



# Appendix for test report



## 1 Appendix\_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
BAND26	LTE/TM 1	1.4	LCH	RB1#0	23.05	19.98	50	PASS
				RB1#3	22.96	19.89	50	PASS
				RB1#5	23.03	19.96	50	PASS
				RB3#0	23.04	19.97	50	PASS
				RB3#2	22.98	19.91	50	PASS
				RB3#3	23.06	19.99	50	PASS
				RB6#0	22.01	18.94	50	PASS
			MCH	RB1#0	23.1	20.03	50	PASS
				RB1#3	23.07	20	50	PASS
				RB1#5	23.09	20.02	50	PASS
				RB3#0	23.14	20.07	50	PASS
				RB3#2	23.17	20.1	50	PASS
				RB3#3	23.05	19.98	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict	
				RB6#0	21.98	18.91	50	PASS	
			HCH	RB1#0	22.93	19.86	50	PASS	
				RB1#3	22.86	19.79	50	PASS	
				RB1#5	22.93	19.86	50	PASS	
				RB3#0	22.99	19.92	50	PASS	
				RB3#2	22.95	19.88	50	PASS	
				RB3#3	23.02	19.95	50	PASS	
				RB6#0	22	18.93	50	PASS	
		3		LCH	RB1#0	23.09	20.02	50	PASS
			RB1#7		23.2	20.13	50	PASS	
			RB1#14		23.14	20.07	50	PASS	
			RB8#0		22.07	19	50	PASS	
			RB8#4		22.04	18.97	50	PASS	
			RB8#7		22.1	19.03	50	PASS	
			RB15#0		22.13	19.06	50	PASS	
				MCH	RB1#0	23.29	20.22	50	PASS
					RB1#7	23.36	20.29	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#14	23.16	20.09	50	PASS
				RB8#0	22.05	18.98	50	PASS
				RB8#4	22.05	18.98	50	PASS
				RB8#7	22.07	19	50	PASS
				RB15#0	22.04	18.97	50	PASS
			HCH	RB1#0	23.08	20.01	50	PASS
				RB1#7	23.12	20.05	50	PASS
				RB1#14	23.13	20.06	50	PASS
				RB8#0	22.15	19.08	50	PASS
				RB8#4	22.05	18.98	50	PASS
		5	LCH	RB8#7	22.02	18.95	50	PASS
				RB15#0	22.11	19.04	50	PASS
				RB1#0	23.12	20.05	50	PASS
				RB1#13	23.22	20.15	50	PASS
				RB1#24	23.1	20.03	50	PASS
		RB12#0	22.11	19.04	50	PASS		
		RB12#6	22.1	19.03	50	PASS		



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB12#13	22.04	18.97	50	PASS
				RB25#0	22.14	19.07	50	PASS
			MCH	RB1#0	23.02	19.95	50	PASS
				RB1#13	23	19.93	50	PASS
				RB1#24	22.96	19.89	50	PASS
				RB12#0	22.07	19	50	PASS
				RB12#6	22.02	18.95	50	PASS
				RB12#13	21.99	18.92	50	PASS
			RB25#0	22.09	19.02	50	PASS	
			HCH	RB1#0	23.19	20.12	50	PASS
				RB1#13	23.14	20.07	50	PASS
				RB1#24	22.84	19.77	50	PASS
				RB12#0	22.12	19.05	50	PASS
			RB12#6	21.98	18.91	50	PASS	
		RB12#13	21.98	18.91	50	PASS		
		RB25#0	22.1	19.03	50	PASS		
		10	LCH	RB1#0	23.32	20.25	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#25	23.34	20.27	50	PASS
				RB1#49	23.36	20.29	50	PASS
				RB25#0	22.12	19.05	50	PASS
				RB25#13	21.99	18.92	50	PASS
				RB25#25	22.08	19.01	50	PASS
				RB50#0	22.1	19.03	50	PASS
			MCH	RB1#0	23.56	20.49	50	PASS
				RB1#25	23.62	20.55	50	PASS
				RB1#49	23.59	20.52	50	PASS
				RB25#0	22.1	19.03	50	PASS
				RB25#13	21.96	18.89	50	PASS
				RB25#25	21.95	18.88	50	PASS
				RB50#0	22.06	18.99	50	PASS
			HCH	RB1#0	23.18	20.11	50	PASS
				RB1#25	23.44	20.37	50	PASS
				RB1#49	23.11	20.04	50	PASS
				RB25#0	22.15	19.08	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#13	22.04	18.97	50	PASS
				RB25#25	21.93	18.86	50	PASS
				RB50#0	22.13	19.06	50	PASS
	LTE/TM 2	1.4	LCH	RB1#0	22.25	19.18	50	PASS
				RB1#3	22.99	19.92	50	PASS
				RB1#5	22.97	19.9	50	PASS
				RB3#0	22.1	19.03	50	PASS
				RB3#2	21.47	18.4	50	PASS
				RB3#3	21.44	18.37	50	PASS
				RB6#0	20.72	17.65	50	PASS
			MCH	RB1#0	23.04	19.97	50	PASS
				RB1#3	23.08	20.01	50	PASS
				RB1#5	23	19.93	50	PASS
				RB3#0	21.92	18.85	50	PASS
				RB3#2	21.98	18.91	50	PASS
RB3#3	22.31	19.24	50	PASS				
RB6#0	21.22	18.15	50	PASS				



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict	
			HCH	RB1#0	22.49	19.42	50	PASS	
				RB1#3	22.57	19.5	50	PASS	
				RB1#5	22.58	19.51	50	PASS	
				RB3#0	21.7	18.63	50	PASS	
				RB3#2	22.08	19.01	50	PASS	
				RB3#3	22.07	19	50	PASS	
				RB6#0	20.83	17.76	50	PASS	
		3	LCH	RB1#0	22.26	19.19	50	PASS	
				RB1#7	21.03	17.96	50	PASS	
				RB1#14	21.74	18.67	50	PASS	
				RB8#0	20.96	17.89	50	PASS	
				RB8#4	21.02	17.95	50	PASS	
				RB8#7	20.94	17.87	50	PASS	
				RB15#0	21.02	17.95	50	PASS	
				MCH	RB1#0	22.32	19.25	50	PASS
					RB1#7	22.41	19.34	50	PASS
					RB1#14	22.16	19.09	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict		
				RB8#0	21.27	18.2	50	PASS		
				RB8#4	21.27	18.2	50	PASS		
				RB8#7	21.3	18.23	50	PASS		
				RB15#0	21	17.93	50	PASS		
			HCH	RB1#0	21.98	18.91	50	PASS		
				RB1#7	23.47	20.4	50	PASS		
				RB1#14	23.28	20.21	50	PASS		
				RB8#0	20.84	17.77	50	PASS		
			LCH	RB8#4	20.92	17.85	50	PASS		
				RB8#7	20.89	17.82	50	PASS		
				RB15#0	20.89	17.82	50	PASS		
				RB1#0	21.67	18.6	50	PASS		
		5				RB1#13	21.75	18.68	50	PASS
						RB1#24	21.63	18.56	50	PASS
						RB12#0	21.1	18.03	50	PASS
						RB12#6	21.08	18.01	50	PASS
						RB12#13	21.02	17.95	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.89	17.82	50	PASS
			MCH	RB1#0	21.77	18.7	50	PASS
				RB1#13	21.6	18.53	50	PASS
				RB1#24	21.63	18.56	50	PASS
				RB12#0	20.95	17.88	50	PASS
				RB12#6	21	17.93	50	PASS
				RB12#13	20.88	17.81	50	PASS
				RB25#0	20.8	17.73	50	PASS
				HCH	RB1#0	21.62	18.55	50
			RB1#13		21.5	18.43	50	PASS
			RB1#24		21.59	18.52	50	PASS
			RB12#0		20.94	17.87	50	PASS
			RB12#6		20.91	17.84	50	PASS
			RB12#13		20.83	17.76	50	PASS
			RB25#0		20.86	17.79	50	PASS
		10	LCH		RB1#0	22.13	19.06	50
				RB1#25	21.07	18	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#49	20.89	17.82	50	PASS
				RB25#0	21.16	18.09	50	PASS
				RB25#13	21.05	17.98	50	PASS
				RB25#25	21.05	17.98	50	PASS
				RB50#0	21.08	18.01	50	PASS
			MCH	RB1#0	21.1	18.03	50	PASS
			MCH	RB1#25	21.05	17.98	50	PASS
			MCH	RB1#49	20.86	17.79	50	PASS
			MCH	RB25#0	21.06	17.99	50	PASS
			MCH	RB25#13	21.03	17.96	50	PASS
			MCH	RB25#25	21.05	17.98	50	PASS
			MCH	RB50#0	21.15	18.08	50	PASS
			HCH	RB1#0	21.09	18.02	50	PASS
			HCH	RB1#25	21.04	17.97	50	PASS
			HCH	RB1#49	20.84	17.77	50	PASS
			HCH	RB25#0	21.13	18.06	50	PASS
			HCH	RB25#13	21.11	18.04	50	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#25	21.02	17.95	50	PASS
				RB50#0	21.14	18.07	50	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

