



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	23.73	24.41	33	PASS
				RB1#13	23.5	24.08	33	PASS
				RB1#24	23.17	23.70	33	PASS
				RB12#0	22.62	23.31	33	PASS
				RB12#6	22.8	23.33	33	PASS
				RB12#13	22.41	23.10	33	PASS
				RB25#0	22.48	23.17	33	PASS
			MCH	RB1#0	24.35	25.00	33	PASS
				RB1#13	24.08	24.77	33	PASS
				RB1#24	23.78	24.29	33	PASS
				RB12#0	23.28	23.97	33	PASS
				RB12#6	23.07	23.69	33	PASS
				RB12#13	22.91	23.49	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	23.01	23.61	33	PASS
			HCH	RB1#0	23.95	24.55	33	PASS
				RB1#13	23.83	24.36	33	PASS
				RB1#24	23.42	23.97	33	PASS
				RB12#0	23.05	23.55	33	PASS
				RB12#6	22.94	23.58	33	PASS
				RB12#13	22.73	23.26	33	PASS
				RB25#0	22.88	23.41	33	PASS
		10	LCH	RB1#0	23.47	24.04	33	PASS
				RB1#25	23.29	23.81	33	PASS
				RB1#49	22.41	23.06	33	PASS
				RB25#0	22.53	23.05	33	PASS
				RB25#13	22.11	22.78	33	PASS
				RB25#25	21.69	22.28	33	PASS
				RB50#0	22.09	22.73	33	PASS
			MCH	RB1#0	23.99	24.66	33	PASS
				RB1#25	23.87	24.43	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	23.22	23.88	33	PASS
				RB25#0	23.26	23.85	33	PASS
				RB25#13	22.93	23.59	33	PASS
				RB25#25	22.68	23.24	33	PASS
				RB50#0	22.92	23.46	33	PASS
			HCH	RB1#0	23.61	24.28	33	PASS
				RB1#25	23.76	24.28	33	PASS
				RB1#49	23.16	23.73	33	PASS
				RB25#0	22.93	23.53	33	PASS
				RB25#13	22.81	23.36	33	PASS
				RB25#25	22.69	23.25	33	PASS
				RB50#0	22.74	23.32	33	PASS
		15	LCH	RB1#0	23.71	24.24	33	PASS
				RB1#38	22.99	23.63	33	PASS
				RB1#74	22.11	22.62	33	PASS
				RB36#0	22.39	22.96	33	PASS
				RB36#18	22.08	22.70	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	21.53	22.05	33	PASS
				RB75#0	21.92	22.57	33	PASS
			MCH	RB1#0	24.25	24.78	33	PASS
				RB1#38	23.87	24.43	33	PASS
				RB1#74	23.06	23.64	33	PASS
				RB36#0	23.3	23.81	33	PASS
				RB36#18	22.97	23.51	33	PASS
				RB36#39	22.68	23.25	33	PASS
				RB75#0	22.92	23.47	33	PASS
			HCH	RB1#0	23.54	24.11	33	PASS
				RB1#38	23.77	24.35	33	PASS
				RB1#74	23.43	24.00	33	PASS
				RB36#0	22.85	23.38	33	PASS
				RB36#18	22.9	23.59	33	PASS
				RB36#39	22.78	23.48	33	PASS
				RB75#0	22.85	23.50	33	PASS
		20	LCH	RB1#0	23.92	24.50	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	23.78	24.38	33	PASS
				RB1#99	22.57	23.16	33	PASS
				RB50#0	22.4	23.10	33	PASS
				RB50#25	21.75	22.44	33	PASS
				RB50#50	21.4	22.09	33	PASS
				RB100#0	21.98	22.51	33	PASS
			MCH	RB1#0	24.4	24.92	33	PASS
				RB1#50	24.45	25.06	33	PASS
				RB1#99	23.38	24.00	33	PASS
				RB50#0	23.34	23.85	33	PASS
				RB50#25	22.93	23.55	33	PASS
				RB50#50	22.66	23.24	33	PASS
				RB100#0	22.95	23.55	33	PASS
			HCH	RB1#0	23.37	24.03	33	PASS
				RB1#50	24.48	25.07	33	PASS
				RB1#99	24.07	24.72	33	PASS
				RB50#0	22.57	23.19	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	22.72	23.35	33	PASS
				RB50#50	22.83	23.35	33	PASS
				RB100#0	22.76	23.37	33	PASS
	LTE/TM2	5	LCH	RB1#0	22.77	23.36	33	PASS
				RB1#13	22.66	23.22	33	PASS
				RB1#24	22.2	22.79	33	PASS
				RB12#0	21.56	22.23	33	PASS
				RB12#6	21.5	22.17	33	PASS
				RB12#13	21.26	21.91	33	PASS
				RB25#0	21.28	21.85	33	PASS
			MCH	RB1#0	23.38	23.93	33	PASS
				RB1#13	23.12	23.67	33	PASS
				RB1#24	22.84	23.48	33	PASS
				RB12#0	22.2	22.74	33	PASS
				RB12#6	21.99	22.54	33	PASS
				RB12#13	21.83	22.50	33	PASS
				RB25#0	21.84	22.50	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	22.96	23.57	33	PASS
				RB1#13	22.88	23.41	33	PASS
				RB1#24	22.6	23.18	33	PASS
				RB12#0	21.9	22.42	33	PASS
				RB12#6	21.8	22.41	33	PASS
				RB12#13	21.49	22.10	33	PASS
				RB25#0	21.66	22.33	33	PASS
		10	LCH	RB1#0	22.68	23.27	33	PASS
				RB1#25	22.48	23.10	33	PASS
				RB1#49	21.71	22.34	33	PASS
				RB25#0	21.49	22.12	33	PASS
				RB25#13	21.07	21.75	33	PASS
				RB25#25	20.55	21.18	33	PASS
				RB50#0	20.88	21.47	33	PASS
			MCH	RB1#0	23.32	23.95	33	PASS
				RB1#25	23.22	23.90	33	PASS
				RB1#49	22.6	23.13	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	22.22	22.83	33	PASS
				RB25#13	21.9	22.41	33	PASS
				RB25#25	21.64	22.34	33	PASS
				RB50#0	21.85	22.44	33	PASS
			HCH	RB1#0	22.98	23.54	33	PASS
				RB1#25	23.24	23.79	33	PASS
				RB1#49	22.7	23.39	33	PASS
				RB25#0	21.76	22.31	33	PASS
				RB25#13	21.65	22.34	33	PASS
				RB25#25	21.54	22.18	33	PASS
				RB50#0	21.55	22.17	33	PASS
		15	LCH	RB1#0	22.84	23.54	33	PASS
				RB1#38	22.06	22.62	33	PASS
				RB1#74	21.2	21.76	33	PASS
				RB36#0	21.44	22.12	33	PASS
				RB36#18	21	21.57	33	PASS
				RB36#39	20.49	21.02	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	20.75	21.28	33	PASS
			MCH	RB1#0	23.41	24.02	33	PASS
				RB1#38	23.34	23.94	33	PASS
				RB1#74	22.6	23.30	33	PASS
				RB36#0	22.27	22.79	33	PASS
				RB36#18	21.93	22.62	33	PASS
				RB36#39	21.64	22.34	33	PASS
				RB75#0	21.86	22.54	33	PASS
			HCH	RB1#0	22.74	23.29	33	PASS
				RB1#38	22.94	23.61	33	PASS
				RB1#74	22.56	23.24	33	PASS
				RB36#0	21.6	22.28	33	PASS
				RB36#18	21.65	22.32	33	PASS
				RB36#39	21.54	22.23	33	PASS
				RB75#0	21.56	22.11	33	PASS
		20	LCH	RB1#0	23.33	23.83	33	PASS
				RB1#50	23.06	23.58	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	21.88	22.39	33	PASS
				RB50#0	21.28	21.93	33	PASS
				RB50#25	20.63	21.31	33	PASS
				RB50#50	20.44	20.97	33	PASS
				RB100#0	20.85	21.46	33	PASS
			MCH	RB1#0	23.46	23.99	33	PASS
				RB1#50	23.41	24.07	33	PASS
				RB1#99	22.91	23.49	33	PASS
				RB50#0	22.27	22.87	33	PASS
				RB50#25	21.87	22.51	33	PASS
				RB50#50	21.61	22.21	33	PASS
				RB100#0	21.88	22.40	33	PASS
			HCH	RB1#0	22.47	23.06	33	PASS
				RB1#50	23.48	24.16	33	PASS
				RB1#99	23	23.52	33	PASS
				RB50#0	21.29	21.89	33	PASS
				RB50#25	21.44	22.08	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	21.56	22.15	33	PASS
				RB100#0	21.47	22.13	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:

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

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

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

SET Sweep time=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	3.84	13	PASS
				RB1#13	3.9	13	PASS
				RB1#24	4.05	13	PASS
				RB12#0	4.88	13	PASS
				RB12#6	4.73	13	PASS
				RB12#13	5.01	13	PASS
				RB25#0	5.35	13	PASS
			MCH	RB1#0	3.71	13	PASS
				RB1#13	3.81	13	PASS
				RB1#24	4.03	13	PASS
				RB12#0	5.14	13	PASS
				RB12#6	4.78	13	PASS
				RB12#13	5.09	13	PASS
				RB25#0	5.73	13	PASS
			HCH	RB1#0	3.62	13	PASS
				RB1#13	3.71	13	PASS
				RB1#24	4.02	13	PASS
				RB12#0	4.76	13	PASS
				RB12#6	4.59	13	PASS
				RB12#13	4.79	13	PASS
				RB25#0	5.5	13	PASS
		10	LCH	RB1#0	3.91	13	PASS
				RB1#25	3.96	13	PASS
				RB1#49	4.2	13	PASS
				RB25#0	5.27	13	PASS
				RB25#13	5.21	13	PASS
				RB25#25	5.62	13	PASS
				RB50#0	5.84	13	PASS
			MCH	RB1#0	3.87	13	PASS
				RB1#25	4.09	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#49	4.64	13	PASS
				RB25#0	4.97	13	PASS
				RB25#13	5.06	13	PASS
				RB25#25	5.6	13	PASS
				RB50#0	5.57	13	PASS
			HCH	RB1#0	3.8	13	PASS
				RB1#25	3.61	13	PASS
				RB1#49	4.1	13	PASS
				RB25#0	4.82	13	PASS
				RB25#13	4.67	13	PASS
				RB25#25	4.88	13	PASS
				RB50#0	5.28	13	PASS
		15	LCH	RB1#0	4.03	13	PASS
				RB1#38	4.12	13	PASS
				RB1#74	4.61	13	PASS
				RB36#0	5.05	13	PASS
				RB36#18	5.06	13	PASS
				RB36#39	5.42	13	PASS
				RB75#0	5.88	13	PASS
			MCH	RB1#0	3.59	13	PASS
				RB1#38	4.01	13	PASS
				RB1#74	4.37	13	PASS
				RB36#0	4.89	13	PASS
				RB36#18	5.07	13	PASS
				RB36#39	5.59	13	PASS
				RB75#0	5.75	13	PASS
			HCH	RB1#0	3.71	13	PASS
				RB1#38	3.46	13	PASS
				RB1#74	3.69	13	PASS
				RB36#0	5.14	13	PASS
				RB36#18	4.8	13	PASS
				RB36#39	5.07	13	PASS
				RB75#0	5.61	13	PASS
		20	LCH	RB1#0	3.57	13	PASS
				RB1#50	3.57	13	PASS
				RB1#99	4.06	13	PASS
				RB50#0	5.36	13	PASS
				RB50#25	5.62	13	PASS
				RB50#50	6.1	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB100#0	5.87	13	PASS
			MCH	RB1#0	3.62	13	PASS
				RB1#50	3.43	13	PASS
				RB1#99	4.49	13	PASS
				RB50#0	5.13	13	PASS
				RB50#25	4.97	13	PASS
				RB50#50	5.49	13	PASS
				RB100#0	5.7	13	PASS
			HCH	RB1#0	4.2	13	PASS
				RB1#50	3.09	13	PASS
				RB1#99	3.89	13	PASS
				RB50#0	5.36	13	PASS
				RB50#25	5.08	13	PASS
				RB50#50	5.23	13	PASS
				RB100#0	5.59	13	PASS
	LTE/TM2	5	LCH	RB1#0	4.27	13	PASS
				RB1#13	4.32	13	PASS
				RB1#24	4.6	13	PASS
				RB12#0	5.96	13	PASS
				RB12#6	5.81	13	PASS
				RB12#13	6.13	13	PASS
				RB25#0	6.47	13	PASS
			MCH	RB1#0	4.57	13	PASS
				RB1#13	4.38	13	PASS
				RB1#24	4.71	13	PASS
				RB12#0	5.88	13	PASS
				RB12#6	5.75	13	PASS
				RB12#13	6.03	13	PASS
				RB25#0	6.15	13	PASS
		10	HCH	RB1#0	4.21	13	PASS
				RB1#13	4.26	13	PASS
				RB1#24	5.04	13	PASS
				RB12#0	5.87	13	PASS
				RB12#6	5.61	13	PASS
				RB12#13	5.77	13	PASS
				RB25#0	6.35	13	PASS
			LCH	RB1#0	4.76	13	PASS
				RB1#25	4.82	13	PASS
				RB1#49	5.26	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	6.23	13	PASS
				RB25#13	6.27	13	PASS
				RB25#25	6.57	13	PASS
				RB50#0	6.42	13	PASS
			MCH	RB1#0	4.45	13	PASS
				RB1#25	4.33	13	PASS
				RB1#49	4.94	13	PASS
				RB25#0	5.83	13	PASS
				RB25#13	5.97	13	PASS
				RB25#25	6.34	13	PASS
				RB50#0	6.54	13	PASS
			HCH	RB1#0	4.28	13	PASS
				RB1#25	4.07	13	PASS
				RB1#49	4.44	13	PASS
				RB25#0	5.74	13	PASS
				RB25#13	5.66	13	PASS
				RB25#25	5.86	13	PASS
				RB50#0	6.29	13	PASS
		15	LCH	RB1#0	4.5	13	PASS
				RB1#38	4.79	13	PASS
				RB1#74	5.3	13	PASS
				RB36#0	6.09	13	PASS
				RB36#18	6.22	13	PASS
				RB36#39	6.26	13	PASS
				RB75#0	6.97	13	PASS
			MCH	RB1#0	4.5	13	PASS
				RB1#38	4.56	13	PASS
				RB1#74	5.51	13	PASS
				RB36#0	5.64	13	PASS
				RB36#18	5.81	13	PASS
				RB36#39	6.29	13	PASS
				RB75#0	6.34	13	PASS
			HCH	RB1#0	4.57	13	PASS
				RB1#38	4.31	13	PASS
				RB1#74	4.54	13	PASS
				RB36#0	6.07	13	PASS
				RB36#18	5.8	13	PASS
				RB36#39	6.03	13	PASS
				RB75#0	6.75	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
		20	LCH	RB1#0	4.23	13	PASS
				RB1#50	4.3	13	PASS
				RB1#99	5.04	13	PASS
				RB50#0	6.37	13	PASS
				RB50#25	6.6	13	PASS
				RB50#50	6.63	13	PASS
				RB100#0	6.72	13	PASS
			MCH	RB1#0	4.38	13	PASS
				RB1#50	3.98	13	PASS
				RB1#99	5.12	13	PASS
				RB50#0	5.61	13	PASS
				RB50#25	5.87	13	PASS
				RB50#50	6.39	13	PASS
				RB100#0	6.41	13	PASS
			HCH	RB1#0	4.51	13	PASS
				RB1#50	3.74	13	PASS
				RB1#99	4.26	13	PASS
				RB50#0	6.42	13	PASS
				RB50#25	6.08	13	PASS
				RB50#50	6.09	13	PASS
				RB100#0	6.44	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

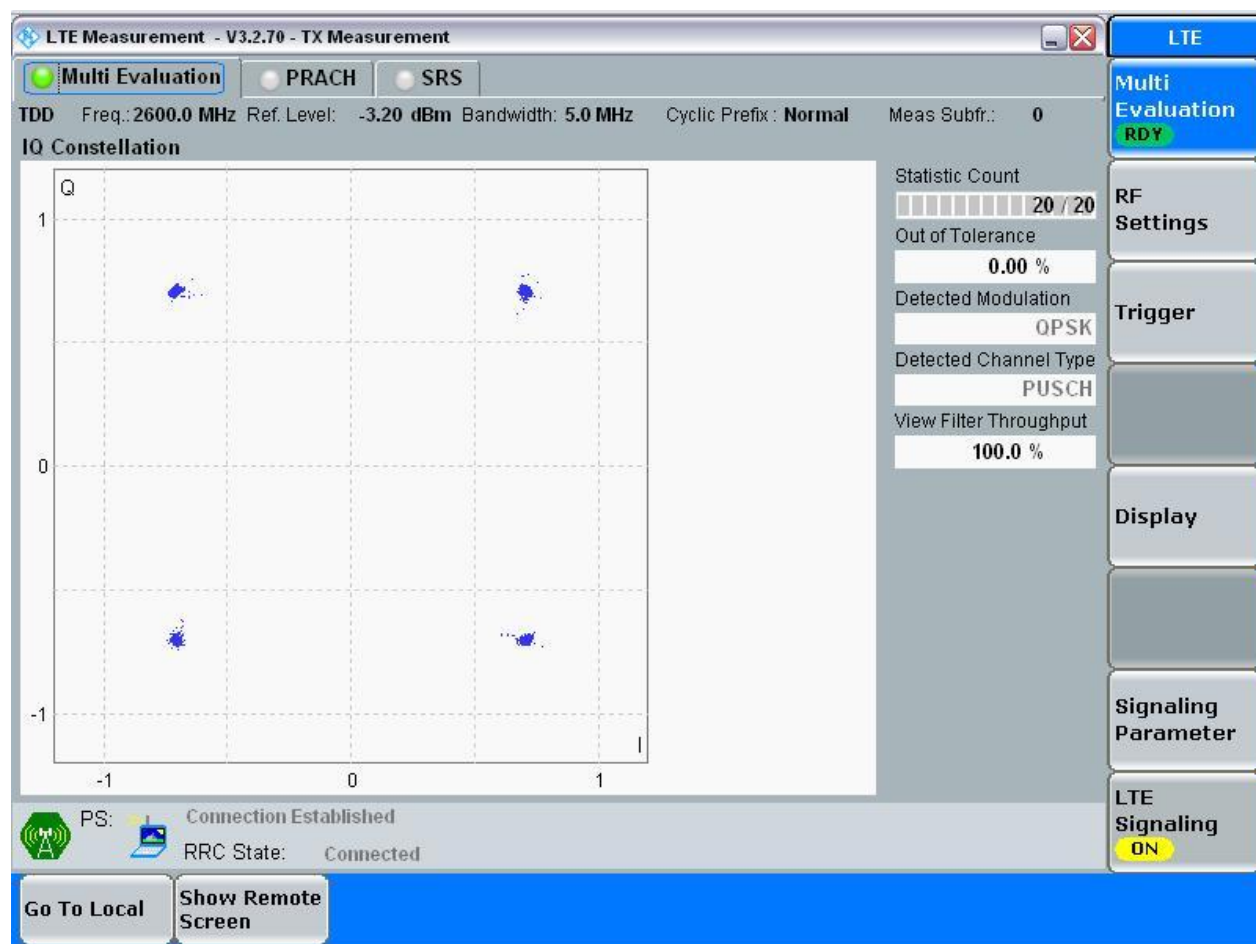
3.1.1 Test Band = BAND41

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

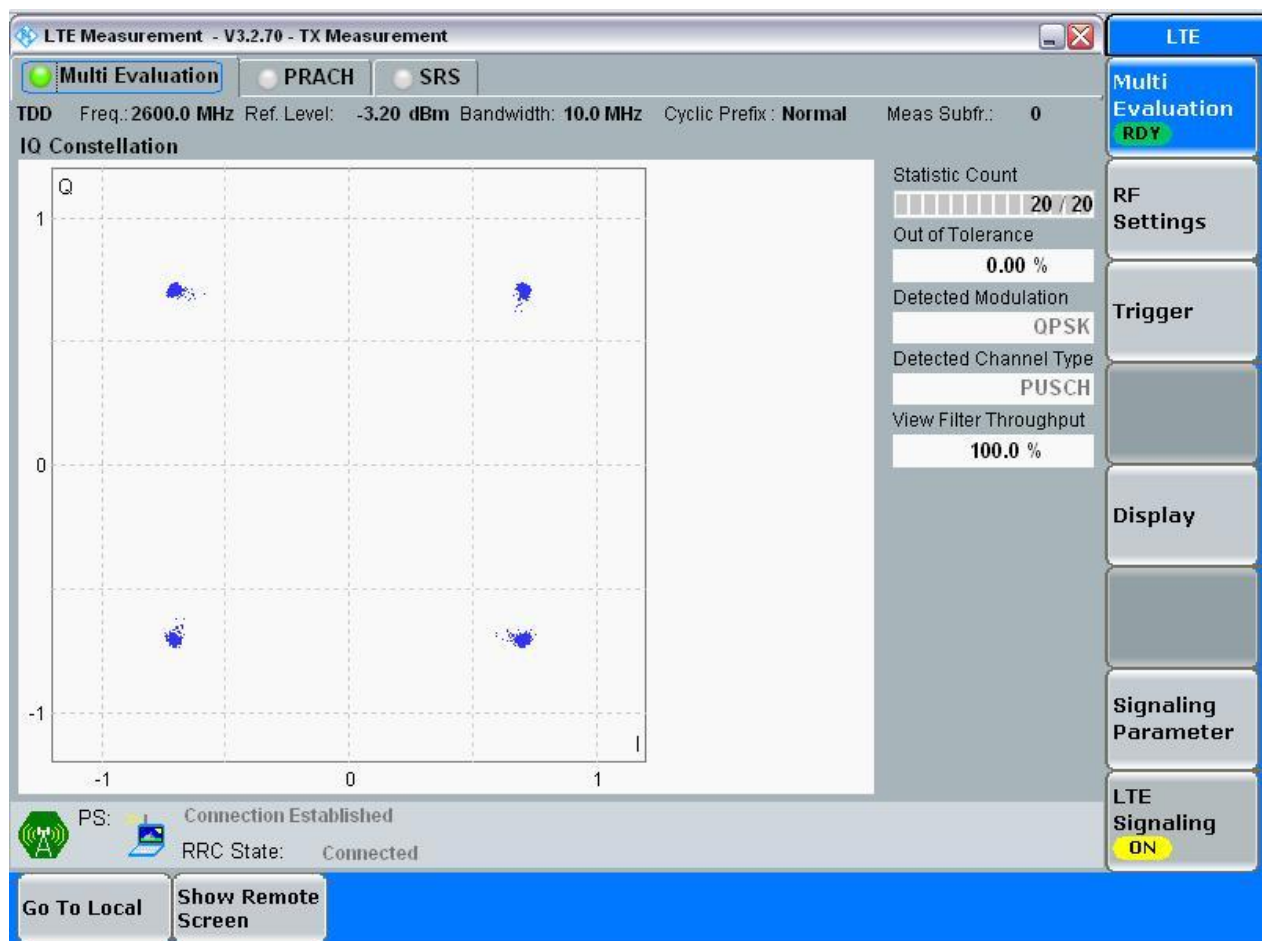
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

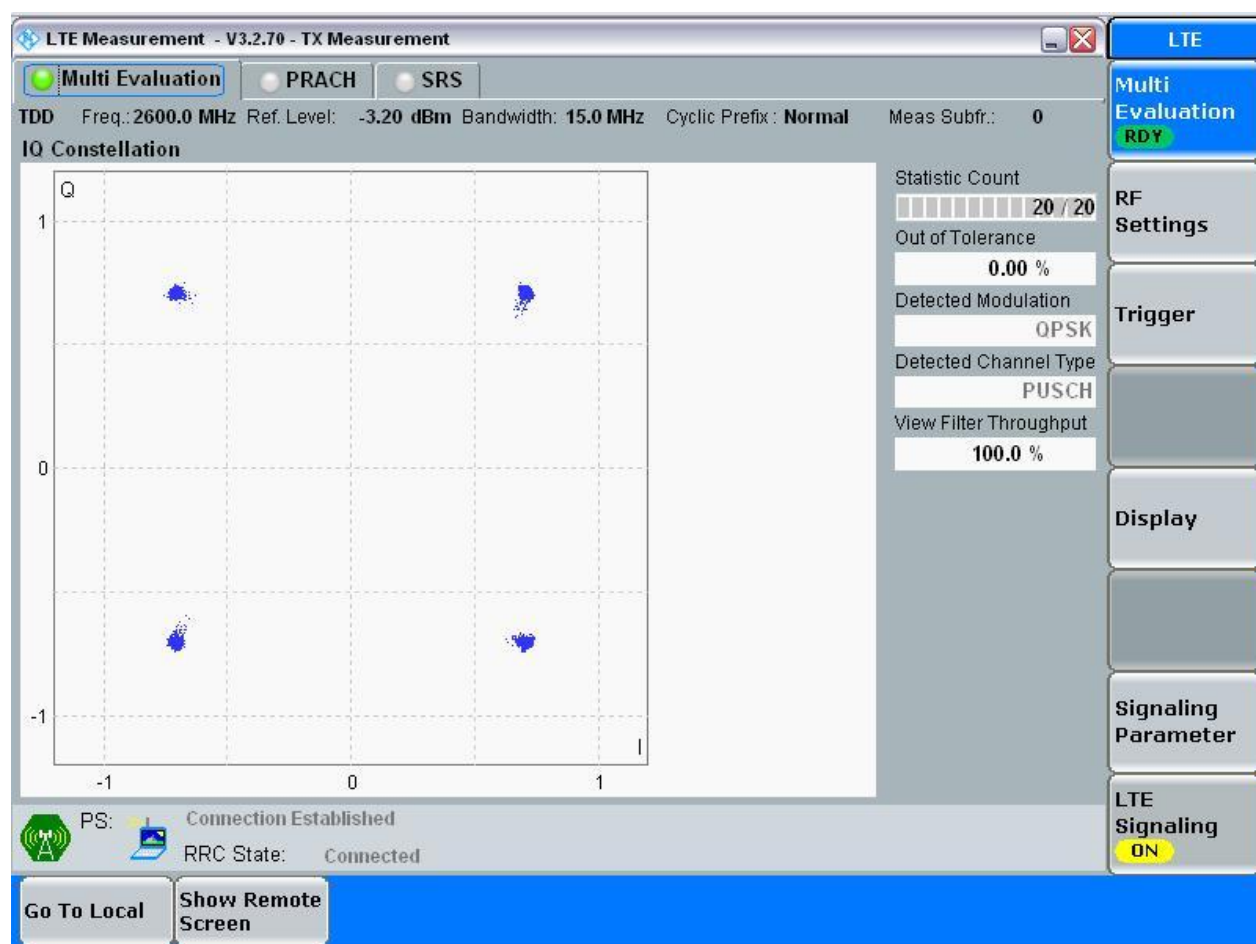
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

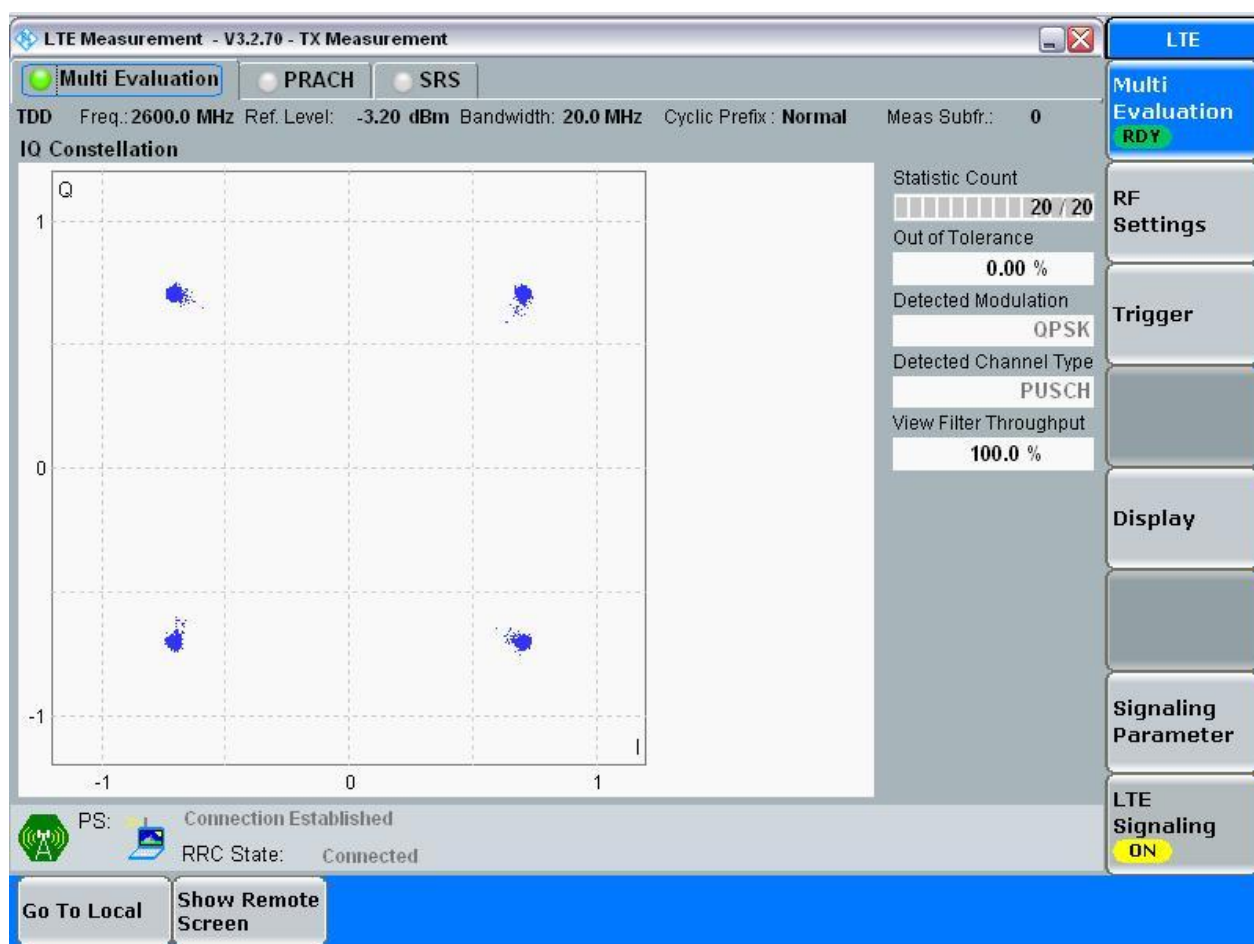
3.1.1.1.3.1.1 Test RB = RB75#0



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

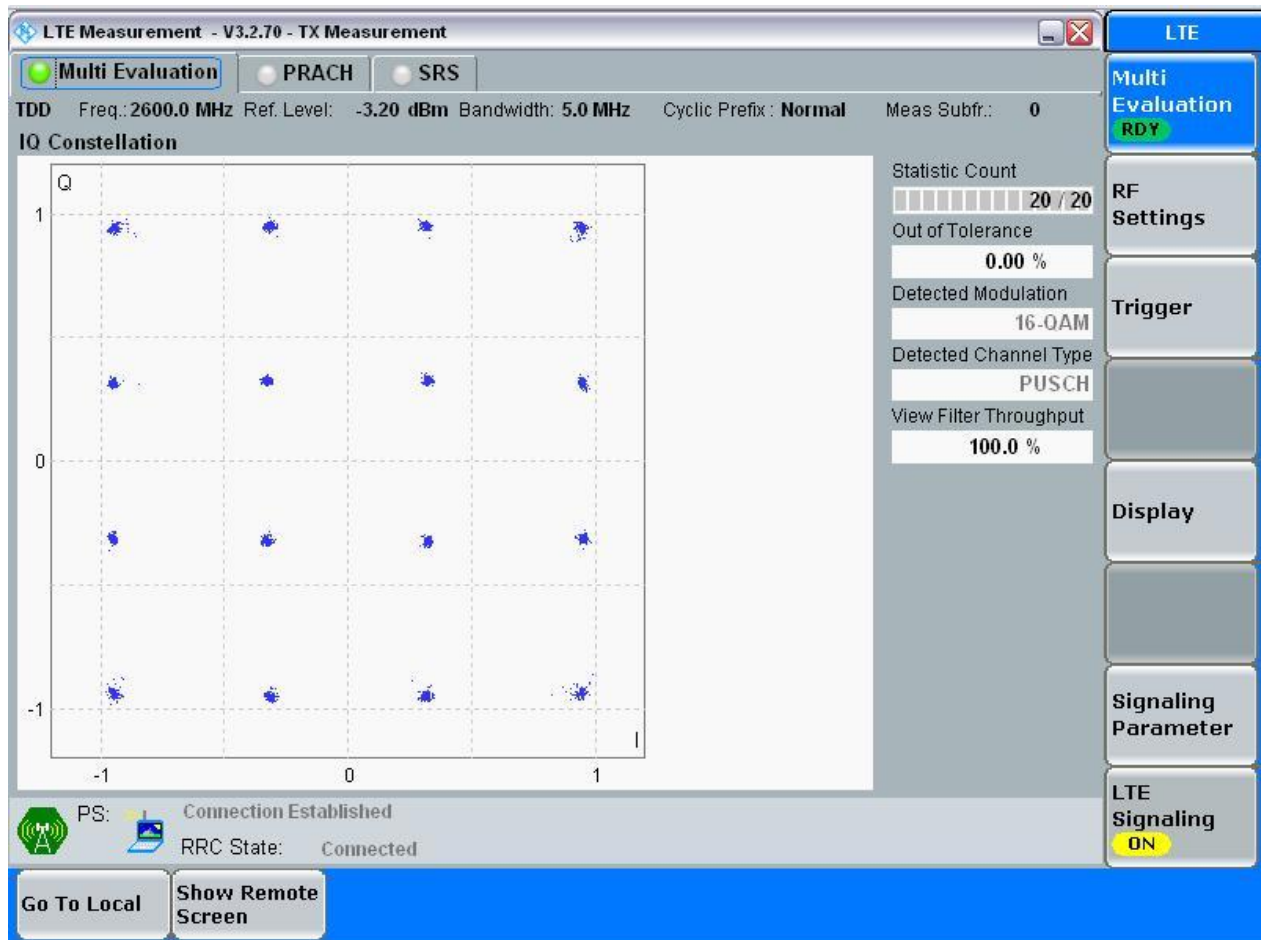


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

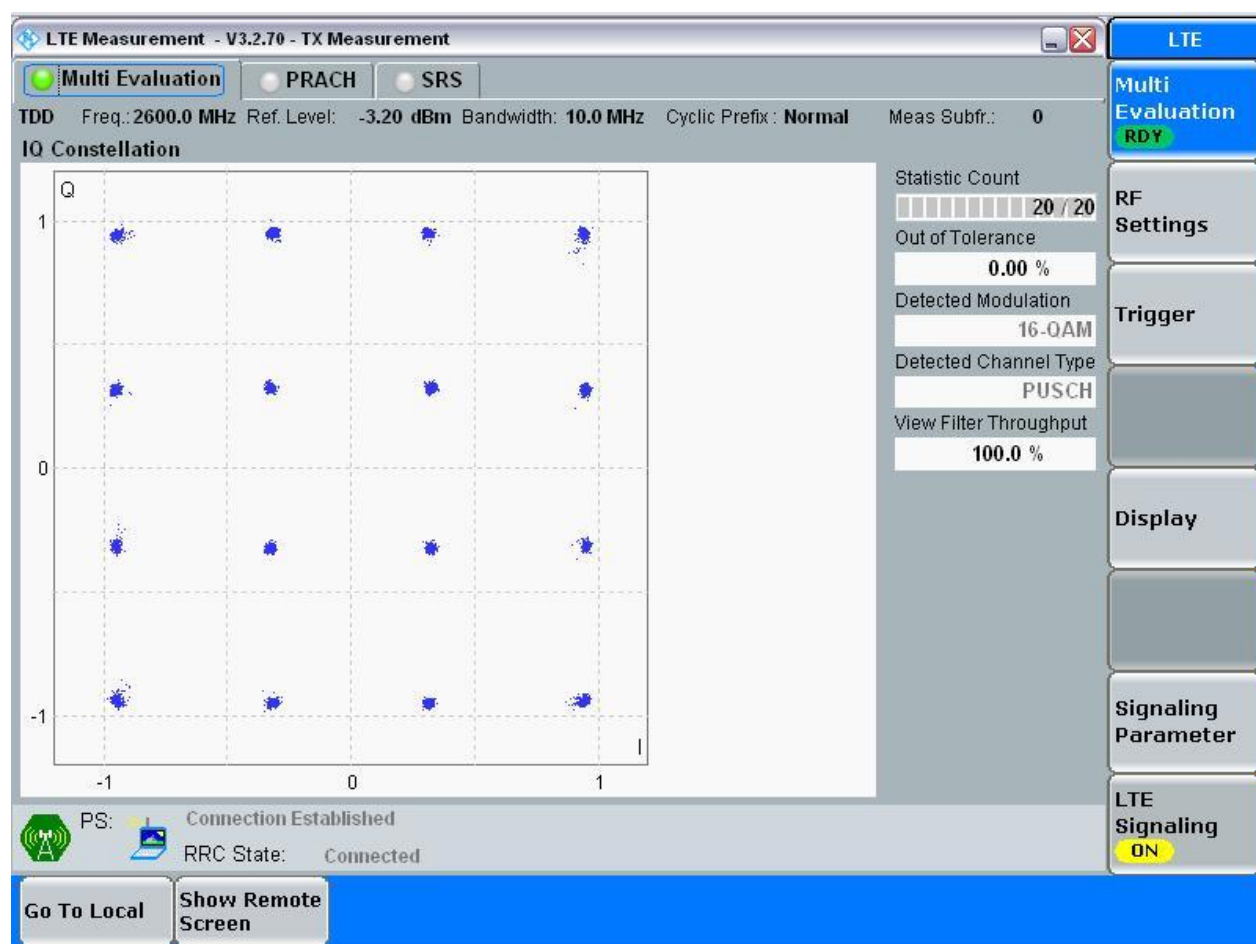
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

