



Appendix for LTE B17



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	23.52	19.17	34.7	PASS
				RB1#13	23.88	19.53	34.7	PASS
				RB1#24	23.41	19.06	34.7	PASS
				RB12#0	22.86	18.51	34.7	PASS
				RB12#6	22.91	18.56	34.7	PASS
				RB12#13	22.73	18.38	34.7	PASS
				RB25#0	22.83	18.48	34.7	PASS
			MCH	RB1#0	23.3	18.95	34.7	PASS
				RB1#13	23.58	19.23	34.7	PASS
				RB1#24	23.17	18.82	34.7	PASS
				RB12#0	22.55	18.2	34.7	PASS
				RB12#6	22.64	18.29	34.7	PASS
				RB12#13	22.49	18.14	34.7	PASS
				RB25#0	22.54	18.19	34.7	PASS
			HCH	RB1#0	23.09	18.74	34.7	PASS
				RB1#13	23.62	19.27	34.7	PASS
				RB1#24	23.34	18.99	34.7	PASS
				RB12#0	22.45	18.1	34.7	PASS
				RB12#6	22.5	18.15	34.7	PASS
				RB12#13	22.34	17.99	34.7	PASS
				RB25#0	22.36	18.01	34.7	PASS
		10	LCH	RB1#0	22.99	18.64	34.7	PASS
				RB1#25	23.42	19.07	34.7	PASS
				RB1#49	22.69	18.34	34.7	PASS
				RB25#0	22.27	17.92	34.7	PASS
				RB25#13	22.28	17.93	34.7	PASS
				RB25#25	22.04	17.69	34.7	PASS
				RB50#0	22.11	17.76	34.7	PASS
			MCH	RB1#0	23	18.65	34.7	PASS
				RB1#25	23.48	19.13	34.7	PASS
				RB1#49	22.78	18.43	34.7	PASS
				RB25#0	22.29	17.94	34.7	PASS
				RB25#13	22.37	18.02	34.7	PASS
				RB25#25	22.08	17.73	34.7	PASS
				RB50#0	22.13	17.78	34.7	PASS
			HCH	RB1#0	23.02	18.67	34.7	PASS
RB1#25	23.43	19.08		34.7	PASS			
RB1#49	22.86	18.51		34.7	PASS			



LTE/TM2	5	LCH	RB25#0	22.16	17.81	34.7	PASS
			RB25#13	22.31	17.96	34.7	PASS
			RB25#25	22.09	17.74	34.7	PASS
			RB50#0	22.16	17.81	34.7	PASS
		LCH	RB1#0	22.57	18.22	34.7	PASS
			RB1#13	22.98	18.63	34.7	PASS
			RB1#24	22.51	18.16	34.7	PASS
			RB12#0	21.7	17.35	34.7	PASS
			RB12#6	21.73	17.38	34.7	PASS
			RB12#13	21.56	17.21	34.7	PASS
		MCH	RB25#0	21.6	17.25	34.7	PASS
			RB1#0	22.42	18.07	34.7	PASS
	RB1#13		22.78	18.43	34.7	PASS	
	RB1#24		22.35	18	34.7	PASS	
	RB12#0		21.47	17.12	34.7	PASS	
	RB12#6		21.49	17.14	34.7	PASS	
	HCH	RB12#13	21.4	17.05	34.7	PASS	
		RB25#0	21.31	16.96	34.7	PASS	
		RB1#0	22.48	18.13	34.7	PASS	
		RB1#13	22.85	18.5	34.7	PASS	
		RB1#24	22.42	18.07	34.7	PASS	
		RB12#0	21.36	17.01	34.7	PASS	
	10	LCH	RB12#6	21.44	17.09	34.7	PASS
			RB12#13	21.37	17.02	34.7	PASS
			RB25#0	21.26	16.91	34.7	PASS
			RB1#0	21.93	17.58	34.7	PASS
			RB1#25	22.65	18.3	34.7	PASS
			RB1#49	21.81	17.46	34.7	PASS
		MCH	RB25#0	21.2	16.85	34.7	PASS
			RB25#13	21.2	16.85	34.7	PASS
			RB25#25	20.97	16.62	34.7	PASS
			RB50#0	21.08	16.73	34.7	PASS
			RB1#0	22.03	17.68	34.7	PASS
			RB1#25	22.53	18.18	34.7	PASS
	HCH	RB1#49	21.71	17.36	34.7	PASS	
		RB25#0	21.16	16.81	34.7	PASS	
RB25#13		21.17	16.82	34.7	PASS		
RB25#25		20.95	16.6	34.7	PASS		
HCH	RB50#0	20.98	16.63	34.7	PASS		
	RB1#0	22.22	17.87	34.7	PASS		
			RB1#25	22.87	18.52	34.7	PASS



				RB1#49	22.07	17.72	34.7	PASS
				RB25#0	21.08	16.73	34.7	PASS
				RB25#13	21.19	16.84	34.7	PASS
				RB25#25	20.98	16.63	34.7	PASS
				RB50#0	21.02	16.67	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: SET Span=1.5*OBW

SET RBW=1%of the OBW,not to exceed 1MHz

SET VBW>= 3*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
BAND17	LTE/TM1	5	LCH	RB1#0	4.14	13	PASS
				RB1#13	3.68	13	PASS
				RB1#24	4.01	13	PASS
				RB12#0	4.52	13	PASS
				RB12#6	4.31	13	PASS
				RB12#13	4.54	13	PASS
			RB25#0	5.18	13	PASS	
			MCH	RB1#0	3.96	13	PASS
				RB1#13	4.64	13	PASS
				RB1#24	5.19	13	PASS
				RB12#0	4.85	13	PASS
				RB12#6	4.7	13	PASS
				RB12#13	4.99	13	PASS
			HCH	RB25#0	5.55	13	PASS
				RB1#0	5.33	13	PASS
				RB1#13	4.81	13	PASS
				RB1#24	4.62	13	PASS
				RB12#0	4.74	13	PASS
		RB12#6		4.34	13	PASS	
		10	LCH	RB12#13	4.5	13	PASS
				RB25#0	5.23	13	PASS
				RB1#0	3.99	13	PASS
				RB1#25	4.09	13	PASS
				RB1#49	4.84	13	PASS
				RB25#0	4.8	13	PASS
			MCH	RB25#13	4.85	13	PASS
				RB25#25	5.18	13	PASS
				RB50#0	5.55	13	PASS
				RB1#0	3.87	13	PASS
				RB1#25	4.28	13	PASS
RB1#49	4.65			13	PASS		
HCH	RB25#0	5.08	13	PASS			
	RB25#13	4.89	13	PASS			
	RB25#25	5.27	13	PASS			
HCH	RB50#0	5.64	13	PASS			
	RB1#0	4.02	13	PASS			
	RB1#25	4.85	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	5		RB25#0	5.21	13	PASS
				RB25#13	4.91	13	PASS
				RB25#25	5.11	13	PASS
				RB50#0	5.56	13	PASS
			LCH	RB1#0	4.69	13	PASS
				RB1#13	4.25	13	PASS
				RB1#24	4.54	13	PASS
				RB12#0	4.92	13	PASS
		RB12#6		4.54	13	PASS	
		RB12#13		4.89	13	PASS	
		RB25#0		5.62	13	PASS	
		MCH		RB1#0	4.44	13	PASS
			RB1#13	4.58	13	PASS	
			RB1#24	4.73	13	PASS	
			RB12#0	4.72	13	PASS	
			RB12#6	4.55	13	PASS	
	RB12#13		4.77	13	PASS		
	HCH	RB25#0	5.55	13	PASS		
		RB1#0	4.77	13	PASS		
		RB1#13	4.39	13	PASS		
		RB1#24	4.22	13	PASS		
		RB12#0	5.41	13	PASS		
		RB12#6	5.01	13	PASS		
		RB12#13	5.18	13	PASS		
	10	LCH	RB25#0	5.76	13	PASS	
			RB1#0	4.61	13	PASS	
			RB1#25	4.51	13	PASS	
			RB1#49	4.91	13	PASS	
			RB25#0	5.09	13	PASS	
			RB25#13	4.87	13	PASS	
			RB25#25	5.19	13	PASS	
		RB50#0	5.72	13	PASS		
MCH		RB1#0	4.51	13	PASS		
		RB1#25	4.49	13	PASS		
		RB1#49	4.81	13	PASS		
		RB25#0	5.16	13	PASS		
		RB25#13	4.93	13	PASS		
		RB25#25	5.28	13	PASS		
	RB50#0	5.68	13	PASS			



Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			HCH	RB1#0	4.49	13	PASS
				RB1#25	4.43	13	PASS
				RB1#49	4.33	13	PASS
				RB25#0	5.15	13	PASS
				RB25#13	4.85	13	PASS
				RB25#25	5.05	13	PASS
				RB50#0	5.64	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

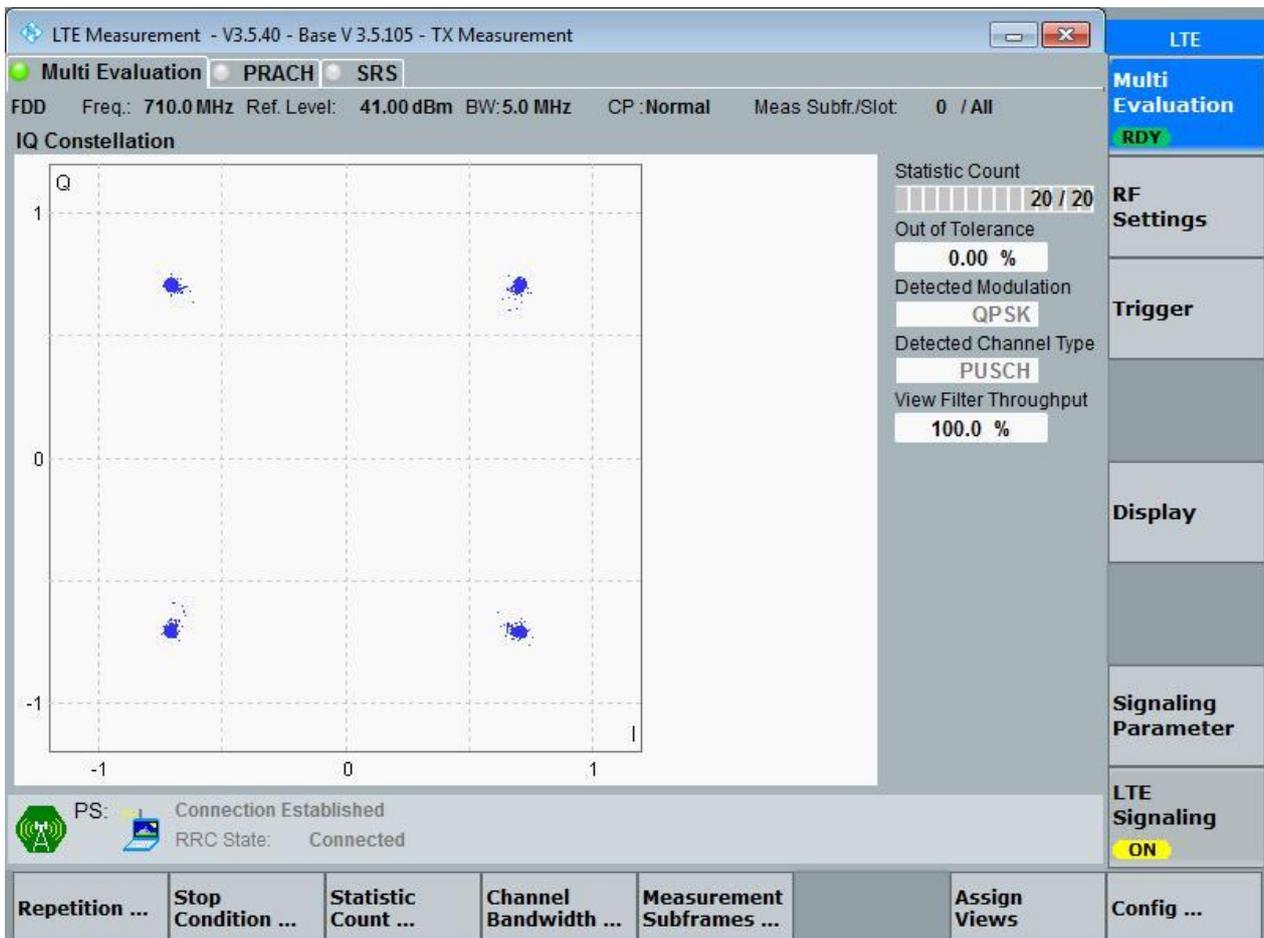
3.1.1 Test Band = BAND17

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

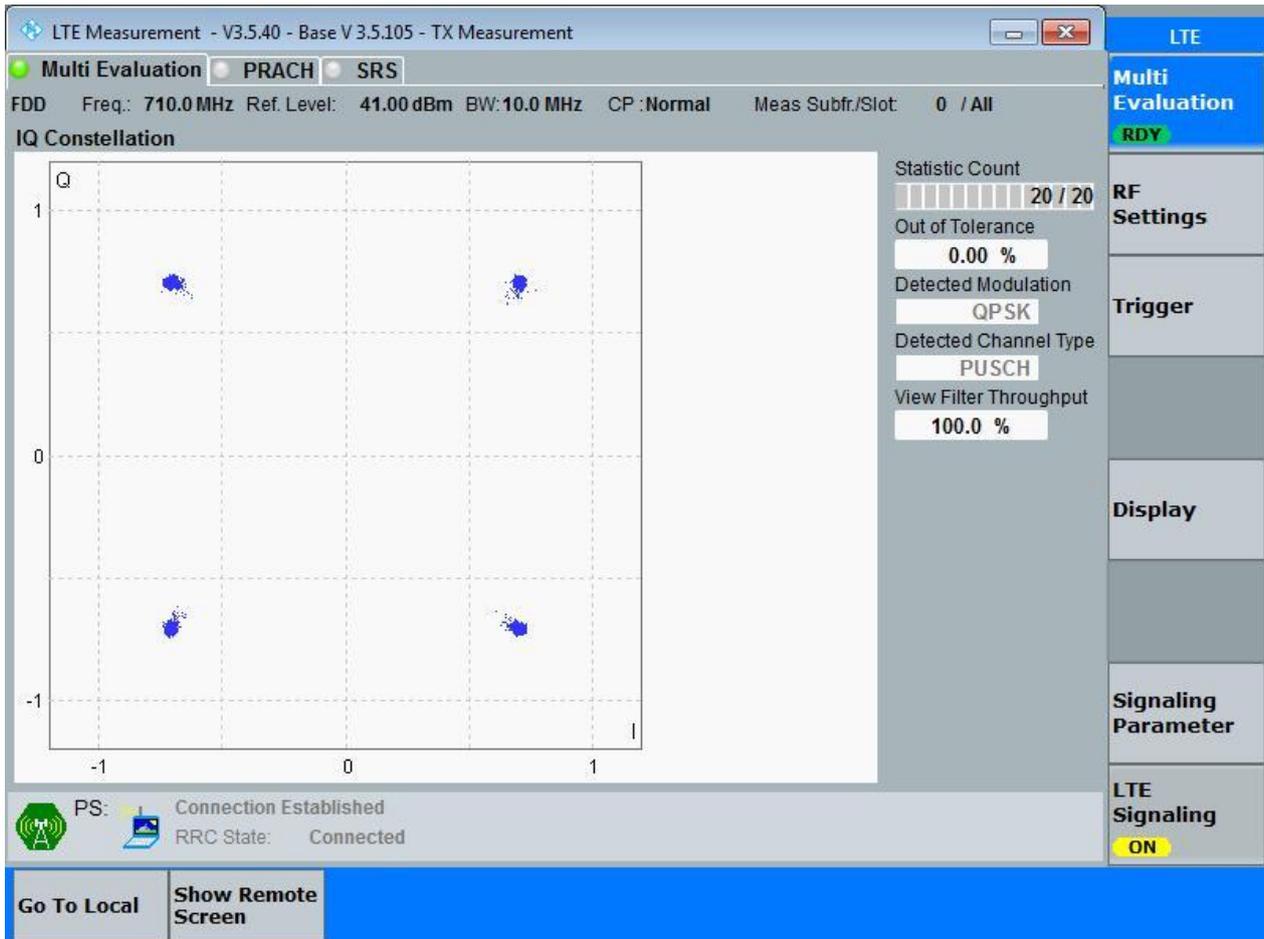
3.1.1.1.1.1.1 Test RB = RB25#0



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

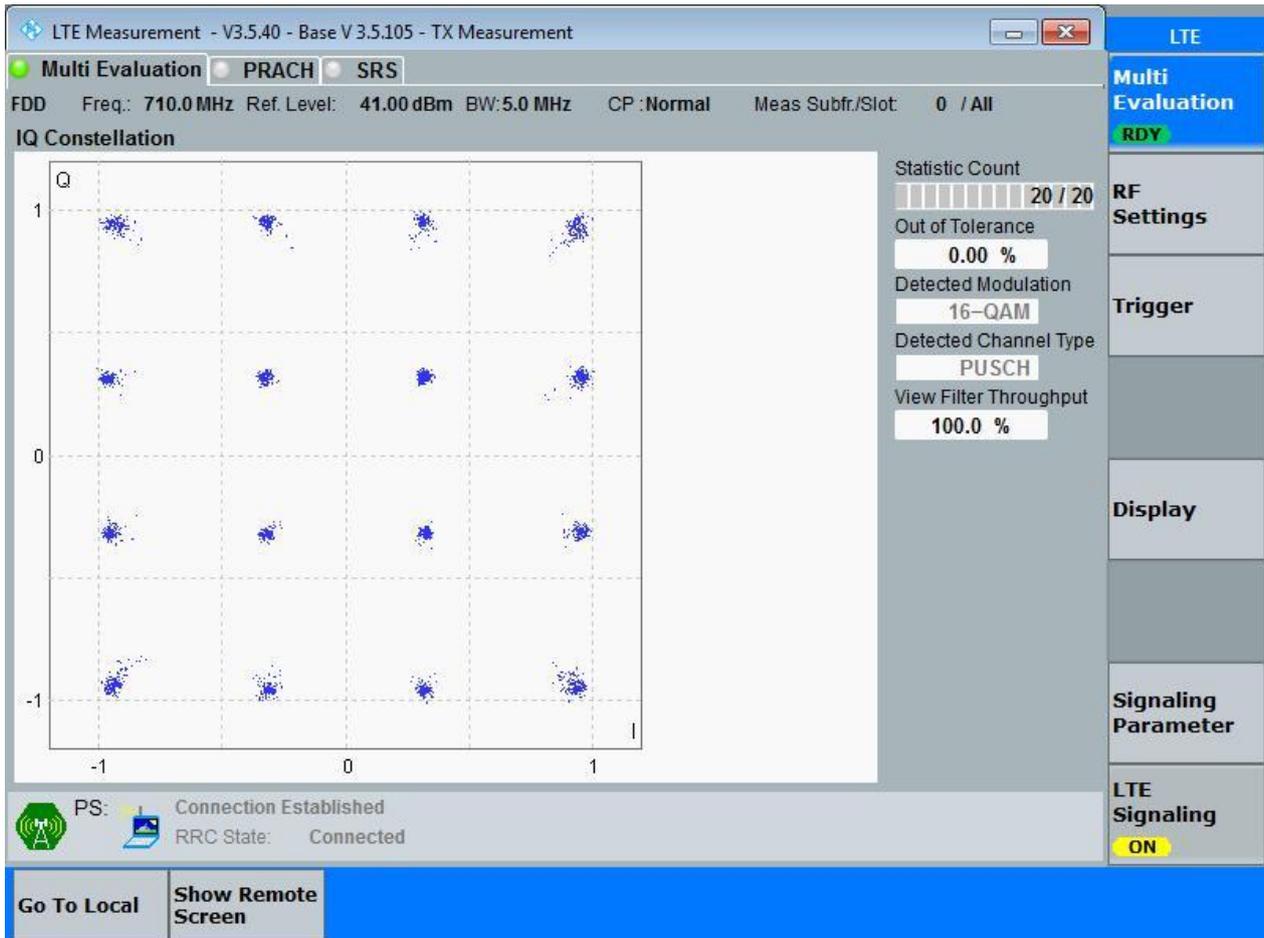


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

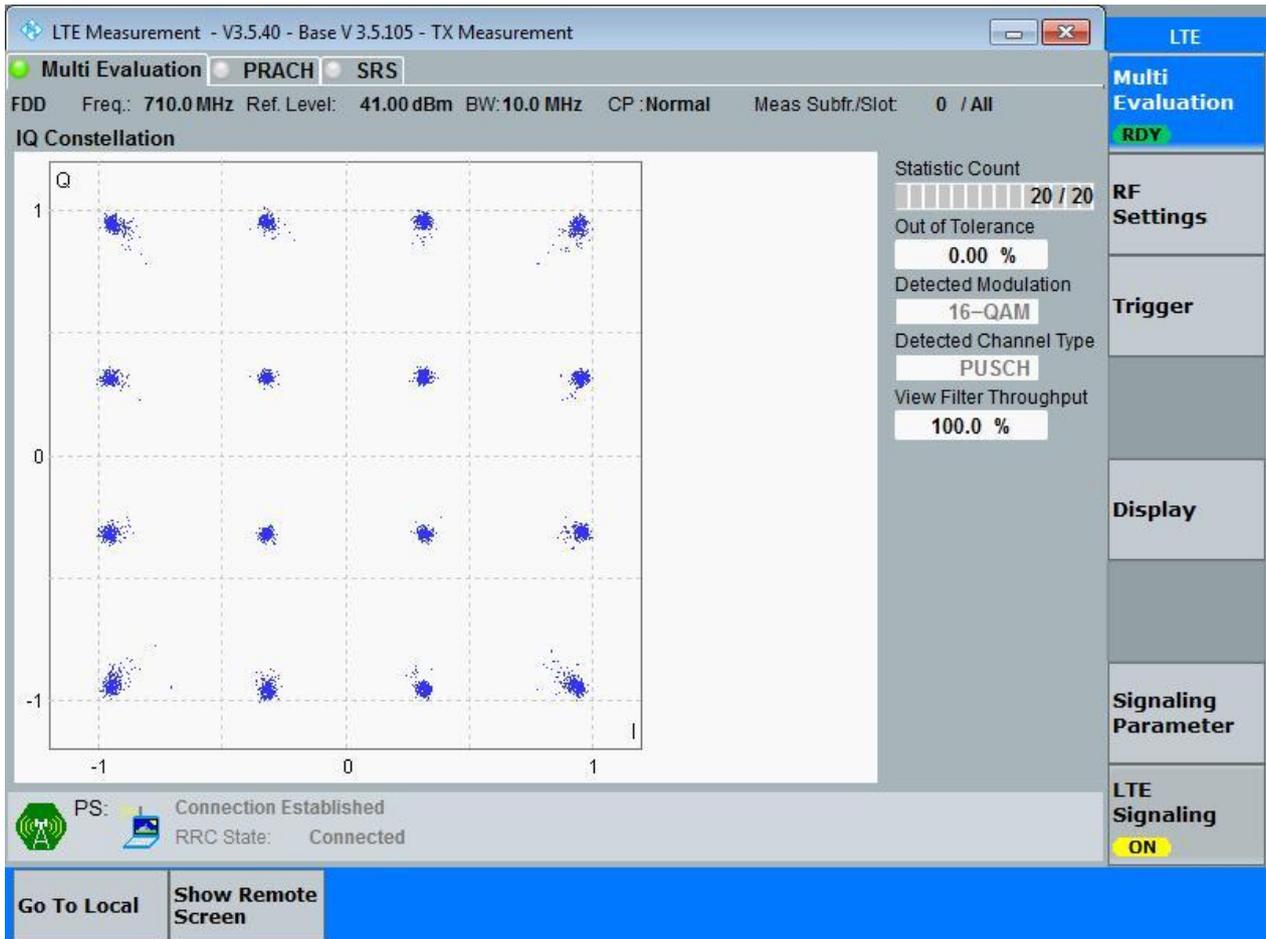
3.1.1.2.1.1.1 Test RB = RB25#0



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	5.00	Pass
			MCH	RB25#0	4.51	4.97	Pass
			HCH	RB25#0	4.51	4.99	Pass
		10	LCH	RB50#0	9.00	9.90	Pass
			MCH	RB50#0	9.02	9.92	Pass
			HCH	RB50#0	9.00	10.00	Pass
	LTE/TM2	5	LCH	RB25#0	4.52	5.01	Pass
			MCH	RB25#0	4.52	5.14	Pass
			HCH	RB25#0	4.52	4.98	Pass
		10	LCH	RB50#0	9.01	9.96	Pass
			MCH	RB50#0	9.00	9.93	Pass
			HCH	RB50#0	9.01	9.89	Pass



Part II - Test Plots

4.1 For LTE

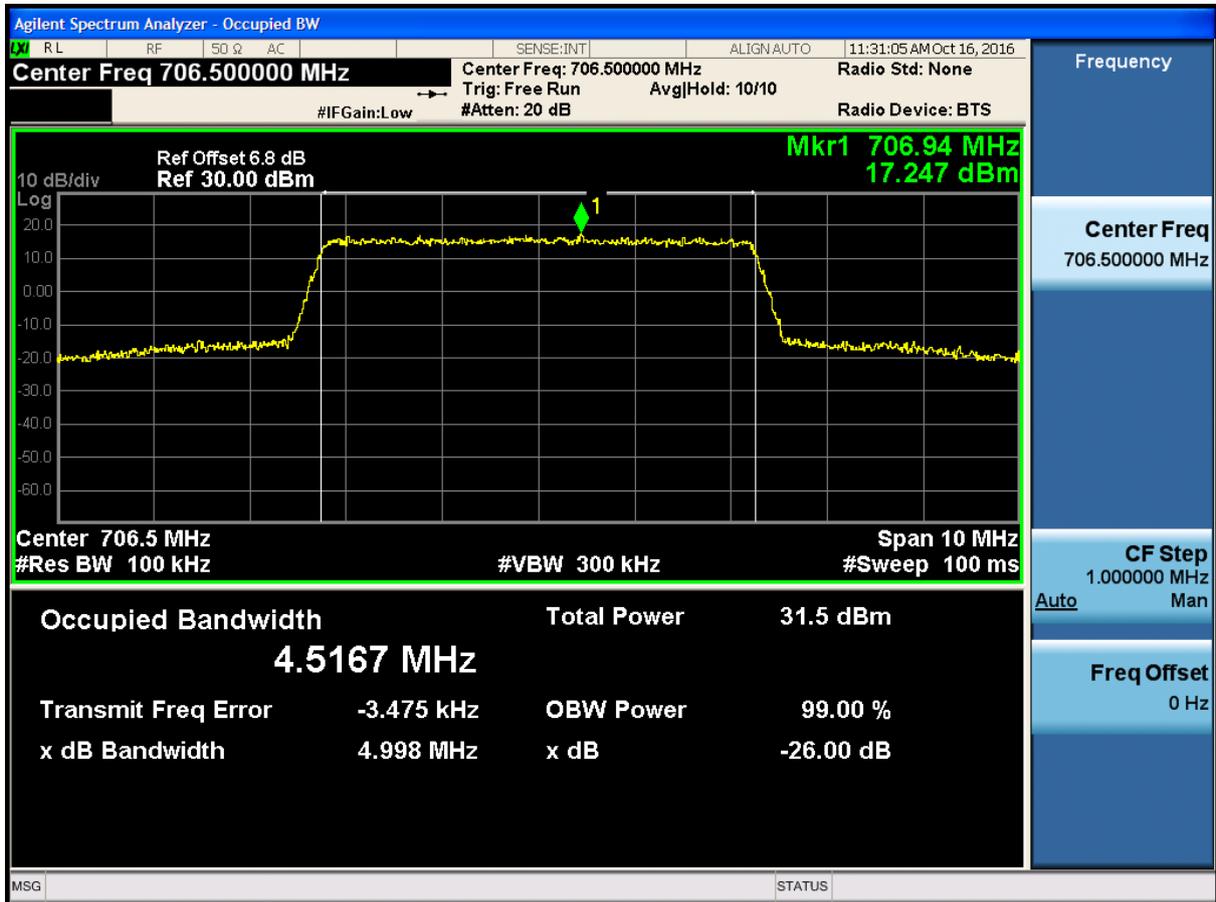
4.1.1 Test Band = BAND17

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

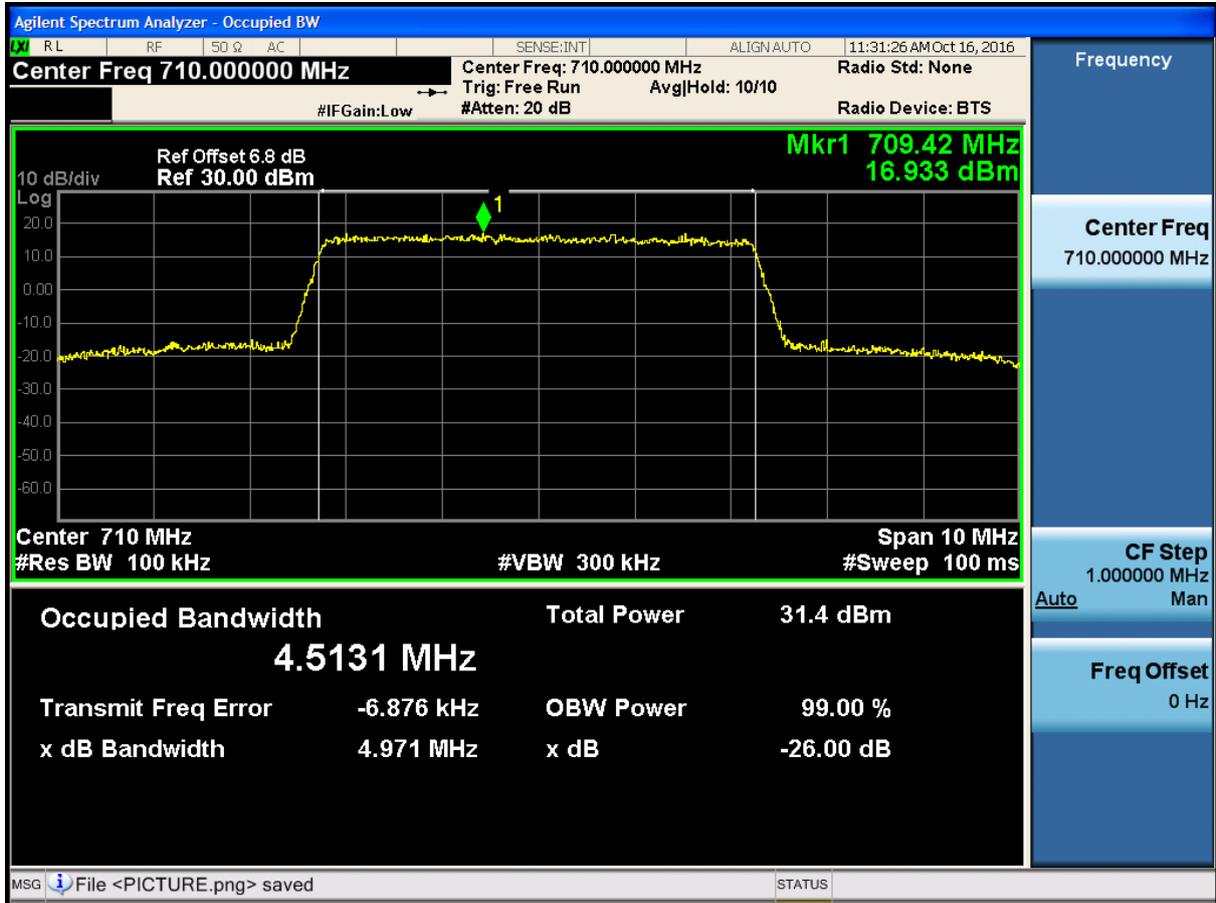
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.2 Test Channel = MCH

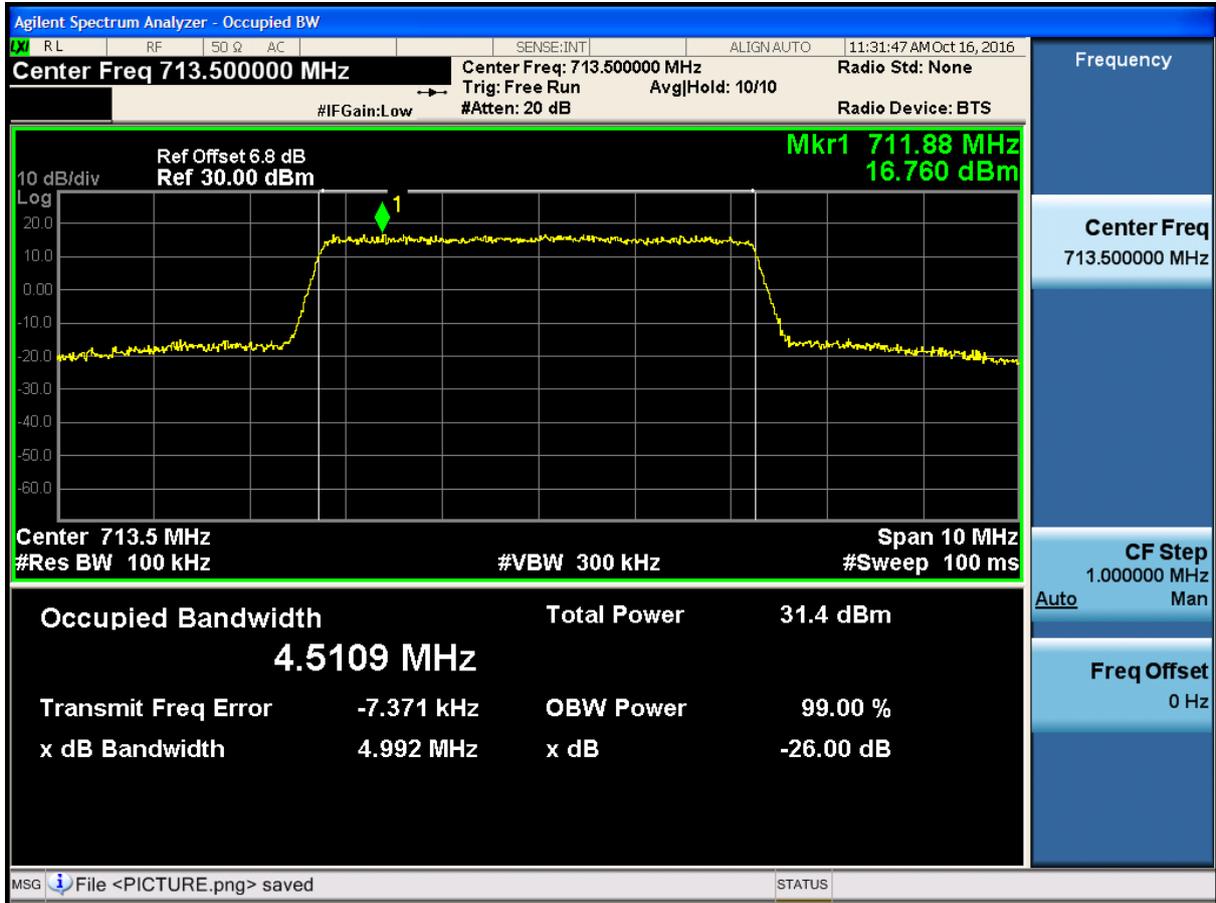
4.1.2.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

