



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]	ERP [dBm]	Limit [dBm]	Verdict
BAND17	LTE/TM1	5	LCH	RB1#0	22.95	14.05	34.7	PASS
				RB1#13	23.63	14.73	34.7	PASS
				RB1#24	22.93	14.03	34.7	PASS
				RB12#0	21.86	12.96	34.7	PASS
				RB12#6	21.8	12.9	34.7	PASS
				RB12#13	21.46	12.56	34.7	PASS
				RB25#0	21.44	12.54	34.7	PASS
			MCH	RB1#0	22.91	14.01	34.7	PASS
				RB1#13	23.69	14.79	34.7	PASS
				RB1#24	23.19	14.29	34.7	PASS
				RB12#0	21.68	12.78	34.7	PASS
				RB12#6	21.95	13.05	34.7	PASS
				RB12#13	21.95	13.05	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
			HCH	RB25#0	21.7	12.8	34.7	PASS
				RB1#0	23.16	14.26	34.7	PASS
				RB1#13	23.71	14.81	34.7	PASS
				RB1#24	20.83	11.93	34.7	PASS
				RB12#0	22.25	13.35	34.7	PASS
				RB12#6	22.43	13.53	34.7	PASS
				RB12#13	22.26	13.36	34.7	PASS
				RB25#0	22.52	13.62	34.7	PASS
		10	LCH	RB1#0	23.25	14.35	34.7	PASS
				RB1#25	23.81	14.91	34.7	PASS
				RB1#49	23.66	14.76	34.7	PASS
				RB25#0	21.55	12.65	34.7	PASS
				RB25#13	22.17	13.27	34.7	PASS
				RB25#25	22.45	13.55	34.7	PASS
				RB50#0	22.29	13.39	34.7	PASS
			MCH	RB1#0	23.46	14.56	34.7	PASS
				RB1#25	23.82	14.92	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#49	23.65	14.75	34.7	PASS
				RB25#0	22.29	13.39	34.7	PASS
				RB25#13	22.13	13.23	34.7	PASS
				RB25#25	22.55	13.65	34.7	PASS
				RB50#0	22.23	13.33	34.7	PASS
			HCH	RB1#0	23.49	14.59	34.7	PASS
				RB1#25	23.89	14.99	34.7	PASS
				RB1#49	23.56	14.66	34.7	PASS
				RB25#0	21.91	13.01	34.7	PASS
				RB25#13	22.6	13.7	34.7	PASS
				RB25#25	22.73	13.83	34.7	PASS
				RB50#0	22.38	13.48	34.7	PASS
	LTE/TM2	5	LCH	RB1#0	21.89	12.99	34.7	PASS
				RB1#13	22.6	13.7	34.7	PASS
				RB1#24	21.61	12.71	34.7	PASS
				RB12#0	20.89	11.99	34.7	PASS
				RB12#6	21.17	12.27	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB12#13	20.85	11.95	34.7	PASS
				RB25#0	20.8	11.9	34.7	PASS
			MCH	RB1#0	21.57	12.67	34.7	PASS
				RB1#13	22.44	13.54	34.7	PASS
				RB1#24	22.25	13.35	34.7	PASS
				RB12#0	21.04	12.14	34.7	PASS
				RB12#6	21.3	12.4	34.7	PASS
				RB12#13	21.3	12.4	34.7	PASS
				RB25#0	21.07	12.17	34.7	PASS
			HCH	RB1#0	22.1	13.2	34.7	PASS
				RB1#13	22.68	13.78	34.7	PASS
				RB1#24	19.5	10.6	34.7	PASS
				RB12#0	21.26	12.36	34.7	PASS
				RB12#6	21.78	12.88	34.7	PASS
				RB12#13	21.35	12.45	34.7	PASS
				RB25#0	21.66	12.76	34.7	PASS
		10	LCH	RB1#0	22.39	13.49	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#25	22.62	13.72	34.7	PASS
				RB1#49	22.8	13.9	34.7	PASS
				RB25#0	20.95	12.05	34.7	PASS
				RB25#13	21.29	12.39	34.7	PASS
				RB25#25	21.23	12.33	34.7	PASS
				RB50#0	21.08	12.18	34.7	PASS
			MCH	RB1#0	22.38	13.48	34.7	PASS
				RB1#25	22.72	13.82	34.7	PASS
				RB1#49	22.64	13.74	34.7	PASS
				RB25#0	21.12	12.22	34.7	PASS
				RB25#13	21.28	12.38	34.7	PASS
				RB25#25	21.34	12.44	34.7	PASS
				RB50#0	21.04	12.14	34.7	PASS
			HCH	RB1#0	22.46	13.56	34.7	PASS
				RB1#25	22.37	13.47	34.7	PASS
				RB1#49	22.6	13.7	34.7	PASS
				RB25#0	21.07	12.17	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#13	21.44	12.54	34.7	PASS
				RB25#25	21.88	12.98	34.7	PASS
				RB50#0	21.19	12.29	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: RBW > emission bandwidth, VBW > 3 x RBW.

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
BAND17	LTE/TM1	5	LCH	RB1#0	4.78	13	PASS
				RB1#13	4.5	13	PASS
				RB1#24	4.59	13	PASS
				RB12#0	6.14	13	PASS
				RB12#6	5.82	13	PASS
				RB12#13	5.75	13	PASS
				RB25#0	5.83	13	PASS
			MCH	RB1#0	4.73	13	PASS
				RB1#13	4.02	13	PASS
				RB1#24	4.5	13	PASS
				RB12#0	5.63	13	PASS
				RB12#6	5.45	13	PASS
				RB12#13	5.5	13	PASS
				RB25#0	6.05	13	PASS
			HCH	RB1#0	4.42	13	PASS
				RB1#13	4.28	13	PASS
				RB1#24	5.2	13	PASS
				RB12#0	5.9	13	PASS
				RB12#6	5.82	13	PASS
				RB12#13	5.96	13	PASS
				RB25#0	6.27	13	PASS
		10	LCH	RB1#0	4.63	13	PASS
				RB1#25	3.92	13	PASS
				RB1#49	4.36	13	PASS
				RB25#0	6.04	13	PASS
				RB25#13	5.47	13	PASS
				RB25#25	5.78	13	PASS
				RB50#0	6.02	13	PASS
			MCH	RB1#0	4.59	13	PASS
				RB1#25	3.85	13	PASS
				RB1#49	4.47	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	6.08	13	PASS
				RB25#13	5.62	13	PASS
				RB25#25	5.91	13	PASS
				RB50#0	5.84	13	PASS
			HCH	RB1#0	4.6	13	PASS
				RB1#25	3.97	13	PASS
				RB1#49	4.56	13	PASS
				RB25#0	5.91	13	PASS
				RB25#13	5.74	13	PASS
				RB25#25	5.97	13	PASS
				RB50#0	5.91	13	PASS
	LTE/TM2	5	LCH	RB1#0	6.05	13	PASS
				RB1#13	5.58	13	PASS
				RB1#24	5.61	13	PASS
				RB12#0	6.38	13	PASS
				RB12#6	6.36	13	PASS
				RB12#13	6.47	13	PASS
				RB25#0	6.86	13	PASS
			MCH	RB1#0	5.83	13	PASS
				RB1#13	5.36	13	PASS
				RB1#24	5.81	13	PASS
				RB12#0	6.36	13	PASS
				RB12#6	6.04	13	PASS
				RB12#13	6.21	13	PASS
				RB25#0	6.4	13	PASS
			HCH	RB1#0	5.66	13	PASS
				RB1#13	5.5	13	PASS
				RB1#24	6.19	13	PASS
				RB12#0	6.23	13	PASS
				RB12#6	6.38	13	PASS
				RB12#13	6.61	13	PASS
				RB25#0	6.66	13	PASS
		10	LCH	RB1#0	6.25	13	PASS
				RB1#25	5.41	13	PASS
				RB1#49	5.78	13	PASS
				RB25#0	6.56	13	PASS
				RB25#13	6.14	13	PASS
				RB25#25	6.19	13	PASS
				RB50#0	6.63	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			MCH	RB1#0	6.1	13	PASS
				RB1#25	5.24	13	PASS
				RB1#49	5.94	13	PASS
				RB25#0	6.54	13	PASS
				RB25#13	6.23	13	PASS
				RB25#25	6.31	13	PASS
				RB50#0	6.63	13	PASS
			HCH	RB1#0	5.84	13	PASS
				RB1#25	5.08	13	PASS
				RB1#49	5.68	13	PASS
				RB25#0	6.45	13	PASS
				RB25#13	6.06	13	PASS
				RB25#25	6.31	13	PASS
				RB50#0	6.61	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

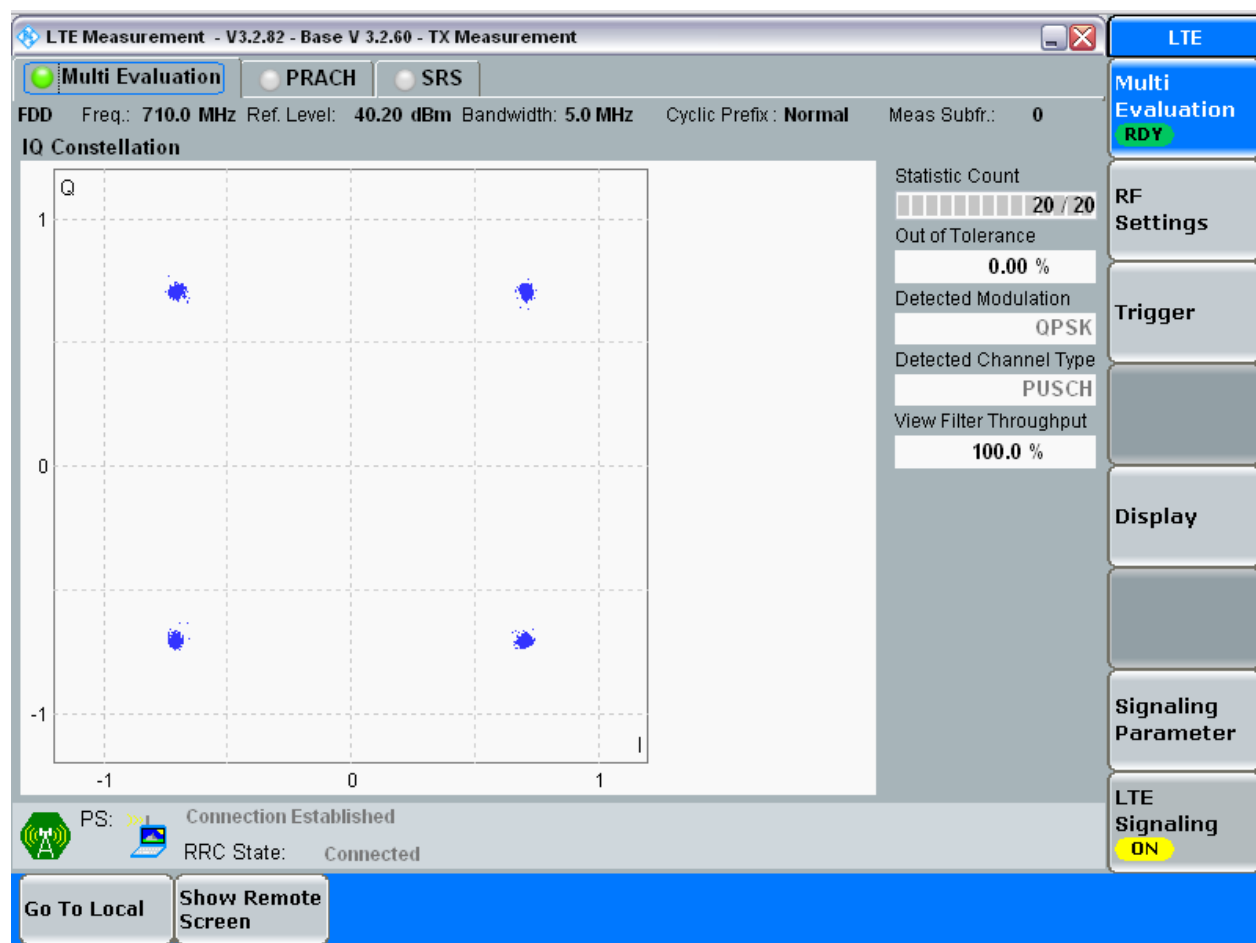
3.1.1 Test Band = BAND17

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

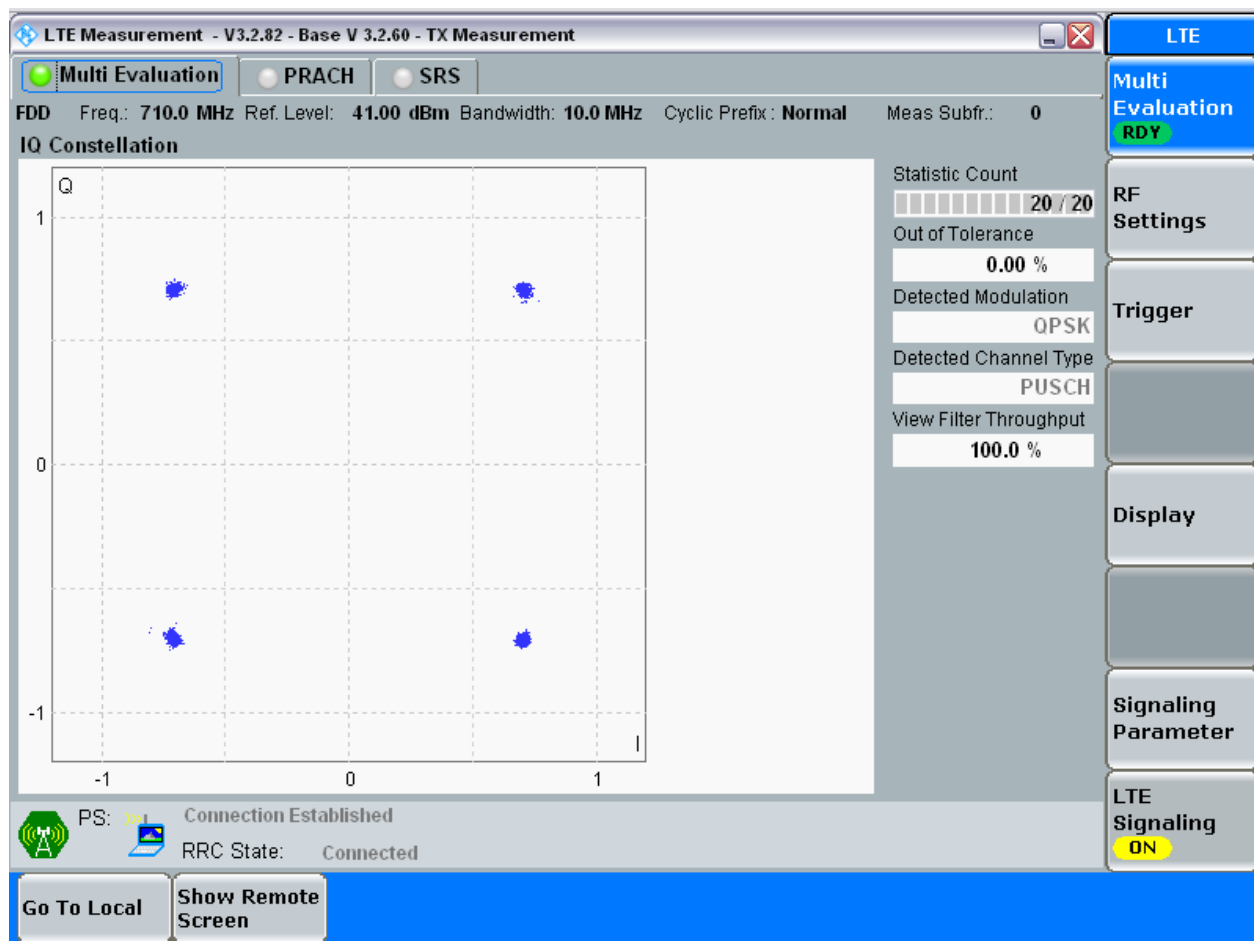
3.1.1.1.1.1.1 Test RB = RB25#0



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

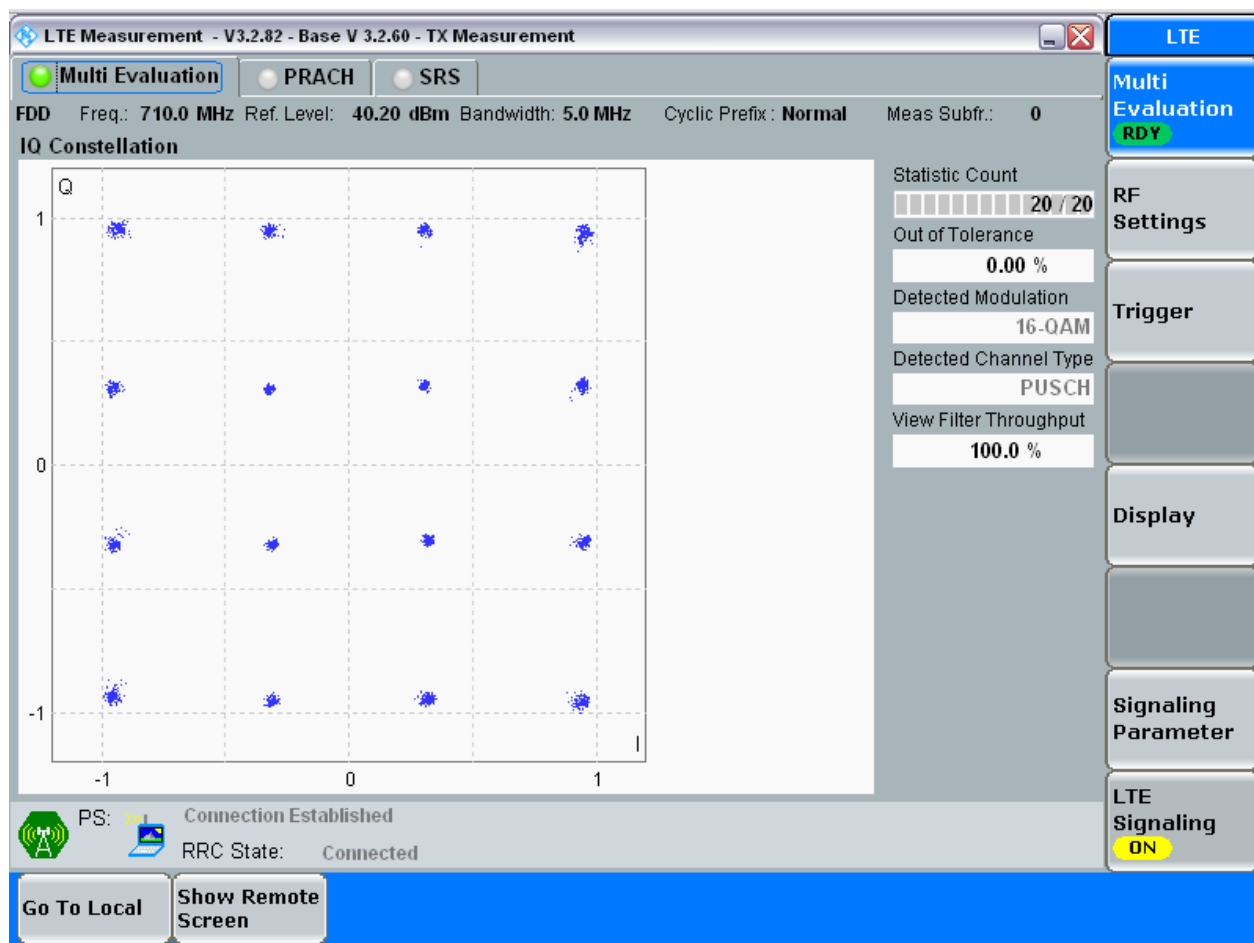


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

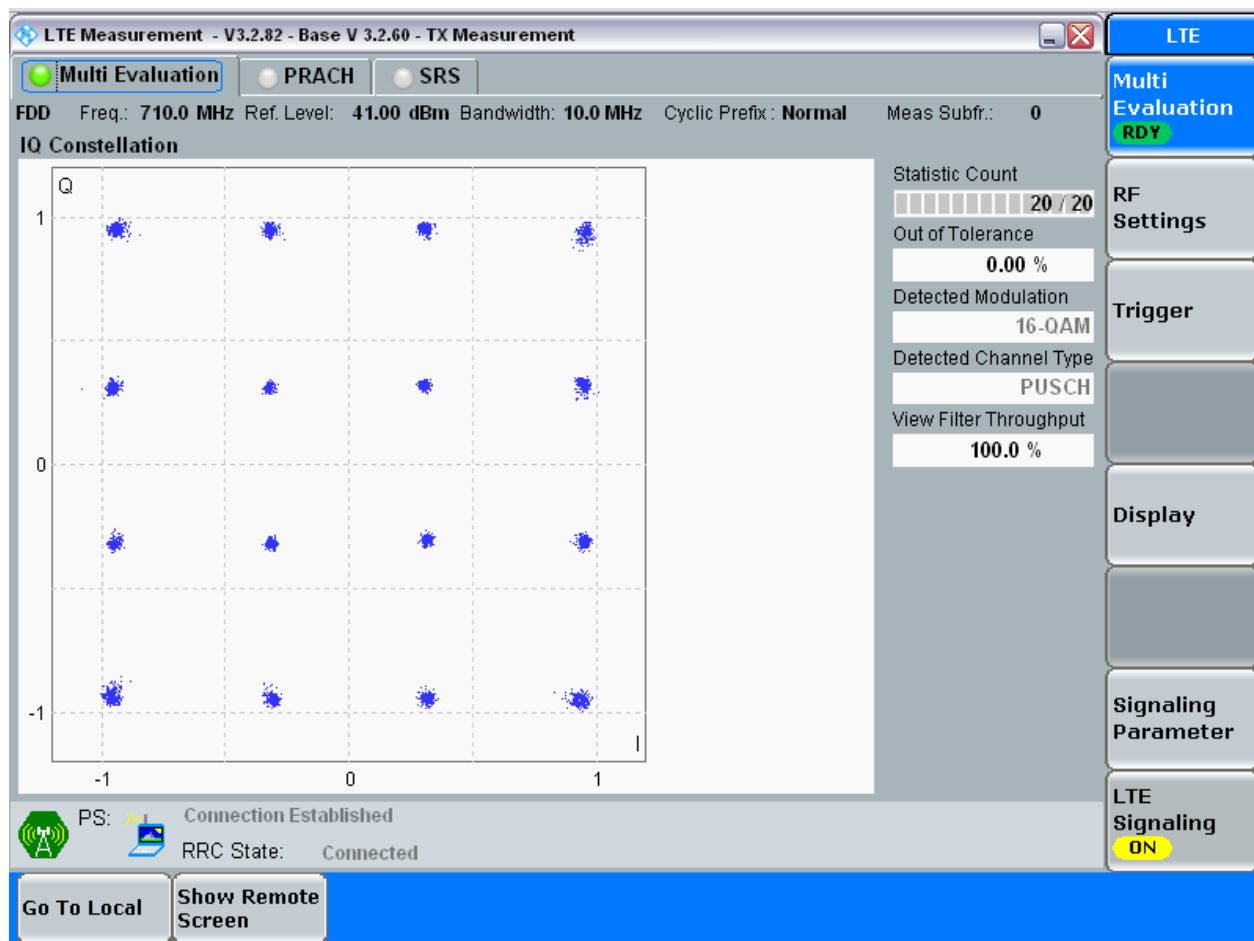
3.1.1.2.1.1.1 Test RB = RB25#0



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
BAND17	LTE/TM1	5	LCH	RB25#0	4.50	4.87	Pass
			MCH	RB25#0	4.49	4.85	Pass
			HCH	RB25#0	4.49	4.87	Pass
		10	LCH	RB50#0	8.97	9.57	Pass
			MCH	RB50#0	8.96	9.58	Pass
			HCH	RB50#0	8.98	9.62	Pass
	LTE/TM2	5	LCH	RB25#0	4.50	4.89	Pass
			MCH	RB25#0	4.49	4.86	Pass
			HCH	RB25#0	4.50	4.86	Pass
		10	LCH	RB50#0	8.96	9.57	Pass
			MCH	RB50#0	8.95	9.55	Pass
			HCH	RB50#0	8.97	9.56	Pass