Void

### 3Appendix\_C: Modulation Characteristics

#### Part I - Test Plots

##### 3.1 For LTE

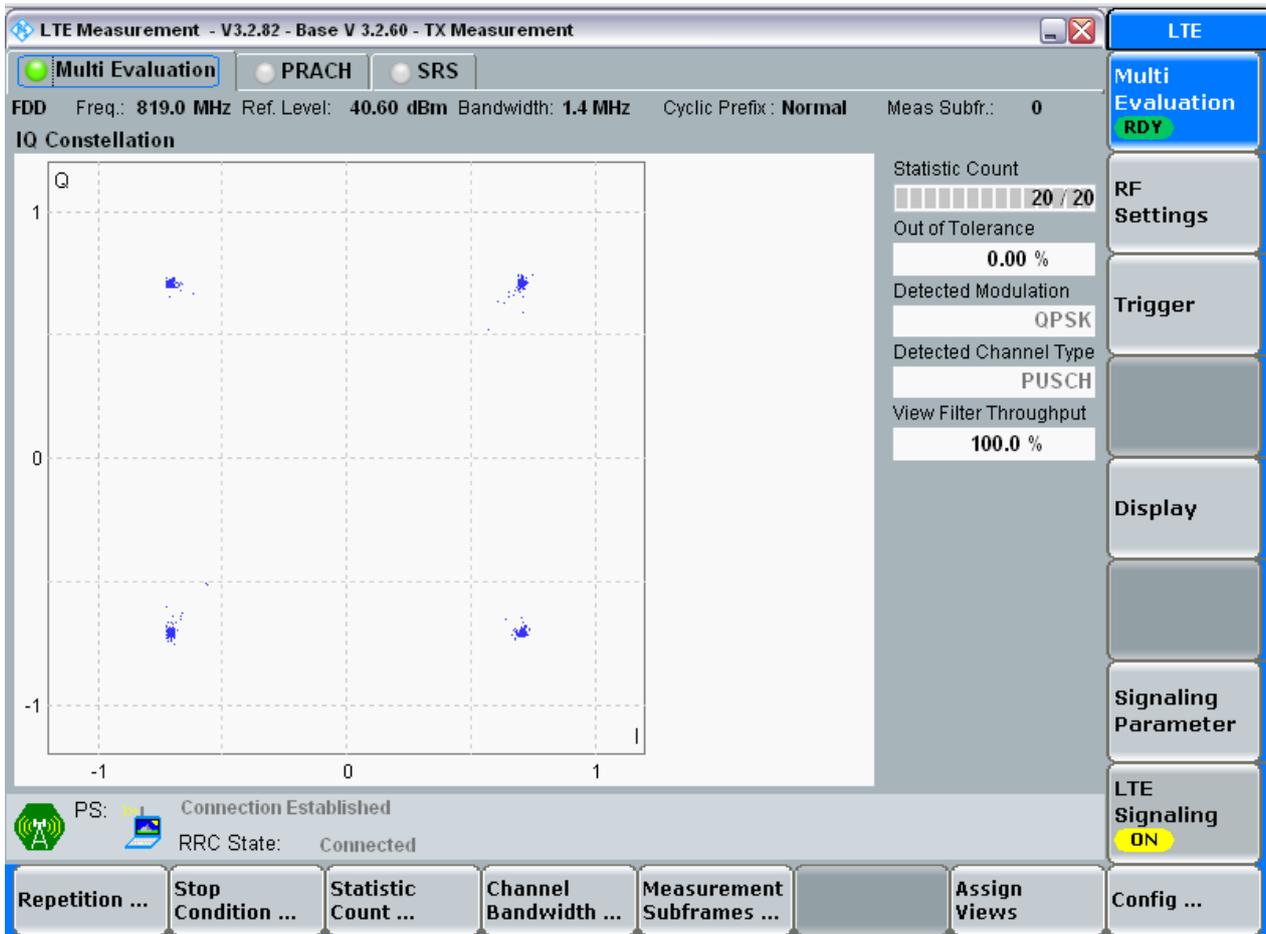
##### 3.1.1 Test Band = BAND26

##### 3.1.1.1 Test Mode = LTE/TM1

##### 3.1.1.1.1 Test Bandwidth = 1.4

##### 3.1.1.1.1.1 Test Channel = MCH

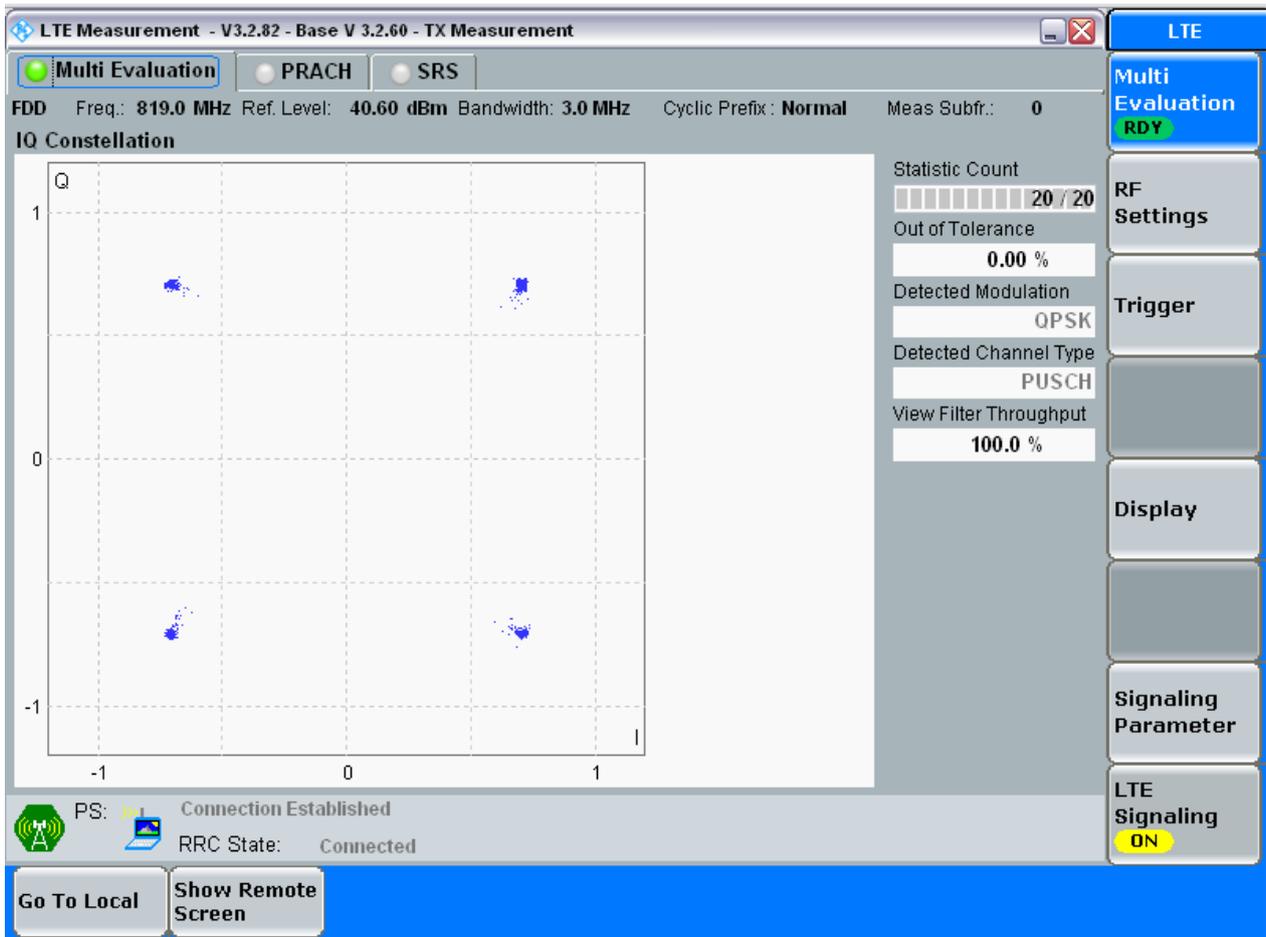
##### 3.1.1.1.1.1.1 Test RB = RB6#0



### 3.1.1.1.2 Test Bandwidth = 3

#### 3.1.1.1.2.1 Test Channel = MCH

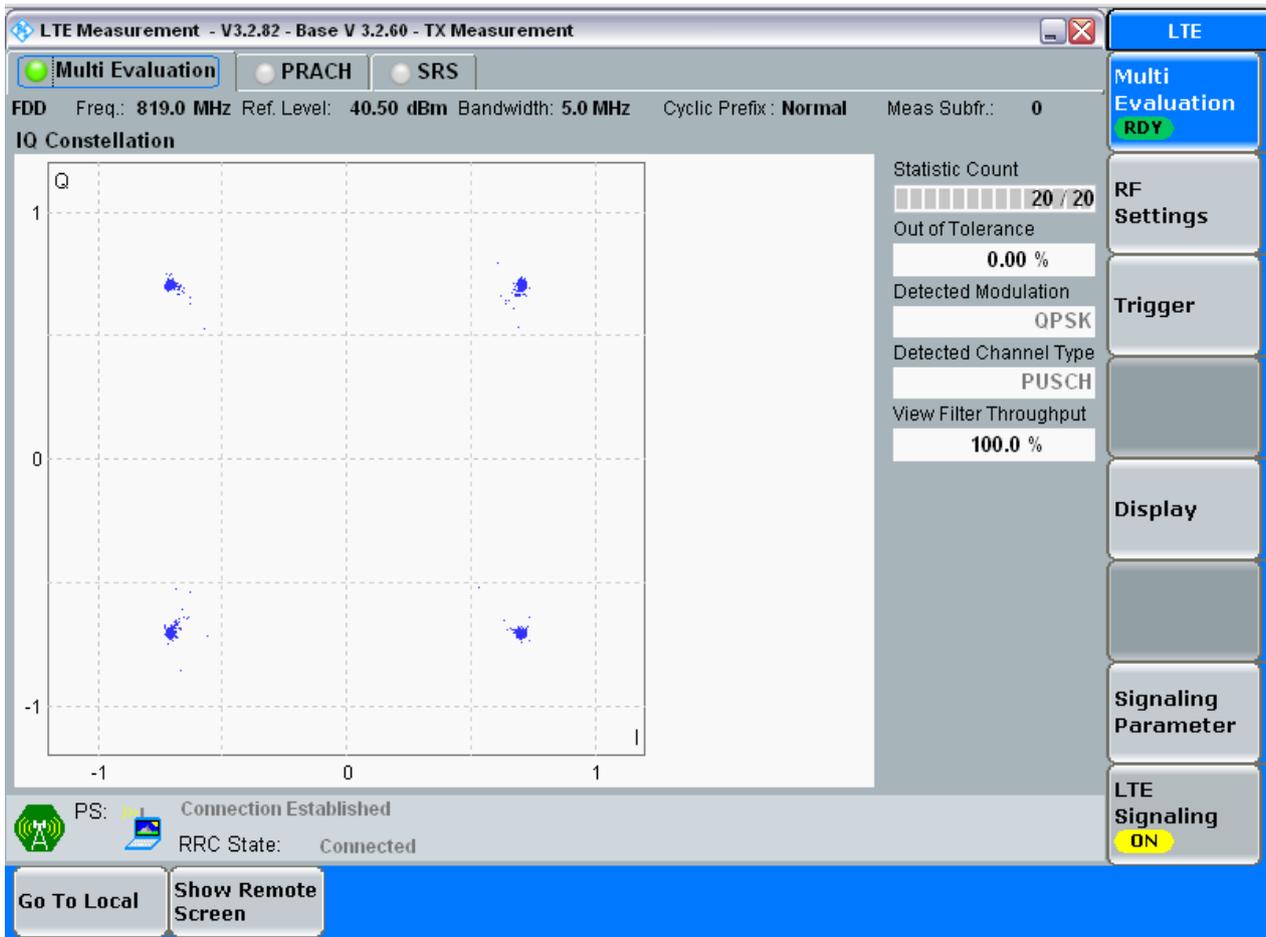
##### 3.1.1.1.2.1.1 Test RB = RB15#0



### 3.1.1.1.3 Test Bandwidth = 5

#### 3.1.1.1.3.1 Test Channel = MCH

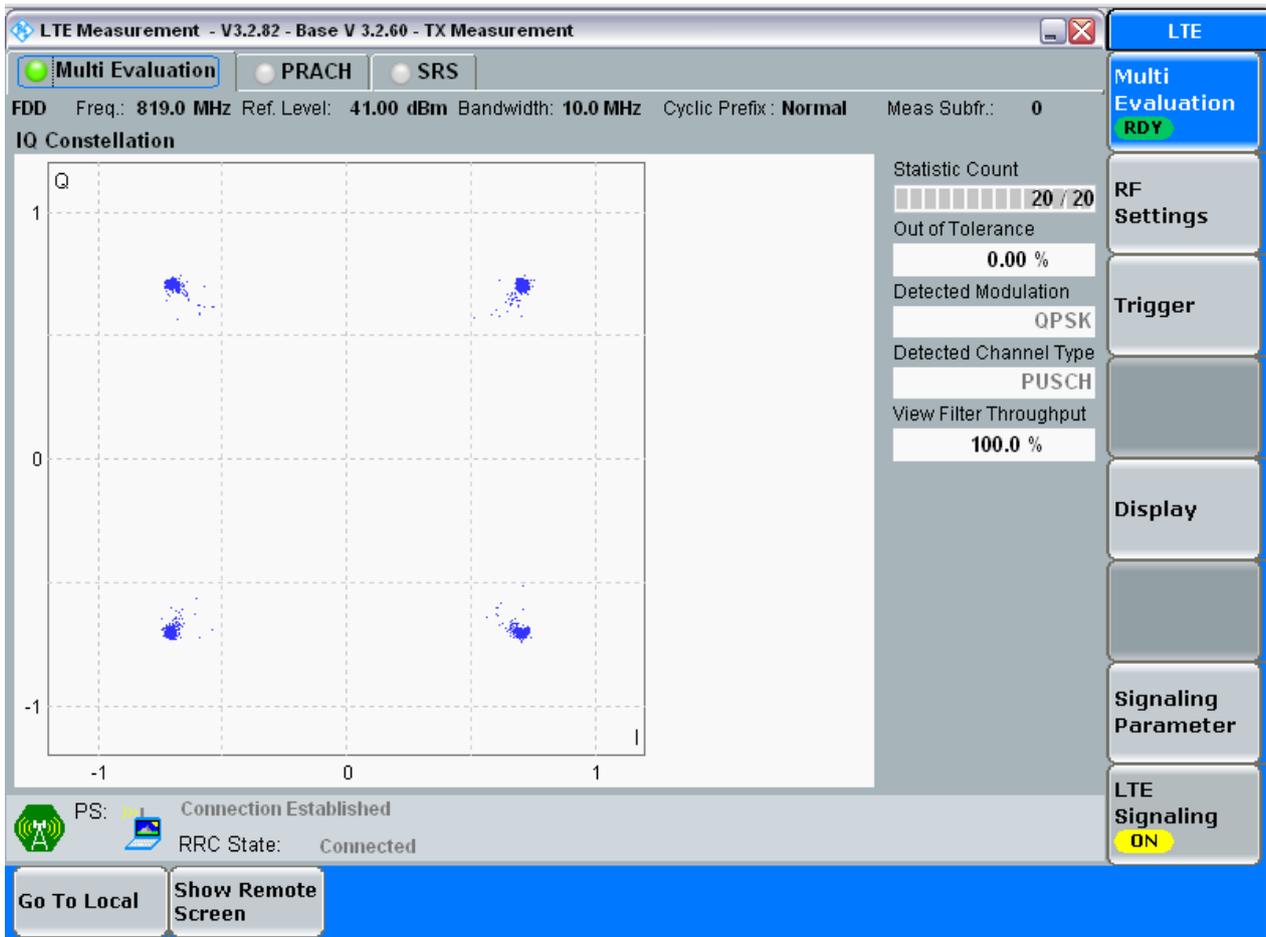
##### 3.1.1.1.3.1.1 Test RB = RB25#0



### 3.1.1.1.4 Test Bandwidth = 10

#### 3.1.1.1.4.1 Test Channel = MCH

##### 3.1.1.1.4.1.1 Test RB = RB50#0



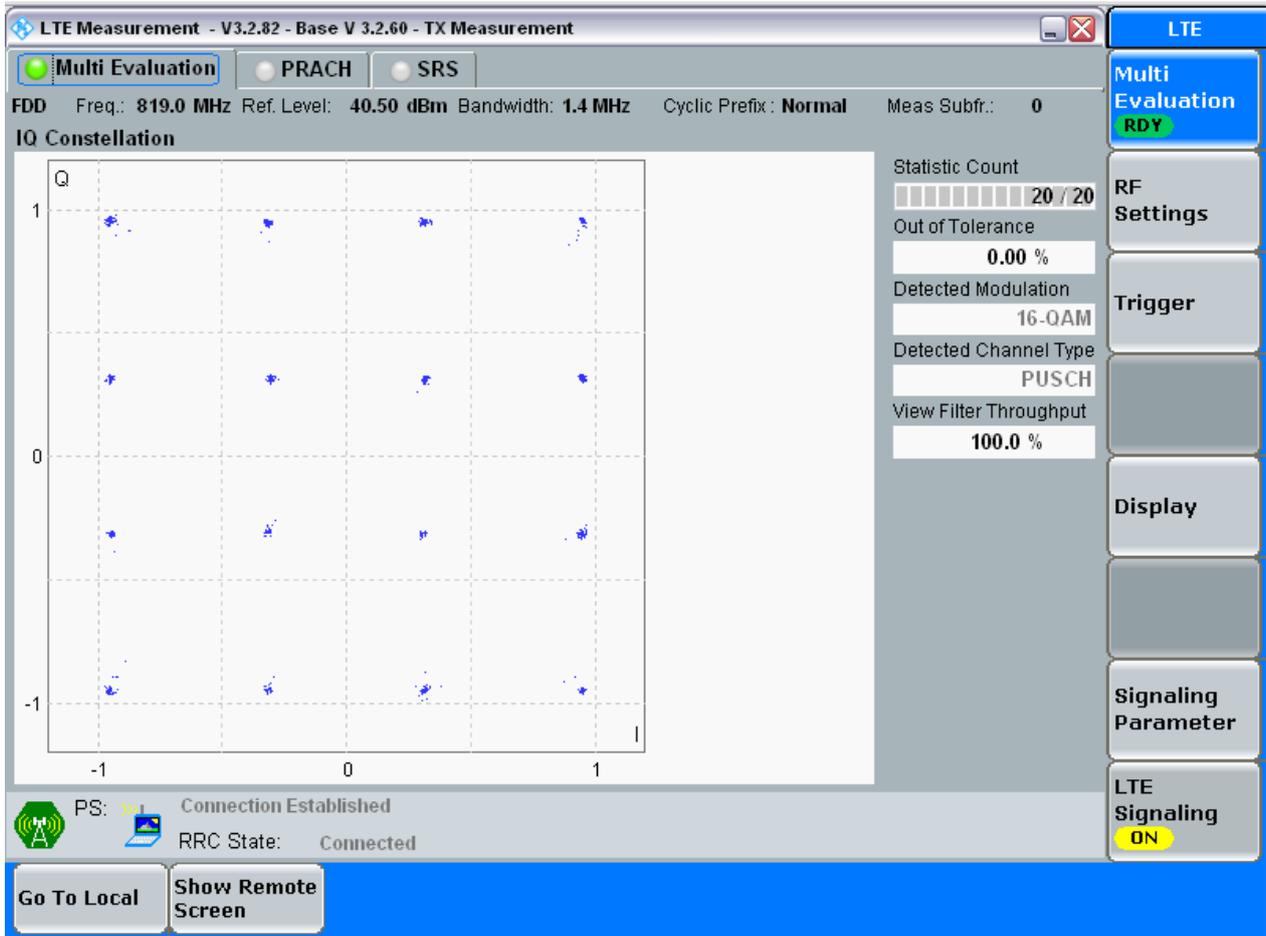


### 3.1.1.2 Test Mode = LTE/TM2

#### 3.1.1.2.1 Test Bandwidth = 1.4

##### 3.1.1.2.1.1 Test Channel = MCH

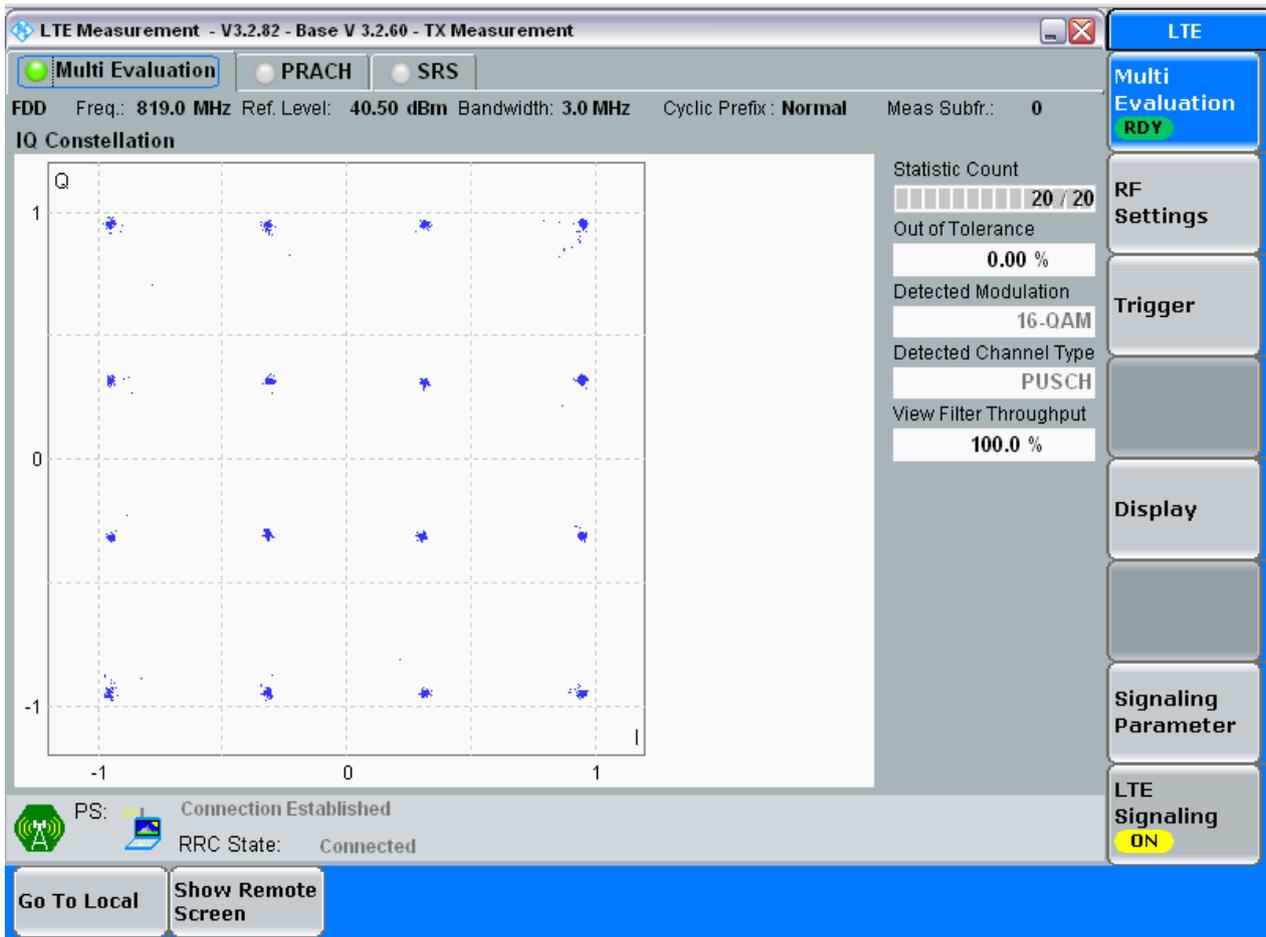
###### 3.1.1.2.1.1.1 Test RB = RB6#0



### 3.1.1.2.2 Test Bandwidth = 3

#### 3.1.1.2.2.1 Test Channel = MCH

##### 3.1.1.2.2.1.1 Test RB = RB15#0

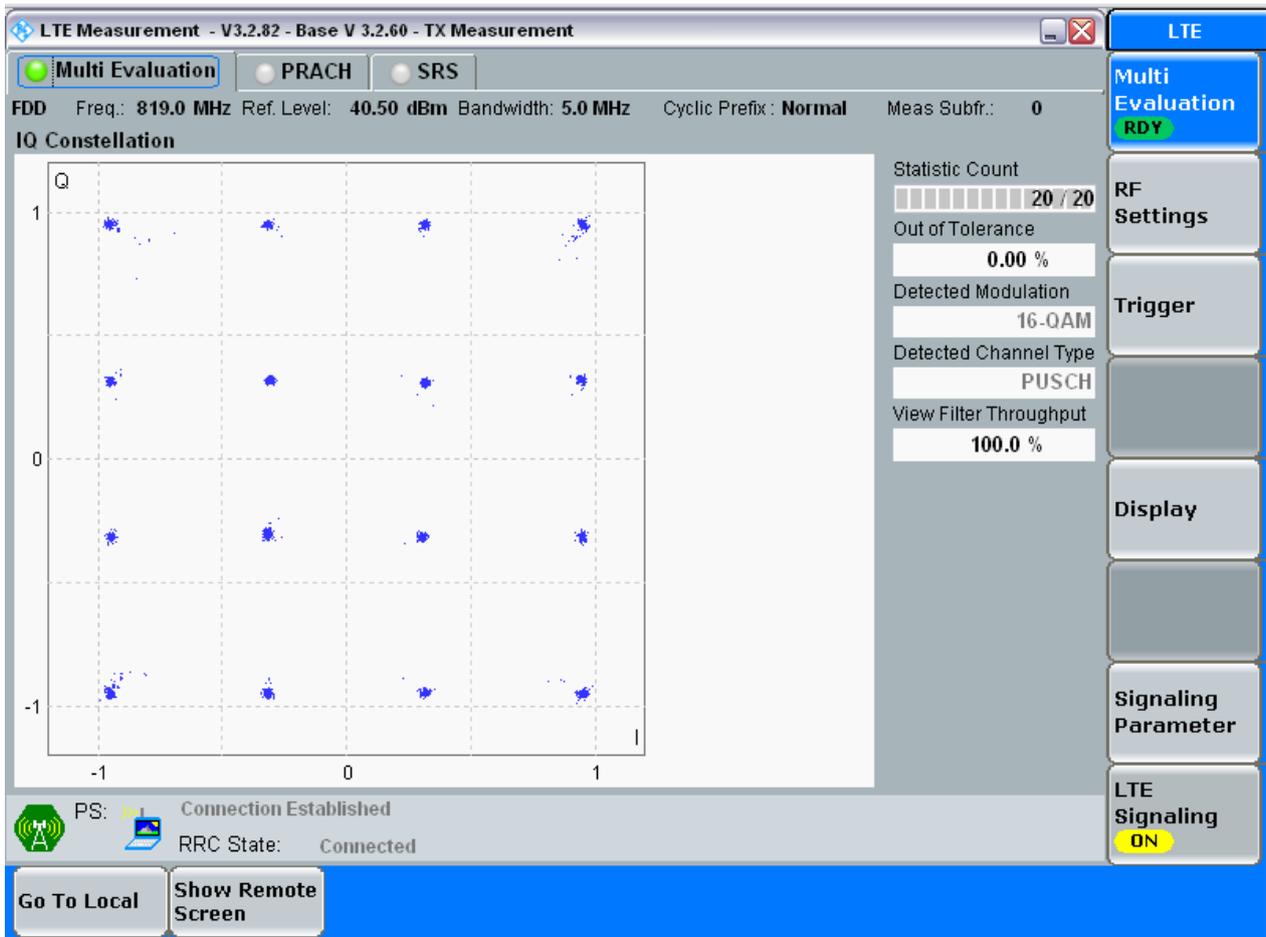




### 3.1.1.2.3 Test Bandwidth = 5

#### 3.1.1.2.3.1 Test Channel = MCH

##### 3.1.1.2.3.1.1 Test RB = RB25#0

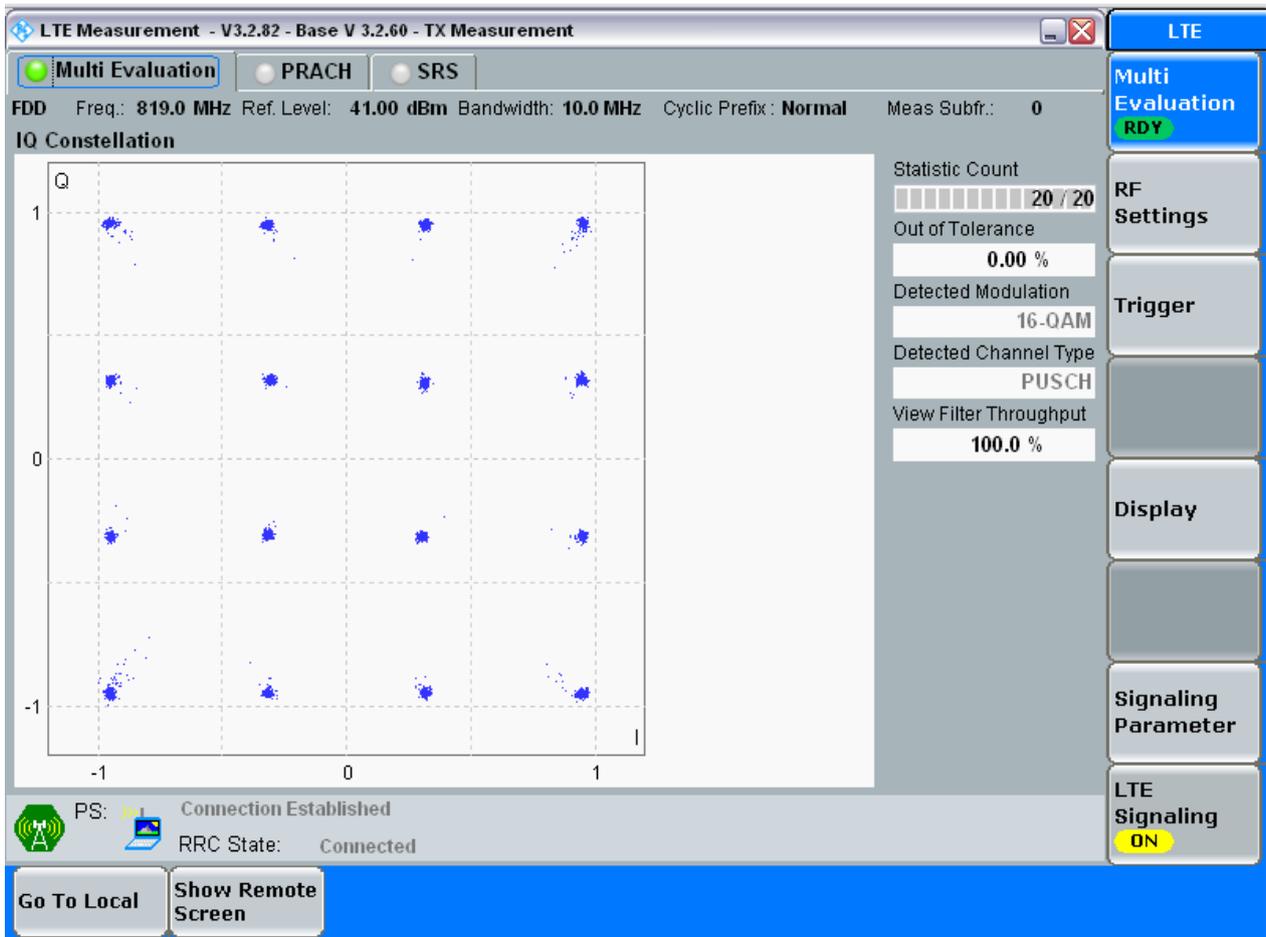




### 3.1.1.2.4 Test Bandwidth = 10

#### 3.1.1.2.4.1 Test Channel = MCH

##### 3.1.1.2.4.1.1 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
BAND26	LTE/TM1	1.4	LCH	RB6#0	1.09	1.26	Pass
			MCH	RB6#0	1.09	1.26	Pass
			HCH	RB6#0	1.09	1.27	Pass
		3	LCH	RB15#0	2.70	2.94	Pass
			MCH	RB15#0	2.70	2.94	Pass
			HCH	RB15#0	2.70	2.94	Pass
		5	LCH	RB25#0	4.50	4.91	Pass
			MCH	RB25#0	4.50	4.92	Pass
			HCH	RB25#0	4.50	4.88	Pass
		10	LCH	RB50#0	8.96	9.56	Pass
			MCH	RB50#0	8.96	9.54	Pass
			HCH	RB50#0	8.95	9.57	Pass
	LTE/TM2	1.4	LCH	RB6#0	1.09	1.27	Pass
			MCH	RB6#0	1.09	1.26	Pass
			HCH	RB6#0	1.09	1.27	Pass
		3	LCH	RB15#0	2.70	2.93	Pass
			MCH	RB15#0	2.70	2.94	Pass
			HCH	RB15#0	2.70	2.95	Pass
		5	LCH	RB25#0	4.50	4.87	Pass
			MCH	RB25#0	4.51	4.90	Pass
			HCH	RB25#0	4.51	4.85	Pass
10		LCH	RB50#0	8.95	9.57	Pass	
		MCH	RB50#0	8.96	9.57	Pass	
		HCH	RB50#0	8.95	9.57	Pass	



