



Appendix for test report



1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]
BAND30	LTE/TM1	5	LCH	RB1#0	22.9	21.9
				RB1#13	22.92	21.92
				RB1#24	23.08	22.08
				RB12#0	21.85	20.85
				RB12#6	21.86	20.86
				RB12#13	21.89	20.89
			RB25#0	21.88	20.88	
			MCH	RB1#0	22.74	21.74
				RB1#13	22.86	21.86
				RB1#24	22.85	21.85
				RB12#0	21.88	20.88
				RB12#6	21.93	20.93
		RB12#13		21.89	20.89	
		HCH	RB1#0	22.96	21.96	
			RB1#13	22.71	21.71	
			RB1#24	22.8	21.8	
			RB12#0	21.81	20.81	
			RB12#6	21.79	20.79	
	RB12#13		21.88	20.88		
	10	LCH/ MCH/ HCH	RB1#0	23.05	22.05	
			RB1#25	23.06	22.06	
			RB1#49	23.05	22.05	
			RB25#0	21.92	20.92	
			RB25#13	22	21	
			RB25#25	21.83	20.83	
			RB50#0	21.95	20.95	
	LTE/TM2	5	LCH	RB1#0	22.05	21.05
				RB1#13	21.97	20.97
RB1#24				22.02	21.02	
RB12#0				20.91	19.91	
RB12#6				20.99	19.99	
RB12#13				20.91	19.91	
RB25#0		20.8	19.8			
MCH		RB1#0	22.25	21.25		
		RB1#13	22.07	21.07		
		RB1#24	22.11	21.11		
	RB12#0	20.74	19.74			

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]		
				RB12#6	20.68	19.68		
				RB12#13	20.77	19.77		
				RB25#0	20.79	19.79		
			HCH	RB1#0	22.21	21.21		
				RB1#13	22.01	21.01		
				RB1#24	22.06	21.06		
				RB12#0	20.74	19.74		
				RB12#6	21.05	20.05		
				RB12#13	20.85	19.85		
		10	LCH/ MCH/ HCH	RB25#0	20.91	19.91		
				RB1#0	22.32	21.32		
				RB1#25	22.41	21.41		
				RB1#49	22.24	21.24		
				RB25#0	20.95	19.95		
				RB25#13	20.74	19.74		
						RB25#25	20.78	19.78
						RB50#0	20.76	19.76

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm/5MHz]	EIRP[dBm/5MHz]	Limit [dBm/5MHz]	Verdict	
BAND 30	LTE/TM1	5	LCH	RB25#0	21.88	20.88	43	PASS	
			MCH	RB25#0	21.85	20.85	43	PASS	
			HCH	RB25#0	21.89	20.89	43	PASS	
			10	LCH/MCH/HCH	RB50#0	21.95	20.95	43	PASS
	LTE/TM2	5		LCH	RB25#0	20.8	19.8	43	PASS
				MCH	RB25#0	20.79	19.79	43	PASS
				HCH	RB25#0	20.91	19.91	43	PASS
			10	LCH/MCH/HCH	RB50#0	20.76	19.76	43	PASS

Note1:

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

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

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

b, SGP=Signal Generator Level

Note2:

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

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

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

SET Sweep time=auto-couple.

Detector:RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict	
BAND30	LTE/TM1	5	LCH	RB1#0	4.51	13	PASS	
				RB1#13	4.45	13	PASS	
				RB1#24	4.36	13	PASS	
				RB12#0	5.06	13	PASS	
				RB12#6	5.01	13	PASS	
				RB12#13	5.09	13	PASS	
				RB25#0	5.58	13	PASS	
			MCH	RB1#0	4.55	13	PASS	
				RB1#13	4.31	13	PASS	
				RB1#24	4.1	13	PASS	
				RB12#0	5.02	13	PASS	
				RB12#6	4.87	13	PASS	
				RB12#13	4.88	13	PASS	
			HCH	RB25#0	5.46	13	PASS	
				RB1#0	4.27	13	PASS	
				RB1#13	3.92	13	PASS	
				RB1#24	3.92	13	PASS	
				RB12#0	4.82	13	PASS	
				RB12#6	4.62	13	PASS	
			10	LCH/ MCH/ HCH	RB12#13	4.63	13	PASS
					RB25#0	5.27	13	PASS
		RB1#0			4.44	13	PASS	
		RB1#25			4.18	13	PASS	
		RB1#49			3.74	13	PASS	
		RB25#0			4.99	13	PASS	
		RB25#13			4.88	13	PASS	
		5	LCH	RB25#25	4.76	13	PASS	
	RB50#0			5.46	13	PASS		
RB1#0	5.48			13	PASS			
LTE/TM2			LCH	RB1#13	5.39	13	PASS	

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#24	5.27	13	PASS
				RB12#0	5.97	13	PASS
				RB12#6	5.94	13	PASS
				RB12#13	5.93	13	PASS
				RB25#0	6.33	13	PASS
			MCH	RB1#0	5.47	13	PASS
				RB1#13	5.2	13	PASS
				RB1#24	5.02	13	PASS
				RB12#0	5.91	13	PASS
				RB12#6	5.88	13	PASS
				RB12#13	5.87	13	PASS
				RB25#0	6.45	13	PASS
			HCH	RB1#0	5.24	13	PASS
				RB1#13	4.94	13	PASS
				RB1#24	4.81	13	PASS
				RB12#0	5.72	13	PASS
				RB12#6	5.54	13	PASS
		RB12#13		5.54	13	PASS	
		RB25#0		6.01	13	PASS	
		10	LCH/ MCH/ HCH	RB1#0	5.56	13	PASS
				RB1#25	5.09	13	PASS
				RB1#49	4.52	13	PASS
				RB25#0	6.11	13	PASS
				RB25#13	5.87	13	PASS
				RB25#25	5.86	13	PASS
				RB50#0	6.49	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

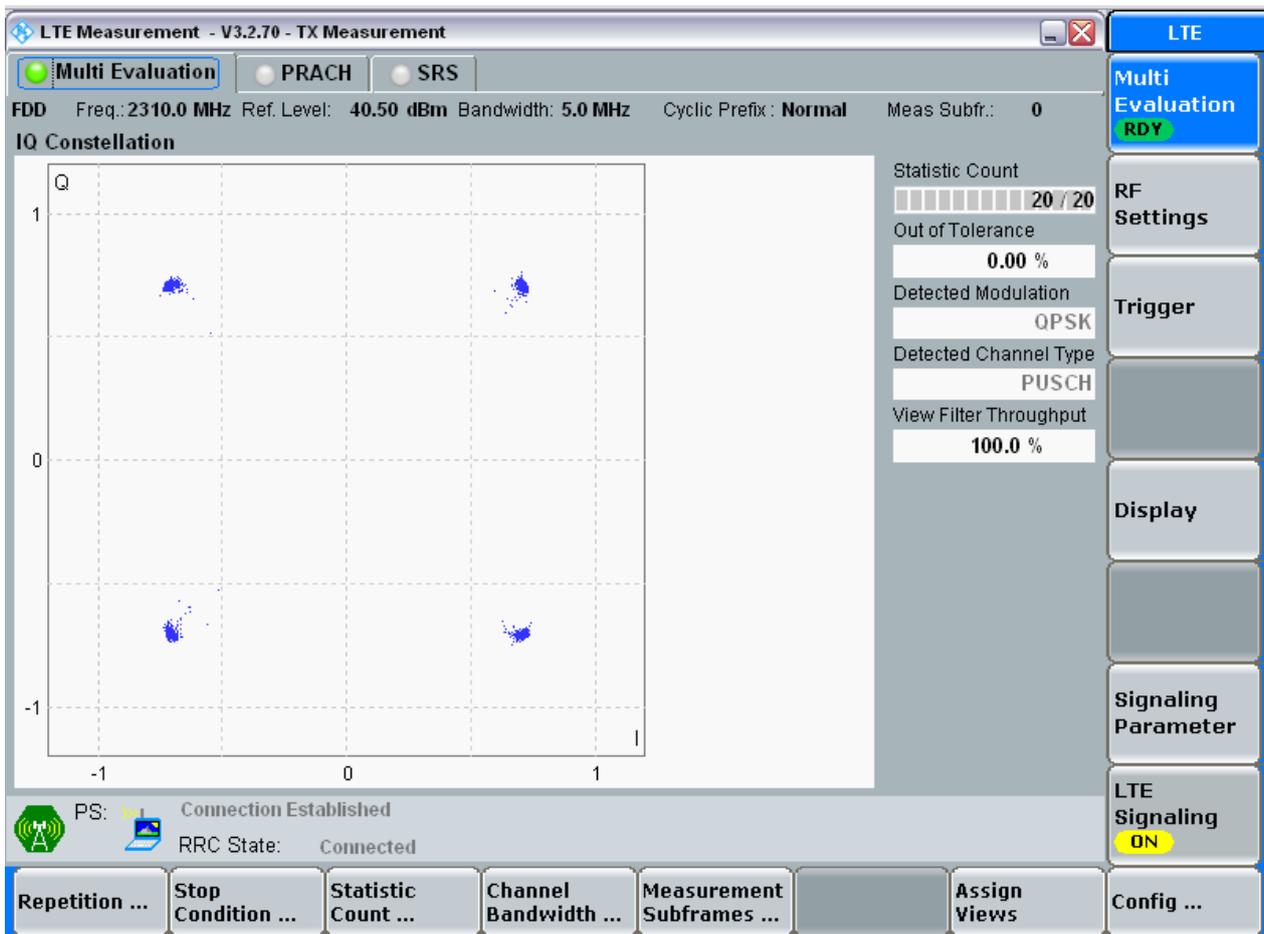
3.1.1 Test Band = BAND30

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

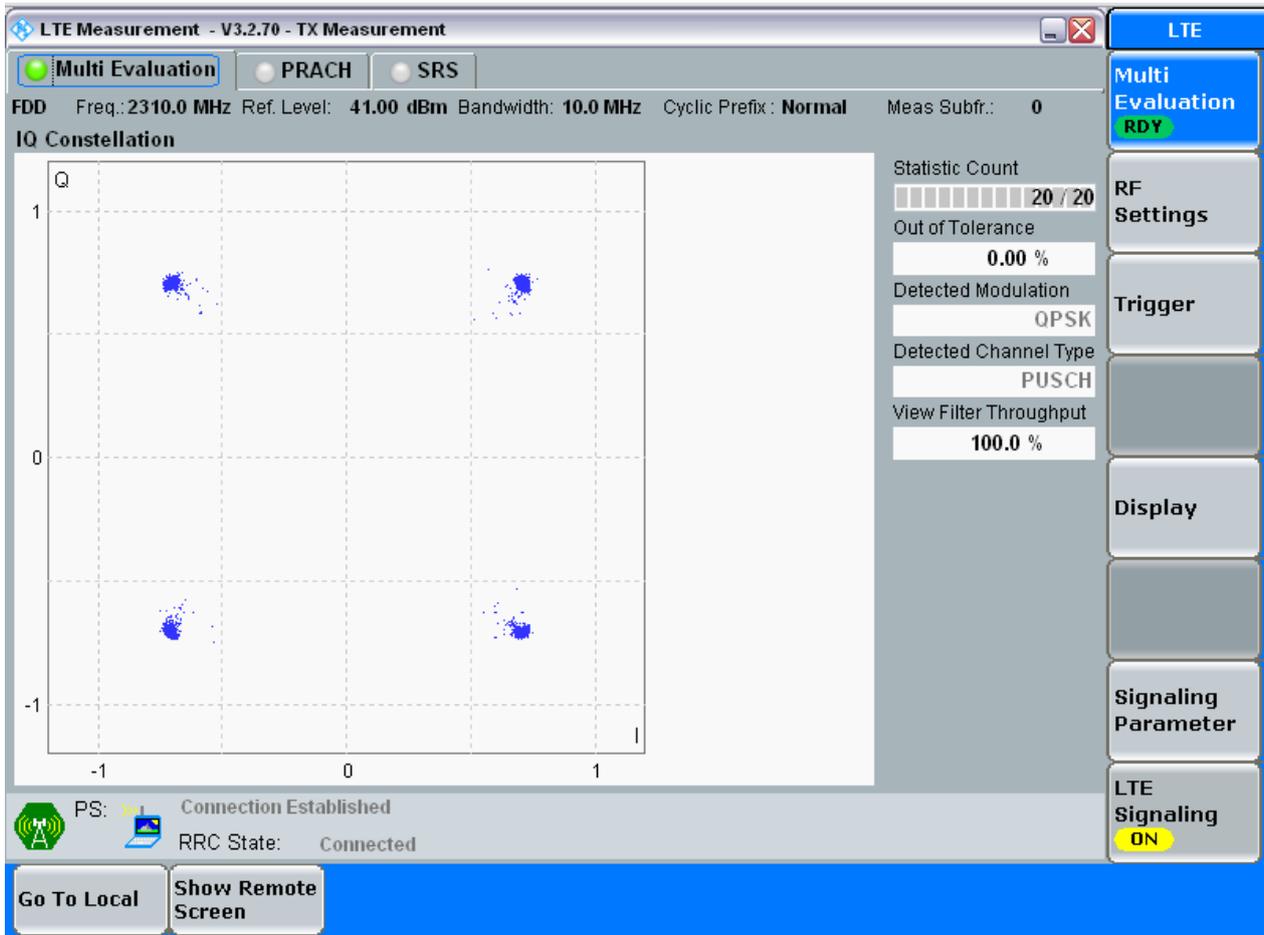
3.1.1.1.1.1.1 Test RB = RB25#0



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

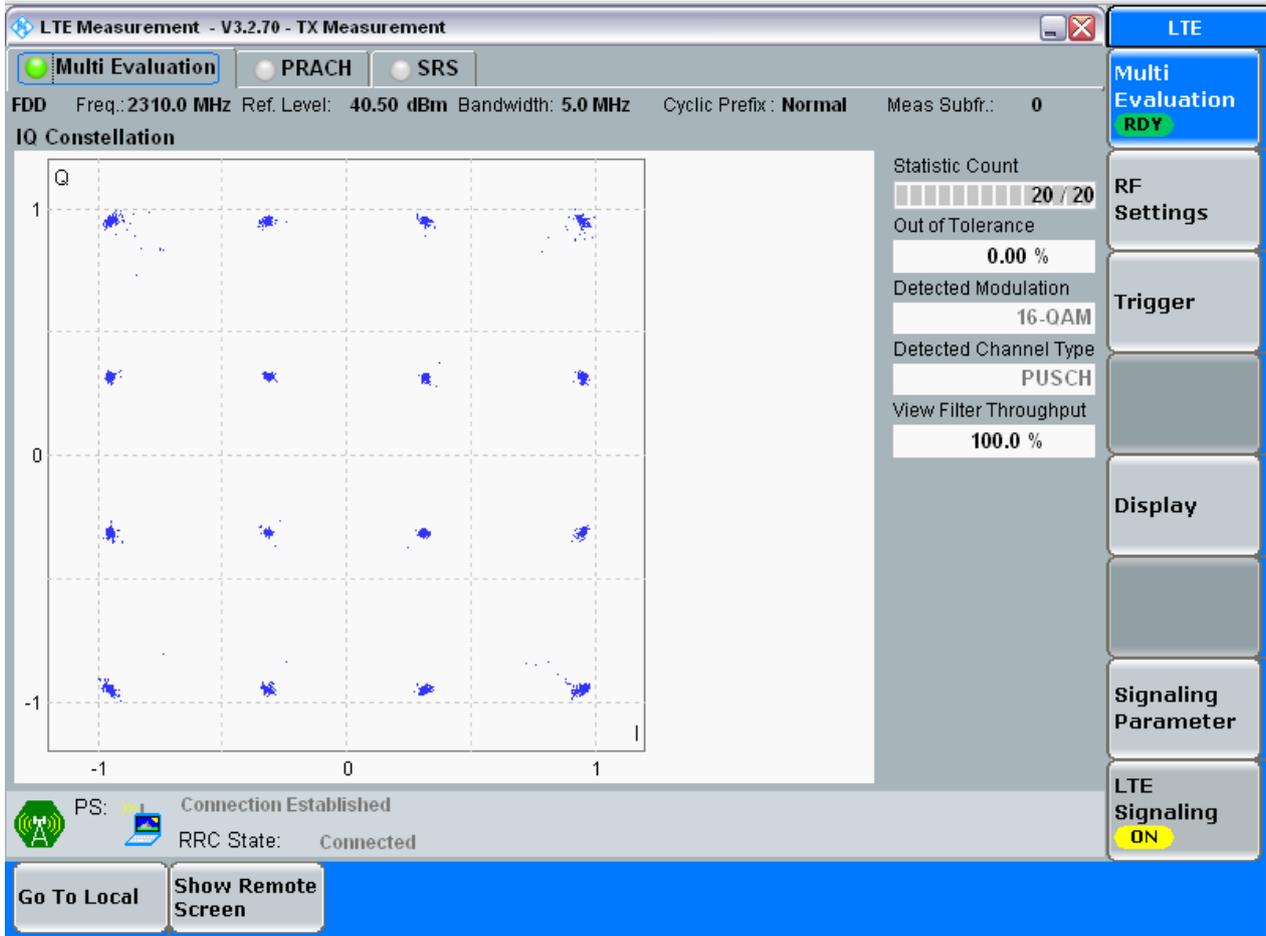


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

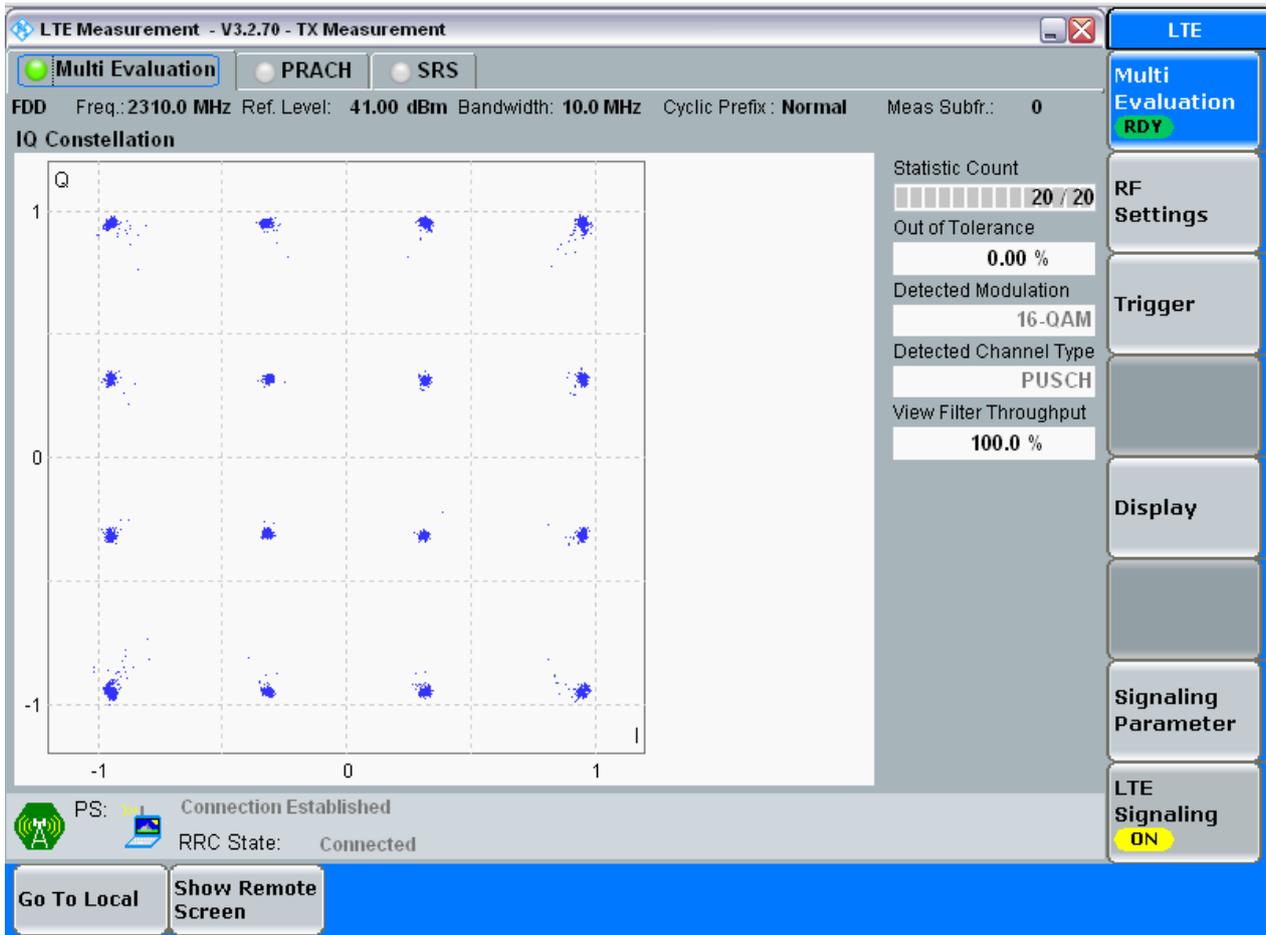
3.1.1.2.1.1.1 Test RB = RB25#0



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	
BAND30	LTE/TM1	5	LCH	RB25#0	4.50	4.88	Pass	
			MCH	RB25#0	4.51	4.88	Pass	
			HCH	RB25#0	4.51	4.87	Pass	
		10	LCH/ MCH/ HCH	RB50#0	8.99	9.63	Pass	
			5	LCH	RB25#0	4.51	4.86	Pass
				MCH	RB25#0	4.51	4.85	Pass
	HCH	RB25#0		4.50	4.85	Pass		
	LTE/TM2	5	LCH/ MCH/ HCH	RB50#0	8.99	9.62	Pass	
			10	LCH/ MCH/ HCH	RB50#0	8.99	9.62	Pass