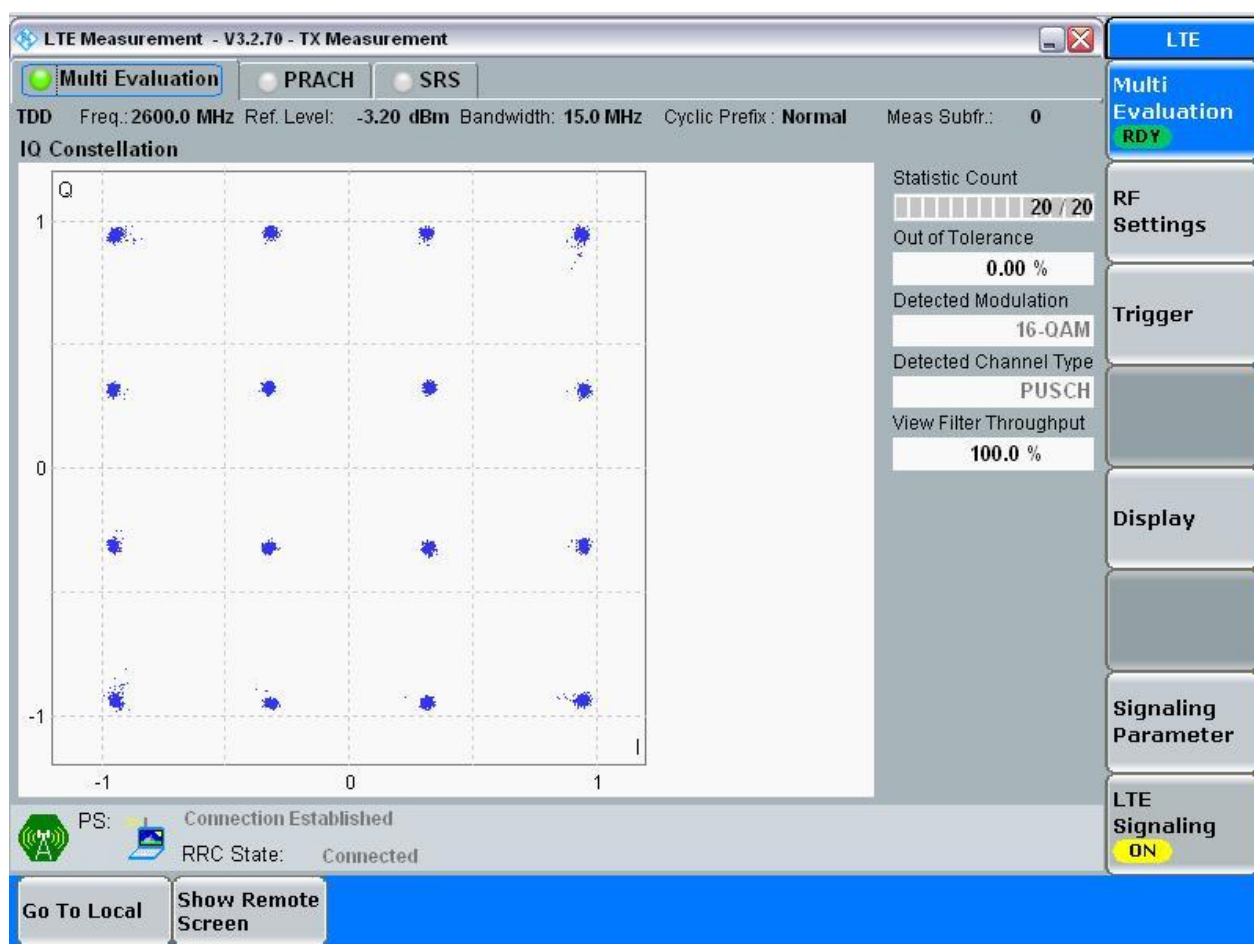
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

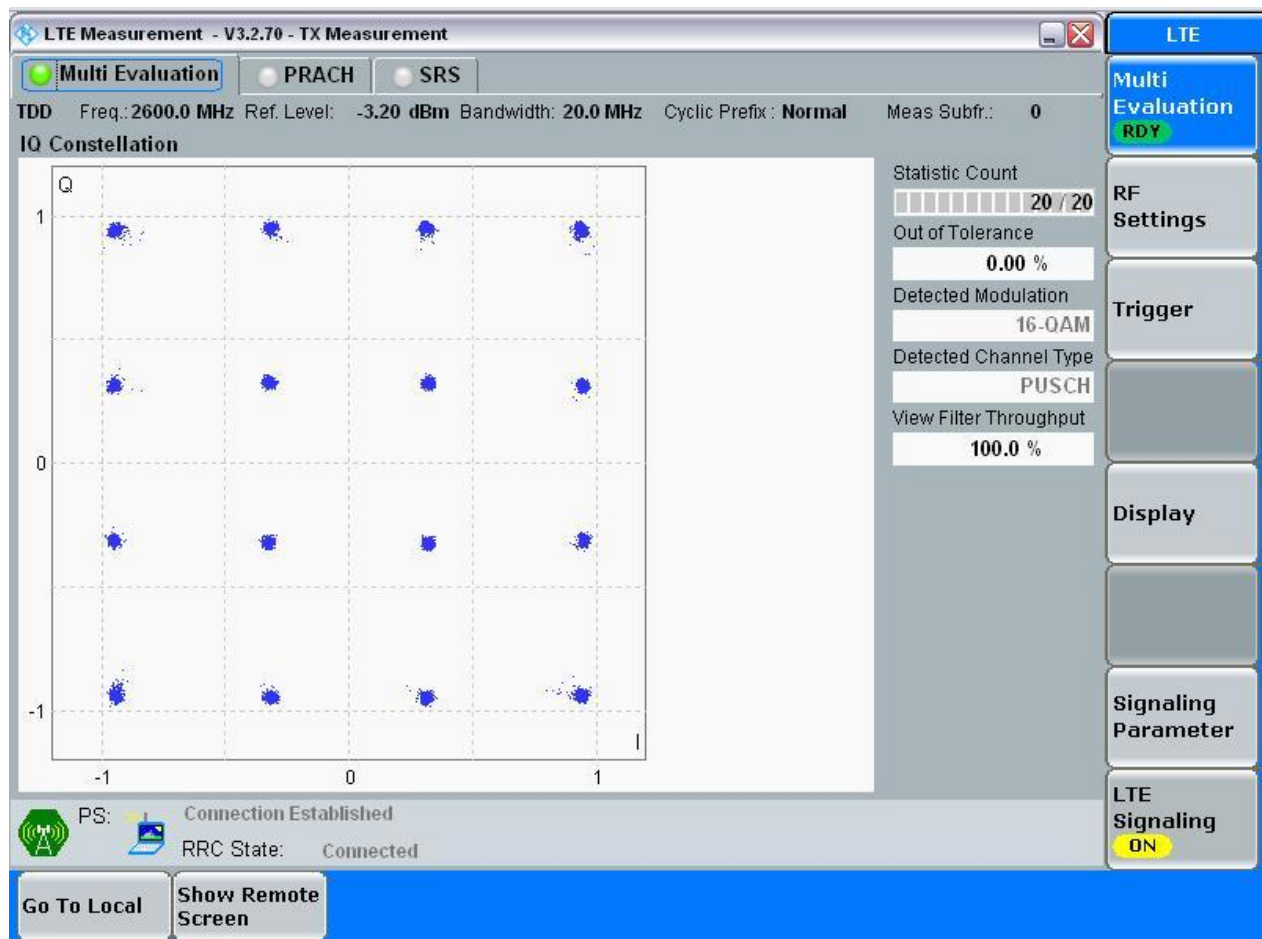
3.1.1.2.3.1.1 Test RB = RB75#0



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	4.50	5.06	Pass
			MCH	RB25#0	4.53	5.00	Pass
			HCH	RB25#0	4.49	5.06	Pass
		10	LCH	RB50#0	8.99	9.89	Pass
			MCH	RB50#0	9.01	10.01	Pass
			HCH	RB50#0	8.98	9.98	Pass
		15	LCH	RB75#0	13.52	14.99	Pass
			MCH	RB75#0	13.40	14.32	Pass
			HCH	RB75#0	13.51	15.04	Pass
		20	LCH	RB100#0	18.09	19.84	Pass
			MCH	RB100#0	18.00	19.99	Pass
			HCH	RB100#0	17.98	19.93	Pass
	LTE/TM2	5	LCH	RB25#0	4.50	5.00	Pass
			MCH	RB25#0	4.50	4.90	Pass
			HCH	RB25#0	4.52	5.07	Pass
		10	LCH	RB50#0	9.00	9.92	Pass
			MCH	RB50#0	9.01	9.92	Pass
			HCH	RB50#0	8.96	9.90	Pass
		15	LCH	RB75#0	13.51	15.11	Pass
			MCH	RB75#0	13.49	14.98	Pass
			HCH	RB75#0	13.47	14.94	Pass
		20	LCH	RB100#0	18.00	19.82	Pass
			MCH	RB100#0	17.94	18.98	Pass
			HCH	RB100#0	17.96	19.73	Pass



Part II - Test Plots

4.1 For LTE

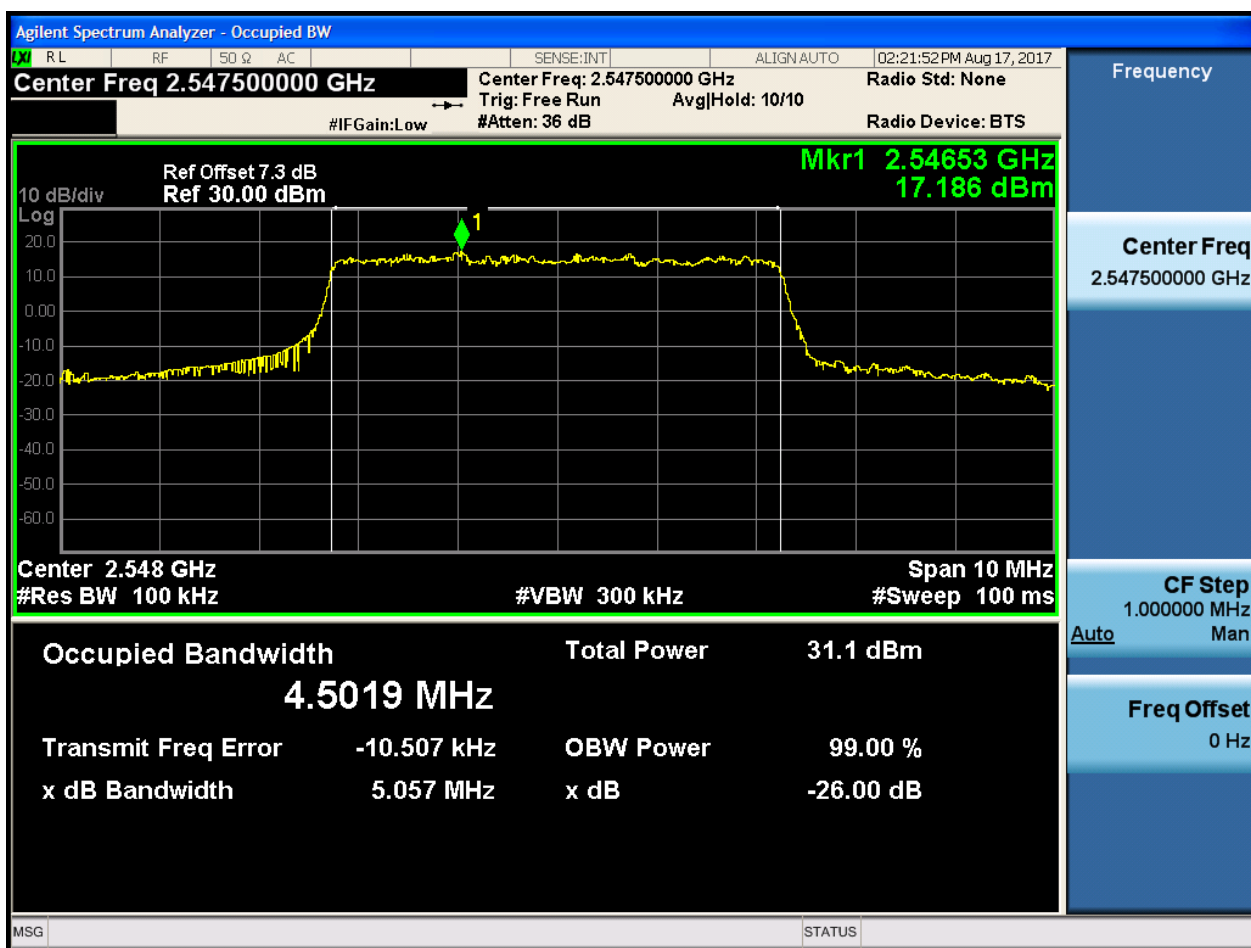
4.1.1 Test Band = BAND41

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

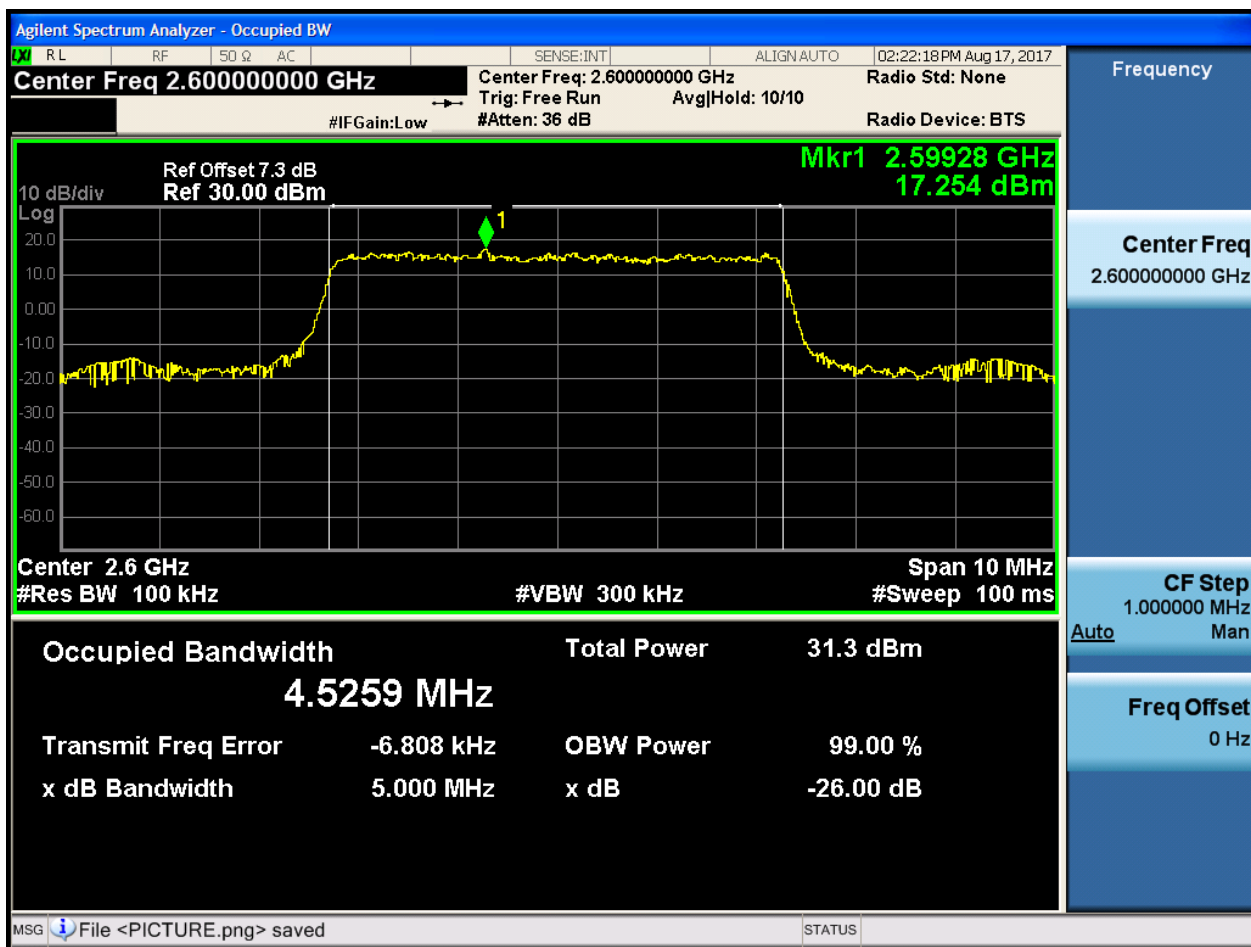
4.1.1.1.1.1.1 Test RB = RB25#0





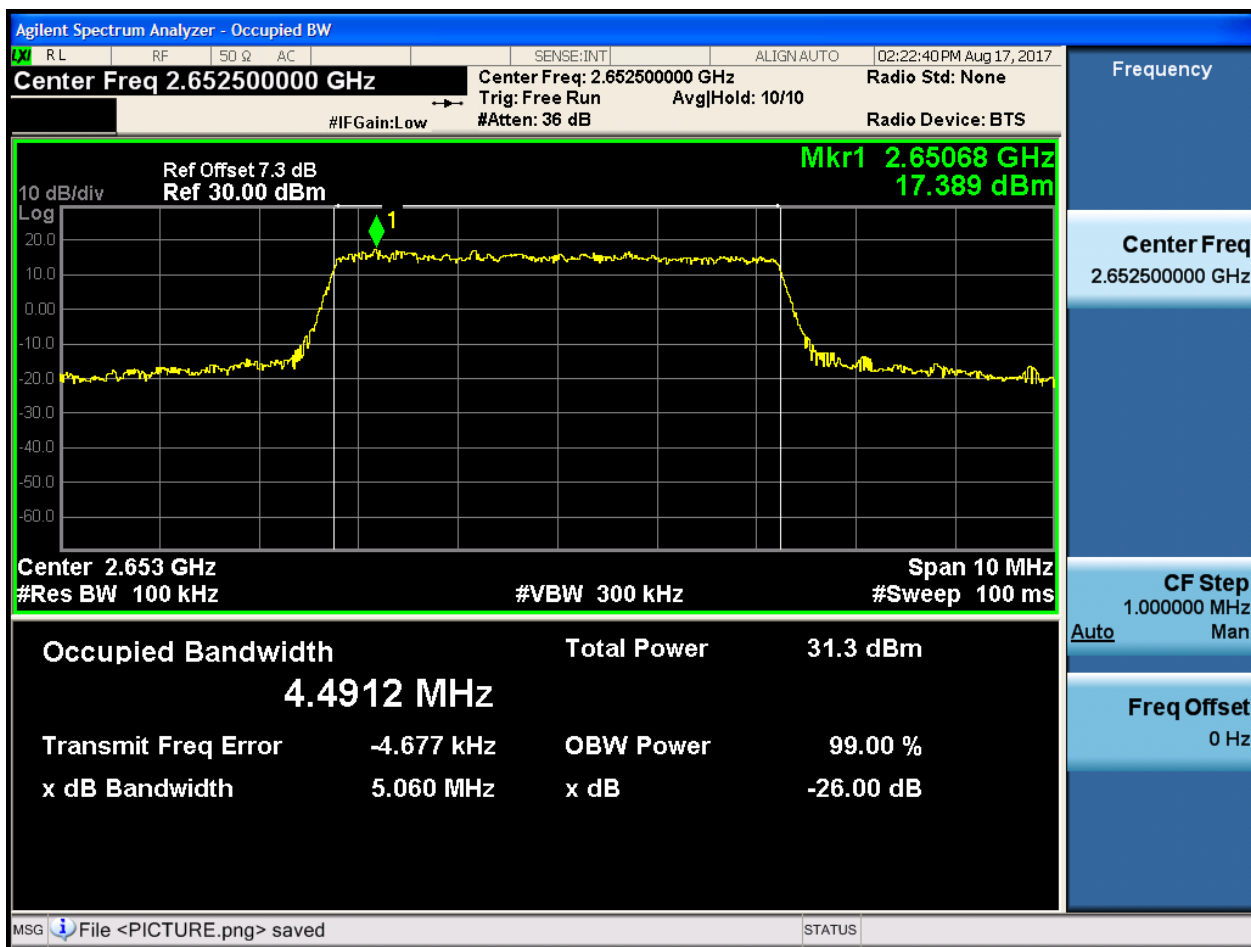
4.1.1.1.1.2 Test Channel = MCH

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

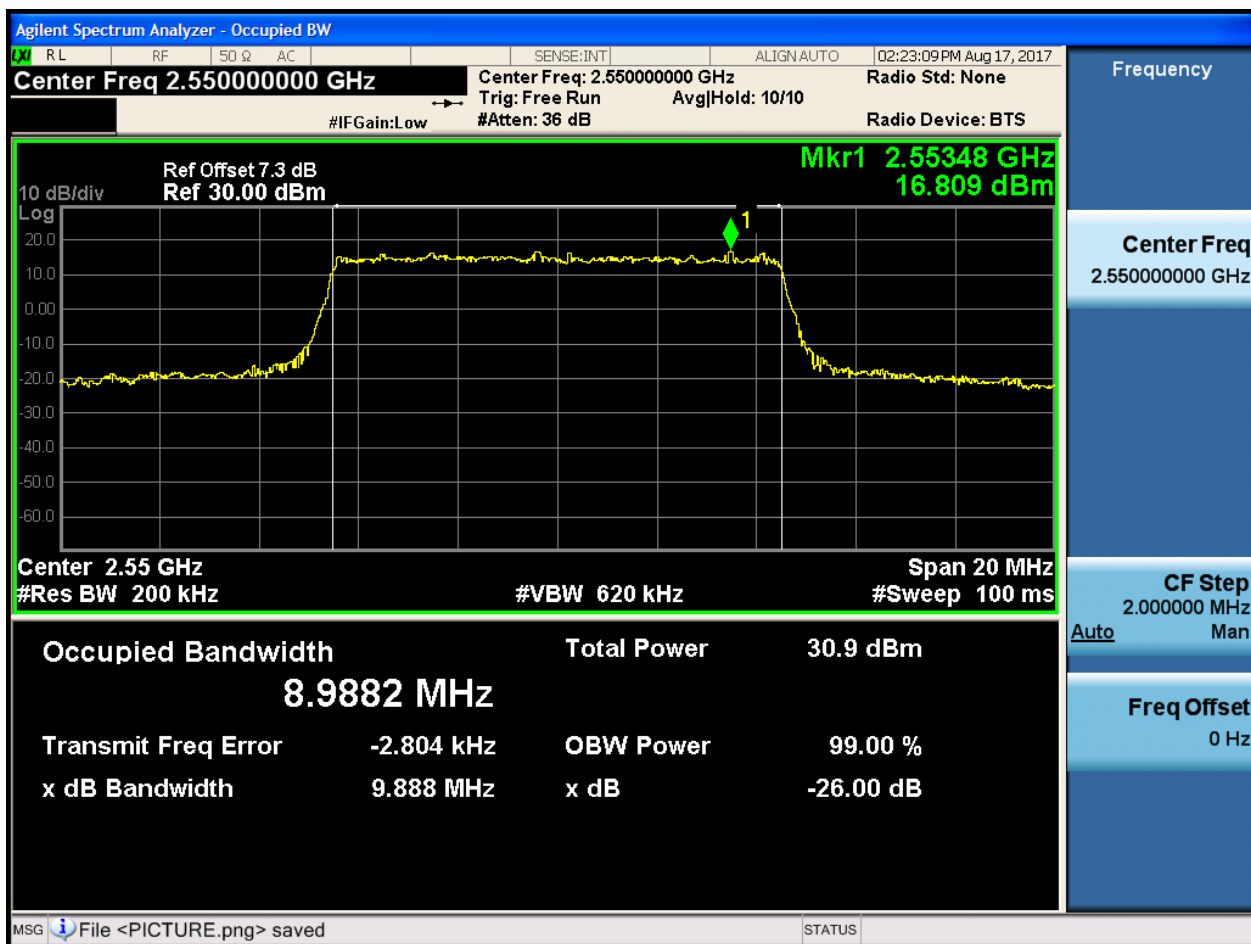




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

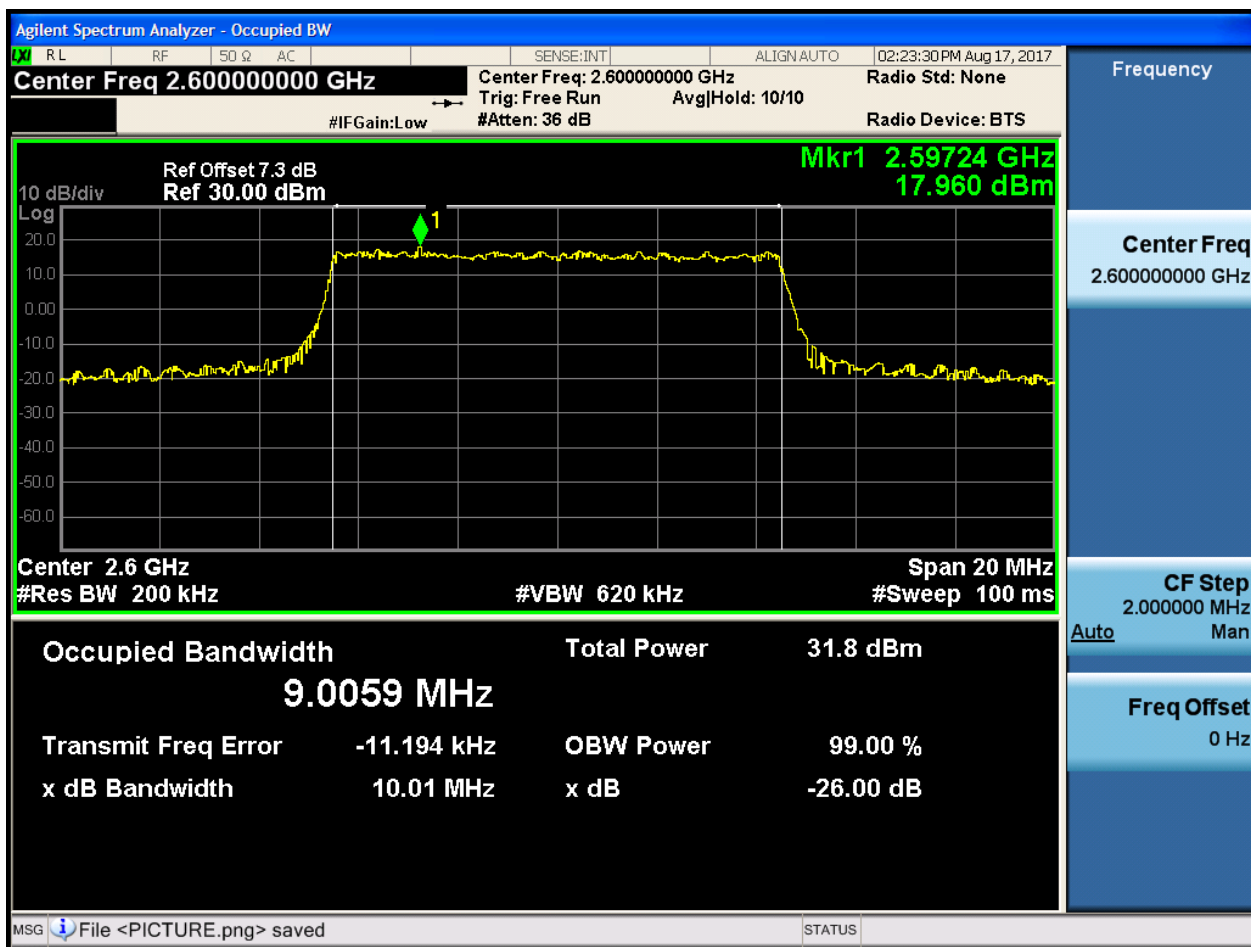
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

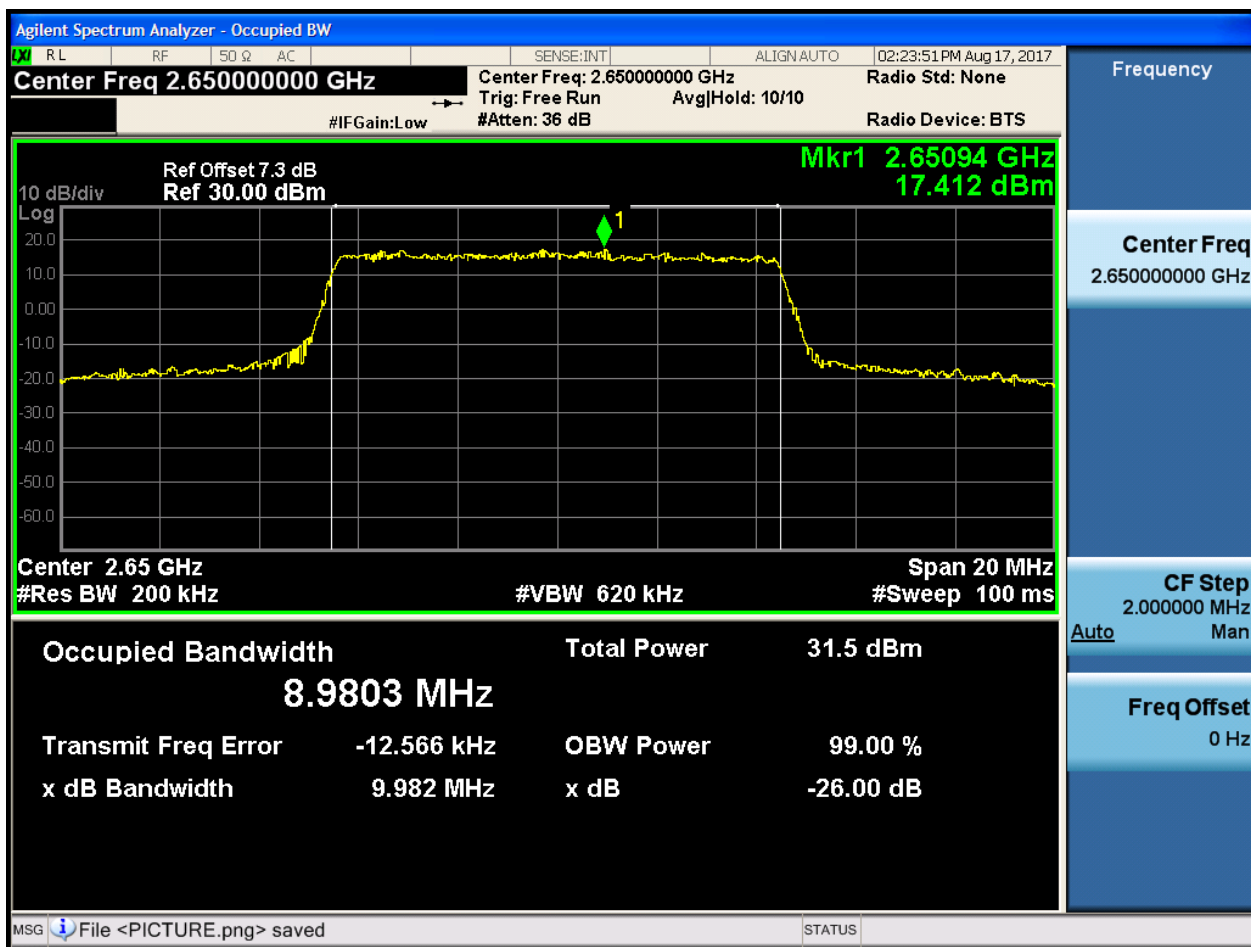
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

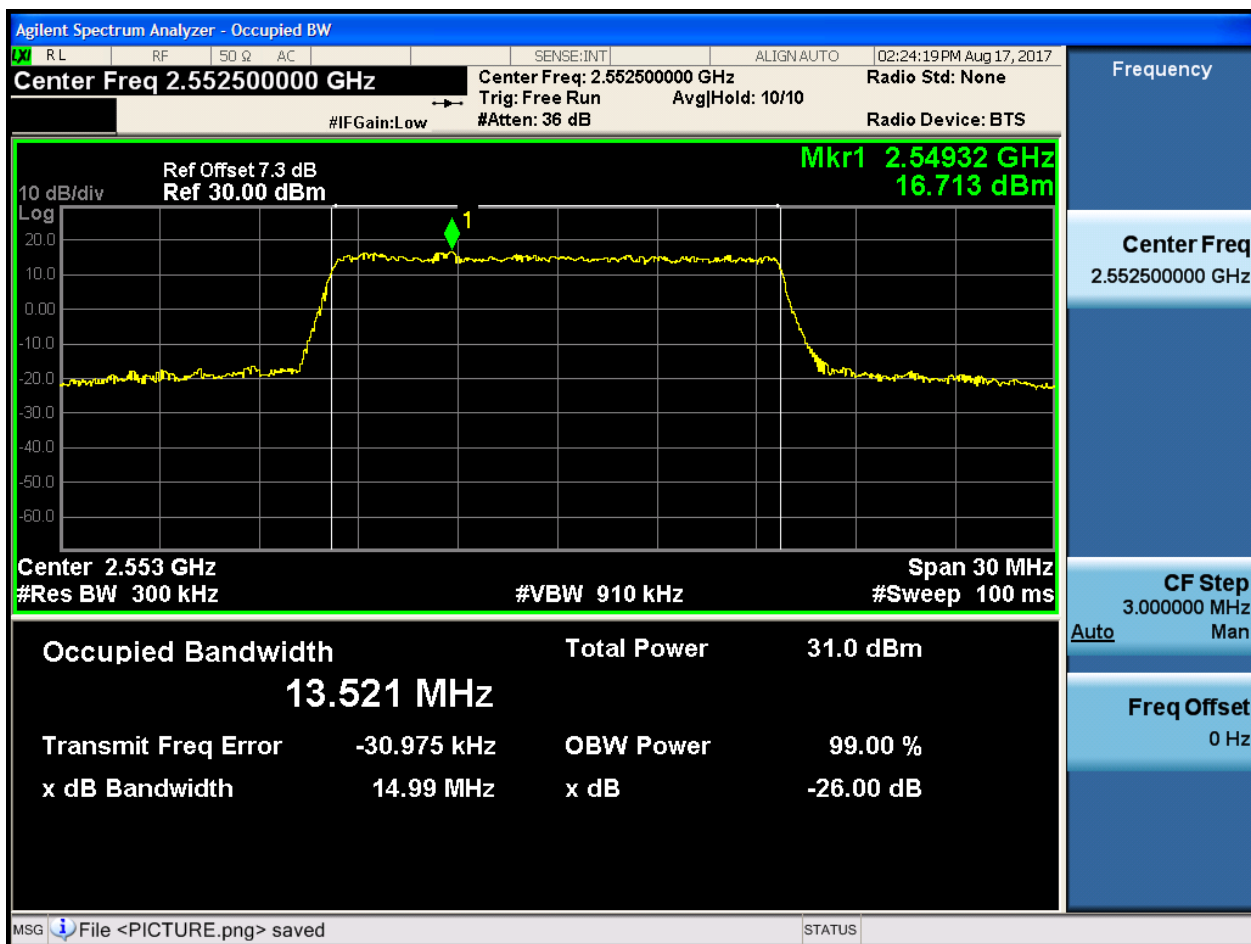




4.1.1.1.3 Test Bandwidth = 15

4.1.1.1.3.1 Test Channel = LCH

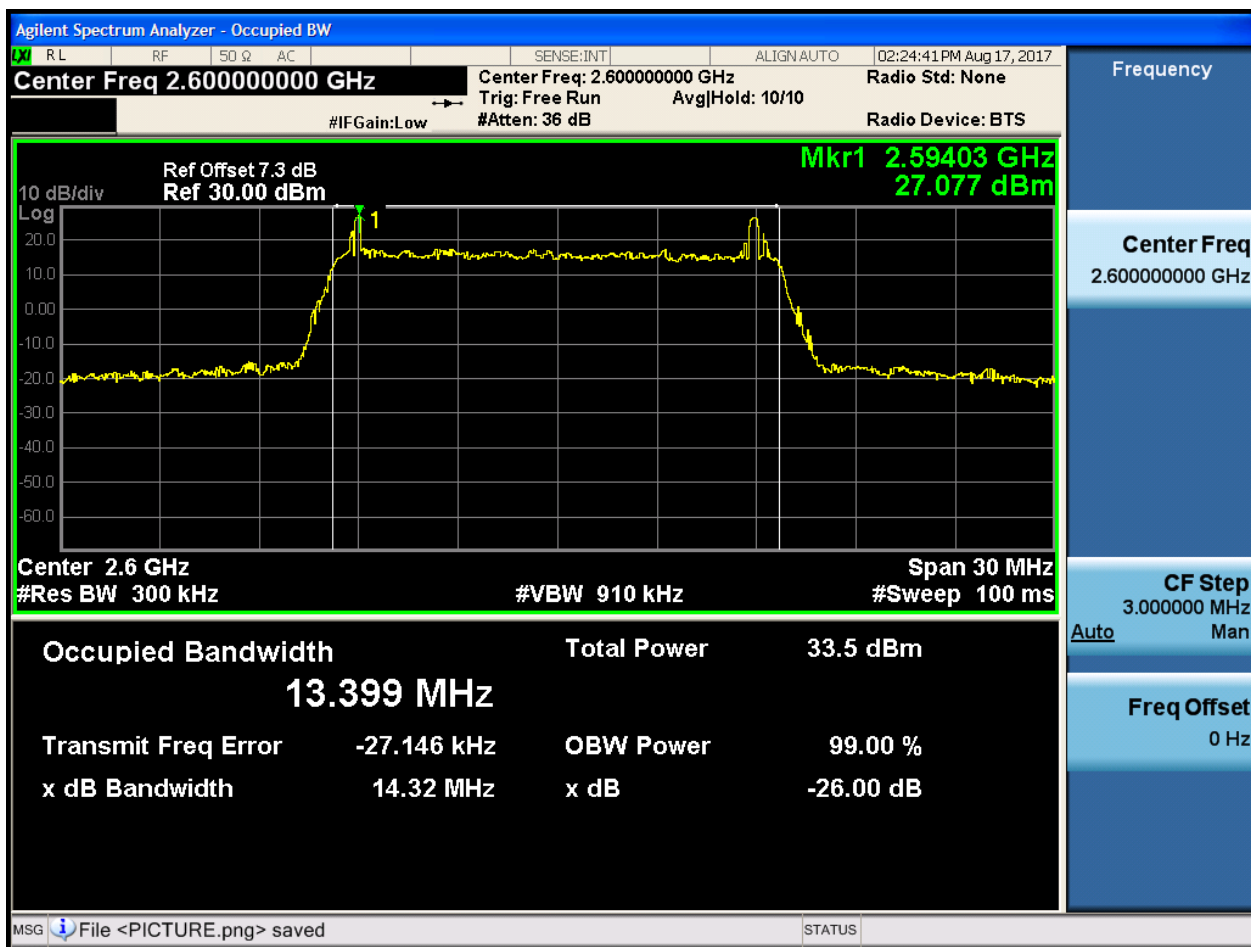
4.1.1.1.3.1.1 Test RB = RB75#0





4.1.1.1.3.2 Test Channel = MCH

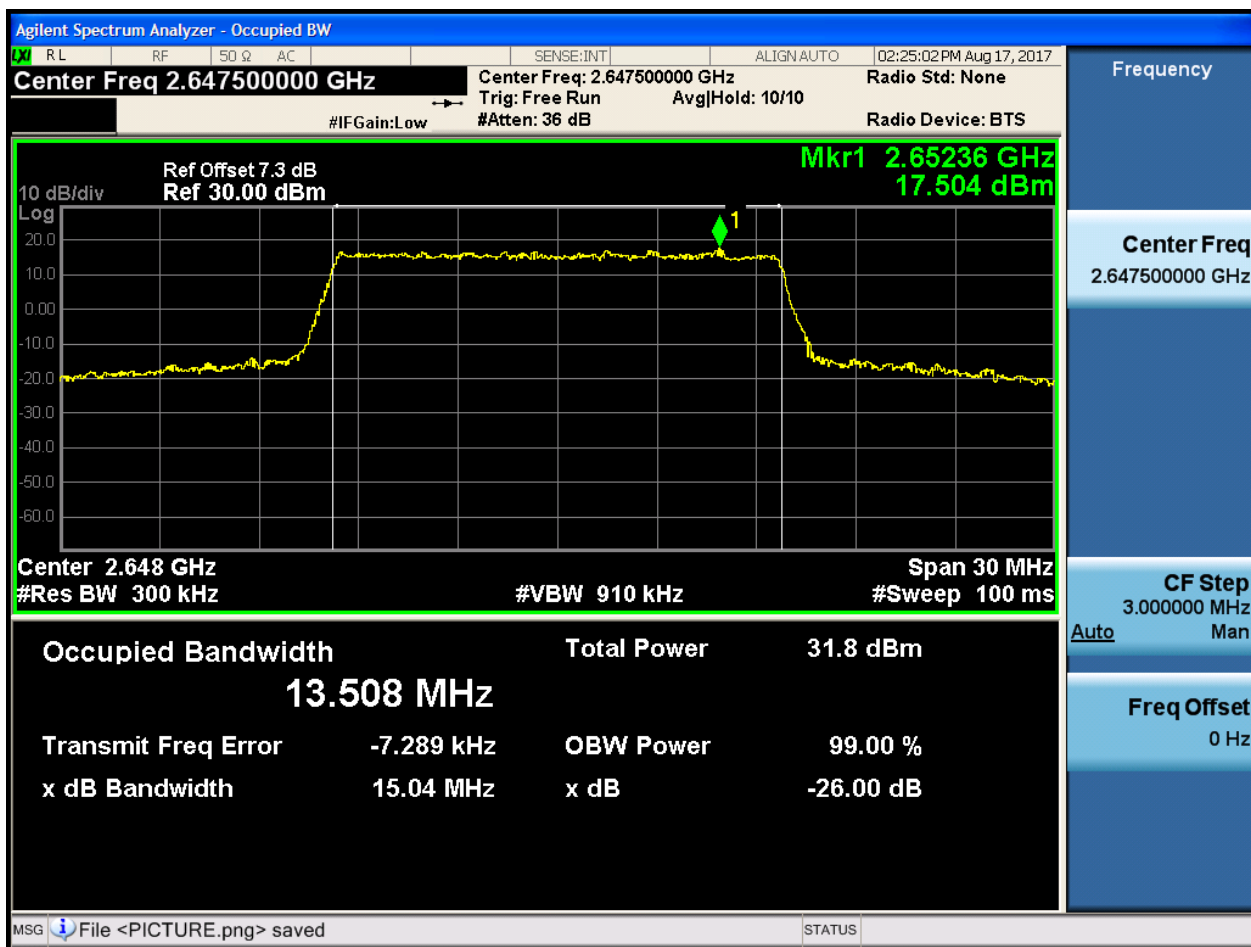
4.1.1.1.3.2.1 Test RB = RB75#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

