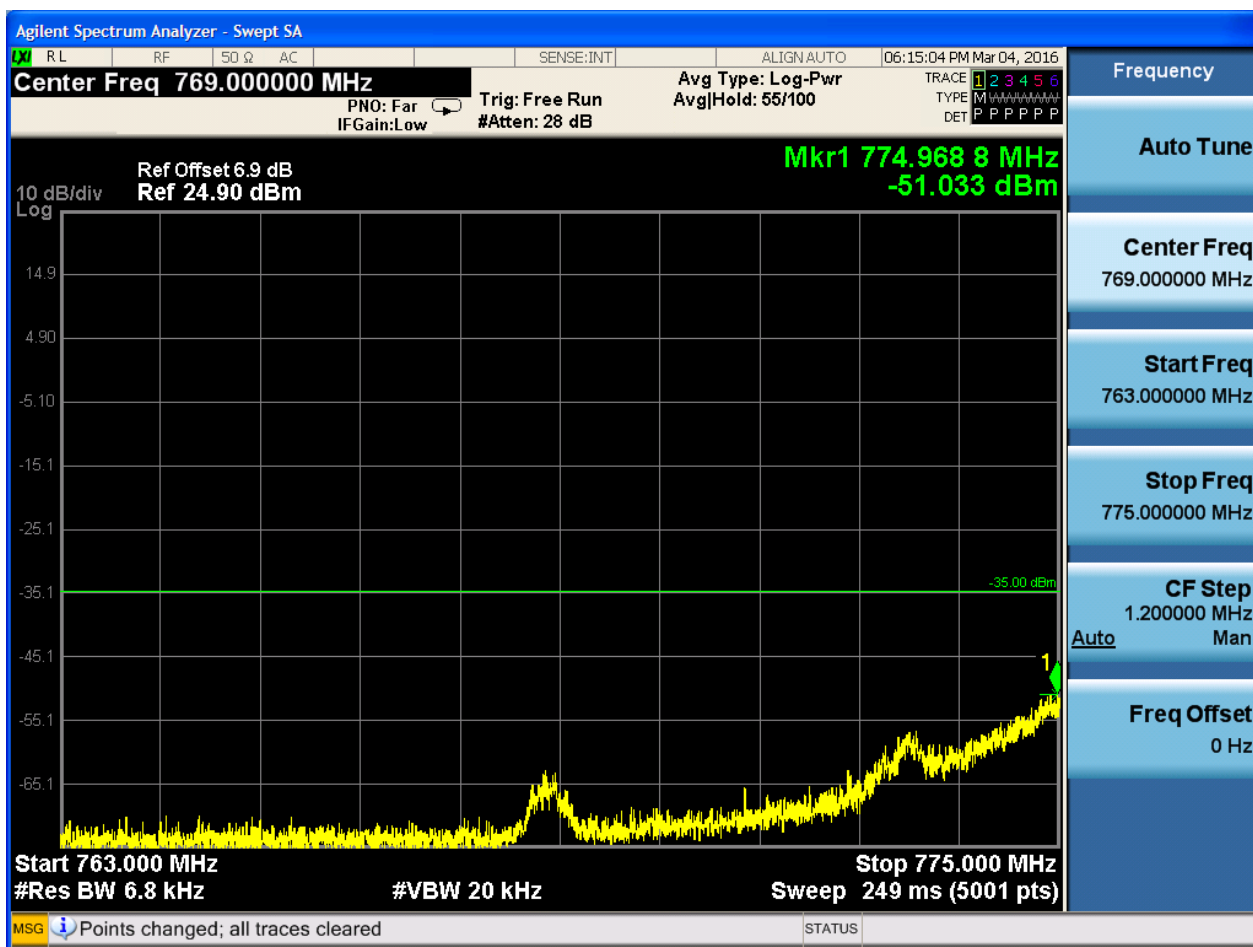
6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0