Part II - Test Plots

4.1 For LTE

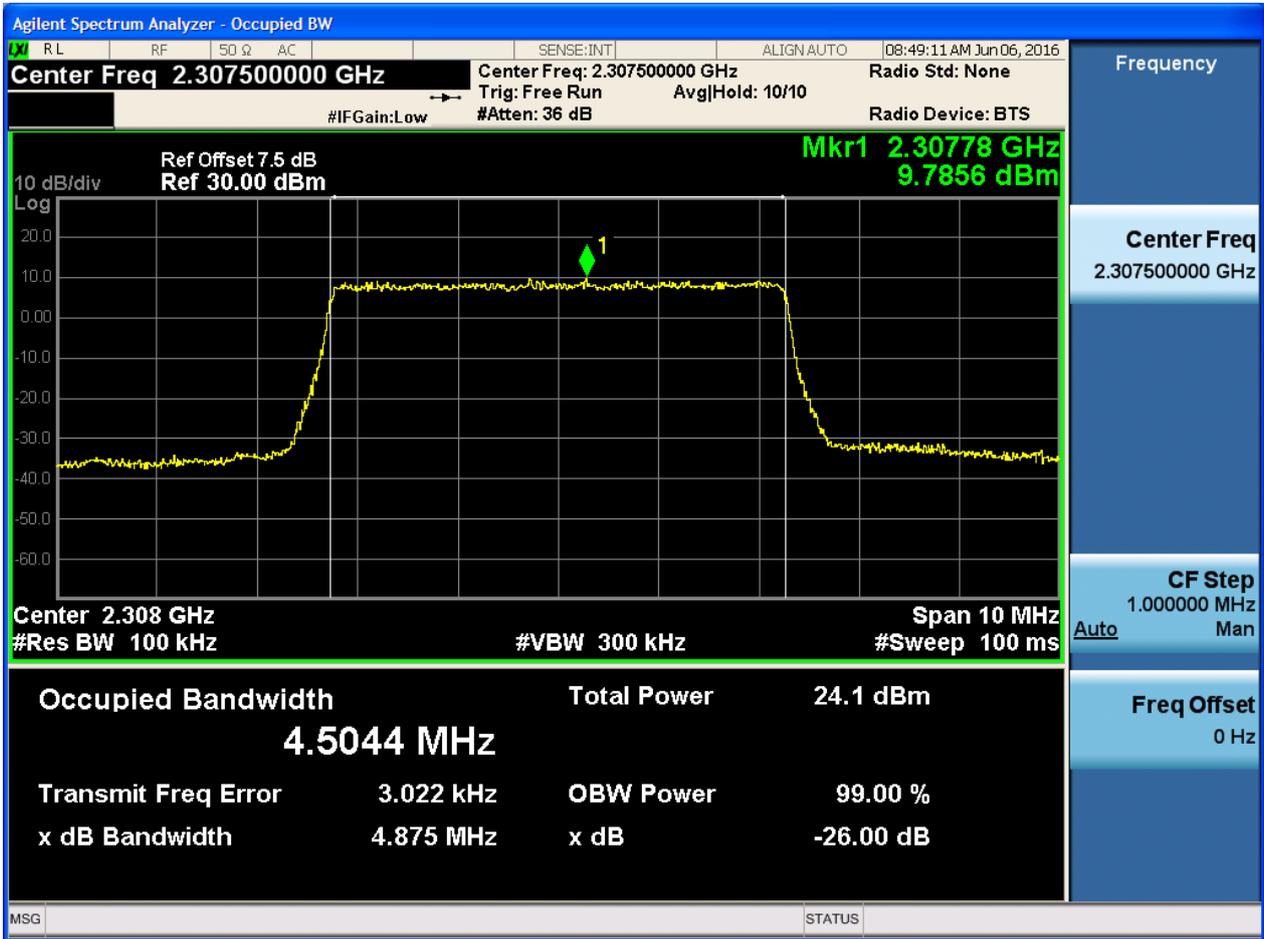
4.1.1 Test Band = BAND30

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

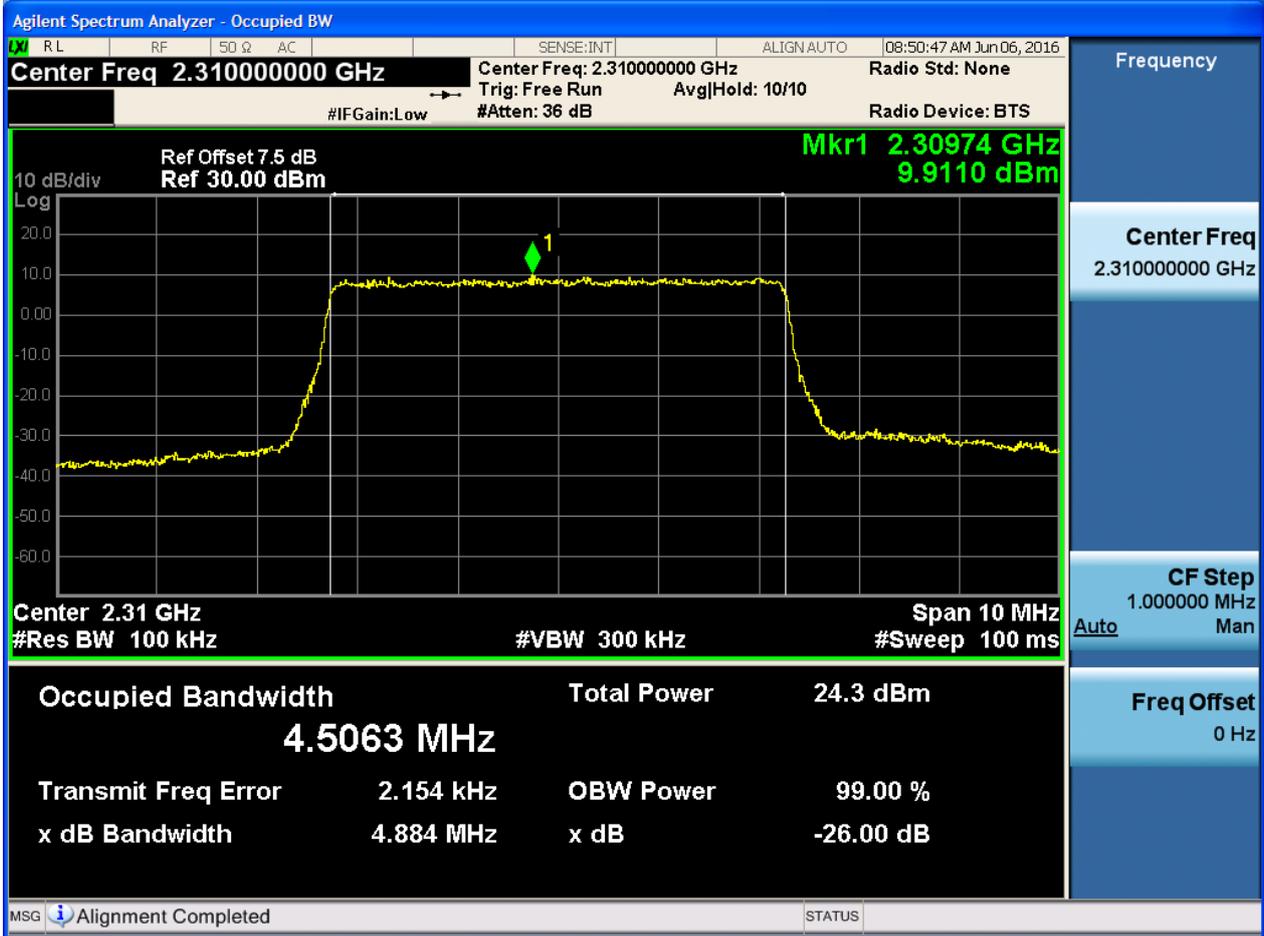
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

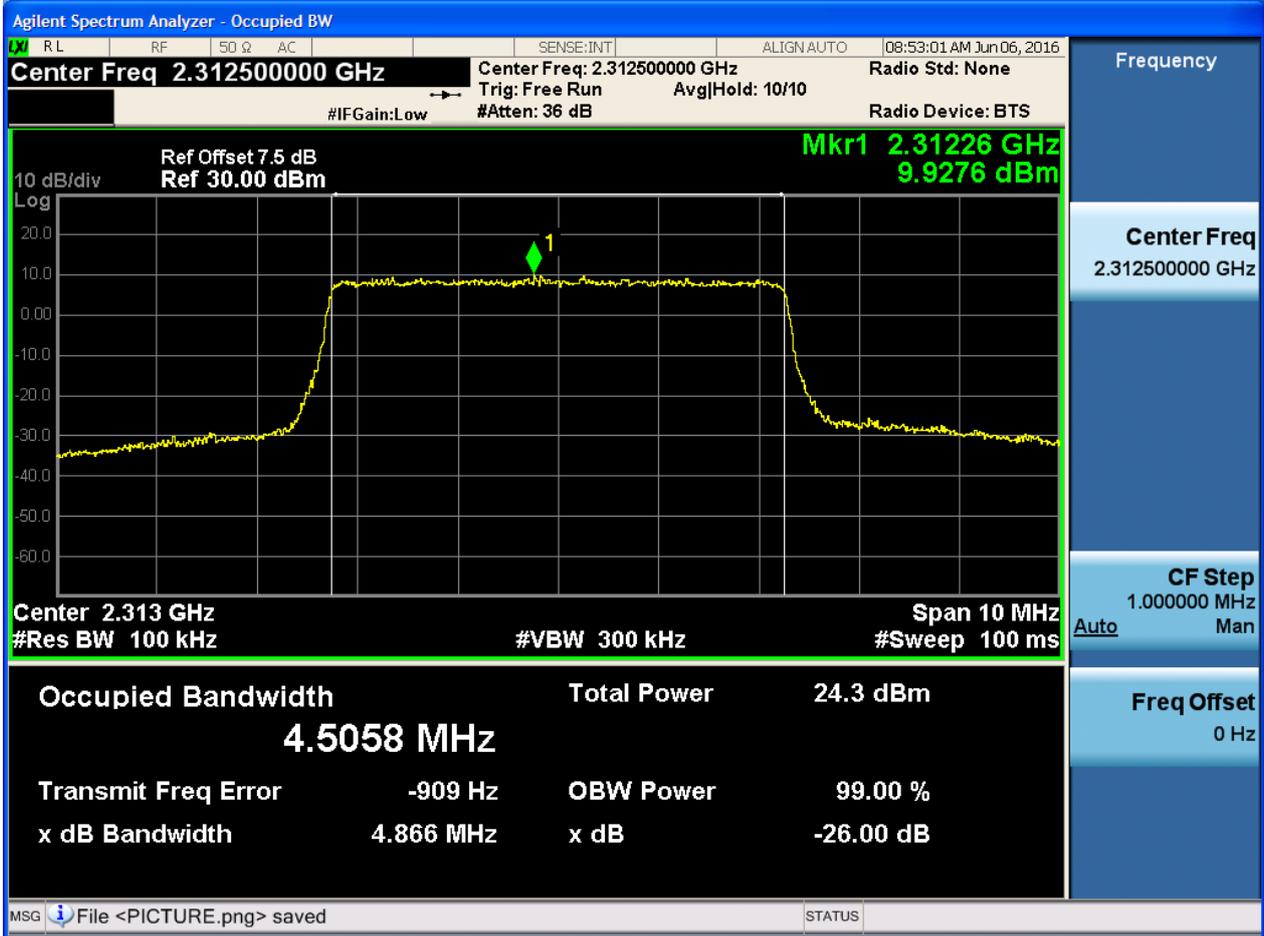
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

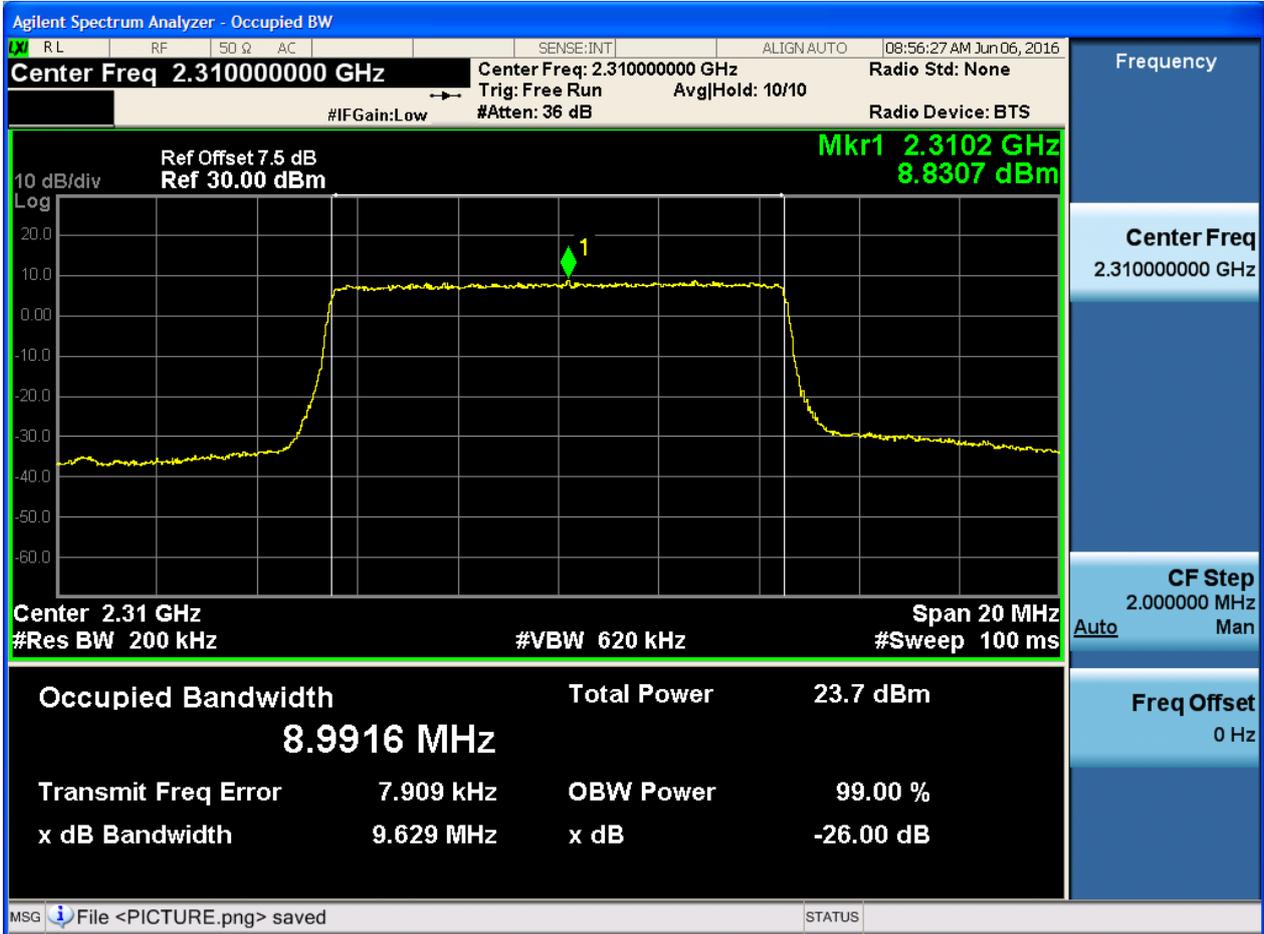




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB50#0



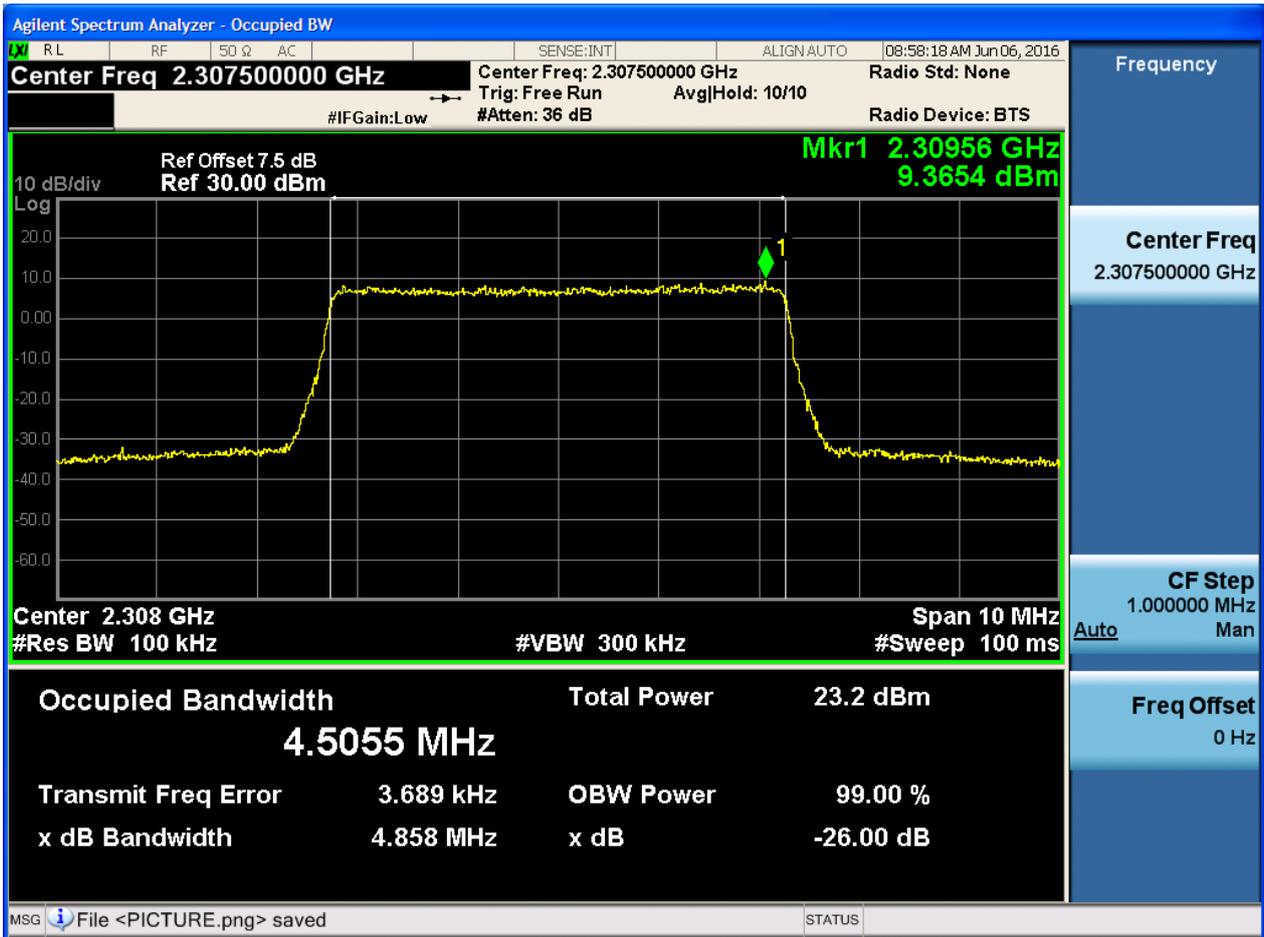


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

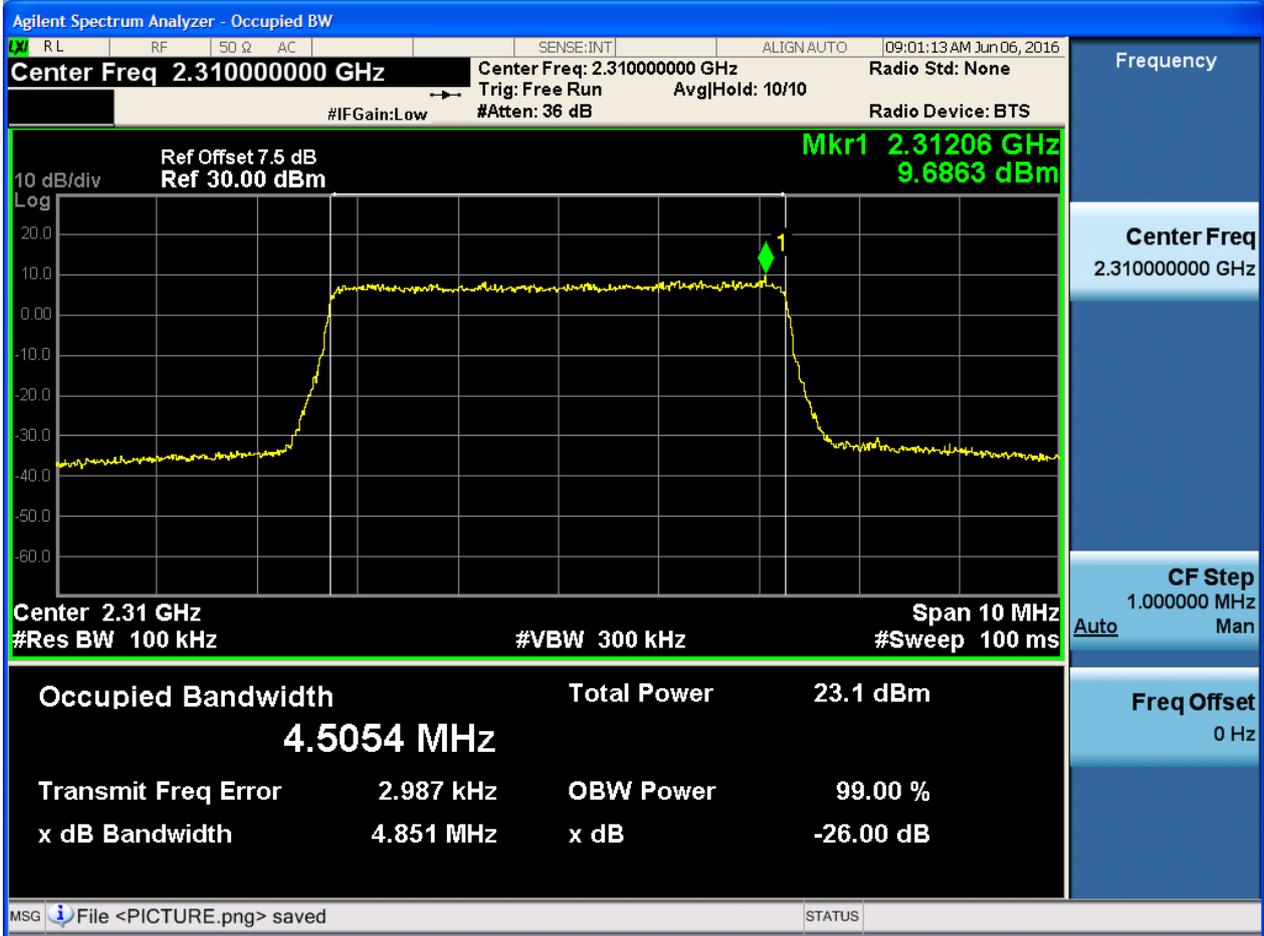
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

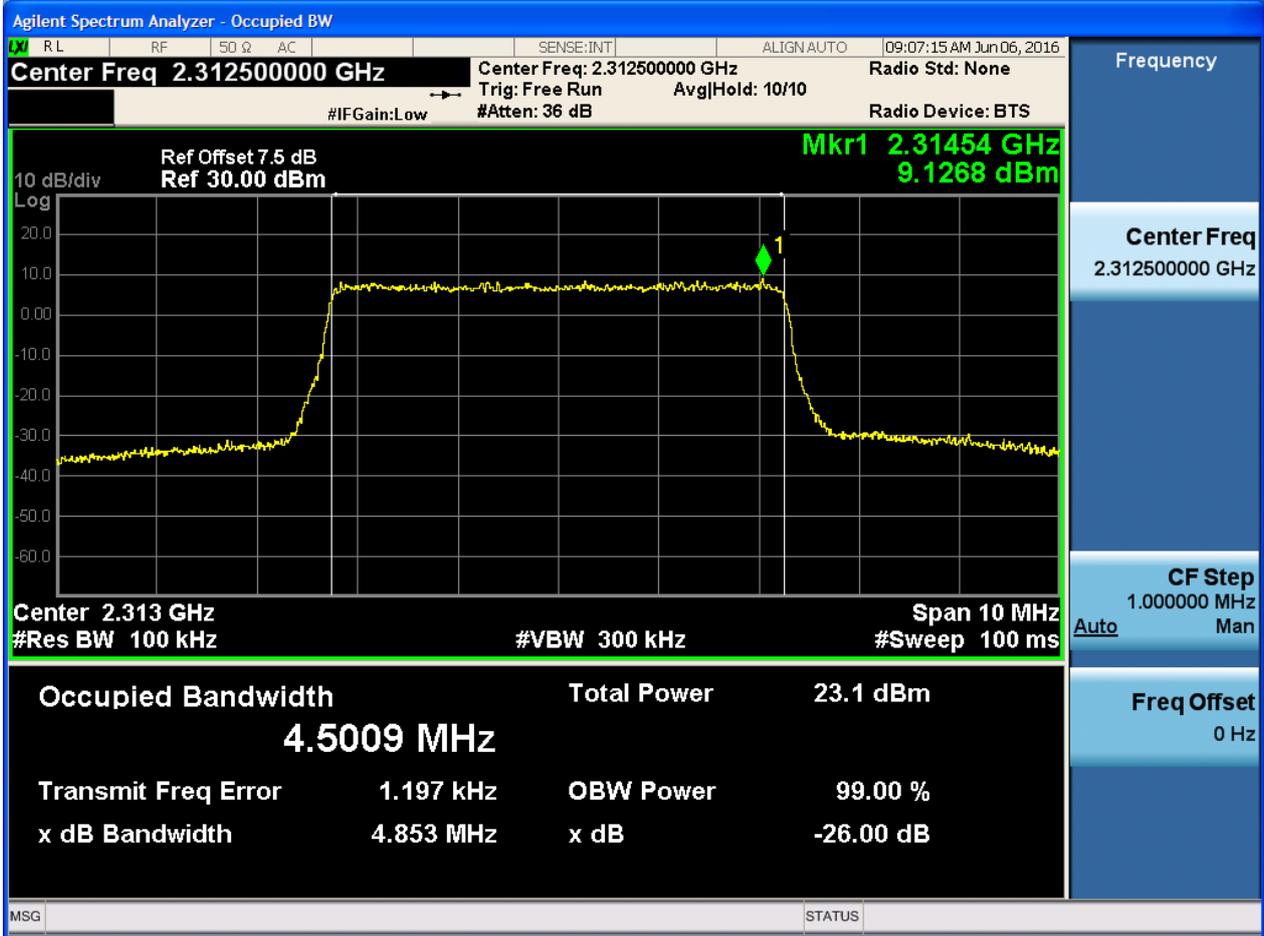
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

