



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
BAND7	LTE/TM1	5	LCH	RB1#0	22.34	21.89	33	PASS
				RB1#13	22.63	22.26	33	PASS
				RB1#24	22.36	22.06	33	PASS
				RB12#0	21.4	20.72	33	PASS
				RB12#6	21.41	20.74	33	PASS
				RB12#13	21.36	20.91	33	PASS
				RB25#0	21.44	20.97	33	PASS
			MCH	RB1#0	22.49	22.10	33	PASS
				RB1#13	22.73	22.03	33	PASS
				RB1#24	22.38	21.69	33	PASS
				RB12#0	21.52	21.11	33	PASS
				RB12#6	21.54	21.20	33	PASS
				RB12#13	21.5	20.99	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.63	21.08	33	PASS
			HCH	RB1#0	22.55	21.93	33	PASS
				RB1#13	22.6	22.02	33	PASS
				RB1#24	22.3	21.73	33	PASS
				RB12#0	21.77	21.19	33	PASS
				RB12#6	21.74	21.40	33	PASS
				RB12#13	21.67	20.97	33	PASS
				RB25#0	21.74	21.13	33	PASS
		10	LCH	RB1#0	22.6	21.94	33	PASS
				RB1#25	22.81	22.13	33	PASS
				RB1#49	22.51	21.88	33	PASS
				RB25#0	21.51	21.08	33	PASS
				RB25#13	21.58	20.95	33	PASS
				RB25#25	21.56	21.22	33	PASS
				RB50#0	21.56	20.94	33	PASS
			MCH	RB1#0	22.88	22.54	33	PASS
				RB1#25	22.65	22.30	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	22.54	22.16	33	PASS
				RB25#0	21.66	21.22	33	PASS
				RB25#13	21.58	20.90	33	PASS
				RB25#25	21.58	20.91	33	PASS
				RB50#0	21.59	20.93	33	PASS
			HCH	RB1#0	22.79	22.44	33	PASS
				RB1#25	23.18	22.64	33	PASS
				RB1#49	22.86	22.53	33	PASS
				RB25#0	21.78	21.26	33	PASS
				RB25#13	21.81	21.26	33	PASS
				RB25#25	21.78	21.33	33	PASS
				RB50#0	21.8	21.29	33	PASS
		15	LCH	RB1#0	22.67	22.19	33	PASS
				RB1#38	22.95	22.26	33	PASS
				RB1#74	22.68	22.16	33	PASS
				RB36#0	21.47	20.91	33	PASS
				RB36#18	21.61	21.27	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	21.59	20.99	33	PASS
				RB75#0	21.54	21.10	33	PASS
			MCH	RB1#0	22.49	21.87	33	PASS
				RB1#38	22.56	22.11	33	PASS
				RB1#74	22.59	22.22	33	PASS
				RB36#0	21.68	21.11	33	PASS
				RB36#18	21.56	21.09	33	PASS
				RB36#39	21.62	20.95	33	PASS
				RB75#0	21.54	21.16	33	PASS
			HCH	RB1#0	22.79	22.40	33	PASS
				RB1#38	22.56	21.92	33	PASS
				RB1#74	22.68	22.32	33	PASS
				RB36#0	21.72	21.17	33	PASS
				RB36#18	21.77	21.37	33	PASS
				RB36#39	21.78	21.42	33	PASS
				RB75#0	21.7	21.37	33	PASS
		20	LCH	RB1#0	22.08	21.71	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	22.53	22.10	33	PASS
				RB1#99	22.52	22.17	33	PASS
				RB50#0	21.57	21.22	33	PASS
				RB50#25	21.63	21.26	33	PASS
				RB50#50	21.52	21.18	33	PASS
				RB100#0	21.58	21.27	33	PASS
			MCH	RB1#0	22.23	21.80	33	PASS
				RB1#50	22.71	22.31	33	PASS
				RB1#99	22.55	22.09	33	PASS
				RB50#0	21.66	21.35	33	PASS
				RB50#25	21.62	21.28	33	PASS
				RB50#50	21.58	21.24	33	PASS
				RB100#0	21.6	21.04	33	PASS
			HCH	RB1#0	22.77	22.24	33	PASS
				RB1#50	22.91	22.38	33	PASS
				RB1#99	22.79	22.38	33	PASS
				RB50#0	21.79	21.16	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	21.74	21.17	33	PASS
				RB50#50	21.9	21.57	33	PASS
				RB100#0	21.79	21.43	33	PASS
	LTE/TM2	5	LCH	RB1#0	21.19	20.83	33	PASS
				RB1#13	21.23	20.79	33	PASS
				RB1#24	21.11	20.74	33	PASS
				RB12#0	20.31	19.75	33	PASS
				RB12#6	20.47	20.00	33	PASS
				RB12#13	20.29	19.68	33	PASS
				RB25#0	20.44	20.03	33	PASS
			MCH	RB1#0	21.18	20.53	33	PASS
				RB1#13	21.12	20.56	33	PASS
				RB1#24	20.93	20.50	33	PASS
				RB12#0	20.3	19.69	33	PASS
				RB12#6	20.51	19.84	33	PASS
				RB12#13	20.42	19.89	33	PASS
				RB25#0	20.67	20.12	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	21.98	21.35	33	PASS
				RB1#13	21.79	21.18	33	PASS
				RB1#24	21.8	21.15	33	PASS
				RB12#0	20.85	20.42	33	PASS
				RB12#6	20.81	20.32	33	PASS
				RB12#13	20.8	20.20	33	PASS
				RB25#0	20.77	20.41	33	PASS
		10	LCH	RB1#0	21.66	21.17	33	PASS
				RB1#25	21.96	21.40	33	PASS
				RB1#49	21.57	21.10	33	PASS
				RB25#0	20.55	19.88	33	PASS
				RB25#13	20.73	20.29	33	PASS
				RB25#25	20.45	20.00	33	PASS
				RB50#0	20.48	19.84	33	PASS
			MCH	RB1#0	21.6	21.19	33	PASS
				RB1#25	21.9	21.31	33	PASS
				RB1#49	21.53	21.05	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.78	20.38	33	PASS
				RB25#13	20.74	20.32	33	PASS
				RB25#25	20.7	20.17	33	PASS
				RB50#0	20.63	20.11	33	PASS
			HCH	RB1#0	21.76	21.39	33	PASS
				RB1#25	21.42	20.99	33	PASS
				RB1#49	21.44	21.03	33	PASS
				RB25#0	21.07	20.45	33	PASS
				RB25#13	21.13	20.48	33	PASS
				RB25#25	20.88	20.23	33	PASS
				RB50#0	20.89	20.39	33	PASS
		15	LCH	RB1#0	21.42	21.09	33	PASS
				RB1#38	21.72	21.07	33	PASS
				RB1#74	21.63	20.98	33	PASS
				RB36#0	20.75	20.28	33	PASS
				RB36#18	20.68	20.37	33	PASS
				RB36#39	20.6	20.18	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	20.63	20.23	33	PASS
			MCH	RB1#0	21.45	21.13	33	PASS
				RB1#38	21.77	21.24	33	PASS
				RB1#74	21.35	20.70	33	PASS
				RB36#0	20.63	20.10	33	PASS
				RB36#18	20.62	19.99	33	PASS
				RB36#39	20.55	19.89	33	PASS
				RB75#0	20.61	20.08	33	PASS
			HCH	RB1#0	21.61	21.14	33	PASS
				RB1#38	21.75	21.42	33	PASS
				RB1#74	21.55	21.02	33	PASS
				RB36#0	20.73	20.36	33	PASS
				RB36#18	21.08	20.51	33	PASS
				RB36#39	20.86	20.20	33	PASS
				RB75#0	20.78	20.23	33	PASS
		20	LCH	RB1#0	21.38	20.71	33	PASS
				RB1#50	22.25	21.63	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	21.96	21.64	33	PASS
				RB50#0	20.67	20.35	33	PASS
				RB50#25	20.73	20.34	33	PASS
				RB50#50	20.63	20.15	33	PASS
				RB100#0	20.62	20.15	33	PASS
			MCH	RB1#0	21.15	20.78	33	PASS
				RB1#50	22.03	21.72	33	PASS
				RB1#99	21.66	21.17	33	PASS
				RB50#0	20.58	20.27	33	PASS
				RB50#25	20.67	20.15	33	PASS
				RB50#50	20.59	20.18	33	PASS
				RB100#0	20.71	20.24	33	PASS
			HCH	RB1#0	21.58	21.12	33	PASS
				RB1#50	22.26	21.61	33	PASS
				RB1#99	21.82	21.28	33	PASS
				RB50#0	20.96	20.38	33	PASS
				RB50#25	20.84	20.29	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.9	20.53	33	PASS
				RB100#0	20.82	20.52	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:

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

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

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

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
BAND7	LTE/TM1	5	LCH	RB1#0	3.09	13	PASS
				RB1#13	2.98	13	PASS
				RB1#24	3.18	13	PASS
				RB12#0	4.1	13	PASS
				RB12#6	3.98	13	PASS
				RB12#13	4.17	13	PASS
				RB25#0	4.66	13	PASS
			MCH	RB1#0	3.19	13	PASS
				RB1#13	3.02	13	PASS
				RB1#24	3.16	13	PASS
				RB12#0	4.07	13	PASS
				RB12#6	3.93	13	PASS
				RB12#13	4.07	13	PASS
				RB25#0	4.63	13	PASS
			HCH	RB1#0	3.07	13	PASS
				RB1#13	2.92	13	PASS
				RB1#24	3.1	13	PASS
				RB12#0	4.04	13	PASS
				RB12#6	3.87	13	PASS
				RB12#13	3.99	13	PASS
				RB25#0	4.64	13	PASS
		10	LCH	RB1#0	3.17	13	PASS
				RB1#25	3.11	13	PASS
				RB1#49	3.23	13	PASS
				RB25#0	4.15	13	PASS
				RB25#13	4.11	13	PASS
				RB25#25	4.27	13	PASS
				RB50#0	4.46	13	PASS
			MCH	RB1#0	3.21	13	PASS
				RB1#25	3.03	13	PASS
				RB1#49	3.31	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	4.11	13	PASS
				RB25#13	4.06	13	PASS
				RB25#25	4.13	13	PASS
				RB50#0	4.47	13	PASS
			HCH	RB1#0	3.22	13	PASS
				RB1#25	2.86	13	PASS
				RB1#49	2.96	13	PASS
				RB25#0	4.13	13	PASS
				RB25#13	3.92	13	PASS
				RB25#25	3.99	13	PASS
				RB50#0	4.64	13	PASS
		15	LCH	RB1#0	3.23	13	PASS
				RB1#38	3.25	13	PASS
				RB1#74	3.32	13	PASS
				RB36#0	4.25	13	PASS
				RB36#18	4.17	13	PASS
				RB36#39	4.3	13	PASS
				RB75#0	5.03	13	PASS
			MCH	RB1#0	3.21	13	PASS
				RB1#38	3.06	13	PASS
				RB1#74	3.21	13	PASS
				RB36#0	4.11	13	PASS
				RB36#18	4.04	13	PASS
				RB36#39	4.2	13	PASS
				RB75#0	4.9	13	PASS
			HCH	RB1#0	3.42	13	PASS
				RB1#38	3.09	13	PASS
				RB1#74	3.06	13	PASS
				RB36#0	4.28	13	PASS
				RB36#18	3.98	13	PASS
				RB36#39	4	13	PASS
				RB75#0	4.84	13	PASS
		20	LCH	RB1#0	3.38	13	PASS
				RB1#50	3.27	13	PASS
				RB1#99	3.36	13	PASS
				RB50#0	4.38	13	PASS
				RB50#25	4.2	13	PASS
				RB50#50	4.34	13	PASS
				RB100#0	4.94	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			MCH	RB1#0	3.16	13	PASS
				RB1#50	2.95	13	PASS
				RB1#99	3.23	13	PASS
				RB50#0	4.18	13	PASS
				RB50#25	4.07	13	PASS
				RB50#50	4.25	13	PASS
				RB100#0	5.08	13	PASS
			HCH	RB1#0	3.38	13	PASS
				RB1#50	3.14	13	PASS
				RB1#99	3.02	13	PASS
				RB50#0	4.4	13	PASS
				RB50#25	4.17	13	PASS
				RB50#50	4.09	13	PASS
				RB100#0	4.71	13	PASS
	LTE/TM2	5	LCH	RB1#0	4.12	13	PASS
				RB1#13	4.02	13	PASS
				RB1#24	4.25	13	PASS
				RB12#0	5.02	13	PASS
				RB12#6	4.9	13	PASS
				RB12#13	5.13	13	PASS
				RB25#0	5.63	13	PASS
			MCH	RB1#0	4.28	13	PASS
				RB1#13	4.06	13	PASS
				RB1#24	4.33	13	PASS
				RB12#0	5.03	13	PASS
				RB12#6	4.81	13	PASS
				RB12#13	5.06	13	PASS
				RB25#0	5.75	13	PASS
		10	HCH	RB1#0	3.85	13	PASS
				RB1#13	3.8	13	PASS
				RB1#24	3.88	13	PASS
				RB12#0	4.92	13	PASS
				RB12#6	4.79	13	PASS
				RB12#13	4.92	13	PASS
				RB25#0	5.54	13	PASS
			LCH	RB1#0	4.29	13	PASS
				RB1#25	4.25	13	PASS
				RB1#49	4.38	13	PASS
				RB25#0	5.19	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#13	5.11	13	PASS
				RB25#25	5.24	13	PASS
				RB50#0	5.92	13	PASS
			MCH	RB1#0	3.97	13	PASS
				RB1#25	4.03	13	PASS
				RB1#49	4.27	13	PASS
				RB25#0	4.94	13	PASS
				RB25#13	4.84	13	PASS
				RB25#25	4.99	13	PASS
				RB50#0	5.93	13	PASS
			HCH	RB1#0	4	13	PASS
				RB1#25	3.85	13	PASS
				RB1#49	4.07	13	PASS
				RB25#0	5.02	13	PASS
				RB25#13	4.77	13	PASS
				RB25#25	5.01	13	PASS
				RB50#0	5.82	13	PASS
		15	LCH	RB1#0	4.26	13	PASS
				RB1#38	4.22	13	PASS
				RB1#74	4.39	13	PASS
				RB36#0	5.22	13	PASS
				RB36#18	5.15	13	PASS
				RB36#39	5.34	13	PASS
				RB75#0	5.86	13	PASS
			MCH	RB1#0	3.93	13	PASS
				RB1#38	3.82	13	PASS
				RB1#74	4.04	13	PASS
				RB36#0	5.13	13	PASS
				RB36#18	5.01	13	PASS
				RB36#39	5.22	13	PASS
				RB75#0	5.71	13	PASS
			HCH	RB1#0	4.16	13	PASS
				RB1#38	3.88	13	PASS
				RB1#74	3.88	13	PASS
				RB36#0	5.14	13	PASS
				RB36#18	4.98	13	PASS
				RB36#39	4.95	13	PASS
				RB75#0	5.67	13	PASS
		20	LCH	RB1#0	3.82	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#50	3.71	13	PASS
				RB1#99	3.88	13	PASS
				RB50#0	5.25	13	PASS
				RB50#25	5.05	13	PASS
				RB50#50	5.18	13	PASS
				RB100#0	5.49	13	PASS
			MCH	RB1#0	4.13	13	PASS
				RB1#50	4.01	13	PASS
				RB1#99	4.11	13	PASS
				RB50#0	5.07	13	PASS
				RB50#25	4.98	13	PASS
				RB50#50	5.24	13	PASS
				RB100#0	5.75	13	PASS
			HCH	RB1#0	4.06	13	PASS
				RB1#50	3.75	13	PASS
				RB1#99	3.84	13	PASS
				RB50#0	5.35	13	PASS
				RB50#25	5.05	13	PASS
				RB50#50	5.15	13	PASS
				RB100#0	5.8	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

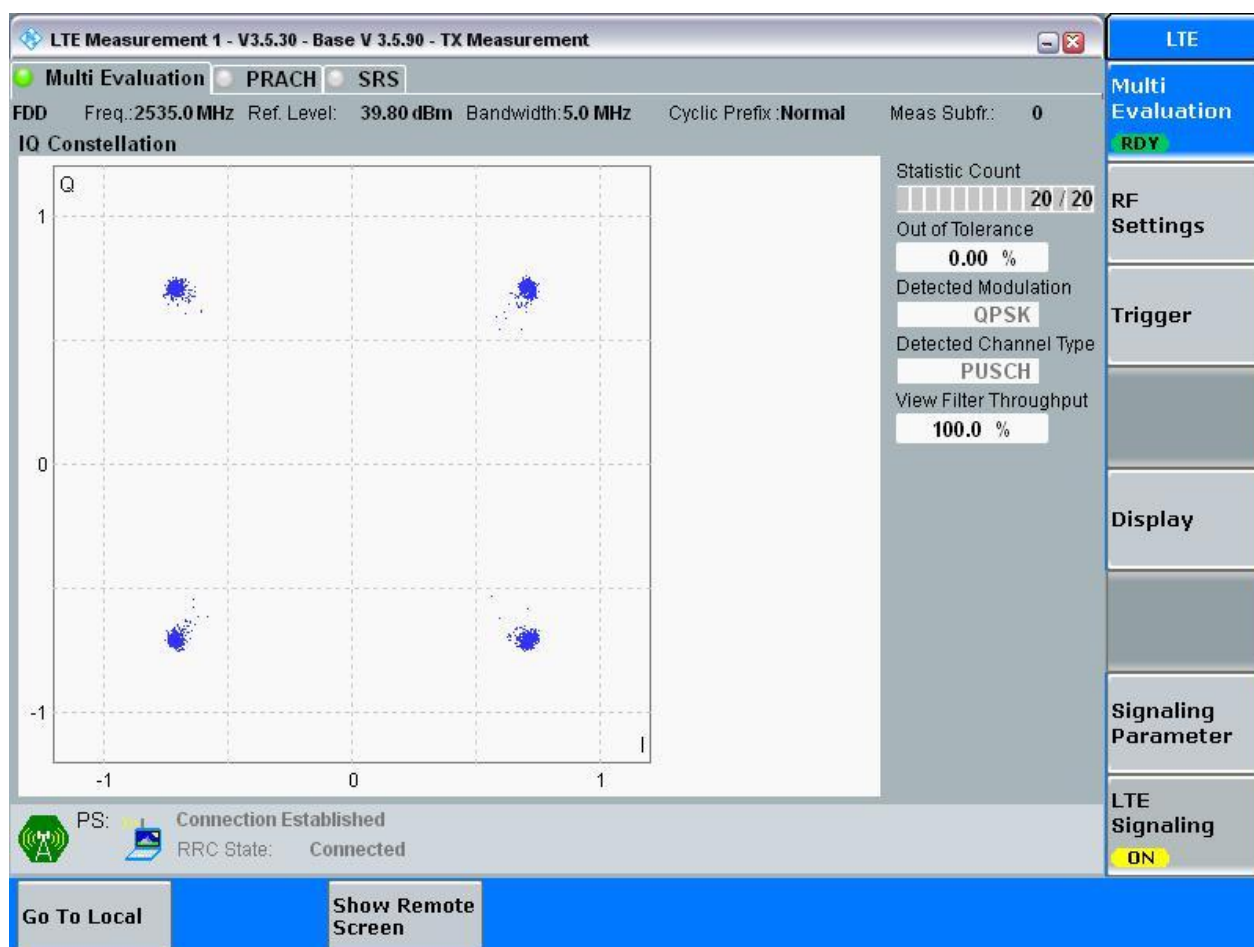
3.1.1 Test Band = BAND7

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

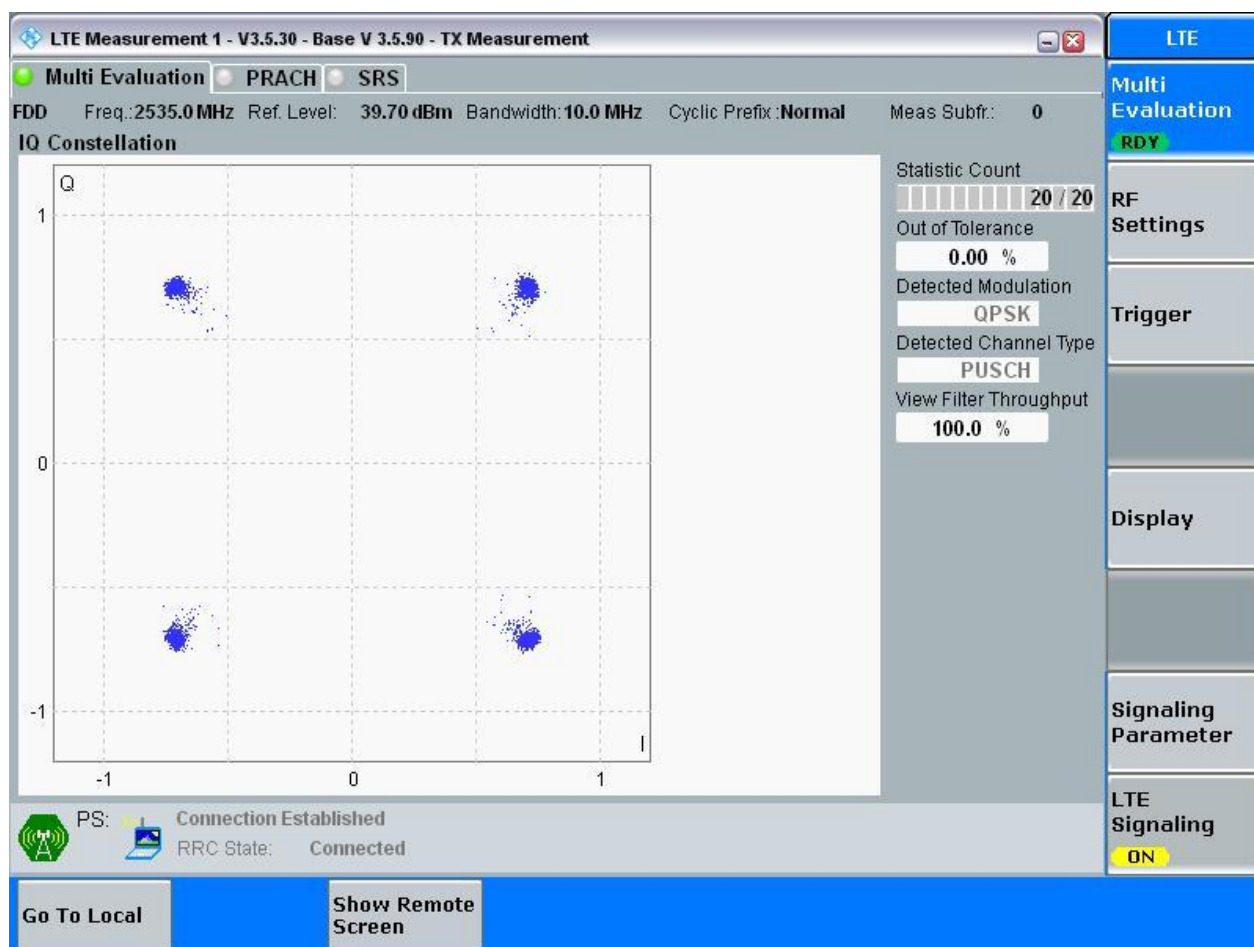
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

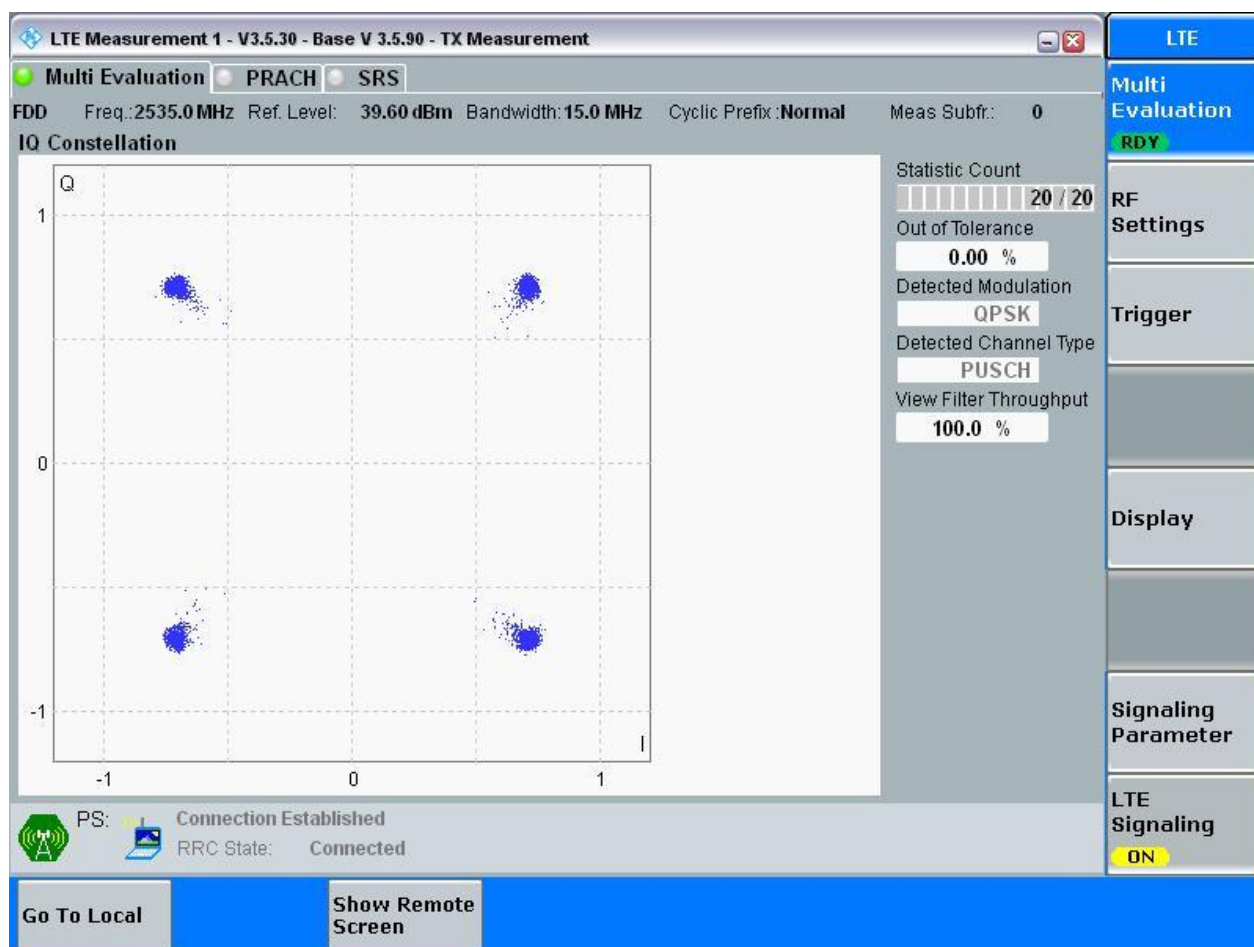
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

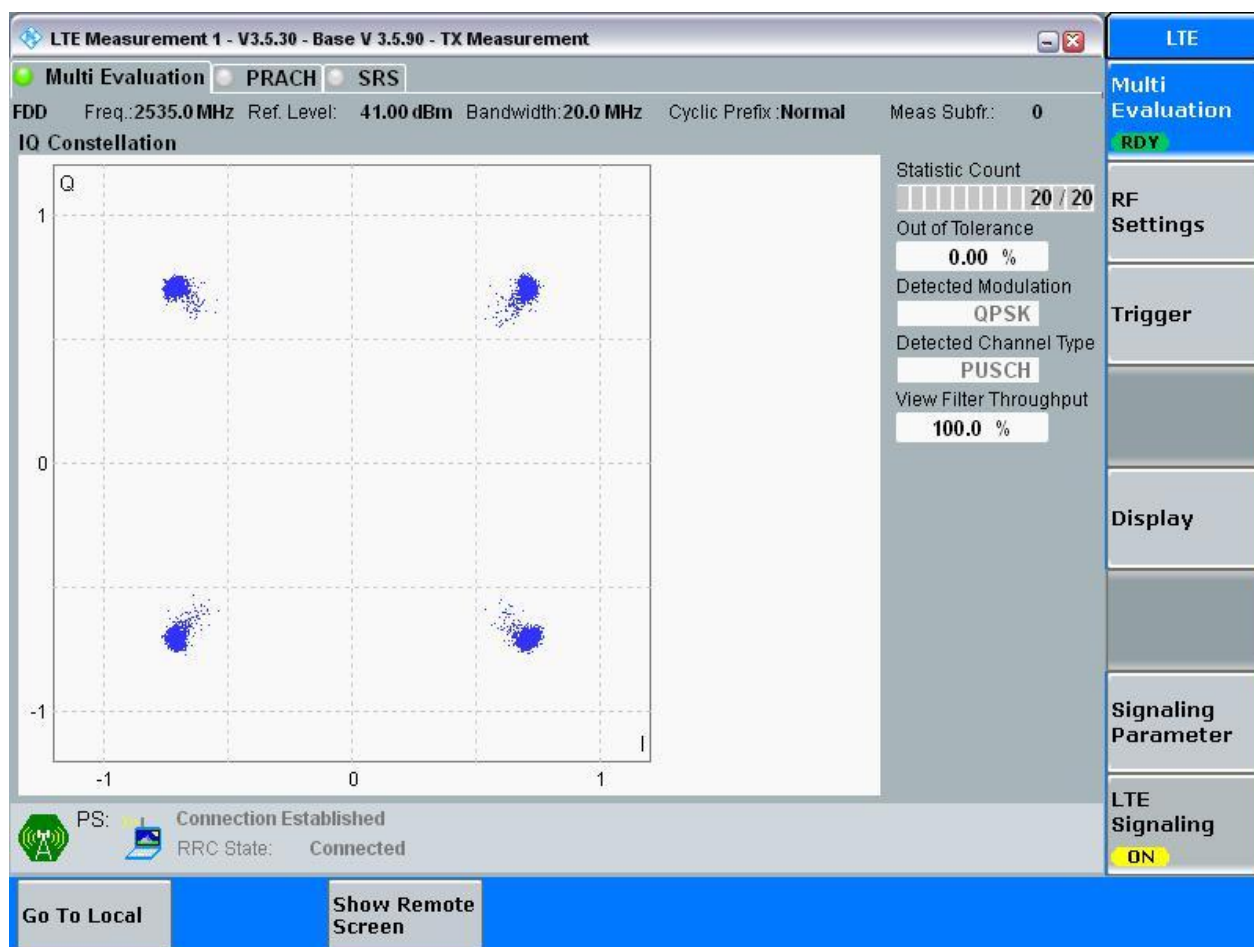
3.1.1.1.3.1.1 Test RB = RB75#0



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

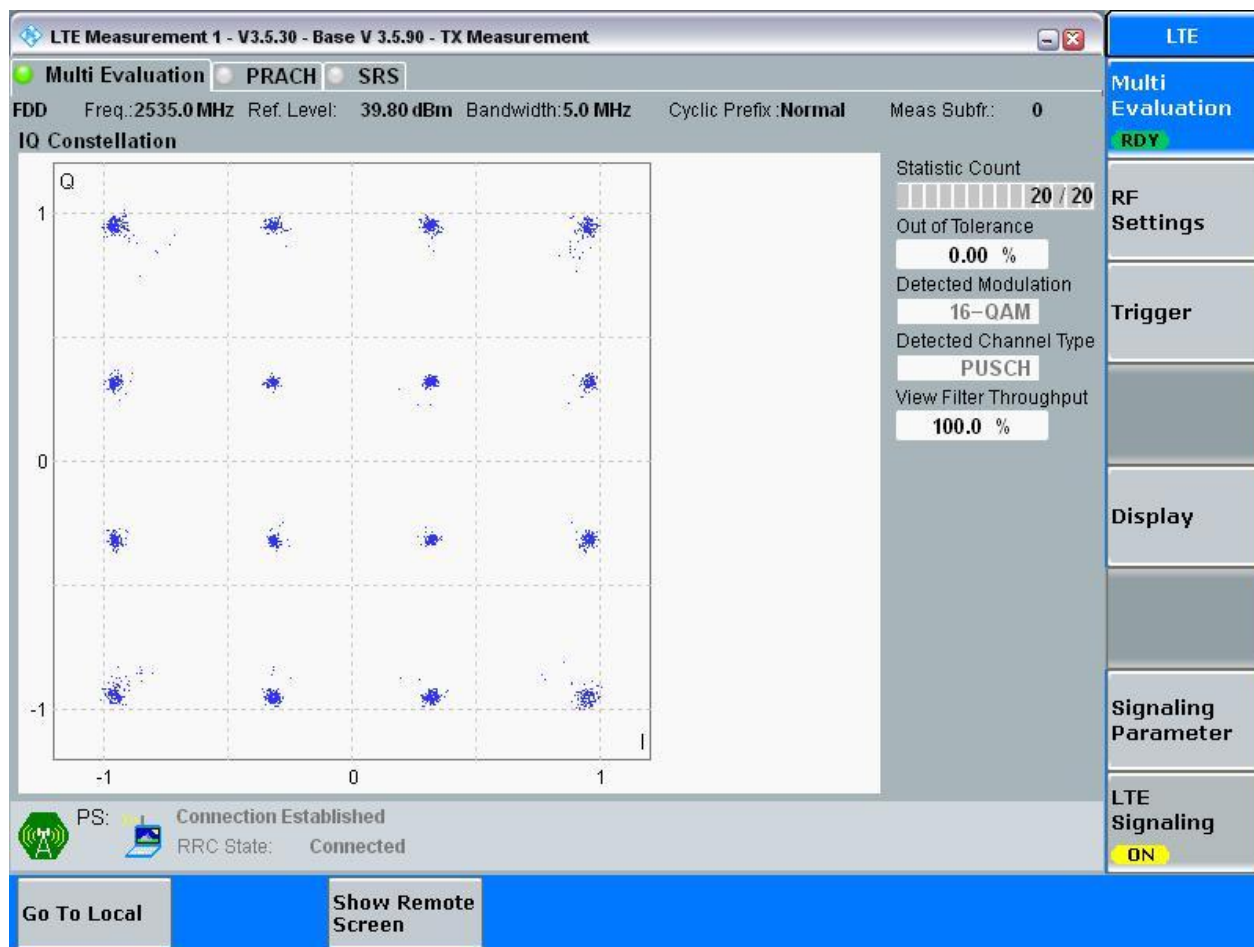


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

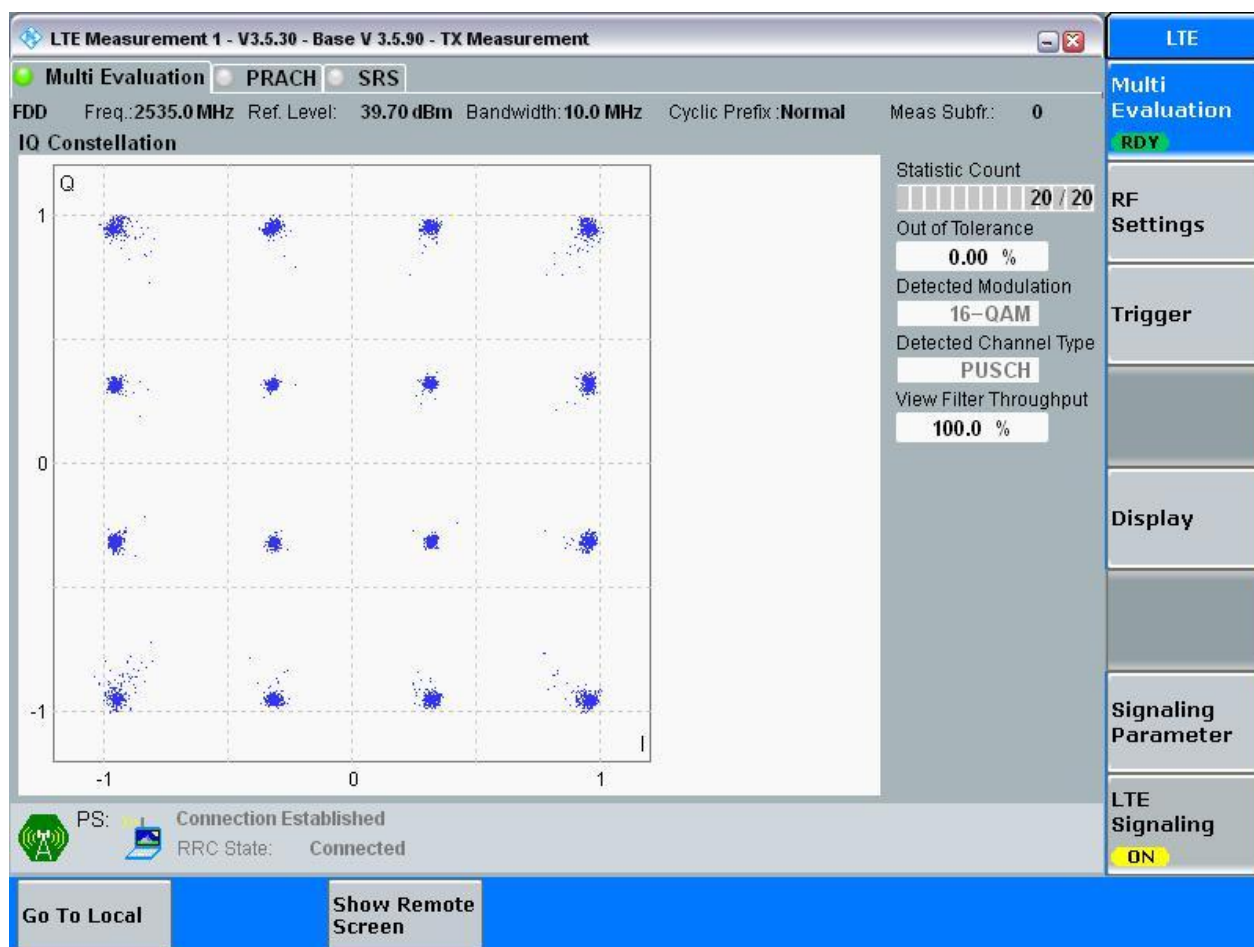
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

