



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	22.03	21.13	33	PASS
				RB1#13	22.25	21.35	33	PASS
				RB1#24	22.32	21.42	33	PASS
				RB12#0	21.31	20.41	33	PASS
				RB12#6	21.35	20.45	33	PASS
				RB12#13	21.21	20.31	33	PASS
				RB25#0	21.24	20.34	33	PASS
			MCH	RB1#0	22.08	21.18	33	PASS
				RB1#13	22.3	21.4	33	PASS
				RB1#24	22.33	21.43	33	PASS
				RB12#0	21.28	20.38	33	PASS
				RB12#6	21.3	20.4	33	PASS
				RB12#13	21.15	20.25	33	PASS
				RB25#0	21.25	20.35	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	21.76	20.86	33	PASS
				RB1#13	21.89	20.99	33	PASS
				RB1#24	22	21.1	33	PASS
				RB12#0	21.06	20.16	33	PASS
				RB12#6	21.11	20.21	33	PASS
				RB12#13	20.95	20.05	33	PASS
				RB25#0	21.1	20.2	33	PASS
		10	LCH	RB1#0	21.6	20.7	33	PASS
				RB1#25	22.39	21.49	33	PASS
				RB1#49	22.33	21.43	33	PASS
				RB25#0	20.96	20.06	33	PASS
				RB25#13	21.1	20.2	33	PASS
				RB25#25	21.4	20.5	33	PASS
				RB50#0	21.04	20.14	33	PASS
			MCH	RB1#0	21.59	20.69	33	PASS
				RB1#25	22.33	21.43	33	PASS
				RB1#49	22.38	21.48	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.9	20	33	PASS
				RB25#13	21.01	20.11	33	PASS
				RB25#25	21.3	20.4	33	PASS
				RB50#0	20.97	20.07	33	PASS
			HCH	RB1#0	21.28	20.38	33	PASS
				RB1#25	22.03	21.13	33	PASS
				RB1#49	22.04	21.14	33	PASS
				RB25#0	20.62	19.72	33	PASS
				RB25#13	20.63	19.73	33	PASS
				RB25#25	21.15	20.25	33	PASS
				RB50#0	20.82	19.92	33	PASS
		15	LCH	RB1#0	21.96	21.06	33	PASS
				RB1#38	22.31	21.41	33	PASS
				RB1#74	22.28	21.38	33	PASS
				RB36#0	21.12	20.22	33	PASS
				RB36#18	21.35	20.45	33	PASS
				RB36#39	21.07	20.17	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	21.18	20.28	33	PASS
			MCH	RB1#0	21.9	21	33	PASS
				RB1#38	22.09	21.19	33	PASS
				RB1#74	22.32	21.42	33	PASS
				RB36#0	20.97	20.07	33	PASS
				RB36#18	21.16	20.26	33	PASS
				RB36#39	21.02	20.12	33	PASS
				RB75#0	21.01	20.11	33	PASS
			HCH	RB1#0	21.75	20.85	33	PASS
				RB1#38	21.75	20.85	33	PASS
				RB1#74	21.99	21.09	33	PASS
				RB36#0	20.72	19.82	33	PASS
				RB36#18	20.78	19.88	33	PASS
				RB36#39	20.97	20.07	33	PASS
				RB75#0	20.91	20.01	33	PASS
		20	LCH	RB1#0	21.65	20.75	33	PASS
				RB1#50	21.85	20.95	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	22.02	21.12	33	PASS
				RB50#0	20.94	20.04	33	PASS
				RB50#25	20.82	19.92	33	PASS
				RB50#50	20.69	19.79	33	PASS
				RB100#0	20.99	20.09	33	PASS
			MCH	RB1#0	21.48	20.58	33	PASS
				RB1#50	21.8	20.9	33	PASS
				RB1#99	22.16	21.26	33	PASS
				RB50#0	20.91	20.01	33	PASS
				RB50#25	20.84	19.94	33	PASS
				RB50#50	20.7	19.8	33	PASS
				RB100#0	20.8	19.9	33	PASS
			HCH	RB1#0	21.64	20.74	33	PASS
				RB1#50	21.35	20.45	33	PASS
				RB1#99	21.89	20.99	33	PASS
				RB50#0	20.55	19.65	33	PASS
				RB50#25	20.46	19.56	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.62	19.72	33	PASS
				RB100#0	20.79	19.89	33	PASS
	LTE/TM2	5	LCH	RB1#0	21.16	20.26	33	PASS
				RB1#13	21.34	20.44	33	PASS
				RB1#24	21.51	20.61	33	PASS
				RB12#0	20.87	19.97	33	PASS
				RB12#6	20.91	20.01	33	PASS
				RB12#13	20.78	19.88	33	PASS
				RB25#0	20.82	19.92	33	PASS
			MCH	RB1#0	21.17	20.27	33	PASS
				RB1#13	21.38	20.48	33	PASS
				RB1#24	21.45	20.55	33	PASS
				RB12#0	20.77	19.87	33	PASS
				RB12#6	20.8	19.9	33	PASS
				RB12#13	20.67	19.77	33	PASS
				RB25#0	20.76	19.86	33	PASS
			HCH	RB1#0	20.93	20.03	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#13	21.21	20.31	33	PASS
				RB1#24	21.18	20.28	33	PASS
				RB12#0	20.56	19.66	33	PASS
				RB12#6	20.57	19.67	33	PASS
				RB12#13	20.52	19.62	33	PASS
				RB25#0	20.54	19.64	33	PASS
		10	LCH	RB1#0	20.81	19.91	33	PASS
				RB1#25	21.66	20.76	33	PASS
				RB1#49	21.67	20.77	33	PASS
				RB25#0	20.45	19.55	33	PASS
				RB25#13	20.59	19.69	33	PASS
				RB25#25	20.87	19.97	33	PASS
				RB50#0	20.51	19.61	33	PASS
			MCH	RB1#0	20.74	19.84	33	PASS
				RB1#25	21.51	20.61	33	PASS
				RB1#49	21.68	20.78	33	PASS
				RB25#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
				RB25#13	20.53	19.63	33	PASS
				RB25#25	20.78	19.88	33	PASS
				RB50#0	20.52	19.62	33	PASS
			HCH	RB1#0	20.49	19.59	33	PASS
				RB1#25	21.11	20.21	33	PASS
				RB1#49	21.21	20.31	33	PASS
				RB25#0	20.11	19.21	33	PASS
				RB25#13	20.17	19.27	33	PASS
				RB25#25	20.61	19.71	33	PASS
				RB50#0	20.33	19.43	33	PASS
		15	LCH	RB1#0	21.25	20.35	33	PASS
				RB1#38	21.53	20.63	33	PASS
				RB1#74	21.54	20.64	33	PASS
				RB36#0	20.65	19.75	33	PASS
				RB36#18	20.83	19.93	33	PASS
				RB36#39	20.59	19.69	33	PASS
				RB75#0	20.63	19.73	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			MCH	RB1#0	21.22	20.32	33	PASS
				RB1#38	21.47	20.57	33	PASS
				RB1#74	21.64	20.74	33	PASS
				RB36#0	20.47	19.57	33	PASS
				RB36#18	20.58	19.68	33	PASS
				RB36#39	20.47	19.57	33	PASS
				RB75#0	20.49	19.59	33	PASS
			HCH	RB1#0	21.08	20.18	33	PASS
				RB1#38	20.99	20.09	33	PASS
				RB1#74	21.31	20.41	33	PASS
				RB36#0	20.24	19.34	33	PASS
				RB36#18	20.25	19.35	33	PASS
				RB36#39	20.43	19.53	33	PASS
				RB75#0	20.4	19.5	33	PASS
		20	LCH	RB1#0	21.19	20.29	33	PASS
				RB1#50	21.56	20.66	33	PASS
				RB1#99	21.59	20.69	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#0	20.47	19.57	33	PASS
				RB50#25	20.39	19.49	33	PASS
				RB50#50	20.27	19.37	33	PASS
				RB100#0	20.53	19.63	33	PASS
			MCH	RB1#0	20.93	20.03	33	PASS
				RB1#50	21.25	20.35	33	PASS
				RB1#99	21.62	20.72	33	PASS
				RB50#0	20.37	19.47	33	PASS
				RB50#25	20.37	19.47	33	PASS
				RB50#50	20.23	19.33	33	PASS
				RB100#0	20.24	19.34	33	PASS
			HCH	RB1#0	21.08	20.18	33	PASS
				RB1#50	20.69	19.79	33	PASS
				RB1#99	21.25	20.35	33	PASS
				RB50#0	20.13	19.23	33	PASS
				RB50#25	19.99	19.09	33	PASS
				RB50#50	20.09	19.19	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB100#0	20.28	19.38	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
BAND7	LTE/TM1	5	LCH	RB1#0	3.69	13	PASS
				RB1#13	3.54	13	PASS
				RB1#24	3.41	13	PASS
				RB12#0	4.68	13	PASS
				RB12#6	4.57	13	PASS
				RB12#13	4.8	13	PASS
				RB25#0	5.17	13	PASS
			MCH	RB1#0	4.25	13	PASS
				RB1#13	4.17	13	PASS
				RB1#24	4.01	13	PASS
				RB12#0	5.16	13	PASS
				RB12#6	5.27	13	PASS
				RB12#13	5.25	13	PASS
				RB25#0	5.55	13	PASS
			HCH	RB1#0	3.89	13	PASS
				RB1#13	3.71	13	PASS
				RB1#24	3.57	13	PASS
				RB12#0	5.04	13	PASS
				RB12#6	4.91	13	PASS
				RB12#13	4.99	13	PASS
				RB25#0	5.57	13	PASS
		10	LCH	RB1#0	3.85	13	PASS
				RB1#25	3.36	13	PASS
				RB1#49	3.36	13	PASS
				RB25#0	4.97	13	PASS
				RB25#13	4.81	13	PASS
				RB25#25	4.81	13	PASS
				RB50#0	5.69	13	PASS
			MCH	RB1#0	4.59	13	PASS
				RB1#25	4.05	13	PASS
				RB1#49	4.11	13	PASS
				RB25#0	5.55	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#13	5.52	13	PASS
				RB25#25	5.48	13	PASS
				RB50#0	6	13	PASS
			HCH	RB1#0	4.2	13	PASS
				RB1#25	3.69	13	PASS
				RB1#49	3.66	13	PASS
				RB25#0	5.38	13	PASS
				RB25#13	5.25	13	PASS
				RB25#25	4.99	13	PASS
				RB50#0	5.61	13	PASS
		15	LCH	RB1#0	3.68	13	PASS
				RB1#38	3.55	13	PASS
				RB1#74	3.55	13	PASS
				RB36#0	5.01	13	PASS
				RB36#18	4.78	13	PASS
				RB36#39	5	13	PASS
				RB75#0	5.66	13	PASS
			MCH	RB1#0	4.16	13	PASS
				RB1#38	4.16	13	PASS
				RB1#74	4.06	13	PASS
				RB36#0	5.54	13	PASS
				RB36#18	5.53	13	PASS
				RB36#39	5.45	13	PASS
				RB75#0	6.05	13	PASS
			HCH	RB1#0	4.18	13	PASS
				RB1#38	4.13	13	PASS
				RB1#74	3.89	13	PASS
				RB36#0	5.46	13	PASS
				RB36#18	5.37	13	PASS
				RB36#39	5.28	13	PASS
				RB75#0	5.7	13	PASS
		20	LCH	RB1#0	3.97	13	PASS
				RB1#50	3.8	13	PASS
				RB1#99	3.8	13	PASS
				RB50#0	5.1	13	PASS
				RB50#25	5.07	13	PASS
				RB50#50	5.13	13	PASS
				RB100#0	5.6	13	PASS
			MCH	RB1#0	4.41	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#50	4.48	13	PASS
				RB1#99	4.13	13	PASS
				RB50#0	5.62	13	PASS
				RB50#25	5.72	13	PASS
				RB50#50	5.72	13	PASS
				RB100#0	6.14	13	PASS
			HCH	RB1#0	4.27	13	PASS
				RB1#50	4.24	13	PASS
				RB1#99	3.97	13	PASS
				RB50#0	5.44	13	PASS
				RB50#25	5.43	13	PASS
				RB50#50	5.35	13	PASS
				RB100#0	5.76	13	PASS
	LTE/TM2	5	LCH	RB1#0	4.7	13	PASS
				RB1#13	4.78	13	PASS
				RB1#24	4.62	13	PASS
				RB12#0	5.23	13	PASS
				RB12#6	5.06	13	PASS
				RB12#13	5.39	13	PASS
				RB25#0	5.85	13	PASS
			MCH	RB1#0	5.06	13	PASS
				RB1#13	5.14	13	PASS
				RB1#24	5.36	13	PASS
				RB12#0	5.81	13	PASS
				RB12#6	5.82	13	PASS
				RB12#13	5.86	13	PASS
				RB25#0	6.33	13	PASS
		10	HCH	RB1#0	4.67	13	PASS
				RB1#13	4.7	13	PASS
				RB1#24	4.46	13	PASS
				RB12#0	5.45	13	PASS
				RB12#6	5.33	13	PASS
				RB12#13	5.5	13	PASS
				RB25#0	6.03	13	PASS
			LCH	RB1#0	4.87	13	PASS
				RB1#25	4.3	13	PASS
				RB1#49	4.18	13	PASS
				RB25#0	5.48	13	PASS
				RB25#13	5.34	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#25	5.37	13	PASS
				RB50#0	5.95	13	PASS
			MCH	RB1#0	5.38	13	PASS
				RB1#25	4.91	13	PASS
				RB1#49	5.01	13	PASS
				RB25#0	6.16	13	PASS
				RB25#13	6.1	13	PASS
				RB25#25	5.88	13	PASS
				RB50#0	6.65	13	PASS
			HCH	RB1#0	5.35	13	PASS
				RB1#25	4.75	13	PASS
				RB1#49	4.9	13	PASS
				RB25#0	5.83	13	PASS
				RB25#13	5.82	13	PASS
				RB25#25	5.43	13	PASS
				RB50#0	6.16	13	PASS
		15	LCH	RB1#0	4.76	13	PASS
				RB1#38	4.44	13	PASS
				RB1#74	4.37	13	PASS
				RB36#0	5.44	13	PASS
				RB36#18	5.25	13	PASS
				RB36#39	5.53	13	PASS
				RB75#0	6.26	13	PASS
			MCH	RB1#0	5.2	13	PASS
				RB1#38	5.16	13	PASS
				RB1#74	4.98	13	PASS
				RB36#0	6.14	13	PASS
				RB36#18	6.1	13	PASS
				RB36#39	6.21	13	PASS
				RB75#0	6.67	13	PASS
			HCH	RB1#0	5.25	13	PASS
				RB1#38	5.05	13	PASS
				RB1#74	4.8	13	PASS
				RB36#0	5.93	13	PASS
				RB36#18	5.82	13	PASS
				RB36#39	5.8	13	PASS
				RB75#0	6.41	13	PASS
		20	LCH	RB1#0	4.88	13	PASS
				RB1#50	4.5	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#99	4.61	13	PASS
				RB50#0	5.84	13	PASS
				RB50#25	5.71	13	PASS
				RB50#50	5.84	13	PASS
				RB100#0	6.2	13	PASS
			MCH	RB1#0	5.12	13	PASS
				RB1#50	5.09	13	PASS
				RB1#99	5.04	13	PASS
				RB50#0	6.19	13	PASS
				RB50#25	6.17	13	PASS
				RB50#50	6.38	13	PASS
				RB100#0	6.62	13	PASS
			HCH	RB1#0	4.97	13	PASS
				RB1#50	5.25	13	PASS
				RB1#99	4.53	13	PASS
				RB50#0	5.96	13	PASS
				RB50#25	6.05	13	PASS
				RB50#50	6.05	13	PASS
				RB100#0	6.44	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

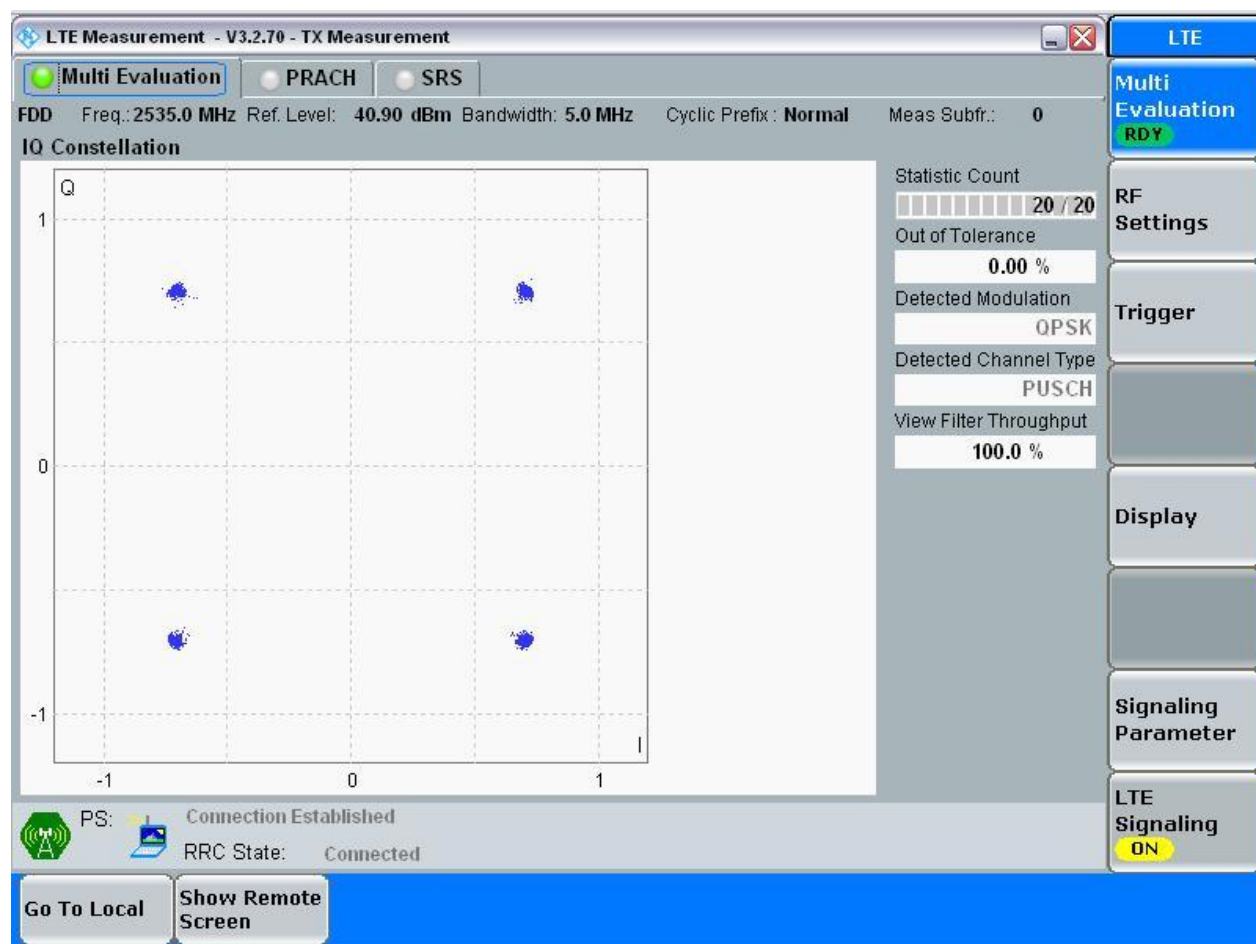
3.1.1 Test Band = BAND7

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

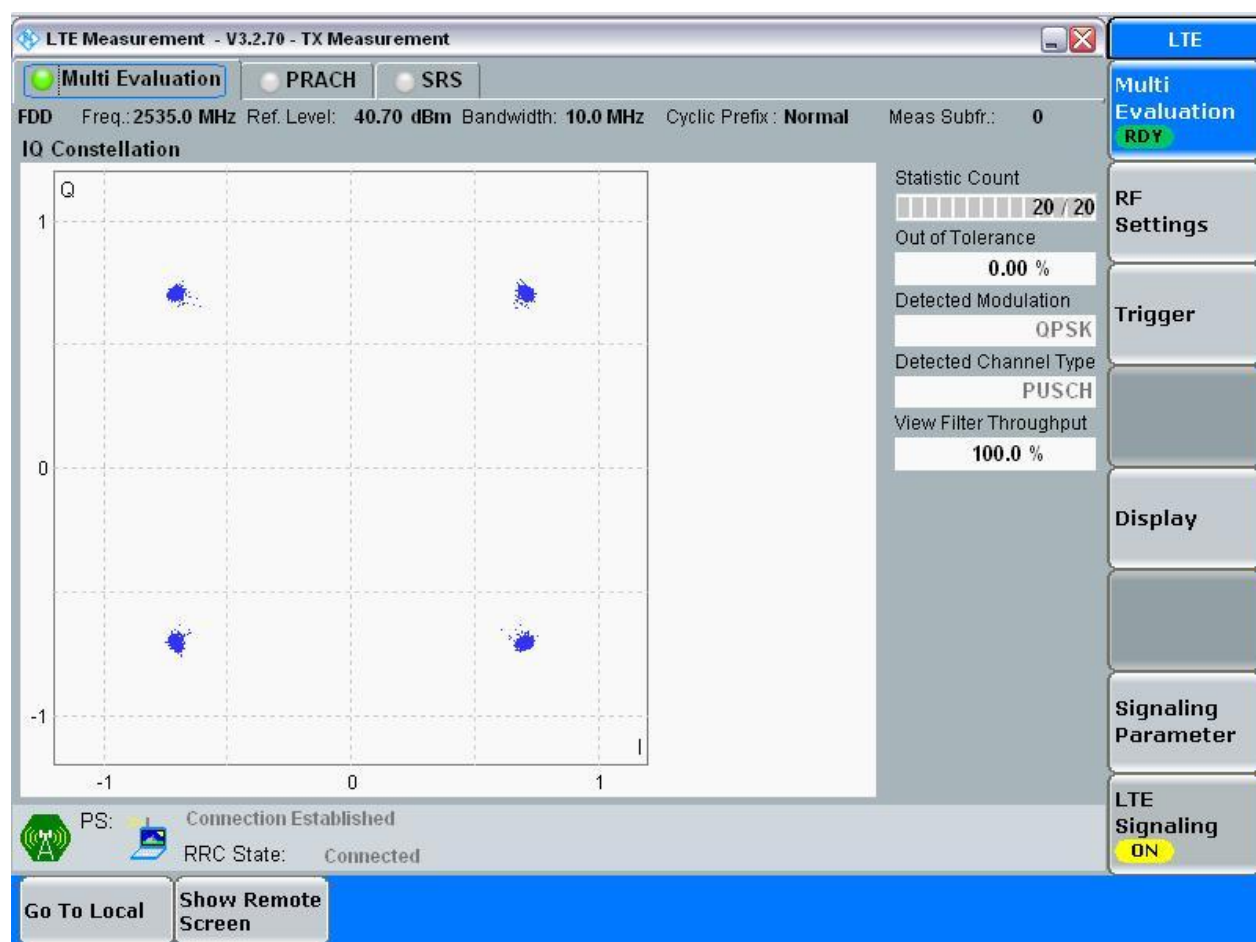
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

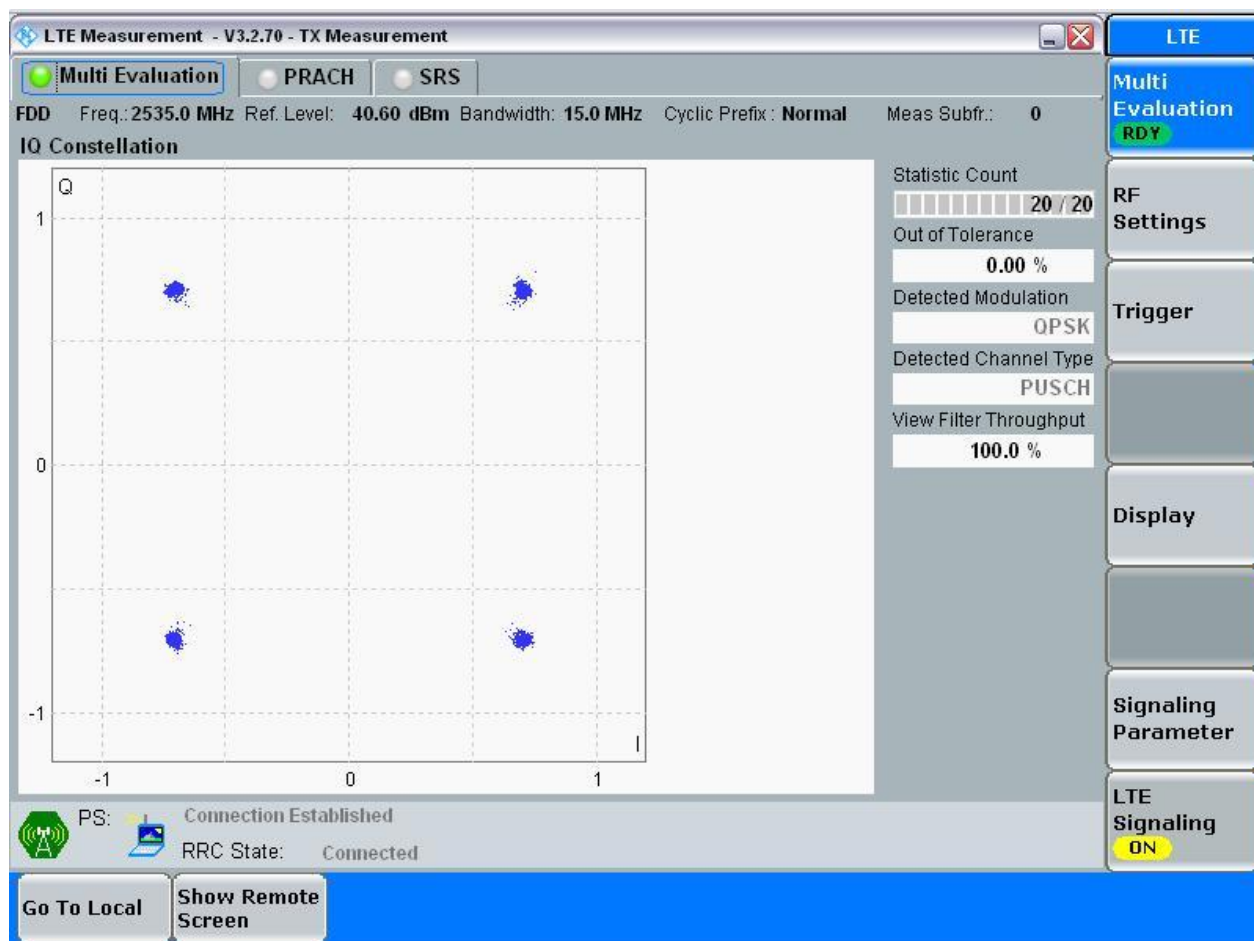
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