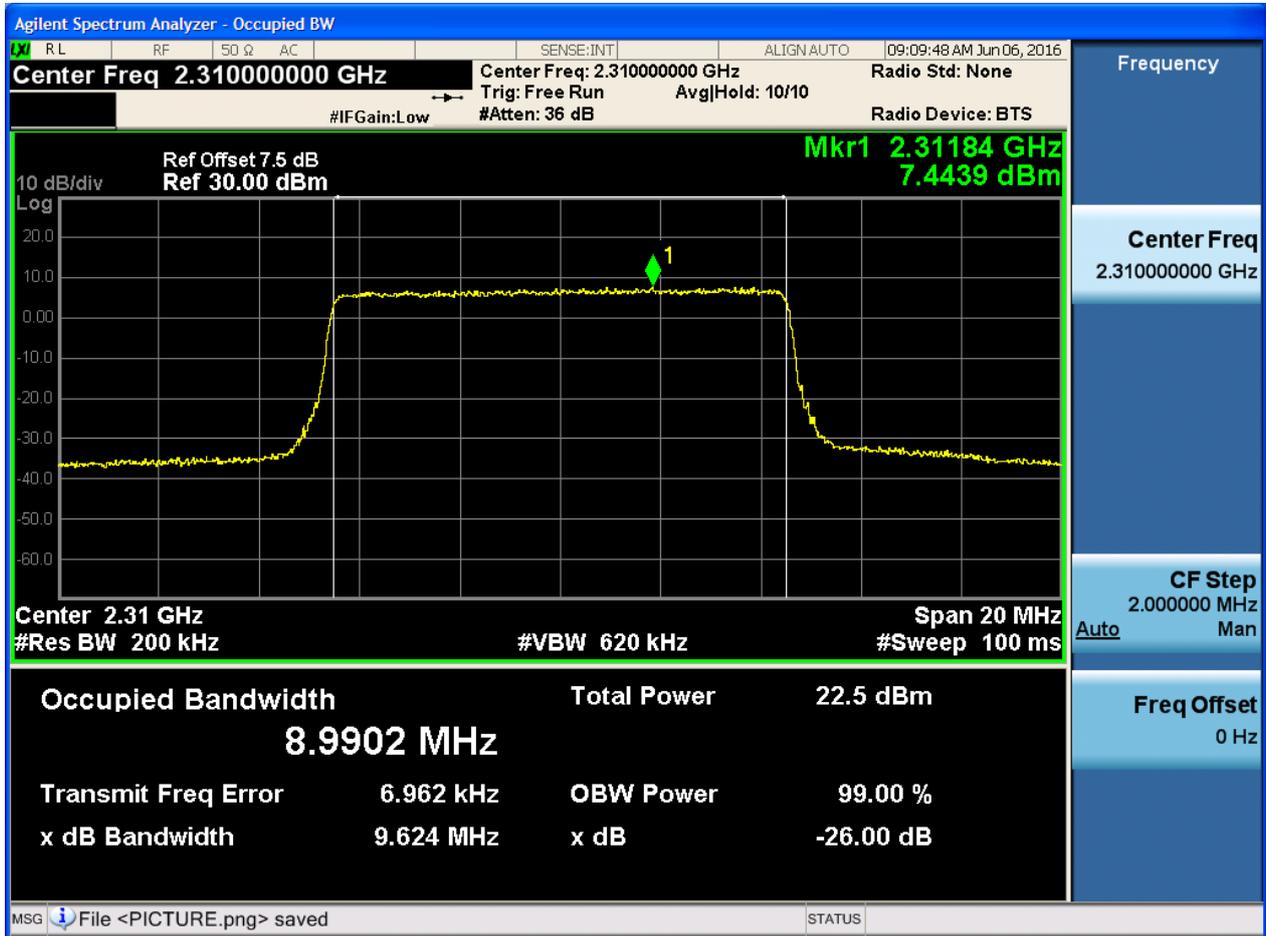




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

4.1.1.2.2.1.1 Test RB = RB50#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

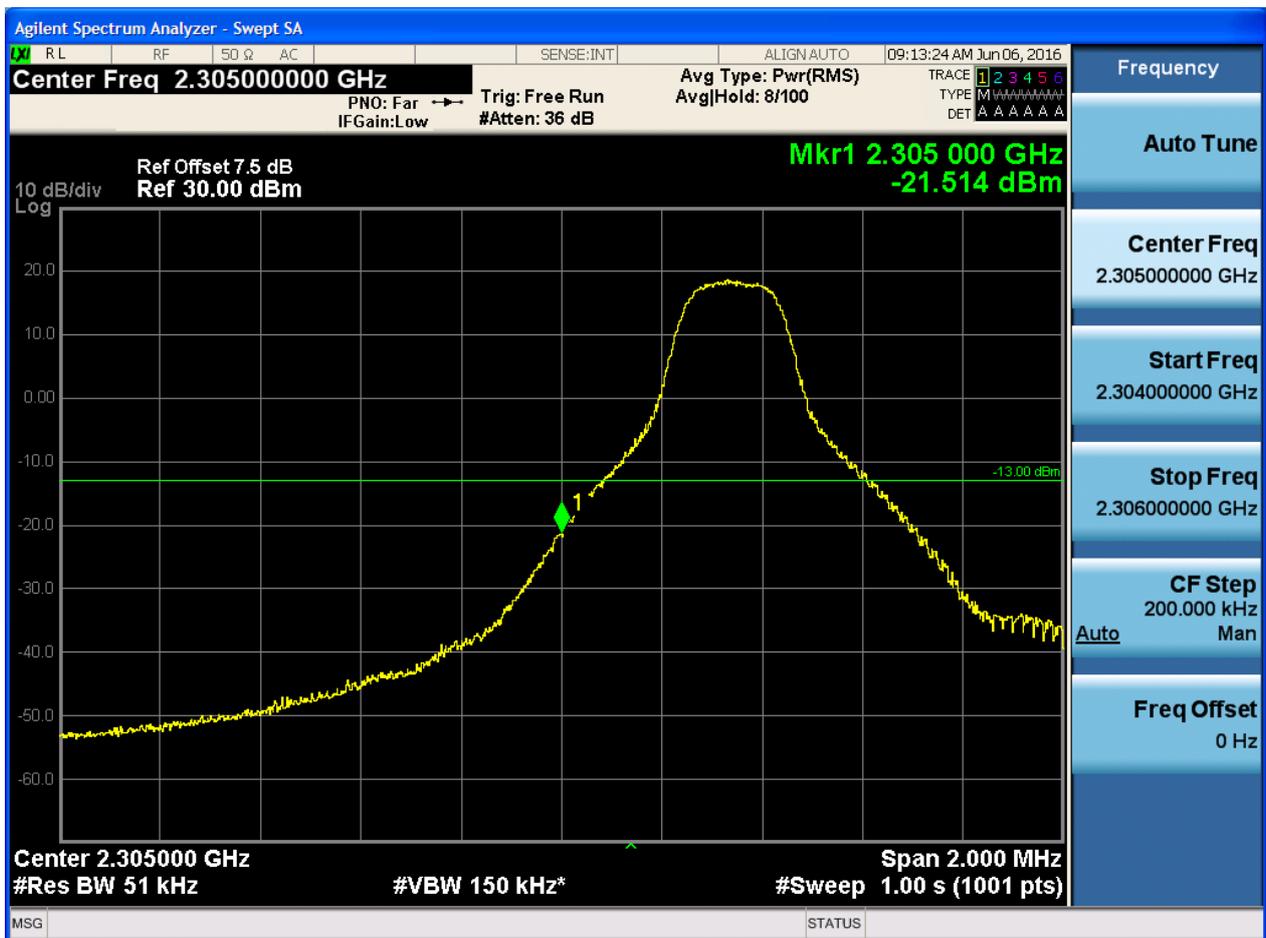
5.1.1 Test Band = BAND30

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

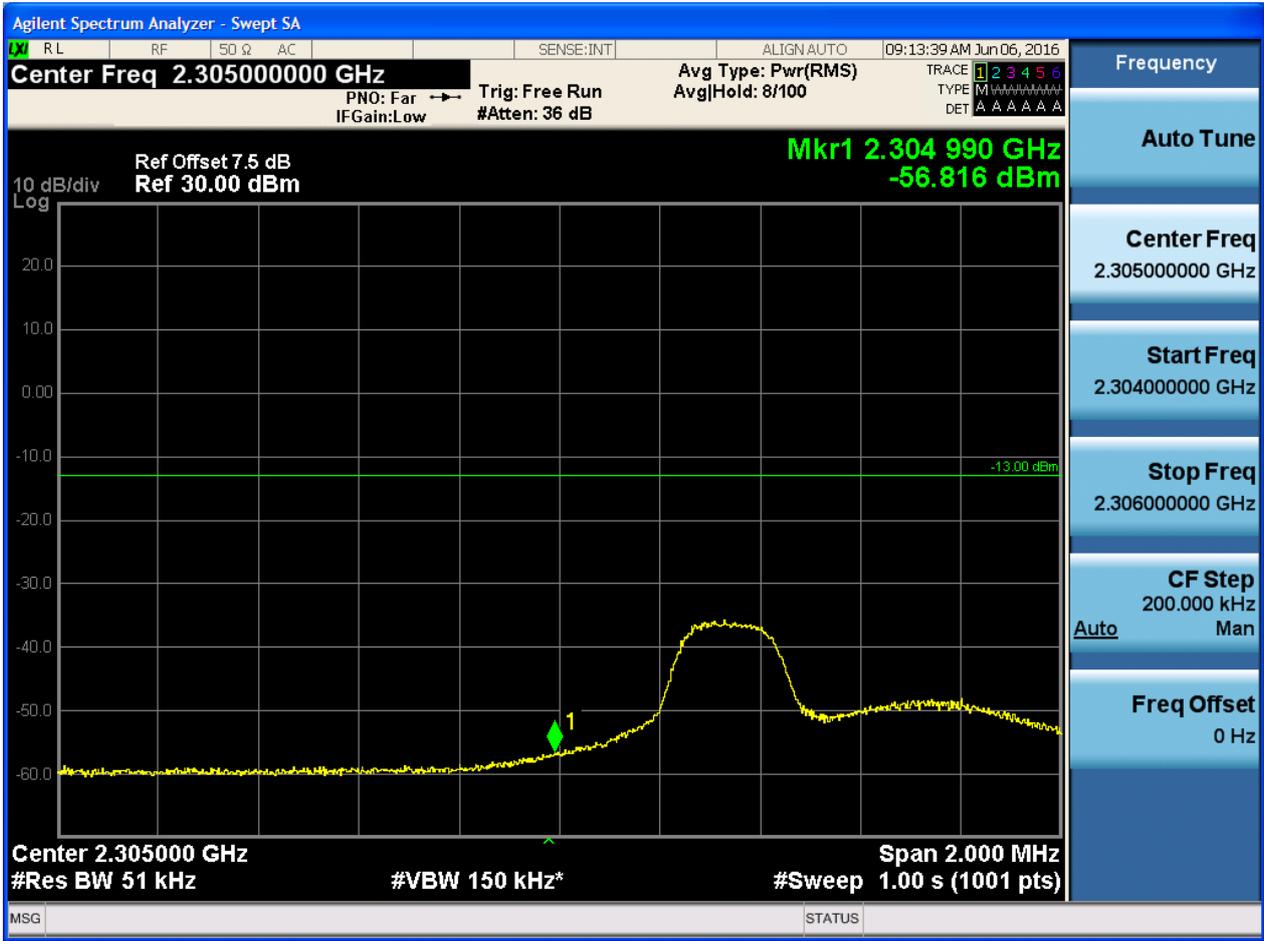
5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



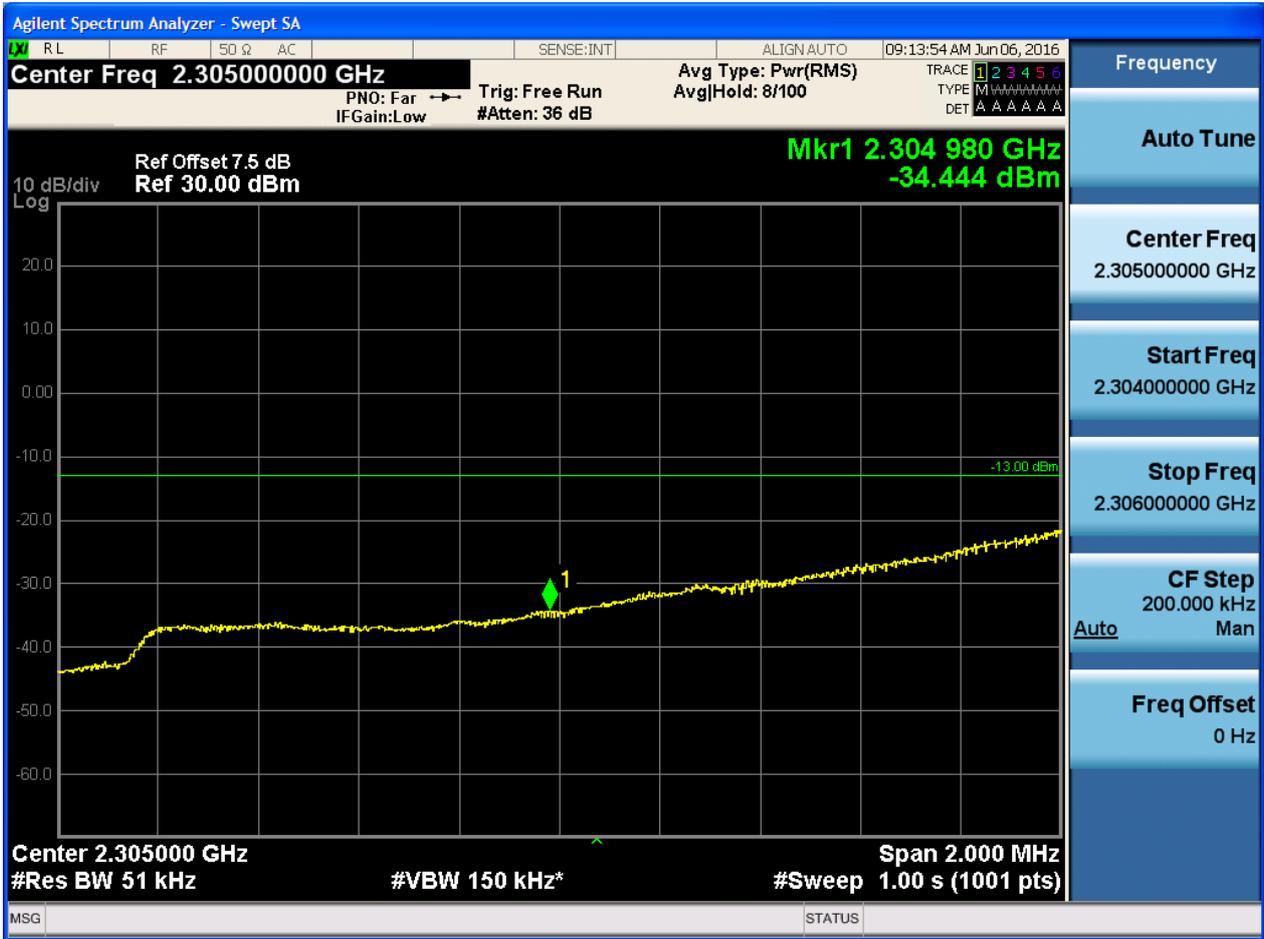


5.1.1.1.1.2 Test RB = RB1#24





5.1.1.1.1.3 Test RB = RB12#6





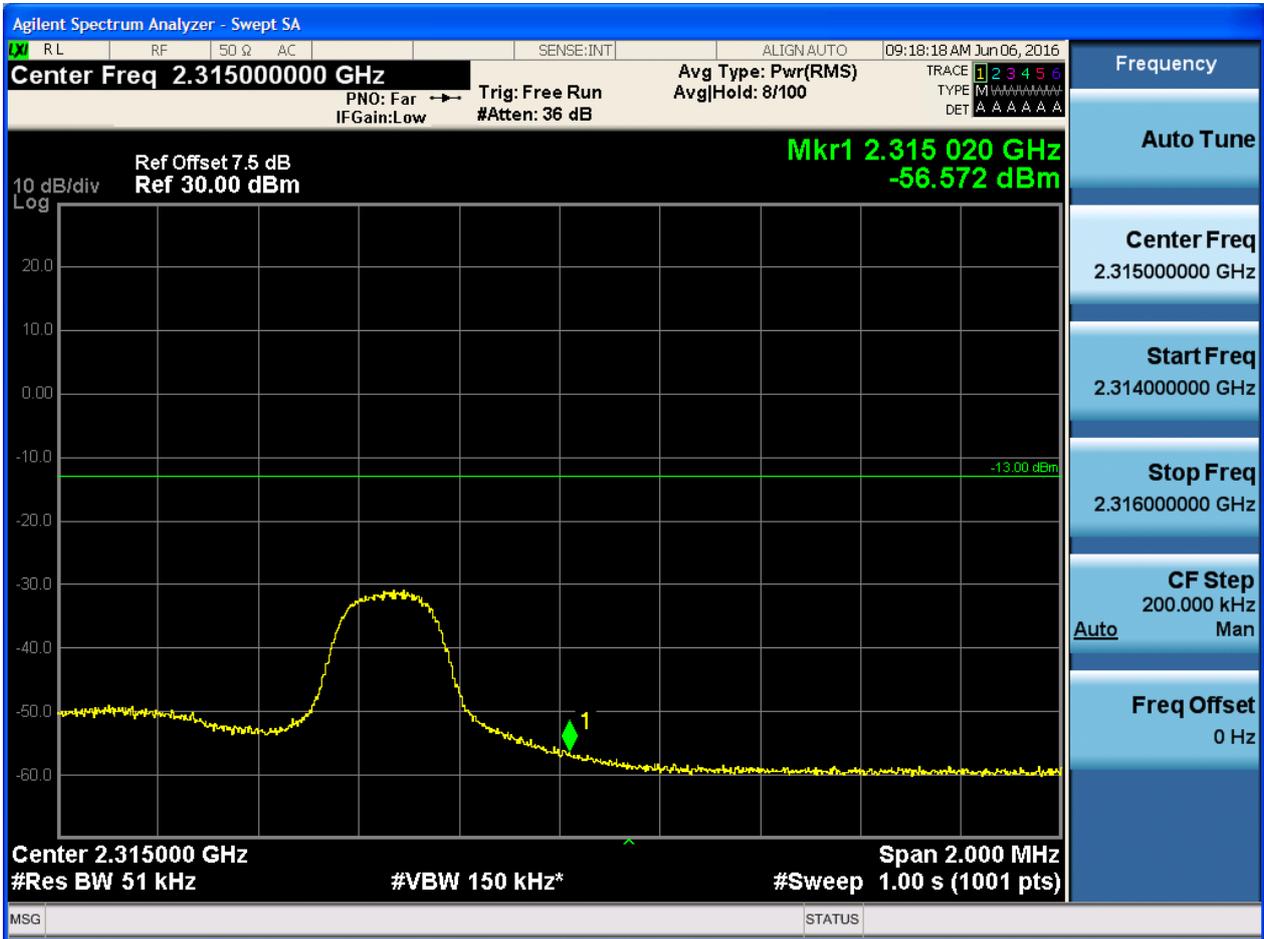
5.1.1.1.1.4 Test RB = RB25#0





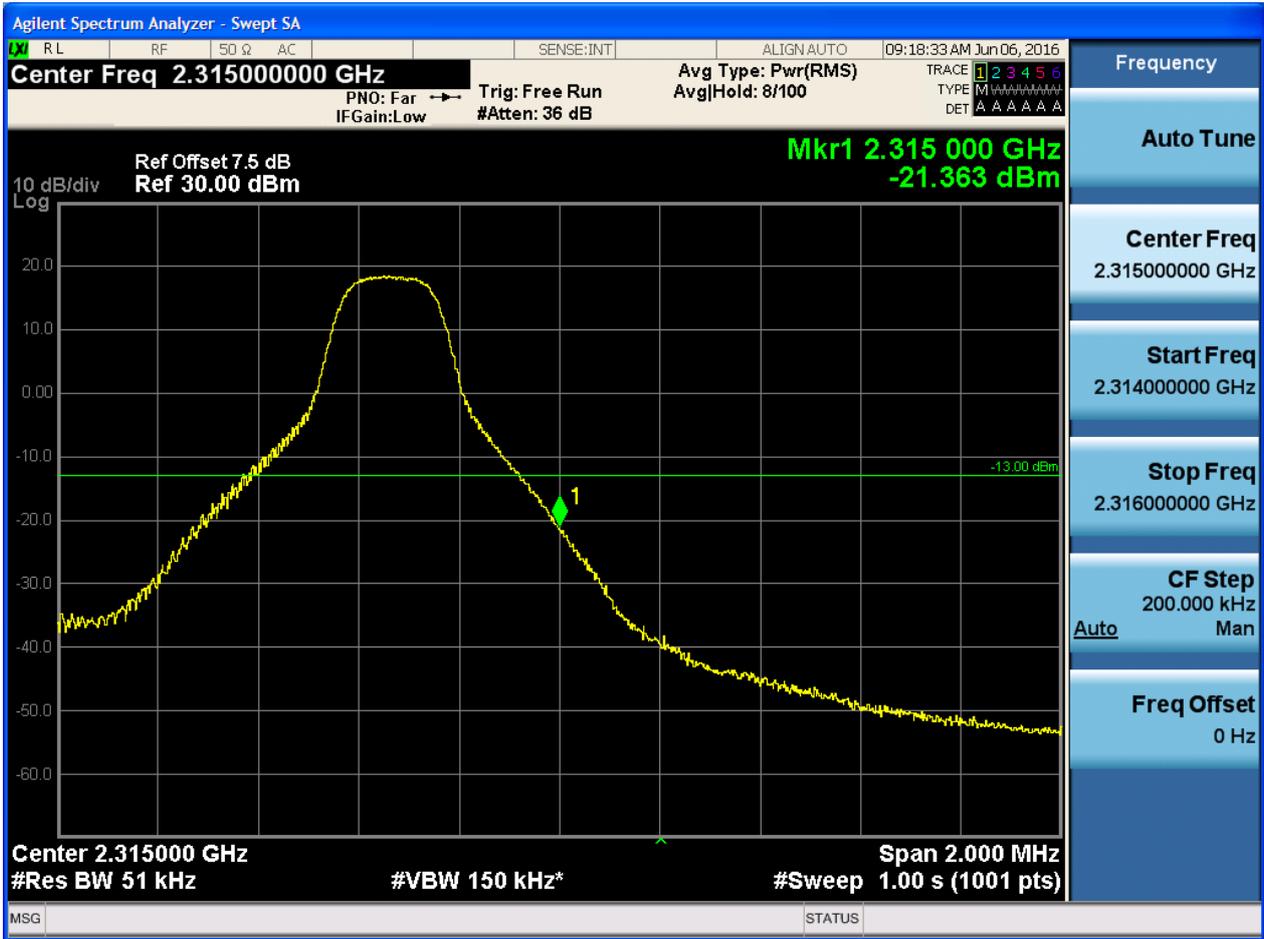
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.2.2 Test RB = RB1#24





