



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
BAND41	LTE/TM 1	5	LCH	RB1#0	22.68	22.68	33	PASS
				RB1#13	23.14	23.14	33	PASS
				RB1#24	22.55	22.55	33	PASS
				RB12#0	22.06	22.06	33	PASS
				RB12#6	22.18	22.18	33	PASS
				RB12#13	21.98	21.98	33	PASS
			MCH	RB25#0	21.96	21.96	33	PASS
				RB1#0	23.09	23.09	33	PASS
				RB1#13	23.27	23.27	33	PASS
				RB1#24	22.7	22.7	33	PASS
				RB12#0	22.27	22.27	33	PASS
				RB12#6	22.25	22.25	33	PASS
				RB12#13	22.04	22.04	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	22.13	22.13	33	PASS
			HCH	RB1#0	22.89	22.89	33	PASS
				RB1#13	23.11	23.11	33	PASS
				RB1#24	22.94	22.94	33	PASS
				RB12#0	22.16	22.16	33	PASS
				RB12#6	22.11	22.11	33	PASS
				RB12#13	21.91	21.91	33	PASS
				RB25#0	21.92	21.92	33	PASS
		10	LCH	RB1#0	22.87	22.87	33	PASS
				RB1#25	23.19	23.19	33	PASS
				RB1#49	22.61	22.61	33	PASS
				RB25#0	22.04	22.04	33	PASS
				RB25#13	22.12	22.12	33	PASS
				RB25#25	22.07	22.07	33	PASS
				RB50#0	22.27	22.27	33	PASS
			MCH	RB1#0	23.33	23.33	33	PASS
				RB1#25	23.35	23.35	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	22.96	22.96	33	PASS
				RB25#0	22.32	22.32	33	PASS
				RB25#13	22.3	22.3	33	PASS
				RB25#25	22.17	22.17	33	PASS
				RB50#0	22.24	22.24	33	PASS
			HCH	RB1#0	23.39	23.39	33	PASS
				RB1#25	23.07	23.07	33	PASS
				RB1#49	23.1	23.1	33	PASS
				RB25#0	22.07	22.07	33	PASS
				RB25#13	22.06	22.06	33	PASS
				RB25#25	21.92	21.92	33	PASS
				RB50#0	21.93	21.93	33	PASS
		15	LCH	RB1#0	23.12	23.12	33	PASS
				RB1#38	23.44	23.44	33	PASS
				RB1#74	22.64	22.64	33	PASS
				RB36#0	22.41	22.41	33	PASS
				RB36#18	22.33	22.33	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	22.09	22.09	33	PASS
				RB75#0	22.38	22.38	33	PASS
			MCH	RB1#0	23.37	23.37	33	PASS
				RB1#38	23.46	23.46	33	PASS
				RB1#74	23.04	23.04	33	PASS
				RB36#0	22.32	22.32	33	PASS
				RB36#18	22.34	22.34	33	PASS
				RB36#39	22.22	22.22	33	PASS
				RB75#0	22.22	22.22	33	PASS
			HCH	RB1#0	23.75	23.75	33	PASS
				RB1#38	23.16	23.16	33	PASS
				RB1#74	22.77	22.77	33	PASS
				RB36#0	22.11	22.11	33	PASS
				RB36#18	22.2	22.2	33	PASS
				RB36#39	21.87	21.87	33	PASS
				RB75#0	21.98	21.98	33	PASS
		20	LCH	RB1#0	23.39	23.39	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	23.23	23.23	33	PASS
				RB1#99	22.82	22.82	33	PASS
				RB50#0	22.4	22.4	33	PASS
				RB50#25	22.19	22.19	33	PASS
				RB50#50	22.1	22.1	33	PASS
				RB100#0	22.35	22.35	33	PASS
			MCH	RB1#0	23.42	23.42	33	PASS
				RB1#50	23.33	23.33	33	PASS
				RB1#99	23.15	23.15	33	PASS
				RB50#0	22.33	22.33	33	PASS
				RB50#25	22.28	22.28	33	PASS
				RB50#50	22.17	22.17	33	PASS
				RB100#0	22.24	22.24	33	PASS
			HCH	RB1#0	23.36	23.36	33	PASS
				RB1#50	23.26	23.26	33	PASS
				RB1#99	22.91	22.91	33	PASS
				RB50#0	22.4	22.4	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	22.33	22.33	33	PASS
				RB50#50	21.95	21.95	33	PASS
				RB100#0	22.24	22.24	33	PASS
	LTE/TM 2	5	LCH	RB1#0	22.57	22.57	33	PASS
				RB1#13	23	23	33	PASS
				RB1#24	22.53	22.53	33	PASS
				RB12#0	21.13	21.13	33	PASS
				RB12#6	21.21	21.21	33	PASS
				RB12#13	21.02	21.02	33	PASS
				RB25#0	21.05	21.05	33	PASS
			MCH	RB1#0	22.37	22.37	33	PASS
				RB1#13	22.51	22.51	33	PASS
				RB1#24	22.02	22.02	33	PASS
				RB12#0	21.19	21.19	33	PASS
				RB12#6	21.19	21.19	33	PASS
				RB12#13	20.98	20.98	33	PASS
				RB25#0	21.03	21.03	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	22.2	22.2	33	PASS
				RB1#13	22.39	22.39	33	PASS
				RB1#24	22.01	22.01	33	PASS
				RB12#0	21.02	21.02	33	PASS
				RB12#6	21.03	21.03	33	PASS
				RB12#13	20.85	20.85	33	PASS
				RB25#0	20.93	20.93	33	PASS
		10	LCH	RB1#0	22.23	22.23	33	PASS
				RB1#25	22.81	22.81	33	PASS
				RB1#49	22.34	22.34	33	PASS
				RB25#0	21.33	21.33	33	PASS
				RB25#13	21.43	21.43	33	PASS
				RB25#25	21.39	21.39	33	PASS
				RB50#0	21.48	21.48	33	PASS
			MCH	RB1#0	22.13	22.13	33	PASS
				RB1#25	22.41	22.41	33	PASS
				RB1#49	22.09	22.09	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.11	21.11	33	PASS
				RB25#13	21.09	21.09	33	PASS
				RB25#25	20.97	20.97	33	PASS
				RB50#0	21.09	21.09	33	PASS
			HCH	RB1#0	22.75	22.75	33	PASS
				RB1#25	22.7	22.7	33	PASS
				RB1#49	22.46	22.46	33	PASS
				RB25#0	20.91	20.91	33	PASS
				RB25#13	20.89	20.89	33	PASS
				RB25#25	20.83	20.83	33	PASS
				RB50#0	20.81	20.81	33	PASS
		15	LCH	RB1#0	22.02	22.02	33	PASS
				RB1#38	22.69	22.69	33	PASS
				RB1#74	21.84	21.84	33	PASS
				RB36#0	21.31	21.31	33	PASS
				RB36#18	21.25	21.25	33	PASS
				RB36#39	20.98	20.98	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	21.26	21.26	33	PASS
			MCH	RB1#0	22.03	22.03	33	PASS
				RB1#38	22.32	22.32	33	PASS
				RB1#74	21.84	21.84	33	PASS
				RB36#0	21.26	21.26	33	PASS
				RB36#18	21.25	21.25	33	PASS
				RB36#39	21.14	21.14	33	PASS
				RB75#0	21.08	21.08	33	PASS
			HCH	RB1#0	22.49	22.49	33	PASS
				RB1#38	22.5	22.5	33	PASS
				RB1#74	21.97	21.97	33	PASS
				RB36#0	21.01	21.01	33	PASS
				RB36#18	21.02	21.02	33	PASS
				RB36#39	20.76	20.76	33	PASS
				RB75#0	20.87	20.87	33	PASS
		20	LCH	RB1#0	22.12	22.12	33	PASS
				RB1#50	22.3	22.3	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	21.92	21.92	33	PASS
				RB50#0	20.99	20.99	33	PASS
				RB50#25	20.76	20.76	33	PASS
				RB50#50	20.69	20.69	33	PASS
				RB100#0	21.01	21.01	33	PASS
			MCH	RB1#0	22.2	22.2	33	PASS
				RB1#50	22.43	22.43	33	PASS
				RB1#99	22.23	22.23	33	PASS
				RB50#0	21.25	21.25	33	PASS
				RB50#25	21.15	21.15	33	PASS
				RB50#50	21.05	21.05	33	PASS
				RB100#0	21.08	21.08	33	PASS
			HCH	RB1#0	22.35	22.35	33	PASS
				RB1#50	22.52	22.52	33	PASS
				RB1#99	22.11	22.11	33	PASS
				RB50#0	21.37	21.37	33	PASS
				RB50#25	21.22	21.22	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.91	20.91	33	PASS
				RB100#0	21.22	21.22	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:

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

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

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

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

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
BAND41	LTE/TM1	5	LCH	RB1#0	4.25	13	PASS
				RB1#13	4.27	13	PASS
				RB1#24	4.4	13	PASS
				RB12#0	5.96	13	PASS
				RB12#6	5.8	13	PASS
				RB12#13	6.05	13	PASS
				RB25#0	5.63	13	PASS
			MCH	RB1#0	4.72	13	PASS
				RB1#13	4.36	13	PASS
				RB1#24	4.68	13	PASS
				RB12#0	5.63	13	PASS
				RB12#6	5.48	13	PASS
				RB12#13	5.68	13	PASS
				RB25#0	5.83	13	PASS
			HCH	RB1#0	4.82	13	PASS
				RB1#13	4.67	13	PASS
				RB1#24	4.71	13	PASS
				RB12#0	5.65	13	PASS
				RB12#6	5.67	13	PASS
				RB12#13	5.45	13	PASS
				RB25#0	5.75	13	PASS
		10	LCH	RB1#0	5.29	13	PASS
				RB1#25	4.88	13	PASS
				RB1#49	5.25	13	PASS
				RB25#0	6.09	13	PASS
				RB25#13	6.25	13	PASS
				RB25#25	5.96	13	PASS
				RB50#0	6.05	13	PASS
			MCH	RB1#0	4.58	13	PASS
				RB1#25	4.14	13	PASS
				RB1#49	4.23	13	PASS
				RB25#0	5.78	13	PASS
				RB25#13	5.69	13	PASS
				RB25#25	5.73	13	PASS
				RB50#0	6.1	13	PASS
			HCH	RB1#0	4.97	13	PASS
				RB1#25	4.85	13	PASS
				RB1#49	4.73	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	5.96	13	PASS
				RB25#13	5.97	13	PASS
				RB25#25	5.71	13	PASS
				RB50#0	6.16	13	PASS
		15	LCH	RB1#0	5.3	13	PASS
				RB1#38	4.72	13	PASS
				RB1#74	5.21	13	PASS
				RB36#0	5.96	13	PASS
				RB36#18	5.94	13	PASS
				RB36#39	6.02	13	PASS
				RB75#0	6.15	13	PASS
			MCH	RB1#0	5.26	13	PASS
				RB1#38	4.38	13	PASS
				RB1#74	4.29	13	PASS
				RB36#0	6.02	13	PASS
				RB36#18	5.82	13	PASS
				RB36#39	5.83	13	PASS
				RB75#0	6.24	13	PASS
			HCH	RB1#0	4.88	13	PASS
				RB1#38	4.91	13	PASS
				RB1#74	4.95	13	PASS
				RB36#0	6.14	13	PASS
				RB36#18	6.29	13	PASS
				RB36#39	6.22	13	PASS
				RB75#0	6.48	13	PASS
		20	LCH	RB1#0	5.04	13	PASS
				RB1#50	4.8	13	PASS
				RB1#99	5.01	13	PASS
				RB50#0	5.96	13	PASS
				RB50#25	5.98	13	PASS
				RB50#50	6.02	13	PASS
				RB100#0	6.53	13	PASS
			MCH	RB1#0	4.84	13	PASS
				RB1#50	4.19	13	PASS
				RB1#99	3.84	13	PASS
				RB50#0	6.02	13	PASS
				RB50#25	5.81	13	PASS
				RB50#50	5.77	13	PASS
				RB100#0	6.28	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
	LTE/TM2		HCH	RB1#0	4.65	13	PASS
				RB1#50	4.75	13	PASS
				RB1#99	4.83	13	PASS
				RB50#0	6.06	13	PASS
				RB50#25	6.3	13	PASS
				RB50#50	6.09	13	PASS
				RB100#0	6.26	13	PASS
		5	LCH	RB1#0	5.89	13	PASS
				RB1#13	5.67	13	PASS
				RB1#24	5.99	13	PASS
				RB12#0	6.75	13	PASS
				RB12#6	6.36	13	PASS
				RB12#13	6.59	13	PASS
				RB25#0	6.49	13	PASS
			MCH	RB1#0	5.27	13	PASS
				RB1#13	4.9	13	PASS
				RB1#24	5.22	13	PASS
				RB12#0	6.37	13	PASS
				RB12#6	6.25	13	PASS
				RB12#13	6.42	13	PASS
				RB25#0	6.6	13	PASS
			HCH	RB1#0	5.61	13	PASS
				RB1#13	5.33	13	PASS
				RB1#24	5.41	13	PASS
				RB12#0	6.73	13	PASS
				RB12#6	6.73	13	PASS
				RB12#13	6.68	13	PASS
				RB25#0	7	13	PASS
		10	LCH	RB1#0	6.01	13	PASS
				RB1#25	5.52	13	PASS
				RB1#49	5.76	13	PASS
				RB25#0	6.74	13	PASS
				RB25#13	6.64	13	PASS
				RB25#25	6.77	13	PASS
				RB50#0	6.81	13	PASS
			MCH	RB1#0	5.75	13	PASS
				RB1#25	5.1	13	PASS
				RB1#49	5.17	13	PASS
				RB25#0	6.81	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#13	6.59	13	PASS
				RB25#25	6.61	13	PASS
				RB50#0	6.65	13	PASS
			HCH	RB1#0	5.55	13	PASS
				RB1#25	5.48	13	PASS
				RB1#49	5.45	13	PASS
				RB25#0	6.93	13	PASS
				RB25#13	7.11	13	PASS
				RB25#25	6.9	13	PASS
				RB50#0	7.19	13	PASS
		15	LCH	RB1#0	5.38	13	PASS
				RB1#38	5.03	13	PASS
				RB1#74	5.35	13	PASS
				RB36#0	6.44	13	PASS
				RB36#18	6.47	13	PASS
				RB36#39	6.64	13	PASS
				RB75#0	7.06	13	PASS
			MCH	RB1#0	6.12	13	PASS
				RB1#38	5.15	13	PASS
				RB1#74	5.04	13	PASS
				RB36#0	7.1	13	PASS
				RB36#18	6.74	13	PASS
				RB36#39	6.7	13	PASS
				RB75#0	7.18	13	PASS
			HCH	RB1#0	6.06	13	PASS
				RB1#38	5.95	13	PASS
				RB1#74	5.75	13	PASS
				RB36#0	6.62	13	PASS
				RB36#18	6.64	13	PASS
				RB36#39	6.64	13	PASS
				RB75#0	7.45	13	PASS
		20	LCH	RB1#0	5.79	13	PASS
				RB1#50	5.38	13	PASS
				RB1#99	5.9	13	PASS
				RB50#0	6.9	13	PASS
				RB50#25	7.06	13	PASS
				RB50#50	7.01	13	PASS
				RB100#0	7.11	13	PASS
			MCH	RB1#0	6.13	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#50	5.1	13	PASS
				RB1#99	4.75	13	PASS
				RB50#0	7.15	13	PASS
				RB50#25	6.55	13	PASS
				RB50#50	6.76	13	PASS
				RB100#0	7.02	13	PASS
			HCH	RB1#0	5.5	13	PASS
				RB1#50	5.73	13	PASS
				RB1#99	5.47	13	PASS
				RB50#0	6.46	13	PASS
				RB50#25	6.53	13	PASS
				RB50#50	6.49	13	PASS
				RB100#0	7.05	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

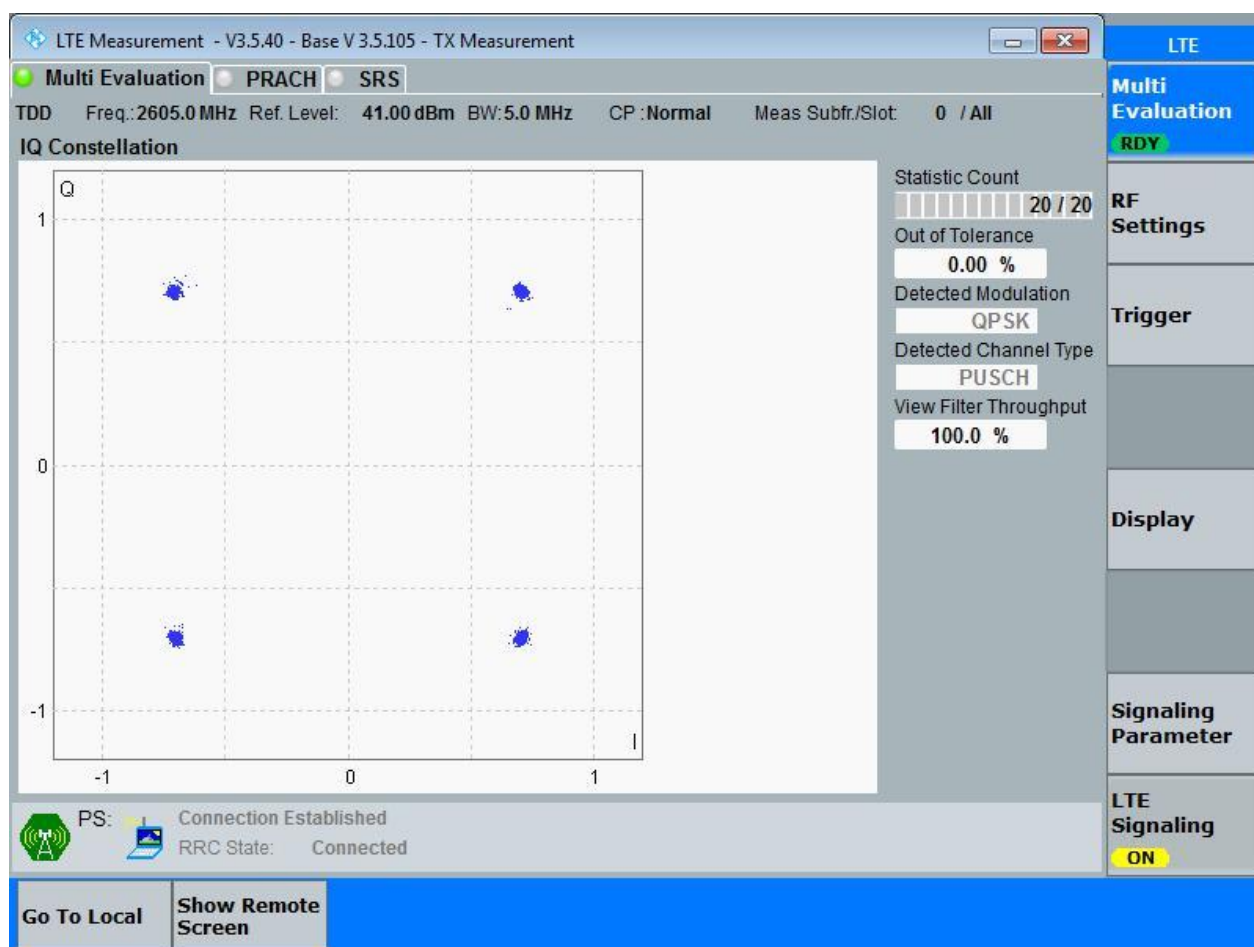
3.1.1 Test Band = BAND41

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 5

3.1.1.1.1.1 Test Channel = MCH

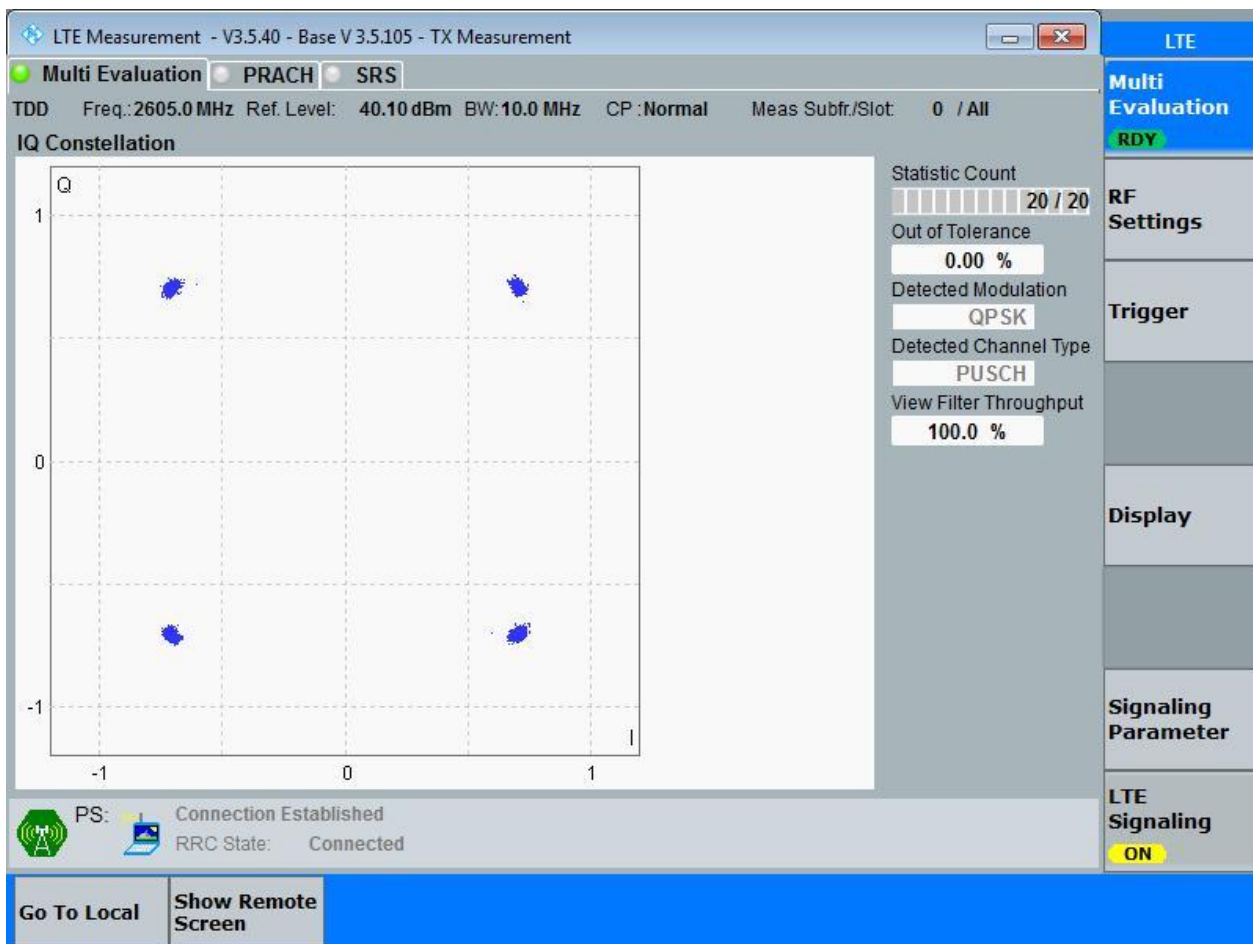
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

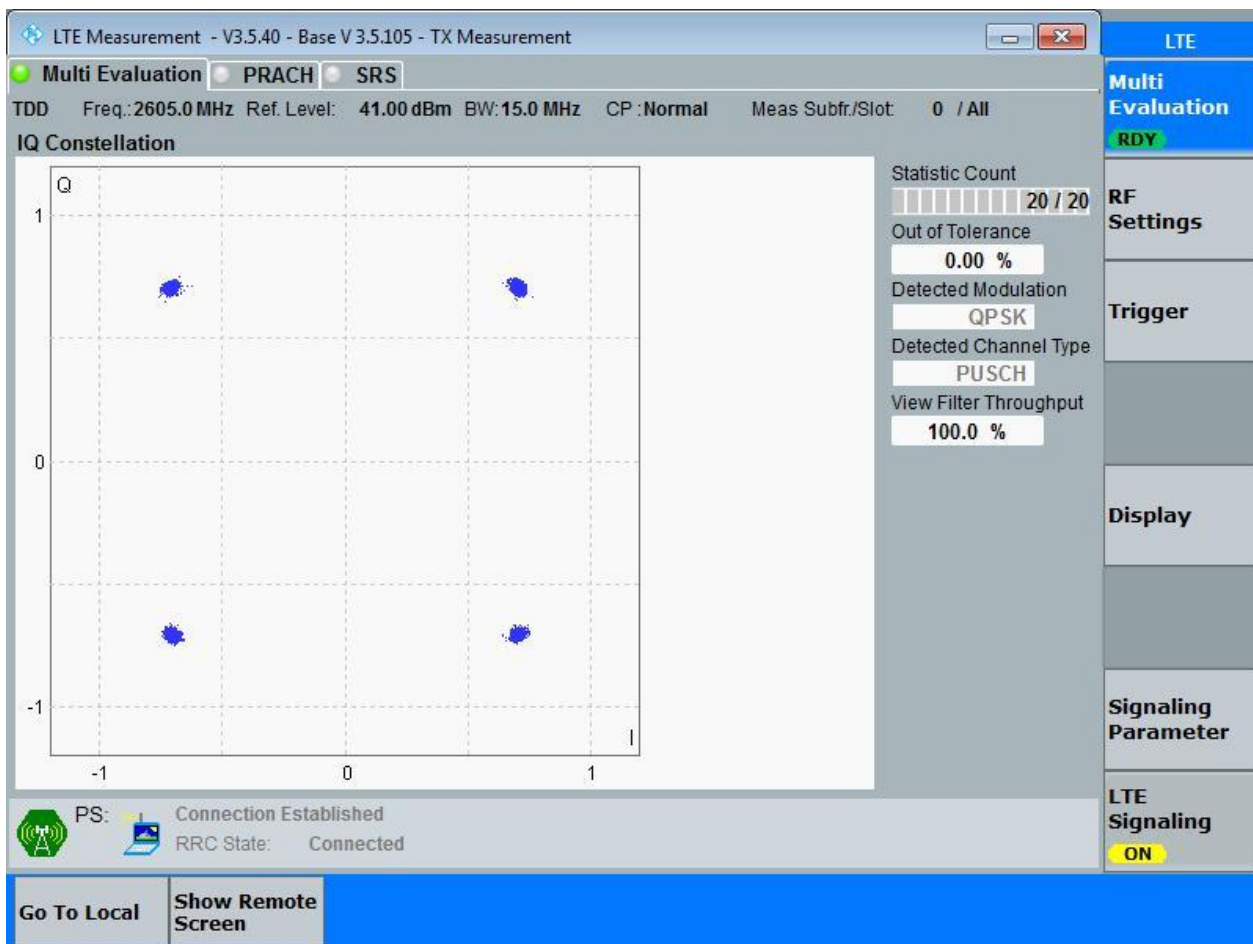
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

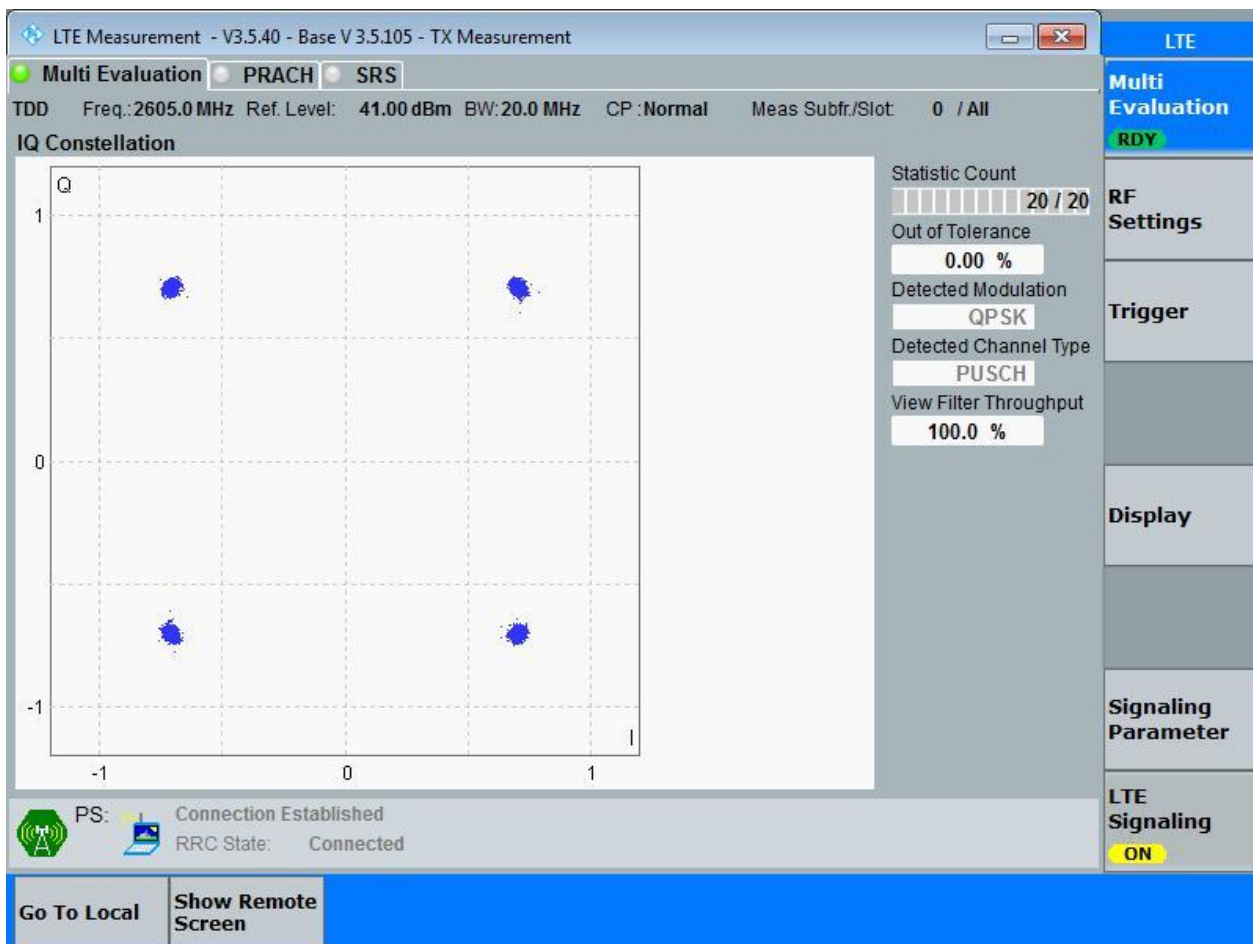
3.1.1.1.3.1.1 Test RB = RB75#0



3.1.1.1.4 Test Bandwidth = 20

3.1.1.1.4.1 Test Channel = MCH

3.1.1.1.4.1.1 Test RB = RB100#0

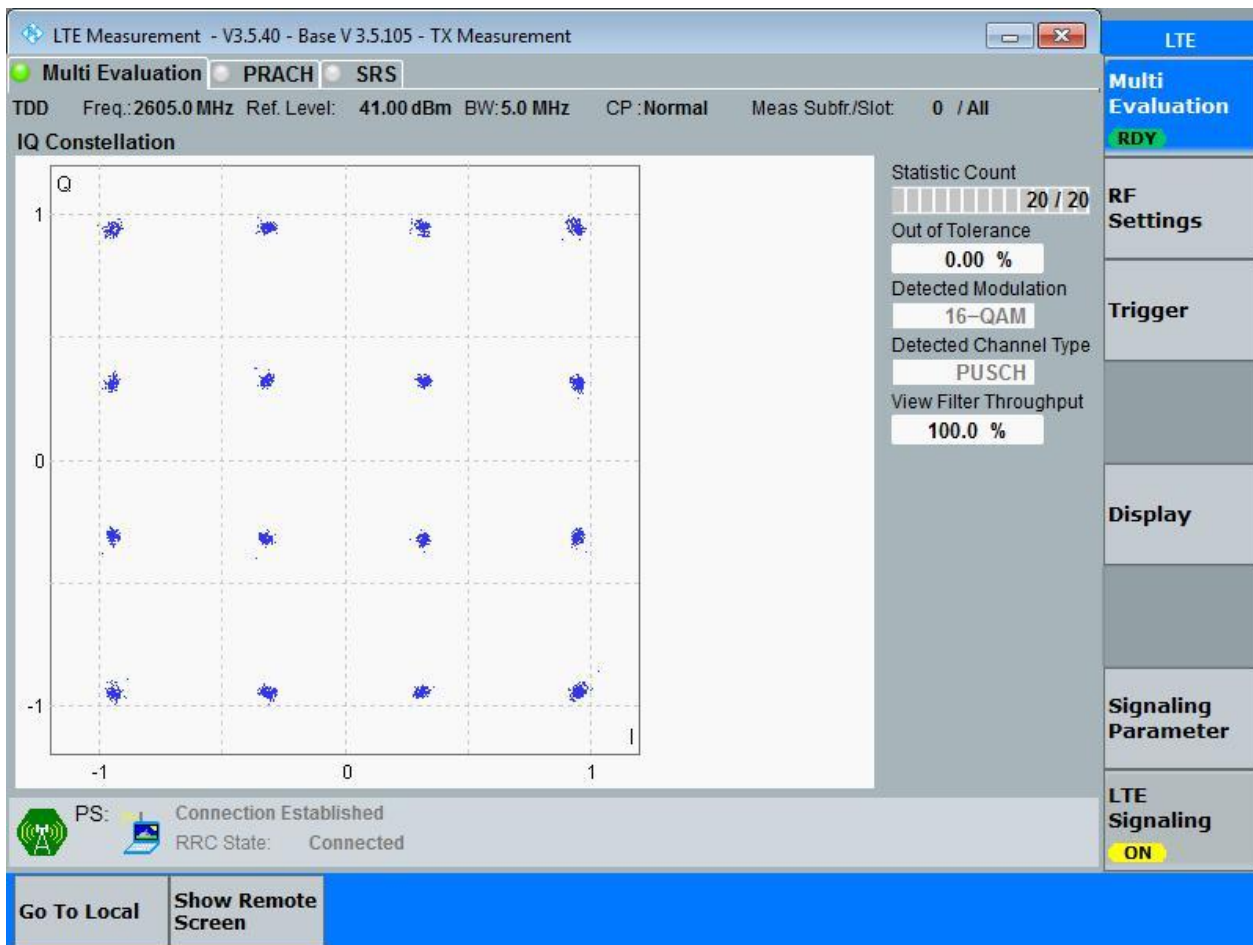


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

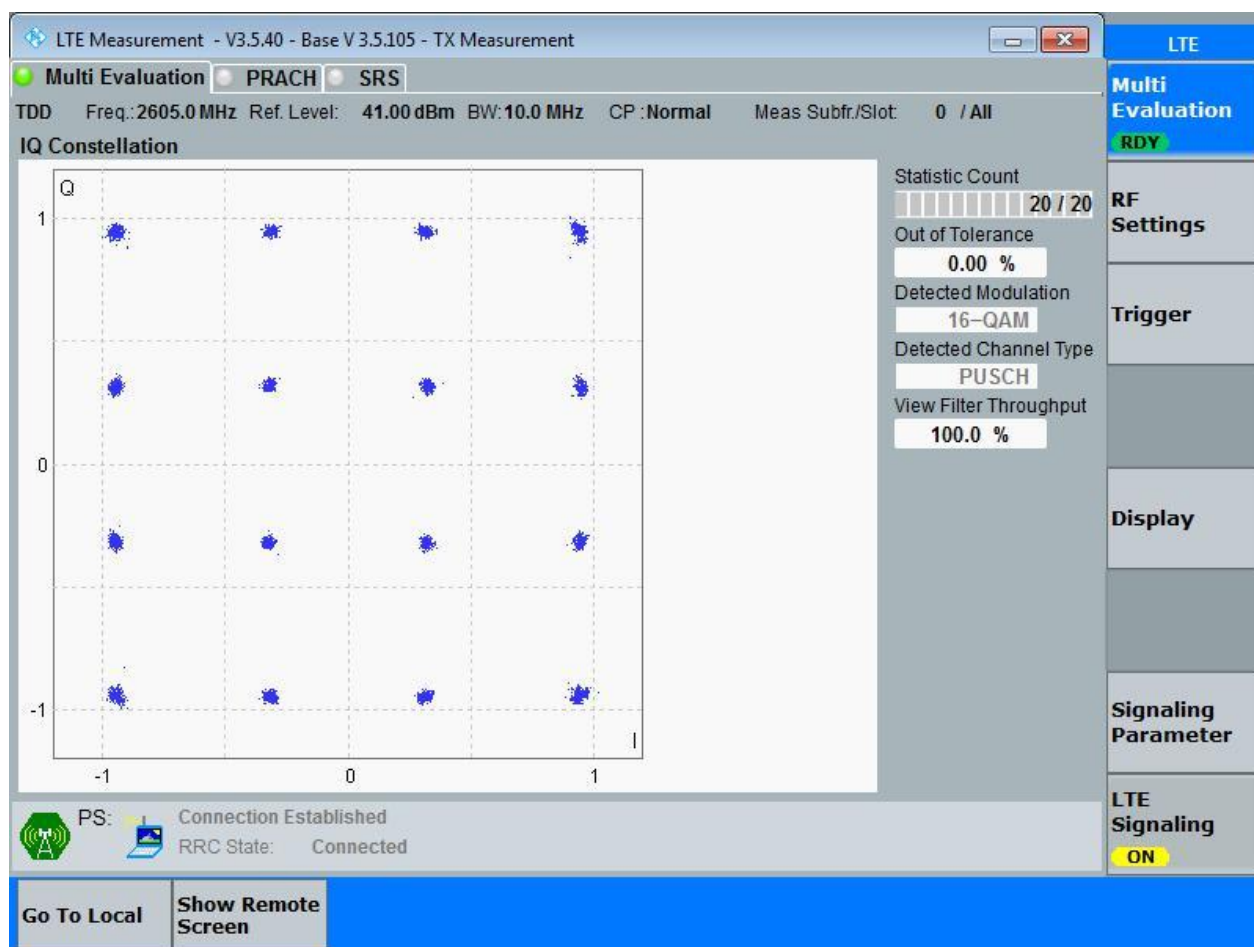
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