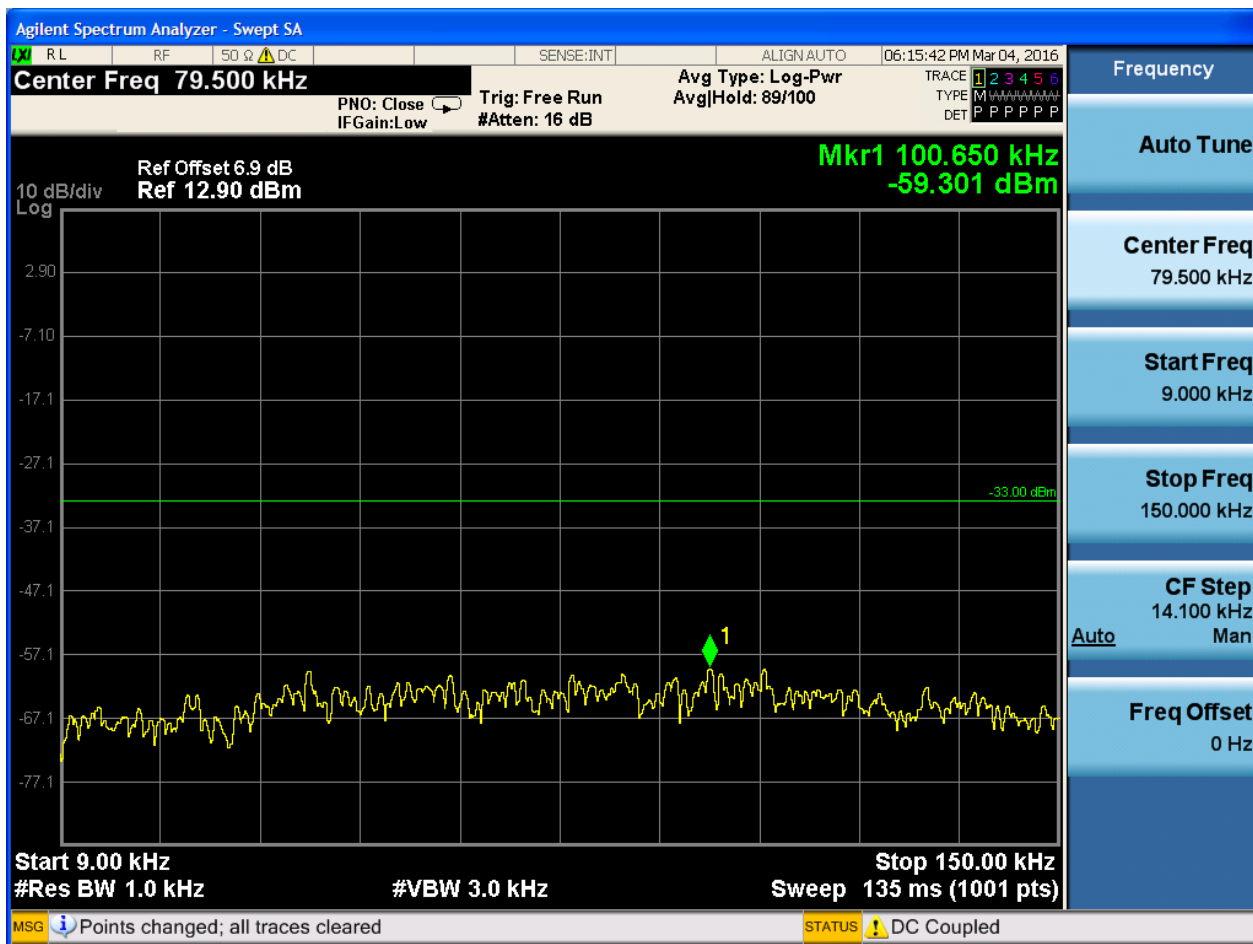


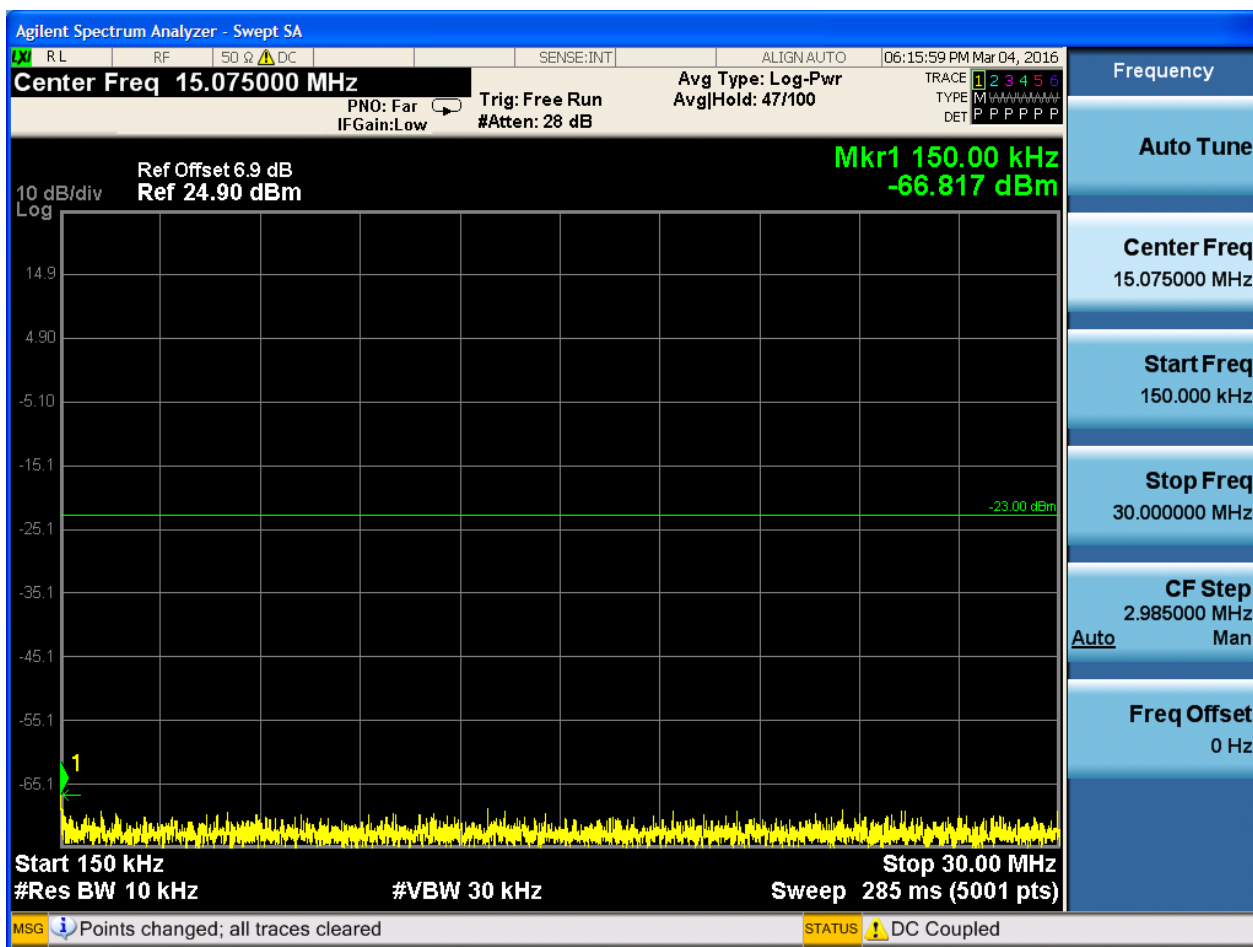


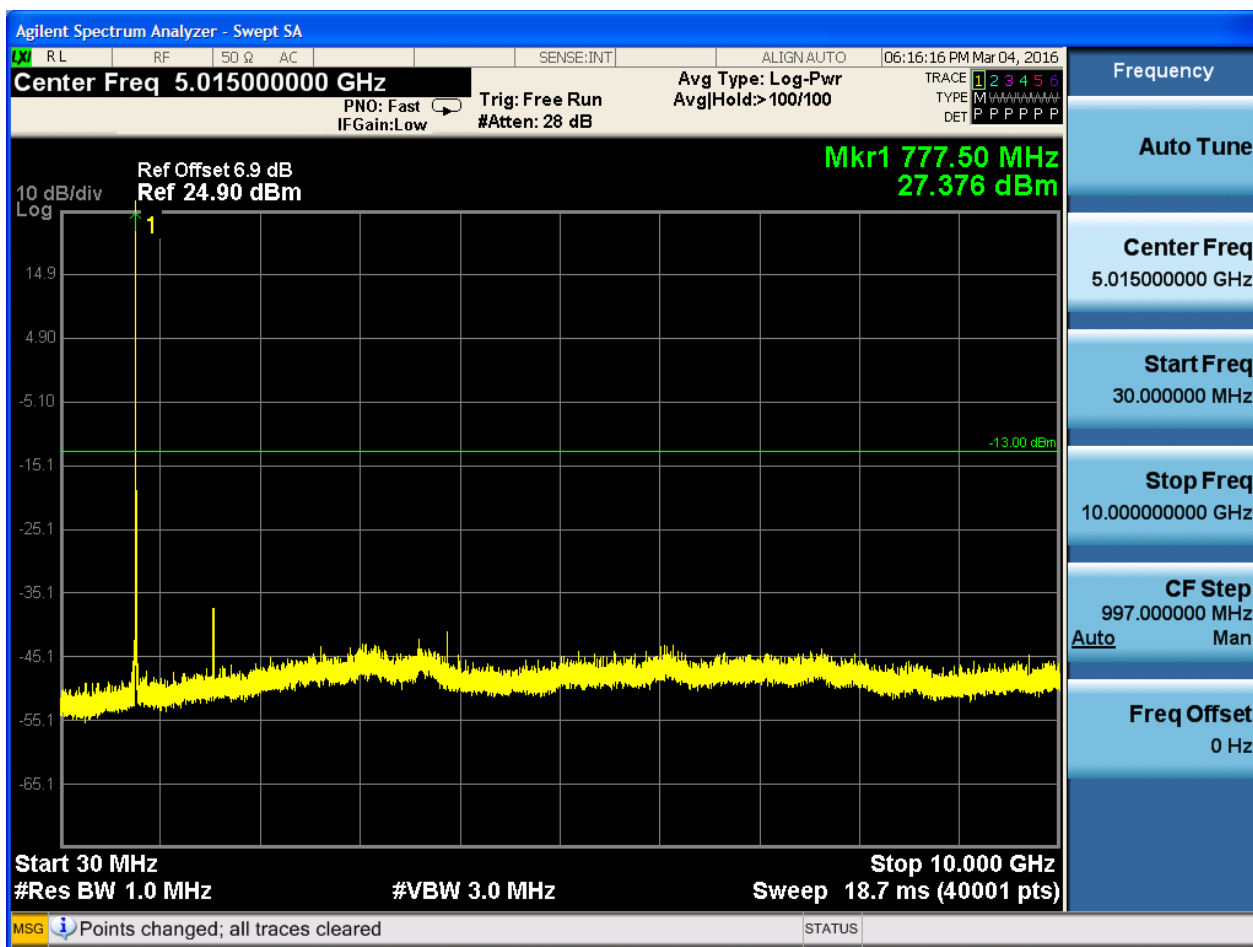


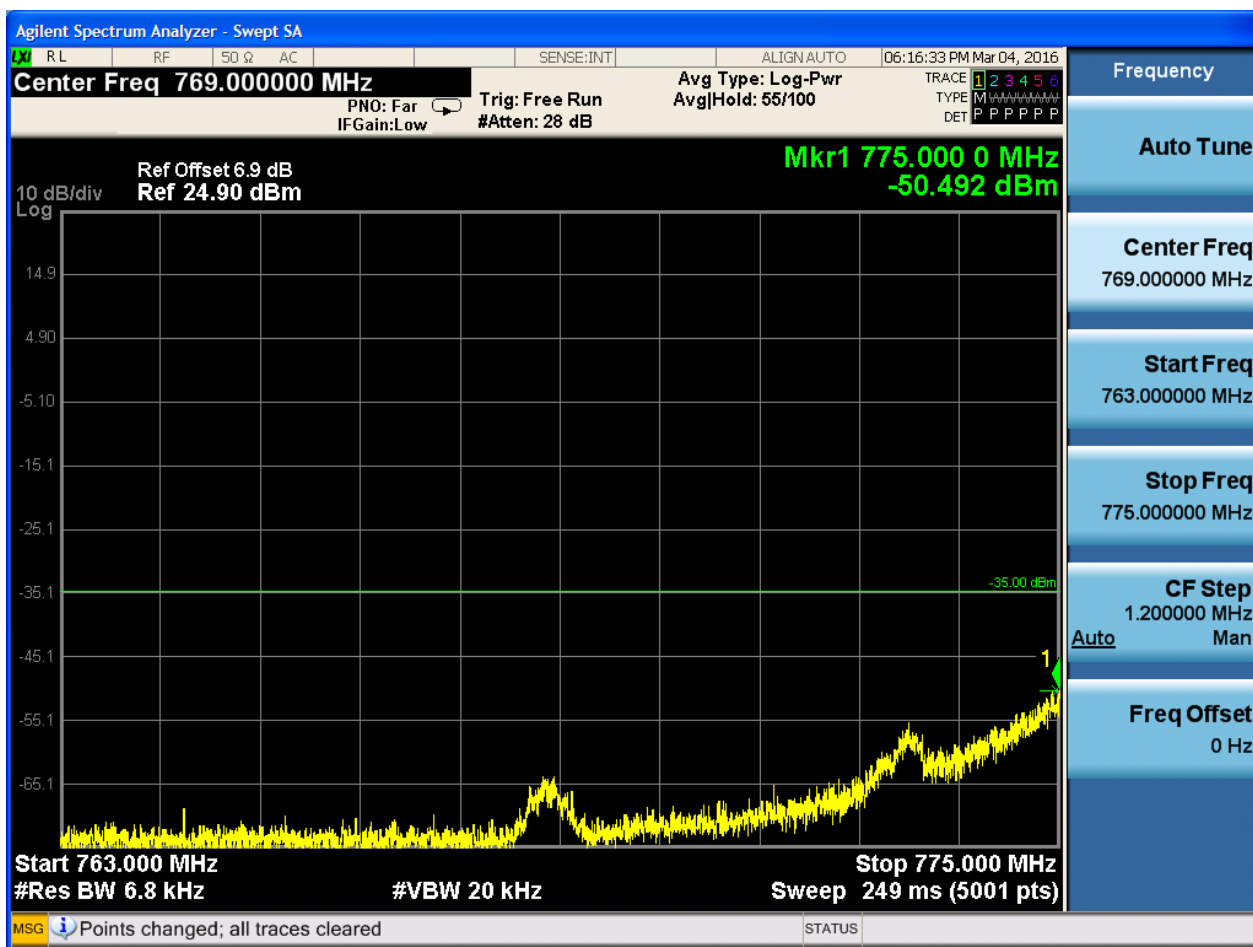
6.1.1.1.2.2 Test Channel = MCH

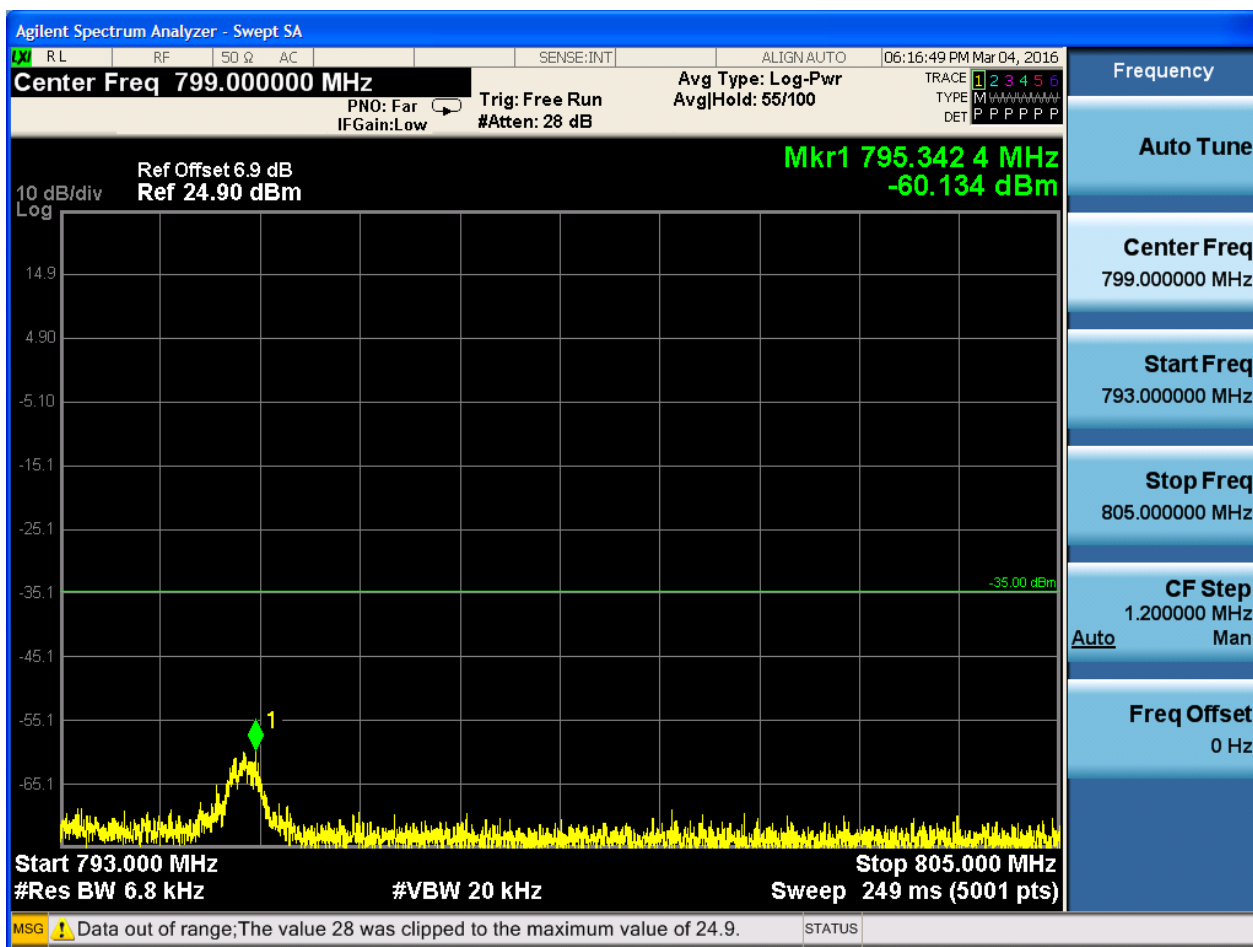
6.1.1.1.2.2.1 Test RB = RB1#0







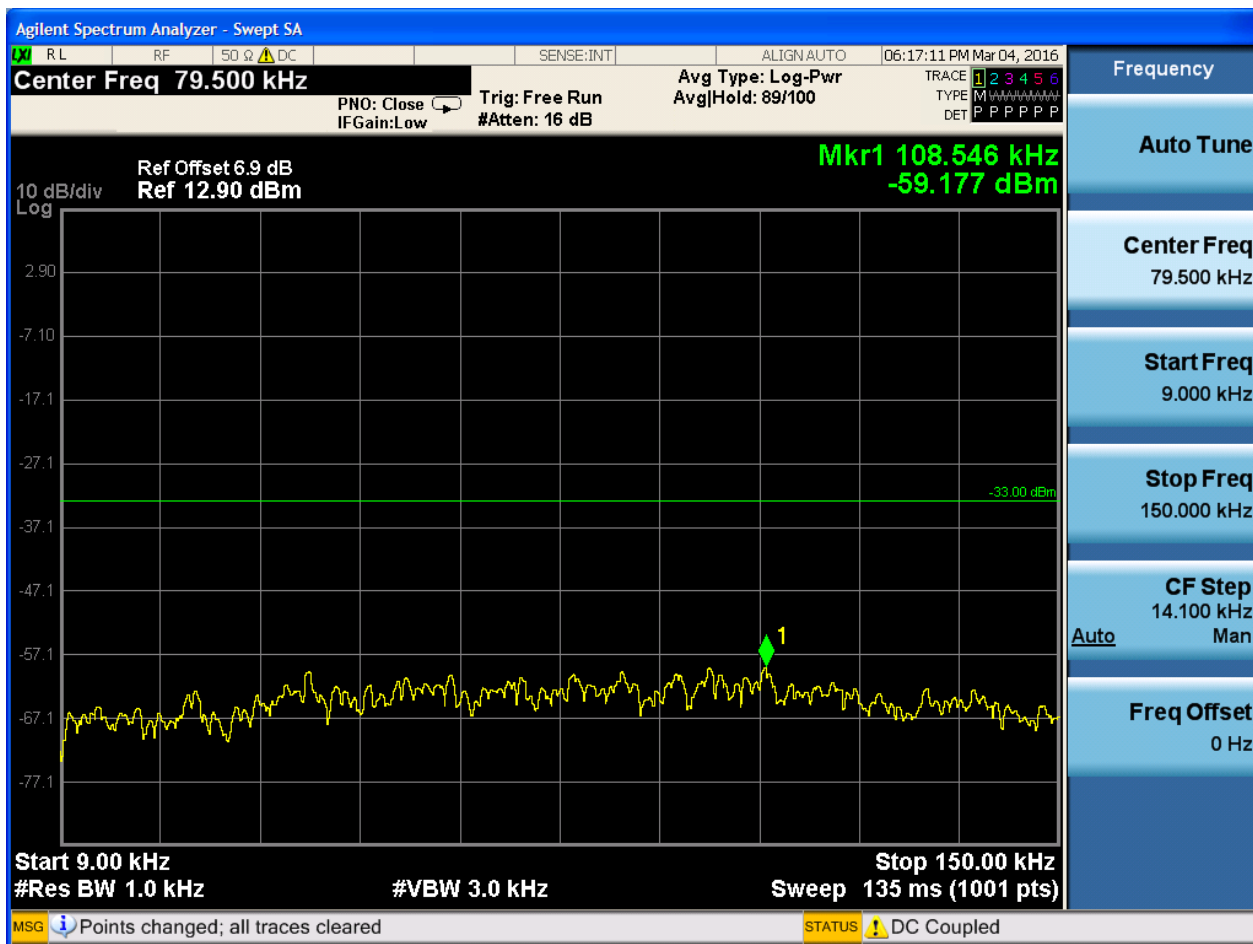