5.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.2.4 Test RB = RB25#0

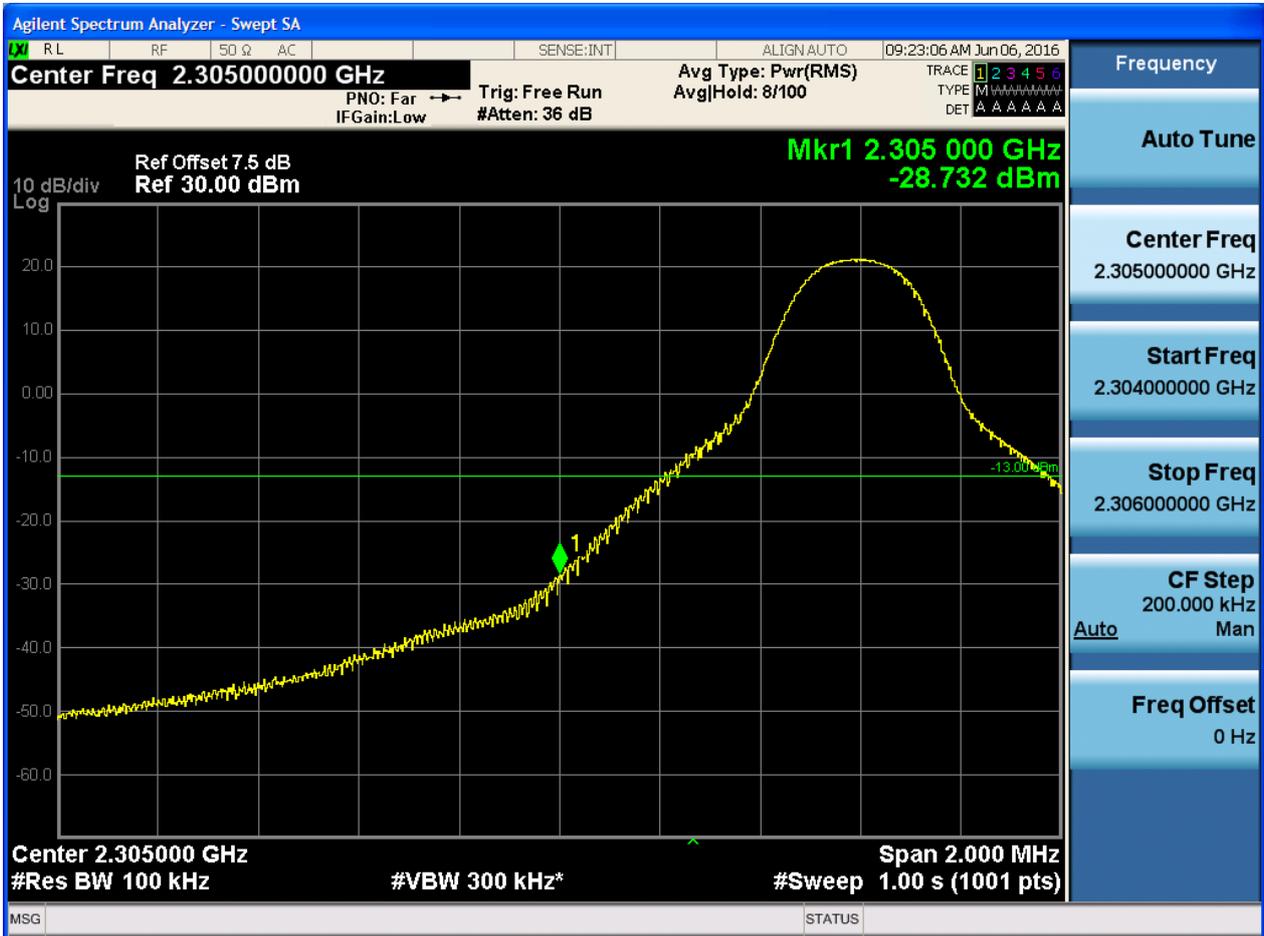




5.1.1.1.2 Test Bandwidth = 10

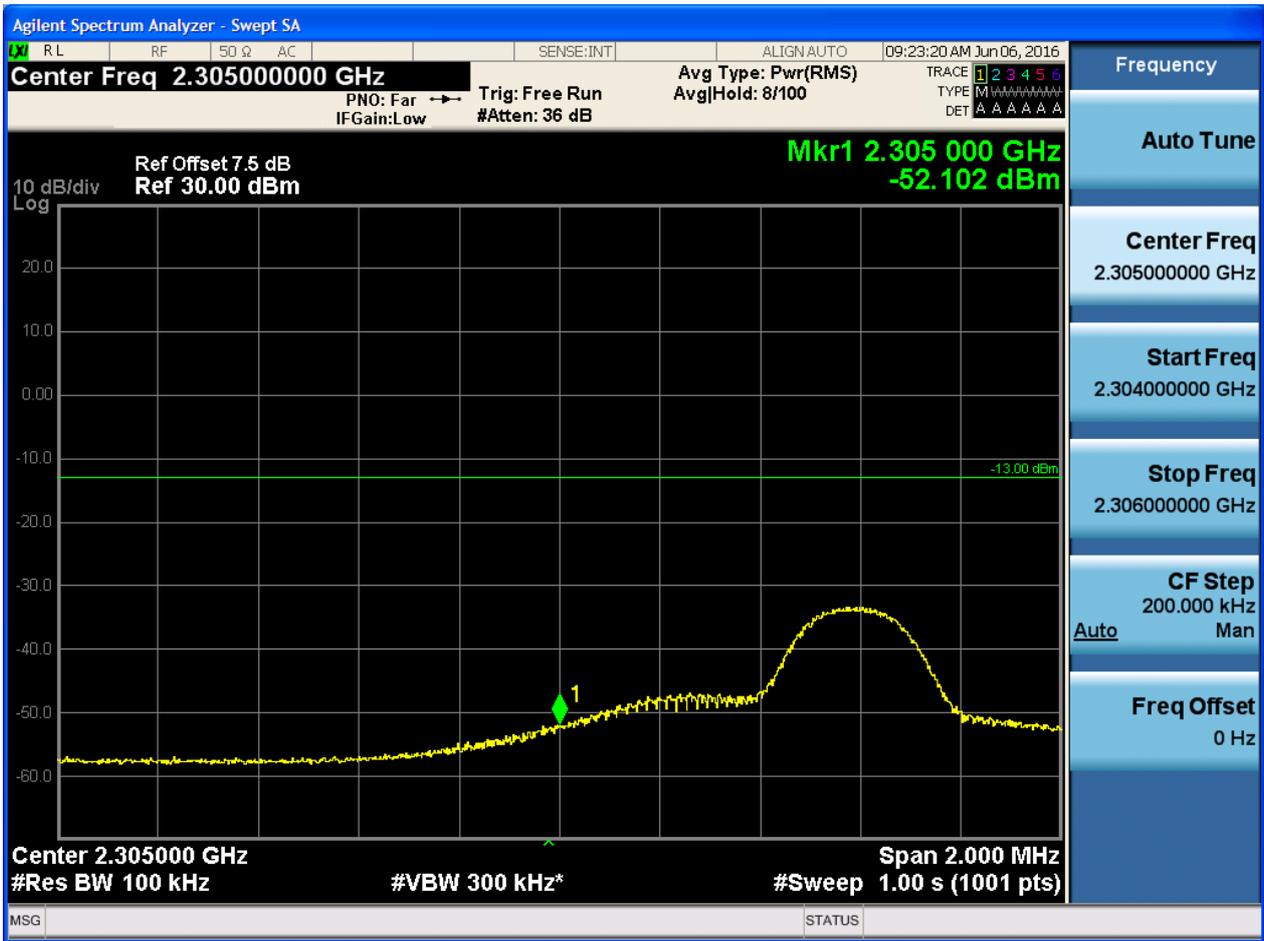
5.1.1.1.2.1 Test Channel = LCH

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





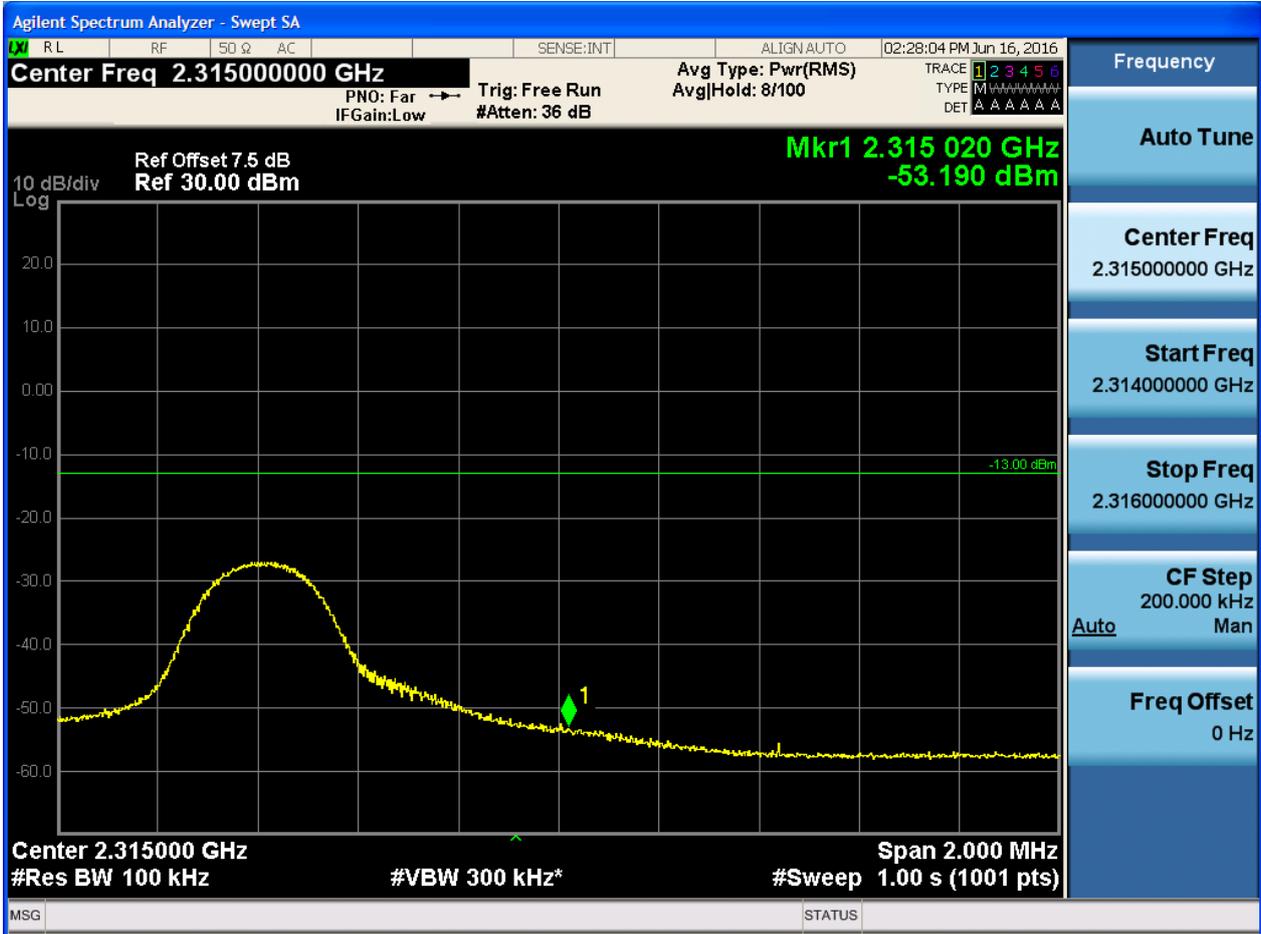
5.1.1.1.2.1.4 Test RB = RB50#0





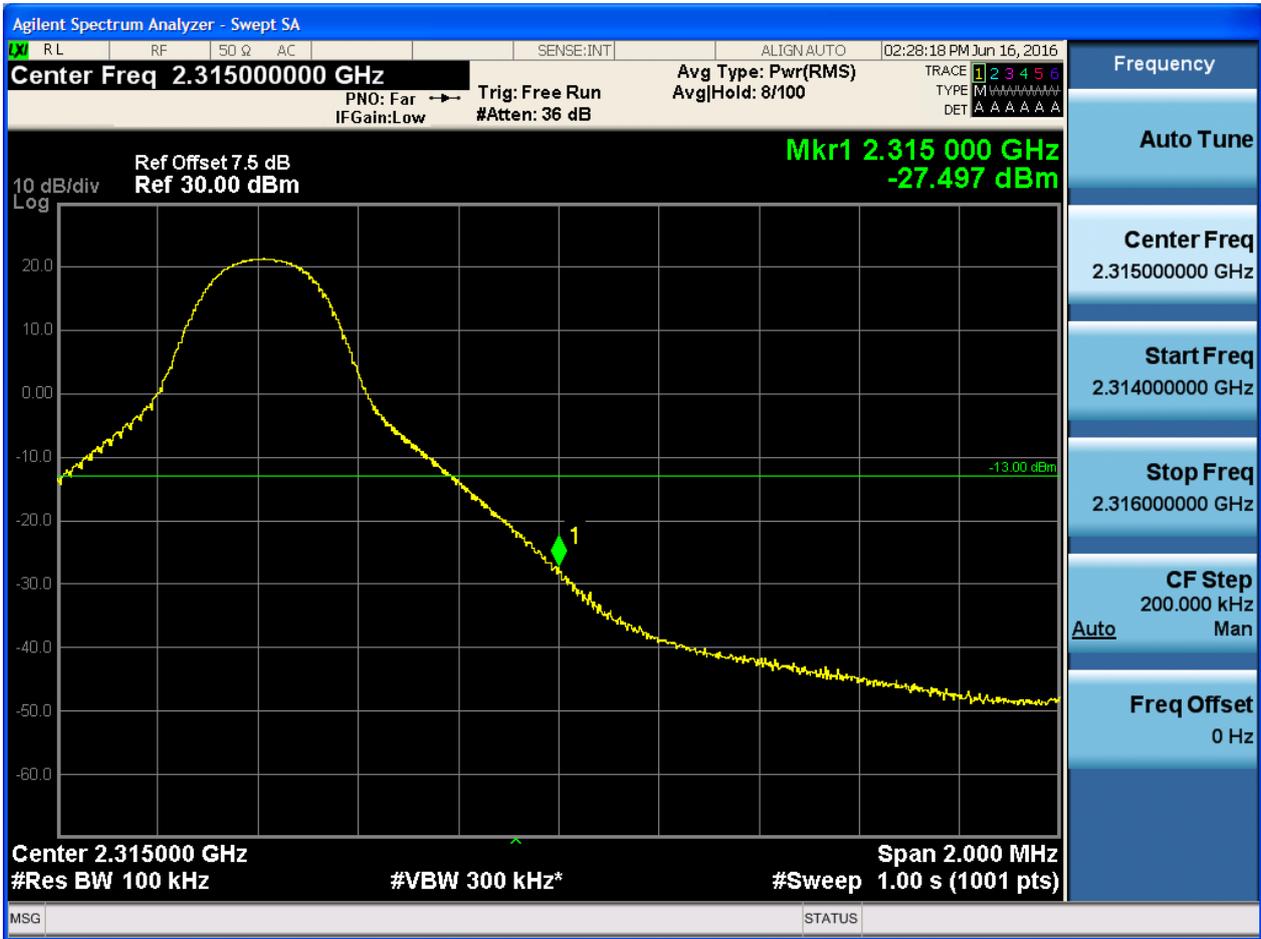
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0