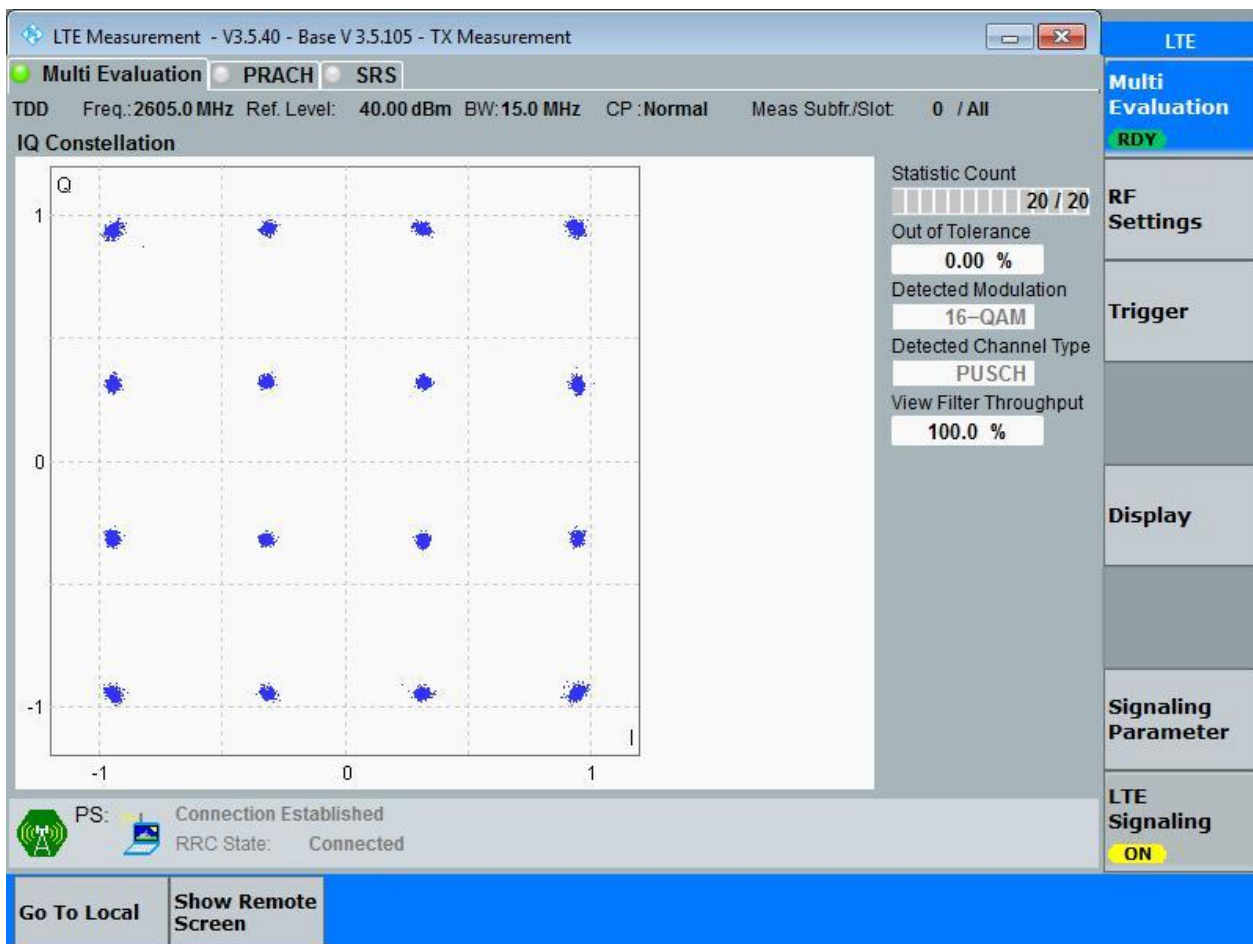
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

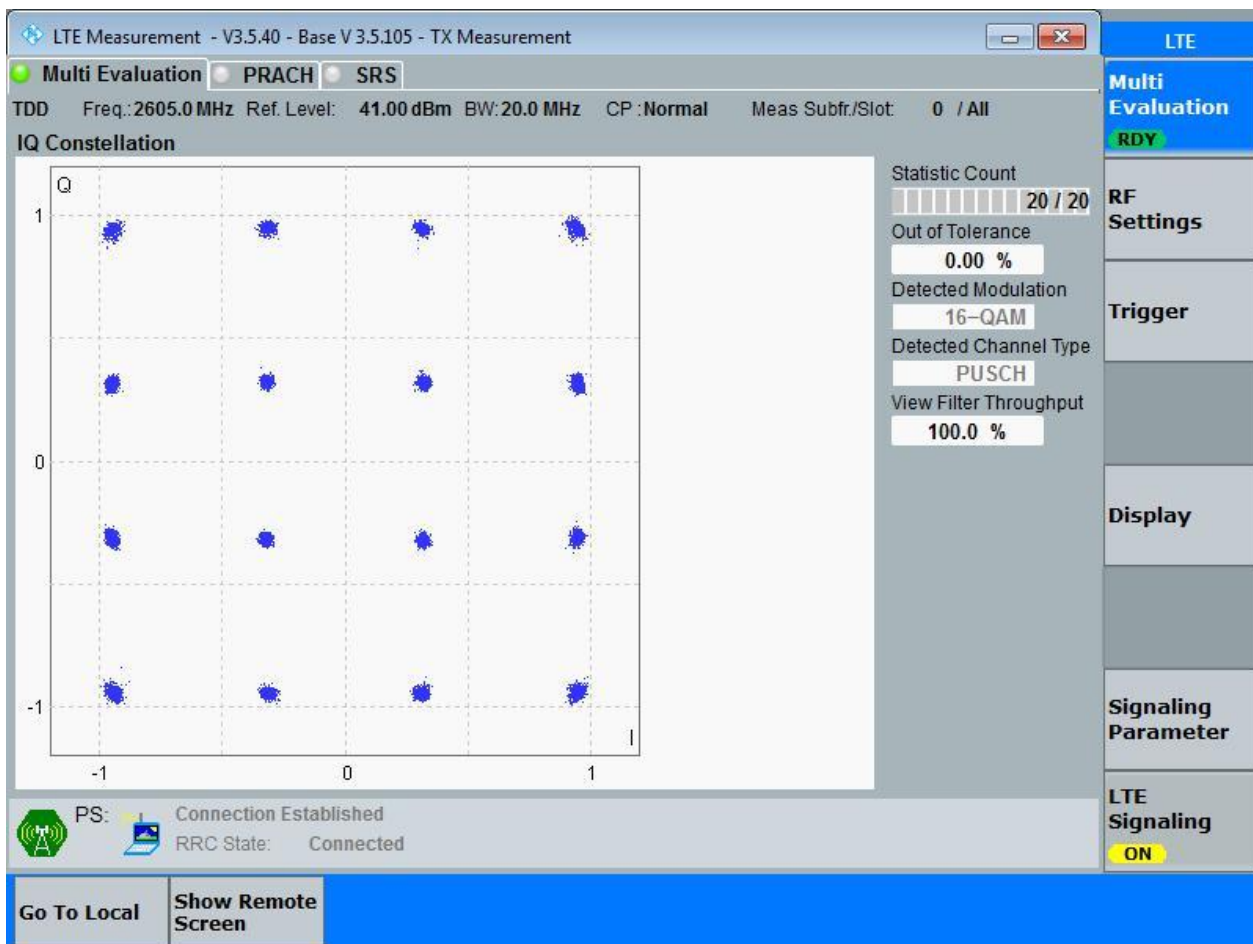
3.1.1.2.3.1.1 Test RB = RB75#0



3.1.1.2.4 Test Bandwidth = 20

3.1.1.2.4.1 Test Channel = MCH

3.1.1.2.4.1.1 Test RB = RB100#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
BAND41	LTE/TM1	5	LCH	RB25#0	4.51	4.90	Pass
			MCH	RB25#0	4.47	4.93	Pass
			HCH	RB25#0	4.49	4.92	Pass
		10	LCH	RB50#0	9.00	9.71	Pass
			MCH	RB50#0	8.98	9.75	Pass
			HCH	RB50#0	8.99	9.75	Pass
		15	LCH	RB75#0	13.30	14.82	Pass
			MCH	RB75#0	13.42	14.85	Pass
			HCH	RB75#0	13.51	14.78	Pass
		20	LCH	RB100#0	17.81	19.51	Pass
			MCH	RB100#0	17.67	19.51	Pass
			HCH	RB100#0	17.85	19.45	Pass
	LTE/TM2	5	LCH	RB25#0	4.45	4.93	Pass
			MCH	RB25#0	4.50	4.88	Pass
			HCH	RB25#0	4.46	4.90	Pass
		10	LCH	RB50#0	8.97	9.74	Pass
			MCH	RB50#0	8.99	9.81	Pass
			HCH	RB50#0	9.00	9.78	Pass
		15	LCH	RB75#0	13.45	14.61	Pass
			MCH	RB75#0	13.44	14.72	Pass
			HCH	RB75#0	13.18	14.87	Pass
		20	LCH	RB100#0	17.98	19.36	Pass
			MCH	RB100#0	17.97	19.45	Pass
			HCH	RB100#0	17.90	19.93	Pass



Part II - Test Plots

4.1 For LTE

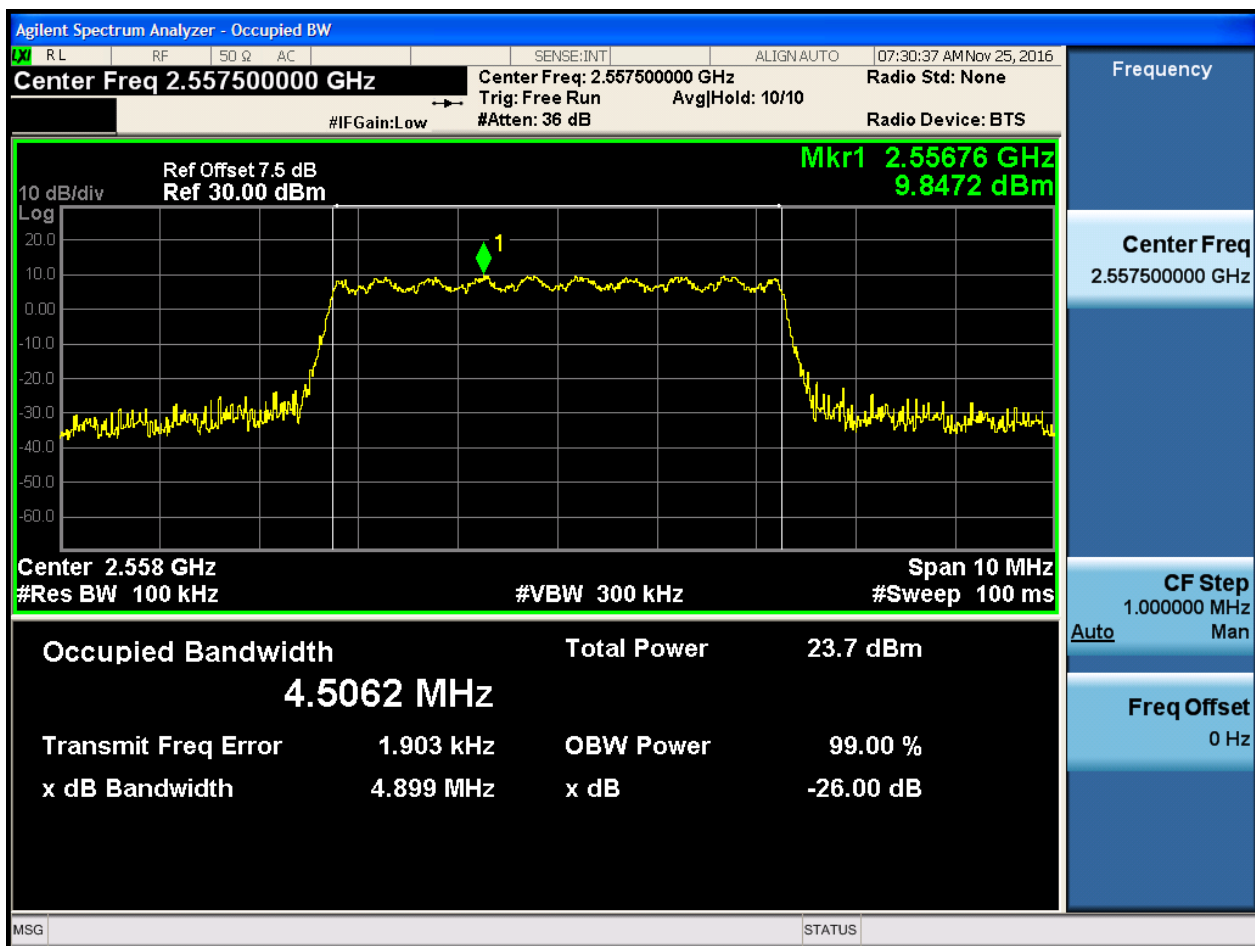
4.1.1 Test Band = BAND41

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

4.1.1.1.1.1 Test Channel = LCH

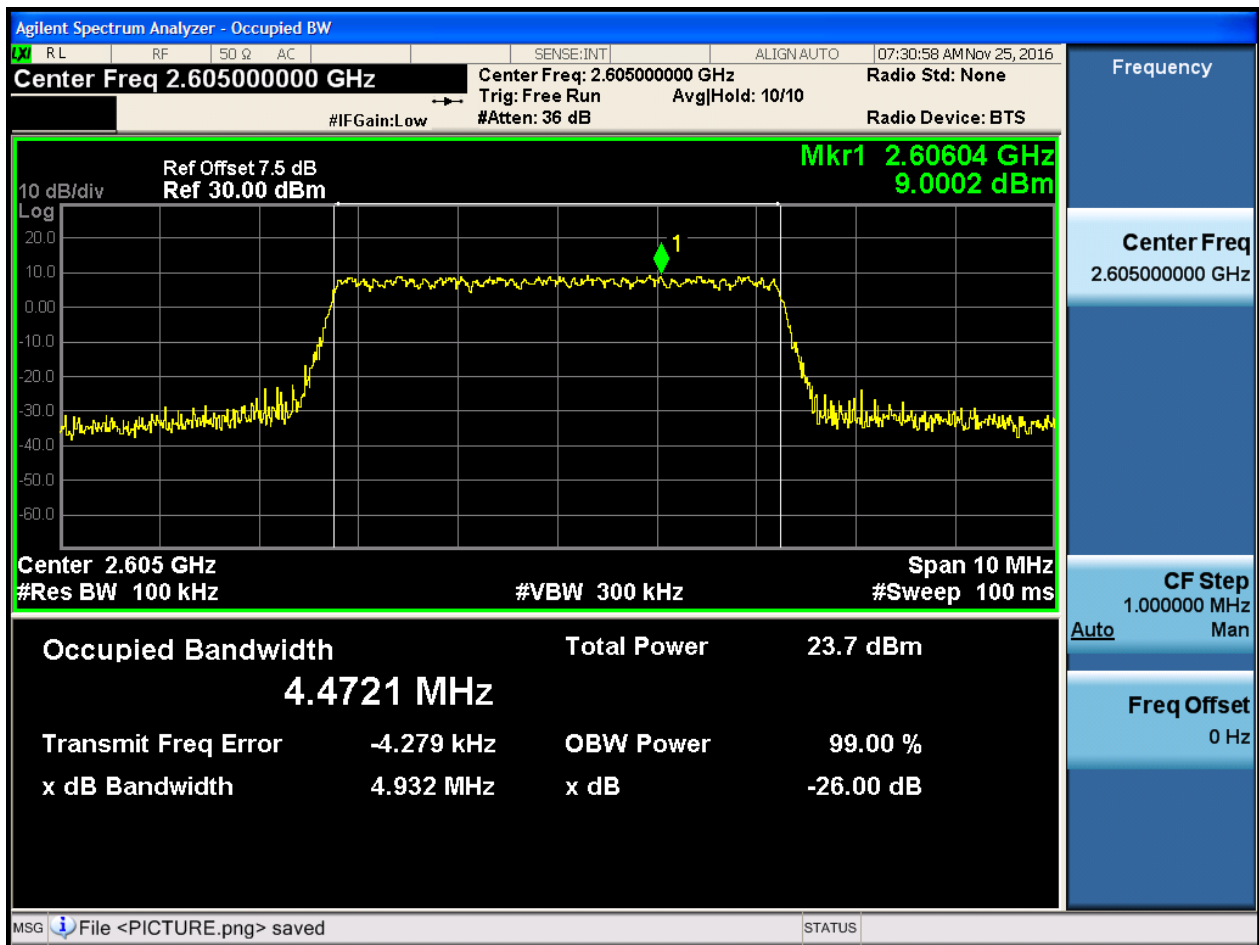
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

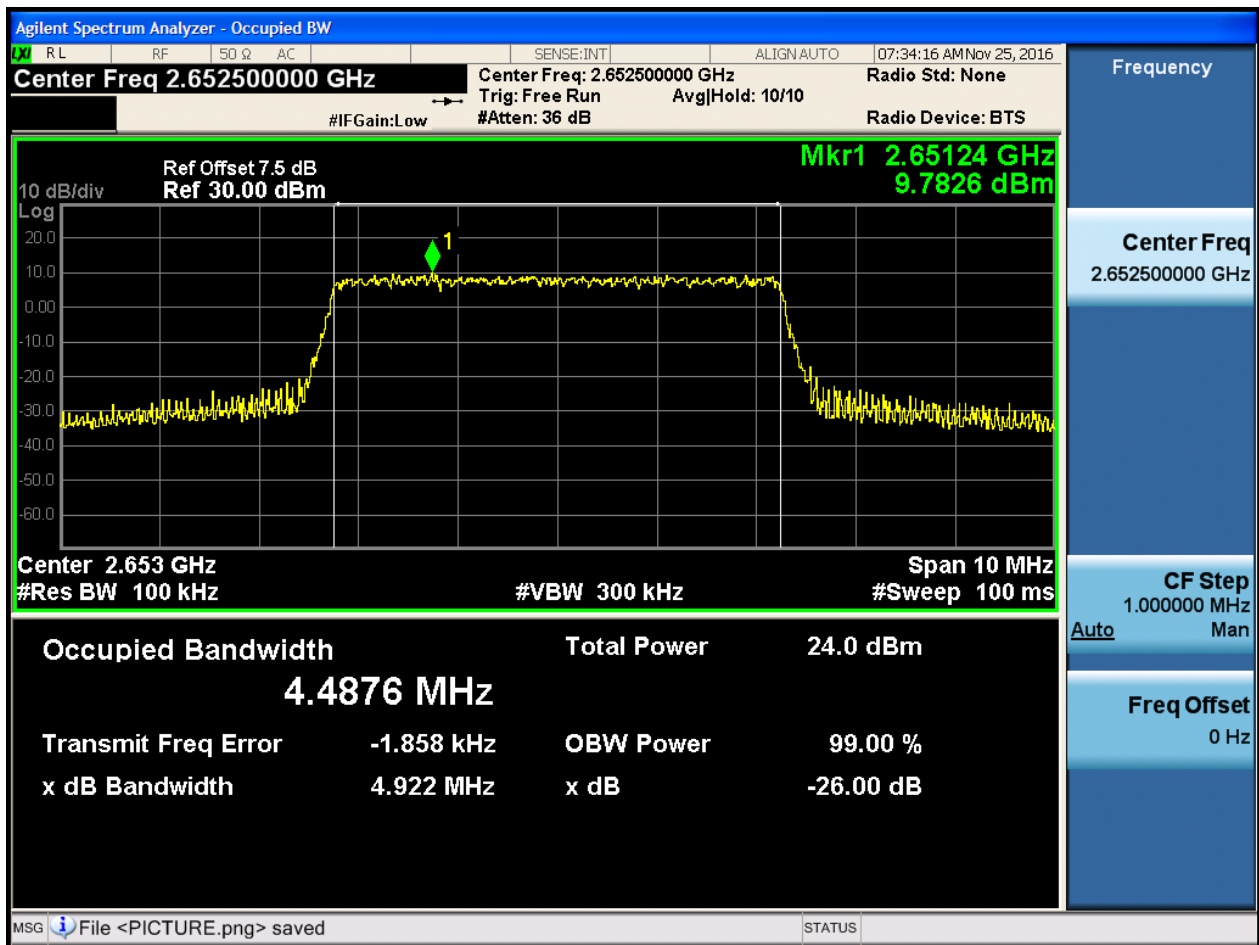
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

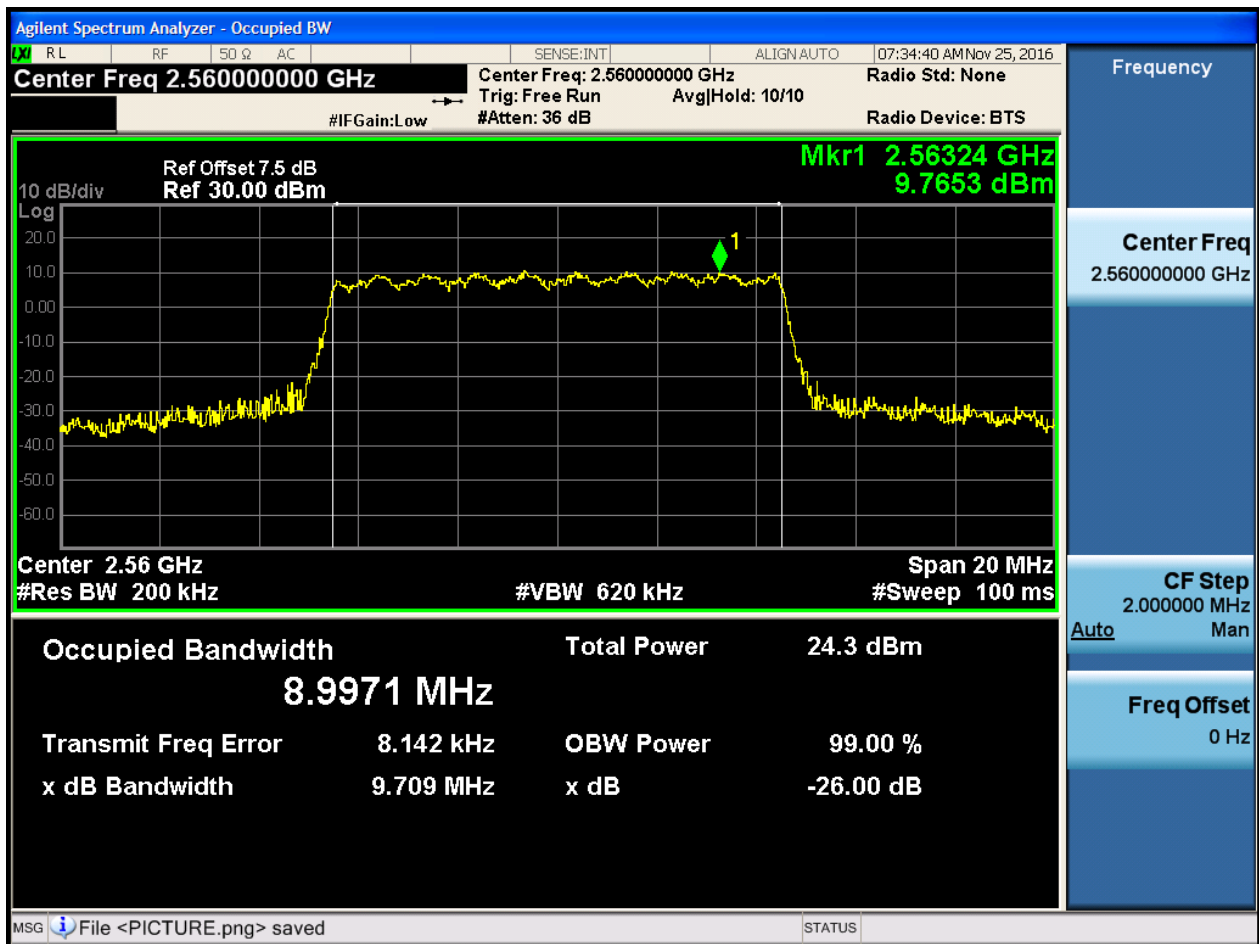




4.1.1.1.2 Test Bandwidth = 10

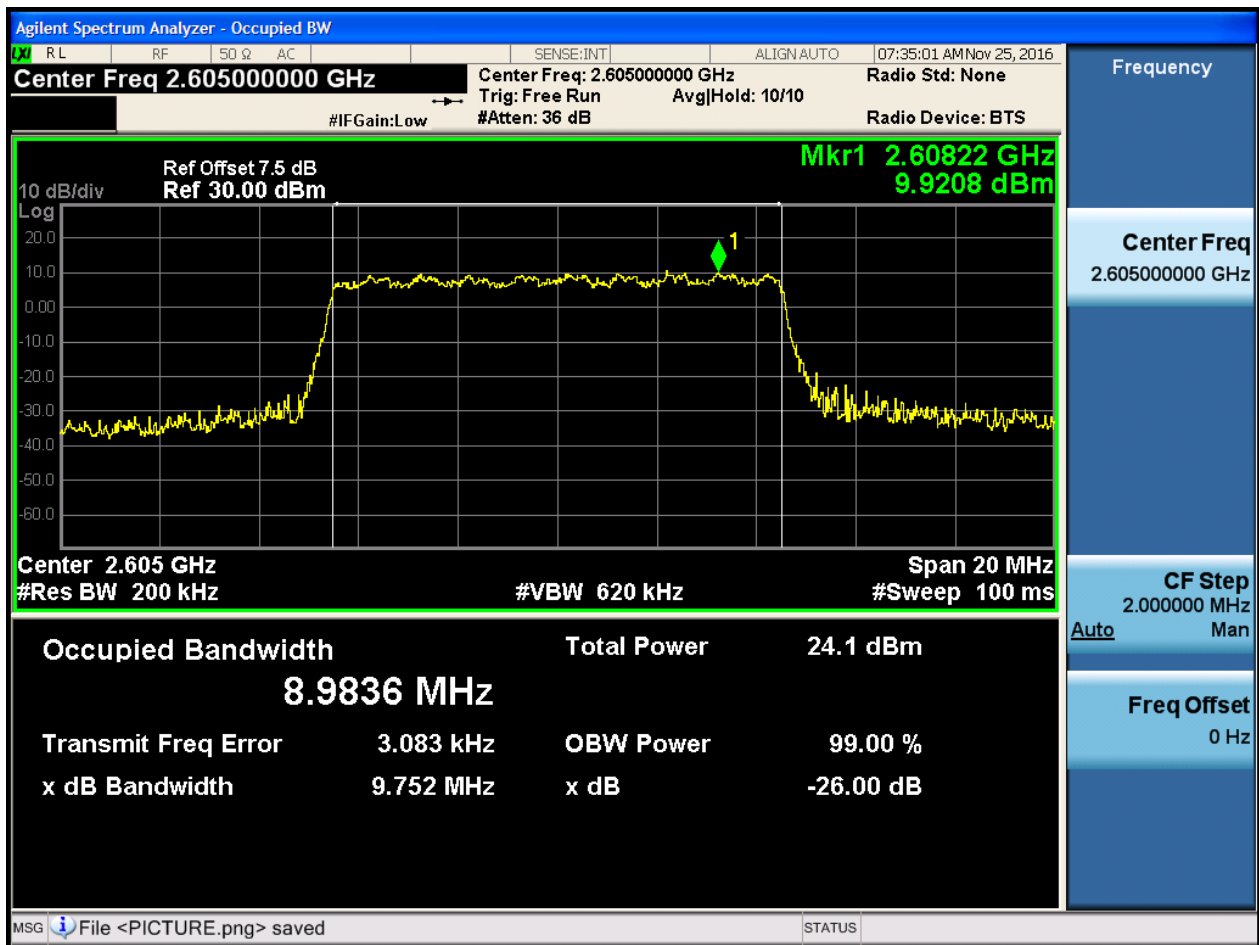
4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB50#0



4.1.1.1.2.2 Test Channel = MCH

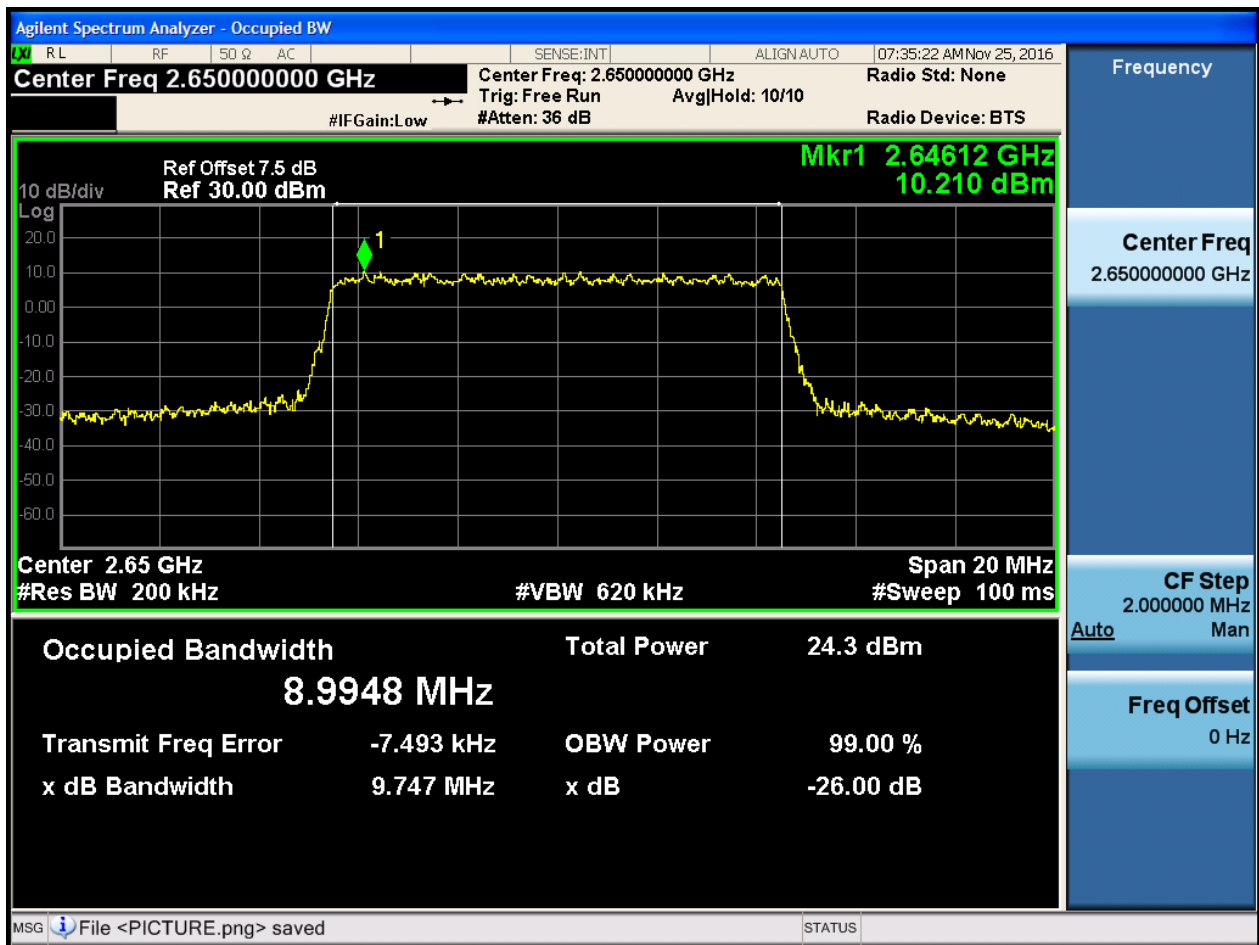
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

