



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
BAND5	LTE/TM1	1.4	LCH	RB1#0	23.91	17.06	38.5	PASS
				RB1#3	23.95	17.1	38.5	PASS
				RB1#5	23.95	17.1	38.5	PASS
				RB3#0	23.96	17.11	38.5	PASS
				RB3#2	23.96	17.11	38.5	PASS
				RB3#3	23.96	17.11	38.5	PASS
				RB6#0	23.03	16.18	38.5	PASS
			MCH	RB1#0	23.87	17.02	38.5	PASS
				RB1#3	23.88	17.03	38.5	PASS
				RB1#5	23.84	16.99	38.5	PASS
				RB3#0	23.94	17.09	38.5	PASS
				RB3#2	23.9	17.05	38.5	PASS
				RB3#3	23.88	17.03	38.5	PASS
				RB6#0	22.93	16.08	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	24.12	17.27	38.5	PASS
				RB1#3	24.16	17.31	38.5	PASS
				RB1#5	24.03	17.18	38.5	PASS
				RB3#0	24.12	17.27	38.5	PASS
				RB3#2	24.09	17.24	38.5	PASS
				RB3#3	23.99	17.14	38.5	PASS
				RB6#0	23.03	16.18	38.5	PASS
		3	LCH	RB1#0	23.85	17	38.5	PASS
				RB1#7	24.08	17.23	38.5	PASS
				RB1#14	23.71	16.86	38.5	PASS
				RB8#0	23.03	16.18	38.5	PASS
				RB8#4	23.06	16.21	38.5	PASS
				RB8#7	22.94	16.09	38.5	PASS
				RB15#0	22.99	16.14	38.5	PASS
			MCH	RB1#0	23.74	16.89	38.5	PASS
				RB1#7	23.97	17.12	38.5	PASS
				RB1#14	23.73	16.88	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB8#0	22.97	16.12	38.5	PASS
				RB8#4	22.91	16.06	38.5	PASS
				RB8#7	22.88	16.03	38.5	PASS
				RB15#0	22.88	16.03	38.5	PASS
			HCH	RB1#0	23.89	17.04	38.5	PASS
				RB1#7	24.21	17.36	38.5	PASS
				RB1#14	23.84	16.99	38.5	PASS
				RB8#0	22.99	16.14	38.5	PASS
				RB8#4	23.05	16.2	38.5	PASS
				RB8#7	22.99	16.14	38.5	PASS
				RB15#0	23	16.15	38.5	PASS
		5	LCH	RB1#0	23.77	16.92	38.5	PASS
				RB1#13	24.02	17.17	38.5	PASS
				RB1#24	23.53	16.68	38.5	PASS
				RB12#0	22.99	16.14	38.5	PASS
				RB12#6	23.02	16.17	38.5	PASS
				RB12#13	22.81	15.96	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#0	22.89	16.04	38.5	PASS
			MCH	RB1#0	23.67	16.82	38.5	PASS
				RB1#13	23.95	17.1	38.5	PASS
				RB1#24	23.57	16.72	38.5	PASS
				RB12#0	22.86	16.01	38.5	PASS
				RB12#6	22.94	16.09	38.5	PASS
				RB12#13	22.79	15.94	38.5	PASS
				RB25#0	22.86	16.01	38.5	PASS
			HCH	RB1#0	23.85	17	38.5	PASS
				RB1#13	24.09	17.24	38.5	PASS
				RB1#24	23.65	16.8	38.5	PASS
				RB12#0	22.94	16.09	38.5	PASS
				RB12#6	23.05	16.2	38.5	PASS
				RB12#13	22.86	16.01	38.5	PASS
				RB25#0	22.93	16.08	38.5	PASS
		10	LCH	RB1#0	22.49	15.64	38.5	PASS
				RB1#25	22.76	15.91	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#49	22.12	15.27	38.5	PASS
				RB25#0	22.79	15.94	38.5	PASS
				RB25#13	22.77	15.92	38.5	PASS
				RB25#25	22.55	15.7	38.5	PASS
				RB50#0	22.69	15.84	38.5	PASS
			MCH	RB1#0	22.16	15.31	38.5	PASS
				RB1#25	22.78	15.93	38.5	PASS
				RB1#49	22.39	15.54	38.5	PASS
				RB25#0	22.73	15.88	38.5	PASS
				RB25#13	22.86	16.01	38.5	PASS
				RB25#25	22.7	15.85	38.5	PASS
				RB50#0	22.74	15.89	38.5	PASS
			HCH	RB1#0	22.59	15.74	38.5	PASS
				RB1#25	23.08	16.23	38.5	PASS
				RB1#49	22.58	15.73	38.5	PASS
				RB25#0	22.92	16.07	38.5	PASS
				RB25#13	22.94	16.09	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#25	22.77	15.92	38.5	PASS
				RB50#0	22.88	16.03	38.5	PASS
	LTE/TM2	1.4	LCH	RB1#0	23.11	16.26	38.5	PASS
				RB1#3	23.22	16.37	38.5	PASS
				RB1#5	22.93	16.08	38.5	PASS
				RB3#0	23.07	16.22	38.5	PASS
				RB3#2	23.09	16.24	38.5	PASS
				RB3#3	23.05	16.2	38.5	PASS
				RB6#0	22.01	15.16	38.5	PASS
			MCH	RB1#0	23.11	16.26	38.5	PASS
				RB1#3	23.13	16.28	38.5	PASS
				RB1#5	23.03	16.18	38.5	PASS
				RB3#0	22.98	16.13	38.5	PASS
				RB3#2	22.91	16.06	38.5	PASS
				RB3#3	22.93	16.08	38.5	PASS
				RB6#0	22.01	15.16	38.5	PASS
			HCH	RB1#0	23.21	16.36	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#3	23.27	16.42	38.5	PASS
				RB1#5	23.13	16.28	38.5	PASS
				RB3#0	23.12	16.27	38.5	PASS
				RB3#2	23.1	16.25	38.5	PASS
				RB3#3	22.91	16.06	38.5	PASS
				RB6#0	22.08	15.23	38.5	PASS
		3	LCH	RB1#0	22.91	16.06	38.5	PASS
				RB1#7	23.03	16.18	38.5	PASS
				RB1#14	22.63	15.78	38.5	PASS
				RB8#0	22.01	15.16	38.5	PASS
				RB8#4	22	15.15	38.5	PASS
				RB8#7	21.89	15.04	38.5	PASS
				RB15#0	21.9	15.05	38.5	PASS
			MCH	RB1#0	22.71	15.86	38.5	PASS
				RB1#7	22.9	16.05	38.5	PASS
				RB1#14	22.58	15.73	38.5	PASS
				RB8#0	21.95	15.1	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB8#4	22.01	15.16	38.5	PASS
				RB8#7	21.99	15.14	38.5	PASS
				RB15#0	21.96	15.11	38.5	PASS
			HCH	RB1#0	22.93	16.08	38.5	PASS
				RB1#7	23.22	16.37	38.5	PASS
				RB1#14	22.9	16.05	38.5	PASS
				RB8#0	21.95	15.1	38.5	PASS
				RB8#4	22	15.15	38.5	PASS
				RB8#7	21.94	15.09	38.5	PASS
				RB15#0	22.05	15.2	38.5	PASS
		5	LCH	RB1#0	22.73	15.88	38.5	PASS
				RB1#13	22.93	16.08	38.5	PASS
				RB1#24	22.52	15.67	38.5	PASS
				RB12#0	21.99	15.14	38.5	PASS
				RB12#6	22.04	15.19	38.5	PASS
				RB12#13	21.83	14.98	38.5	PASS
				RB25#0	21.78	14.93	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
			MCH	RB1#0	22.76	15.91	38.5	PASS
				RB1#13	23.01	16.16	38.5	PASS
				RB1#24	22.59	15.74	38.5	PASS
				RB12#0	21.88	15.03	38.5	PASS
				RB12#6	22.09	15.24	38.5	PASS
				RB12#13	21.94	15.09	38.5	PASS
				RB25#0	21.96	15.11	38.5	PASS
			HCH	RB1#0	23.11	16.26	38.5	PASS
				RB1#13	23.38	16.53	38.5	PASS
				RB1#24	22.91	16.06	38.5	PASS
				RB12#0	21.93	15.08	38.5	PASS
				RB12#6	22.05	15.2	38.5	PASS
				RB12#13	21.87	15.02	38.5	PASS
				RB25#0	21.9	15.05	38.5	PASS
		10	LCH	RB1#0	22.51	15.66	38.5	PASS
				RB1#25	22.89	16.04	38.5	PASS
				RB1#49	22.24	15.39	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.7	14.85	38.5	PASS
				RB25#13	21.71	14.86	38.5	PASS
				RB25#25	21.51	14.66	38.5	PASS
				RB50#0	21.67	14.82	38.5	PASS
			MCH	RB1#0	22.14	15.29	38.5	PASS
				RB1#25	22.73	15.88	38.5	PASS
				RB1#49	22.36	15.51	38.5	PASS
				RB25#0	21.71	14.86	38.5	PASS
				RB25#13	21.96	15.11	38.5	PASS
				RB25#25	21.78	14.93	38.5	PASS
				RB50#0	21.85	15	38.5	PASS
			HCH	RB1#0	22.66	15.81	38.5	PASS
				RB1#25	23.19	16.34	38.5	PASS
				RB1#49	22.71	15.86	38.5	PASS
				RB25#0	21.88	15.03	38.5	PASS
				RB25#13	21.91	15.06	38.5	PASS
				RB25#25	21.75	14.9	38.5	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB50#0	21.86	15.01	38.5	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:

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

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

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

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

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
BAND5	LTE/TM1	1.4	LCH	RB1#0	4.11	13	PASS
				RB1#3	3.9	13	PASS
				RB1#5	3.96	13	PASS
				RB3#0	4.28	13	PASS
				RB3#2	4.23	13	PASS
				RB3#3	4.35	13	PASS
				RB6#0	5.14	13	PASS
			MCH	RB1#0	3.88	13	PASS
				RB1#3	3.7	13	PASS
				RB1#5	3.76	13	PASS
				RB3#0	4.11	13	PASS
				RB3#2	3.95	13	PASS
				RB3#3	3.99	13	PASS
				RB6#0	5.22	13	PASS
			HCH	RB1#0	4.08	13	PASS
				RB1#3	3.94	13	PASS
				RB1#5	3.95	13	PASS
				RB3#0	4.68	13	PASS
				RB3#2	4.53	13	PASS
				RB3#3	4.6	13	PASS
				RB6#0	5.4	13	PASS
		3	LCH	RB1#0	4.1	13	PASS
				RB1#7	4.01	13	PASS
				RB1#14	4.34	13	PASS
				RB8#0	4.91	13	PASS
				RB8#4	4.94	13	PASS
				RB8#7	5	13	PASS
				RB15#0	5.45	13	PASS
			MCH	RB1#0	4.06	13	PASS
				RB1#7	3.58	13	PASS
				RB1#14	3.75	13	PASS
				RB8#0	4.91	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB8#4	4.81	13	PASS
				RB8#7	4.77	13	PASS
				RB15#0	5.42	13	PASS
			HCH	RB1#0	4.41	13	PASS
				RB1#7	4.08	13	PASS
				RB1#14	3.98	13	PASS
				RB8#0	5.59	13	PASS
				RB8#4	5.35	13	PASS
				RB8#7	5.33	13	PASS
				RB15#0	5.68	13	PASS
		5	LCH	RB1#0	4.17	13	PASS
				RB1#13	4.2	13	PASS
				RB1#24	4.75	13	PASS
				RB12#0	5.11	13	PASS
				RB12#6	5.03	13	PASS
				RB12#13	5.41	13	PASS
				RB25#0	5.56	13	PASS
			MCH	RB1#0	4.42	13	PASS
				RB1#13	3.72	13	PASS
				RB1#24	3.88	13	PASS
				RB12#0	5.11	13	PASS
				RB12#6	4.81	13	PASS
				RB12#13	4.85	13	PASS
				RB25#0	5.48	13	PASS
			HCH	RB1#0	4.47	13	PASS
				RB1#13	4.58	13	PASS
				RB1#24	4.42	13	PASS
				RB12#0	5.59	13	PASS
				RB12#6	5.57	13	PASS
				RB12#13	5.5	13	PASS
				RB25#0	5.92	13	PASS
		10	LCH	RB1#0	4.63	13	PASS
				RB1#25	4.86	13	PASS
				RB1#49	4.81	13	PASS
				RB25#0	5.41	13	PASS
				RB25#13	5.66	13	PASS
				RB25#25	5.86	13	PASS
				RB50#0	5.75	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			MCH	RB1#0	5.21	13	PASS
				RB1#25	4.42	13	PASS
				RB1#49	4.53	13	PASS
				RB25#0	5.45	13	PASS
				RB25#13	5.01	13	PASS
				RB25#25	5.18	13	PASS
				RB50#0	5.59	13	PASS
			HCH	RB1#0	4.4	13	PASS
				RB1#25	4.63	13	PASS
				RB1#49	4.79	13	PASS
				RB25#0	5.27	13	PASS
				RB25#13	5.53	13	PASS
				RB25#25	5.77	13	PASS
				RB50#0	5.69	13	PASS
	LTE/TM2	1.4	LCH	RB1#0	4.63	13	PASS
				RB1#3	4.78	13	PASS
				RB1#5	4.72	13	PASS
				RB3#0	4.83	13	PASS
				RB3#2	4.81	13	PASS
				RB3#3	4.93	13	PASS
				RB6#0	6	13	PASS
			MCH	RB1#0	4.63	13	PASS
				RB1#3	4.67	13	PASS
				RB1#5	4.62	13	PASS
				RB3#0	4.91	13	PASS
				RB3#2	4.72	13	PASS
				RB3#3	4.85	13	PASS
				RB6#0	6.02	13	PASS
			HCH	RB1#0	4.91	13	PASS
				RB1#3	4.81	13	PASS
				RB1#5	4.65	13	PASS
				RB3#0	5.2	13	PASS
				RB3#2	5.11	13	PASS
				RB3#3	5.11	13	PASS
				RB6#0	6.06	13	PASS
		3	LCH	RB1#0	4.98	13	PASS
				RB1#7	4.53	13	PASS
				RB1#14	5.21	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB8#0	5.54	13	PASS
				RB8#4	5.71	13	PASS
				RB8#7	5.78	13	PASS
				RB15#0	6.08	13	PASS
			MCH	RB1#0	4.71	13	PASS
				RB1#7	4.43	13	PASS
				RB1#14	4.63	13	PASS
				RB8#0	5.43	13	PASS
				RB8#4	5.64	13	PASS
				RB8#7	5.67	13	PASS
				RB15#0	5.98	13	PASS
			HCH	RB1#0	5.38	13	PASS
				RB1#7	5.06	13	PASS
				RB1#14	4.98	13	PASS
				RB8#0	5.99	13	PASS
				RB8#4	5.84	13	PASS
				RB8#7	6	13	PASS
				RB15#0	6.12	13	PASS
		5	LCH	RB1#0	4.84	13	PASS
				RB1#13	4.95	13	PASS
				RB1#24	5.35	13	PASS
				RB12#0	5.7	13	PASS
				RB12#6	5.66	13	PASS
				RB12#13	6.01	13	PASS
				RB25#0	6.21	13	PASS
			MCH	RB1#0	4.97	13	PASS
				RB1#13	4.55	13	PASS
				RB1#24	4.87	13	PASS
				RB12#0	5.66	13	PASS
				RB12#6	5.51	13	PASS
				RB12#13	5.51	13	PASS
				RB25#0	6.29	13	PASS
			HCH	RB1#0	5.05	13	PASS
				RB1#13	5.22	13	PASS
				RB1#24	4.97	13	PASS
				RB12#0	6.17	13	PASS
				RB12#6	6.21	13	PASS
				RB12#13	6.08	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	6.46	13	PASS
		10	LCH	RB1#0	5.57	13	PASS
				RB1#25	5.9	13	PASS
				RB1#49	6.04	13	PASS
				RB25#0	6.09	13	PASS
				RB25#13	6.45	13	PASS
				RB25#25	6.48	13	PASS
				RB50#0	6.68	13	PASS
			MCH	RB1#0	5.93	13	PASS
				RB1#25	4.8	13	PASS
				RB1#49	5.08	13	PASS
				RB25#0	6.14	13	PASS
				RB25#13	5.77	13	PASS
				RB25#25	5.69	13	PASS
				RB50#0	6.41	13	PASS
			HCH	RB1#0	5	13	PASS
				RB1#25	5.21	13	PASS
				RB1#49	5.58	13	PASS
				RB25#0	5.78	13	PASS
				RB25#13	6.08	13	PASS
				RB25#25	6.38	13	PASS
				RB50#0	6.38	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