**Part II - Test Plots**

**4.1 For LTE**

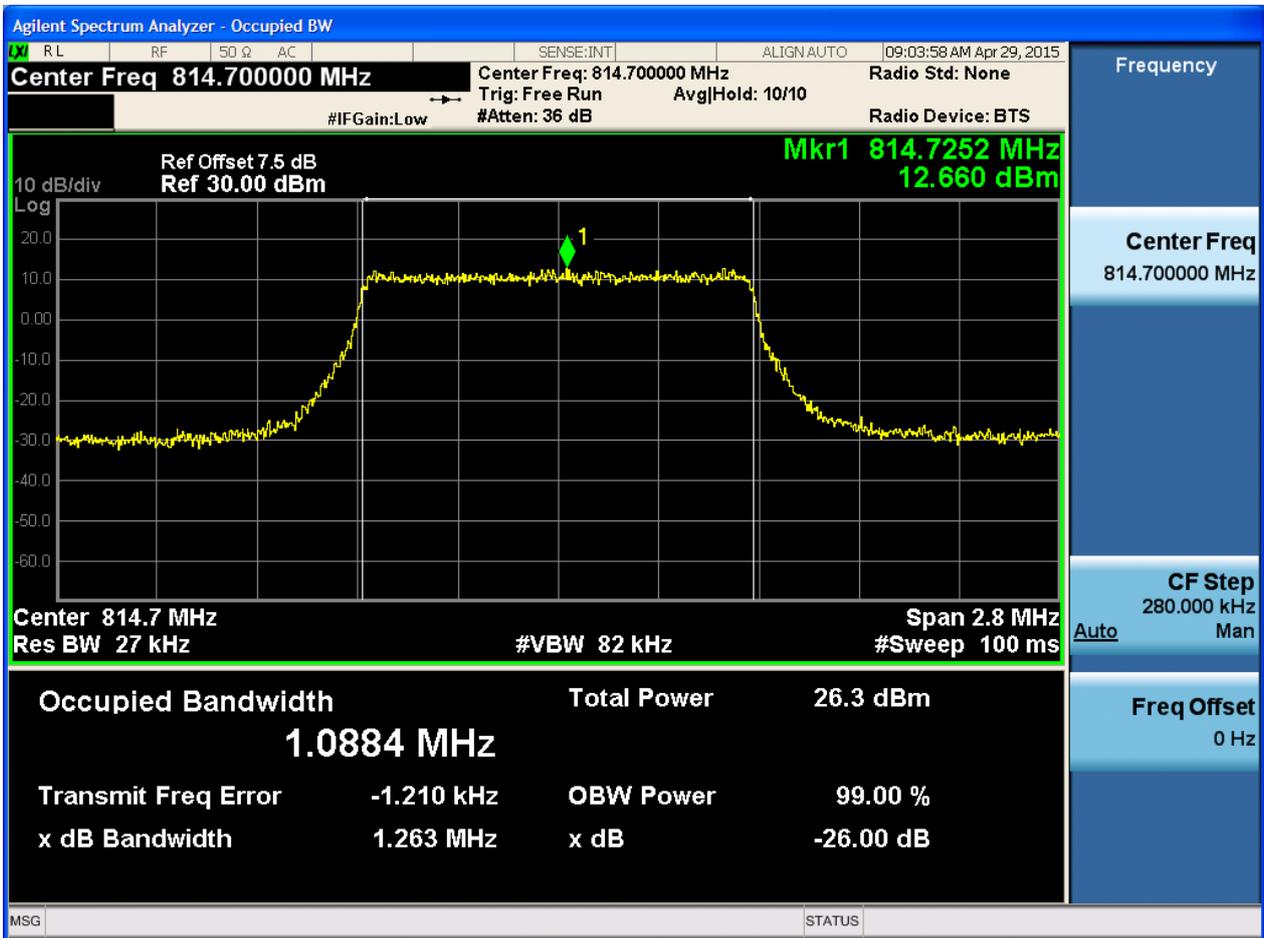
**4.1.1 Test Band = BAND26**

**4.1.1.1 Test Mode = LTE/TM1**

**4.1.1.1.1 Test Bandwidth = 1.4**

**4.1.1.1.1.1 Test Channel = LCH**

**4.1.1.1.1.1.1 Test RB = RB6#0**





4.1.1.1.1.2 Test Channel = MCH

4.1.1.1.1.2.1 Test RB = RB6#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB6#0

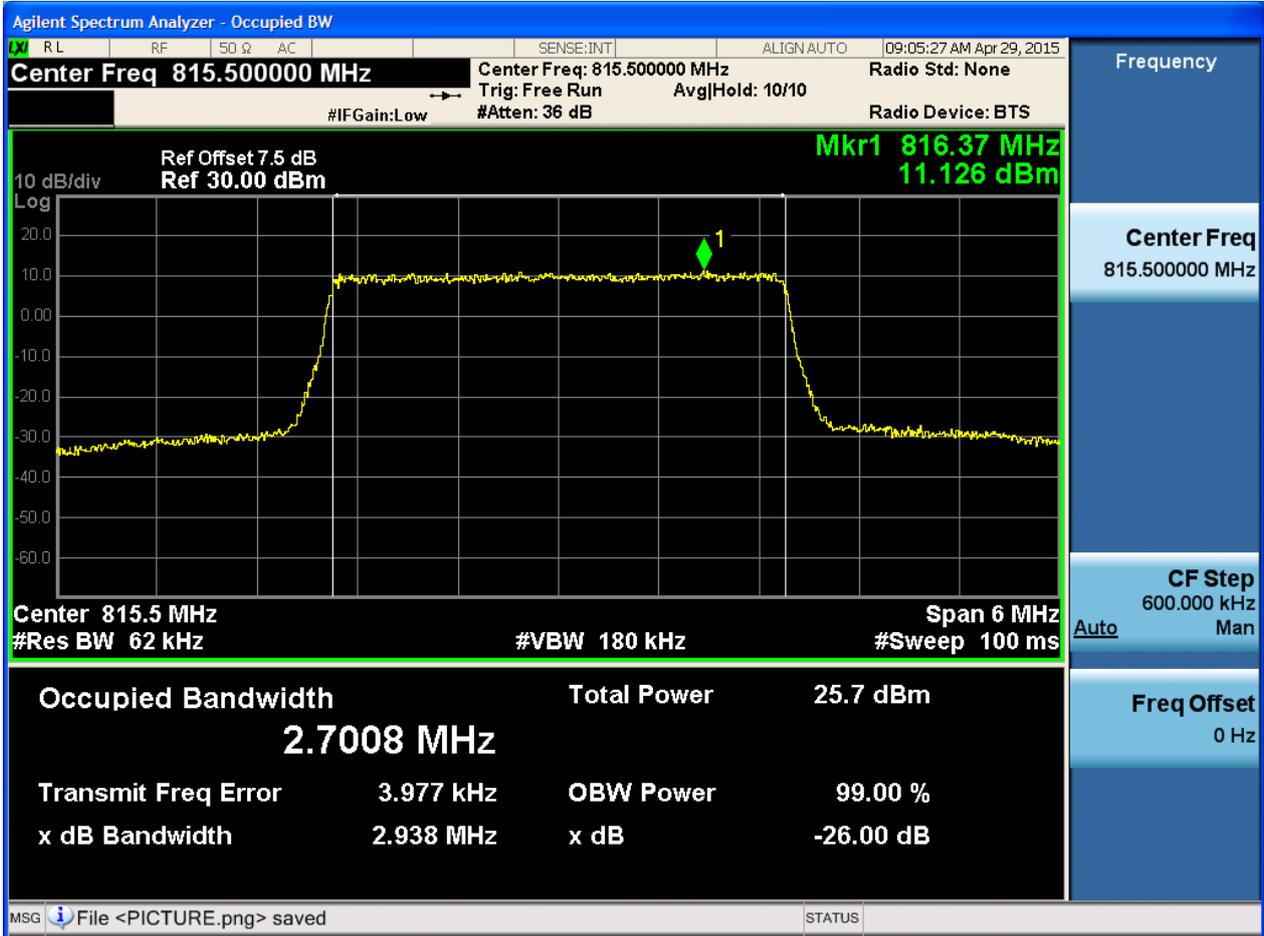




4.1.1.1.2 Test Bandwidth = 3

4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB15#0





4.1.1.1.2.2 Test Channel = MCH

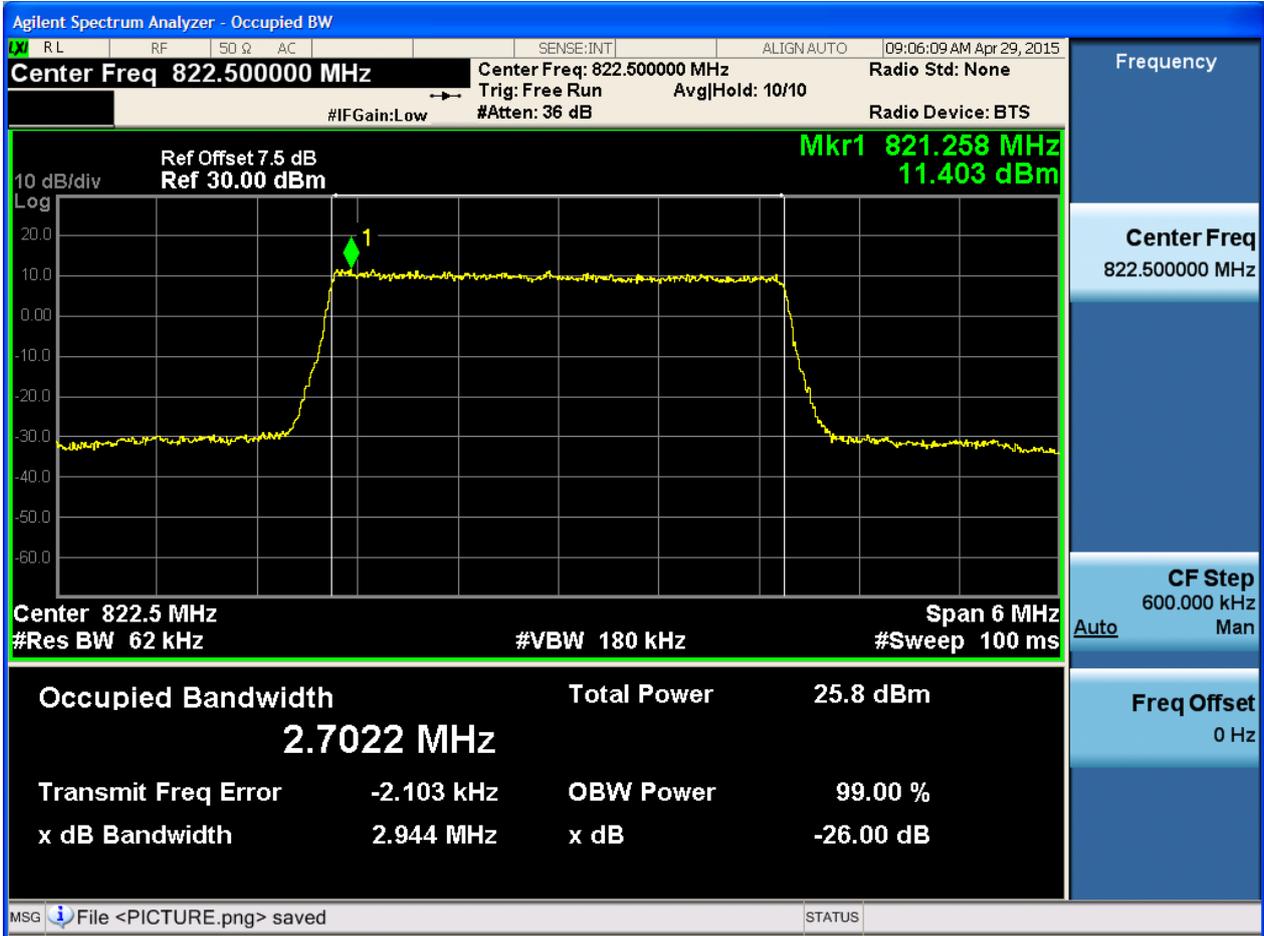
4.1.1.1.2.2.1 Test RB = RB15#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB15#0

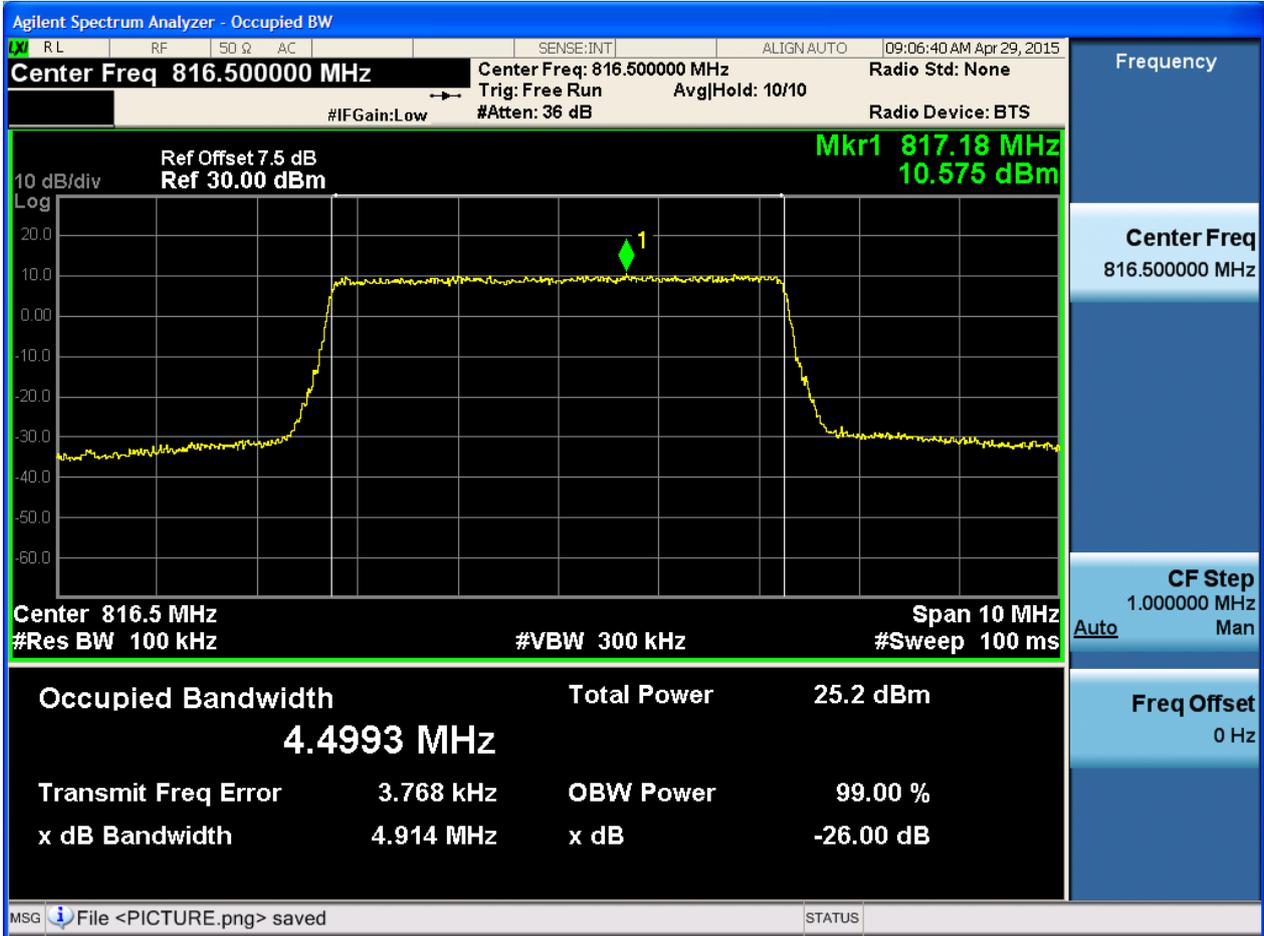




4.1.1.1.3 Test Bandwidth = 5

4.1.1.1.3.1 Test Channel = LCH

4.1.1.1.3.1.1 Test RB = RB25#0





4.1.1.1.3.2 Test Channel = MCH

4.1.1.1.3.2.1 Test RB = RB25#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB25#0

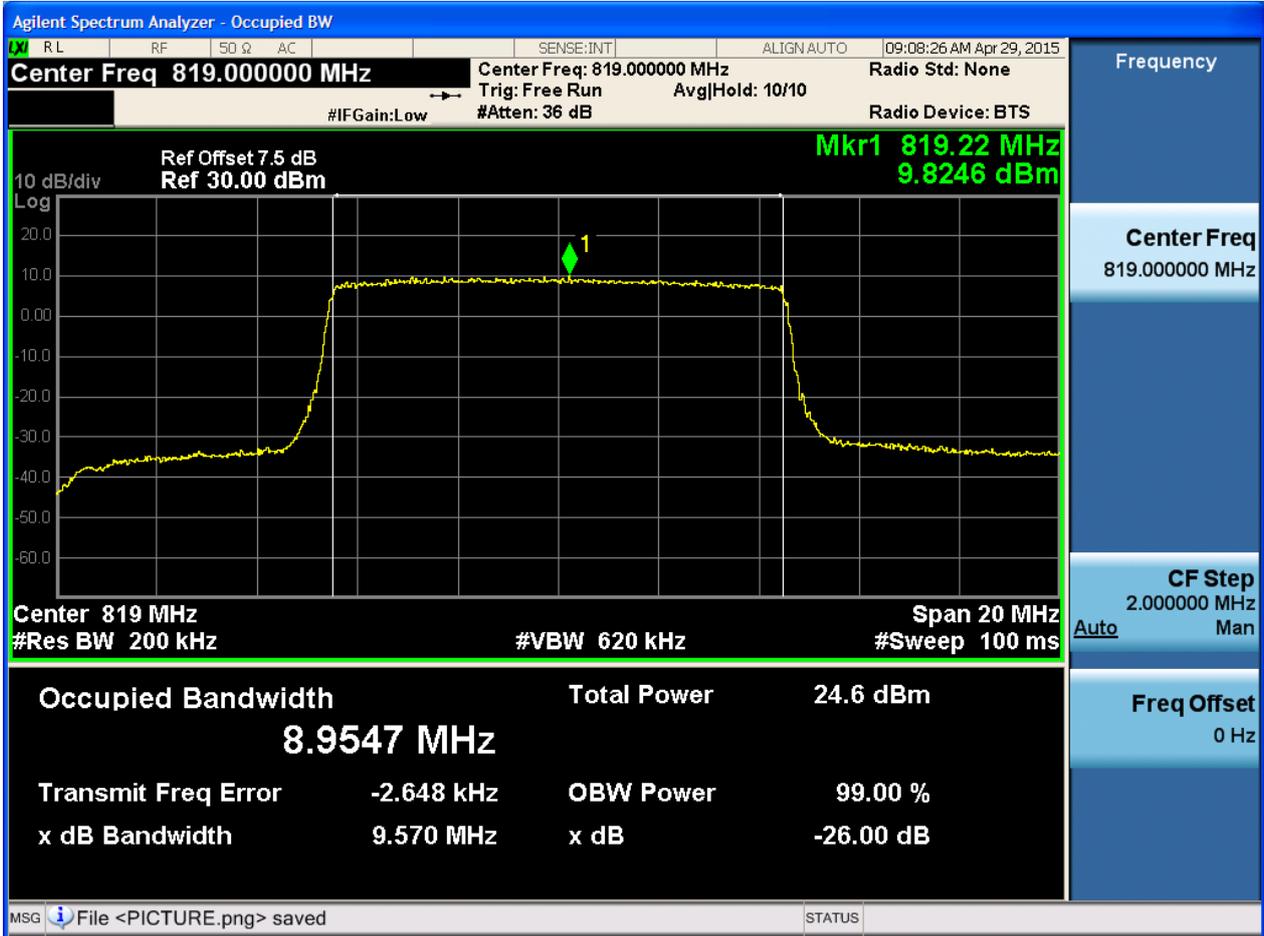




4.1.1.1.4 Test Bandwidth = 10

4.1.1.1.4.1 Test Channel = LCH

4.1.1.1.4.1.1 Test RB = RB50#0





4.1.1.1.4.2 Test Channel = MCH

4.1.1.1.4.2.1 Test RB = RB50#0





4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB50#0



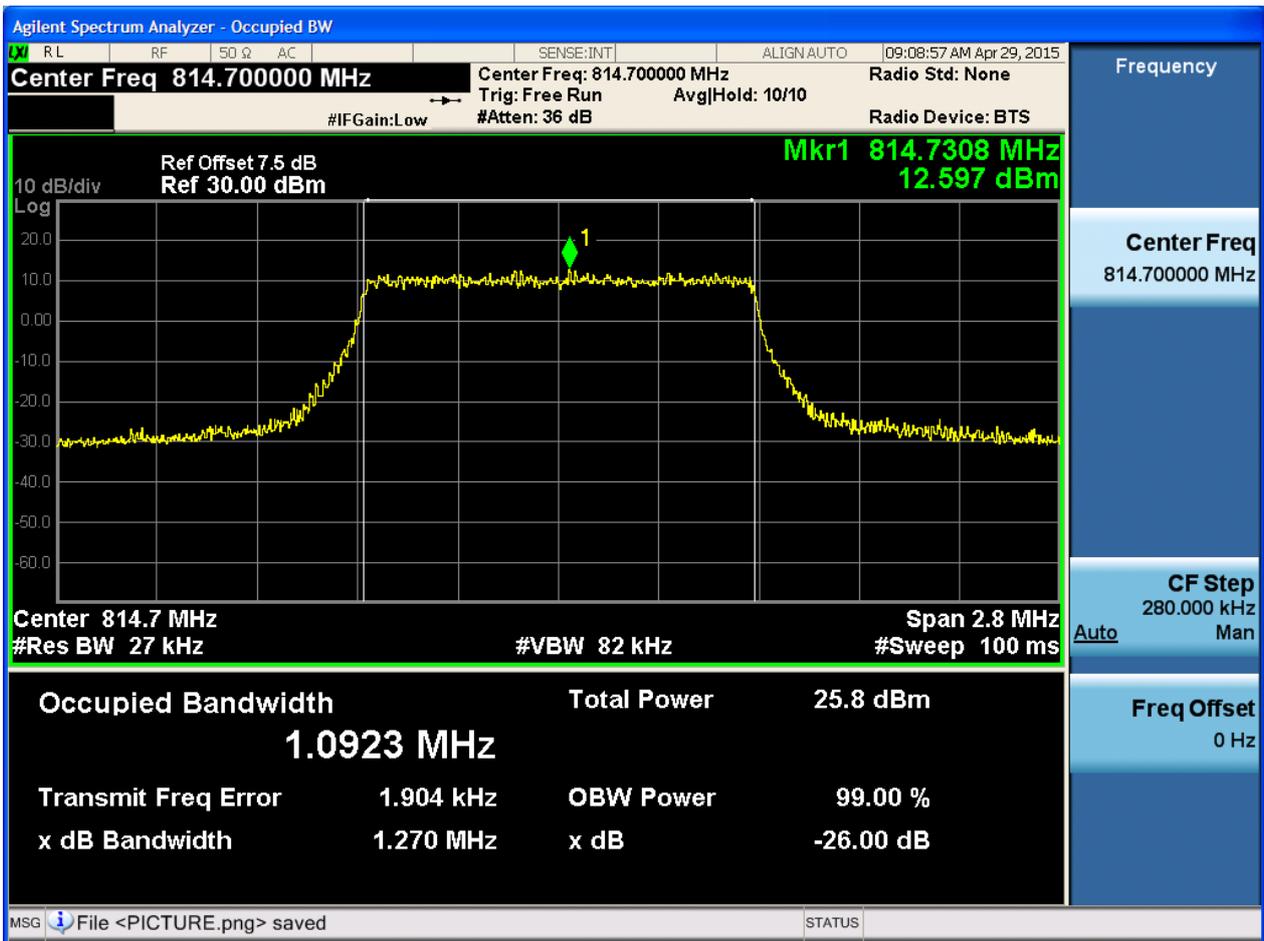


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 1.4

4.1.1.2.1.1 Test Channel = LCH

4.1.1.2.1.1.1 Test RB = RB6#0





4.1.1.2.1.2 Test Channel = MCH

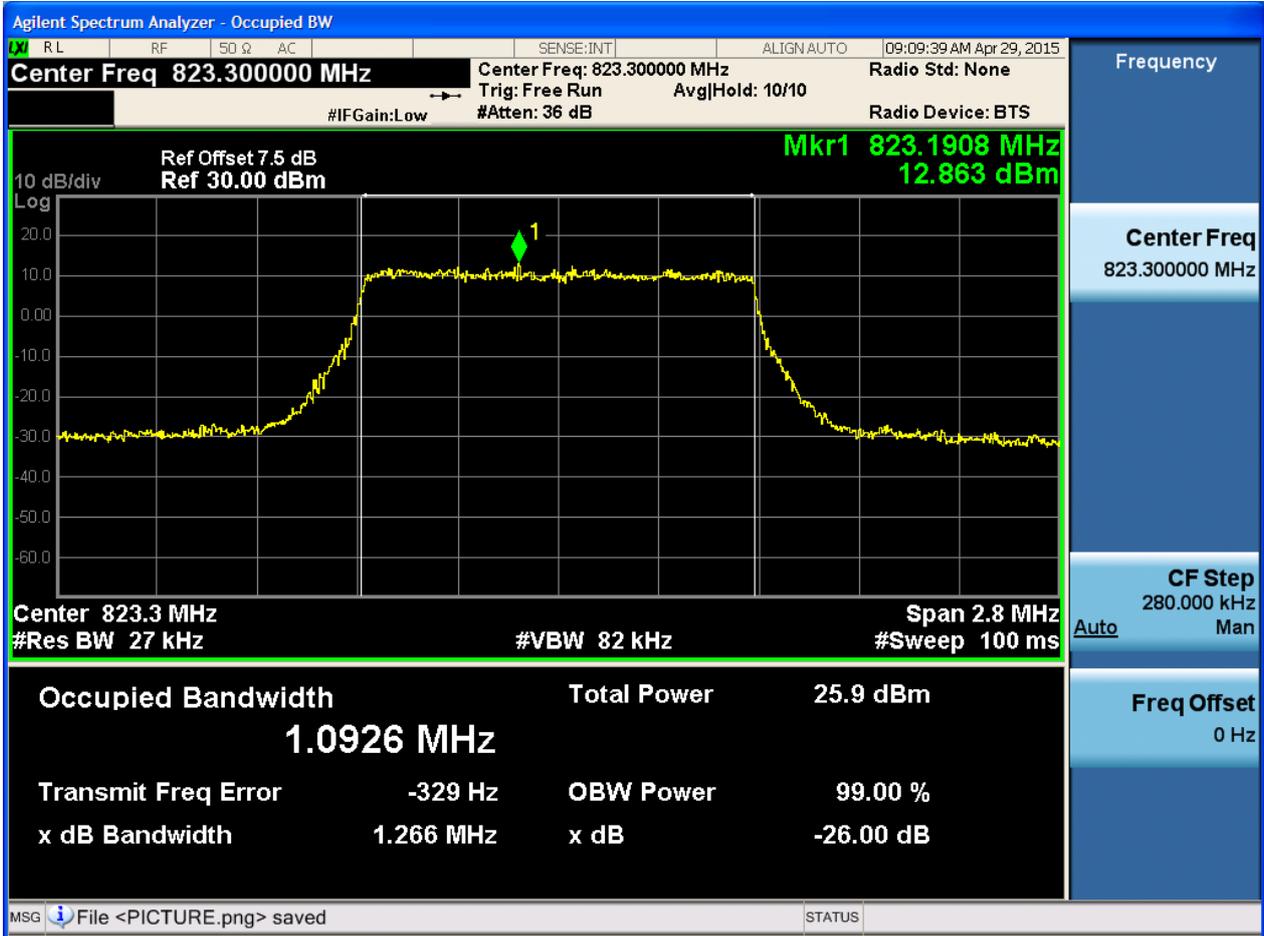
4.1.1.2.1.2.1 Test RB = RB6#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB6#0