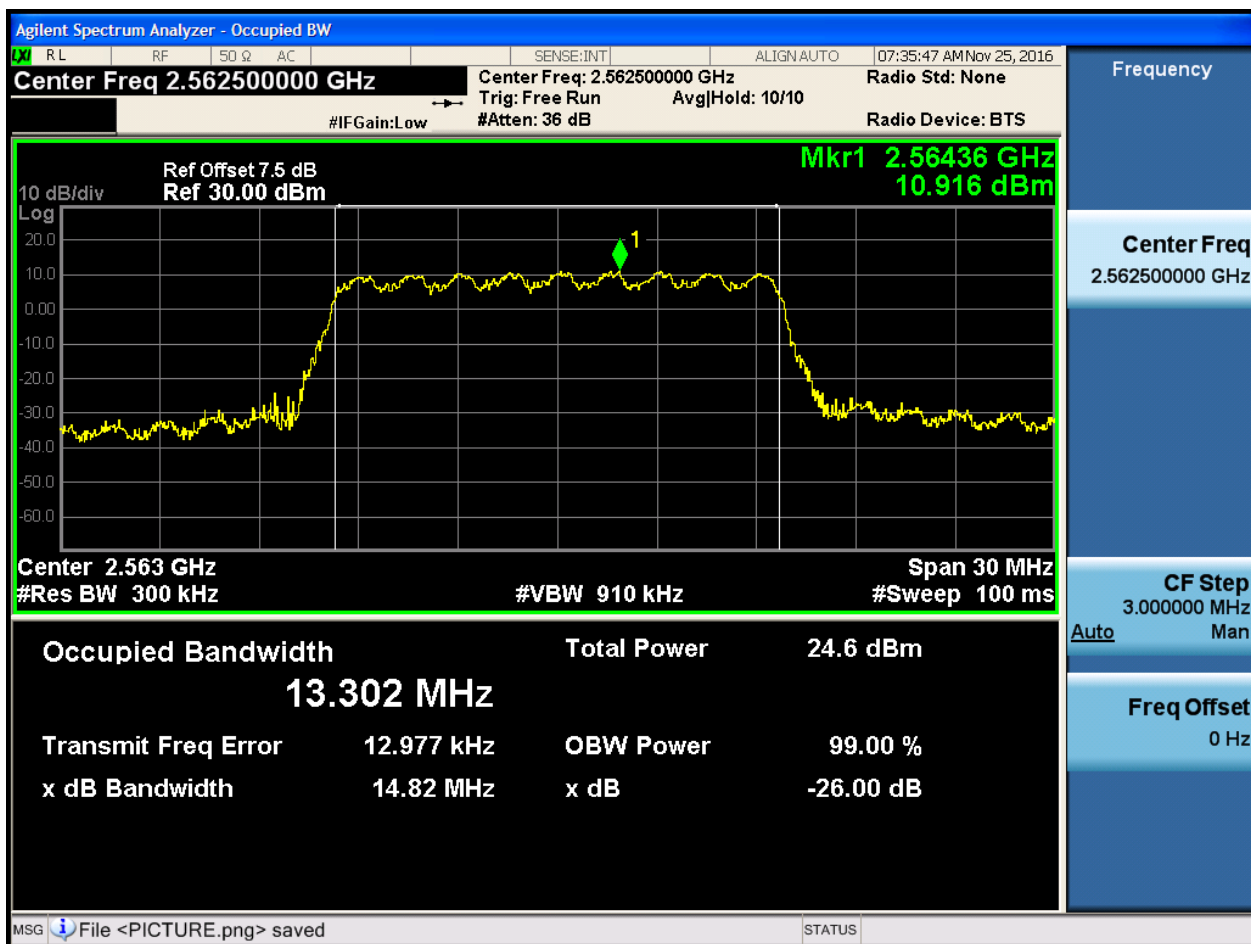




4.1.1.1.3 Test Bandwidth = 15

4.1.1.1.3.1 Test Channel = LCH

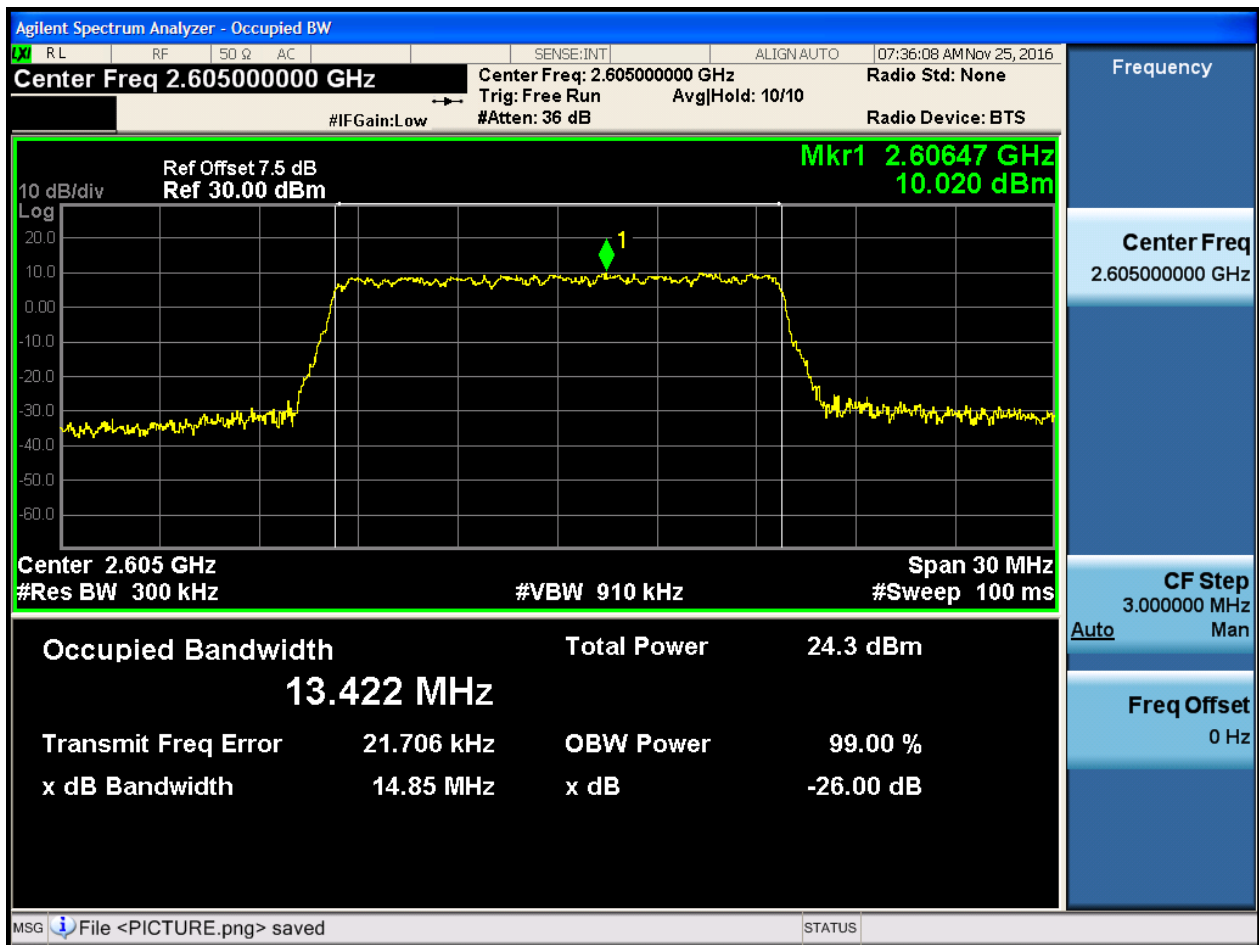
4.1.1.1.3.1.1 Test RB = RB75#0





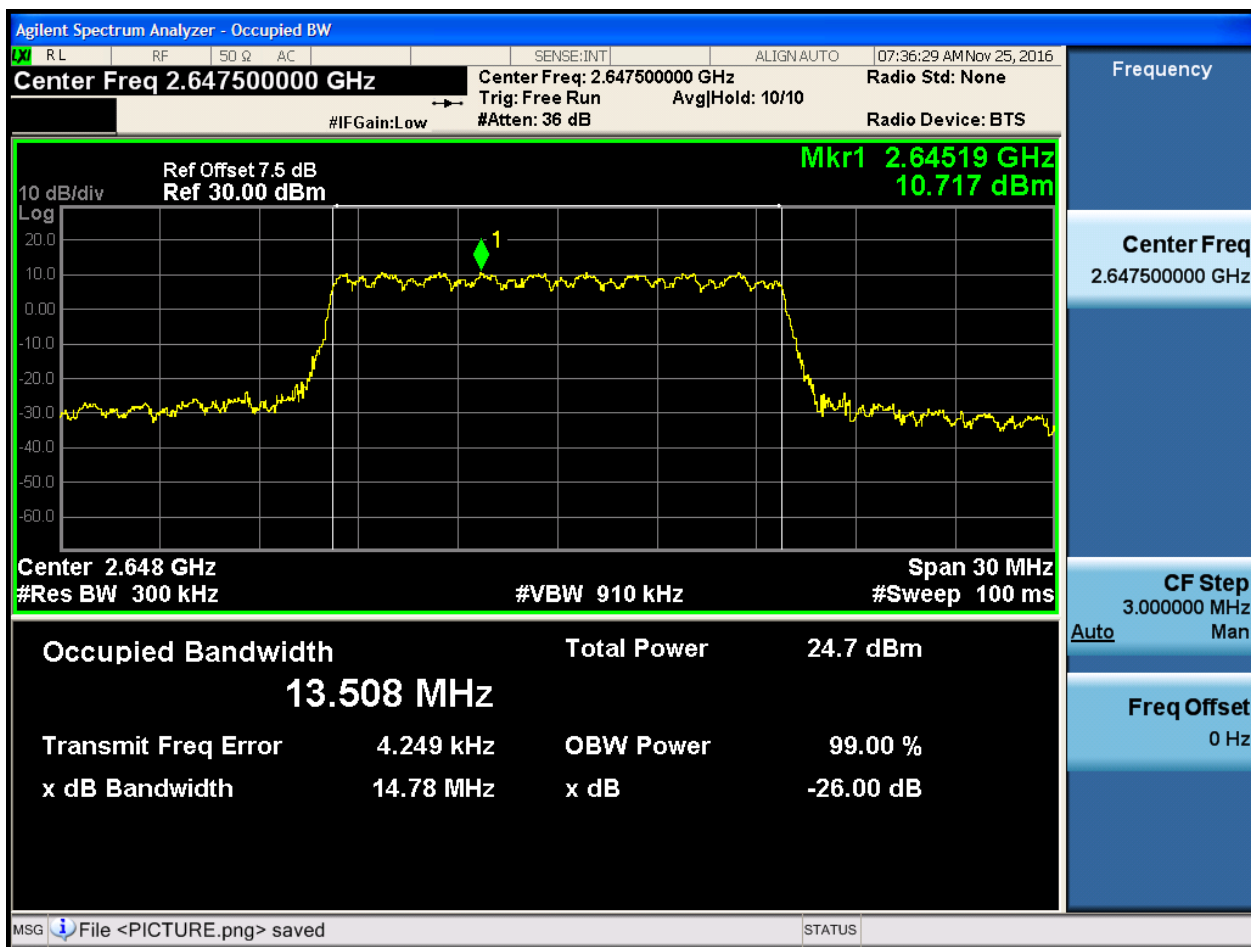
4.1.1.1.3.2 Test Channel = MCH

4.1.1.1.3.2.1 Test RB = RB75#0



4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

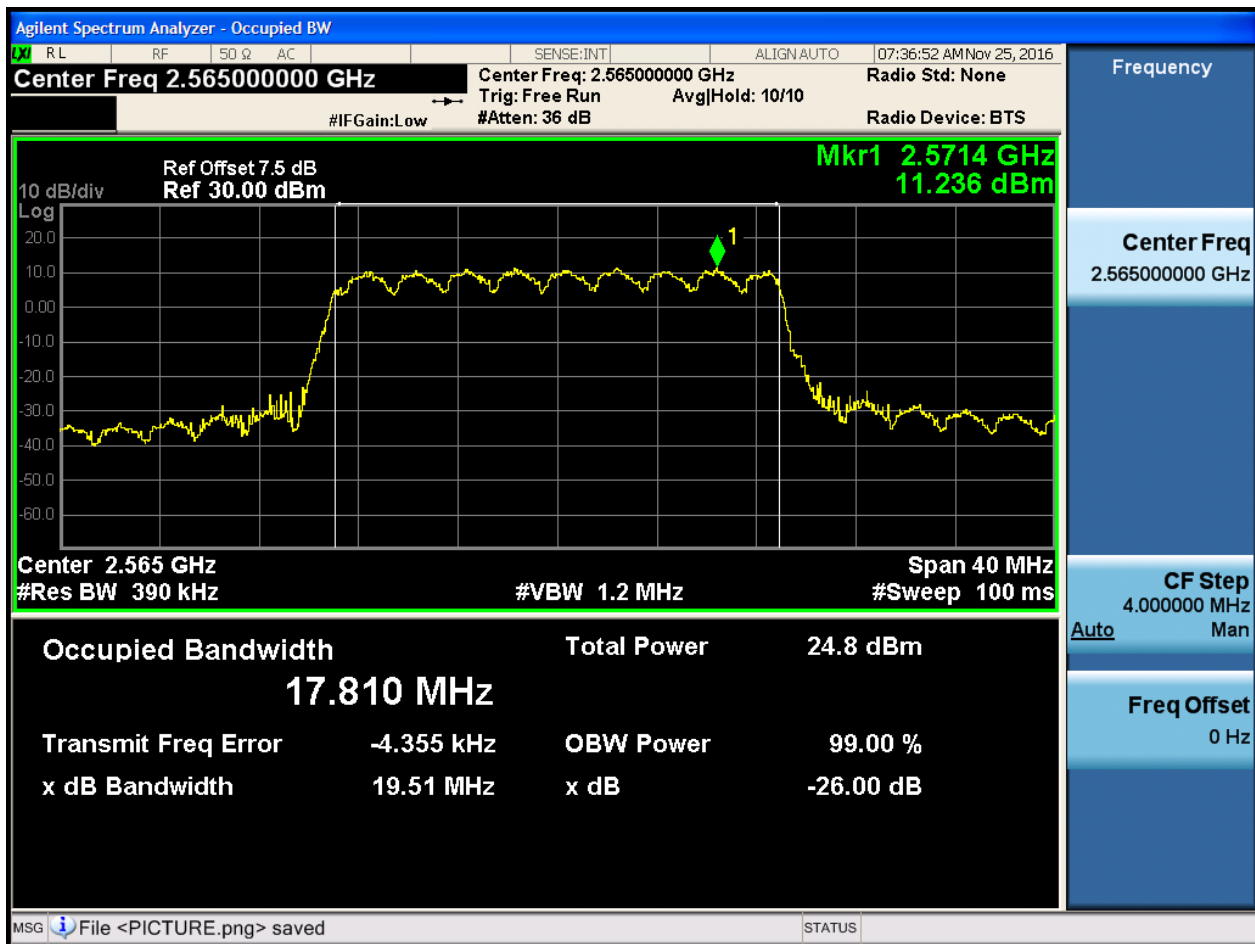




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

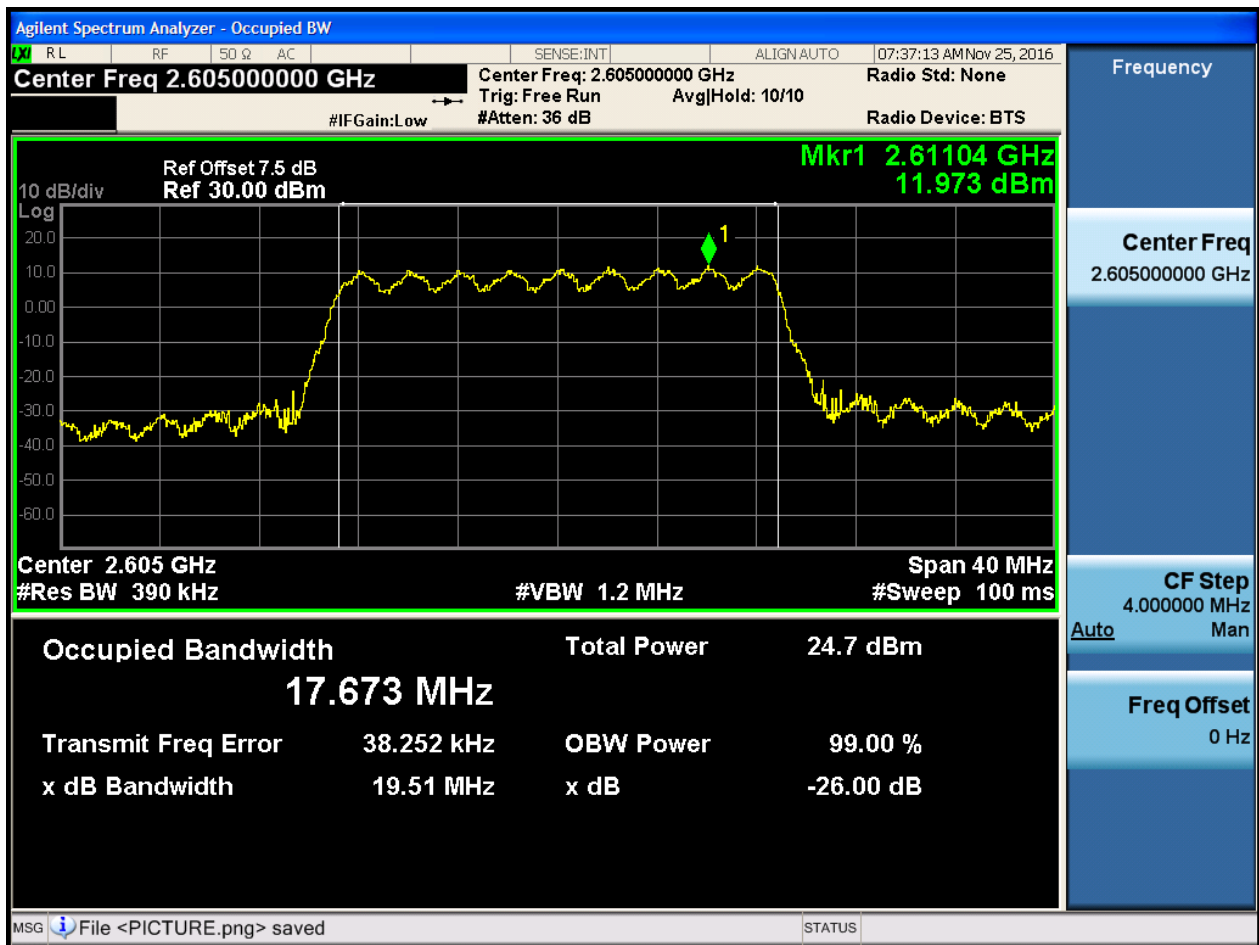
4.1.1.1.4.1.1 Test RB = RB100#0





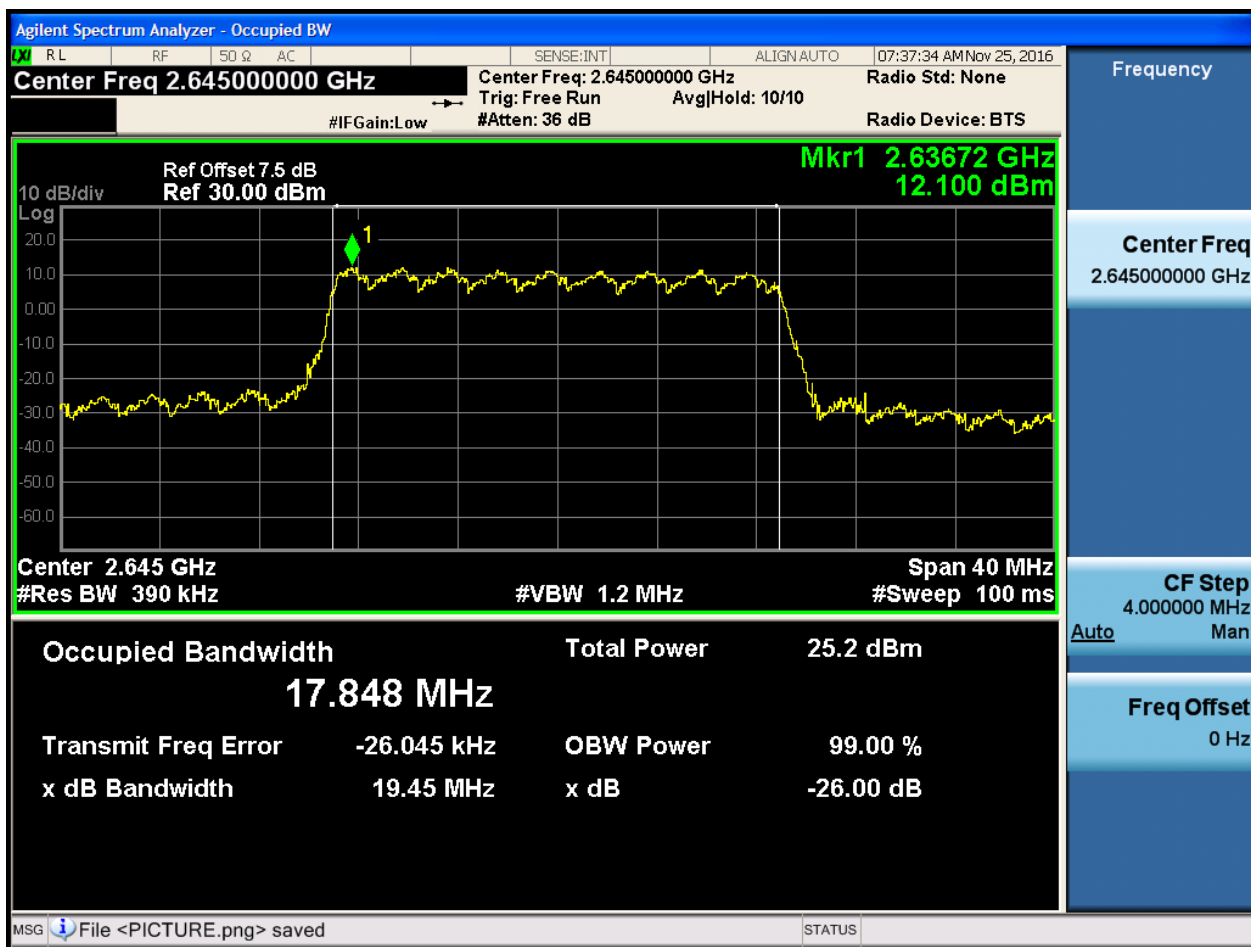
4.1.1.1.4.2 Test Channel = MCH

4.1.1.1.4.2.1 Test RB = RB100#0



4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB100#0



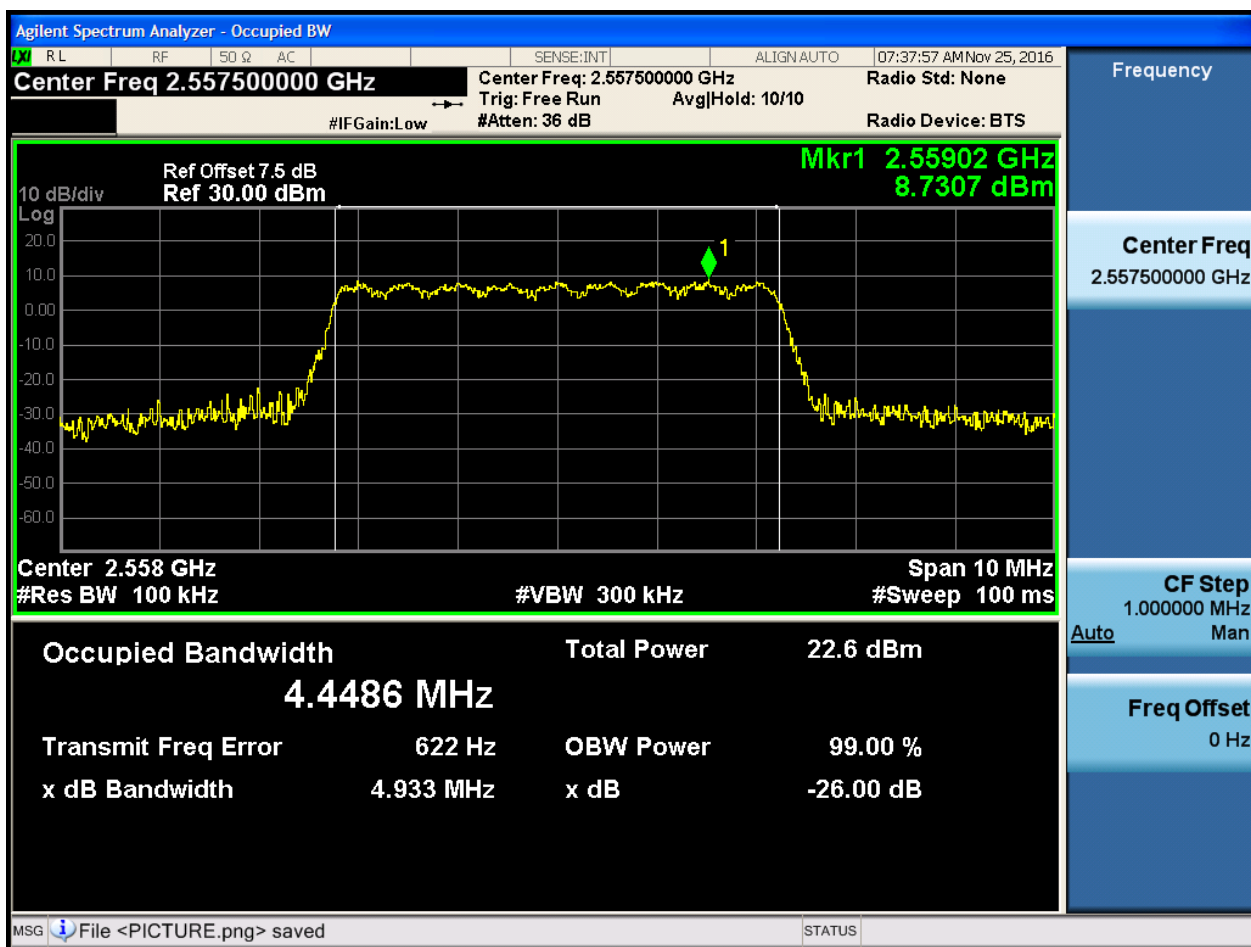


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

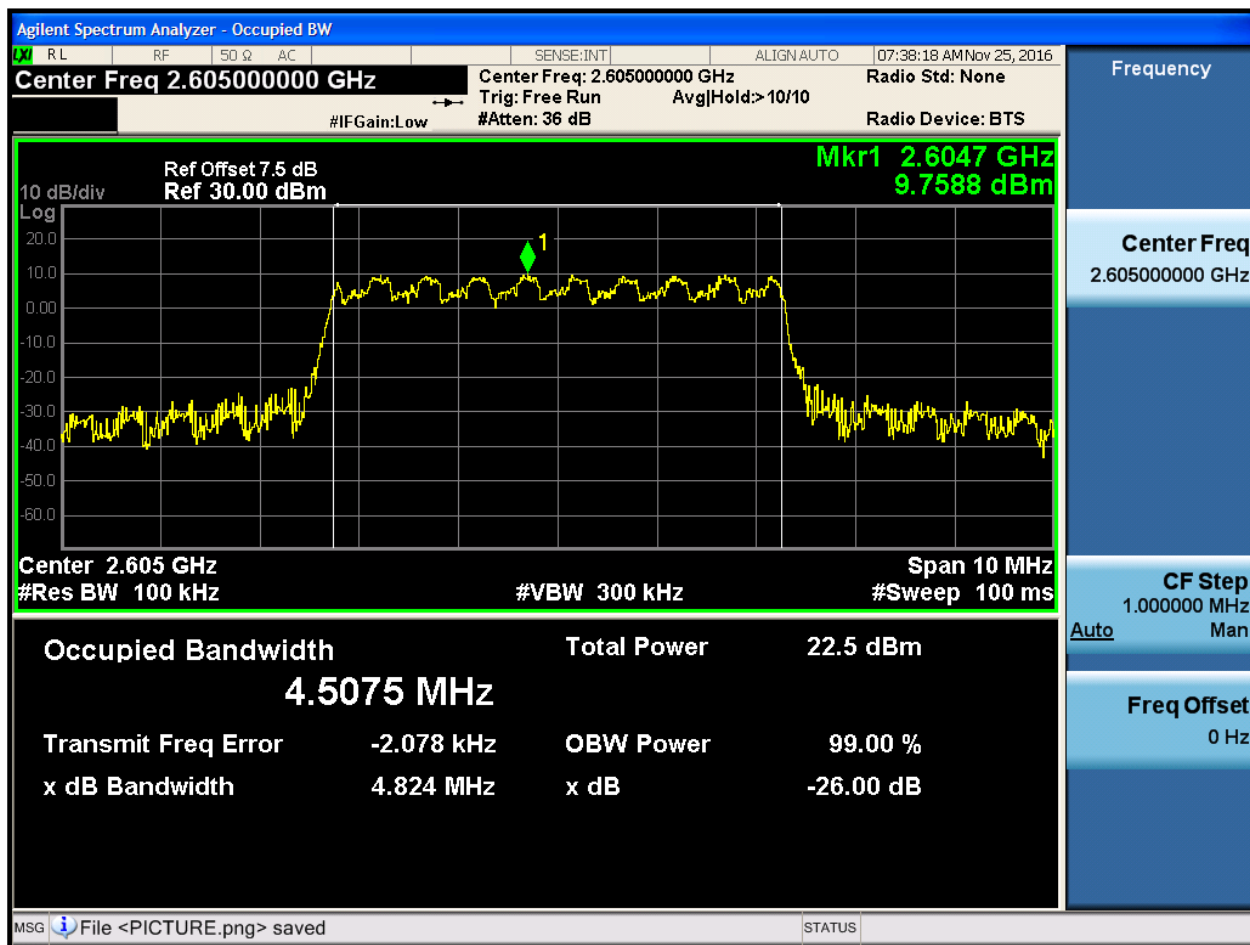
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

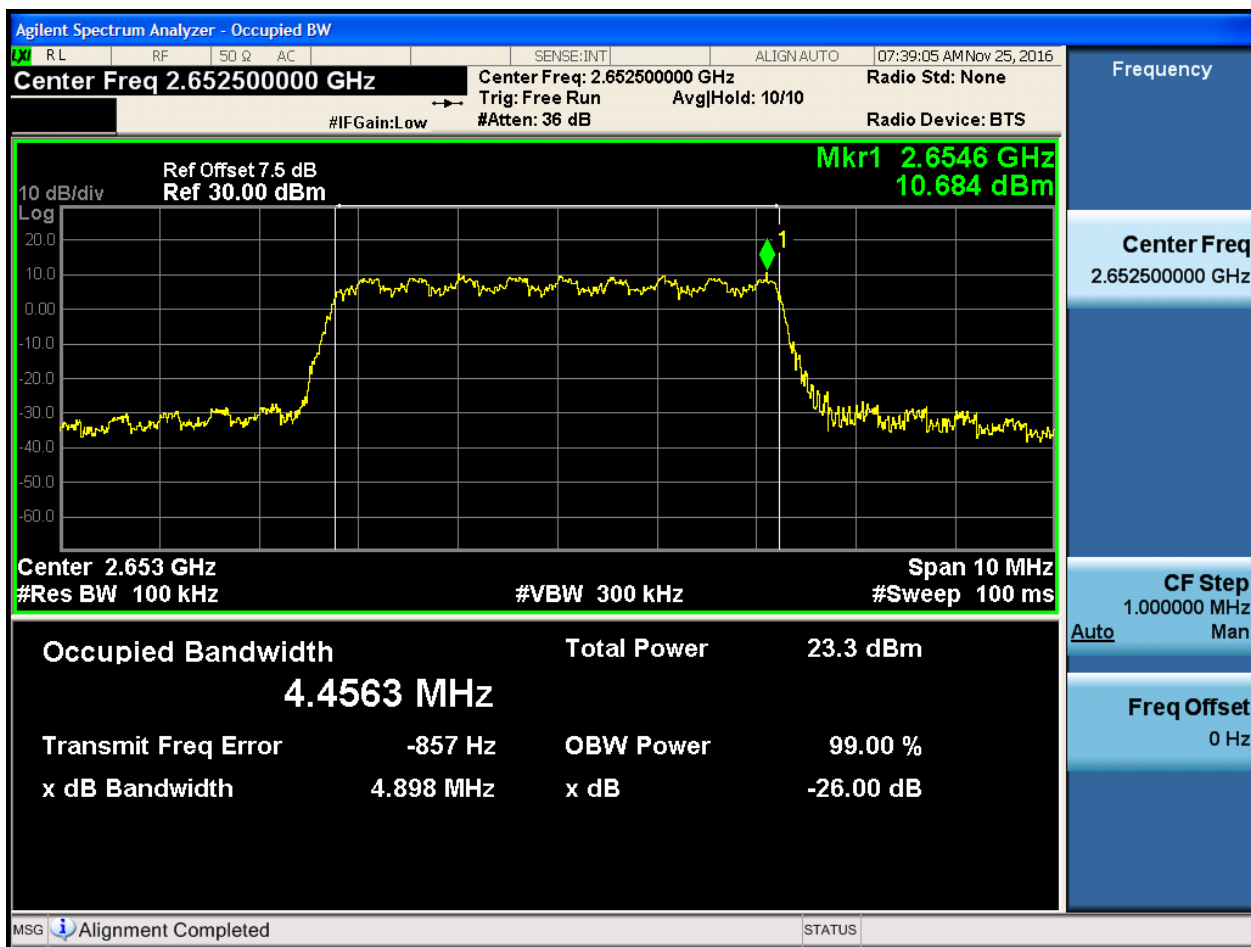
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

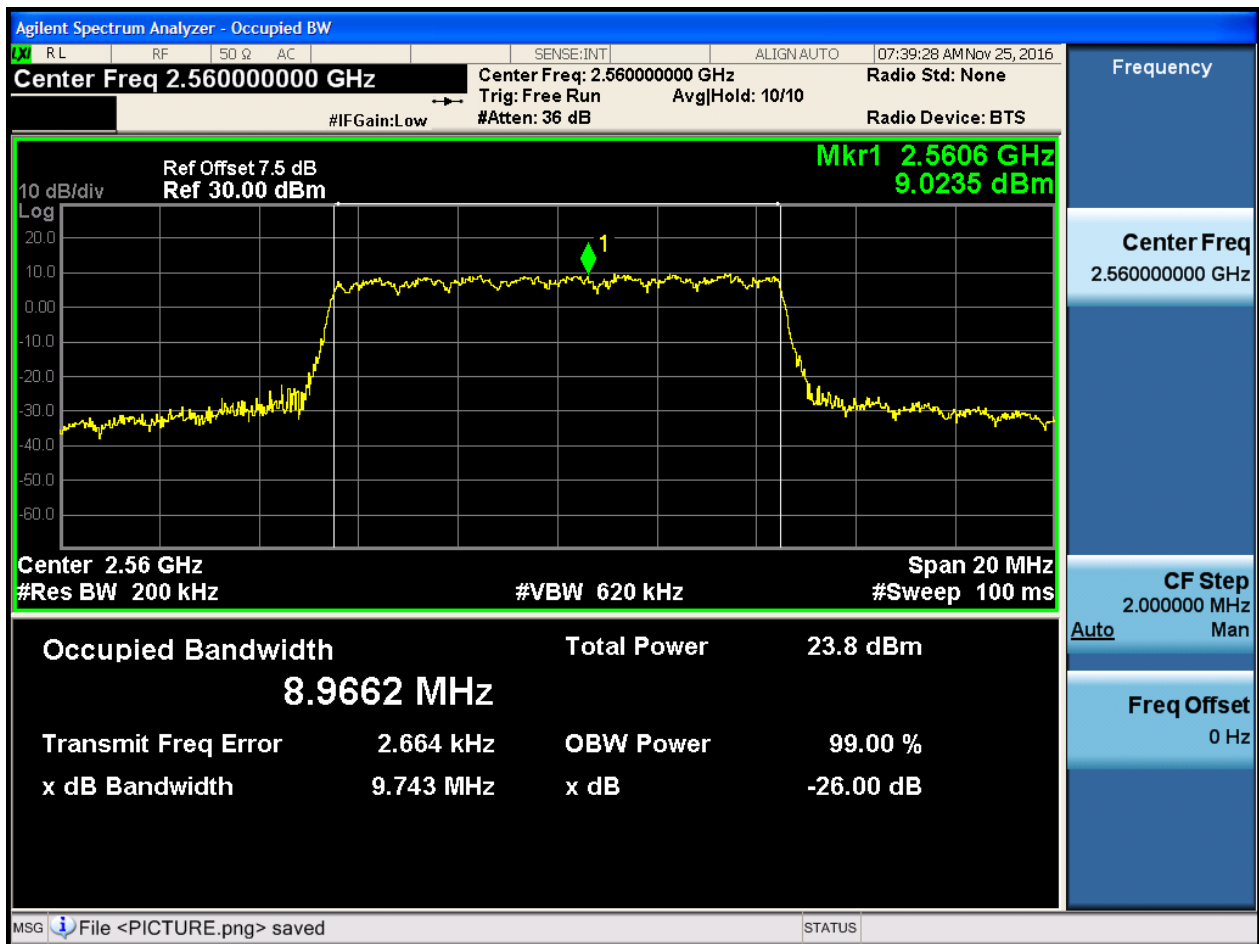




4.1.1.2.2 Test Bandwidth = 10

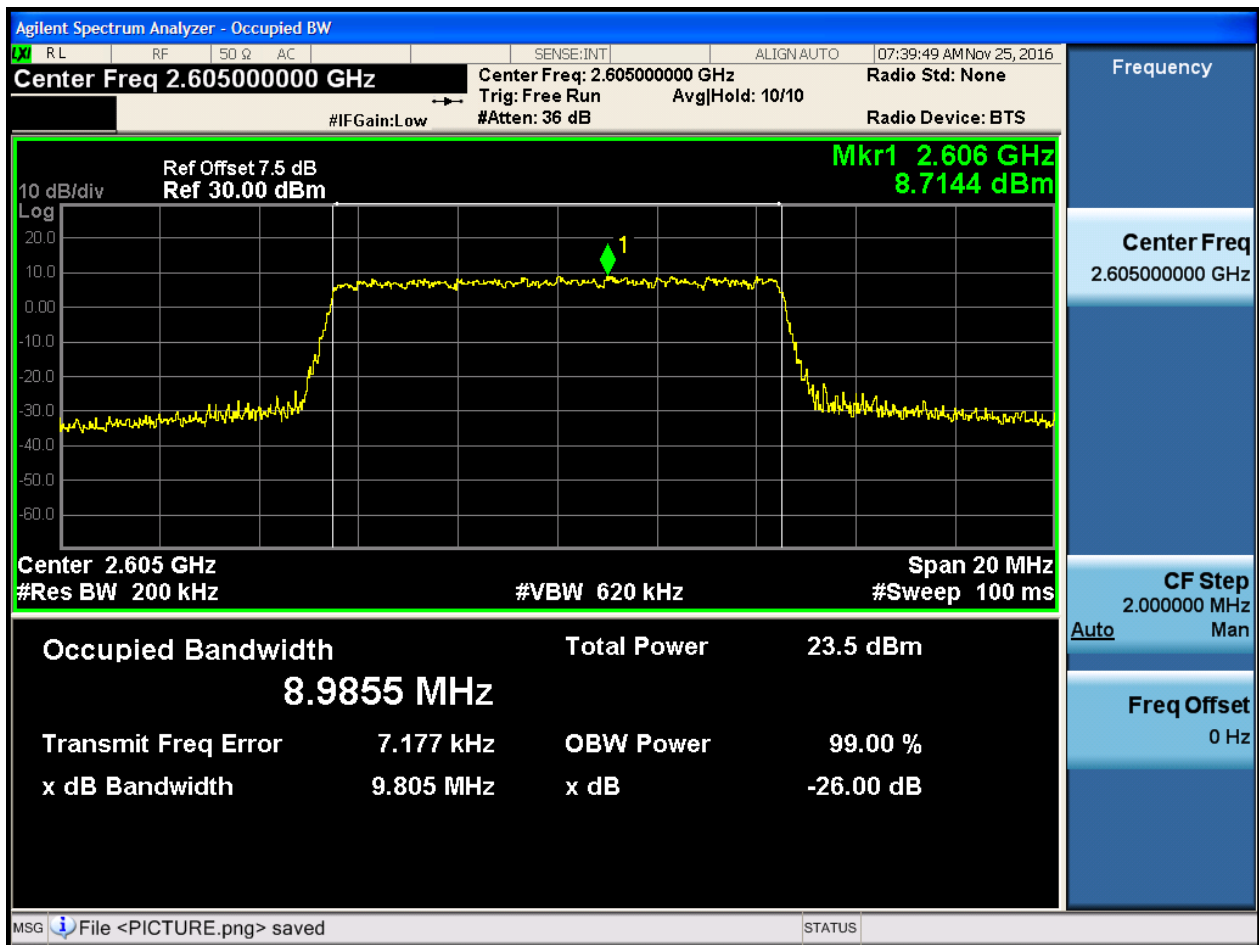
4.1.1.2.2.1 Test Channel = LCH

4.1.1.2.2.1.1 Test RB = RB50#0



4.1.1.2.2.2 Test Channel = MCH

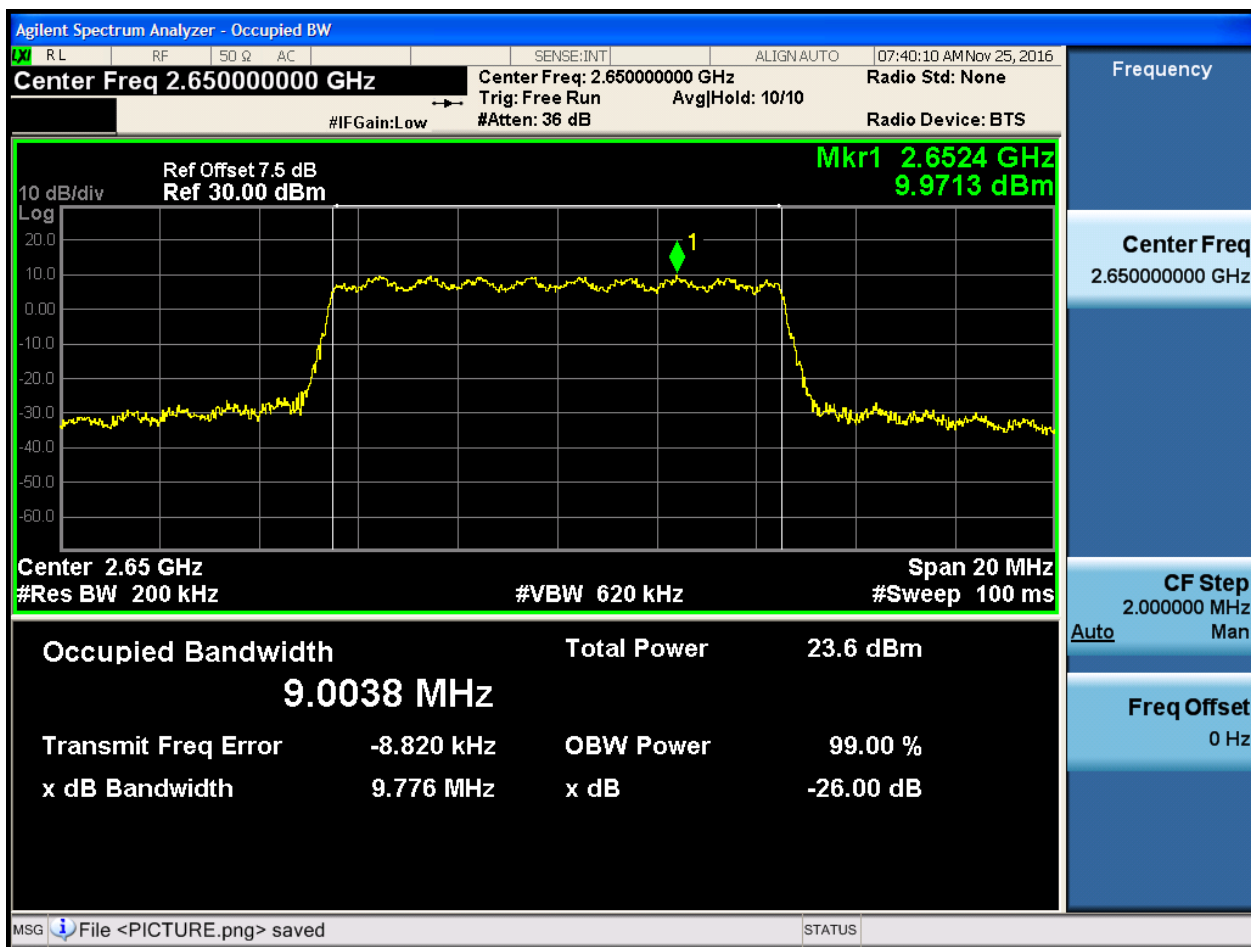
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