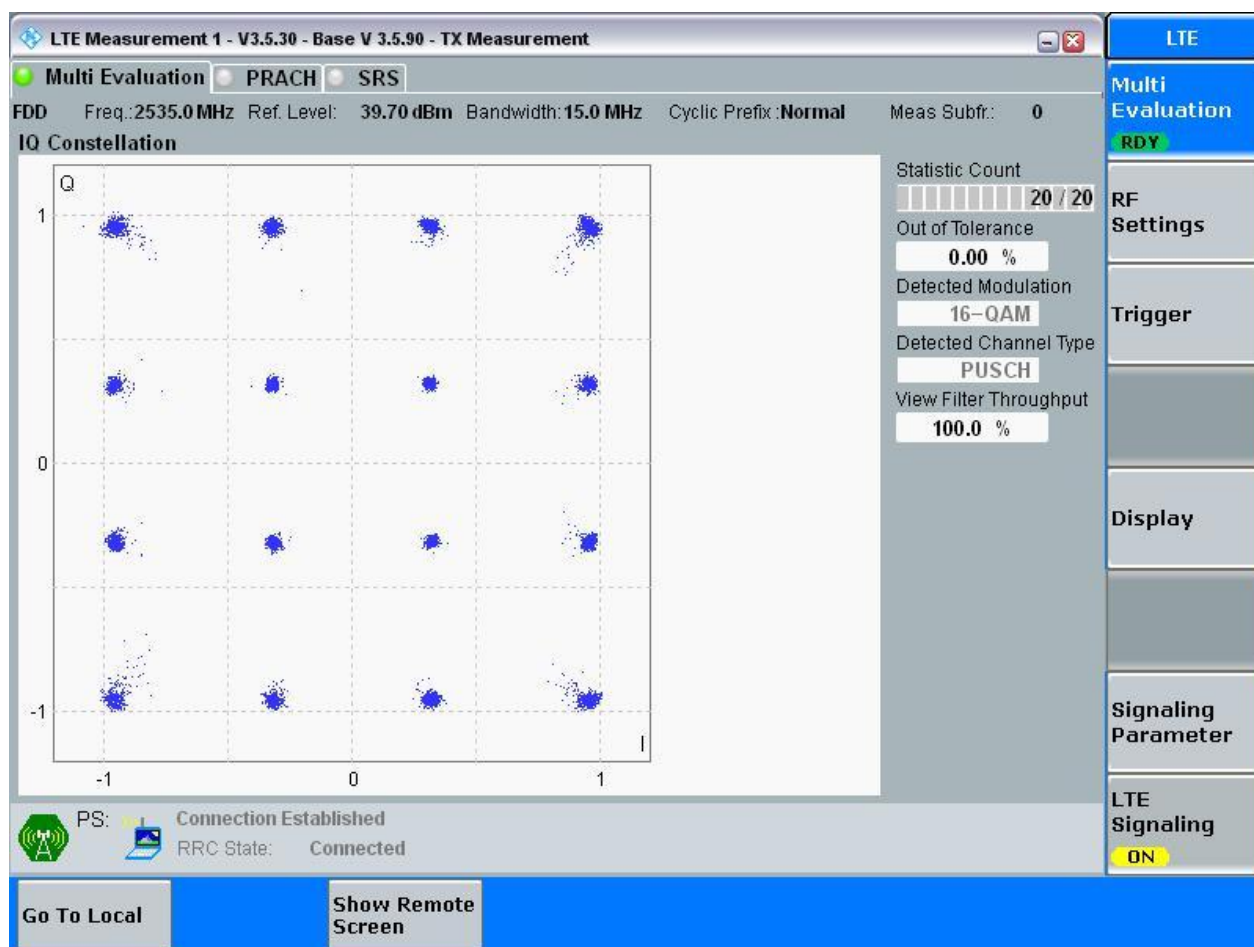
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

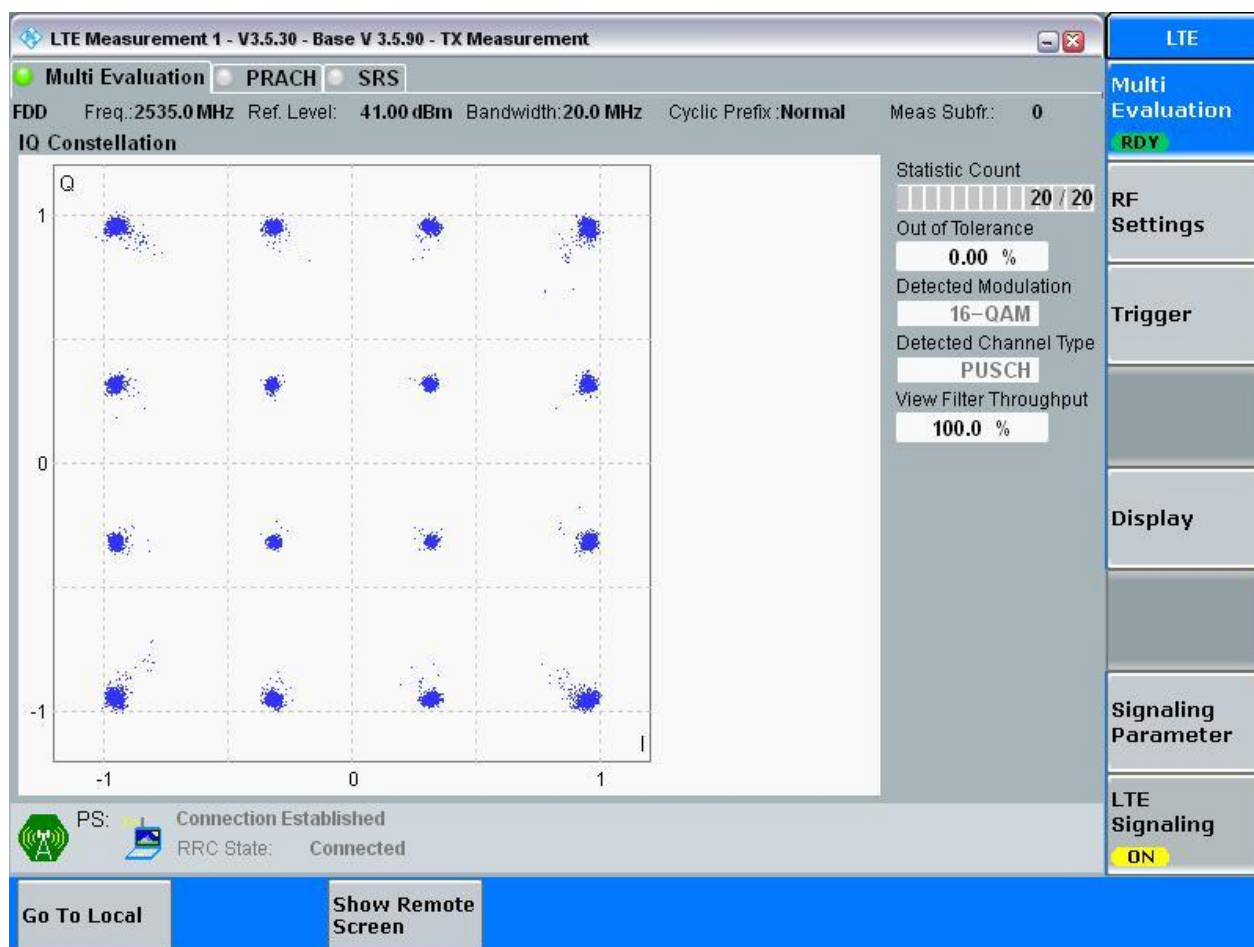
3.1.1.2.3.1.1 Test RB = RB75#0



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
BAND7	LTE/TM1	5	LCH	RB25#0	4.51	4.98	Pass
			MCH	RB25#0	4.49	5.00	Pass
			HCH	RB25#0	4.49	5.01	Pass
		10	LCH	RB50#0	8.97	9.93	Pass
			MCH	RB50#0	8.97	9.90	Pass
			HCH	RB50#0	8.97	9.91	Pass
		15	LCH	RB75#0	13.44	14.86	Pass
			MCH	RB75#0	13.44	14.78	Pass
			HCH	RB75#0	13.42	14.68	Pass
		20	LCH	RB100#0	17.91	19.42	Pass
			MCH	RB100#0	17.91	19.48	Pass
			HCH	RB100#0	17.91	19.41	Pass
	LTE/TM2	5	LCH	RB25#0	4.50	5.01	Pass
			MCH	RB25#0	4.49	4.98	Pass
			HCH	RB25#0	4.49	4.99	Pass
		10	LCH	RB50#0	8.97	9.94	Pass
			MCH	RB50#0	8.99	9.89	Pass
			HCH	RB50#0	8.96	9.94	Pass
		15	LCH	RB75#0	13.44	14.68	Pass
			MCH	RB75#0	13.40	14.73	Pass
			HCH	RB75#0	13.42	14.72	Pass
		20	LCH	RB100#0	17.91	19.49	Pass
			MCH	RB100#0	17.87	19.54	Pass
			HCH	RB100#0	17.87	19.46	Pass



Part II - Test Plots

4.1 For LTE

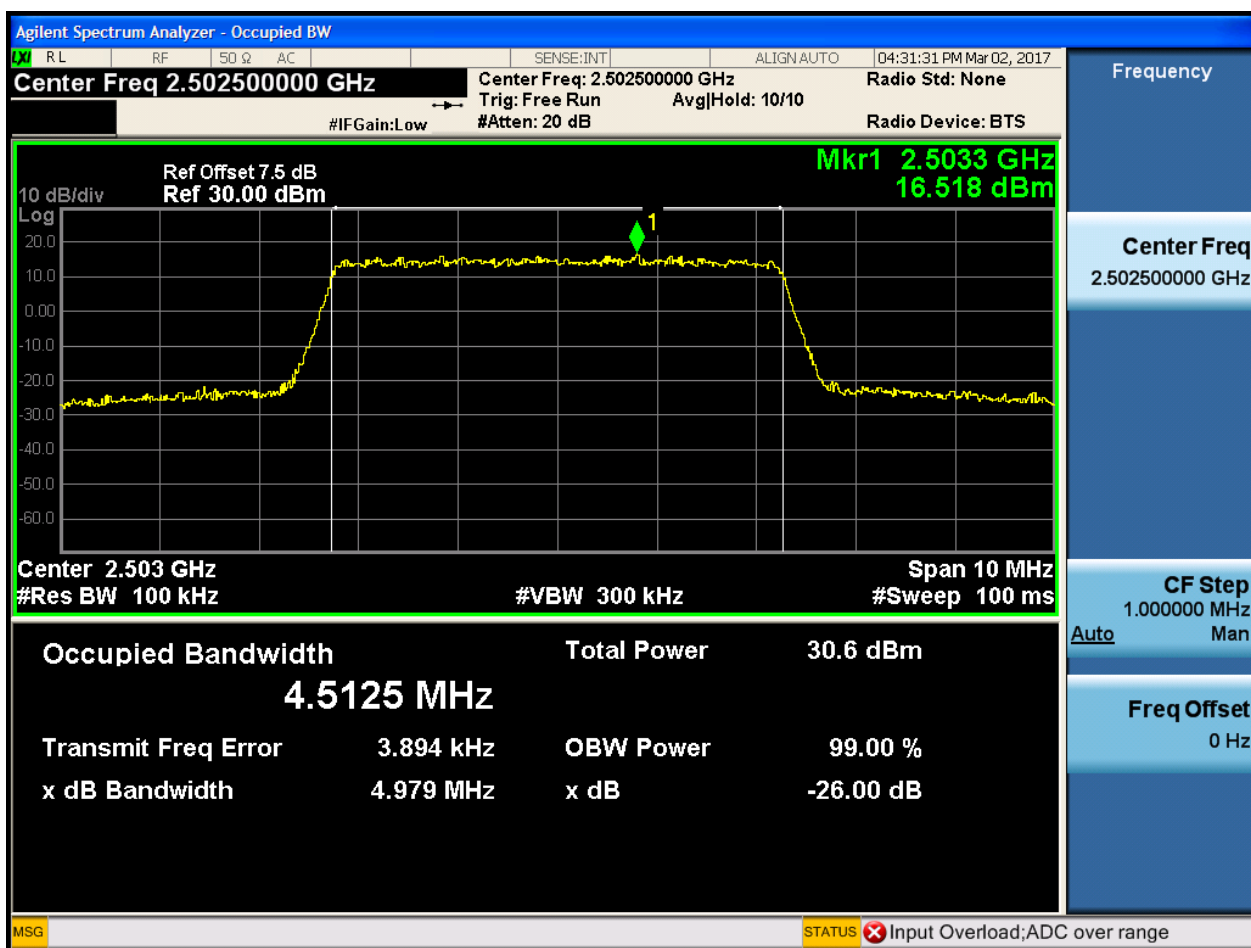
4.1.1 Test Band = BAND7

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

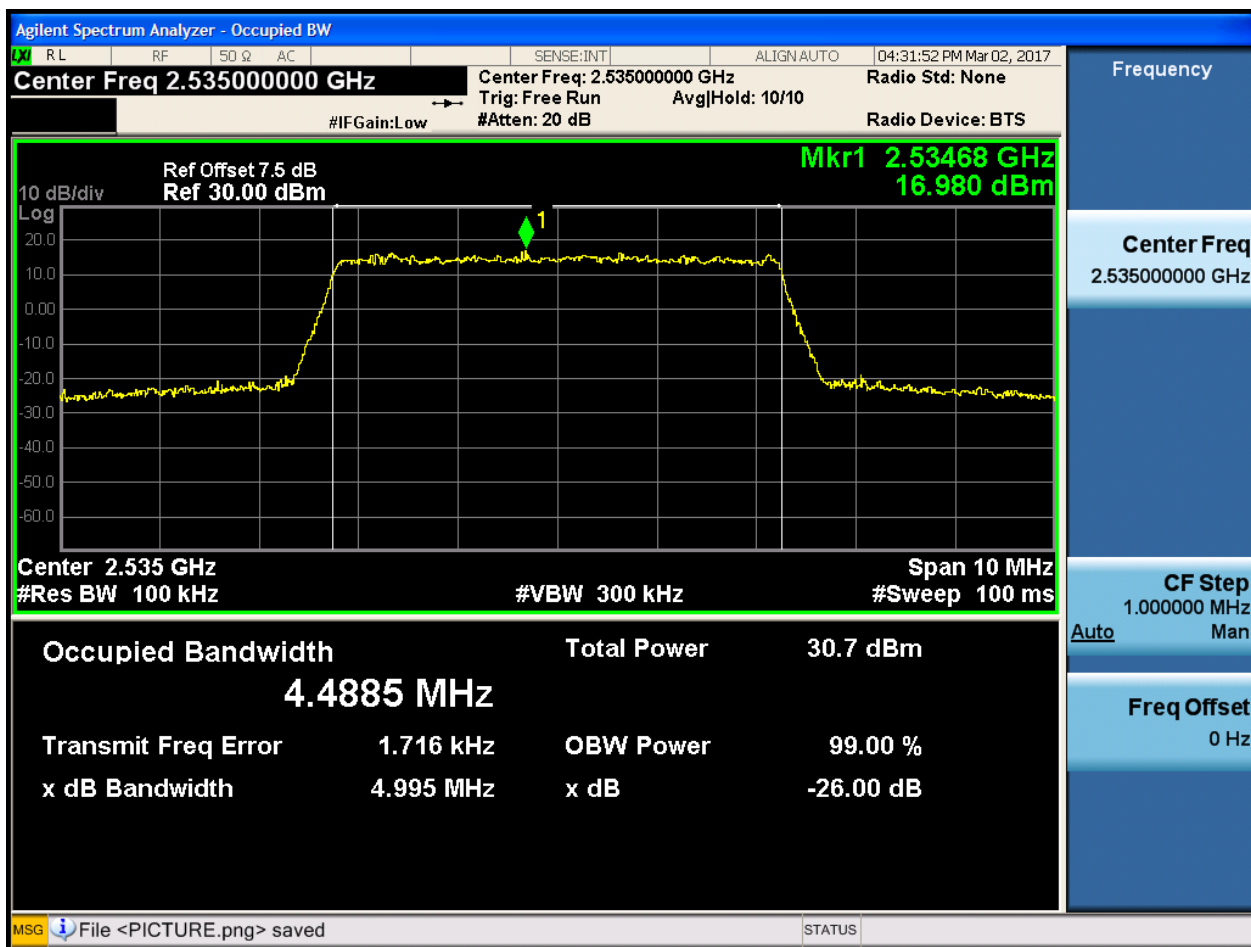
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

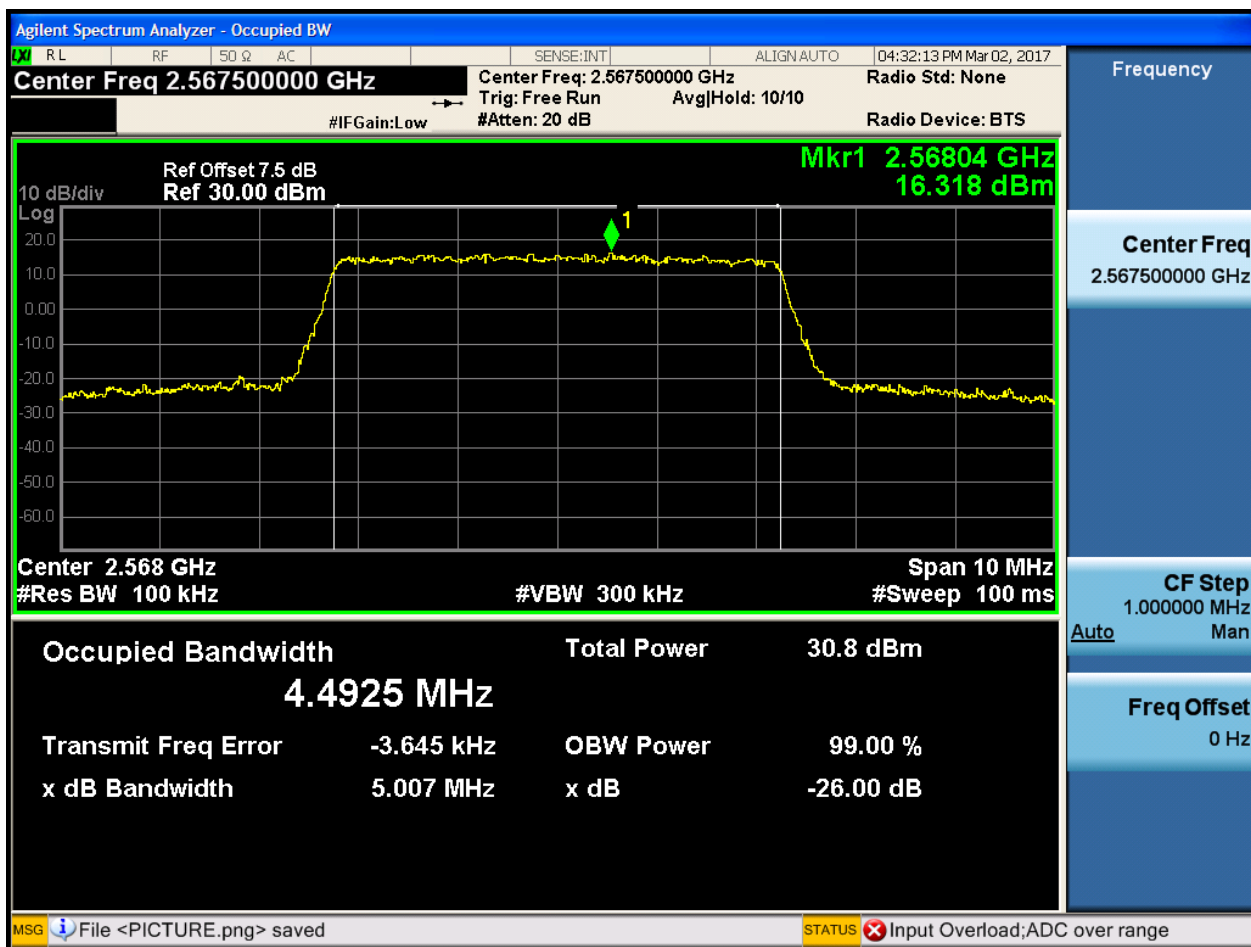
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

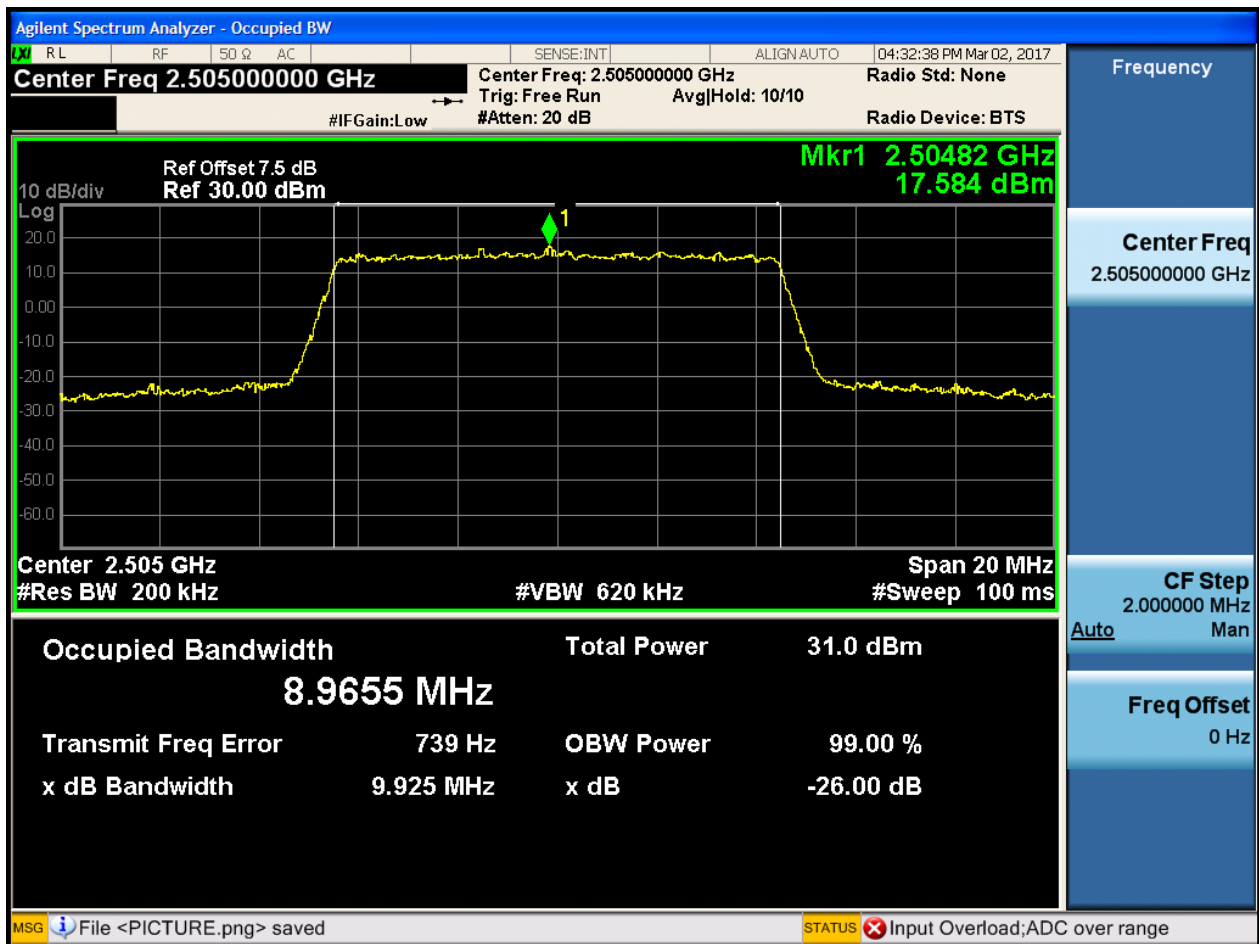




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

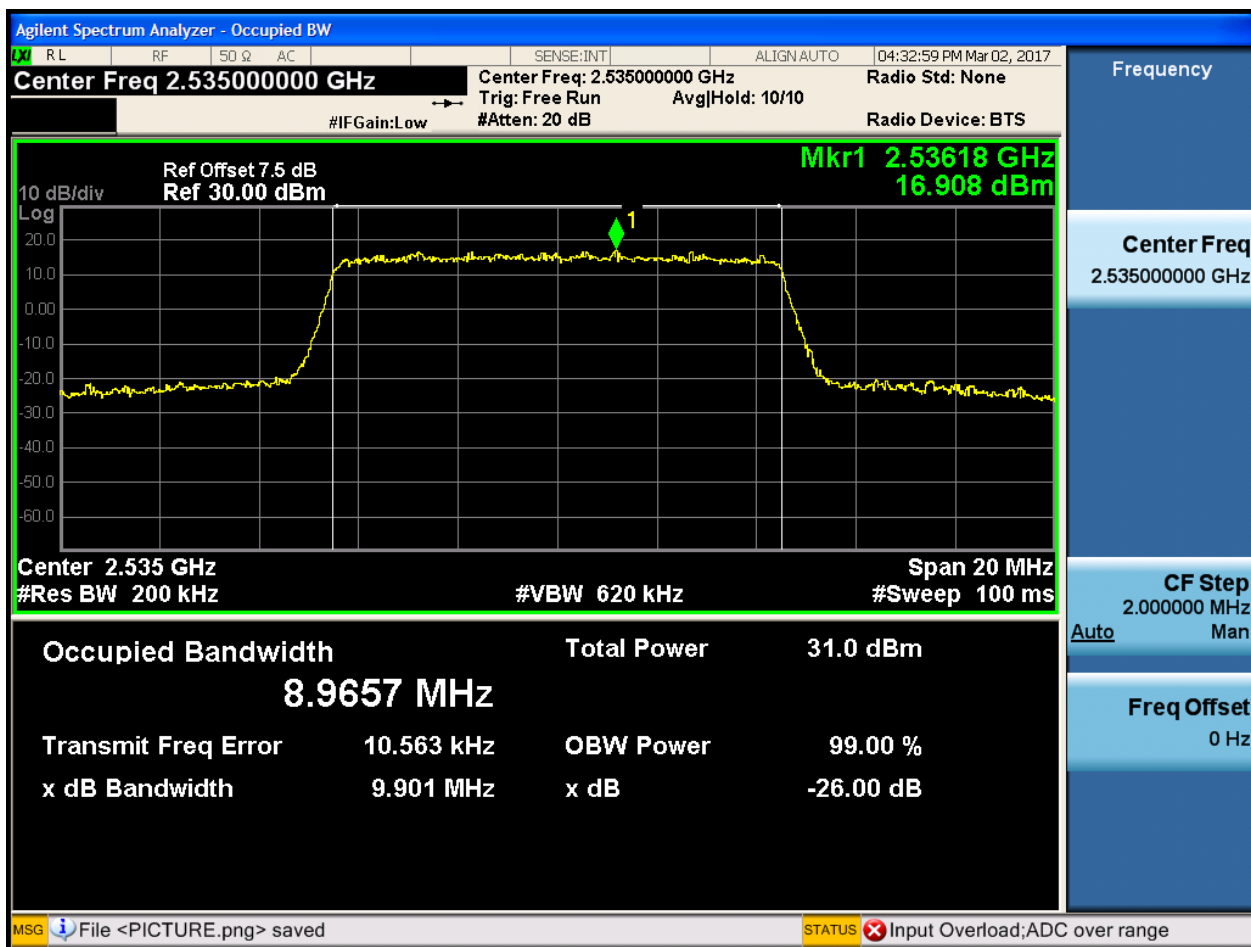
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

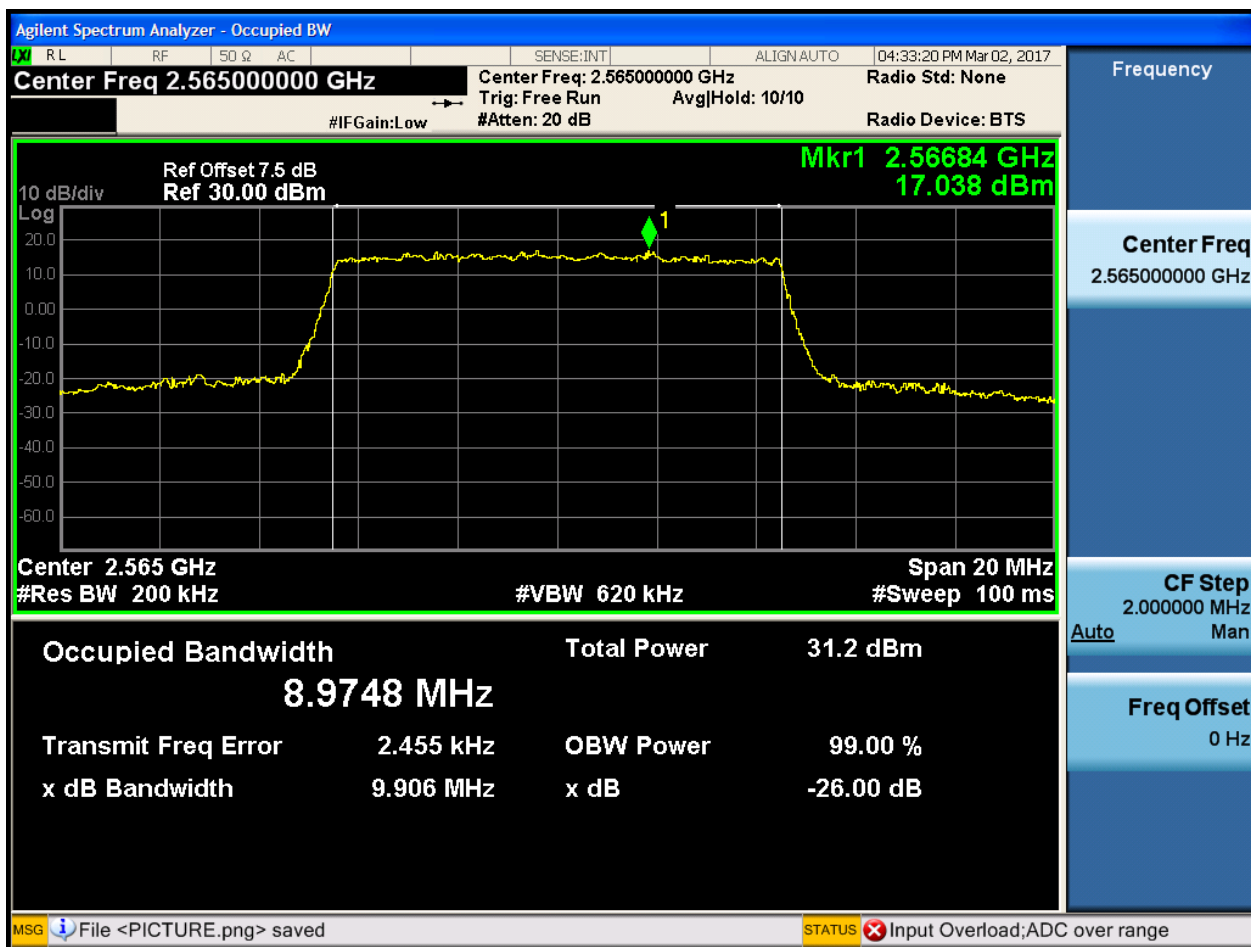
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

