



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/TM1	5	LCH	RB1#0	21.93	21.03	33	PASS
				RB1#13	22.29	21.39	33	PASS
				RB1#24	22.13	21.23	33	PASS
				RB12#0	20.75	19.85	33	PASS
				RB12#6	20.84	19.94	33	PASS
				RB12#13	20.66	19.76	33	PASS
				RB25#0	20.69	19.79	33	PASS
			MCH	RB1#0	21.77	20.87	33	PASS
				RB1#13	21.96	21.06	33	PASS
				RB1#24	21.86	20.96	33	PASS
				RB12#0	20.54	19.64	33	PASS
				RB12#6	20.62	19.72	33	PASS
				RB12#13	20.4	19.5	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.49	19.59	33	PASS
			HCH	RB1#0	21.71	20.81	33	PASS
				RB1#13	21.95	21.05	33	PASS
				RB1#24	21.98	21.08	33	PASS
				RB12#0	20.51	19.61	33	PASS
				RB12#6	20.57	19.67	33	PASS
				RB12#13	20.36	19.46	33	PASS
				RB25#0	20.33	19.43	33	PASS
		10	LCH	RB1#0	22.15	21.25	33	PASS
				RB1#25	22.23	21.33	33	PASS
				RB1#49	21.55	20.65	33	PASS
				RB25#0	20.79	19.89	33	PASS
				RB25#13	20.76	19.86	33	PASS
				RB25#25	20.5	19.6	33	PASS
				RB50#0	20.64	19.74	33	PASS
			MCH	RB1#0	21.92	21.02	33	PASS
				RB1#25	22.05	21.15	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	21.59	20.69	33	PASS
				RB25#0	20.46	19.56	33	PASS
				RB25#13	20.54	19.64	33	PASS
				RB25#25	20.42	19.52	33	PASS
				RB50#0	20.44	19.54	33	PASS
			HCH	RB1#0	22.02	21.12	33	PASS
				RB1#25	22.03	21.13	33	PASS
				RB1#49	21.82	20.92	33	PASS
				RB25#0	20.47	19.57	33	PASS
				RB25#13	20.49	19.59	33	PASS
				RB25#25	20.34	19.44	33	PASS
				RB50#0	20.34	19.44	33	PASS
		15	LCH	RB1#0	22.27	21.37	33	PASS
				RB1#38	22	21.1	33	PASS
				RB1#74	21.95	21.05	33	PASS
				RB36#0	20.73	19.83	33	PASS
				RB36#18	20.65	19.75	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	20.45	19.55	33	PASS
				RB75#0	20.53	19.63	33	PASS
			MCH	RB1#0	22.11	21.21	33	PASS
				RB1#38	22.18	21.28	33	PASS
				RB1#74	22.11	21.21	33	PASS
				RB36#0	20.44	19.54	33	PASS
				RB36#18	20.63	19.73	33	PASS
				RB36#39	20.45	19.55	33	PASS
				RB75#0	20.31	19.41	33	PASS
			HCH	RB1#0	22.08	21.18	33	PASS
				RB1#38	22.07	21.17	33	PASS
				RB1#74	22.2	21.3	33	PASS
				RB36#0	20.41	19.51	33	PASS
				RB36#18	20.57	19.67	33	PASS
				RB36#39	20.26	19.36	33	PASS
				RB75#0	20.32	19.42	33	PASS
		20	LCH	RB1#0	22	21.1	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	21.87	20.97	33	PASS
				RB1#99	22.17	21.27	33	PASS
				RB50#0	20.63	19.73	33	PASS
				RB50#25	20.42	19.52	33	PASS
				RB50#50	20.32	19.42	33	PASS
				RB100#0	20.4	19.5	33	PASS
			MCH	RB1#0	21.86	20.96	33	PASS
				RB1#50	21.96	21.06	33	PASS
				RB1#99	22.05	21.15	33	PASS
				RB50#0	20.37	19.47	33	PASS
				RB50#25	20.45	19.55	33	PASS
				RB50#50	20.31	19.41	33	PASS
				RB100#0	20.16	19.26	33	PASS
			HCH	RB1#0	21.83	20.93	33	PASS
				RB1#50	21.82	20.92	33	PASS
				RB1#99	22.12	21.22	33	PASS
				RB50#0	20.4	19.5	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	20.25	19.35	33	PASS
				RB50#50	20.11	19.21	33	PASS
				RB100#0	20.26	19.36	33	PASS
	LTE/TM2	5	LCH	RB1#0	20.97	20.07	33	PASS
				RB1#13	21.35	20.45	33	PASS
				RB1#24	21.2	20.3	33	PASS
				RB12#0	20.68	19.78	33	PASS
				RB12#6	20.82	19.92	33	PASS
				RB12#13	20.63	19.73	33	PASS
				RB25#0	20.68	19.78	33	PASS
			MCH	RB1#0	21.21	20.31	33	PASS
				RB1#13	21.39	20.49	33	PASS
				RB1#24	21.24	20.34	33	PASS
				RB12#0	20.44	19.54	33	PASS
				RB12#6	20.52	19.62	33	PASS
				RB12#13	20.29	19.39	33	PASS
				RB25#0	20.43	19.53	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	20.76	19.86	33	PASS
				RB1#13	21.02	20.12	33	PASS
				RB1#24	21.02	20.12	33	PASS
				RB12#0	20.55	19.65	33	PASS
				RB12#6	20.61	19.71	33	PASS
				RB12#13	20.42	19.52	33	PASS
				RB25#0	20.23	19.33	33	PASS
		10	LCH	RB1#0	21.47	20.57	33	PASS
				RB1#25	21.55	20.65	33	PASS
				RB1#49	20.9	20	33	PASS
				RB25#0	20.73	19.83	33	PASS
				RB25#13	20.7	19.8	33	PASS
				RB25#25	20.46	19.56	33	PASS
				RB50#0	20.56	19.66	33	PASS
			MCH	RB1#0	21.33	20.43	33	PASS
				RB1#25	21.43	20.53	33	PASS
				RB1#49	21.07	20.17	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.41	19.51	33	PASS
				RB25#13	20.5	19.6	33	PASS
				RB25#25	20.38	19.48	33	PASS
				RB50#0	20.42	19.52	33	PASS
			HCH	RB1#0	20.98	20.08	33	PASS
				RB1#25	21.06	20.16	33	PASS
				RB1#49	20.77	19.87	33	PASS
				RB25#0	20.4	19.5	33	PASS
				RB25#13	20.41	19.51	33	PASS
				RB25#25	20.26	19.36	33	PASS
				RB50#0	20.17	19.27	33	PASS
		15	LCH	RB1#0	21.51	20.61	33	PASS
				RB1#38	21.34	20.44	33	PASS
				RB1#74	21.28	20.38	33	PASS
				RB36#0	20.68	19.78	33	PASS
				RB36#18	20.6	19.7	33	PASS
				RB36#39	20.4	19.5	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	20.48	19.58	33	PASS
			MCH	RB1#0	21.19	20.29	33	PASS
				RB1#38	21.16	20.26	33	PASS
				RB1#74	21.16	20.26	33	PASS
				RB36#0	20.36	19.46	33	PASS
				RB36#18	20.56	19.66	33	PASS
				RB36#39	20.38	19.48	33	PASS
				RB75#0	20.23	19.33	33	PASS
			HCH	RB1#0	21.02	20.12	33	PASS
				RB1#38	21.08	20.18	33	PASS
				RB1#74	21.05	20.15	33	PASS
				RB36#0	20.3	19.4	33	PASS
				RB36#18	20.45	19.55	33	PASS
				RB36#39	20.14	19.24	33	PASS
				RB75#0	20.2	19.3	33	PASS
		20	LCH	RB1#0	21.15	20.25	33	PASS
				RB1#50	21.17	20.27	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	21.41	20.51	33	PASS
				RB50#0	20.52	19.62	33	PASS
				RB50#25	20.32	19.42	33	PASS
				RB50#50	20.29	19.39	33	PASS
				RB100#0	20.32	19.42	33	PASS
			MCH	RB1#0	20.81	19.91	33	PASS
				RB1#50	20.94	20.04	33	PASS
				RB1#99	21.12	20.22	33	PASS
				RB50#0	20.28	19.38	33	PASS
				RB50#25	20.36	19.46	33	PASS
				RB50#50	20.29	19.39	33	PASS
				RB100#0	20.09	19.19	33	PASS
			HCH	RB1#0	20.61	19.71	33	PASS
				RB1#50	20.59	19.69	33	PASS
				RB1#99	20.88	19.98	33	PASS
				RB50#0	20.29	19.39	33	PASS
				RB50#25	20.13	19.23	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.04	19.14	33	PASS
				RB100#0	20.26	19.36	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:

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

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

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

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

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	3.83	13	PASS
				RB1#13	3.51	13	PASS
				RB1#24	3.77	13	PASS
				RB12#0	5.29	13	PASS
				RB12#6	5.23	13	PASS
				RB12#13	5.22	13	PASS
				RB25#0	5.93	13	PASS
			MCH	RB1#0	4.93	13	PASS
				RB1#13	5.03	13	PASS
				RB1#24	4.95	13	PASS
				RB12#0	5.7	13	PASS
				RB12#6	5.92	13	PASS
				RB12#13	5.85	13	PASS
				RB25#0	6.34	13	PASS
			HCH	RB1#0	4.38	13	PASS
				RB1#13	4.29	13	PASS
				RB1#24	4.11	13	PASS
				RB12#0	5.57	13	PASS
				RB12#6	5.48	13	PASS
				RB12#13	5.51	13	PASS
				RB25#0	5.99	13	PASS
		10	LCH	RB1#0	3.89	13	PASS
				RB1#25	3.64	13	PASS
				RB1#49	4.11	13	PASS
				RB25#0	5.28	13	PASS
				RB25#13	5.29	13	PASS
				RB25#25	5.48	13	PASS
				RB50#0	5.62	13	PASS
			MCH	RB1#0	4.87	13	PASS
				RB1#25	4.77	13	PASS
				RB1#49	4.94	13	PASS
				RB25#0	6.2	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#13	6.32	13	PASS
				RB25#25	6.27	13	PASS
				RB50#0	6.44	13	PASS
			HCH	RB1#0	3.86	13	PASS
				RB1#25	3.89	13	PASS
				RB1#49	4.08	13	PASS
				RB25#0	5.57	13	PASS
				RB25#13	5.71	13	PASS
				RB25#25	5.84	13	PASS
				RB50#0	6.18	13	PASS
		15	LCH	RB1#0	3.87	13	PASS
				RB1#38	3.85	13	PASS
				RB1#74	3.96	13	PASS
				RB36#0	5.34	13	PASS
				RB36#18	5.37	13	PASS
				RB36#39	5.48	13	PASS
				RB75#0	5.9	13	PASS
			MCH	RB1#0	4.8	13	PASS
				RB1#38	4.84	13	PASS
				RB1#74	4.82	13	PASS
				RB36#0	6.17	13	PASS
				RB36#18	6.12	13	PASS
				RB36#39	6.45	13	PASS
				RB75#0	6.62	13	PASS
			HCH	RB1#0	4.32	13	PASS
				RB1#38	4.35	13	PASS
				RB1#74	4.07	13	PASS
				RB36#0	5.67	13	PASS
				RB36#18	5.64	13	PASS
				RB36#39	5.83	13	PASS
				RB75#0	6.48	13	PASS
		20	LCH	RB1#0	4.04	13	PASS
				RB1#50	3.93	13	PASS
				RB1#99	4	13	PASS
				RB50#0	5.53	13	PASS
				RB50#25	5.66	13	PASS
				RB50#50	5.64	13	PASS
				RB100#0	6.02	13	PASS
			MCH	RB1#0	5.17	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	5.05	13	PASS
				RB50#0	6.37	13	PASS
				RB50#25	6.37	13	PASS
				RB50#50	6.47	13	PASS
				RB100#0	6.57	13	PASS
			HCH	RB1#0	4.5	13	PASS
				RB1#50	4.23	13	PASS
				RB1#99	4.25	13	PASS
				RB50#0	5.82	13	PASS
				RB50#25	5.89	13	PASS
				RB50#50	5.92	13	PASS
				RB100#0	6.68	13	PASS
	LTE/TM2	5	LCH	RB1#0	4.59	13	PASS
				RB1#13	4.23	13	PASS
				RB1#24	4.56	13	PASS
				RB12#0	5.39	13	PASS
				RB12#6	5.09	13	PASS
				RB12#13	5.49	13	PASS
				RB25#0	5.91	13	PASS
			MCH	RB1#0	5.2	13	PASS
				RB1#13	5.38	13	PASS
				RB1#24	5.24	13	PASS
				RB12#0	5.97	13	PASS
				RB12#6	6.07	13	PASS
				RB12#13	6.18	13	PASS
				RB25#0	6.68	13	PASS
		10	HCH	RB1#0	5.48	13	PASS
				RB1#13	5.36	13	PASS
				RB1#24	5.17	13	PASS
				RB12#0	5.77	13	PASS
				RB12#6	5.58	13	PASS
				RB12#13	5.88	13	PASS
				RB25#0	6.4	13	PASS
			LCH	RB1#0	5.02	13	PASS
				RB1#25	4.71	13	PASS
				RB1#49	5.14	13	PASS
				RB25#0	5.52	13	PASS
				RB25#13	5.42	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#25	5.63	13	PASS
				RB50#0	6.14	13	PASS
			MCH	RB1#0	5.68	13	PASS
				RB1#25	5.63	13	PASS
				RB1#49	5.8	13	PASS
				RB25#0	6.65	13	PASS
				RB25#13	6.93	13	PASS
				RB25#25	6.69	13	PASS
				RB50#0	6.66	13	PASS
			HCH	RB1#0	5.19	13	PASS
				RB1#25	5.13	13	PASS
				RB1#49	5.04	13	PASS
				RB25#0	5.86	13	PASS
				RB25#13	5.9	13	PASS
				RB25#25	5.89	13	PASS
				RB50#0	6.36	13	PASS
		15	LCH	RB1#0	4.66	13	PASS
				RB1#38	4.55	13	PASS
				RB1#74	4.61	13	PASS
				RB36#0	5.6	13	PASS
				RB36#18	5.53	13	PASS
				RB36#39	5.58	13	PASS
				RB75#0	6.51	13	PASS
			MCH	RB1#0	5.82	13	PASS
				RB1#38	6.06	13	PASS
				RB1#74	5.96	13	PASS
				RB36#0	6.57	13	PASS
				RB36#18	6.66	13	PASS
				RB36#39	6.59	13	PASS
				RB75#0	7.3	13	PASS
			HCH	RB1#0	5.16	13	PASS
				RB1#38	5.2	13	PASS
				RB1#74	5	13	PASS
				RB36#0	6.02	13	PASS
				RB36#18	5.78	13	PASS
				RB36#39	6.23	13	PASS
				RB75#0	6.65	13	PASS
		20	LCH	RB1#0	4.95	13	PASS
				RB1#50	4.69	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#99	4.72	13	PASS
				RB50#0	5.64	13	PASS
				RB50#25	5.61	13	PASS
				RB50#50	5.69	13	PASS
				RB100#0	6.32	13	PASS
			MCH	RB1#0	5.73	13	PASS
				RB1#50	5.89	13	PASS
				RB1#99	5.62	13	PASS
				RB50#0	6.68	13	PASS
				RB50#25	6.67	13	PASS
				RB50#50	6.92	13	PASS
				RB100#0	7.5	13	PASS
			HCH	RB1#0	5.21	13	PASS
				RB1#50	5.24	13	PASS
				RB1#99	5.02	13	PASS
				RB50#0	6.28	13	PASS
				RB50#25	6.35	13	PASS
				RB50#50	6.4	13	PASS
				RB100#0	6.71	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

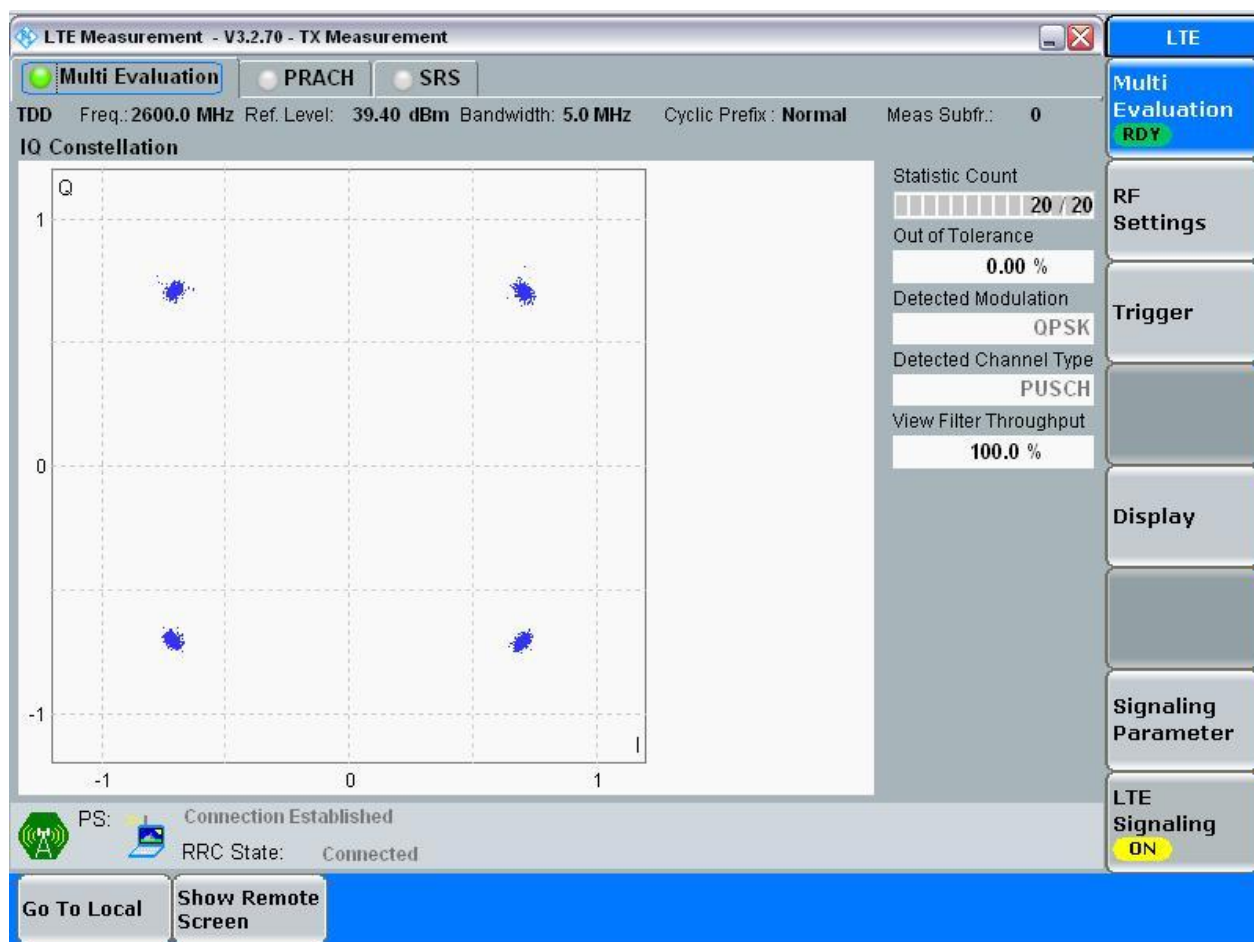
3.1.1 Test Band = BAND41

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

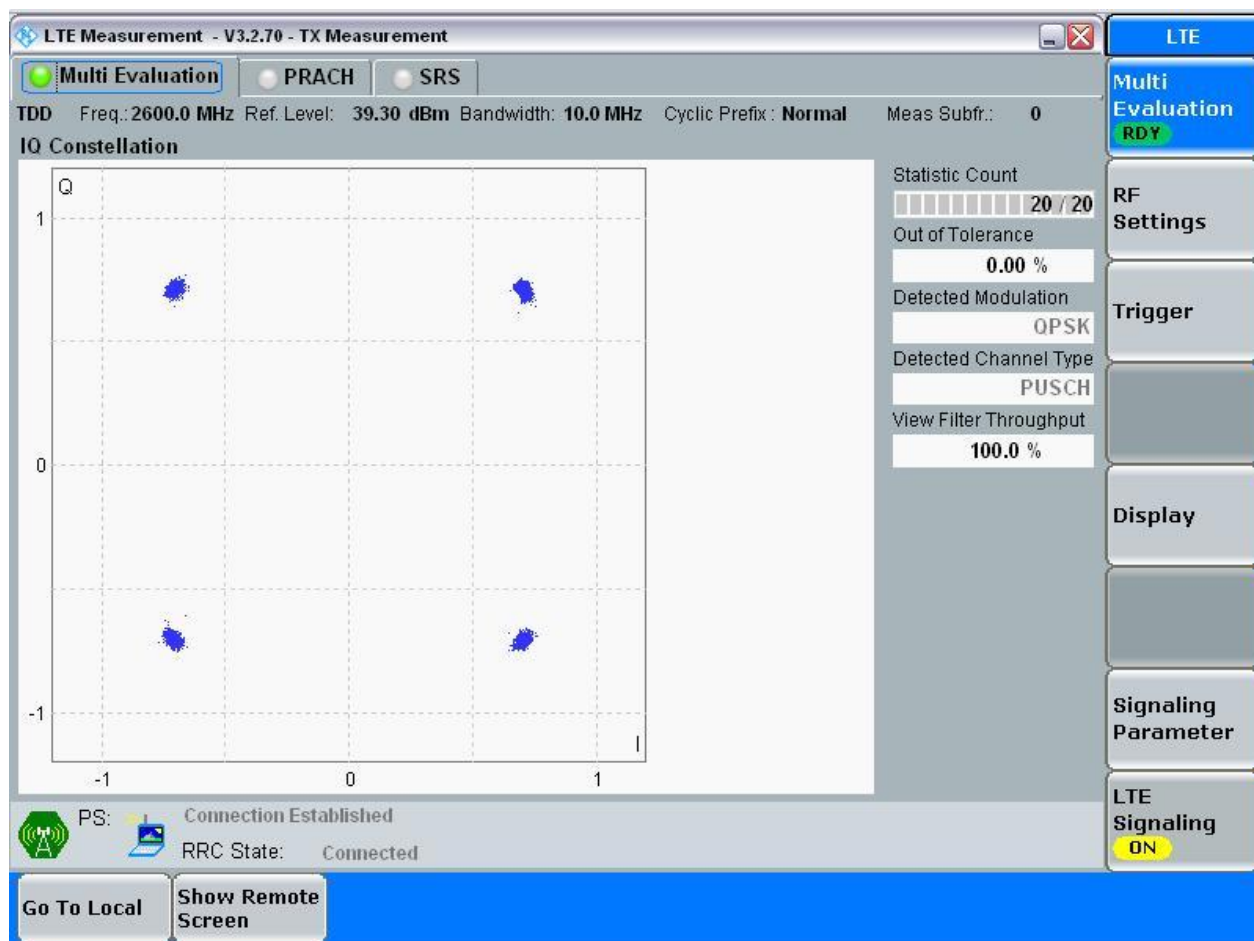
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

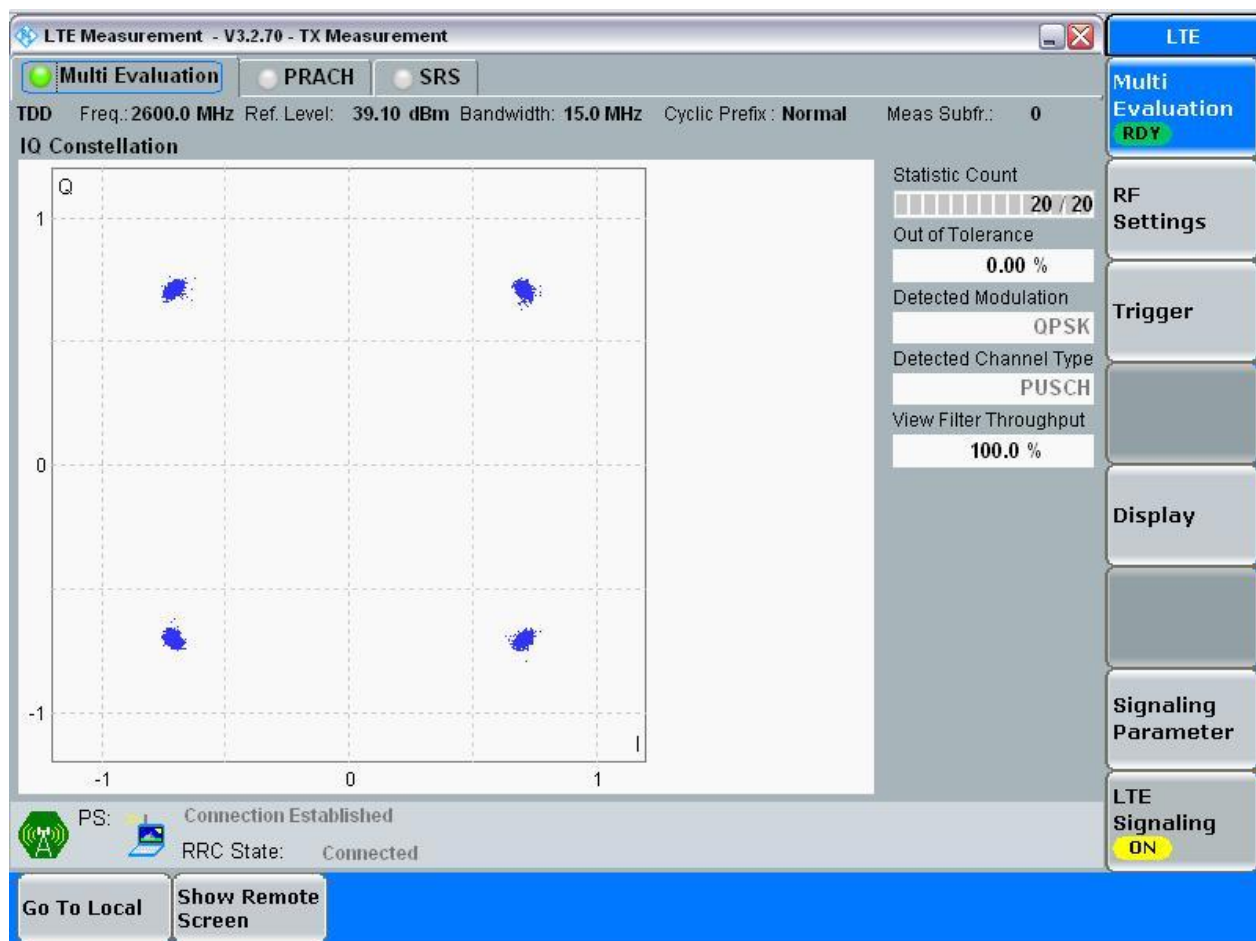
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

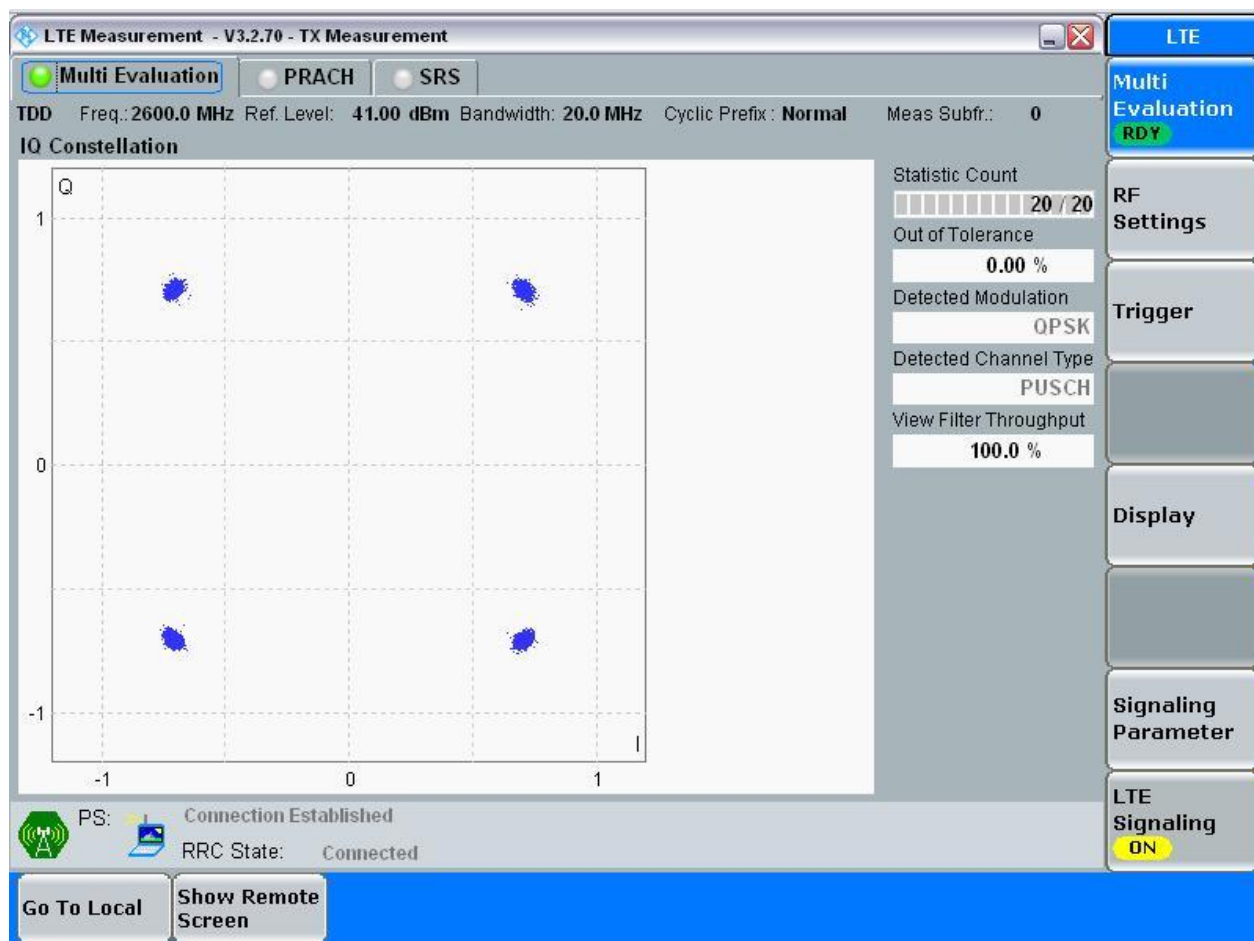
3.1.1.1.3.1.1 Test RB = RB75#0



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

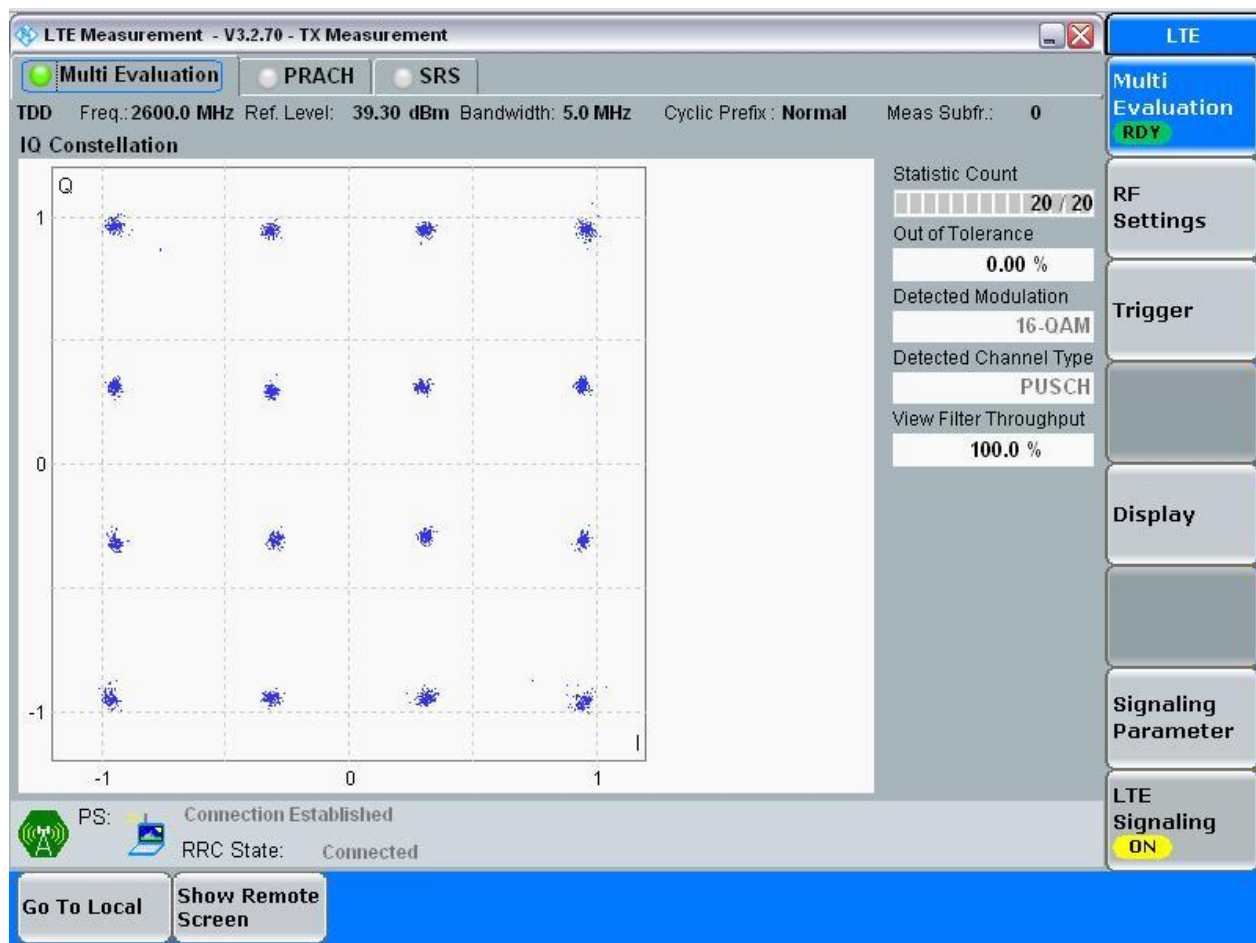


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

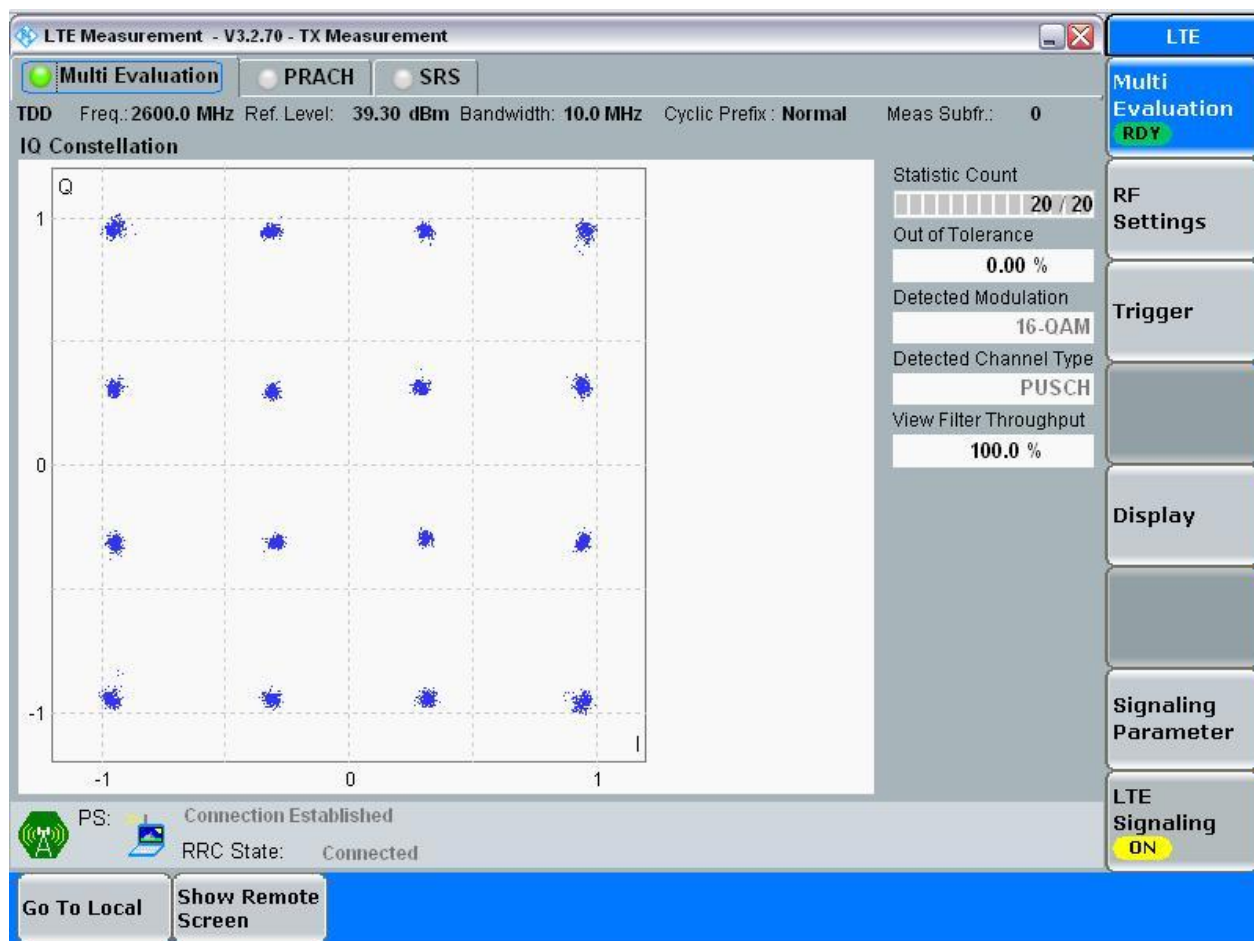
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

