



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
BAND38	LTE/TM1	5	LCH	RB1#0	22.17	20.37	33	PASS
				RB1#13	22.32	20.52	33	PASS
				RB1#24	22.26	20.46	33	PASS
				RB12#0	21.09	19.29	33	PASS
				RB12#6	21.14	19.34	33	PASS
				RB12#13	21.14	19.34	33	PASS
				RB25#0	21.07	19.27	33	PASS
			MCH	RB1#0	22.63	20.83	33	PASS
				RB1#13	22.7	20.9	33	PASS
				RB1#24	22.59	20.79	33	PASS
				RB12#0	21.49	19.69	33	PASS
				RB12#6	21.48	19.68	33	PASS
				RB12#13	21.57	19.77	33	PASS
				RB25#0	21.49	19.69	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	22.26	20.46	33	PASS
				RB1#13	22.37	20.57	33	PASS
				RB1#24	22.39	20.59	33	PASS
				RB12#0	21.09	19.29	33	PASS
				RB12#6	21.14	19.34	33	PASS
				RB12#13	21.25	19.45	33	PASS
				RB25#0	21.13	19.33	33	PASS
		10	LCH	RB1#0	22	20.2	33	PASS
				RB1#25	22.21	20.41	33	PASS
				RB1#49	22.25	20.45	33	PASS
				RB25#0	21.04	19.24	33	PASS
				RB25#13	21.02	19.22	33	PASS
				RB25#25	21.09	19.29	33	PASS
				RB50#0	21.06	19.26	33	PASS
			MCH	RB1#0	22.93	21.13	33	PASS
				RB1#25	22.83	21.03	33	PASS
				RB1#49	22.86	21.06	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.72	19.92	33	PASS
				RB25#13	21.74	19.94	33	PASS
				RB25#25	21.77	19.97	33	PASS
				RB50#0	21.68	19.88	33	PASS
			HCH	RB1#0	22.18	20.38	33	PASS
				RB1#25	22.06	20.26	33	PASS
				RB1#49	22.1	20.3	33	PASS
				RB25#0	21.16	19.36	33	PASS
				RB25#13	20.97	19.17	33	PASS
				RB25#25	20.96	19.16	33	PASS
				RB50#0	21.03	19.23	33	PASS
		15	LCH	RB1#0	22.01	20.21	33	PASS
				RB1#38	22.11	20.31	33	PASS
				RB1#74	22.36	20.56	33	PASS
				RB36#0	21.08	19.28	33	PASS
				RB36#18	21.08	19.28	33	PASS
				RB36#39	21.28	19.48	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	21.12	19.32	33	PASS
			MCH	RB1#0	22.77	20.97	33	PASS
				RB1#38	22.71	20.91	33	PASS
				RB1#74	22.47	20.67	33	PASS
				RB36#0	21.69	19.89	33	PASS
				RB36#18	21.76	19.96	33	PASS
				RB36#39	21.74	19.94	33	PASS
				RB75#0	21.67	19.87	33	PASS
			HCH	RB1#0	22.34	20.54	33	PASS
				RB1#38	22.1	20.3	33	PASS
				RB1#74	22.08	20.28	33	PASS
				RB36#0	21.18	19.38	33	PASS
				RB36#18	21.15	19.35	33	PASS
				RB36#39	21.01	19.21	33	PASS
				RB75#0	21.09	19.29	33	PASS
		20	LCH	RB1#0	21.87	20.07	33	PASS
				RB1#50	22.37	20.57	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	22.38	20.58	33	PASS
				RB50#0	21.09	19.29	33	PASS
				RB50#25	21.18	19.38	33	PASS
				RB50#50	21.34	19.54	33	PASS
				RB100#0	21.19	19.39	33	PASS
			MCH	RB1#0	22.61	20.81	33	PASS
				RB1#50	22.96	21.16	33	PASS
				RB1#99	22.47	20.67	33	PASS
				RB50#0	21.6	19.8	33	PASS
				RB50#25	21.49	19.69	33	PASS
				RB50#50	21.53	19.73	33	PASS
				RB100#0	21.55	19.75	33	PASS
			HCH	RB1#0	22.84	21.04	33	PASS
				RB1#50	22.54	20.74	33	PASS
				RB1#99	22.4	20.6	33	PASS
				RB50#0	21.35	19.55	33	PASS
				RB50#25	21.2	19.4	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.96	19.16	33	PASS
				RB100#0	21.15	19.35	33	PASS
	LTE/TM2	5	LCH	RB1#0	20.88	19.08	33	PASS
				RB1#13	20.97	19.17	33	PASS
				RB1#24	20.3	18.5	33	PASS
				RB12#0	19.92	18.12	33	PASS
				RB12#6	19.94	18.14	33	PASS
				RB12#13	19.96	18.16	33	PASS
				RB25#0	20.02	18.22	33	PASS
			MCH	RB1#0	21.72	19.92	33	PASS
				RB1#13	21.87	20.07	33	PASS
				RB1#24	21.78	19.98	33	PASS
				RB12#0	20.64	18.84	33	PASS
				RB12#6	20.59	18.79	33	PASS
				RB12#13	20.95	19.15	33	PASS
				RB25#0	20.78	18.98	33	PASS
			HCH	RB1#0	20.48	18.68	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#13	20.77	18.97	33	PASS
				RB1#24	20.84	19.04	33	PASS
				RB12#0	20.23	18.43	33	PASS
				RB12#6	20.26	18.46	33	PASS
				RB12#13	20.26	18.46	33	PASS
				RB25#0	19.97	18.17	33	PASS
		10	LCH	RB1#0	21.08	19.28	33	PASS
				RB1#25	21.82	20.02	33	PASS
				RB1#49	21.26	19.46	33	PASS
				RB25#0	20.24	18.44	33	PASS
				RB25#13	20.25	18.45	33	PASS
				RB25#25	20.03	18.23	33	PASS
				RB50#0	20.17	18.37	33	PASS
			MCH	RB1#0	21.11	19.31	33	PASS
				RB1#25	22.36	20.56	33	PASS
				RB1#49	21.07	19.27	33	PASS
				RB25#0	20.77	18.97	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#13	20.8	19	33	PASS
				RB25#25	20.74	18.94	33	PASS
				RB50#0	20.5	18.7	33	PASS
			HCH	RB1#0	21.07	19.27	33	PASS
				RB1#25	21.38	19.58	33	PASS
				RB1#49	20.9	19.1	33	PASS
				RB25#0	19.99	18.19	33	PASS
				RB25#13	20.25	18.45	33	PASS
				RB25#25	20.25	18.45	33	PASS
				RB50#0	20.13	18.33	33	PASS
		15	LCH	RB1#0	21.2	19.4	33	PASS
				RB1#38	21.2	19.4	33	PASS
				RB1#74	21.49	19.69	33	PASS
				RB36#0	20.13	18.33	33	PASS
				RB36#18	20.22	18.42	33	PASS
				RB36#39	20.38	18.58	33	PASS
				RB75#0	20.28	18.48	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			MCH	RB1#0	21.76	19.96	33	PASS
				RB1#38	21.61	19.81	33	PASS
				RB1#74	21.52	19.72	33	PASS
				RB36#0	20.58	18.78	33	PASS
				RB36#18	20.41	18.61	33	PASS
				RB36#39	20.42	18.62	33	PASS
				RB75#0	20.52	18.72	33	PASS
			HCH	RB1#0	21.43	19.63	33	PASS
				RB1#38	21.52	19.72	33	PASS
				RB1#74	21.09	19.29	33	PASS
				RB36#0	20.44	18.64	33	PASS
				RB36#18	20.35	18.55	33	PASS
				RB36#39	20.18	18.38	33	PASS
				RB75#0	20.3	18.5	33	PASS
		20	LCH	RB1#0	21.07	19.27	33	PASS
				RB1#50	21.9	20.1	33	PASS
				RB1#99	21.95	20.15	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#0	20.36	18.56	33	PASS
				RB50#25	20.51	18.71	33	PASS
				RB50#50	20.55	18.75	33	PASS
				RB100#0	20.38	18.58	33	PASS
			MCH	RB1#0	21.79	19.99	33	PASS
				RB1#50	22.19	20.39	33	PASS
				RB1#99	21.62	19.82	33	PASS
				RB50#0	20.63	18.83	33	PASS
				RB50#25	20.68	18.88	33	PASS
				RB50#50	20.68	18.88	33	PASS
				RB100#0	20.66	18.86	33	PASS
			HCH	RB1#0	21.21	19.41	33	PASS
				RB1#50	21.2	19.4	33	PASS
				RB1#99	20.61	18.81	33	PASS
				RB50#0	20.62	18.82	33	PASS
				RB50#25	20.41	18.61	33	PASS
				RB50#50	20.24	18.44	33	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB100#0	20.41	18.61	33	PASS

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

Note2:

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

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

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

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
BAND38	LTE/TM1	5	LCH	RB1#0	4.75	13	PASS
				RB1#13	4.63	13	PASS
				RB1#24	4.82	13	PASS
				RB12#0	5.39	13	PASS
				RB12#6	5.38	13	PASS
				RB12#13	5.37	13	PASS
				RB25#0	5.69	13	PASS
			MCH	RB1#0	4.77	13	PASS
				RB1#13	4.56	13	PASS
				RB1#24	4.71	13	PASS
				RB12#0	5.45	13	PASS
				RB12#6	5.49	13	PASS
				RB12#13	5.36	13	PASS
				RB25#0	5.59	13	PASS
			HCH	RB1#0	4.81	13	PASS
				RB1#13	4.5	13	PASS
				RB1#24	4.72	13	PASS
				RB12#0	5.5	13	PASS
				RB12#6	5.36	13	PASS
				RB12#13	5.37	13	PASS
				RB25#0	5.72	13	PASS
		10	LCH	RB1#0	4.76	13	PASS
				RB1#25	4.65	13	PASS
				RB1#49	4.77	13	PASS
				RB25#0	5.51	13	PASS
				RB25#13	5.46	13	PASS
				RB25#25	5.47	13	PASS
				RB50#0	5.92	13	PASS
			MCH	RB1#0	4.76	13	PASS
				RB1#25	4.65	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#49	4.72	13	PASS
				RB25#0	5.47	13	PASS
				RB25#13	5.44	13	PASS
				RB25#25	5.5	13	PASS
				RB50#0	5.85	13	PASS
			HCH	RB1#0	4.78	13	PASS
				RB1#25	4.61	13	PASS
				RB1#49	4.6	13	PASS
				RB25#0	5.46	13	PASS
				RB25#13	5.48	13	PASS
				RB25#25	5.44	13	PASS
				RB50#0	5.91	13	PASS
		15	LCH	RB1#0	4.79	13	PASS
				RB1#38	4.71	13	PASS
				RB1#74	4.77	13	PASS
				RB36#0	5.53	13	PASS
				RB36#18	5.56	13	PASS
				RB36#39	5.6	13	PASS
				RB75#0	6.01	13	PASS
			MCH	RB1#0	4.59	13	PASS
				RB1#38	4.43	13	PASS
				RB1#74	4.58	13	PASS
				RB36#0	5.54	13	PASS
				RB36#18	5.54	13	PASS
				RB36#39	5.45	13	PASS
				RB75#0	5.91	13	PASS
			HCH	RB1#0	4.77	13	PASS
				RB1#38	4.68	13	PASS
				RB1#74	4.68	13	PASS
				RB36#0	5.56	13	PASS
				RB36#18	5.5	13	PASS
				RB36#39	5.54	13	PASS
				RB75#0	5.99	13	PASS
		20	LCH	RB1#0	4.87	13	PASS
				RB1#50	4.75	13	PASS
				RB1#99	4.78	13	PASS
				RB50#0	5.51	13	PASS
				RB50#25	5.61	13	PASS
				RB50#50	5.5	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB100#0	6.03	13	PASS
			MCH	RB1#0	4.8	13	PASS
				RB1#50	4.49	13	PASS
				RB1#99	4.75	13	PASS
				RB50#0	5.51	13	PASS
				RB50#25	5.59	13	PASS
				RB50#50	5.49	13	PASS
				RB100#0	5.93	13	PASS
			HCH	RB1#0	4.56	13	PASS
				RB1#50	4.46	13	PASS
				RB1#99	4.48	13	PASS
				RB50#0	5.55	13	PASS
				RB50#25	5.63	13	PASS
				RB50#50	5.54	13	PASS
				RB100#0	6.02	13	PASS
	LTE/TM2	5	LCH	RB1#0	5.33	13	PASS
				RB1#13	5.06	13	PASS
				RB1#24	5.25	13	PASS
				RB12#0	6.3	13	PASS
				RB12#6	6.25	13	PASS
				RB12#13	6.37	13	PASS
				RB25#0	6.63	13	PASS
			MCH	RB1#0	5.89	13	PASS
				RB1#13	5.67	13	PASS
				RB1#24	5.87	13	PASS
				RB12#0	6.23	13	PASS
				RB12#6	6.24	13	PASS
				RB12#13	6.18	13	PASS
				RB25#0	6.45	13	PASS
			HCH	RB1#0	5.63	13	PASS
				RB1#13	5.41	13	PASS
				RB1#24	5.49	13	PASS
				RB12#0	6.29	13	PASS
				RB12#6	6.31	13	PASS
				RB12#13	6.14	13	PASS
				RB25#0	6.47	13	PASS
		10	LCH	RB1#0	5.56	13	PASS
				RB1#25	5.47	13	PASS
				RB1#49	5.64	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	6.51	13	PASS
				RB25#13	6.5	13	PASS
				RB25#25	6.41	13	PASS
				RB50#0	6.74	13	PASS
			MCH	RB1#0	5.27	13	PASS
				RB1#25	4.8	13	PASS
				RB1#49	5.16	13	PASS
				RB25#0	6.38	13	PASS
				RB25#13	6.31	13	PASS
				RB25#25	6.33	13	PASS
				RB50#0	6.82	13	PASS
			HCH	RB1#0	5.7	13	PASS
				RB1#25	5.64	13	PASS
				RB1#49	5.64	13	PASS
				RB25#0	6.4	13	PASS
				RB25#13	6.48	13	PASS
				RB25#25	6.43	13	PASS
				RB50#0	6.78	13	PASS
		15	LCH	RB1#0	5.5	13	PASS
				RB1#38	5.55	13	PASS
				RB1#74	5.53	13	PASS
				RB36#0	6.47	13	PASS
				RB36#18	6.42	13	PASS
				RB36#39	6.55	13	PASS
				RB75#0	6.87	13	PASS
			MCH	RB1#0	5.55	13	PASS
				RB1#38	5.28	13	PASS
				RB1#74	5.46	13	PASS
				RB36#0	6.46	13	PASS
				RB36#18	6.55	13	PASS
				RB36#39	6.45	13	PASS
				RB75#0	6.86	13	PASS
			HCH	RB1#0	5.67	13	PASS
				RB1#38	5.62	13	PASS
				RB1#74	5.54	13	PASS
				RB36#0	6.39	13	PASS
				RB36#18	6.37	13	PASS
				RB36#39	6.37	13	PASS
				RB75#0	6.81	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
		20	LCH	RB1#0	5.65	13	PASS
				RB1#50	5.46	13	PASS
				RB1#99	5.66	13	PASS
				RB50#0	6.52	13	PASS
				RB50#25	6.55	13	PASS
				RB50#50	6.55	13	PASS
				RB100#0	6.91	13	PASS
			MCH	RB1#0	5.49	13	PASS
				RB1#50	5.24	13	PASS
				RB1#99	5.39	13	PASS
				RB50#0	6.52	13	PASS
				RB50#25	6.48	13	PASS
				RB50#50	6.46	13	PASS
				RB100#0	6.96	13	PASS
			HCH	RB1#0	5.83	13	PASS
				RB1#50	5.78	13	PASS
				RB1#99	5.73	13	PASS
				RB50#0	6.46	13	PASS
				RB50#25	6.48	13	PASS
				RB50#50	6.44	13	PASS
				RB100#0	6.94	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

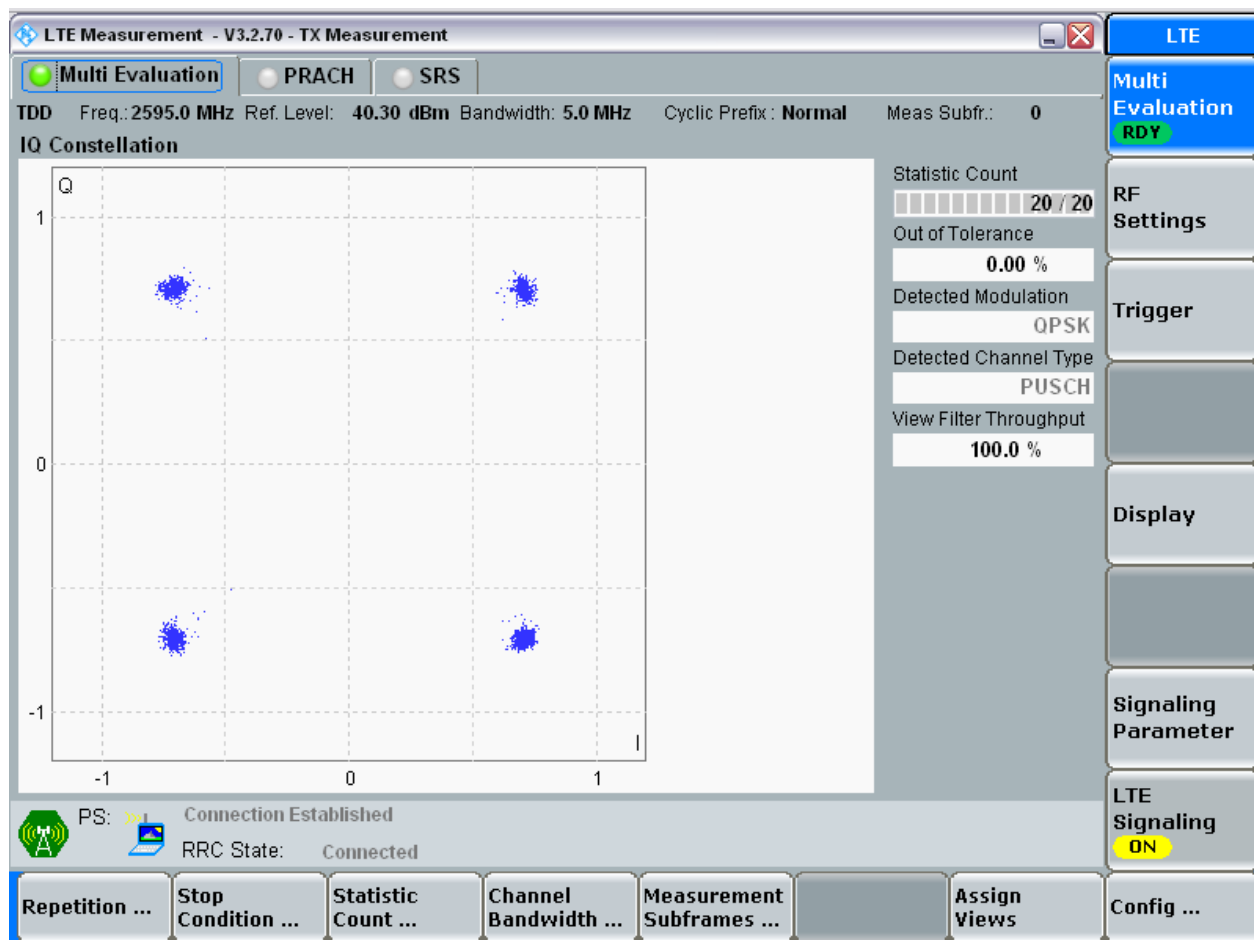
3.1.1 Test Band = BAND38

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

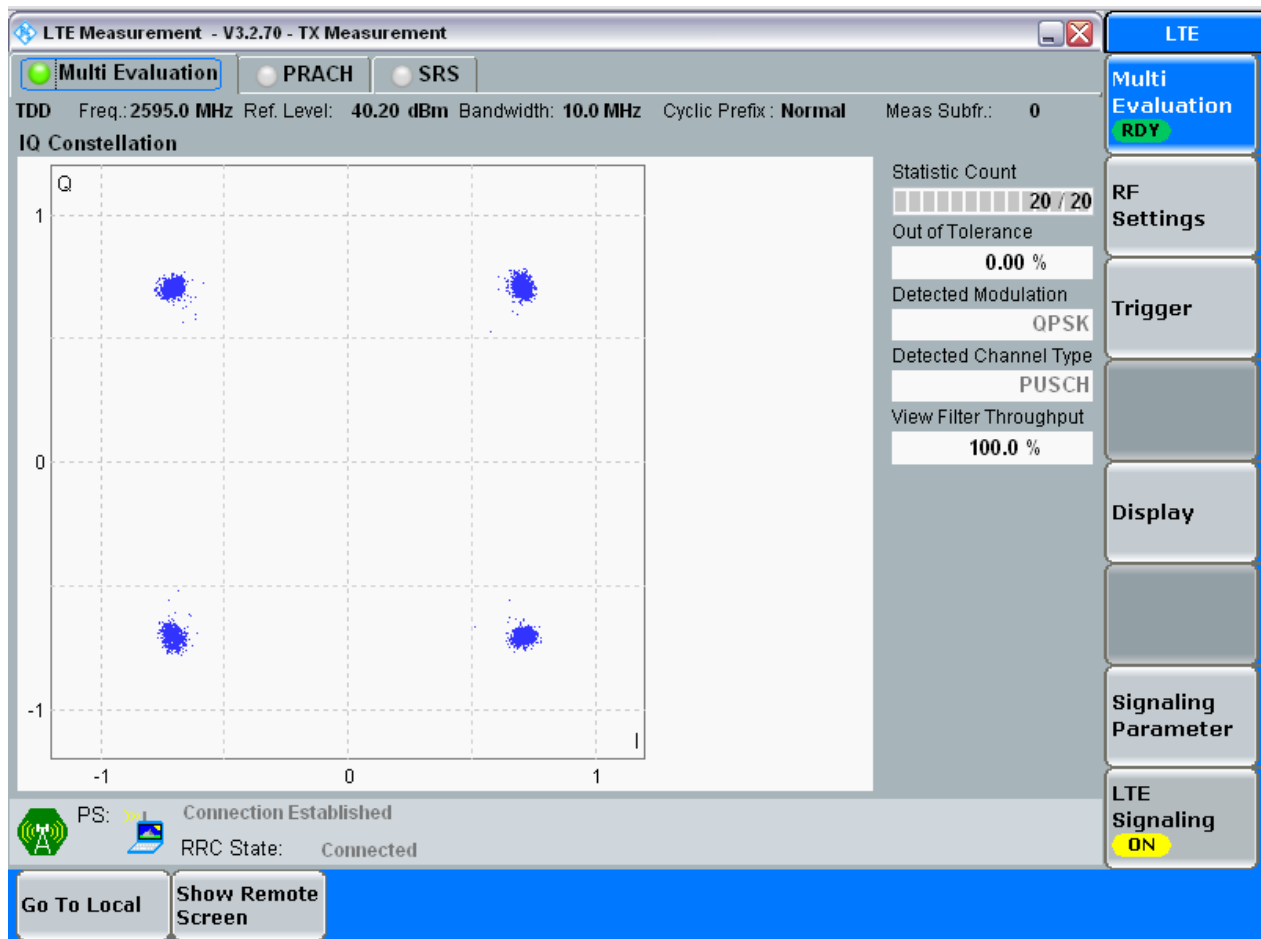
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

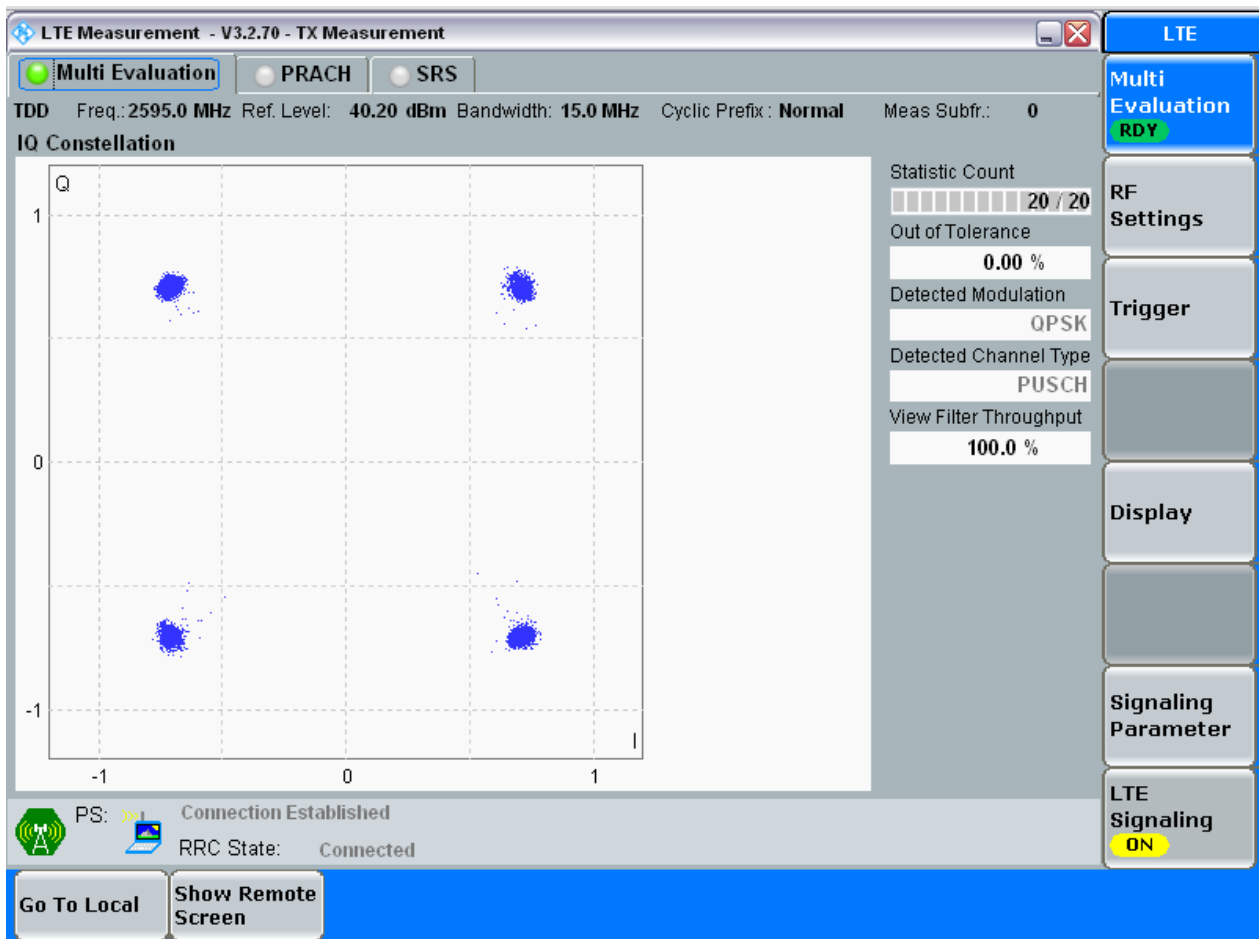
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

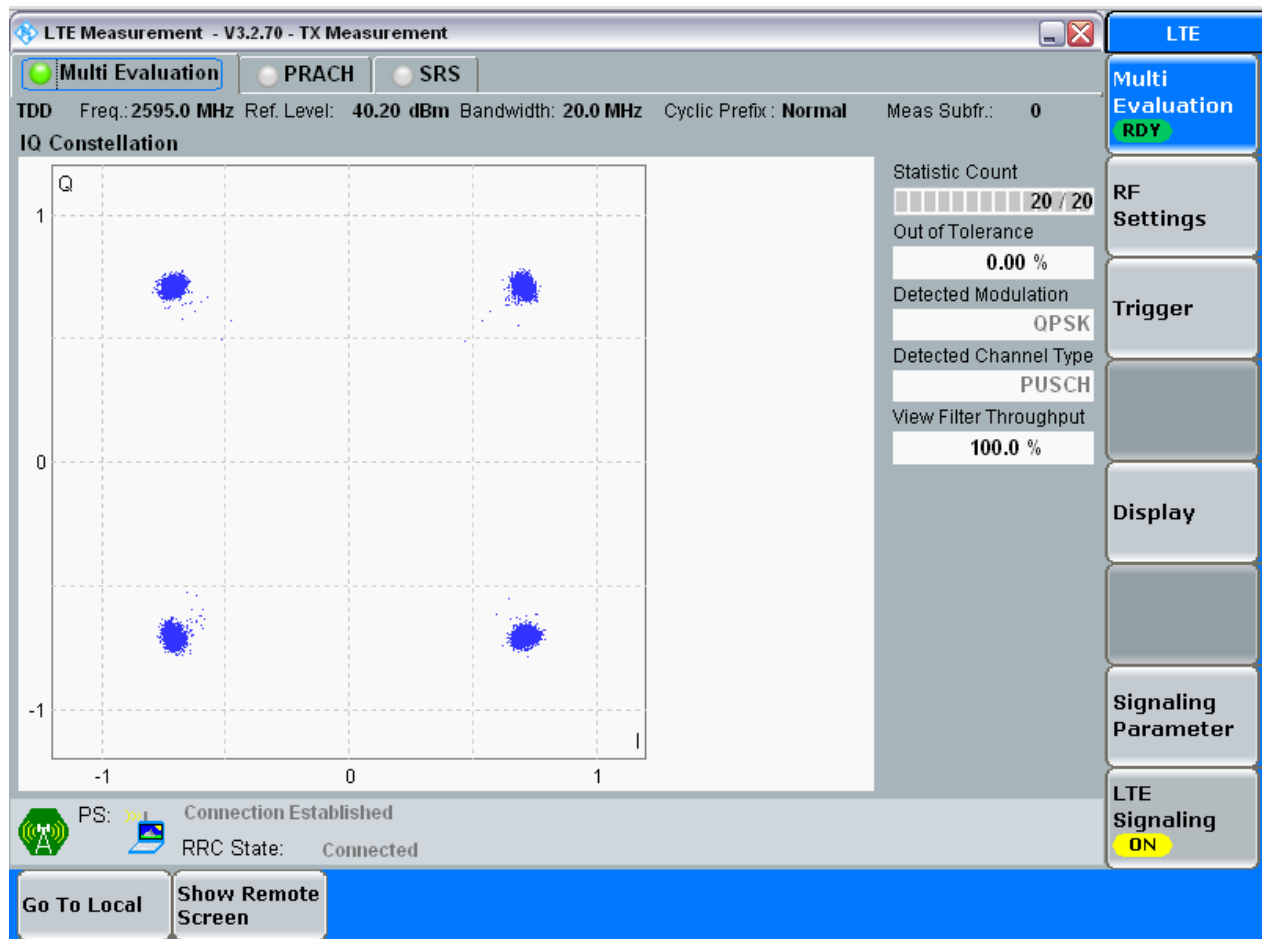
3.1.1.1.3.1.1 Test RB = RB75#0



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

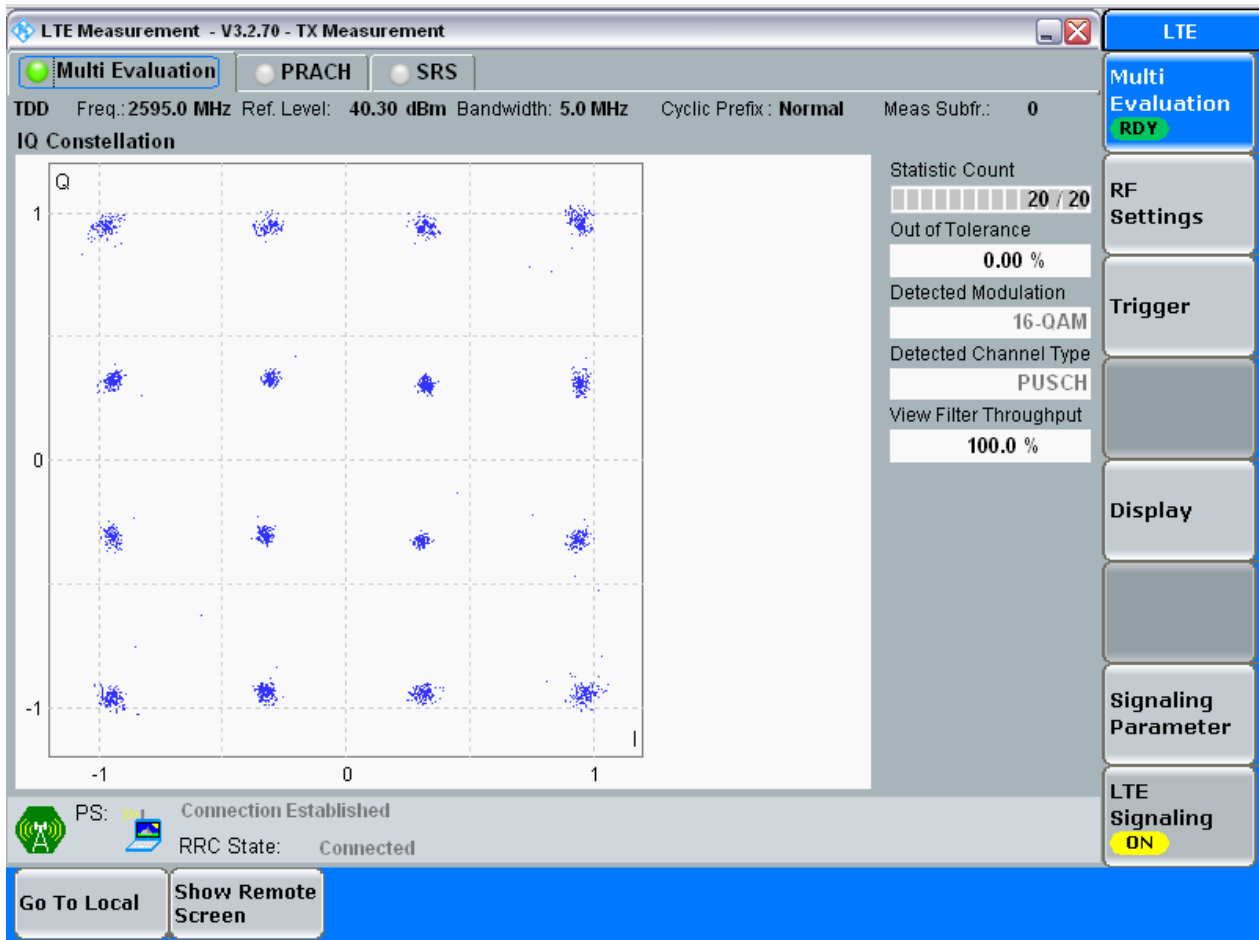


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

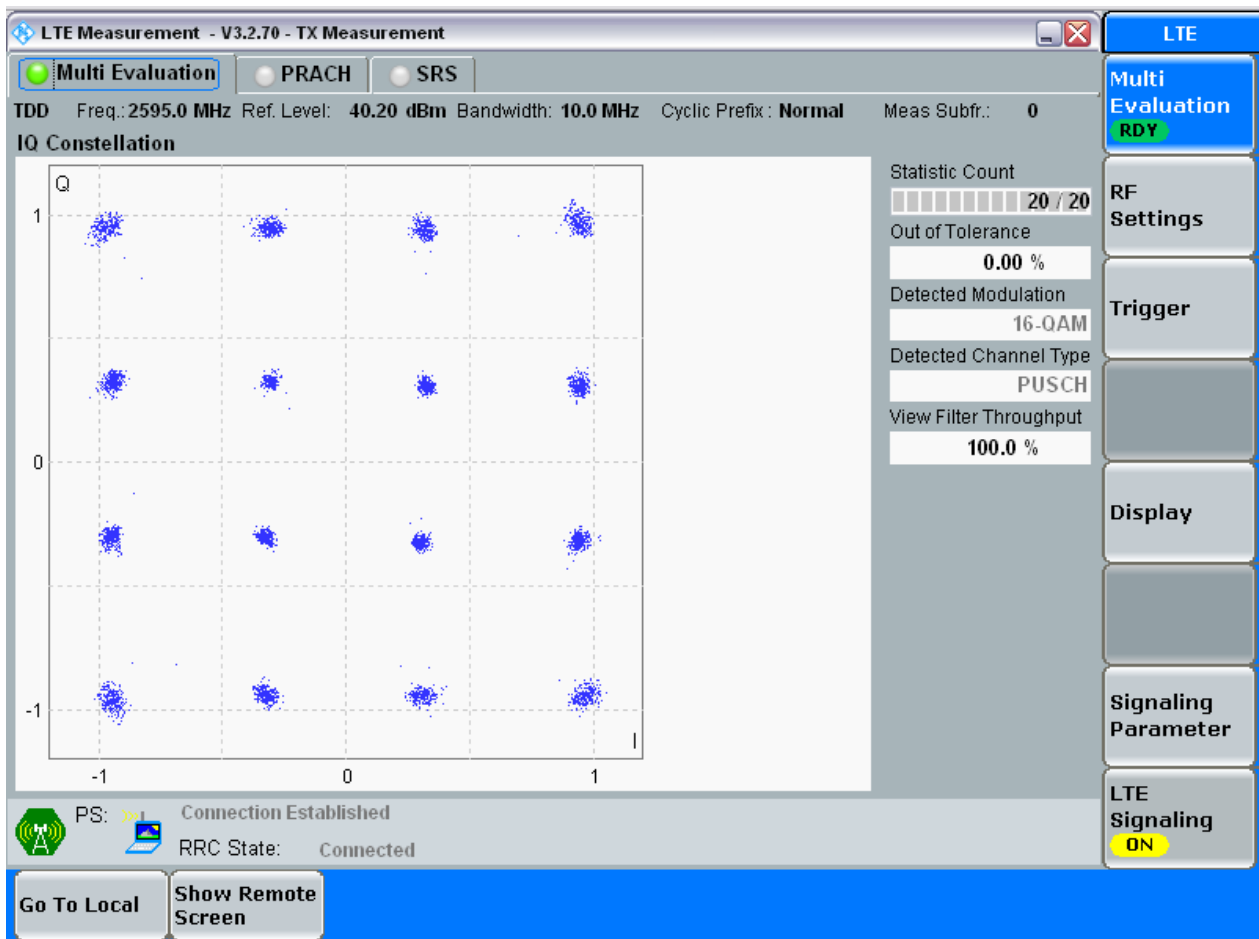
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

