



Appendix for test report

1 Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	22.96	21.79	38.5	PASS
		MCH	22.67	21.82	38.5	PASS
		HCH	22.64	21.48	38.5	PASS
WCDMA1900	UMTS/TM1	LCH	23.18	21.9	33	PASS
		MCH	22.93	22.01	33	PASS
		HCH	22.36	21.47	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
BAND7	LTE/TM1	5	LCH	RB1#0	23.93	22.80	33	PASS
				RB1#13	23.92	22.75	33	PASS
				RB1#24	23.84	23.02	33	PASS
				RB12#0	22.32	21.15	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB12#6	22.17	21.30	33	PASS
				RB12#13	22.29	21.32	33	PASS
				RB25#0	22.14	21.00	33	PASS
			MCH	RB1#0	23.61	22.61	33	PASS
				RB1#13	23.62	22.54	33	PASS
				RB1#24	23.58	22.49	33	PASS
				RB12#0	21.98	21.14	33	PASS
				RB12#6	21.93	20.79	33	PASS
				RB12#13	21.95	20.99	33	PASS
				RB25#0	21.89	21.01	33	PASS
			HCH	RB1#0	23.43	22.56	33	PASS
				RB1#13	23.34	22.42	33	PASS
				RB1#24	23.2	22.27	33	PASS
				RB12#0	21.8	20.96	33	PASS
				RB12#6	21.72	20.88	33	PASS
RB12#13	21.63	20.64		33	PASS			
RB25#0	21.68	20.83		33	PASS			

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
		10	LCH	RB1#0	23.79	22.83	33	PASS
				RB1#25	23.88	23.05	33	PASS
				RB1#49	23.75	22.64	33	PASS
				RB25#0	22.17	20.98	33	PASS
				RB25#13	22	21.10	33	PASS
				RB25#25	21.98	21.04	33	PASS
				RB50#0	21.94	20.89	33	PASS
			MCH	RB1#0	23.54	22.61	33	PASS
				RB1#25	23.61	22.57	33	PASS
				RB1#49	23.6	22.53	33	PASS
				RB25#0	21.86	20.84	33	PASS
				RB25#13	21.94	20.81	33	PASS
				RB25#25	21.78	20.94	33	PASS
				RB50#0	21.73	20.68	33	PASS
			HCH	RB1#0	23.3	22.18	33	PASS
				RB1#25	23.36	22.43	33	PASS
				RB1#49	23.18	22.20	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict	
				RB25#0	21.64	20.77	33	PASS	
				RB25#13	21.67	20.69	33	PASS	
				RB25#25	21.63	20.67	33	PASS	
				RB50#0	21.47	20.42	33	PASS	
		15	LCH	RB1#0	23.83	22.90	33	PASS	
				RB1#38	23.66	22.81	33	PASS	
				RB1#74	23.53	22.41	33	PASS	
				RB36#0	21.88	20.90	33	PASS	
				RB36#18	21.9	20.91	33	PASS	
				RB36#39	21.81	20.73	33	PASS	
				RB75#0	21.8	20.81	33	PASS	
				MCH	RB1#0	23.62	22.79	33	PASS
					RB1#38	23.54	22.61	33	PASS
					RB1#74	23.55	22.39	33	PASS
					RB36#0	21.72	20.69	33	PASS
					RB36#18	21.66	20.67	33	PASS
					RB36#39	21.75	20.73	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict	
			HCH	RB75#0	21.76	20.84	33	PASS	
				RB1#0	23.56	22.43	33	PASS	
				RB1#38	23.32	22.26	33	PASS	
				RB1#74	23.1	22.25	33	PASS	
				RB36#0	21.64	20.74	33	PASS	
				RB36#18	21.61	20.64	33	PASS	
				RB36#39	21.45	20.29	33	PASS	
				RB75#0	21.49	20.65	33	PASS	
		20	LCH	RB1#0	23.83	22.69	33	PASS	
				RB1#50	23.57	22.55	33	PASS	
				RB1#99	23.45	22.53	33	PASS	
				RB50#0	21.8	20.72	33	PASS	
				RB50#25	21.78	20.58	33	PASS	
				RB50#50	21.74	20.72	33	PASS	
				RB100#0	21.78	20.87	33	PASS	
				MCH	RB1#0	23.62	22.80	33	PASS
					RB1#50	23.55	22.53	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	23.64	22.56	33	PASS
				RB50#0	21.71	20.87	33	PASS
				RB50#25	21.72	20.78	33	PASS
				RB50#50	21.72	20.88	33	PASS
				RB100#0	21.77	20.91	33	PASS
			HCH	RB1#0	23.63	22.57	33	PASS
				RB1#50	23.37	22.44	33	PASS
				RB1#99	23.1	22.19	33	PASS
				RB50#0	21.72	20.57	33	PASS
				RB50#25	21.55	20.53	33	PASS
				RB50#50	21.44	20.43	33	PASS
				RB100#0	21.63	20.73	33	PASS
	LCH	LTE/TM2	5	RB1#0	22.47	21.39	33	PASS
				RB1#13	22.49	21.57	33	PASS
				RB1#24	22.37	21.29	33	PASS
				RB12#0	21.36	20.21	33	PASS
				RB12#6	21.24	20.09	33	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict			
				RB12#13	21.3	20.22	33	PASS			
				RB25#0	21.14	20.30	33	PASS			
			MCH	RB1#0	22.18	21.24	33	PASS			
				RB1#13	22.19	21.15	33	PASS			
				RB1#24	22.24	21.19	33	PASS			
				RB12#0	21.09	20.04	33	PASS			
				RB12#6	21.04	20.19	33	PASS			
				RB12#13	21.13	20.17	33	PASS			
				RB25#0	20.91	19.91	33	PASS			
				HCH	RB1#0	21.98	21.04	33	PASS		
			RB1#13		21.93	21.08	33	PASS			
			RB1#24		21.79	20.75	33	PASS			
			RB12#0		20.85	19.94	33	PASS			
			RB12#6		20.8	19.77	33	PASS			
			RB12#13		20.78	19.94	33	PASS			
					10	LCH	RB1#0	22.5	21.55	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#25	22.56	21.67	33	PASS
				RB1#49	22.36	21.21	33	PASS
				RB25#0	21.15	20.22	33	PASS
				RB25#13	20.94	19.89	33	PASS
				RB25#25	21.01	19.97	33	PASS
				RB50#0	20.86	19.90	33	PASS
			MCH	RB1#0	22.1	21.21	33	PASS
				RB1#25	22.13	21.28	33	PASS
				RB1#49	22.11	21.06	33	PASS
				RB25#0	20.91	19.78	33	PASS
				RB25#13	20.93	20.01	33	PASS
				RB25#25	20.94	19.77	33	PASS
				RB50#0	20.7	19.76	33	PASS
			HCH	RB1#0	22.1	21.20	33	PASS
				RB1#25	22.11	20.97	33	PASS
				RB1#49	21.99	20.94	33	PASS
				RB25#0	20.75	19.80	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict	
				RB25#13	20.68	19.50	33	PASS	
				RB25#25	20.64	19.57	33	PASS	
				RB50#0	20.46	19.30	33	PASS	
		15	LCH	RB1#0	22.54	21.60	33	PASS	
				RB1#38	22.41	21.45	33	PASS	
				RB1#74	22.21	21.18	33	PASS	
				RB36#0	20.96	20.11	33	PASS	
				RB36#18	20.86	19.81	33	PASS	
				RB36#39	20.78	19.69	33	PASS	
				RB75#0	20.73	19.88	33	PASS	
				MCH	RB1#0	22.35	21.34	33	PASS
					RB1#38	22.27	21.25	33	PASS
					RB1#74	22.28	21.12	33	PASS
					RB36#0	20.74	19.83	33	PASS
					RB36#18	20.78	19.73	33	PASS
RB36#39	20.82	19.97	33		PASS				
RB75#0	20.66	19.53	33		PASS				

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict	
			HCH	RB1#0	22.21	21.10	33	PASS	
				RB1#38	21.87	20.72	33	PASS	
				RB1#74	21.72	20.70	33	PASS	
				RB36#0	20.75	19.63	33	PASS	
				RB36#18	20.64	19.57	33	PASS	
				RB36#39	20.59	19.49	33	PASS	
				RB75#0	20.48	19.60	33	PASS	
		20	LCH	RB1#0	22.55	21.44	33	PASS	
				RB1#50	22.31	21.17	33	PASS	
				RB1#99	22.17	21.08	33	PASS	
				RB50#0	20.83	19.83	33	PASS	
				RB50#25	20.8	19.78	33	PASS	
				RB50#50	20.72	19.70	33	PASS	
				RB100#0	20.76	19.77	33	PASS	
				MCH	RB1#0	22.11	20.96	33	PASS
					RB1#50	22.14	21.26	33	PASS
					RB1#99	22.2	21.00	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#0	20.68	19.75	33	PASS
				RB50#25	20.71	19.90	33	PASS
				RB50#50	20.71	19.77	33	PASS
				RB100#0	20.76	19.81	33	PASS
			HCH	RB1#0	22.4	21.35	33	PASS
				RB1#50	22.11	21.10	33	PASS
				RB1#99	21.95	21.05	33	PASS
				RB50#0	20.78	19.79	33	PASS
				RB50#25	20.58	19.40	33	PASS
				RB50#50	20.47	19.42	33	PASS
				RB100#0	20.65	19.66	33	PASS

Note1: a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

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

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

b, SGP=Signal Generator Level

Note2: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA1900	UMTS/TM1	LCH	3.29	13	PASS
		MCH	3.21	13	PASS
		HCH	3.39	13	PASS