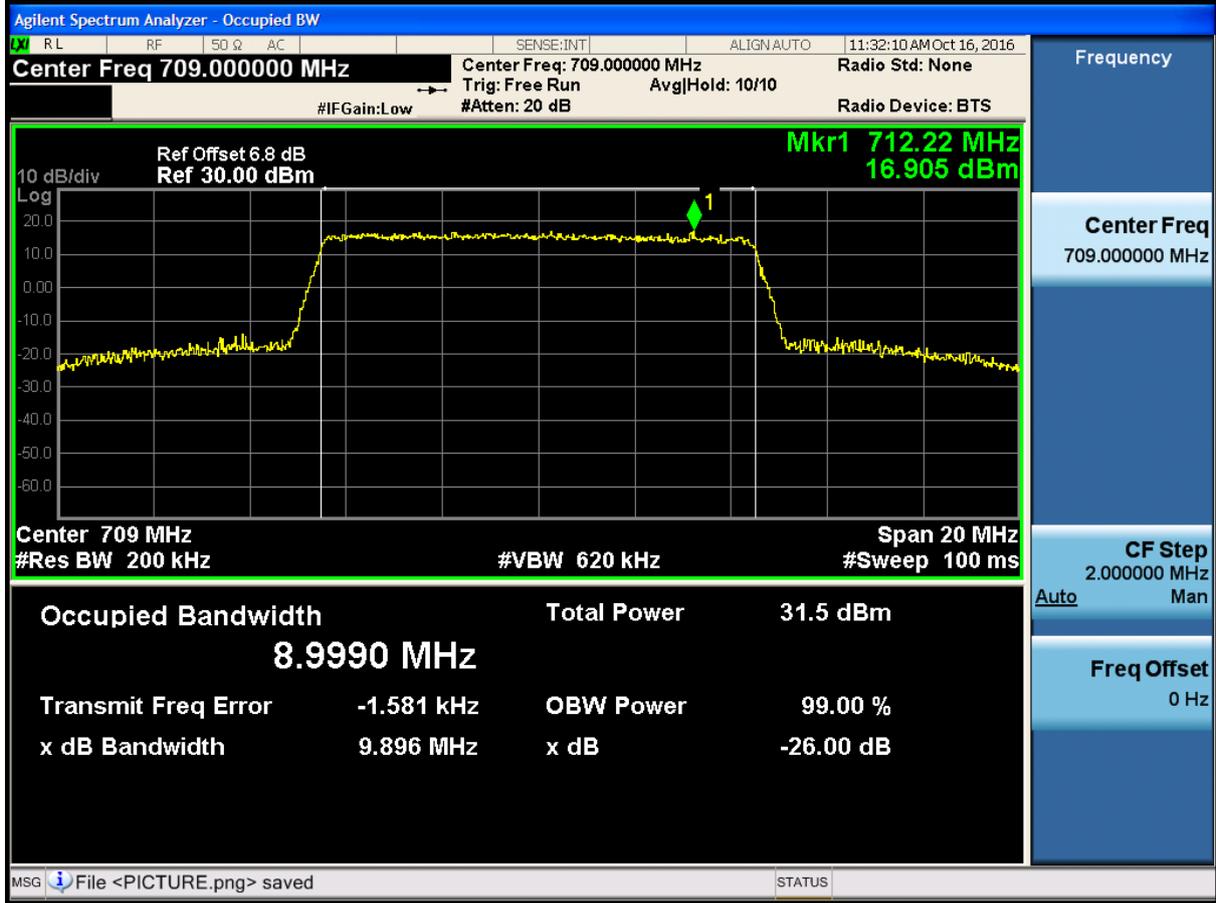




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

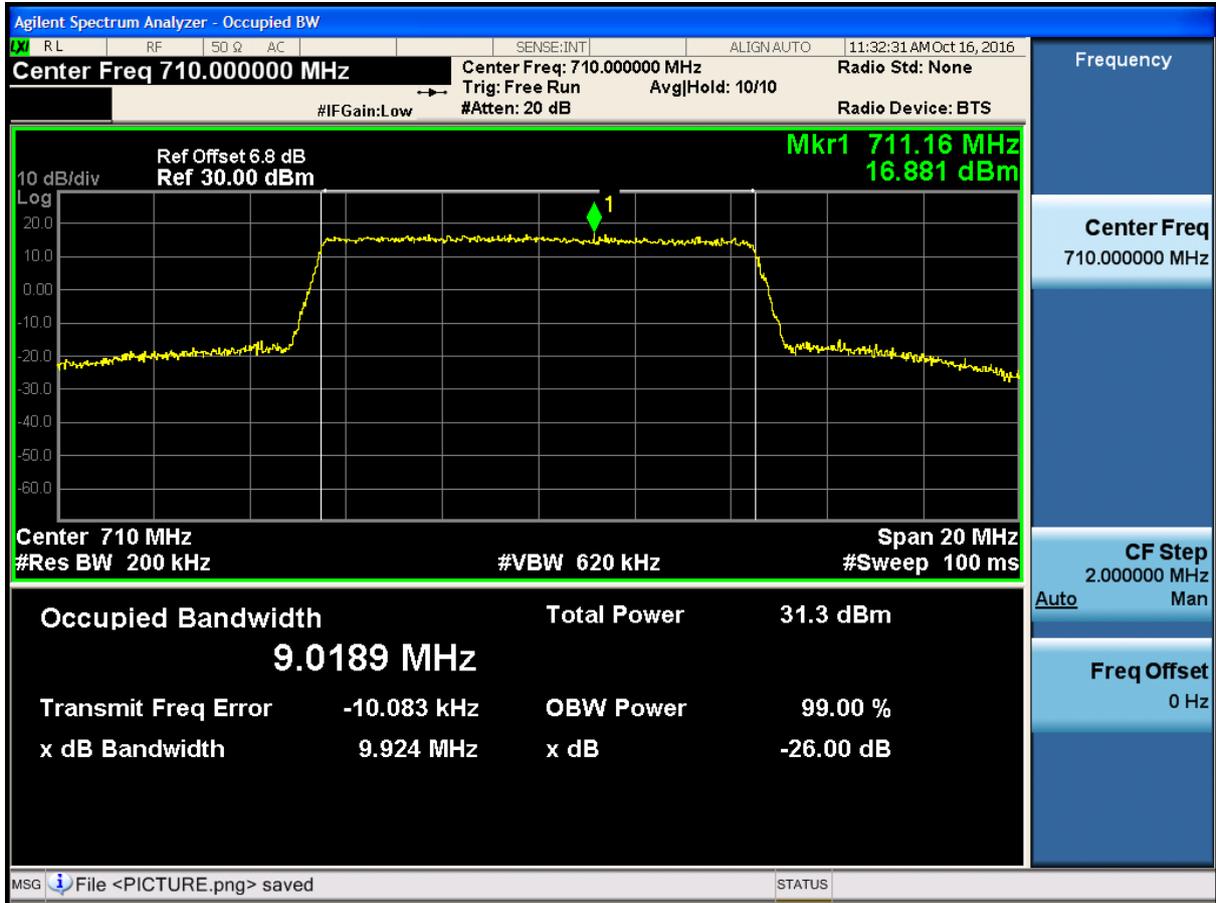
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

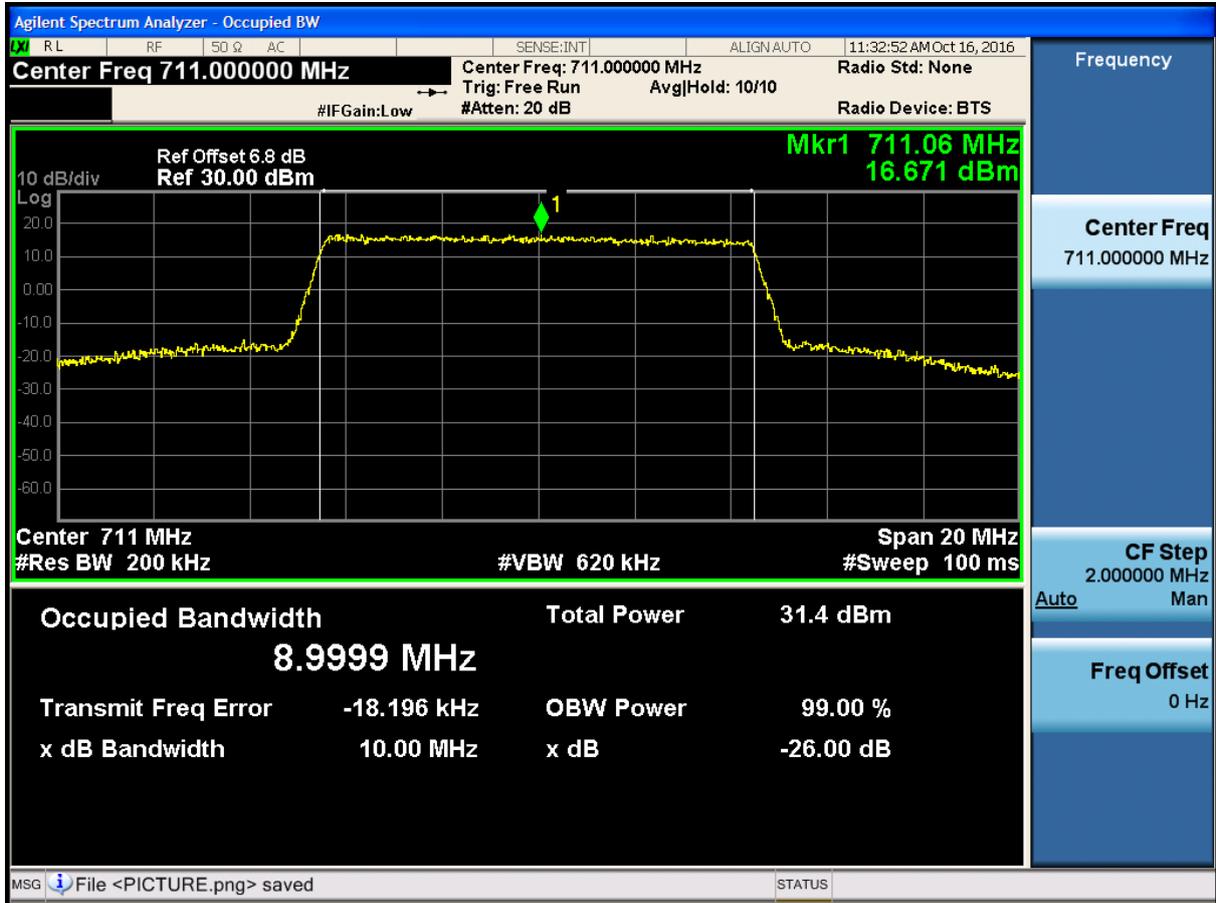
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0



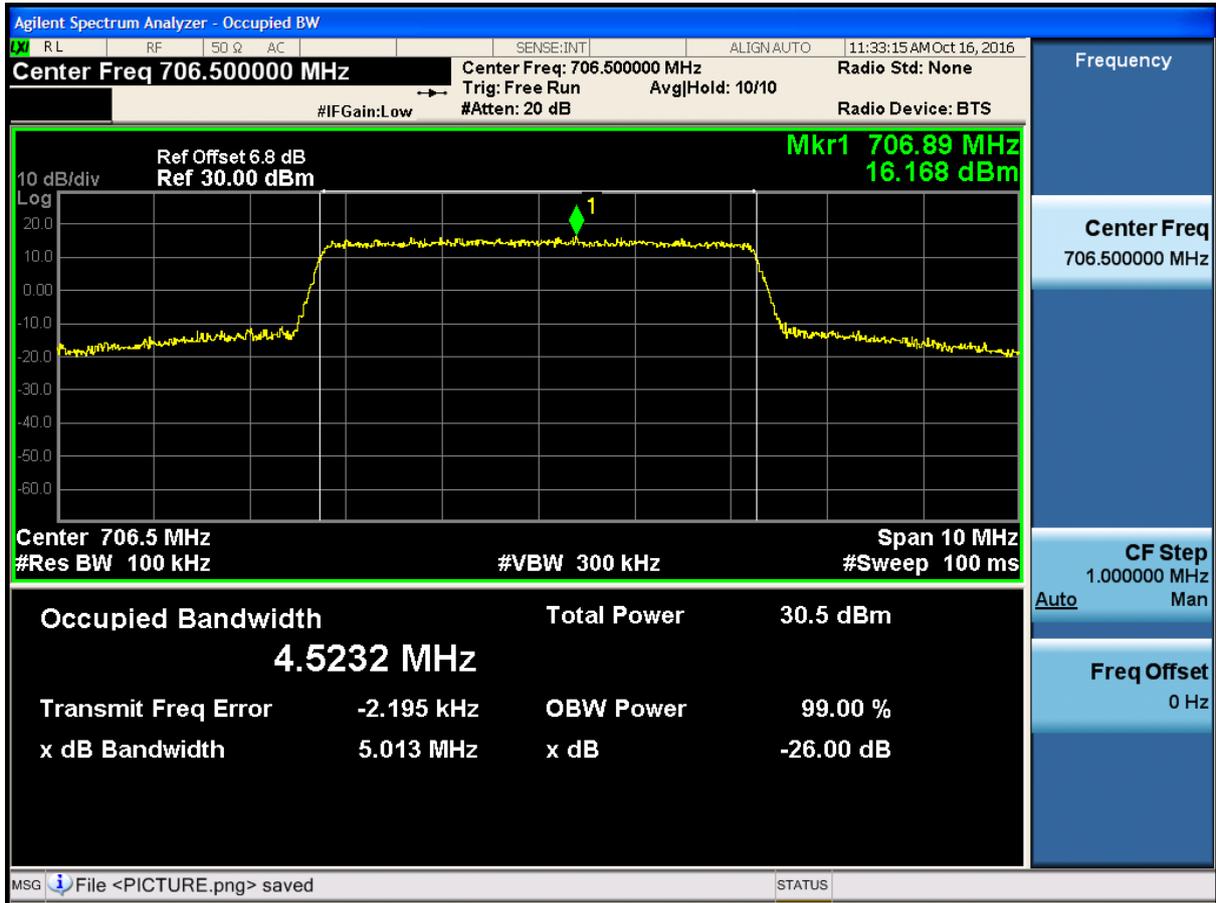


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

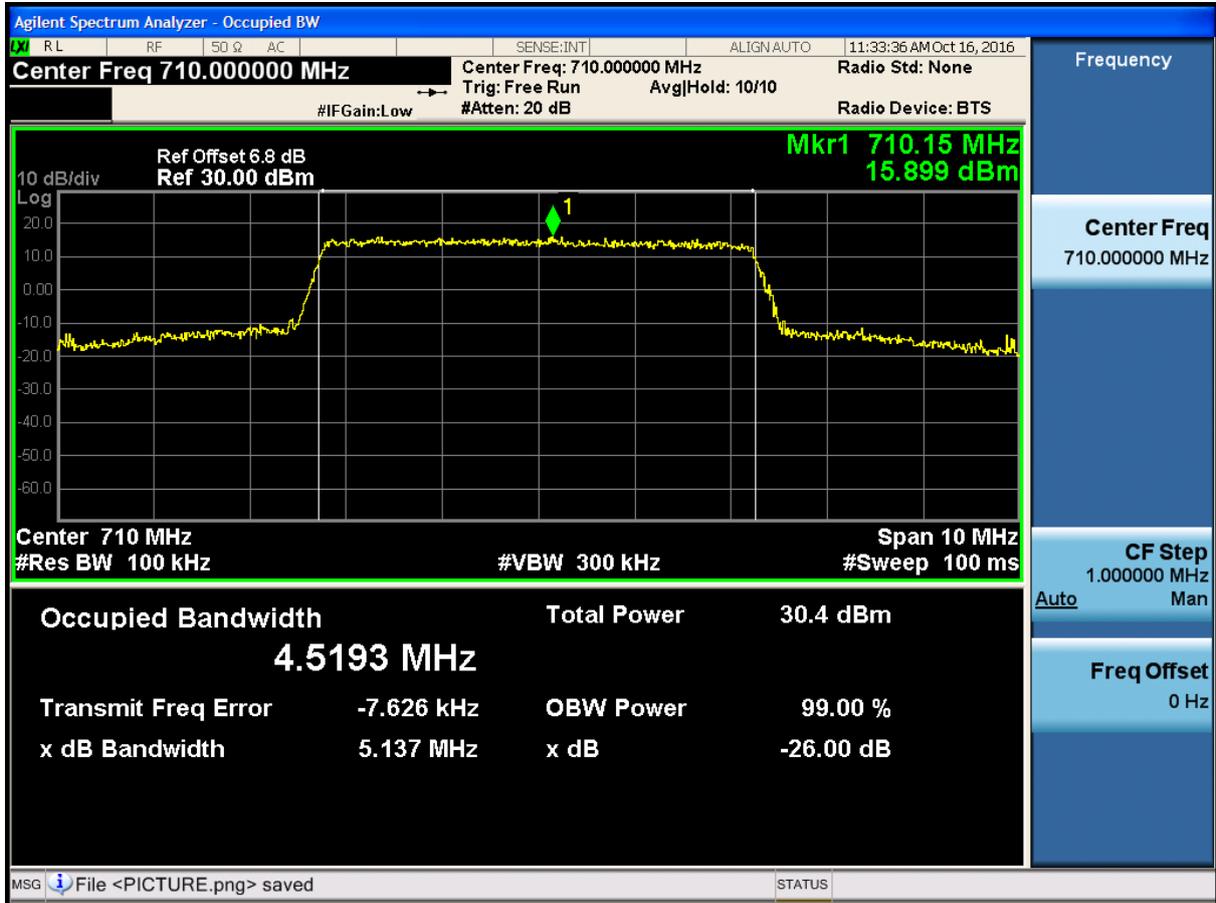
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

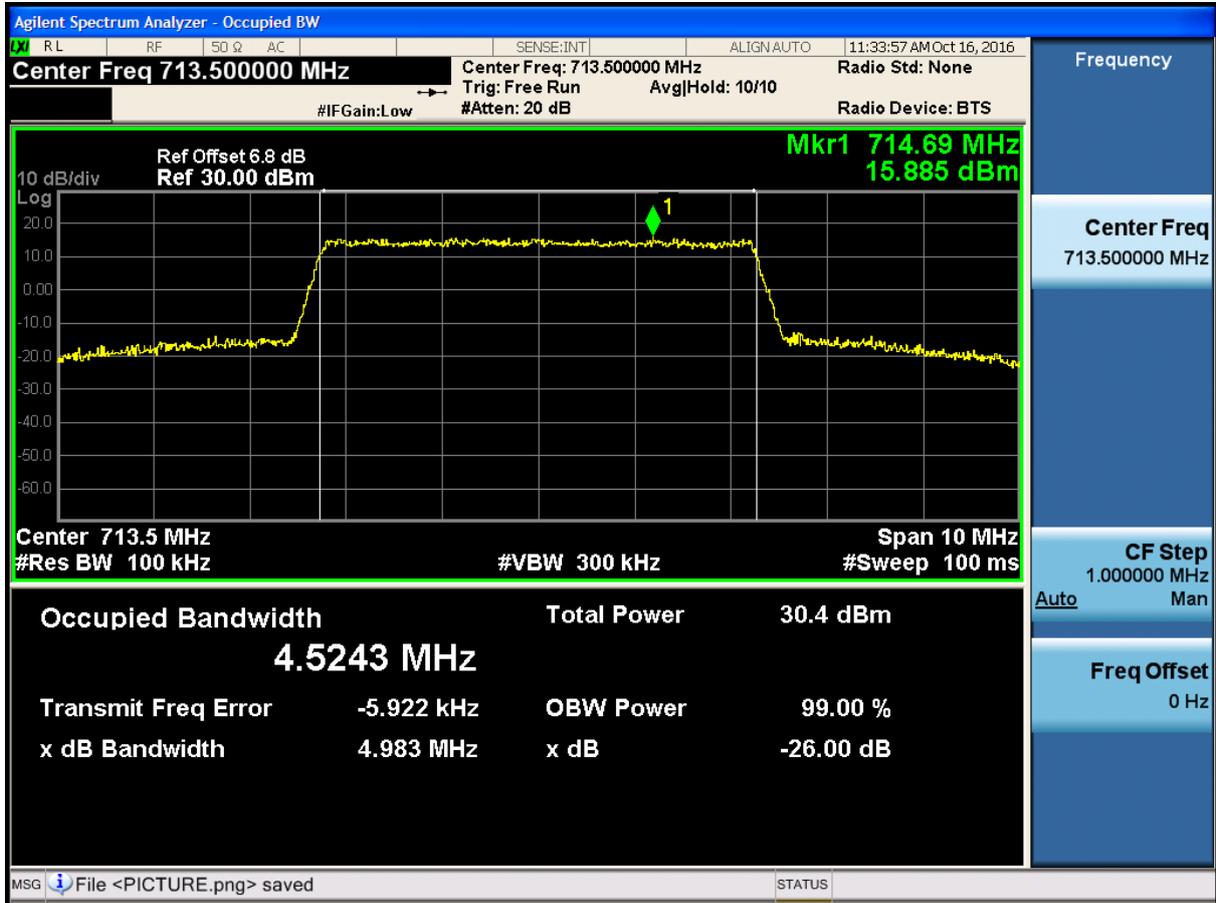
4.1.1.2.1.2.1 Test RB = RB25#0





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

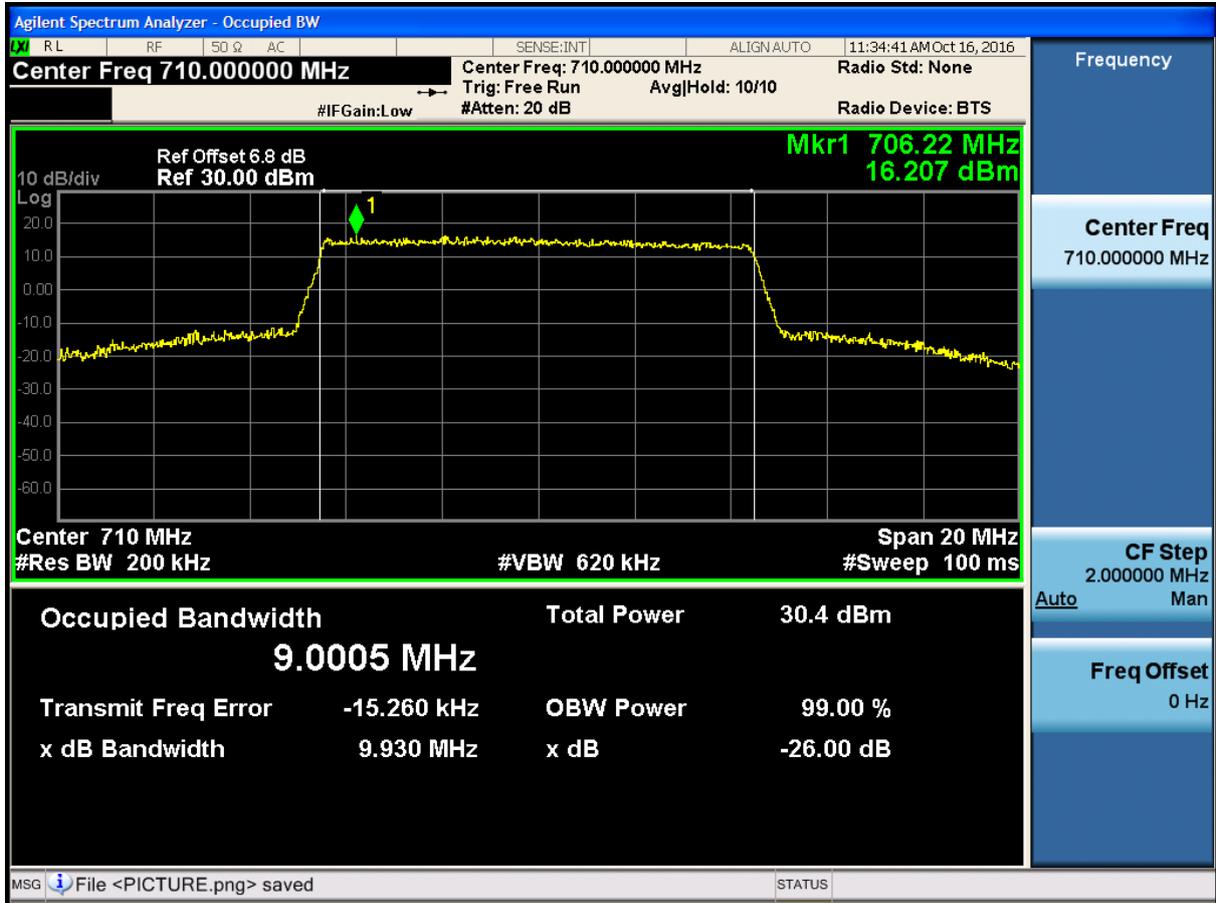
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

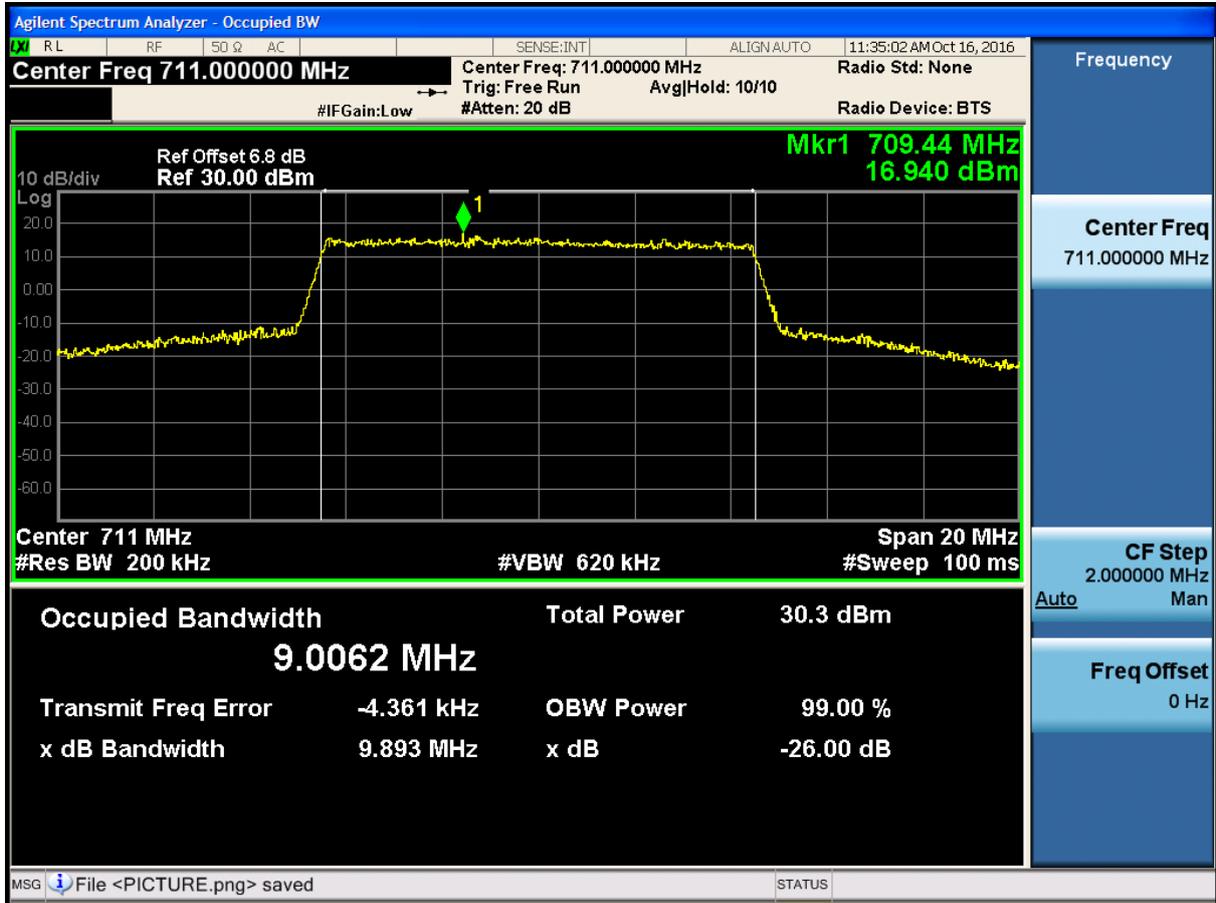
4.1.1.2.2.2.1 Test RB = RB50#0





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

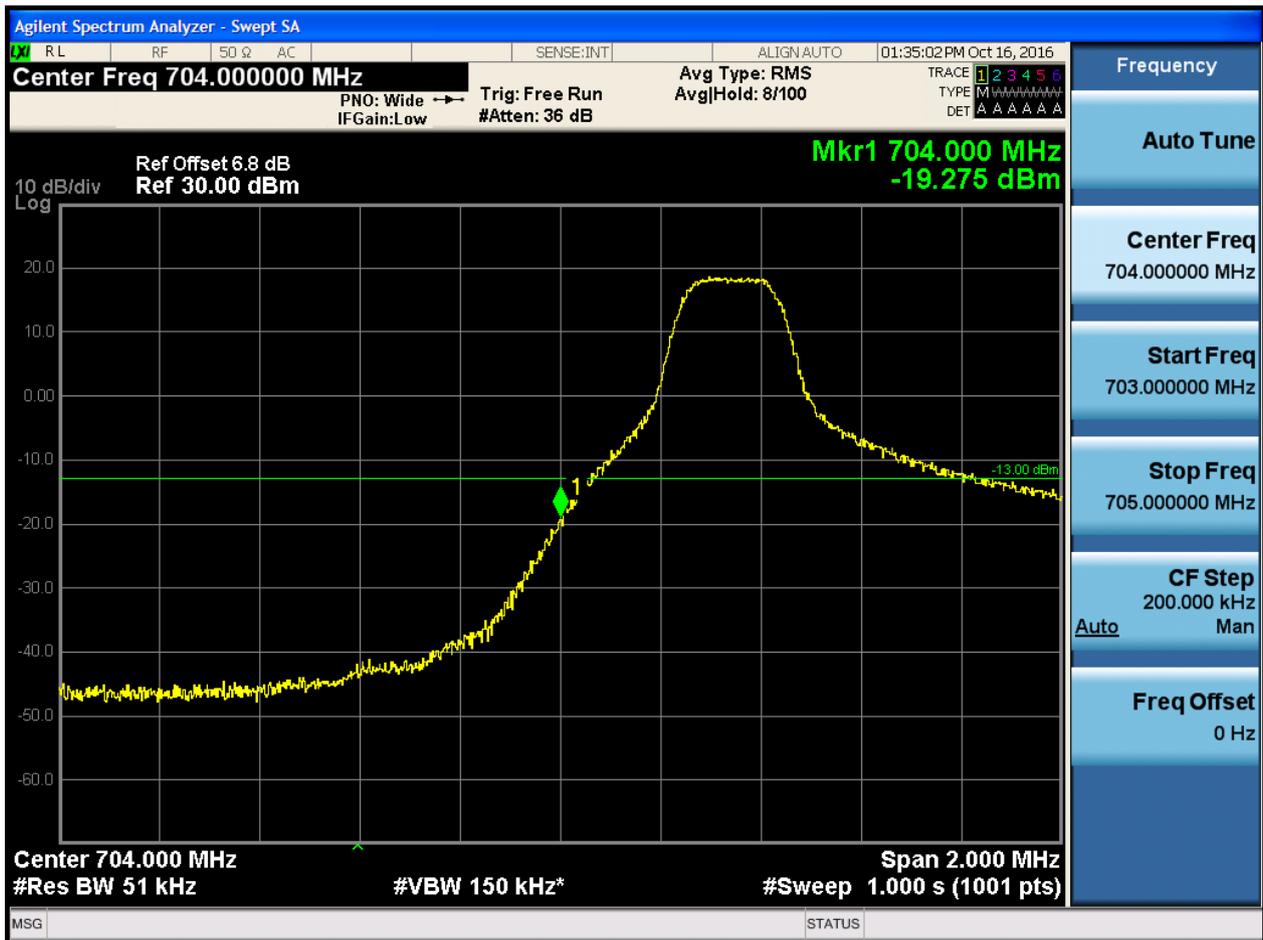
5.1.1 Test Band = BAND17

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

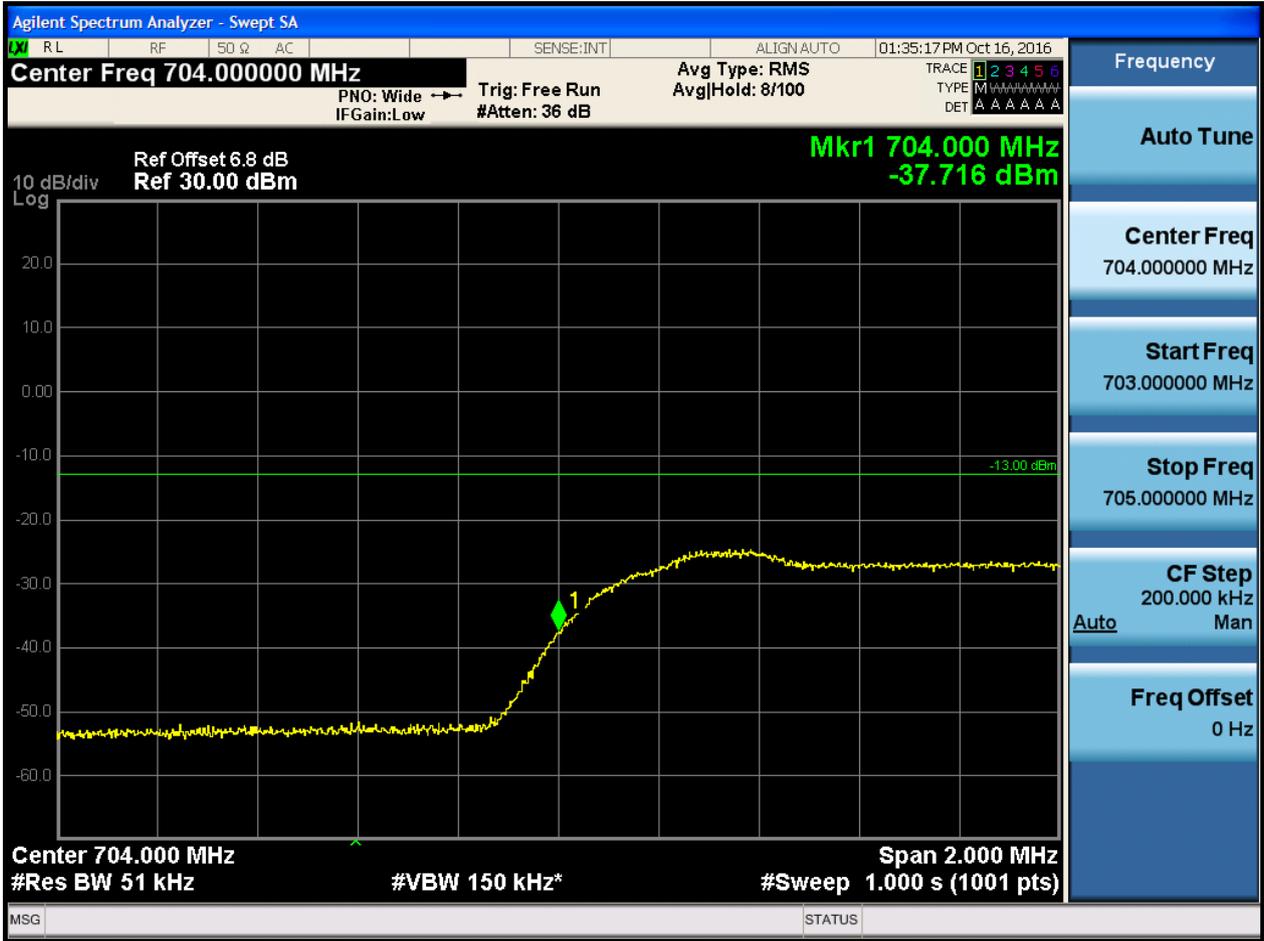
5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