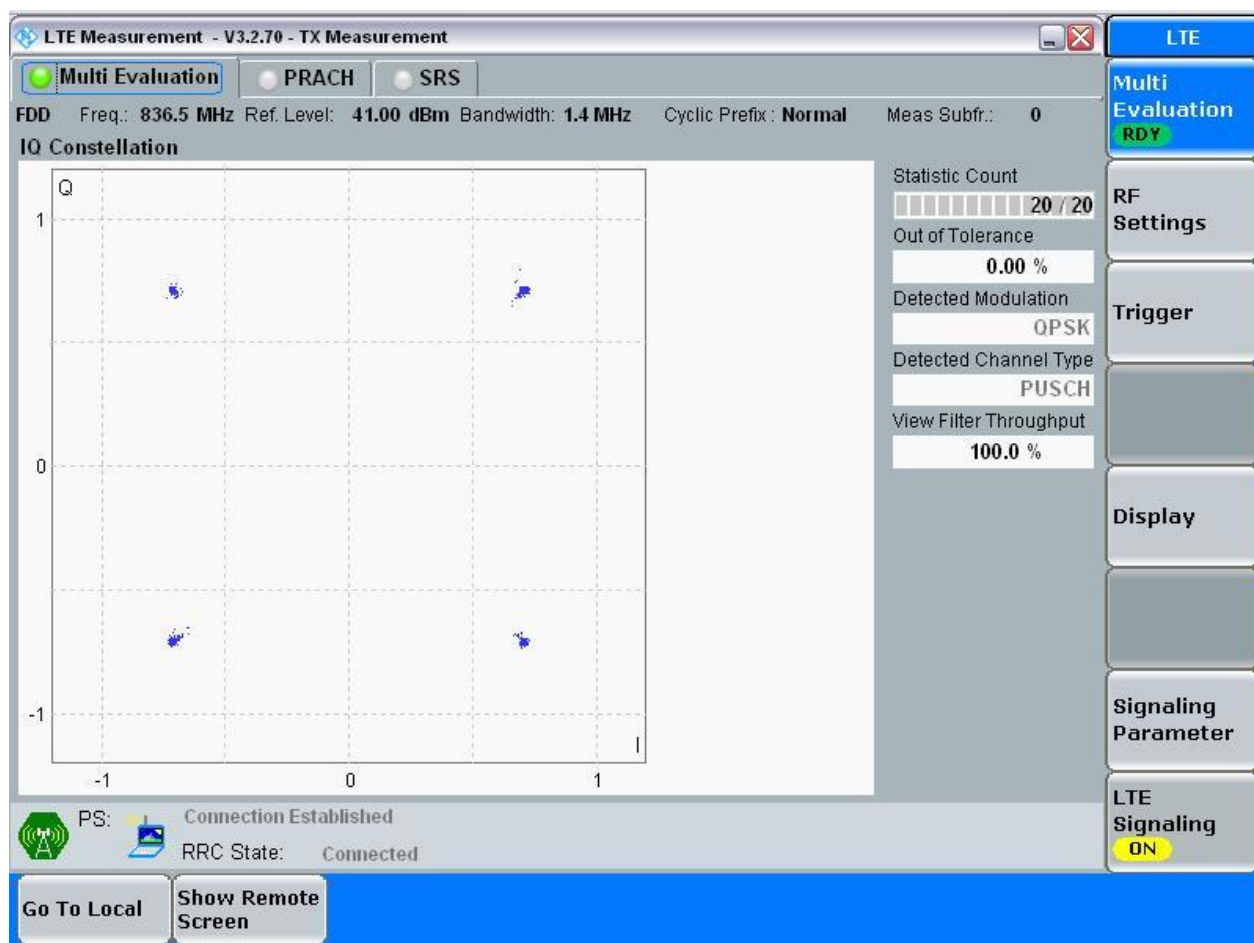
3.1.1 Test Band = BAND5

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

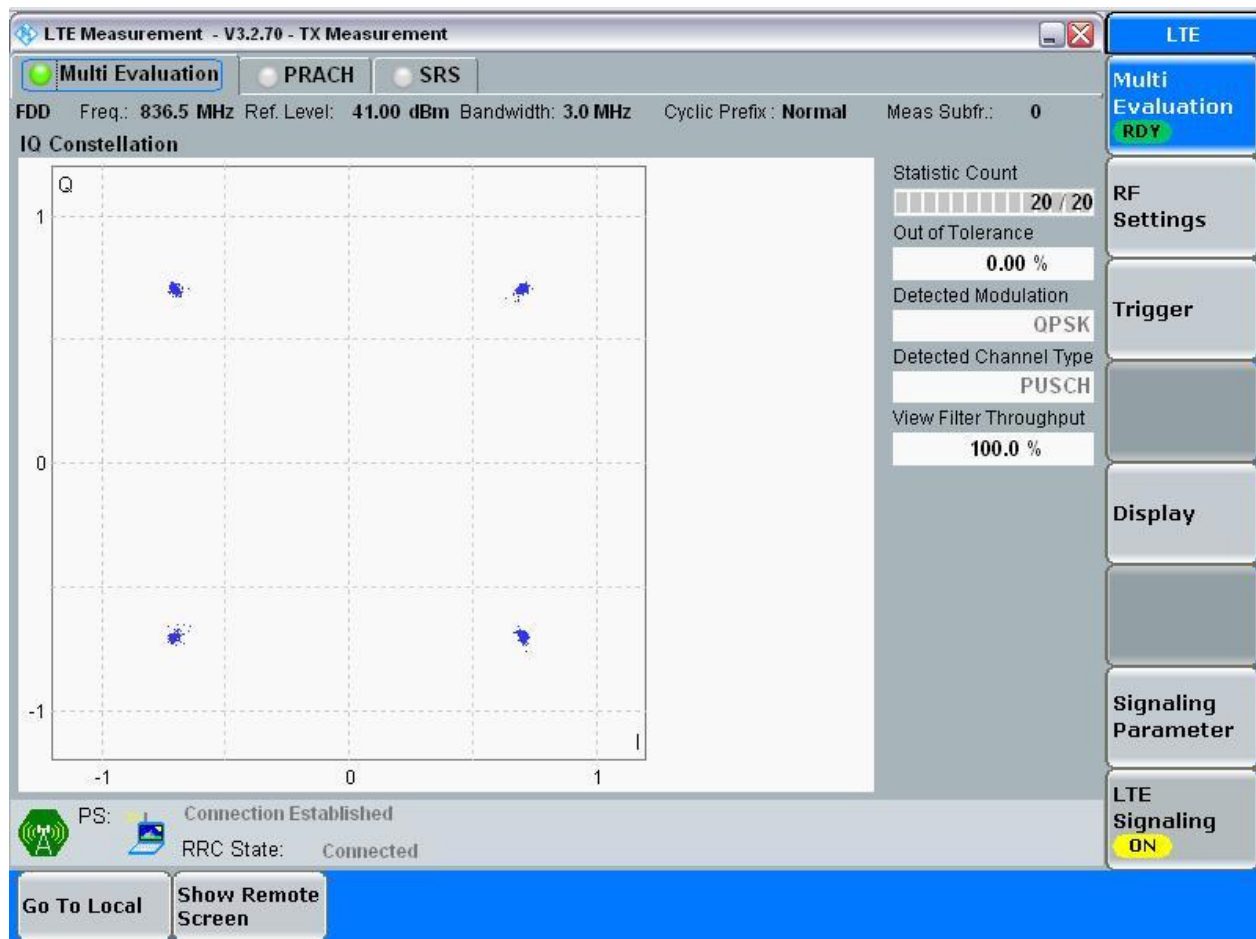
3.1.1.1.1.1.1 Test RB = RB6#0



3.1.1.1.2 Test Bandwidth = 3

3.1.1.1.2.1 Test Channel = MCH

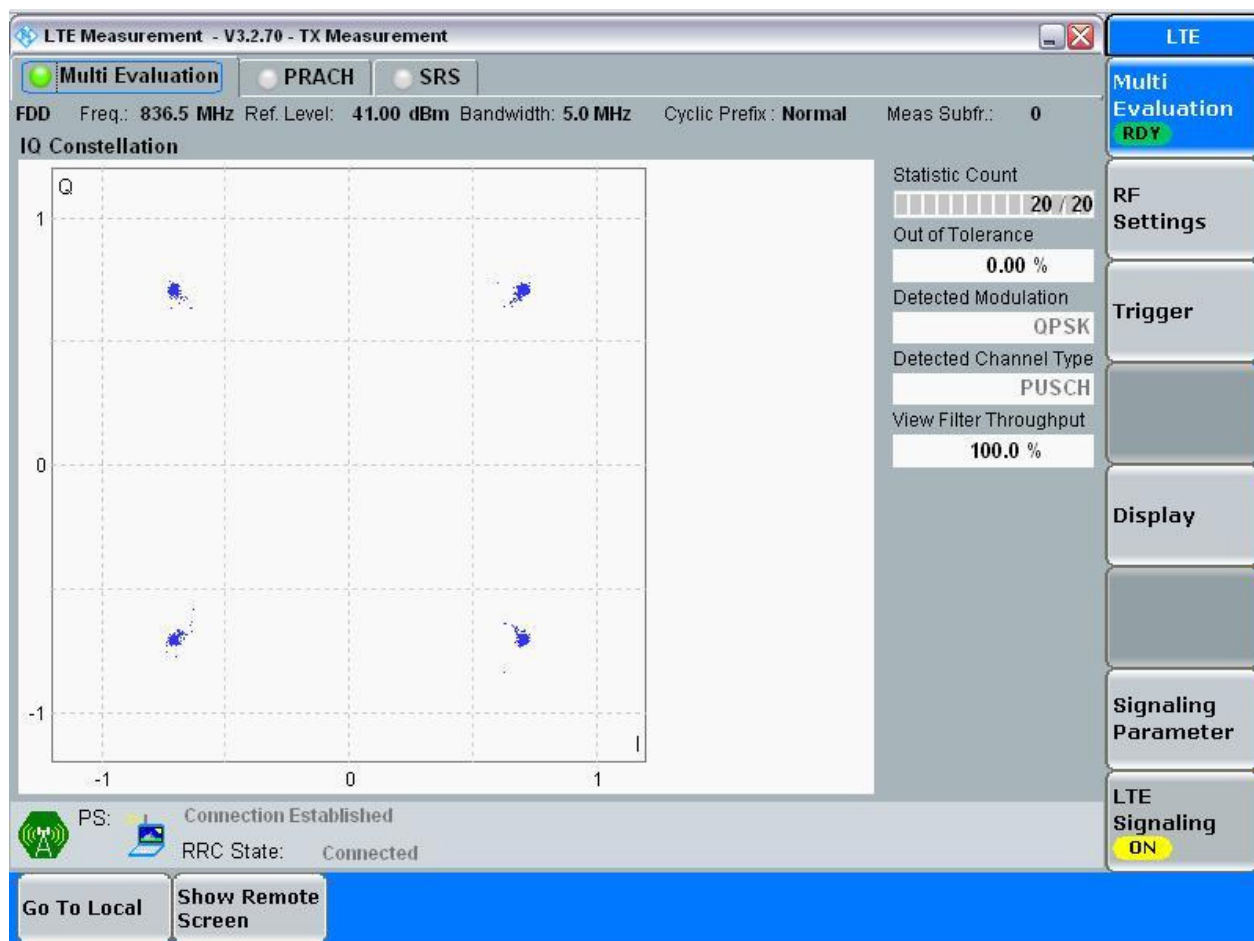
3.1.1.1.2.1.1 Test RB = RB15#0



3.1.1.1.3 Test Bandwidth = 5

3.1.1.1.3.1 Test Channel = MCH

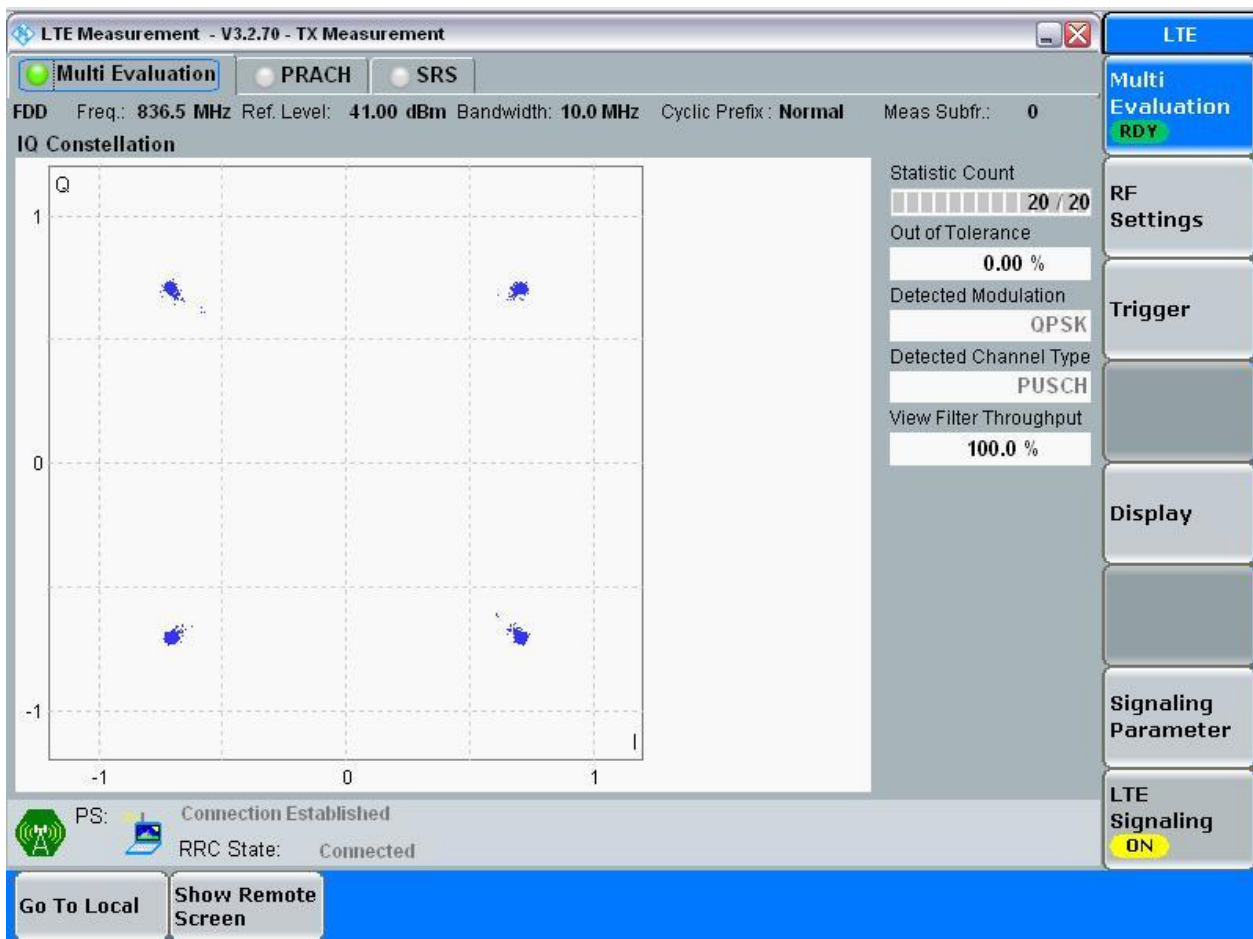
3.1.1.1.3.1.1 Test RB = RB25#0



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

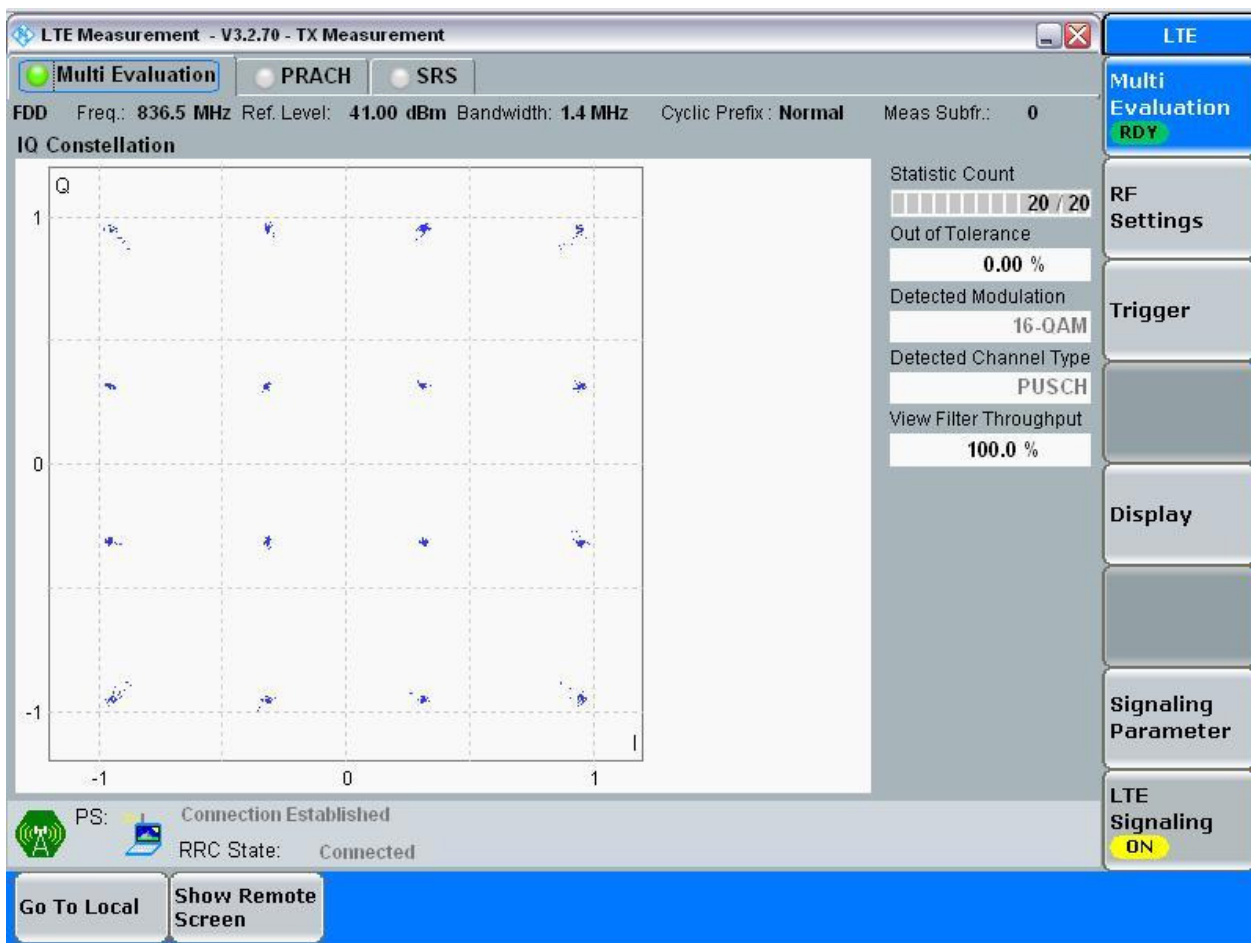


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 1.4

3.1.1.2.1.1 Test Channel = MCH

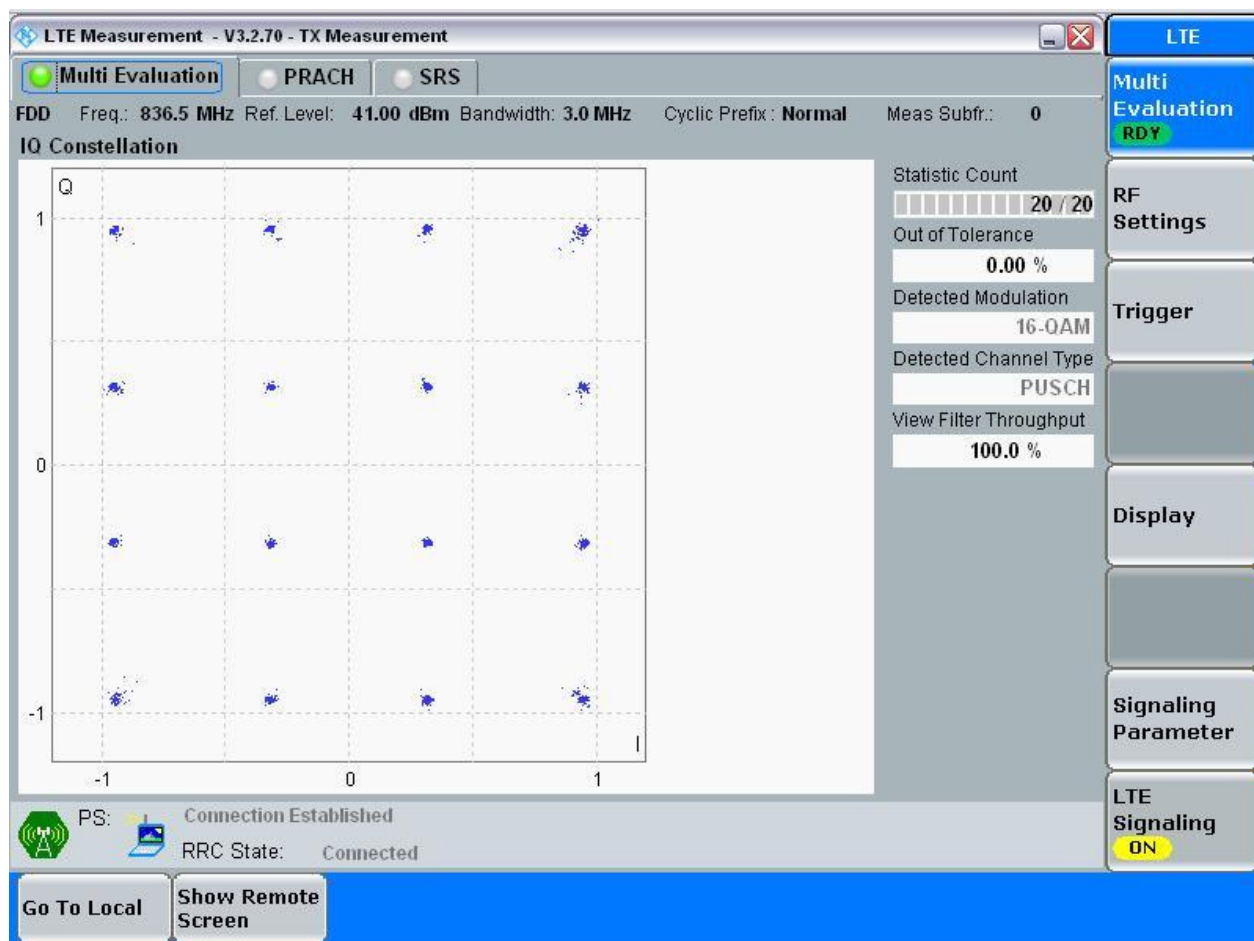
3.1.1.2.1.1.1 Test RB = RB6#0



3.1.1.2.2 Test Bandwidth = 3

3.1.1.2.2.1 Test Channel = MCH

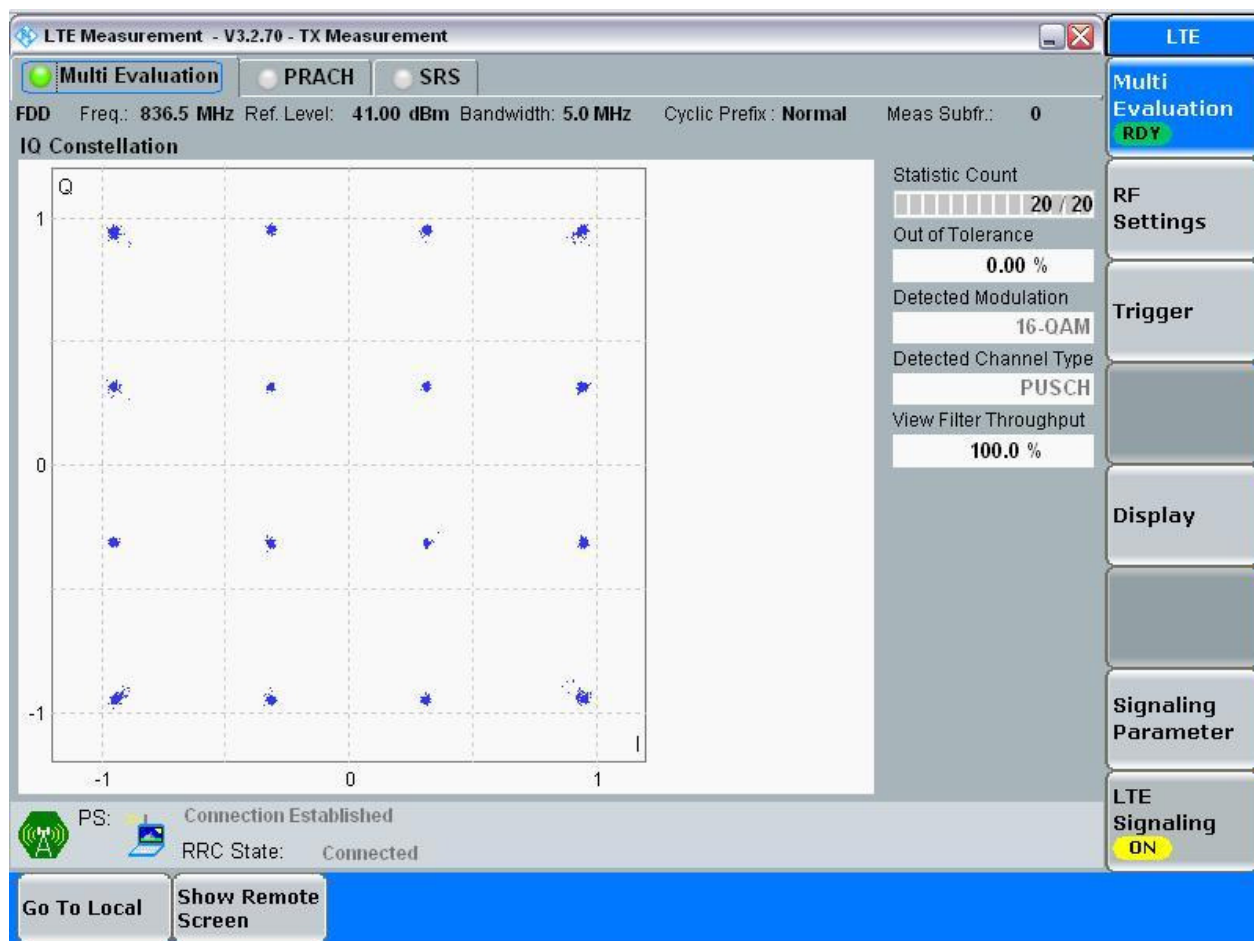
3.1.1.2.2.1.1 Test RB = RB15#0



3.1.1.2.3 Test Bandwidth = 5

3.1.1.2.3.1 Test Channel = MCH

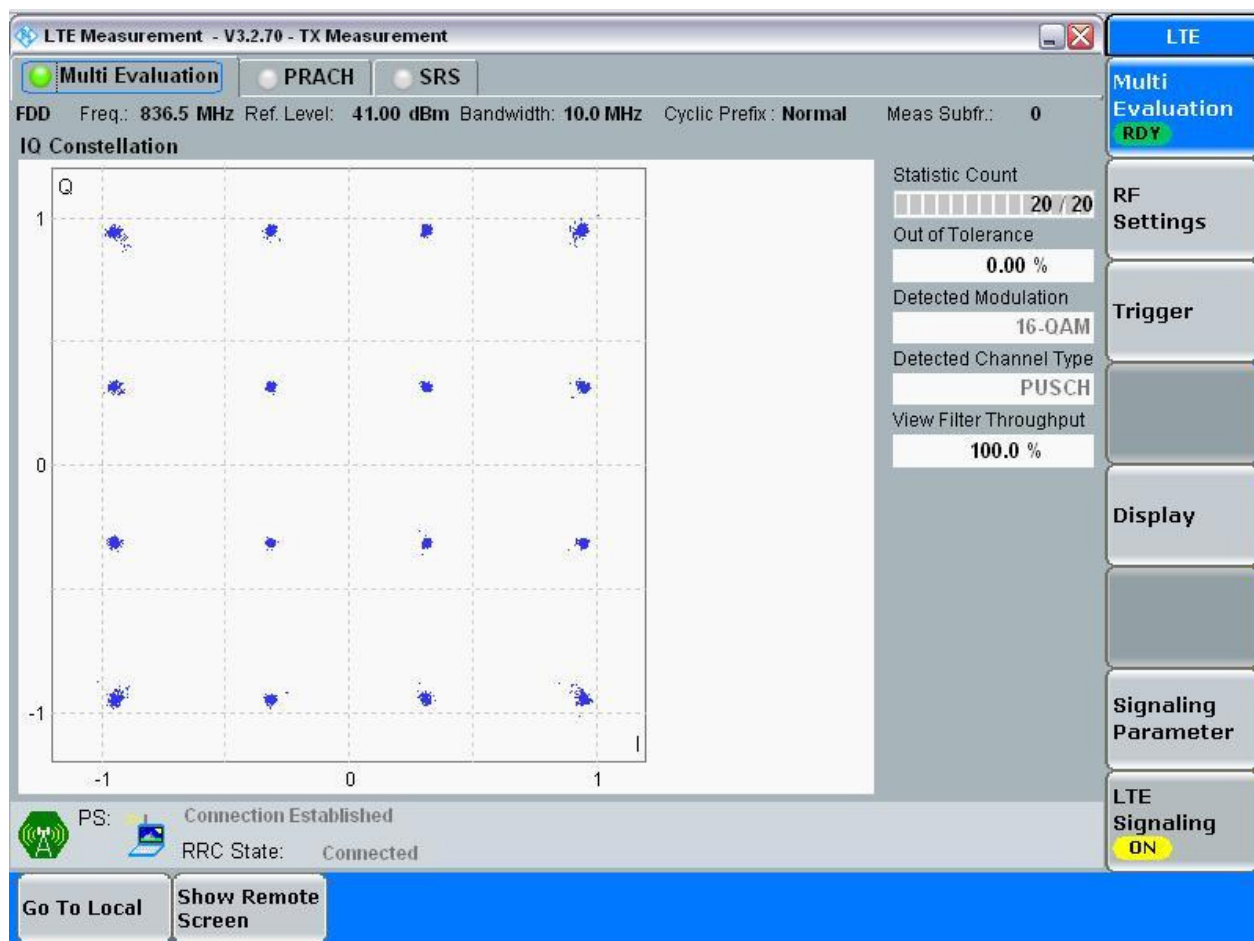
3.1.1.2.3.1.1 Test RB = RB25#0



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
BAND5	LTE/TM1	1.4	LCH	RB6#0	1.10	1.24	Pass
			MCH	RB6#0	1.09	1.24	Pass
			HCH	RB6#0	1.09	1.24	Pass
		3	LCH	RB15#0	2.70	2.97	Pass
			MCH	RB15#0	2.71	2.97	Pass
			HCH	RB15#0	2.71	2.98	Pass
		5	LCH	RB25#0	4.50	4.95	Pass
			MCH	RB25#0	4.51	4.95	Pass
			HCH	RB25#0	4.51	4.96	Pass
		10	LCH	RB50#0	8.97	9.89	Pass
			MCH	RB50#0	8.99	9.88	Pass
			HCH	RB50#0	9.00	9.97	Pass
	LTE/TM2	1.4	LCH	RB6#0	1.10	1.24	Pass
			MCH	RB6#0	1.10	1.24	Pass
			HCH	RB6#0	1.09	1.24	Pass
		3	LCH	RB15#0	2.71	2.98	Pass
			MCH	RB15#0	2.71	2.98	Pass
			HCH	RB15#0	2.71	2.98	Pass
		5	LCH	RB25#0	4.53	4.99	Pass
			MCH	RB25#0	4.51	4.98	Pass
			HCH	RB25#0	4.52	4.98	Pass
		10	LCH	RB50#0	8.98	9.86	Pass
			MCH	RB50#0	8.99	9.86	Pass
			HCH	RB50#0	9.00	9.95	Pass



Part II - Test Plots

4.1 For LTE

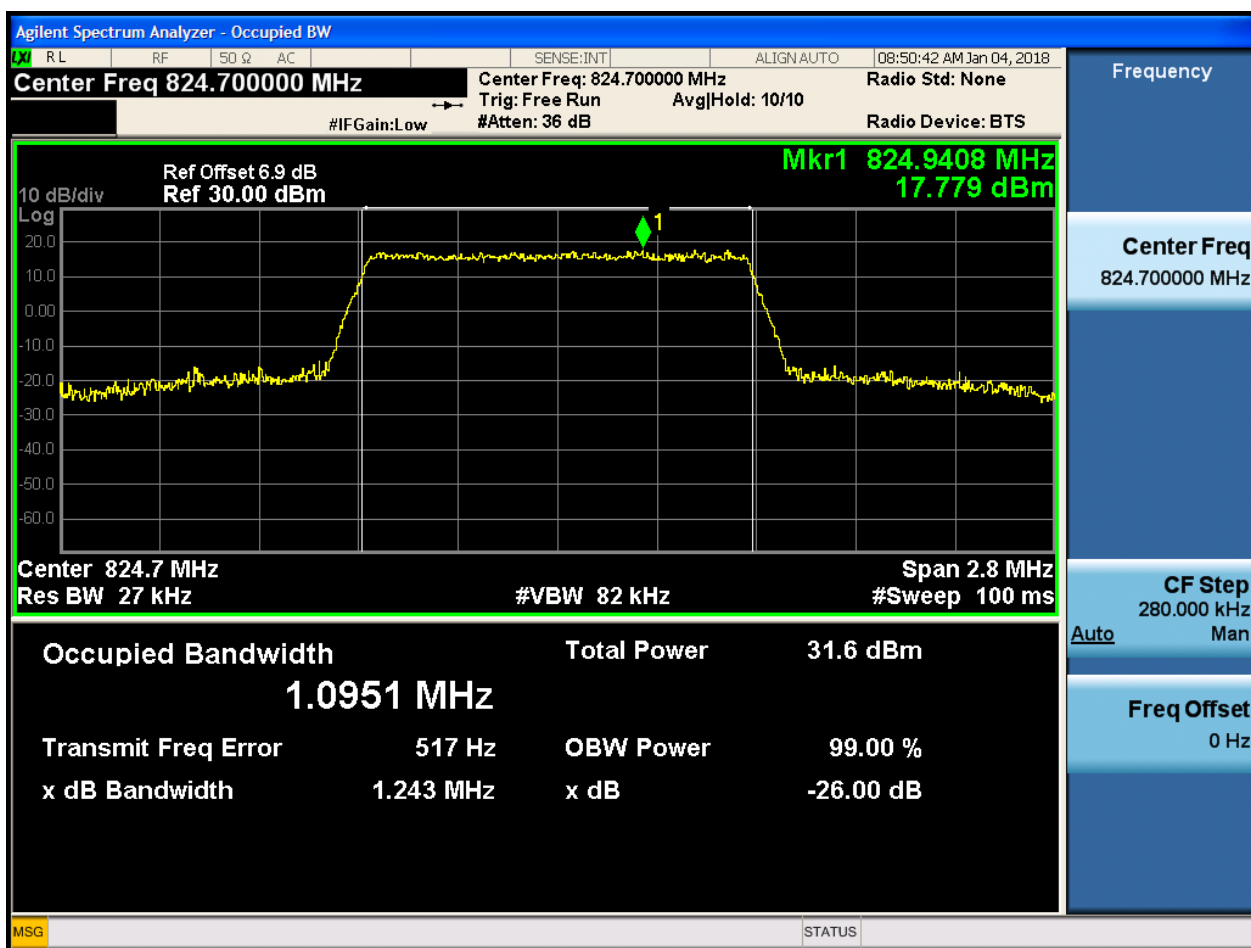
4.1.1 Test Band = BAND5

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

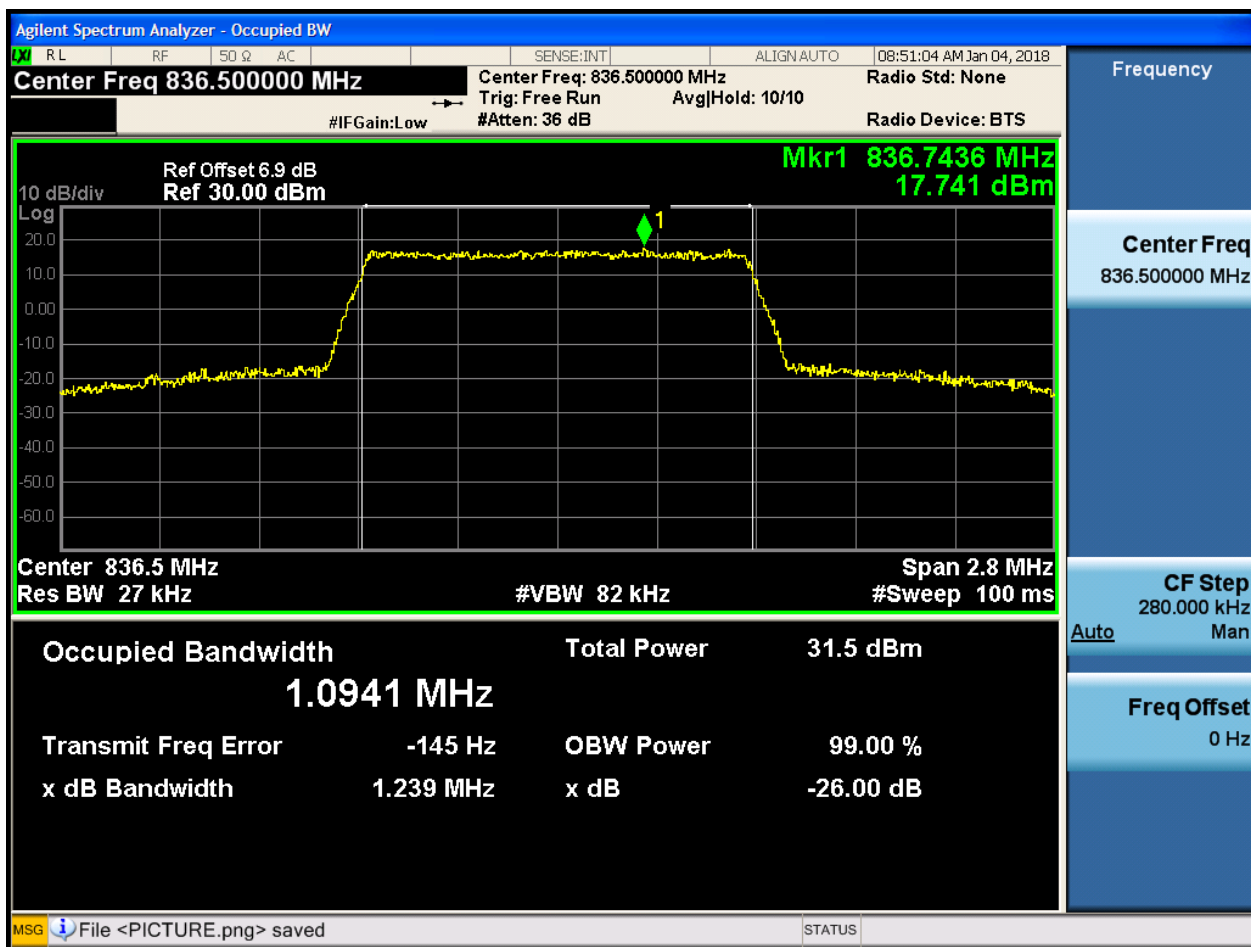
4.1.1.1.1.1.1 Test RB = RB6#0





4.1.1.1.2 Test Channel = MCH

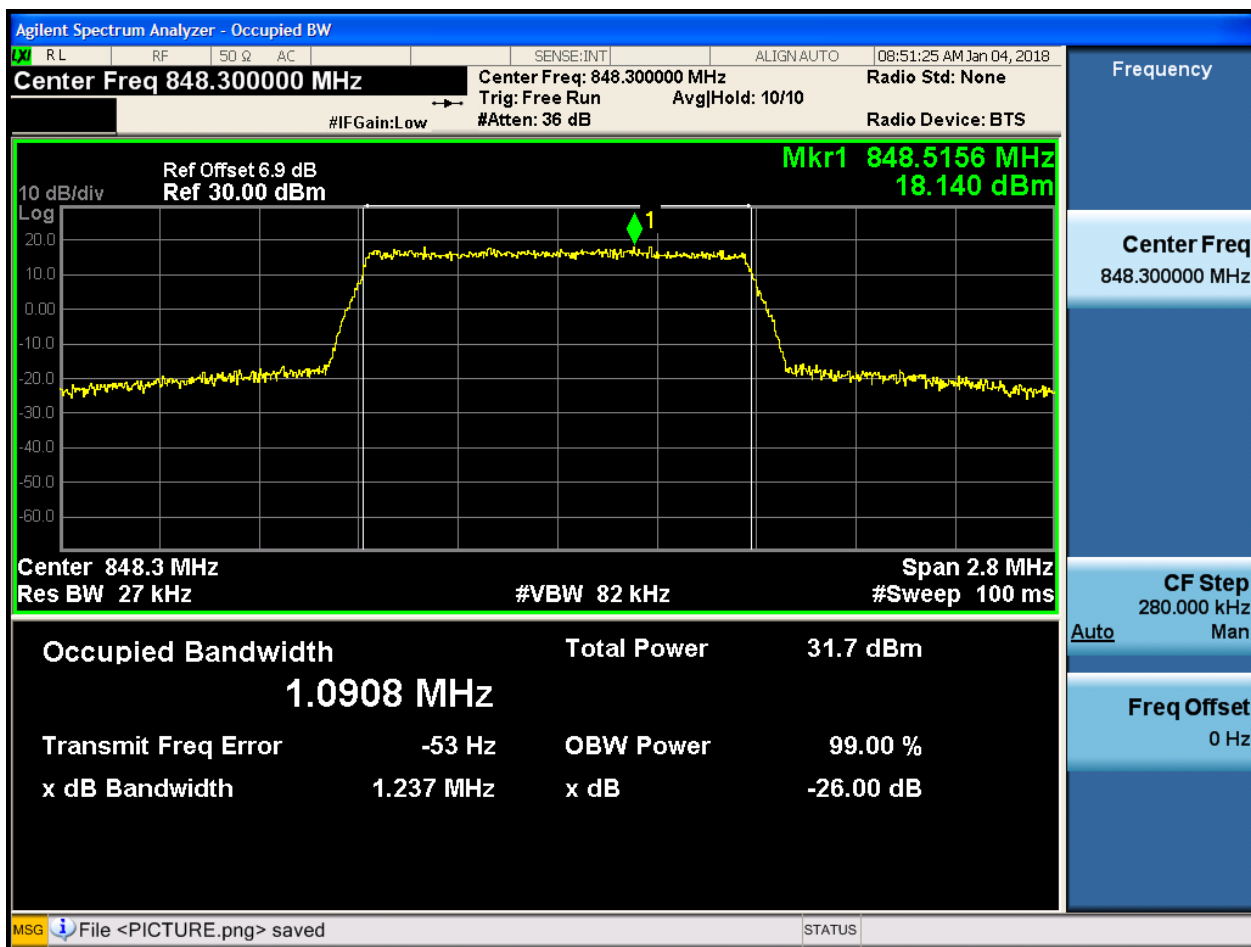
4.1.1.1.2.1 Test RB = RB6#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB6#0