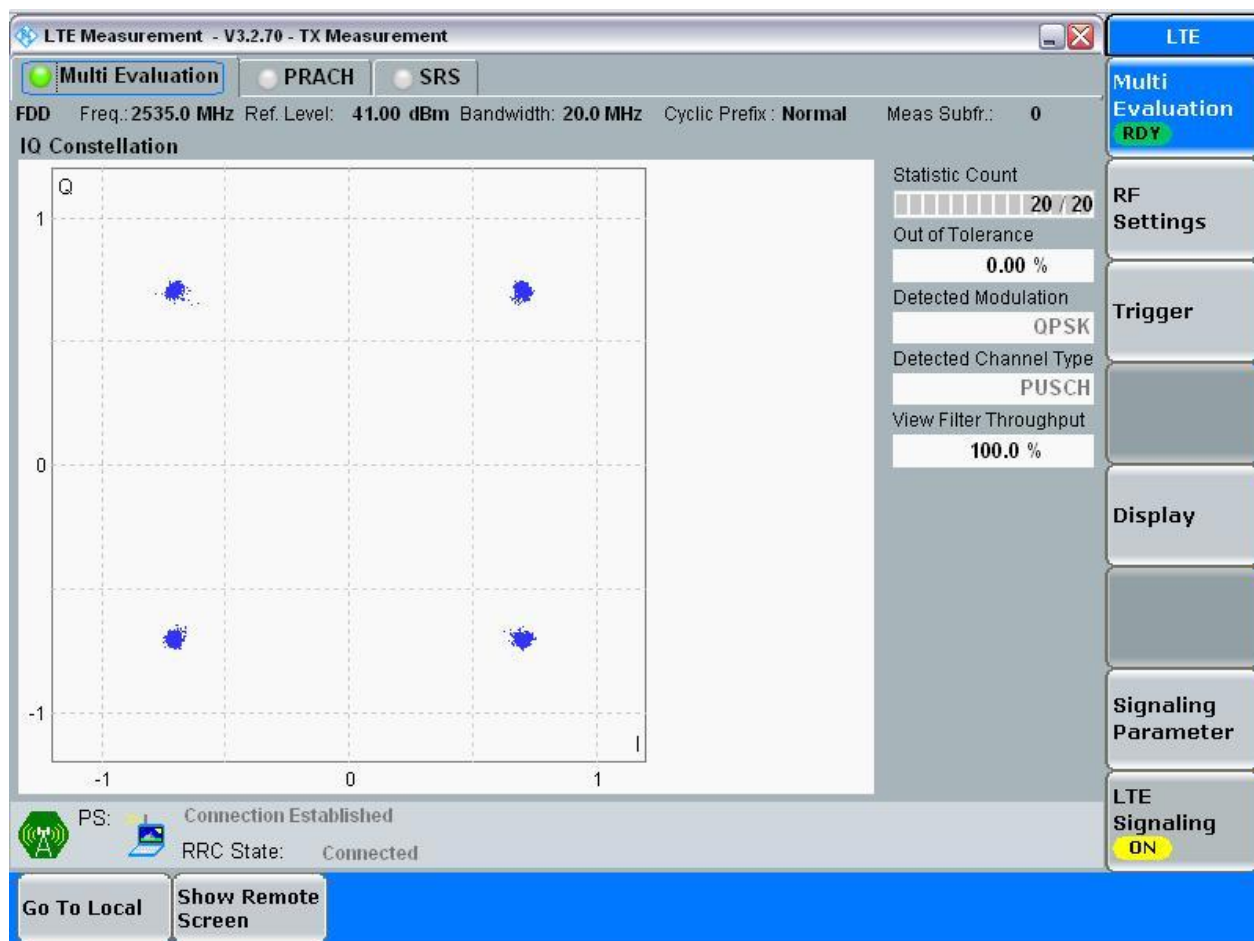
3.1.1.1.3.1.1 Test RB = RB75#0



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

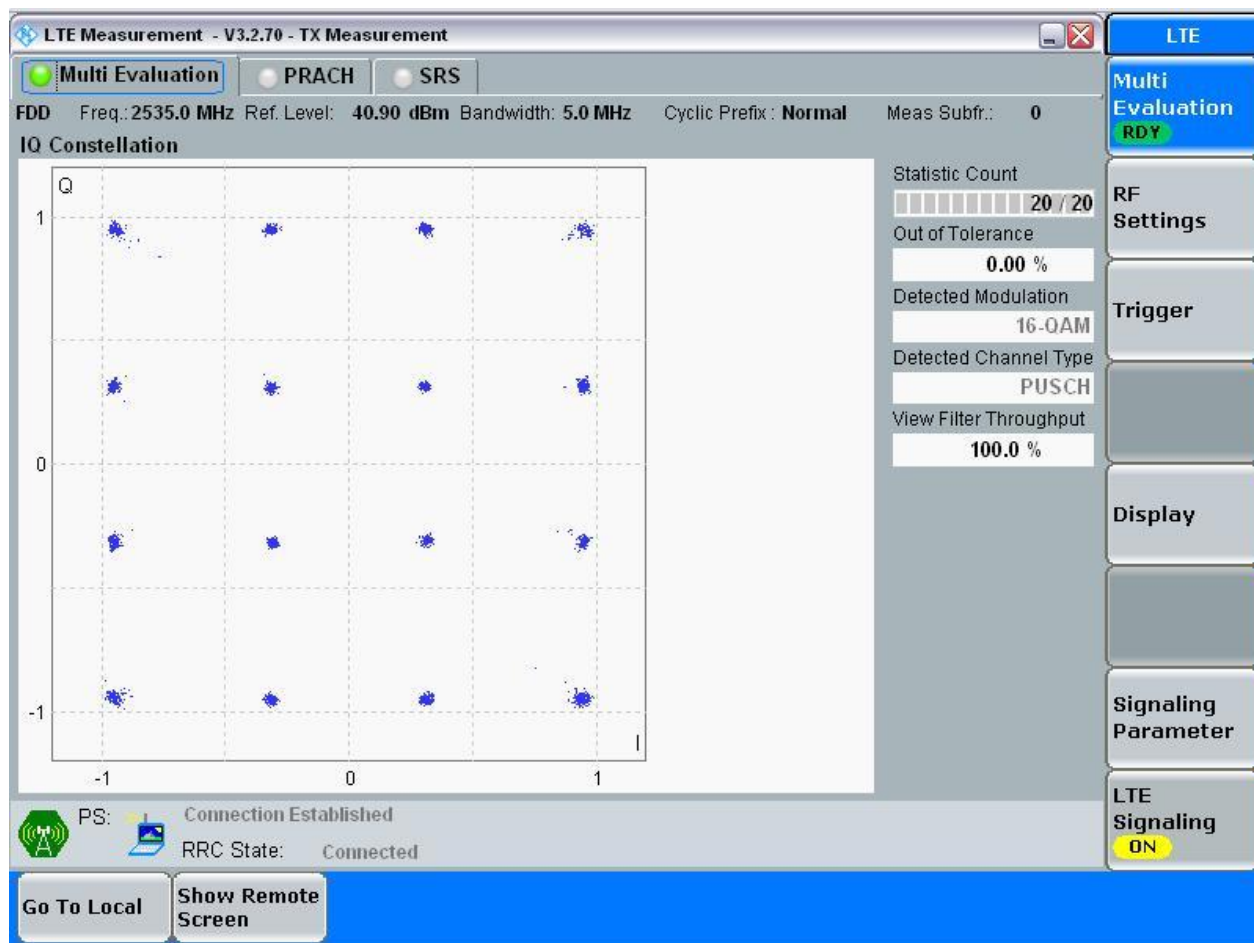


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

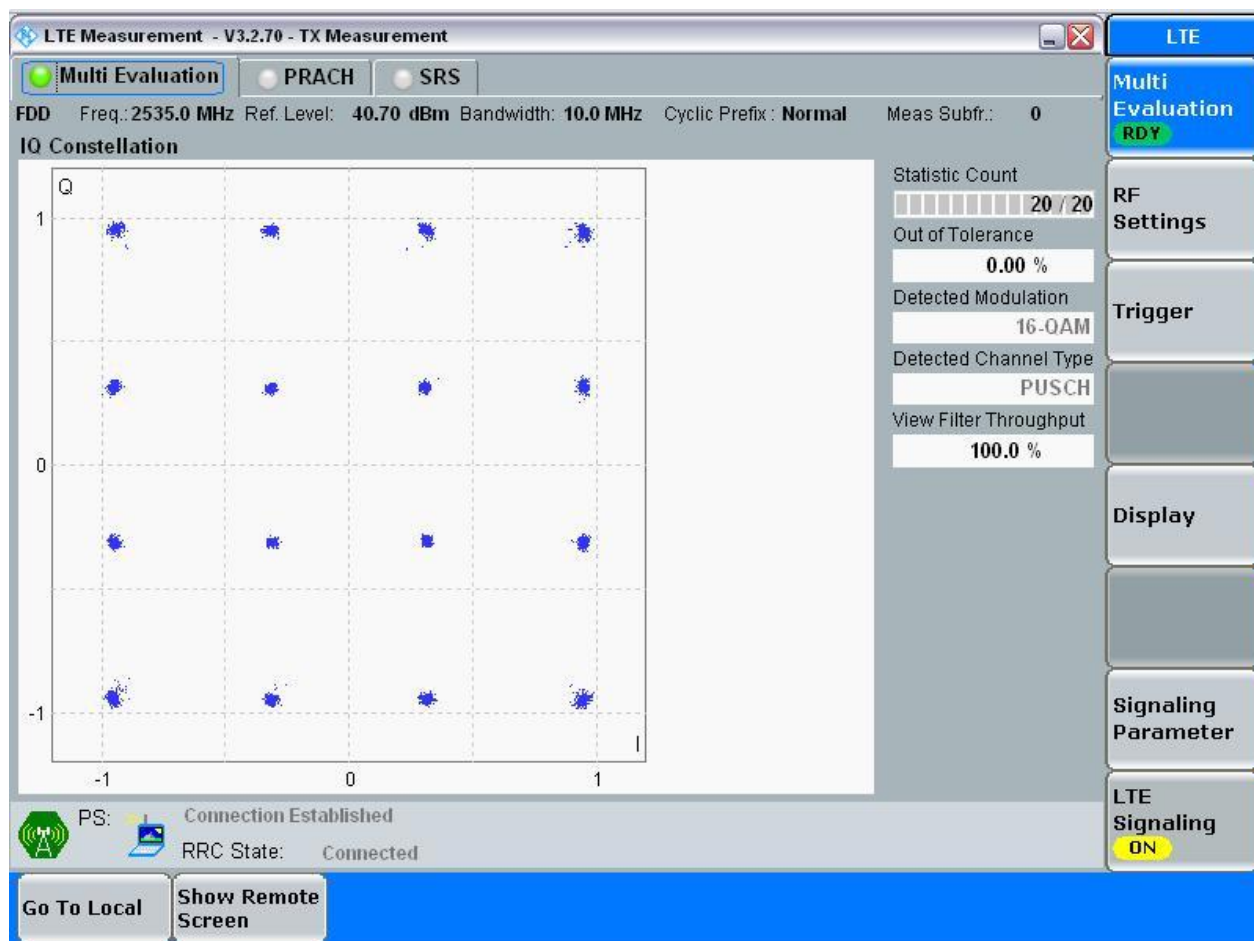
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

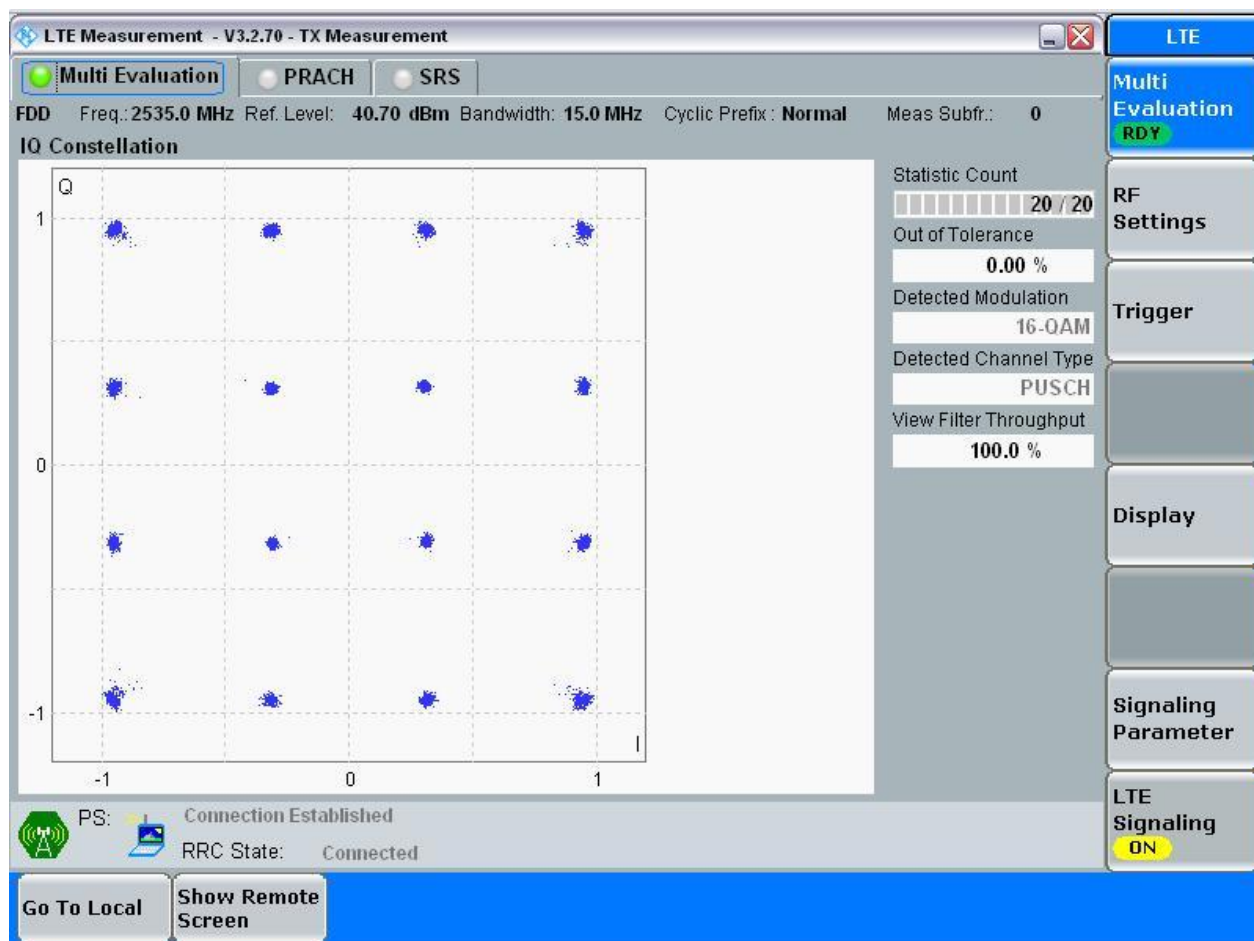
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

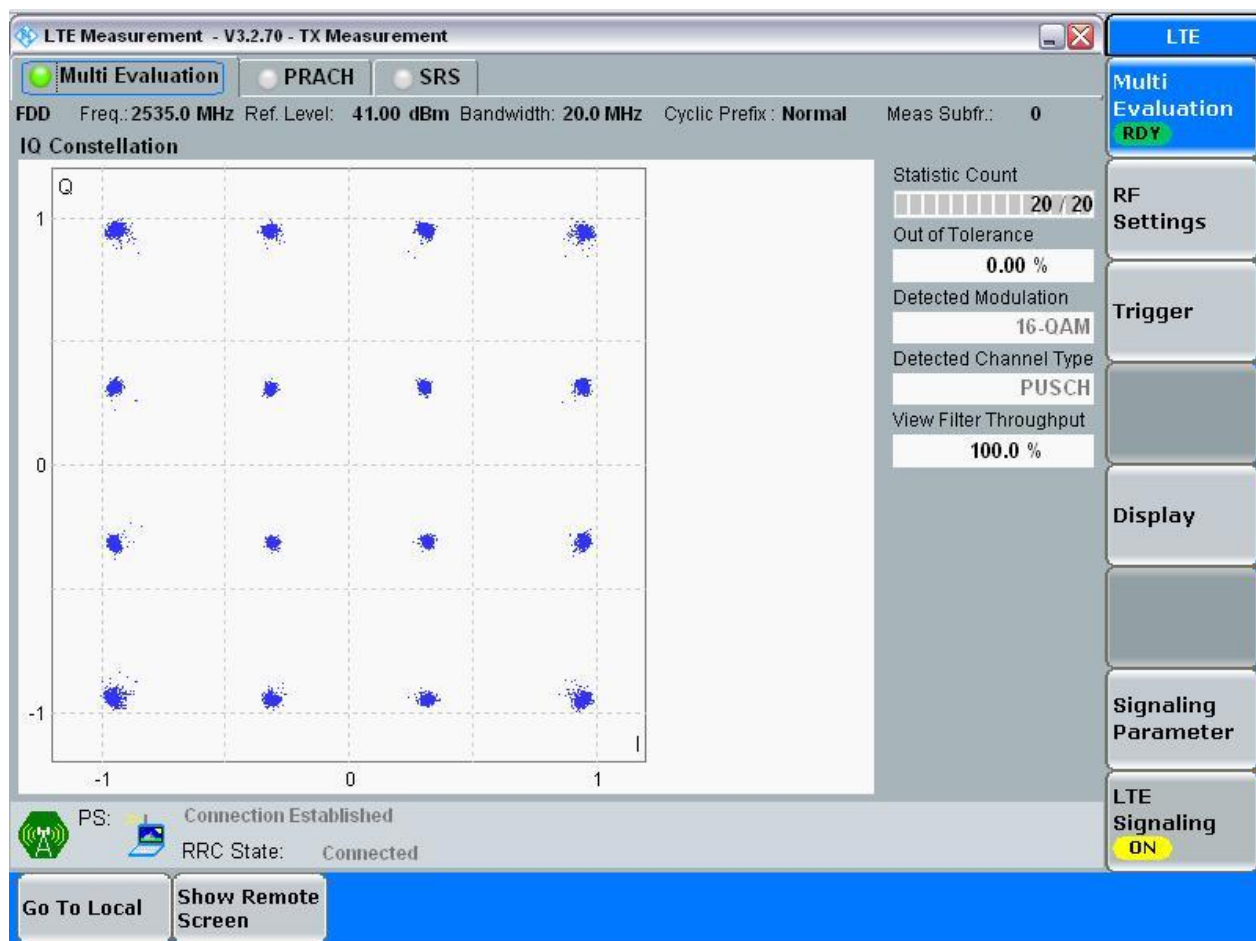
3.1.1.2.3.1.1 Test RB = RB75#0



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	4.99	Pass
			MCH	RB25#0	4.53	4.96	Pass
			HCH	RB25#0	4.51	4.96	Pass
		10	LCH	RB50#0	9.00	9.98	Pass
			MCH	RB50#0	9.00	9.90	Pass
			HCH	RB50#0	9.01	9.92	Pass
		15	LCH	RB75#0	13.47	15.04	Pass
			MCH	RB75#0	13.51	15.07	Pass
			HCH	RB75#0	13.53	14.99	Pass
		20	LCH	RB100#0	18.00	19.82	Pass
			MCH	RB100#0	18.01	19.90	Pass
			HCH	RB100#0	17.96	19.75	Pass
	LTE/TM2	5	LCH	RB25#0	4.53	4.99	Pass
			MCH	RB25#0	4.53	5.01	Pass
			HCH	RB25#0	4.53	4.98	Pass
		10	LCH	RB50#0	9.03	9.99	Pass
			MCH	RB50#0	9.01	9.93	Pass
			HCH	RB50#0	8.99	9.93	Pass
		15	LCH	RB75#0	13.48	15.01	Pass
			MCH	RB75#0	13.49	14.99	Pass
			HCH	RB75#0	13.49	15.01	Pass
		20	LCH	RB100#0	18.05	19.84	Pass
			MCH	RB100#0	18.00	19.87	Pass
			HCH	RB100#0	17.94	19.78	Pass



Part II - Test Plots

4.1 For LTE

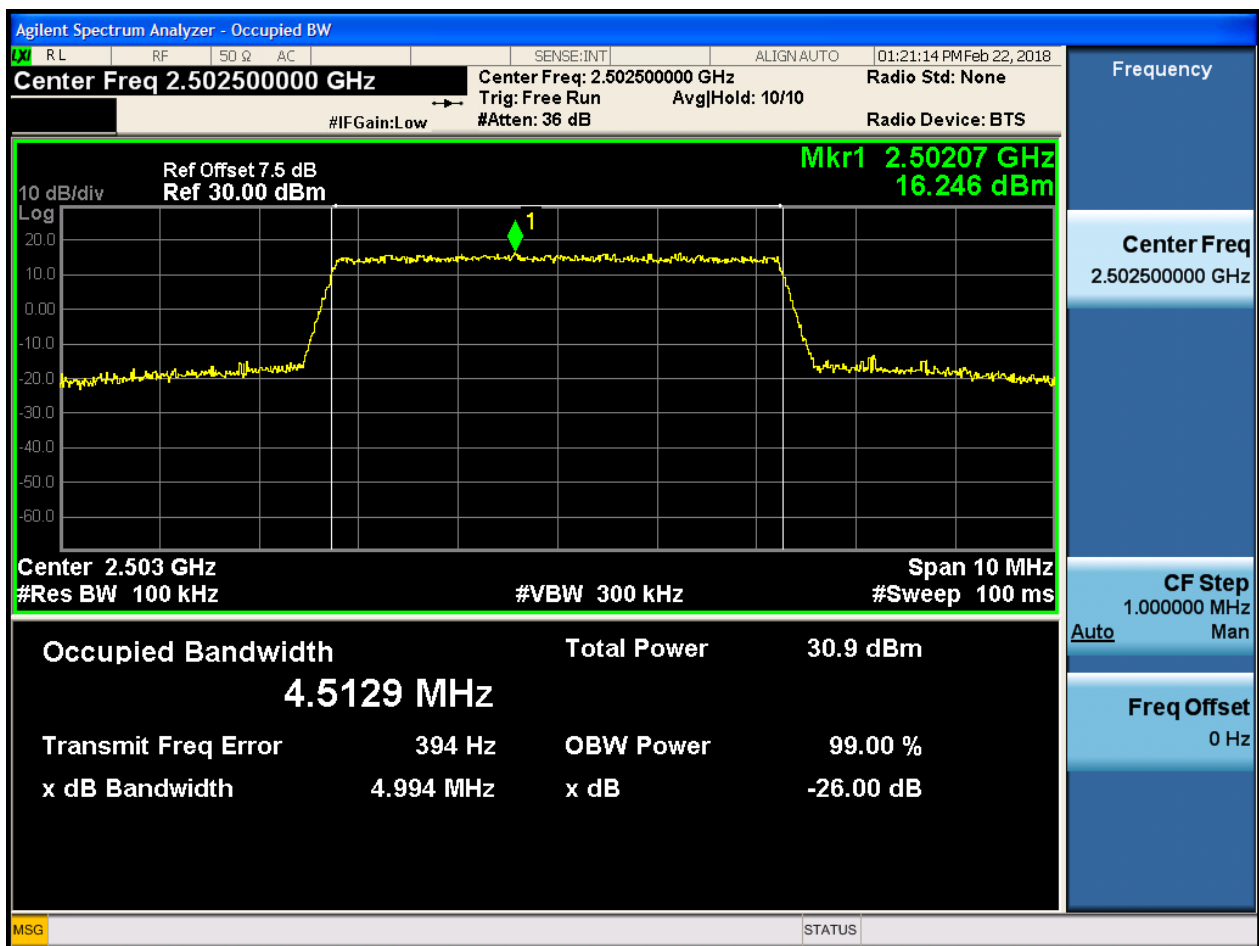
4.1.1 Test Band = BAND7

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

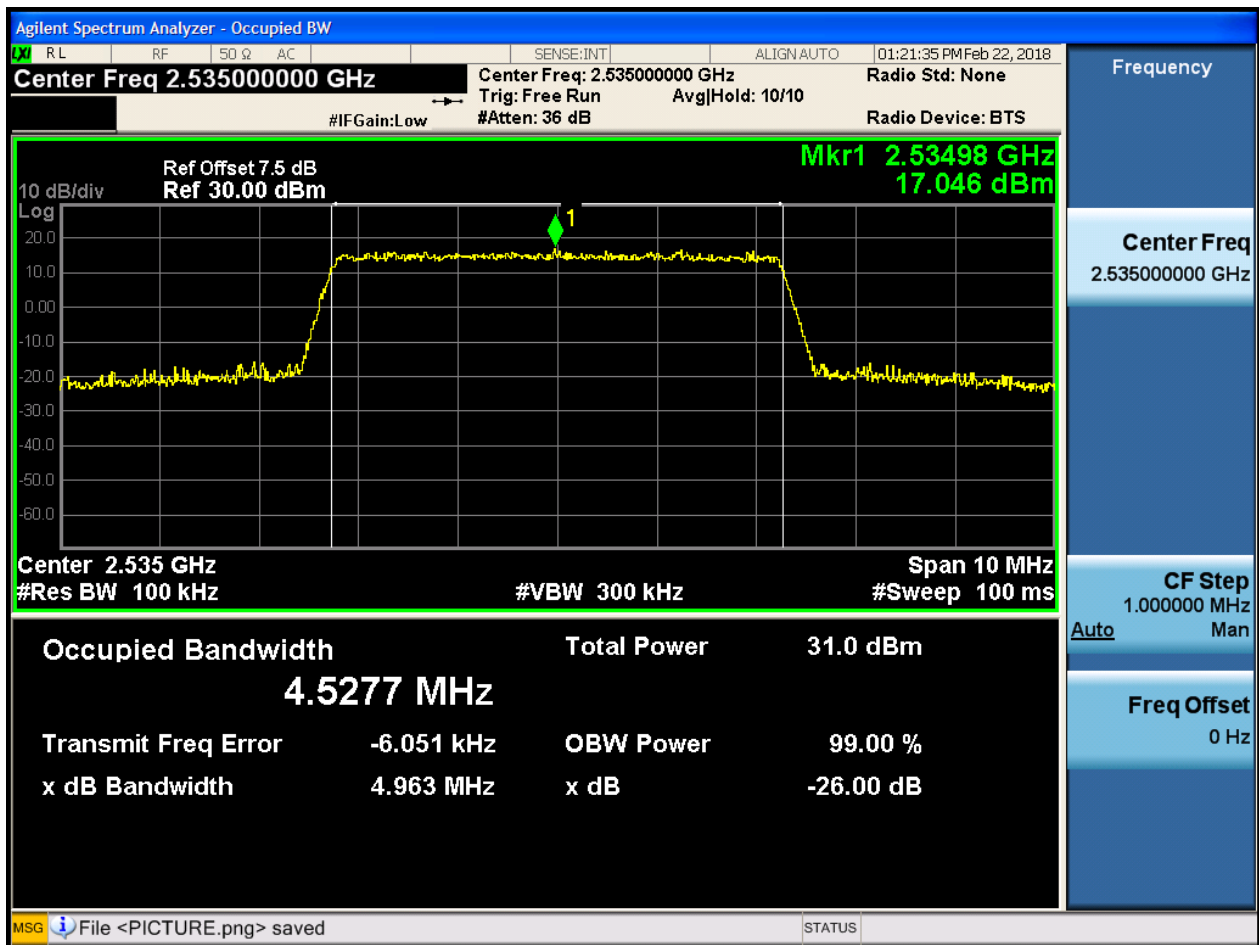
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

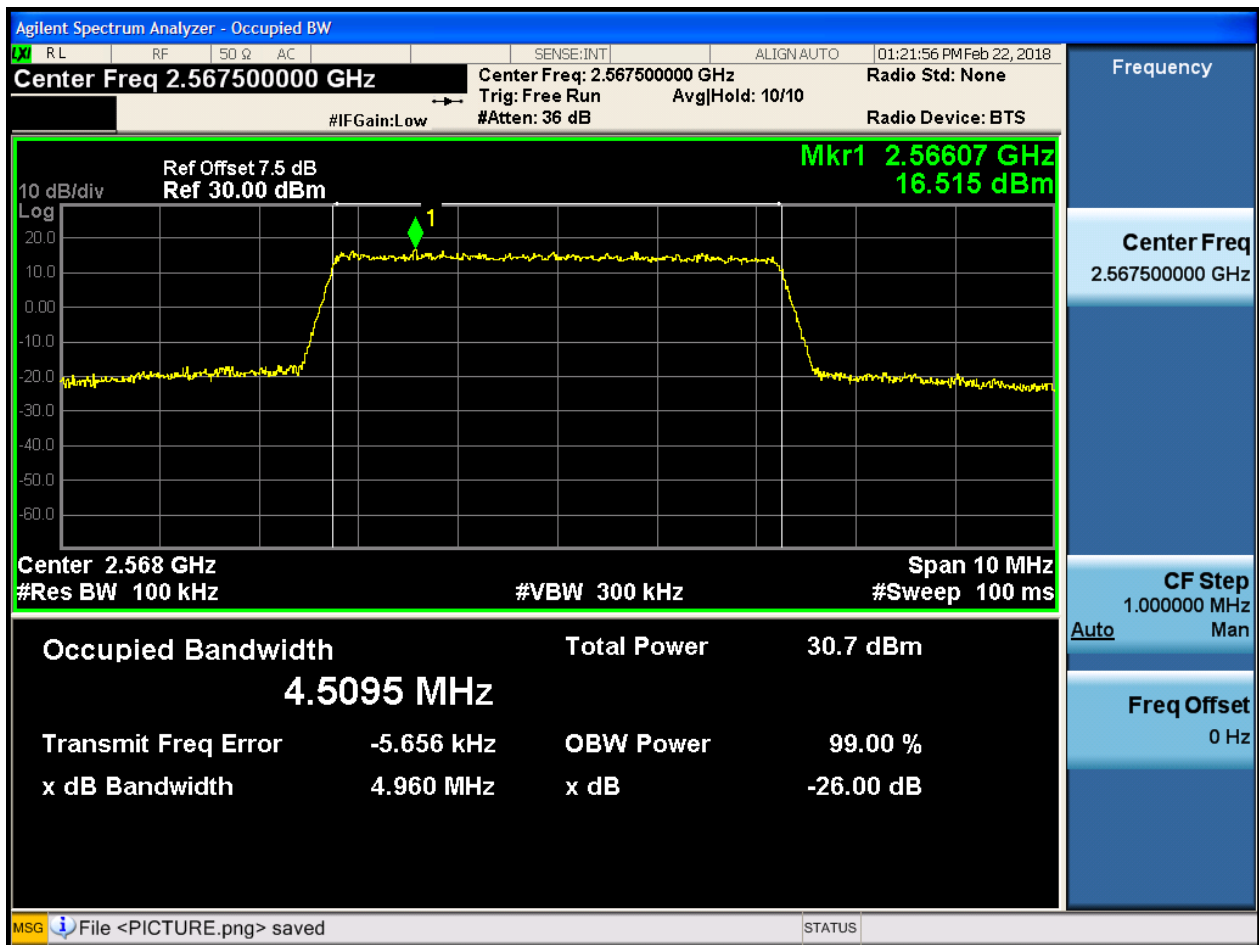
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

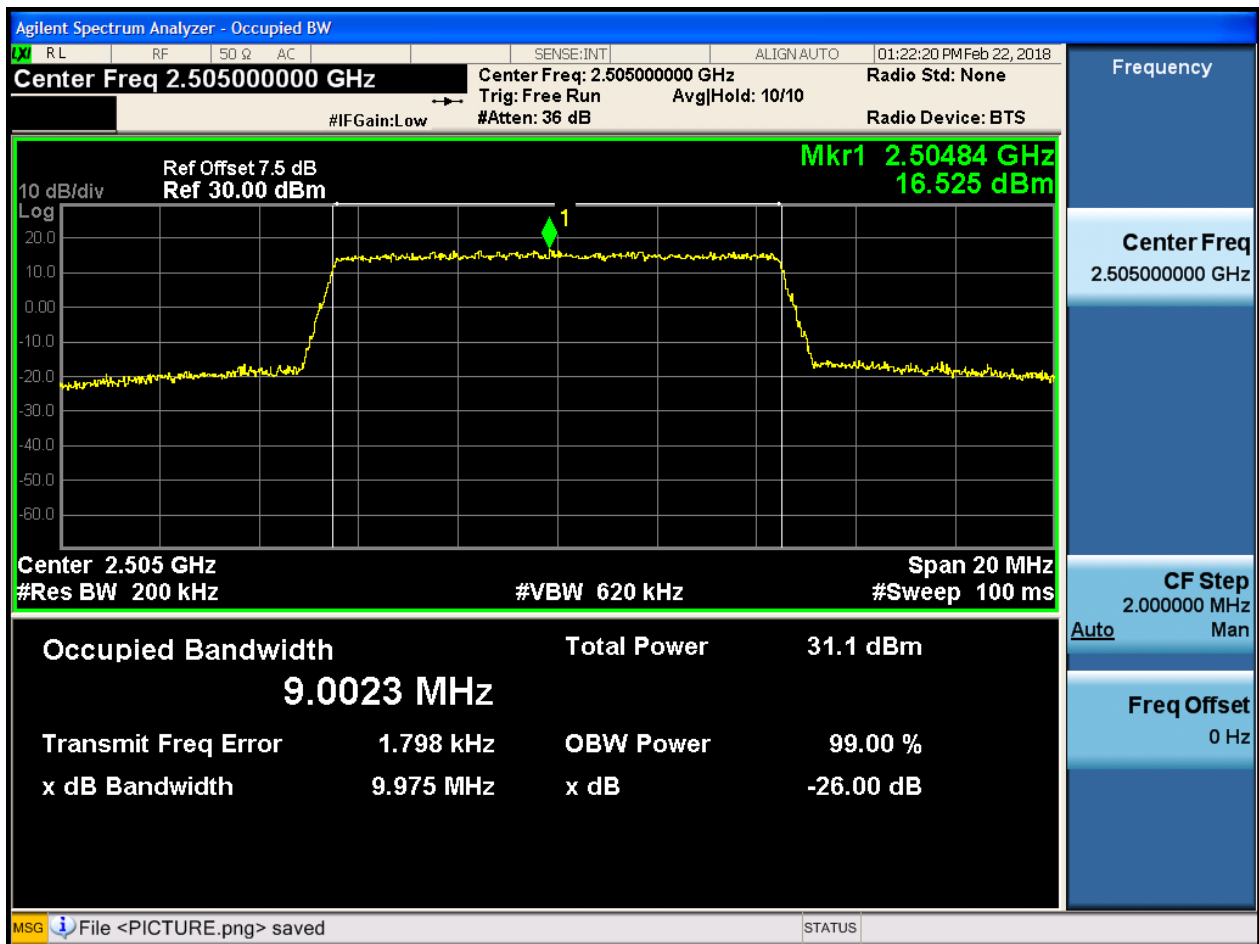




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

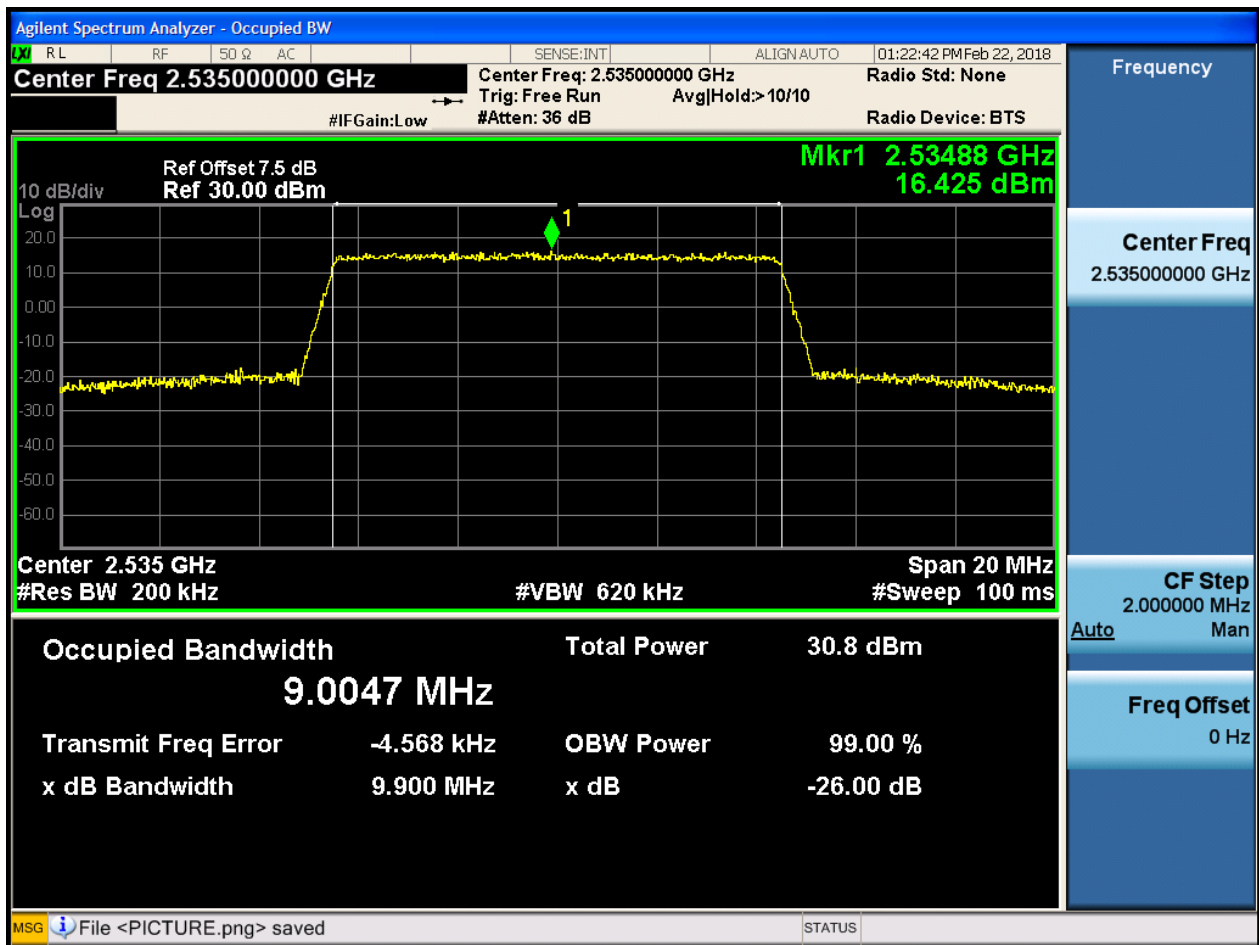
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