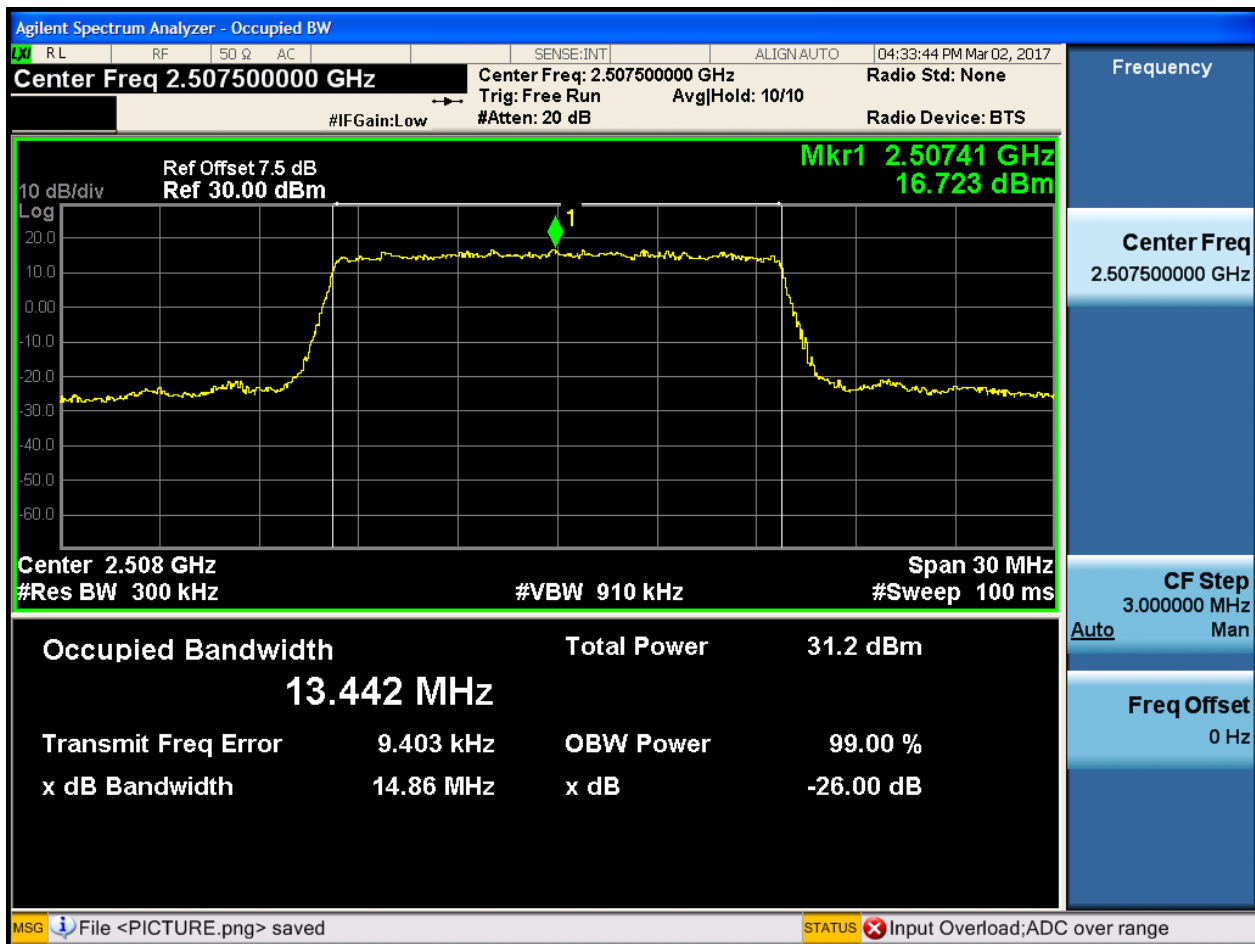




4.1.1.1.3 Test Bandwidth = 15

4.1.1.1.3.1 Test Channel = LCH

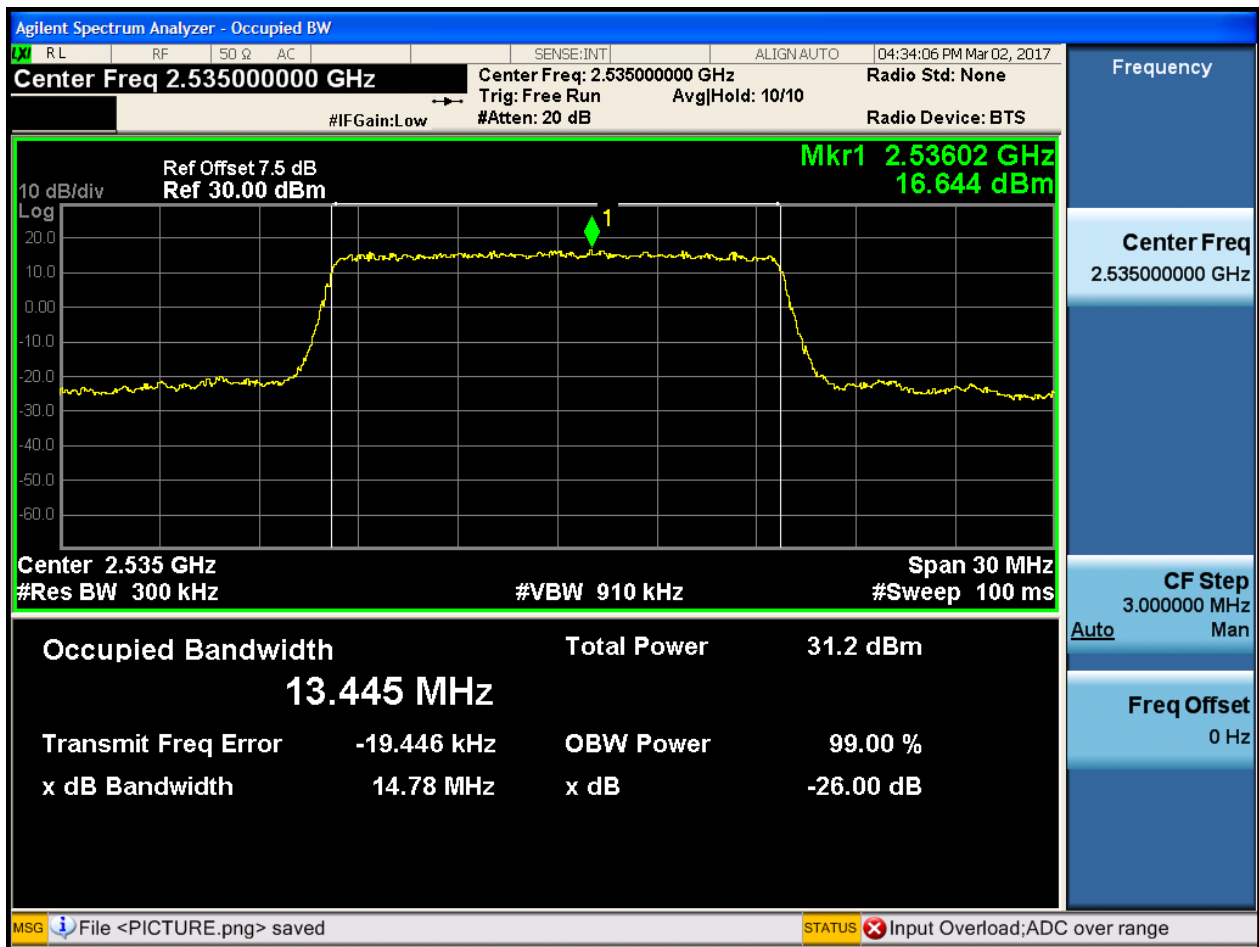
4.1.1.1.3.1.1 Test RB = RB75#0





4.1.1.1.3.2 Test Channel = MCH

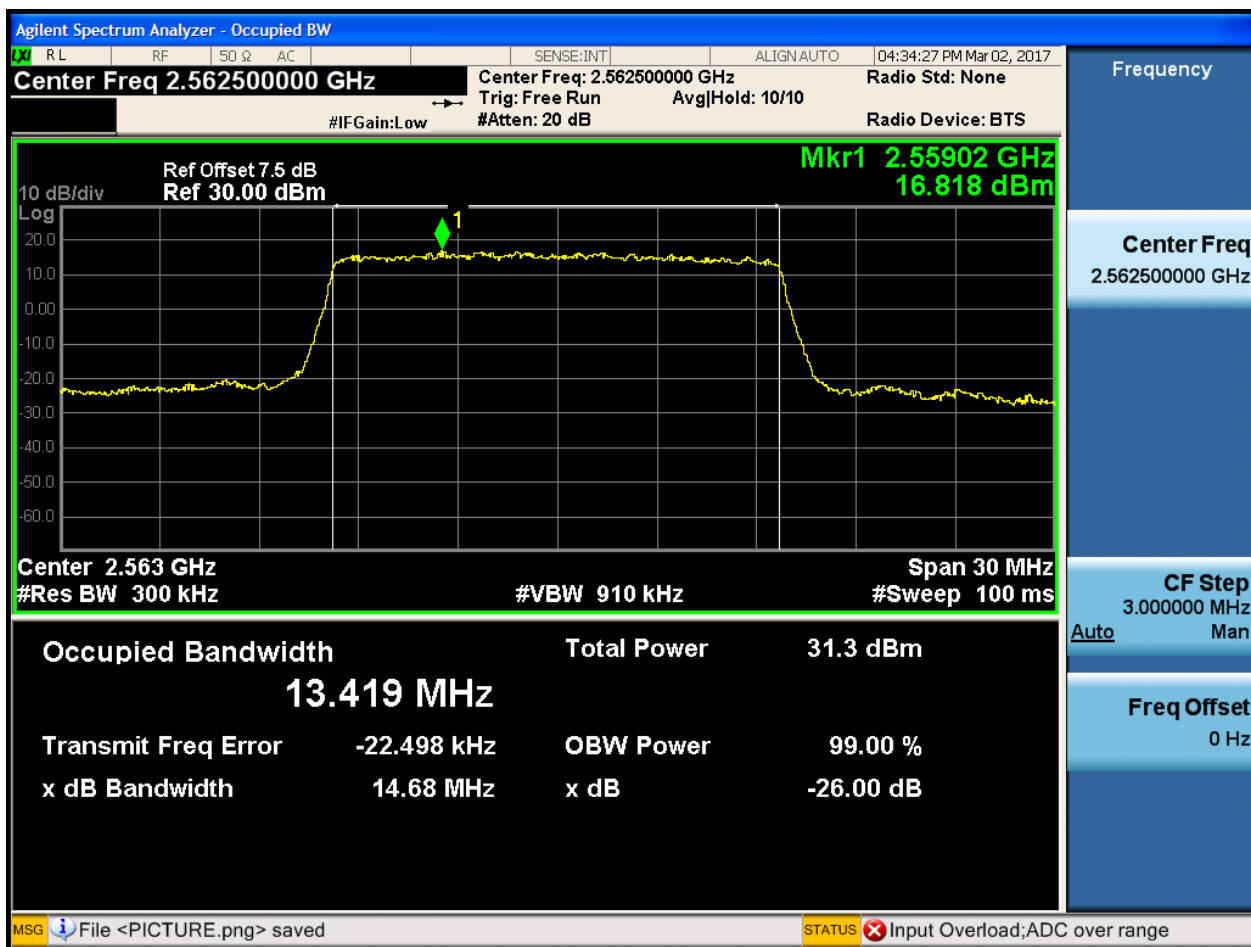
4.1.1.1.3.2.1 Test RB = RB75#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

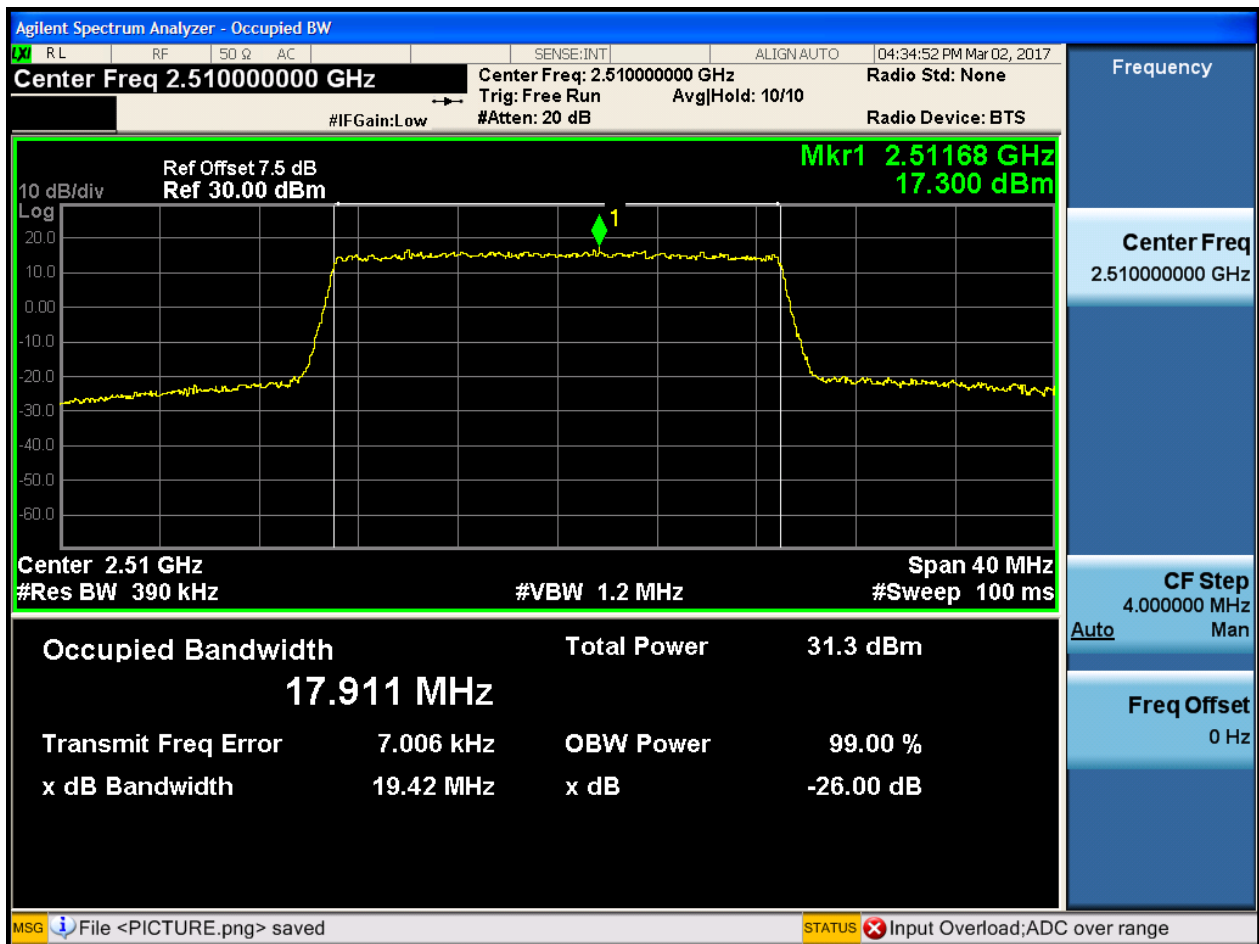




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

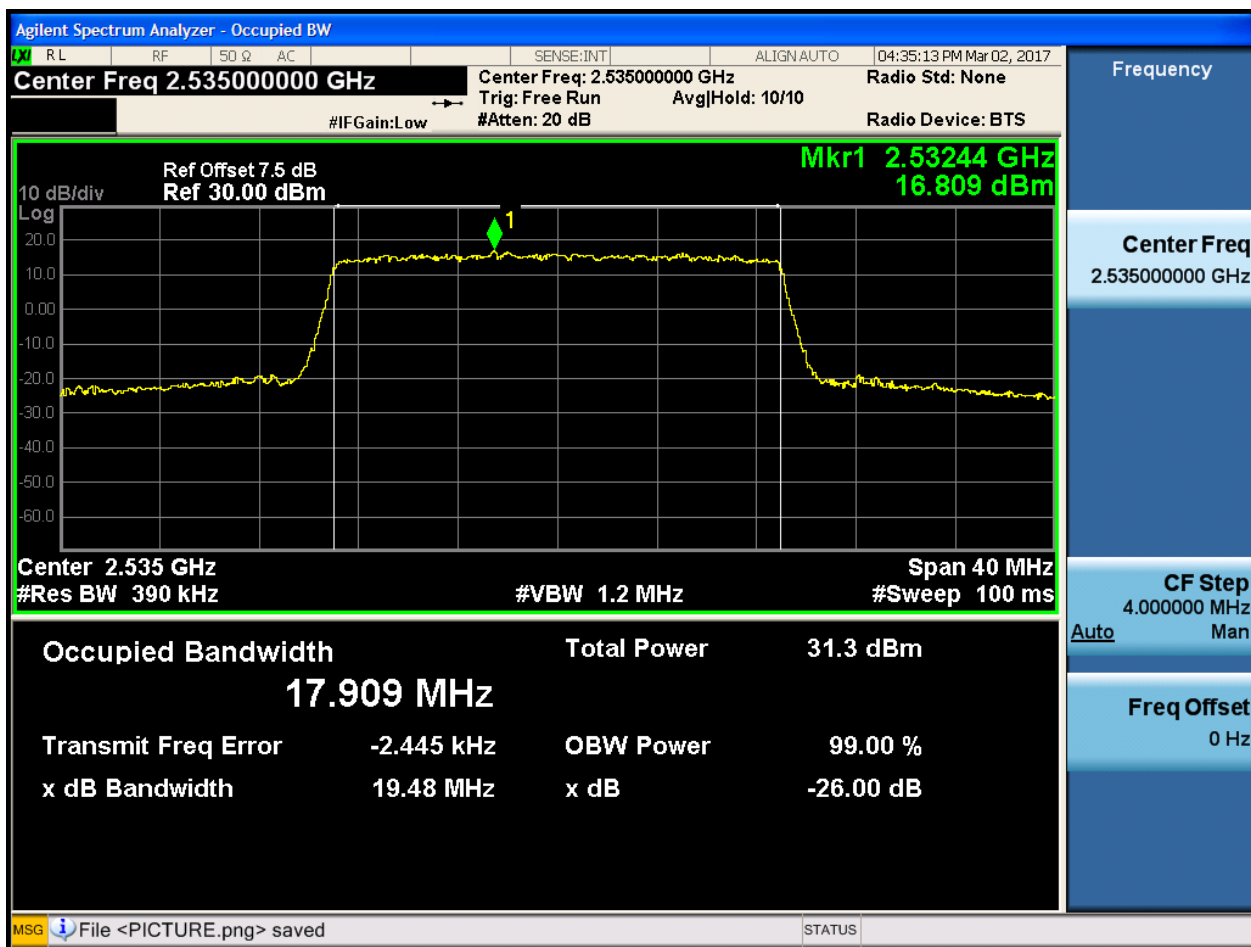
4.1.1.1.4.1.1 Test RB = RB100#0





4.1.1.1.4.2 Test Channel = MCH

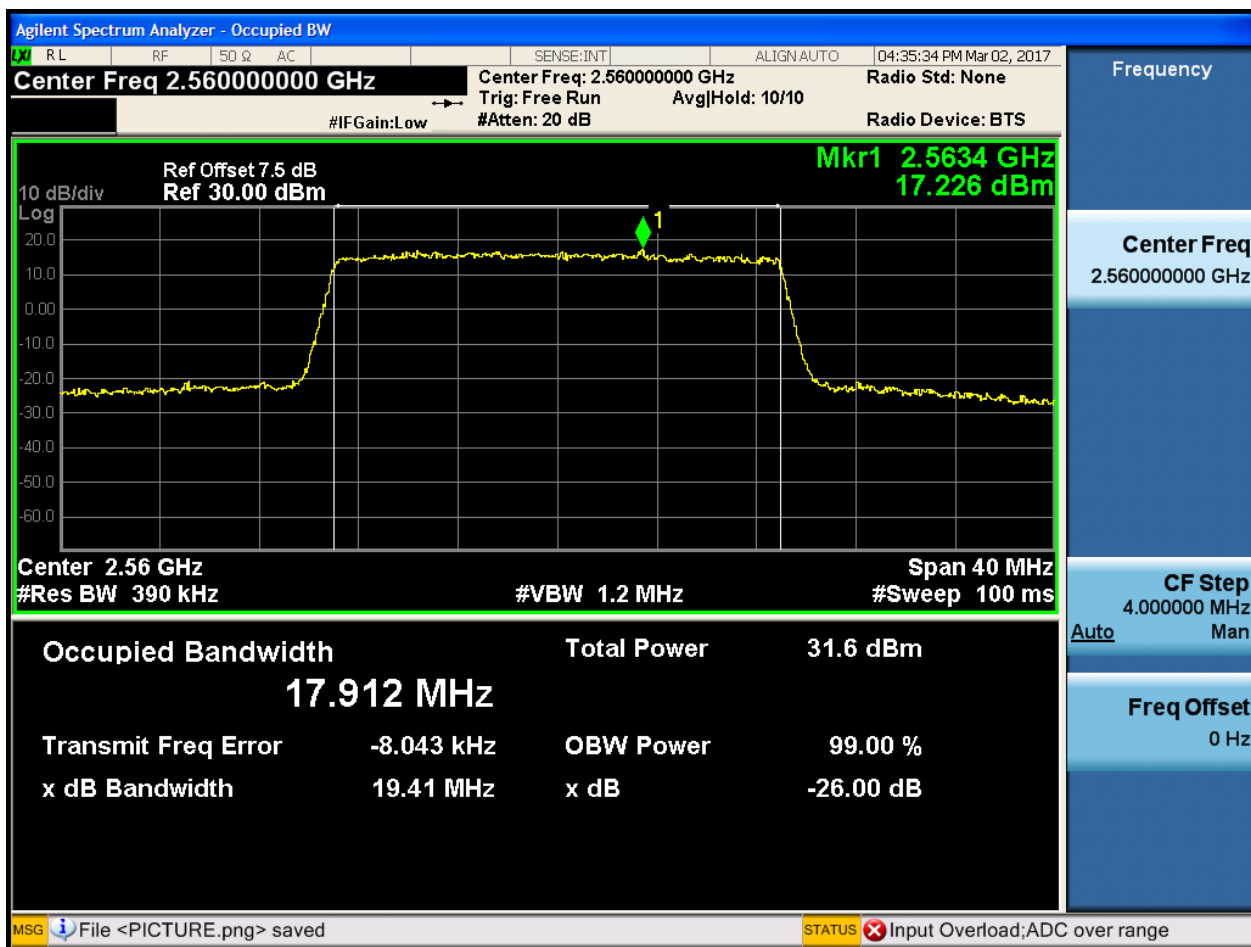
4.1.1.1.4.2.1 Test RB = RB100#0





4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB100#0



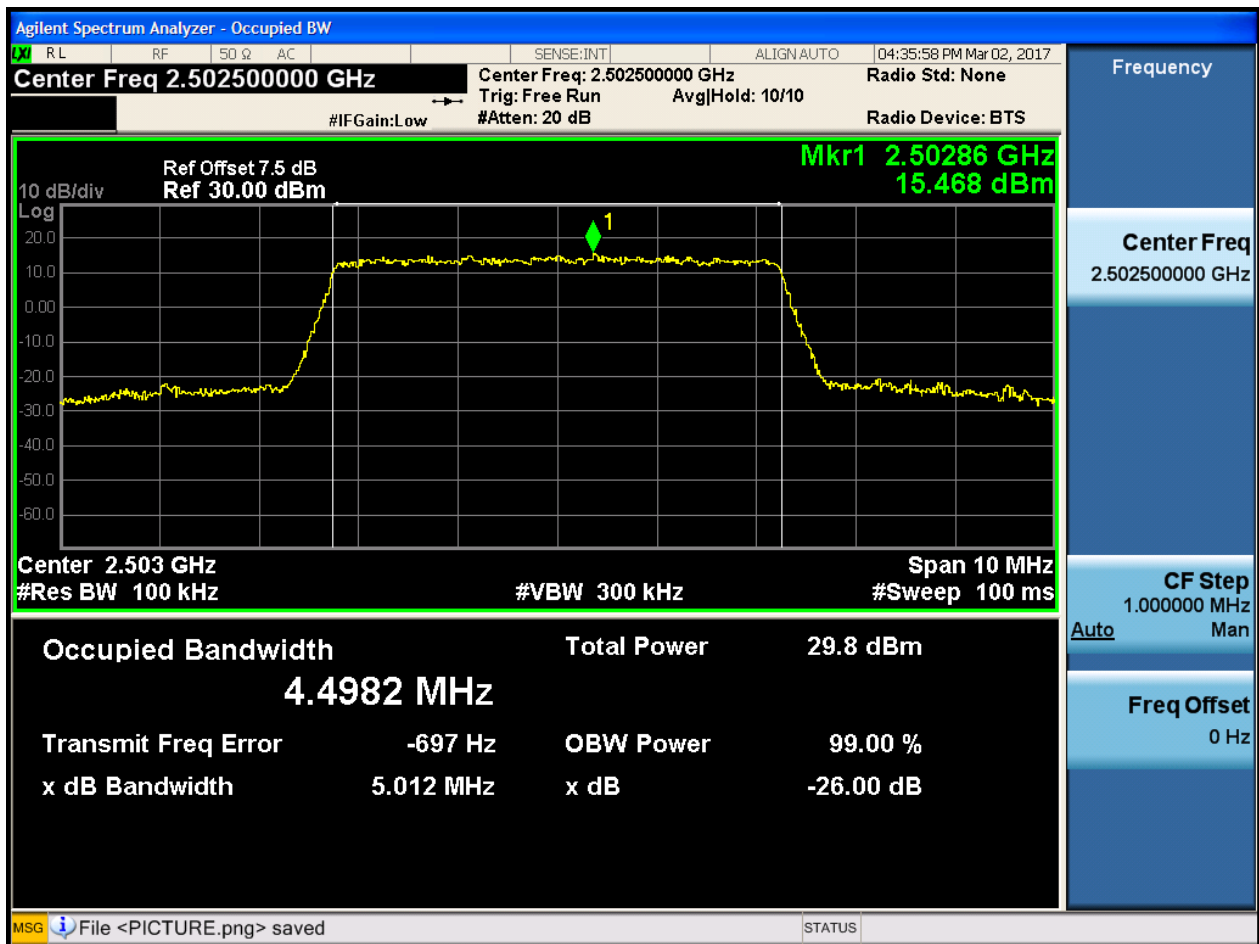


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

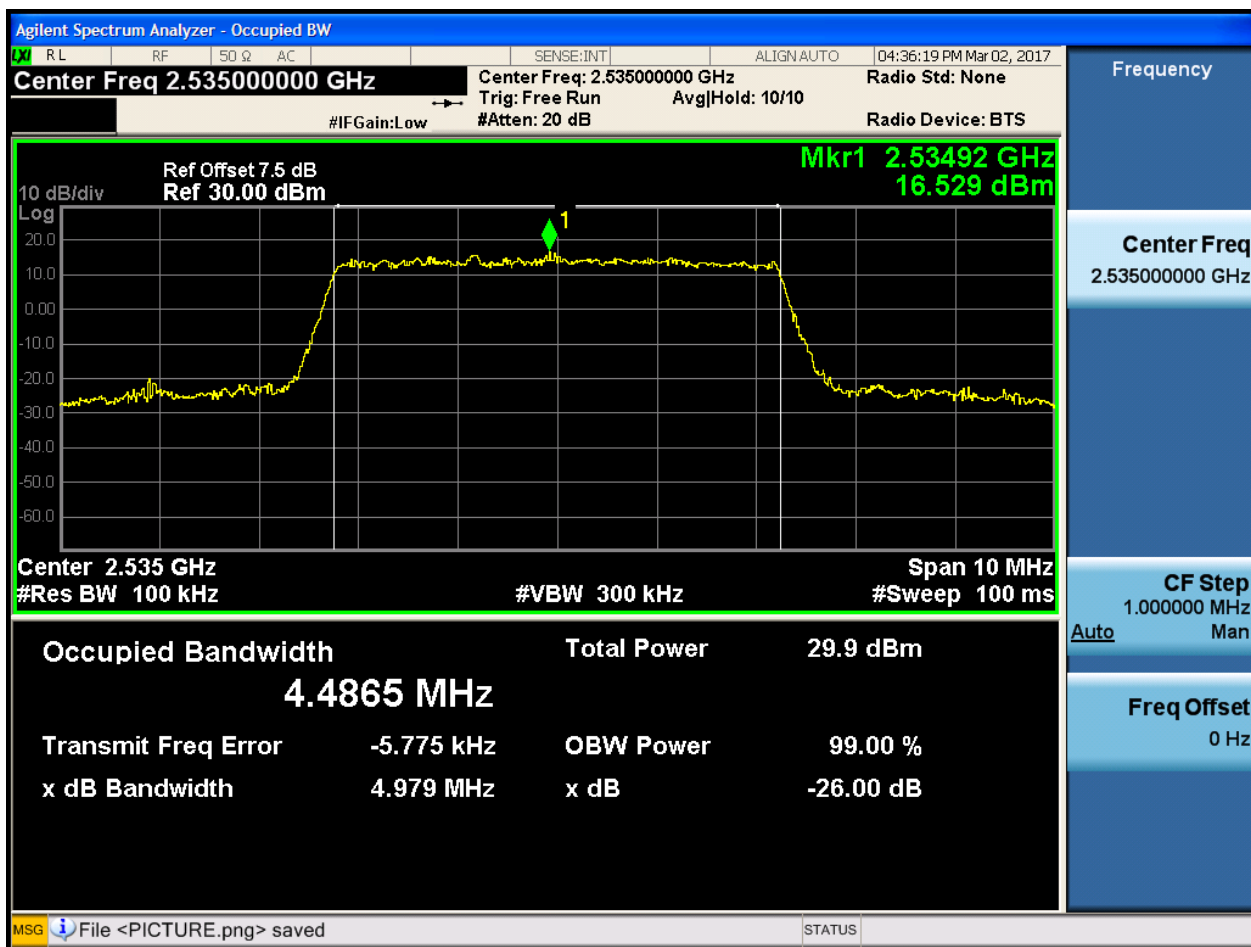
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

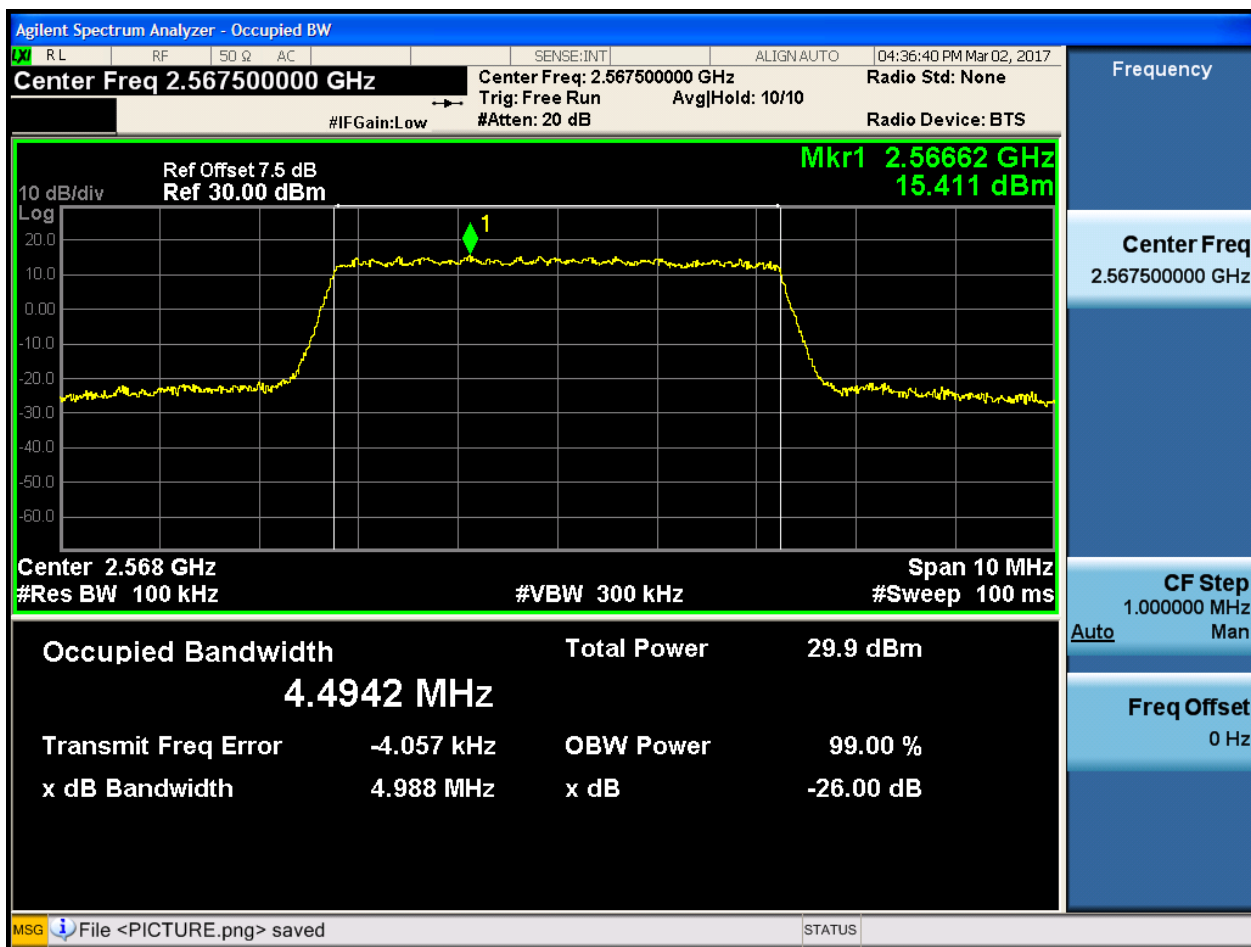
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