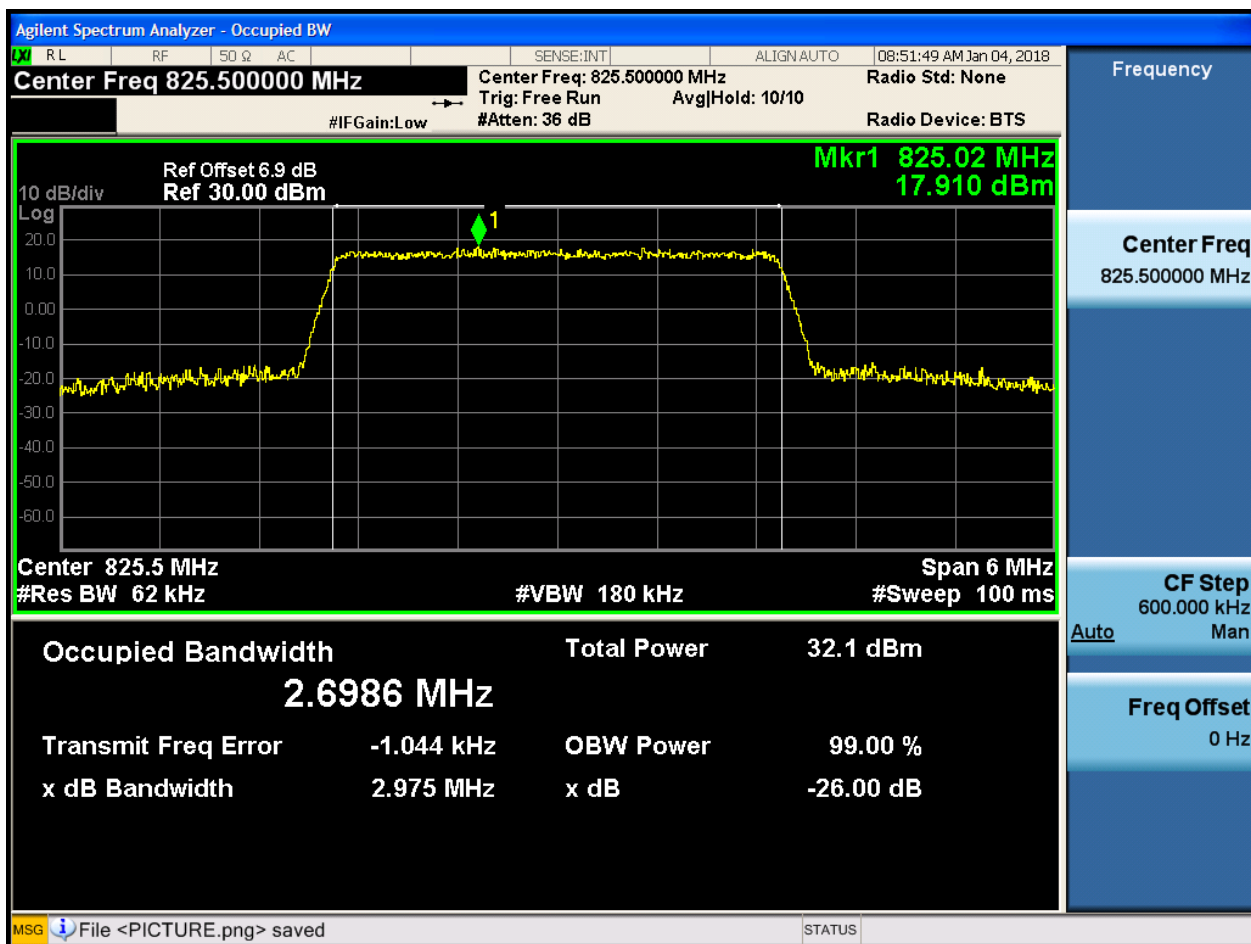




4.1.1.1.2 Test Bandwidth = 3

4.1.1.1.2.1 Test Channel = LCH

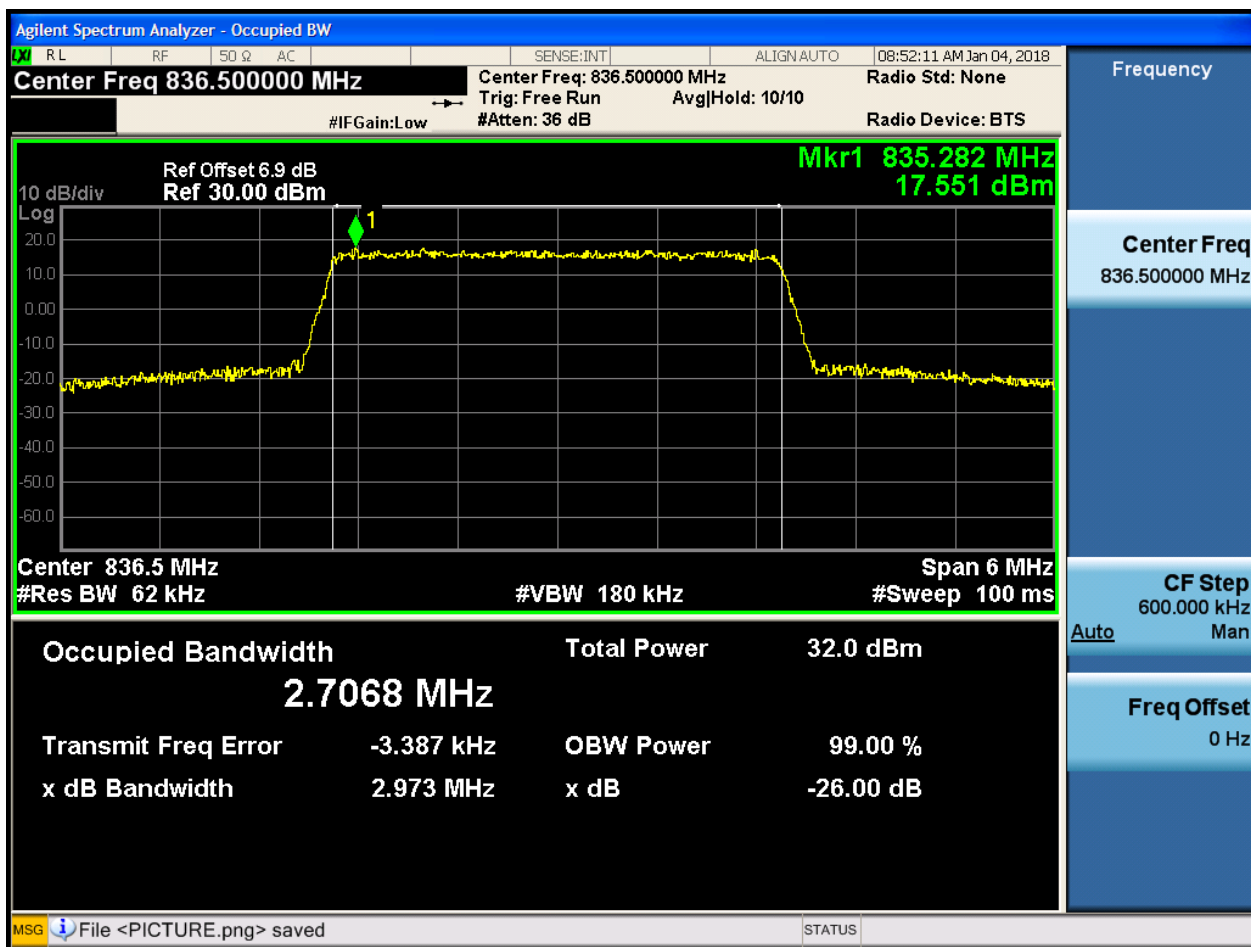
4.1.1.1.2.1.1 Test RB = RB15#0





4.1.1.1.2.2 Test Channel = MCH

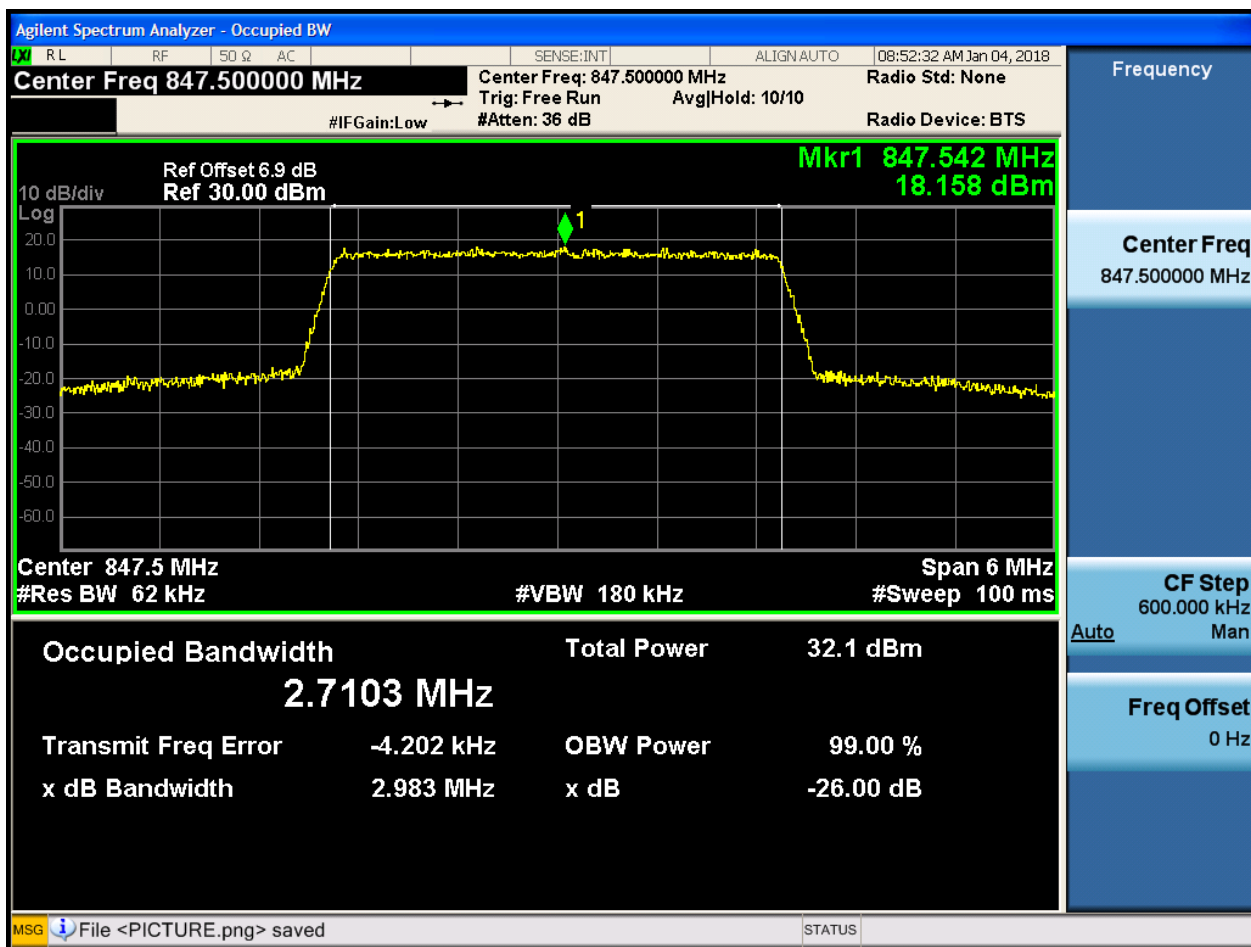
4.1.1.1.2.2.1 Test RB = RB15#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB15#0

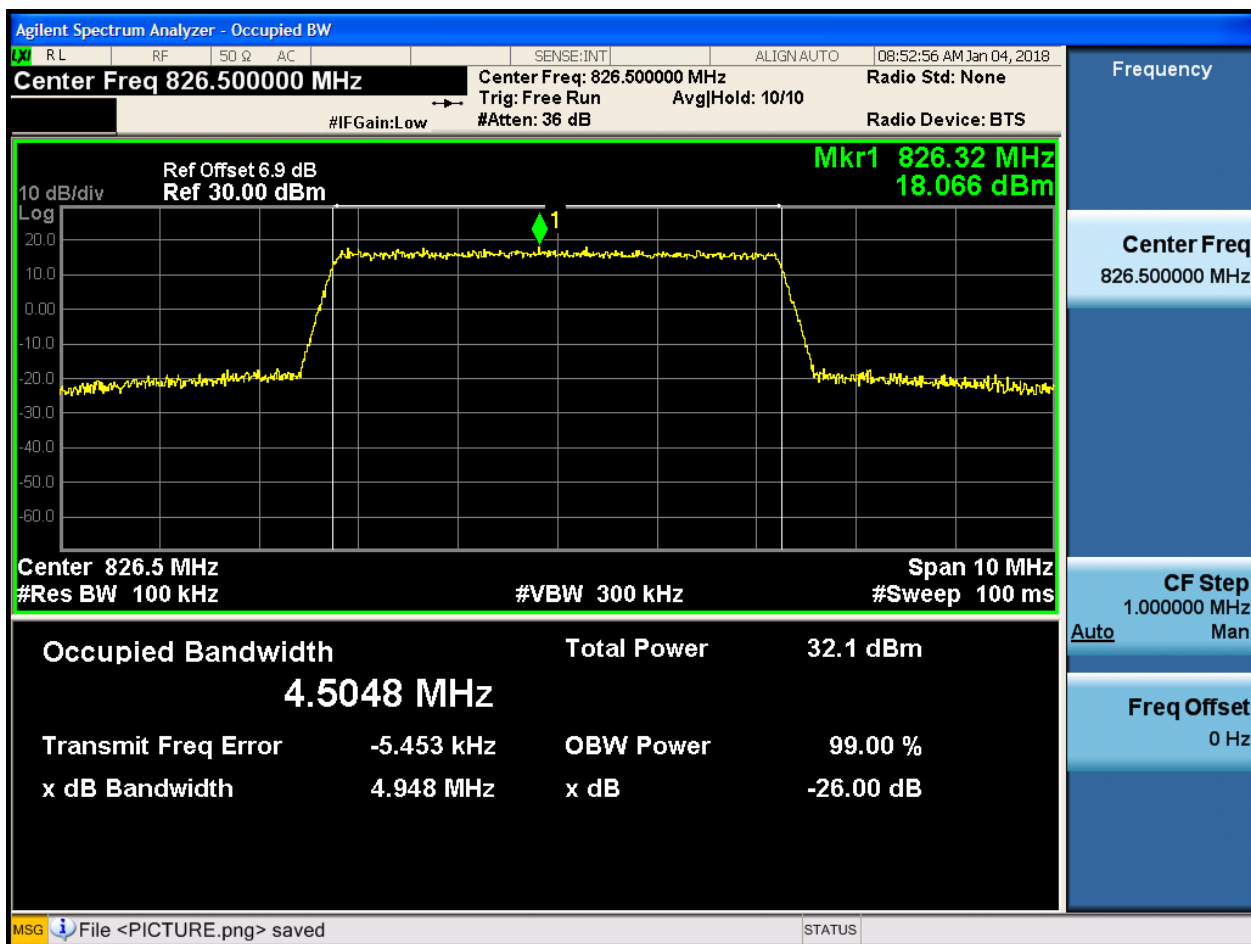




4.1.1.1.3 Test Bandwidth = 5

4.1.1.1.3.1 Test Channel = LCH

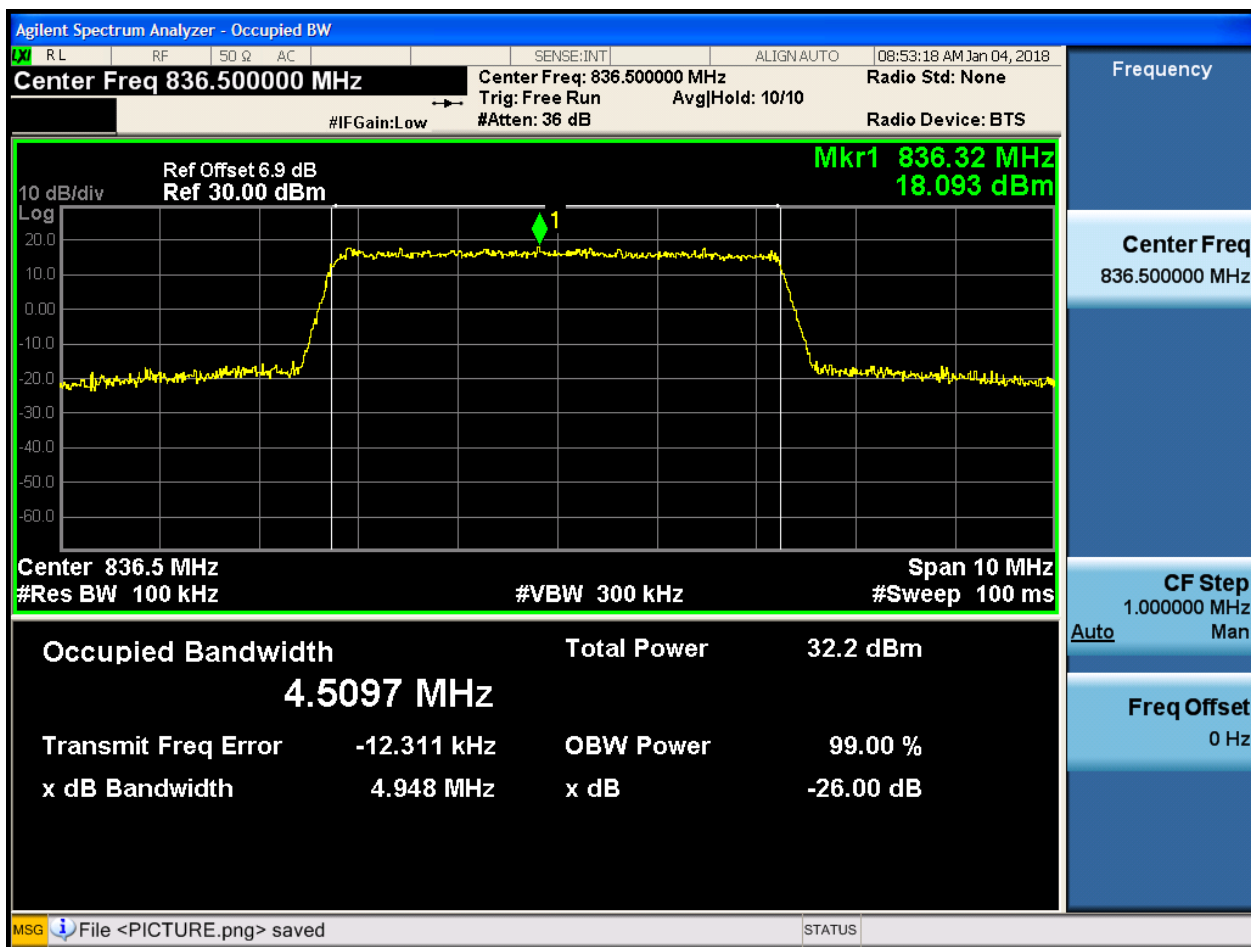
4.1.1.1.3.1.1 Test RB = RB25#0





4.1.1.1.3.2 Test Channel = MCH

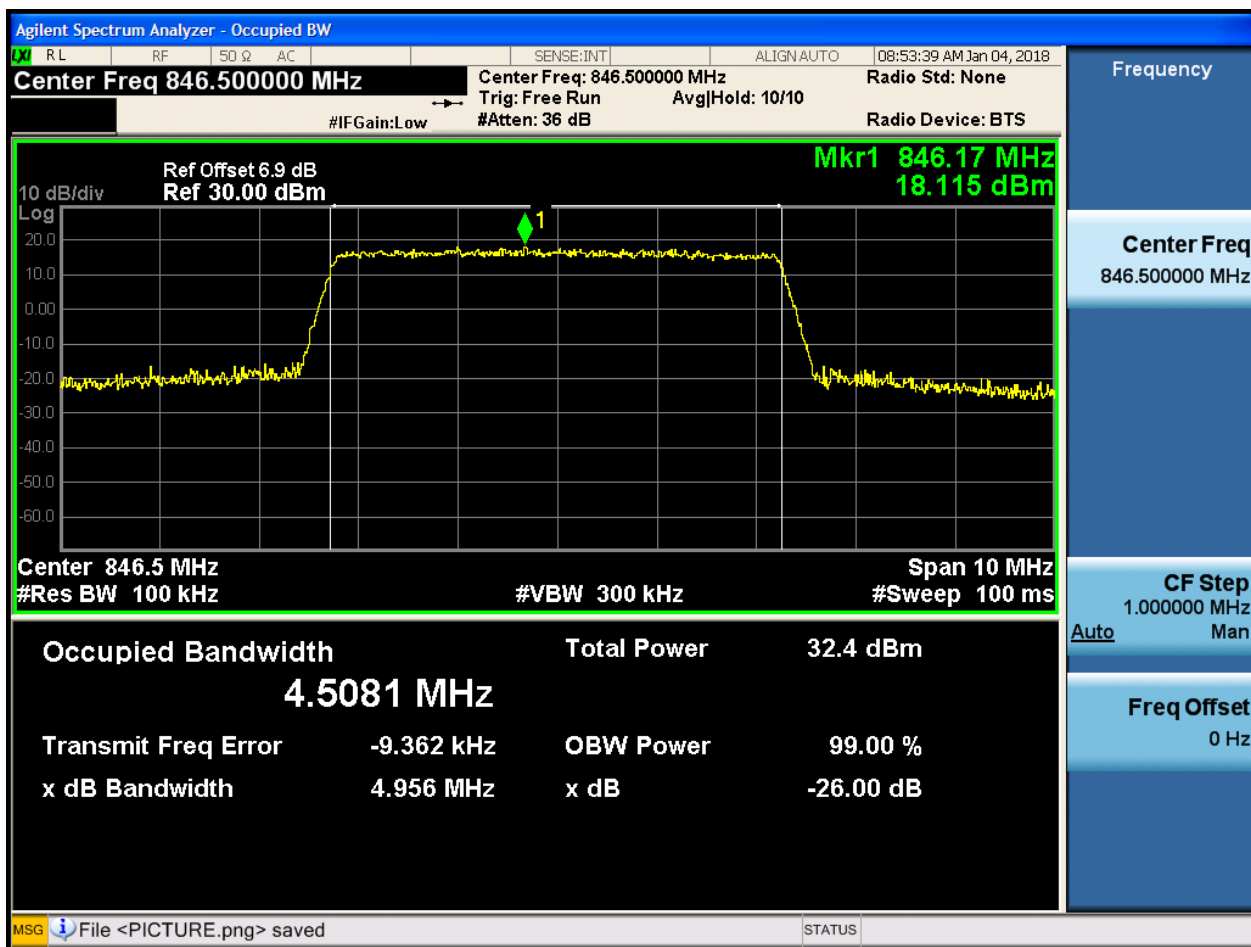
4.1.1.1.3.2.1 Test RB = RB25#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB25#0