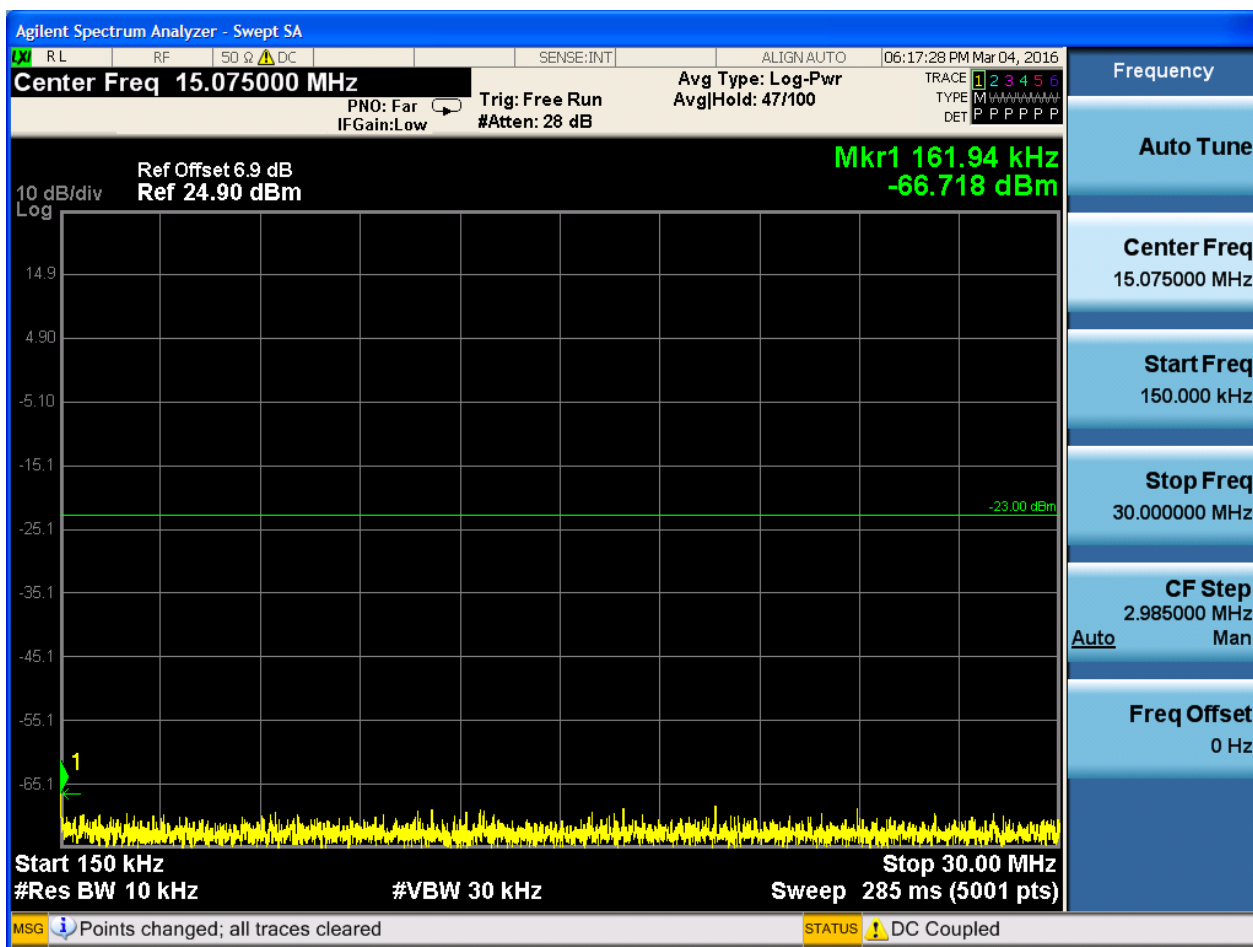


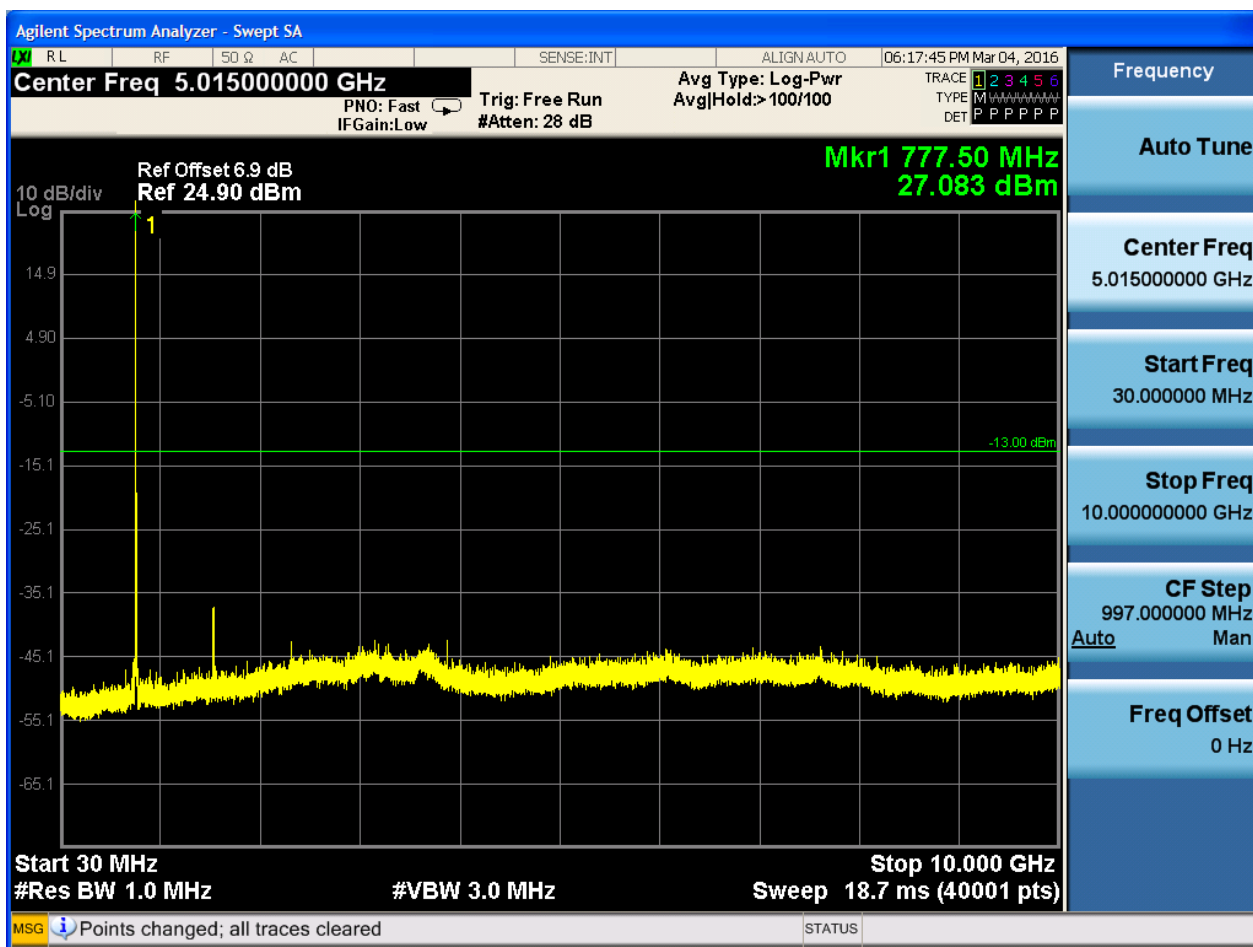


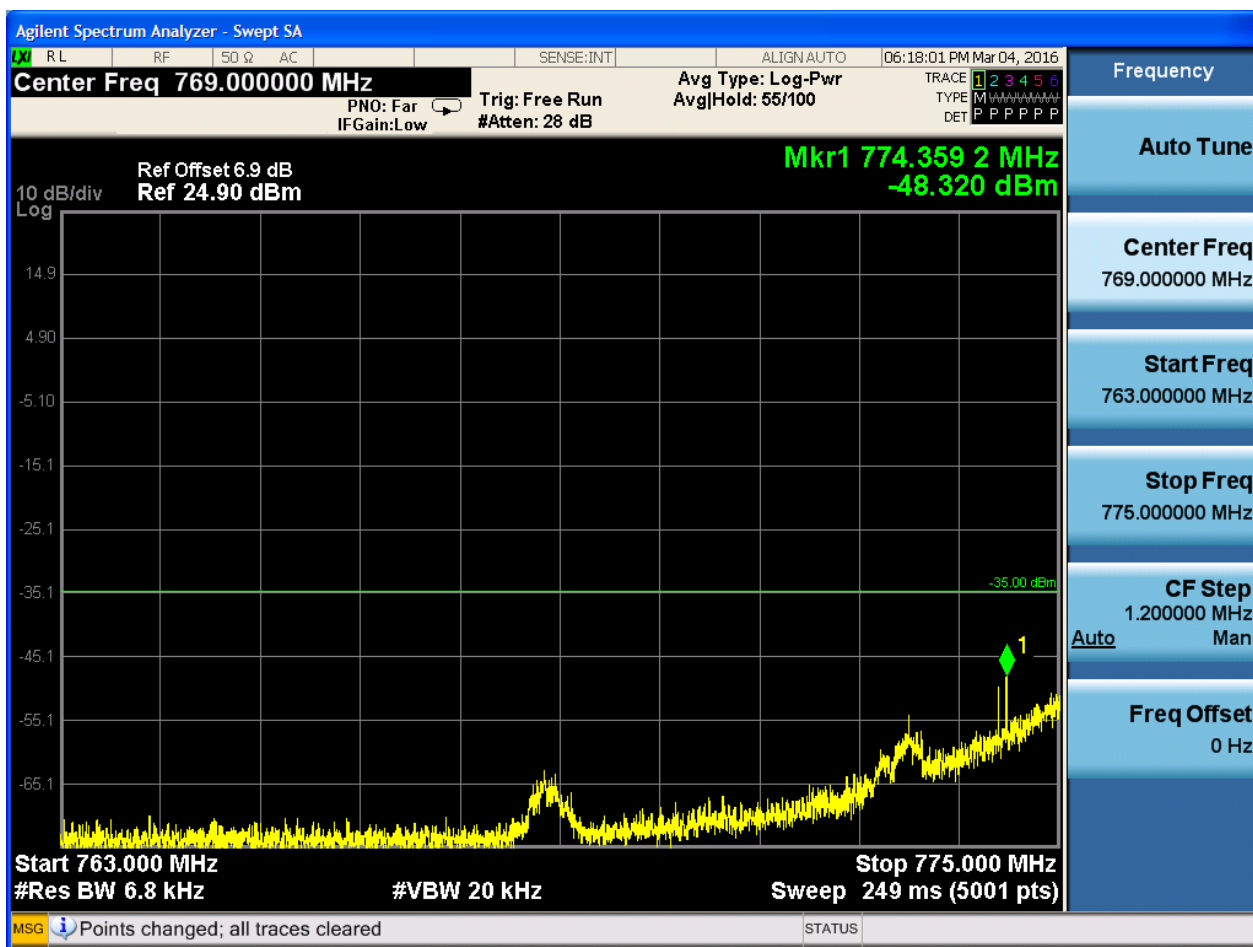
6.1.1.1.2.3 Test Channel = HCH

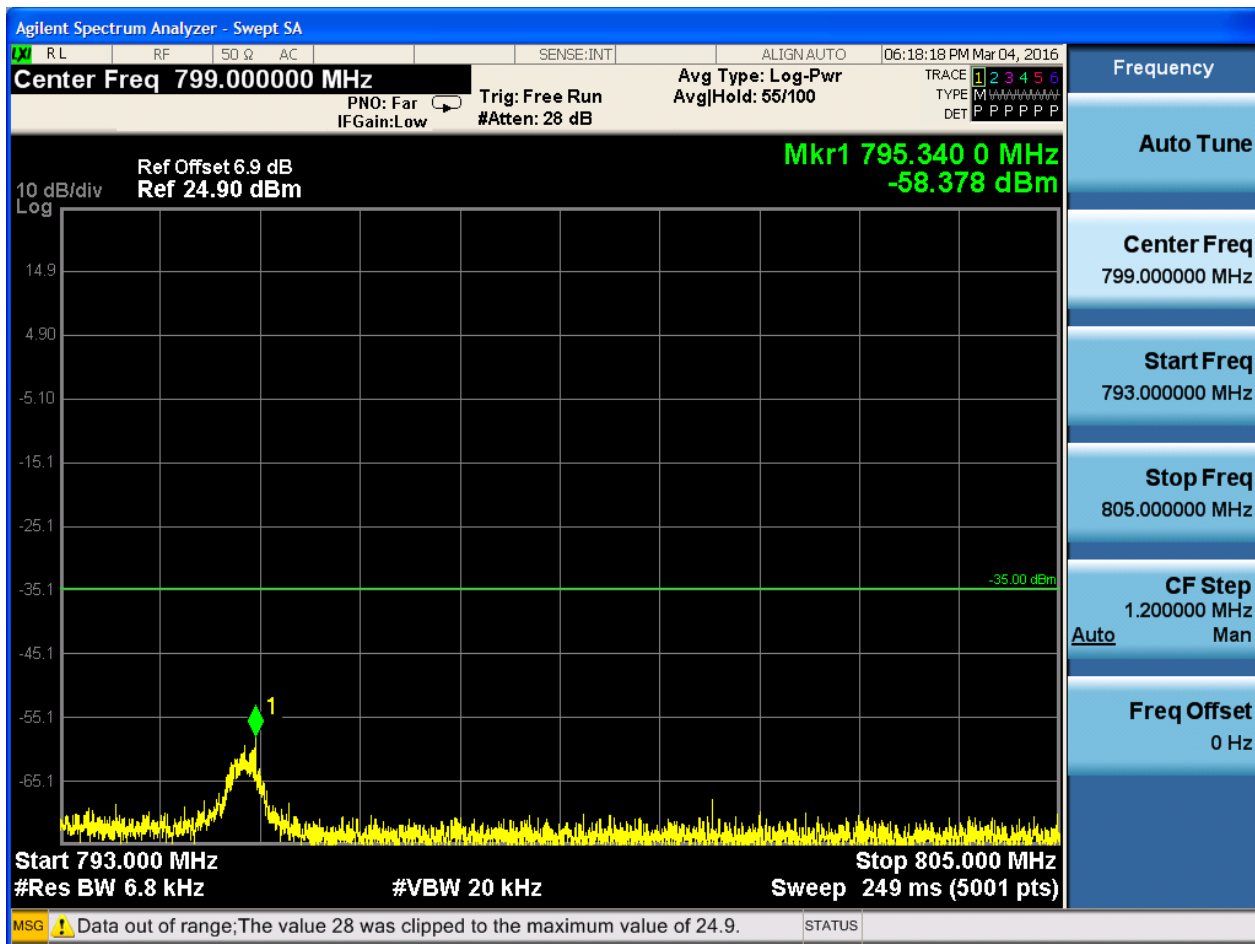
6.1.1.1.2.3.1 Test RB = RB1#0











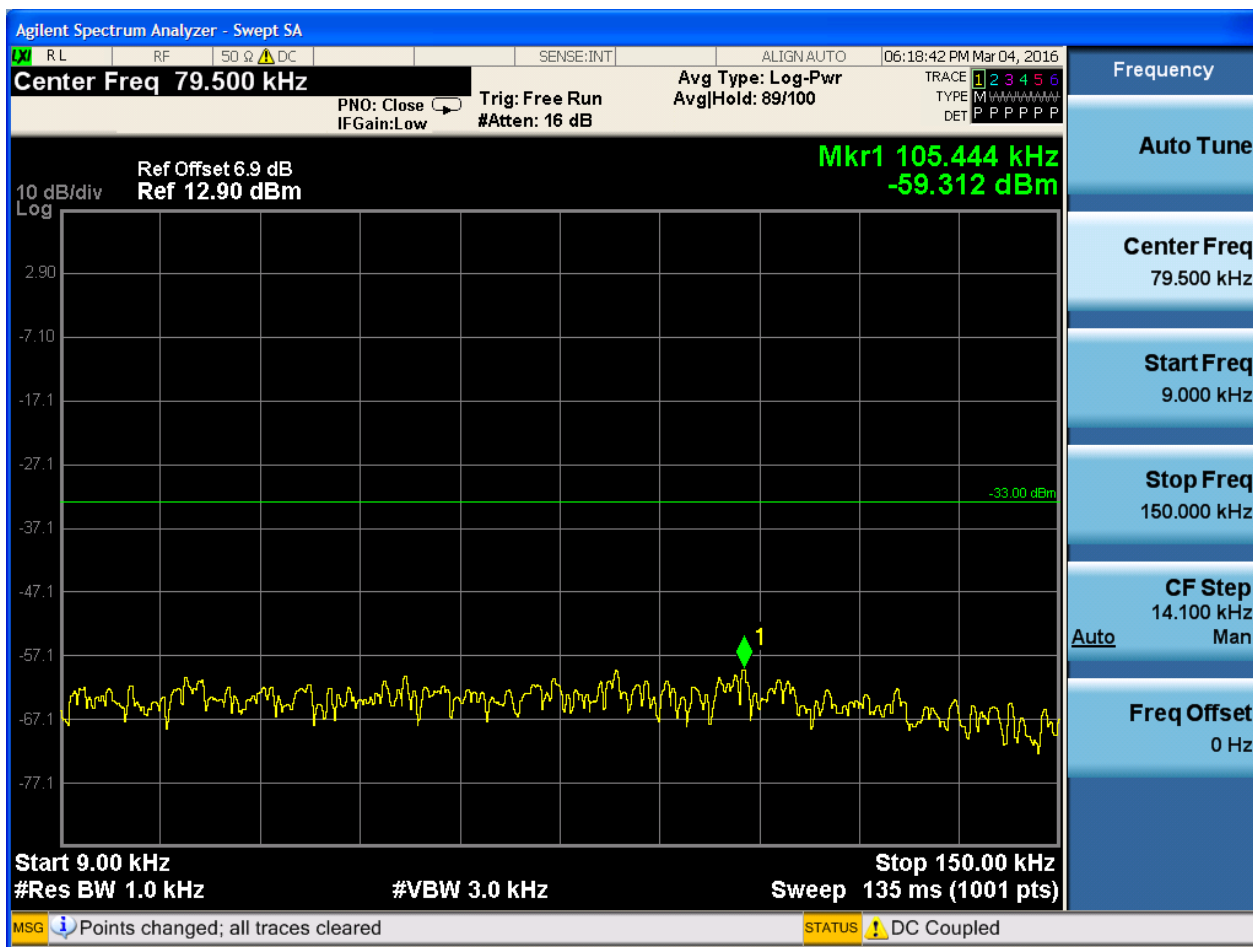


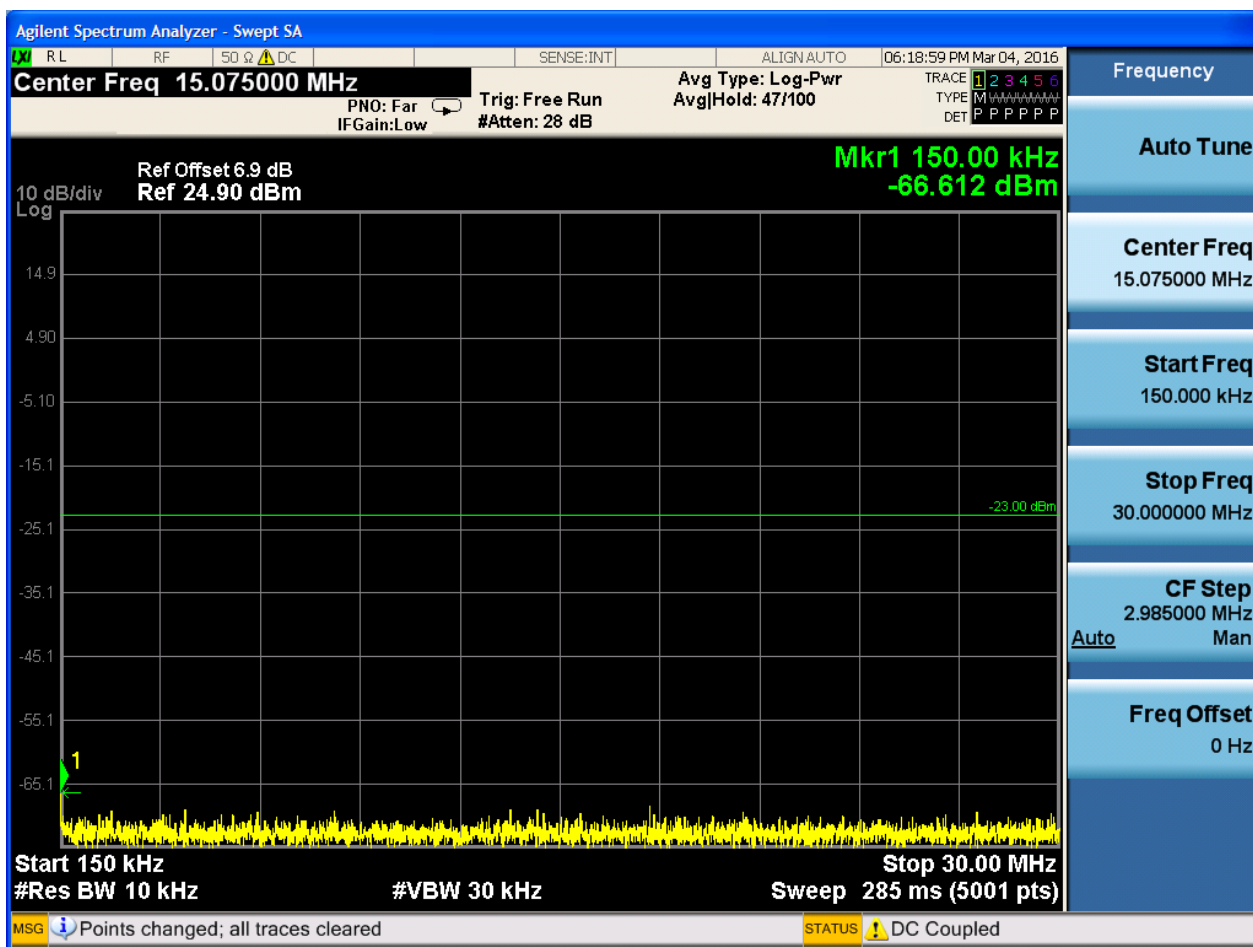