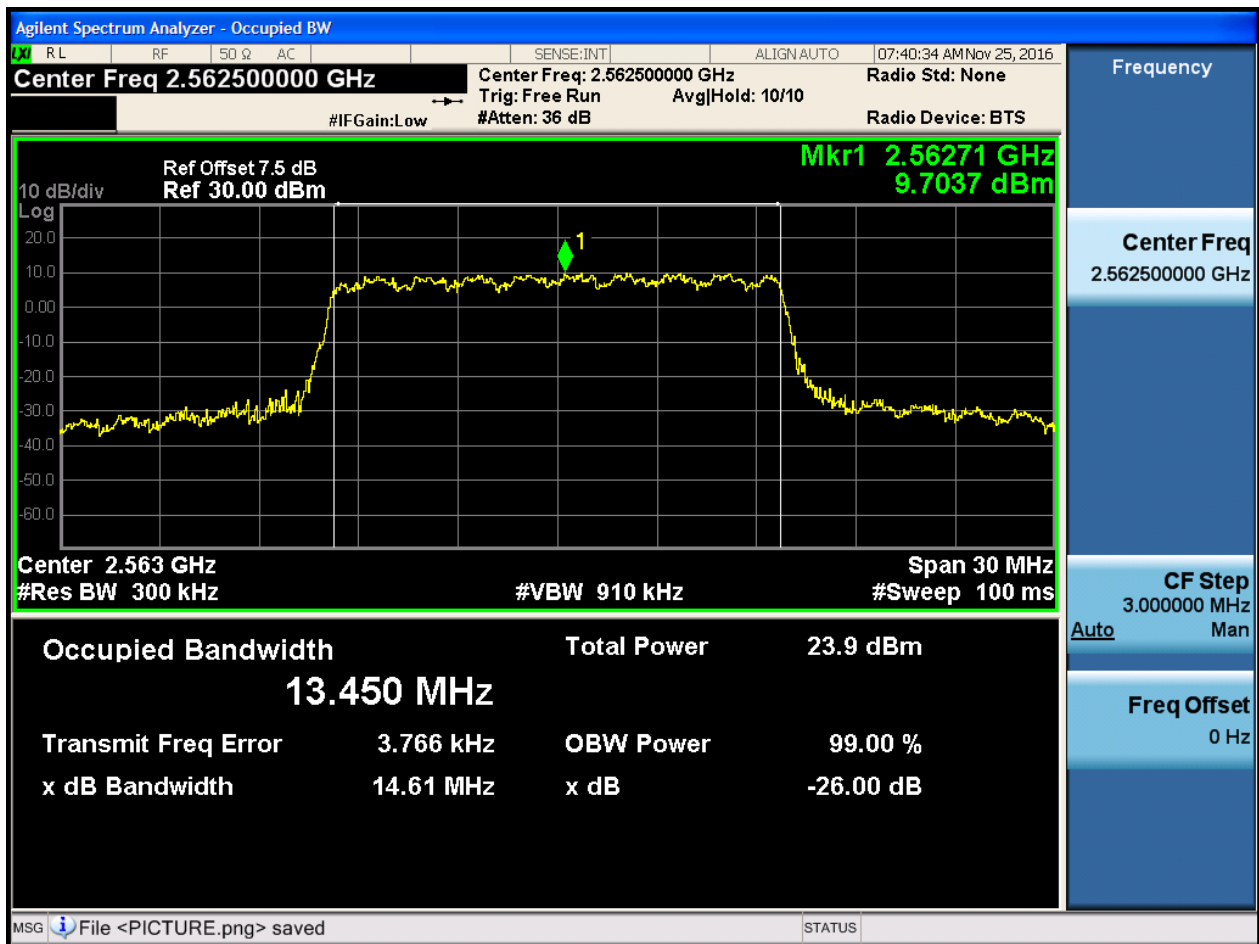




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

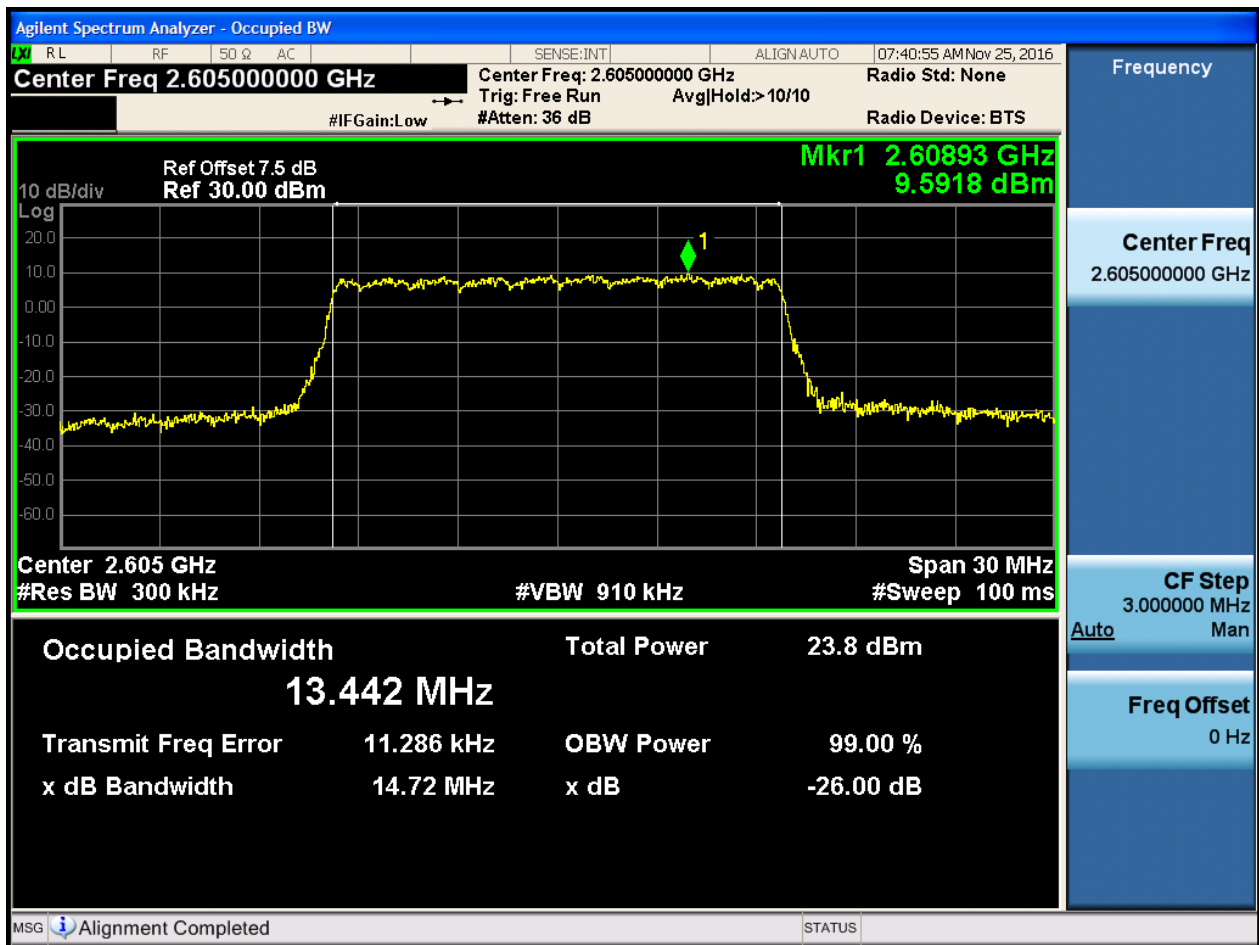
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

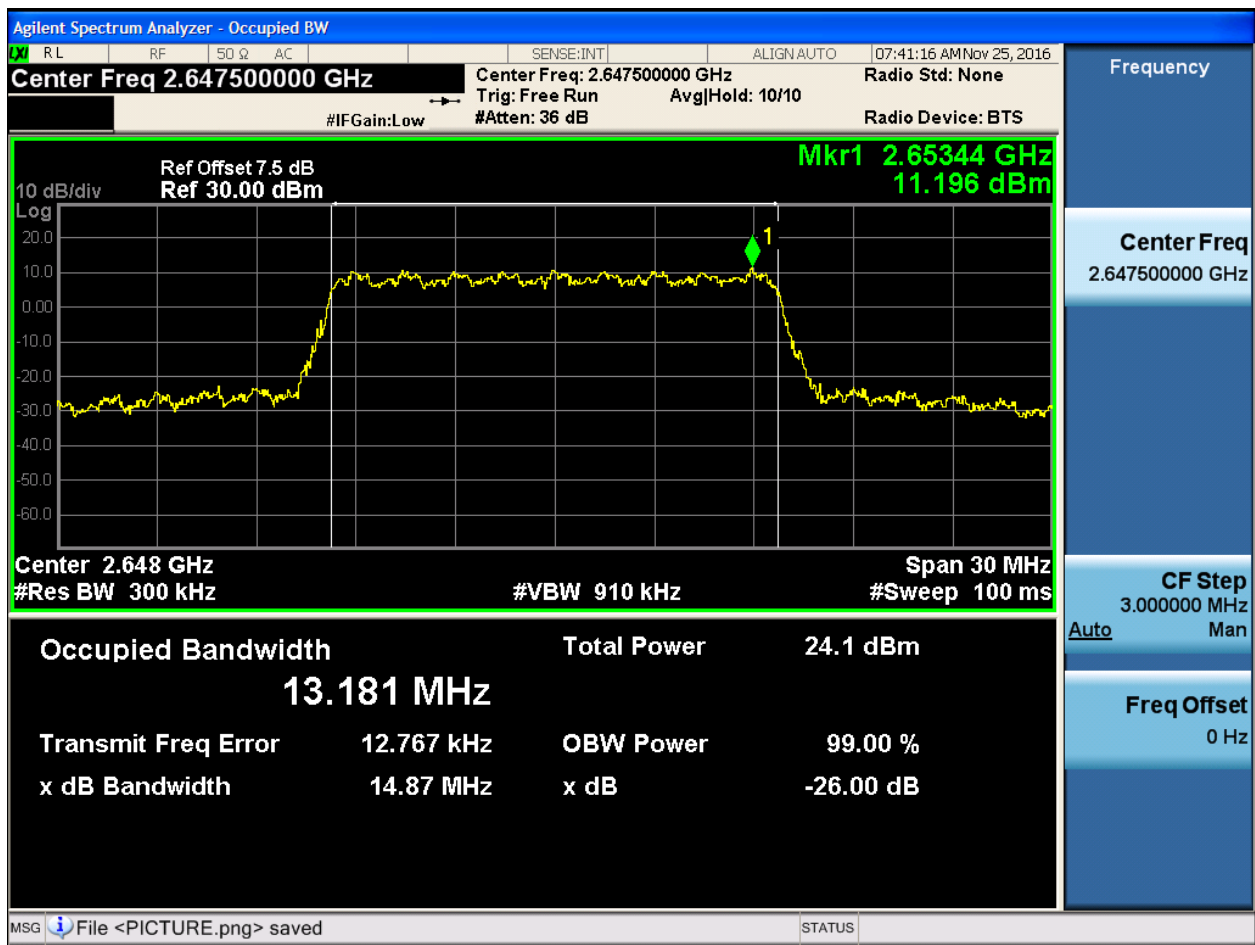
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

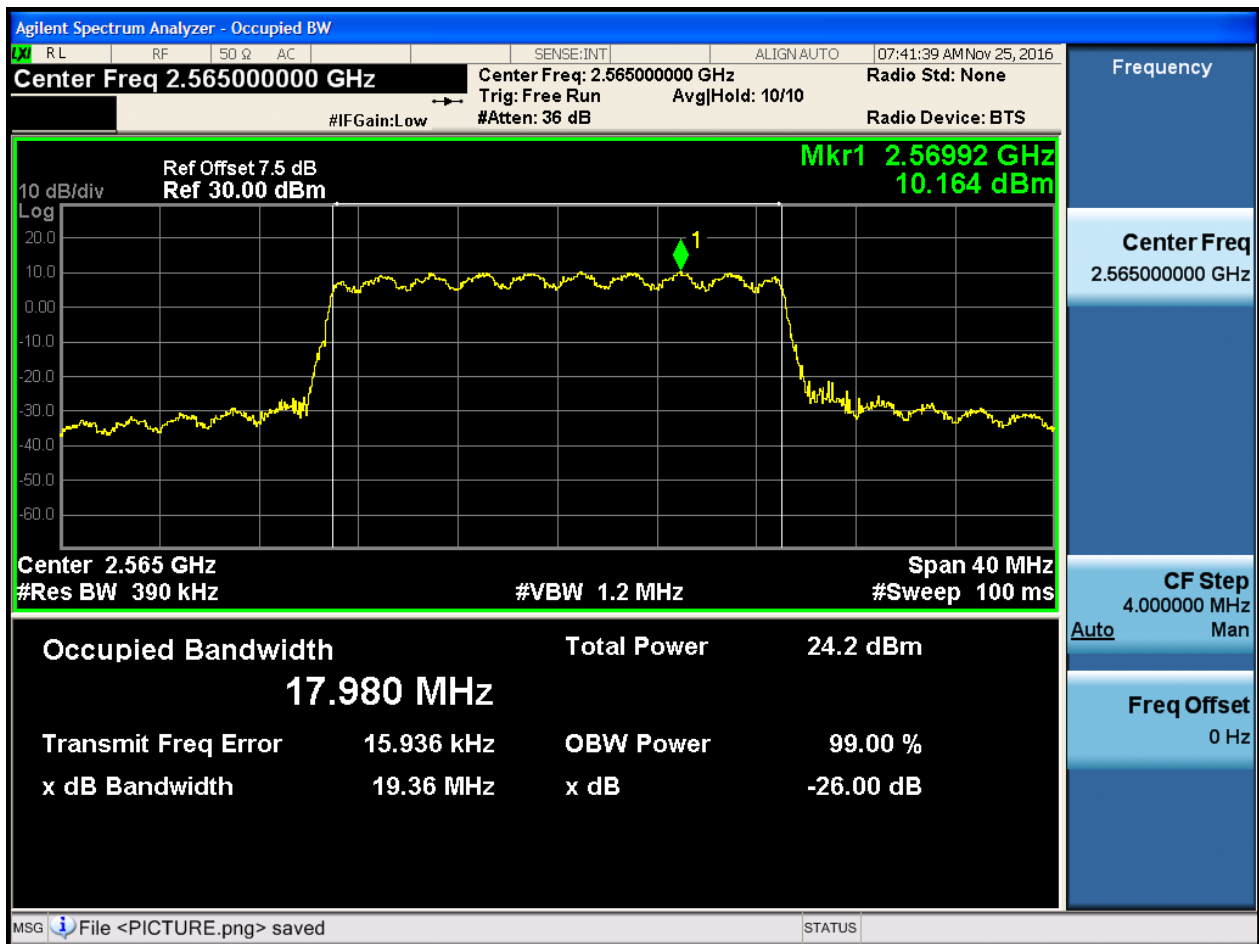




4.1.1.2.4 Test Bandwidth = 20

4.1.1.2.4.1 Test Channel = LCH

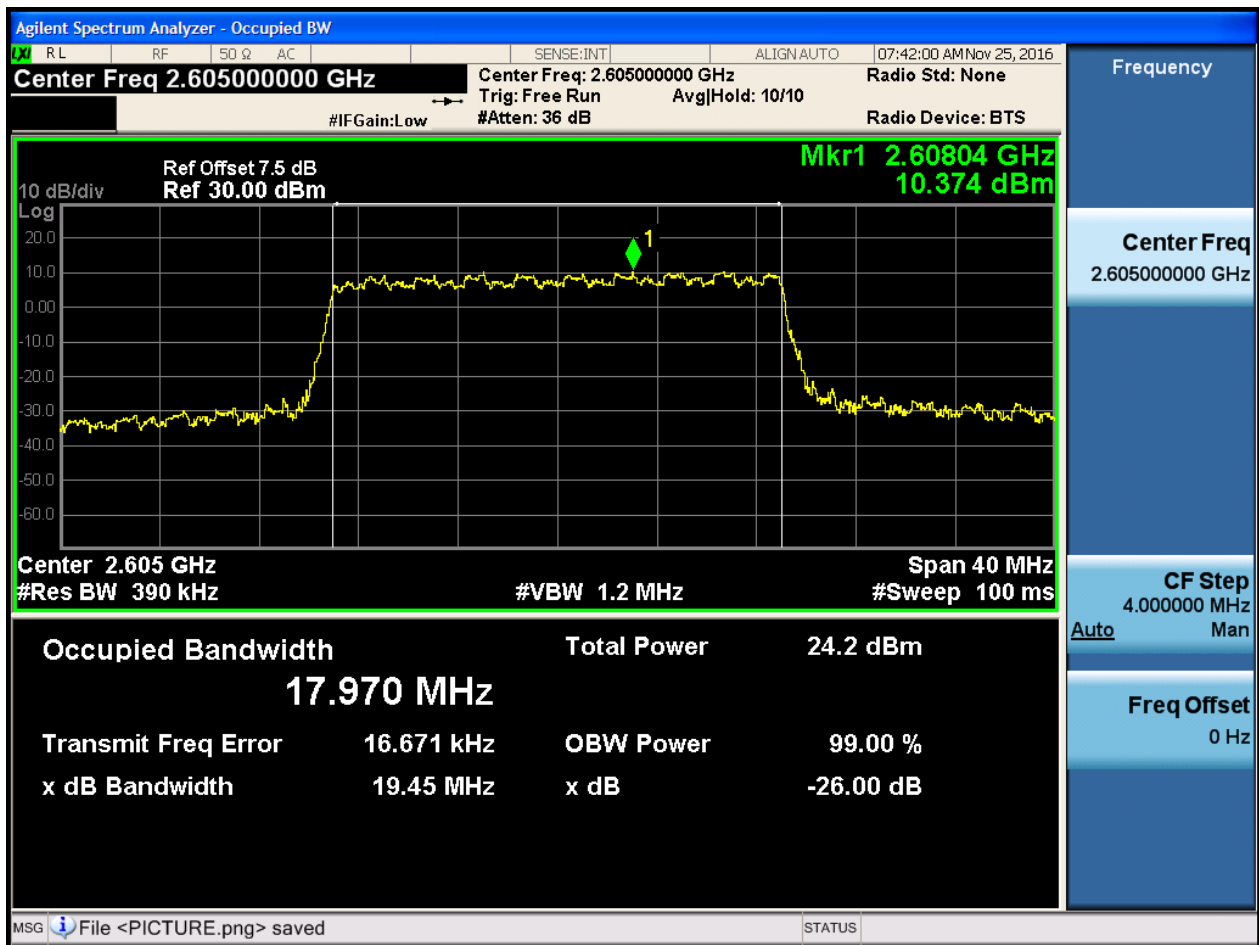
4.1.1.2.4.1.1 Test RB = RB100#0





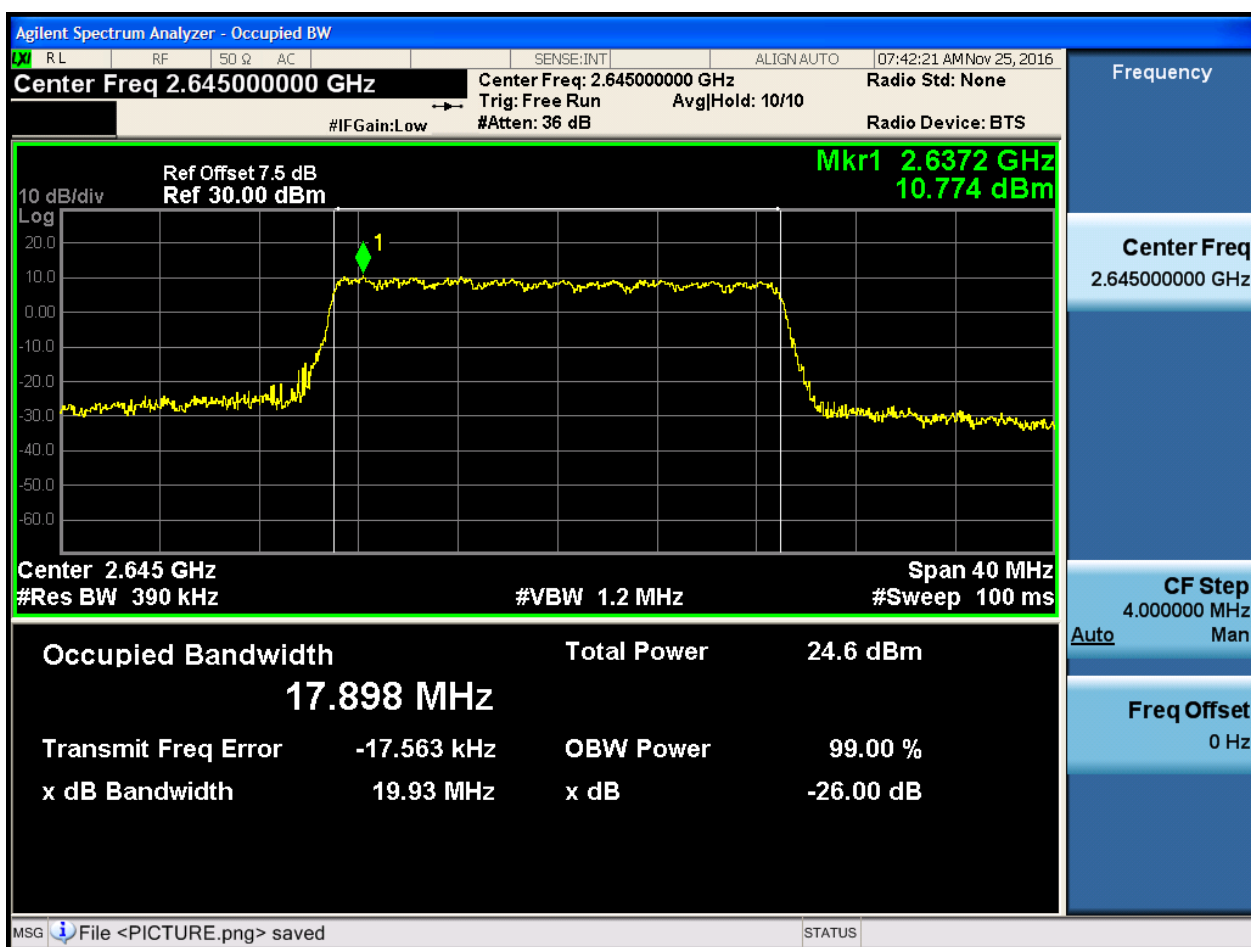
4.1.1.2.4.2 Test Channel = MCH

4.1.1.2.4.2.1 Test RB = RB100#0



4.1.1.2.4.3 Test Channel = HCH

4.1.1.2.4.3.1 Test RB = RB100#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

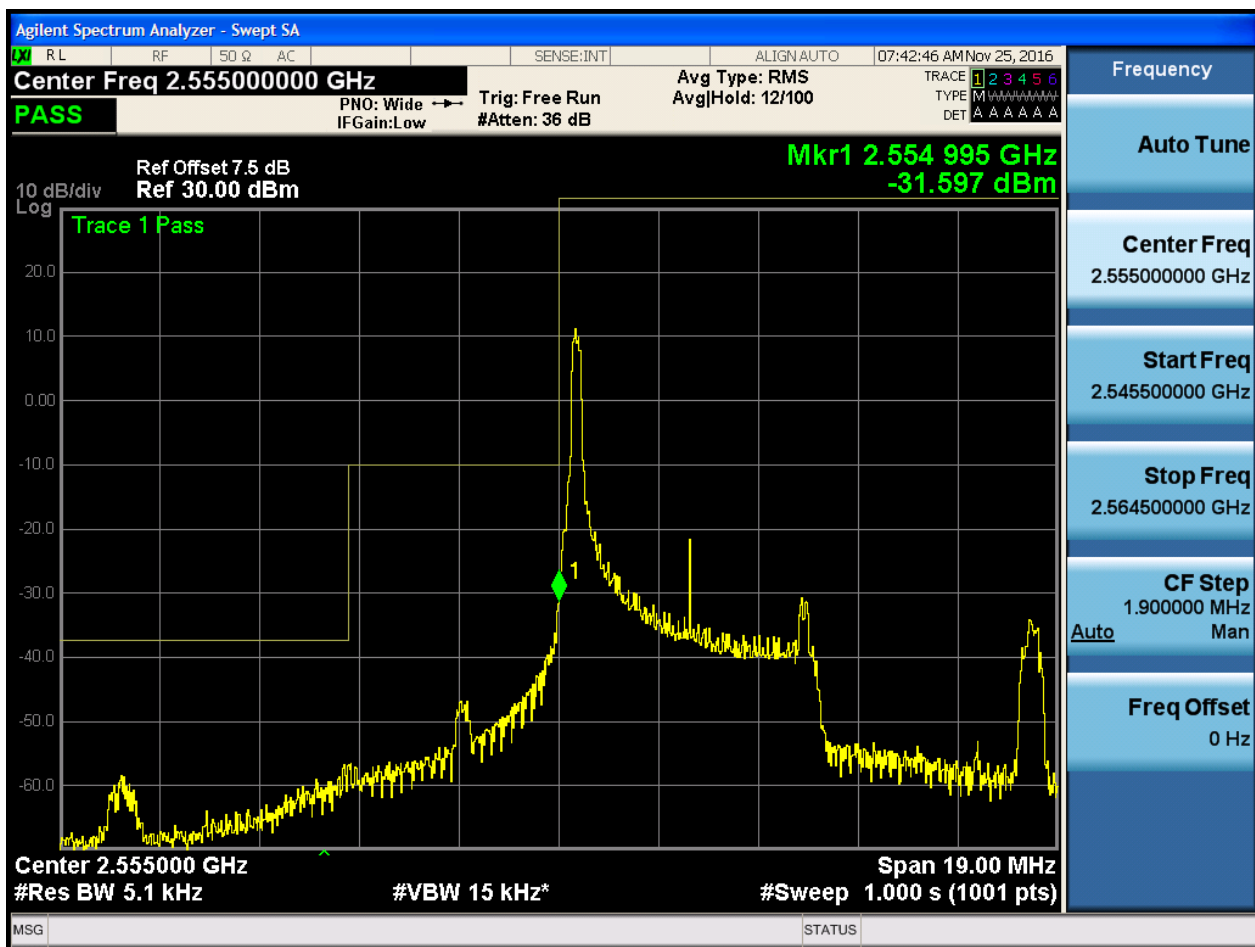
5.1.1 Test Band = BAND41

5.1.1.1 Test Mode = LTE/TM1

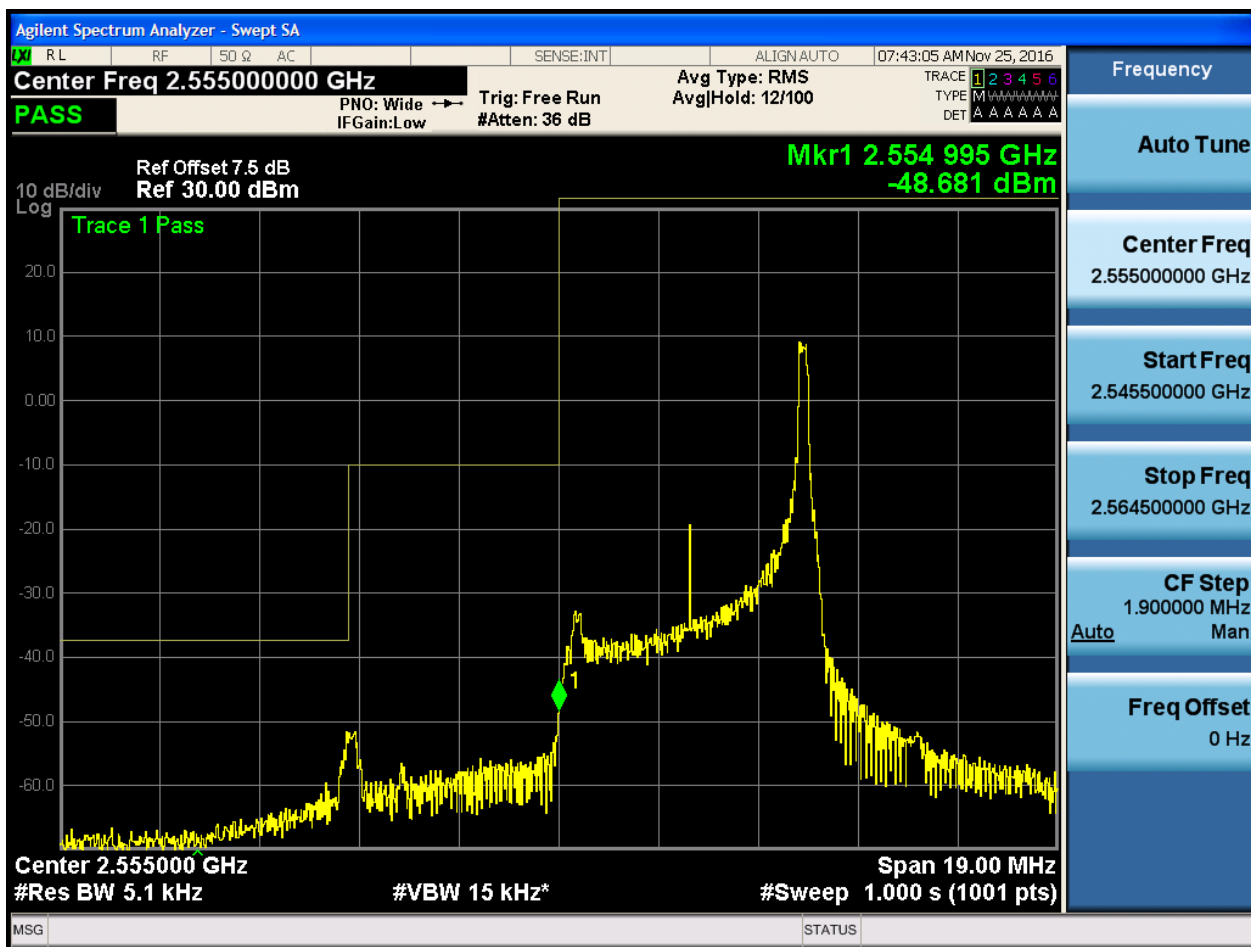
5.1.1.1.1 Test Bandwidth = 5

5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0

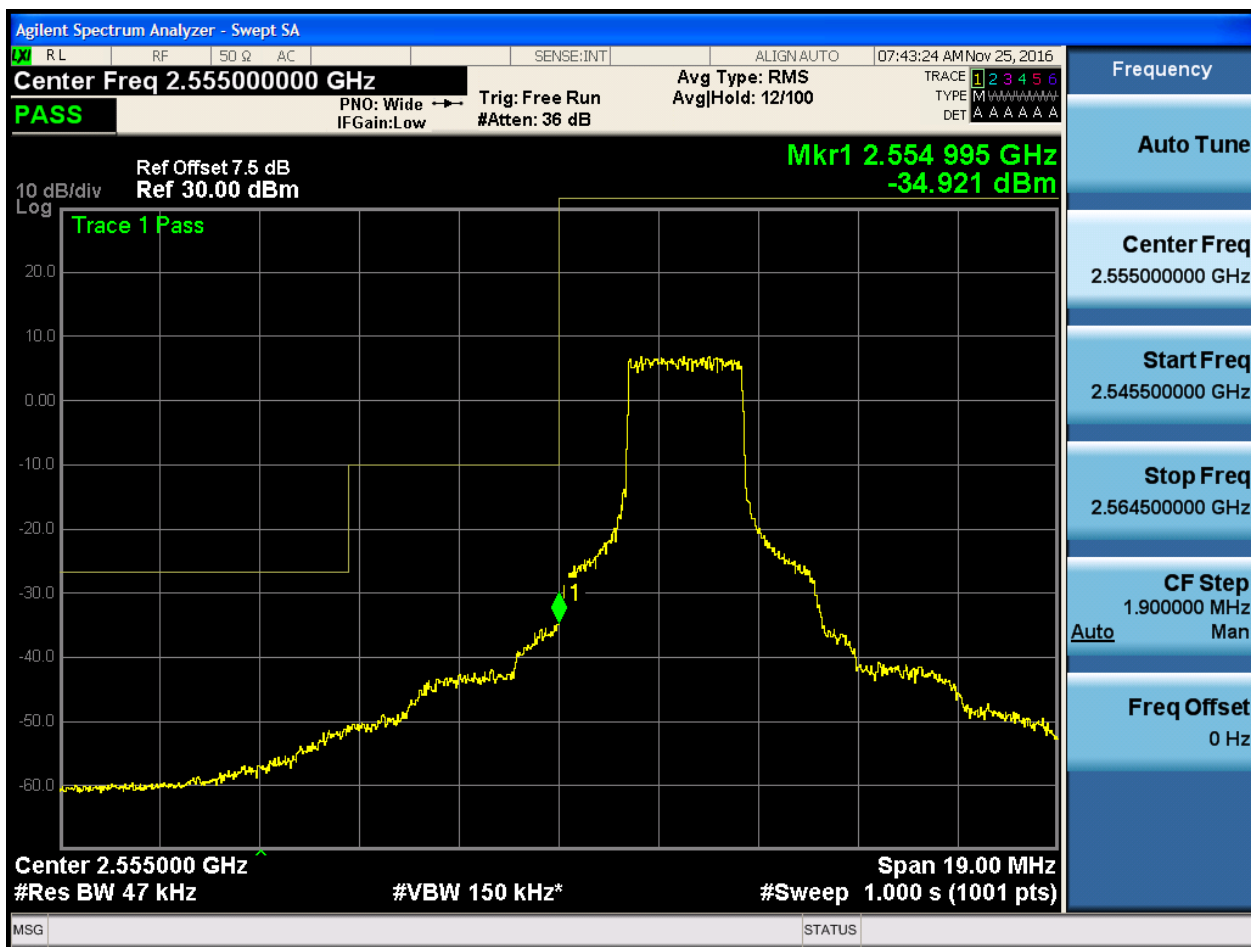


5.1.1.1.1.1.2 Test RB = RB1#24





5.1.1.1.1.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 07:43:42 AM Nov 25, 2016

Center Freq 2.555000000 GHz Avg Type: RMS
#Res BW 91 kHz #VBW 270 kHz* #Sweep 1.000 s (1001 pts)

PASS PNO: Wide IFGain:Low Trig: Free Run #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 7.5 dB
Ref 30.00 dBm