Part II - Test Plots

4.1 For LTE

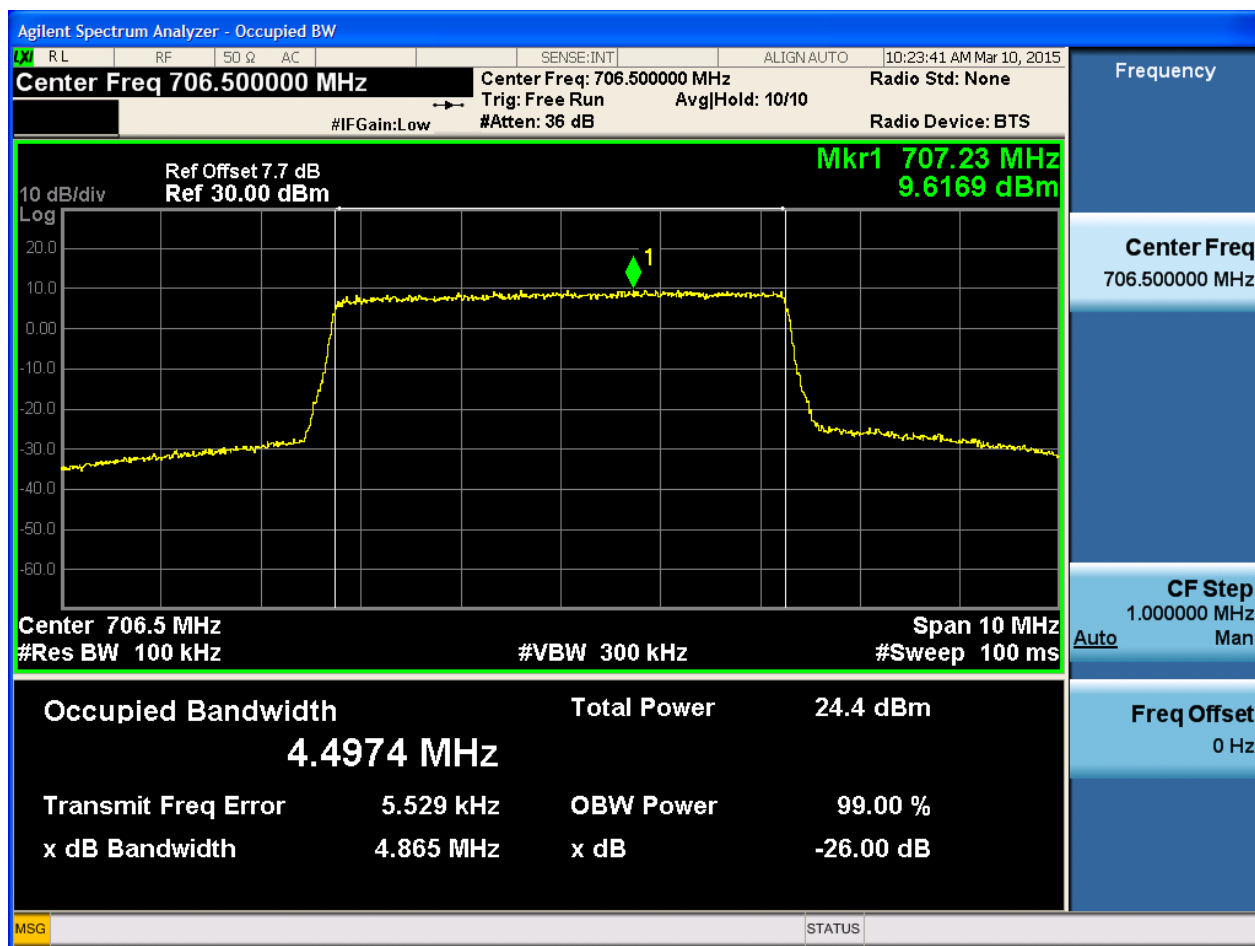
4.1.1 Test Band = BAND17

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

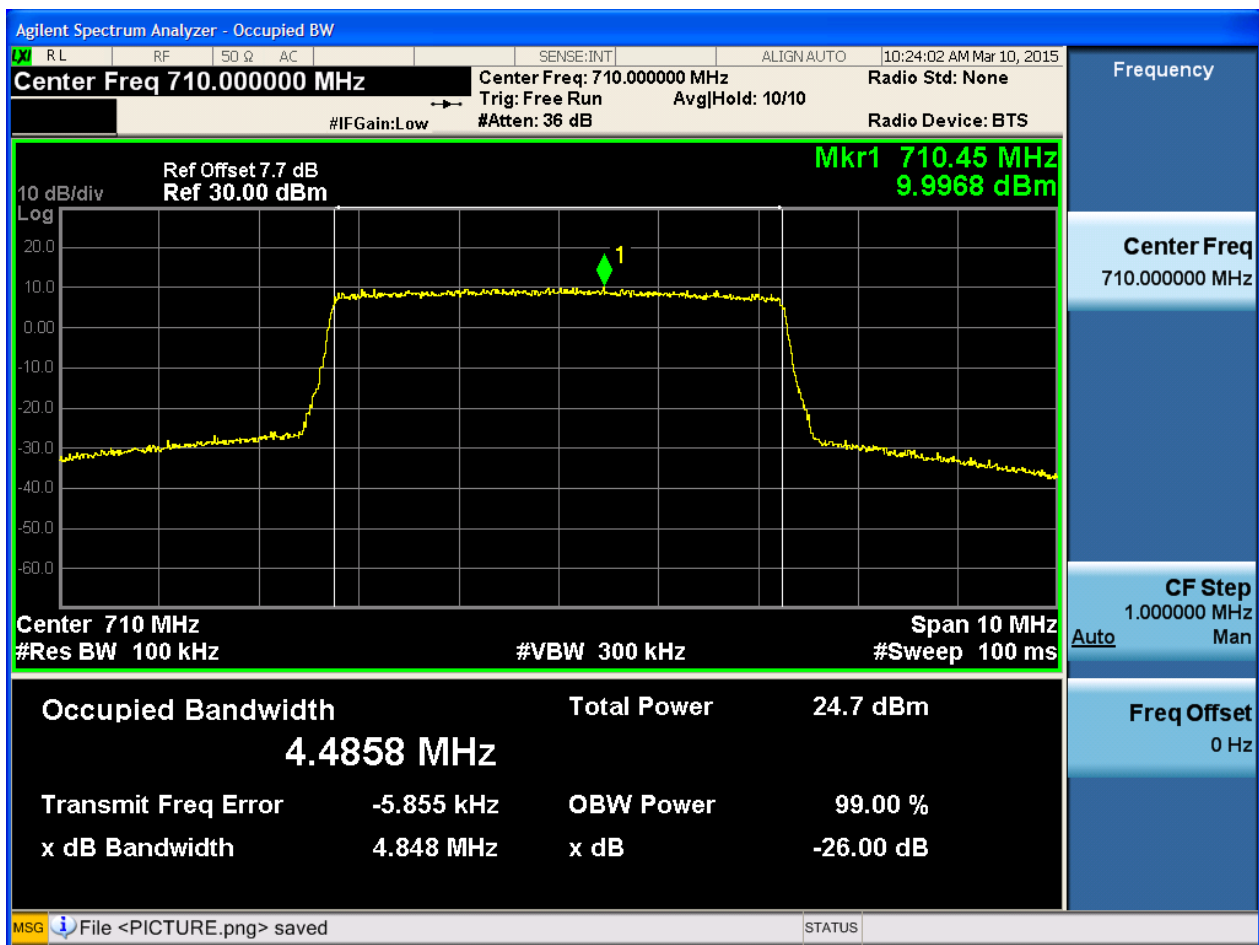
4.1.1.1.1.1.1 Test RB = RB25#0





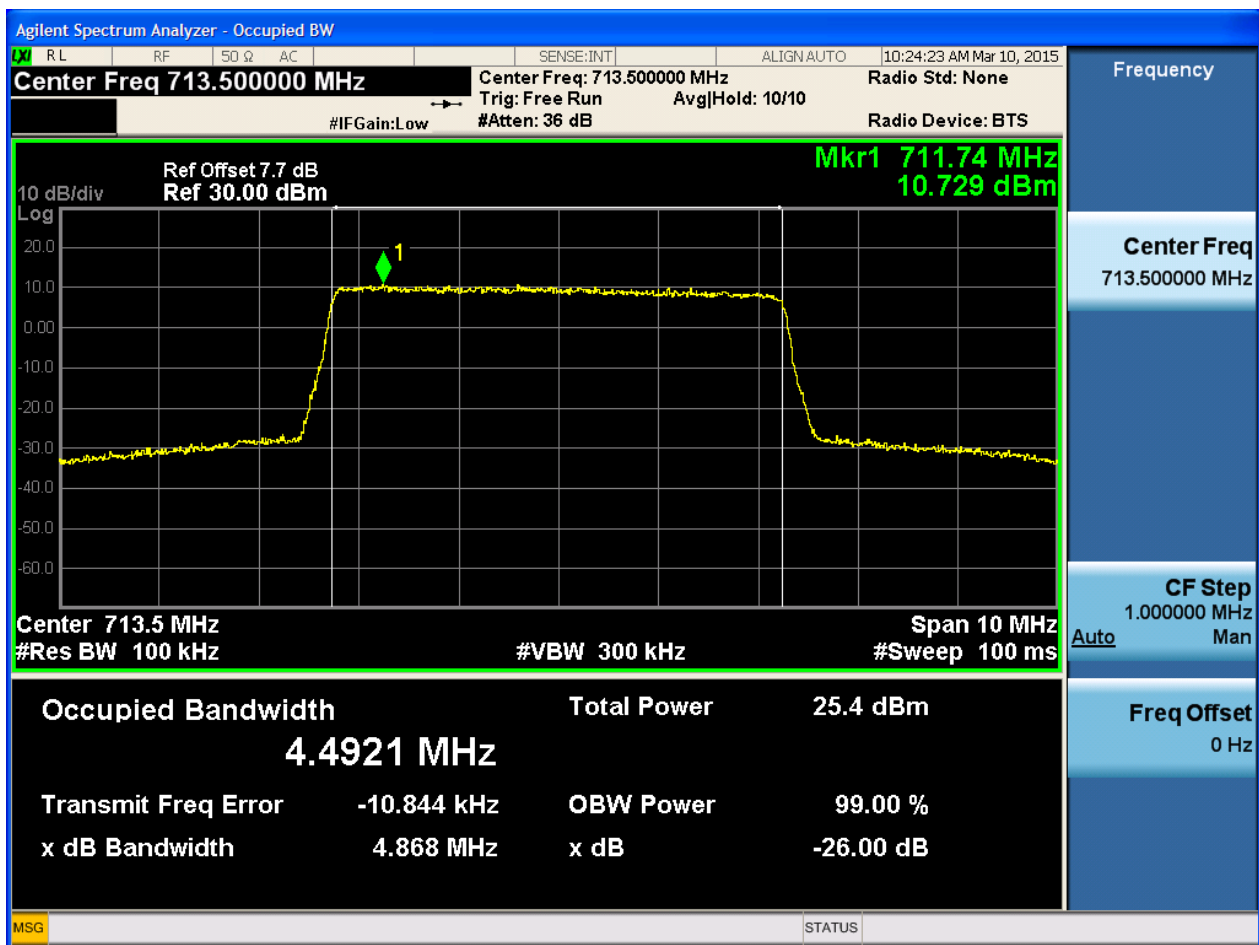
4.1.1.1.1.2 Test Channel = MCH

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

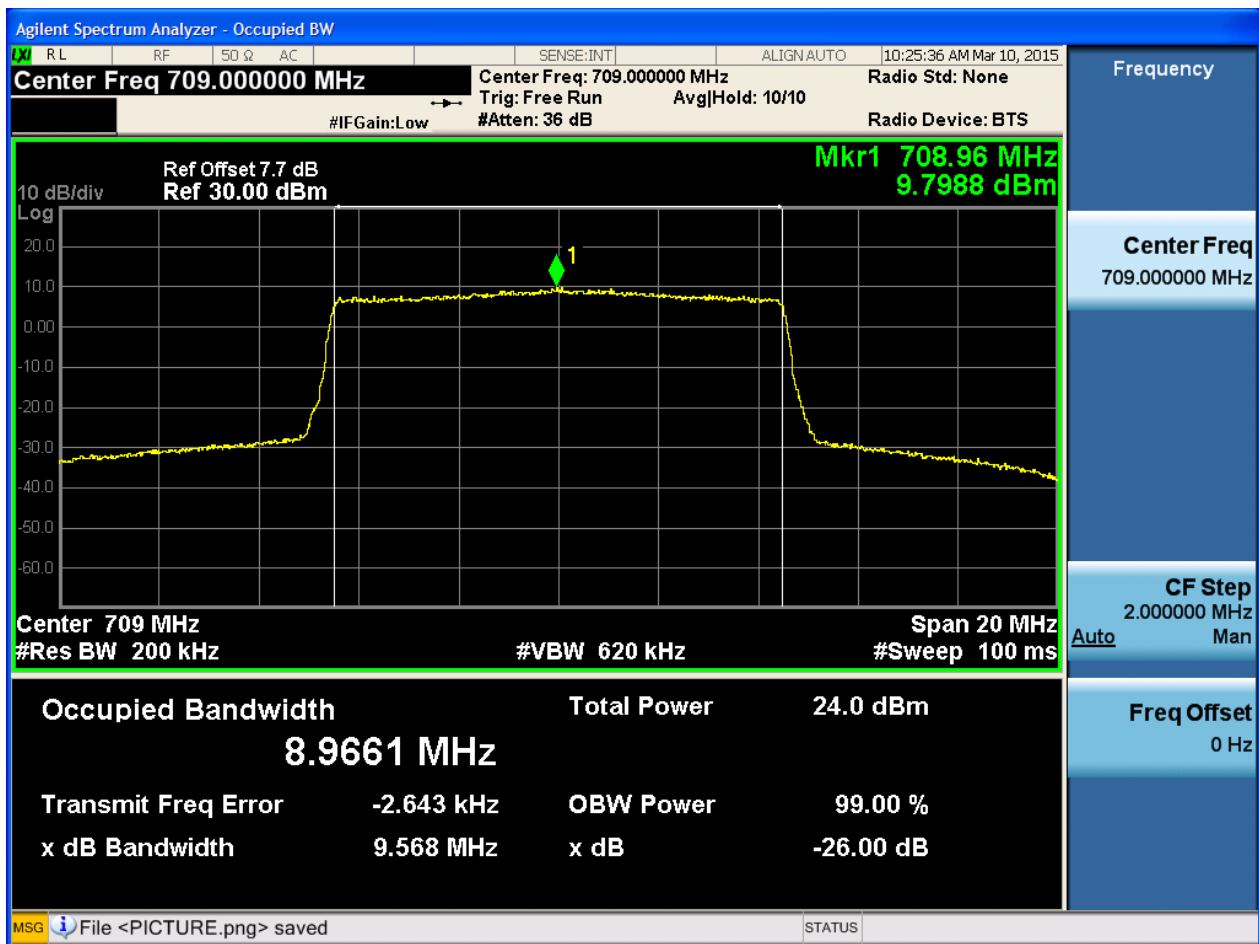




4.1.1.1.2 Test Bandwidth = 10

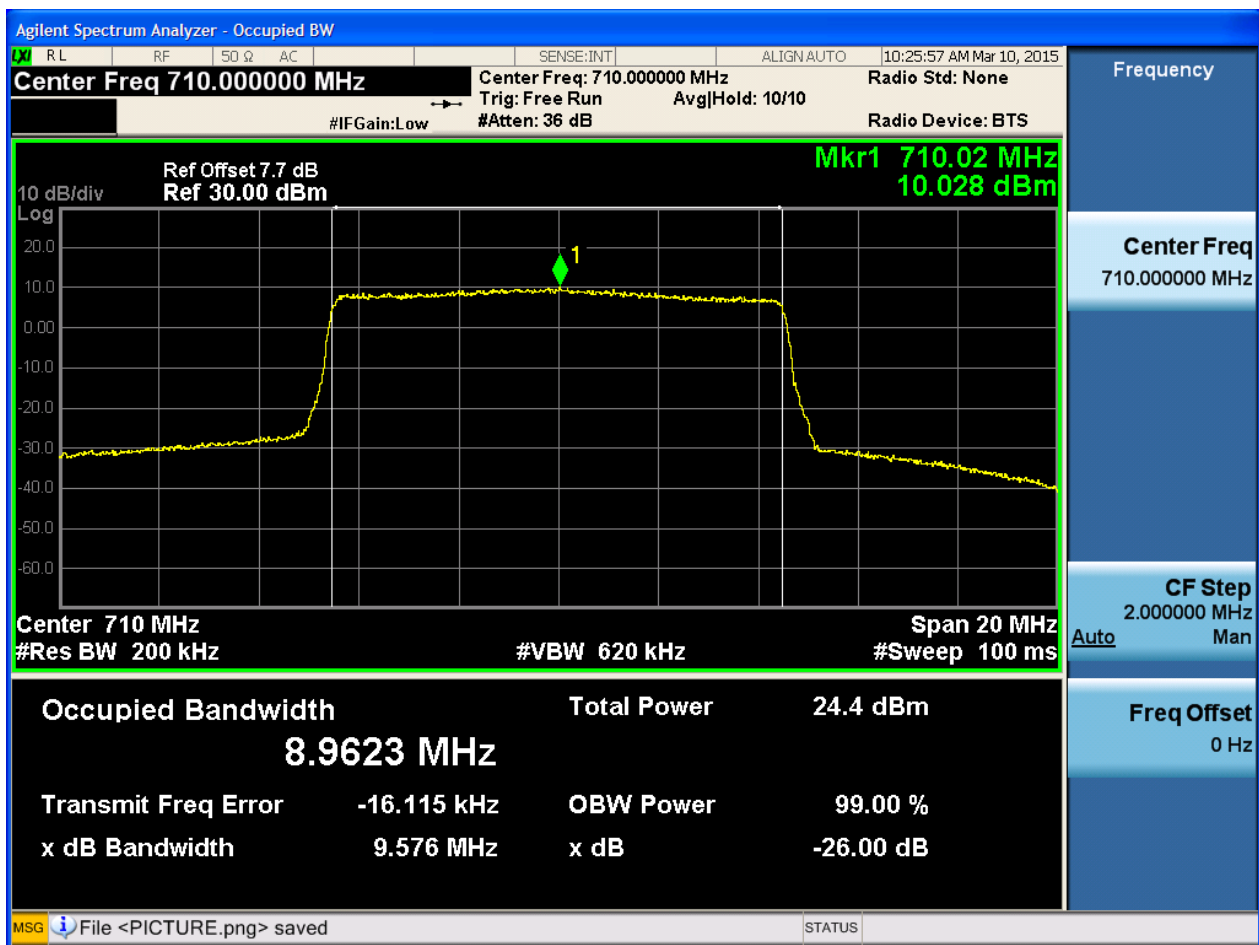
4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB50#0