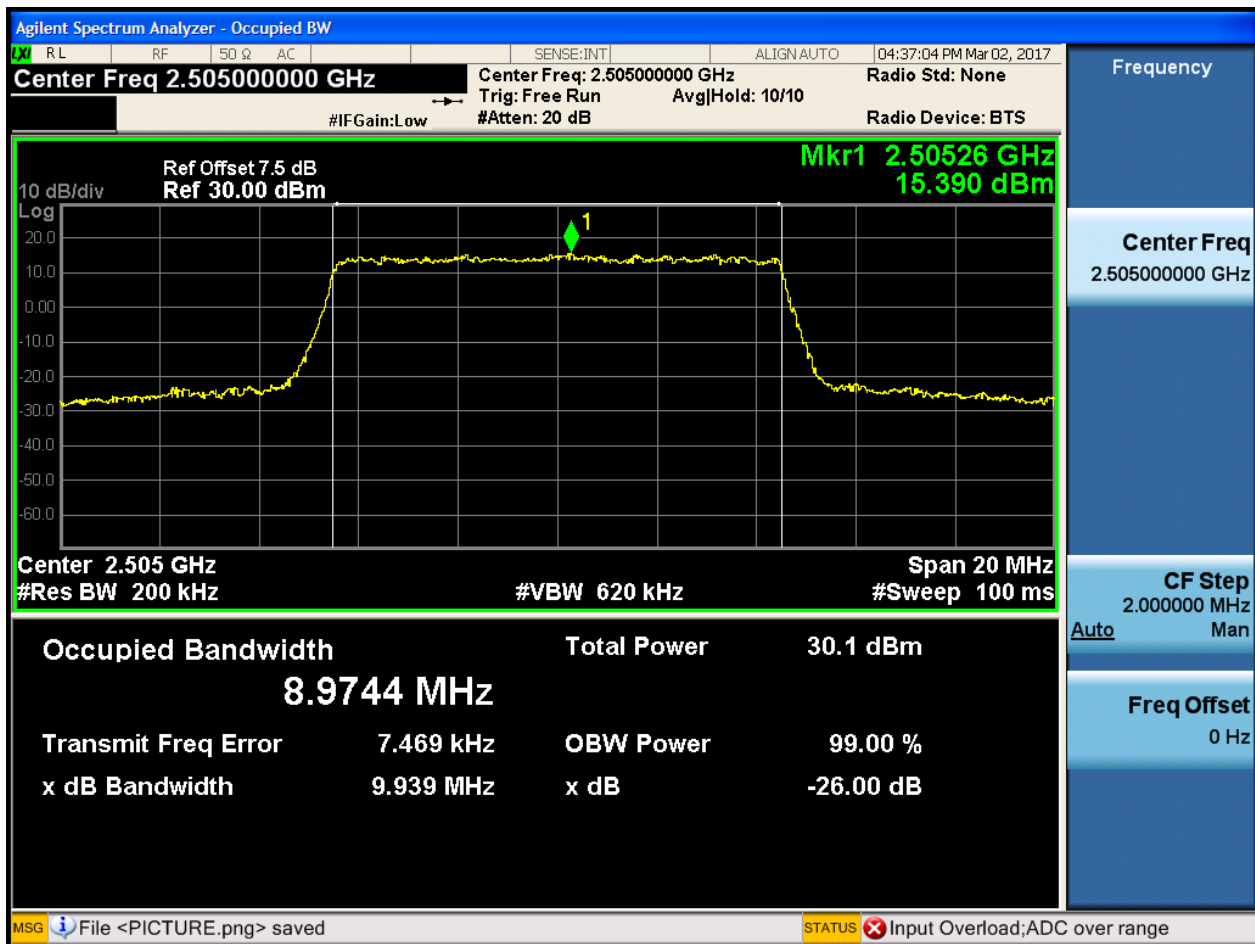




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

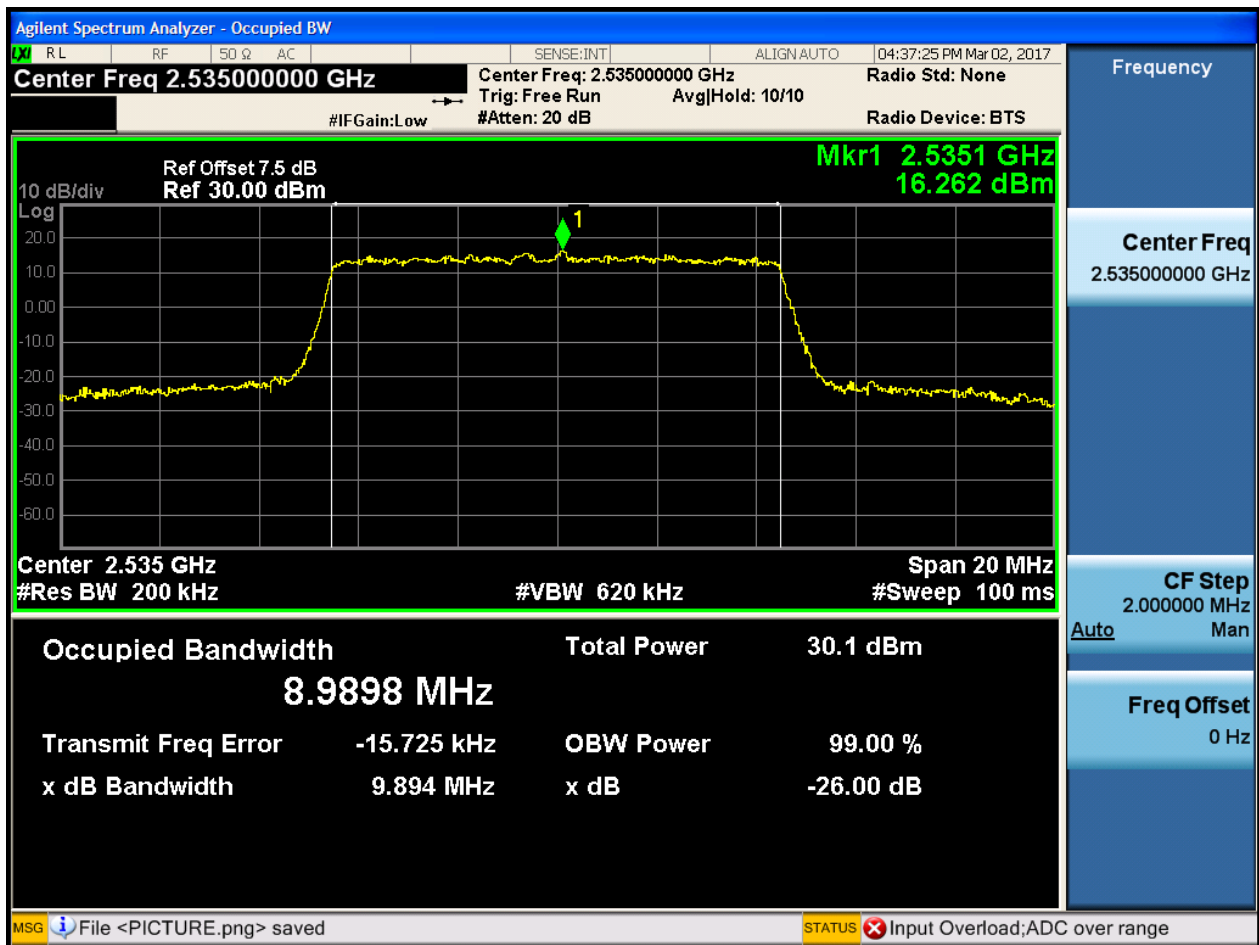
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

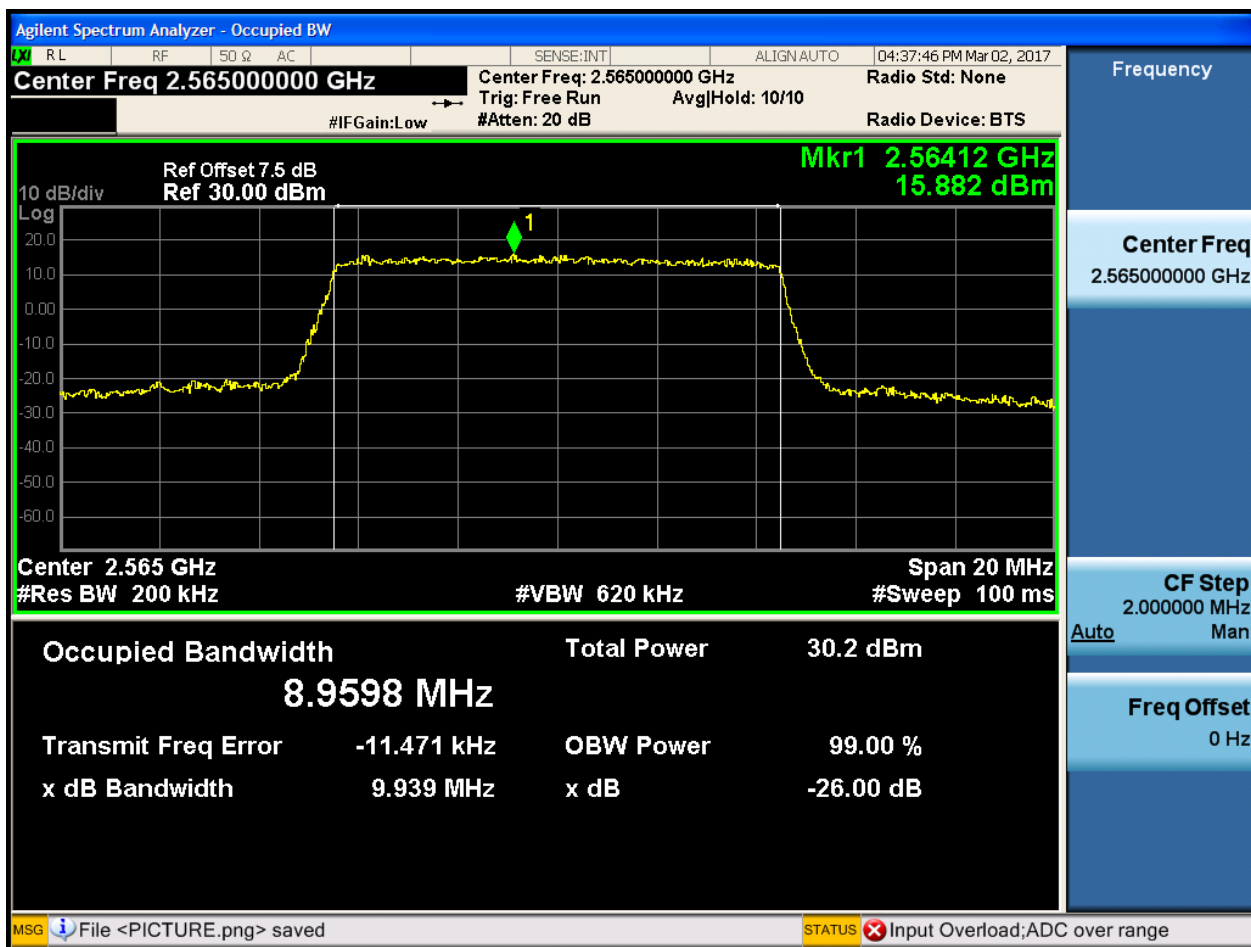
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

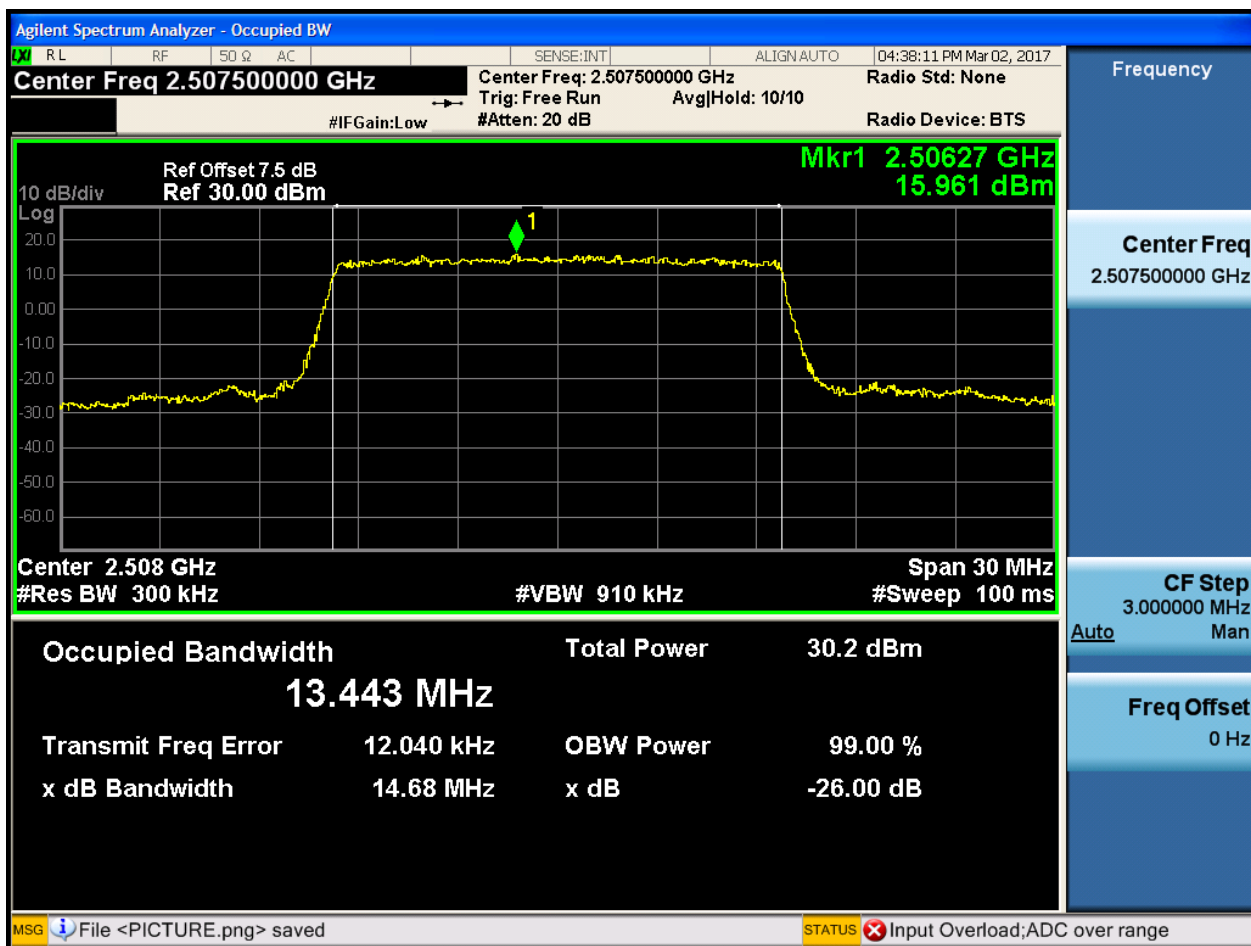




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

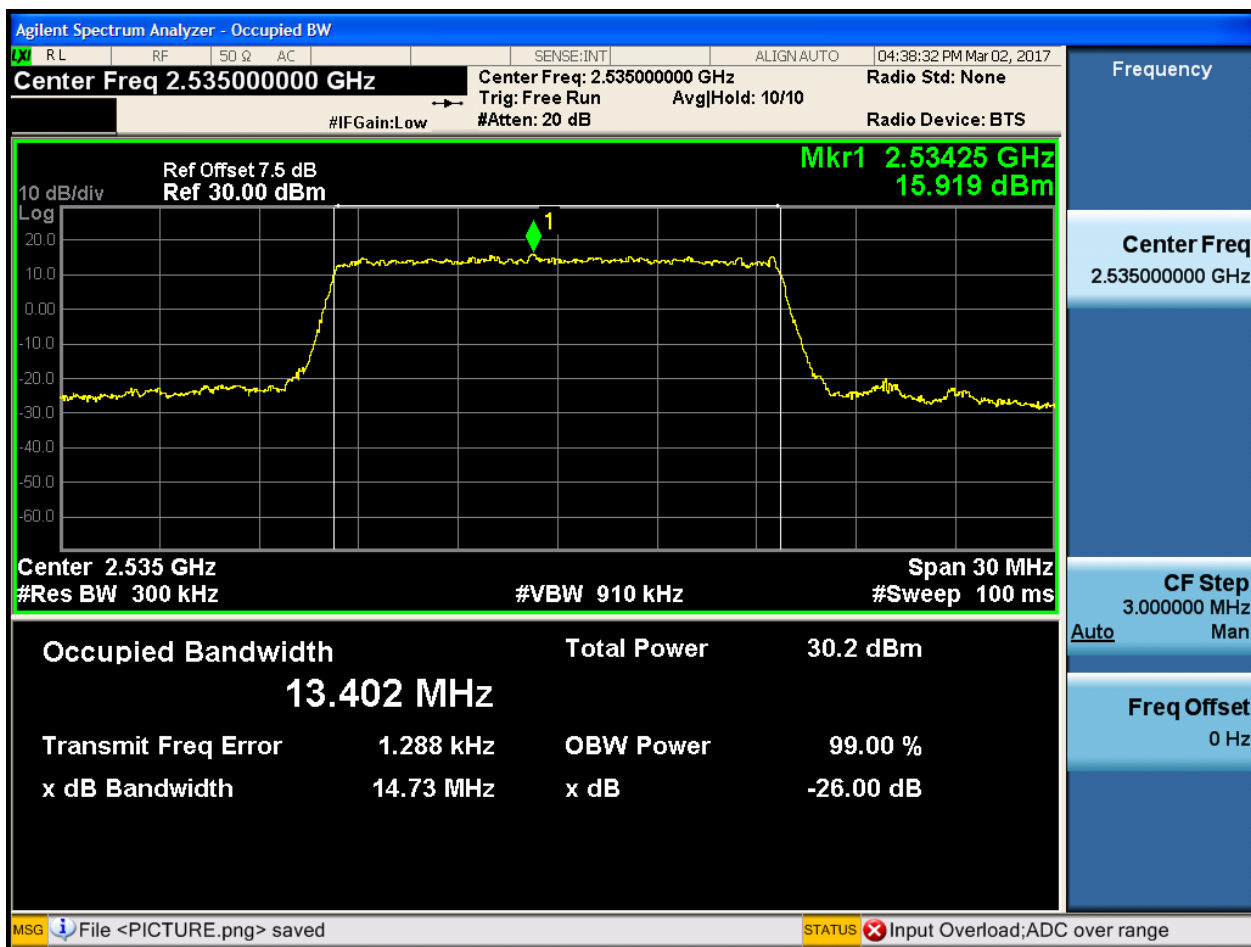
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

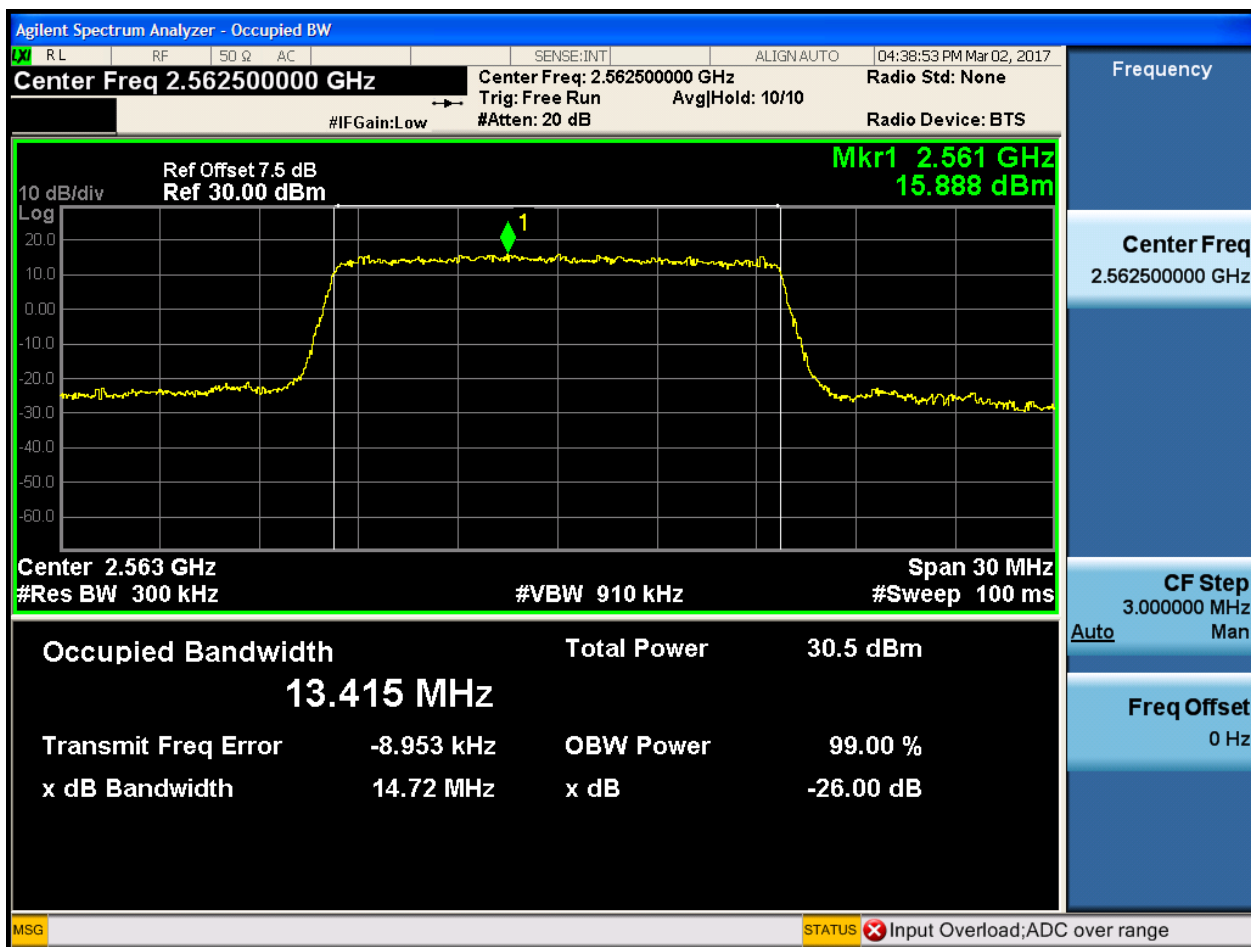
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

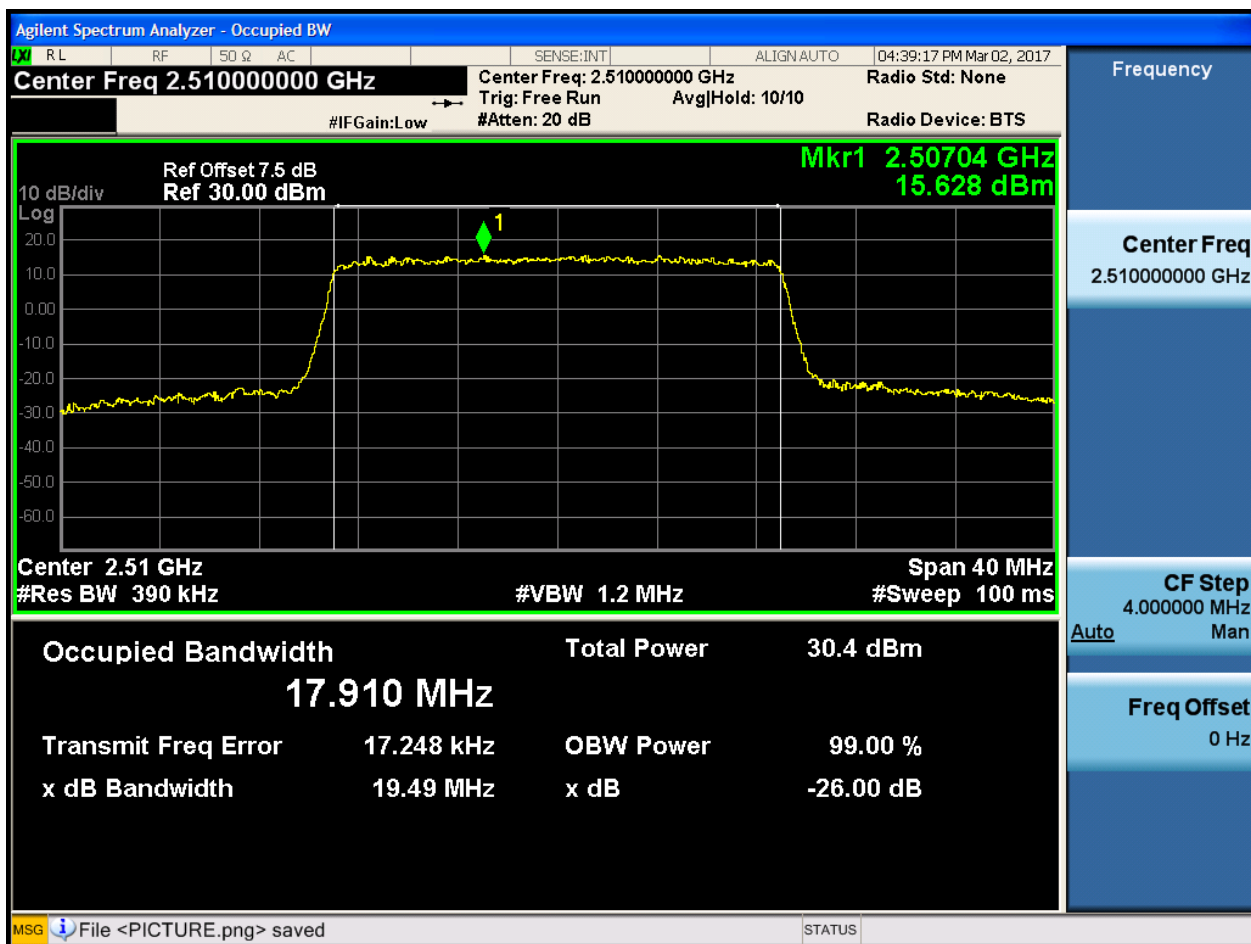




4.1.1.2.4 Test Bandwidth = 20

4.1.1.2.4.1 Test Channel = LCH

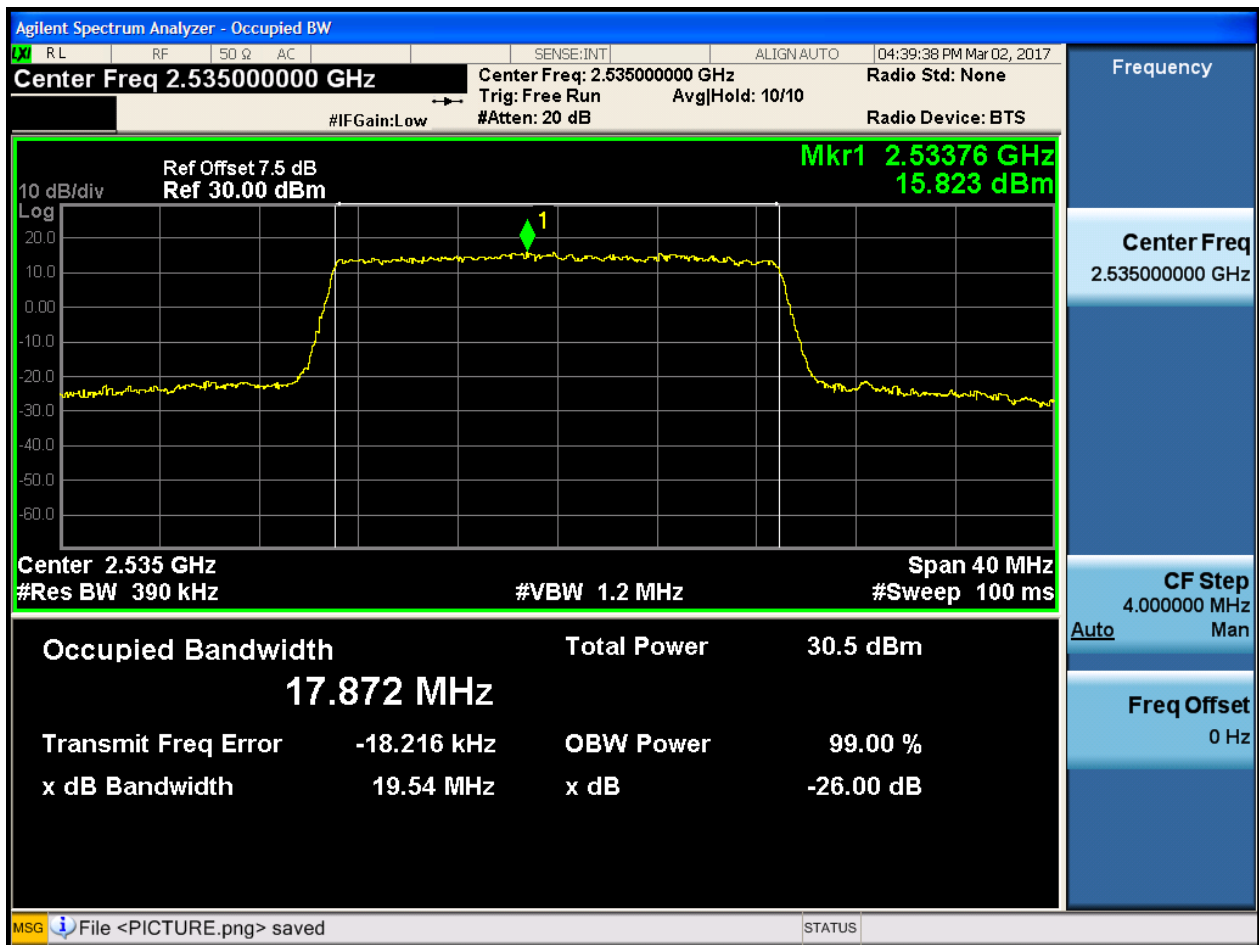
4.1.1.2.4.1.1 Test RB = RB100#0





4.1.1.2.4.2 Test Channel = MCH

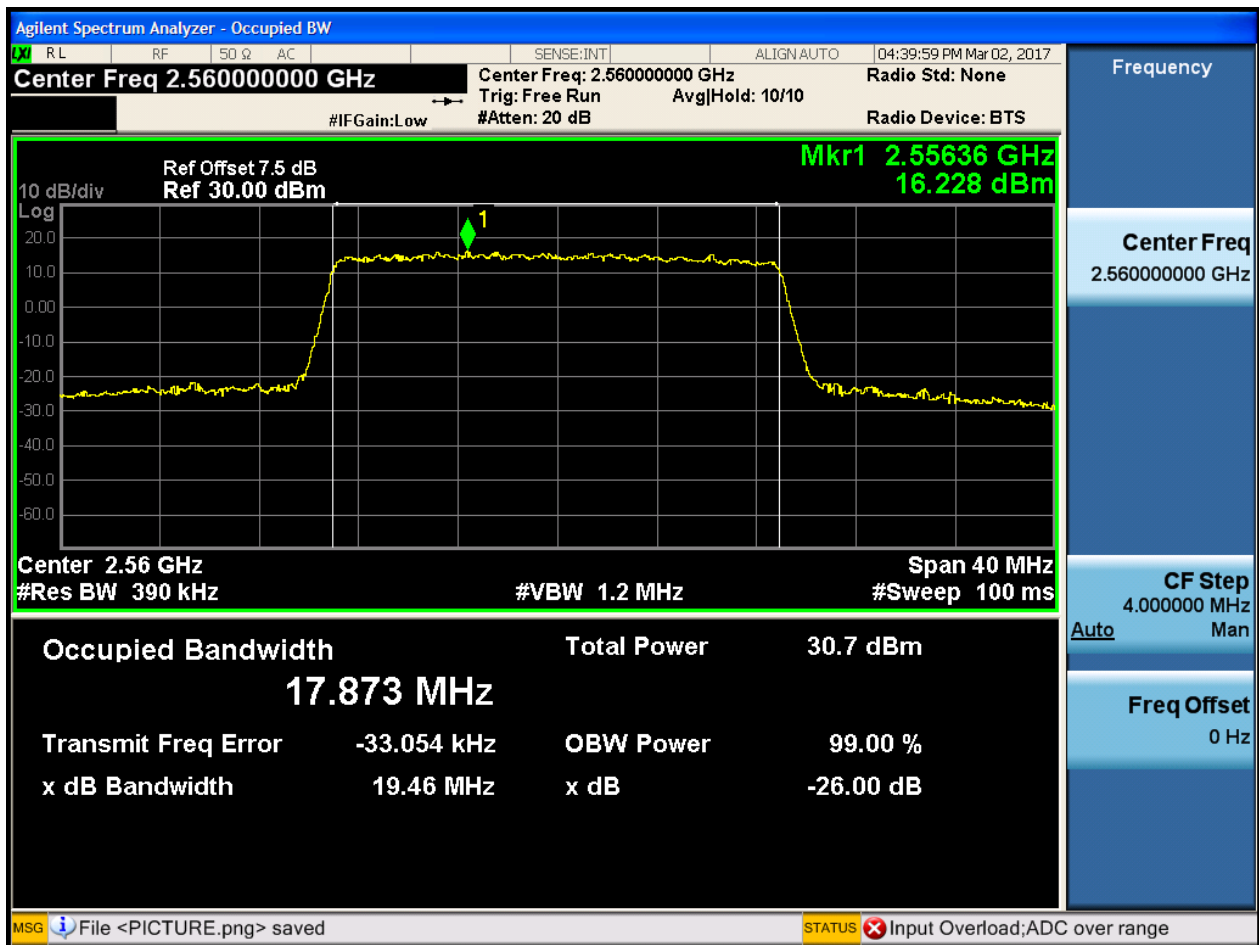
4.1.1.2.4.2.1 Test RB = RB100#0





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

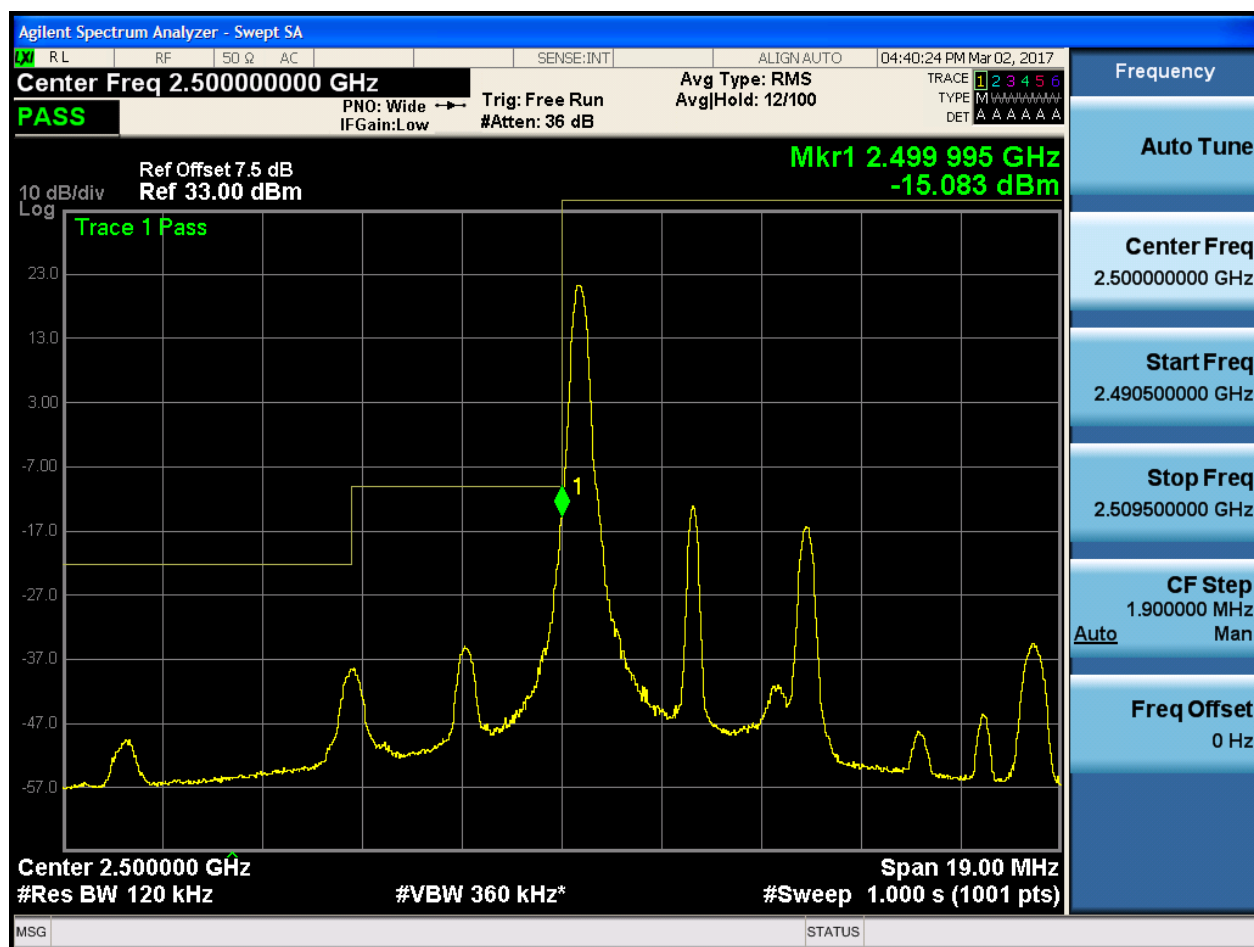
5.1.1 Test Band = BAND7

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

Center Freq 2.500000000 GHz

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-48.144 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 120 kHz

#VBW 360 kHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer in Swept SA mode. The main display is a log-frequency plot with a yellow trace. The center frequency is set to 2.500000000 GHz. The span is 19.00 MHz, and the resolution bandwidth (RBW) is 120 kHz. A significant peak is visible at 2.499995 GHz, marked with a green diamond and labeled 'Mkr1 2.499 995 GHz -48.144 dBm'. The trace is labeled 'Trace 1 Pass'. The right side of the screen displays various settings and parameters, including 'Auto Tune', 'Center Freq', 'Start Freq', 'Stop Freq', 'CF Step', and 'Freq Offset'. The bottom status bar shows 'MSG' and 'STATUS' indicators.