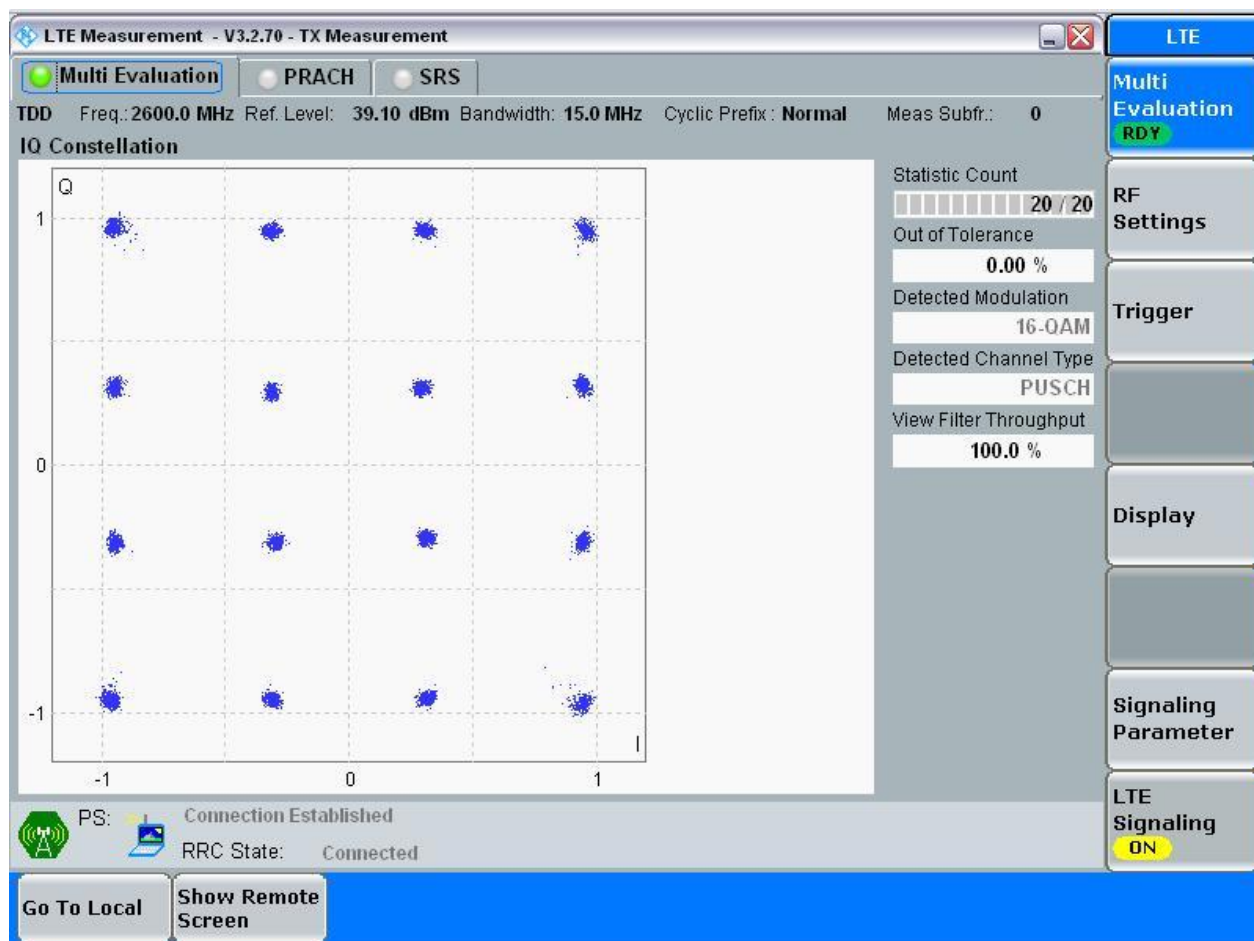
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

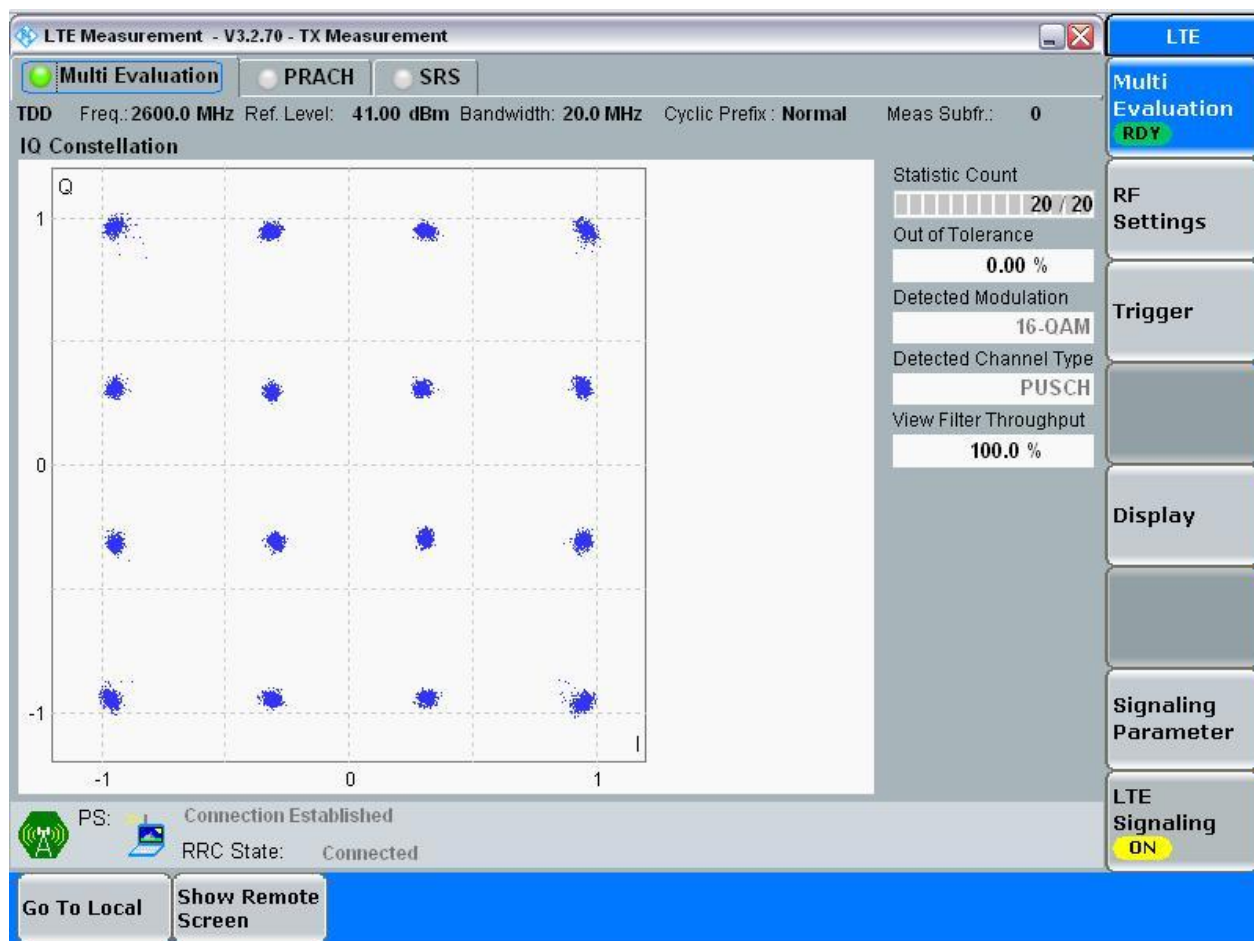
3.1.1.2.3.1.1 Test RB = RB75#0



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	4.49	4.86	Pass
			MCH	RB25#0	4.47	4.93	Pass
			HCH	RB25#0	4.45	4.92	Pass
		10	LCH	RB50#0	8.97	9.66	Pass
			MCH	RB50#0	8.95	9.79	Pass
			HCH	RB50#0	8.96	9.83	Pass
		15	LCH	RB75#0	13.34	14.65	Pass
			MCH	RB75#0	13.44	14.82	Pass
			HCH	RB75#0	13.51	14.67	Pass
		20	LCH	RB100#0	17.85	19.49	Pass
			MCH	RB100#0	17.88	19.53	Pass
			HCH	RB100#0	17.99	19.62	Pass
	LTE/TM2	5	LCH	RB25#0	4.48	4.91	Pass
			MCH	RB25#0	4.48	4.92	Pass
			HCH	RB25#0	4.49	4.86	Pass
		10	LCH	RB50#0	8.92	9.71	Pass
			MCH	RB50#0	8.94	9.80	Pass
			HCH	RB50#0	8.95	9.80	Pass
		15	LCH	RB75#0	13.42	14.75	Pass
			MCH	RB75#0	13.46	14.78	Pass
			HCH	RB75#0	13.51	14.69	Pass
		20	LCH	RB100#0	17.93	19.37	Pass
			MCH	RB100#0	17.92	19.45	Pass
			HCH	RB100#0	17.97	19.53	Pass