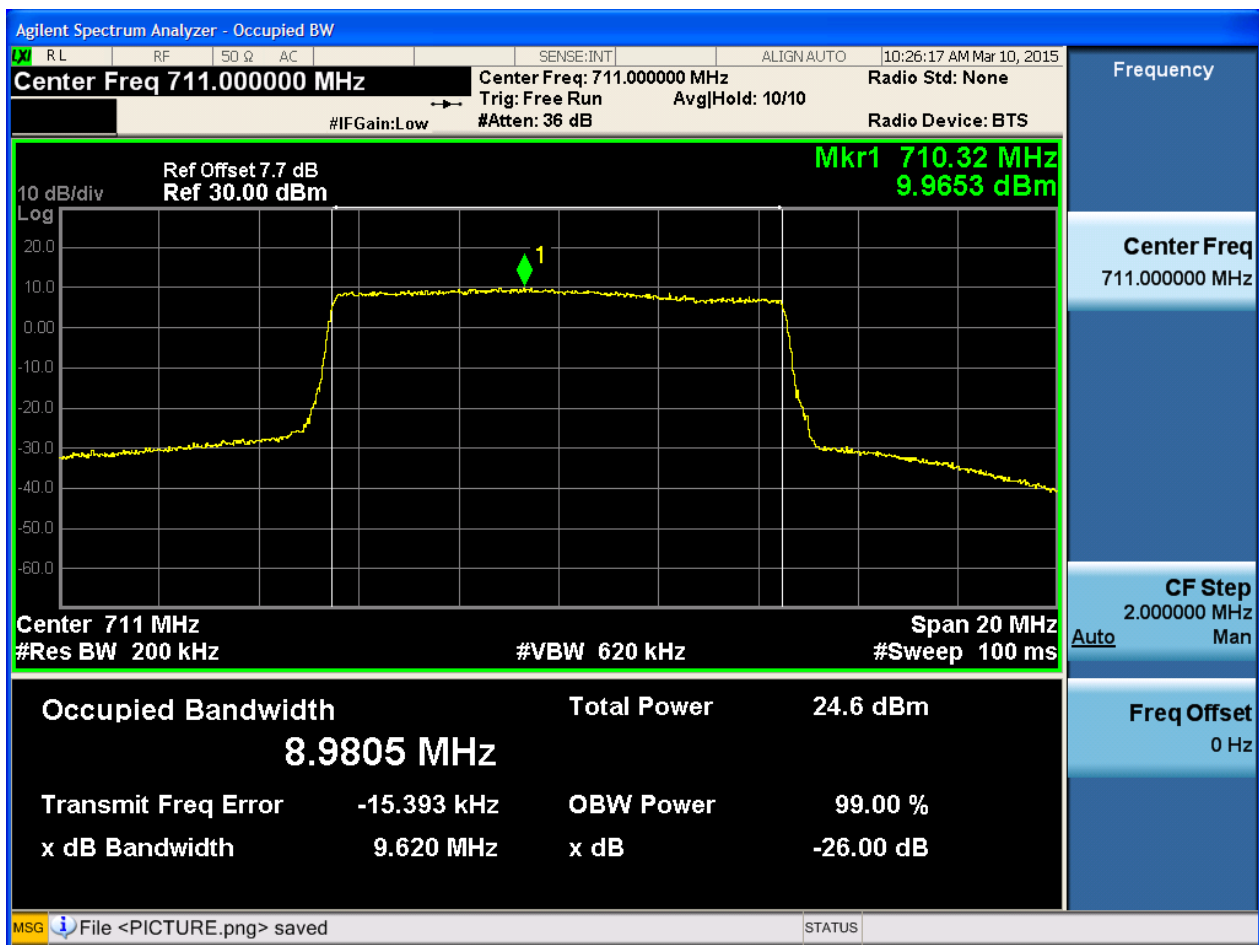
4.1.1.1.2.2 Test Channel = MCH

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



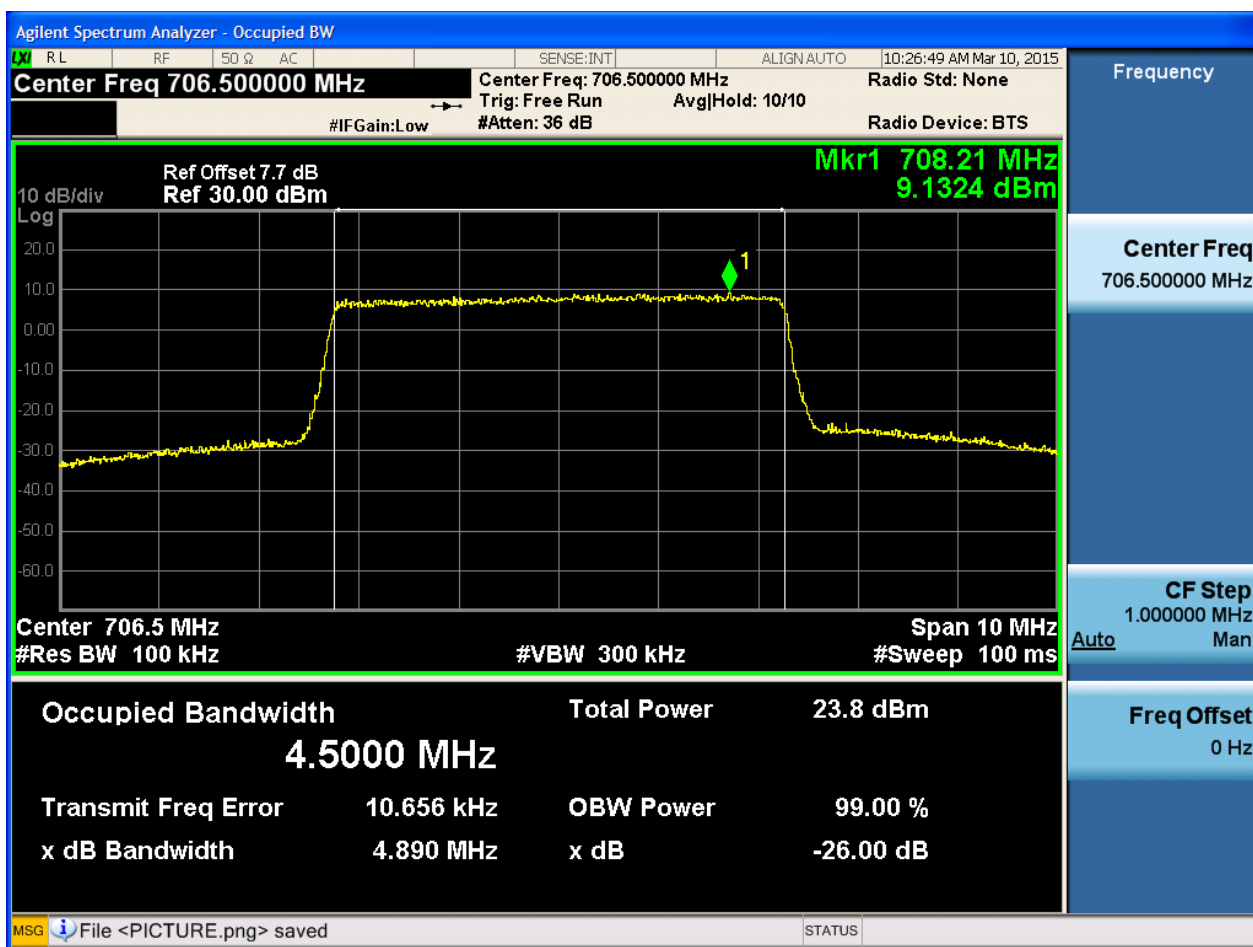


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

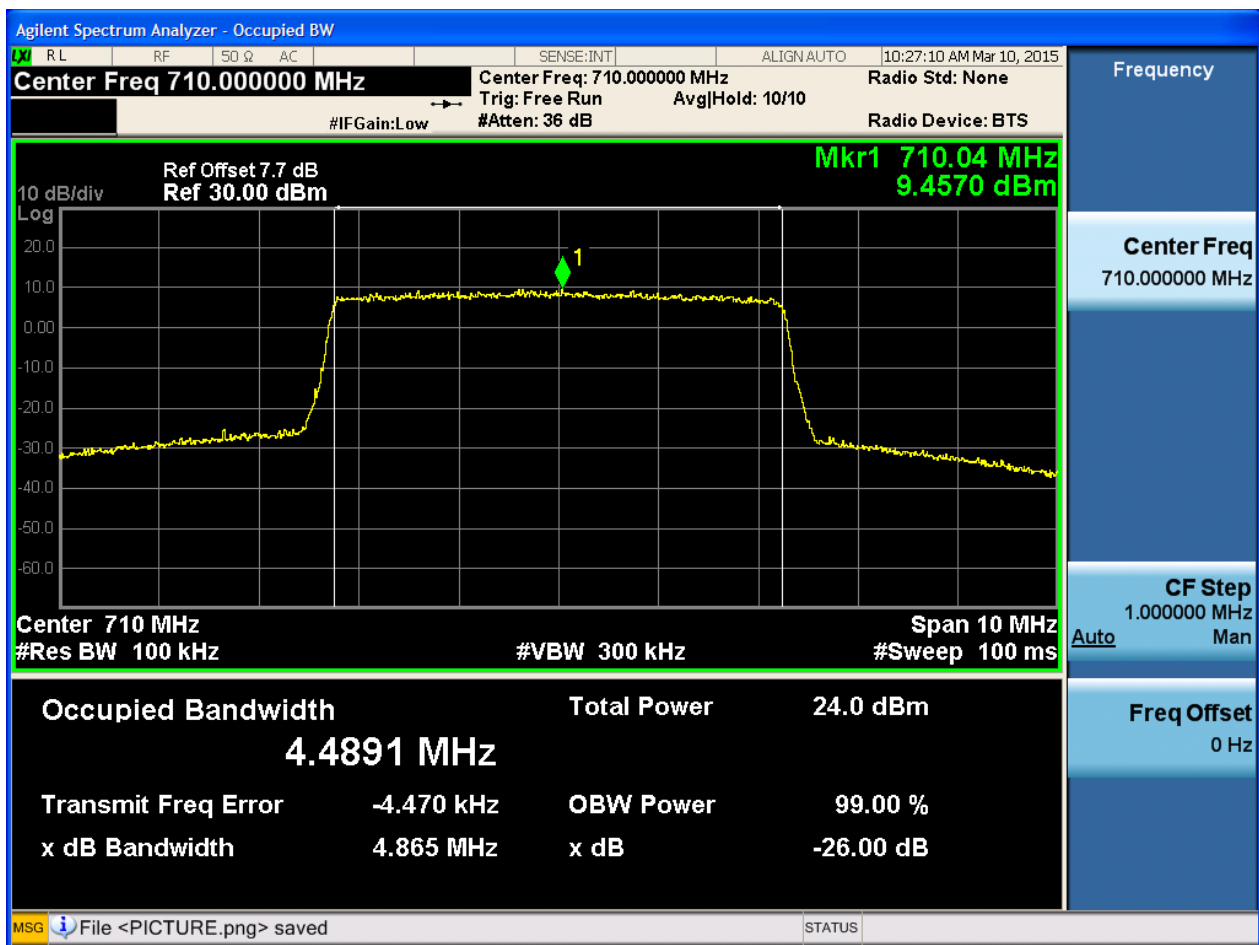
4.1.1.2.1.1.1 Test RB = RB25#0





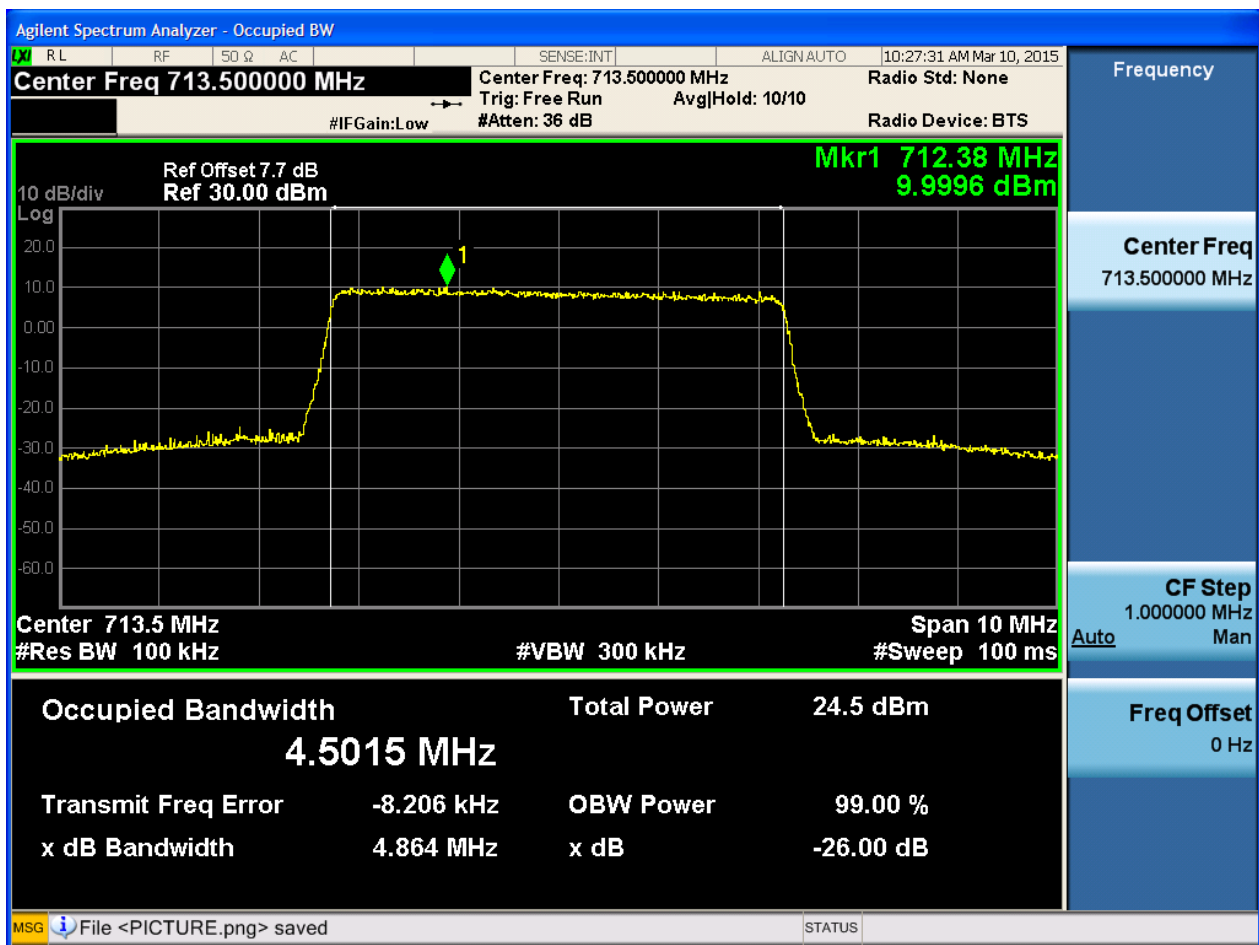
4.1.1.2.1.2 Test Channel = MCH

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

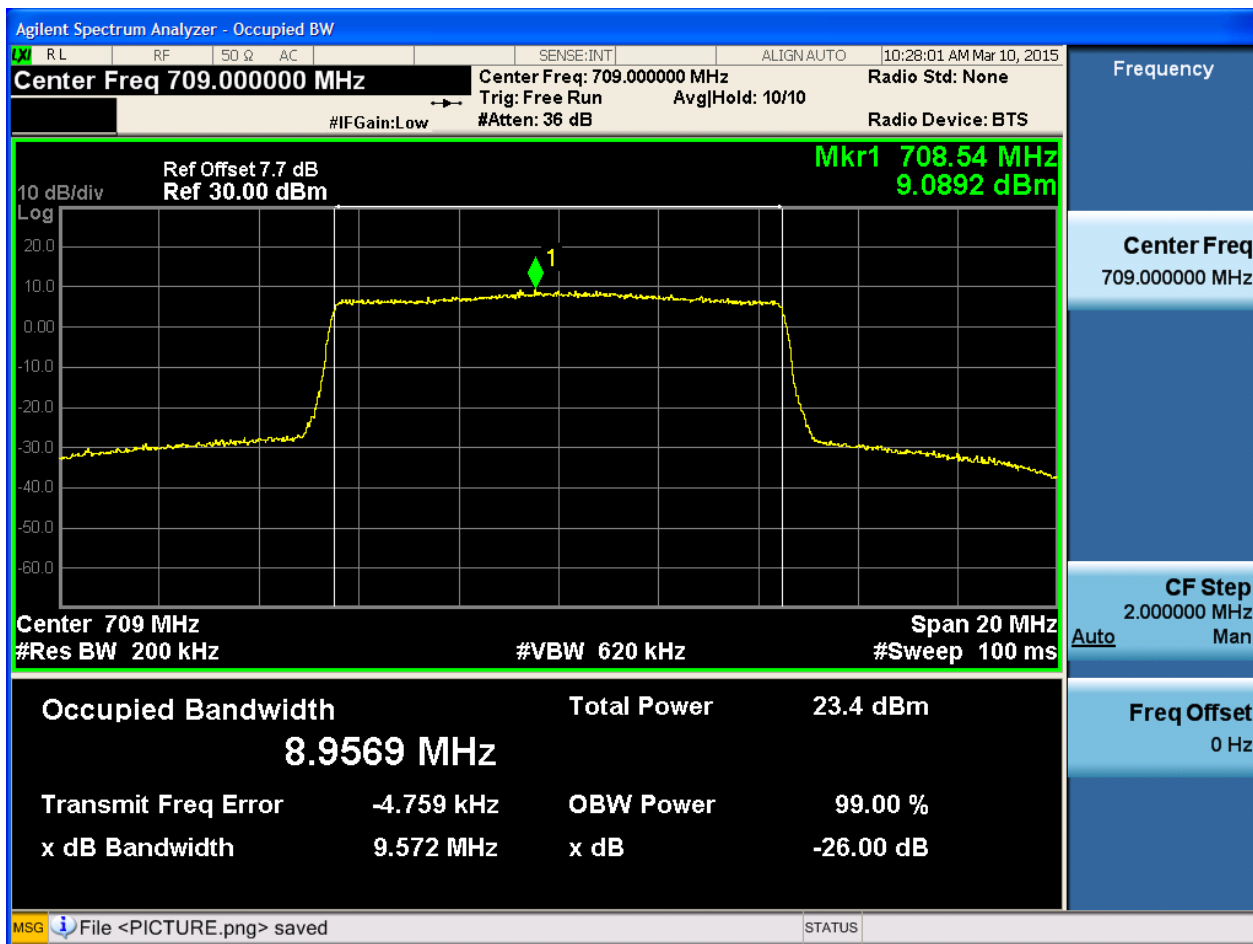




4.1.1.2.2 Test Bandwidth = 10

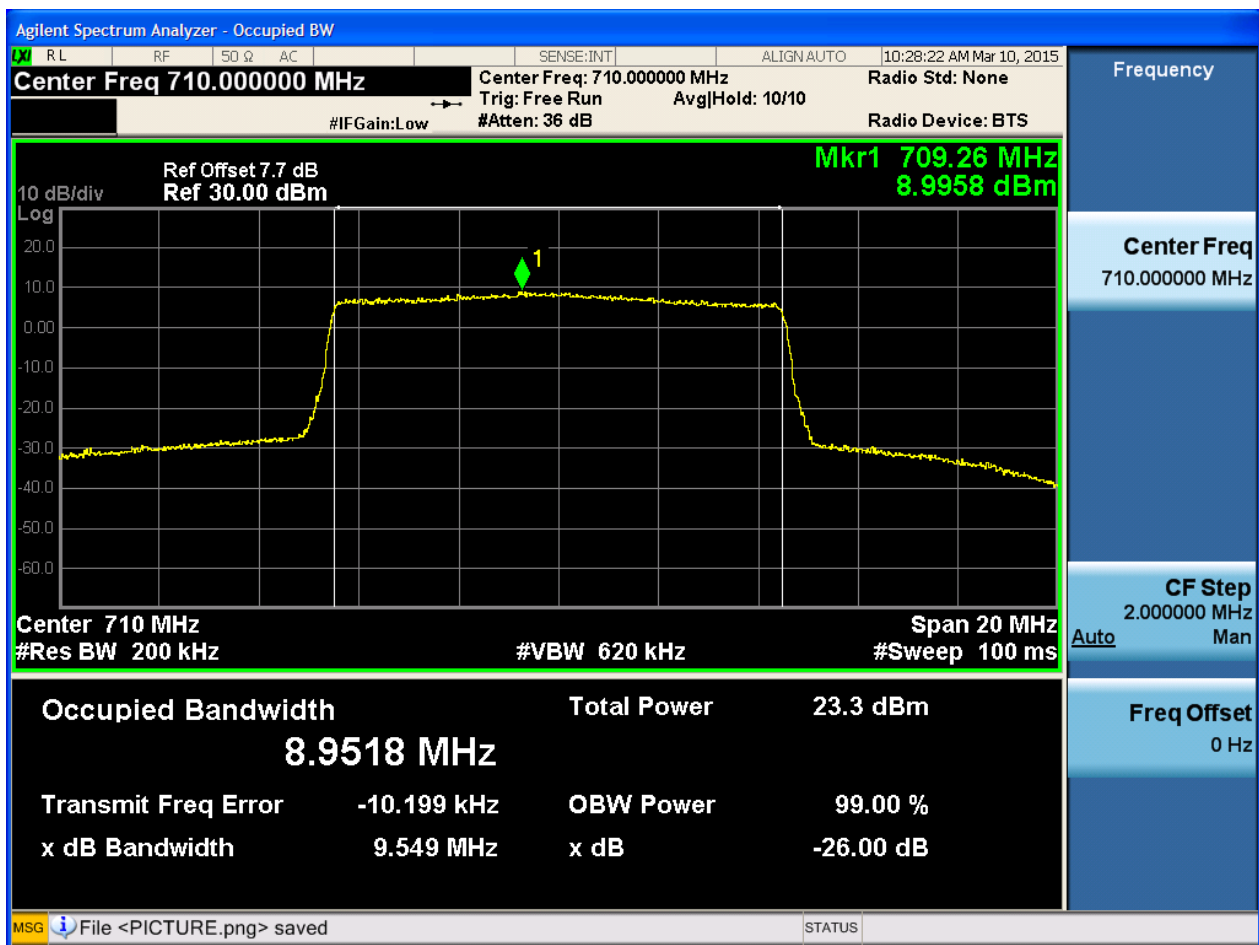
4.1.1.2.2.1 Test Channel = LCH

4.1.1.2.2.1.1 Test RB = RB50#0



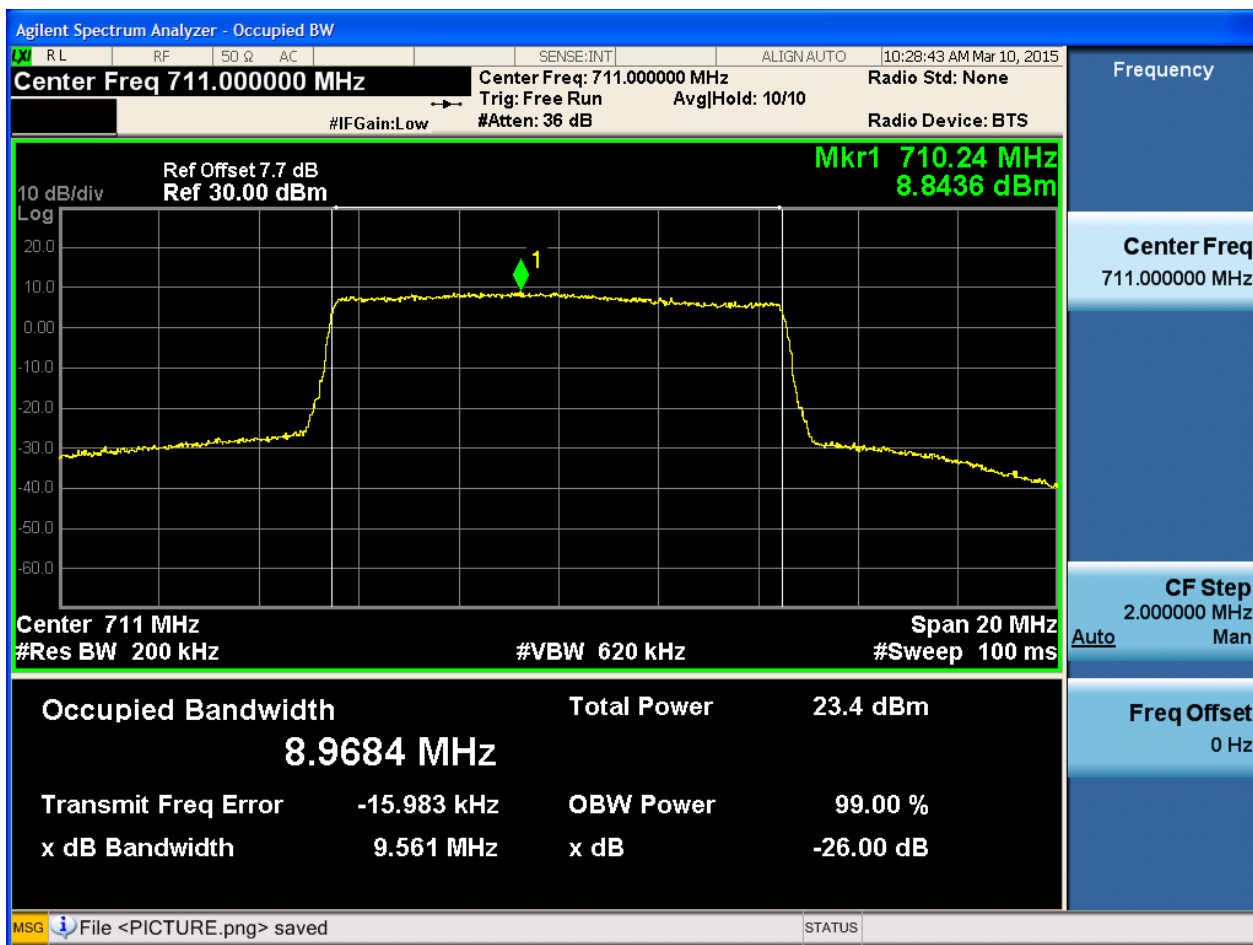
4.1.1.2.2.2 Test Channel = MCH

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

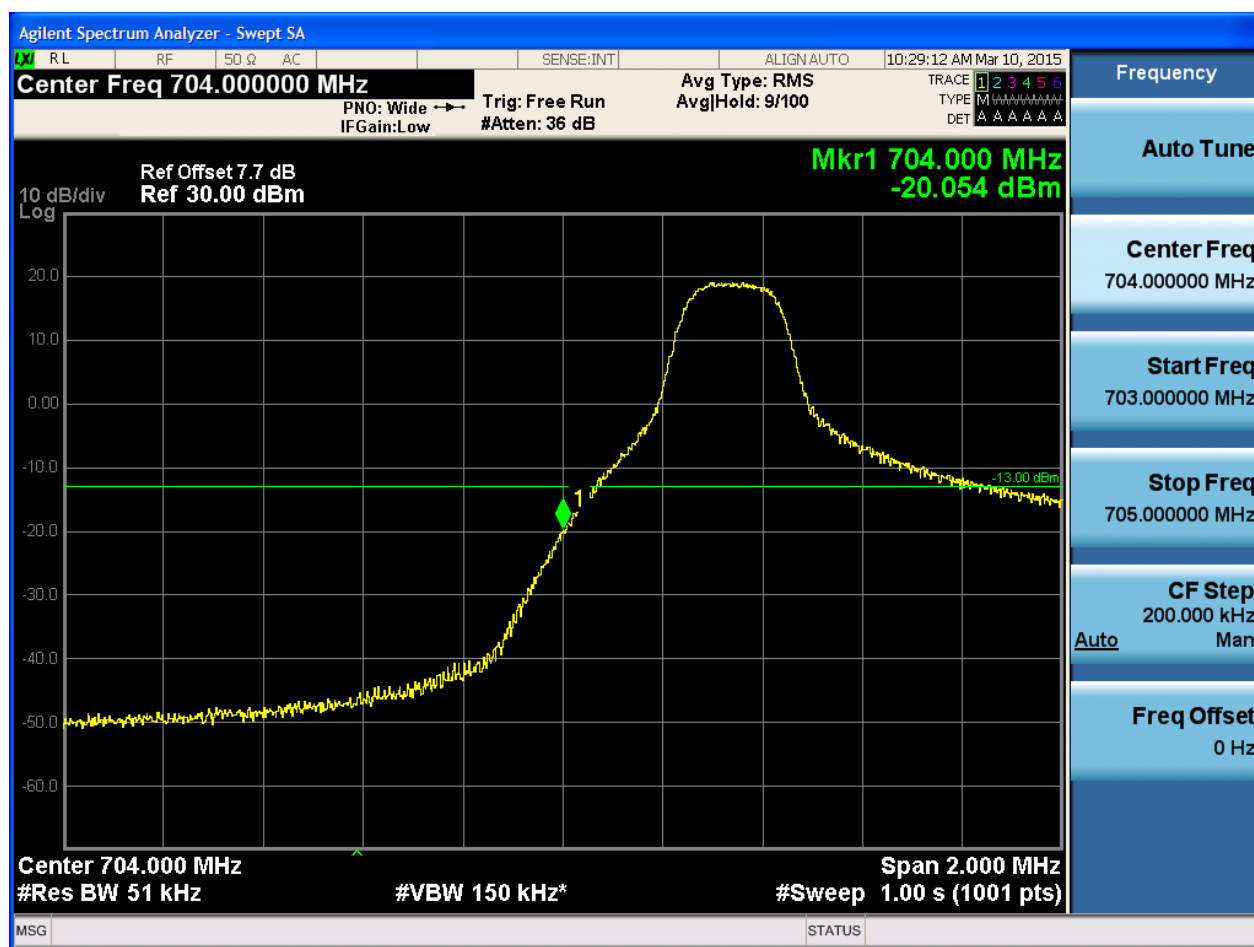
5.1.1 Test Band = BAND17

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

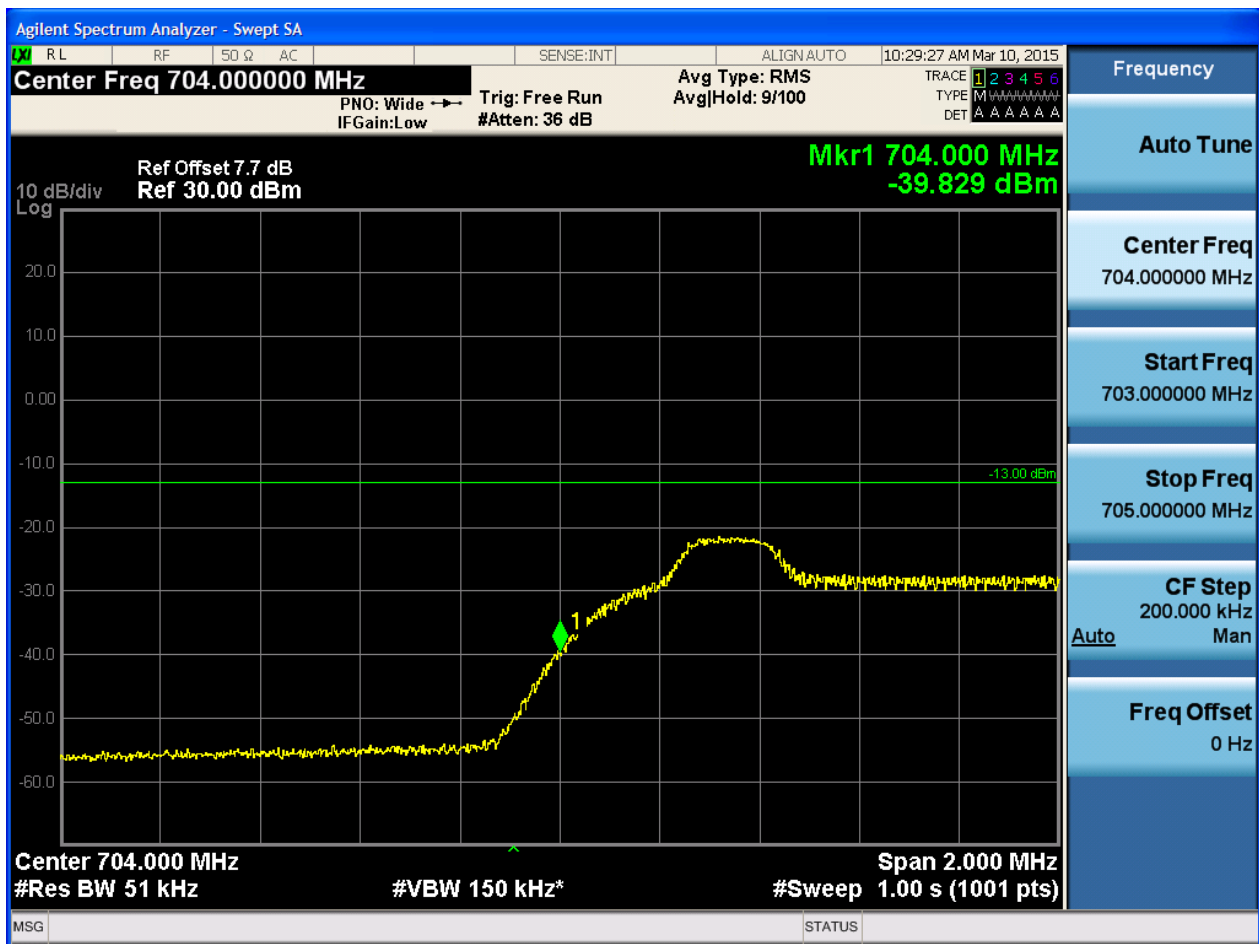
5.1.1.1.1.1 Test Channel = LCH

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



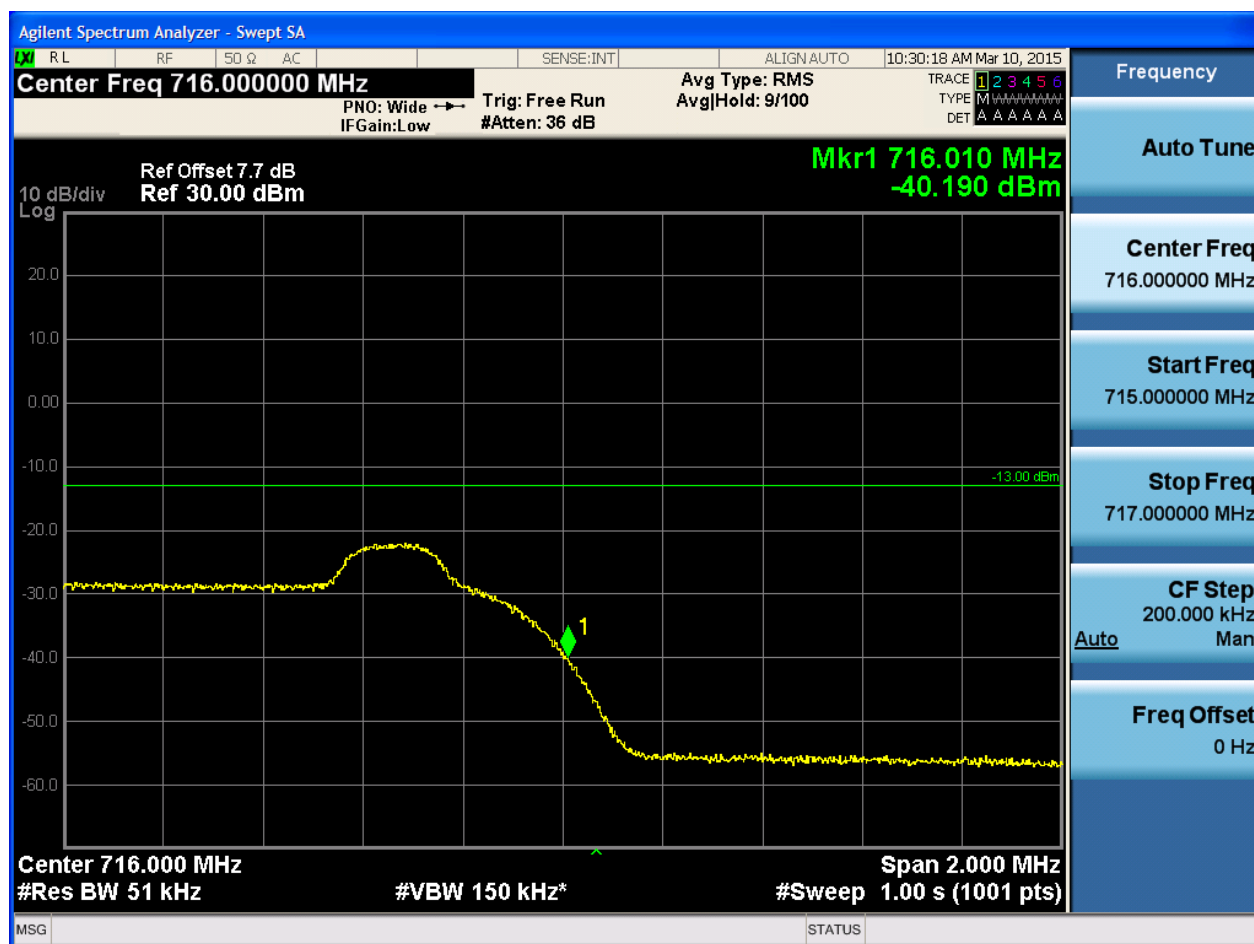


5.1.1.1.1.4 Test RB = RB25#0

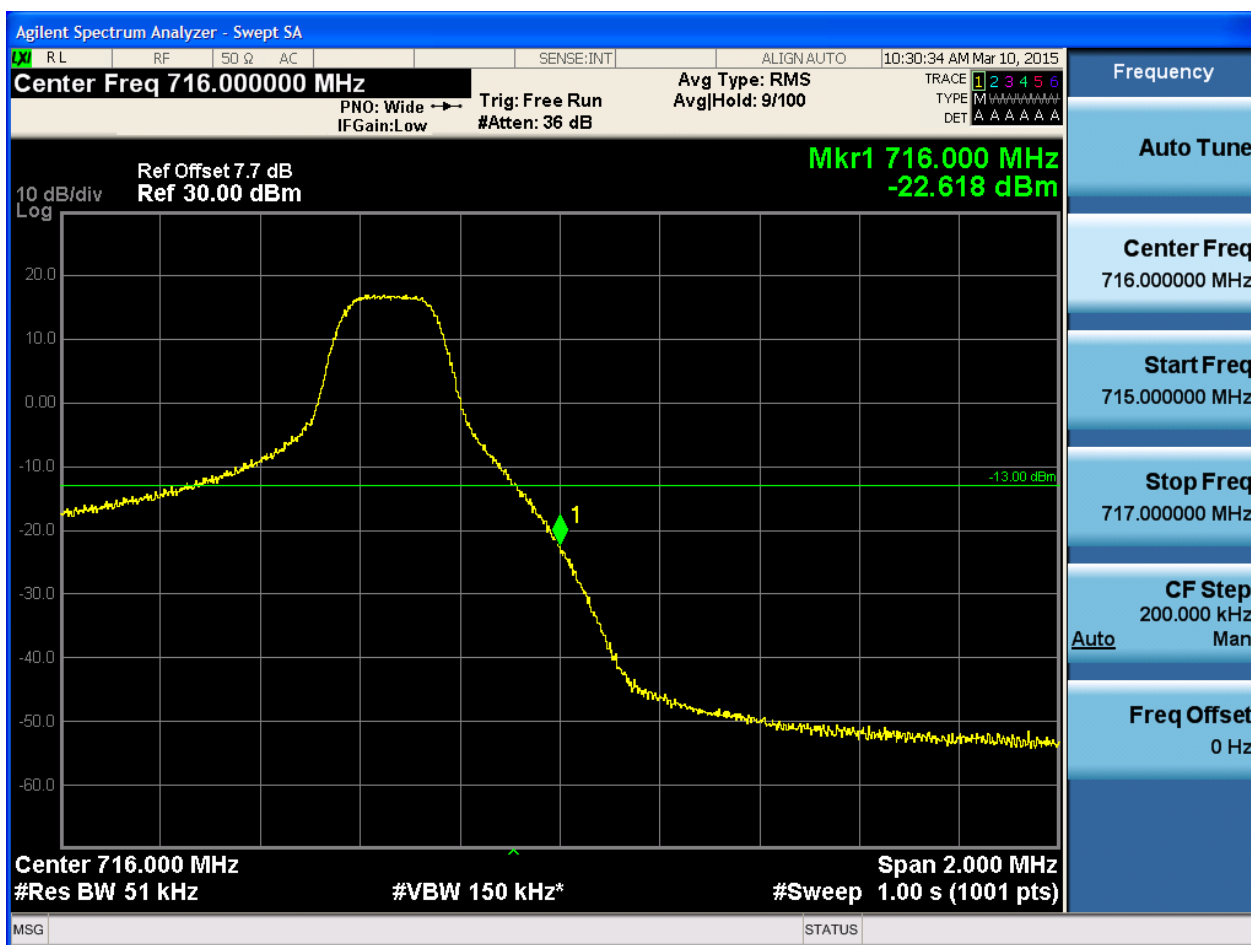


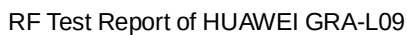
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



5.1.1.1.1.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 10:30:49 AM Mar 10, 2015

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide Trig: Free Run Avg/Hold: 9/100
IFGain: Low #Atten: 36 dB

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

Ref Offset 7.7 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-33.610 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*
Span 2.000 MHz
#Sweep 1.00 s (1001 pts)

MSG STATUS



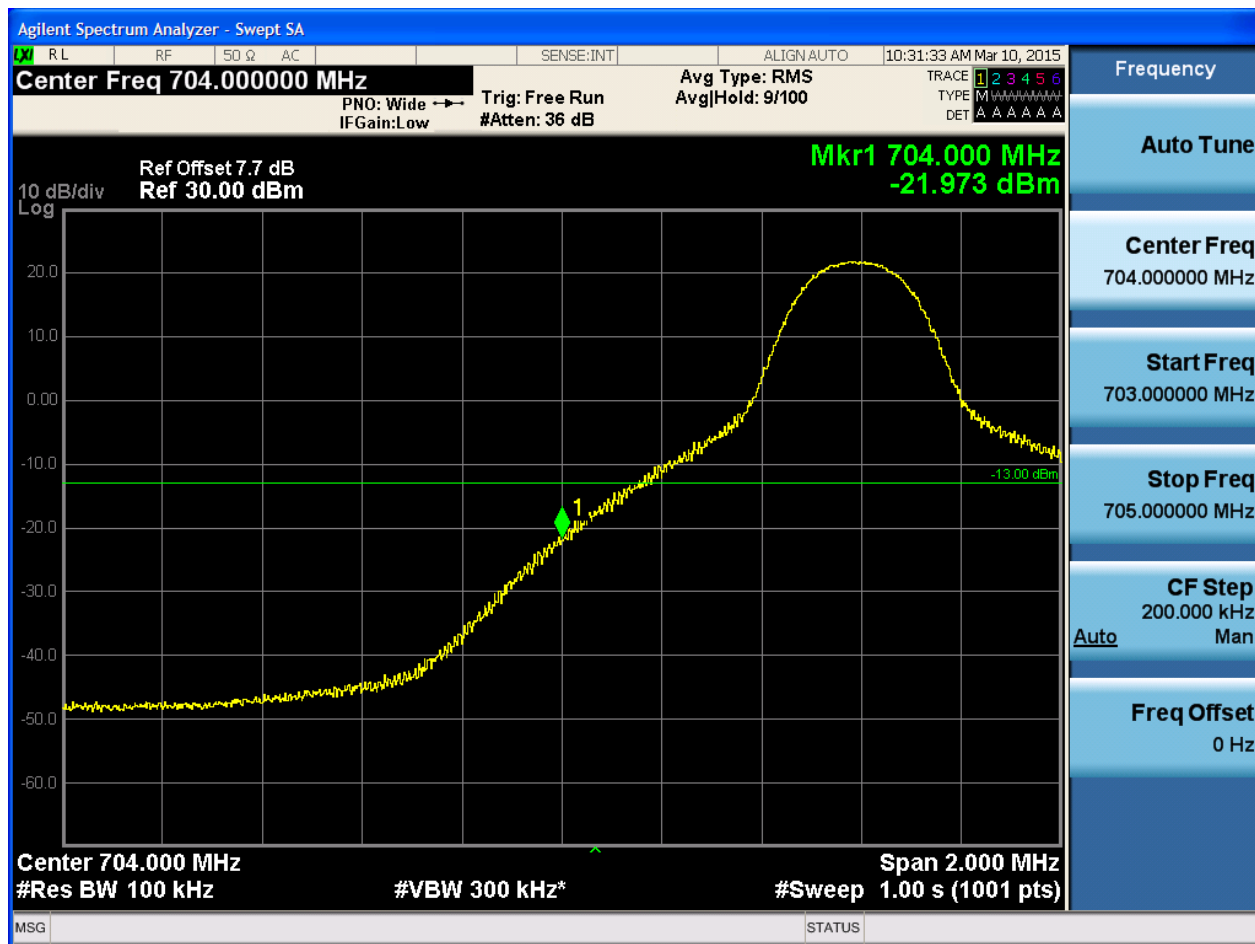
5.1.1.1.2.4 Test RB = RB25#0



5.1.1.1.2 Test Bandwidth = 10

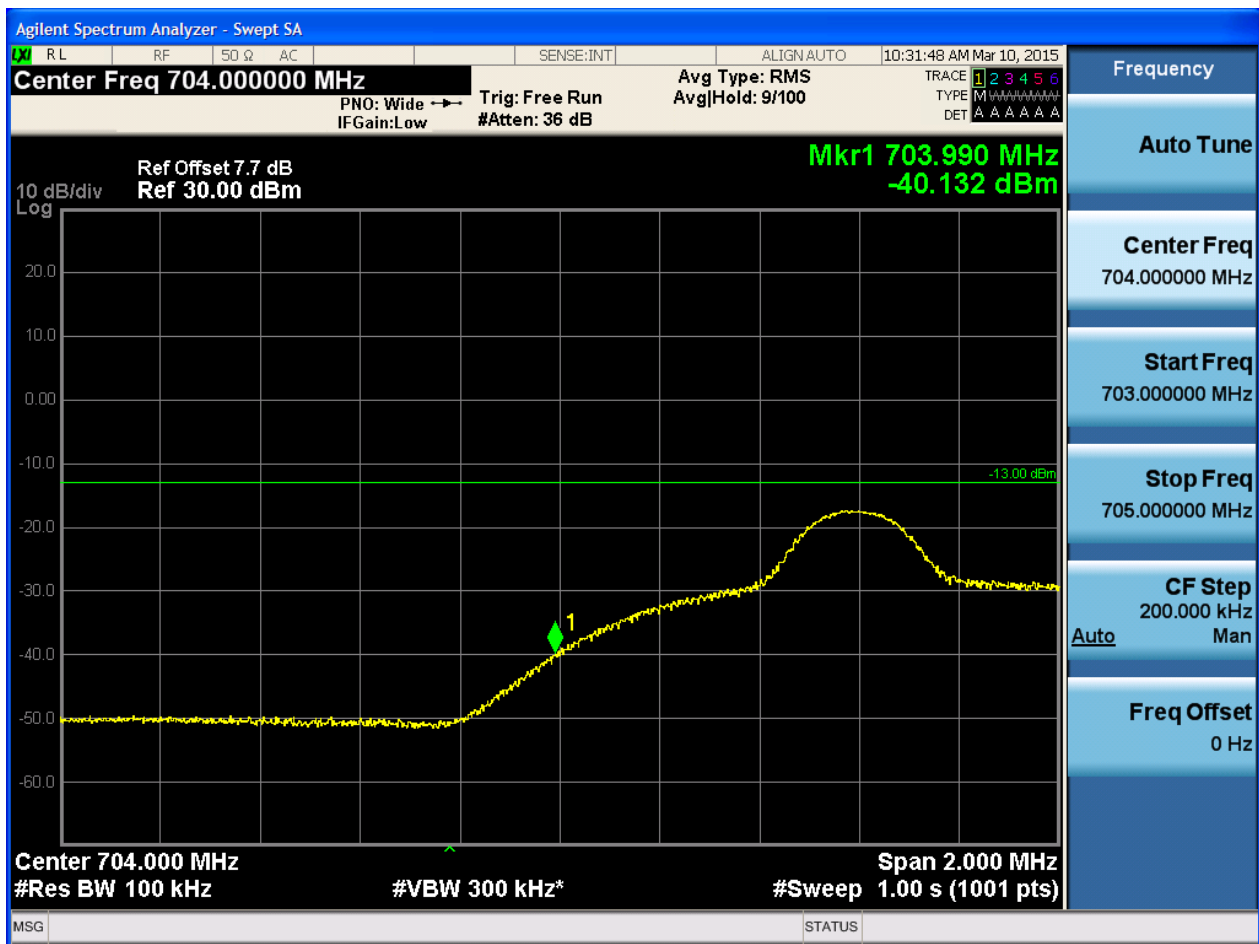
5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



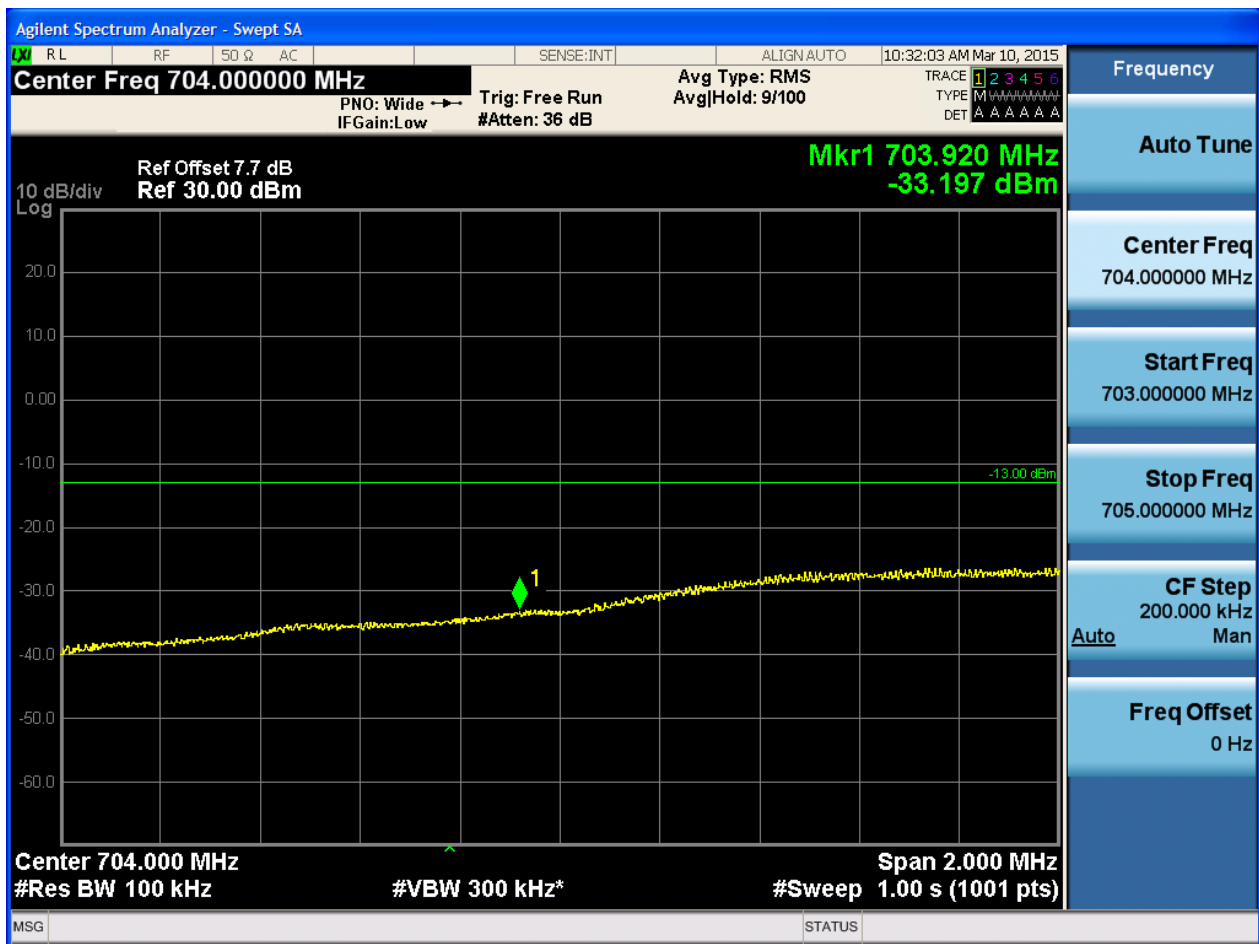


5.1.1.1.2.1.2 Test RB = RB1#49



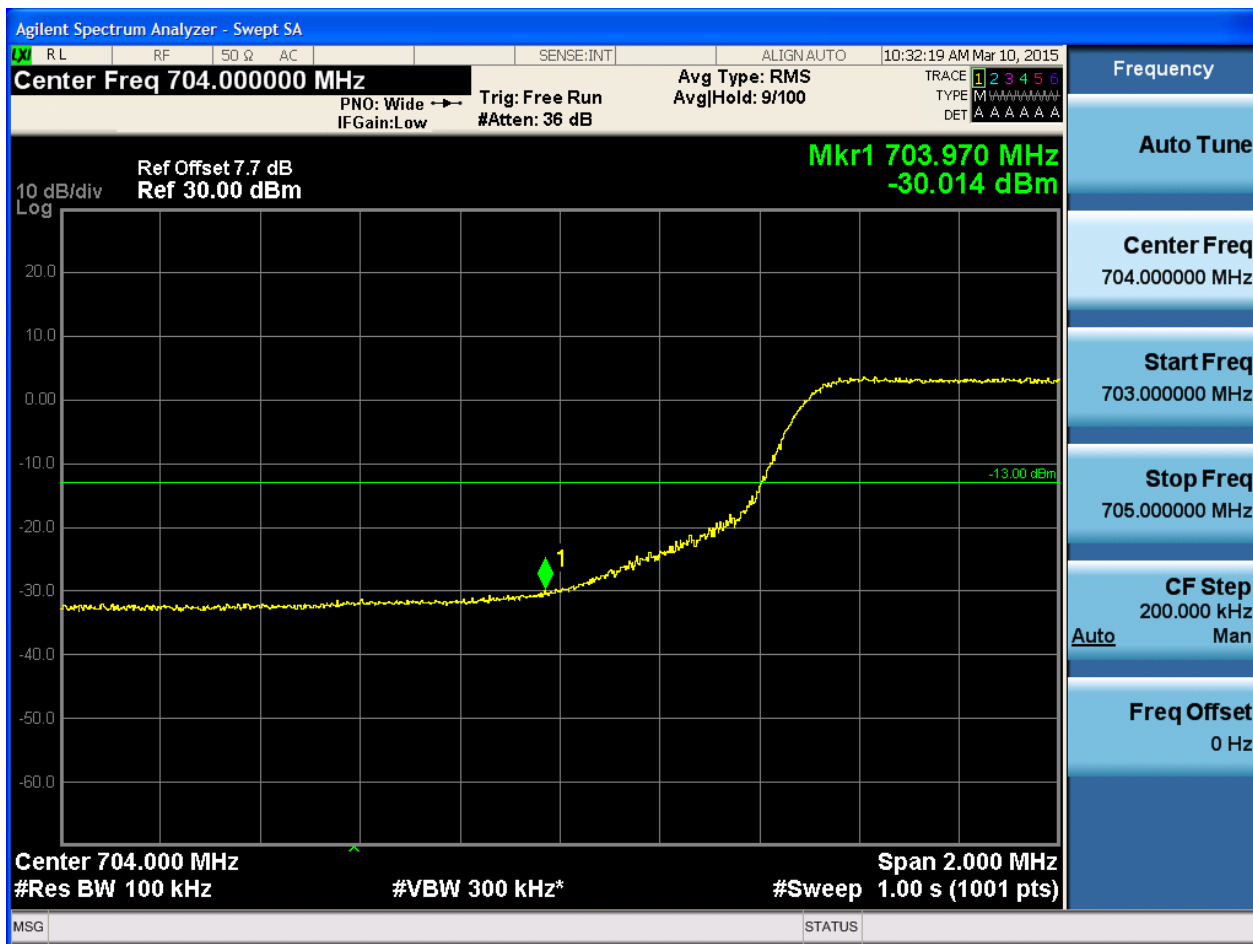


5.1.1.1.2.1.3 Test RB = RB25#13





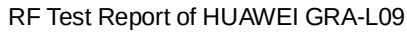
5.1.1.1.2.1.4 Test RB = RB50#0



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 716.000000 MHz

Ref Offset 7.7 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 716.000 MHz
-21.199 dBm