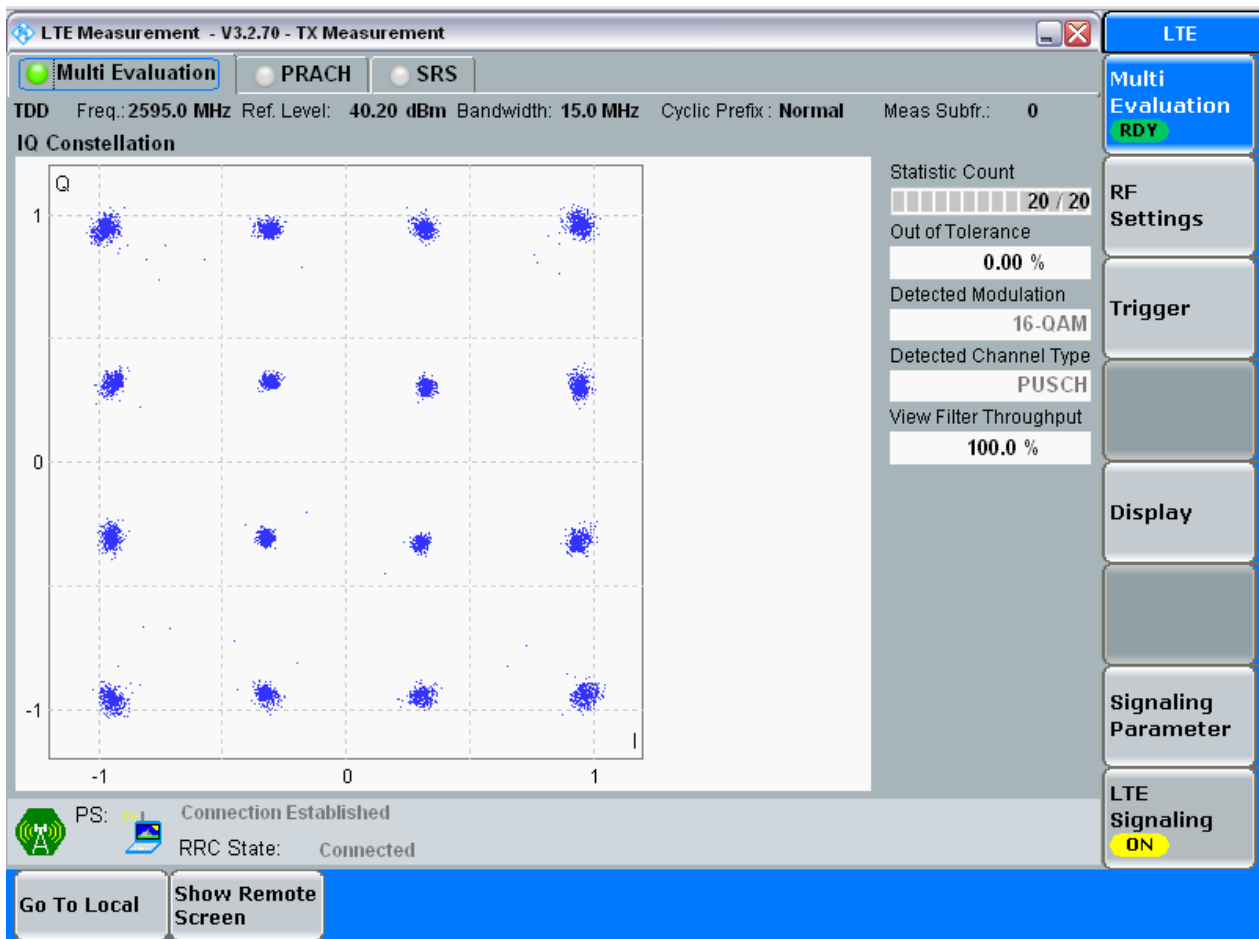
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

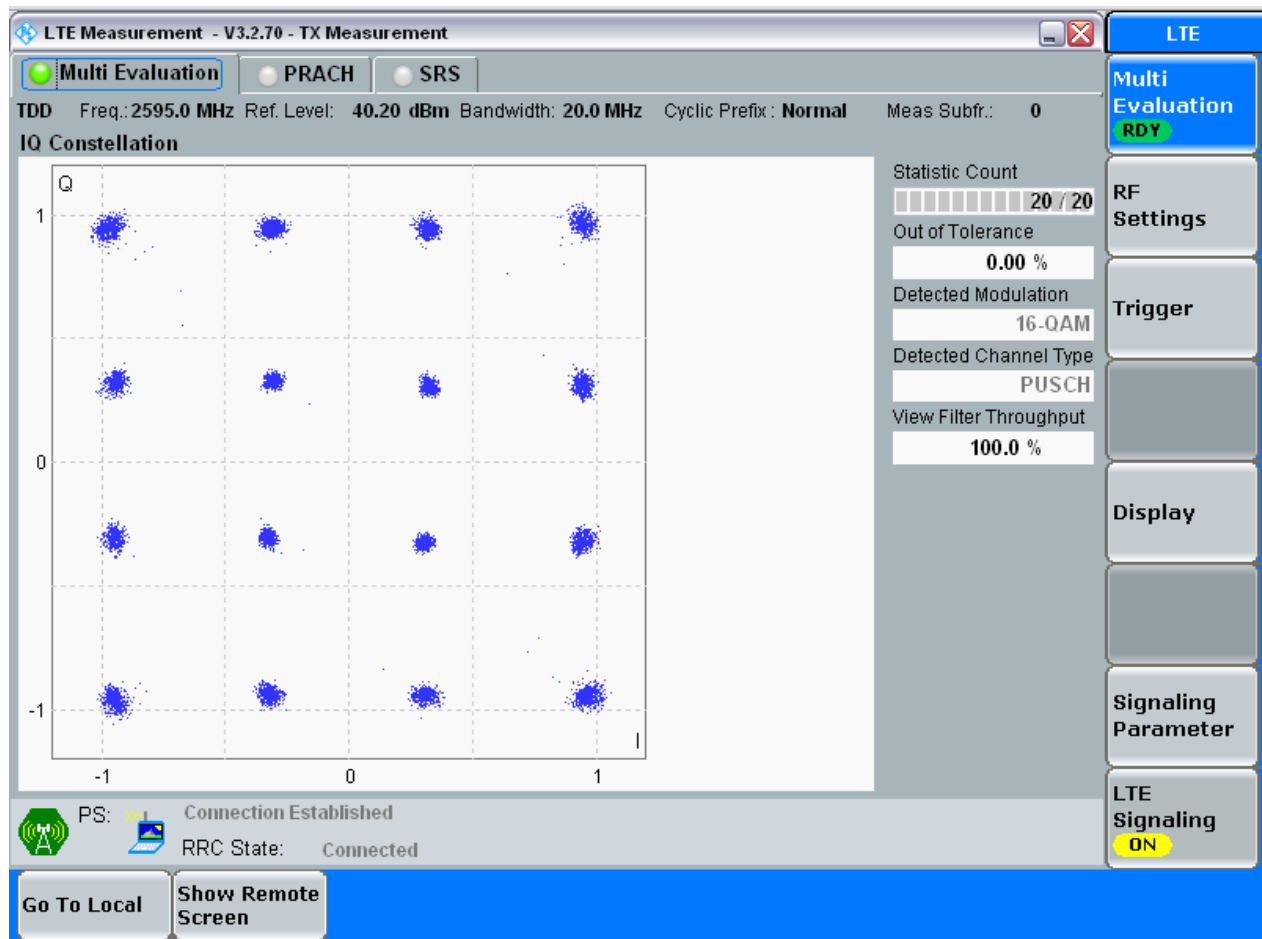
3.1.1.2.3.1.1 Test RB = RB75#0



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
BAND38	LTE/TM1	5	LCH	RB25#0	4.50	4.85	Pass
			MCH	RB25#0	4.49	4.82	Pass
			HCH	RB25#0	4.50	4.85	Pass
		10	LCH	RB50#0	8.97	9.58	Pass
			MCH	RB50#0	8.97	9.57	Pass
			HCH	RB50#0	8.98	9.58	Pass
		15	LCH	RB75#0	13.45	14.26	Pass
			MCH	RB75#0	13.43	14.27	Pass
			HCH	RB75#0	13.46	14.28	Pass
		20	LCH	RB100#0	17.92	18.93	Pass
			MCH	RB100#0	17.93	18.97	Pass
			HCH	RB100#0	17.92	18.95	Pass
	LTE/TM2	5	LCH	RB25#0	4.49	4.83	Pass
			MCH	RB25#0	4.50	4.86	Pass
			HCH	RB25#0	4.48	4.85	Pass
		10	LCH	RB50#0	8.97	9.53	Pass
			MCH	RB50#0	8.97	9.52	Pass
			HCH	RB50#0	8.95	9.52	Pass
		15	LCH	RB75#0	13.45	14.25	Pass
			MCH	RB75#0	13.45	14.24	Pass
			HCH	RB75#0	13.46	14.26	Pass
		20	LCH	RB100#0	17.91	18.97	Pass
			MCH	RB100#0	17.90	18.96	Pass
			HCH	RB100#0	17.92	18.97	Pass



Part II - Test Plots

4.1 For LTE

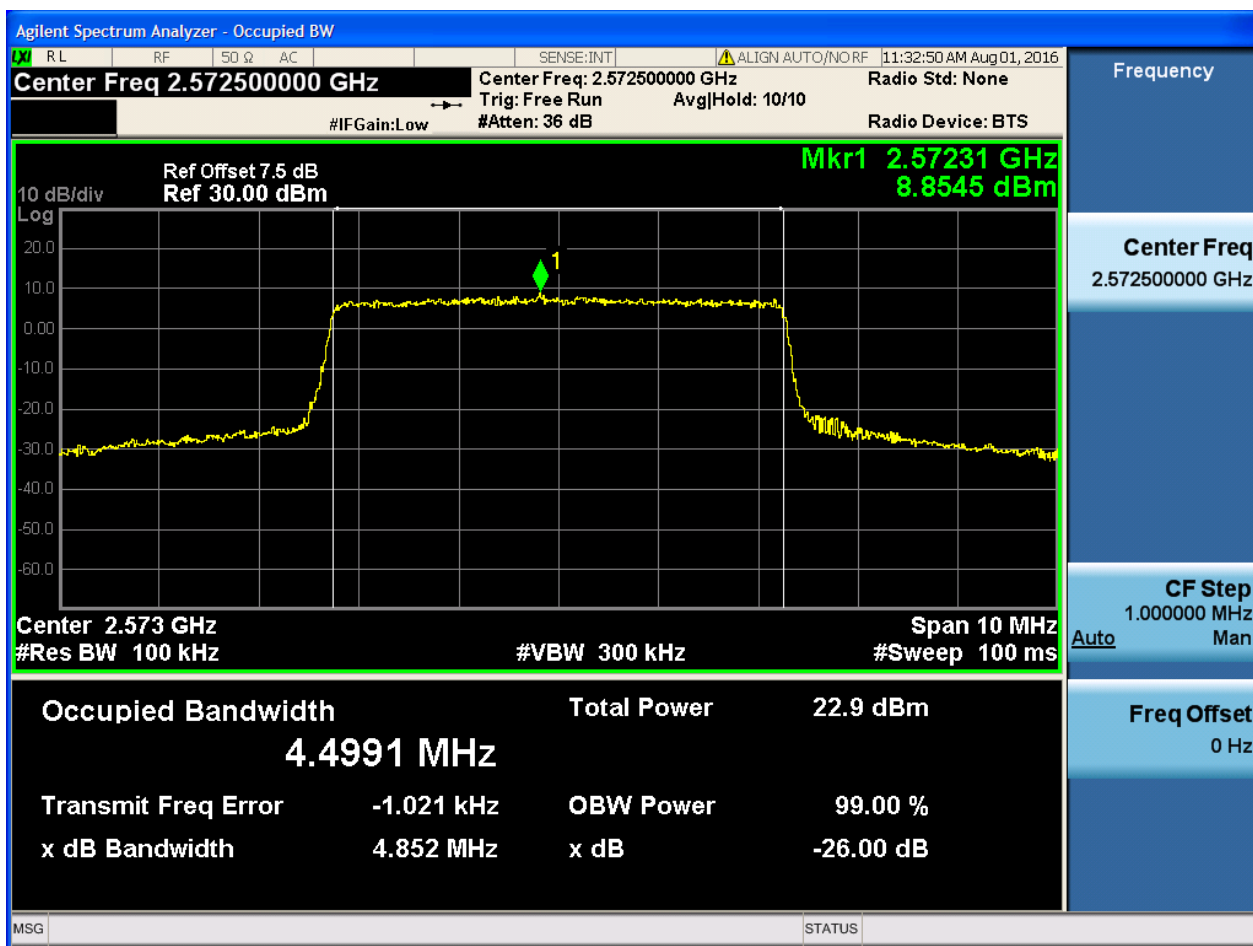
4.1.1 Test Band = BAND38

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

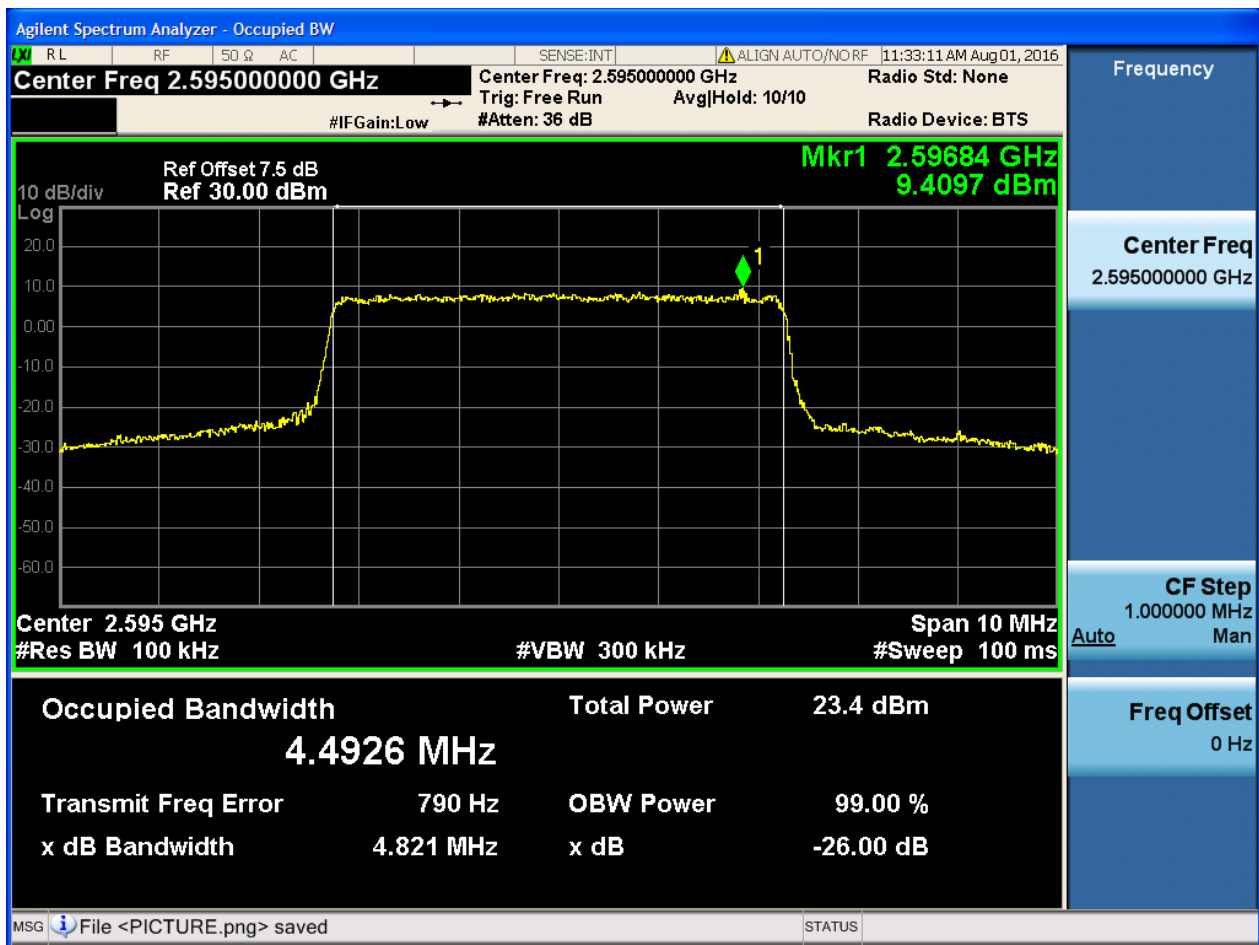
4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 Test RB = RB25#0



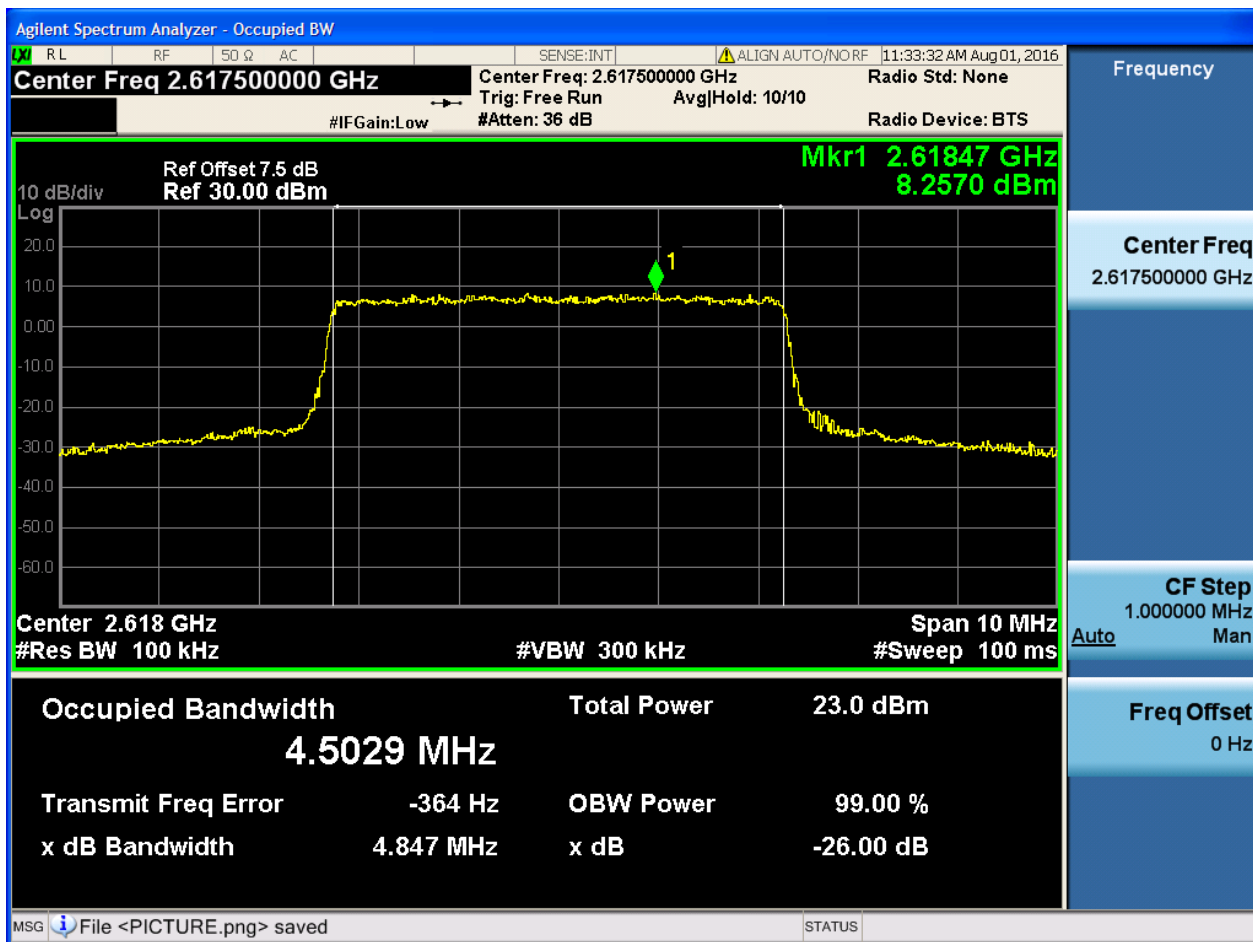
4.1.1.1.1.2 Test Channel = MCH

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

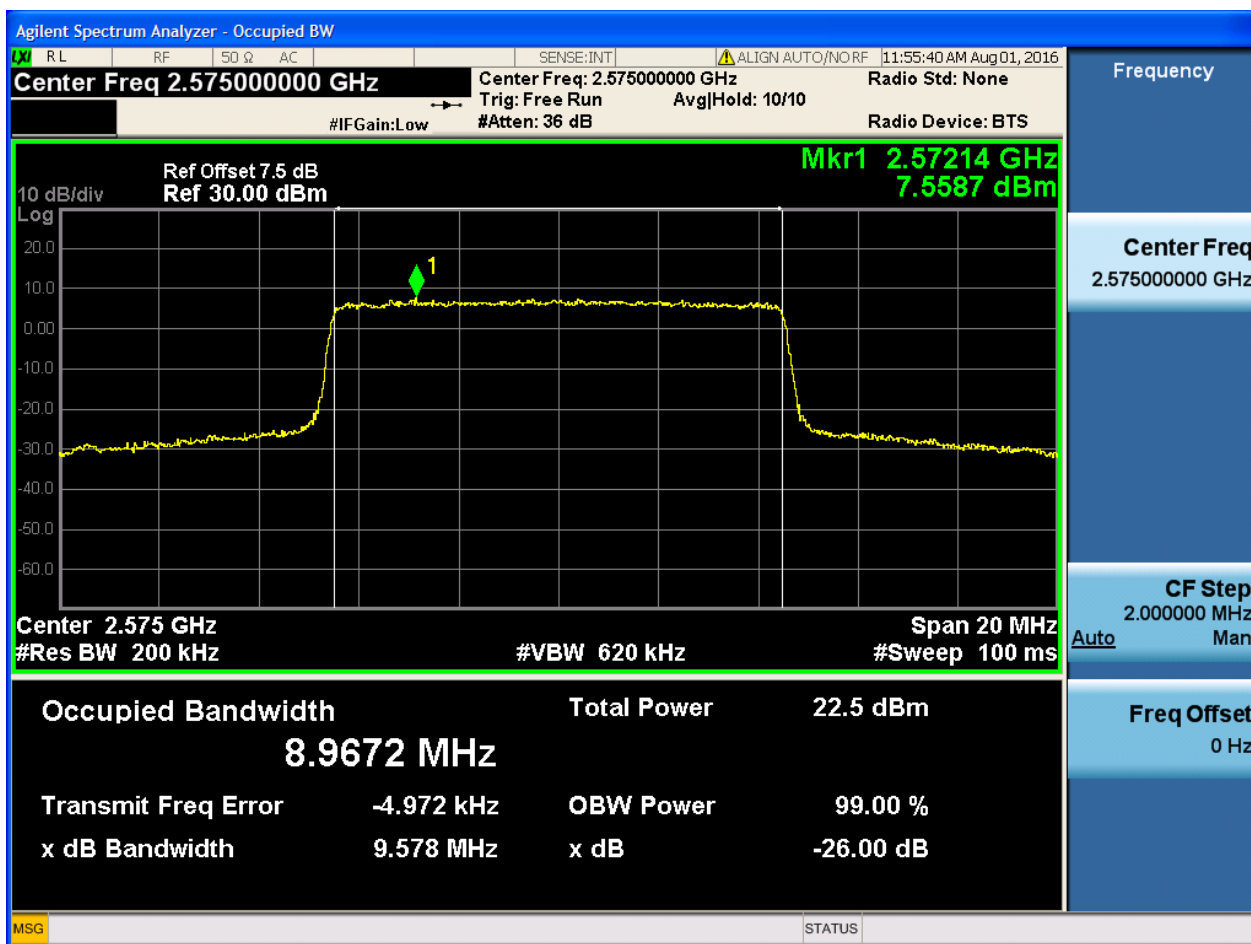




4.1.1.1.2 Test Bandwidth = 10

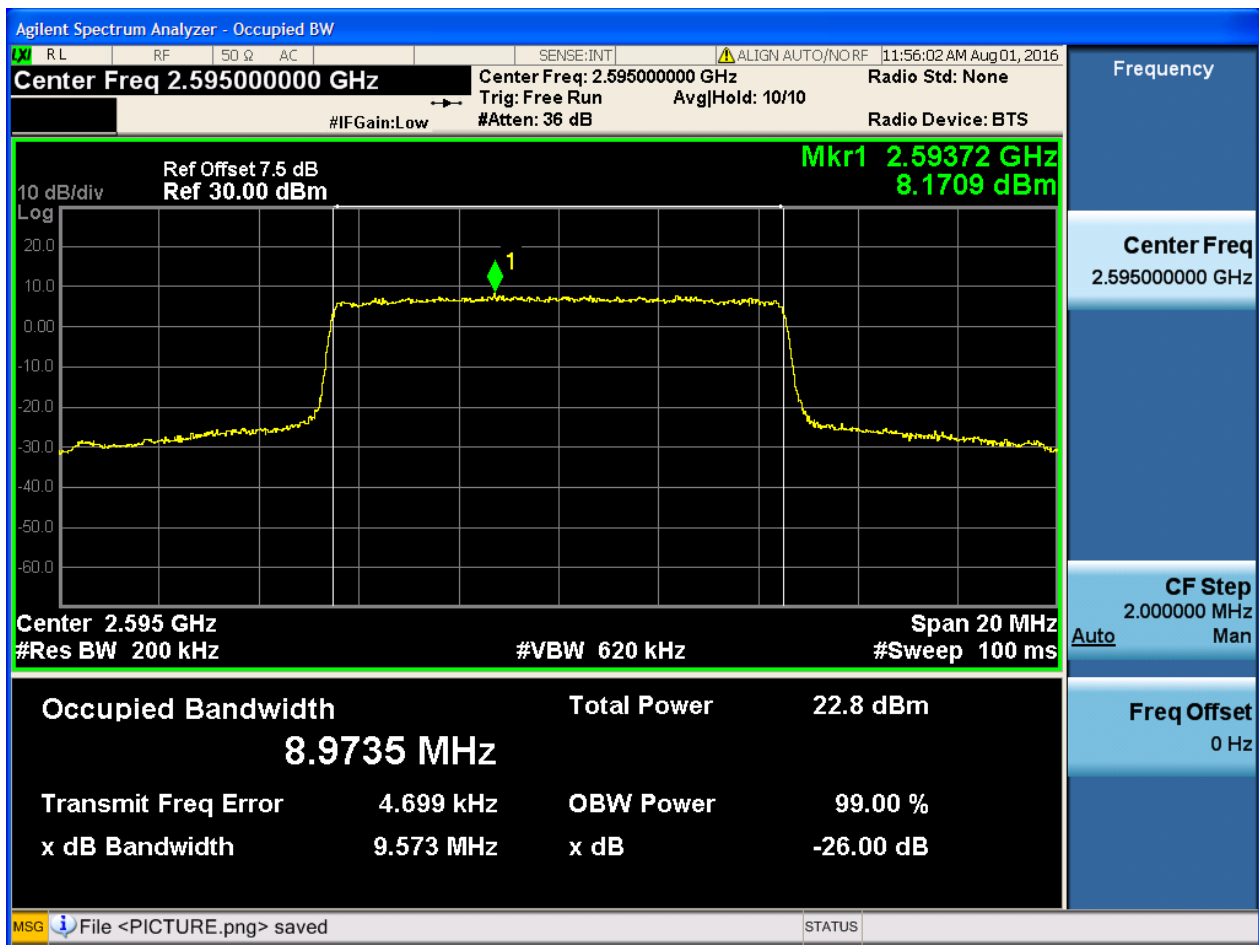
4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB50#0



4.1.1.1.2.2 Test Channel = MCH

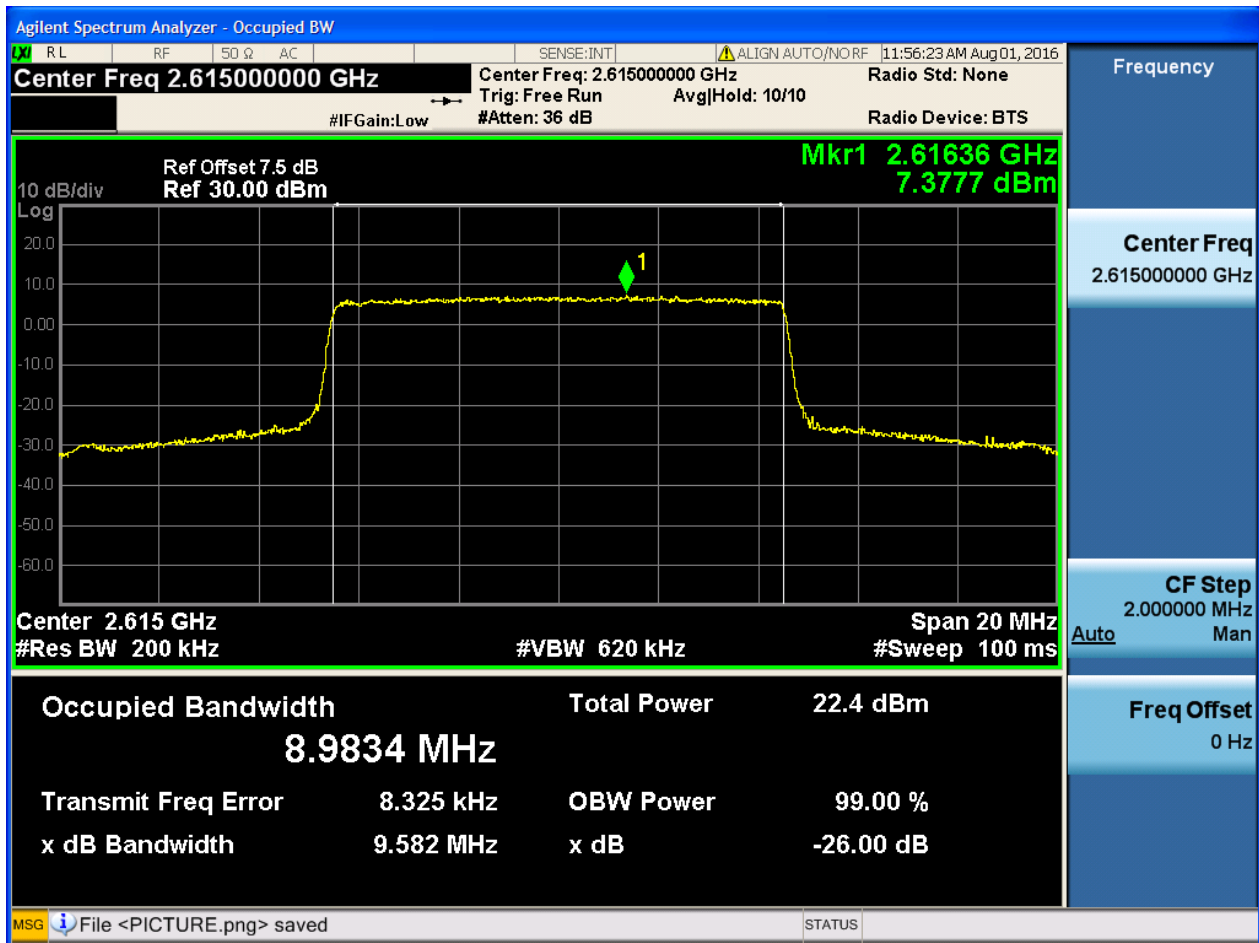
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