Part II - Test Plots

4.1 For LTE

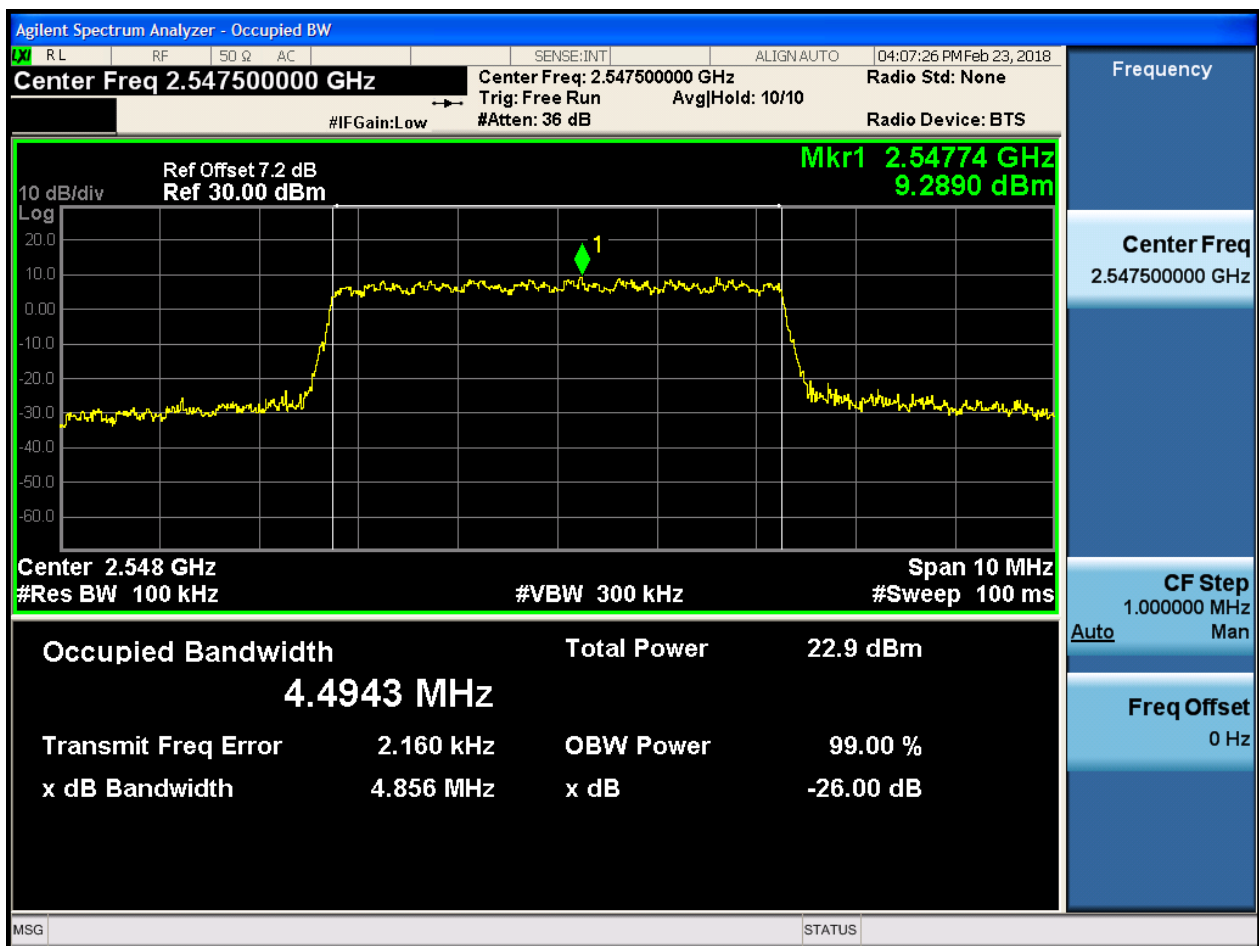
4.1.2 Test Band = BAND41

4.1.2.1 Test Mode = LTE/TM1

4.1.2.1.1 Test Bandwidth = 5

4.1.2.1.1.1 Test Channel = LCH

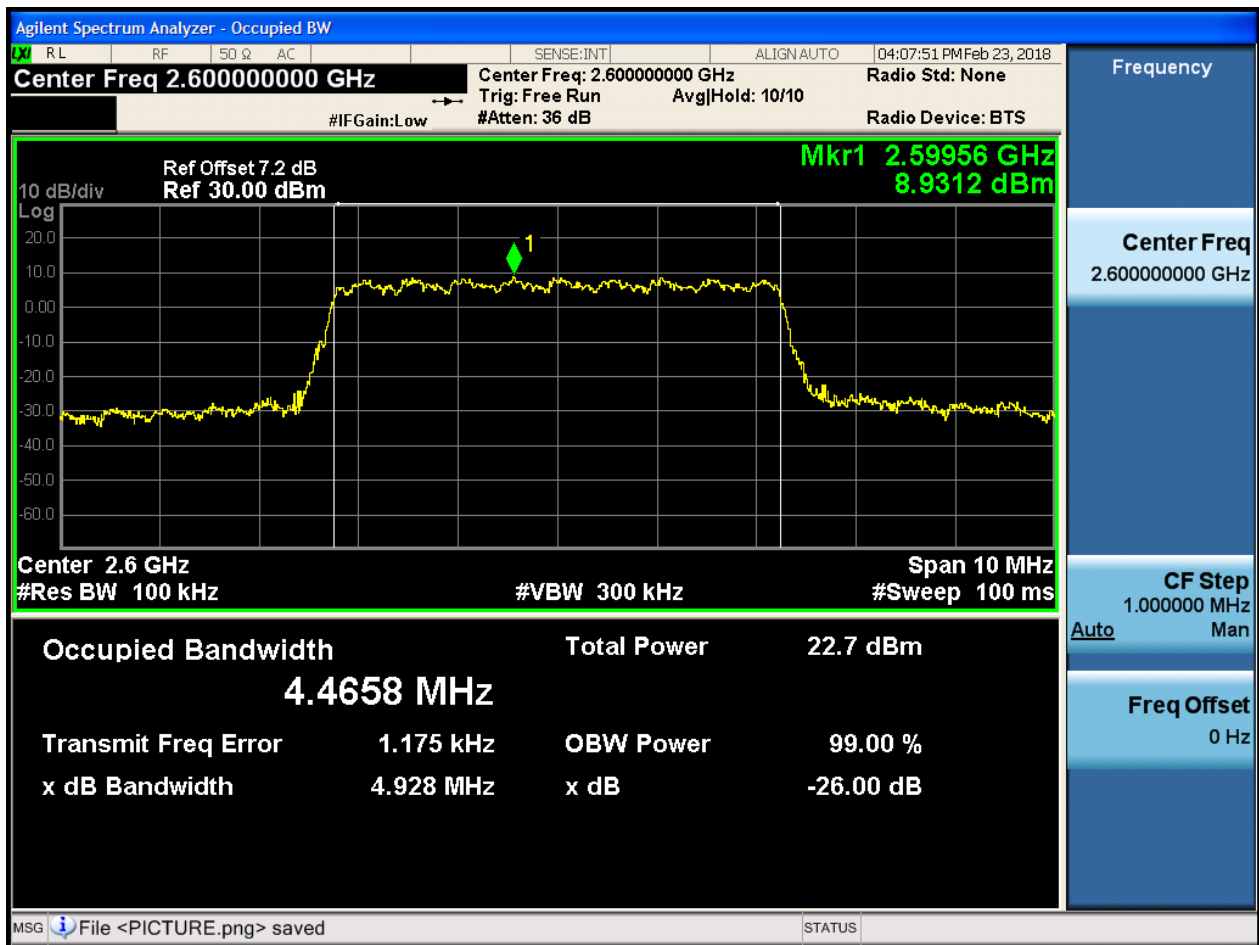
4.1.2.1.1.1.1 Test RB = RB25#0





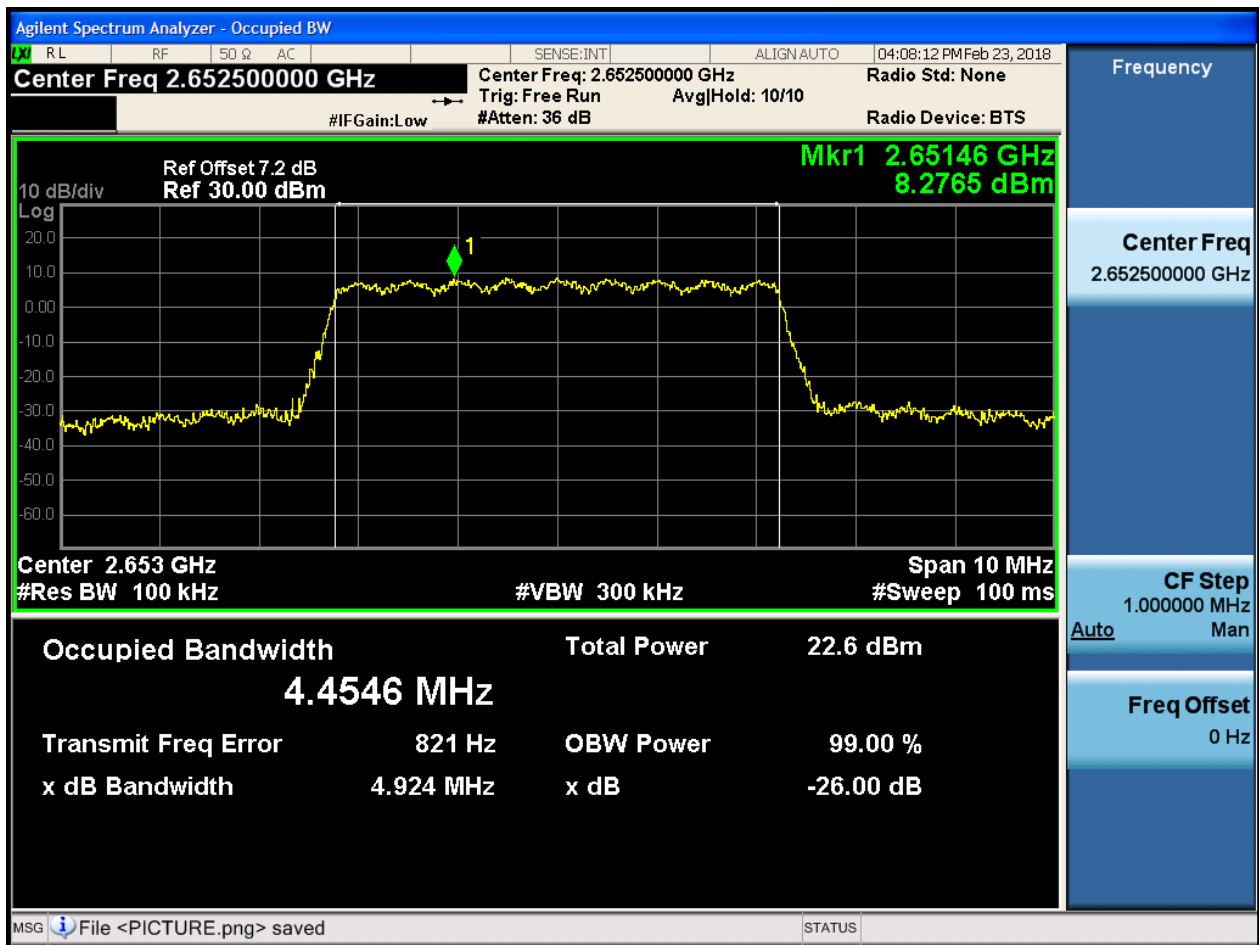
4.1.2.1.1.2 Test Channel = MCH

4.1.2.1.1.2.1 Test RB = RB25#0



4.1.2.1.1.3 Test Channel = HCH

4.1.2.1.1.3.1 Test RB = RB25#0

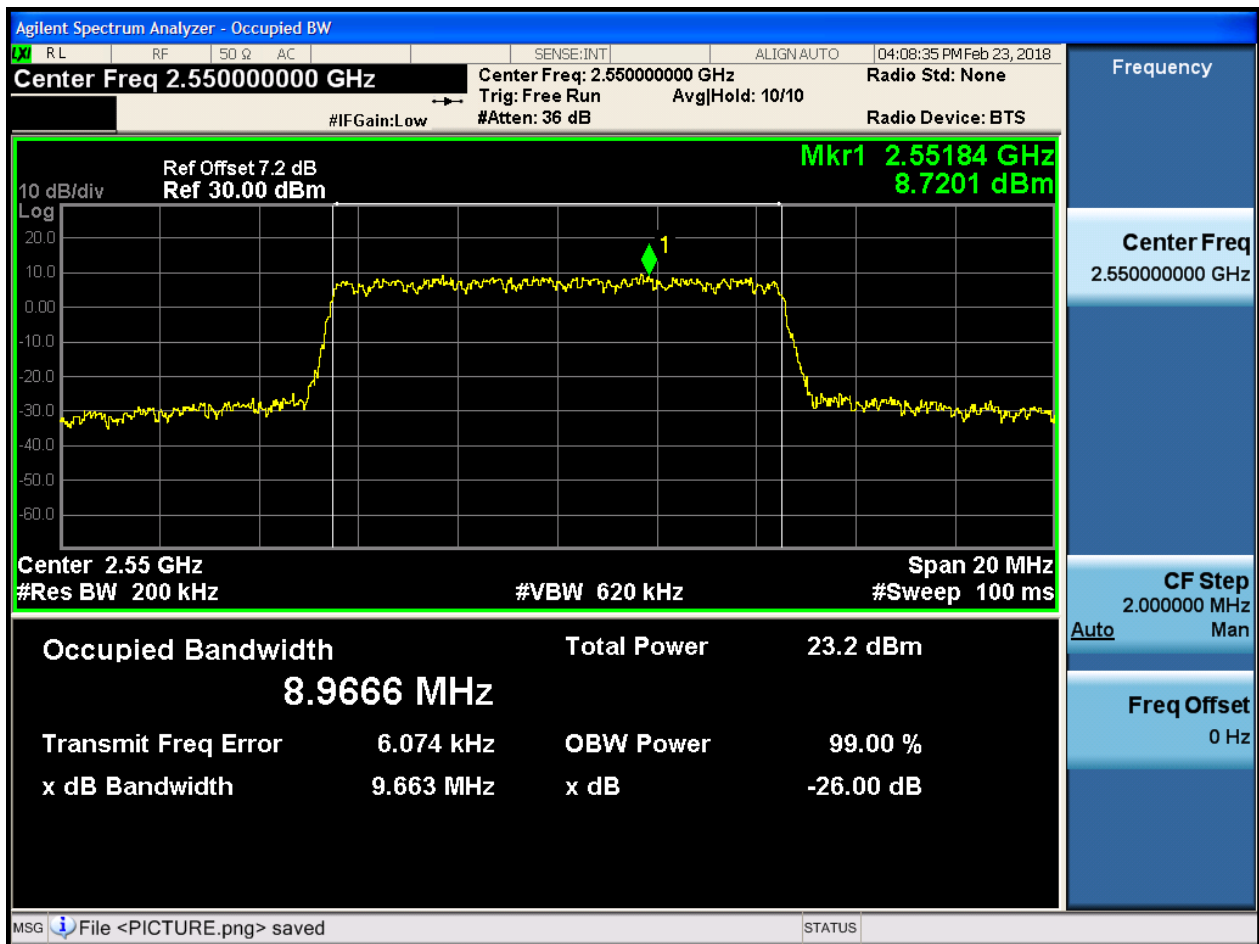




4.1.2.1.2 Test Bandwidth = 10

4.1.2.1.2.1 Test Channel = LCH

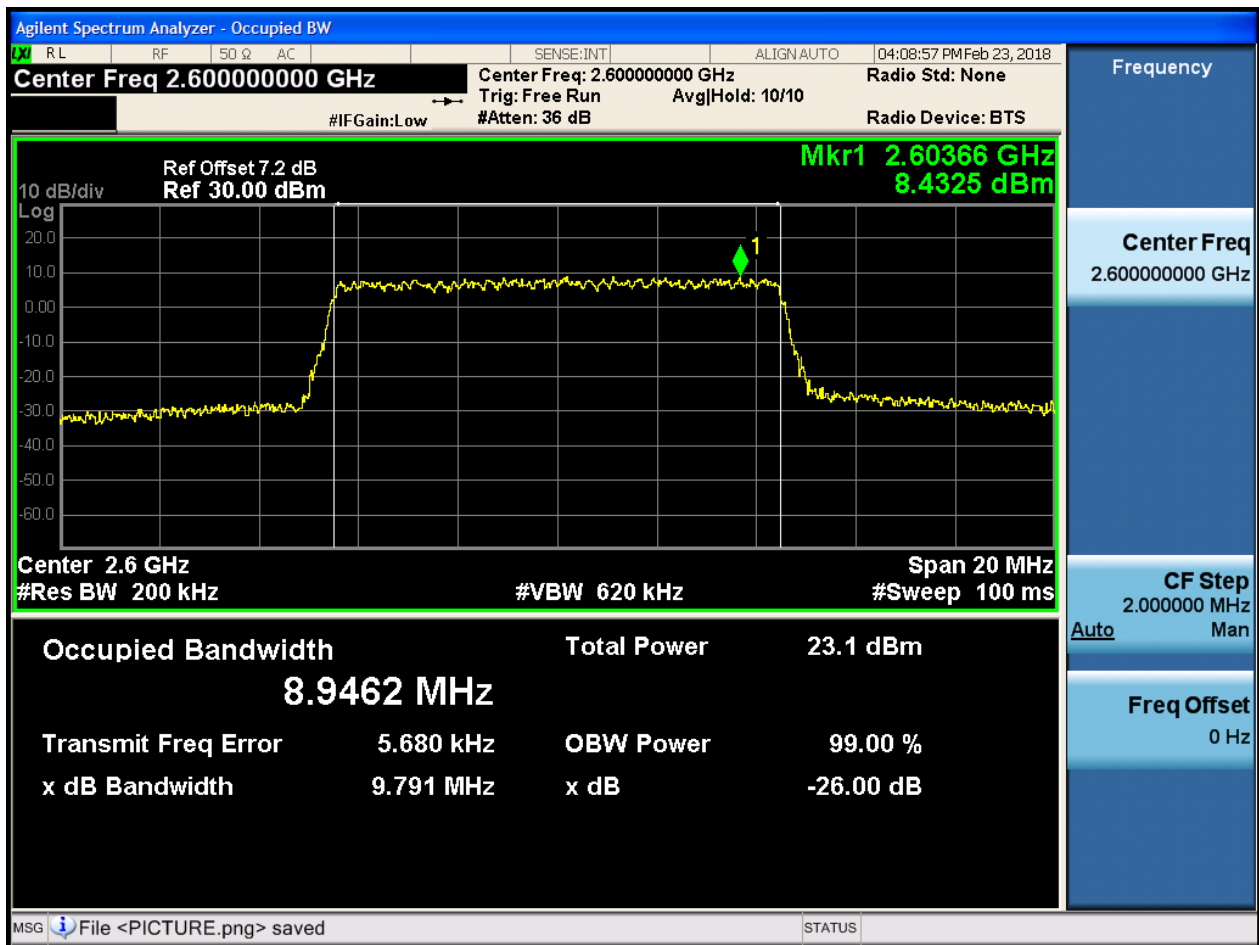
4.1.2.1.2.1.1 Test RB = RB50#0





4.1.2.1.2.2 Test Channel = MCH

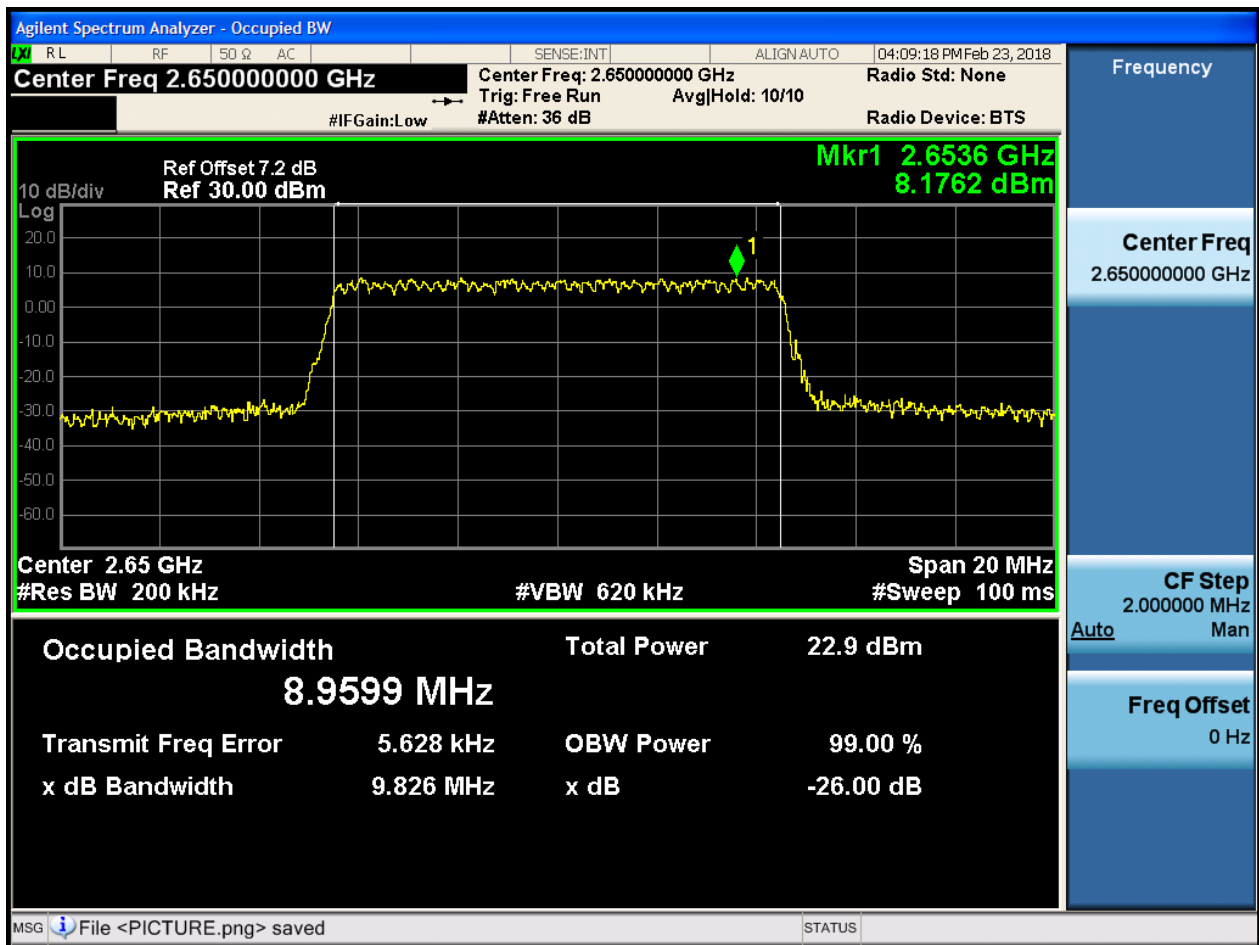
4.1.2.1.2.2.1 Test RB = RB50#0





4.1.2.1.2.3 Test Channel = HCH

4.1.2.1.2.3.1 Test RB = RB50#0

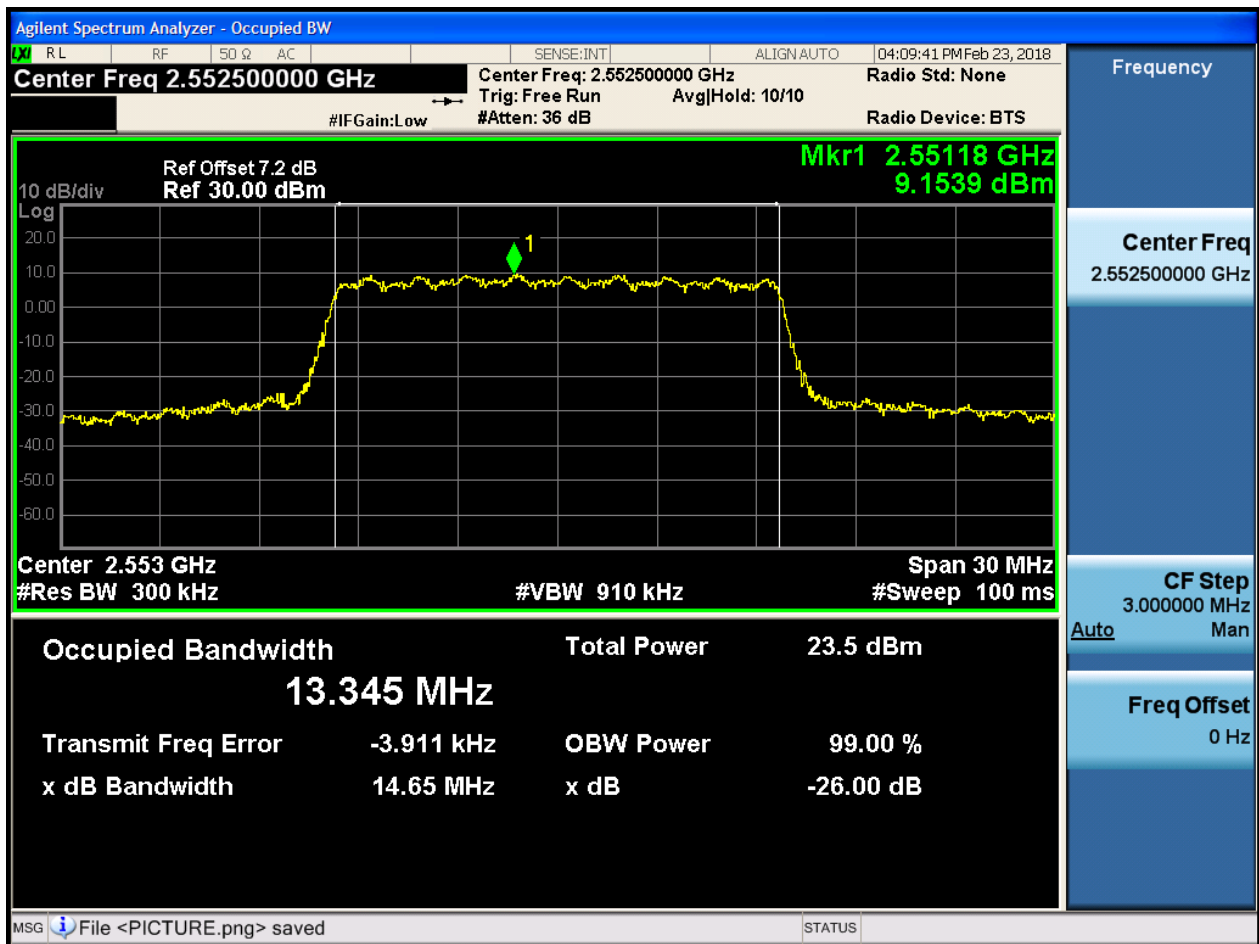




4.1.2.1.3 Test Bandwidth = 15

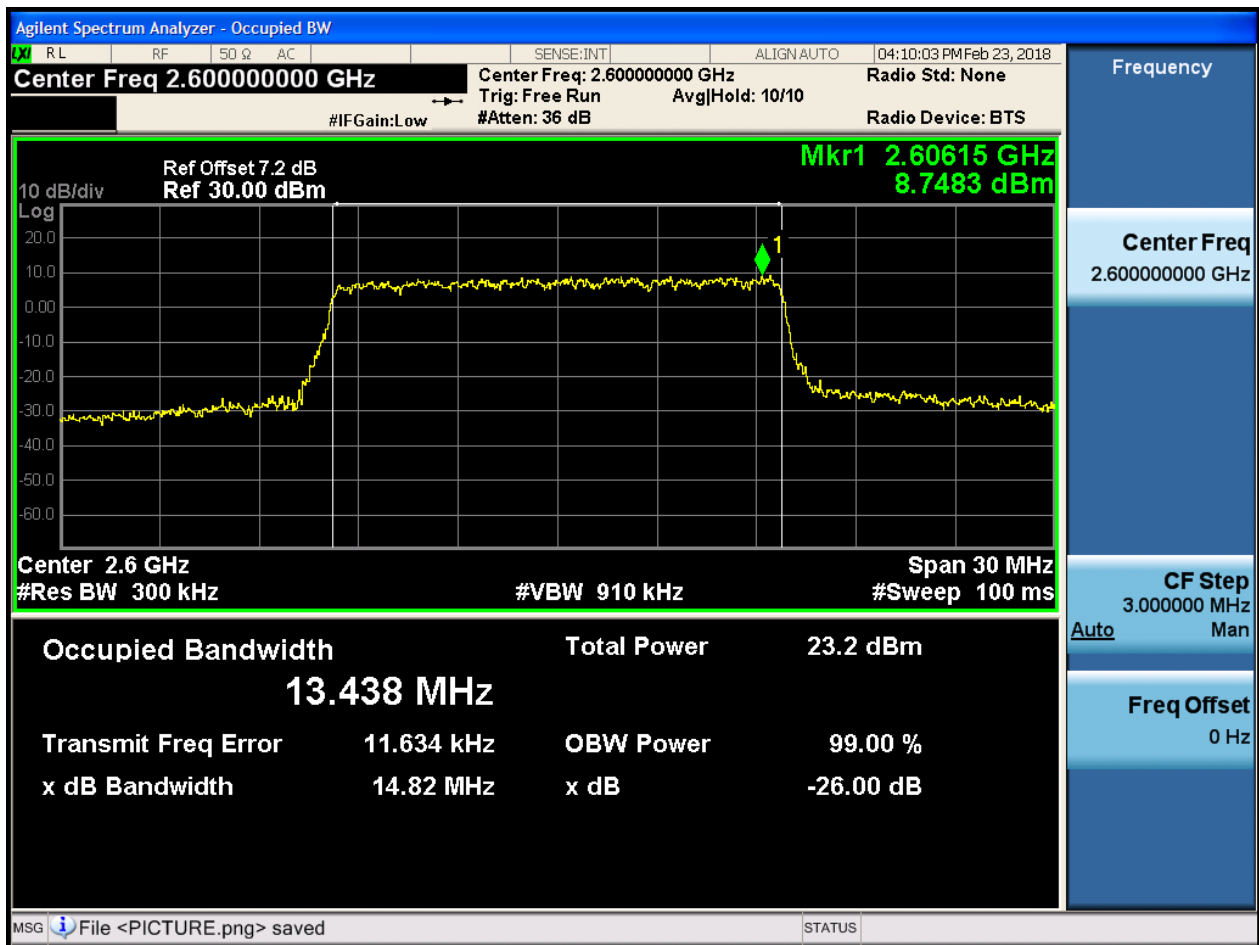
4.1.2.1.3.1 Test Channel = LCH

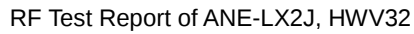
4.1.2.1.3.1.1 Test RB = RB75#0



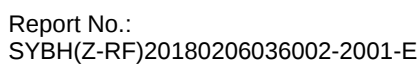
4.1.2.1.3.2 Test Channel = MCH

4.1.2.1.3.2.1 Test RB = RB75#0





4.1.2.1.3.3.1 Test RB = RB75#0

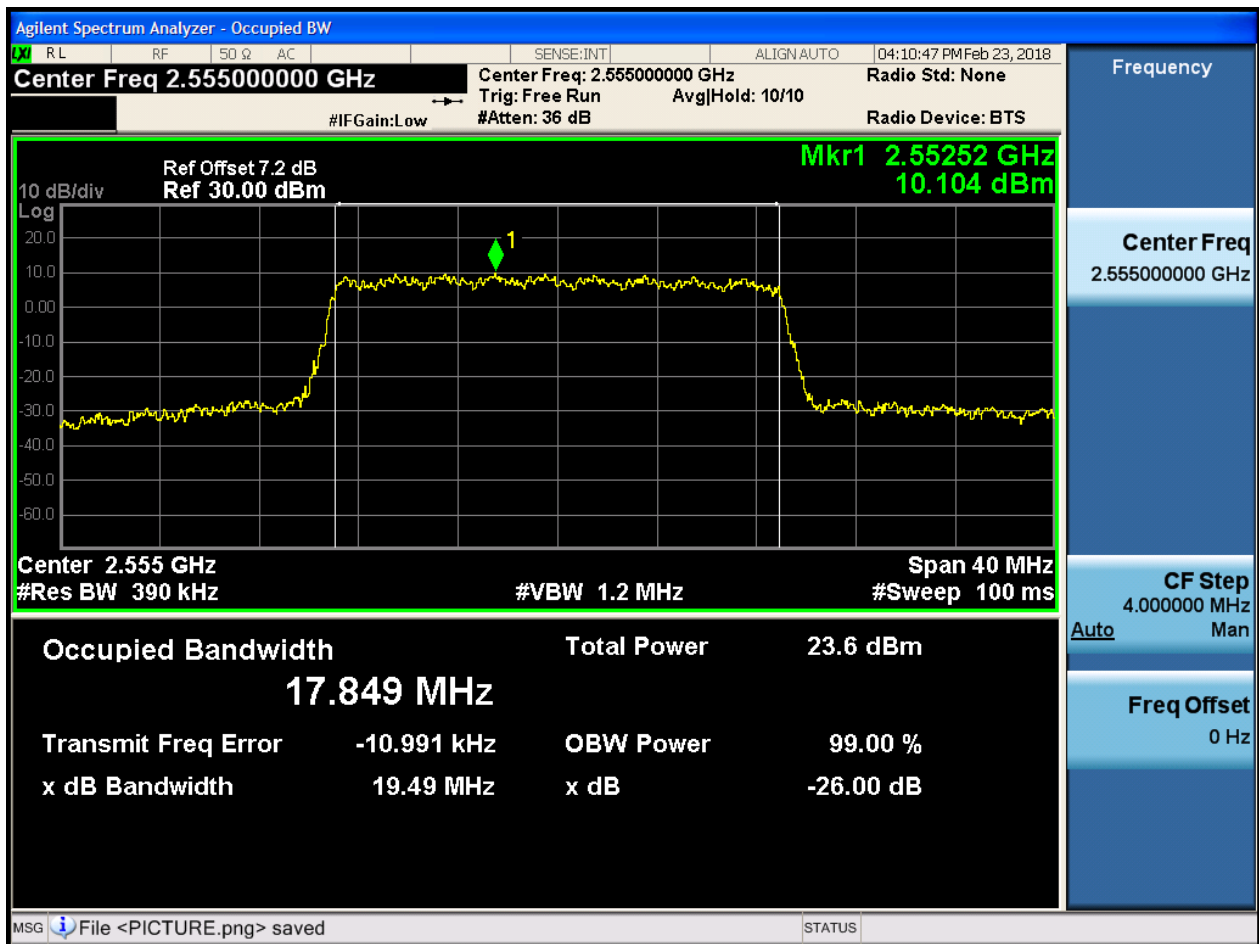




4.1.2.1.4 Test Bandwidth = 20

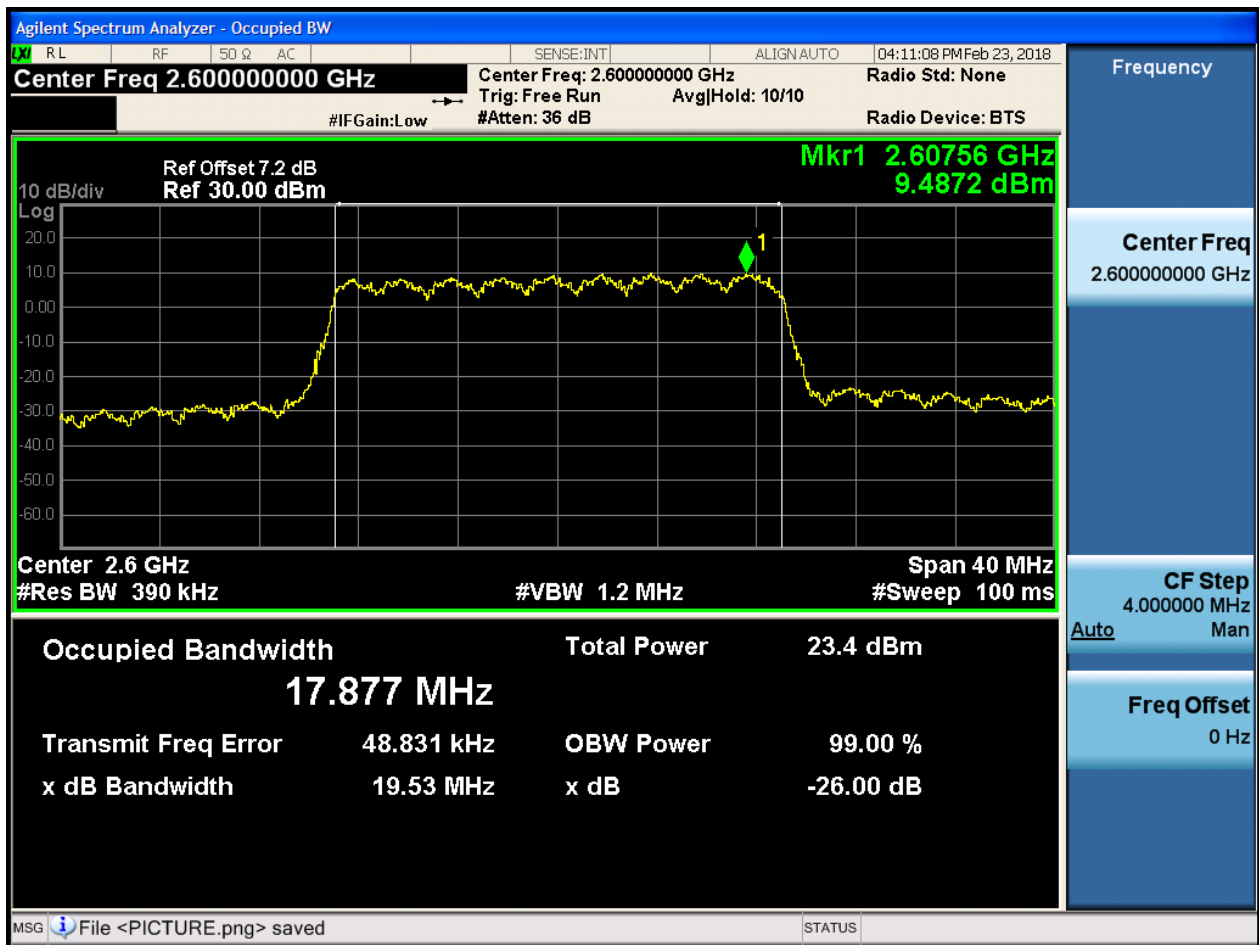
4.1.2.1.4.1 Test Channel = LCH

4.1.2.1.4.1.1 Test RB = RB100#0



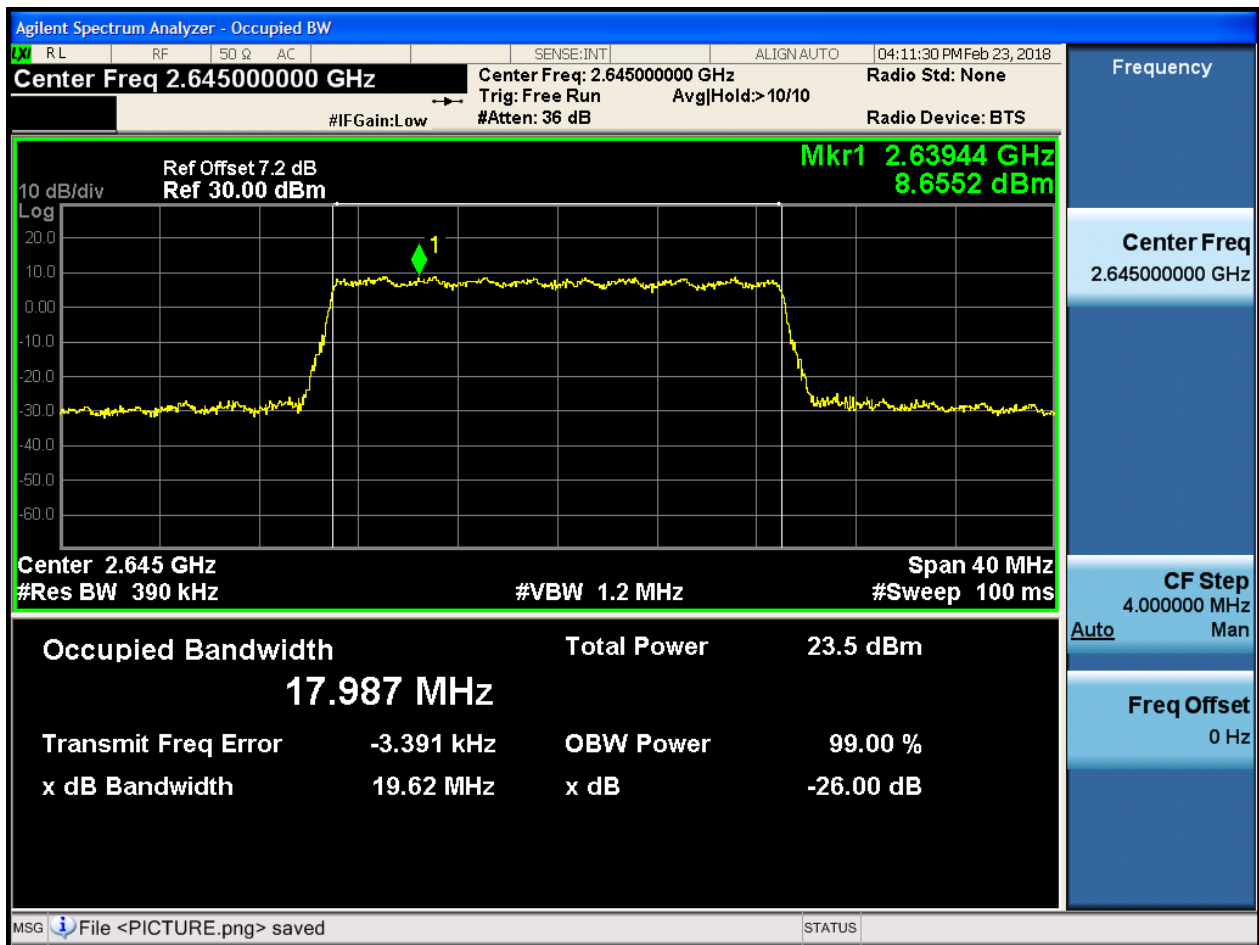
4.1.2.1.4.2 Test Channel = MCH

4.1.2.1.4.2.1 Test RB = RB100#0



4.1.2.1.4.3 Test Channel = HCH

4.1.2.1.4.3.1 Test RB = RB100#0



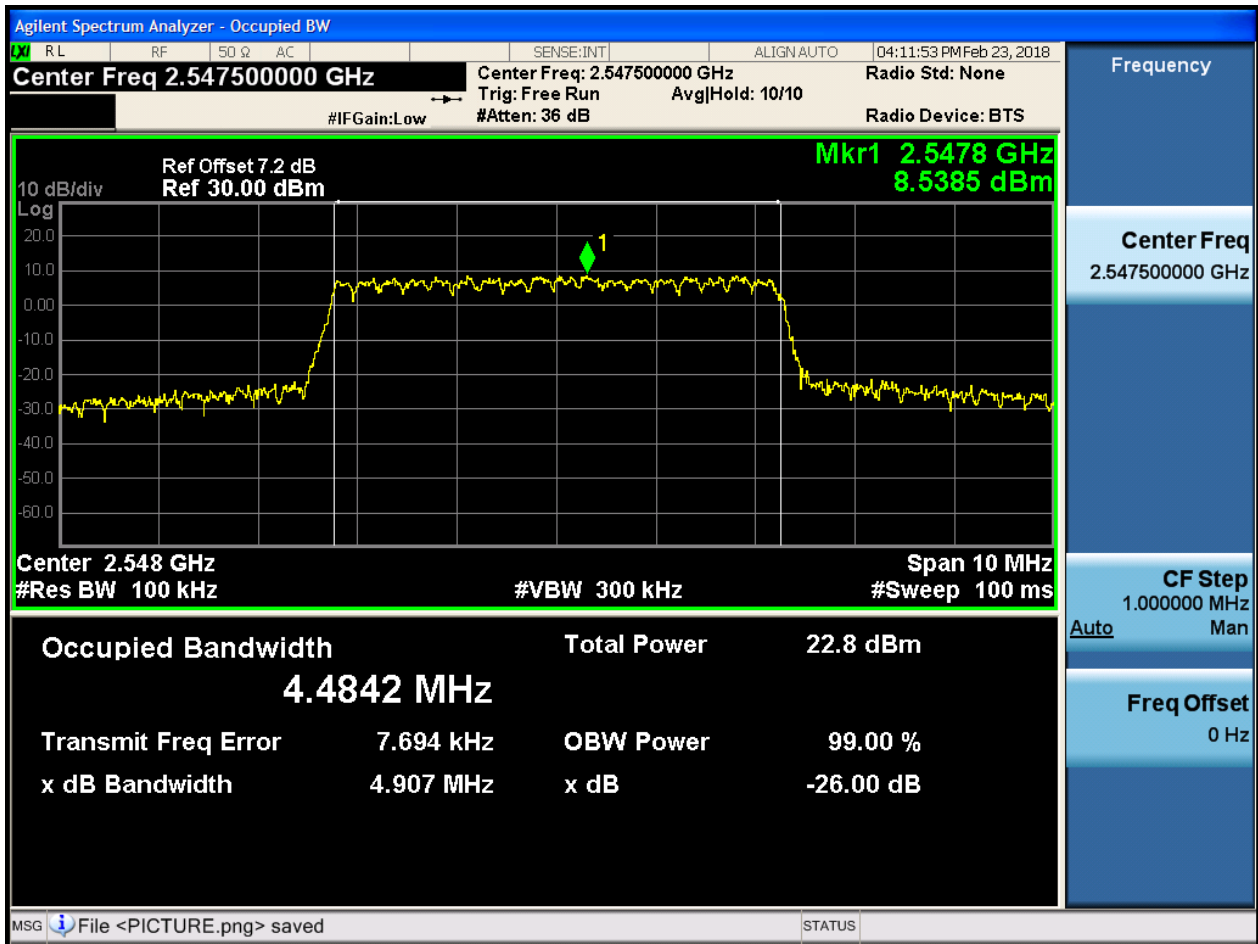


4.1.2.2 Test Mode = LTE/TM2

4.1.2.2.1 Test Bandwidth = 5

4.1.2.2.1.1 Test Channel = LCH

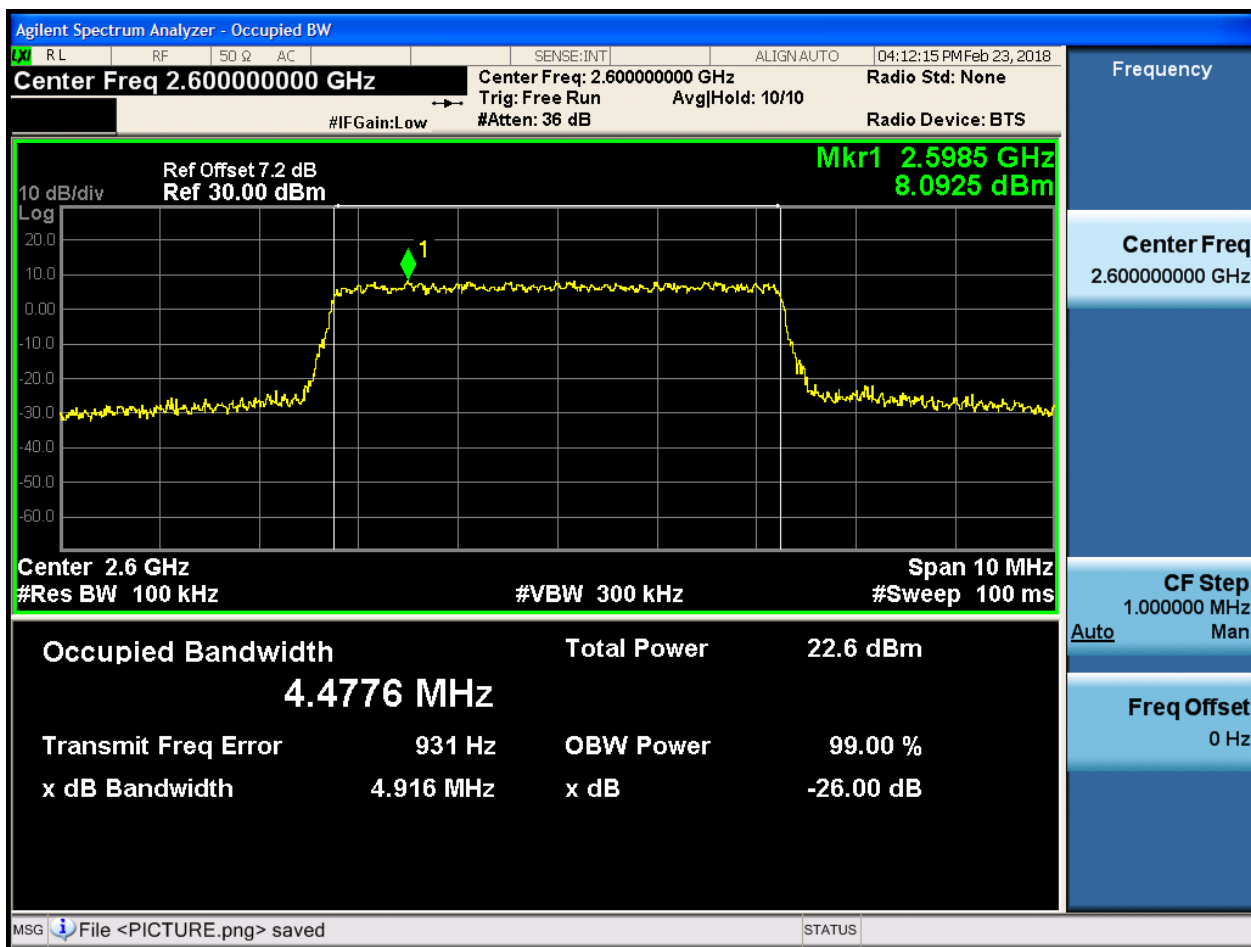
4.1.2.2.1.1.1 Test RB = RB25#0





4.1.2.2.1.2 Test Channel = MCH

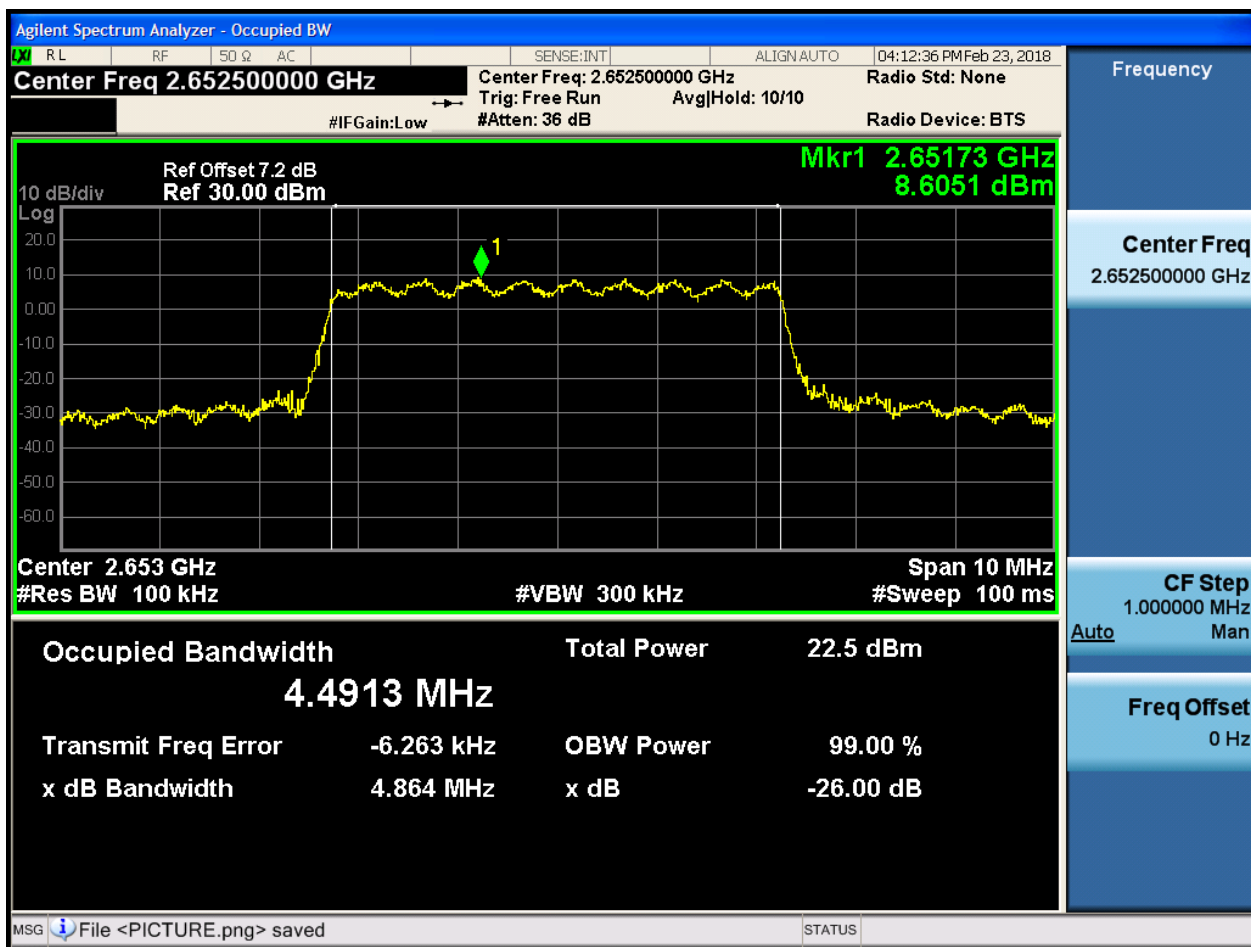
4.1.2.2.1.2.1 Test RB = RB25#0





4.1.2.2.1.3 Test Channel = HCH

4.1.2.2.1.3.1 Test RB = RB25#0

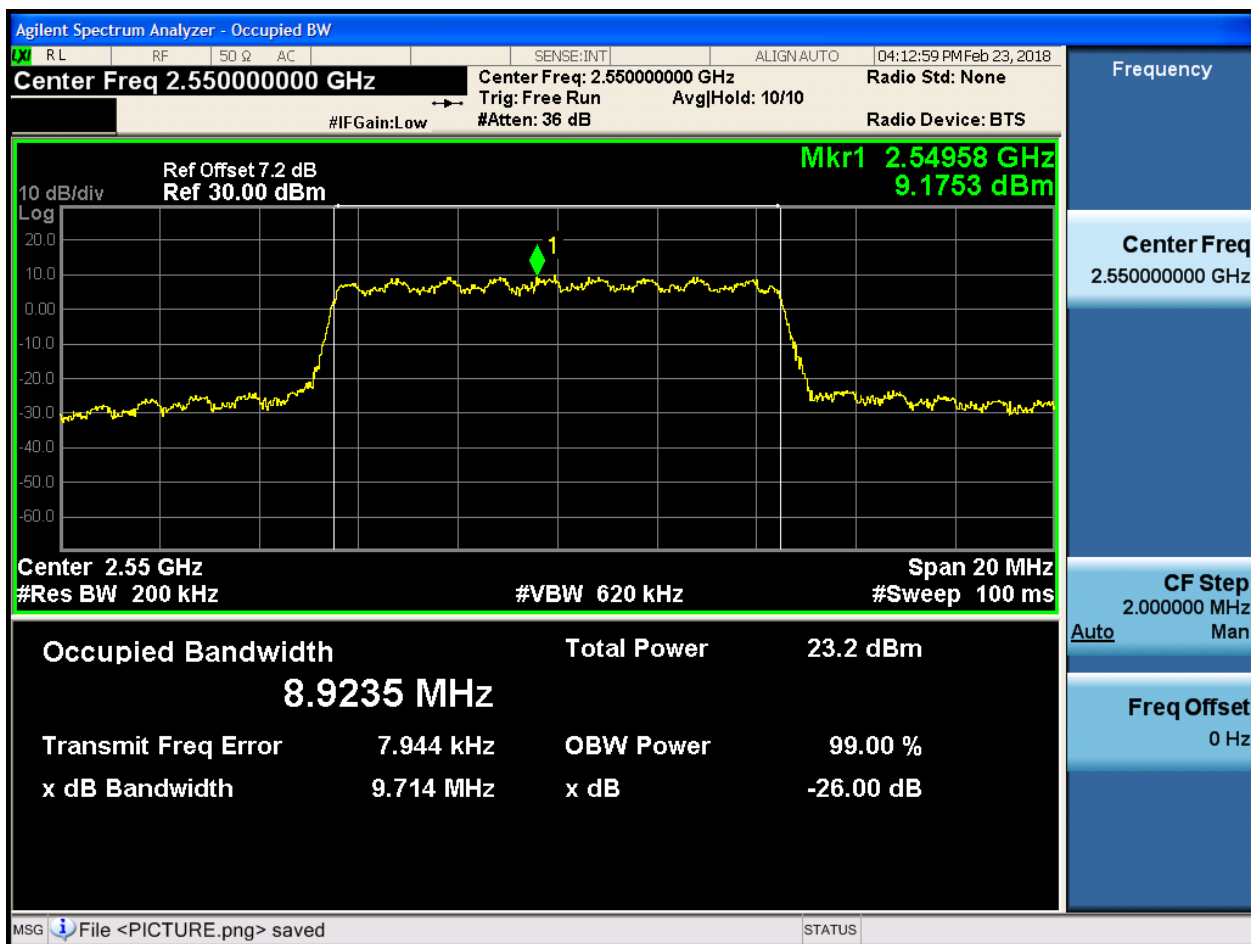




4.1.2.2.2 Test Bandwidth = 10

4.1.2.2.2.1 Test Channel = LCH

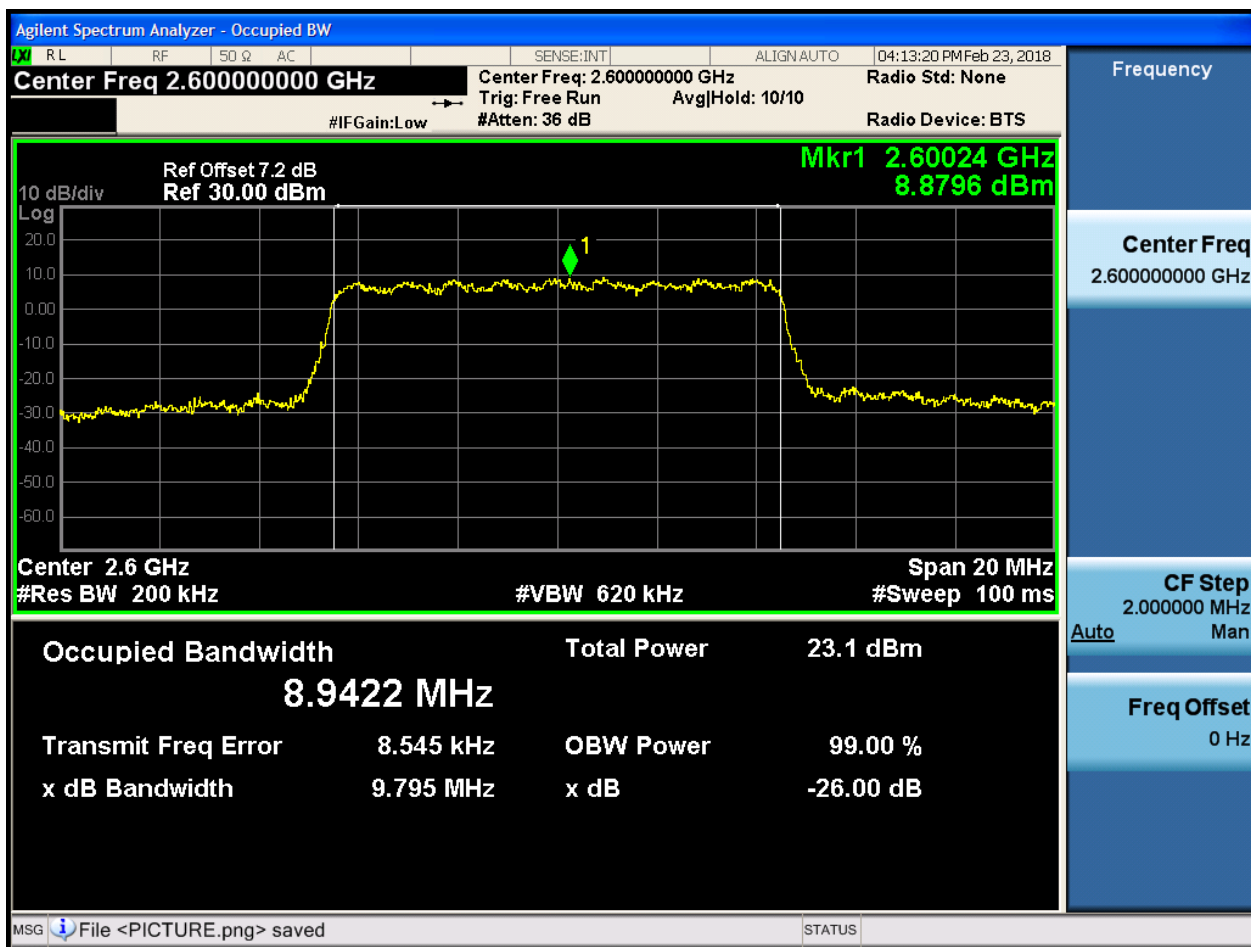
4.1.2.2.2.1.1 Test RB = RB50#0





4.1.2.2.2 Test Channel = MCH

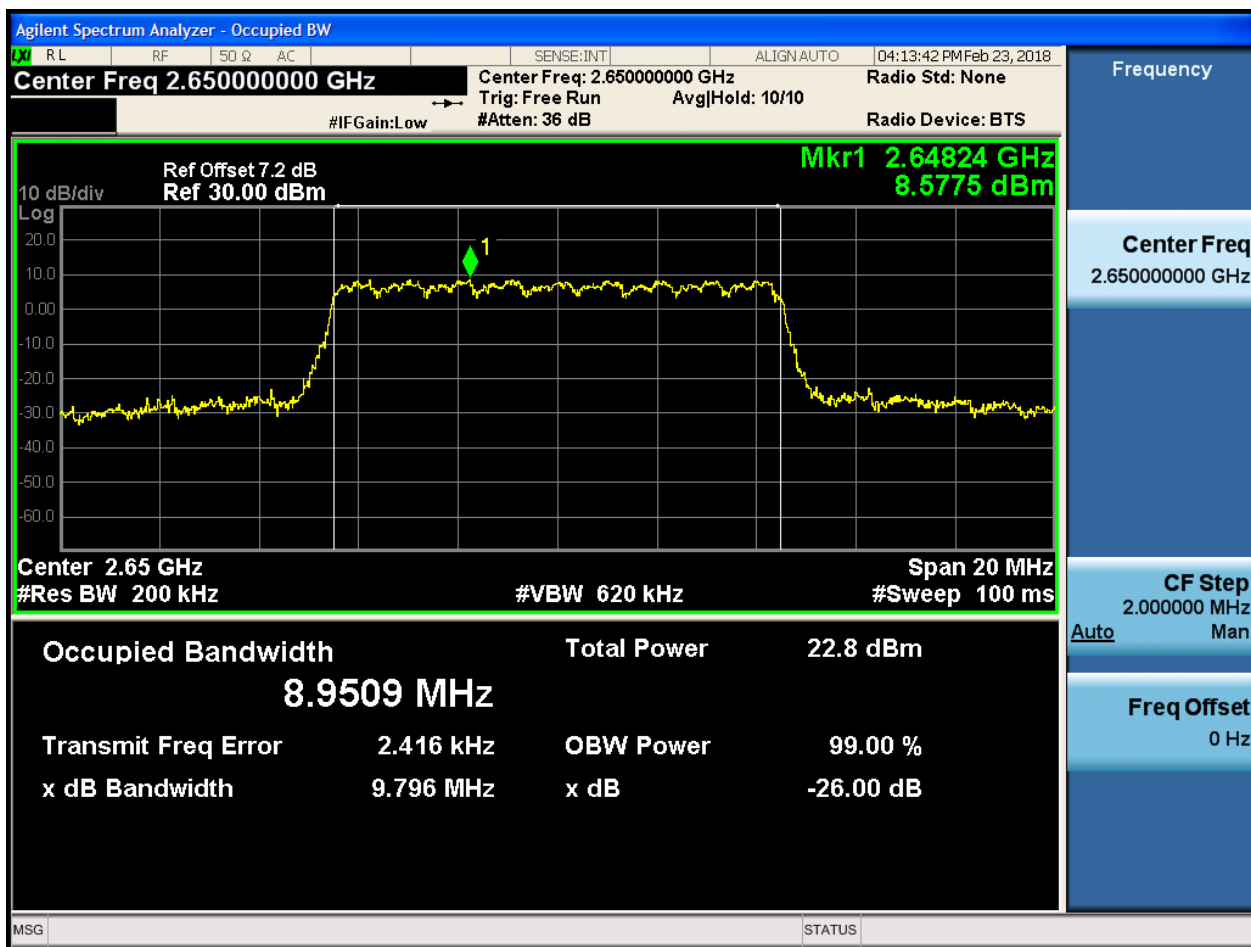
4.1.2.2.2.1 Test RB = RB50#0





4.1.2.2.2.3 Test Channel = HCH

4.1.2.2.2.3.1 Test RB = RB50#0

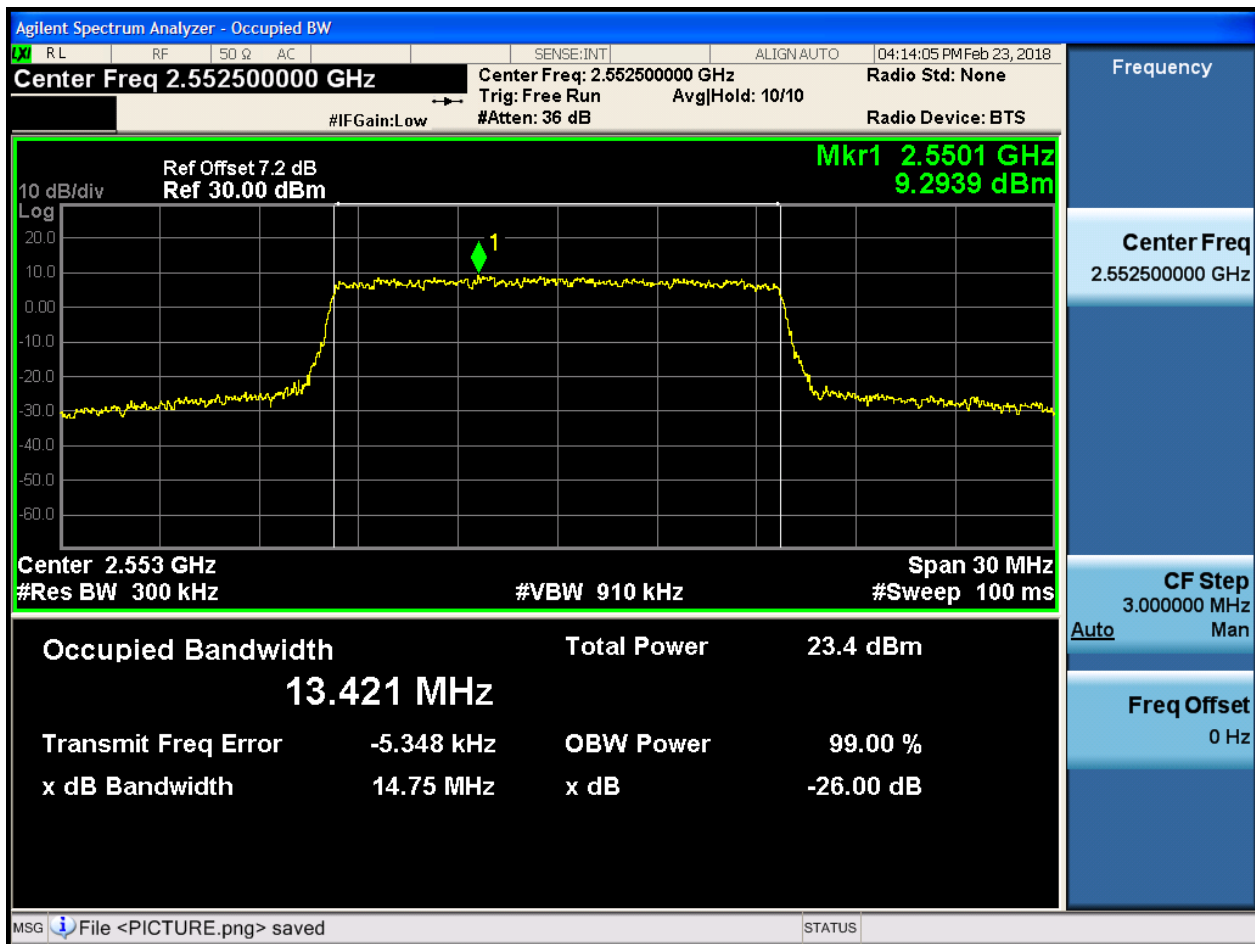




4.1.2.2.3 Test Bandwidth = 15

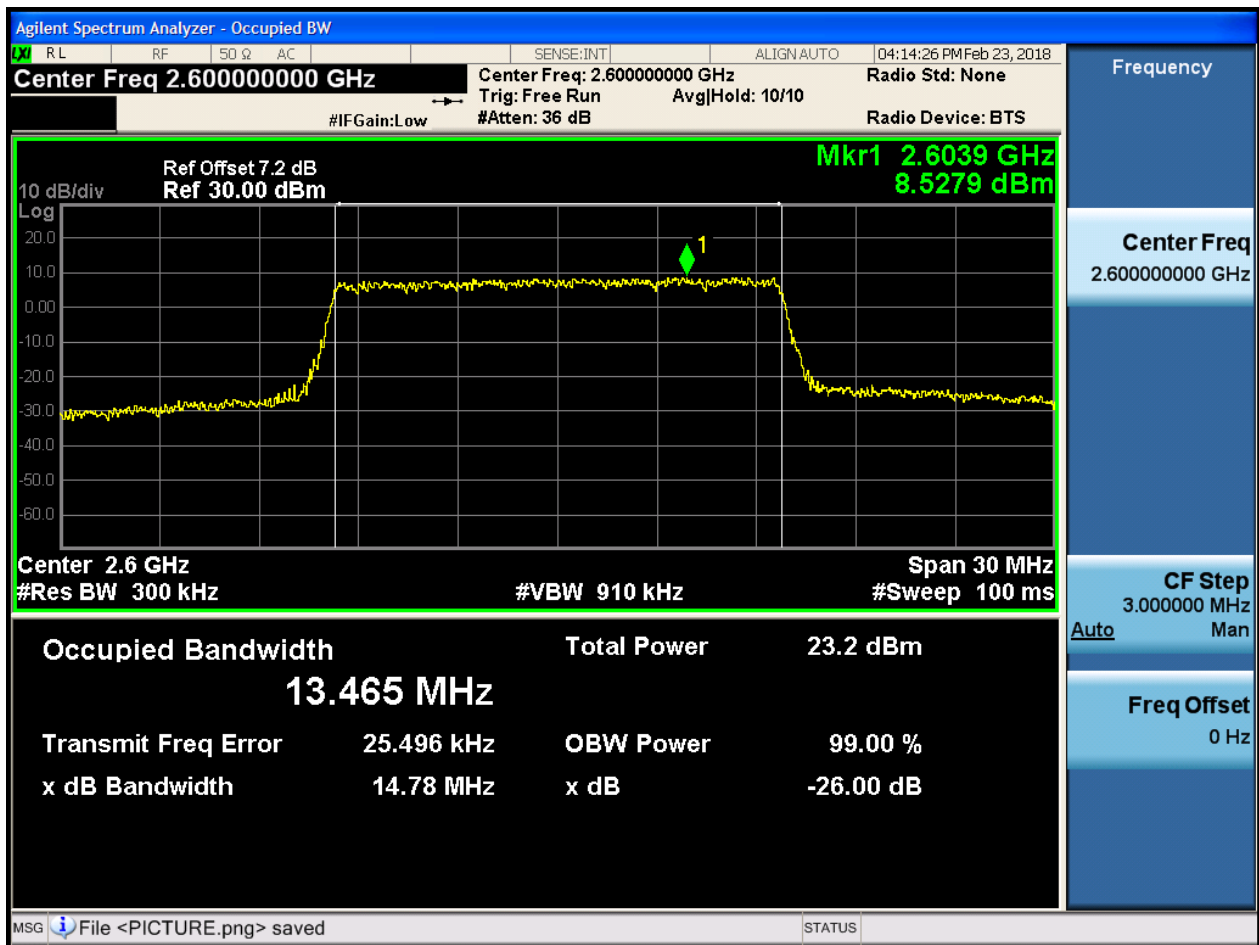
4.1.2.2.3.1 Test Channel = LCH

