



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	22.28	17.13	34.7	PASS
				RB1#13	22.98	17.83	34.7	PASS
				RB1#24	22.52	17.37	34.7	PASS
				RB12#0	21.69	16.54	34.7	PASS
				RB12#6	21.85	16.7	34.7	PASS
				RB12#13	21.73	16.58	34.7	PASS
			MCH	RB25#0	21.65	16.5	34.7	PASS
				RB1#0	22.64	17.49	34.7	PASS
				RB1#13	22.93	17.78	34.7	PASS
				RB1#24	22.4	17.25	34.7	PASS
				RB12#0	21.91	16.76	34.7	PASS
				RB12#6	21.94	16.79	34.7	PASS
				RB12#13	21.82	16.67	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.87	16.72	34.7	PASS
			HCH	RB1#0	22.65	17.5	34.7	PASS
				RB1#13	22.95	17.8	34.7	PASS
				RB1#24	22.49	17.34	34.7	PASS
				RB12#0	21.93	16.78	34.7	PASS
				RB12#6	21.92	16.77	34.7	PASS
				RB12#13	21.76	16.61	34.7	PASS
				RB25#0	21.76	16.61	34.7	PASS
		10	LCH	RB1#0	22.08	16.93	34.7	PASS
				RB1#25	22.98	17.83	34.7	PASS
				RB1#49	22.22	17.07	34.7	PASS
				RB25#0	21.56	16.41	34.7	PASS
				RB25#13	21.88	16.73	34.7	PASS
				RB25#25	21.59	16.44	34.7	PASS
				RB50#0	21.6	16.45	34.7	PASS
			MCH	RB1#0	22.3	17.15	34.7	PASS
				RB1#25	22.96	17.81	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#49	22.33	17.18	34.7	PASS
				RB25#0	21.63	16.48	34.7	PASS
				RB25#13	21.87	16.72	34.7	PASS
				RB25#25	21.52	16.37	34.7	PASS
				RB50#0	21.54	16.39	34.7	PASS
			HCH	RB1#0	22.49	17.34	34.7	PASS
				RB1#25	23	17.85	34.7	PASS
				RB1#49	22.17	17.02	34.7	PASS
				RB25#0	21.7	16.55	34.7	PASS
				RB25#13	21.84	16.69	34.7	PASS
				RB25#25	21.46	16.31	34.7	PASS
				RB50#0	21.59	16.44	34.7	PASS
	LTE/TM2	5	LCH	RB1#0	21.52	16.37	34.7	PASS
				RB1#13	21.98	16.83	34.7	PASS
				RB1#24	21.81	16.66	34.7	PASS
				RB12#0	20.74	15.59	34.7	PASS
				RB12#6	20.92	15.77	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB12#13	20.83	15.68	34.7	PASS
				RB25#0	20.71	15.56	34.7	PASS
			MCH	RB1#0	21.77	16.62	34.7	PASS
				RB1#13	21.96	16.81	34.7	PASS
				RB1#24	21.53	16.38	34.7	PASS
				RB12#0	20.89	15.74	34.7	PASS
				RB12#6	21.06	15.91	34.7	PASS
				RB12#13	20.82	15.67	34.7	PASS
				RB25#0	20.91	15.76	34.7	PASS
			HCH	RB1#0	21.97	16.82	34.7	PASS
				RB1#13	21.97	16.82	34.7	PASS
				RB1#24	21.88	16.73	34.7	PASS
				RB12#0	20.97	15.82	34.7	PASS
				RB12#6	20.95	15.8	34.7	PASS
				RB12#13	20.78	15.63	34.7	PASS
				RB25#0	20.73	15.58	34.7	PASS
		10	LCH	RB1#0	21.06	15.91	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#25	21.92	16.77	34.7	PASS
				RB1#49	21.17	16.02	34.7	PASS
				RB25#0	20.64	15.49	34.7	PASS
				RB25#13	20.88	15.73	34.7	PASS
				RB25#25	20.62	15.47	34.7	PASS
				RB50#0	20.64	15.49	34.7	PASS
			MCH	RB1#0	21.38	16.23	34.7	PASS
				RB1#25	21.98	16.83	34.7	PASS
				RB1#49	21.31	16.16	34.7	PASS
				RB25#0	20.68	15.53	34.7	PASS
				RB25#13	20.91	15.76	34.7	PASS
				RB25#25	20.58	15.43	34.7	PASS
				RB50#0	20.6	15.45	34.7	PASS
			HCH	RB1#0	21.83	16.68	34.7	PASS
				RB1#25	21.99	16.84	34.7	PASS
				RB1#49	21.41	16.26	34.7	PASS
				RB25#0	20.69	15.54	34.7	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#13	20.83	15.68	34.7	PASS
				RB25#25	20.5	15.35	34.7	PASS
				RB50#0	20.62	15.47	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

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Note2:

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

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

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

$$\text{SET Sweep time} = \text{auto-couple.}$$

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
BAND17	LTE/TM1	5	LCH	RB1#0	4.9	13	PASS
				RB1#13	4.73	13	PASS
				RB1#24	5.04	13	PASS
				RB12#0	5.93	13	PASS
				RB12#6	5.86	13	PASS
				RB12#13	5.89	13	PASS
				RB25#0	6.11	13	PASS
			MCH	RB1#0	4.85	13	PASS
				RB1#13	4.76	13	PASS
				RB1#24	4.86	13	PASS
				RB12#0	5.88	13	PASS
				RB12#6	5.87	13	PASS
				RB12#13	5.89	13	PASS
				RB25#0	6.23	13	PASS
			HCH	RB1#0	5.13	13	PASS
				RB1#13	4.69	13	PASS
				RB1#24	4.8	13	PASS
				RB12#0	5.95	13	PASS
				RB12#6	5.76	13	PASS
				RB12#13	5.69	13	PASS
				RB25#0	5.93	13	PASS
		10	LCH	RB1#0	4.85	13	PASS
				RB1#25	4.83	13	PASS
				RB1#49	5.01	13	PASS
				RB25#0	6.05	13	PASS
				RB25#13	6.02	13	PASS
				RB25#25	6.11	13	PASS
				RB50#0	6.44	13	PASS
			MCH	RB1#0	4.95	13	PASS
				RB1#25	4.79	13	PASS
				RB1#49	4.89	13	PASS
				RB25#0	5.95	13	PASS
				RB25#13	5.96	13	PASS
				RB25#25	5.97	13	PASS
				RB50#0	6.19	13	PASS
			HCH	RB1#0	4.95	13	PASS
				RB1#25	4.75	13	PASS
				RB1#49	4.74	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
	LTE/TM2			RB25#0	6.14	13	PASS
				RB25#13	6.11	13	PASS
				RB25#25	5.98	13	PASS
				RB50#0	6.31	13	PASS
		5	LCH	RB1#0	5.79	13	PASS
				RB1#13	5.69	13	PASS
				RB1#24	5.89	13	PASS
				RB12#0	6.2	13	PASS
				RB12#6	6.3	13	PASS
				RB12#13	6.39	13	PASS
				RB25#0	6.89	13	PASS
			MCH	RB1#0	5.91	13	PASS
				RB1#13	5.93	13	PASS
				RB1#24	5.86	13	PASS
				RB12#0	6.54	13	PASS
				RB12#6	6.58	13	PASS
				RB12#13	6.45	13	PASS
				RB25#0	6.86	13	PASS
			HCH	RB1#0	5.91	13	PASS
				RB1#13	5.62	13	PASS
				RB1#24	5.56	13	PASS
				RB12#0	6.72	13	PASS
				RB12#6	6.6	13	PASS
				RB12#13	6.39	13	PASS
				RB25#0	6.93	13	PASS
		10	LCH	RB1#0	5.39	13	PASS
				RB1#25	5.84	13	PASS
				RB1#49	5.45	13	PASS
				RB25#0	6.98	13	PASS
				RB25#13	6.95	13	PASS
				RB25#25	6.95	13	PASS
				RB50#0	6.77	13	PASS
			MCH	RB1#0	5.78	13	PASS
				RB1#25	5.84	13	PASS
				RB1#49	5.35	13	PASS
				RB25#0	6.9	13	PASS
				RB25#13	6.96	13	PASS
				RB25#25	6.84	13	PASS
				RB50#0	6.87	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			HCH	RB1#0	5.7	13	PASS
				RB1#25	5.62	13	PASS
				RB1#49	5.5	13	PASS
				RB25#0	7.06	13	PASS
				RB25#13	7.09	13	PASS
				RB25#25	6.83	13	PASS
				RB50#0	7.13	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

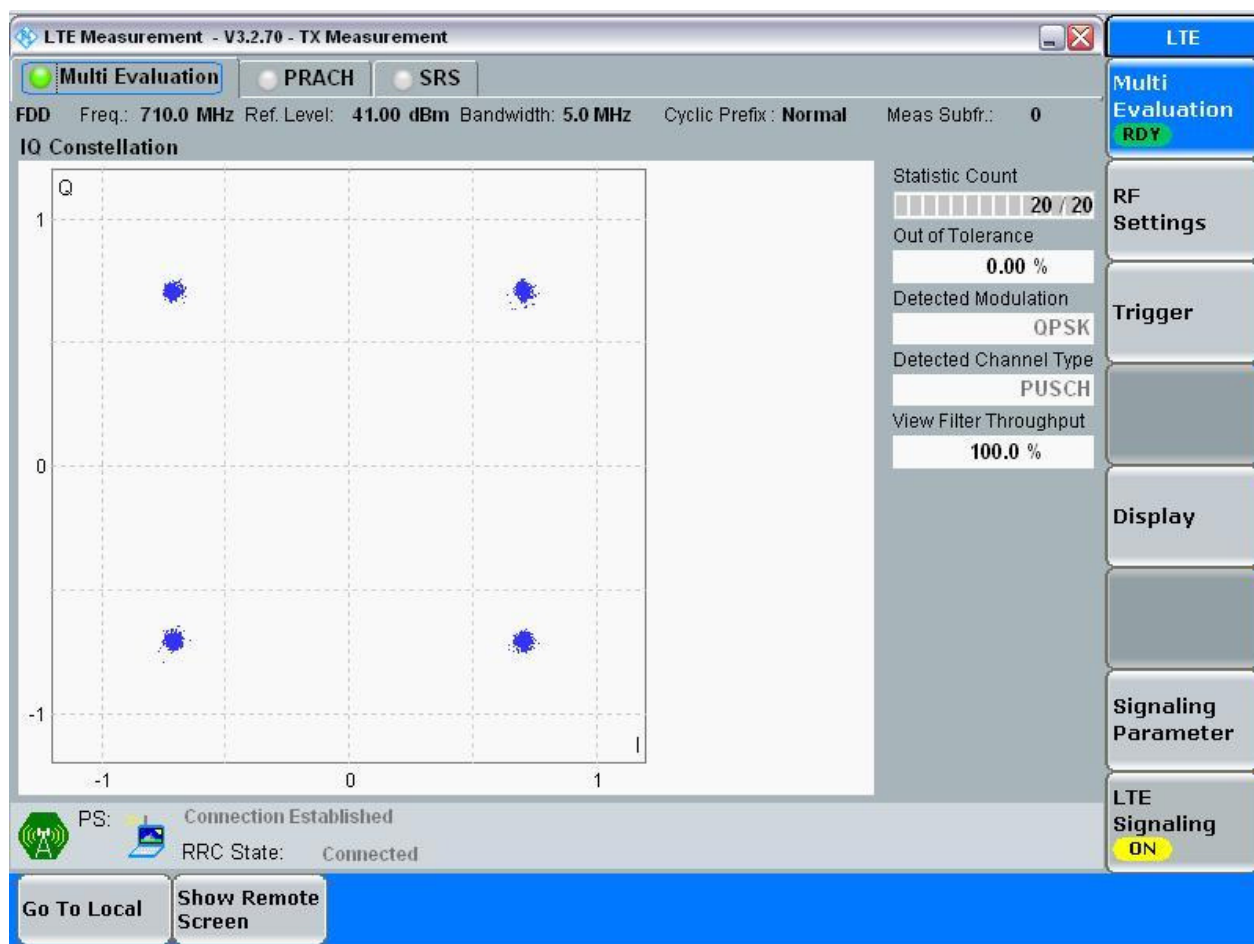
3.1.1 Test Band = BAND17

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

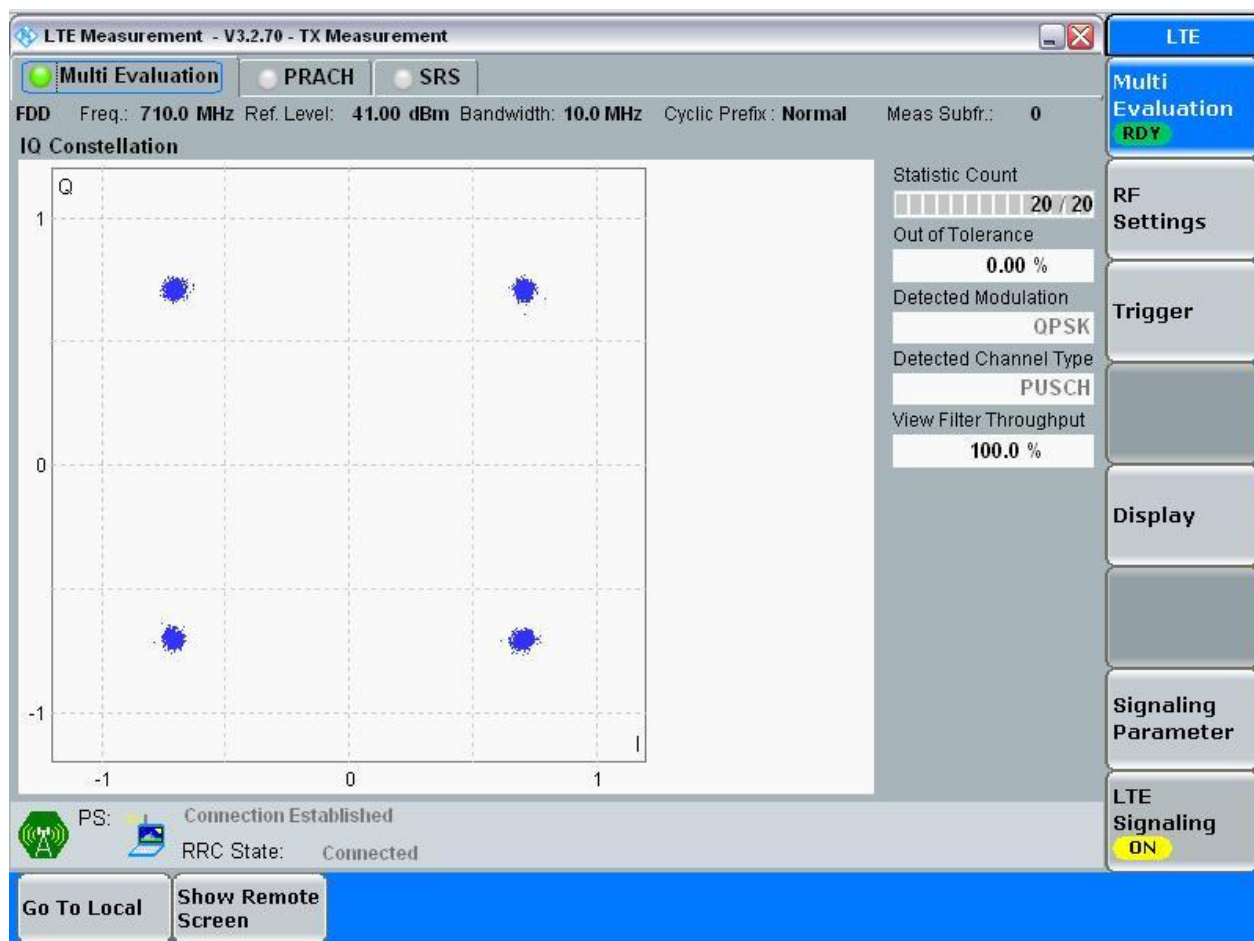
3.1.1.1.1.1.1 Test RB = RB25#0



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

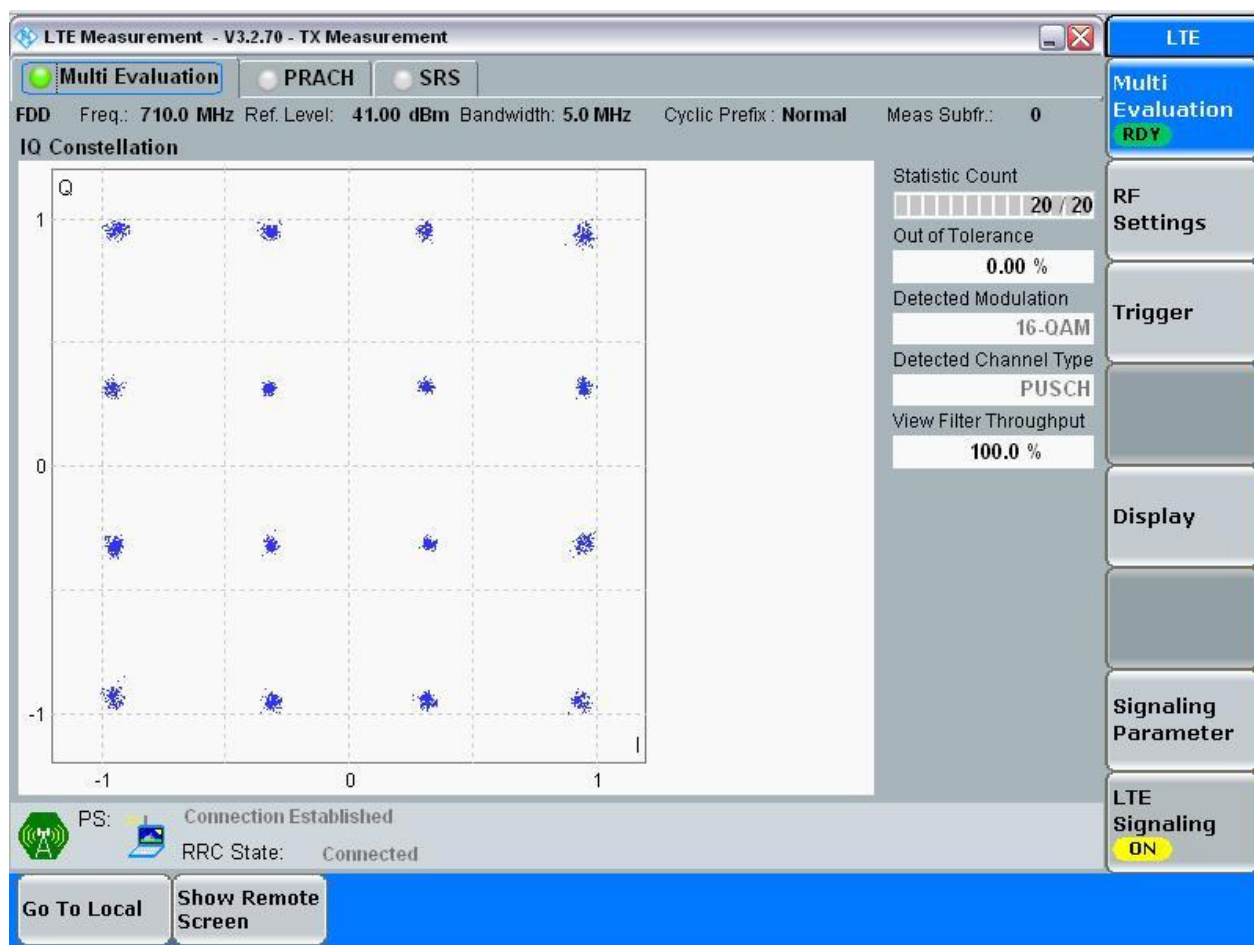


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

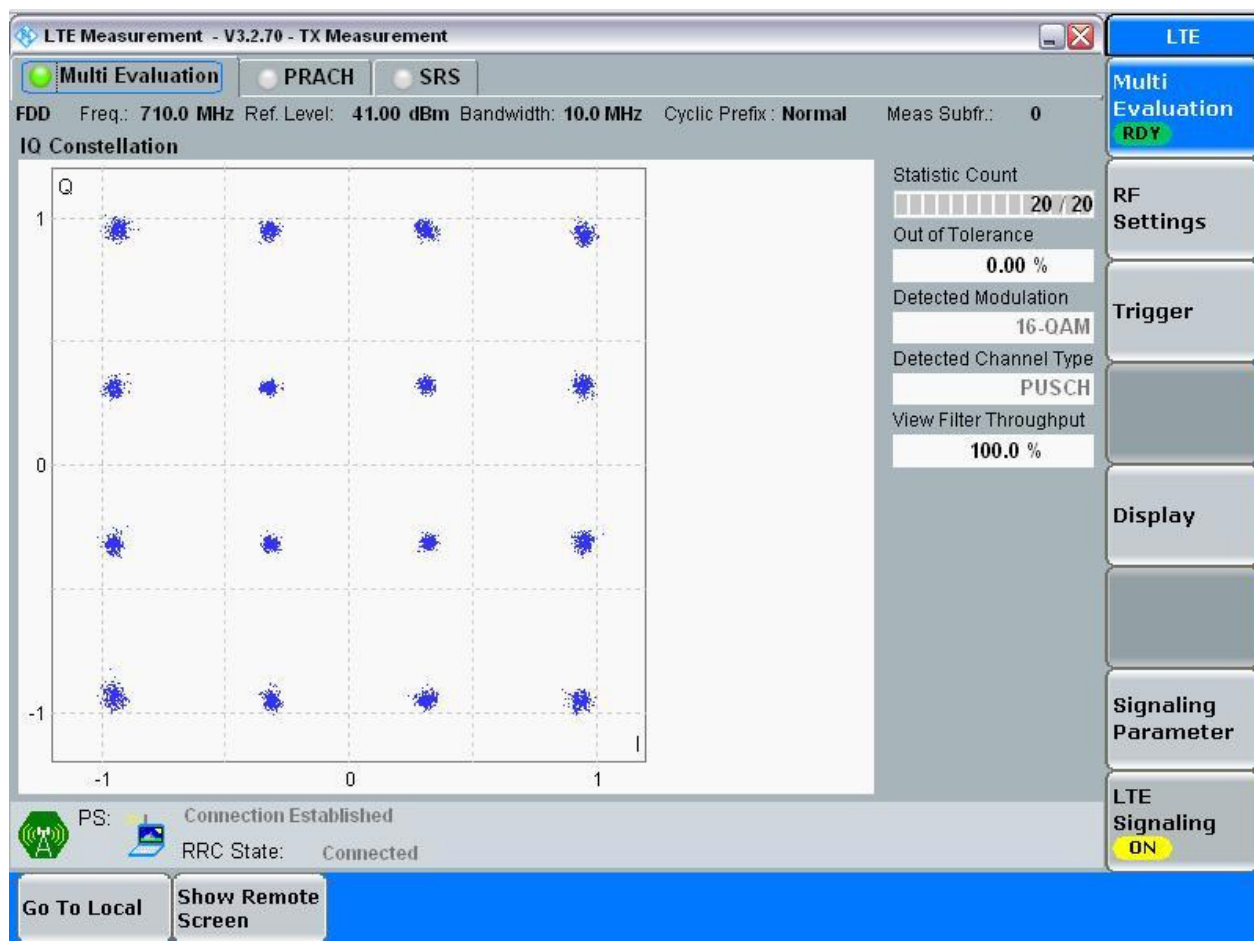
3.1.1.2.1.1.1 Test RB = RB25#0



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	4.52	4.97	Pass
			MCH	RB25#0	4.52	4.97	Pass
			HCH	RB25#0	4.51	4.95	Pass
		10	LCH	RB50#0	8.99	9.91	Pass
			MCH	RB50#0	8.97	9.90	Pass
			HCH	RB50#0	8.99	9.91	Pass
	LTE/TM2	5	LCH	RB25#0	4.52	4.98	Pass
			MCH	RB25#0	4.51	4.99	Pass
			HCH	RB25#0	4.51	4.97	Pass
		10	LCH	RB50#0	8.99	9.93	Pass
			MCH	RB50#0	8.98	9.88	Pass
			HCH	RB50#0	8.99	9.92	Pass

Part II - Test Plots

4.1 For LTE

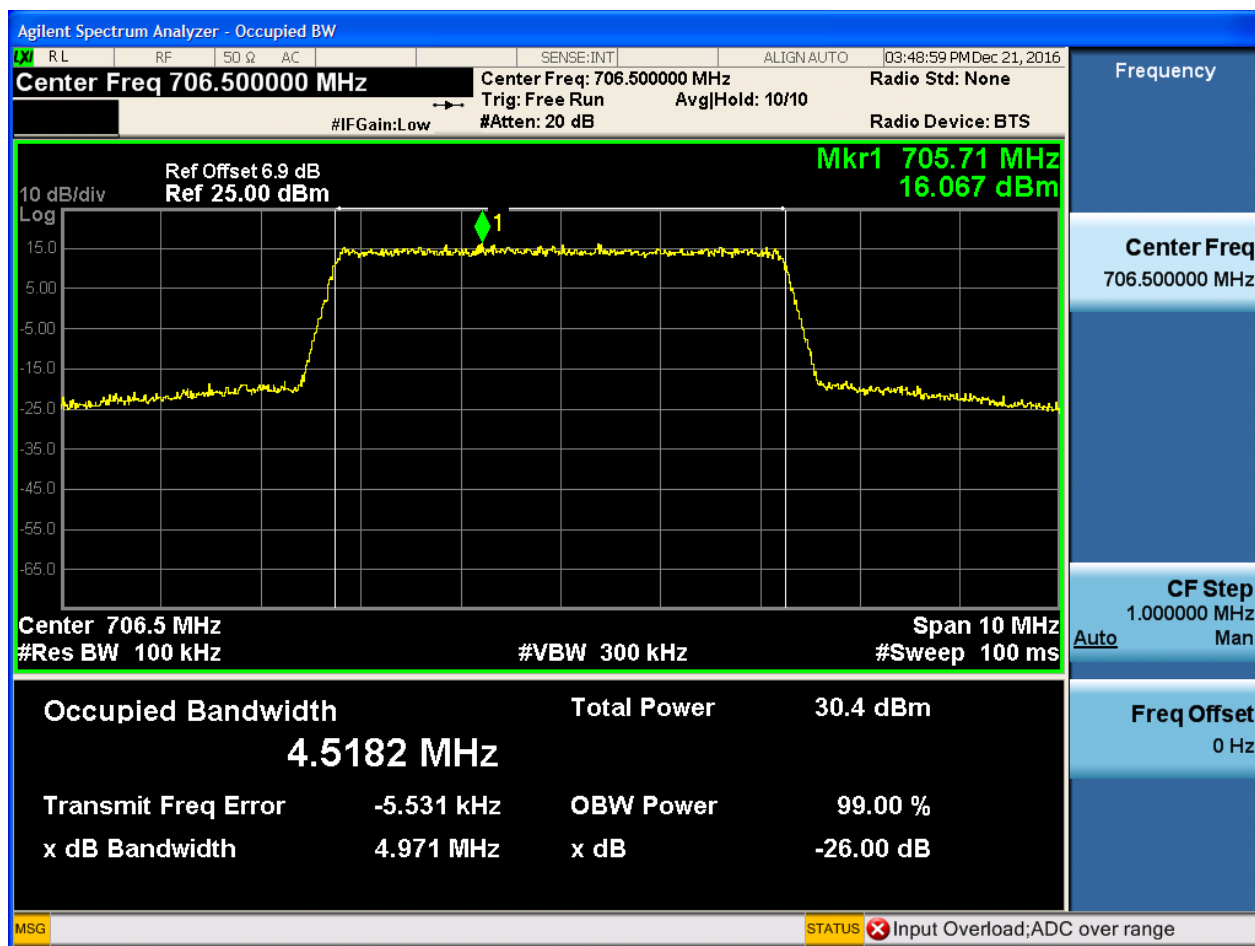
4.1.1 Test Band = BAND17

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

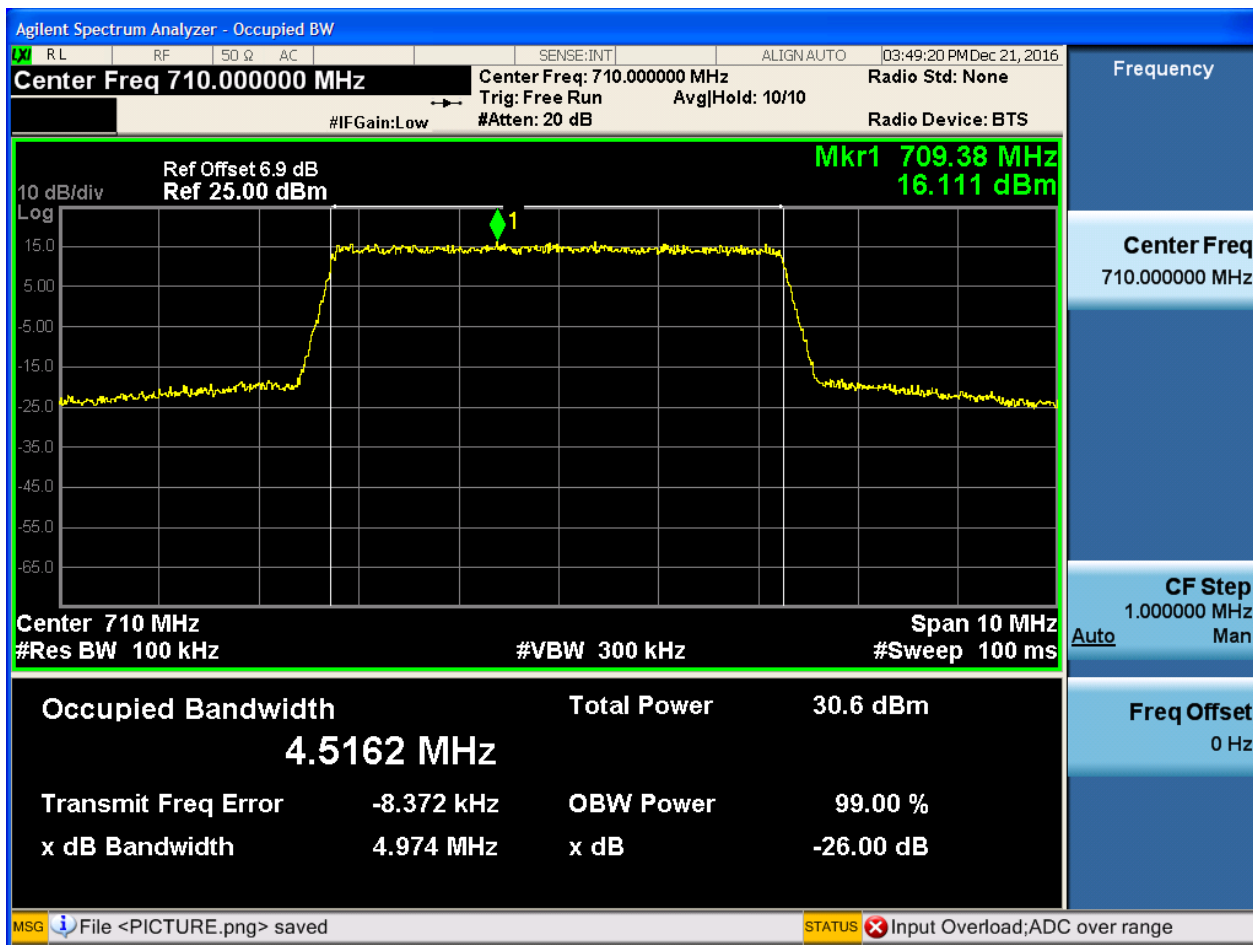
4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 Test RB = RB25#0



4.1.1.1.1.2 Test Channel = MCH

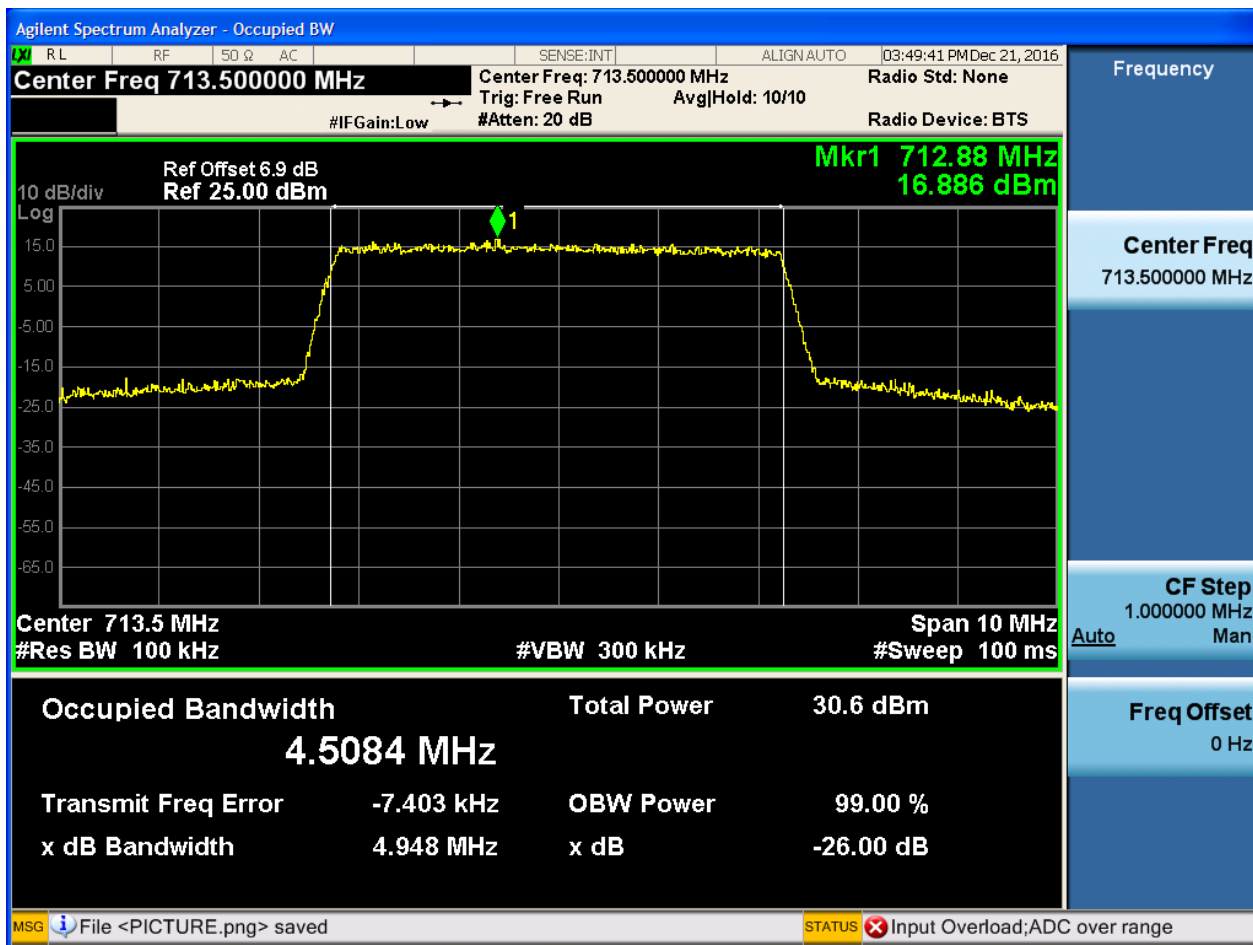
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.3 Test Channel = HCH