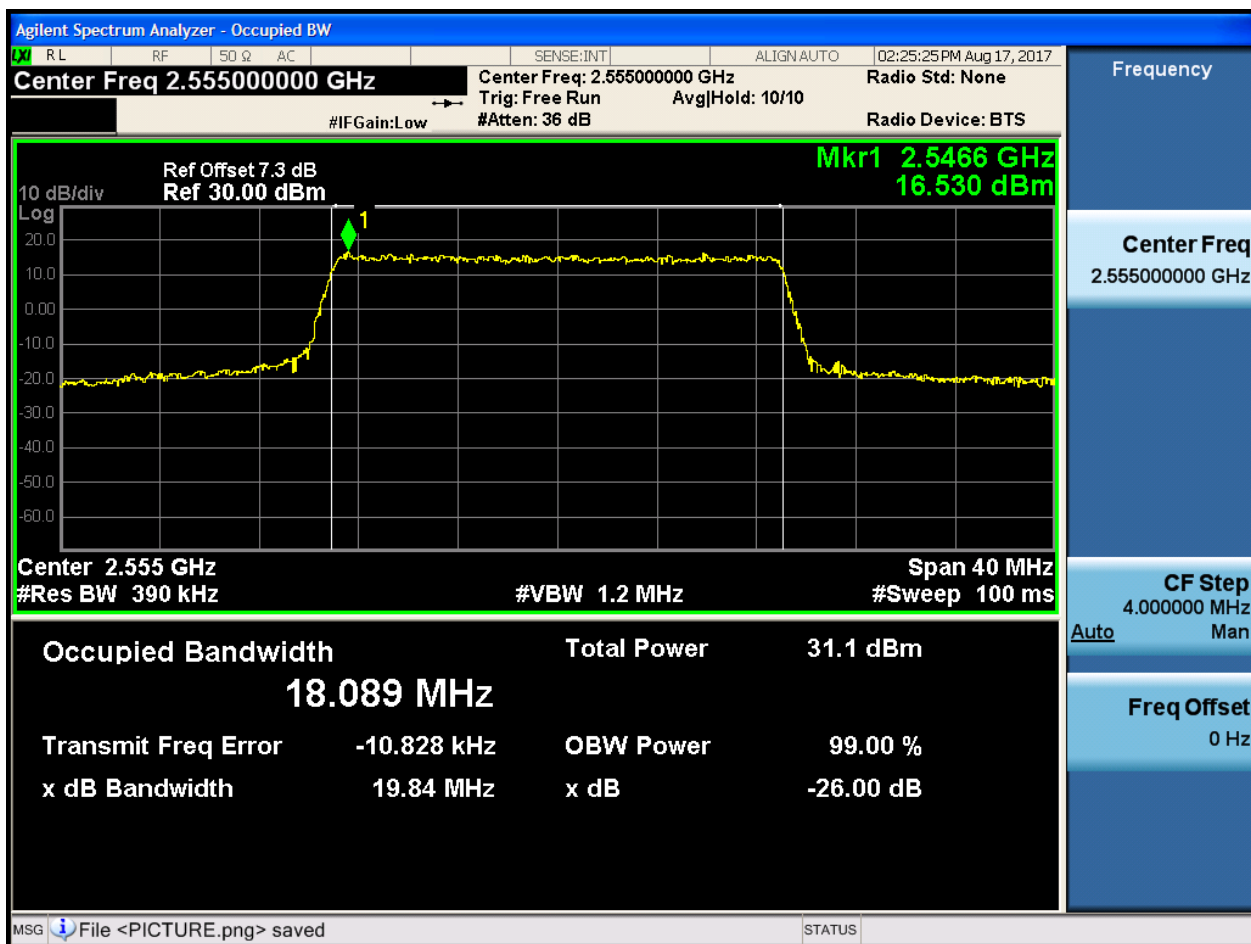




4.1.1.1.4 Test Bandwidth = 20

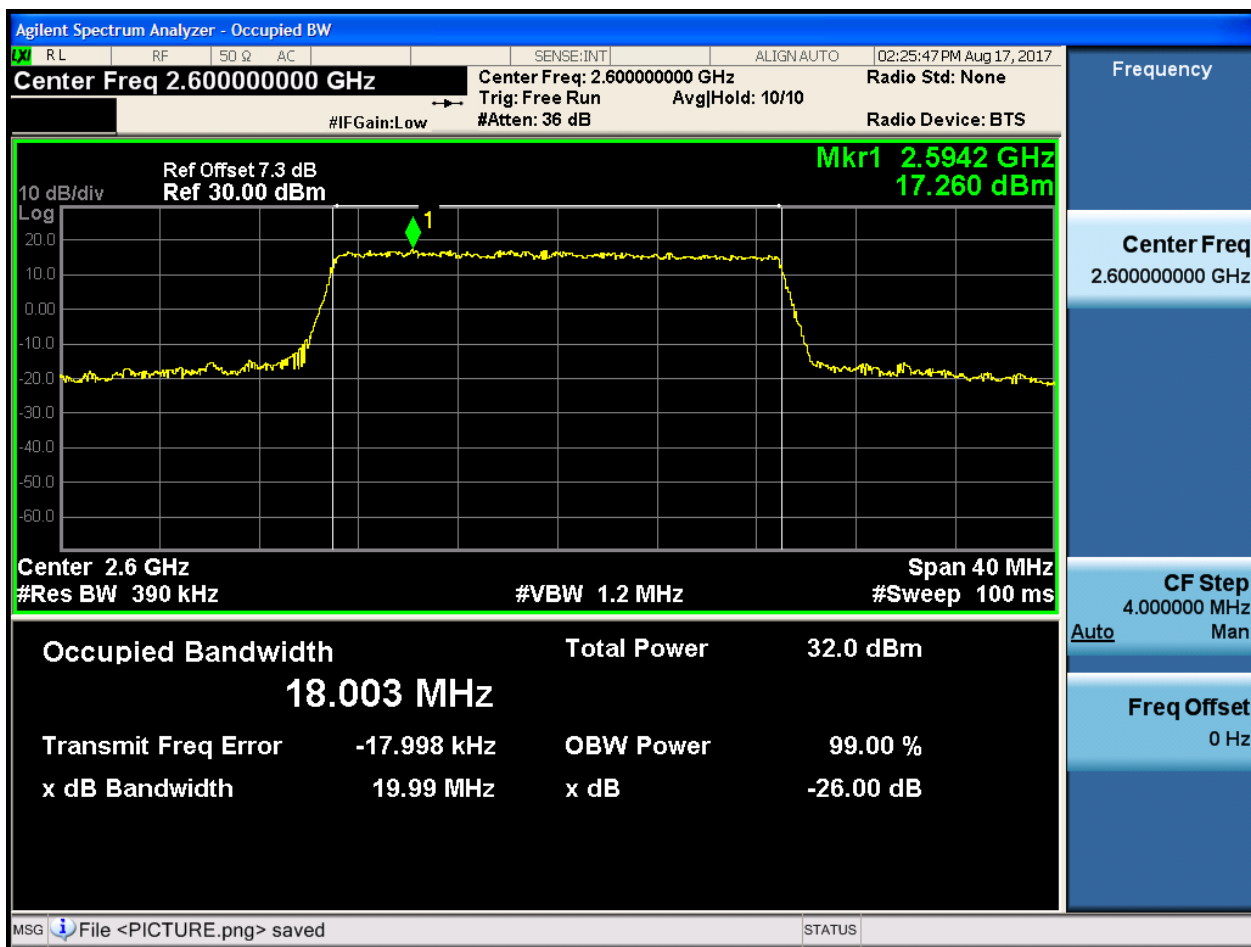
4.1.1.1.4.1 Test Channel = LCH

4.1.1.1.4.1.1 Test RB = RB100#0



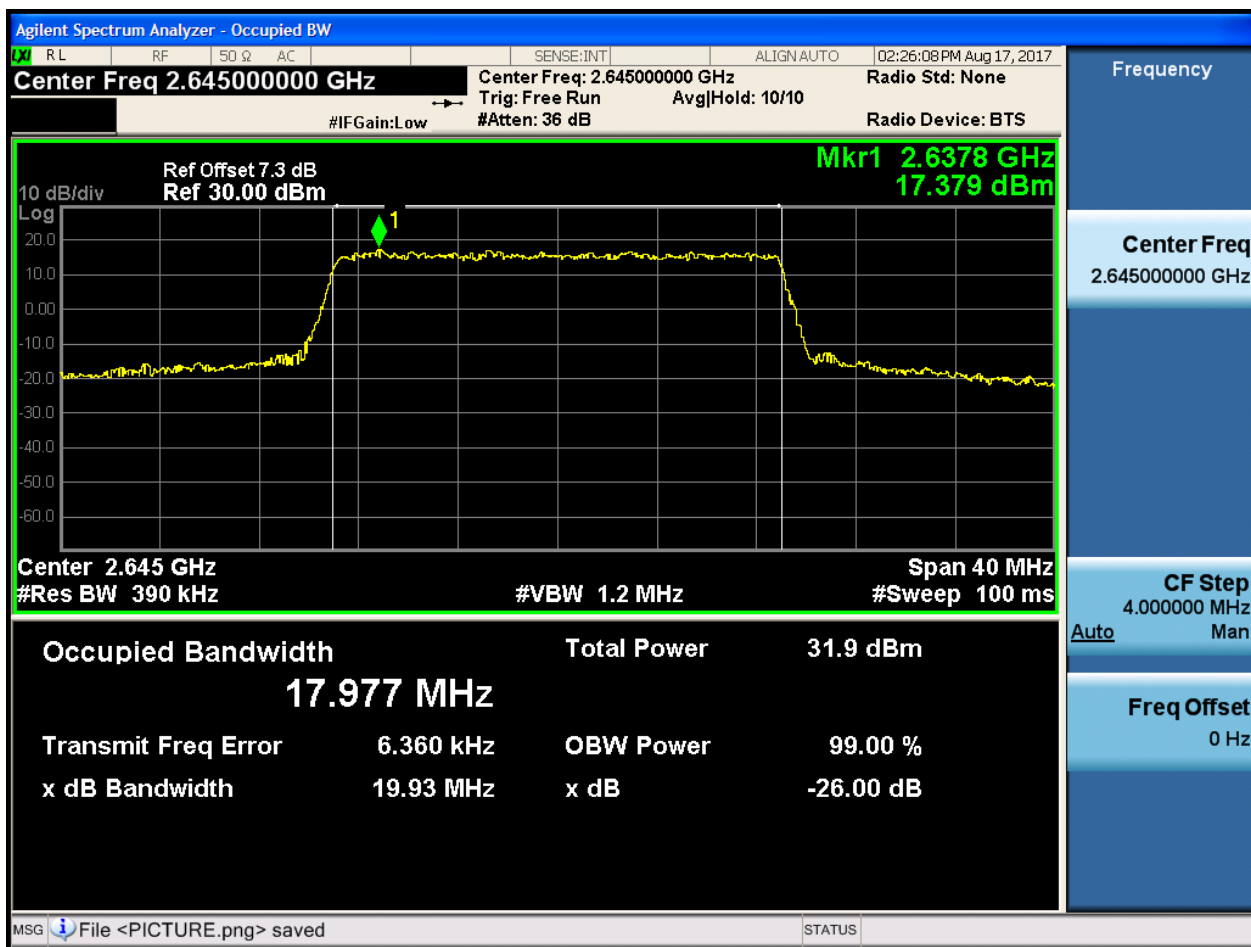
4.1.1.1.4.2 Test Channel = MCH

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



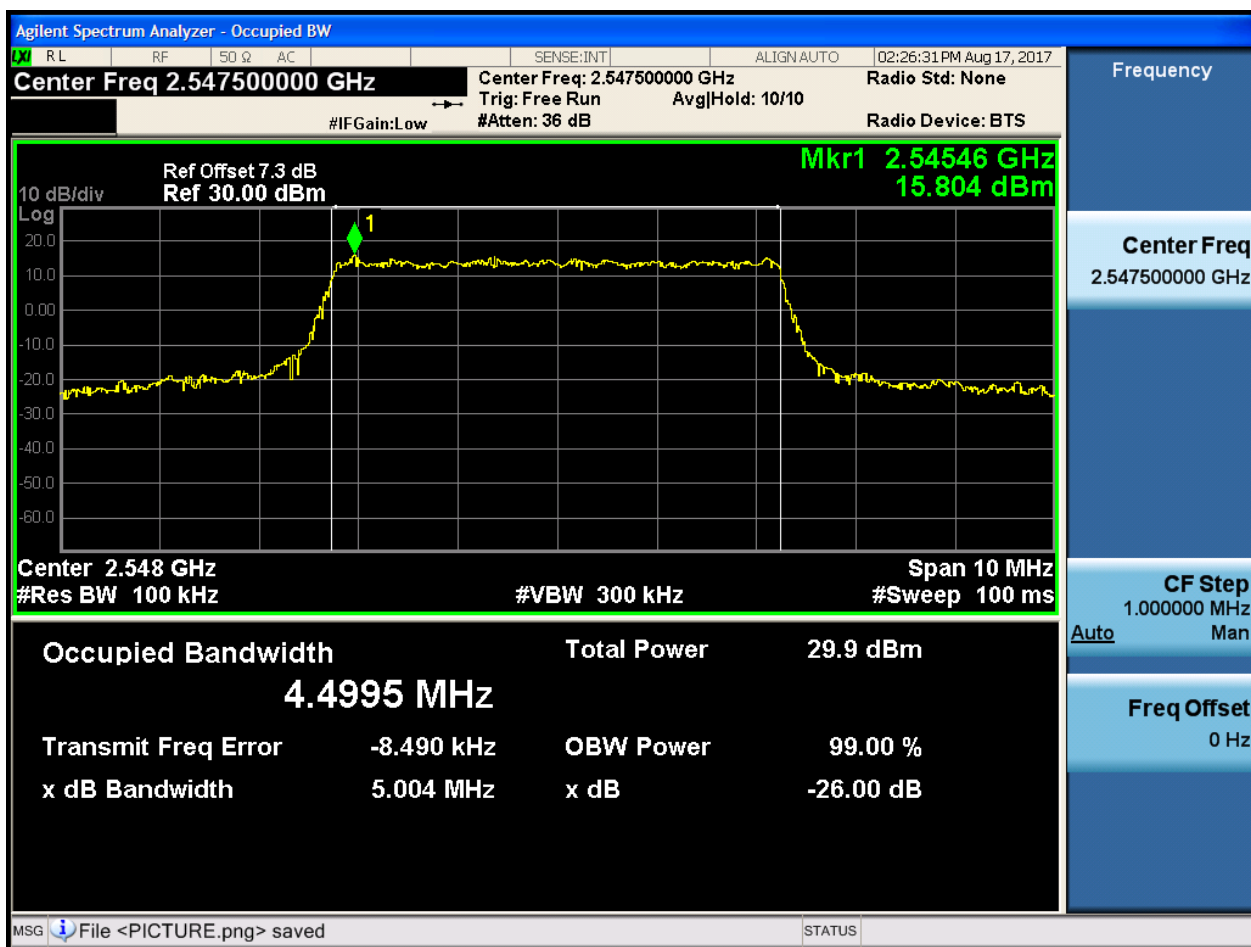


4.1.1.2 Test Mode = LTE/TM2

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

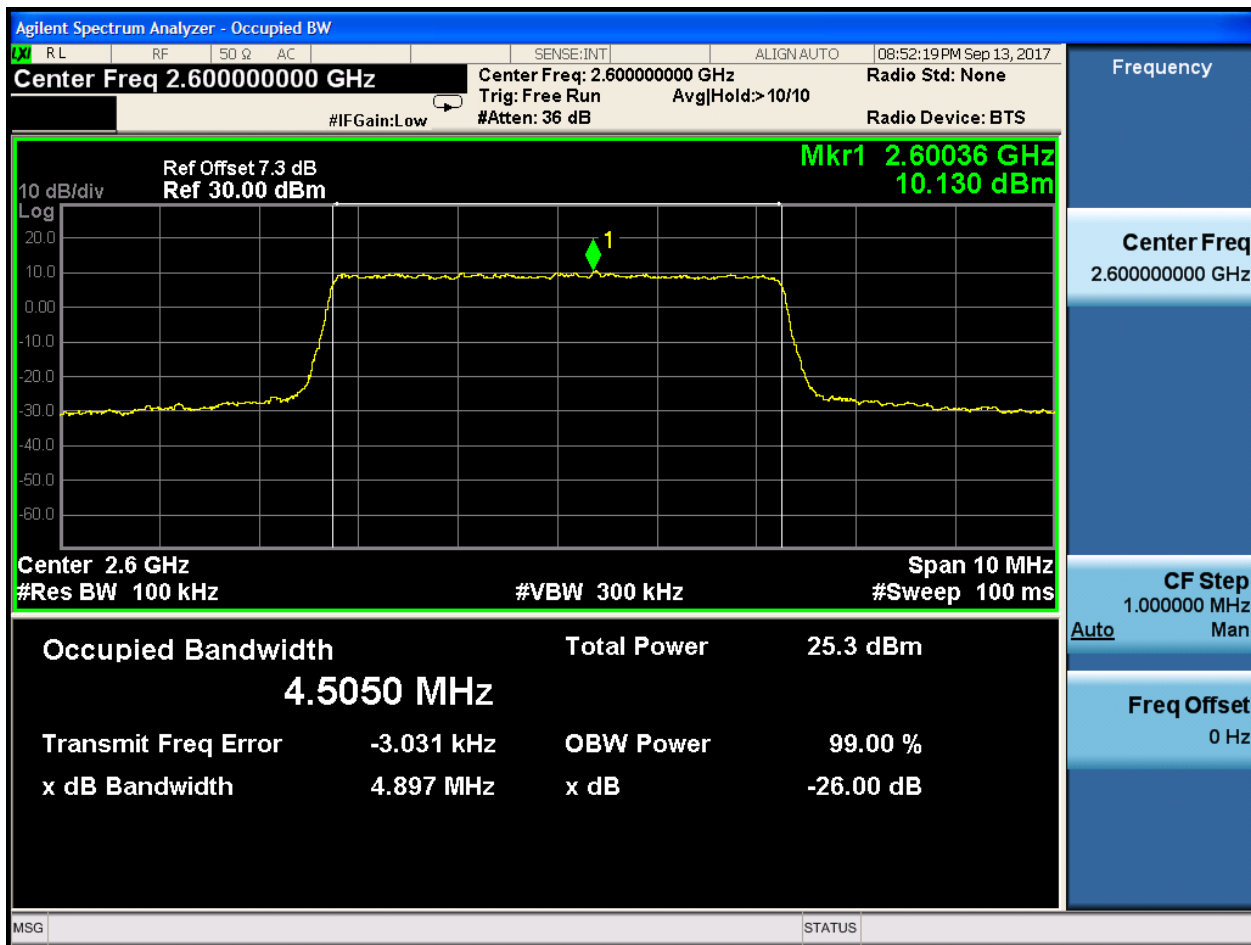




4.1.1.2.1.2 Test Channel = MCH

4.1.1.2.1.2.1 Test RB =

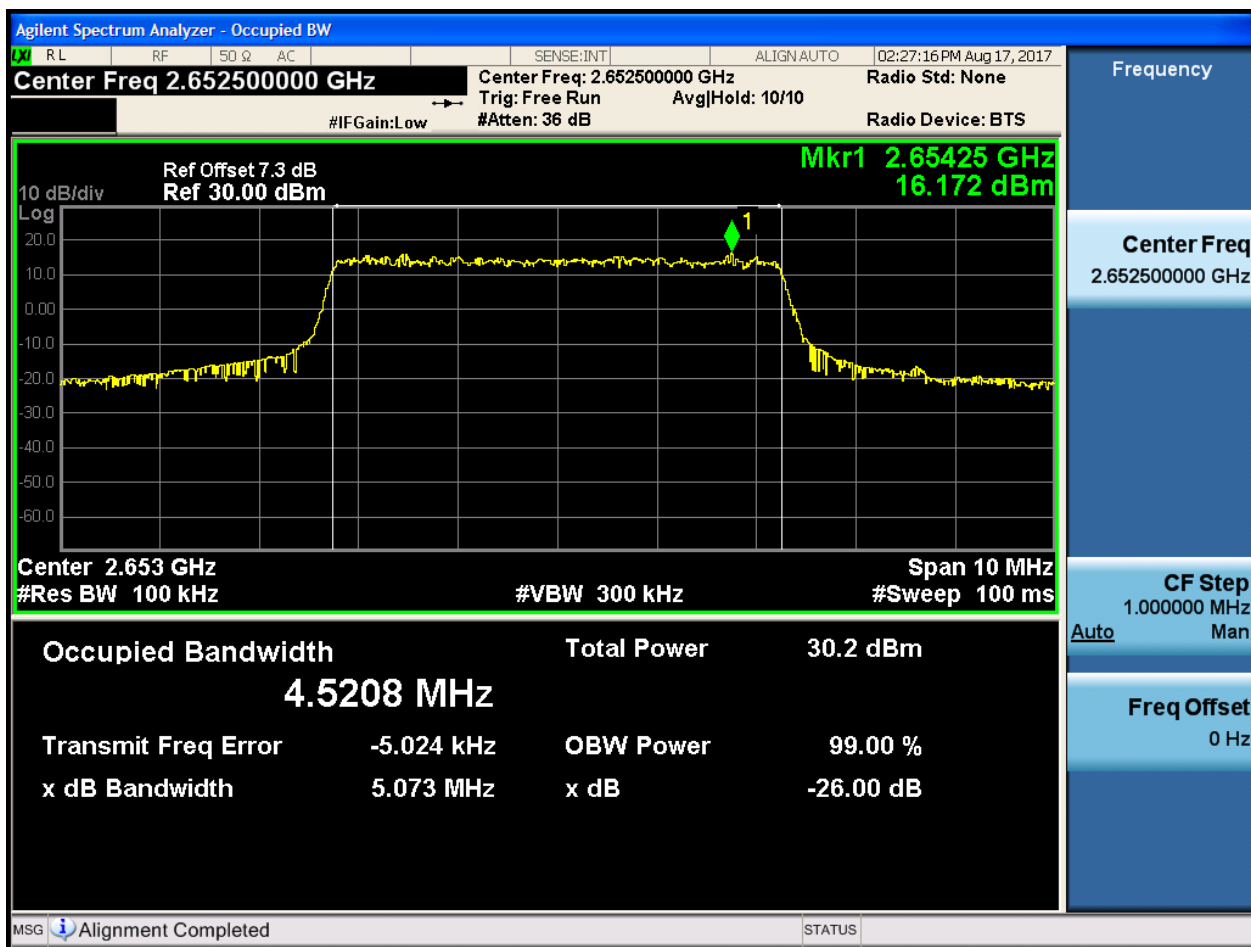
RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

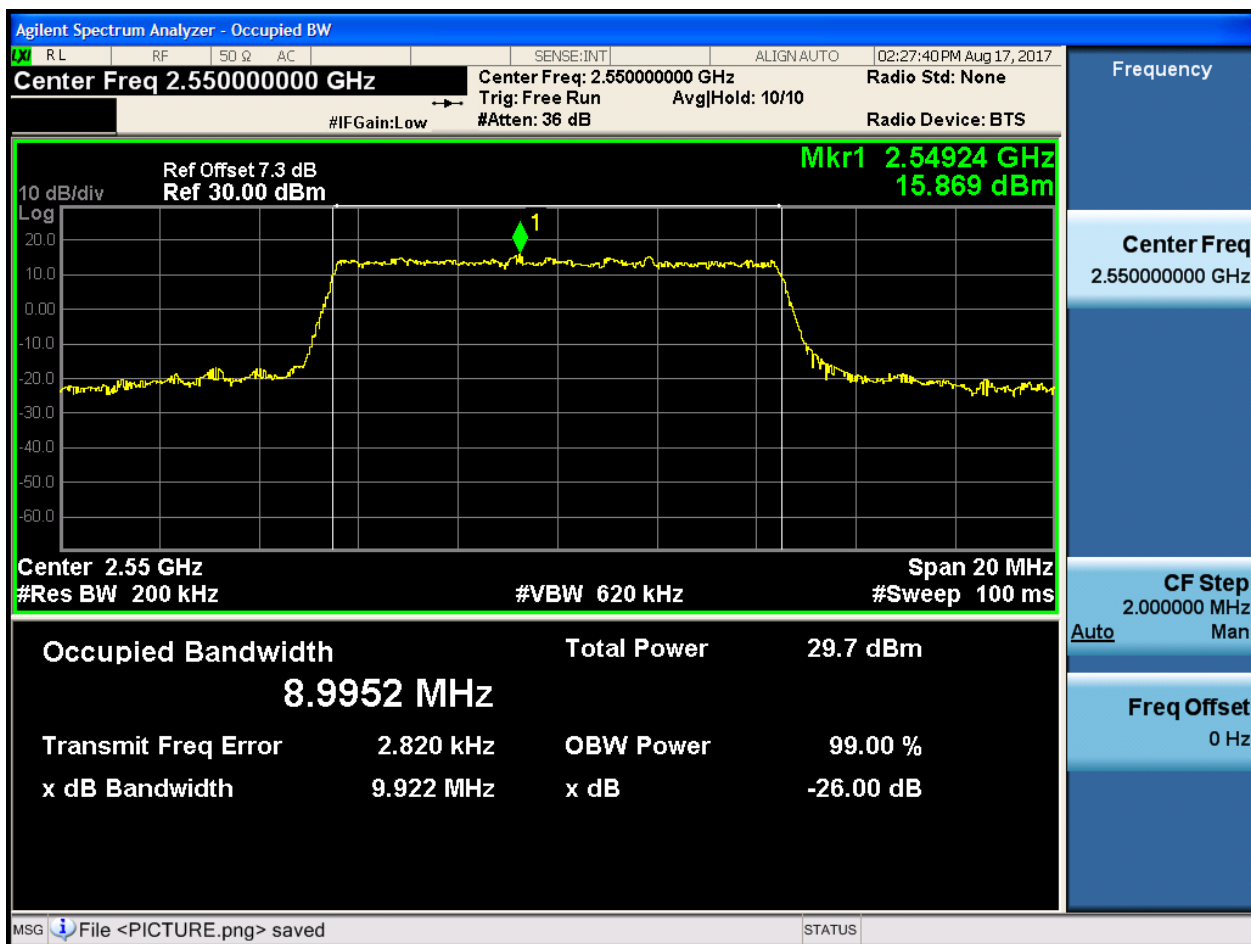




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

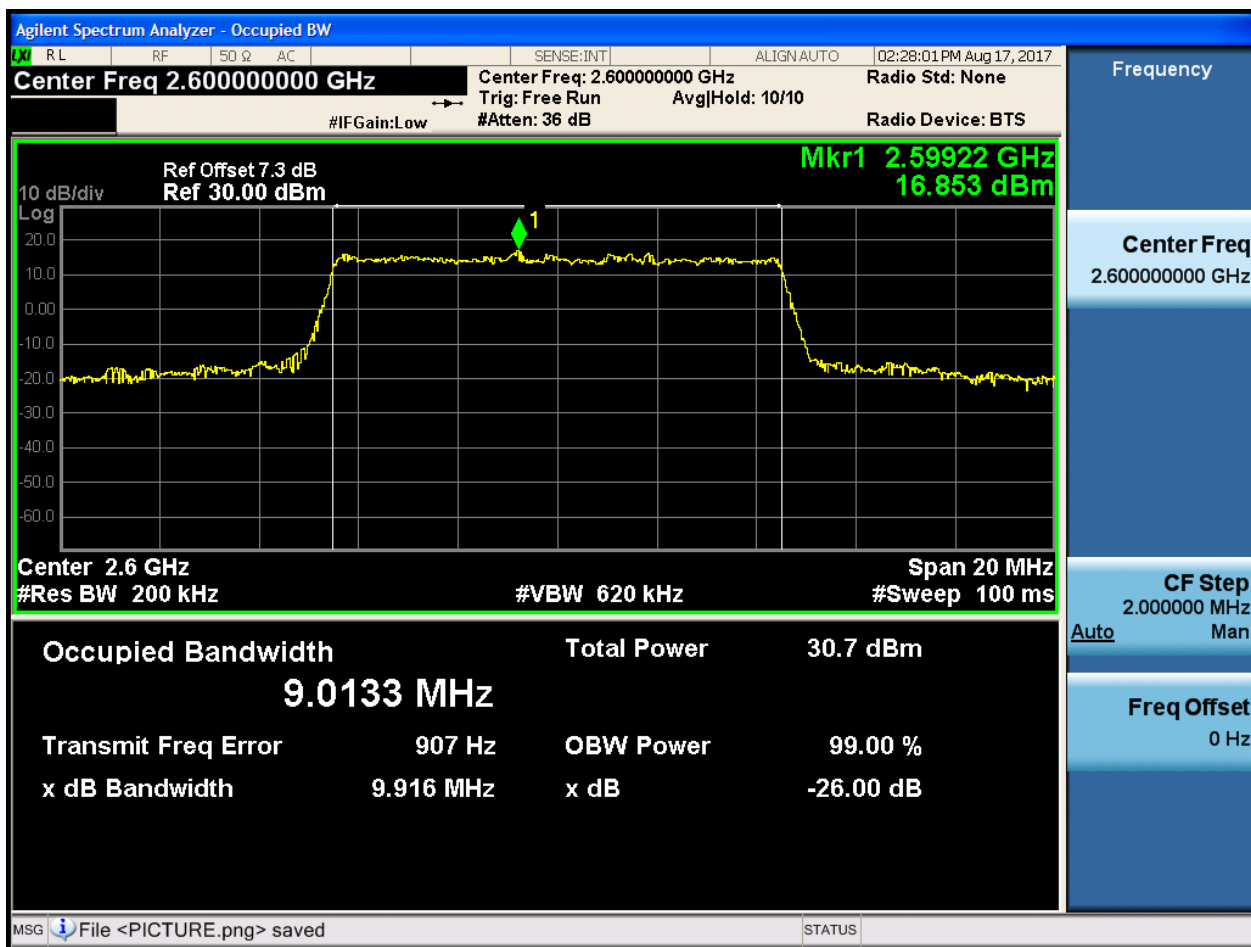
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

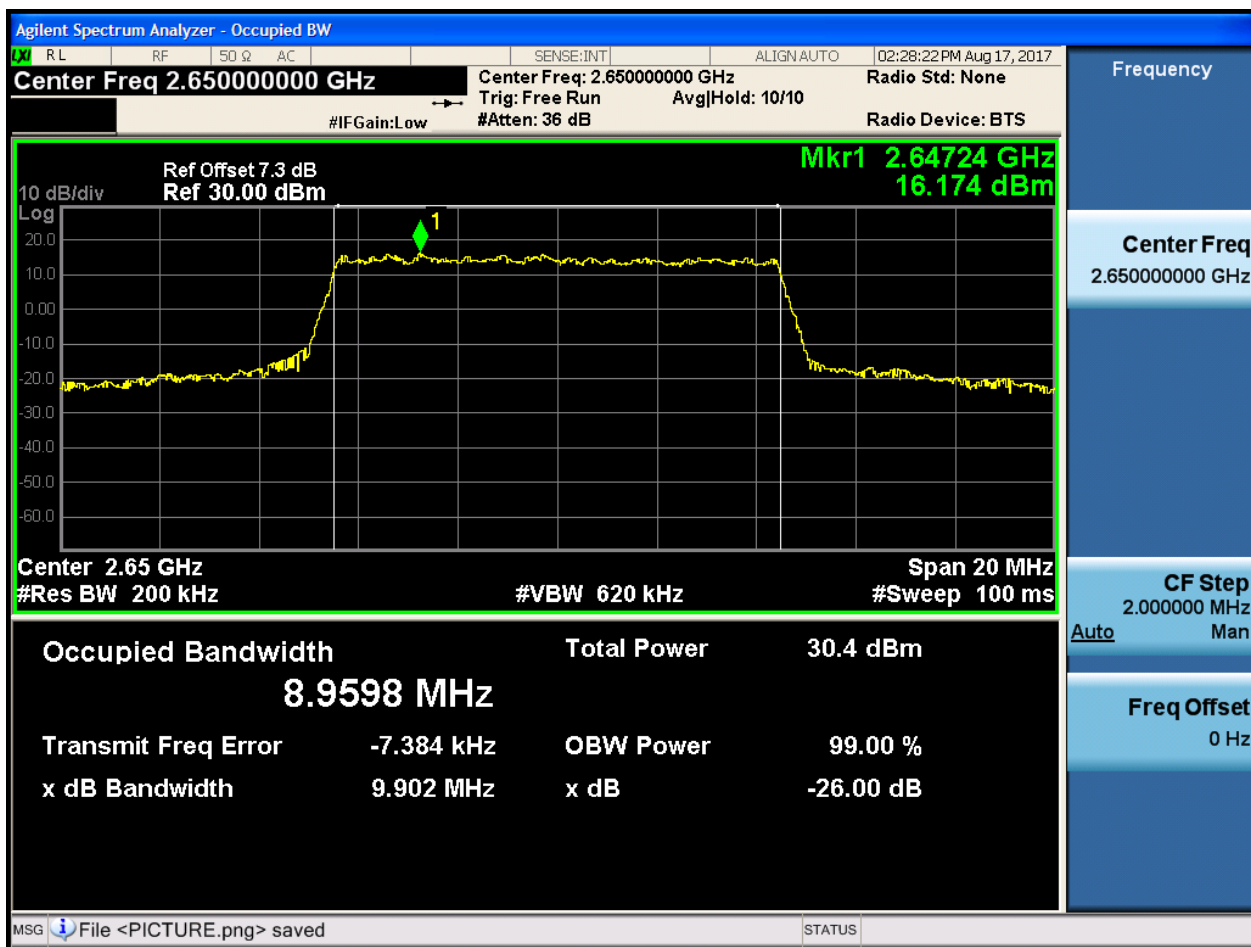
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