4.1.2.2.3.1.1 Test RB = RB75#0



4.1.2.2.3.2 Test Channel = MCH

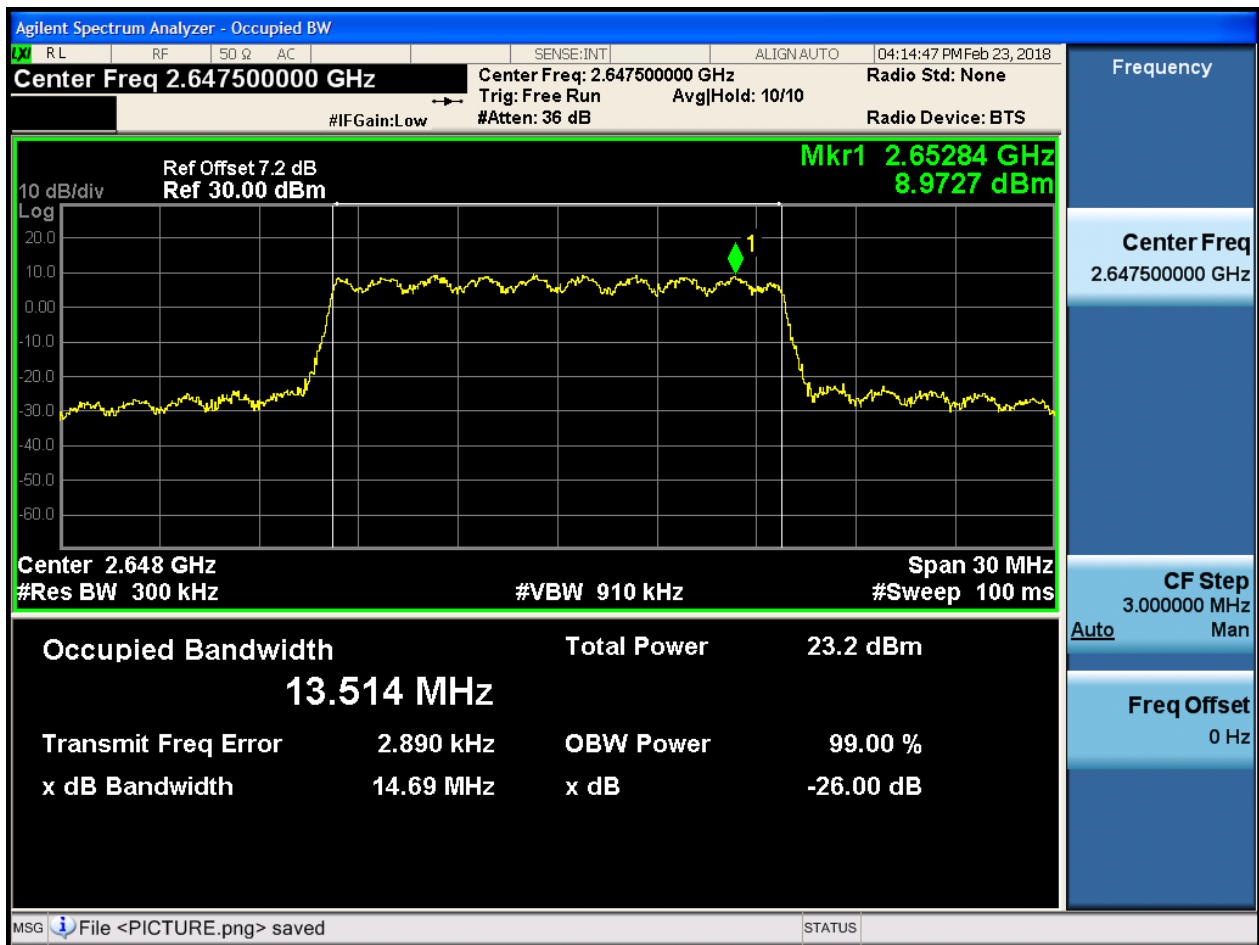
4.1.2.2.3.2.1 Test RB = RB75#0





4.1.2.2.3.3 Test Channel = HCH

4.1.2.2.3.3.1 Test RB = RB75#0

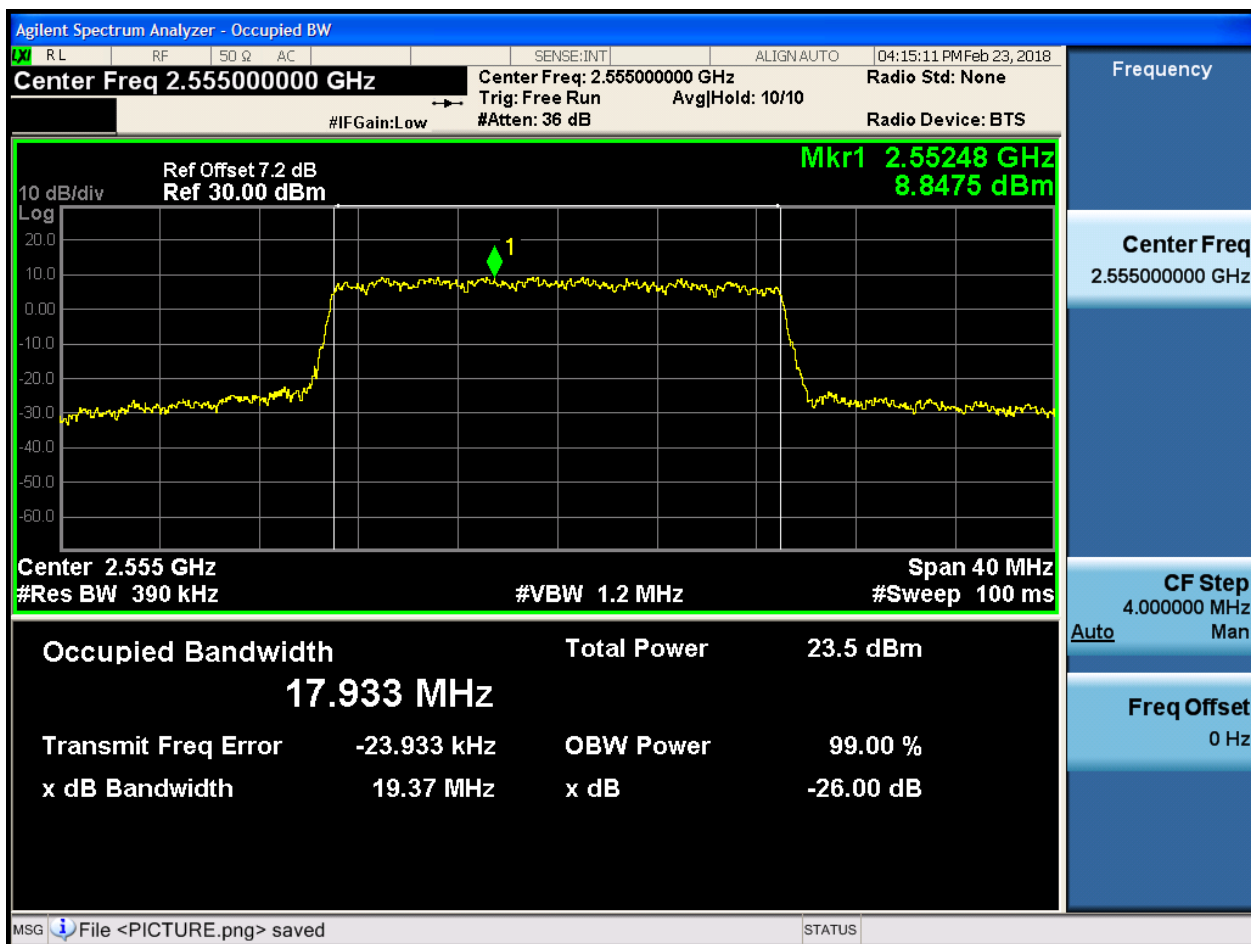




4.1.2.2.4 Test Bandwidth = 20

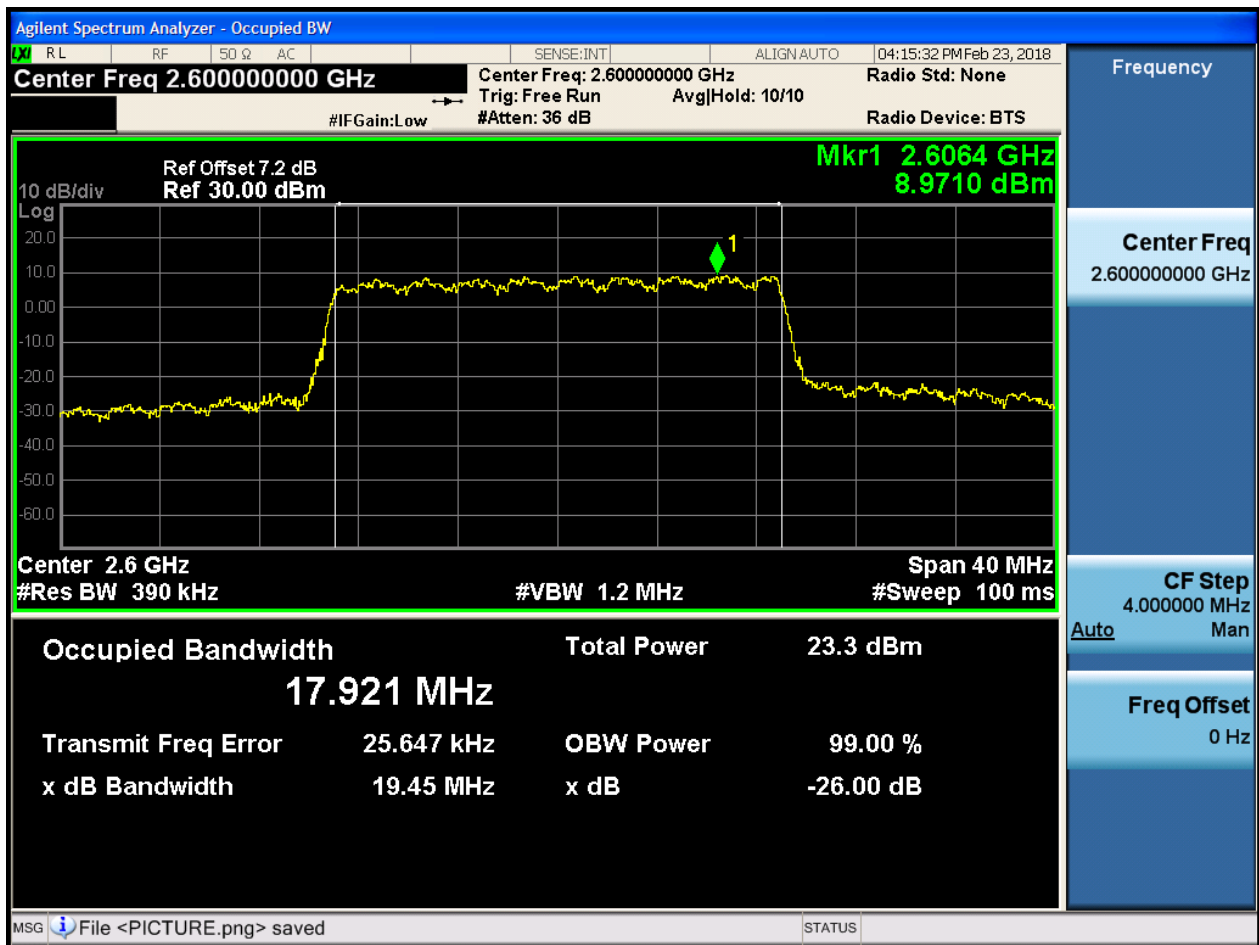
4.1.2.2.4.1 Test Channel = LCH

4.1.2.2.4.1.1 Test RB = RB100#0



4.1.2.2.4.2 Test Channel = MCH

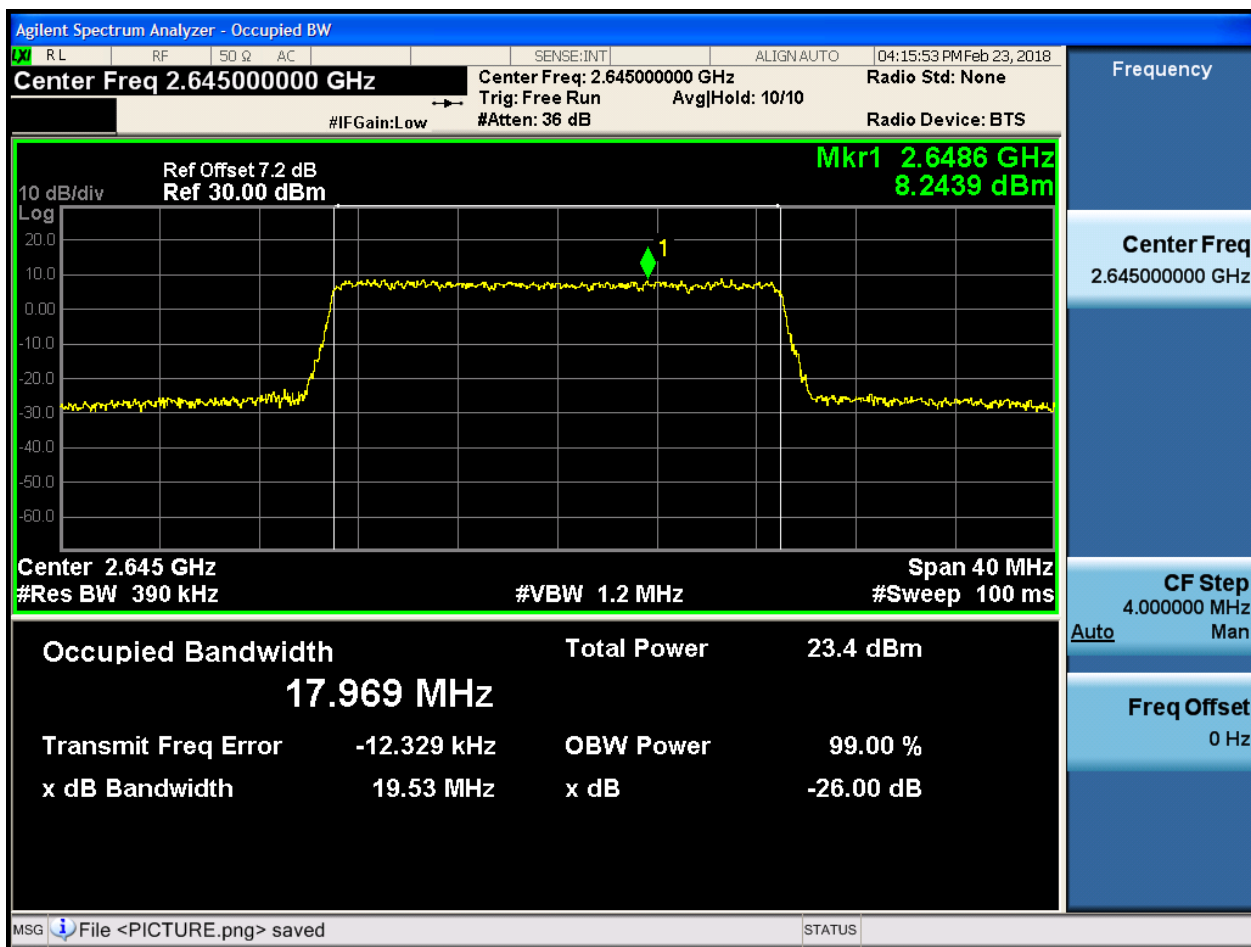
4.1.2.2.4.2.1 Test RB = RB100#0





4.1.2.2.4.3 Test Channel = HCH

4.1.2.2.4.3.1 Test RB = RB100#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

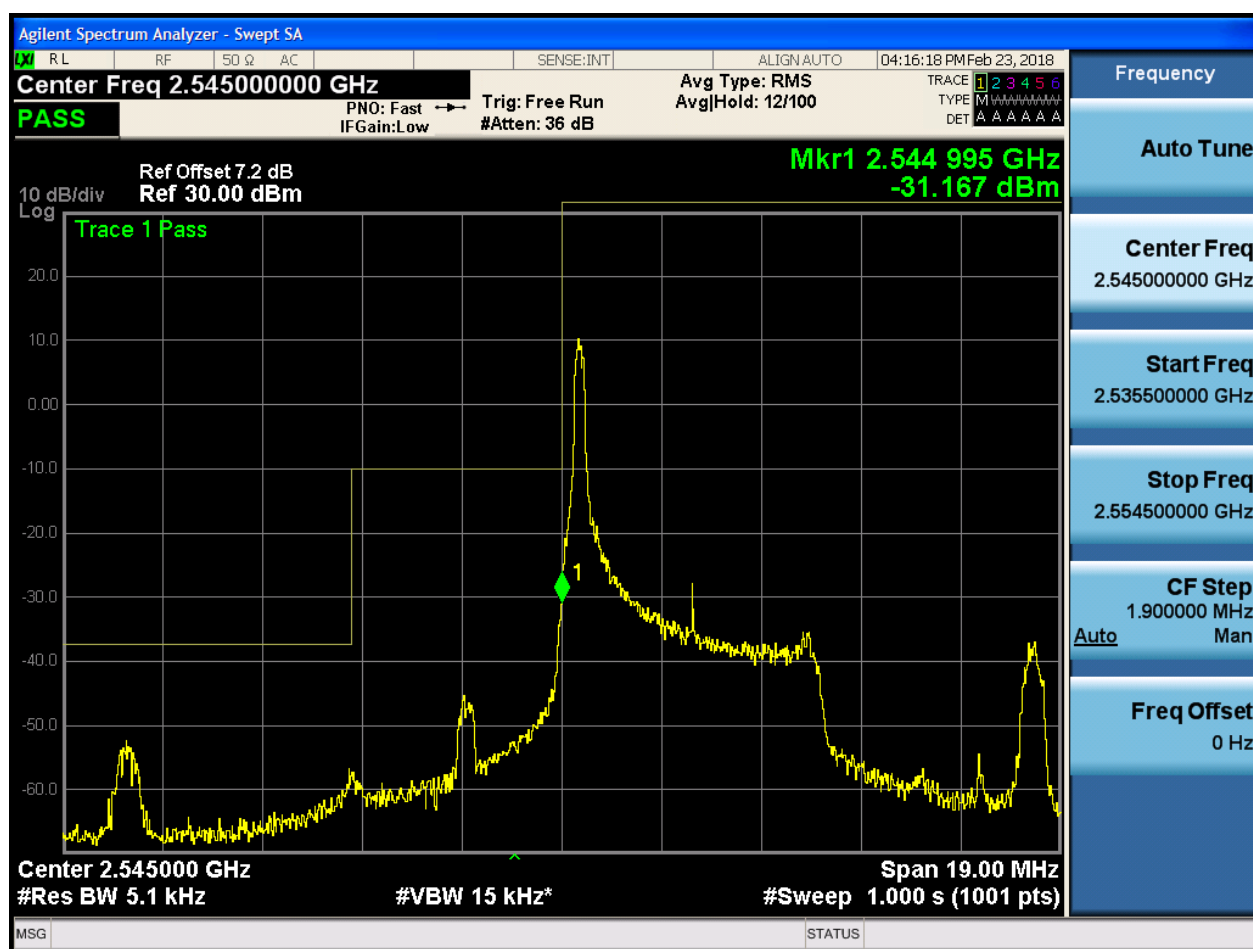
5.1.1 Test Band = BAND41

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



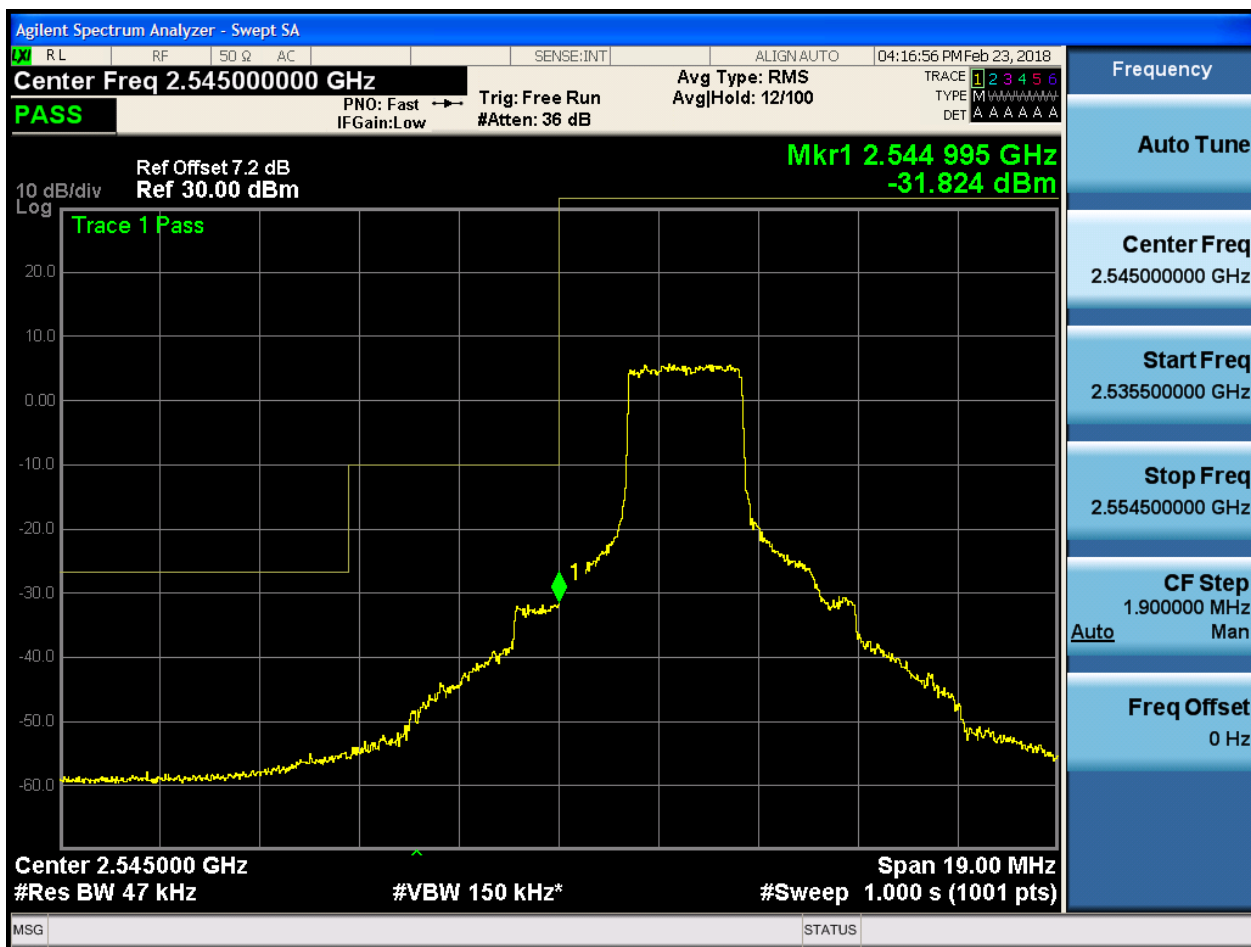


5.1.1.1.1.2 Test RB = RB1#24



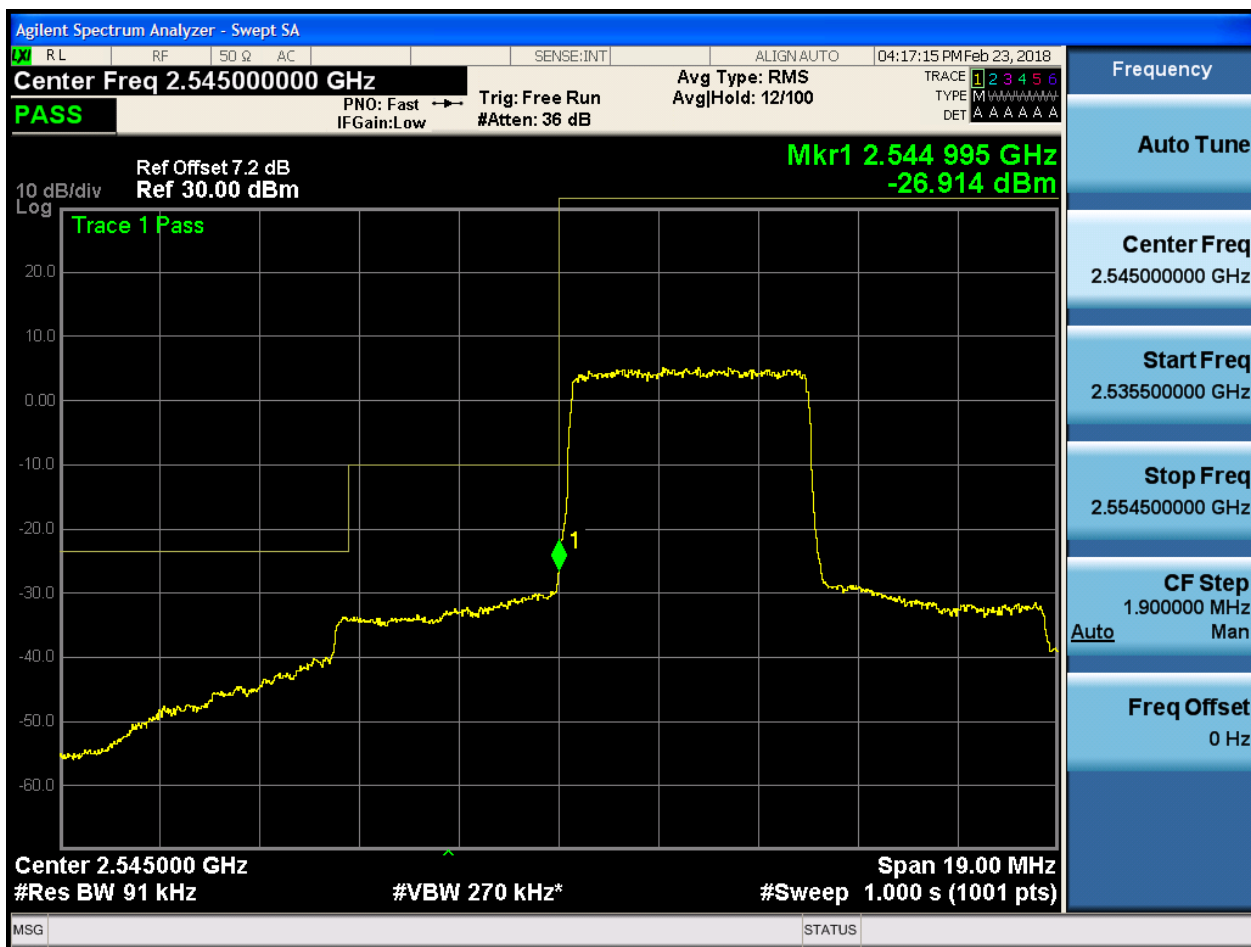


5.1.1.1.1.3 Test RB = RB12#6





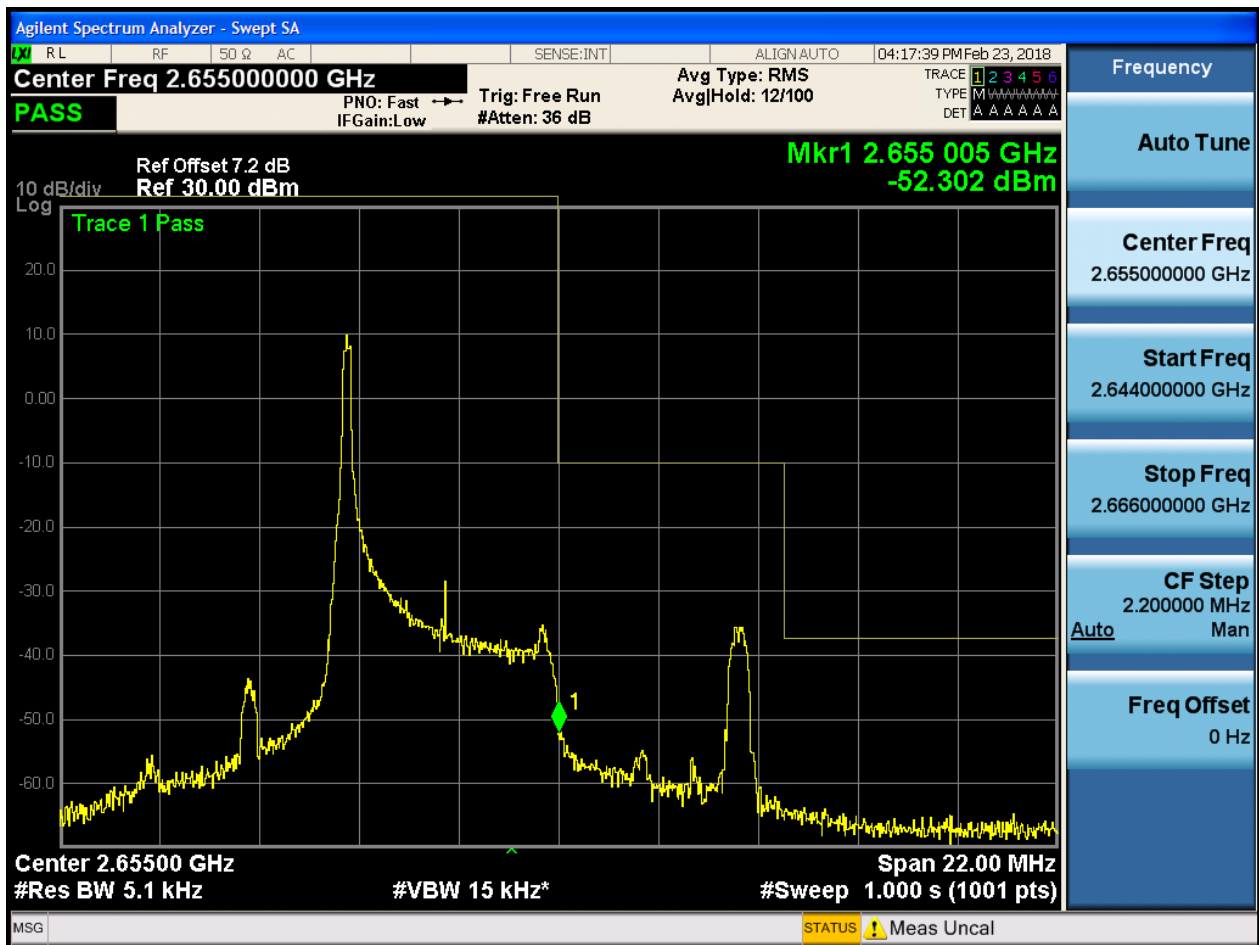
5.1.1.1.1.4 Test RB = RB25#0





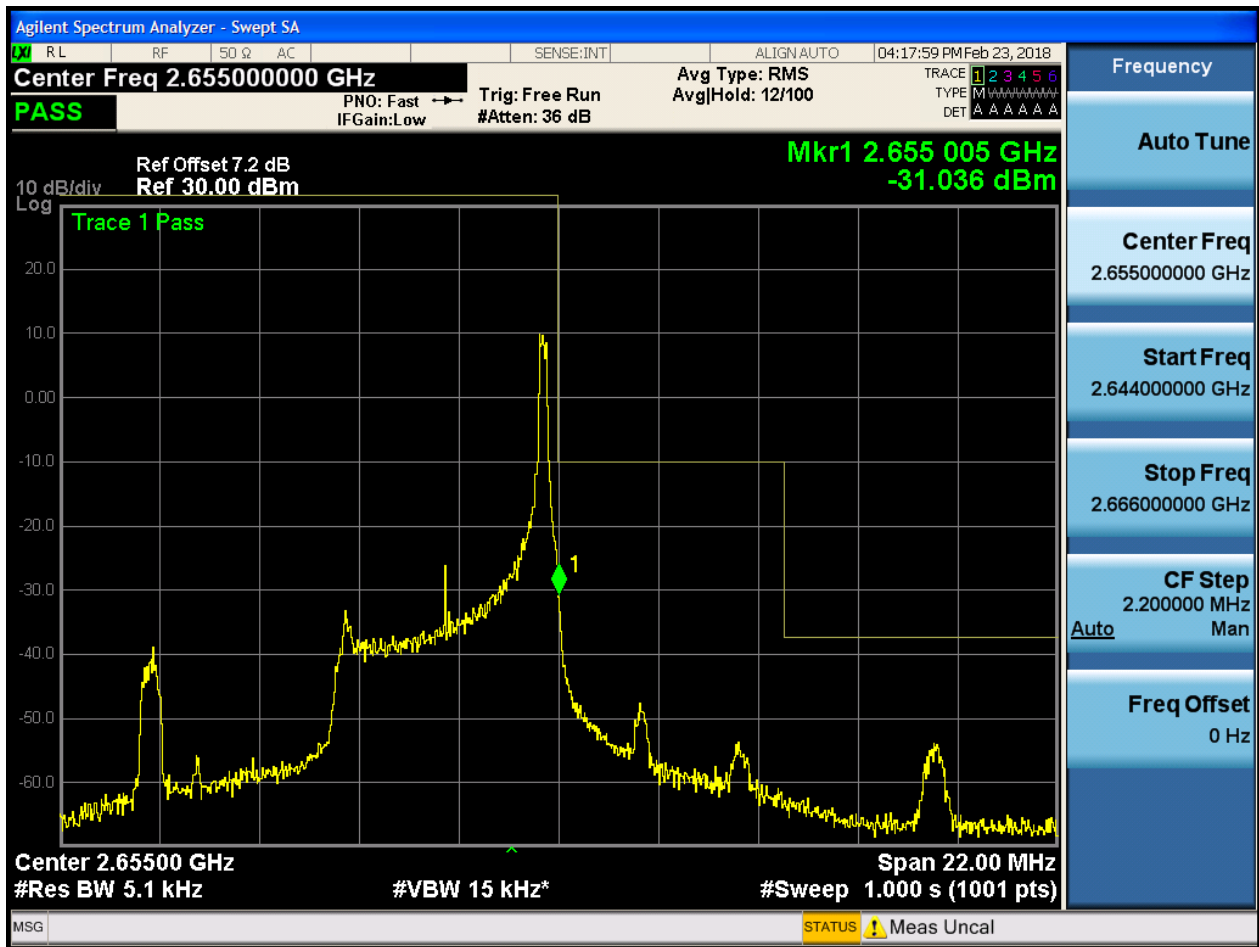
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



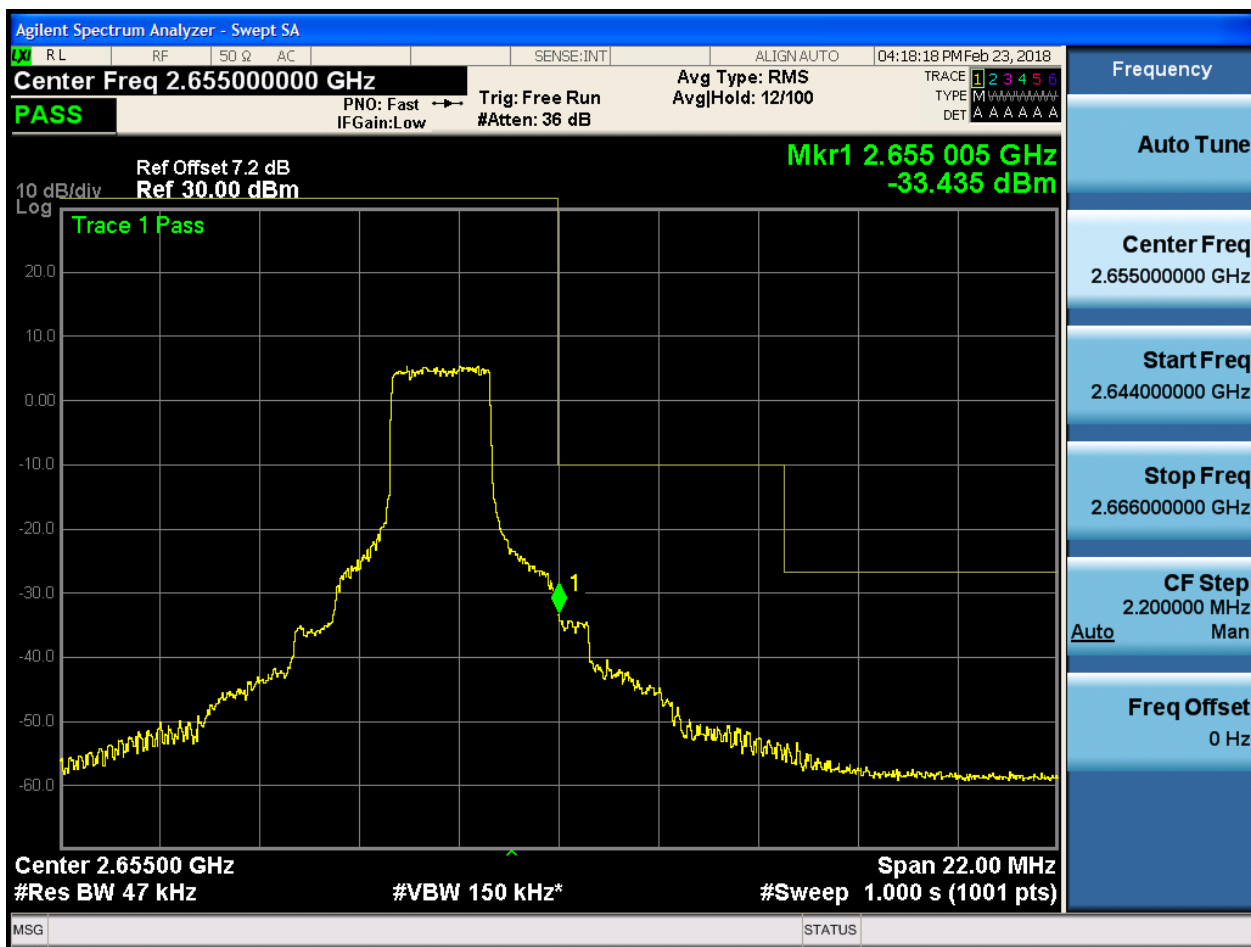


5.1.1.1.2.2 Test RB = RB1#24





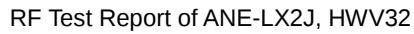
5.1.1.1.1.2.3 Test RB = RB12#6

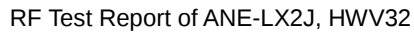




5.1.1.1.2.4 Test RB = RB25#0







Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:19:22 PM Feb 23, 2018

Center Freq 2.545000000 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 W W
DET A A A A A A

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-57.076 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 GHz Span 19.00 MHz
#Res BW 5.1 kHz #VBW 15 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.545000000 GHz

Start Freq
2.535500000 GHz

Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:19:41 PM Feb 23, 2018

Center Freq 2.545000000 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
DET A A A A A A

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-33.747 dBm

10 dB/div
Log

Trace 1 Pass

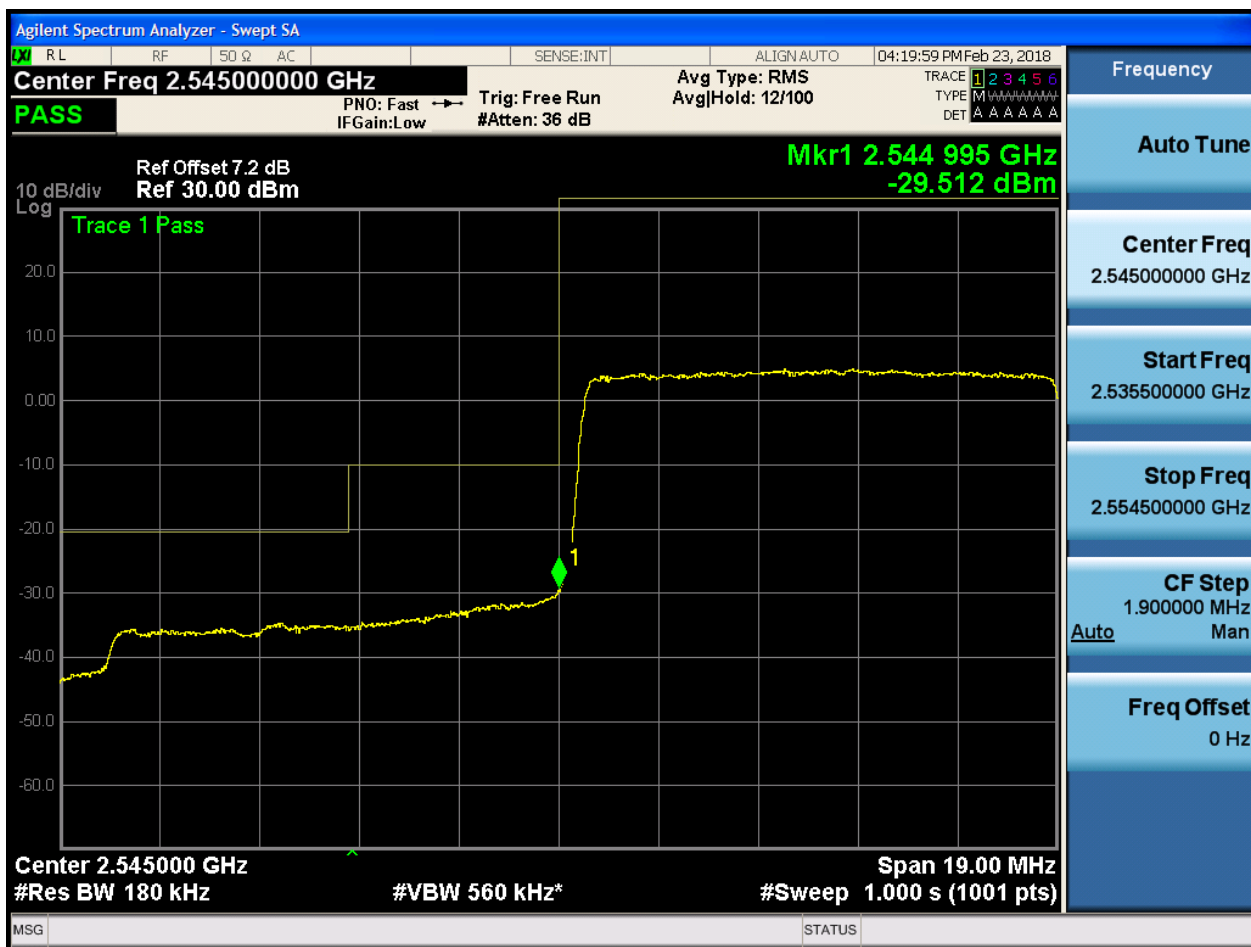
Center 2.545000 GHz
#Res BW 91 kHz
#VBW 270 kHz
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
2.545000000 GHz
Start Freq
2.535000000 GHz
Stop Freq
2.554500000 GHz
CF Step
1.900000 MHz
Auto Man
Freq Offset
0 Hz



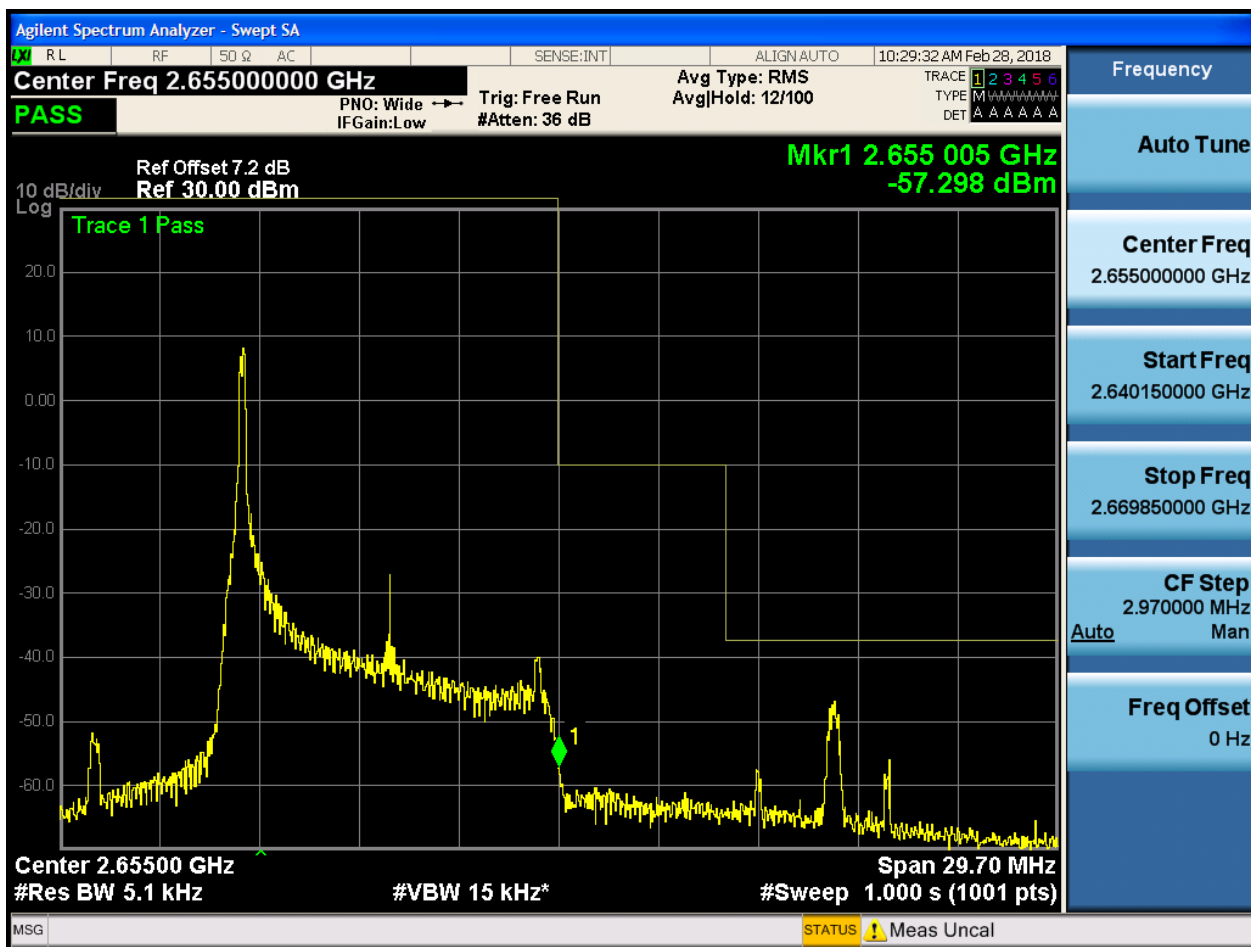
5.1.1.1.2.1.4 Test RB = RB50#0

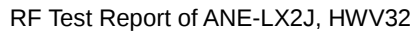