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:41:01 PM Mar 02, 2017

Center Freq 2.500000000 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

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-26.846 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 120 kHz #VBW 360 kHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 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 04:41:19 PM Mar 02, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
TYPE M DET A A A A A A

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-22.473 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#Res BW 120 kHz #VBW 360 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

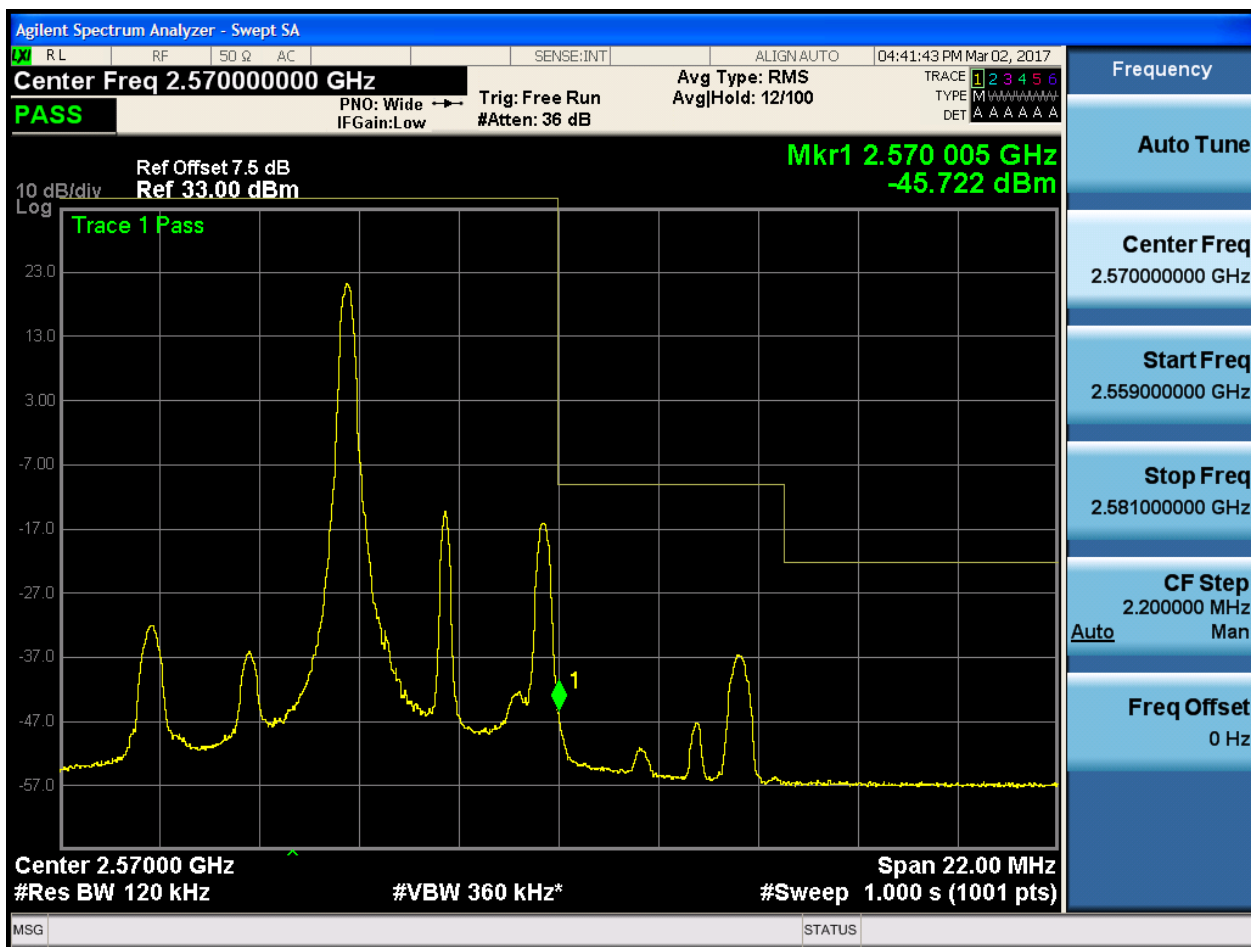
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



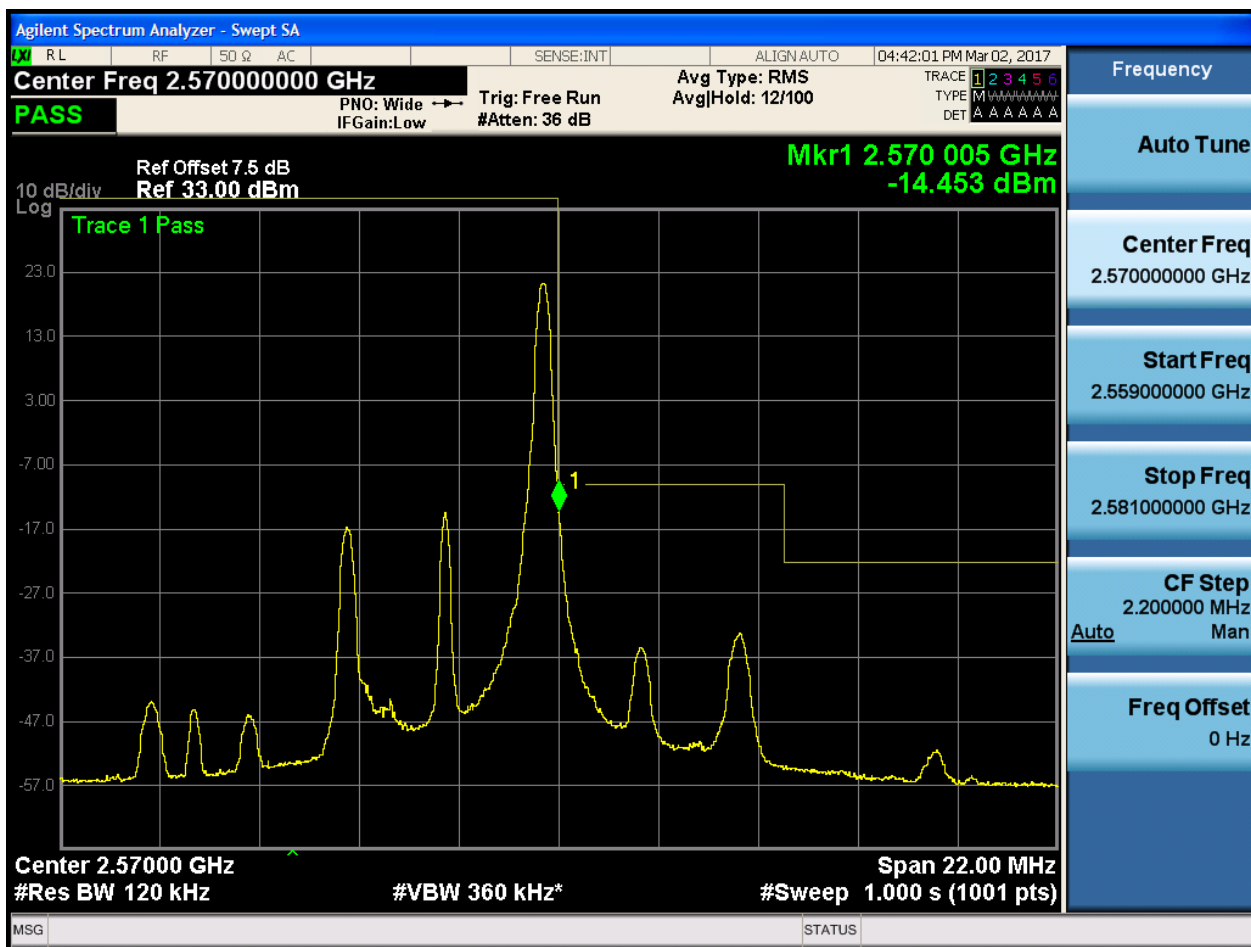
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



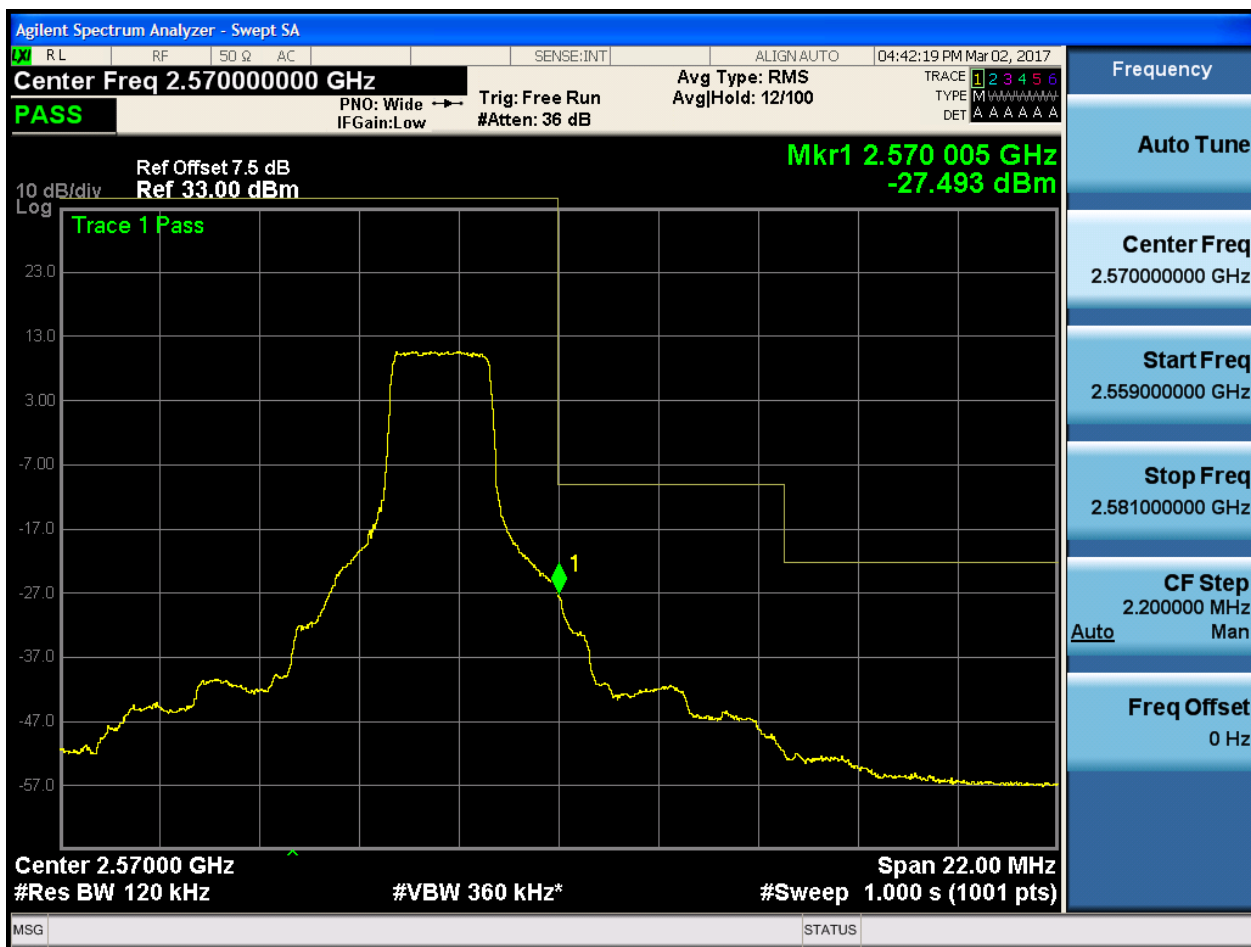


5.1.1.1.2.2 Test RB = RB1#24





5.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.2.4 Test RB = RB25#0

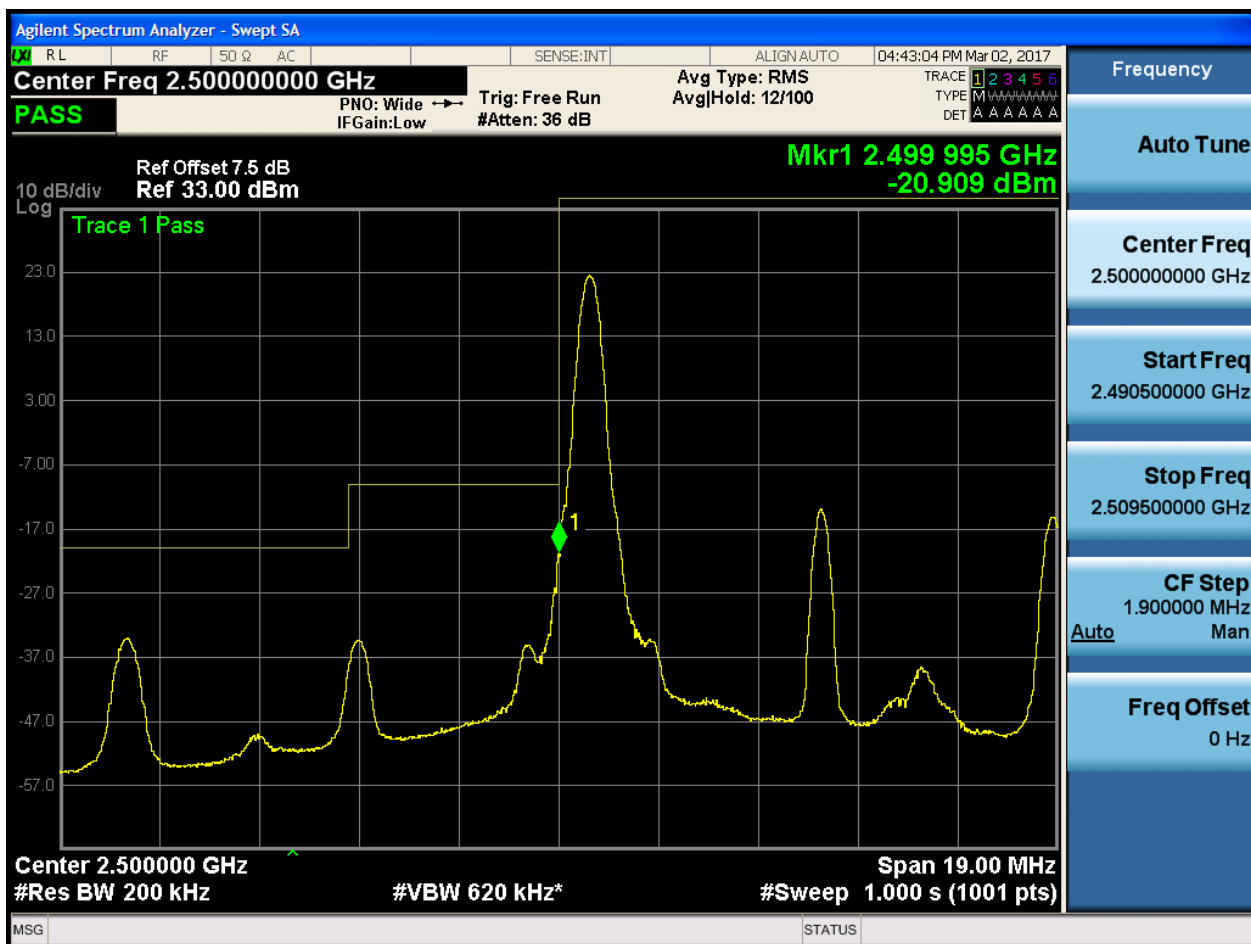




5.1.1.1.2 Test Bandwidth = 10

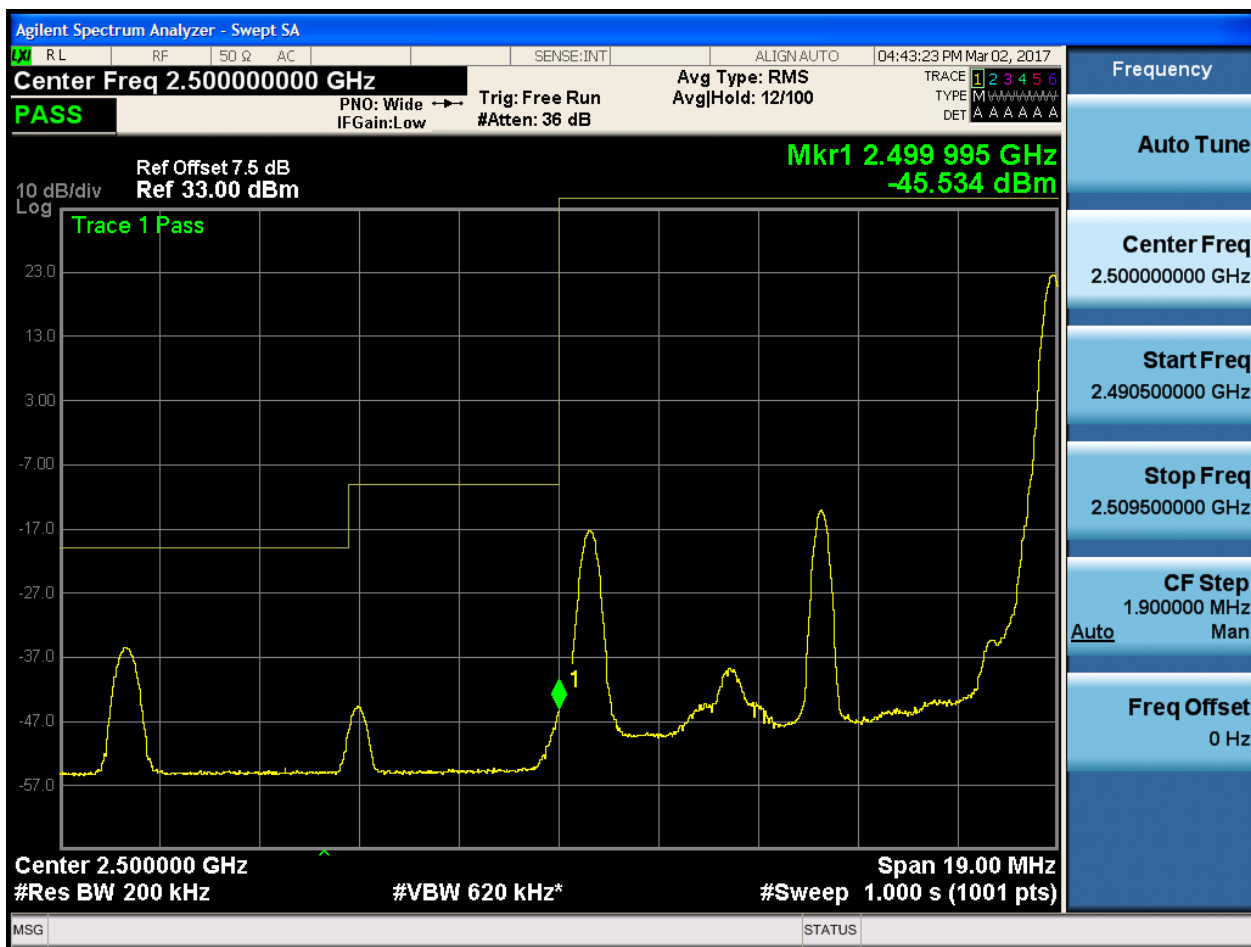
5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0





5.1.1.1.2.1.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:43:41 PM Mar 02, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
 PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
 #Atten: 36 dB TYPE M A A A A A A A DET A A A A A A A

Ref Offset 7.5 dB
 Ref 33.00 dBm

Mkr1 2.499 995 GHz
 -28.895 dBm

10 dB/div
 Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
 #Res BW 200 kHz #VBW 620 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
 2.500000000 GHz

Start Freq
 2.490500000 GHz

Stop Freq
 2.509500000 GHz

CF Step
 1.900000 MHz
 Auto Man

Freq Offset
 0 Hz



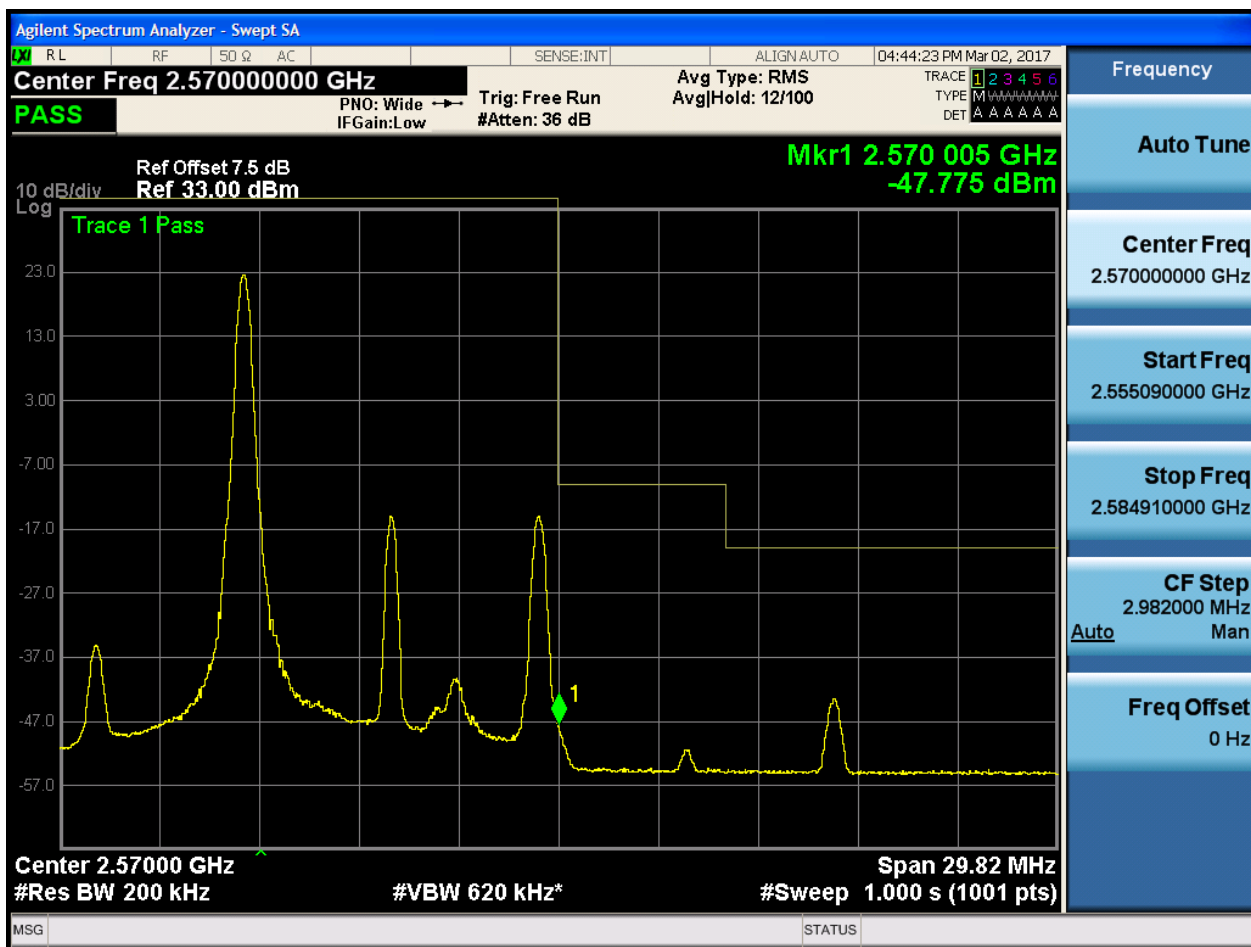
5.1.1.1.2.1.4 Test RB = RB50#0





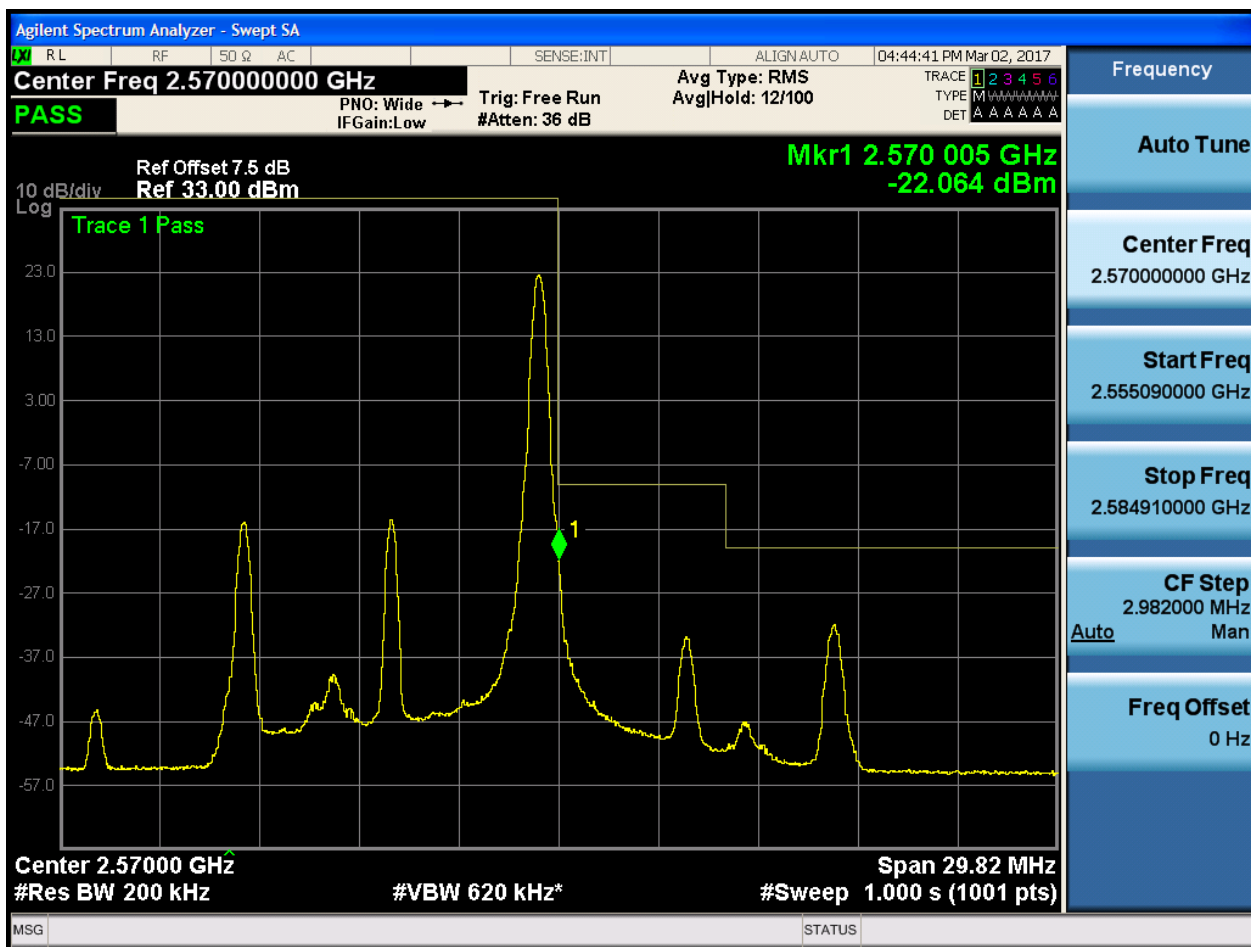
5.1.1.1.2.2 Test Channel = HCH

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

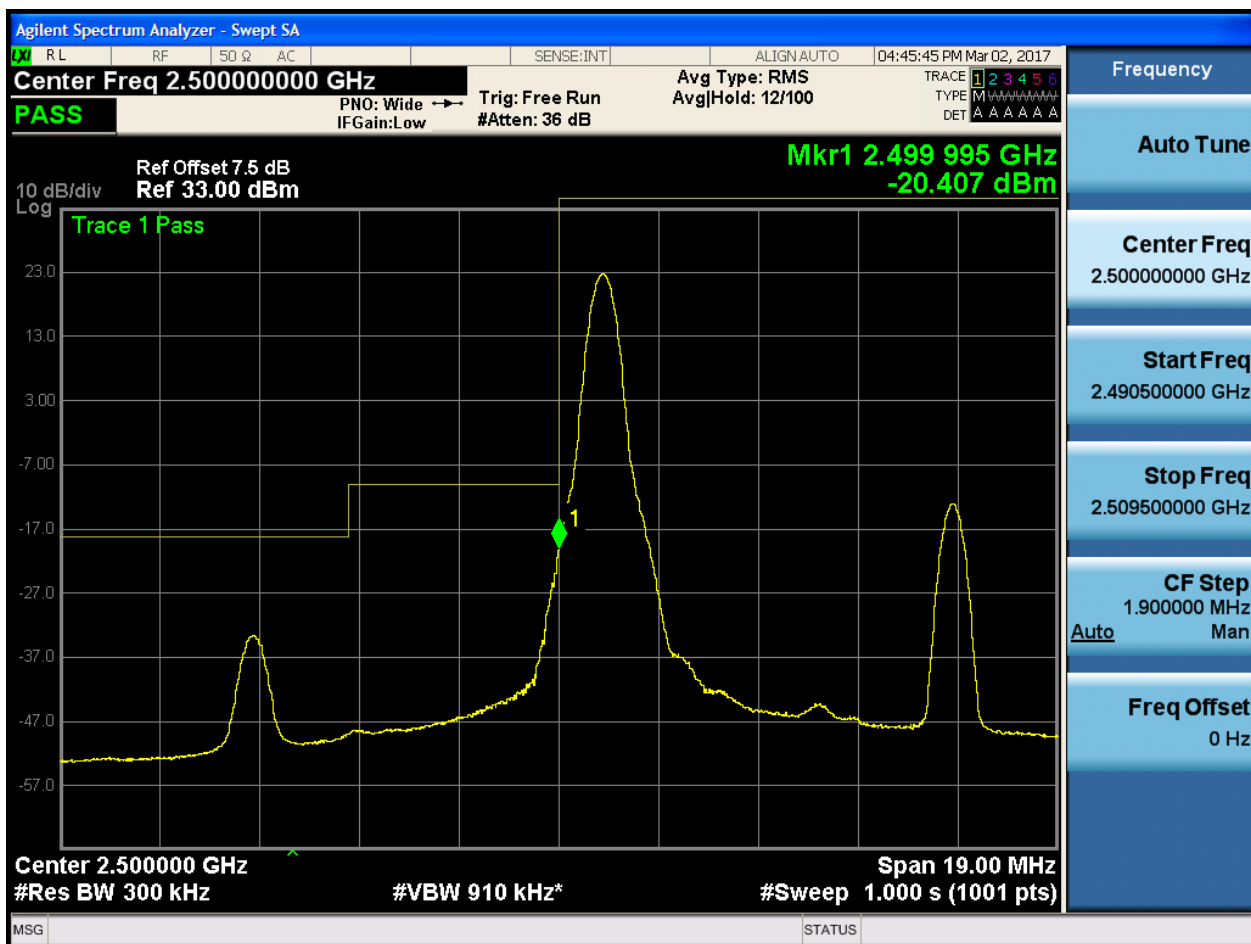




5.1.1.1.3 Test Bandwidth = 15

5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 04:46:03 PM Mar 02, 2017

Center Freq 2.500000000 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 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-47.689 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 300 kHz #VBW 910 kHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.500000000 GHz

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-29.516 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 300 kHz
#VBW 910 kHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