4.1.1.1.3.1 Test RB = RB25#0

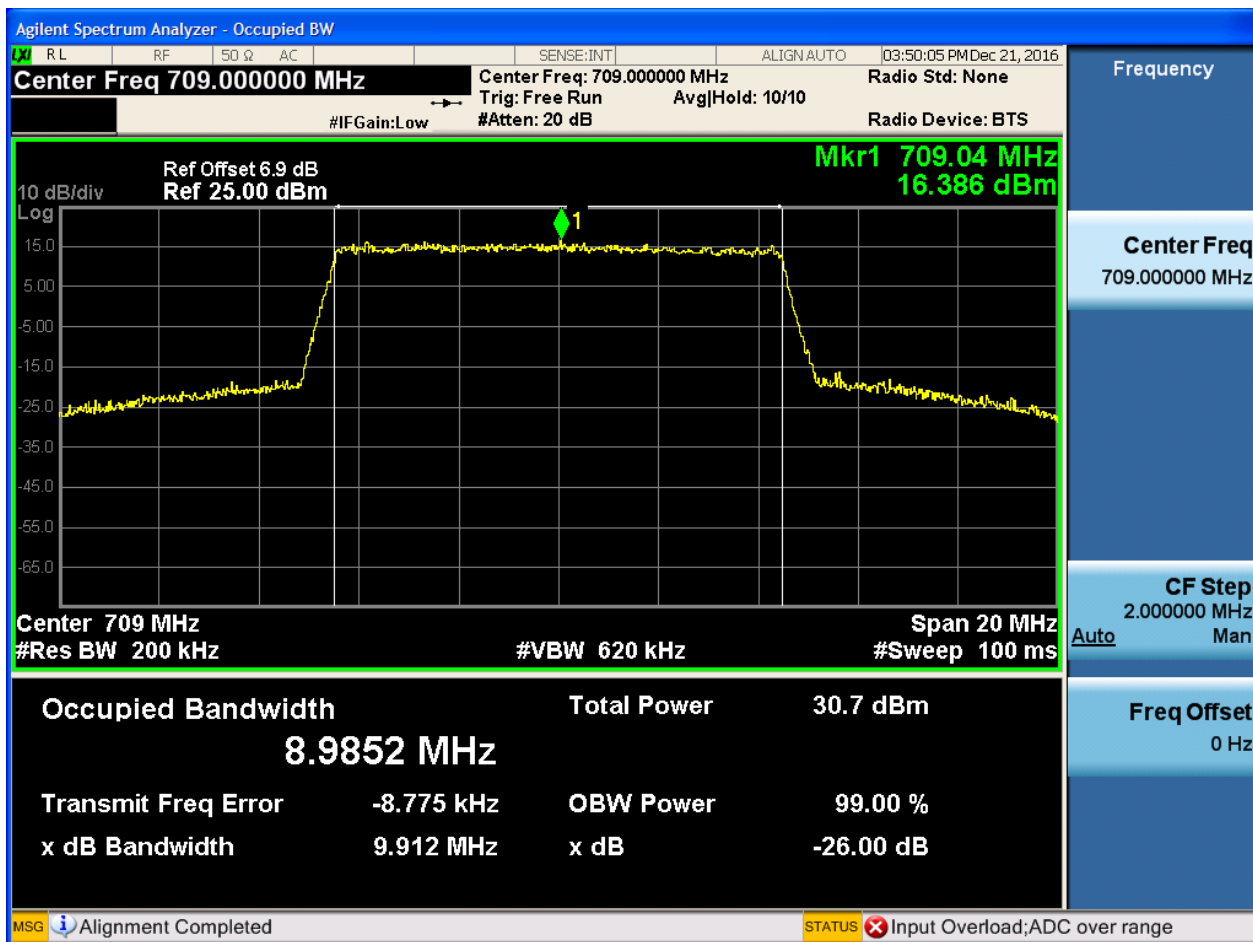




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

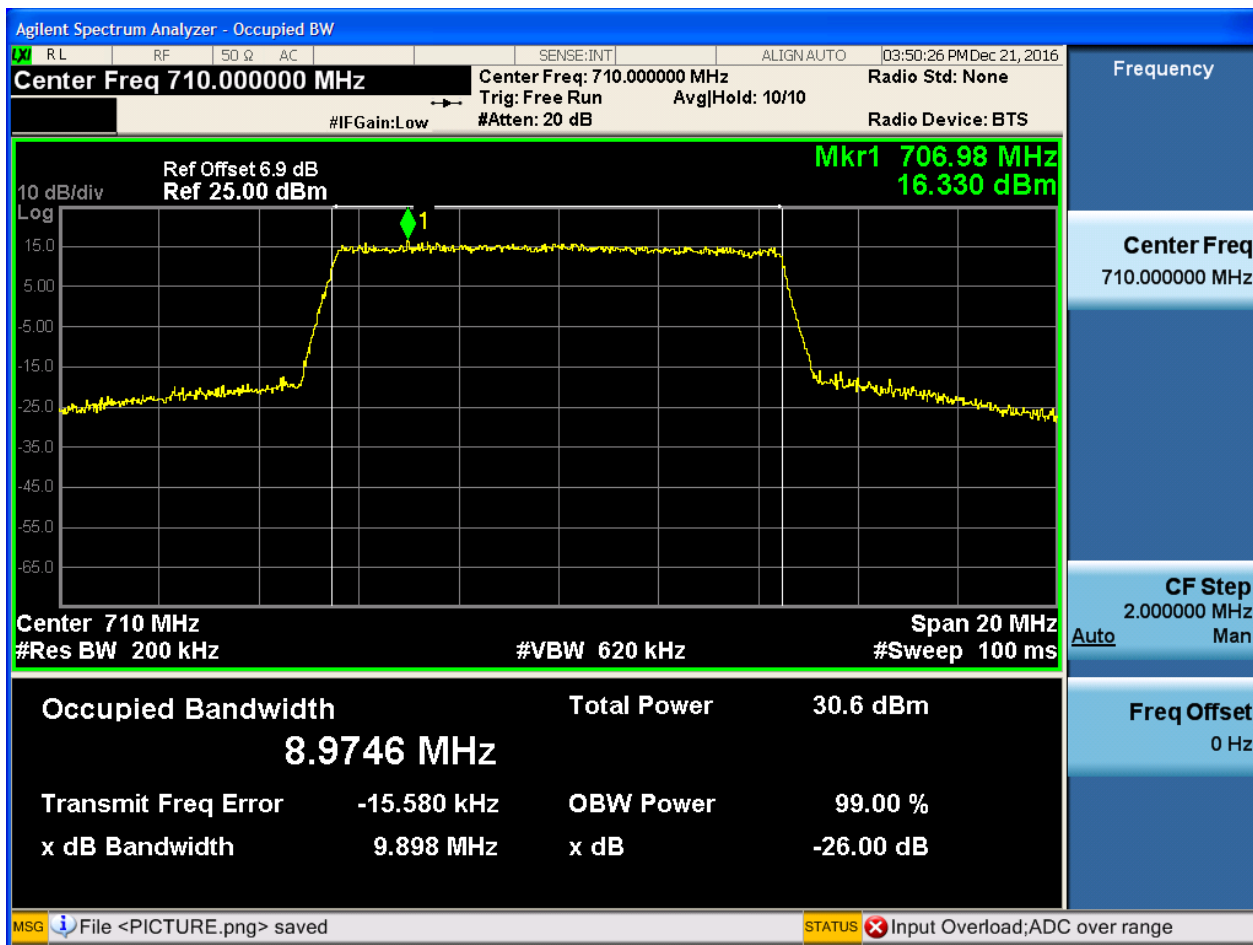
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

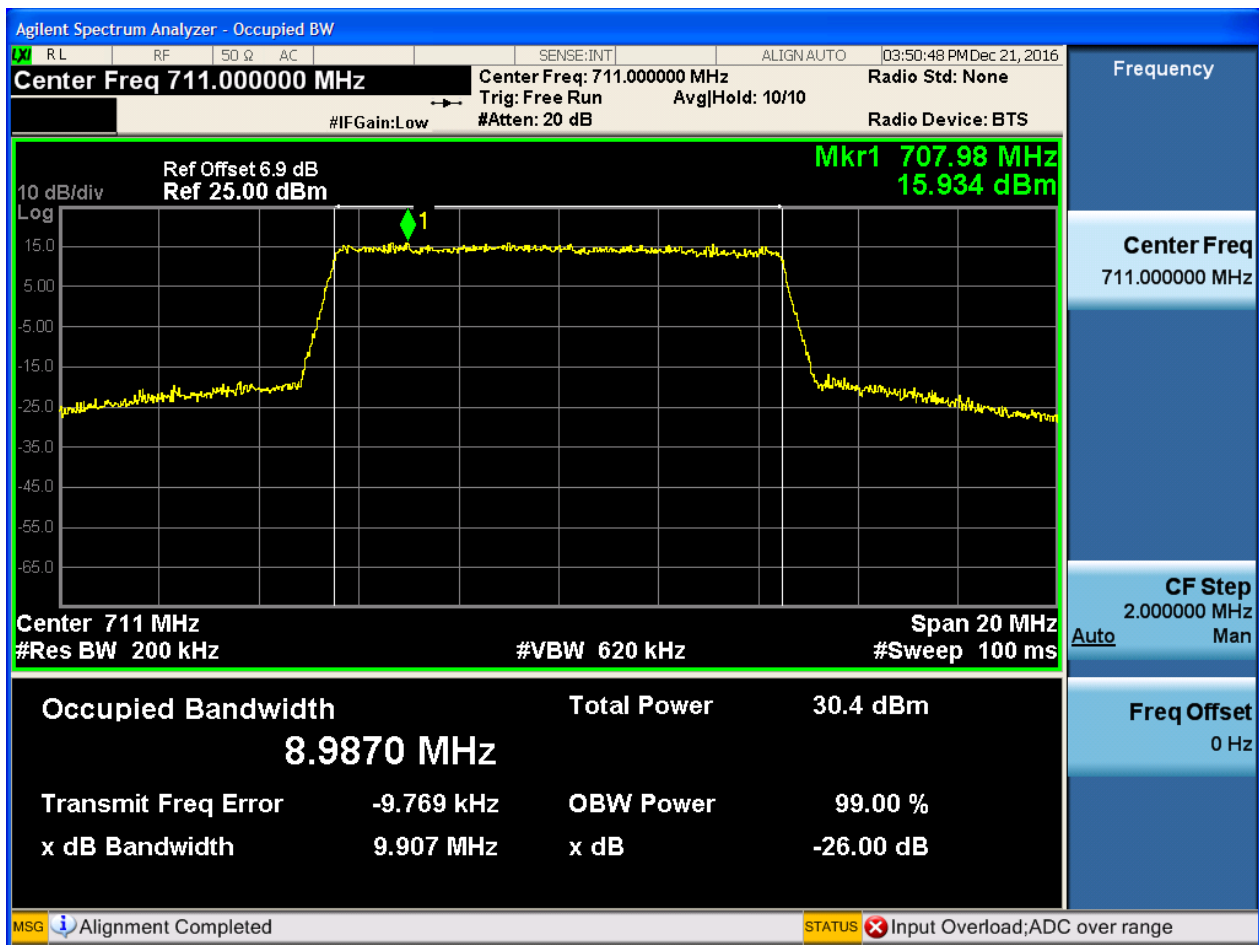
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0



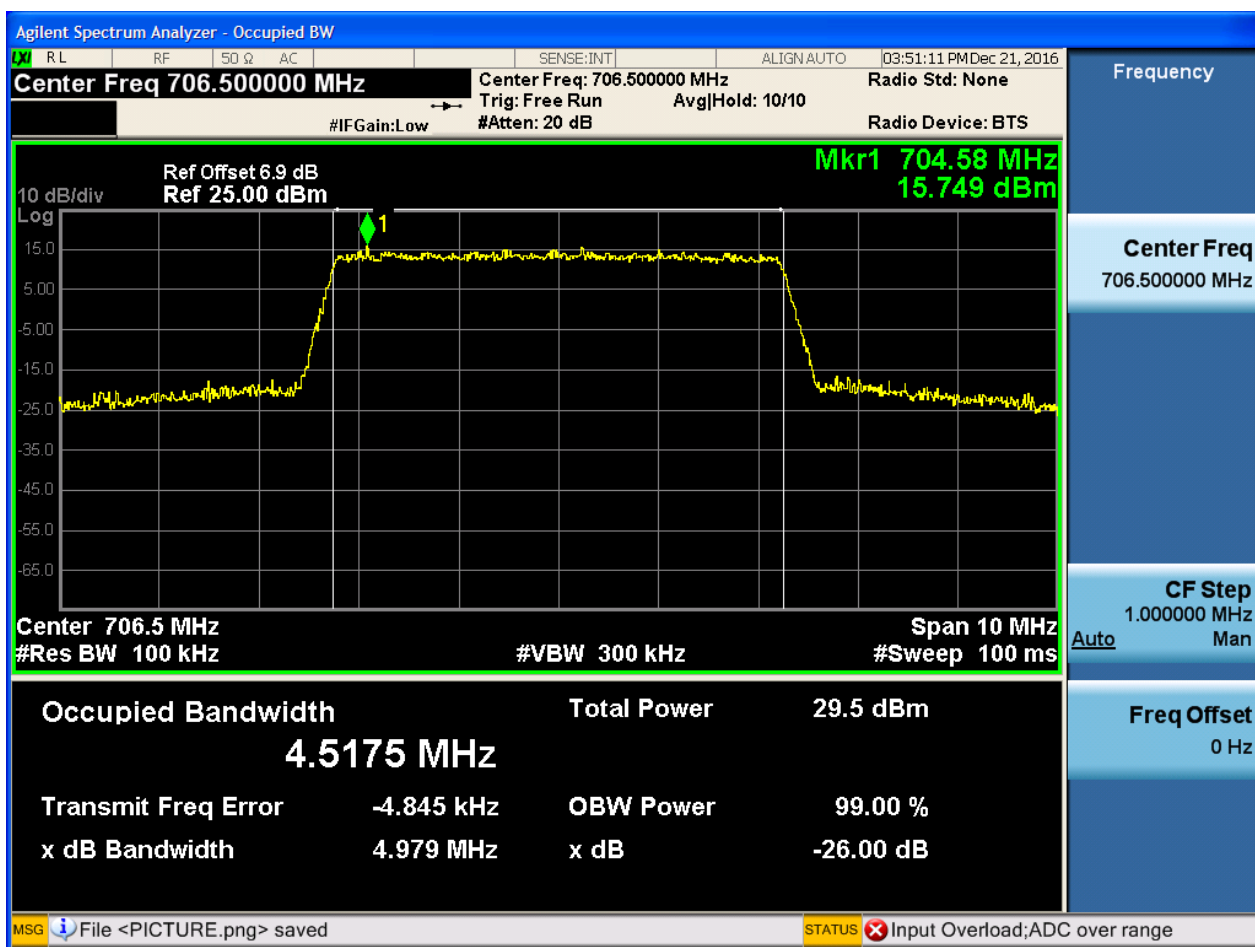


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

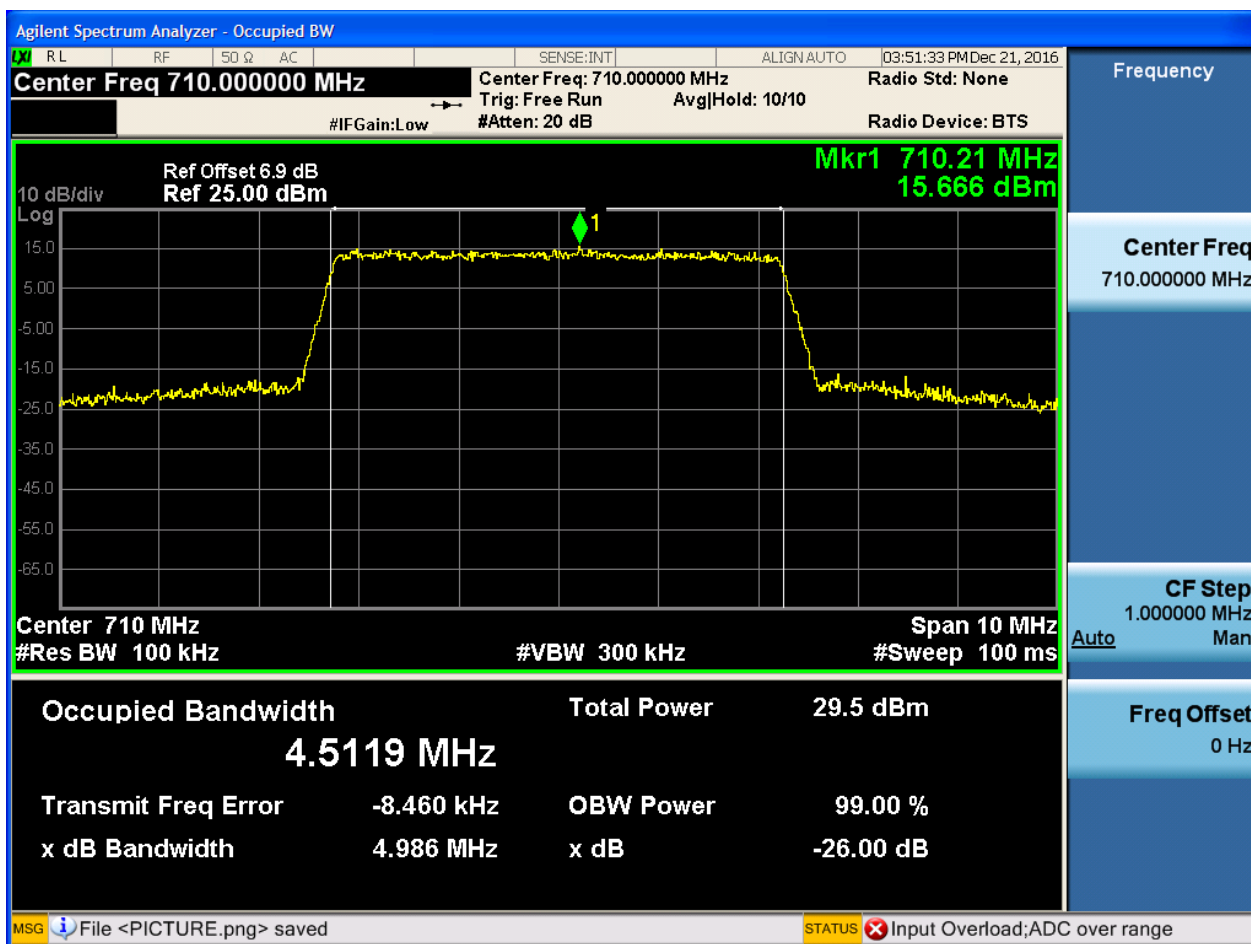
4.1.1.2.1.1 Test Channel = LCH

4.1.1.2.1.1.1 Test RB = RB25#0



4.1.1.2.1.2 Test Channel = MCH

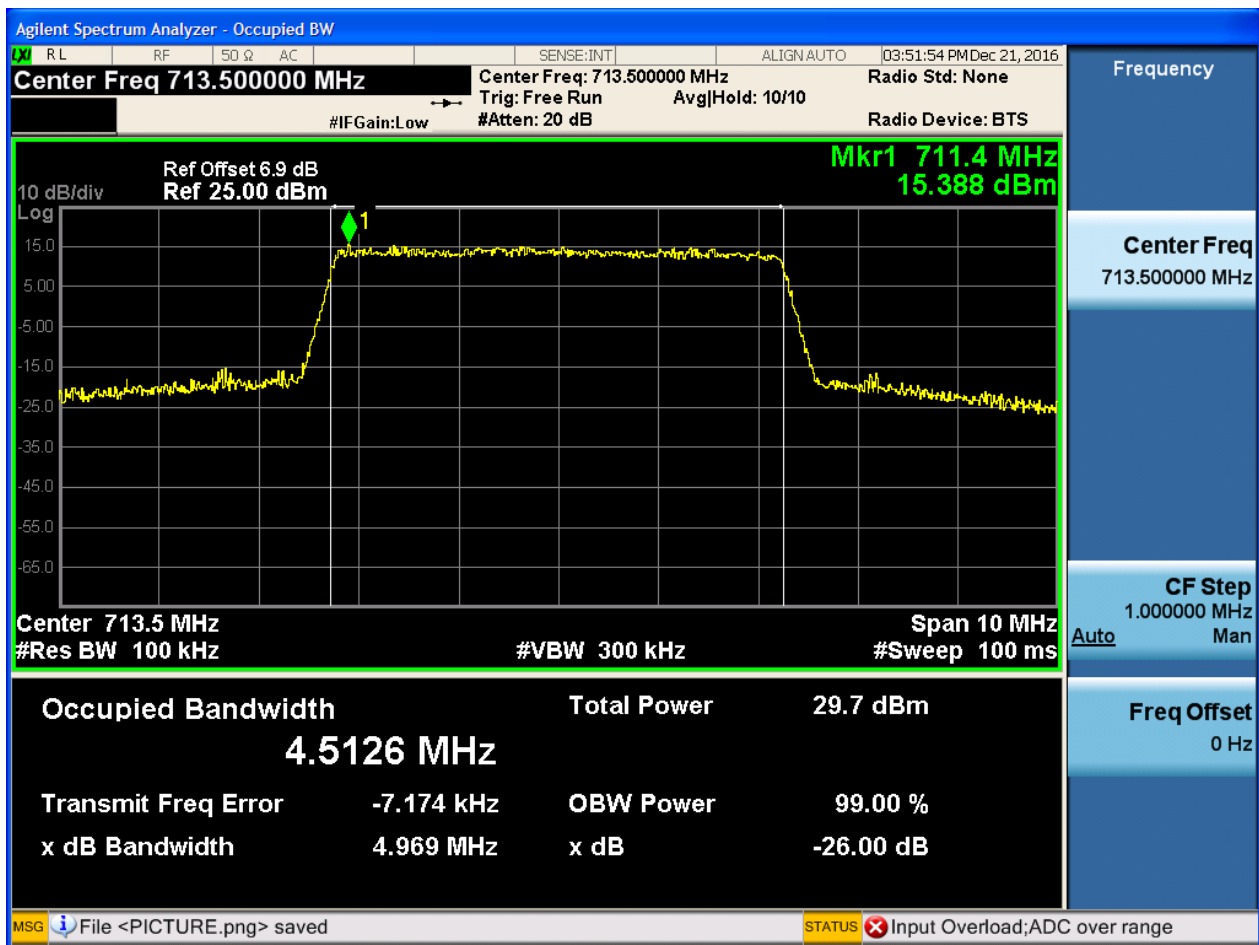
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