5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:20:43 PM Feb 23, 2018

Center Freq 2.655000000 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 W W
DET A A A A A A

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-38.736 dBm

10 dB/div
Log

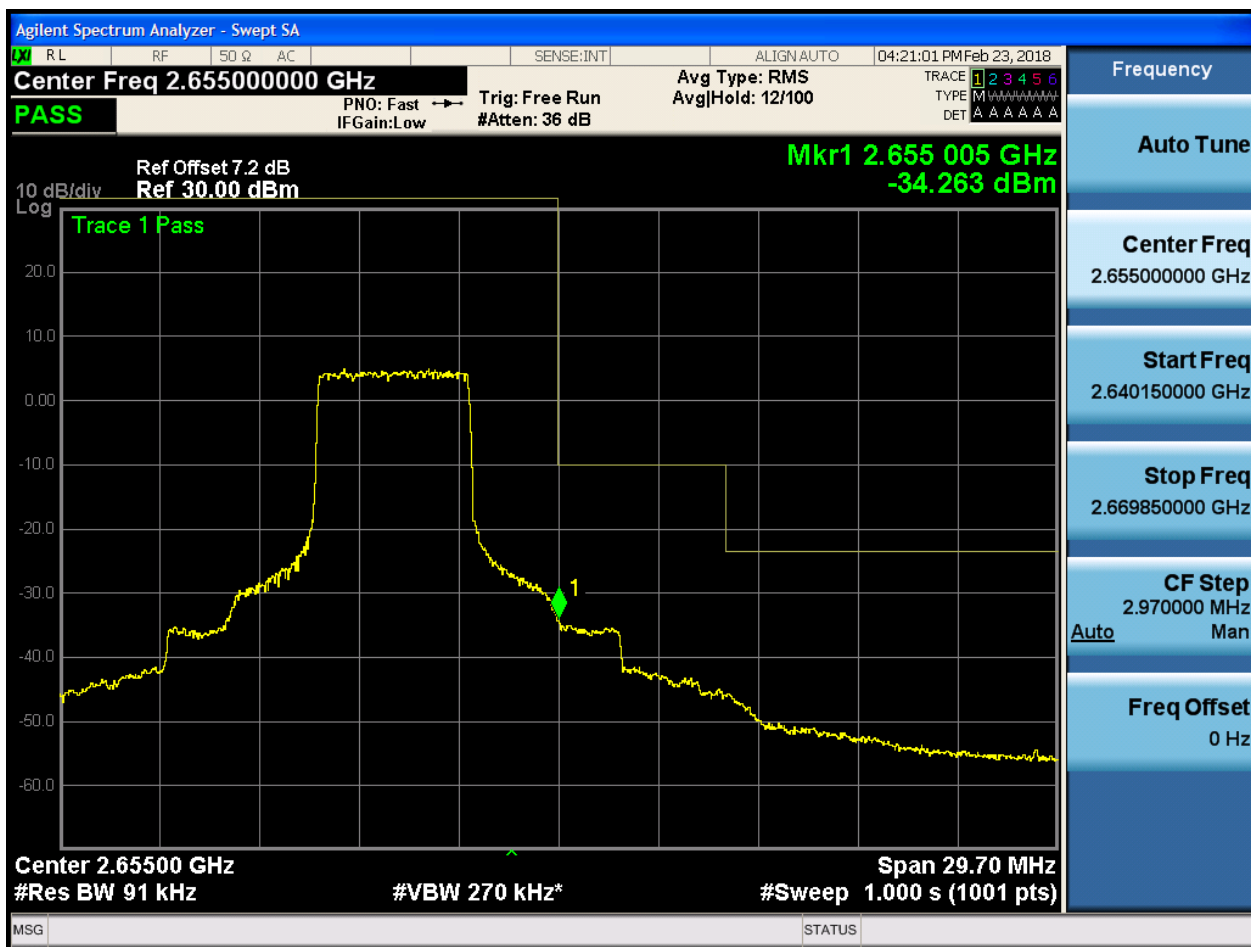
Trace 1 Pass

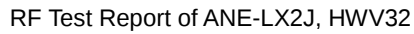
Center 2.65500 GHz
#Res BW 5.1 kHz #VBW 15 kHz* Span 29.70 MHz
#Sweep 1.000 s (1001 pts)

STATUS Meas Uncal



5.1.1.1.2.2.3 Test RB = RB25#13





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:21:20 PM Feb 23, 2018

Center Freq 2.655000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run Avg/Hold: 12/100
IFGain:Low #Atten: 36 dB

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

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-29.591 dBm

10 dB/div
Log

Trace 1 Pass

The spectrum analyzer trace shows a signal at 2.655 GHz with a sharp drop in power at 2.66985 GHz. The signal is labeled 'Trace 1 Pass' and the drop is labeled '1'. The signal is centered at 2.655000000 GHz with a span of 29.70 MHz. The resolution bandwidth is 180 kHz and the video bandwidth is 560 kHz. The sweep time is 1.000 s (1001 pts). The signal level is -29.591 dBm at the marker frequency. The trace shows a sharp drop in power at 2.66985 GHz, which is the stop frequency. The signal is centered at 2.655 GHz with a span of 29.70 MHz. The resolution bandwidth is 180 kHz and the video bandwidth is 560 kHz. The sweep time is 1.000 s (1001 pts). The signal level is -29.591 dBm at the marker frequency.

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

Span 29.70 MHz

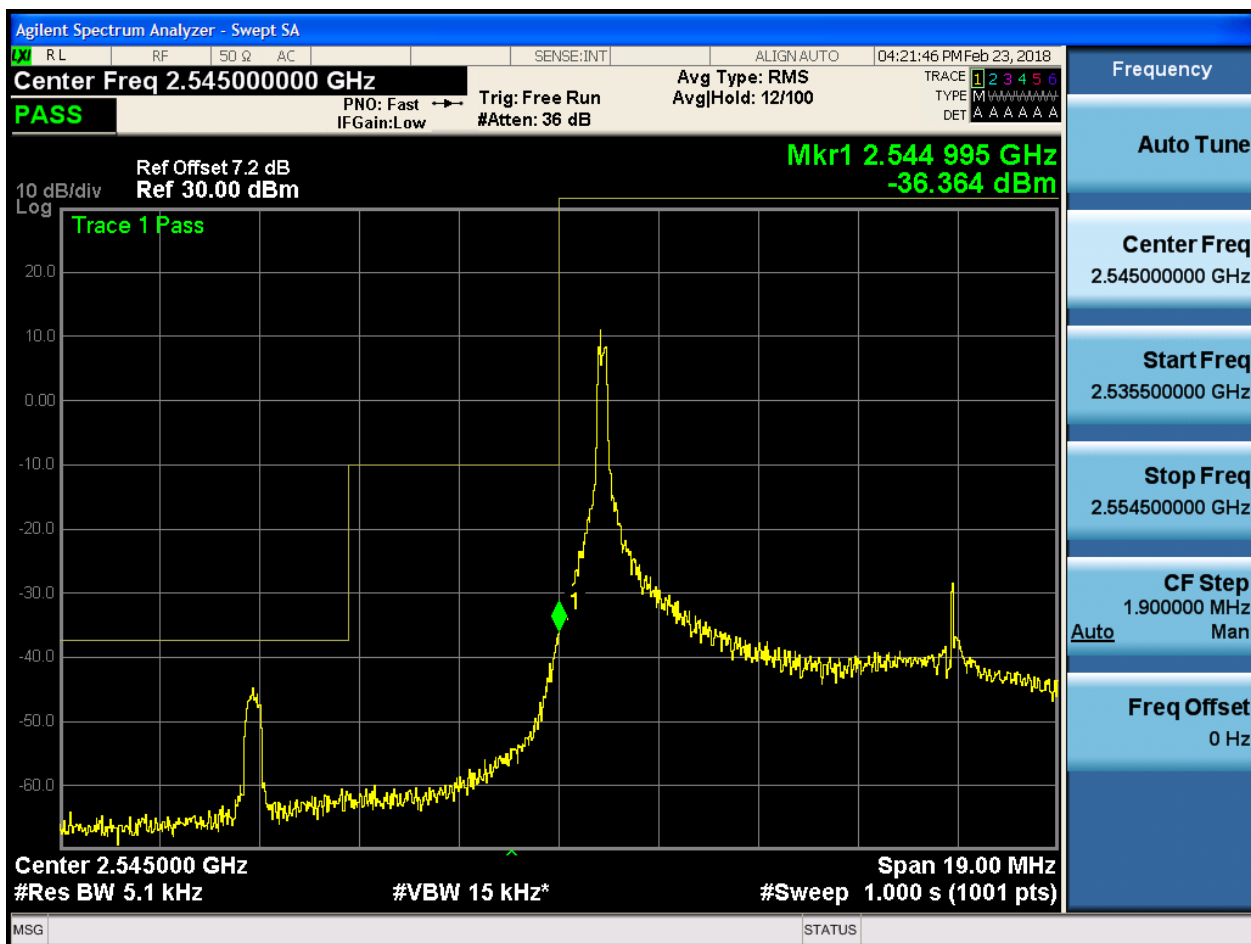
MSG STATUS

Frequency
Auto Tune
Center Freq 2.655000000 GHz
Start Freq 2.640150000 GHz
Stop Freq 2.669850000 GHz
CF Step 2.970000 MHz Auto Man
Freq Offset 0 Hz

5.1.1.1.3 Test Bandwidth = 15

5.1.1.1.3.1 Test Channel = LCH

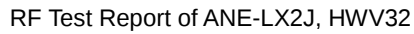
5.1.1.1.3.1.1 Test RB = RB1#0





5.1.1.1.3.1.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:22:24 PM Feb 23, 2018

Center Freq 2.545000000 GHz Avg Type: RMS
#Res BW 130 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Fast → #Atten: 36 dB

PASS

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-33.134 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 GHz Span 19.00 MHz
#Res BW 130 kHz #VBW 390 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.545000000 GHz