Mkr1 2.554 995 GHz
-28.106 dBm

10 dB/div
Log

Trace 1 Pass

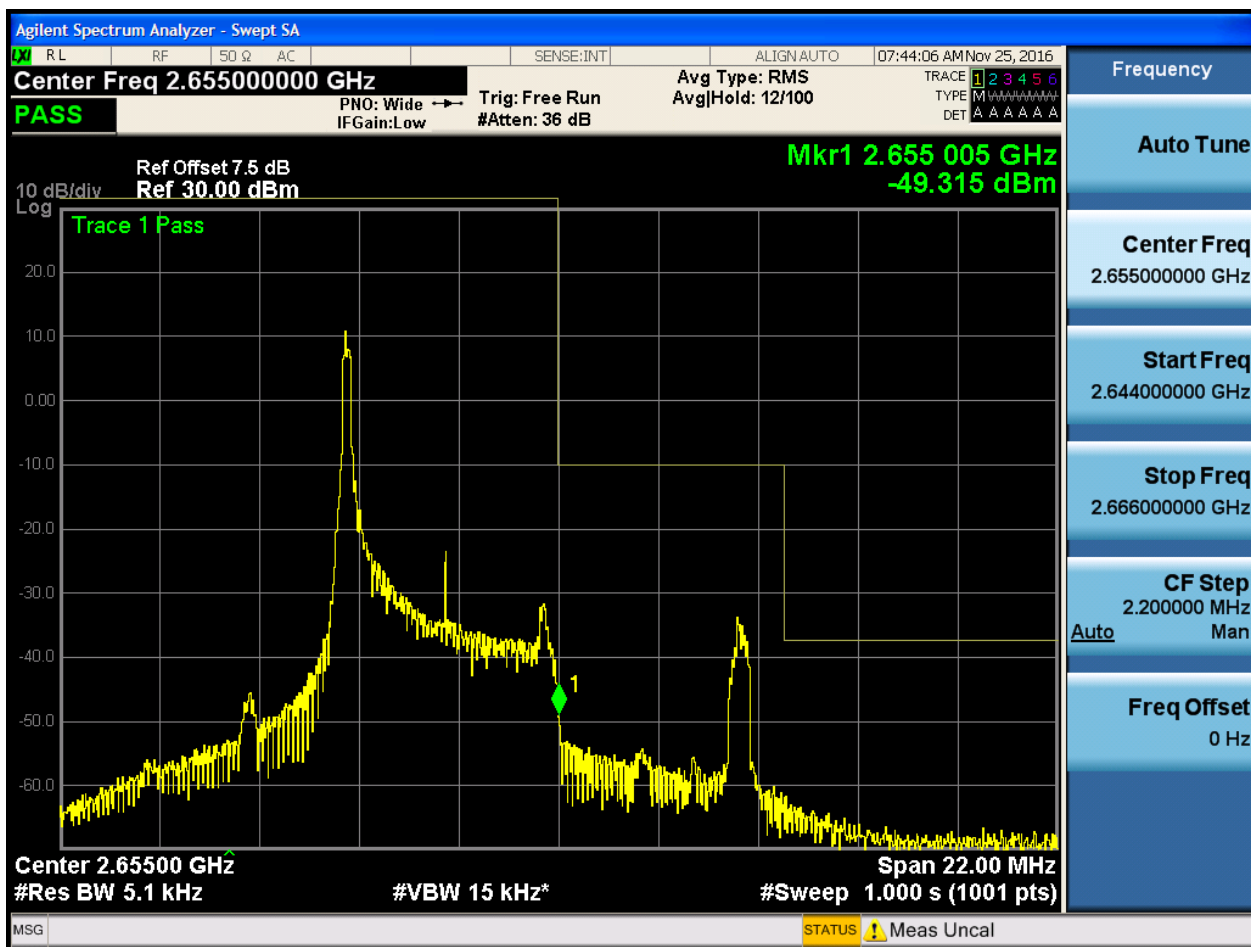
Center 2.555000 GHz
Span 19.00 MHz

MSG STATUS



5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



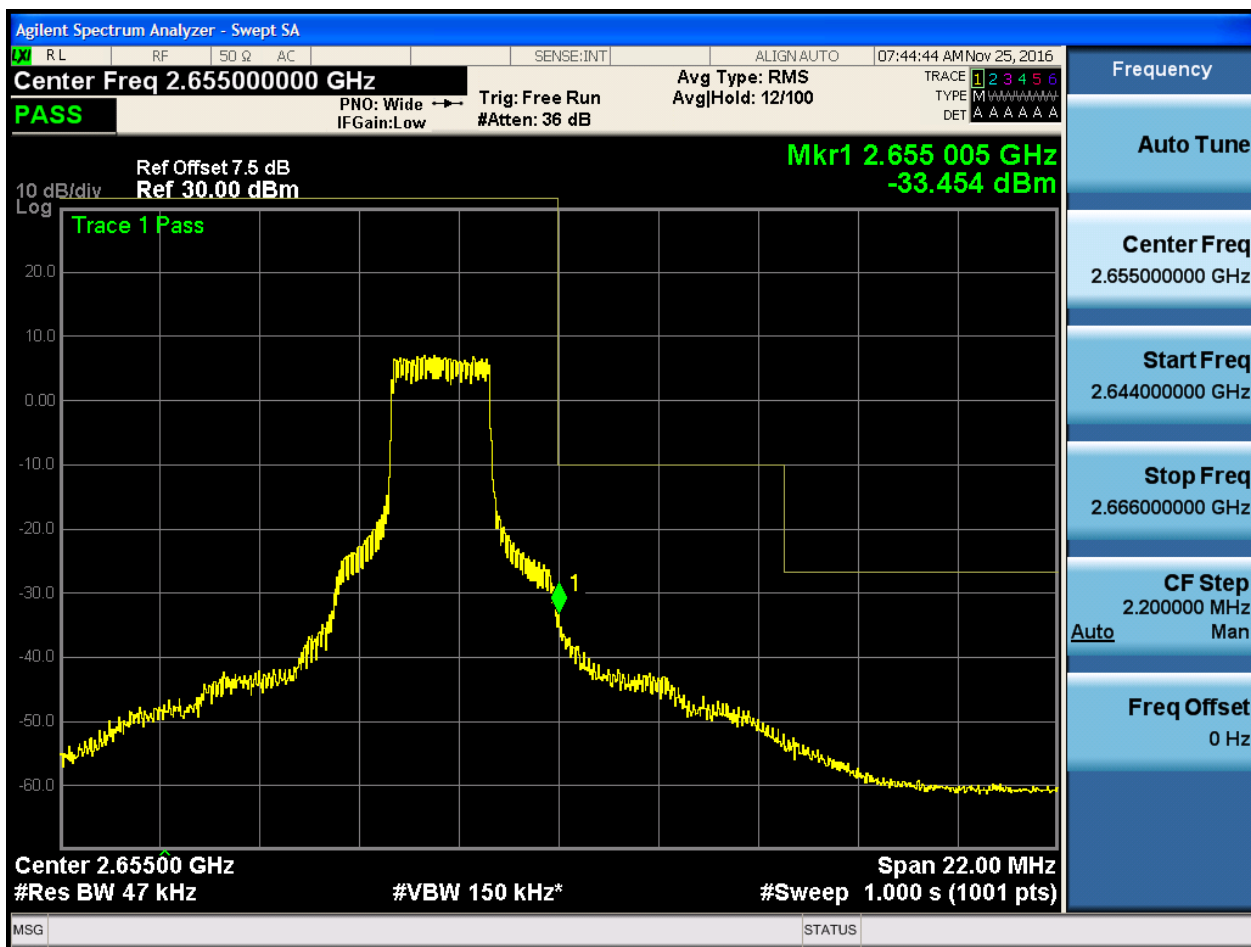


5.1.1.1.2.2 Test RB = RB1#24



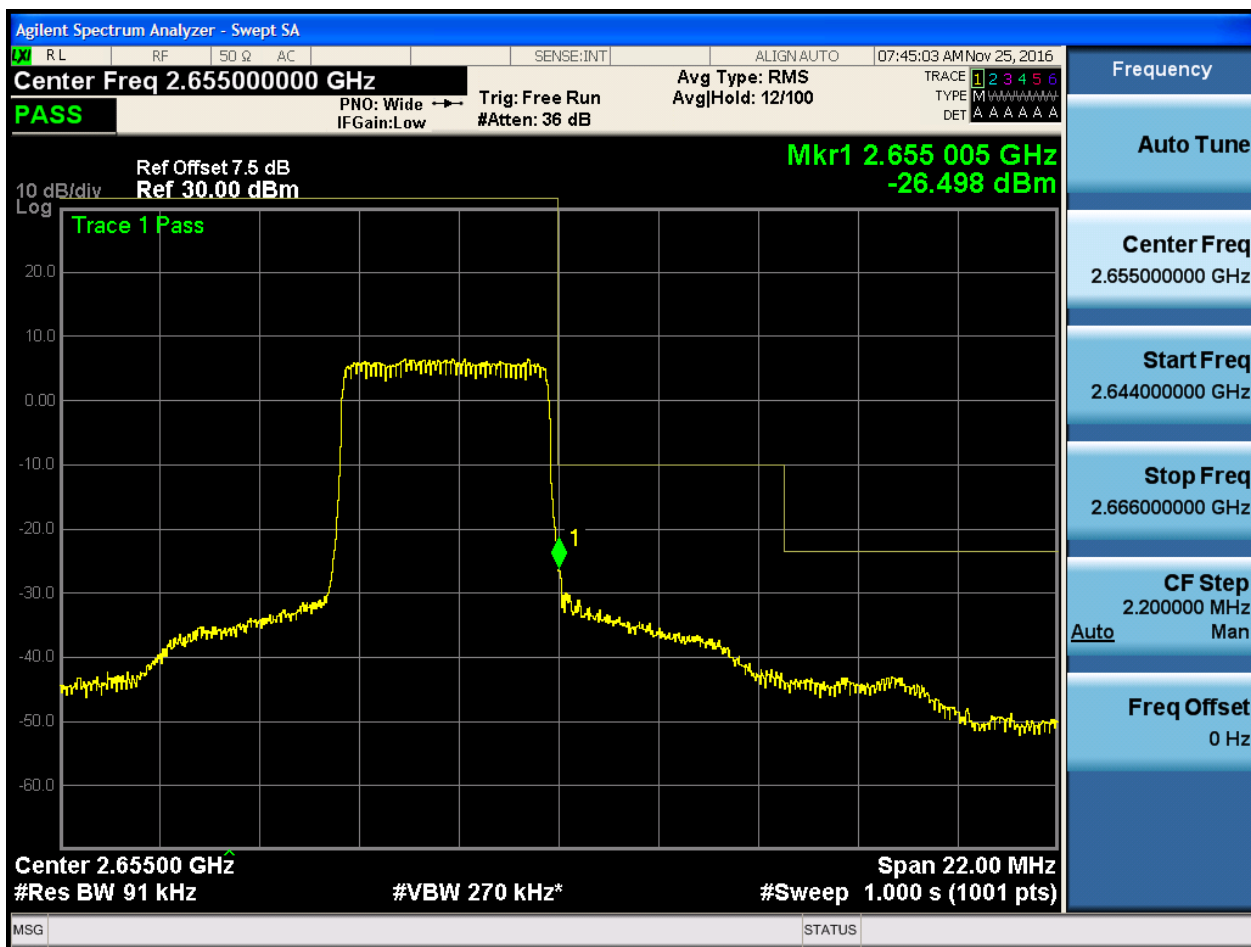


5.1.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.1.2.4 Test RB = RB25#0

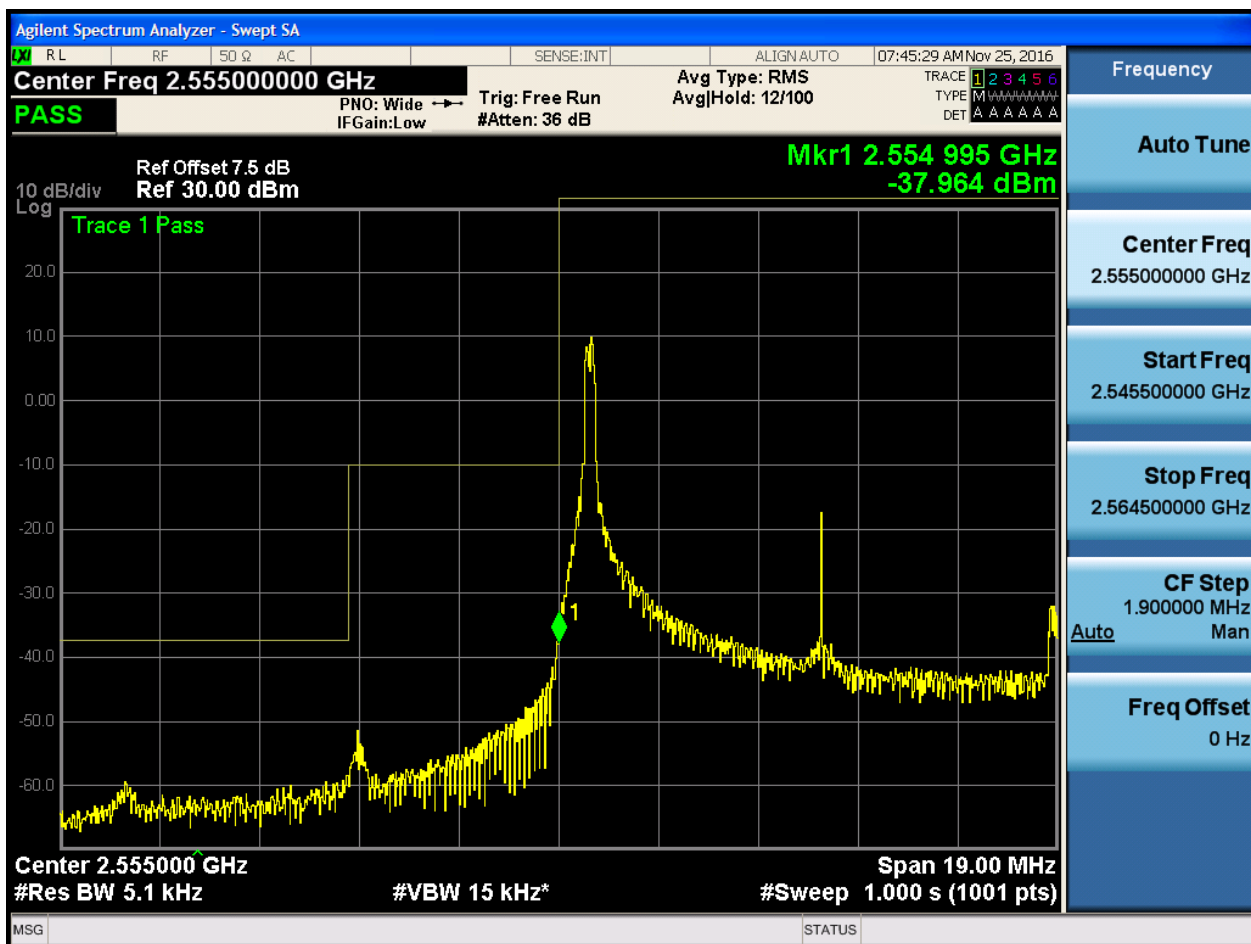




5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.555000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.554 995 GHz
-54.137 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.555000 GHz
#Res BW 5.1 kHz

#VBW 15 kHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.555000000 GHz

Start Freq
2.545500000 GHz

Stop Freq
2.564500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.55500000 GHz

PASS PNO: Wide IFGain: Low Trig: Free Run #Atten: 36 dB Avg Type: RMS AvgHold: 12/100

Frequency Auto Tune Center Freq 2.55500000 GHz Start Freq 2.545500000 GHz Stop Freq 2.564500000 GHz CF Step 1.900000 MHz Man Freq Offset 0 Hz

The spectrum analyzer displays a swept frequency range from 2.5455 GHz to 2.5645 GHz. The center frequency is set to 2.5550 GHz. A significant signal is observed at approximately 2.554995 GHz, which is highlighted by a green diamond marker labeled 'Mkr1'. The signal level is indicated as -36.563 dBm. The trace shows a rising slope across the displayed bandwidth, with some noise floor visible at lower frequencies.

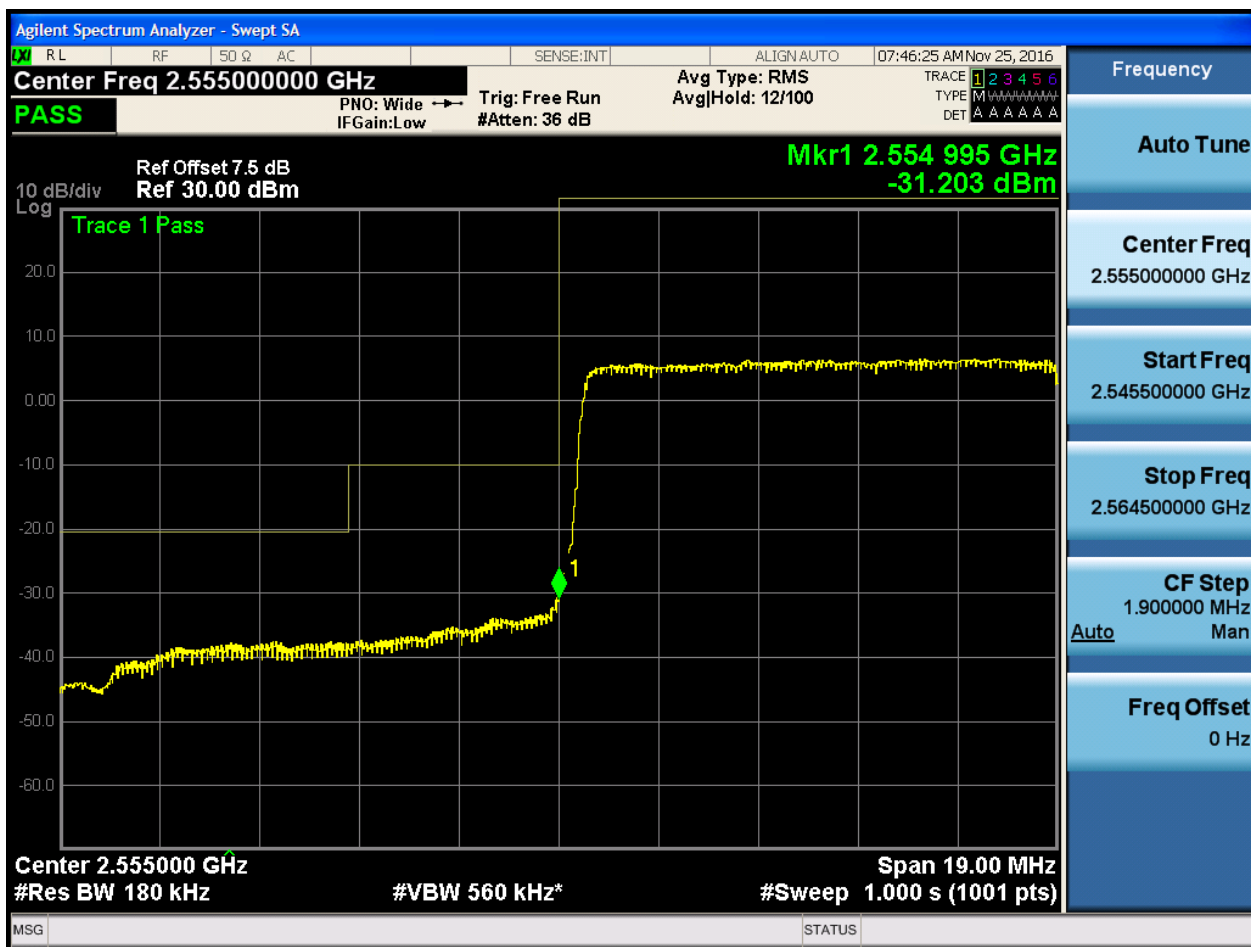
Mkr1 2.554 995 GHz
-36.563 dBm

Trace 1 Pass

Center 2.555000 GHz Span 19.00 MHz
#Res BW 91 kHz #VBW 270 kHz* #Sweep 1.000 s (1001 pts)



5.1.1.1.2.1.4 Test RB = RB50#0





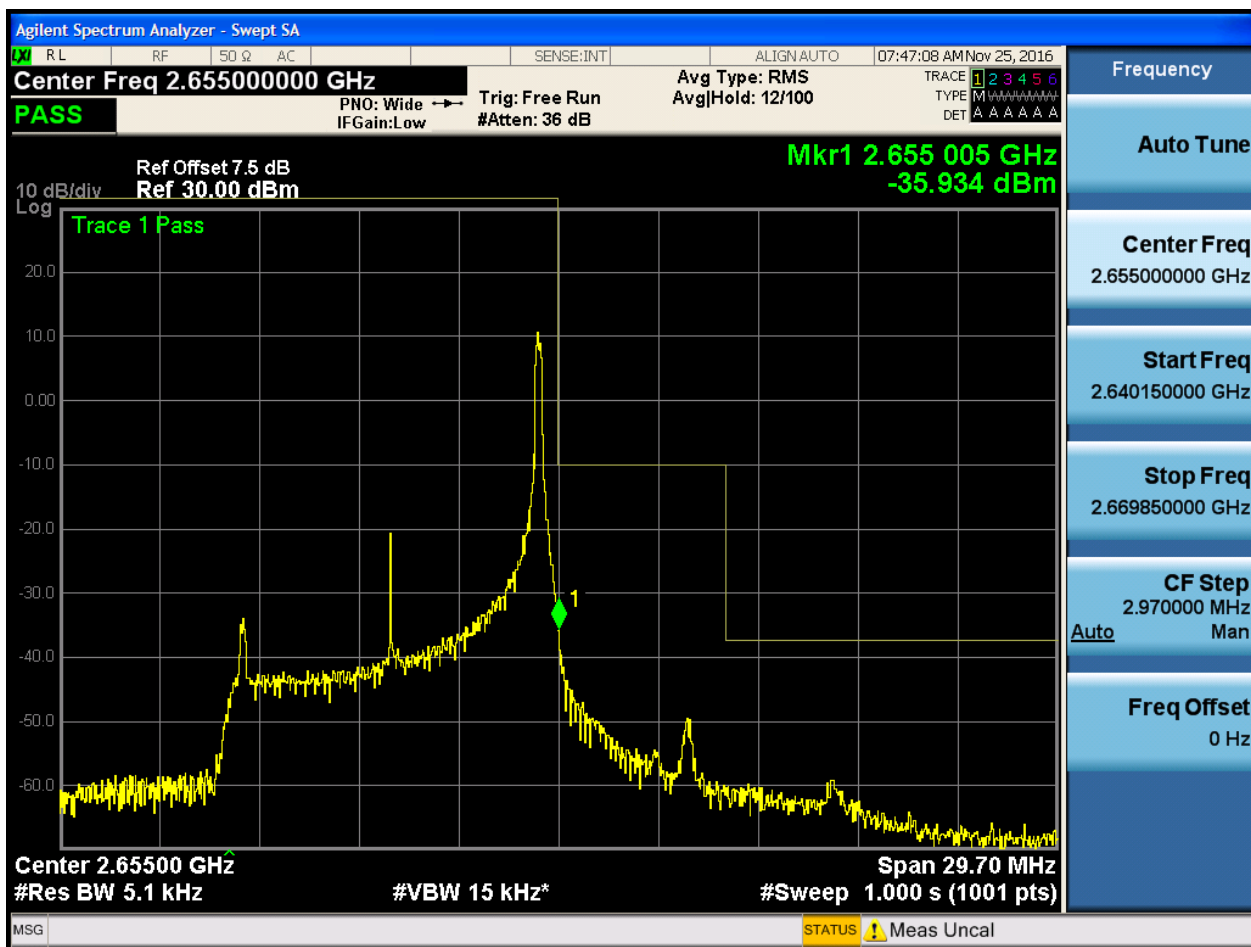
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0



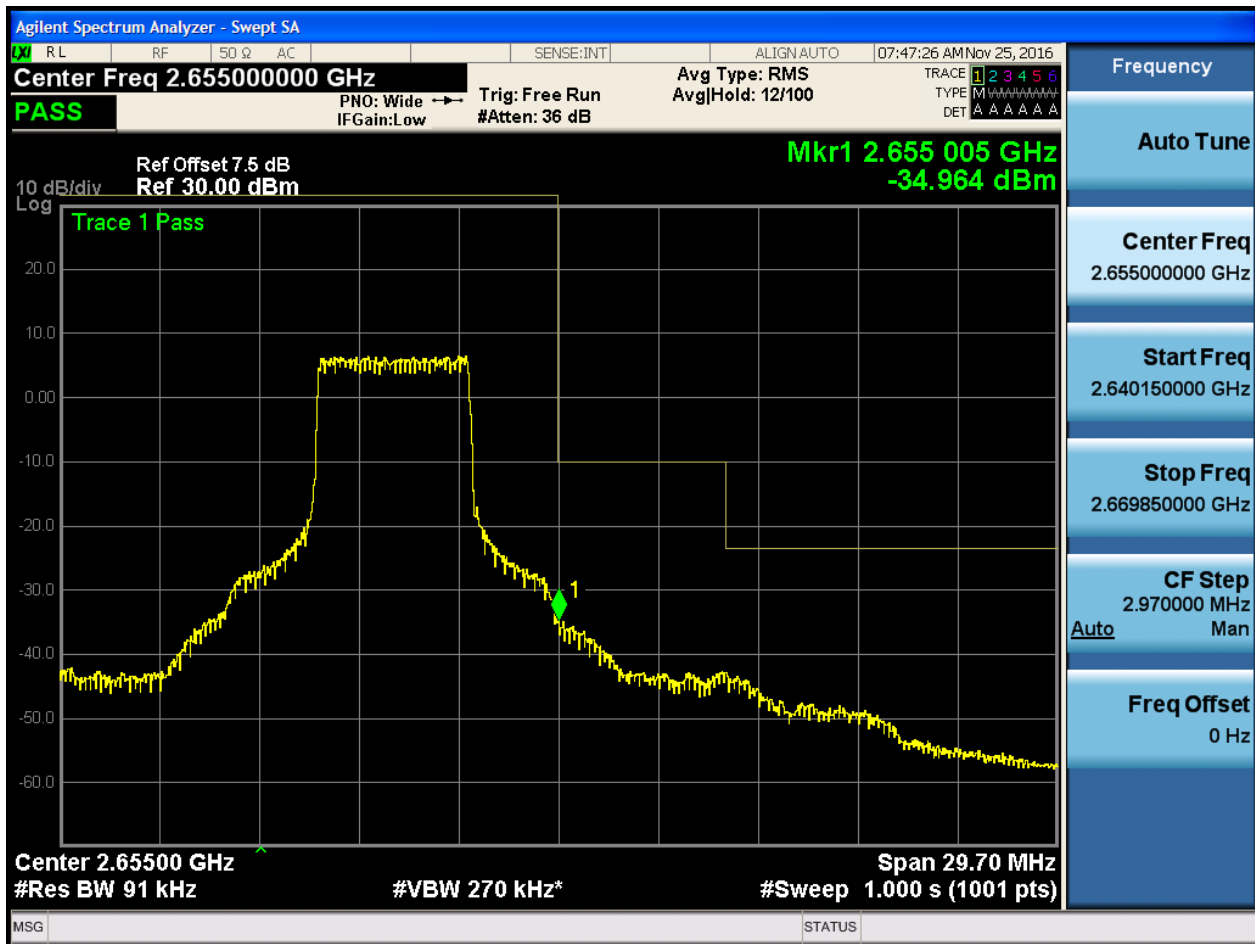


5.1.1.1.2.2.2 Test RB = RB1#49





5.1.1.1.2.2.3 Test RB = RB25#13



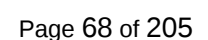


5.1.1.1.2.2.4 Test RB = RB50#0



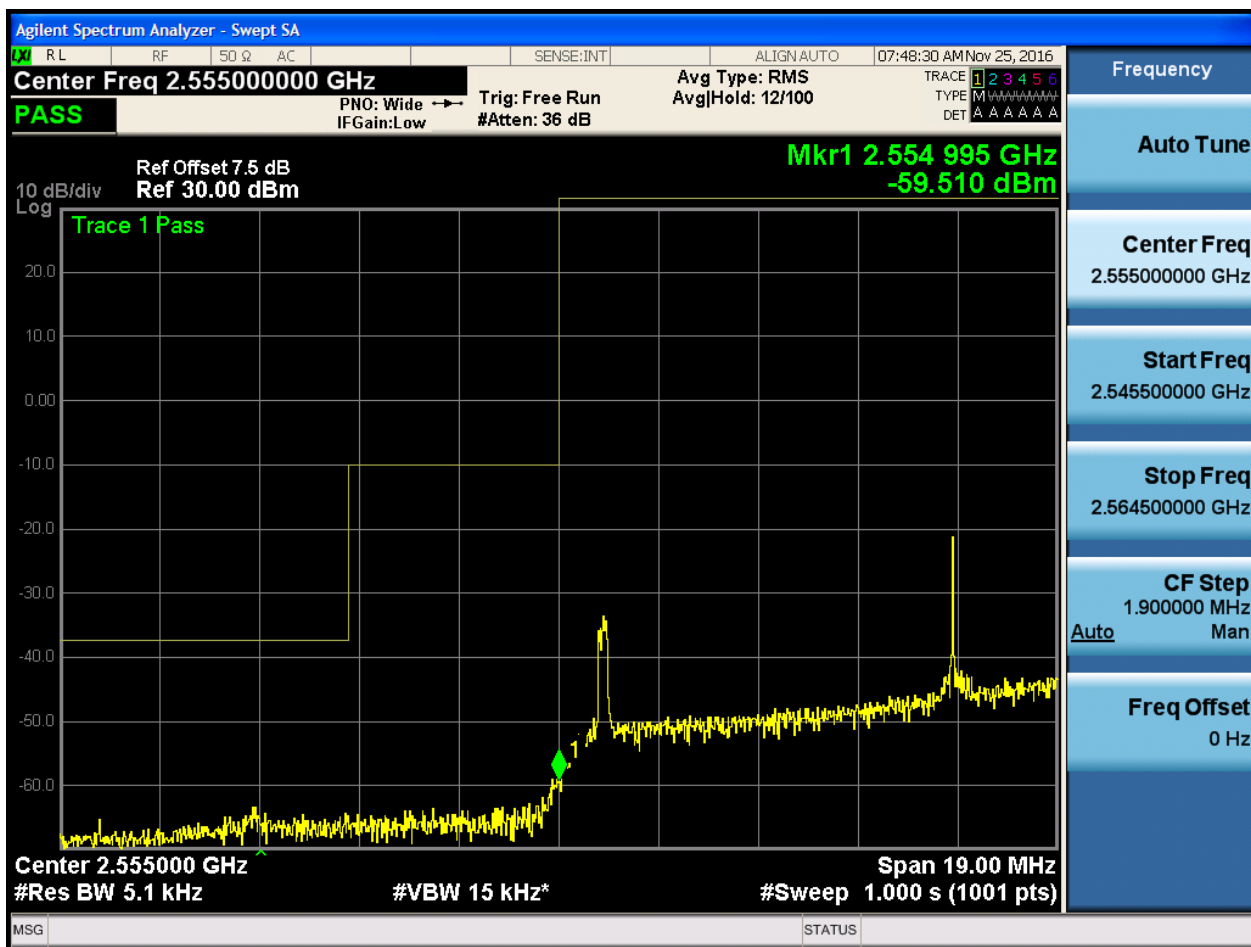


5.1.1.1.3.1.1 Test RB = RB1#0





5.1.1.1.3.1.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.55500000 GHz
#Res BW 130 kHz
#VBW 390 kHz*Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

PASS

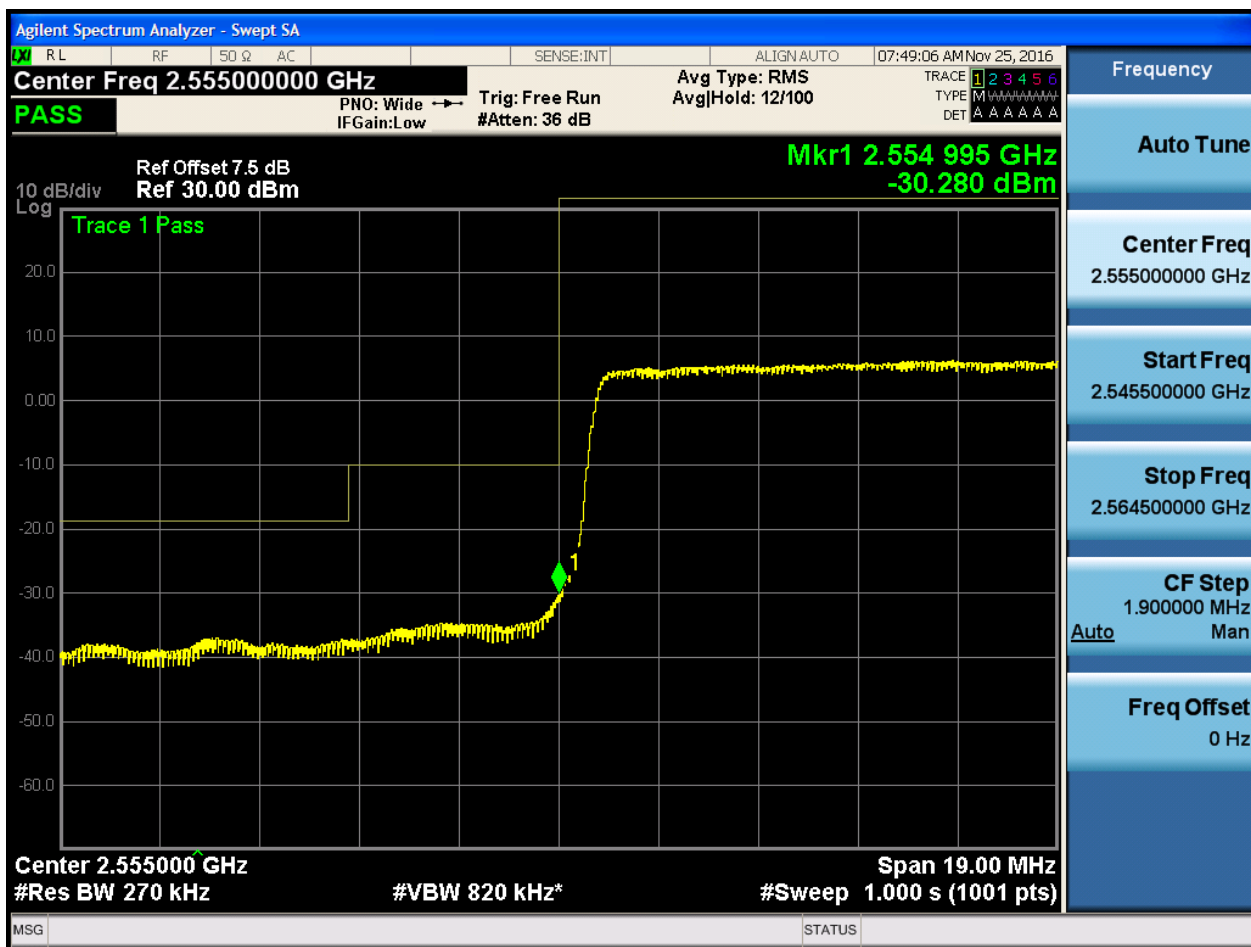
Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.554 995 GHz
-37.263 dBm

Frequency	
Auto Tune	
Center Freq	2.55500000 GHz
Start Freq	2.54500000 GHz
Stop Freq	2.56450000 GHz
CF Step	1.900000 MHz
<u>Auto</u>	Man
Freq Offset	0 Hz



5.1.1.1.3.1.4 Test RB = RB75#0



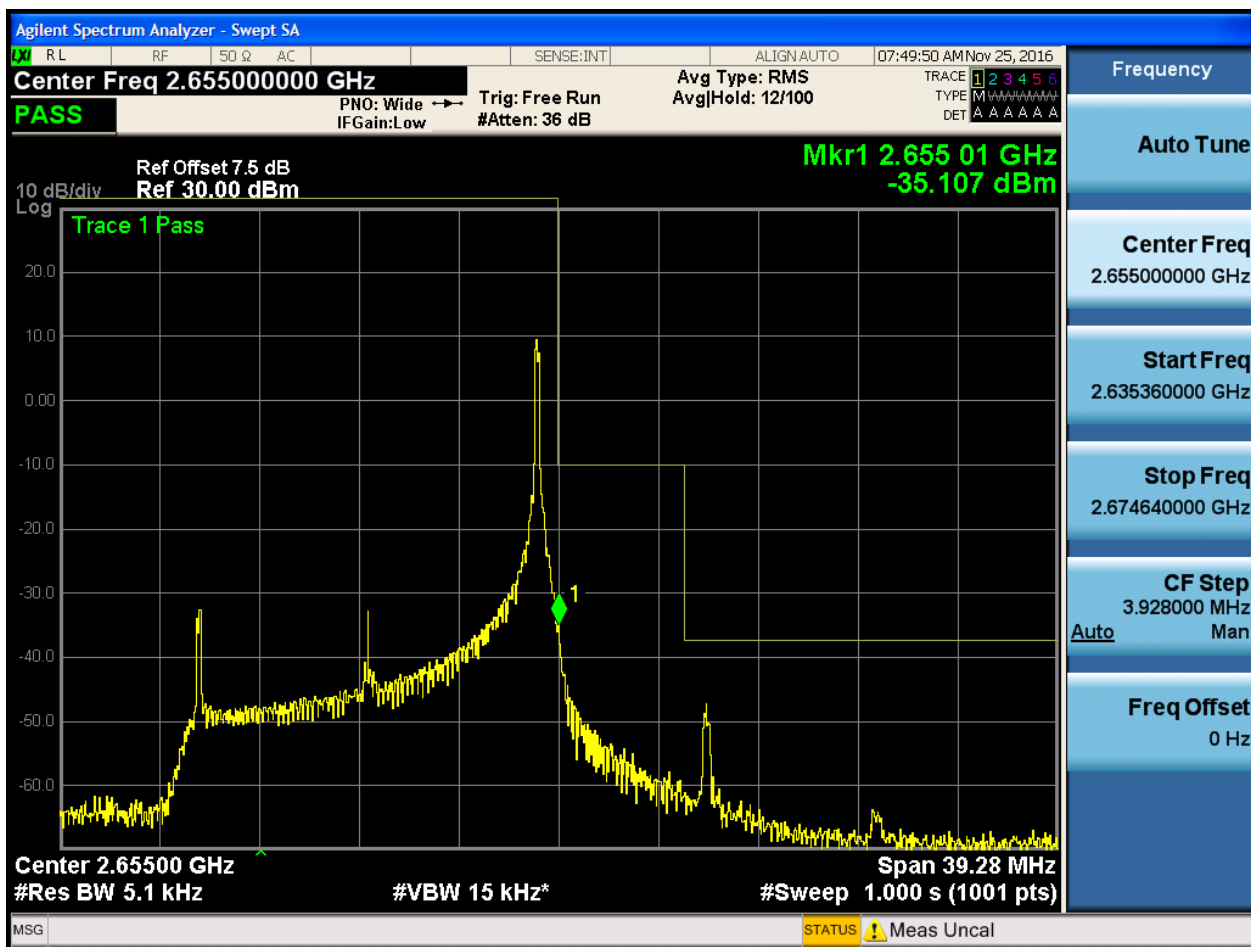
5.1.1.1.3.2 Test Channel = HCH

5.1.1.1.3.2.1 Test RB = RB1#0





5.1.1.1.3.2.2 Test RB = RB1#74





5.1.1.1.3.2.3 Test RB = RB36#18





5.1.1.1.3.2.4 Test RB = RB75#0

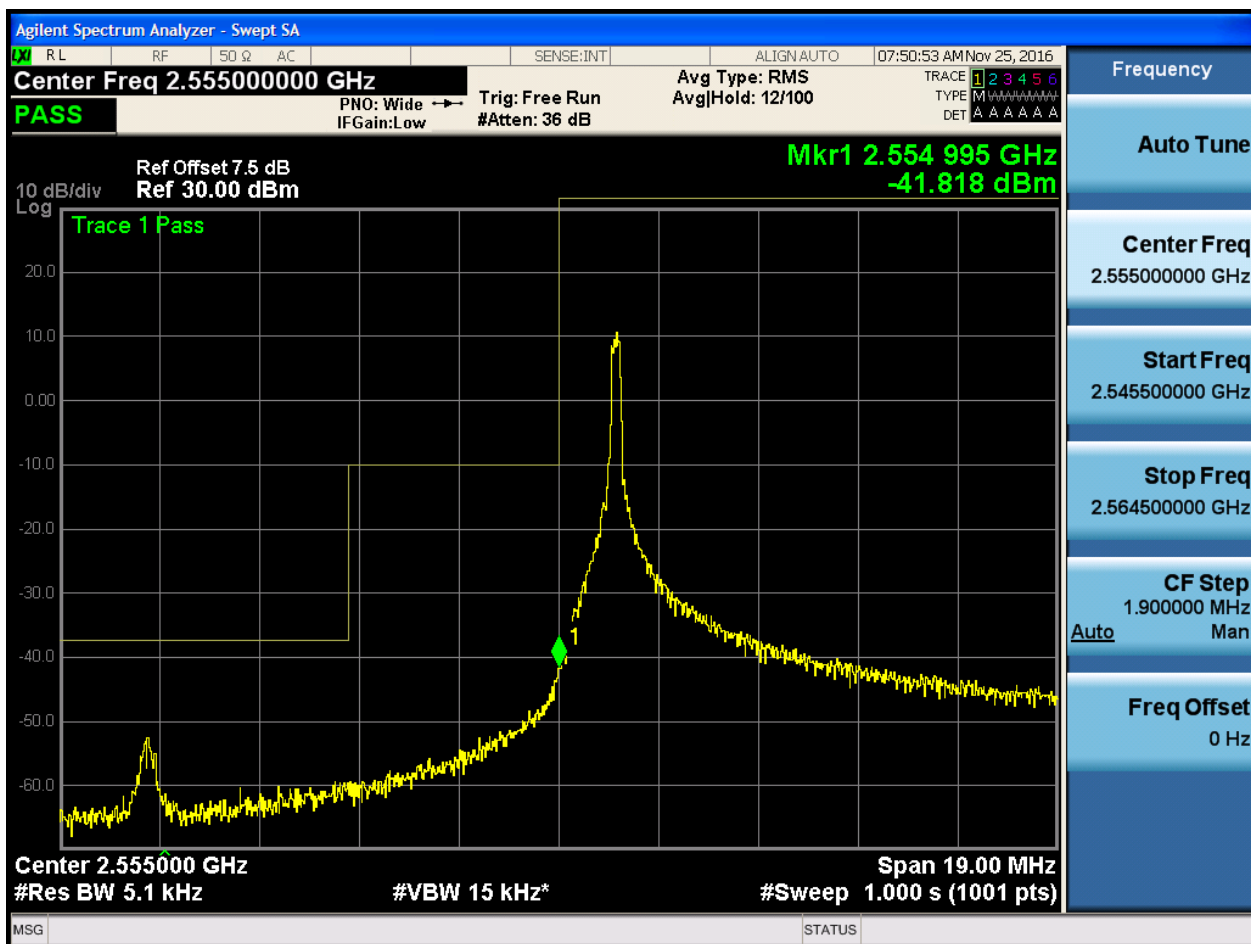




5.1.1.1.4 Test Bandwidth = 20

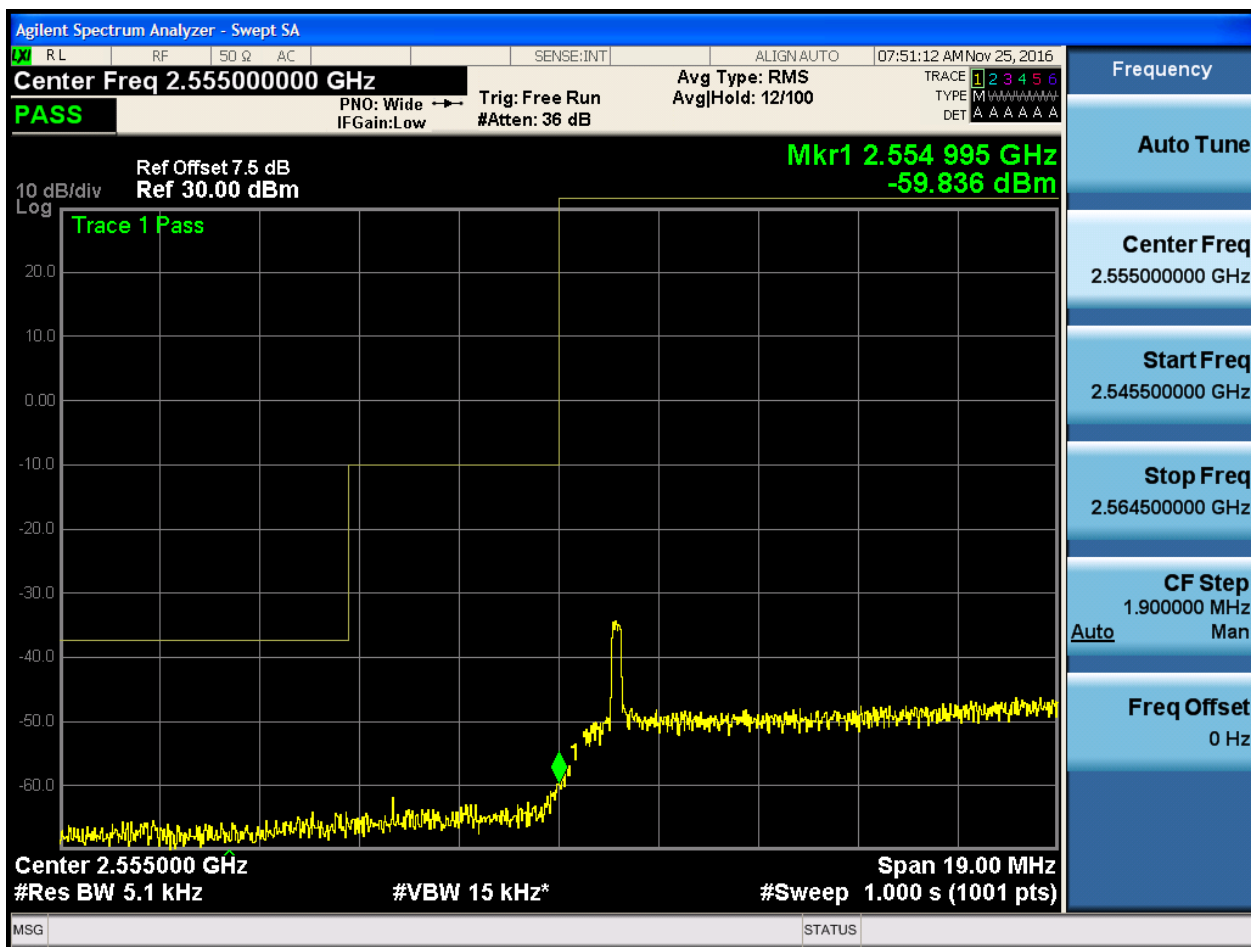
5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0