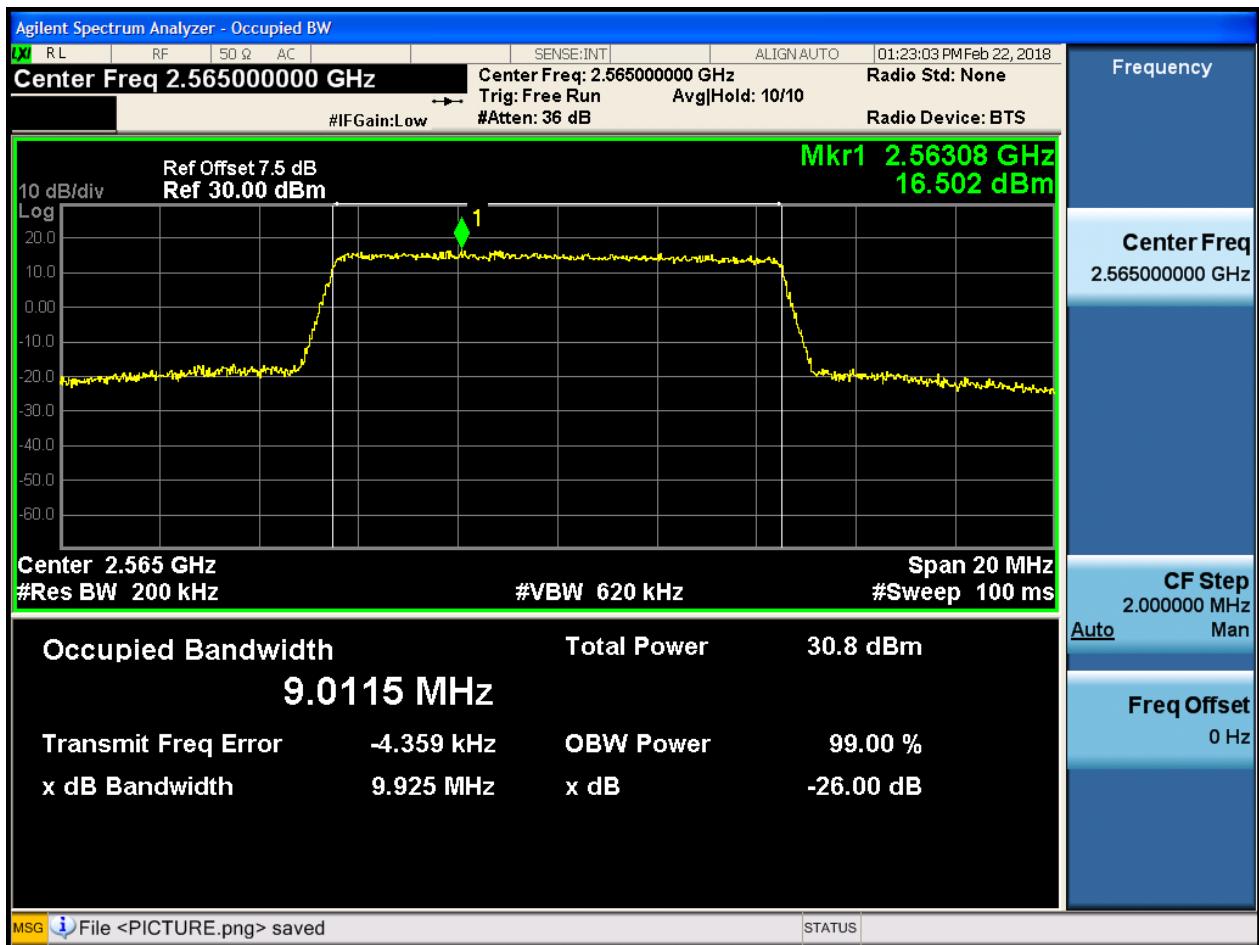
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

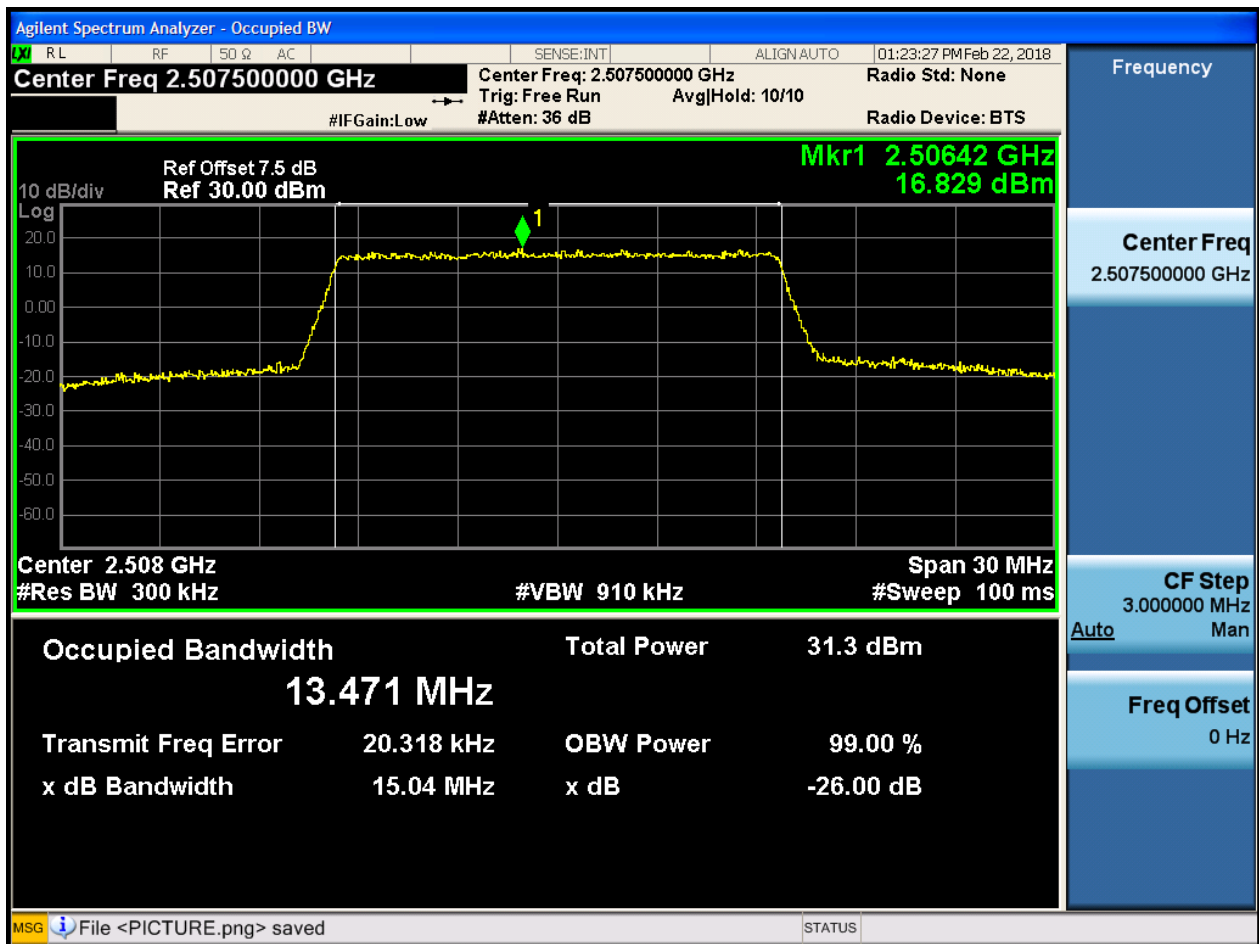


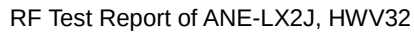


4.1.1.1.3 Test Bandwidth = 15

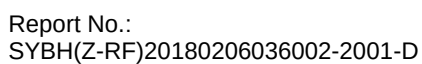
4.1.1.1.3.1 Test Channel = LCH

4.1.1.1.3.1.1 Test RB = RB75#0





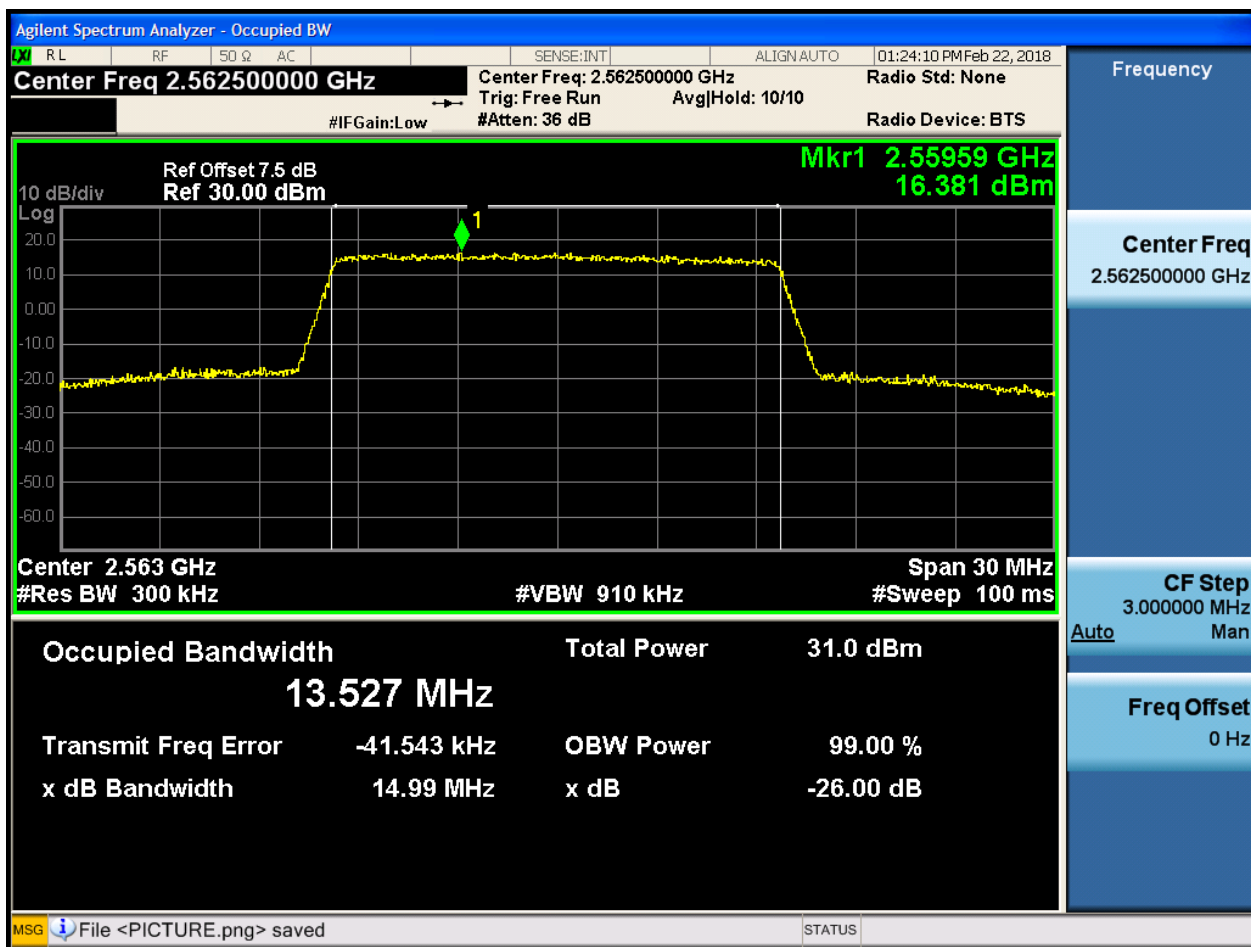
4.1.1.1.3.2.1 Test RB = RB75#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

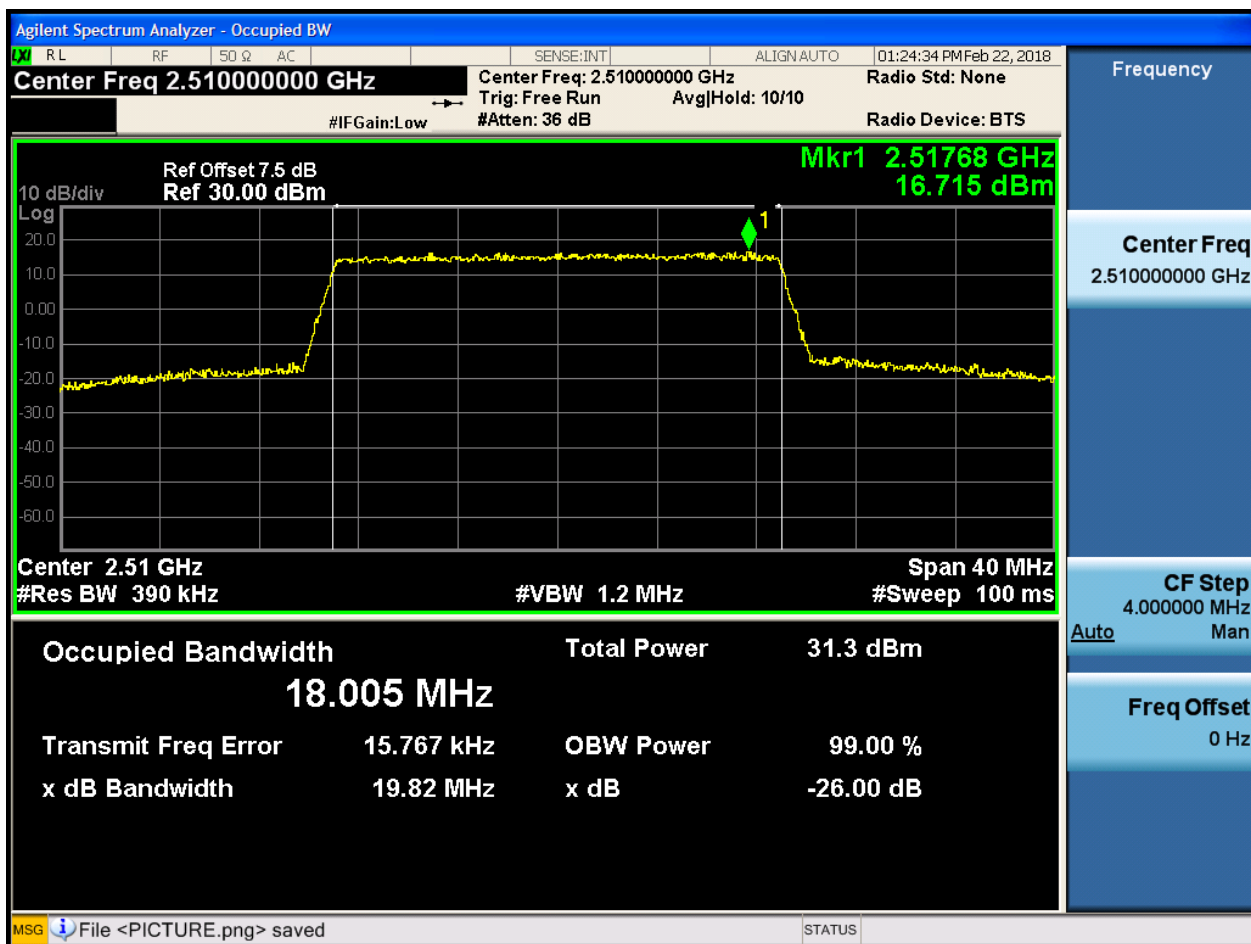




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

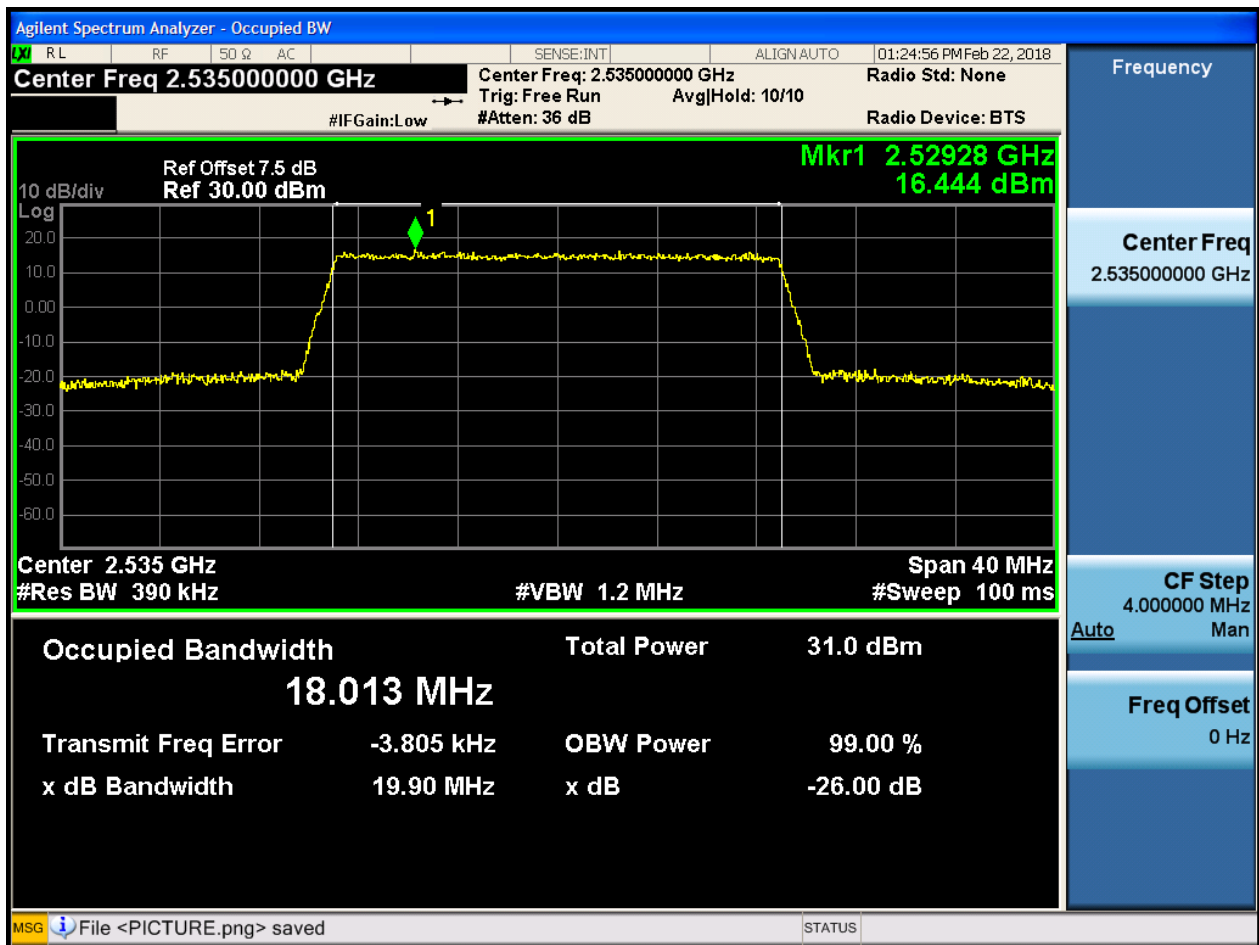
4.1.1.1.4.1.1 Test RB = RB100#0





4.1.1.1.4.2 Test Channel = MCH

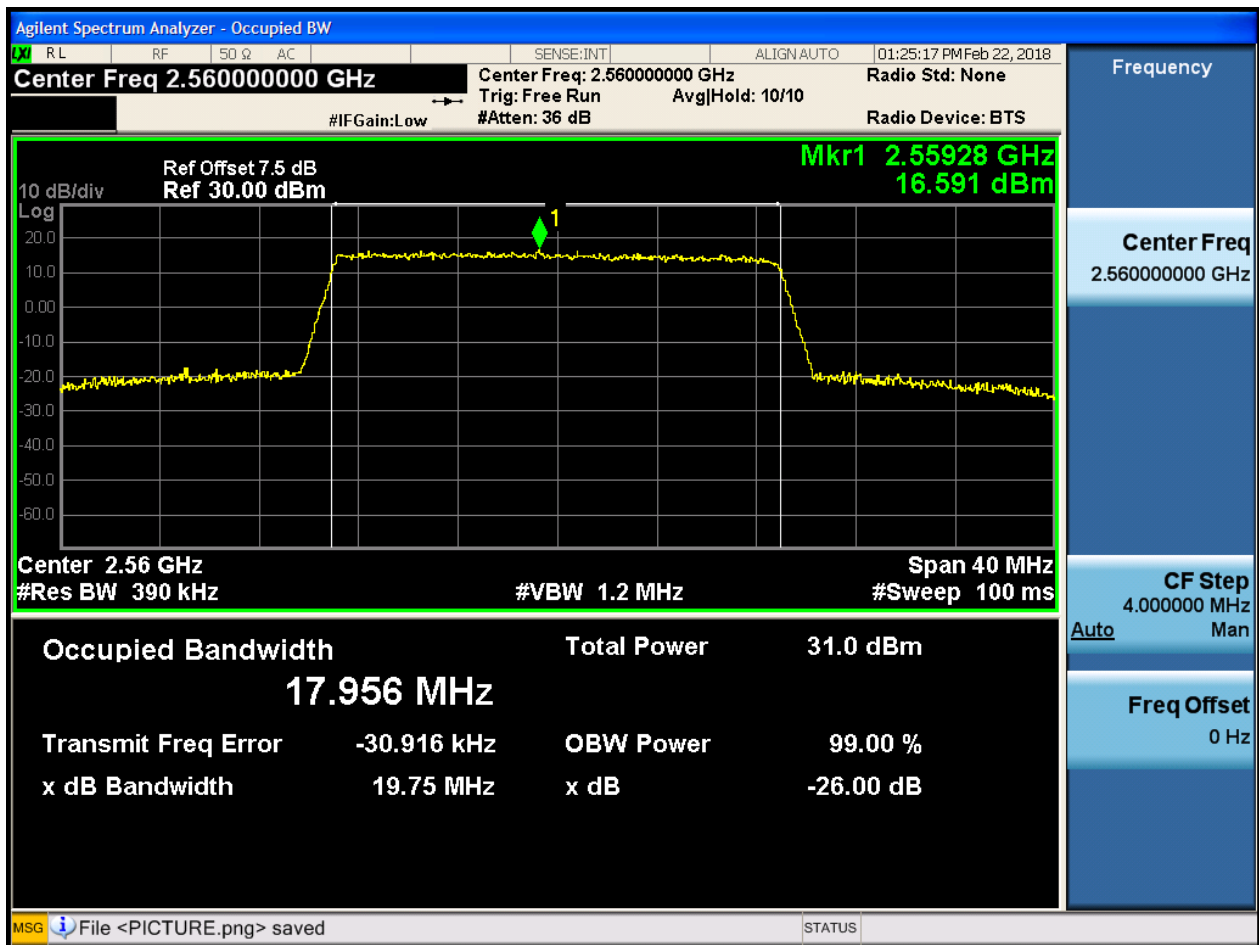
4.1.1.1.4.2.1 Test RB = RB100#0





4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB100#0



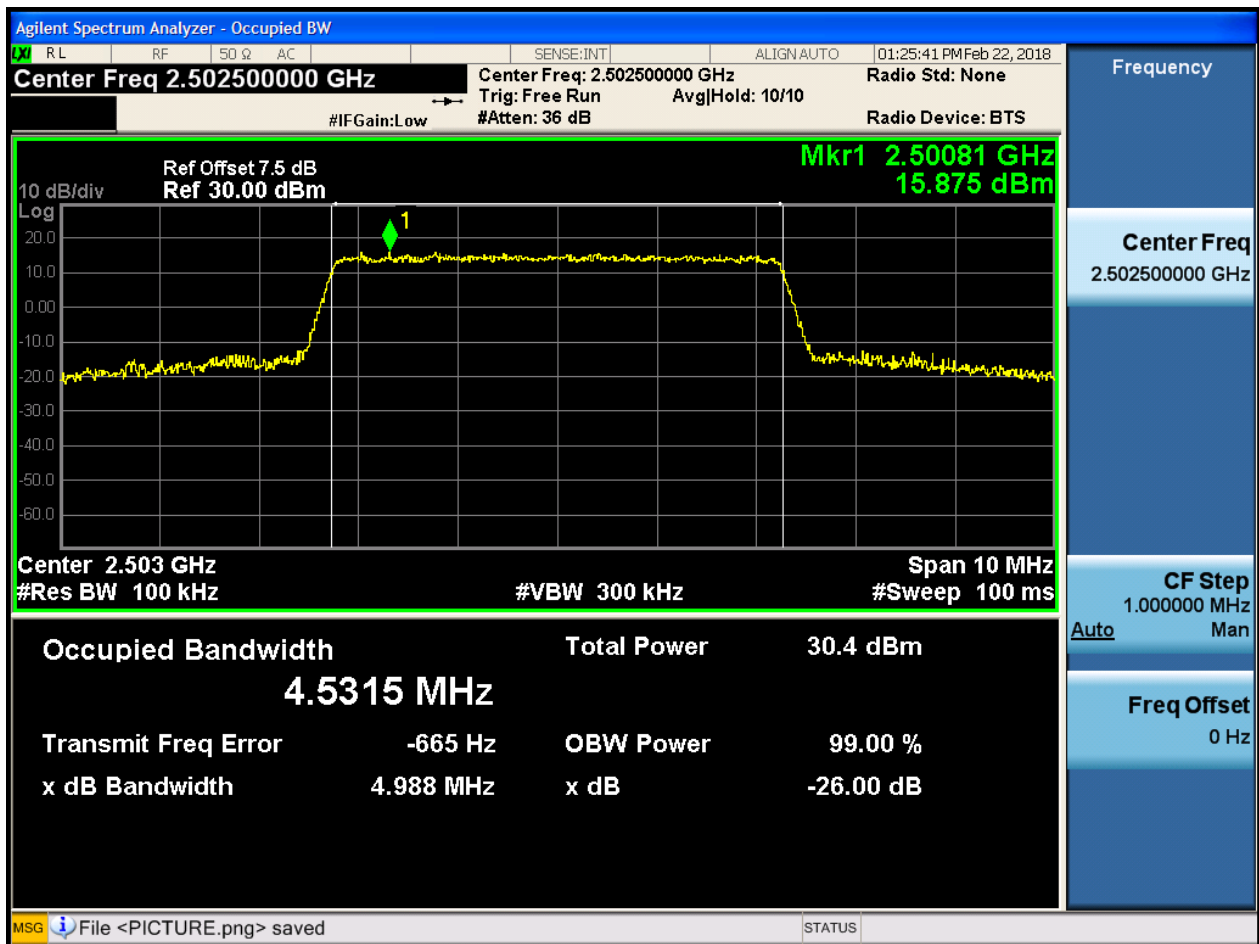


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

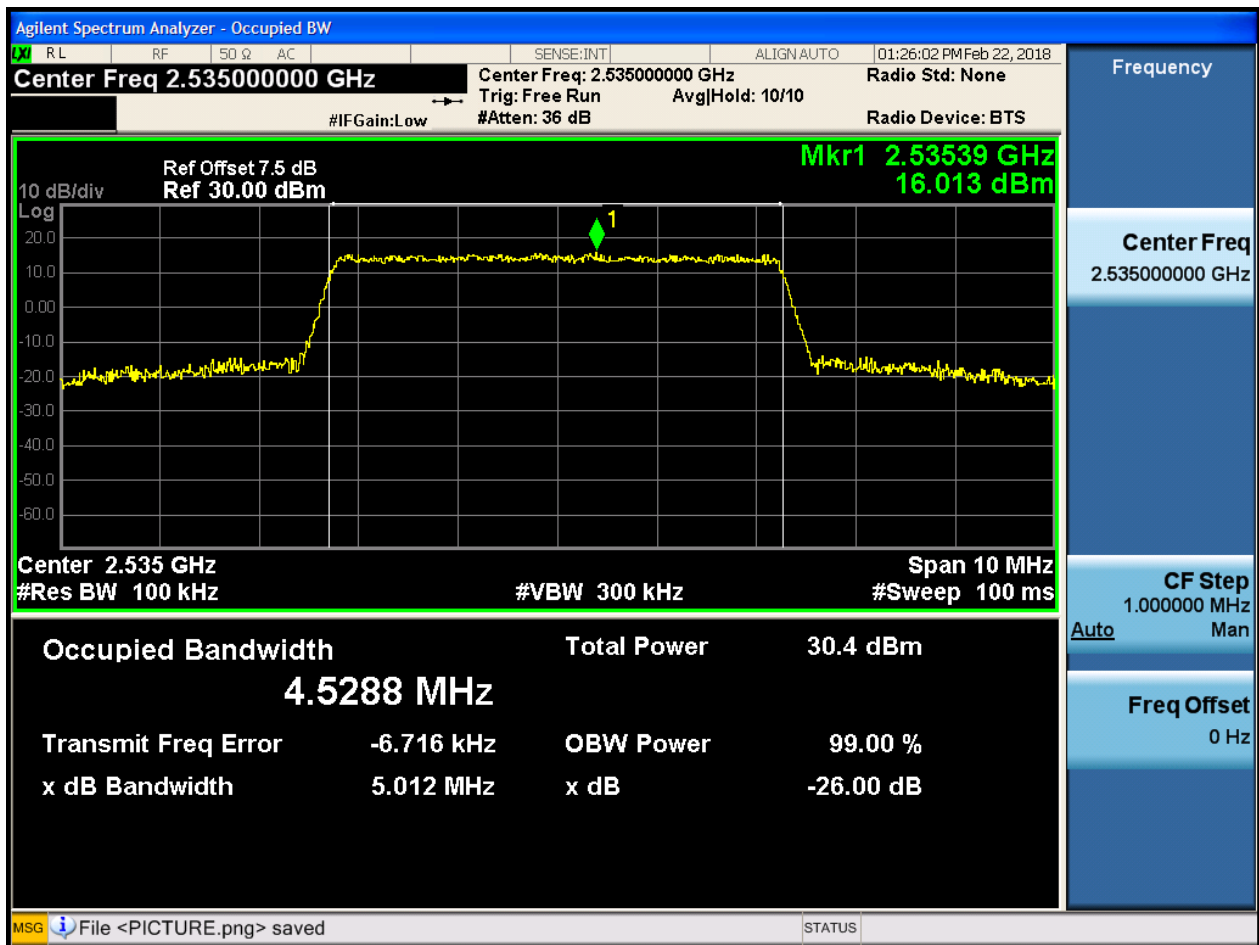
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

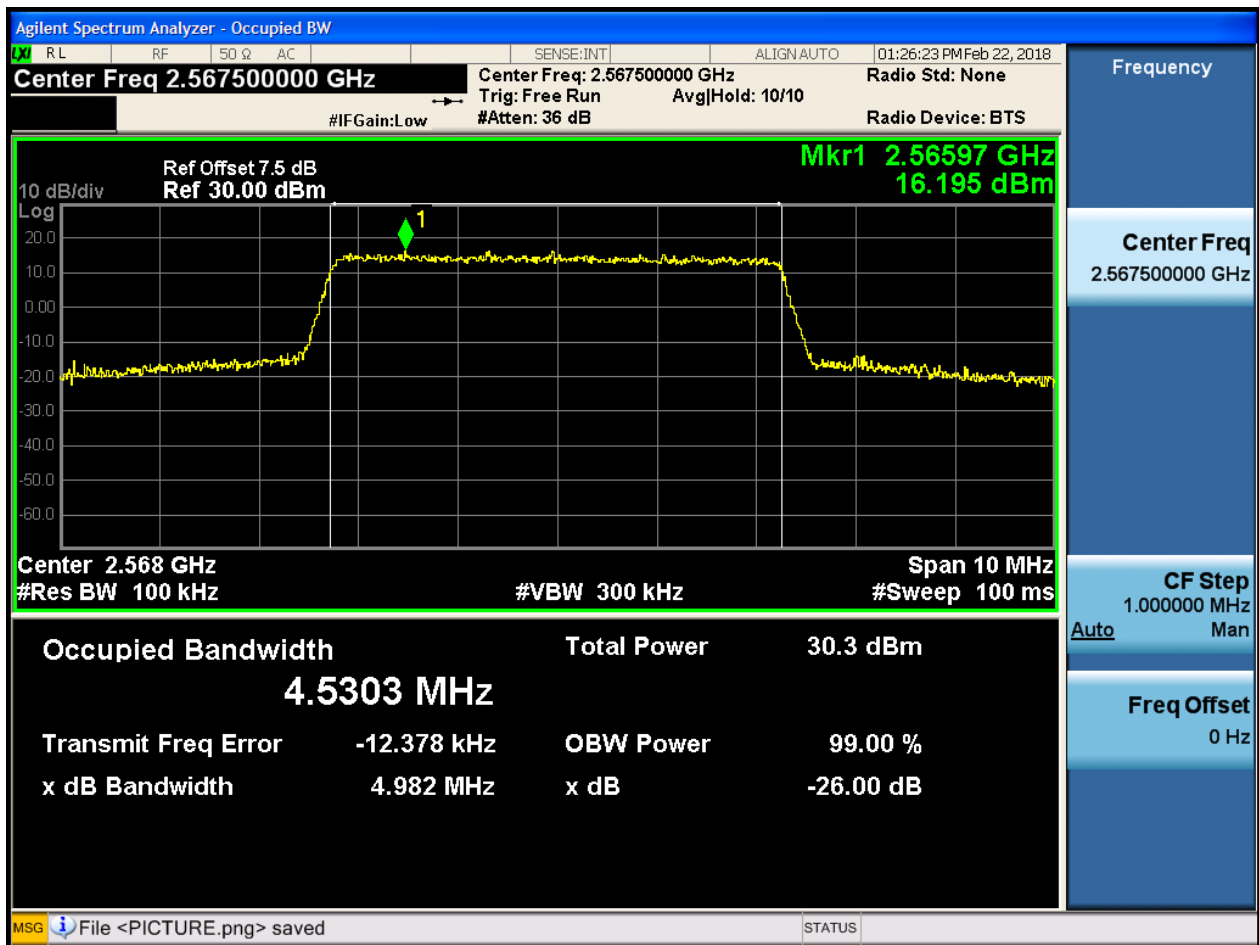
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