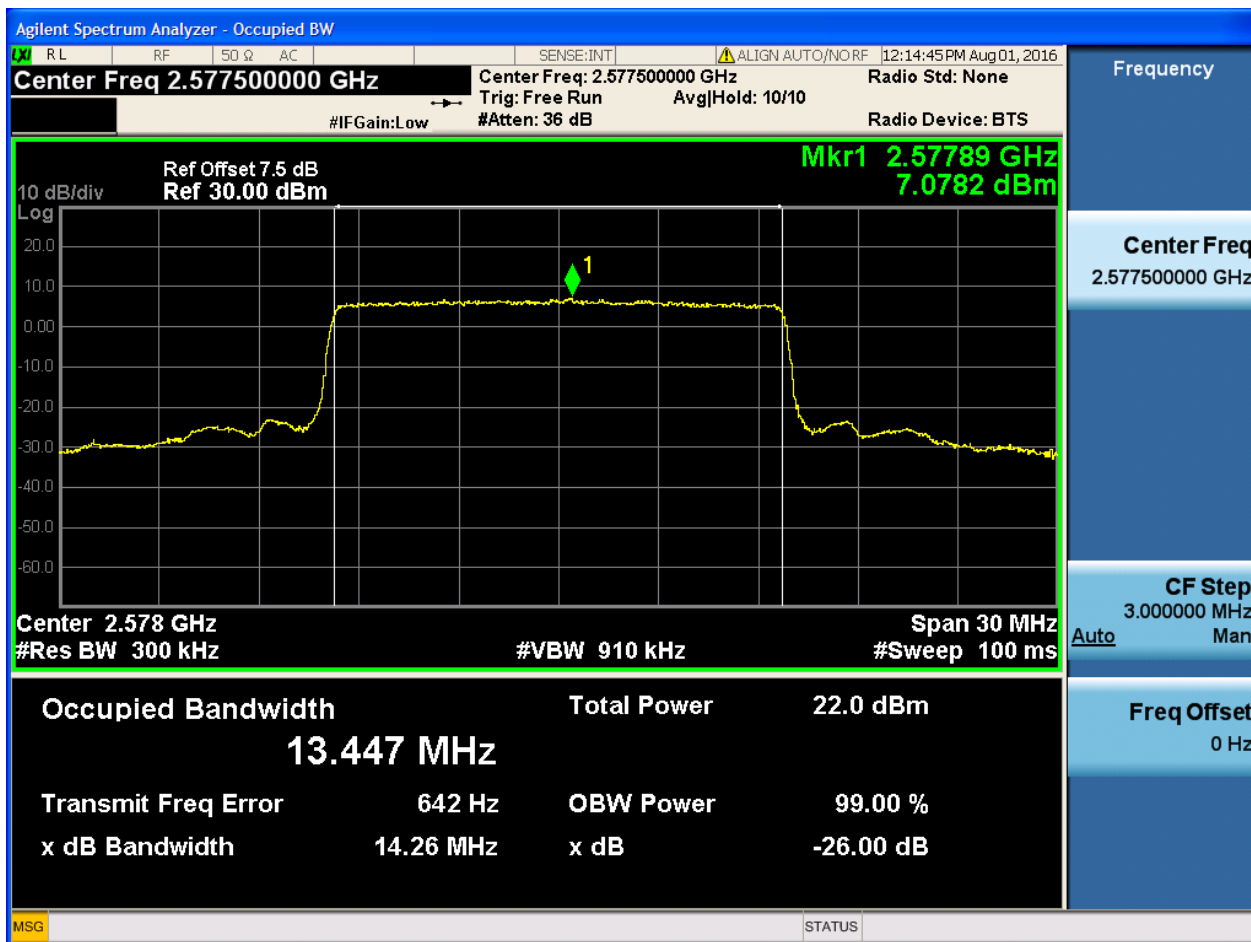




4.1.1.1.3 Test Bandwidth = 15

4.1.1.1.3.1 Test Channel = LCH

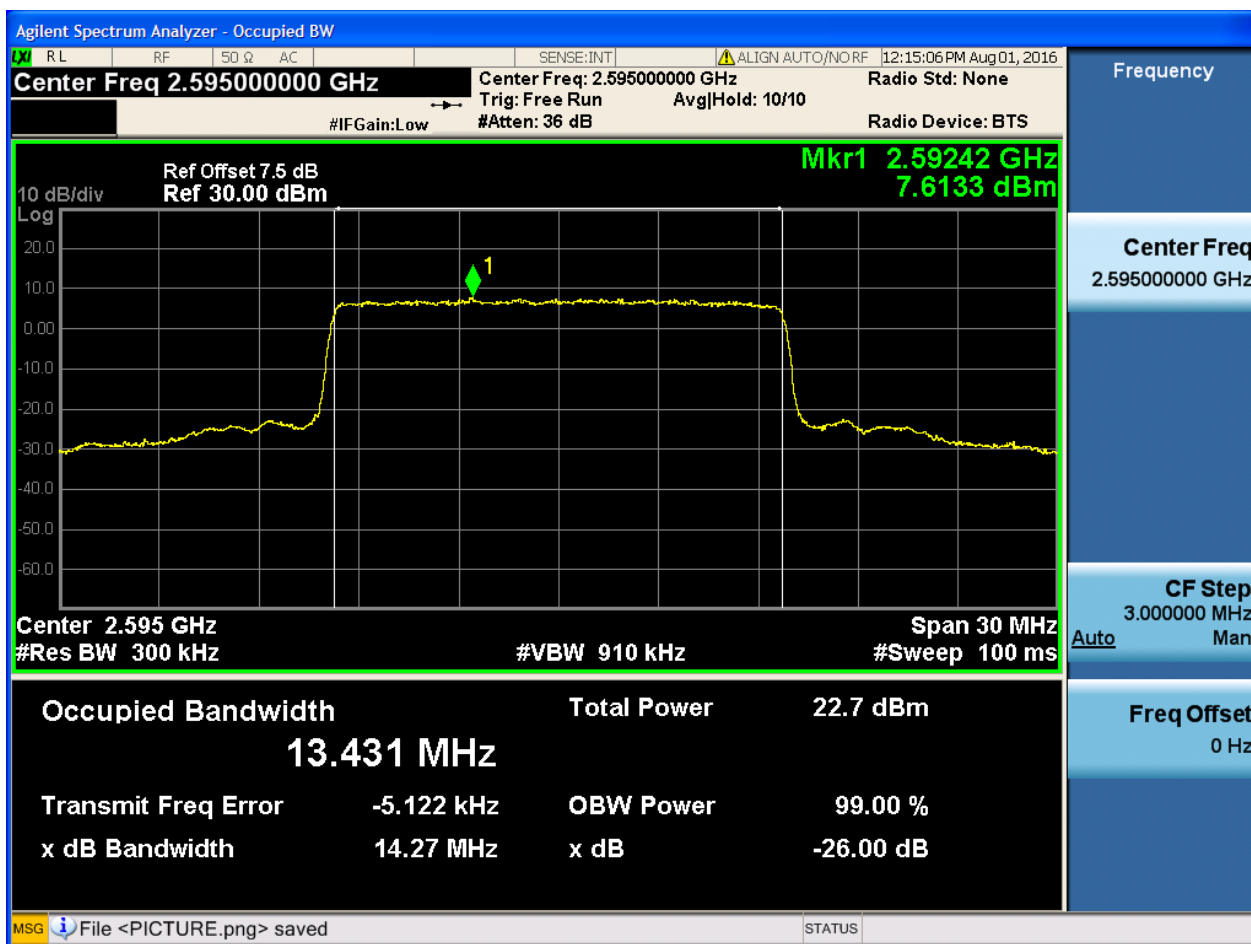
4.1.1.1.3.1.1 Test RB = RB75#0





4.1.1.1.3.2 Test Channel = MCH

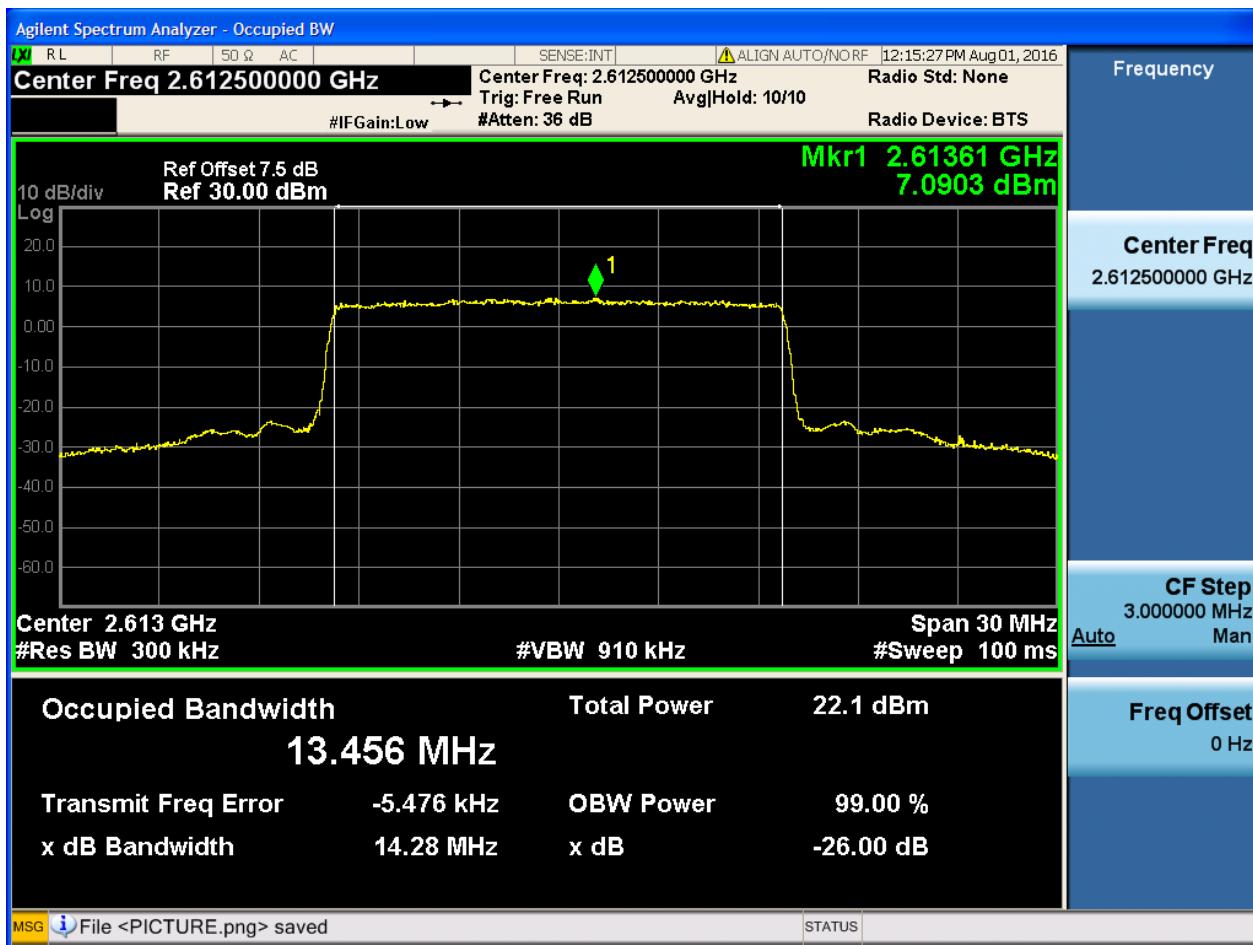
4.1.1.1.3.2.1 Test RB = RB75#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

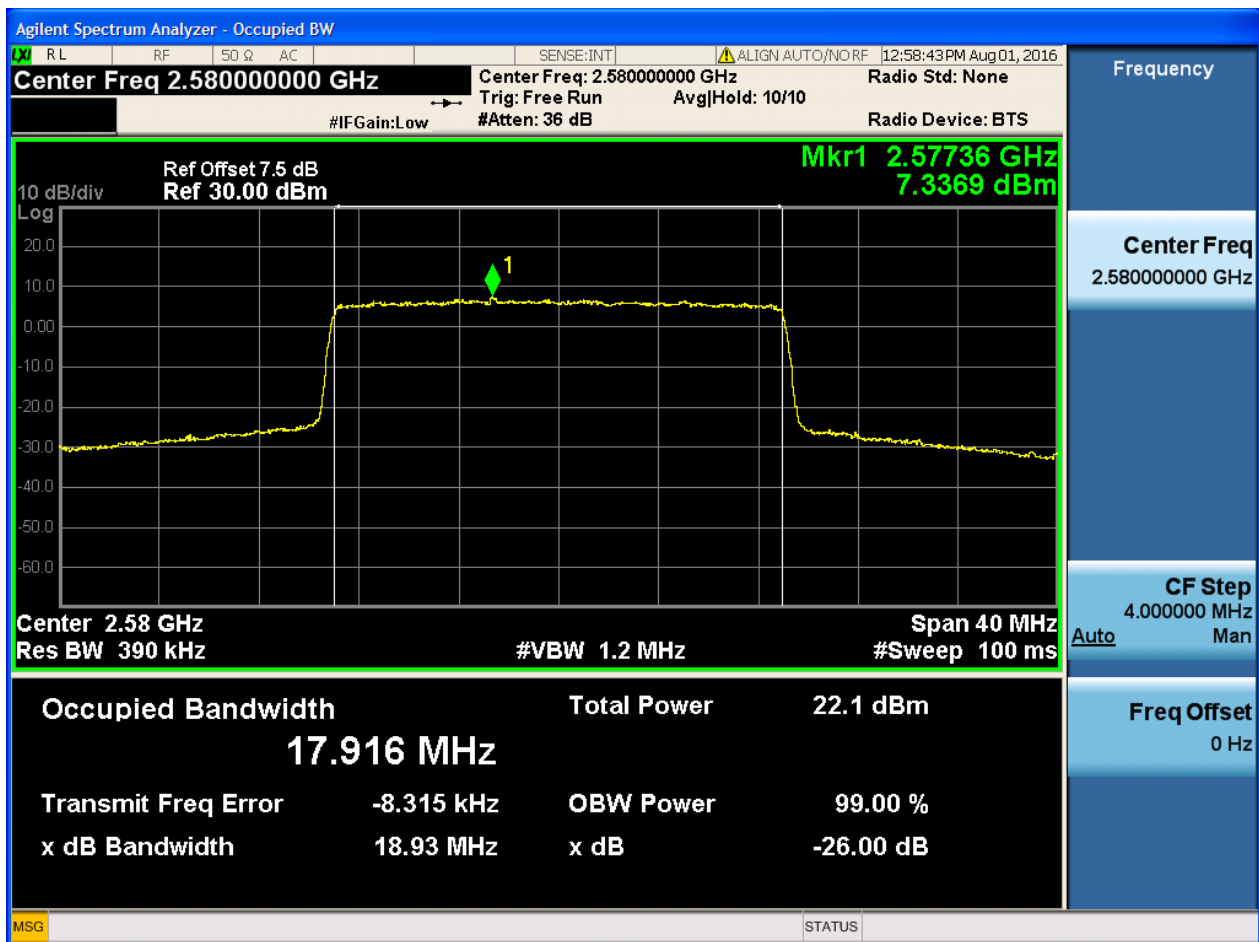




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

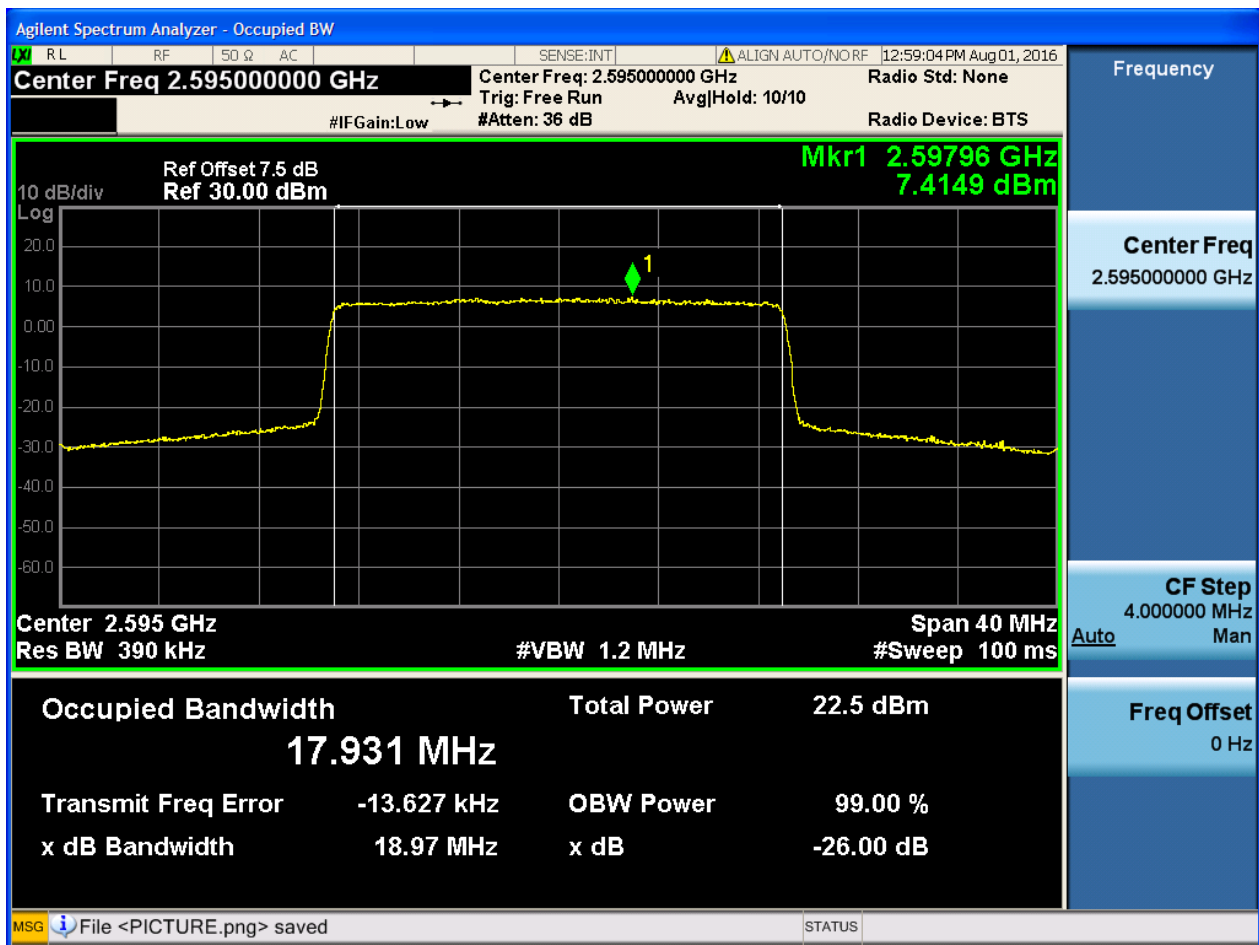
4.1.1.1.4.1.1 Test RB = RB100#0





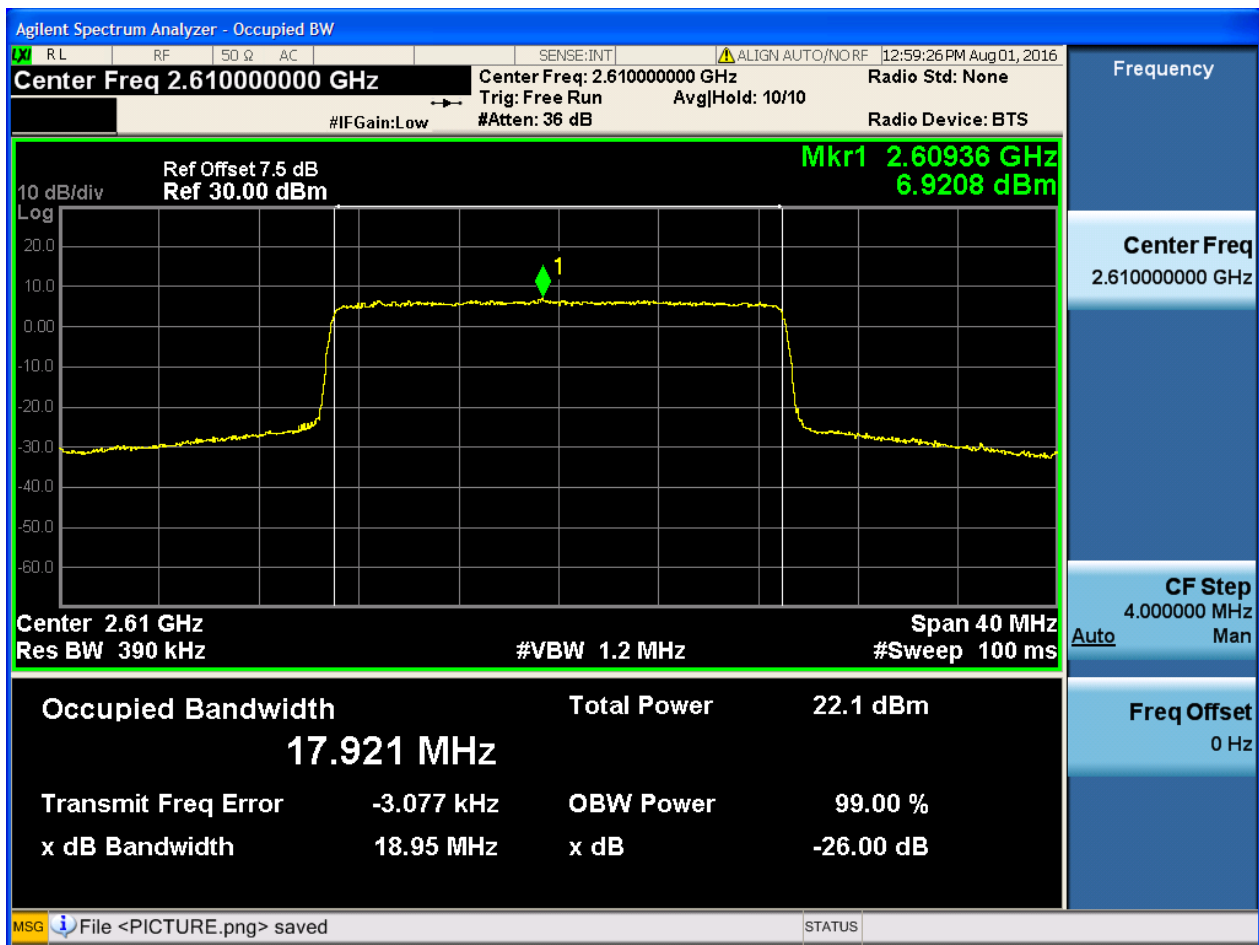
4.1.1.1.4.2 Test Channel = MCH

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



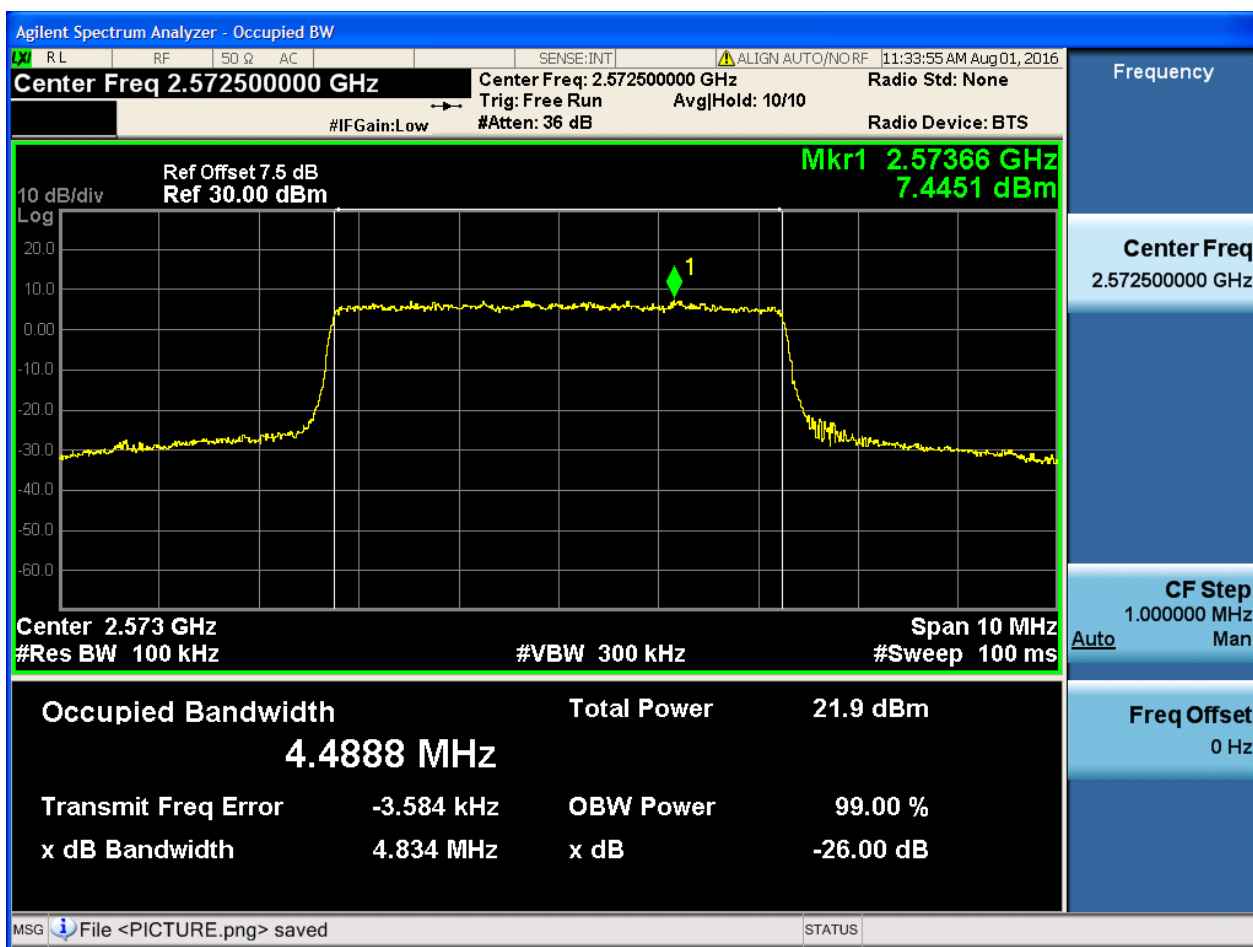


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

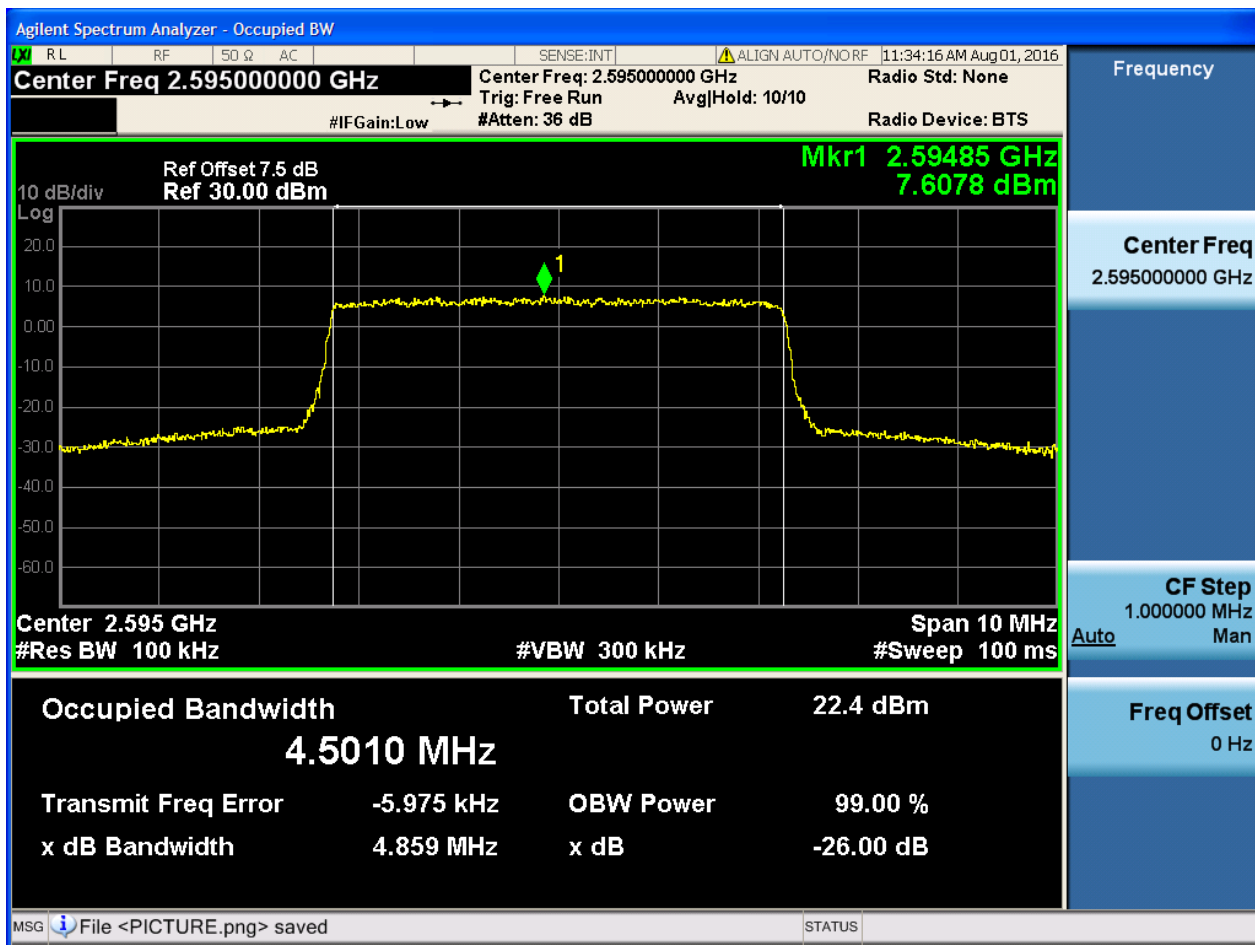
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

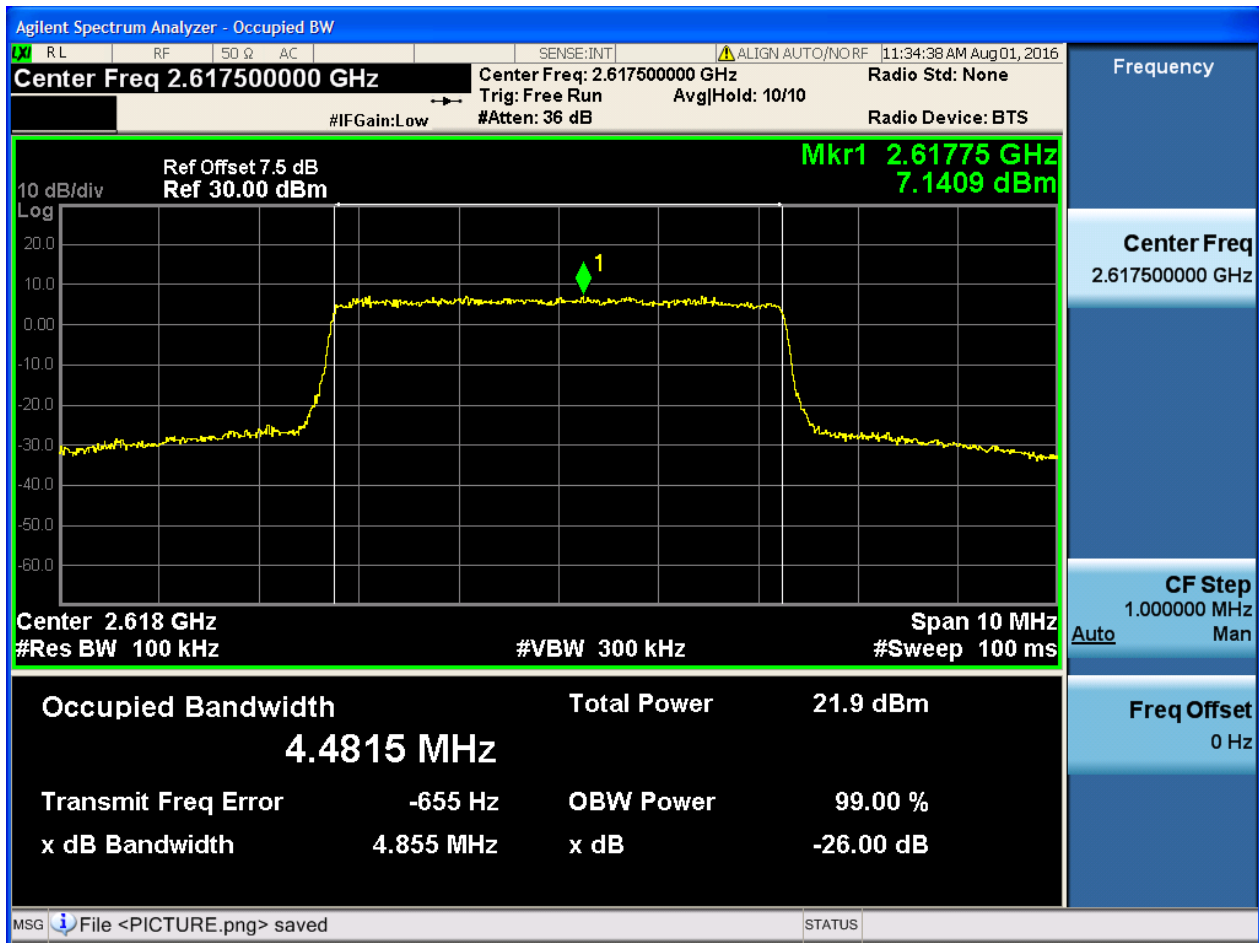
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

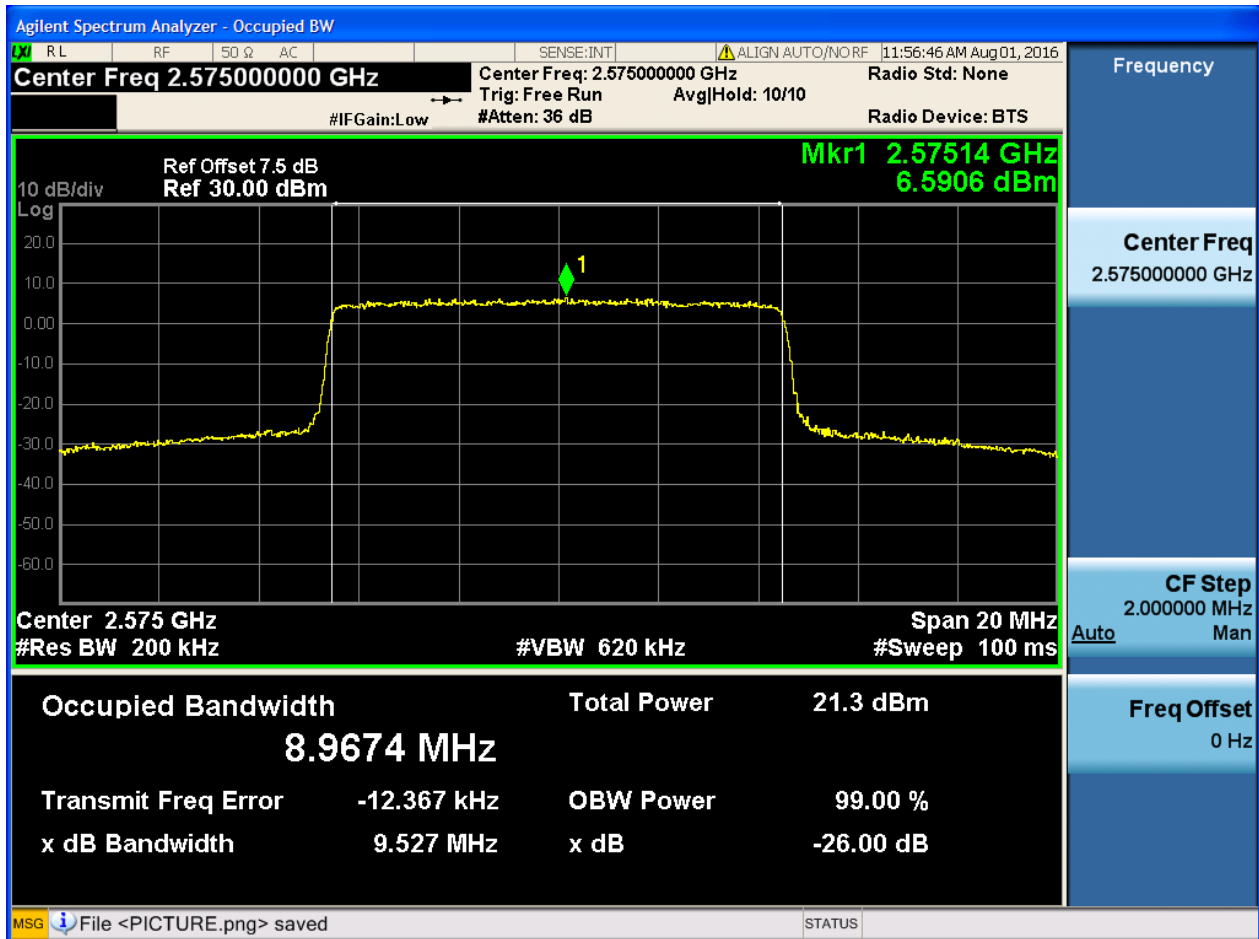




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

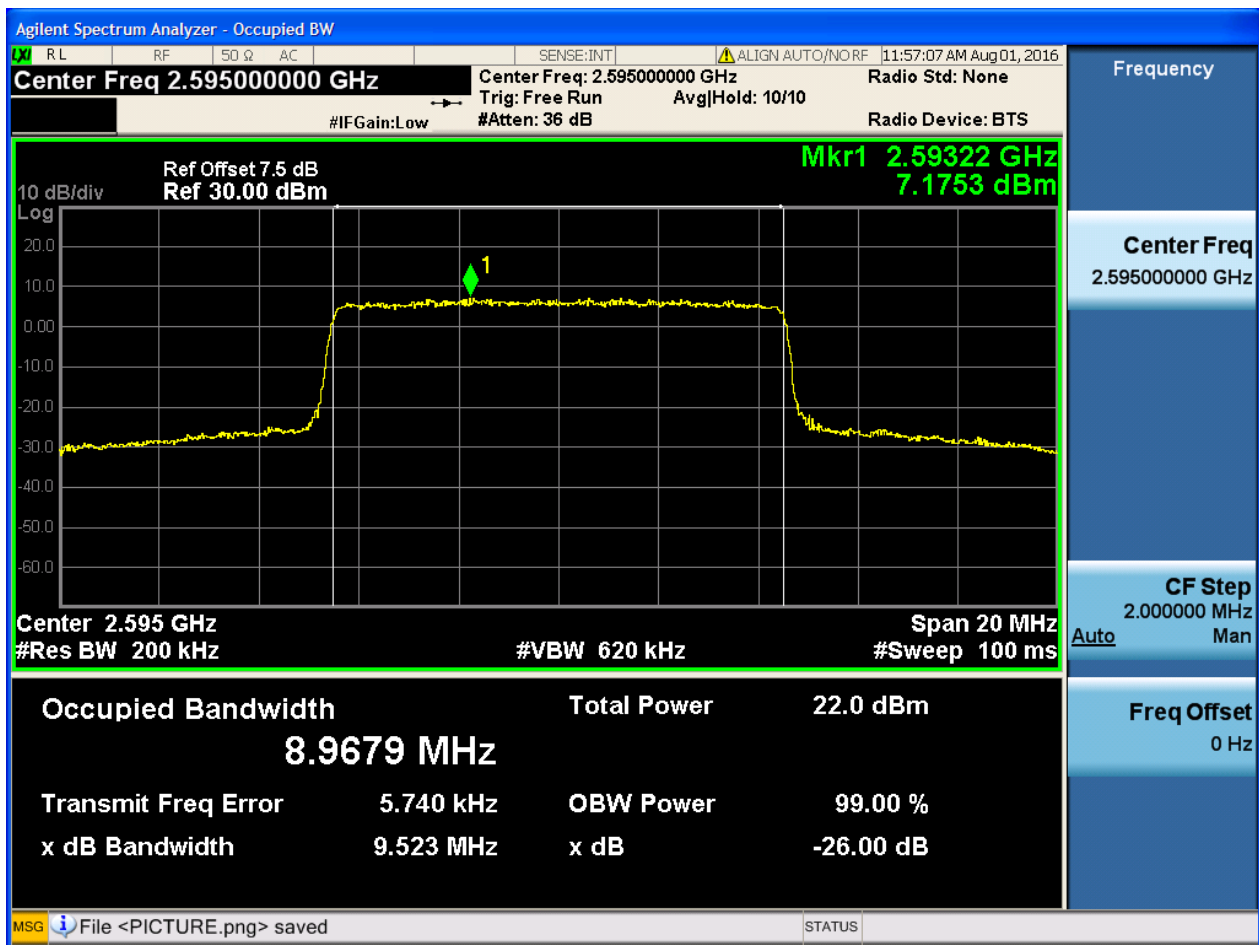
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