Start Freq
2.535500000 GHz

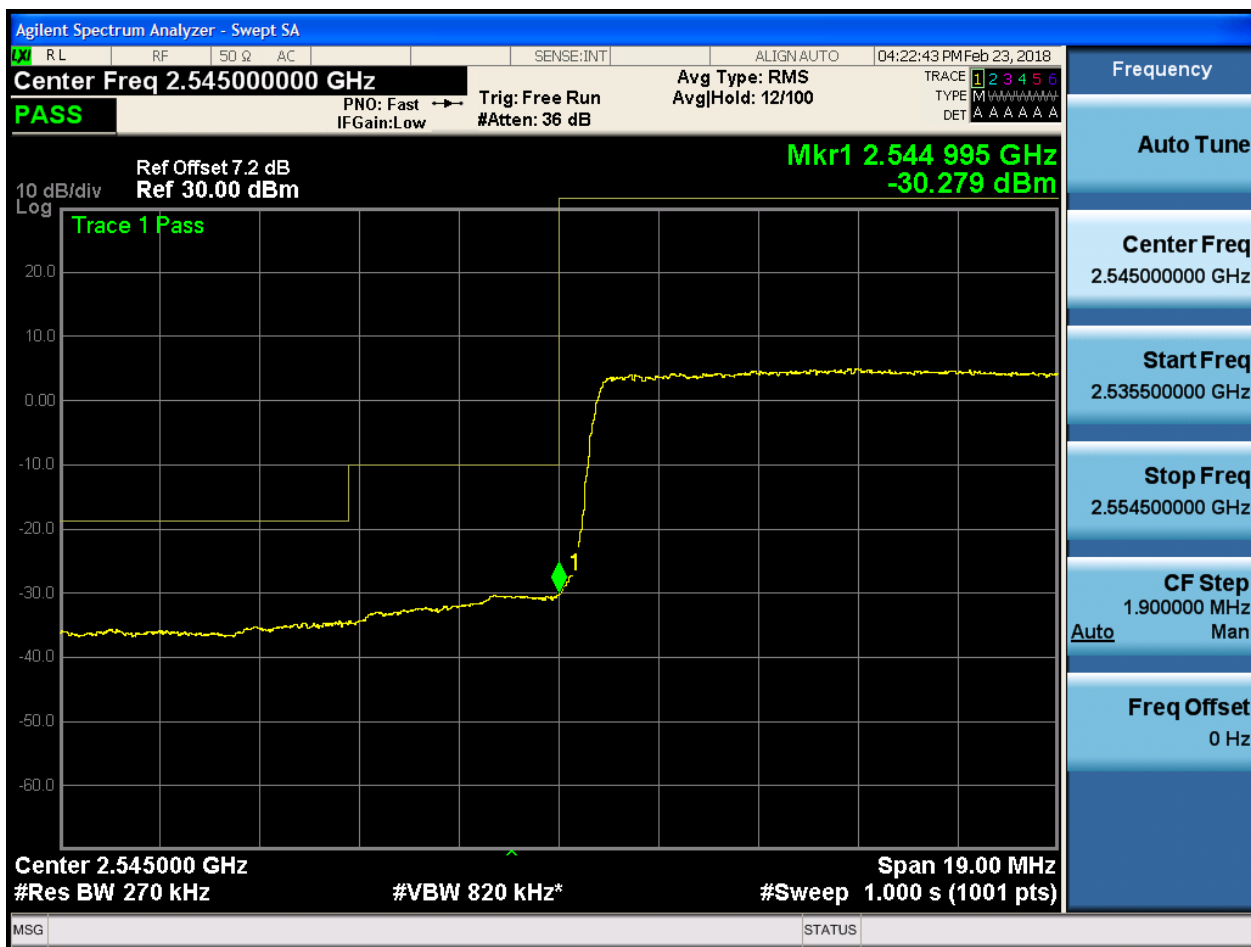
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.3.1.4 Test RB = RB75#0





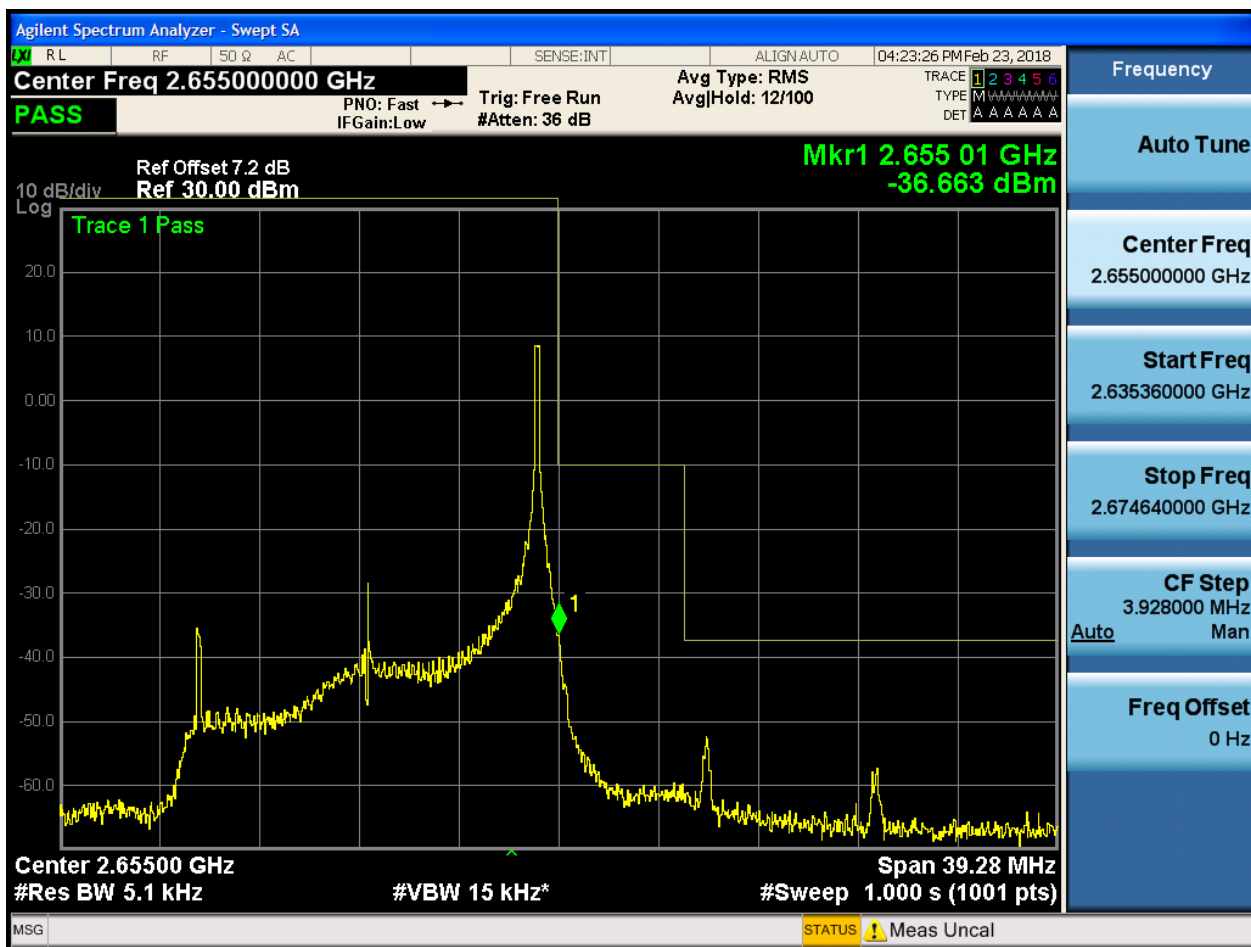
5.1.1.1.3.2 Test Channel = HCH

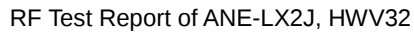
5.1.1.1.3.2.1 Test RB = RB1#0





5.1.1.1.3.2.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:23:45 PM Feb 23, 2018

Center Freq 2.655000000 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 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 01 GHz
-34.782 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.65500 GHz Span 39.28 MHz
#Res BW 130 kHz #VBW 390 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq 2.655000000 GHz
Start Freq 2.635360000 GHz
Stop Freq 2.674640000 GHz
CF Step 3.928000 MHz Auto Man
Freq Offset 0 Hz



5.1.1.1.3.2.4 Test RB = RB75#0

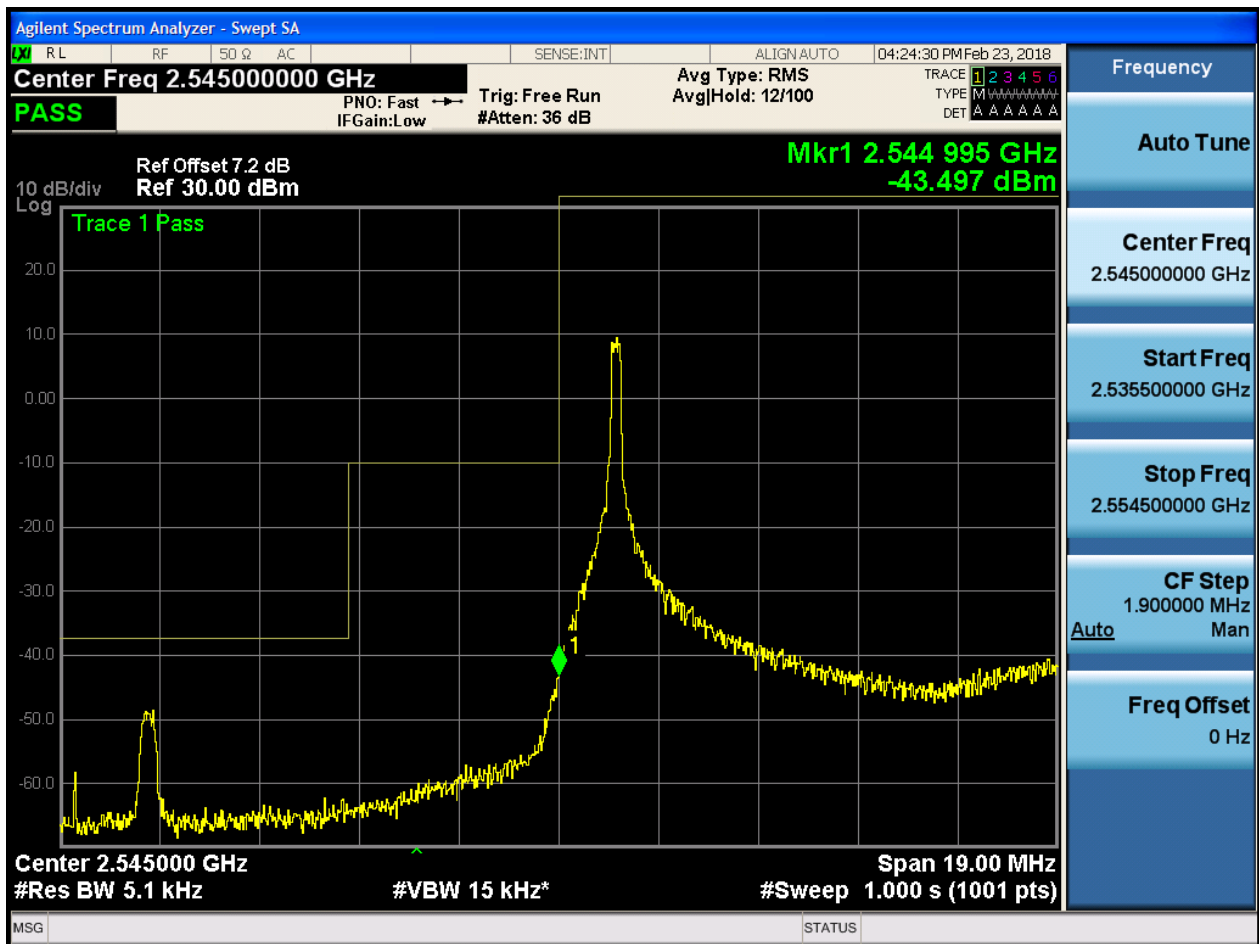




5.1.1.1.4 Test Bandwidth = 20

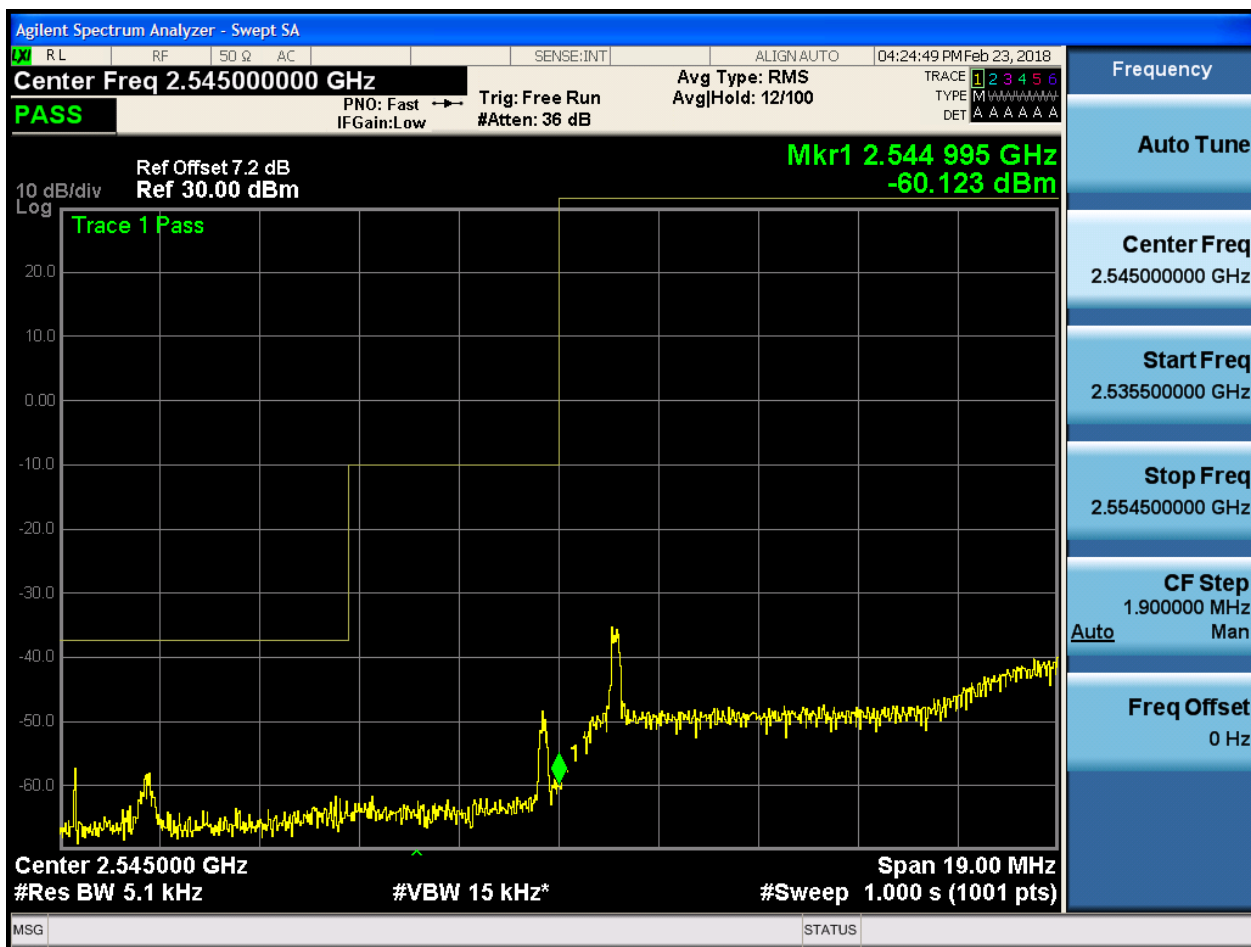
5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0



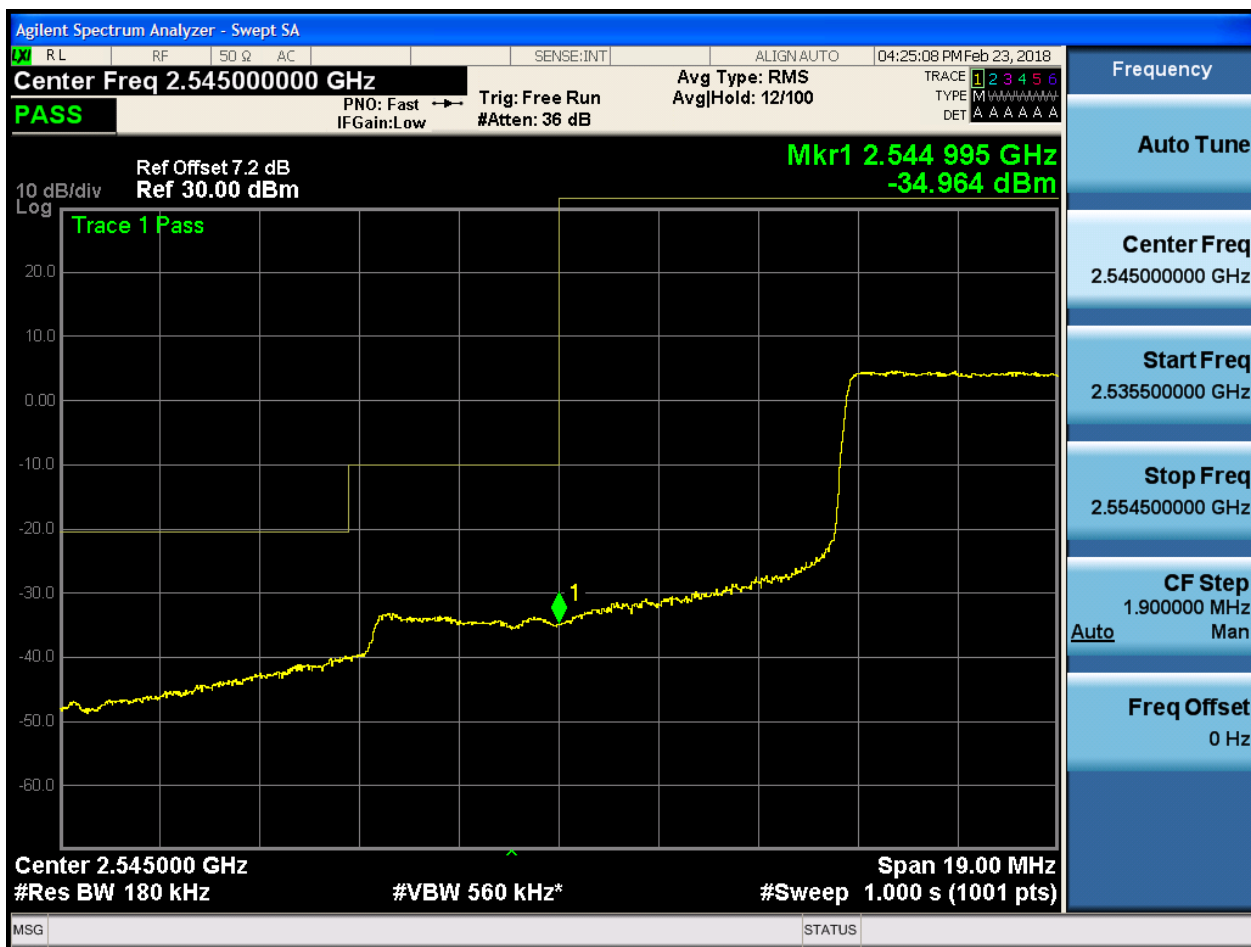


5.1.1.1.4.1.2 Test RB = RB1#99



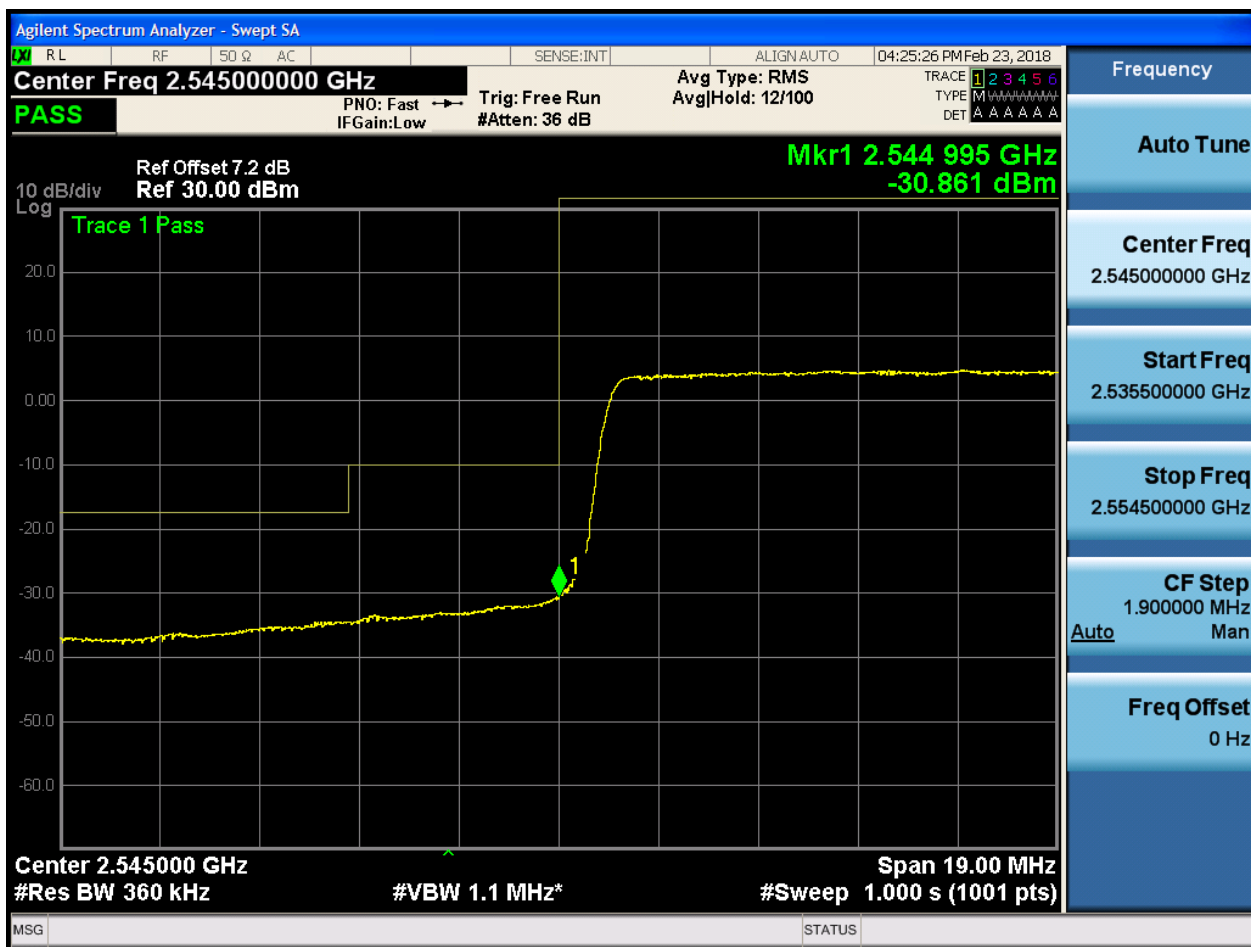


5.1.1.1.4.1.3 Test RB = RB50#25





5.1.1.1.4.1.4 Test RB = RB100#0





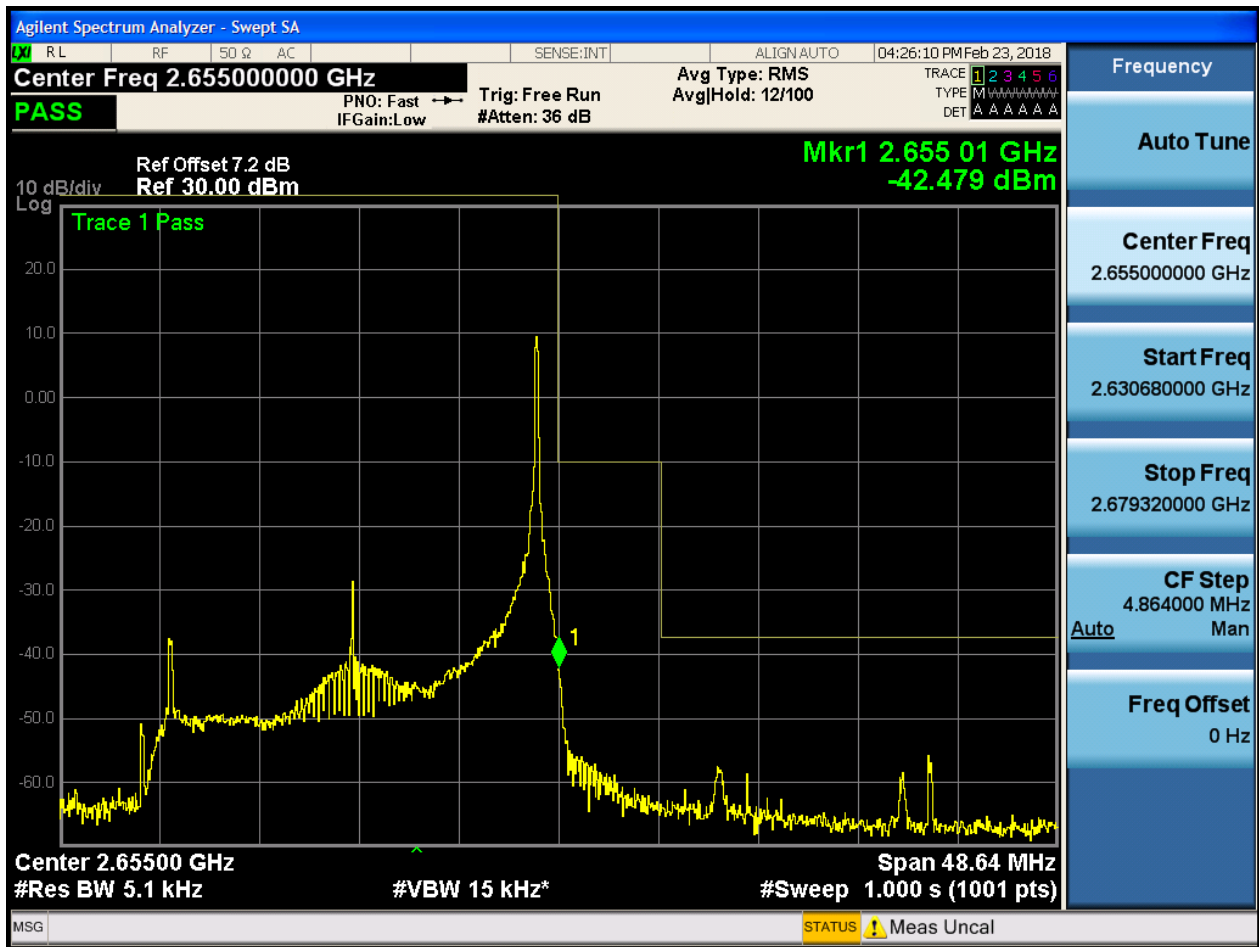
5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0



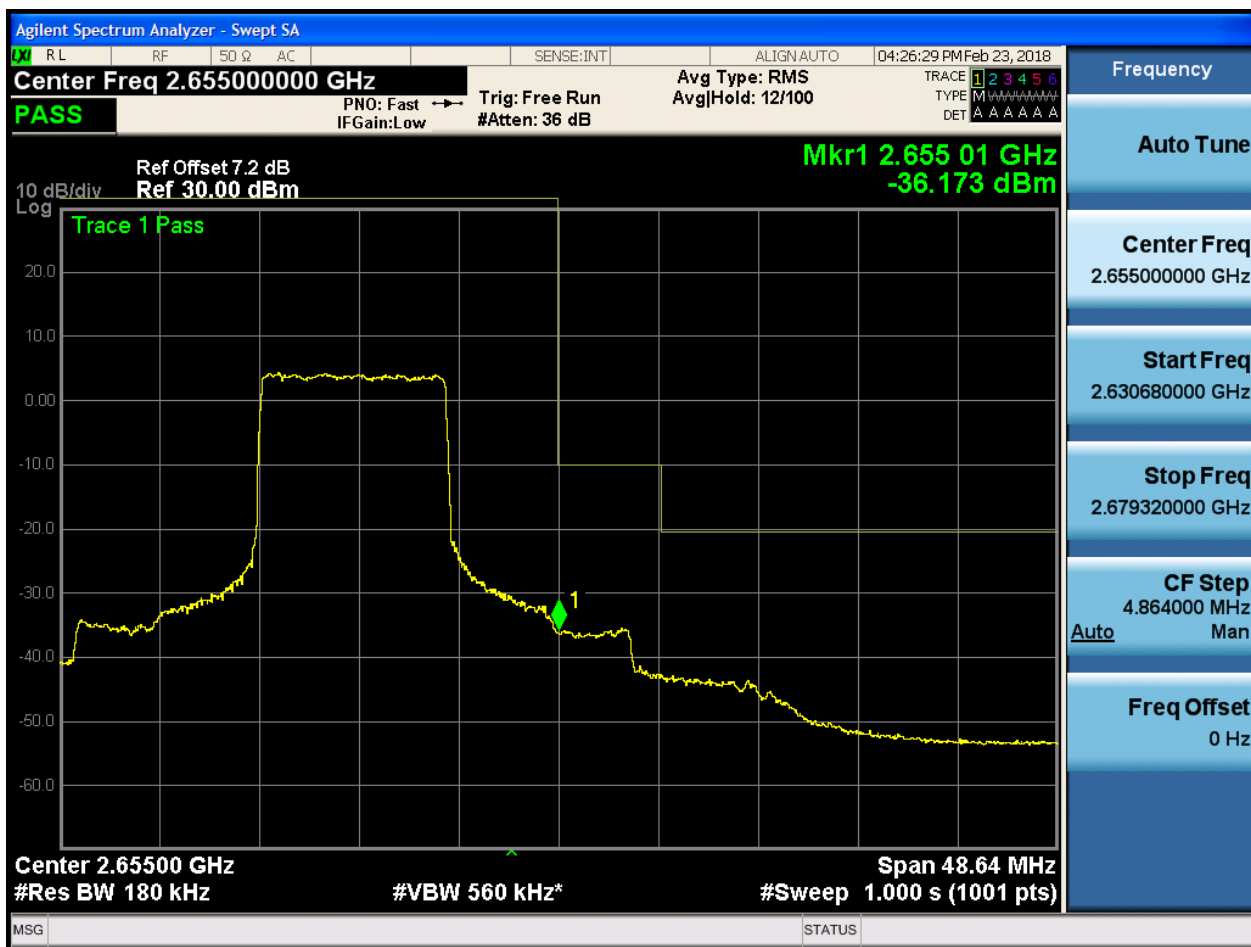


5.1.1.1.4.2.2 Test RB = RB1#99





5.1.1.1.4.2.3 Test RB = RB50#25





5.1.1.1.4.2.4 Test RB = RB100#0



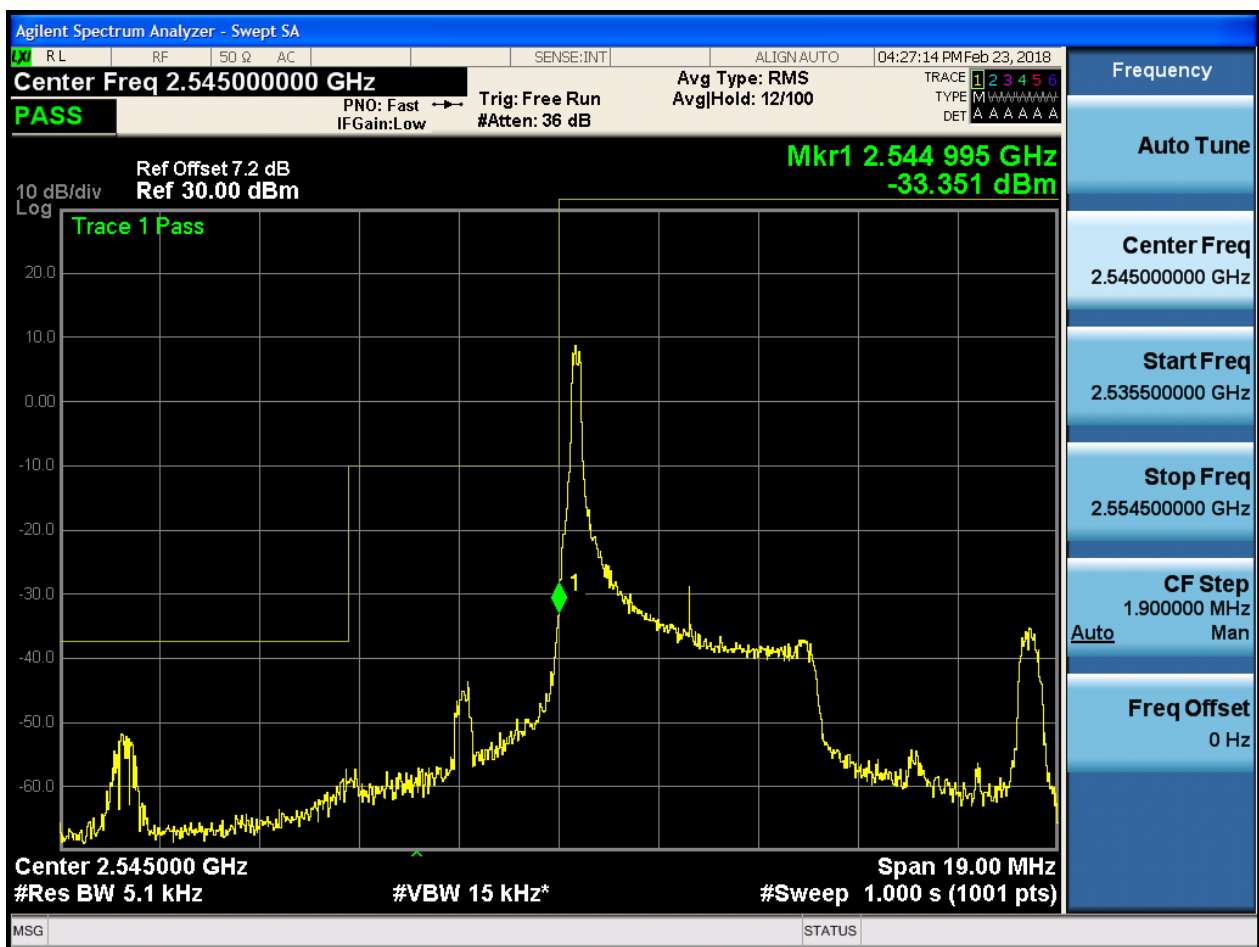


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

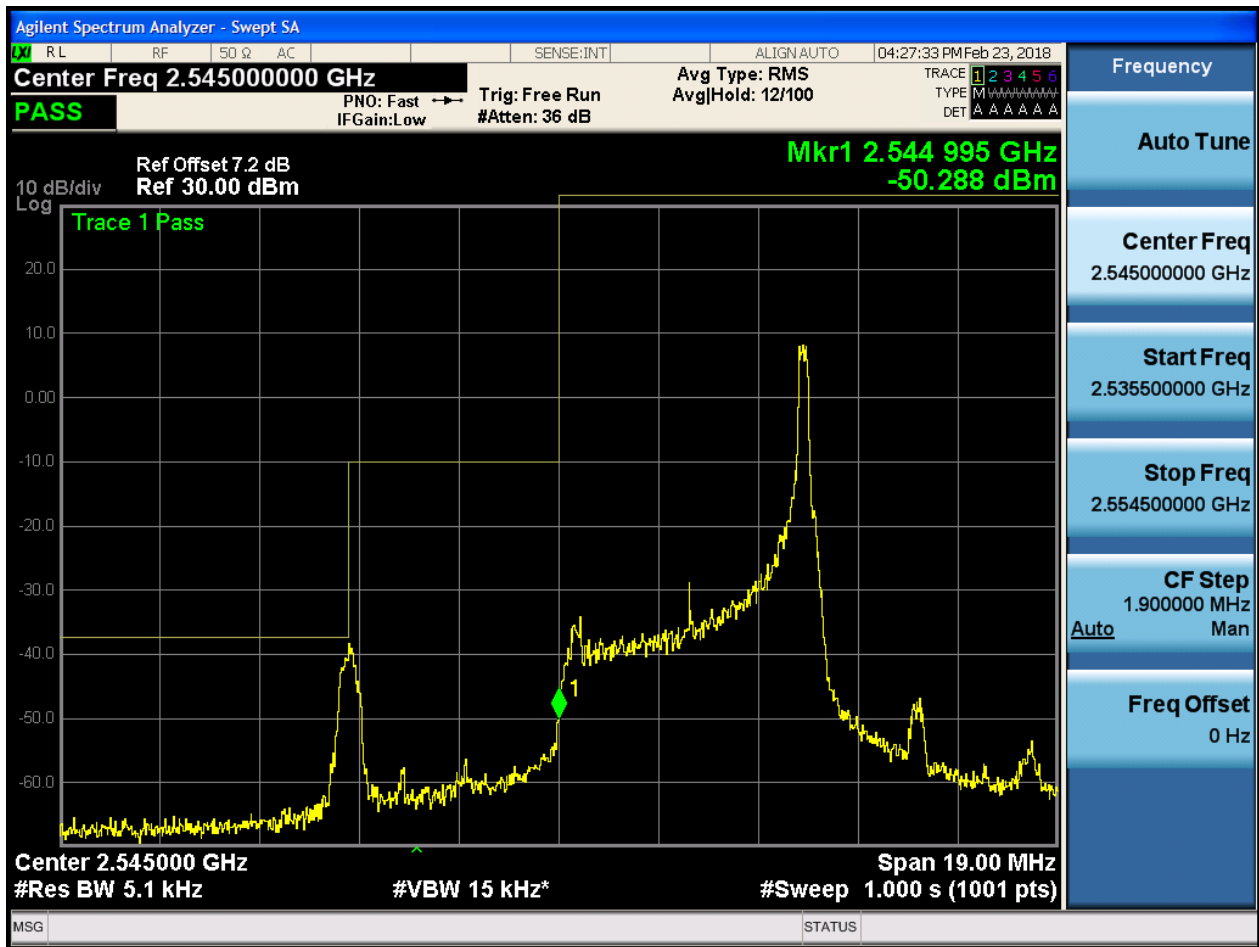
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