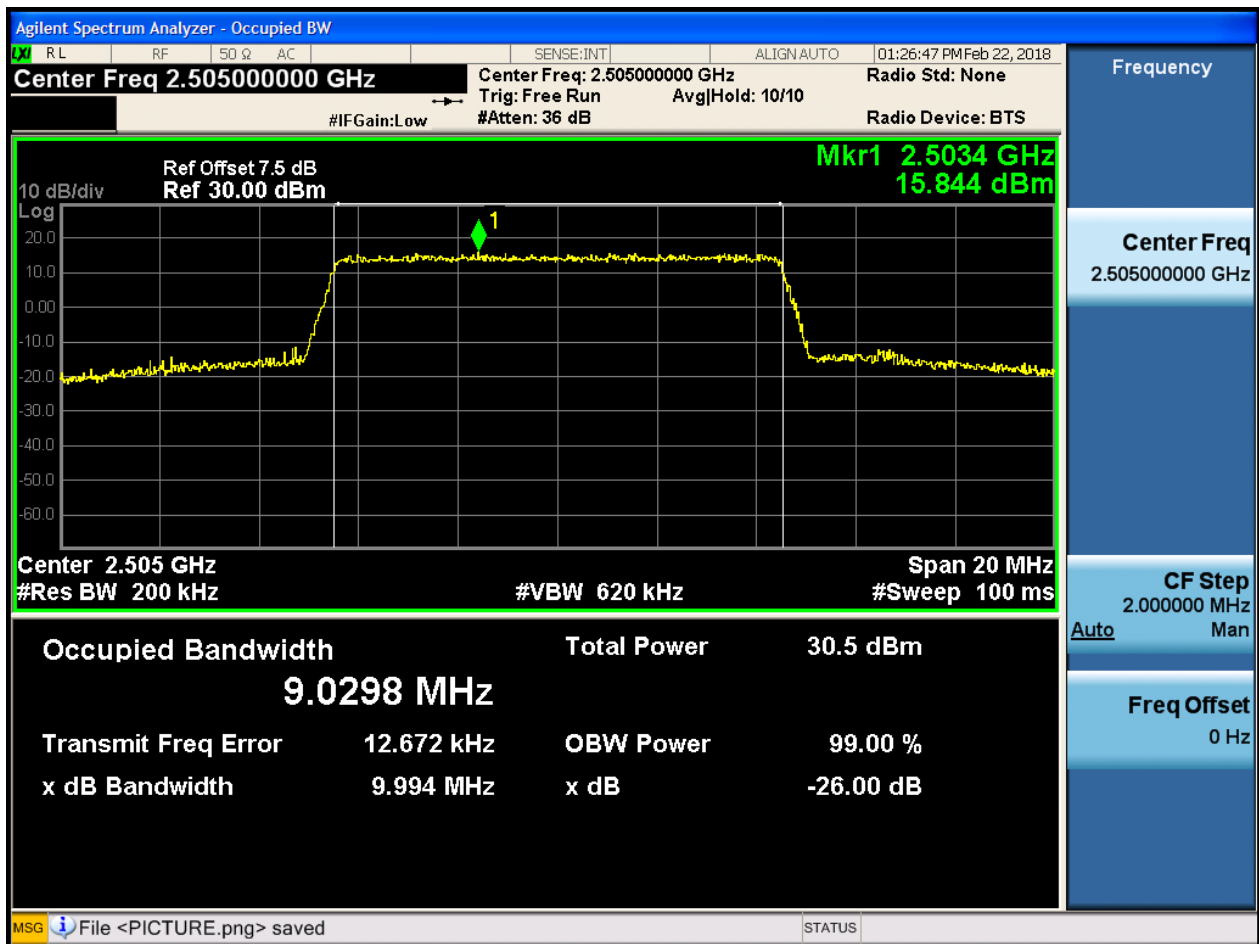




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

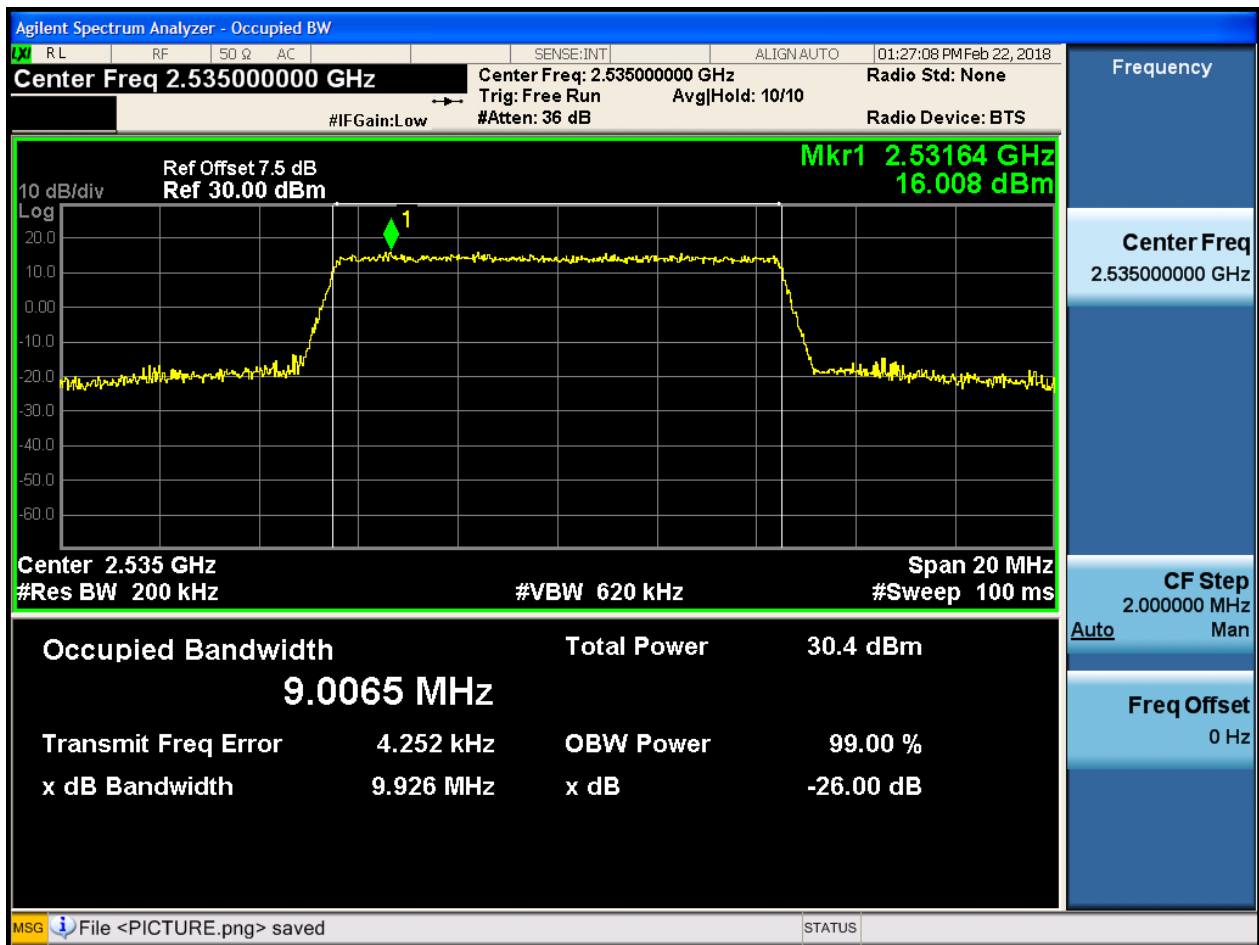
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

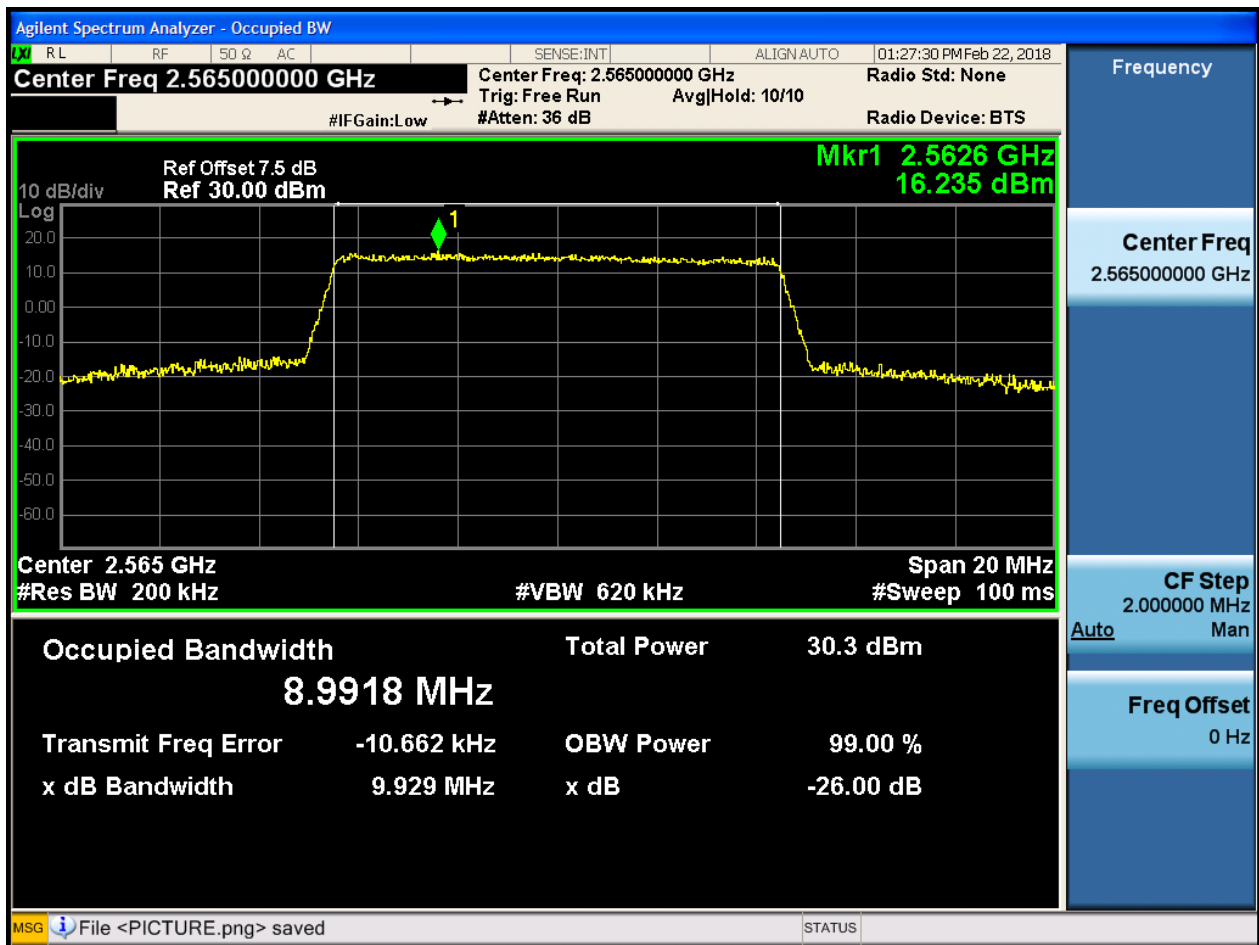
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

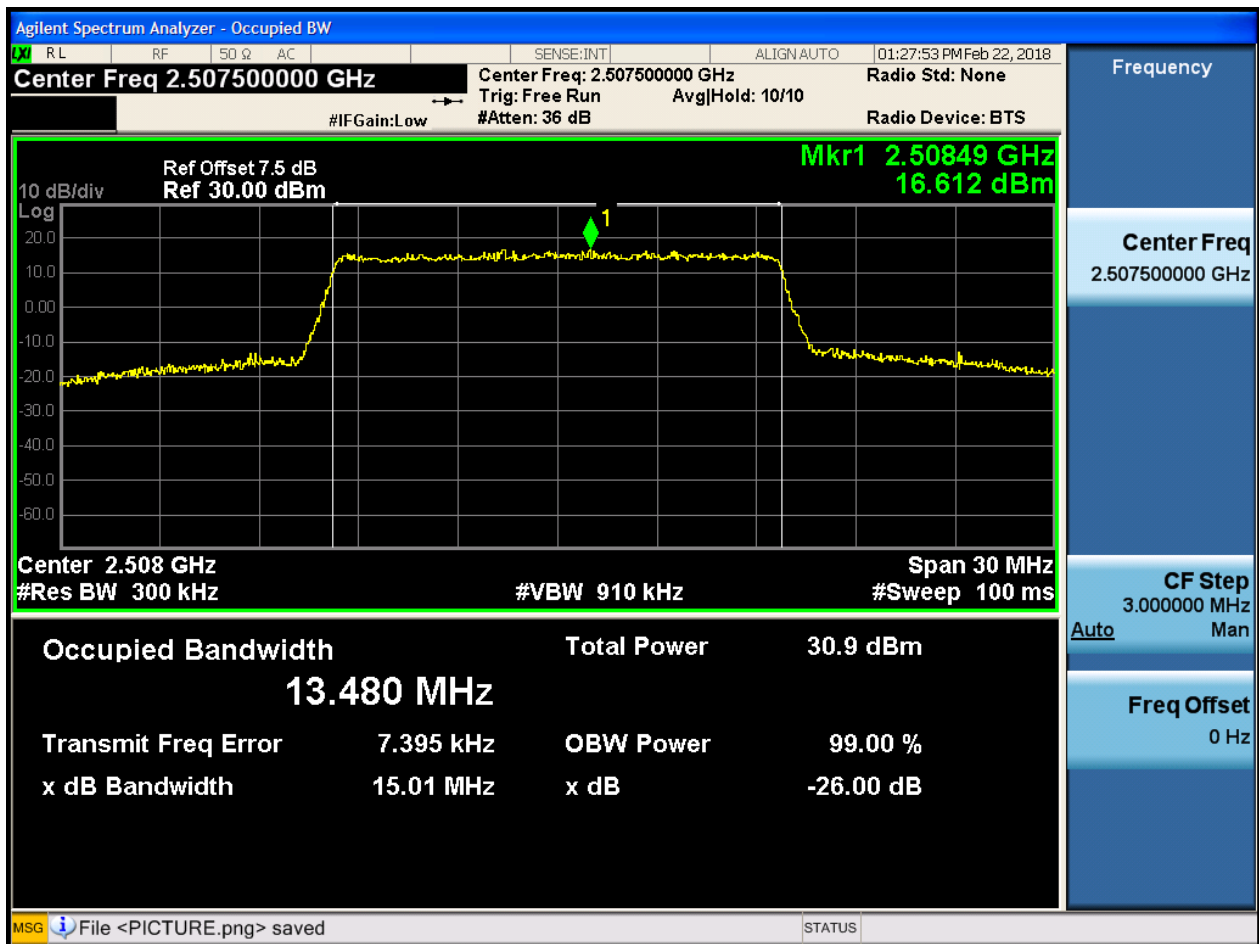




4.1.1.2.3 Test Bandwidth = 15

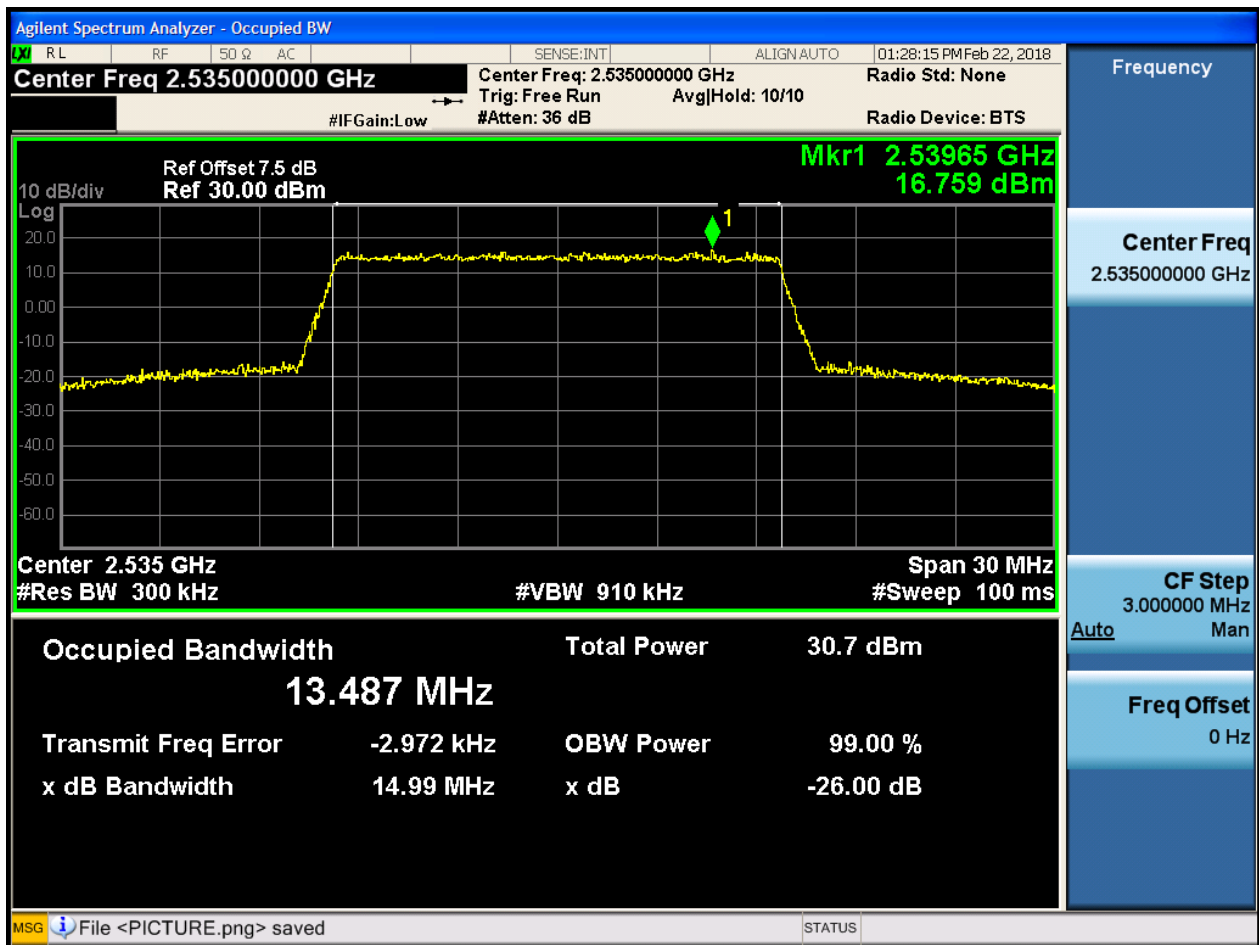
4.1.1.2.3.1 Test Channel = LCH

4.1.1.2.3.1.1 Test RB = RB75#0



4.1.1.2.3.2 Test Channel = MCH

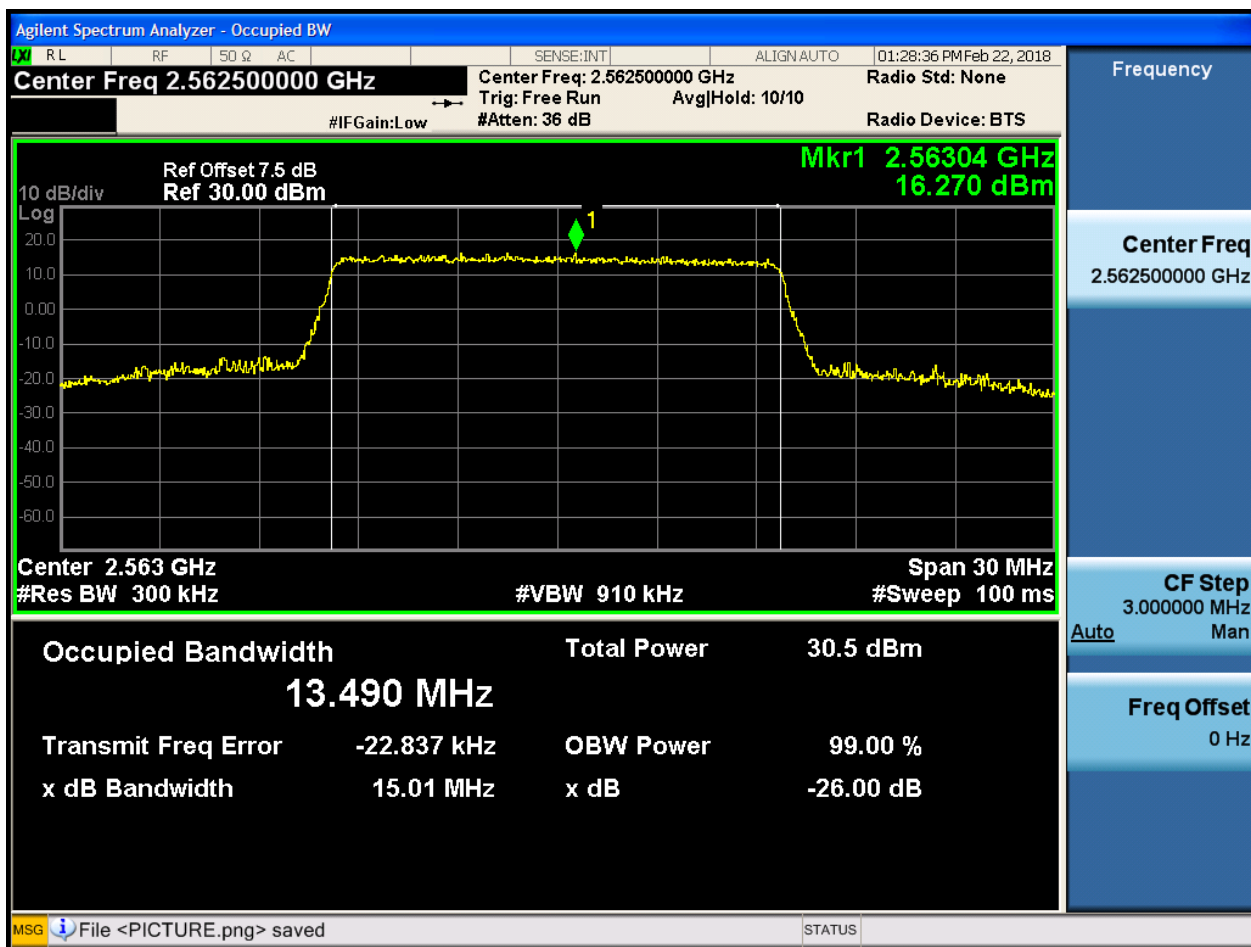
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