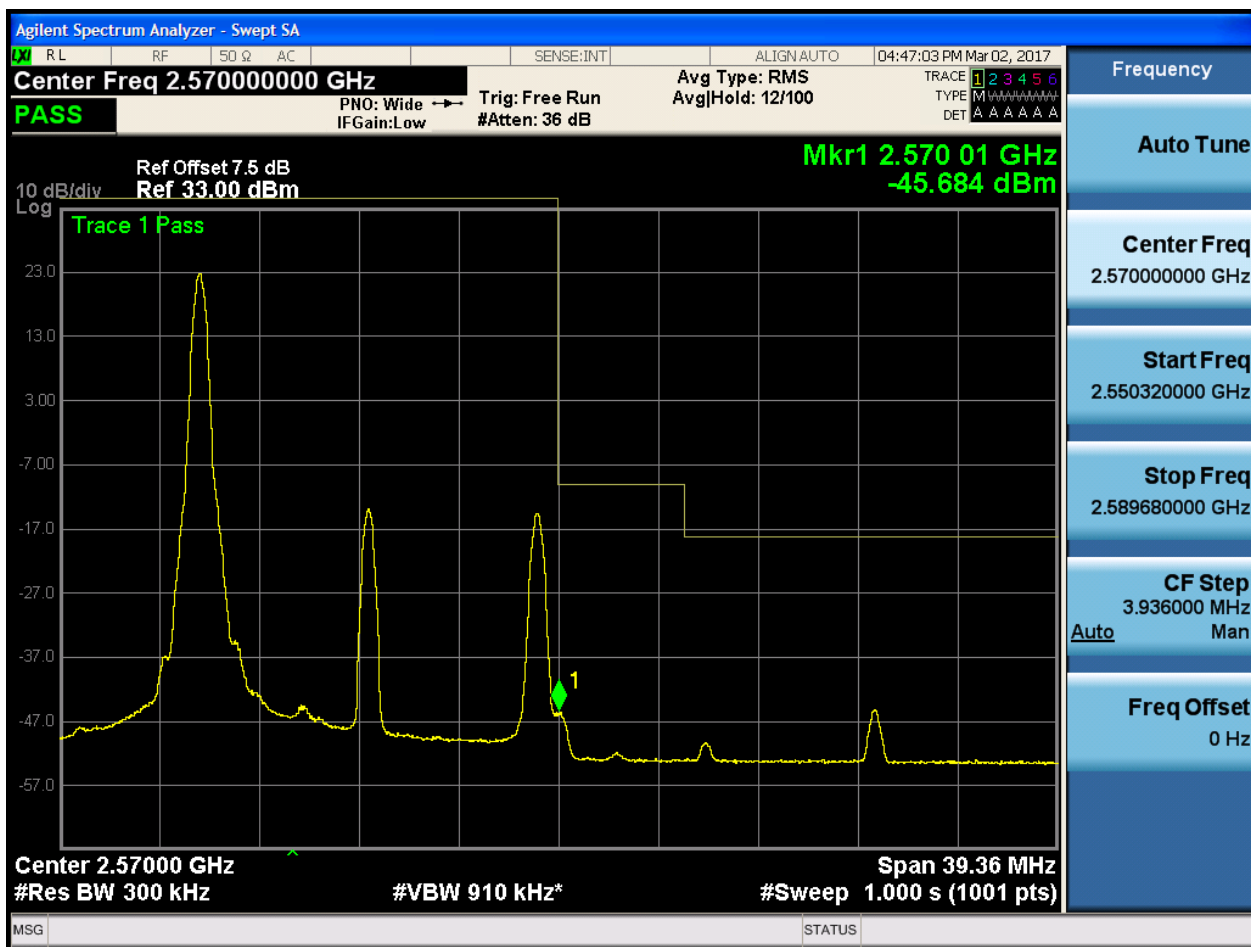
5.1.1.1.3.1.4 Test RB = RB75#0





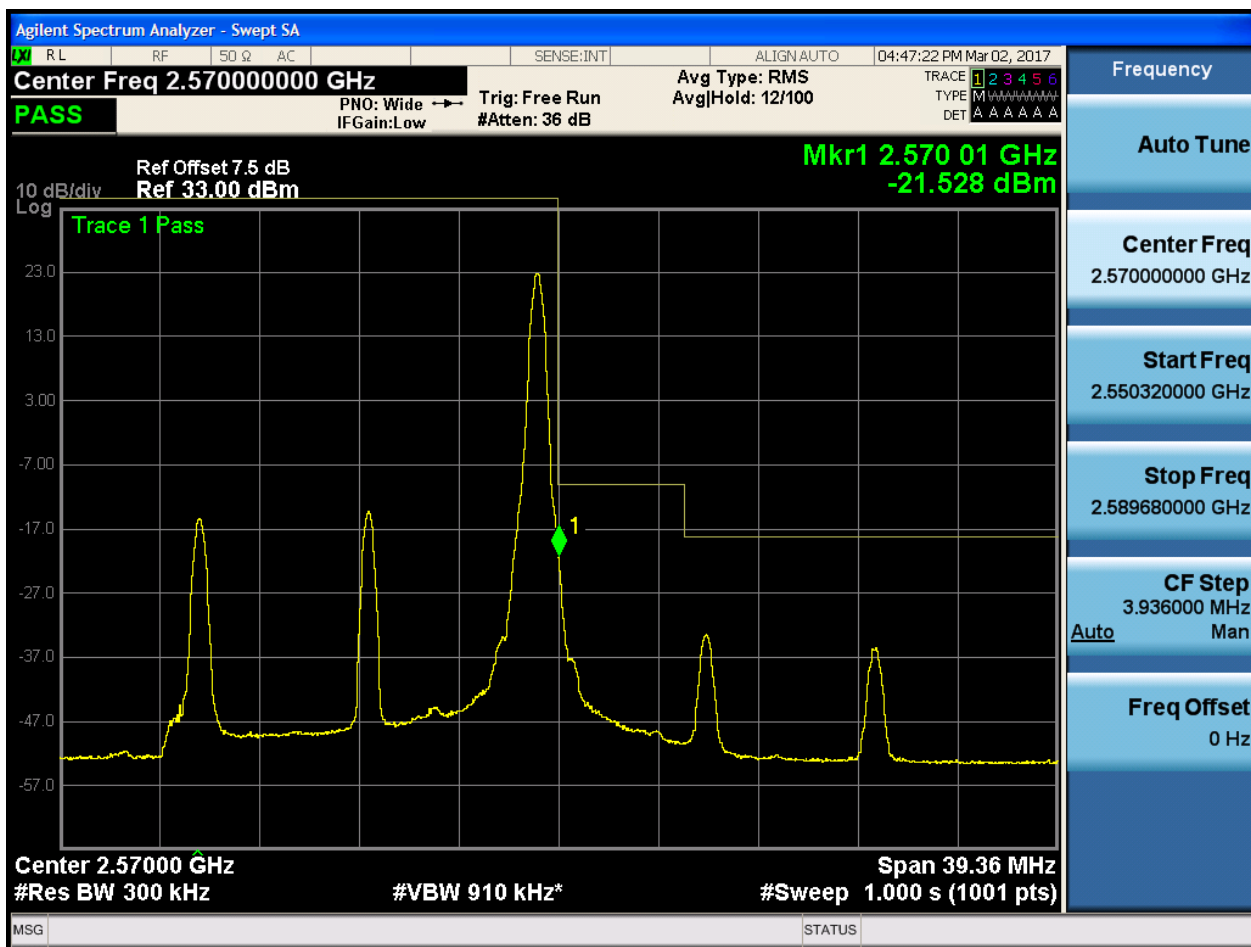
5.1.1.1.3.2 Test Channel = HCH

5.1.1.1.3.2.1 Test RB = RB1#0





5.1.1.1.3.2.2 Test RB = RB1#74





5.1.1.1.3.2.3 Test RB = RB36#18





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 04:47:58 PM Mar 02, 2017

Center Freq 2.570000000 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 33.00 dBm

Mkr1 2.570 01 GHz
-26.285 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz Span 39.36 MHz
#Res BW 300 kHz #VBW 910 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.550320000 GHz

Stop Freq
2.589680000 GHz

CF Step
3.936000 MHz
Auto Man

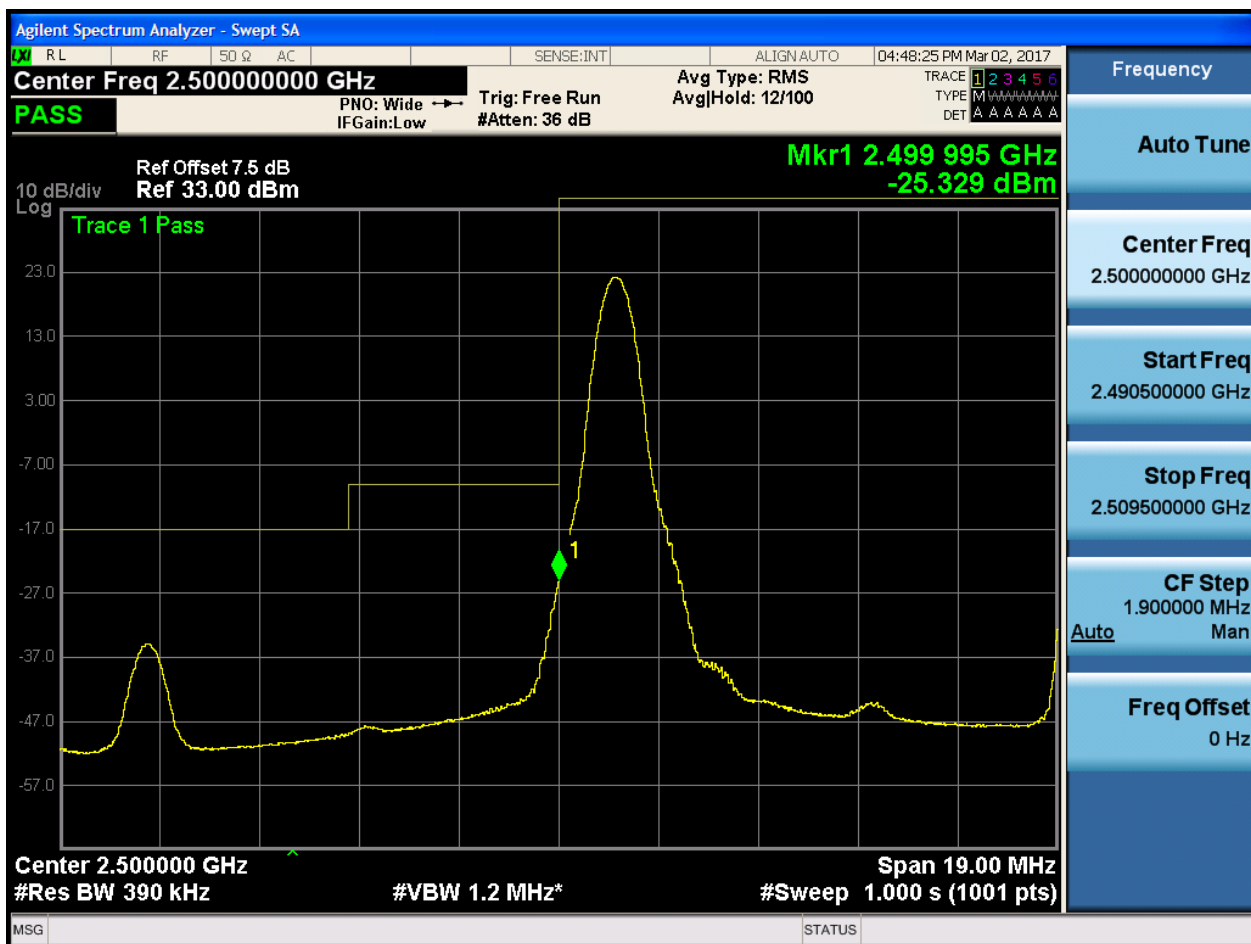
Freq Offset
0 Hz



5.1.1.1.4 Test Bandwidth = 20

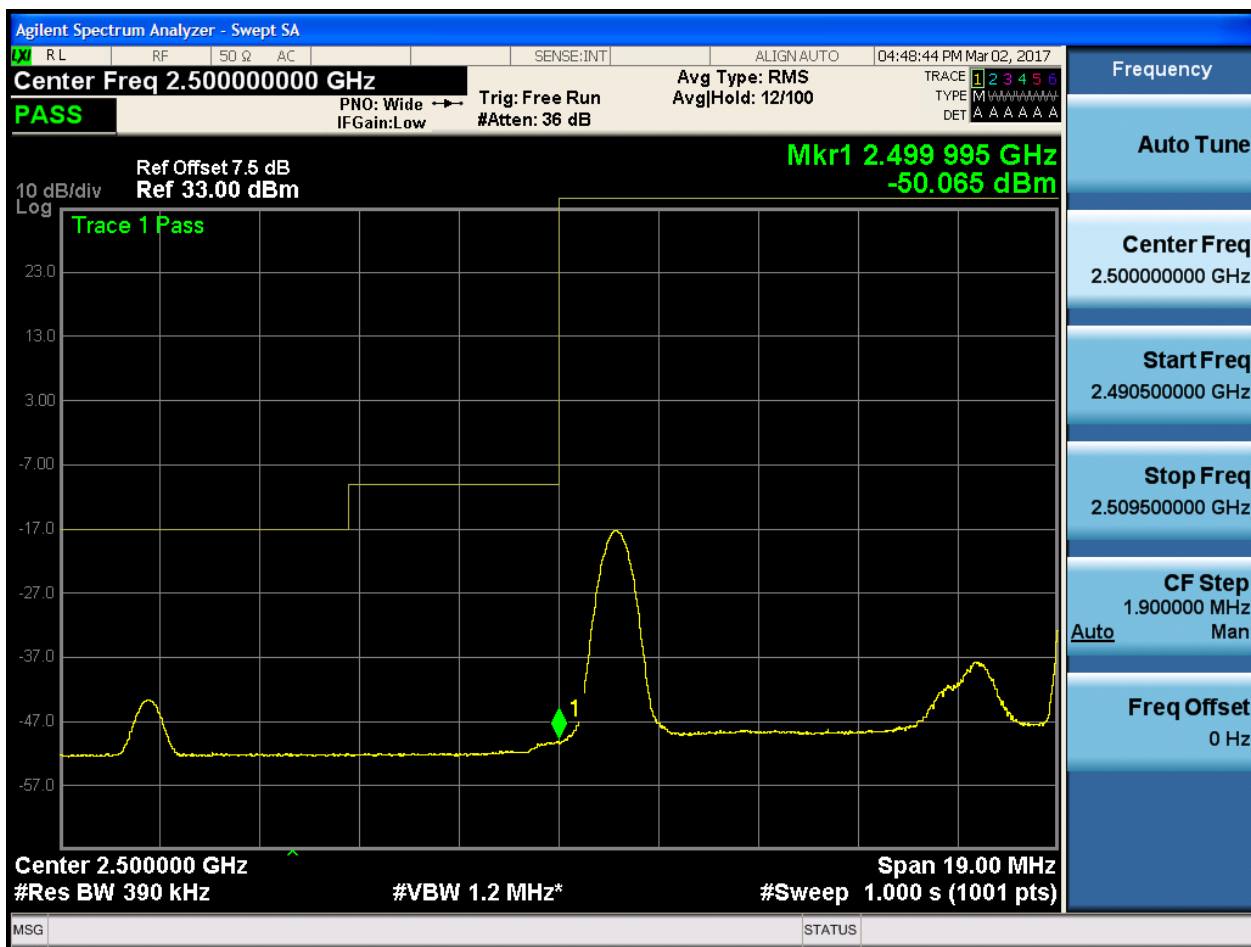
5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0





5.1.1.1.4.1.2 Test RB = RB1#99





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 04:49:02 PM Mar 02, 2017

Center Freq 2.500000000 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 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-30.123 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 390 kHz #VBW 1.2 MHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

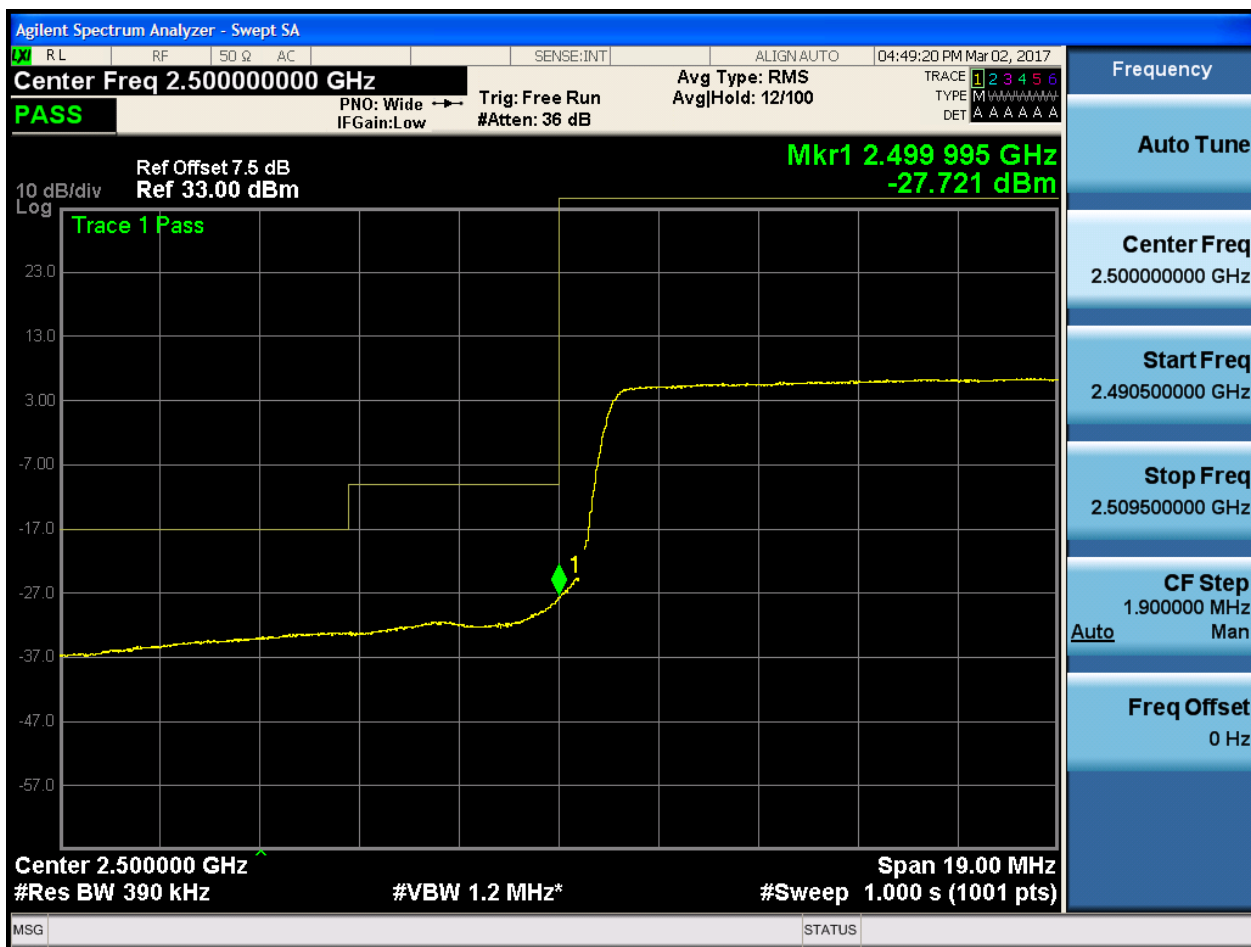
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

MSG STATUS



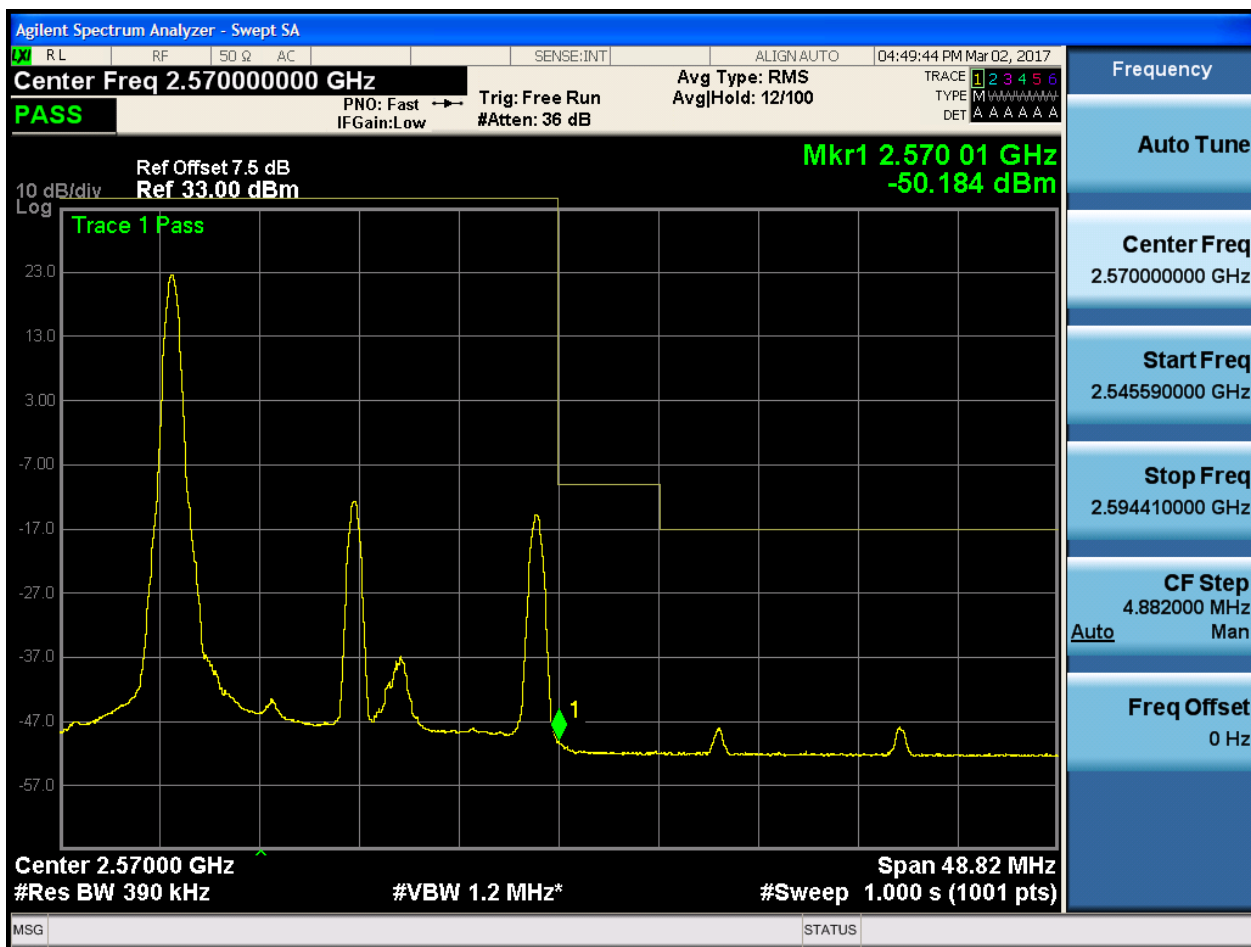
5.1.1.1.4.1.4 Test RB = RB100#0





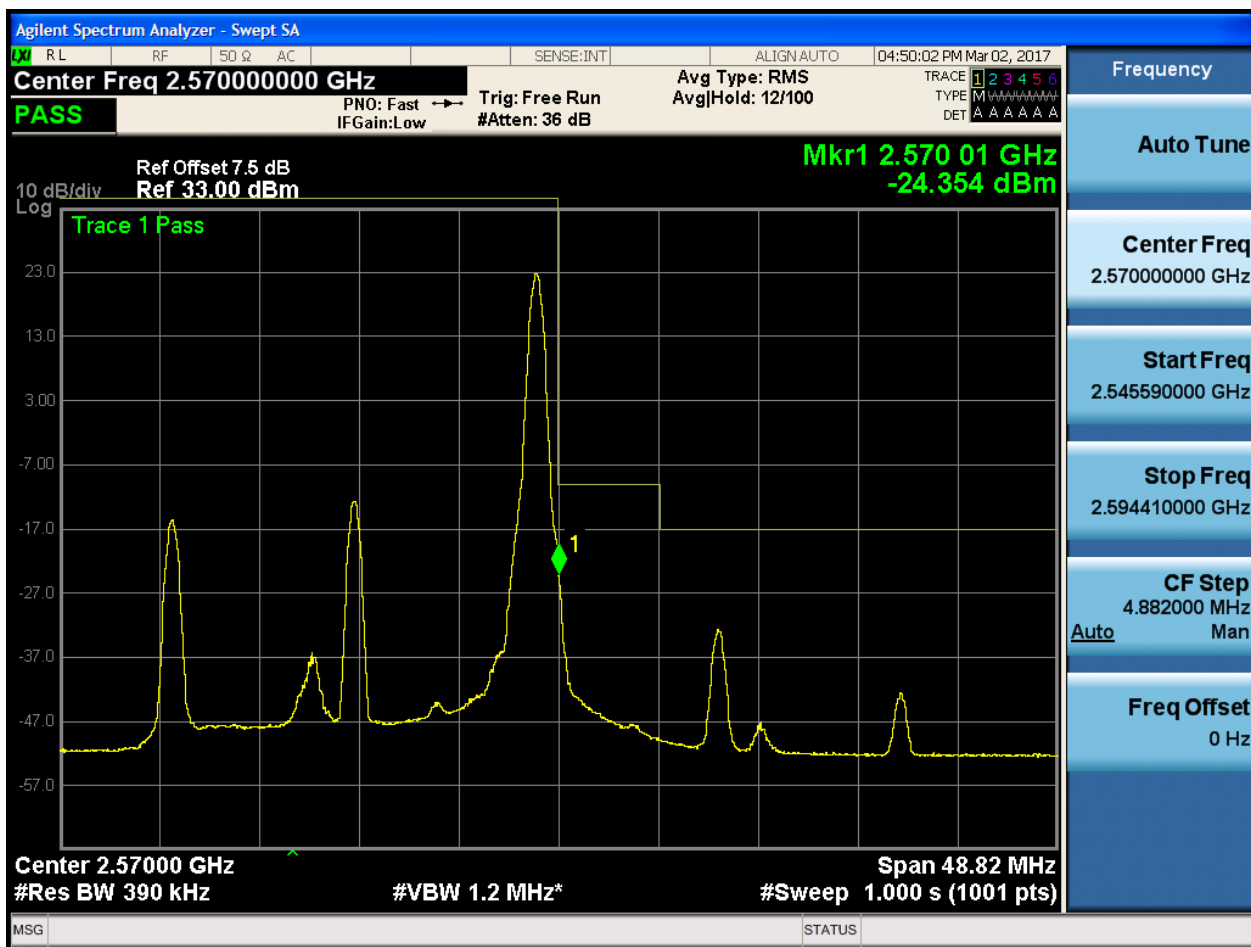
5.1.1.1.4.2 Test Channel = HCH

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



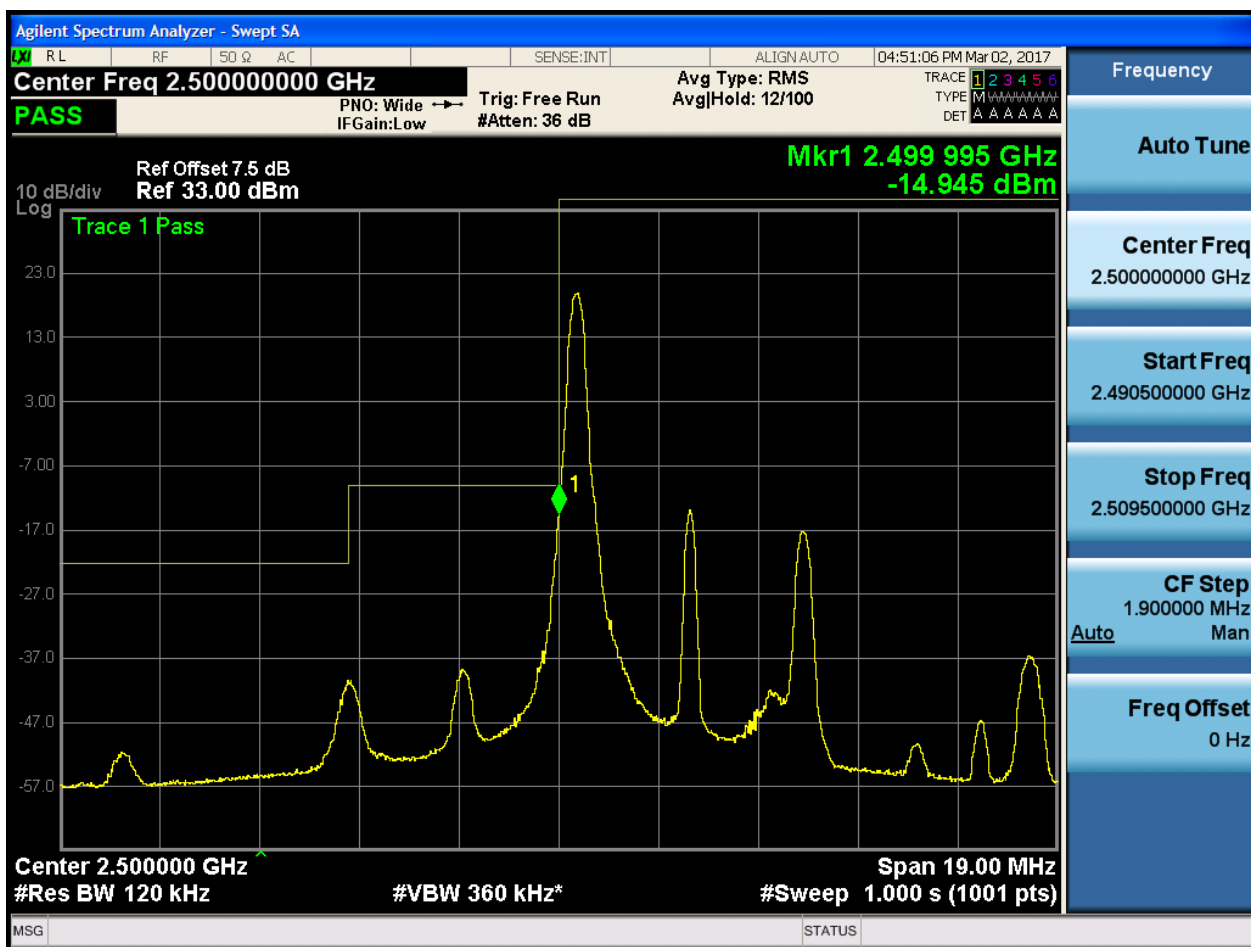


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

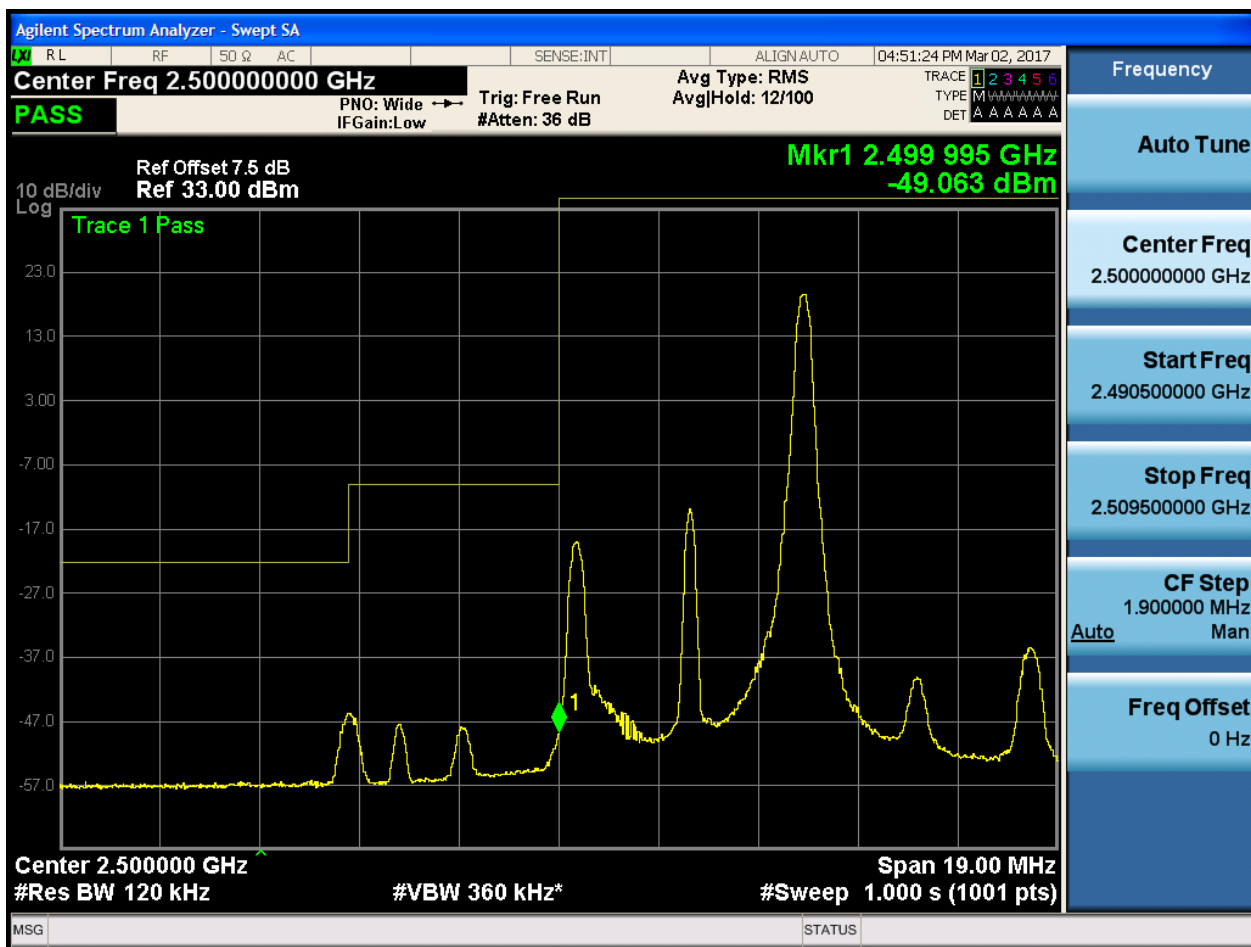
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