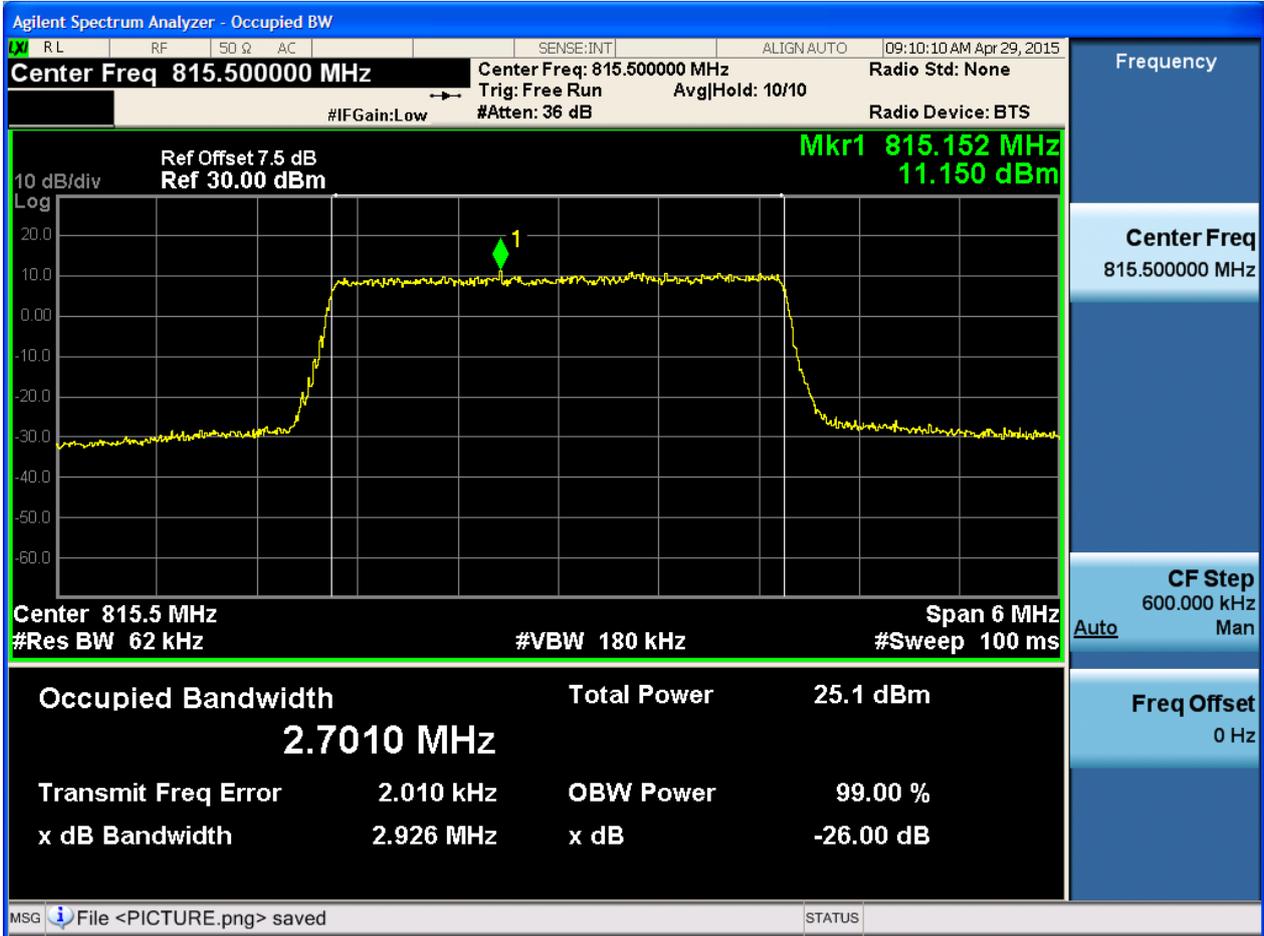




4.1.1.2.2 Test Bandwidth = 3

4.1.1.2.2.1 Test Channel = LCH

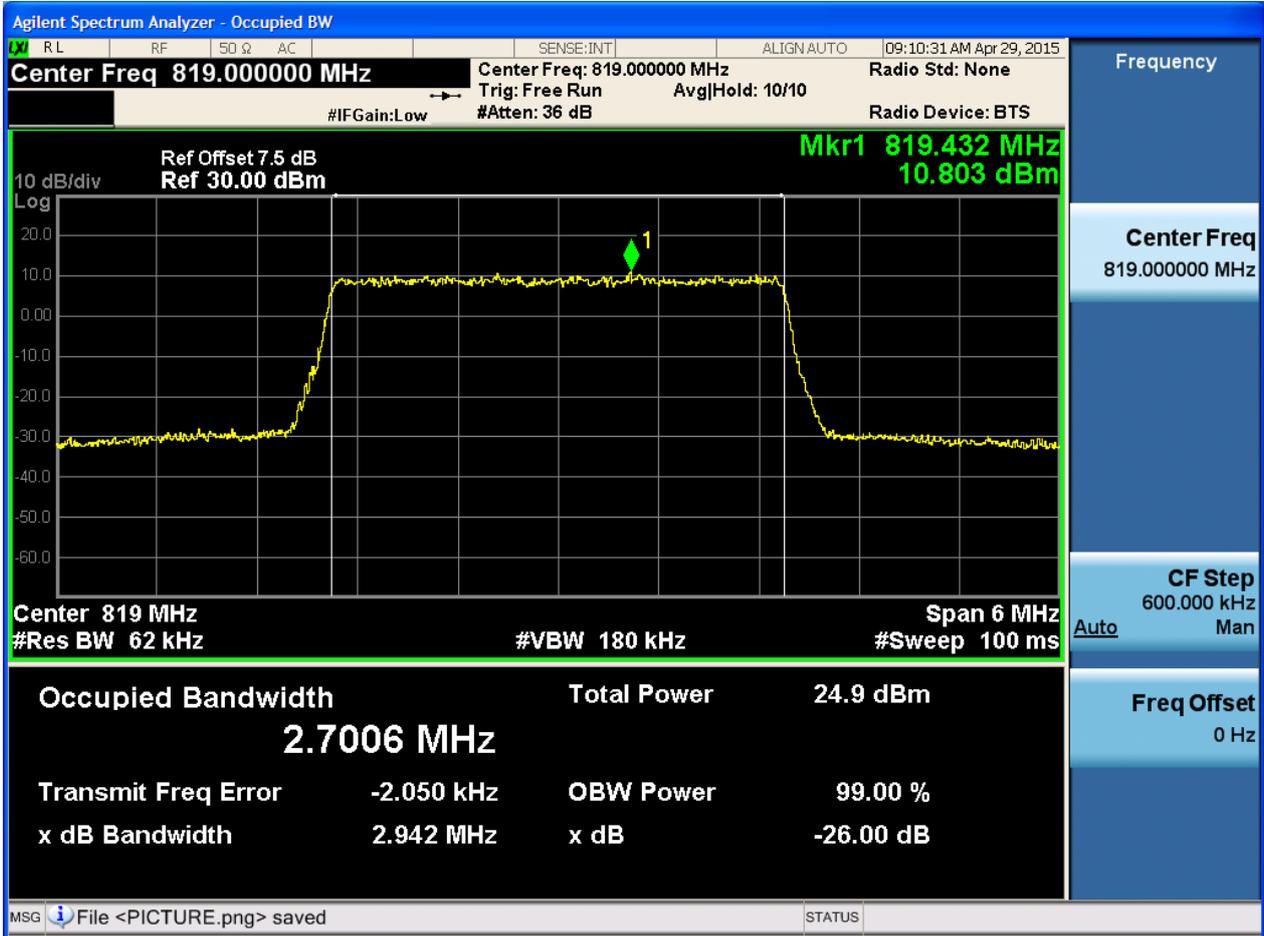
4.1.1.2.2.1.1 Test RB = RB15#0





4.1.1.2.2.2 Test Channel = MCH

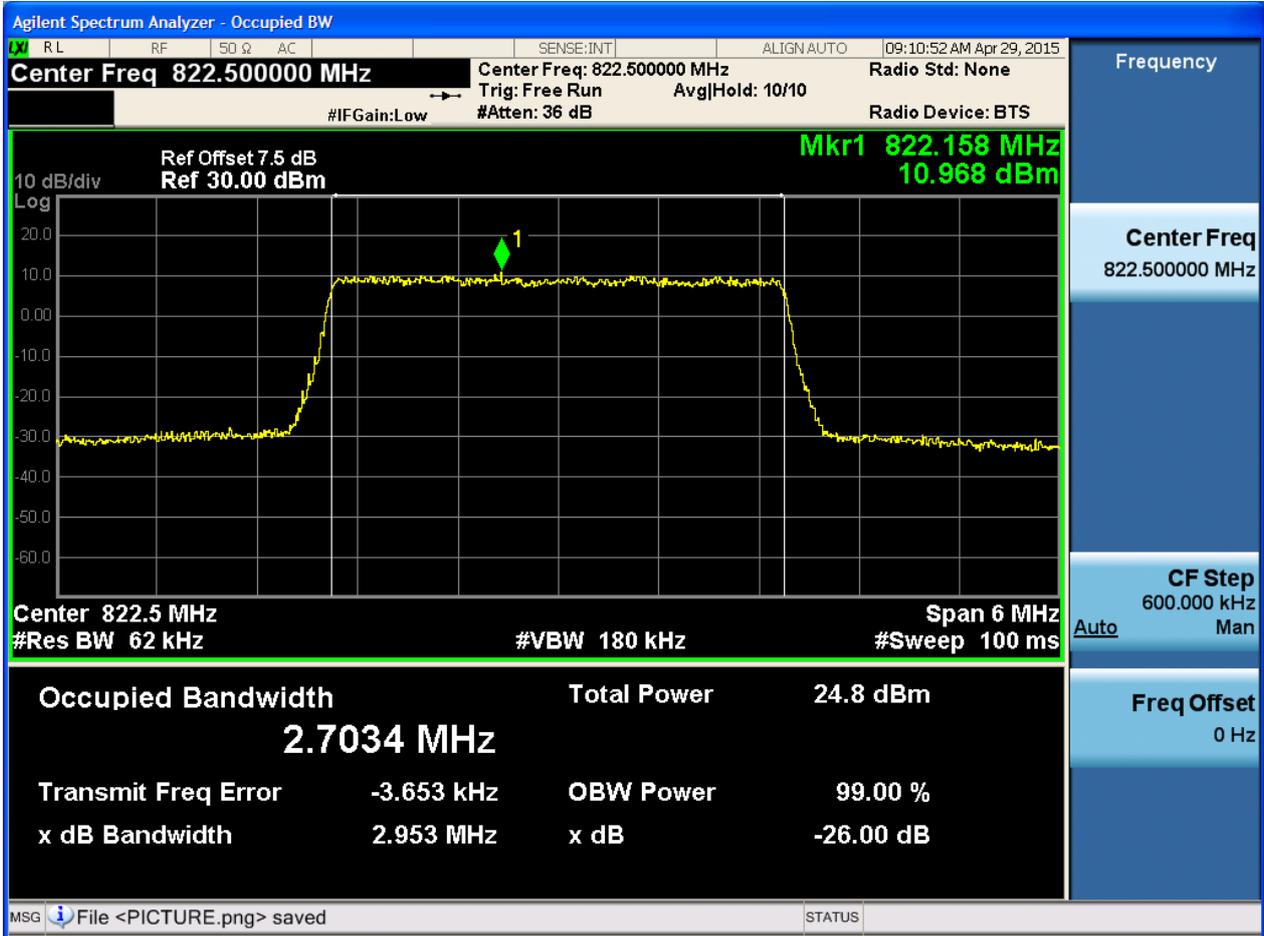
4.1.1.2.2.2.1 Test RB = RB15#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB15#0

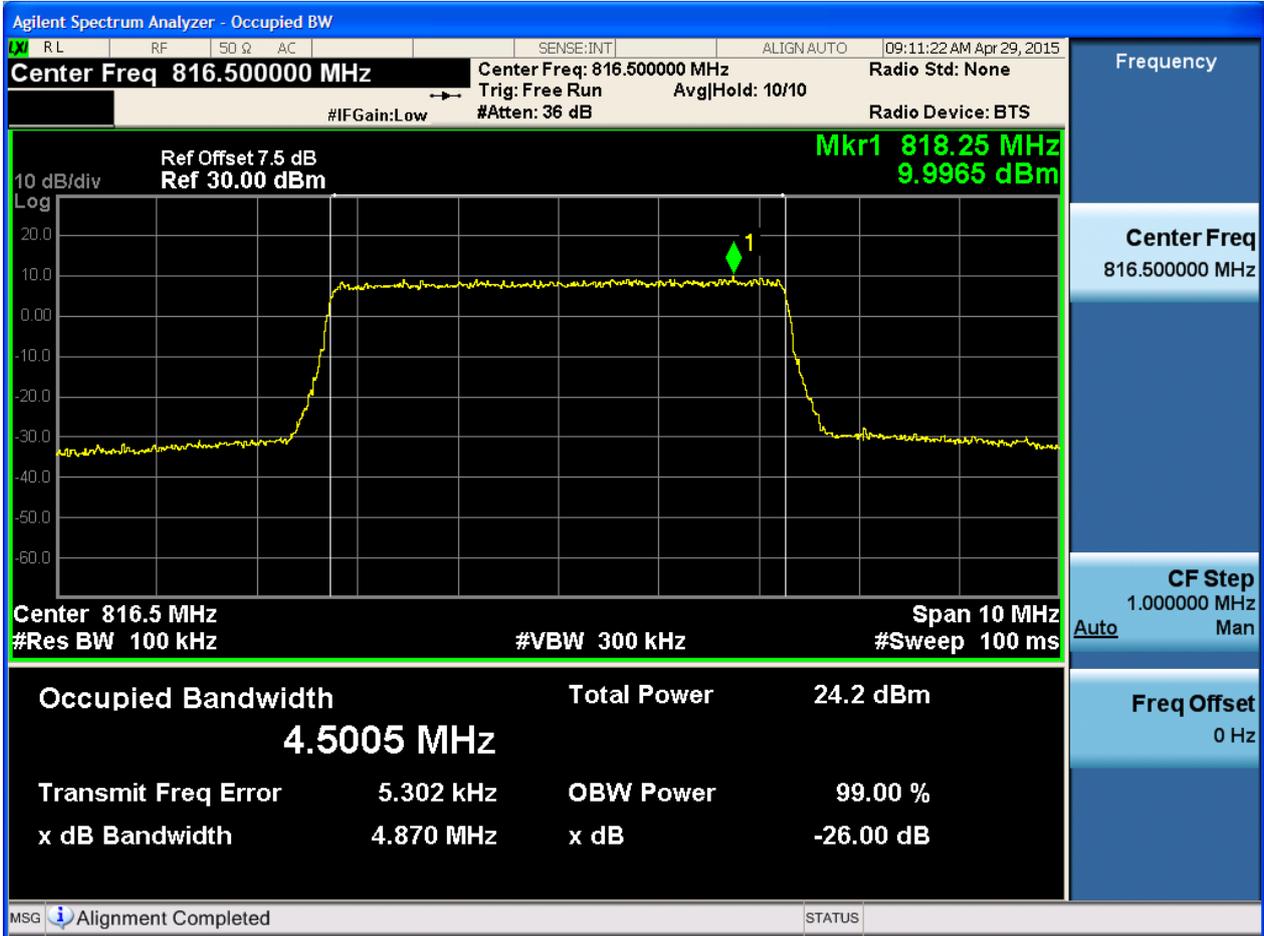




4.1.1.2.3 Test Bandwidth = 5

4.1.1.2.3.1 Test Channel = LCH

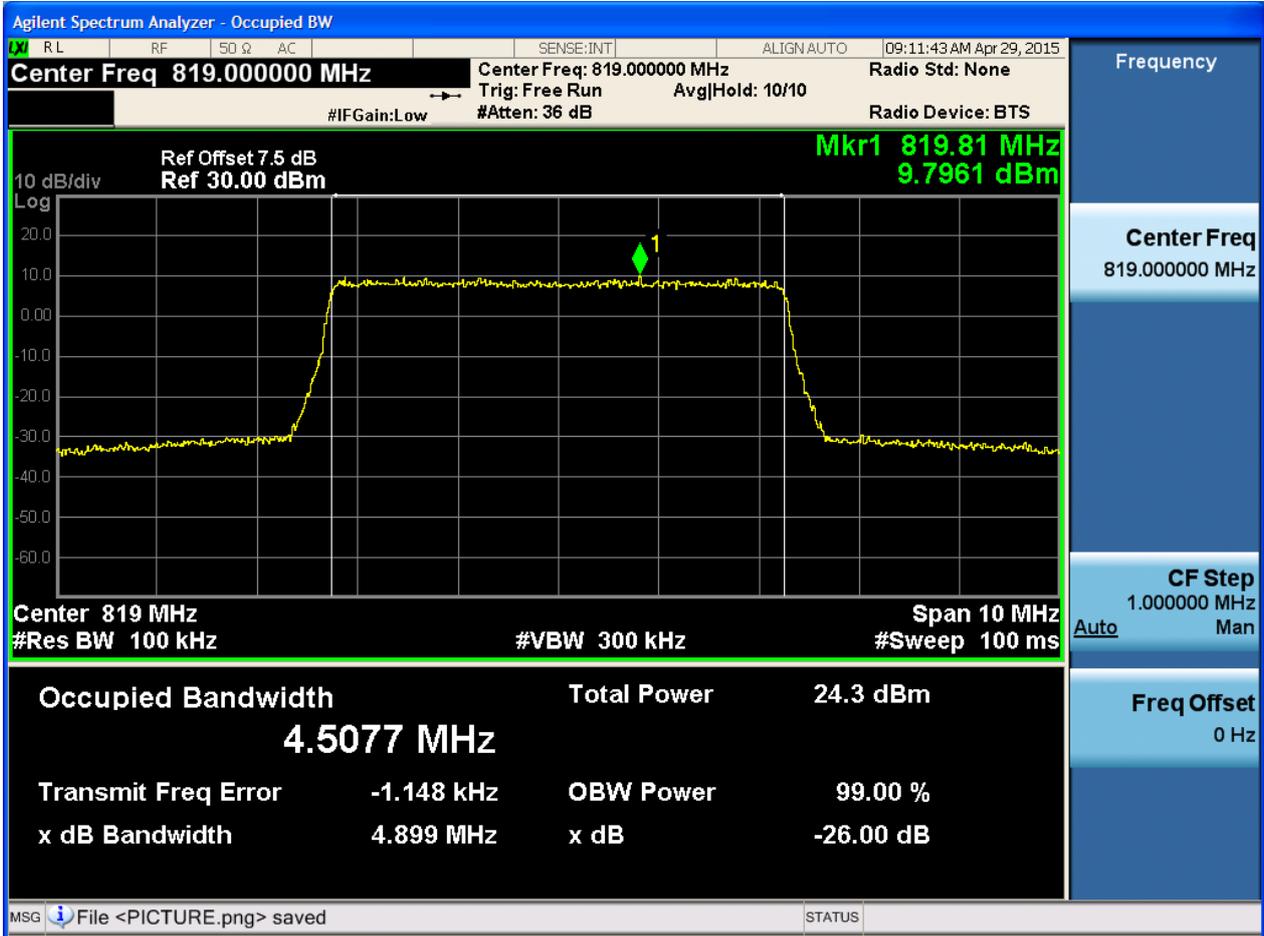
4.1.1.2.3.1.1 Test RB = RB25#0





#### 4.1.1.2.3.2 Test Channel = MCH

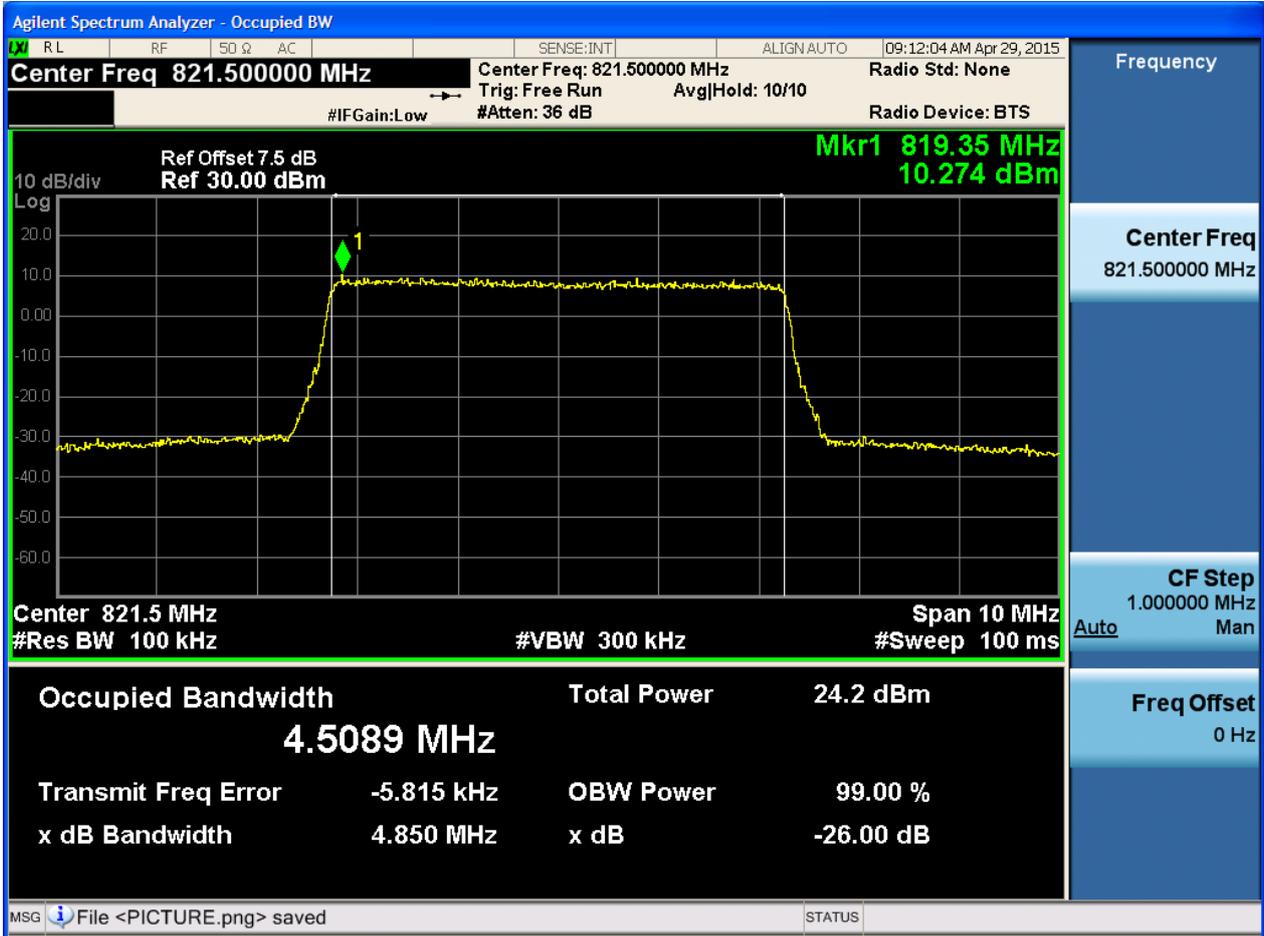
##### 4.1.1.2.3.2.1 Test RB = RB25#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB25#0