Center 716.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*

Span 2.000 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

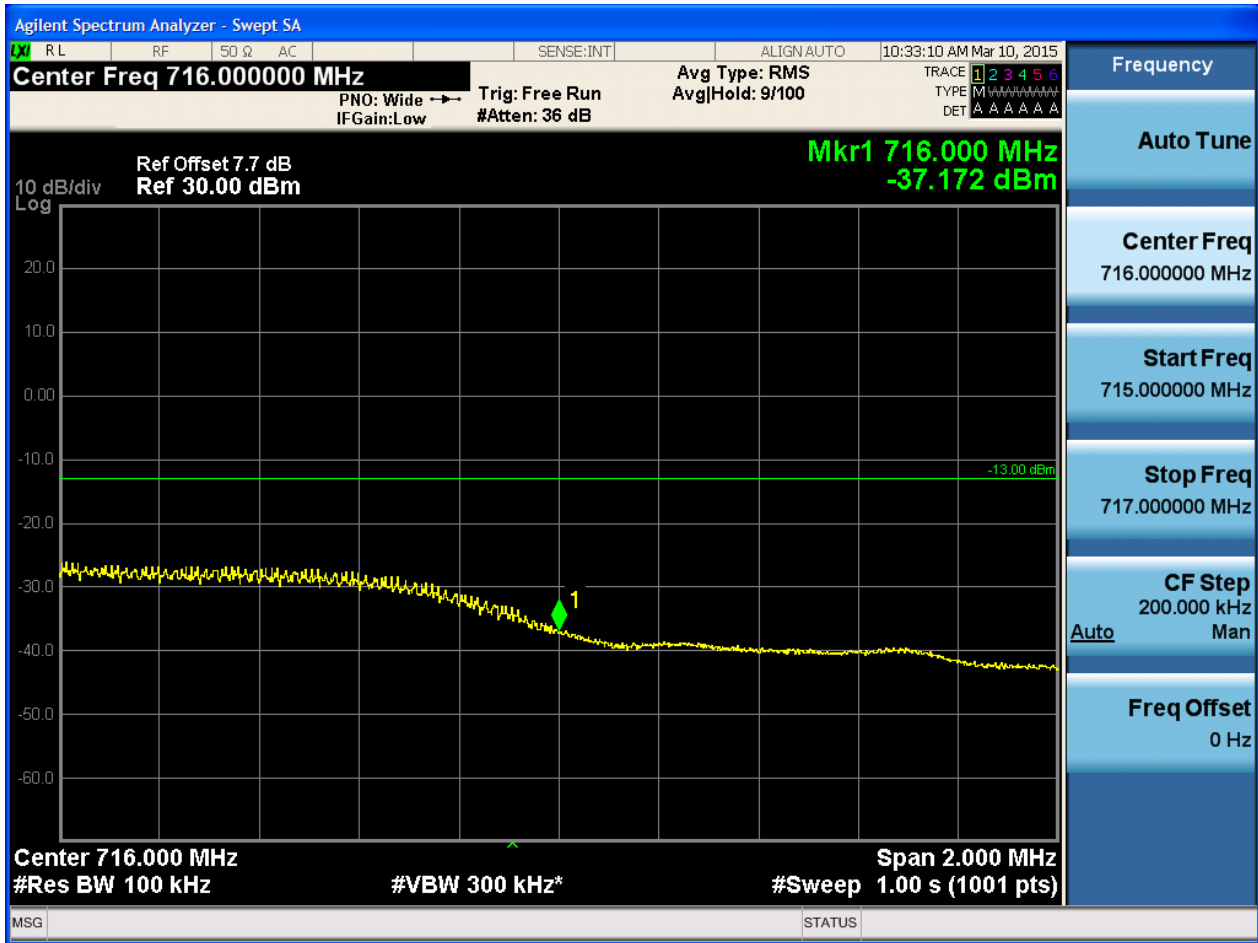
CF Step
200.000 kHz
Man

Freq Offset
0 Hz

MSG STATUS



5.1.1.1.2.2.3 Test RB = RB25#13





5.1.1.1.2.2.4 Test RB = RB50#0



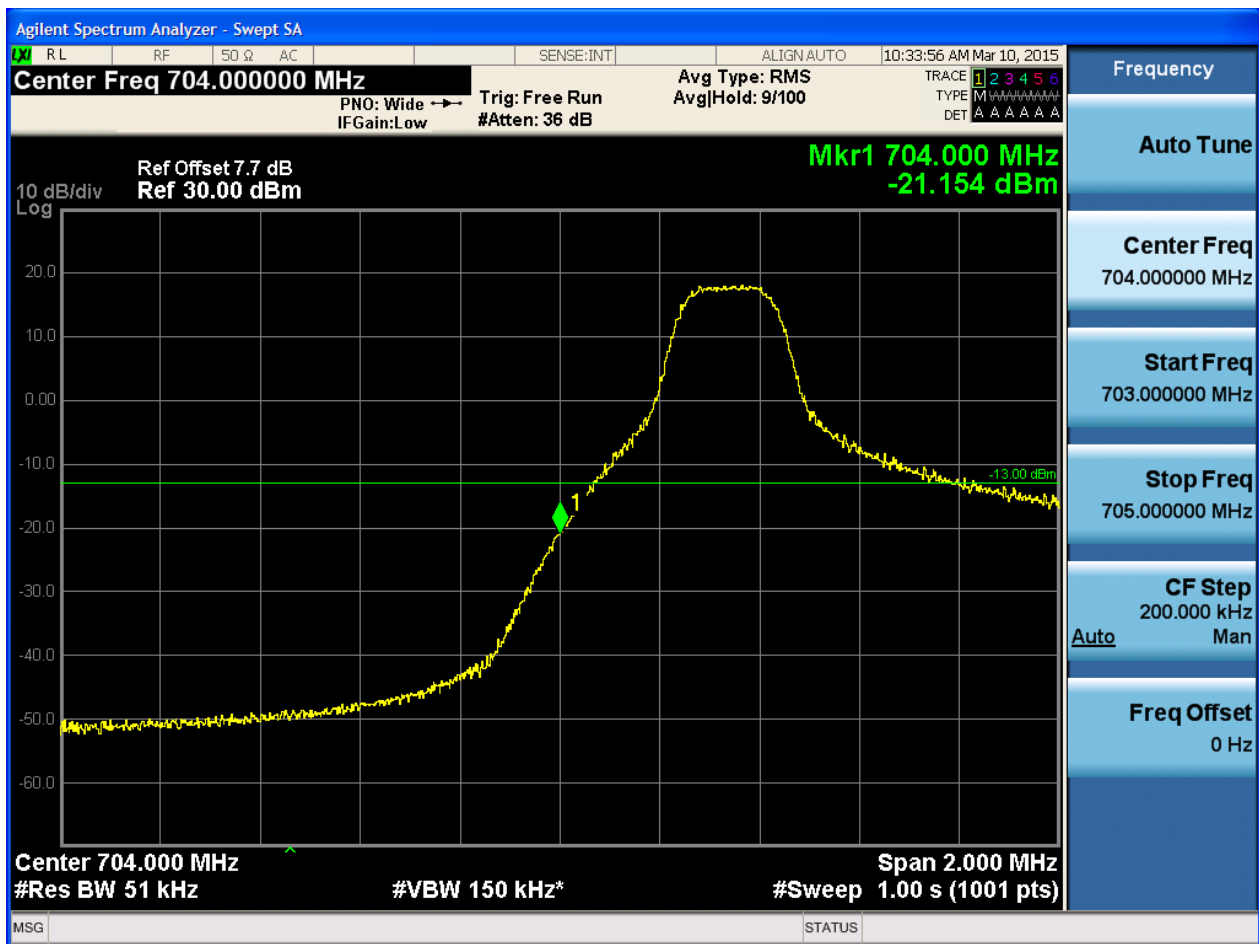


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

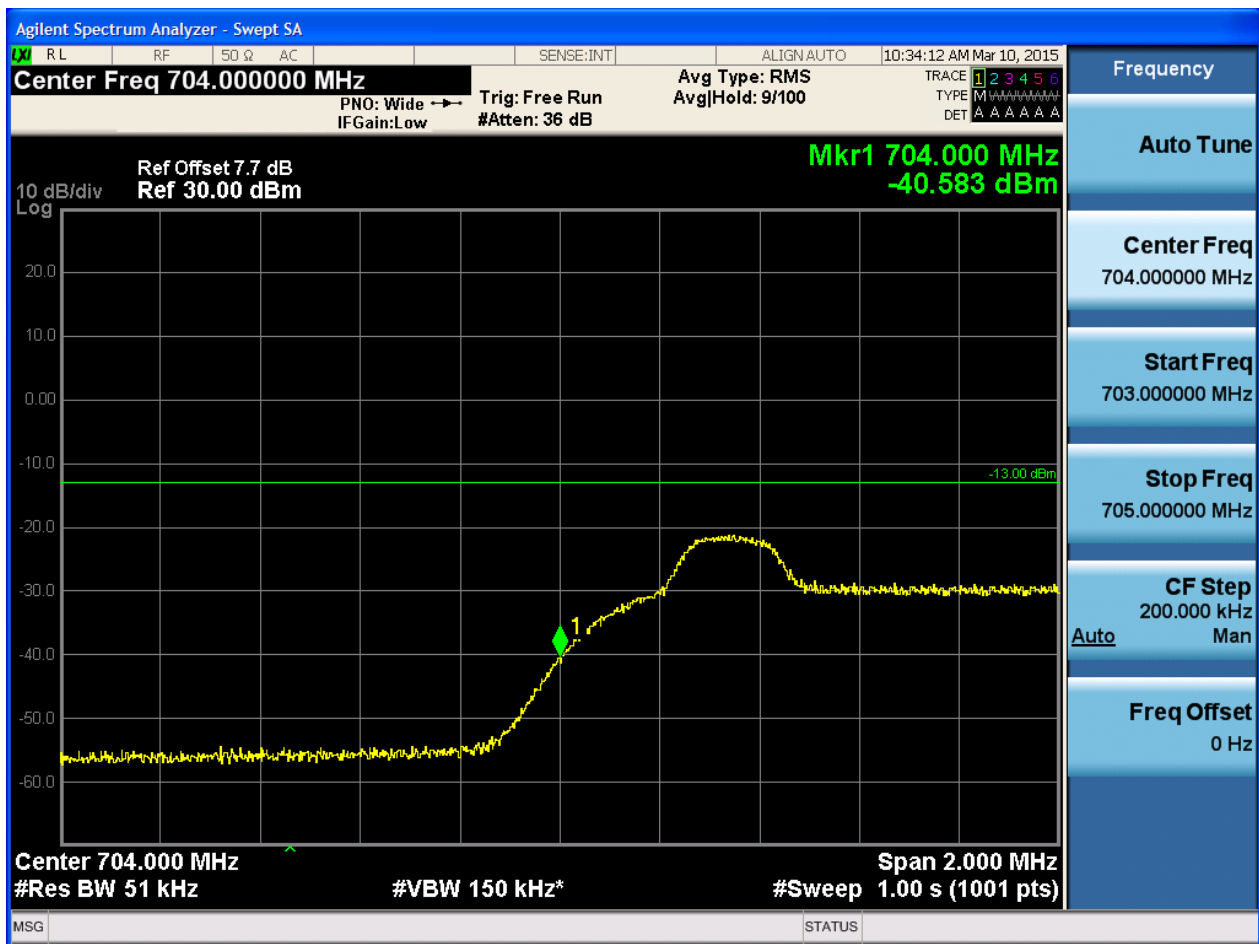
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0





5.1.1.2.1.1.2 Test RB = RB1#24



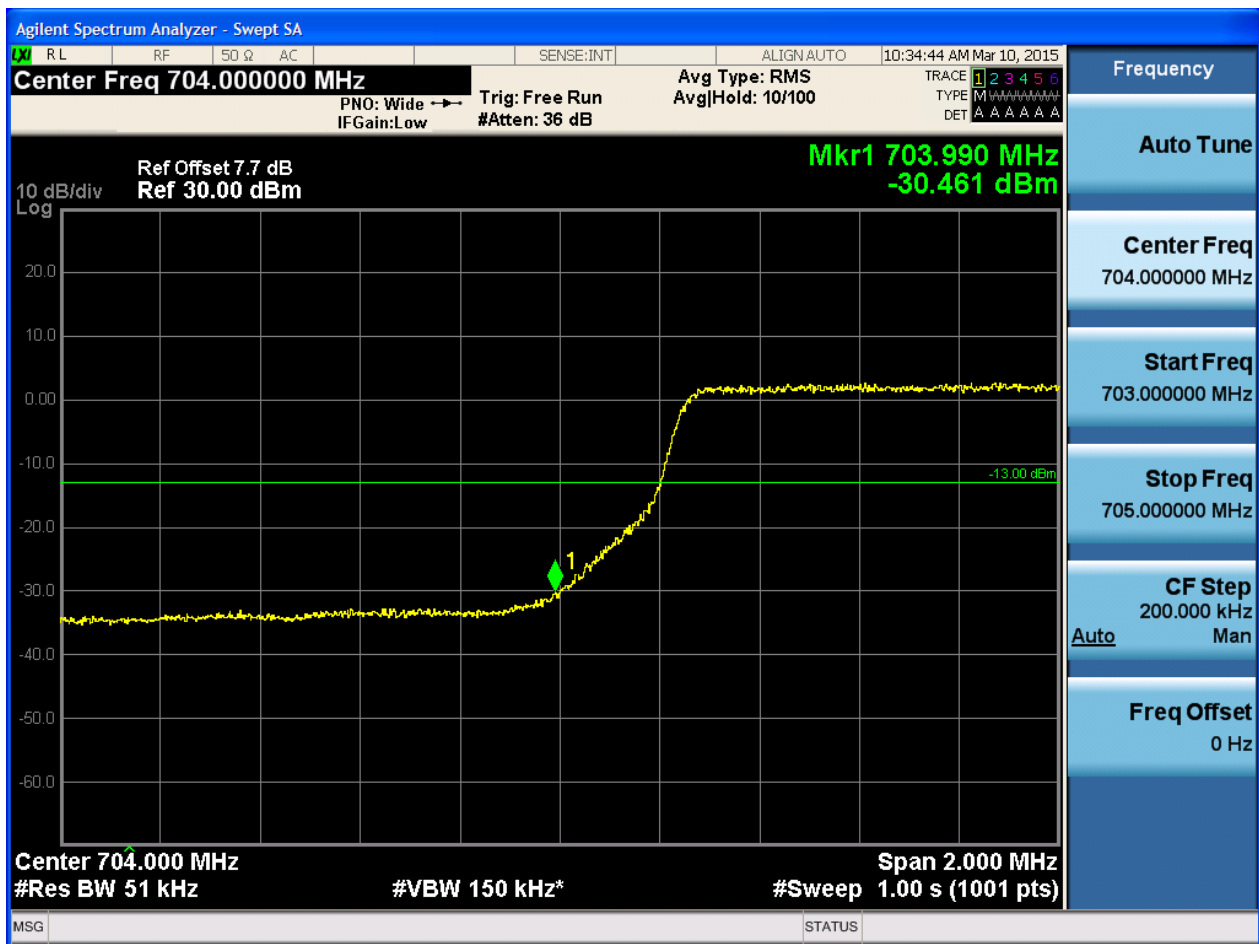


5.1.1.2.1.1.3 Test RB = RB12#6





5.1.1.2.1.1.4 Test RB = RB25#0





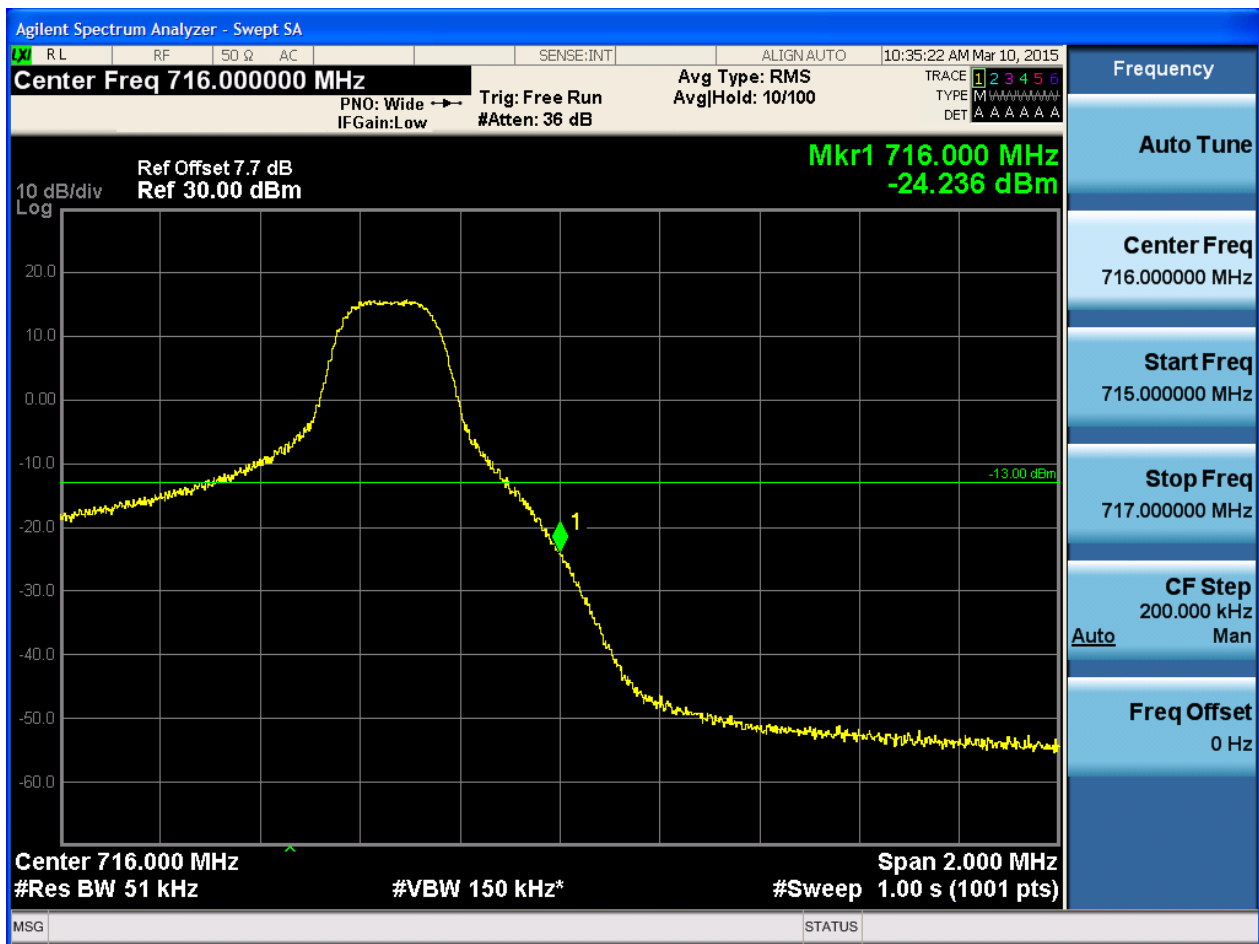
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.1 Test RB = RB1#0





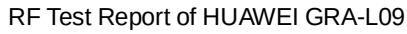
5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

Center Freq 716.000000 MHz

Ref Offset 7.7 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 716.010 MHz
-30.570 dBm

Center 716.000 MHz
#Res BW 51 kHz

#VBW 150 kHz*

Span 2.000 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

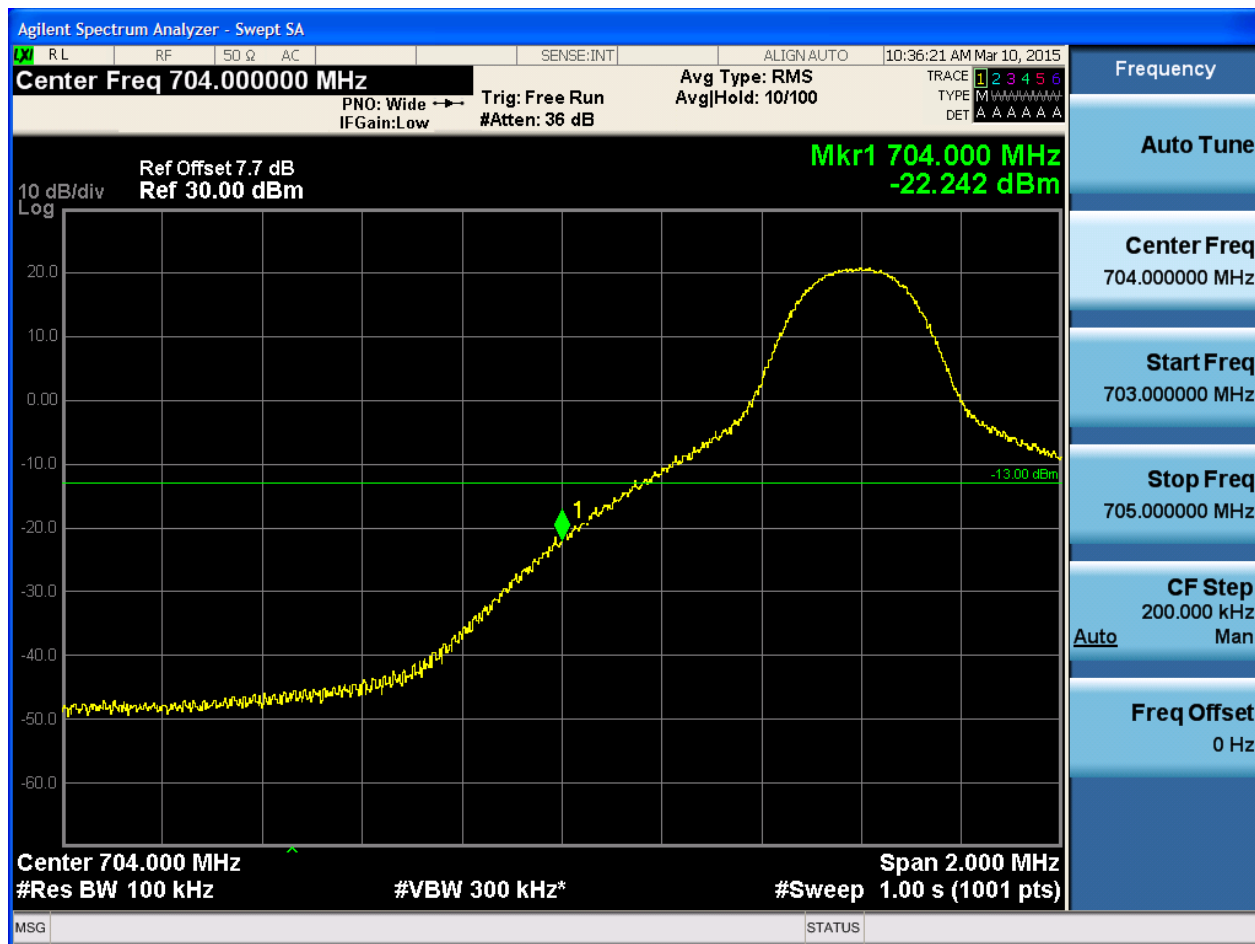
CF Step
200.000 kHz
Man

Freq Offset
0 Hz

5.1.1.2.2 Test Bandwidth = 10

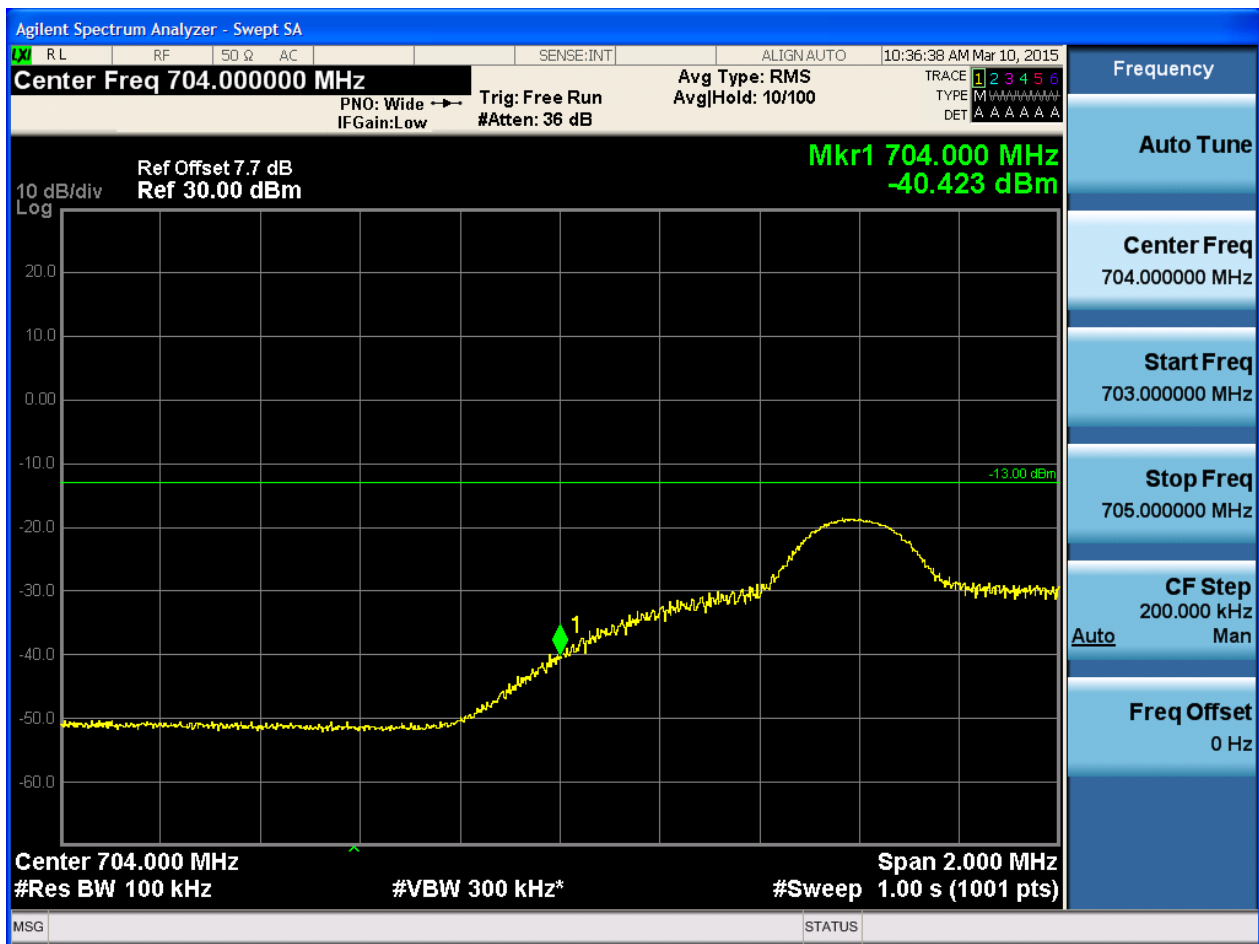
5.1.1.2.2.1 Test Channel = LCH

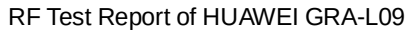
5.1.1.2.2.1.1 Test RB = RB1#0





5.1.1.2.2.1.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

Center Freq 704.000000 MHz

Ref Offset 7.7 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 703.950 MHz
-33.462 dBm

Center 704.000 MHz
#Res BW 100 kHz

#VBW 300 kHz*

Span 2.000 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
704.000000 MHz

Start Freq
703.000000 MHz

Stop Freq
705.000000 MHz

CF Step
200.000 kHz
Man

Freq Offset
0 Hz



5.1.1.2.2.1.4 Test RB = RB50#0



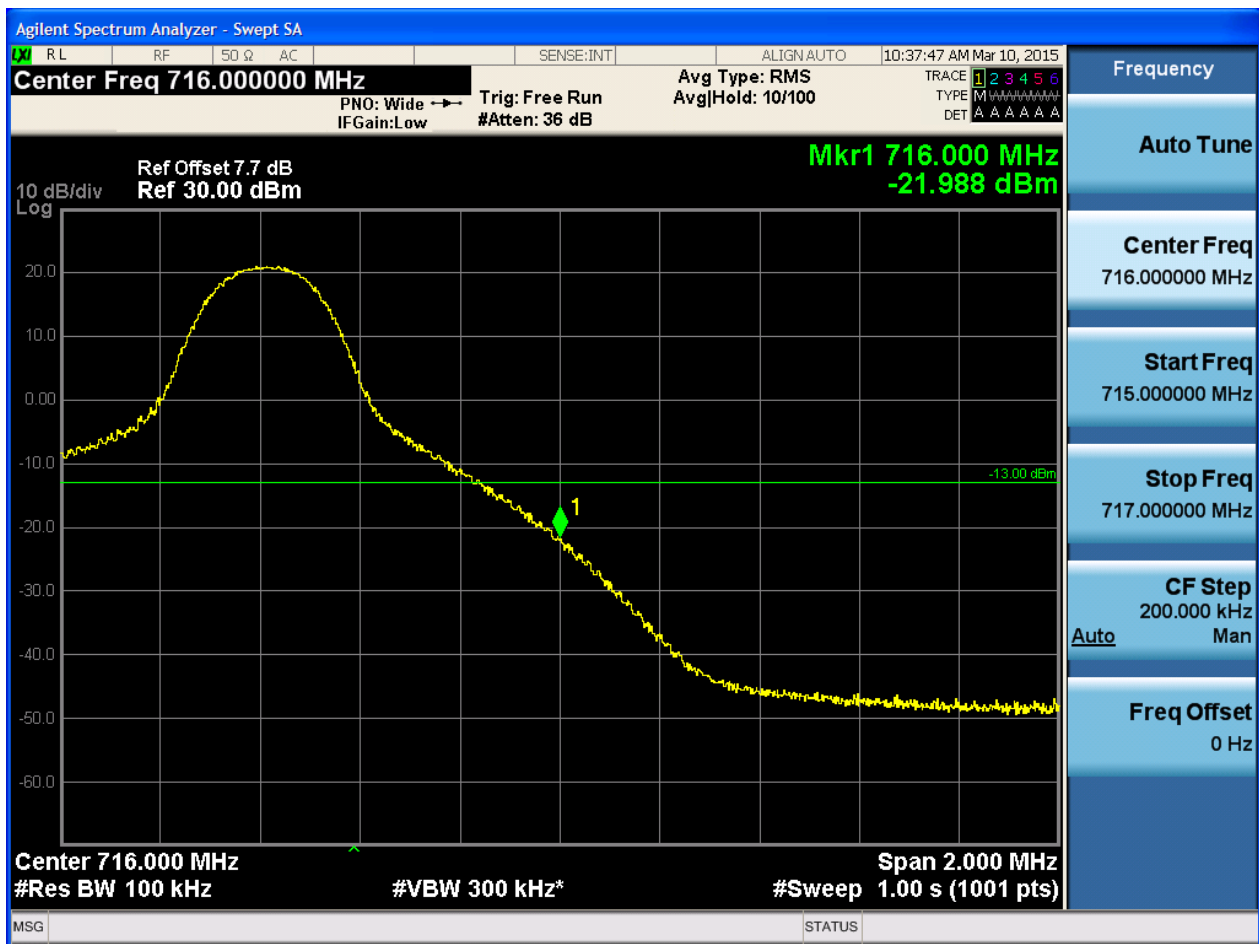
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



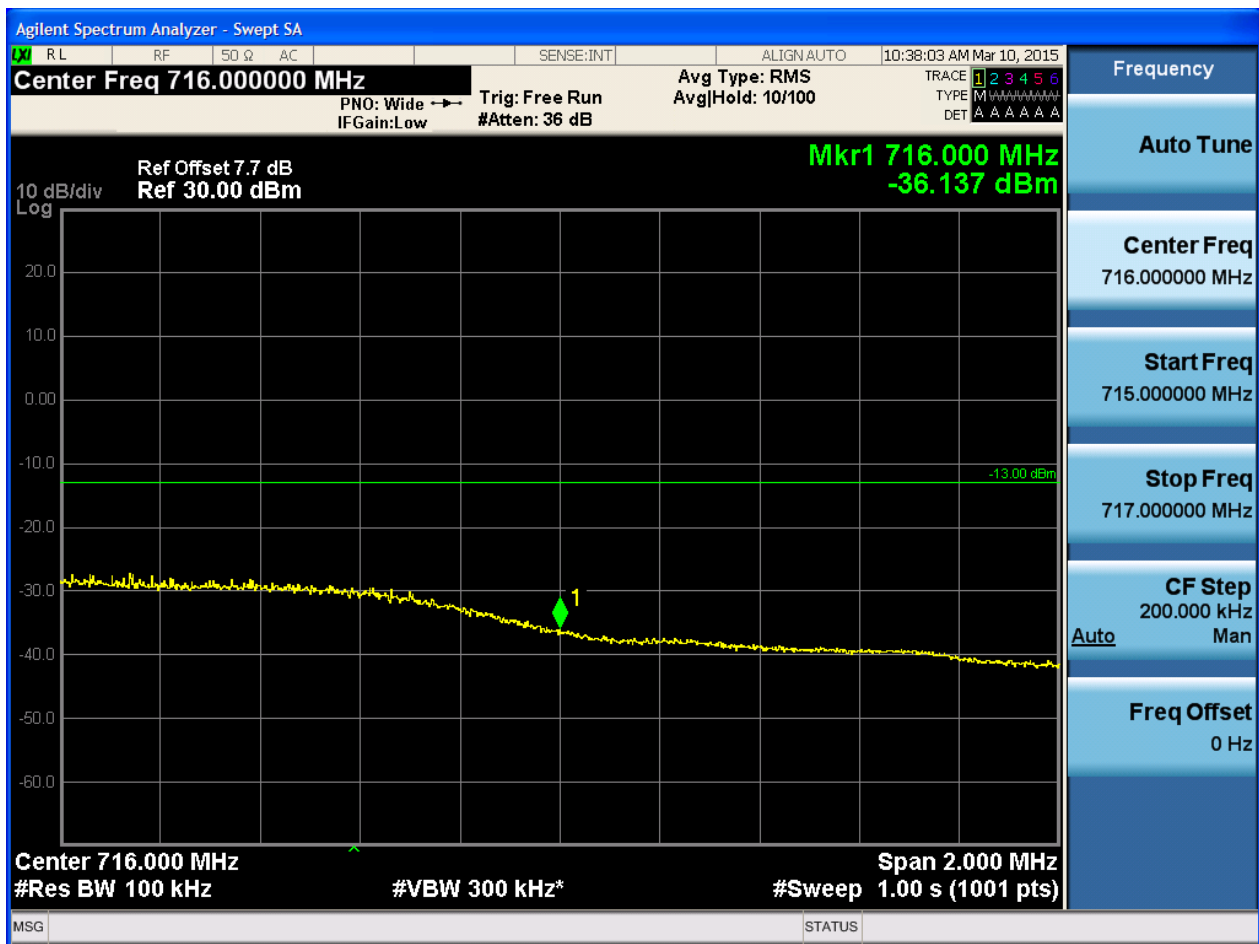


5.1.1.2.2.2 Test RB = RB1#49





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

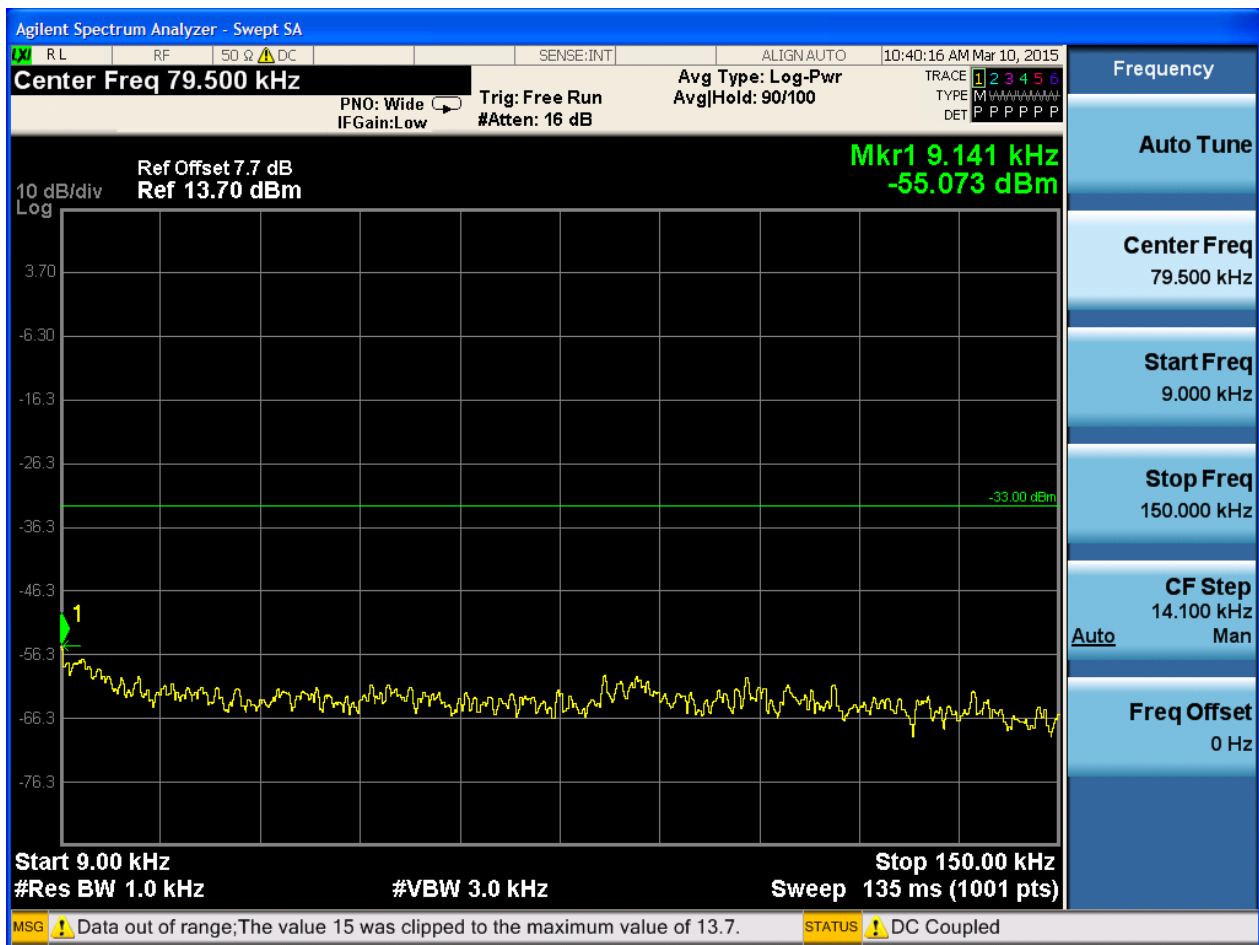
6.1.1 Test Band = BAND17

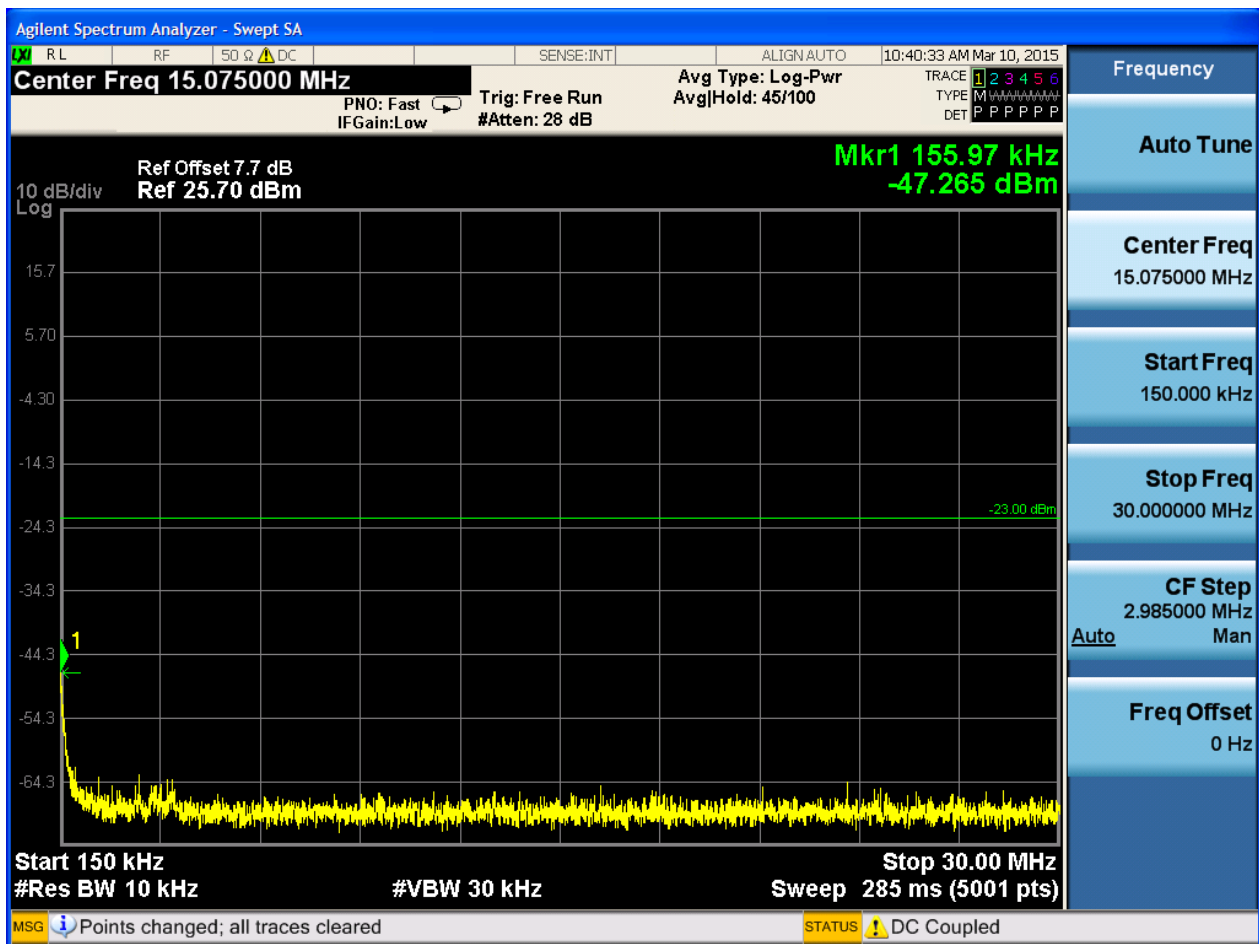
6.1.1.1 Test Mode = LTE/TM1

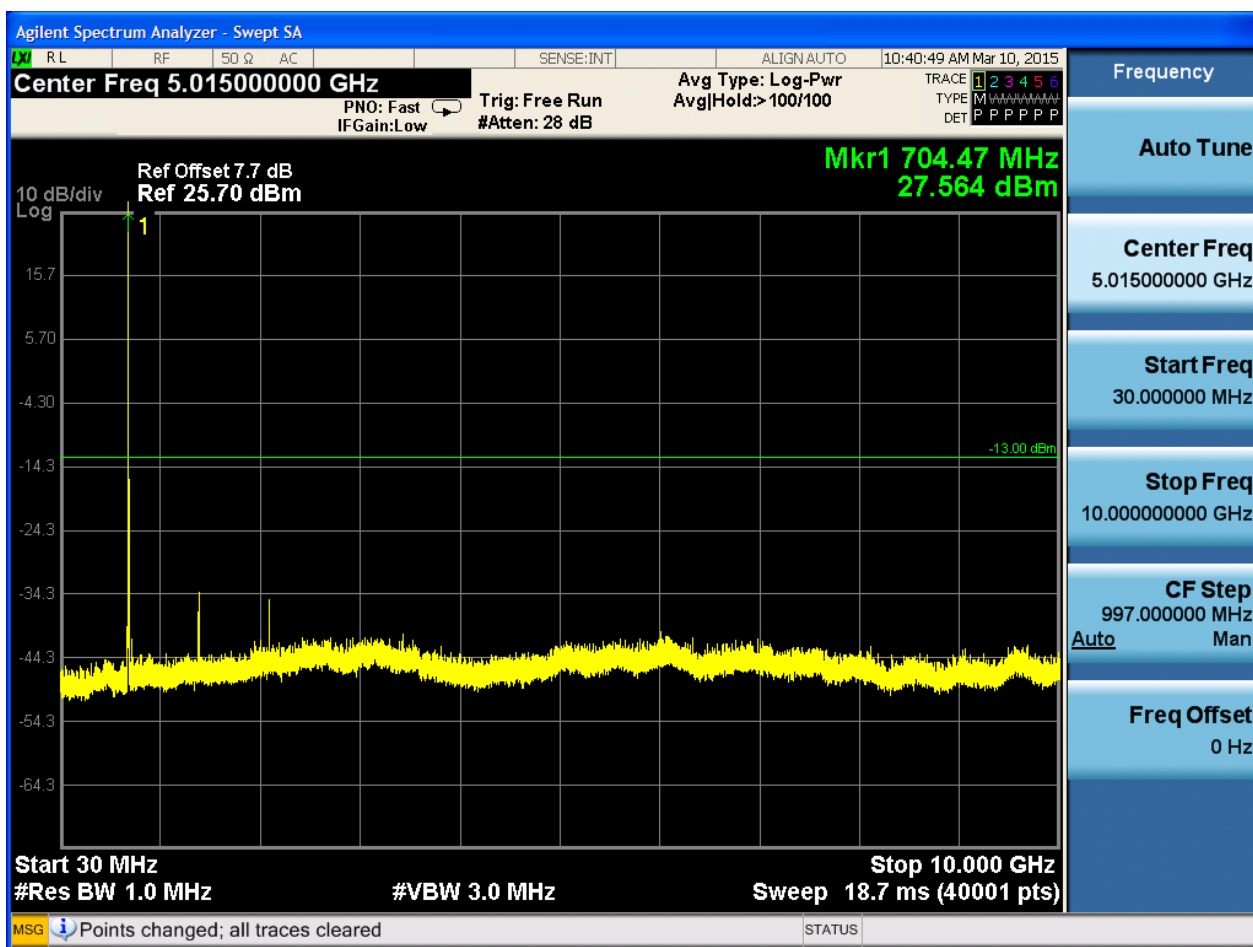
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0