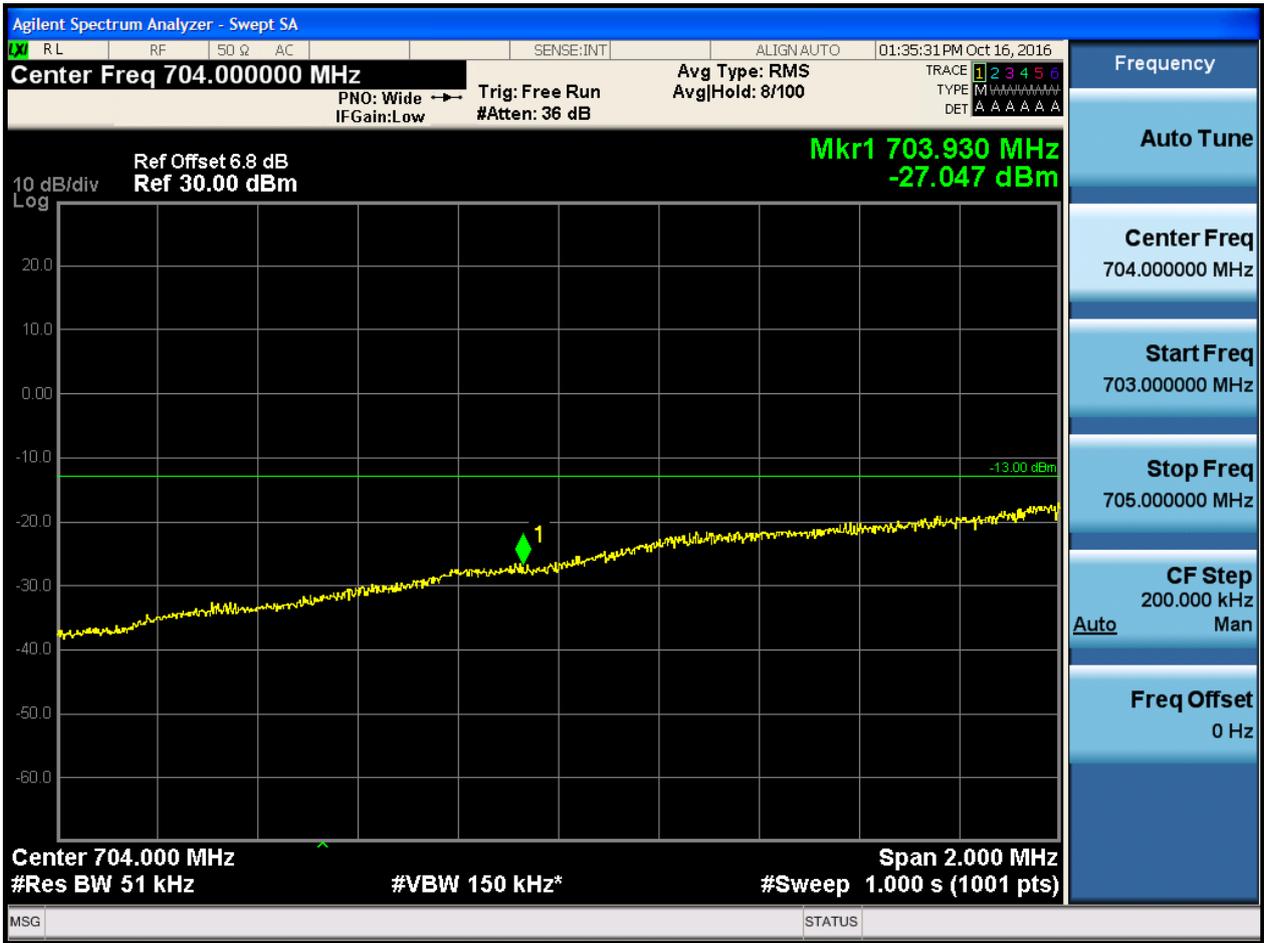


5.1.1.1.1.2 Test RB = RB1#24



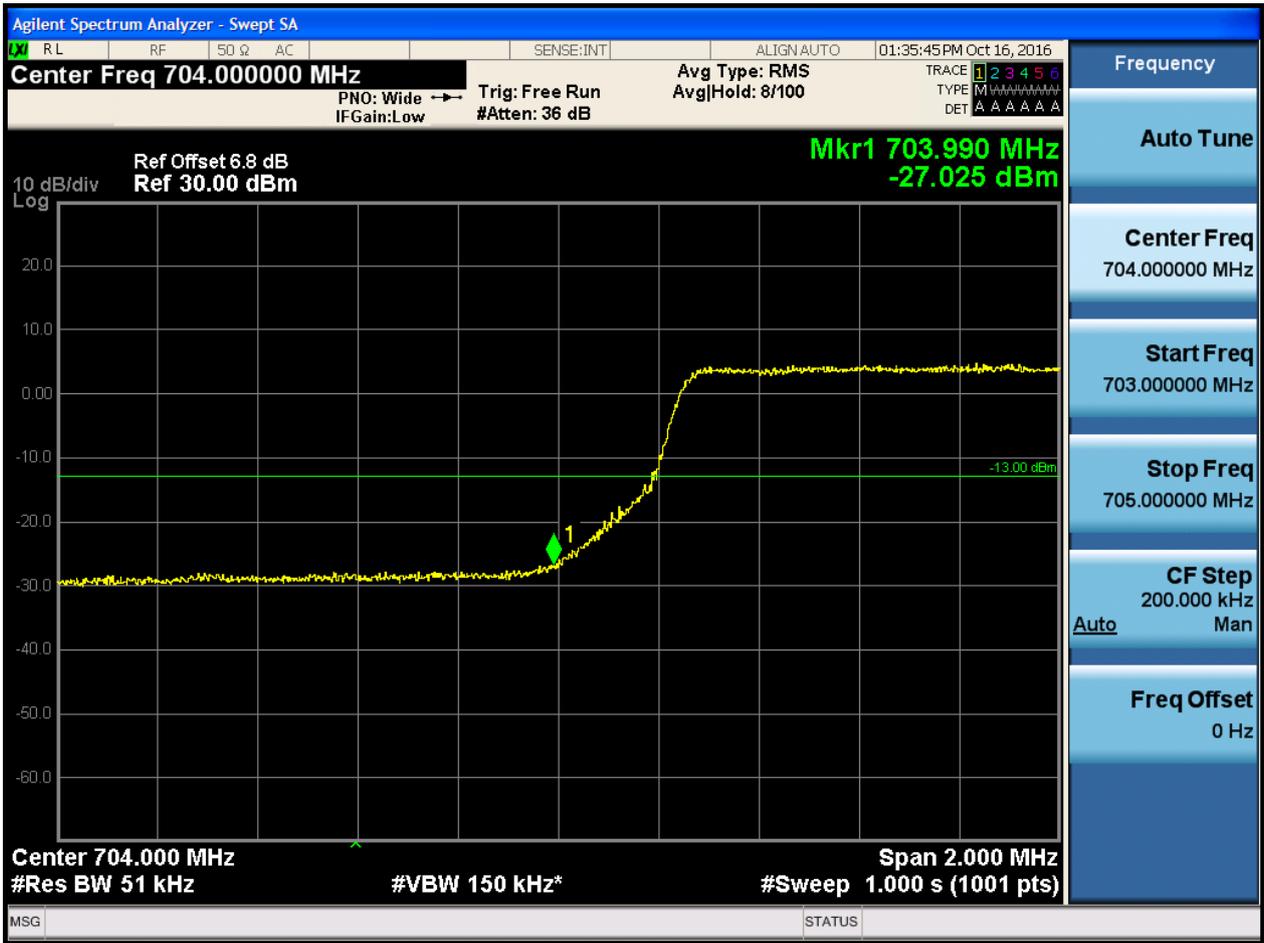


5.1.1.1.1.3 Test RB = RB12#6





5.1.1.1.1.4 Test RB = RB25#0





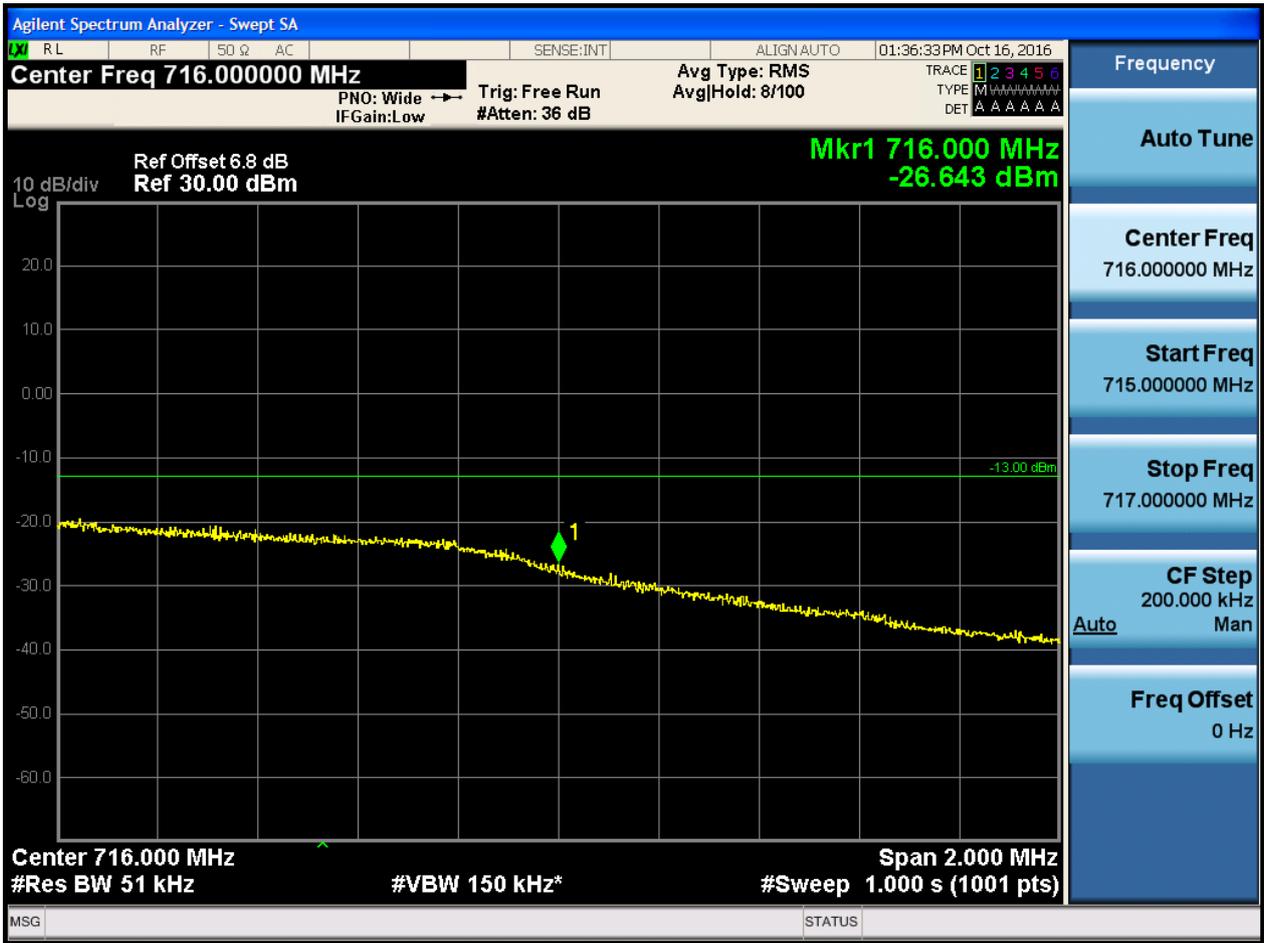
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



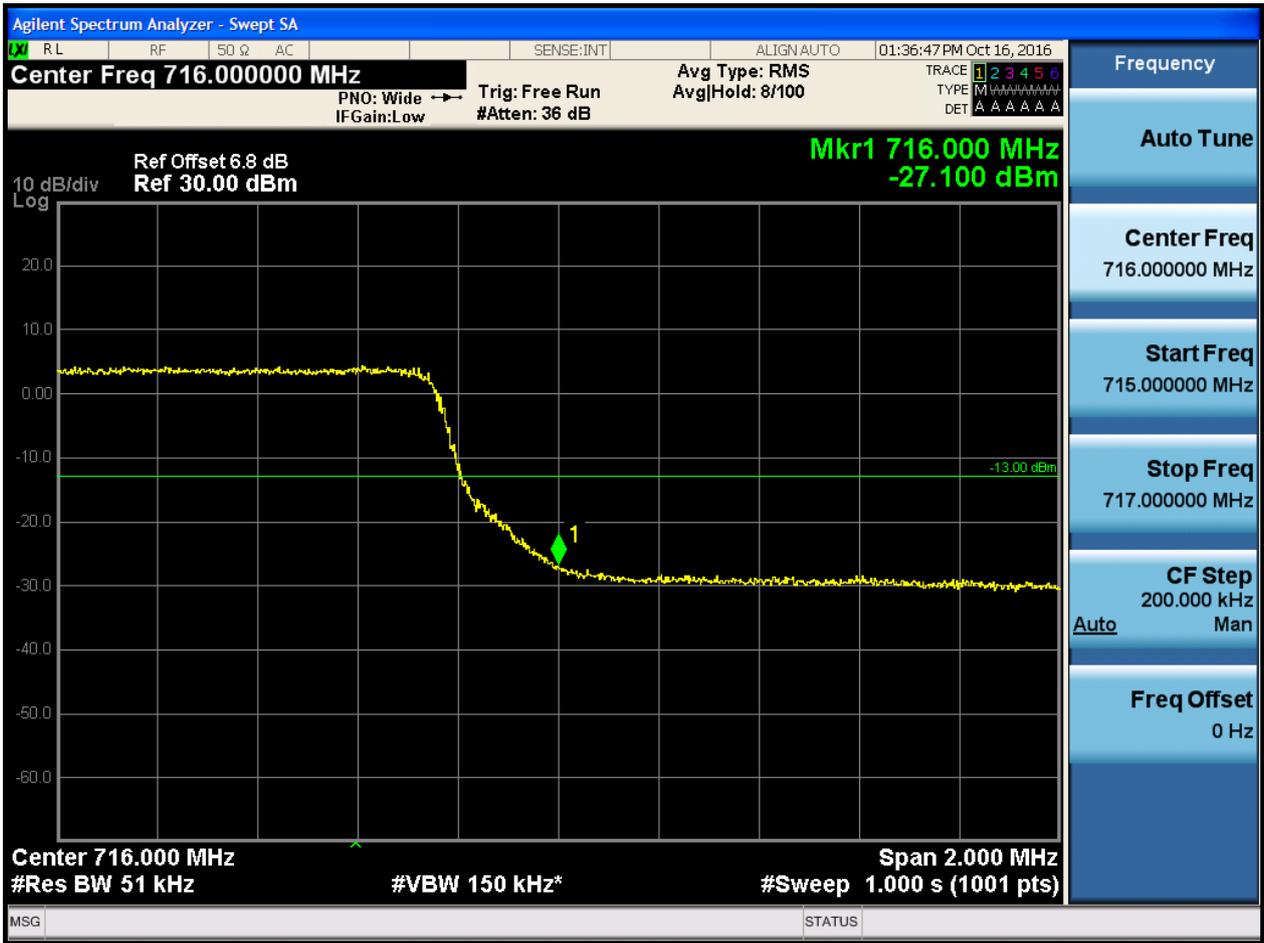


5.1.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.1.2.4 Test RB = RB25#0

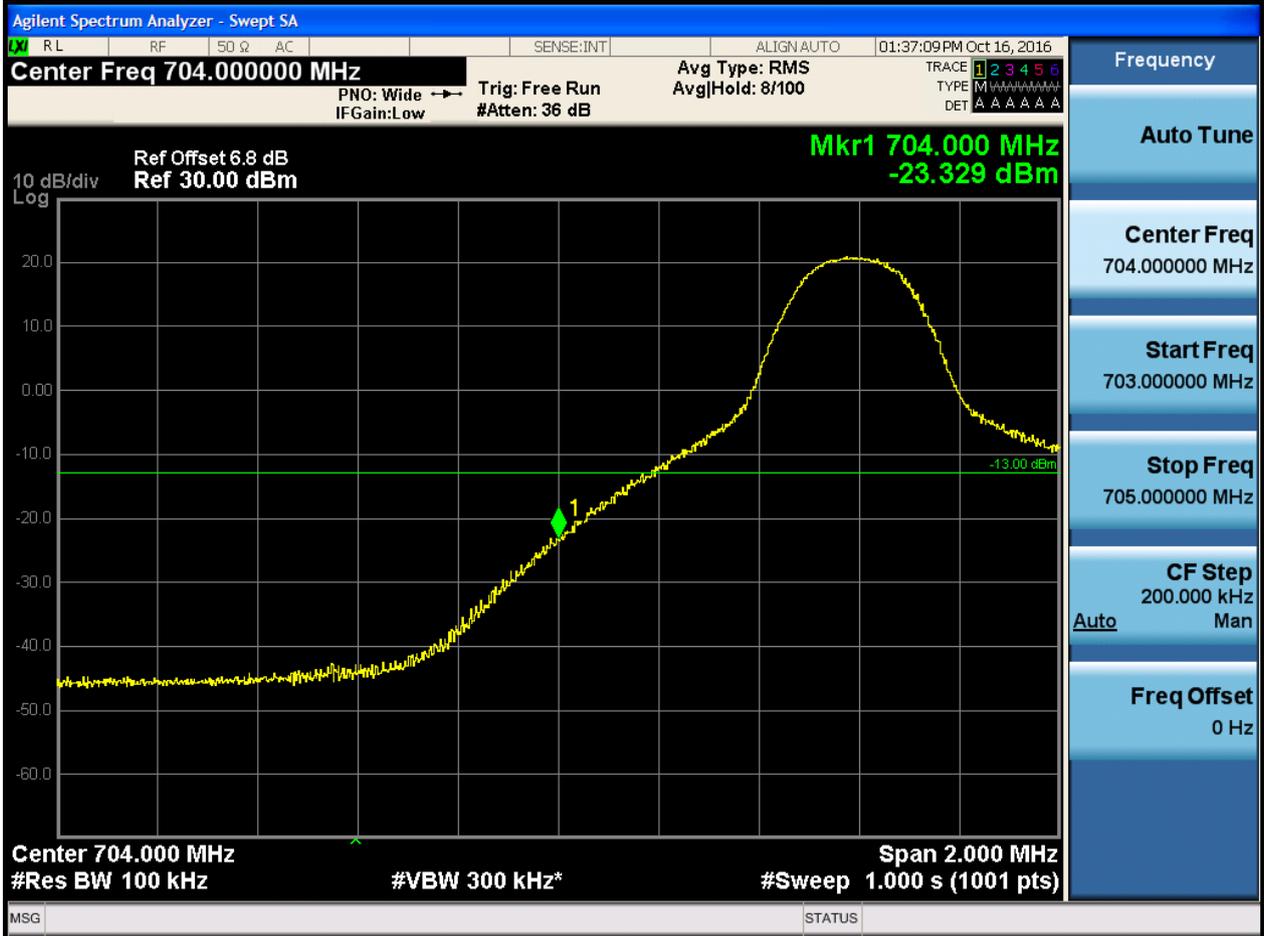




5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



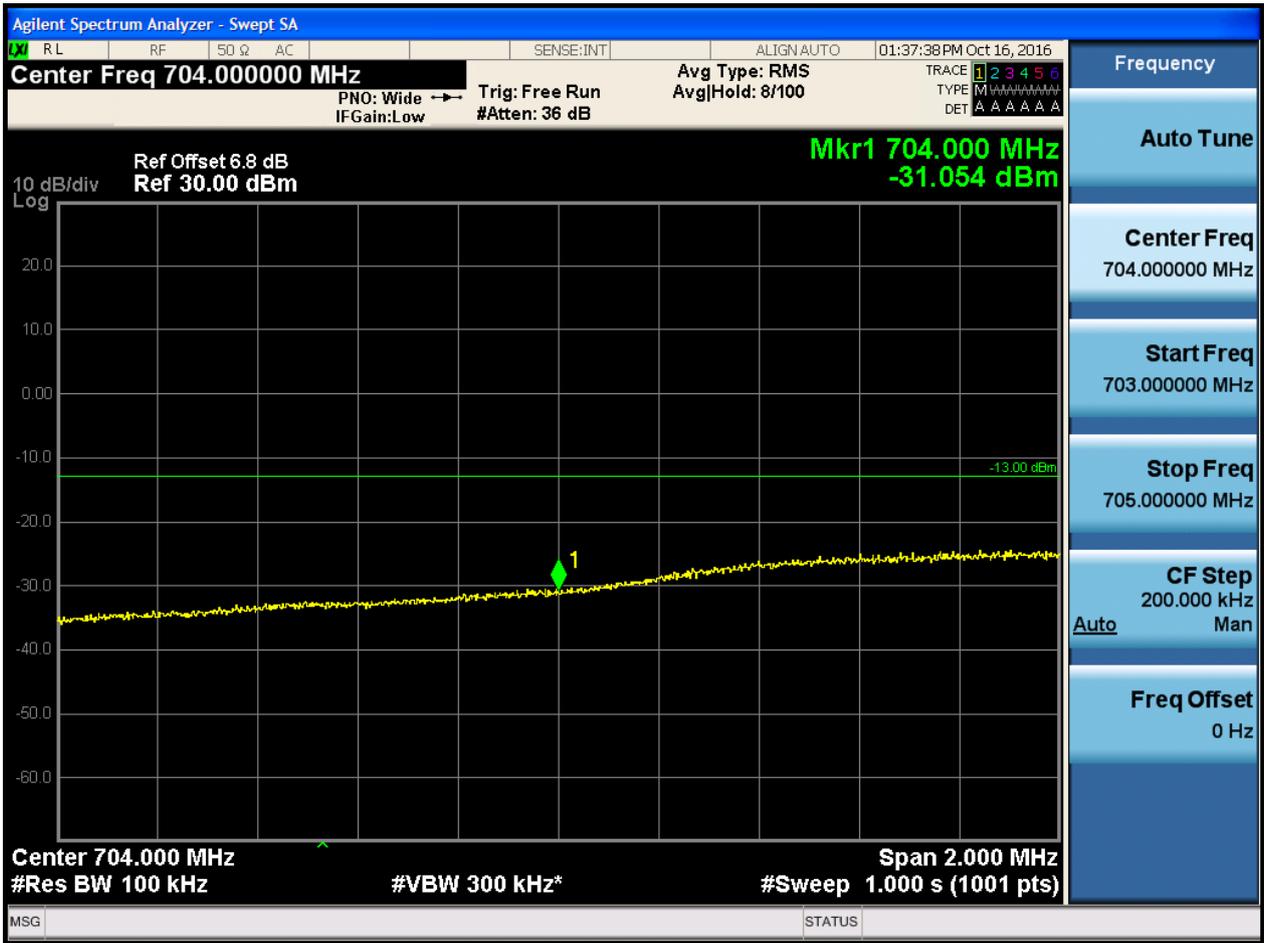


5.1.1.1.2.1.2 Test RB = RB1#49



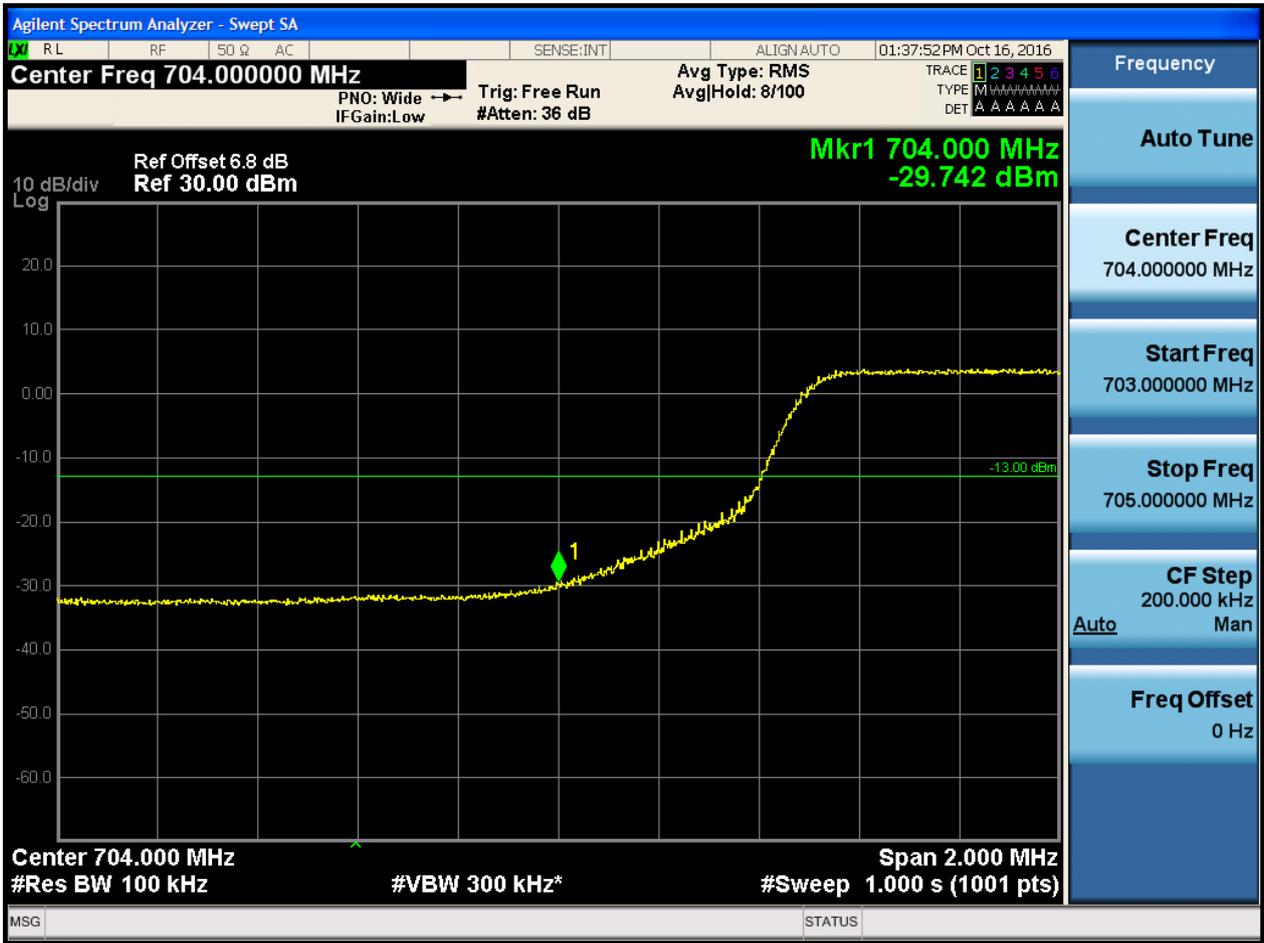


5.1.1.1.2.1.3 Test RB = RB25#13





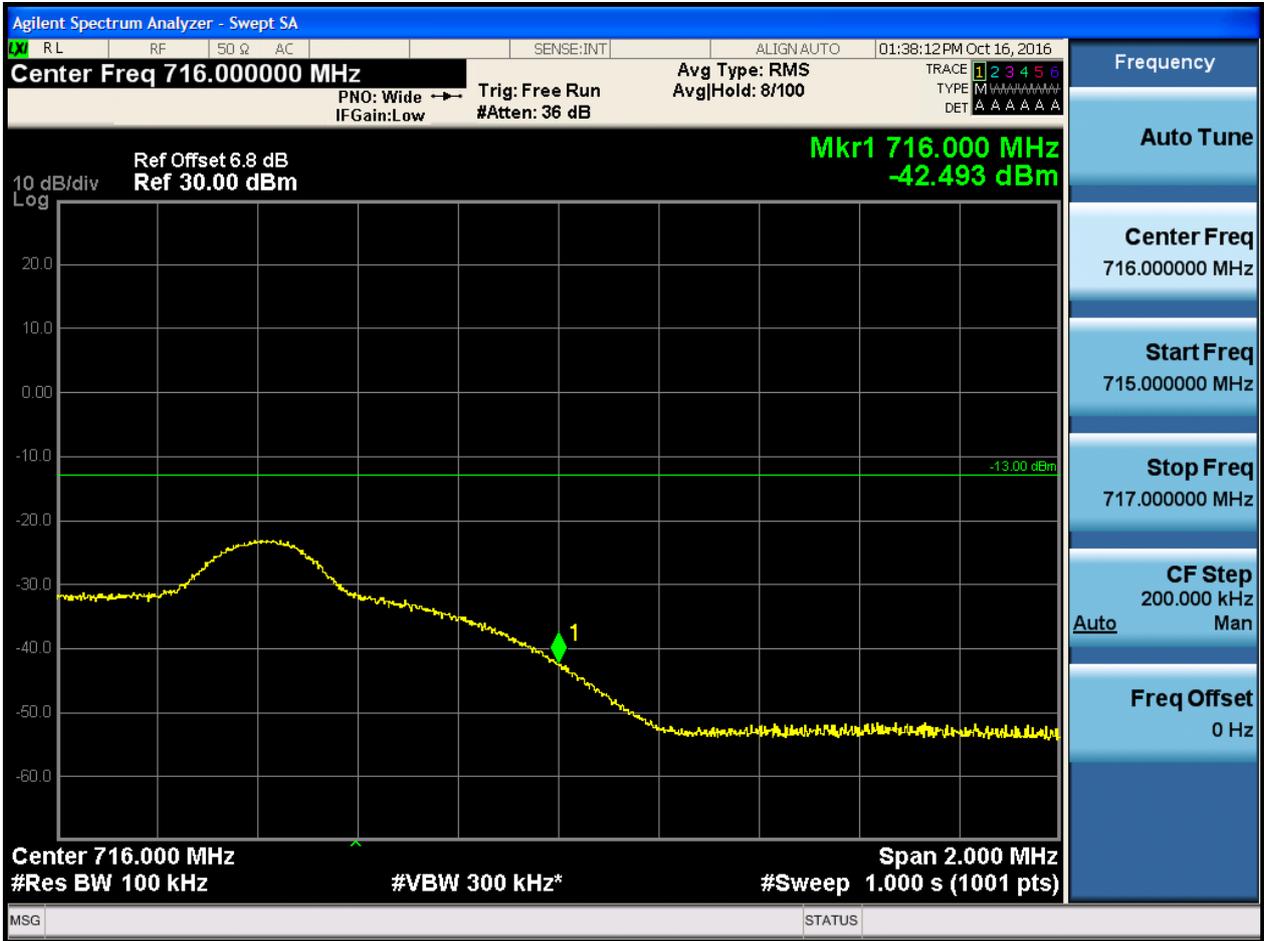
5.1.1.1.2.1.4 Test RB = RB50#0





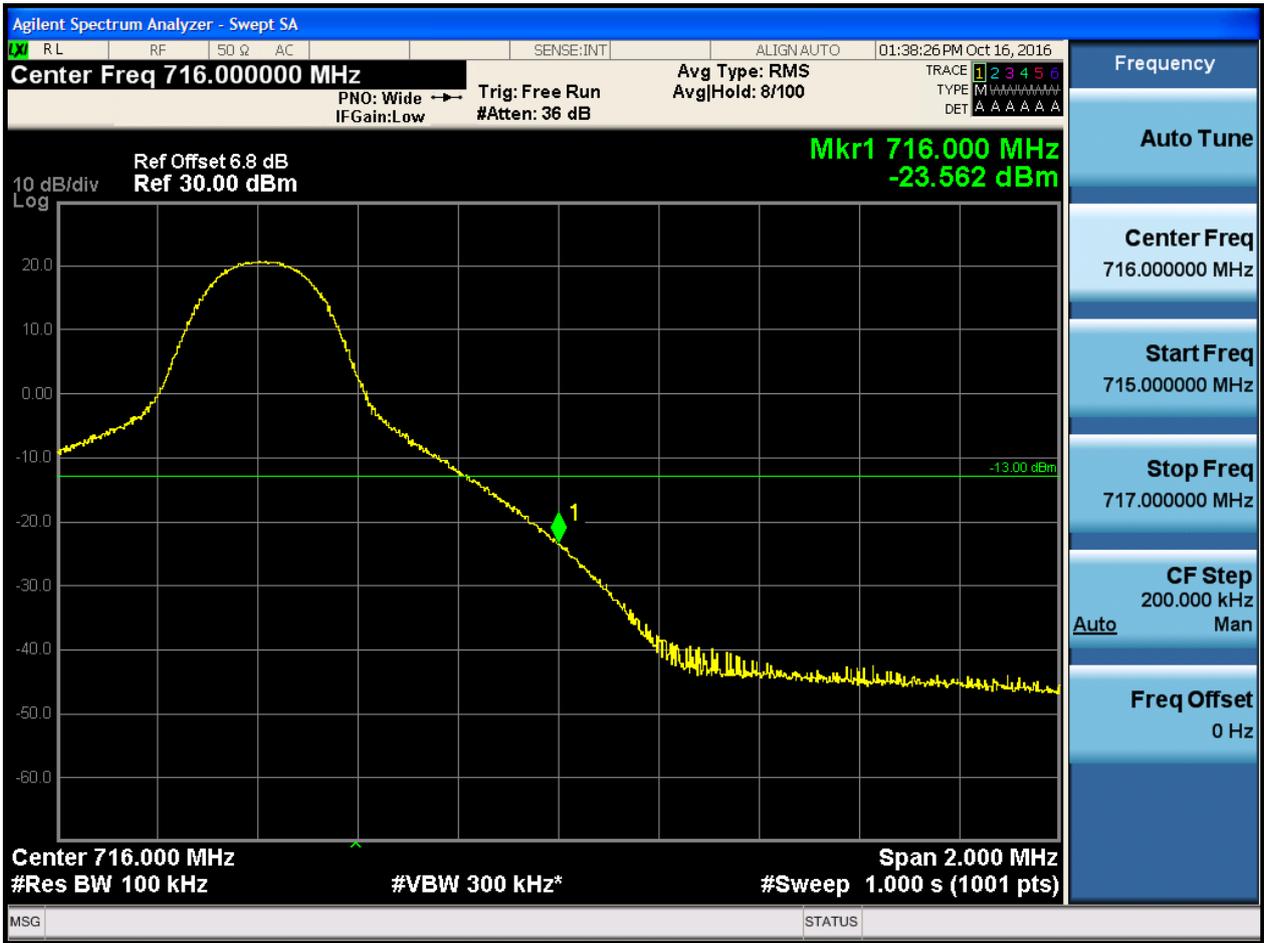
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0