5.1.1.1.4.1.2 Test RB = RB1#99



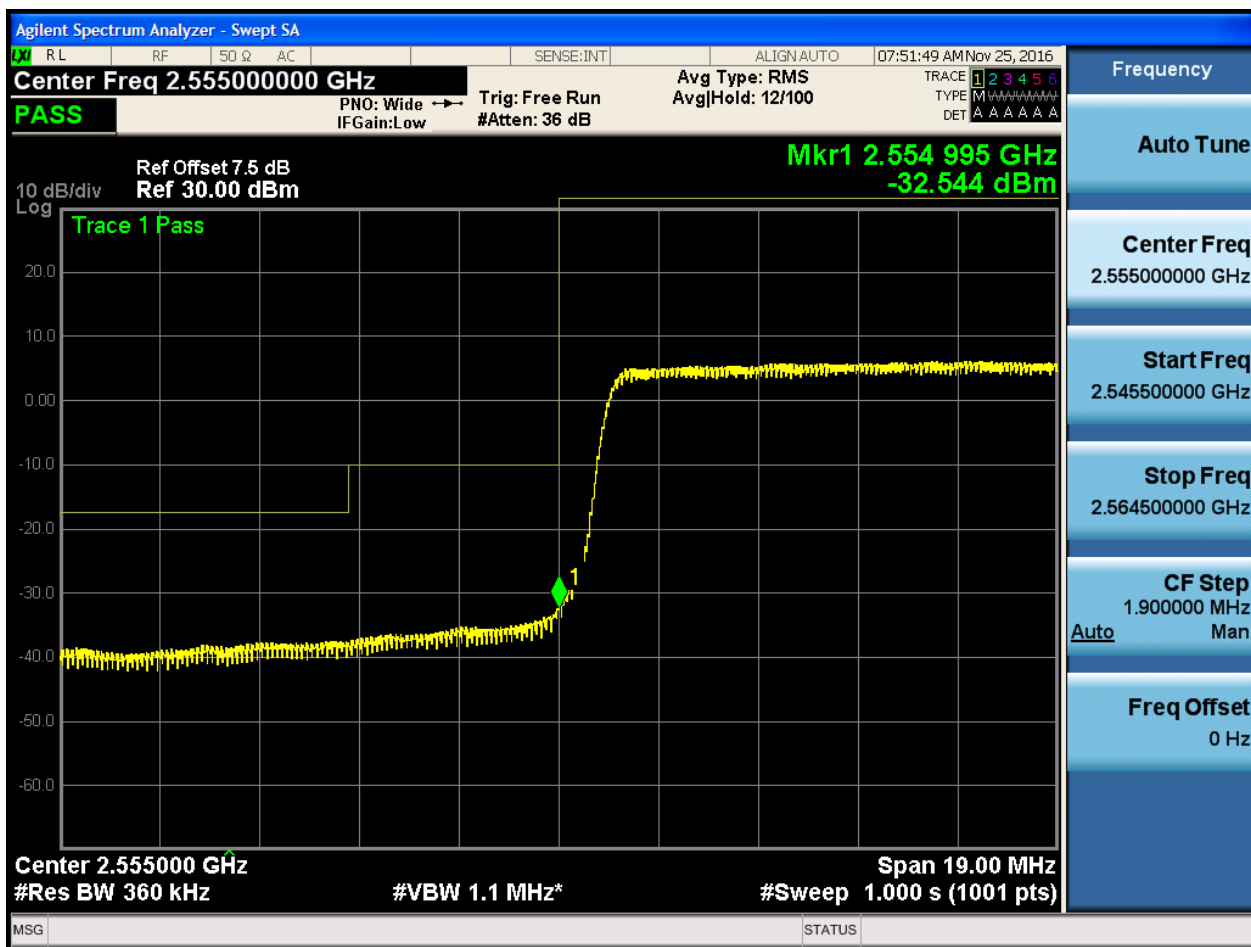


5.1.1.1.4.1.3 Test RB = RB50#25





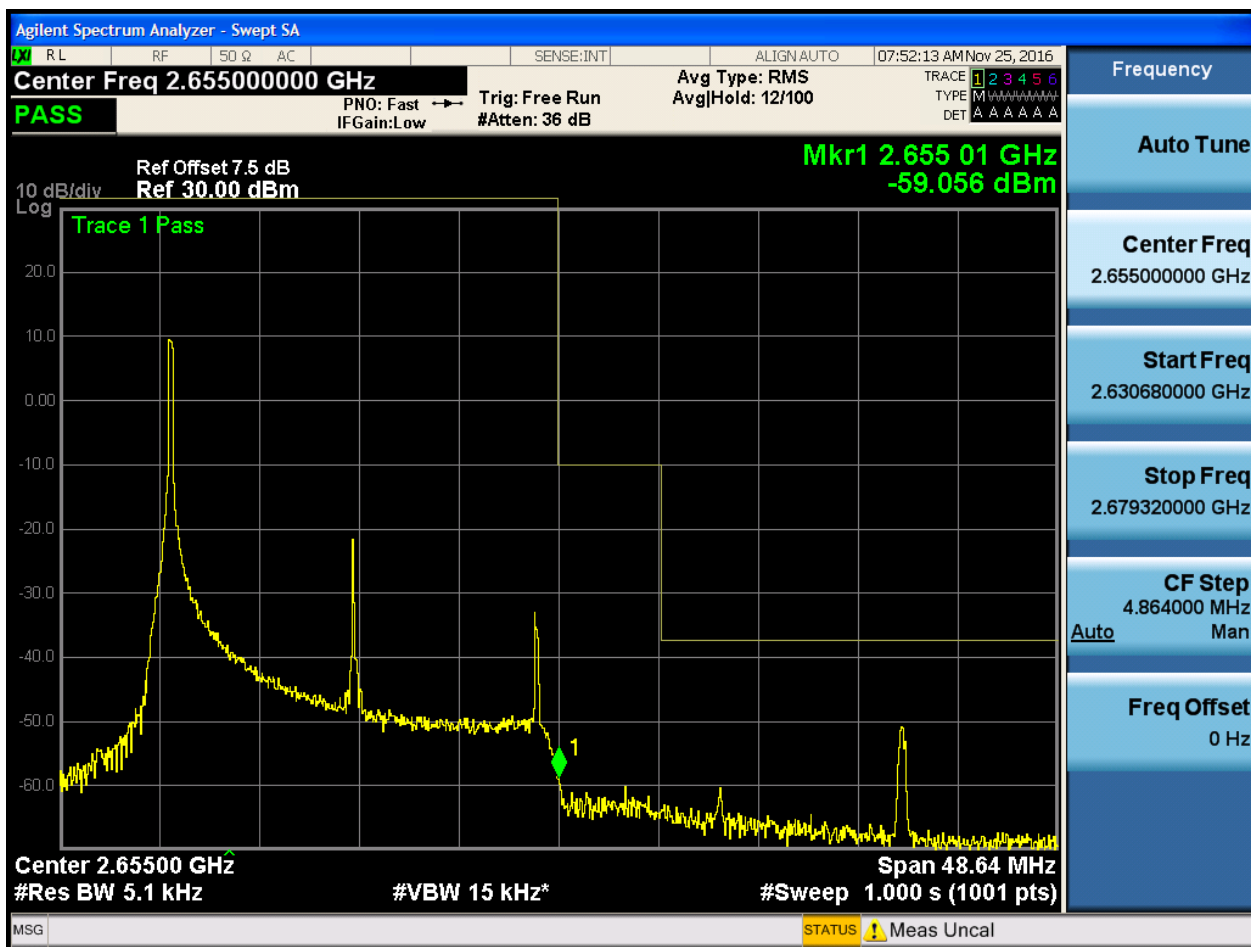
5.1.1.1.4.1.4 Test RB = RB100#0





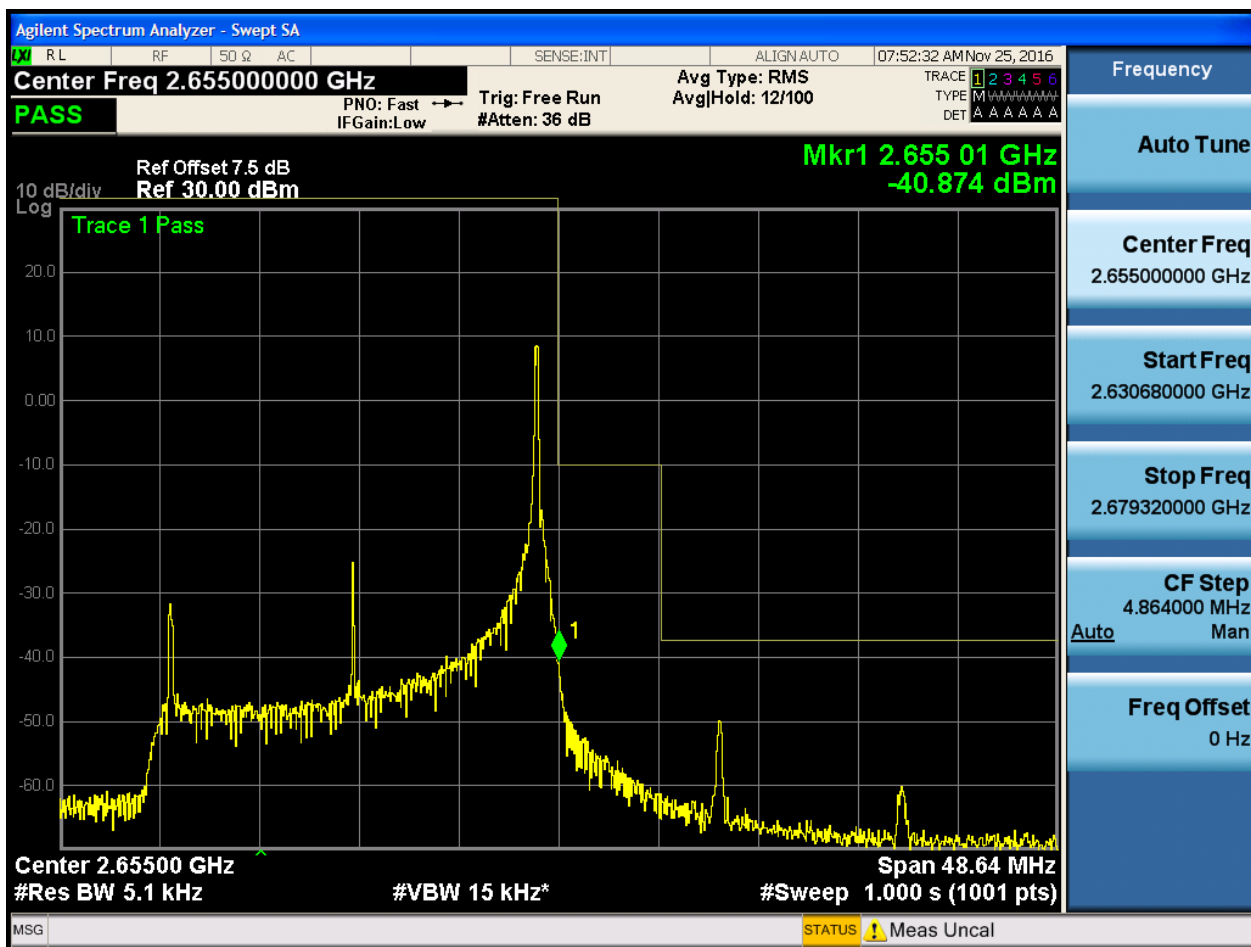
5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0





5.1.1.1.4.2.2 Test RB = RB1#99





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 07:52:50 AM Nov 25, 2016

Center Freq 2.65500000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run AvgHold: 12/100
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 7.5 dB
Ref 30.00 dBm

Mkr1 2.655 01 GHz
-35.211 dBm

10 dB/div
Log

Trace 1 Pass

The spectrum analyzer display shows a signal trace with a peak at 2.655 GHz. The trace is labeled 'Trace 1 Pass'. The peak is marked with a green diamond and the number '1'. The signal level is -35.211 dBm. The display also shows the center frequency, span, resolution bandwidth, and other parameters.

Center 2.65500 GHz
#Res BW 180 kHz
#VBW 560 kHz*
Span 48.64 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.65500000 GHz

Start Freq
2.630680000 GHz

Stop Freq
2.679320000 GHz

CF Step
4.864000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.4.2.4 Test RB = RB100#0



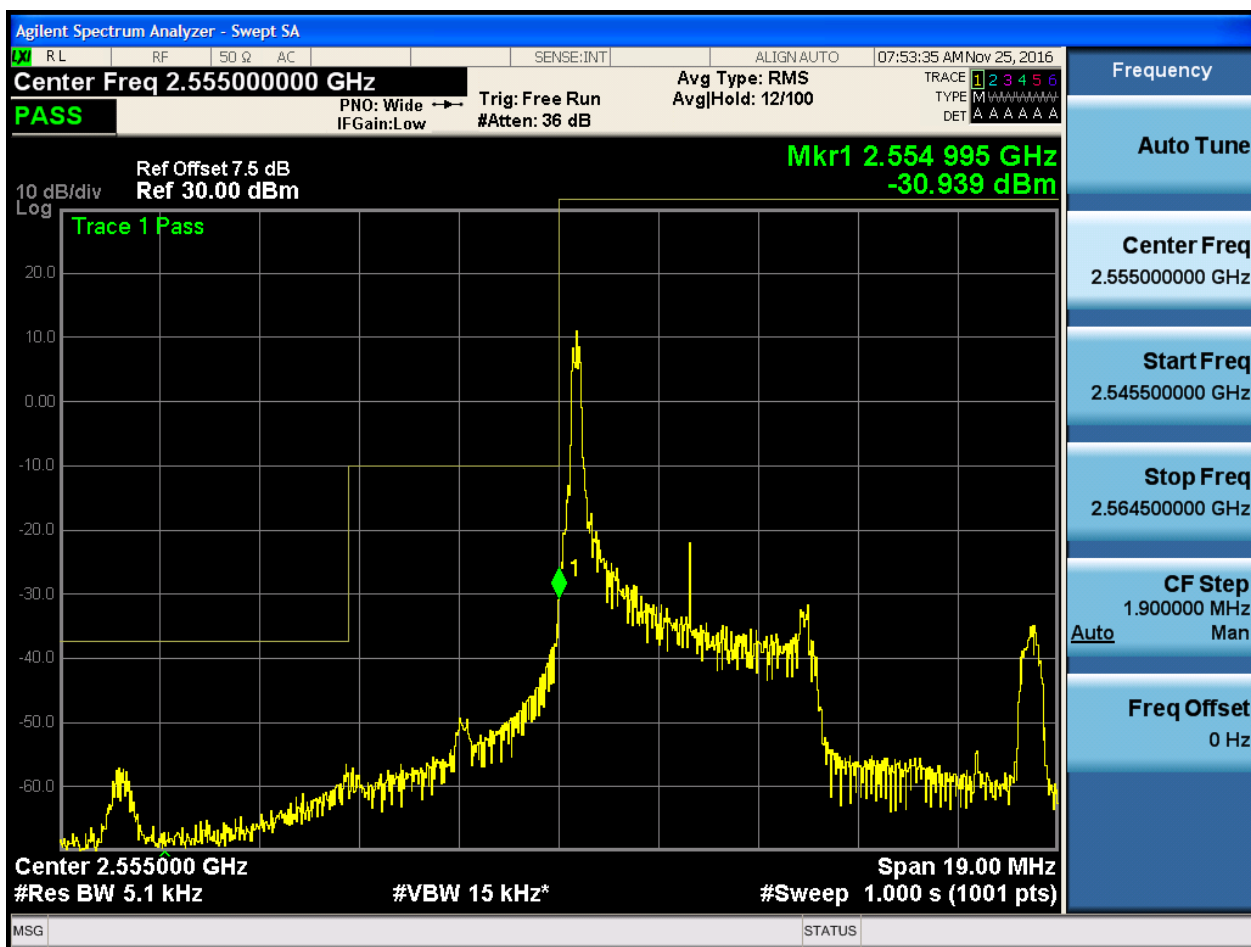


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.55500000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.554 995 GHz
-50.278 dBm

Trace 1 Pass

Center 2.555000 GHz
#Res BW 5.1 kHz
#VBW 15 kHz*
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.55500000 GHz

Start Freq
2.545500000 GHz

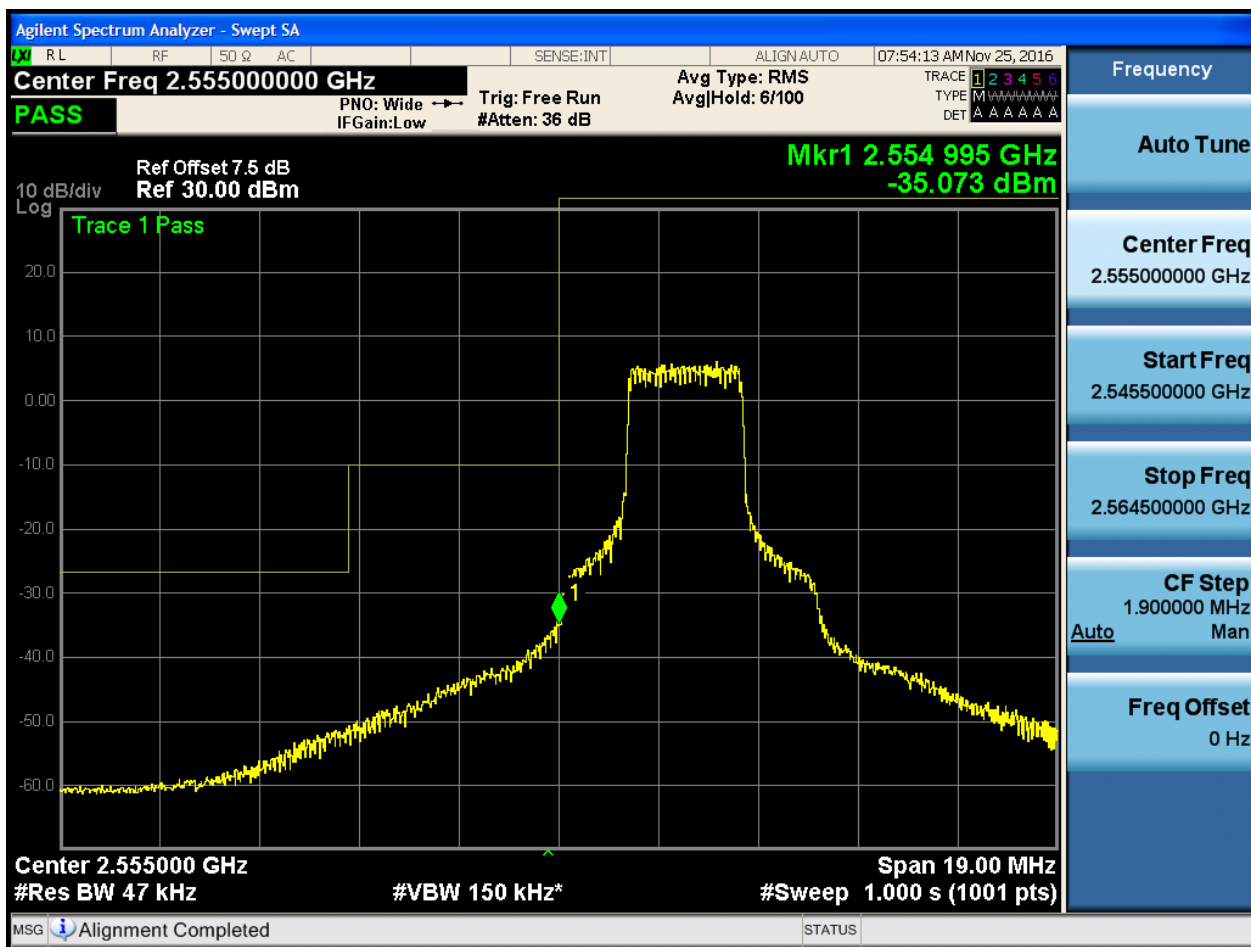
Stop Freq
2.564500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.1.1.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.555000000 GHz
PASS

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

Avg Type: RMS
Avg/Hold: 12/100

TRAC 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 7.5 dB
Ref 30.00 dBm

Mkr1 2.554 995 GHz
-27.596 dBm

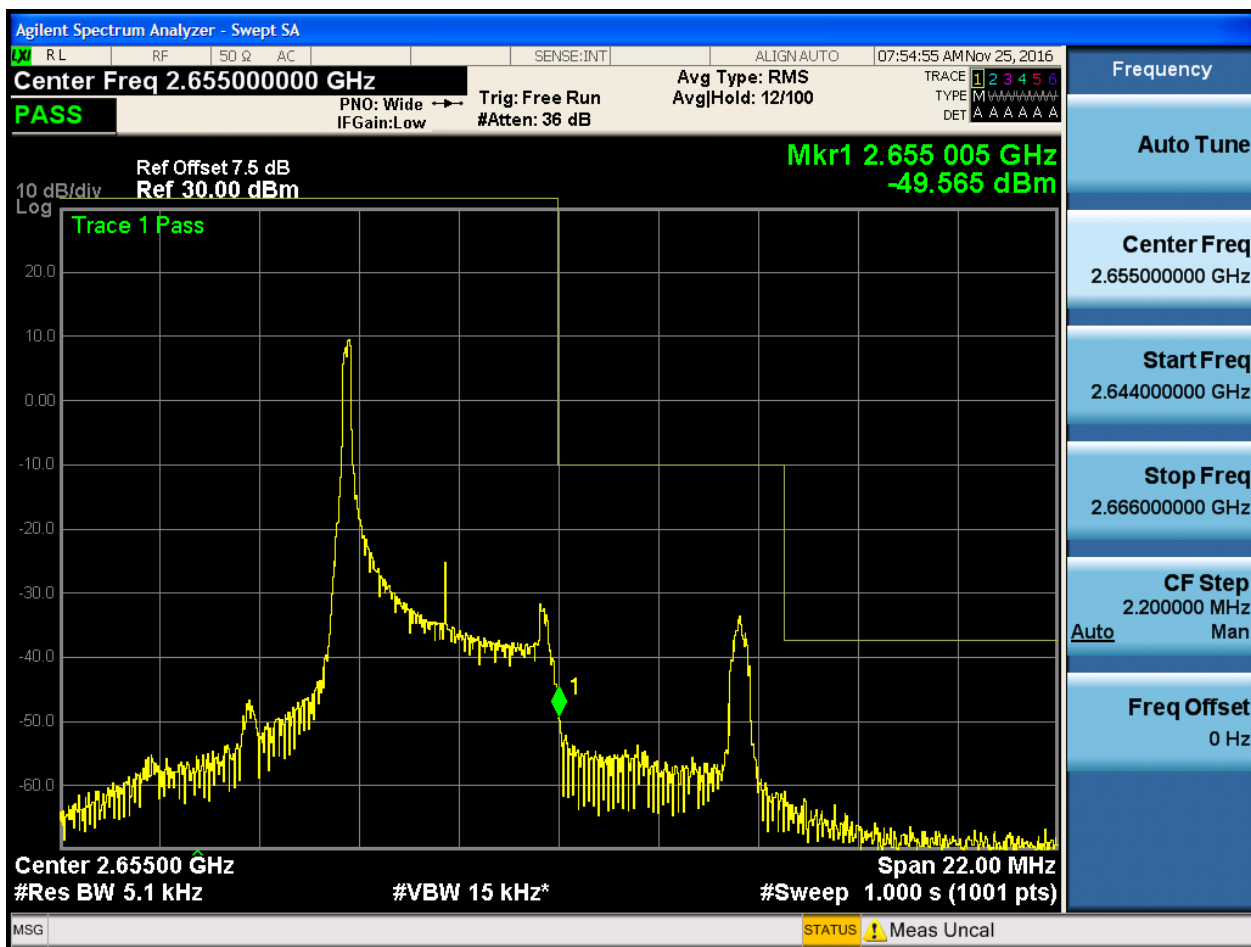
The figure displays a spectrum analyzer screen with a central plot area. The plot shows a yellow trace representing the signal spectrum. A prominent peak is visible at approximately 2.555 GHz, which is highlighted by a green diamond marker labeled '1'. The y-axis is labeled 'Log' and ranges from -60.0 to 20.0 dB/div. The x-axis represents frequency. Above the plot, various settings are displayed, including 'Center Freq 2.555000000 GHz', 'PASS', 'PNO: Wide', 'Trig: Free Run', 'IFGain: Low', '#Atten: 36 dB', 'Avg Type: RMS', 'Avg/Hold: 12/100', 'Ref Offset 7.5 dB', 'Ref 30.00 dBm', and 'Mkr1 2.554 995 GHz -27.596 dBm'. To the right of the plot, there is a vertical sidebar with several parameters: 'Frequency', 'Auto Tune', 'Center Freq 2.555000000 GHz', 'Start Freq 2.545500000 GHz', 'Stop Freq 2.564500000 GHz', 'CF Step 1.900000 MHz', 'Auto Man', and 'Freq Offset 0 Hz'. At the bottom of the screen, additional settings are shown: 'Center 2.555000 GHz', '#Res BW 91 kHz', '#VBW 270 kHz*', 'Span 19.00 MHz', and '#Sweep 1.000 s (1001 pts)'.

Parameter	Value
Center Freq	2.555000000 GHz
Start Freq	2.545500000 GHz
Stop Freq	2.564500000 GHz
CF Step	1.900000 MHz
Freq Offset	0 Hz
Center	2.555000 GHz
#Res BW	91 kHz
#VBW	270 kHz*
Span	19.00 MHz
#Sweep	1.000 s (1001 pts)



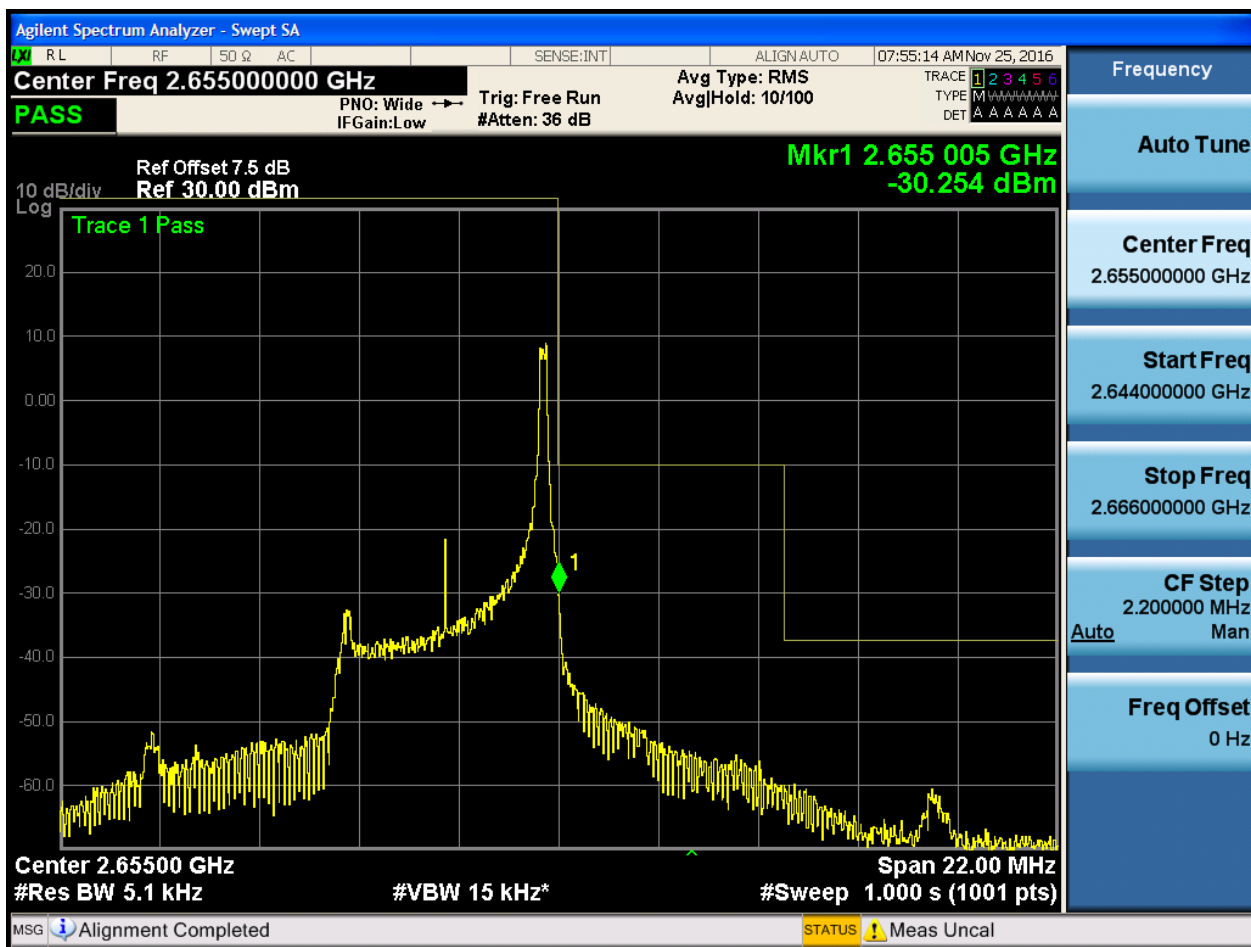
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





5.1.1.2.1.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 07:55:33 AM Nov 25, 2016

Center Freq 2.655000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
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 A

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-36.444 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.65500 GHz
#Res BW 47 kHz #VBW 150 kHz* Span 22.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 07:55:51 AM Nov 25, 2016

Center Freq 2.655000000 GHz Avg Type: RMS
#Res BW 91 kHz IF Gain: Low Trig: Free Run Avg Hold: 12/100
PASS PNO: Wide → #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

Frequency

Auto Tune

Center Freq
2.655000000 GHz

Start Freq
2.644000000 GHz

Stop Freq
2.666000000 GHz

CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-28.875 dBm

10 dB/div
Log

Trace 1 Pass

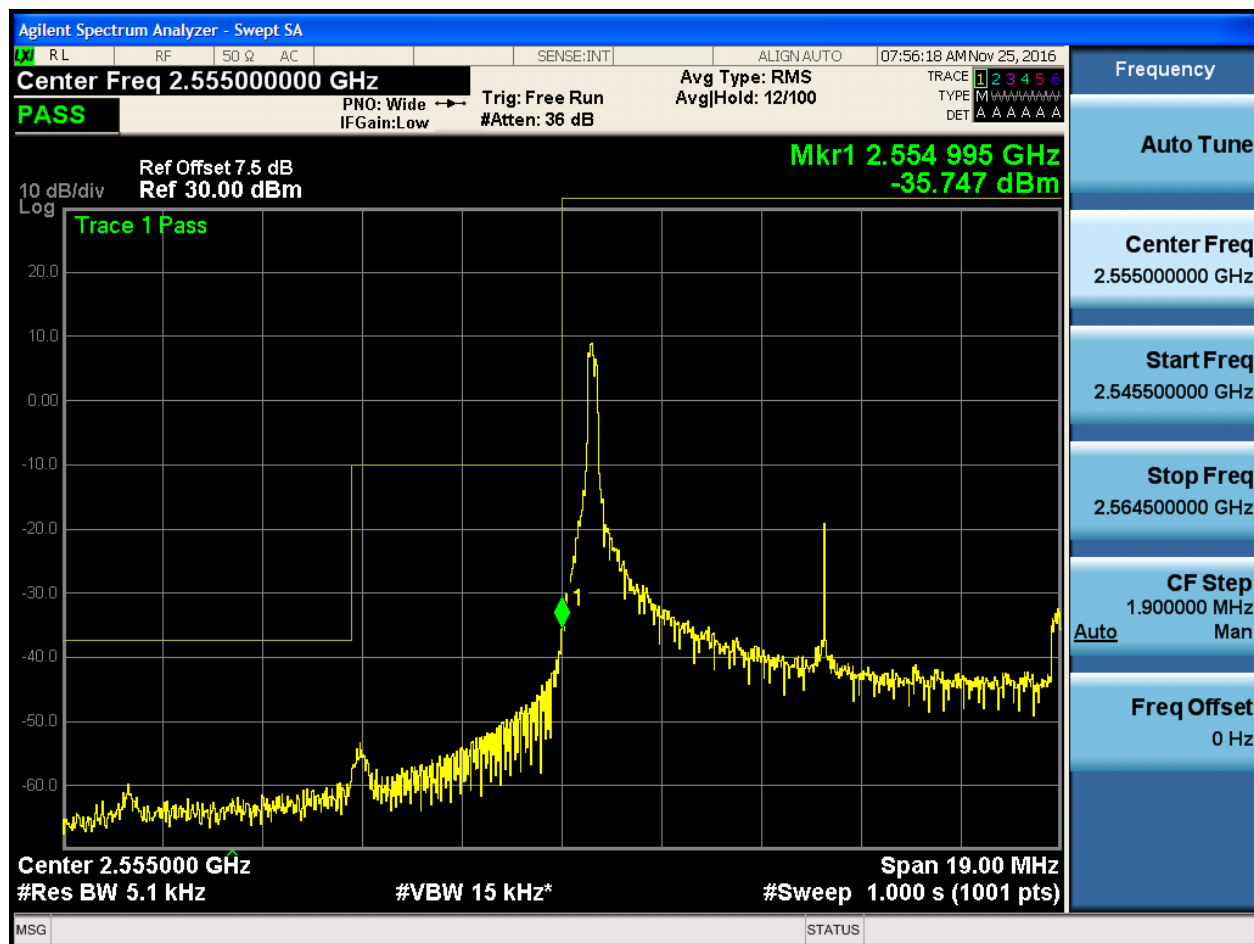
Center 2.65500 GHz
#Res BW 91 kHz #VBW 270 kHz* Span 22.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

5.1.1.2.2 Test Bandwidth = 10

5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.555000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.555000 GHz
#Res BW 5.1 kHz

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Auto Tune

Center Freq
2.555000000 GHz

Start Freq
2.545500000 GHz

Stop Freq
2.564500000 GHz

CF Step
1.900000 MHz
Auto

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 07:56:55 AM Nov 25, 2016

Center Freq 2.555000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
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 7.5 dB
Ref 30.00 dBm

Mkr1 2.554 995 GHz
-37.465 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.555000 GHz
#Res BW 91 kHz #VBW 270 kHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.555000000 GHz

Start Freq
2.545000000 GHz

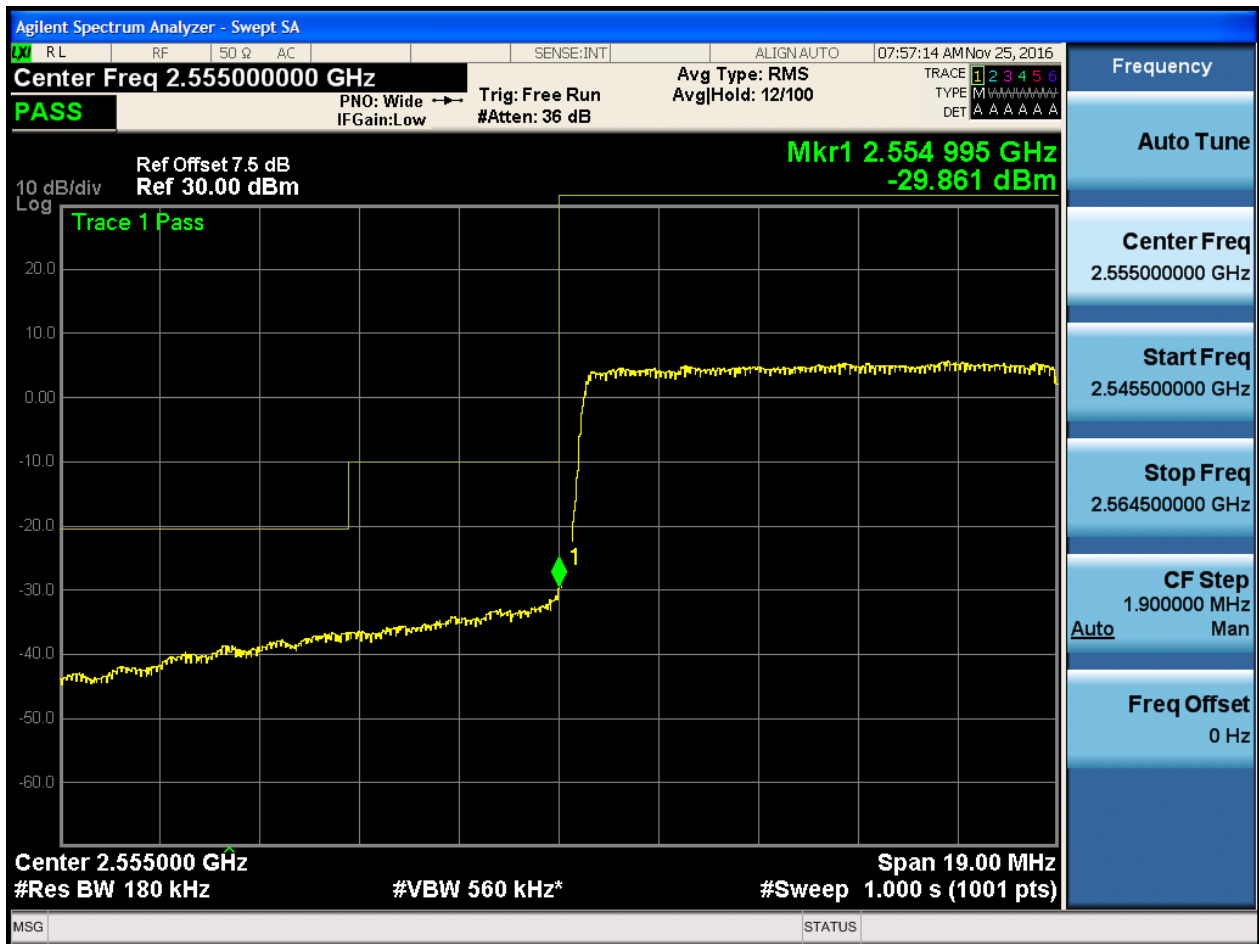
Stop Freq
2.564500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