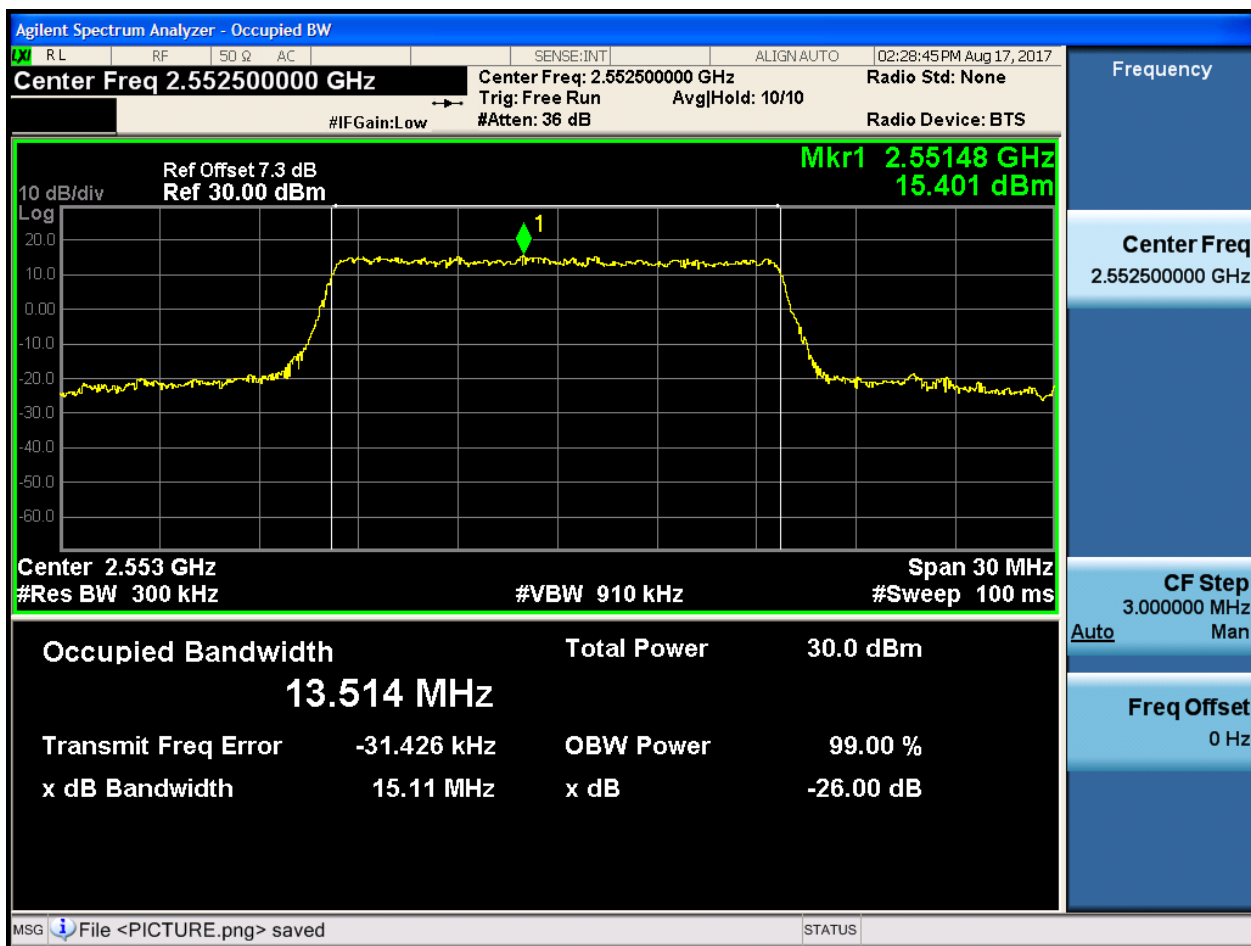




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

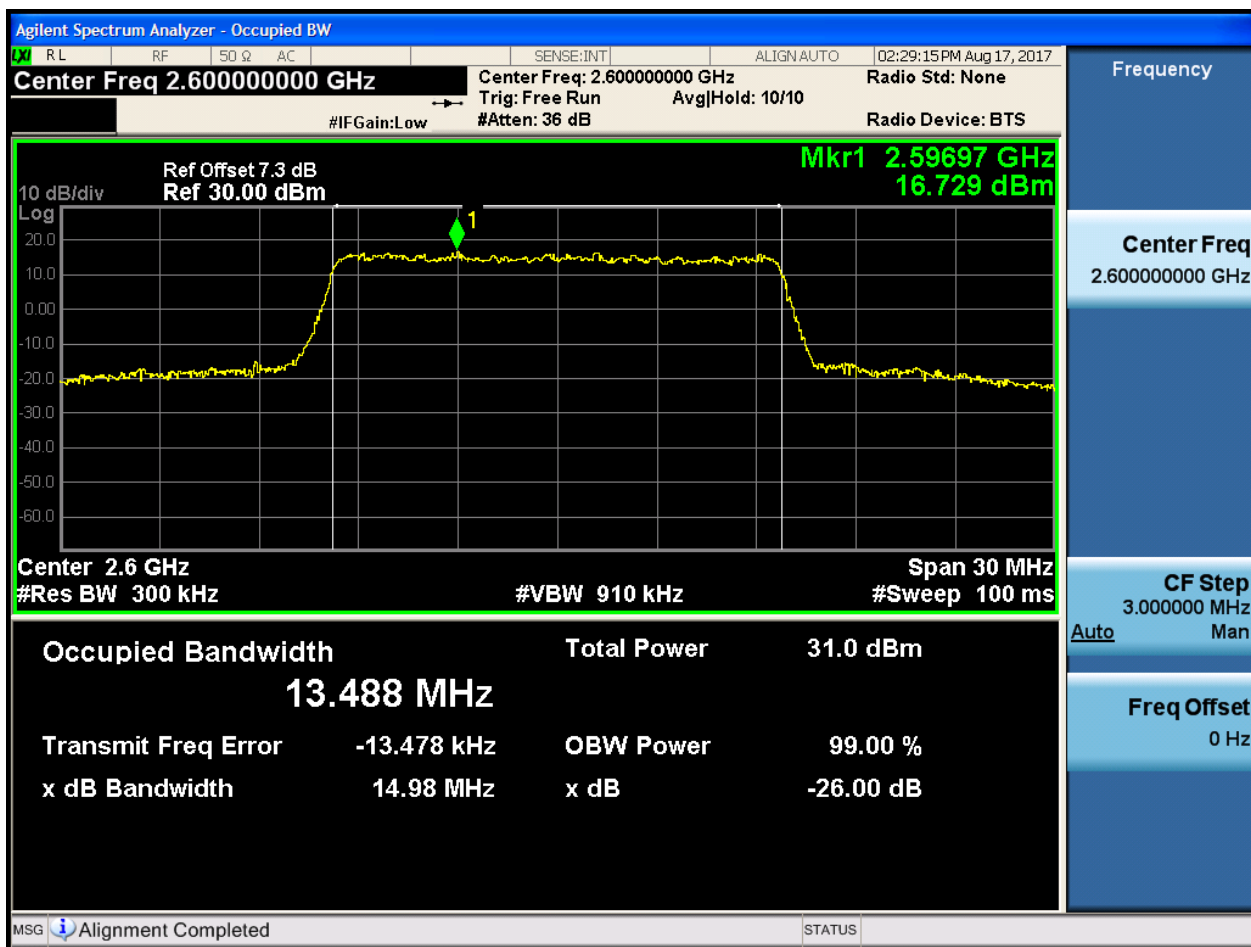
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

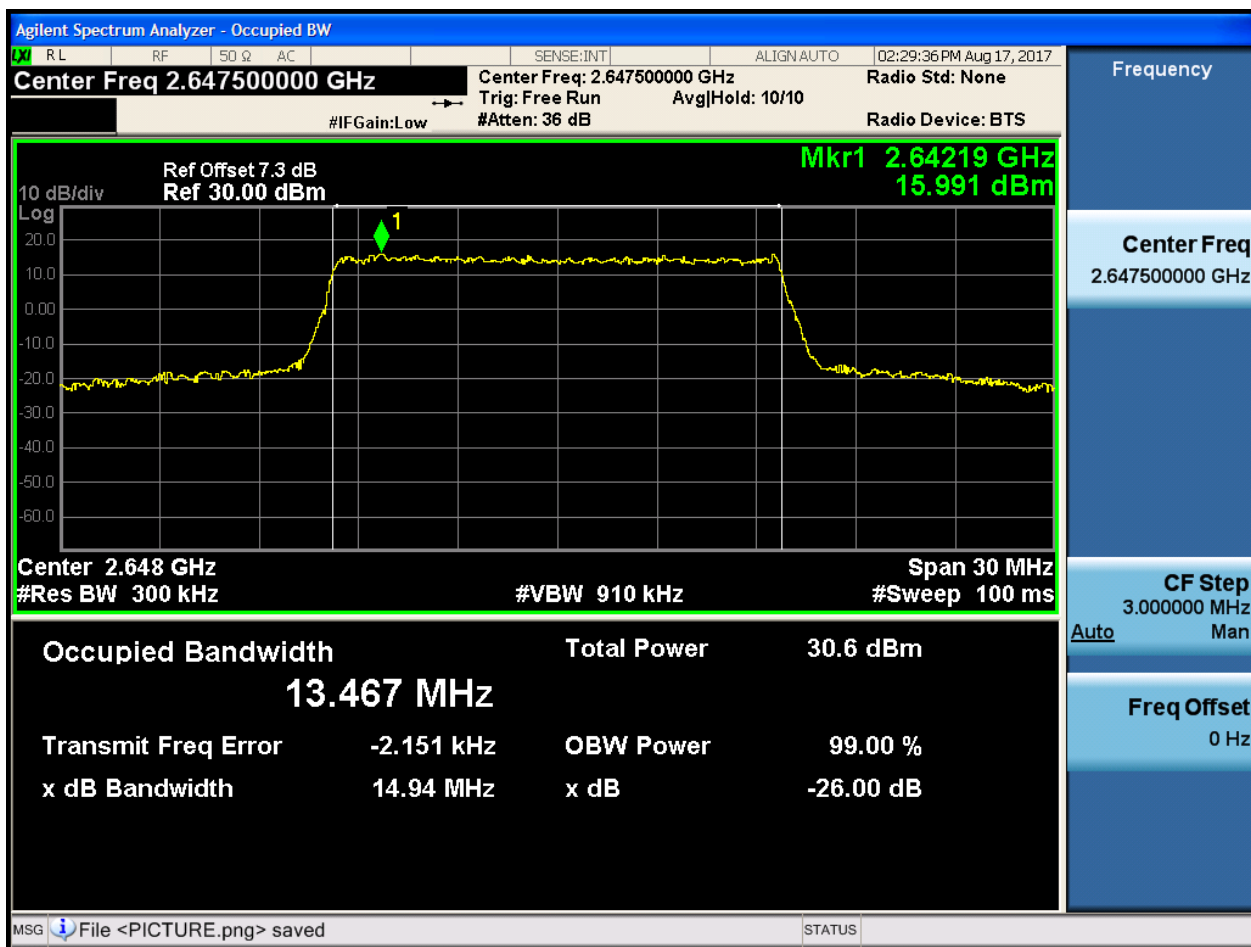
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

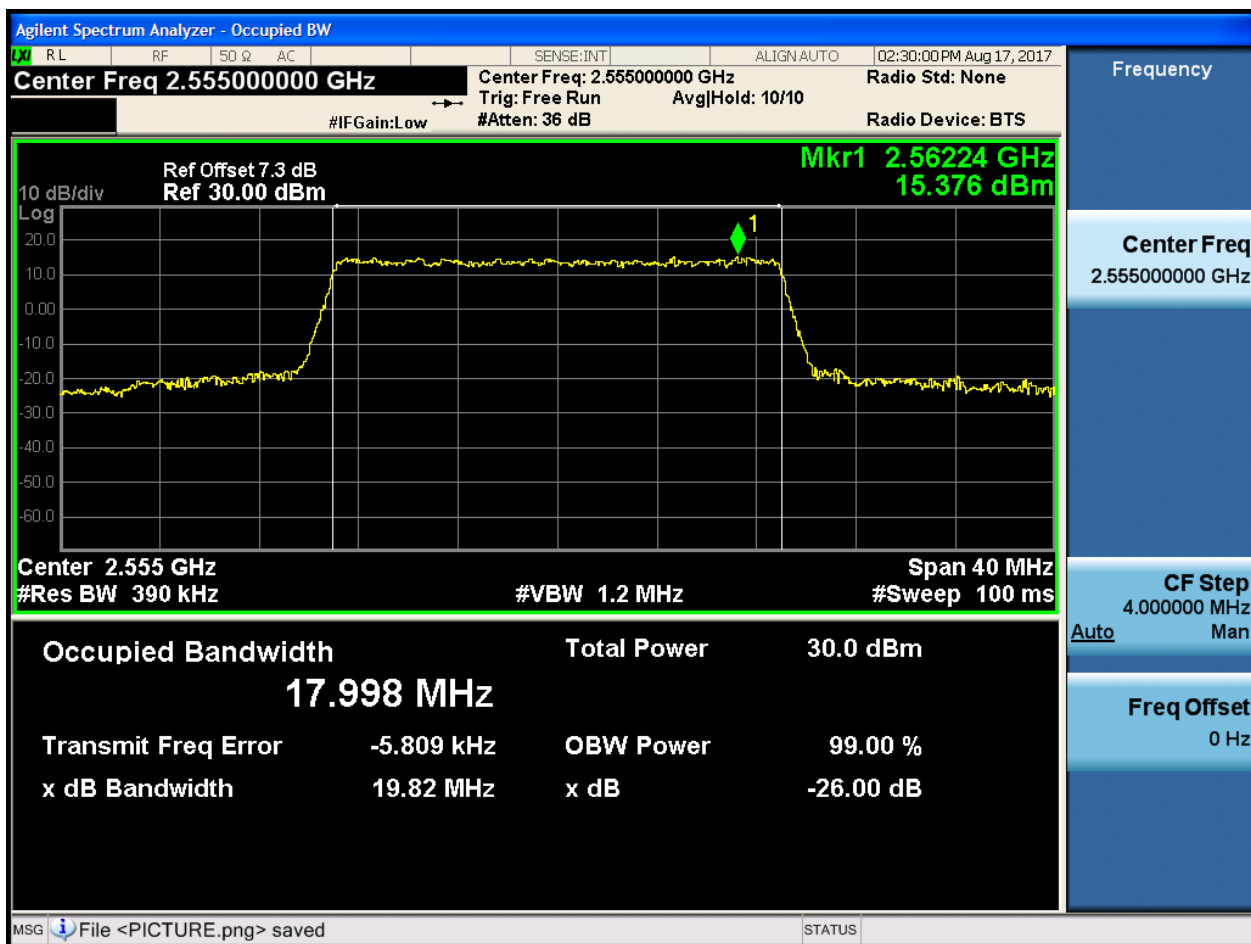




4.1.1.2.4 Test Bandwidth = 20

4.1.1.2.4.1 Test Channel = LCH

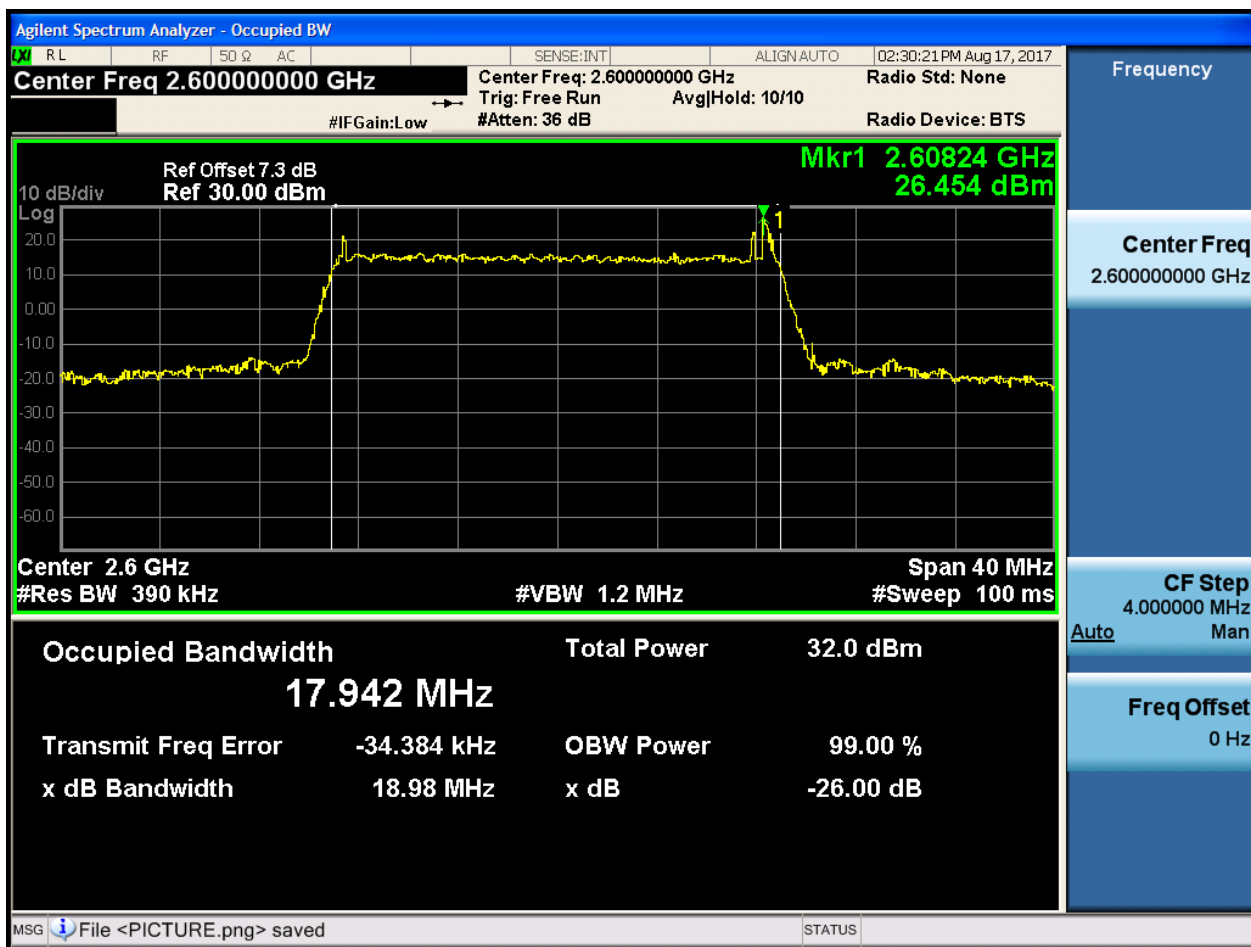
4.1.1.2.4.1.1 Test RB = RB100#0





4.1.1.2.4.2 Test Channel = MCH

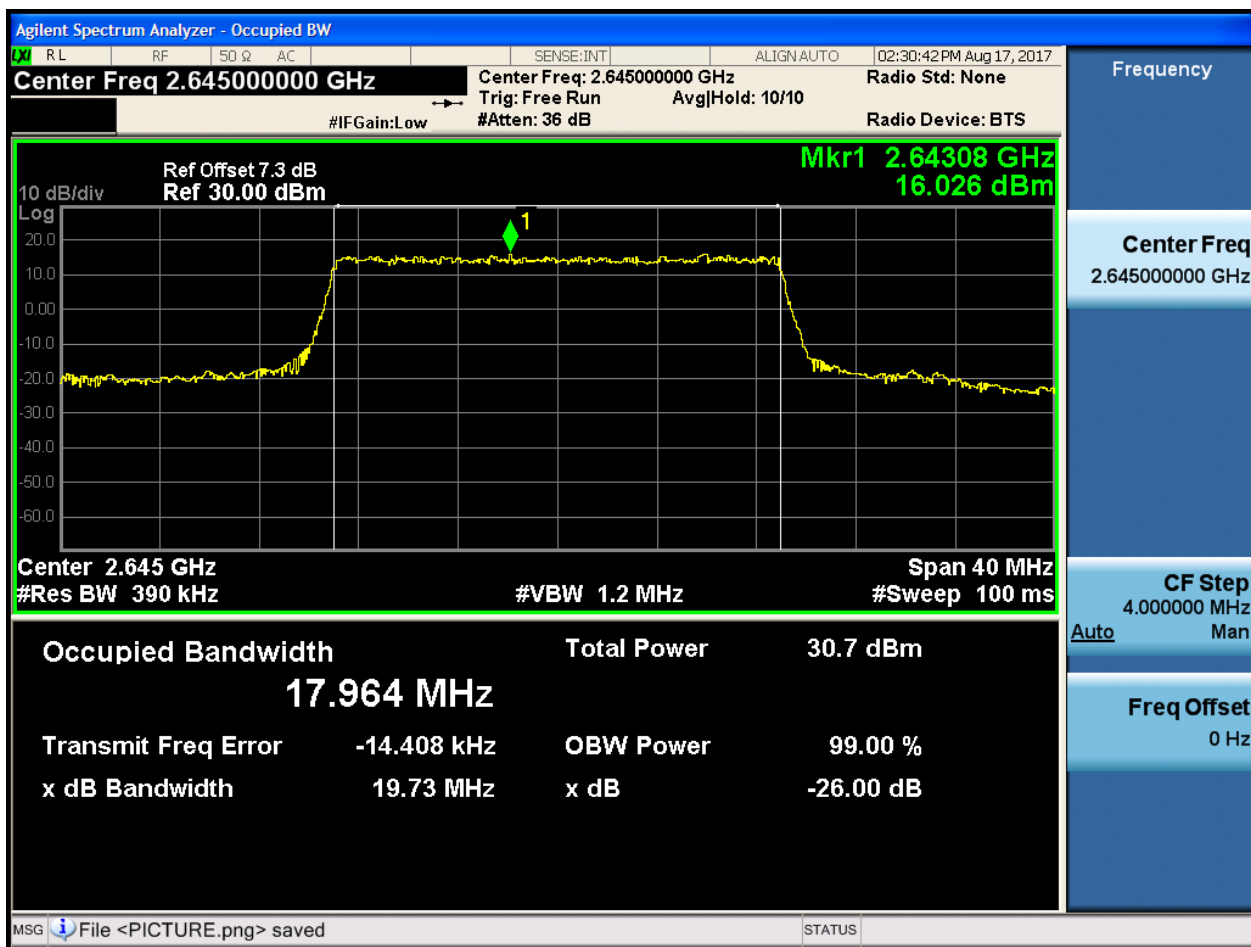
4.1.1.2.4.2.1 Test RB = RB100#0





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

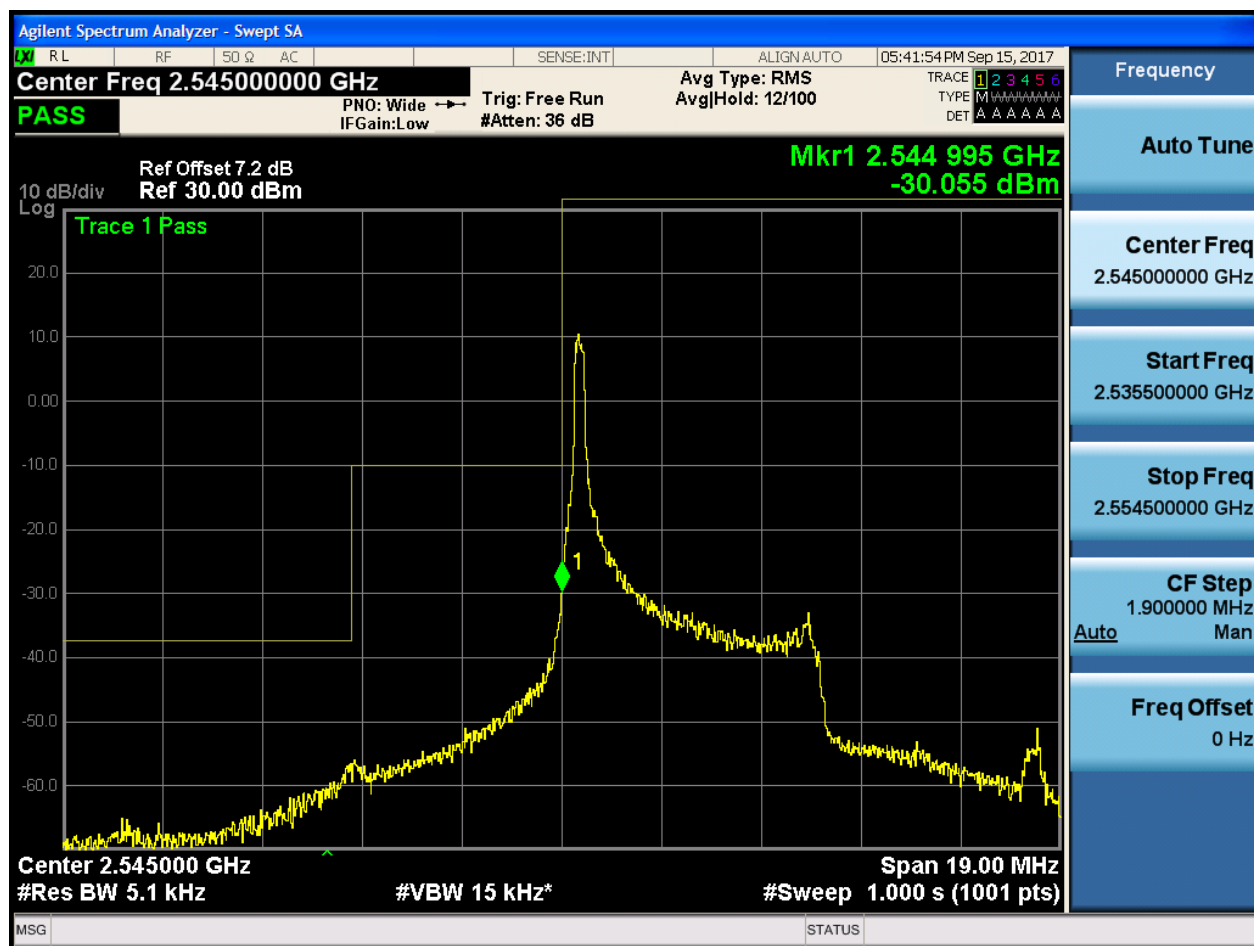
5.1.1 Test Band = BAND41

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





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:42:13 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
PASS PNO: Wide 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
-47.632 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 GHz
#Res BW 5.1 kHz

#VBW 15 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

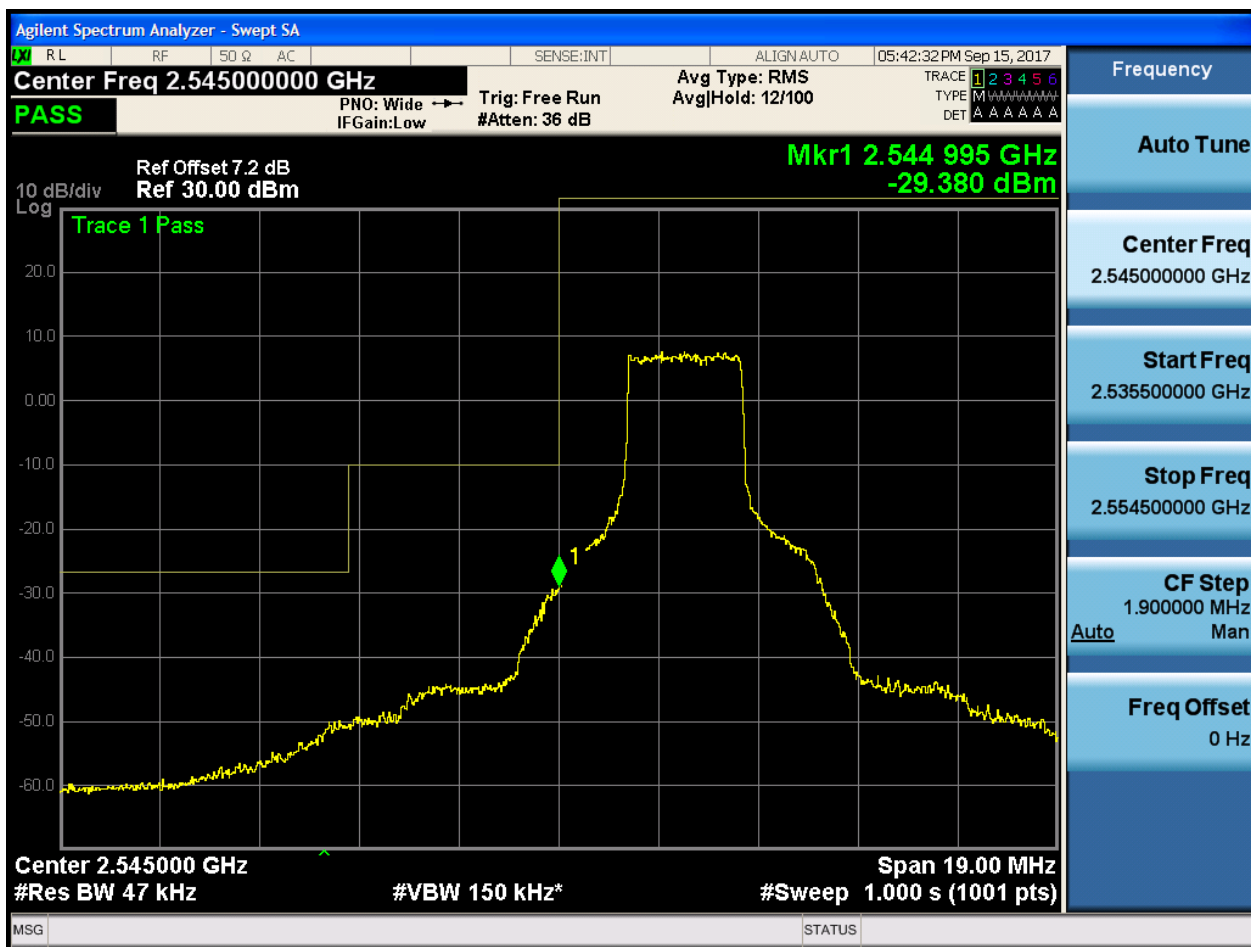
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.1.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:42:50 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
#Res BW 91 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Wide Trace 1 2 3 4 5 6
#Atten: 36 dB TYPE M W W W W W W W
DET A A A A A A

PASS

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-23.812 dBm

10 dB/div
Log

Trace 1 Pass

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

MSG STATUS

Frequency

Auto Tune

Center Freq
2.545000000 GHz

Start Freq
2.535500000 GHz

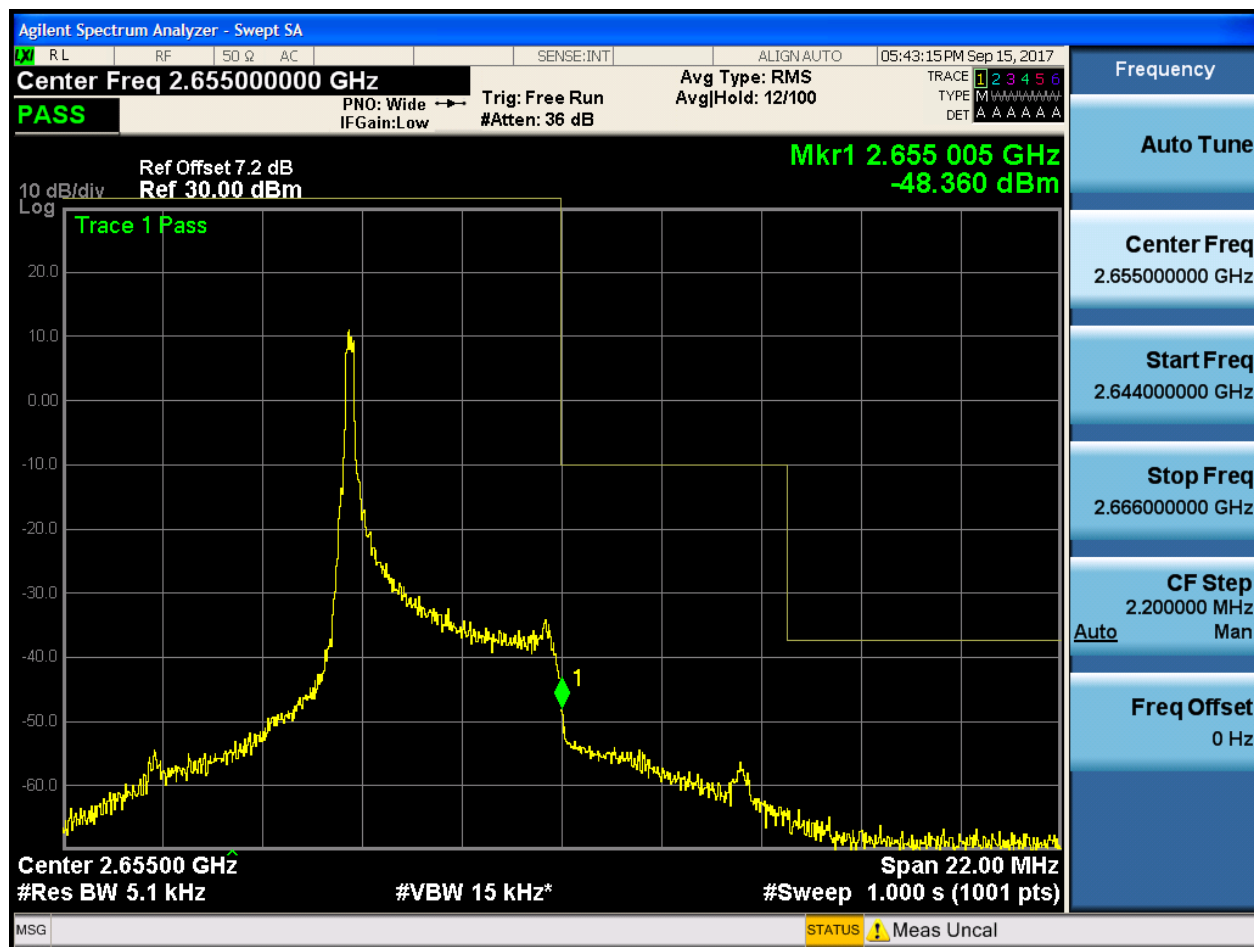
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



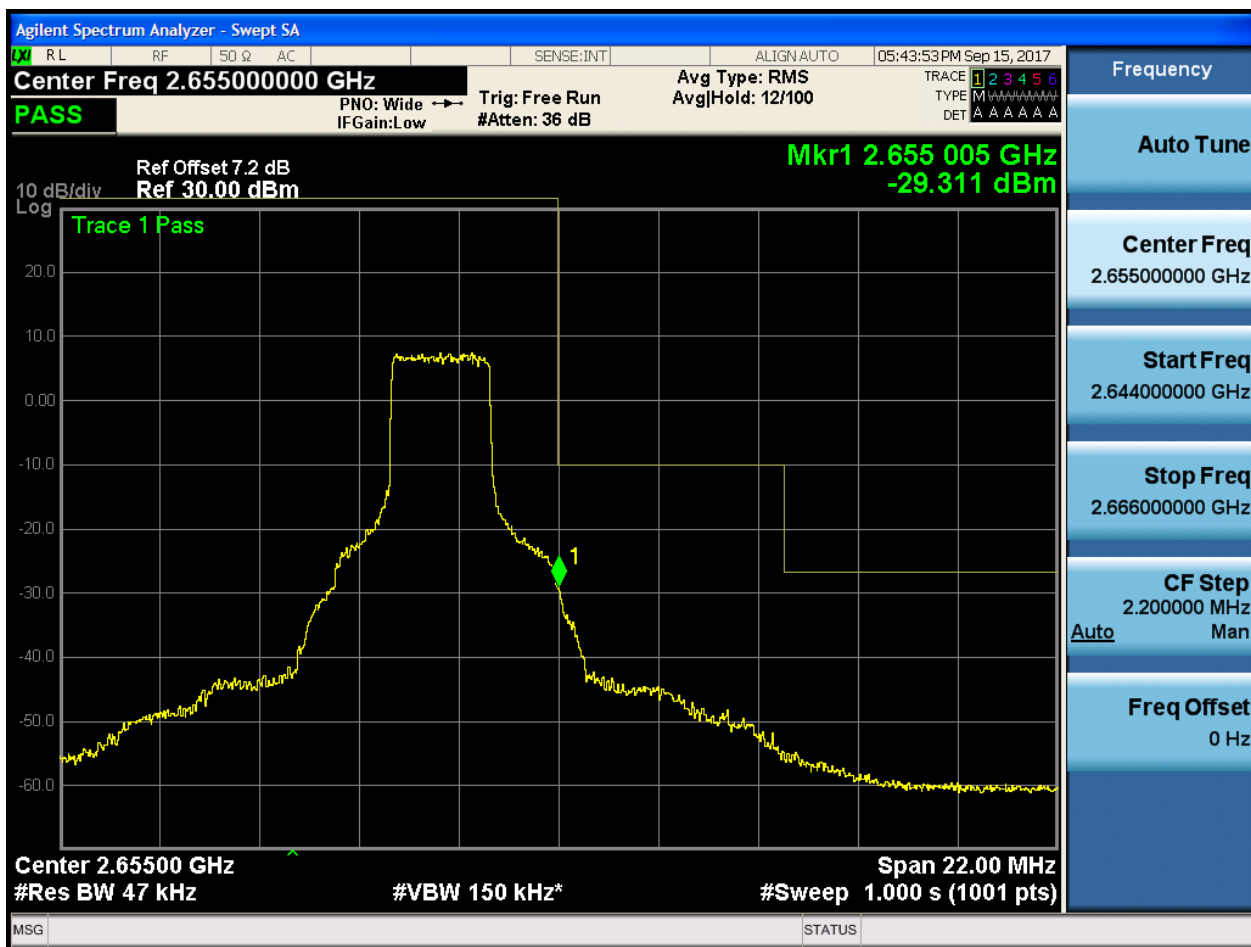


5.1.1.1.2.2 Test RB = RB1#24





5.1.1.1.1.2.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:44:12 PM Sep 15, 2017