6.1.1.2 Test Mode = LTE/TM2

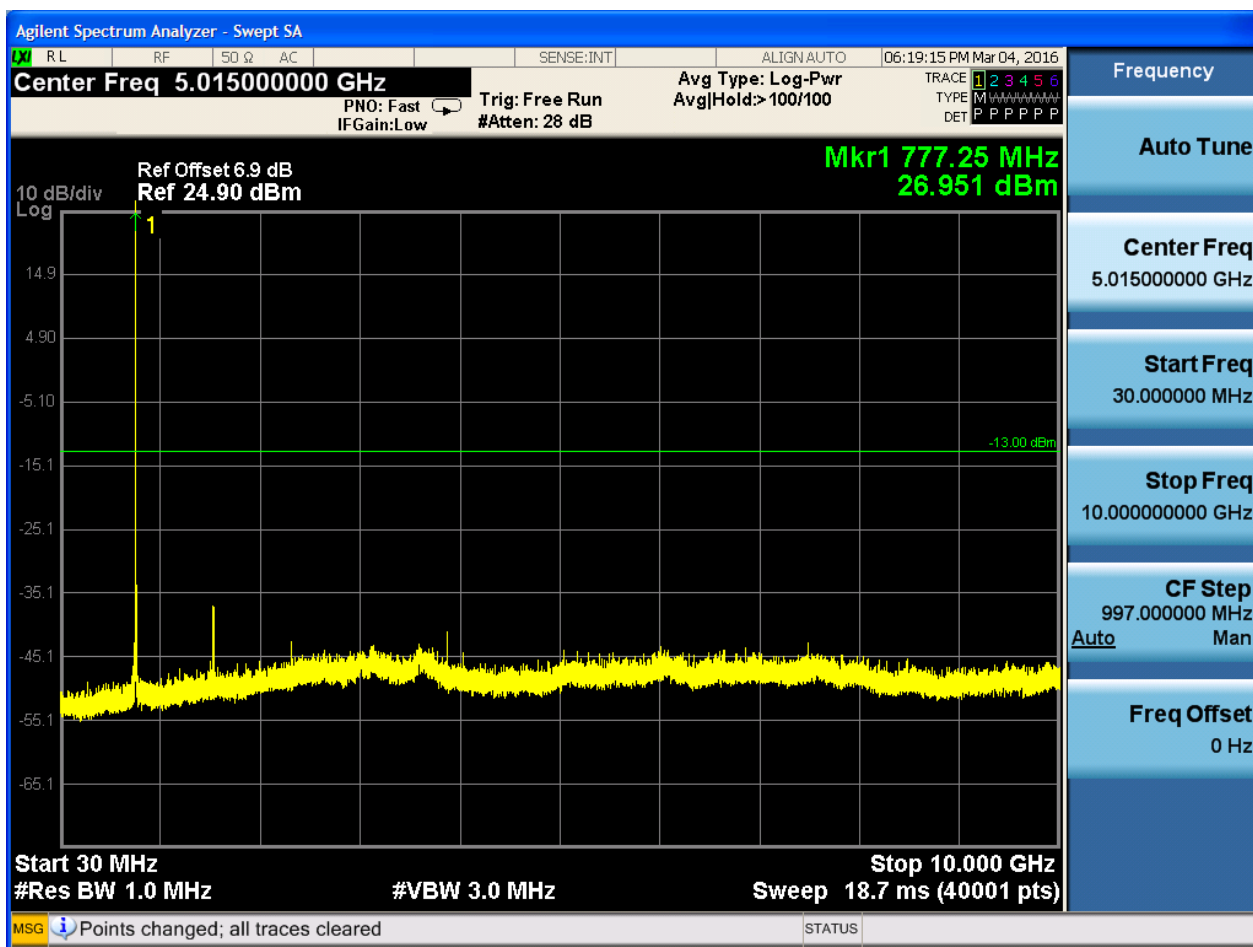
6.1.1.2.1 Test Bandwidth = 5

6.1.1.2.1.1 Test Channel = LCH

6.1.1.2.1.1.1 Test RB = RB1#0







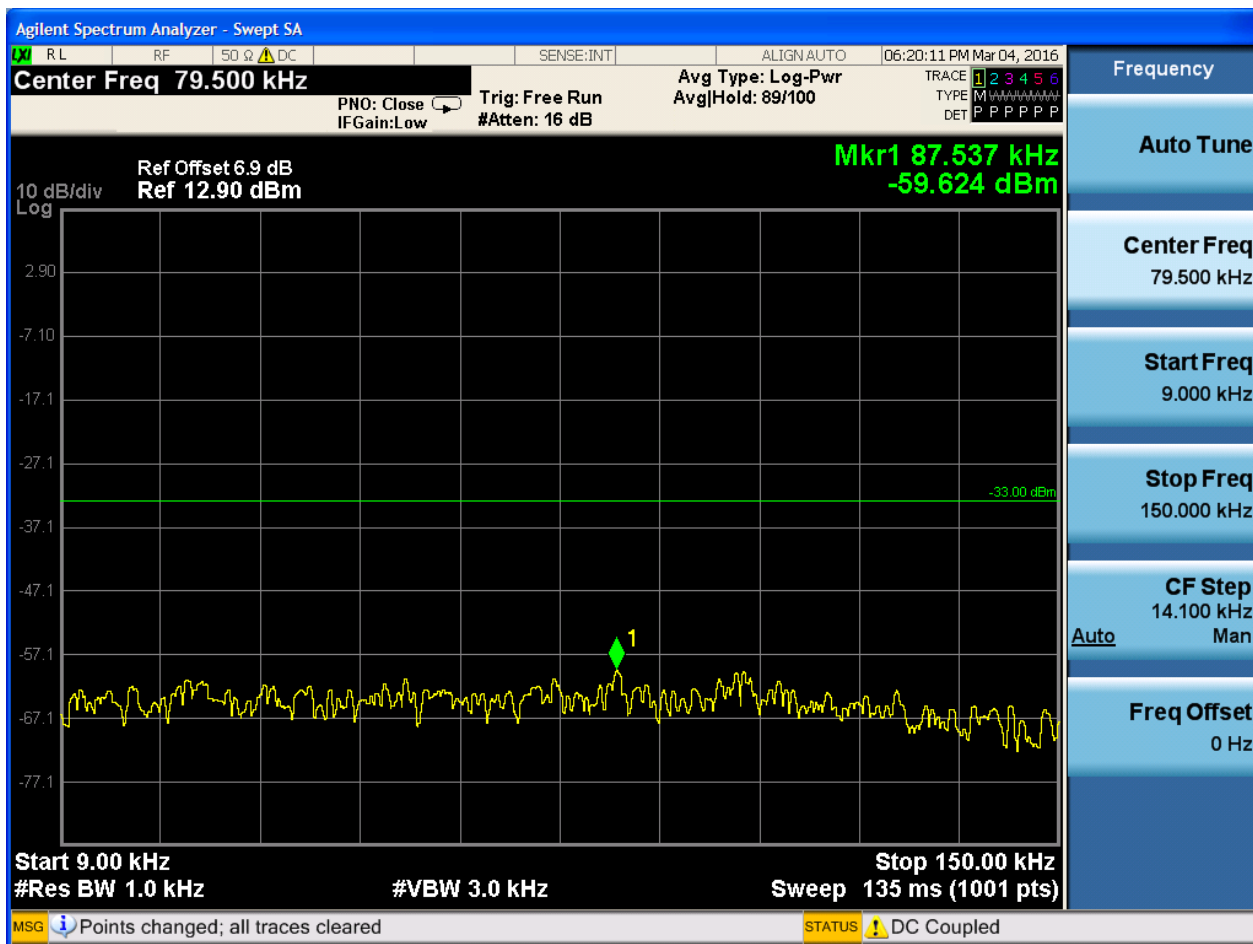


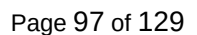
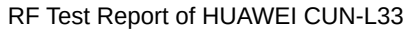