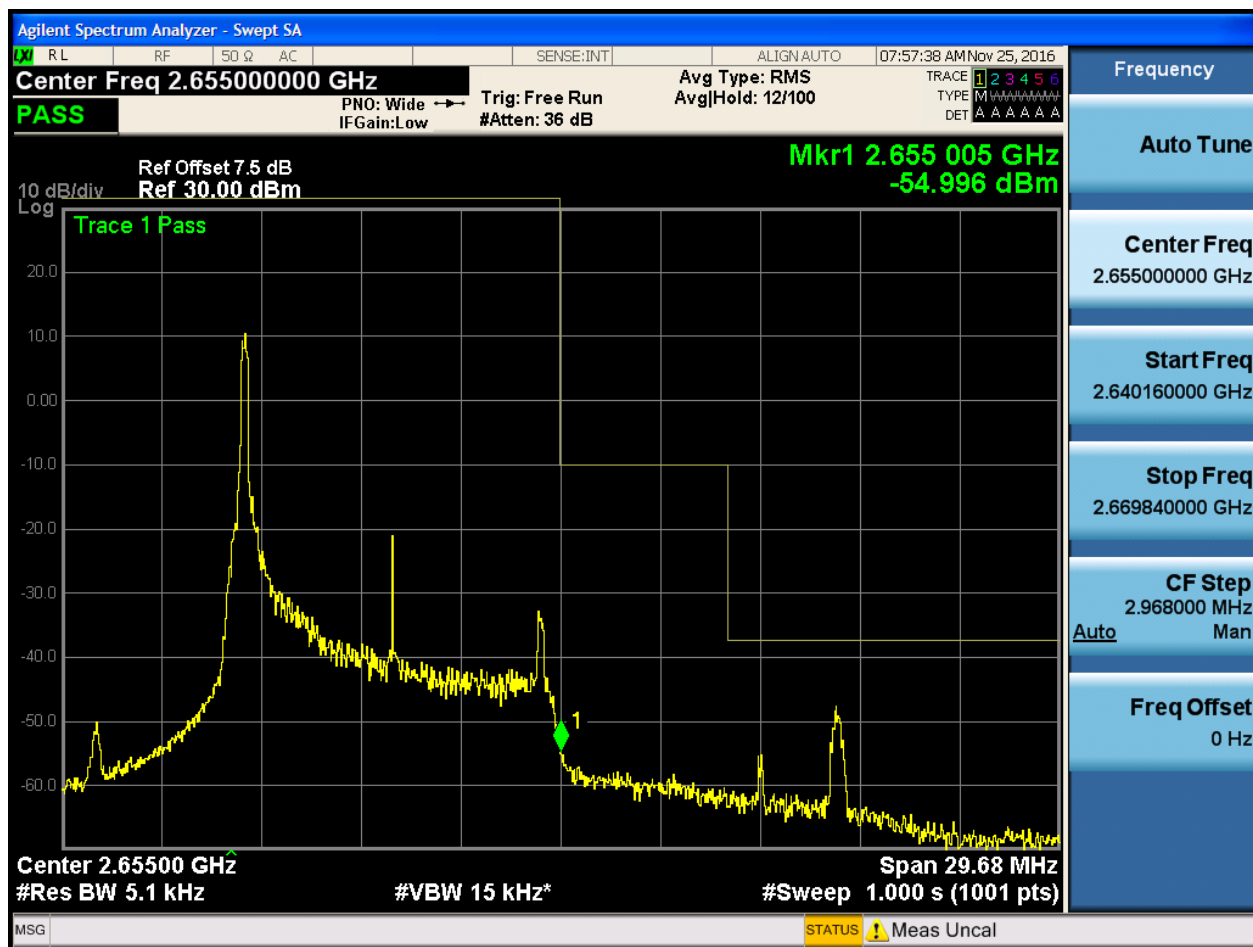


5.1.1.2.2.1.4 Test RB = RB50#0



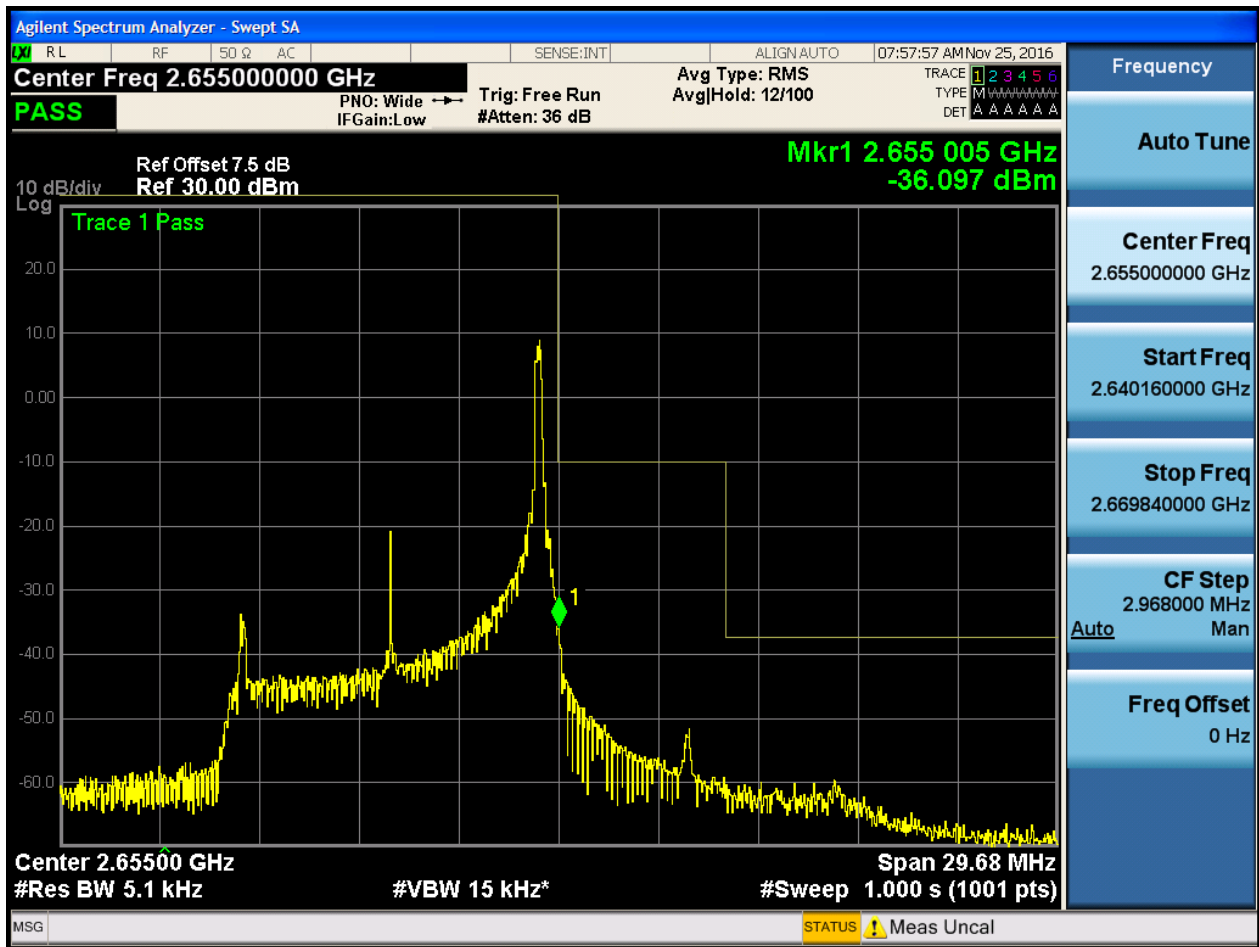
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0





5.1.1.2.2.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 07:58:15 AM Nov 25, 2016

Center Freq 2.655000000 GHz Avg Type: RMS
PASS 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 7.5 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-36.668 dBm

10 dB/div
Log

Trace 1 Pass

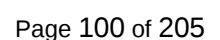
Center 2.65500 GHz
#Res BW 91 kHz
#VBW 270 kHz
Span 29.68 MHz
#Sweep 1.000 s (1001 pts)

MSG Alignment Completed STATUS

[illegible]

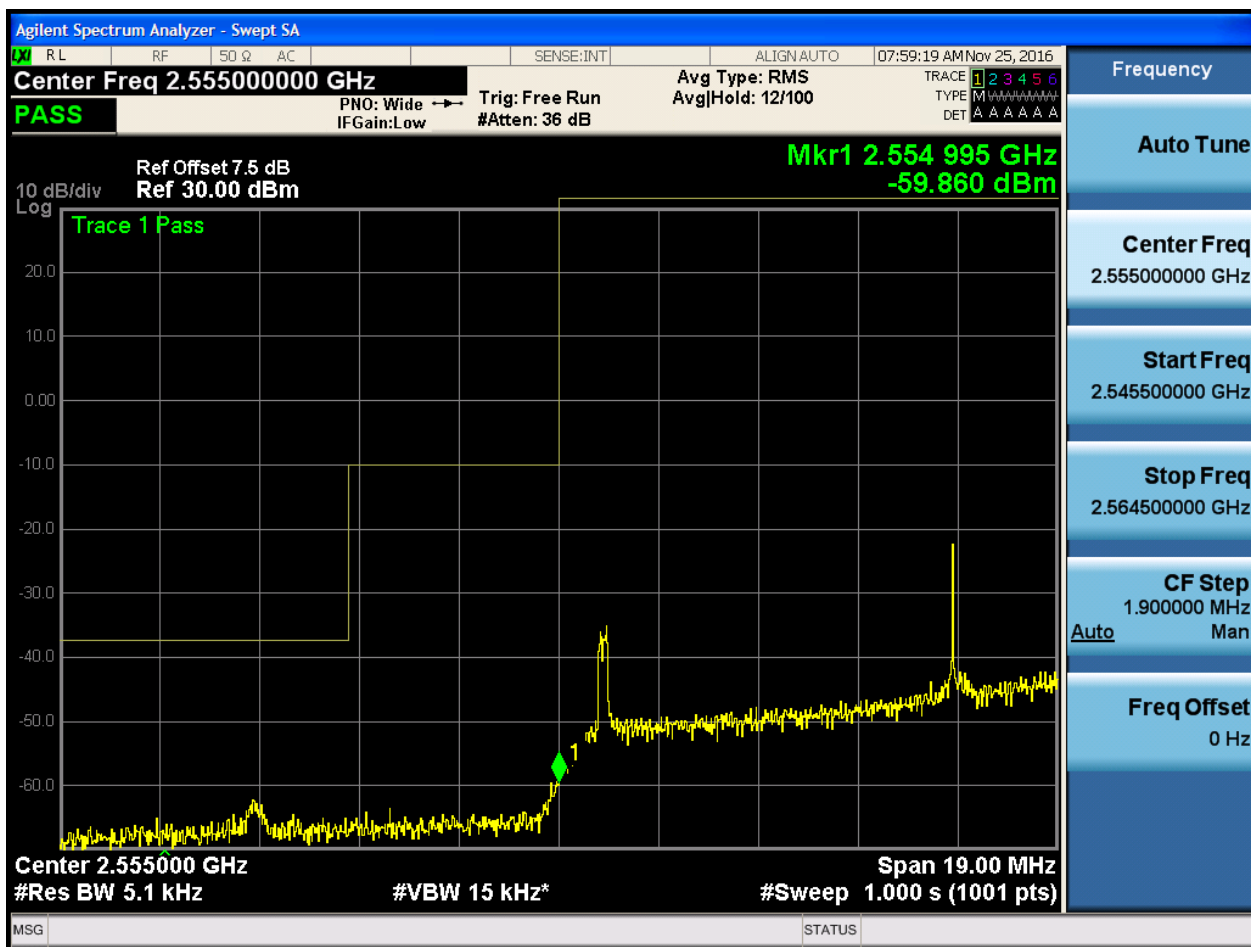


5.1.1.2.3.1.1 Test RB = RB1#0



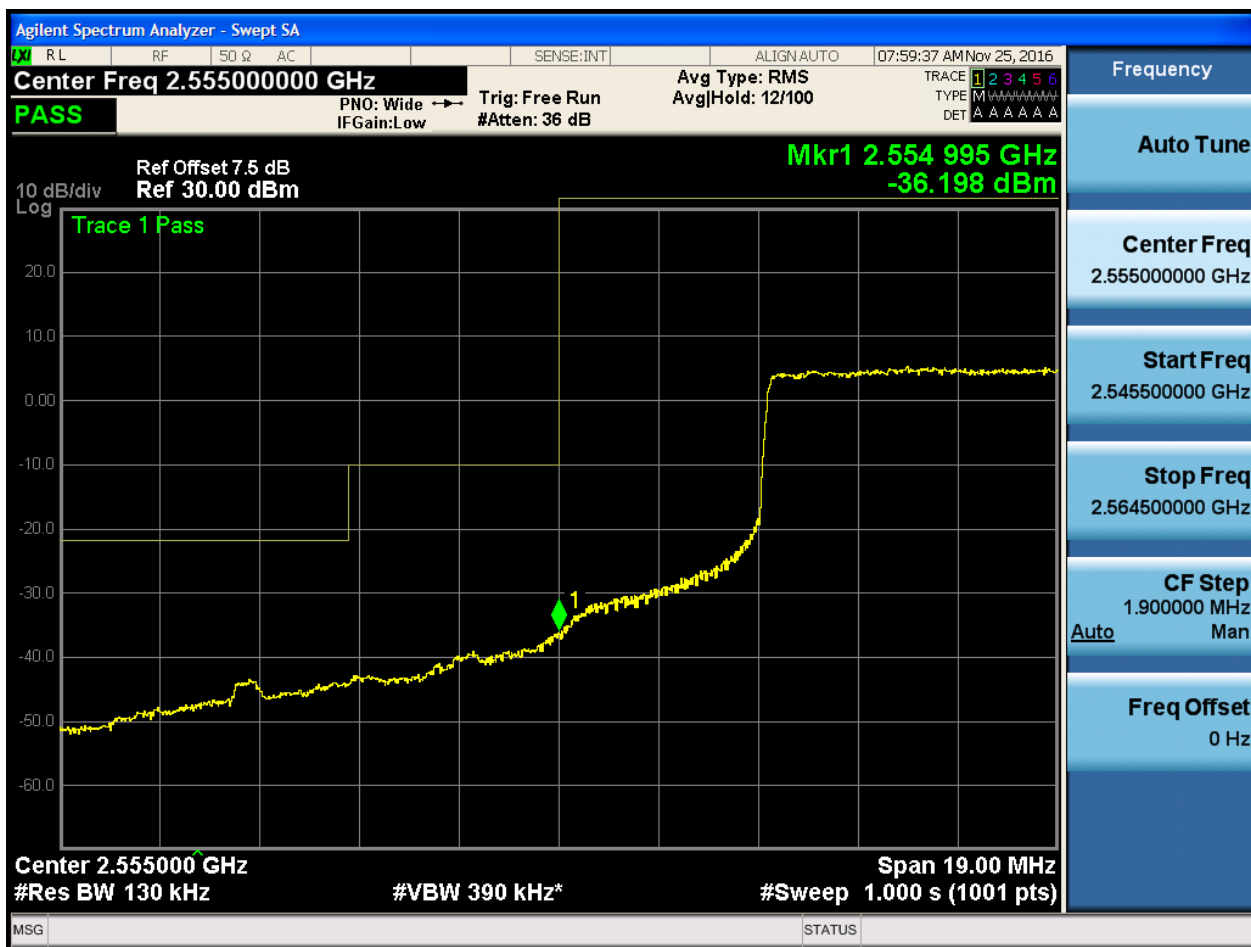


5.1.1.2.3.1.2 Test RB = RB1#74



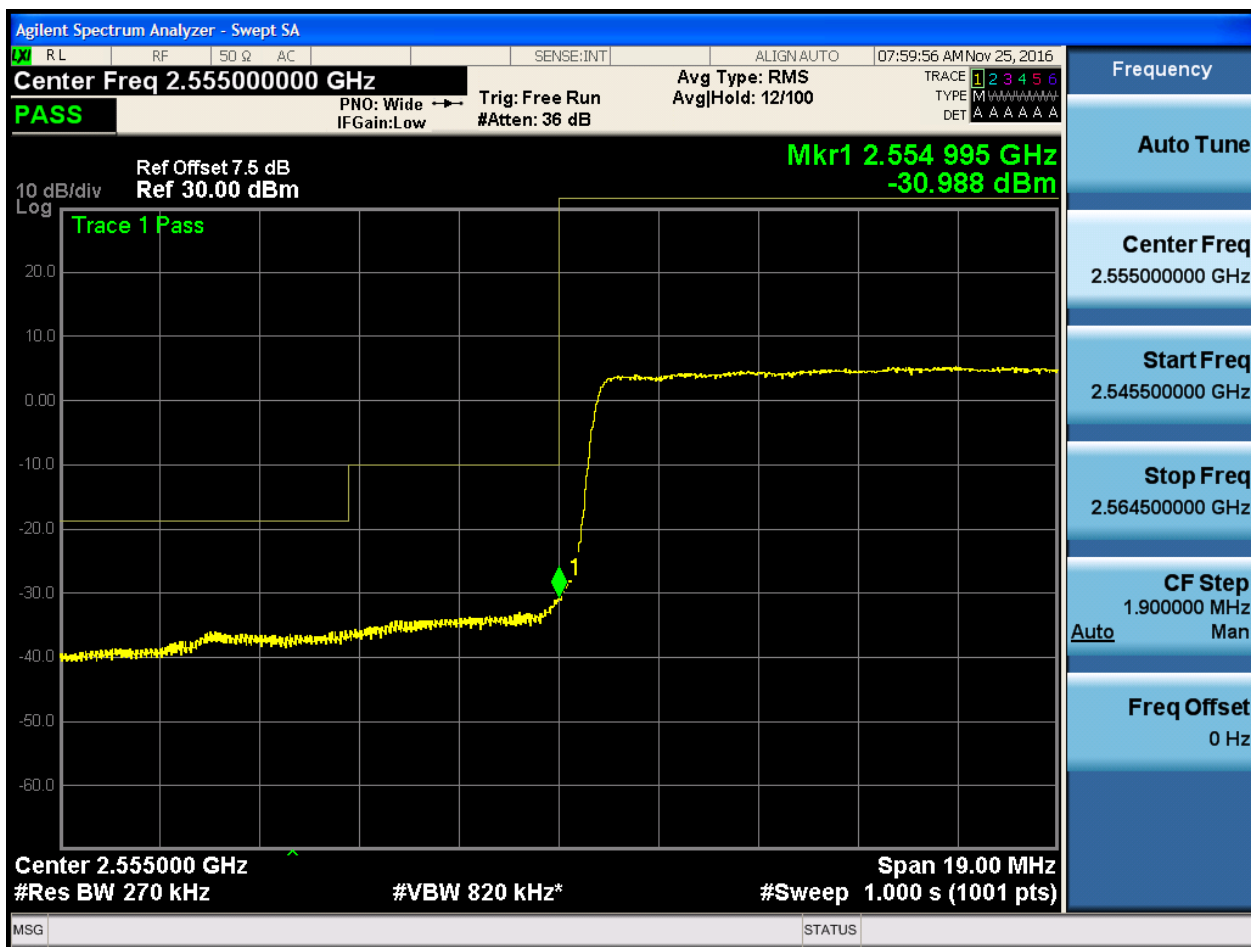


5.1.1.2.3.1.3 Test RB = RB36#18





5.1.1.2.3.1.4 Test RB = RB75#0





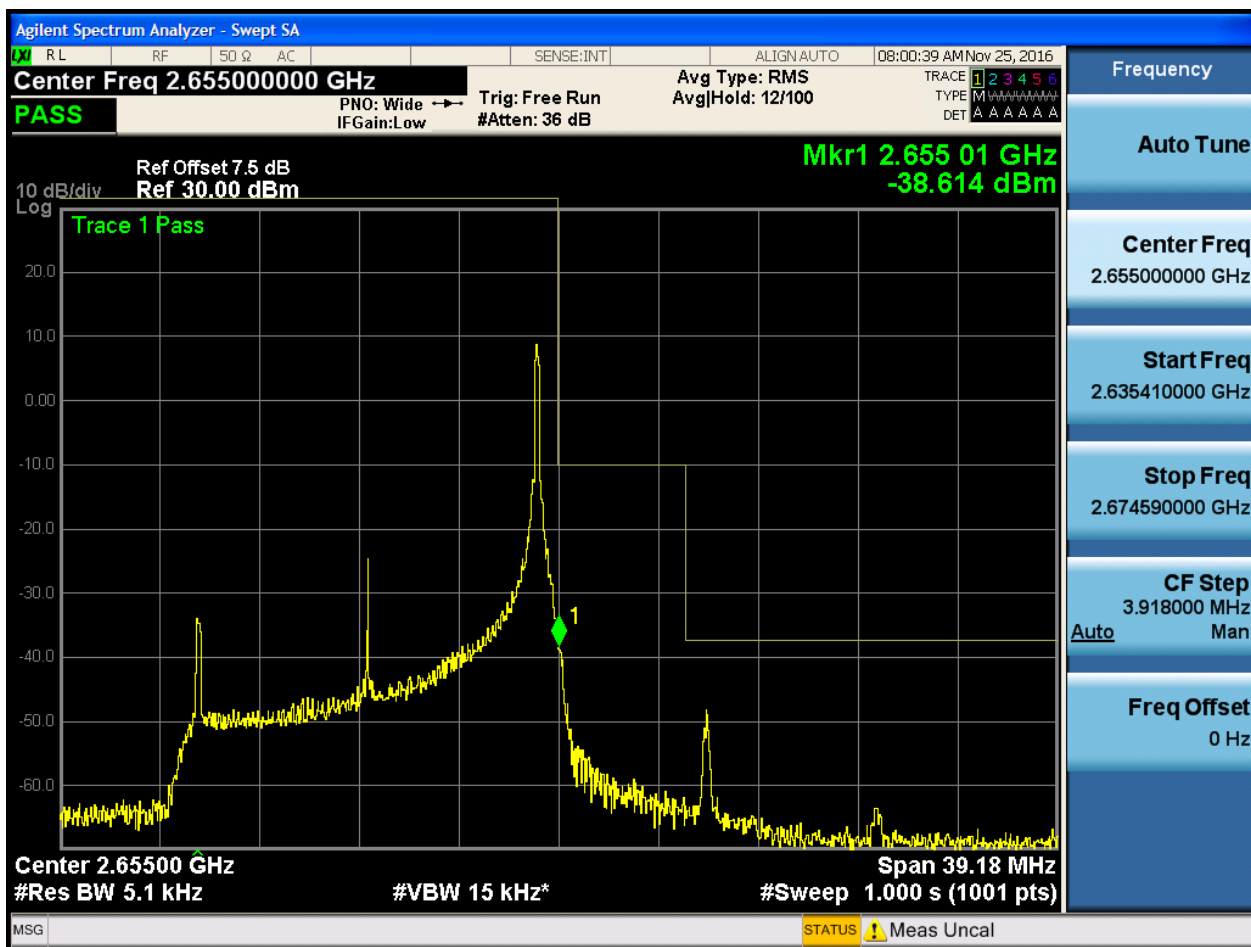
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0



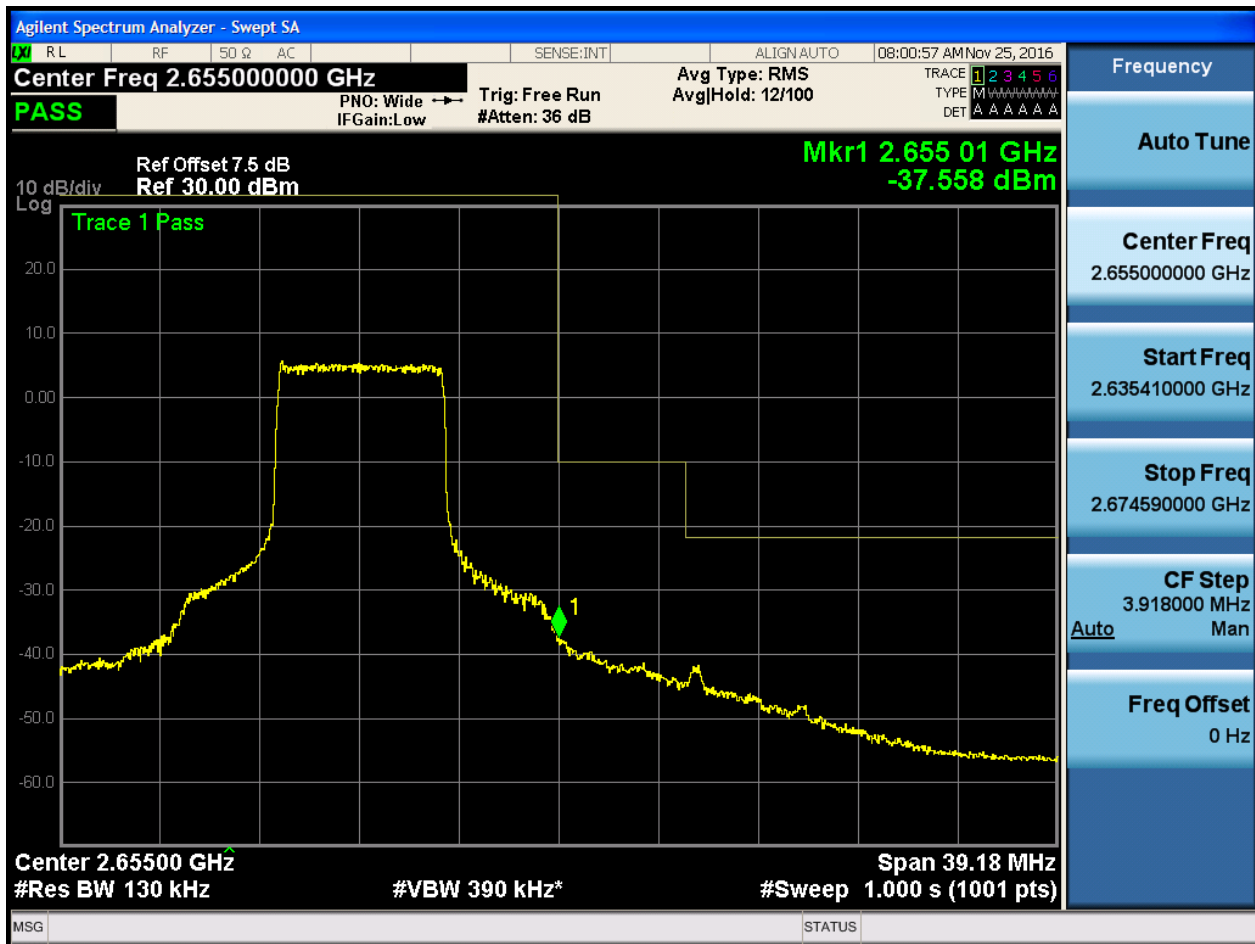


5.1.1.2.3.2.2 Test RB = RB1#74





5.1.1.2.3.2.3 Test RB = RB36#18



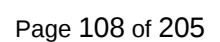


5.1.1.2.3.2.4 Test RB = RB75#0



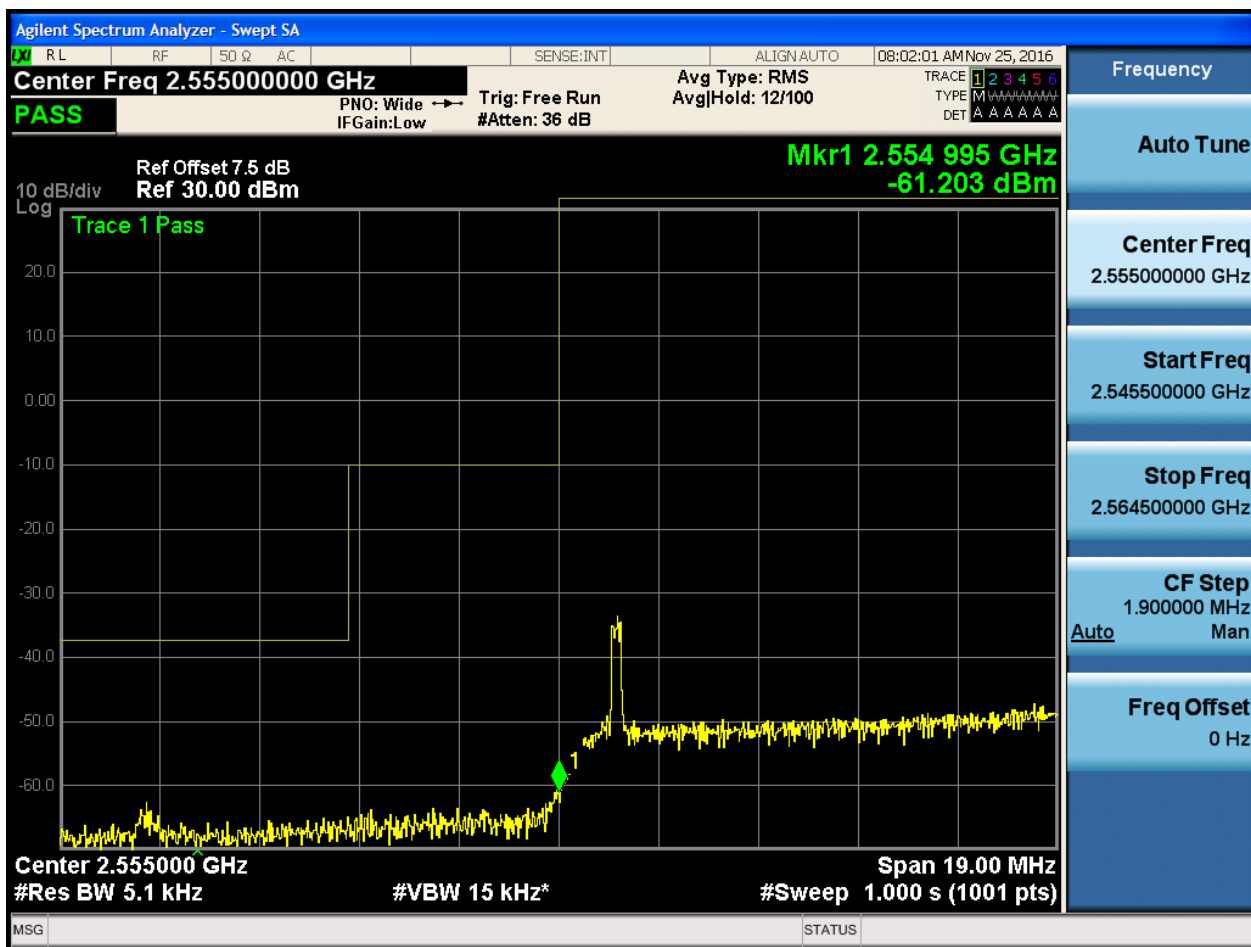


5.1.1.2.4.1.1 Test RB = RB1#0



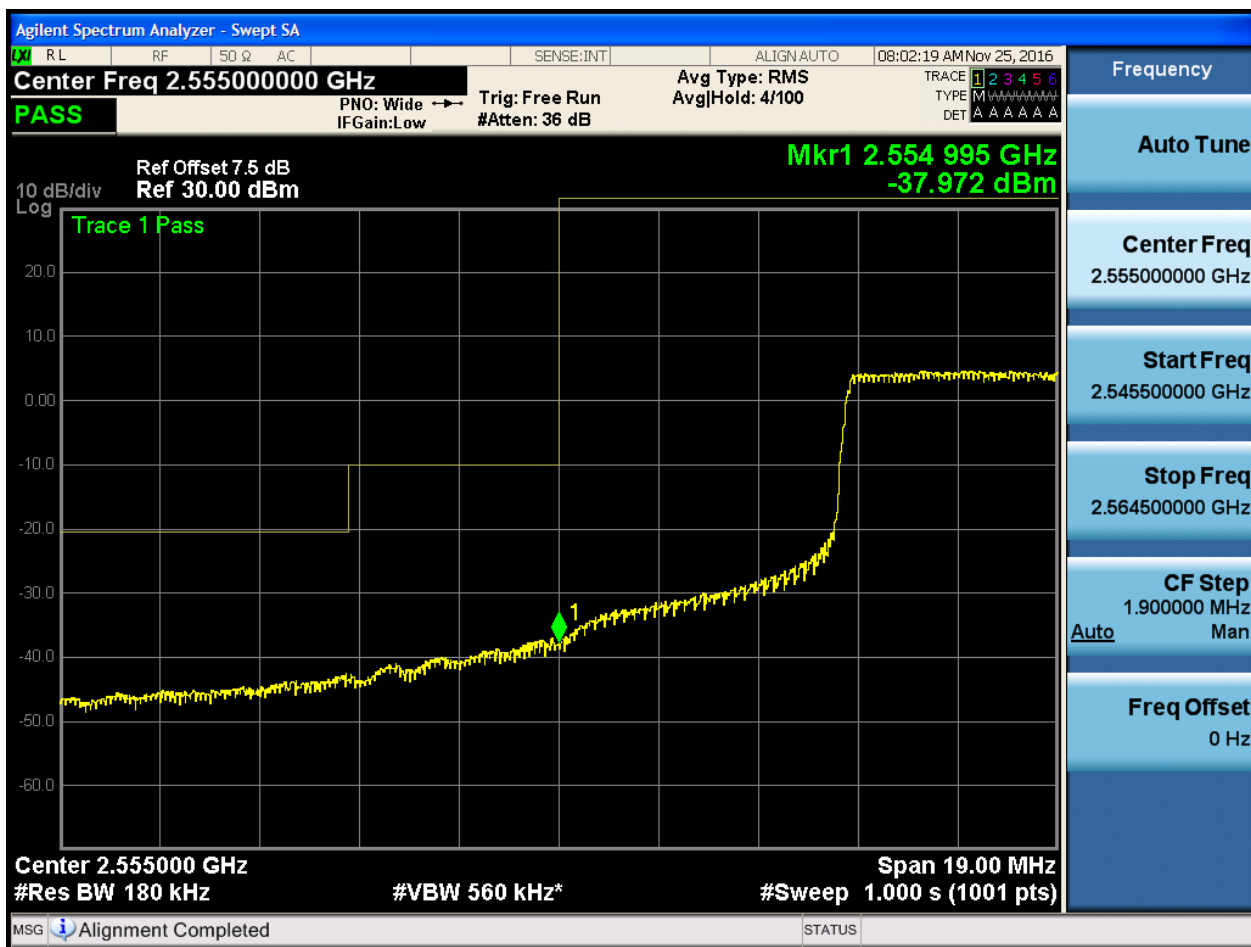


5.1.1.2.4.1.2 Test RB = RB1#99



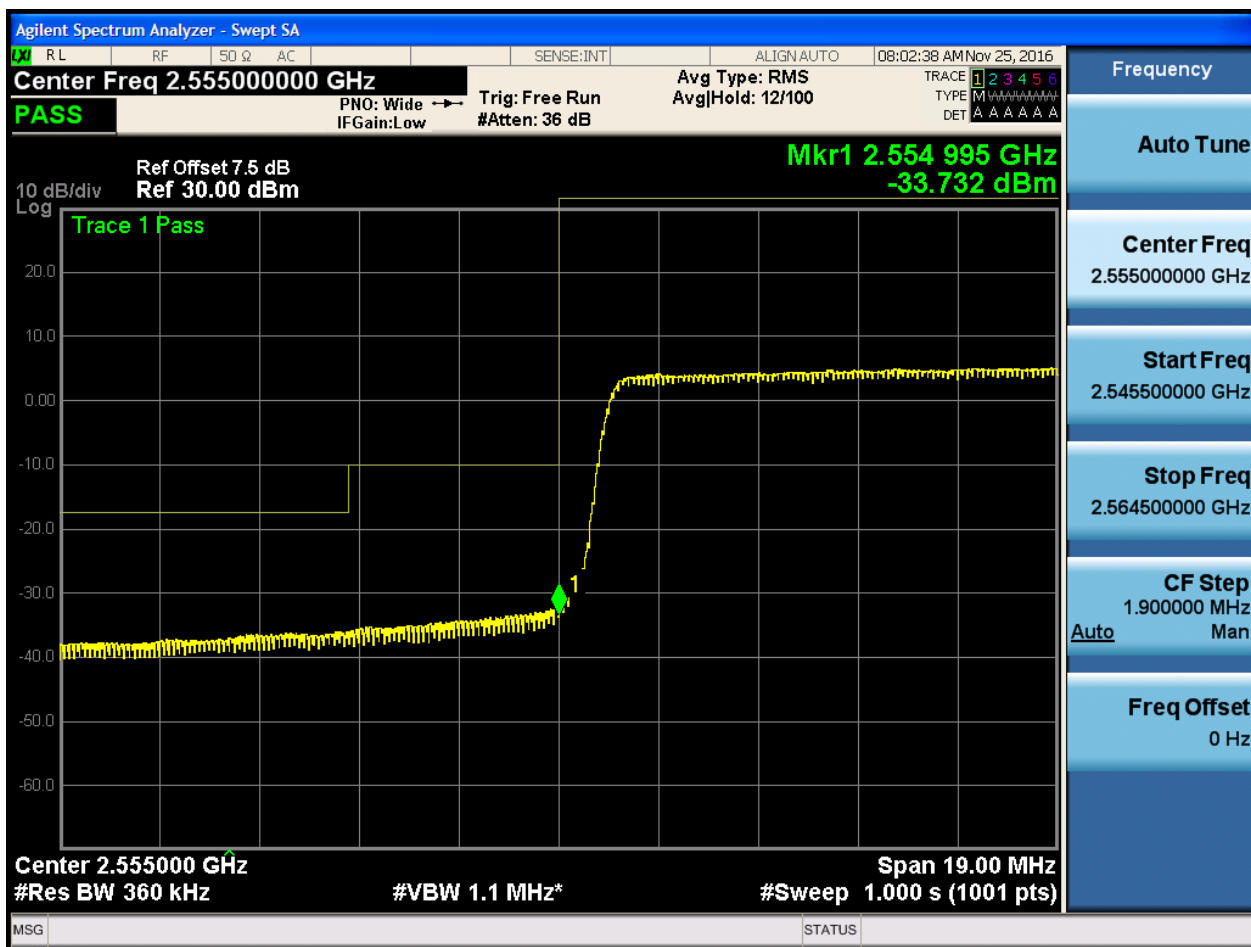


5.1.1.2.4.1.3 Test RB = RB50#25





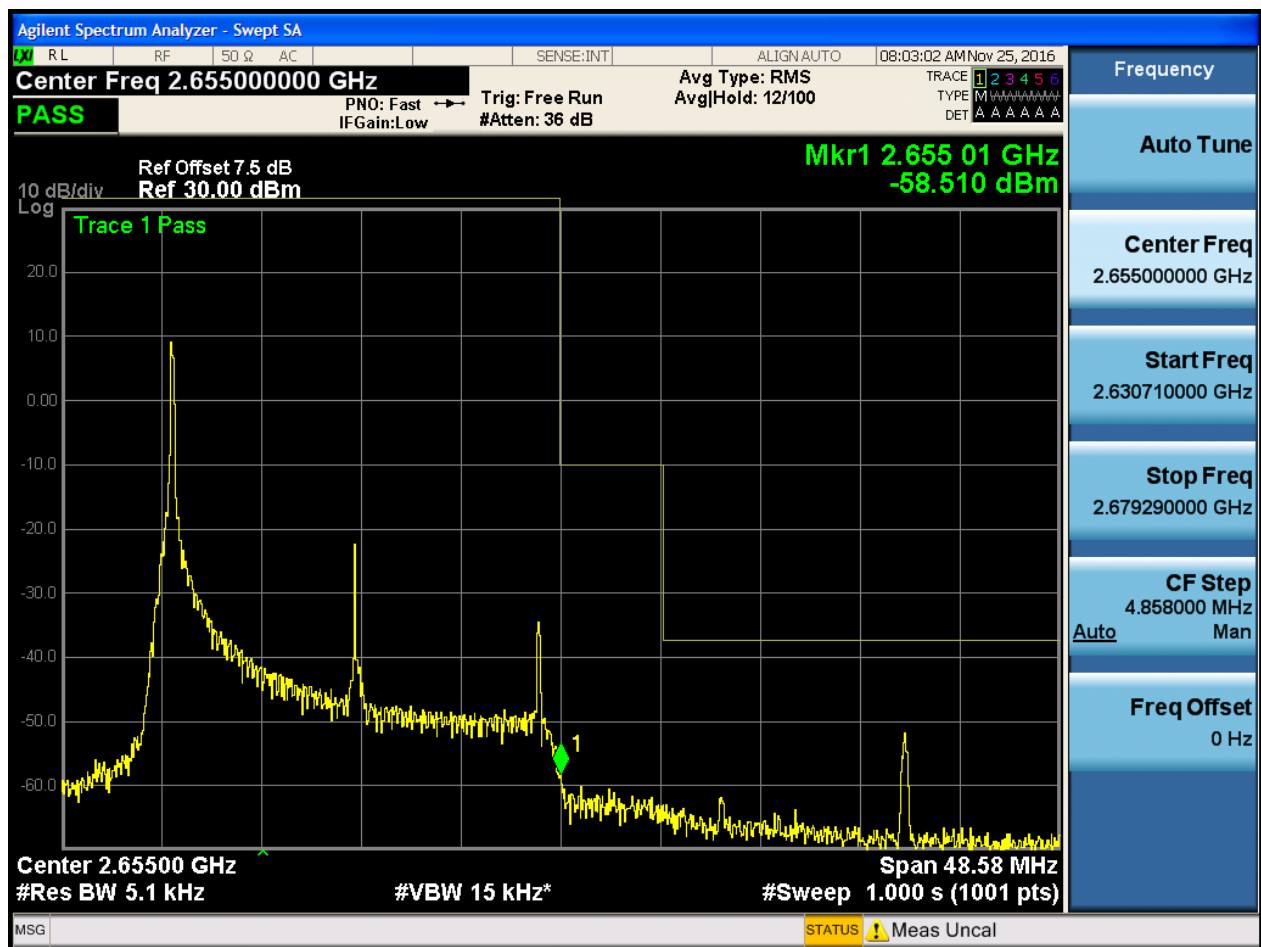
5.1.1.2.4.1.4 Test RB = RB100#0





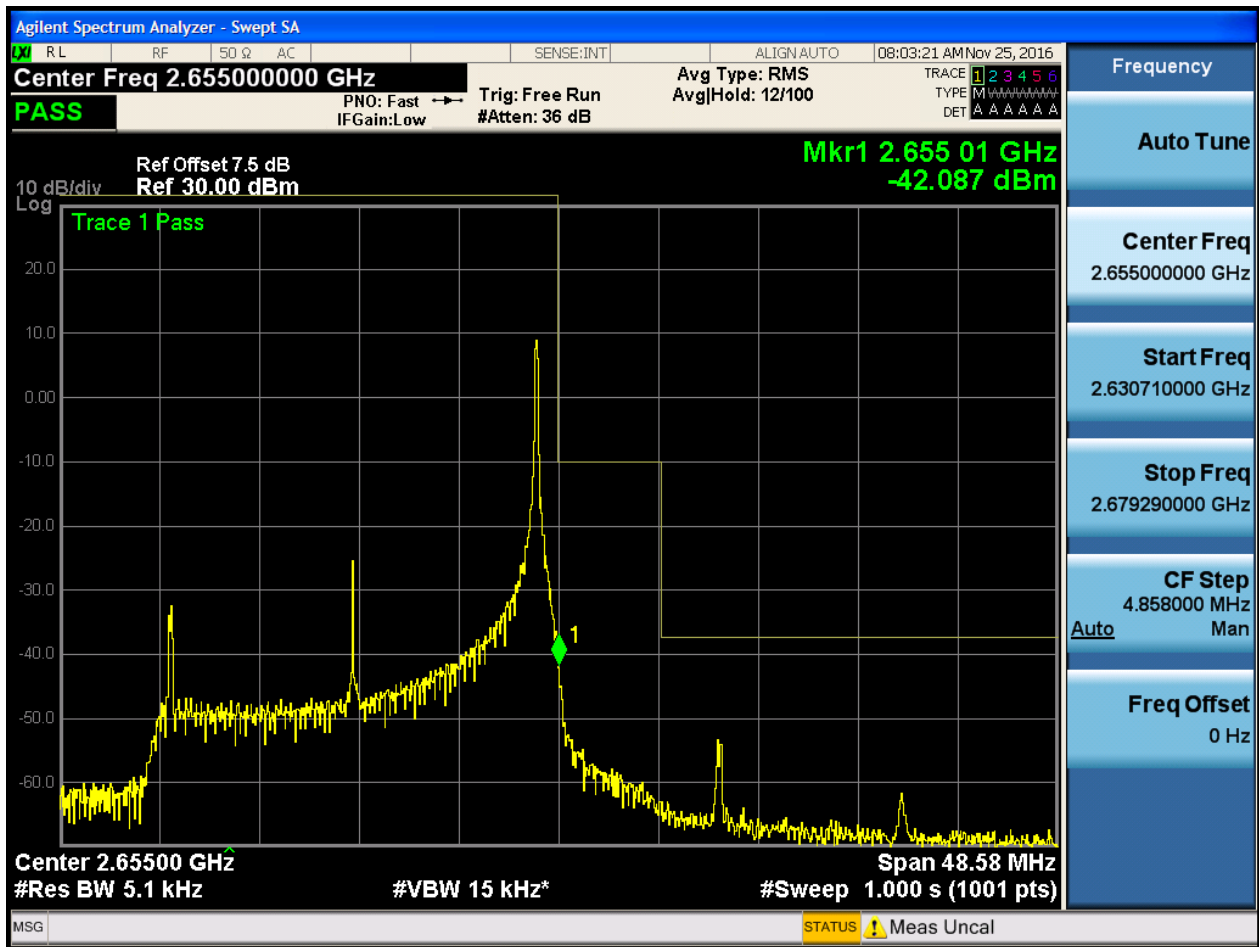
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