Center Freq 2.655000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
#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 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-23.809 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

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

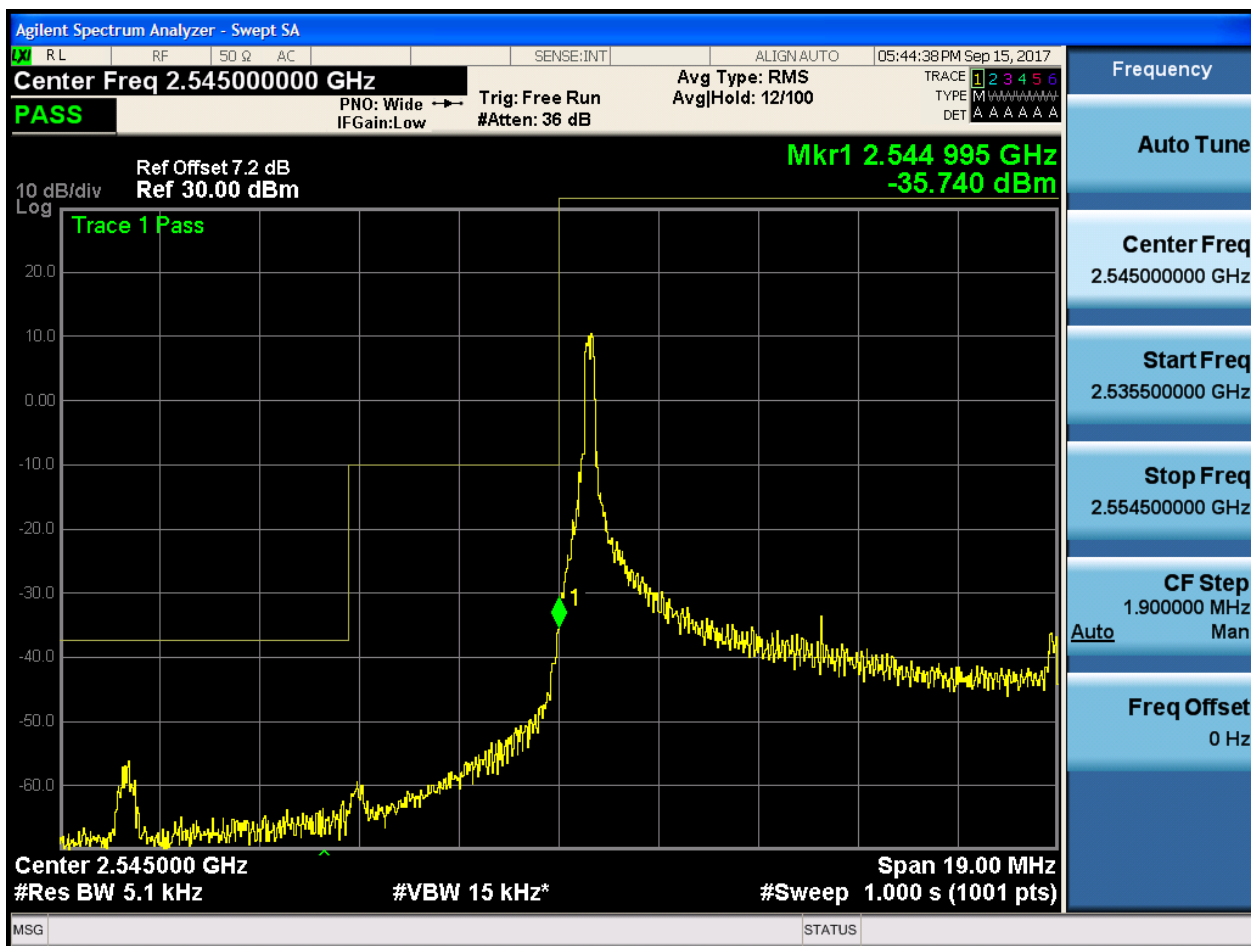
Freq Offset
0 Hz



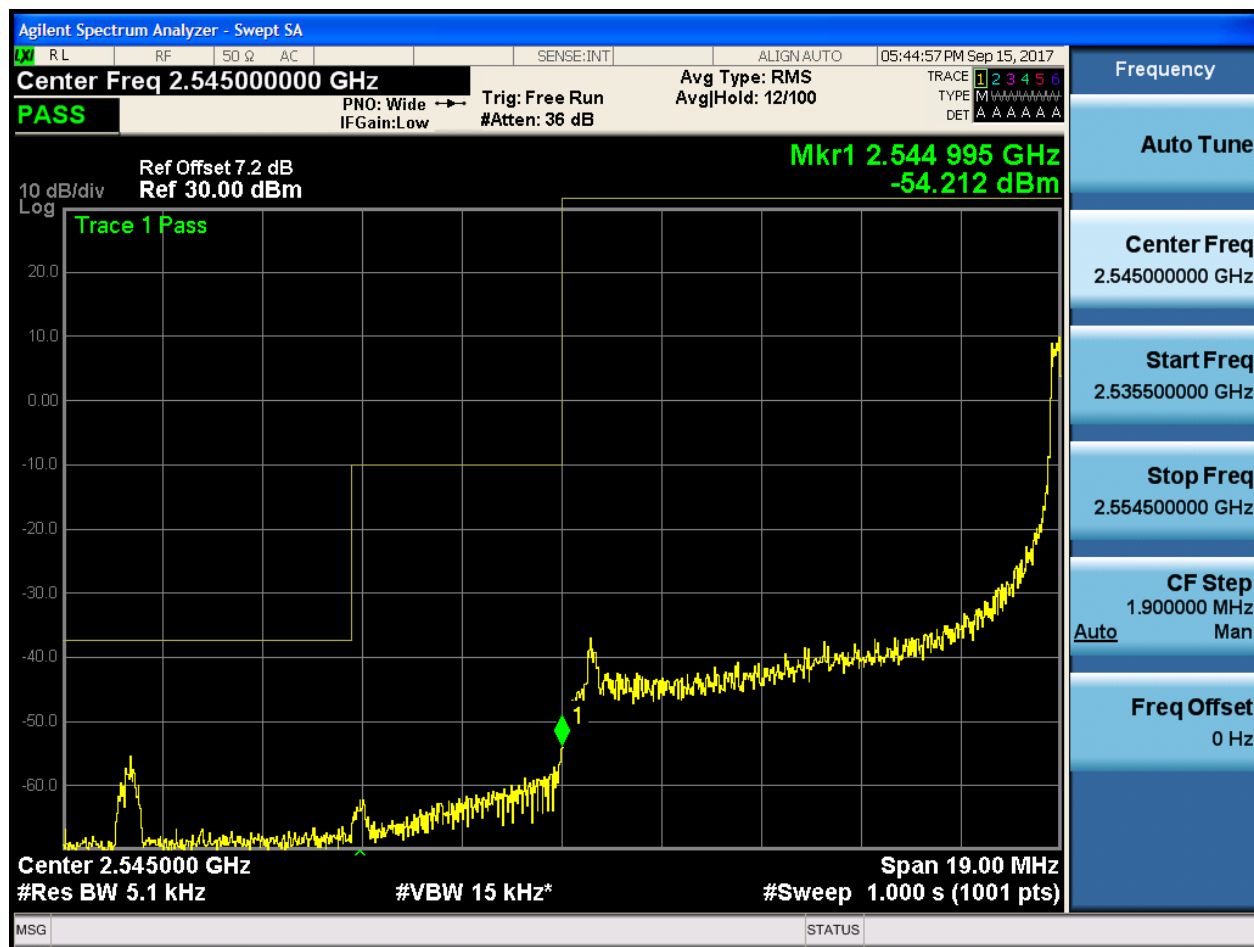
5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



5.1.1.1.2.1.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.54500000 GHz

PASS

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-31.566 dBm

Trace 1 Pass

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

Frequency

Auto Tune

Center Freq
2.54500000 GHz

Start Freq
2.535500000 GHz

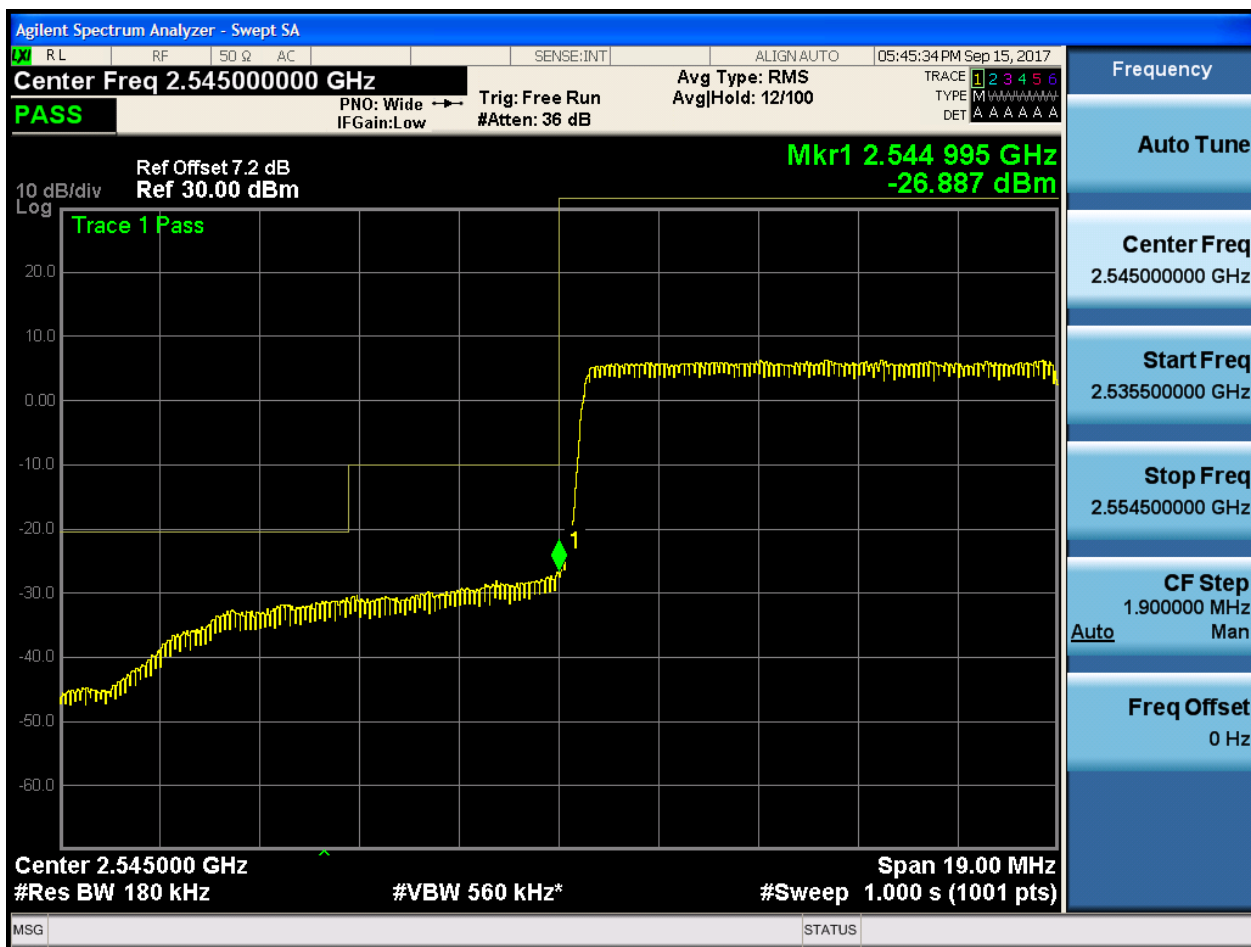
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.2.1.4 Test RB = RB50#0





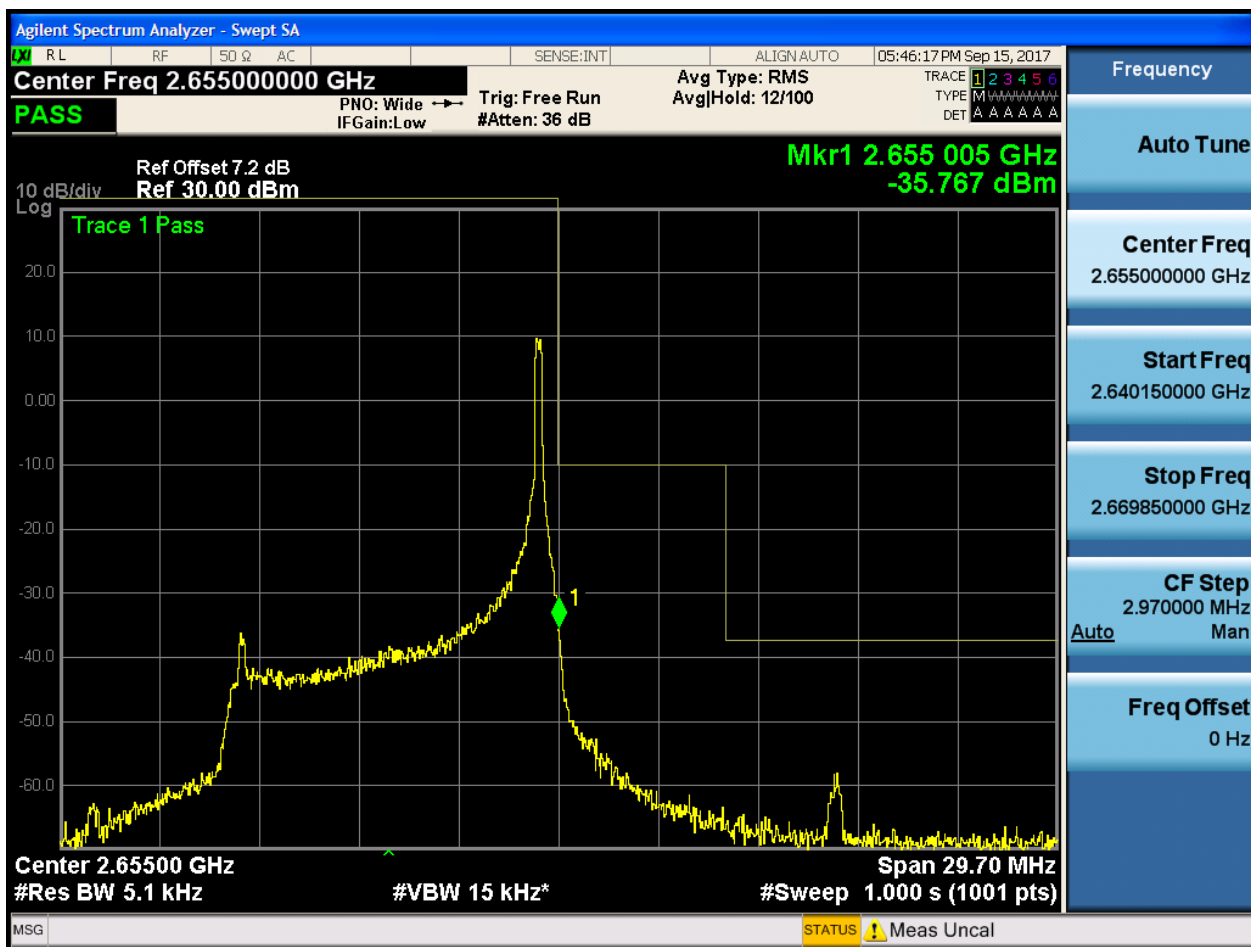
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0



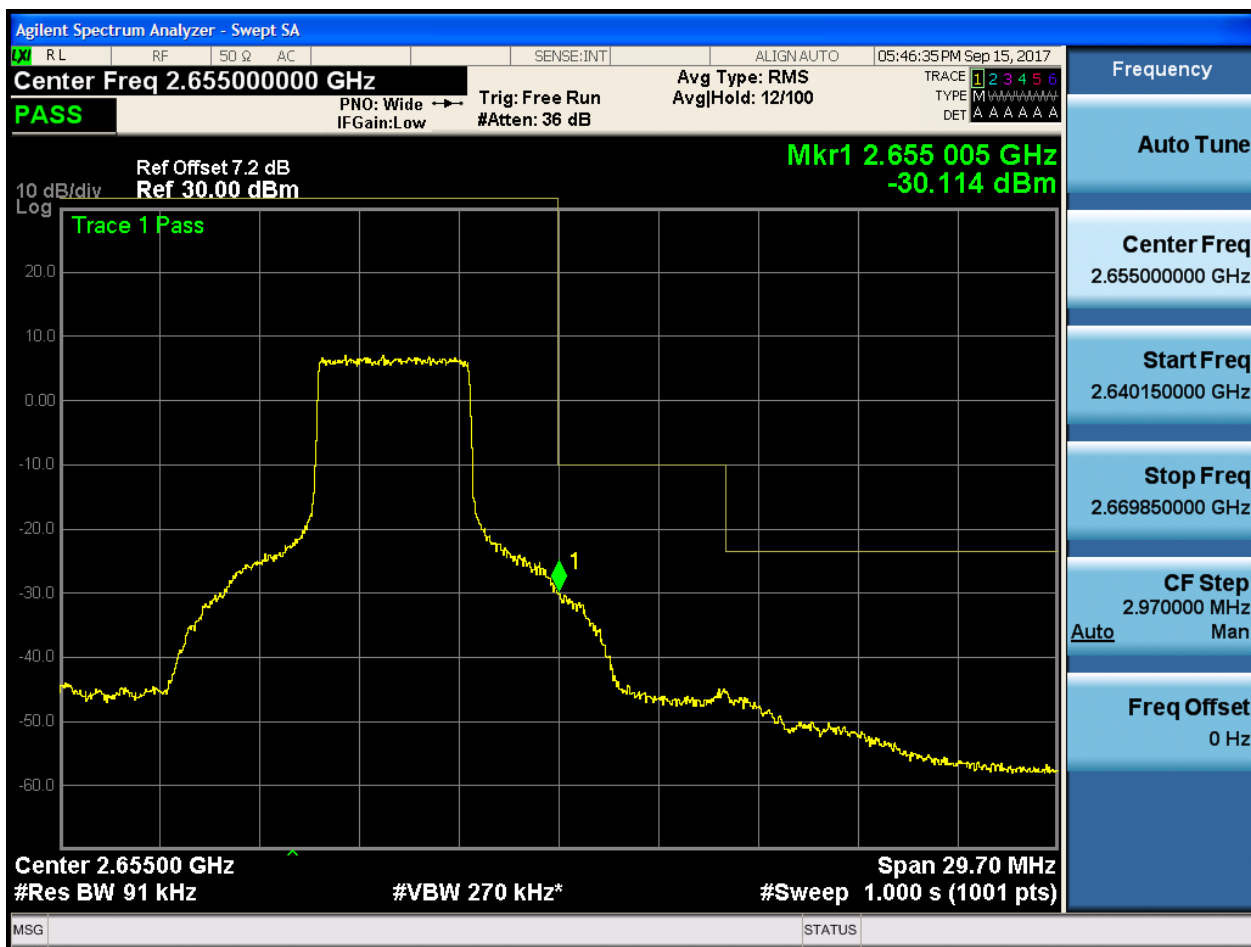


5.1.1.1.2.2.2 Test RB = RB1#49





5.1.1.1.2.2.3 Test RB = RB25#13





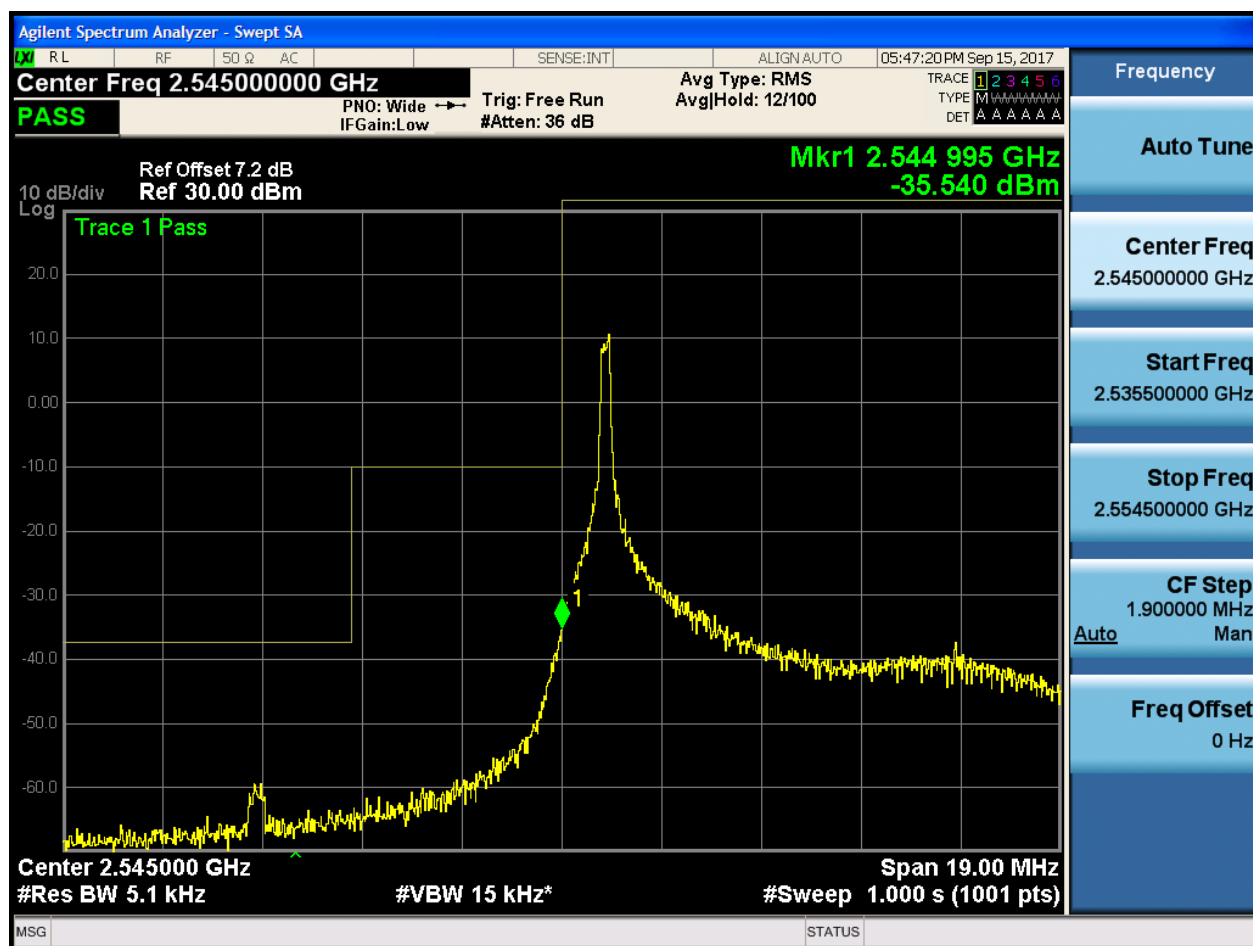
5.1.1.1.2.2.4 Test RB = RB50#0



5.1.1.1.3 Test Bandwidth = 15

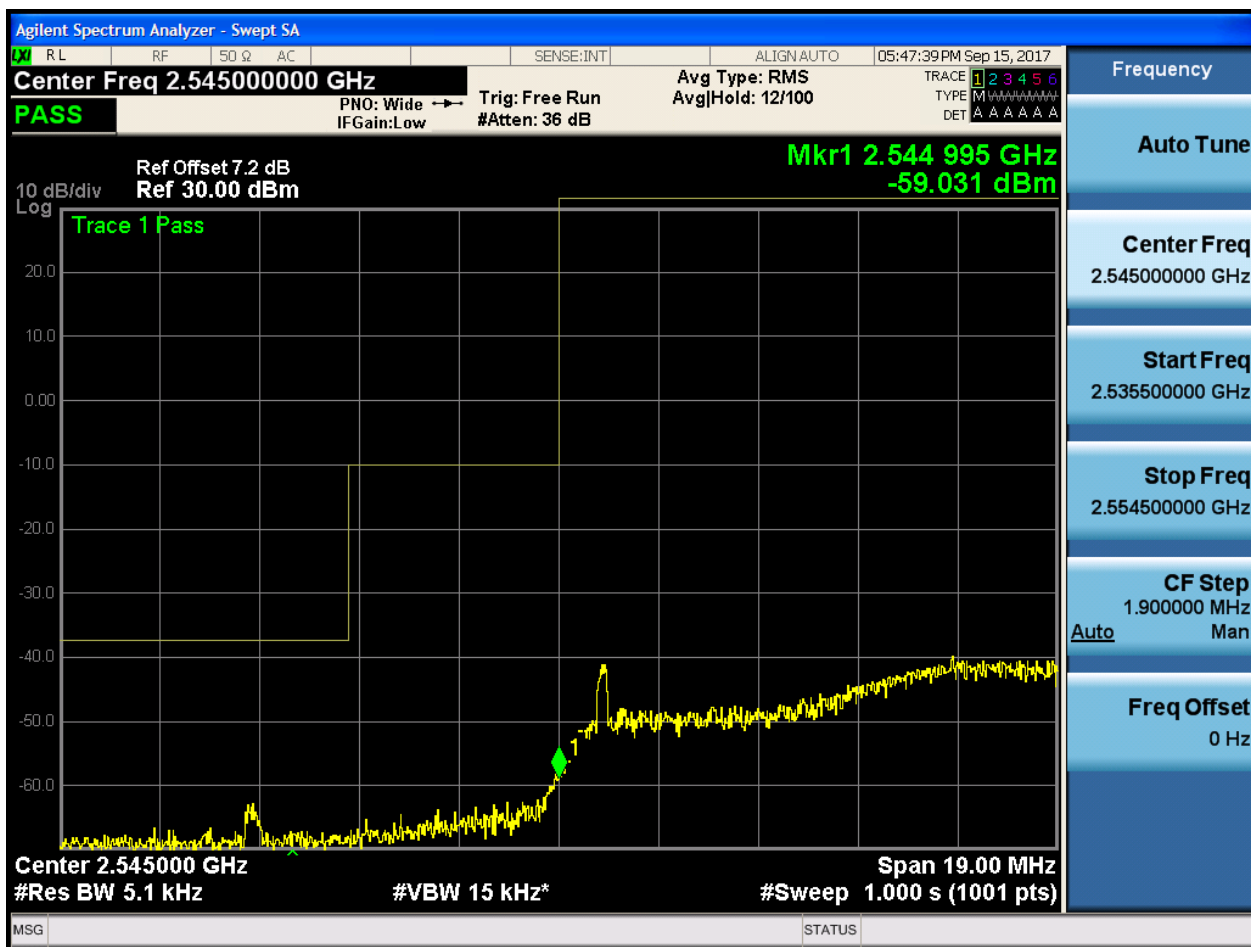
5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0



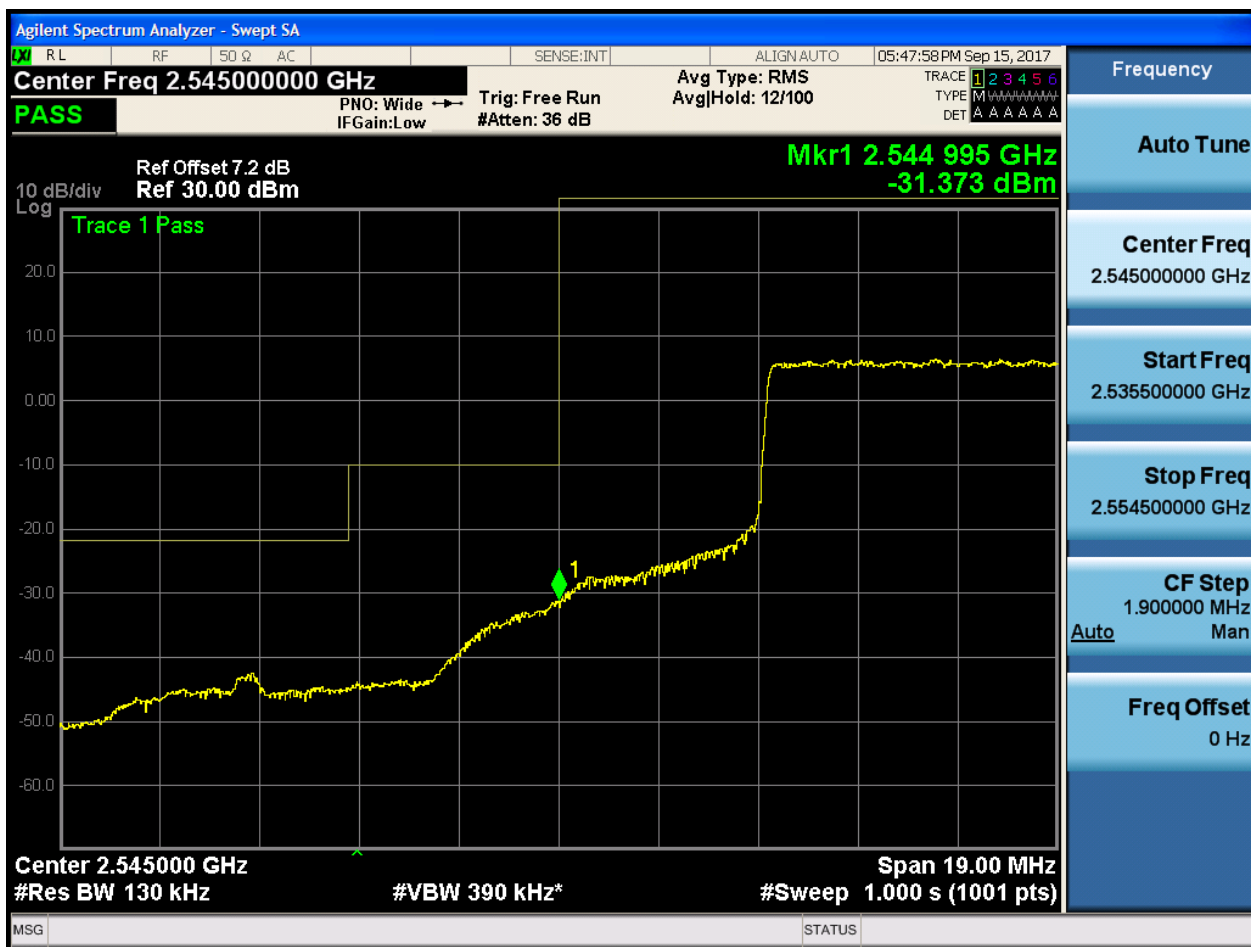


5.1.1.1.3.1.2 Test RB = RB1#74





5.1.1.1.3.1.3 Test RB = RB36#18





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.545000000 GHz

Ref Offset 7.2 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.544 995 GHz
-25.825 dBm

Center 2.545000 GHz
#Res BW 270 kHz
#VBW 820 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 Man