4.1.1.2.4 Test Bandwidth = 10

4.1.1.2.4.1 Test Channel = LCH

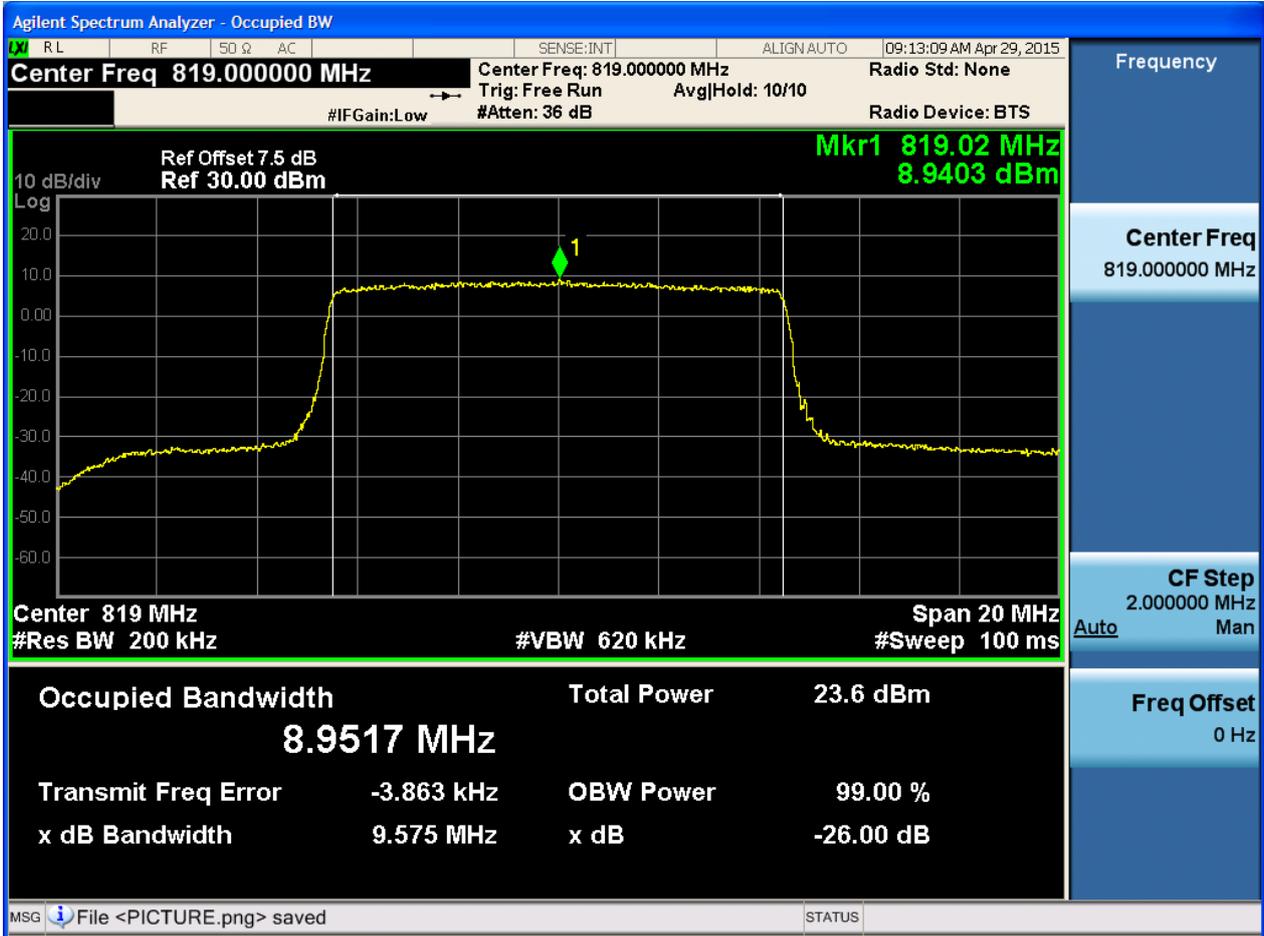
4.1.1.2.4.1.1 Test RB = RB50#0





#### 4.1.1.2.4.2 Test Channel = MCH

##### 4.1.1.2.4.2.1 Test RB = RB50#0





4.1.1.2.4.3 Test Channel = HCH

4.1.1.2.4.3.1 Test RB = RB50#0





## 5Appendix\_E: Band Edges Compliance

### Part I - Test Plots

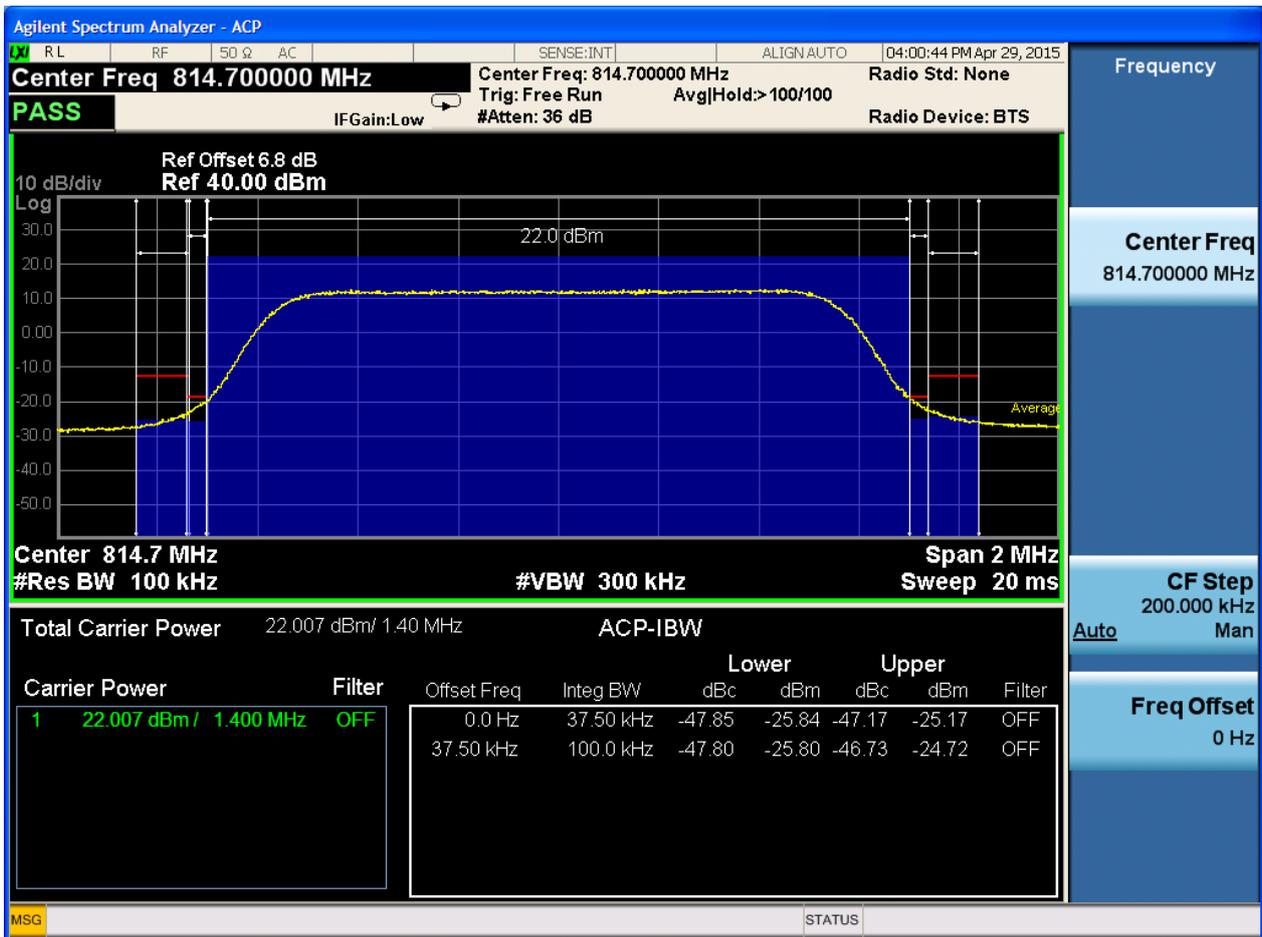
#### 5.1 For LTE

##### 5.1.1 Test Band = BAND26

##### 5.1.1.1 Test Mode = LTE/TM1

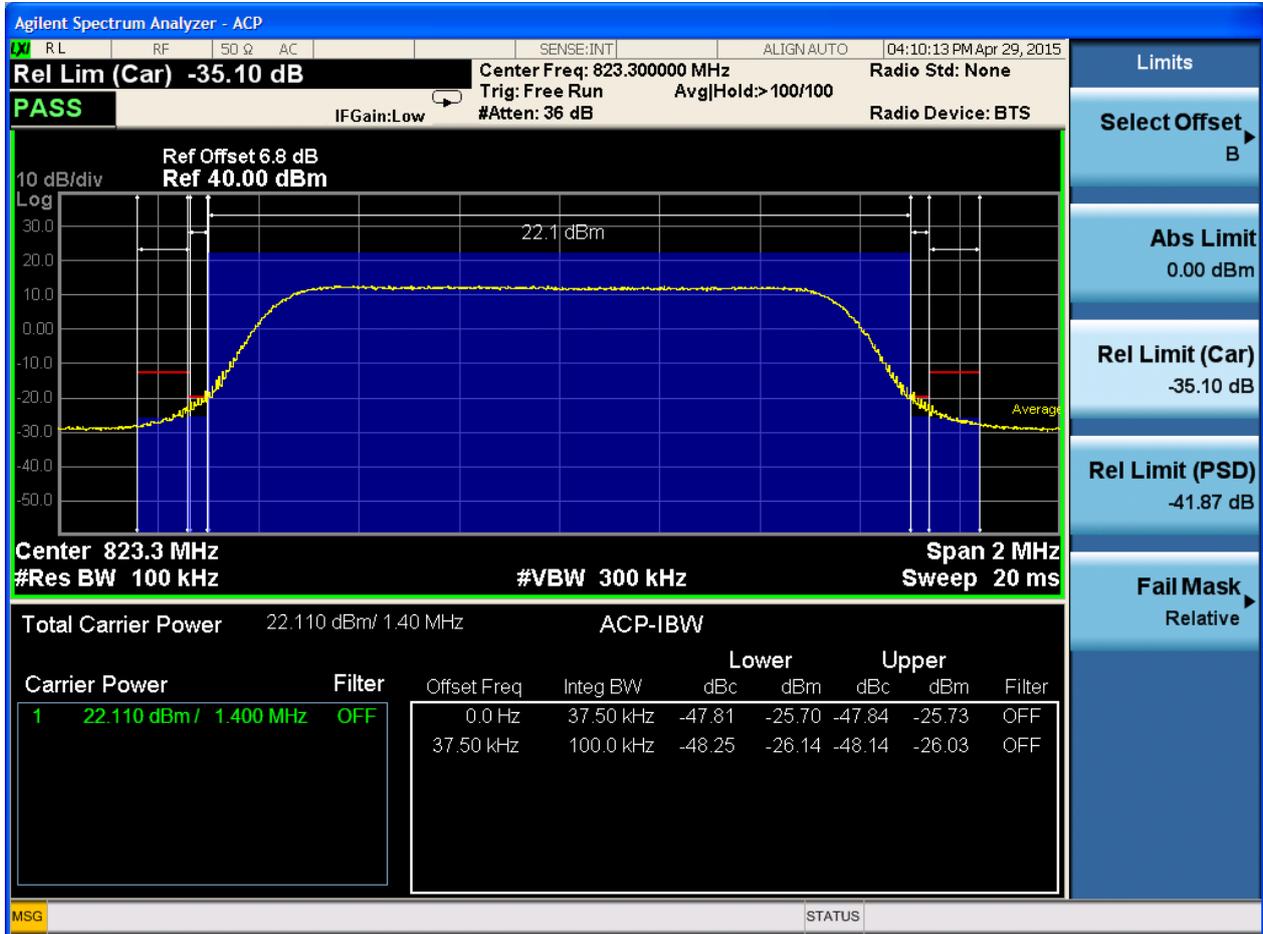
##### 5.1.1.1.1 Test Bandwidth = 1.4

##### 5.1.1.1.1.1 Test Channel = LCH





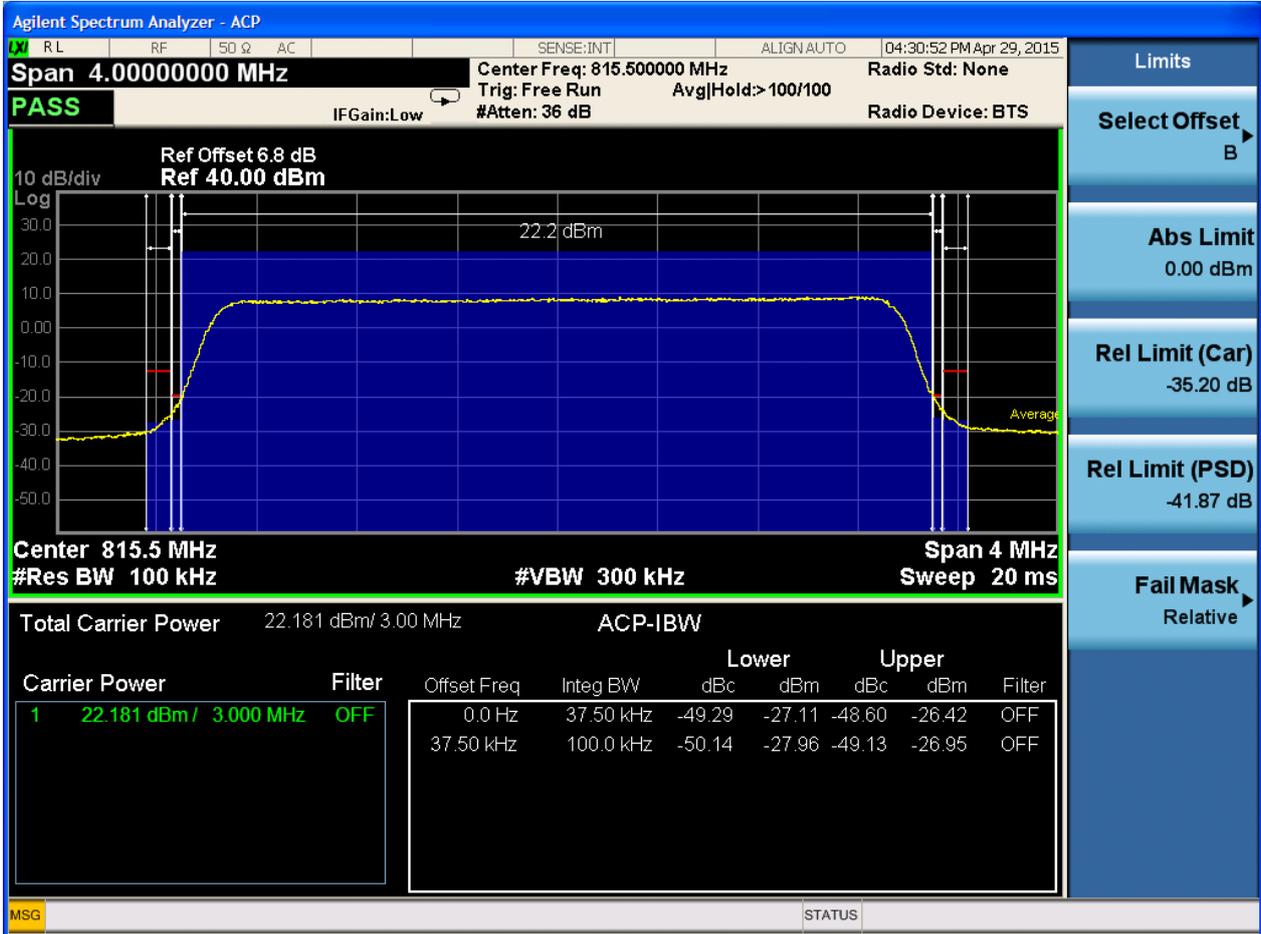
5.1.1.1.1.2 Test Channel = HCH





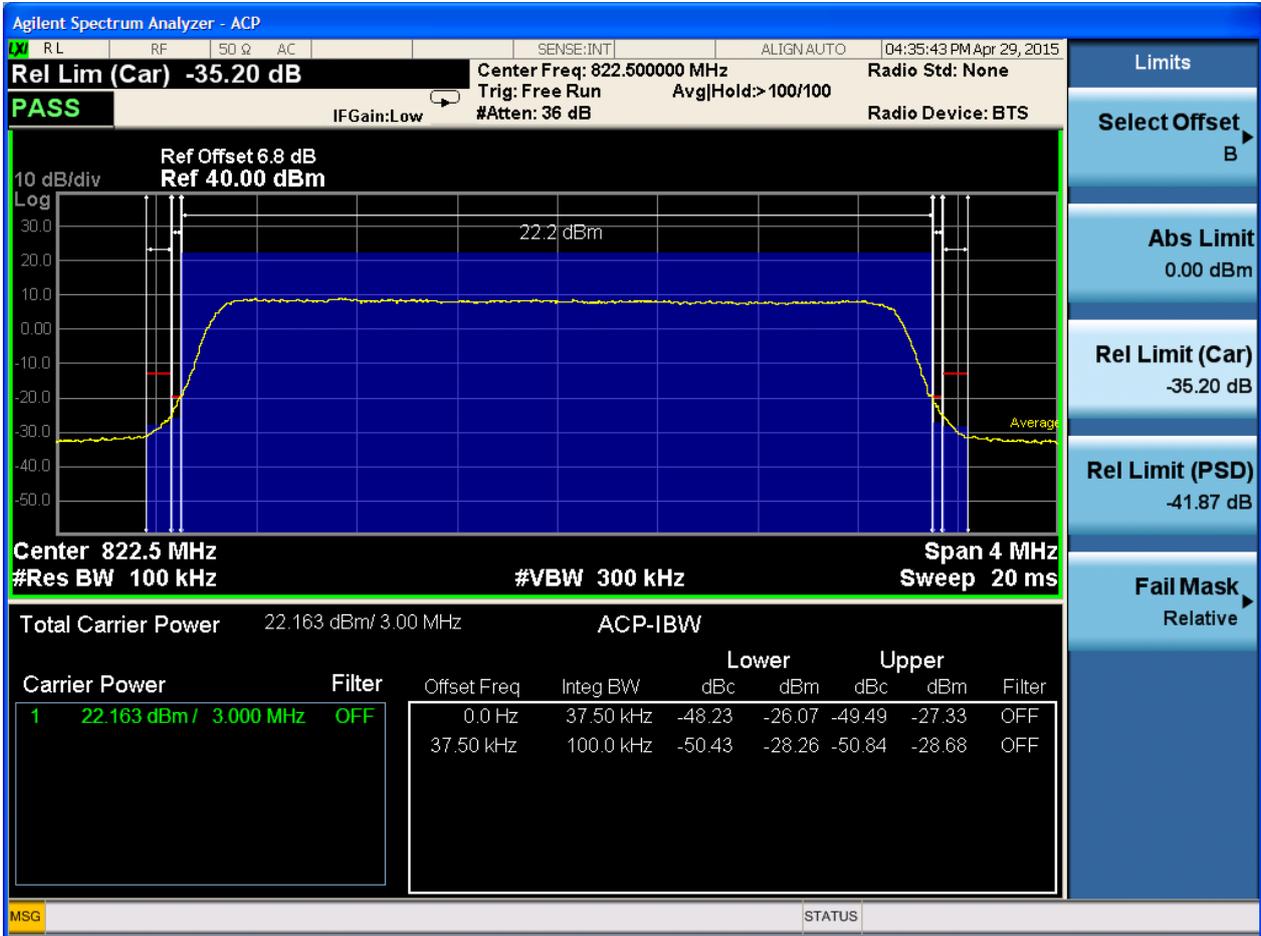