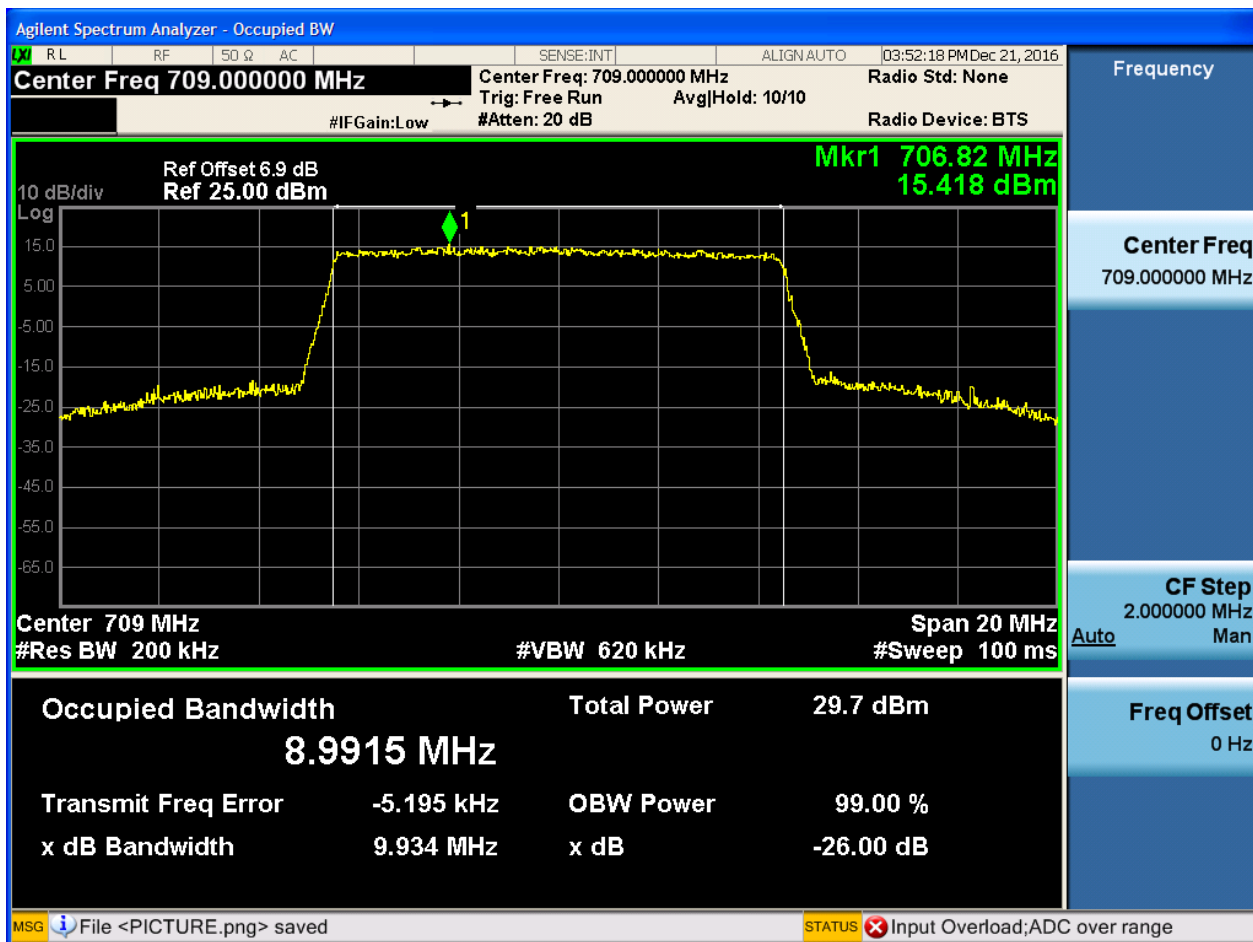




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

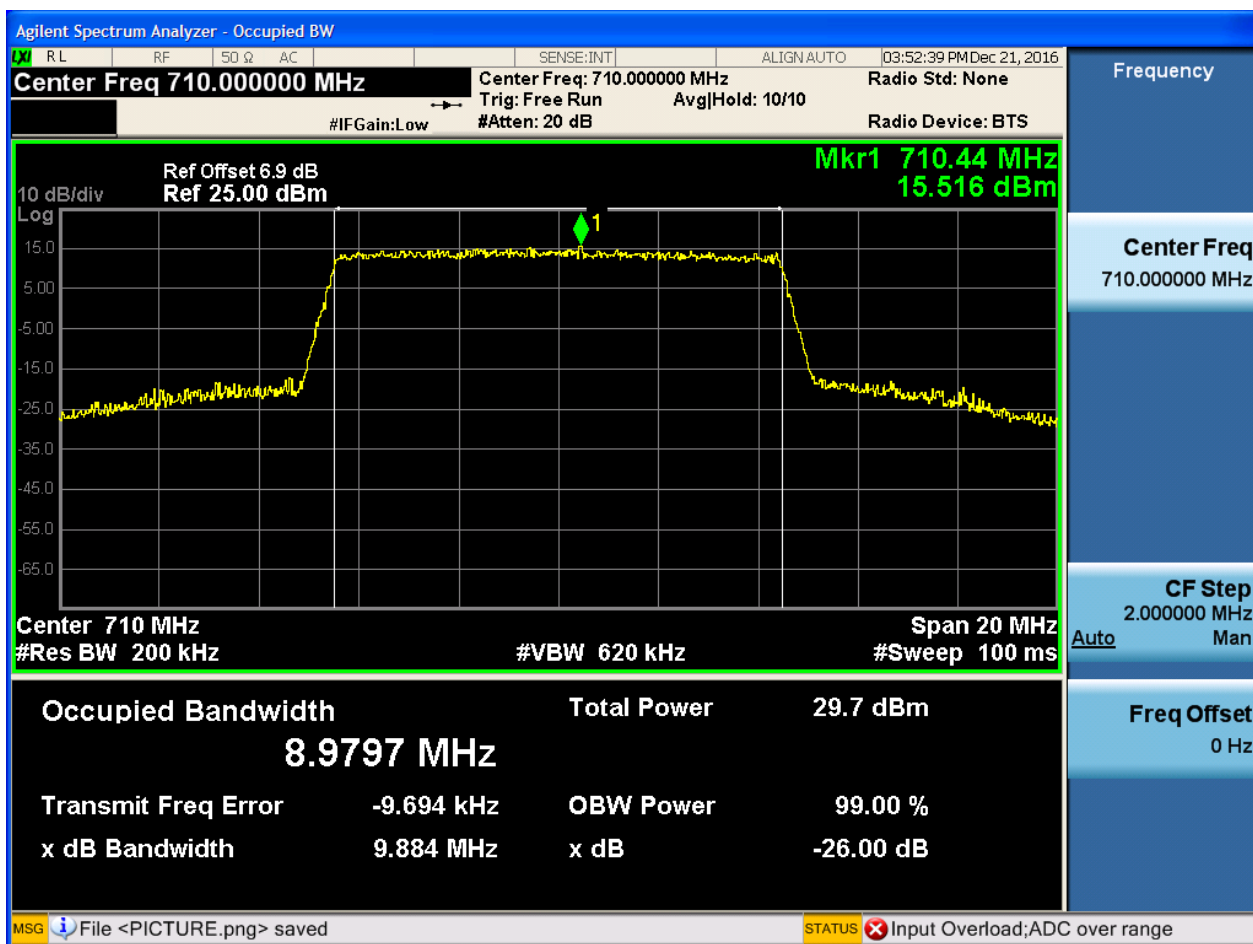
4.1.1.2.2.1.1 Test RB = RB50#0





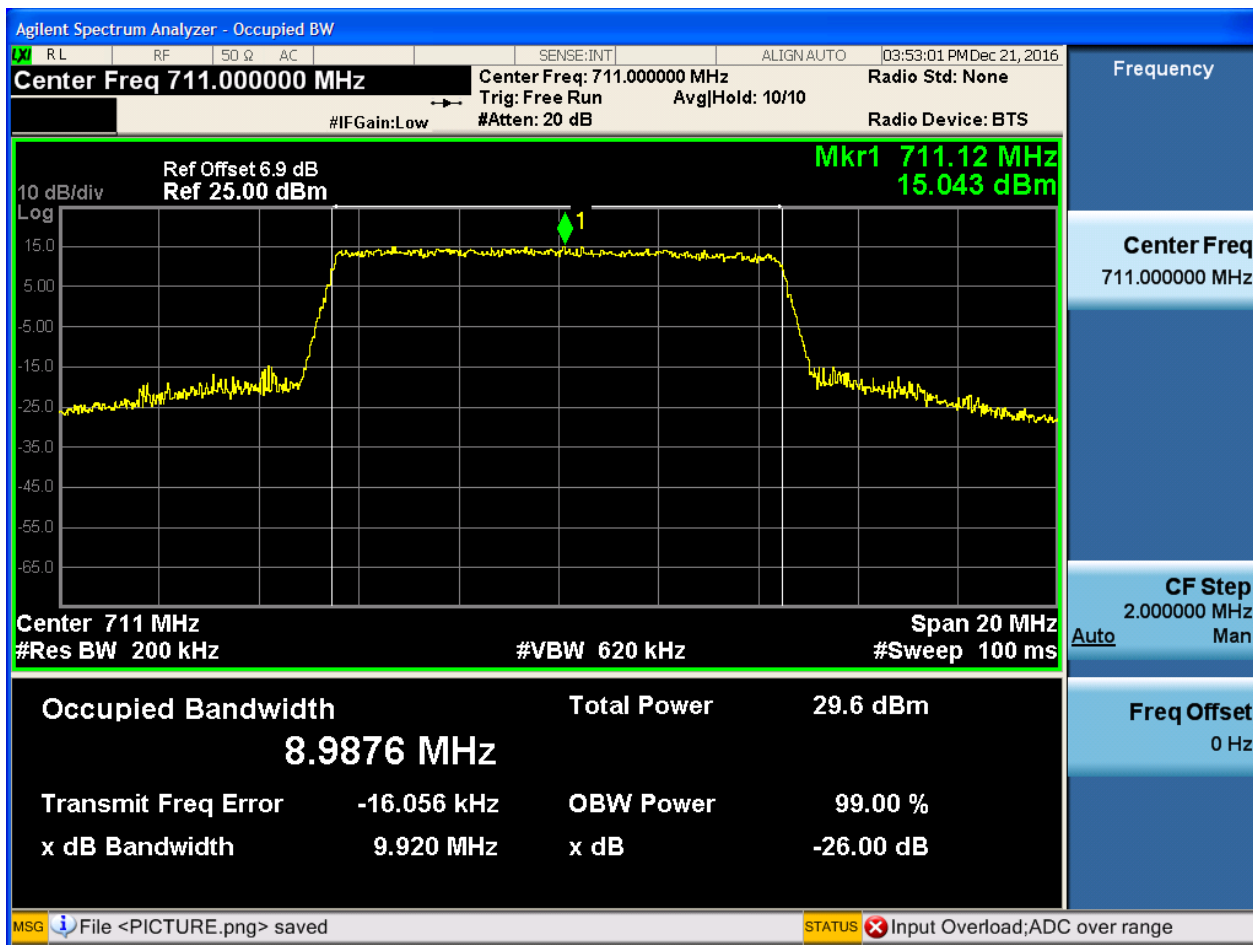
4.1.1.2.2.2 Test Channel = MCH

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

2.1 For LTE

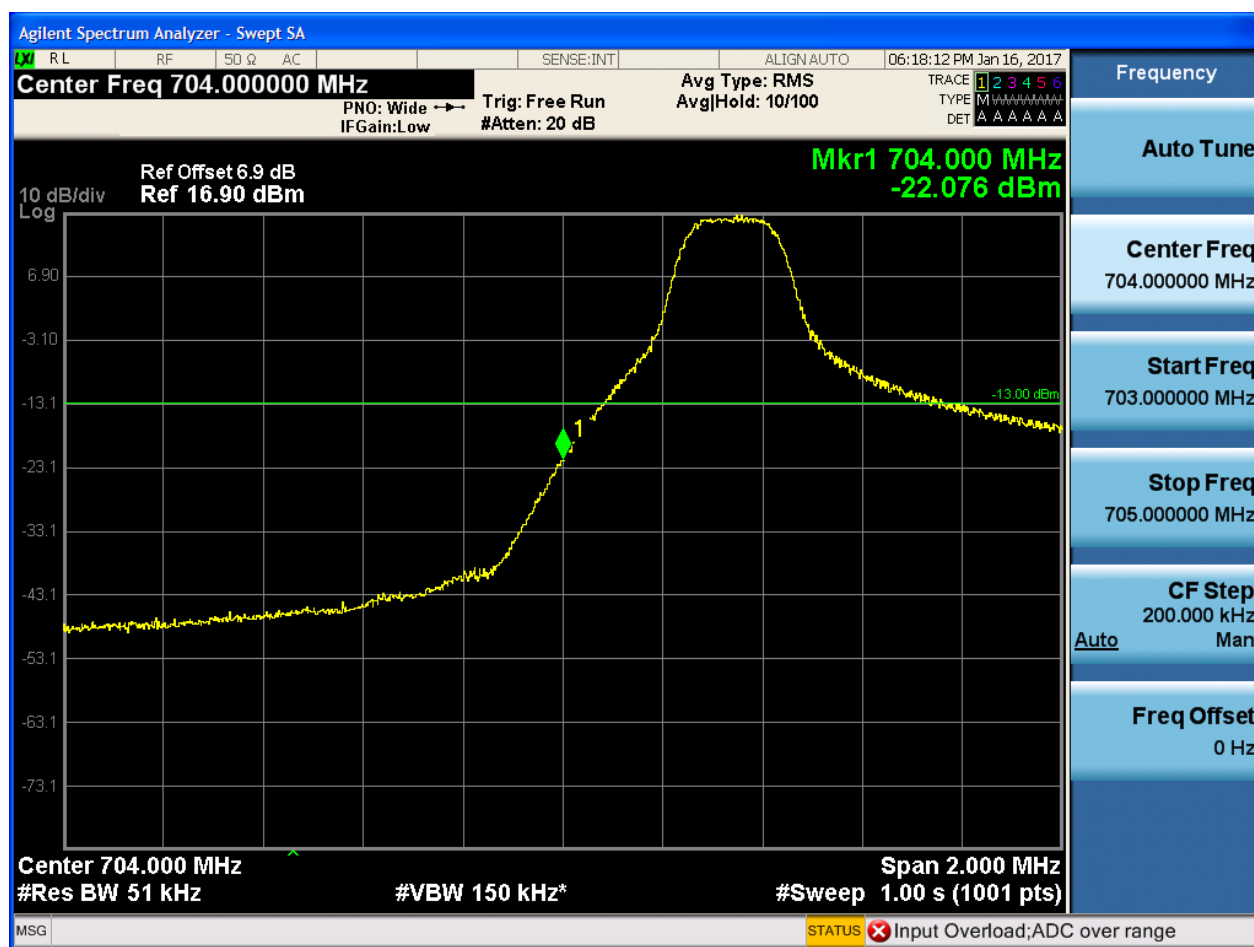
2.1.1 Test Band = BAND17

2.1.1.1 Test Mode = LTE/TM1

2.1.1.1.1 Test Bandwidth = 5

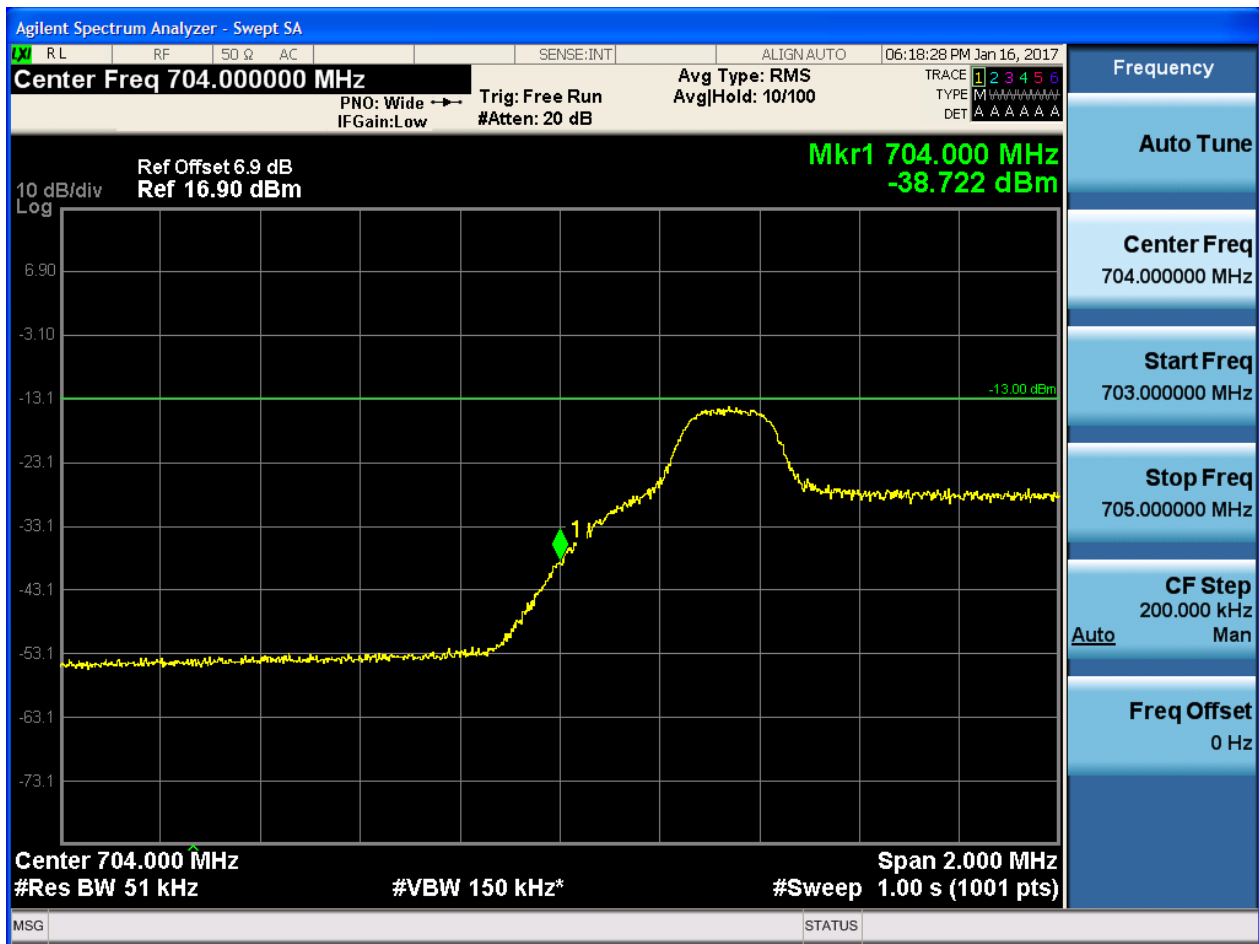
2.1.1.1.1.1 Test Channel = LCH

2.1.1.1.1.1.1 Test RB = RB1#0





2.1.1.1.1.2 Test RB = RB1#24

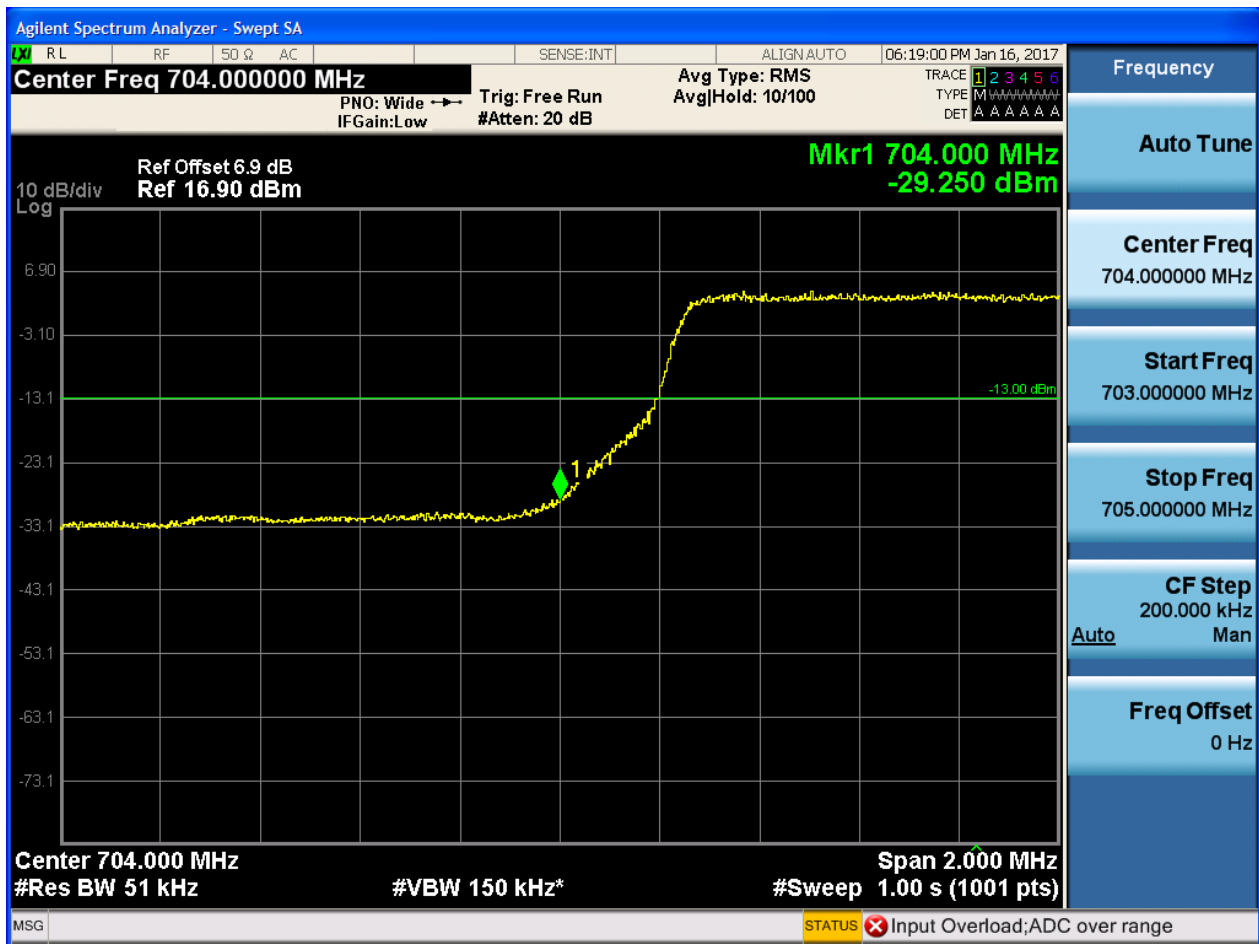


2.1.1.1.1.1.3 Test RB = RB12#6





2.1.1.1.1.4 Test RB = RB25#0





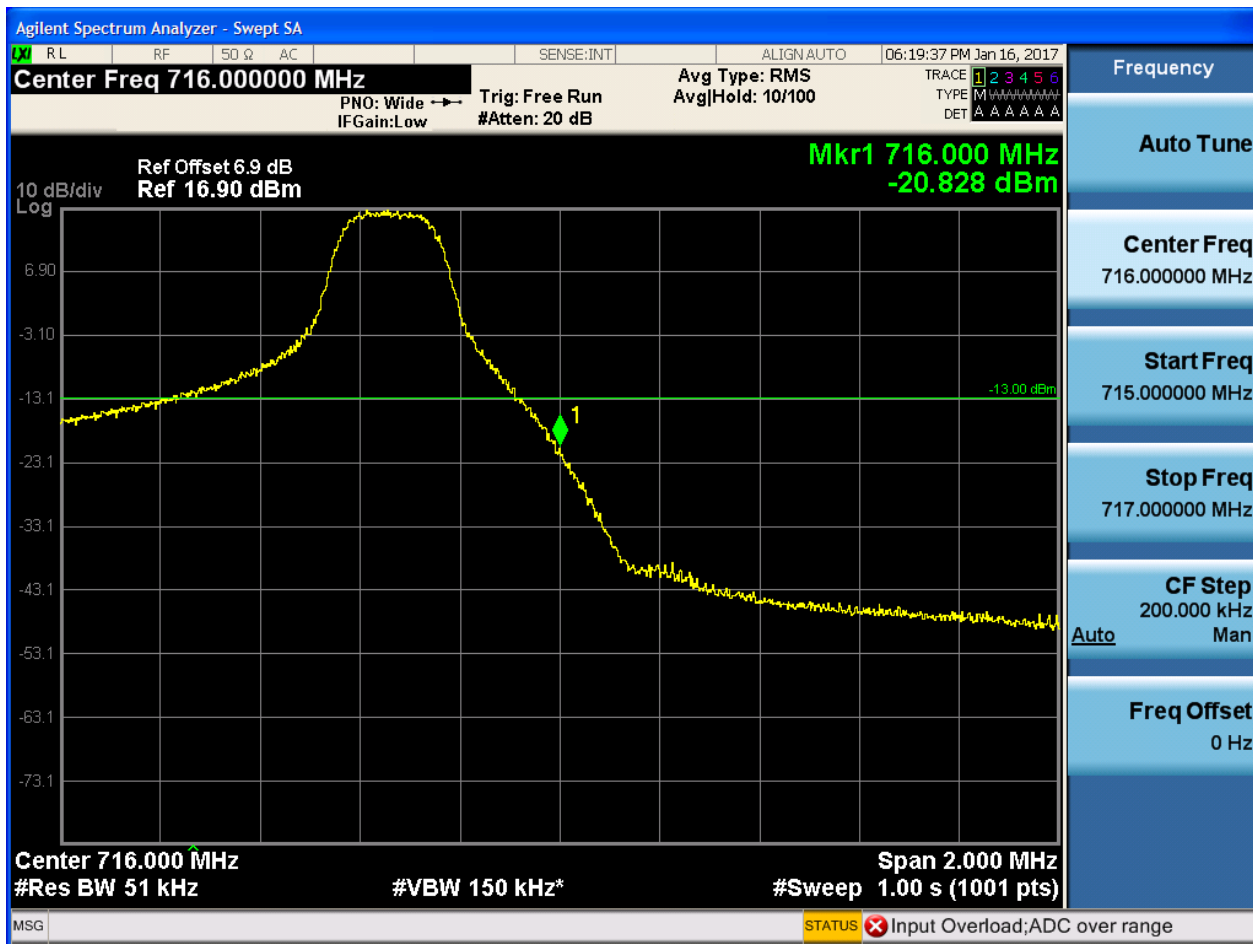
2.1.1.1.2 Test Channel = HCH

2.1.1.1.2.1 Test RB = RB1#0





2.1.1.1.2.2 Test RB = RB1#24





2.1.1.1.2.3 Test RB = RB12#6





2.1.1.1.2.4 Test RB = RB25#0

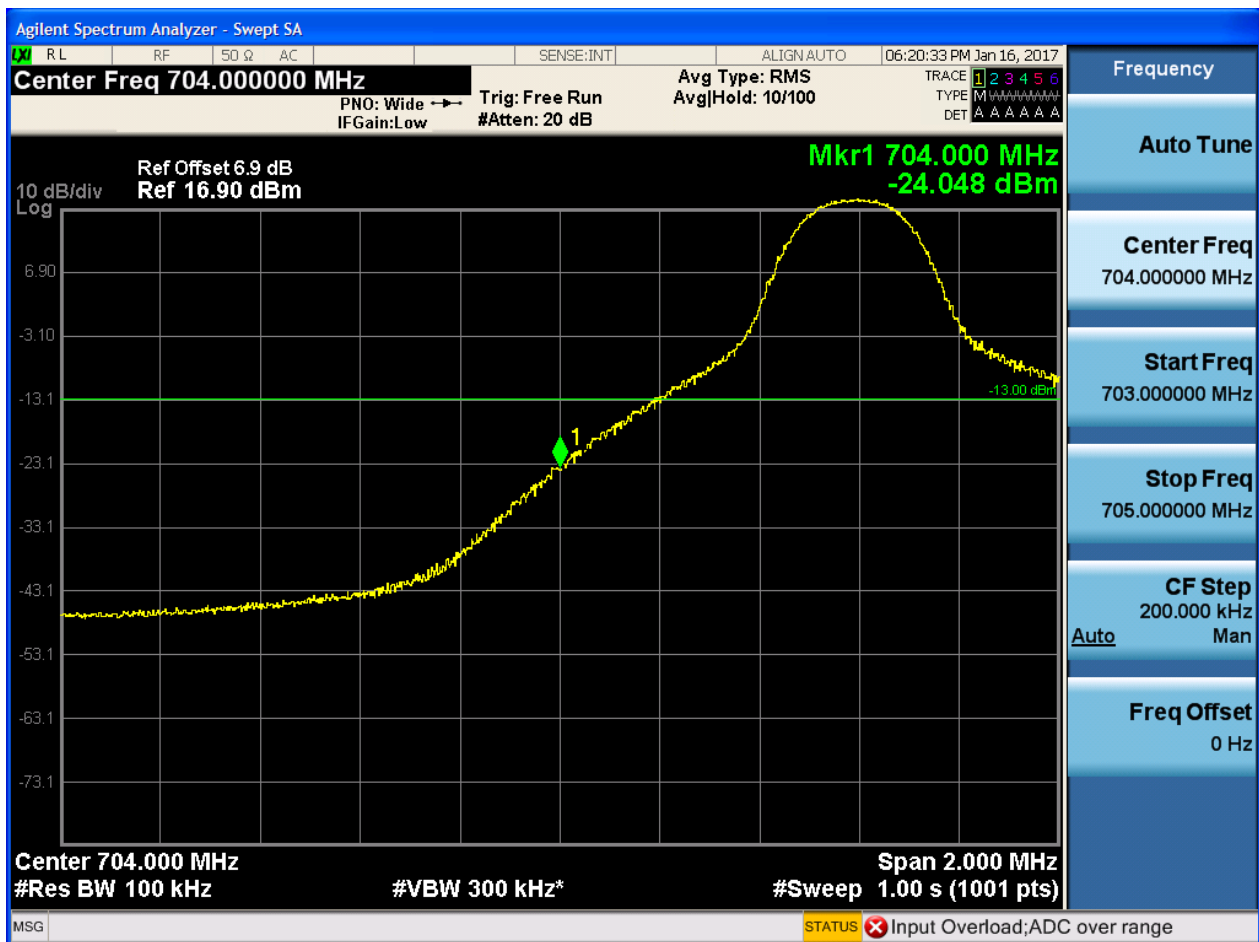




2.1.1.1.2 Test Bandwidth = 10

2.1.1.1.2.1 Test Channel = LCH

2.1.1.1.2.1.1 Test RB = RB1#0





2.1.1.1.2.1.2 Test RB = RB1#49



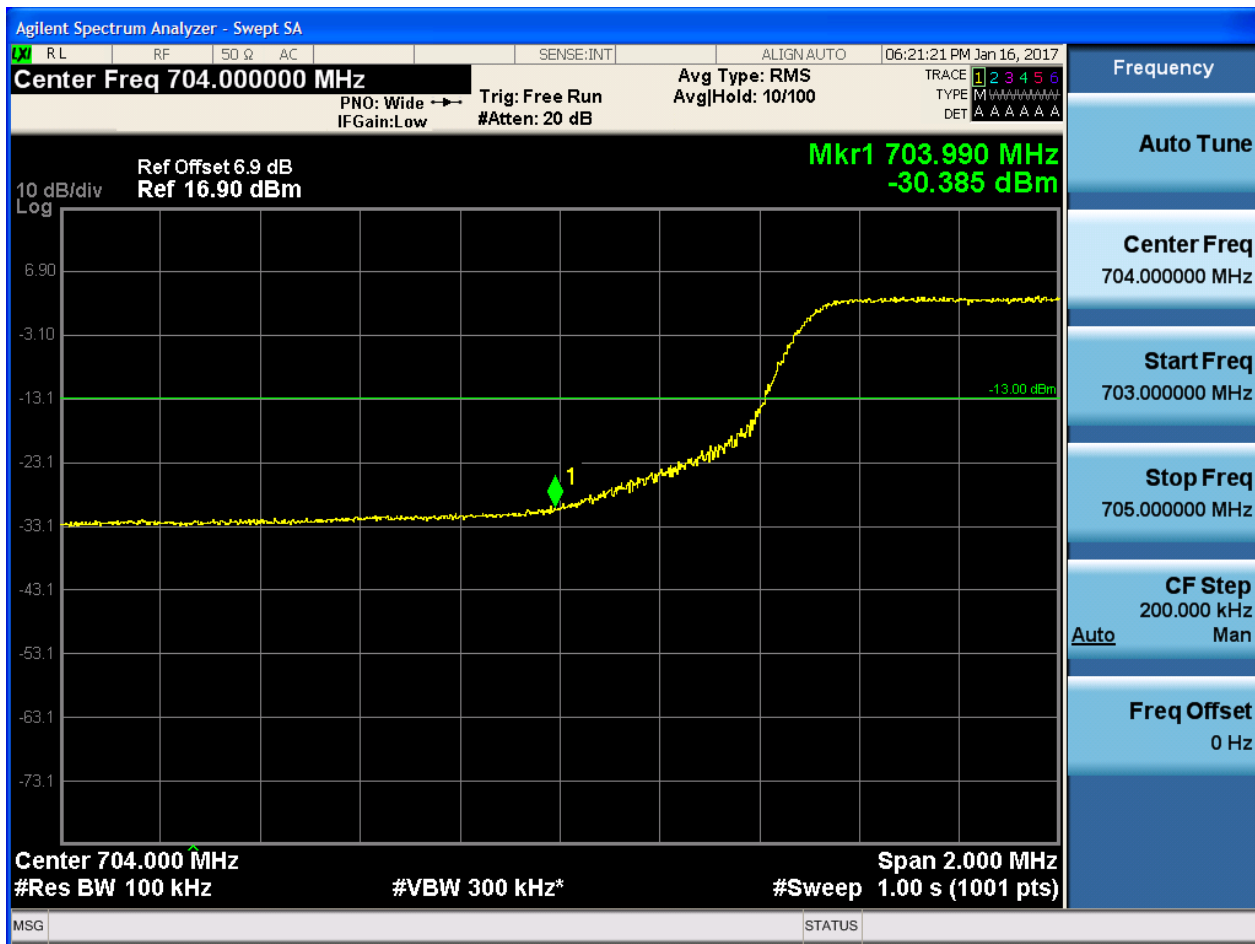


2.1.1.1.2.1.3 Test RB = RB25#13





2.1.1.1.2.1.4 Test RB = RB50#0





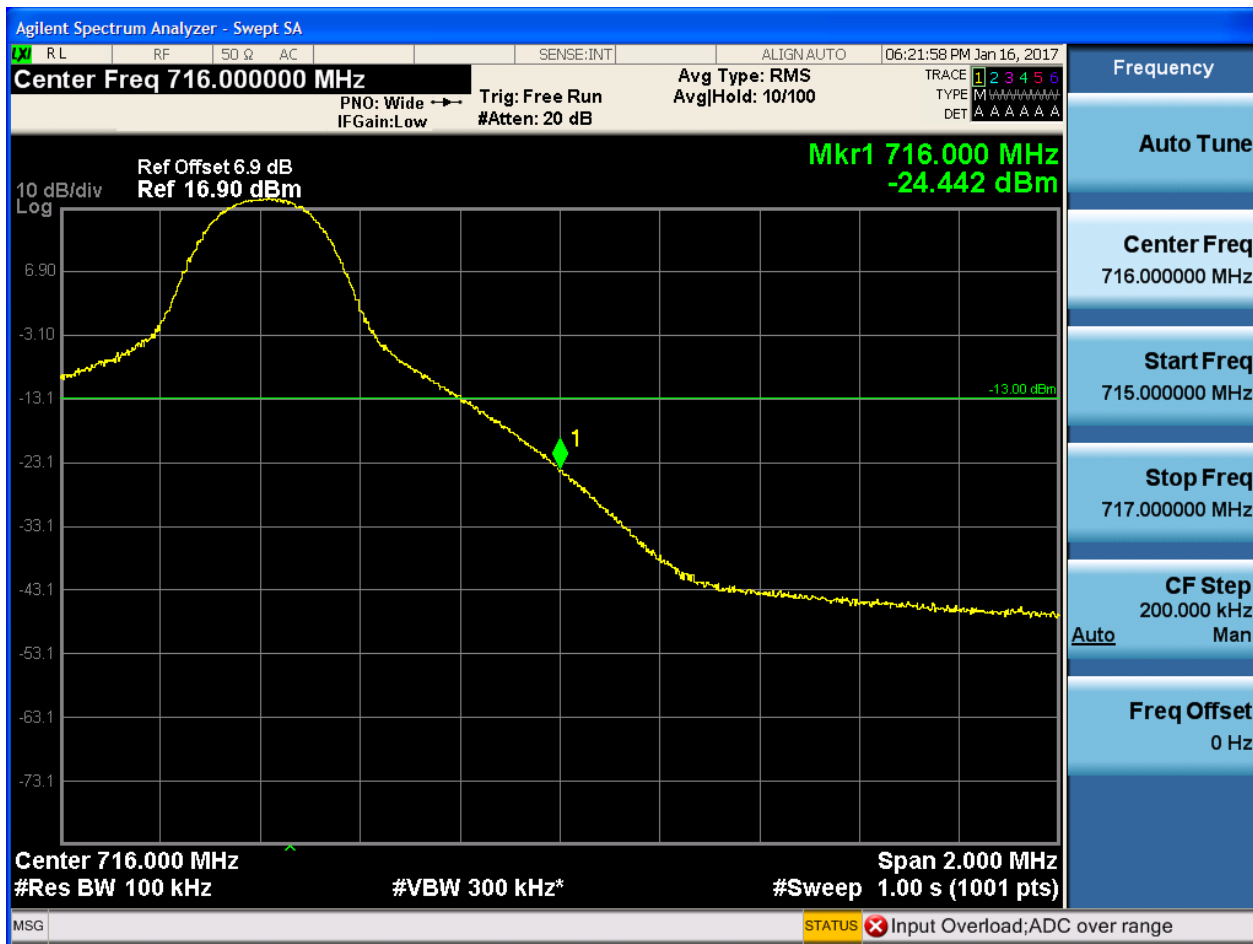
2.1.1.1.2.2 Test Channel = HCH

2.1.1.1.2.2.1 Test RB = RB1#0





2.1.1.1.2.2.2 Test RB = RB1#49





2.1.1.1.2.2.3 Test RB = RB25#13





2.1.1.1.2.2.4 Test RB = RB50#0



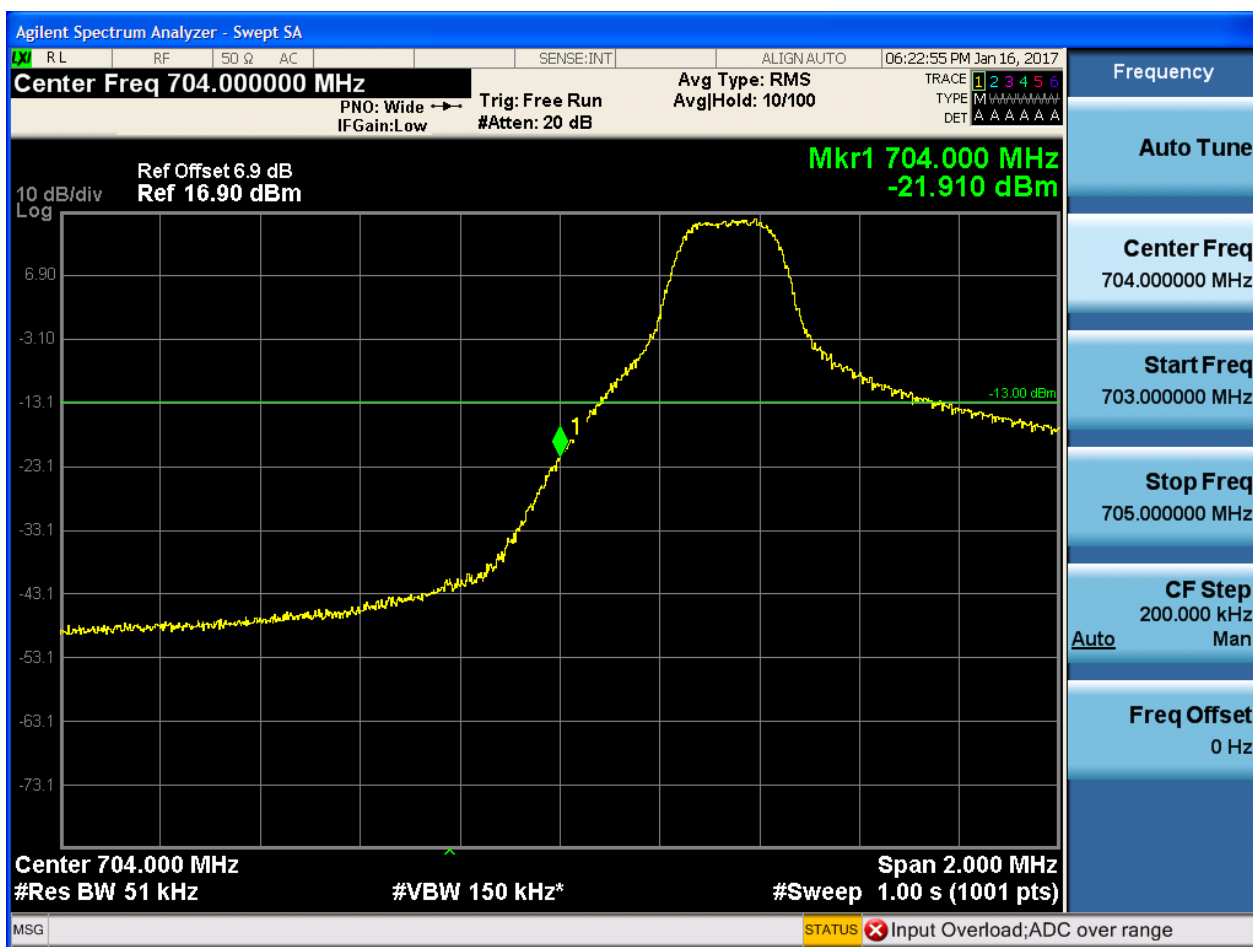


2.1.1.2 Test Mode = LTE/TM2

2.1.1.2.1 Test Bandwidth = 5

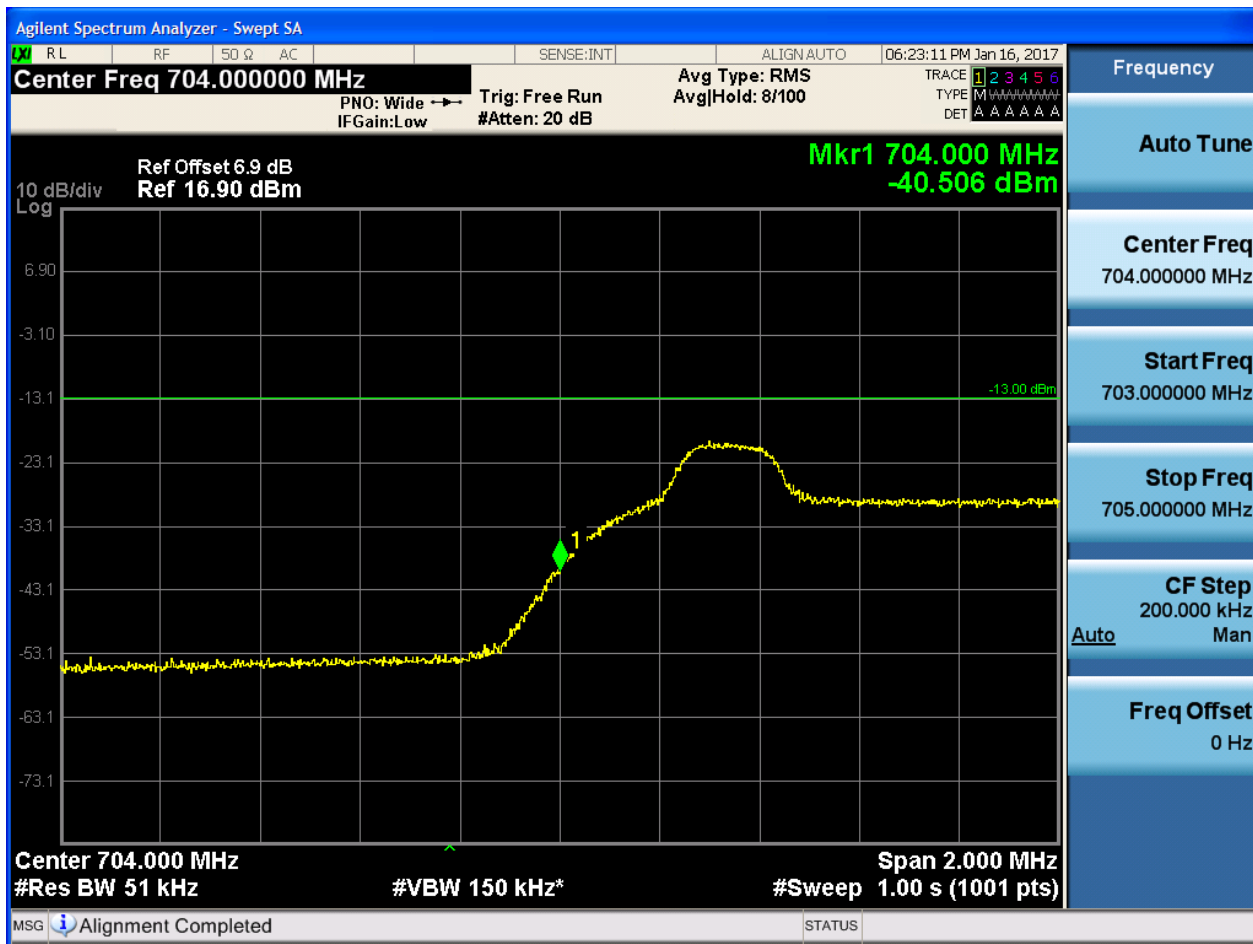