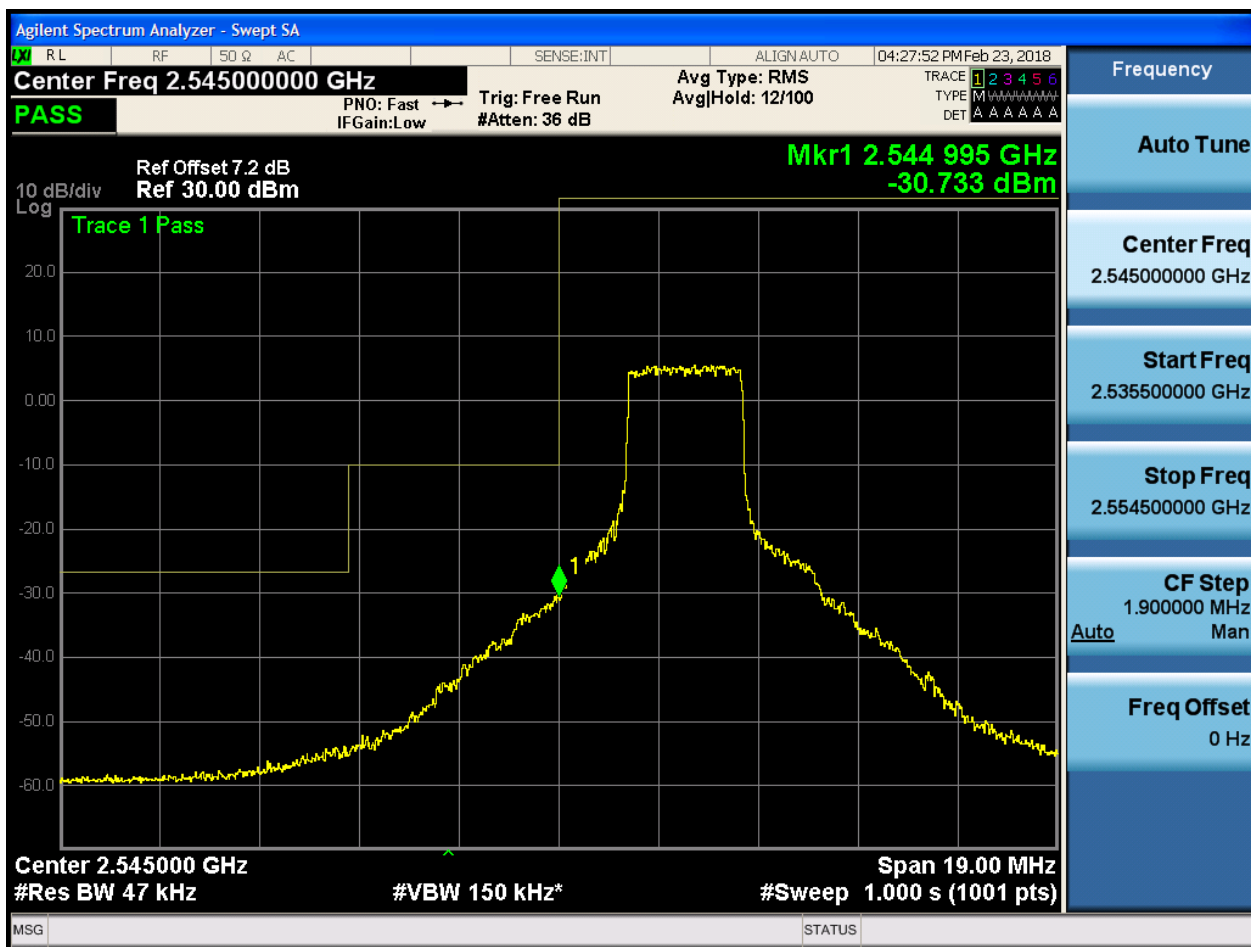


5.1.1.2.1.1.2 Test RB = RB1#24



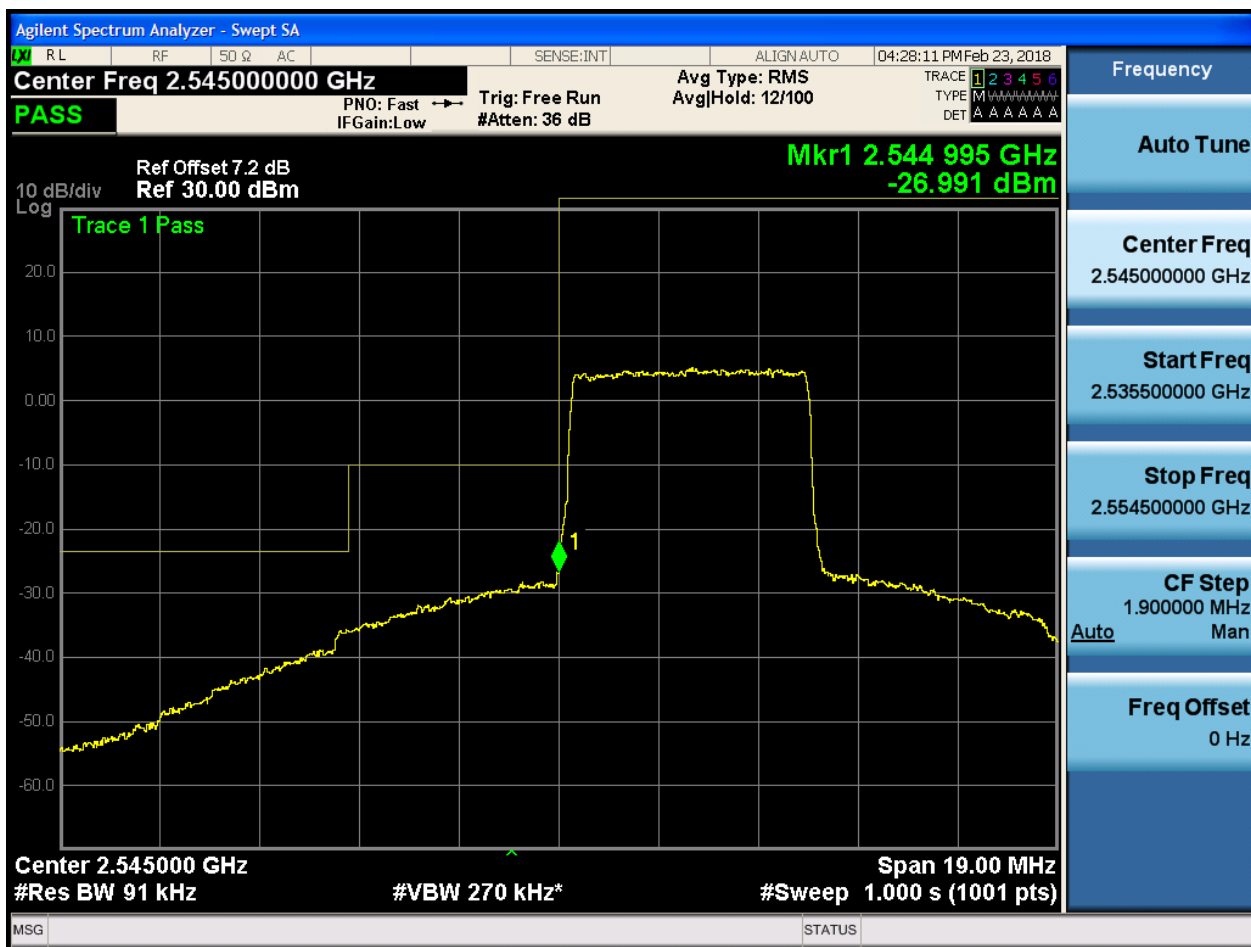


5.1.1.2.1.1.3 Test RB = RB12#6





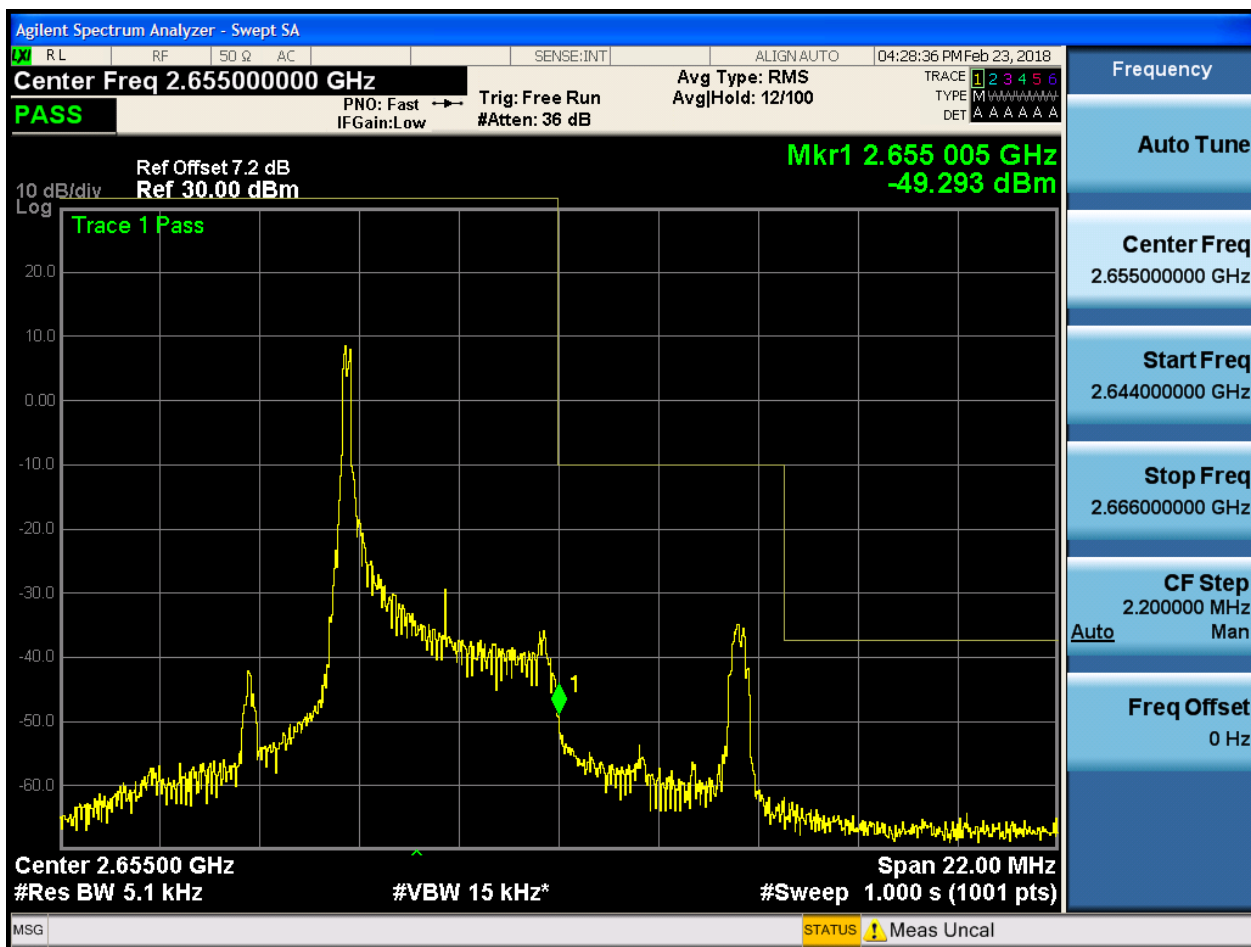
5.1.1.2.1.1.4 Test RB = RB25#0





5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0



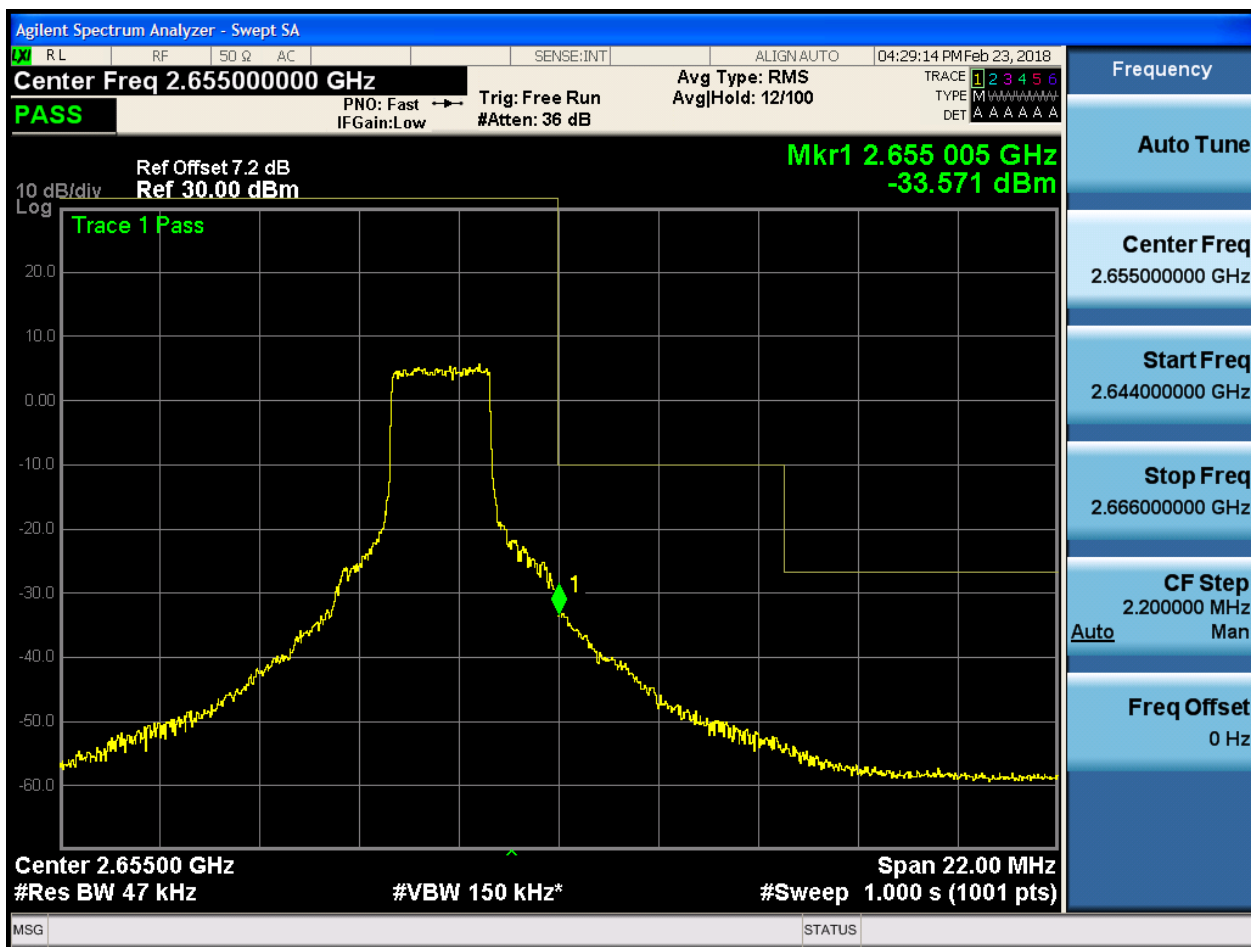


5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6

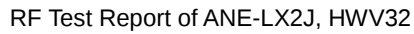


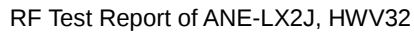


5.1.1.2.1.2.4 Test RB = RB25#0





[illegible]



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:30:36 PM Feb 23, 2018

Center Freq 2.545000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run AvgHld: 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 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-32.070 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 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
2.545000000 GHz

Start Freq
2.535500000 GHz

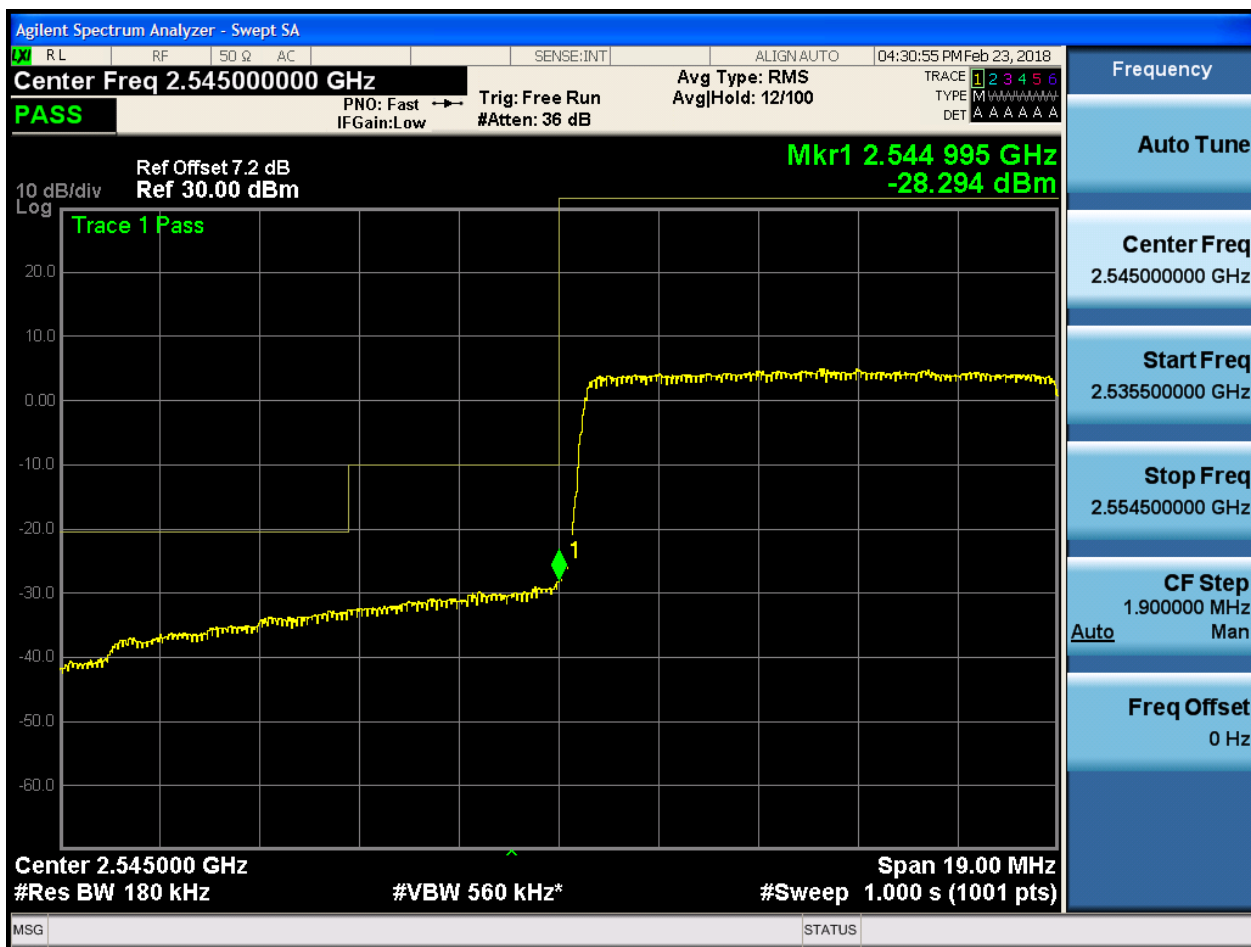
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



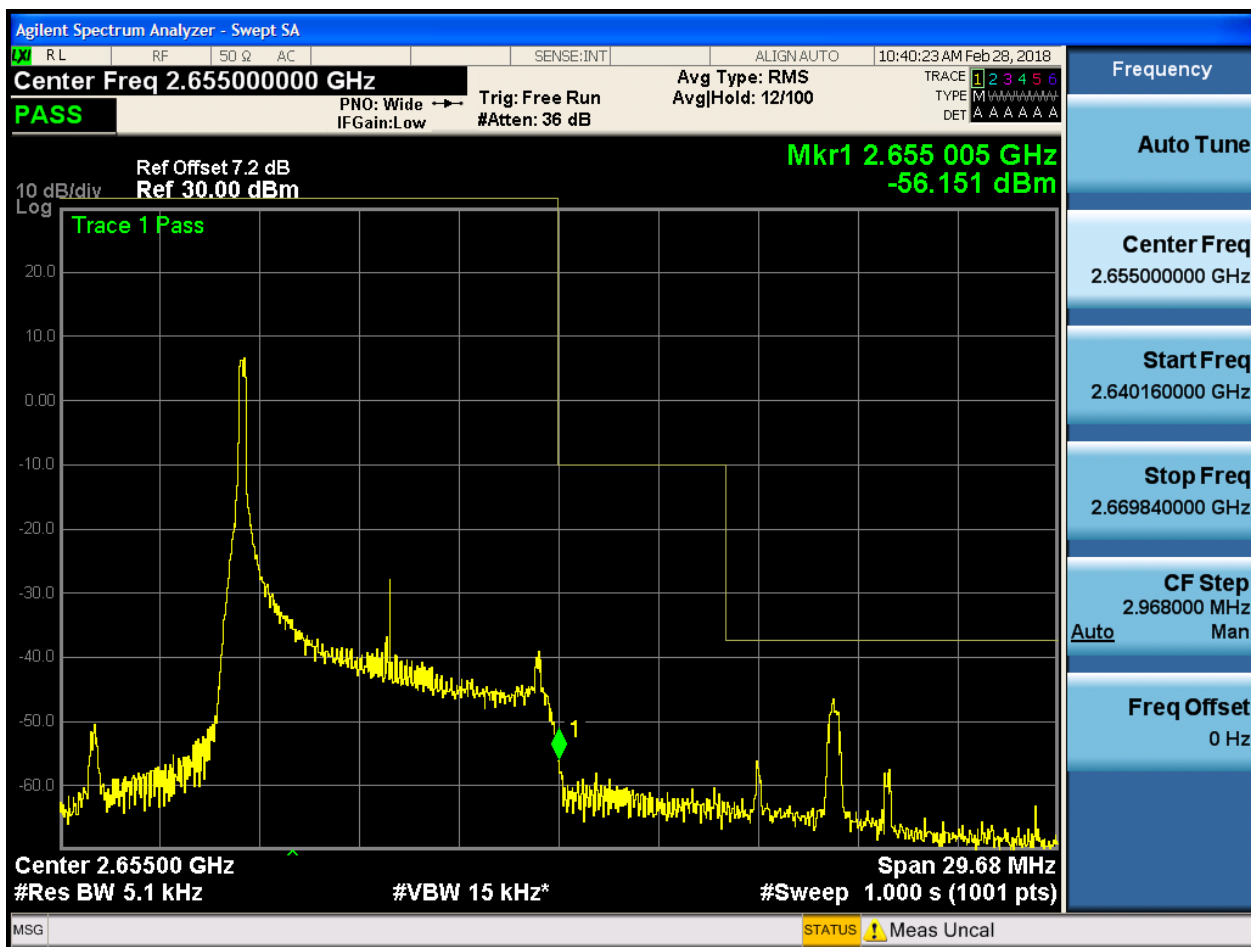
5.1.1.2.2.1.4 Test RB = RB50#0

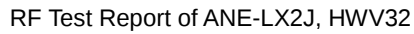




5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:31:39 PM Feb 23, 2018

Center Freq 2.655000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run Avg/Hold: 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 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-40.125 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.65500 GHz
#Res BW 5.1 kHz

#VBW 15 kHz*

Span 29.68 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS Meas Uncal

Frequency

Auto Tune

Center Freq
2.655000000 GHz

Start Freq
2.640160000 GHz

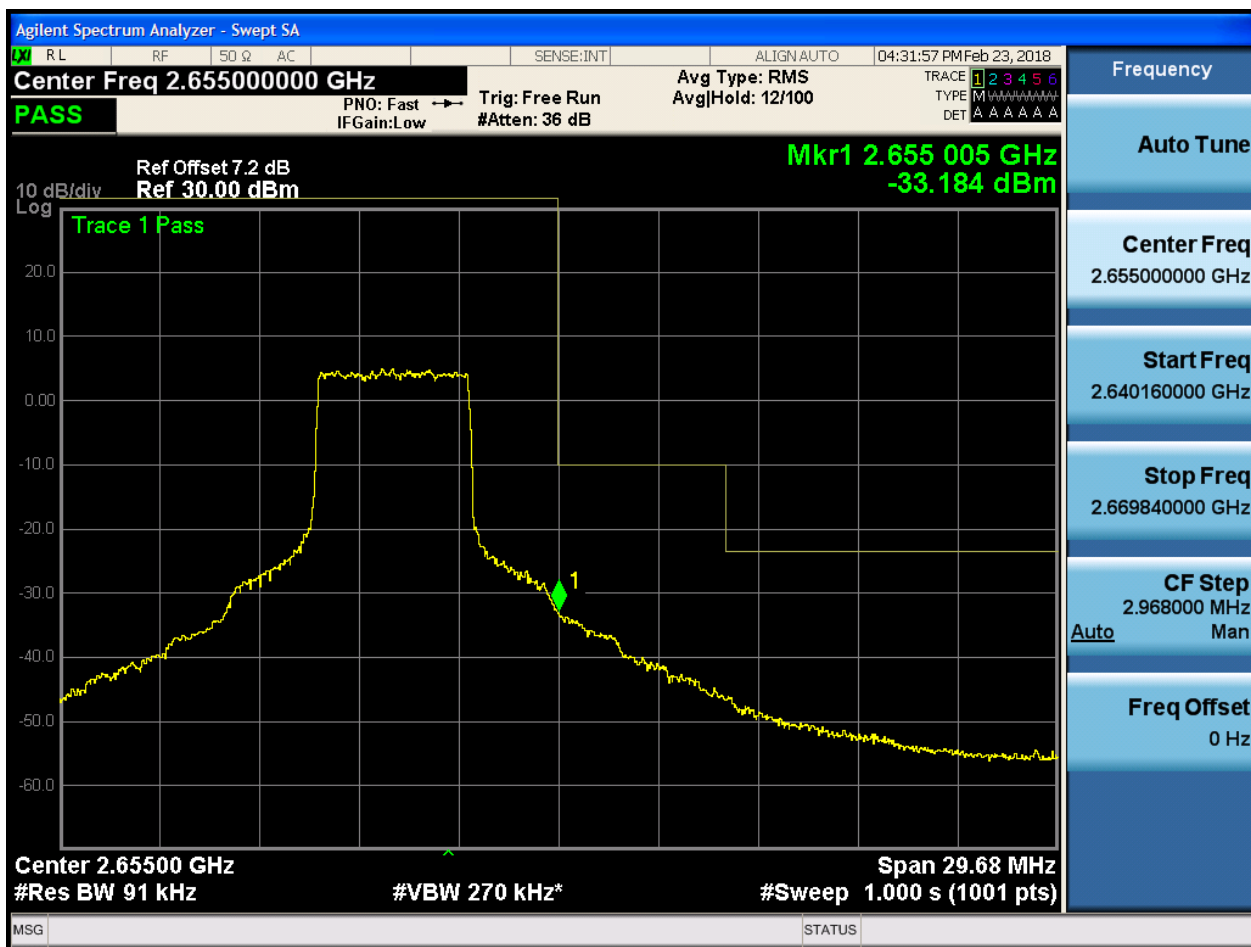
Stop Freq
2.669840000 GHz

CF Step
2.968000 MHz
Auto Man

Freq Offset
0 Hz



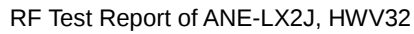
5.1.1.2.2.3 Test RB = RB25#13





5.1.1.2.2.4 Test RB = RB50#0







5.1.1.2.3.1.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.545000000 GHz

PASS

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-31.999 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 GHz
#Res BW 130 kHz
#VBW 390 kHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.545000000 GHz

Start Freq
2.535500000 GHz

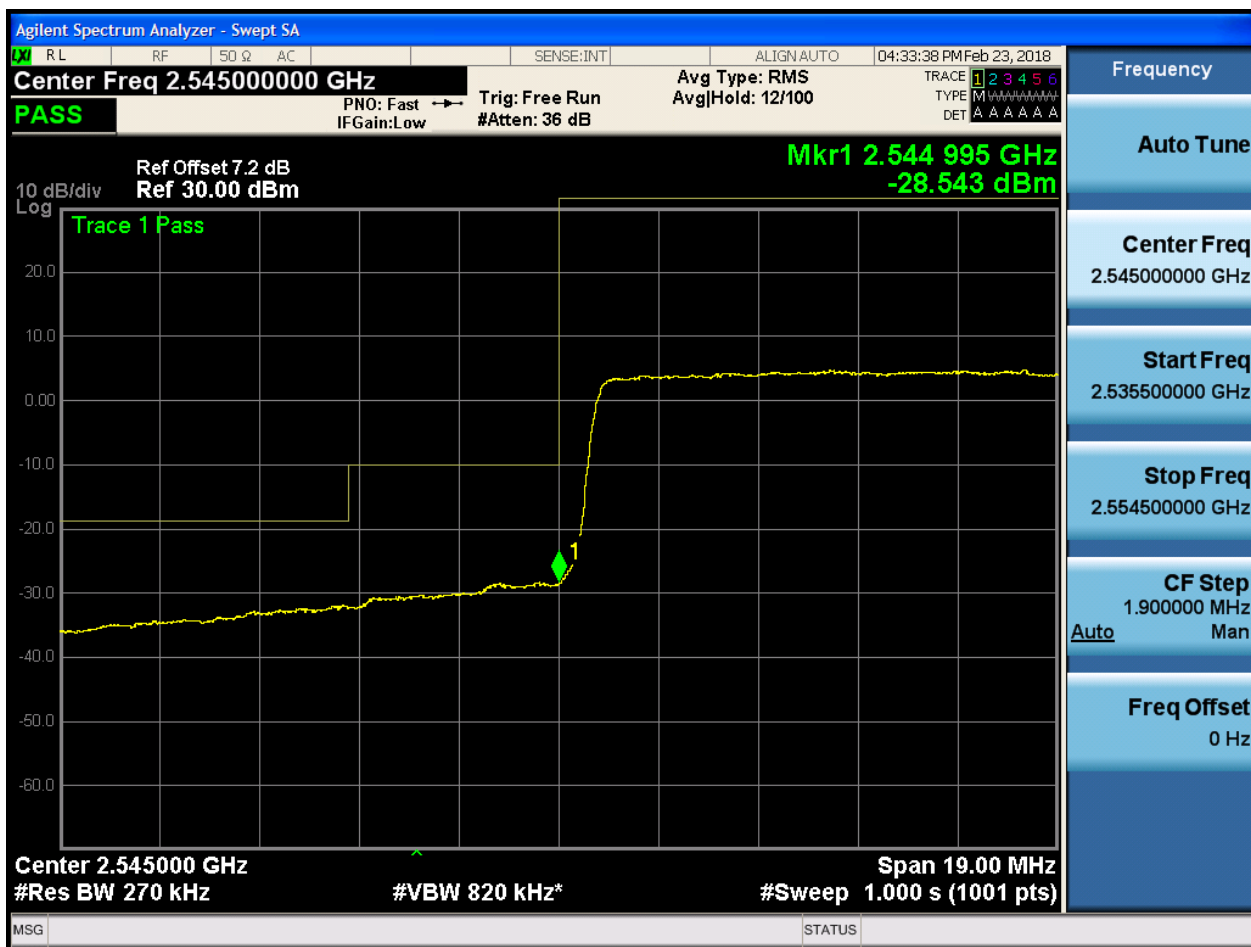
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto

Freq Offset
0 Hz



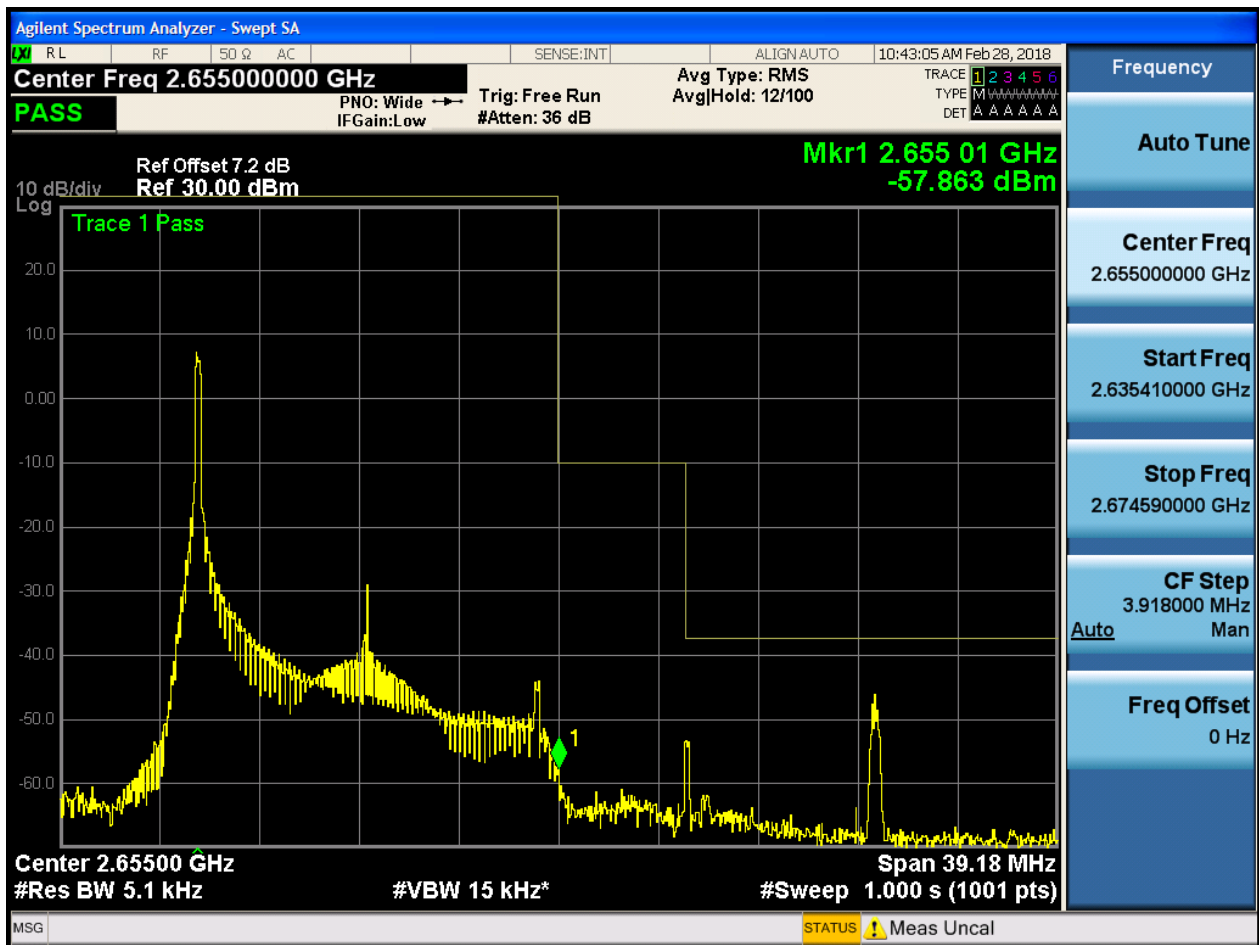
5.1.1.2.3.1.4 Test RB = RB75#0





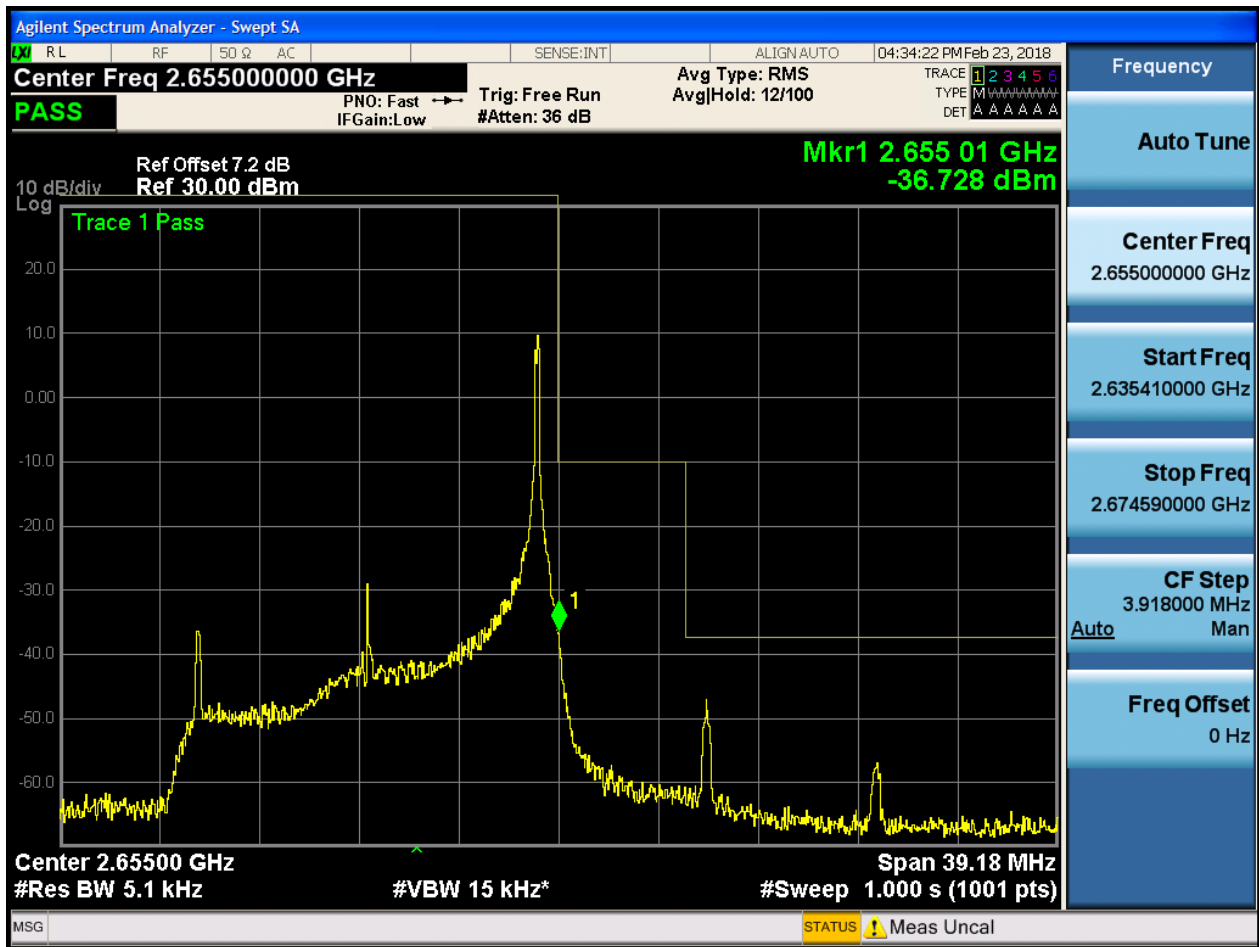
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0



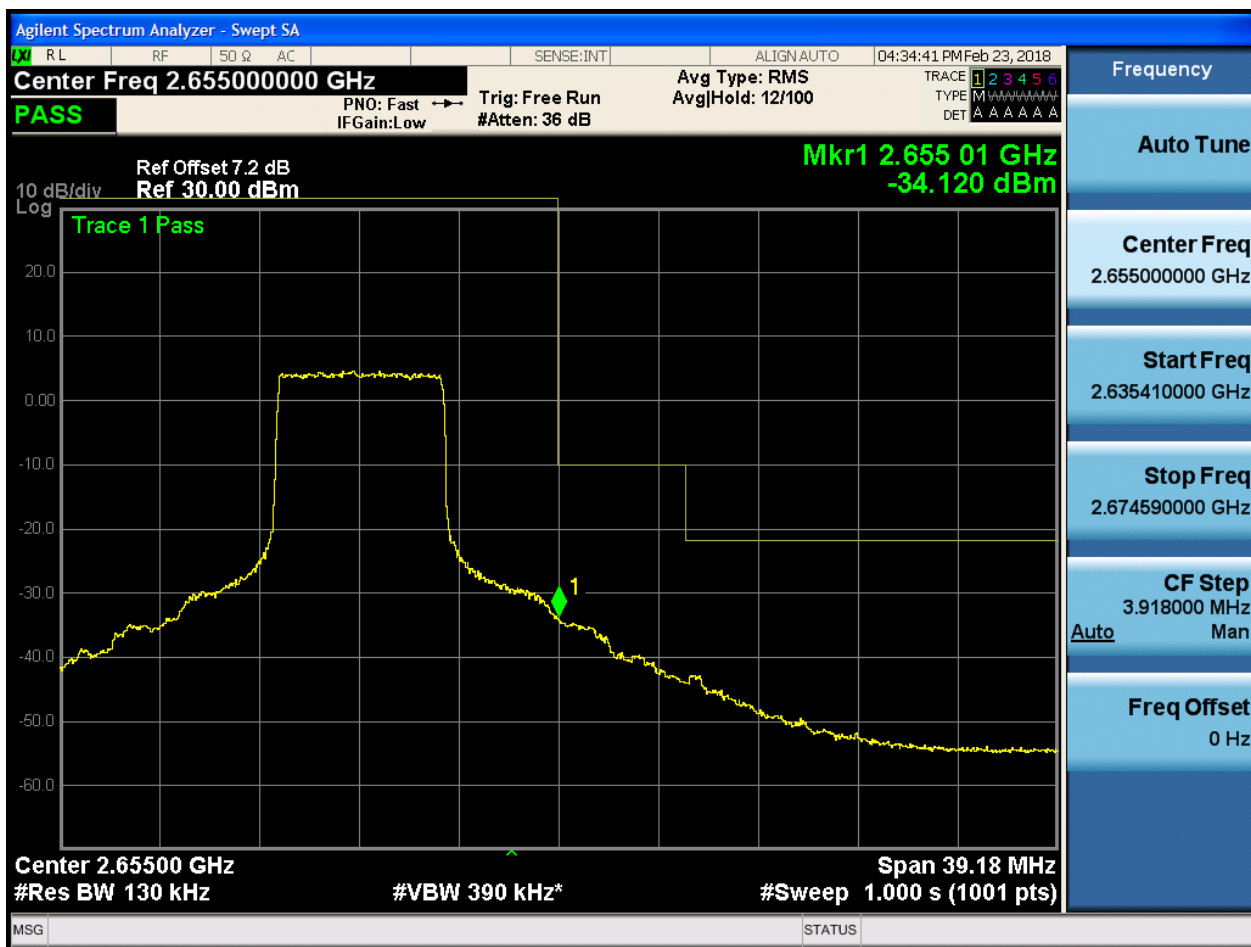


5.1.1.2.3.2.2 Test RB = RB1#74





5.1.1.2.3.2.3 Test RB = RB36#18





5.1.1.2.3.2.4 Test RB = RB75#0

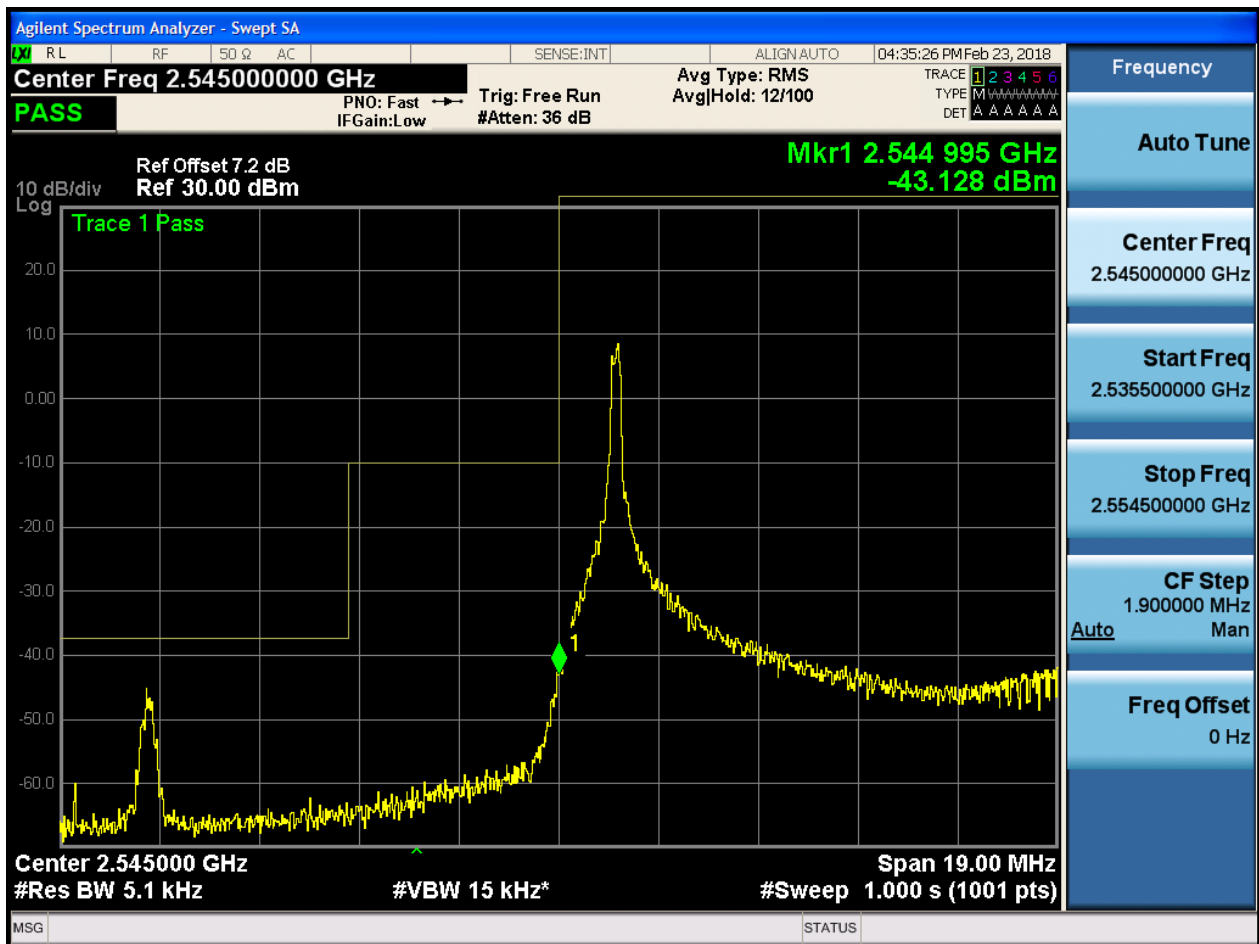




5.1.1.2.4 Test Bandwidth = 20

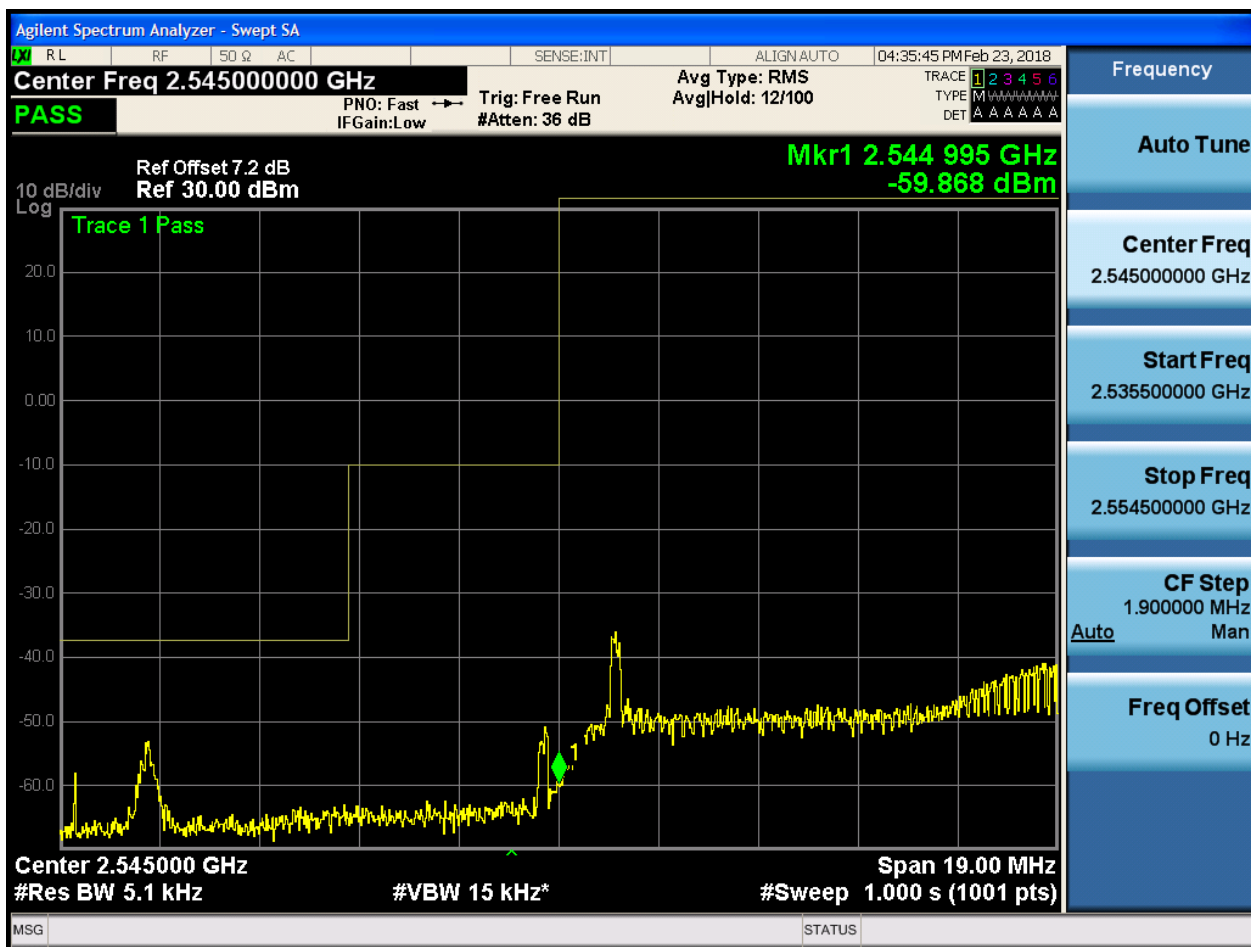
5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0



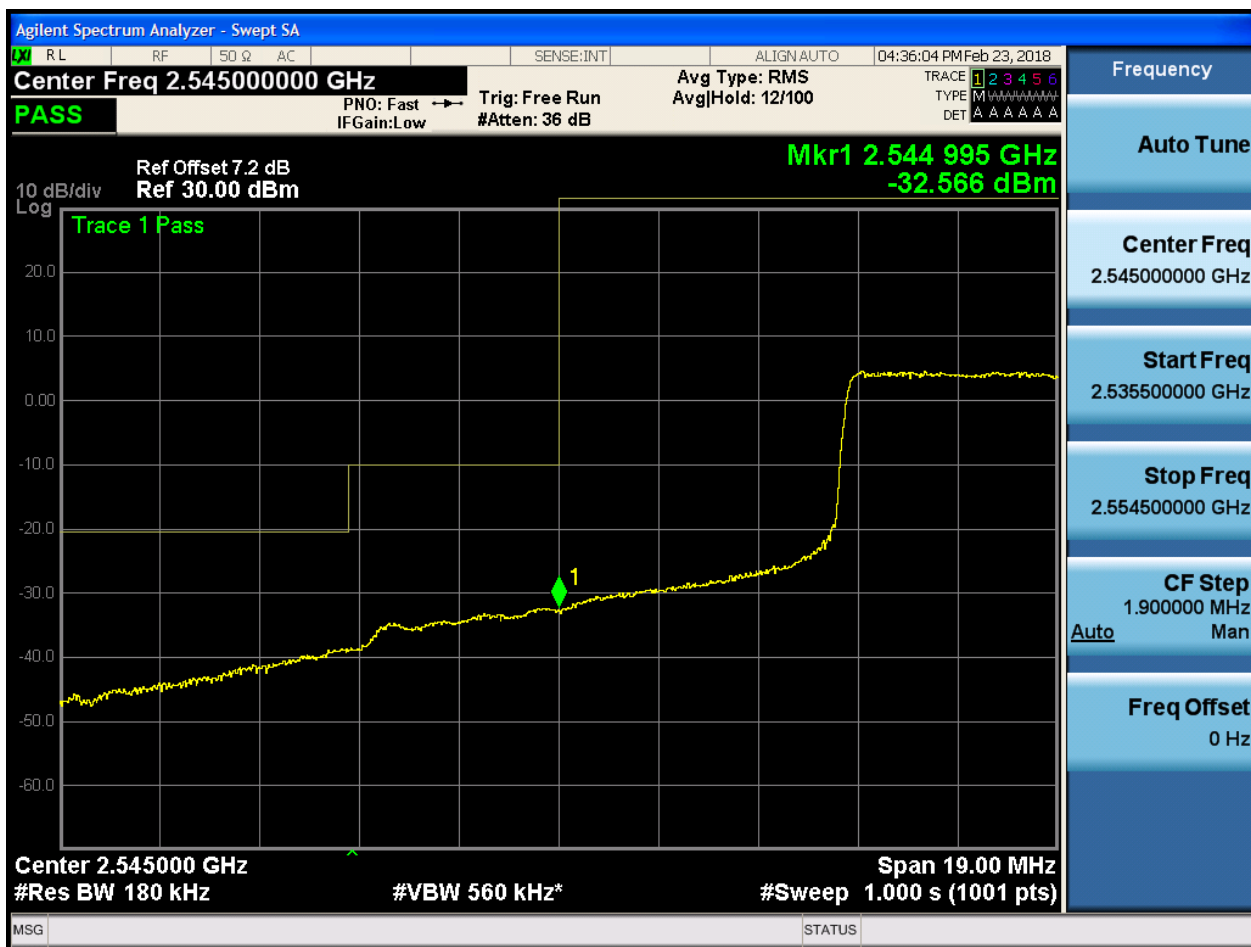


5.1.1.2.4.1.2 Test RB = RB1#99



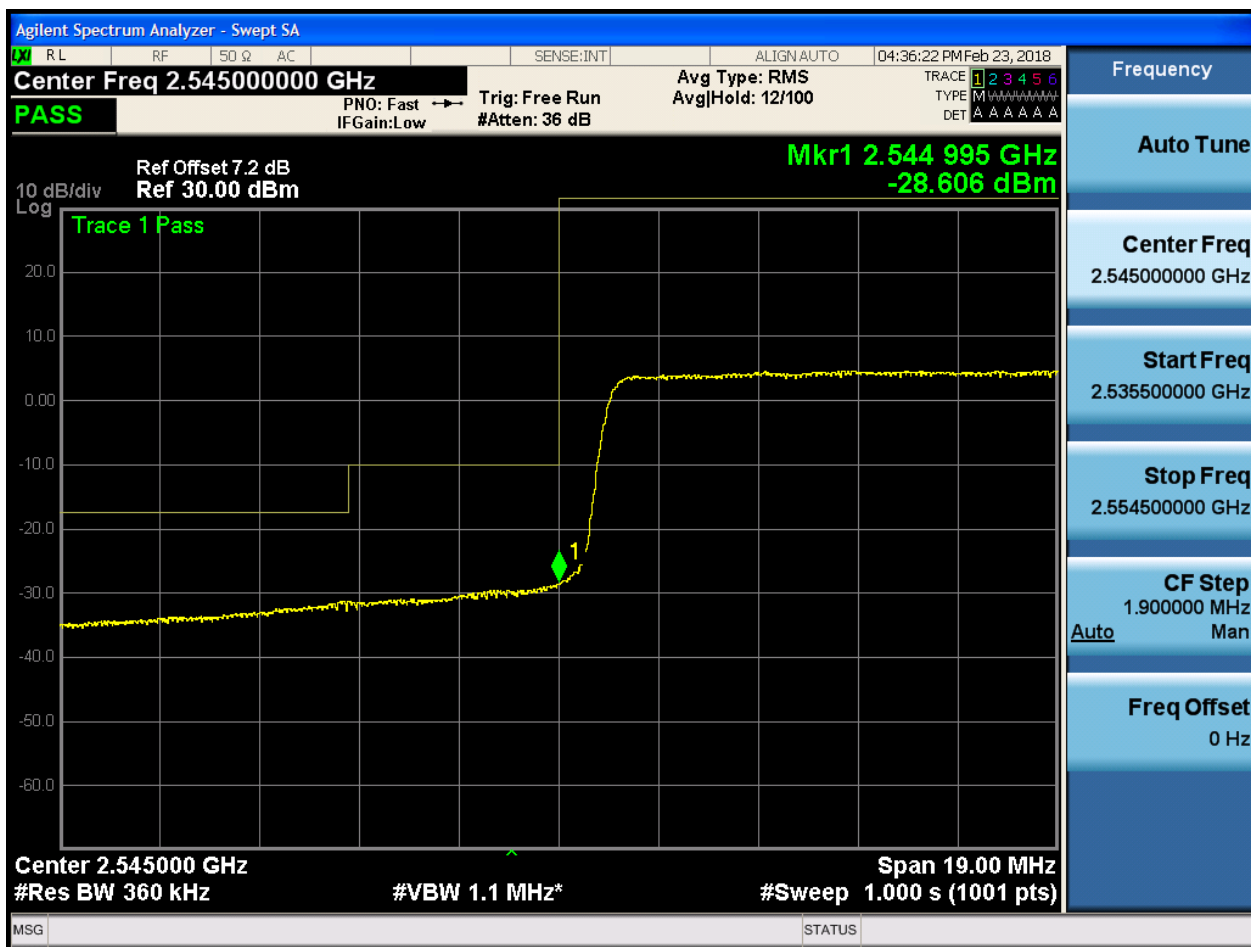


5.1.1.2.4.1.3 Test RB = RB50#25





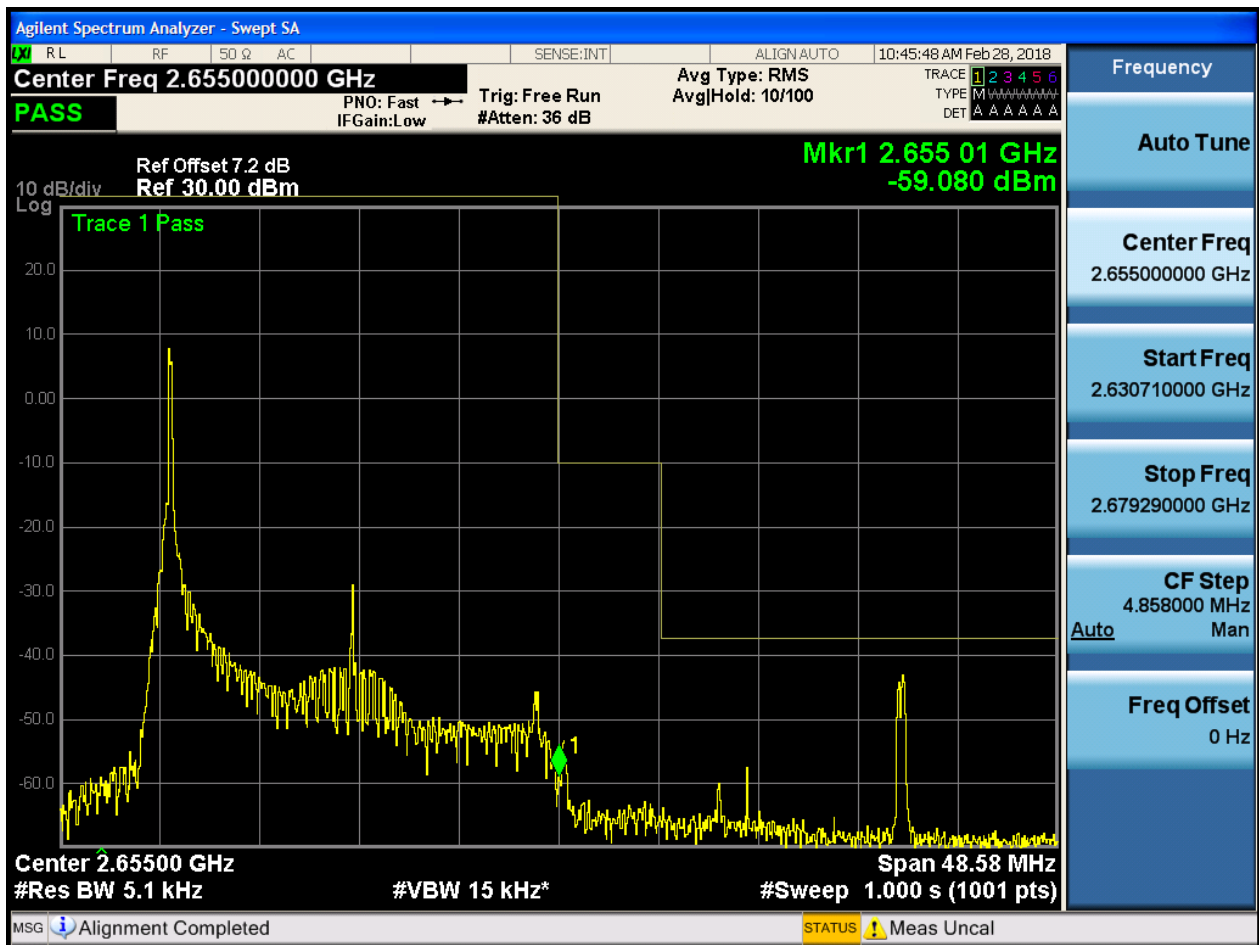
5.1.1.2.4.1.4 Test RB = RB100#0





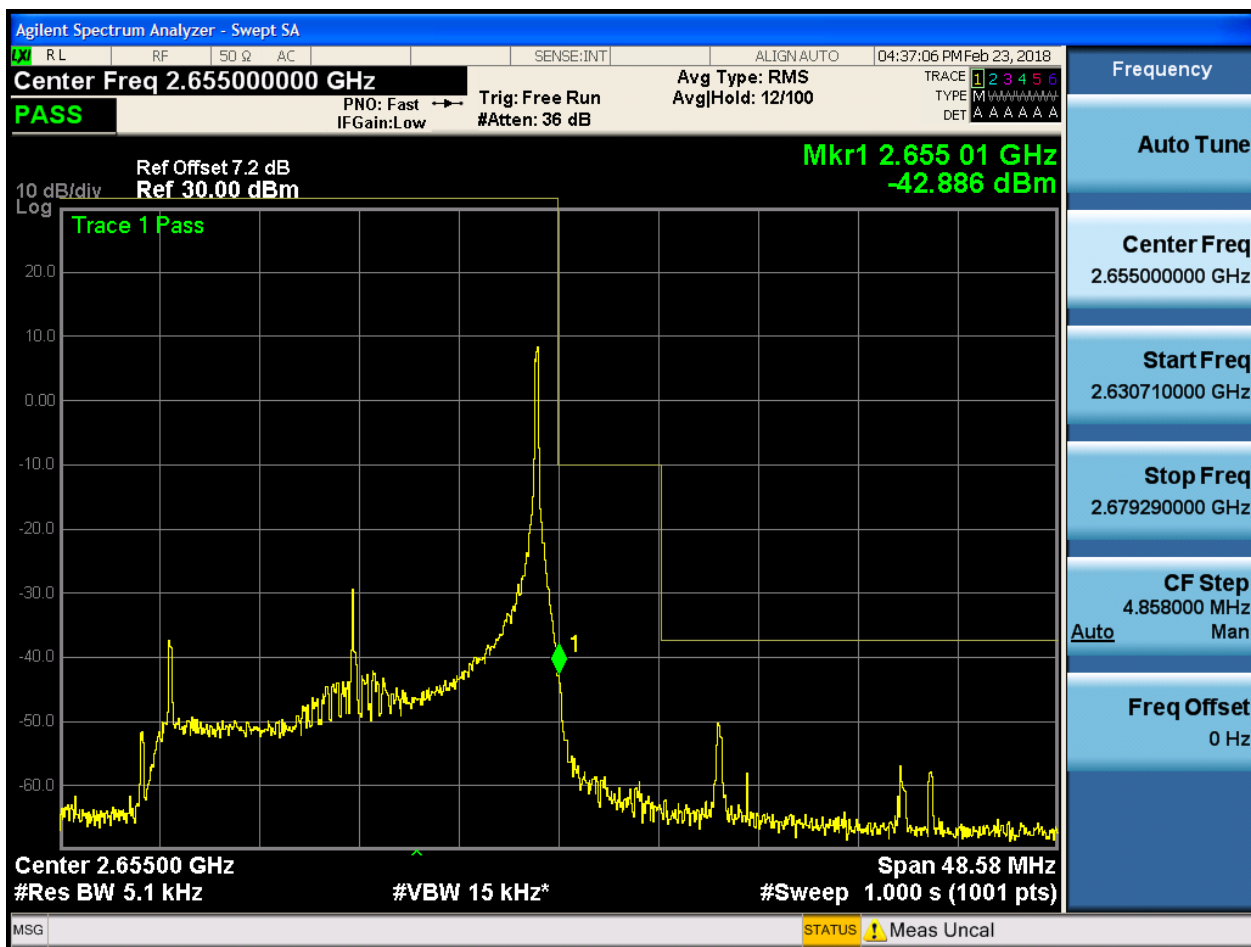
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



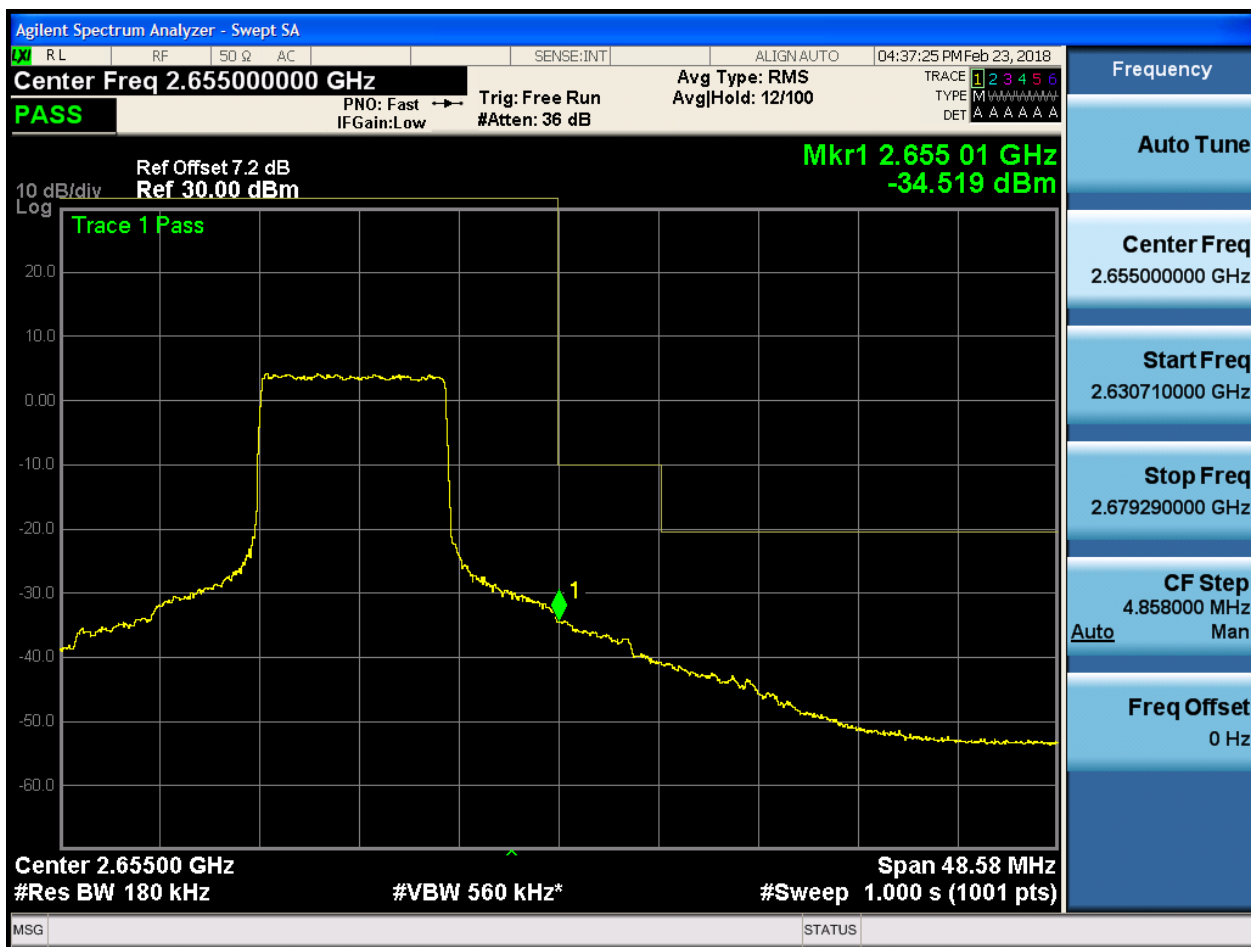


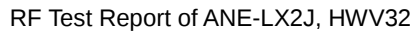
5.1.1.2.4.2.2 Test RB = RB1#99





5.1.1.2.4.2.3 Test RB = RB50#25





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:37:43 PM Feb 23, 2018

Center Freq 2.655000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run Avg/Hold: 12/100
IFGain: Low #Atten: 36 dB

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

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 01 GHz
-29.876 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.65500 GHz
#Res BW 360 kHz
#VBW 1.1 MHz*
Span 48.58 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.655000000 GHz

Start Freq
2.630710000 GHz

Stop Freq
2.679290000 GHz

CF Step
4.858000 MHz
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 = 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