5.1.1.1.2 Test Bandwidth = 3

5.1.1.1.2.1 Test Channel = LCH





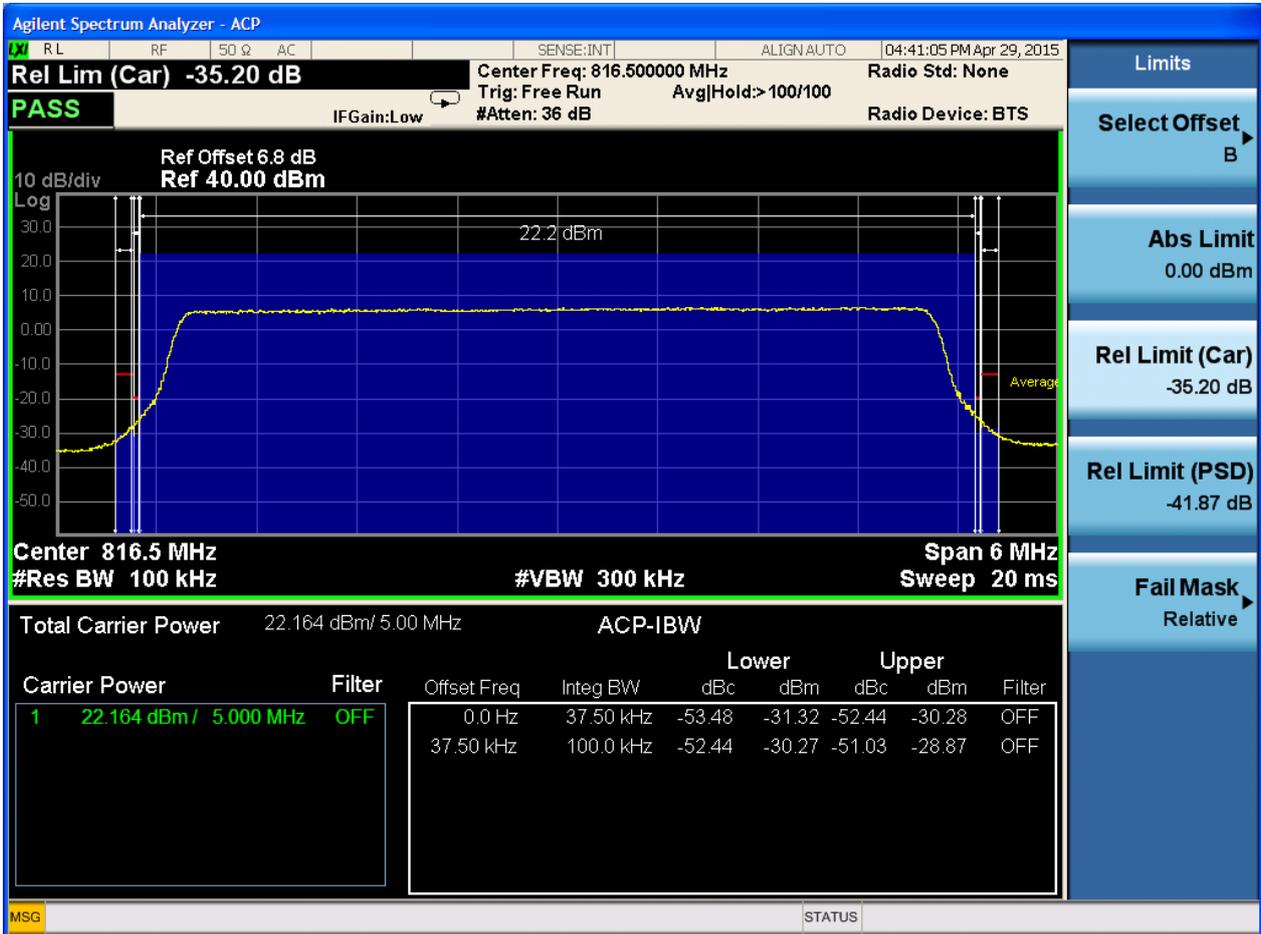
5.1.1.1.2.2 Test Channel = HCH





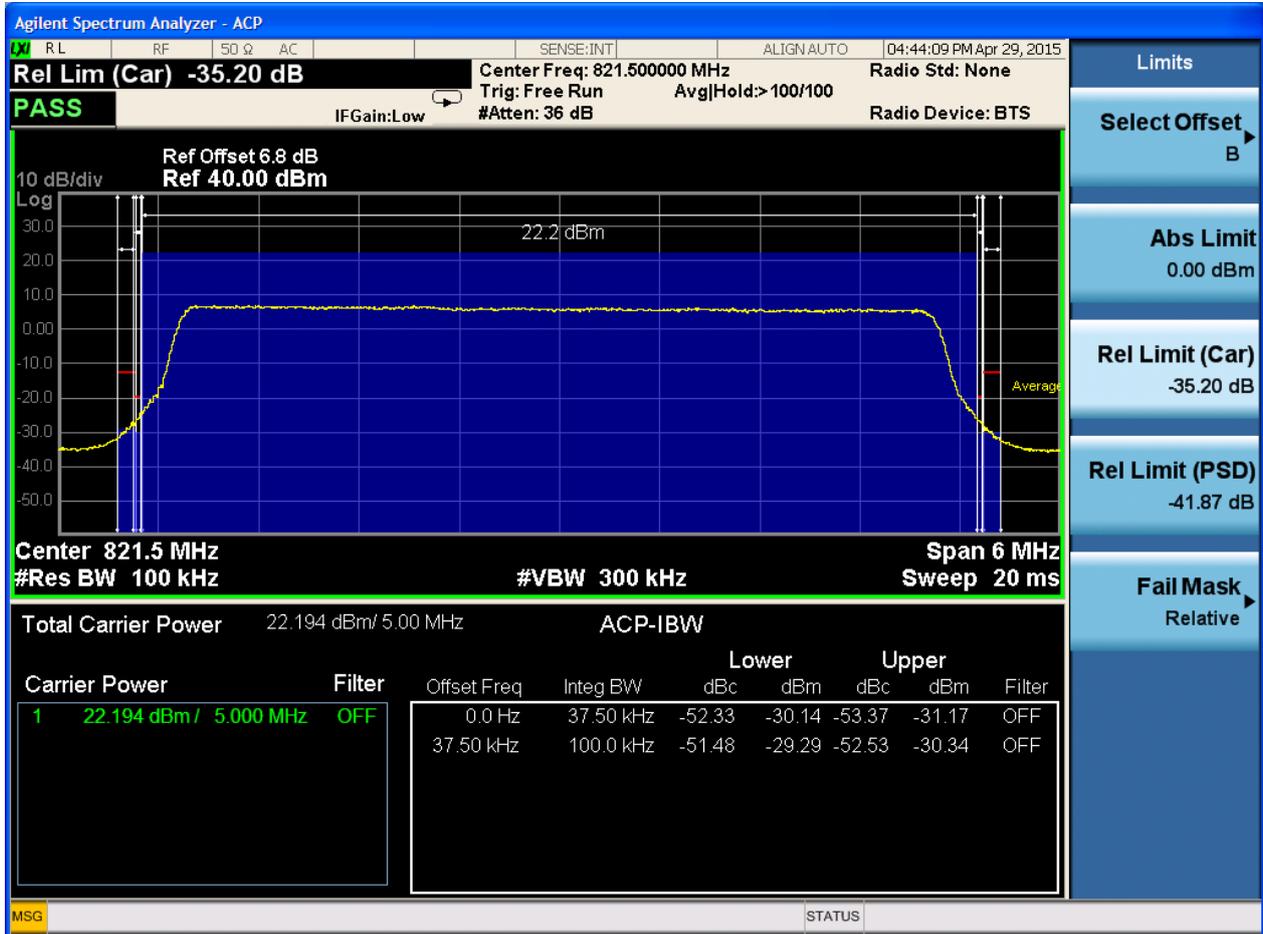
5.1.1.1.3 Test Bandwidth = 5

5.1.1.1.3.1 Test Channel = LCH





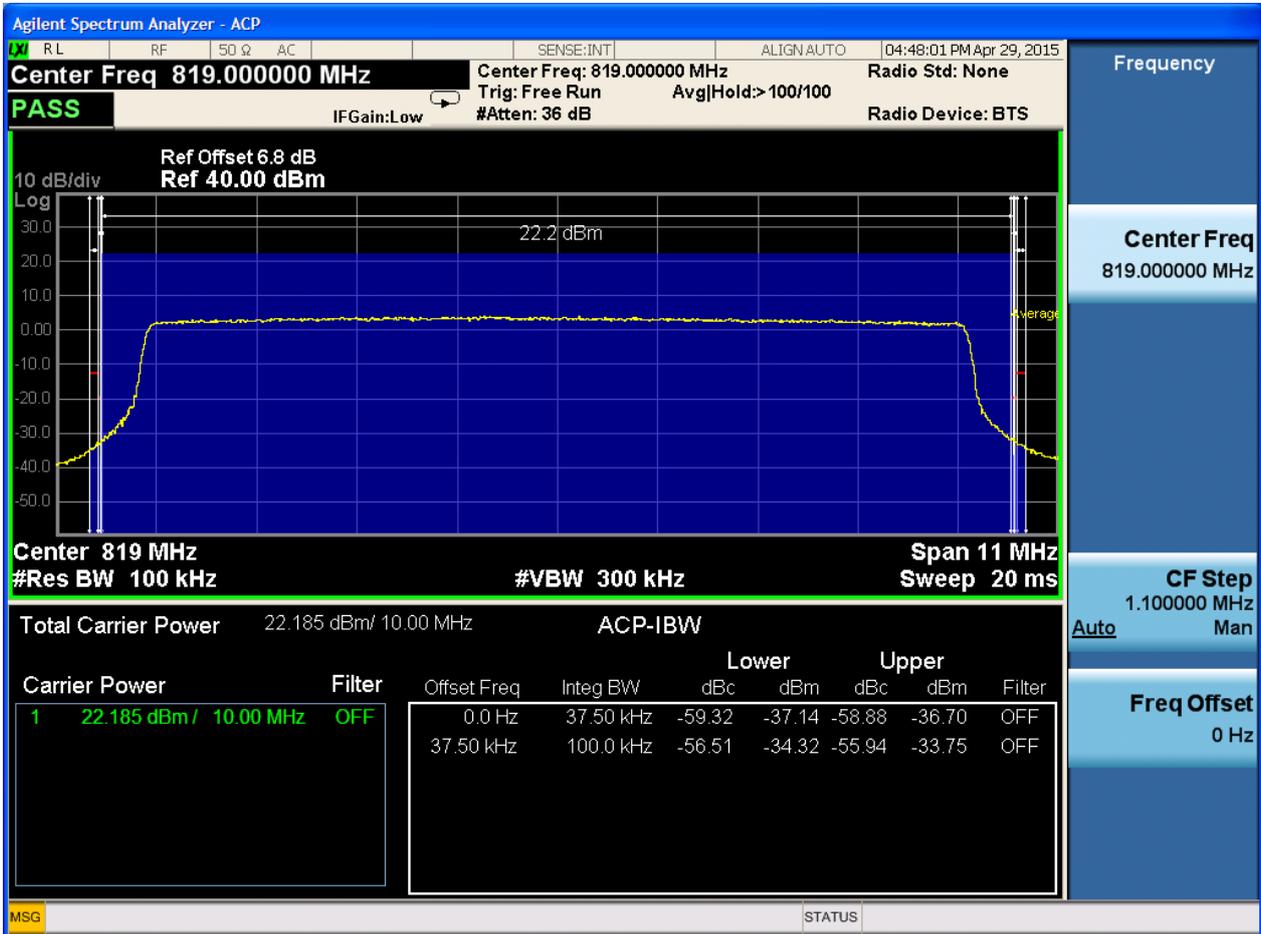
5.1.1.1.3.2 Test Channel = HCH





5.1.1.1.4 Test Bandwidth = 10

5.1.1.1.4.1 Test Channel = MCH

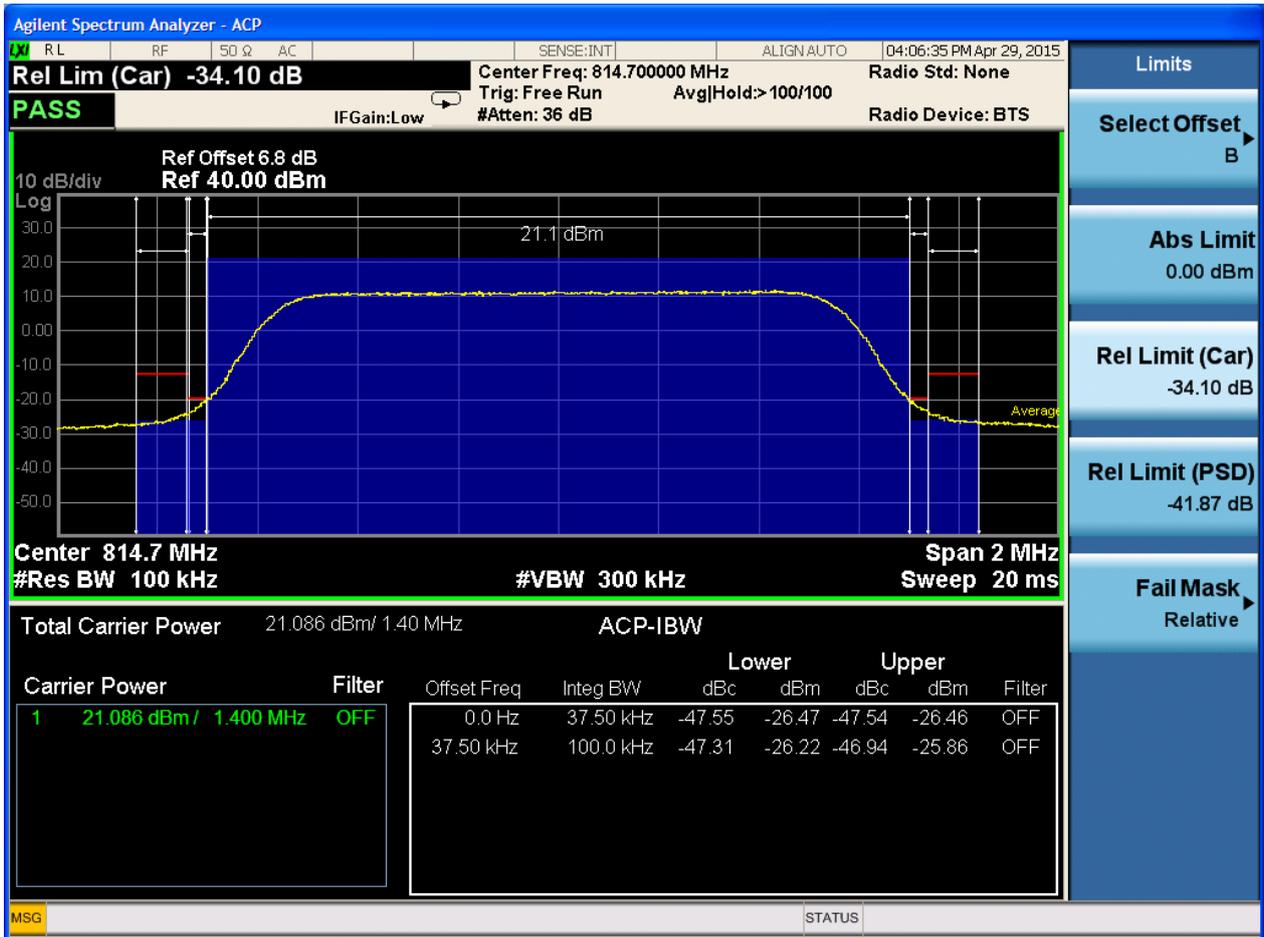




5.1.1.2 Test Mode = LTE/TM2

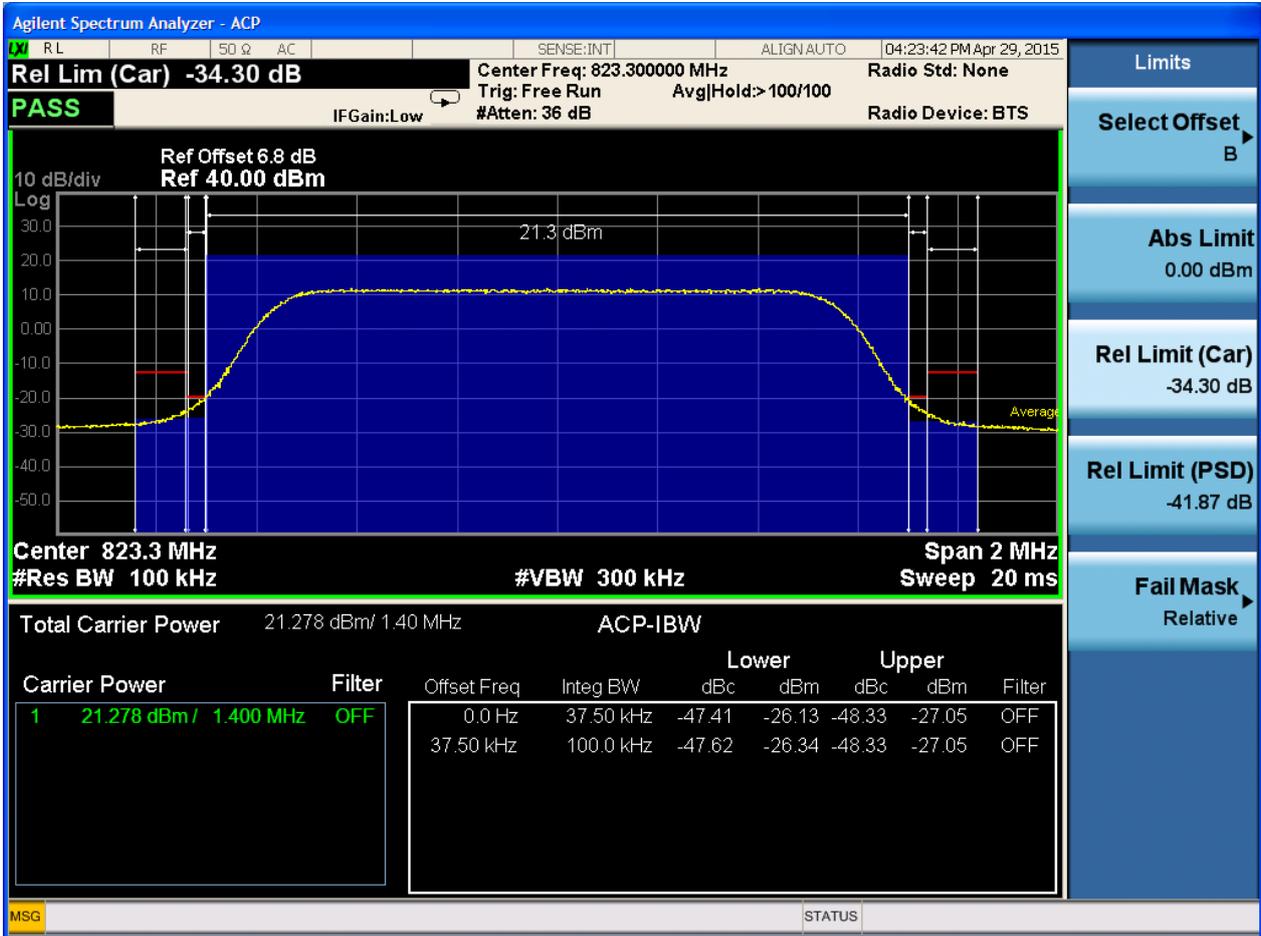
5.1.1.2.1 Test Bandwidth = 1.4

5.1.1.2.1.1 Test Channel = LCH





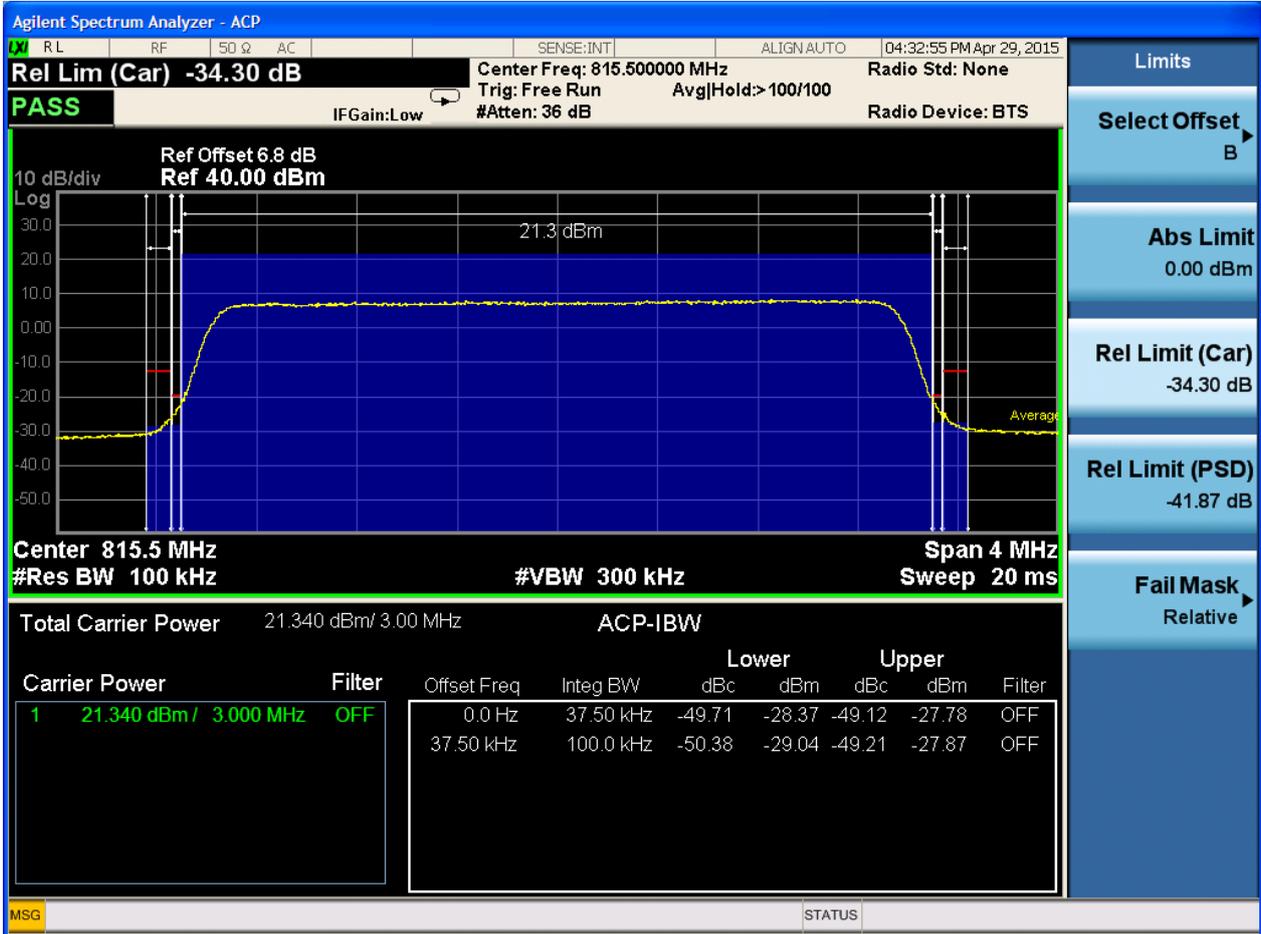
5.1.1.2.1.2 Test Channel = HCH





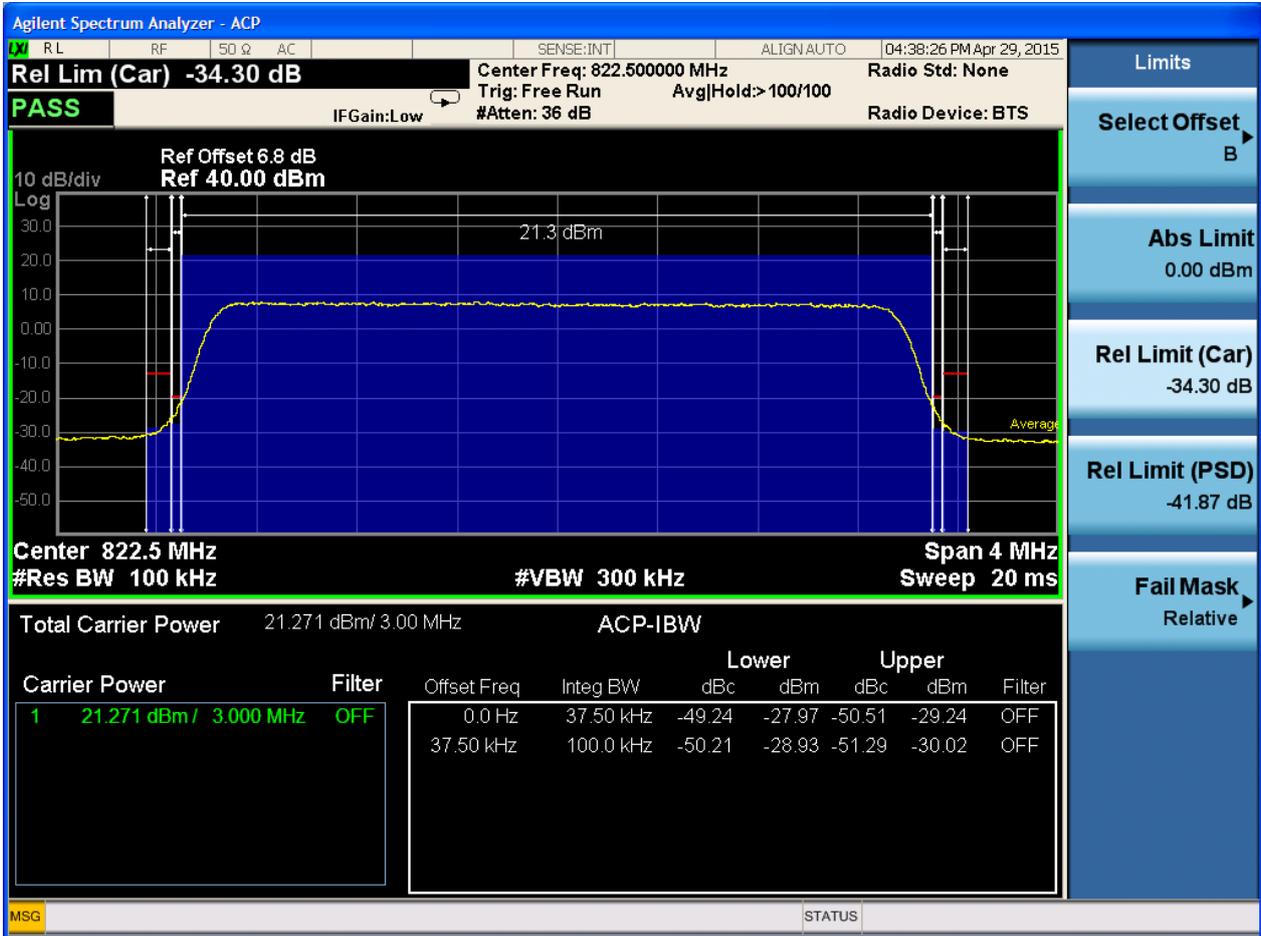
5.1.1.2.2 Test Bandwidth = 3