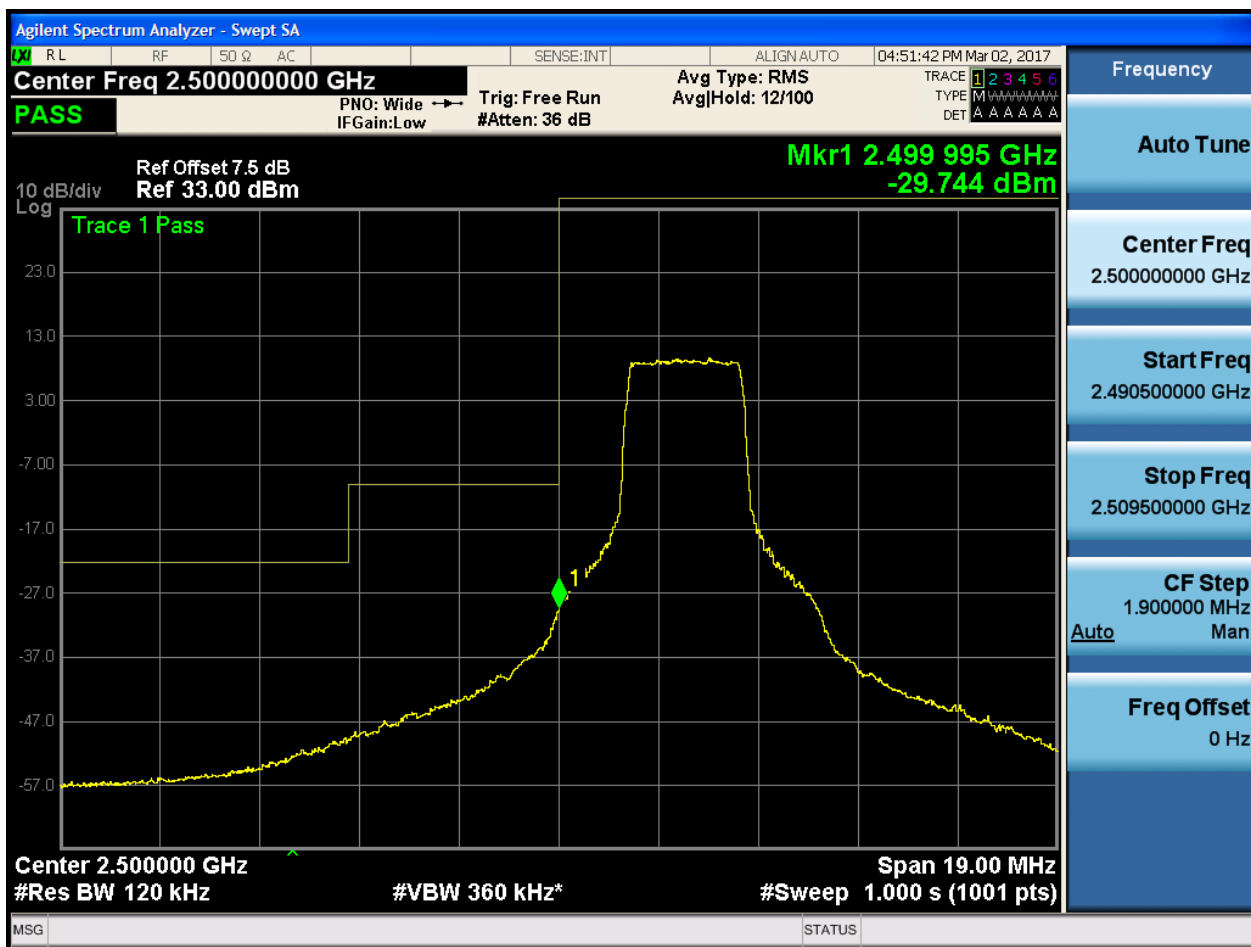


5.1.1.2.1.1.2 Test RB = RB1#24





5.1.1.2.1.1.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:52:01 PM Mar 02, 2017

Center Freq 2.500000000 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 M M M M M M M
DET A A A A A A

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-23.801 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 120 kHz #VBW 360 kHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

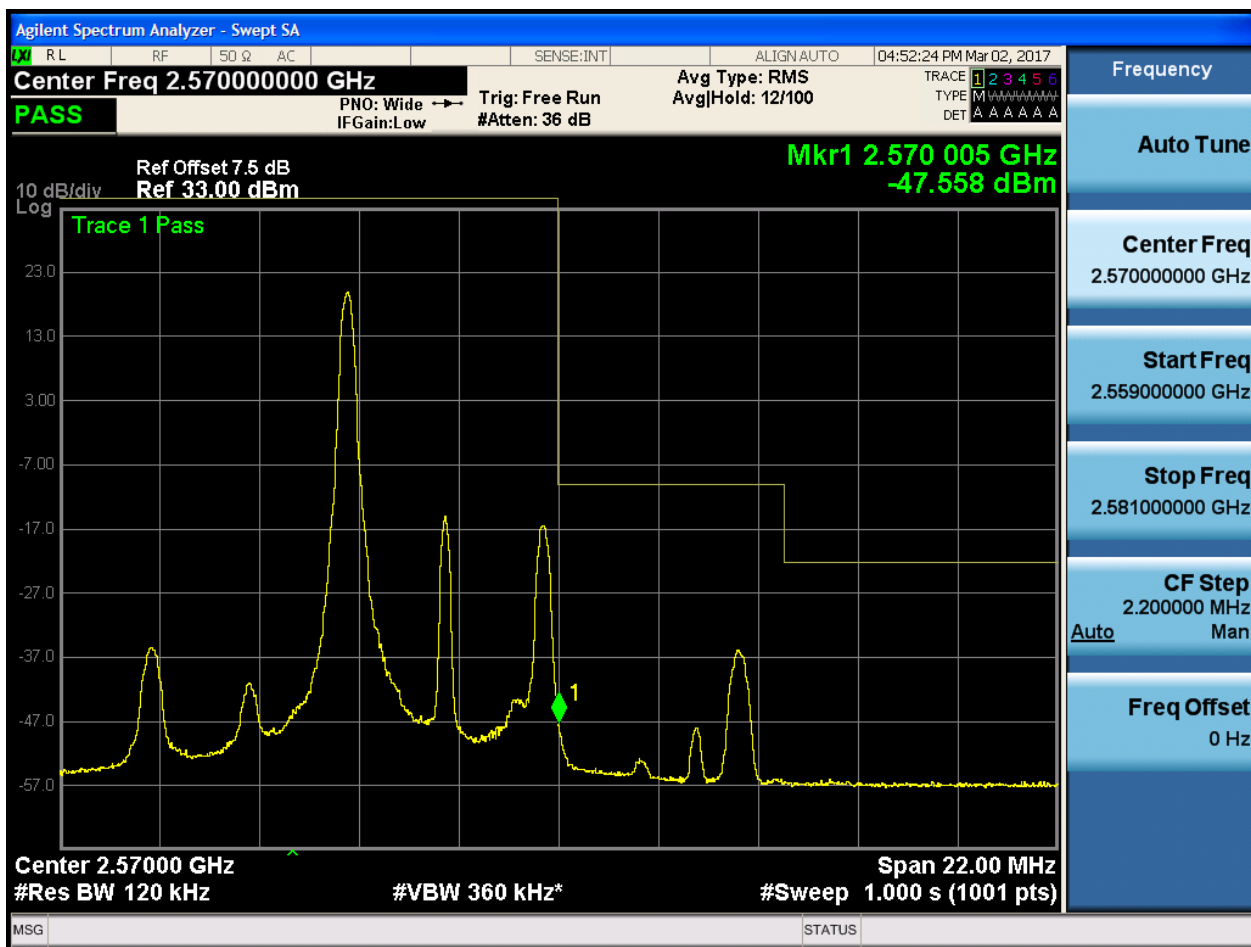
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



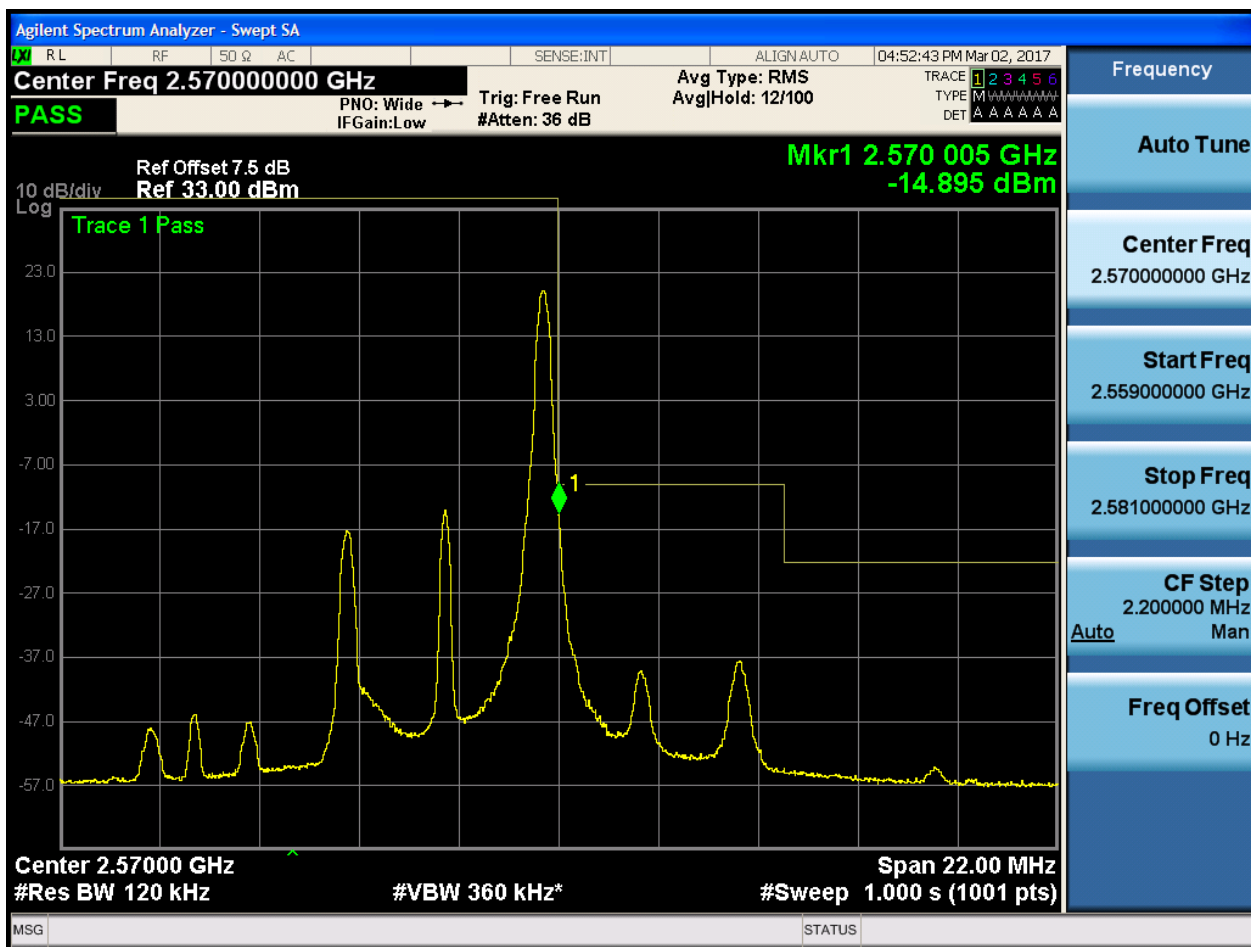
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0



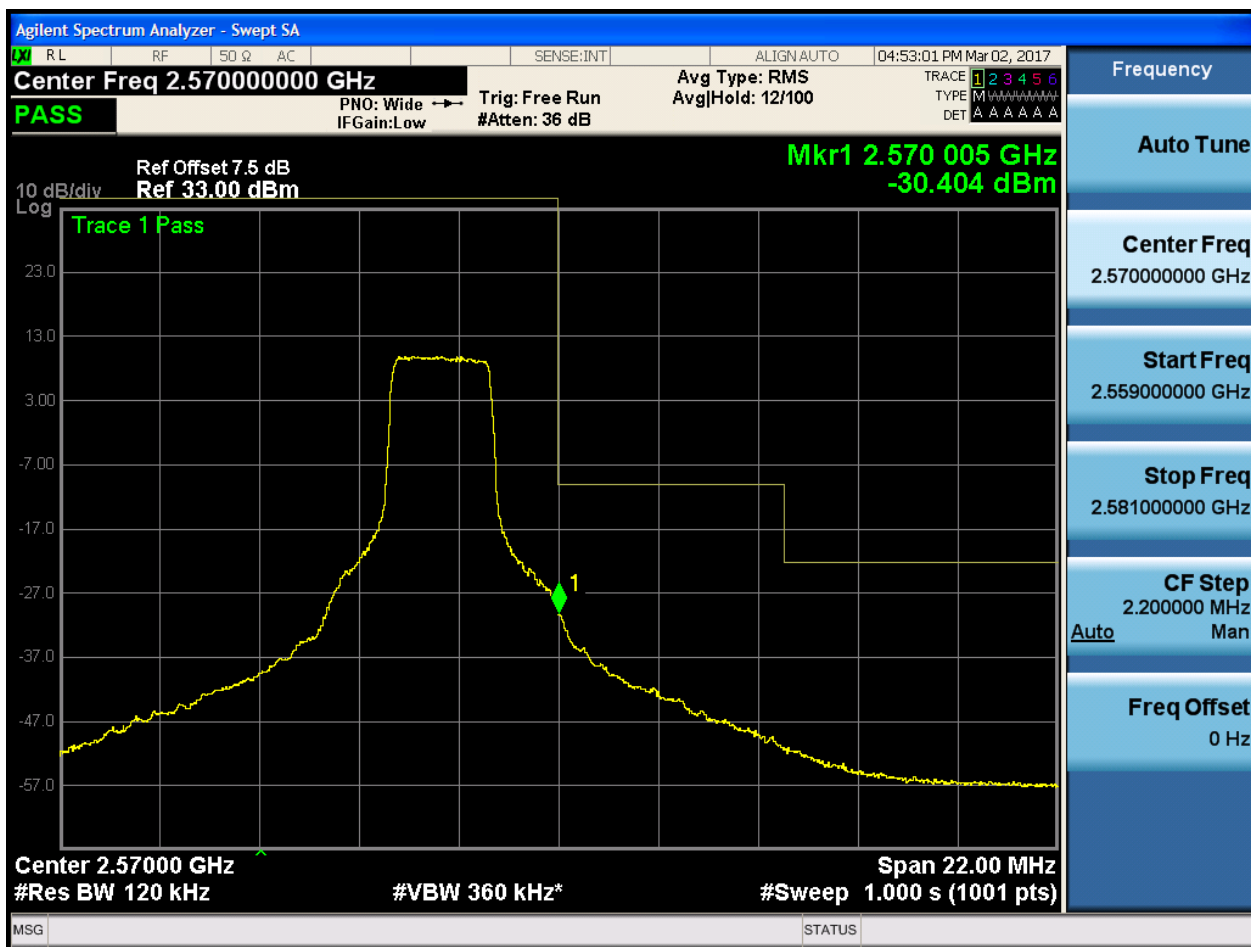


5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6



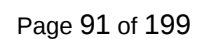


5.1.1.2.1.2.4 Test RB = RB25#0





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 04:54:05 PM Mar 02, 2017

Center Freq 2.500000000 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 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-45.212 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#Res BW 200 kHz #VBW 620 kHz #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 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 04:54:23 PM Mar 02, 2017

Center Freq 2.500000000 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 33.00 dBm

Mkr1 2.499 995 GHz
-31.478 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#Res BW 200 kHz #VBW 620 kHz #Sweep 1.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-27.918 dBm

The figure displays a spectrum analyzer screen with a yellow trace. The y-axis is labeled 'Log' and ranges from -57.0 to 23.0 dB/div. The x-axis represents frequency. A sharp peak is visible at approximately 2.499995 GHz, marked with a green diamond and the number '1'. The background shows a stepped noise floor.

Trace 1 Pass

Center 2.500000 GHz
#Res BW 200 kHz
#VBW 620 kHz*

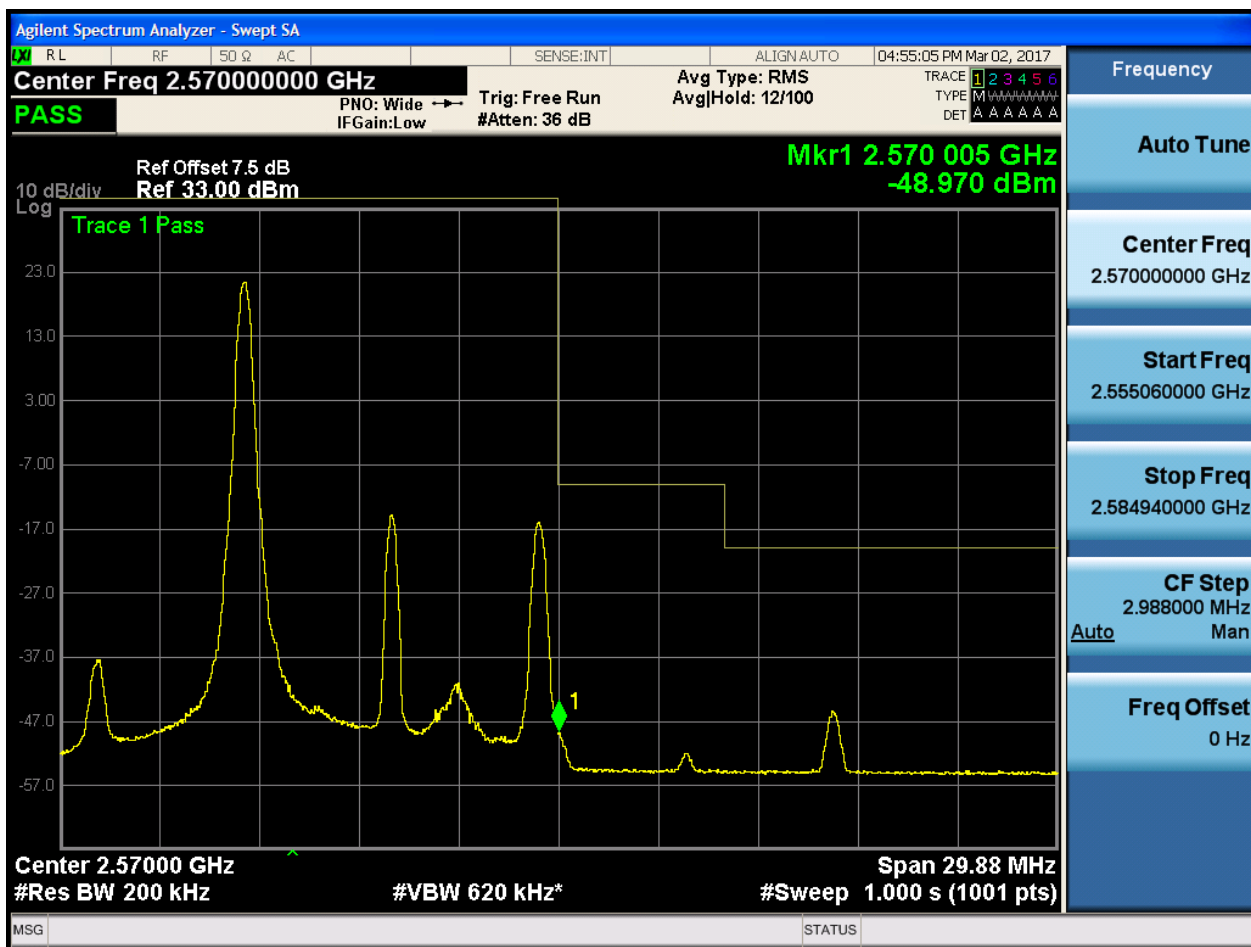
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency
Auto Tune
Center Freq 2.500000000 GHz
Start Freq 2.490500000 GHz
Stop Freq 2.509500000 GHz
CF Step 1.900000 MHz <u>Auto</u> Man
Freq Offset 0 Hz



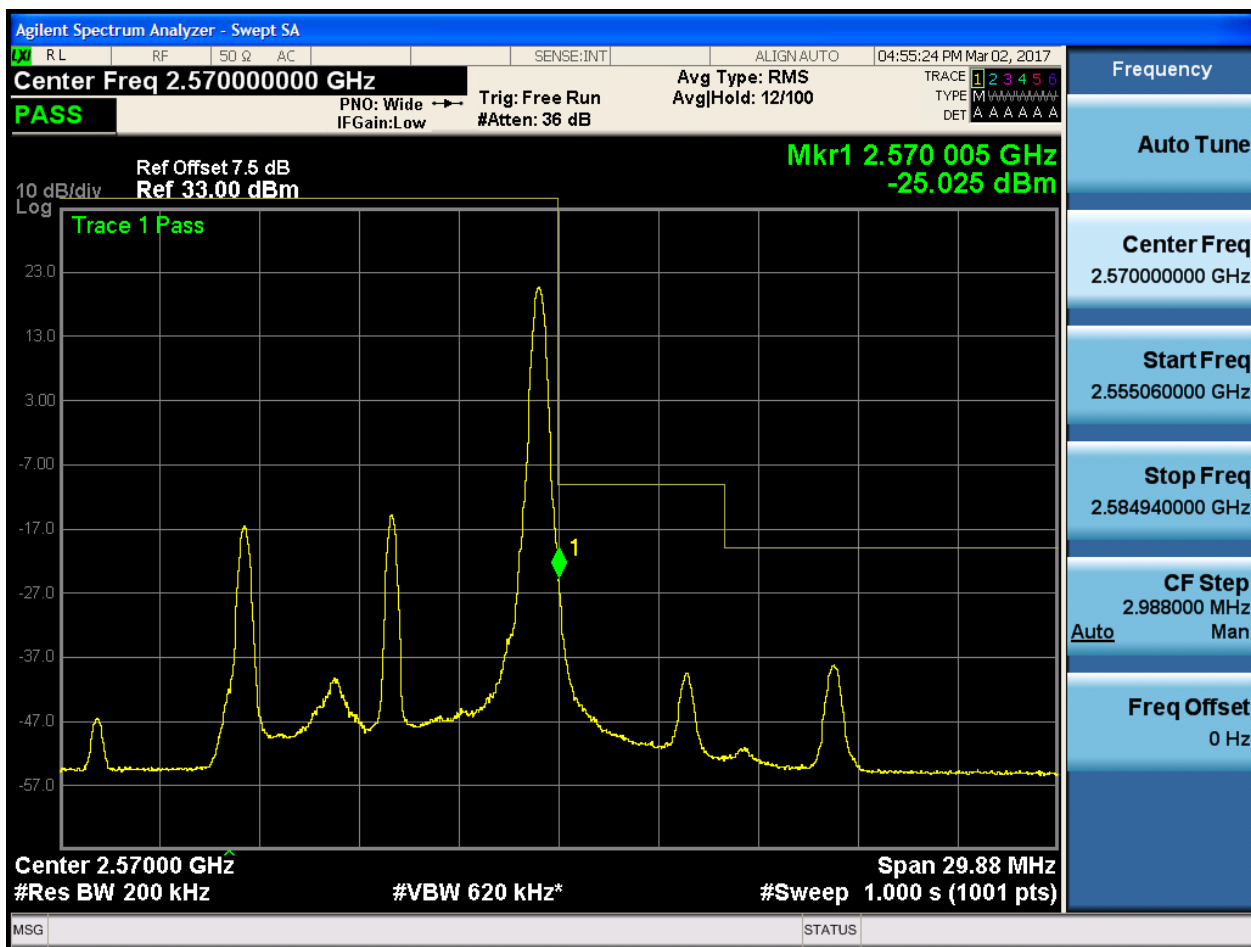
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



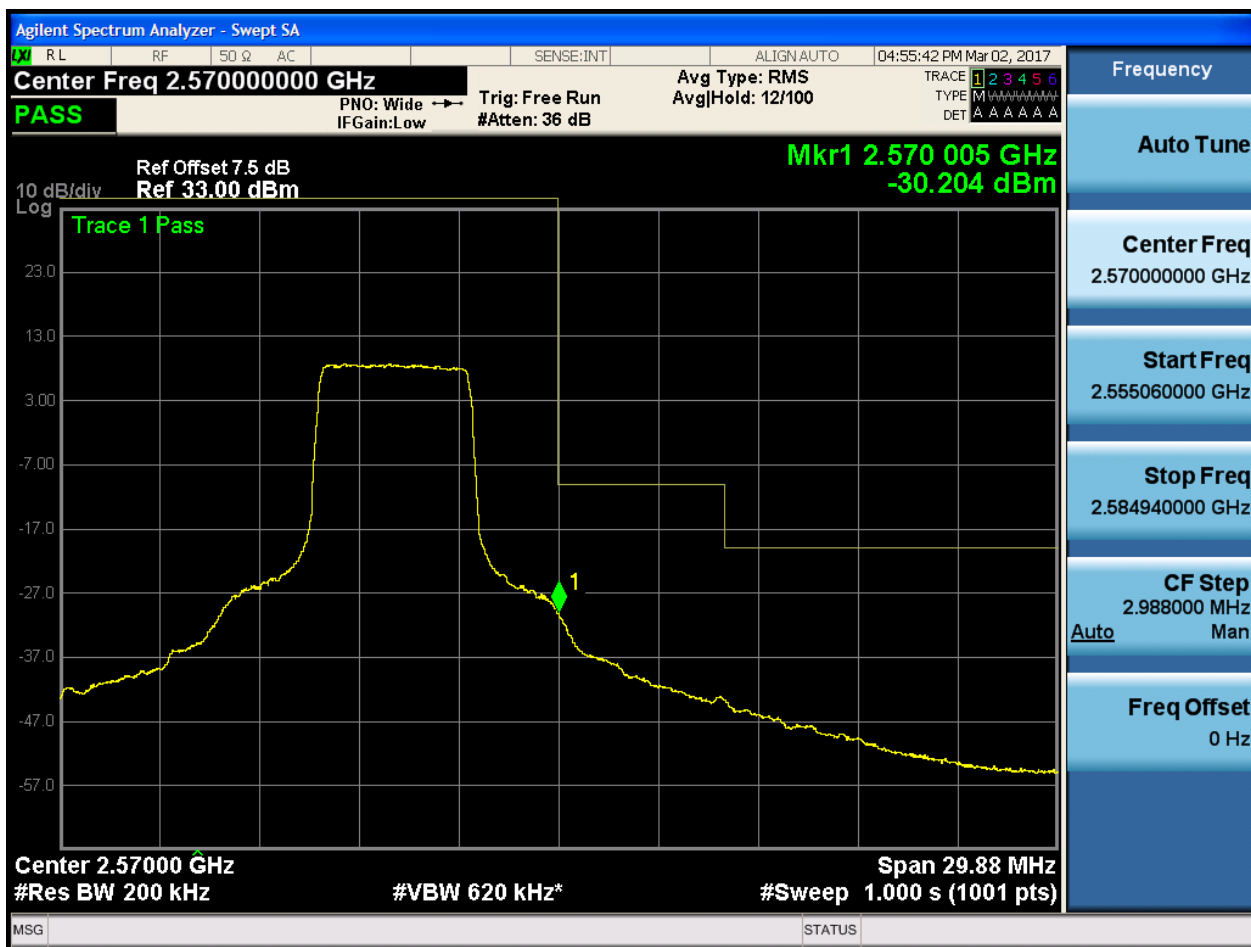


5.1.1.2.2.2 Test RB = RB1#49





5.1.1.2.2.3 Test RB = RB25#13





5.1.1.2.2.4 Test RB = RB50#0

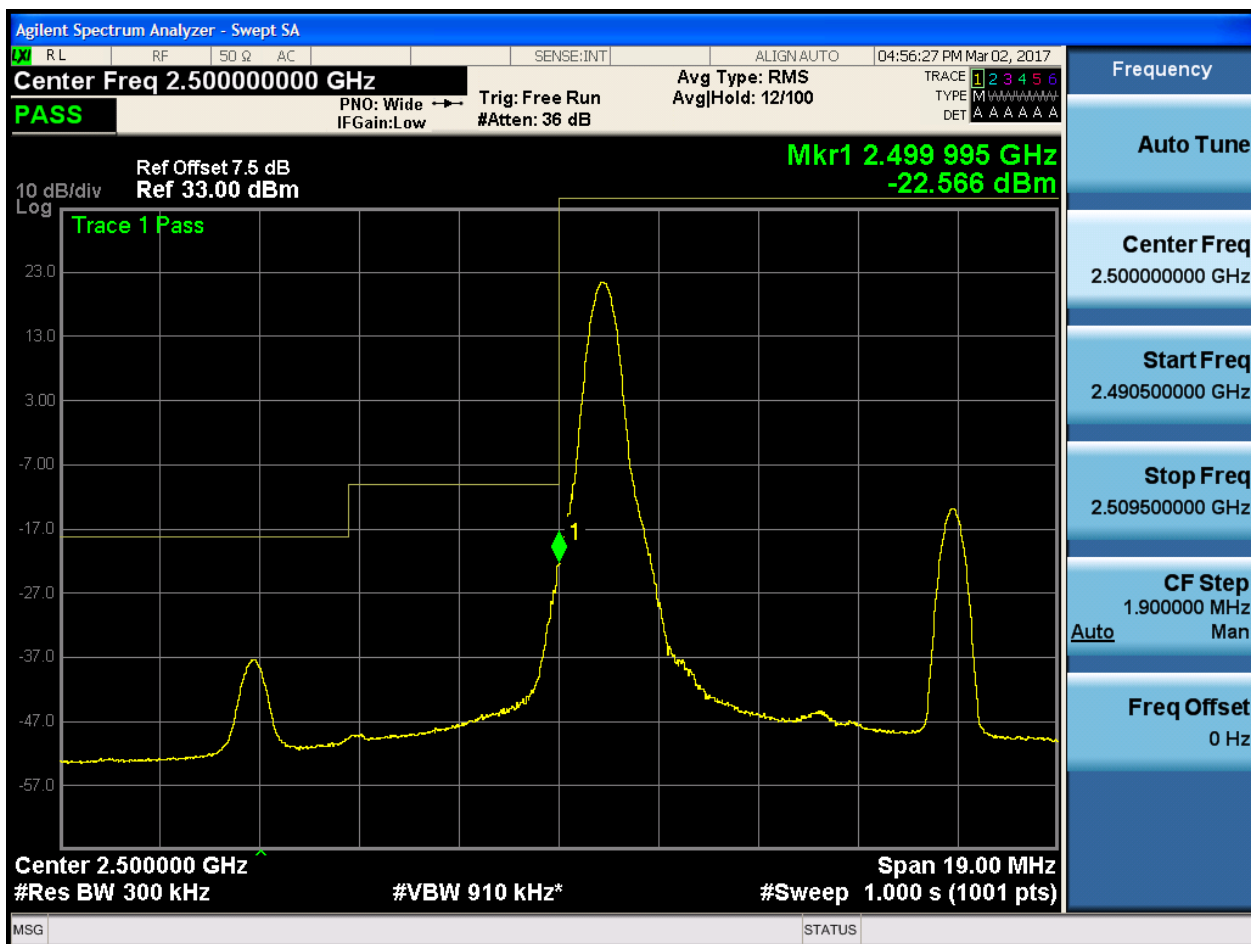




5.1.1.2.3 Test Bandwidth = 15

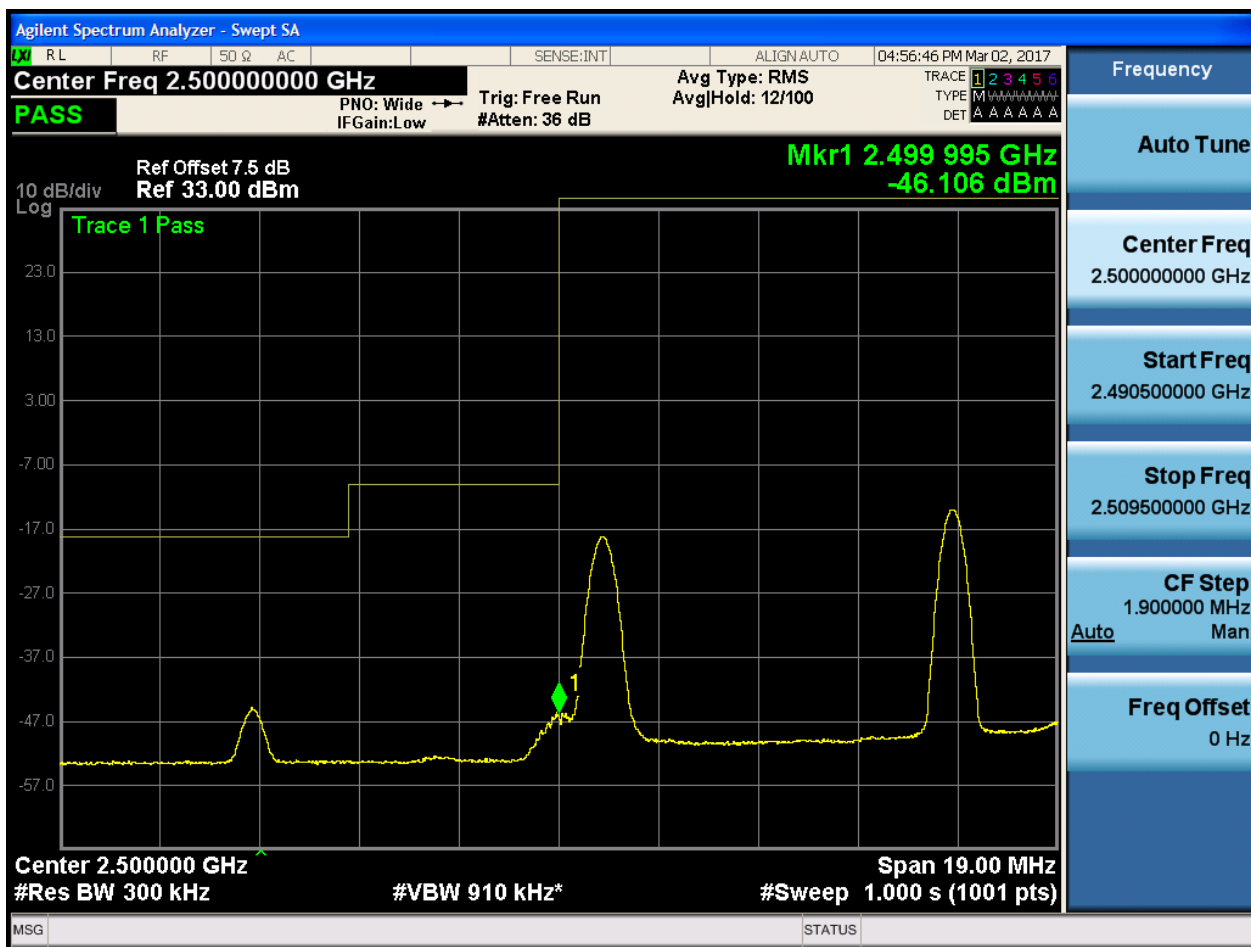
5.1.1.2.3.1 Test Channel = LCH

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 04:57:04 PM Mar 02, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 300 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Wide → #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-31.780 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#Res BW 300 kHz #VBW 910 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
2.500000000 GHz
Start Freq
2.490500000 GHz
Stop Freq
2.509500000 GHz
CF Step
1.900000 MHz
Auto Man
Freq Offset
0 Hz