3Appendix_C: Modulation Characteristics

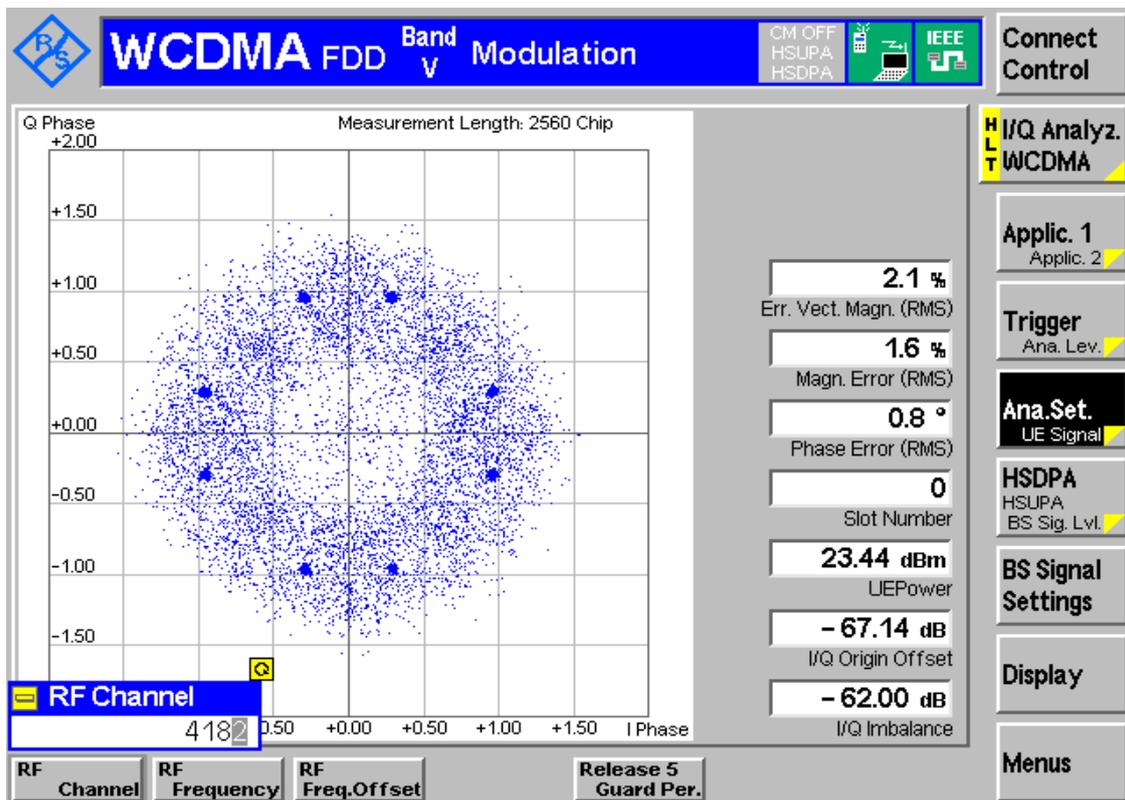
Part I - Test Plots

3.1 For UMTS

3.1.1 Test Band = WCDMA850

3.1.1.1 Test Mode = UMTS/TM1

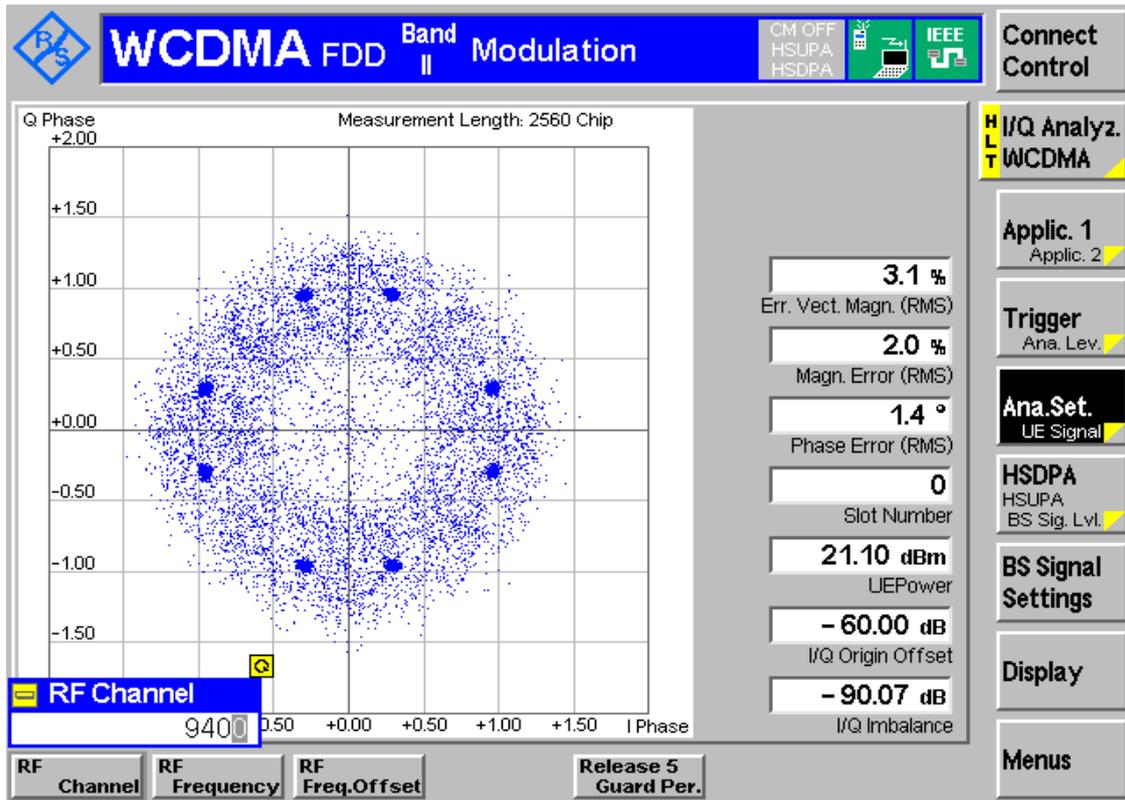
3.1.1.1.1 Test Channel = MCH



3.1.2 Test Band = WCDMA1900

3.1.2.1 Test Mode = UMTS/TM1

3.1.2.1.1 Test Channel = MCH



3.2 For LTE

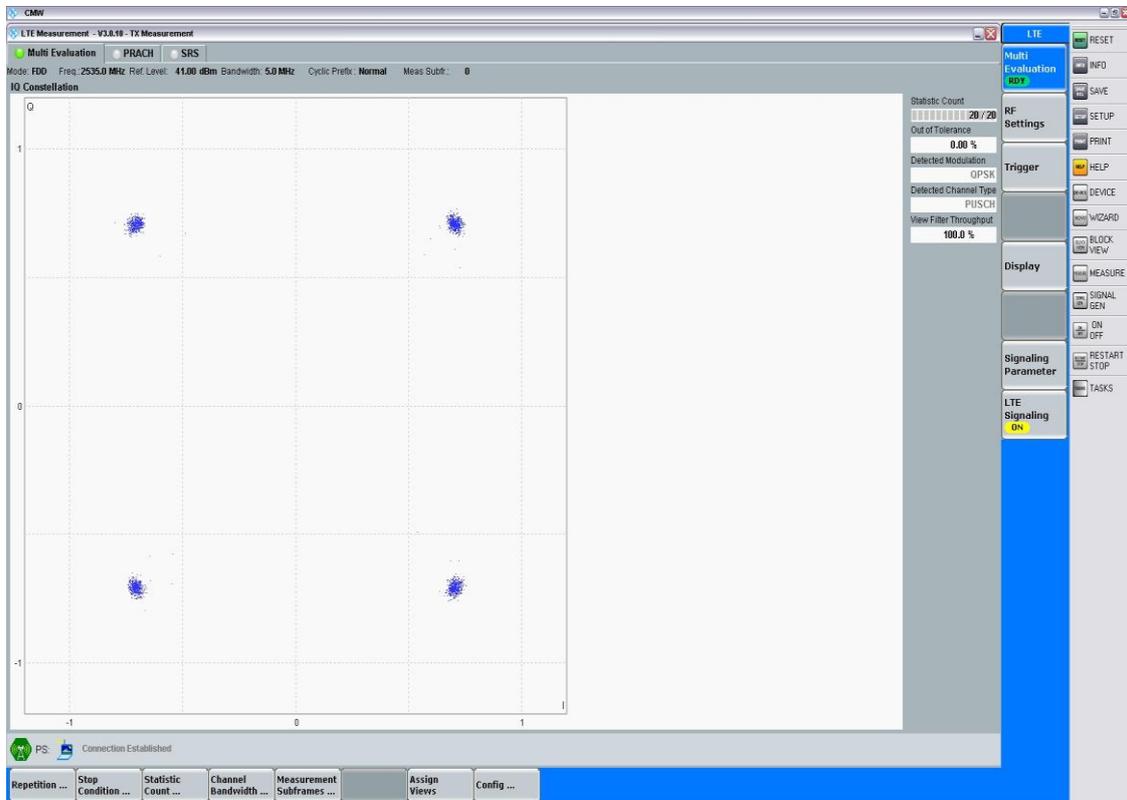
3.2.1 Test Band = BAND7

3.2.1.1 Test Mode = LTE/TM1

3.2.1.1.1 Test Bandwidth = 5

3.2.1.1.1.1 Test Channel = MCH

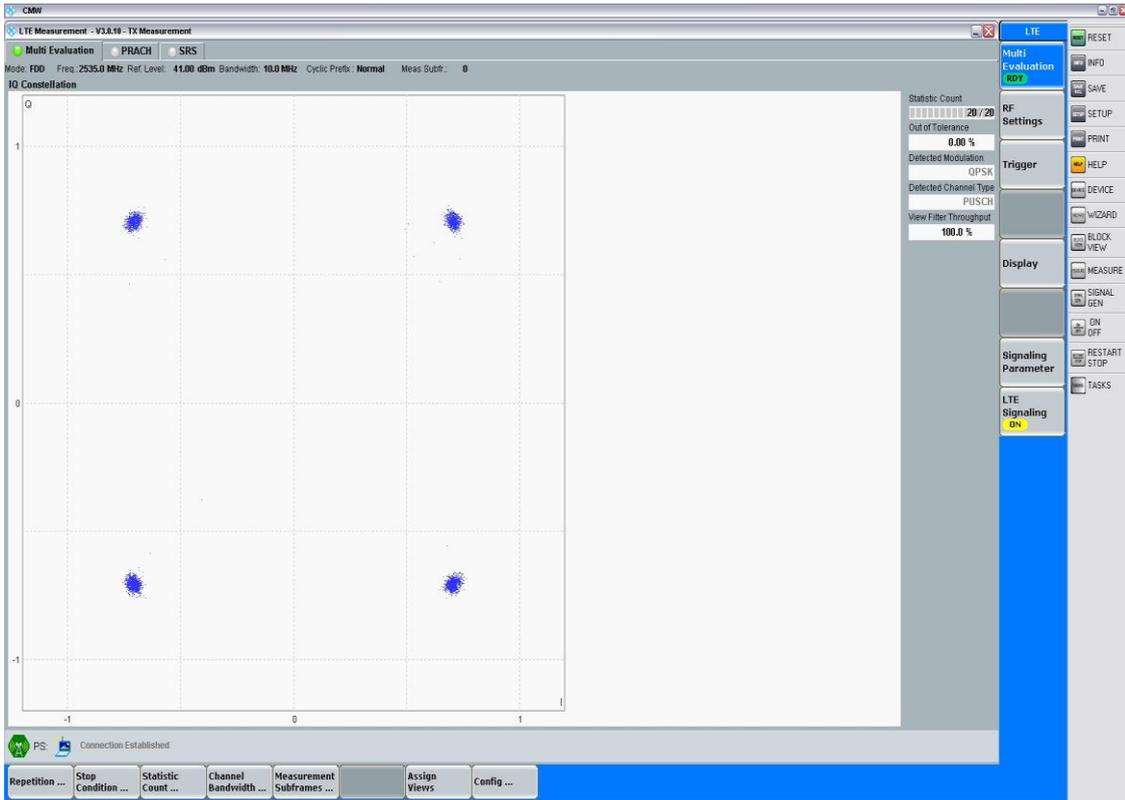
3.2.1.1.1.1.1 Test RB = RB25#0



3.2.1.1.2 Test Bandwidth = 10

3.2.1.1.2.1 Test Channel = MCH

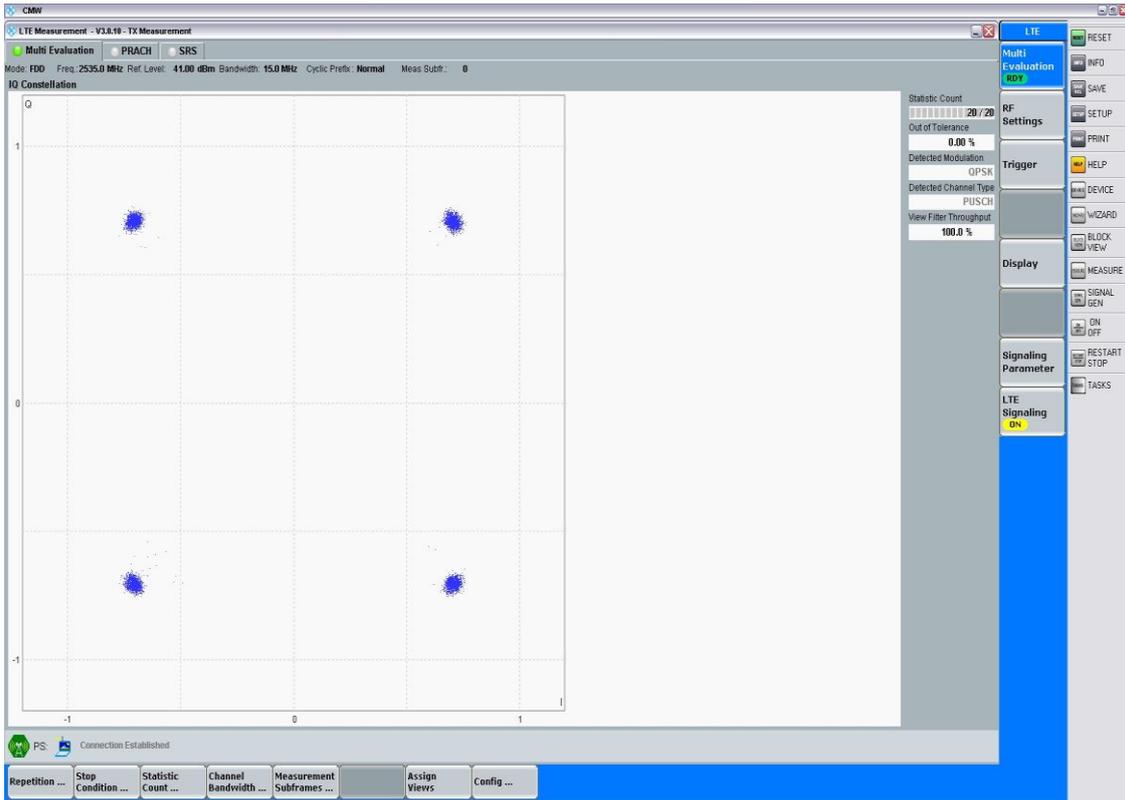
3.2.1.1.2.1.1 Test RB = RB50#0



3.2.1.1.3 Test Bandwidth = 15

3.2.1.1.3.1 Test Channel = MCH

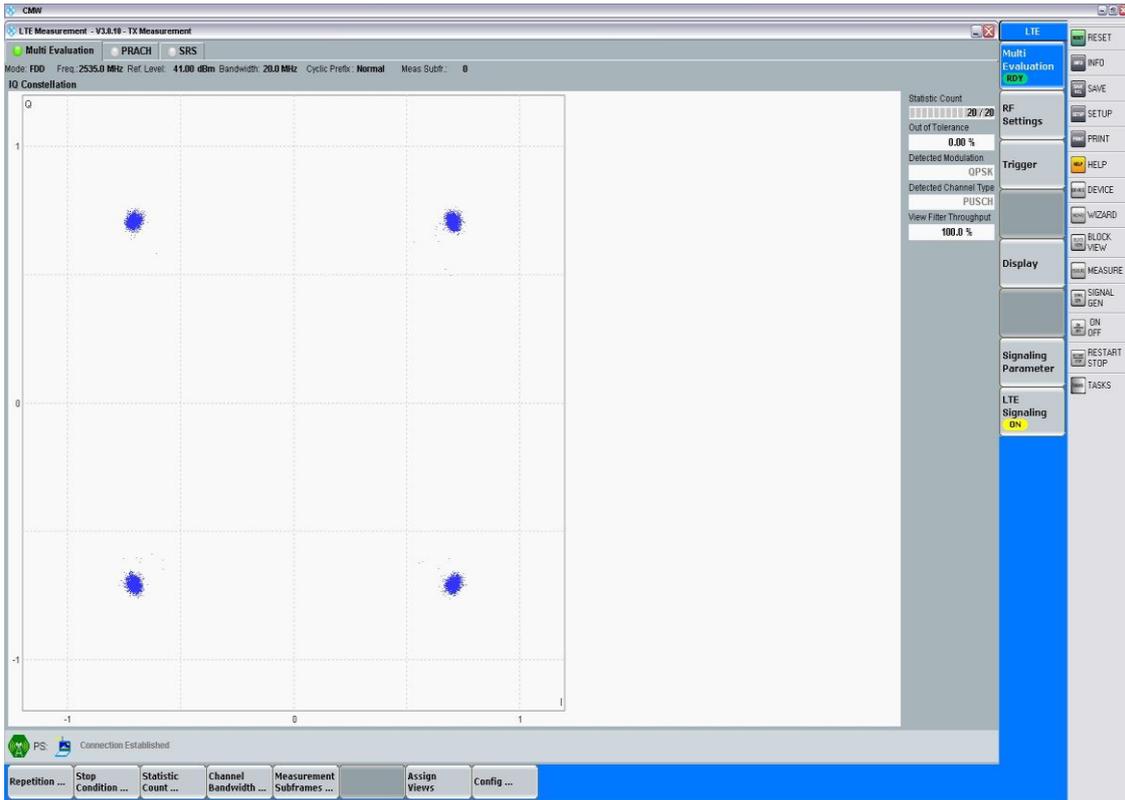
3.2.1.1.3.1.1 Test RB = RB75#0



3.2.1.1.4 Test Bandwidth = 20

3.2.1.1.4.1 Test Channel = MCH

3.2.1.1.4.1.1 Test RB = RB100#0

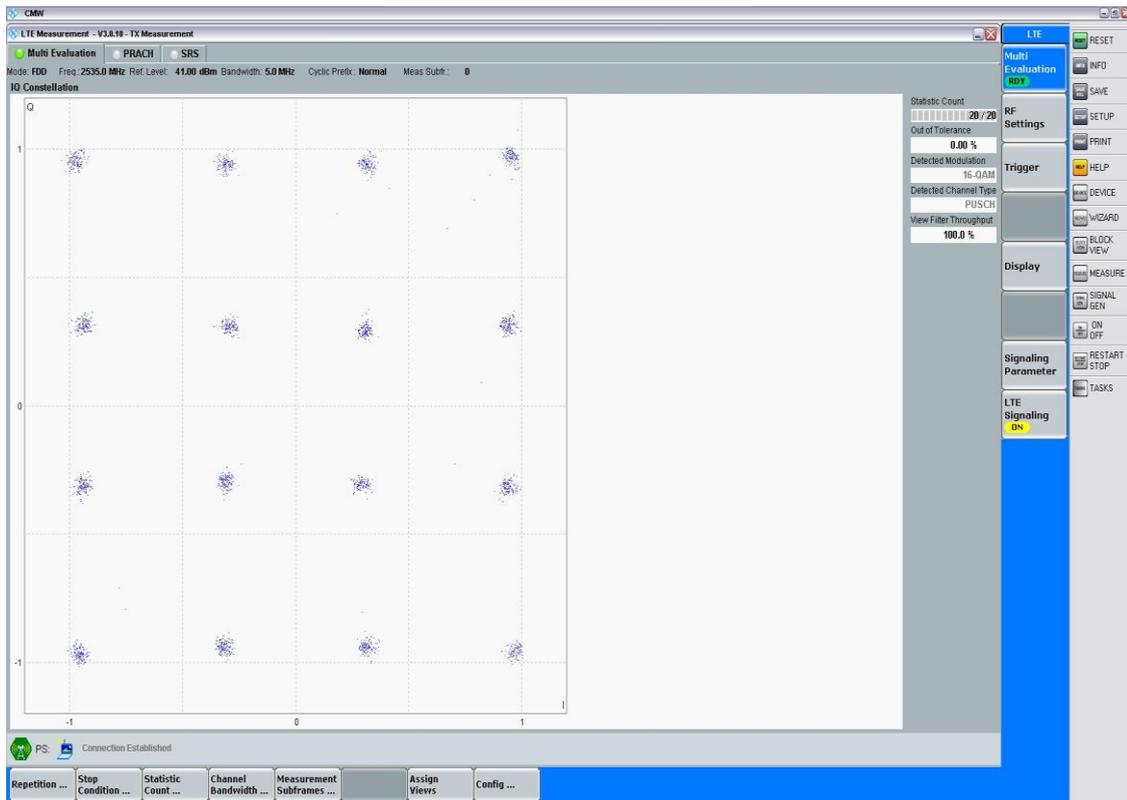


3.2.1.2 Test Mode = LTE/TM2

3.2.1.2.1 Test Bandwidth = 5

3.2.1.2.1.1 Test Channel = MCH

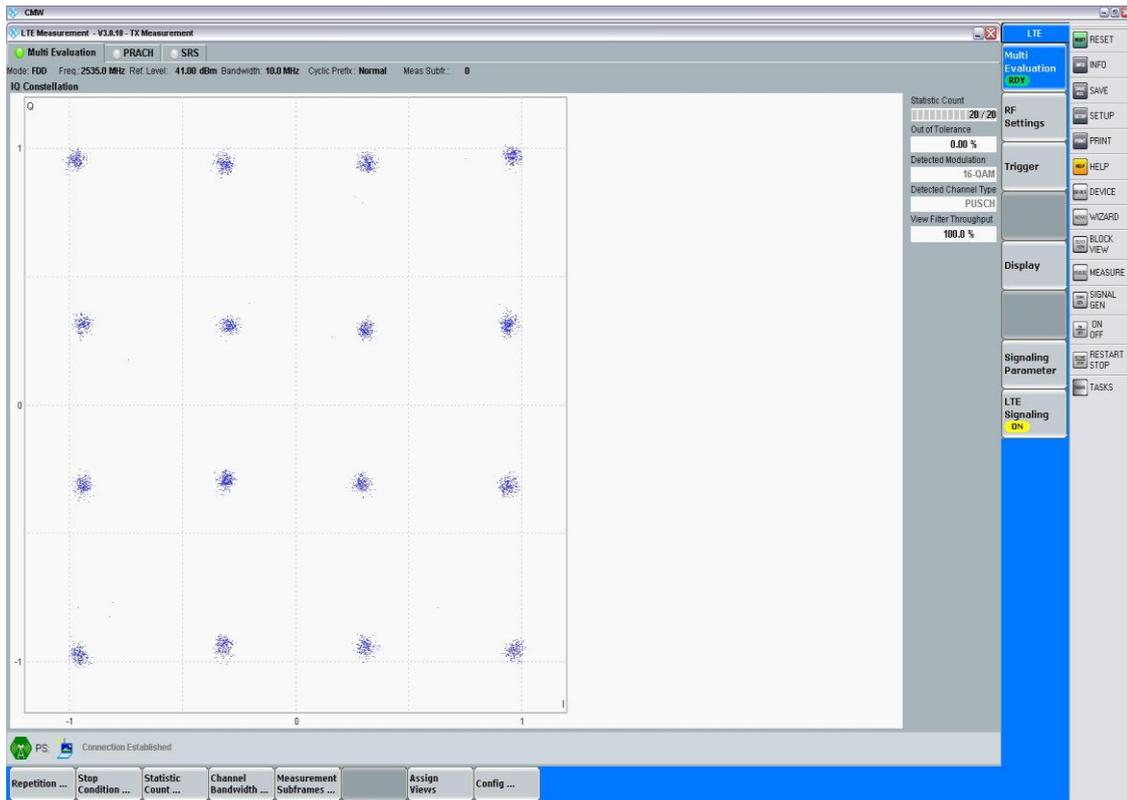
3.2.1.2.1.1.1 Test RB = RB25#0



3.2.1.2.2 Test Bandwidth = 10

3.2.1.2.2.1 Test Channel = MCH

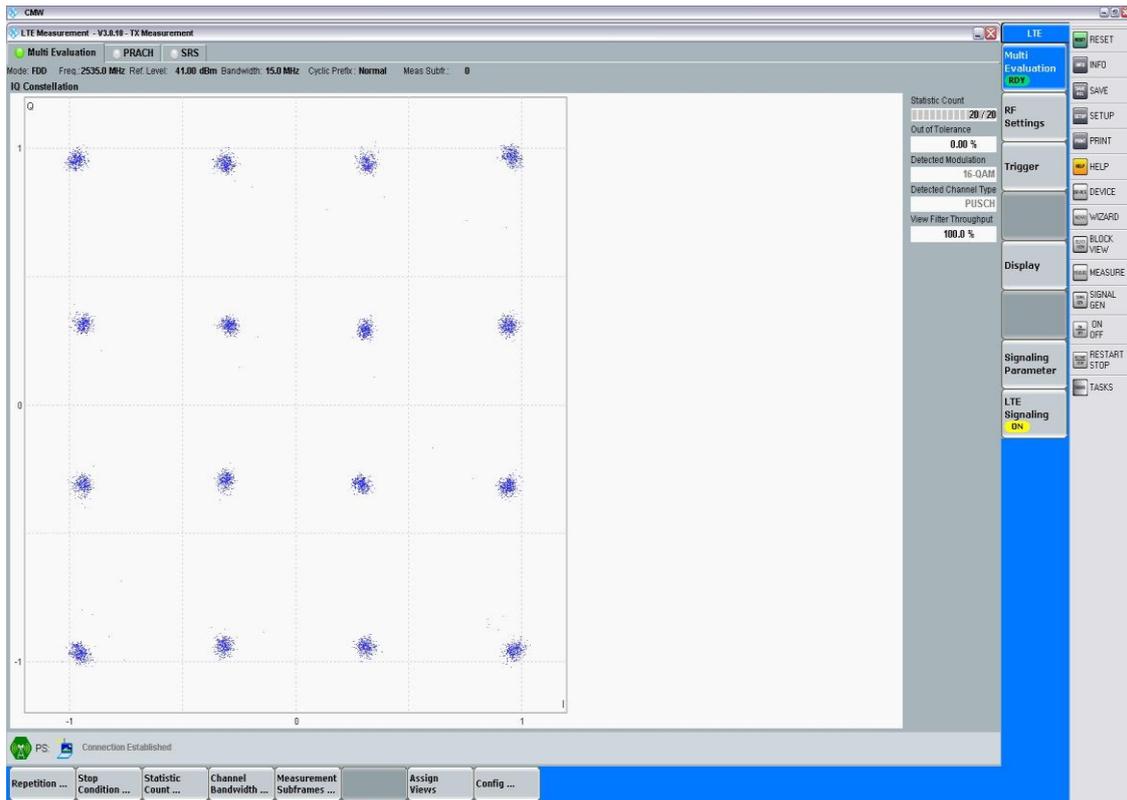
3.2.1.2.2.1.1 Test RB = RB50#0



3.2.1.2.3 Test Bandwidth = 15

3.2.1.2.3.1 Test Channel = MCH

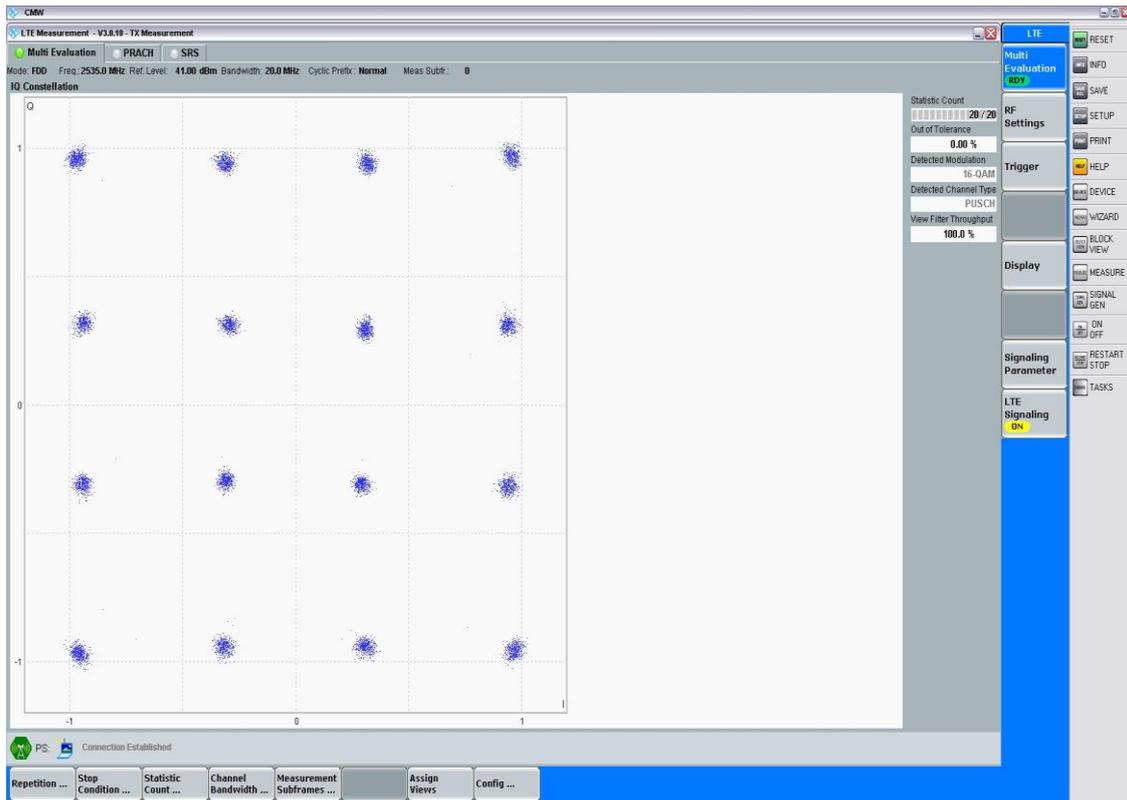
3.2.1.2.3.1.1 Test RB = RB75#0



3.2.1.2.4 Test Bandwidth = 20

3.2.1.2.4.1 Test Channel = MCH

3.2.1.2.4.1.1 Test RB = RB100#0



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.15	4.65	Pass
		MCH	4.16	4.66	Pass
		HCH	4.15	4.66	Pass
WCDMA1900	UMTS/TM1	LCH	4.16	4.67	Pass
		MCH	4.15	4.67	Pass
		HCH	4.16	4.67	Pass

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
BAND7	LTE/TM1	5	LCH	RB25#0	4.51	4.96	Pass
			MCH	RB25#0	4.51	4.97	Pass
			HCH	RB25#0	4.51	4.94	Pass
		10	LCH	RB50#0	8.99	9.59	Pass
			MCH	RB50#0	9.01	9.65	Pass
			HCH	RB50#0	8.99	9.61	Pass
		15	LCH	RB75#0	13.48	14.31	Pass
			MCH	RB75#0	13.49	14.38	Pass
			HCH	RB75#0	13.47	14.32	Pass
		20	LCH	RB100#0	17.95	19.00	Pass
			MCH	RB100#0	17.98	19.10	Pass
			HCH	RB100#0	17.96	19.04	Pass
	LTE/TM2	5	LCH	RB25#0	4.51	4.96	Pass
			MCH	RB25#0	4.52	4.97	Pass
			HCH	RB25#0	4.52	4.95	Pass
		10	LCH	RB50#0	8.97	9.59	Pass
			MCH	RB50#0	8.98	9.62	Pass
			HCH	RB50#0	8.98	9.60	Pass
		15	LCH	RB75#0	13.48	14.37	Pass
			MCH	RB75#0	13.49	14.47	Pass
			HCH	RB75#0	13.47	14.43	Pass
		20	LCH	RB100#0	17.96	19.02	Pass
			MCH	RB100#0	17.97	19.10	Pass
			HCH	RB100#0	17.95	19.05	Pass