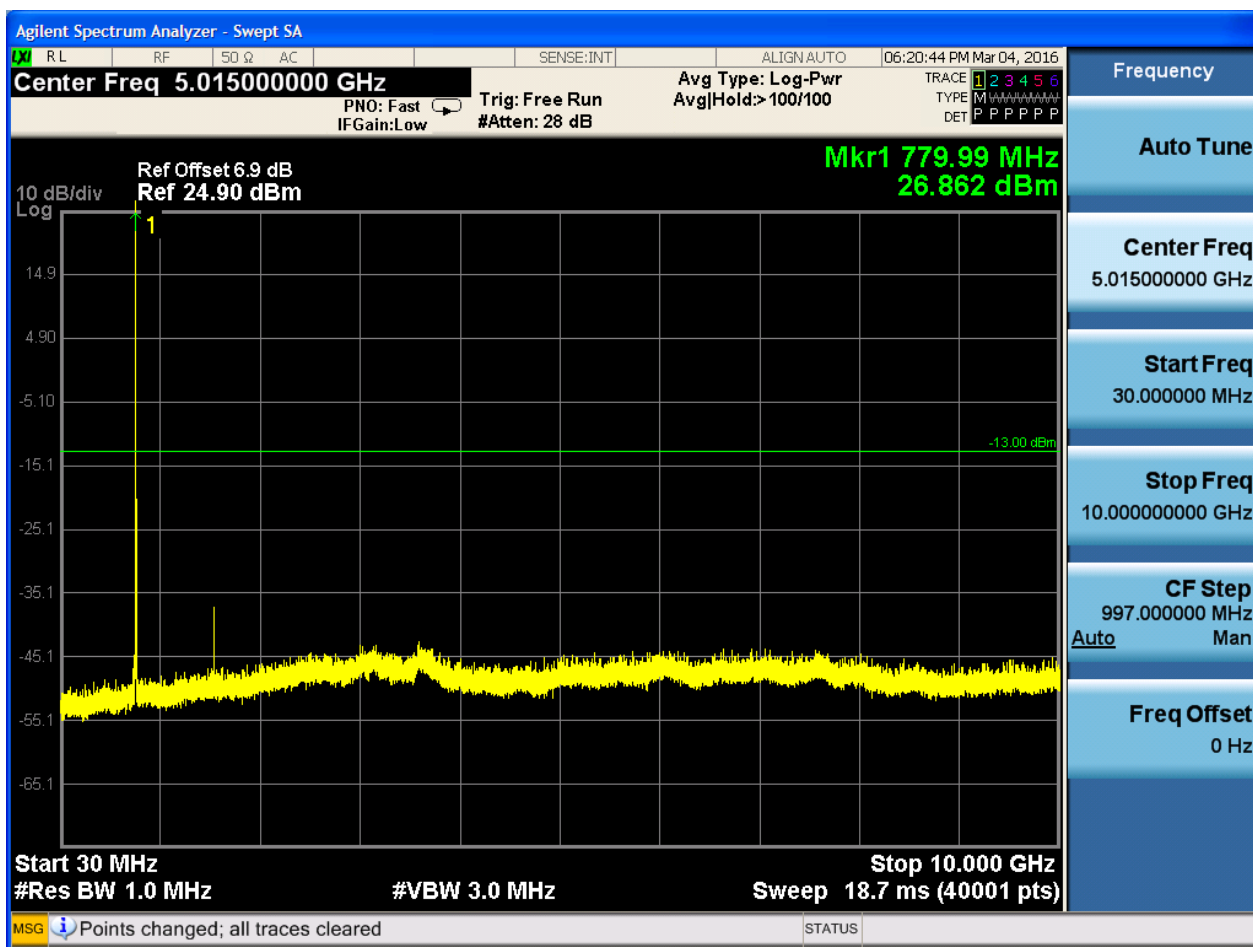


6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0







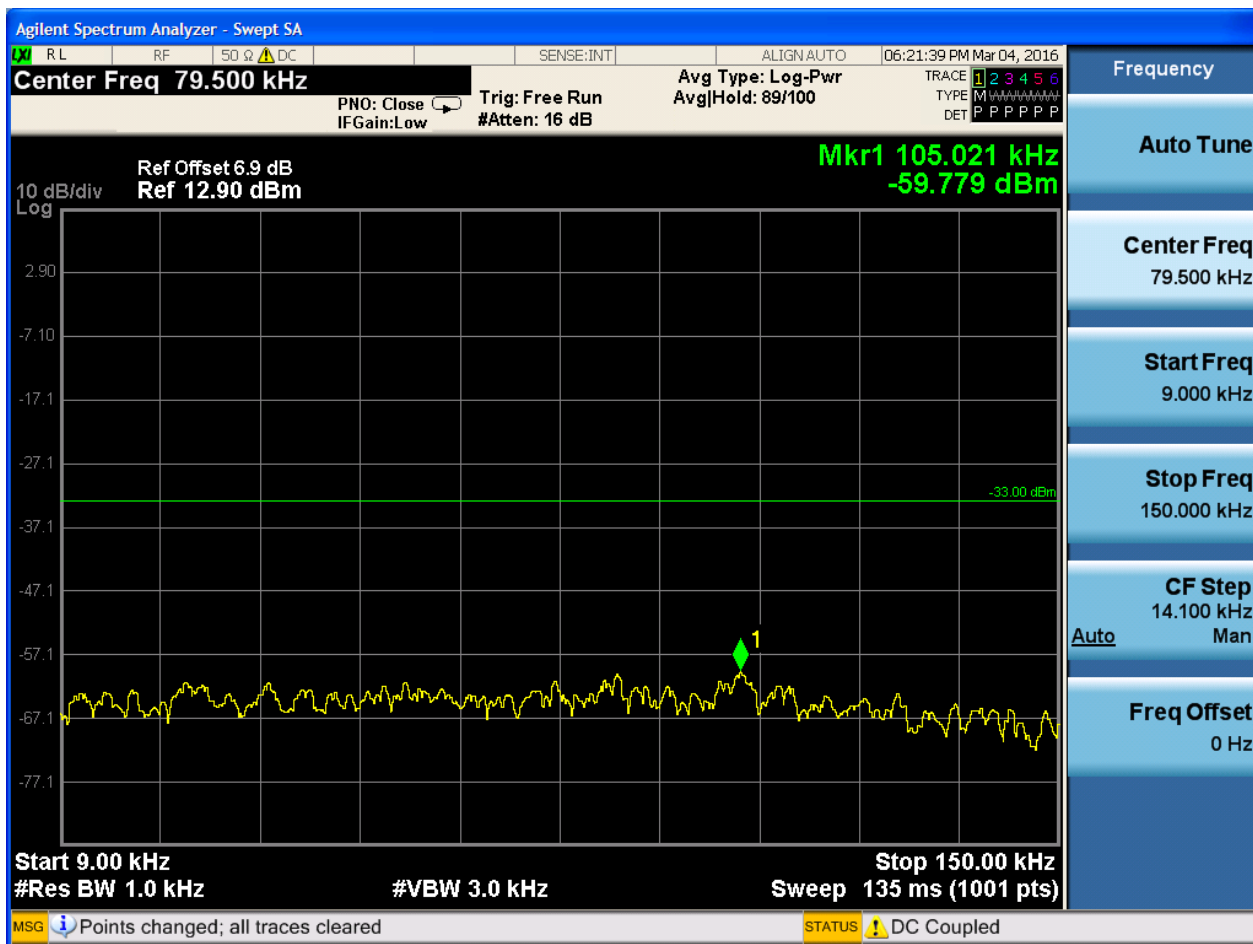


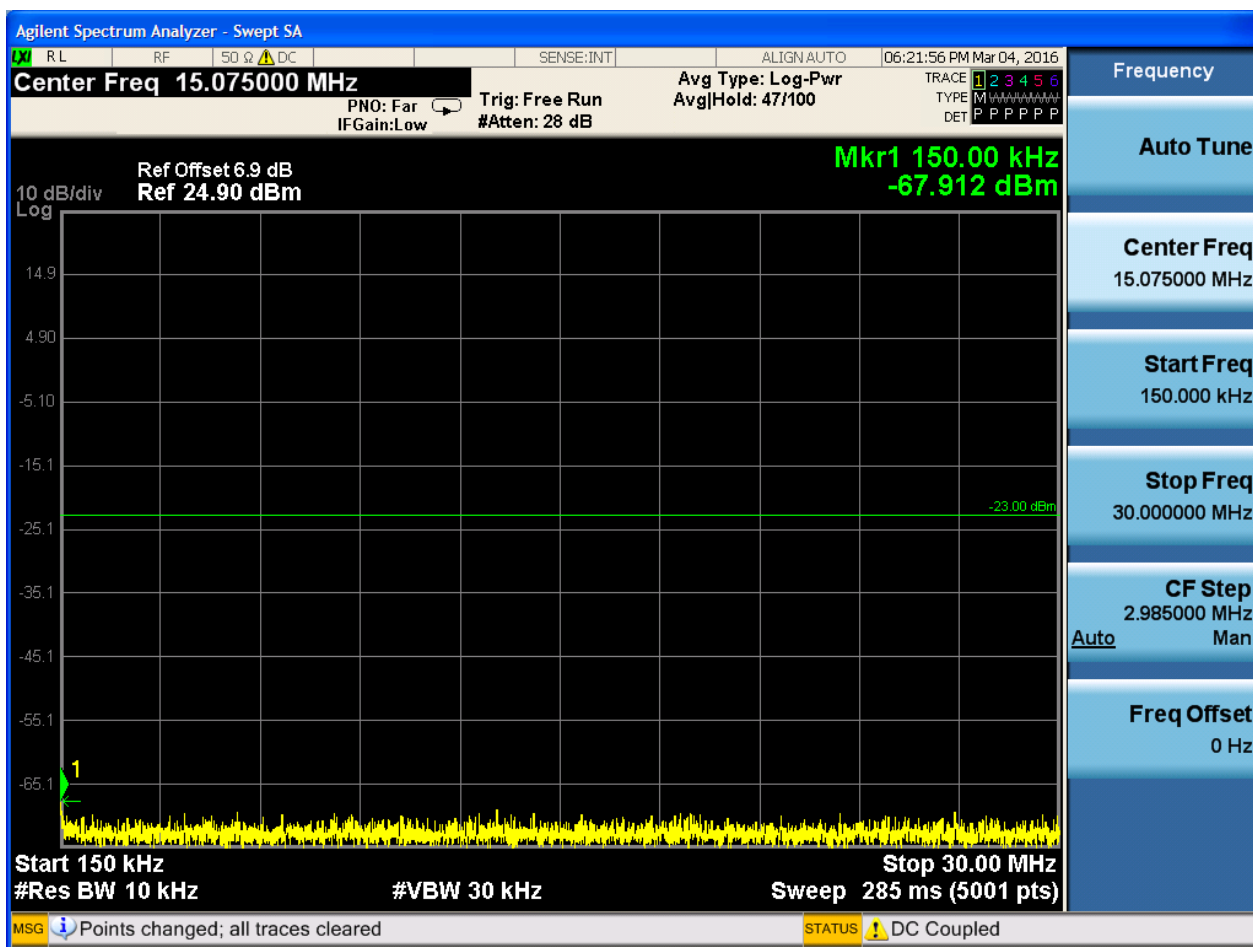


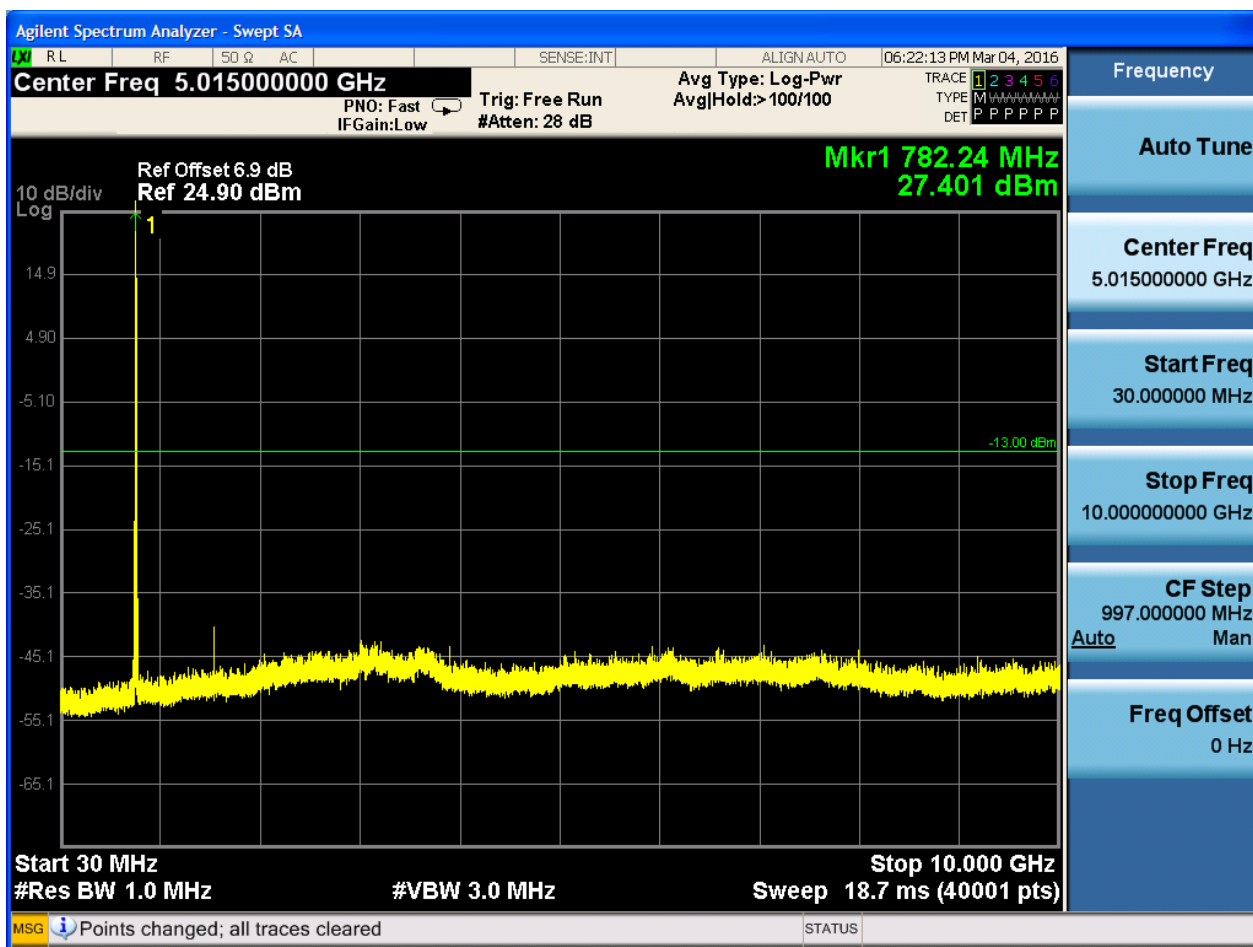


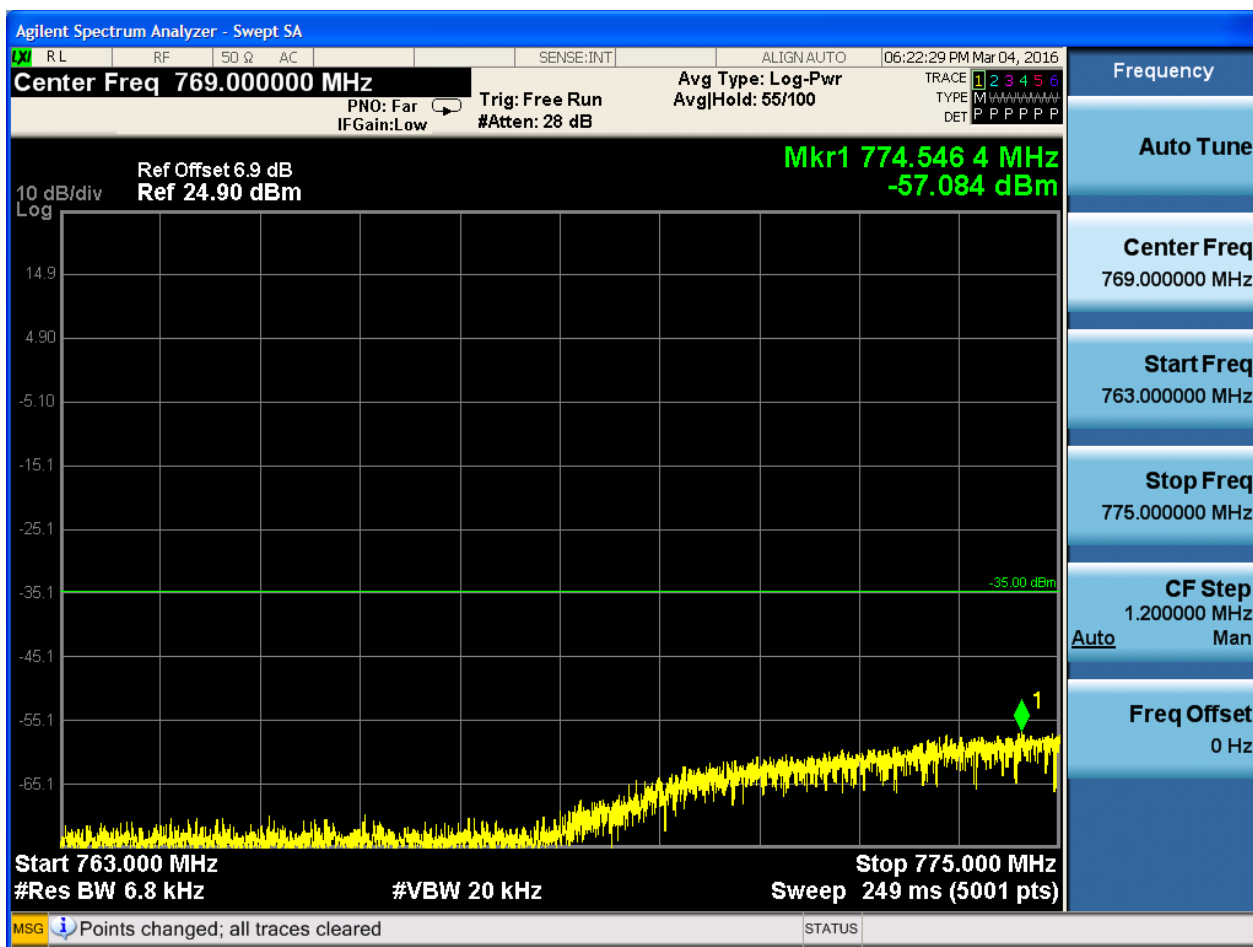
6.1.1.2.1.3 Test Channel = HCH

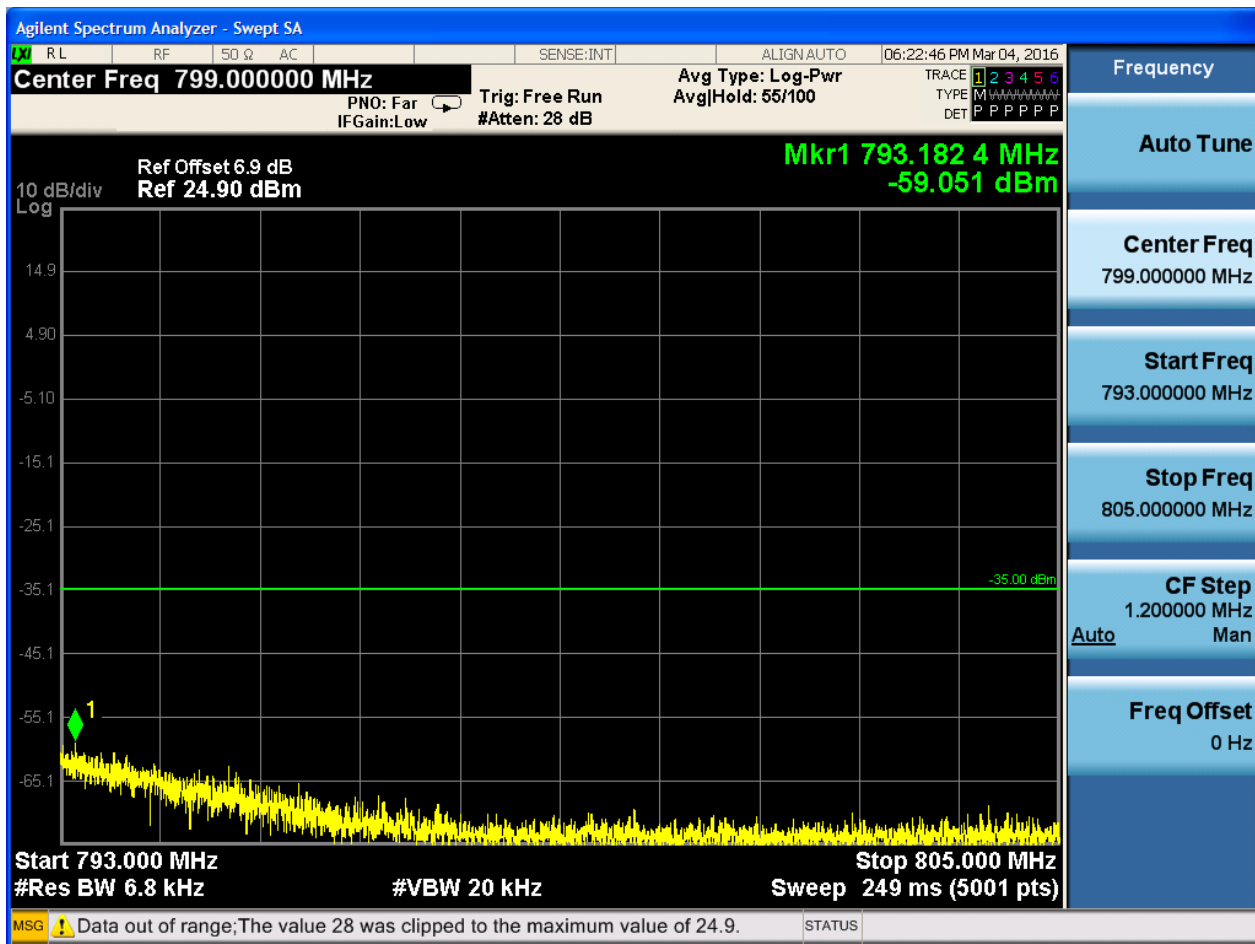
6.1.1.2.1.3.1 Test RB = RB1#0









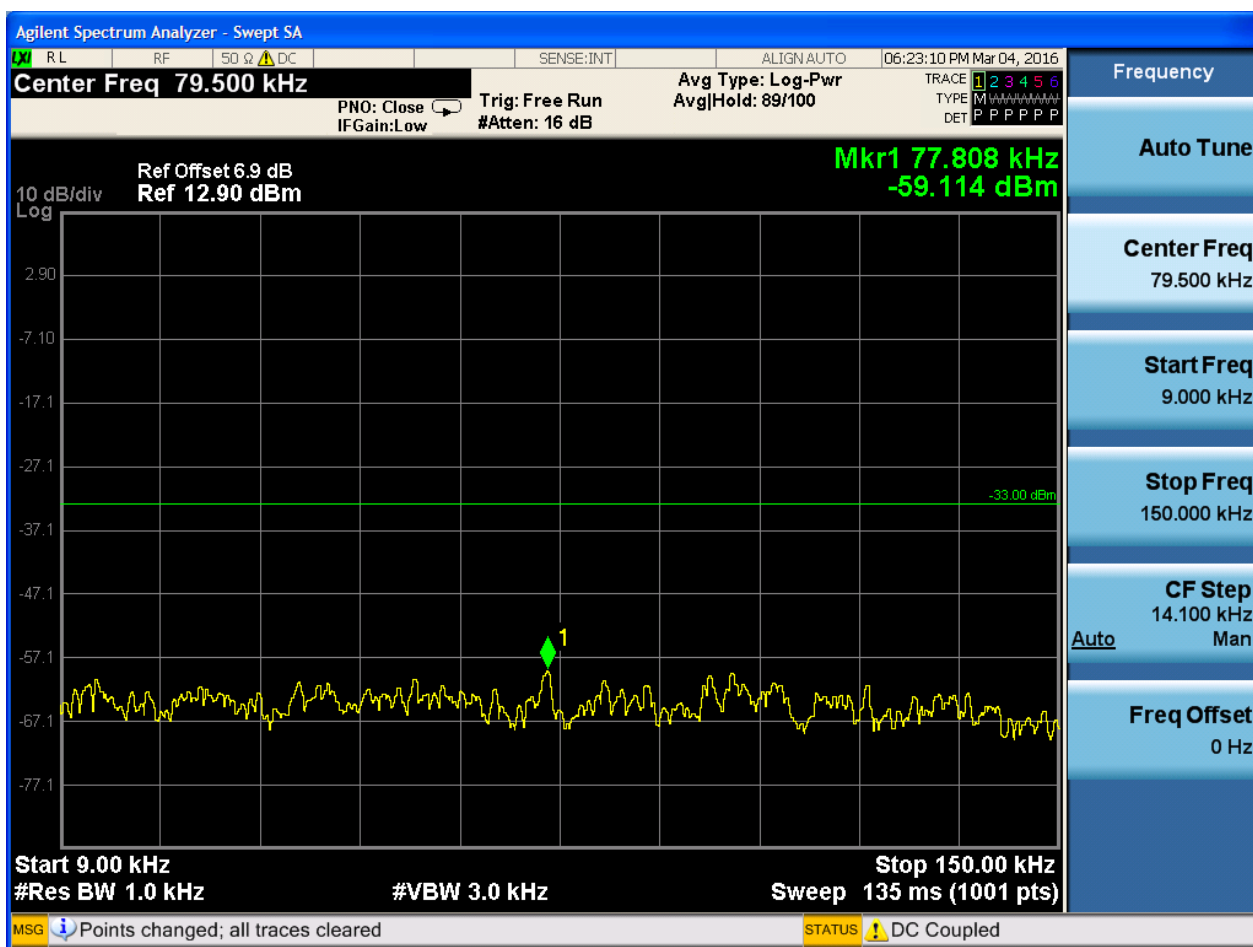