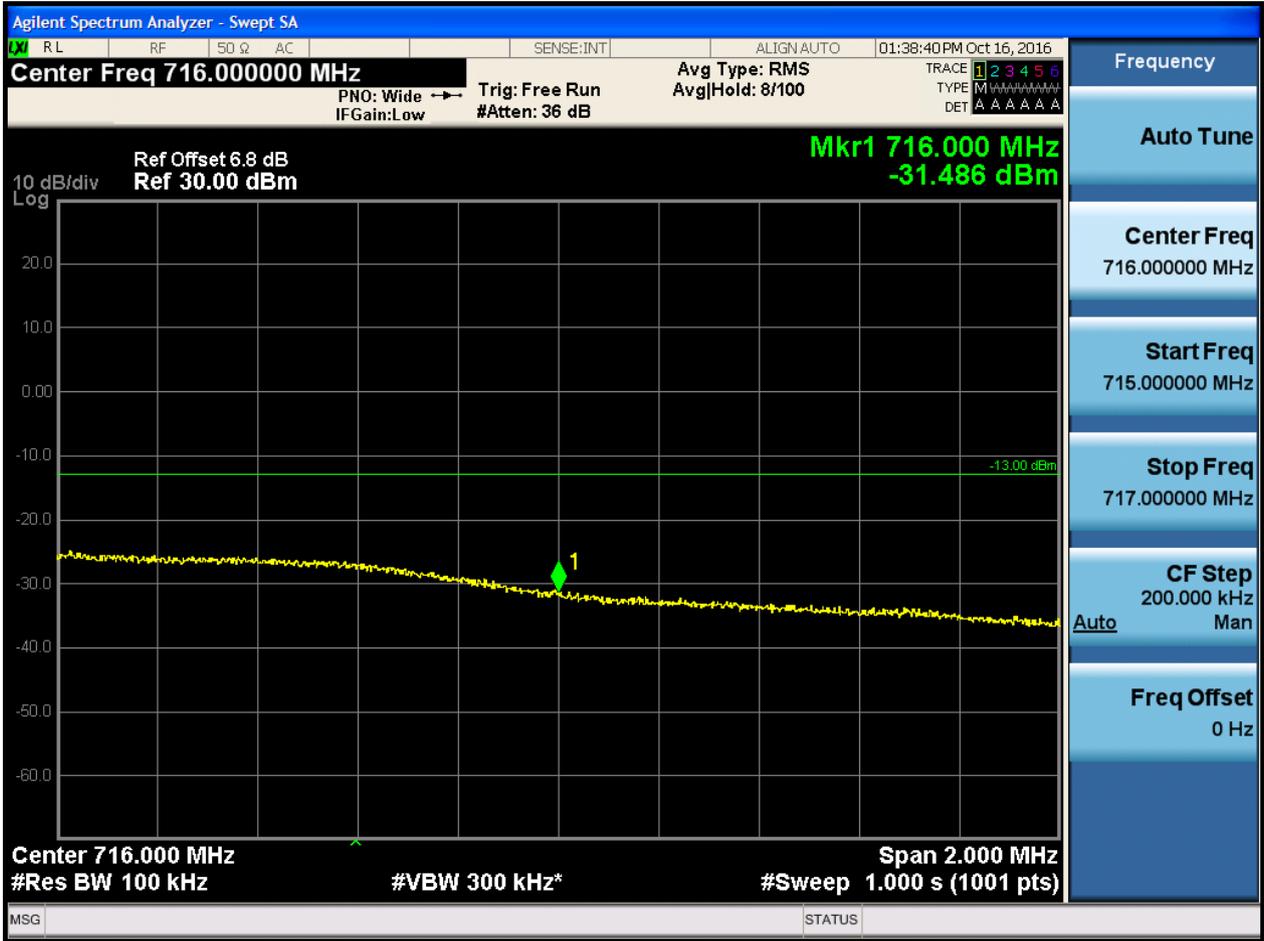


5.1.1.1.2.2.2 Test RB = RB1#49



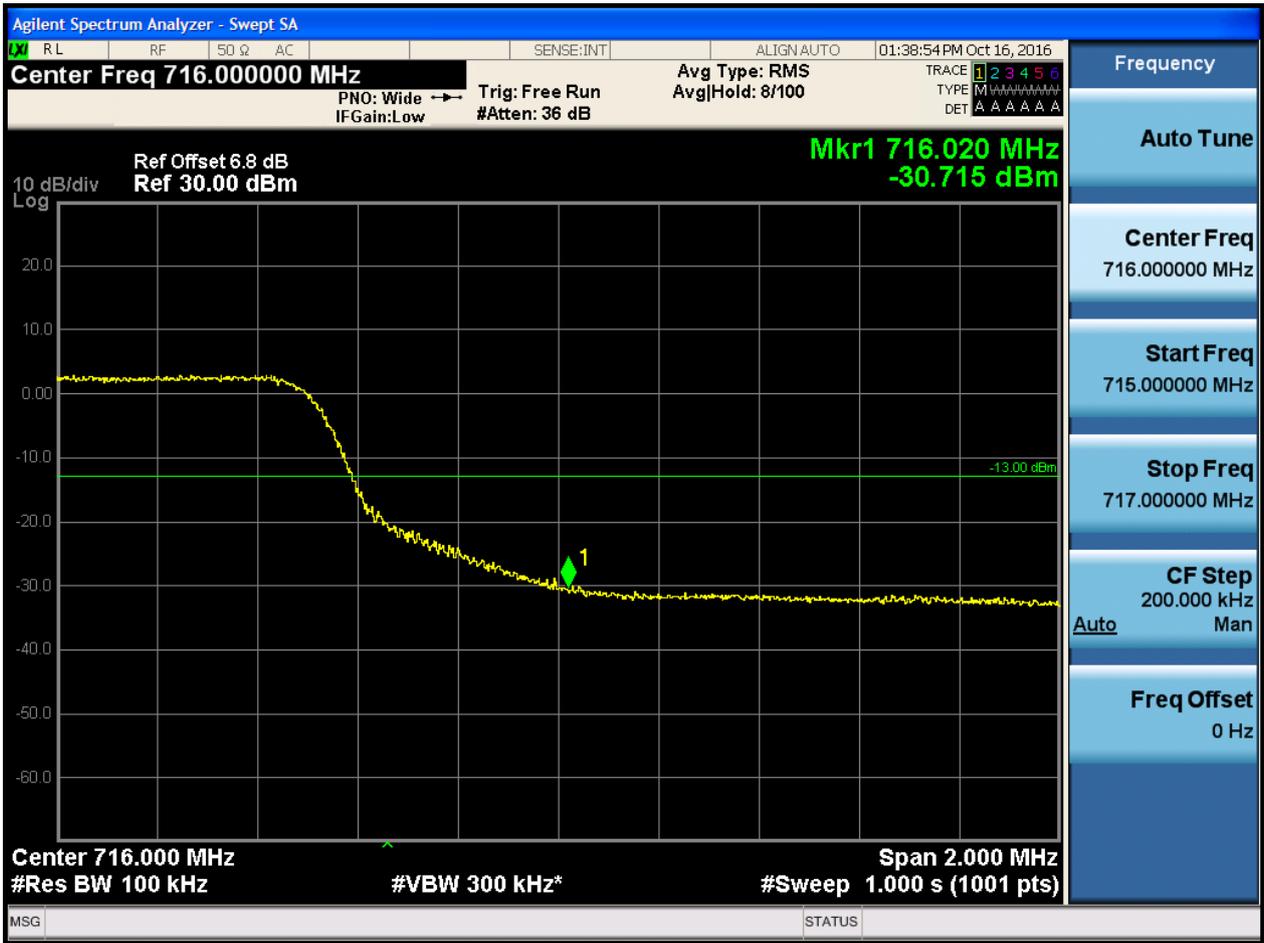


5.1.1.1.2.2.3 Test RB = RB25#13





5.1.1.1.2.2.4 Test RB = RB50#0



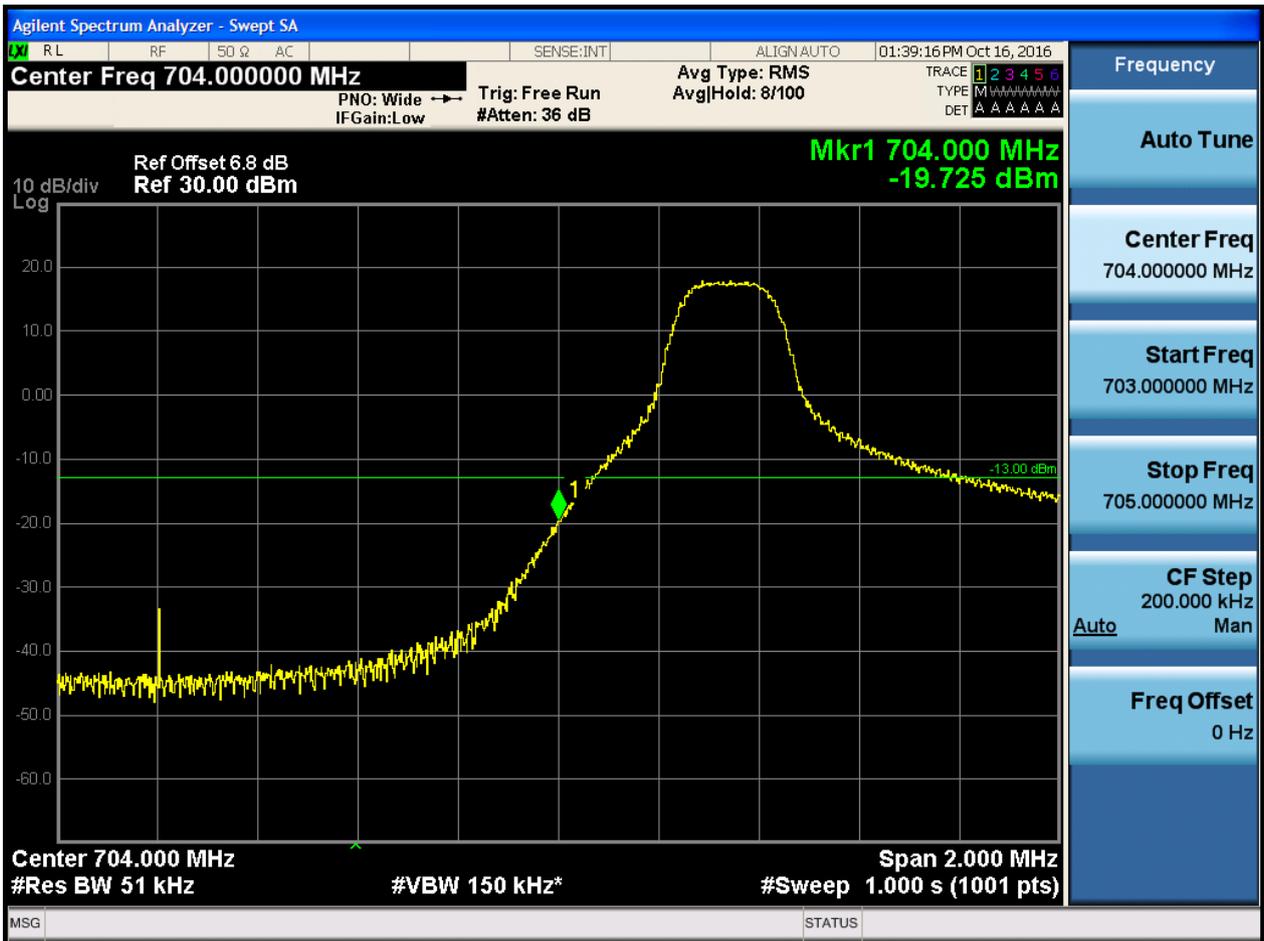


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

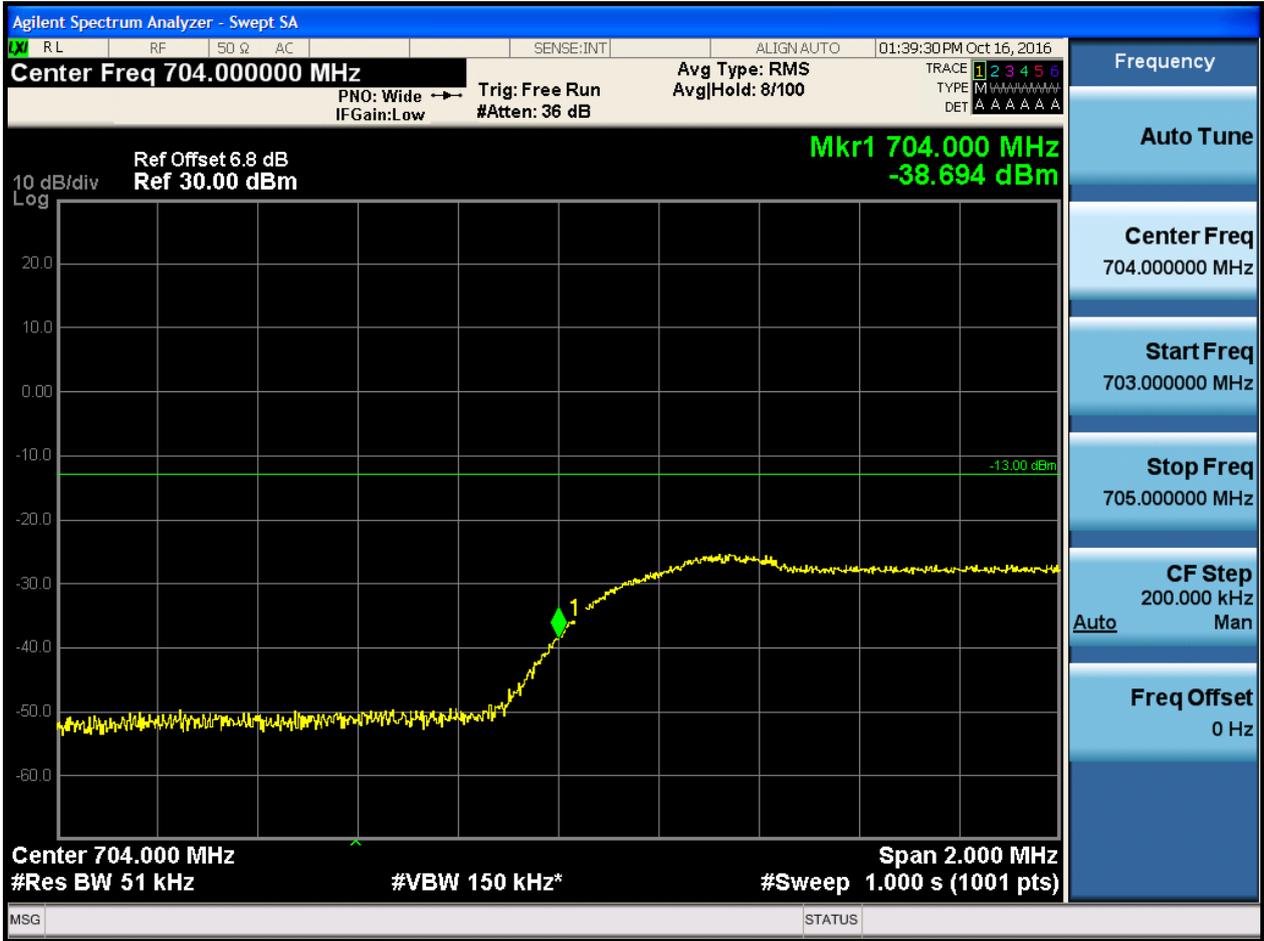
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



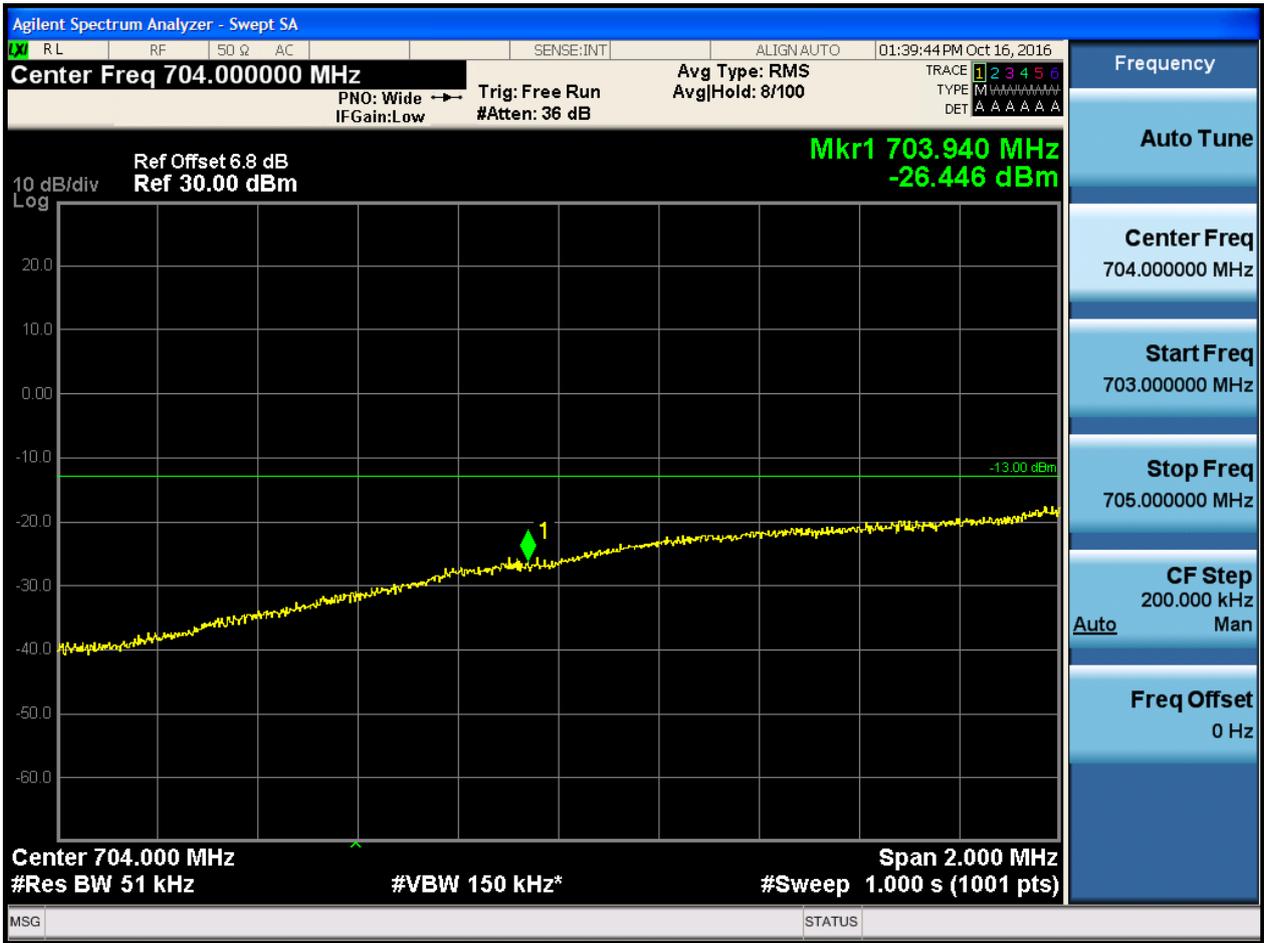


5.1.1.2.1.1.2 Test RB = RB1#24





5.1.1.2.1.1.3 Test RB = RB12#6





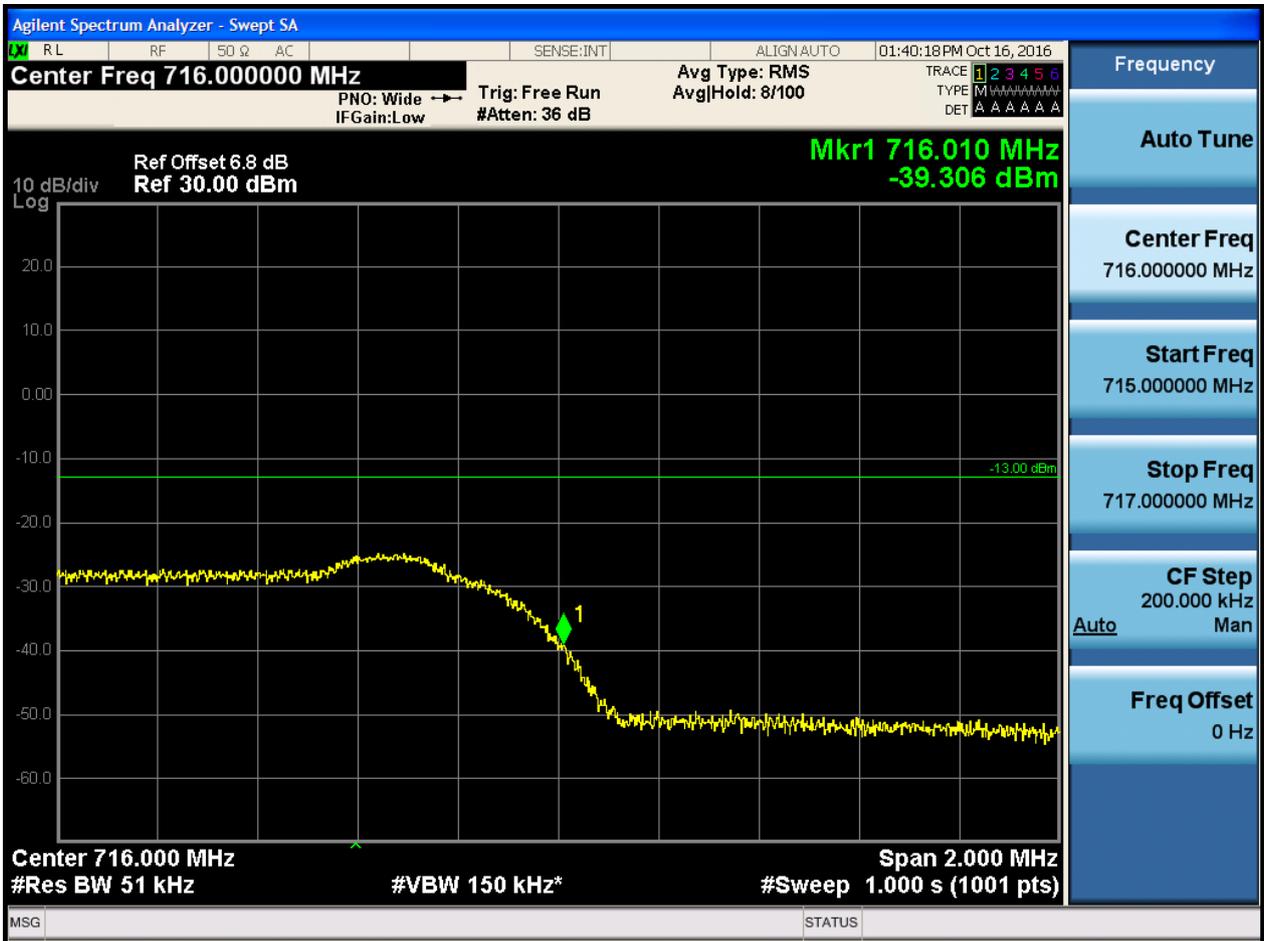
5.1.1.2.1.1.4 Test RB = RB25#0





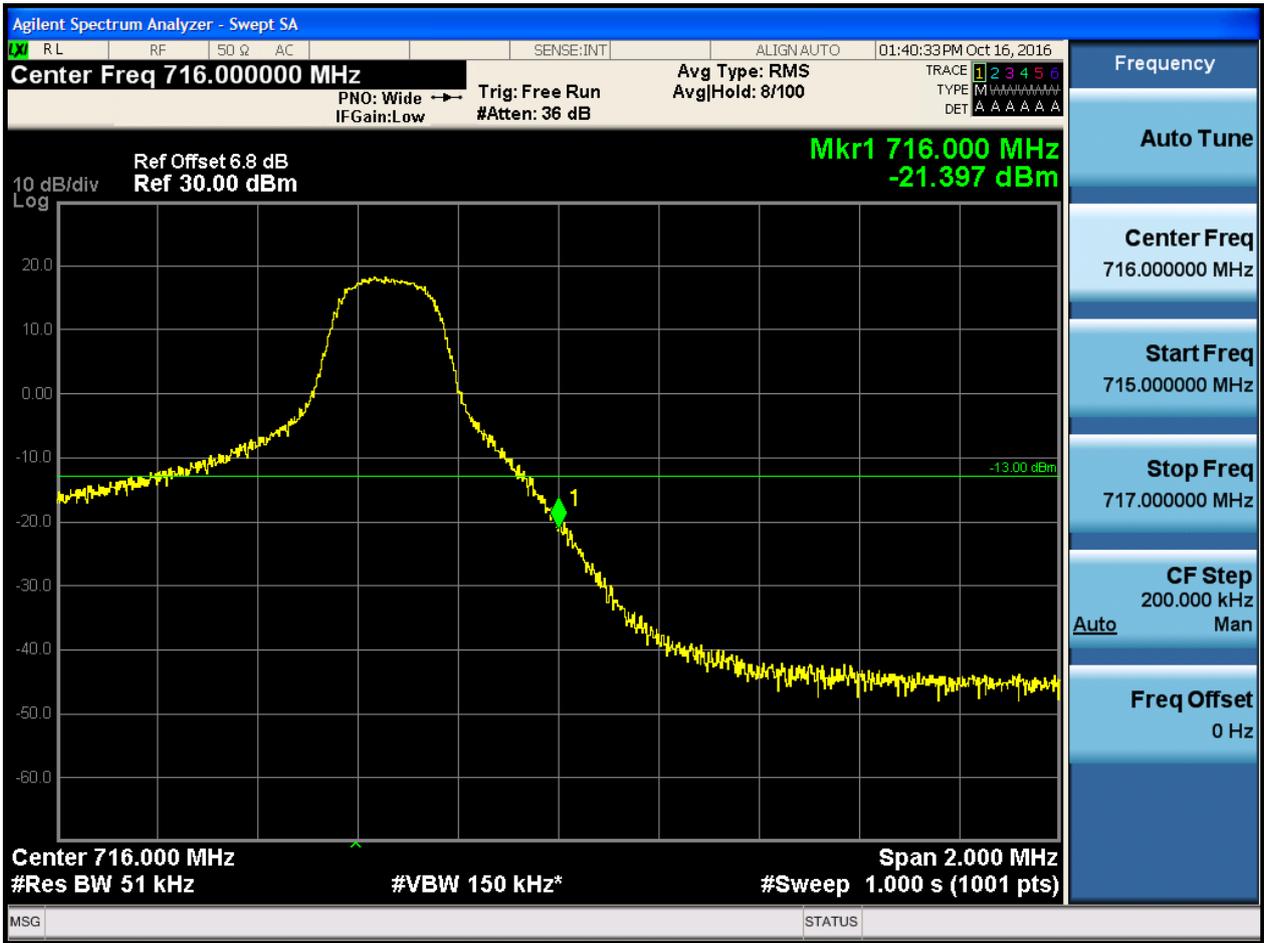
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





5.1.1.2.1.2.2 Test RB = RB1#24



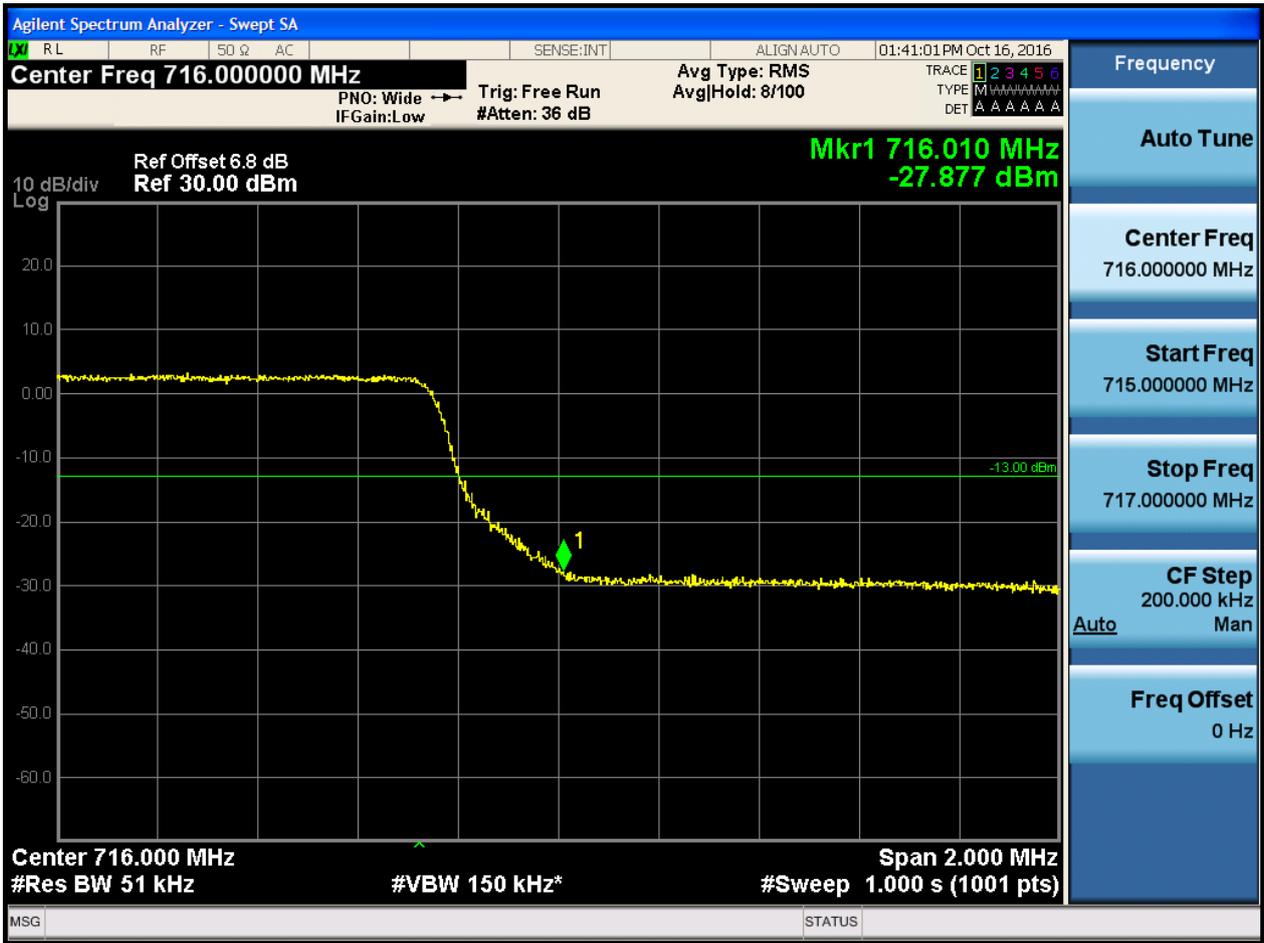


5.1.1.2.1.2.3 Test RB = RB12#6





5.1.1.2.1.2.4 Test RB = RB25#0

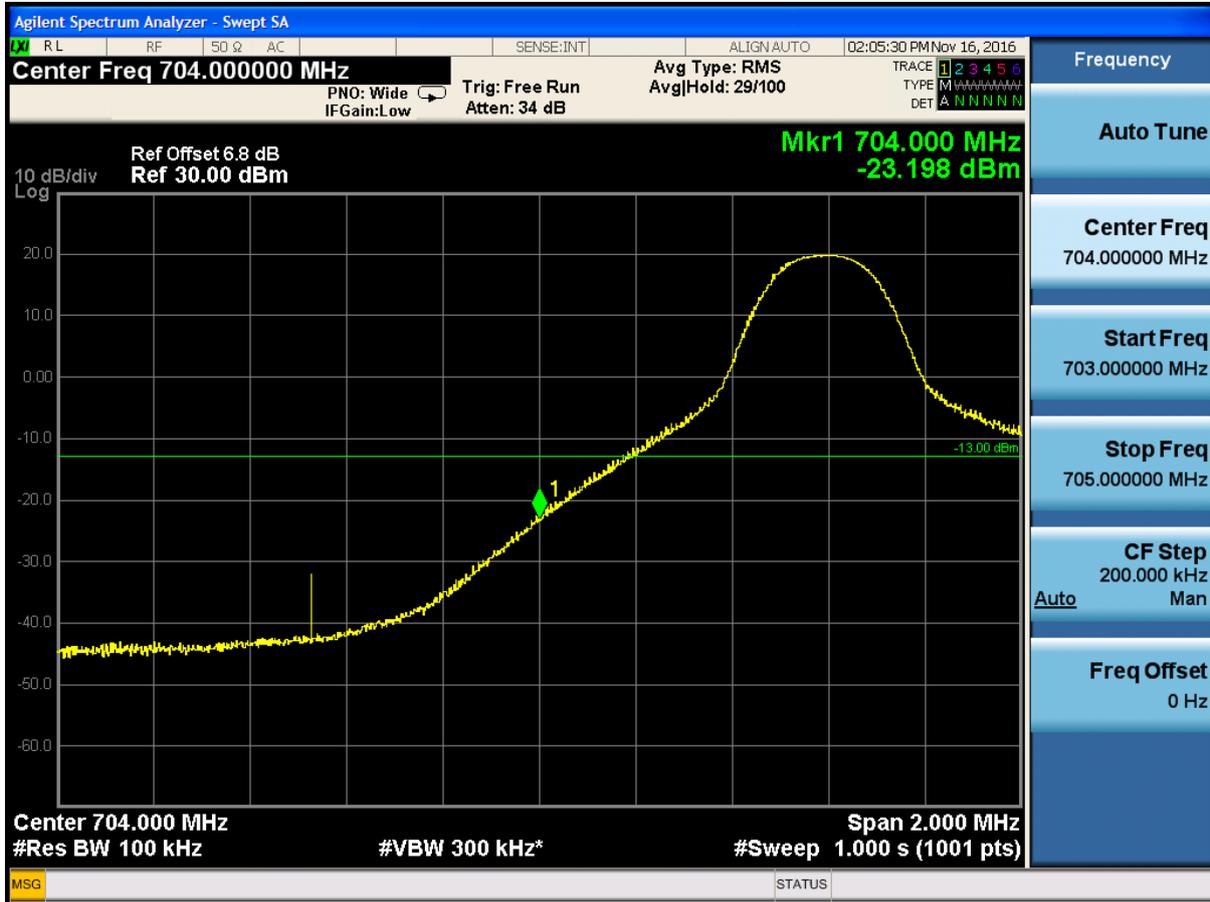




5.1.1.2.2 Test Bandwidth = 10

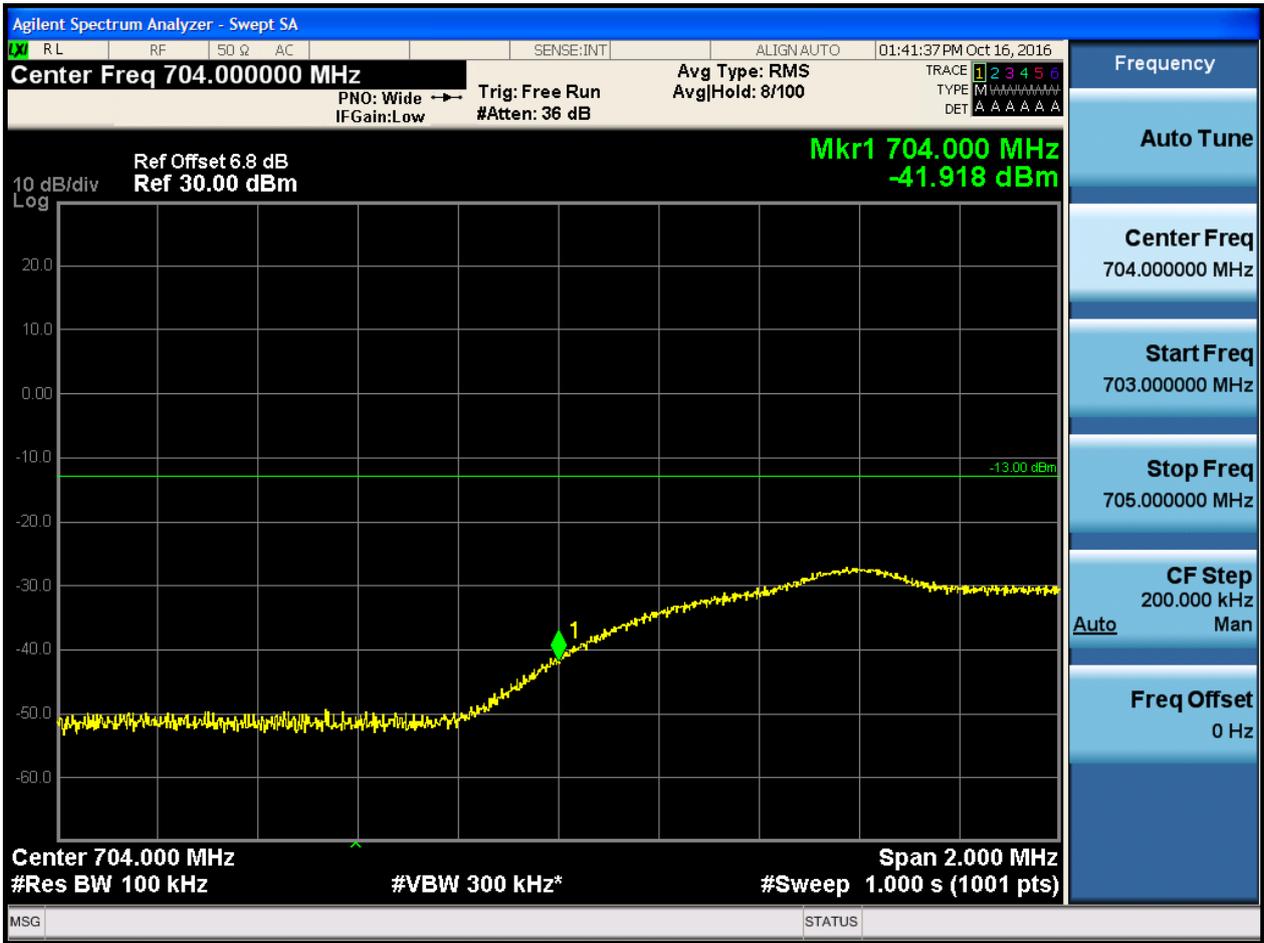
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0