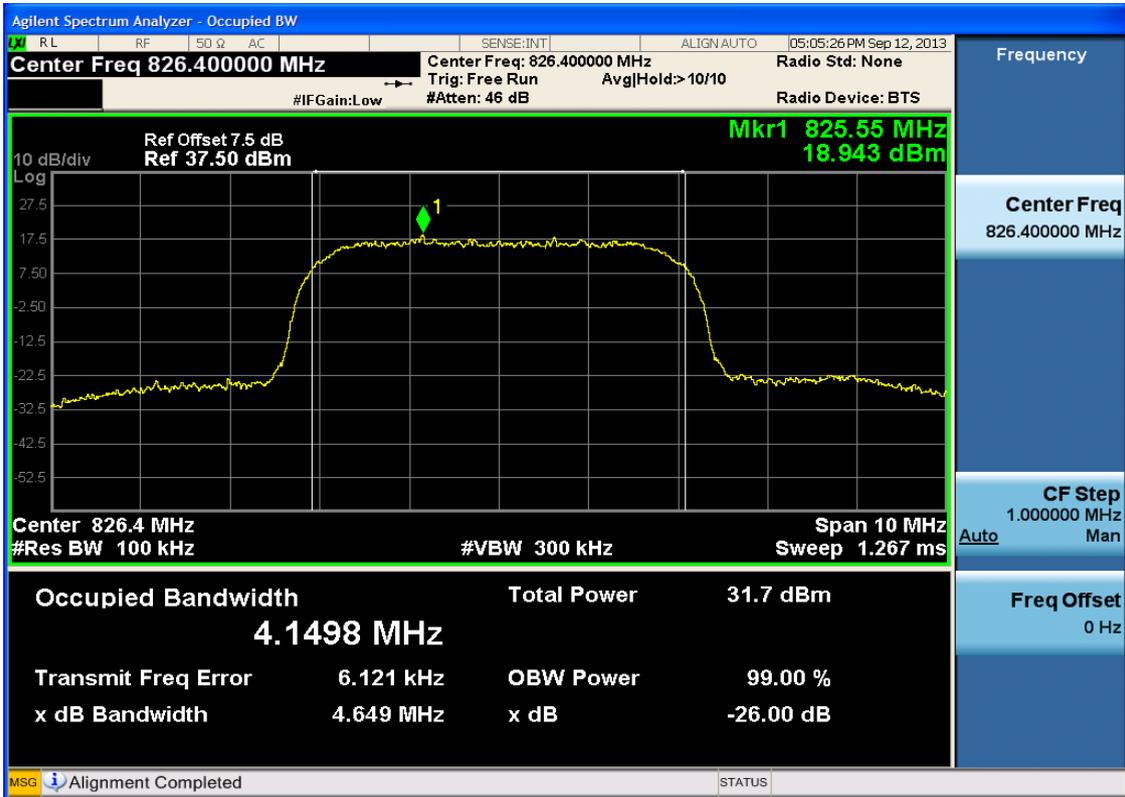
Part II - Test Plots

4.1 For UMTS

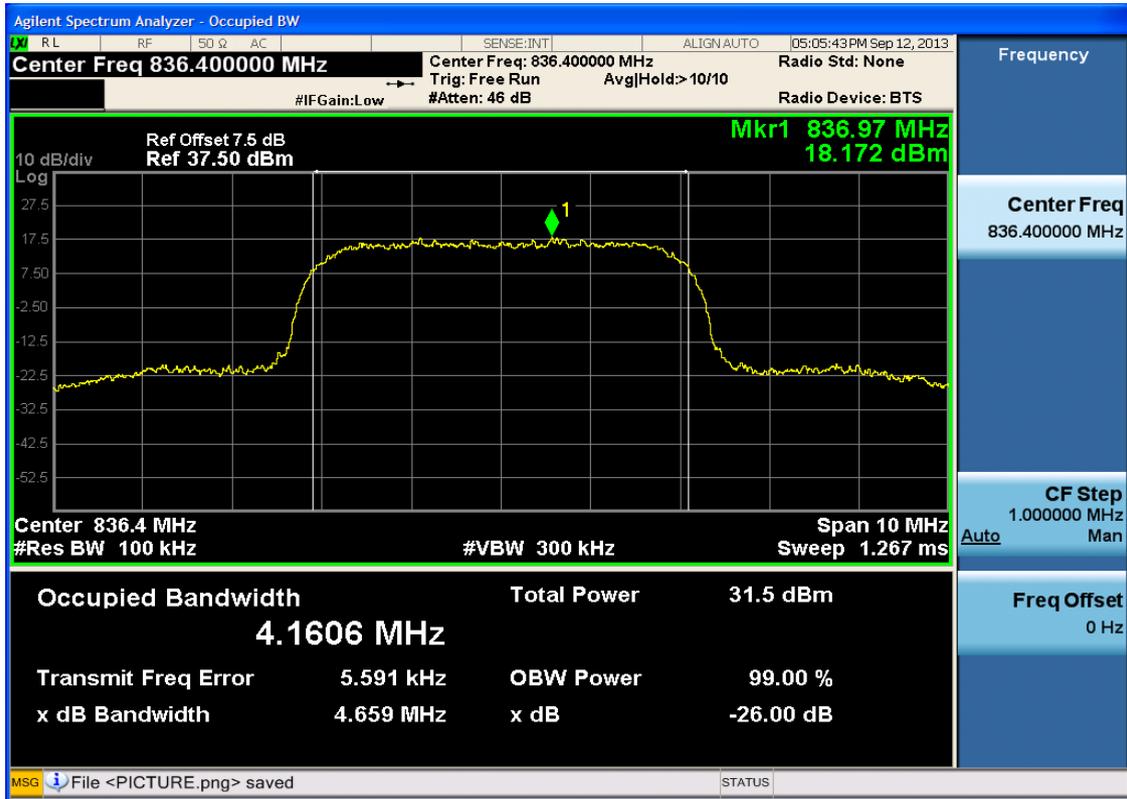
4.1.1 Test Band = WCDMA850

4.1.1.1 Test Mode = UMTS/TM1

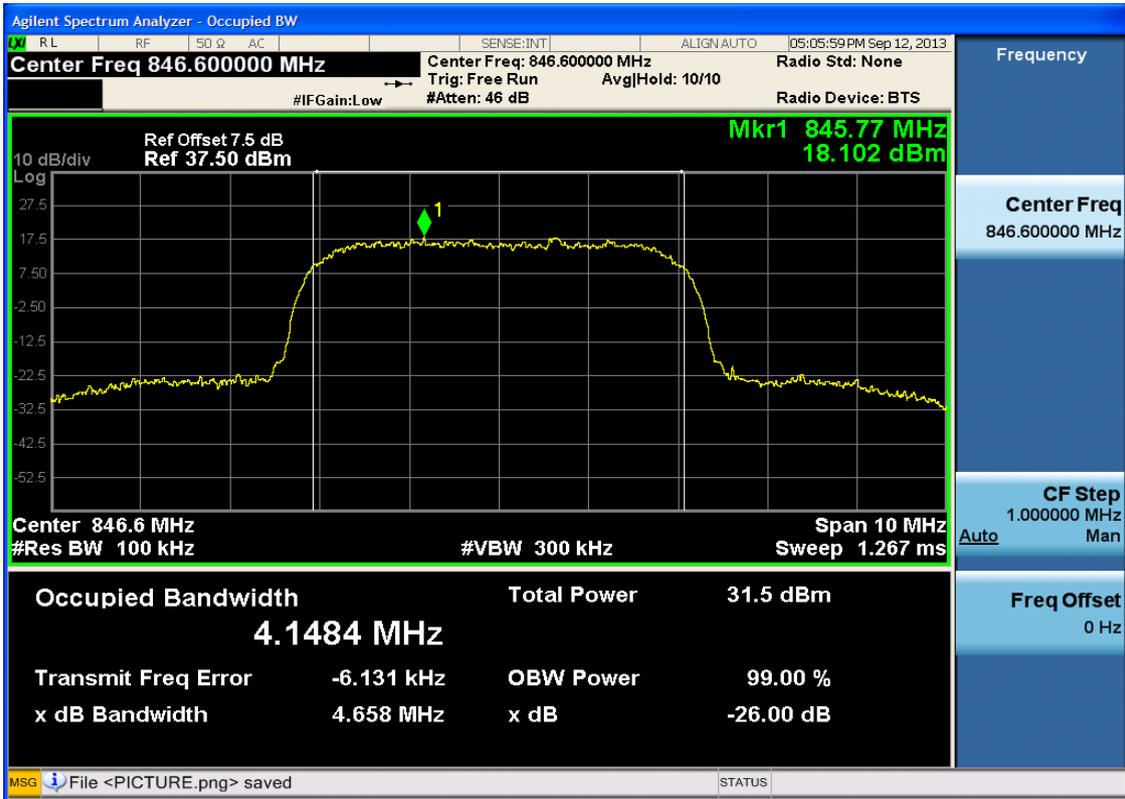
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH



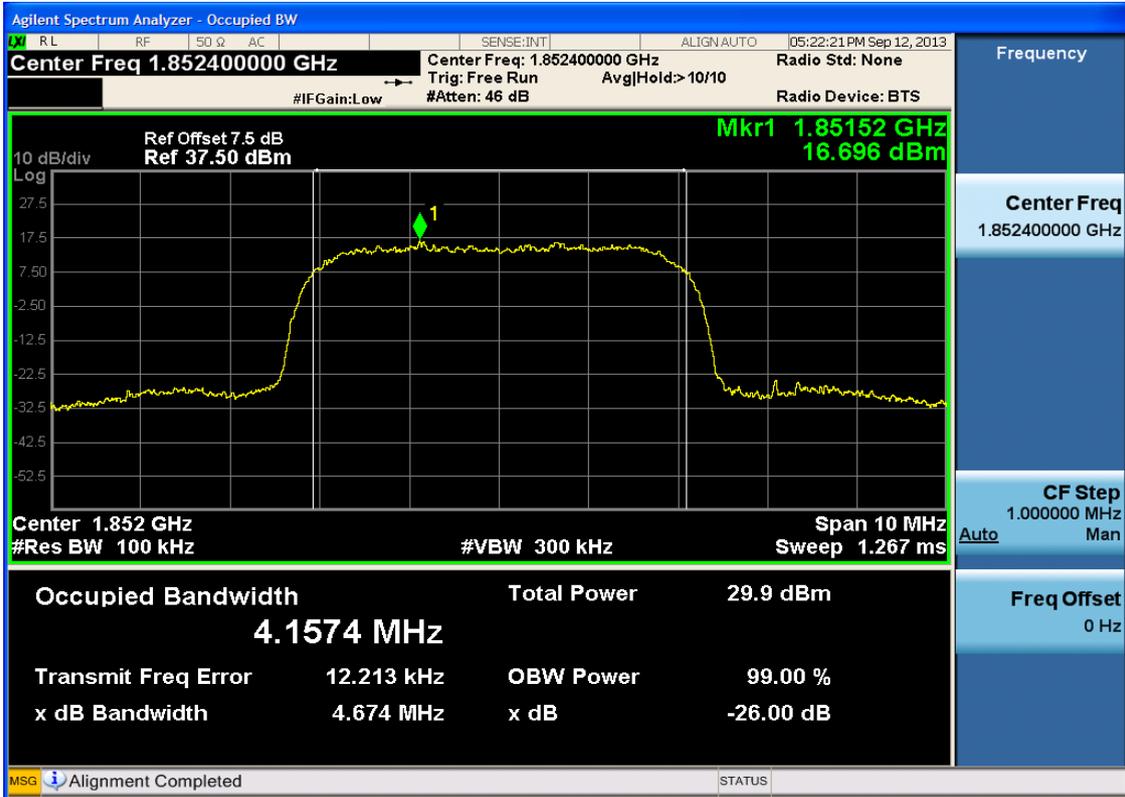
4.1.1.1.3 Test Channel = HCH



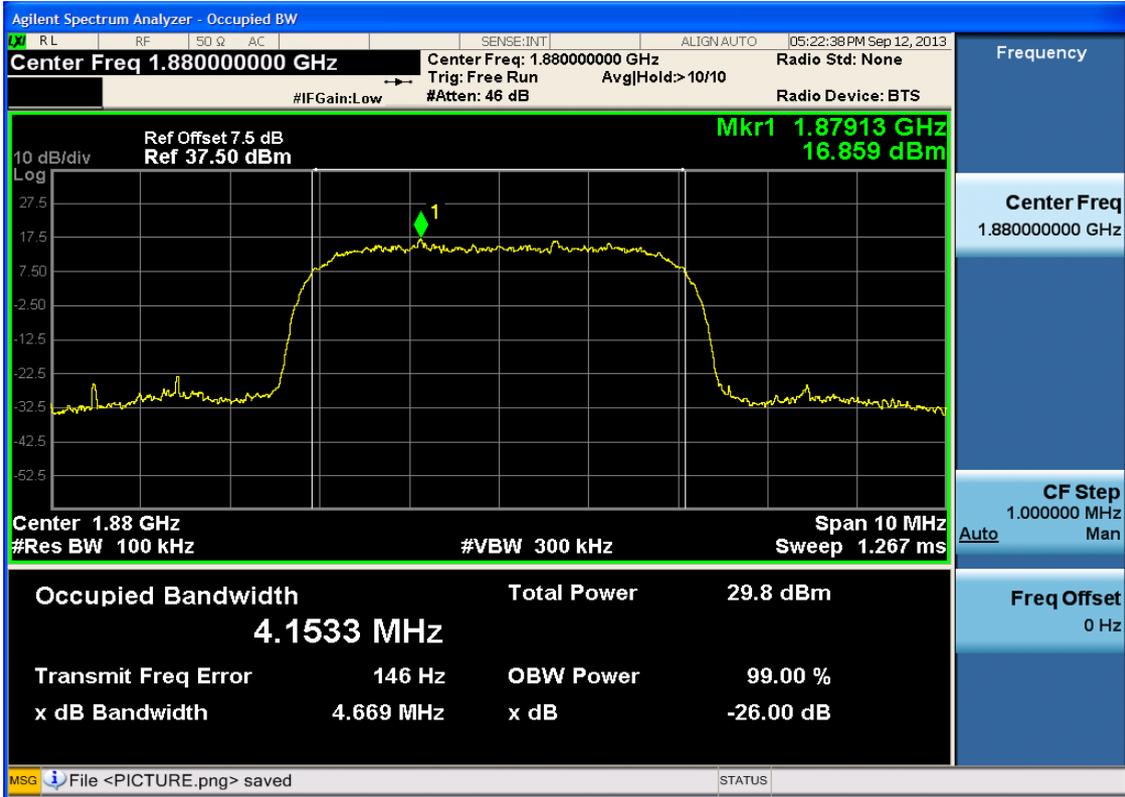
4.1.2 Test Band = WCDMA1900

4.1.2.1 Test Mode = UMTS/TM1

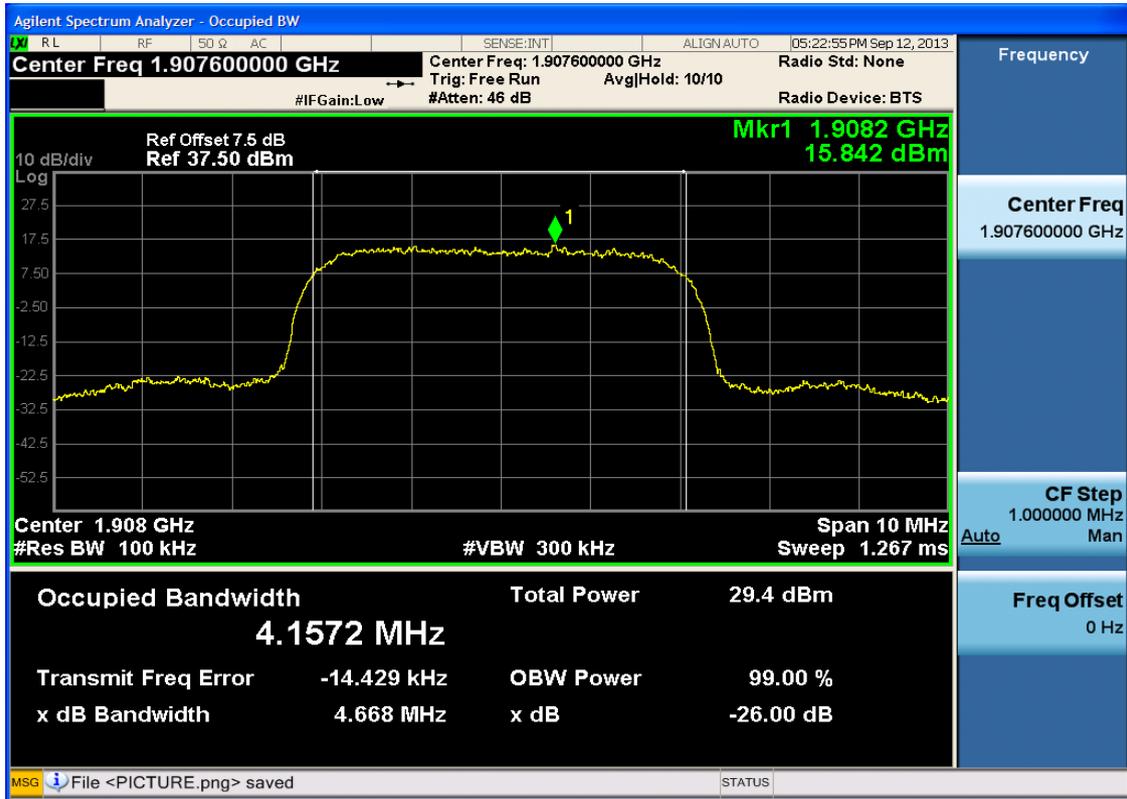
4.1.2.1.1 Test Channel = LCH



4.1.2.1.2 Test Channel = MCH



4.1.2.1.3 Test Channel = HCH



4.2 For LTE

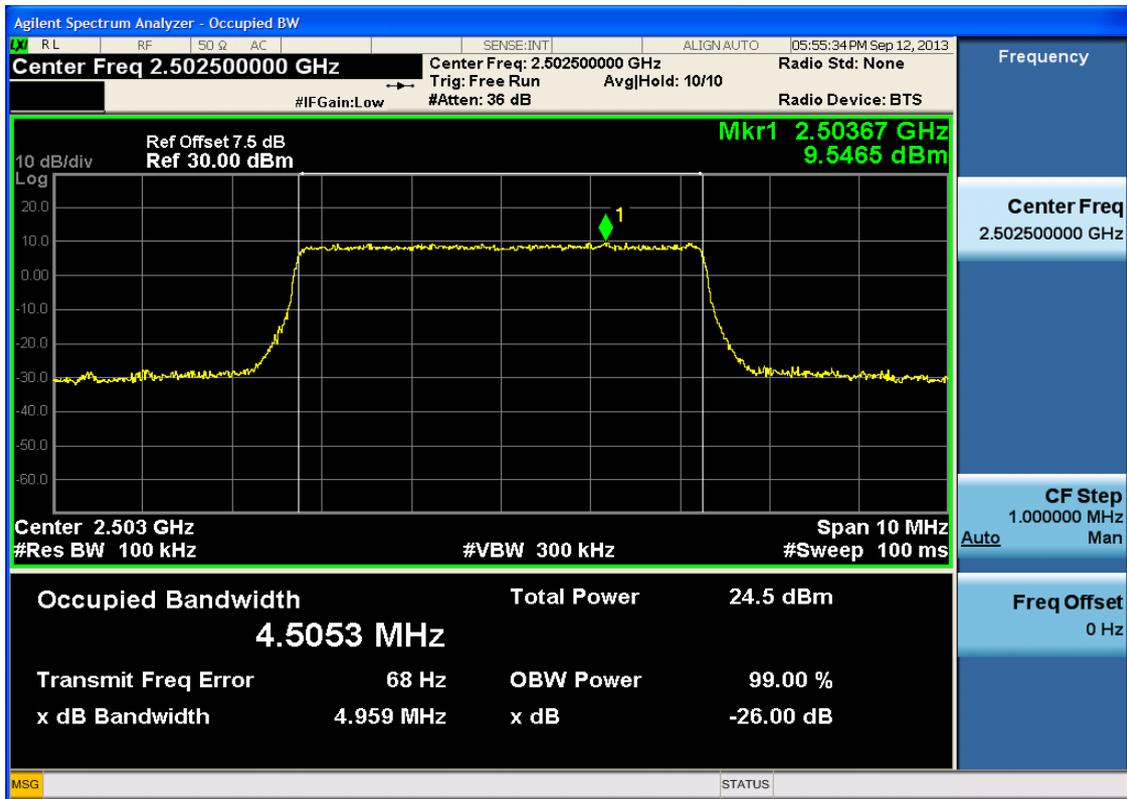
4.2.1 Test Band = BAND7

4.2.1.1 Test Mode = LTE/TM1

4.2.1.1.1 Test Bandwidth = 5

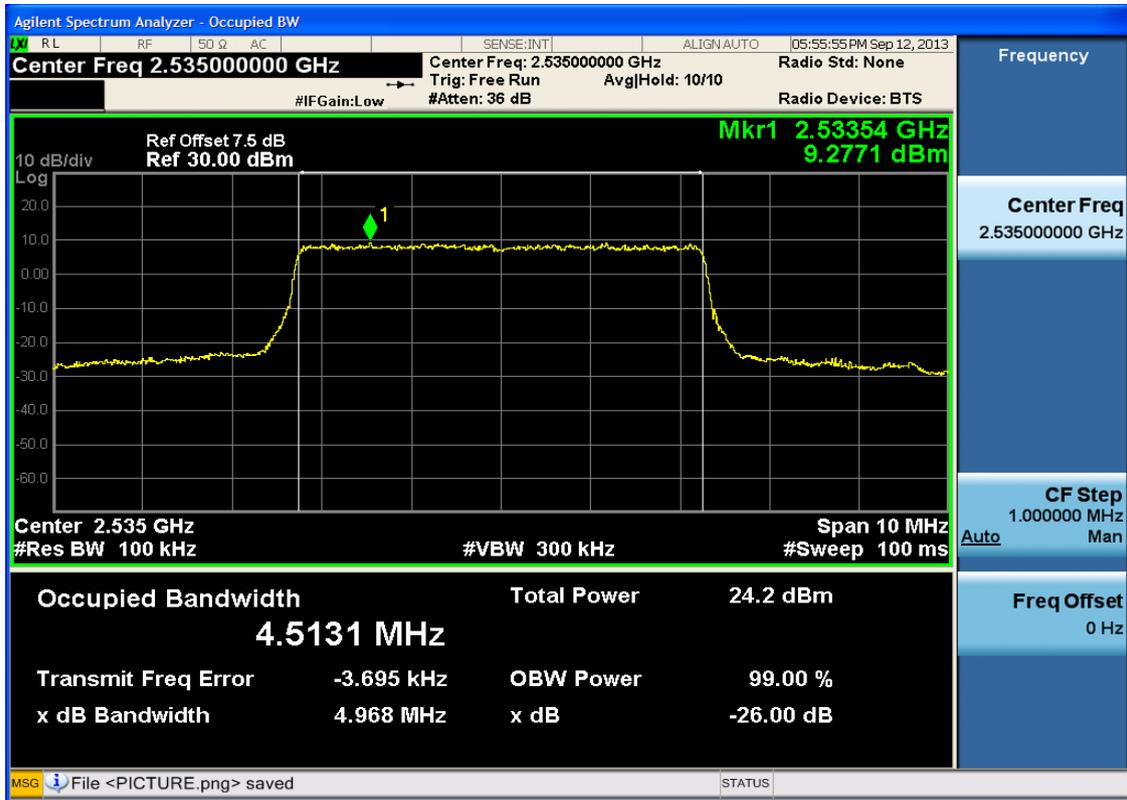
4.2.1.1.1.1 Test Channel = LCH

4.2.1.1.1.1.1 Test RB = RB25#0



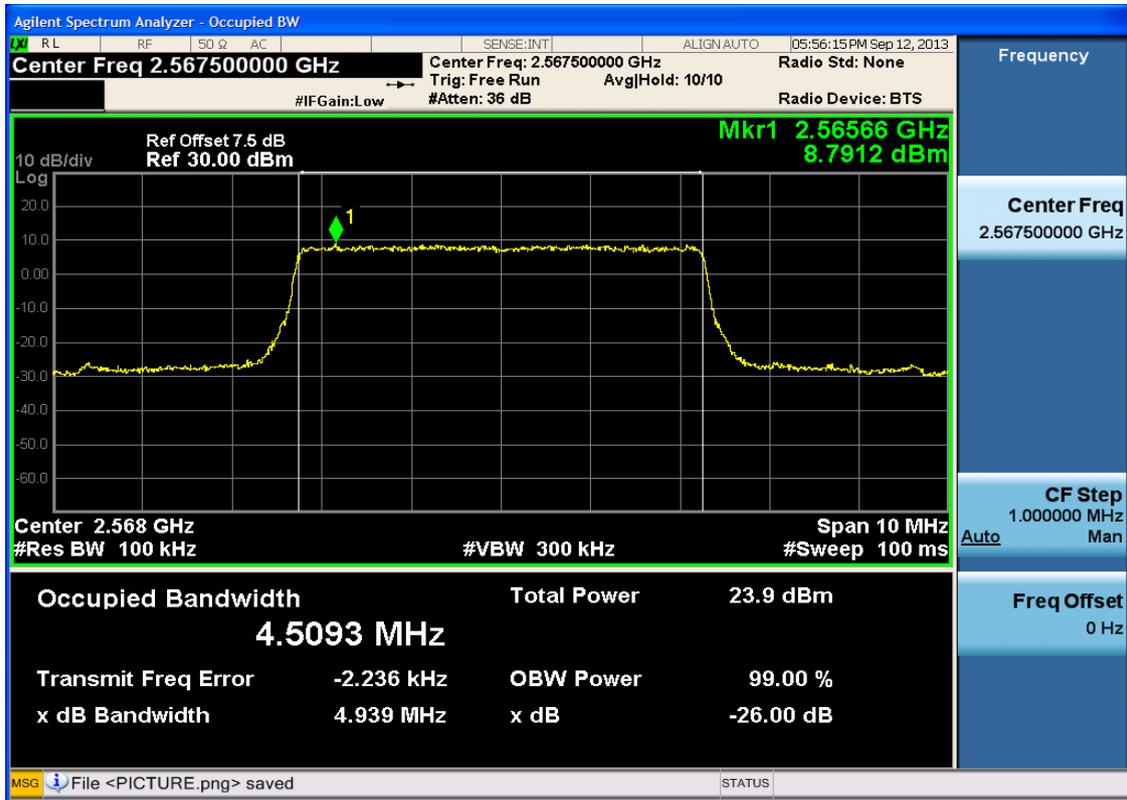
4.2.1.1.1.2 Test Channel = MCH

4.2.1.1.1.2.1 Test RB = RB25#0



4.2.1.1.1.3 Test Channel = HCH

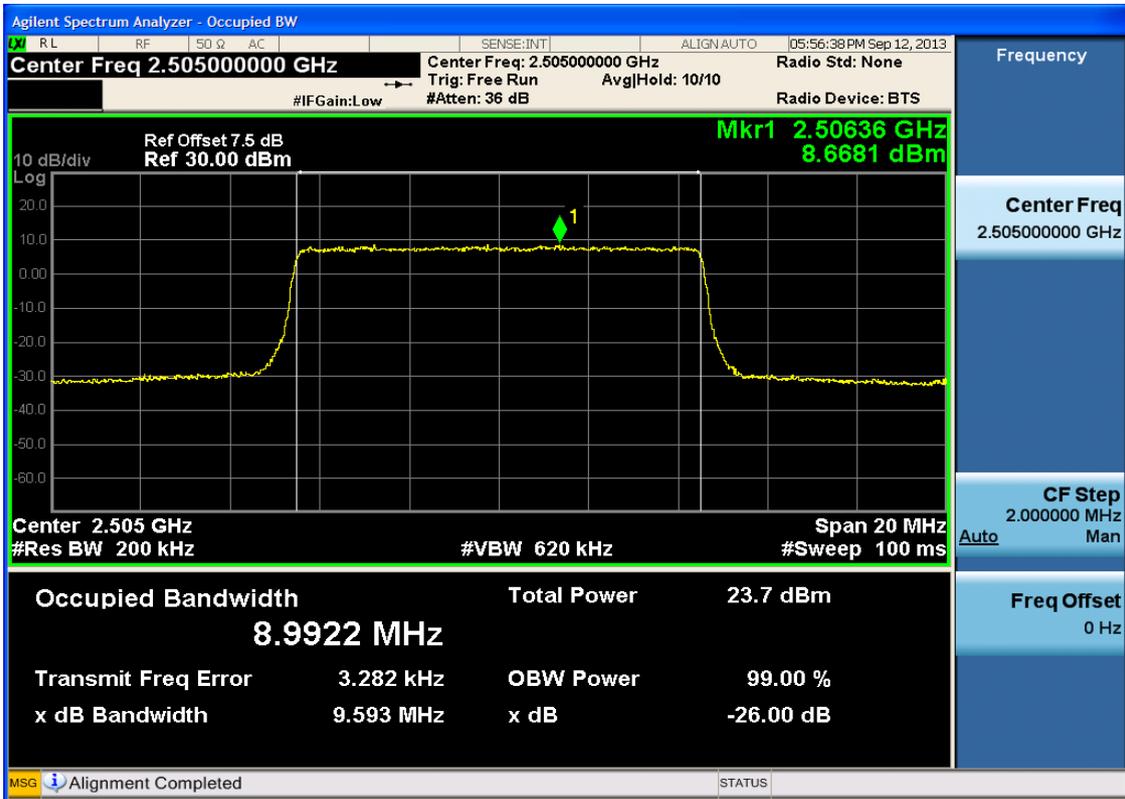
4.2.1.1.1.3.1 Test RB = RB25#0



4.2.1.1.2 Test Bandwidth = 10

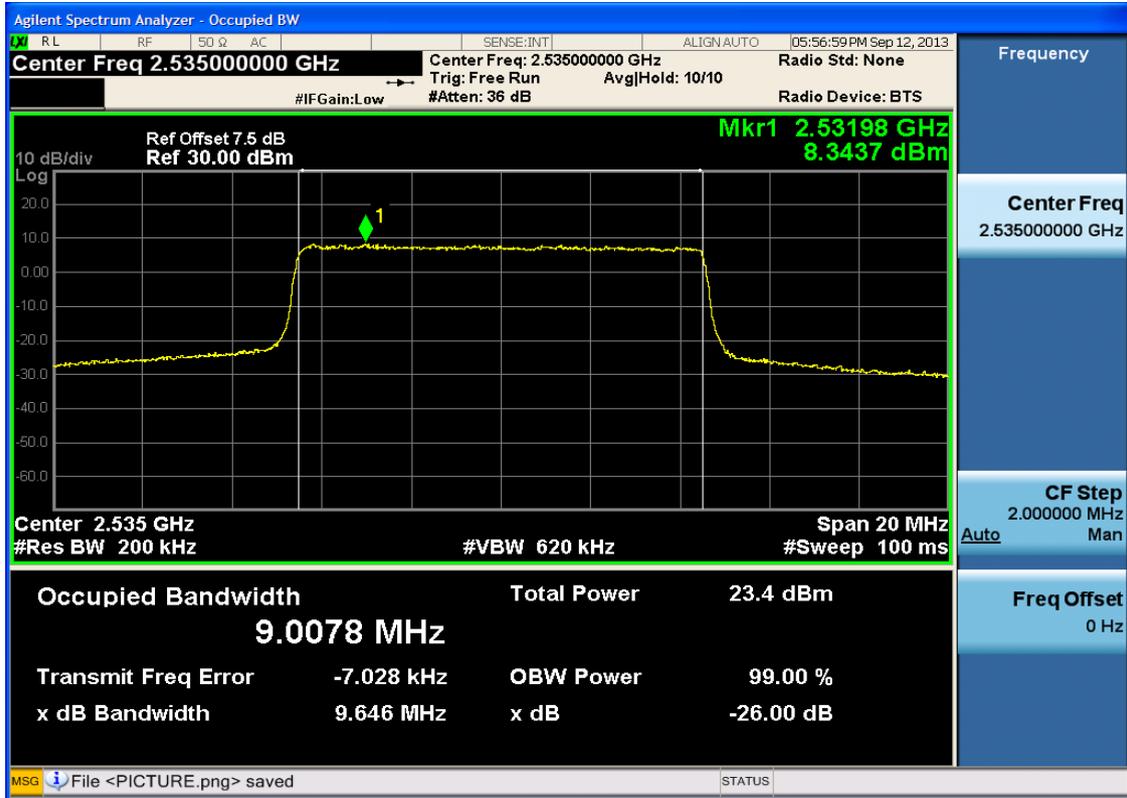
4.2.1.1.2.1 Test Channel = LCH

4.2.1.1.2.1.1 Test RB = RB50#0



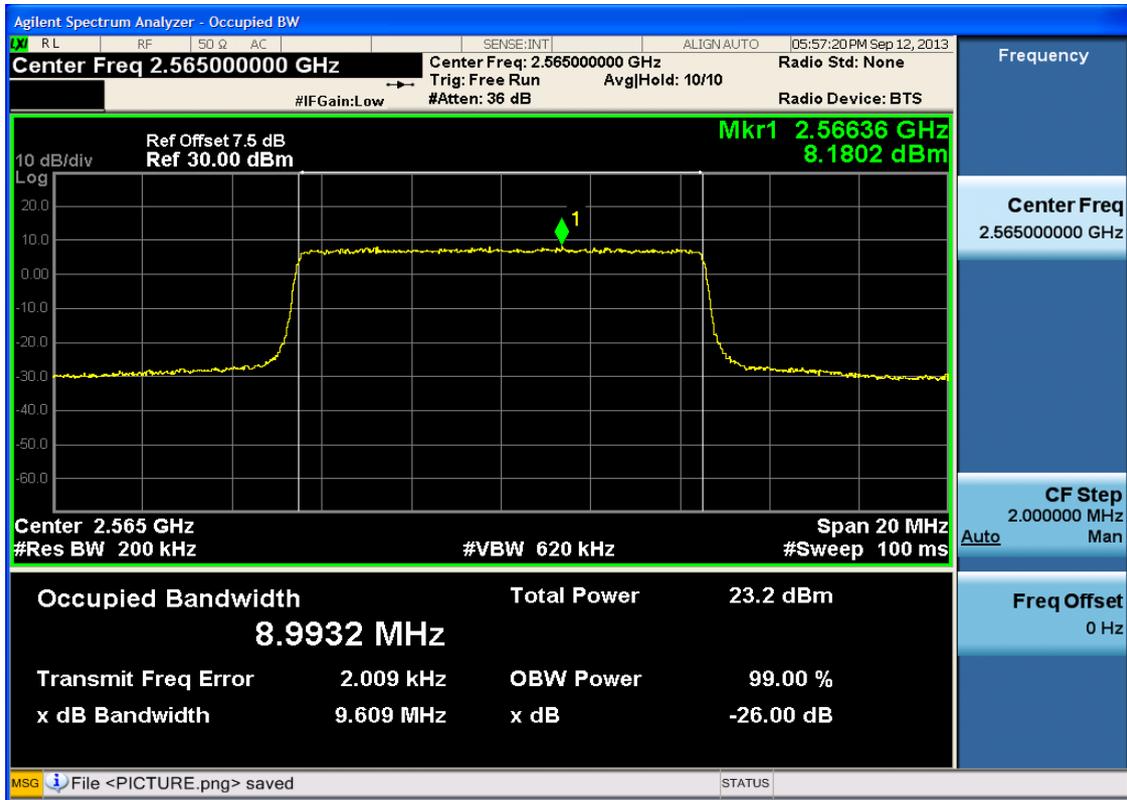
4.2.1.1.2.2 Test Channel = MCH