Freq Offset
0 Hz

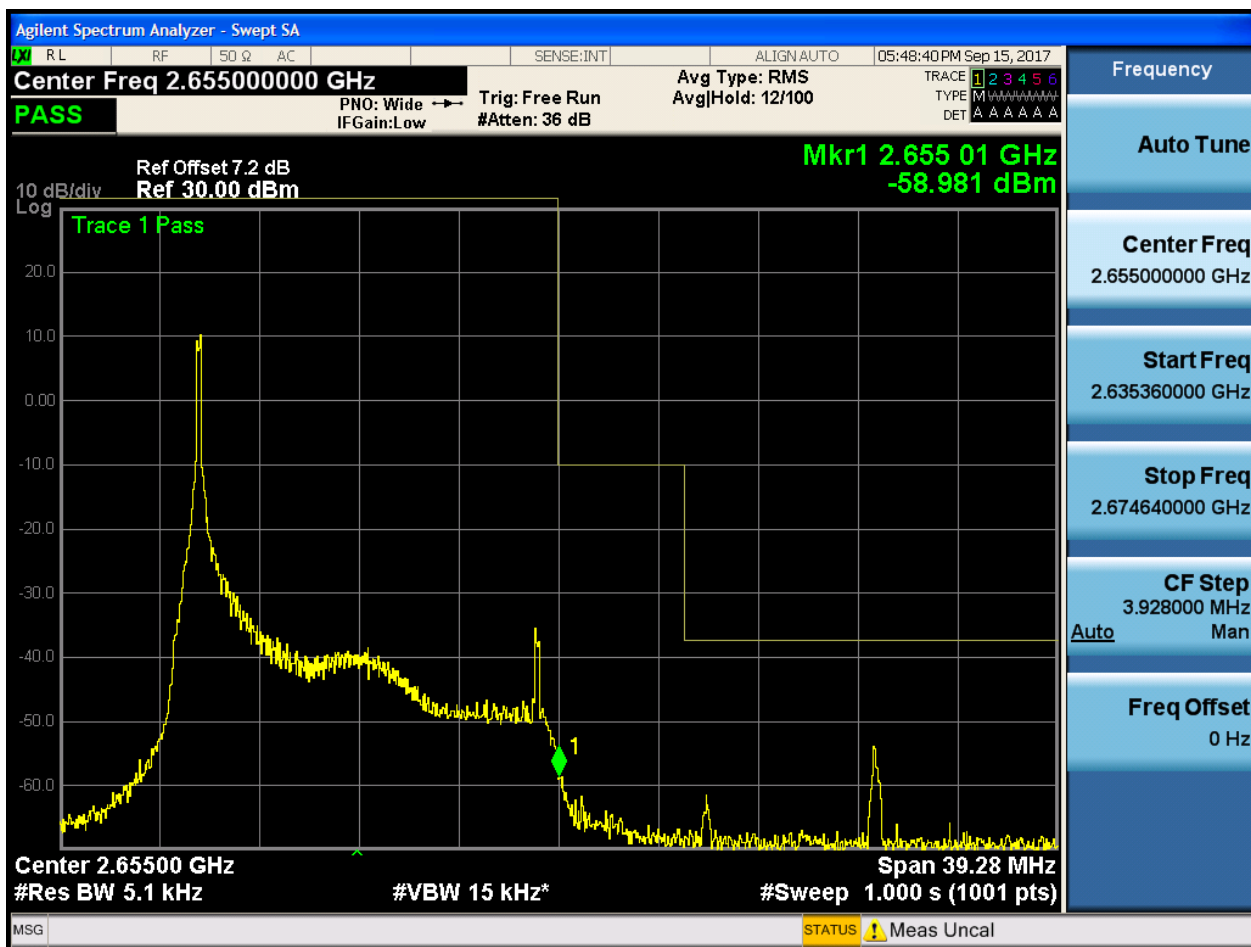
MSG Alignment Completed

STATUS



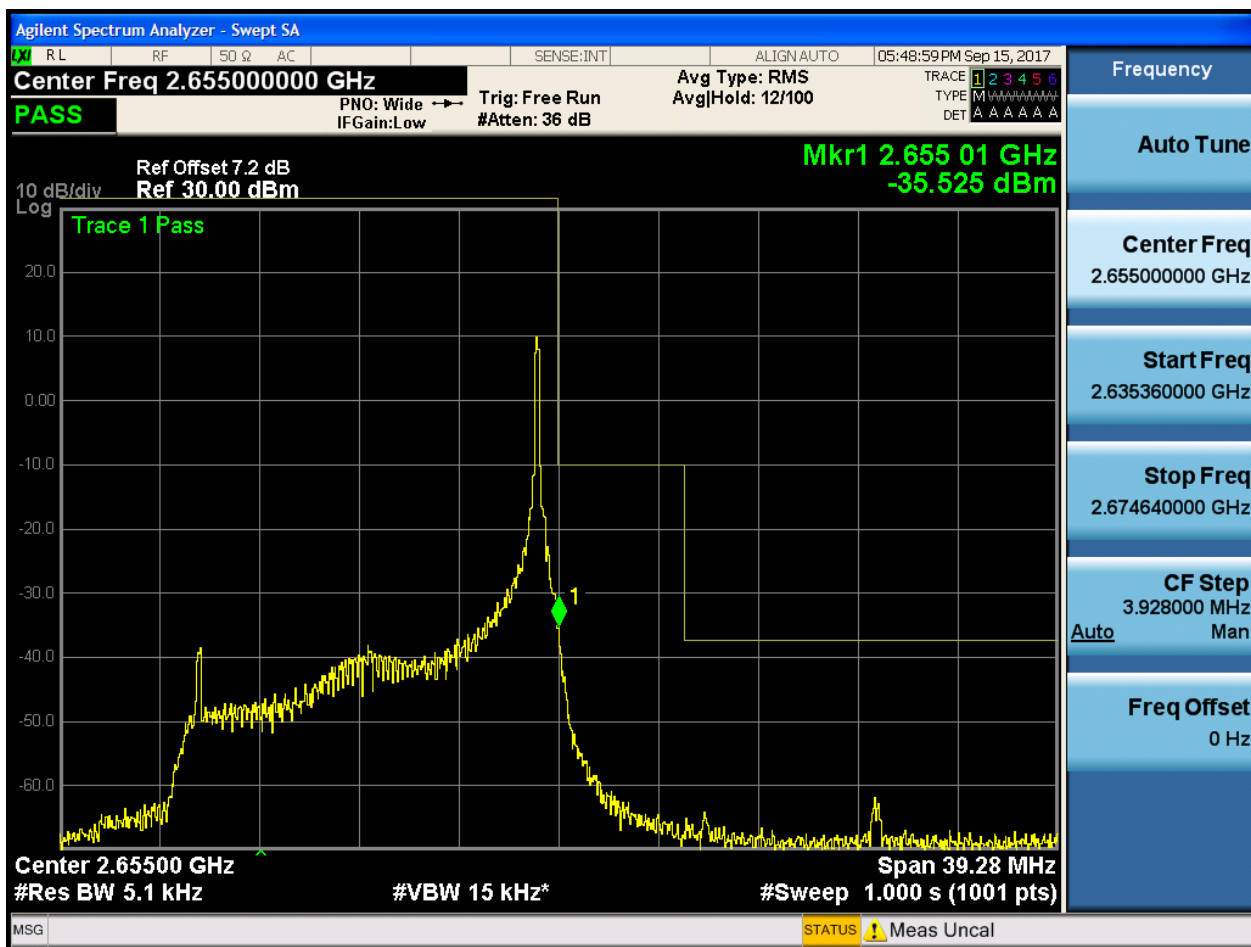
5.1.1.1.3.2 Test Channel = HCH

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





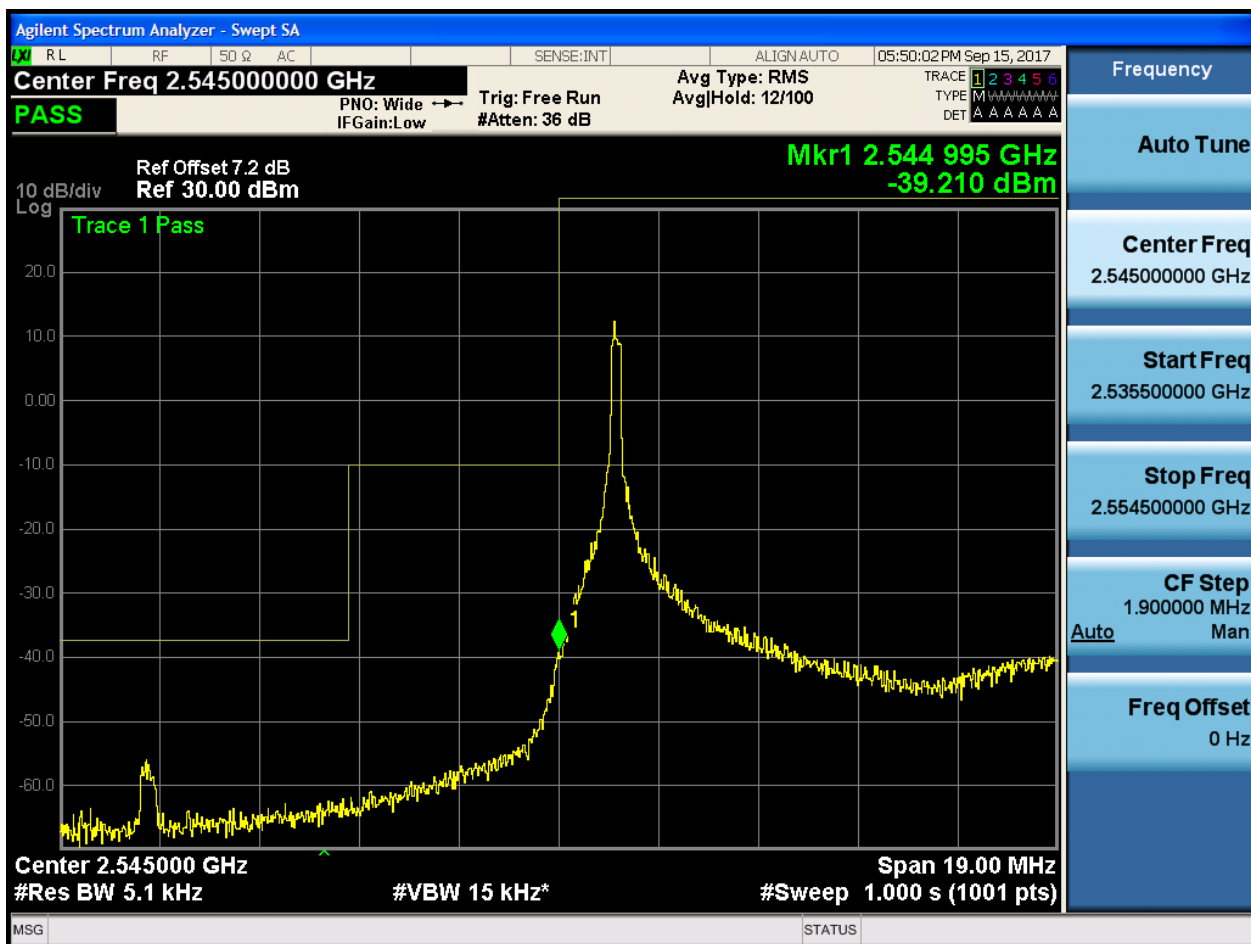
5.1.1.1.3.2.4 Test RB = RB75#0



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





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 05:50:21 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
PASS PNO: Wide 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
-59.285 dBm

10 dB/div
Log

Trace 1 Pass

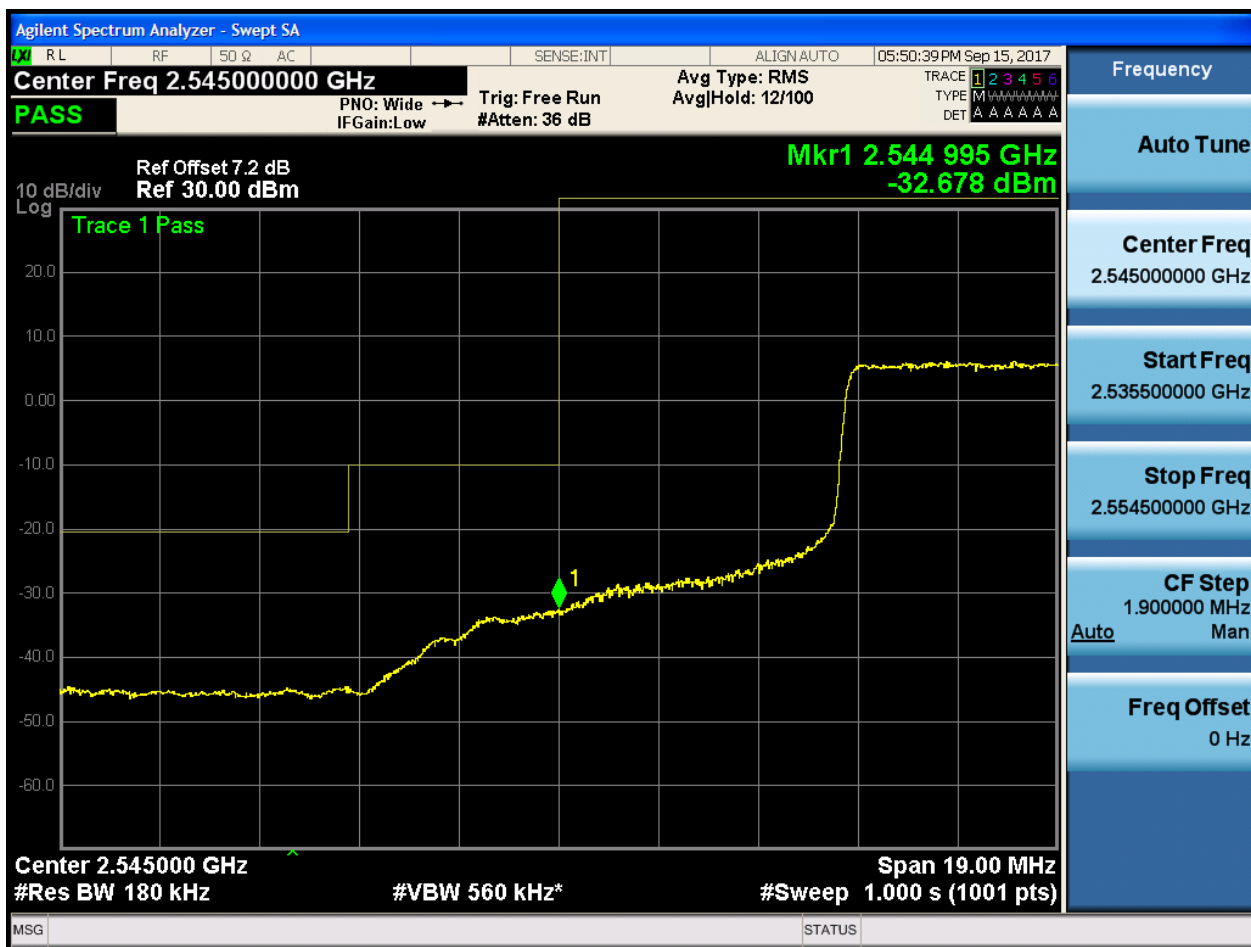
Center 2.545000 GHz
#Res BW 5.1 kHz #VBW 15 kHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

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

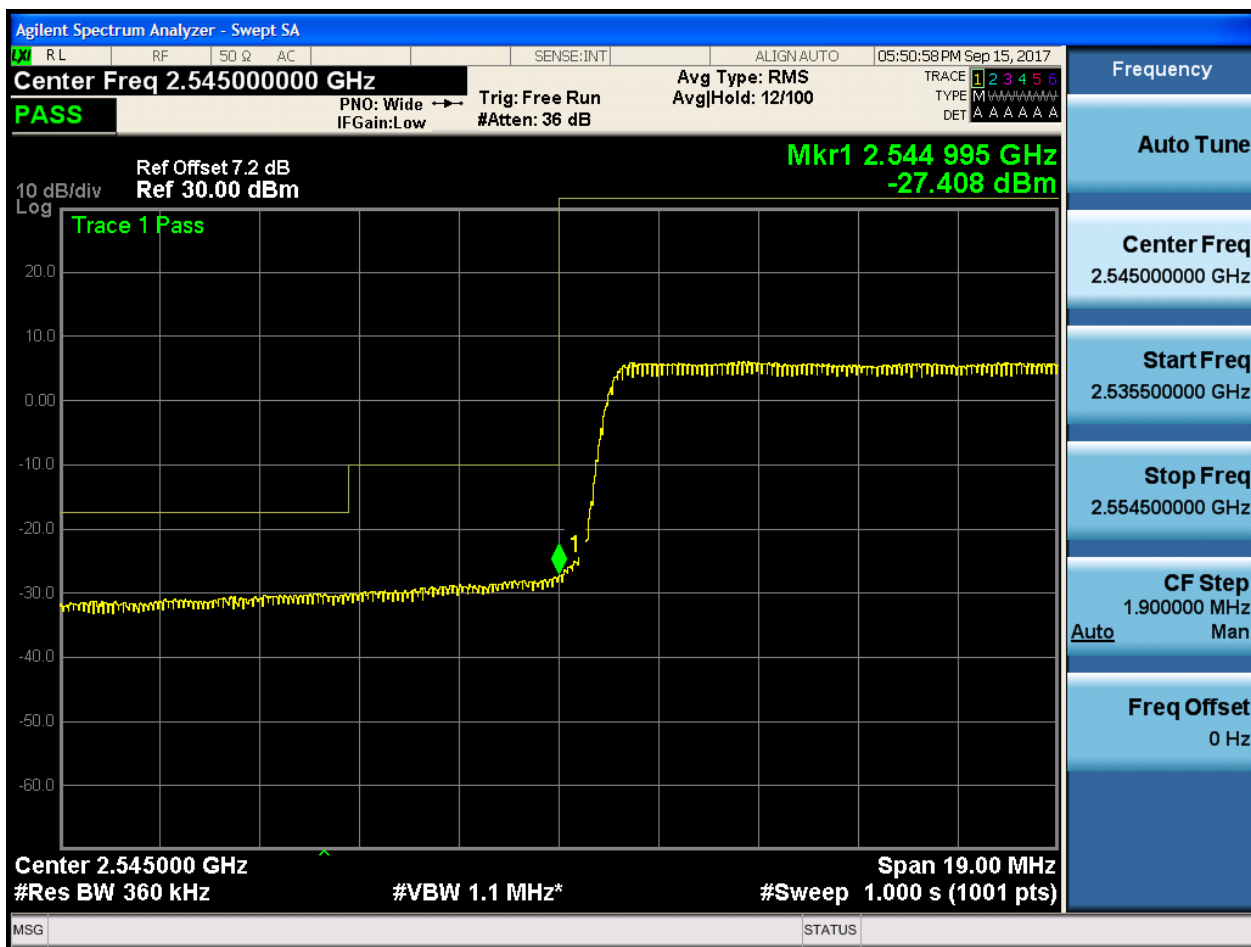


5.1.1.1.4.1.3 Test RB = RB50#25





5.1.1.1.4.1.4 Test RB = RB100#0





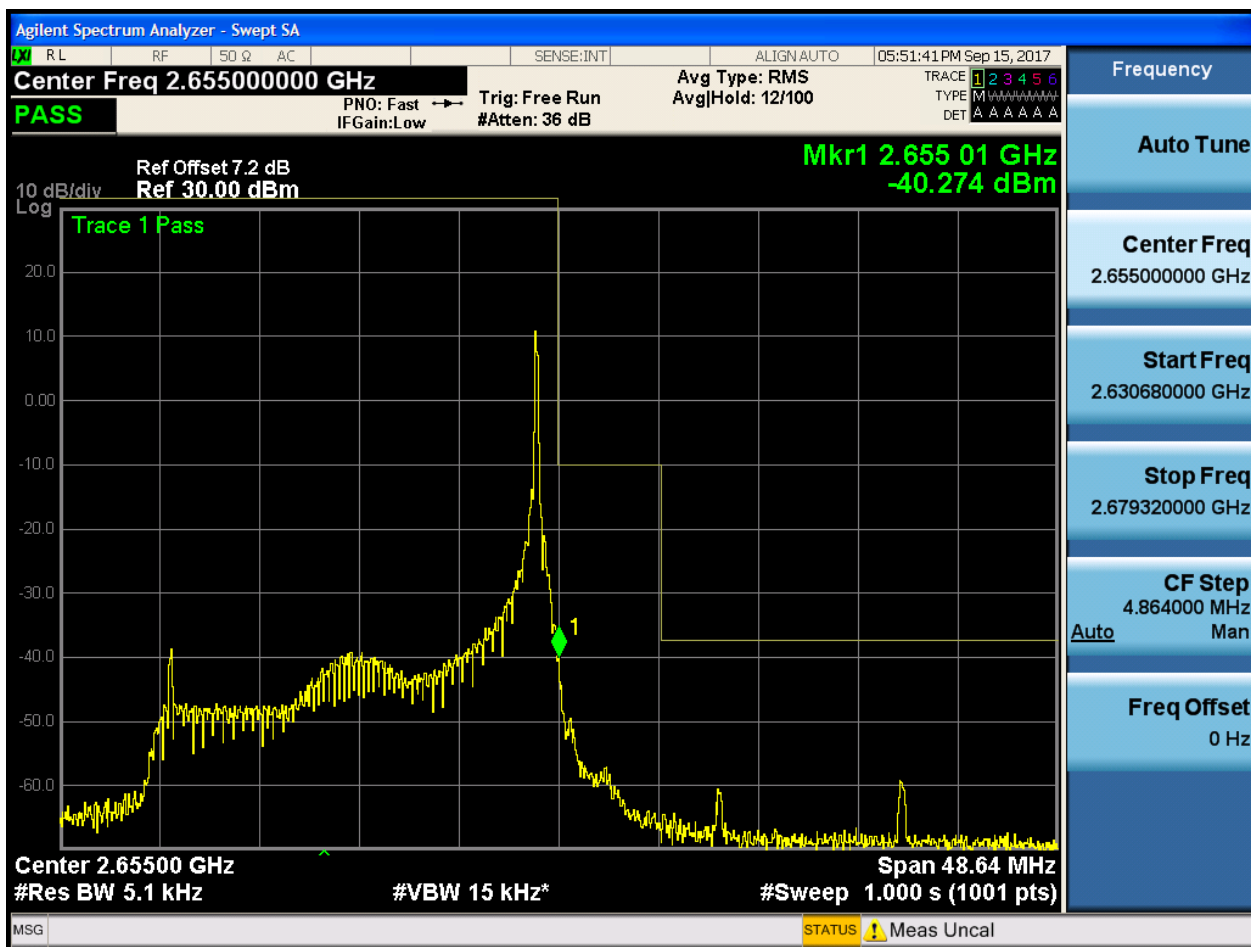
5.1.1.1.4.2 Test Channel = HCH

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



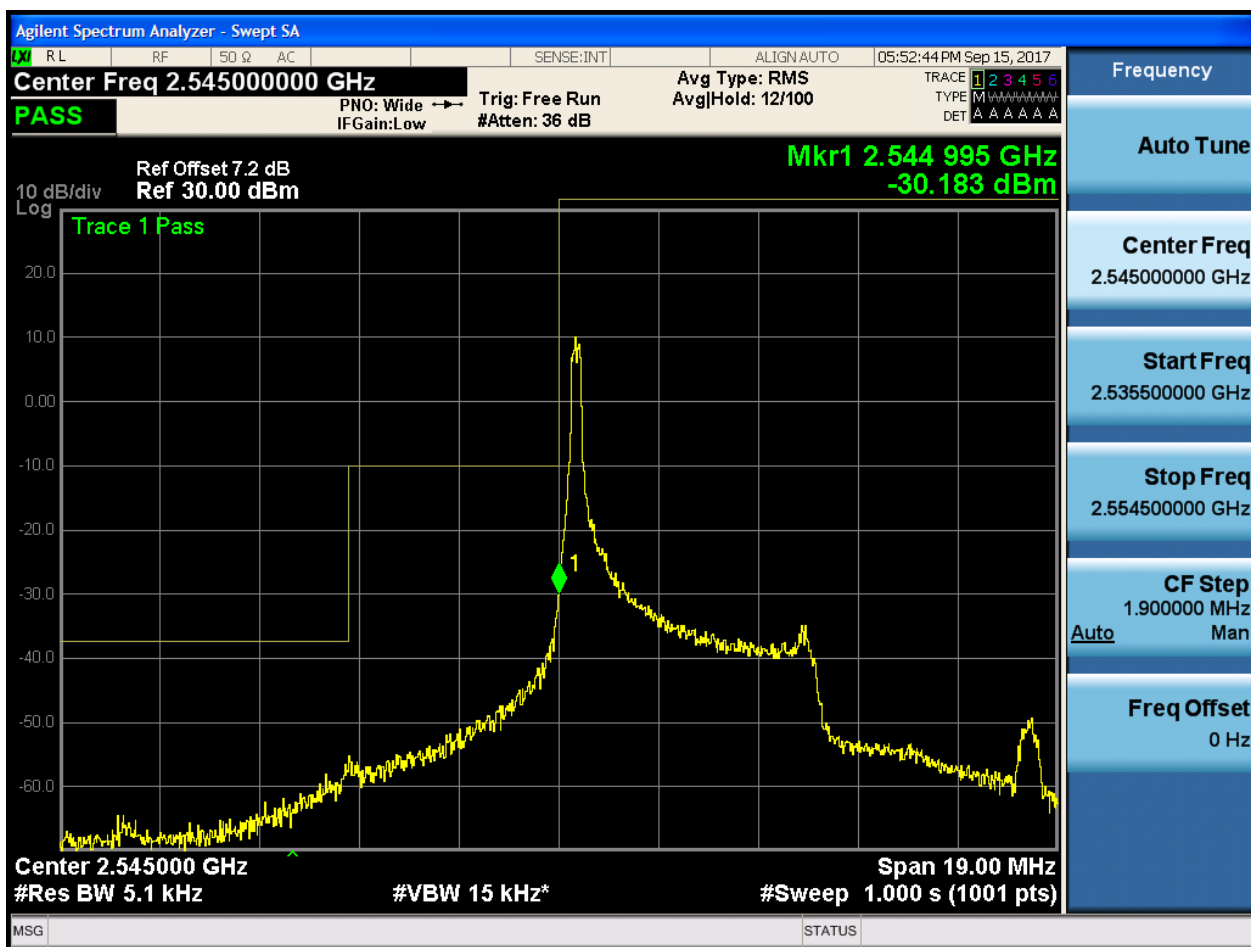


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

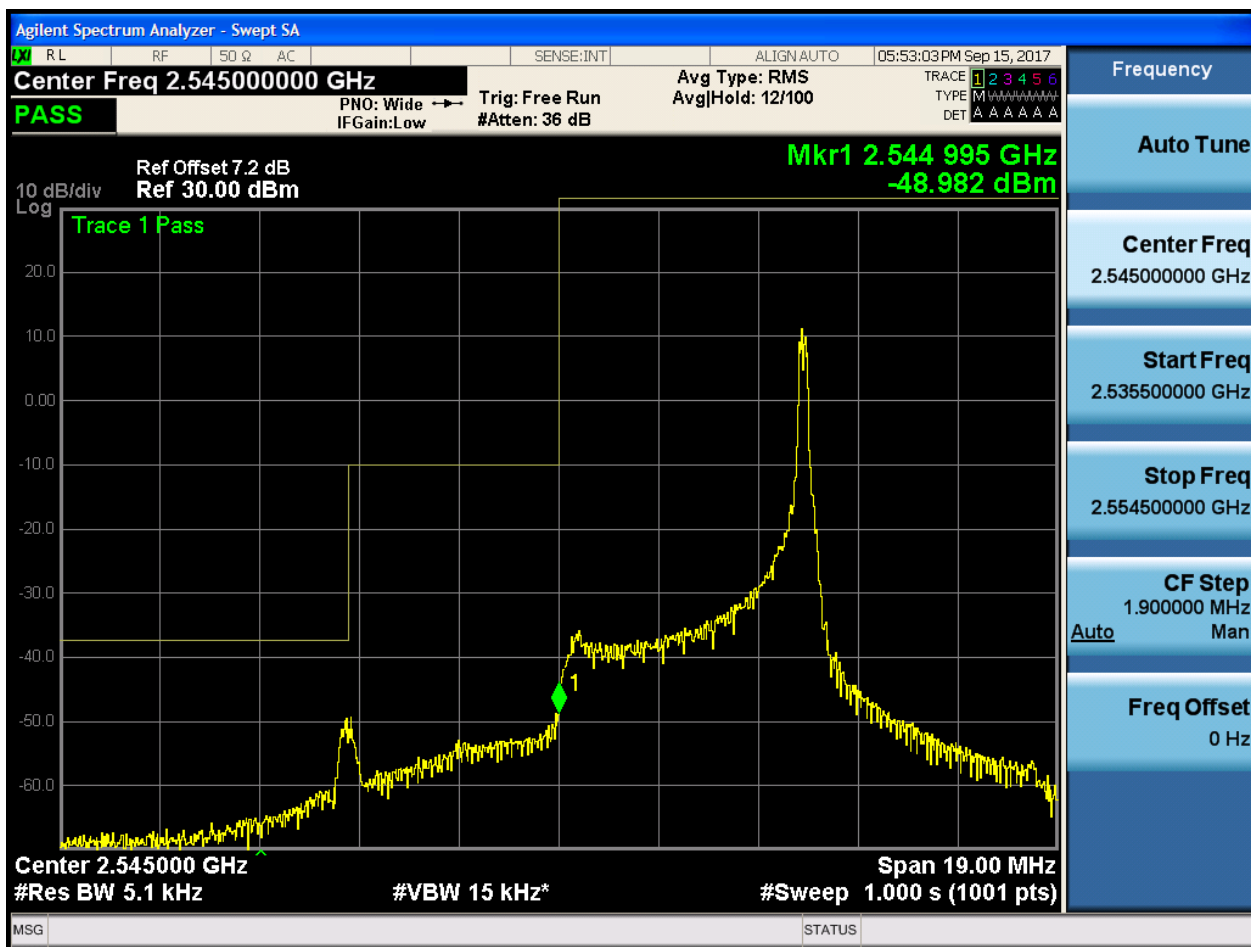
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



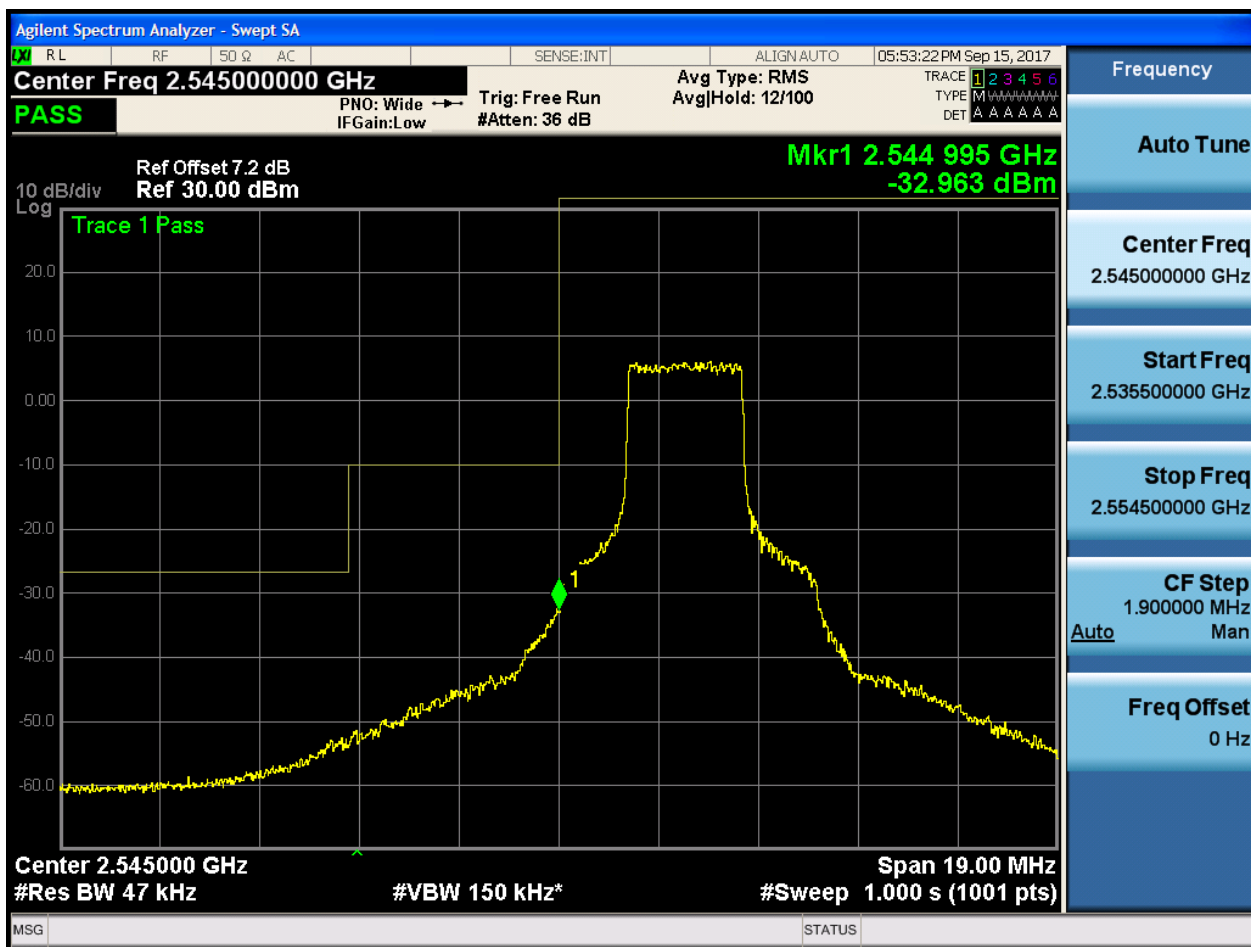


5.1.1.2.1.1.2 Test RB = RB1#24



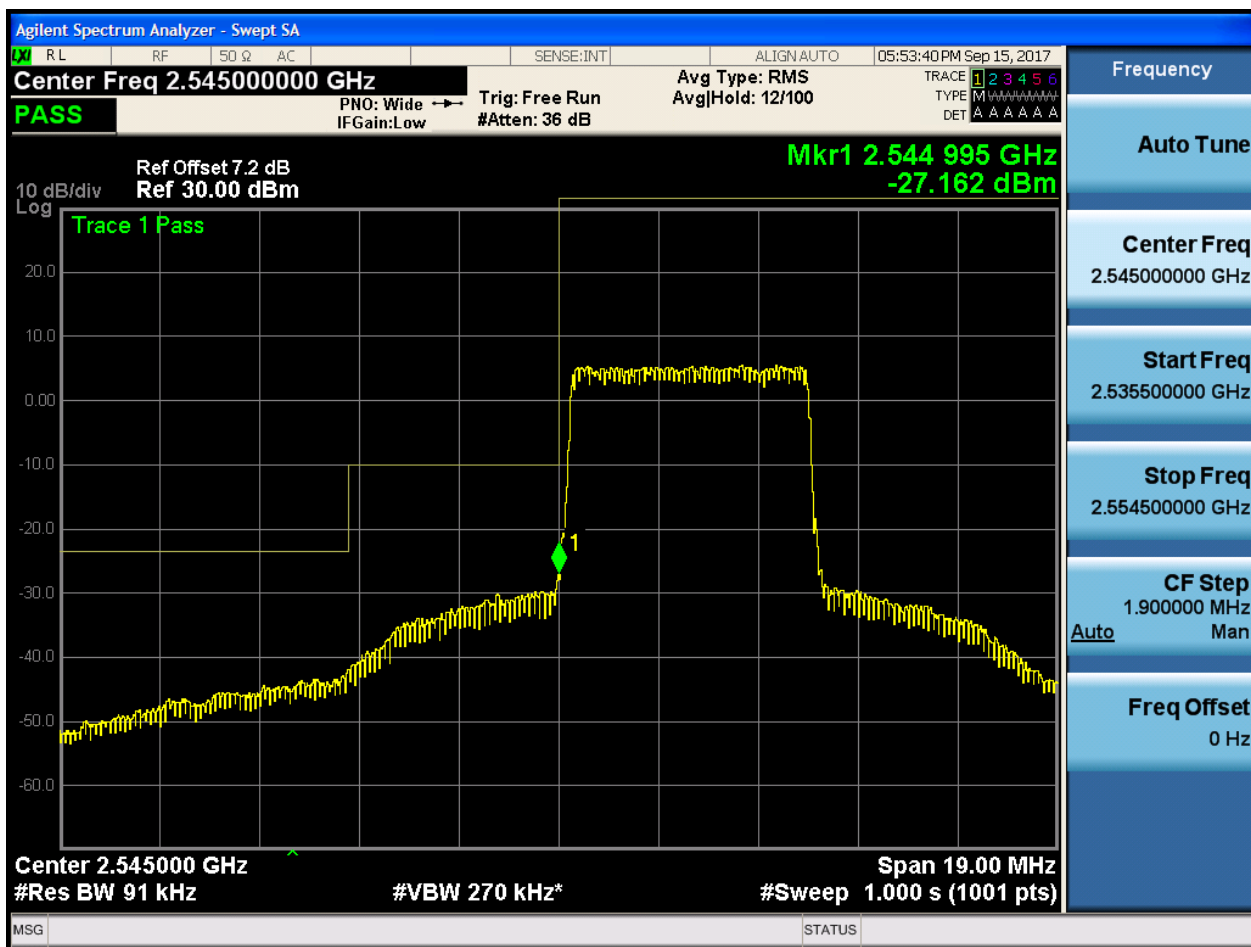


5.1.1.2.1.1.3 Test RB = RB12#6





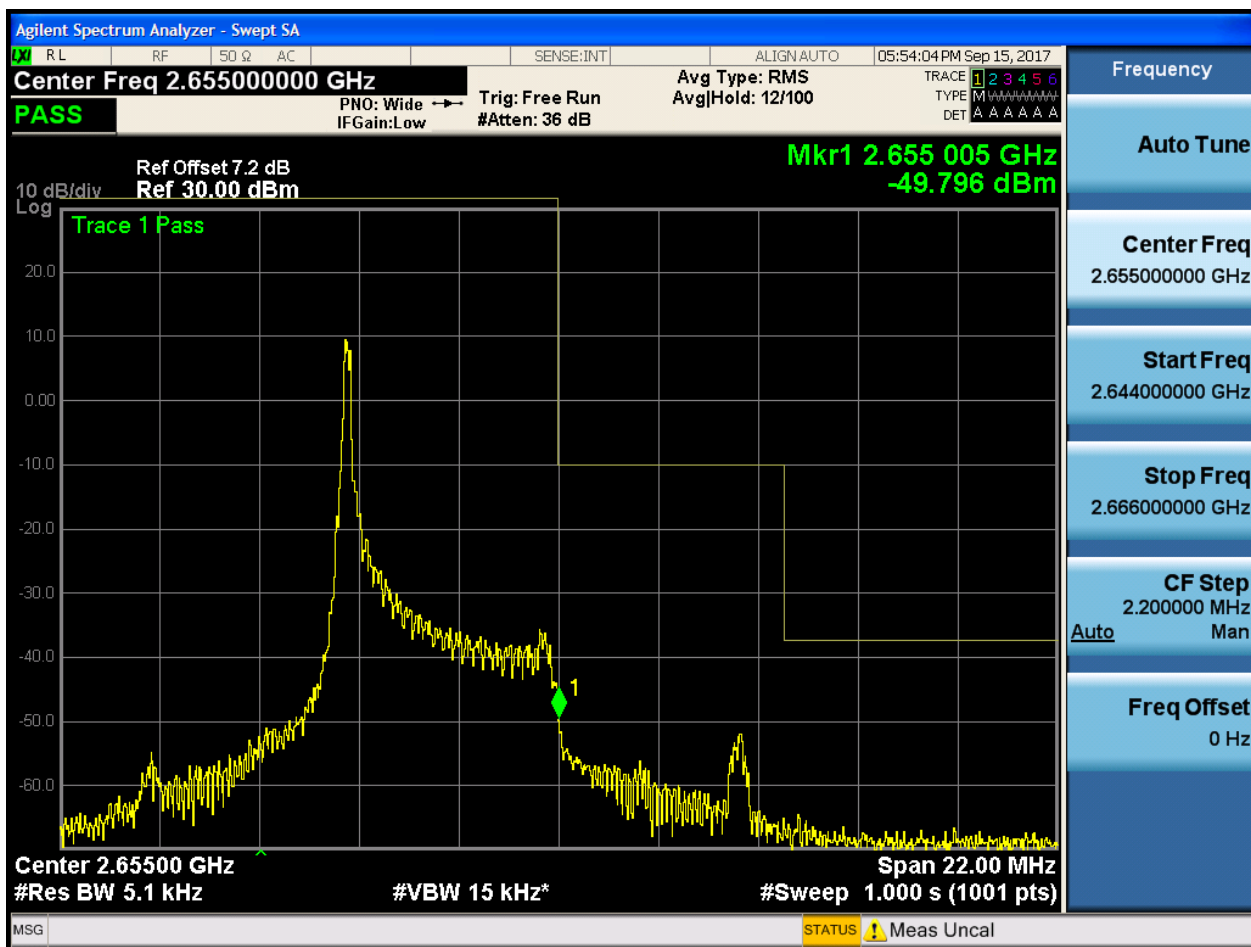
5.1.1.2.1.1.4 Test RB = RB25#0





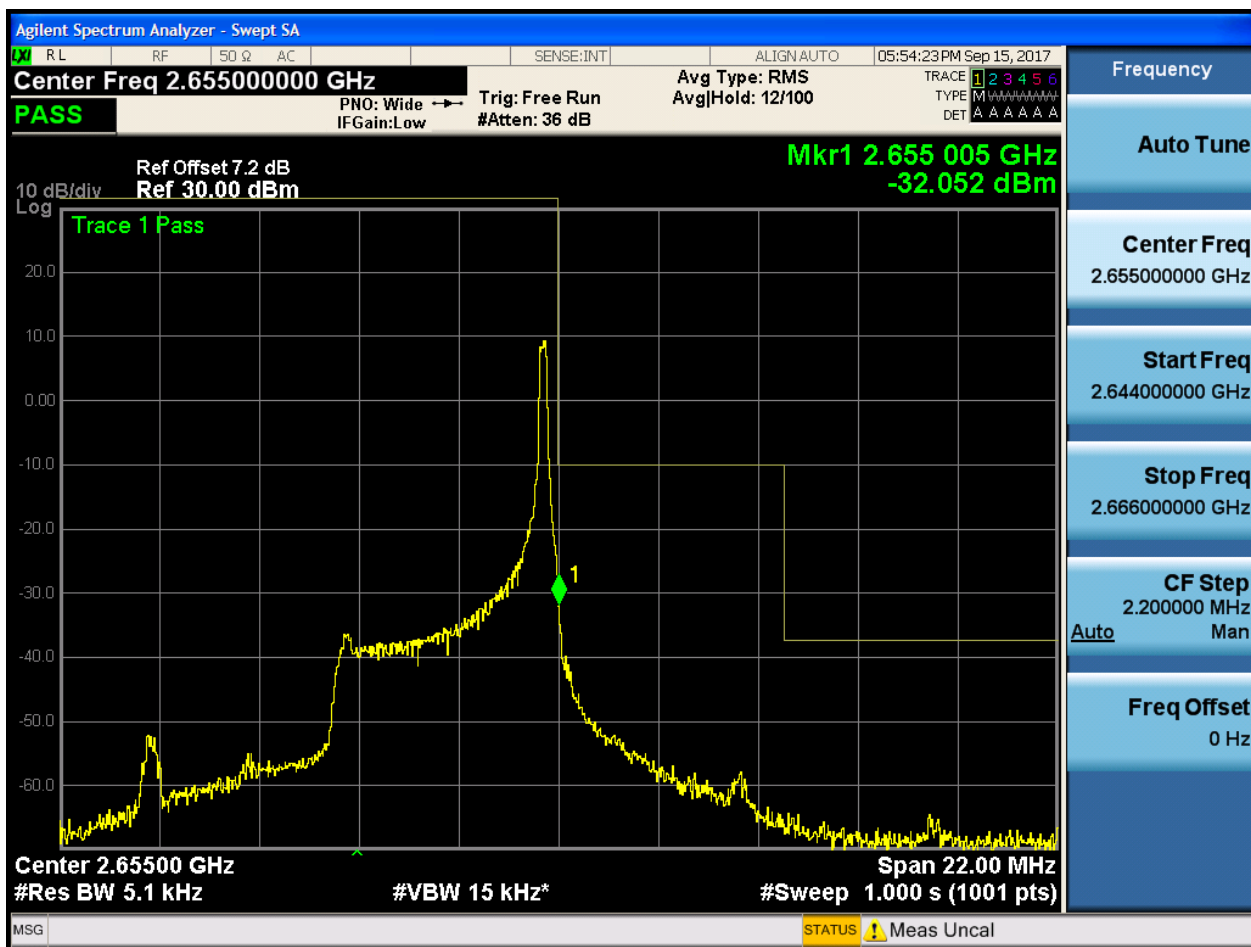
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