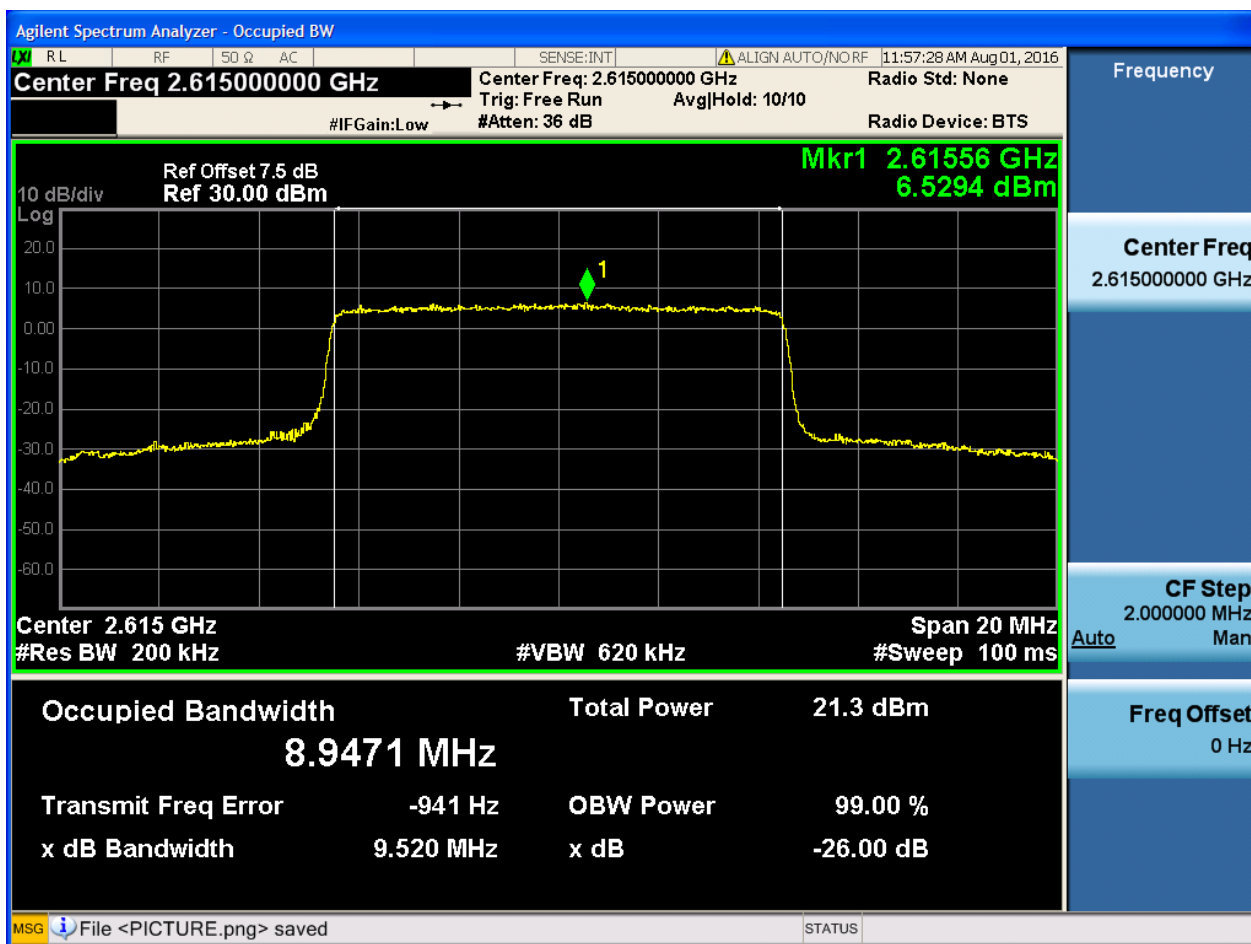
4.1.1.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

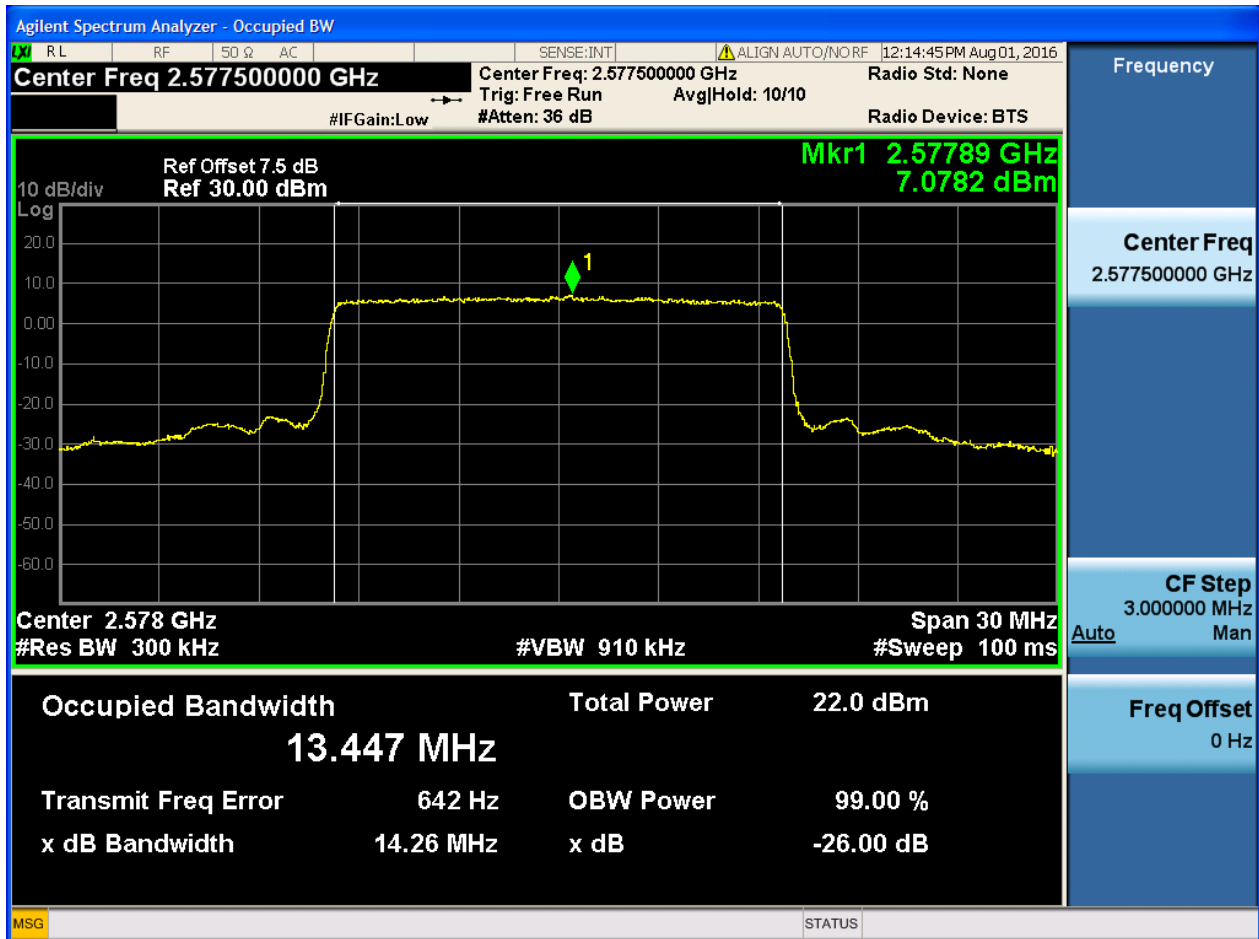




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

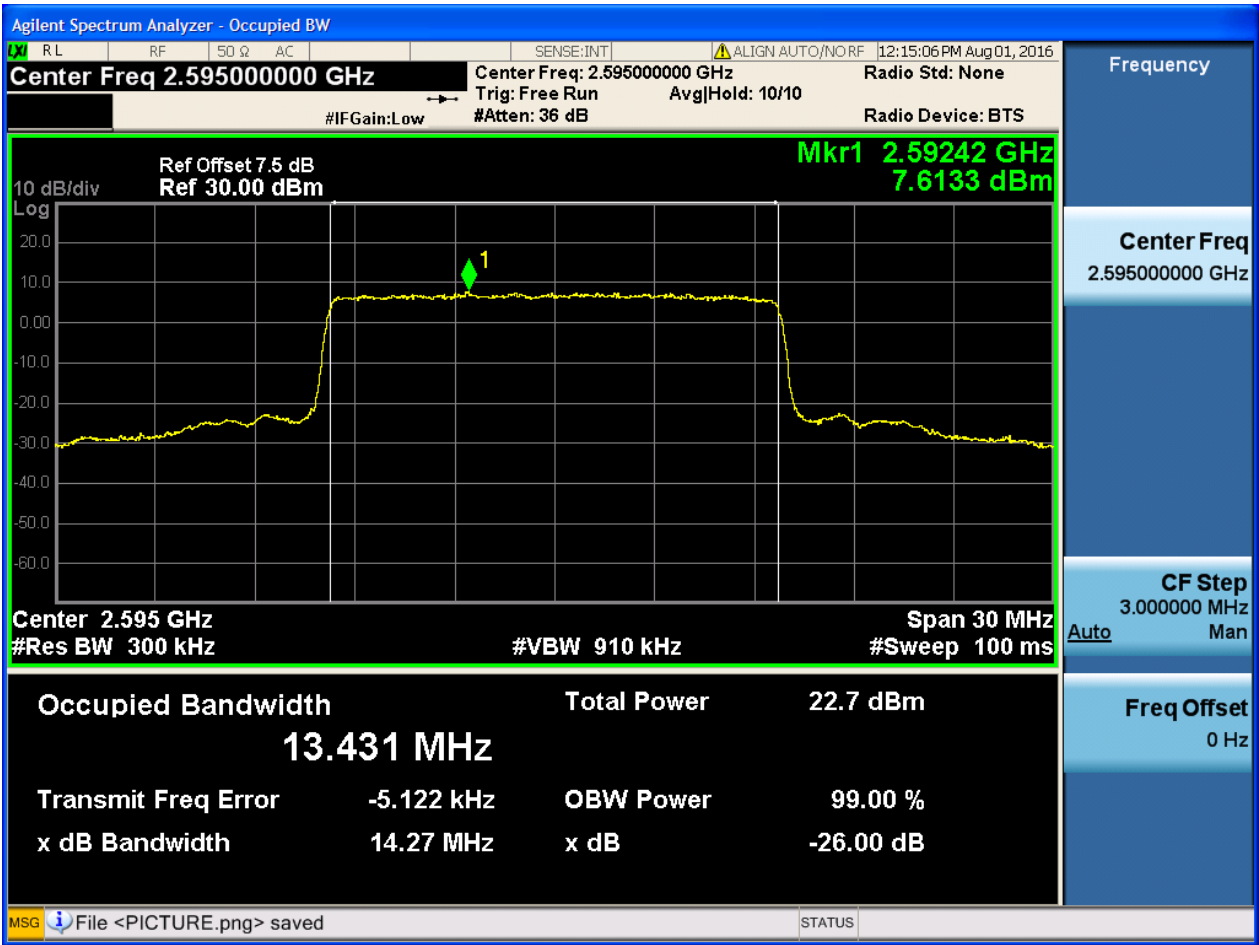
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

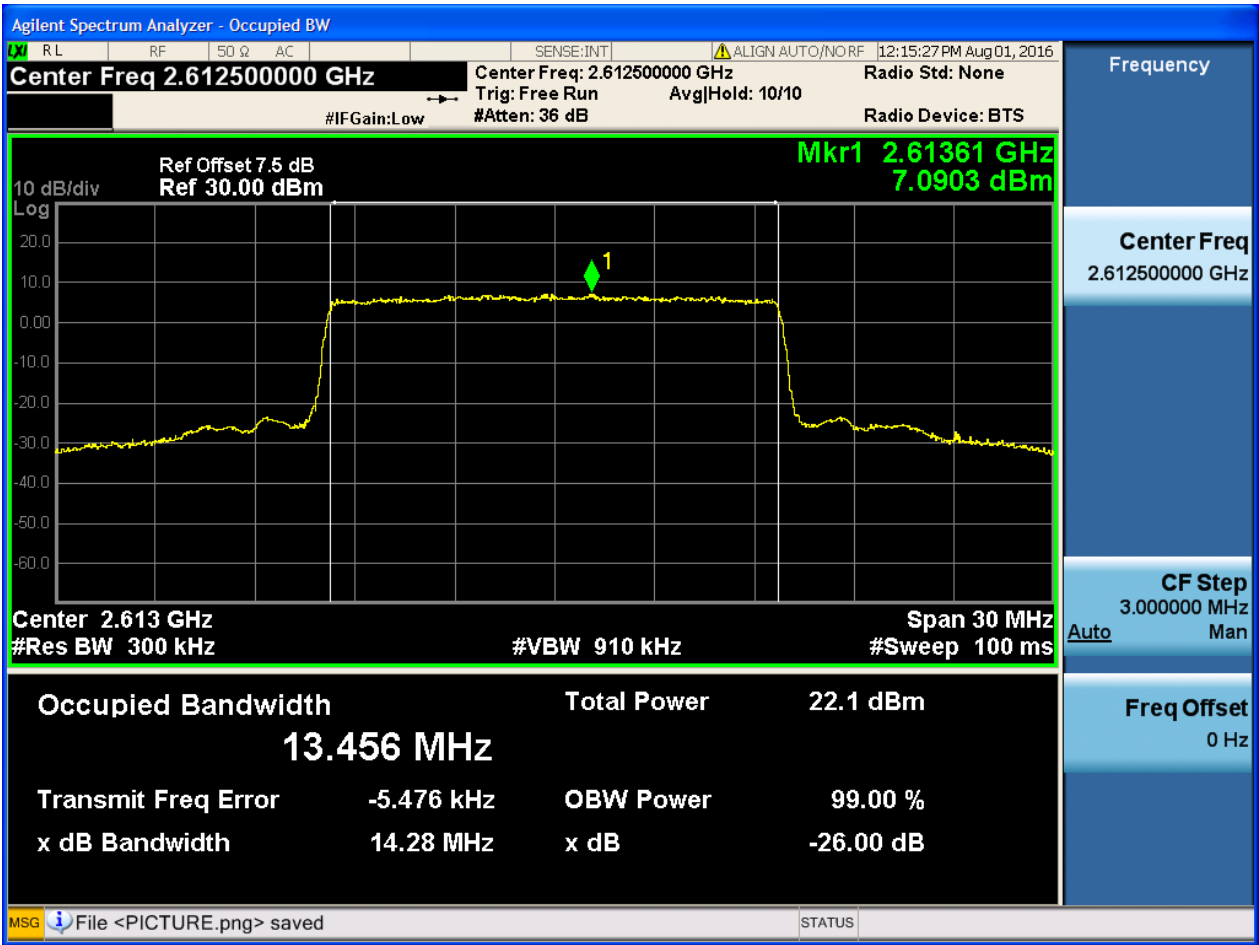
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

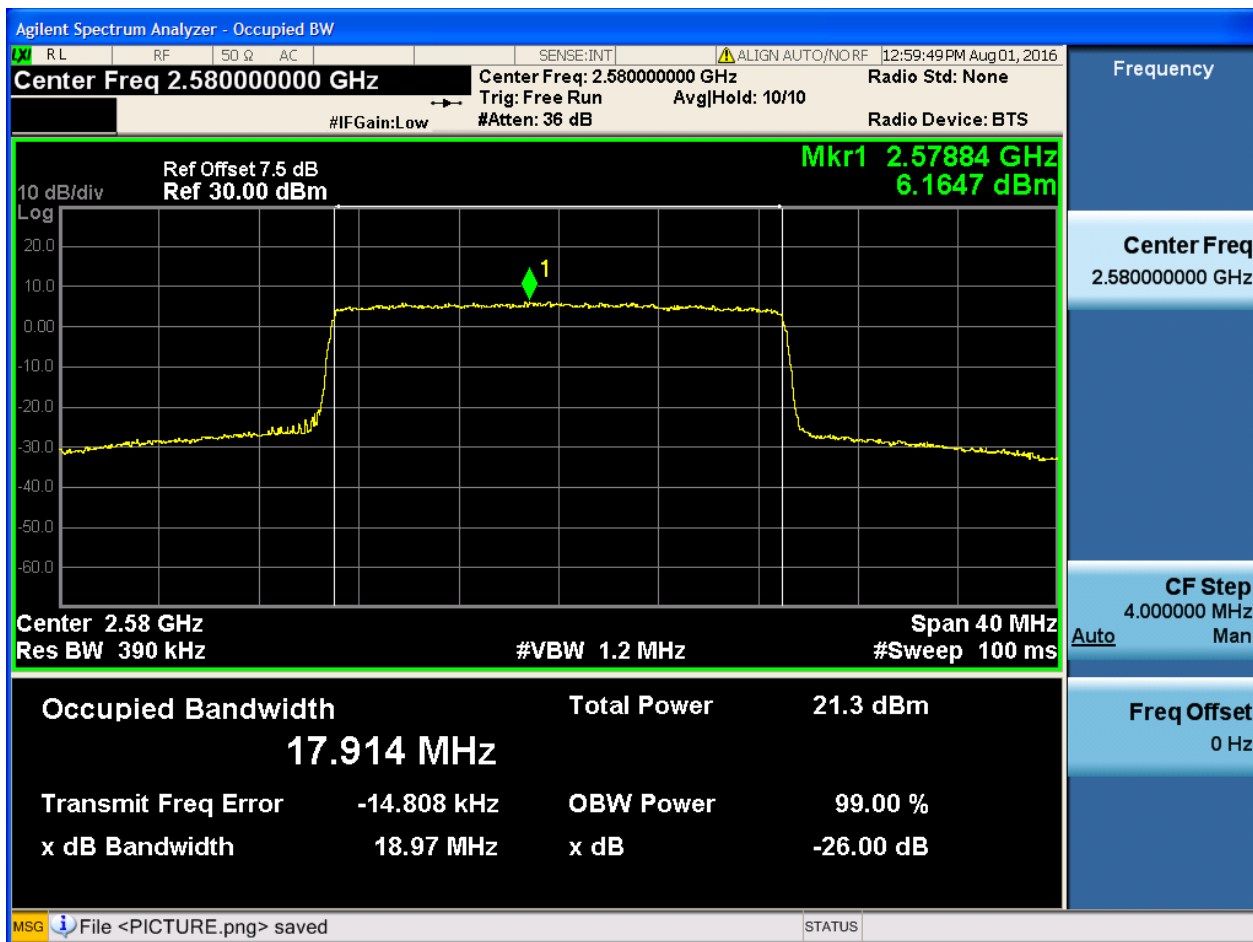
4.1.1.2.3.3.1 Test RB = RB75#0



4.1.1.2.4 Test Bandwidth = 20

4.1.1.2.4.1 Test Channel = LCH

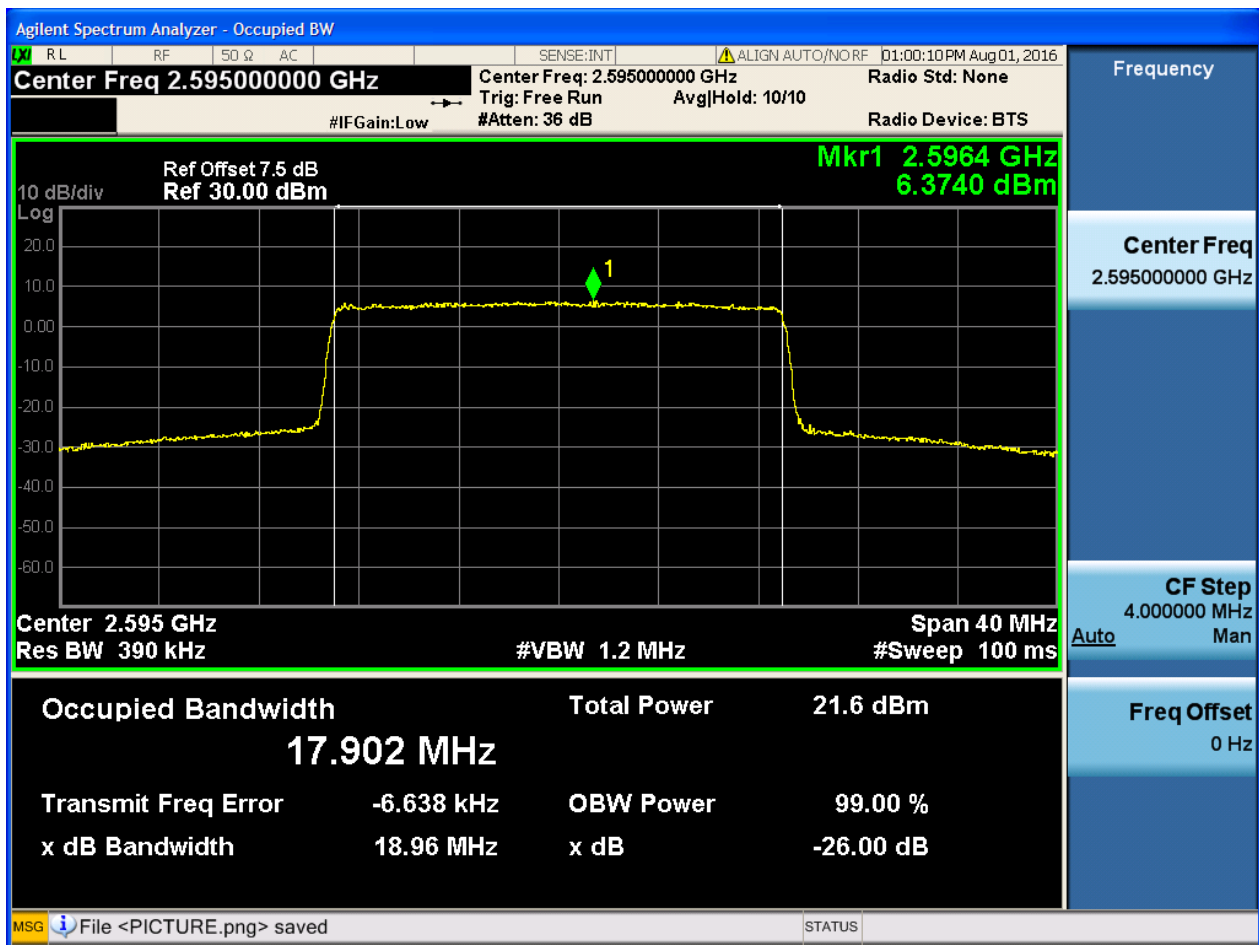
4.1.1.2.4.1.1 Test RB = RB100#0





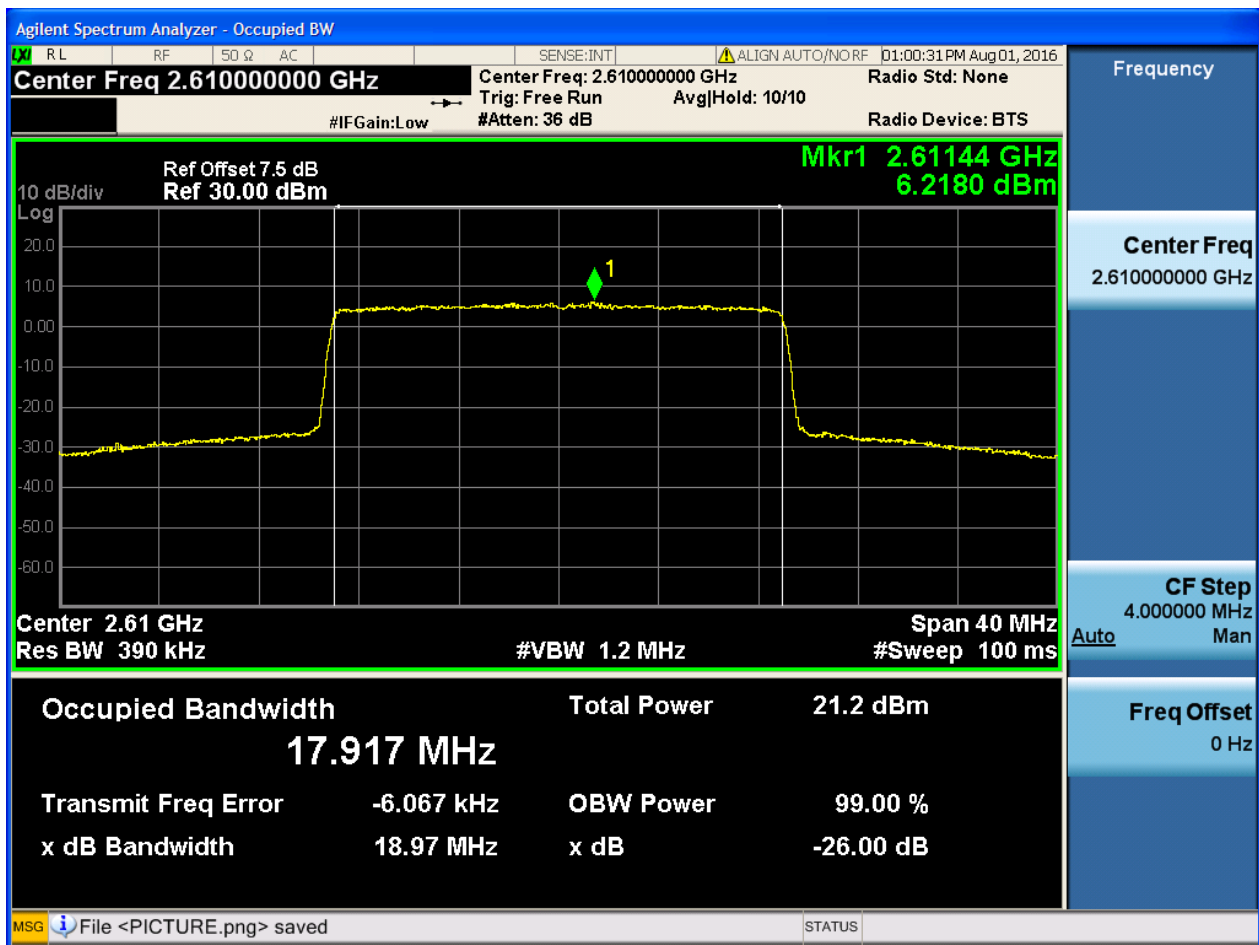
4.1.1.2.4.2 Test Channel = MCH

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

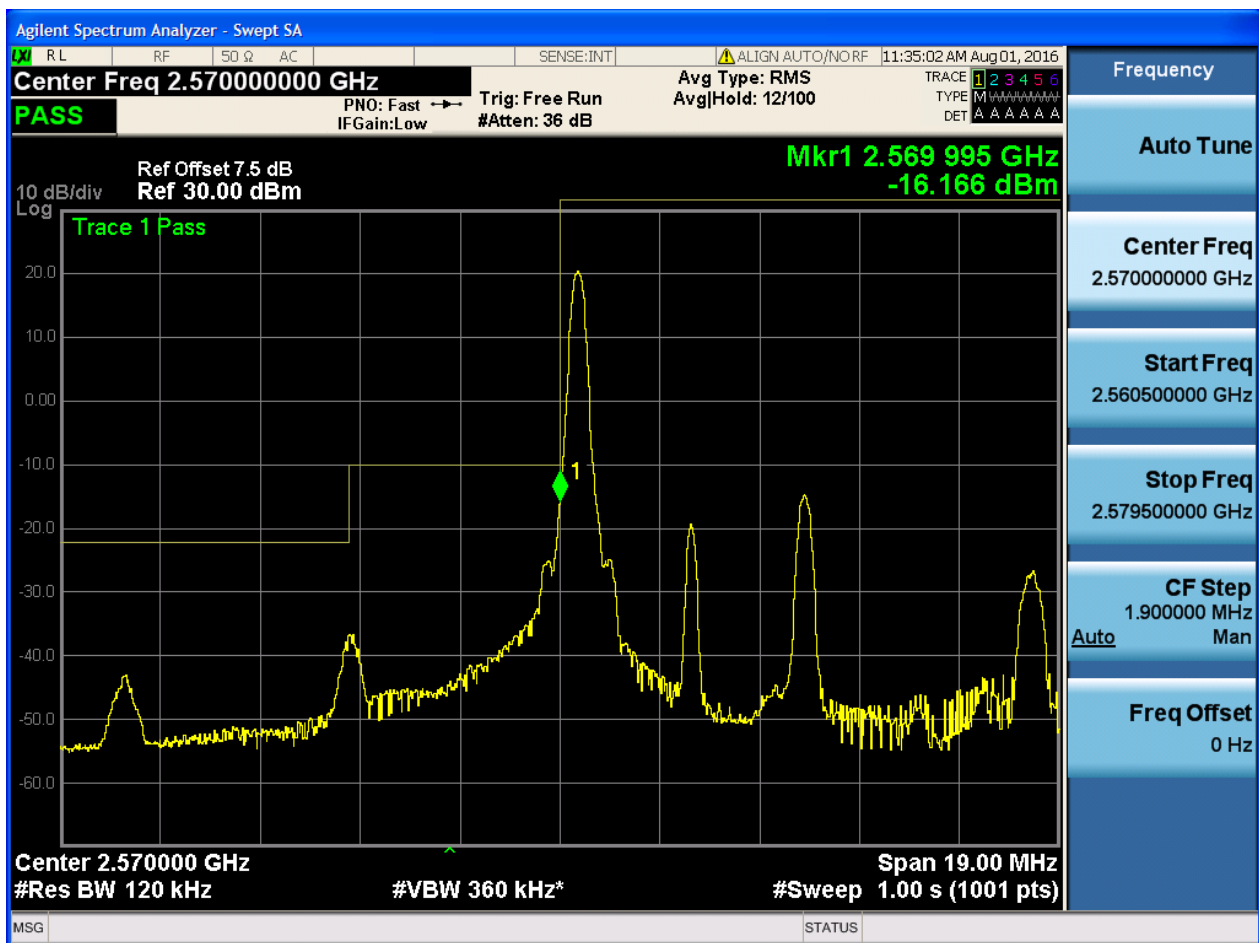
5.1.1 Test Band = BAND38

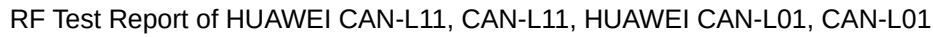
5.1.1.1 Test Mode = LTE/TM1

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 2.57000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-49.036 dBm

Trace 1 Pass

Center 2.570000 GHz
#Res BW 120 kHz
#VBW 360 kHz*
Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 GHz

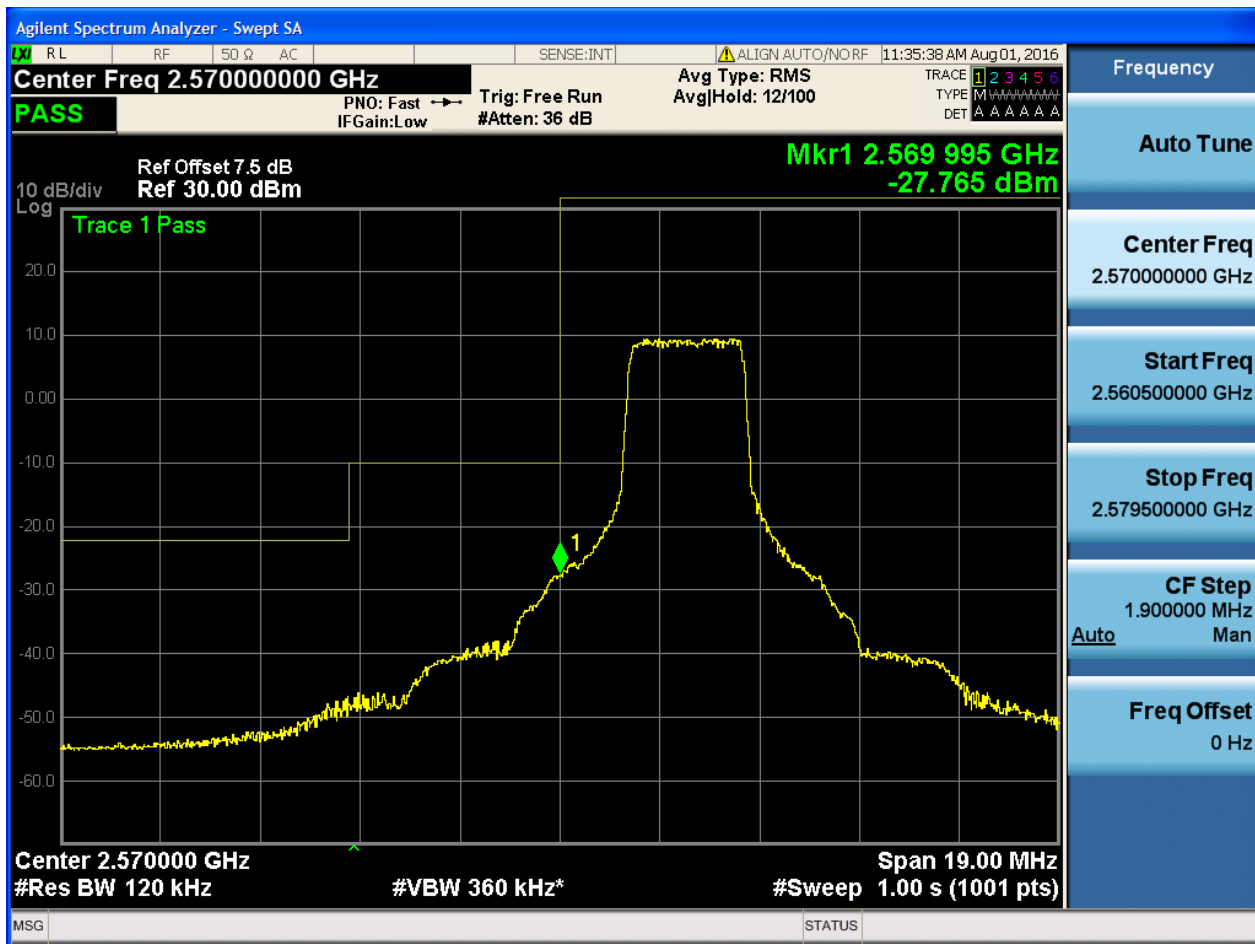
CF Step
1.900000 MHz
Man

Auto

Freq Offset
0 Hz



5.1.1.1.1.3 Test RB = RB12#6



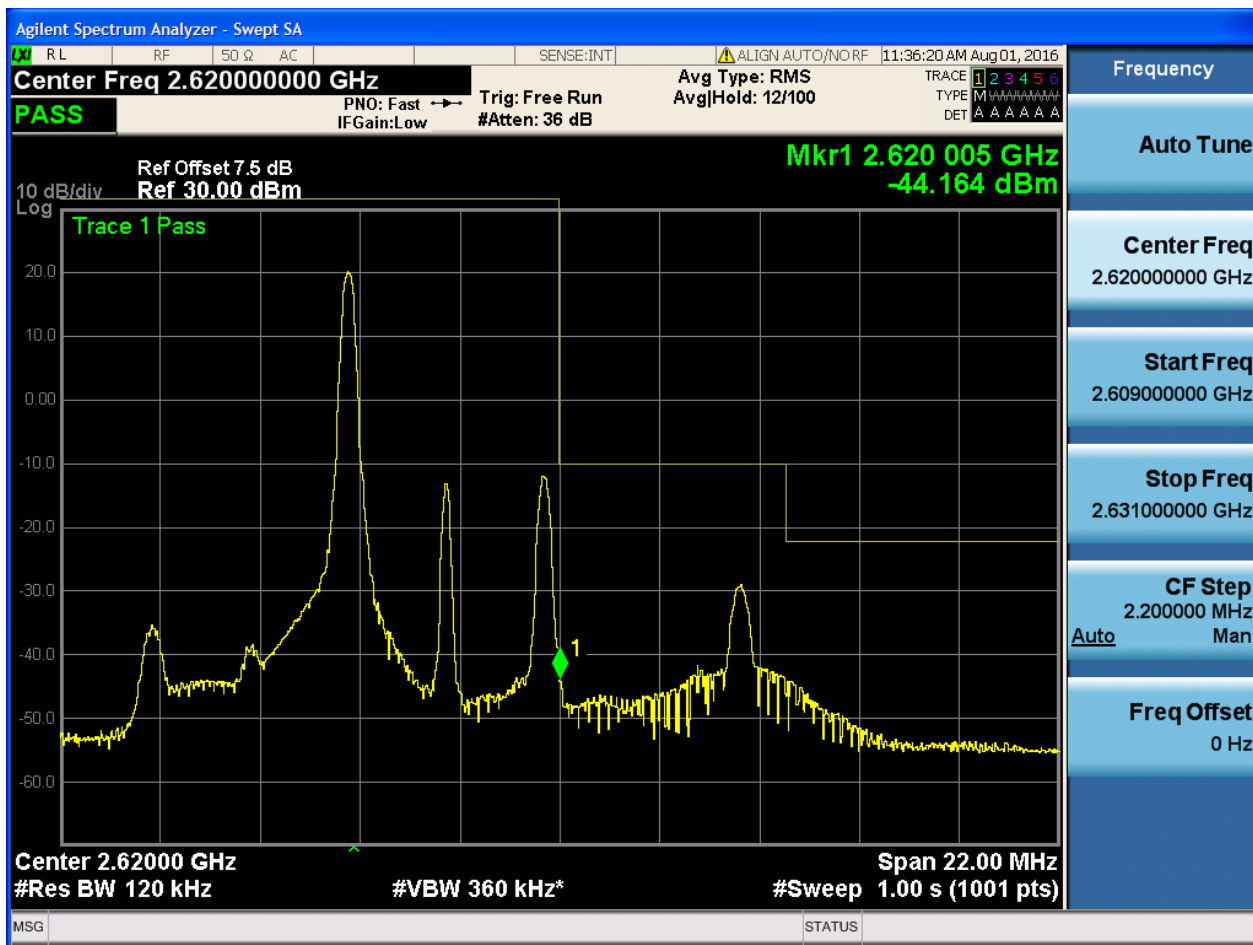


5.1.1.1.1.4 Test RB = RB25#0



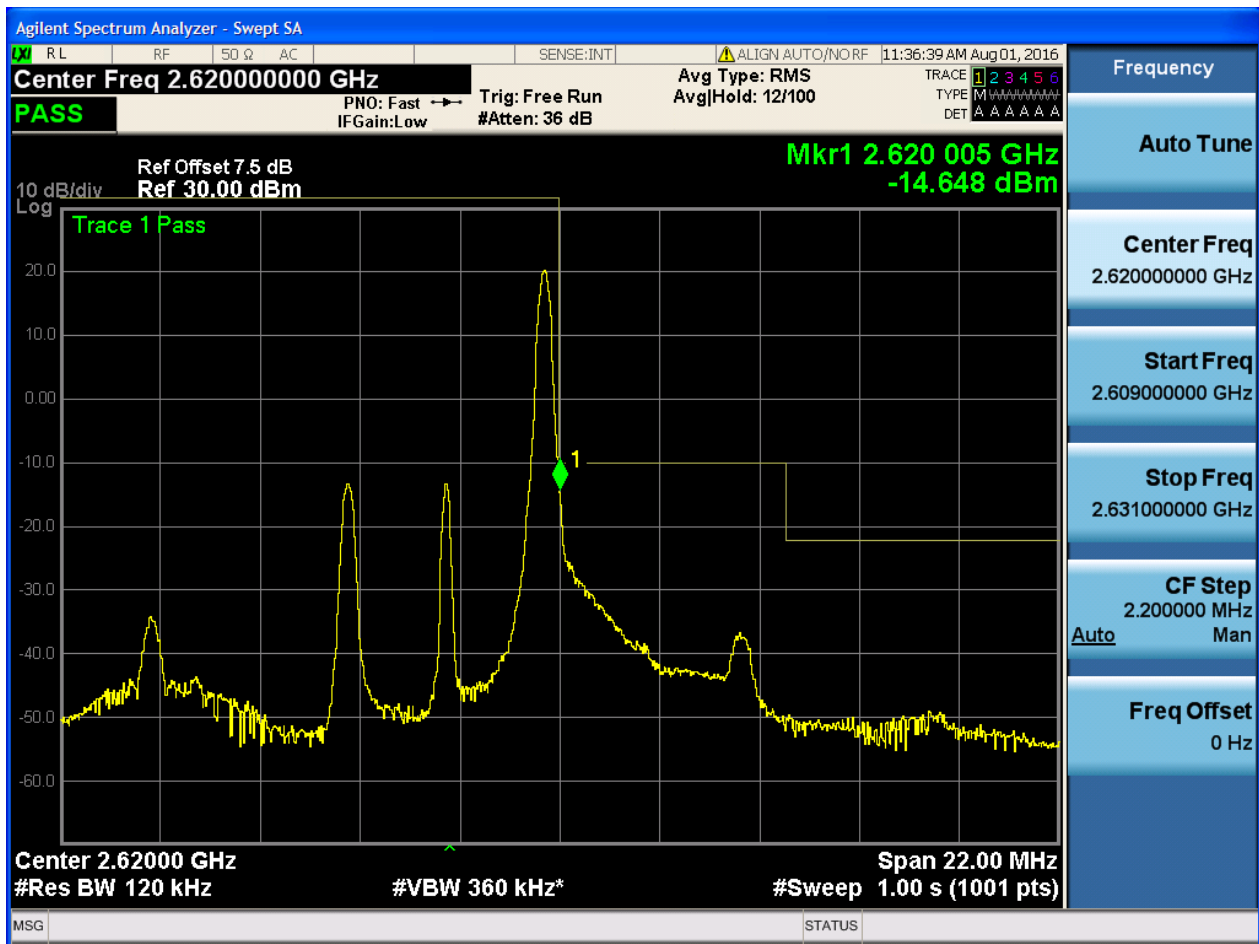
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0