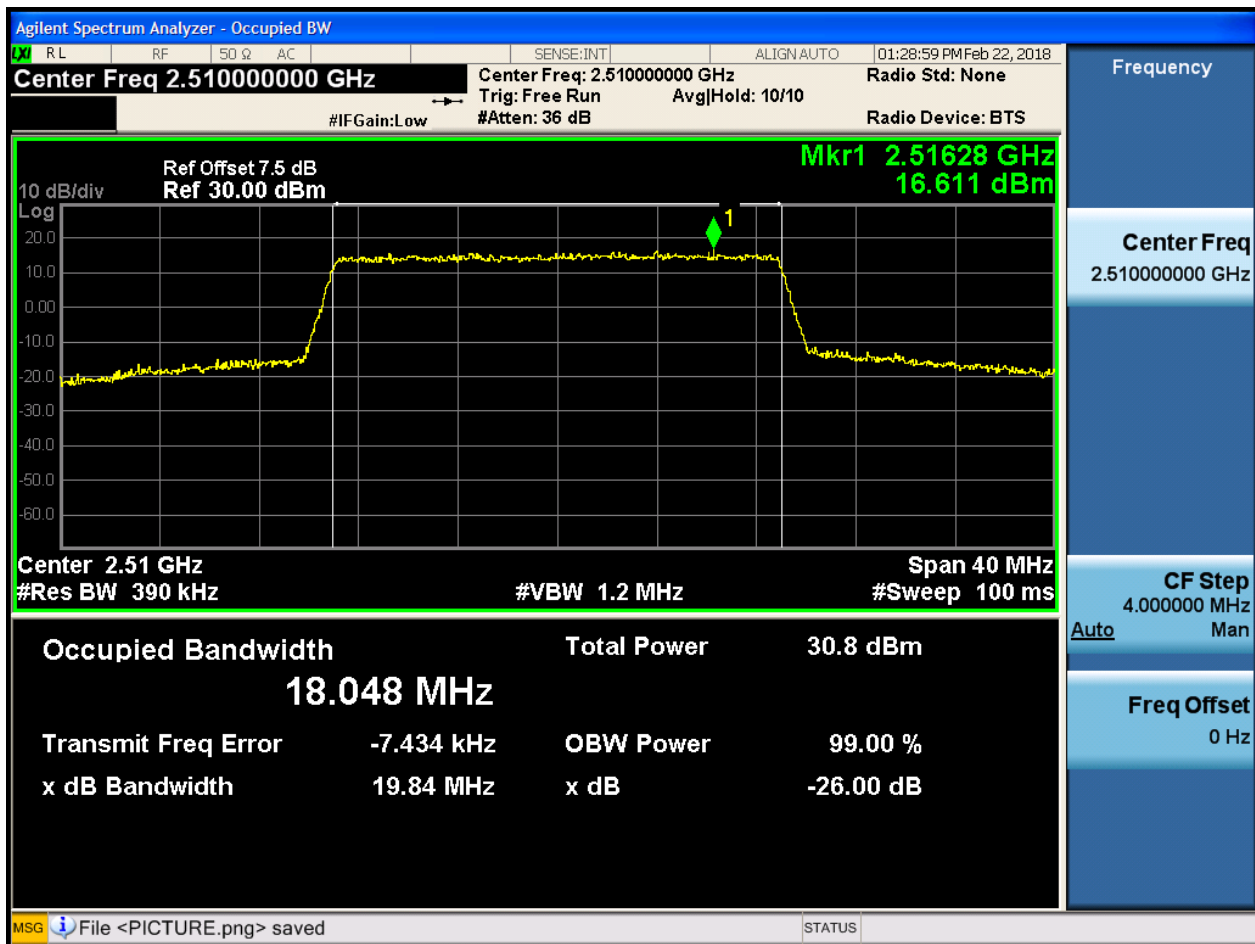




4.1.1.2.4 Test Bandwidth = 20

4.1.1.2.4.1 Test Channel = LCH

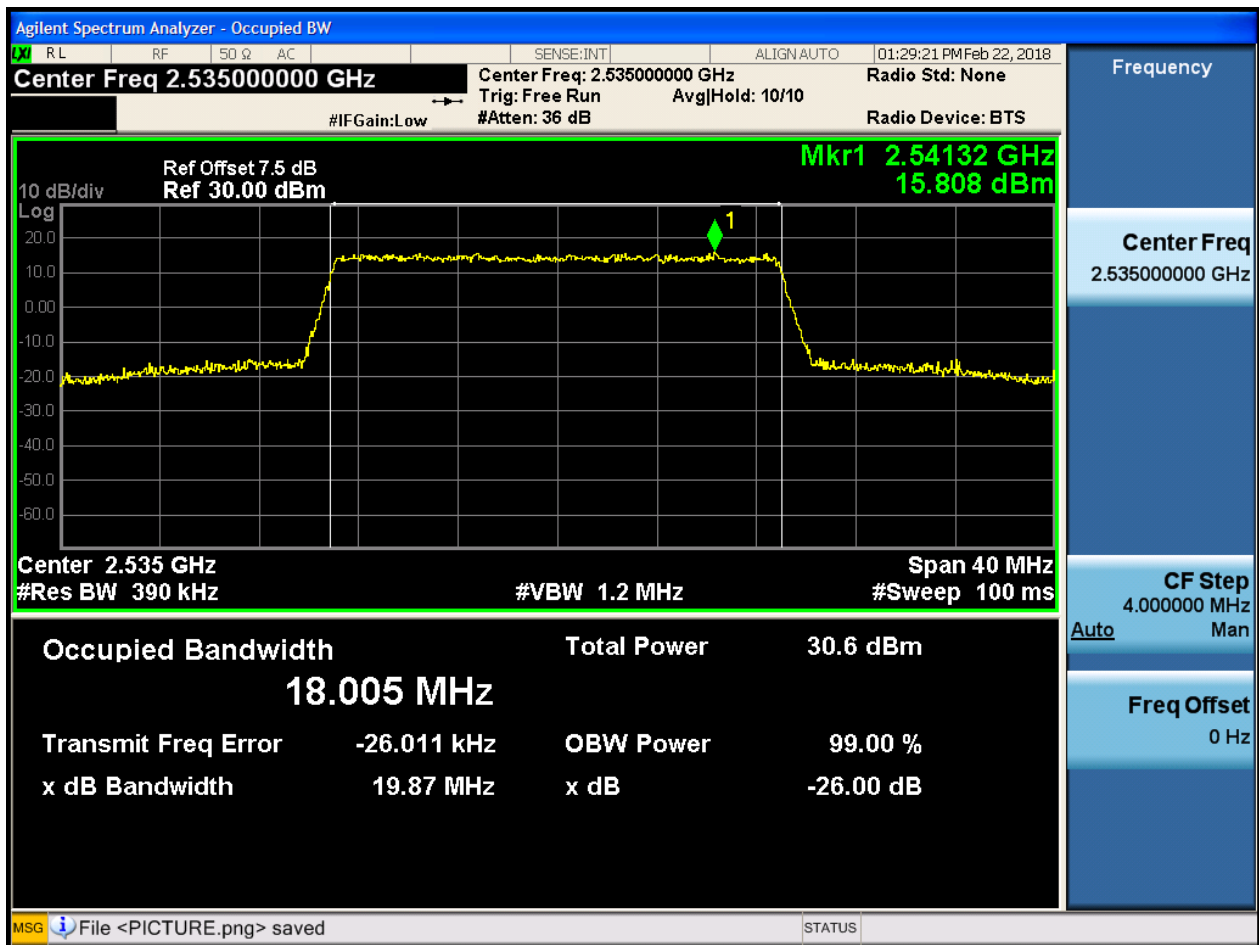
4.1.1.2.4.1.1 Test RB = RB100#0





4.1.1.2.4.2 Test Channel = MCH

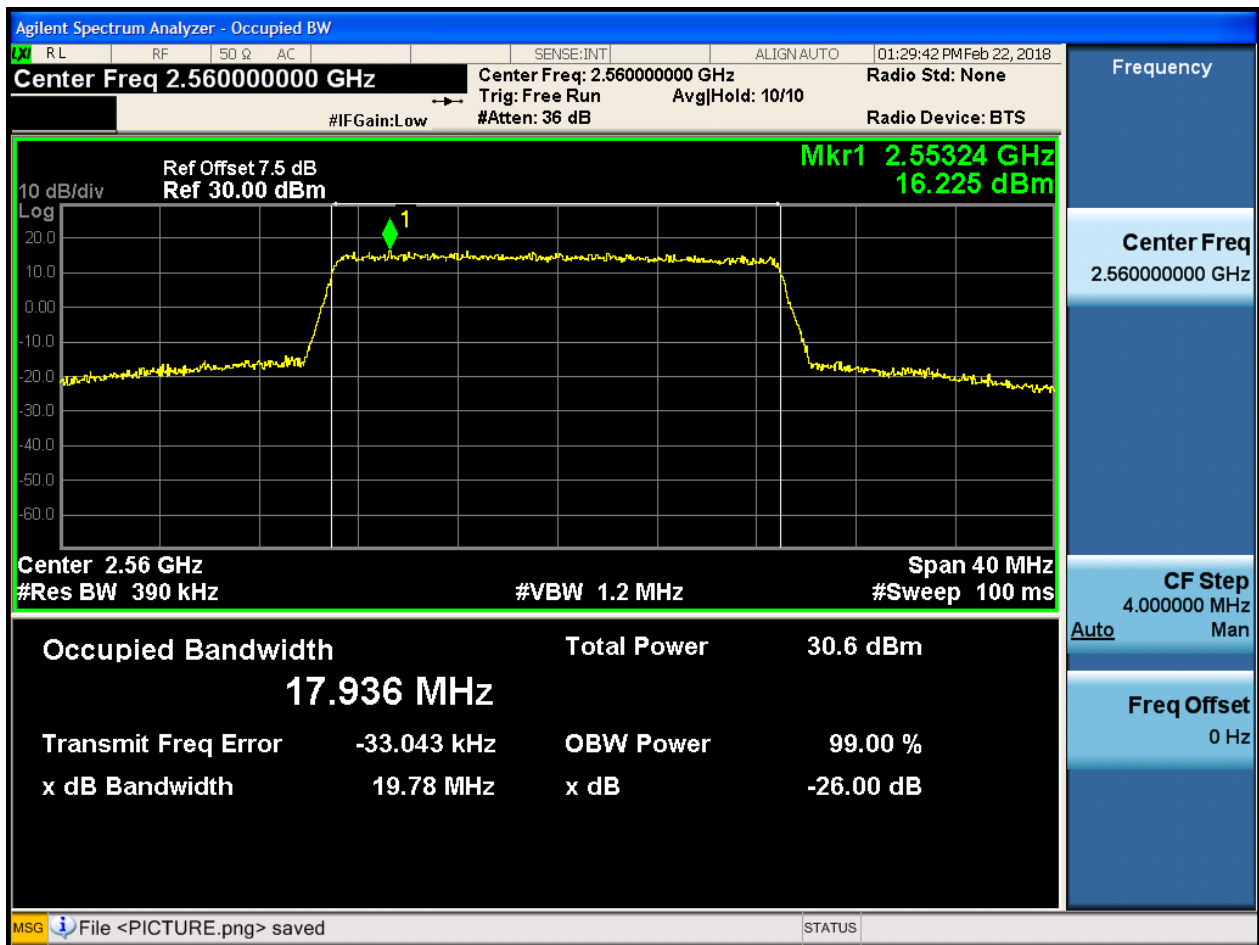
4.1.1.2.4.2.1 Test RB = RB100#0





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

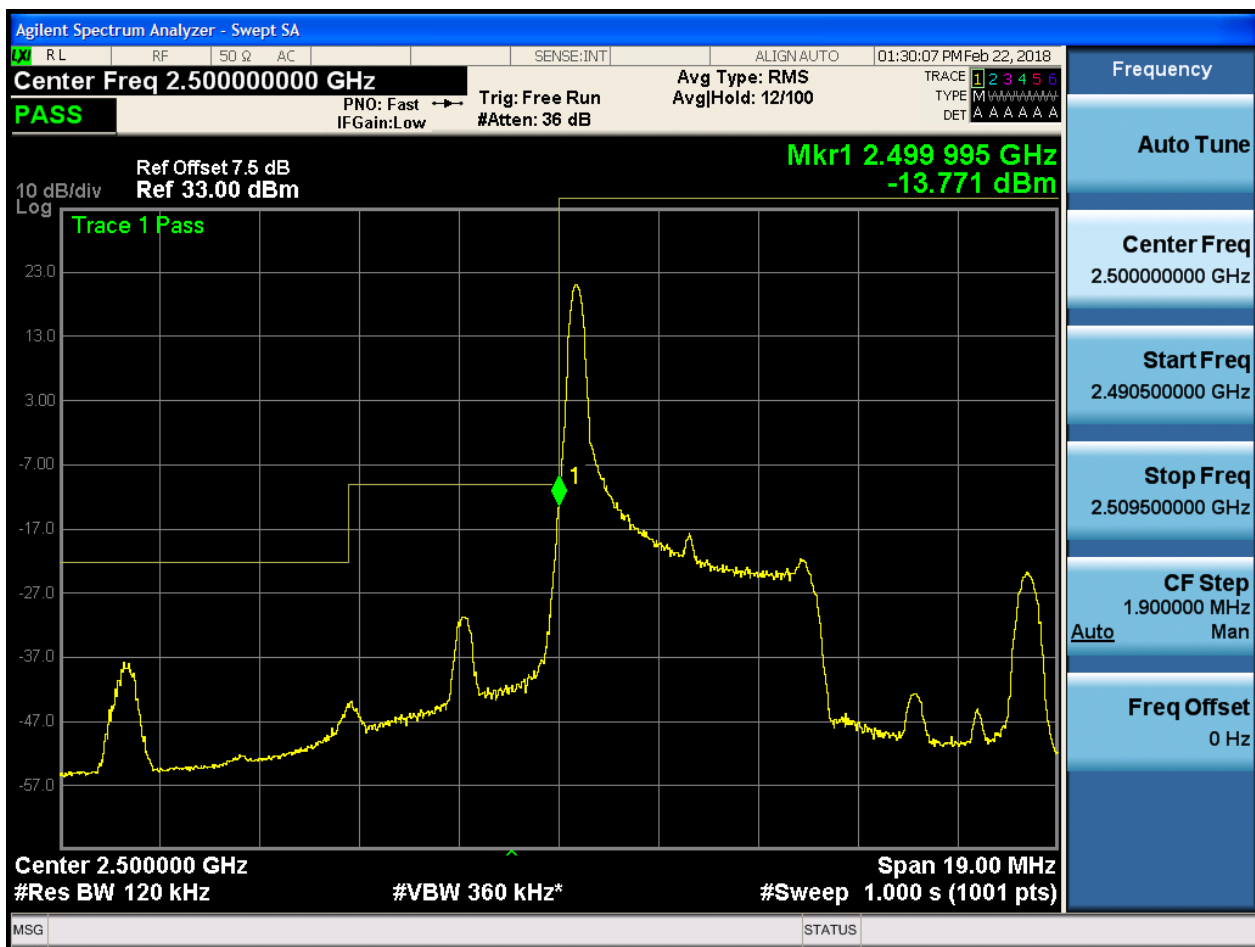
5.1.1 Test Band = BAND7

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

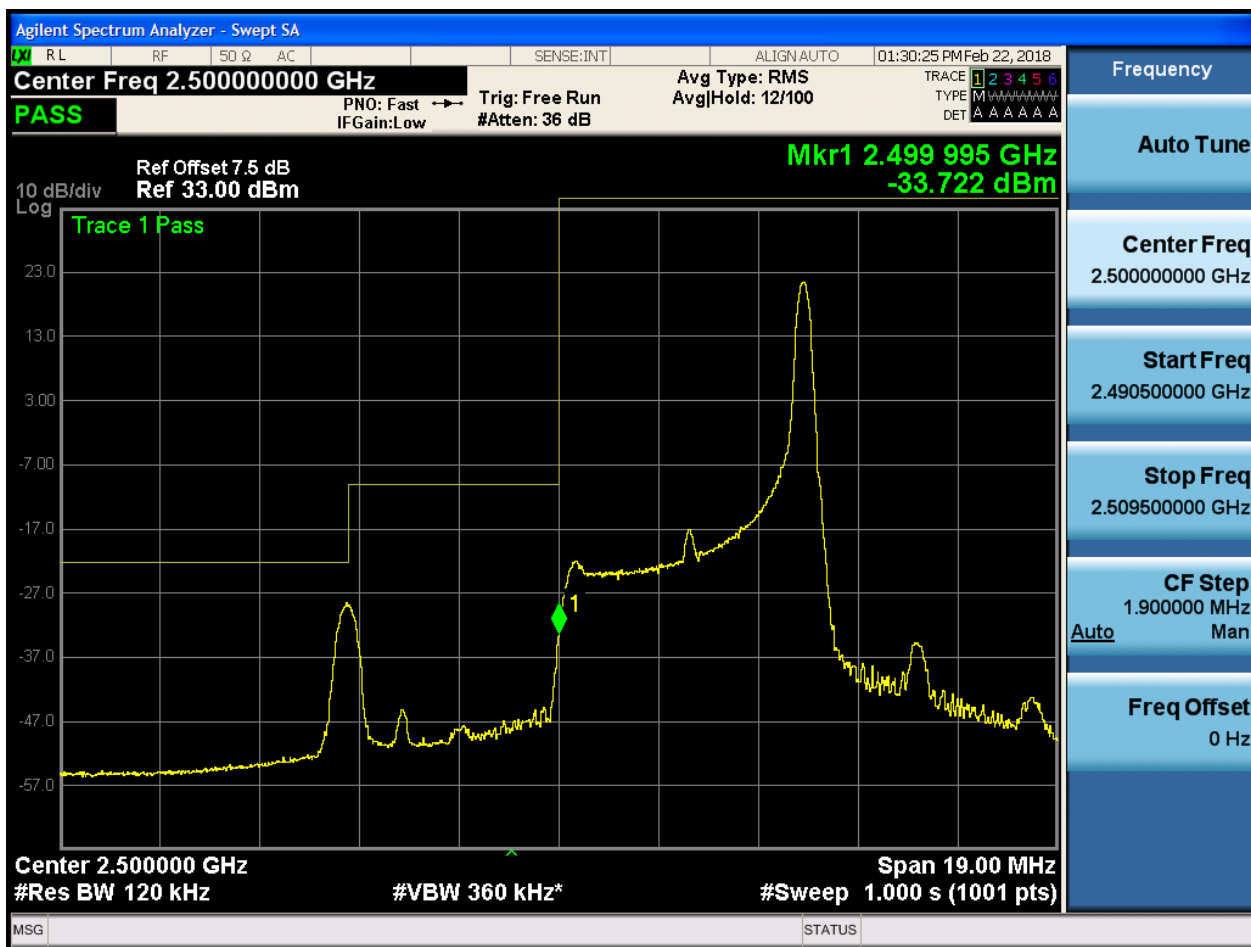
5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



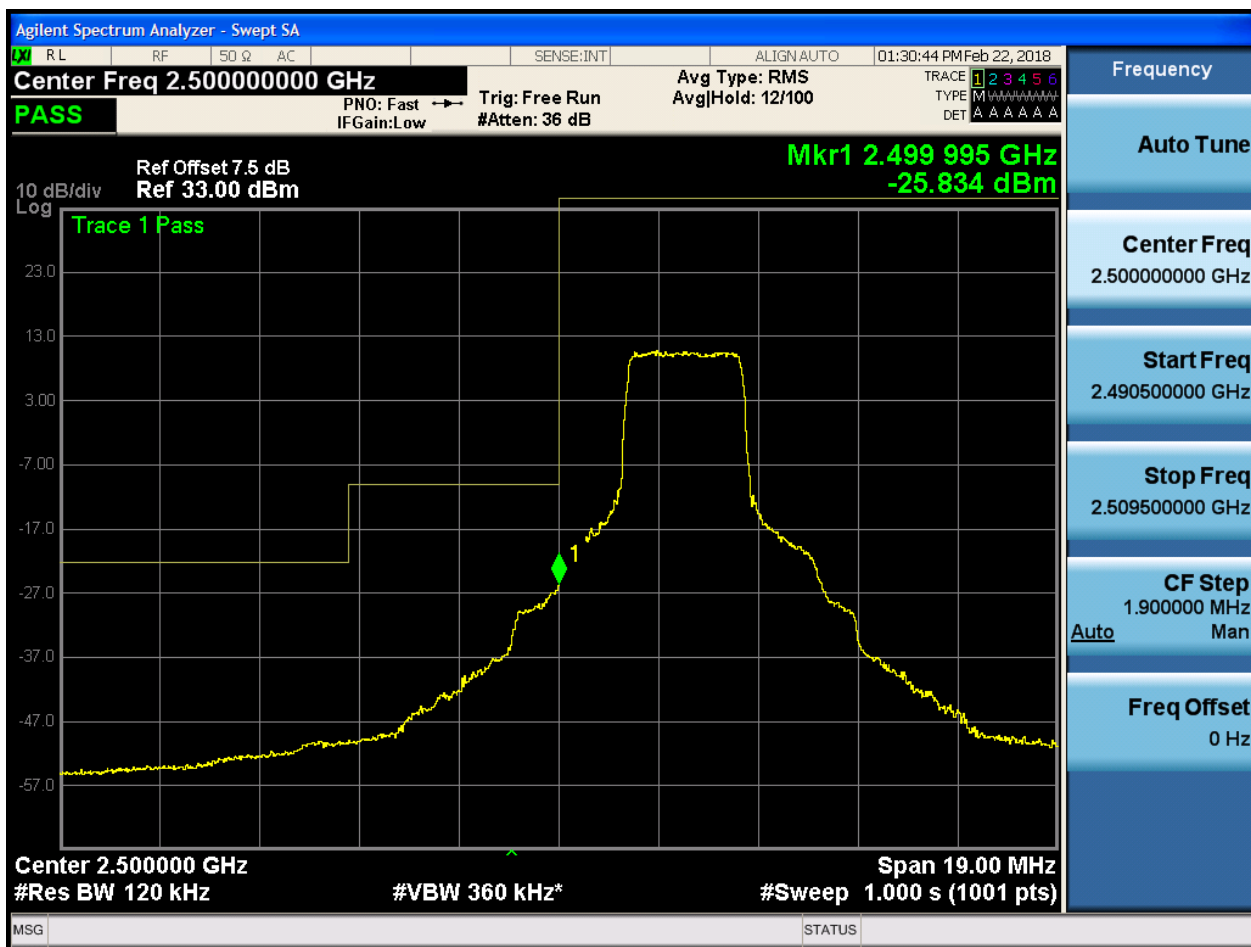


5.1.1.1.1.2 Test RB = RB1#24





5.1.1.1.1.3 Test RB = RB12#6





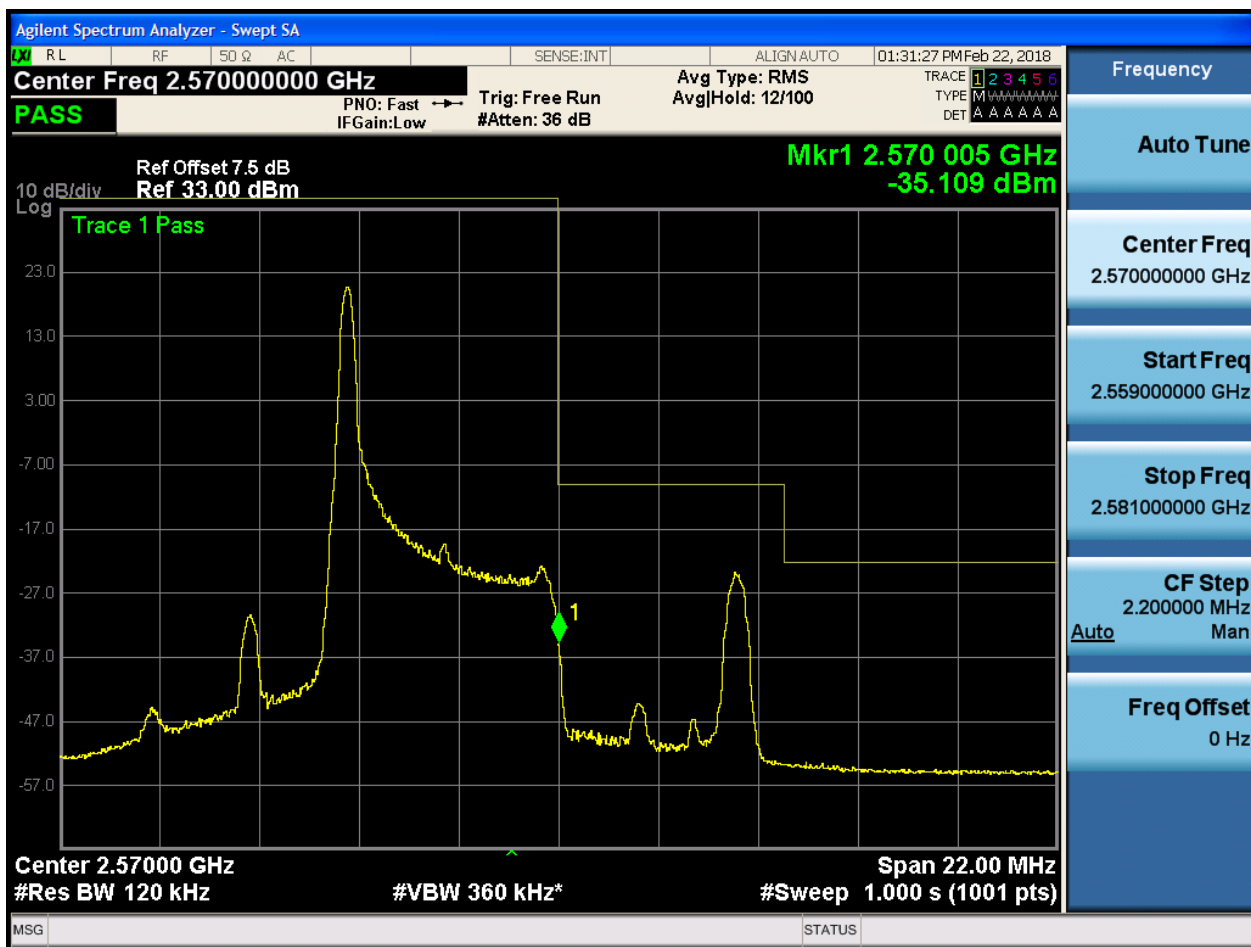
5.1.1.1.1.4 Test RB = RB25#0

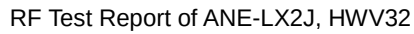




5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:31:45 PM Feb 22, 2018

Center Freq 2.570000000 GHz Avg Type: RMS
#Res BW 120 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Fast #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.570 005 GHz
-14.375 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz Span 22.00 MHz
#Res BW 120 kHz #VBW 360 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.559000000 GHz

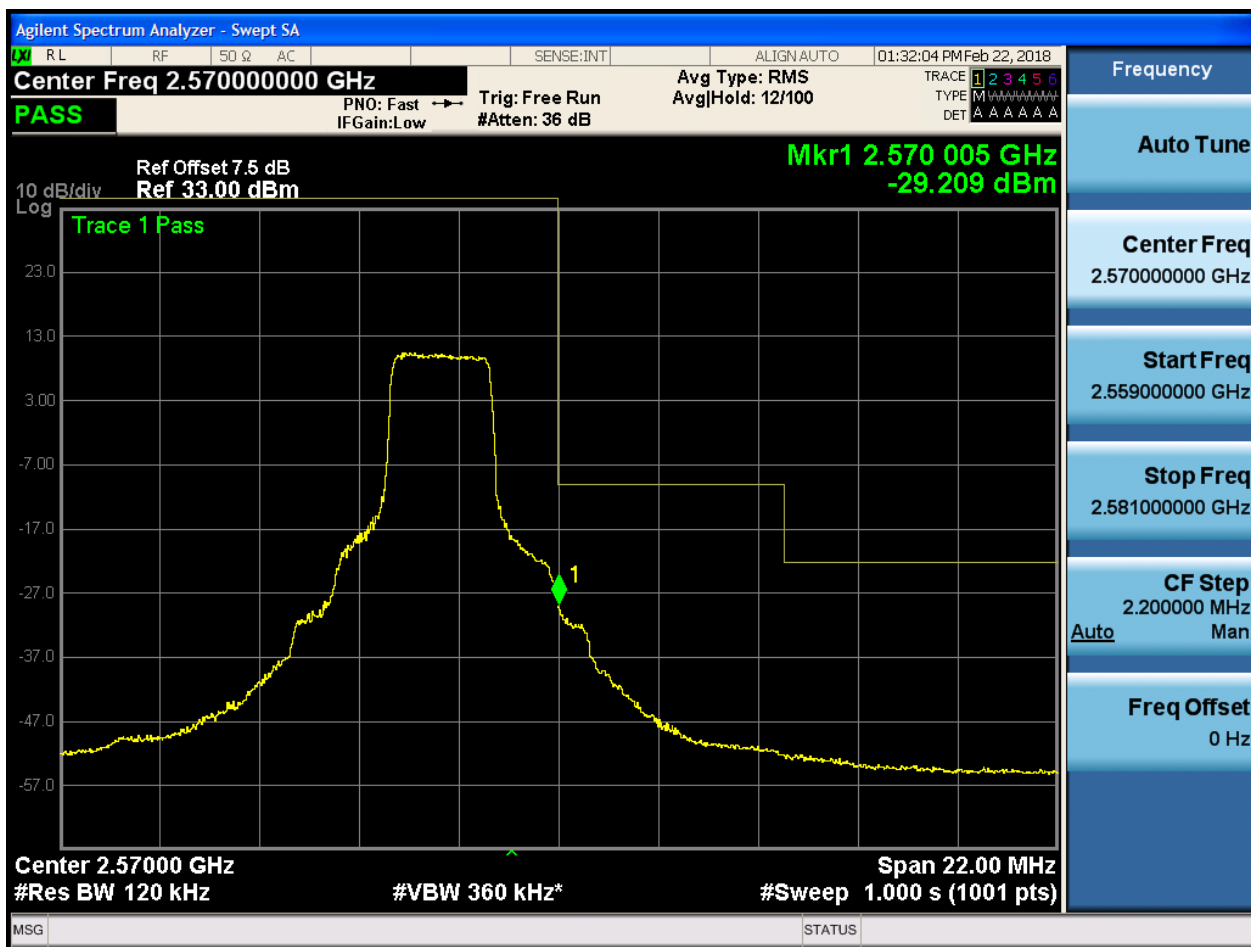
Stop Freq
2.581000000 GHz

CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.2.4 Test RB = RB25#0

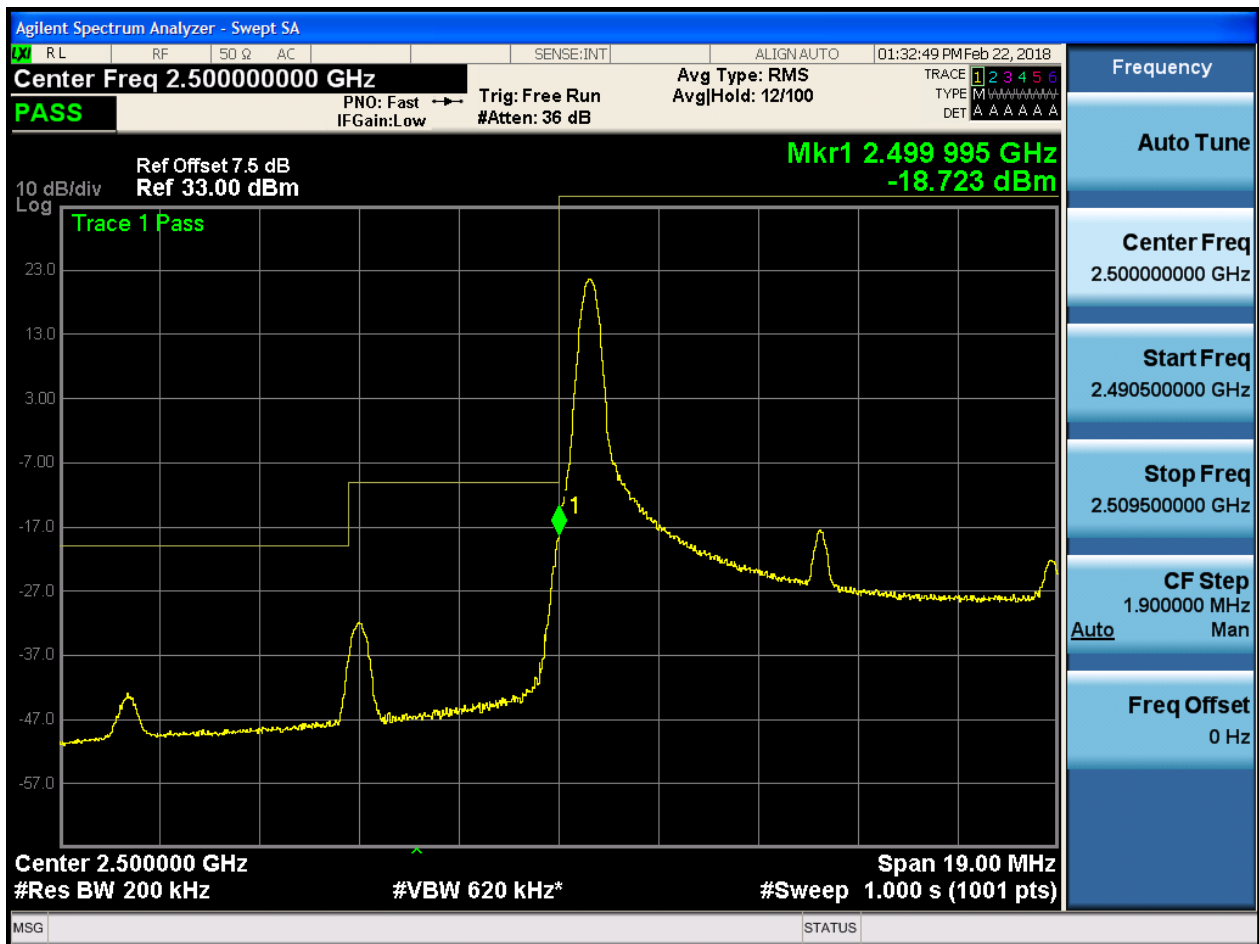


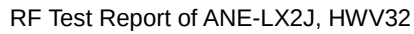


5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:33:07 PM Feb 22, 2018

Center Freq 2.500000000 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 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-37.392 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

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 01:33:26 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run AvgHold: 12/100
IFGain: Low #Atten: 36 dB

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

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-29.218 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

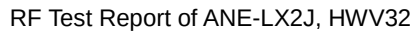
Center Freq
2.500000000 GHz

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 01:33:45 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
PNO: Fast Trig: Free Run Avg/Hold: 12/100
IFGain:Low #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-27.032 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

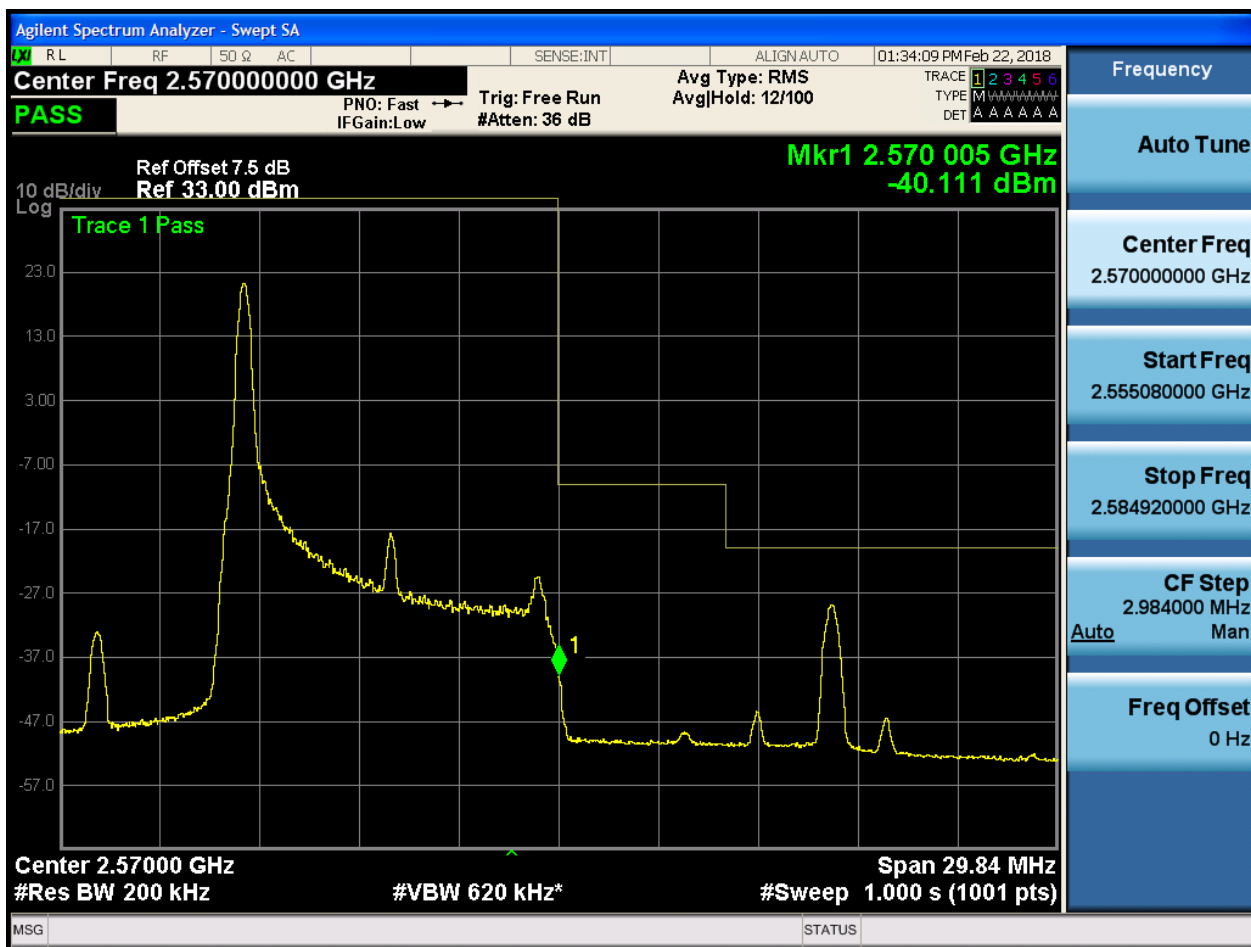
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



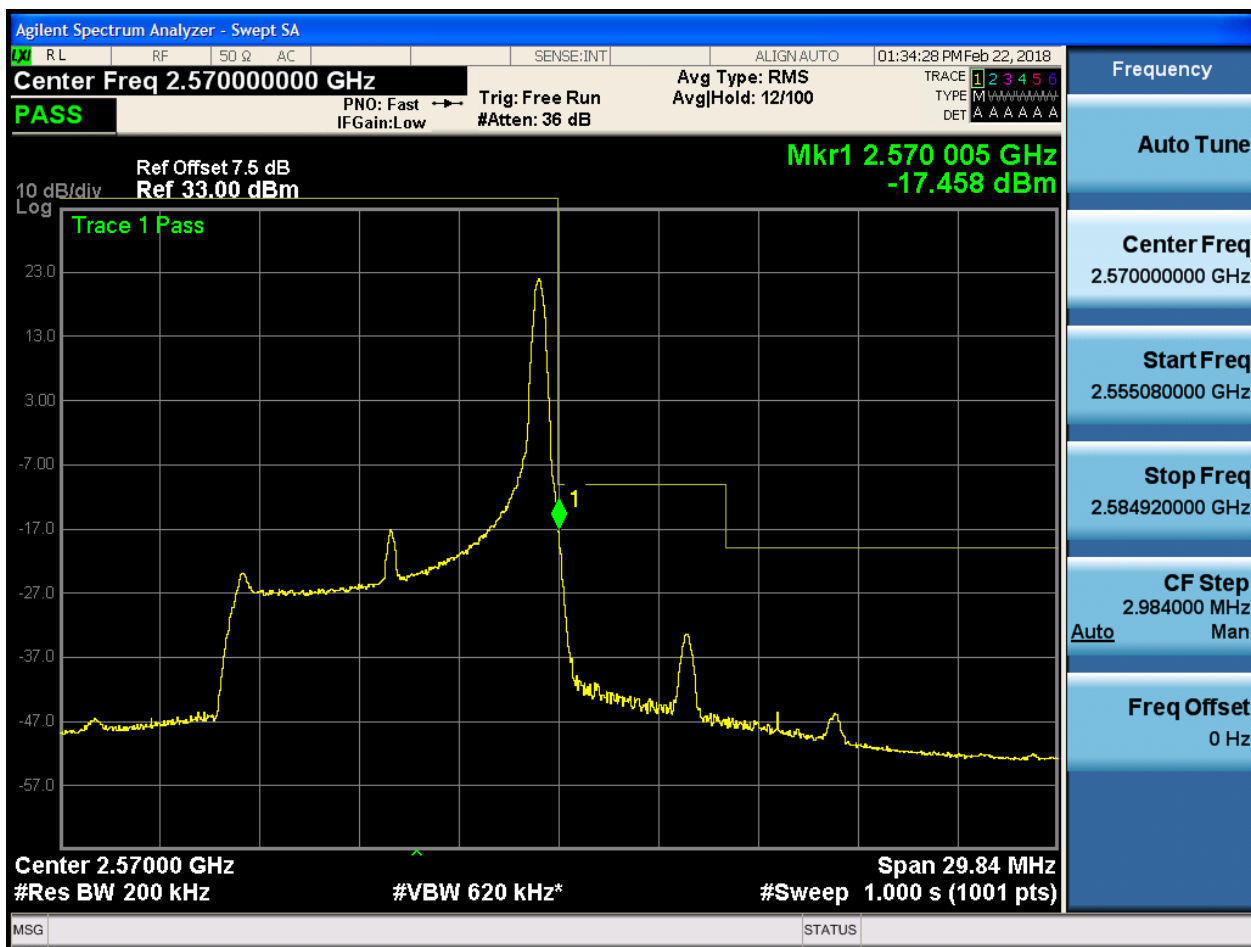
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0