2.1.1.2.1.1 Test Channel = LCH

2.1.1.2.1.1.1 Test RB = RB1#0



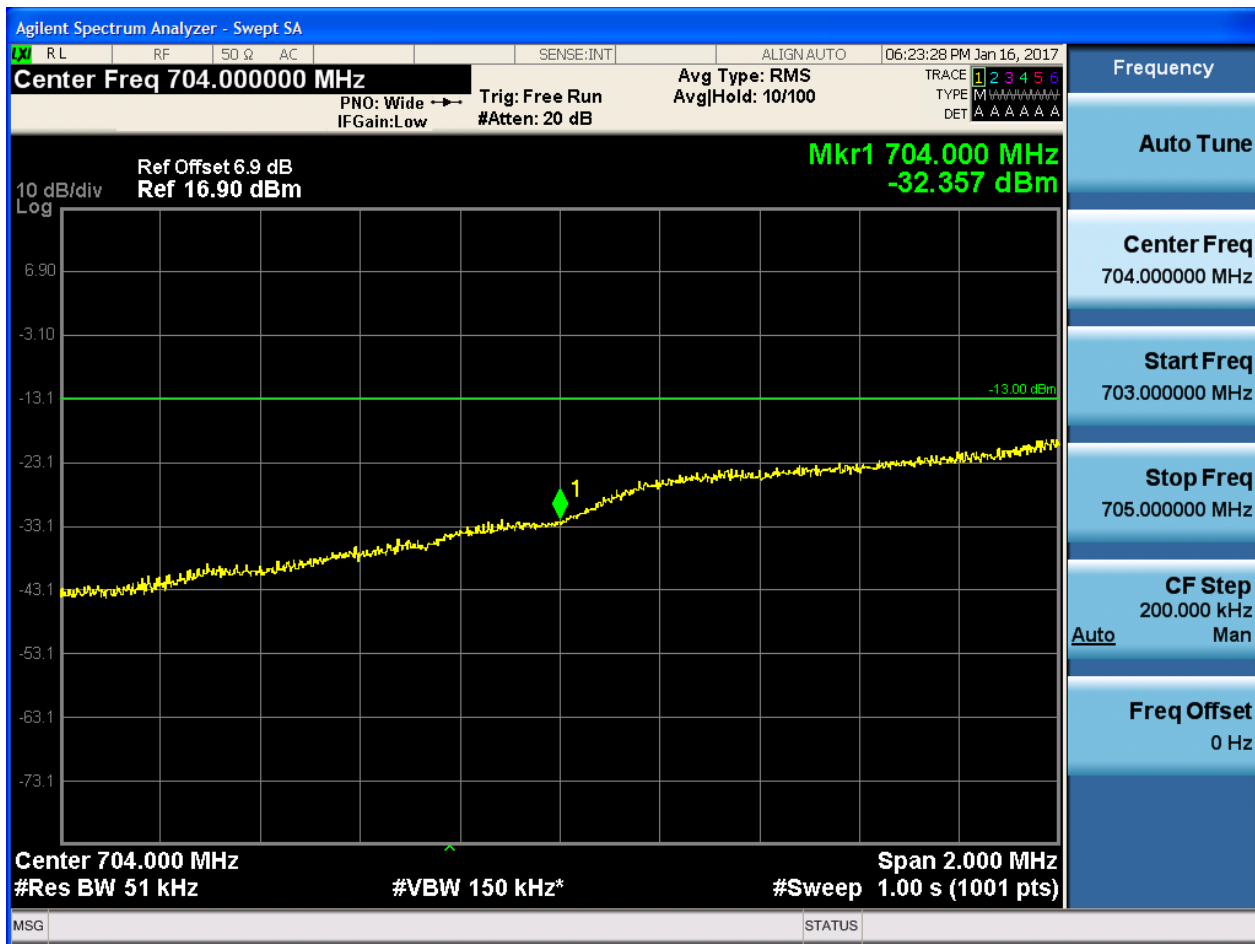


2.1.1.2.1.2 Test RB = RB1#24



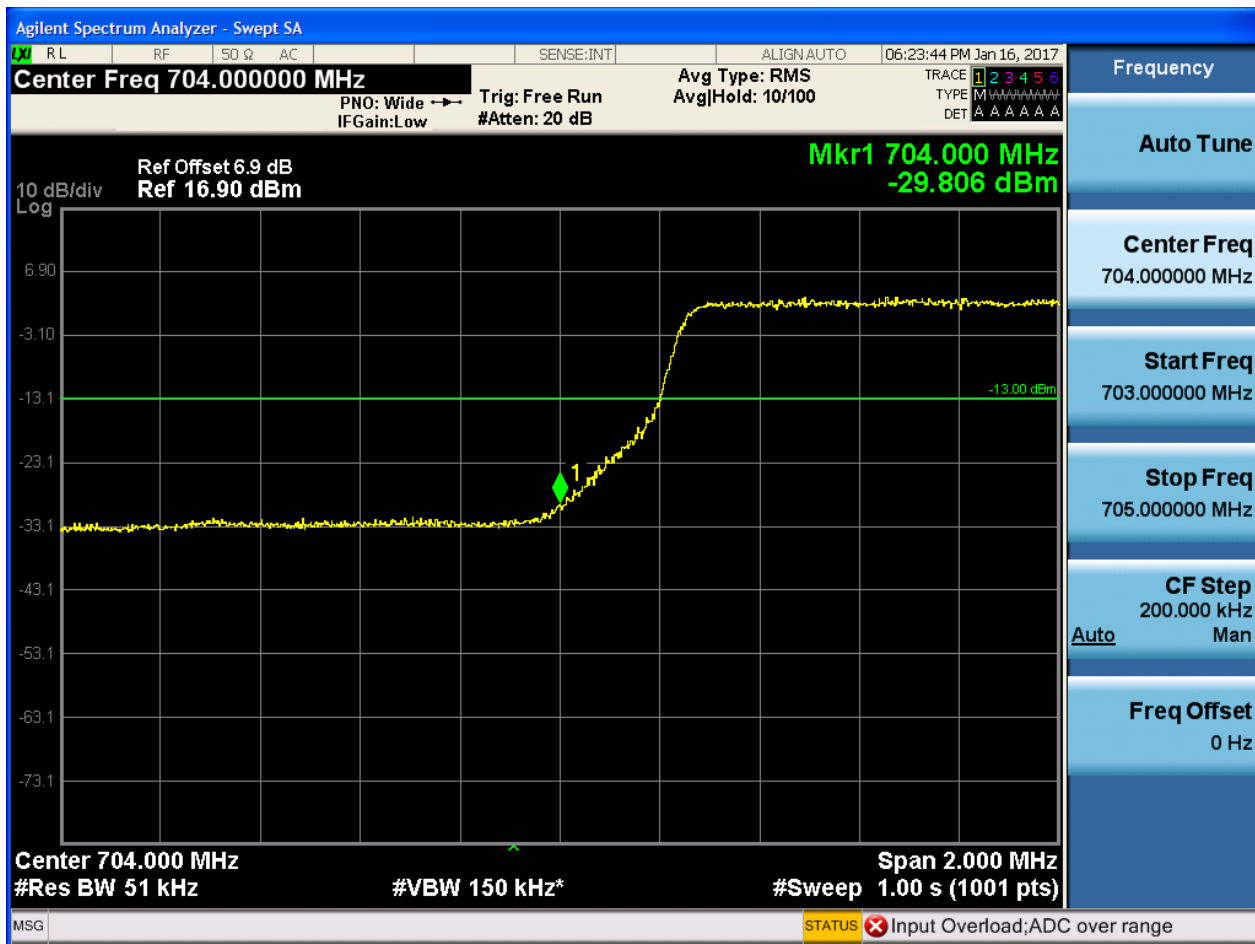


2.1.1.2.1.1.3 Test RB = RB12#6





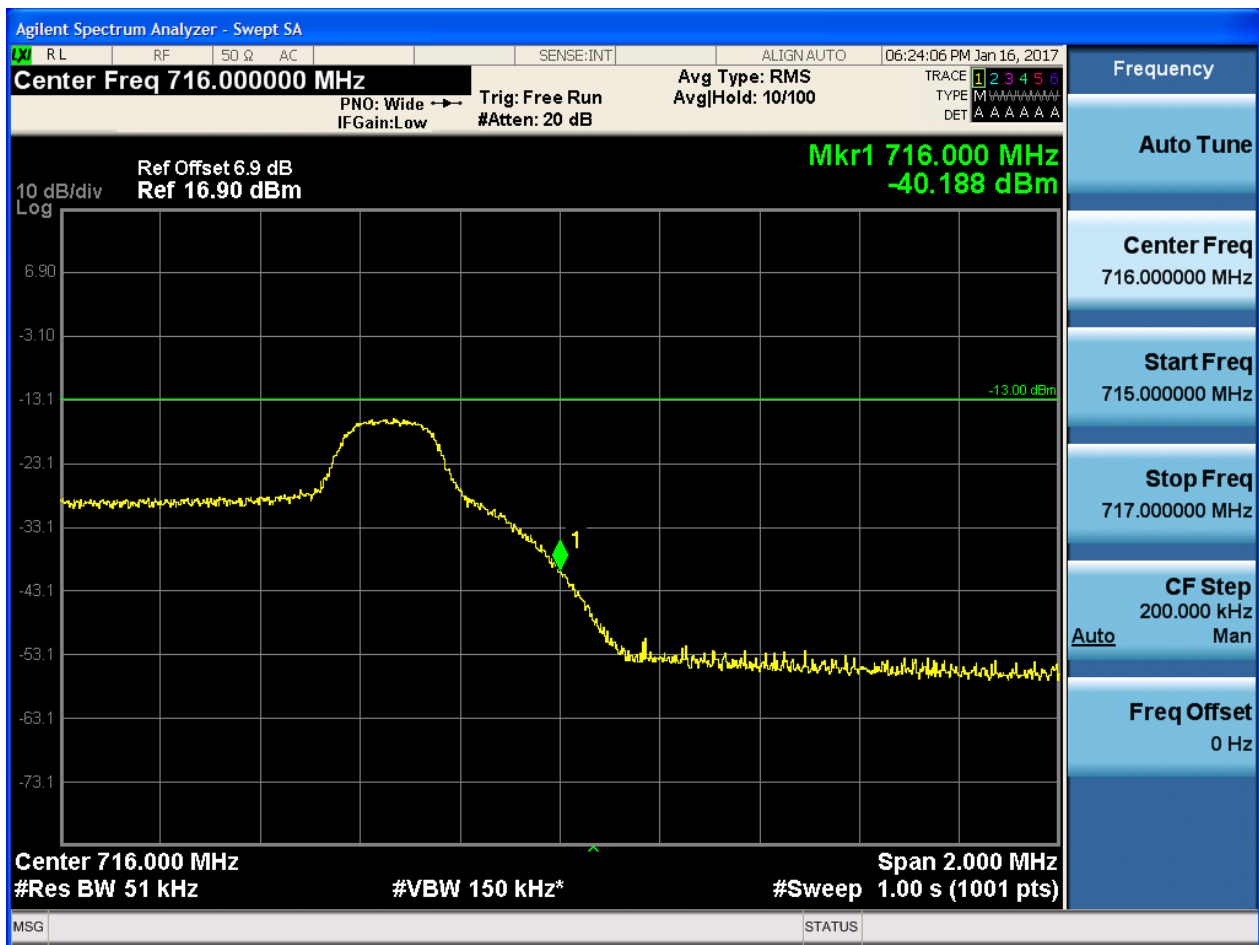
2.1.1.2.1.1.4 Test RB = RB25#0





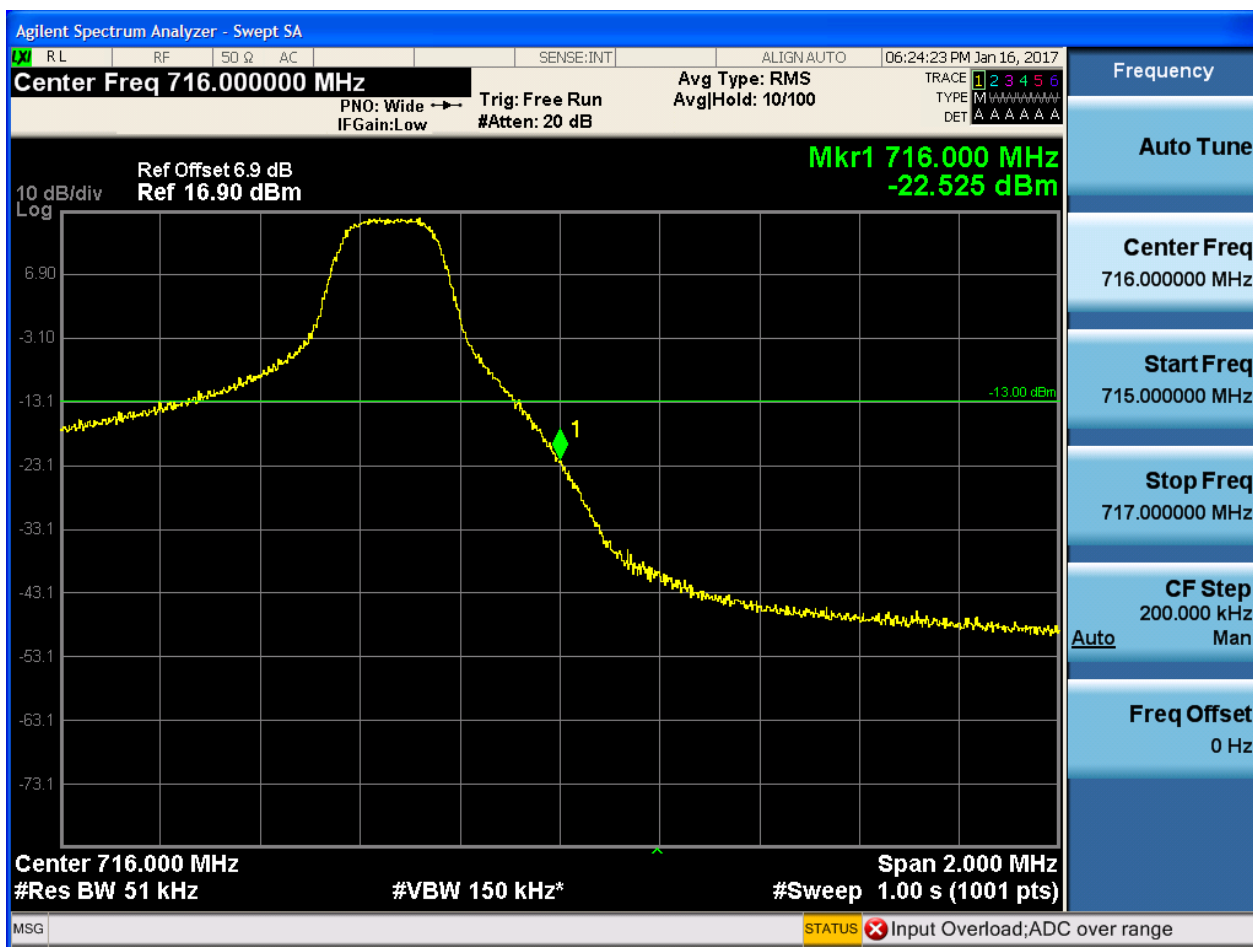
2.1.1.2.1.2 Test Channel = HCH

2.1.1.2.1.2.1 Test RB = RB1#0





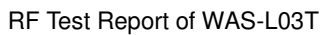
2.1.1.2.1.2.2 Test RB = RB1#24





2.1.1.2.1.2.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

Center Freq 716.000000 MHz

PNO: Wide → Trg: Free Run Avg Type: RMS
IFGain: Low #Atten: 20 dB Avg|Hold: 11/100

Ref Offset 6.9 dB
Ref 16.90 dBm

Mkr1 716.010 MHz
-29.493 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)

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

CF Step
200.000 kHz
Auto Man

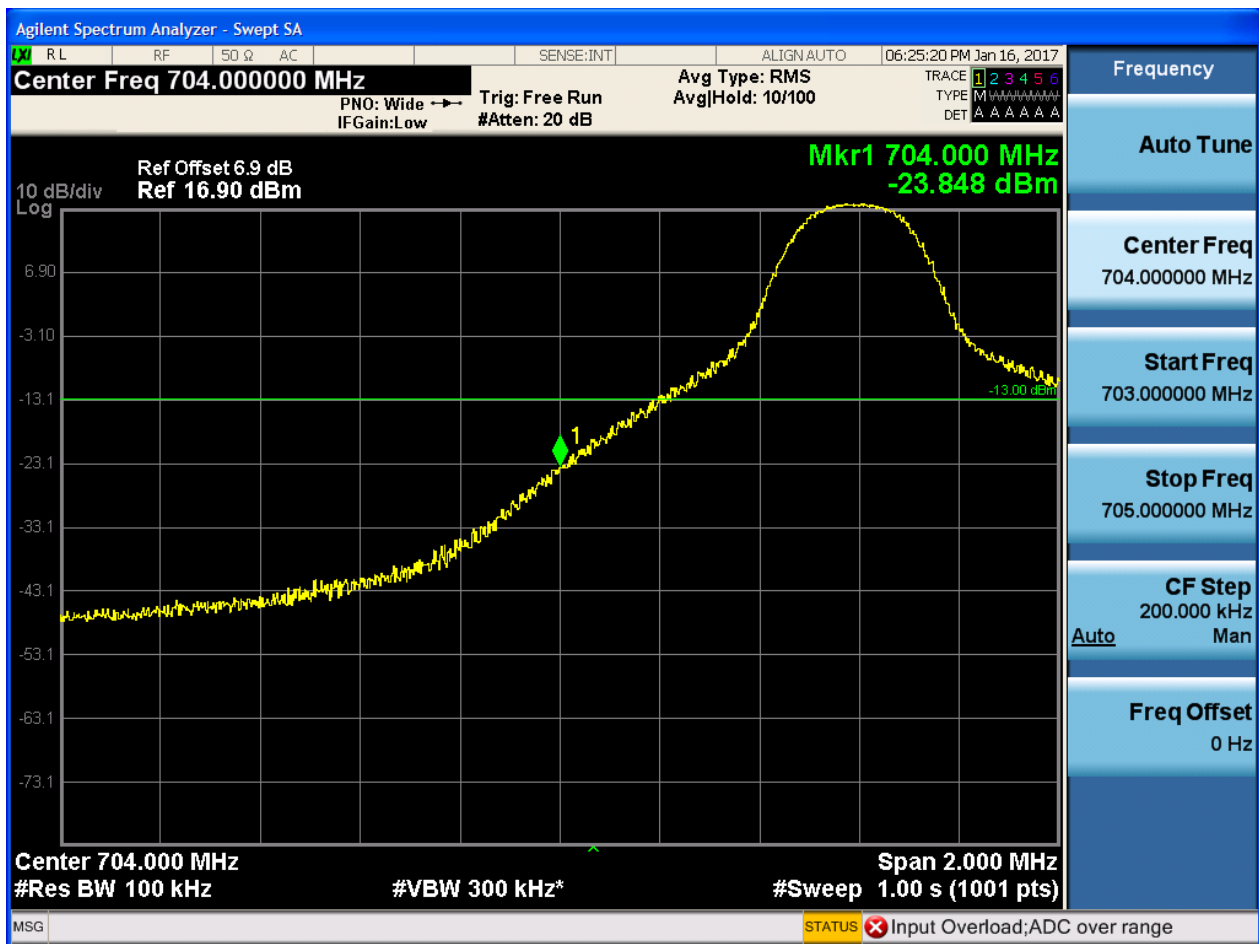
Freq Offset
0 Hz



2.1.1.2.2 Test Bandwidth = 10

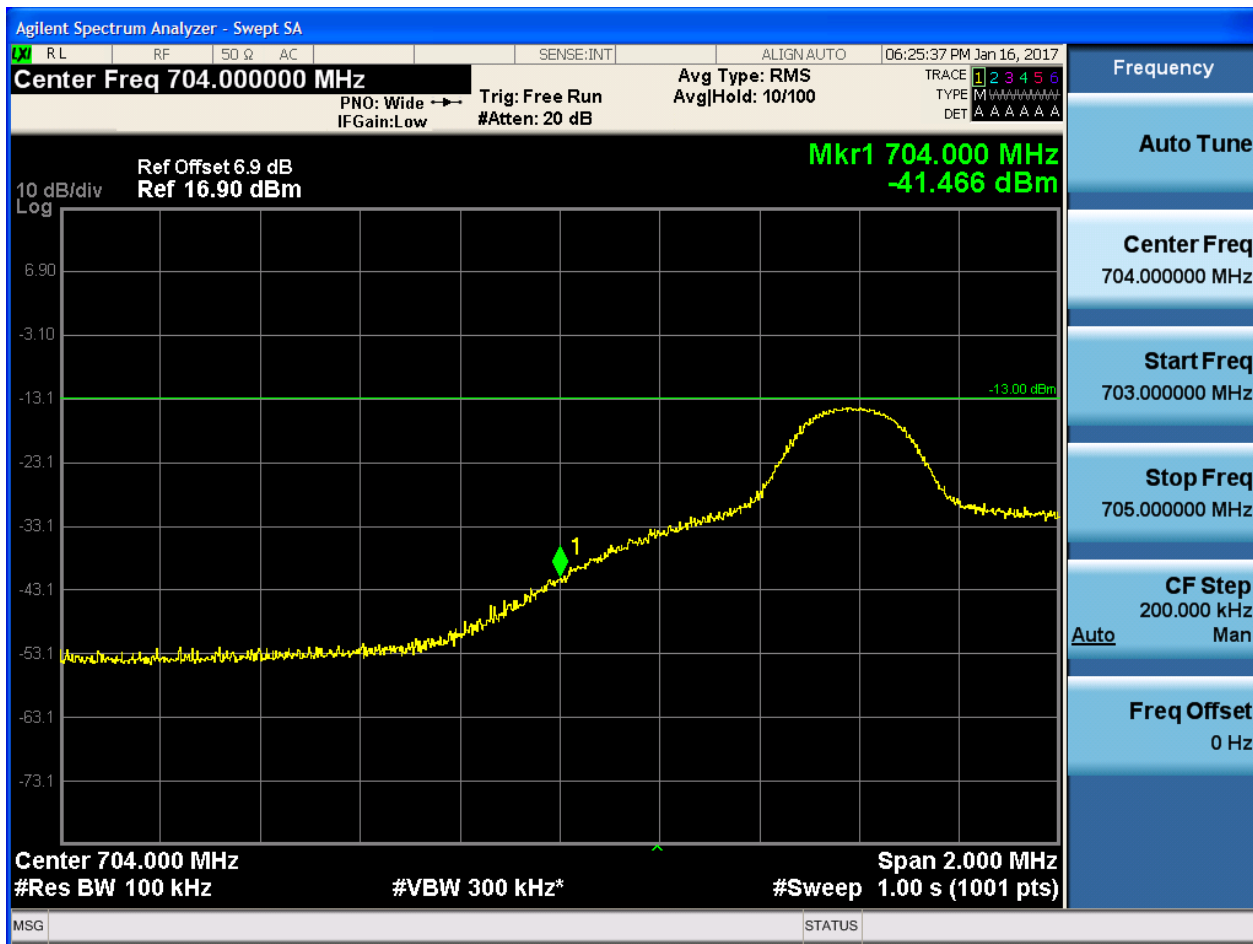
2.1.1.2.2.1 Test Channel = LCH

2.1.1.2.2.1.1 Test RB = RB1#0





2.1.1.2.2.1.2 Test RB = RB1#49



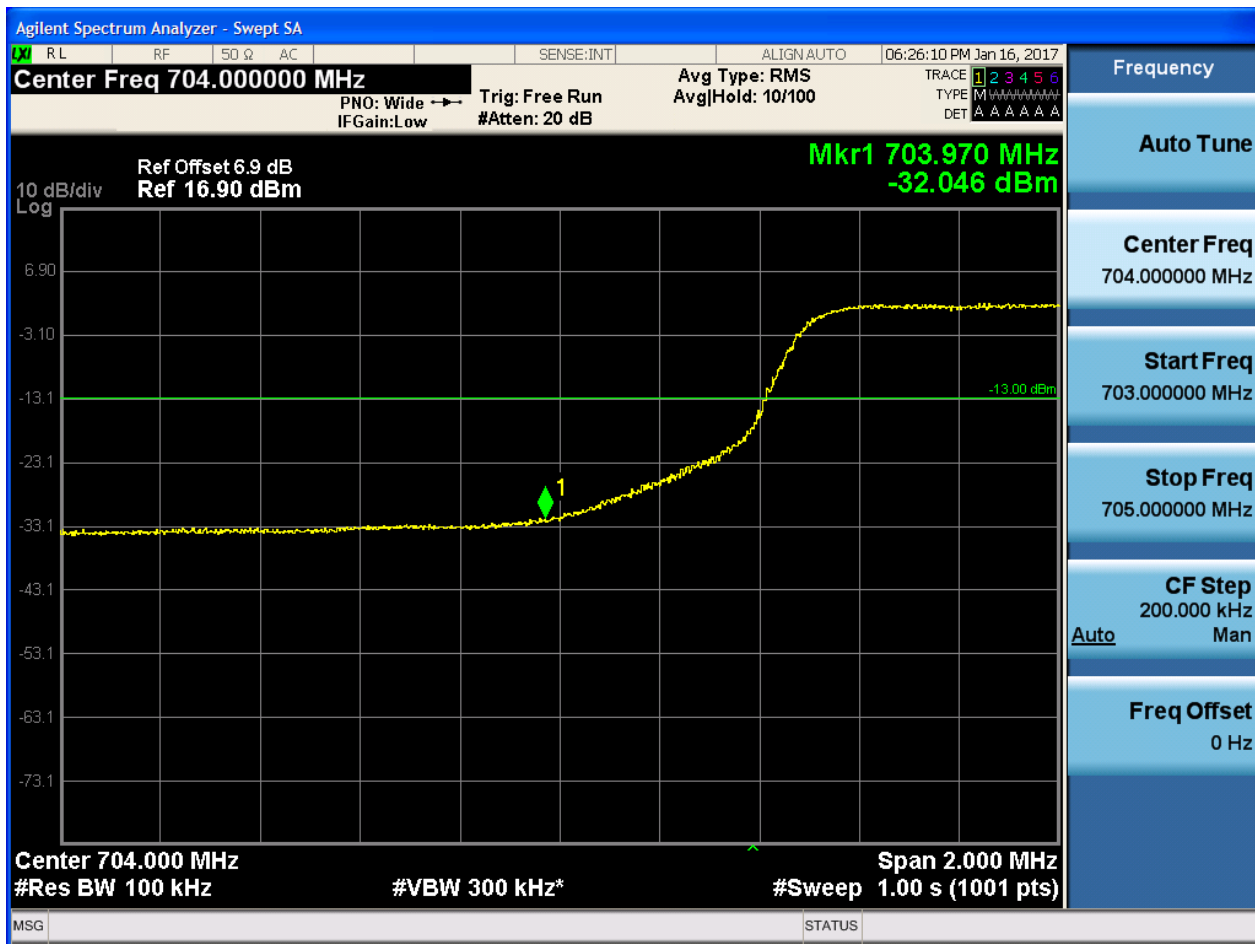


2.1.1.2.2.1.3 Test RB = RB25#13





2.1.1.2.2.1.4 Test RB = RB50#0

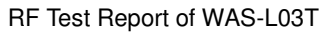




2.1.1.2.2.2 Test Channel = HCH

2.1.1.2.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 716.000000 MHz

Ref Offset 6.9 dB
Ref 16.90 dBm

Mkr1 716.000 MHz
-24.998 dBm

10 dB/div
Log

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 ☒ Input Overload; ADC over range