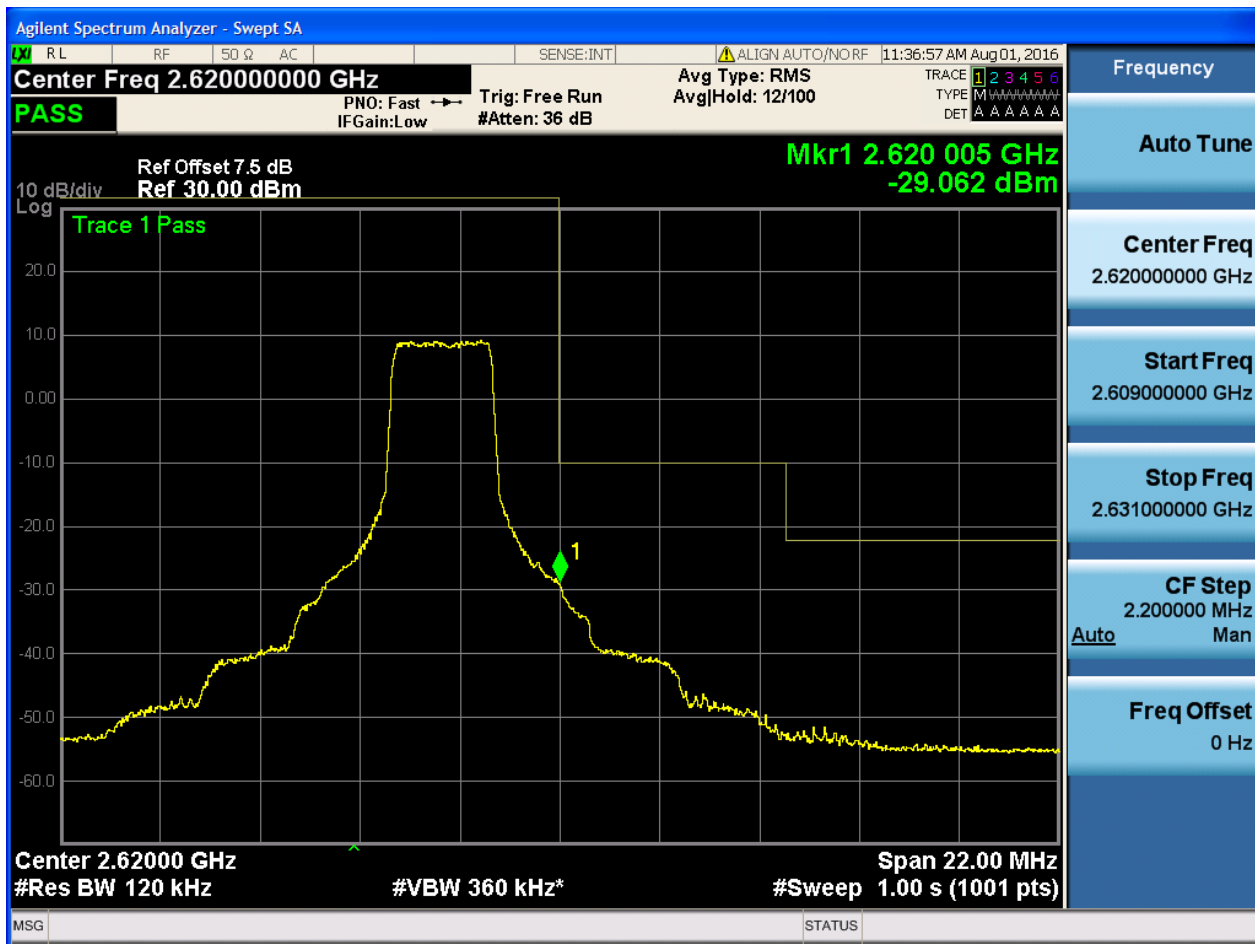


5.1.1.1.2.2 Test RB = RB1#24





5.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.2.4 Test RB = RB25#0

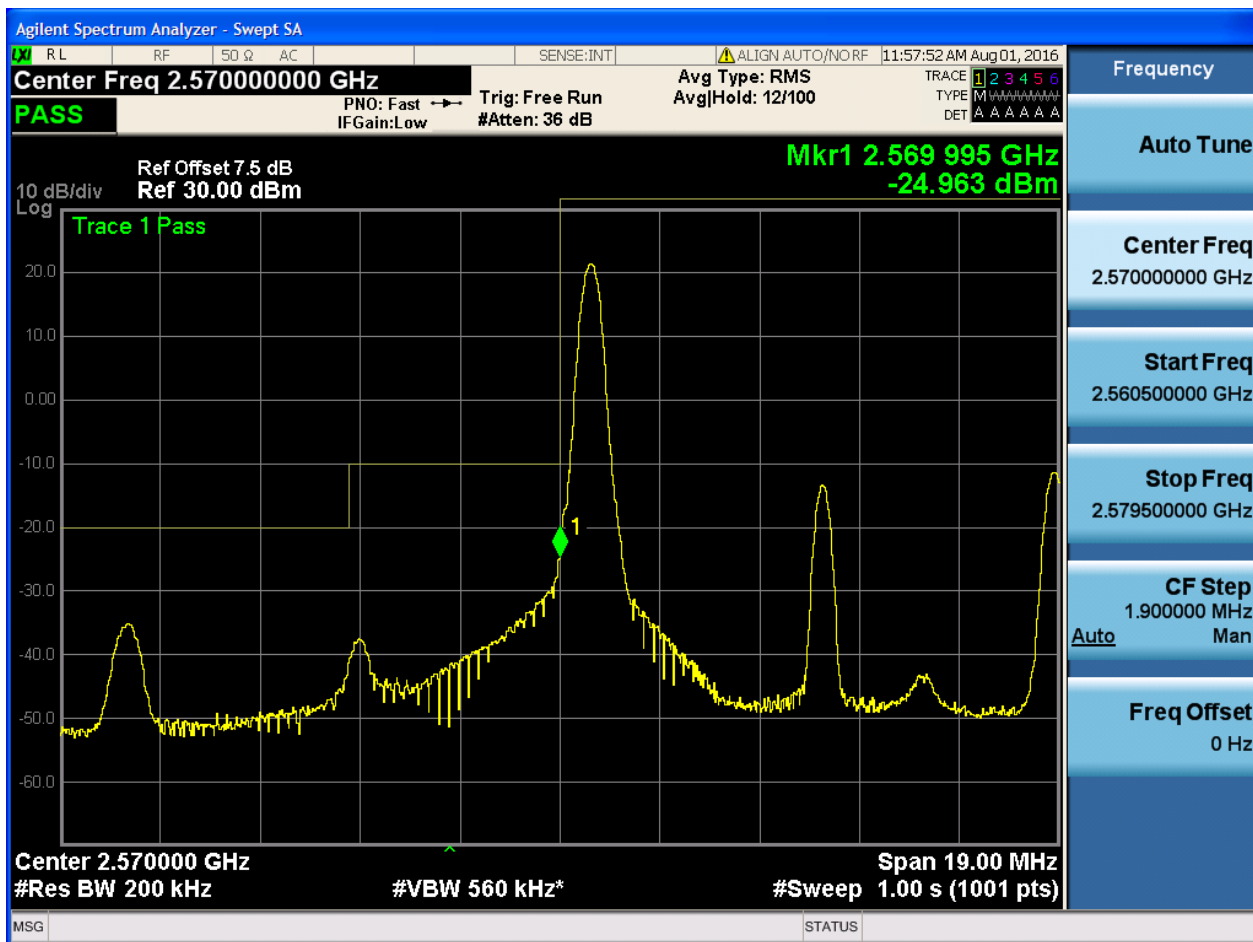




5.1.1.1.2 Test Bandwidth = 10

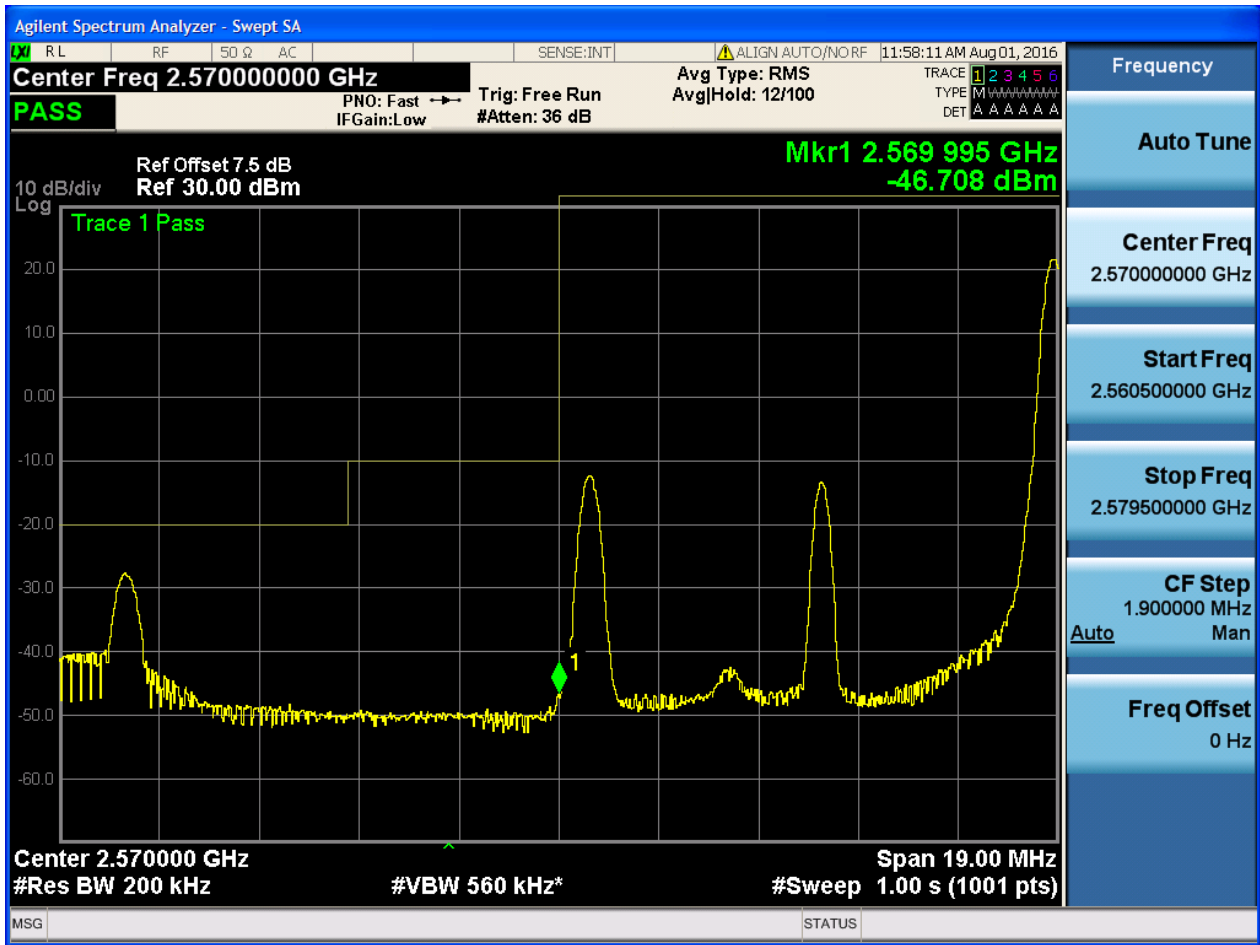
5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



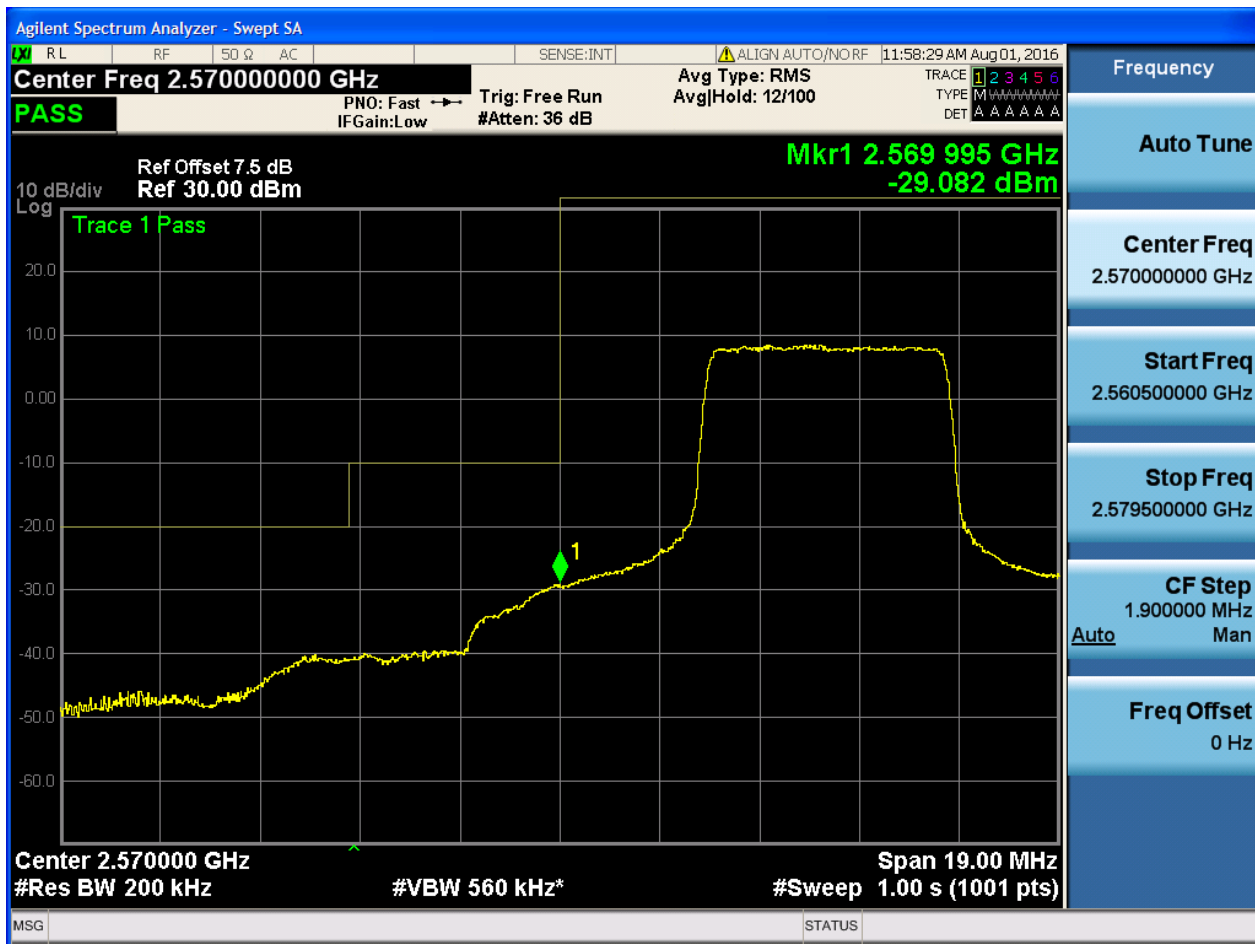


5.1.1.1.2.1.2 Test RB = RB1#49



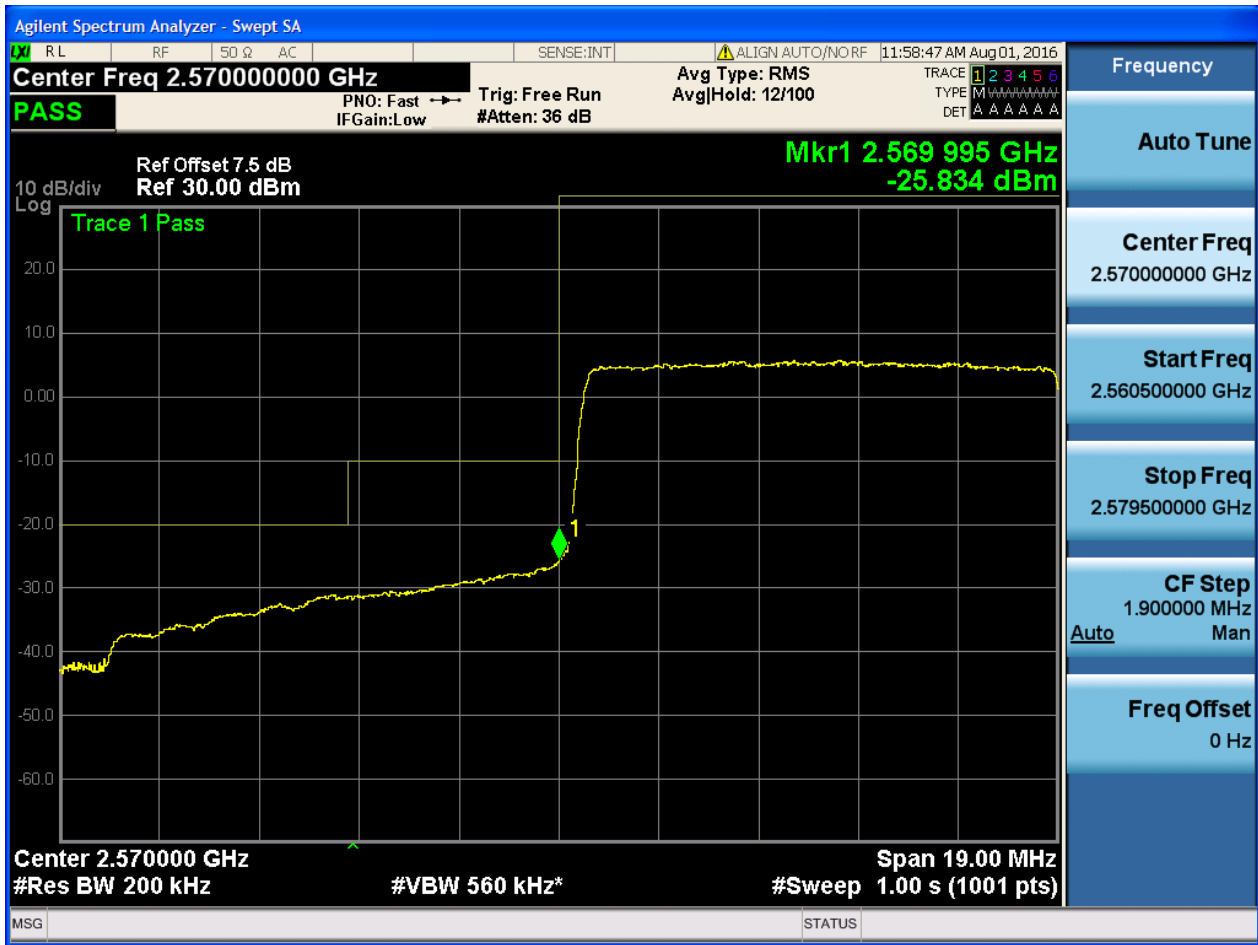


5.1.1.1.2.1.3 Test RB = RB25#13



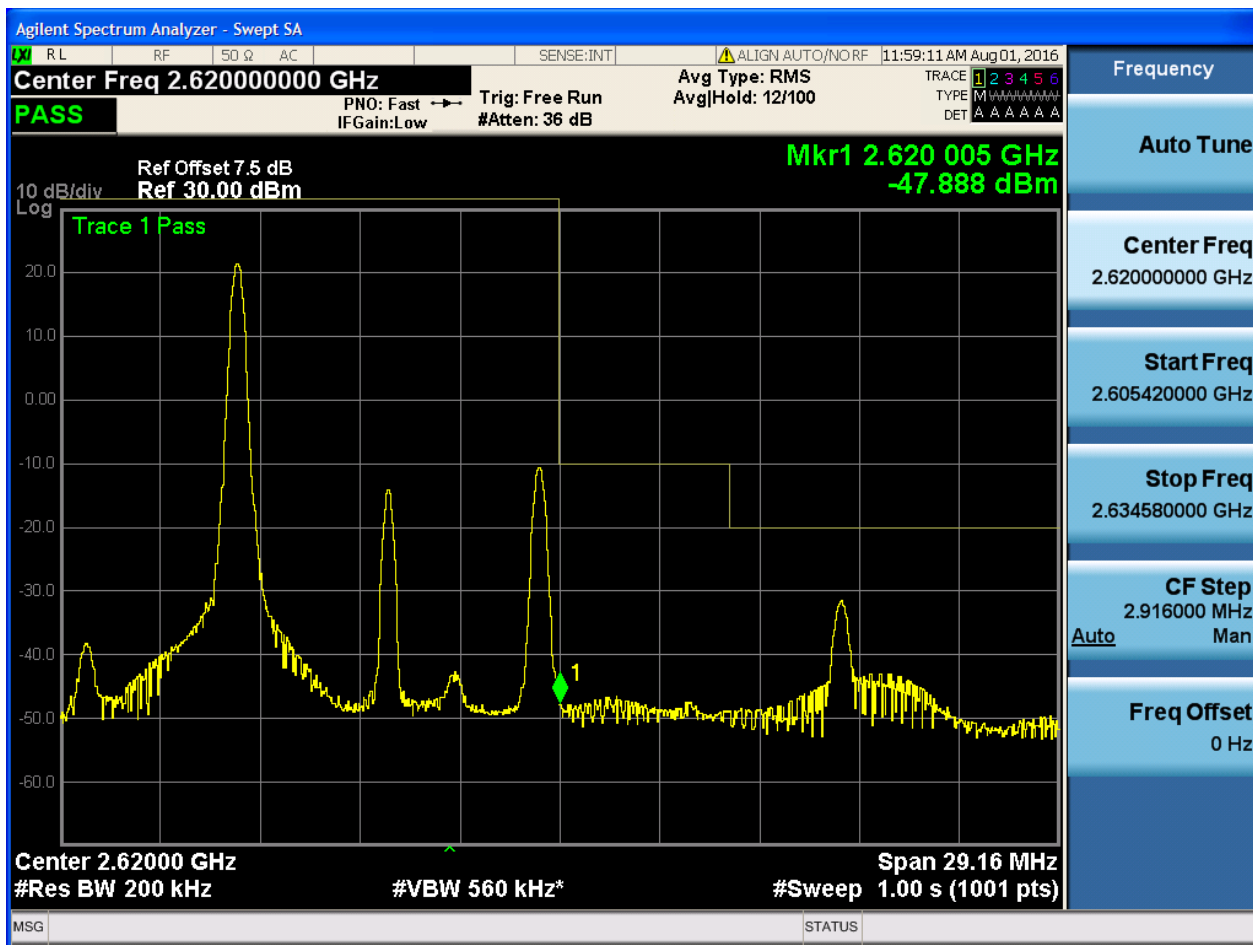


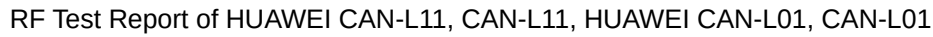
5.1.1.1.2.1.4 Test RB = RB50#0



5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.62000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

10 dB/div
Log

Center 2.6200 GHz
#Res BW 200 kHz

Span 29.16 MHz
#Sweep 1.00 s (1001 pts)

Auto Tune

Center Freq
2.62000000 GHz

Start Freq
2.605420000 GHz

Stop Freq
2.634580000 GHz

CF Step
2.916000 MHz
Man

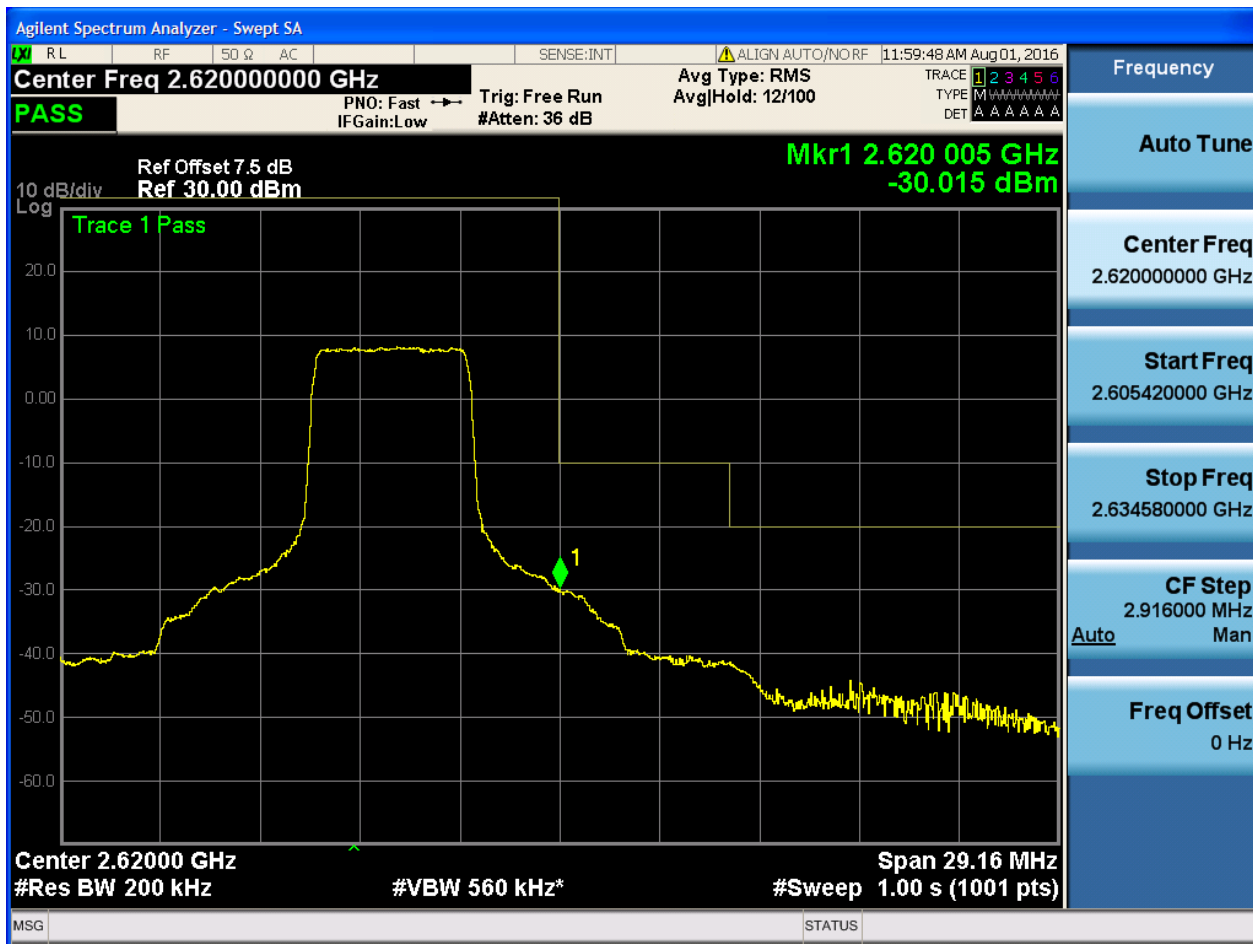
Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer. The main display is a plot of the spectrum, showing a central peak at 2.62000000 GHz. The y-axis is labeled '10 dB/div' and 'Log', ranging from -60.0 to 20.0. The x-axis is labeled 'Center 2.6200 GHz' and 'Span 29.16 MHz'. The plot shows a central peak at 2.62000000 GHz, with several side lobes. The peak is labeled '1' and has a value of -26.102 dBm. The plot also shows a 'Trace 1 Pass' label. The top of the screen displays various settings: 'Center Freq 2.62000000 GHz', 'Ref Offset 7.5 dB', 'Ref 30.00 dBm', 'Trace 1 Pass', 'Auto Tune', 'Center Freq 2.62000000 GHz', 'Start Freq 2.605420000 GHz', 'Stop Freq 2.634580000 GHz', 'CF Step 2.916000 MHz', 'Man', 'Freq Offset 0 Hz', 'Center 2.6200 GHz', '#Res BW 200 kHz', 'Span 29.16 MHz', and '#Sweep 1.00 s (1001 pts)'. The bottom of the screen shows a 'MSG' field and a 'STATUS' field.