5.1.1.2.1.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:54:42 PM Sep 15, 2017

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 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
-33.023 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

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



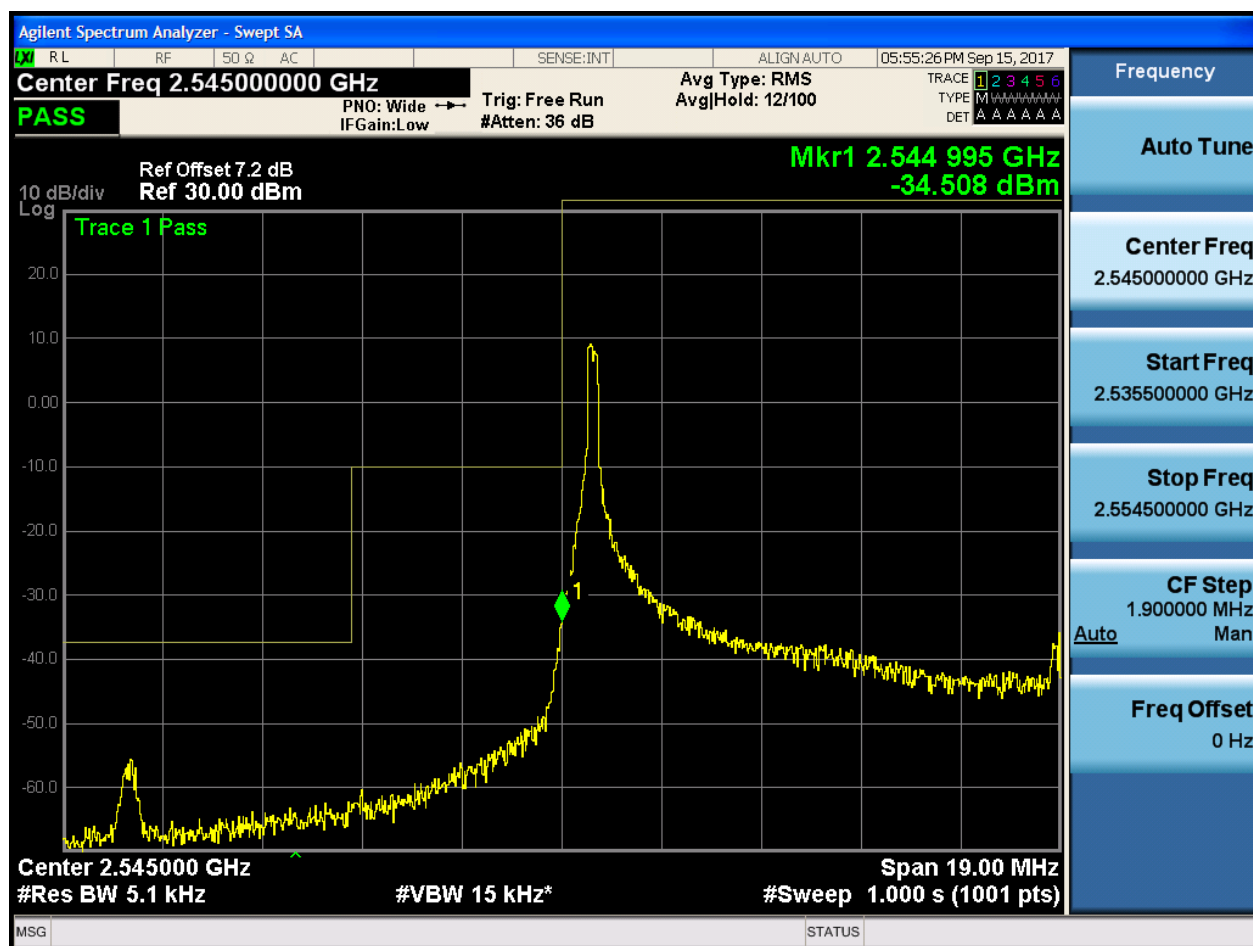
5.1.1.2.1.2.4 Test RB = RB25#0



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

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:55:45 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
PASS PNO: Wide 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 2.544 995 GHz
-55.851 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

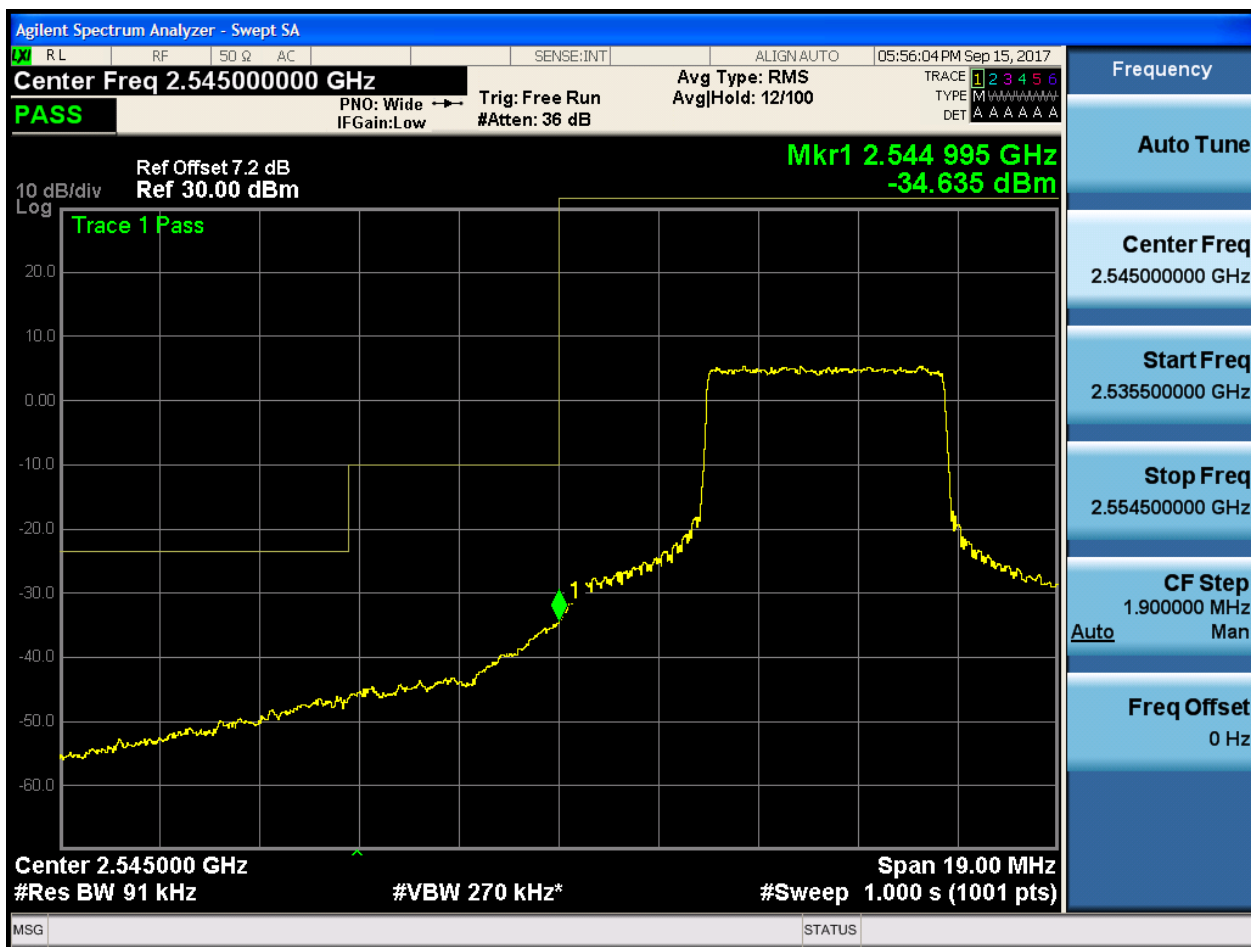
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.2.1.3 Test RB = RB25#13





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:56:22 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
PASS PNO: Wide 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 W W
DET A A A A A A

Ref Offset 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-29.060 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 GHz Span 19.00 MHz
#Res BW 180 kHz #VBW 560 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

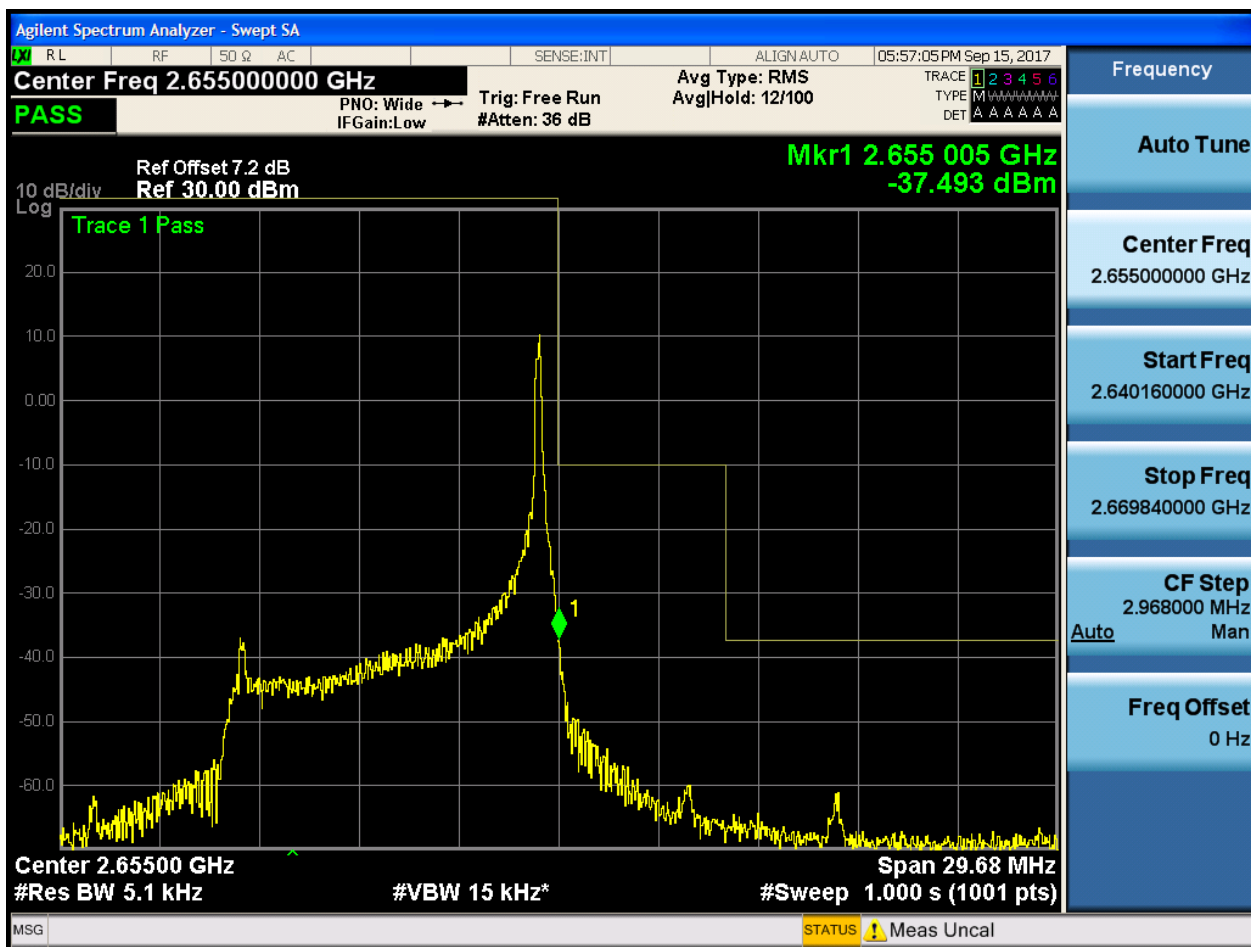


5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



5.1.1.2.2.2.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 05:57:24 PM Sep 15, 2017

Center Freq 2.655000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
#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 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 005 GHz
-34.117 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 STATUS

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



5.1.1.2.2.4 Test RB = RB50#0

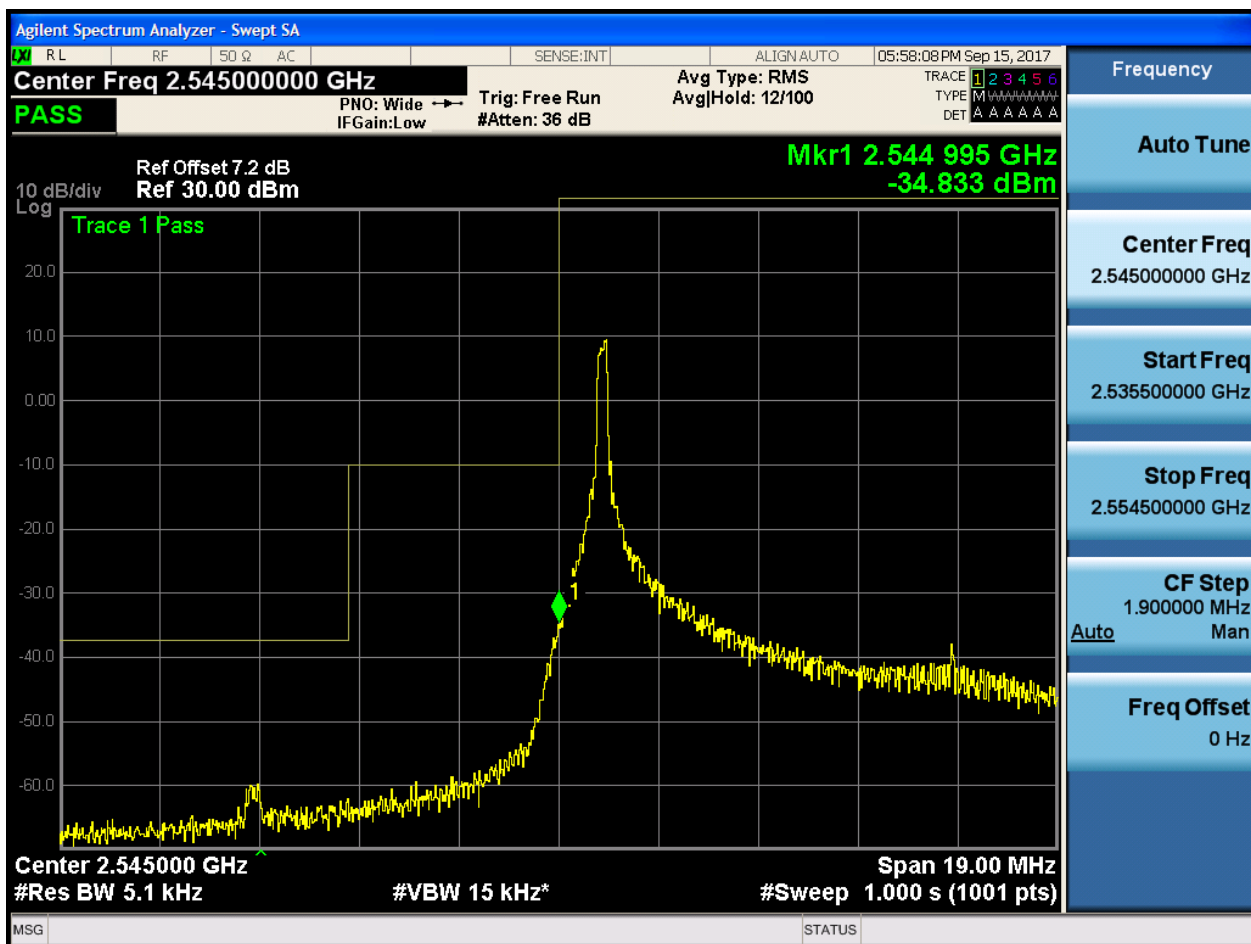




5.1.1.2.3 Test Bandwidth = 15

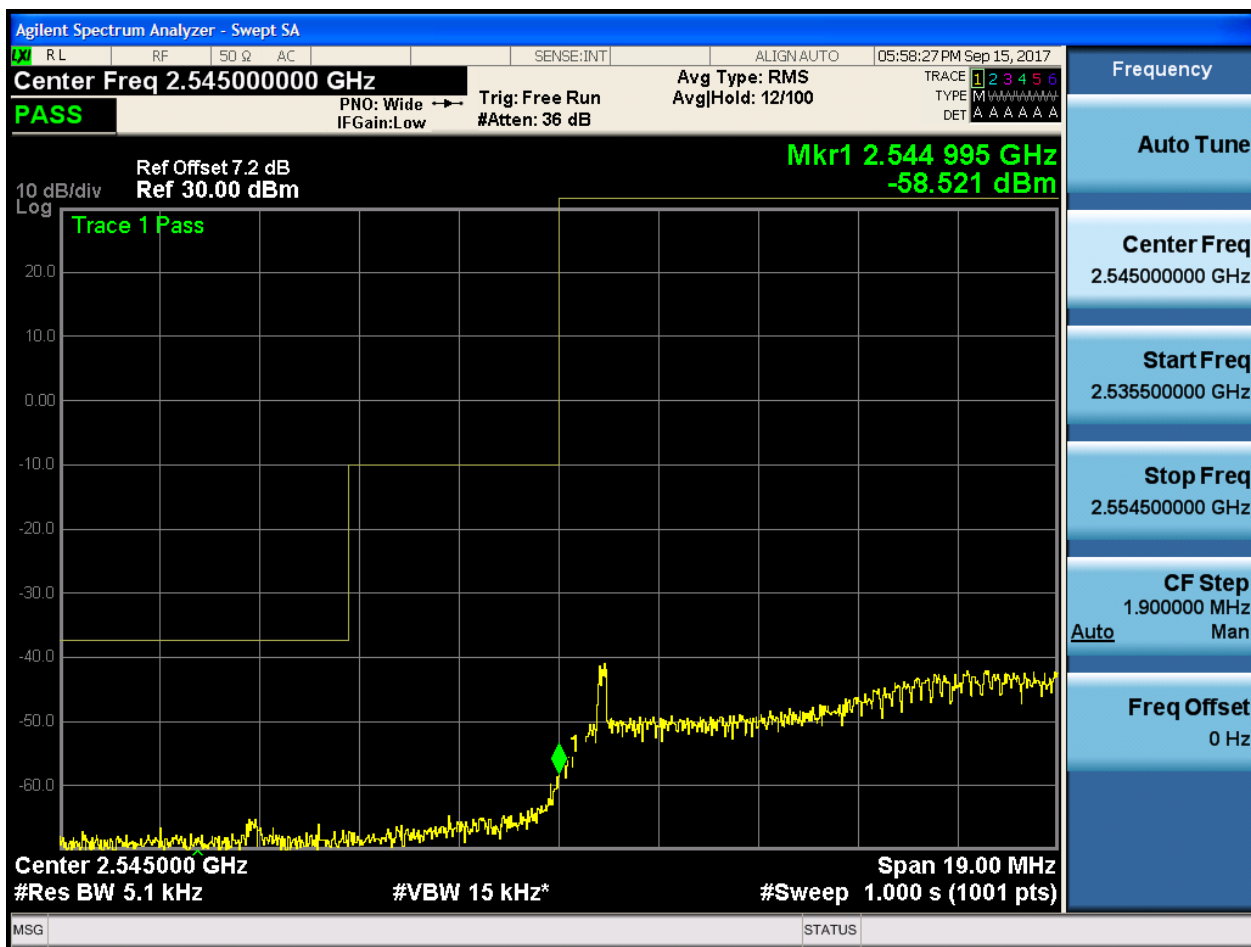
5.1.1.2.3.1 Test Channel = LCH

5.1.1.2.3.1.1 Test RB = RB1#0





5.1.1.2.3.1.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:58:45 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
 PASS PNO: Wide Trig: Free Run
 IFGain:Low #Atten: 36 dB

Ref Offset 7.2 dB
 Ref 30.00 dBm

Mkr1 2.544 995 GHz
 -34.495 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

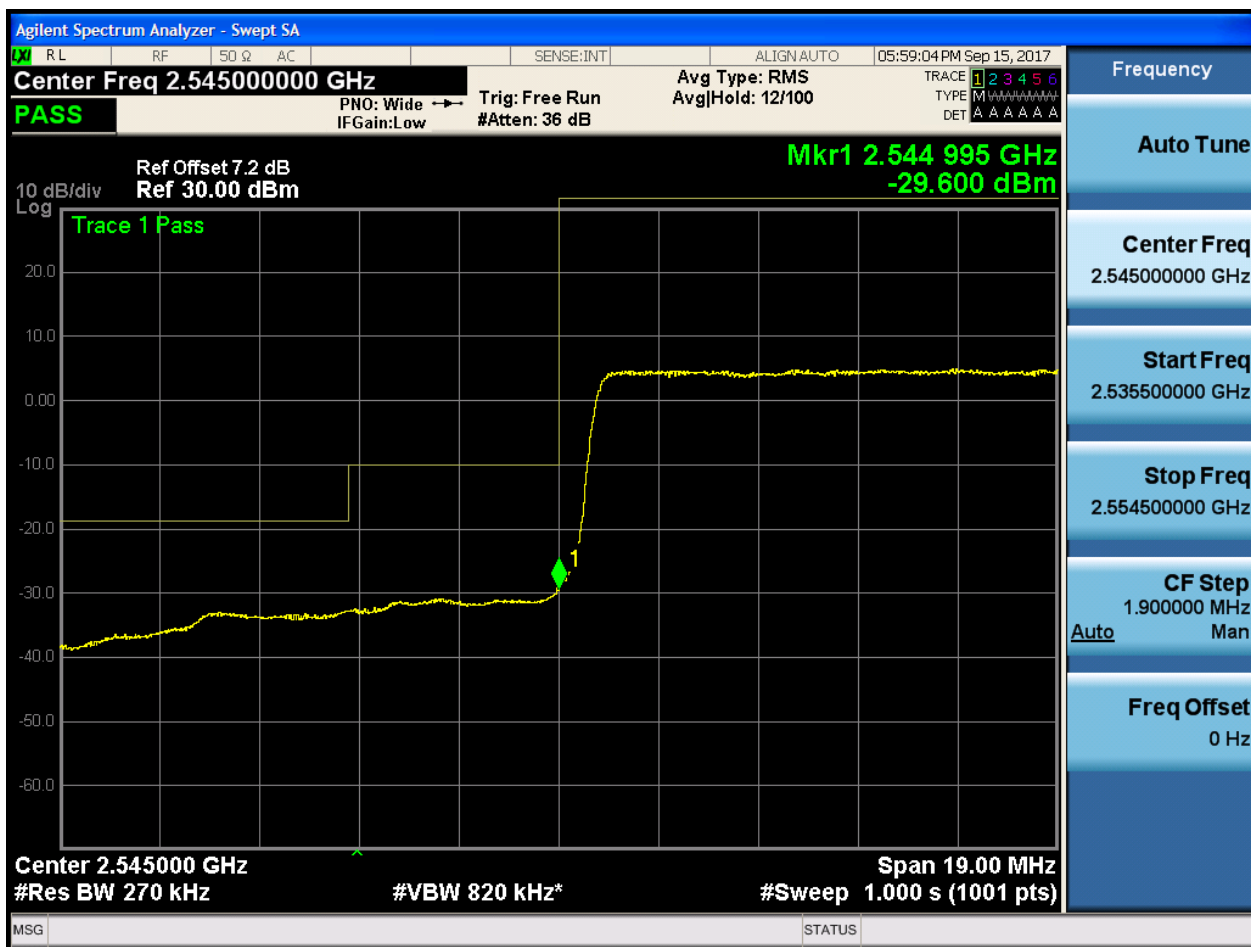
Stop Freq
 2.554500000 GHz

CF Step
 1.900000 MHz
 Auto Man

Freq Offset
 0 Hz



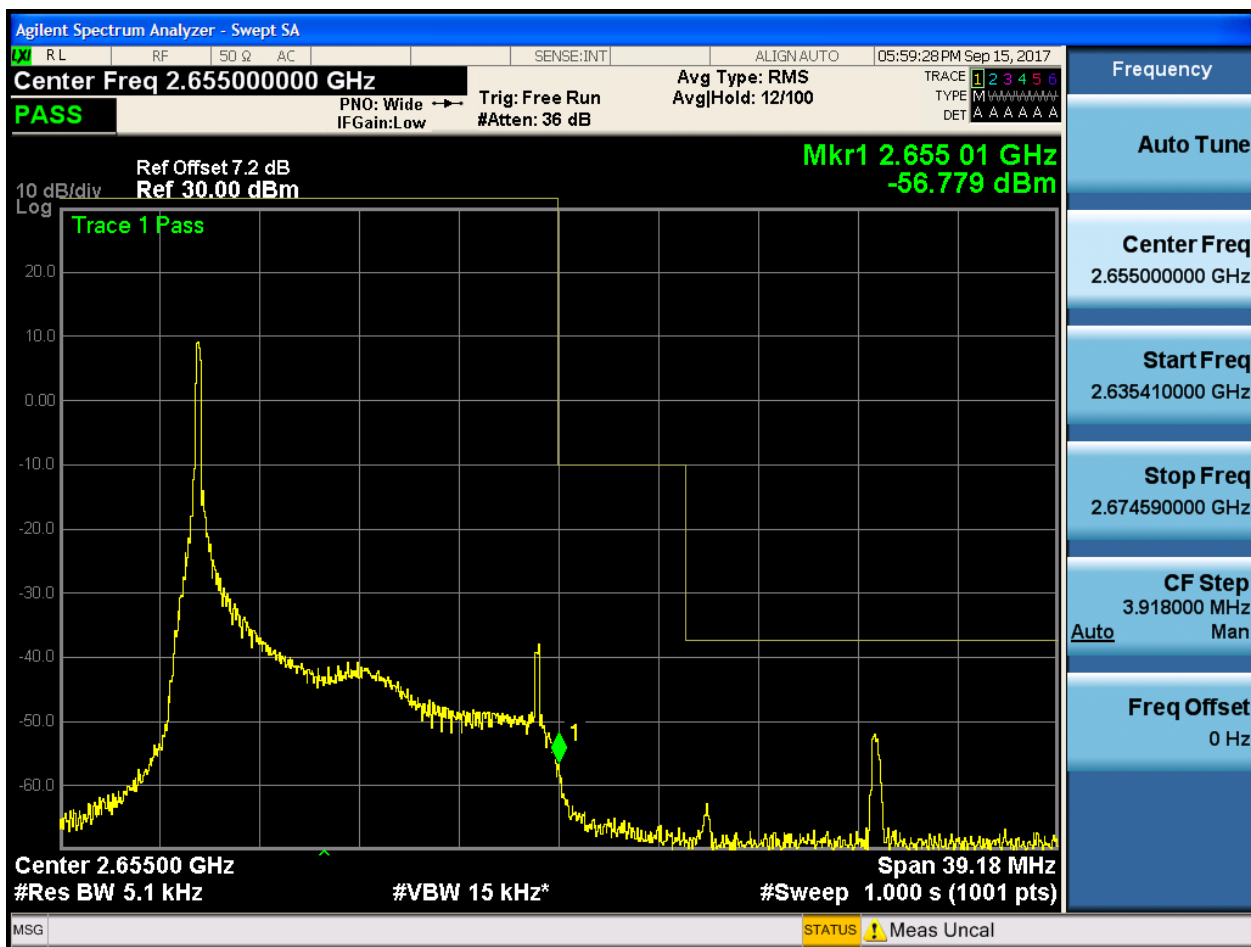
5.1.1.2.3.1.4 Test RB = RB75#0





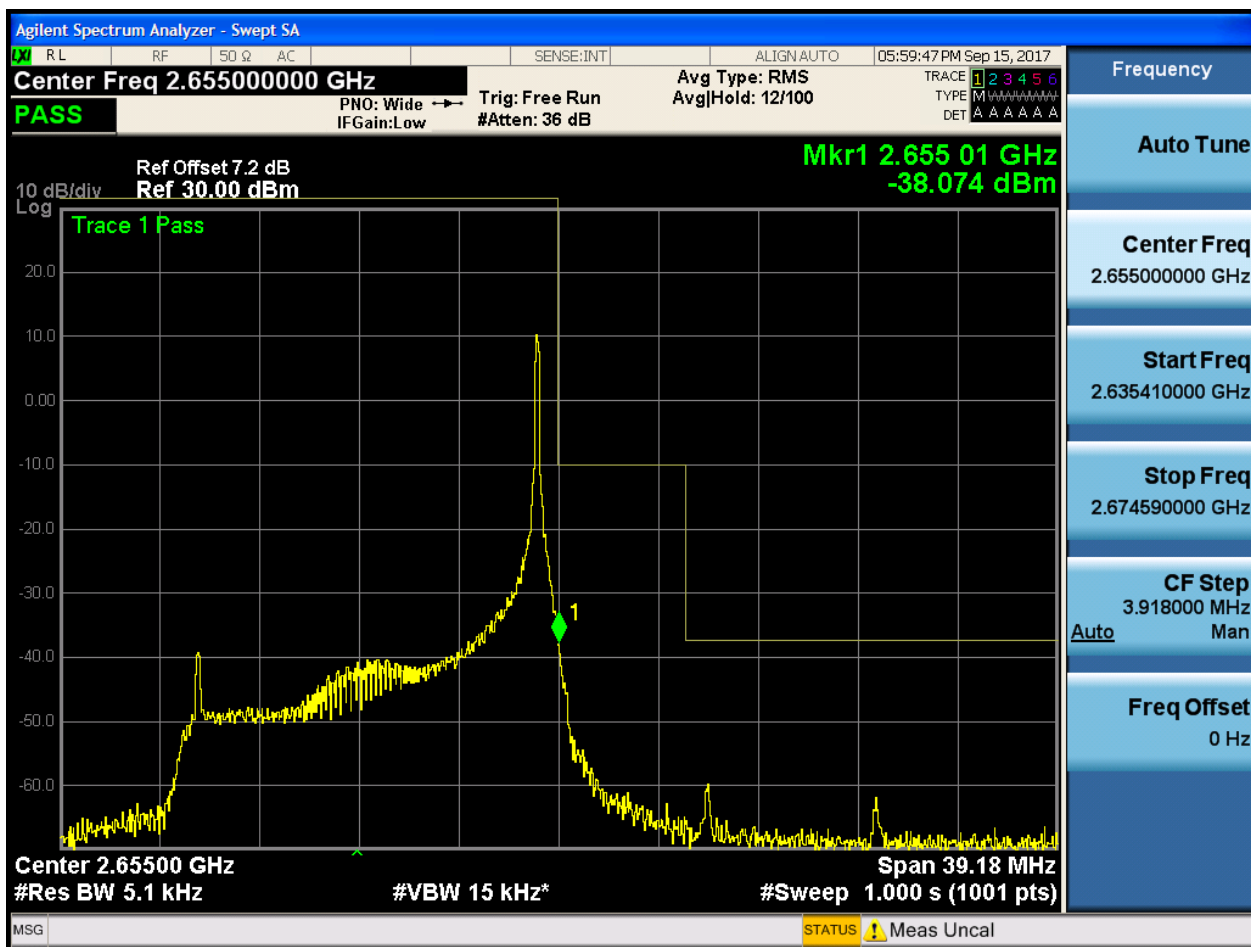
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 06:00:05 PM Sep 15, 2017

Center Freq 2.65500000 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 7.2 dB
Ref 30.00 dBm

Mkr1 2.655 01 GHz
-35.662 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.65500 GHz
#Res BW 130 kHz #VBW 390 kHz* Span 39.18 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



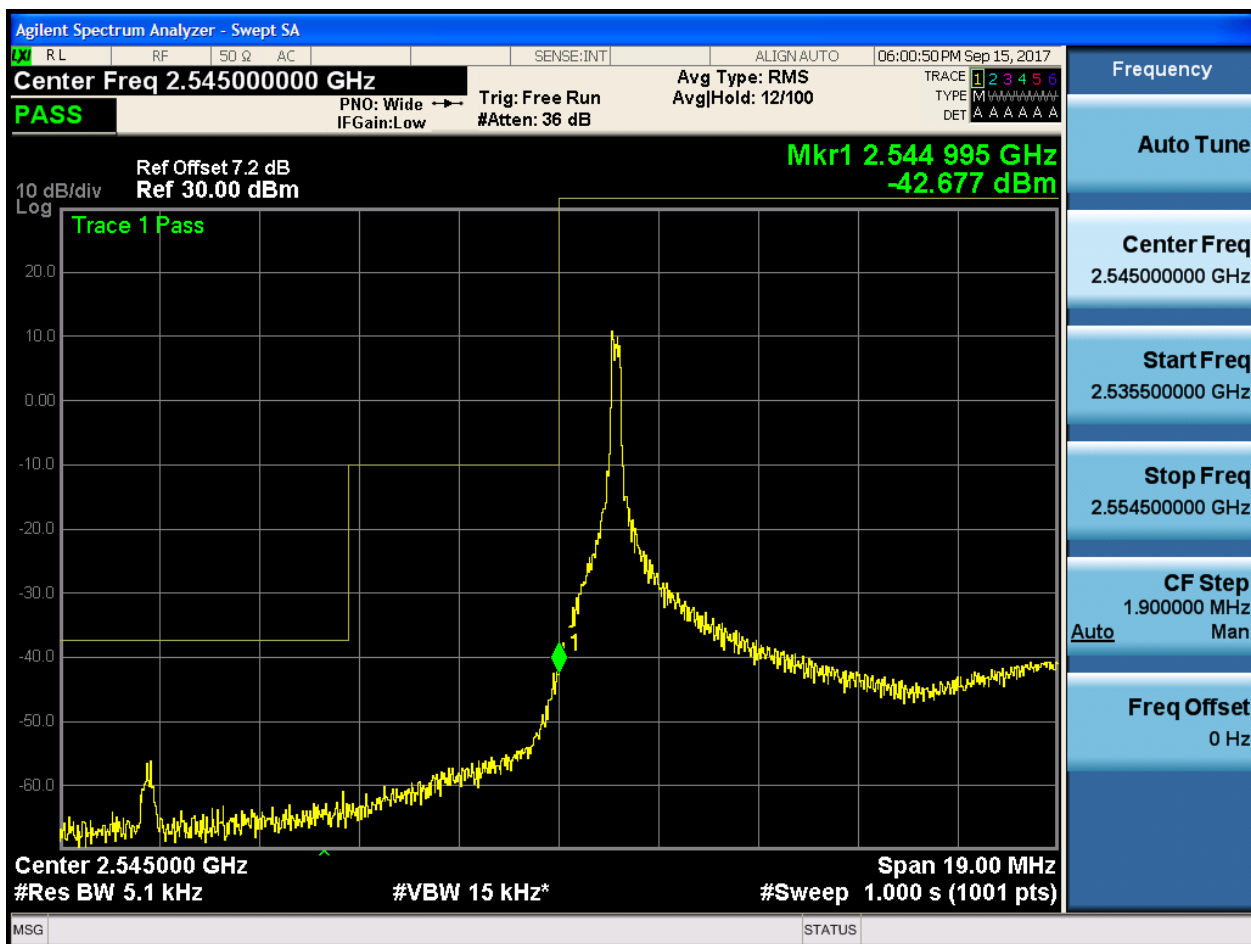
5.1.1.2.3.2.4 Test RB = RB75#0



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





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 06:01:08 PM Sep 15, 2017

Center Freq 2.545000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
#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 7.2 dB
Ref 30.00 dBm

Mkr1 2.544 995 GHz
-61.911 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.545000 GHz
#Res BW 5.1 kHz

#VBW 15 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



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.54500000 GHz

Ref Offset 7.2 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.544 995 GHz
-36.167 dBm

Center 2.545000 GHz
#Res BW 180 kHz
#VBW 560 kHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.54500000 GHz