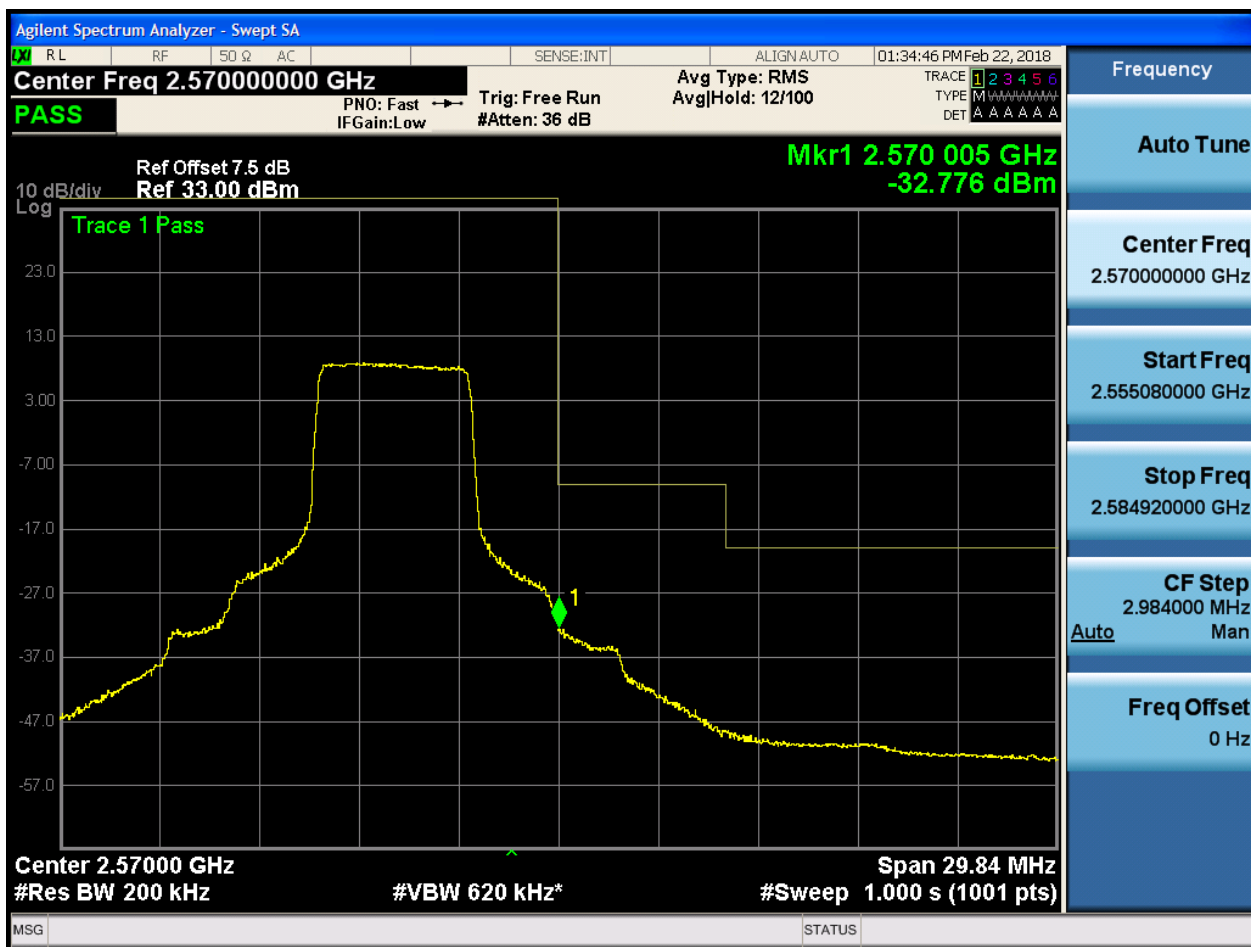


5.1.1.1.2.2.2 Test RB = RB1#49





5.1.1.1.2.2.3 Test RB = RB25#13





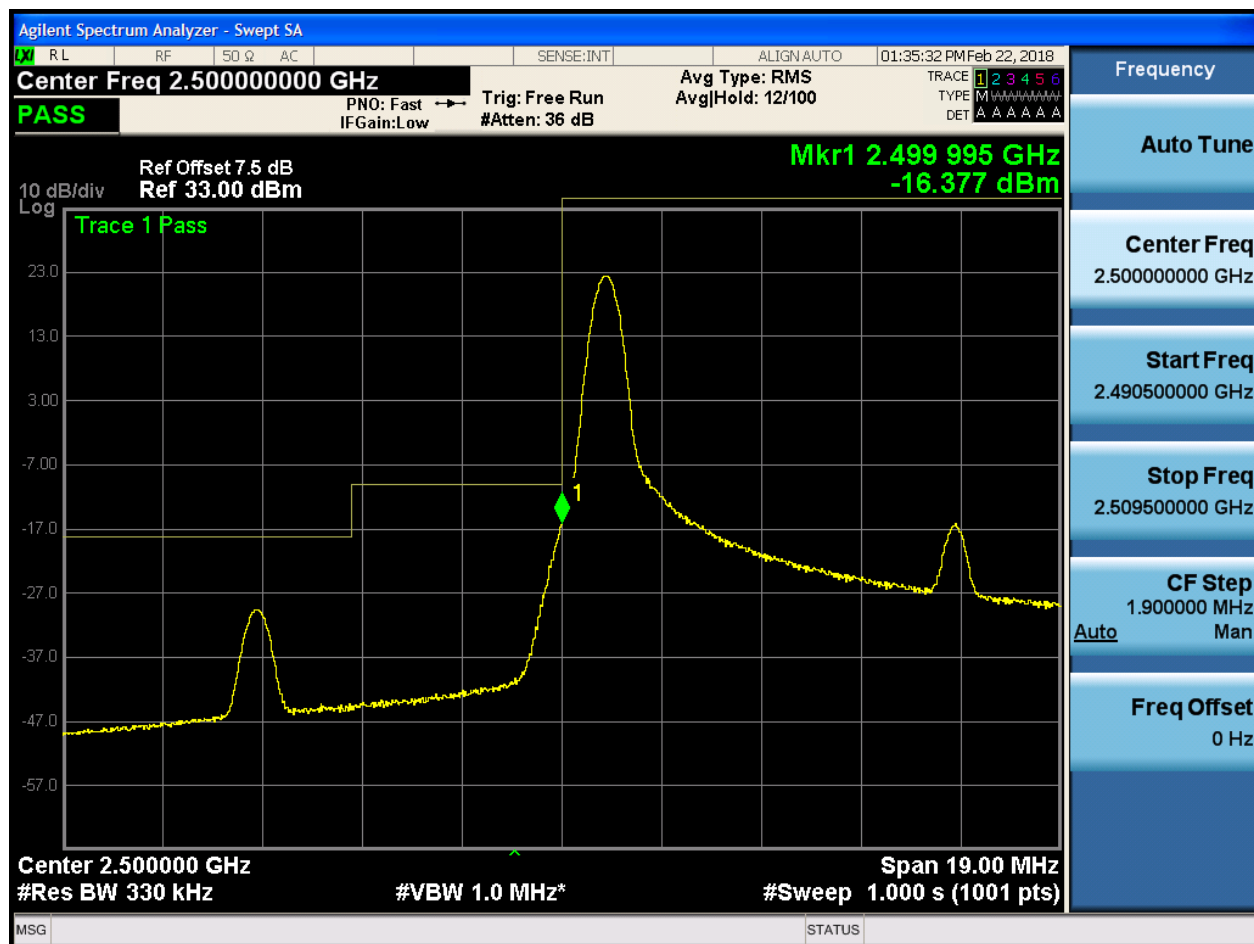
5.1.1.1.2.2.4 Test RB = RB50#0

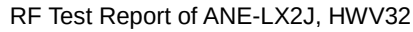


5.1.1.1.3 Test Bandwidth = 15

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

Center Freq 2.500000000 GHz

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-39.588 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 330 kHz
#VBW 1.0 MHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

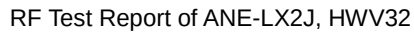
Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



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
-27.614 dBm

Trace 1 Pass

Center 2.500000 GHz
#Res BW 330 kHz
#VBW 1.0 MHz*
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

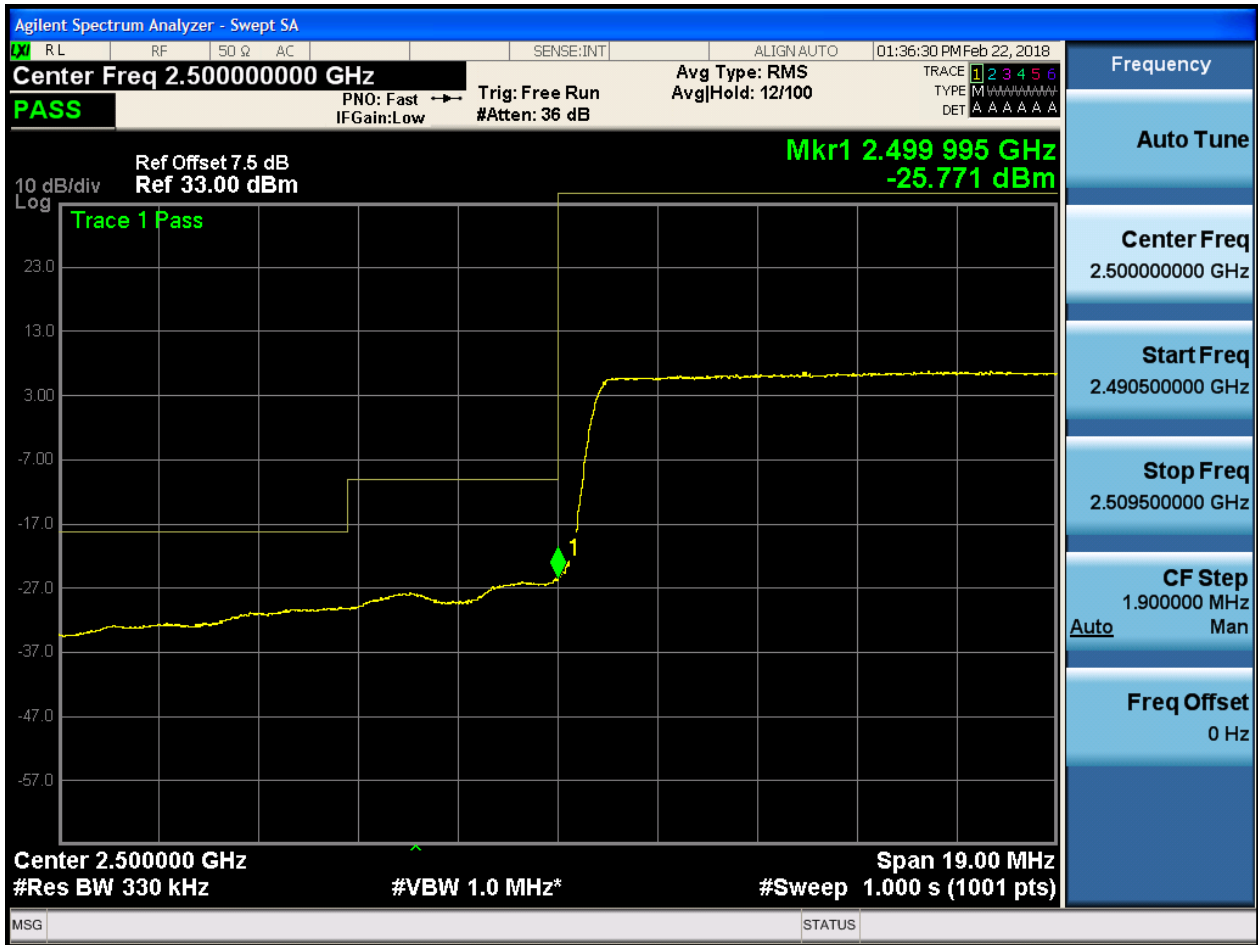
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



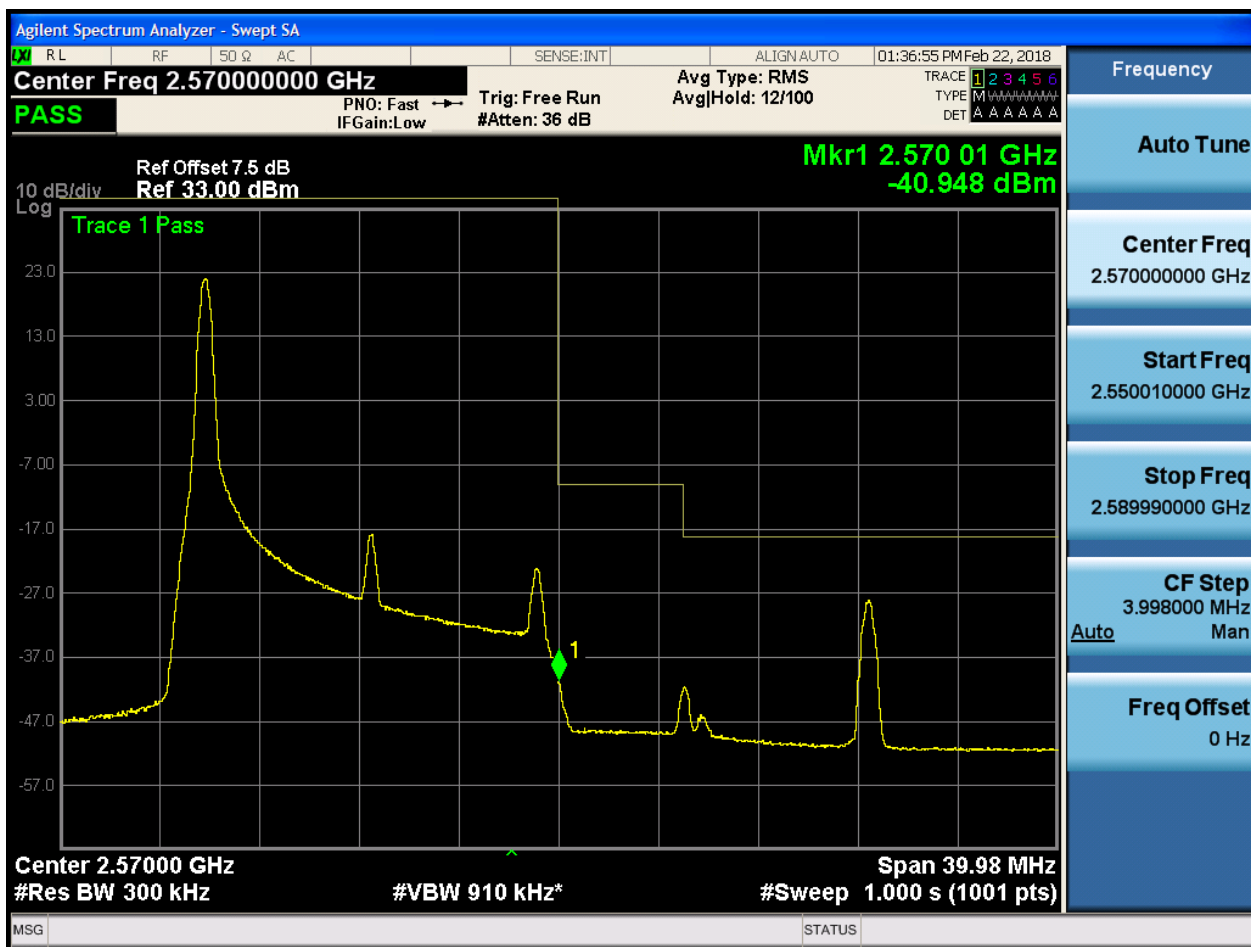
5.1.1.1.3.1.4 Test RB = RB75#0





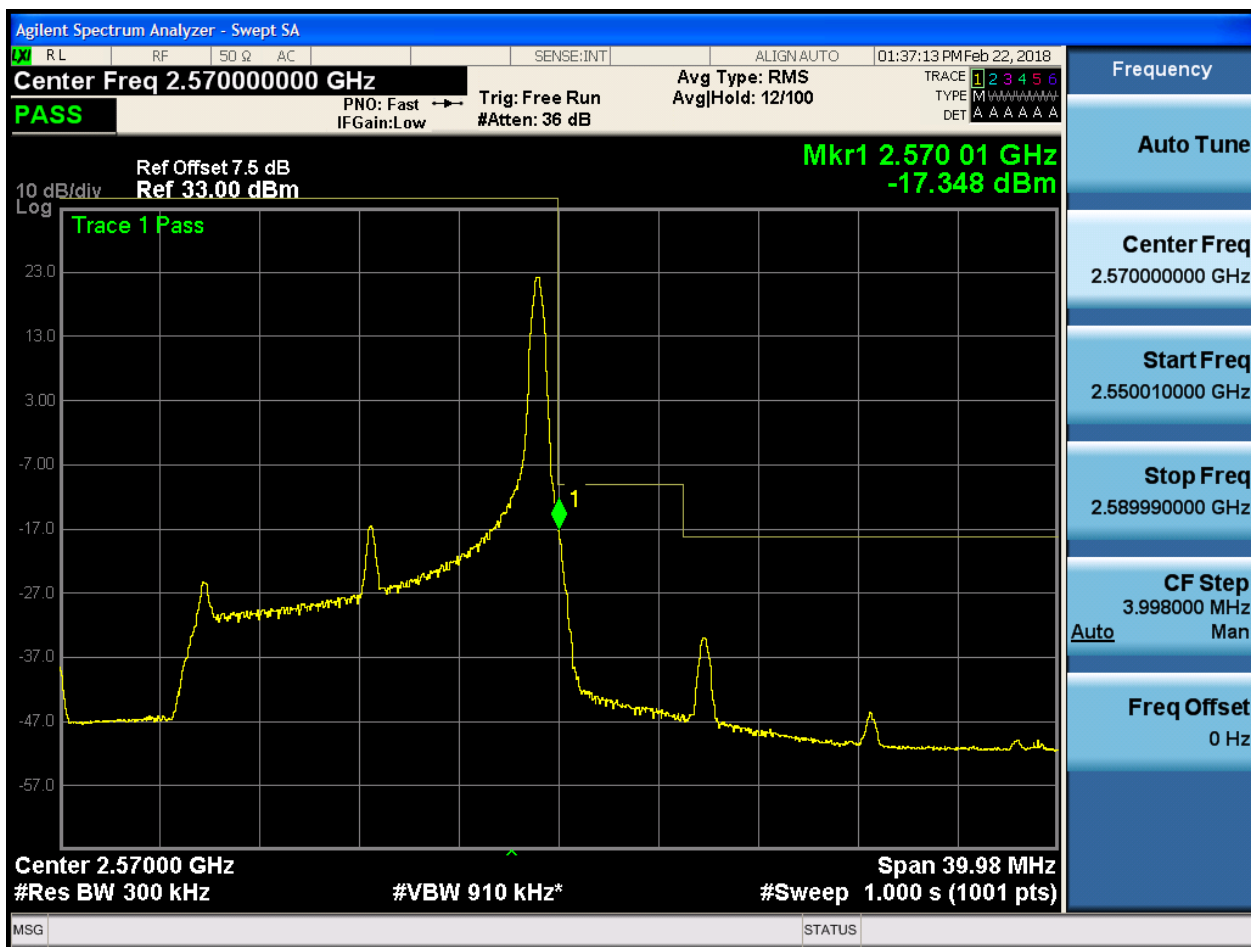
5.1.1.1.3.2 Test Channel = HCH

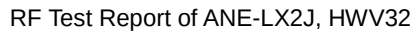
5.1.1.1.3.2.1 Test RB = RB1#0





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 01:37:32 PM Feb 22, 2018

Center Freq 2.57000000 GHz Avg Type: RMS
PNO: Fast Trig: Free Run AvgHold: 12/100
IFGain: Low #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.570 01 GHz
-33.165 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz Span 39.98 MHz
#Res BW 300 kHz #VBW 910 kHz #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.550010000 GHz

Stop Freq
2.589990000 GHz

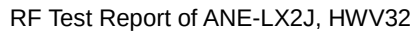
CF Step
3.998000 MHz
Auto Man

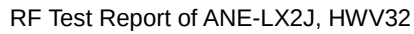
Freq Offset
0 Hz



5.1.1.1.3.2.4 Test RB = RB75#0







Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:38:38 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
PNO: Fast Trig: Free Run Avg/Hold: 12/100
IFGain:Low #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-38.095 dBm

10 dB/div
Log

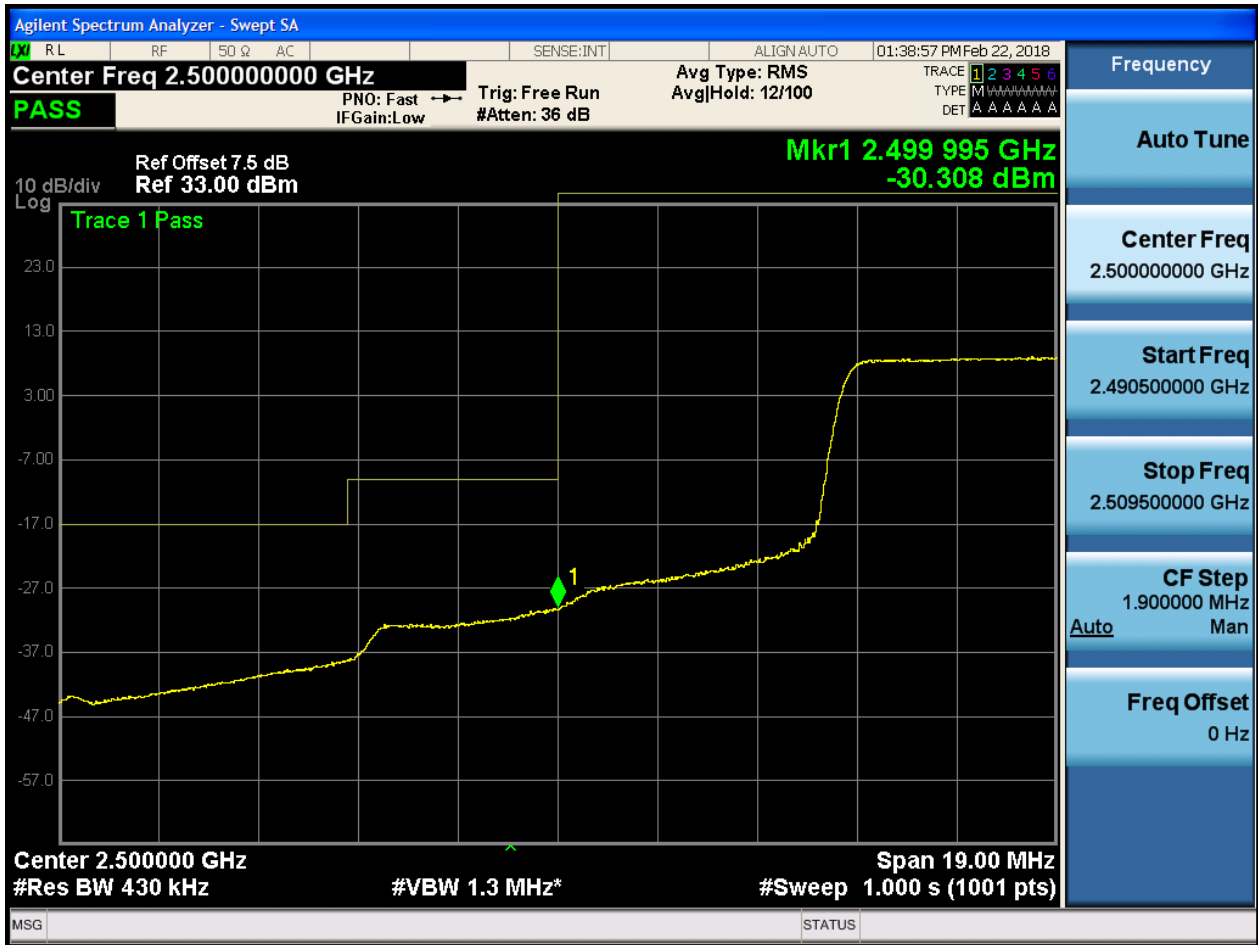
Trace 1 Pass

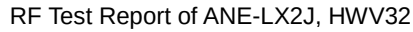
Center 2.500000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



5.1.1.1.4.1.3 Test RB = RB50#25





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RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:39:17 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 430 kHz #VBW 1.3 MHz* #Sweep 1.000 s (1001 pts)

PASS PNO: Fast Trig: Free Run
IFGain:Low #Atten: 36 dB

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

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-27.730 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz

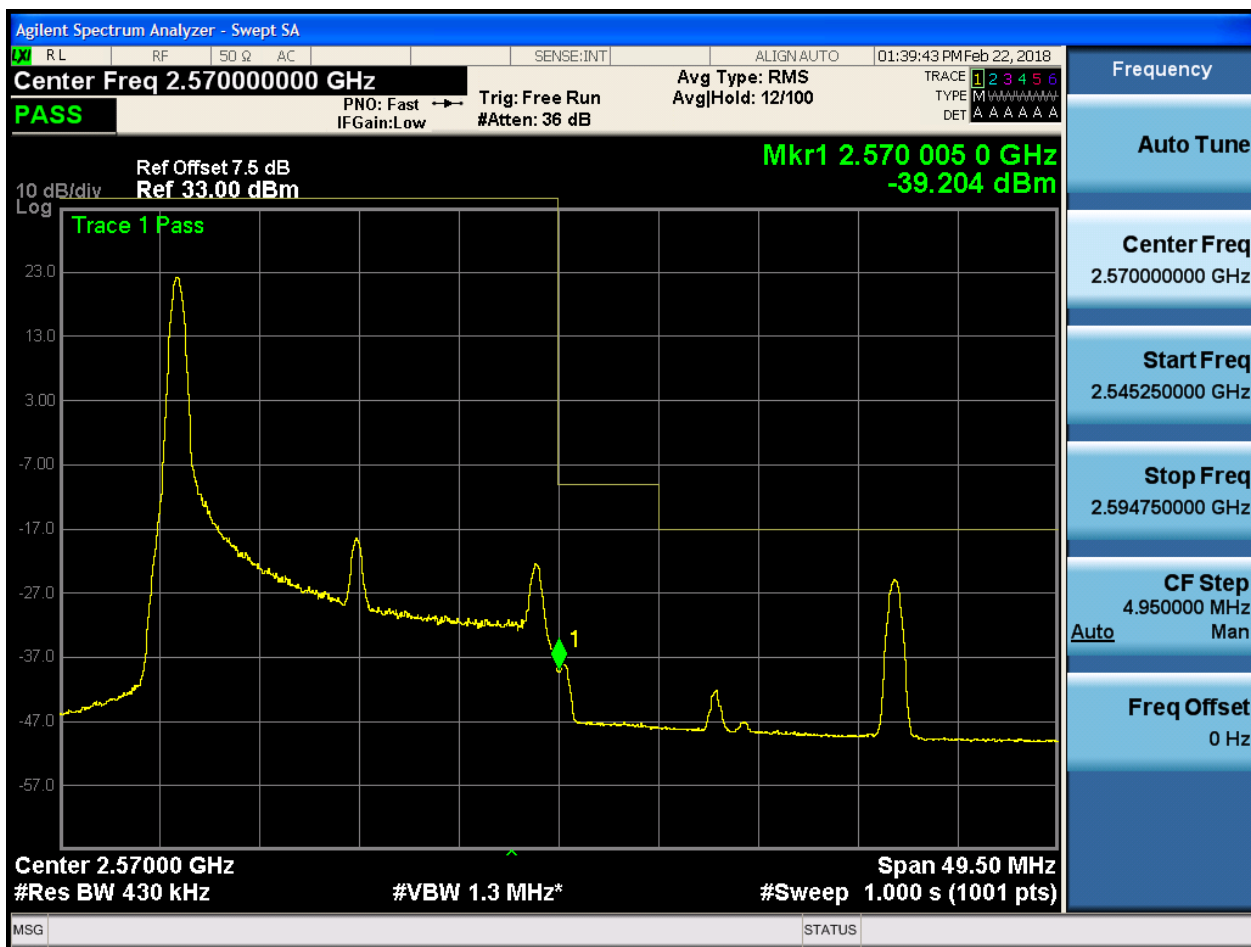
MSG STATUS

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



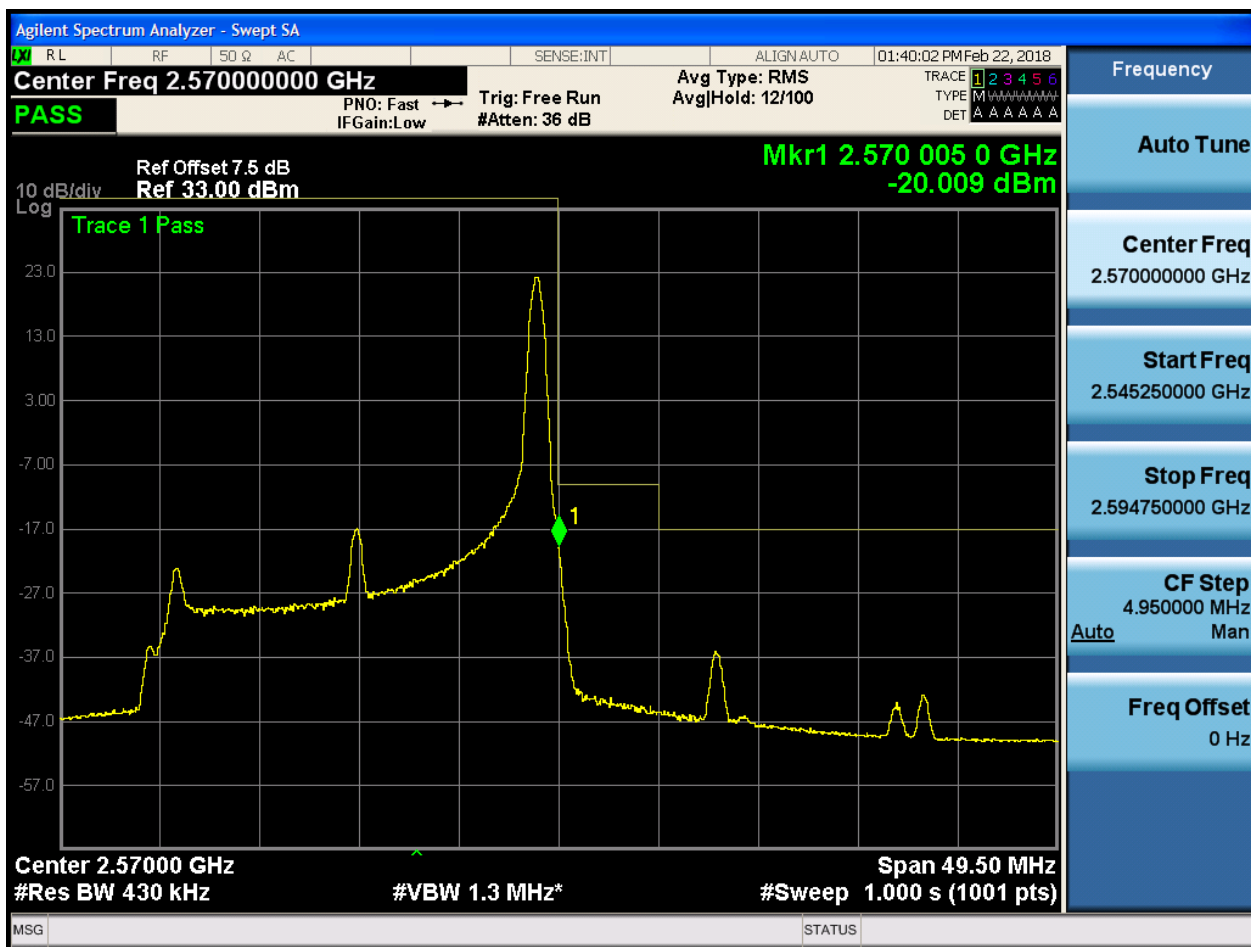
5.1.1.1.4.2 Test Channel = HCH

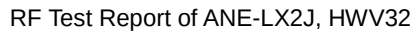
5.1.1.1.4.2.1 Test RB = RB1#0





5.1.1.1.4.2.2 Test RB = RB1#99





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:40:22 PM Feb 22, 2018

Center Freq 2.57000000 GHz Avg Type: RMS
PNO: Fast Trig: Free Run AvgHold: 12/100
IFGain: Low #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.570 005 0 GHz
-32.754 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz*
Span 49.50 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.545250000 GHz

Stop Freq
2.594750000 GHz

CF Step
4.950000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.4.2.4 Test RB = RB100#0