Frequency
Auto Tune
Center Freq 2.62000000 GHz
Start Freq 2.605420000 GHz
Stop Freq 2.634580000 GHz
CF Step 2.916000 MHz Man
Freq Offset 0 Hz



5.1.1.1.2.2.3 Test RB = RB25#13





5.1.1.1.2.2.4 Test RB = RB50#0

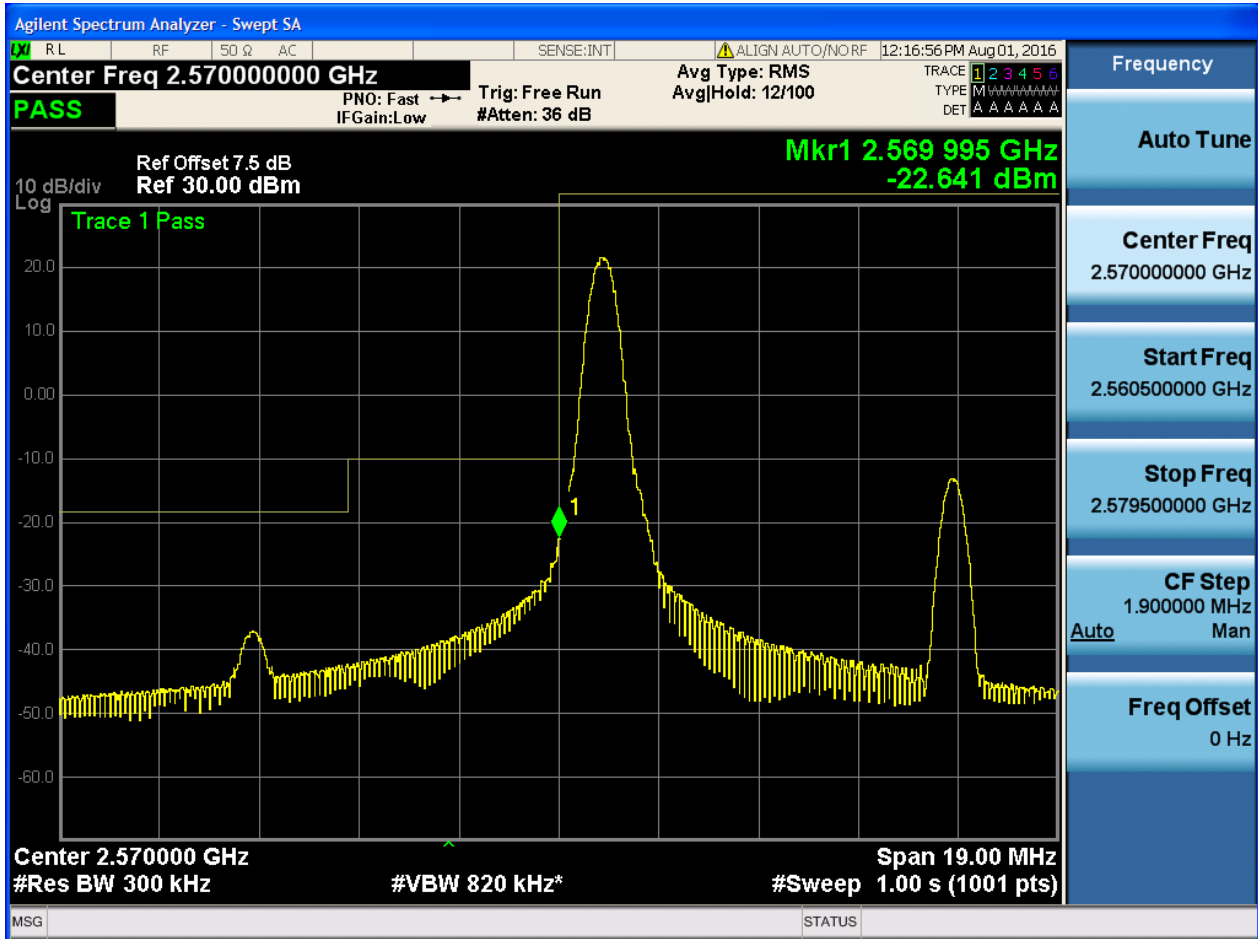




5.1.1.1.3 Test Bandwidth = 15

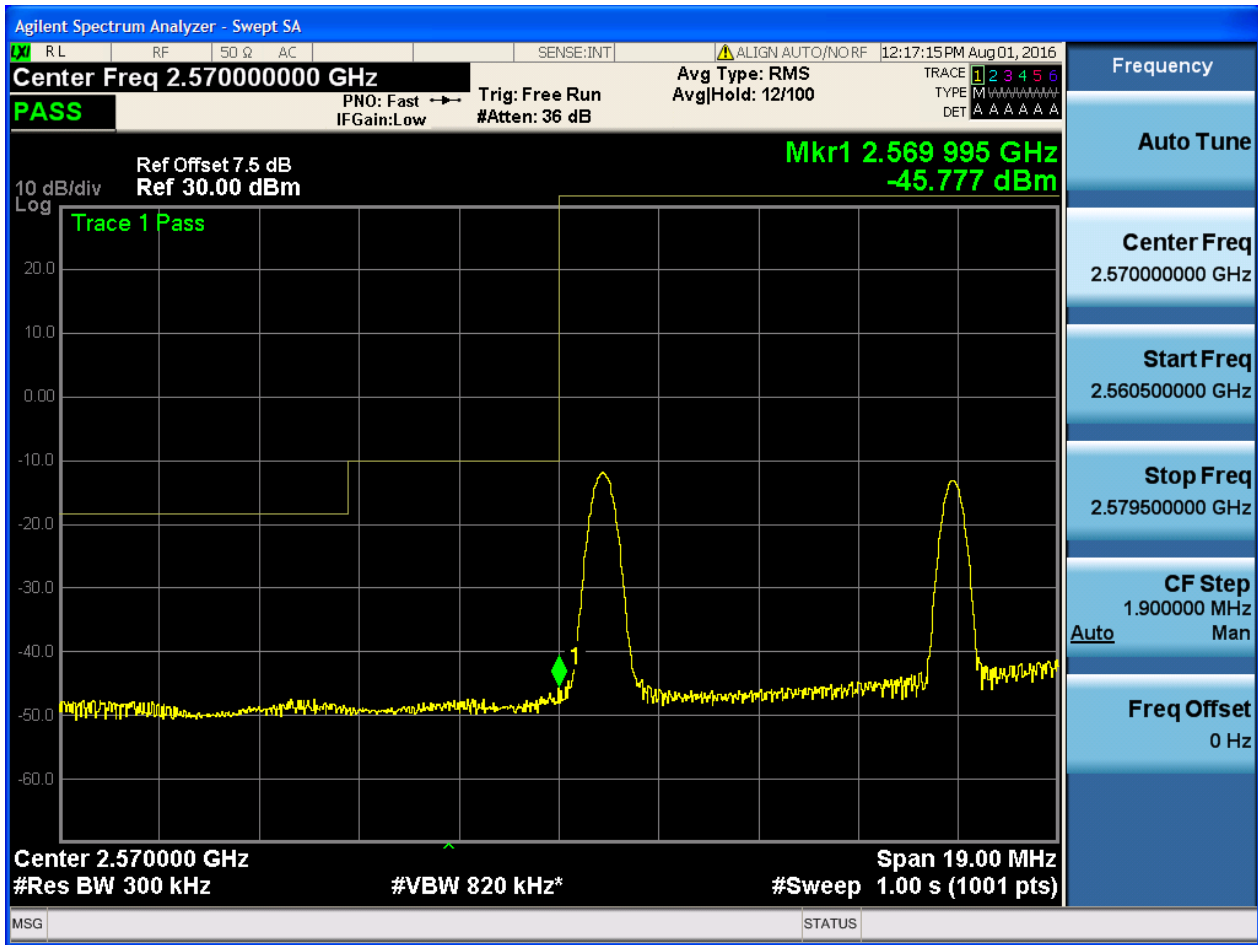
5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0





5.1.1.1.3.1.2 Test RB = RB1#74



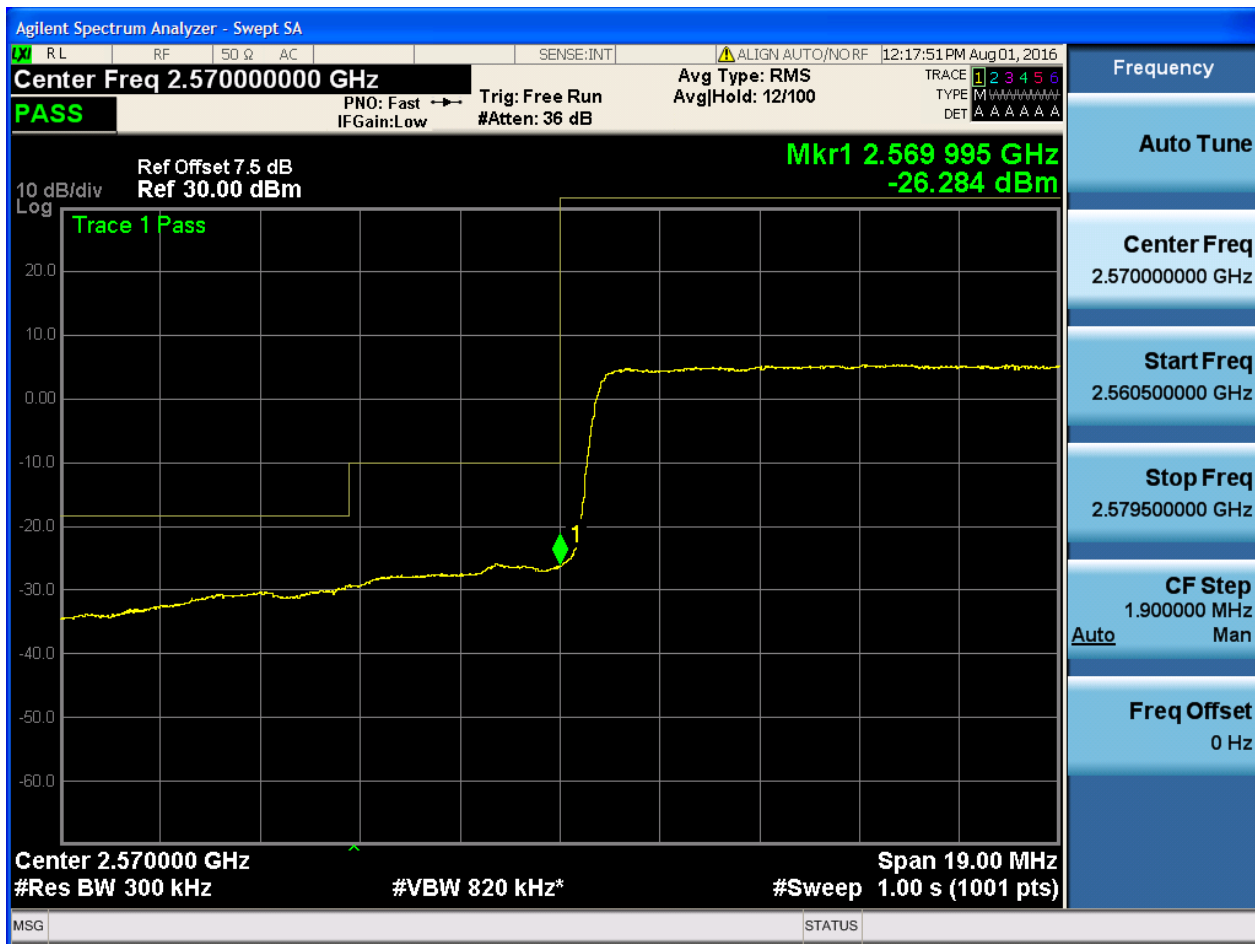


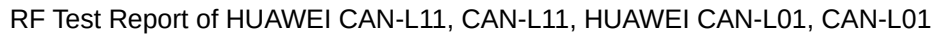
5.1.1.1.3.1.3 Test RB = RB36#18



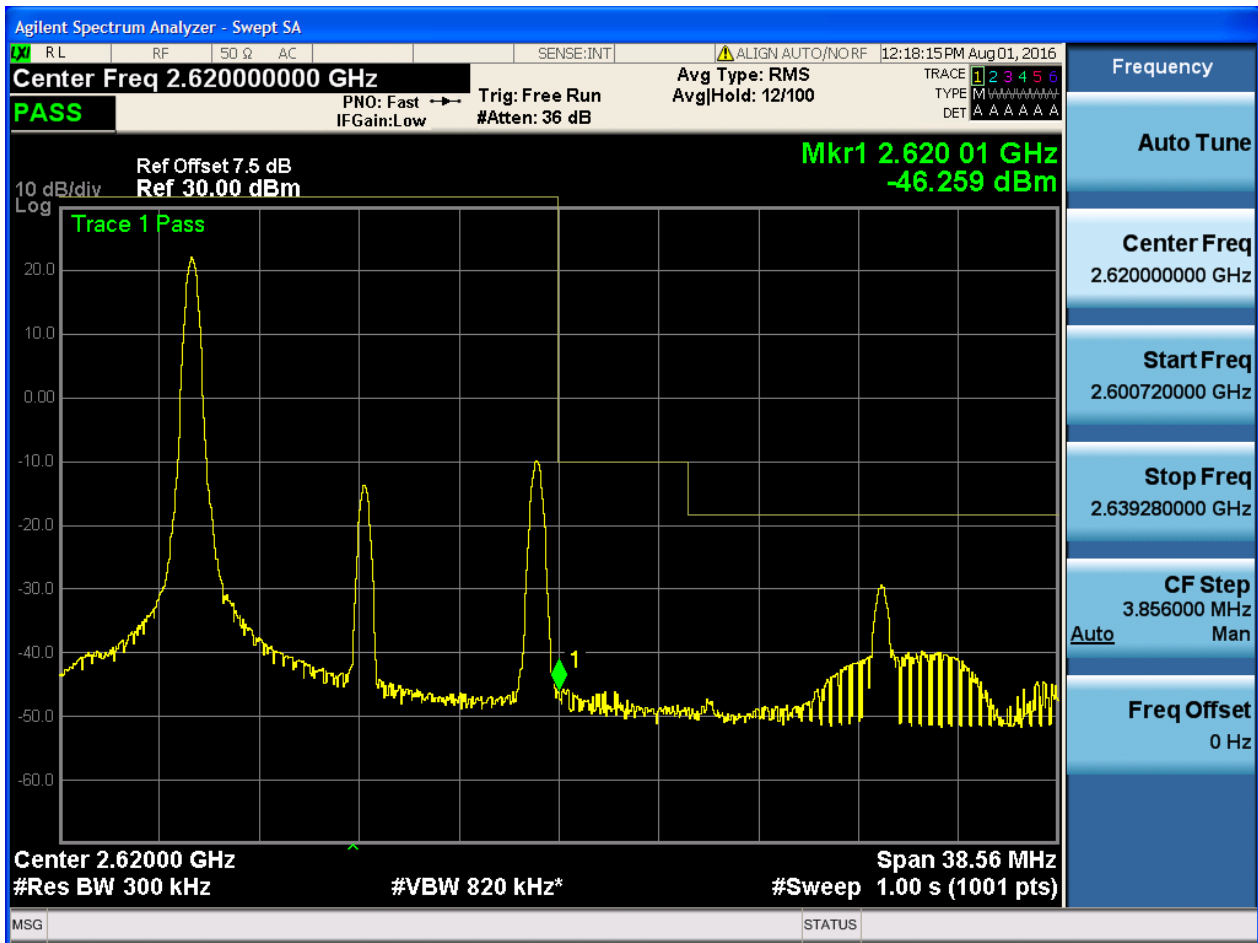


5.1.1.1.3.1.4 Test RB = RB75#0



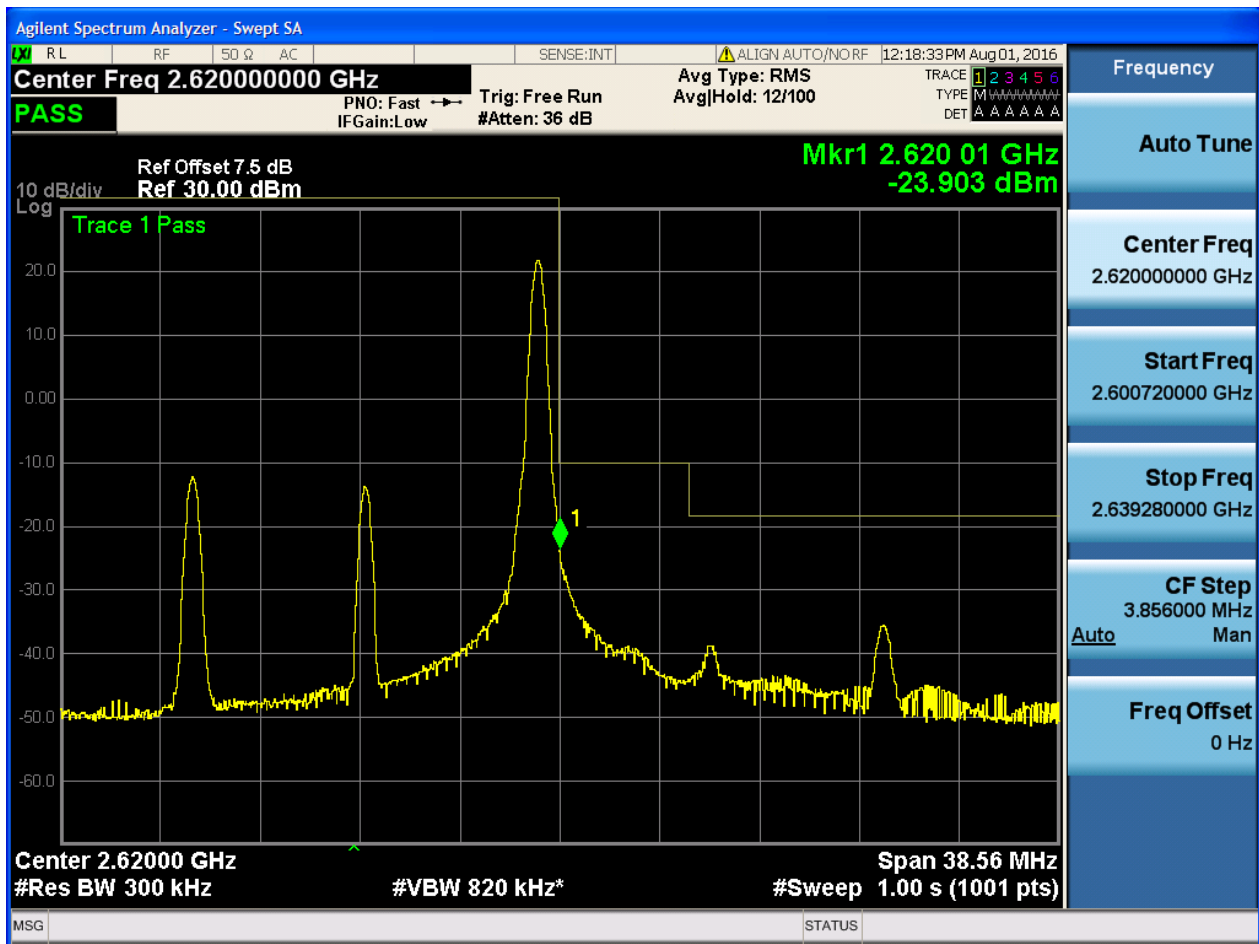


5.1.1.1.3.2.1 Test RB = RB1#0



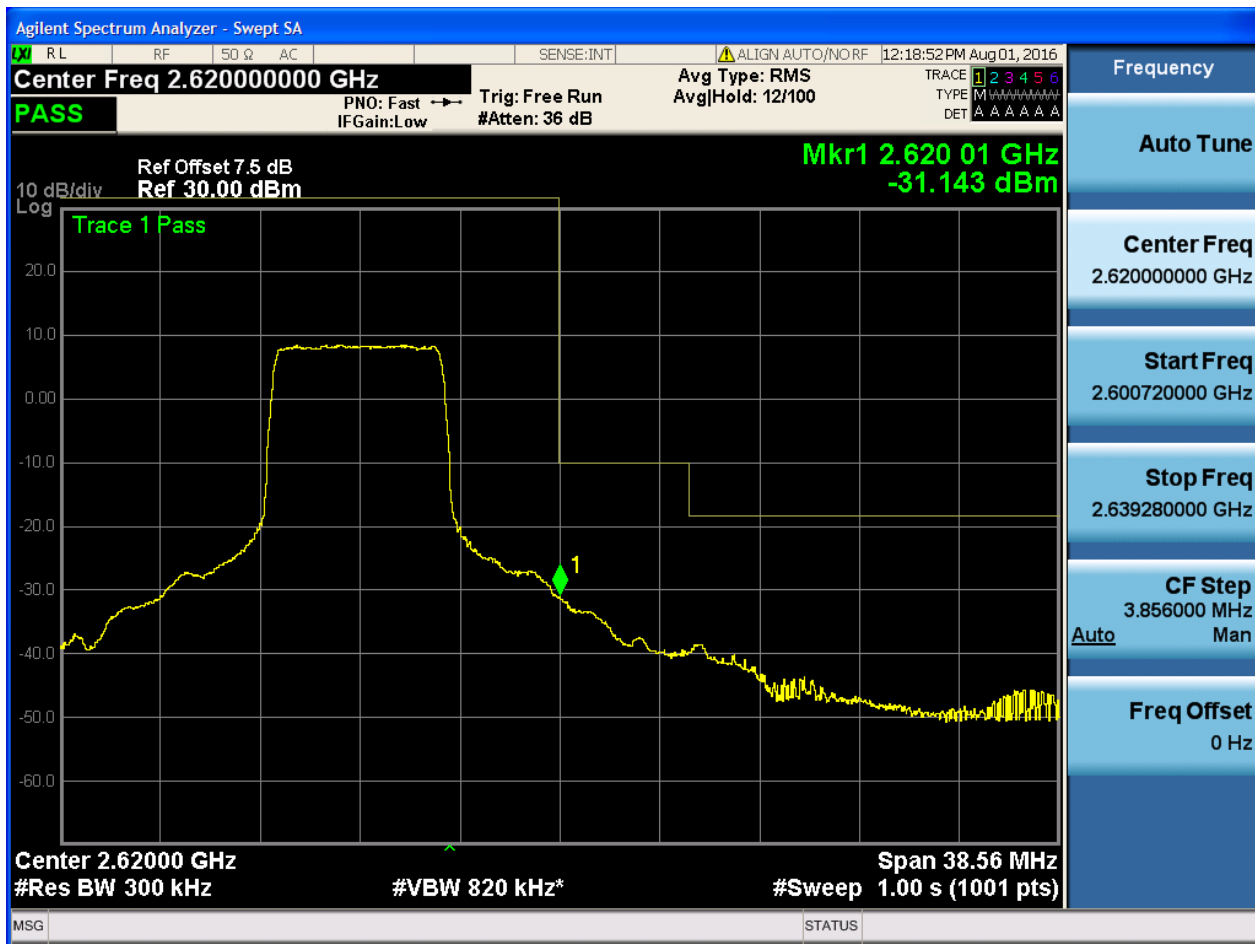


5.1.1.1.3.2.2 Test RB = RB1#74





5.1.1.1.3.2.3 Test RB = RB36#18





5.1.1.1.3.2.4 Test RB = RB75#0

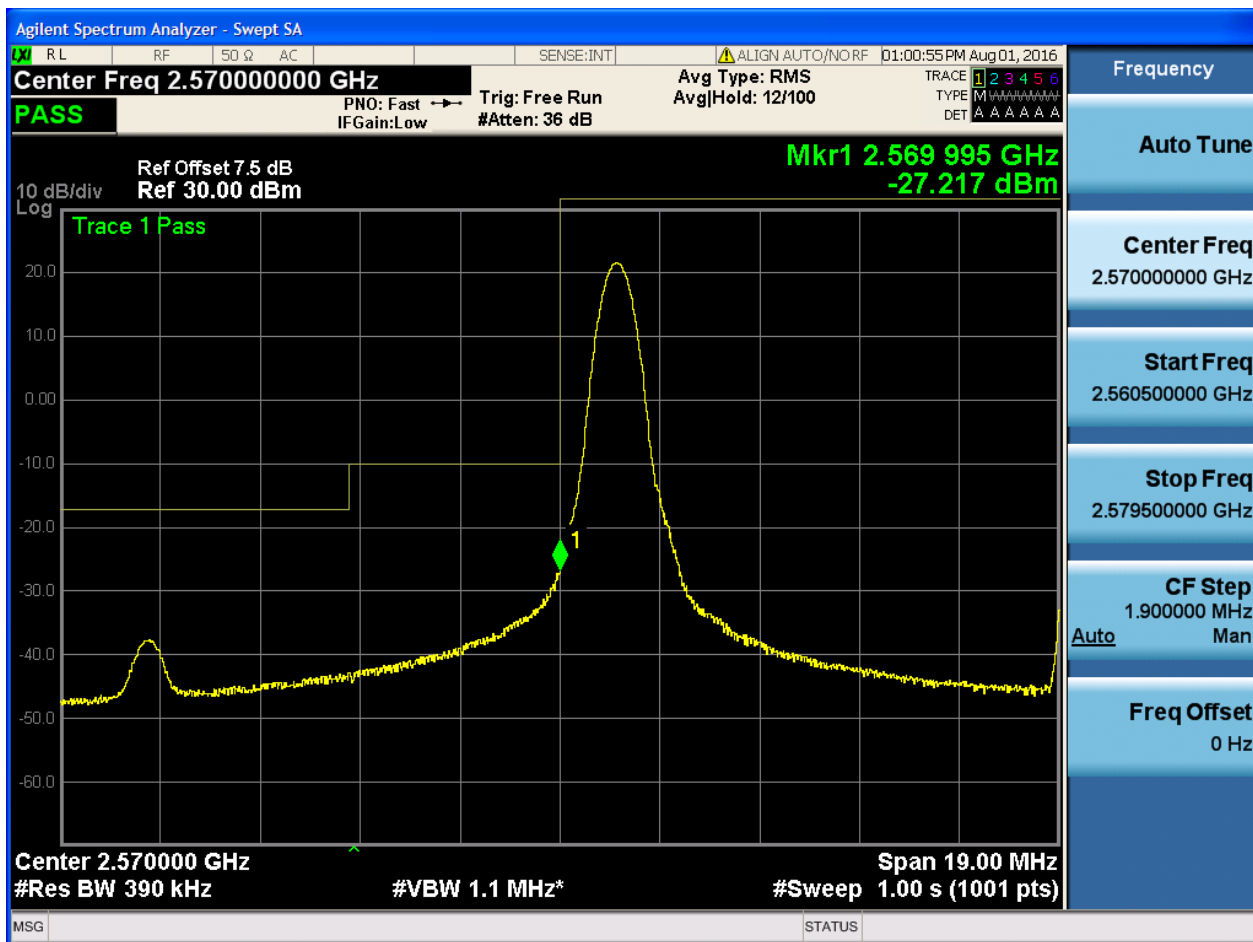




5.1.1.1.4 Test Bandwidth = 20

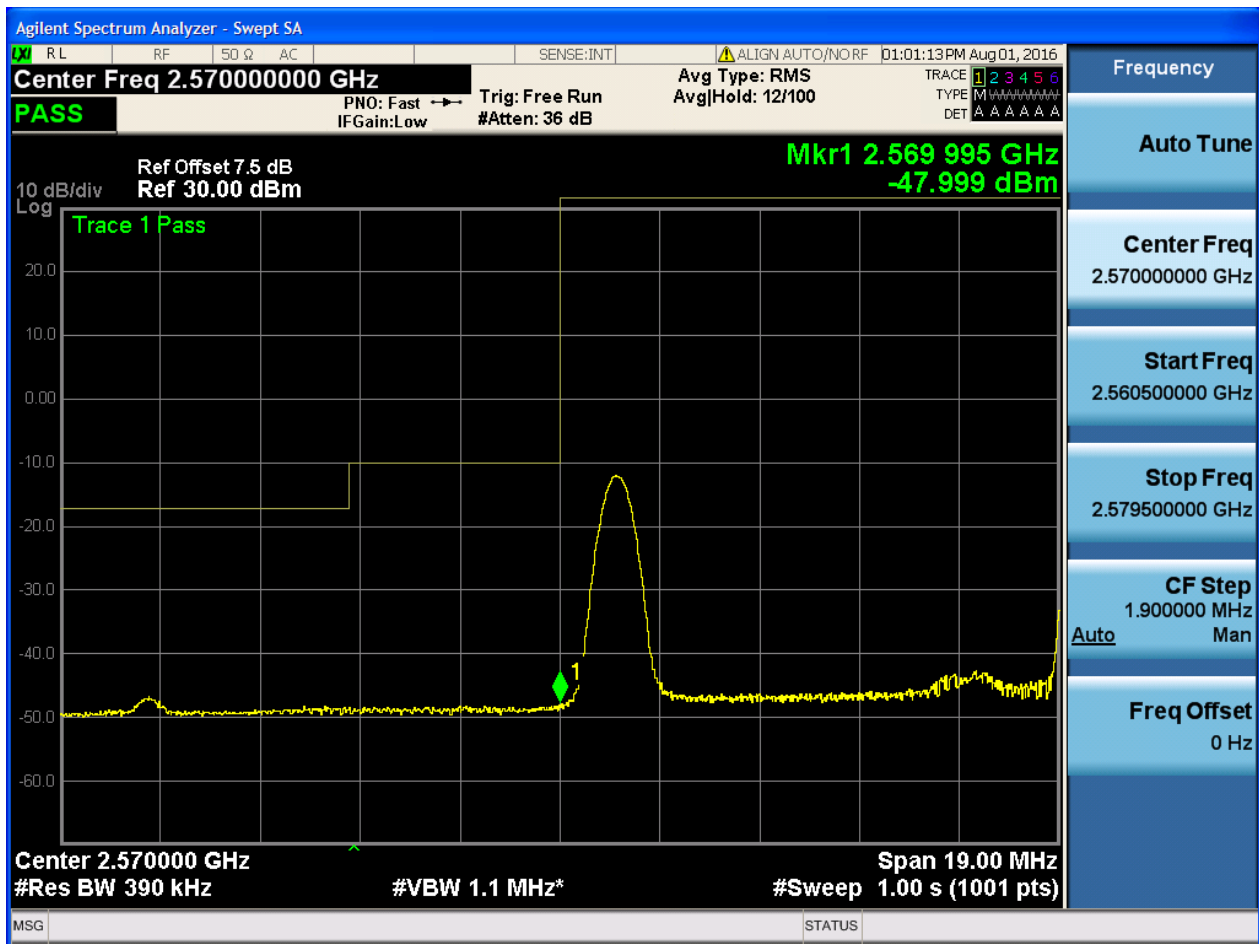
5.1.1.1.4.1 Test Channel = LCH

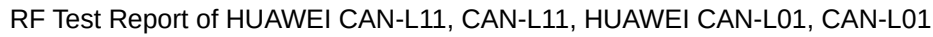
5.1.1.1.4.1.1 Test RB = RB1#0

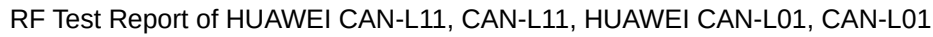




5.1.1.1.4.1.2 Test RB = RB1#99



[illegible]



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

Mkr1 2.569 995 GHz
-25.948 dBm

Center 2.57000 GHz
#Res BW 390 kHz
#VBW 1.1 MHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.560500000 GHz

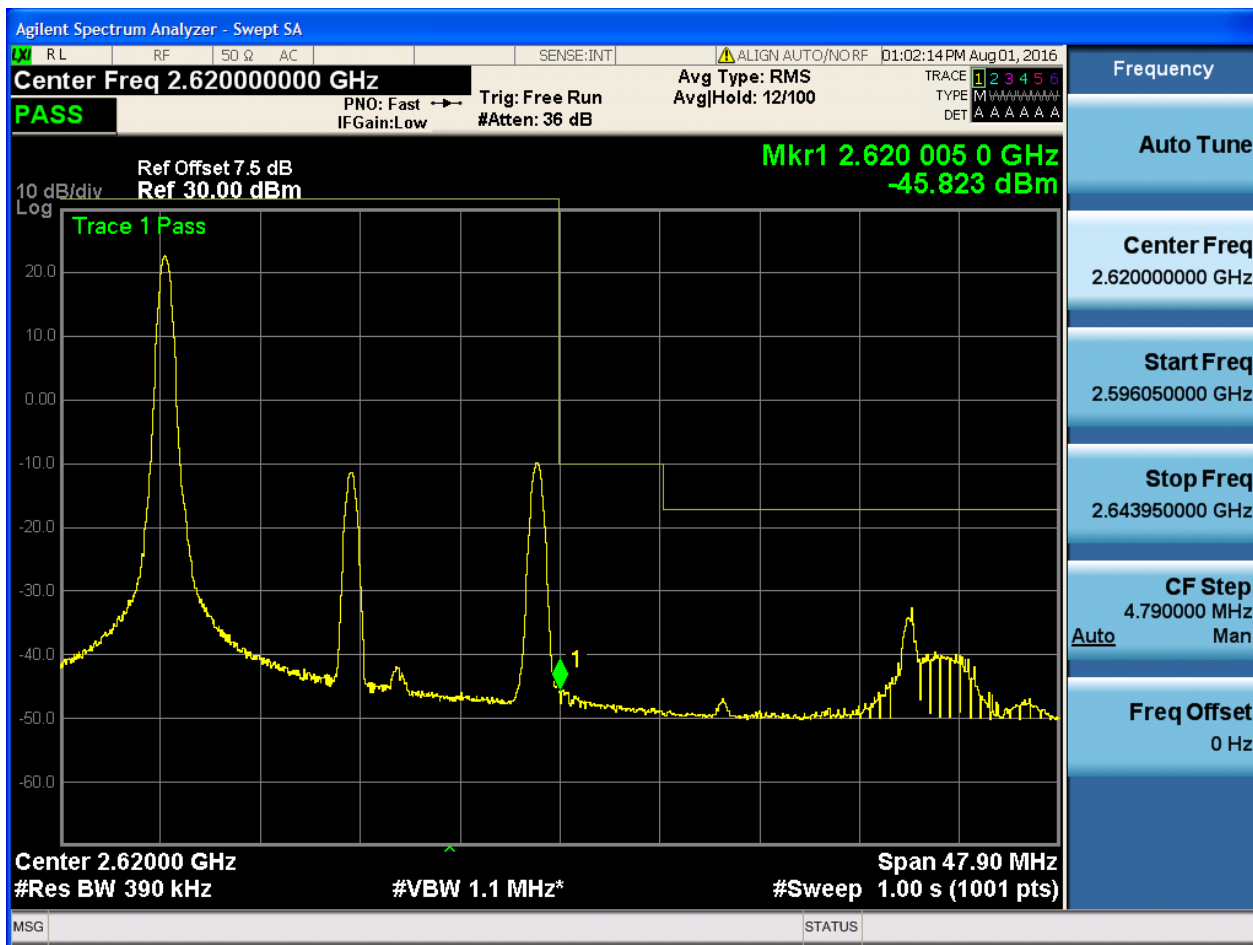
Stop Freq
2.579500000 GHz

CF Step
1.900000 MHz
Man

Freq Offset
0 Hz

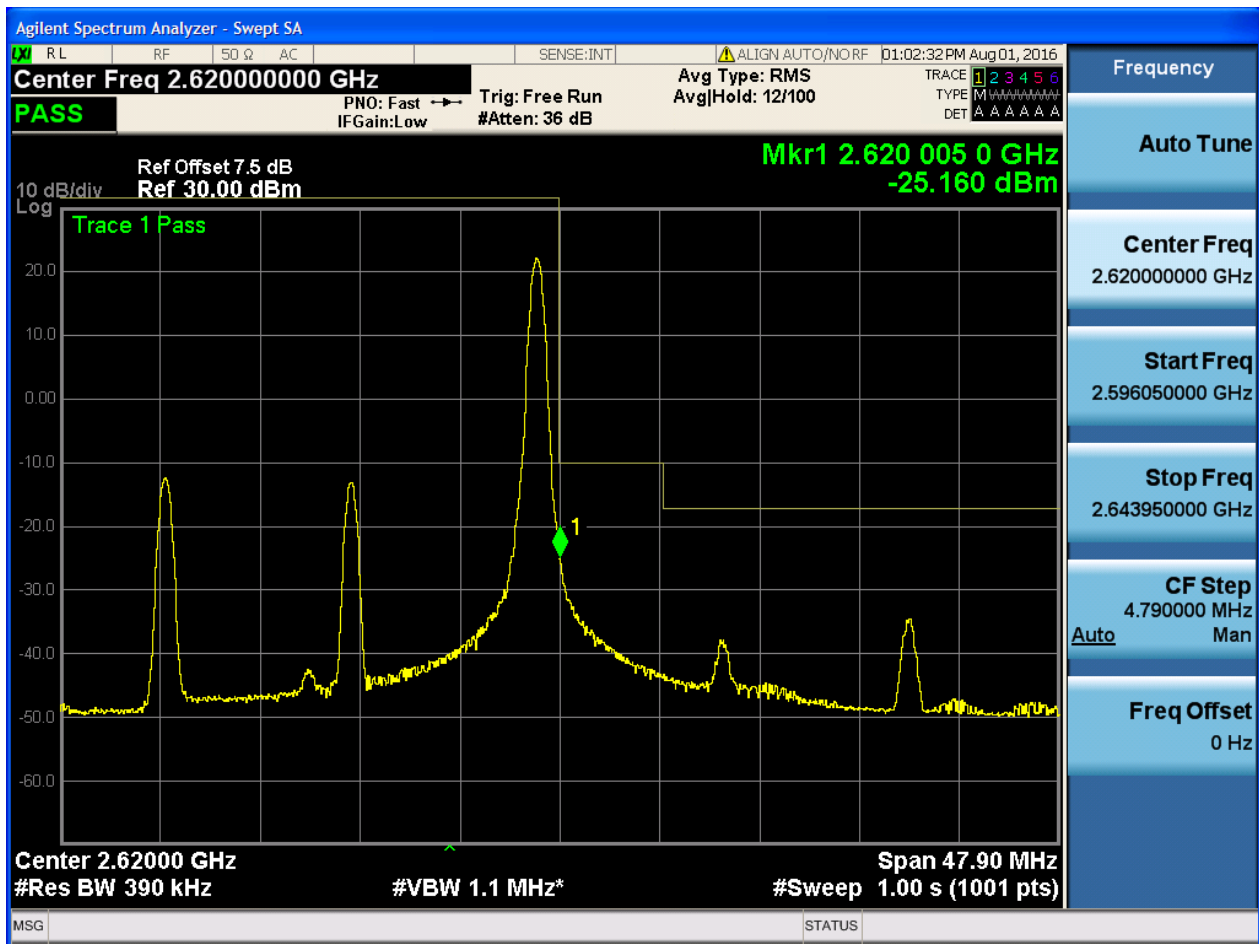
5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0