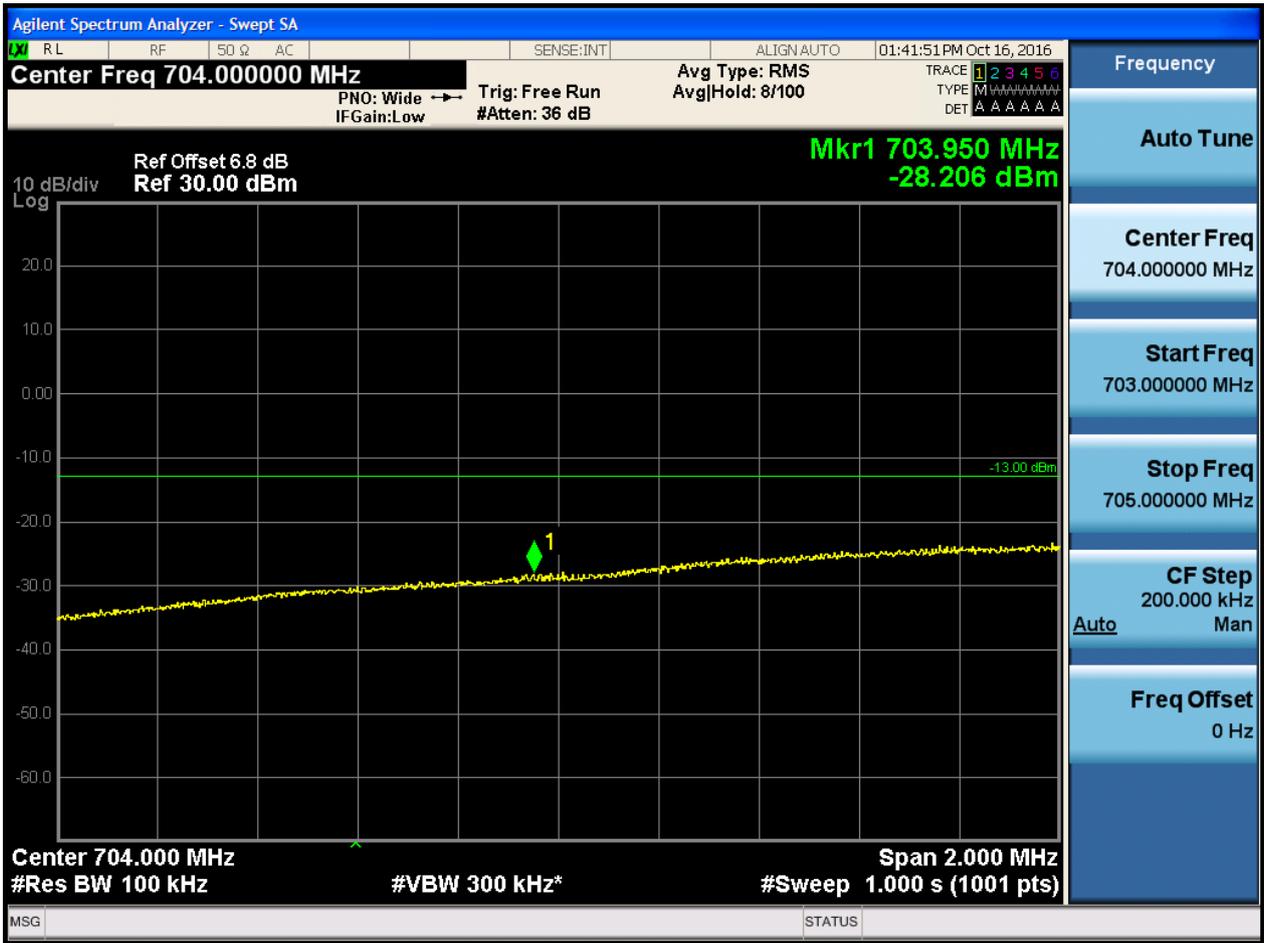


5.1.1.2.2.1.2 Test RB = RB1#49



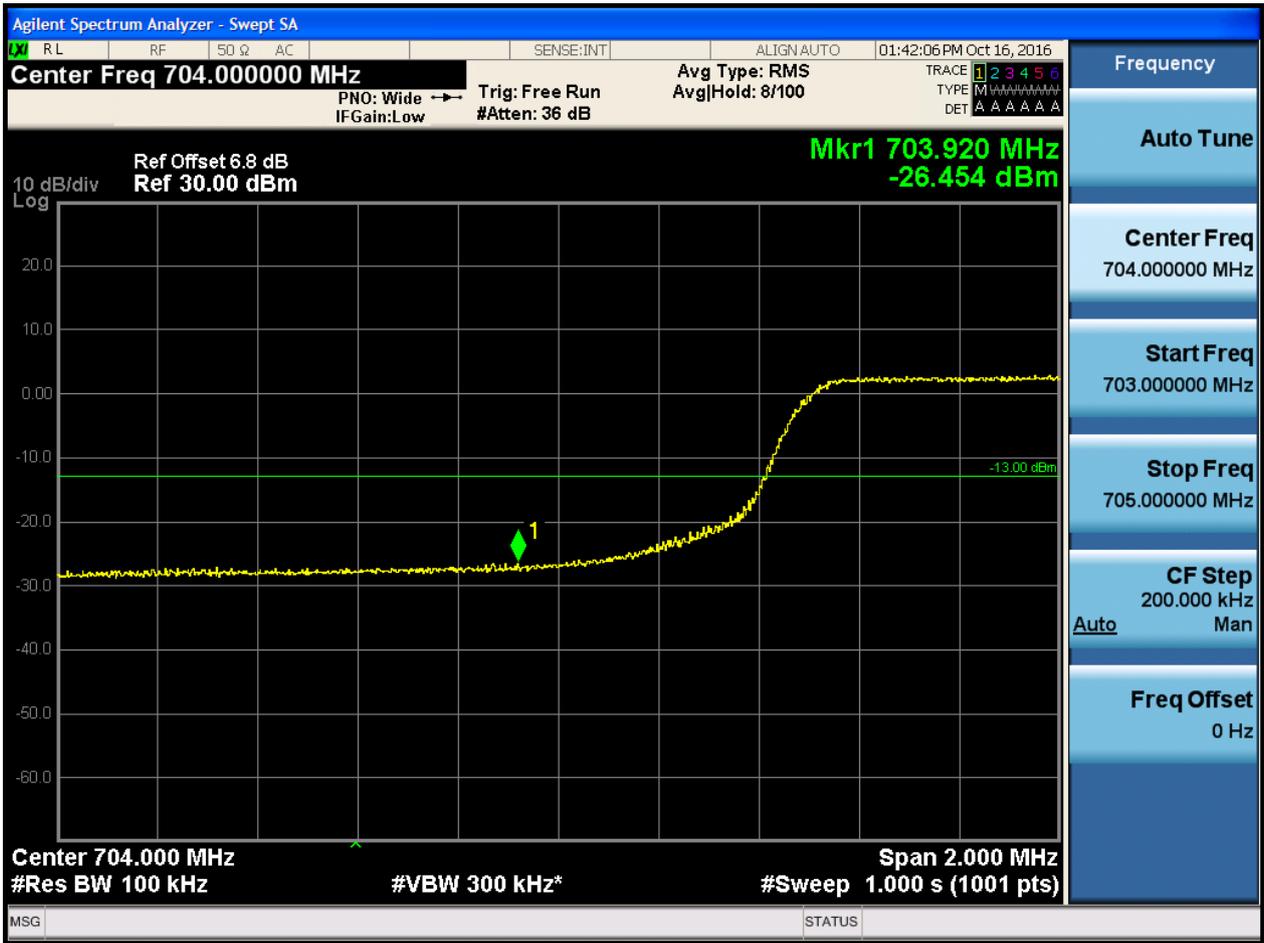


5.1.1.2.2.1.3 Test RB = RB25#13





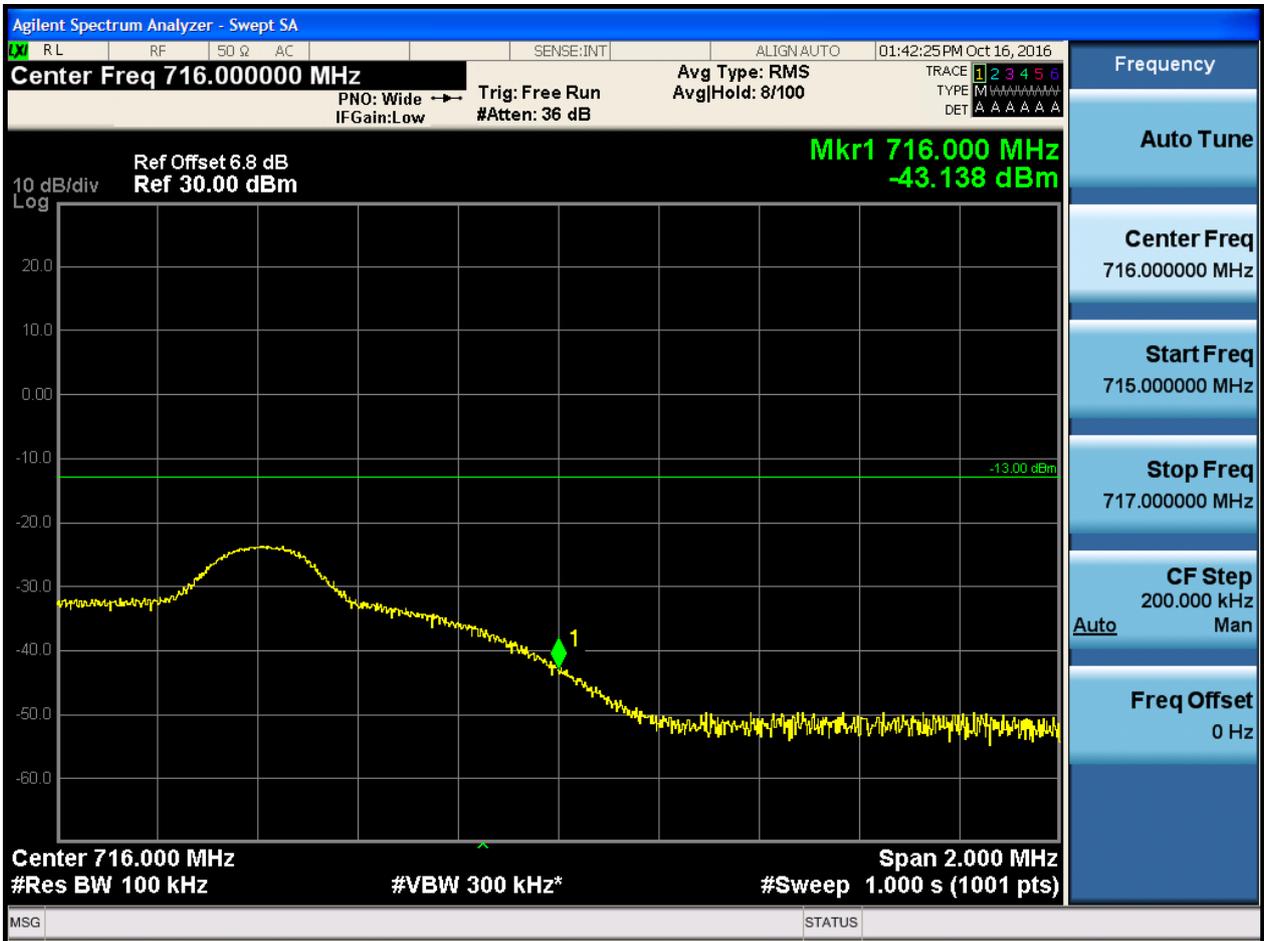
5.1.1.2.2.1.4 Test RB = RB50#0





5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



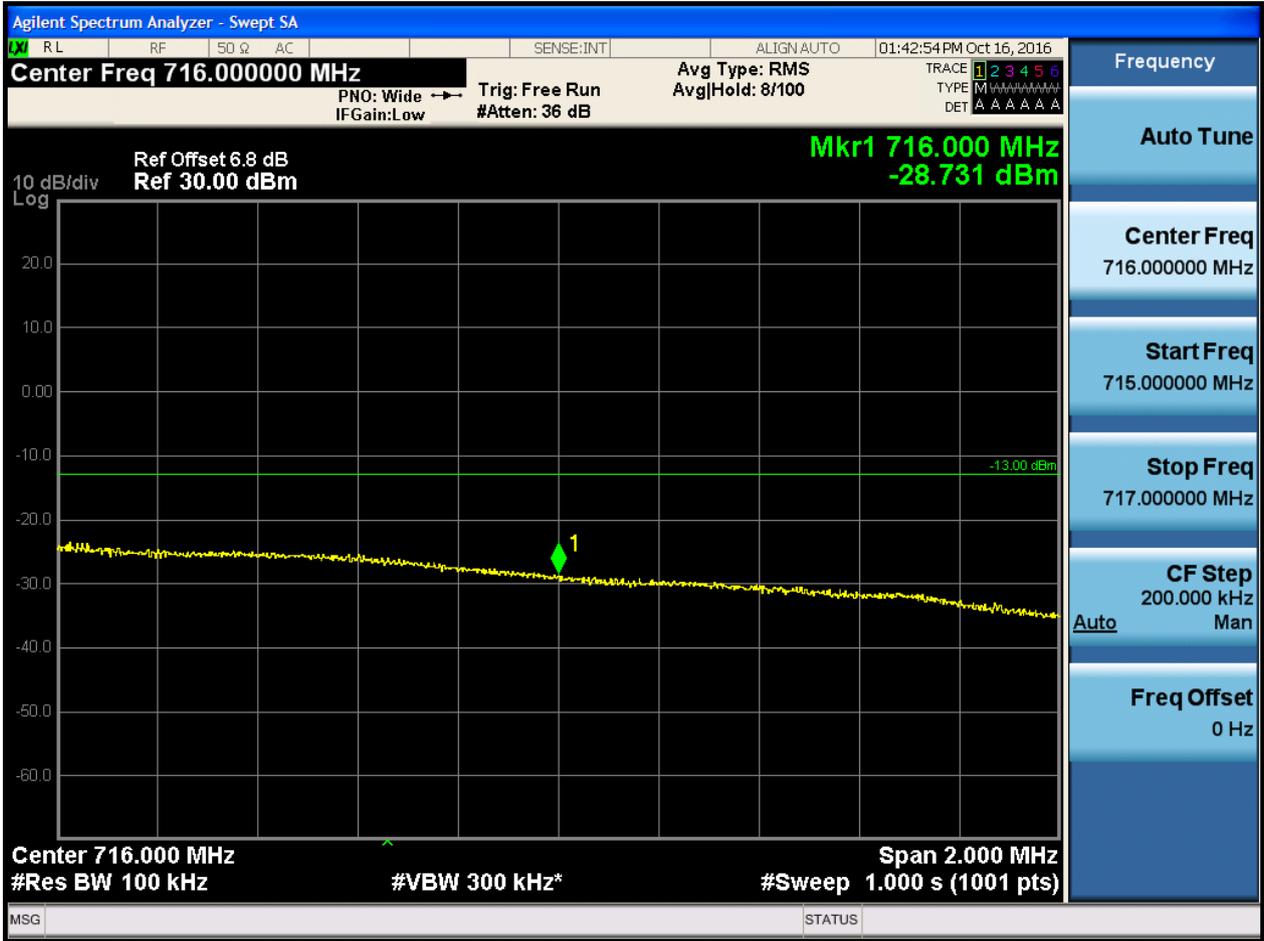


5.1.1.2.2.2 Test RB = RB1#49



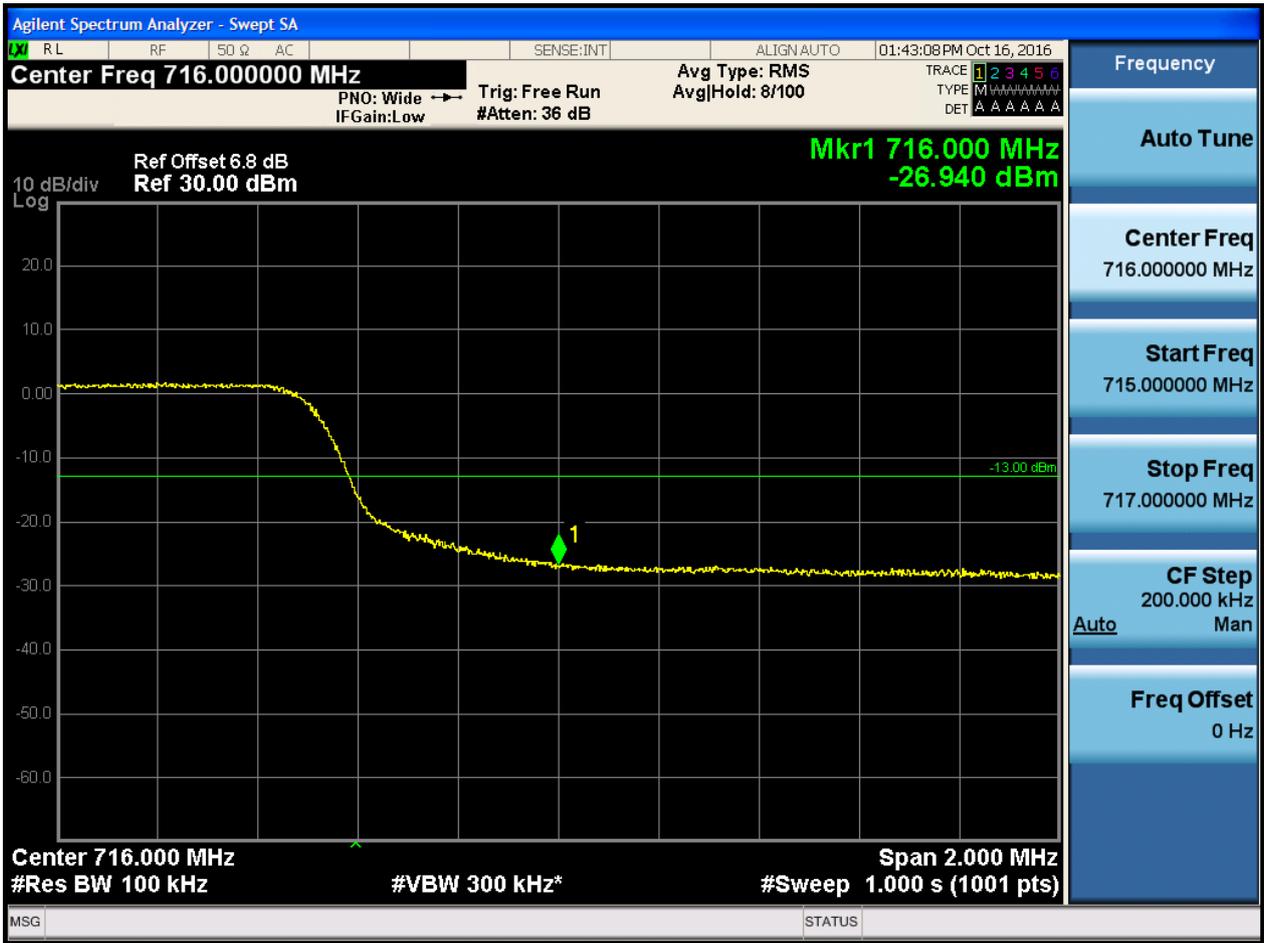


5.1.1.2.2.2.3 Test RB = RB25#13





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

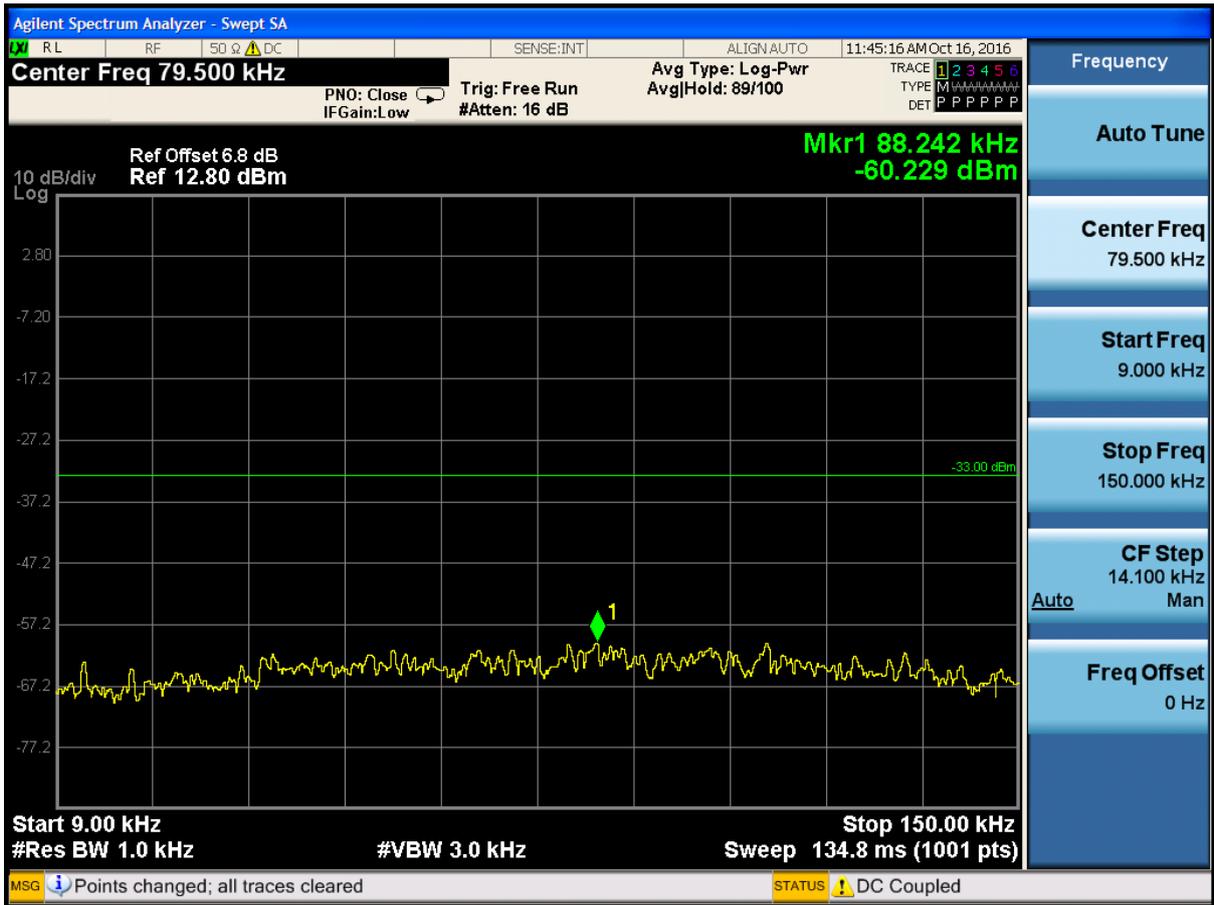
6.1.1 Test Band = BAND17

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

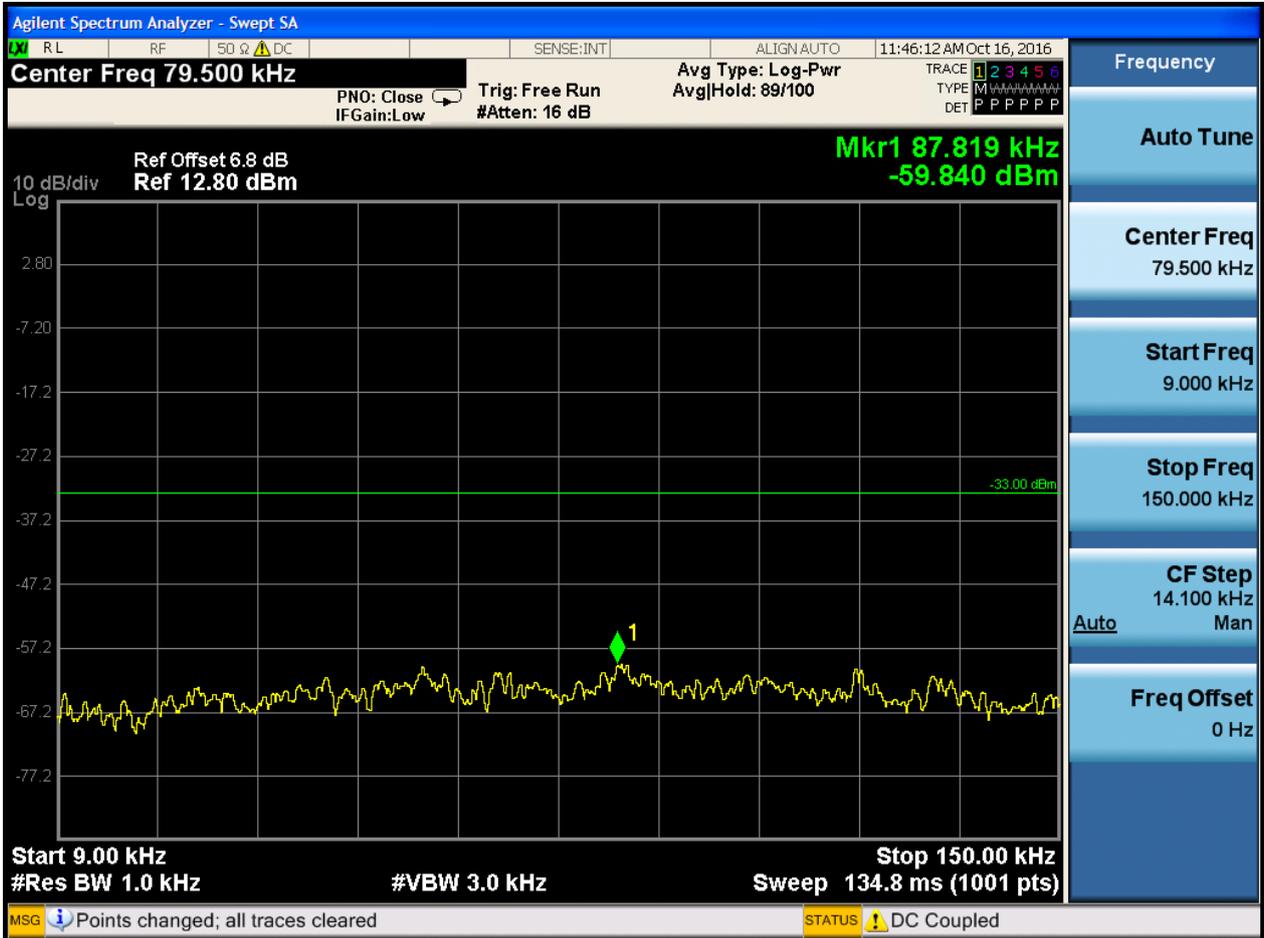




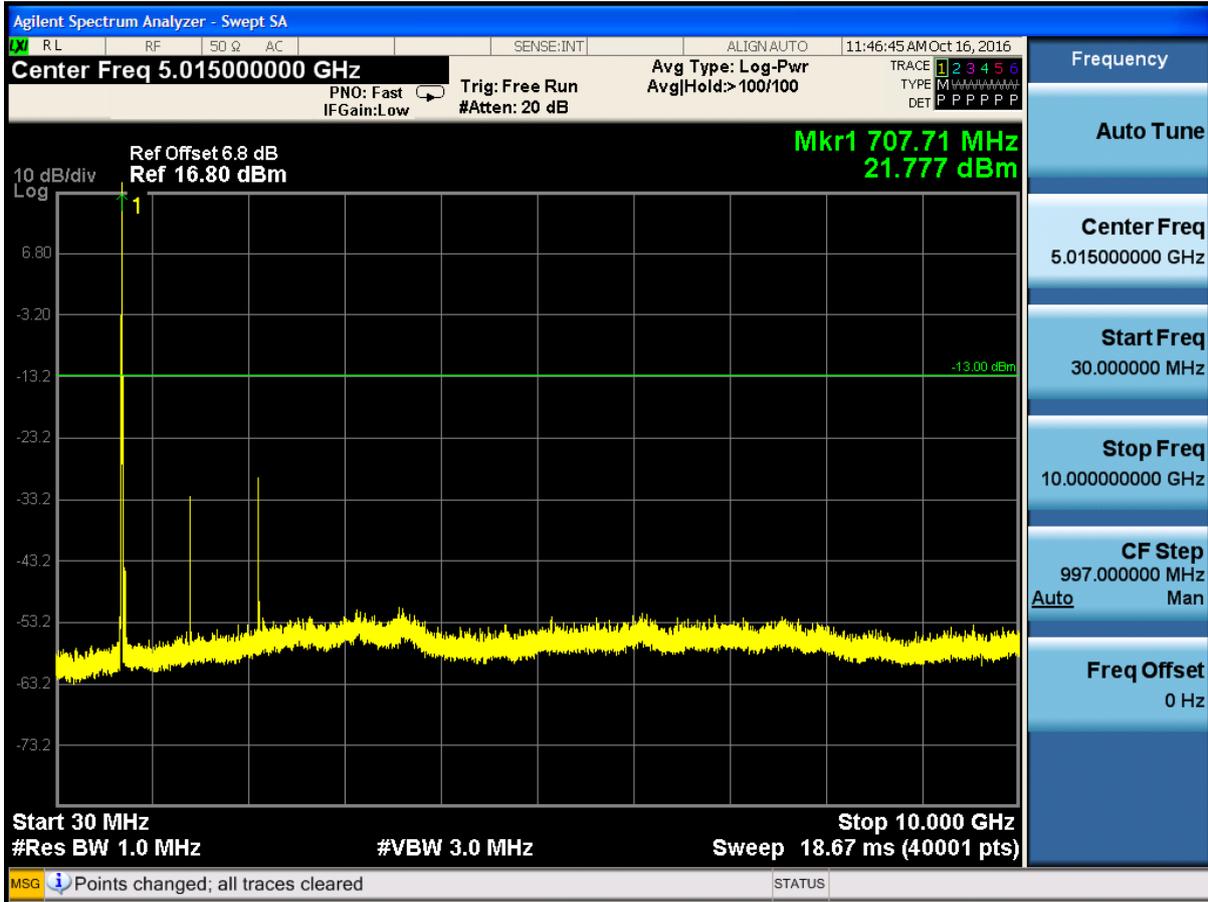


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



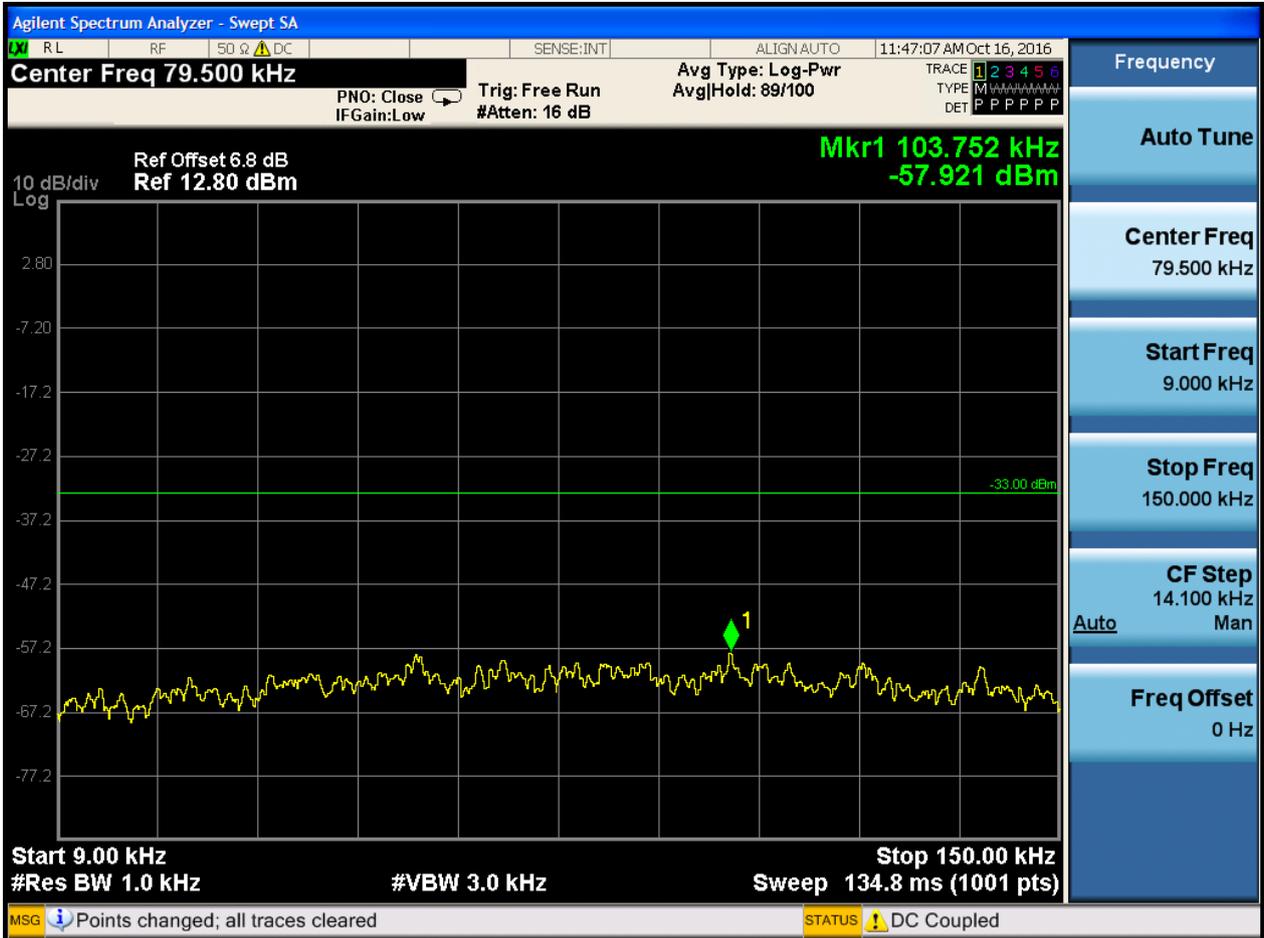


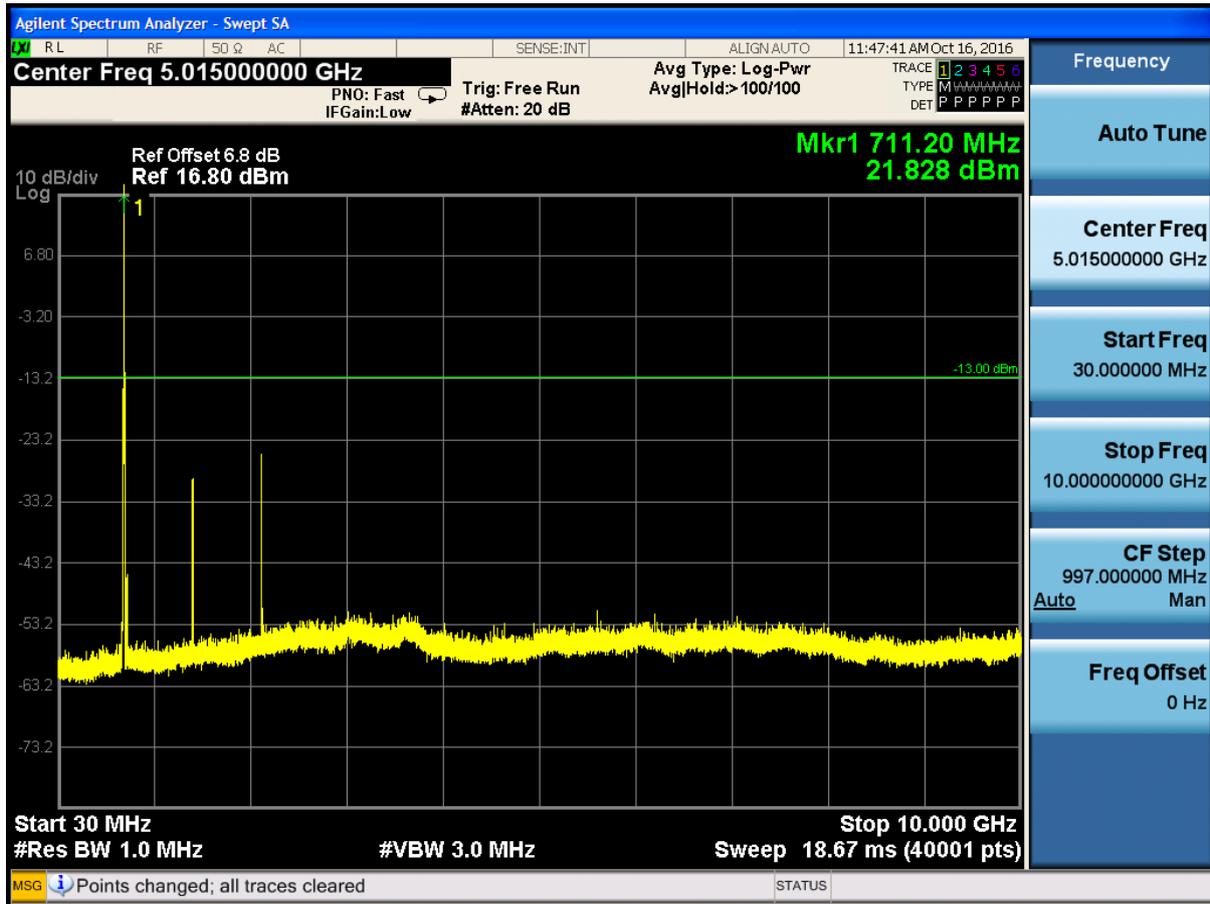




6.1.1.1.3 Test Channel = HCH

6.1.1.1.3.1 Test RB = RB1#0



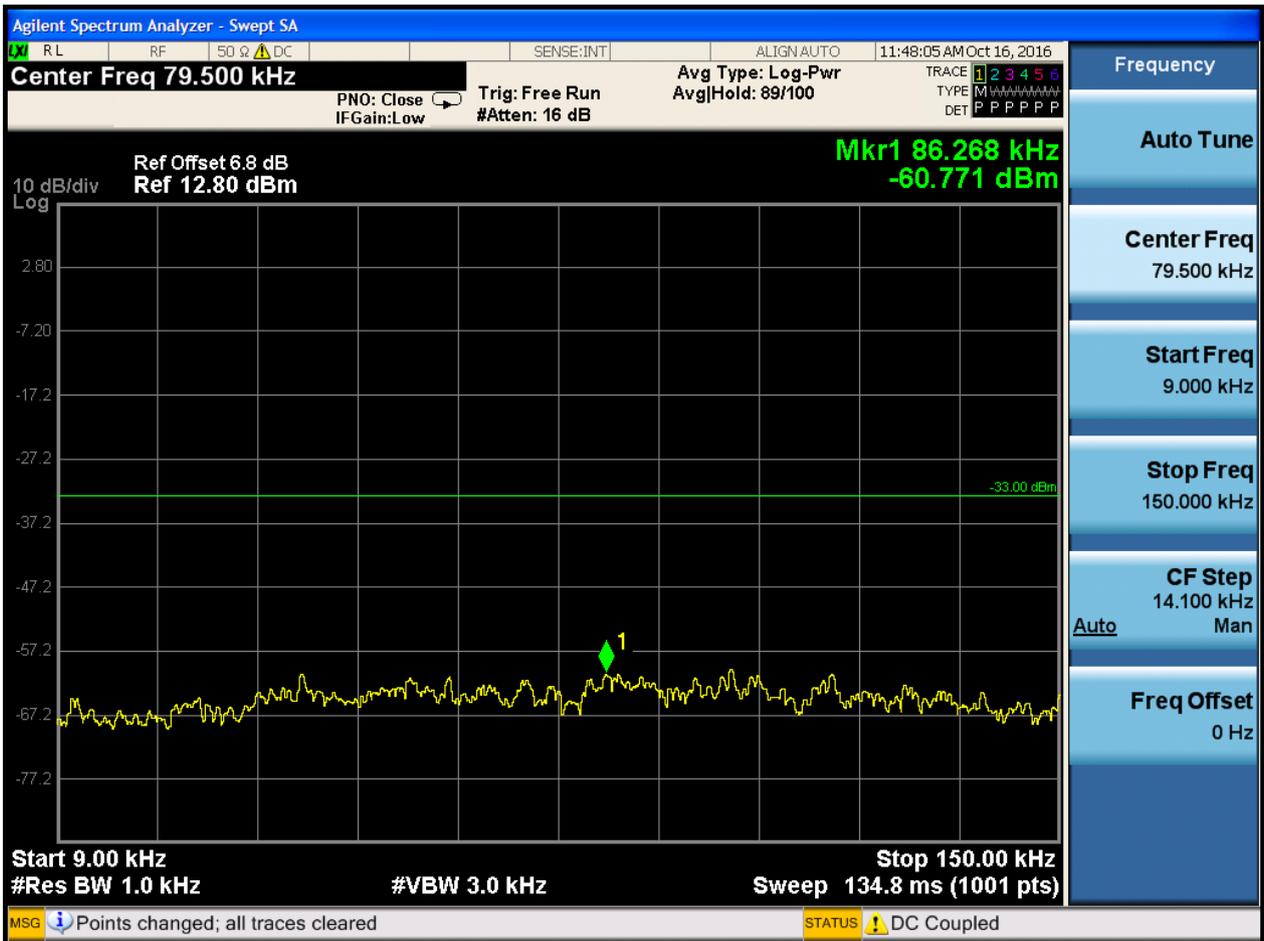


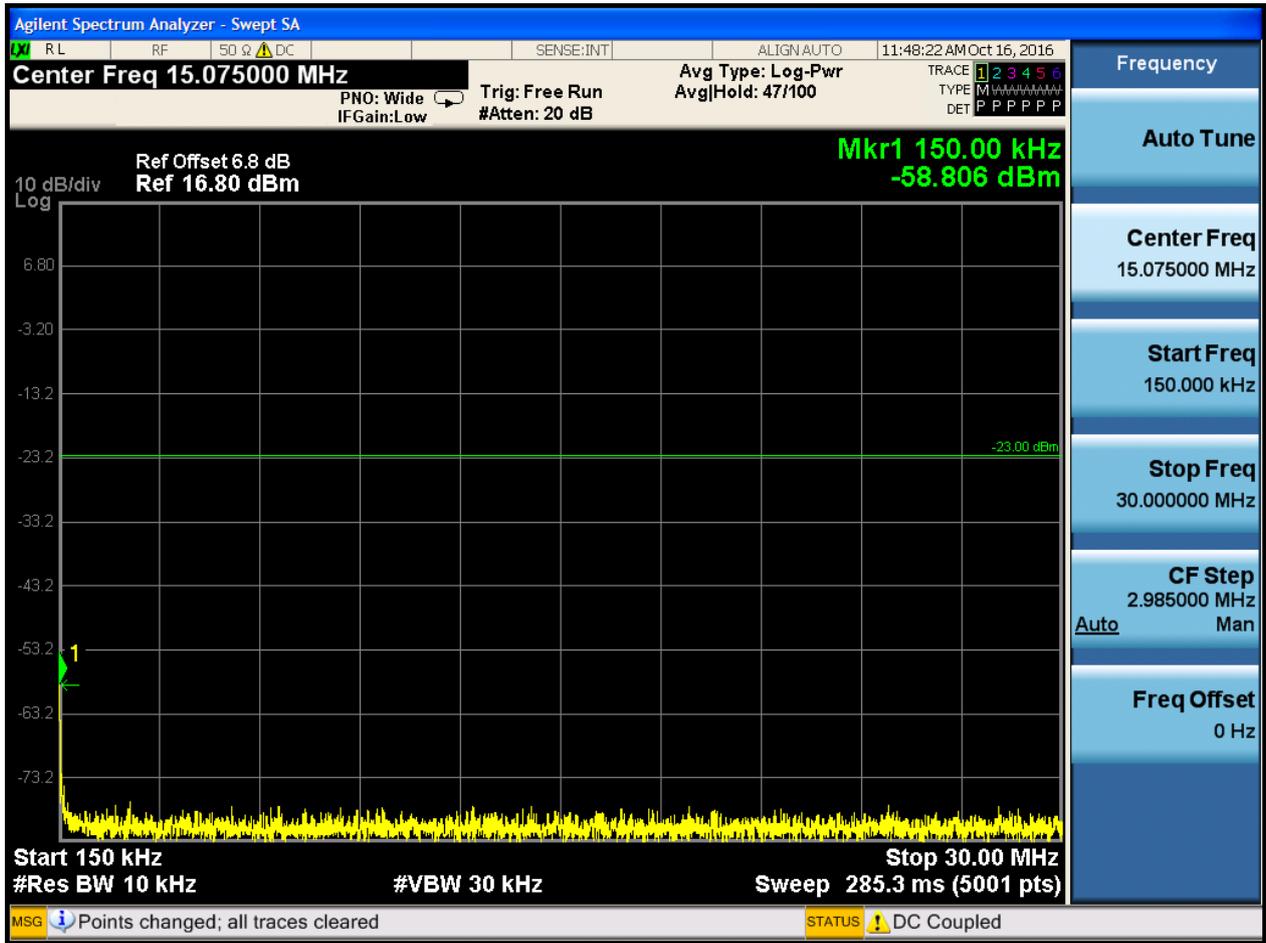


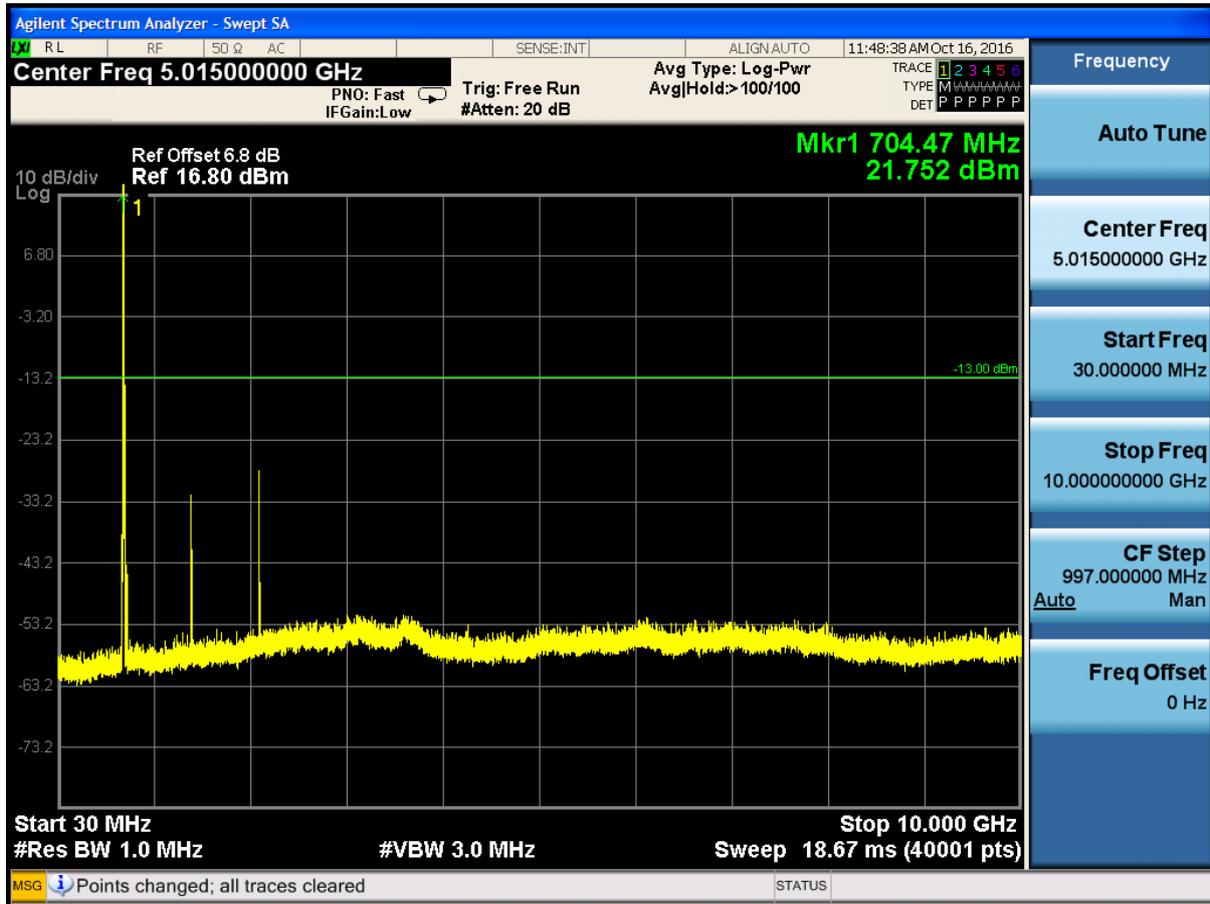
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0