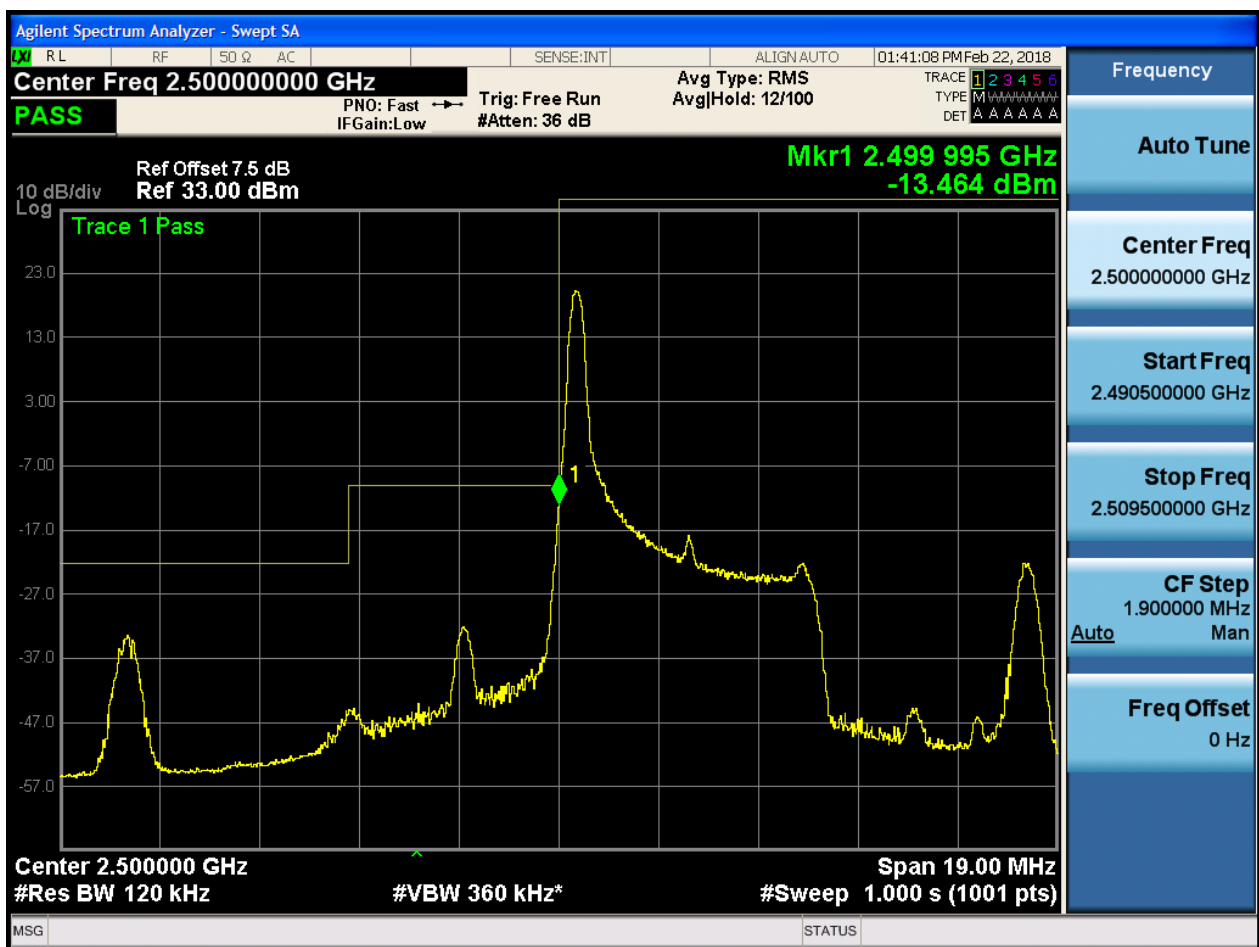


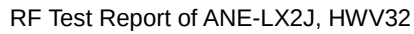
5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:41:27 PM Feb 22, 2018

Center Freq 2.500000000 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
DET A A A A A A

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-33.559 dBm

10 dB/div
Log

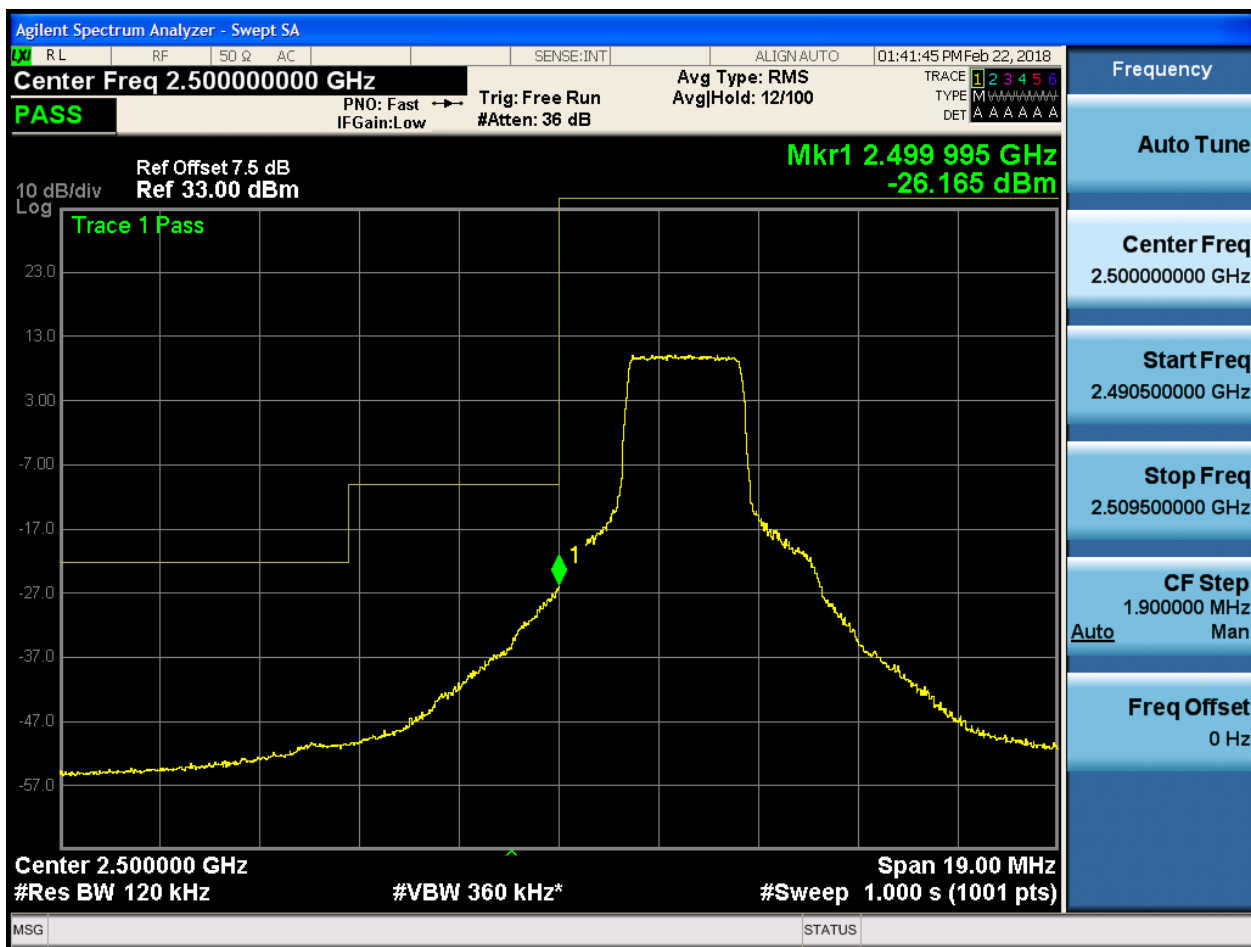
Trace 1 Pass

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

MSG STATUS



5.1.1.2.1.1.3 Test RB = RB12#6





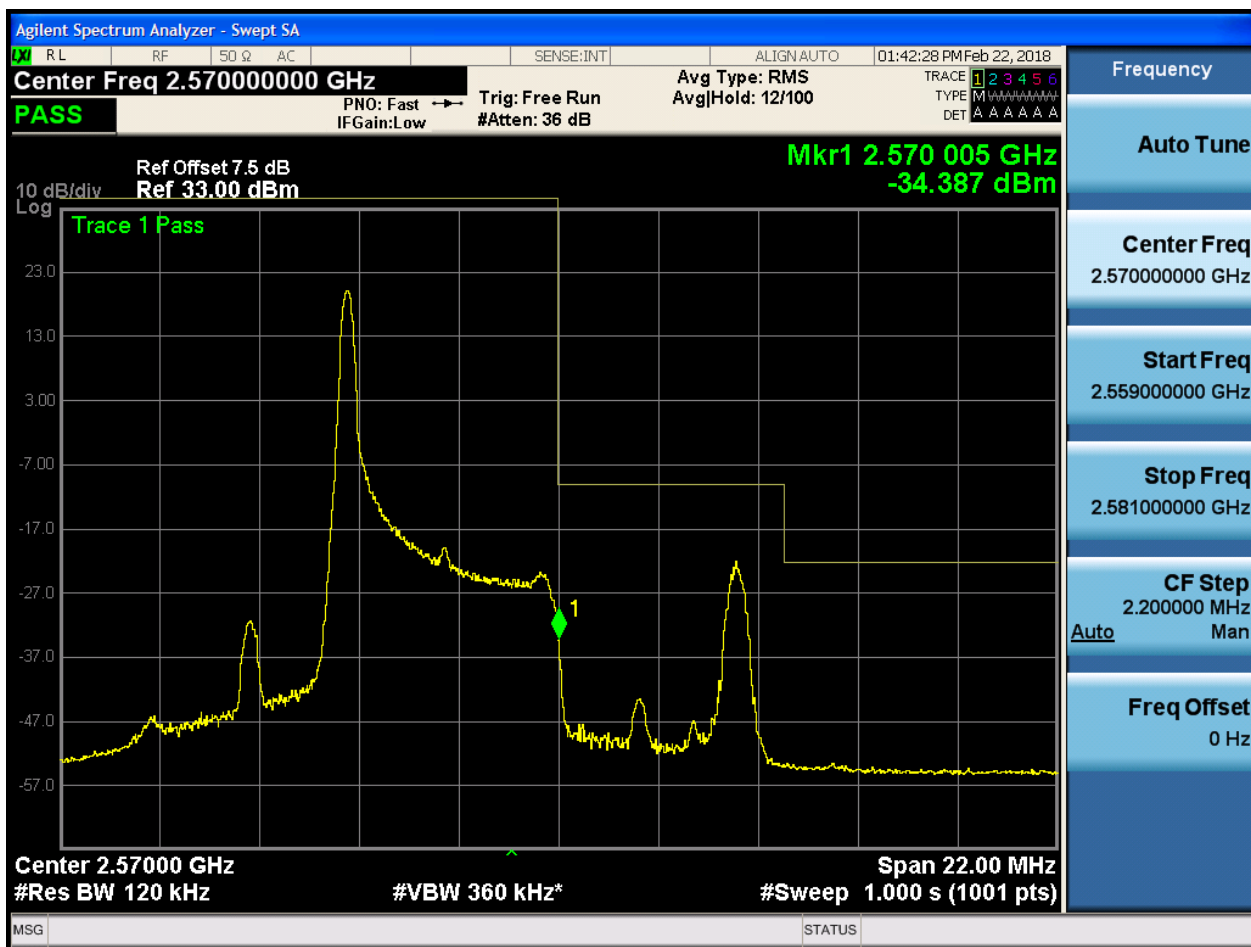
5.1.1.2.1.1.4 Test RB = RB25#0





5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0



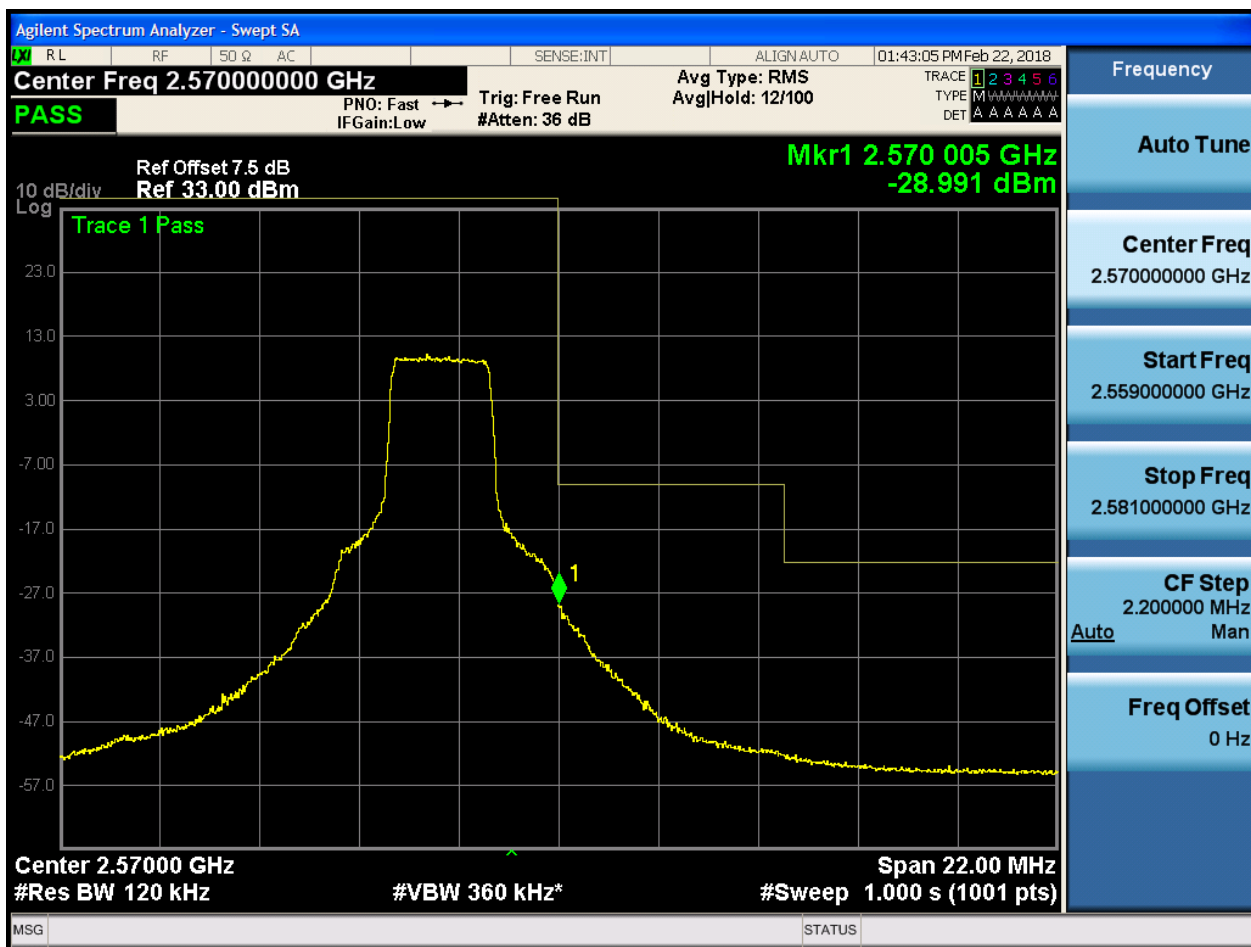


5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





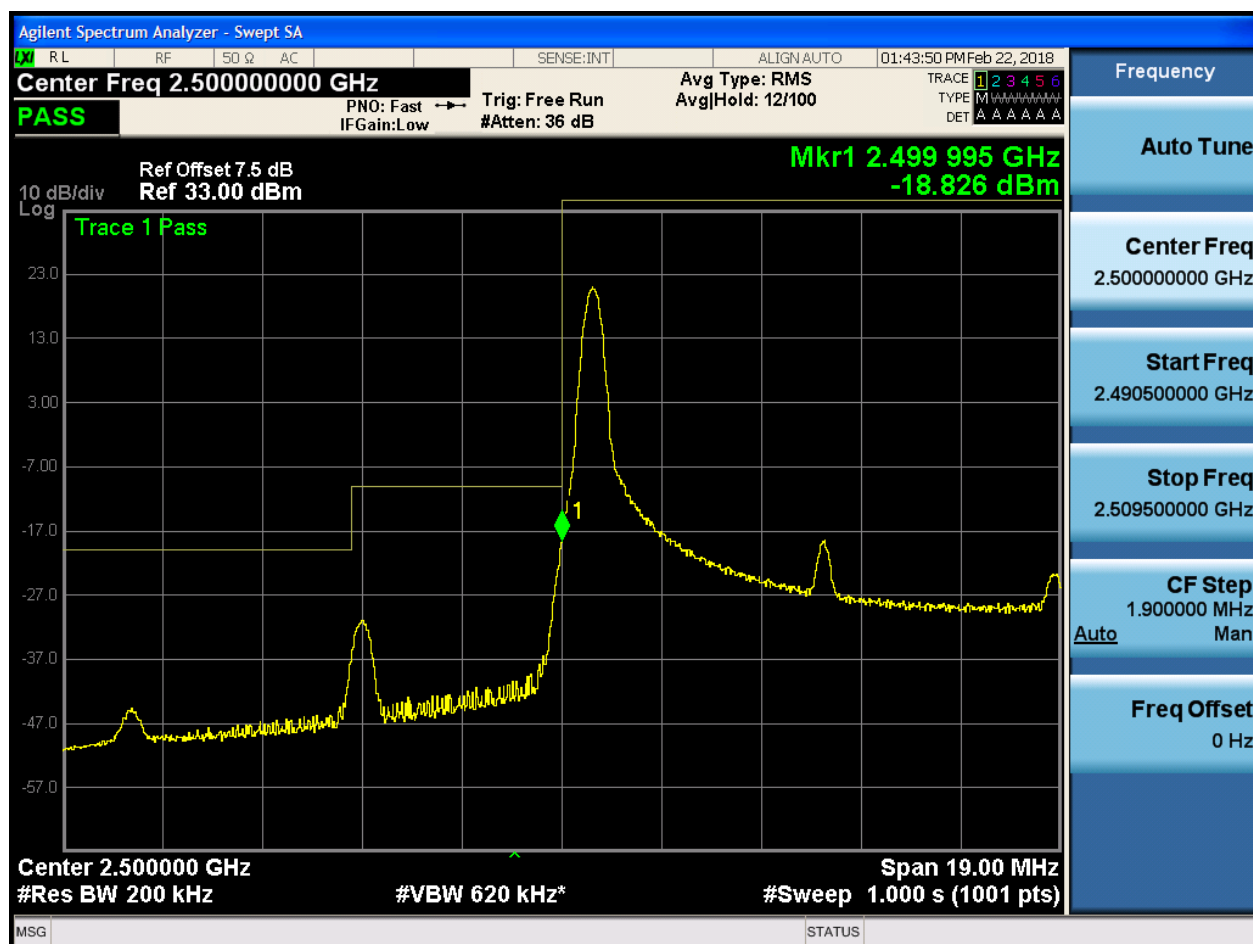
5.1.1.2.1.2.4 Test RB = RB25#0

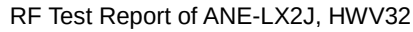


5.1.1.2.2 Test Bandwidth = 10

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 01:44:09 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS Trg: Free Run
#Res BW 200 kHz #VBW 620 kHz #Sweep 1.000 s (1001 pts)

PASS PNO: Fast IF Gain: Low #Atten: 36 dB

Ref Offset 7.5 dB Ref 33.00 dBm

Mkr1 2.499 995 GHz -38.616 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

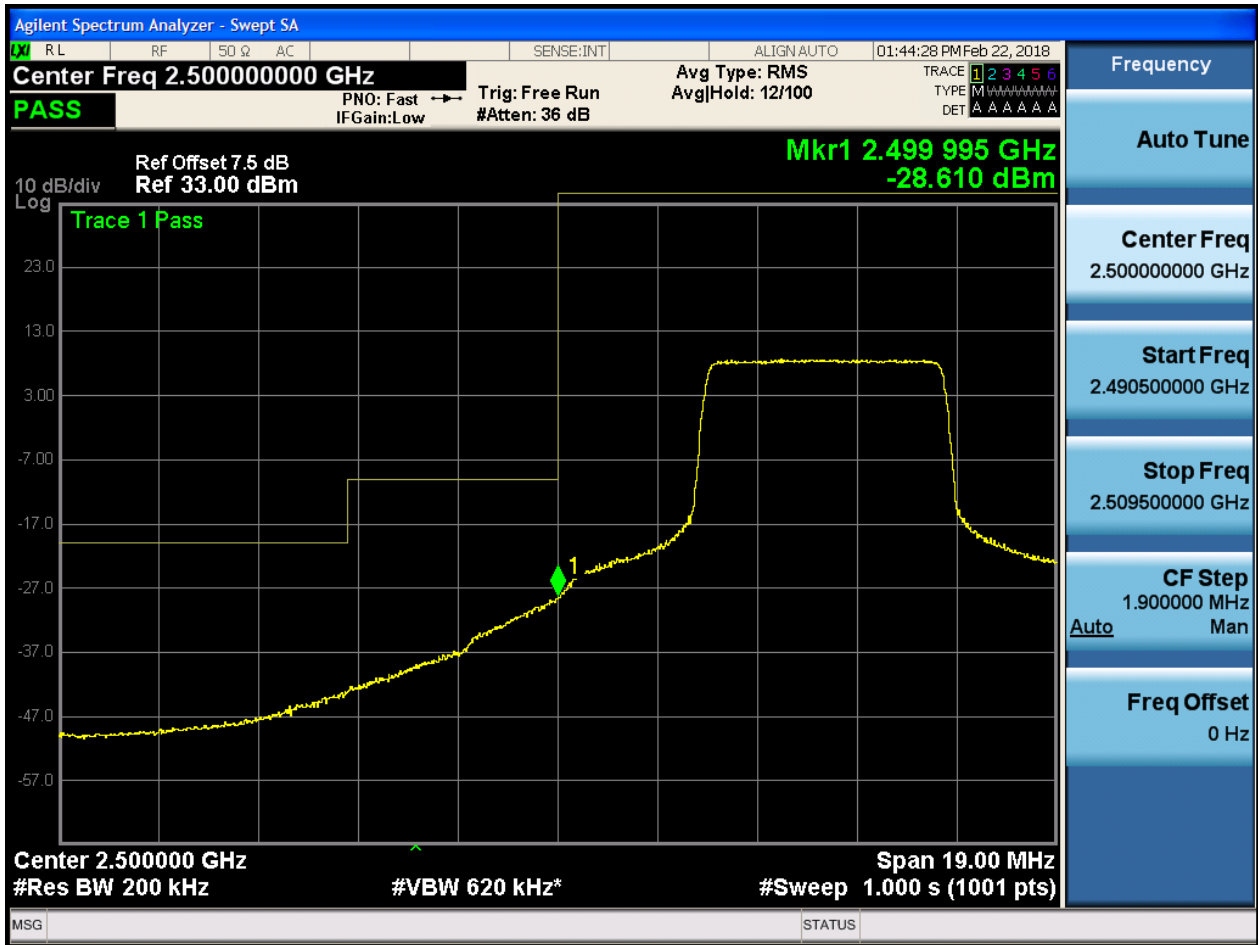
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

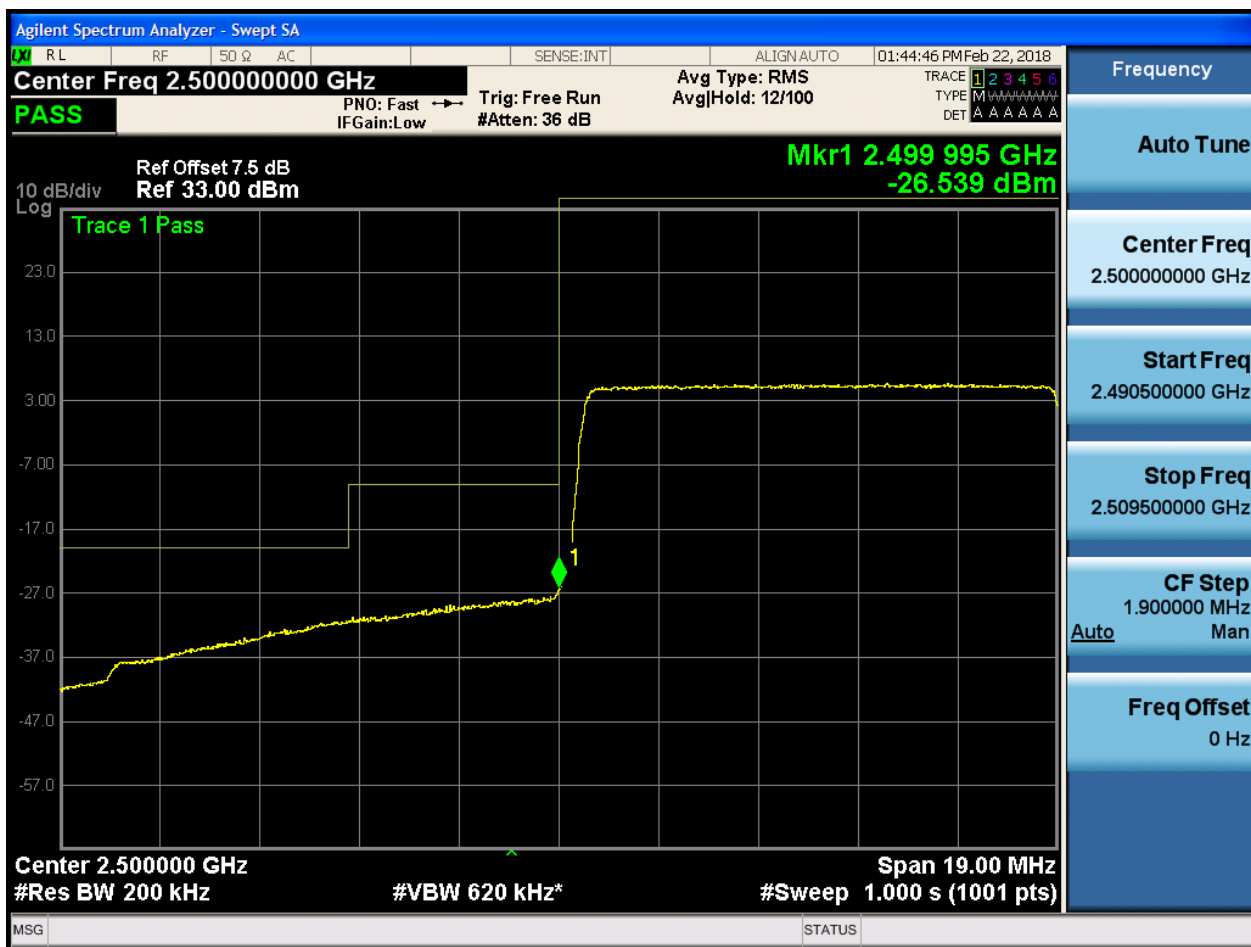


5.1.1.2.2.1.3 Test RB = RB25#13





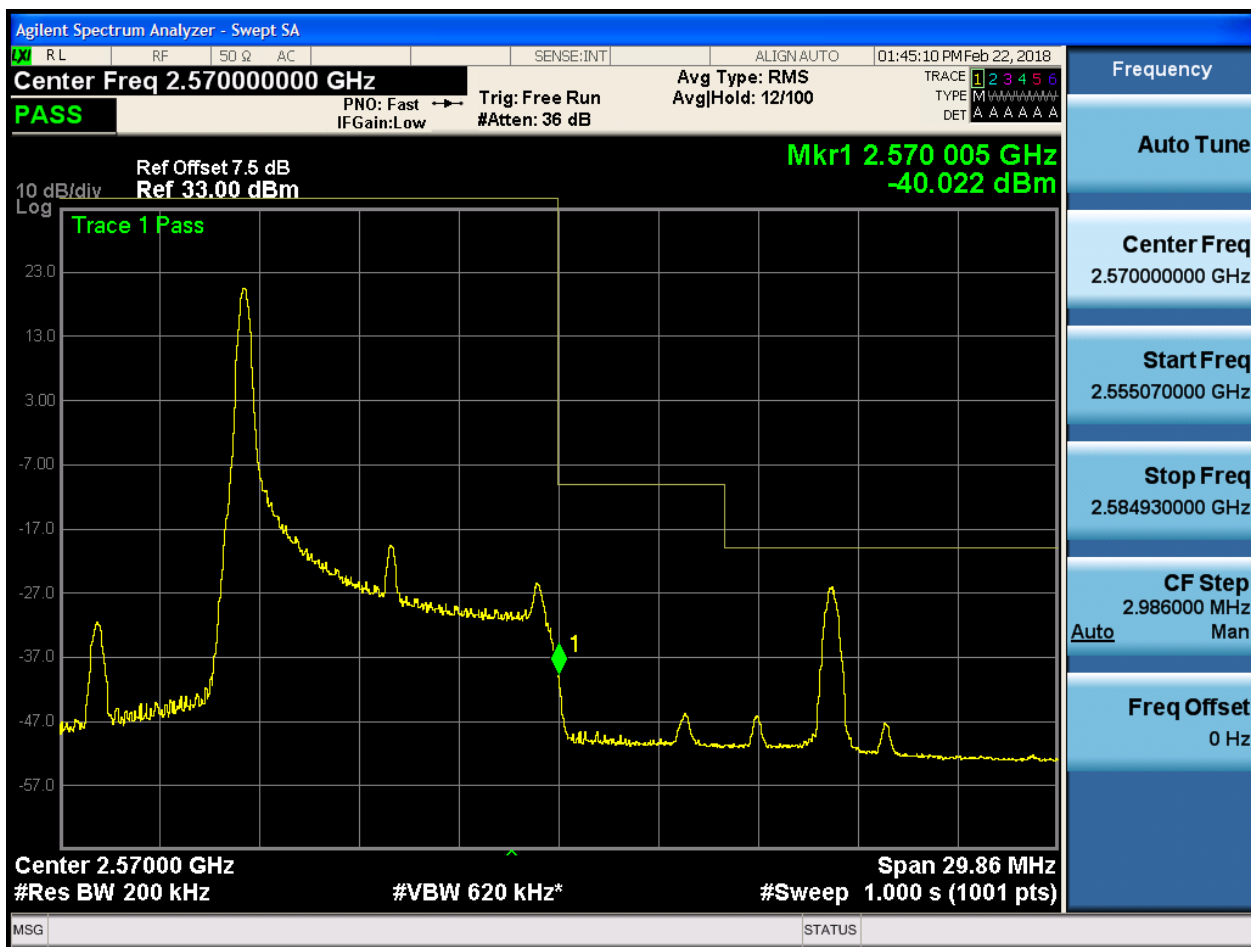
5.1.1.2.2.1.4 Test RB = RB50#0





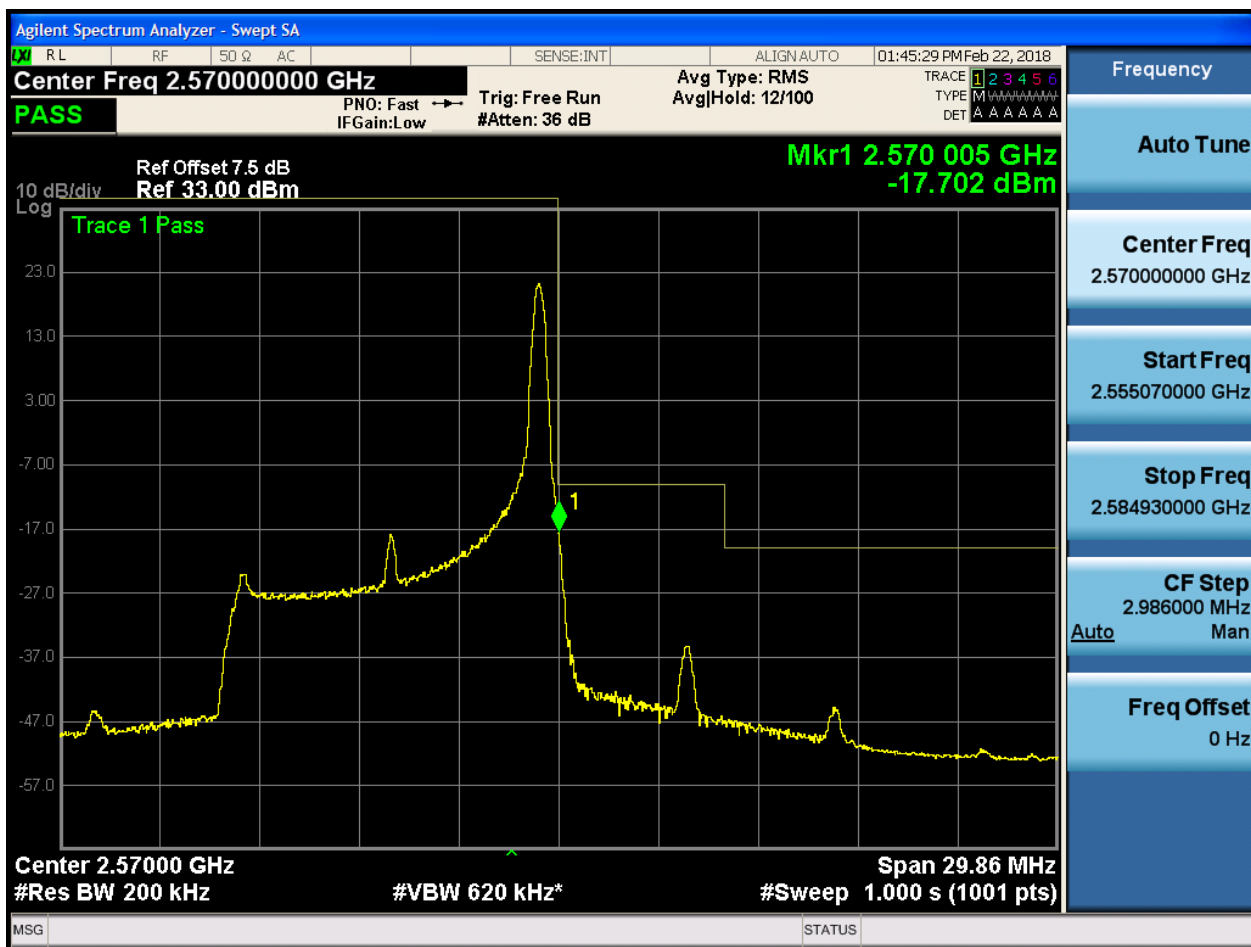
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