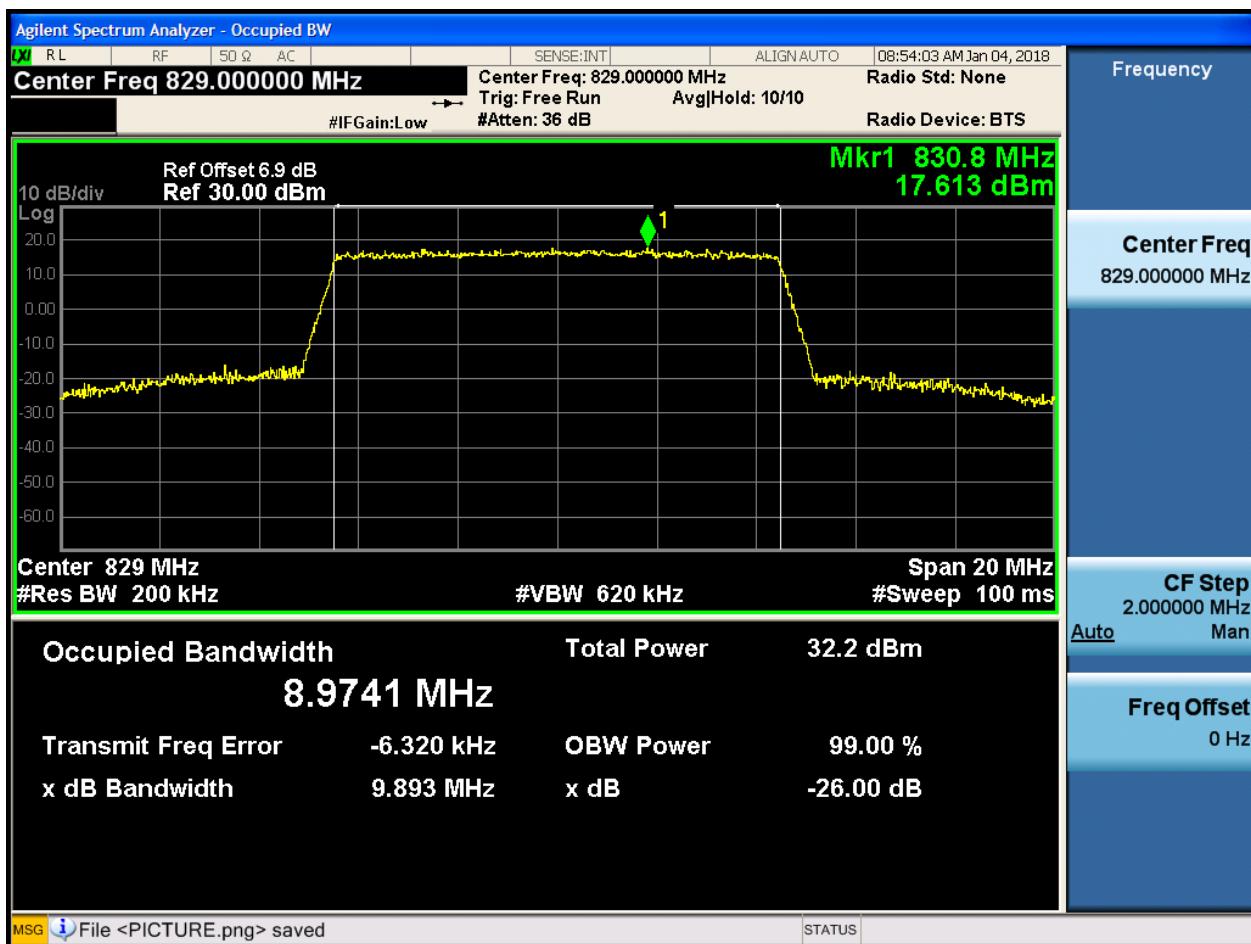




4.1.1.1.4 Test Bandwidth = 10

4.1.1.1.4.1 Test Channel = LCH

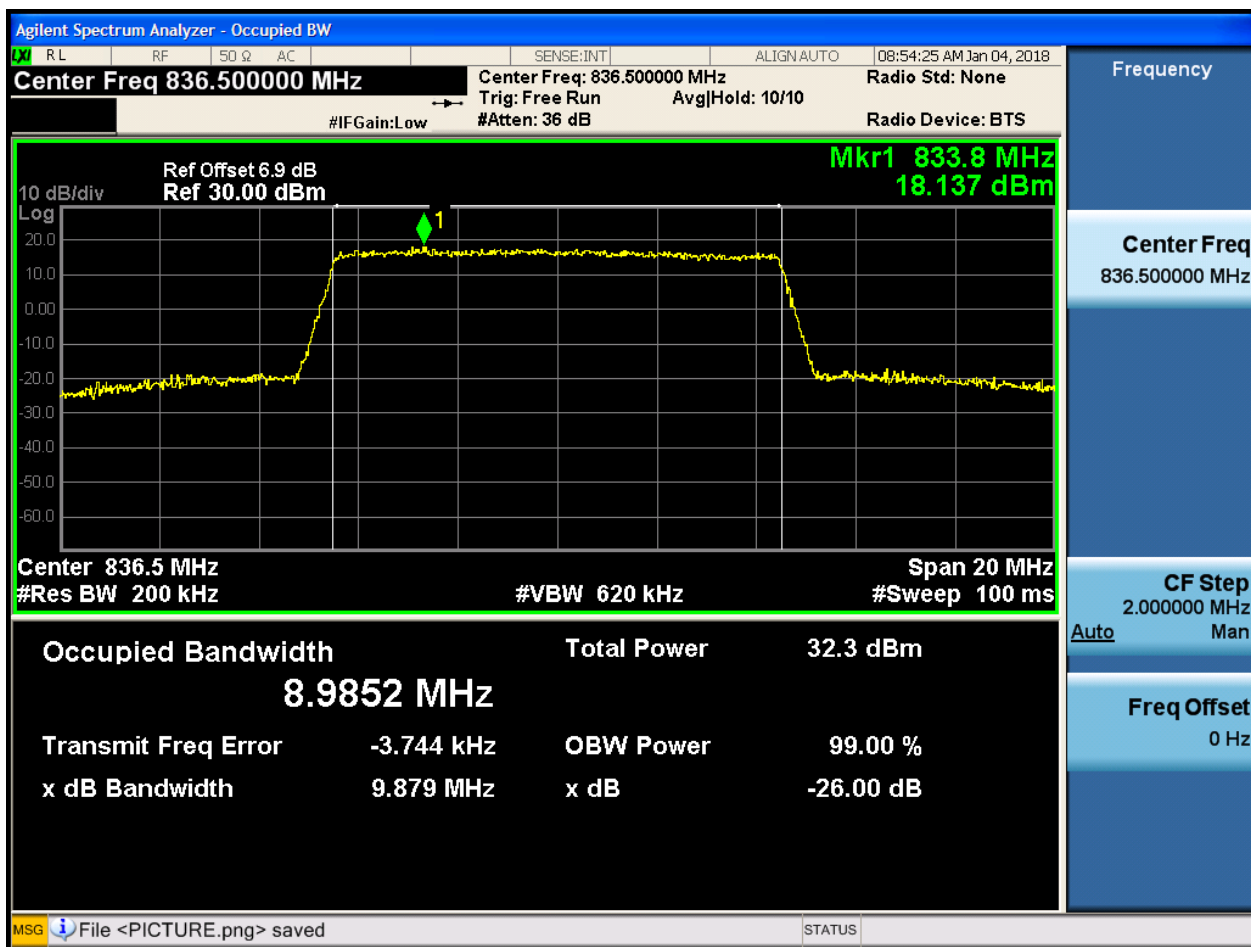
4.1.1.1.4.1.1 Test RB = RB50#0





4.1.1.1.4.2 Test Channel = MCH

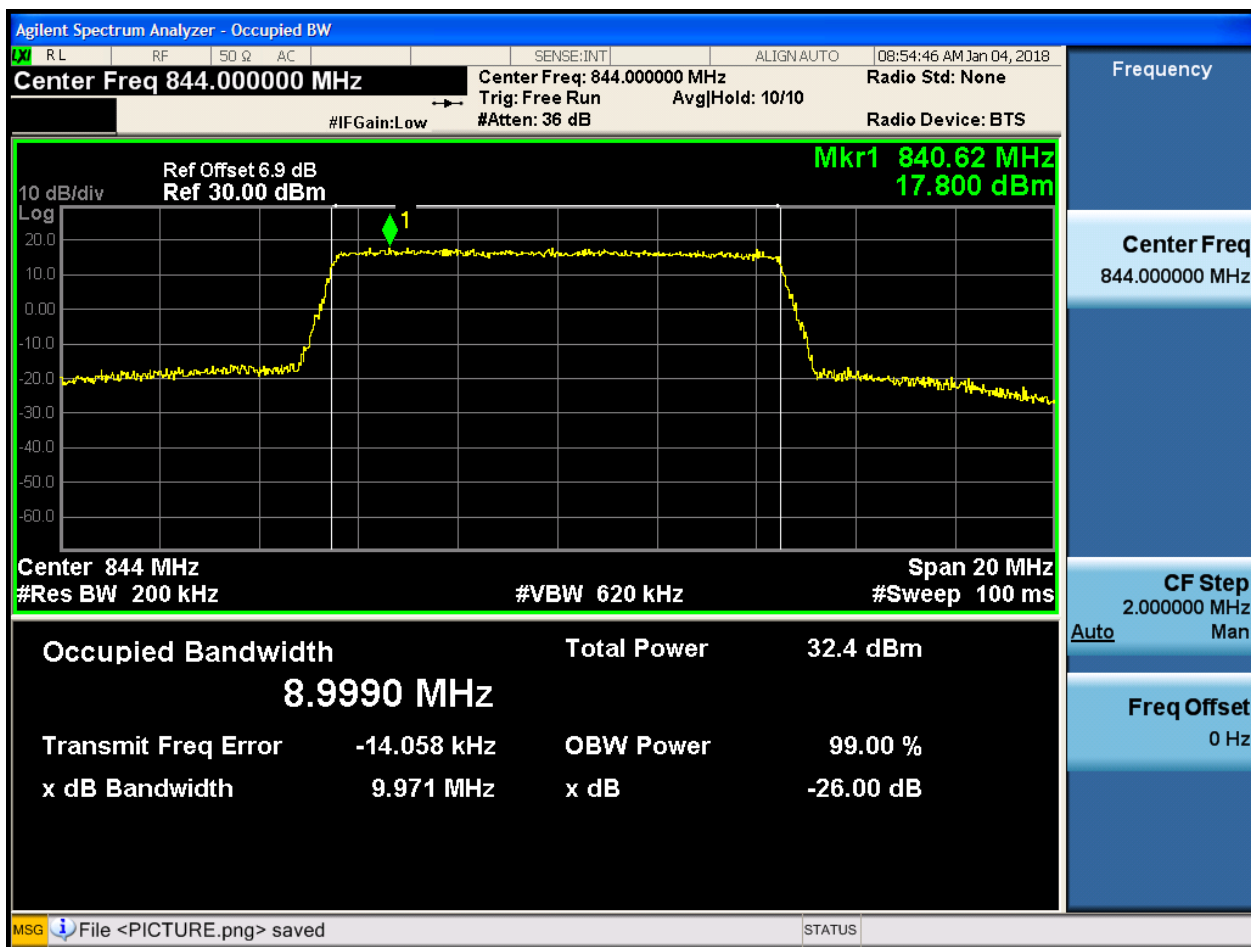
4.1.1.1.4.2.1 Test RB = RB50#0





4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB50#0



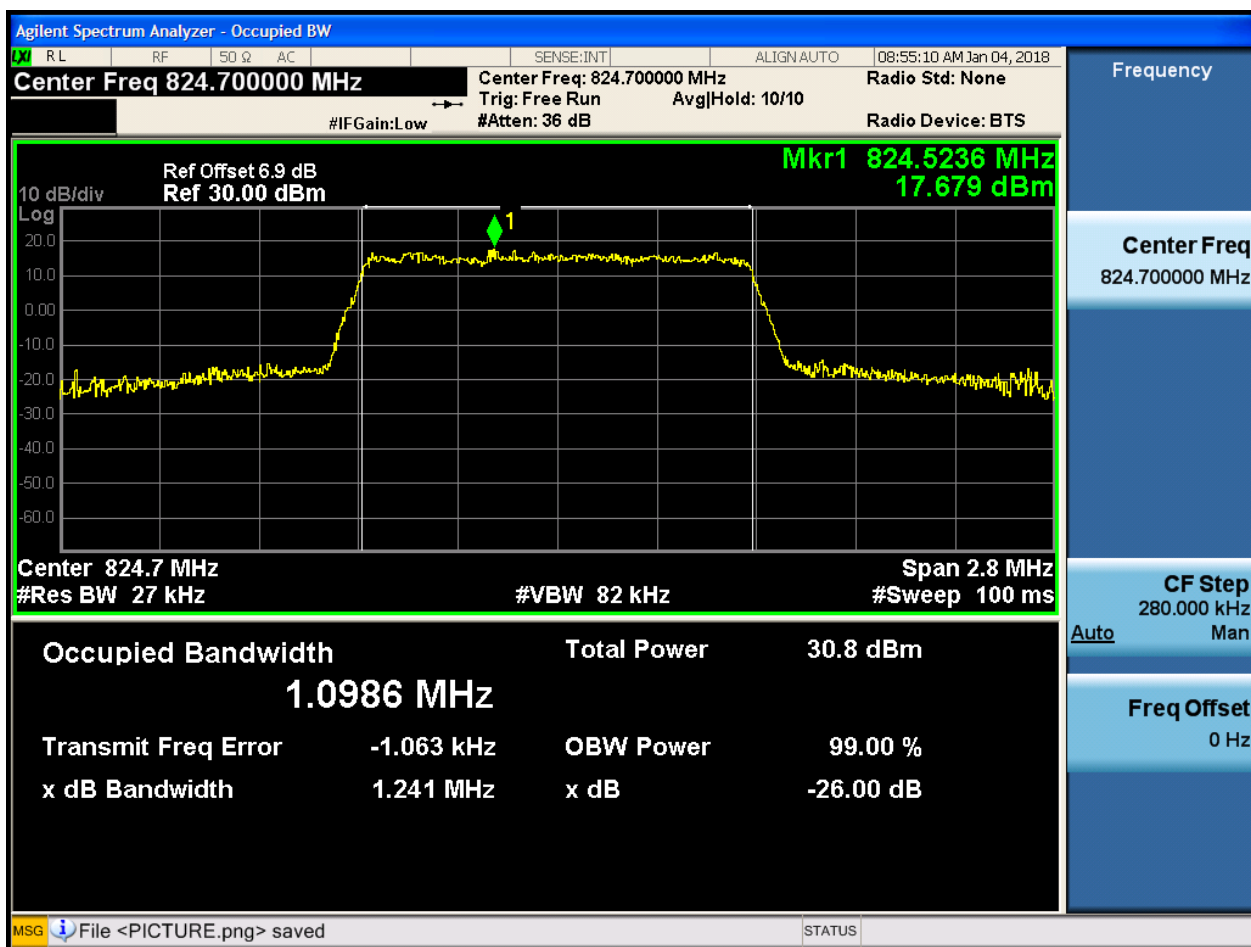


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 1.4

4.1.1.2.1.1 Test Channel = LCH

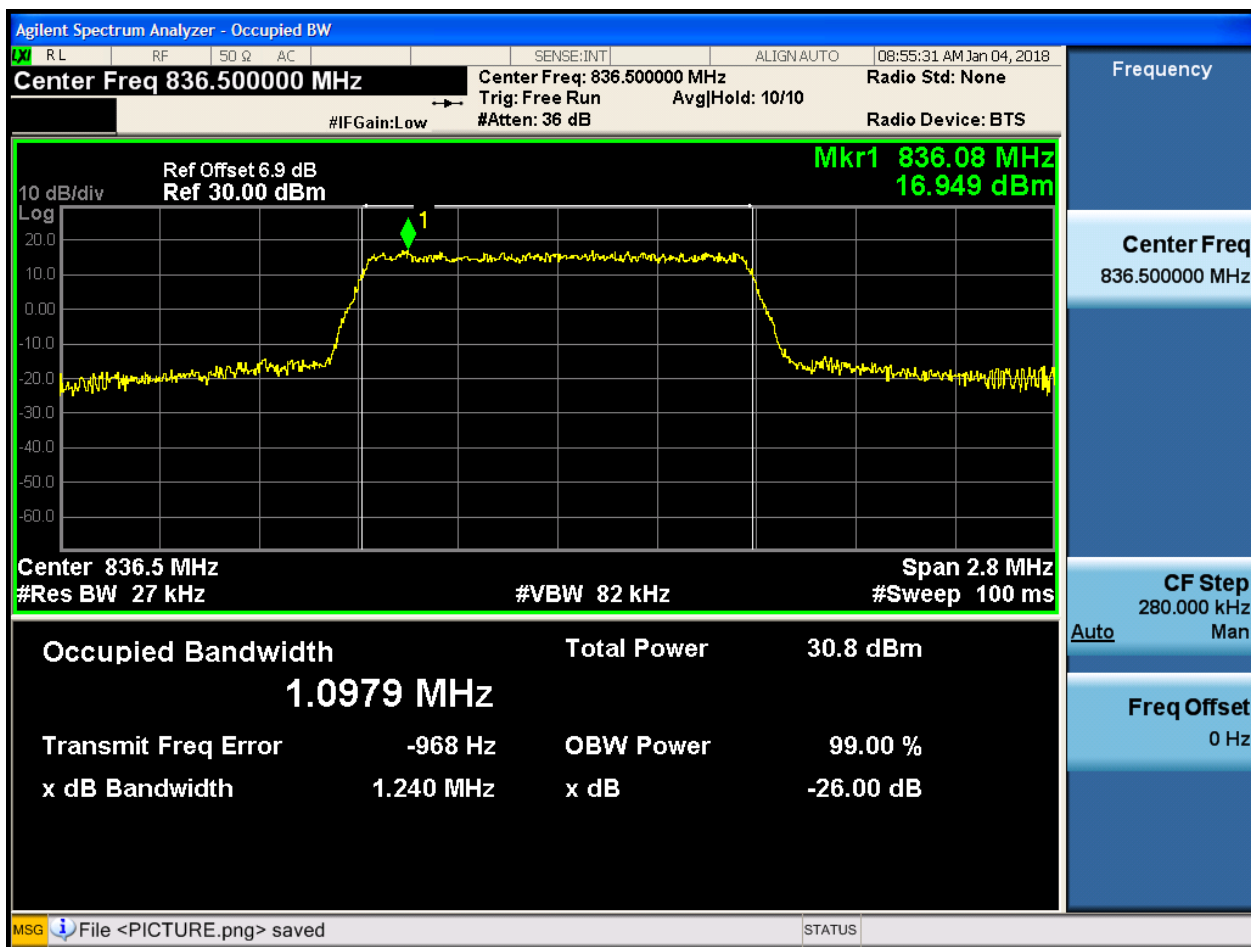
4.1.1.2.1.1.1 Test RB = RB6#0





4.1.1.2.1.2 Test Channel = MCH

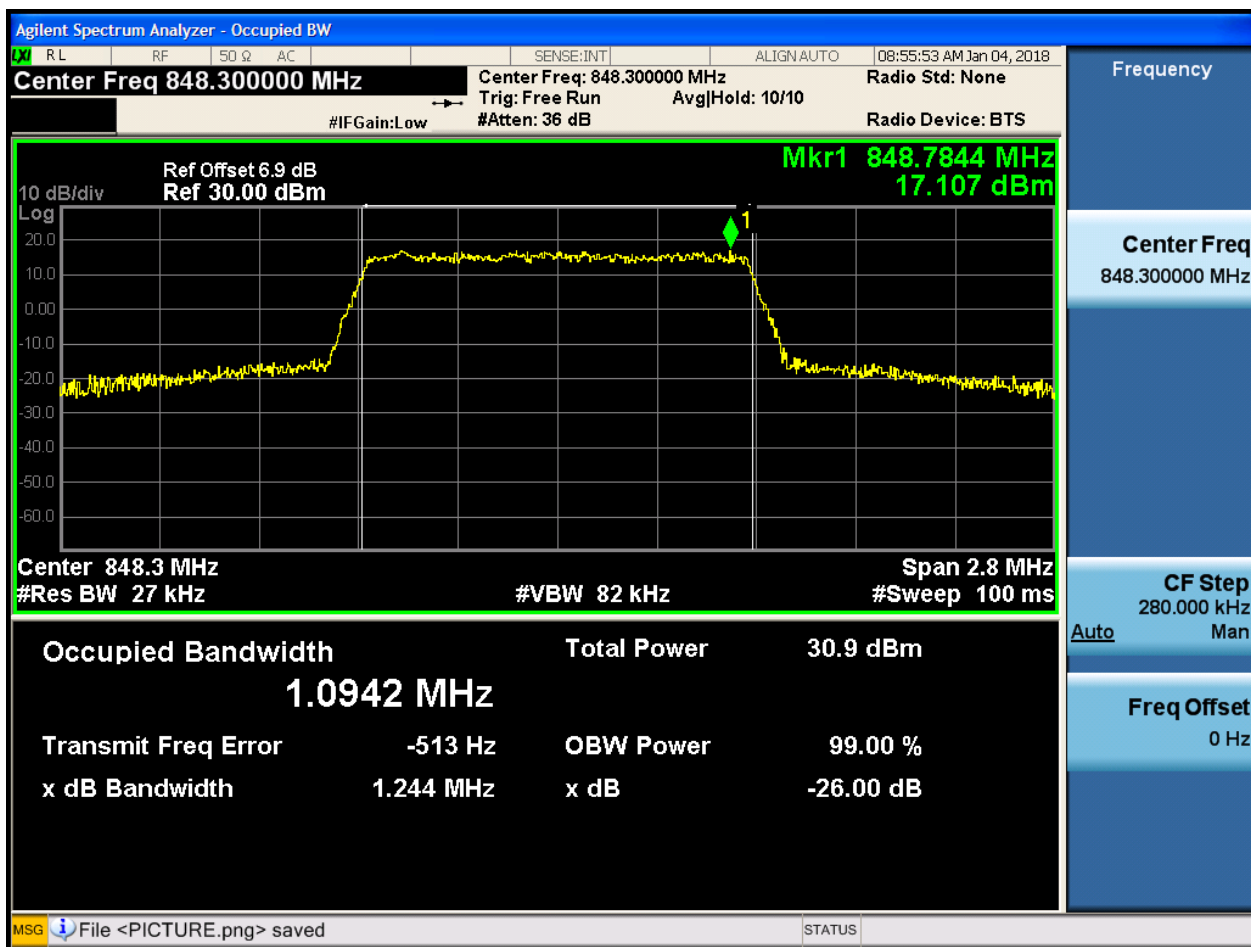
4.1.1.2.1.2.1 Test RB = RB6#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB6#0

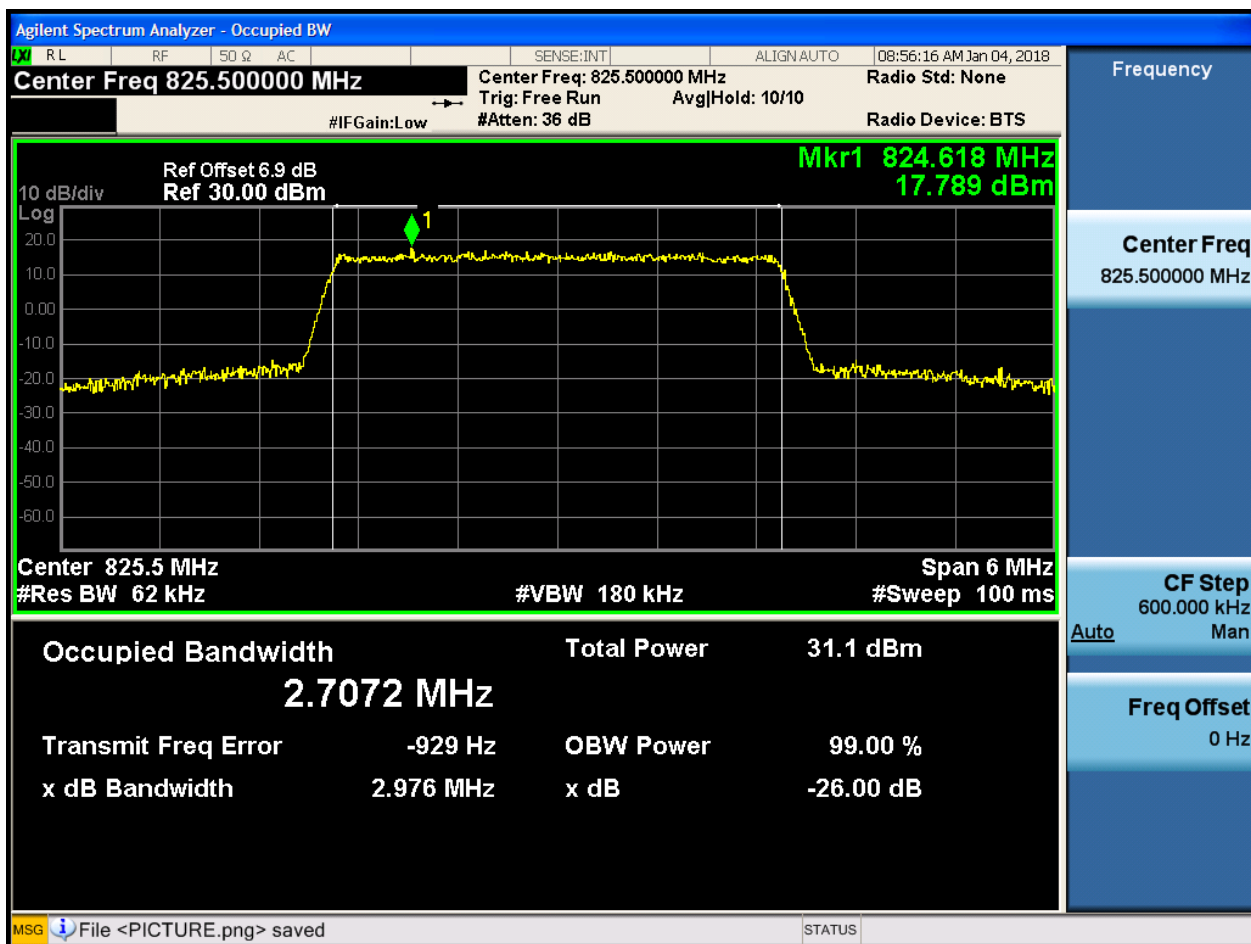




4.1.1.2.2 Test Bandwidth = 3

4.1.1.2.2.1 Test Channel = LCH

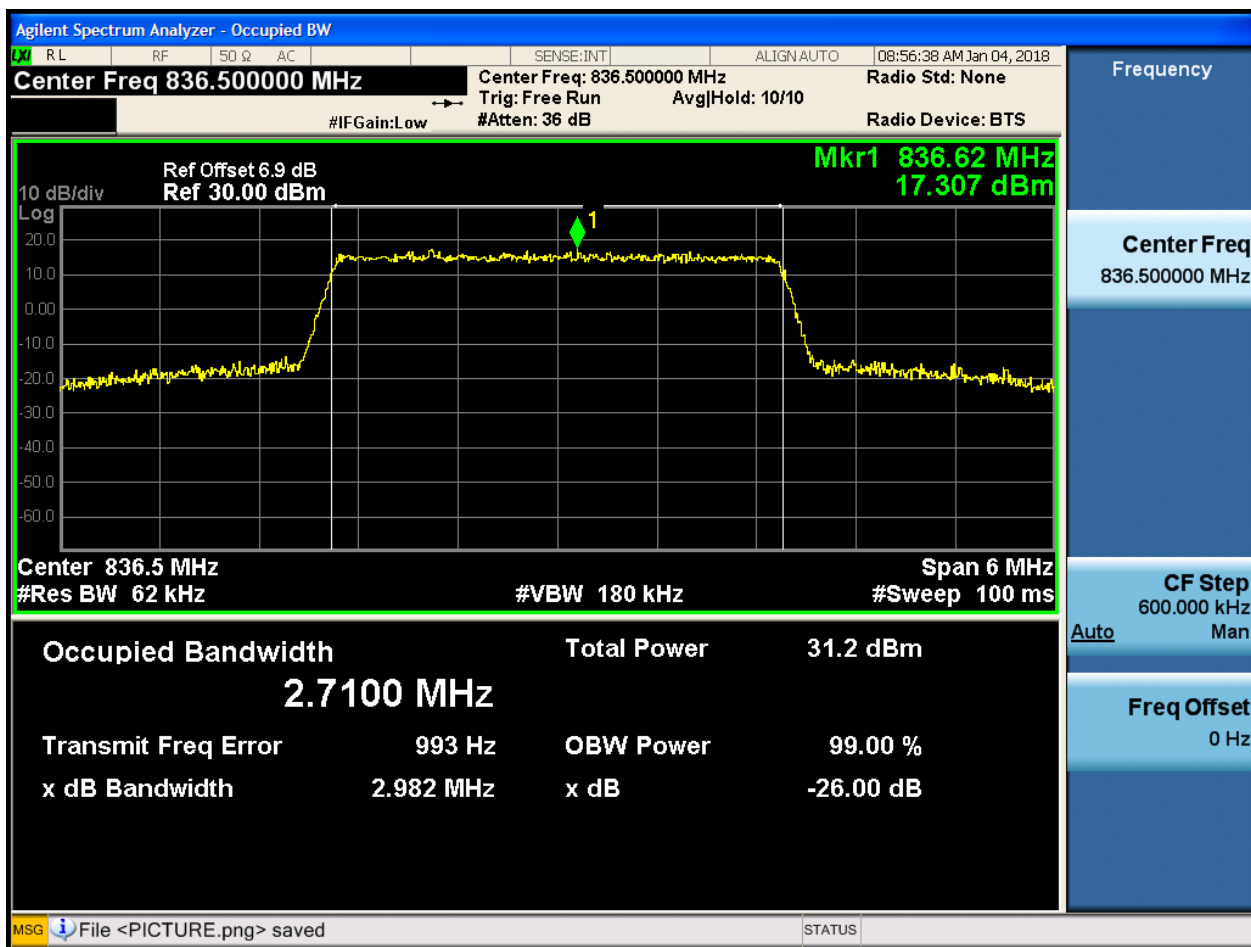
4.1.1.2.2.1.1 Test RB = RB15#0





4.1.1.2.2.2 Test Channel = MCH

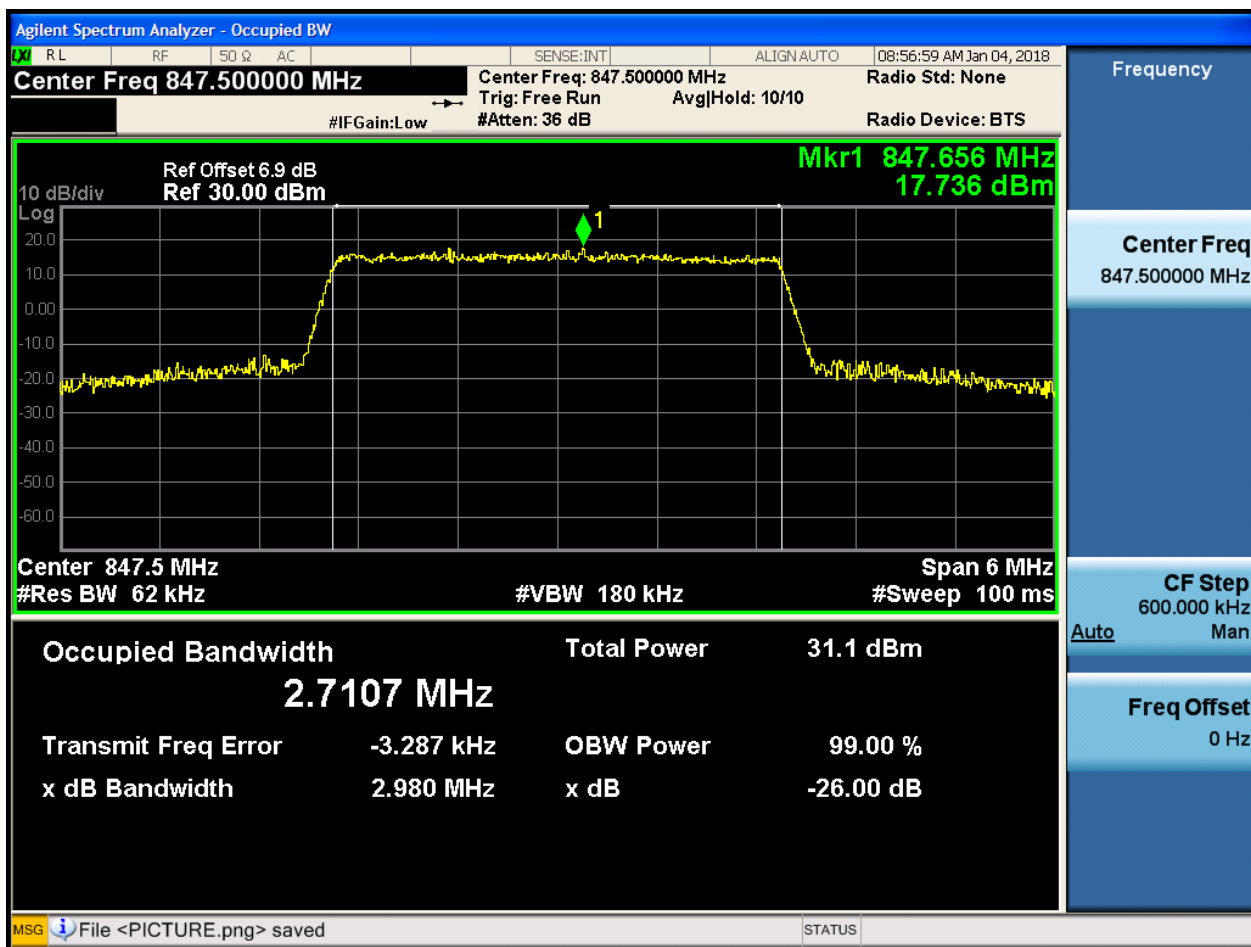
4.1.1.2.2.2.1 Test RB = RB15#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB15#0

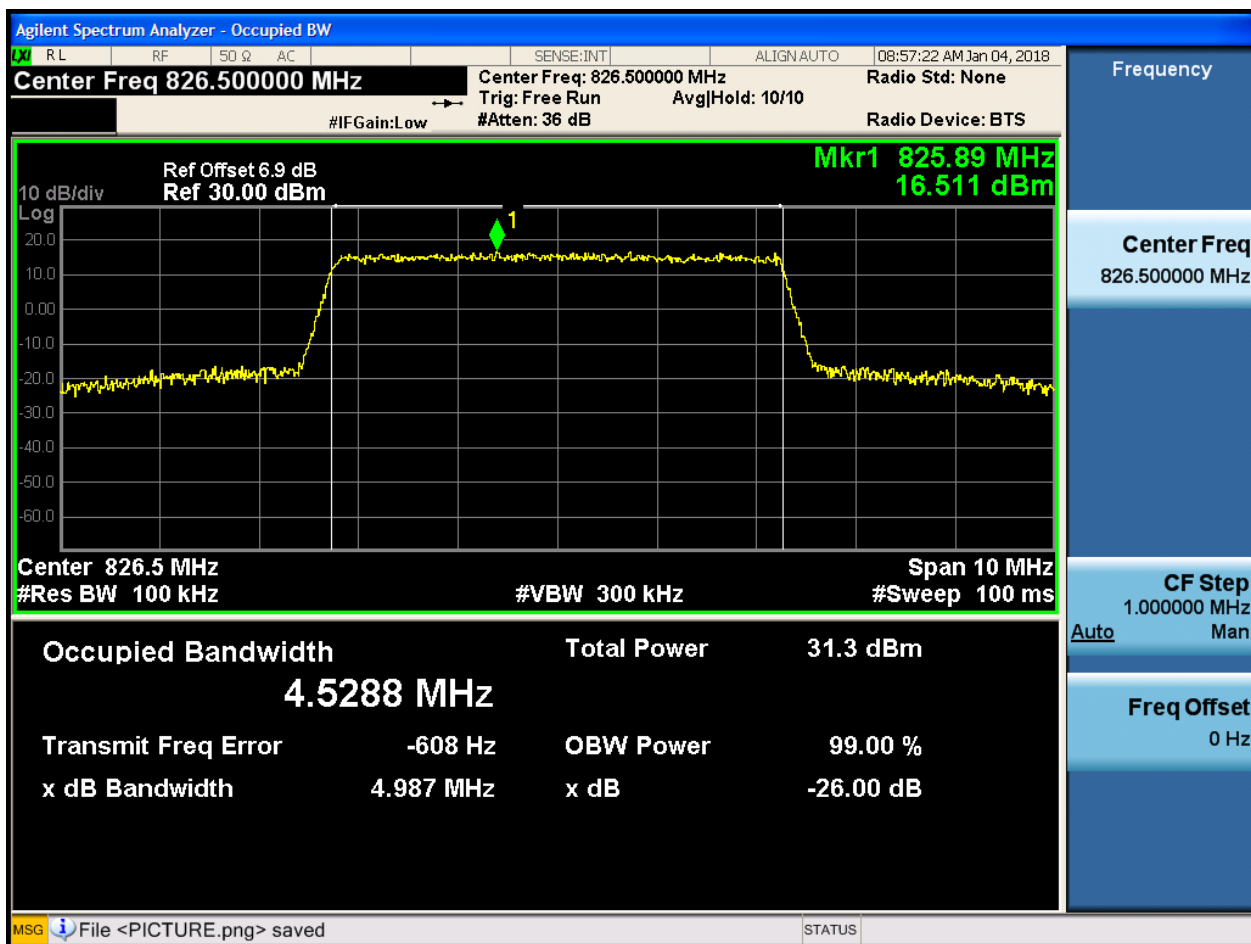




4.1.1.2.3 Test Bandwidth = 5

4.1.1.2.3.1 Test Channel = LCH

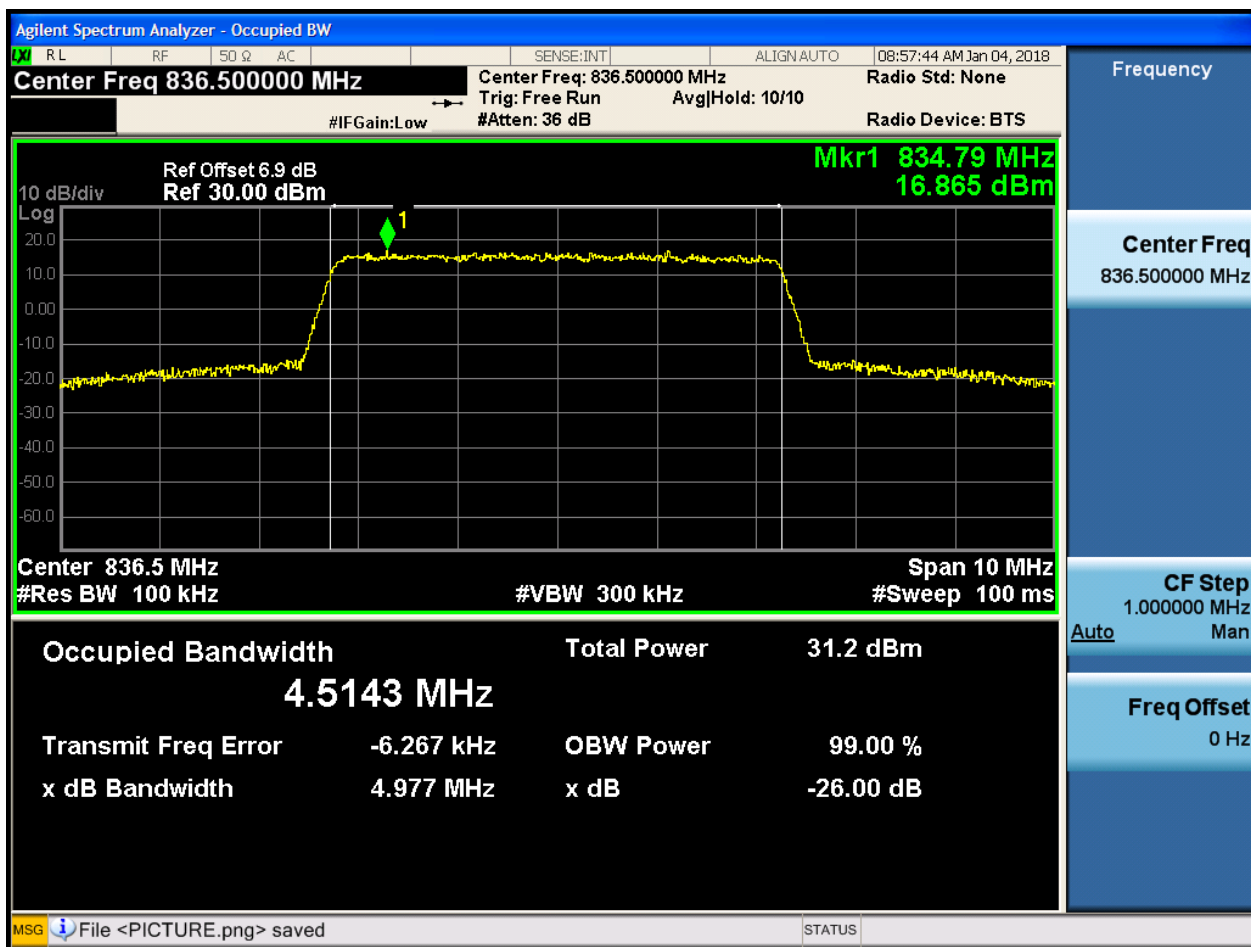
4.1.1.2.3.1.1 Test RB = RB25#0





4.1.1.2.3.2 Test Channel = MCH

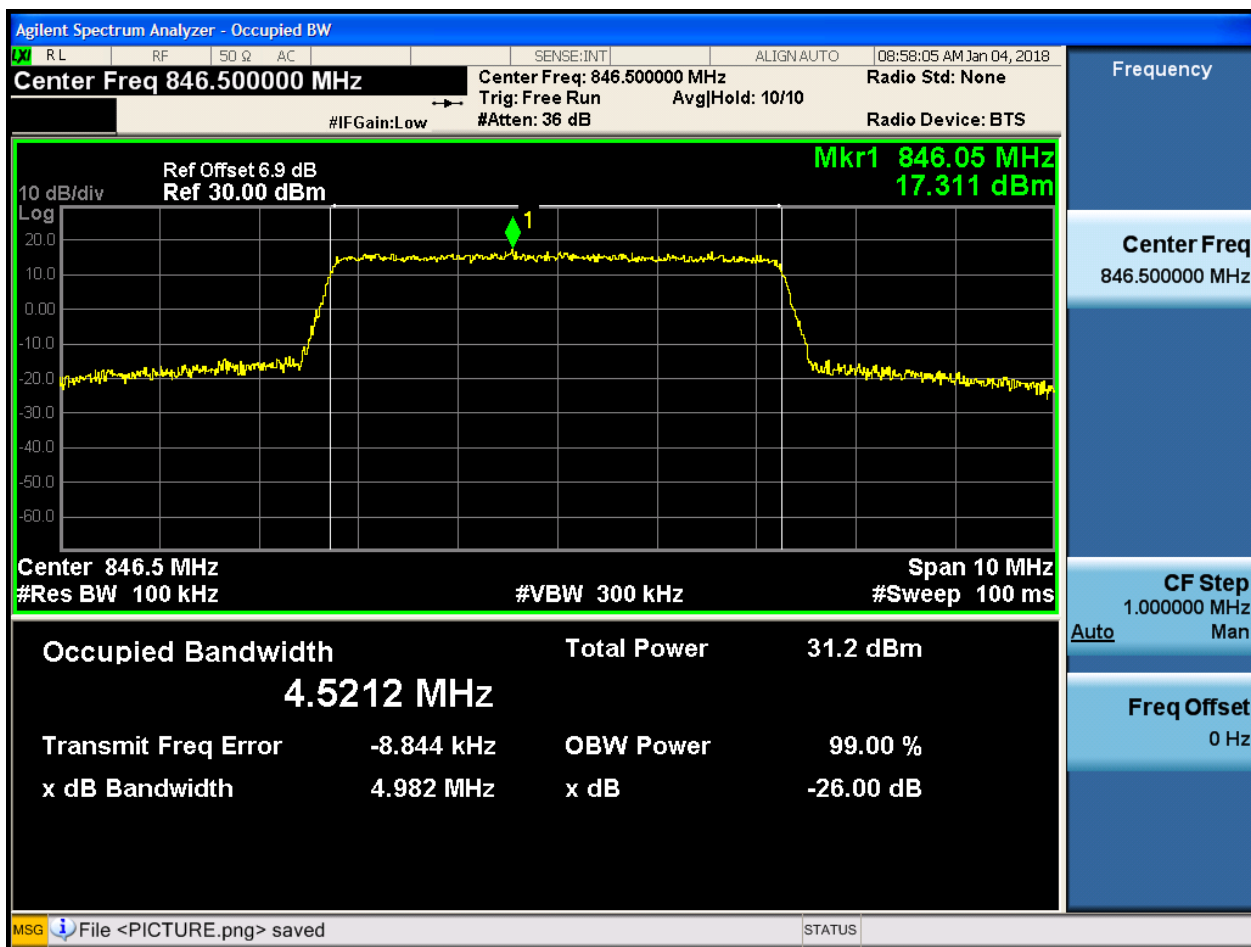
4.1.1.2.3.2.1 Test RB = RB25#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB25#0