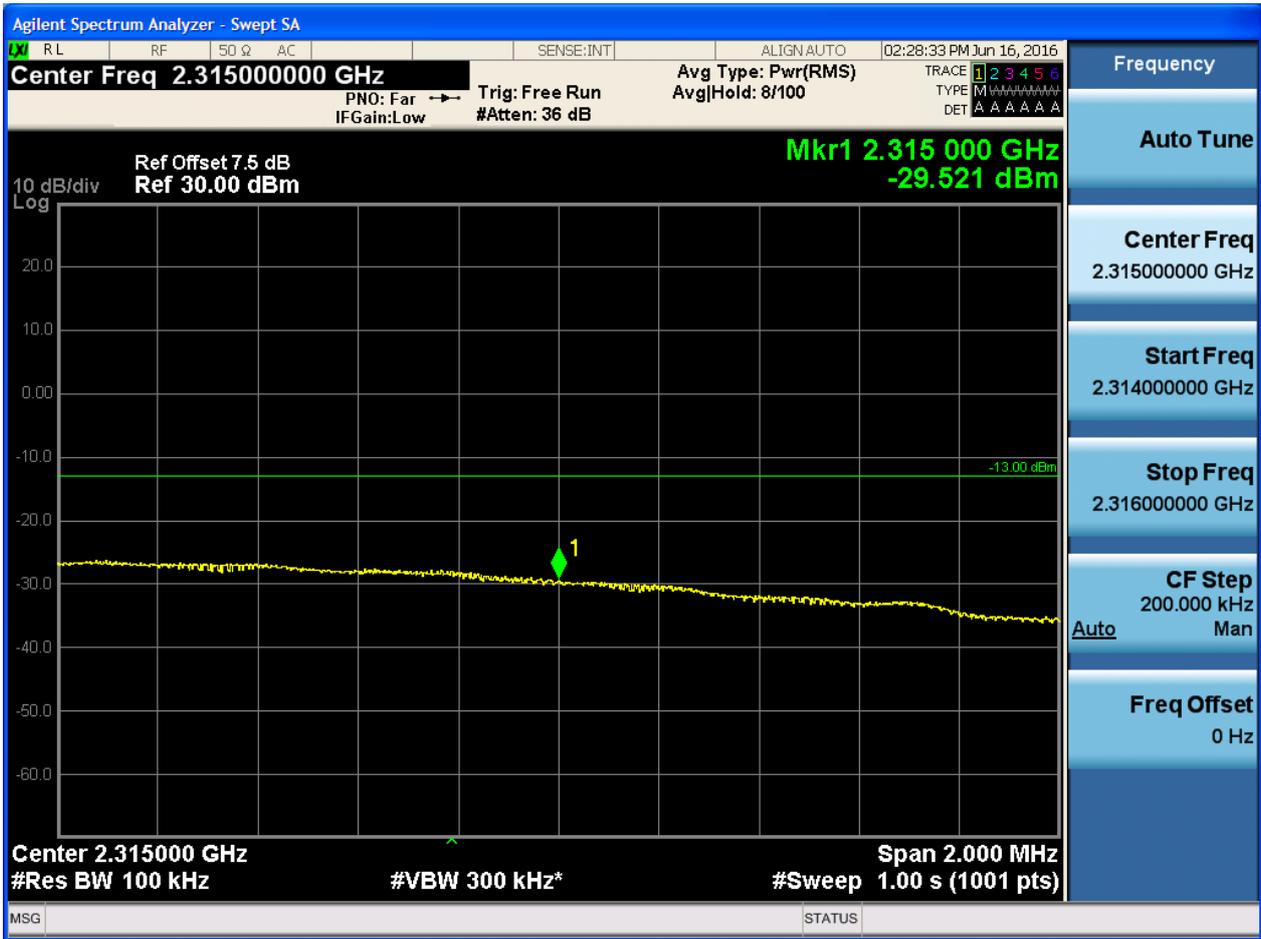


5.1.1.1.2.2 Test RB = RB1#49





5.1.1.1.2.2.3 Test RB = RB25#13





5.1.1.1.2.2.4 Test RB = RB50#0



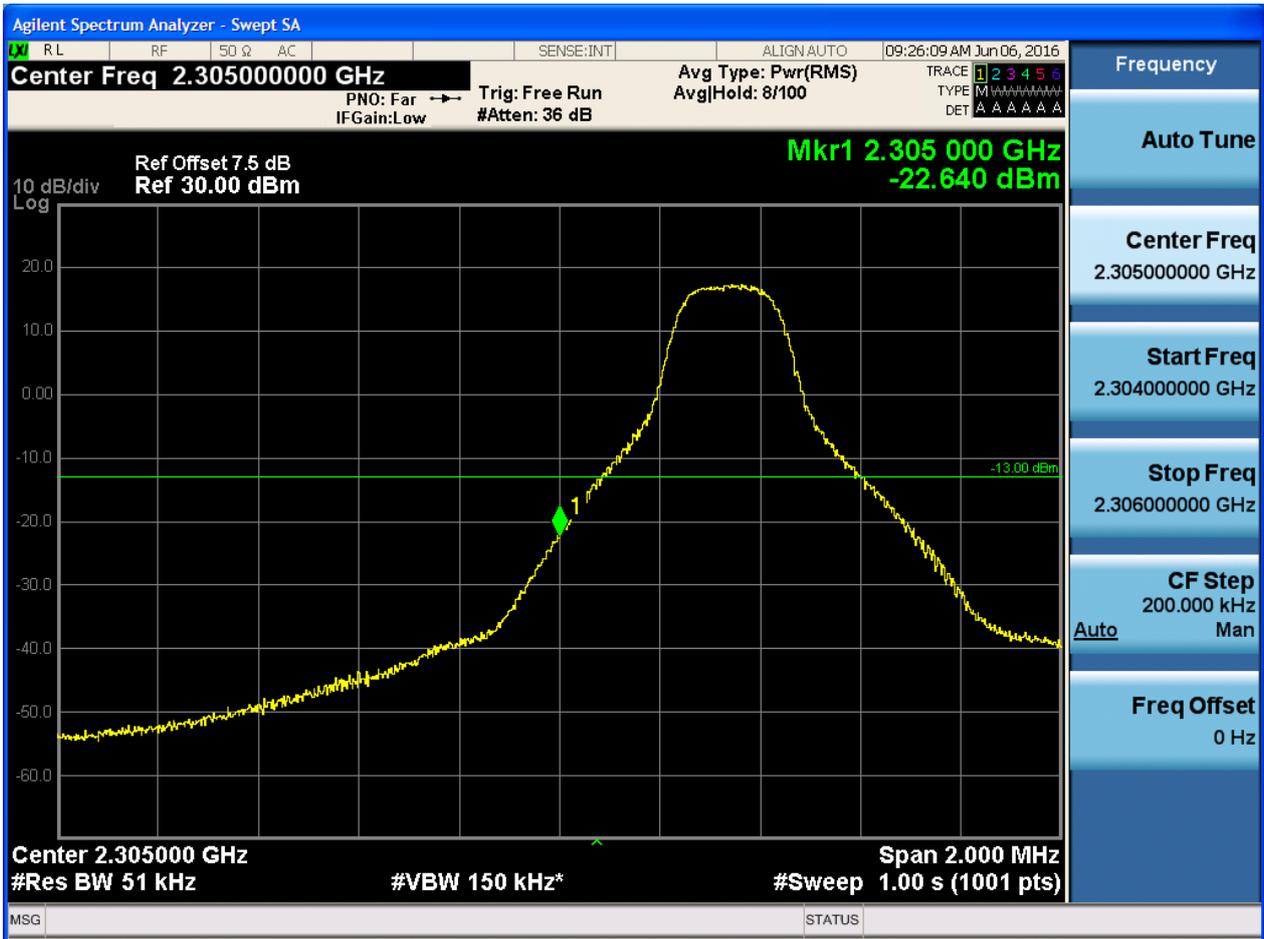


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

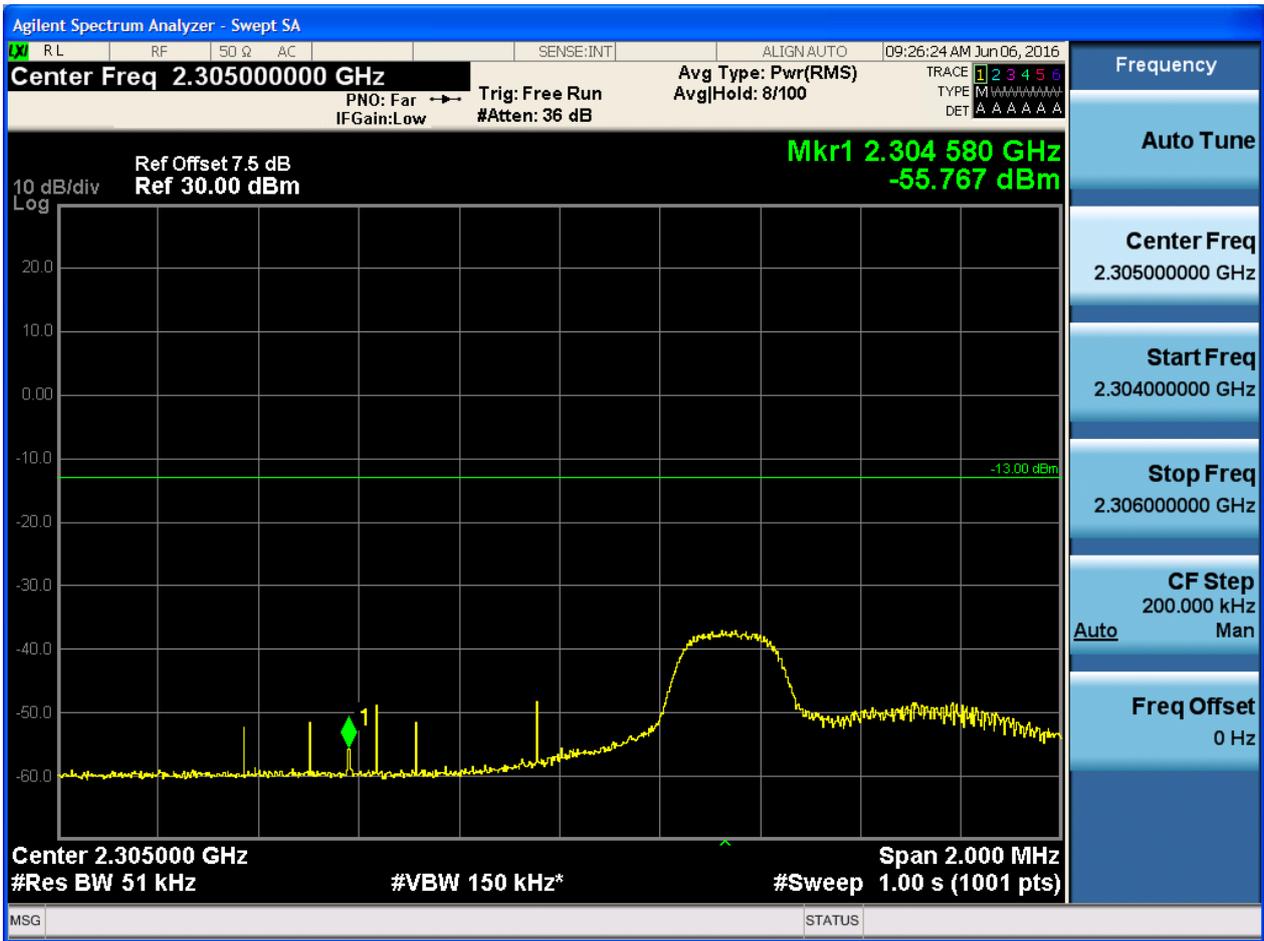
5.1.1.2.1.1 Test Channel = LCH

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





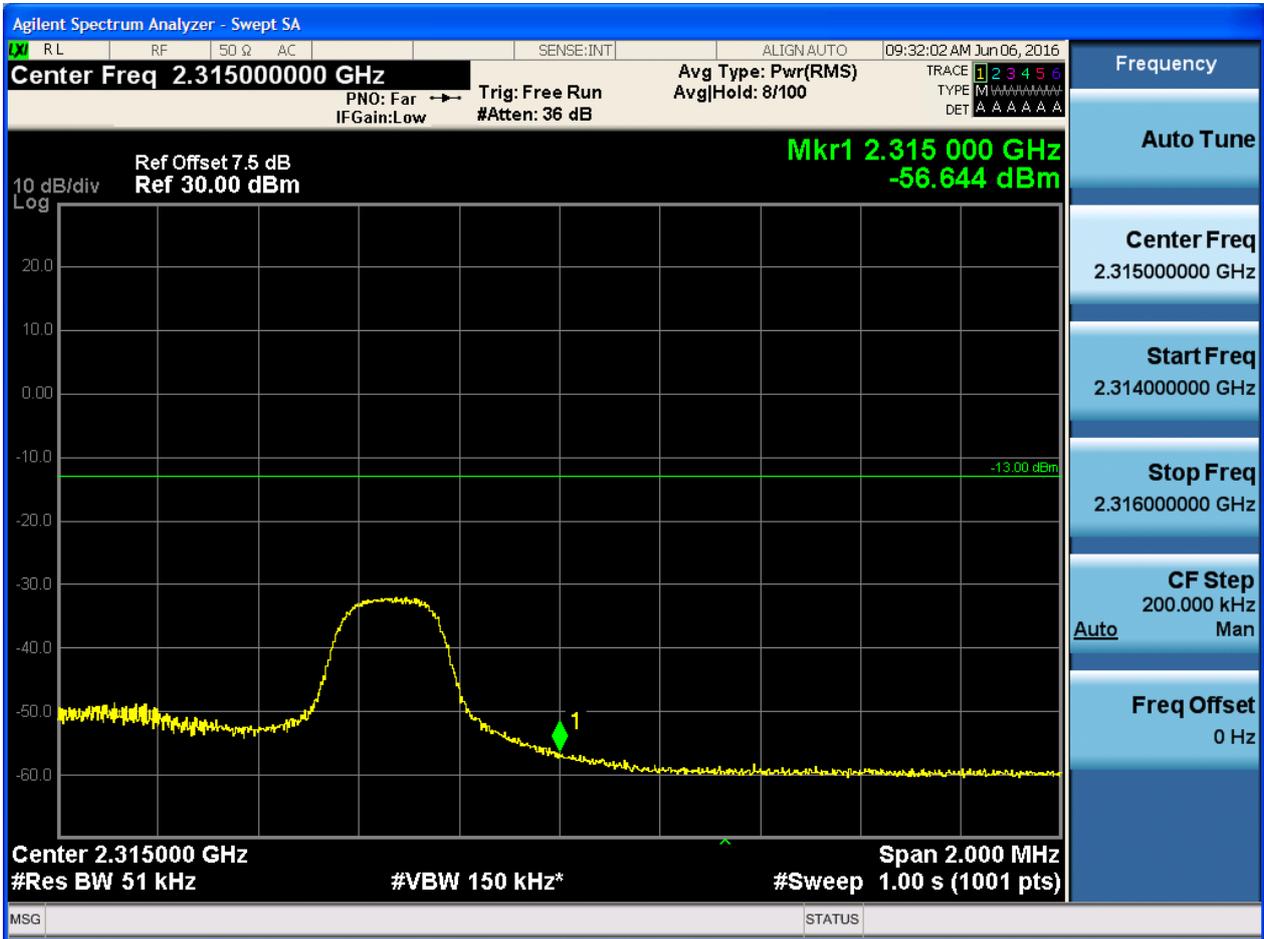
5.1.1.2.1.1.4 Test RB = RB25#0





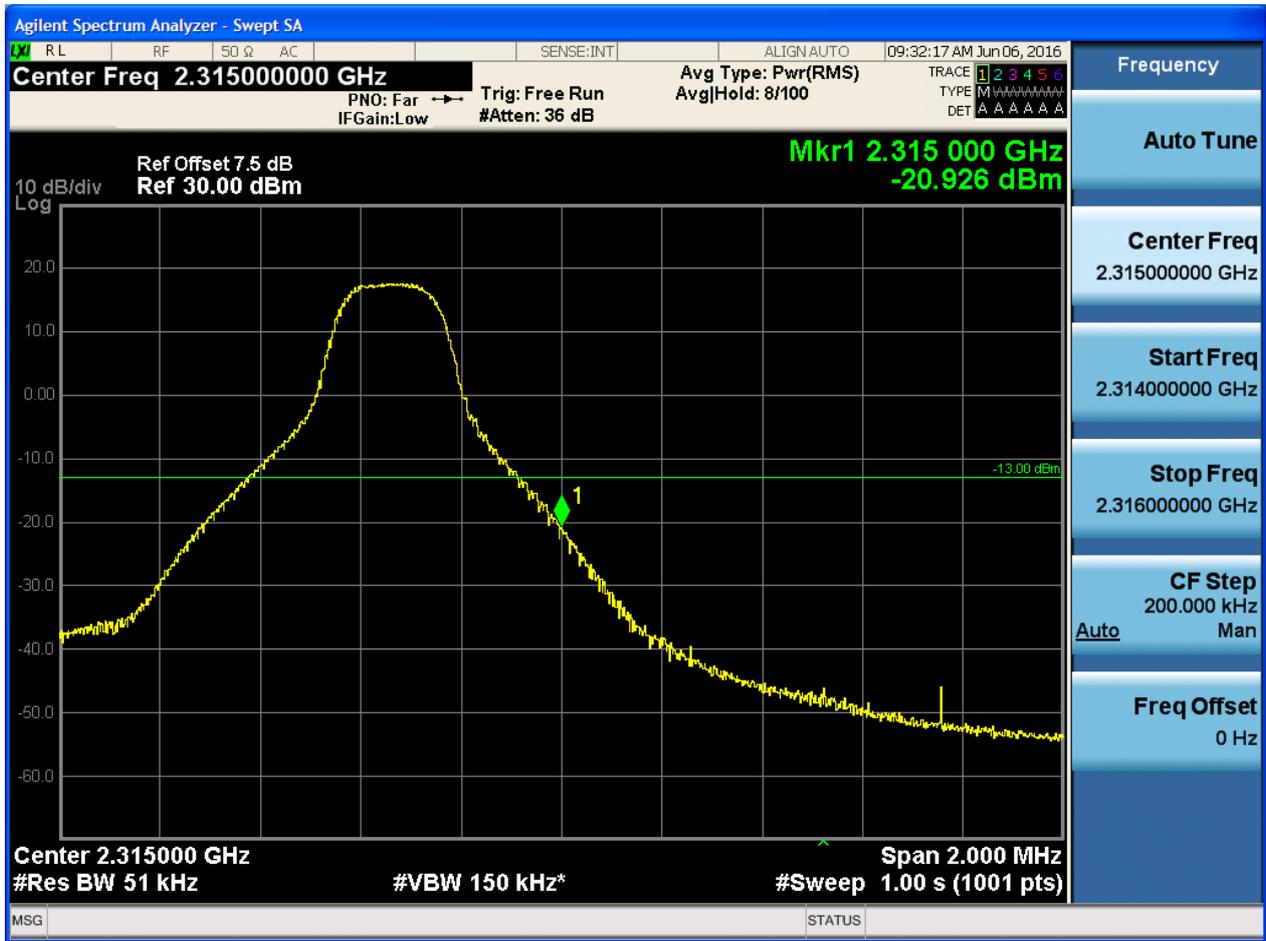
5.1.1.2.1.2 Test Channel = HCH

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

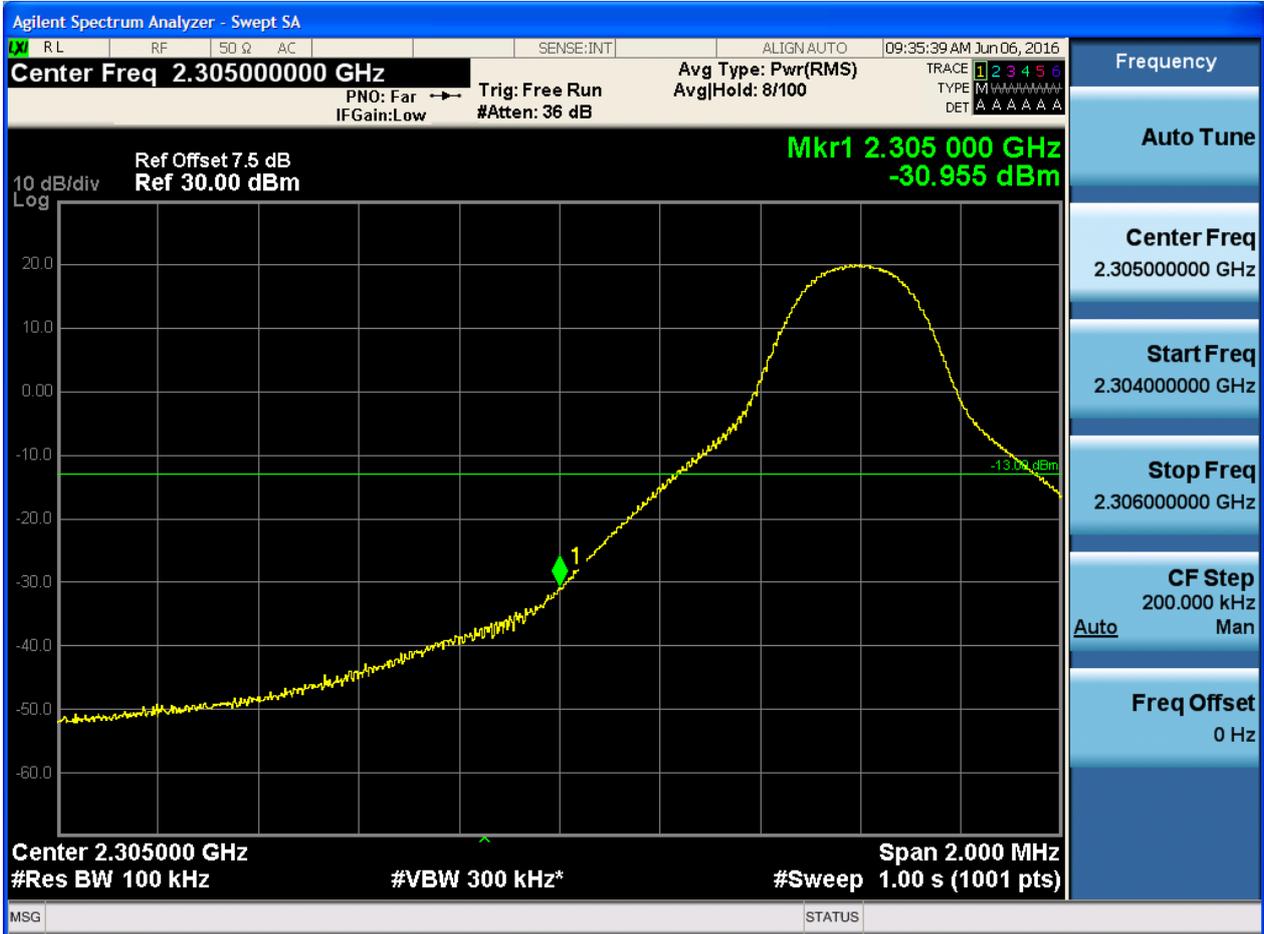




5.1.1.2.2 Test Bandwidth = 10

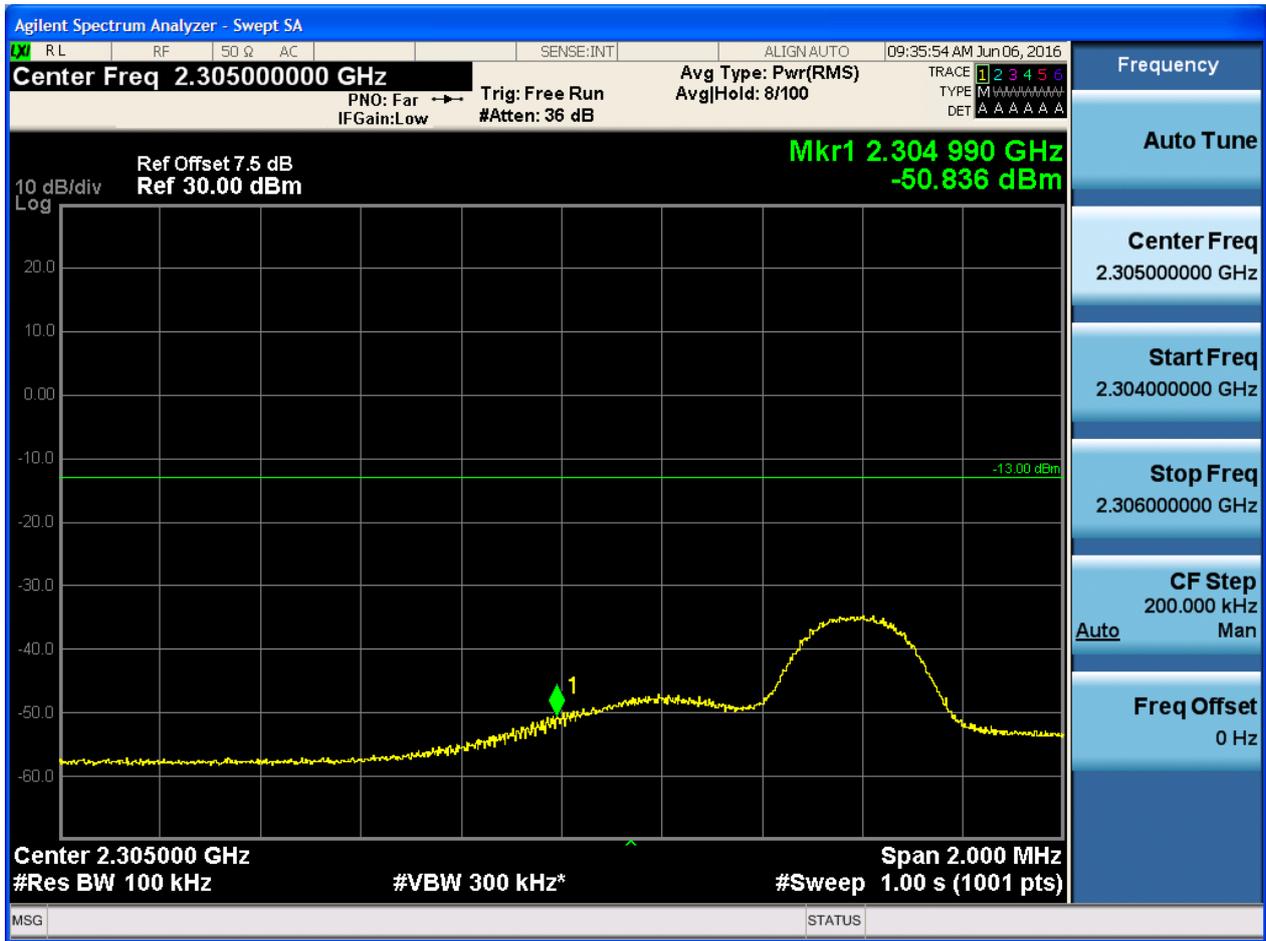
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0