5.1.1.1.4.2.2 Test RB = RB1#99





5.1.1.1.4.2.3 Test RB = RB50#25





5.1.1.1.4.2.4 Test RB = RB100#0



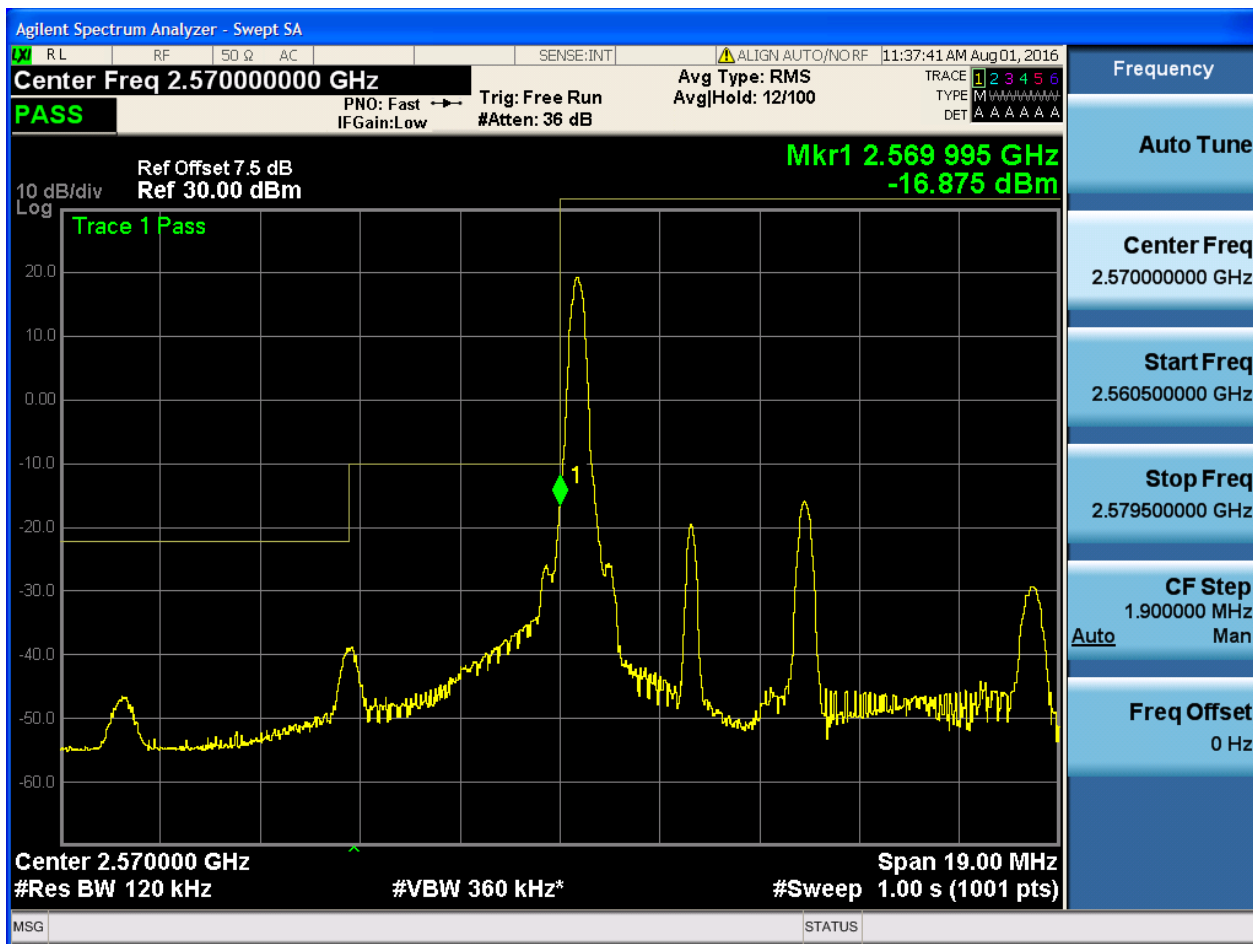


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

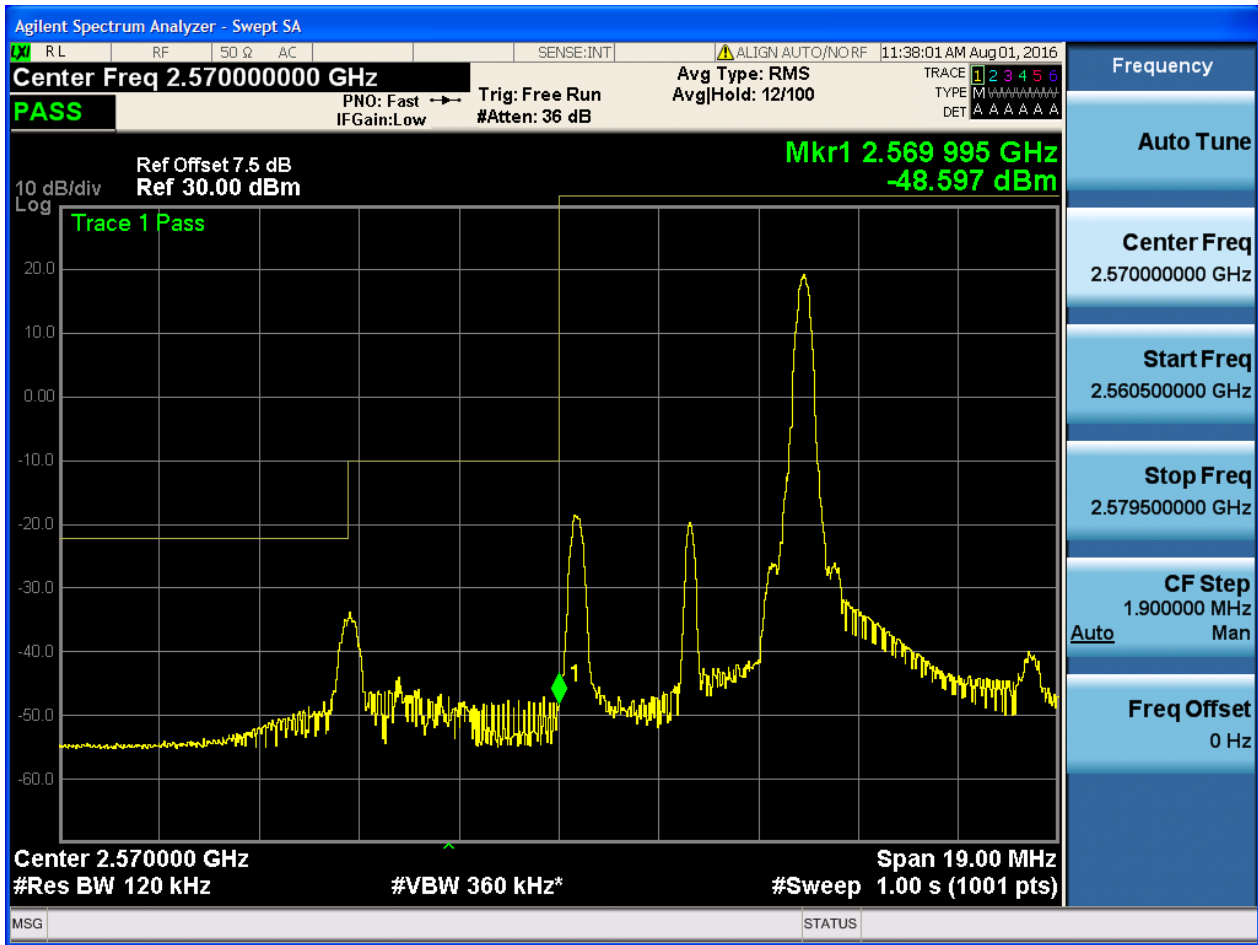
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



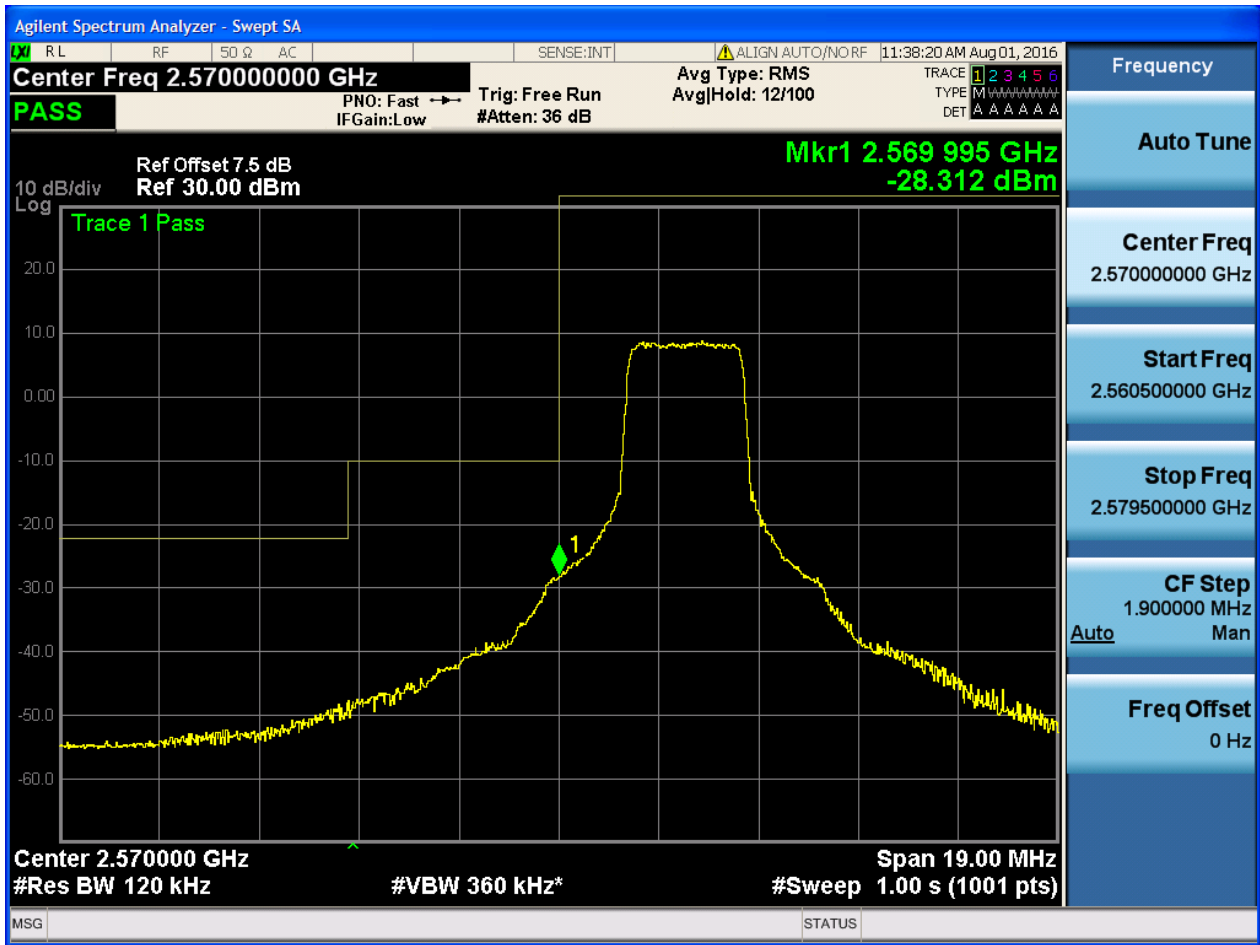


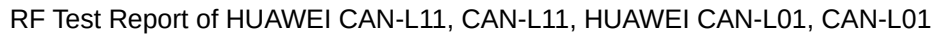
5.1.1.2.1.1.2 Test RB = RB1#24





5.1.1.2.1.1.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-25.087 dBm

Trace 1 Pass

Center 2.57000 GHz

#Res BW 120 kHz

#VBW 360 kHz*

Span 19.00 MHz

#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 GHz

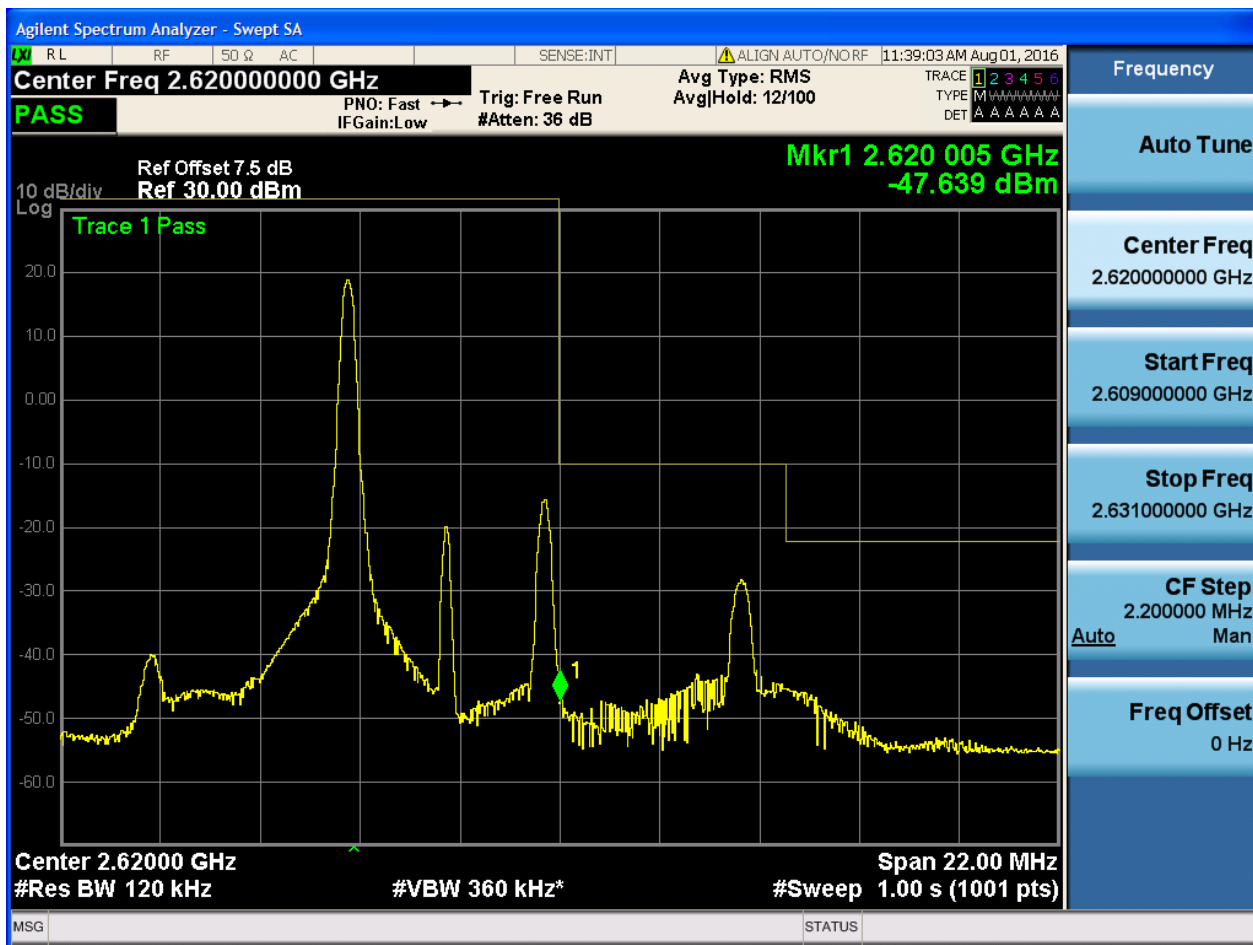
CF Step
1.900000 MHz
Man

Freq Offset
0 Hz

MSG

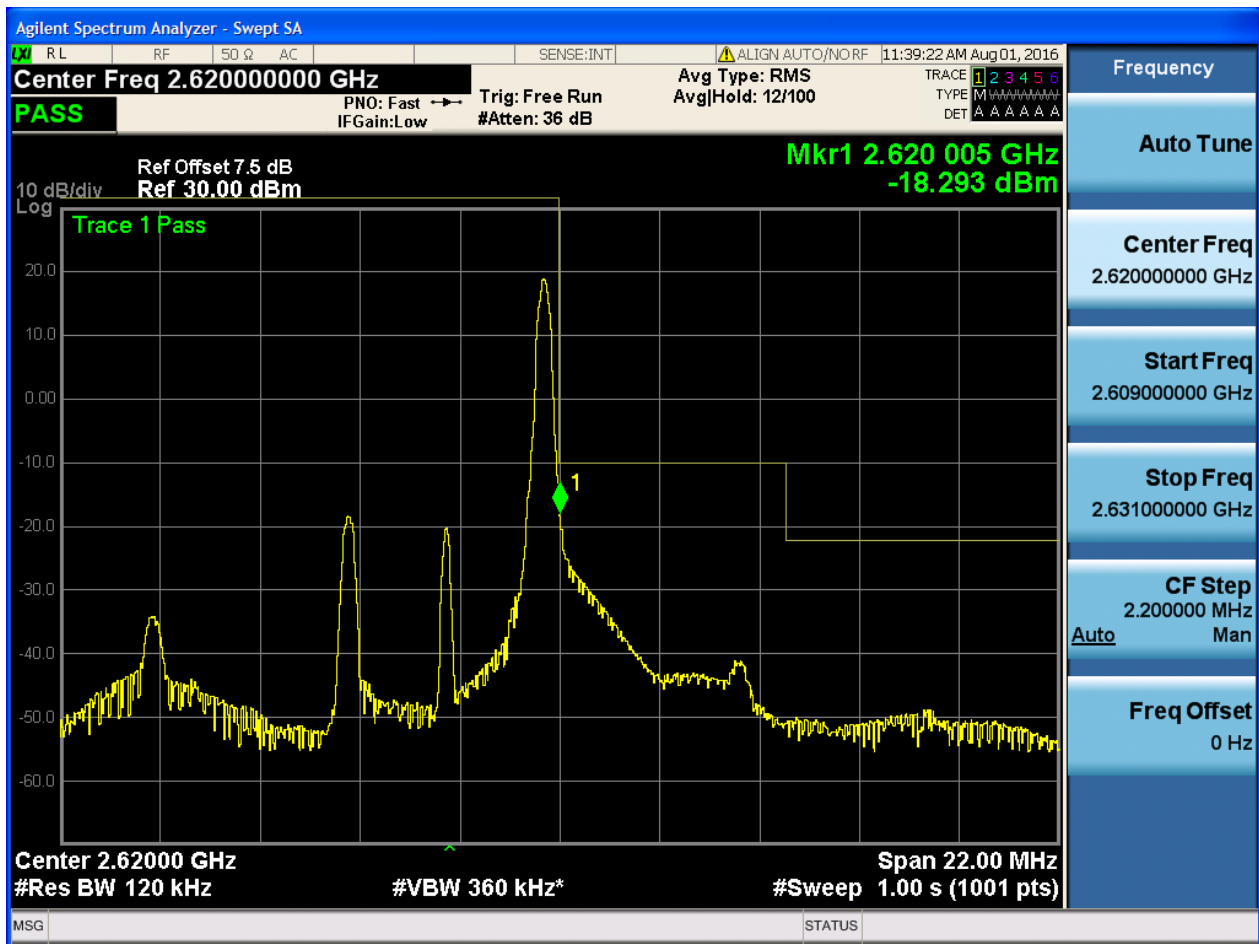
5.1.1.2.1.2 Test Channel = HCH

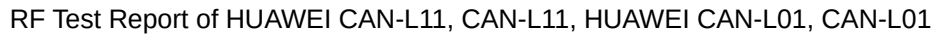
5.1.1.2.1.2.1 Test RB = RB1#0





5.1.1.2.1.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT Δ ALIGN AUTO/NO RF 11:39:40 AM Aug 01, 2016

Center Freq 2.62000000 GHz Avg Type: RMS Trace 1 2 3 4 5 6
PNO: Fast Trig: Free Run TYPE M W W W W W W W
IFGain:Low #Atten: 36 dB DET A A A A A A

PASS

Ref Offset 7.5 dB Mkr1 2.620 005 GHz
Ref 30.00 dBm -30.206 dBm

10 dB/div Log

Trace 1 Pass

Center 2.62000 GHz Span 22.00 MHz
#Res BW 120 kHz #VBW 360 kHz* #Sweep 1.00 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.609000000 GHz

Stop Freq
2.631000000 GHz

CF Step
2.200000 MHz
Man

Auto

Freq Offset
0 Hz



5.1.1.2.1.2.4 Test RB = RB25#0

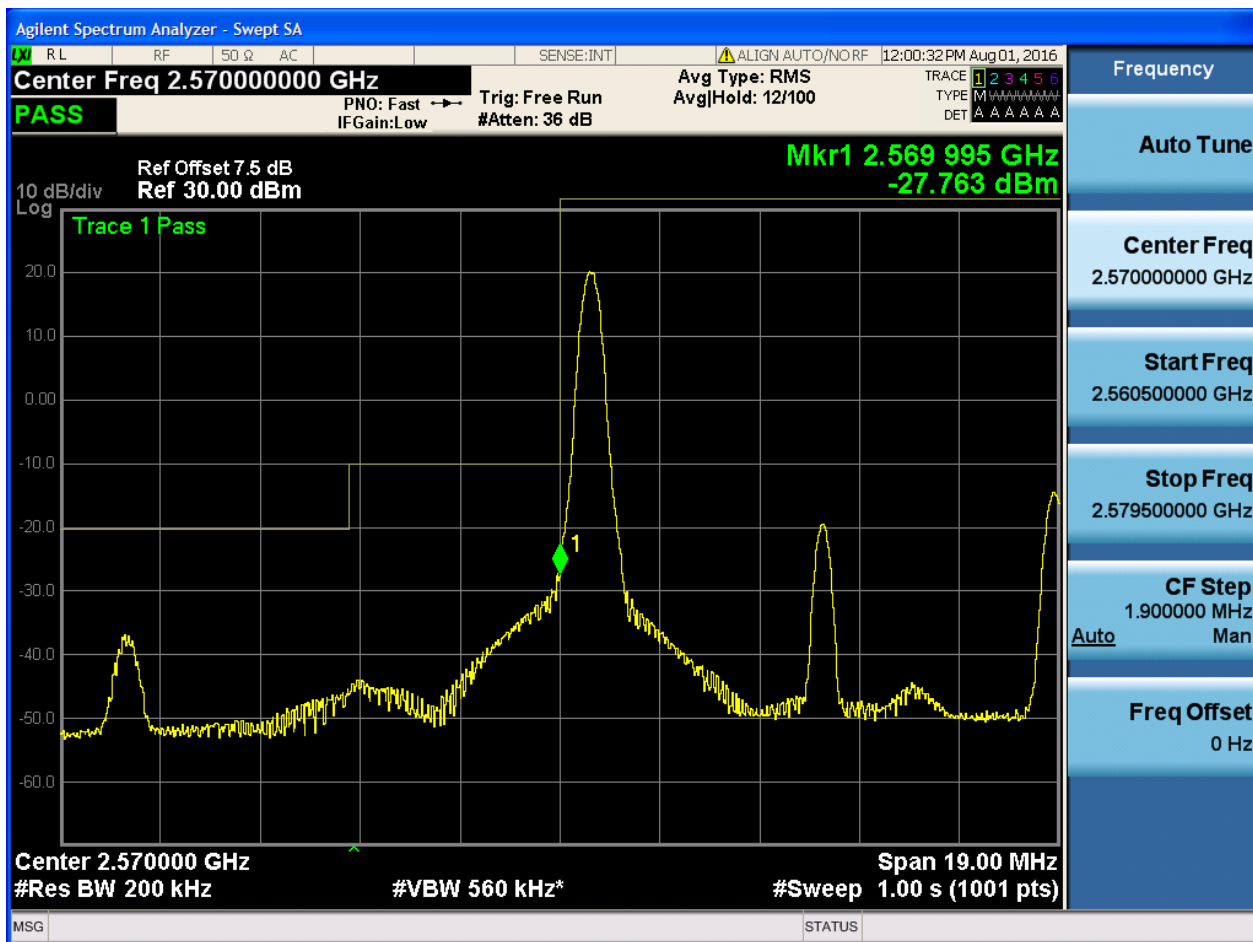




5.1.1.2.2 Test Bandwidth = 10

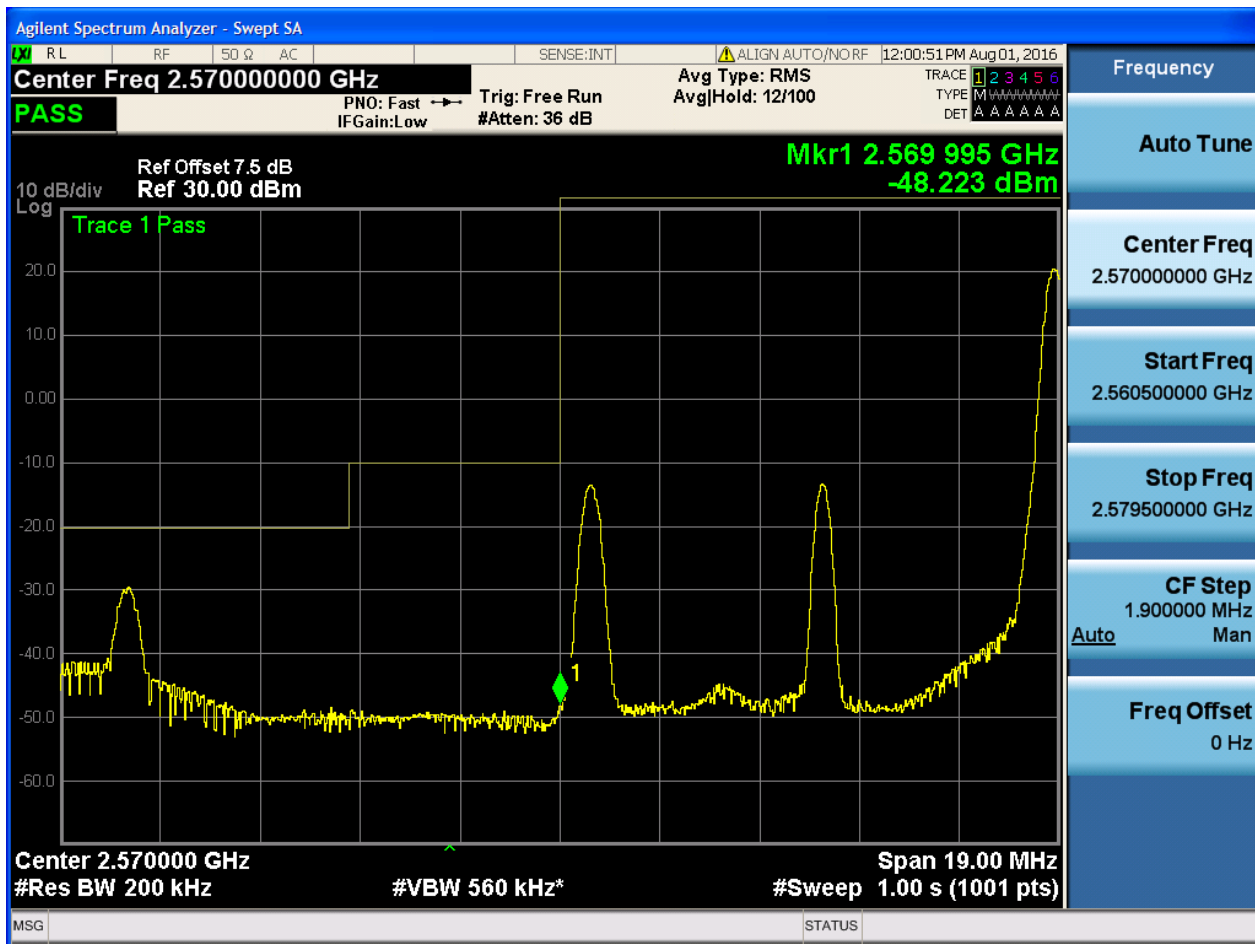
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0



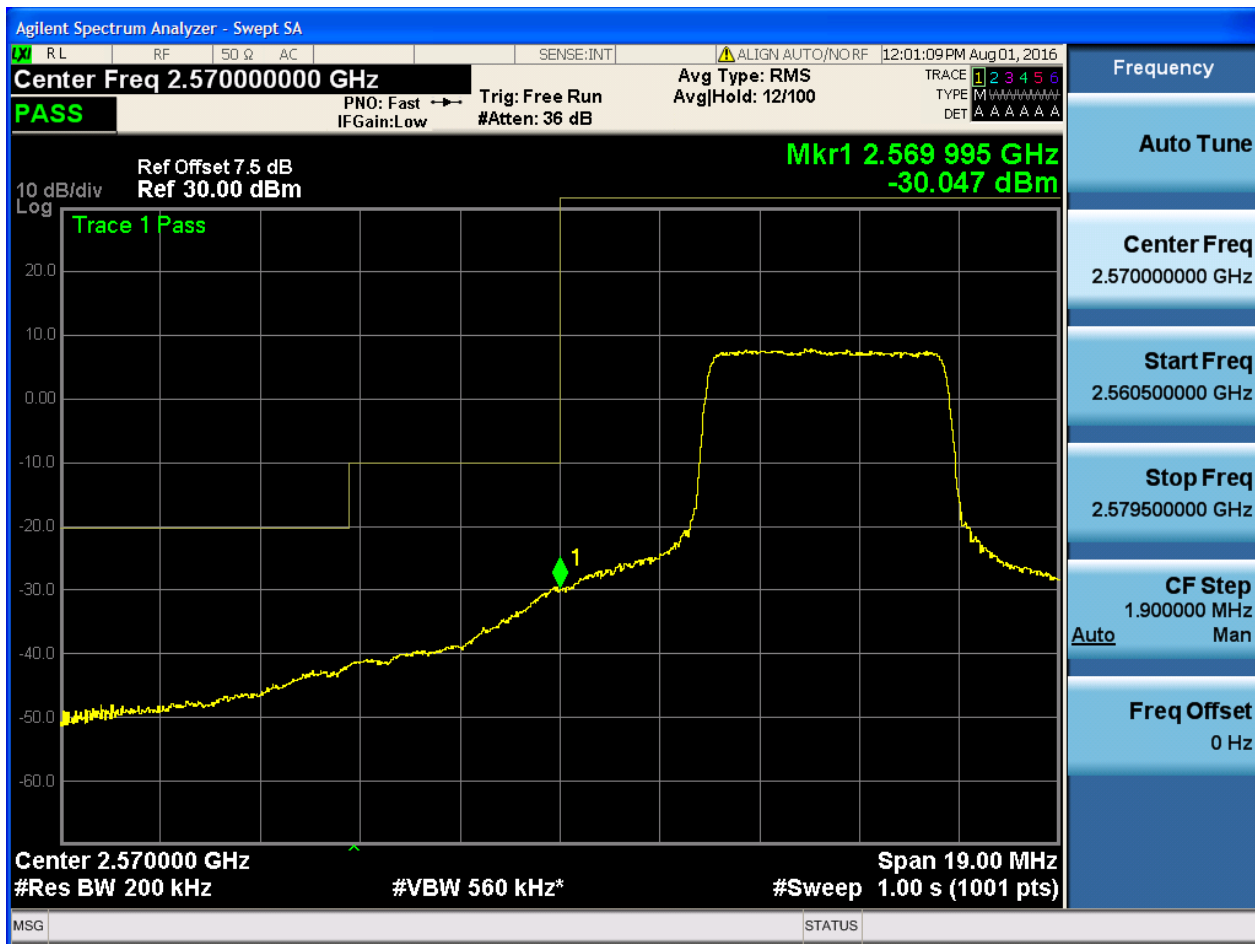


5.1.1.2.2.1.2 Test RB = RB1#49



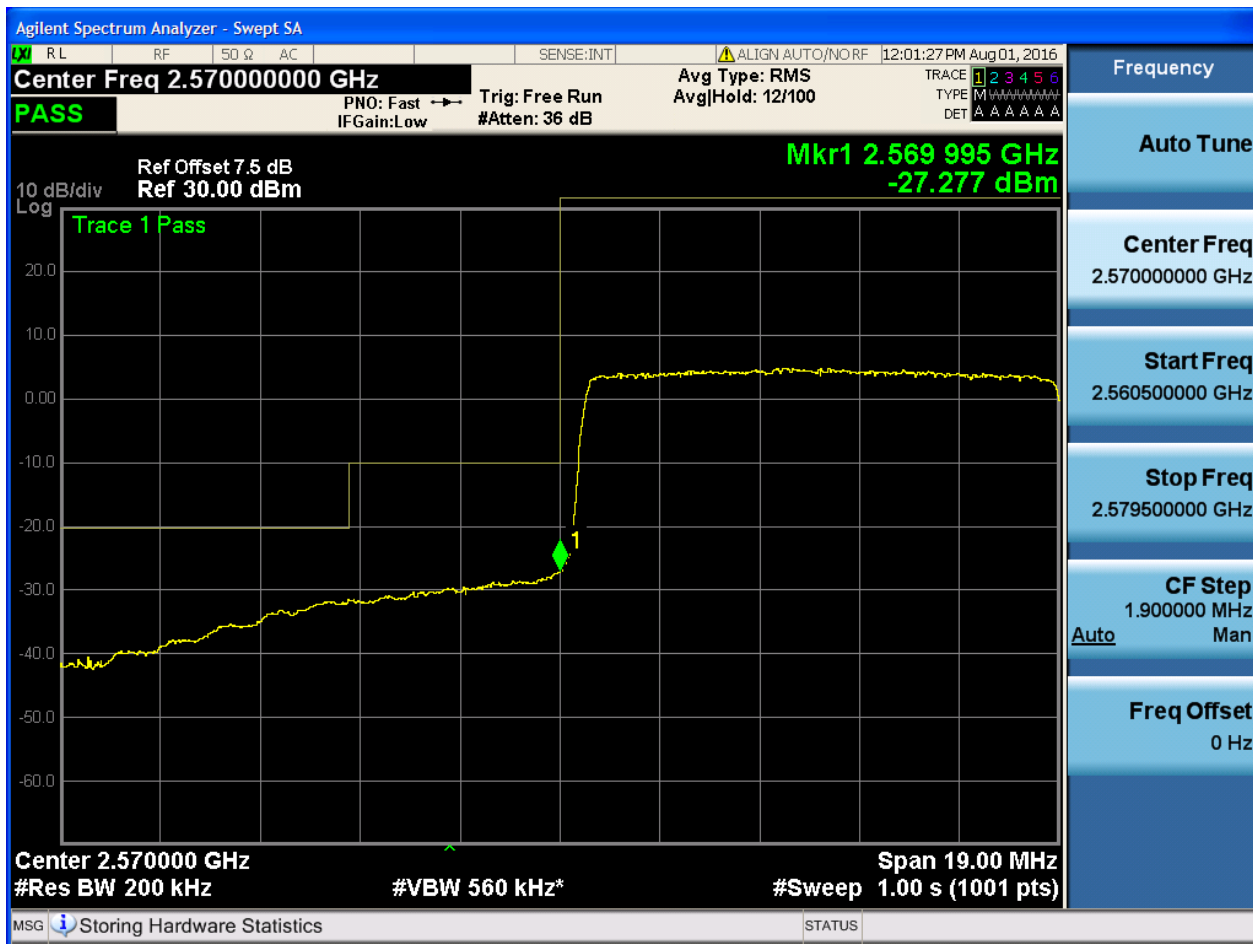


5.1.1.2.2.1.3 Test RB = RB25#13



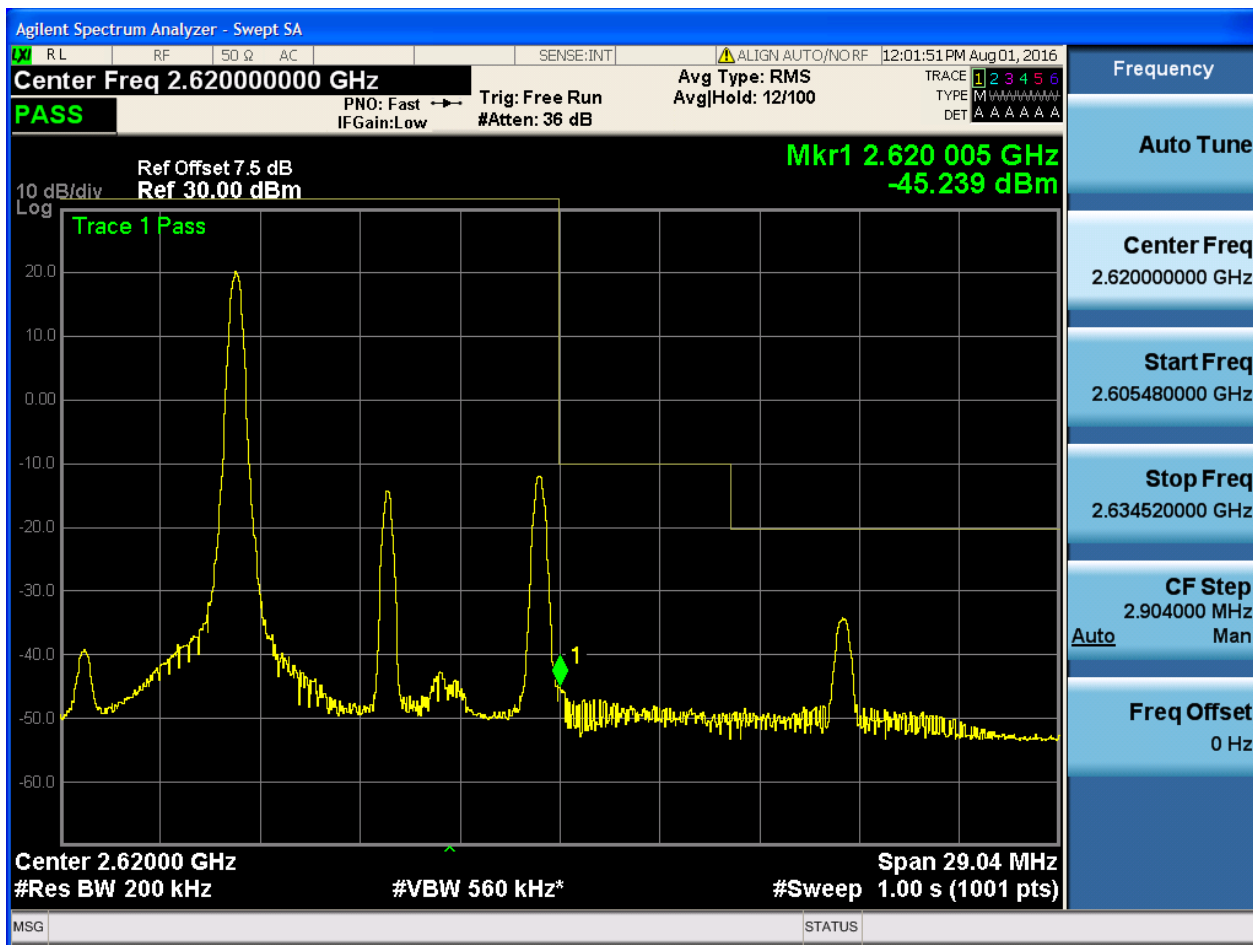


5.1.1.2.2.1.4 Test RB = RB50#0



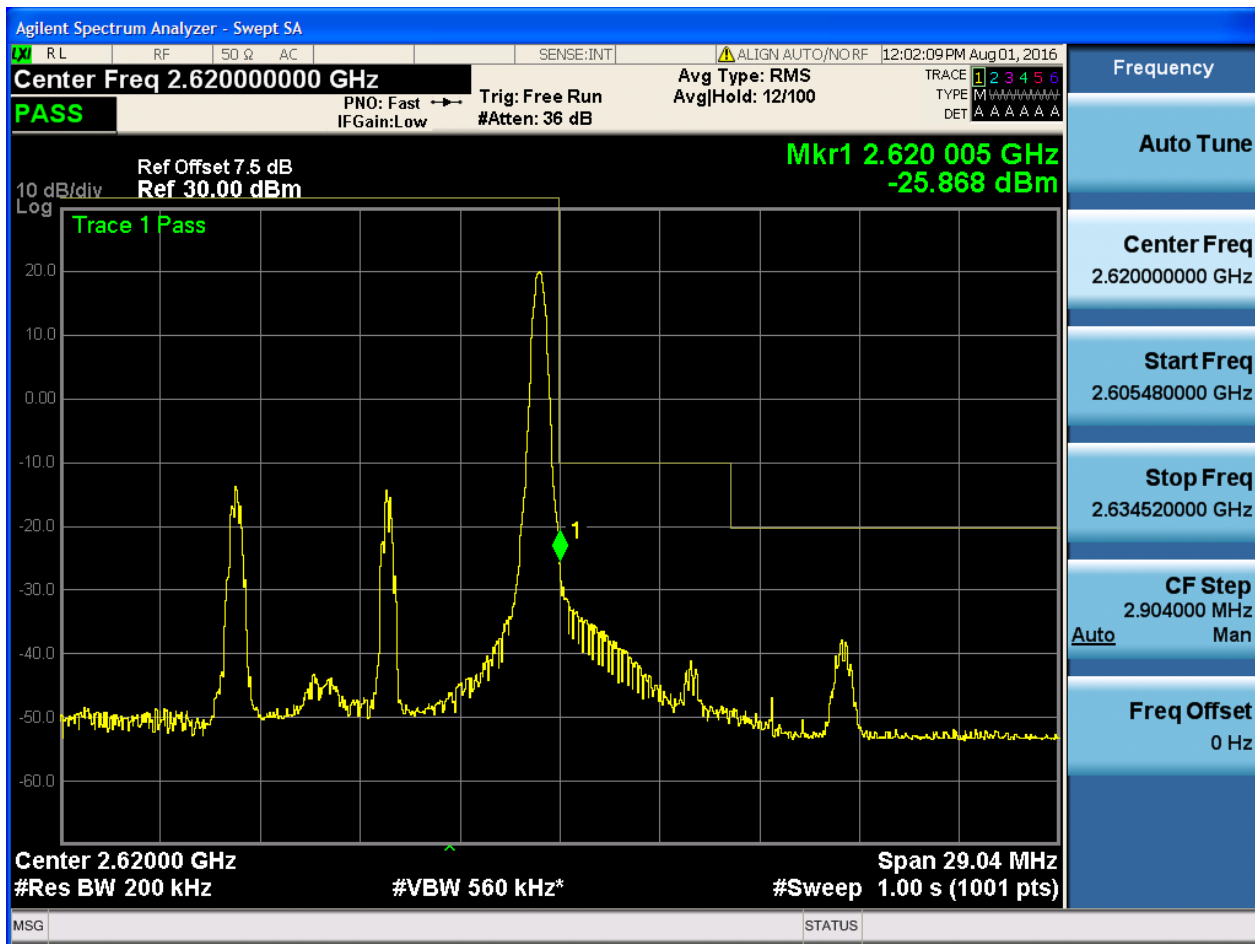
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