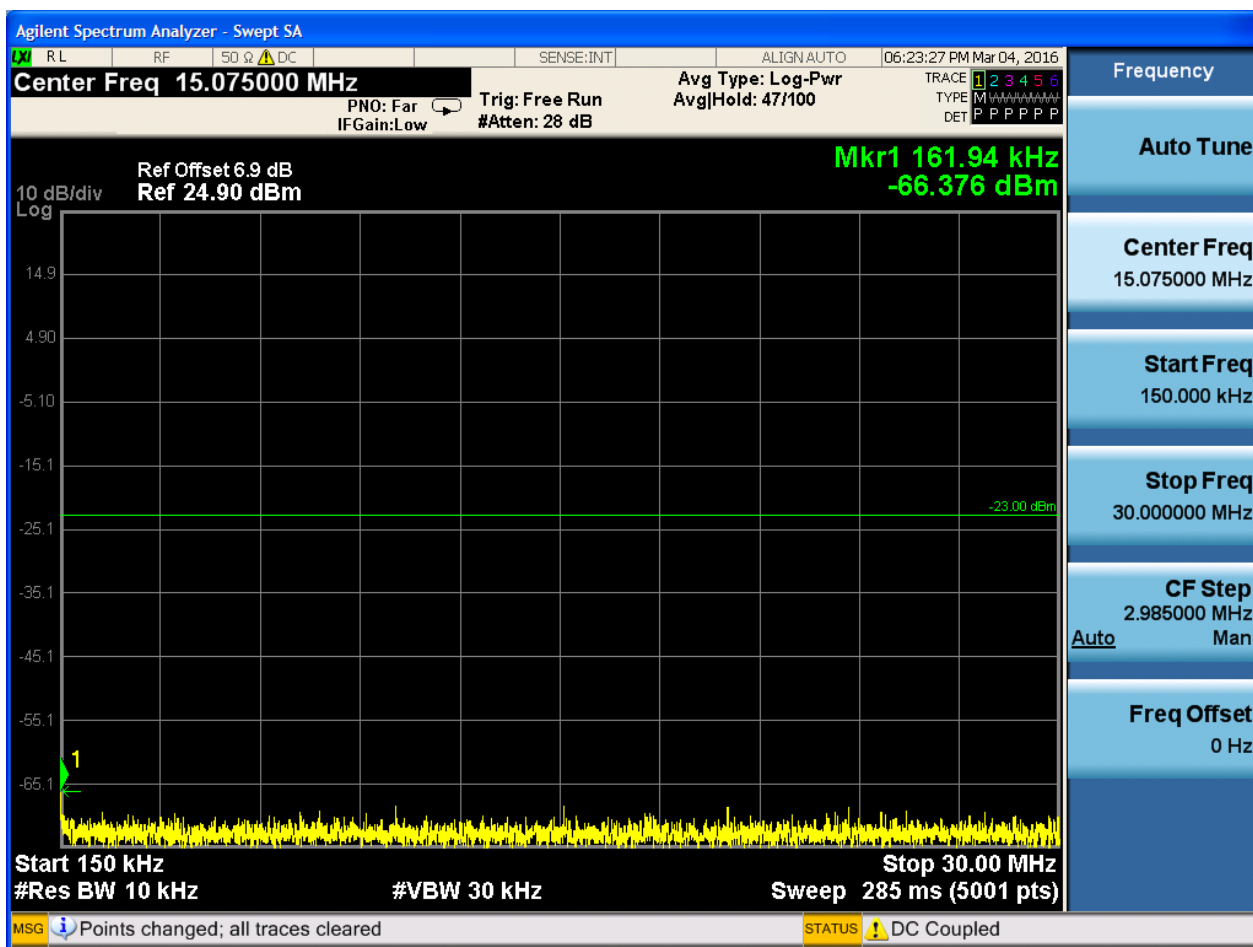


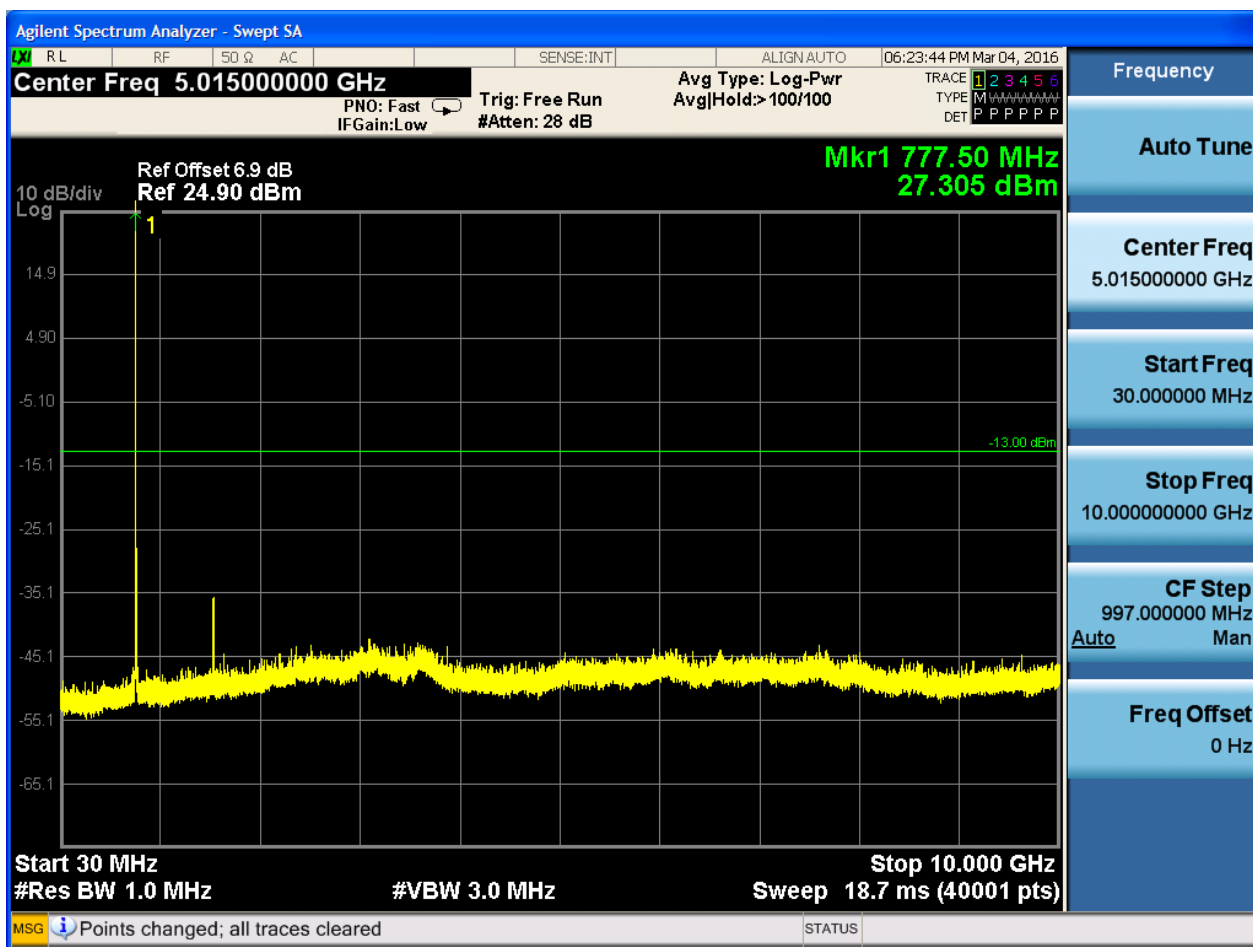
6.1.1.2.2 Test Bandwidth = 10

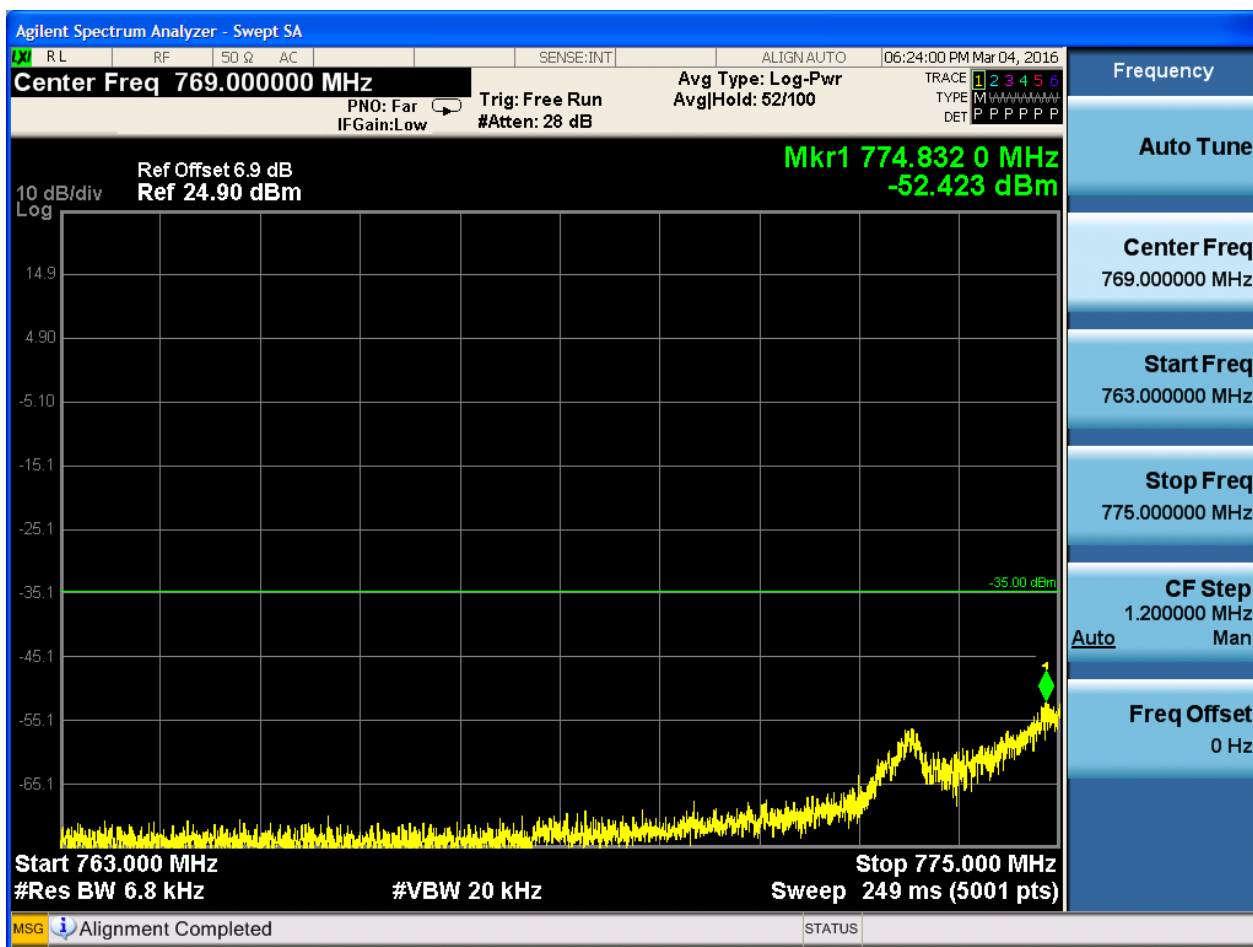
6.1.1.2.2.1 Test Channel = LCH

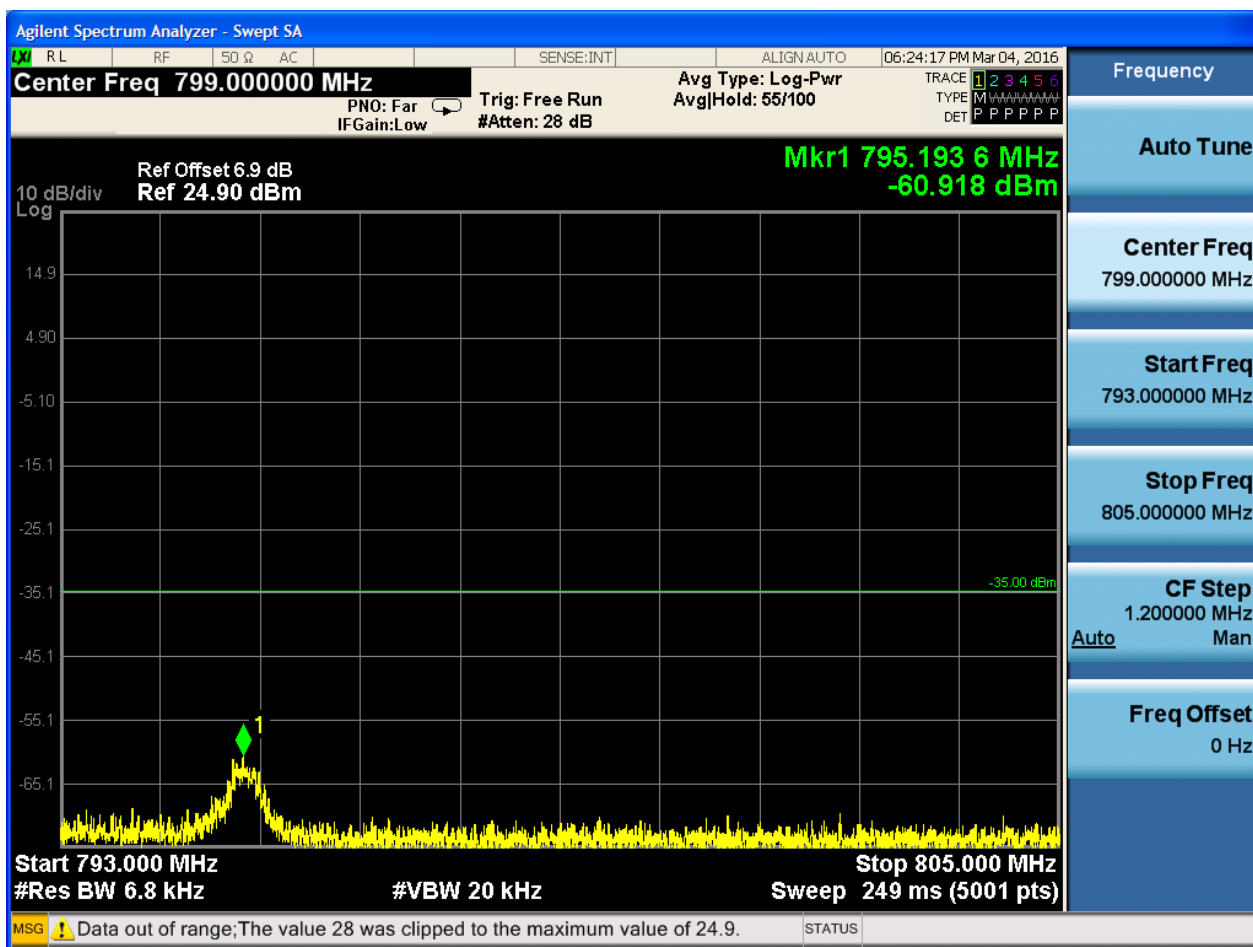
6.1.1.2.2.1.1 Test RB = RB1#0







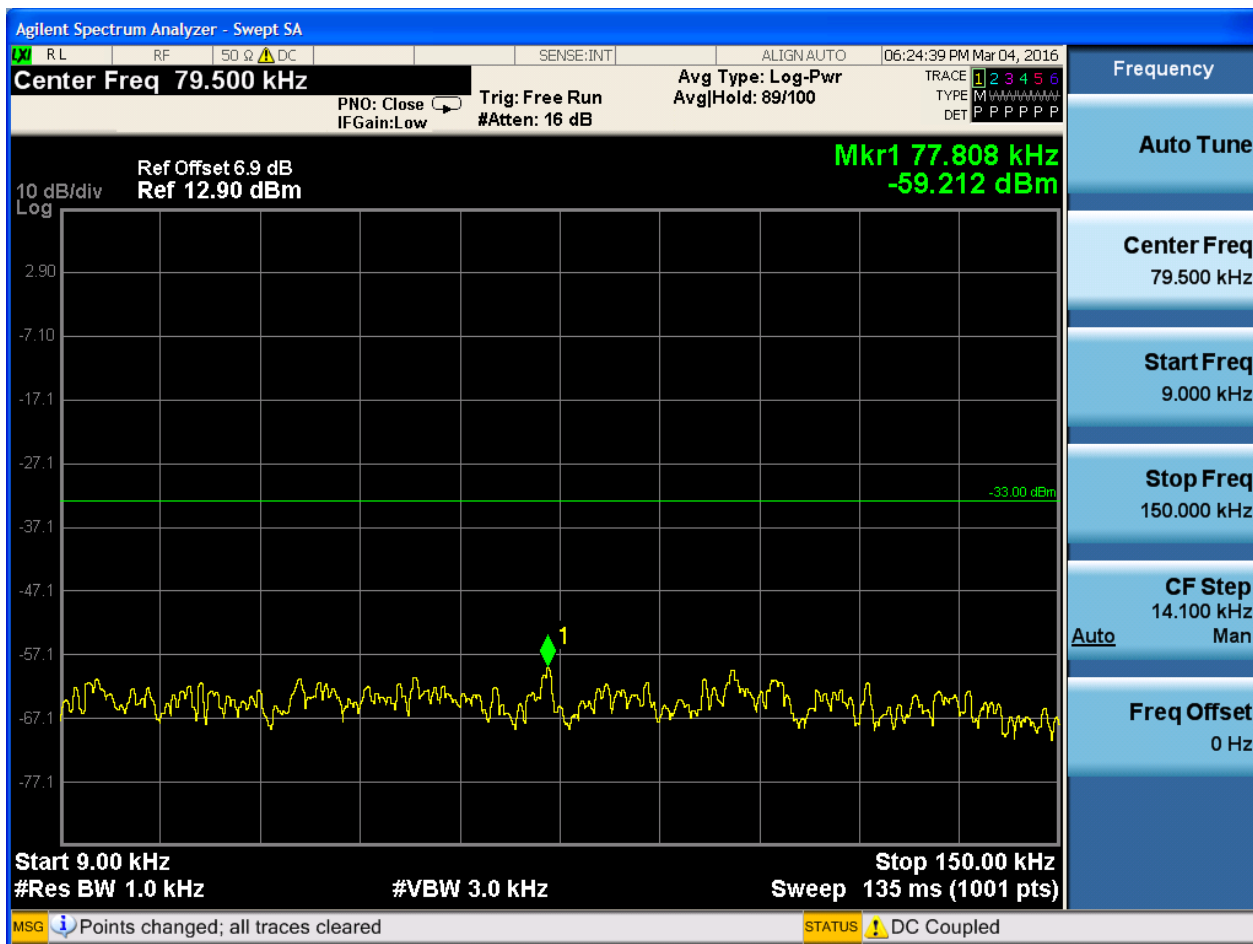




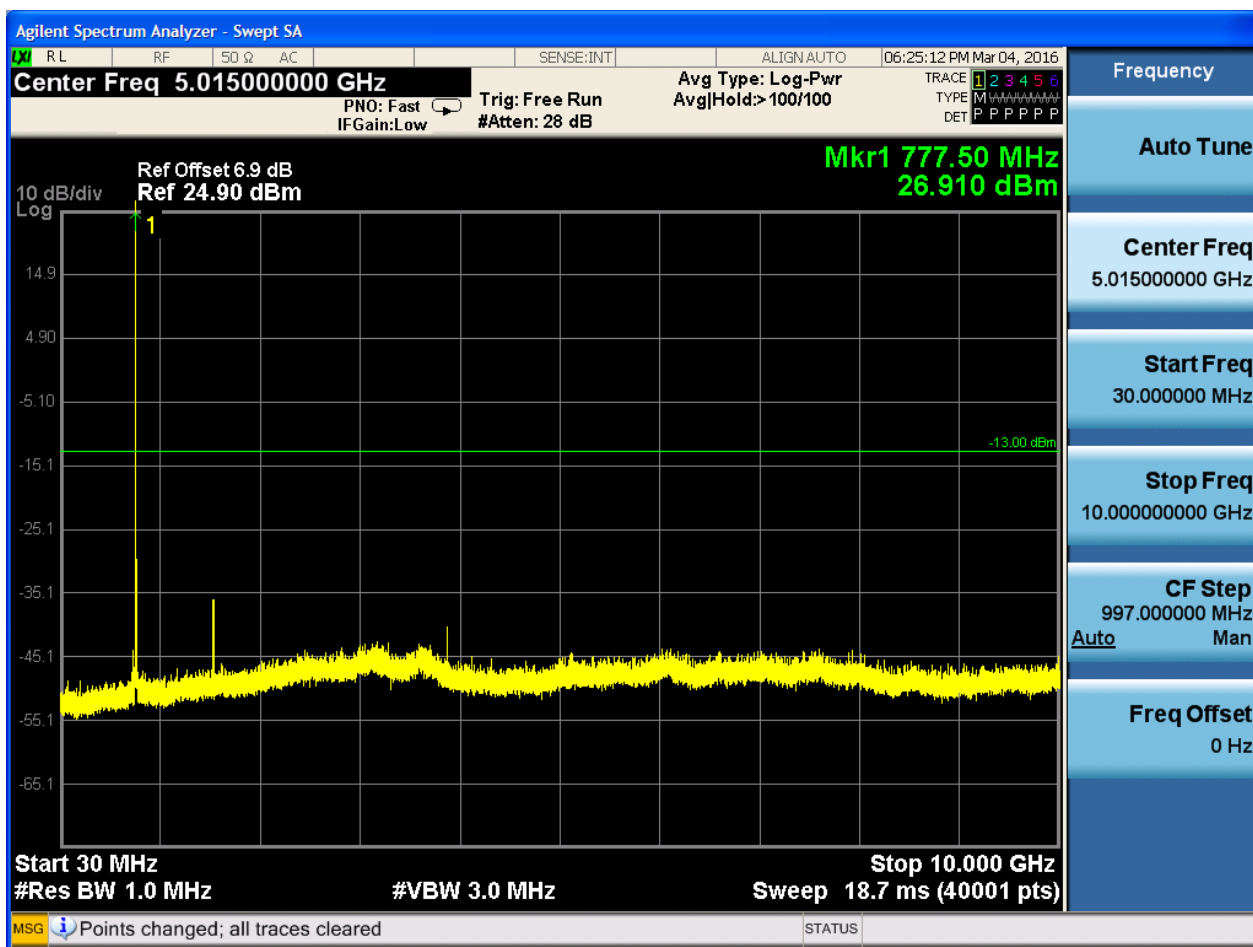


6.1.1.2.2.2 Test Channel = MCH

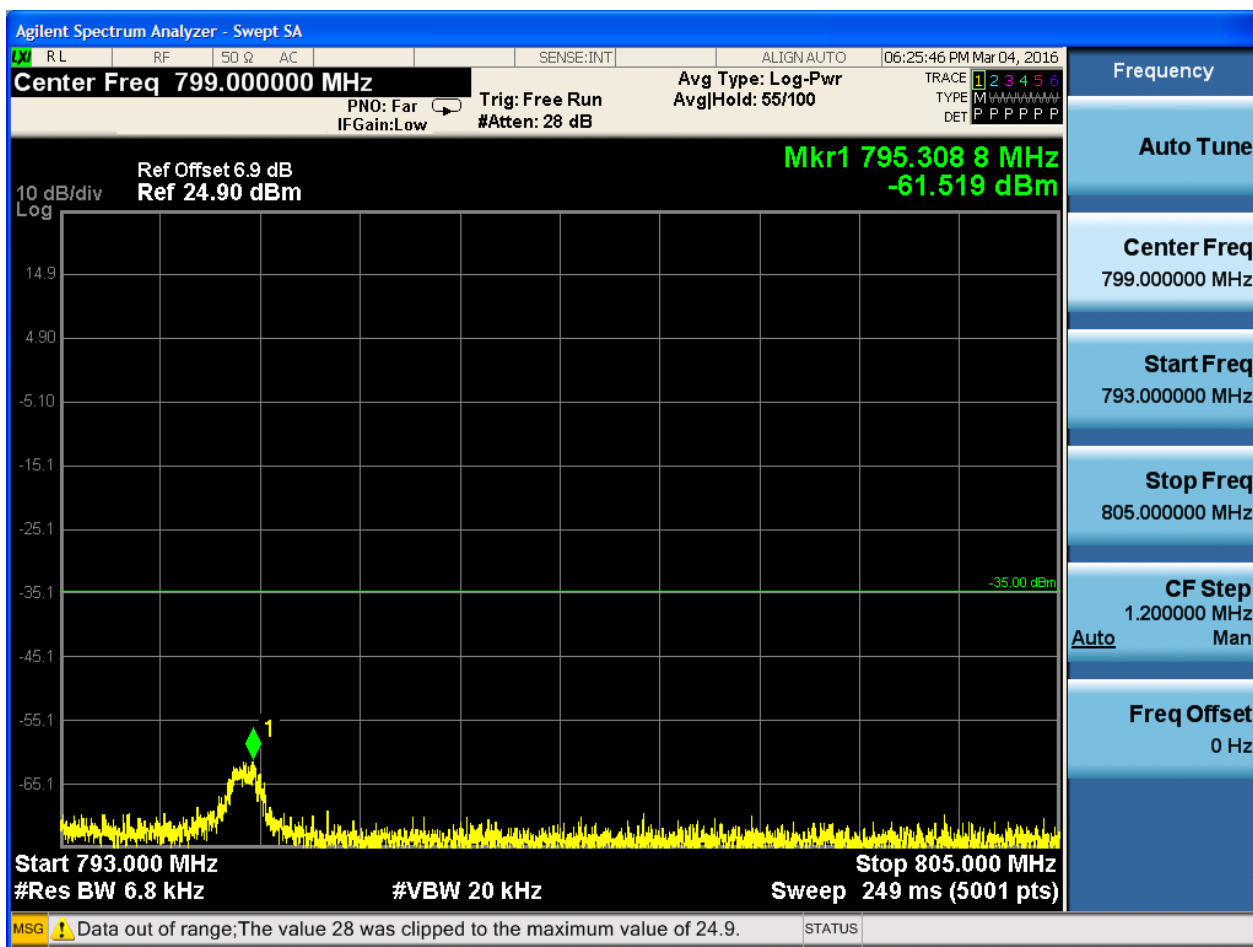
6.1.1.2.2.2.1 Test RB = RB1#0