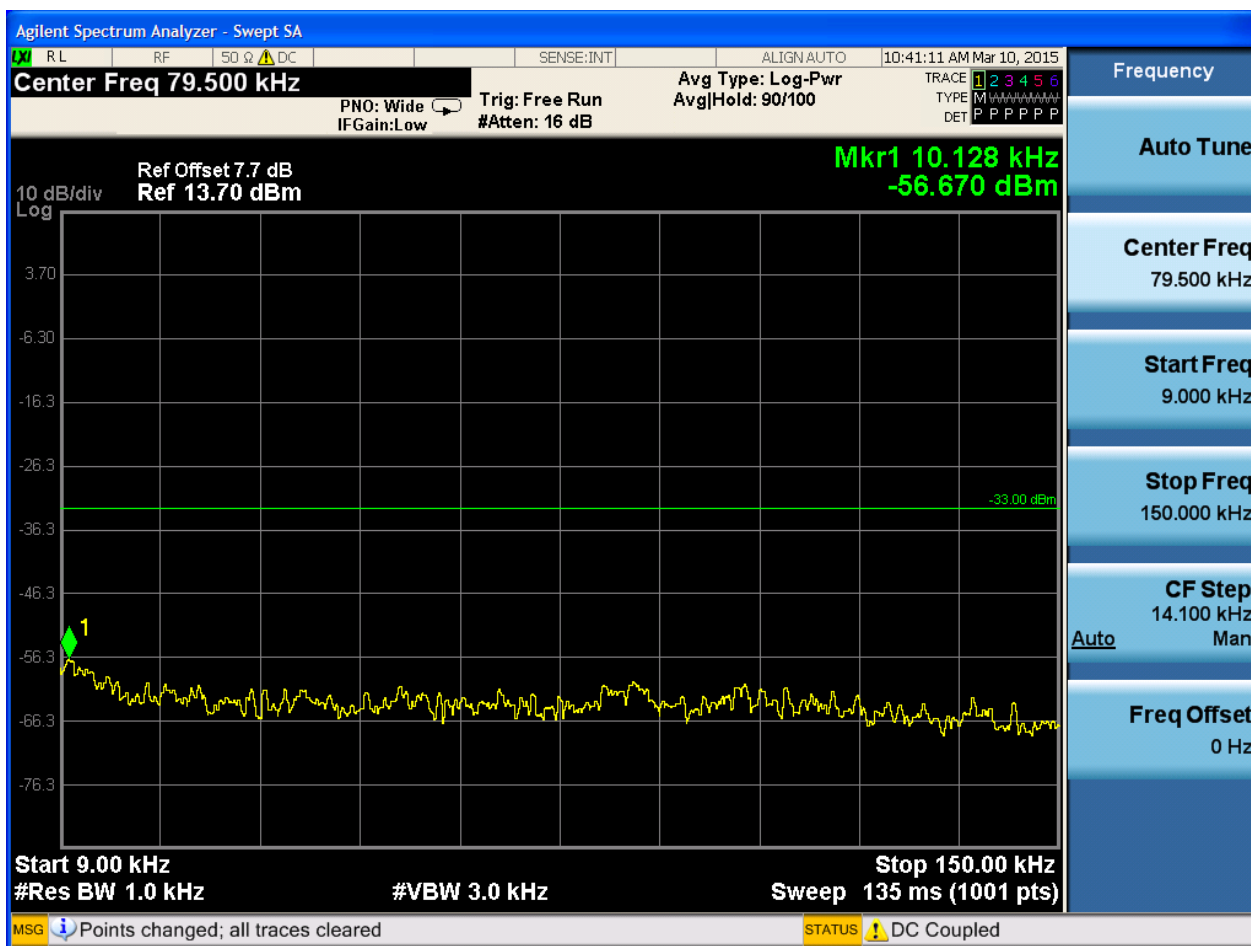


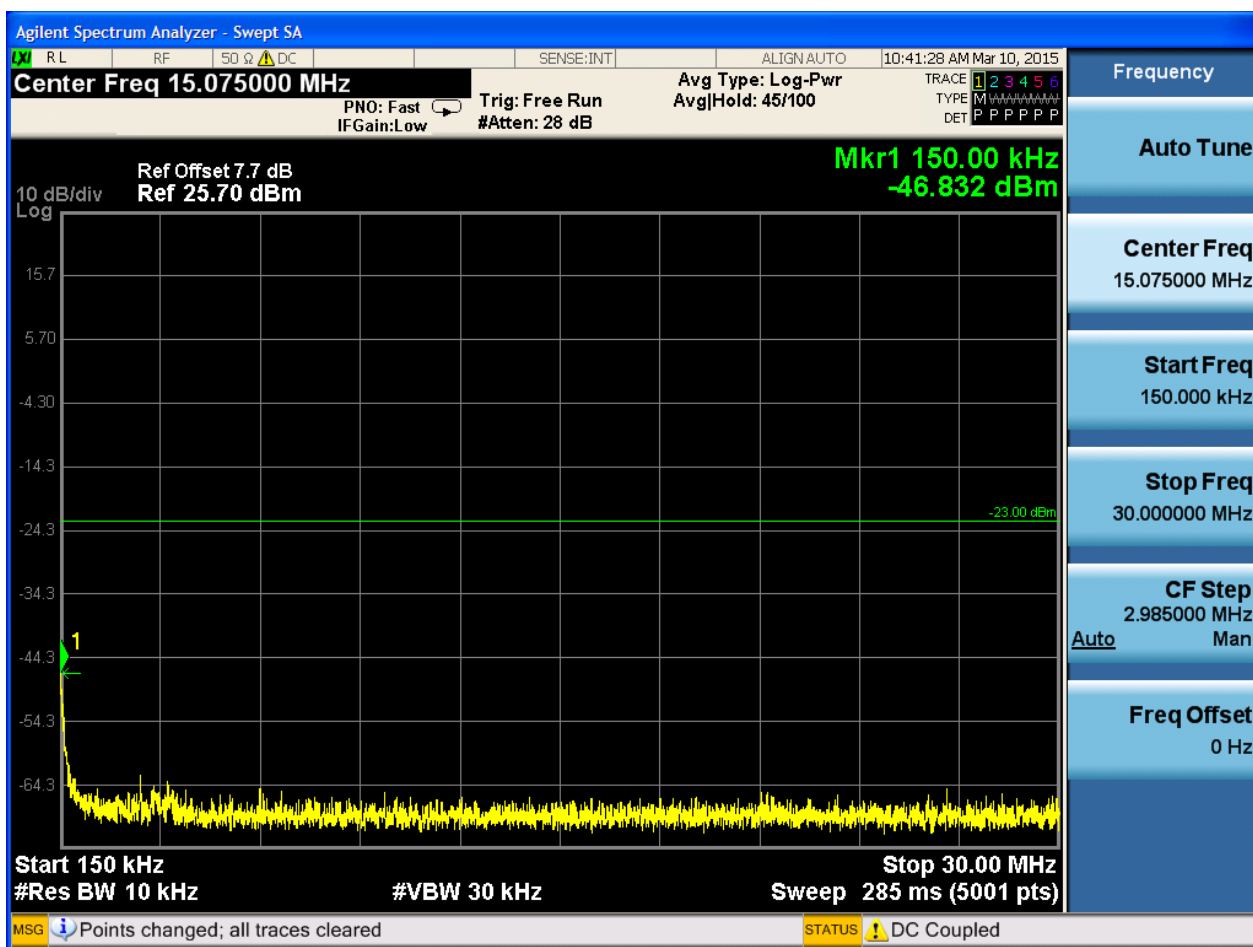


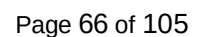
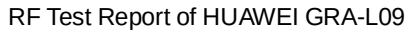


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



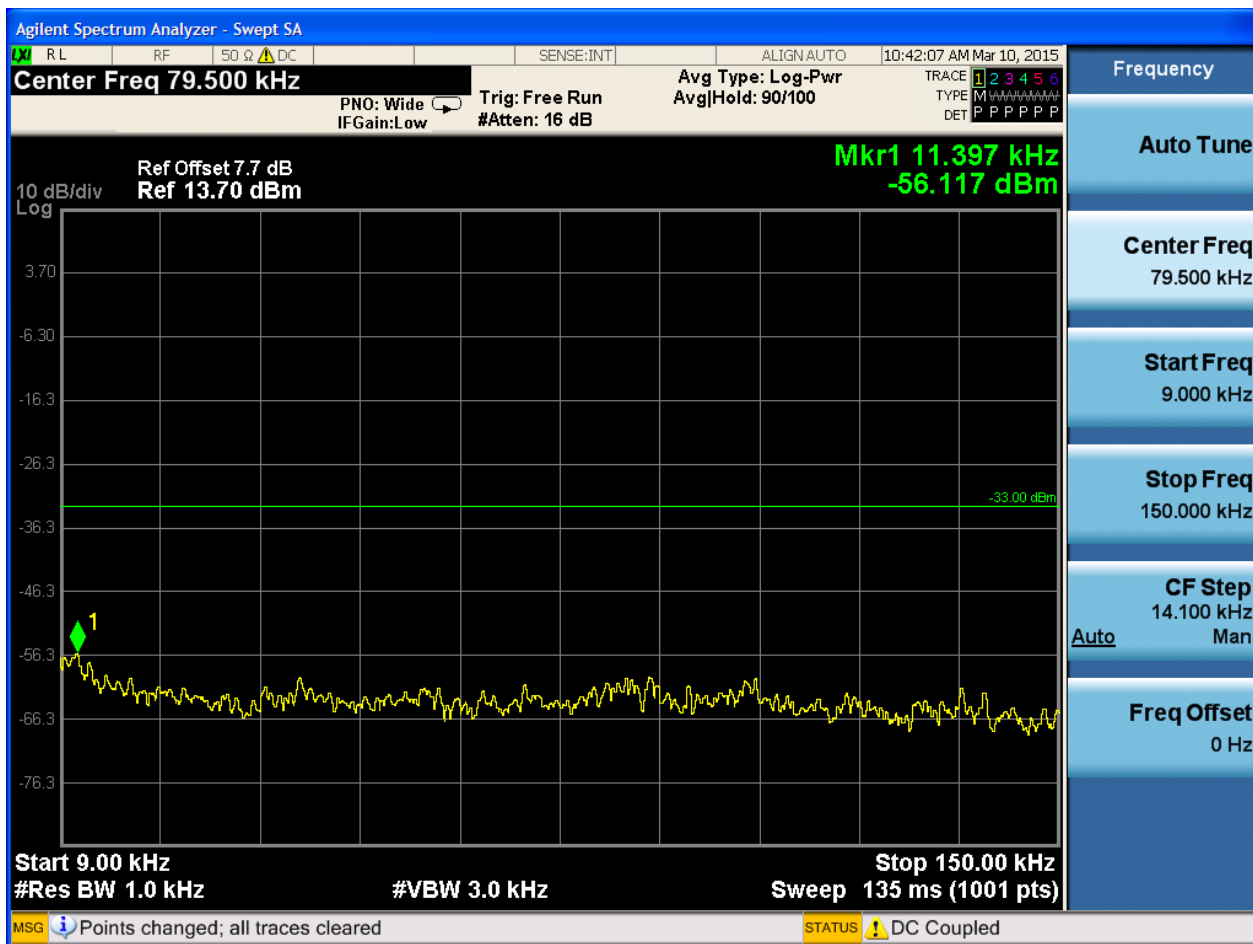


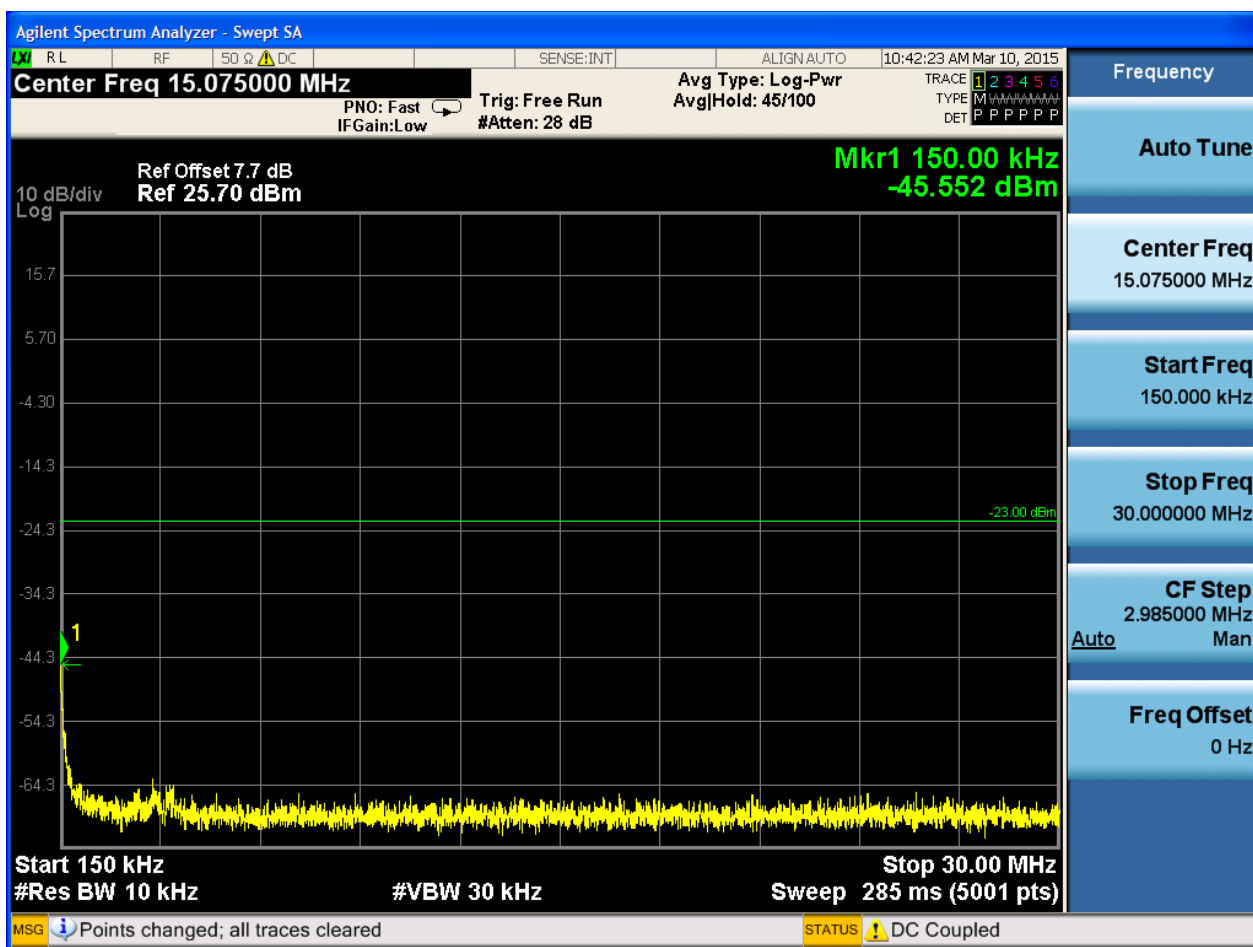


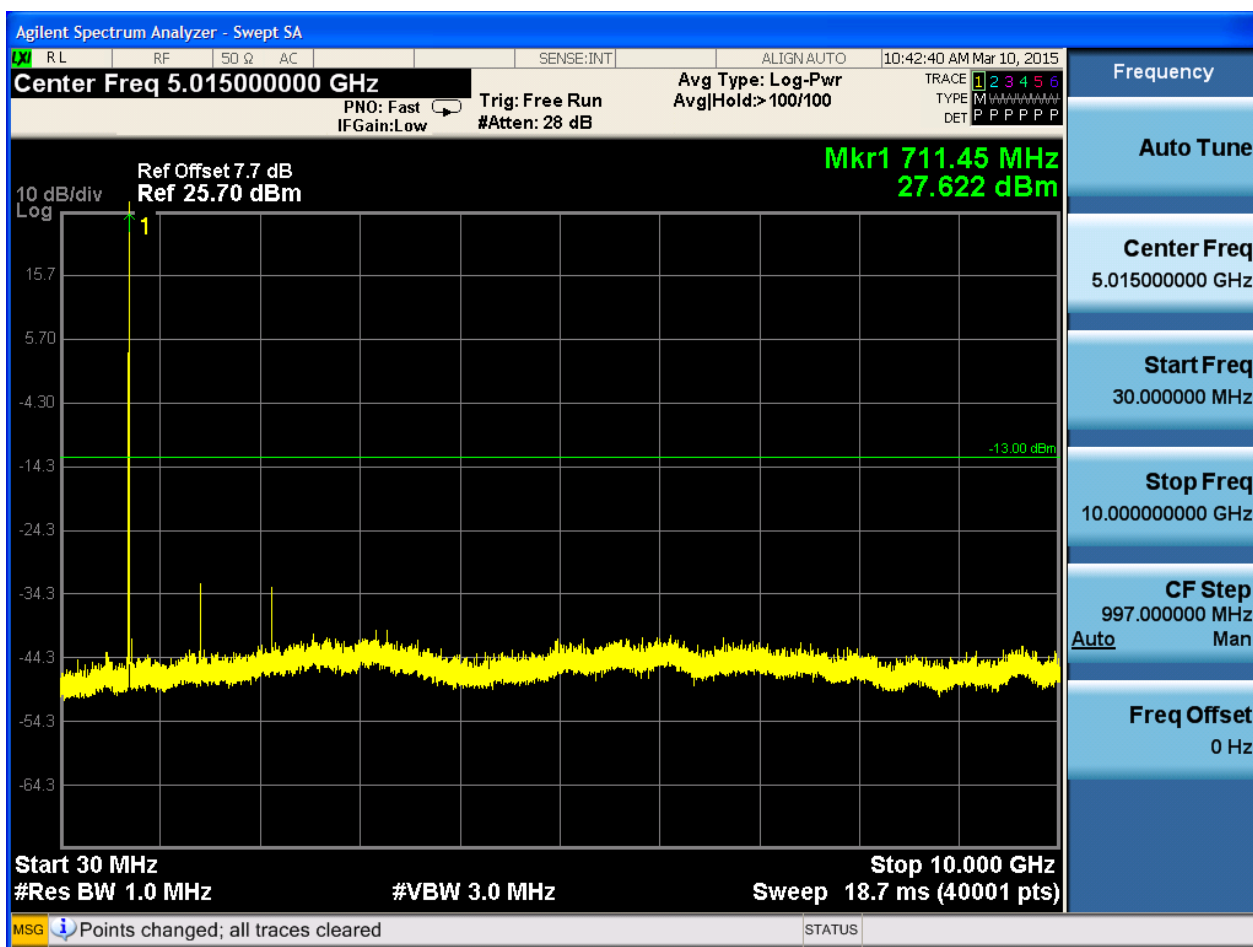


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0



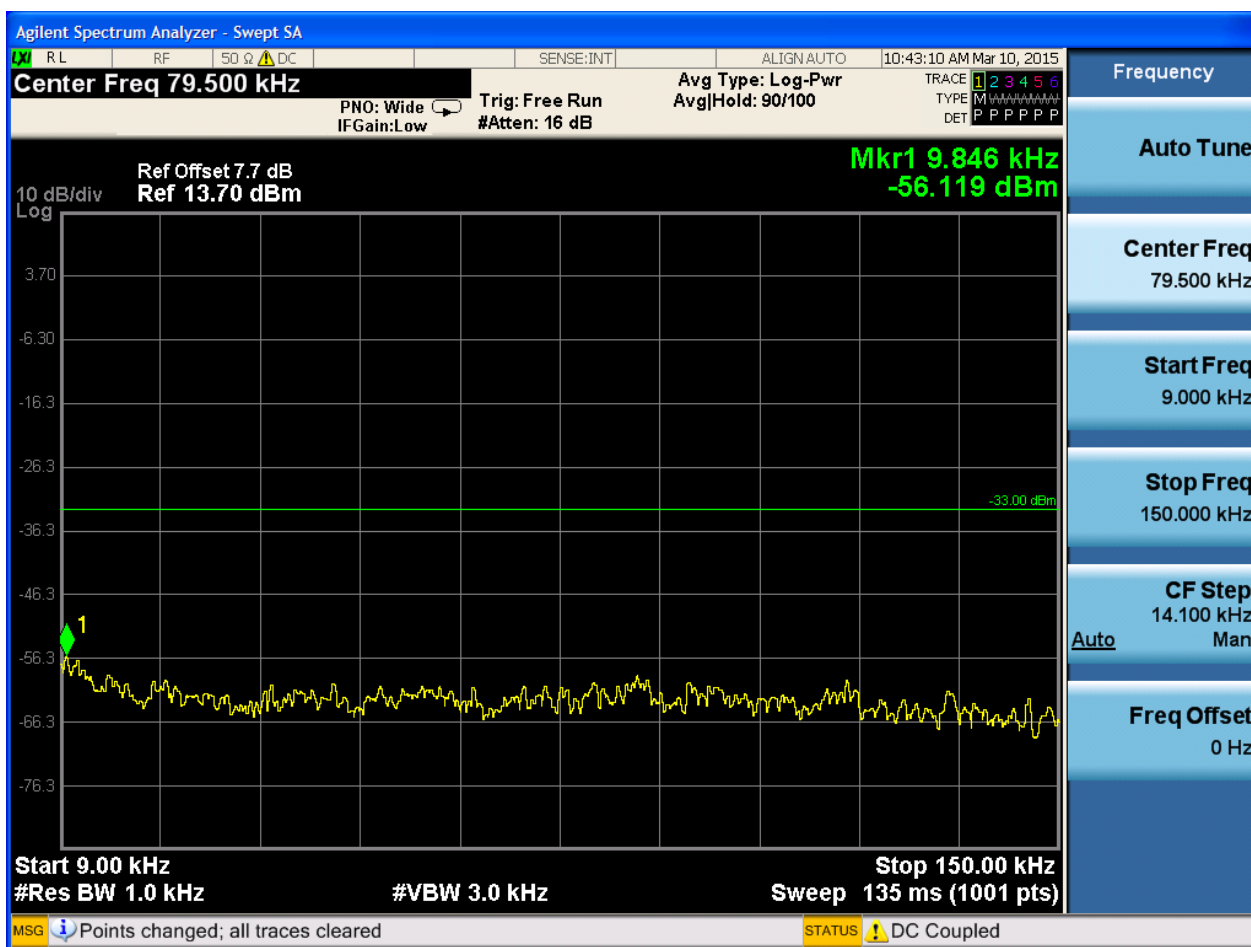


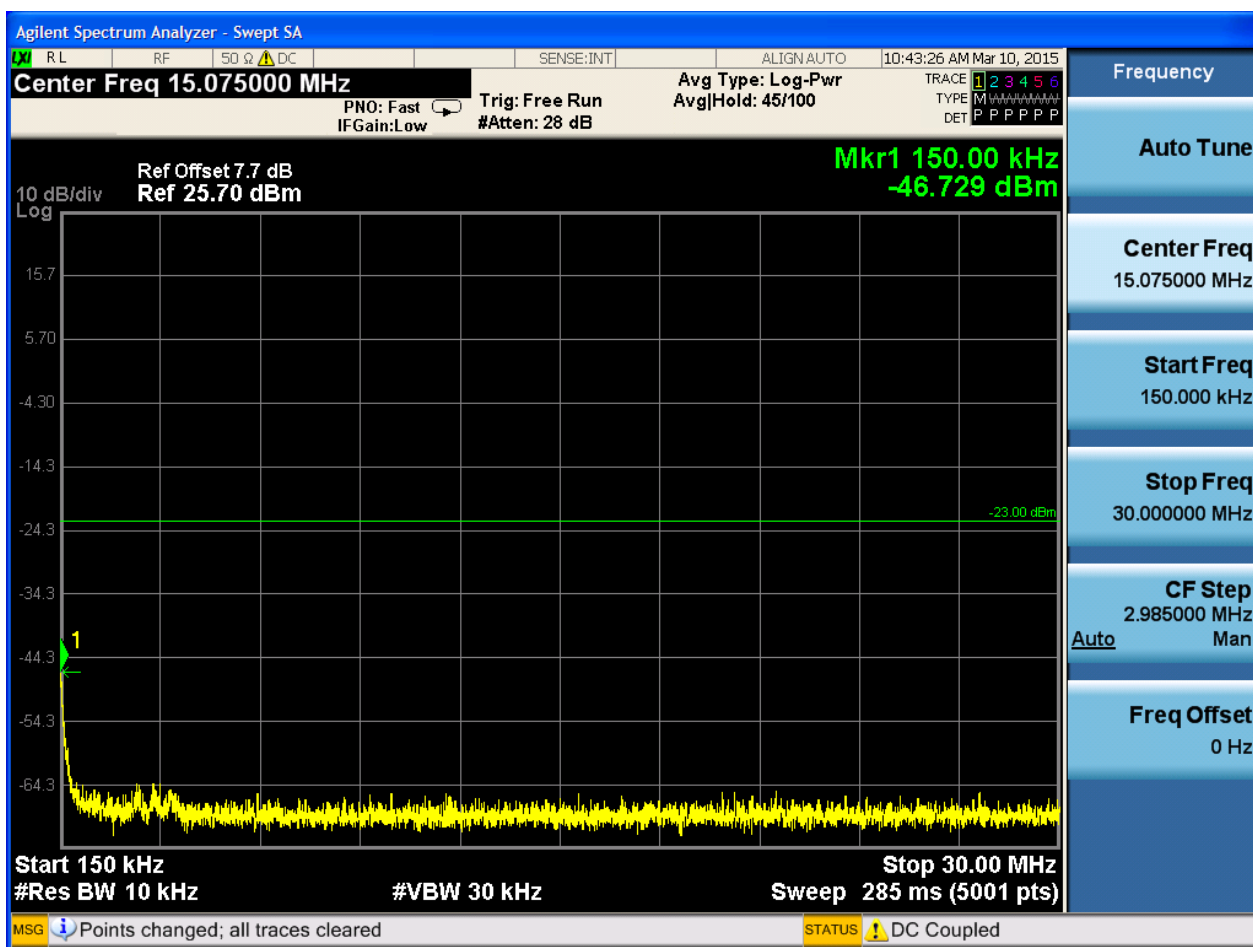


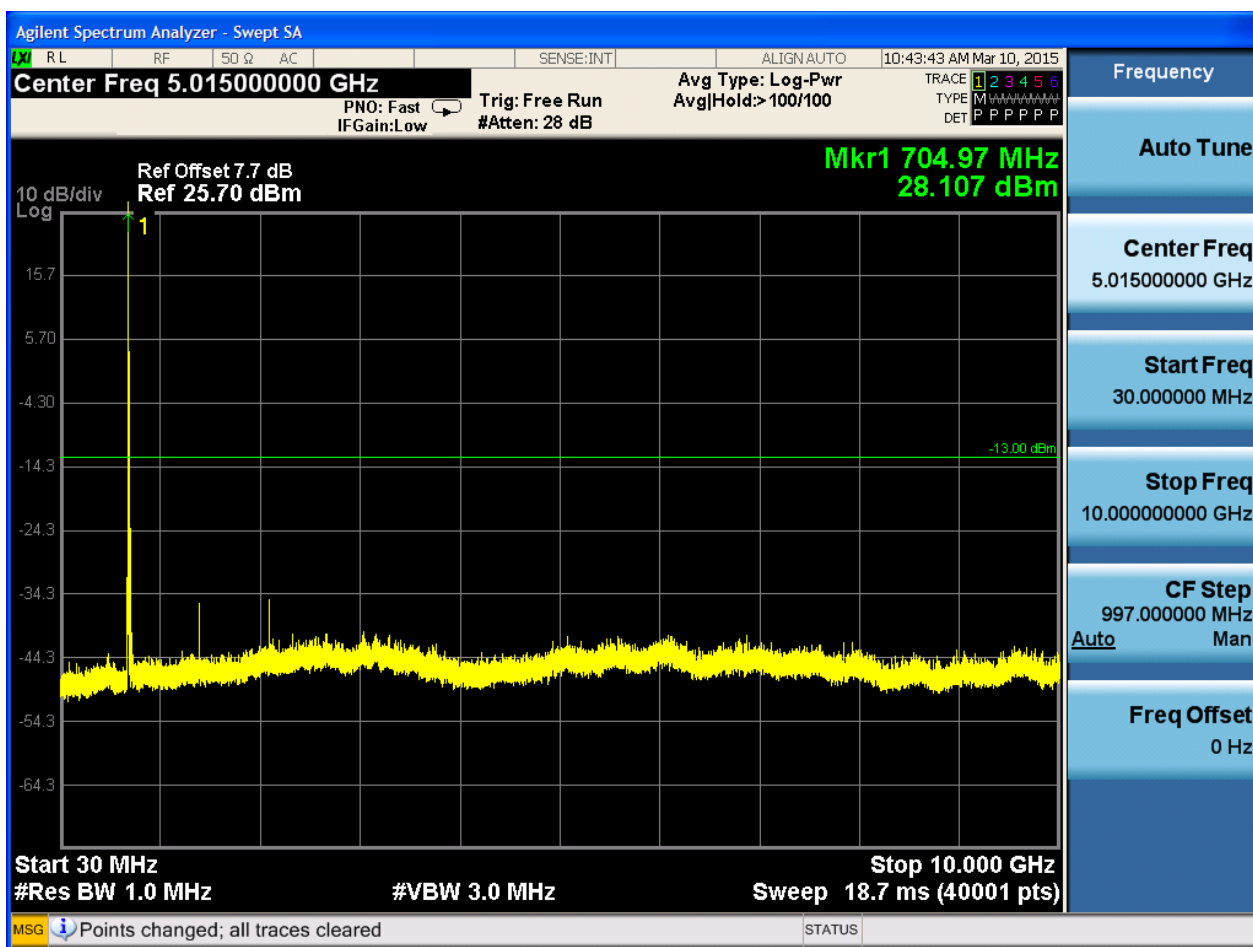
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0