5.1.1.2.2.1 Test Channel = LCH





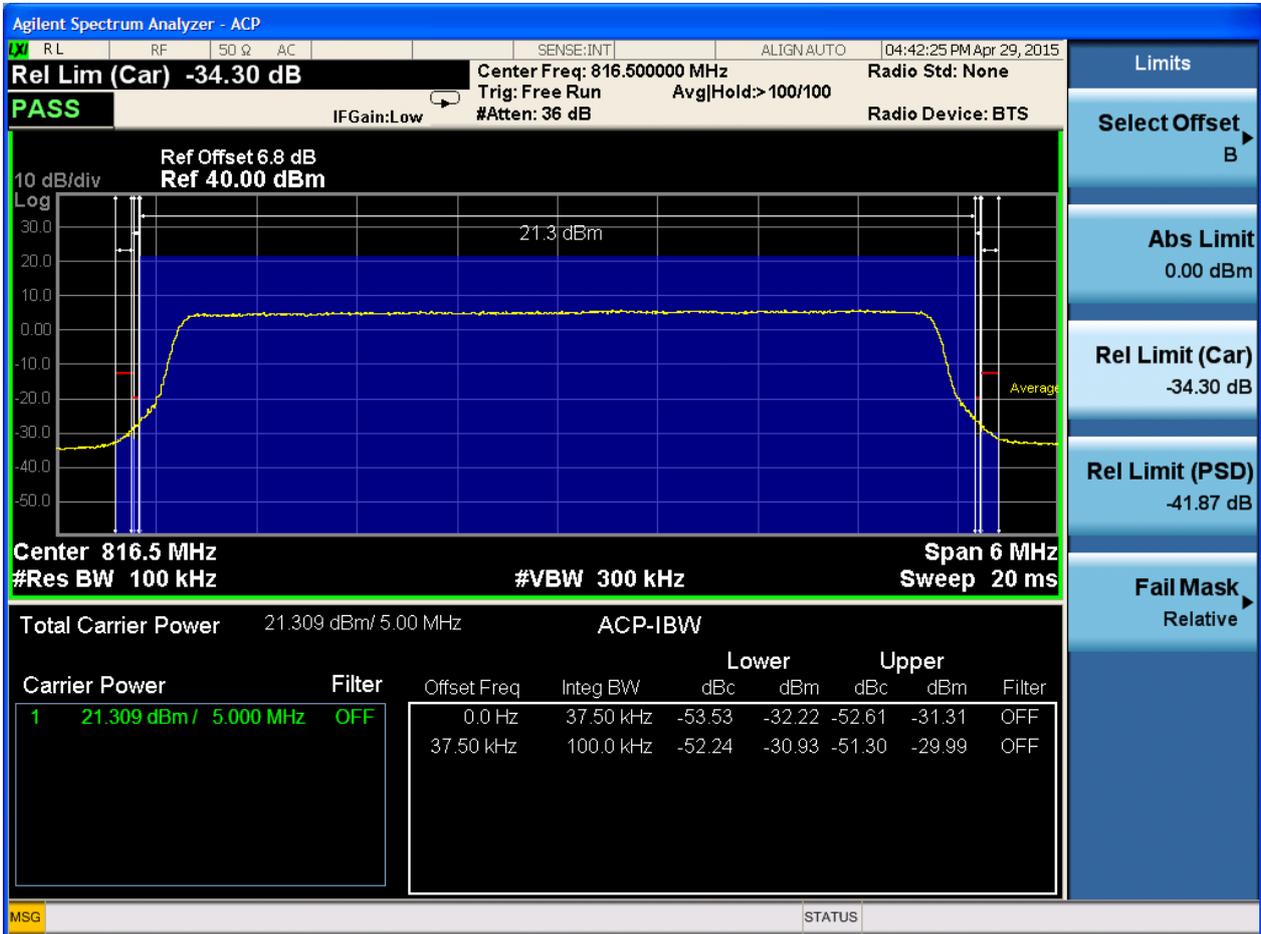
5.1.1.2.2.2 Test Channel = HCH





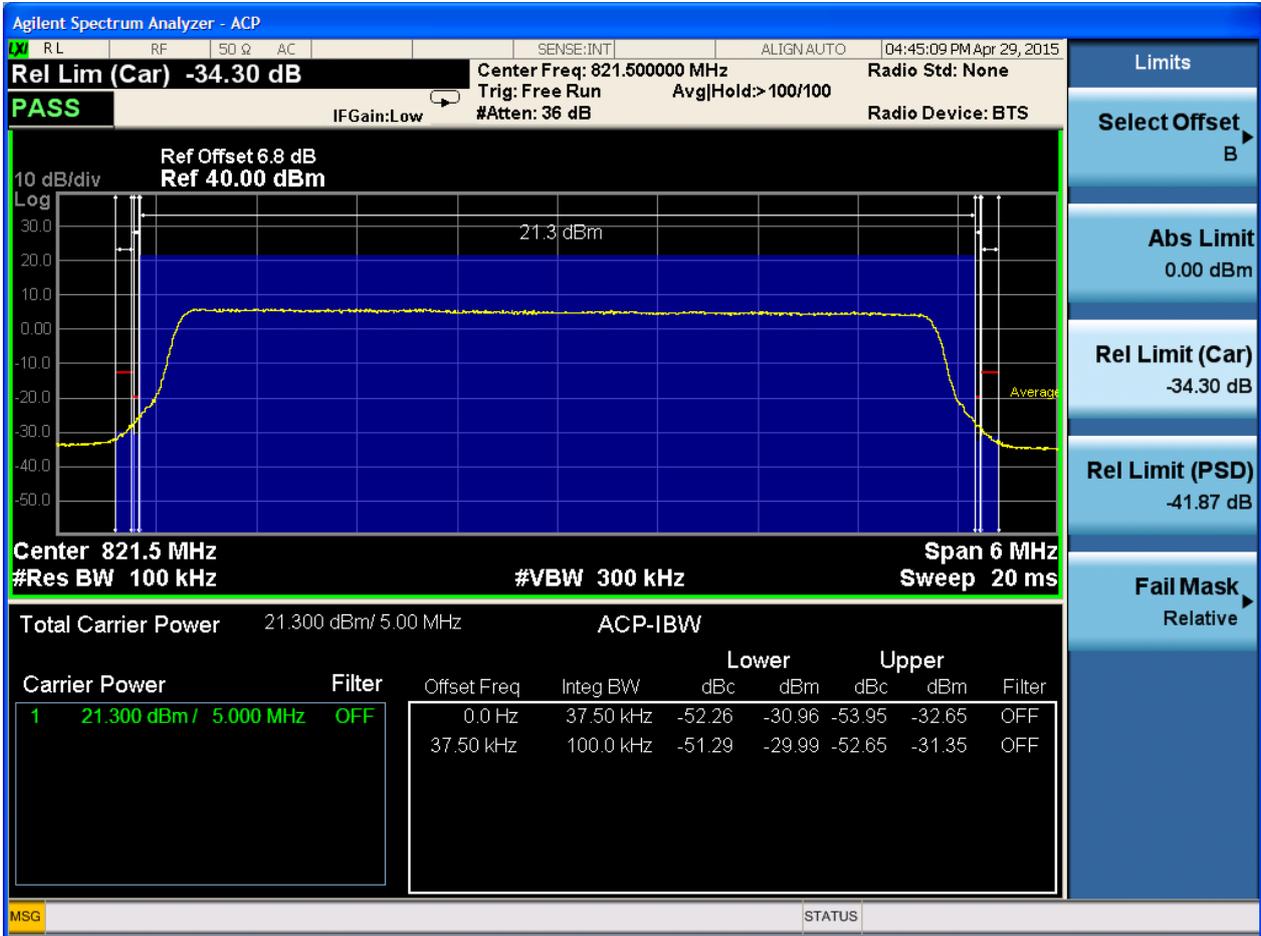
5.1.1.2.3 Test Bandwidth = 5

5.1.1.2.3.1 Test Channel = LCH





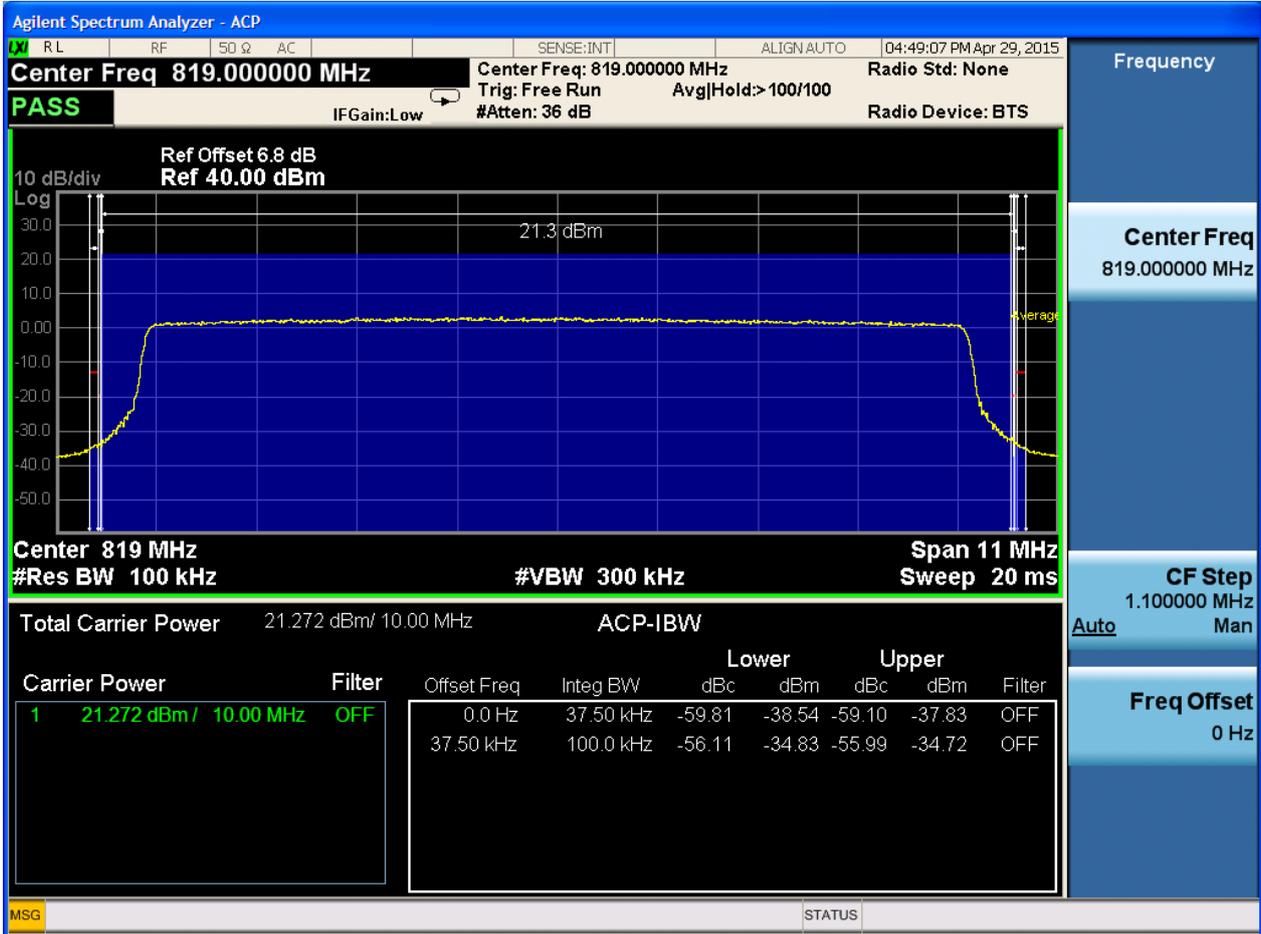
5.1.1.2.3.2 Test Channel = HCH





5.1.1.2.4 Test Bandwidth = 10

5.1.1.2.4.1 Test Channel = MCH





## 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

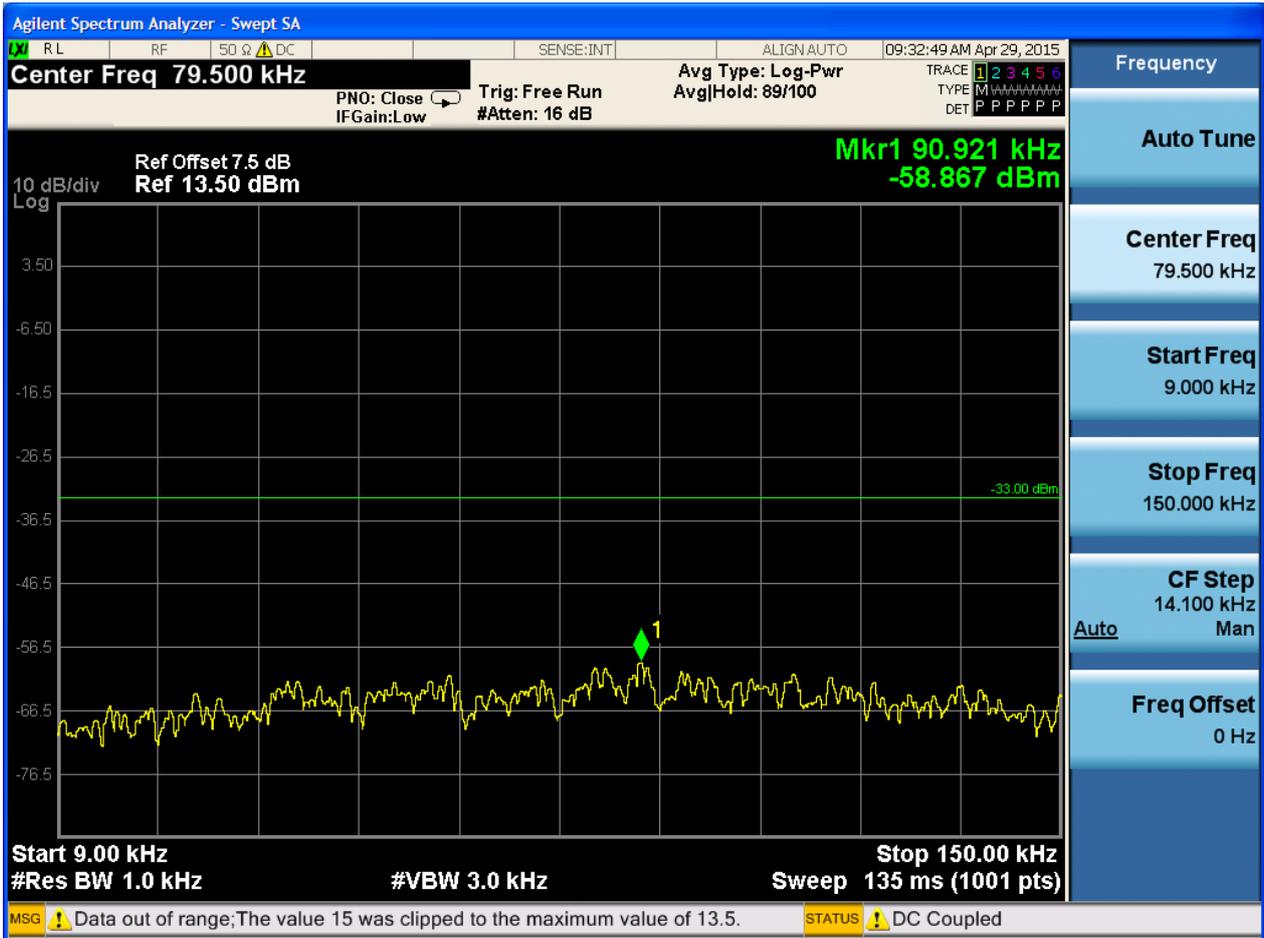
##### 6.1.1 Test Band = BAND26

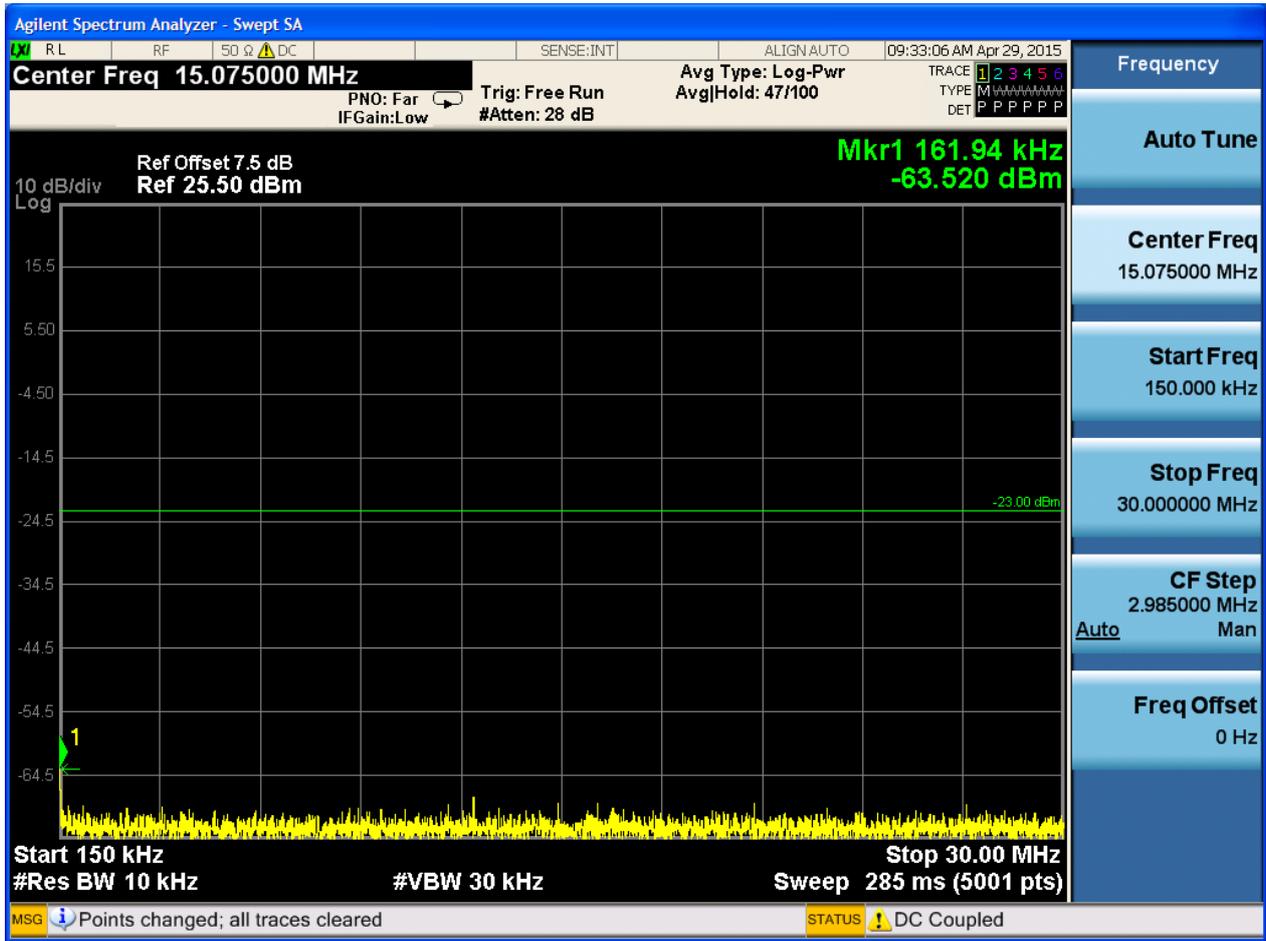
##### 6.1.1.1 Test Mode = LTE/TM1

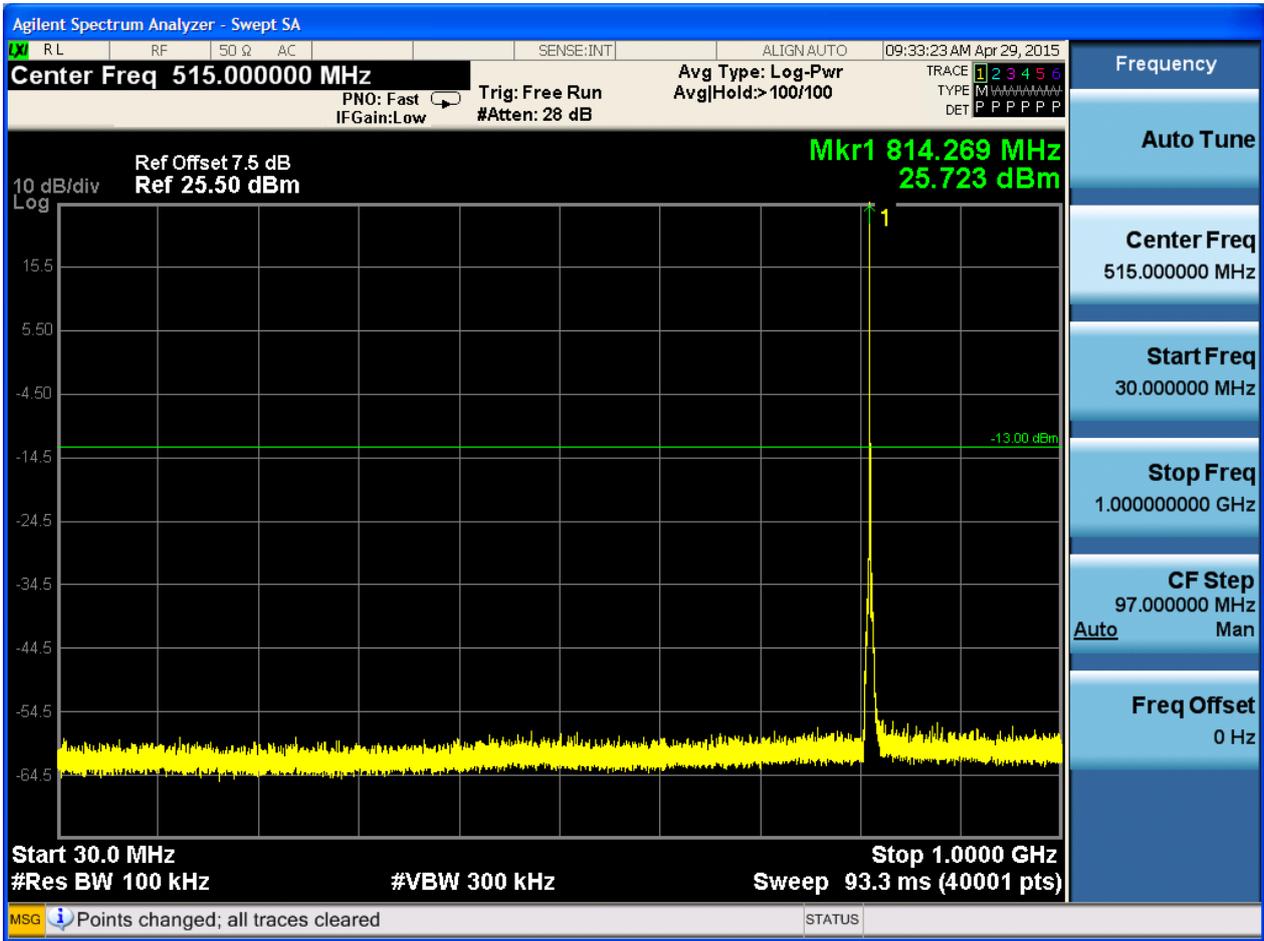
##### 6.1.1.1.1 Test Bandwidth = 1.4

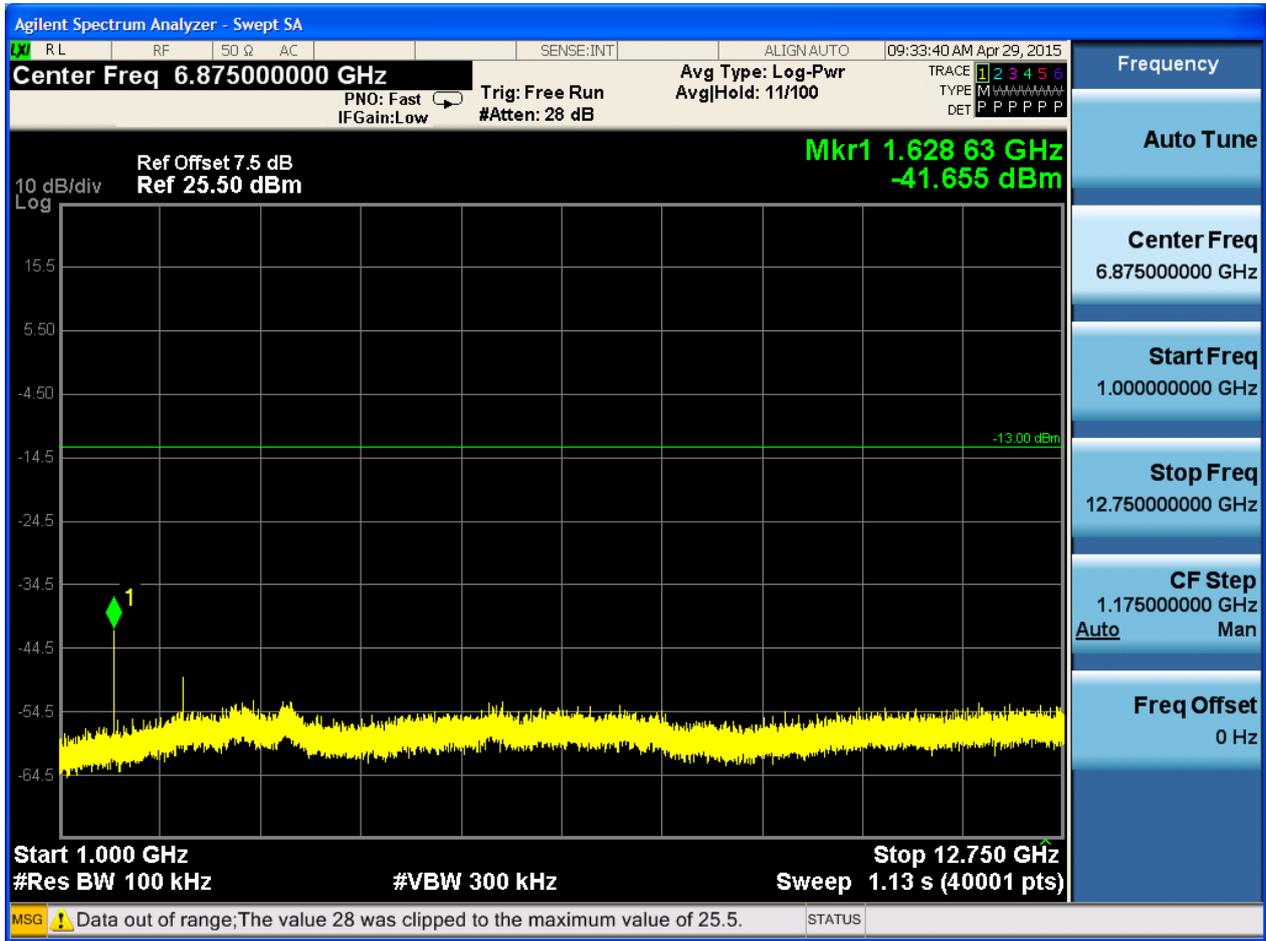