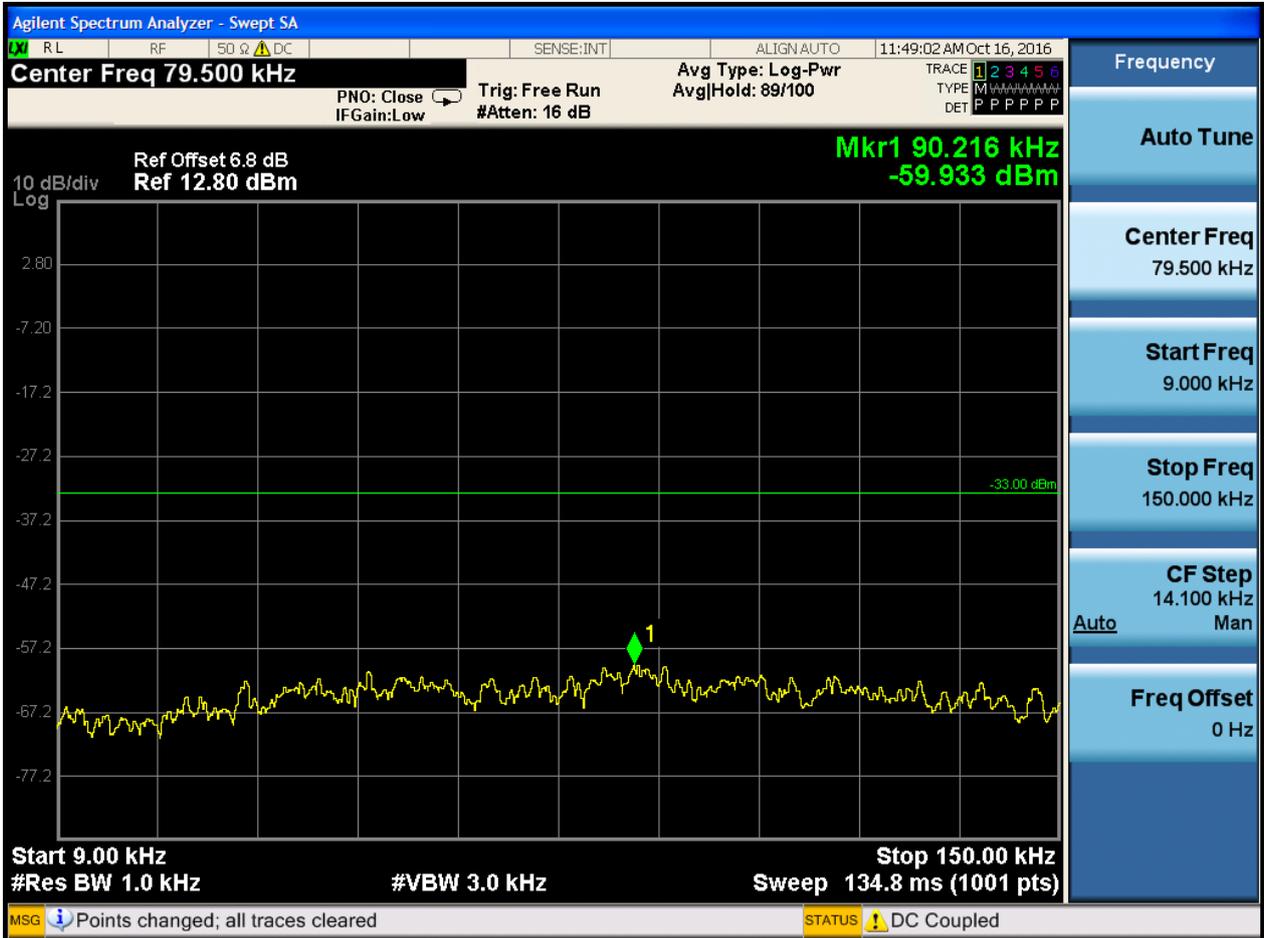


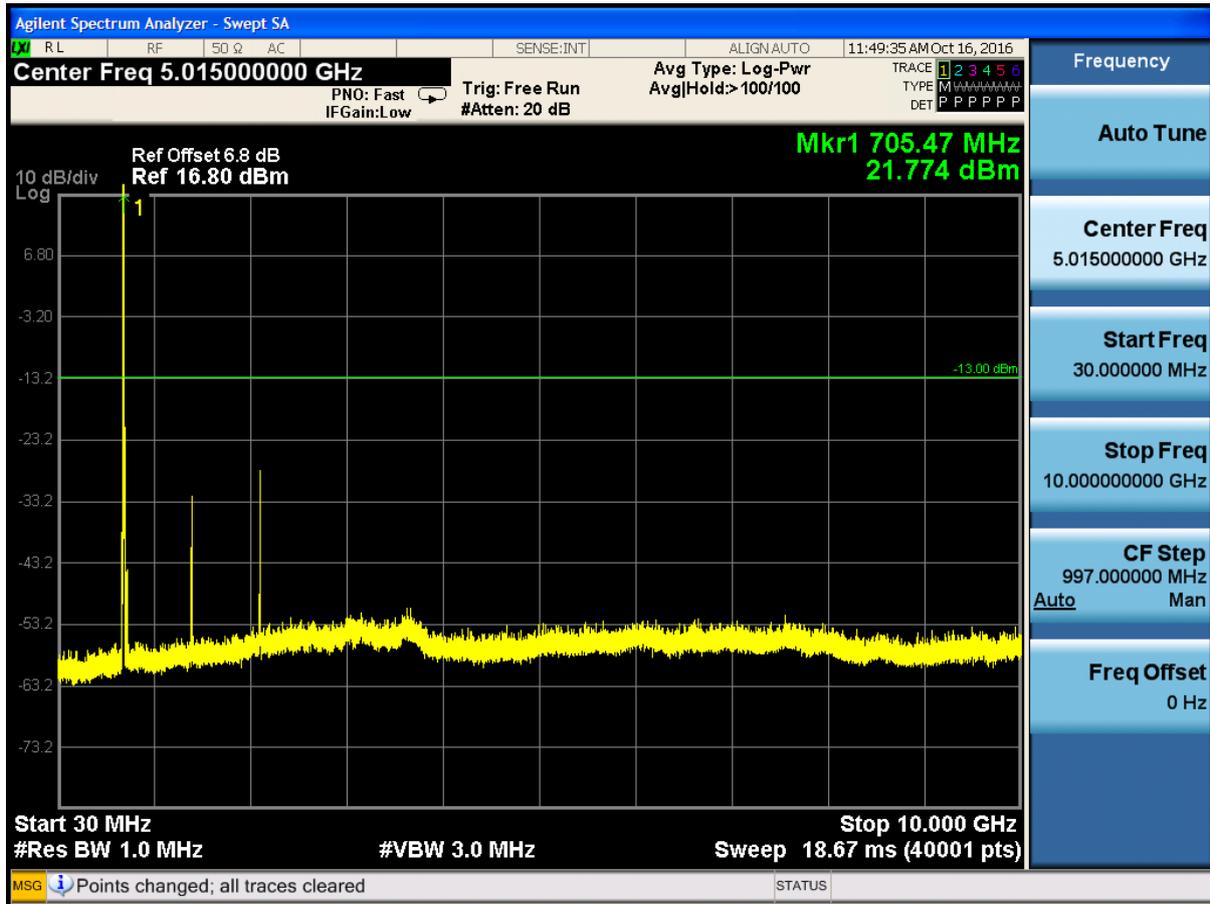




6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0

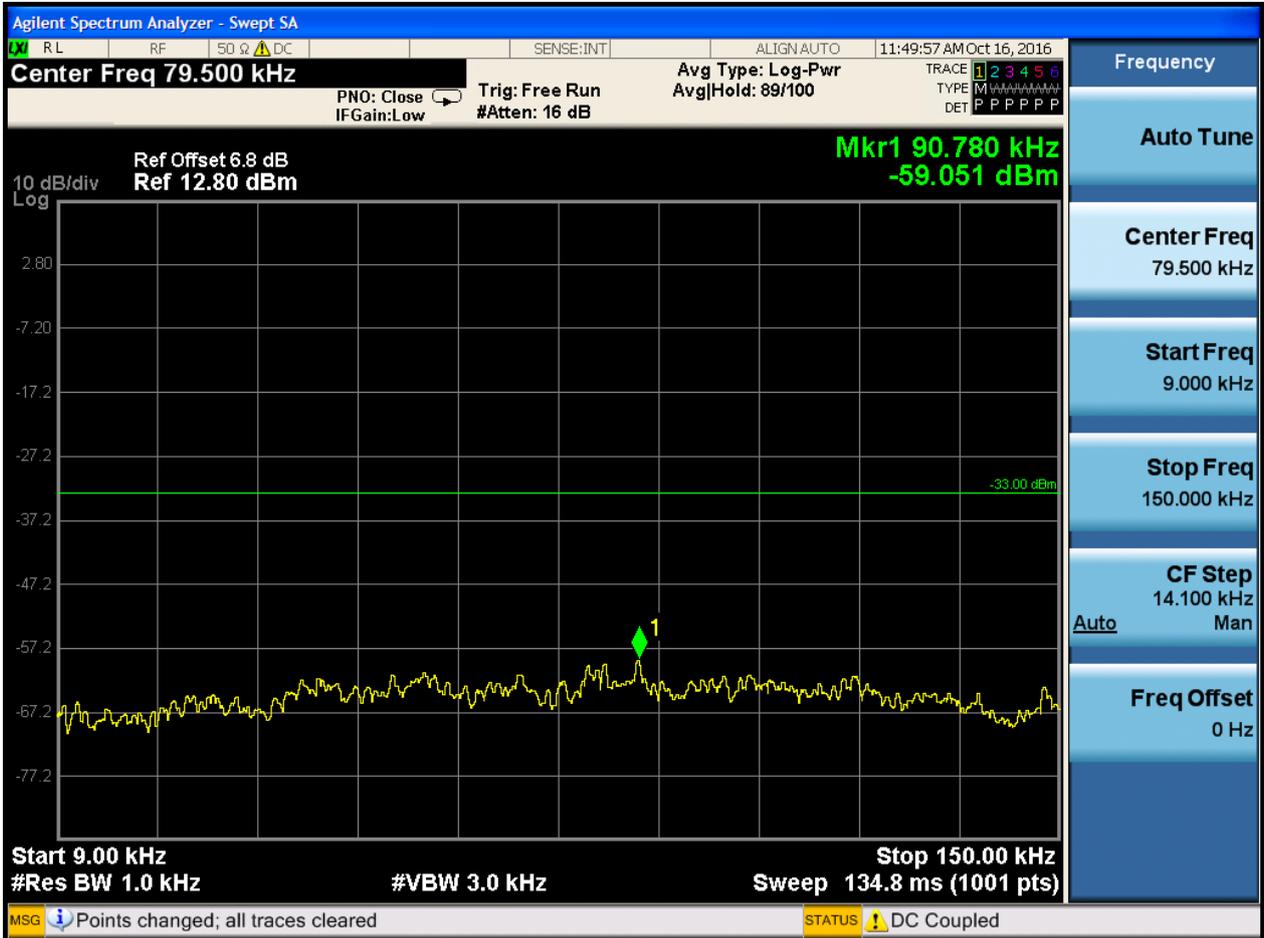


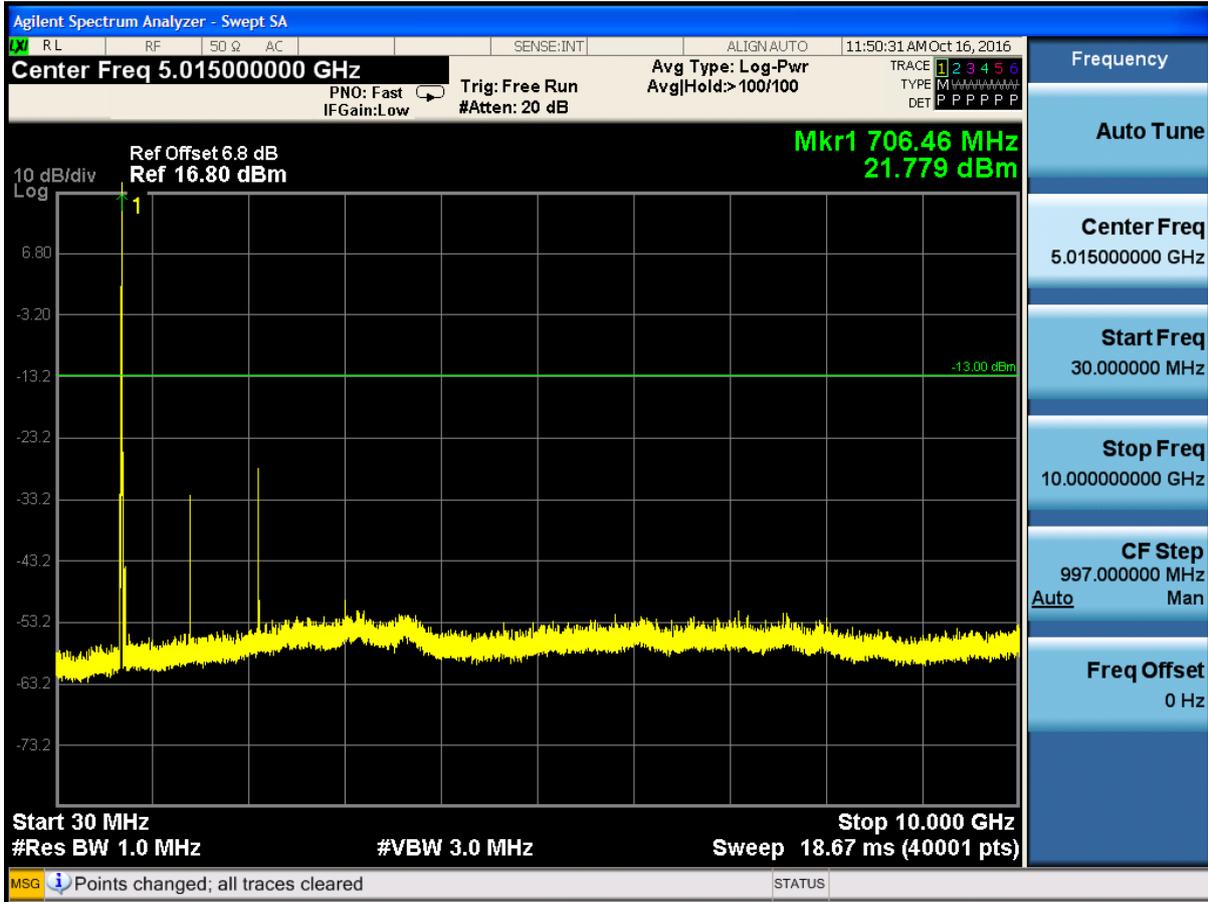




6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0





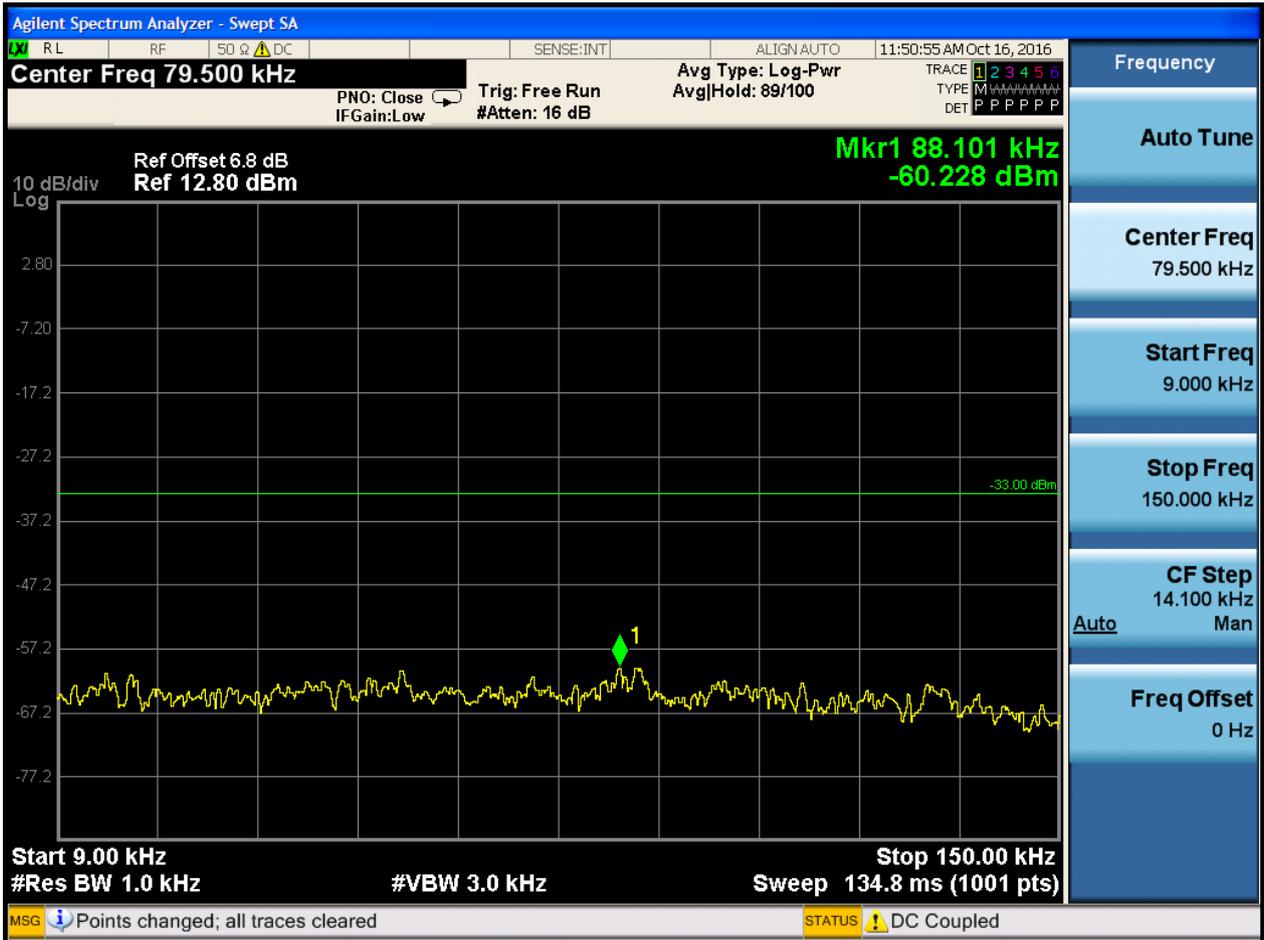


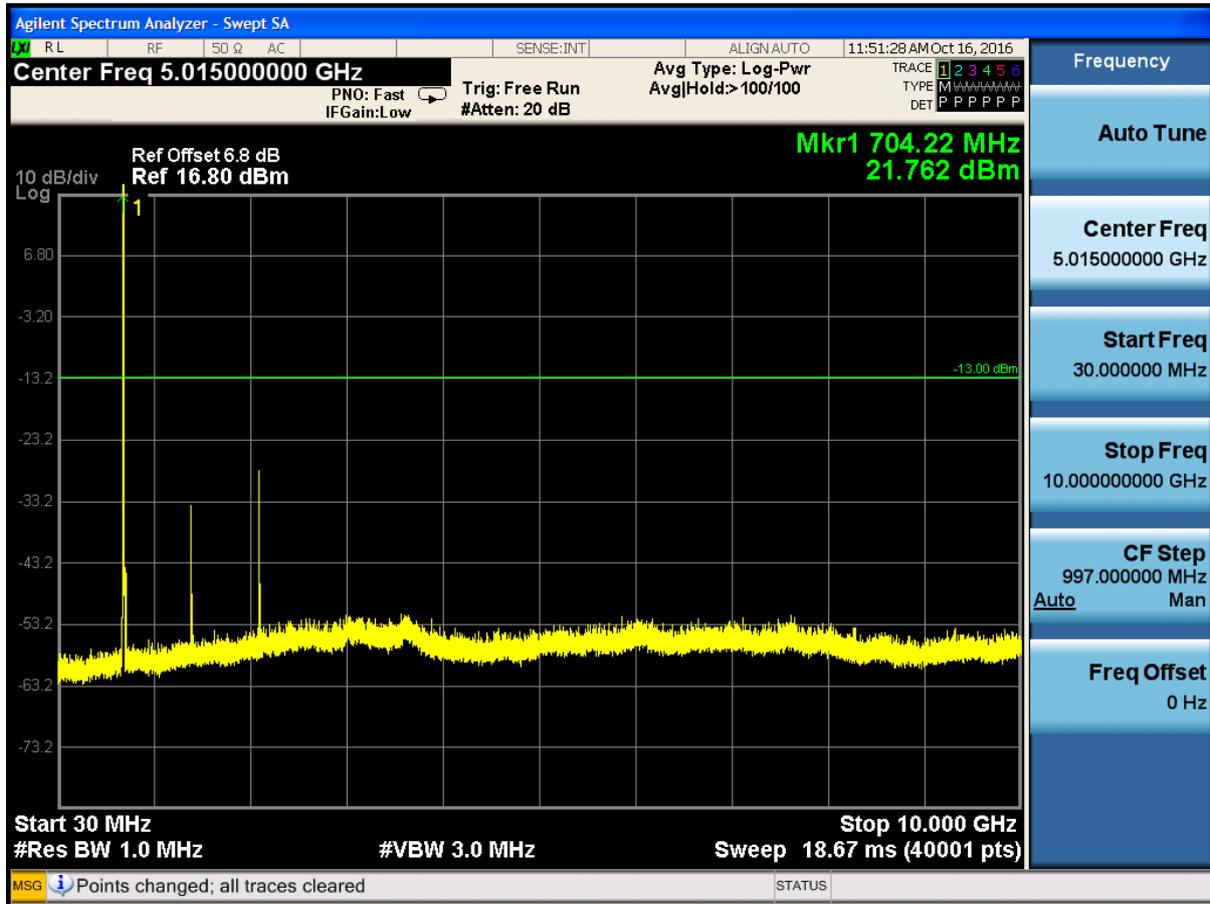
6.1.1.2 Test Mode = LTE/TM2

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

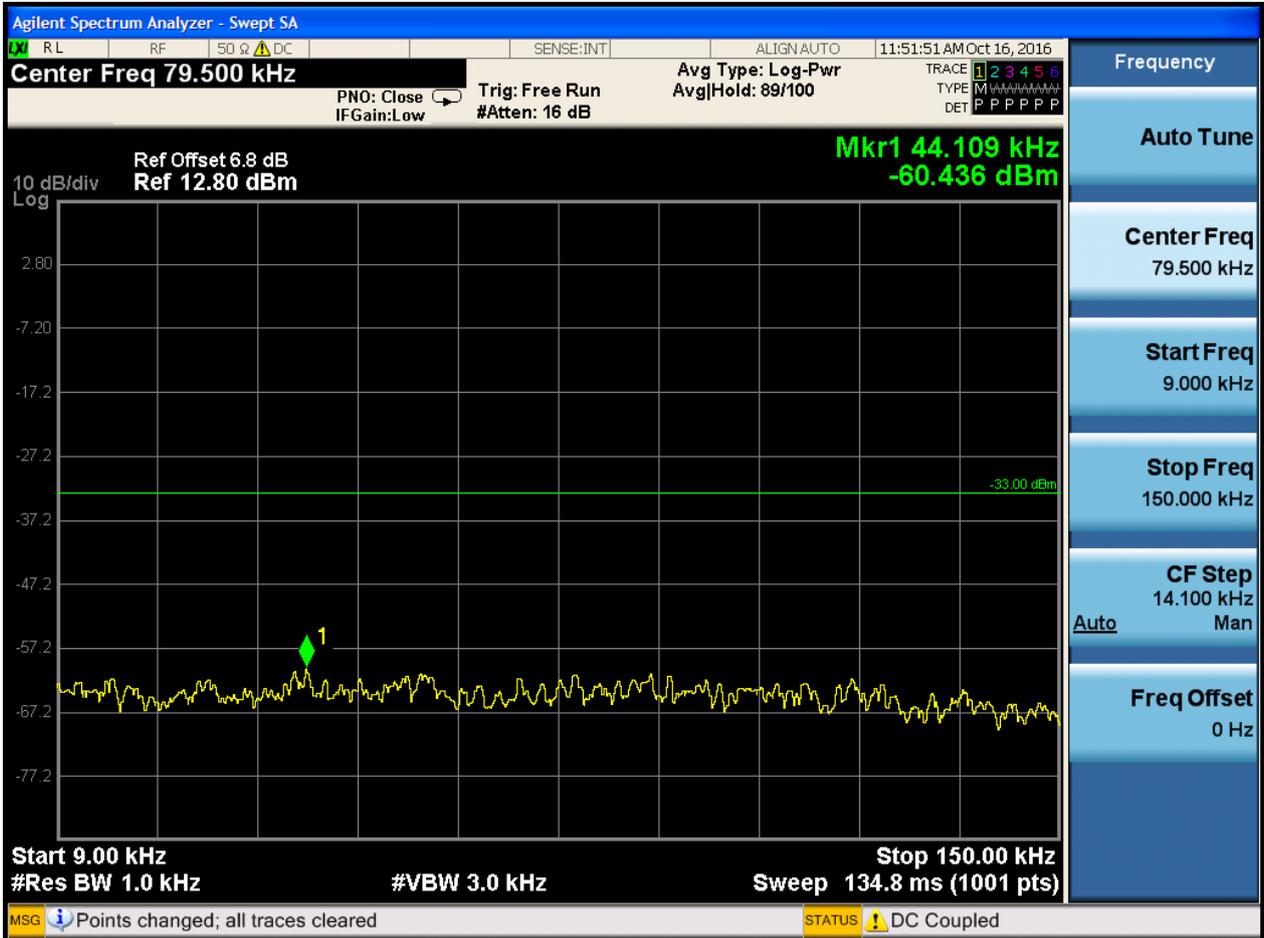