2.1.1.2.2.3 Test RB = RB25#13





2.1.1.2.2.4 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

5.1 For LTE

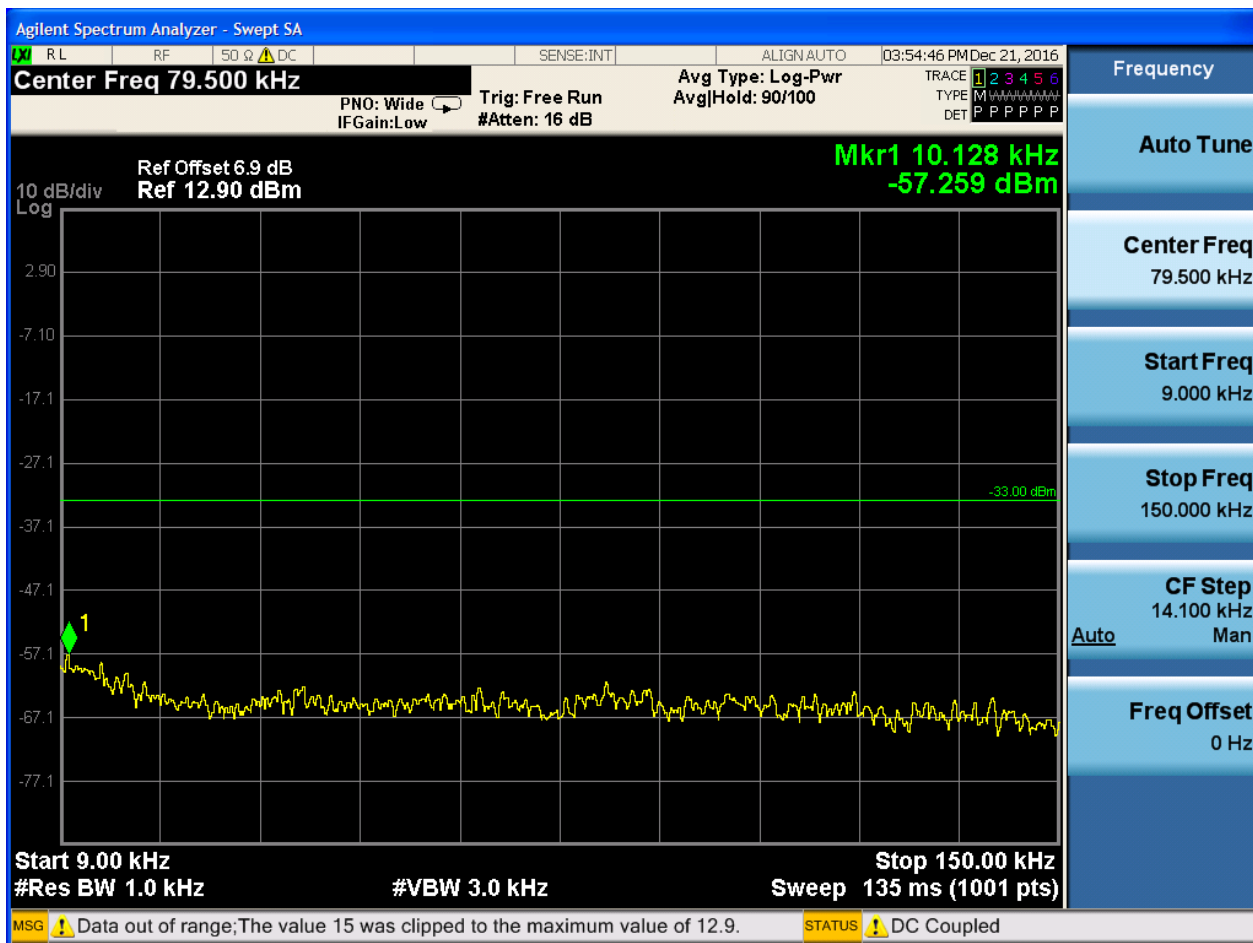
5.1.1 Test Band = BAND17

5.1.1.1 Test Mode = LTE/TM1

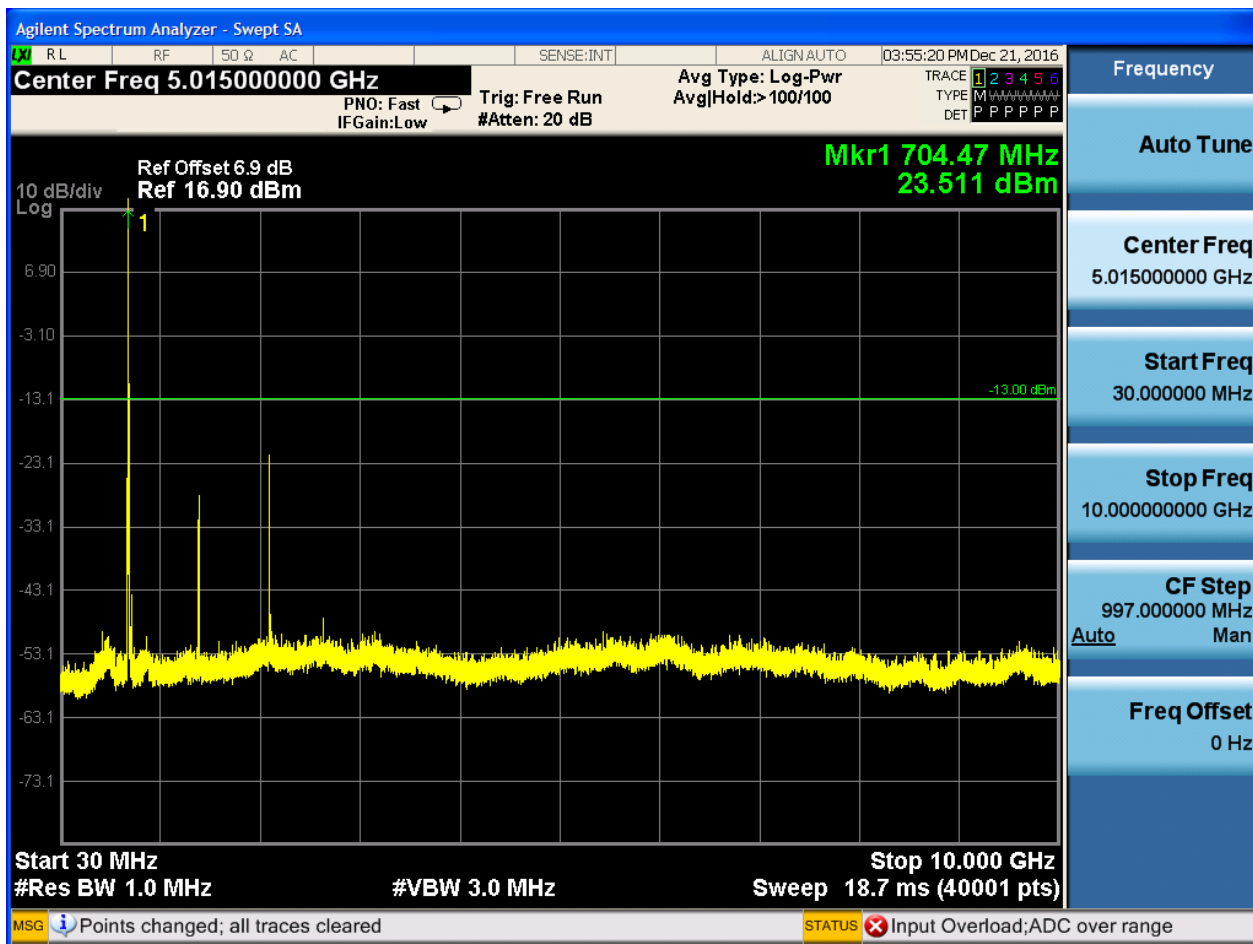
5.1.1.1.1 Test Bandwidth = 5

5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



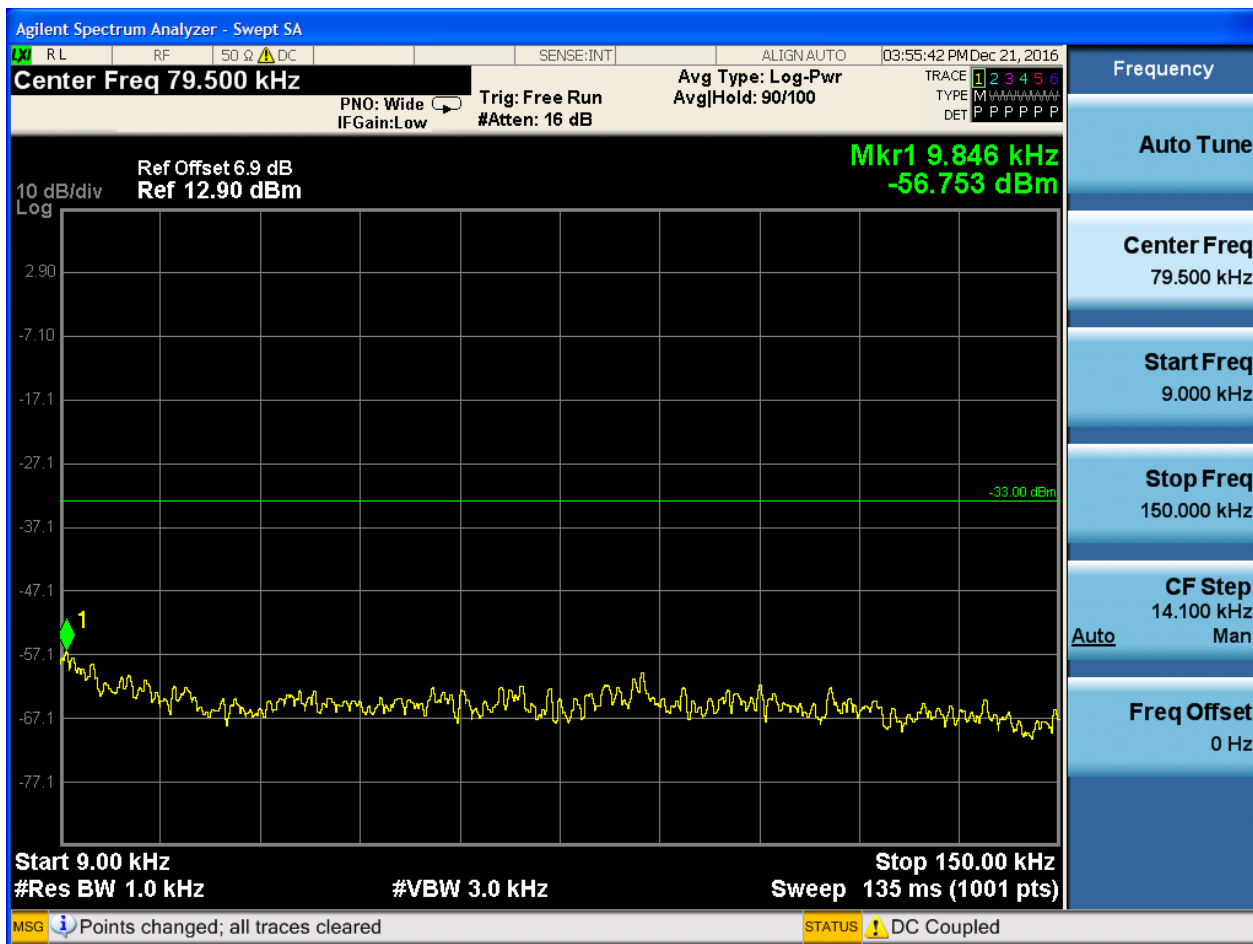


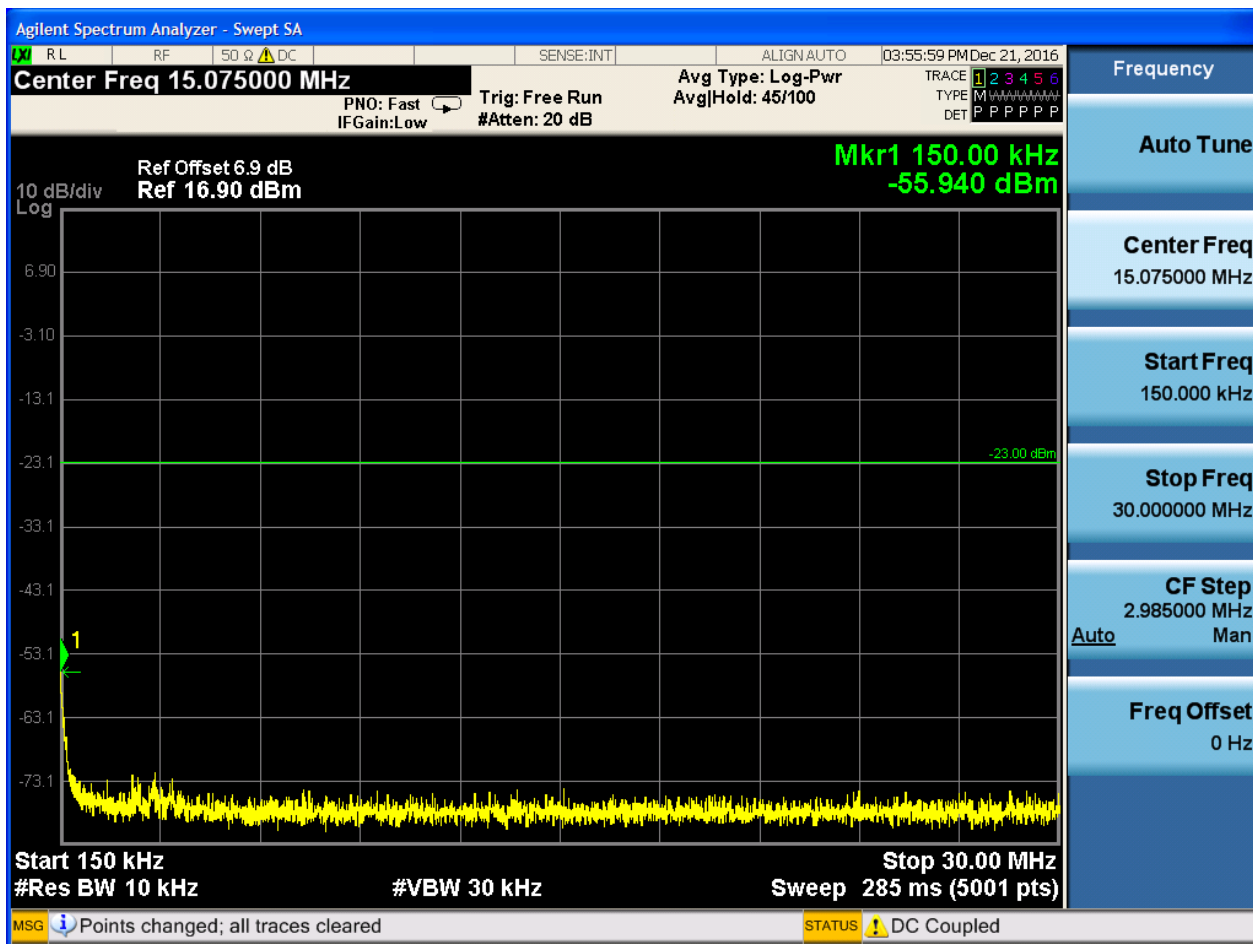


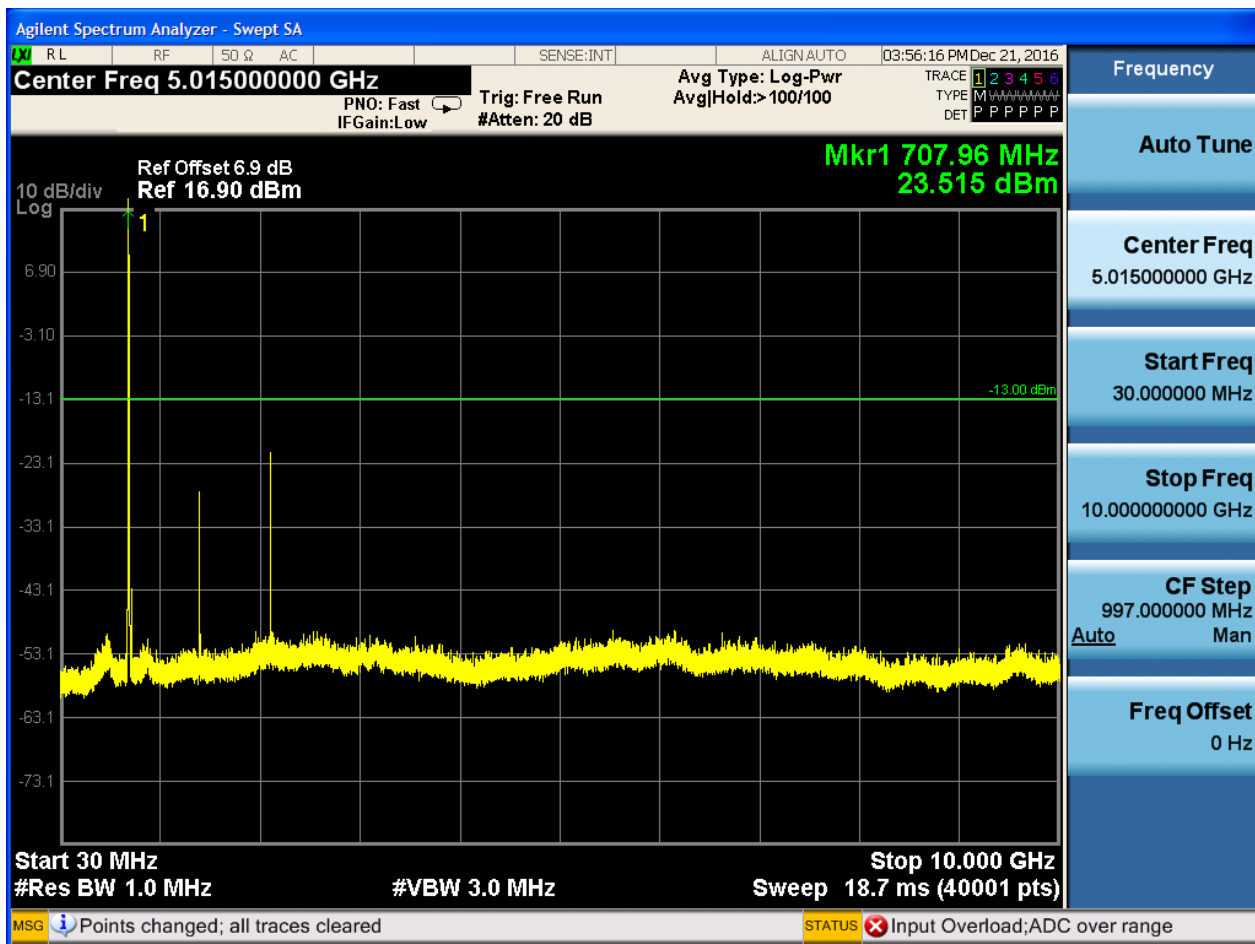


5.1.1.1.1.2 Test Channel = MCH

5.1.1.1.1.2.1 Test RB = RB1#0

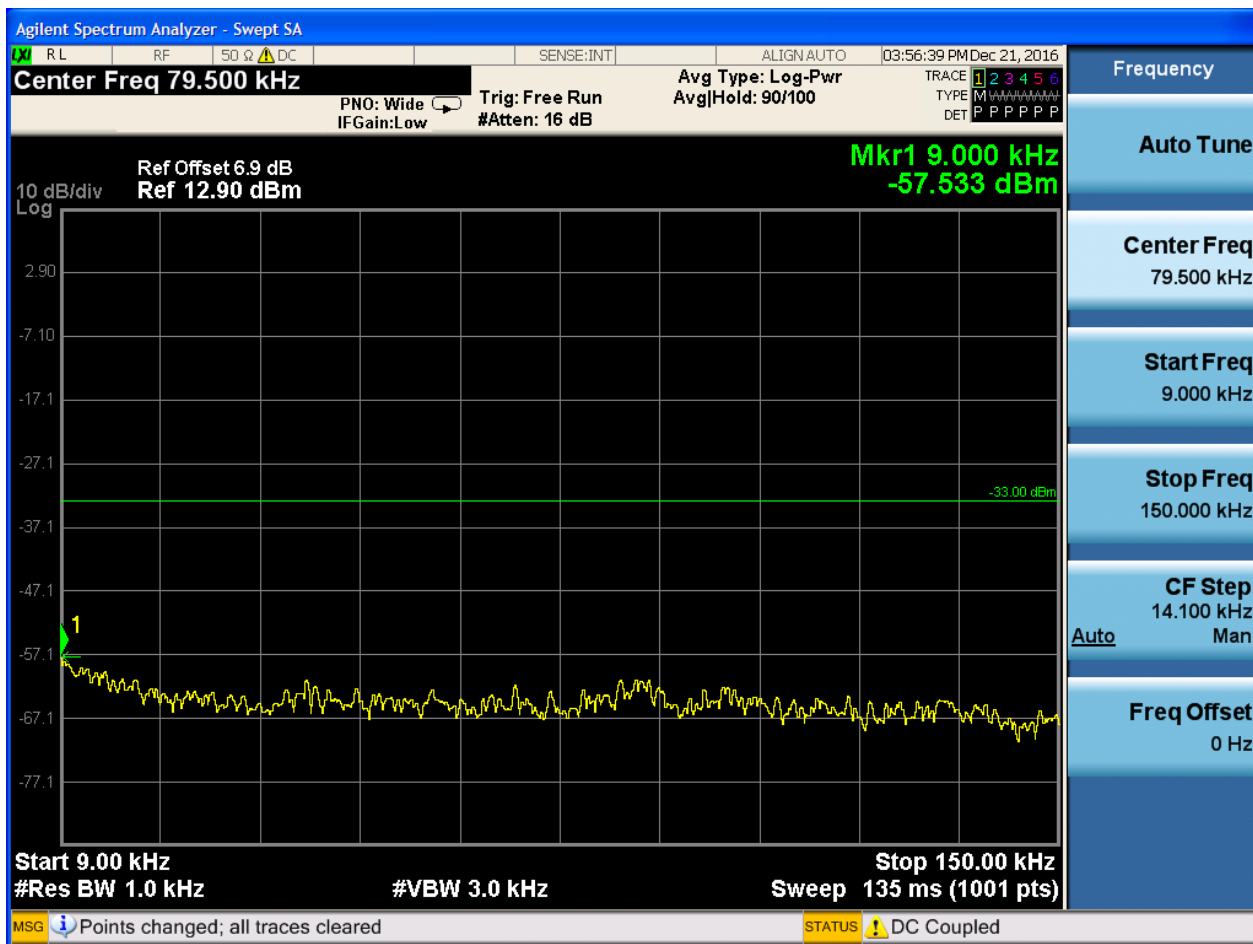




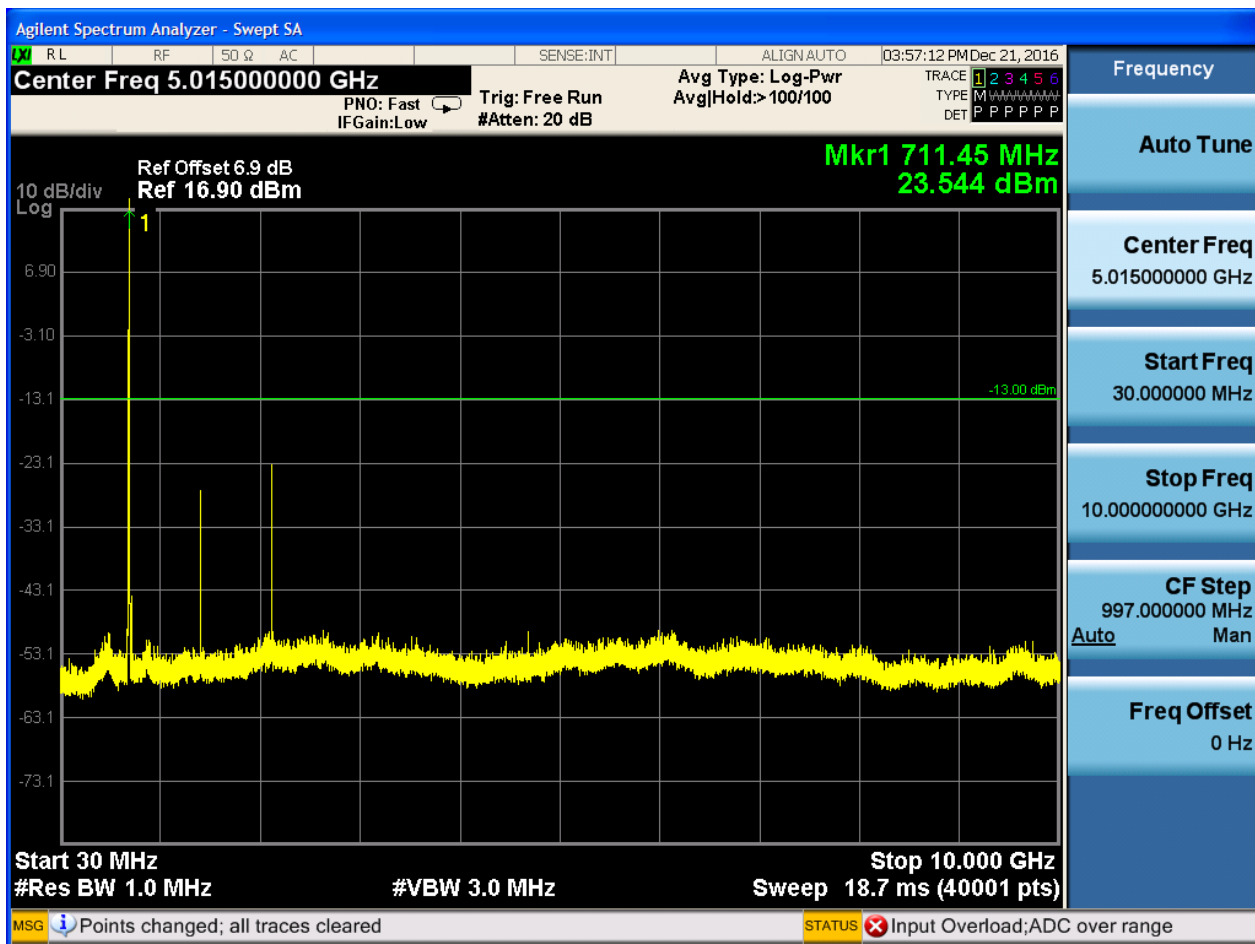


5.1.1.1.3 Test Channel = HCH

5.1.1.1.3.1 Test RB = RB1#0



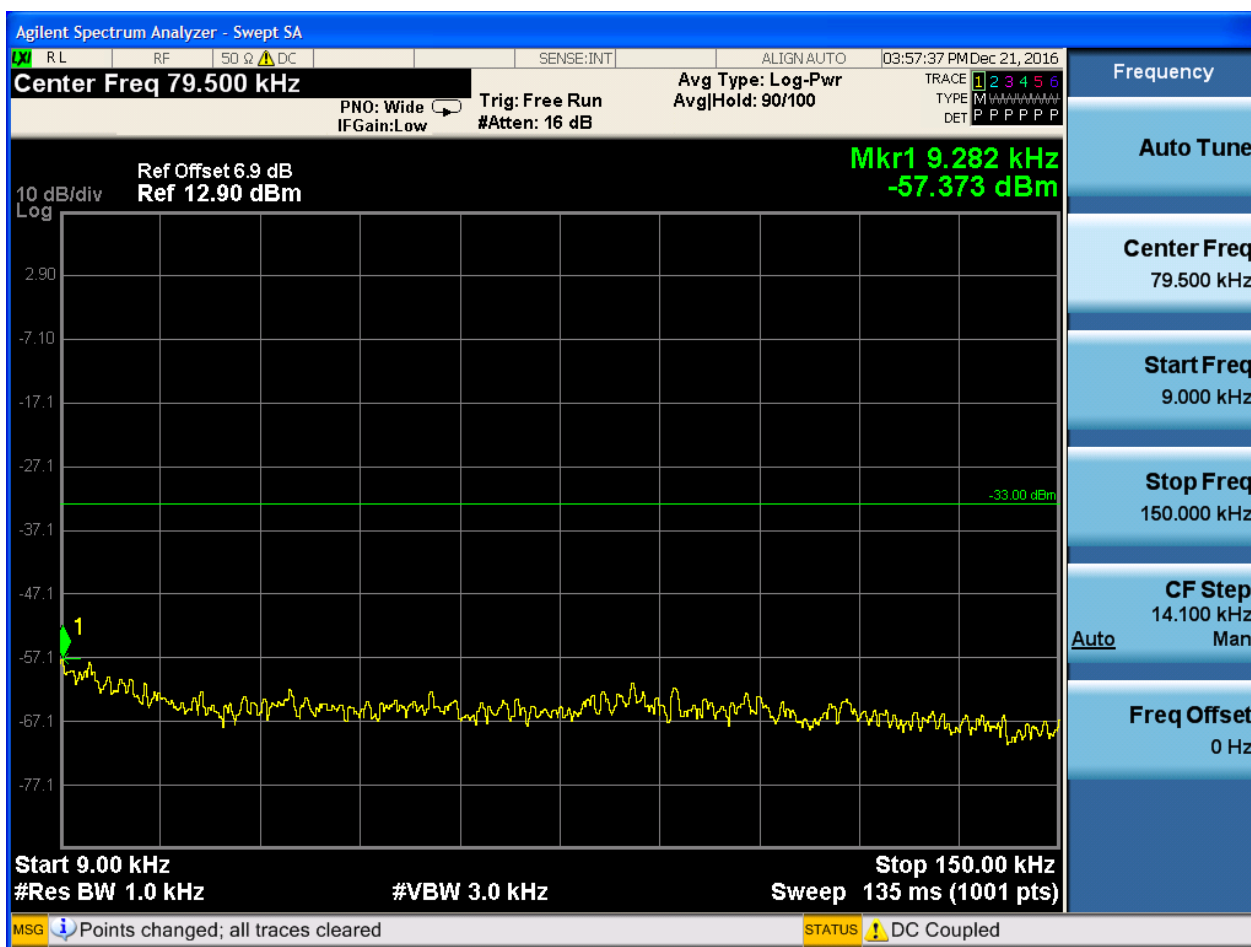


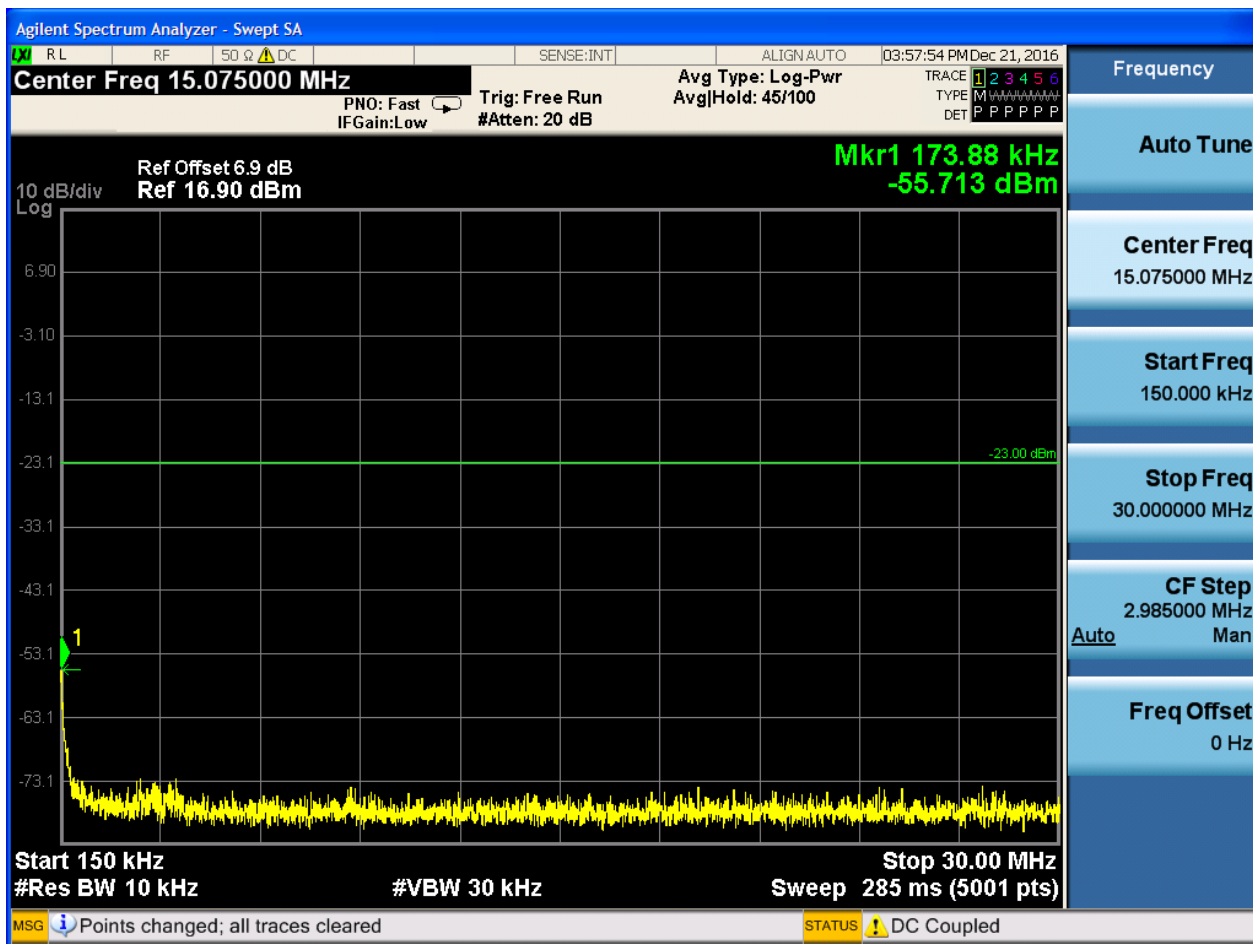


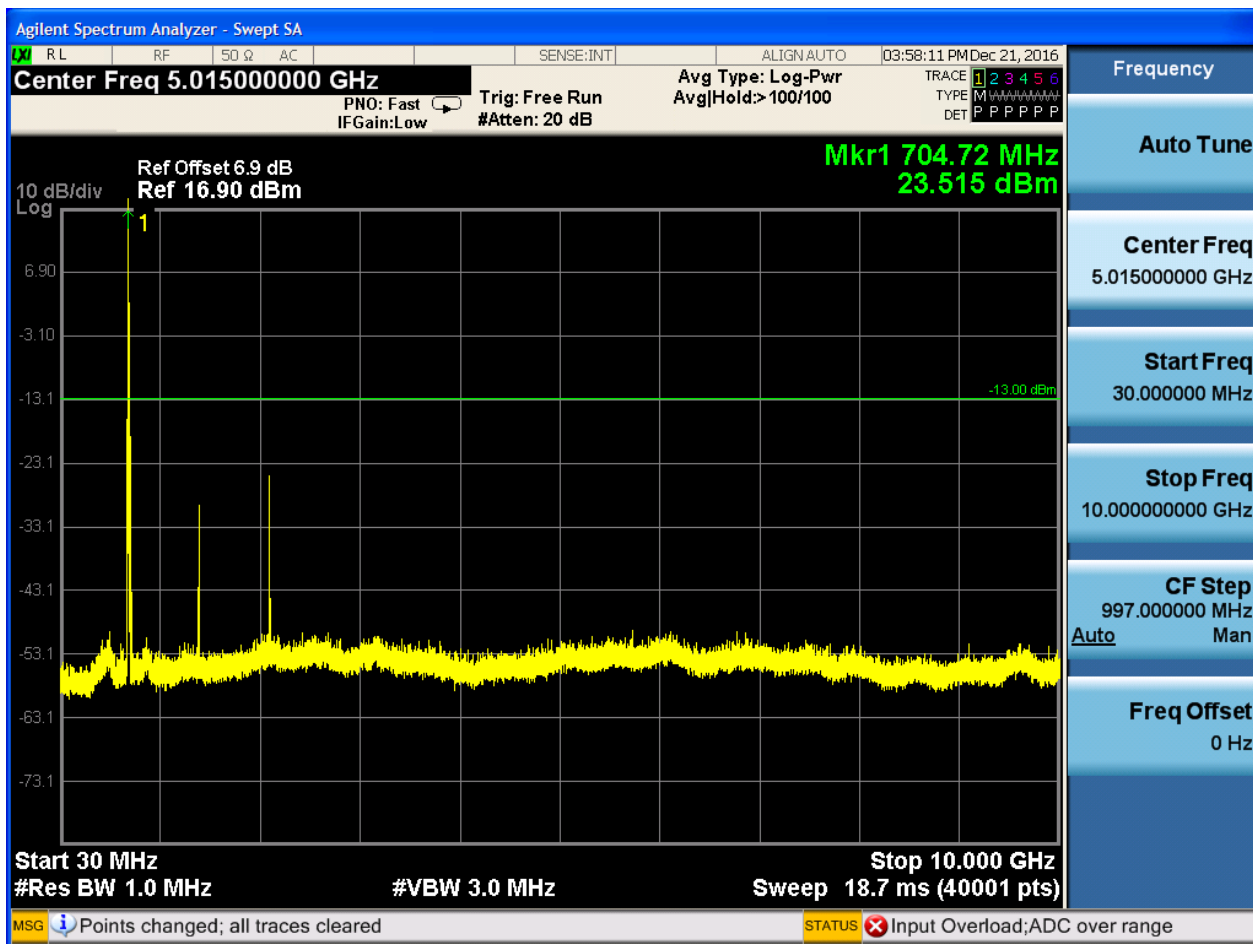
5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