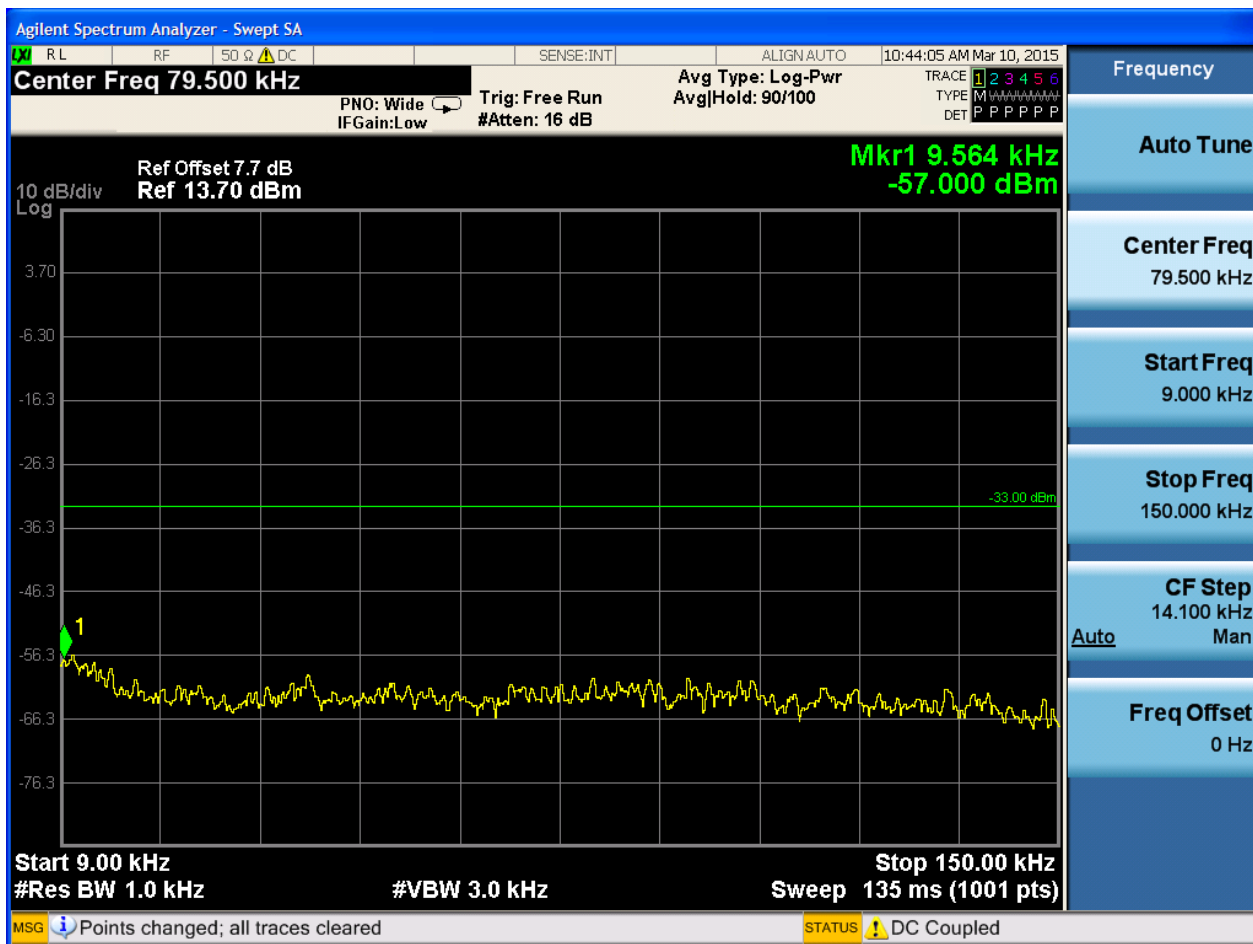




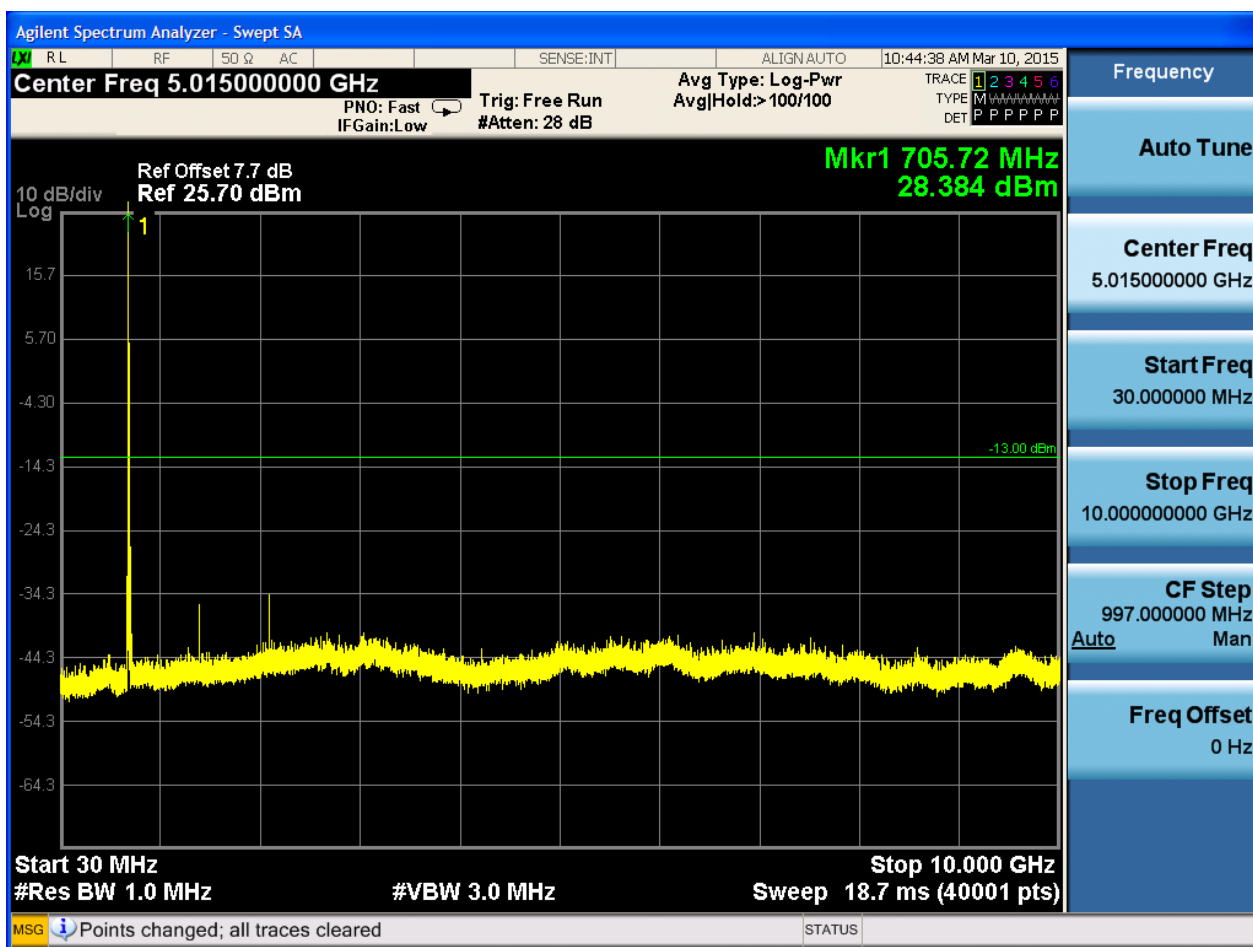


6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0

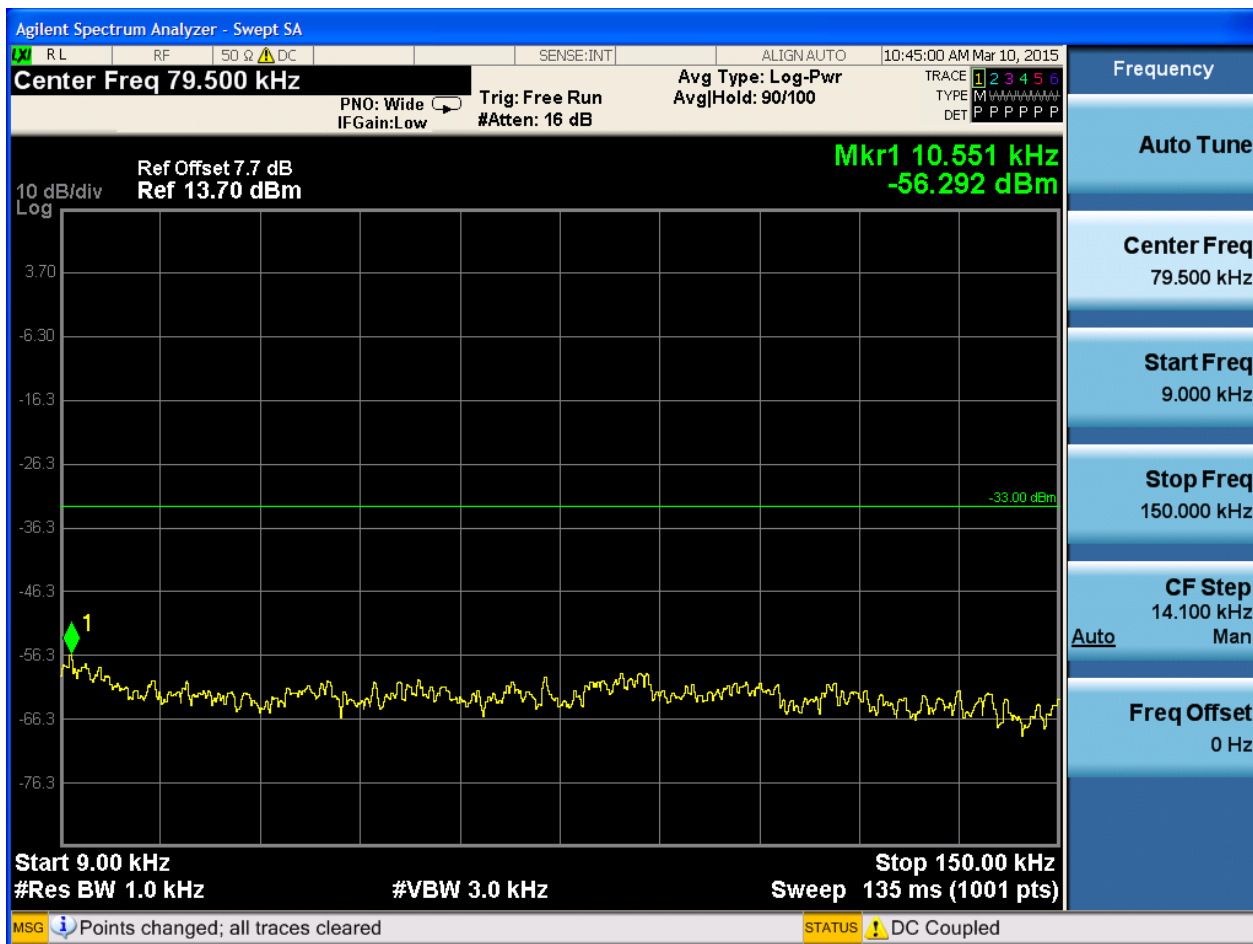


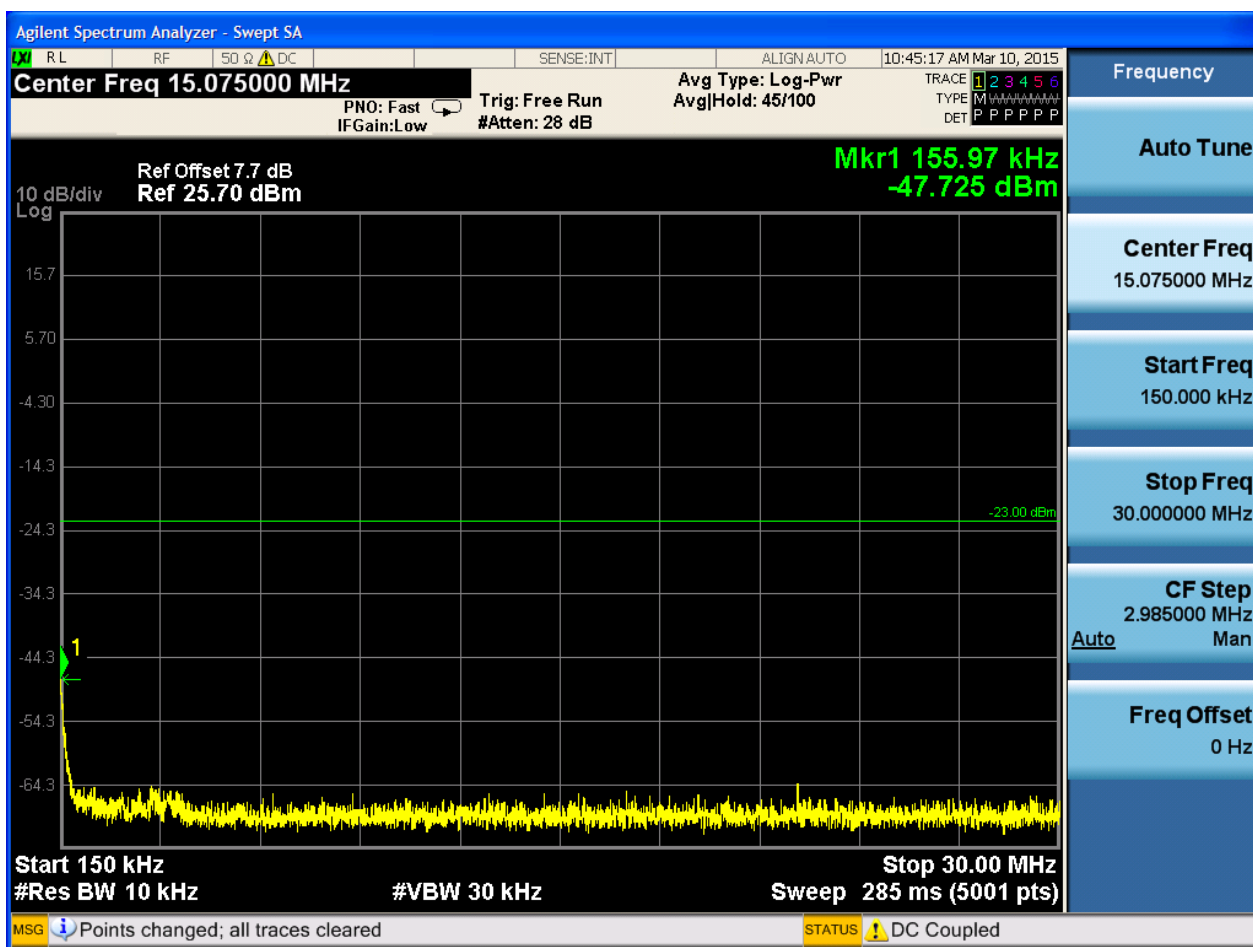


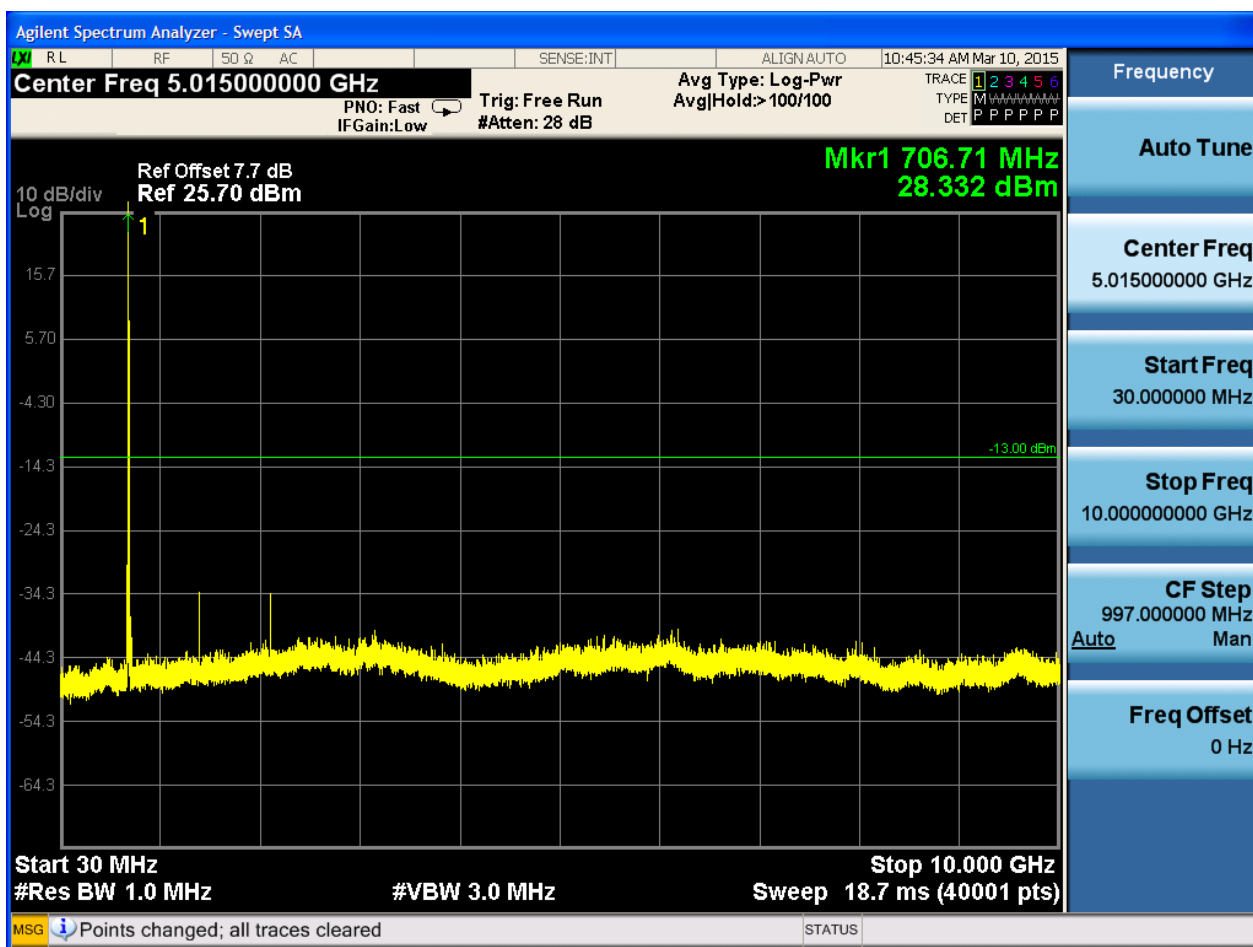


6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0





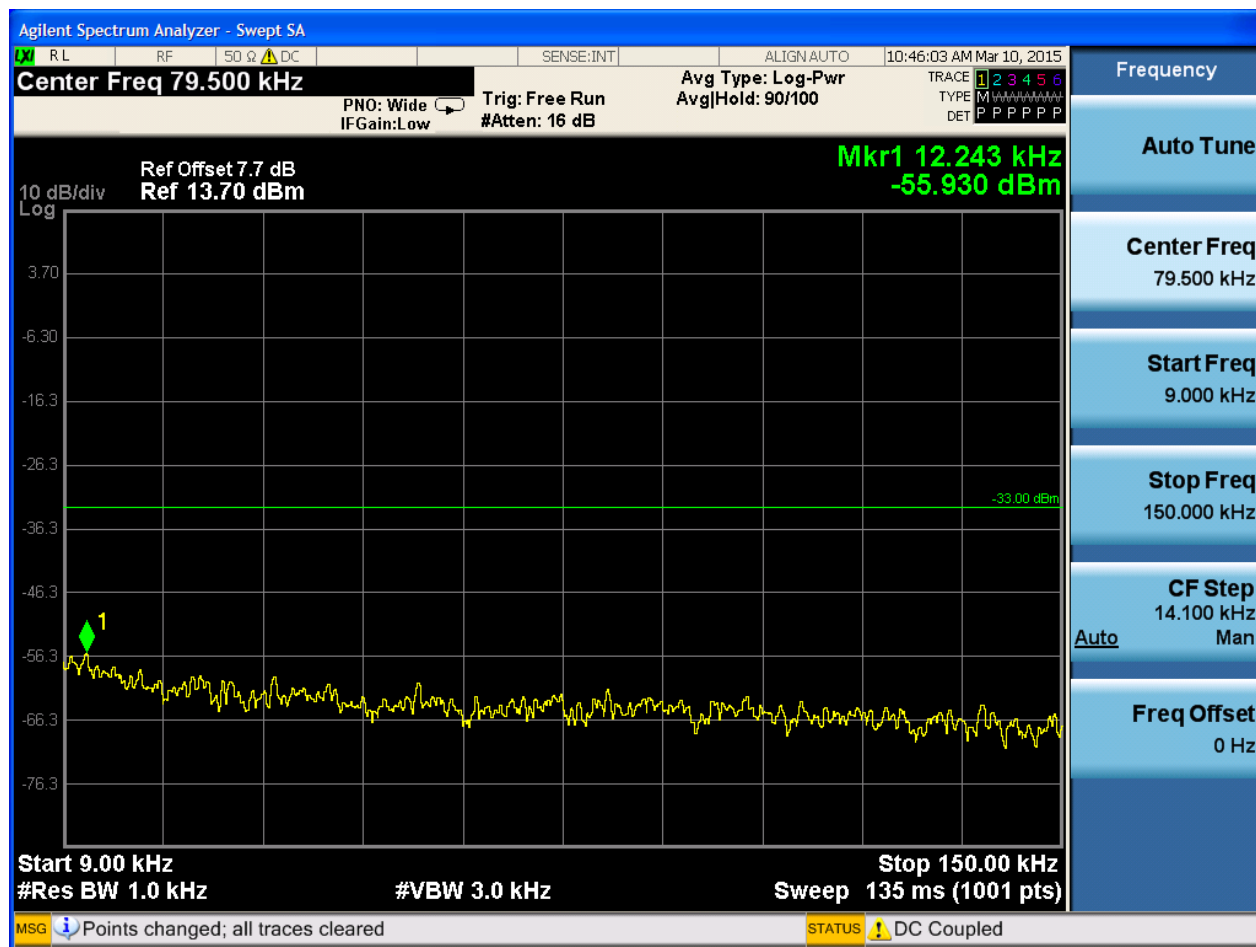


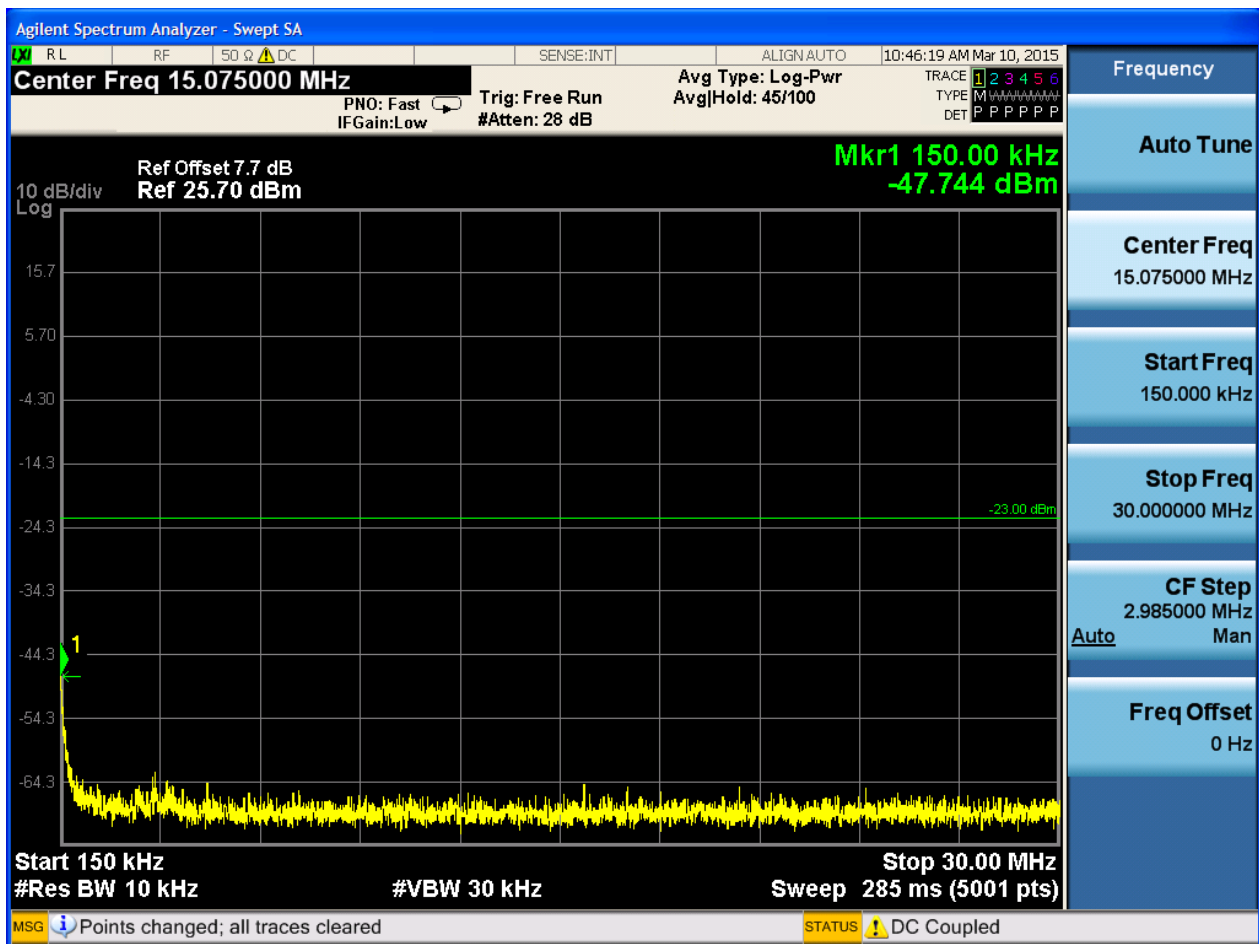
6.1.1.2 Test Mode = LTE/TM2

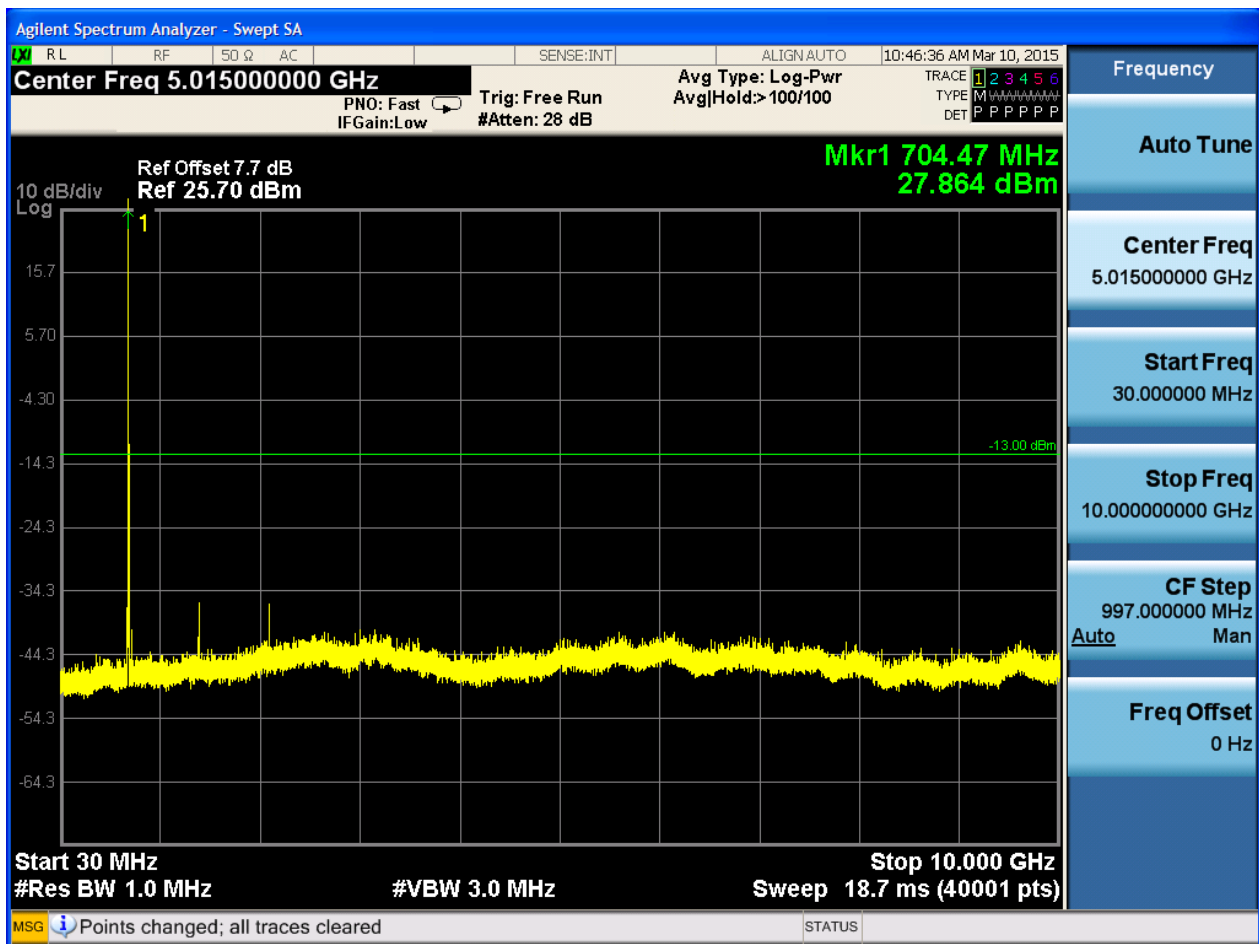
6.1.1.2.1 Test Bandwidth = 5

6.1.1.2.1.1 Test Channel = LCH

6.1.1.2.1.1.1 Test RB = RB1#0