5.1.1.2.2.1.2 Test RB = RB1#49



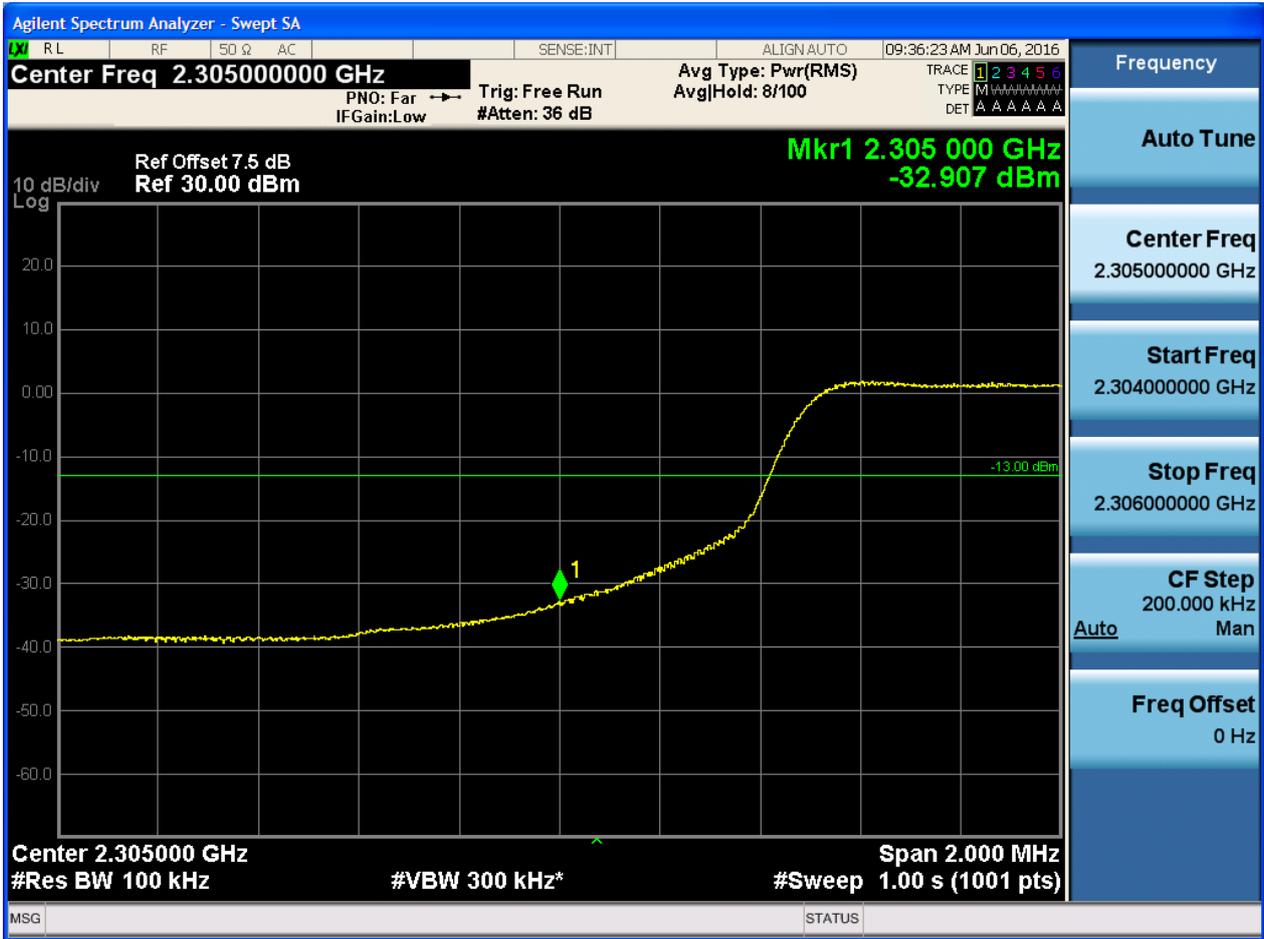


5.1.1.2.2.1.3 Test RB = RB25#13





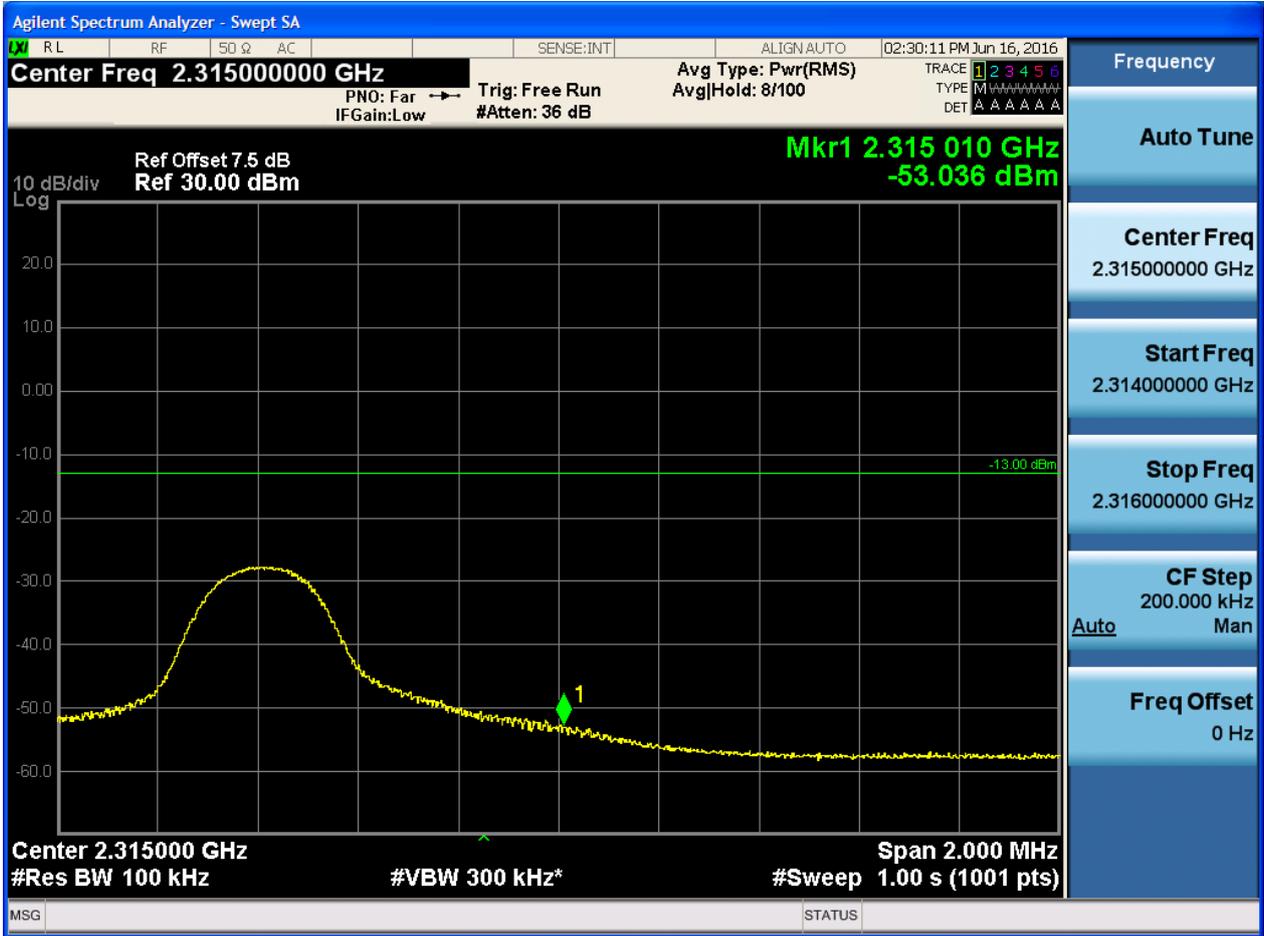
5.1.1.2.2.1.4 Test RB = RB50#0





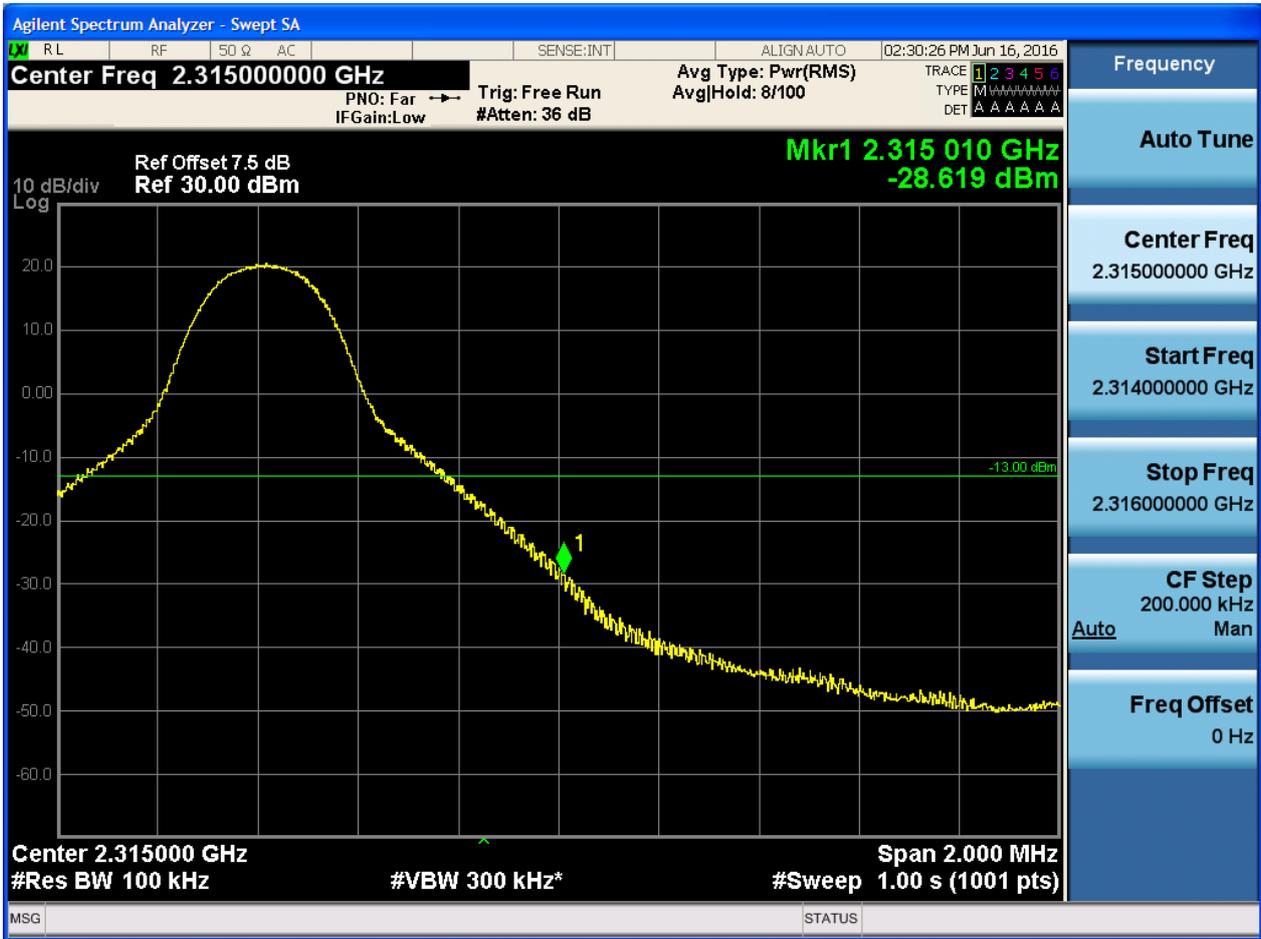
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