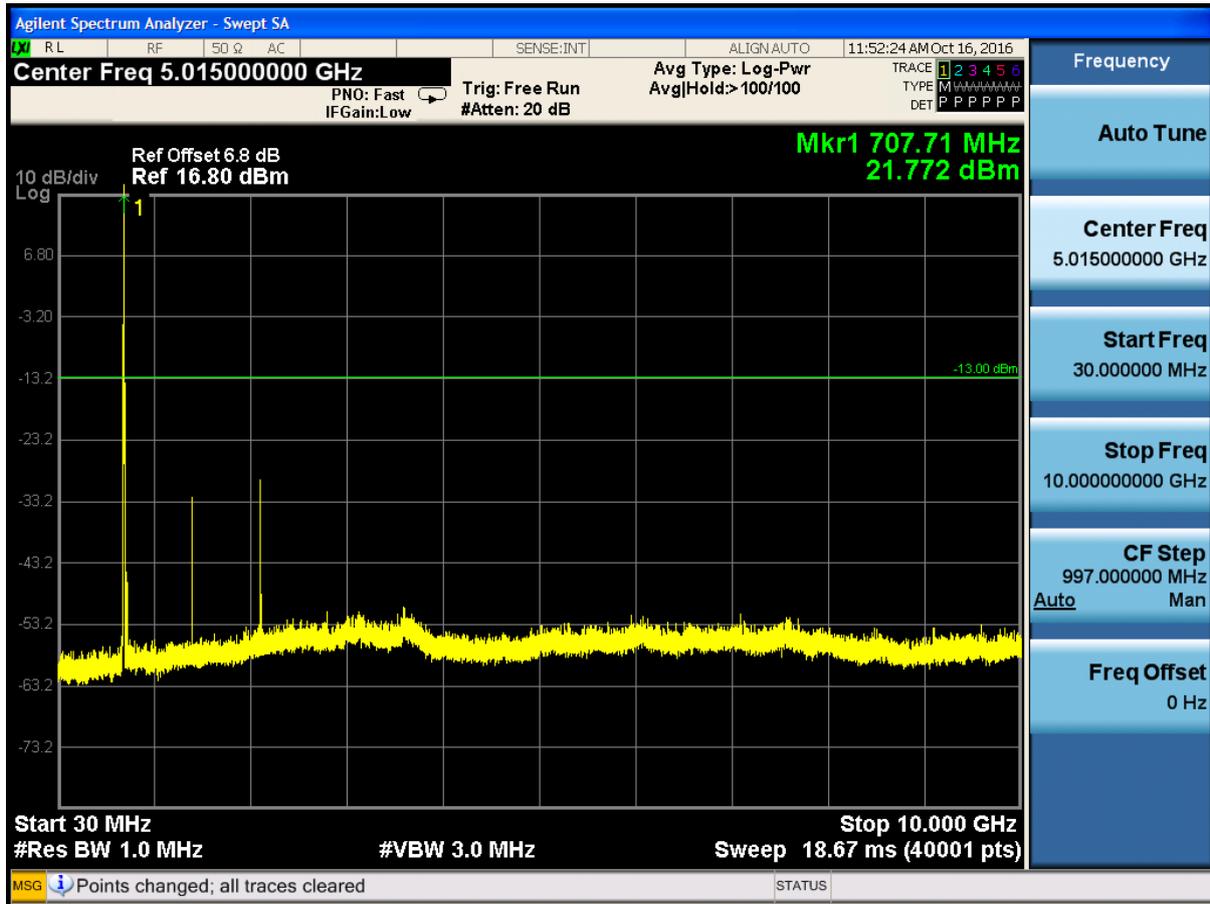




6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0

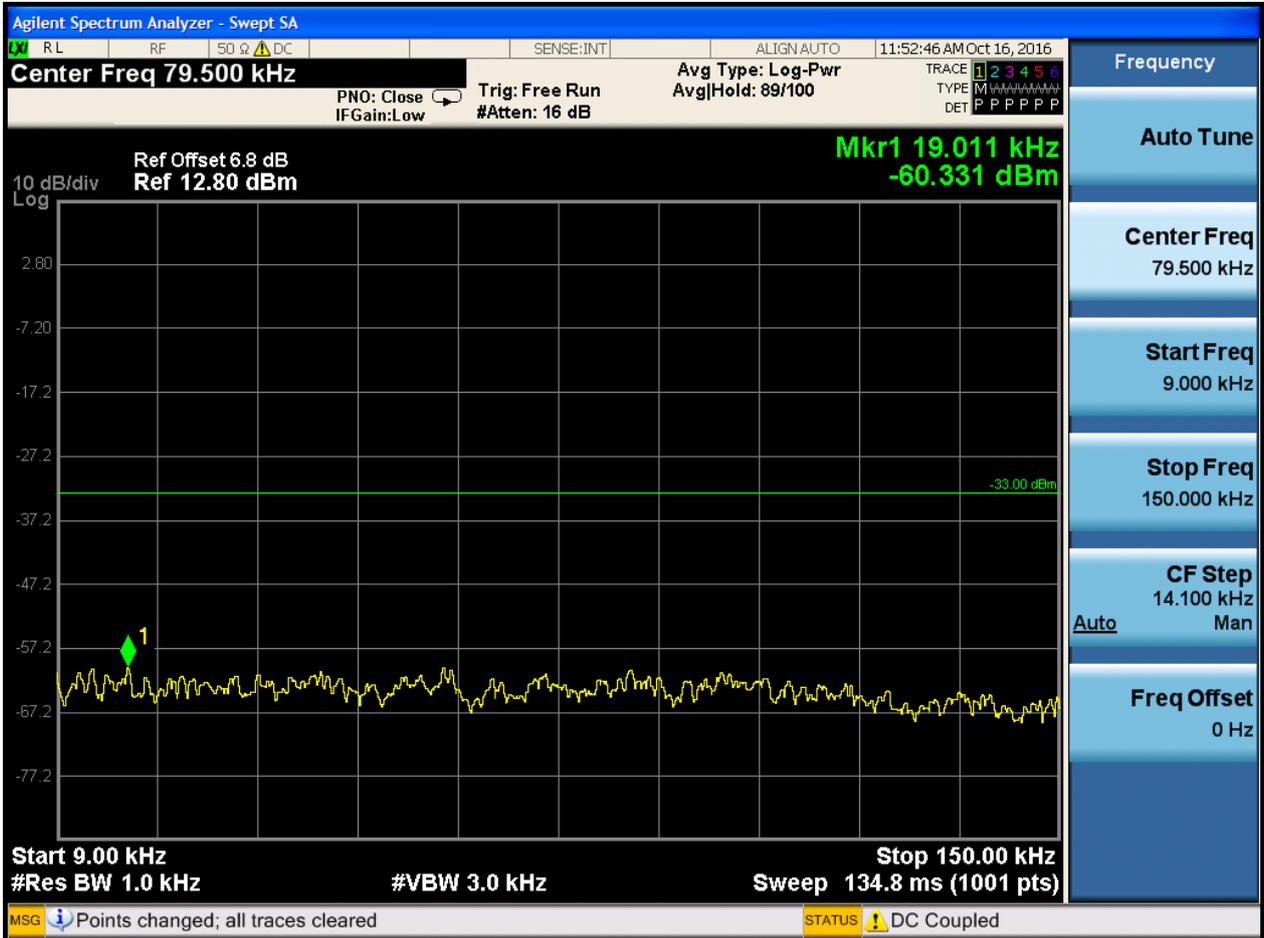


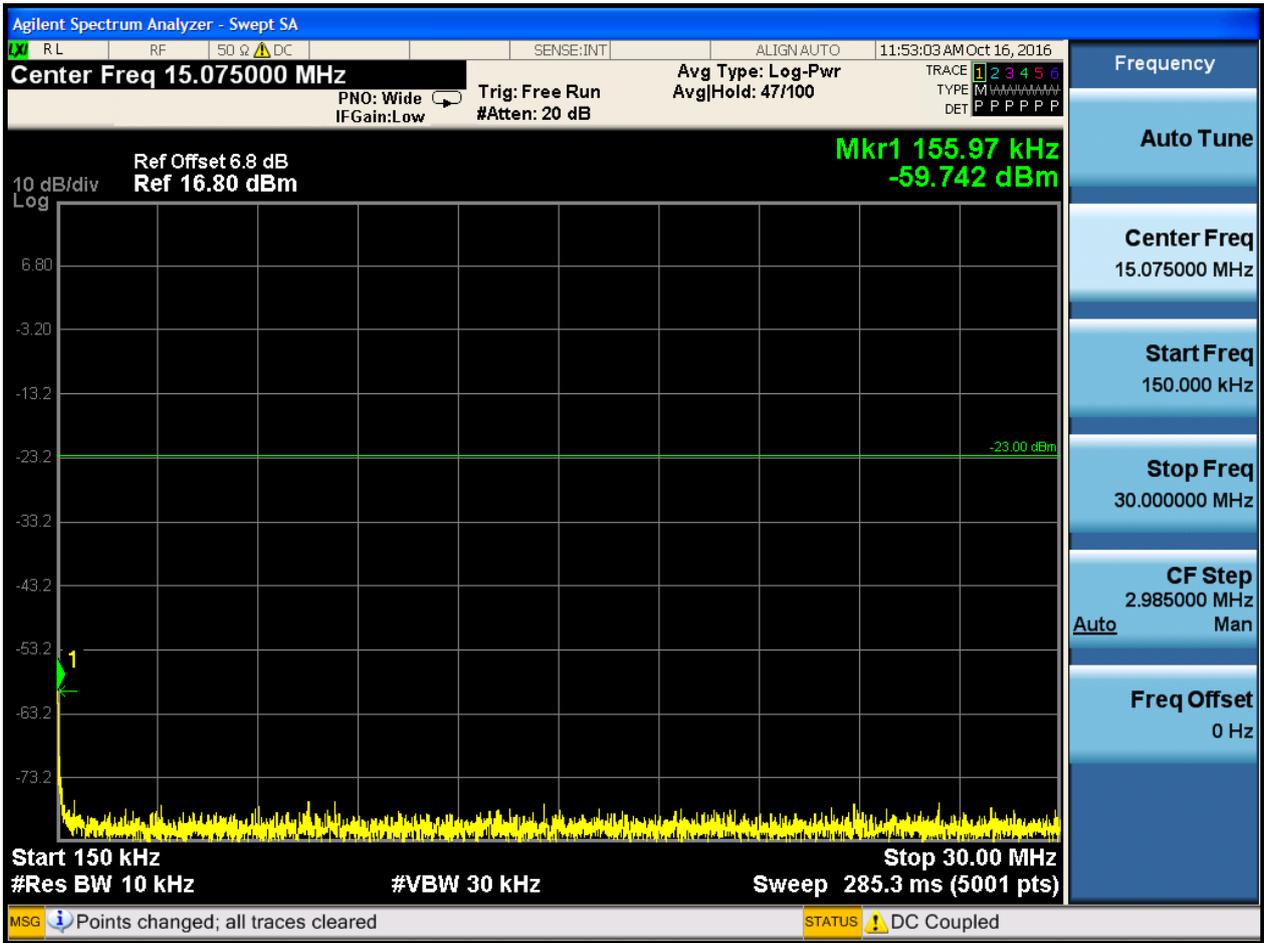


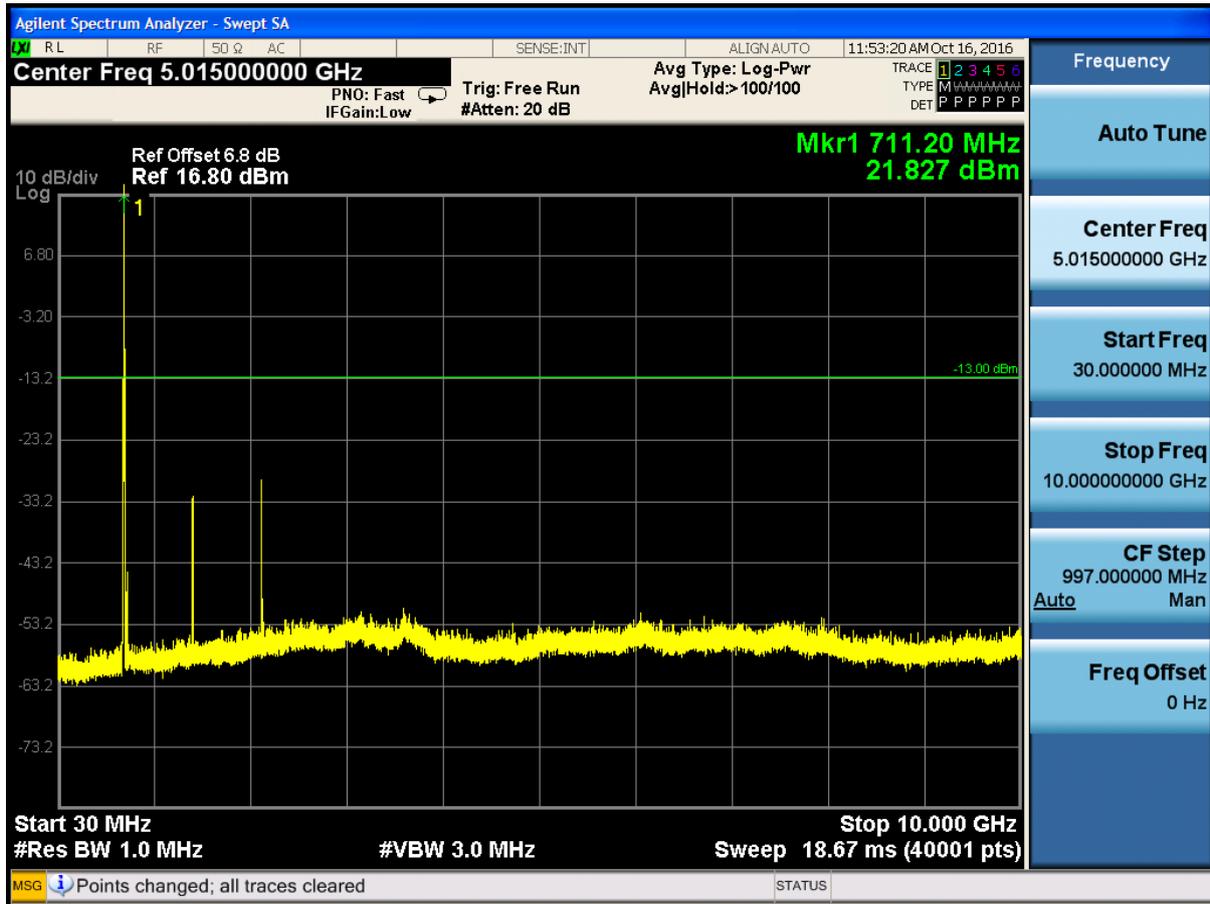


6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0





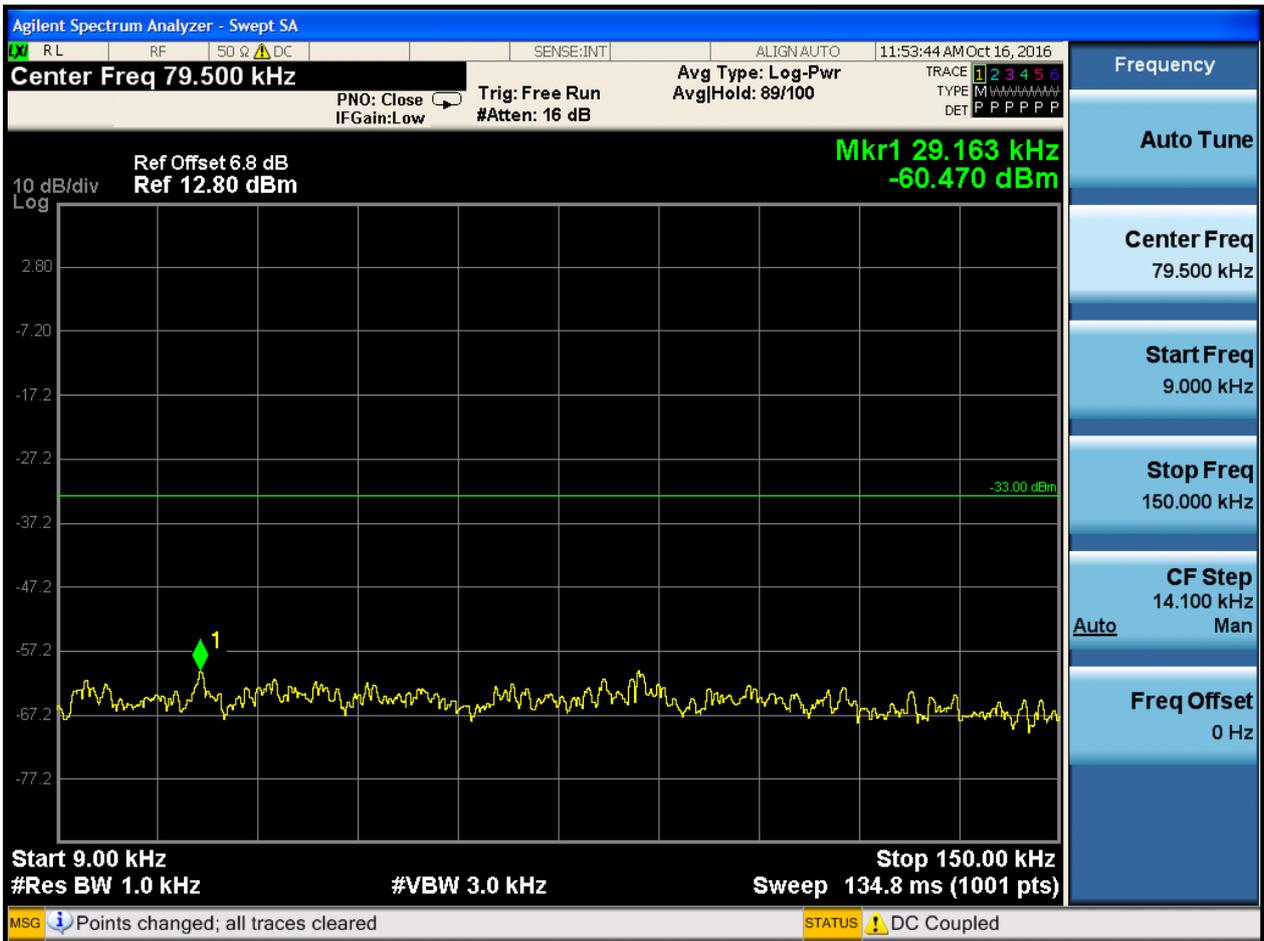


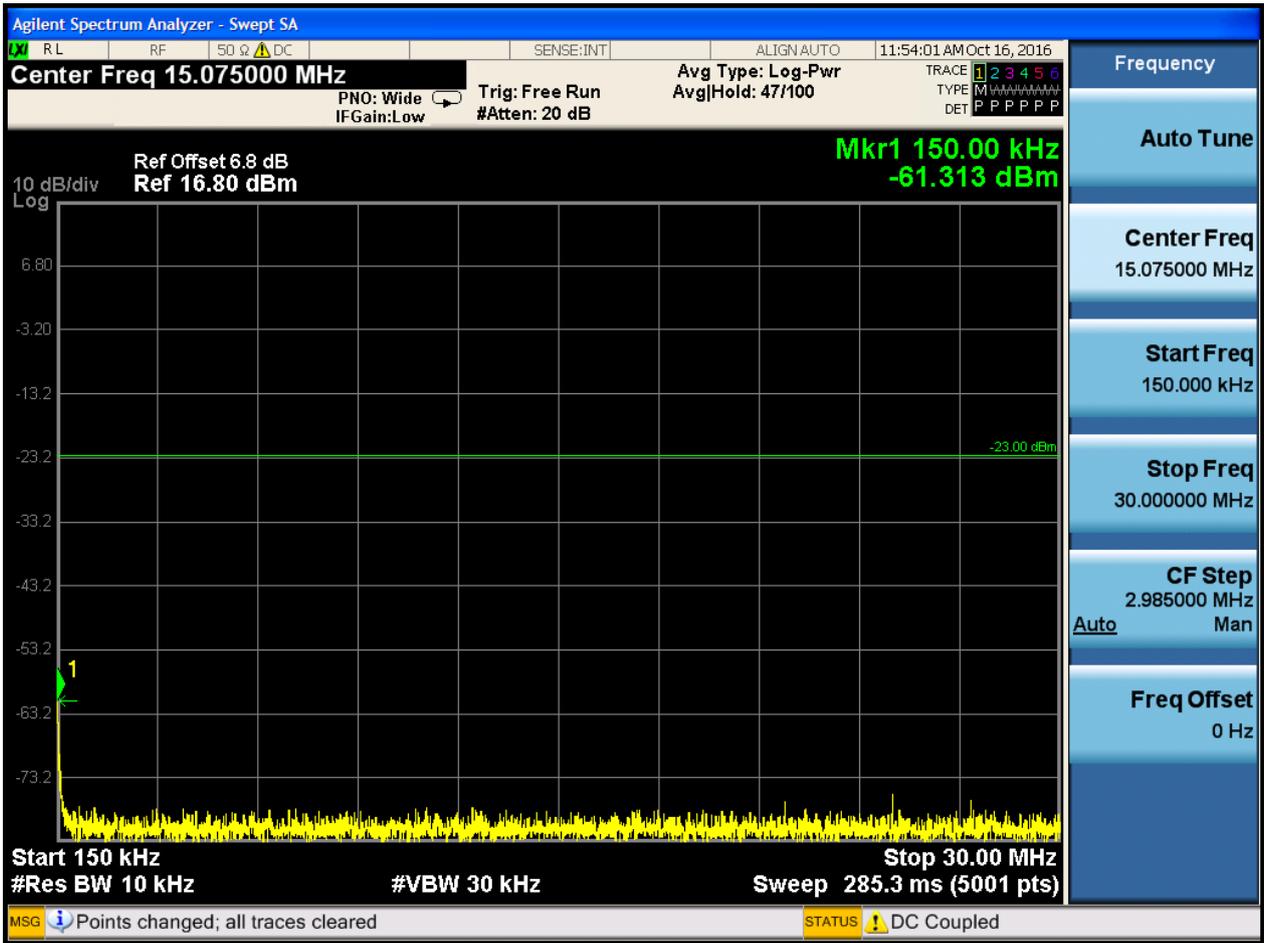


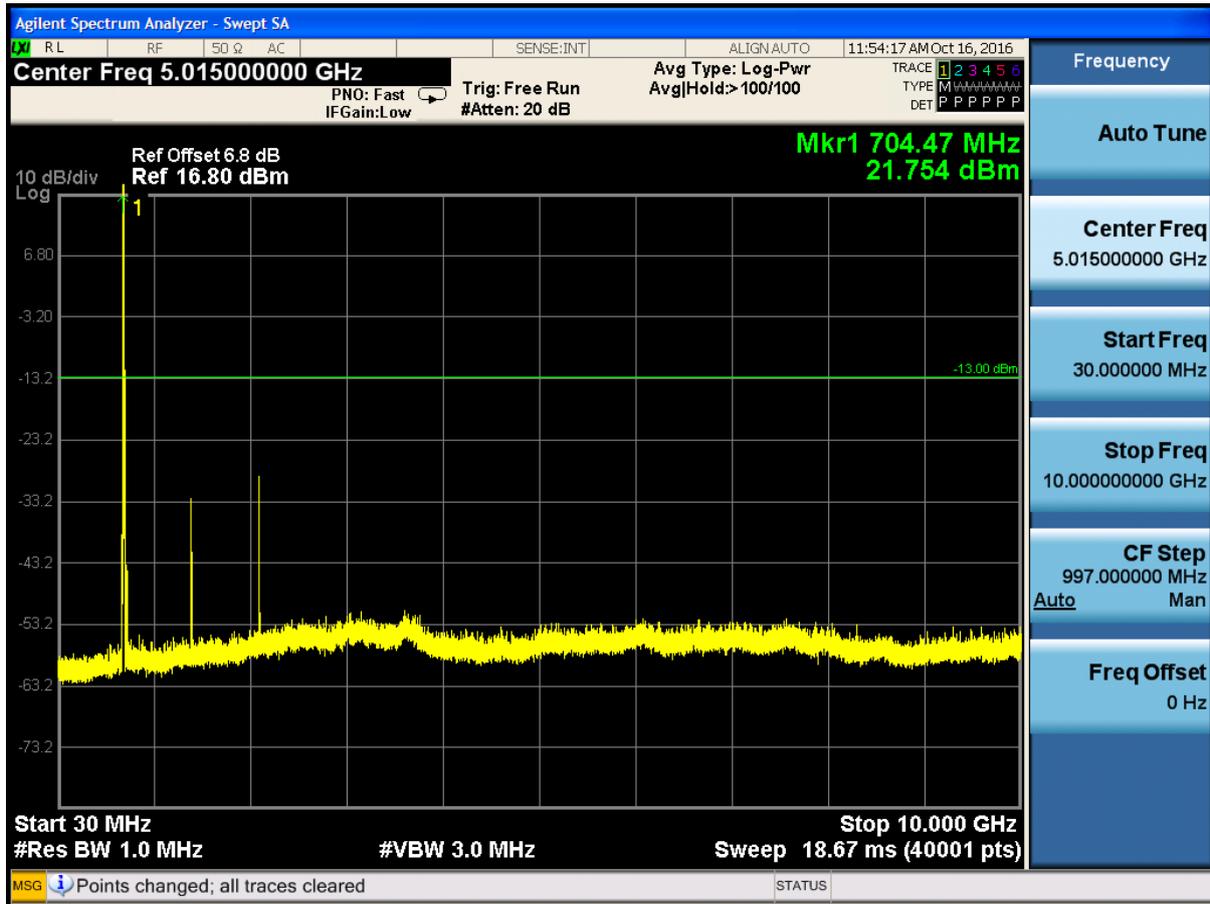
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0