4.2.1.1.2.2.1 Test RB = RB50#0



4.2.1.1.2.3 Test Channel = HCH

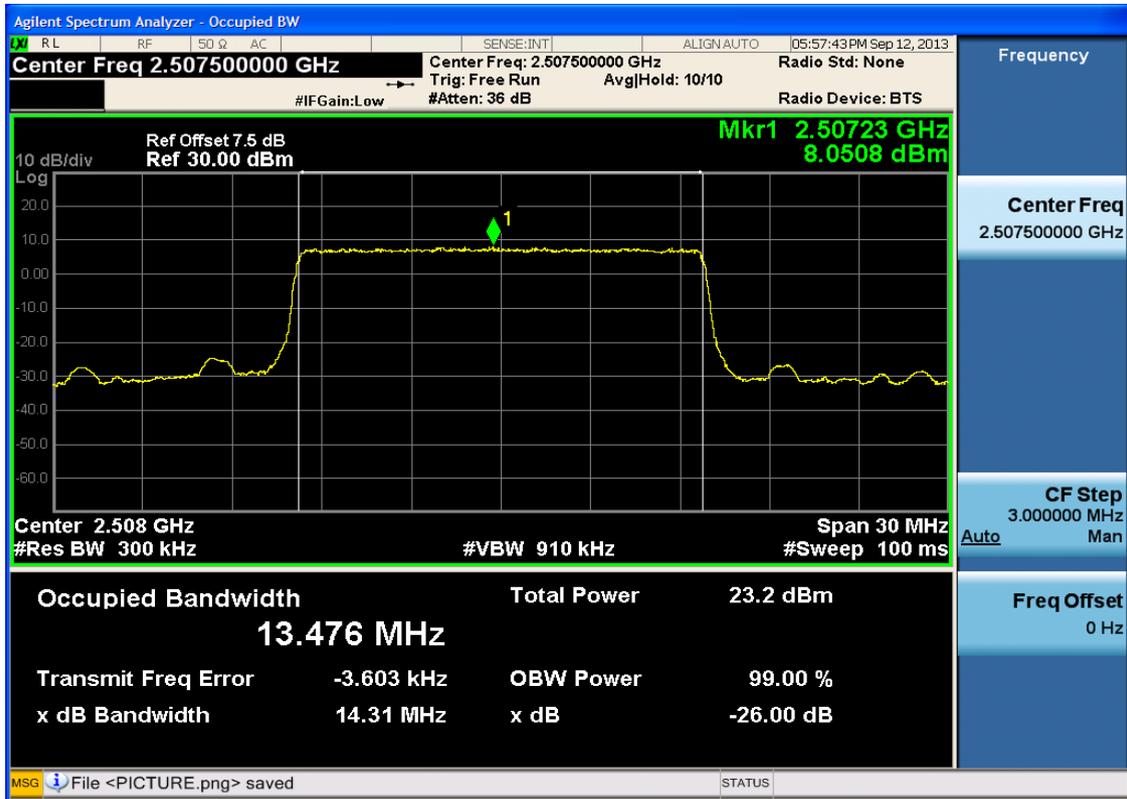
4.2.1.1.2.3.1 Test RB = RB50#0



4.2.1.1.3 Test Bandwidth = 15

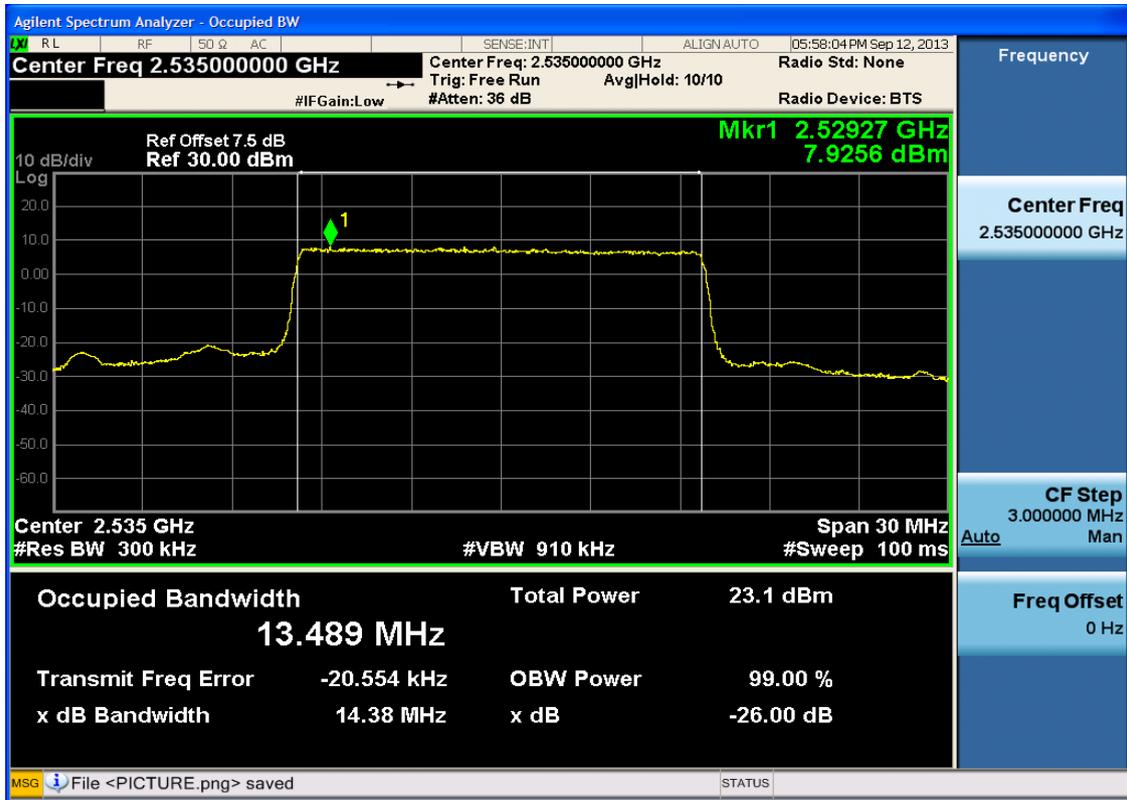
4.2.1.1.3.1 Test Channel = LCH

4.2.1.1.3.1.1 Test RB = RB75#0



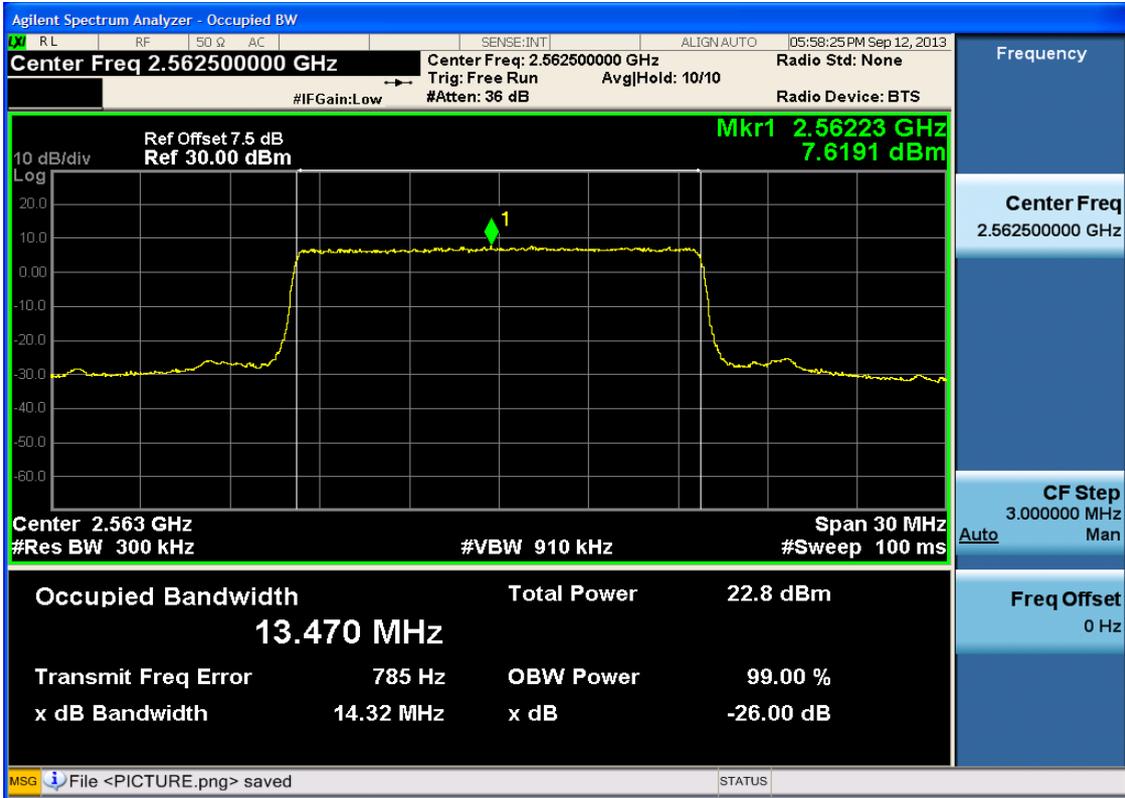
4.2.1.1.3.2 Test Channel = MCH

4.2.1.1.3.2.1 Test RB = RB75#0



4.2.1.1.3.3 Test Channel = HCH

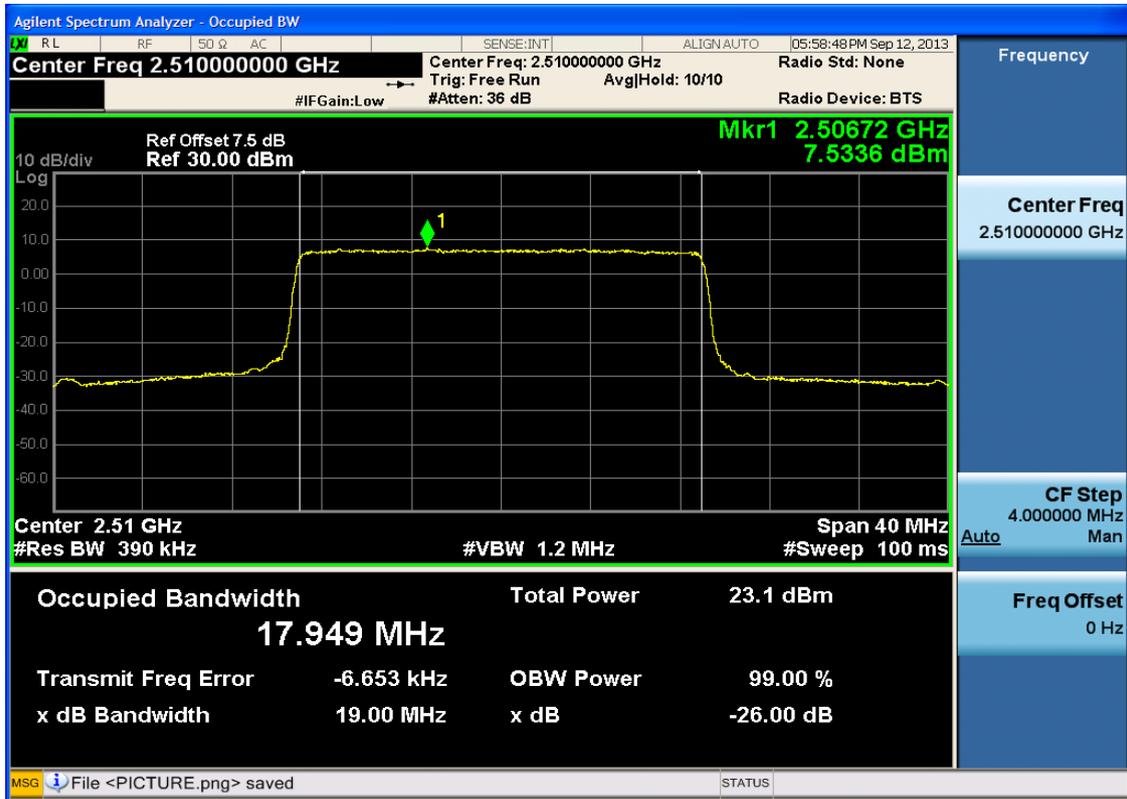
4.2.1.1.3.3.1 Test RB = RB75#0



4.2.1.1.4 Test Bandwidth = 20

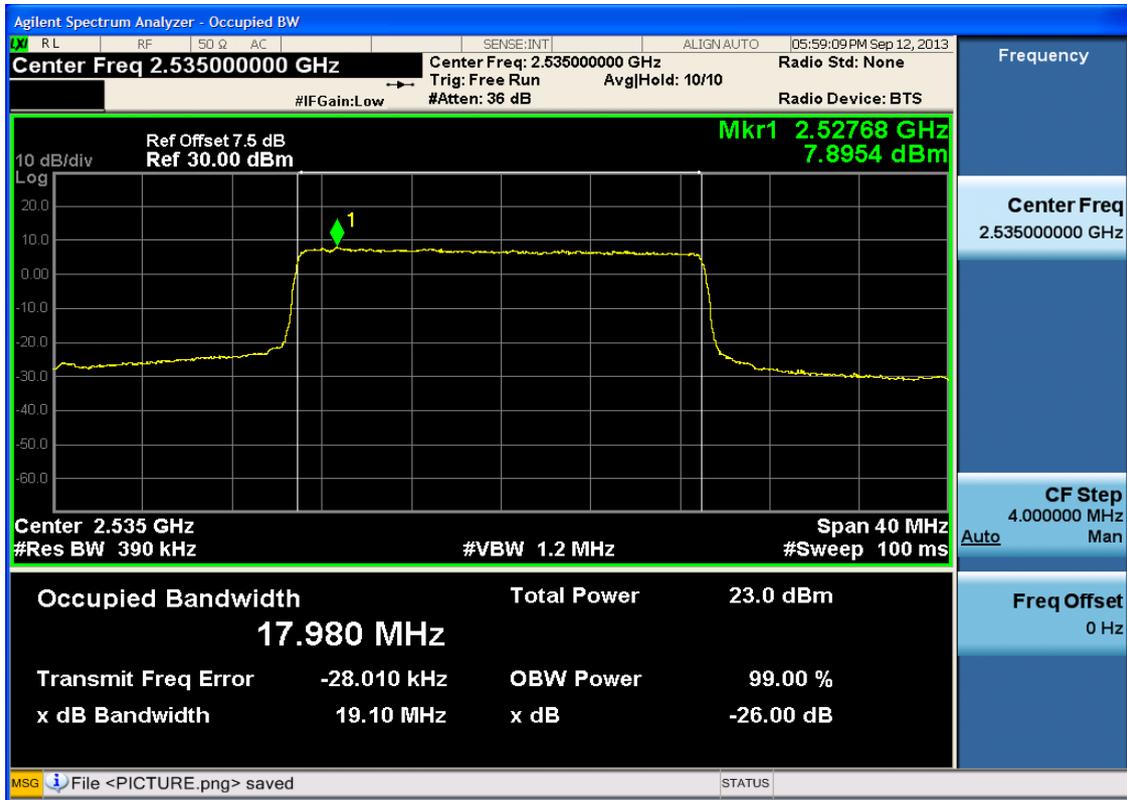
4.2.1.1.4.1 Test Channel = LCH

4.2.1.1.4.1.1 Test RB = RB100#0



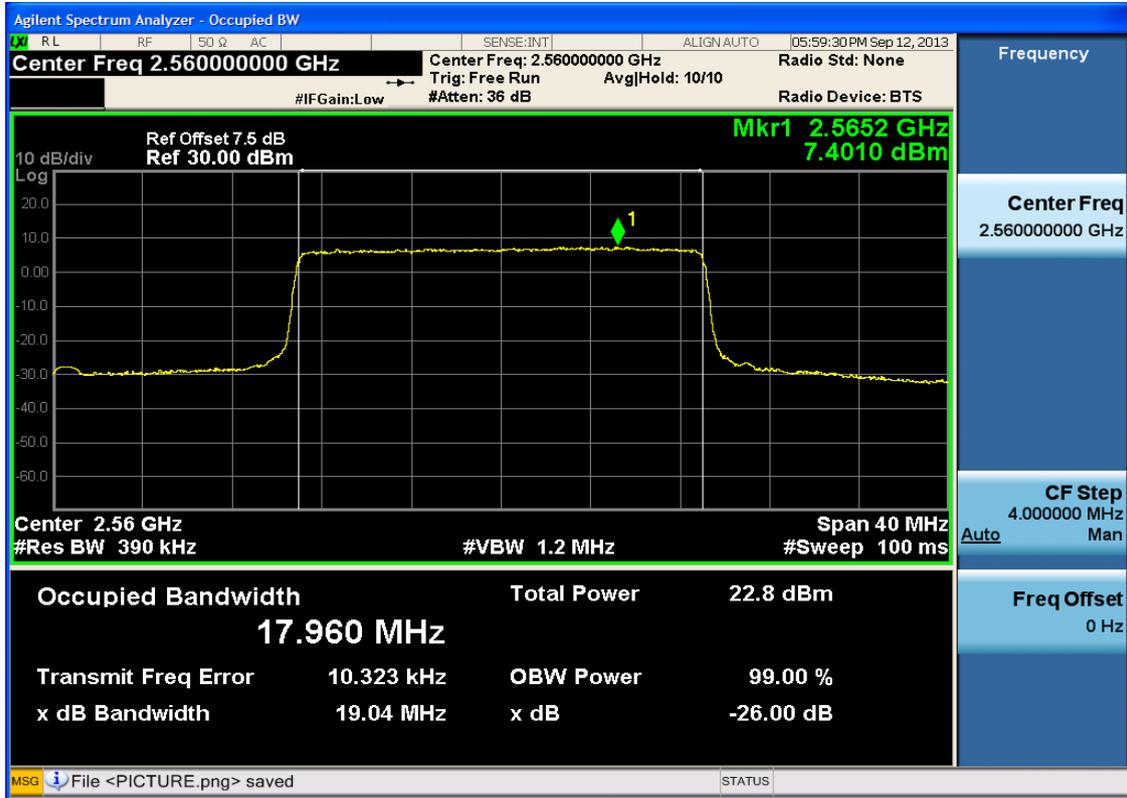
4.2.1.1.4.2 Test Channel = MCH

4.2.1.1.4.2.1 Test RB = RB100#0



4.2.1.1.4.3 Test Channel = HCH

4.2.1.1.4.3.1 Test RB = RB100#0

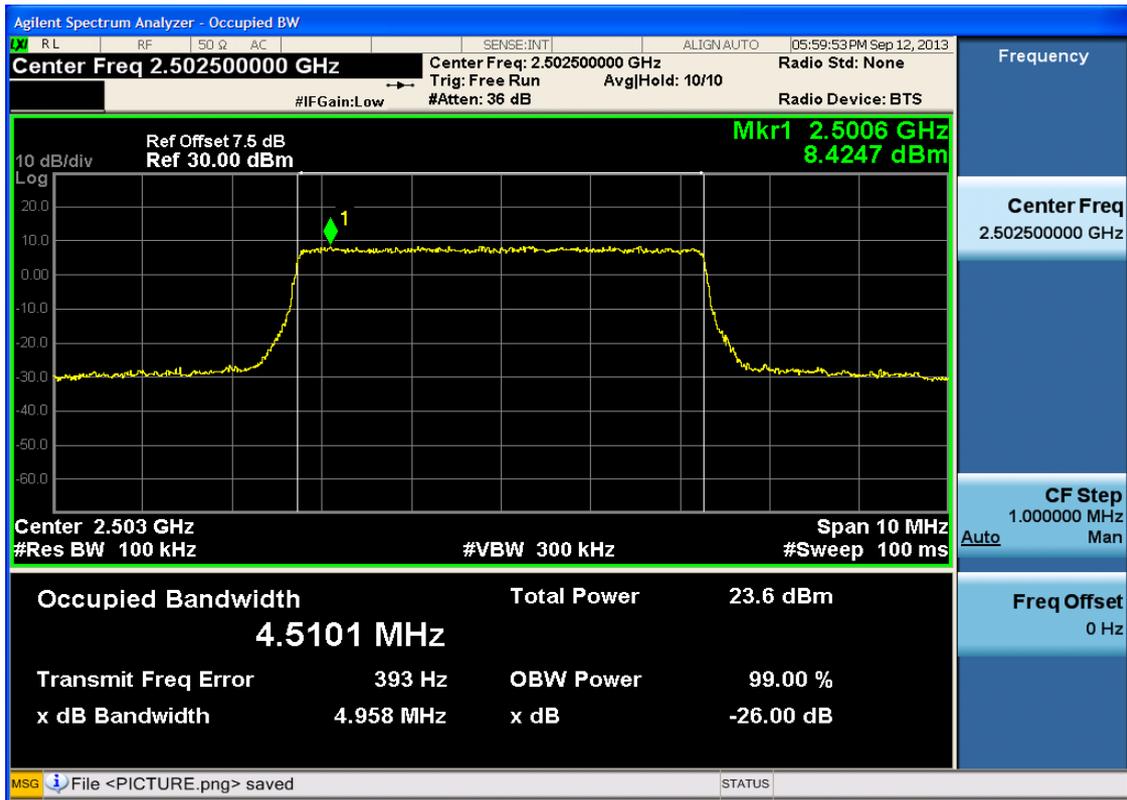


4.2.1.2 Test Mode = LTE/TM2

4.2.1.2.1 Test Bandwidth = 5

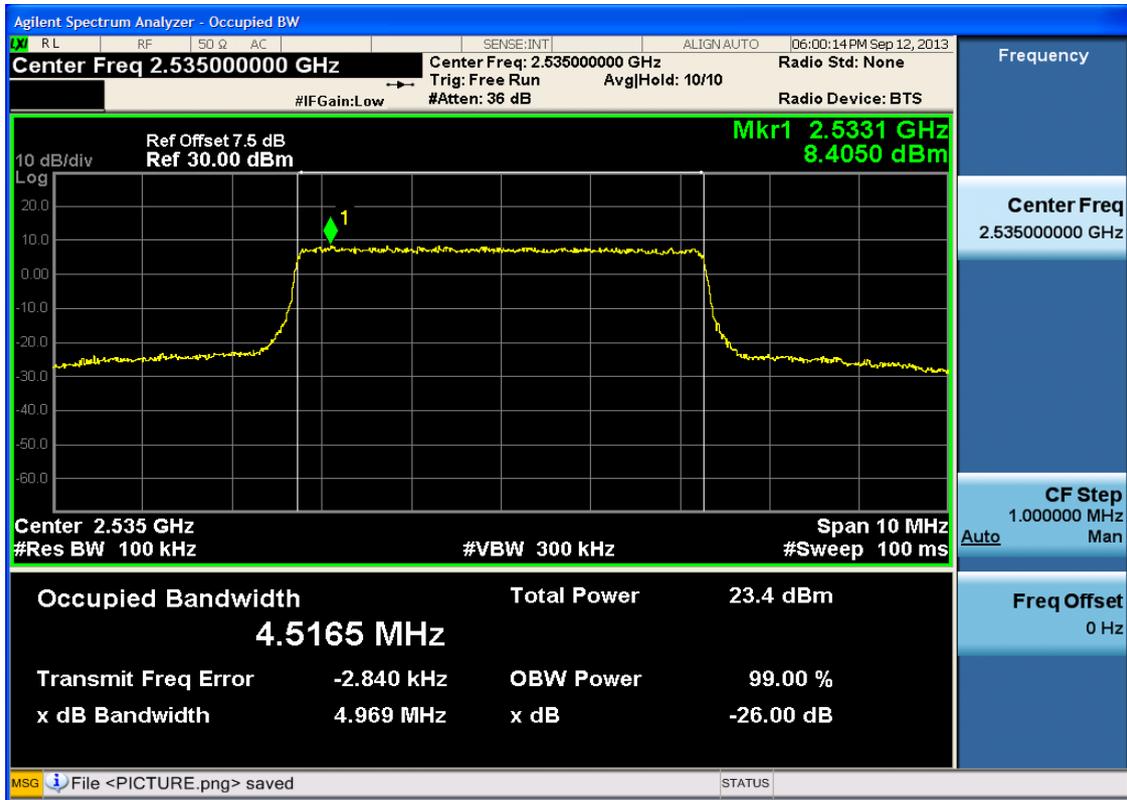
4.2.1.2.1.1 Test Channel = LCH

4.2.1.2.1.1.1 Test RB = RB25#0