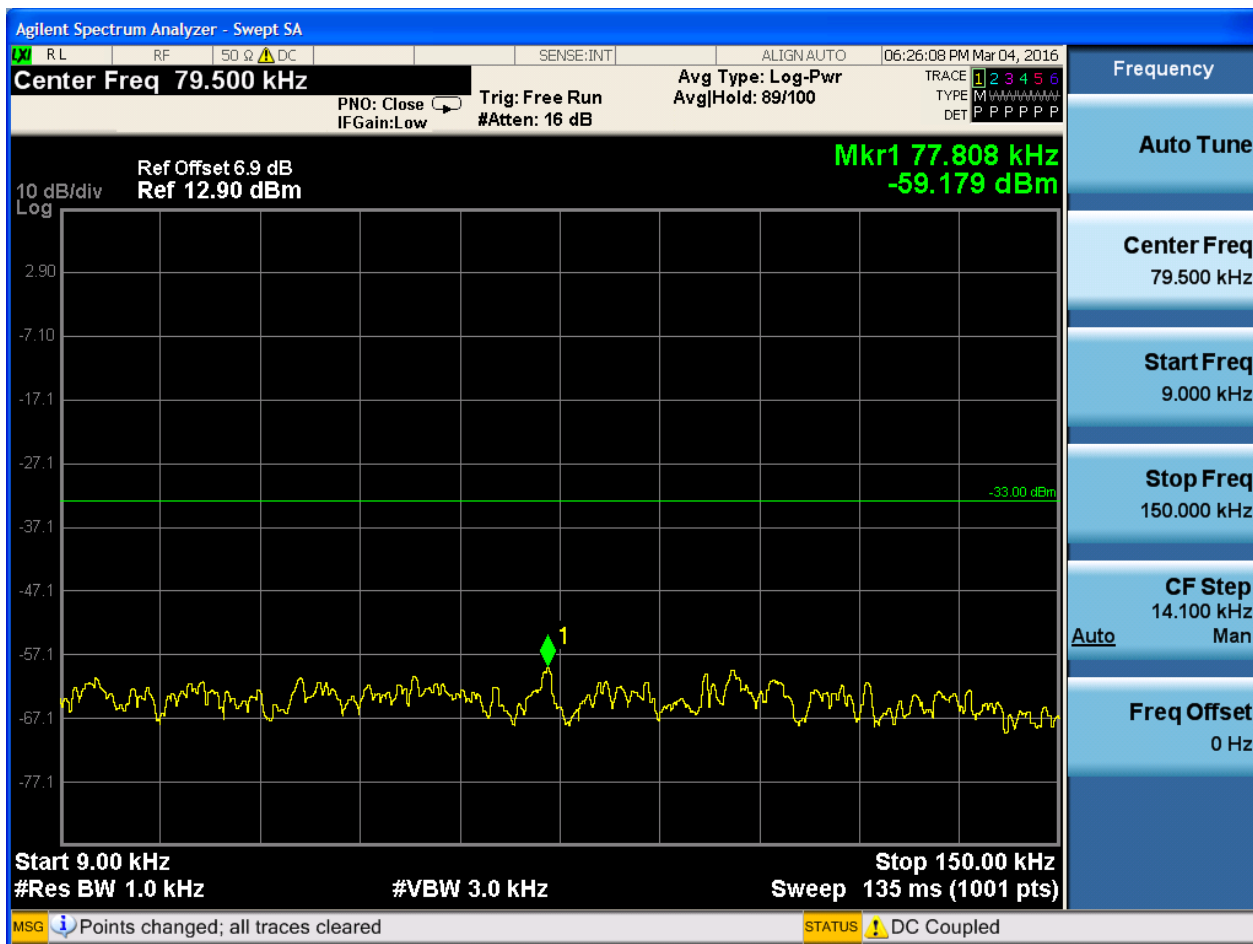


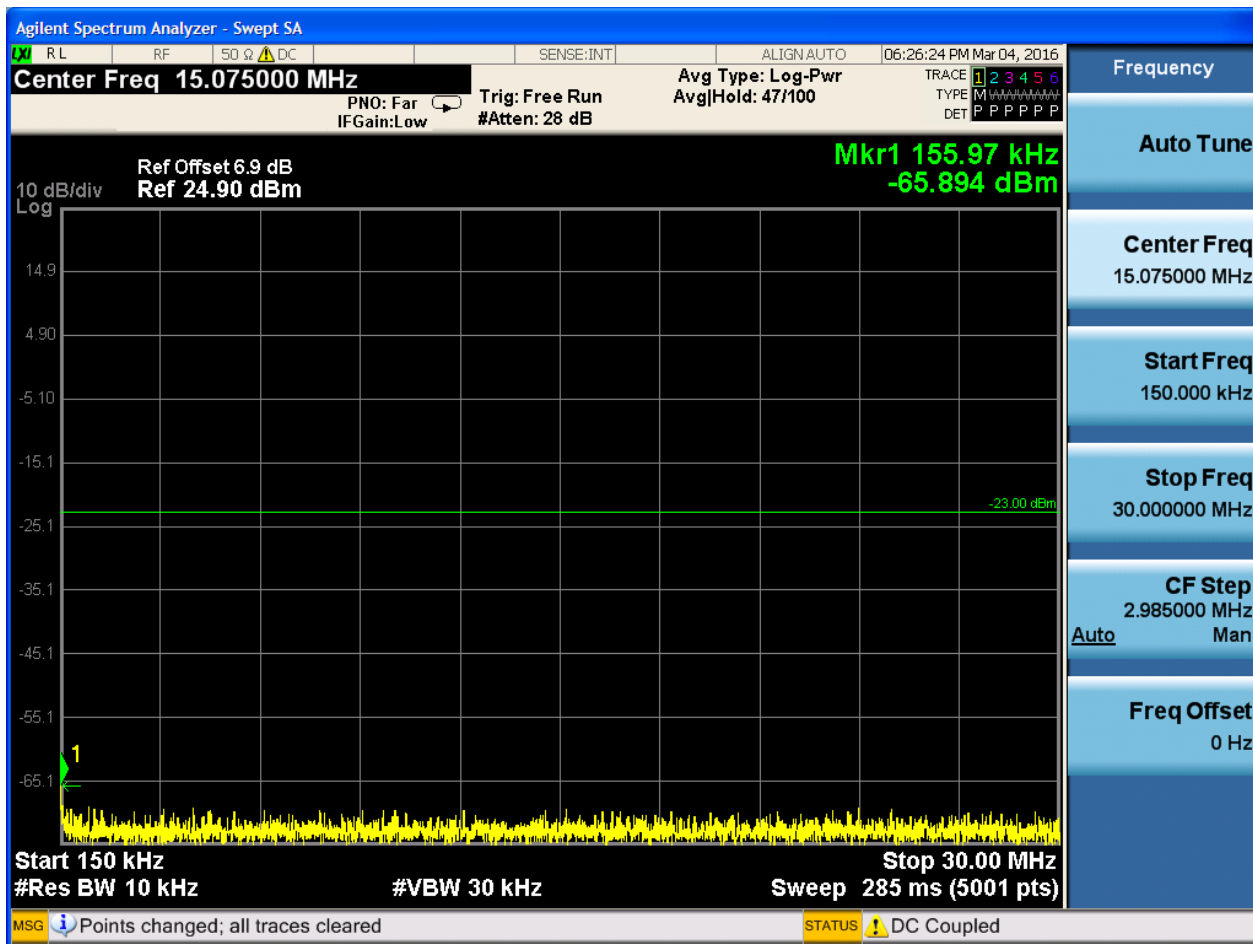


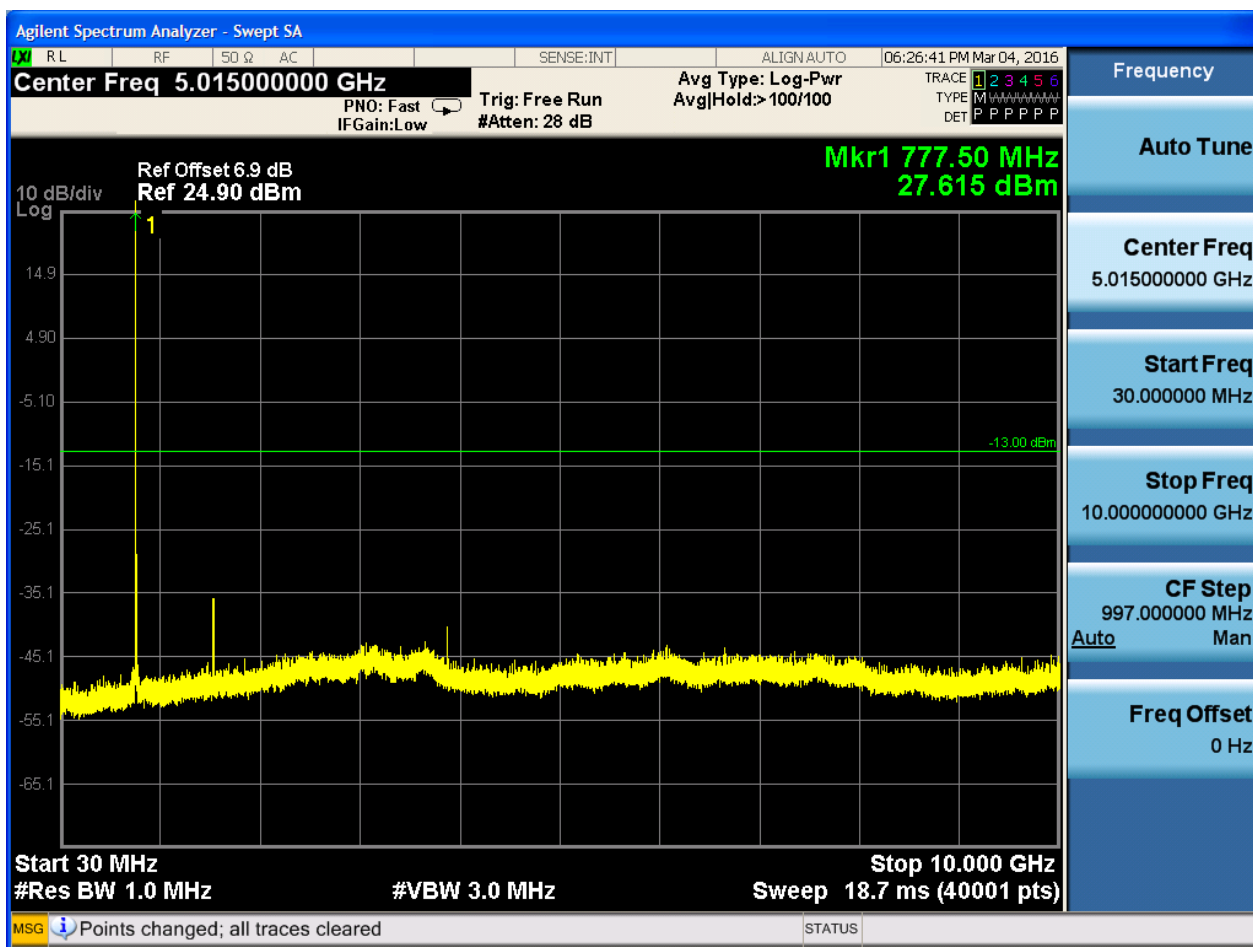


6.1.1.2.2.3 Test Channel = HCH

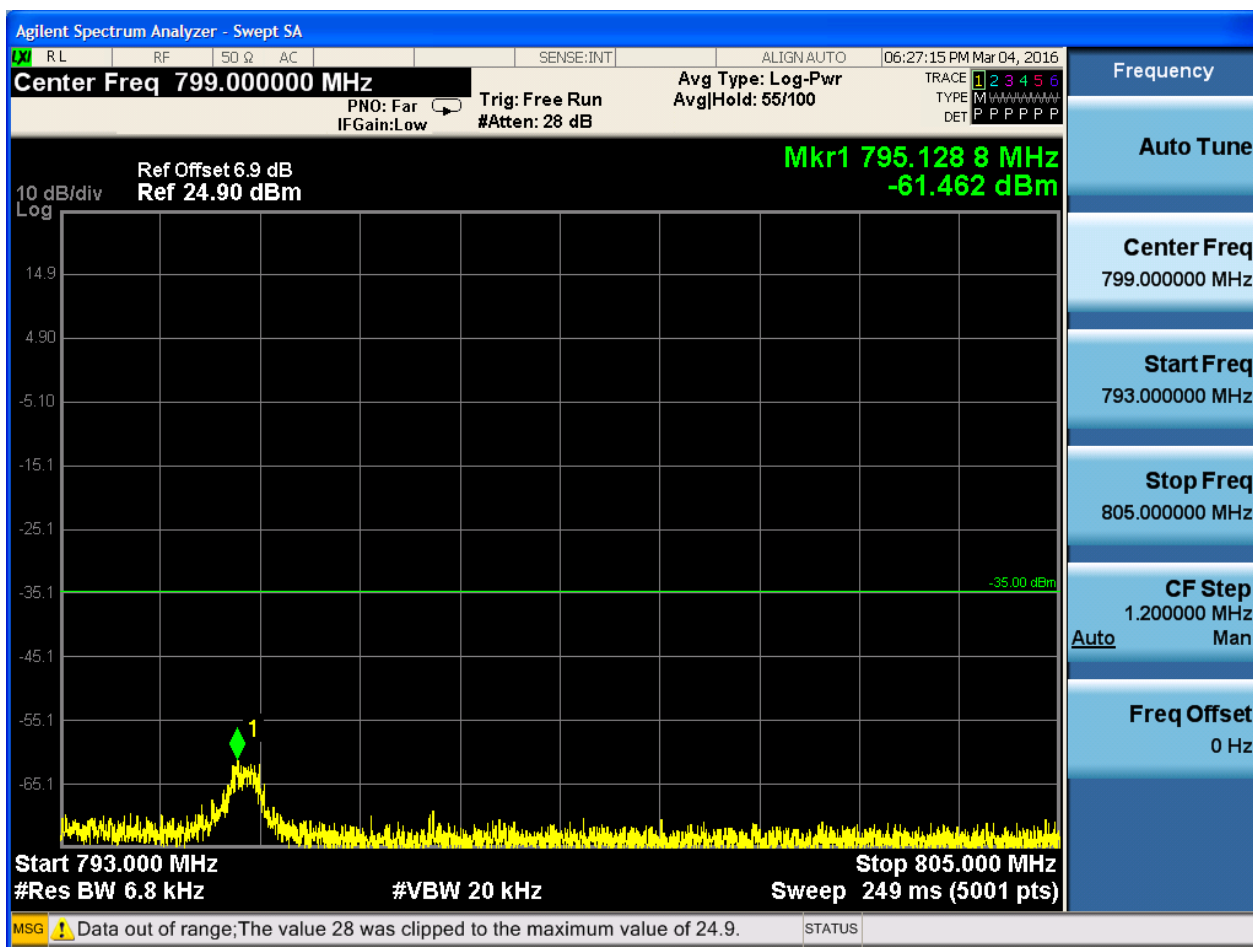
6.1.1.2.2.3.1 Test RB = RB1#0











7Appendix_G: Field Strength of Spurious Radiation

Note:

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

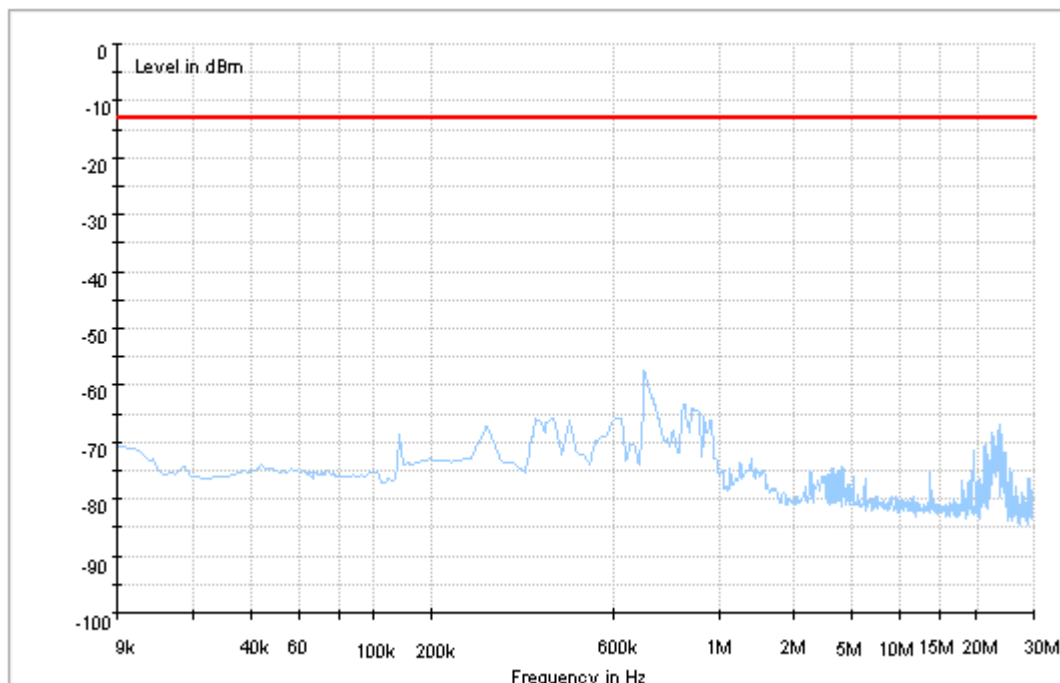
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