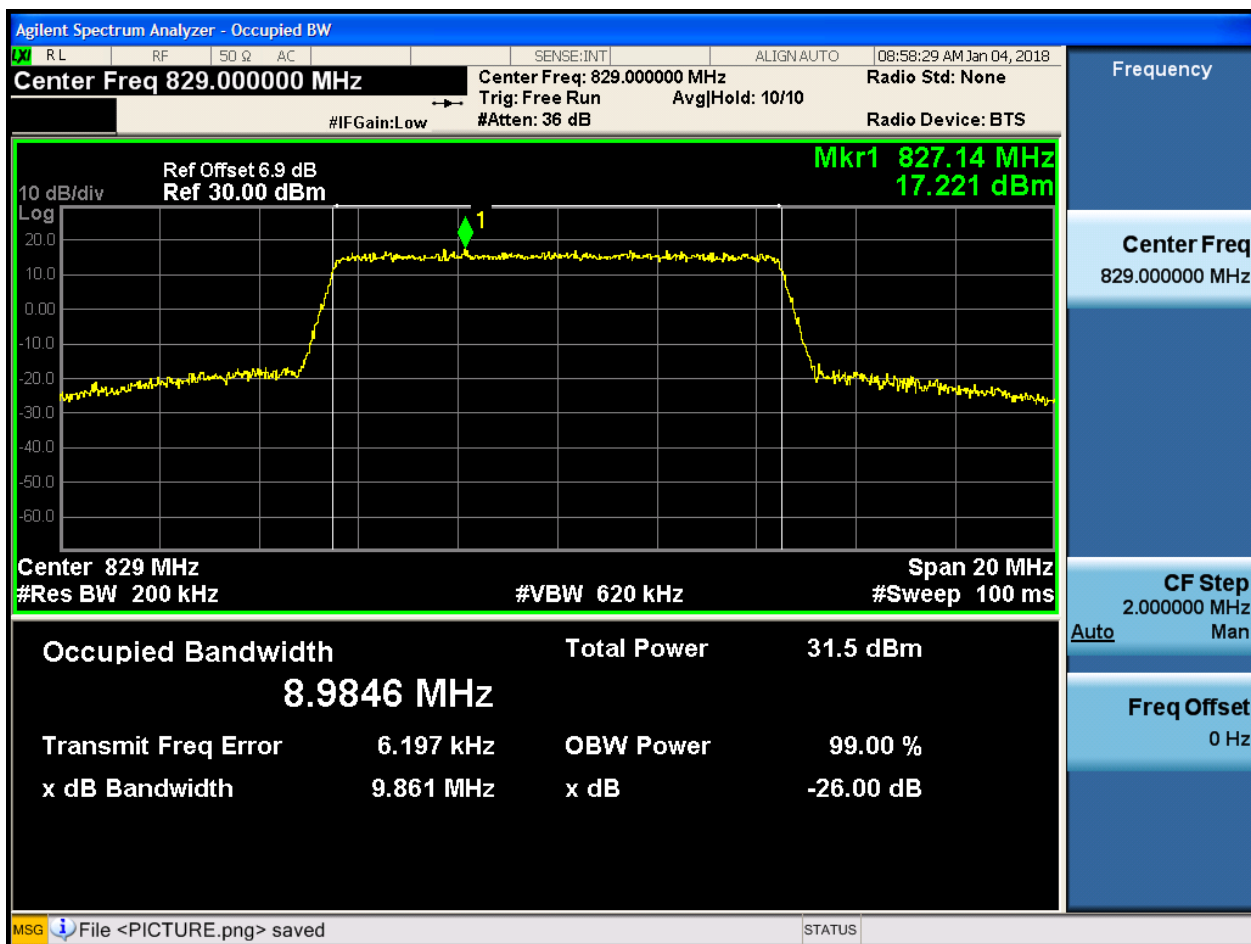




4.1.1.2.4 Test Bandwidth = 10

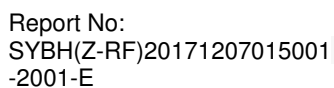
4.1.1.2.4.1 Test Channel = LCH

4.1.1.2.4.1.1 Test RB = RB50#0





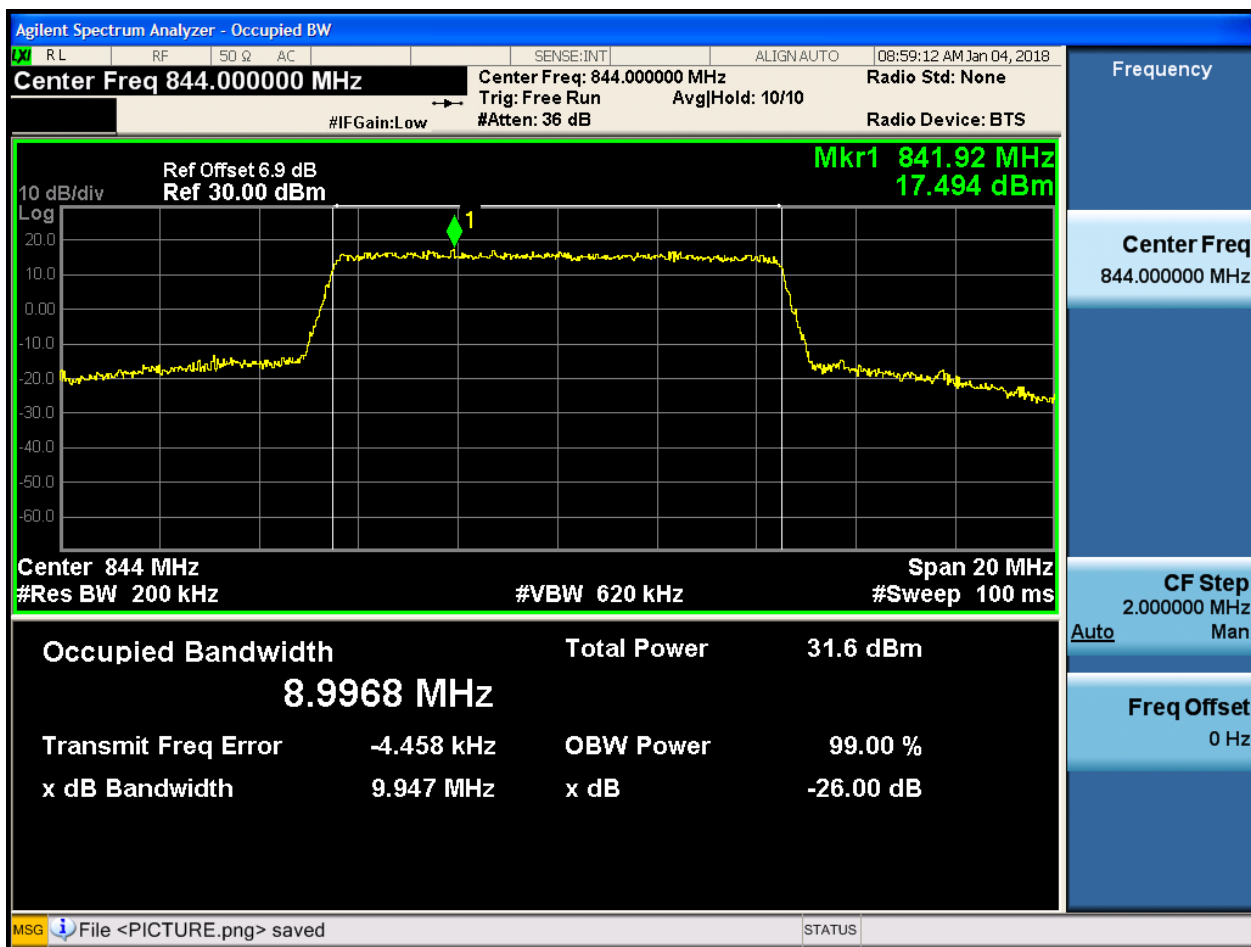
4.1.1.2.4.2.1 Test RB = RB50#0





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

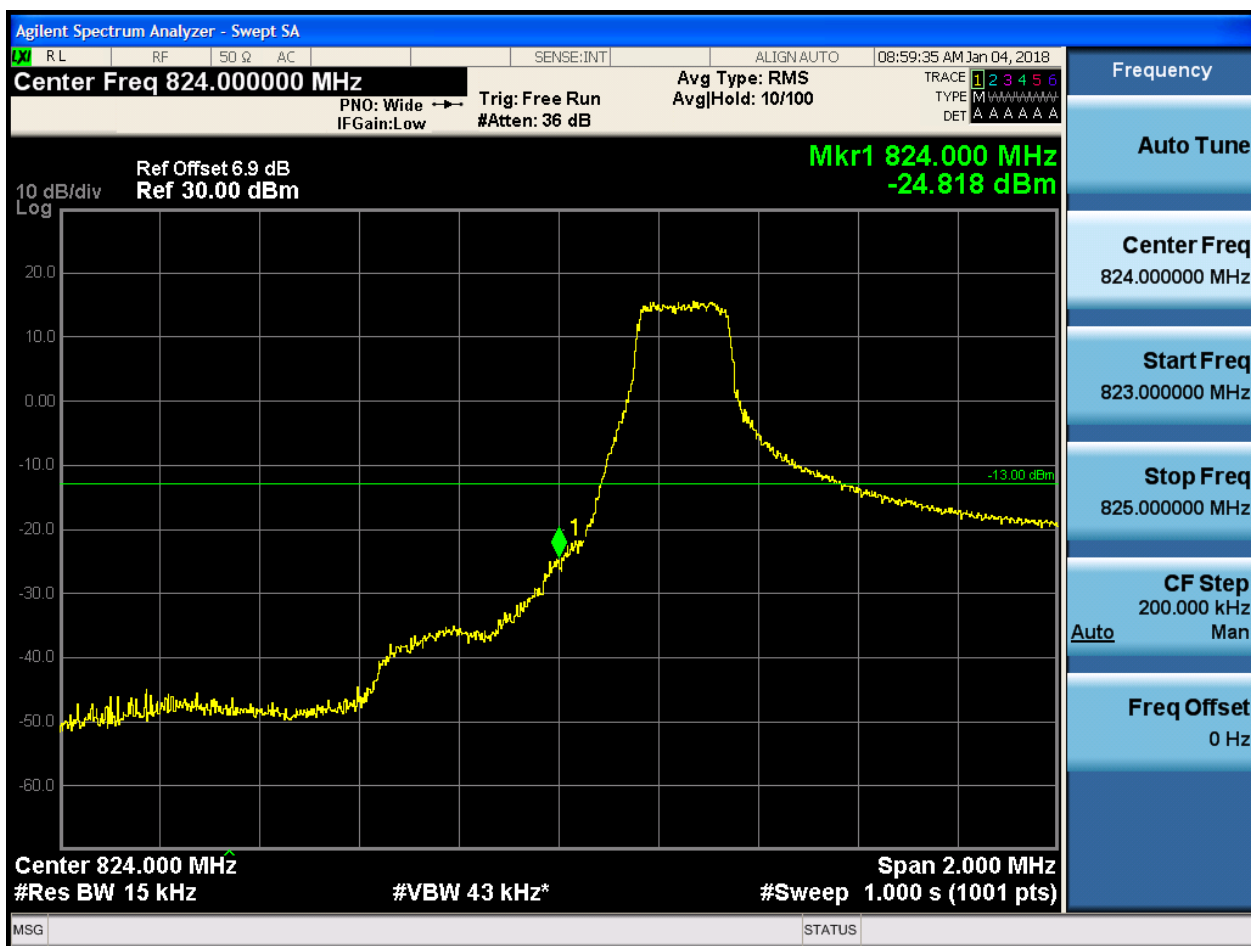
5.1.1 Test Band = BAND5

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

5.1.1.1.1.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

[X] RL	RF	50 Ω AC	SENSE:INT	ALIGN AUTO	08:59:51 AM Jan 04, 2018
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Center Freq 824.000000 MHz

Avg Type: RMS
Avg/Hold: 10/100

PNO: Wide → Trig: Free Run
IFGain: Low #Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 823.300 MHz
-32.034 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 15 kHz

#VBW 43 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

- Frequency
- Auto Tune
- Center Freq
824.000000 MHz
- Start Freq
823.000000 MHz
- Stop Freq
825.000000 MHz
- CF Step
200.000 kHz
Auto Man
- Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:00:08 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-30.444 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 15 kHz

#VBW 43 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
824.000000 MHz

Start Freq
823.000000 MHz

Stop Freq
825.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:00:25 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 823.990 MHz
-29.416 dBm

10 dB/div
Log

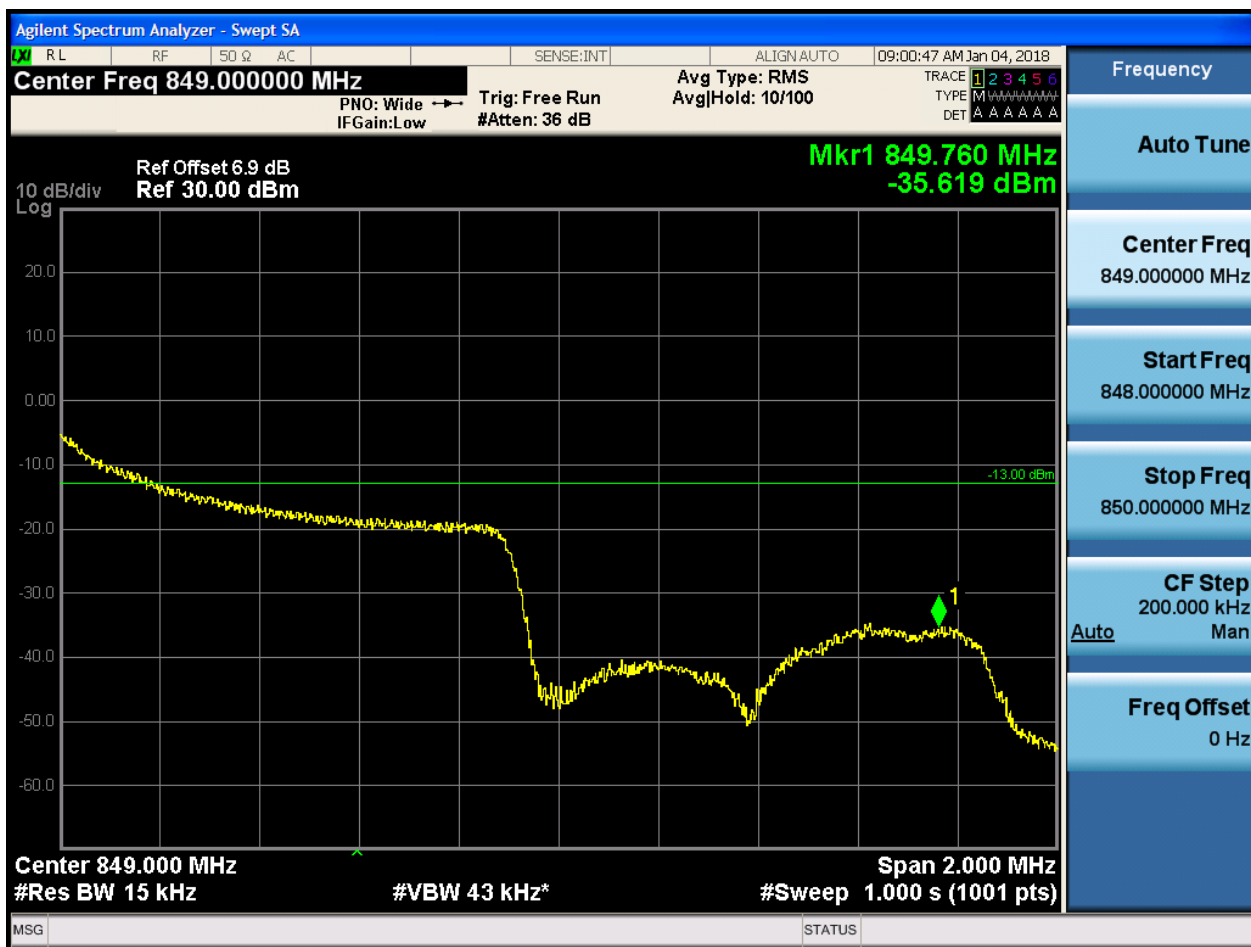
Center 824.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



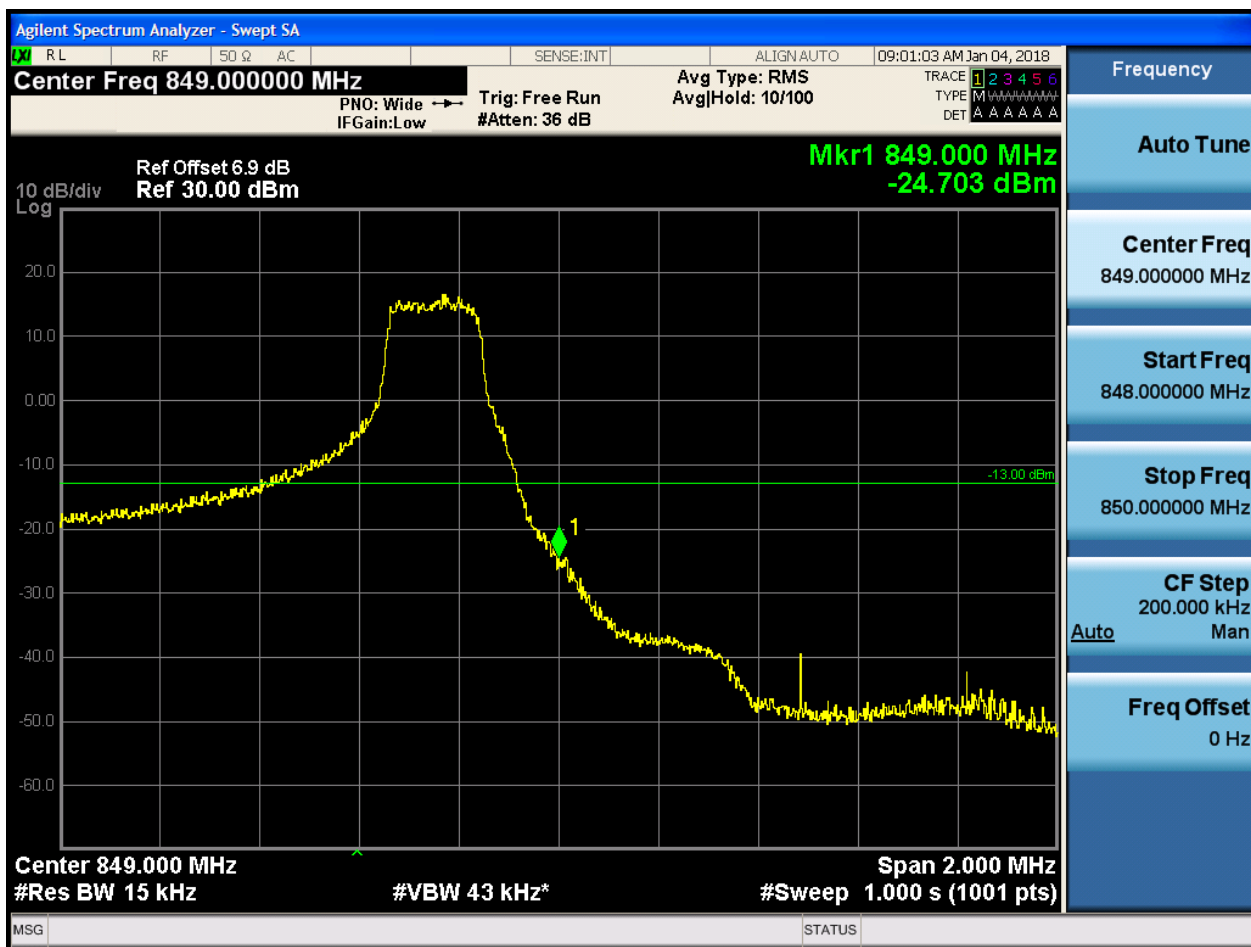
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.2.2 Test RB = RB1#5





Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

PNO: Wide → Trig: Free Run
IFGain:Low #Atten: 36 dB

Avg Type: RMS
Avg/Hold: 10/100

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.060 MHz
-26.037 dBm

10 dB/div Log

Center 849.000 MHz
#Res BW 15 kHz

#VBW 43 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

Frequency	
Auto Tune	
Center Freq	849.000000 MHz
Start Freq	848.000000 MHz
Stop Freq	850.000000 MHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:01:37 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.070 MHz
-31.253 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

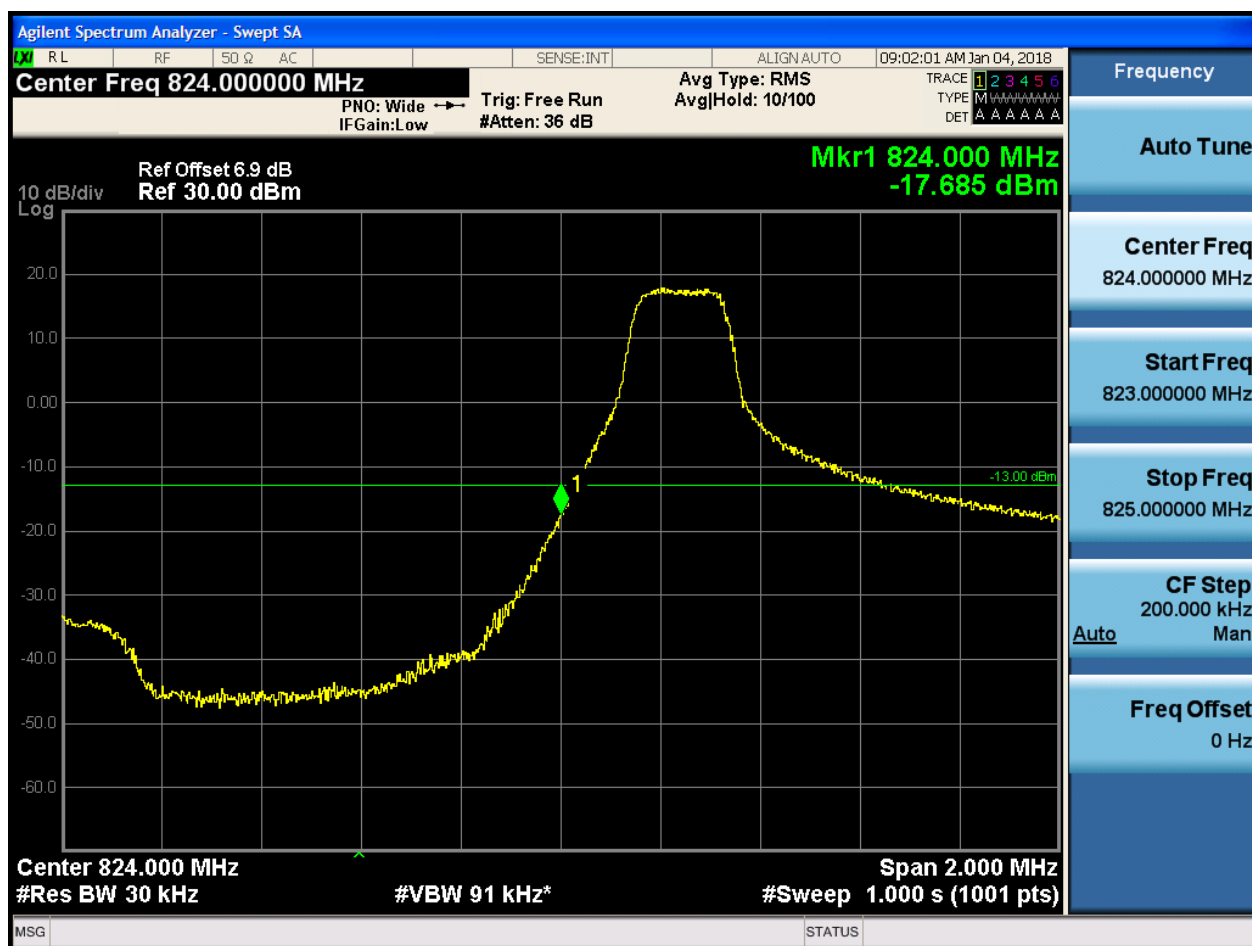
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

5.1.1.1.2 Test Bandwidth = 3

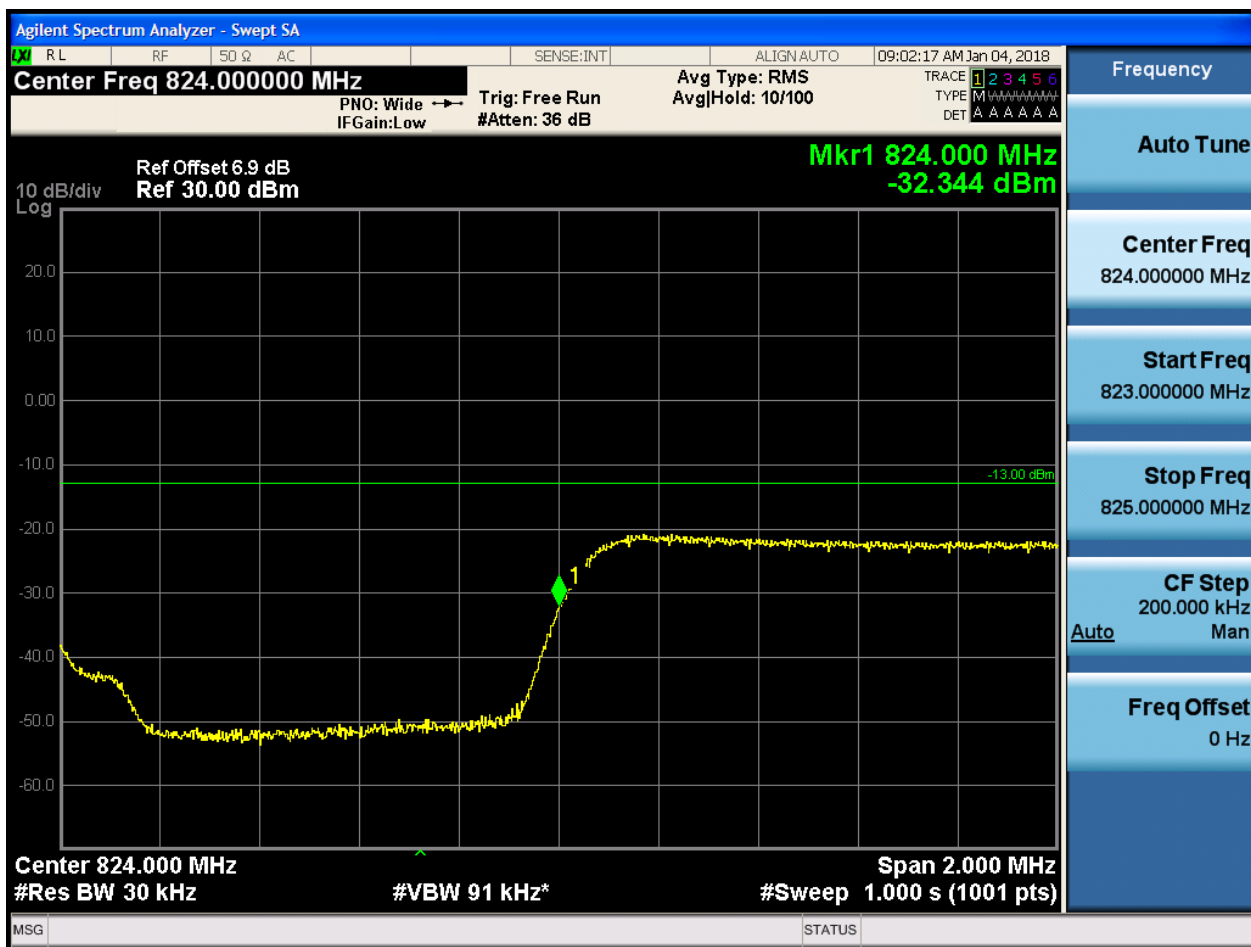
5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