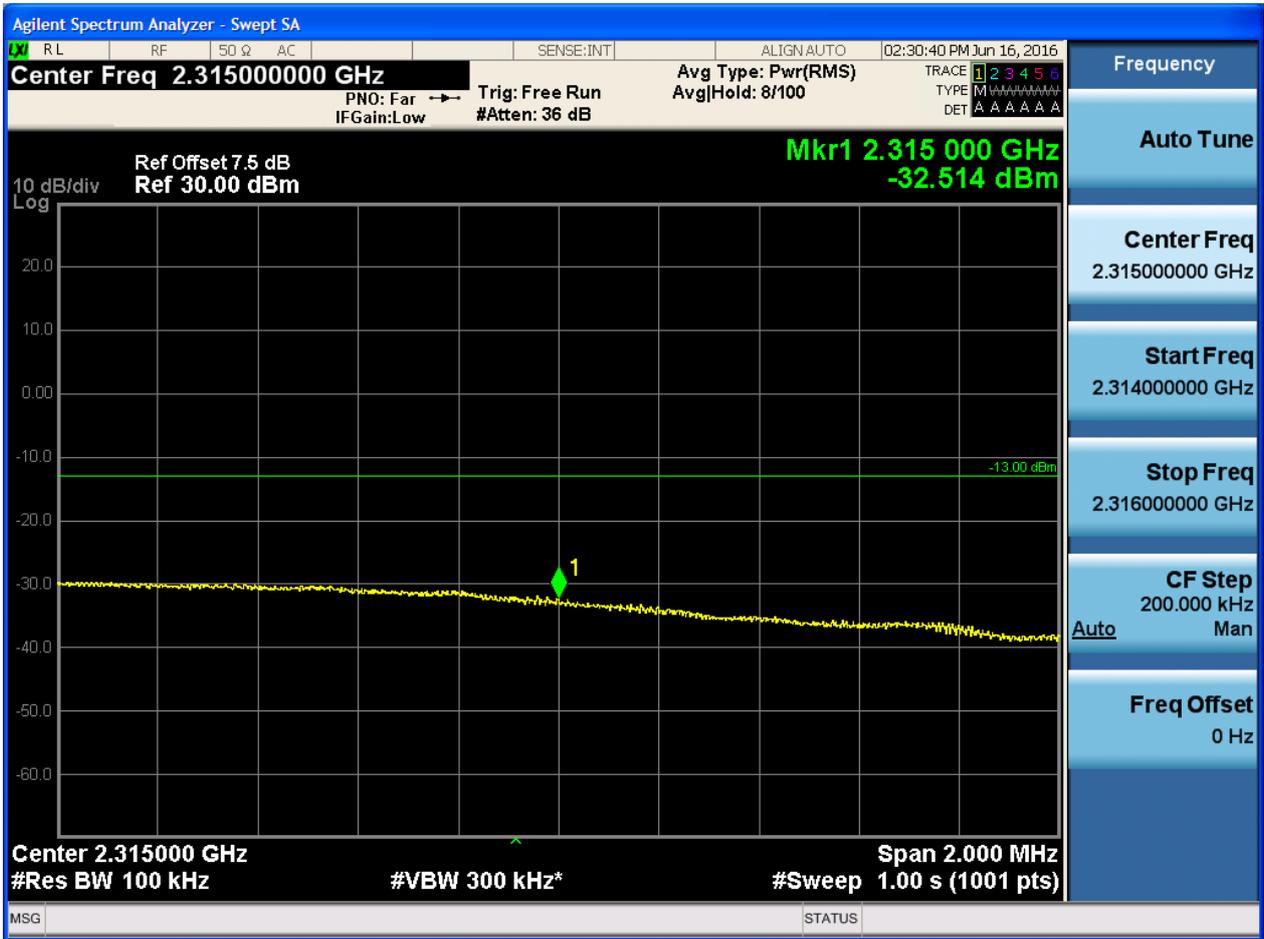


5.1.1.2.2.2 Test RB = RB1#49





5.1.1.2.2.2.3 Test RB = RB25#13





5.1.1.2.2.2.4 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

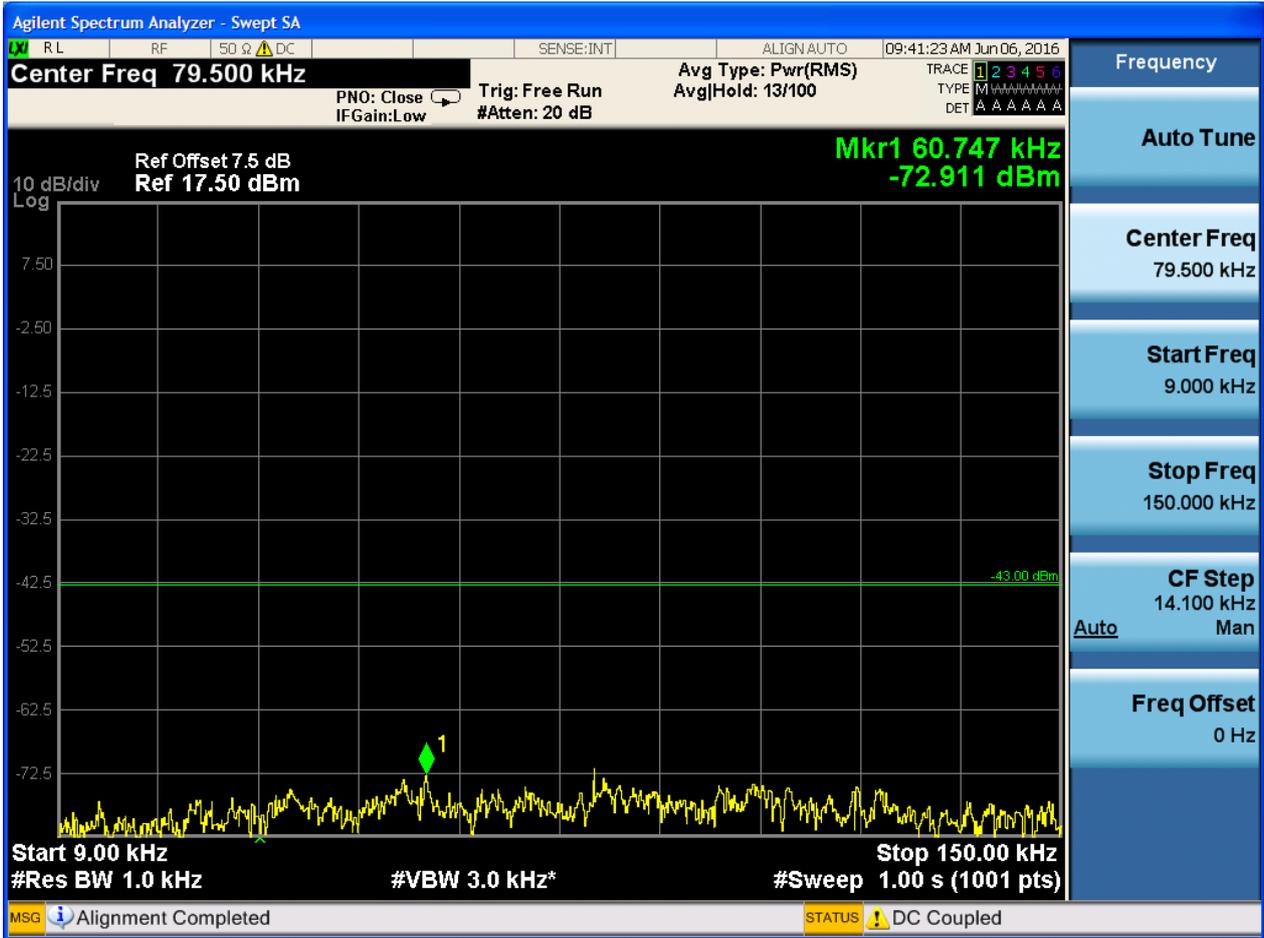
6.1.1 Test Band = BAND30

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







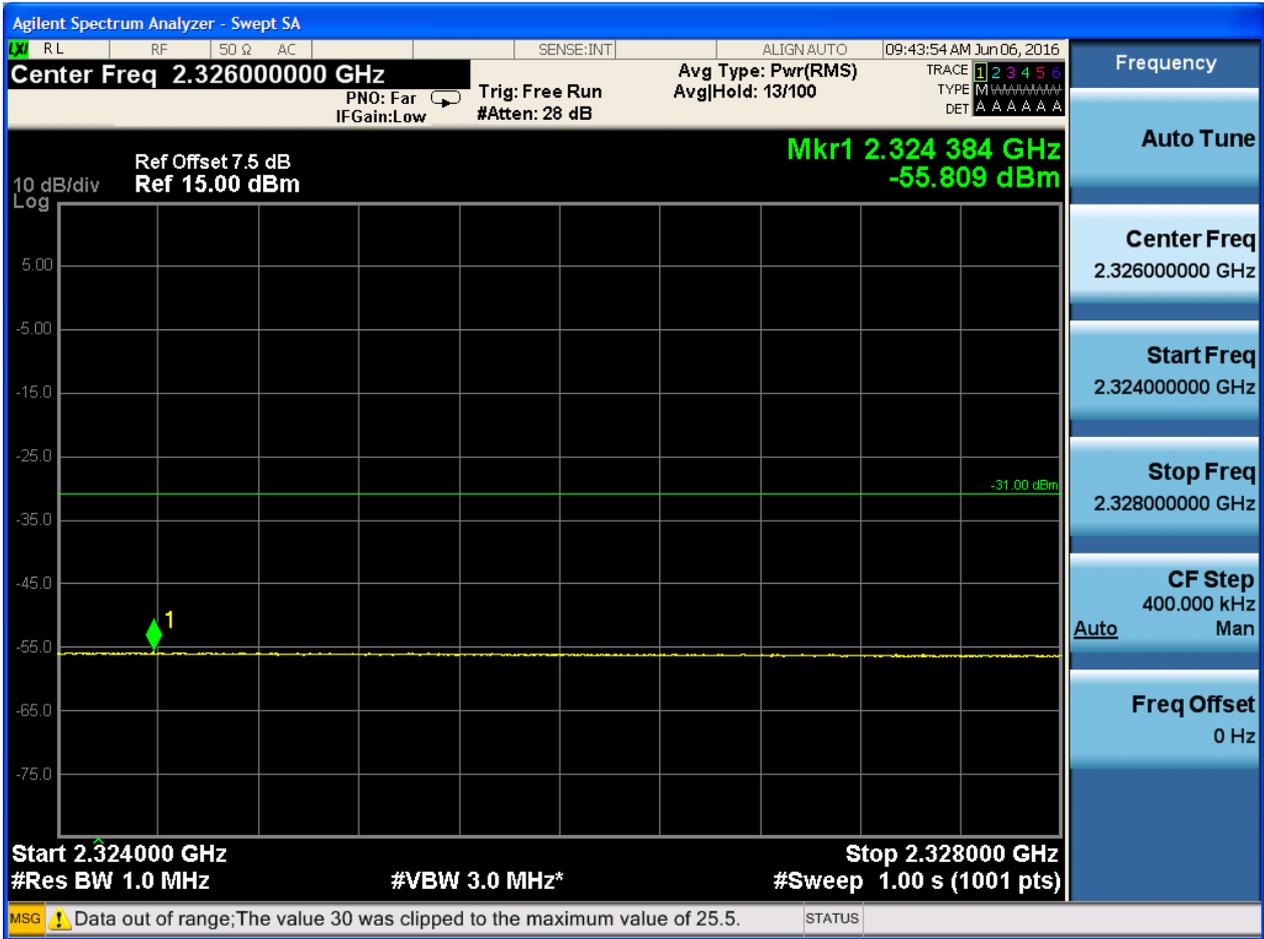




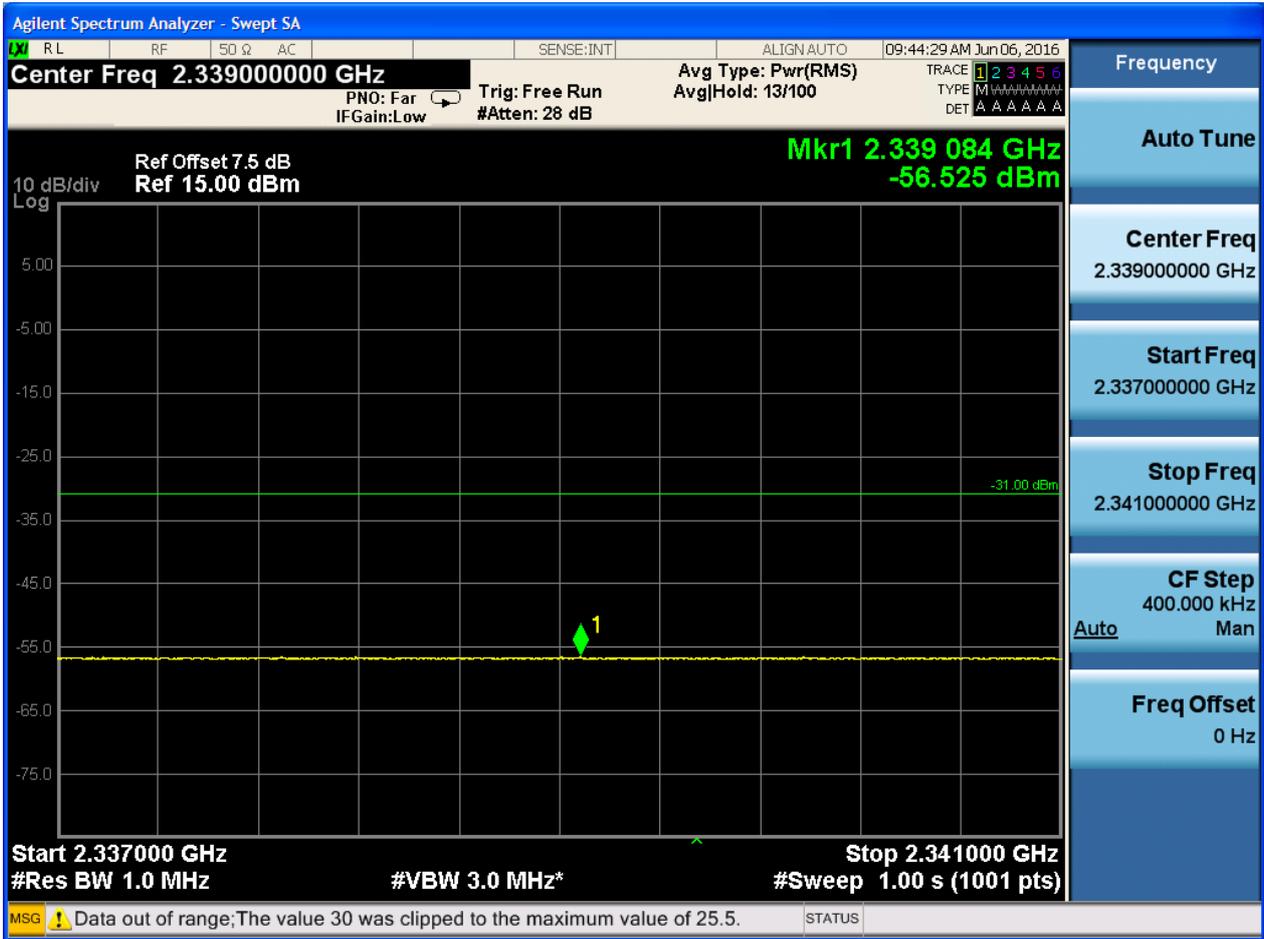
















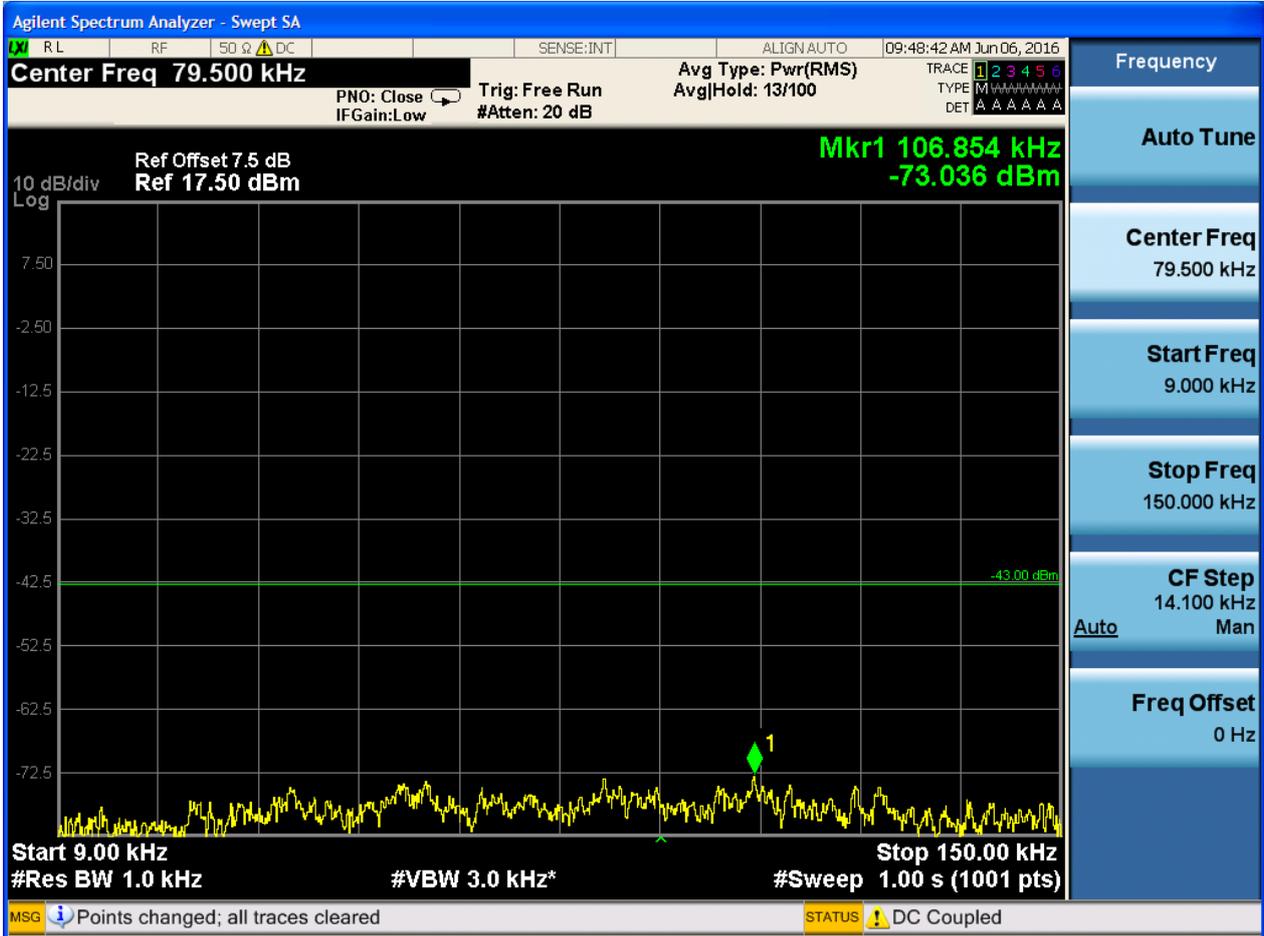


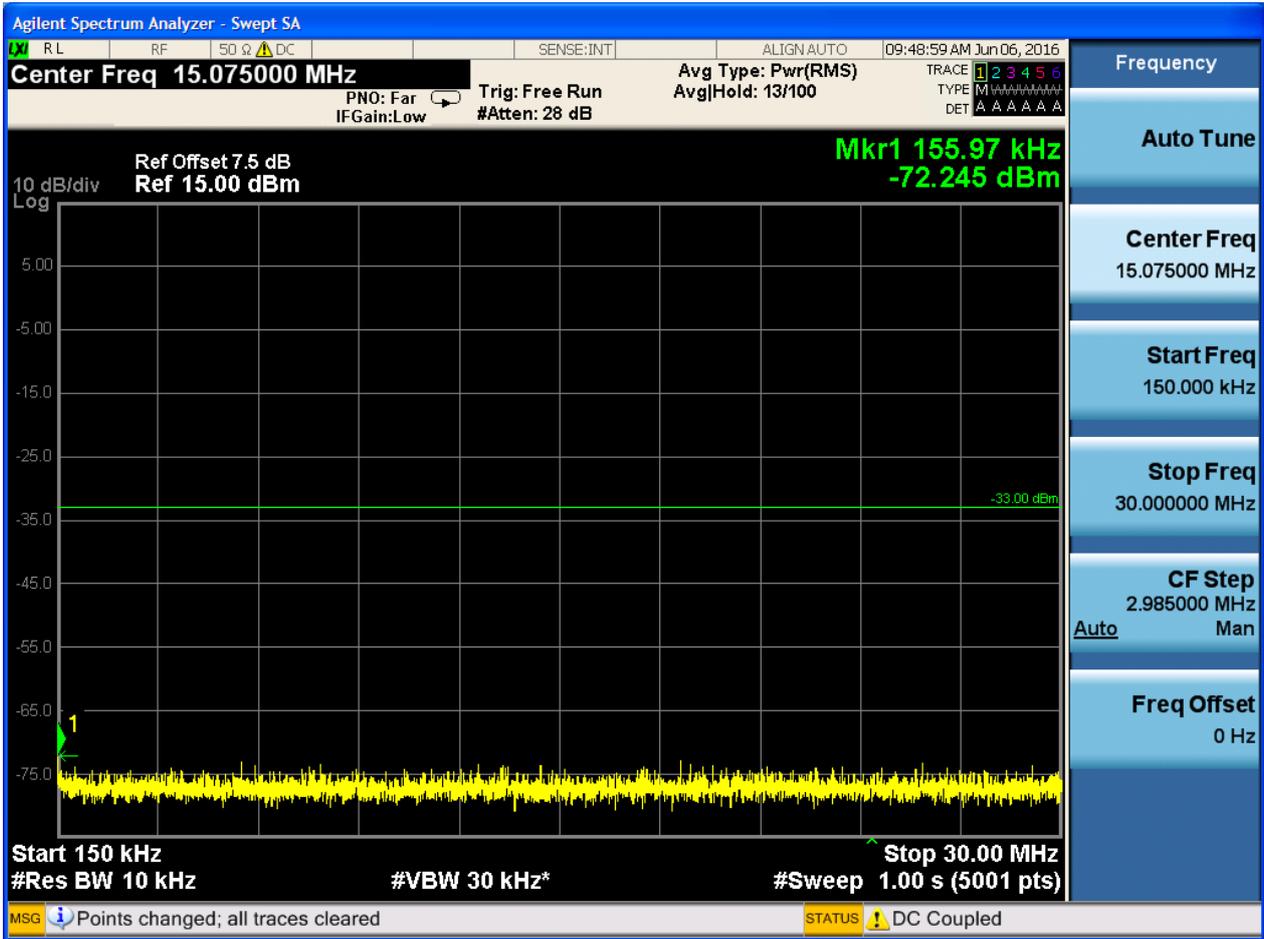




6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



























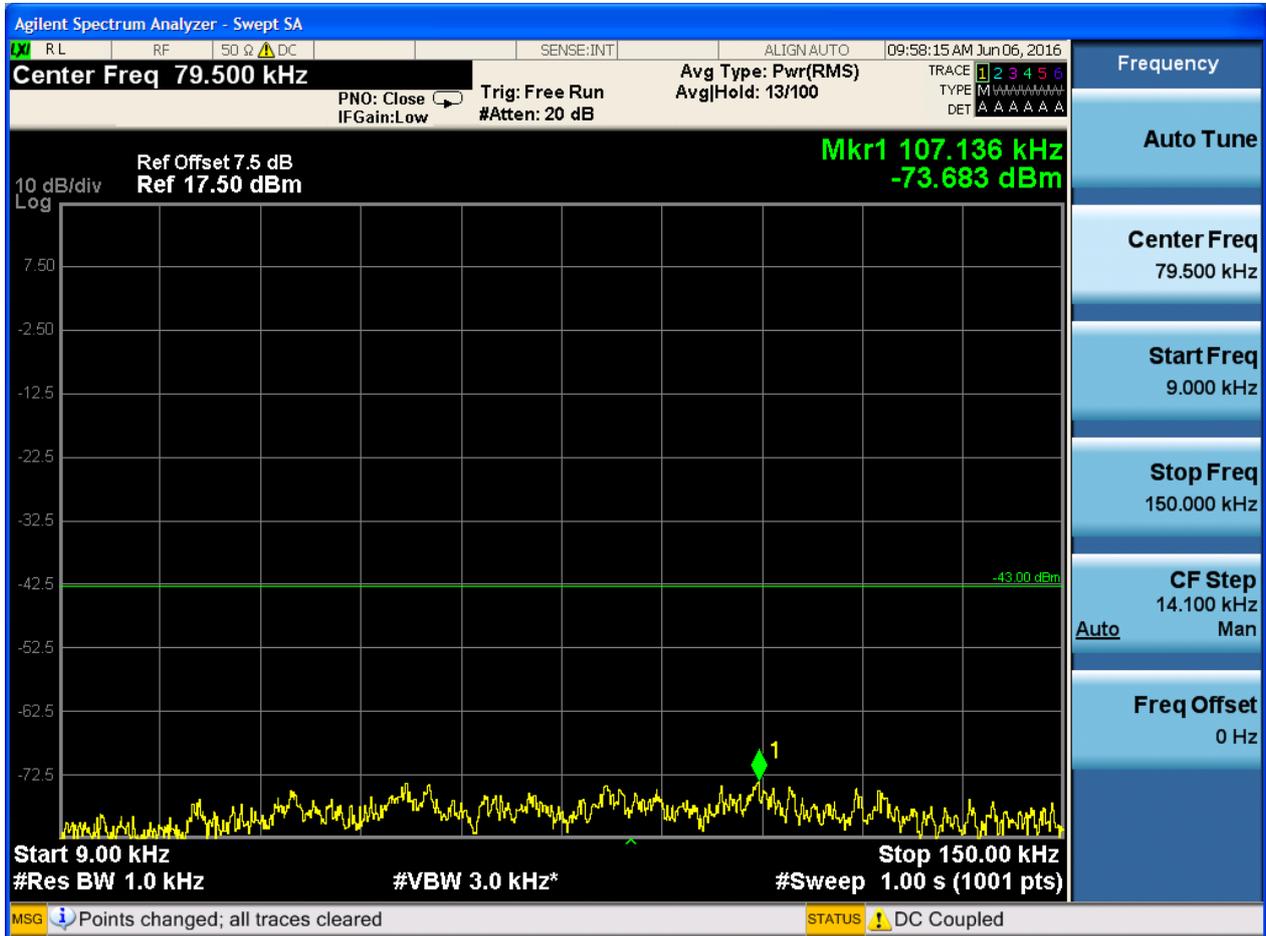


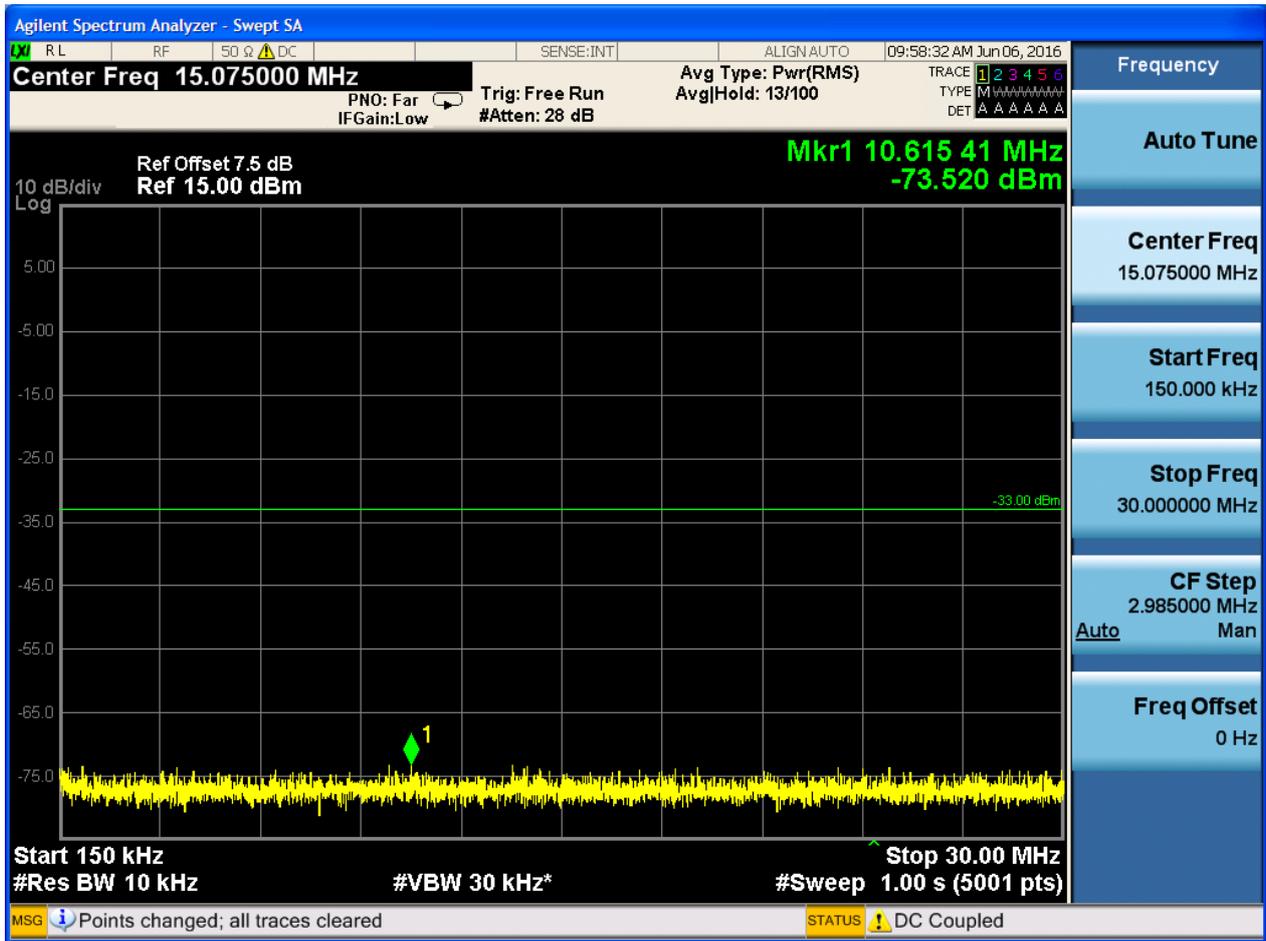