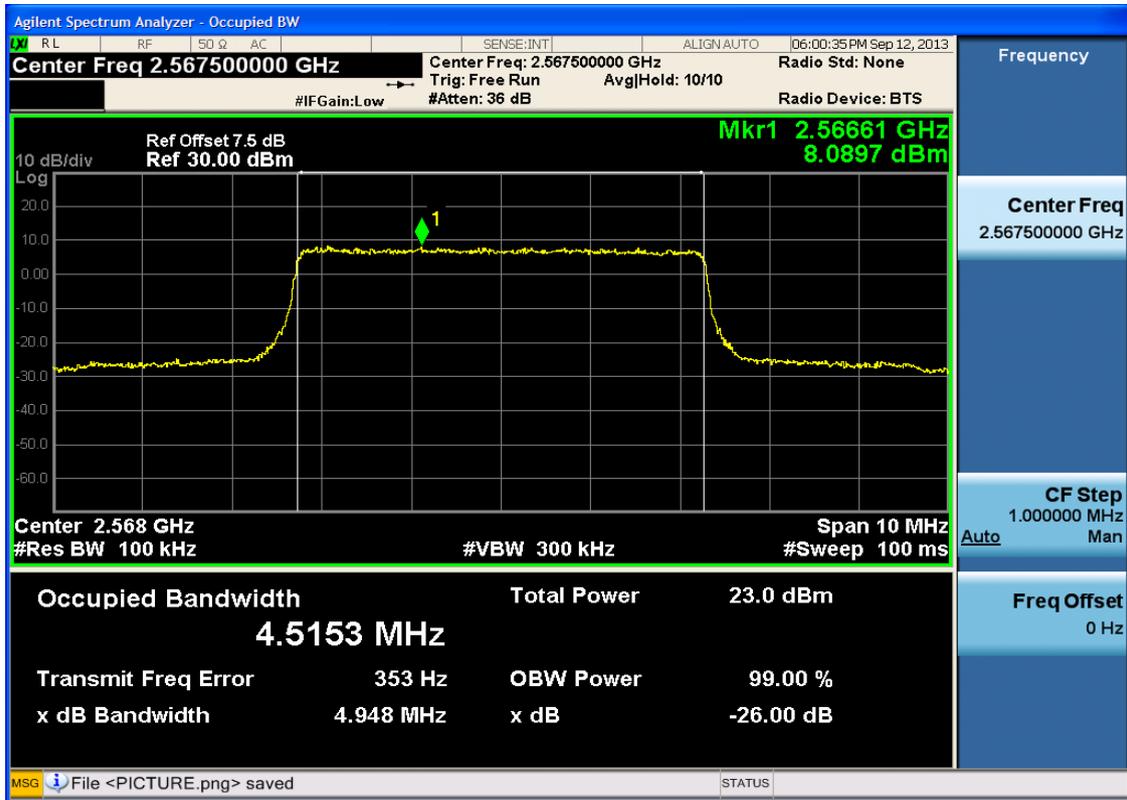
4.2.1.2.1.2 Test Channel = MCH

4.2.1.2.1.2.1 Test RB = RB25#0



4.2.1.2.1.3 Test Channel = HCH

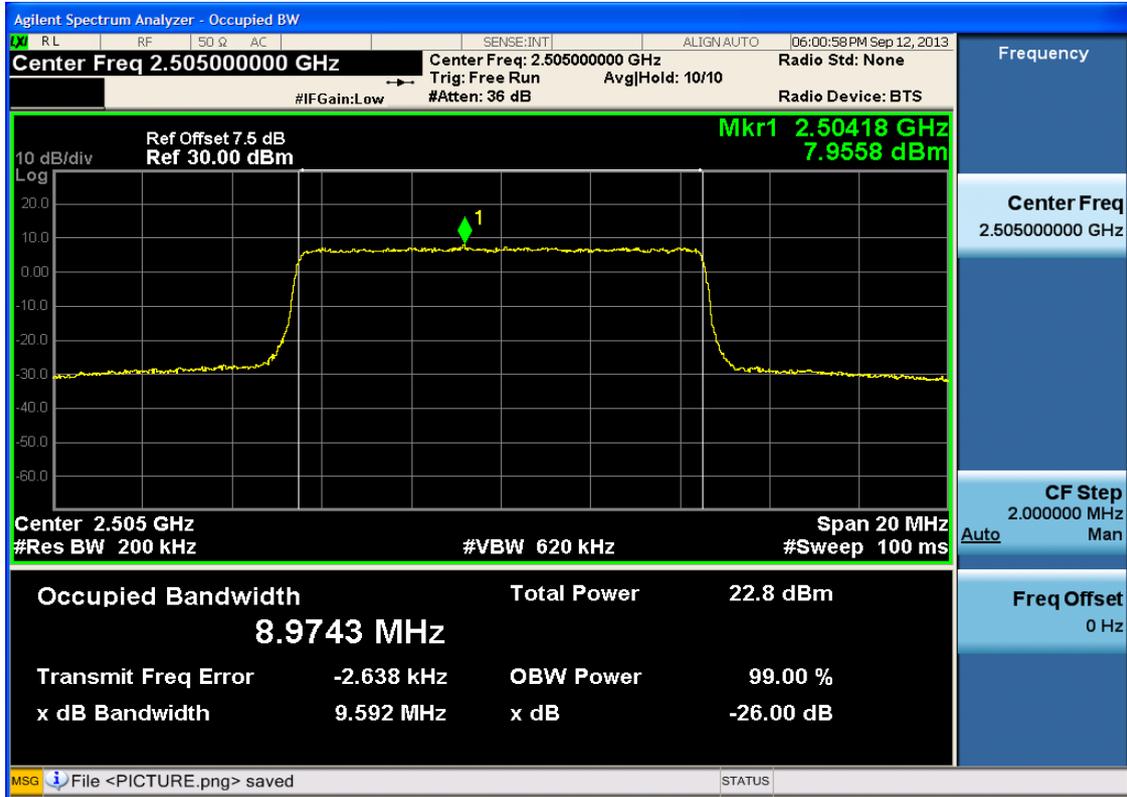
4.2.1.2.1.3.1 Test RB = RB25#0



4.2.1.2.2 Test Bandwidth = 10

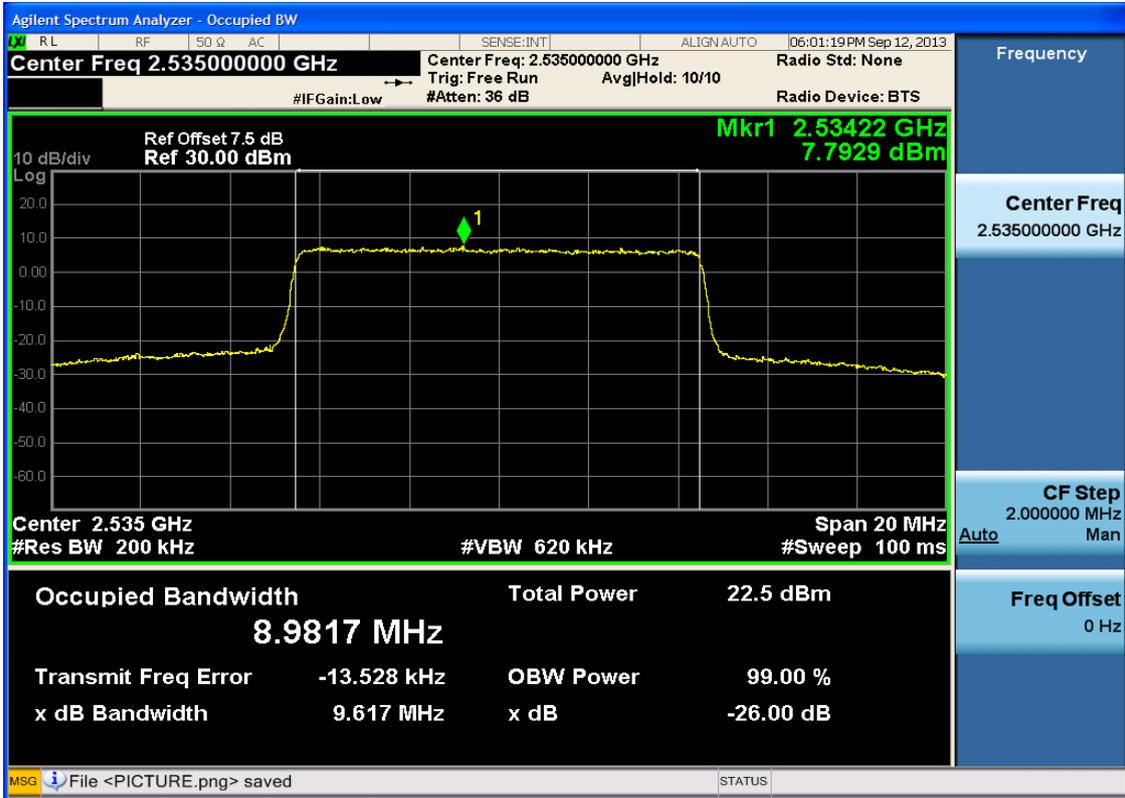
4.2.1.2.2.1 Test Channel = LCH

4.2.1.2.2.1.1 Test RB = RB50#0



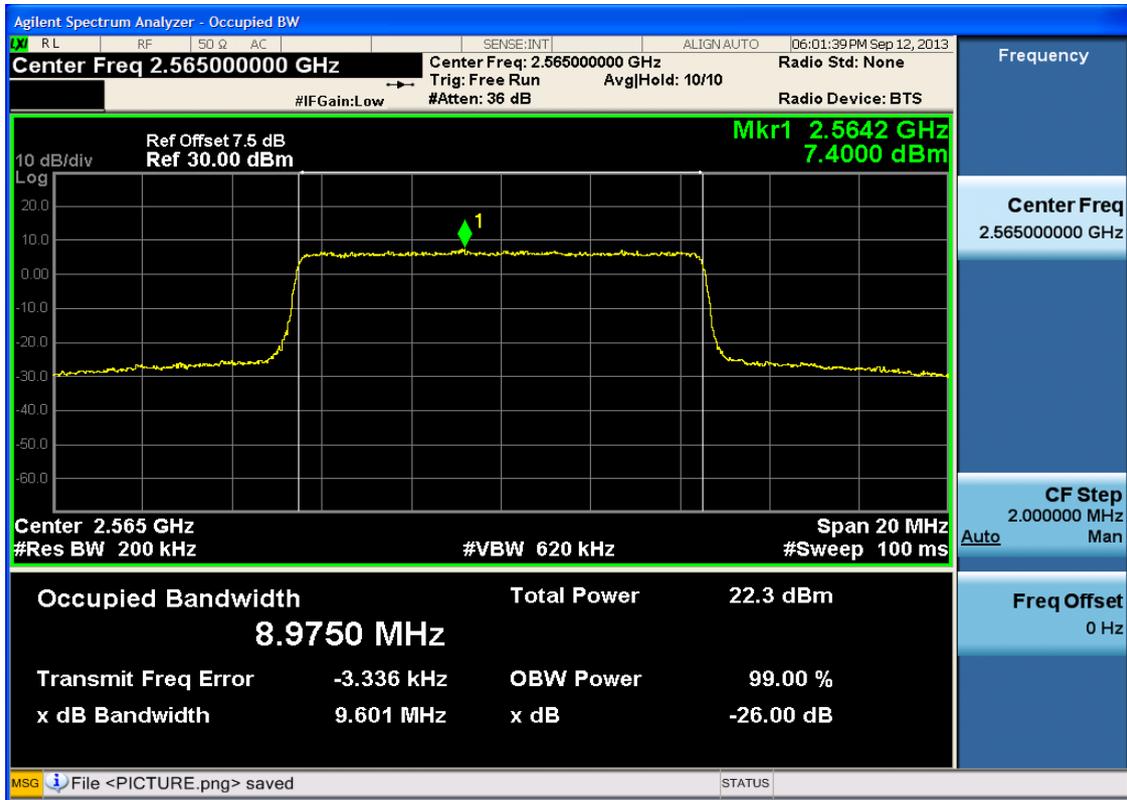
4.2.1.2.2.2 Test Channel = MCH

4.2.1.2.2.2.1 Test RB = RB50#0



4.2.1.2.2.3 Test Channel = HCH

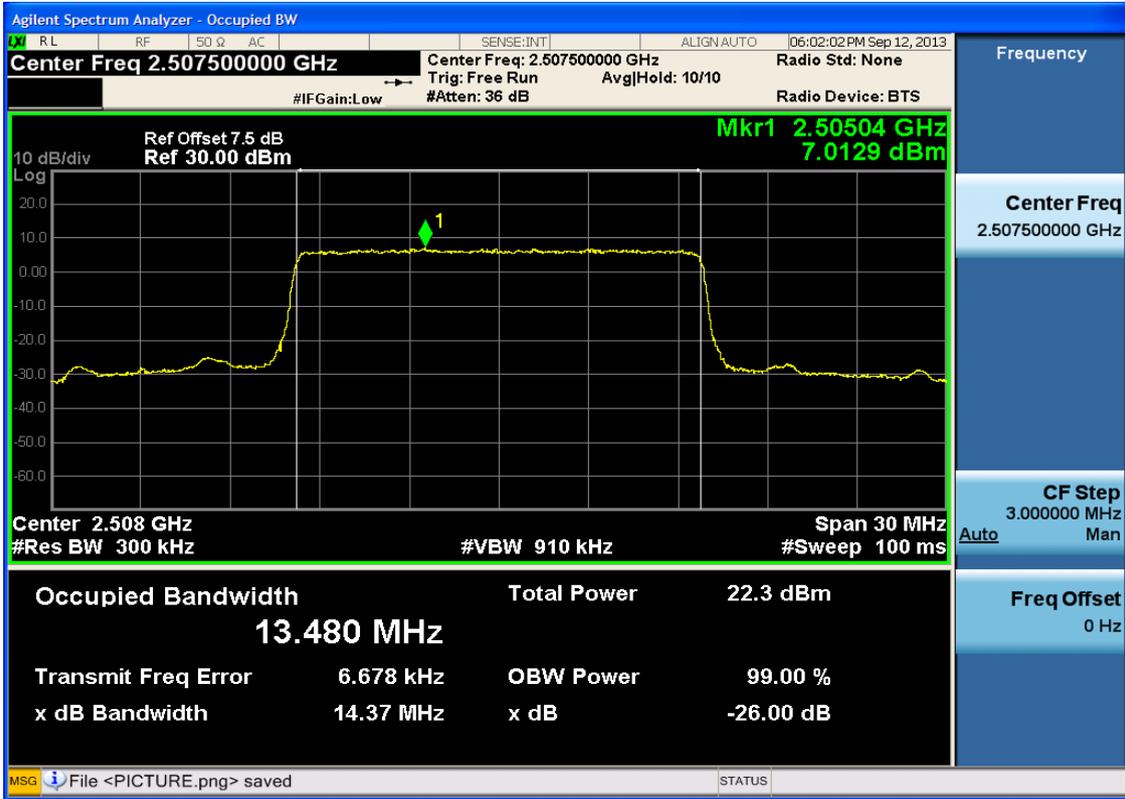
4.2.1.2.2.3.1 Test RB = RB50#0



4.2.1.2.3 Test Bandwidth = 15

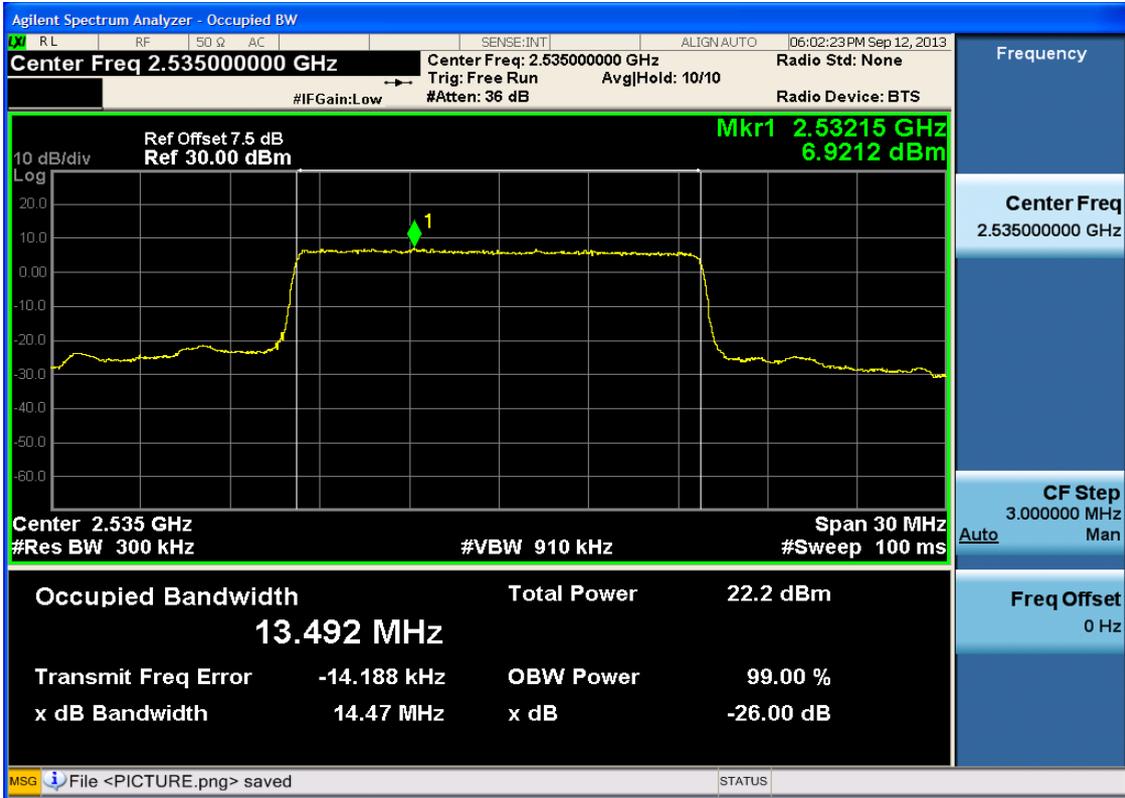
4.2.1.2.3.1 Test Channel = LCH

4.2.1.2.3.1.1 Test RB = RB75#0



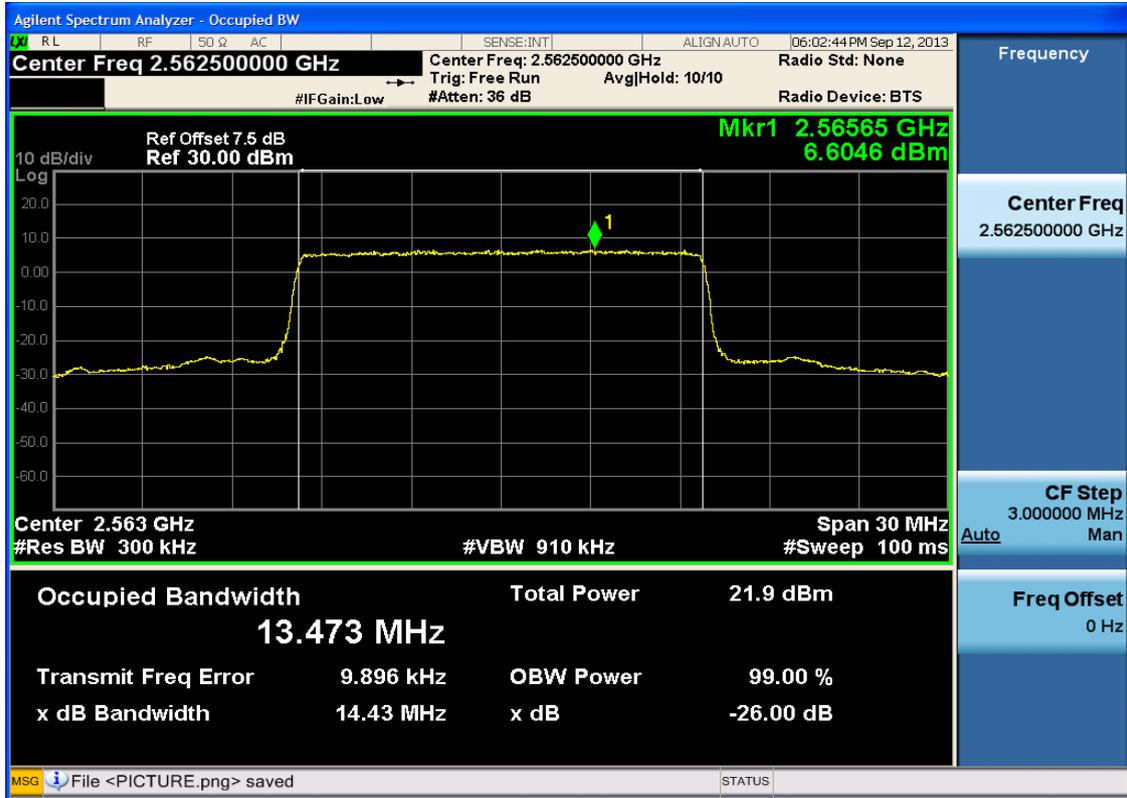
4.2.1.2.3.2 Test Channel = MCH

4.2.1.2.3.2.1 Test RB = RB75#0



4.2.1.2.3.3 Test Channel = HCH

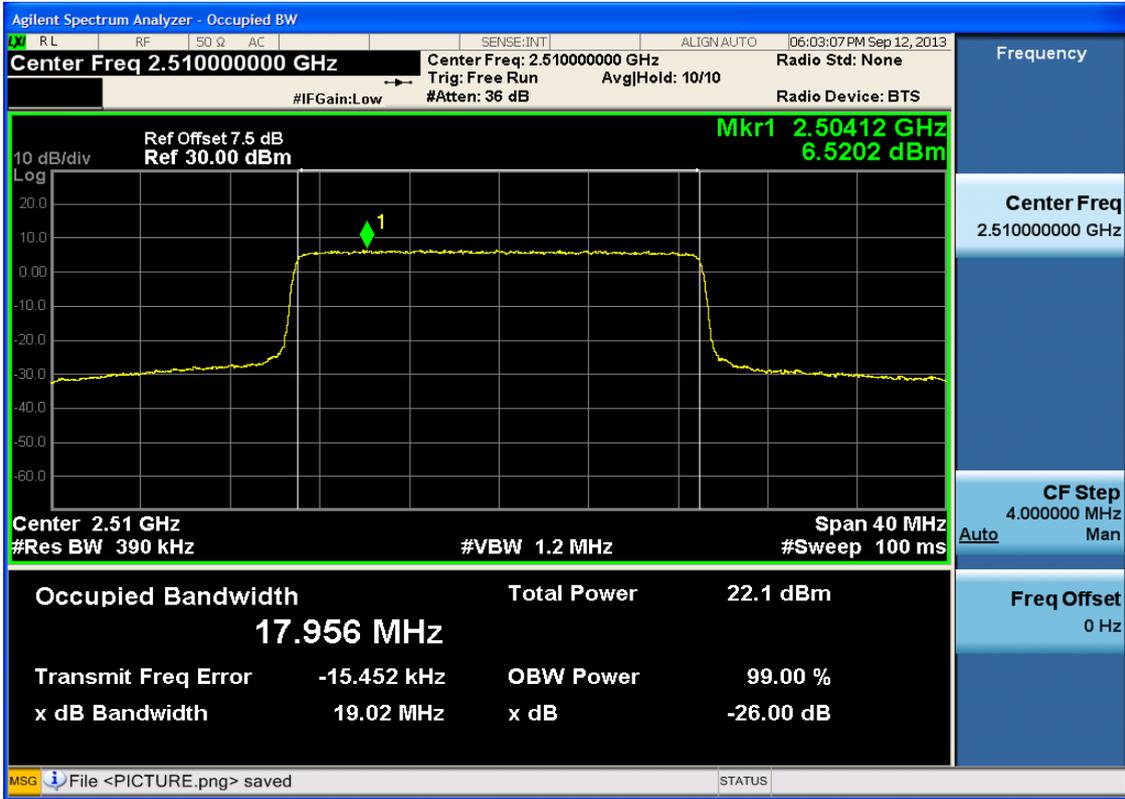
4.2.1.2.3.3.1 Test RB = RB75#0



4.2.1.2.4 Test Bandwidth = 20

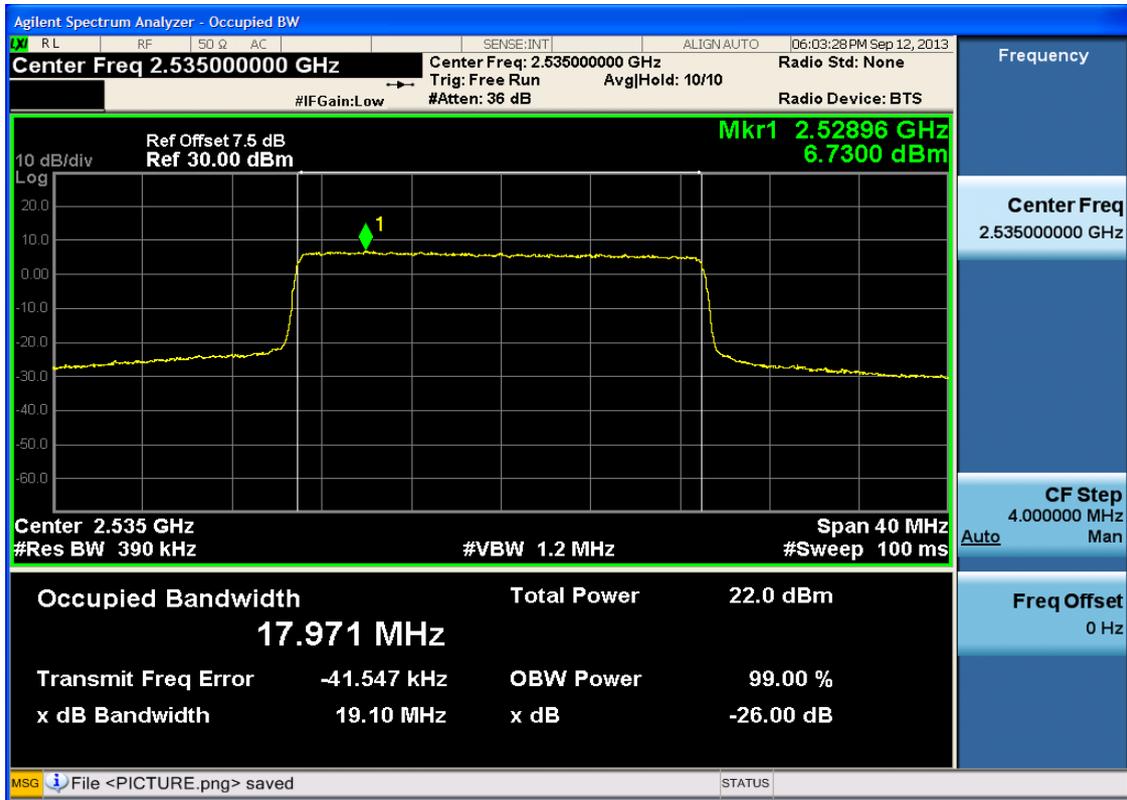