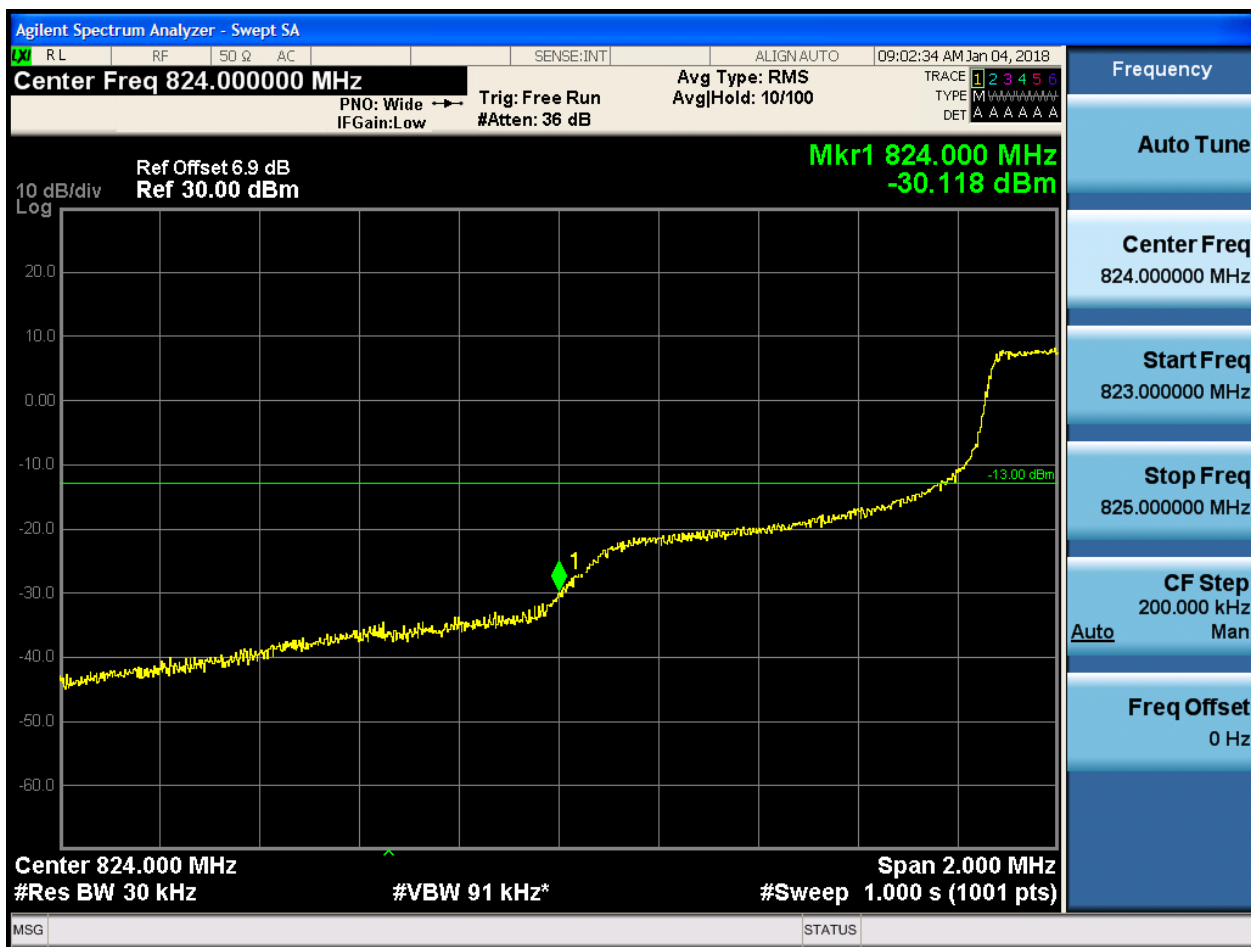


5.1.1.1.2.1.2 Test RB = RB1#14



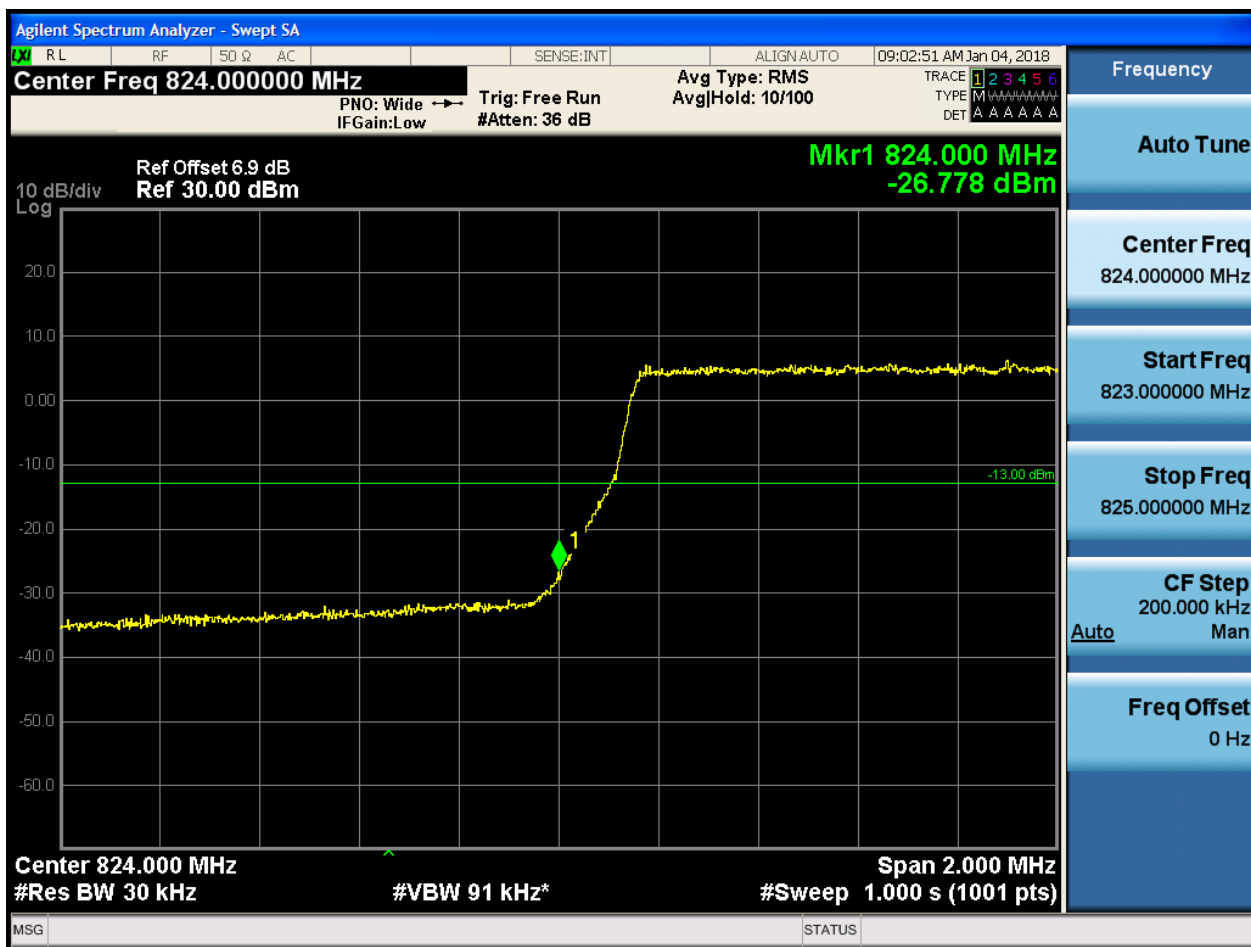


5.1.1.1.2.1.3 Test RB = RB8#4





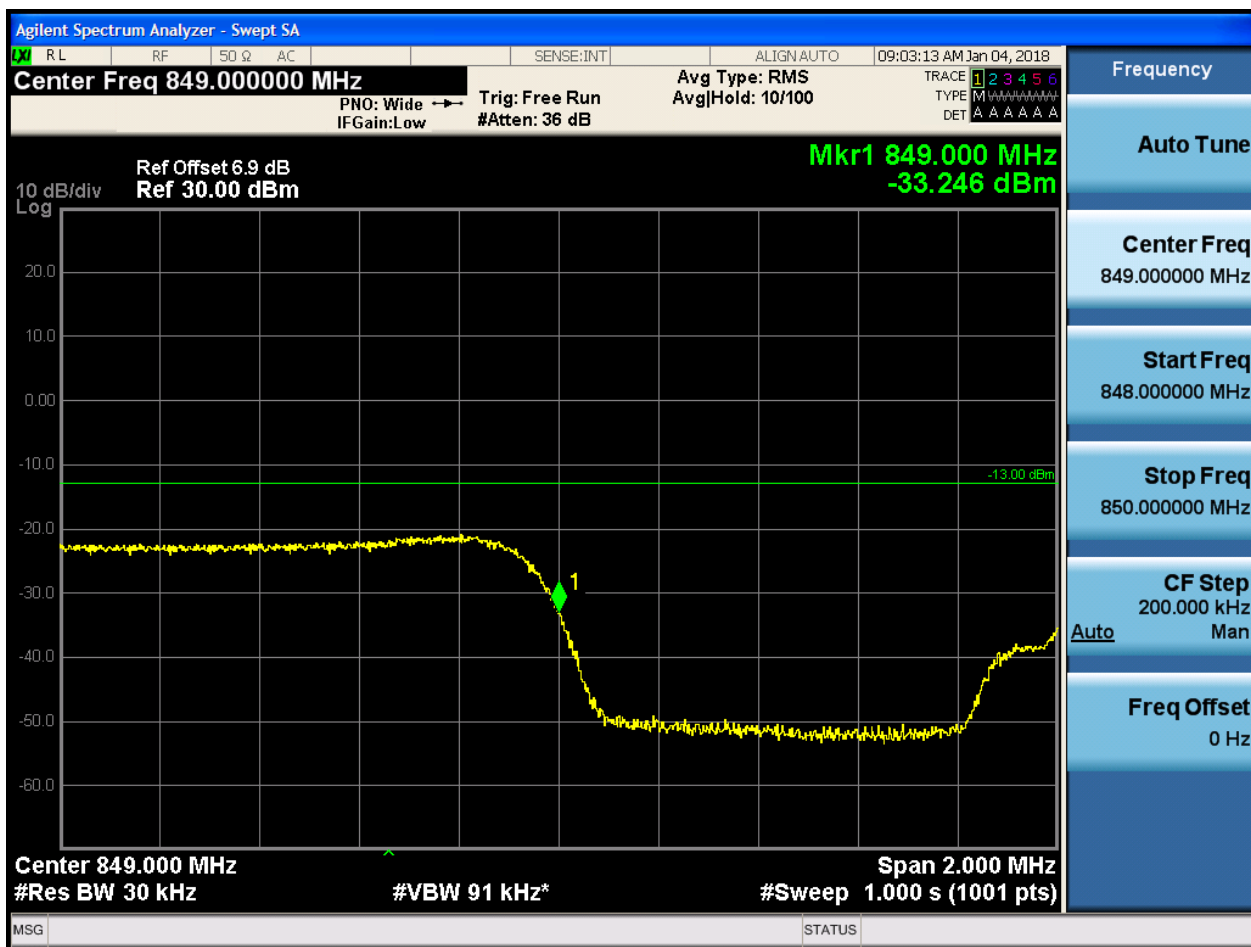
5.1.1.1.2.1.4 Test RB = RB15#0





5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 849.010 MHz
-17.390 dBm

Center 849.000 MHz
#Res BW 30 kHz
#VBW 91 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

PNO: Wide → Trig: Free Run
IFGain: Low #Atten: 36 dB

Avg Type: RMS
Avg/Hold: 10/100

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.010 MHz
-30.510 dBm

10 dB/div Log

Center 849.000 MHz
#Res BW 30 kHz
#VBW 91 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

Frequency
Auto Tune
Center Freq 849.000000 MHz
Start Freq 848.000000 MHz
Stop Freq 850.000000 MHz
CF Step 200.000 kHz <u>Auto</u> Man
Freq Offset 0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:04:03 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-28.120 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 30 kHz
#VBW 91 kHz
#Sweep 1.000 s (1001 pts)

Span 2.000 MHz

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

CF Step
200.000 kHz
Auto Man

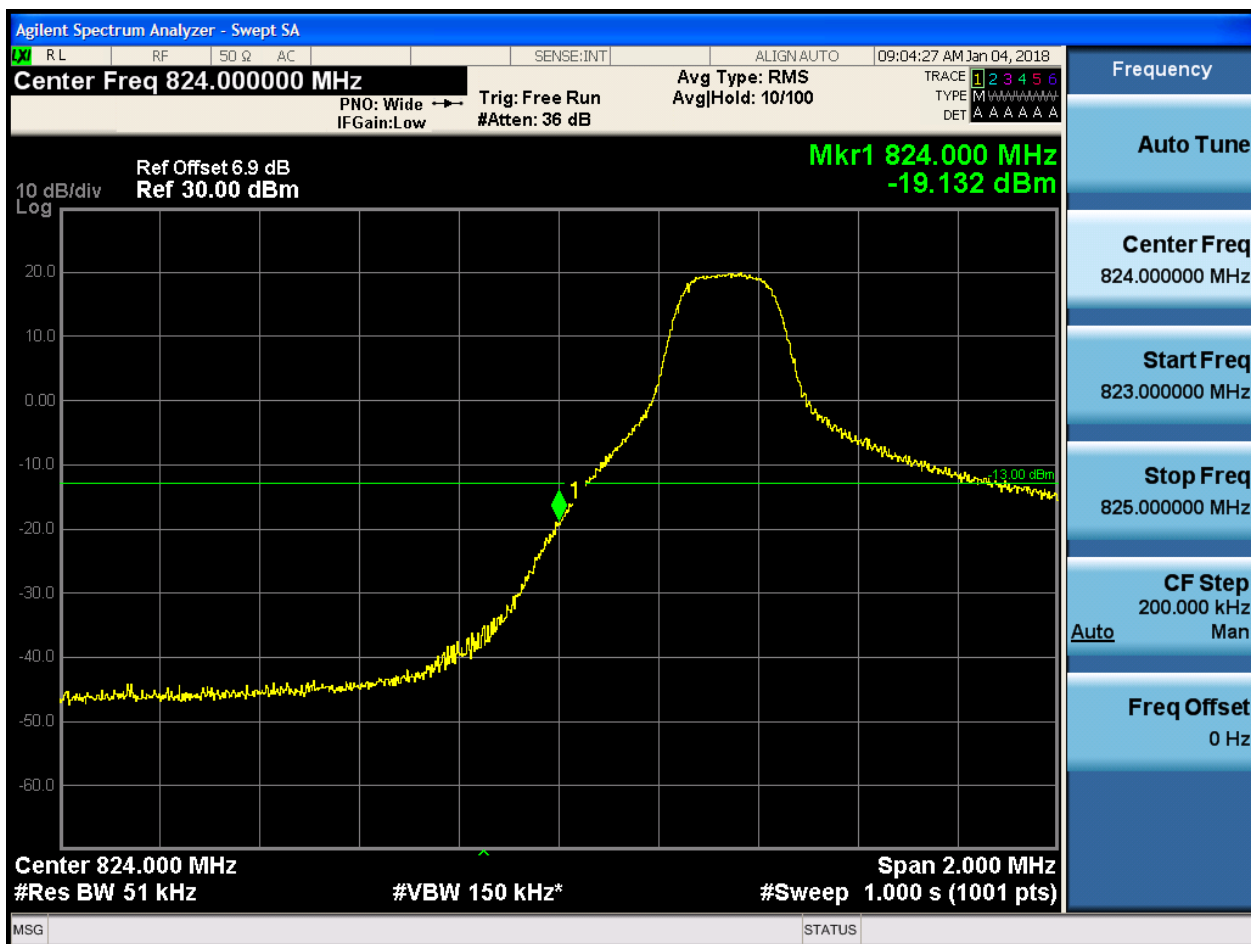
Freq Offset
0 Hz

MSG STATUS

5.1.1.1.3 Test Bandwidth = 5

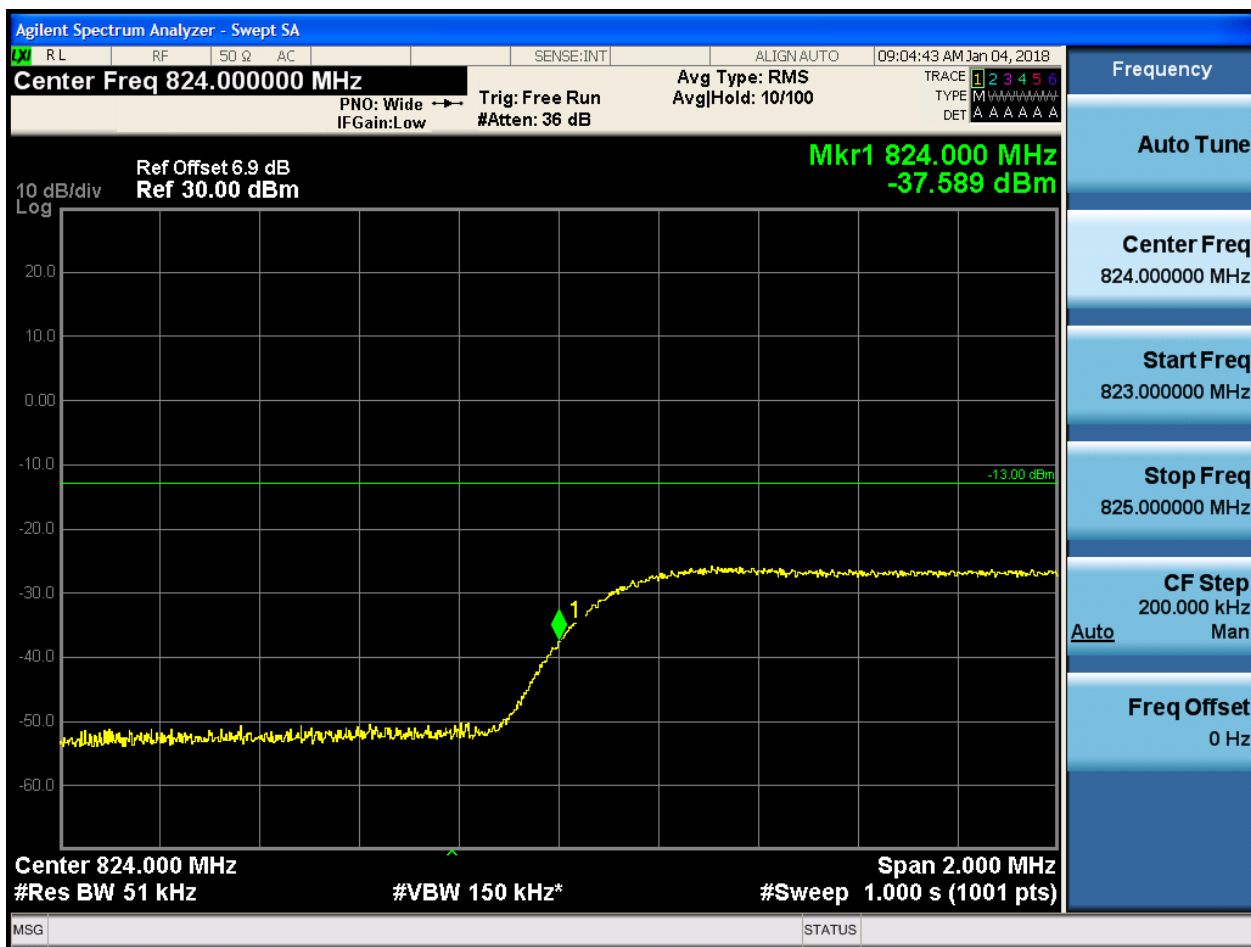
5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0





5.1.1.1.3.1.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:05:00 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-31.669 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 51 kHz
#VBW 150 kHz
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 09:05:17 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-27.477 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
824.000000 MHz

Start Freq
823.000000 MHz

Stop Freq
825.000000 MHz

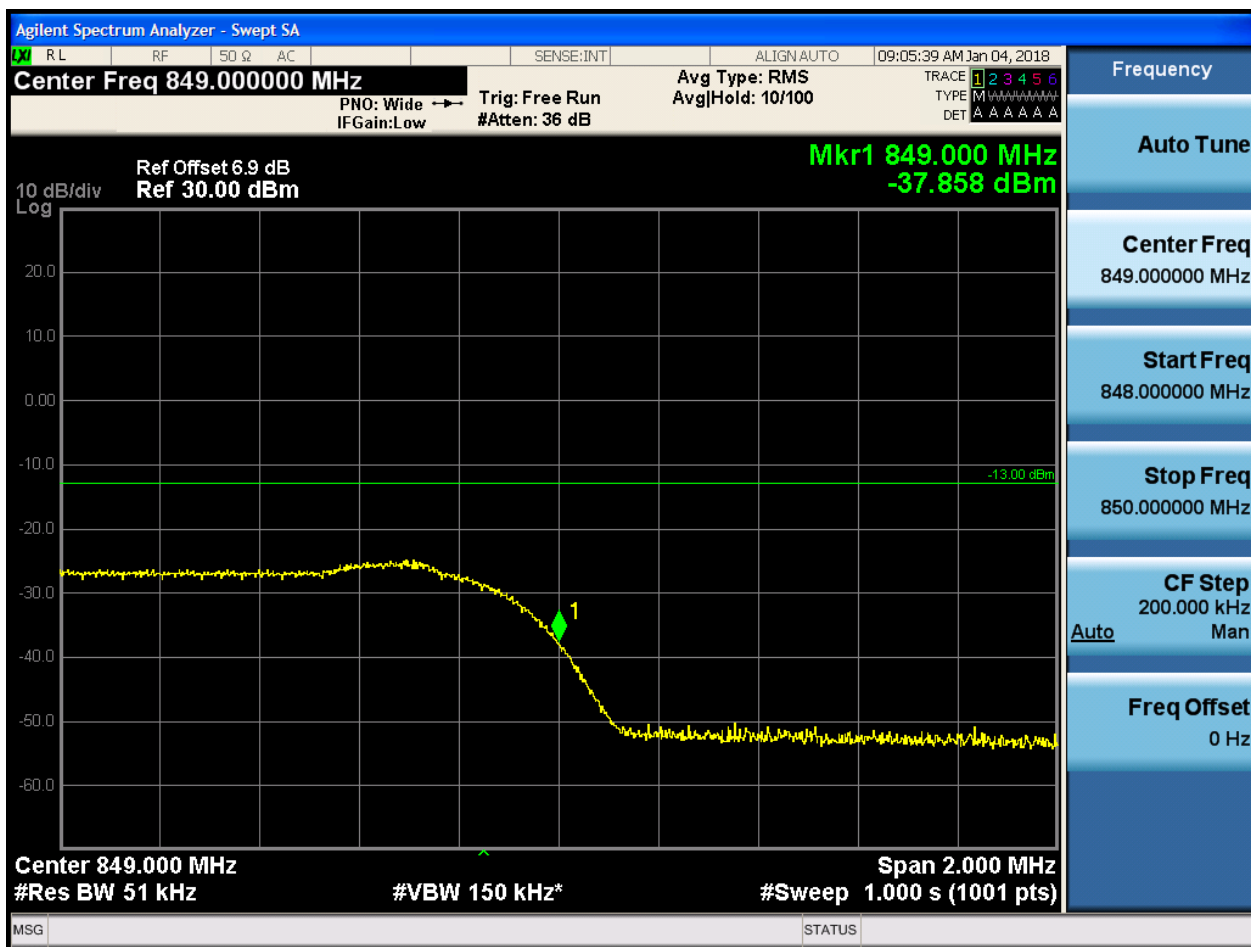
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.3.2 Test Channel = HCH

5.1.1.1.3.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:05:56 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-19.673 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:06:13 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-33.113 dBm

10 dB/div
Log

-13.00 dBm

Center 849.000 MHz
#Res BW 51 kHz

#VBW 150 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq 849.000000 MHz
Start Freq 848.000000 MHz
Stop Freq 850.000000 MHz
CF Step 200.000 kHz Auto Man
Freq Offset 0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:06:29 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 8/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-29.469 dBm

10 dB/div
Log

20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0

-13.00 dBm

1

Center 849.000 MHz
#Res BW 51 kHz

#VBW 150 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG Alignment Completed STATUS

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

CF Step
200.000 kHz
Auto Man

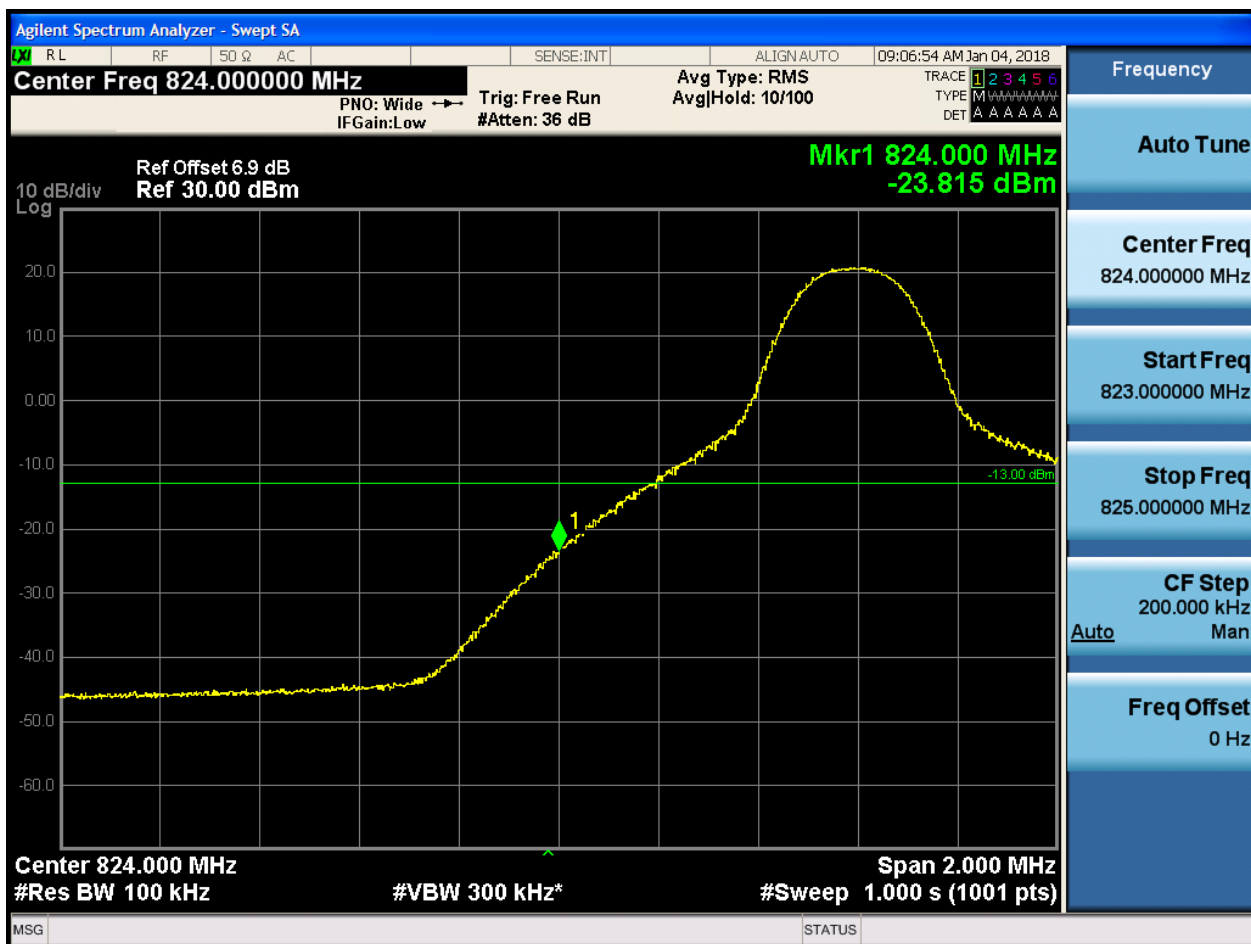
Freq Offset
0 Hz



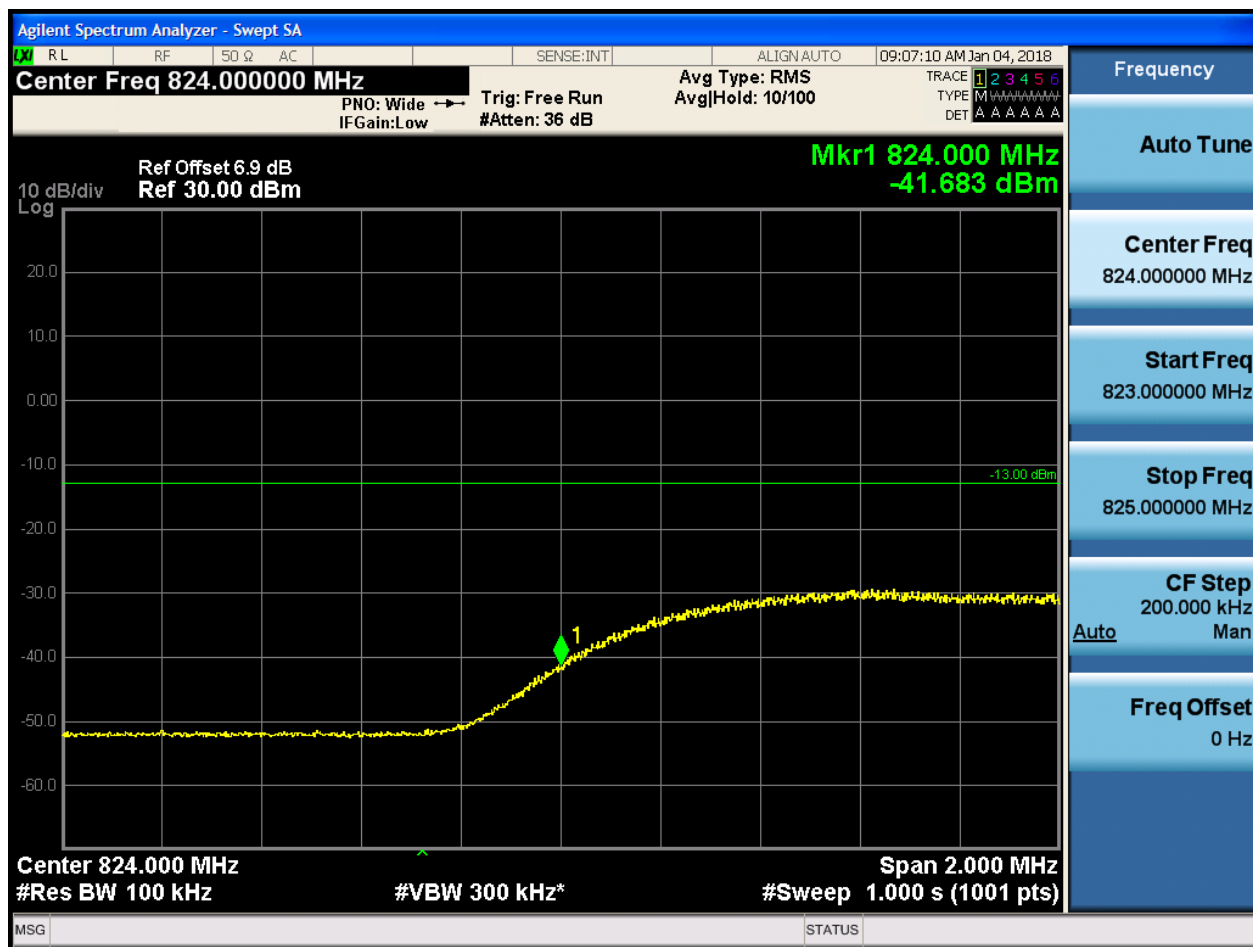
5.1.1.1.4 Test Bandwidth = 10

5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0

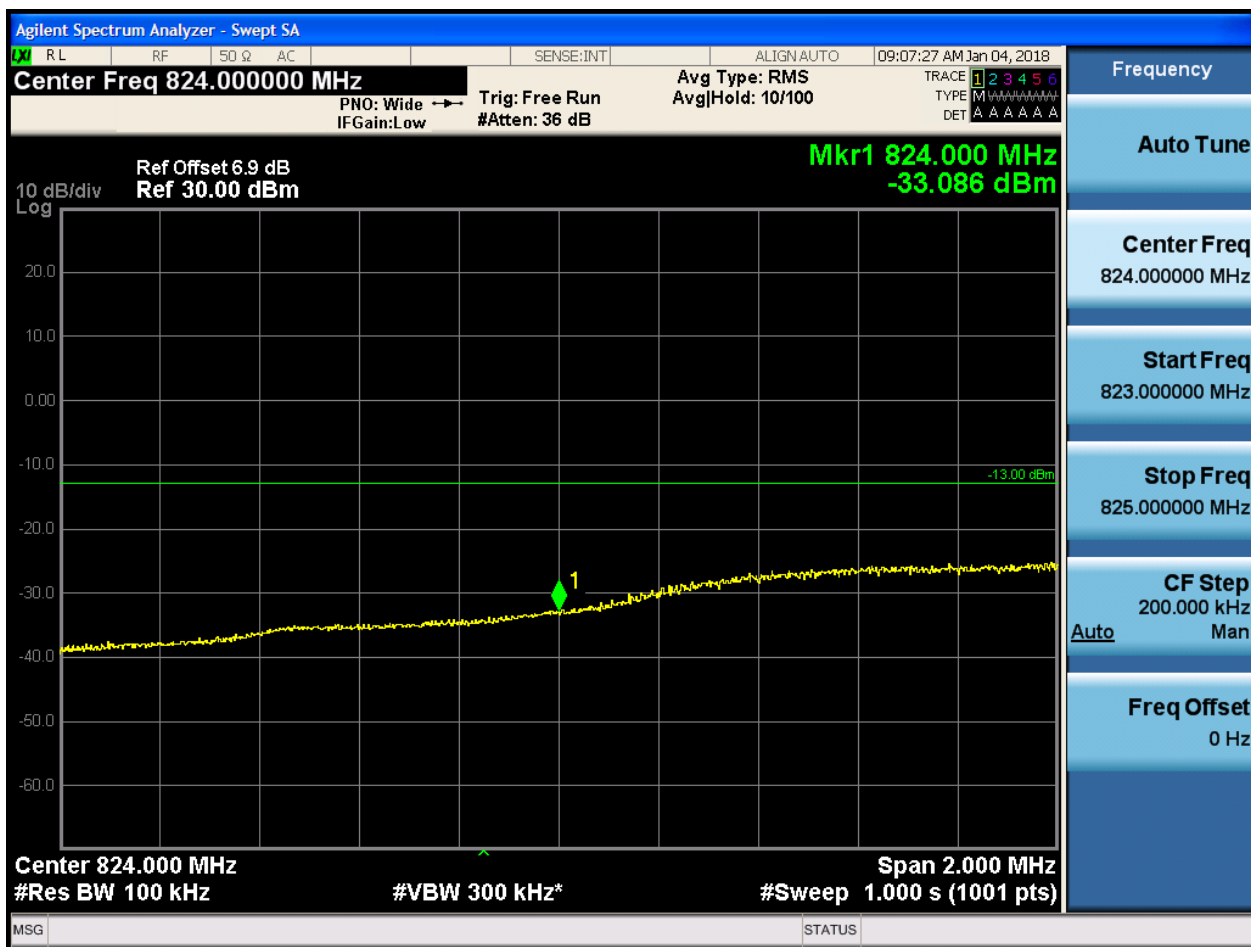


5.1.1.1.4.1.2 Test RB = RB1#49





5.1.1.1.4.1.3 Test RB = RB25#13





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 09:07:44 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 10/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 823.990 MHz
-30.312 dBm