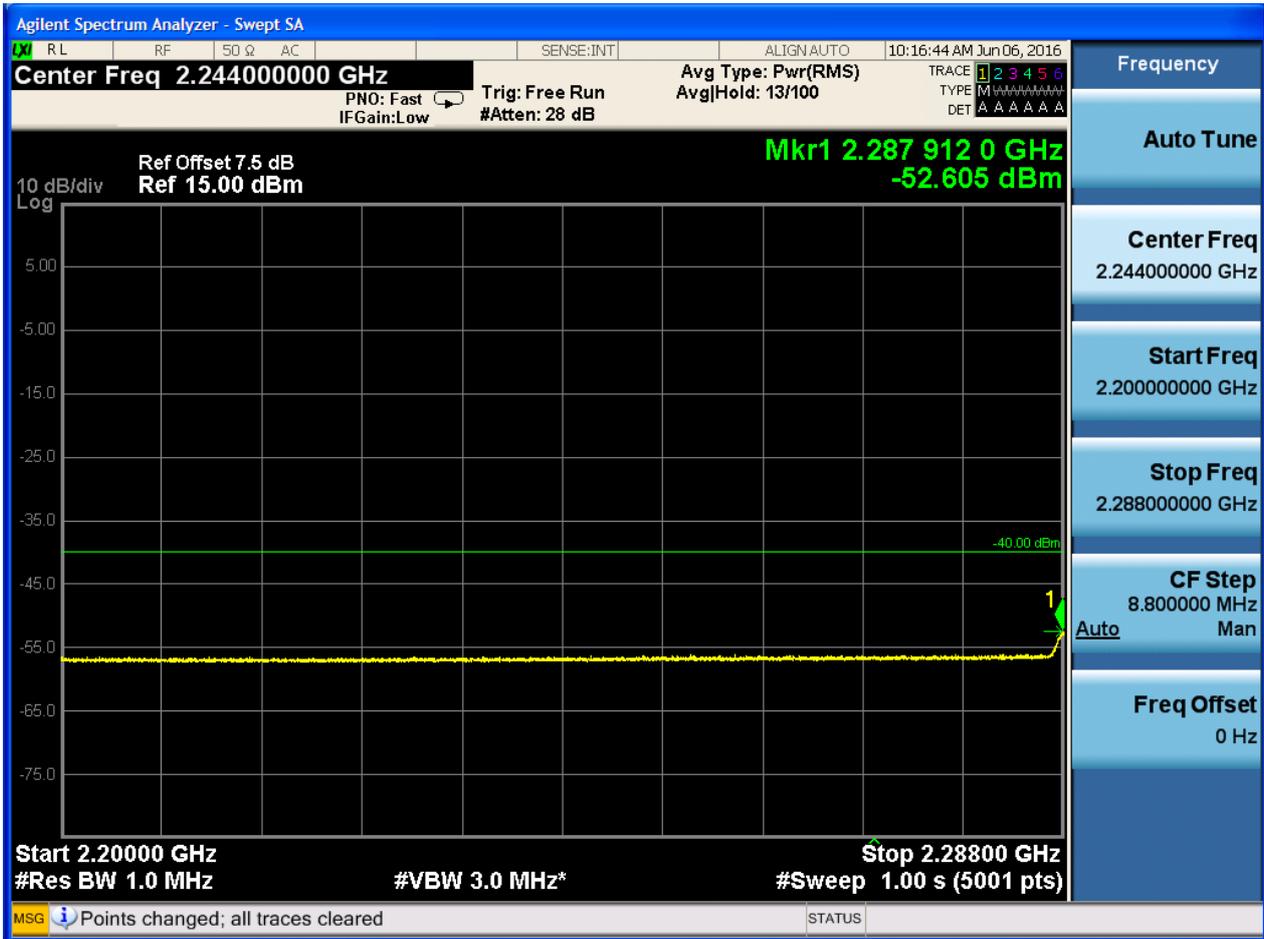


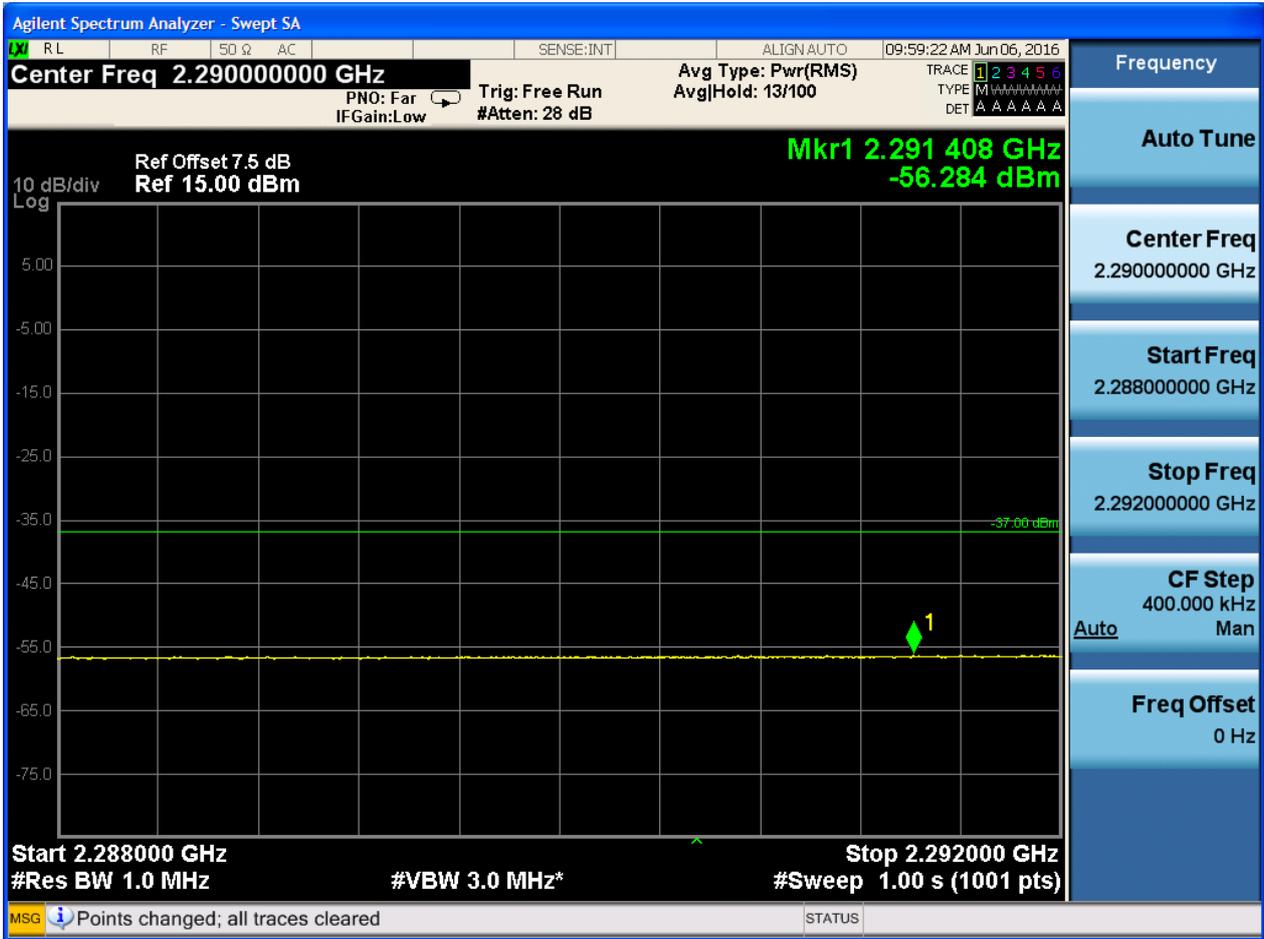
6.1.1.1.3 Test Channel = HCH

6.1.1.1.3.1 Test RB = RB1#0

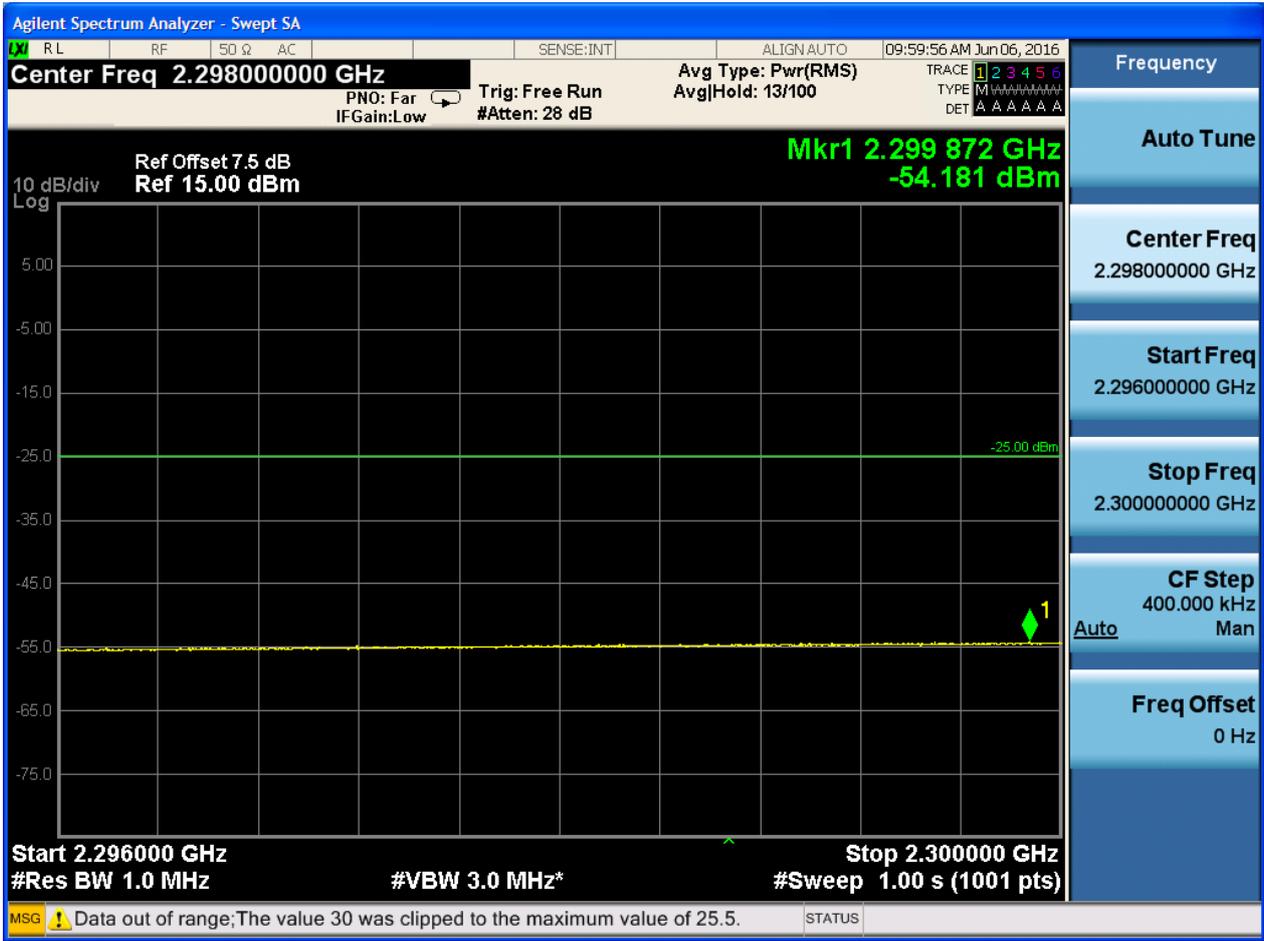


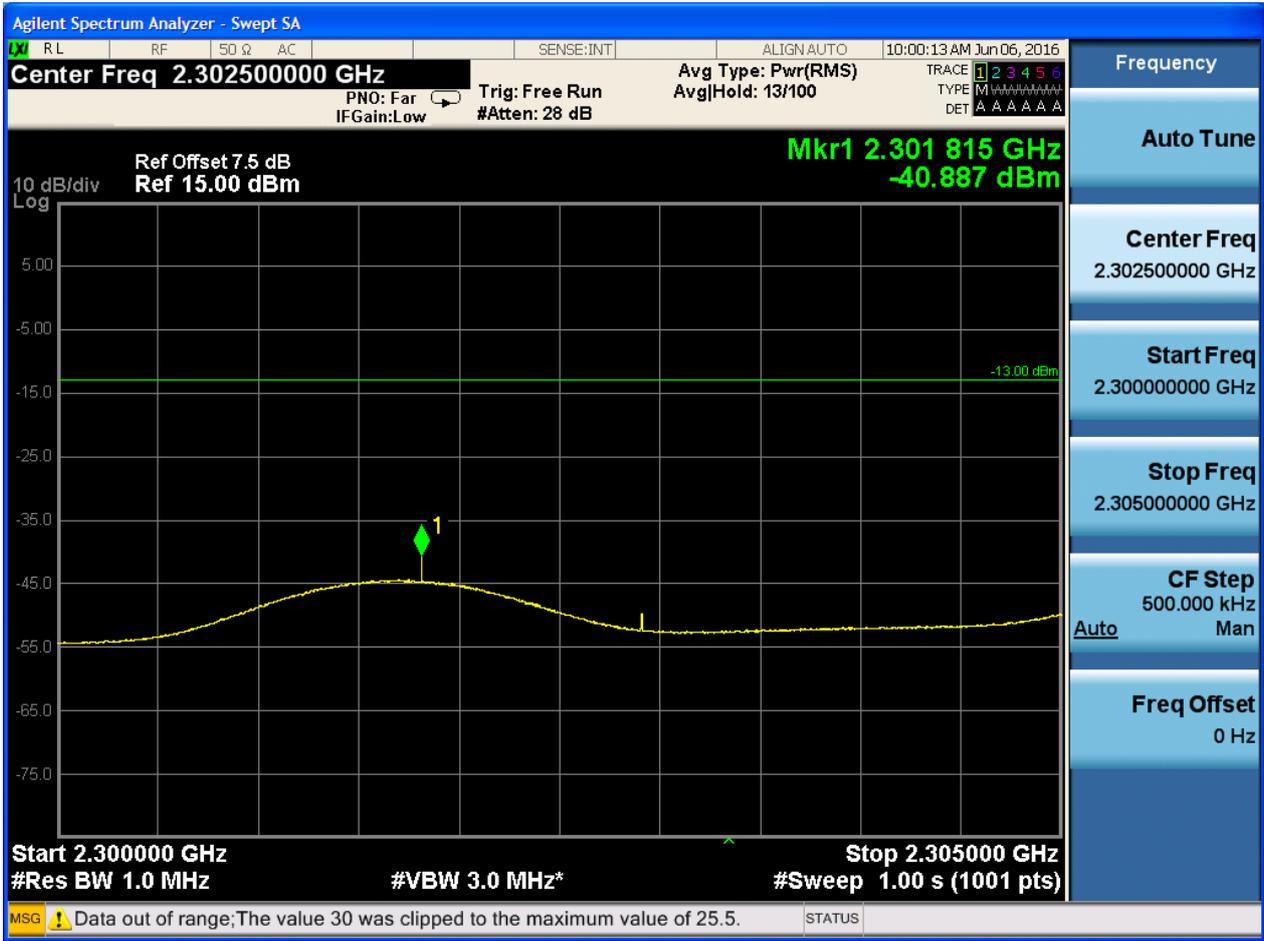








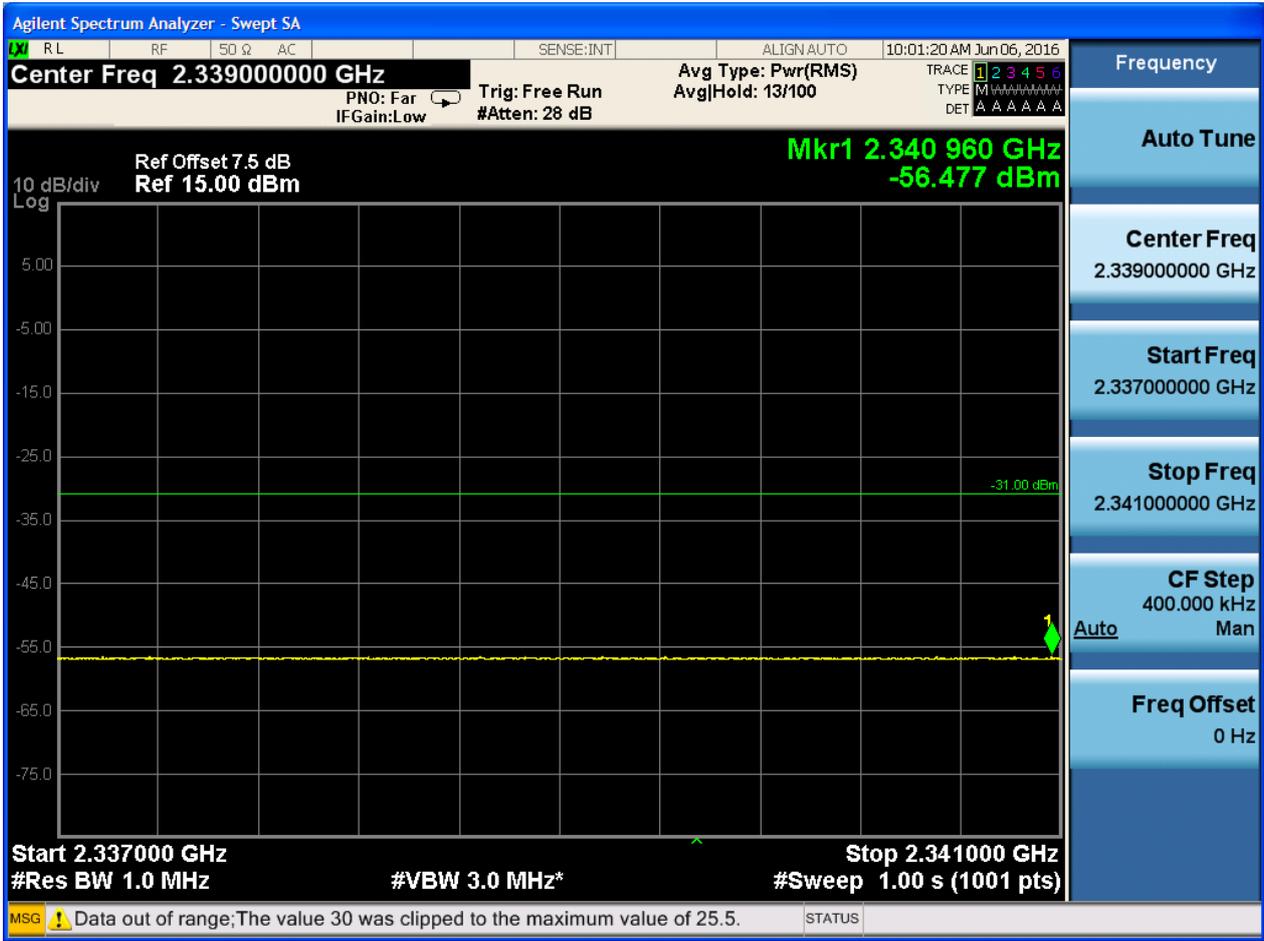


















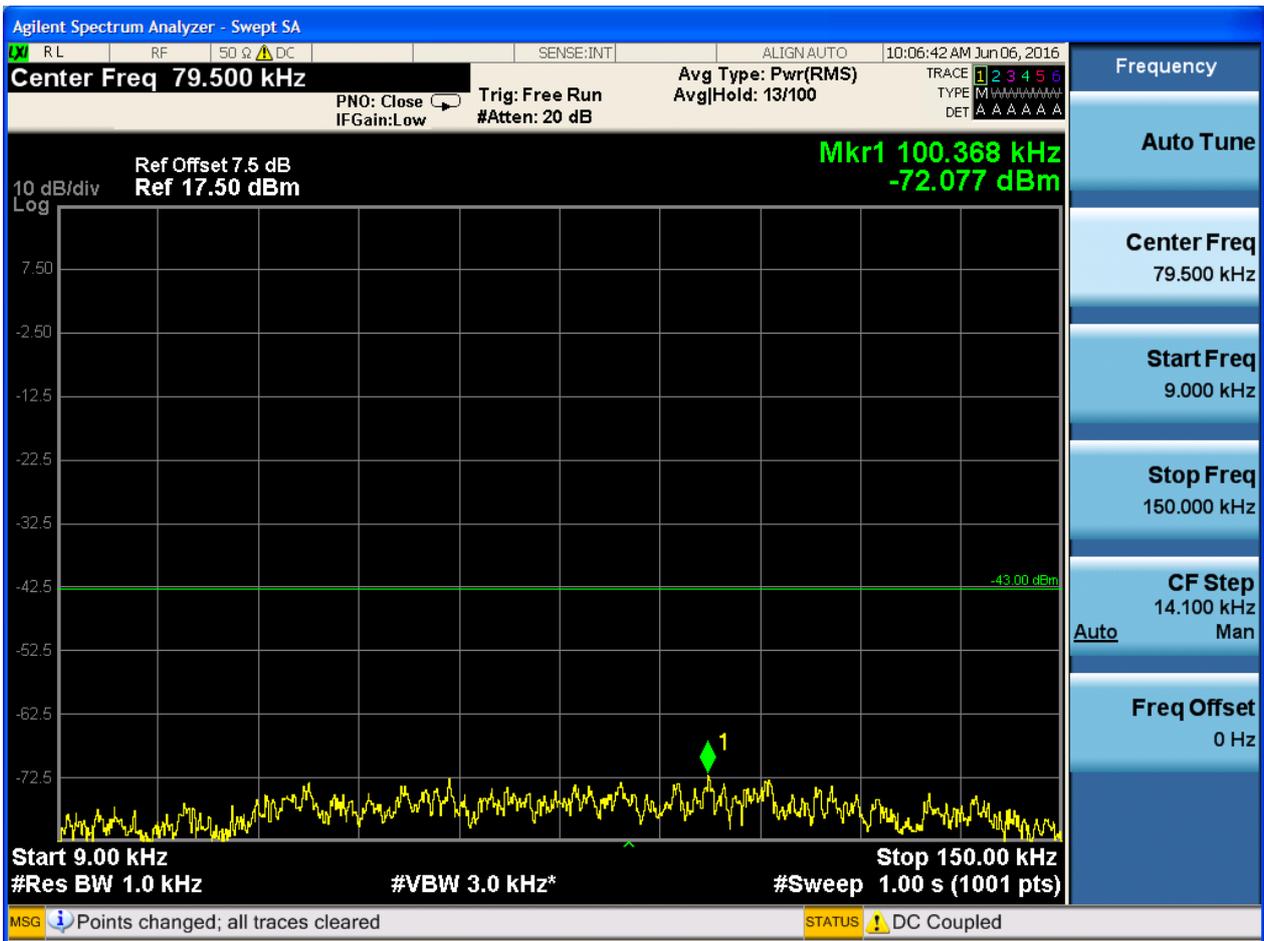


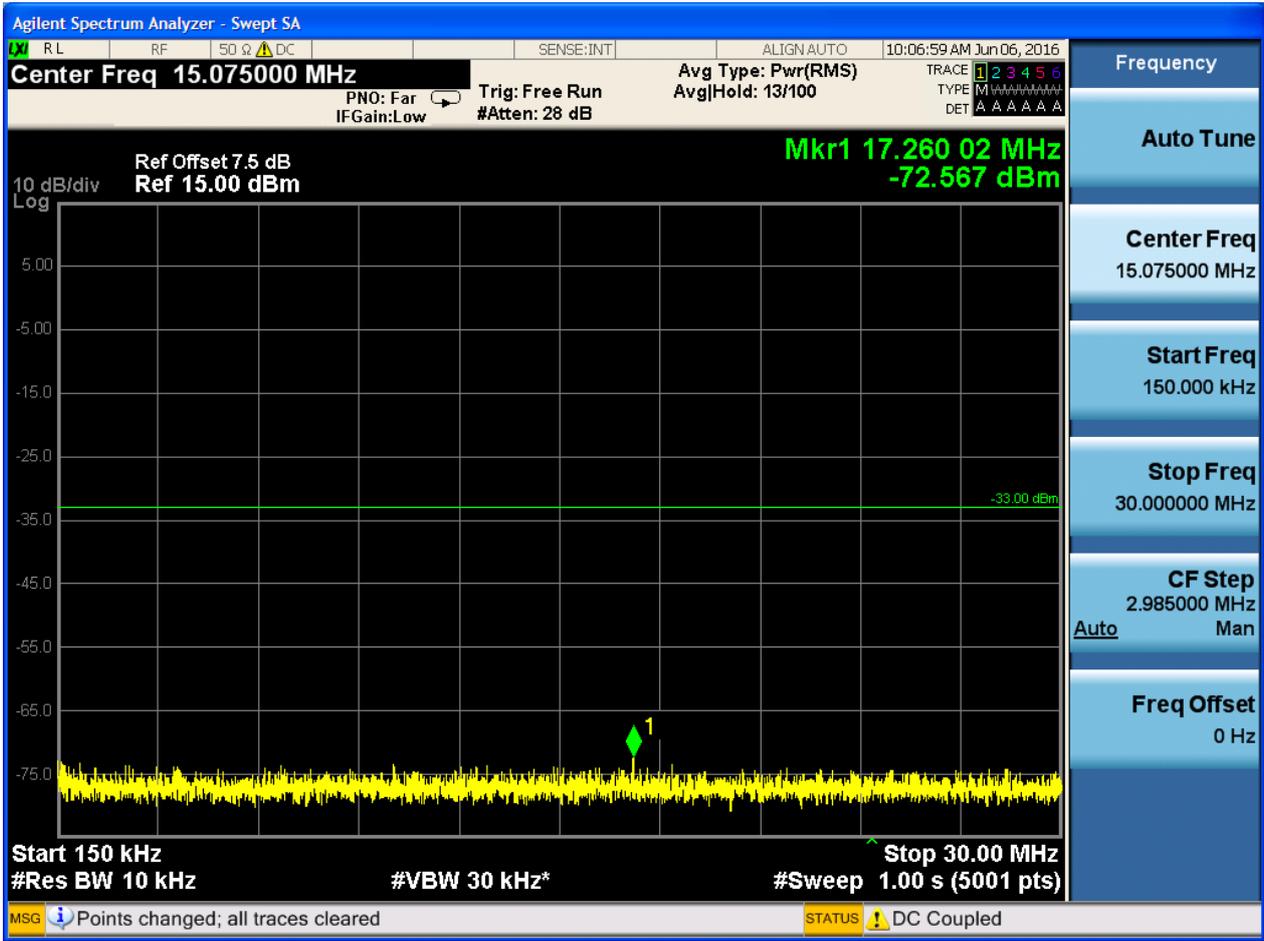


6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0

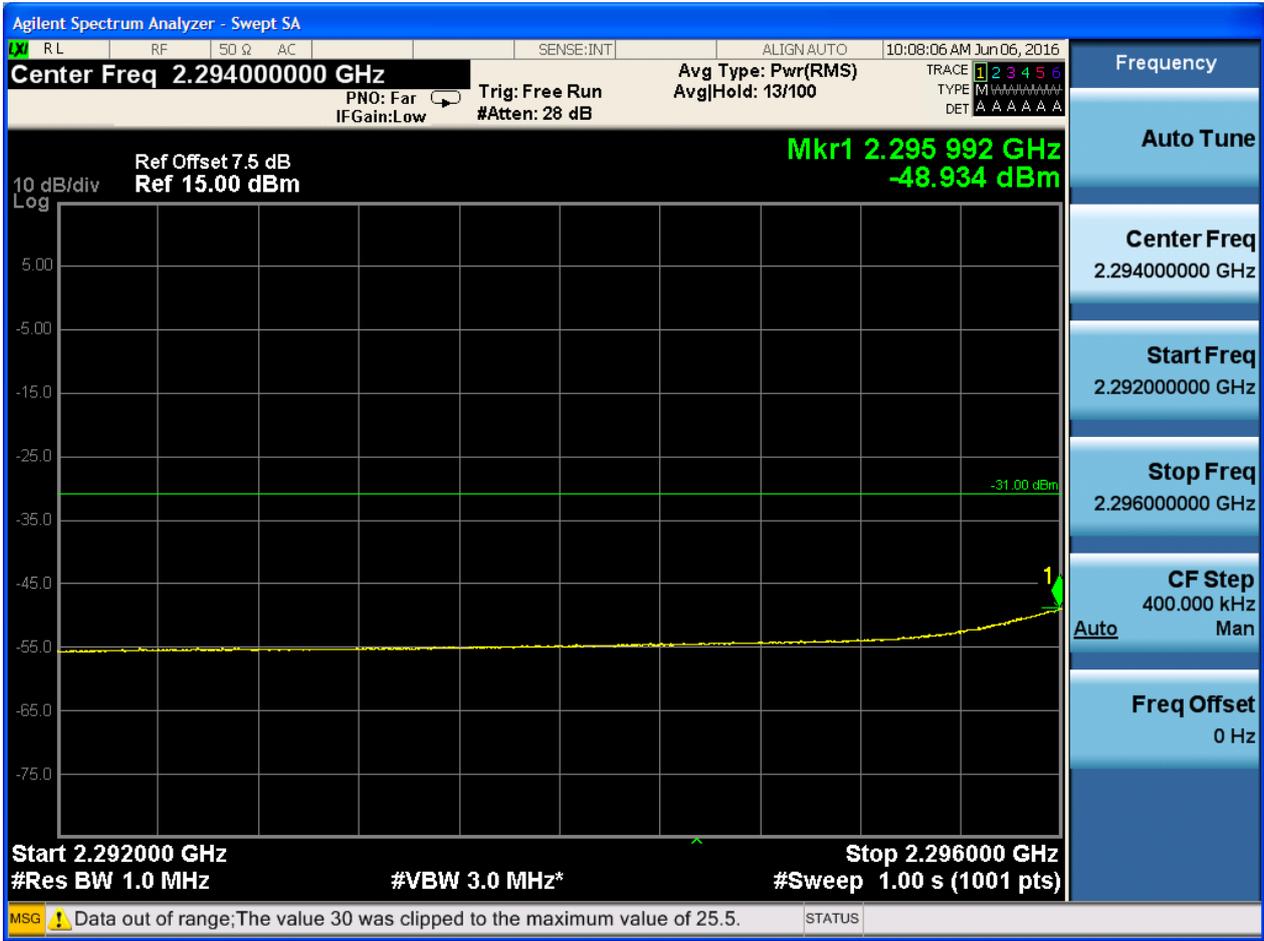














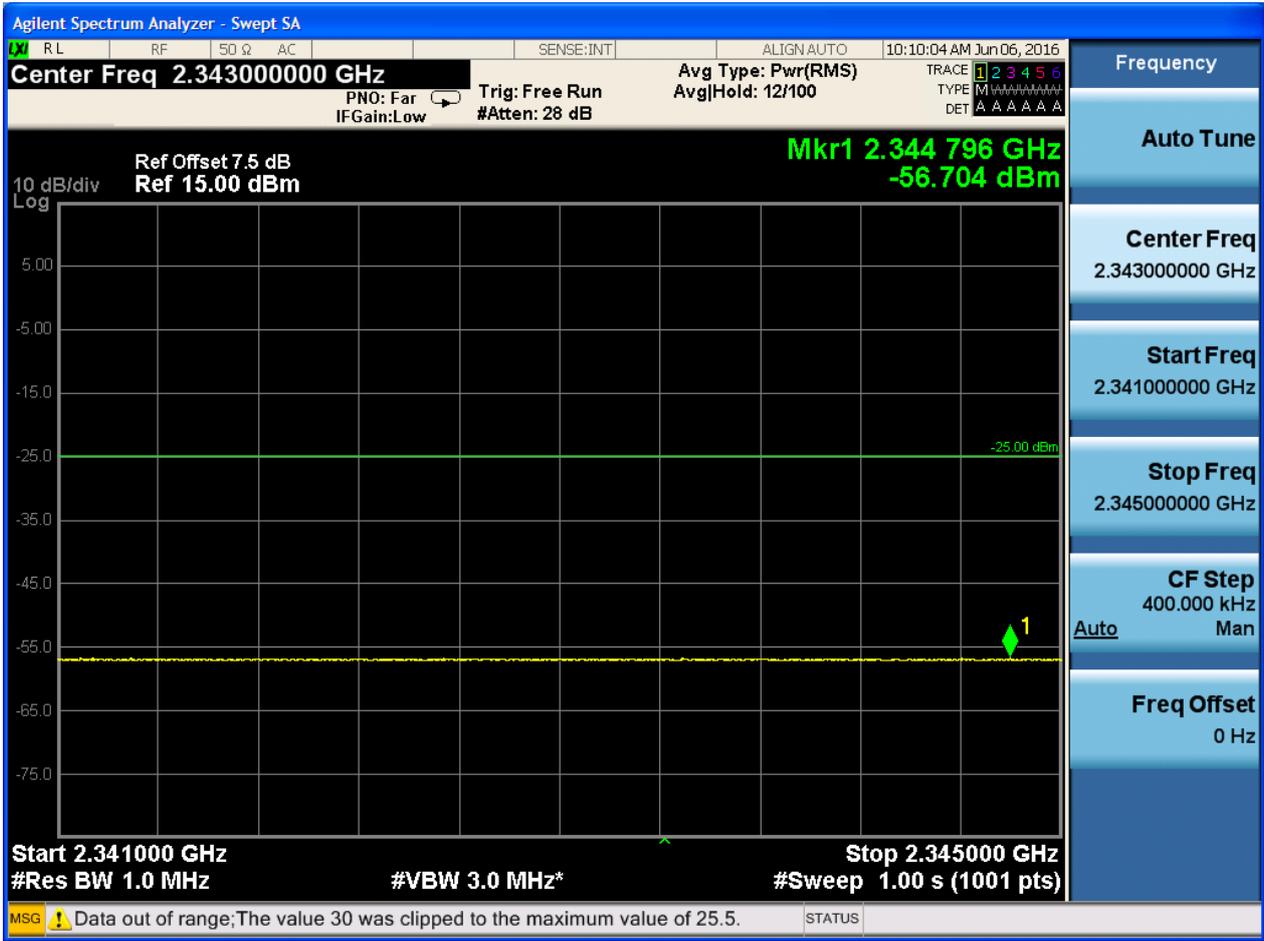


















6.1.1.2 Test Mode = LTE/TM2

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