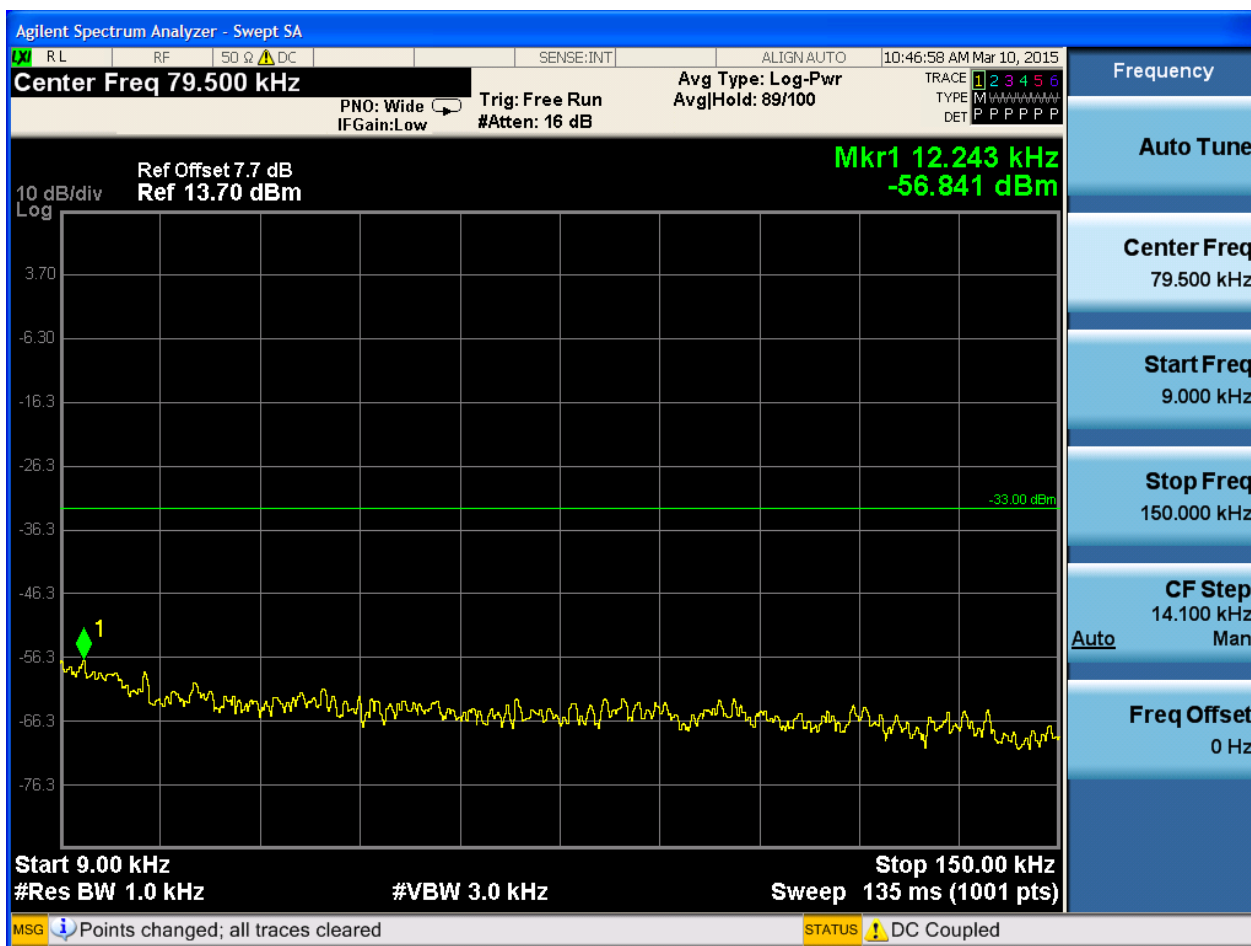


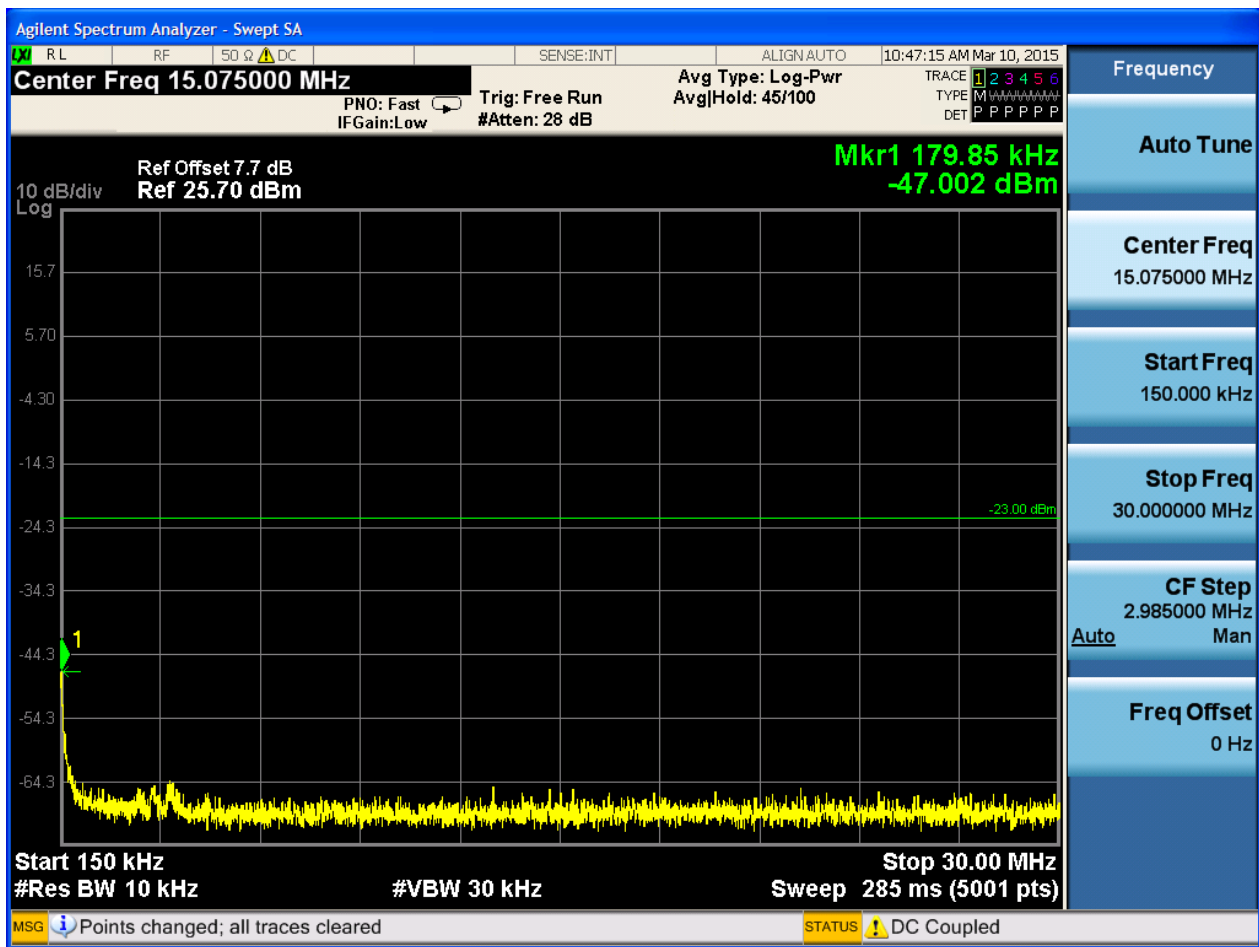


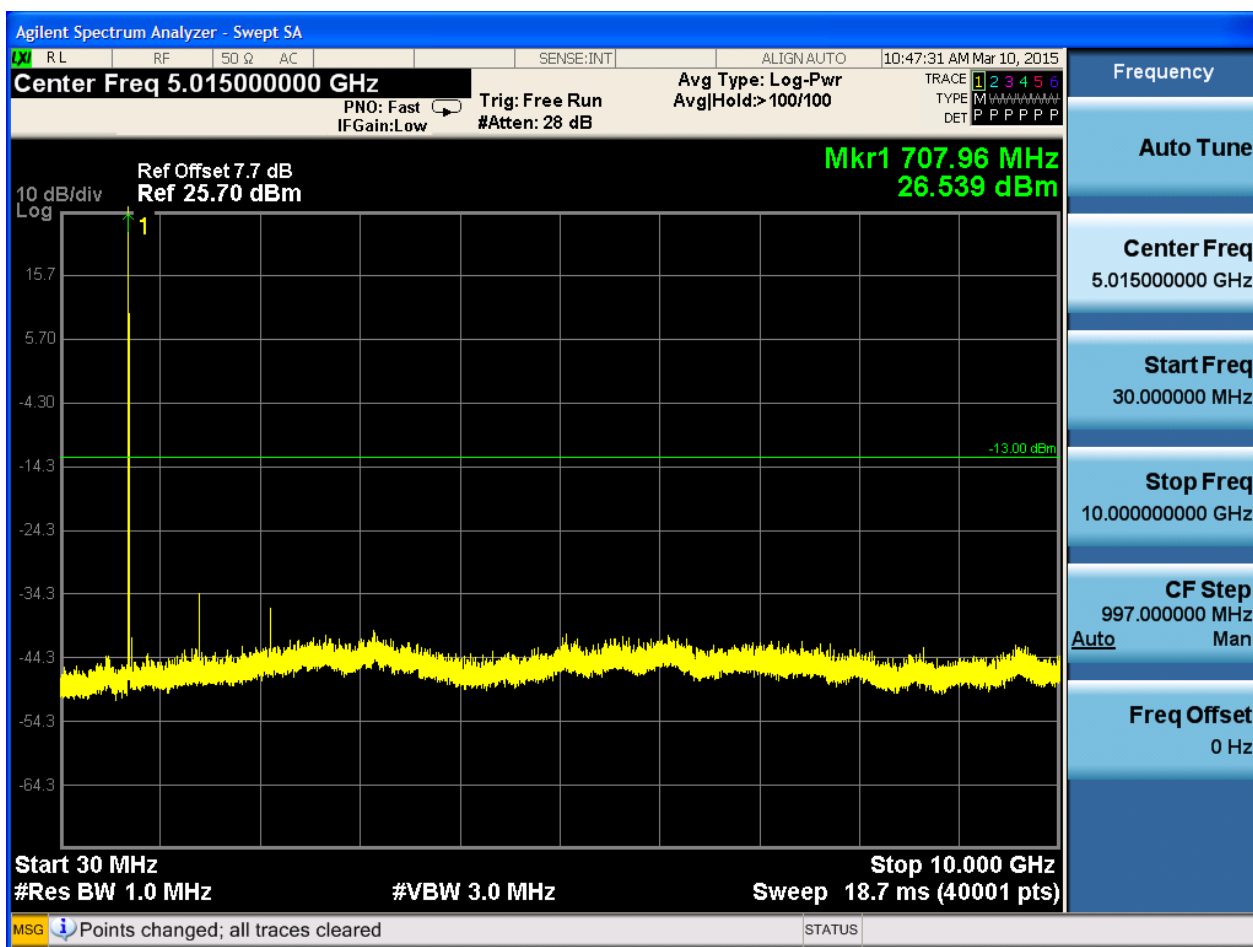


6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0



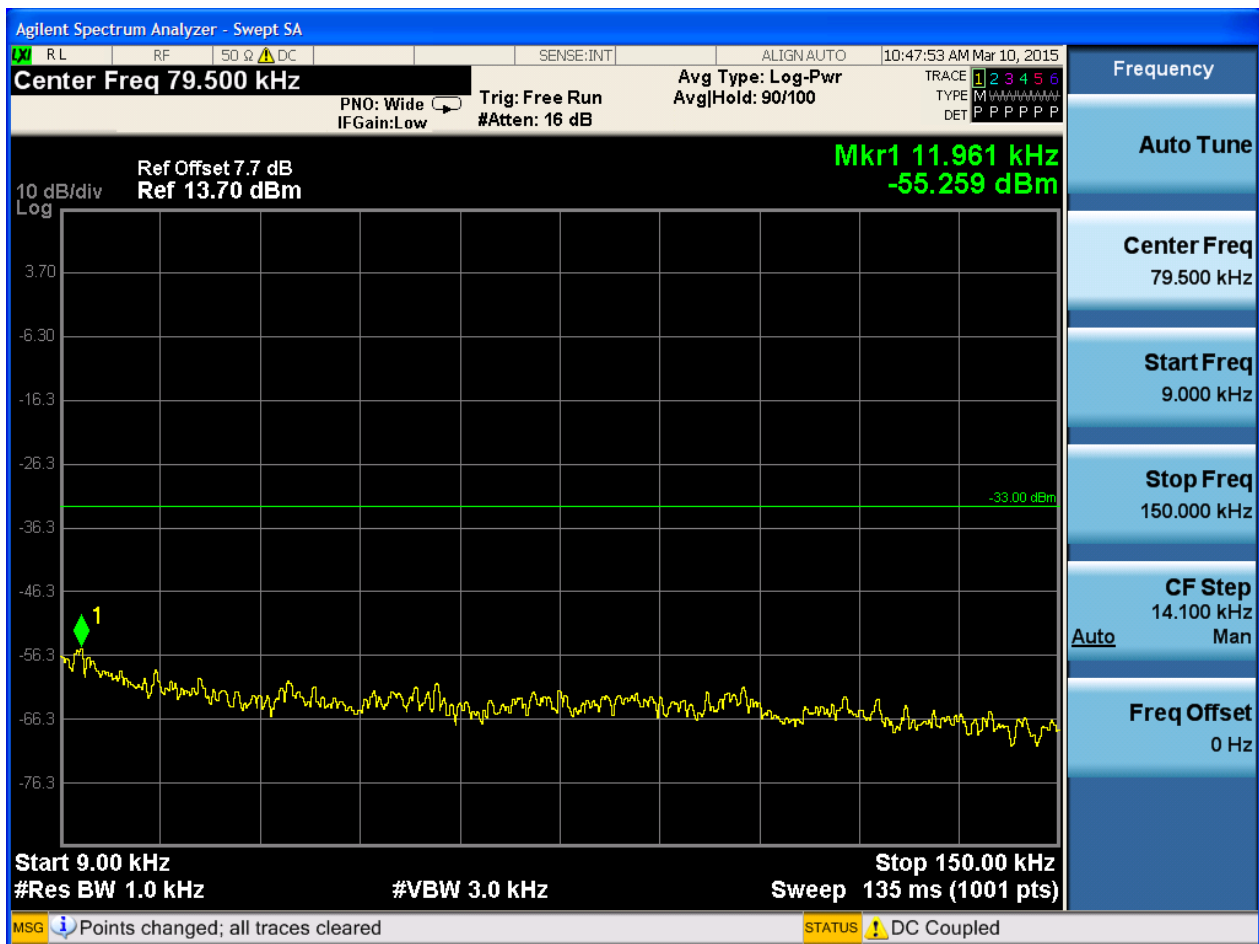


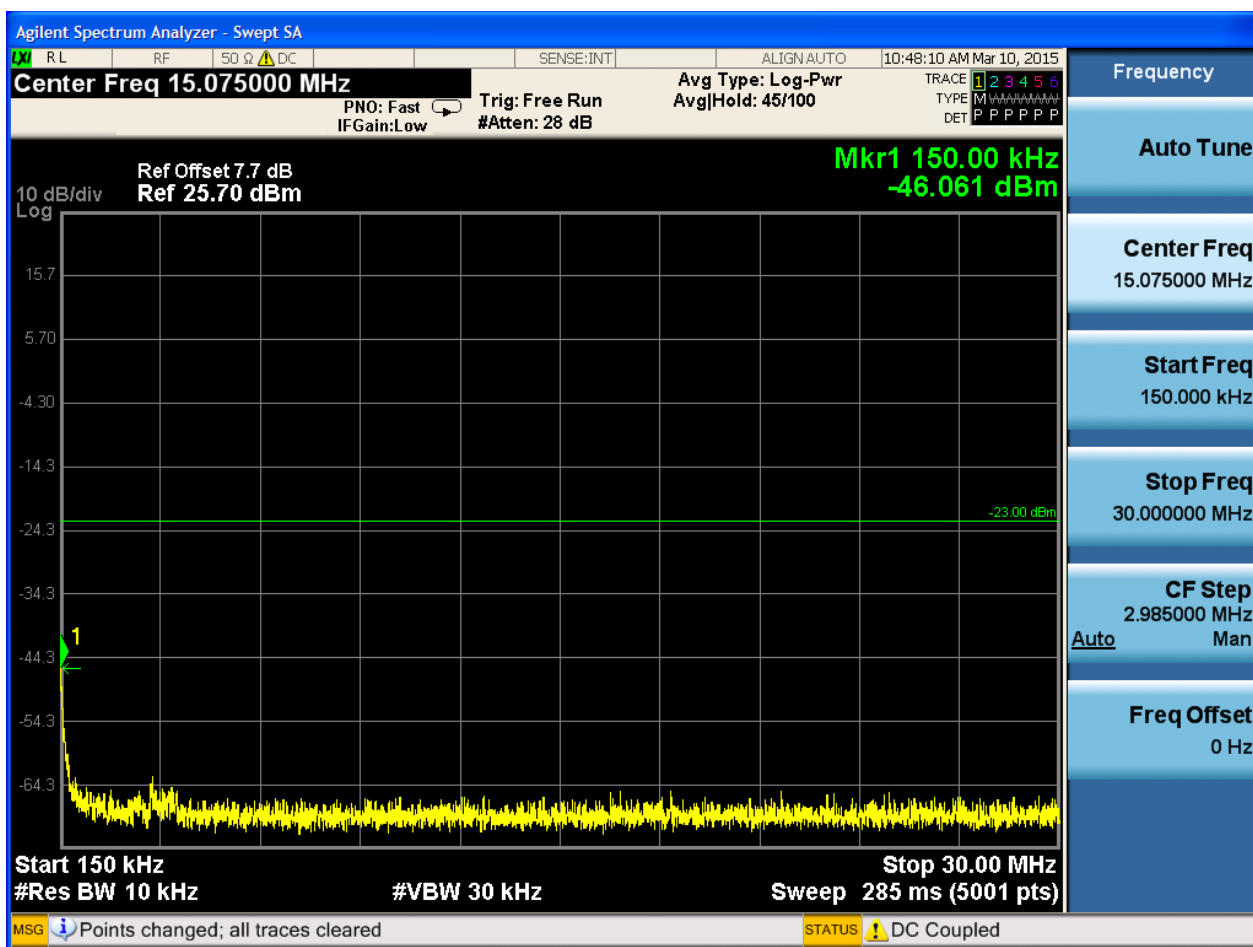


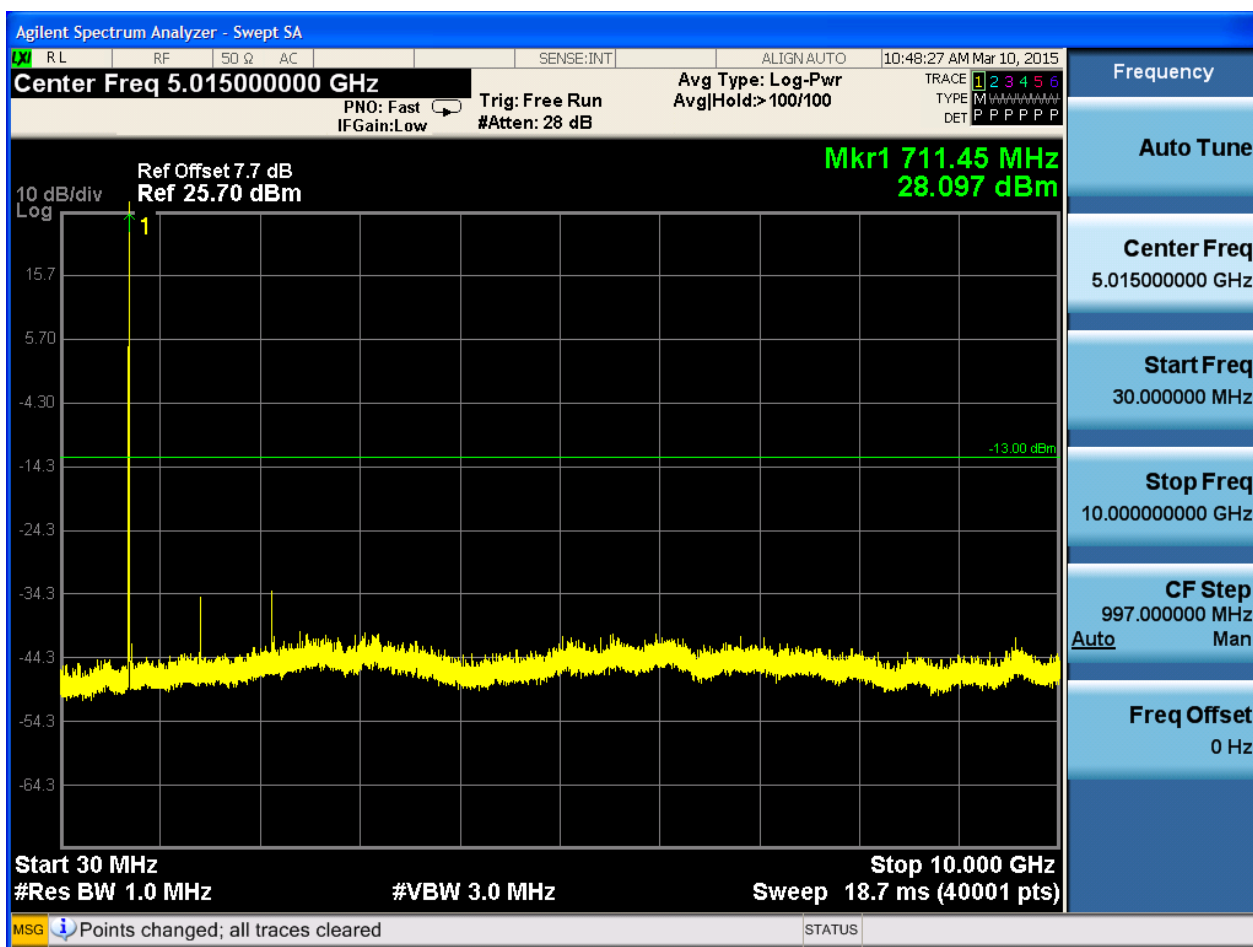


6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0



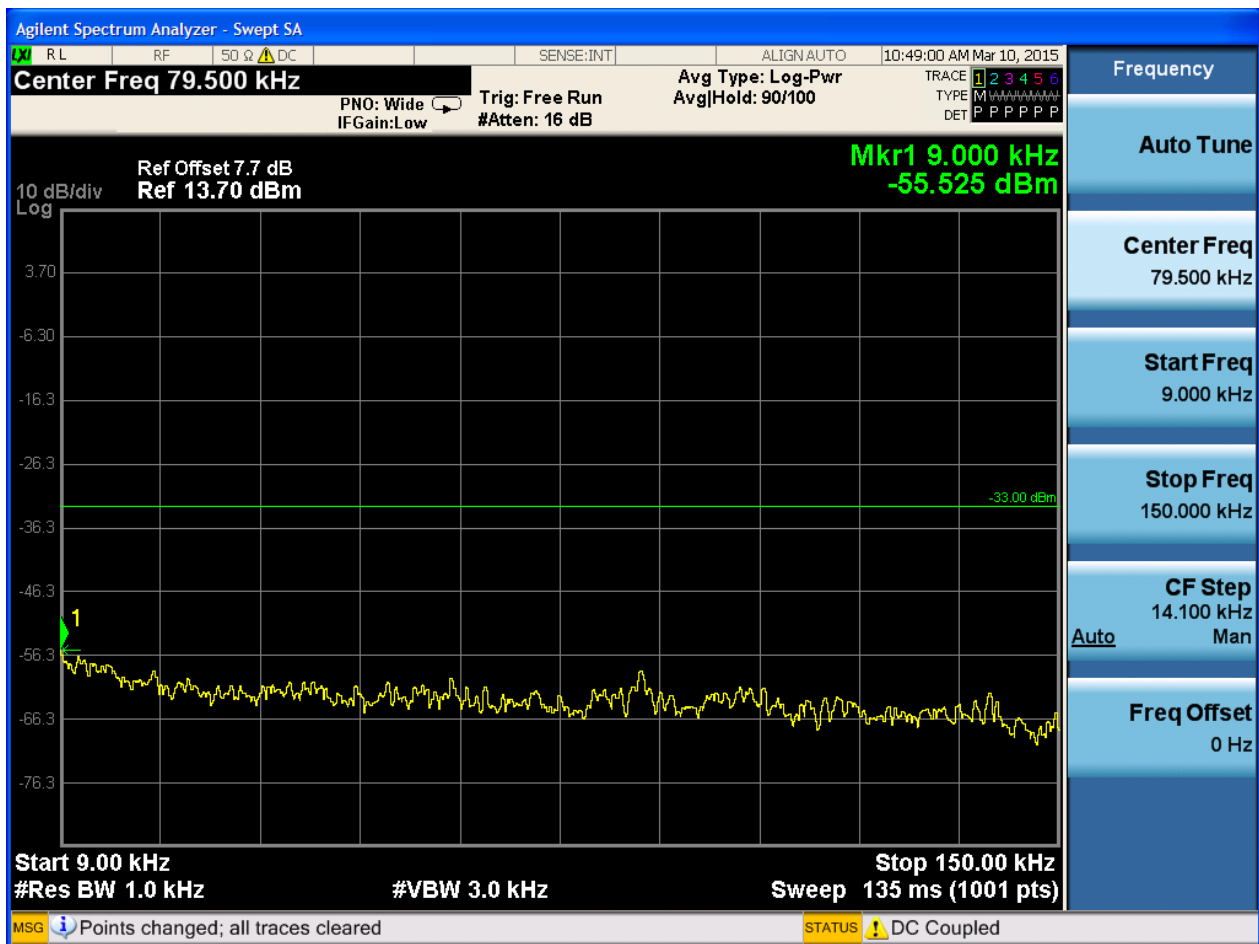


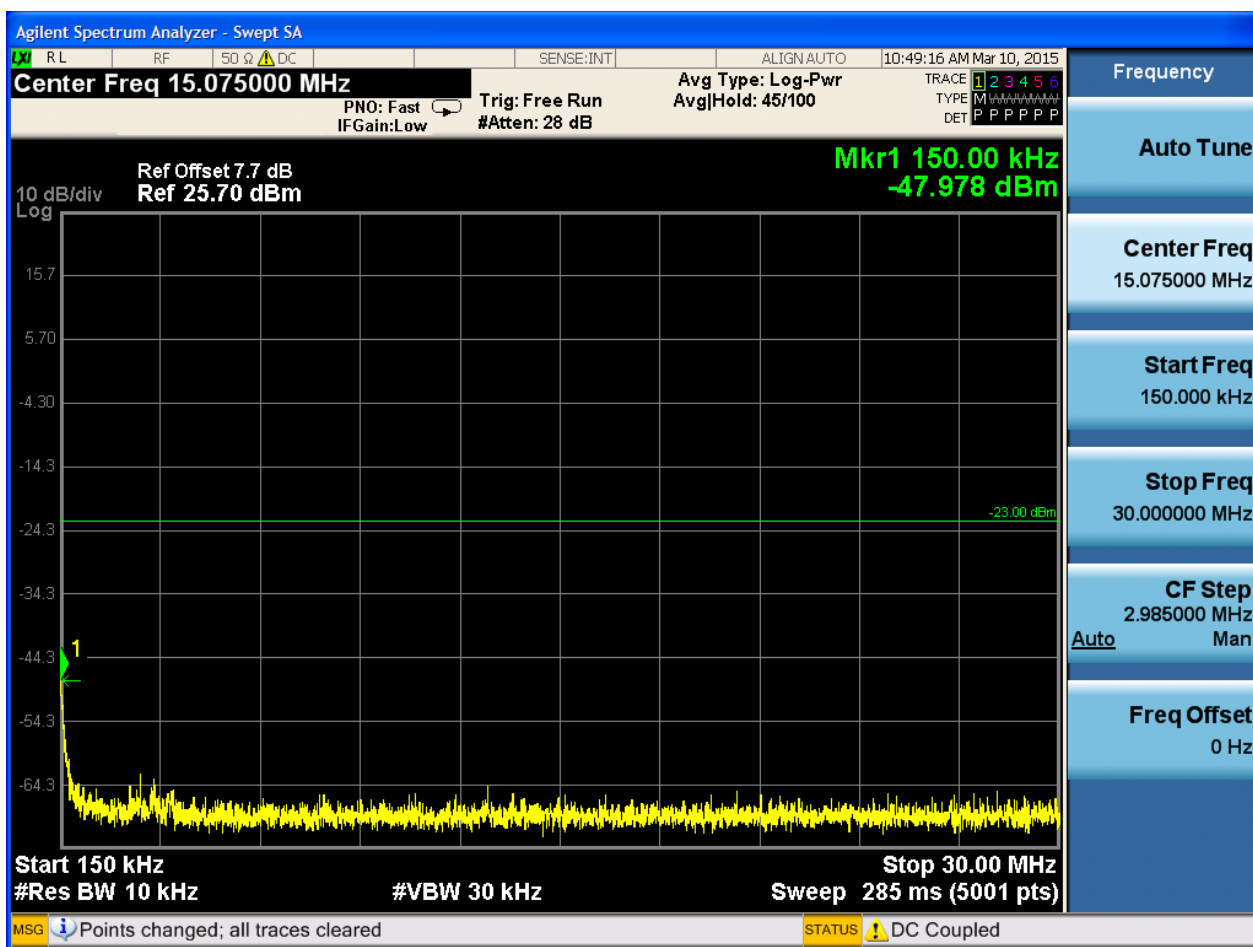


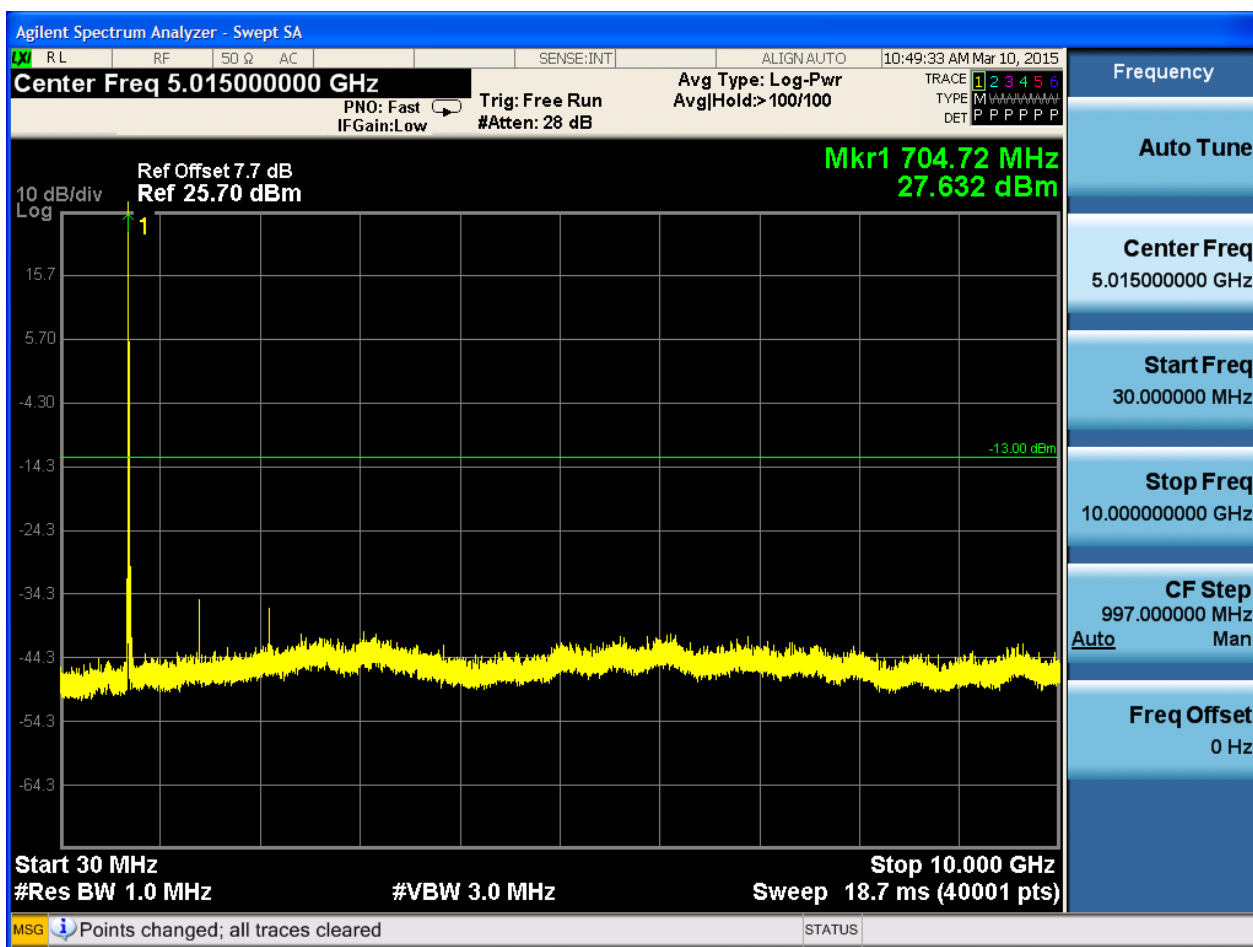
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0