4.2.1.2.4.1 Test Channel = LCH

4.2.1.2.4.1.1 Test RB = RB100#0



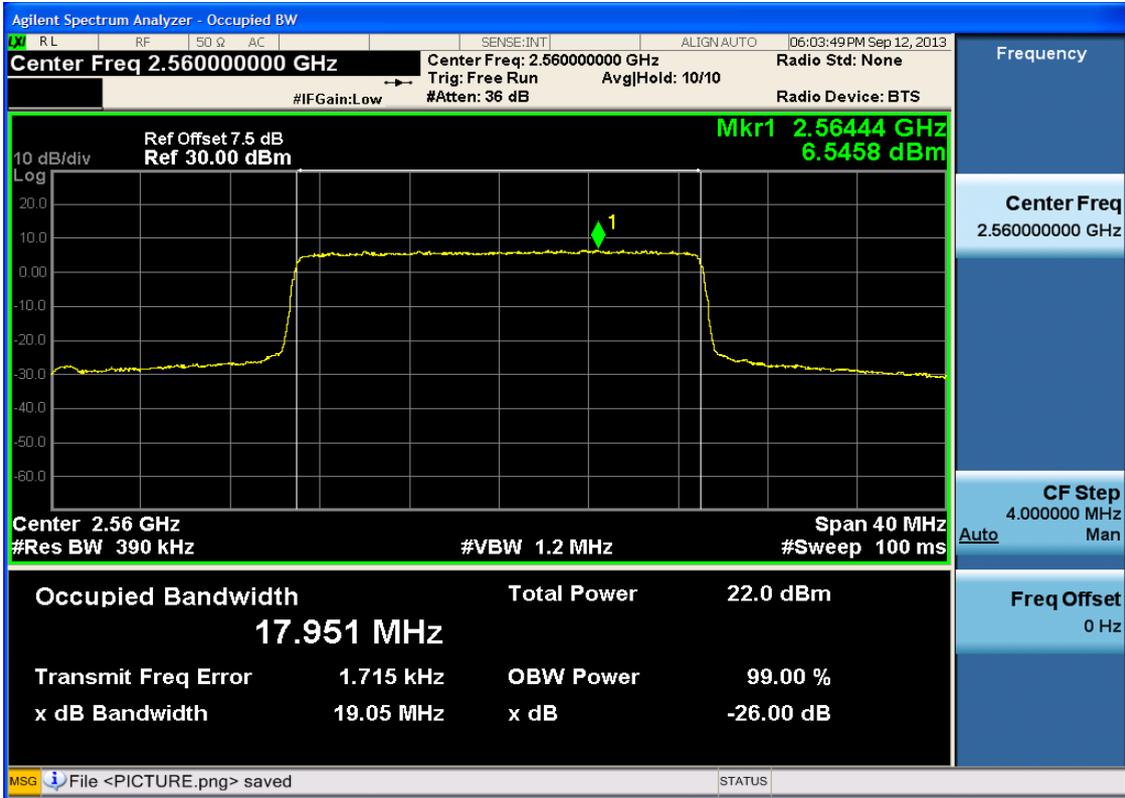
4.2.1.2.4.2 Test Channel = MCH

4.2.1.2.4.2.1 Test RB = RB100#0



4.2.1.2.4.3 Test Channel = HCH

4.2.1.2.4.3.1 Test RB = RB100#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For UMTS

5.1.1 Test Band = WCDMA850

5.1.1.1 Test Mode = UMTS/TM1

5.1.1.1.1 Test Channel = LCH



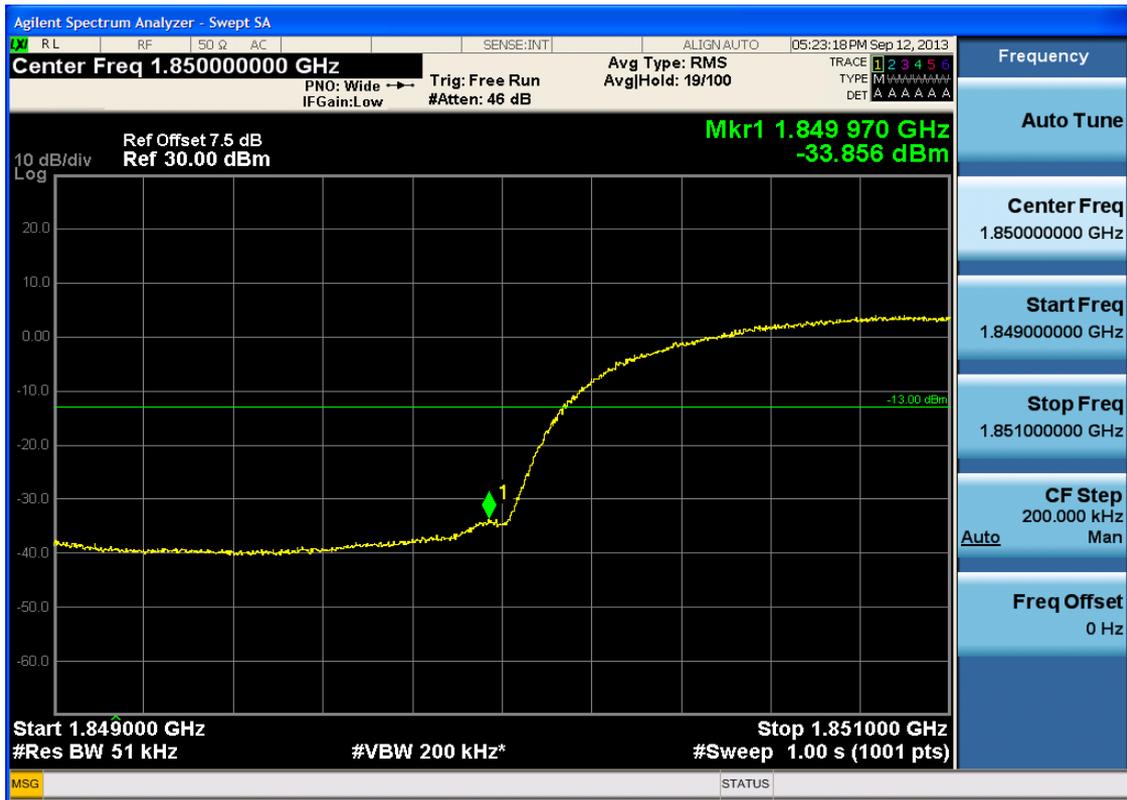
5.1.1.1.2 Test Channel = HCH



5.1.2 Test Band = WCDMA1900

5.1.2.1 Test Mode = UMTS/TM1

5.1.2.1.1 Test Channel = LCH



5.1.2.1.2 Test Channel = HCH



5.2 For LTE

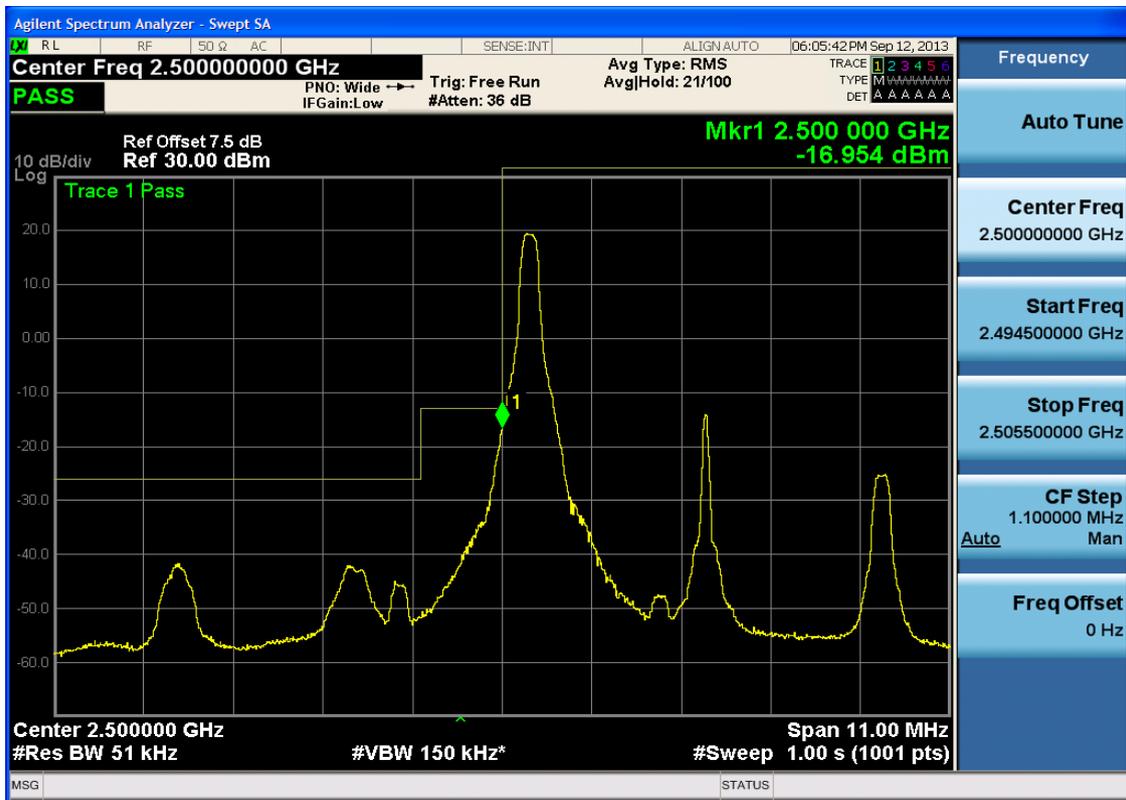
5.2.1 Test Band = BAND7

5.2.1.1 Test Mode = LTE/TM1

5.2.1.1.1 Test Bandwidth = 5

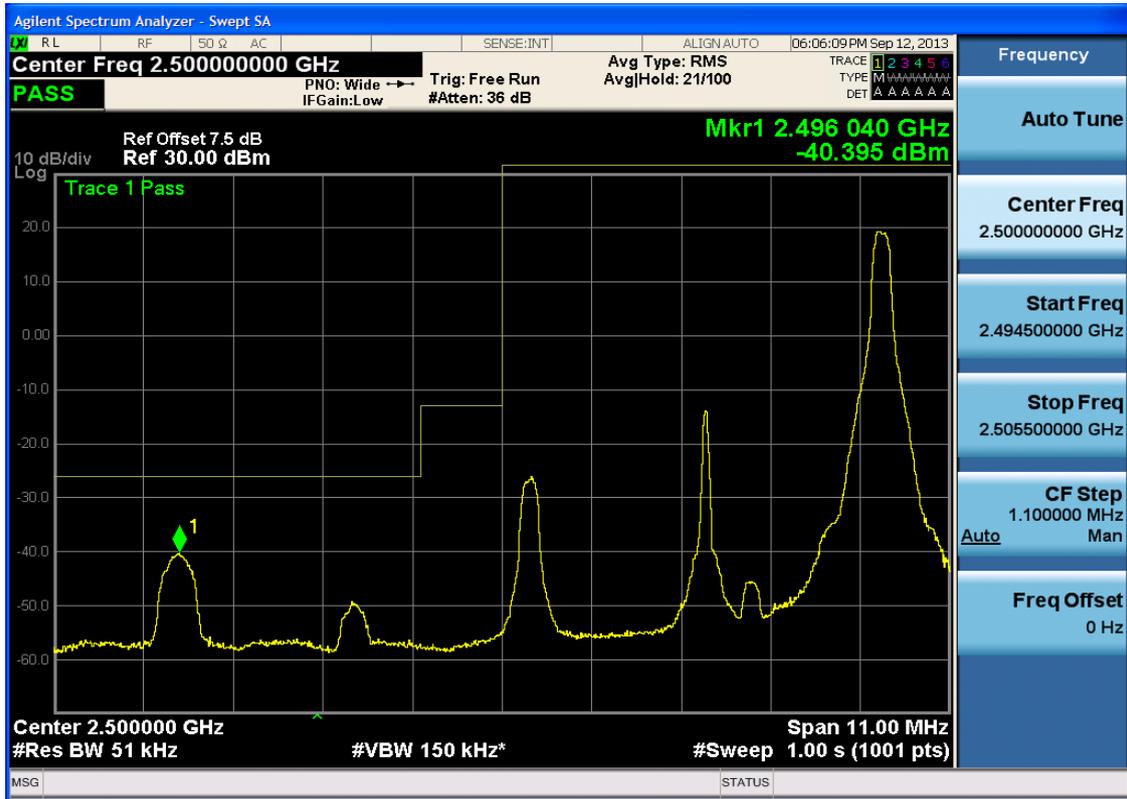
5.2.1.1.1.1 Test Channel = LCH

5.2.1.1.1.1.1 Test RB = RB1#0





5.2.1.1.1.2 Test RB = RB1#24



5.2.1.1.1.3 Test RB = RB12#6



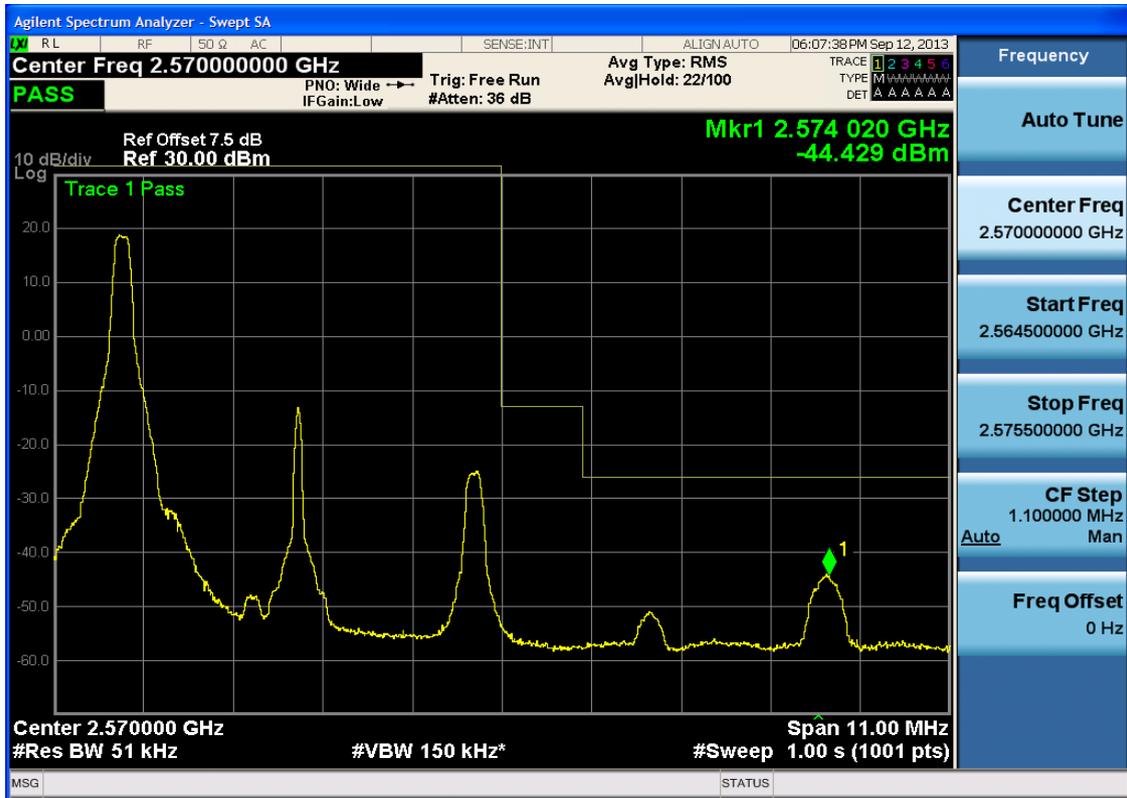


5.2.1.1.1.4 Test RB = RB25#0