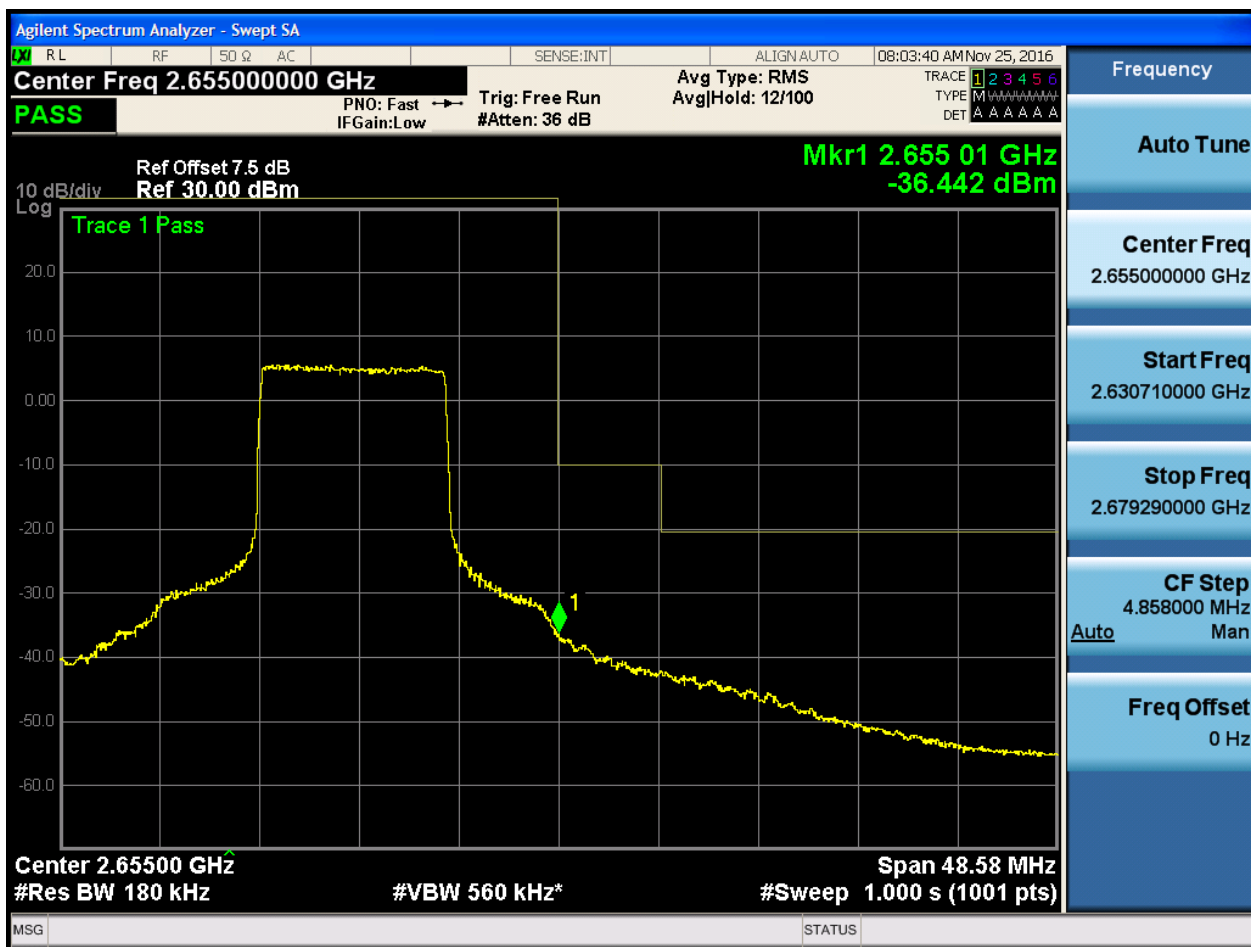


5.1.1.2.4.2.2 Test RB = RB1#99





5.1.1.2.4.2.3 Test RB = RB50#25





5.1.1.2.4.2.4 Test RB = RB100#0



6Appendix_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Part I - Test Plots

6.1 For LTE

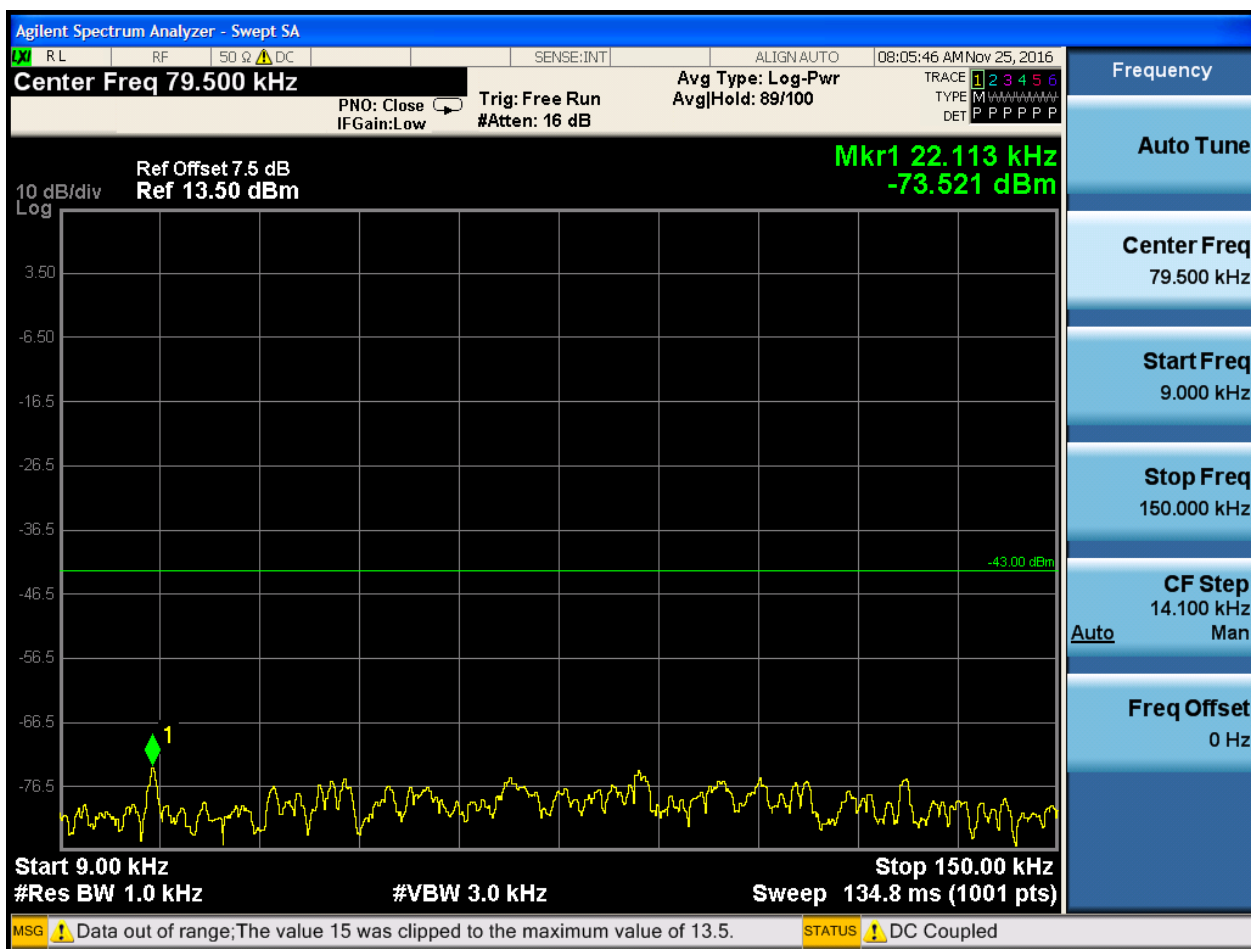
6.1.1 Test Band = BAND41

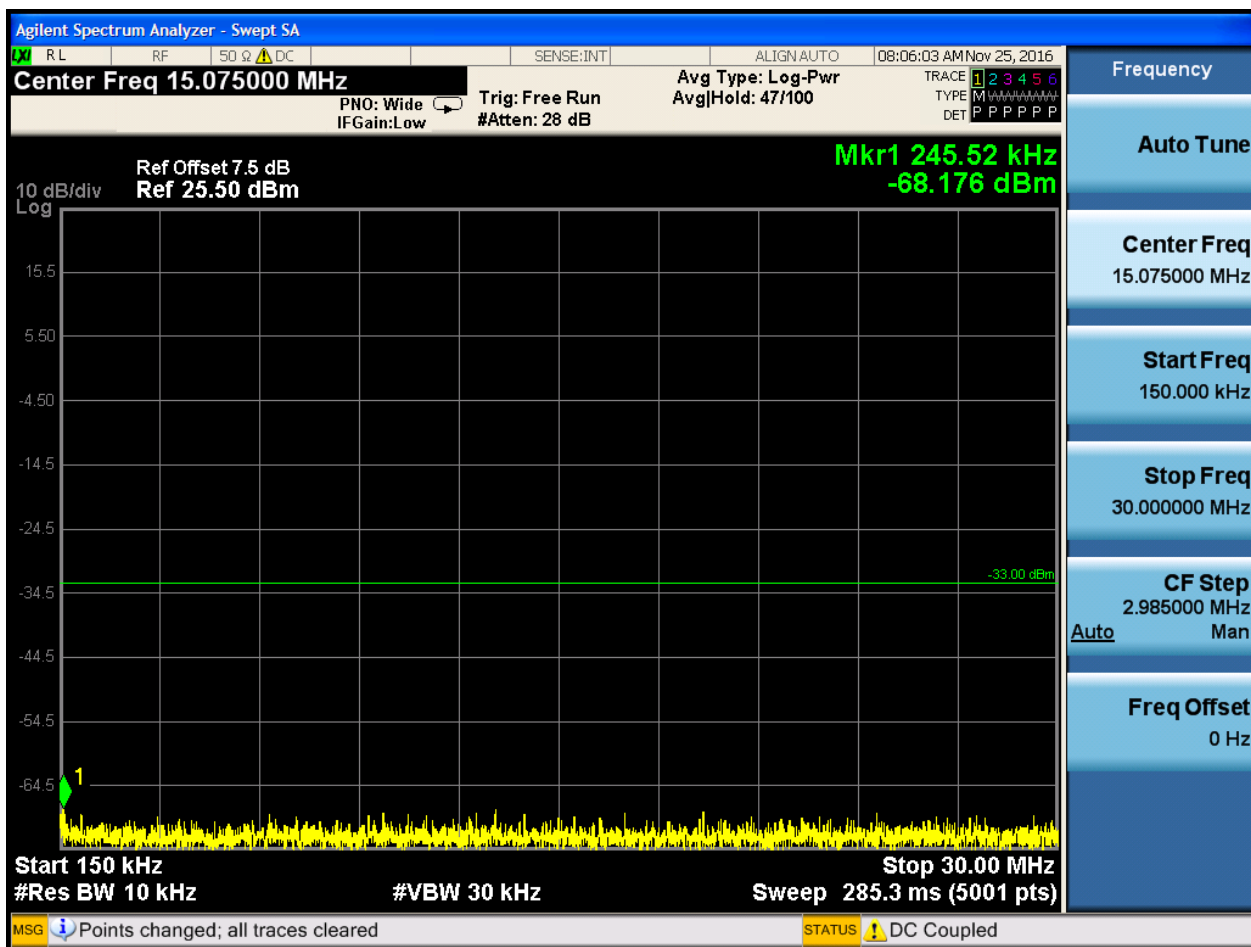
6.1.1.1 Test Mode = LTE/TM1

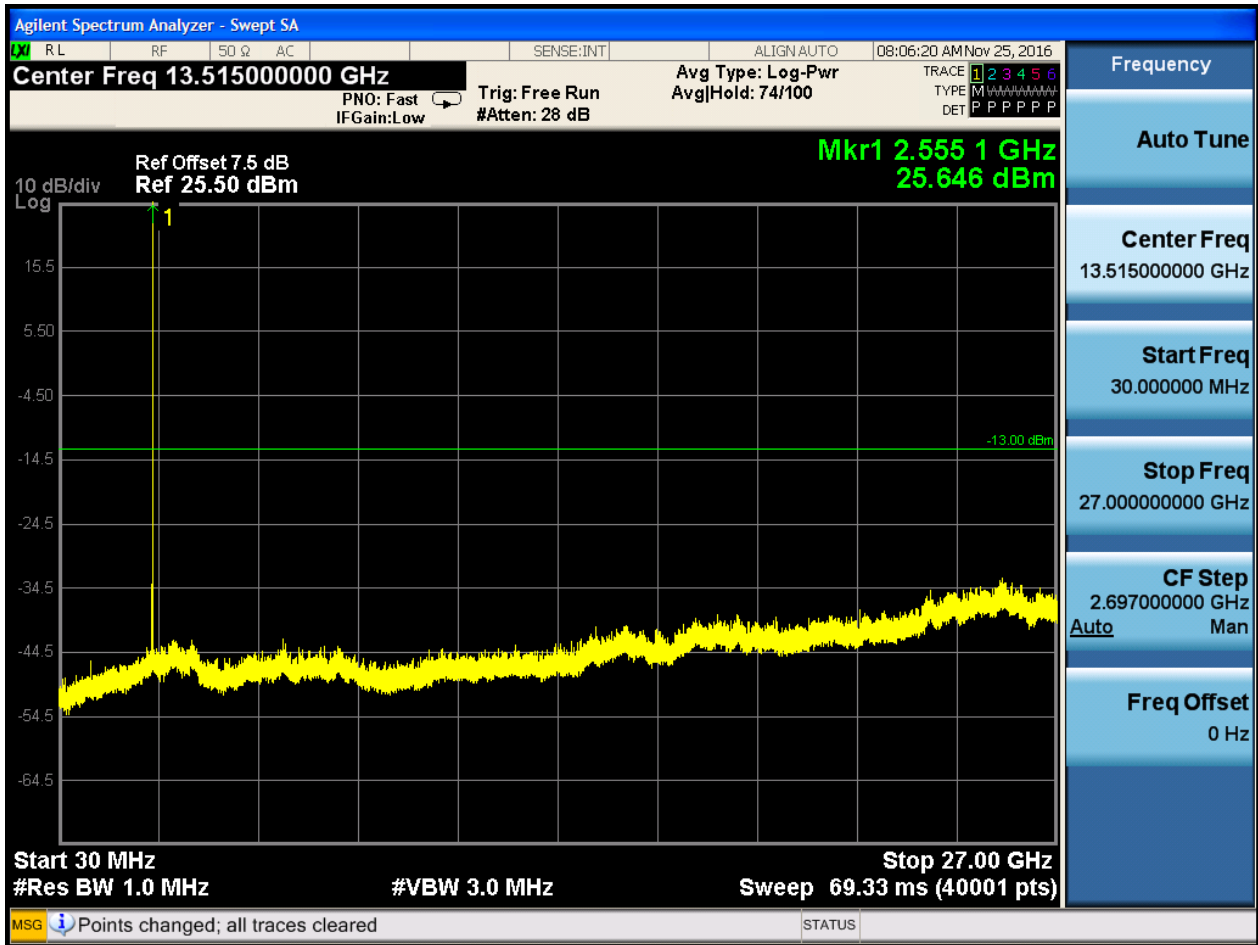
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

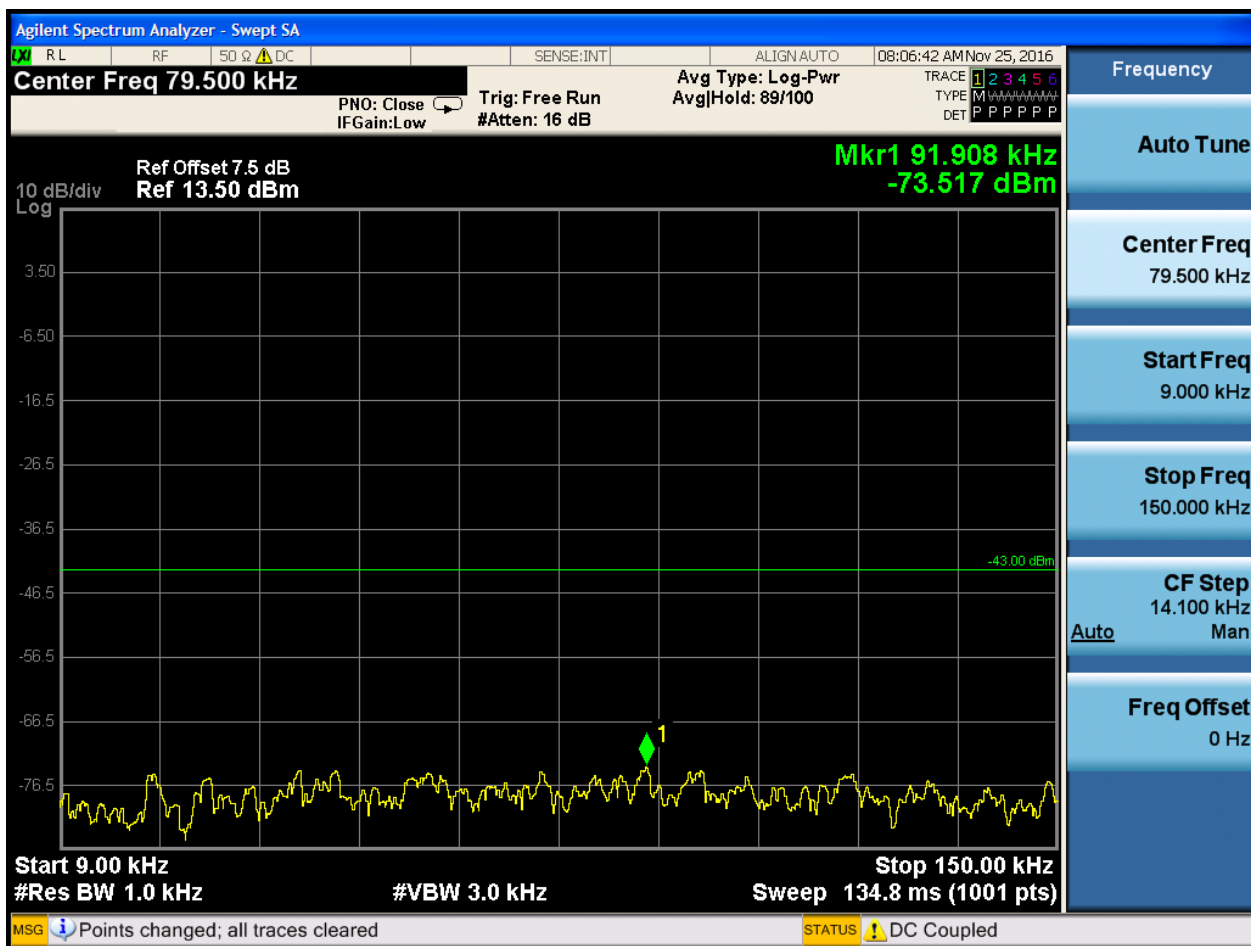


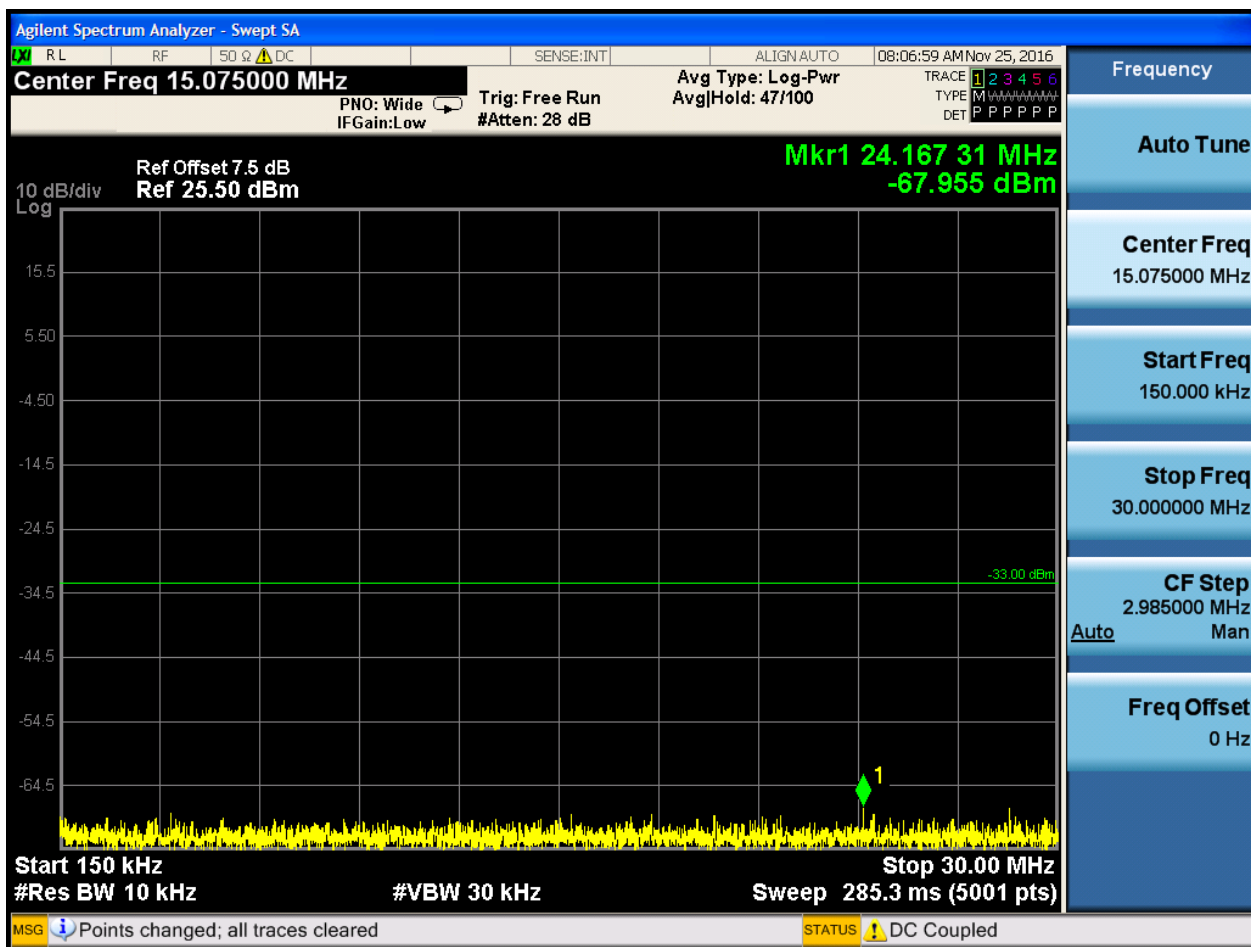


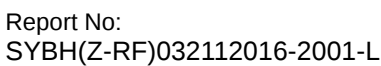


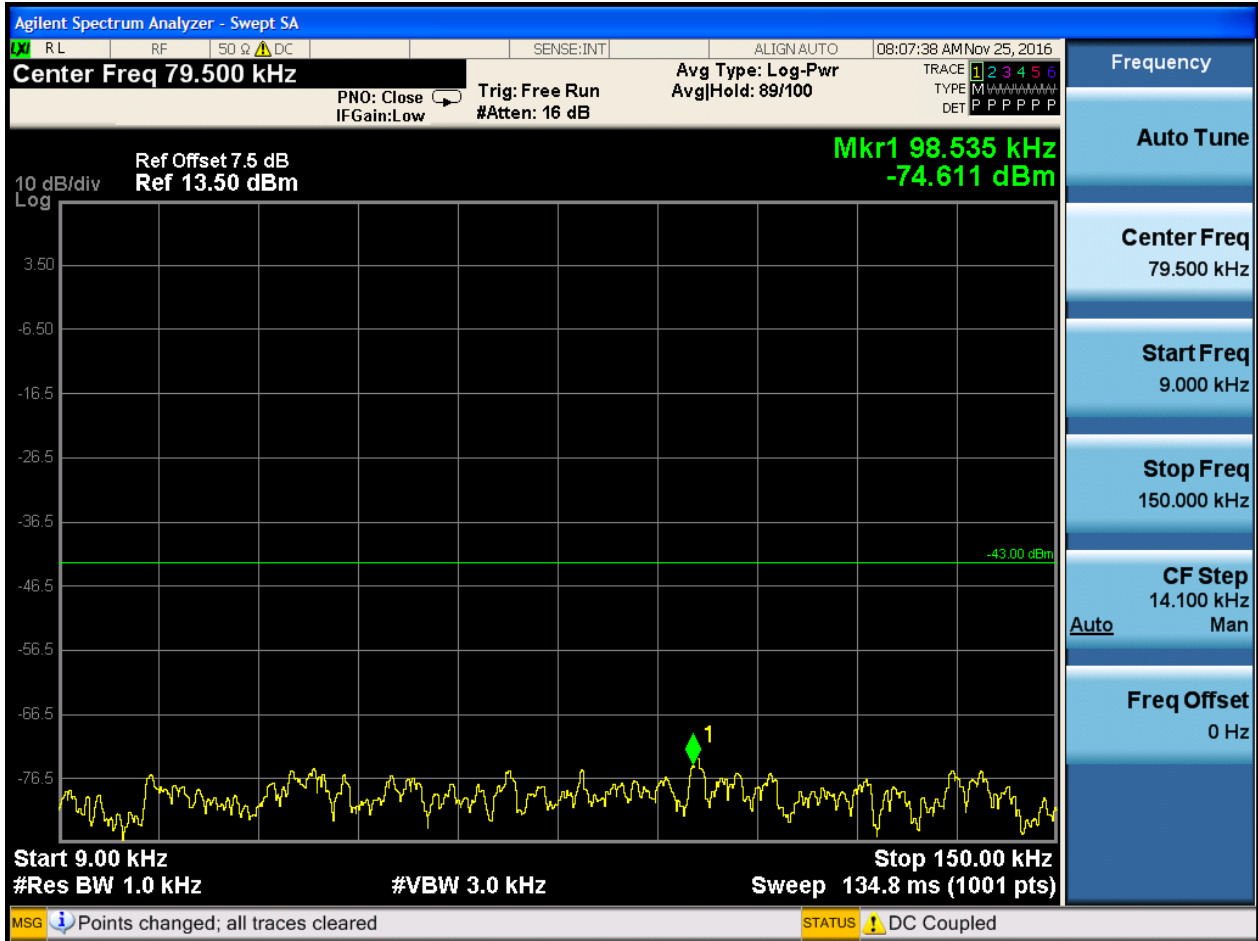
6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0

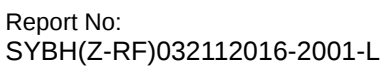








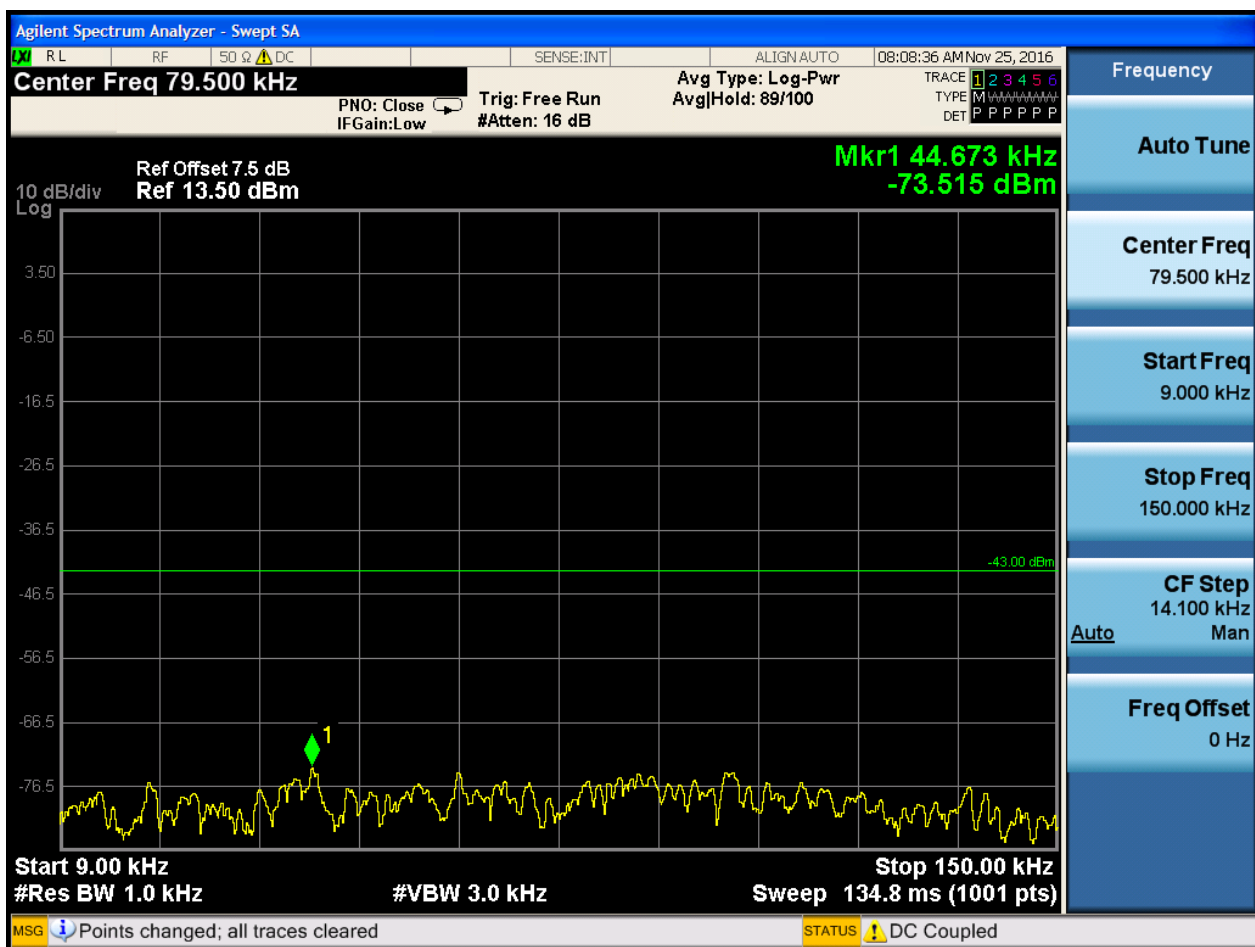


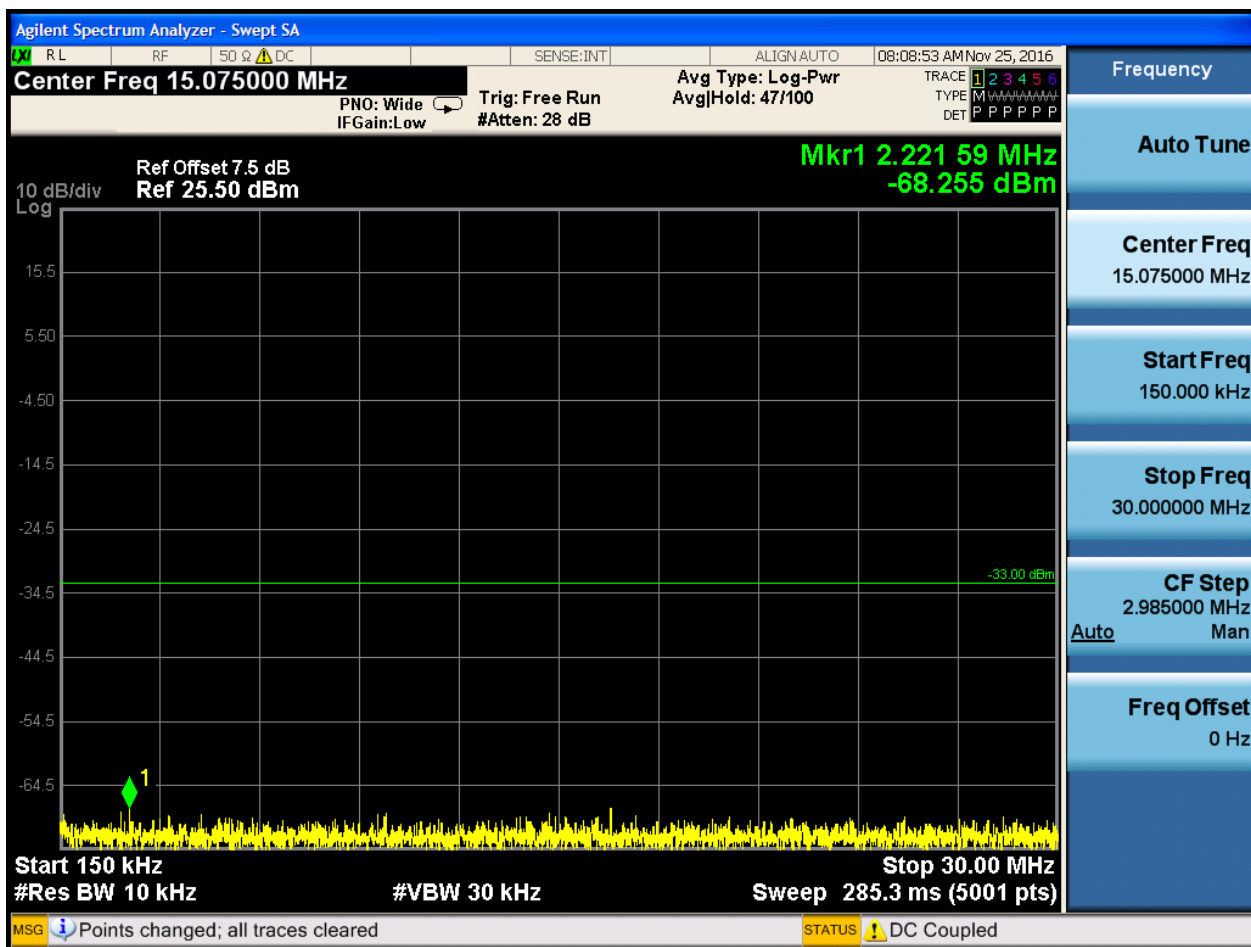


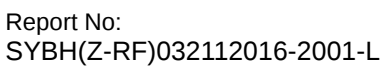
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0









6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0