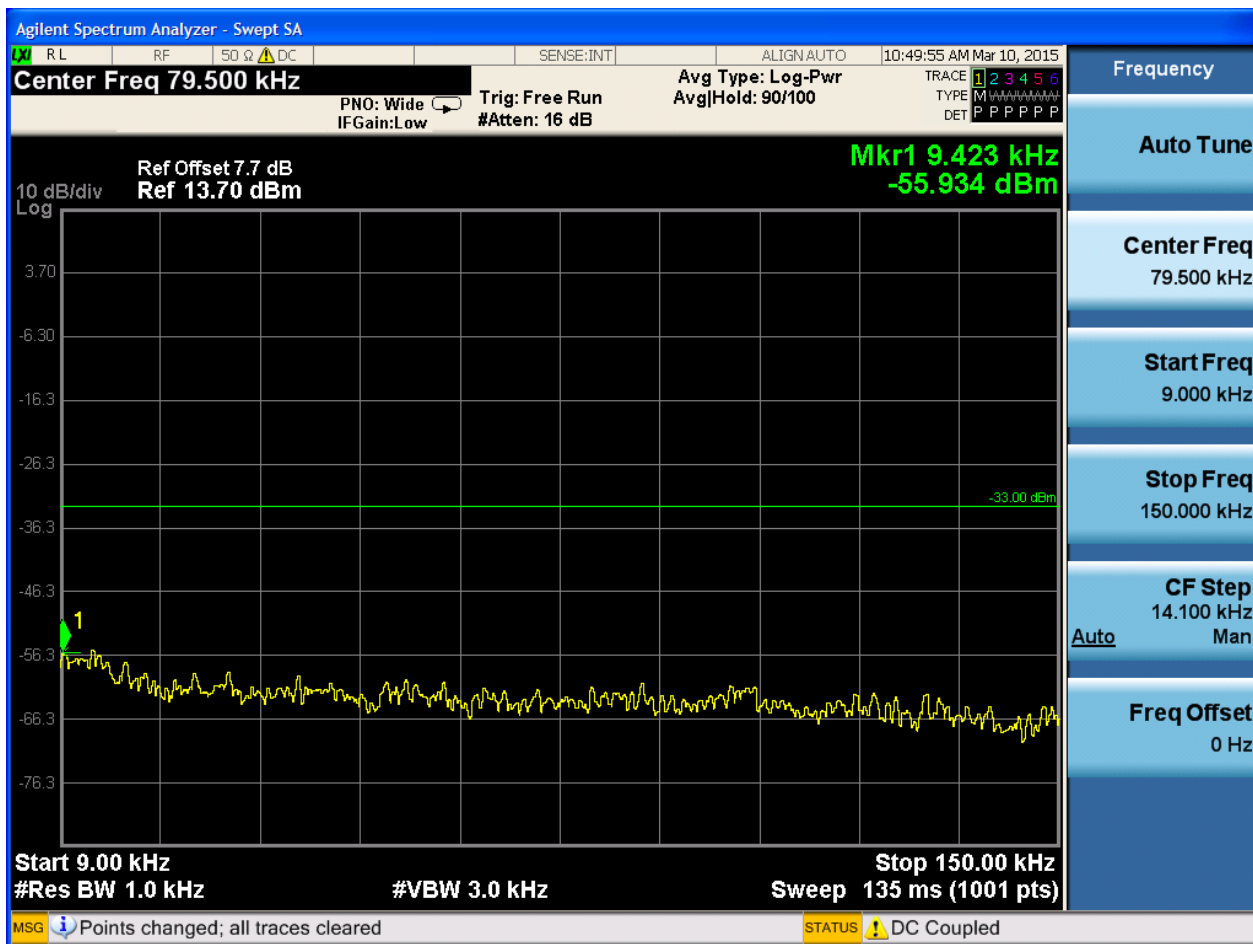


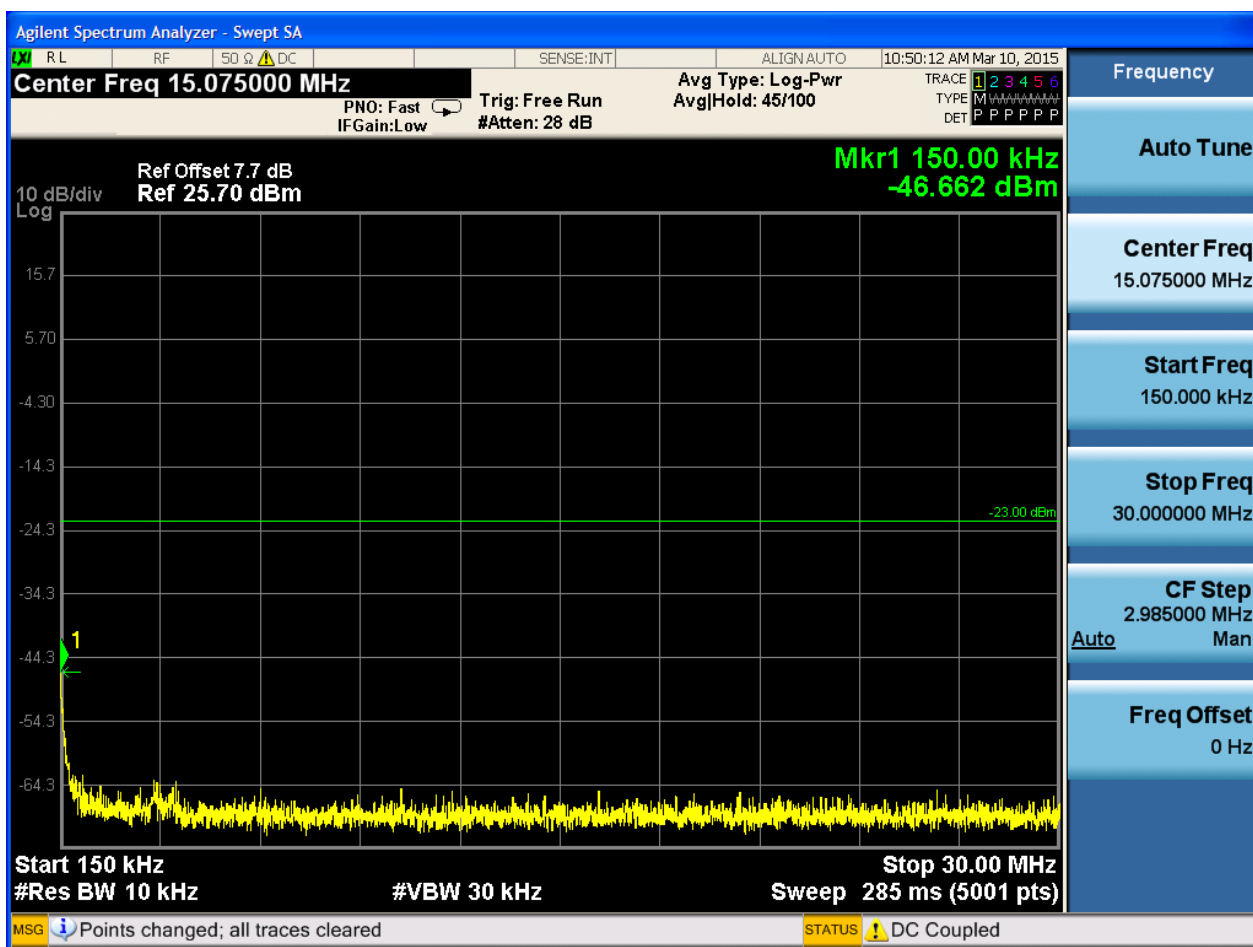


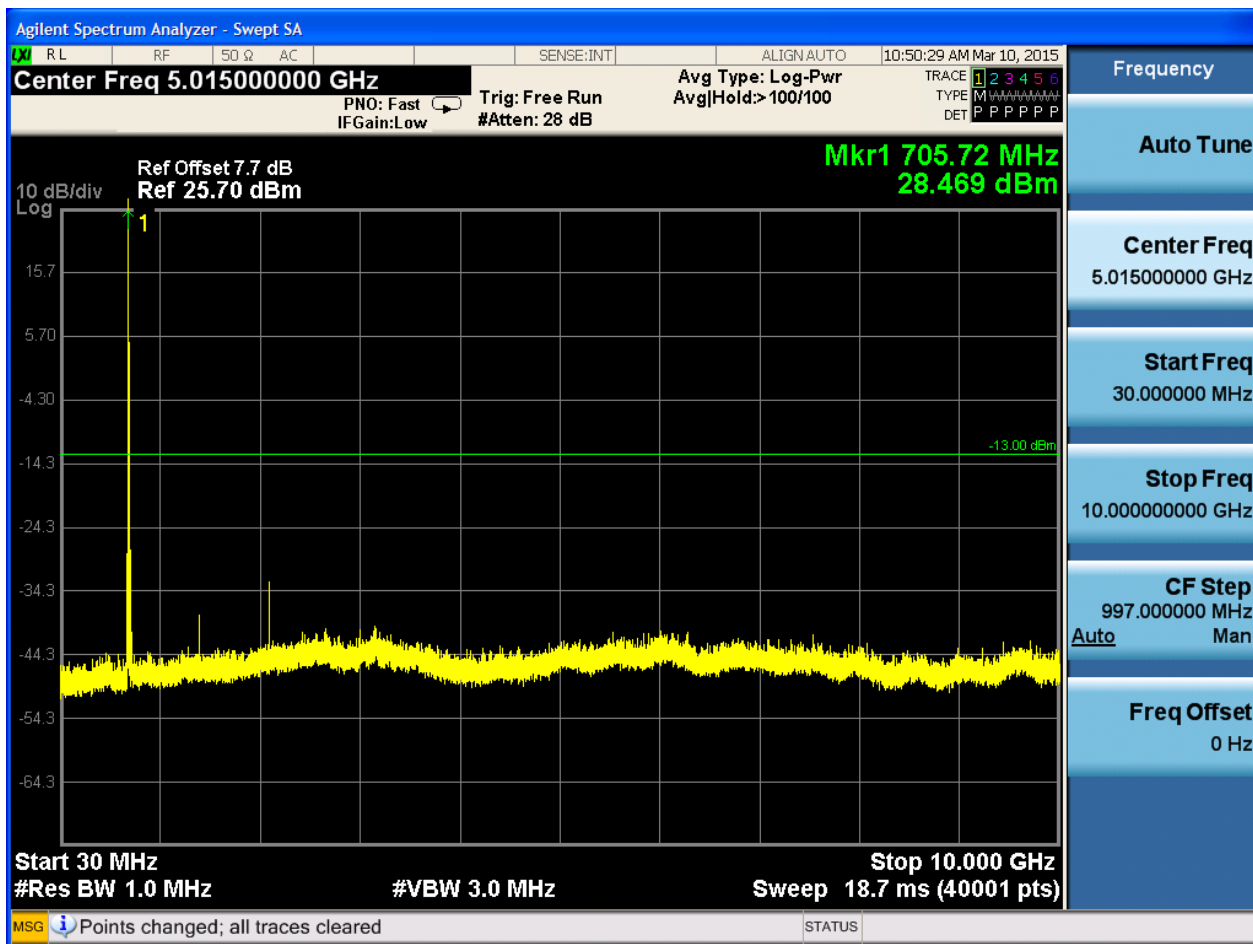


6.1.1.2.2.2 Test Channel = MCH

6.1.1.2.2.2.1 Test RB = RB1#0



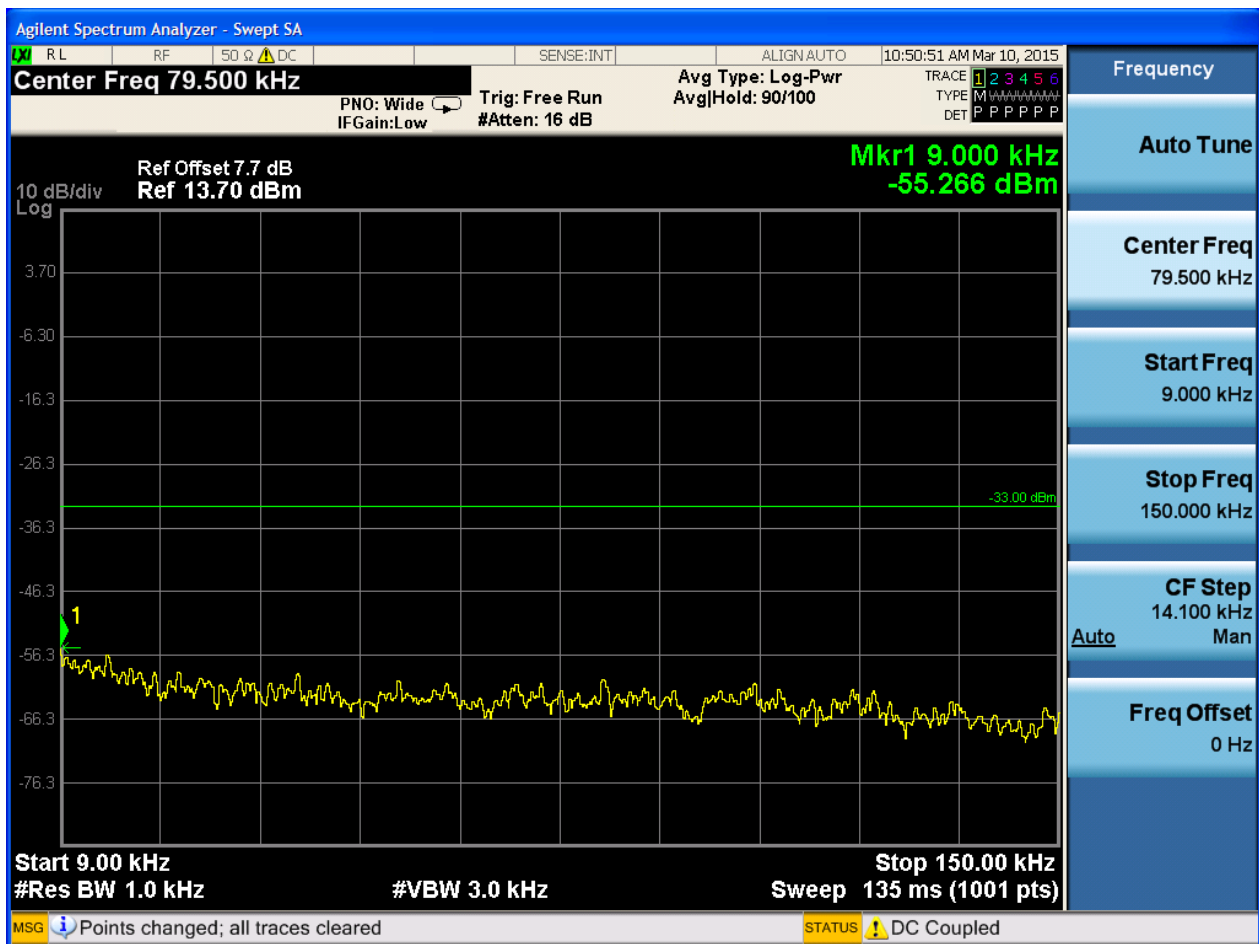


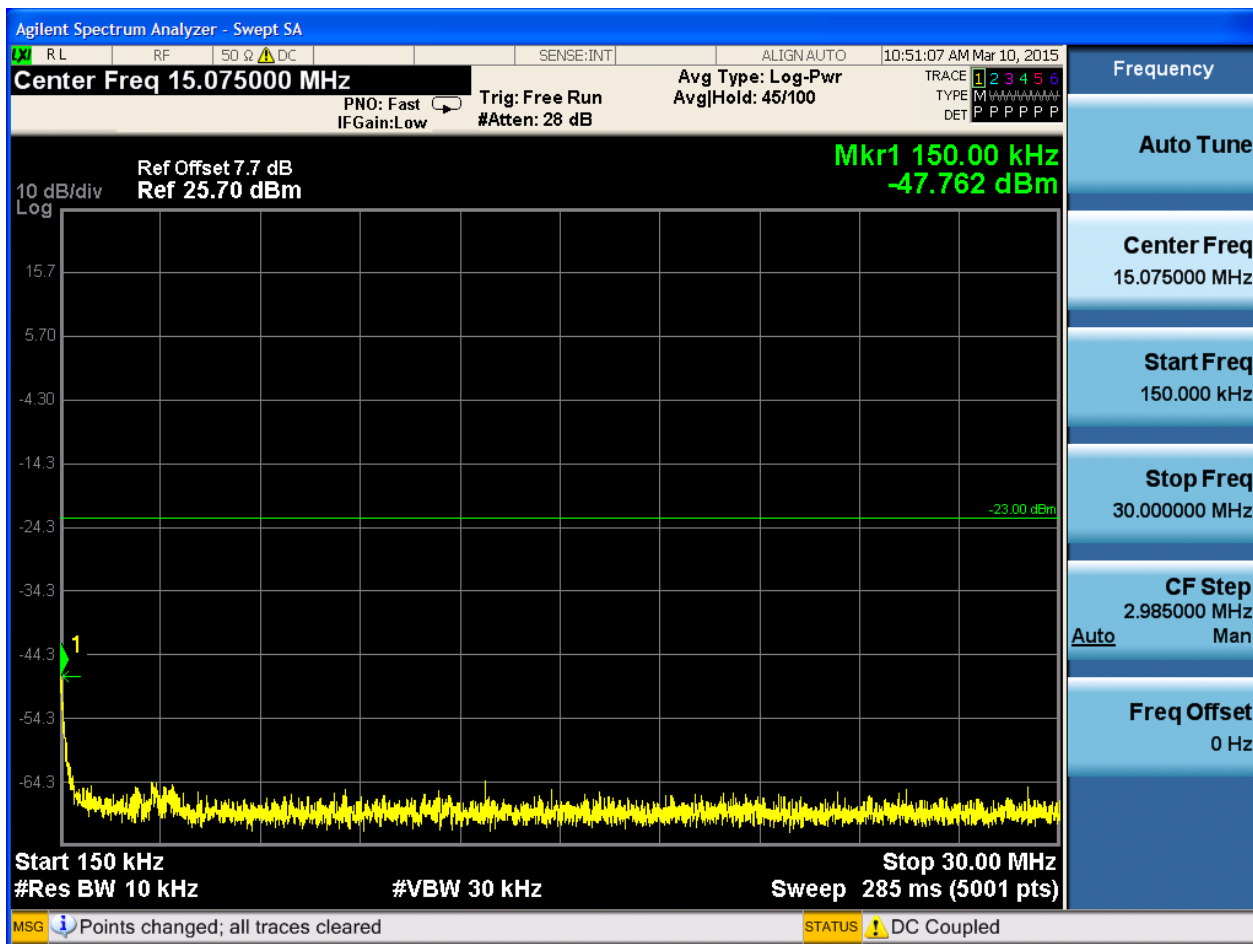


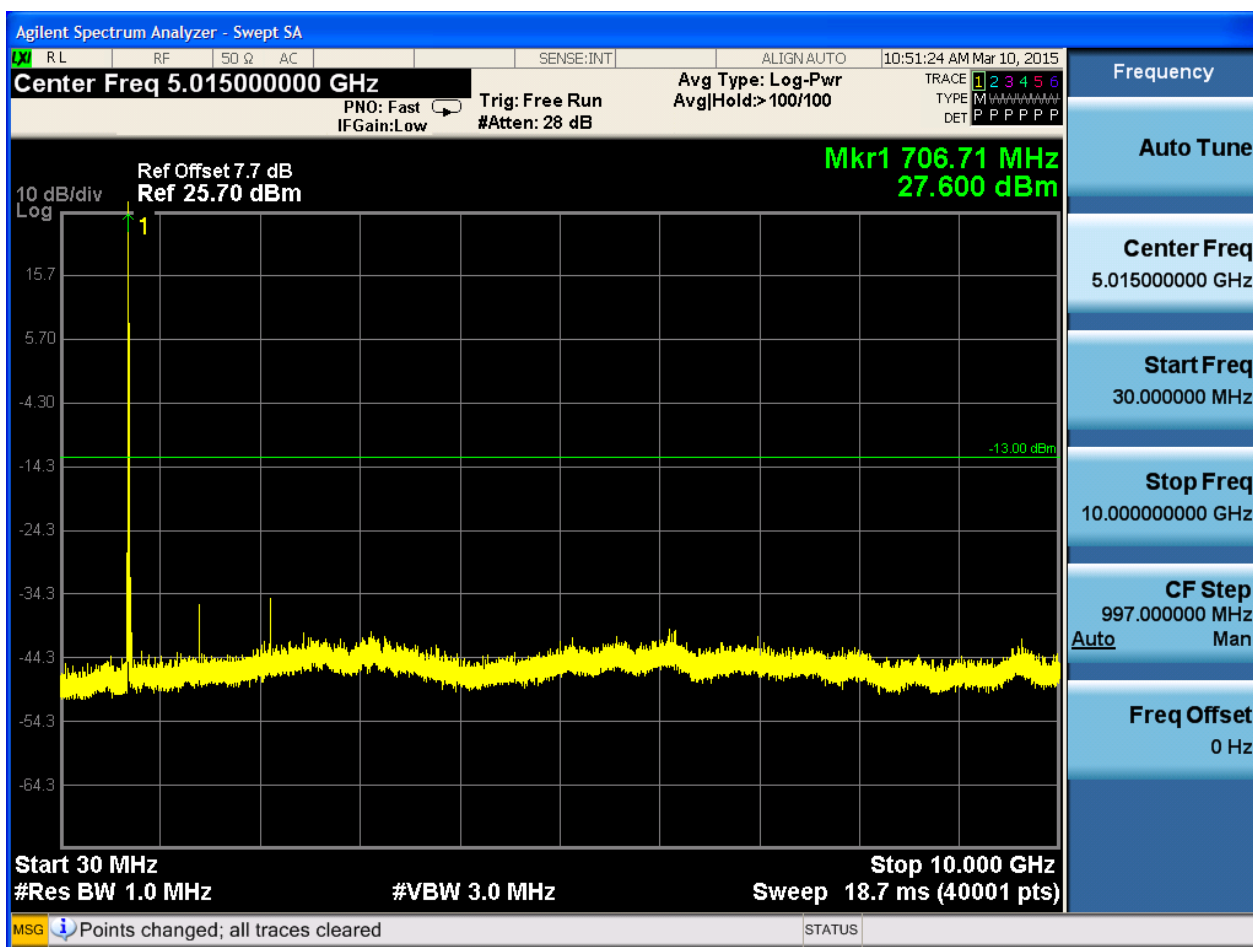


6.1.1.2.2.3 Test Channel = HCH

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

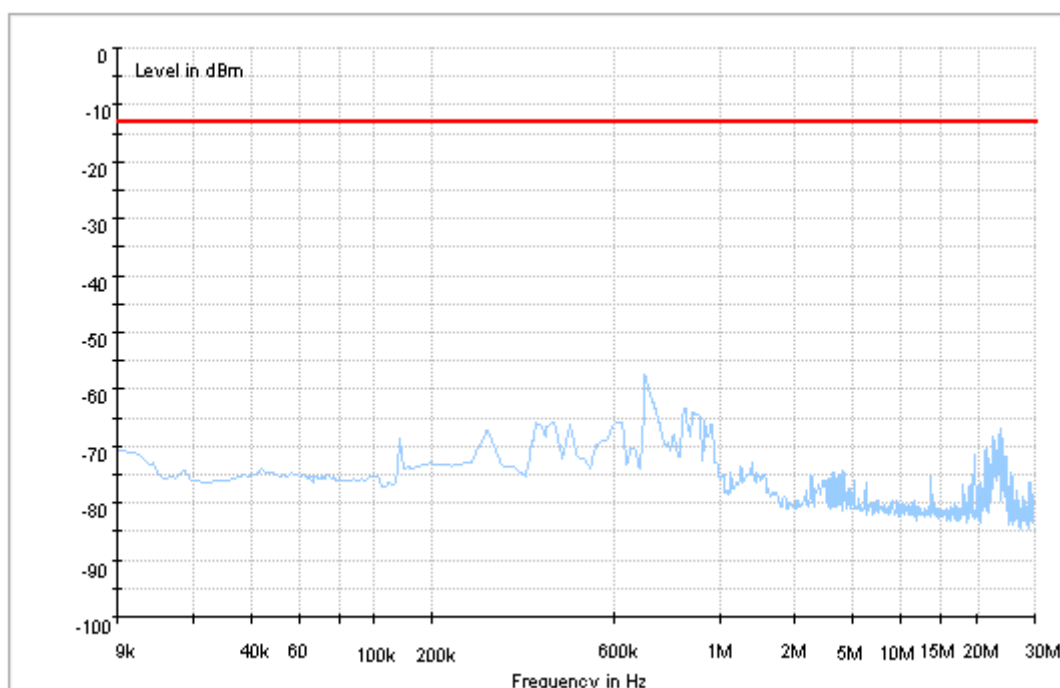
We tested all modes, but the data presented below is the worst case.

Part I - Test Plots

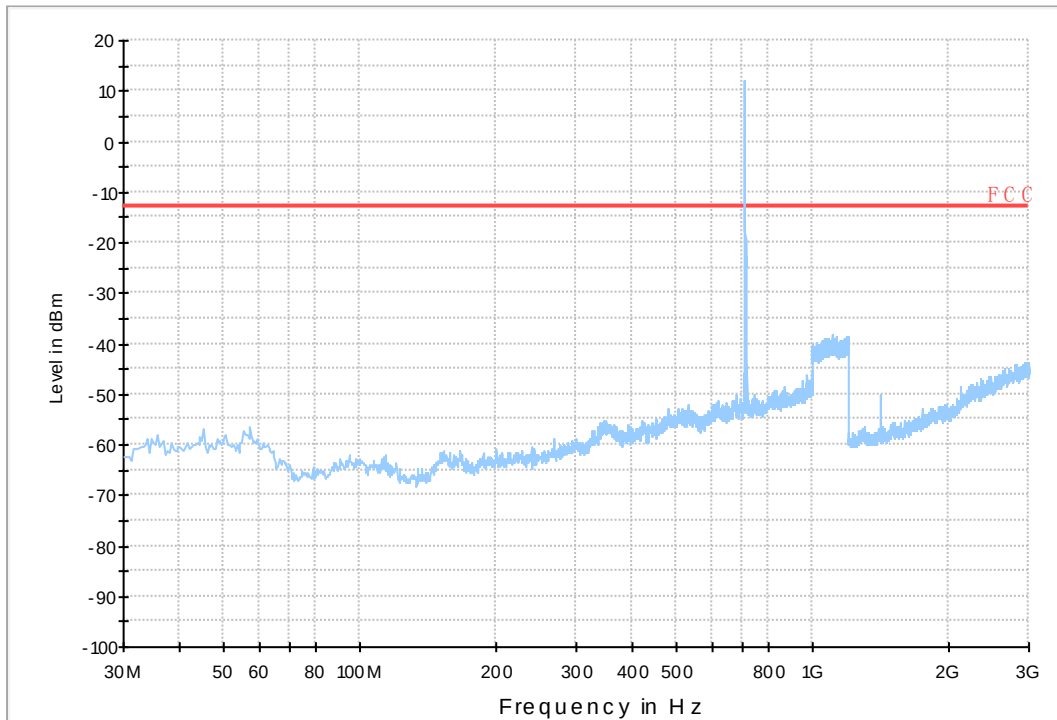
7.1 For LTE

7.1.1 Test Band = BAND17

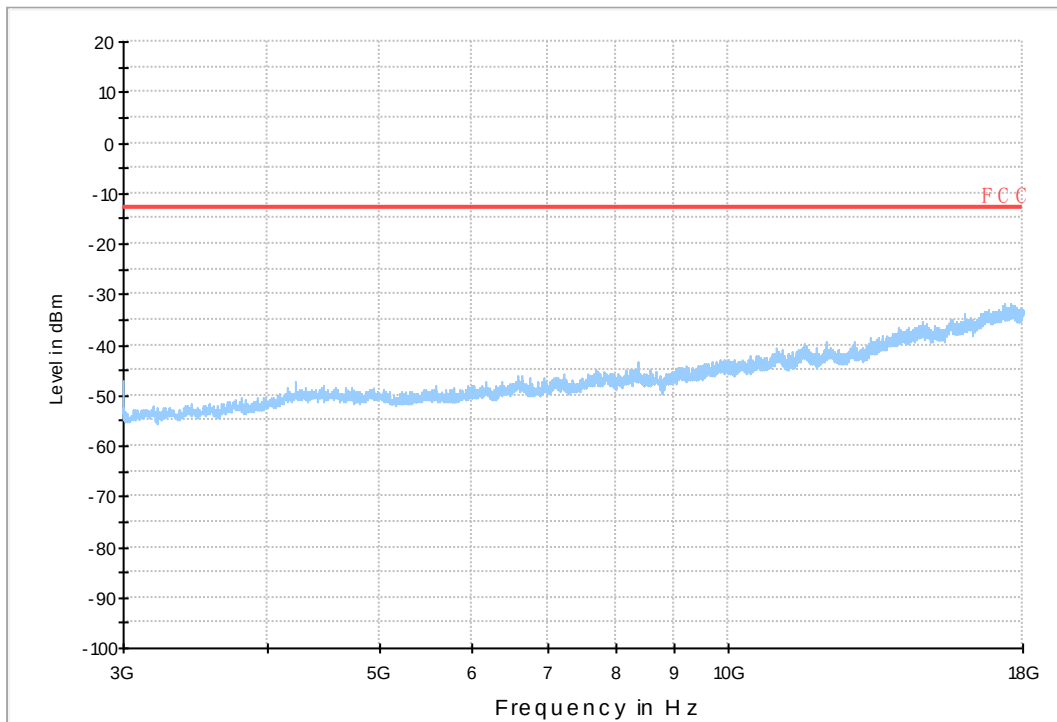
7.1.1.1 Test Bandwidth = 5



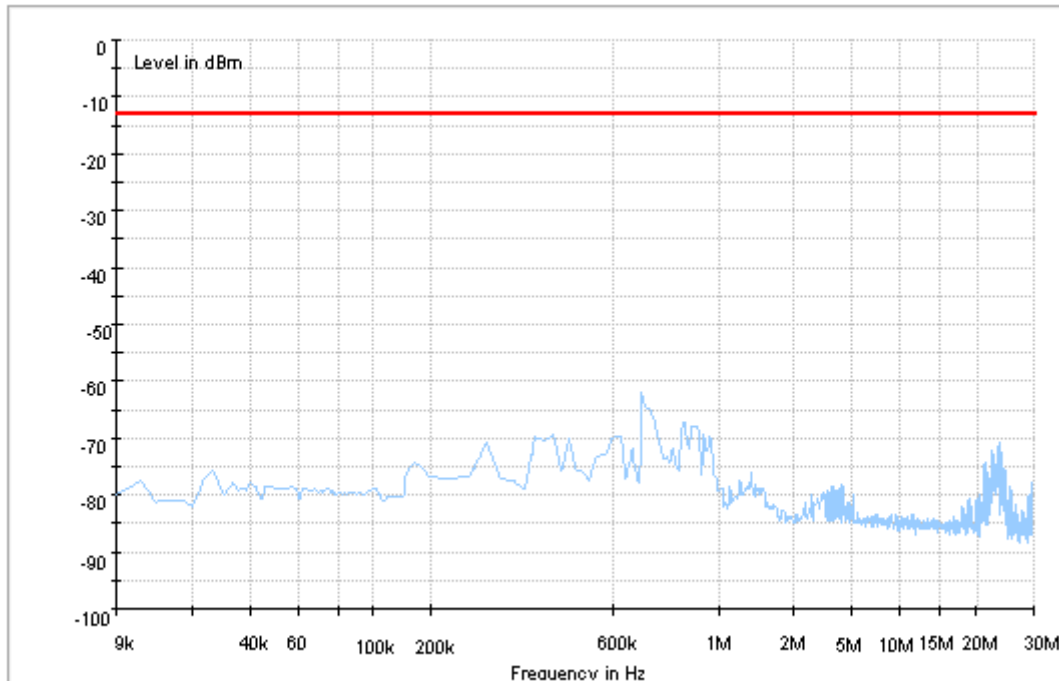
Copy of RSE-TX-DIRECTOR BELOW 1G_L



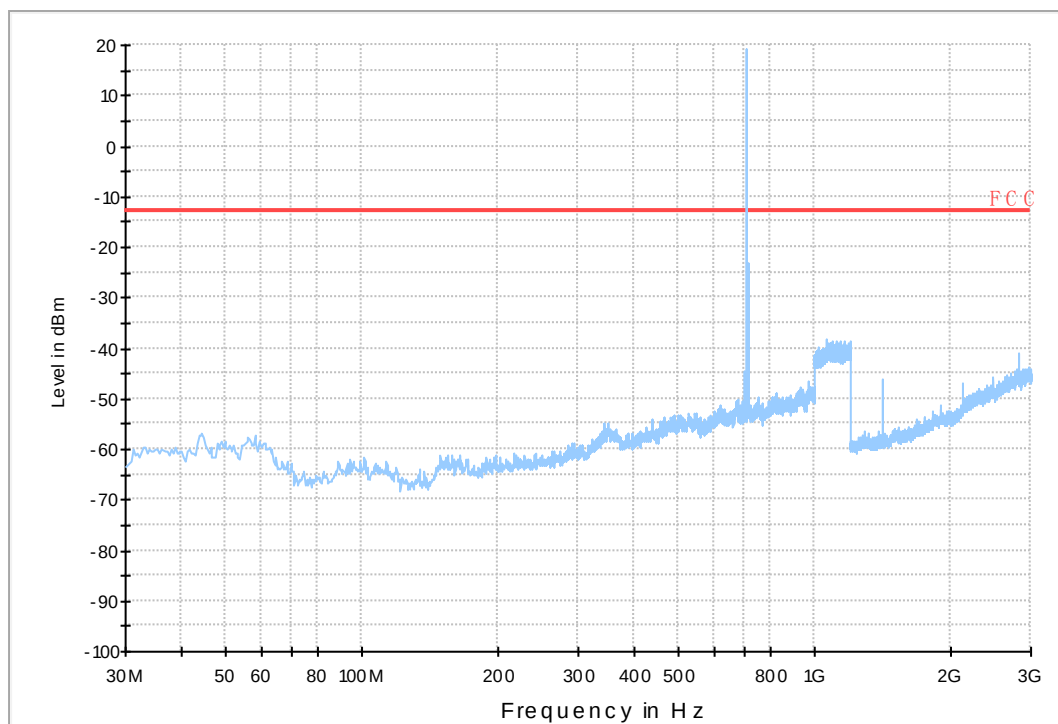
Copy of RSE-TX-DIRECTOR BELOW 1G_H



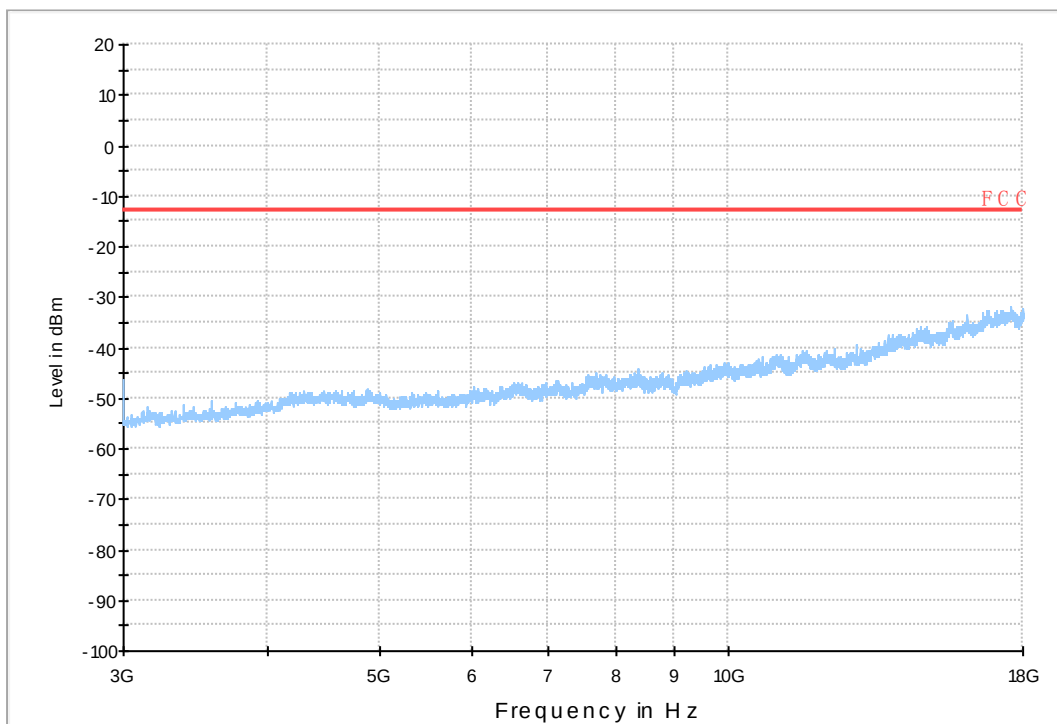
7.1.1.2 Test Bandwidth = 10



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
BAND17	LTE/TM1	5	LCH	TN	VL	-3.6	-0.0051	PASS
					VN	1.34	0.0019	PASS
					VH	0.7	0.00099	PASS
			MCH	TN	VL	-4.75	-0.00669	PASS
					VN	4.88	0.00687	PASS
					VH	-3.33	-0.00469	PASS
			HCH	TN	VL	-1.43	-0.002	PASS
					VN	1.29	0.00181	PASS
					VH	4.68	0.00656	PASS
		10	LCH	TN	VL	0.14	0.0002	PASS
					VN	-3.1	-0.00437	PASS
					VH	0.4	0.00056	PASS
			MCH	TN	VL	-1.59	-0.00224	PASS
					VN	-1.46	-0.00206	PASS
					VH	-1.27	-0.00179	PASS
			HCH	TN	VL	3.63	0.00511	PASS
					VN	1.1	0.00155	PASS
					VH	-1.9	-0.00267	PASS
	LTE/TM2	5	LCH	TN	VL	-1.37	-0.00194	PASS
					VN	-1.44	-0.00204	PASS
					VH	4.38	0.0062	PASS
			MCH	TN	VL	-1.82	-0.00256	PASS
					VN	-8.23	-0.01159	PASS
					VH	1.9	0.00268	PASS
			HCH	TN	VL	-0.79	-0.00111	PASS
					VN	-3.12	-0.00437	PASS
					VH	-3.19	-0.00447	PASS
		10	LCH	TN	VL	0.36	0.00051	PASS
					VN	-0.06	-0.00008	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			MCH	TN	VH	0.72	0.00102	PASS
					VL	4.25	0.00599	PASS
					VN	-2	-0.00282	PASS
					VH	2.25	0.00317	PASS
			HCH	TN	VL	1.04	0.00146	PASS
					VN	0.23	0.00032	PASS
					VH	-0.77	-0.00108	PASS

8.1.2 Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
BAND17	LTE/TM1	5	LCH	VN	-30	5.22	0.00739	PASS
					-20	1.75	0.00248	PASS
					-10	0.82	0.00116	PASS
					0	3.02	0.00427	PASS
					10	-1.24	-0.00176	PASS
					20	10.93	0.01547	PASS
					30	-7.14	-0.01011	PASS
					40	4.25	0.00602	PASS
					50	2.79	0.00395	PASS
			MCH	VN	-30	-2.35	-0.00331	PASS
					-20	-6.19	-0.00872	PASS
					-10	0.74	0.00104	PASS
					0	-4.78	-0.00673	PASS
					10	0.47	0.00066	PASS
					20	-1.27	-0.00179	PASS
					30	5.75	0.0081	PASS
					40	3.26	0.00459	PASS
					50	-3.38	-0.00476	PASS
			HCH	VN	-30	1.13	0.00158	PASS
					-20	-6.17	-0.00865	PASS
					-10	4.23	0.00593	PASS
					0	1.12	0.00157	PASS
					10	-2.92	-0.00409	PASS
					20	-1.36	-0.00191	PASS
					30	0.31	0.00043	PASS
					40	-1.89	-0.00265	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		10	LCH	VN	50	-0.9	-0.00126	PASS
					-30	-1.37	-0.00193	PASS
					-20	-0.56	-0.00079	PASS
					-10	-0.06	-0.00008	PASS
					0	-1.77	-0.0025	PASS
					10	0.47	0.00066	PASS
					20	-0.94	-0.00133	PASS
					30	-2.15	-0.00303	PASS
					40	0.67	0.00094	PASS
					50	-3.13	-0.00441	PASS
			MCH	VN	-30	-1.54	-0.00217	PASS
					-20	2.76	0.00389	PASS
					-10	0.13	0.00018	PASS
					0	1	0.00141	PASS
					10	4.79	0.00675	PASS
					20	-1.04	-0.00146	PASS
					30	-0.8	-0.00113	PASS
					40	0.77	0.00108	PASS
					50	0.72	0.00101	PASS
			HCH	VN	-30	-2.45	-0.00345	PASS
					-20	-4.35	-0.00612	PASS
					-10	-1.79	-0.00252	PASS
					0	3.02	0.00425	PASS
					10	5.15	0.00724	PASS
					20	0.03	0.00004	PASS
					30	-2.57	-0.00361	PASS
					40	-0.3	-0.00042	PASS
					50	1.16	0.00163	PASS
	LTE/TM2	5	LCH	VN	-30	-10.17	-0.01439	PASS
					-20	4.85	0.00686	PASS
					-10	3	0.00425	PASS
					0	0.19	0.00027	PASS
					10	0.23	0.00033	PASS
					20	0.36	0.00051	PASS
					30	1.52	0.00215	PASS
					40	1.13	0.0016	PASS
					50	-1.97	-0.00279	PASS
			MCH	VN	-30	1.13	0.00159	PASS
					-20	-1.39	-0.00196	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-10	-11.72	-0.01651	PASS
					0	3.71	0.00523	PASS
					10	2.5	0.00352	PASS
					20	-10.17	-0.01432	PASS
					30	4.43	0.00624	PASS
					40	2.98	0.0042	PASS
					50	-0.31	-0.00044	PASS
			HCH	VN	-30	2.39	0.00335	PASS
					-20	-8.27	-0.01159	PASS
					-10	1.44	0.00202	PASS
					0	-10.74	-0.01505	PASS
					10	5.78	0.0081	PASS
					20	2.6	0.00364	PASS
					30	-0.17	-0.00024	PASS
					40	3.83	0.00537	PASS
					50	-1.17	-0.00164	PASS
		10	LCH	VN	-30	3.03	0.00427	PASS
					-20	-3.05	-0.0043	PASS
					-10	-2.68	-0.00378	PASS
					0	-0.77	-0.00109	PASS
					10	0.41	0.00058	PASS
					20	1.23	0.00173	PASS
					30	0.04	0.00006	PASS
					40	-3.96	-0.00559	PASS
					50	0.76	0.00107	PASS
			MCH	VN	-30	-2.13	-0.003	PASS
					-20	0.1	0.00014	PASS
					-10	-0.7	-0.00099	PASS
					0	2.69	0.00379	PASS
					10	1.93	0.00272	PASS
					20	2.52	0.00355	PASS
					30	3	0.00423	PASS
					40	-2.02	-0.00285	PASS
					50	-1.5	-0.00211	PASS
			HCH	VN	-30	-5.49	-0.00772	PASS
					-20	1.23	0.00173	PASS
					-10	-1.62	-0.00228	PASS
					0	1.56	0.00219	PASS
					10	0.47	0.00066	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					20	-2.52	-0.00354	PASS
					30	-1.56	-0.00219	PASS
					40	-0.24	-0.00034	PASS
					50	-0.99	-0.00139	PASS

END