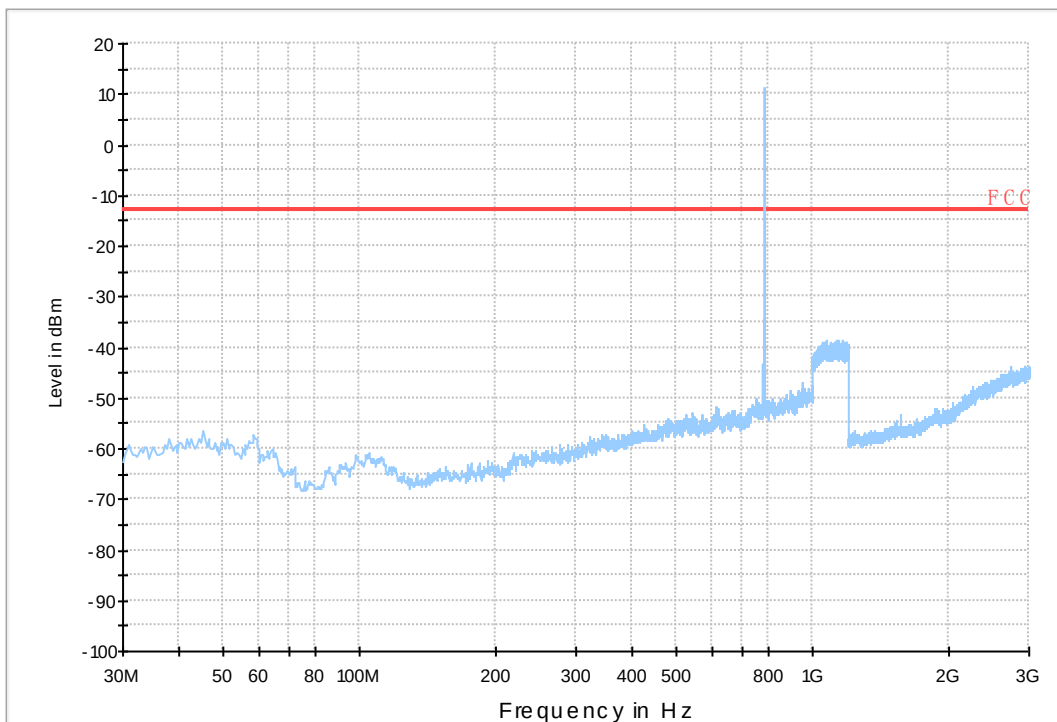
7.1 For LTE

7.1.1 Test Band = BAND13

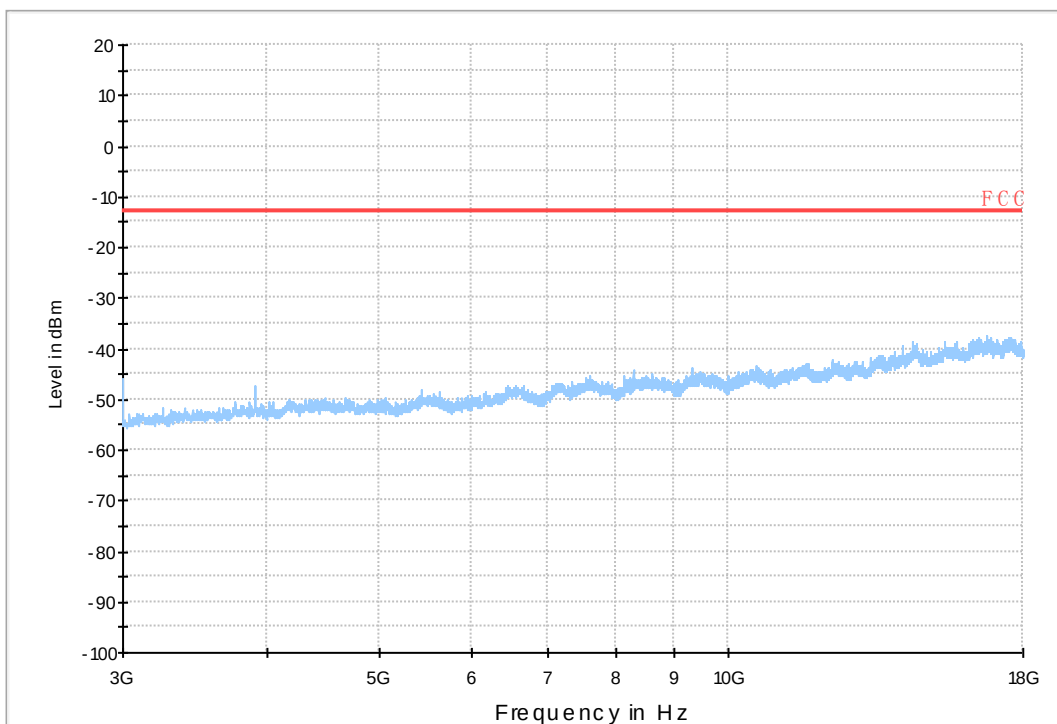
7.1.1.1 Test Bandwidth = 5



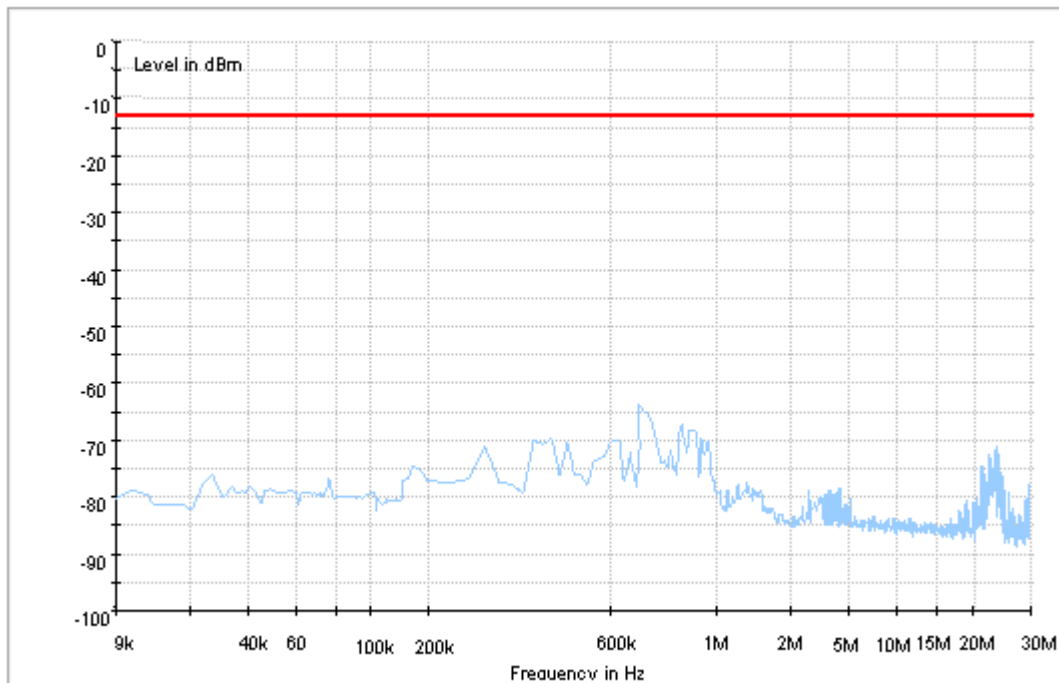
Copy of RSE-TX-DIRECTOR BELOW 1G_L



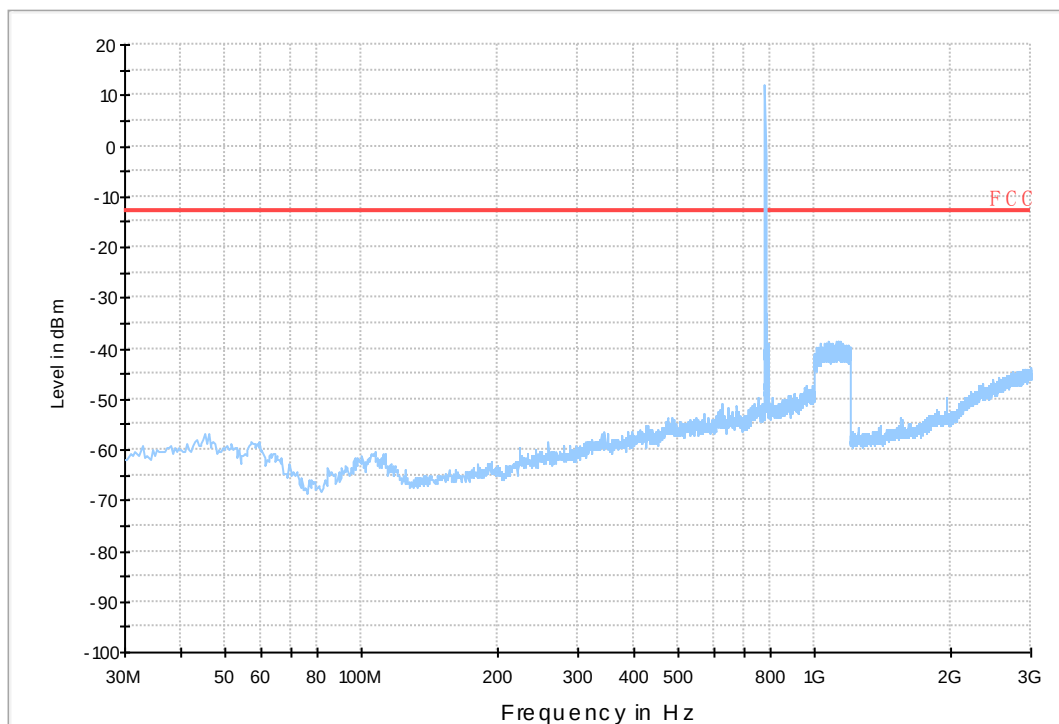
Copy of RSE-TX-DIRECTOR BELOW 1G_H



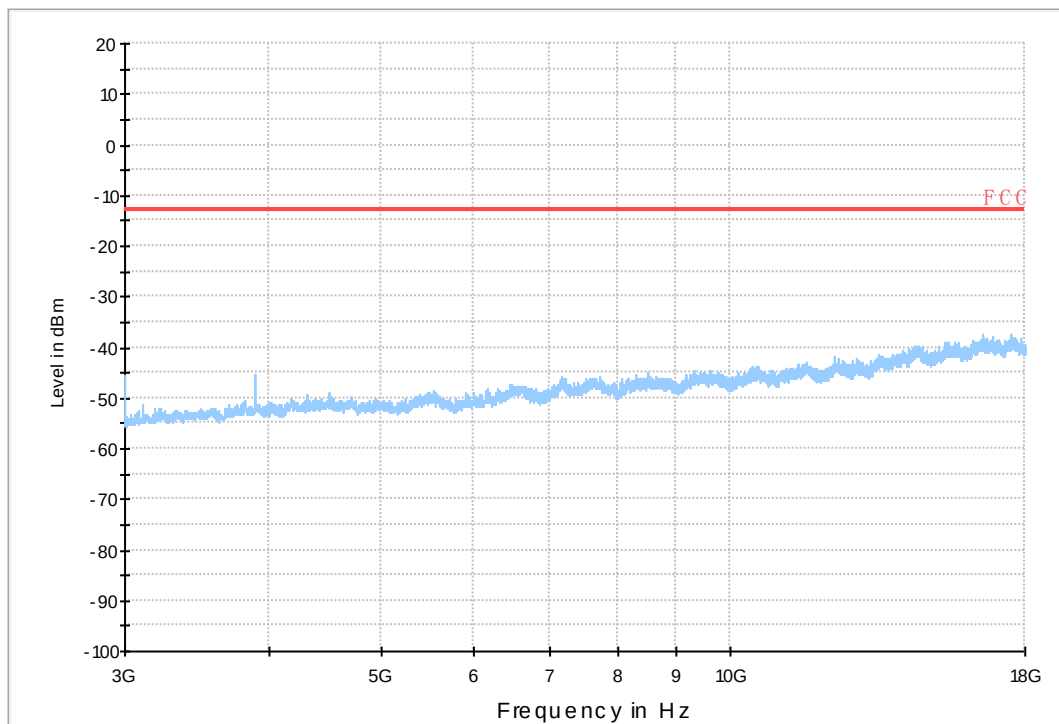
7.1.1.2 Test Bandwidth = 10



Copy of RSE-TX-DIRECTOR BELOW 1G_L



Copy of RSE-TX-DIRECTOR BELOW 1G_H



8Appendix_H: Frequency Stability

8.1 For LTE

8.1.1Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
BAND13	LTE/TM1	5	LCH	TN	VL	0.53	0.00068	PASS
					VN	2.95	0.00378	PASS
					VH	0.9	0.00115	PASS
			MCH	TN	VL	-3.6	-0.0046	PASS
					VN	0.66	0.00084	PASS
					VH	-3.73	-0.00477	PASS
			HCH	TN	VL	-1.89	-0.00241	PASS
					VN	0.16	0.0002	PASS
					VH	-0.36	-0.00046	PASS
		10	LCH	TN	VL	-6.75	-0.00863	PASS
					VN	12.36	0.01581	PASS
					VH	7.28	0.00931	PASS
			MCH	TN	VL	-24.66	-0.03153	PASS
					VN	-26.92	-0.03442	PASS
					VH	-22.47	-0.02873	PASS
			HCH	TN	VL	-19.35	-0.02474	PASS
					VN	-19.03	-0.02434	PASS
					VH	-10.74	-0.01373	PASS
	LTE/TM2	5	LCH	TN	VL	3.85	0.00494	PASS
					VN	1.63	0.00209	PASS
					VH	-1.42	-0.00182	PASS
			MCH	TN	VL	4.09	0.00523	PASS
					VN	2.73	0.00349	PASS
					VH	13.65	0.01746	PASS
			HCH	TN	VL	2.1	0.00268	PASS
					VN	2.59	0.0033	PASS
					VH	-0.09	-0.00011	PASS
		10	LCH	TN	VL	23.49	0.03004	PASS
					VN	-2.13	-0.00272	PASS
					VH	-8.75	-0.01119	PASS
			MCH	TN	VL	-30.94	-0.03957	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
					VN	-12.5	-0.01598	PASS	
					VH	-1.95	-0.00249	PASS	
			HCH		TN	VL	-4.96	-0.00634	PASS
						VN	-1.75	-0.00224	PASS
						VH	-17.67	-0.0226	PASS

8.1.2Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
BAND13	LTE/TM1	5	LCH	VN	-30	3.36	0.00431	PASS
					-20	1.20	0.00154	PASS
					-10	2.06	0.00264	PASS
					0	-1.30	-0.00167	PASS
					10	3.33	0.00427	PASS
					20	-0.10	-0.00013	PASS
					30	0.36	0.00046	PASS
					40	0.67	0.00086	PASS
					50	0.87	0.00112	PASS
			MCH	VN	-30	5.97	0.00763	PASS
					-20	1.00	0.00128	PASS
					-10	-8.31	-0.01063	PASS
					0	-6.37	-0.00815	PASS
					10	7.91	0.01012	PASS
					20	5.11	0.00653	PASS
					30	2.10	0.00269	PASS
					40	0.63	0.00081	PASS
					50	3.05	0.0039	PASS
			HCH	VN	-30	3.00	0.00382	PASS
					-20	0.26	0.00033	PASS
					-10	4.91	0.00626	PASS
					0	1.96	0.0025	PASS
					10	0.26	0.00033	PASS
					20	1.00	0.00127	PASS
					30	5.51	0.00702	PASS
					40	0.97	0.00124	PASS
					50	2.73	0.00348	PASS
		10	LCH	VN	-30	8.37	0.0107	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-20	-0.31	-0.0004	PASS
					-10	-5.12	-0.00655	PASS
					0	-1.24	-0.00159	PASS
					10	-21.21	-0.02712	PASS
					20	-8.33	-0.01065	PASS
					30	25.22	0.03225	PASS
					40	1.22	0.00156	PASS
					50	-16.34	-0.0209	PASS
			MCH	VN	-30	13.66	0.01747	PASS
					-20	9.13	0.01168	PASS
					-10	-7.67	-0.00981	PASS
					0	1.23	0.00157	PASS
					10	0.89	0.00114	PASS
					20	25.95	0.03318	PASS
					30	-17.74	-0.02269	PASS
					40	10.41	0.01331	PASS
					50	12.62	0.01614	PASS
			HCH	VN	-30	14.49	0.01853	PASS
					-20	-5.89	-0.00753	PASS
					-10	-1.46	-0.00187	PASS
					0	18.12	0.02317	PASS
					10	9.97	0.01275	PASS
					20	-2.16	-0.00276	PASS
					30	-12.40	-0.01586	PASS
					40	-26.61	-0.03403	PASS
					50	-28.02	-0.03583	PASS
	LTE/TM2	5	LCH	VN	-30	2.90	0.00372	PASS
					-20	1.70	0.00218	PASS
					-10	-1.76	-0.00226	PASS
					0	2.57	0.0033	PASS
					10	-1.66	-0.00213	PASS
					20	-1.52	-0.00195	PASS
					30	-1.52	-0.00195	PASS
					40	-1.52	-0.00195	PASS
					50	2.15	0.00276	PASS
			MCH	VN	-30	1.30	0.00166	PASS
					-20	3.36	0.0043	PASS
					-10	7.45	0.00953	PASS
					0	-2.46	-0.00315	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					10	0.44	0.00056	PASS
					20	4.12	0.00527	PASS
					30	3.03	0.00387	PASS
					40	3.58	0.00458	PASS
					50	5.09	0.00651	PASS
			HCH	VN	-30	1.66	0.00212	PASS
					-20	-2.36	-0.00301	PASS
					-10	-2.12	-0.0027	PASS
					0	0.76	0.00097	PASS
					10	-2.23	-0.00284	PASS
					20	-0.26	-0.00033	PASS
					30	-3.08	-0.00393	PASS
					40	2.85	0.00363	PASS
					50	-0.82	-0.00105	PASS
		10	LCH	VN	-30	-5.19	-0.00664	PASS
					-20	-12.85	-0.01643	PASS
					-10	14.13	0.01807	PASS
					0	3.60	0.0046	PASS
					10	18.42	0.02355	PASS
					20	4.31	0.00551	PASS
					30	10.53	0.01347	PASS
					40	6.29	0.00804	PASS
					50	0.83	0.00106	PASS
			MCH	VN	-30	2.90	0.00371	PASS
					-20	26.98	0.0345	PASS
					-10	-6.98	-0.00893	PASS
					0	1.77	0.00226	PASS
					10	-4.59	-0.00587	PASS
					20	0.67	0.00086	PASS
					30	-7.51	-0.0096	PASS
					40	-8.77	-0.01121	PASS
					50	6.72	0.00859	PASS
			HCH	VN	-30	-22.52	-0.0288	PASS
					-20	15.51	0.01983	PASS
					-10	0.96	0.00123	PASS
					0	16.69	0.02134	PASS
					10	9.44	0.01207	PASS
					20	-6.07	-0.00776	PASS
					30	-1.83	-0.00234	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					40	-20.57	-0.0263	PASS
					50	-12.69	-0.01623	PASS

END