Start Freq
2.535500000 GHz

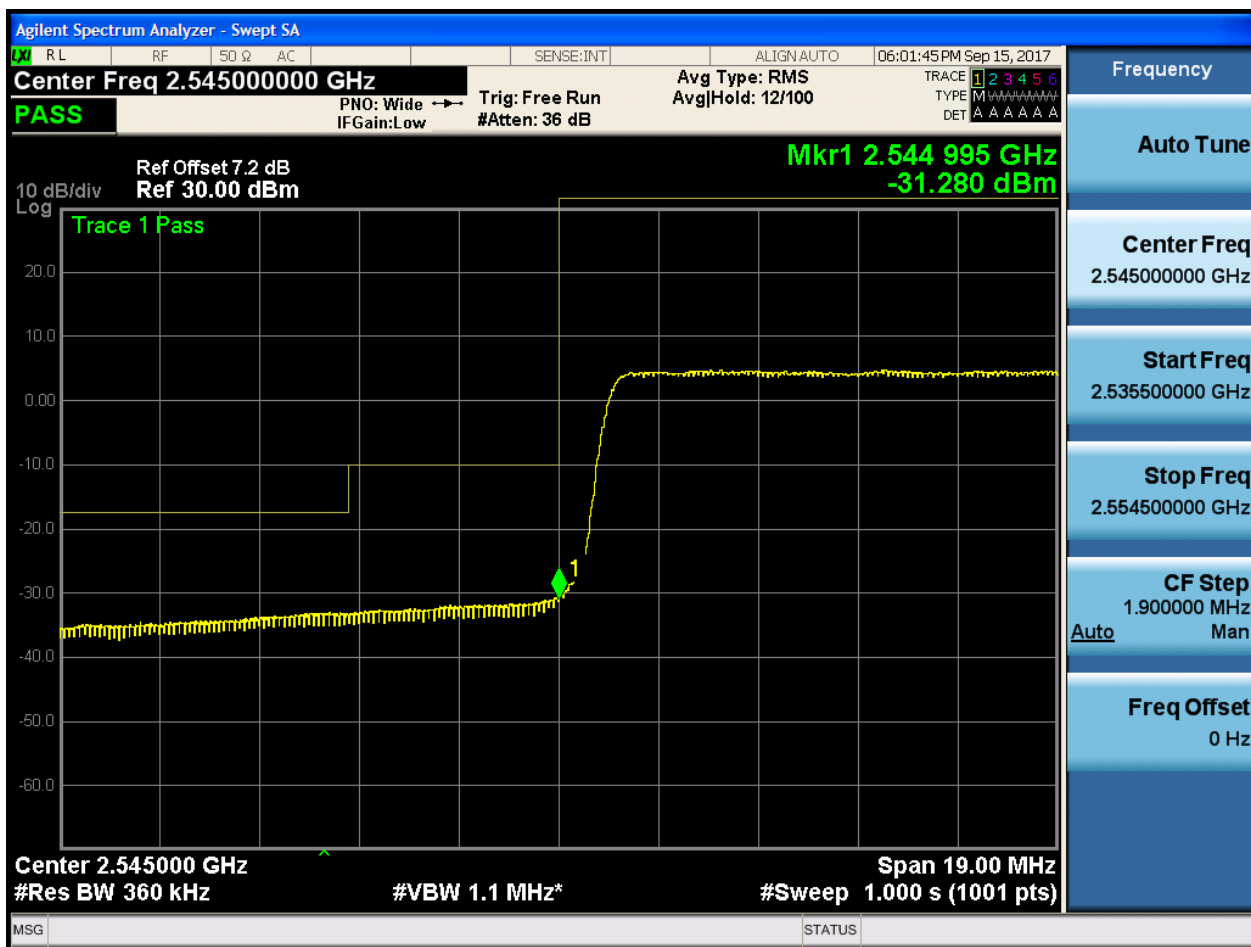
Stop Freq
2.554500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

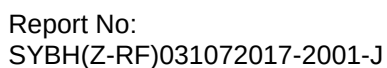


5.1.1.2.4.1.4 Test RB = RB100#0





5.1.1.2.4.2.1 Test RB = RB1#0



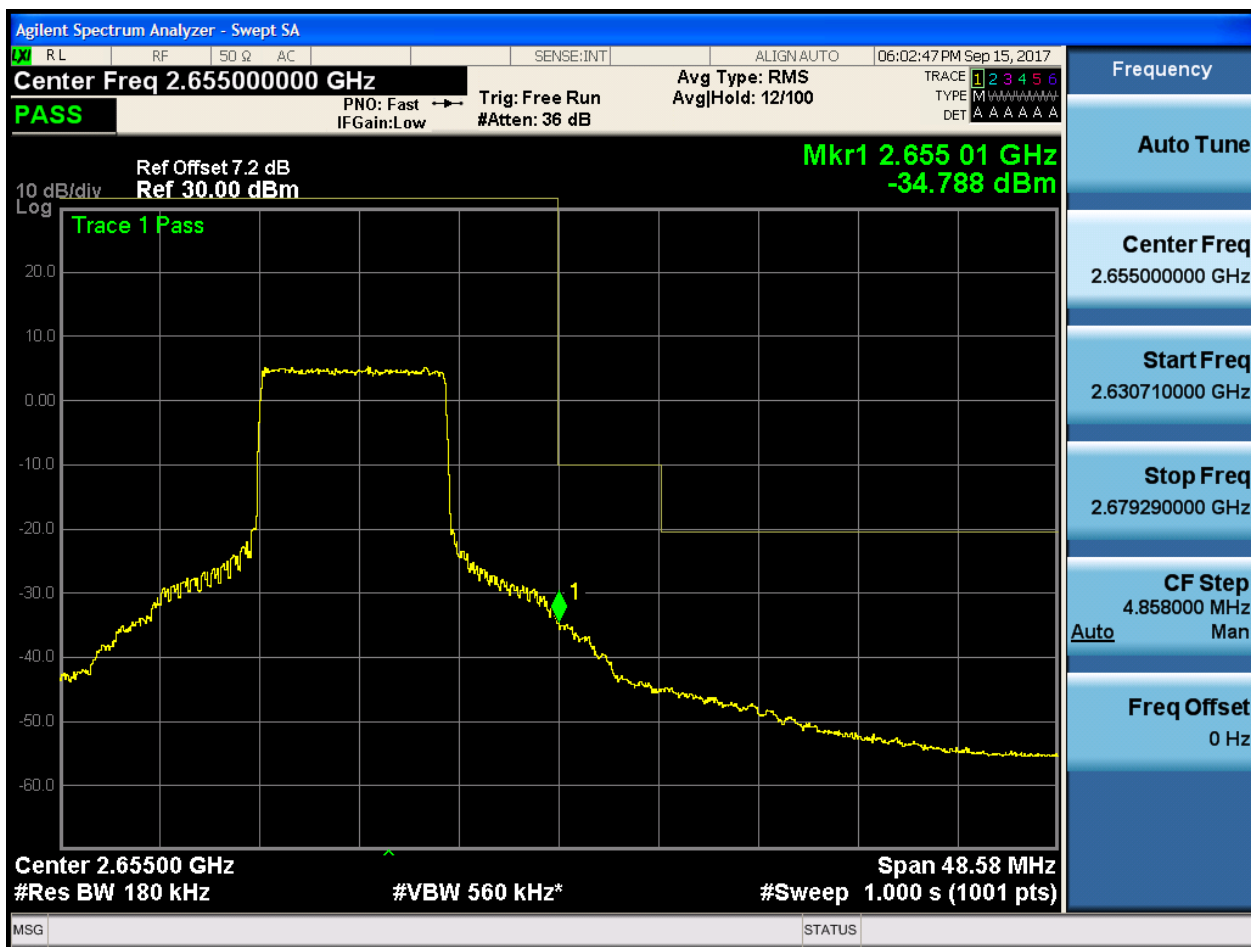


5.1.1.2.4.2.2 Test RB = RB1#99





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

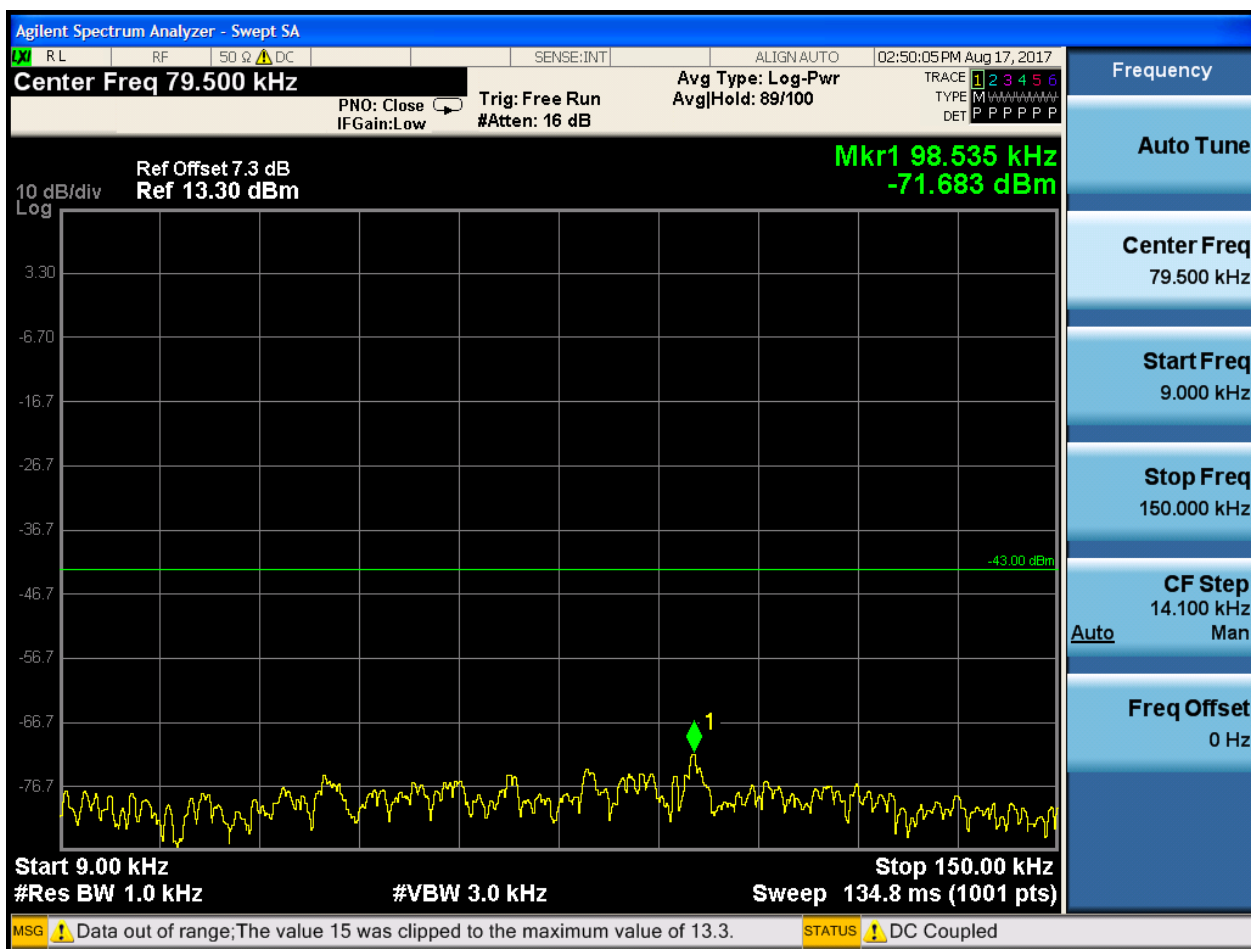
6.1.1 Test Band = BAND41

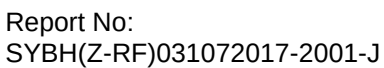
6.1.1.1 Test Mode = LTE/TM1

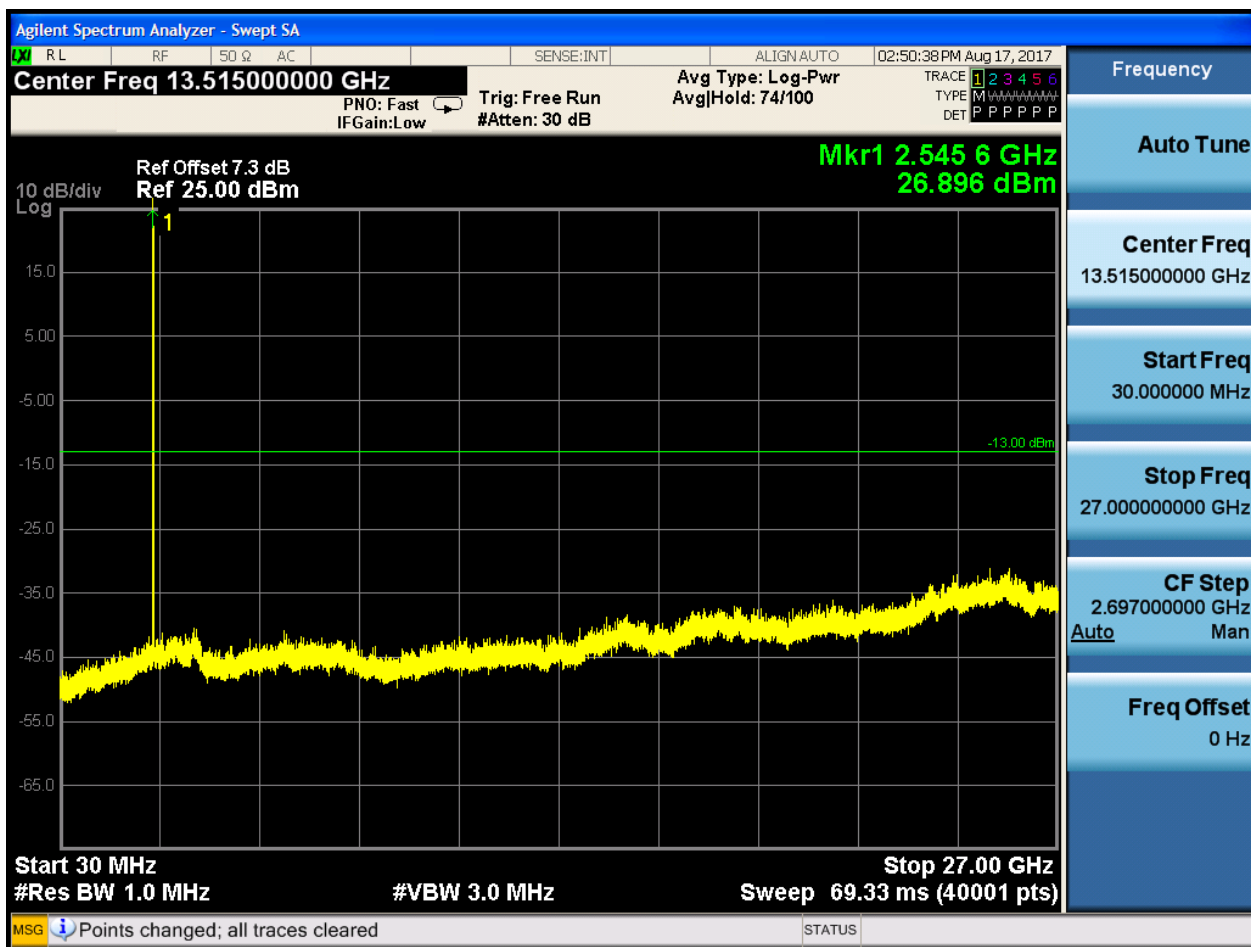
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

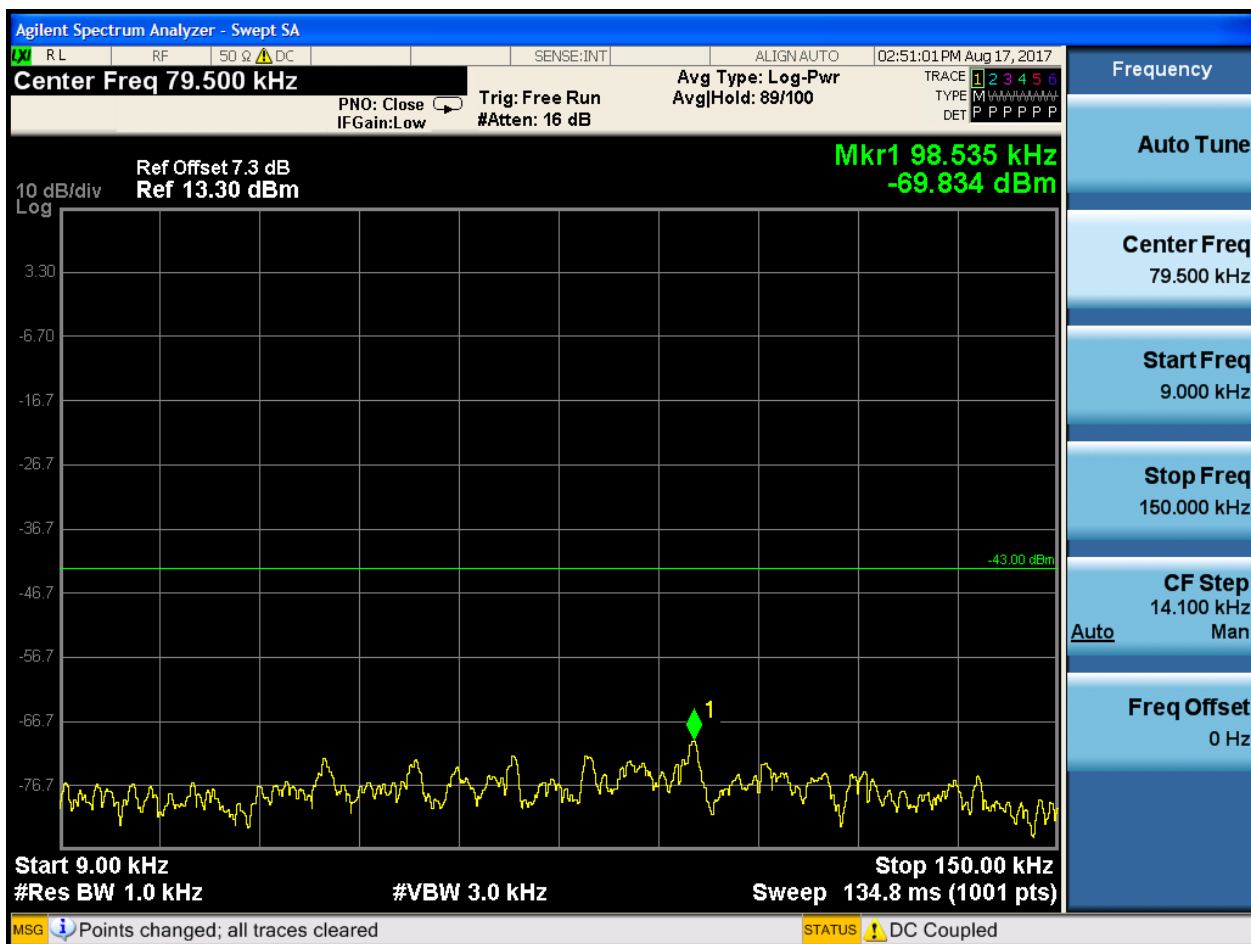


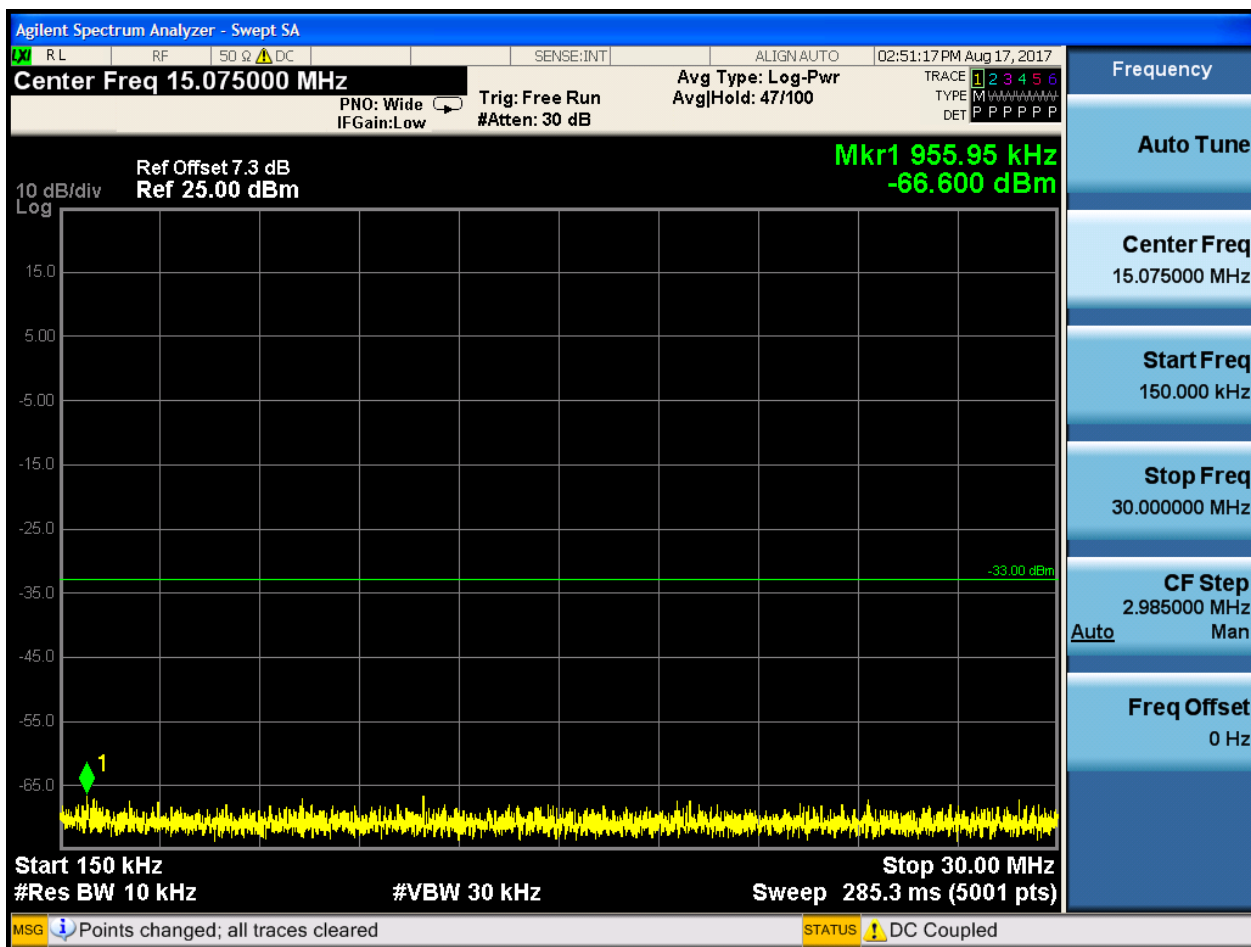


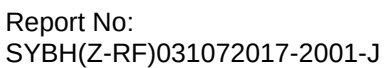


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0

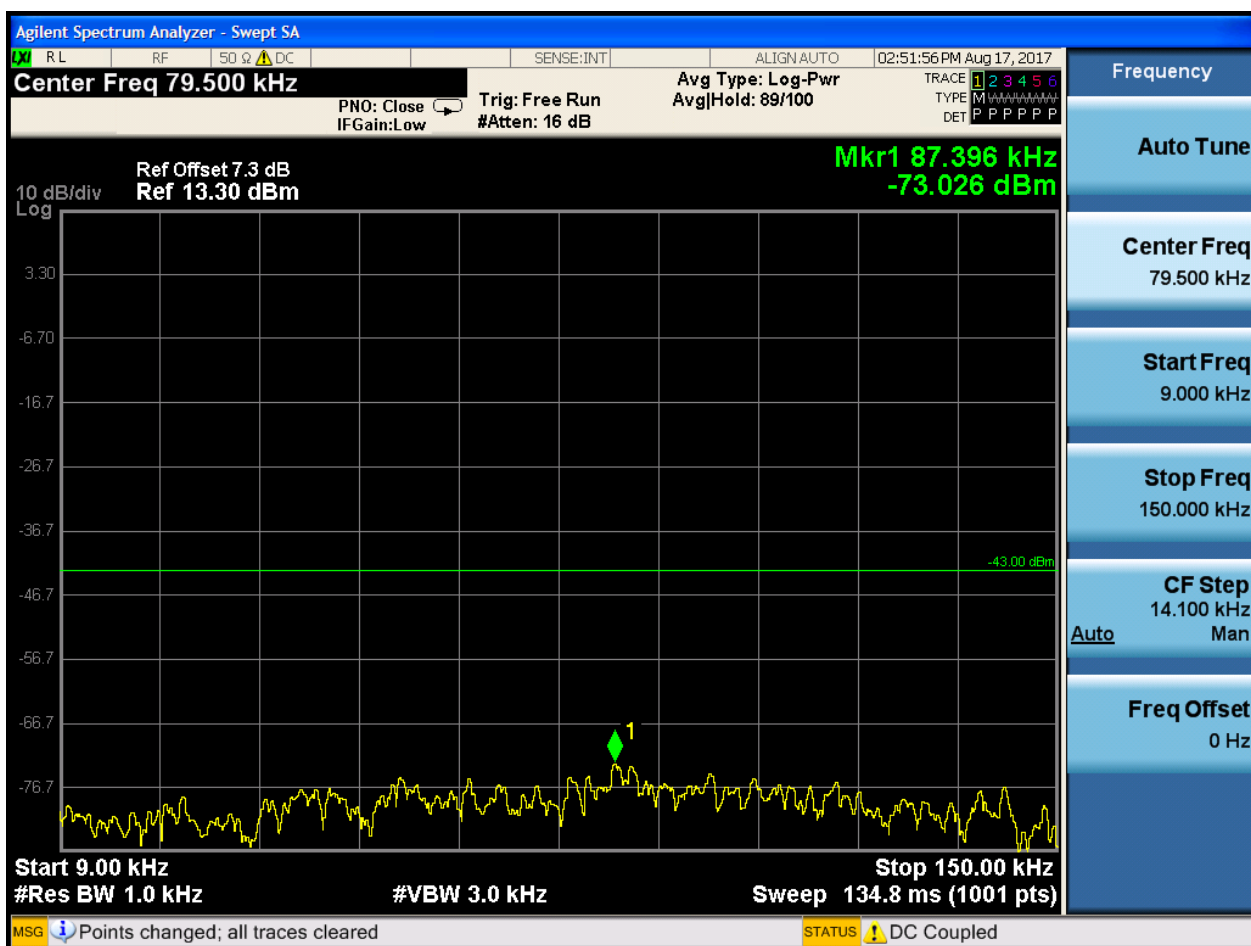


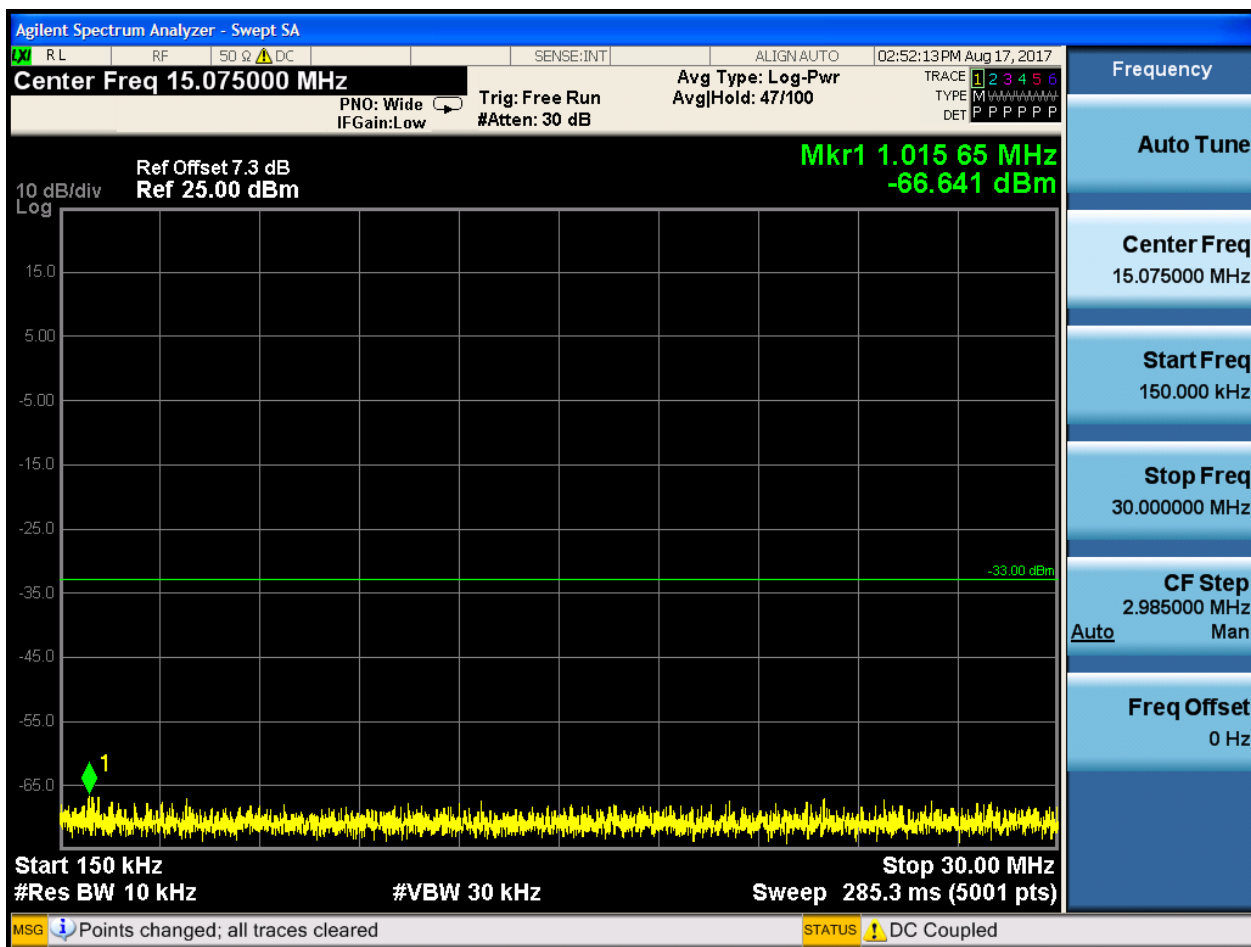


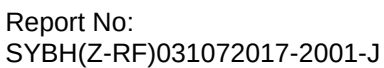


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0



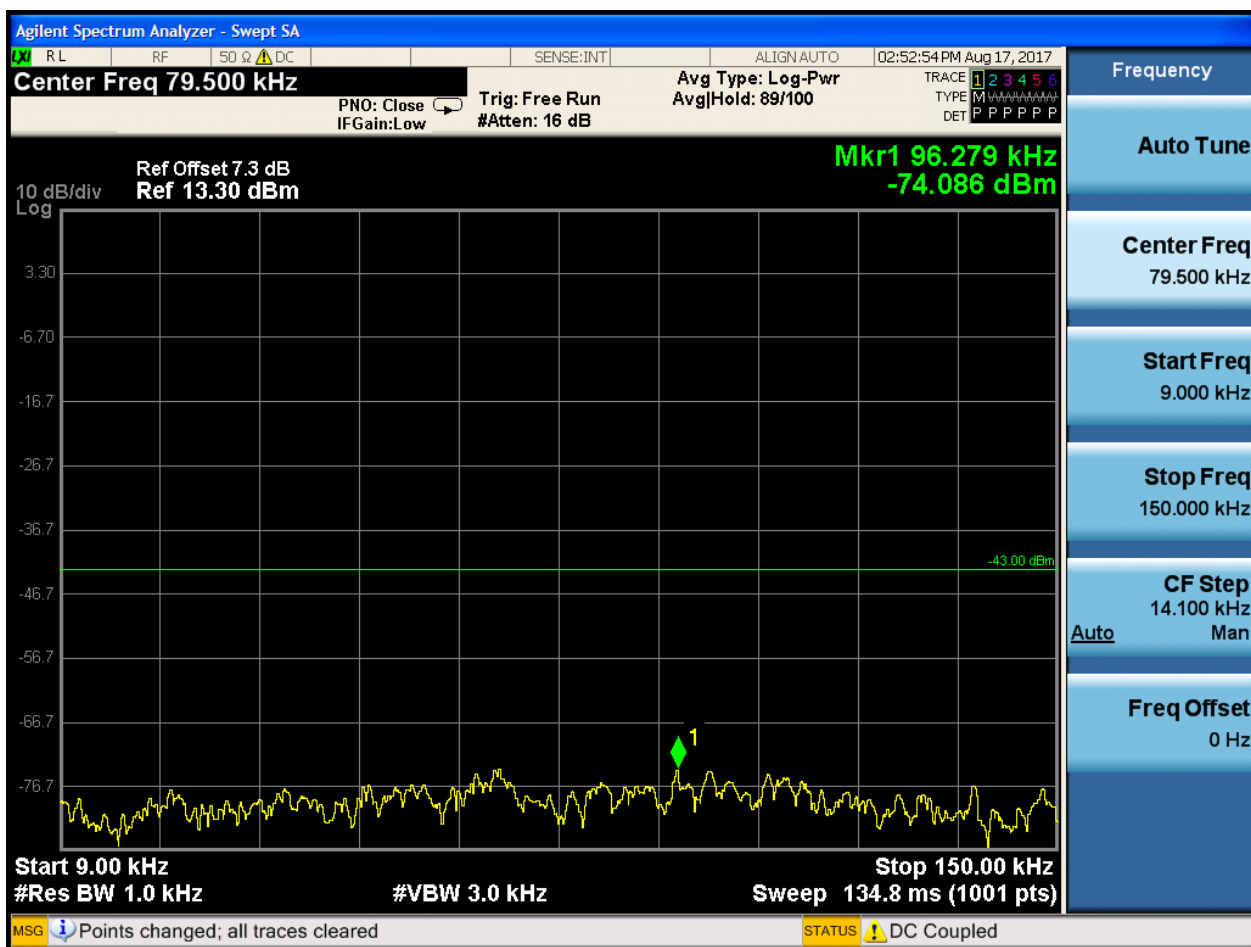


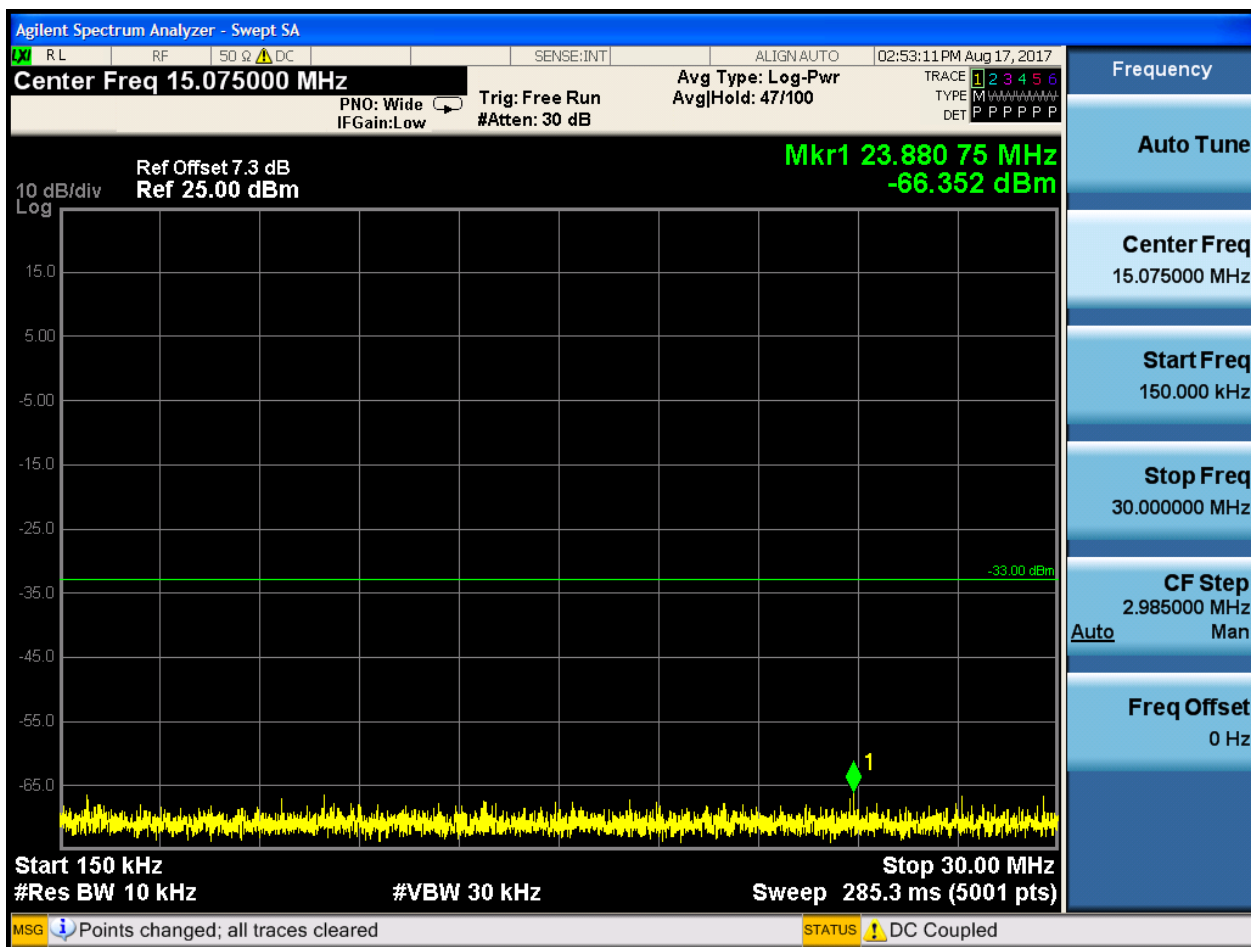


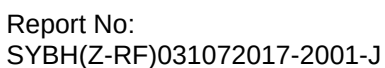
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0









6.1.1.1.2.2.1 Test RB = RB1#0