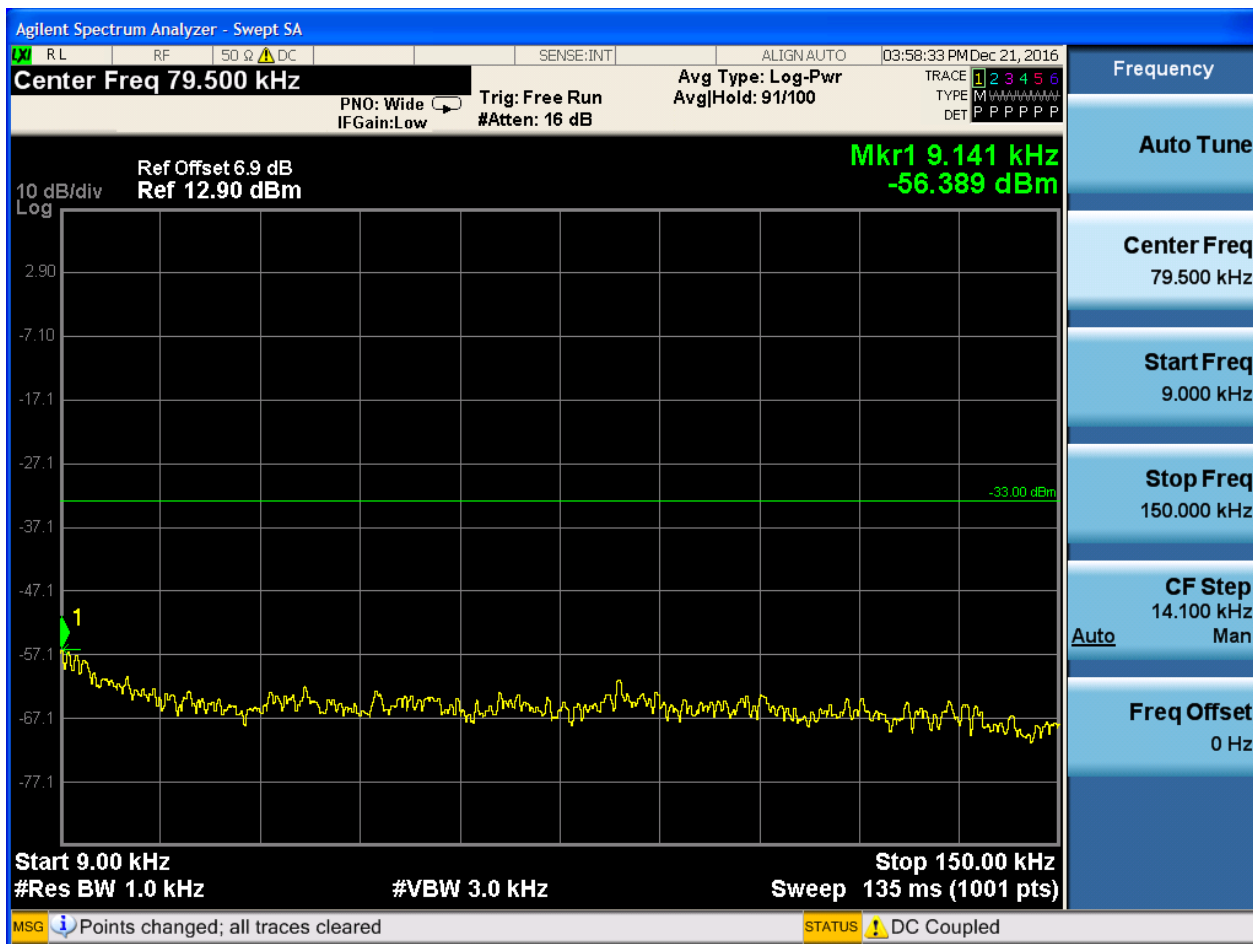


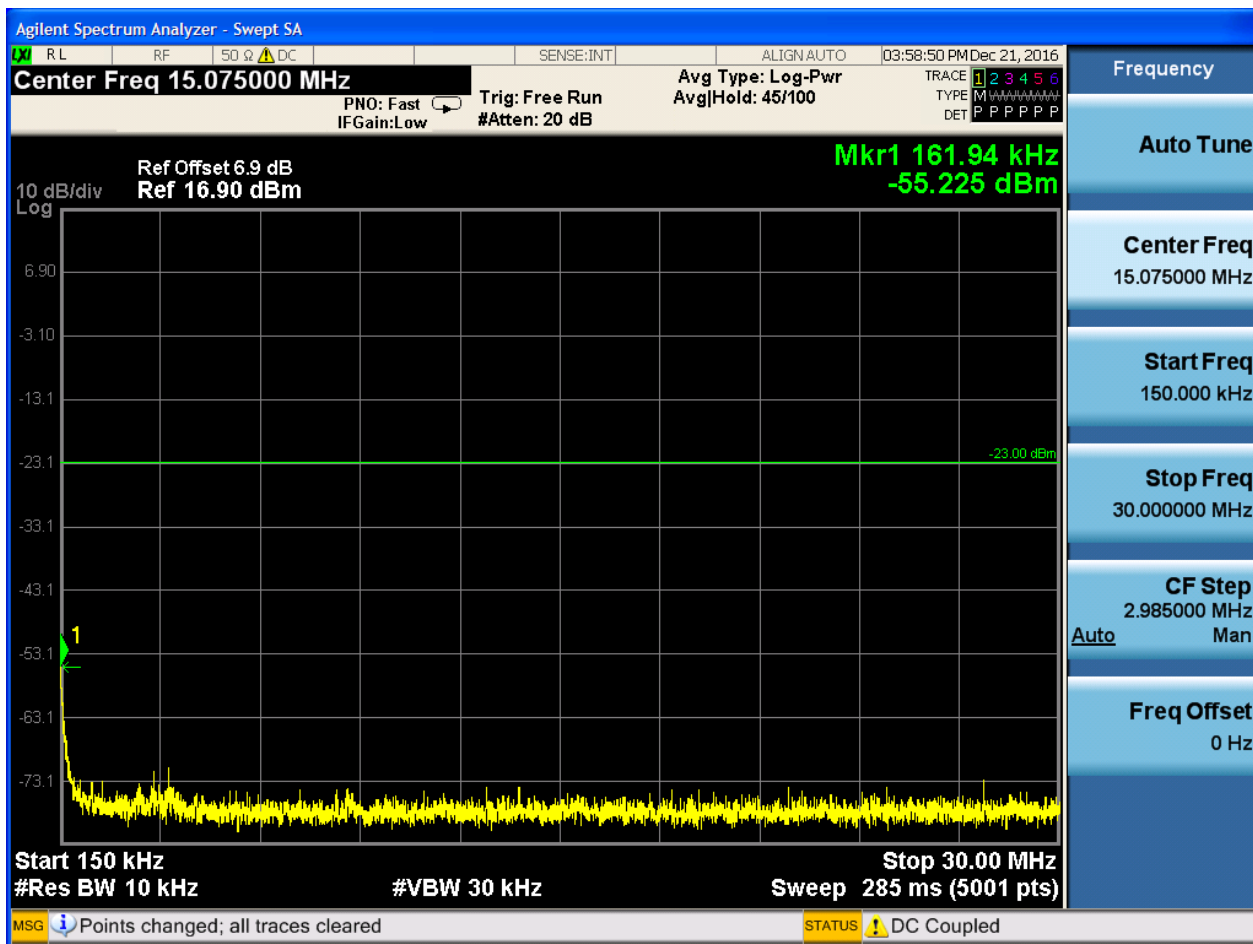


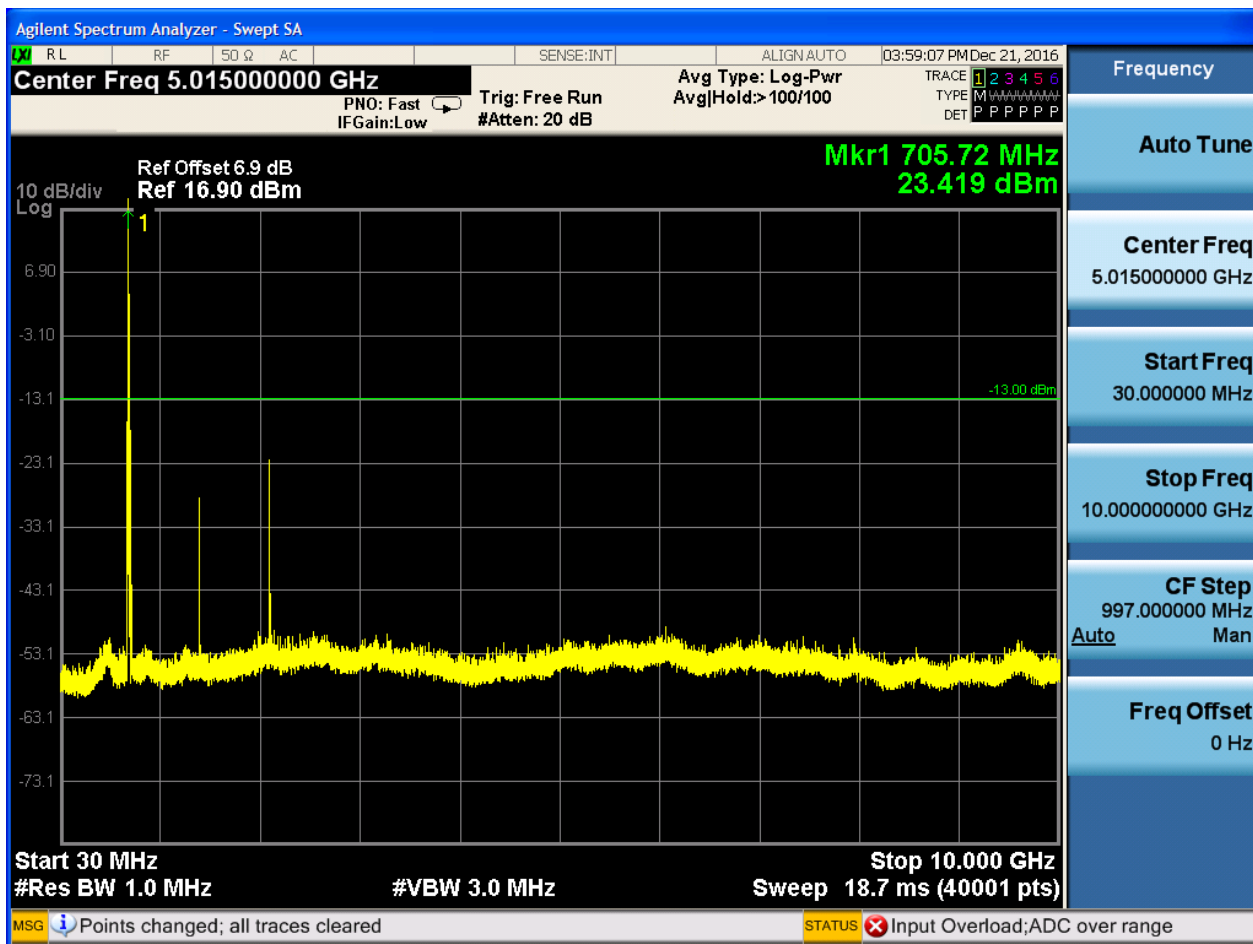


5.1.1.1.2.2 Test Channel = MCH

5.1.1.1.2.2.1 Test RB = RB1#0



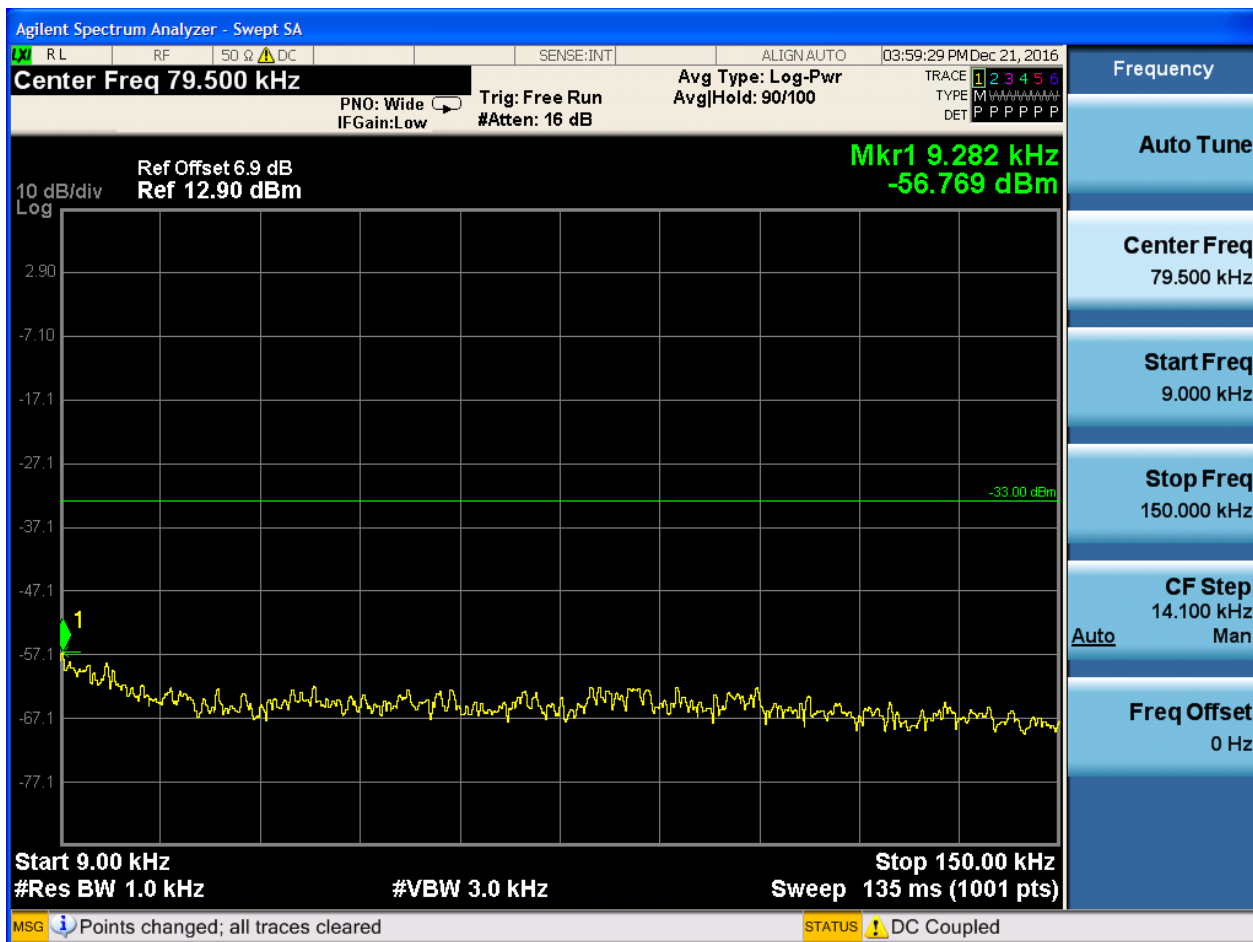


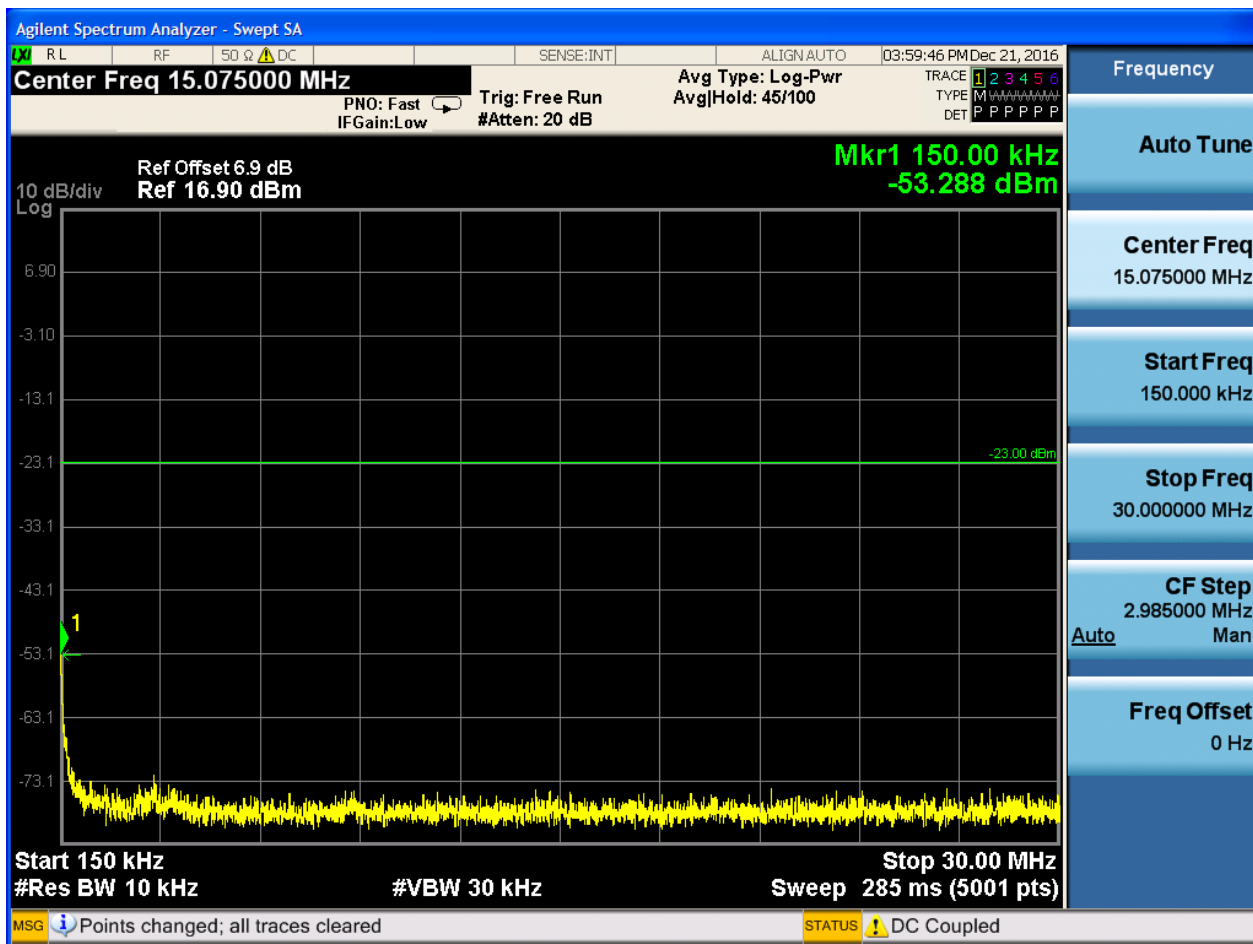


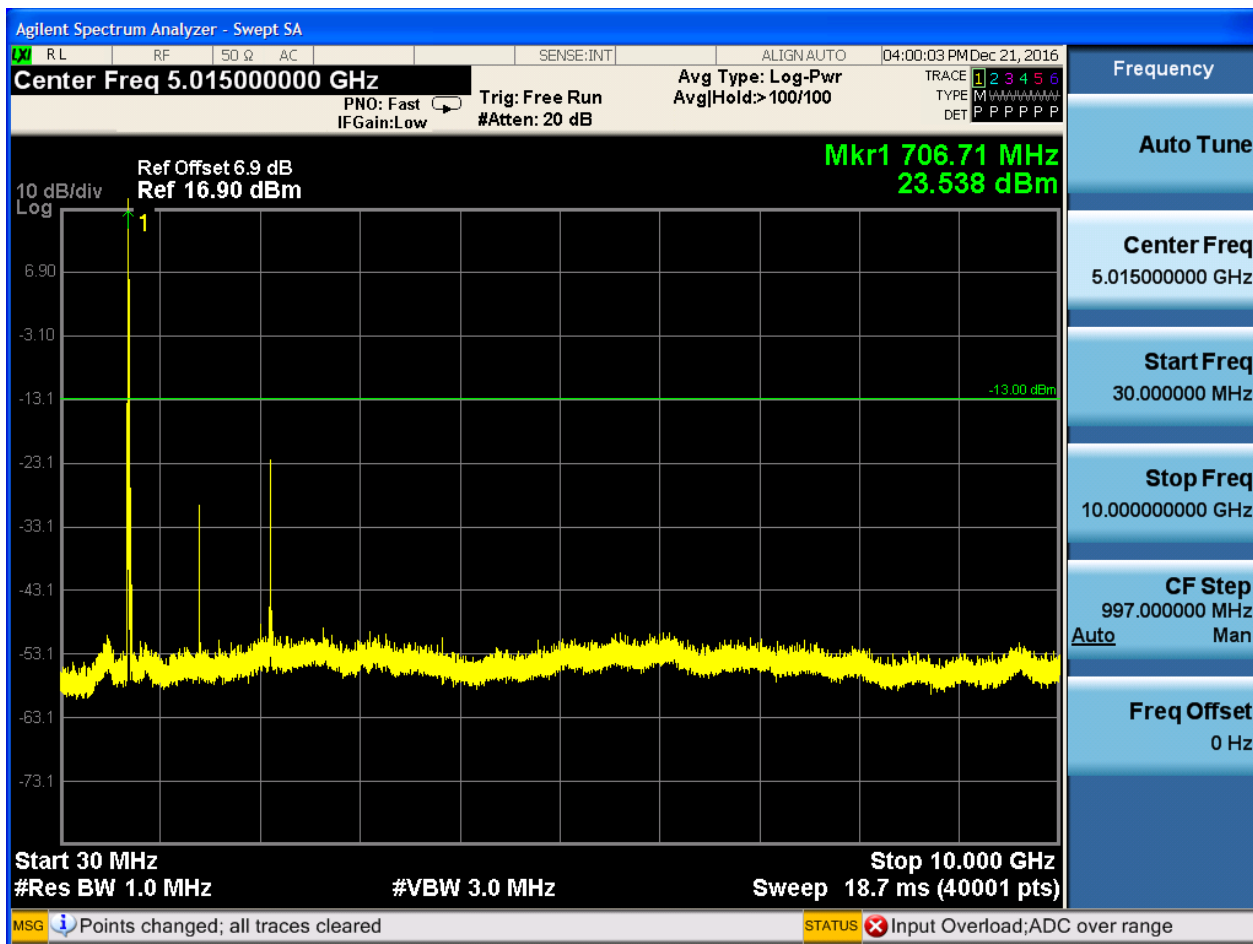


5.1.1.1.2.3 Test Channel = HCH

5.1.1.1.2.3.1 Test RB = RB1#0





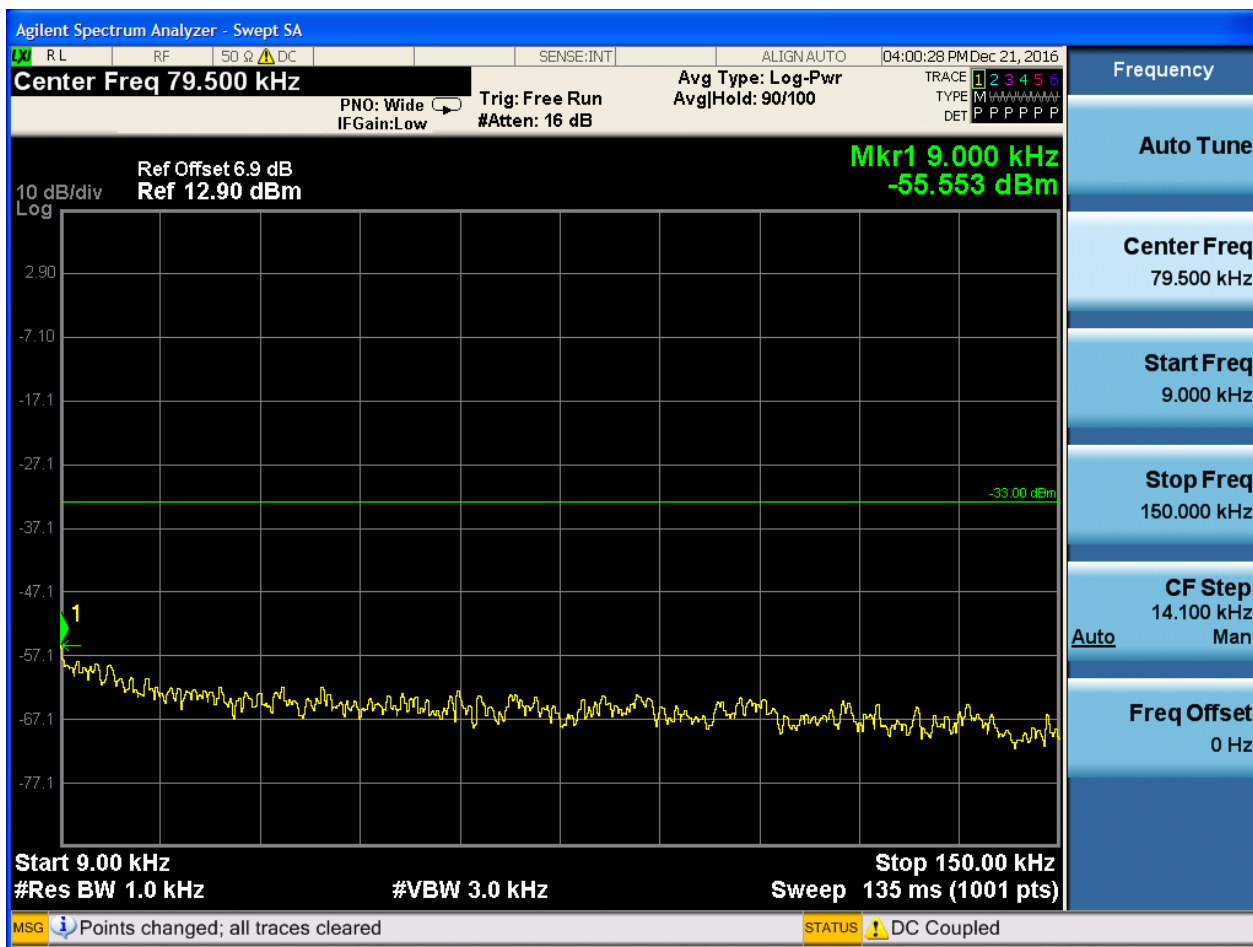


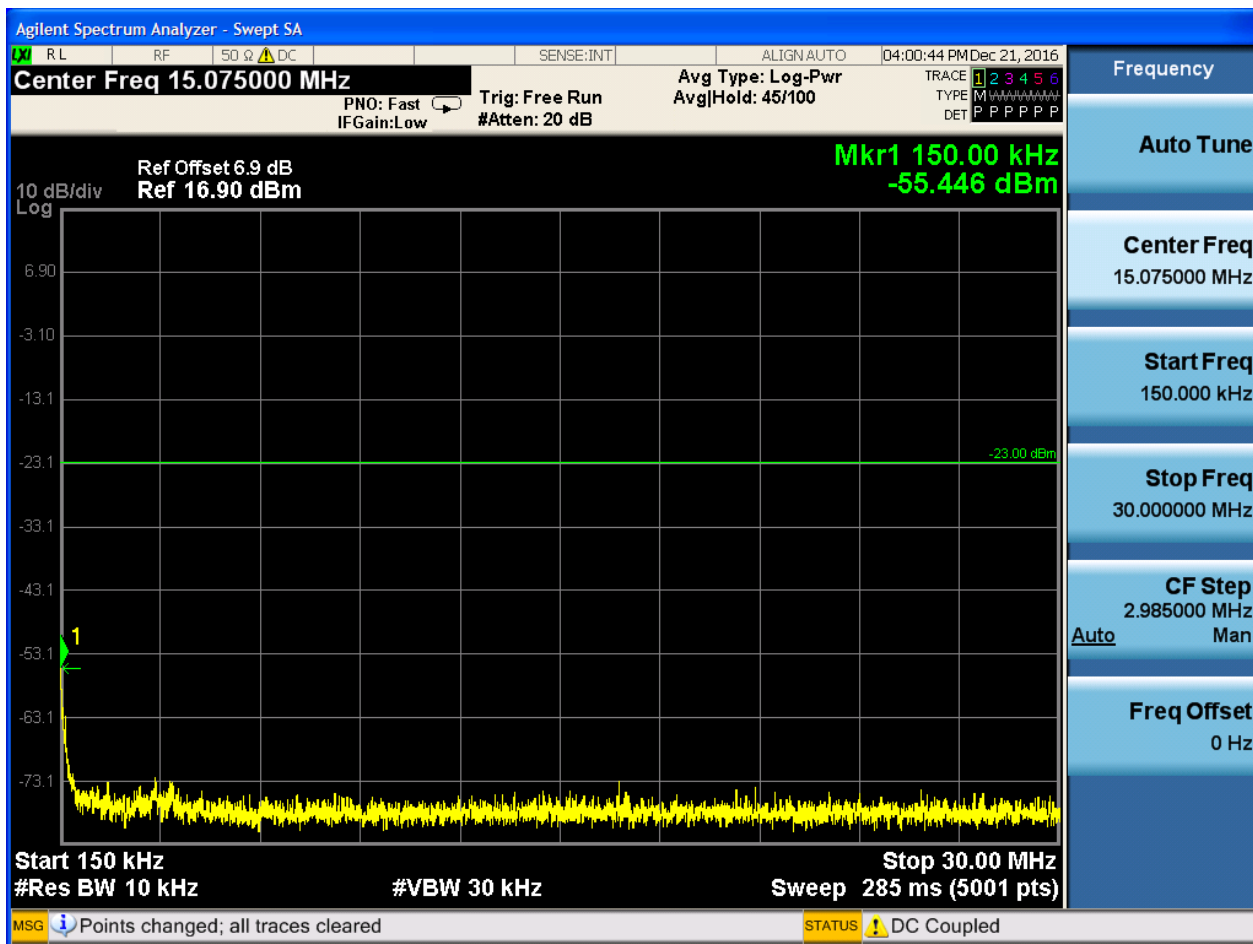
5.1.1.2 Test Mode = LTE/TM2

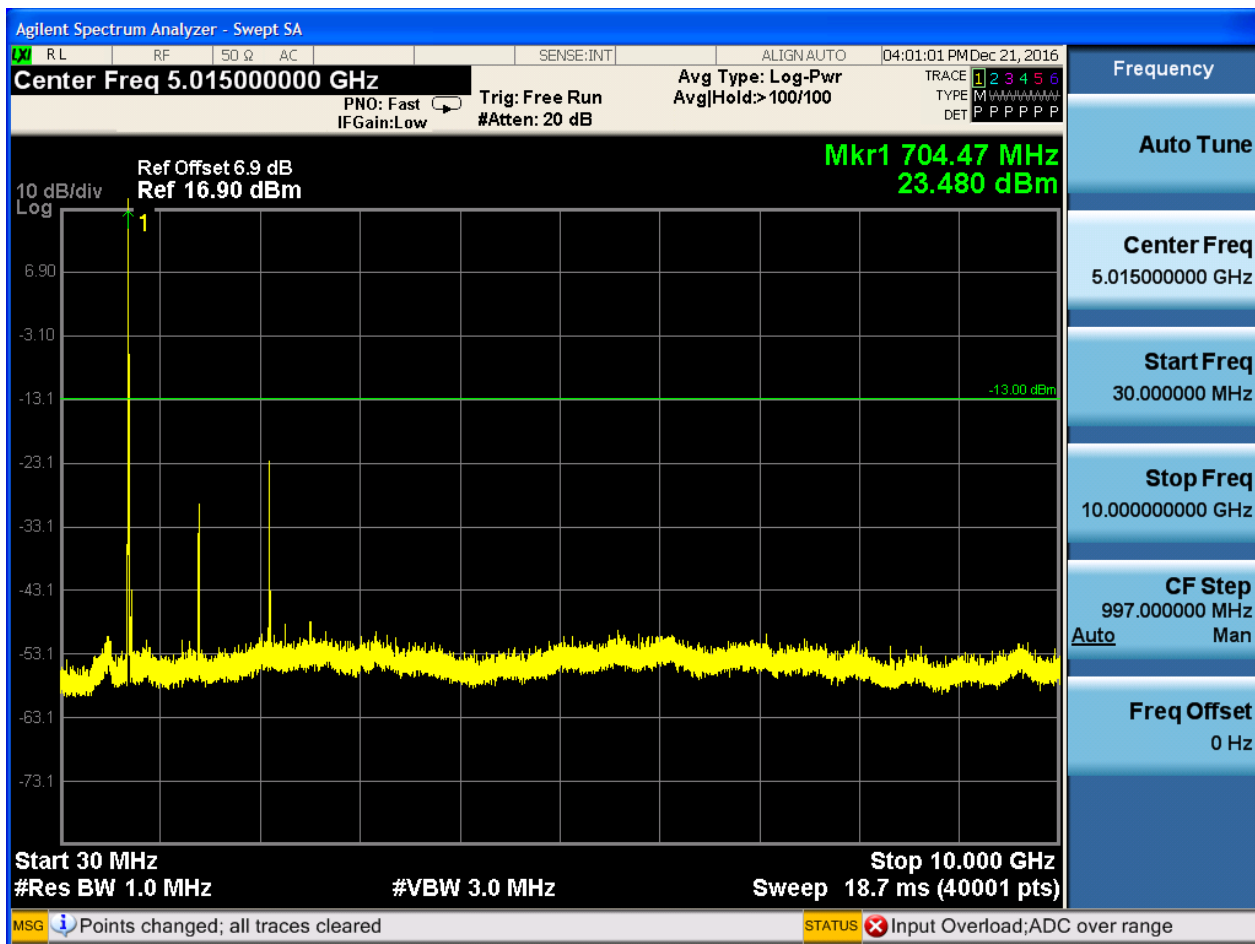
5.1.1.2.1 Test Bandwidth = 5

5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0

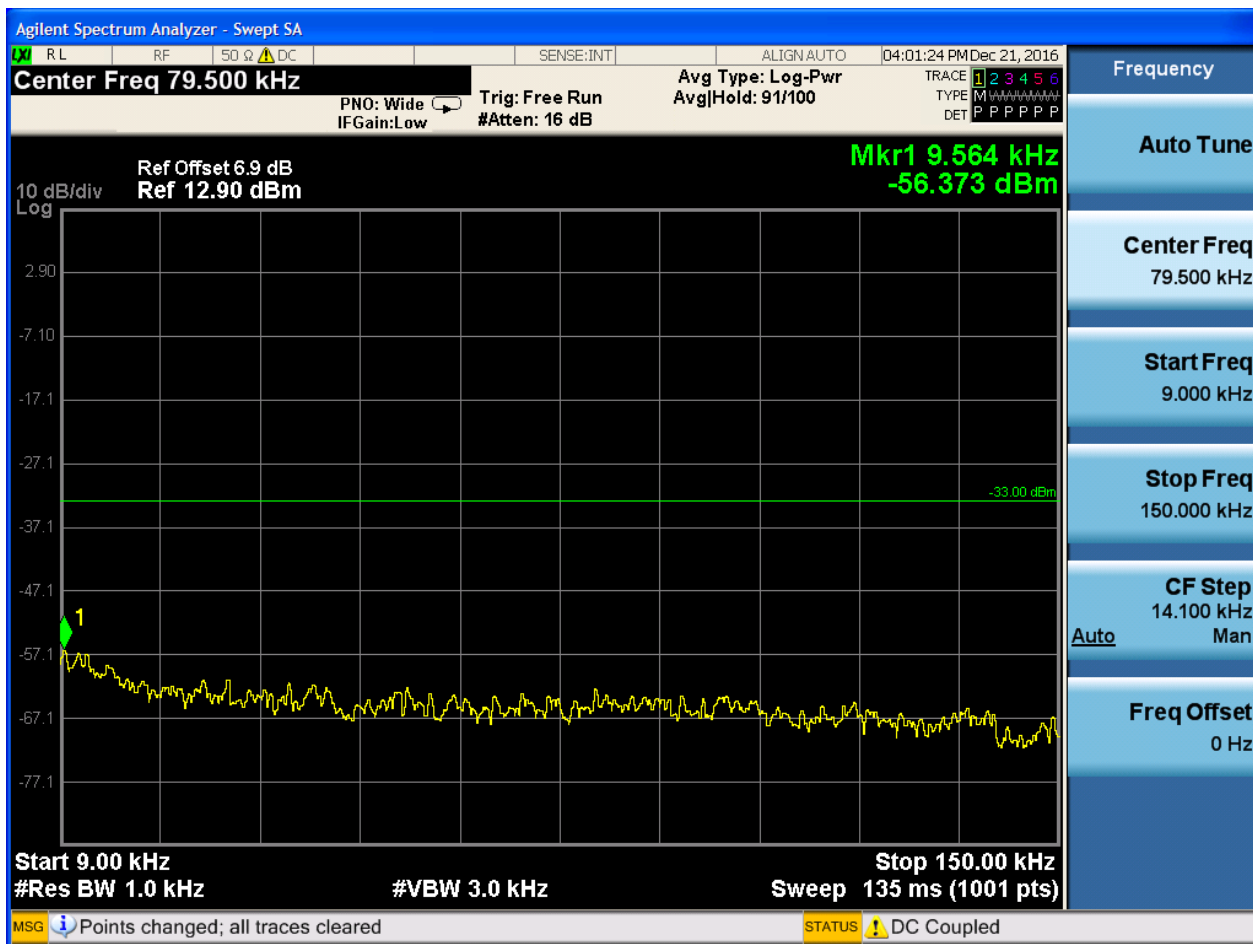


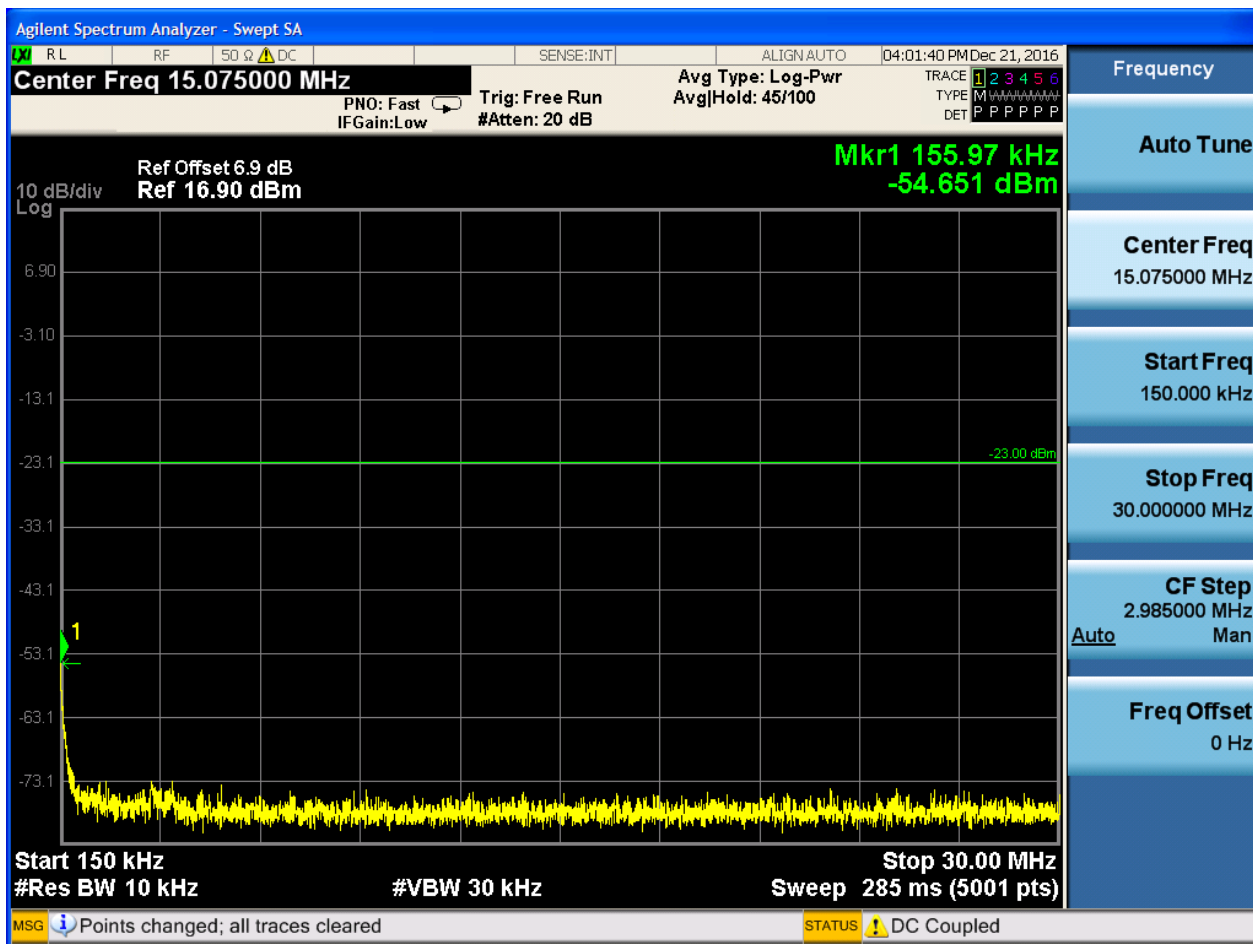


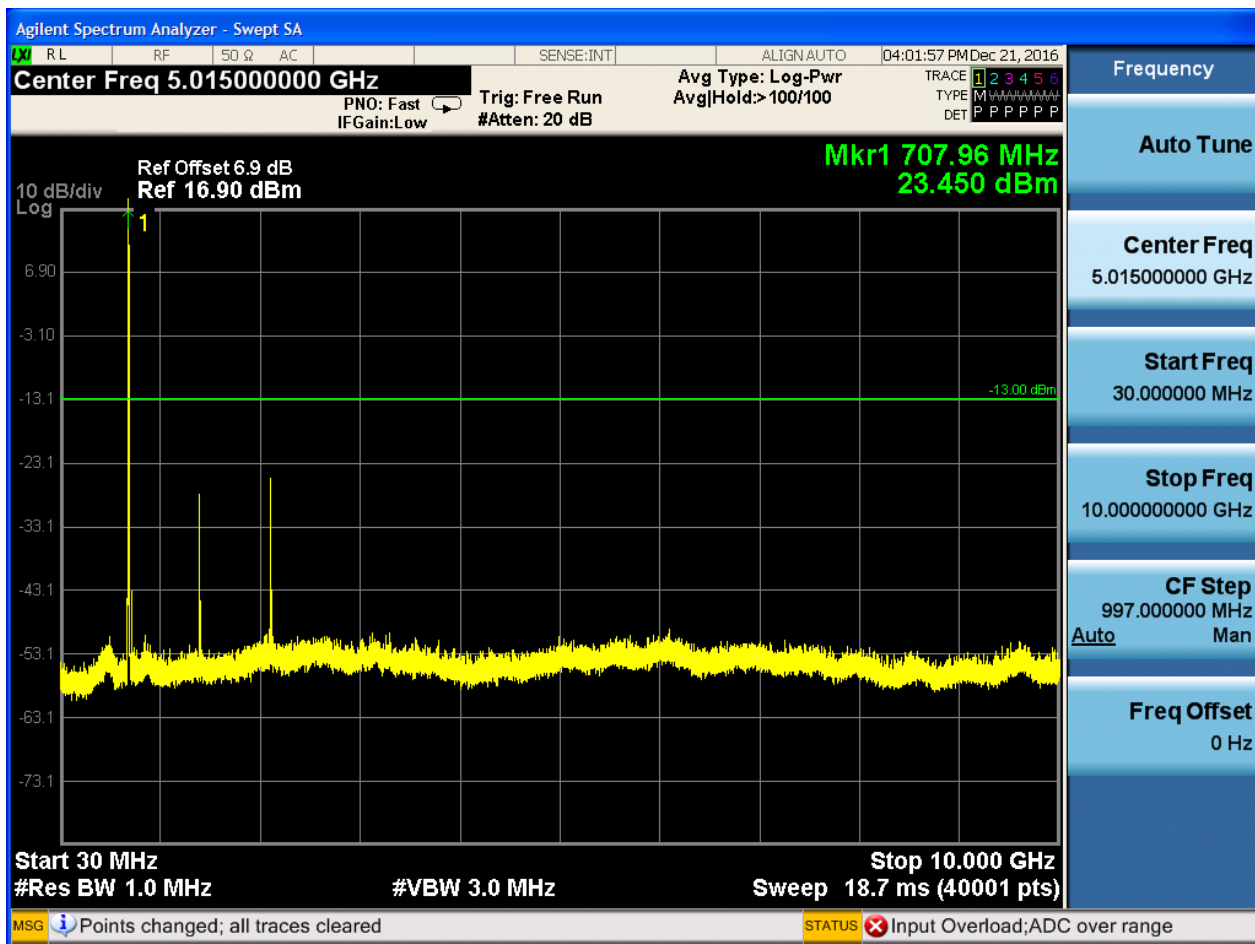


5.1.1.2.1.2 Test Channel = MCH

5.1.1.2.1.2.1 Test RB = RB1#0



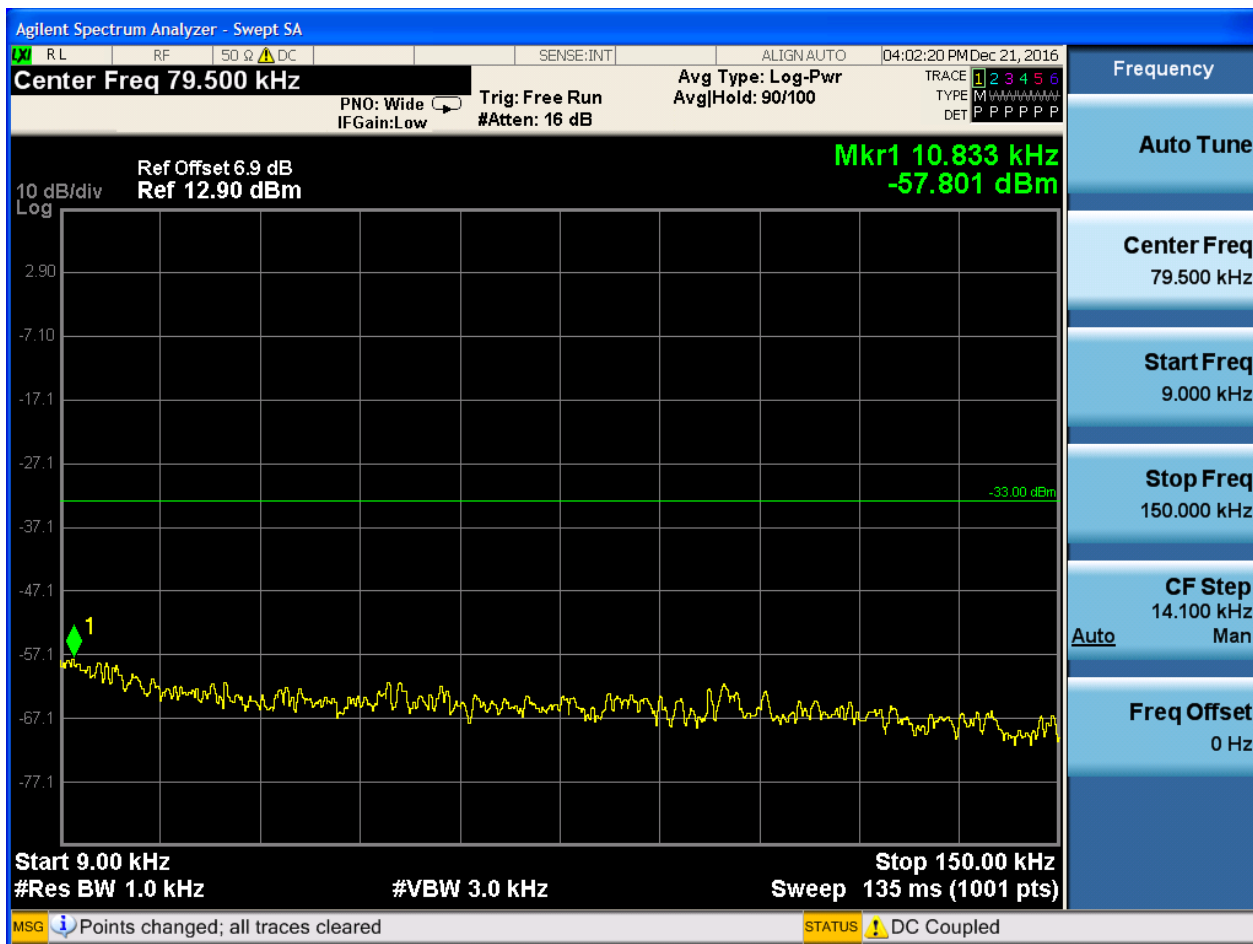


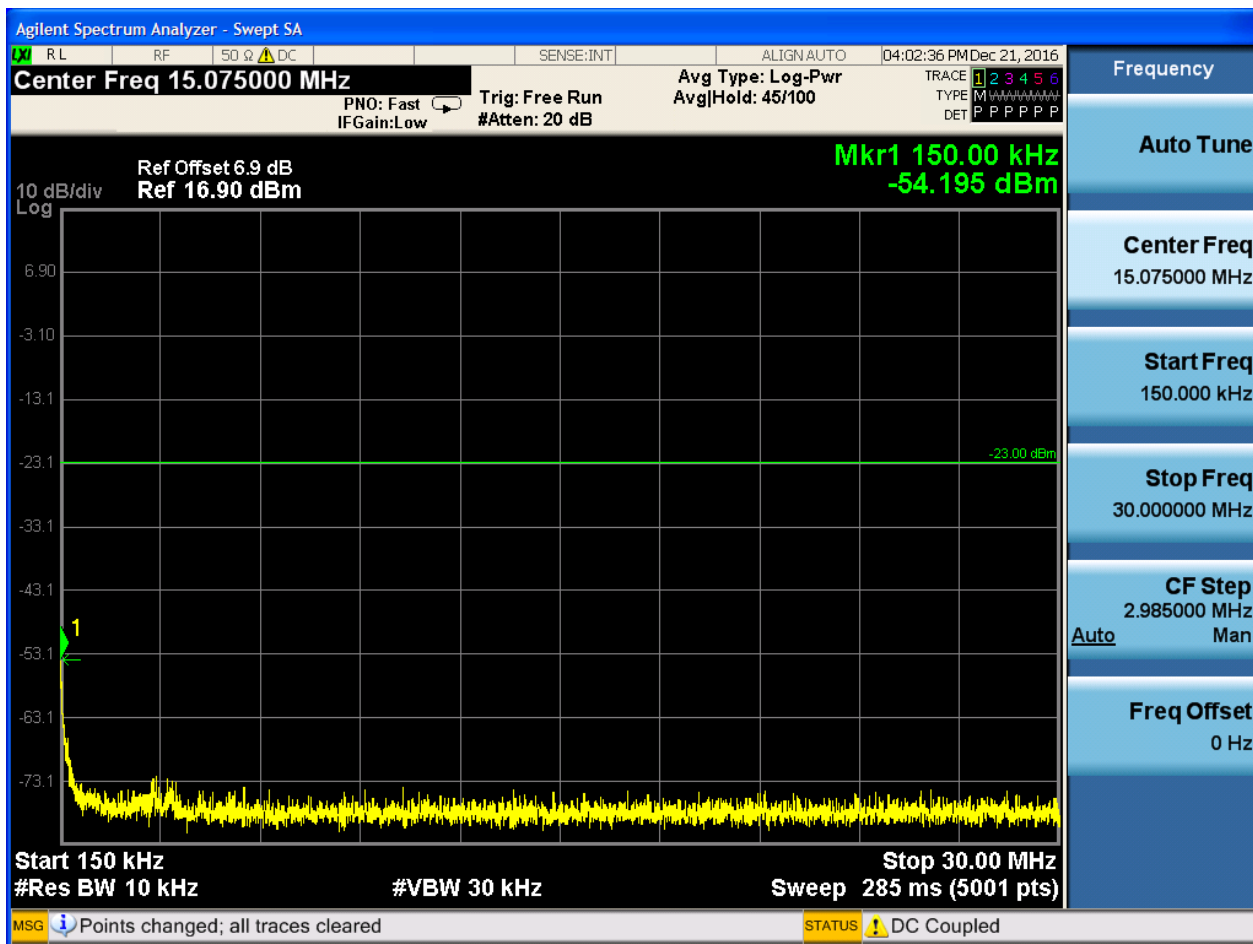


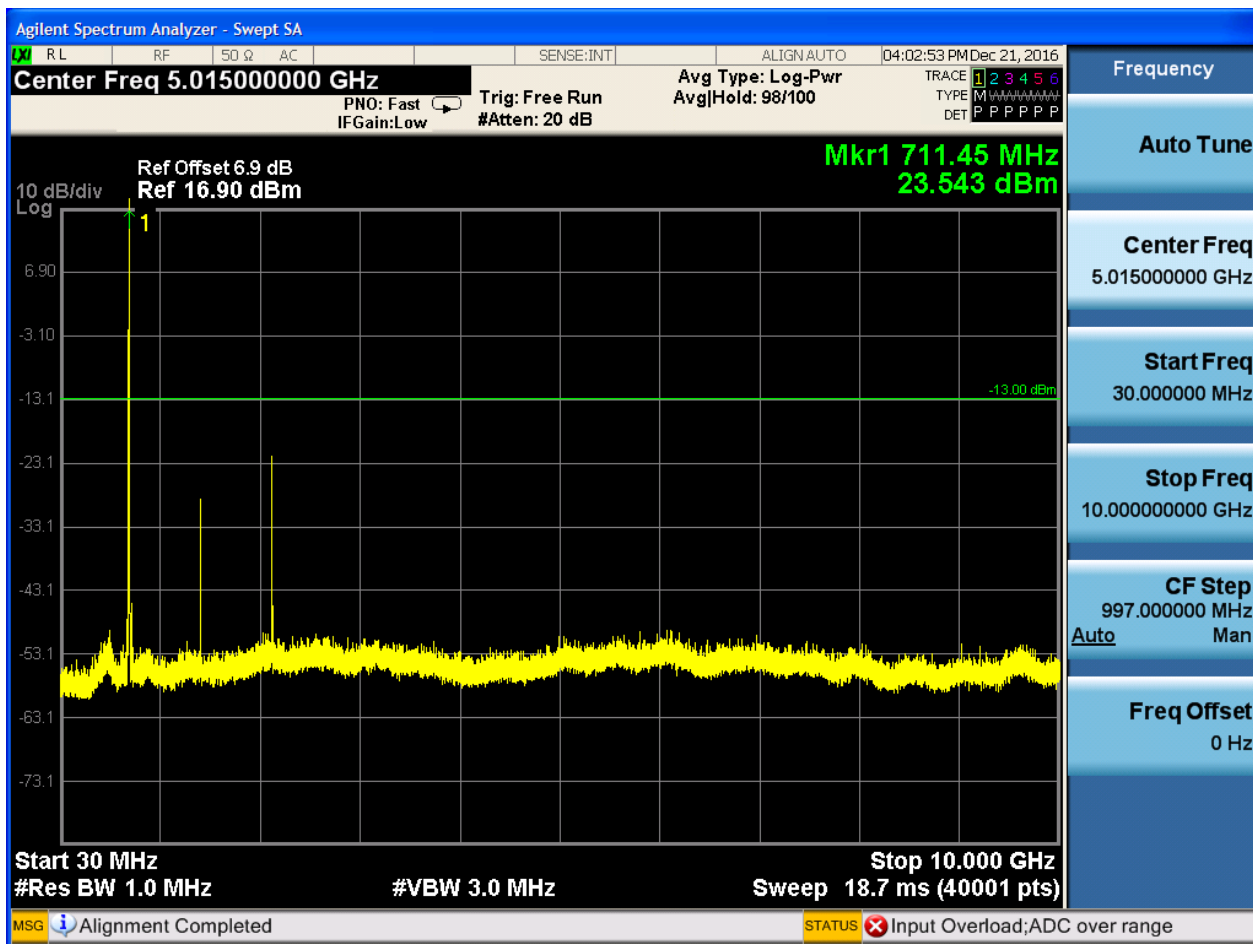