##### 6.1.1.1.1.1 Test Channel = LCH

##### 6.1.1.1.1.1.1 Test RB = RB1#0





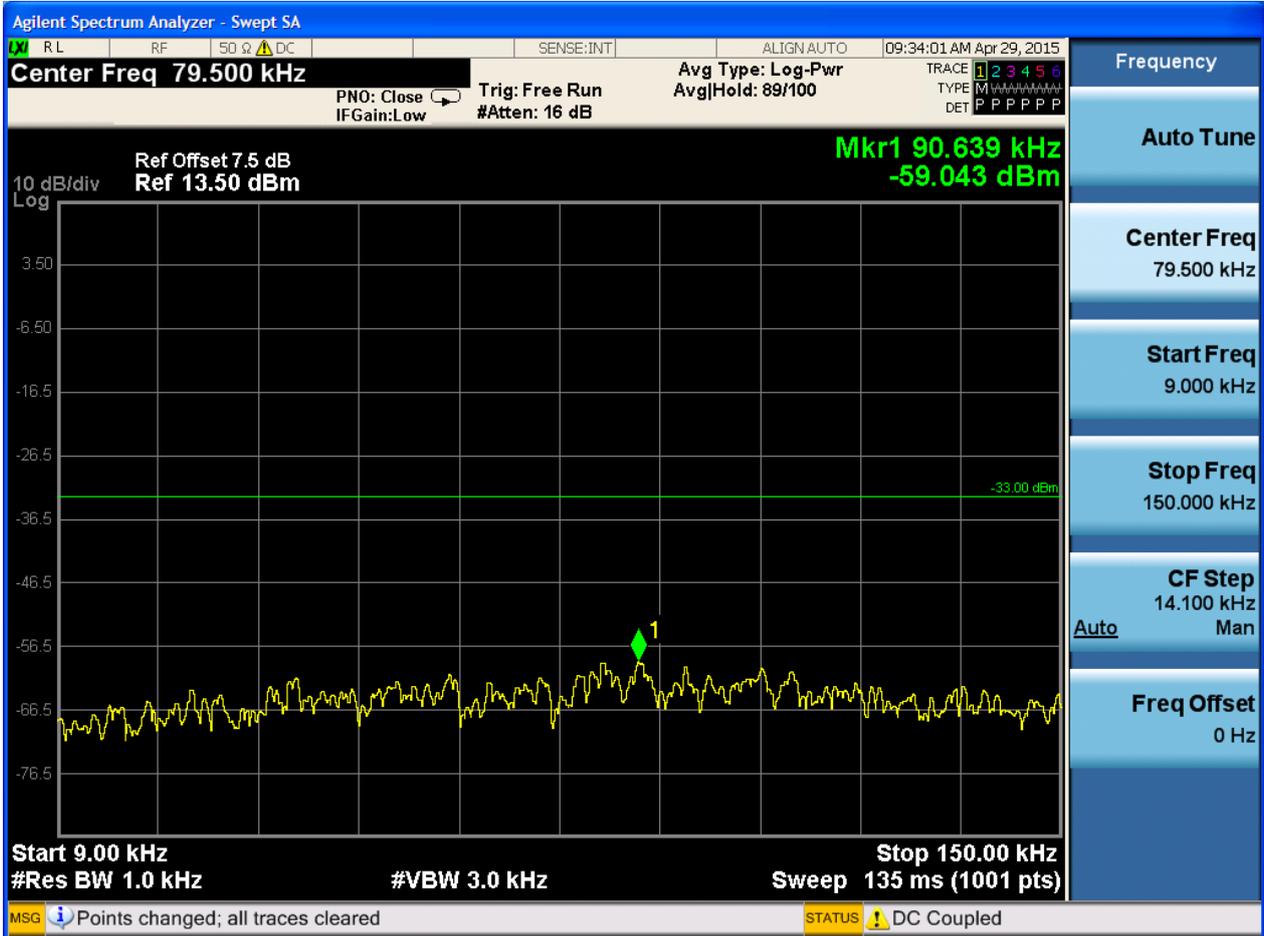




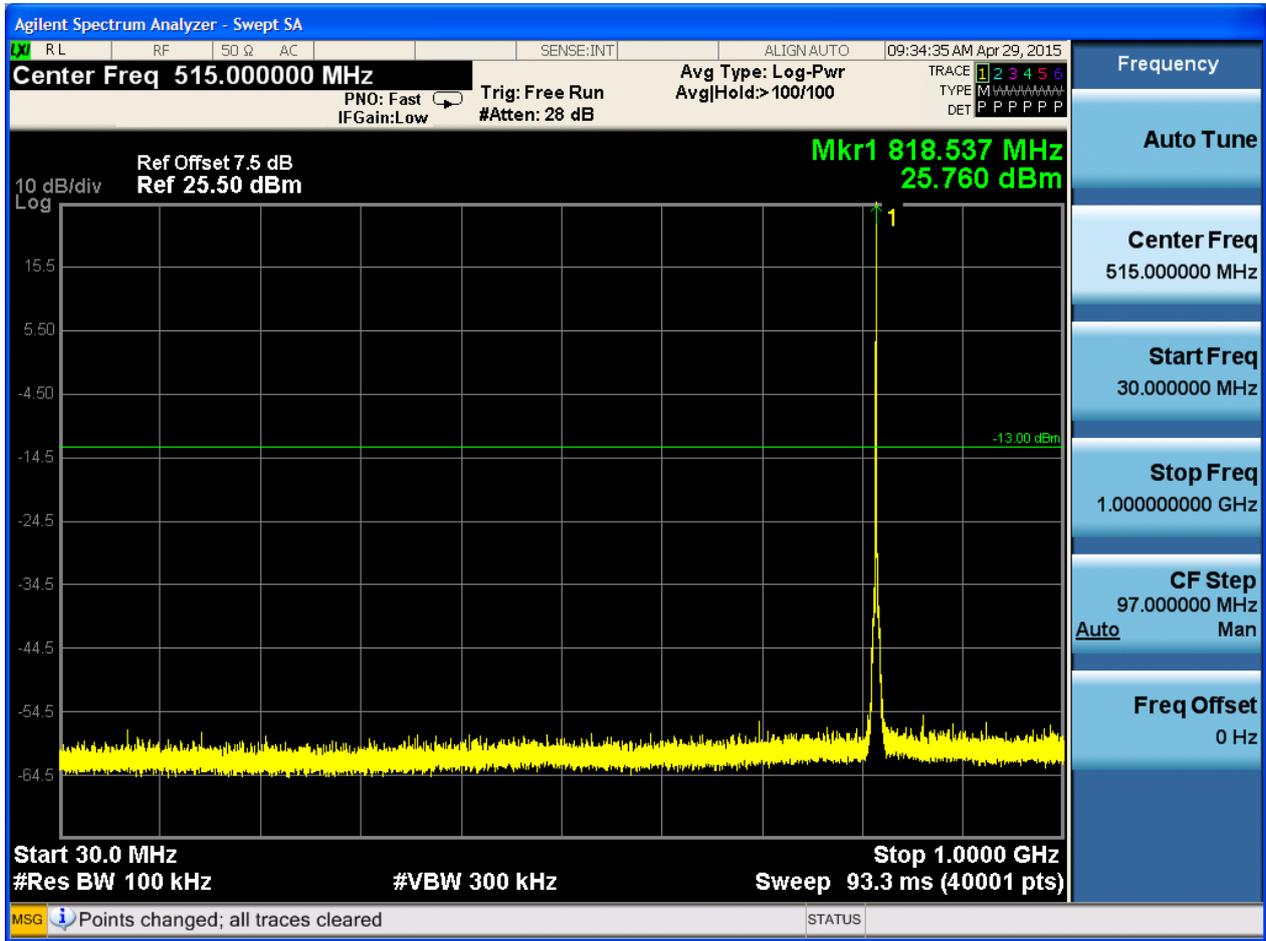


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0





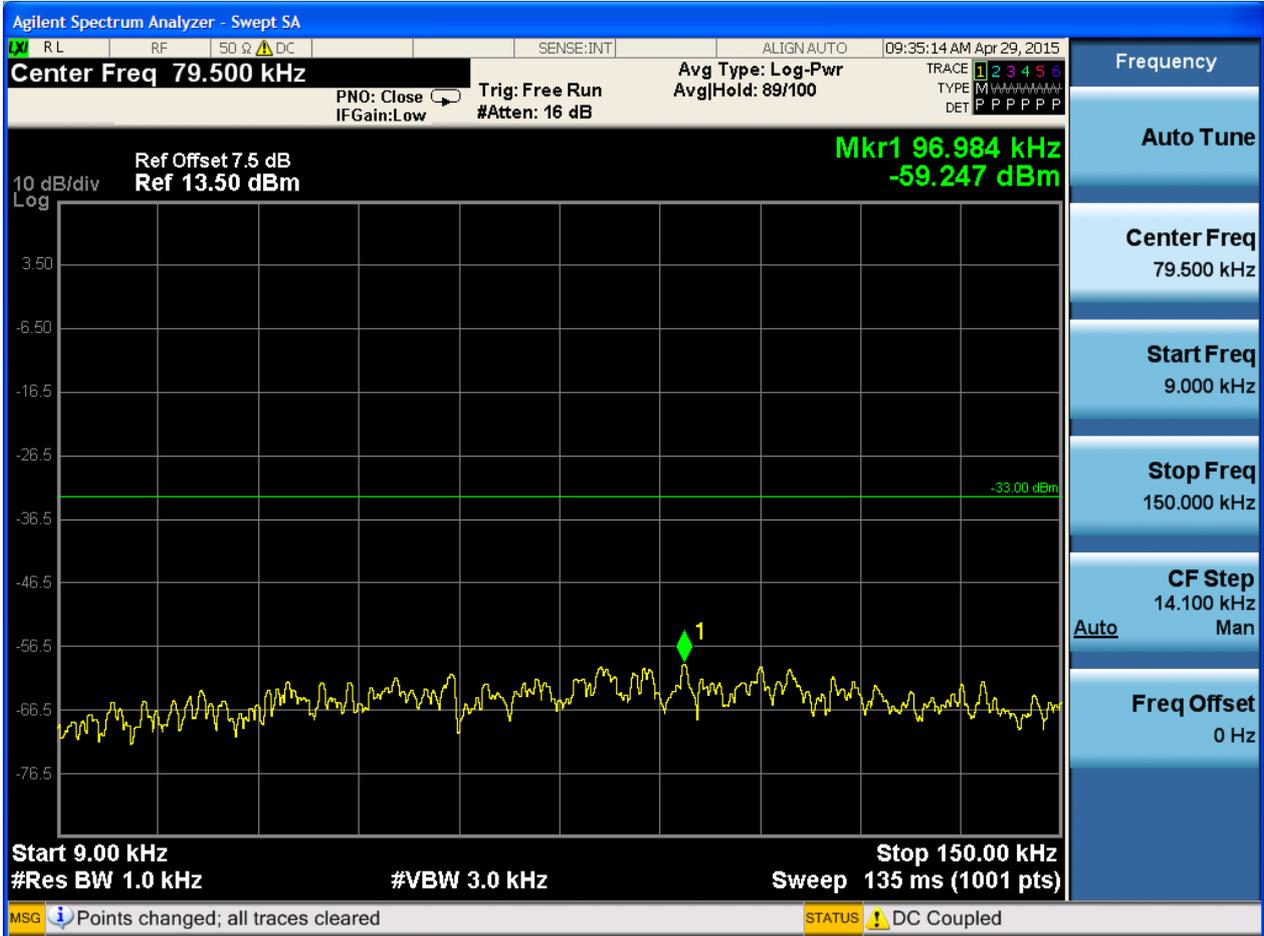




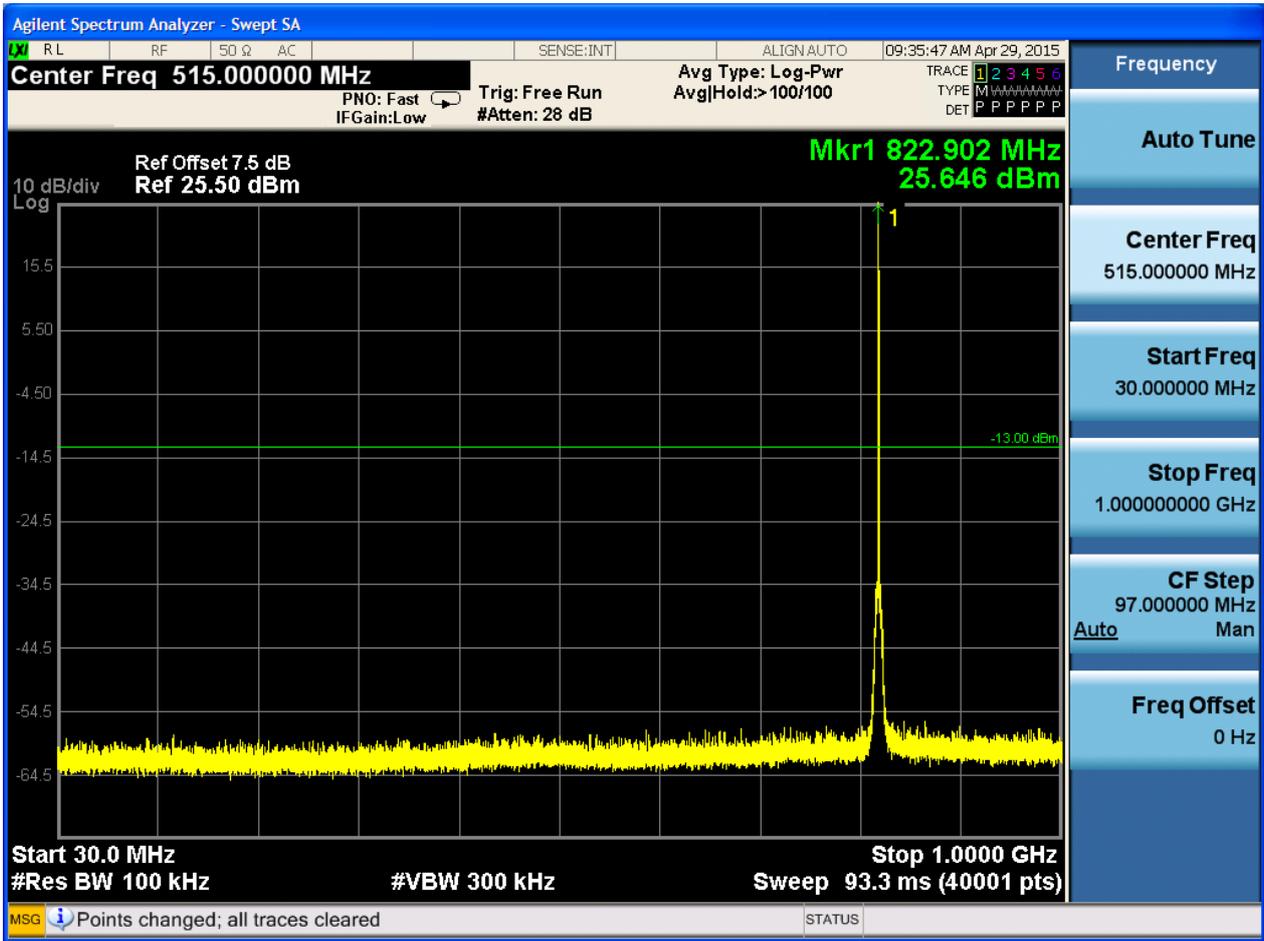


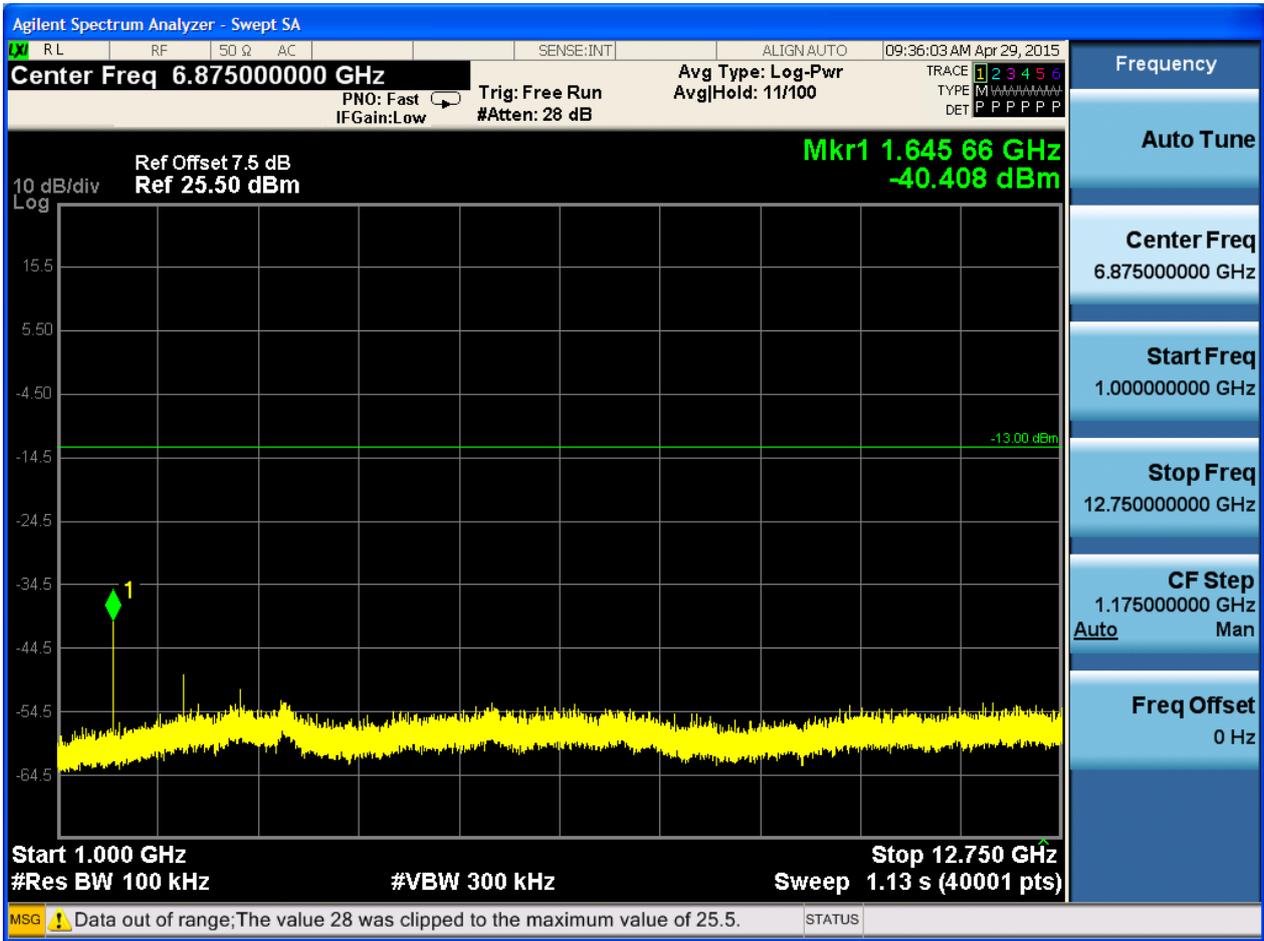
6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0







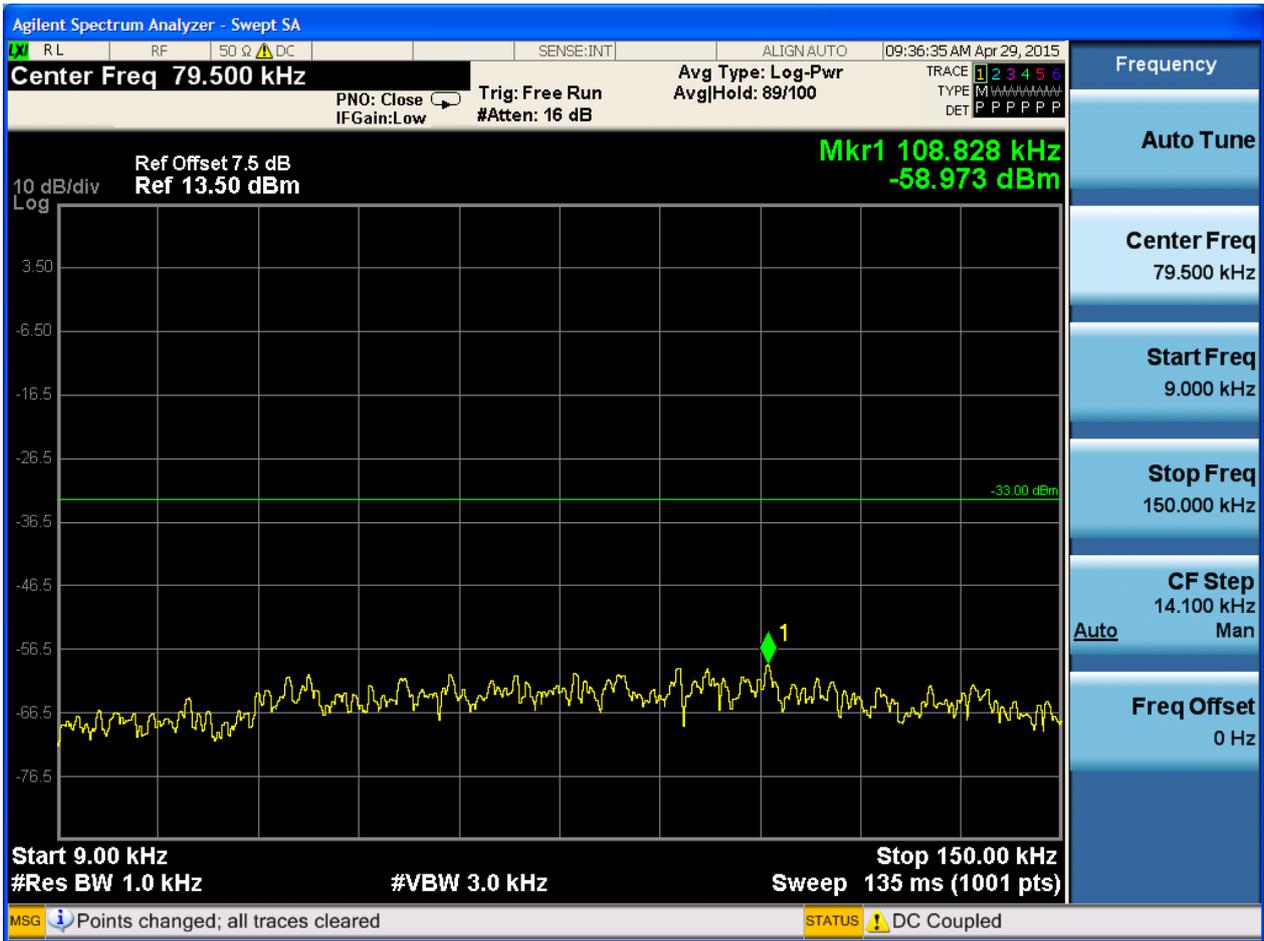




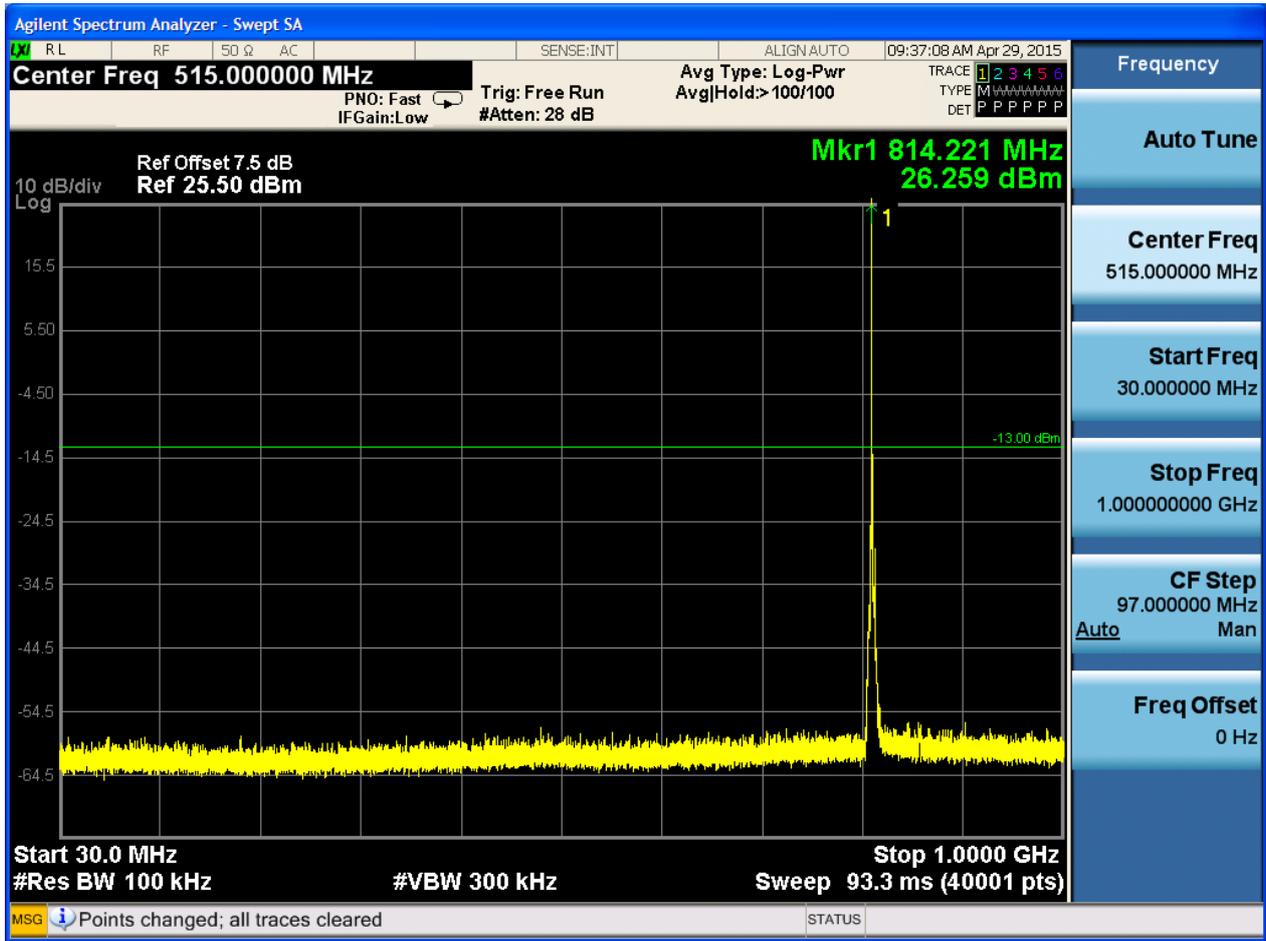
6.1.1.1.2 Test Bandwidth = 3

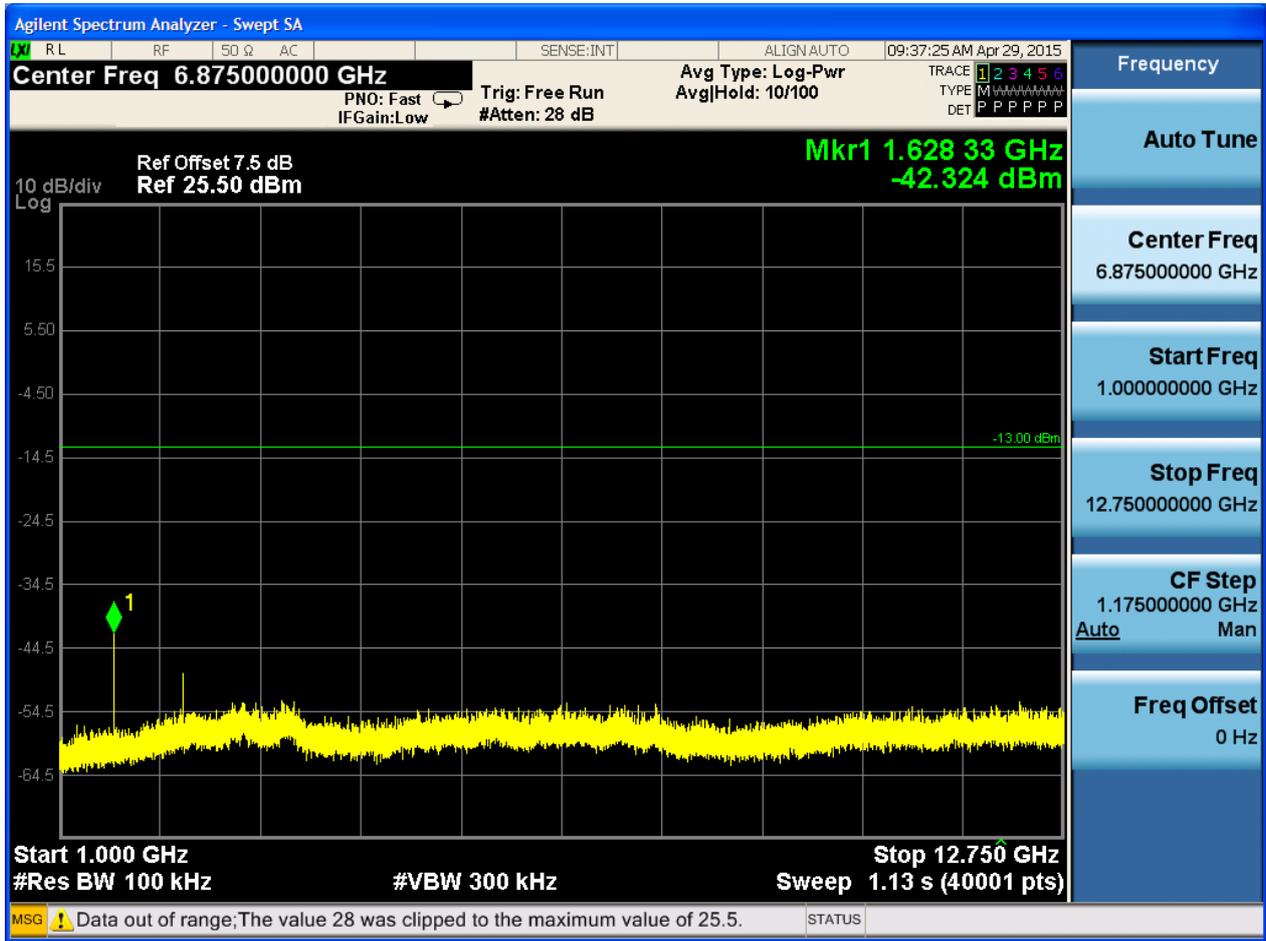
6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0





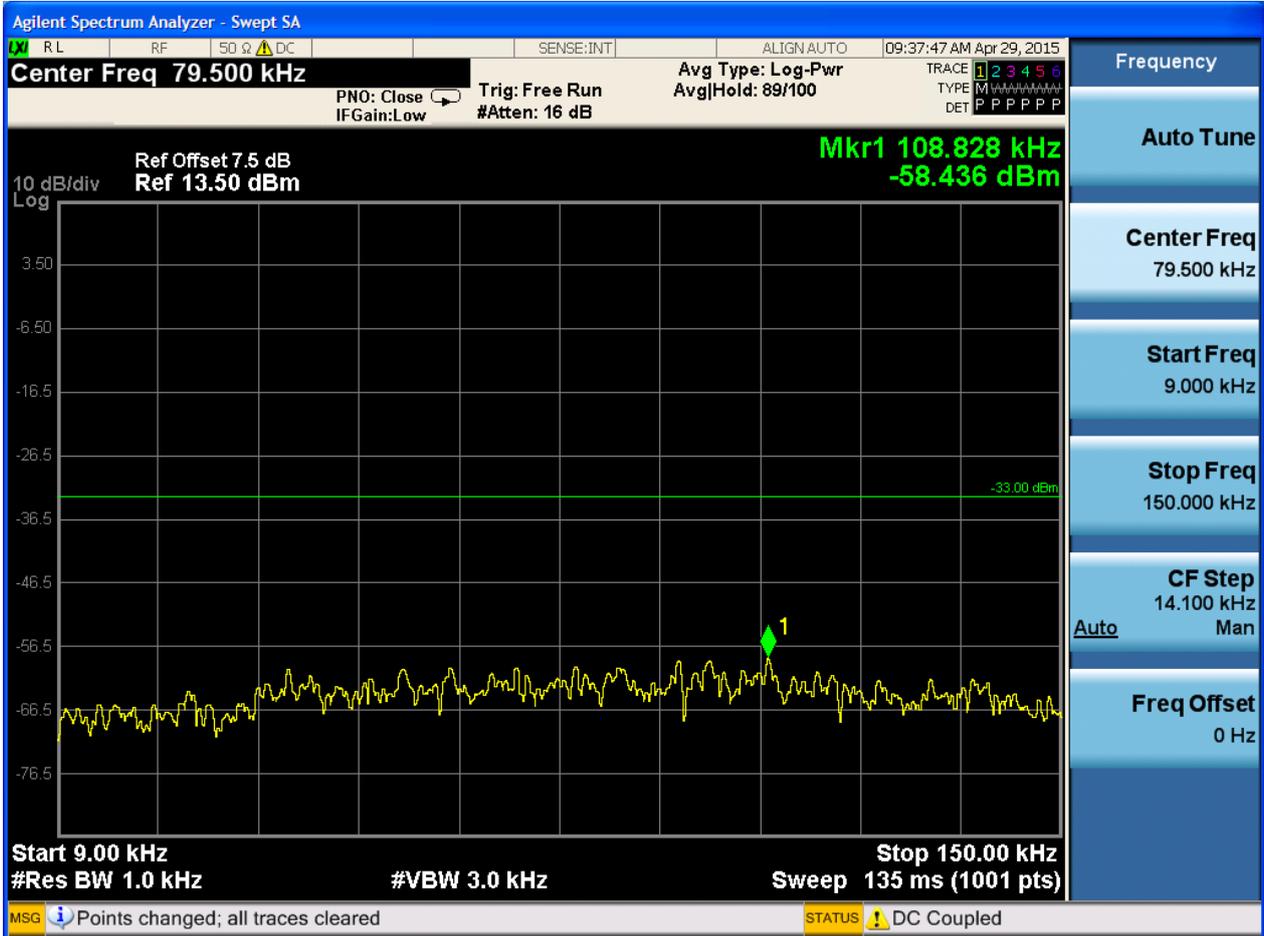






6.1.1.1.2.2 Test Channel = MCH

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