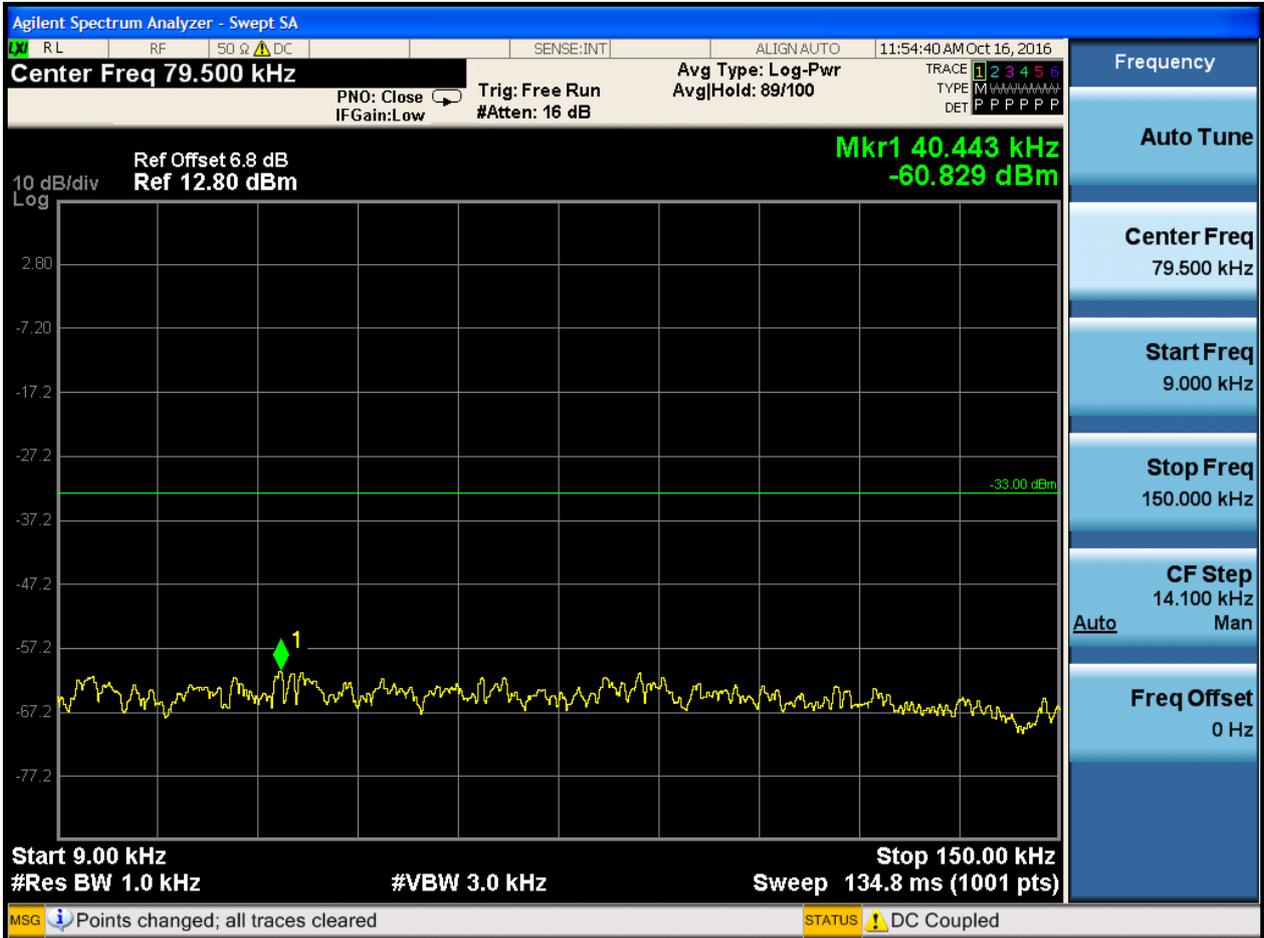


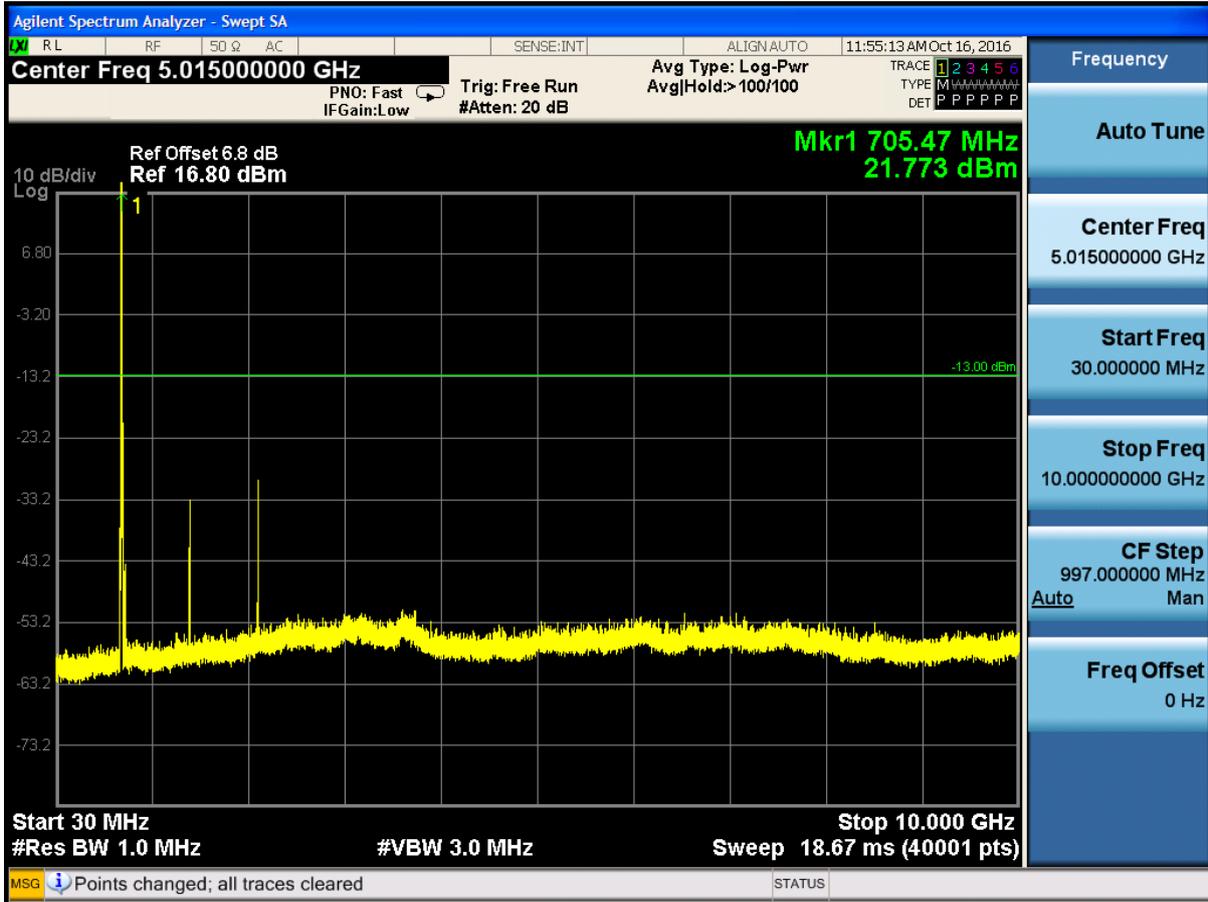




6.1.1.2.2.2 Test Channel = MCH

6.1.1.2.2.2.1 Test RB = RB1#0

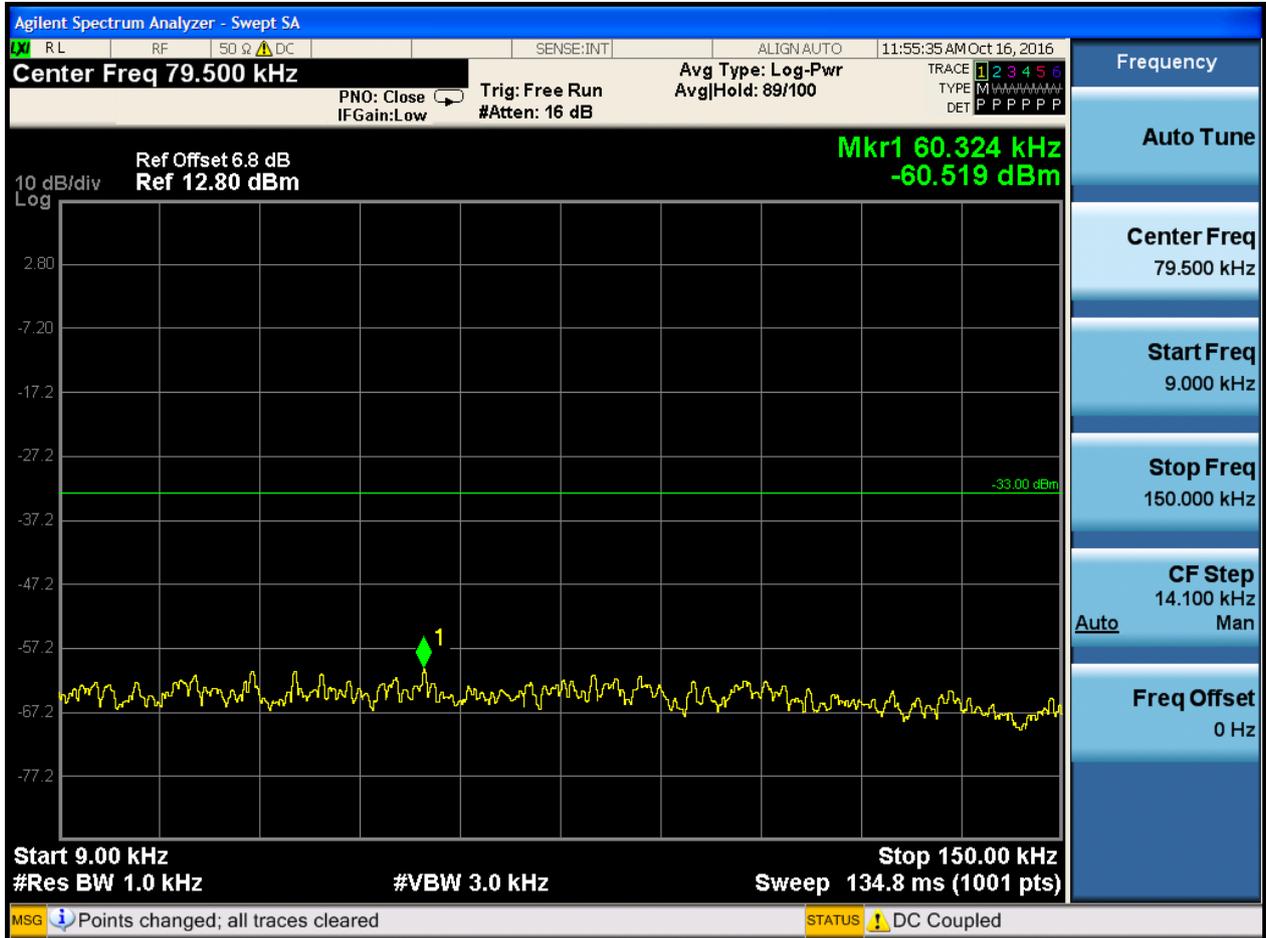


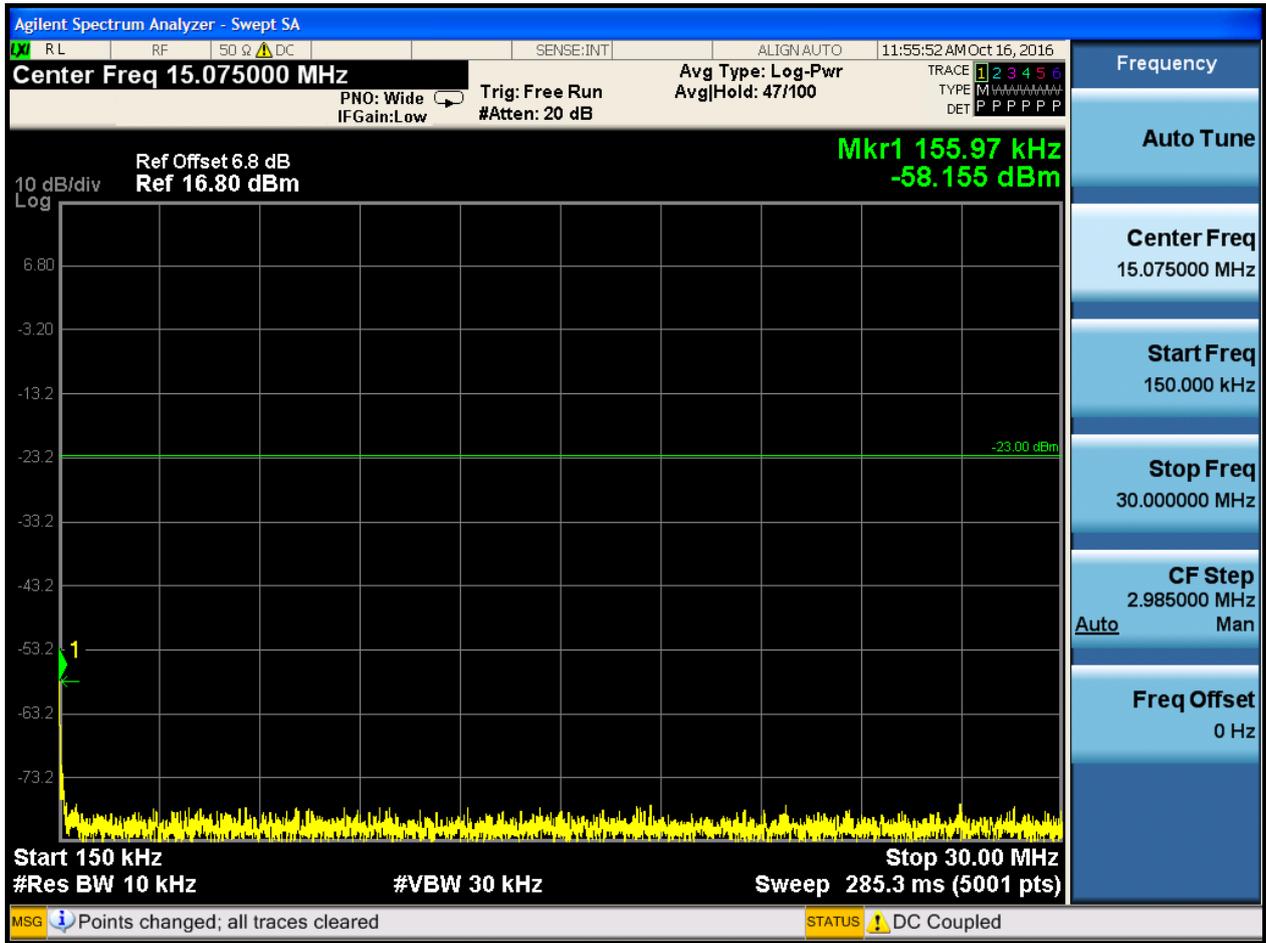


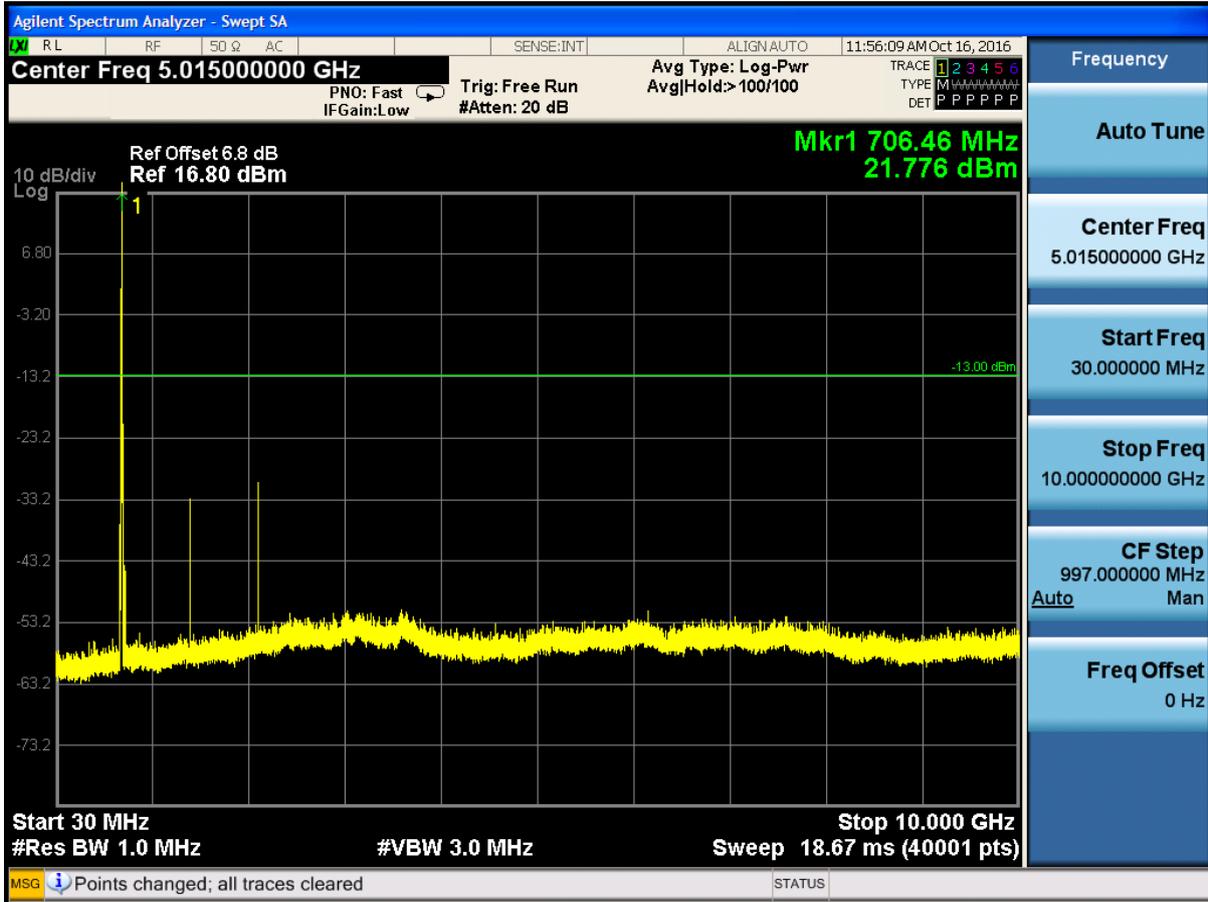


6.1.1.2.2.3 Test Channel = HCH

6.1.1.2.2.3.1 Test RB = RB1#0







7Appendix_G: Field Strength of Spurious Radiation

Note: 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

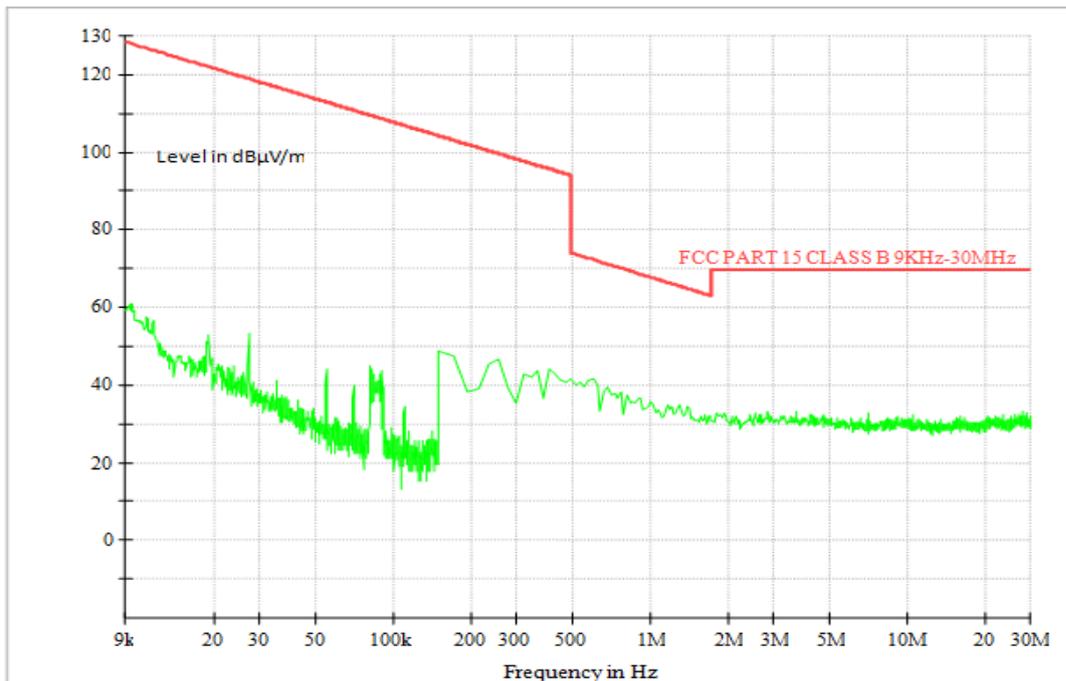
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

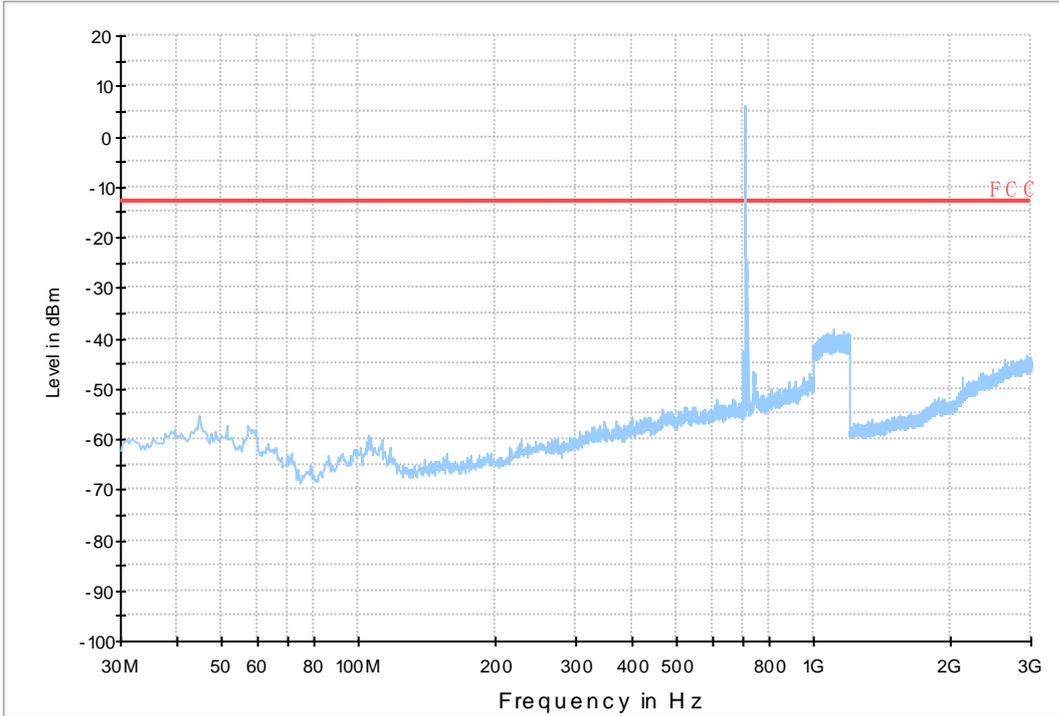
7.1 For LTE

7.1.1 Test Band = BAND17

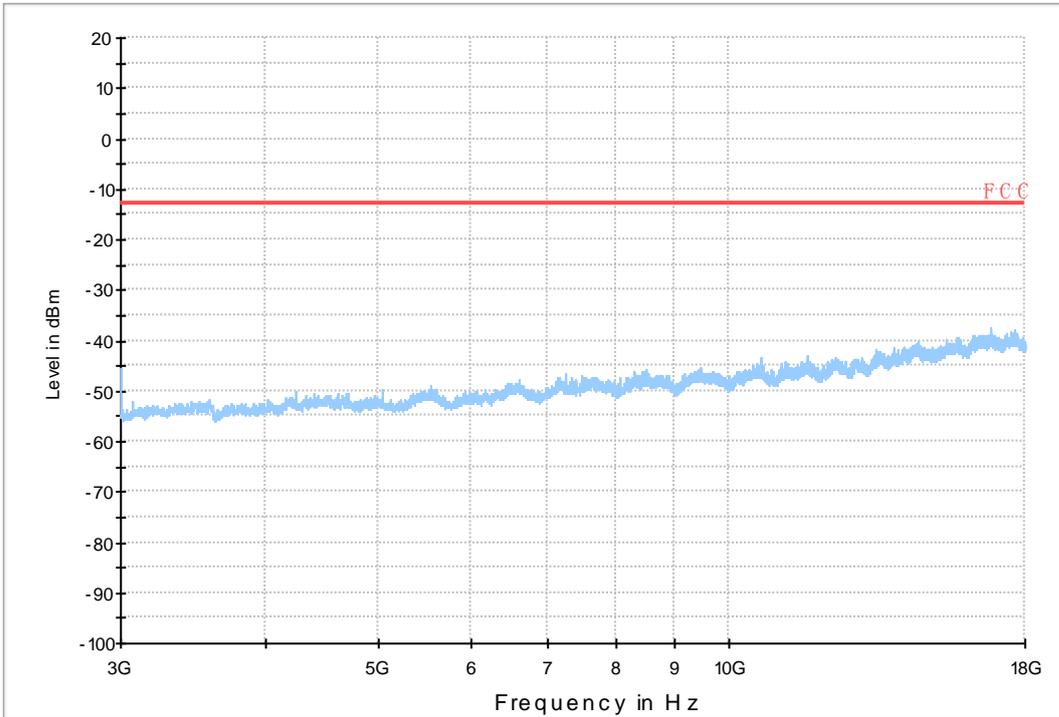
7.1.1.1 Test Bandwidth = 5



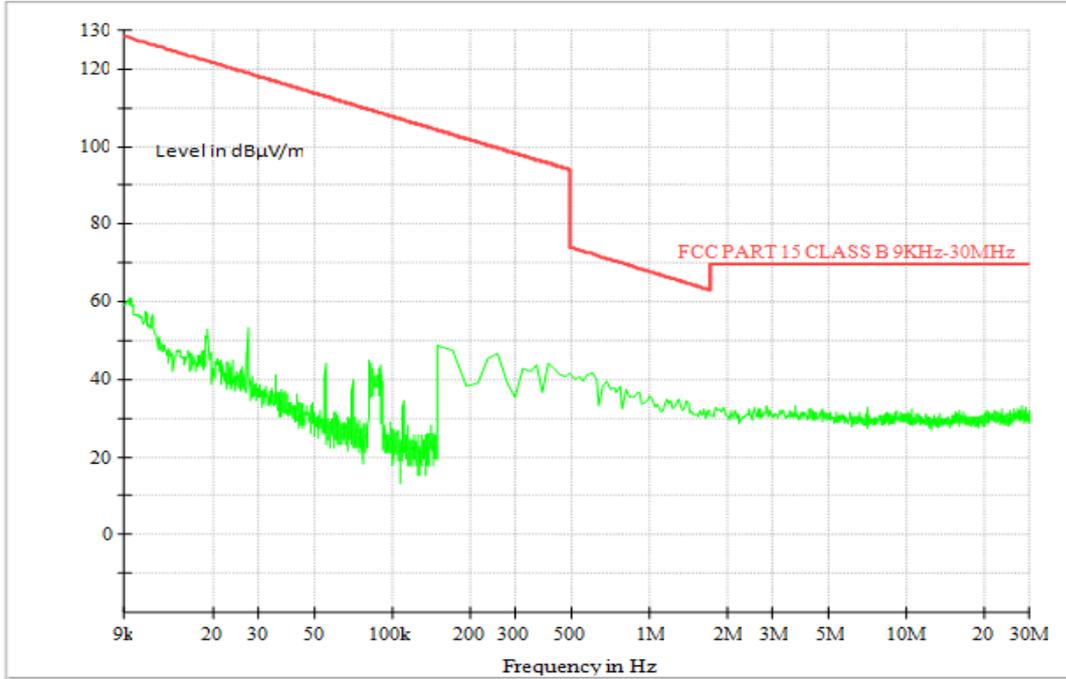
Copy of RSE-TX-DIRECTOR BELOW 1G_L



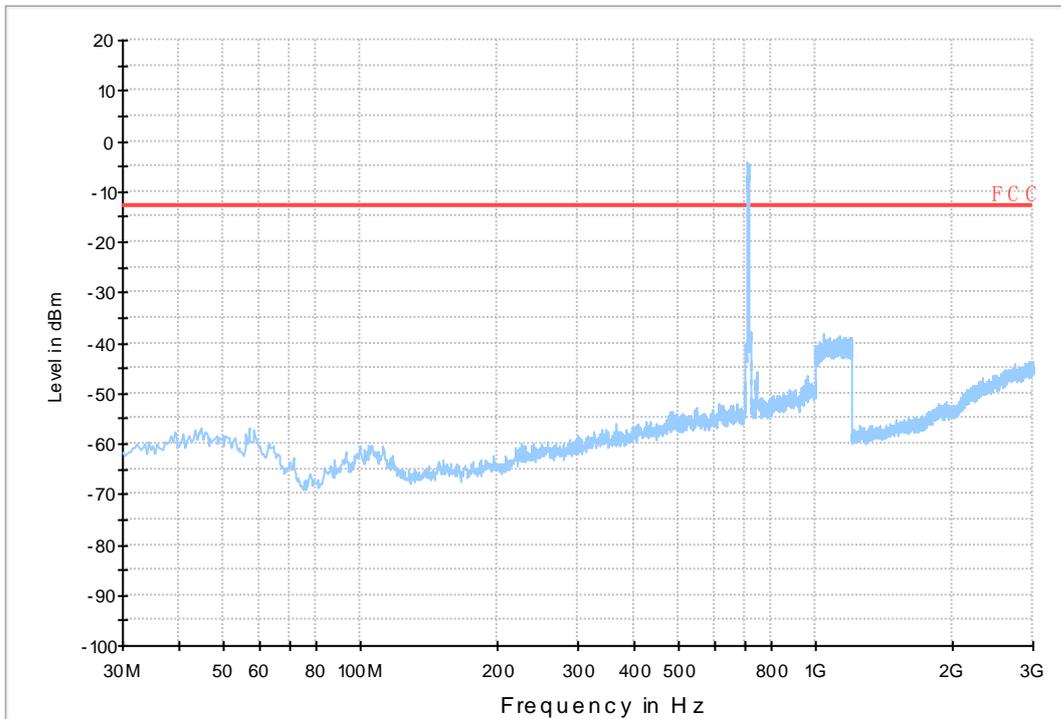
Copy of RSE-TX-DIRECTOR BELOW 1G_H



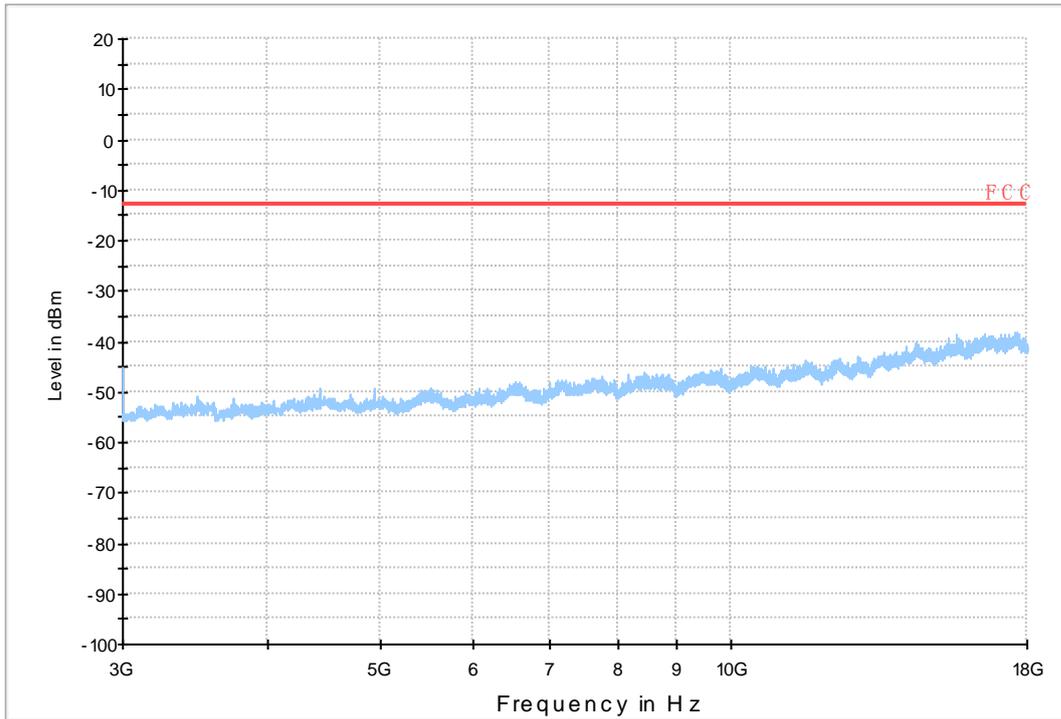
7.1.1.2 Test Bandwidth = 10



Copy of RSE-TX-DIRECTOR BELOW 1G_L



Copy of RSE-TX-DIRECTOR BELOW 1G_H





8Appendix_H: Frequency Stability



8.1 For LTE

8.1.1 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	TN	VL	-1.92	-0.00272	PASS
					VN	5.64	0.00798	PASS
					VH	-4.48	-0.00634	PASS
			MCH	TN	VL	-1.46	-0.00206	PASS
					VN	-2.42	-0.00341	PASS
					VH	1.33	0.00187	PASS
			HCH	TN	VL	-1.37	-0.00192	PASS
					VN	-0.1	-0.00014	PASS
					VH	4.13	0.00579	PASS
		10	LCH	TN	VL	-0.59	-0.00083	PASS
					VN	-1.04	-0.00147	PASS
					VH	-1.3	-0.00183	PASS
			MCH	TN	VL	-0.79	-0.00111	PASS
					VN	-0.37	-0.00052	PASS
					VH	-0.11	-0.00015	PASS
	HCH		TN	VL	-0.59	-0.00083	PASS	
				VN	-1.63	-0.00229	PASS	
				VH	-3.15	-0.00443	PASS	
	LTE/TM2	5	LCH	TN	VL	-0.03	-0.00004	PASS
					VN	1.3	0.00184	PASS
					VH	-2.92	-0.00413	PASS
			MCH	TN	VL	0.17	0.00024	PASS
					VN	-3.16	-0.00445	PASS
					VH	6.29	0.00886	PASS
			HCH	TN	VL	-7.5	-0.01051	PASS
					VN	4.68	0.00656	PASS
					VH	2.09	0.00293	PASS
		10	LCH	TN	VL	0.77	0.00109	PASS
					VN	2.5	0.00353	PASS
					VH	-2.33	-0.00329	PASS
MCH			TN	VL	-0.36	-0.00051	PASS	
				VN	0.79	0.00111	PASS	
				VH	-0.44	-0.00062	PASS	



			HCH	TN	VL	1.22	0.00172	PASS
					VN	0.1	0.00014	PASS
					VH	-0.47	-0.00066	PASS

8.1.2 Frequency Error vs. Temperature:

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	0.93	0.00132	PASS
					-20	-0.77	-0.00109	PASS
					-10	1.93	0.00273	PASS
					0	-5.75	-0.00814	PASS
					10	2.32	0.00328	PASS
					20	2.23	0.00316	PASS
					30	1.79	0.00253	PASS
					40	3.45	0.00488	PASS
					50	3.46	0.0049	PASS
			MCH	VN	-30	2.59	0.00365	PASS
					-20	3.23	0.00455	PASS
					-10	-2.49	-0.00351	PASS
					0	1.8	0.00254	PASS
					10	-0.34	-0.00048	PASS
					20	-3.55	-0.005	PASS
		30			-10.73	-0.01511	PASS	
		40			7.34	0.01034	PASS	
		50			-2.32	-0.00327	PASS	
		HCH	VN	-30	6.55	0.00918	PASS	
				-20	-4.59	-0.00643	PASS	
				-10	7.12	0.00998	PASS	
				0	3.42	0.00479	PASS	
				10	-5.45	-0.00764	PASS	
				20	-2.57	-0.0036	PASS	
				30	-2.12	-0.00297	PASS	
				40	2.98	0.00418	PASS	
				50	0.69	0.00097	PASS	
		10	LCH	VN	-30	1.34	0.00189	PASS
					-20	0.29	0.00041	PASS
					-10	0.94	0.00133	PASS
0	0.16				0.00023	PASS		
10	2.7				0.00381	PASS		
20	-0.51				-0.00072	PASS		

			MCH	VN	30	-1.42	-0.002	PASS		
					40	0.83	0.00117	PASS		
					50	2.43	0.00343	PASS		
					-30	-0.66	-0.00093	PASS		
					-20	0.17	0.00024	PASS		
					-10	0.43	0.00061	PASS		
					0	-0.47	-0.00066	PASS		
					10	-1	-0.00141	PASS		
					20	-0.37	-0.00052	PASS		
					30	-0.06	-0.00008	PASS		
					40	0.66	0.00093	PASS		
					50	1.17	0.00165	PASS		
			HCH	VN	-30	-0.56	-0.00079	PASS		
					-20	-1.02	-0.00143	PASS		
					-10	-0.04	-0.00006	PASS		
					0	0.01	0.00001	PASS		
					10	-0.43	-0.0006	PASS		
					20	-1.16	-0.00163	PASS		
					30	-0.93	-0.00131	PASS		
					40	-0.51	-0.00072	PASS		
			LCH	VN	50	-2.19	-0.00308	PASS		
					-30	2.33	0.0033	PASS		
					-20	7.07	0.01001	PASS		
					-10	-3.75	-0.00531	PASS		
					0	0.46	0.00065	PASS		
					10	-4.52	-0.0064	PASS		
					20	4.59	0.0065	PASS		
					30	4.91	0.00695	PASS		
					40	-1.99	-0.00282	PASS		
					50	5.64	0.00798	PASS		
					MCH	VN	-30	0.67	0.00094	PASS
							-20	2.66	0.00375	PASS
							-10	-1.09	-0.00154	PASS
							0	1.9	0.00268	PASS
							10	-4.45	-0.00627	PASS
							20	1.36	0.00192	PASS
30	-3.6	-0.00507	PASS							
40	-0.31	-0.00044	PASS							
HCH	VN	50	-2.26	-0.00318	PASS					
		-30	0.33	0.00046	PASS					
					-20	-1.47	-0.00206	PASS		

					-10	-3.29	-0.00461	PASS			
					0	5.55	0.00778	PASS			
					10	3.2	0.00448	PASS			
					20	5.74	0.00804	PASS			
					30	3.1	0.00434	PASS			
					40	4.66	0.00653	PASS			
					50	0.94	0.00132	PASS			
		10	LCH	VN	-30	-0.26	-0.00037	PASS			
								-20	1.27	0.00179	PASS
								-10	0.79	0.00111	PASS
								0	0.11	0.00016	PASS
								10	-0.46	-0.00065	PASS
								20	0.26	0.00037	PASS
								30	0.73	0.00103	PASS
								40	0.51	0.00072	PASS
						50	0.01	0.00001	PASS		
				MCH	VN	-30	0.17	0.00024	PASS		
								-20	0.31	0.00044	PASS
								-10	-1.09	-0.00154	PASS
								0	0.69	0.00097	PASS
								10	0.19	0.00027	PASS
								20	0.4	0.00056	PASS
								30	-0.21	-0.0003	PASS
								40	0.07	0.0001	PASS
						50	0.3	0.00042	PASS		
				HCH	VN	-30	-0.37	-0.00052	PASS		
								-20	1.32	0.00186	PASS
								-10	-1.27	-0.00179	PASS
								0	-0.49	-0.00069	PASS
								10	-0.46	-0.00065	PASS
								20	-0.74	-0.00104	PASS
							30	0.64	0.0009	PASS	
							40	-0.09	-0.00013	PASS	
					50	0	0	PASS			

END