5.1.1.2.1.3 Test Channel = HCH

5.1.1.2.1.3.1 Test RB = RB1#0



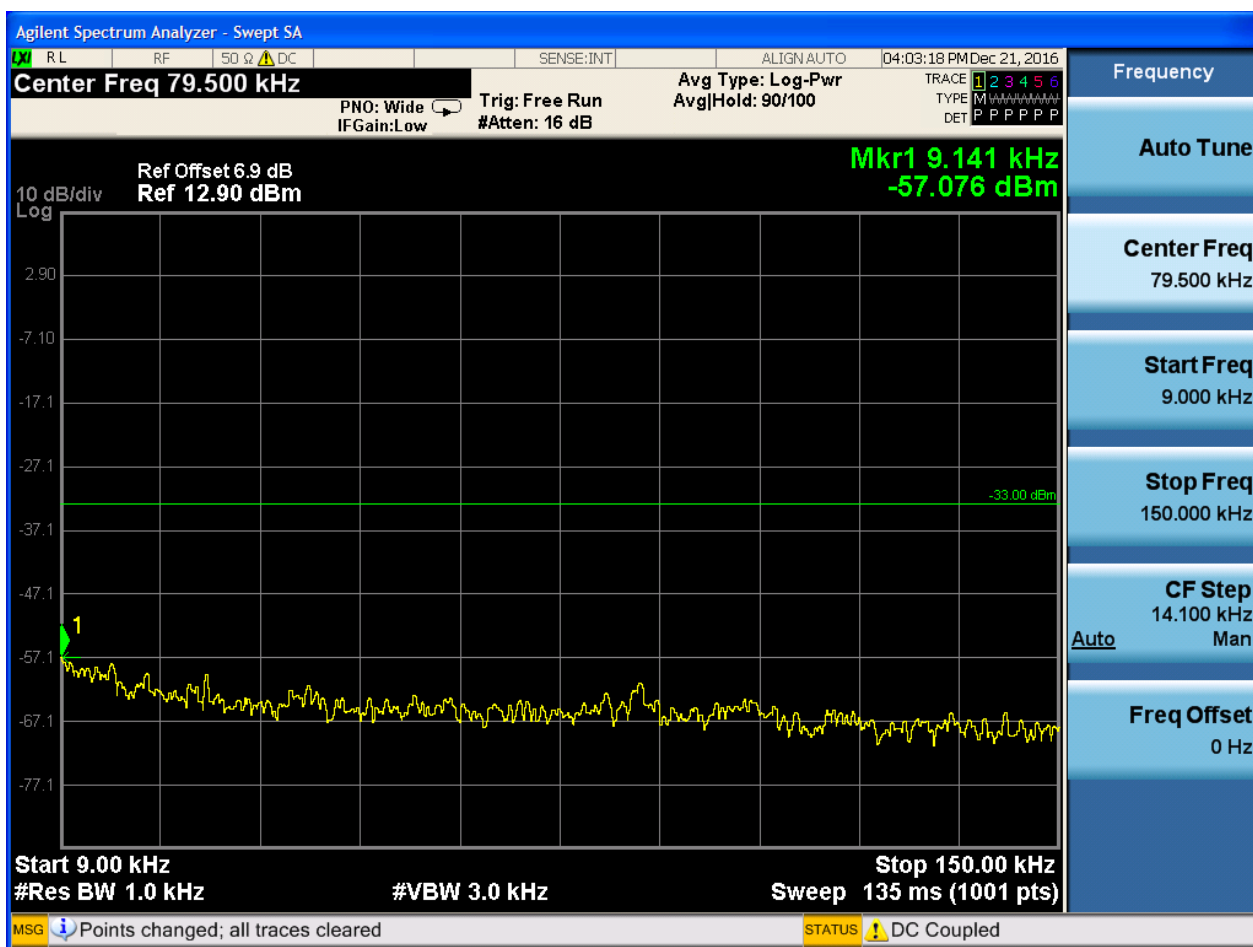


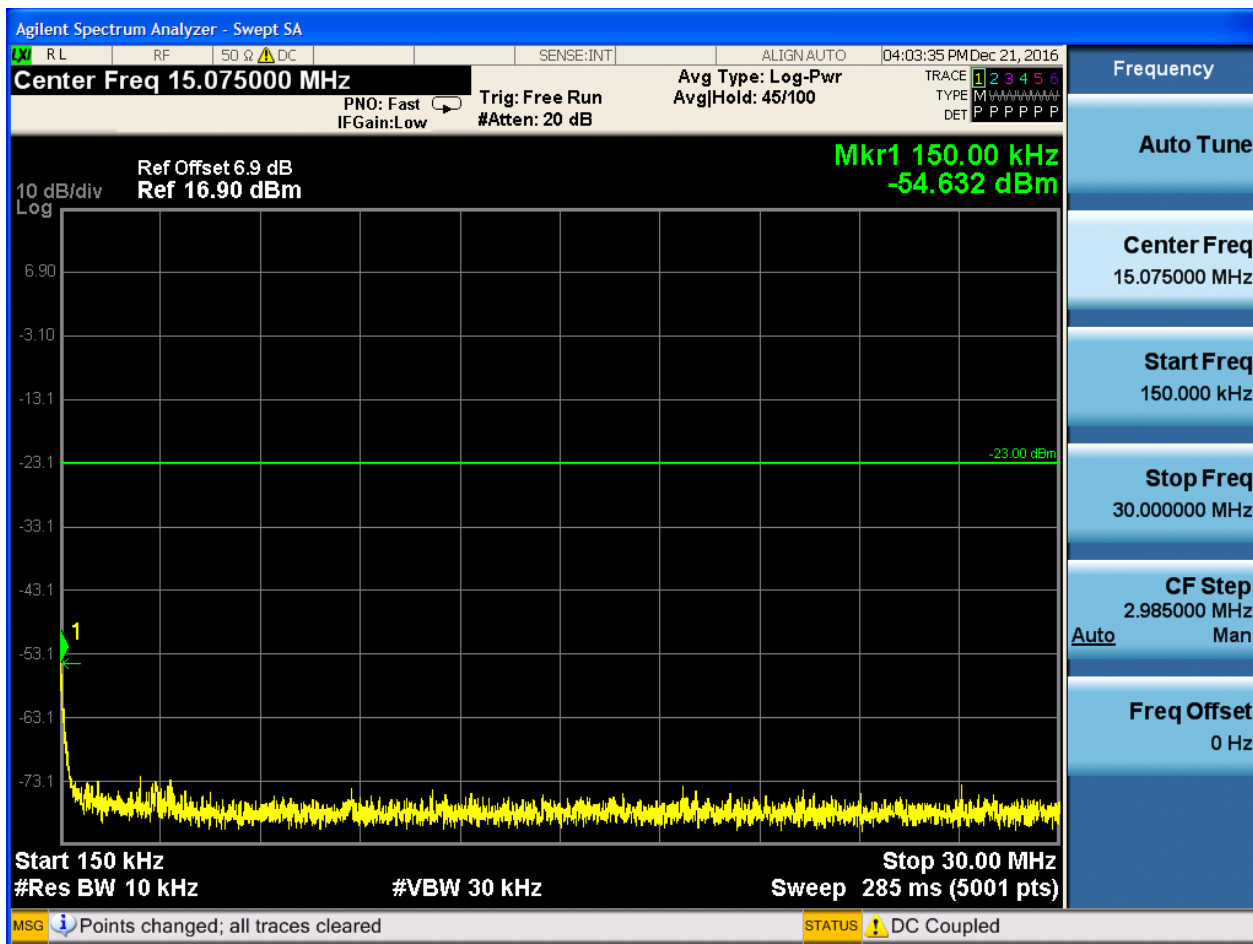


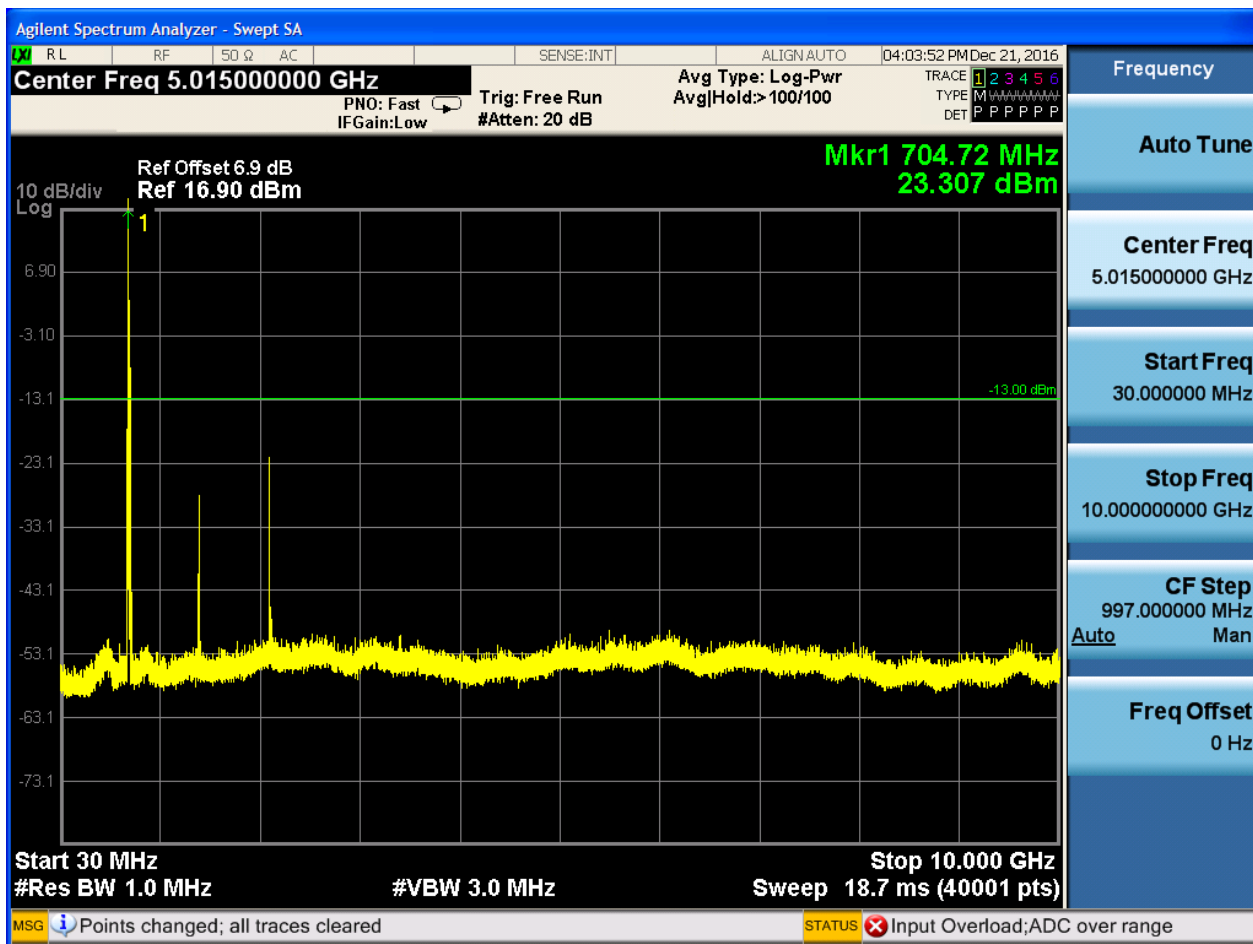
5.1.1.2.2 Test Bandwidth = 10

5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0

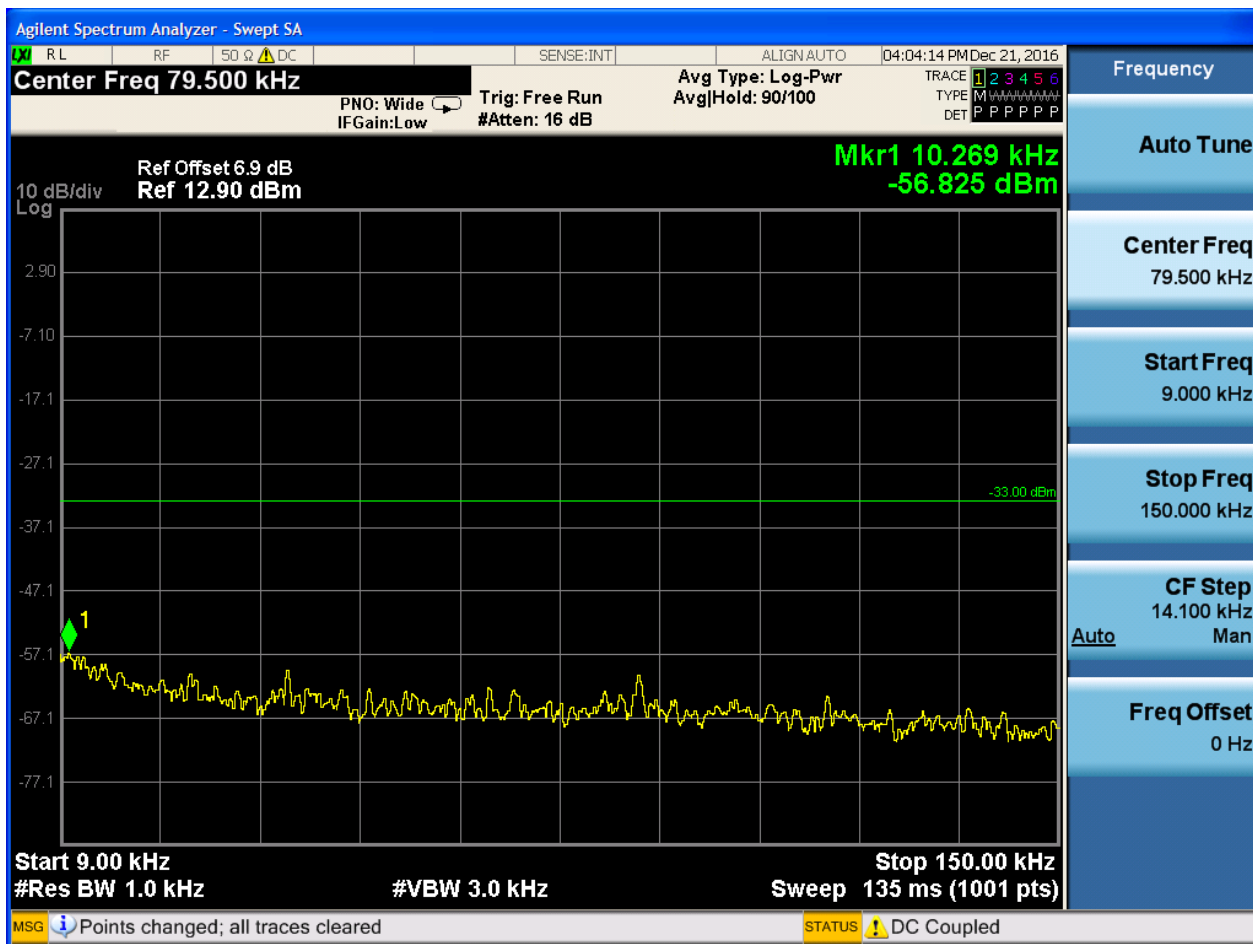


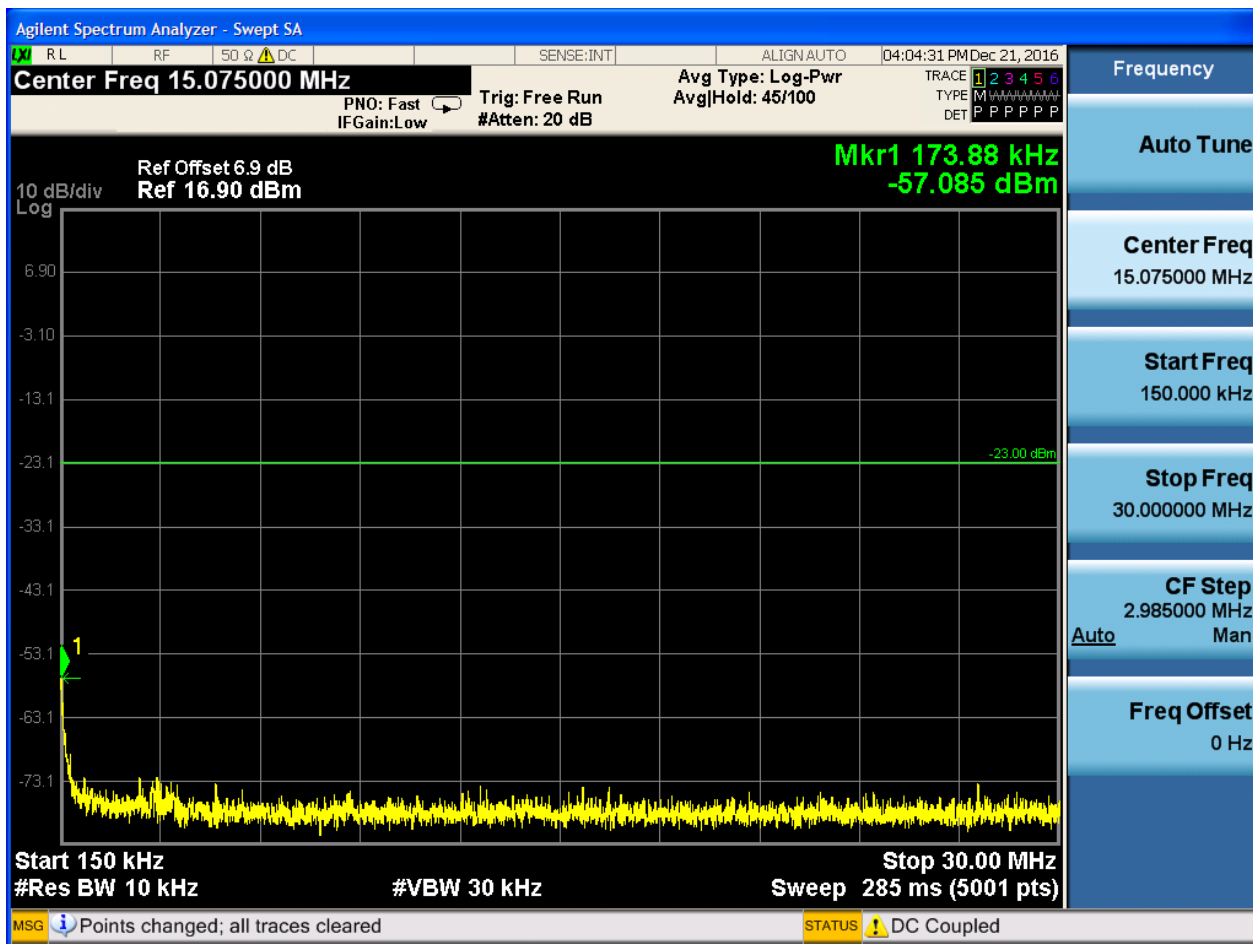


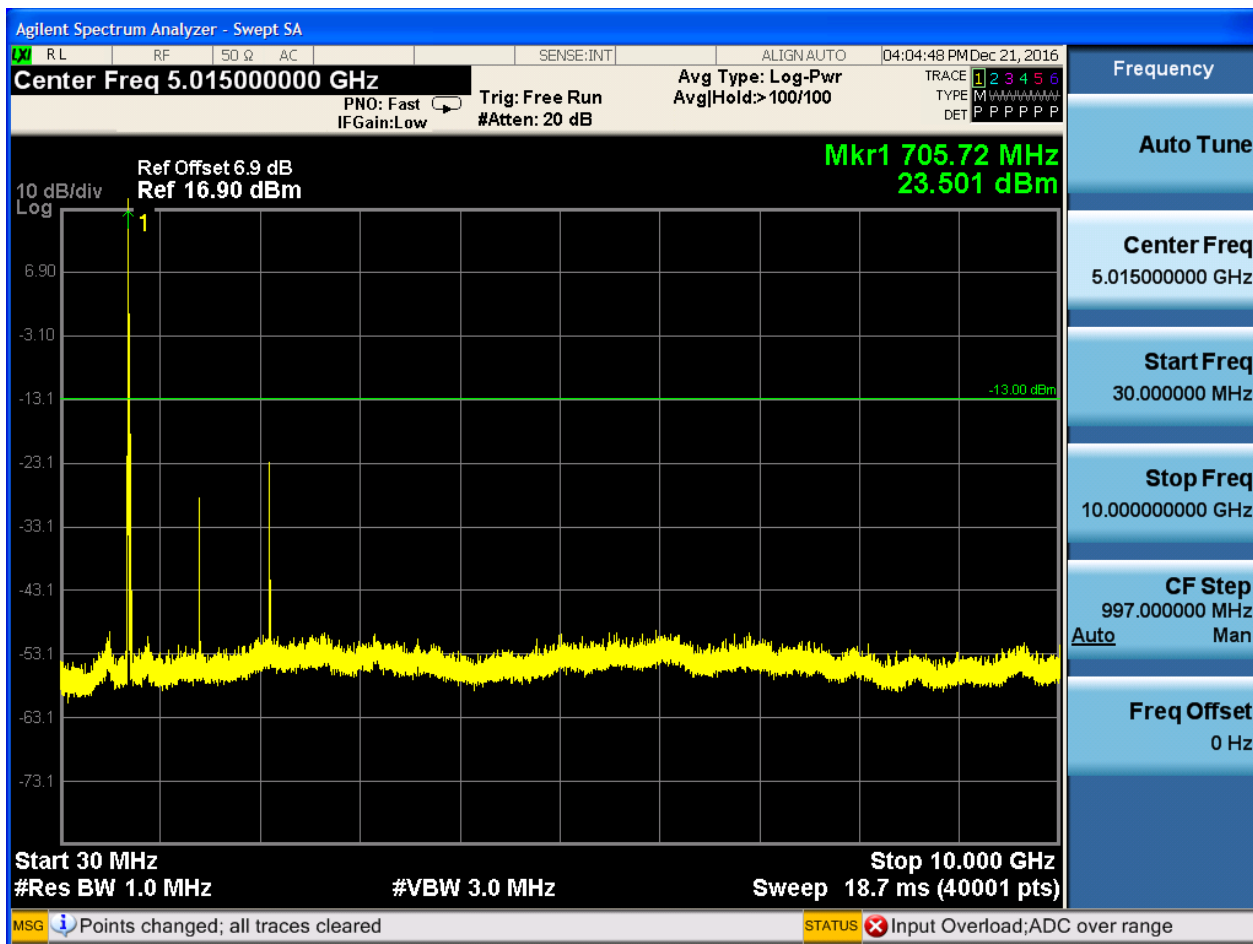


5.1.1.2.2.2 Test Channel = MCH

5.1.1.2.2.2.1 Test RB = RB1#0

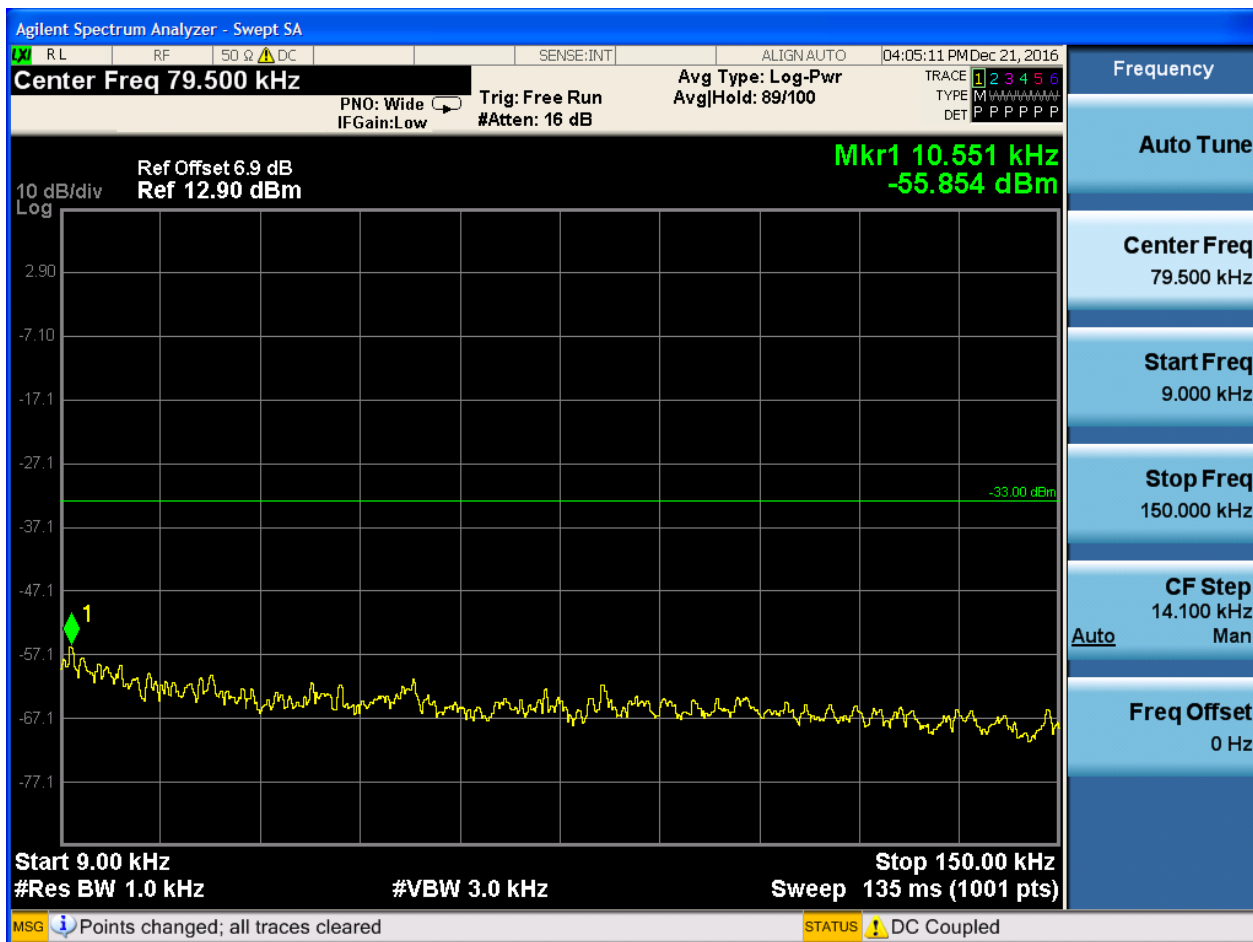


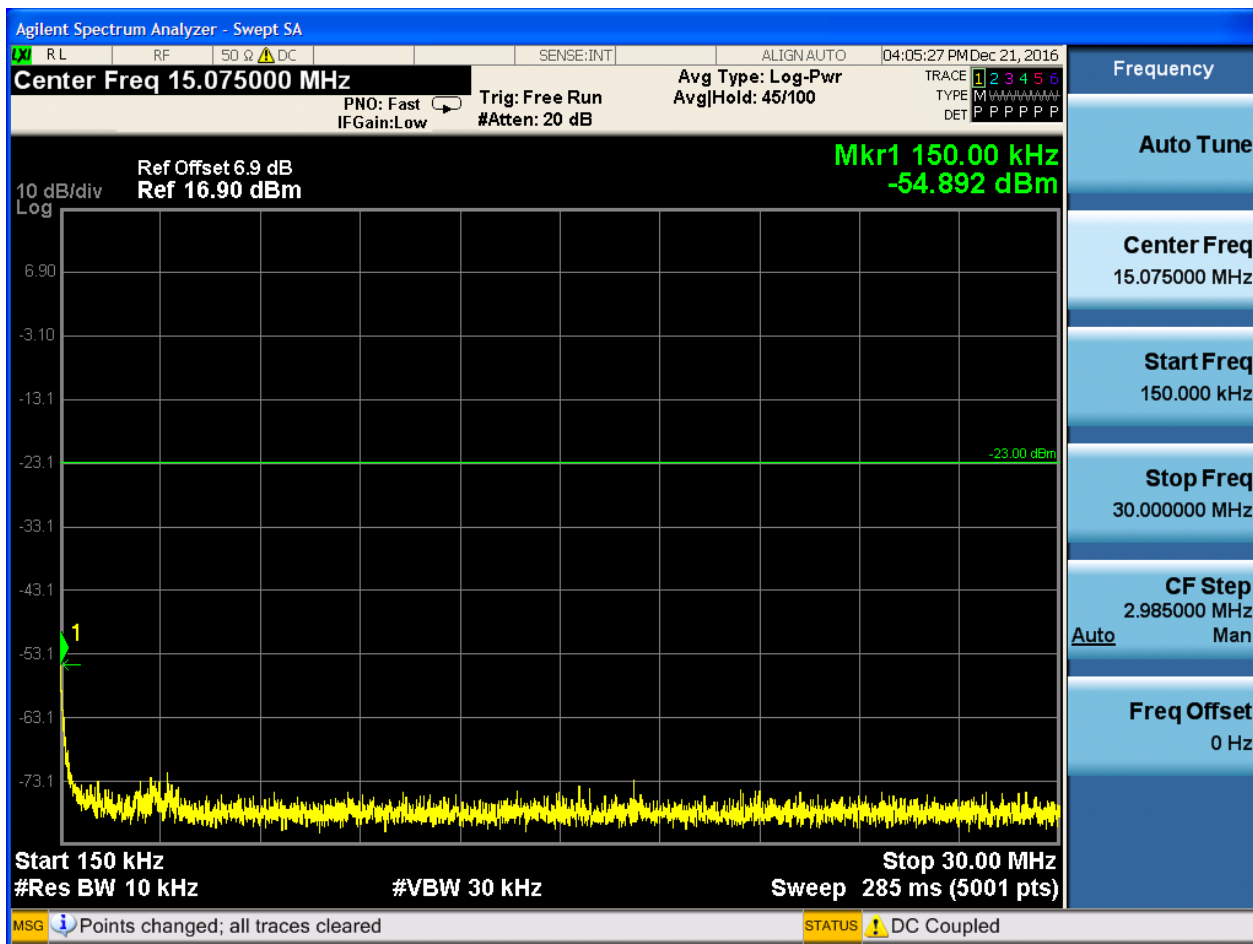


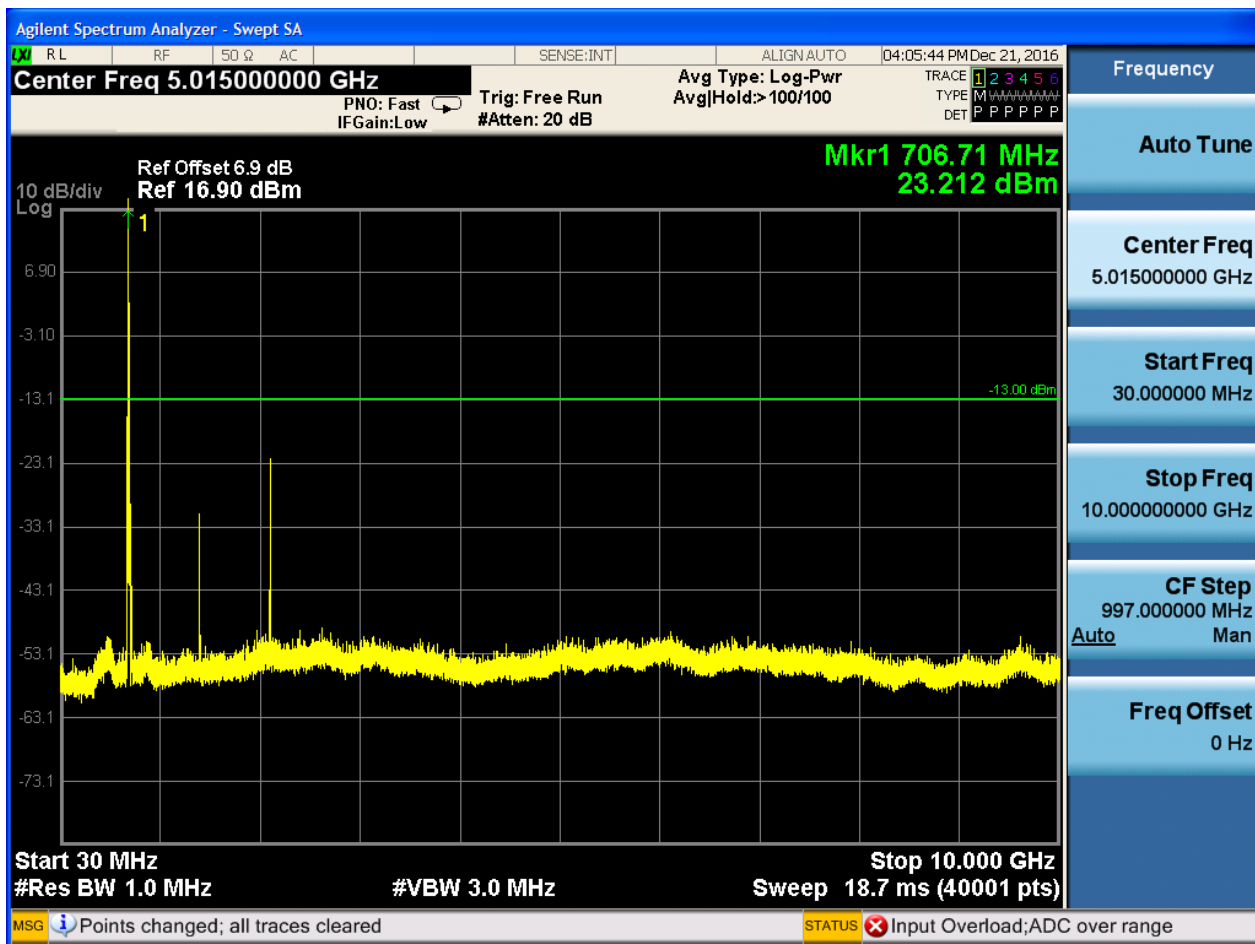


5.1.1.2.2.3 Test Channel = HCH

5.1.1.2.2.3.1 Test RB = RB1#0







7Appendix_G: Field Strength of Spurious Radiation

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

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

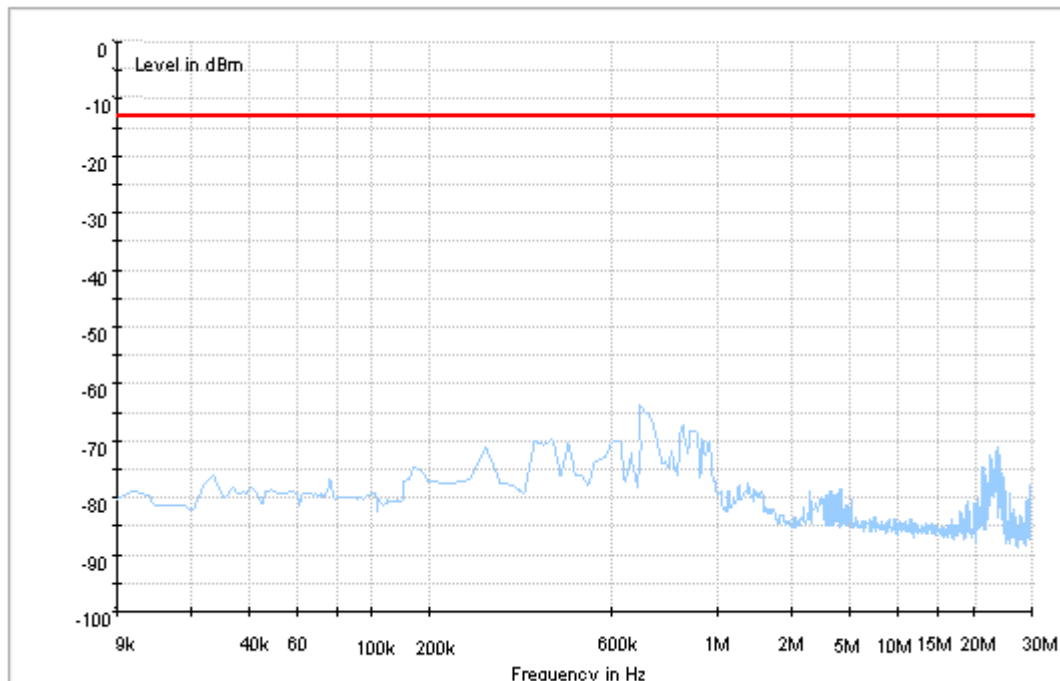
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