-13.00 dBm

1

Center 824.000 MHz
#Res BW 100 kHz

#VBW 300 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
824.000000 MHz

Start Freq
823.000000 MHz

Stop Freq
825.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:08:22 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-22.797 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:08:38 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-34.185 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
849.000000 MHz
Start Freq
848.000000 MHz
Stop Freq
850.000000 MHz
CF Step
200.000 kHz
Auto Man
Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 09:08:54 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.010 MHz
-30.848 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

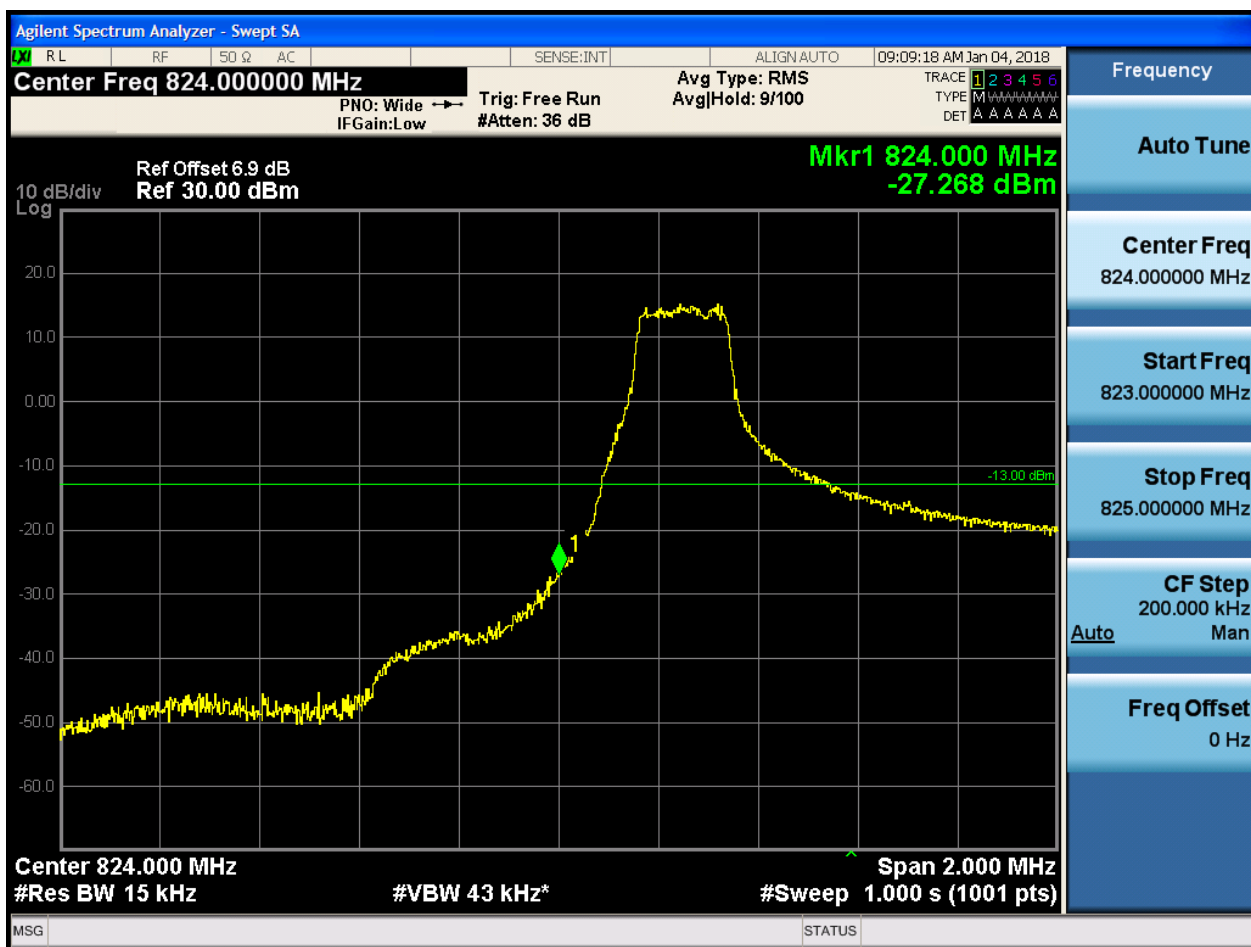


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 1.4

5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0





5.1.1.2.1.1.2 Test RB = RB1#5





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:09:50 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 823.940 MHz
-33.482 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
824.000000 MHz

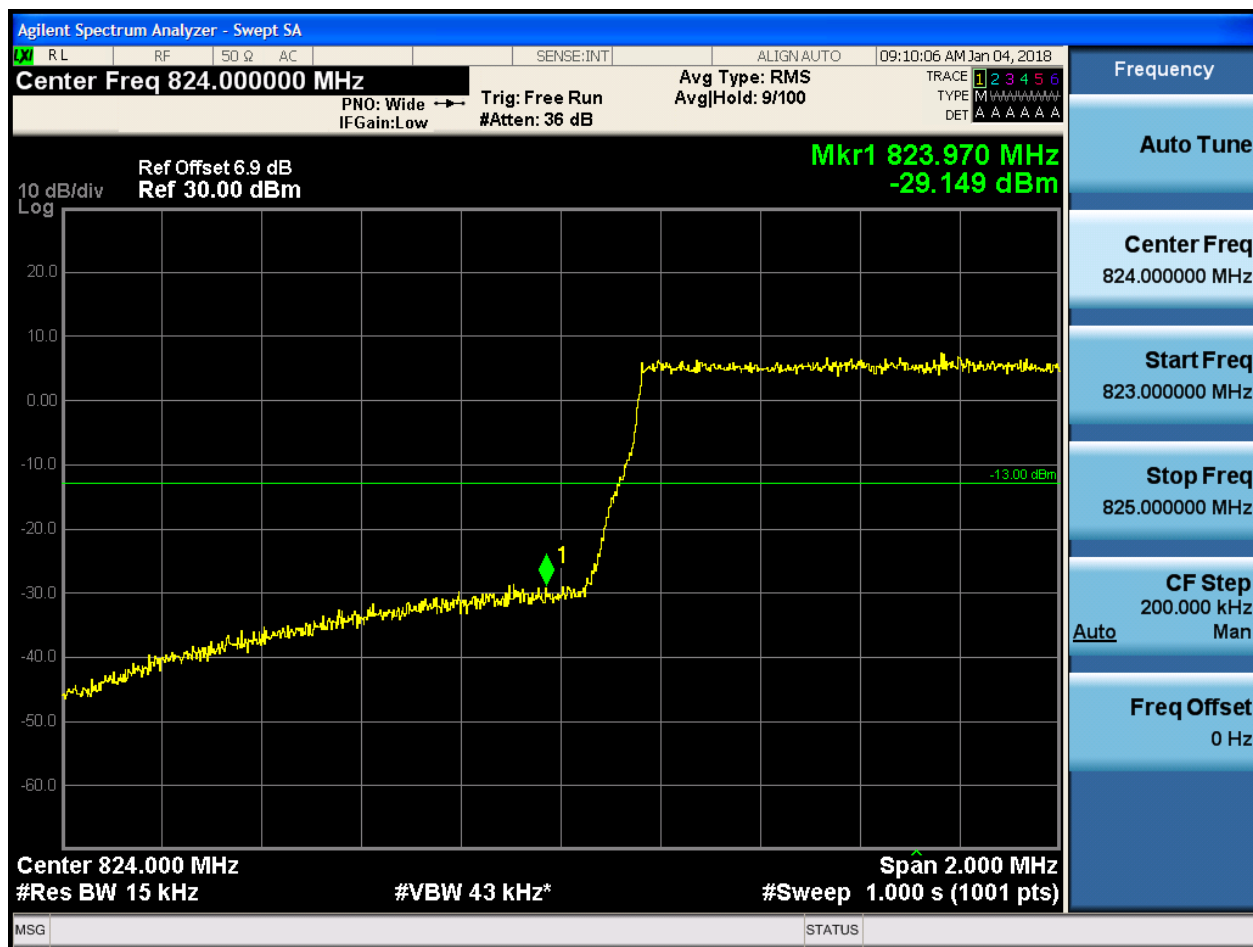
Start Freq
823.000000 MHz

Stop Freq
825.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

5.1.1.2.1.1.4 Test RB = RB6#0



5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:10:44 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-26.915 dBm

10 dB/div
Log

-13.00 dBm

Center 849.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

PNO: Wide → Trig: Free Run
IFGain: Low #Atten: 36 dB

Avg Type: RMS
Avg/Hold: 9/100

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.070 MHz
-28.134 dBm

10 dB/div Log

Center 849.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

Frequency	
Auto Tune	
Center Freq	849.000000 MHz
Start Freq	848.000000 MHz
Stop Freq	850.000000 MHz
CF Step	200.000 kHz
<u>Auto</u>	Man
Freq Offset	0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 849.000 MHz
-30.124 dBm

Center 849.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

CF Step
200.000 kHz
Auto

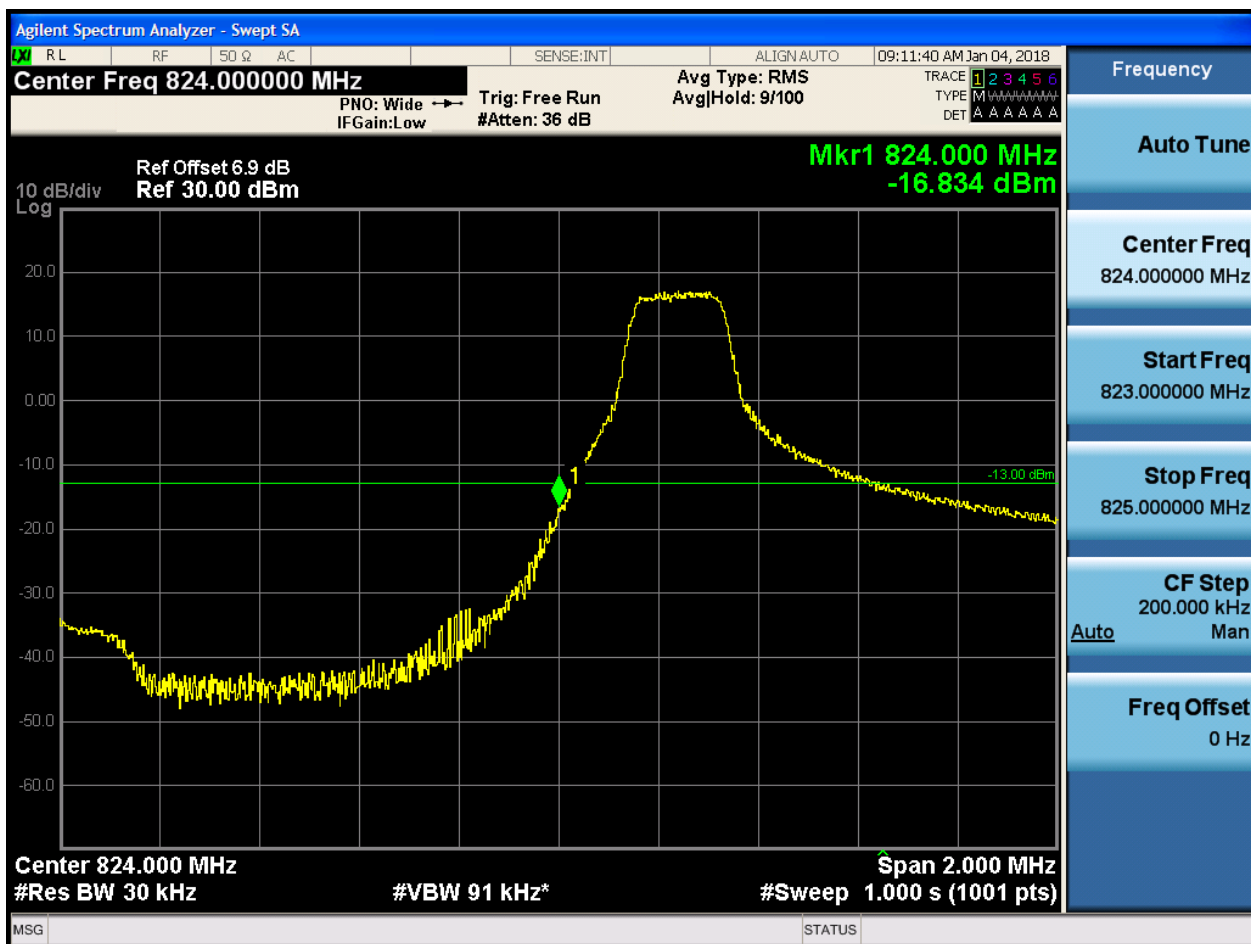
Freq Offset
0 Hz



5.1.1.2.2 Test Bandwidth = 3

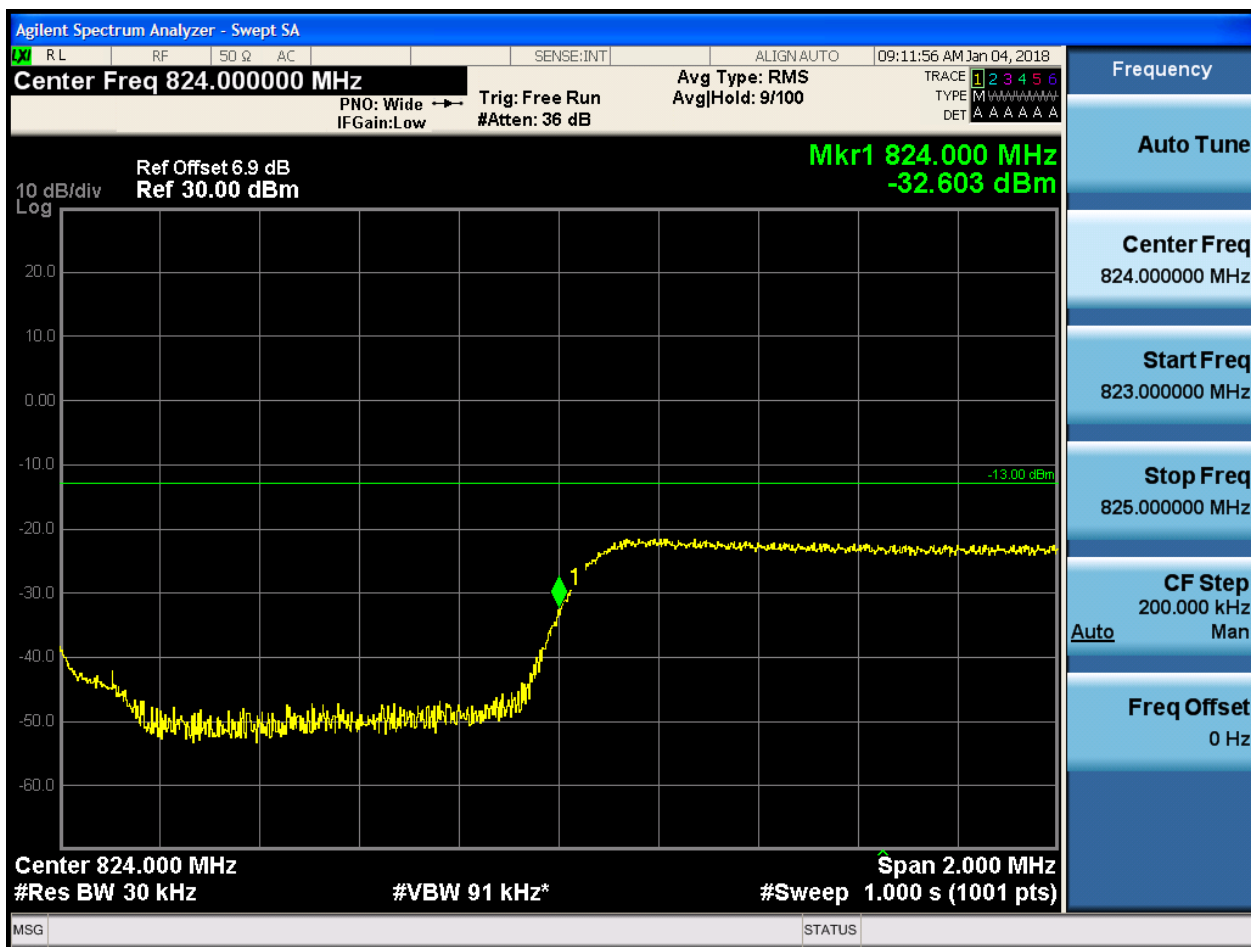
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0





5.1.1.2.2.1.2 Test RB = RB1#14





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:12:12 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
 PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
 #Atten: 36 dB

TRACE 1 2 3 4 5 6
 TYPE M W W W W W W W
 DET A A A A A A

Ref Offset 6.9 dB
 Ref 30.00 dBm

Mkr1 824.000 MHz
 -30.985 dBm

10 dB/div
 Log

Center 824.000 MHz
 #Res BW 30 kHz
 #VBW 91 kHz*
 Span 2.000 MHz
 #Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
 824.000000 MHz

Start Freq
 823.000000 MHz

Stop Freq
 825.000000 MHz

CF Step
 200.000 kHz
 Auto Man

Freq Offset
 0 Hz

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:12:28 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-28.189 dBm

10 dB/div
Log

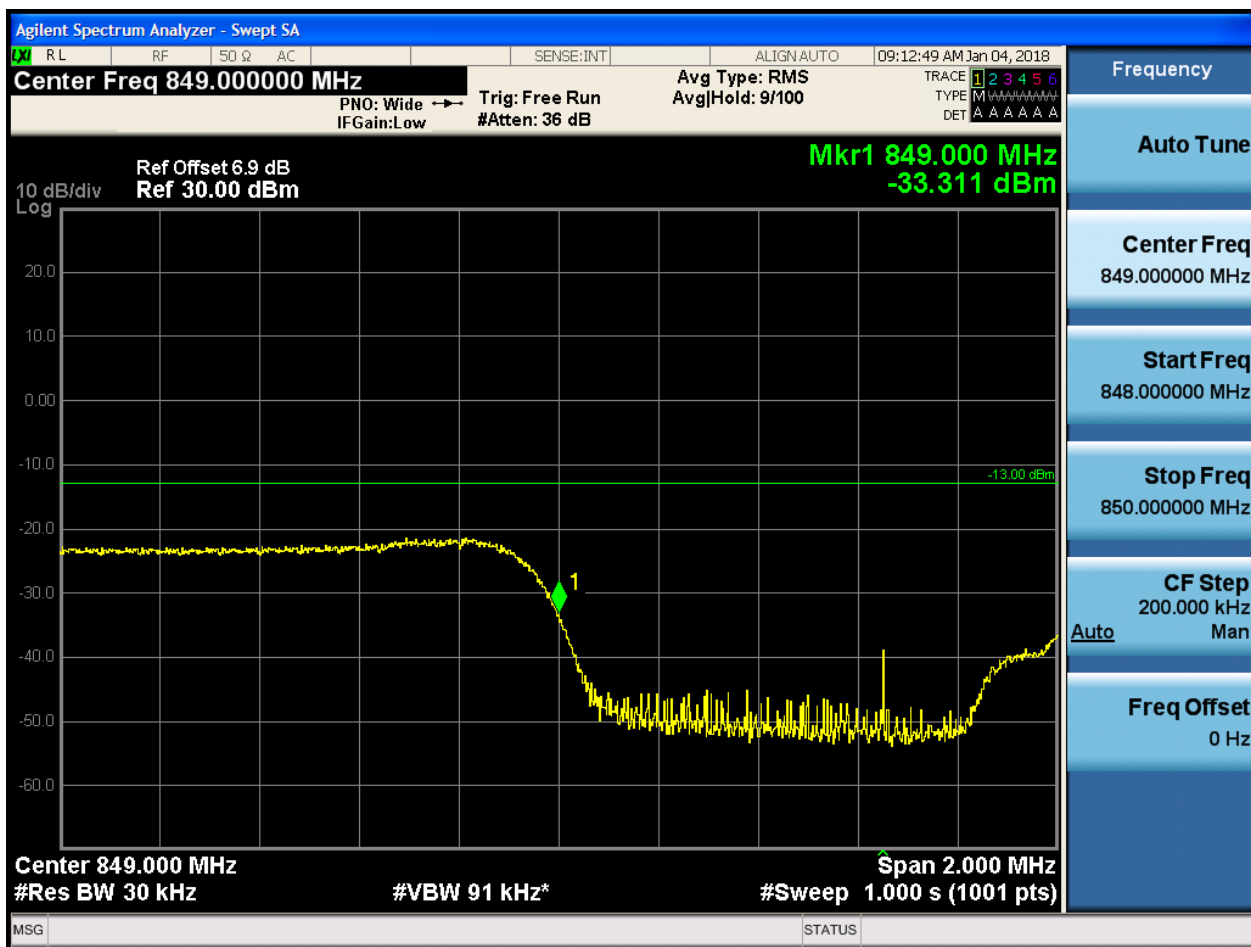
Center 824.000 MHz
#Res BW 30 kHz
#VBW 91 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



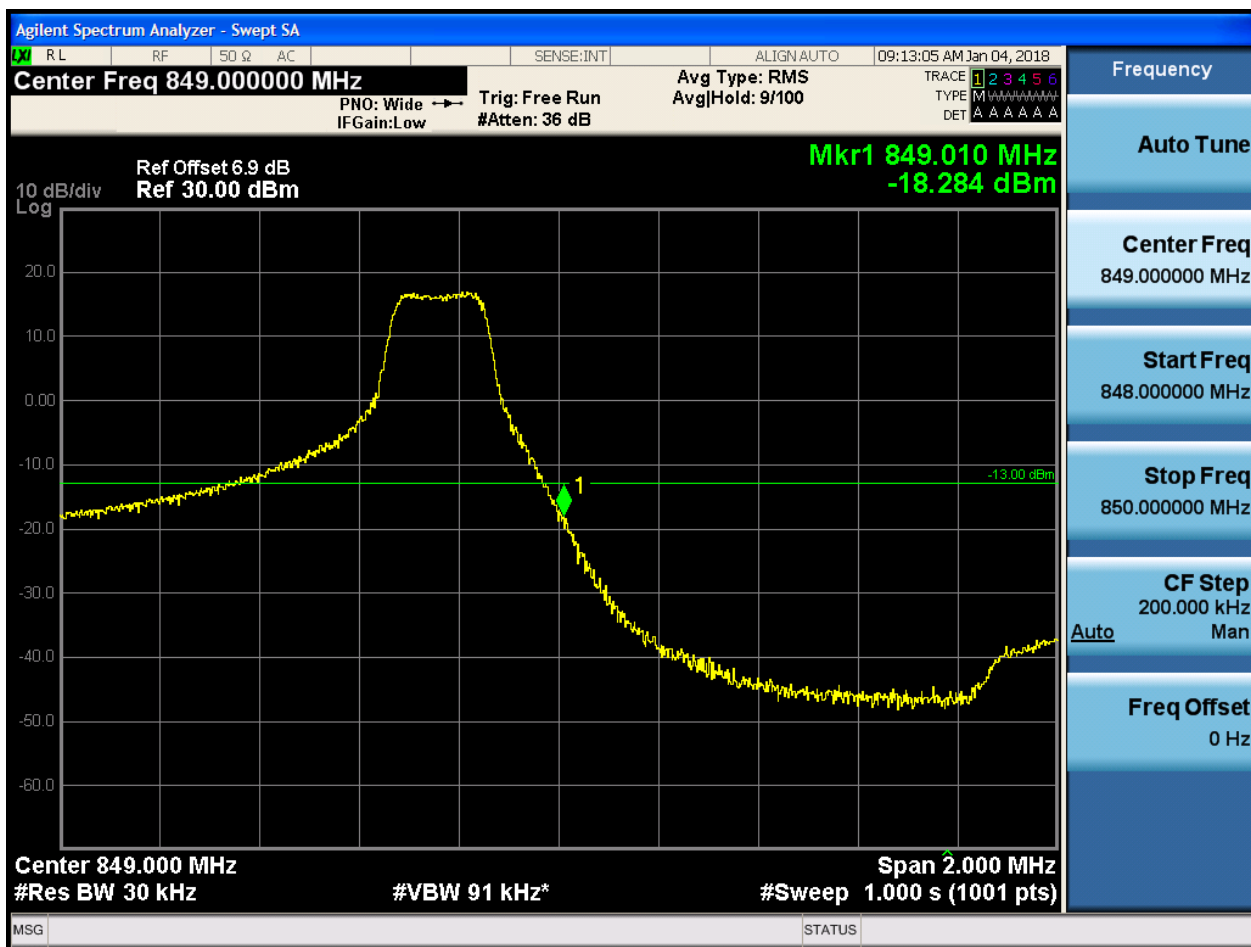
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



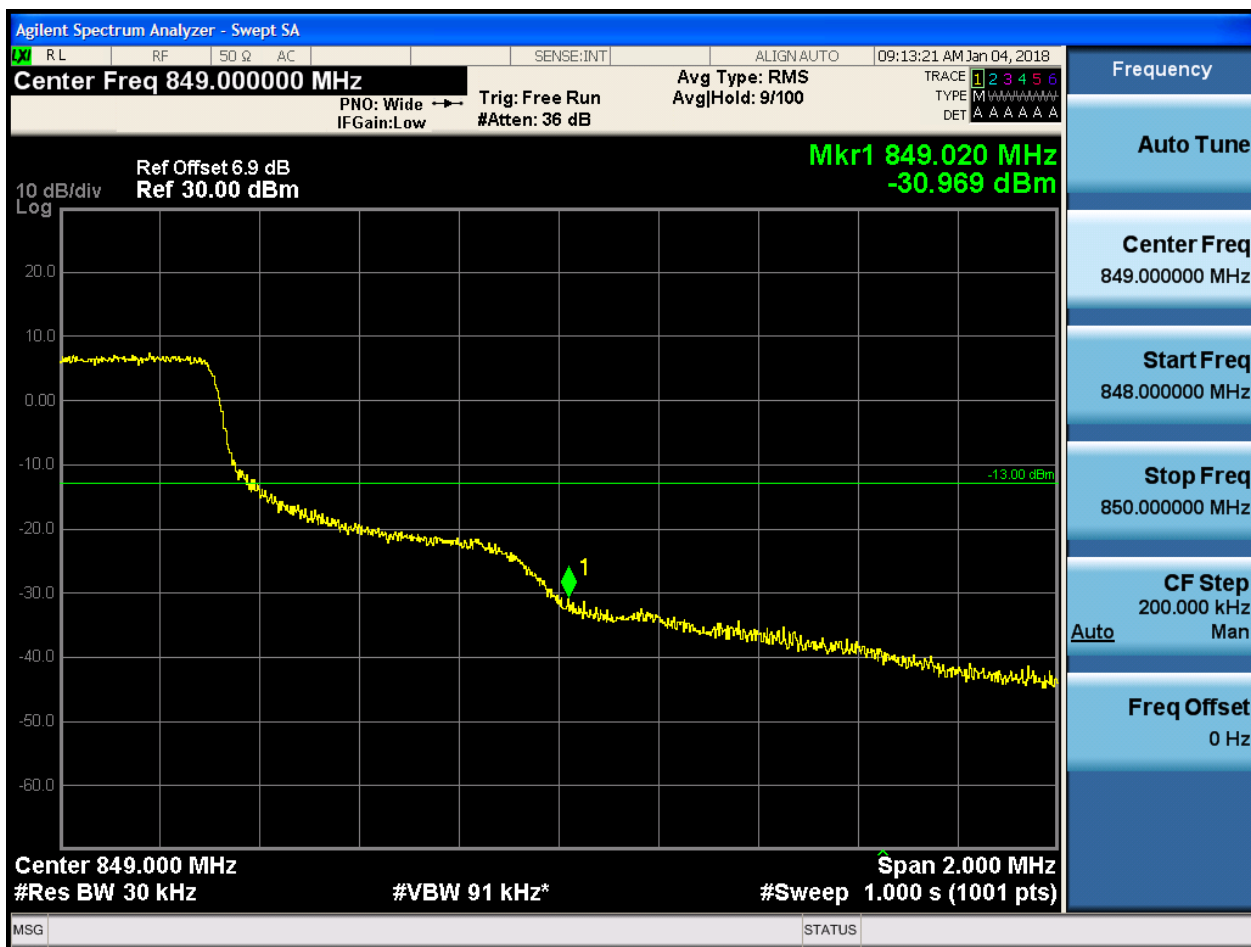


5.1.1.2.2.2 Test RB = RB1#14





5.1.1.2.2.3 Test RB = RB8#4





5.1.1.2.2.4 Test RB = RB15#0

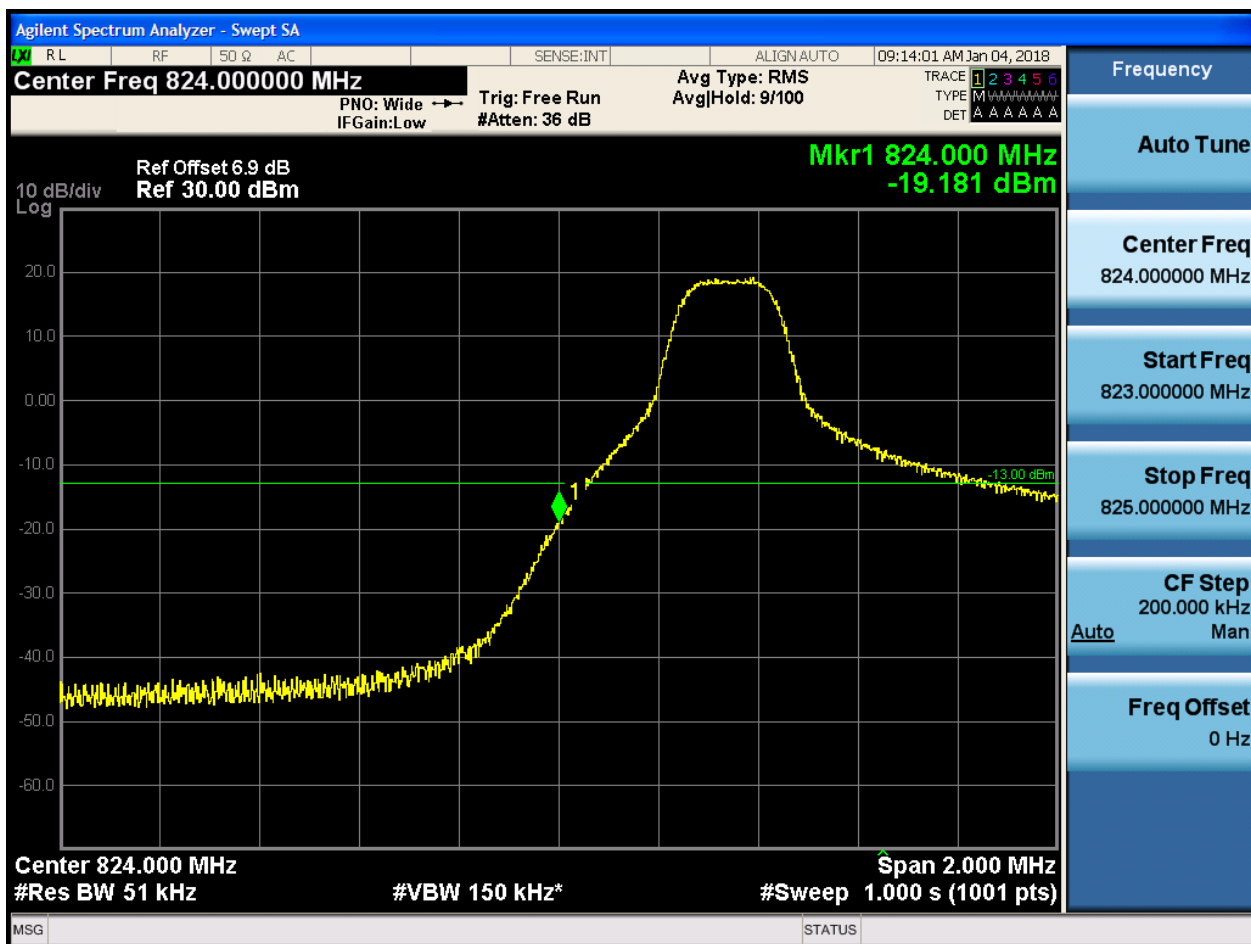




5.1.1.2.3 Test Bandwidth = 5

5.1.1.2.3.1 Test Channel = LCH

5.1.1.2.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:14:17 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-38.797 dBm