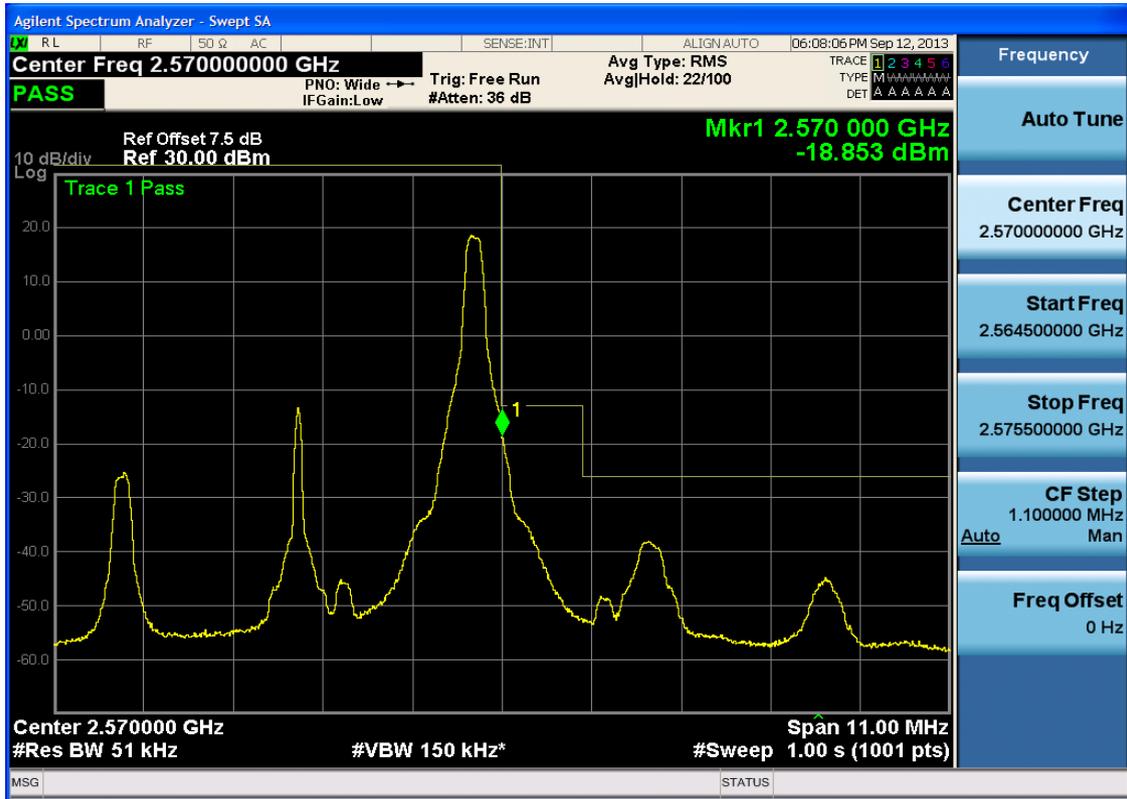
5.2.1.1.1.2 Test Channel = HCH

5.2.1.1.1.2.1 Test RB = RB1#0





5.2.1.1.1.2.2 Test RB = RB1#24



5.2.1.1.1.2.3 Test RB = RB12#6



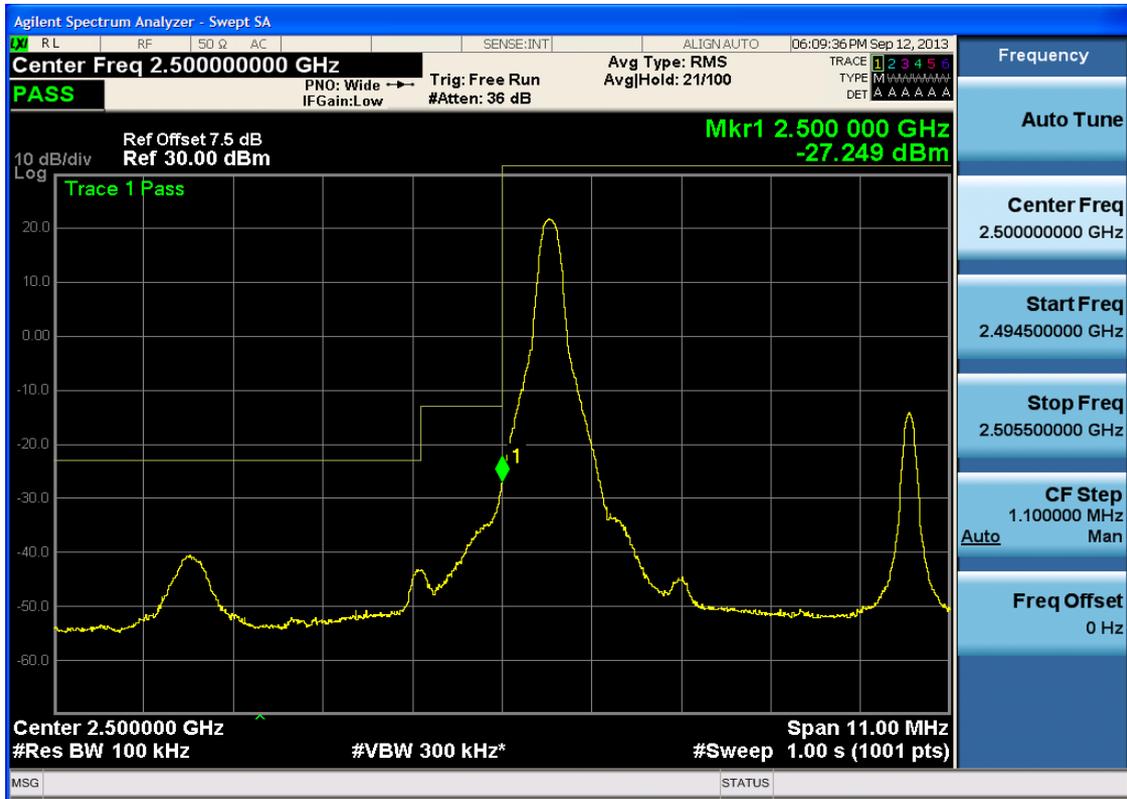
5.2.1.1.1.2.4 Test RB = RB25#0



5.2.1.1.2 Test Bandwidth = 10

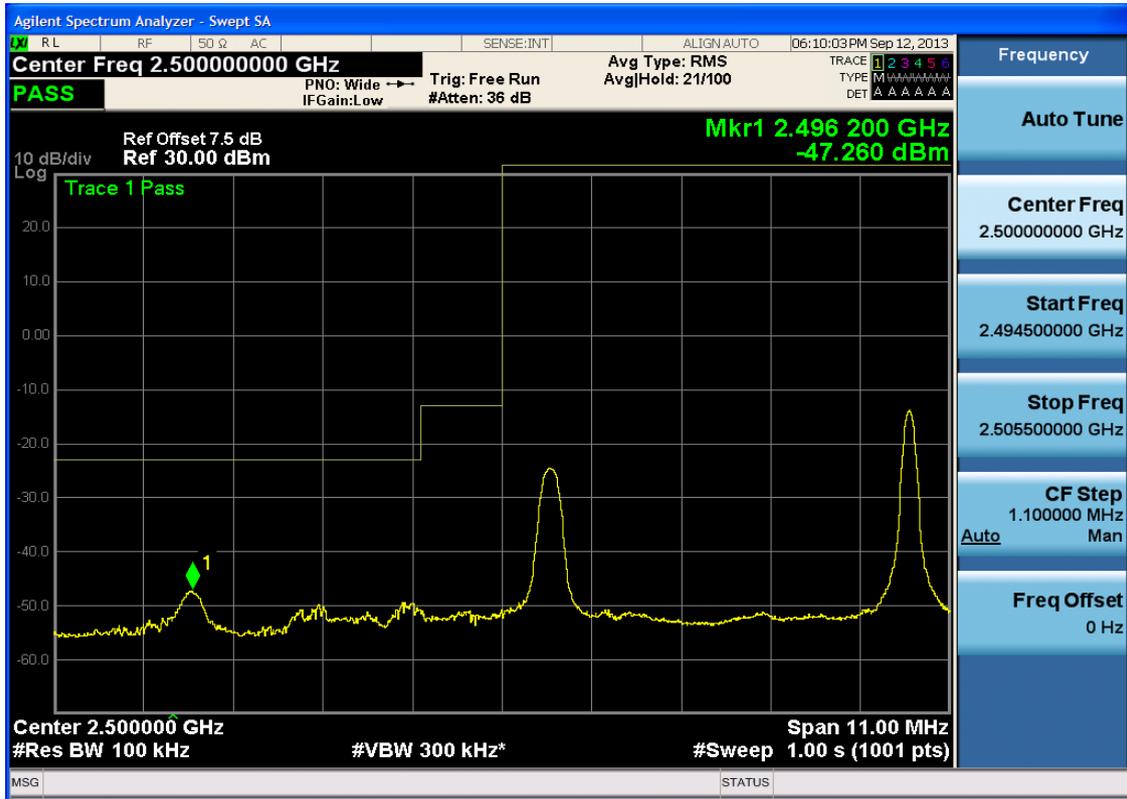
5.2.1.1.2.1 Test Channel = LCH

5.2.1.1.2.1.1 Test RB = RB1#0





5.2.1.1.2.1.2 Test RB = RB1#49



5.2.1.1.2.1.3 Test RB = RB25#13



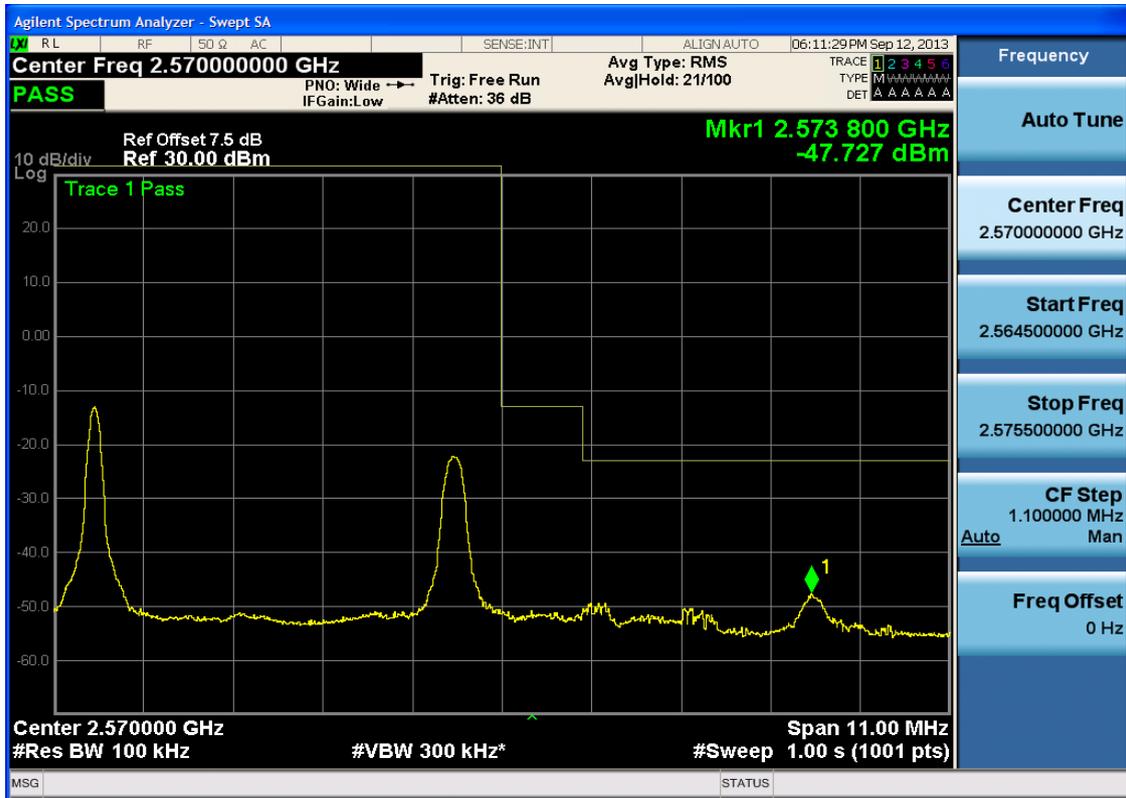


5.2.1.1.2.1.4 Test RB = RB50#0



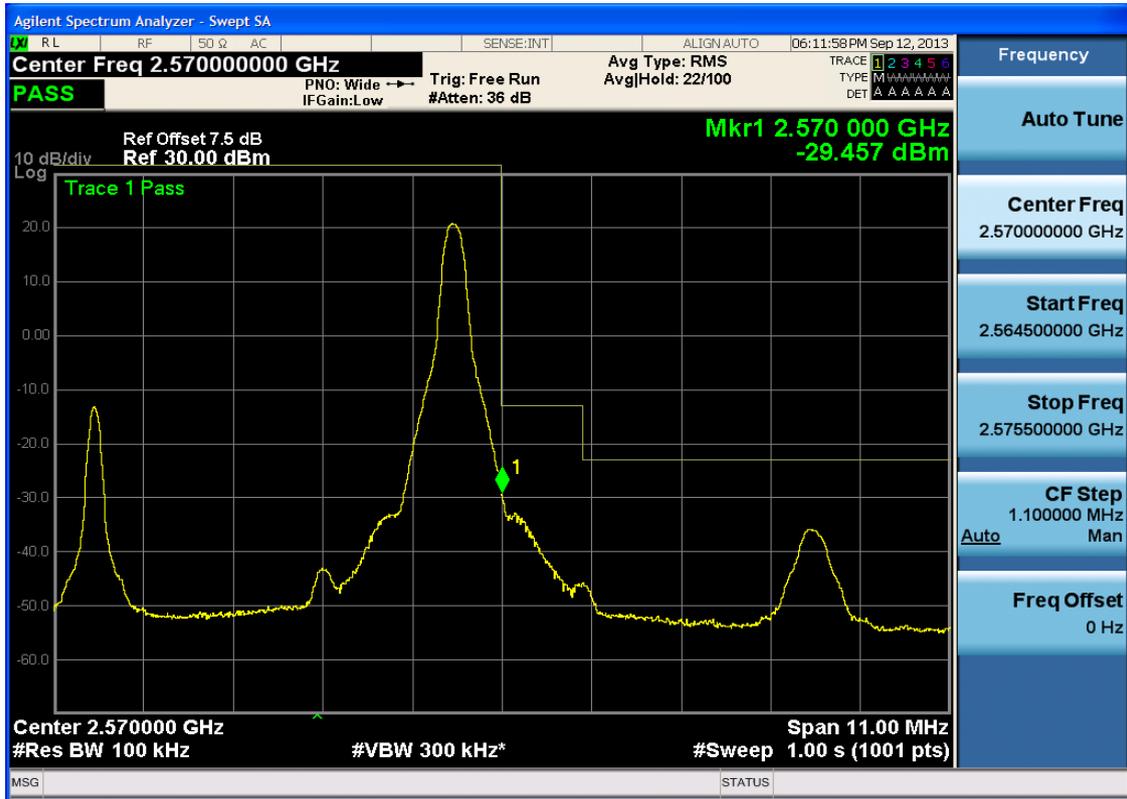
5.2.1.1.2.2 Test Channel = HCH

5.2.1.1.2.2.1 Test RB = RB1#0





5.2.1.1.2.2 Test RB = RB1#49



5.2.1.1.2.2.3 Test RB = RB25#13



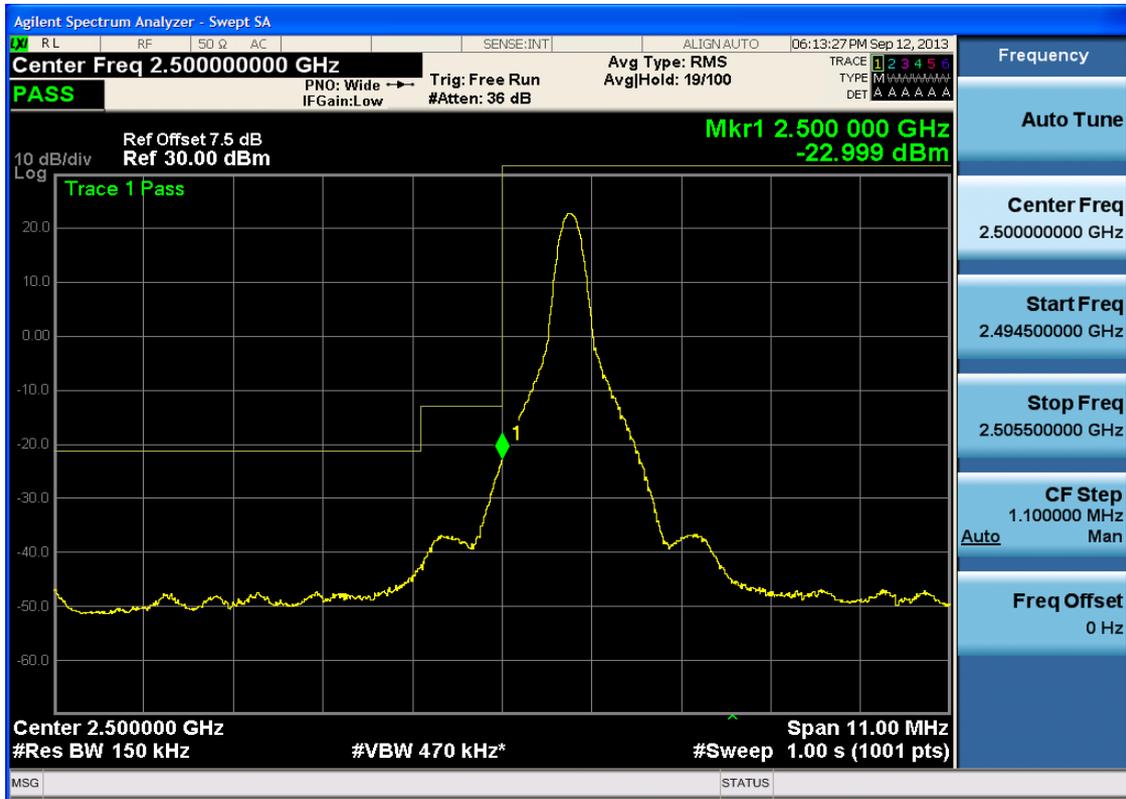
5.2.1.1.2.2.4 Test RB = RB50#0



5.2.1.1.3 Test Bandwidth = 15

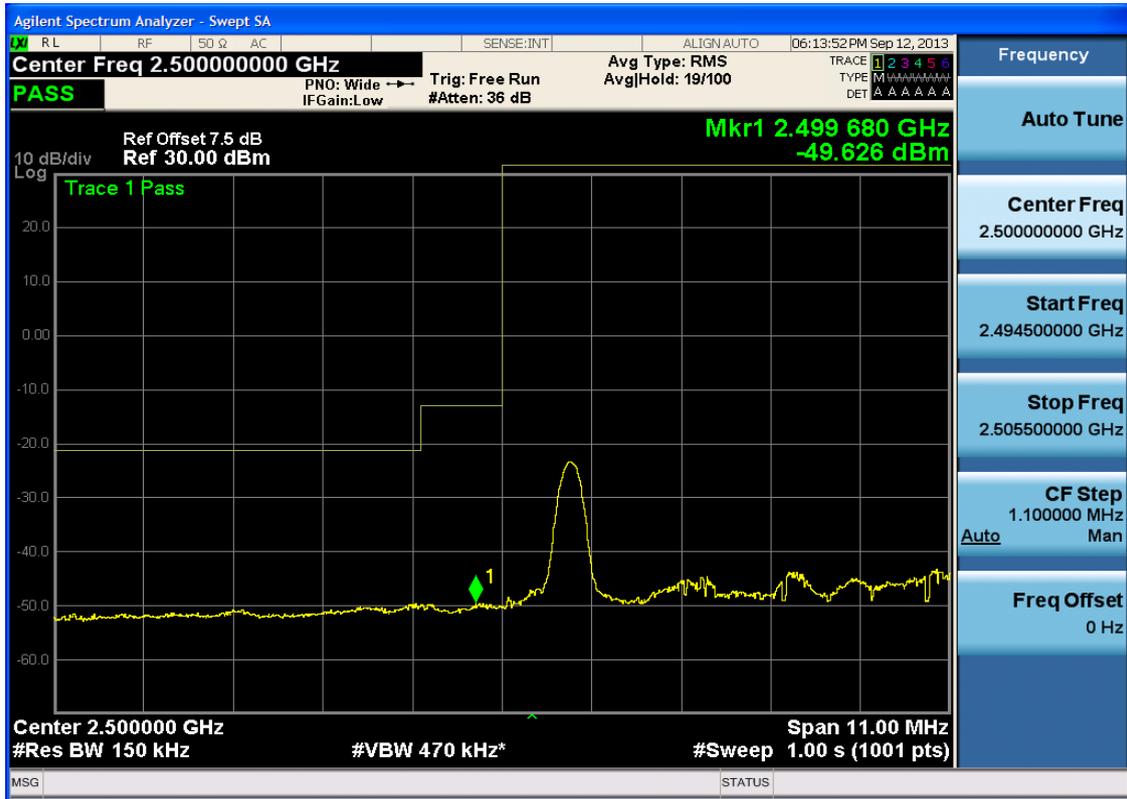
5.2.1.1.3.1 Test Channel = LCH

5.2.1.1.3.1.1 Test RB = RB1#0





5.2.1.1.3.1.2 Test RB = RB1#74



5.2.1.1.3.1.3 Test RB = RB36#18