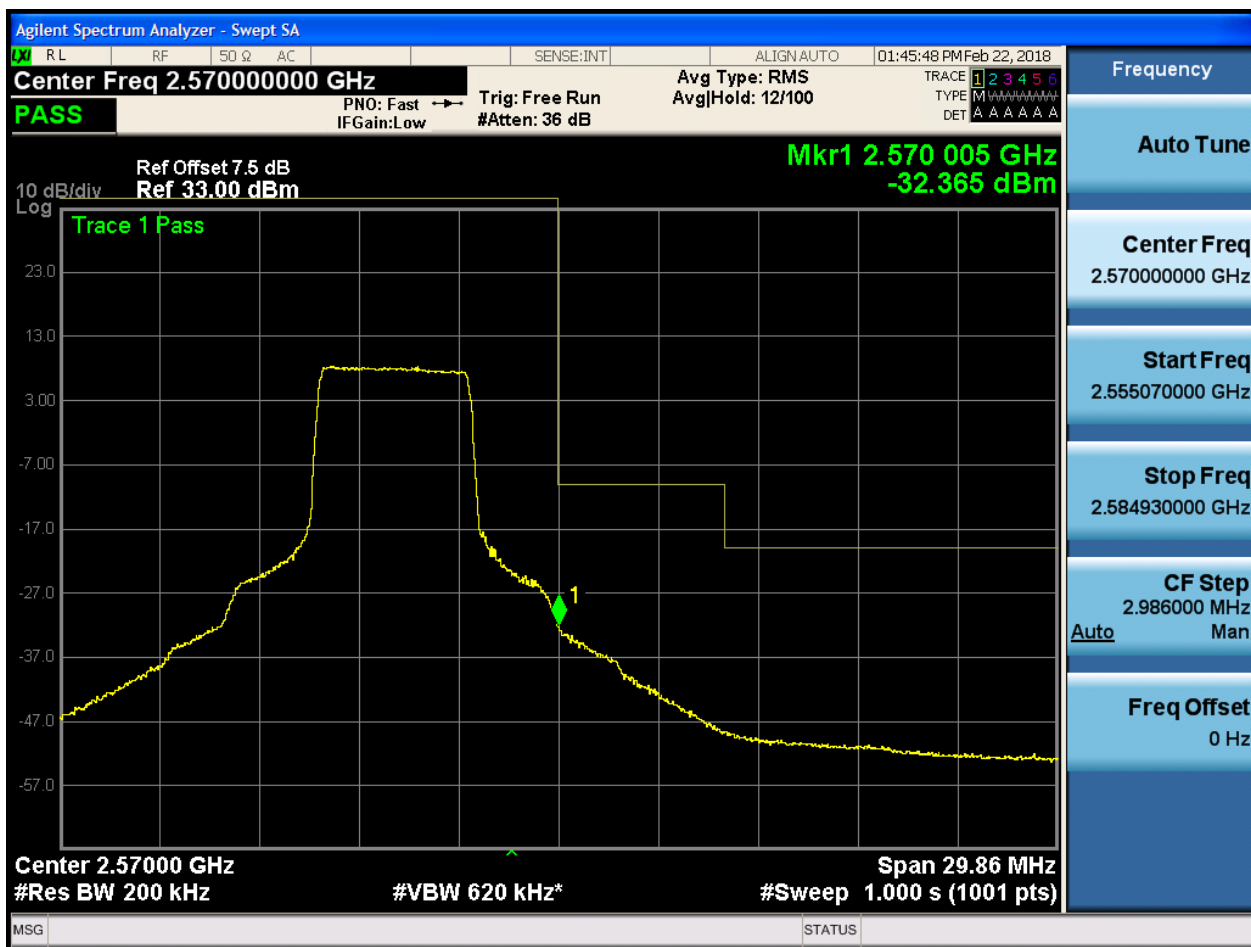


5.1.1.2.2.2 Test RB = RB1#49





5.1.1.2.2.3 Test RB = RB25#13





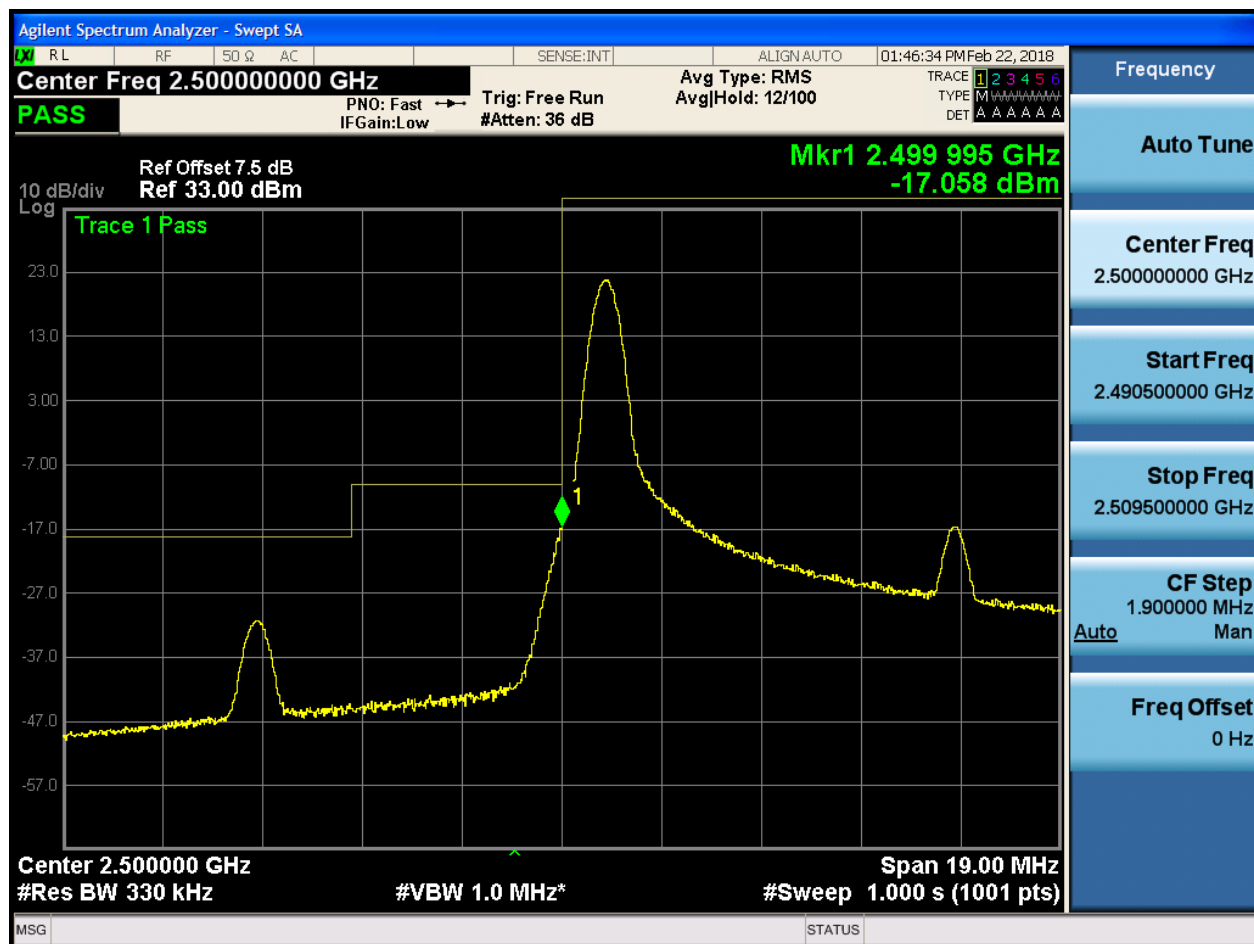
5.1.1.2.2.4 Test RB = RB50#0

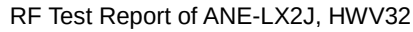


5.1.1.2.3 Test Bandwidth = 15

5.1.1.2.3.1 Test Channel = LCH

5.1.1.2.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:46:53 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 330 kHz PNO: Fast Trig: Free Run Avg/Hold: 12/100
IFGain:Low #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-40.025 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#VBW 1.0 MHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

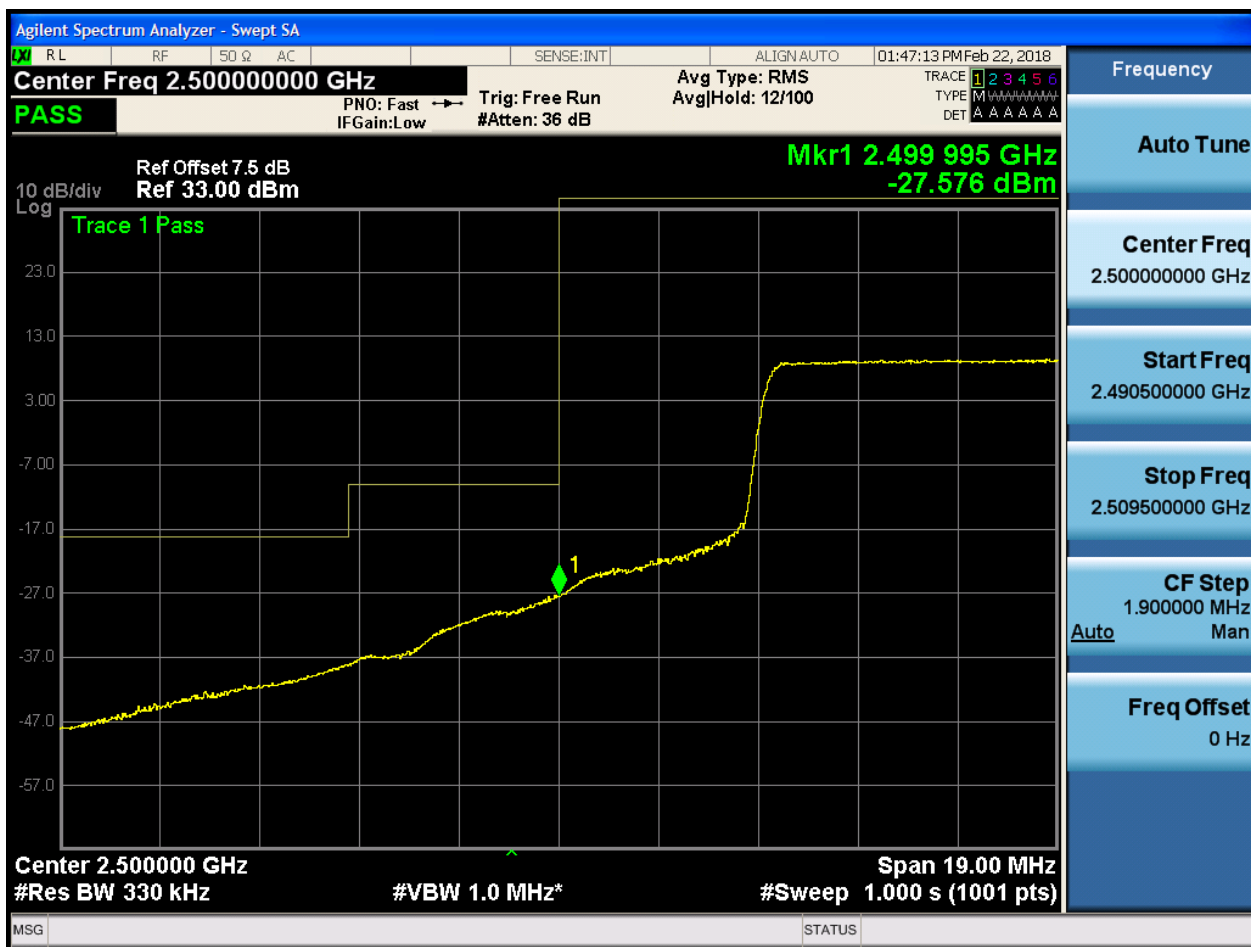
Stop Freq
2.509500000 GHz

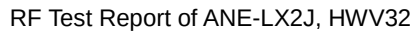
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.3.1.3 Test RB = RB36#18





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:47:32 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run AvgHold: 12/100
IFGain:Low #Atten: 36 dB

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

Ref Offset 7.5 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-25.885 dBm

10 dB/div
Log

Trace 1 Pass

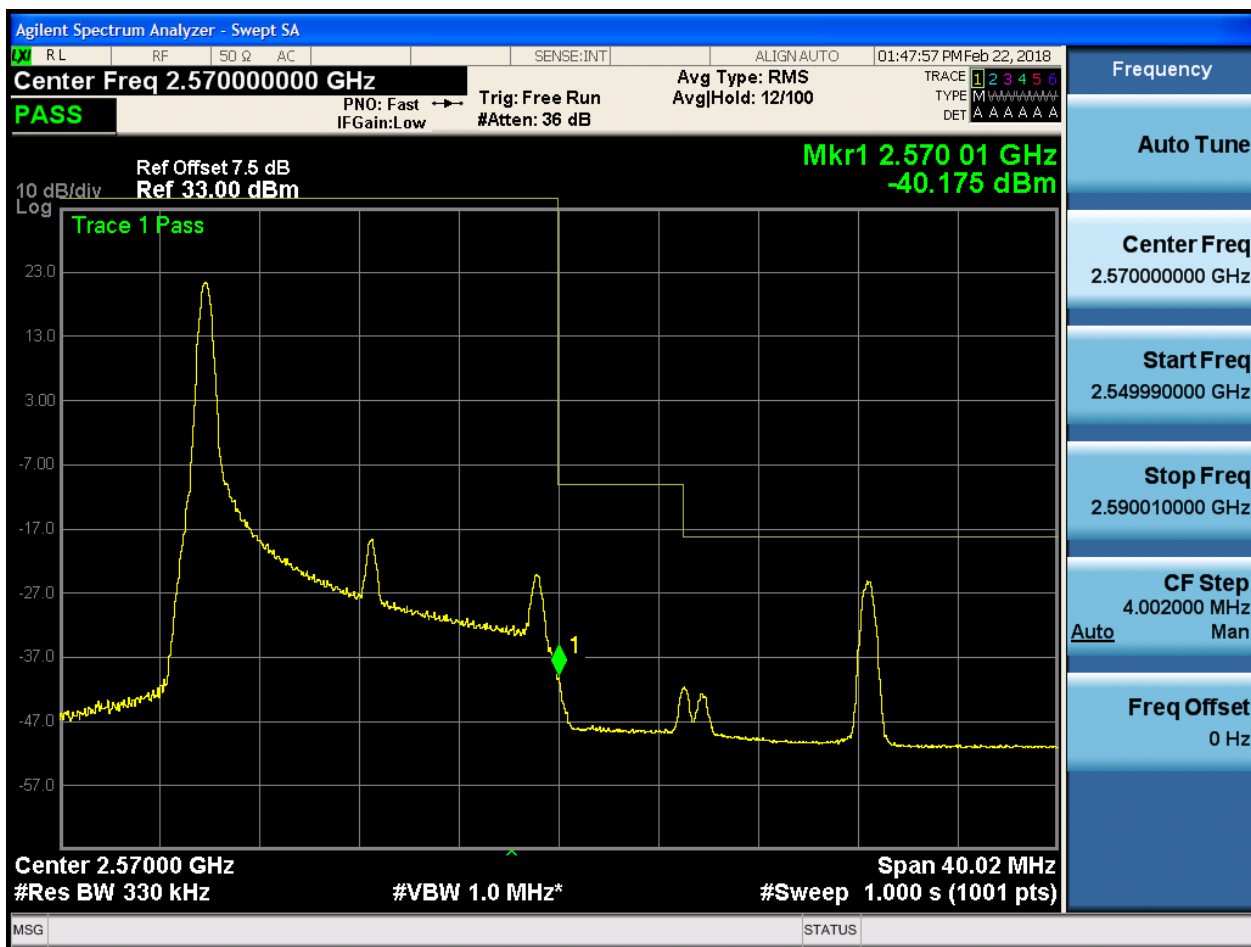
Center 2.500000 GHz Span 19.00 MHz
#Res BW 330 kHz #VBW 1.0 MHz #Sweep 1.000 s (1001 pts)

MSG STATUS



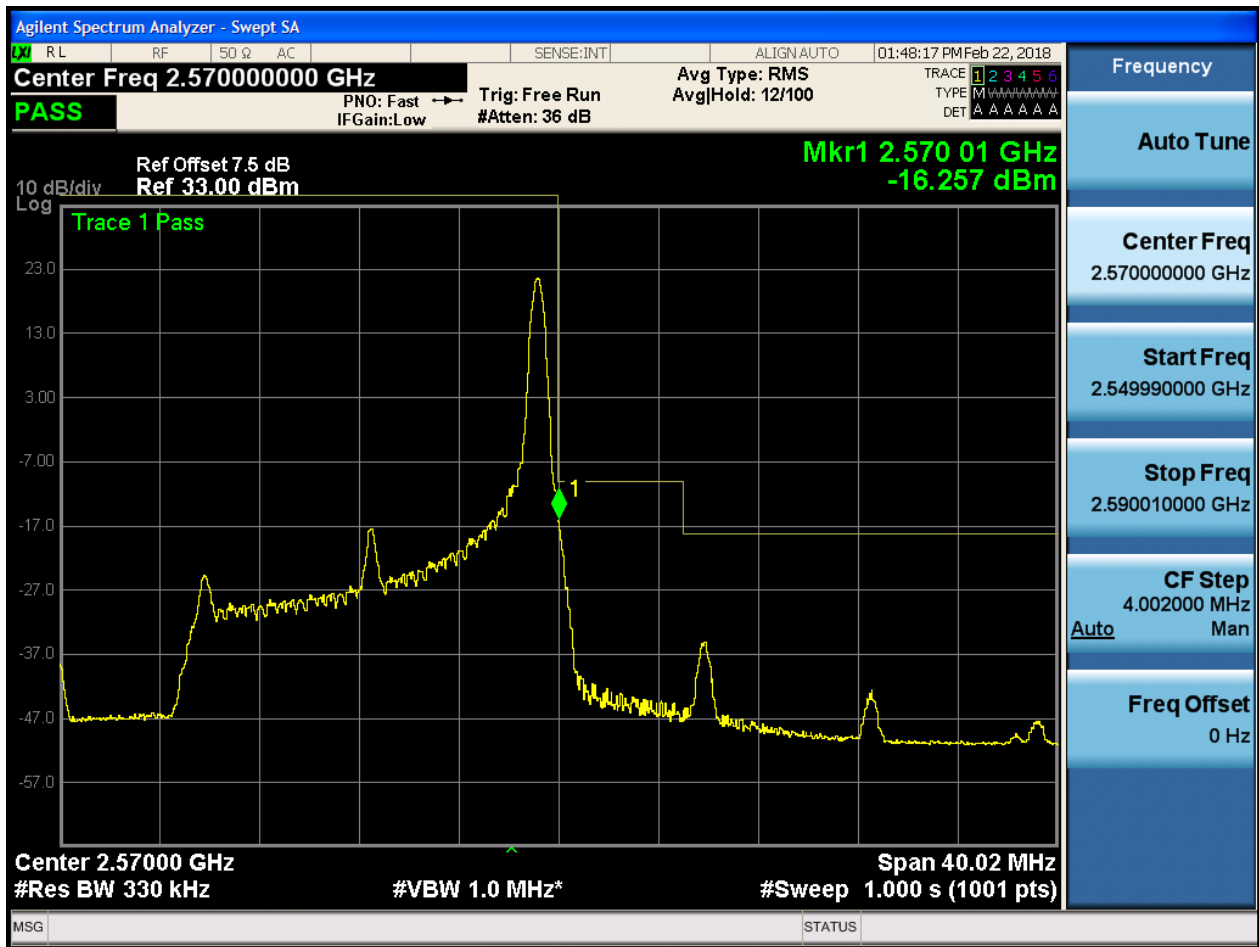
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#74





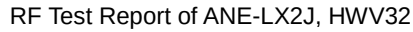
5.1.1.2.3.2.3 Test RB = RB36#18

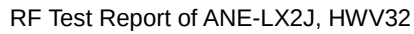




5.1.1.2.3.2.4 Test RB = RB75#0







Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 01:49:43 PM Feb 22, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 430 kHz PNO: Fast Trig: Free Run AvgHld: 12/100
IFGain:Low #Atten: 36 dB

PASS

Ref Offset 7.5 dB
Ref 33.00 dBm

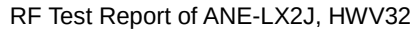
Mkr1 2.499 995 GHz
-39.002 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz Span 19.00 MHz
#Res BW 430 kHz #VBW 1.3 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
-29.766 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

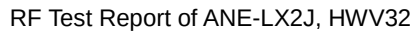
Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto

Freq Offset
0 Hz



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
-27.537 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 GHz
#Res BW 430 kHz
#VBW 1.3 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

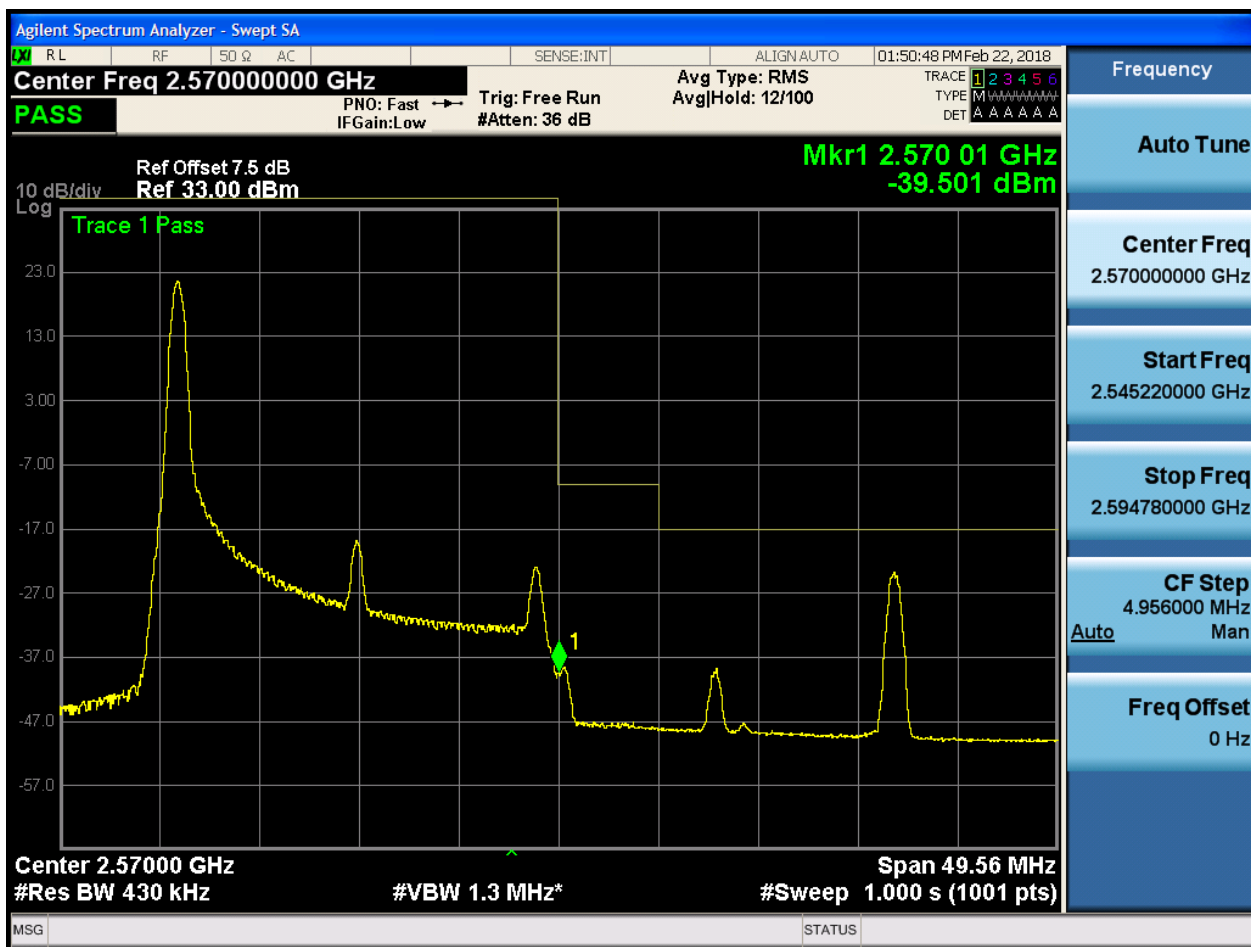
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



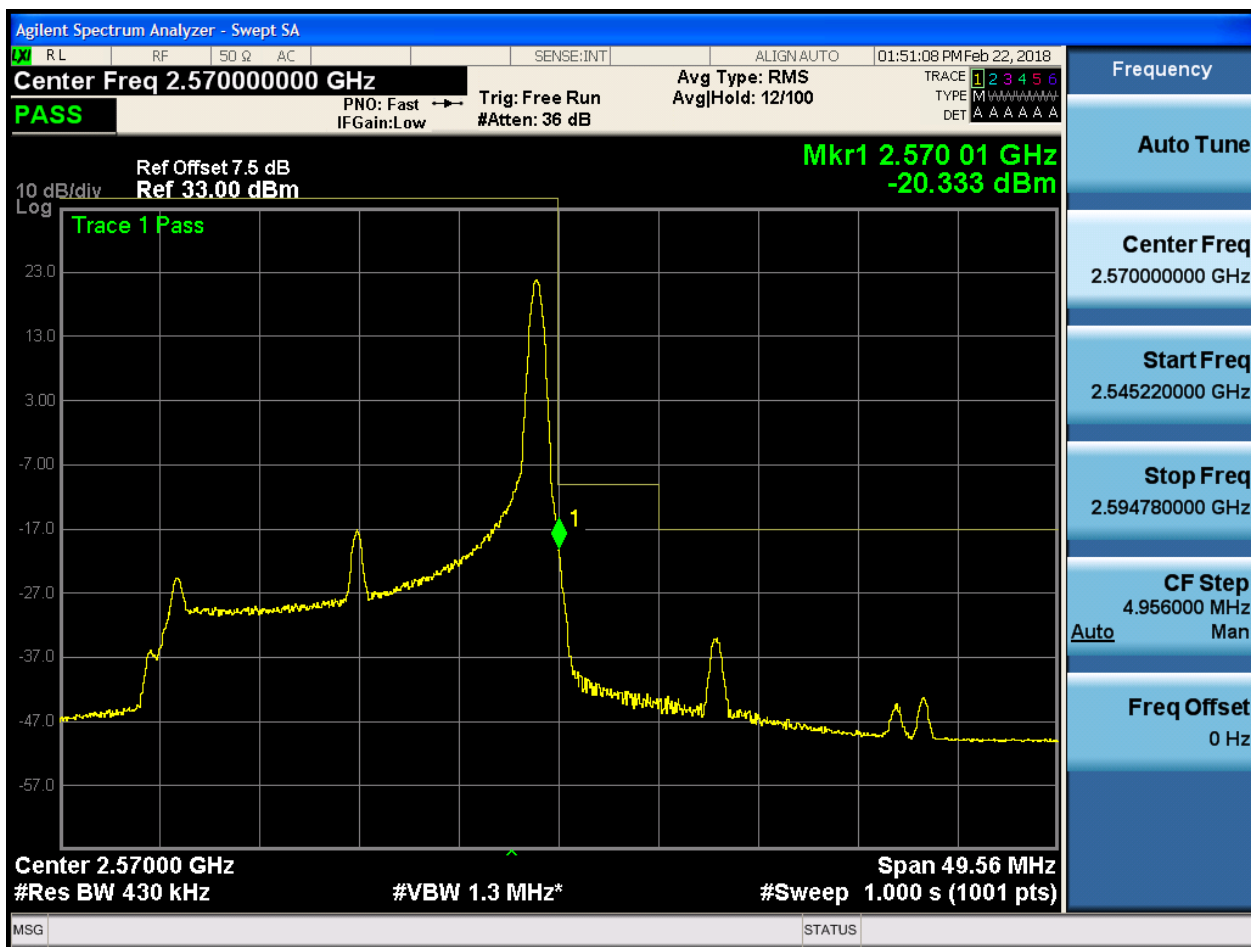
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



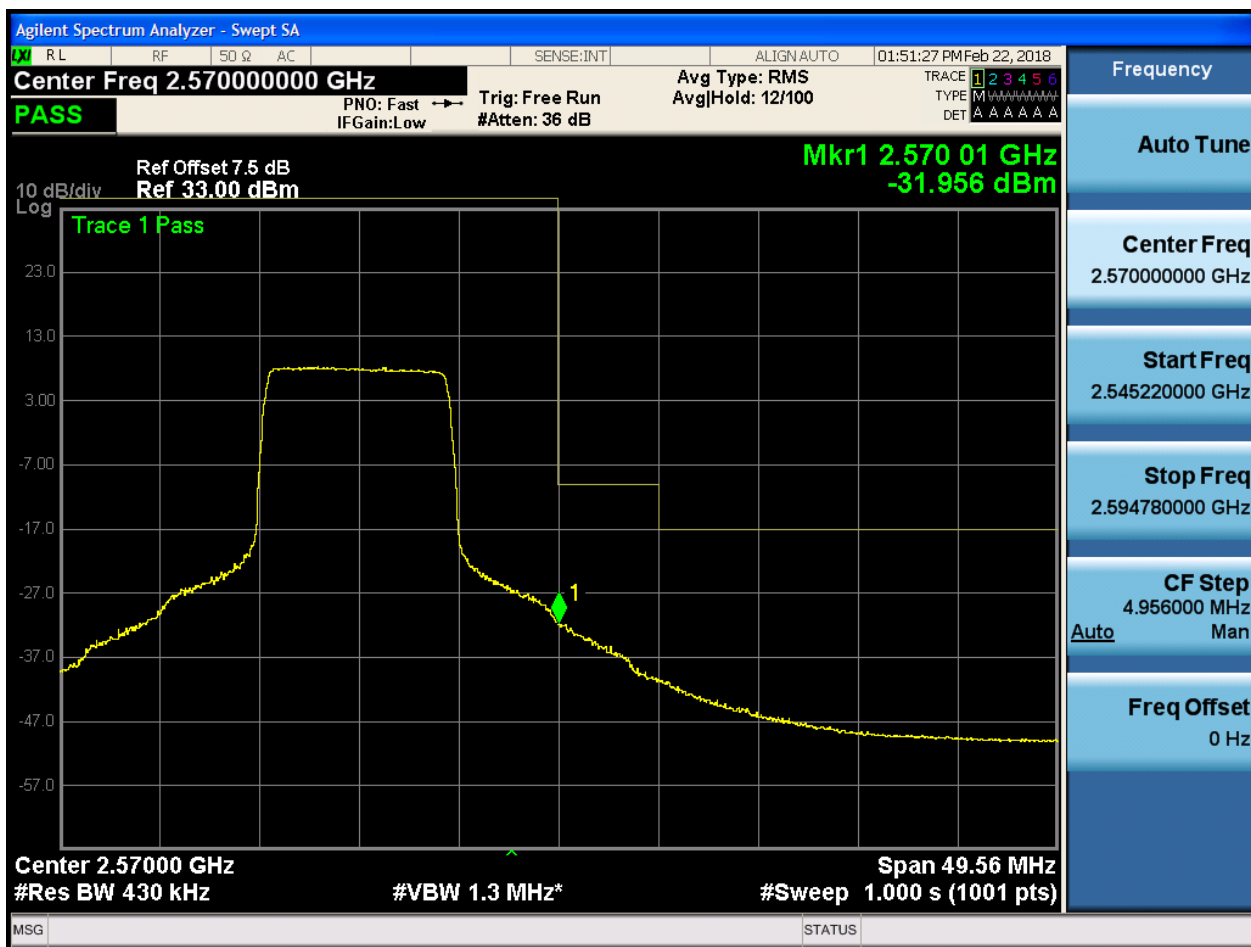


5.1.1.2.4.2.2 Test RB = RB1#99





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