10 dB/div
Log

-13.00 dBm

Center 824.000 MHz
#Res BW 51 kHz

#VBW 150 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
824.000000 MHz

Start Freq
823.000000 MHz

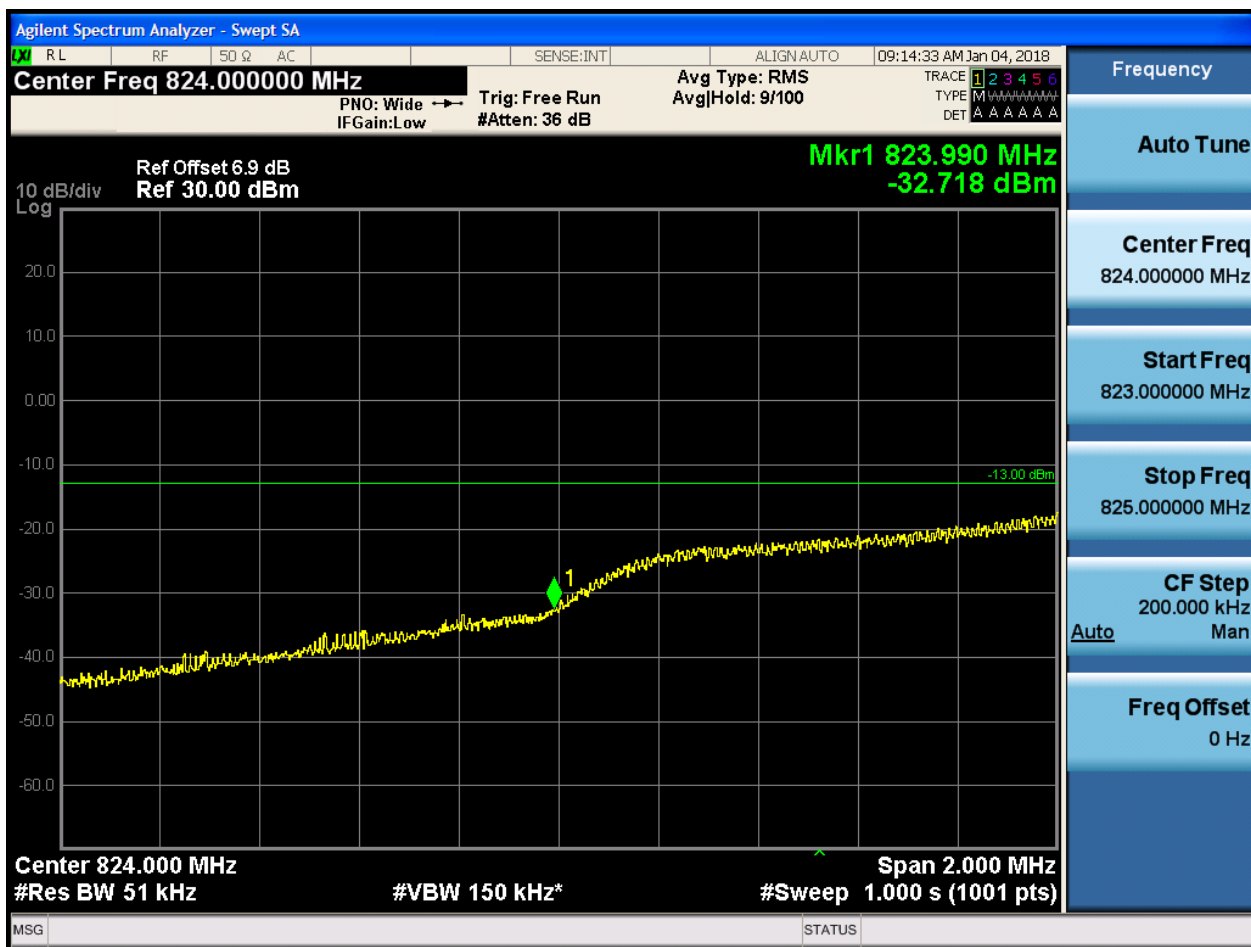
Stop Freq
825.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

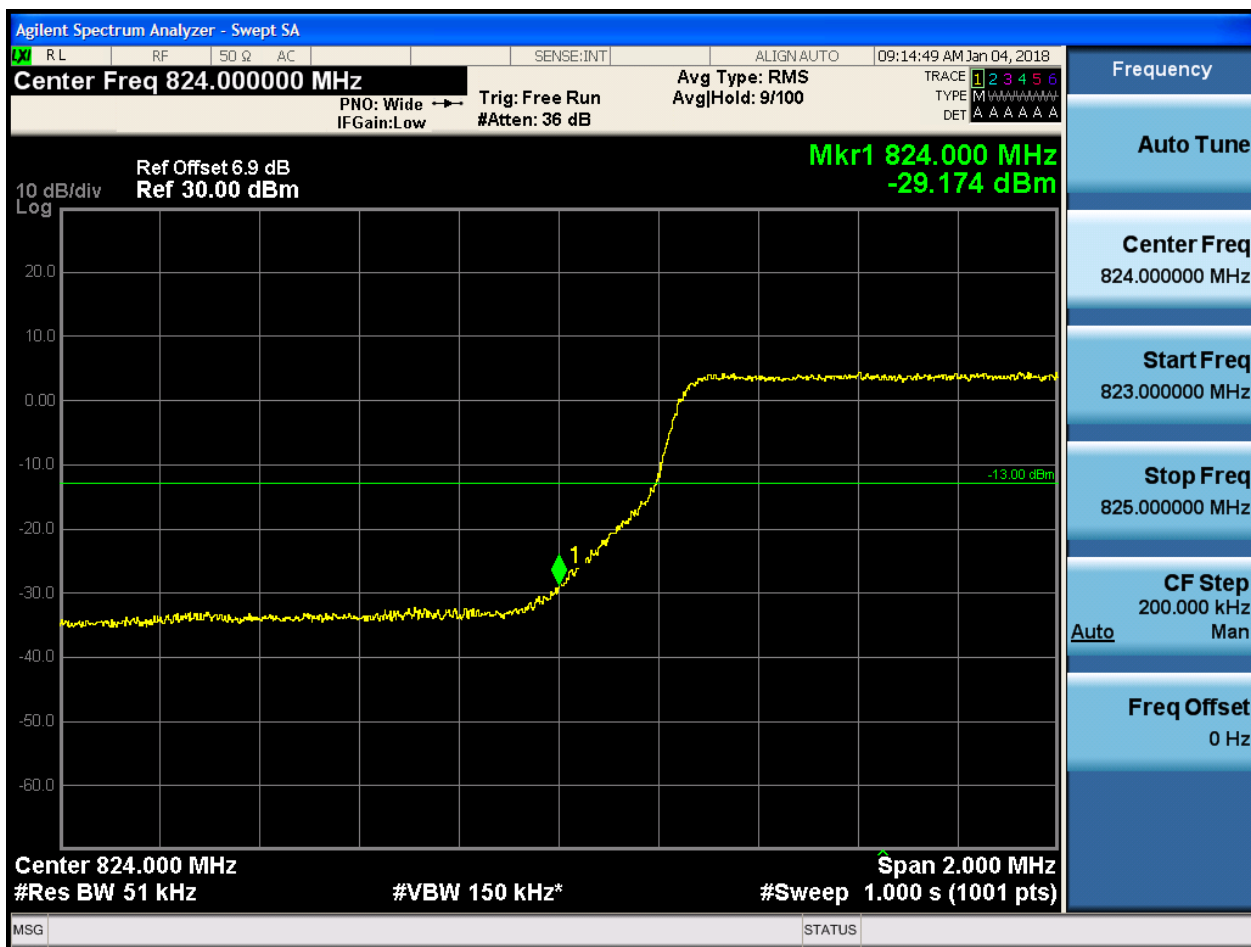


5.1.1.2.3.1.3 Test RB = RB12#6





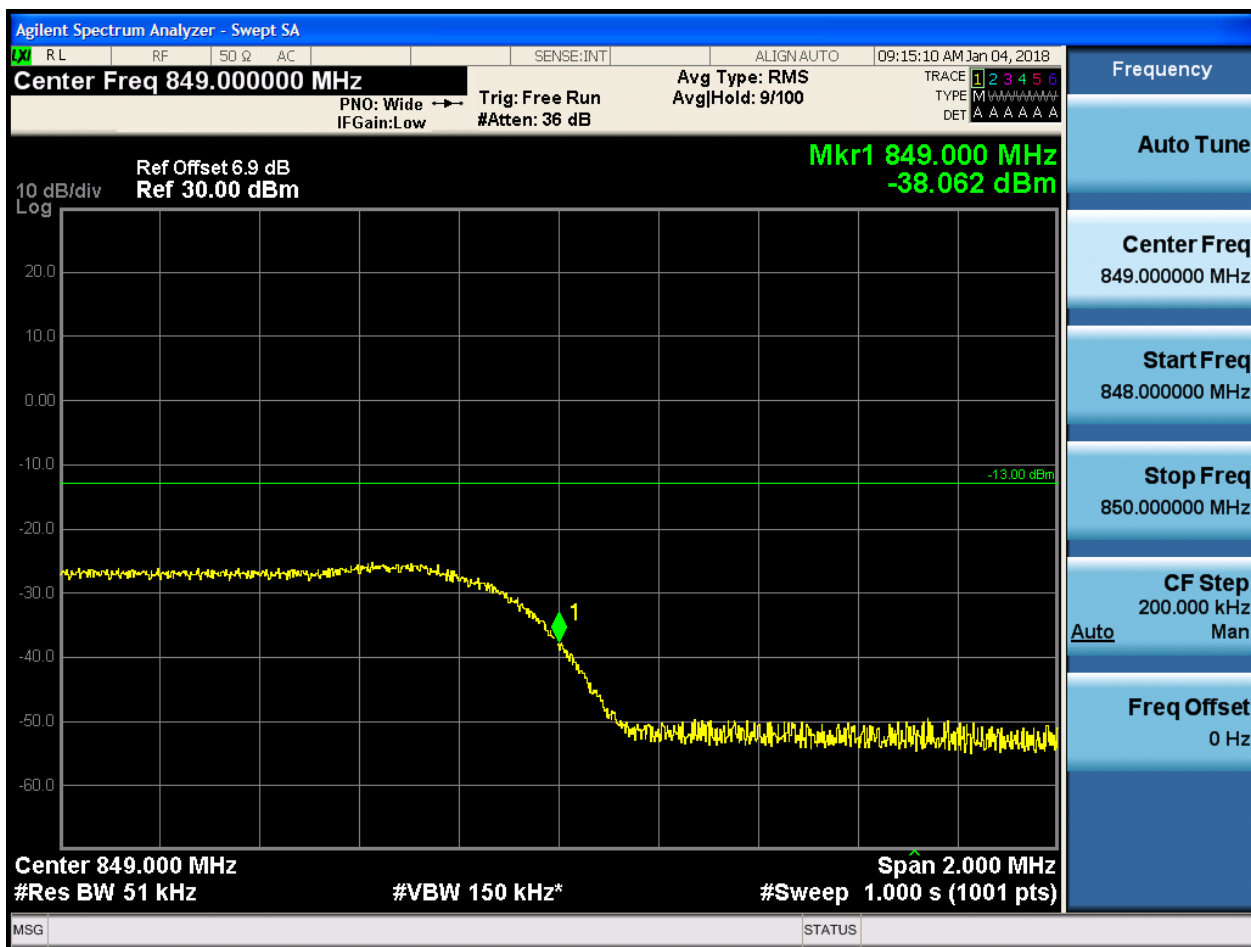
5.1.1.2.3.1.4 Test RB = RB25#0





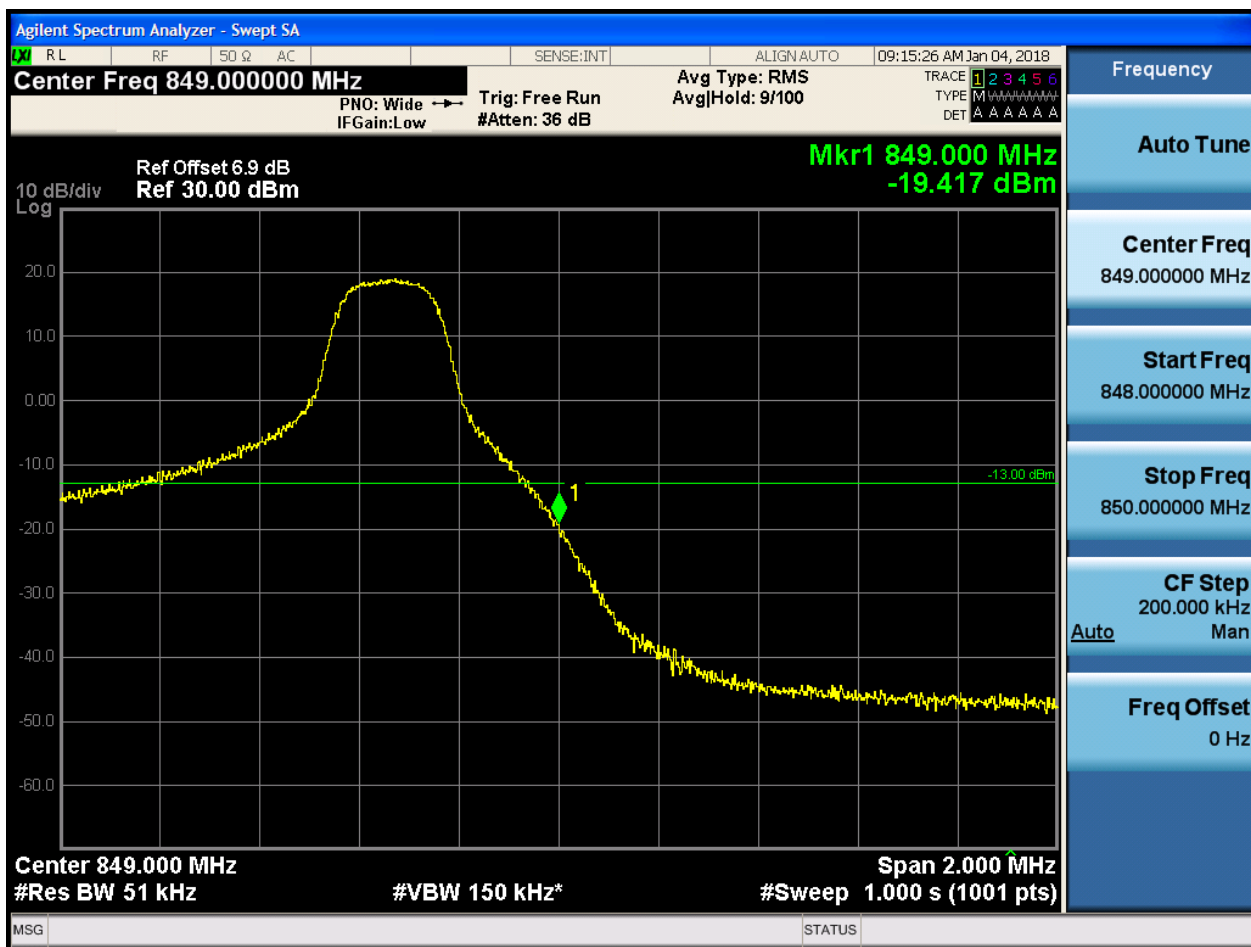
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:15:42 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.000 MHz
-33.572 dBm

10 dB/div
Log

Center 849.000 MHz
#Res BW 51 kHz #VBW 150 kHz* Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 849.000 MHz
-29.500 dBm

Center 849.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

CF Step
200.000 kHz
Auto

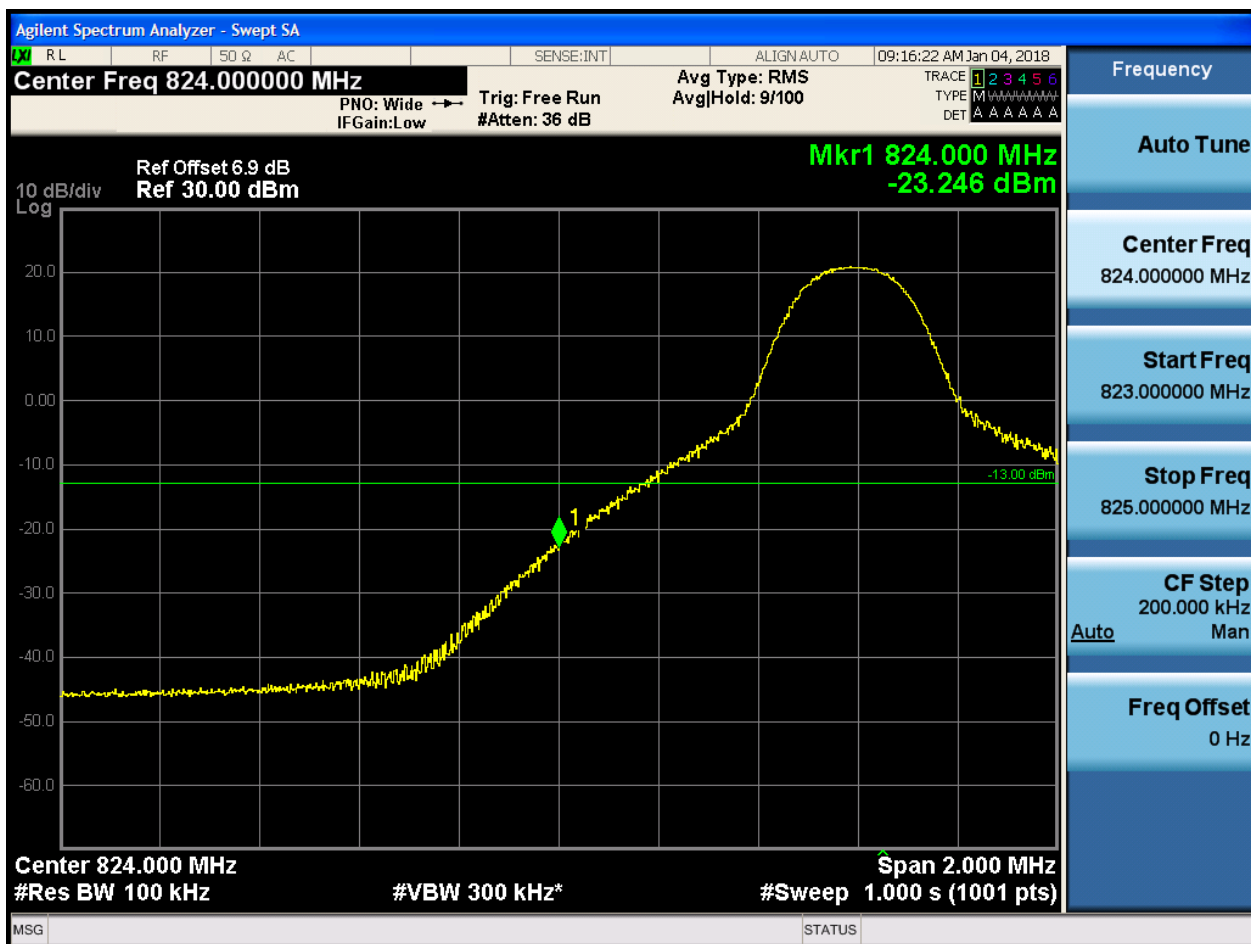
Freq Offset
0 Hz



5.1.1.2.4 Test Bandwidth = 10

5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:16:38 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide Trig: Free Run
IFGain: Low #Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 823.990 MHz
-41.554 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 100 kHz #VBW 300 kHz* Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:16:54 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 823.990 MHz
-33.944 dBm

Center 824.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
824.000000 MHz

Start Freq
823.000000 MHz

Stop Freq
825.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:17:10 AM Jan 04, 2018

Center Freq 824.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 9/100
#Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-30.837 dBm

10 dB/div
Log

Center 824.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz Avg Type: RMS Trace 1 2 3 4 5 6
 PNO: Wide → Trig: Free Run AvgHold: 9/100
 IFGain: Low #Atten: 36 dB TYPE M W W W W W W W
 DET A A A A A A

Ref Offset 6.9 dB Mkr1 849.000 MHz
 Ref 30.00 dBm -22.313 dBm

10 dB/div Log

Center 849.000 MHz Span 2.000 MHz
 #Res BW 100 kHz #VBW 300 kHz* #Sweep 1.000 s (1001 pts)

Frequency
Auto Tune
Center Freq 849.000000 MHz
Start Freq 848.000000 MHz
Stop Freq 850.000000 MHz
CF Step 200.000 kHz <u>Auto</u> Man
Freq Offset 0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 849.000 MHz
-33.776 dBm

Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*

Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer in Swept SA mode. The main display area shows a frequency spectrum with a yellow trace. A green horizontal line is drawn across the plot at -13.00 dBm. A yellow marker labeled '1' is placed on the trace at 849.000 MHz. The y-axis is labeled '10 dB/div' and 'Log'. The x-axis represents frequency. The top of the screen displays various settings: Center Freq 849.000000 MHz, Ref Offset 6.9 dB, Ref 30.00 dBm, Mkr1 849.000 MHz, -33.776 dBm, Center 849.000 MHz, #Res BW 100 kHz, #VBW 300 kHz*, Span 2.000 MHz, and #Sweep 1.000 s (1001 pts). The right side of the screen has a blue sidebar with buttons for Frequency, Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, and Freq Offset.



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 09:18:20 AM Jan 04, 2018

Center Freq 849.000000 MHz Avg Type: RMS
PNO: Wide Trig: Free Run
IFGain:Low #Atten: 36 dB

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 849.020 MHz
-31.126 dBm

10 dB/div
Log

20.0
10.0
0.0
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0

-13.00 dBm

1

Center 849.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
849.000000 MHz
Start Freq
848.000000 MHz
Stop Freq
850.000000 MHz
CF Step
200.000 kHz
Auto Man
Freq Offset
0 Hz

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

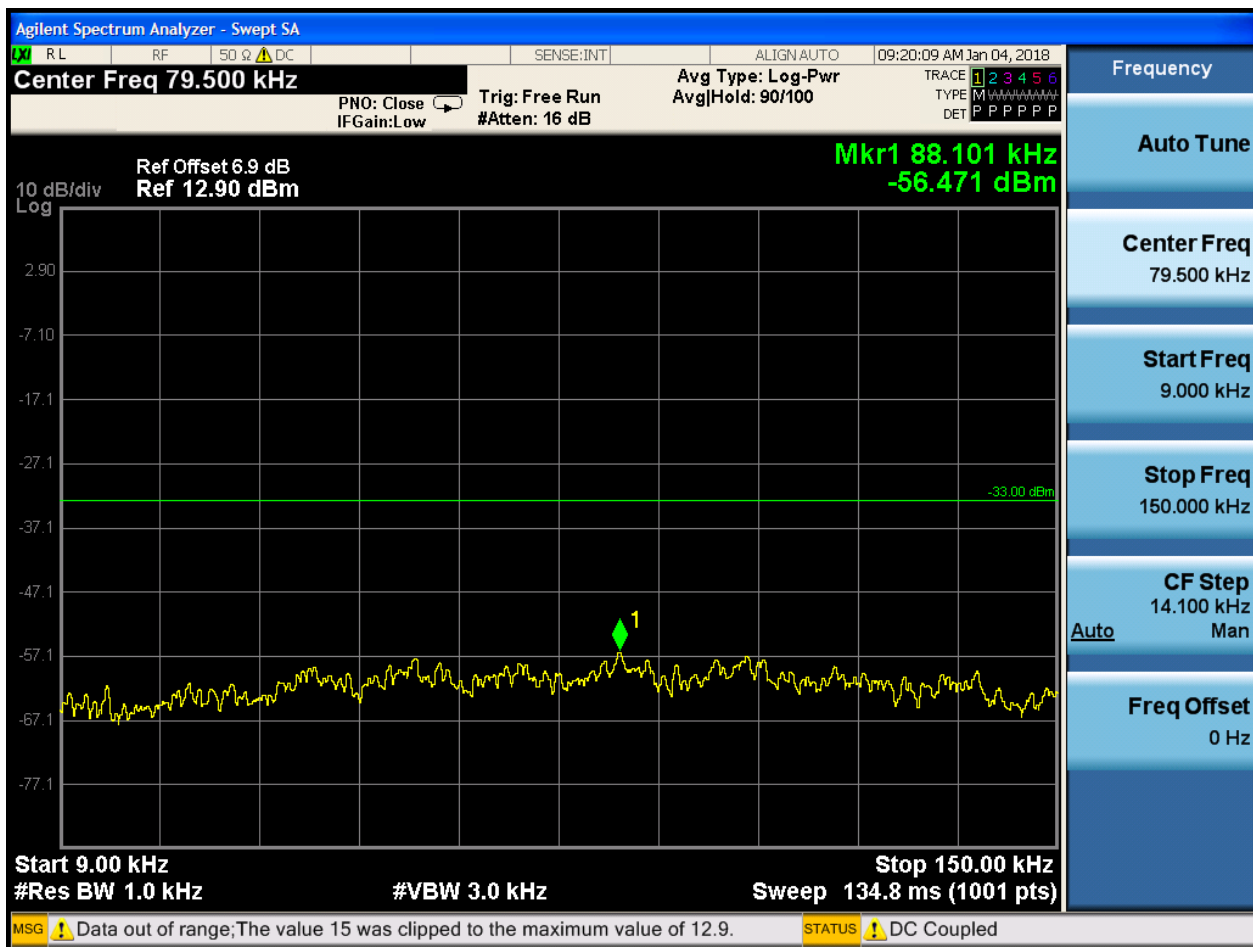
6.1.1 Test Band = BAND5

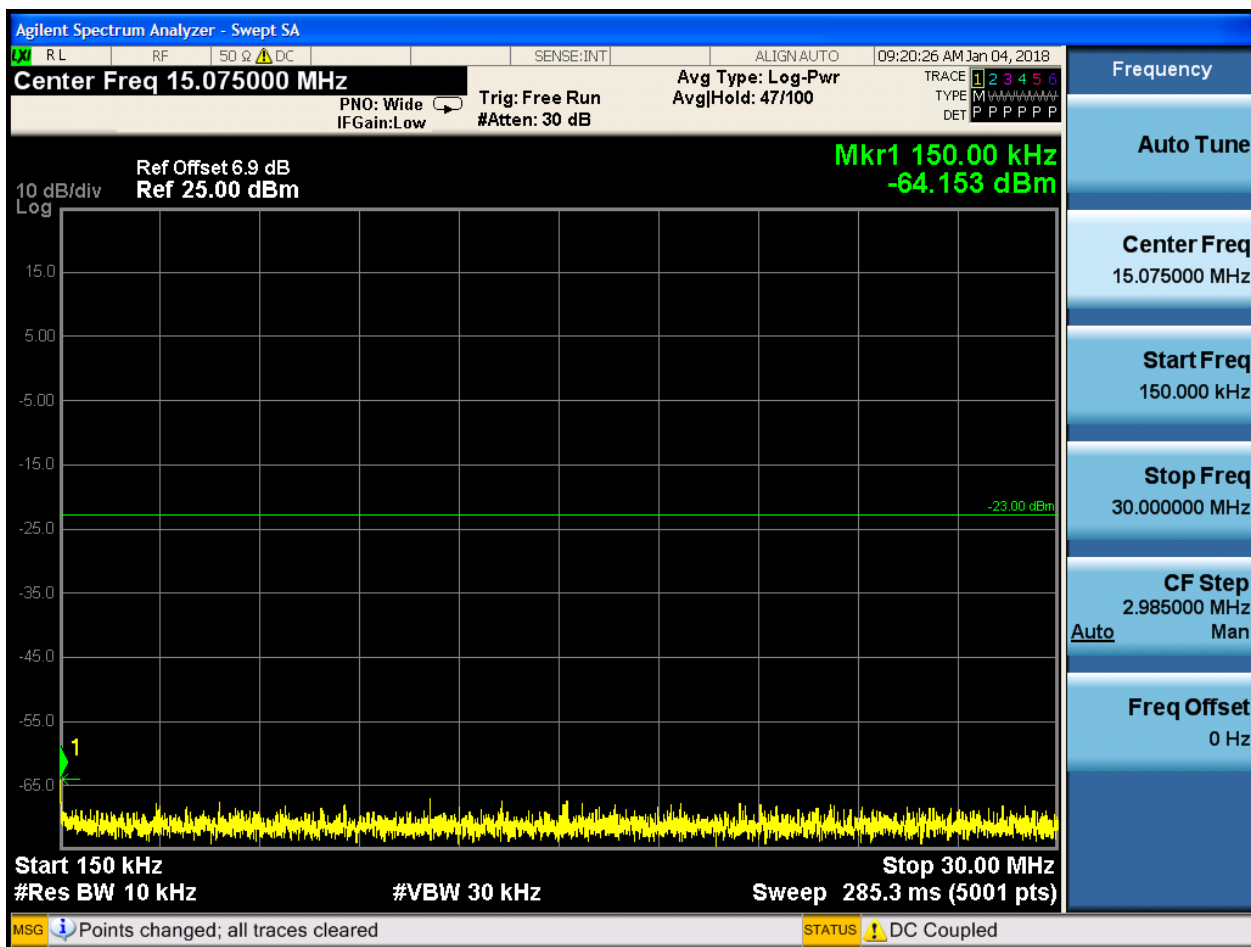
6.1.1.1 Test Mode = LTE/TM1

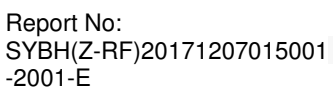
6.1.1.1.1 Test Bandwidth = 1.4

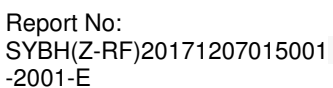
6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0











6.1.1.1.2 Test Channel = MCH

6.1.1.1.2.1 Test RB = RB1#0