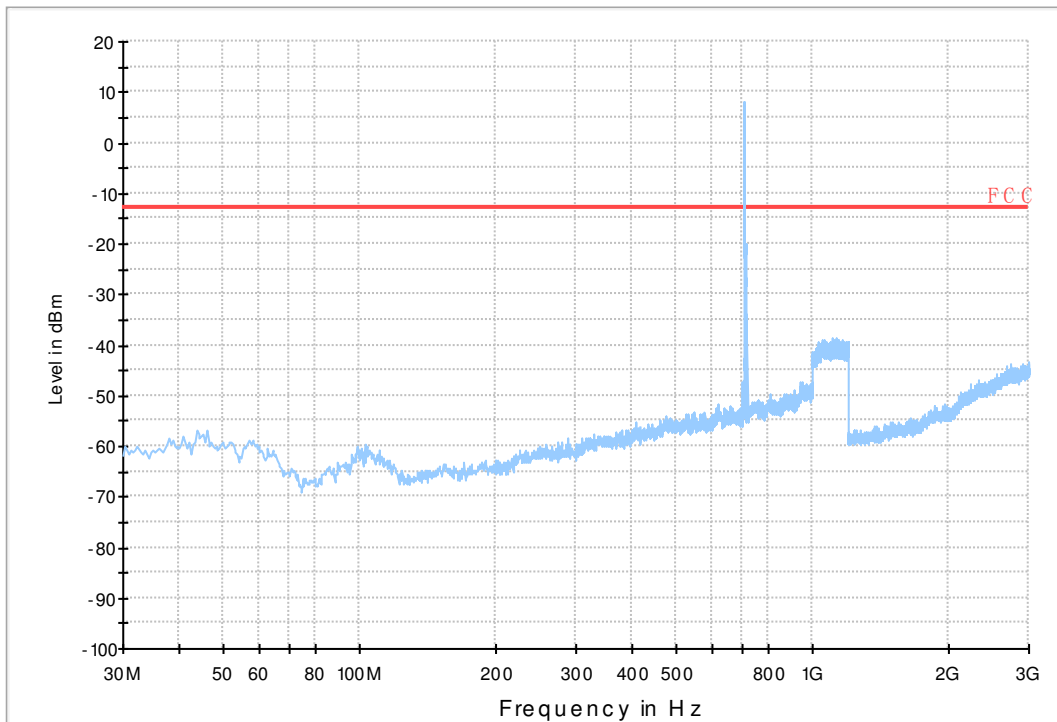
7.1 For LTE

7.1.1 Test Band = BAND17_Ant1

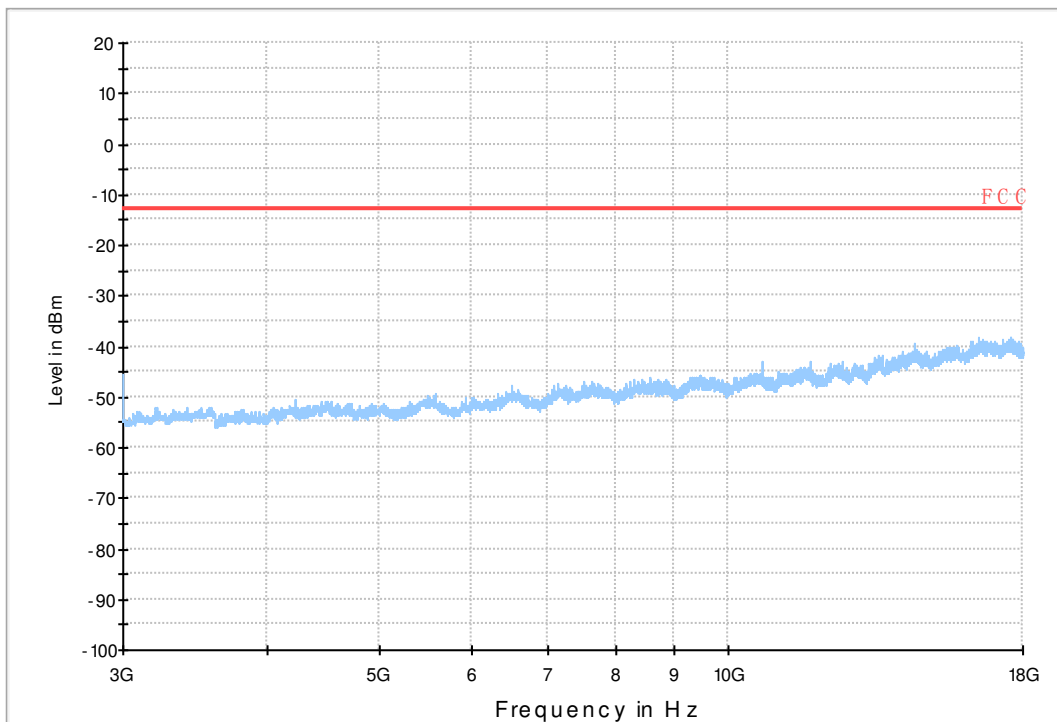
7.1.1.1 Test Bandwidth = 5



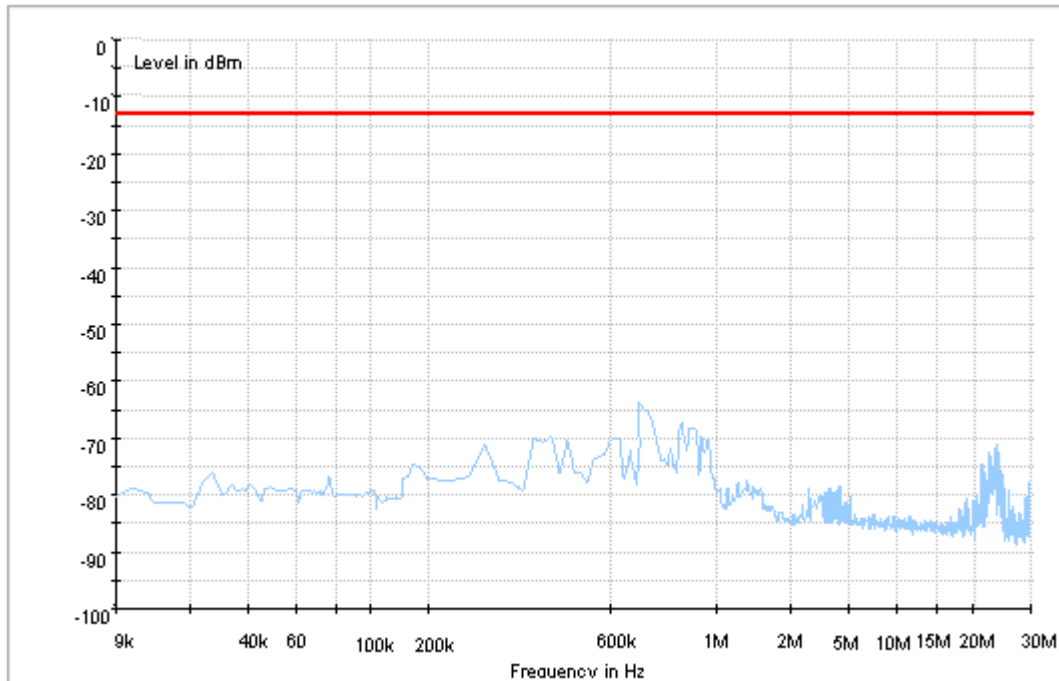
Copy of RSE-TX-DIRECTOR BELOW 1G_L



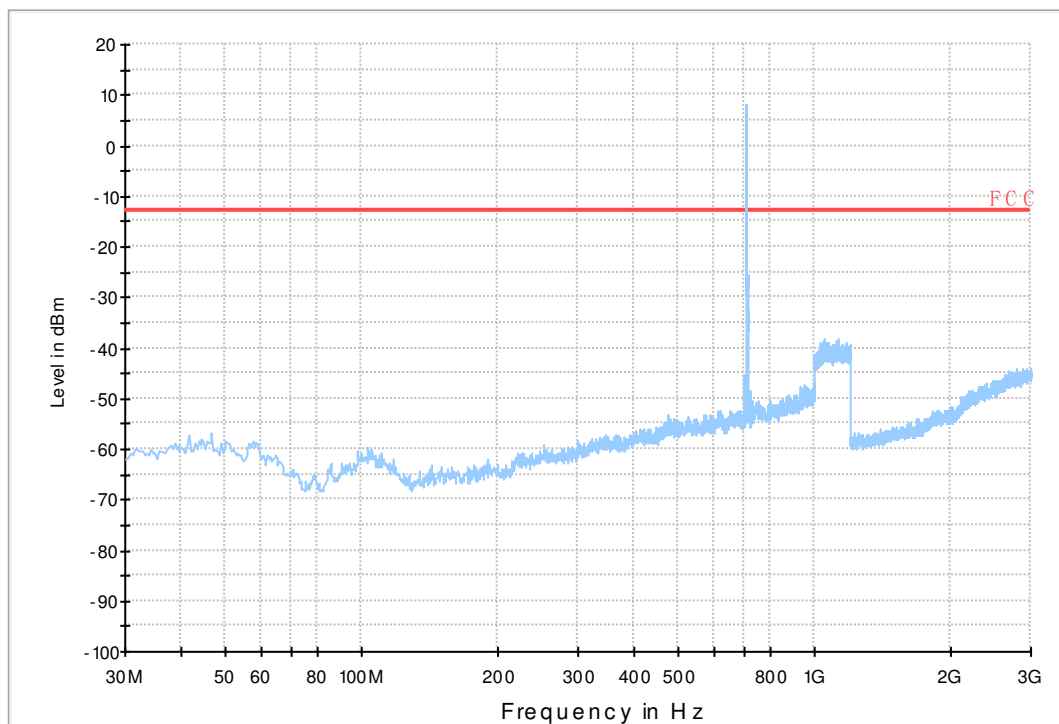
Copy of RSE-TX-DIRECTOR BELOW 1G_H



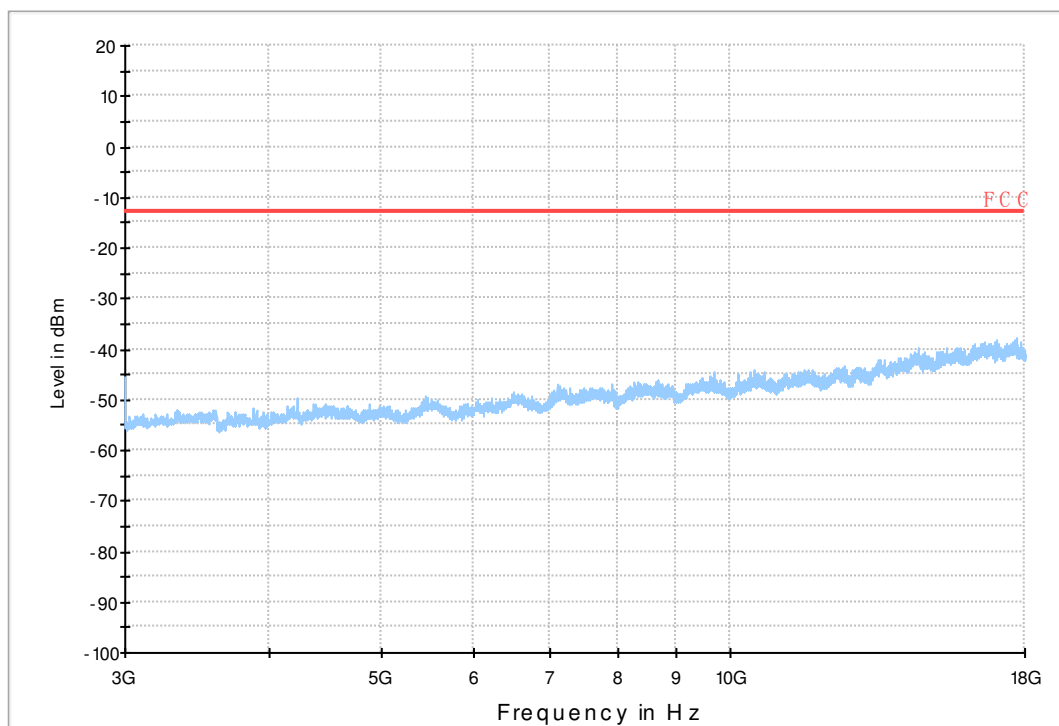
7.1.1.2 Test Bandwidth = 10



Copy of RSE-TX-DIRECTOR BELOW 1G_L

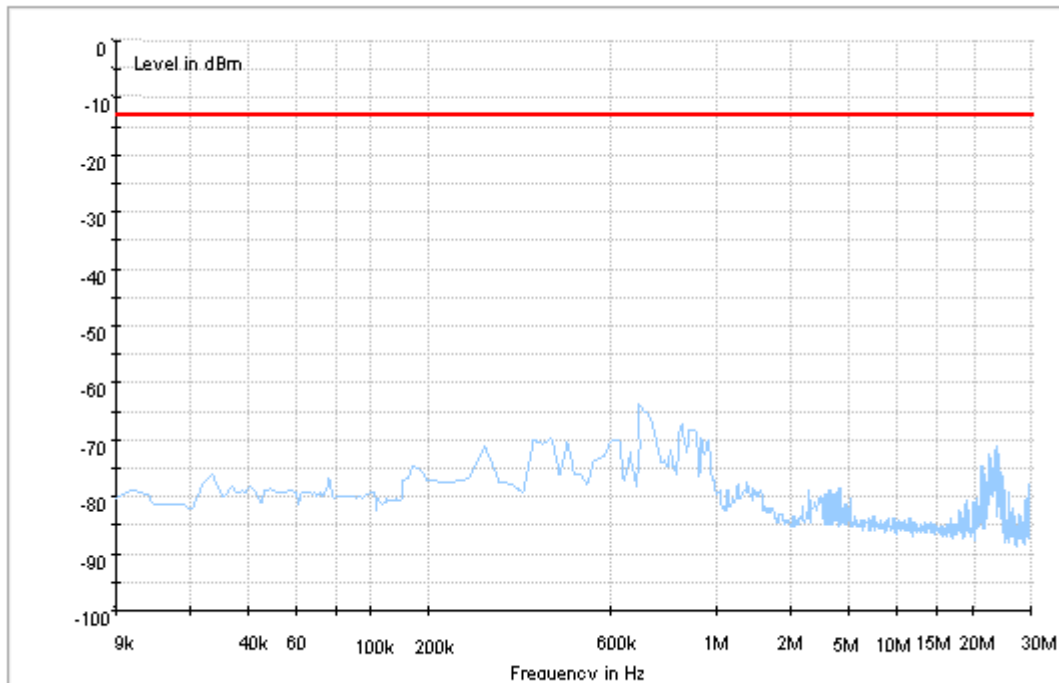


Copy of RSE-TX-DIRECTOR BELOW 1G_H

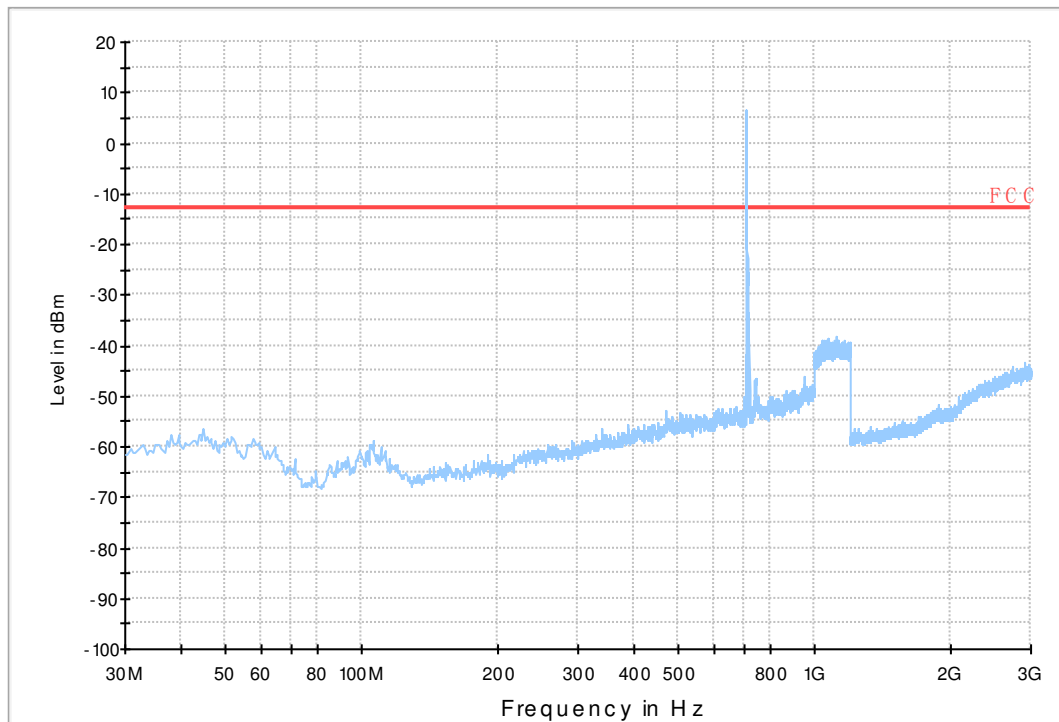


7.1.2 Test Band = BAND17_Ant2

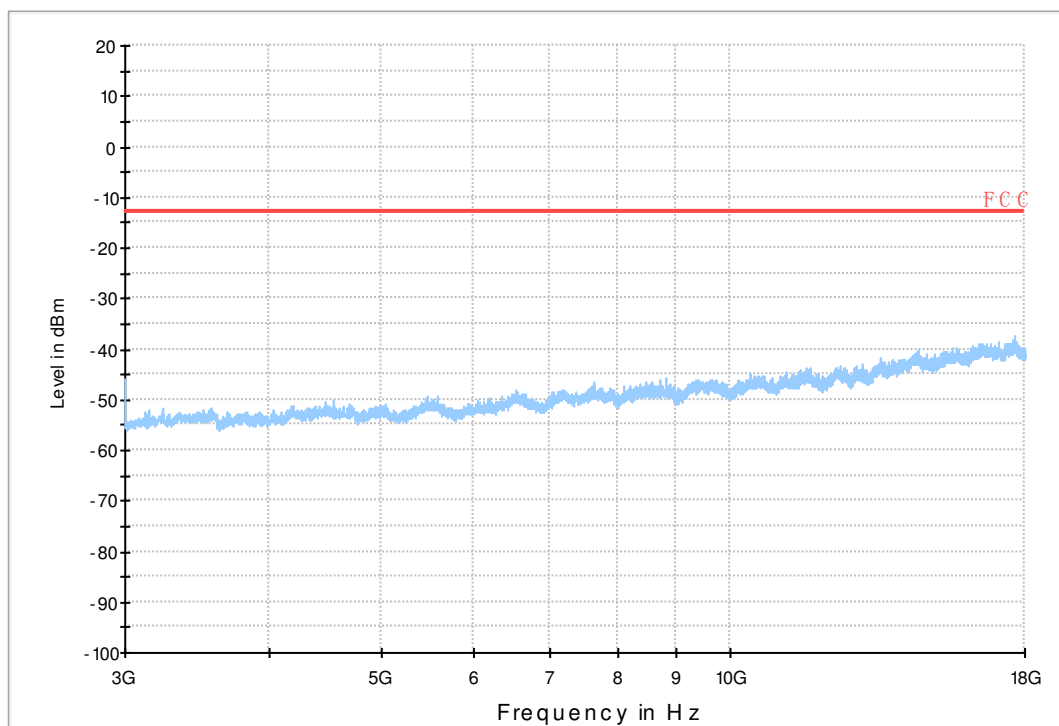
7.1.2.1 Test Bandwidth = 5



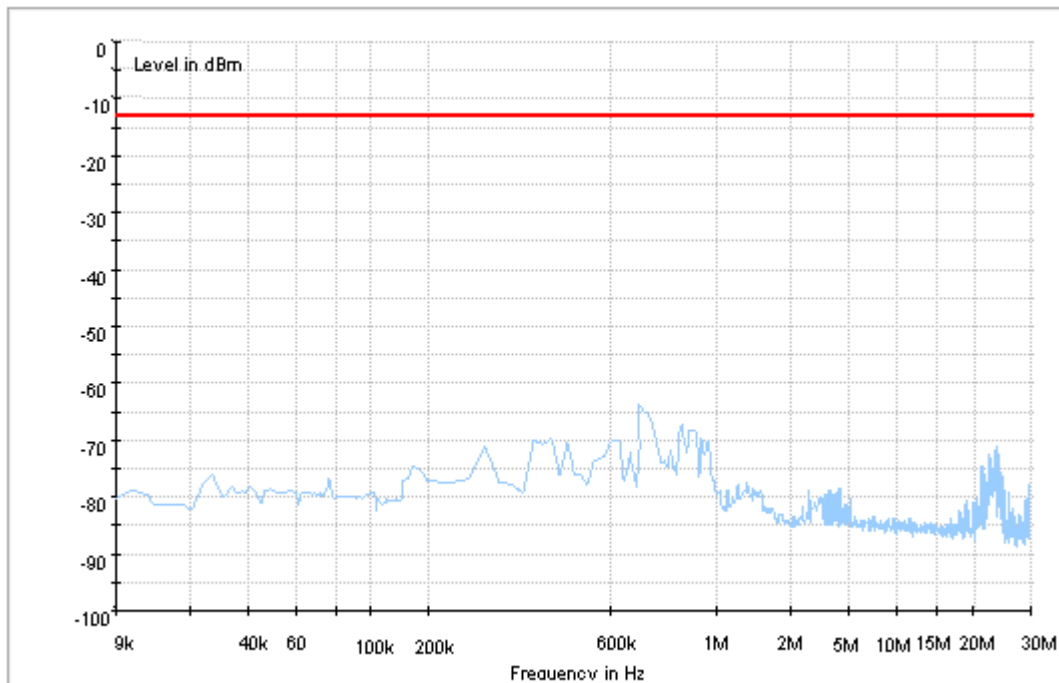
Copy of RSE-TX-DIRECTOR BELOW 1G_L



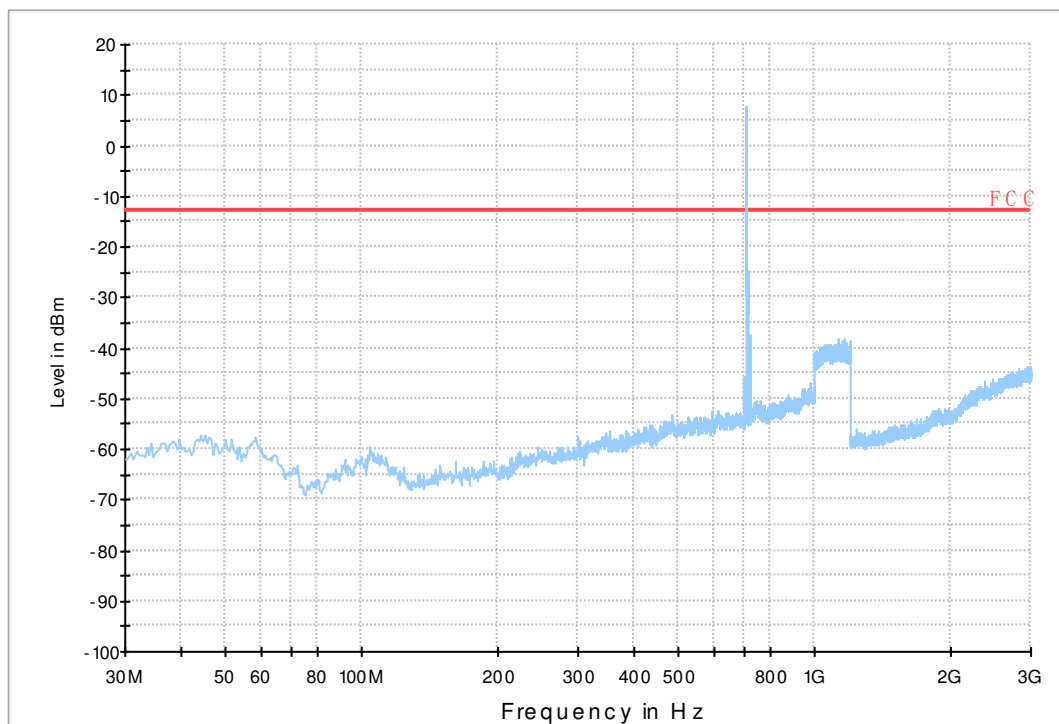
Copy of RSE-TX-DIRECTOR BELOW 1G_H



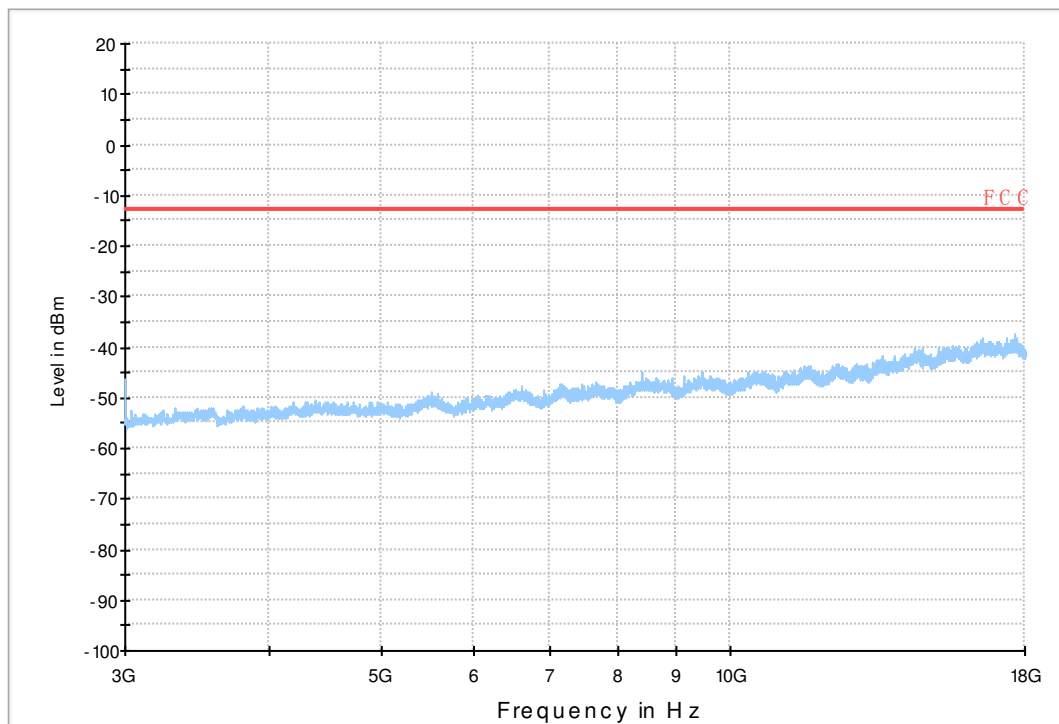
7.1.2.2 Test Bandwidth = 10



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	-3.99	-.00565	PASS
					VN	0.80	.00113	PASS
					VH	-1.46	-.00207	PASS
			MCH	TN	VL	-1.67	-.00235	PASS
					VN	-1.10	-.00155	PASS
					VH	-0.16	-.00023	PASS
			HCH	TN	VL	-0.14	-.0002	PASS
					VN	-0.40	-.00056	PASS
					VH	0.67	.00094	PASS
		10	LCH	TN	VL	-1.13	-.00159	PASS
					VN	0.57	.0008	PASS
					VH	-0.27	-.00038	PASS
			MCH	TN	VL	-1.59	-.00224	PASS
					VN	2.07	.00292	PASS
					VH	-2.98	-.0042	PASS
			HCH	TN	VL	0.29	.00041	PASS
					VN	-3.72	-.00523	PASS
					VH	-1.27	-.00179	PASS
	LTE/TM2	5	LCH	TN	VL	0.62	.00088	PASS
					VN	-2.49	-.00352	PASS
					VH	0.19	.00027	PASS
			MCH	TN	VL	0.54	.00076	PASS
					VN	-1.92	-.0027	PASS
					VH	-1.89	-.00266	PASS
			HCH	TN	VL	0.10	.00014	PASS
					VN	0.70	.00098	PASS
					VH	1.19	.00167	PASS
		10	LCH	TN	VL	1.37	.00193	PASS
					VN	1.03	.00145	PASS
					VH	-0.04	-.00006	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			MCH	TN	VL	-1.29	-.00182	PASS
					VN	-0.50	-.0007	PASS
					VH	1.52	.00214	PASS
			HCH	TN	VL	-0.43	-.0006	PASS
					VN	1.27	.00179	PASS
					VH	-0.60	-.00084	PASS

8.1.2 Frequency Error vs. Temperature:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
BAND17	LTE/TM1	5	LCH	VN	-30	-2.65	-.00375	PASS
					-20	-1.65	-.00234	PASS
					-10	-2.13	-.00301	PASS
					0	0.11	.00016	PASS
					10	-0.06	-.00008	PASS
					20	0.84	.00119	PASS
					30	-2.65	-.00375	PASS
					40	-2.82	-.00399	PASS
					50	-1.56	-.00221	PASS
			MCH	VN	-30	1.16	.00163	PASS
					-20	-0.56	-.00079	PASS
					-10	-2.47	-.00348	PASS
					0	-1.27	-.00179	PASS
					10	0.57	.0008	PASS
					20	-0.07	-.0001	PASS
					30	-1.07	-.00151	PASS
					40	-2.52	-.00355	PASS
					50	-1.10	-.00155	PASS
			HCH	VN	-30	0.97	.00136	PASS
					-20	2.82	.00395	PASS
					-10	-0.87	-.00122	PASS
					0	-0.24	-.00034	PASS
					10	4.36	.00611	PASS
					20	-0.46	-.00064	PASS
					30	0.39	.00055	PASS
					40	-0.03	-.00004	PASS
					50	-1.73	-.00242	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		10	LCH	VN	-30	-0.20	-.00028	PASS
					-20	-1.90	-.00268	PASS
					-10	-1.06	-.0015	PASS
					0	-2.55	-.0036	PASS
					10	-0.60	-.00085	PASS
					20	0.62	.00087	PASS
					30	-0.31	-.00044	PASS
					40	-0.47	-.00066	PASS
					50	-0.77	-.00109	PASS
			MCH	VN	-30	0.53	.00075	PASS
					-20	-0.64	-.0009	PASS
					-10	-1.34	-.00189	PASS
					0	0.04	.00006	PASS
					10	1.09	.00154	PASS
					20	0.00	0	PASS
					30	1.42	.002	PASS
					40	-0.31	-.00044	PASS
					50	1.72	.00242	PASS
			HCH	VN	-30	-2.03	-.00286	PASS
					-20	-3.30	-.00464	PASS
					-10	1.44	.00203	PASS
					0	-1.89	-.00266	PASS
					10	1.75	.00246	PASS
					20	-1.22	-.00172	PASS
					30	-2.75	-.00387	PASS
					40	0.56	.00079	PASS
					50	-2.09	-.00294	PASS
	LTE/TM2	5	LCH	VN	-30	0.87	.00123	PASS
					-20	0.74	.00105	PASS
					-10	0.72	.00102	PASS
					0	0.47	.00067	PASS
					10	-4.22	-.00597	PASS
					20	-1.86	-.00263	PASS
					30	-3.19	-.00452	PASS
					40	1.09	.00154	PASS
					50	-2.29	-.00324	PASS
			MCH	VN	-30	1.70	.00239	PASS
					-20	-1.46	-.00206	PASS
					-10	-2.90	-.00408	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					0	0.03	.00004	PASS
					10	1.12	.00158	PASS
					20	-2.33	-.00328	PASS
					30	-0.51	-.00072	PASS
					40	-1.10	-.00155	PASS
					50	0.30	.00042	PASS
			HCH	VN	-30	-2.55	-.00357	PASS
					-20	4.12	.00577	PASS
					-10	-1.24	-.00174	PASS
					0	-1.16	-.00163	PASS
					10	2.98	.00418	PASS
					20	2.37	.00332	PASS
					30	0.82	.00115	PASS
					40	0.20	.00028	PASS
					50	1.19	.00167	PASS
		10	LCH	VN	-30	-0.21	-.0003	PASS
					-20	-1.23	-.00173	PASS
					-10	-1.39	-.00196	PASS
					0	0.11	.00016	PASS
					10	2.46	.00347	PASS
					20	-0.99	-.0014	PASS
					30	0.69	.00097	PASS
					40	-0.90	-.00127	PASS
					50	0.97	.00137	PASS
			MCH	VN	-30	-0.19	-.00027	PASS
					-20	-0.70	-.00099	PASS
					-10	1.27	.00179	PASS
					0	-0.79	-.00111	PASS
					10	-1.53	-.00215	PASS
					20	-0.26	-.00037	PASS
					30	-1.72	-.00242	PASS
					40	-1.03	-.00145	PASS
					50	2.23	.00314	PASS
			HCH	VN	-30	-0.90	-.00127	PASS
					-20	0.87	.00122	PASS
					-10	0.07	.0001	PASS
					0	0.41	.00058	PASS
					10	1.37	.00193	PASS
					20	1.37	.00193	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					30	-0.03	-.00004	PASS
					40	-0.44	-.00062	PASS
					50	1.00	.00141	PASS

END