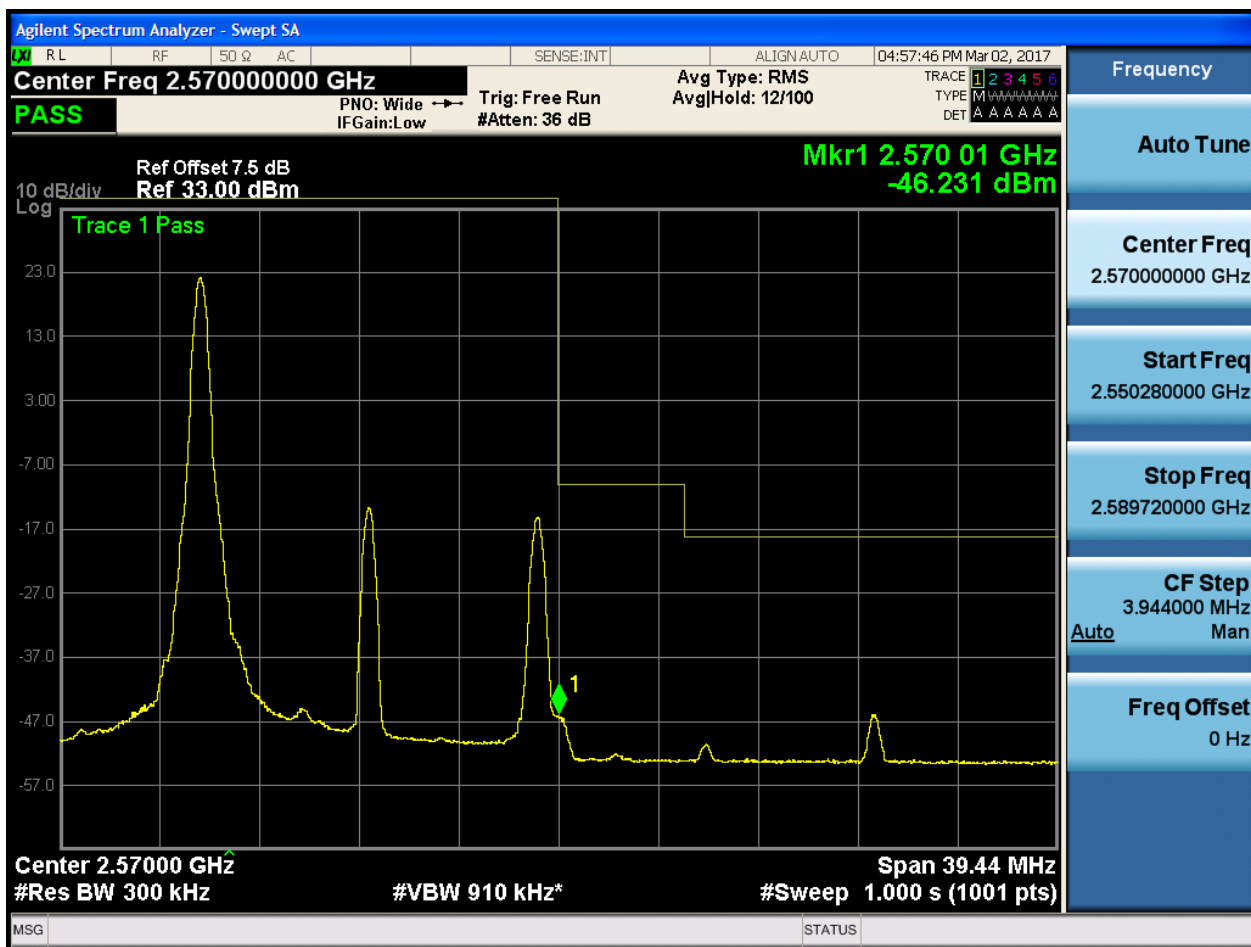
5.1.1.2.3.1.4 Test RB = RB75#0





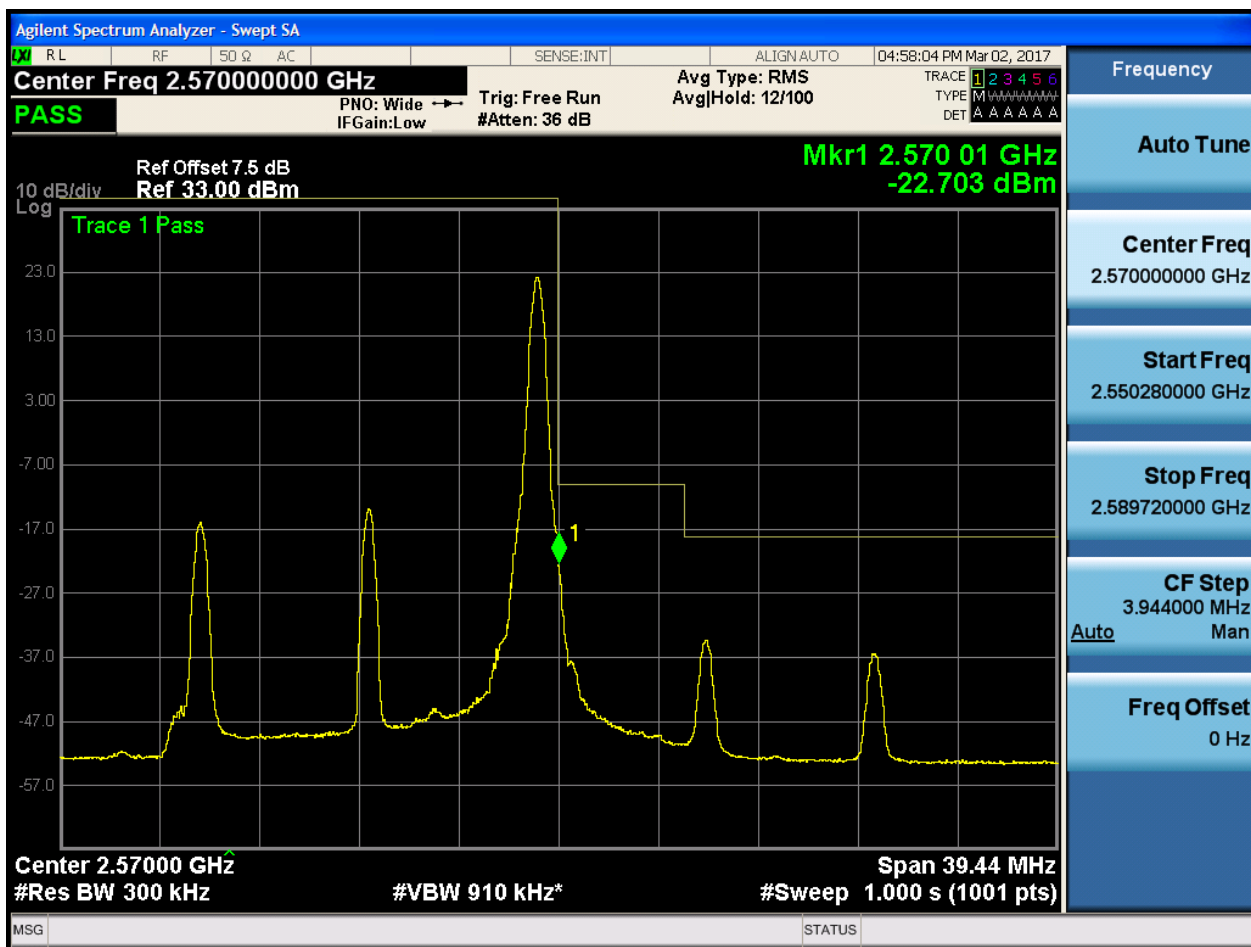
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#74





5.1.1.2.3.2.3 Test RB = RB36#18





5.1.1.2.3.2.4 Test RB = RB75#0

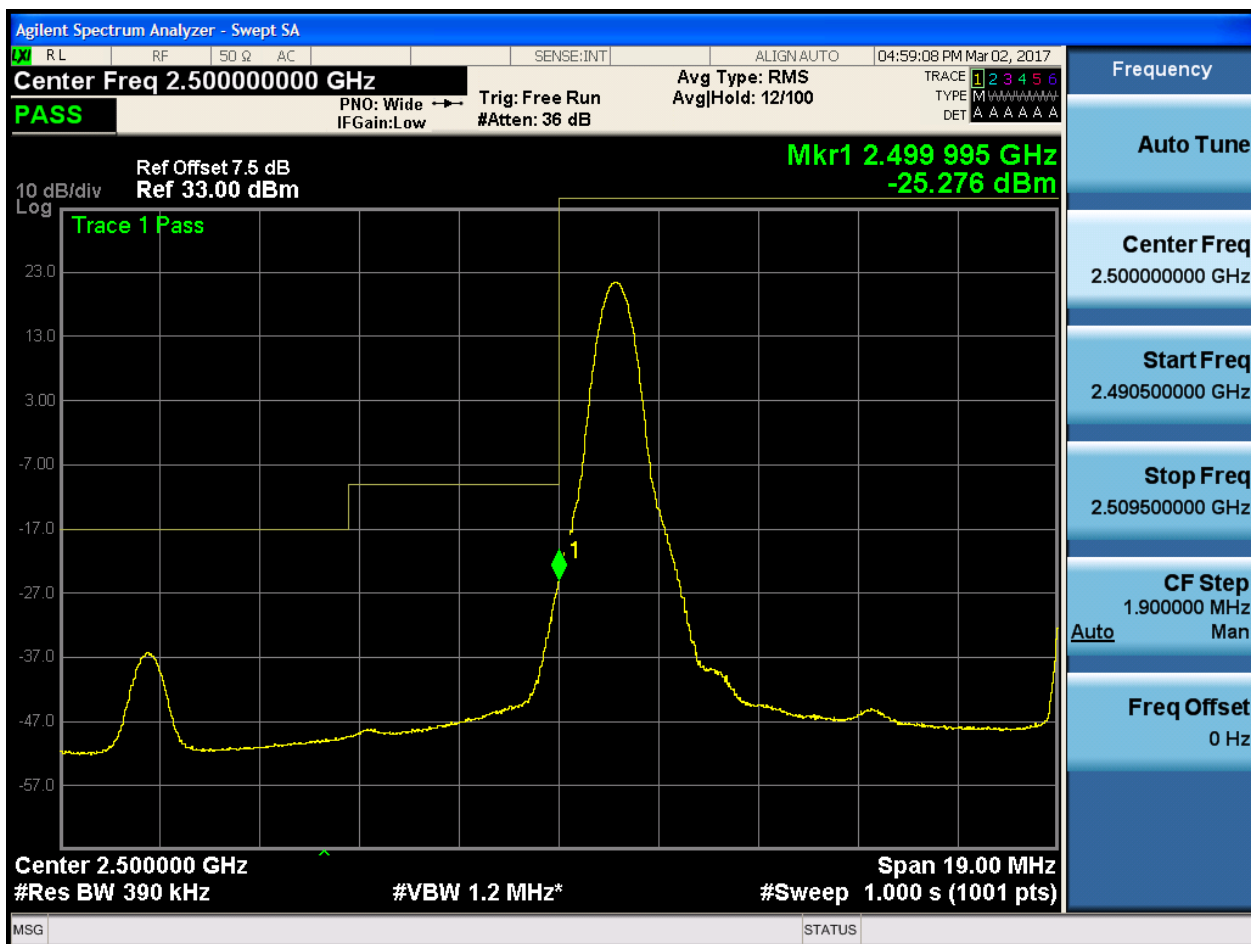




5.1.1.2.4 Test Bandwidth = 20

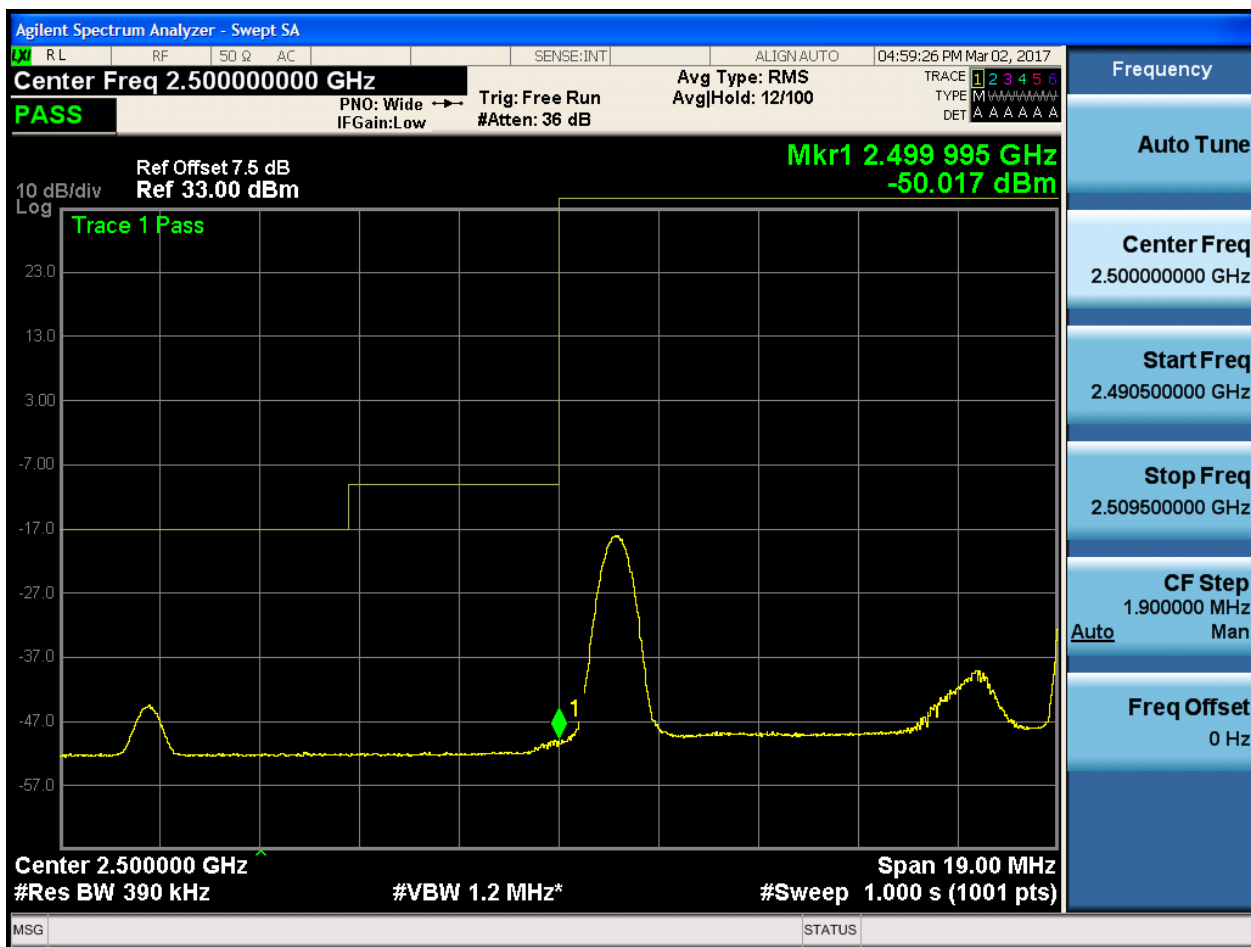
5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0



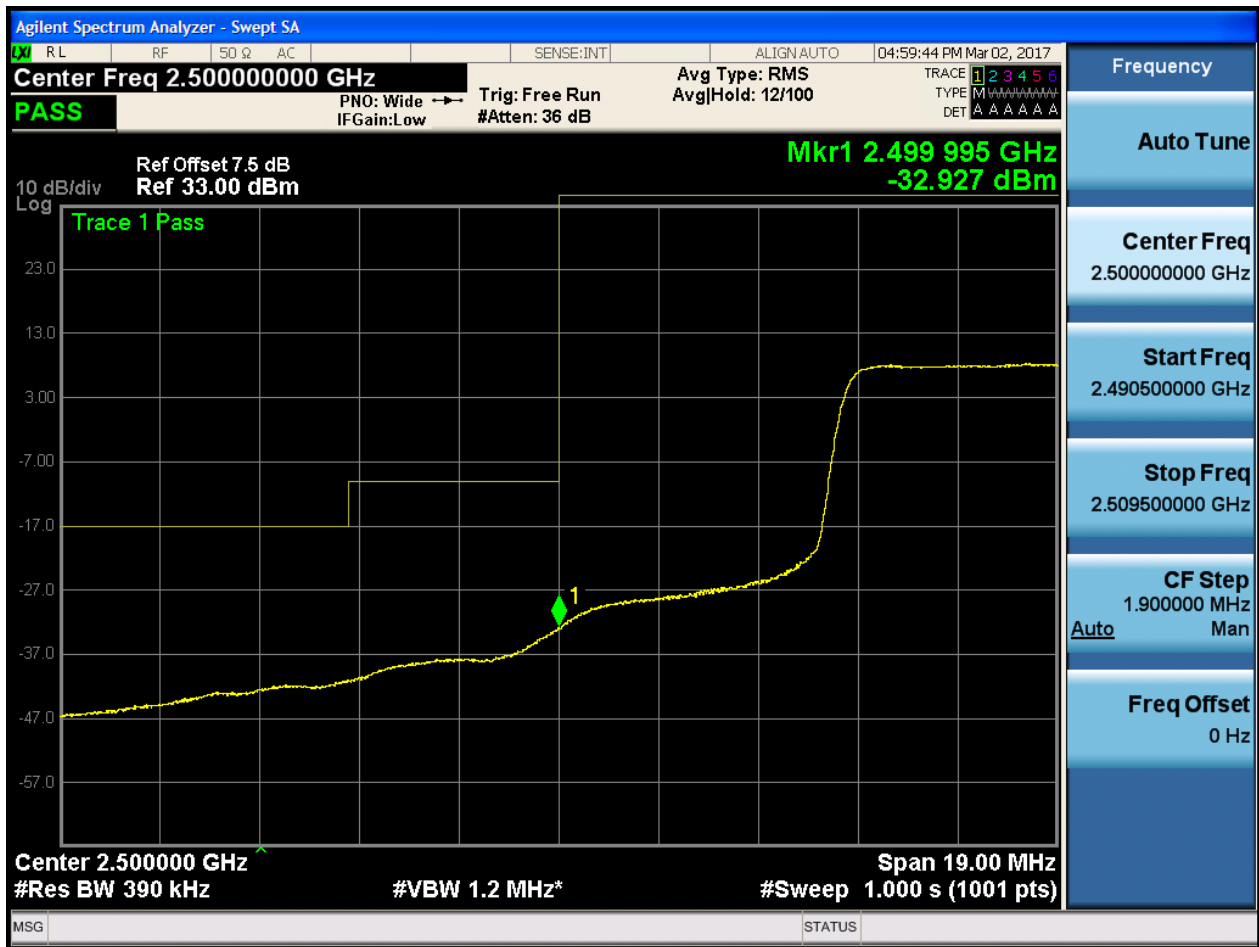


5.1.1.2.4.1.2 Test RB = RB1#99





5.1.1.2.4.1.3 Test RB = RB50#25





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 05:00:02 PM Mar 02, 2017

Center Freq 2.500000000 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
DET A A A A A A

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-30.628 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#Res BW 390 kHz #VBW 1.2 MHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

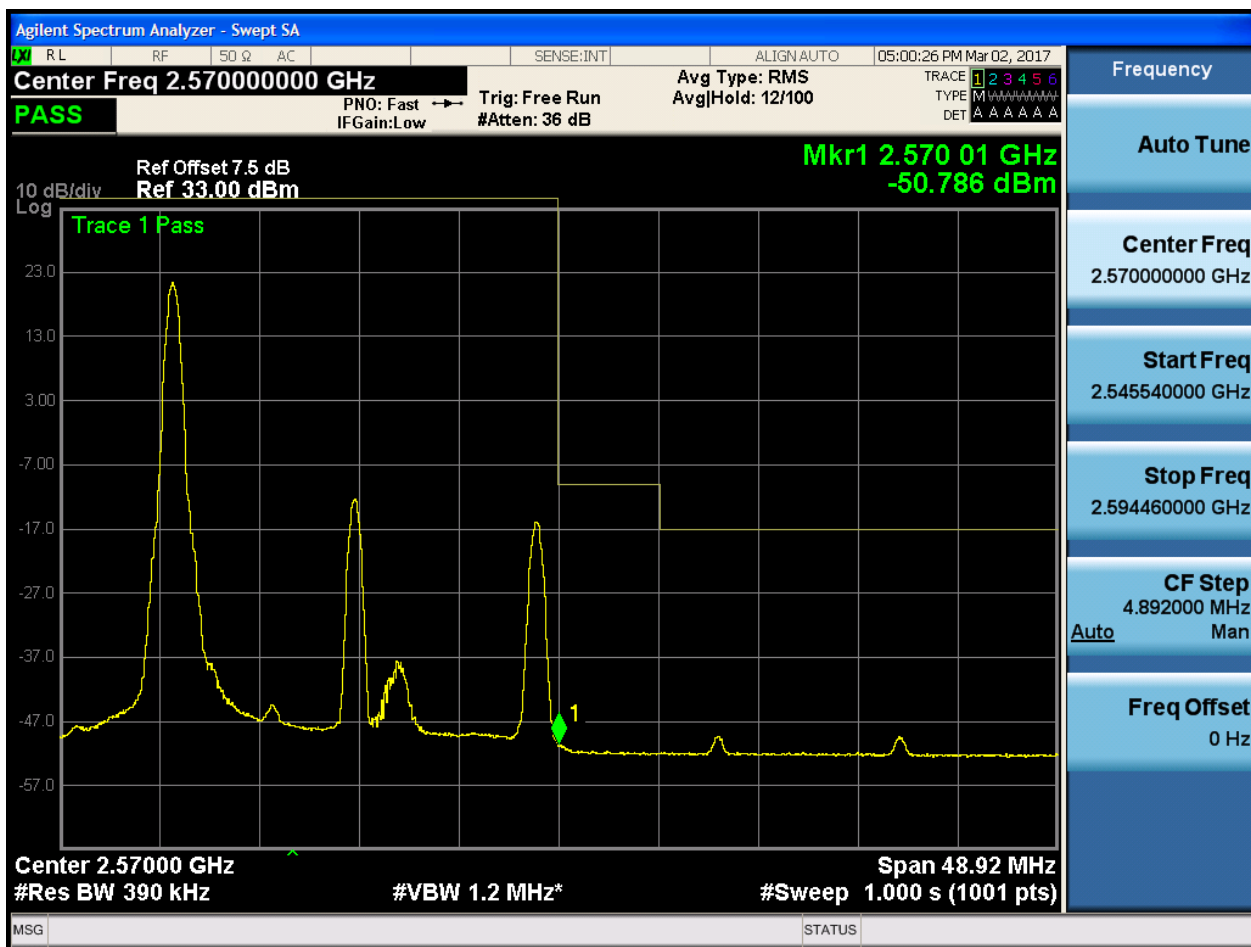
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



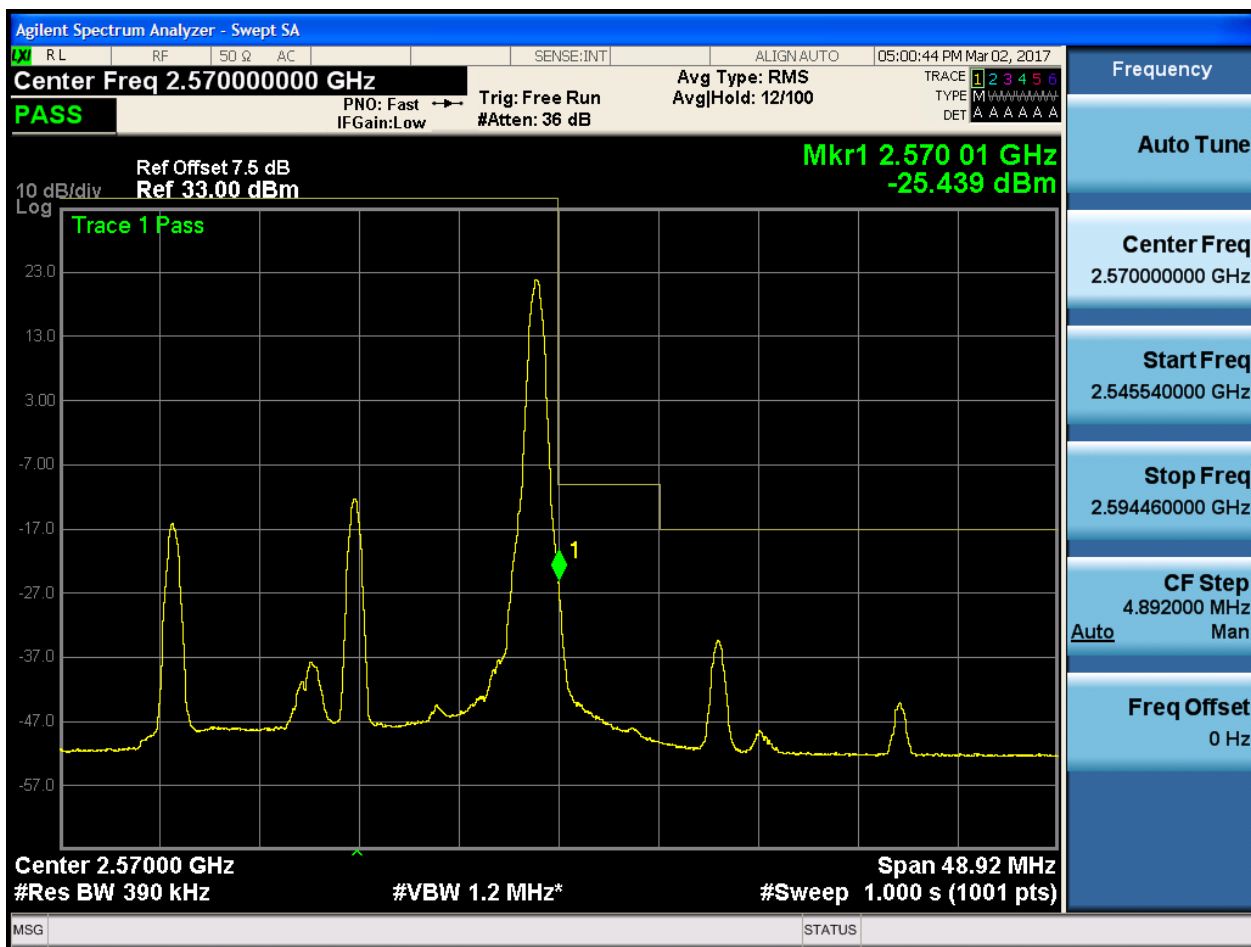
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



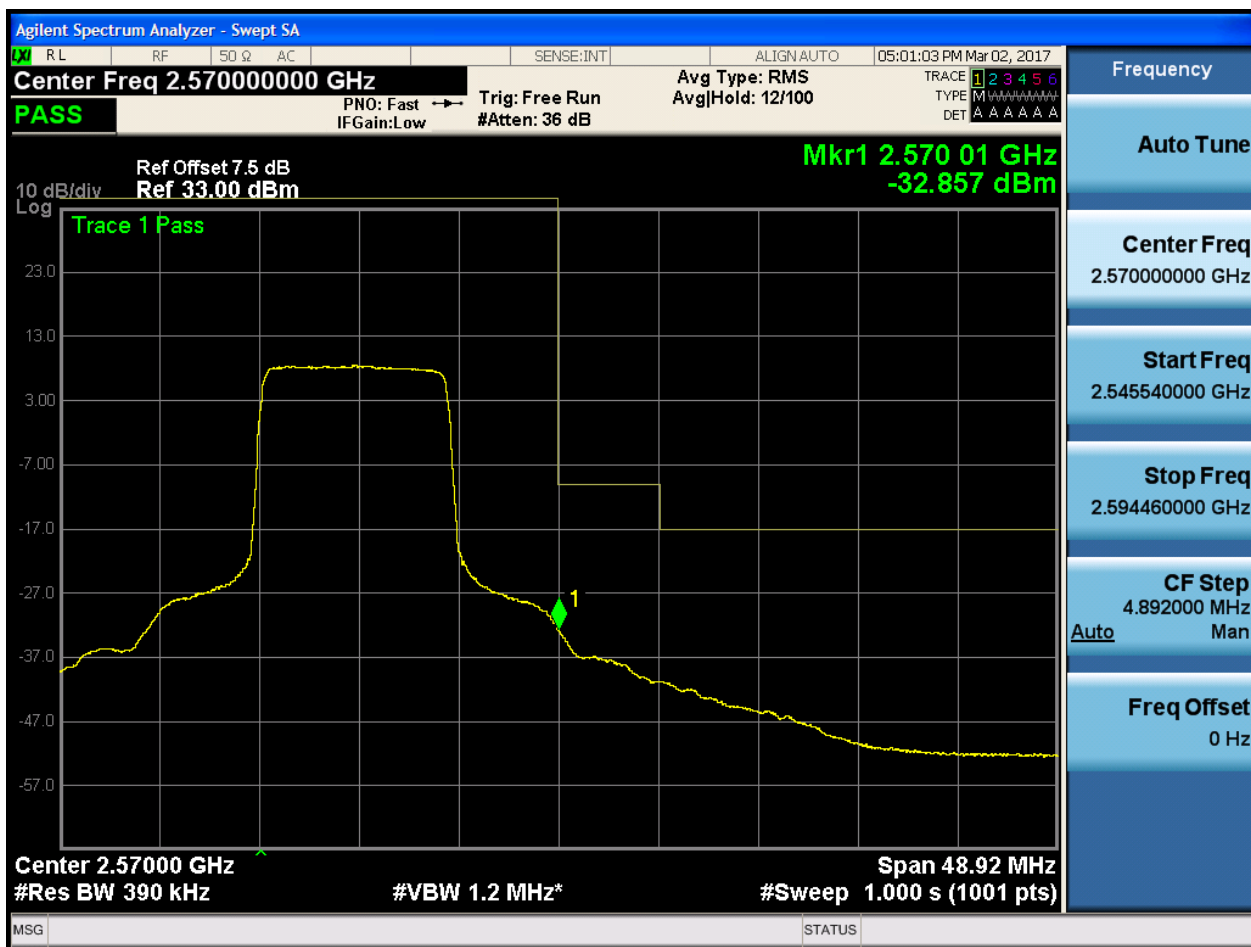


5.1.1.2.4.2.2 Test RB = RB1#99





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

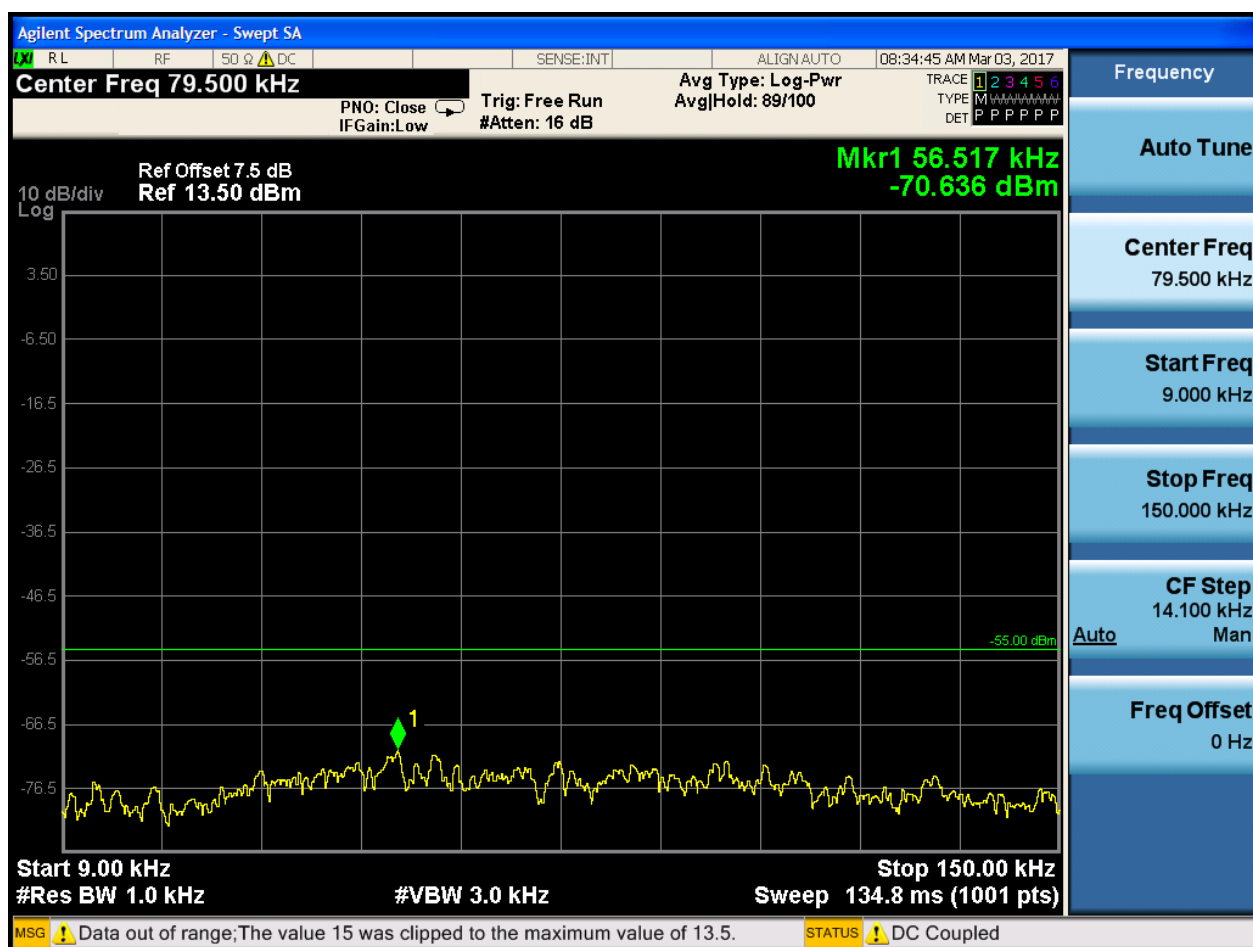
6.1.1 Test Band = BAND7

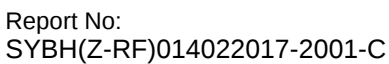
6.1.1.1. Test Mode = LTE/TM1

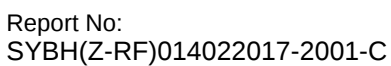
6.1.1.1.1 Test Bandwidth = 5

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