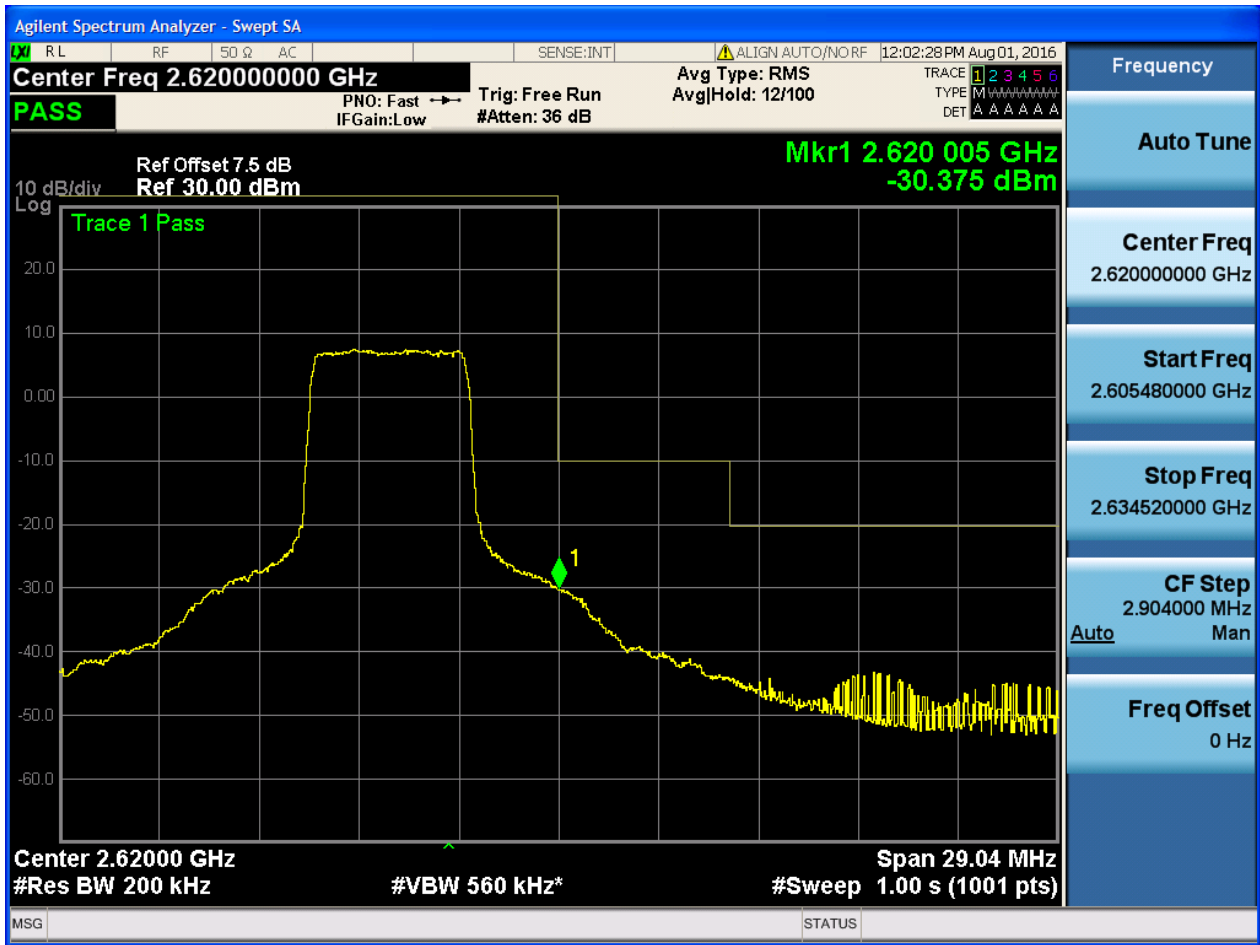


5.1.1.2.2.2 Test RB = RB1#49





5.1.1.2.2.3 Test RB = RB25#13





5.1.1.2.2.4 Test RB = RB50#0

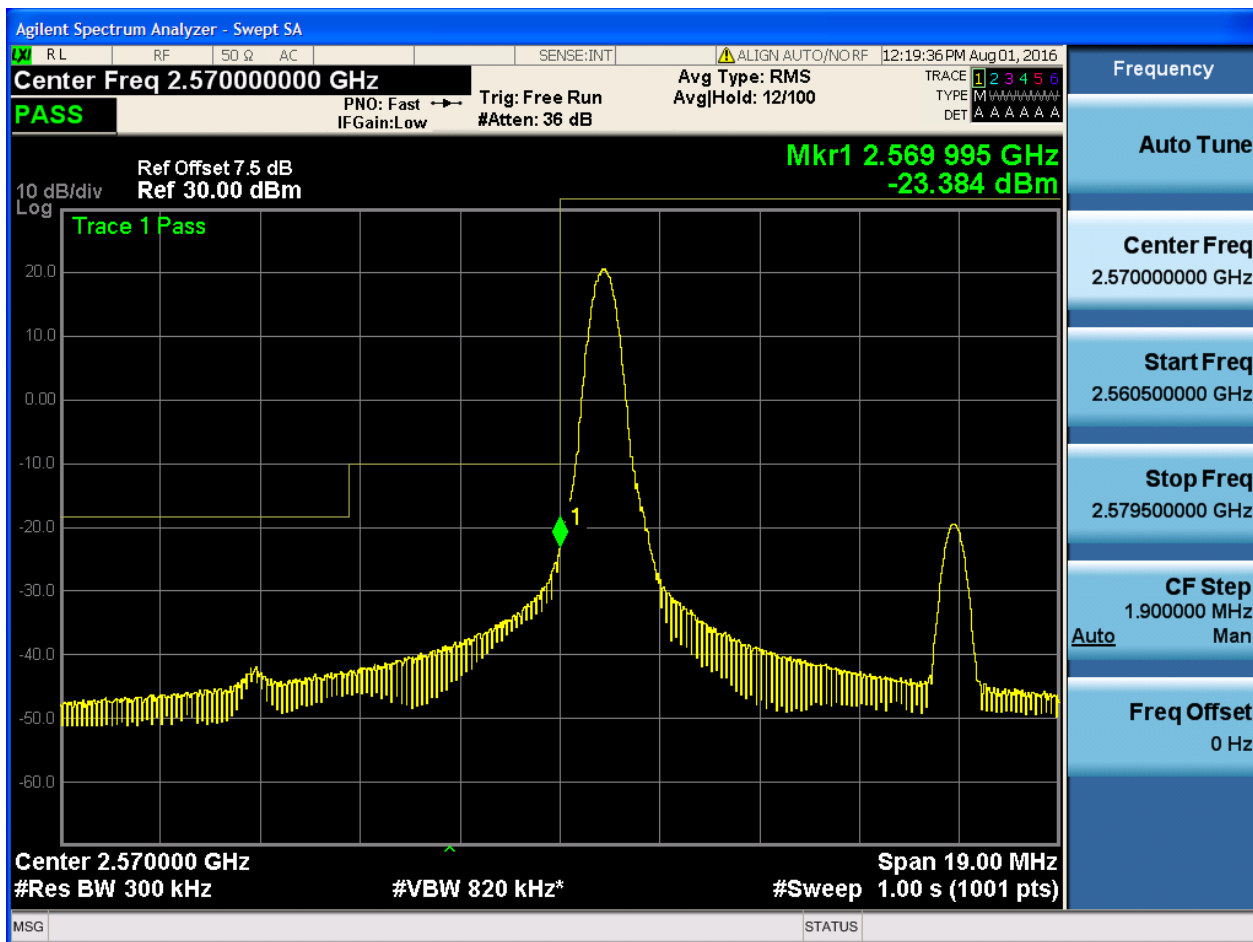




5.1.1.2.3 Test Bandwidth = 15

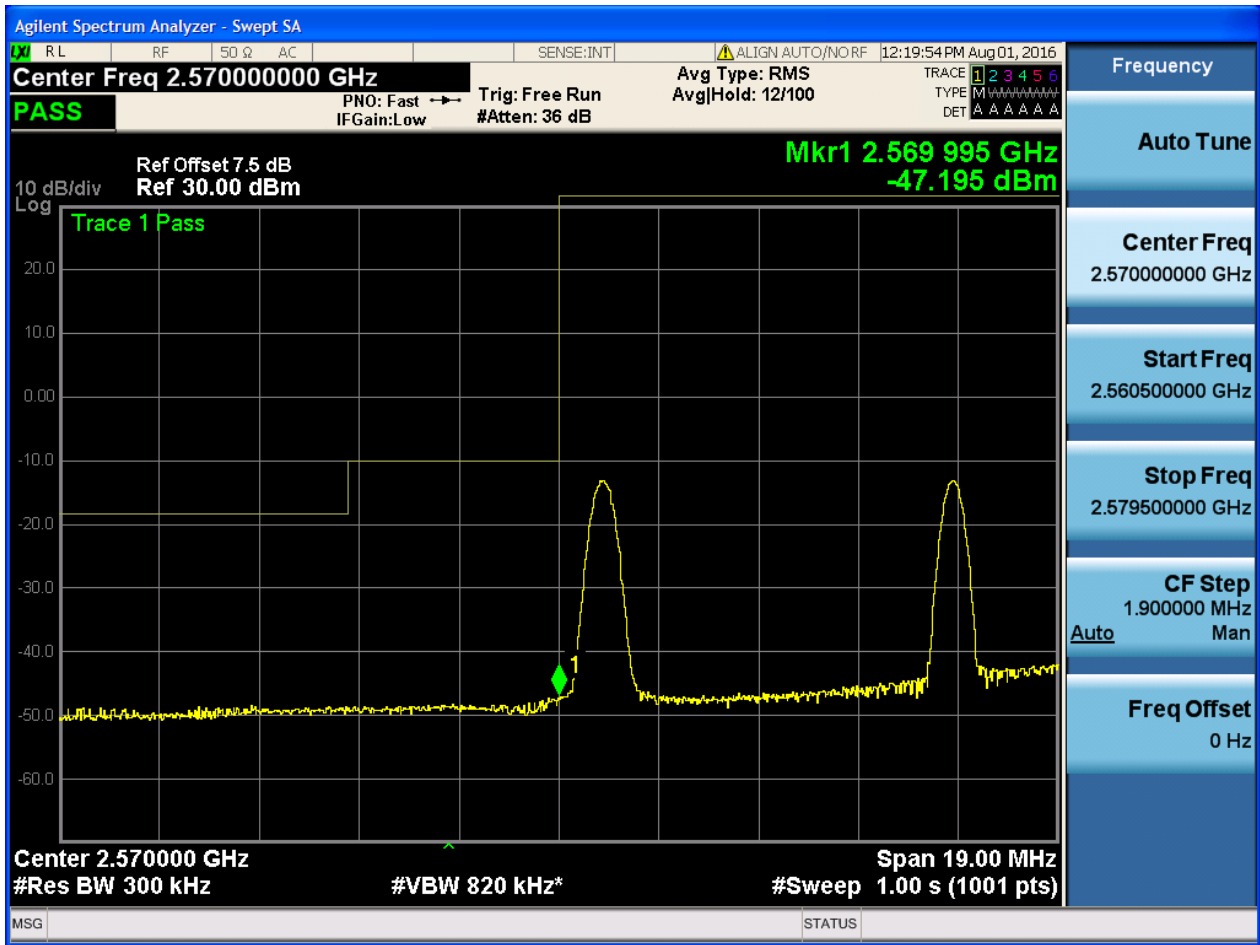
5.1.1.2.3.1 Test Channel = LCH

5.1.1.2.3.1.1 Test RB = RB1#0





5.1.1.2.3.1.2 Test RB = RB1#74



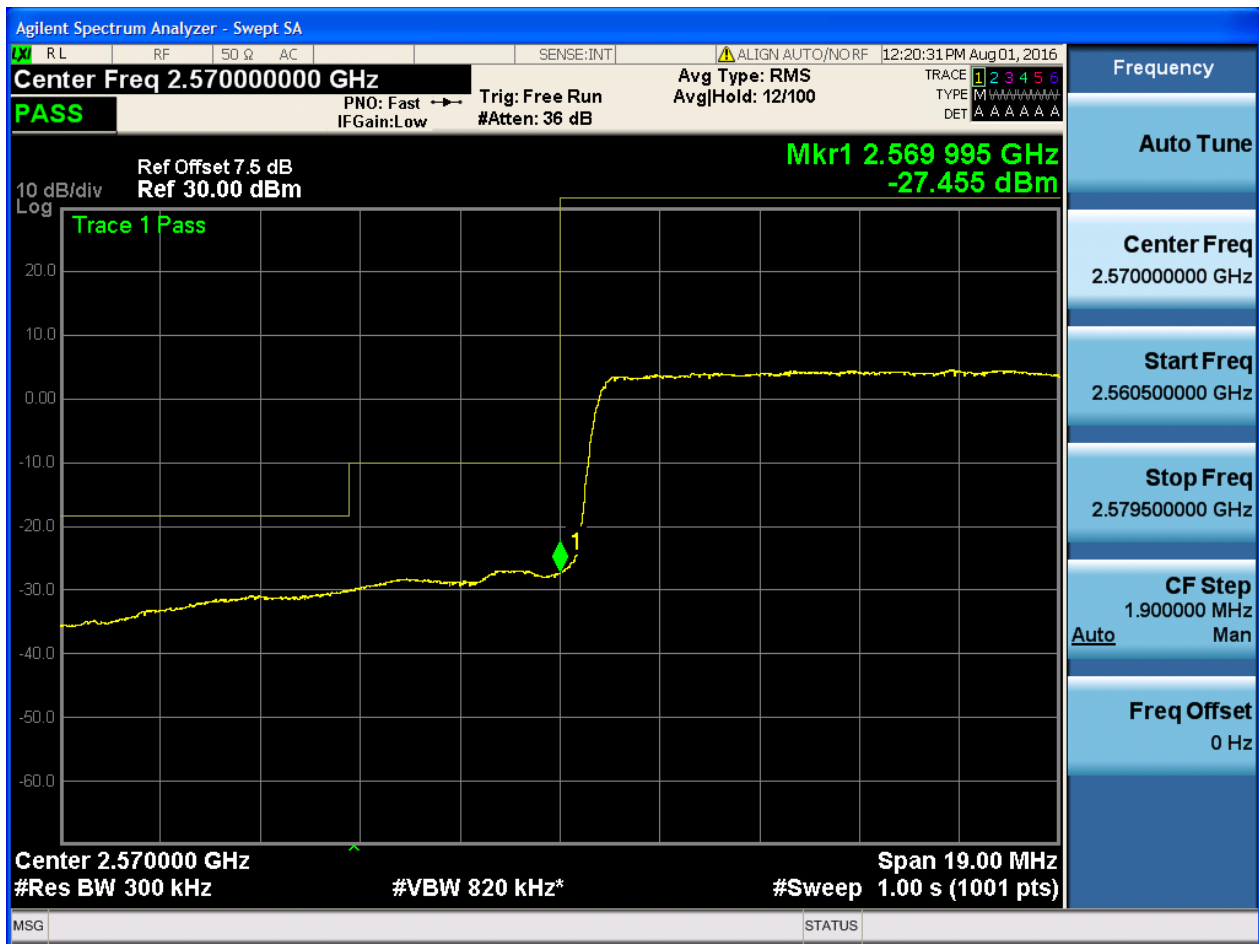


5.1.1.2.3.1.3 Test RB = RB36#18





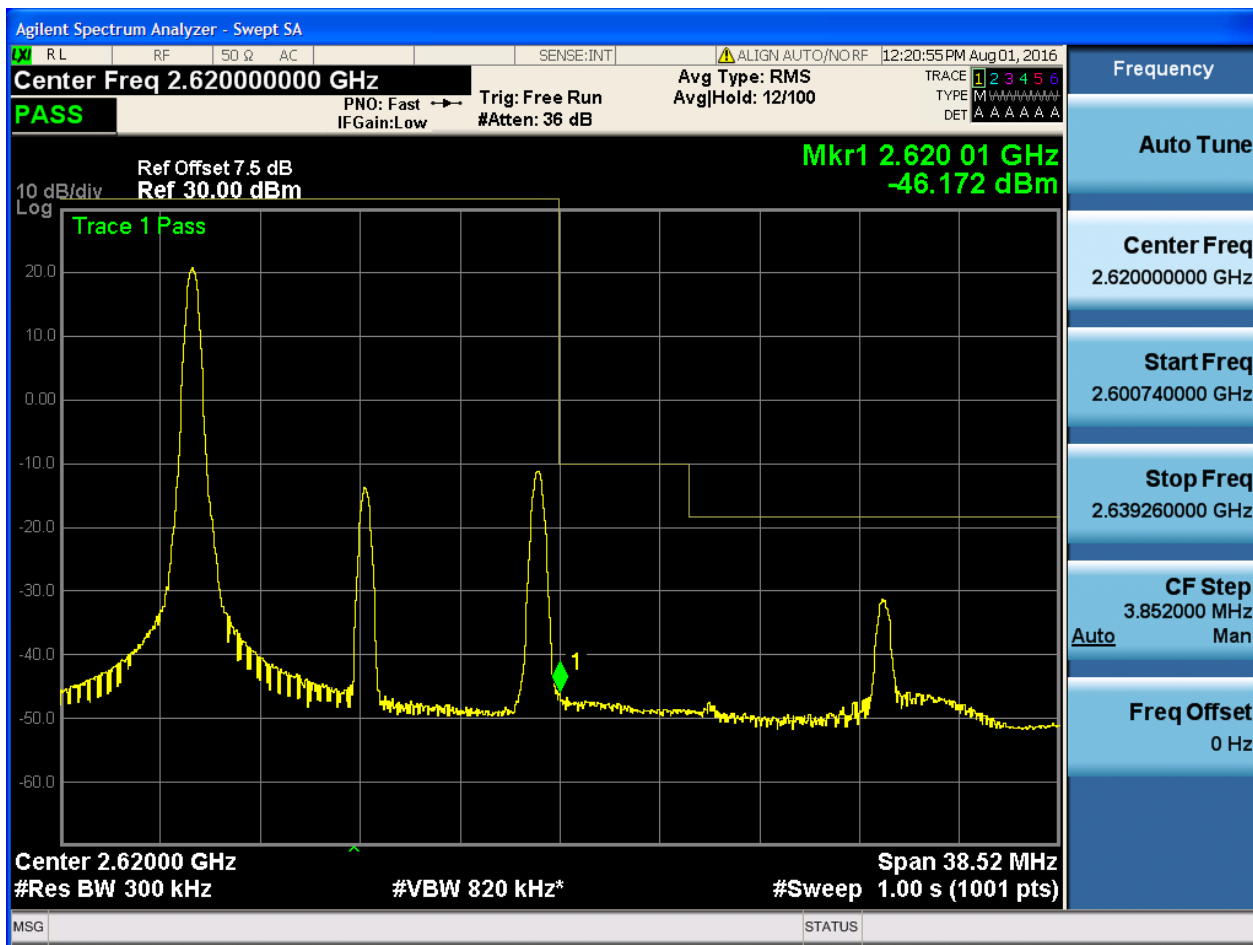
5.1.1.2.3.1.4 Test RB = RB75#0

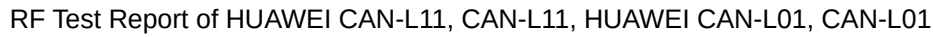




5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.62000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.620 01 GHz
-25.310 dBm

Trace 1 Pass

Center 2.62000 GHz
#Res BW 300 kHz

Span 38.52 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.600740000 GHz

Stop Freq
2.639260000 GHz

CF Step
3.852000 MHz
Man

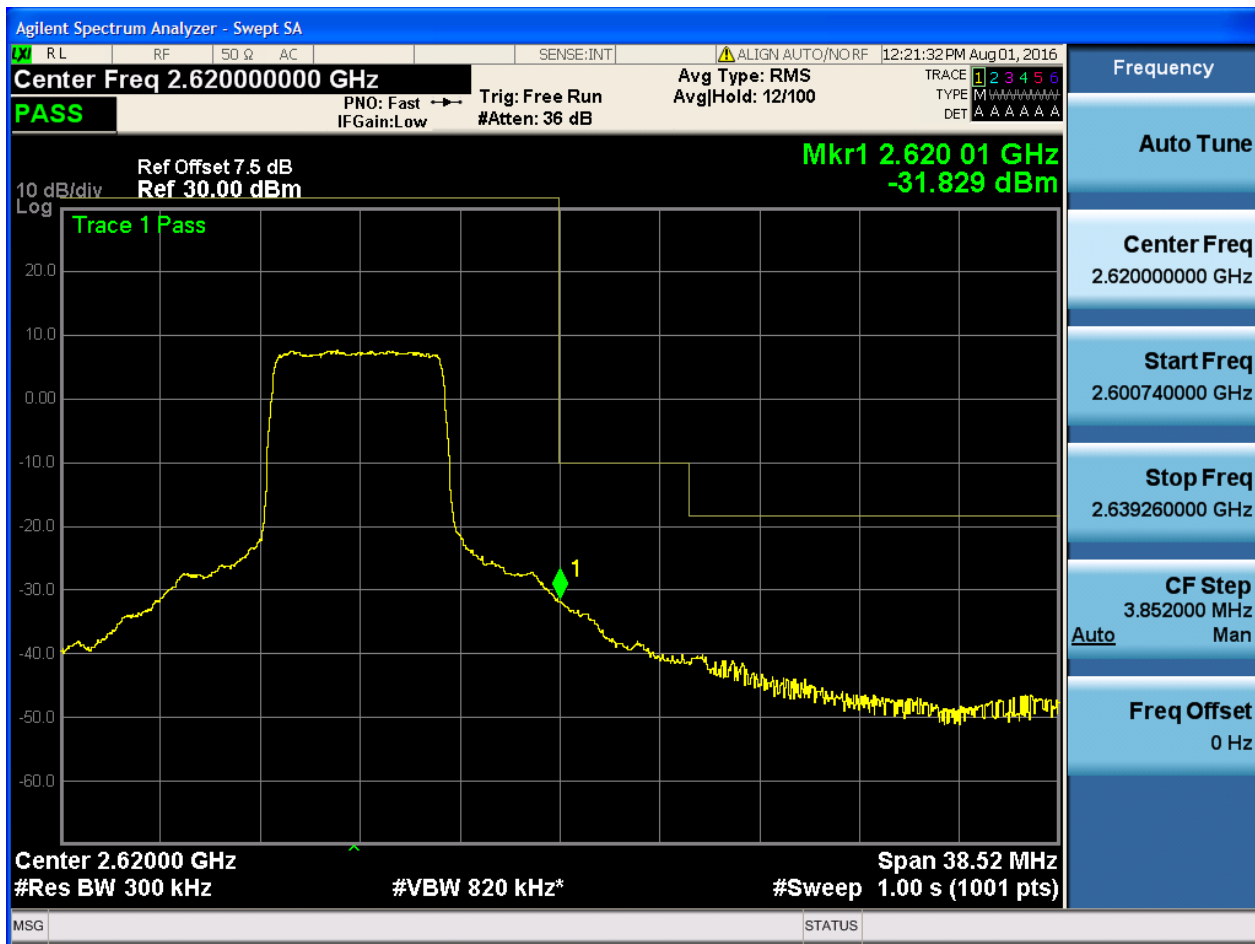
Auto

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer in a swept SA mode. The main display area shows a frequency spectrum with a prominent peak at 2.62001 GHz, marked with a green diamond and labeled '1'. The y-axis is labeled 'Log' and ranges from -60.0 to 20.0 dB/div. The x-axis represents frequency. The top of the screen displays the center frequency as 2.62000000 GHz and the status as 'PASS'. The right-hand panel contains several parameters: Frequency, Auto Tune, Center Freq (2.620000000 GHz), Start Freq (2.600740000 GHz), Stop Freq (2.639260000 GHz), CF Step (3.852000 MHz, Man), Auto, Freq Offset (0 Hz), and a bottom section with MSG and STATUS indicators.



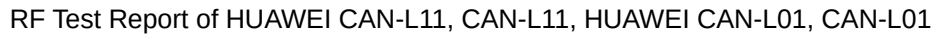
5.1.1.2.3.2.3 Test RB = RB36#18



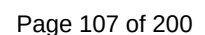


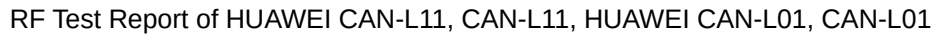
5.1.1.2.3.2.4 Test RB = RB75#0





5.1.1.2.4.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

Mkr1 2.569 995 GHz
-49.036 dBm

Center 2.570000 GHz
#Res BW 390 kHz
#VBW 1.1 MHz*
Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 GHz

CF Step
1.900000 MHz
Man

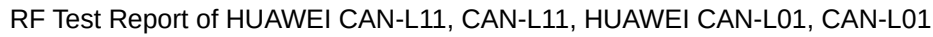
Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer. The main display is a plot of signal power (dBm) versus frequency (GHz). The plot shows a noisy baseline at approximately -50 dBm. A sharp, narrow peak is visible at 2.569995 GHz, reaching a power level of -49.036 dBm. The peak is labeled 'Mkr1'. The plot is titled 'Trace 1 Pass'. The center frequency is set to 2.57000000 GHz. The resolution bandwidth (RBW) is 390 kHz, and the video bandwidth (VBW) is 1.1 MHz. The span is 19.00 MHz. The sweep time is 1.00 s. The plot is displayed on a grid with a vertical scale from -60.0 to 20.0 dBm and a horizontal scale from 2.5605 to 2.5795 GHz. The right side of the screen shows a list of parameters: Frequency, Auto Tune, Center Freq (2.570000000 GHz), Start Freq (2.560500000 GHz), Stop Freq (2.579500000 GHz), CF Step (1.900000 MHz, Man), and Freq Offset (0 Hz).



5.1.1.2.4.1.3 Test RB = RB50#25





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

Mkr1 2.569 995 GHz
-27.325 dBm

Center 2.570000 GHz
#Res BW 390 kHz
#VBW 1.1 MHz*
Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.560500000 GHz

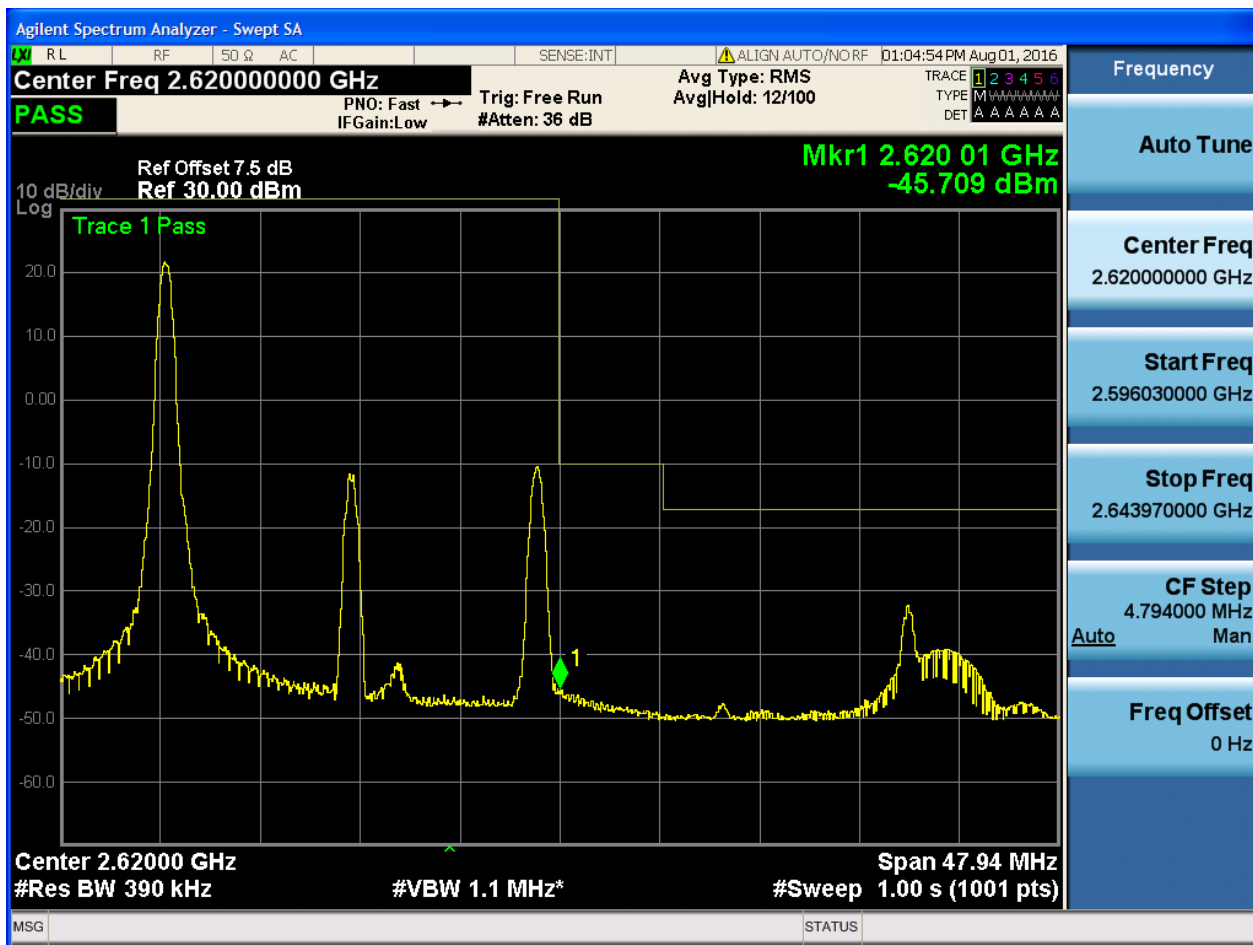
Stop Freq
2.579500000 GHz

CF Step
1.900000 MHz
Man

Freq Offset
0 Hz

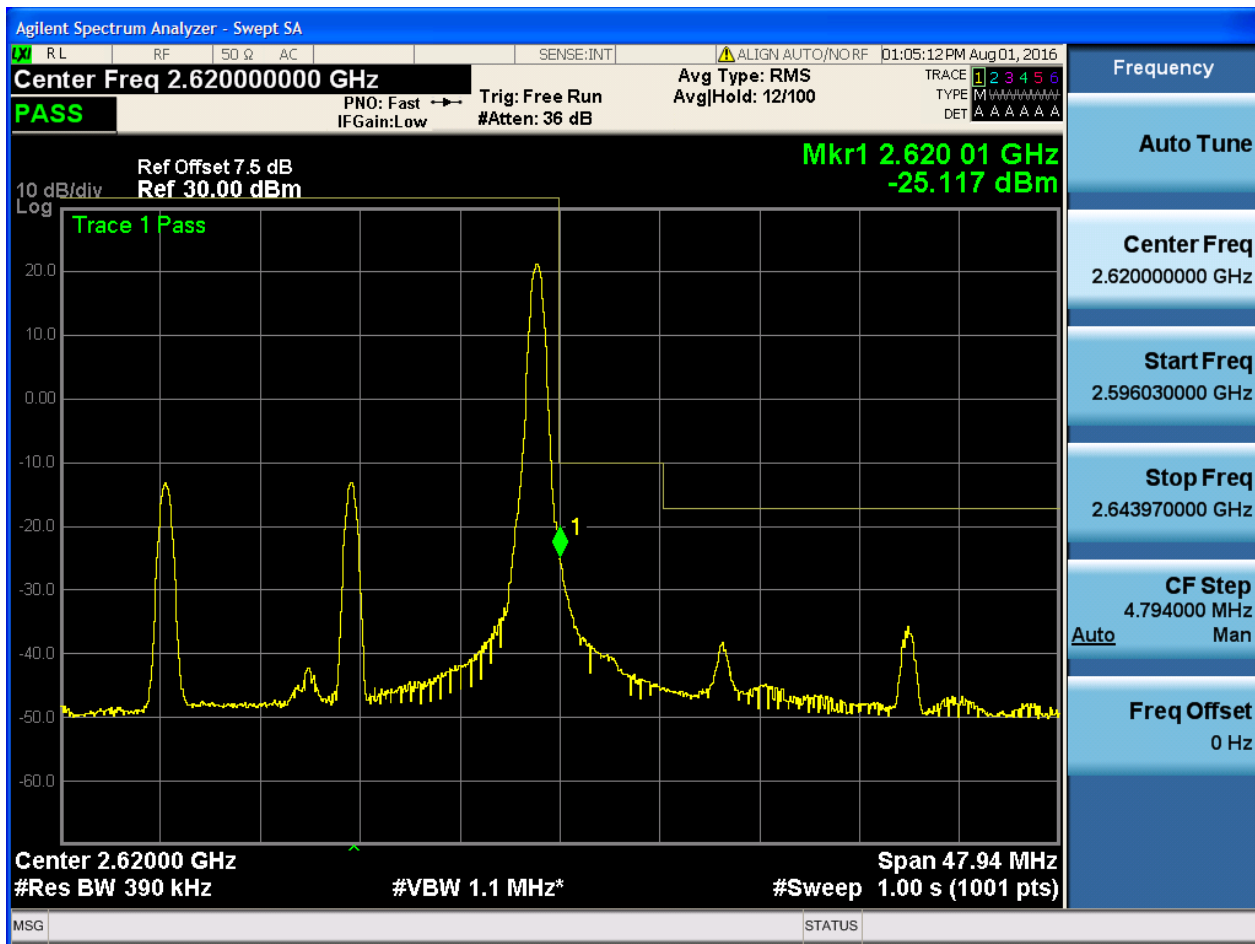
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



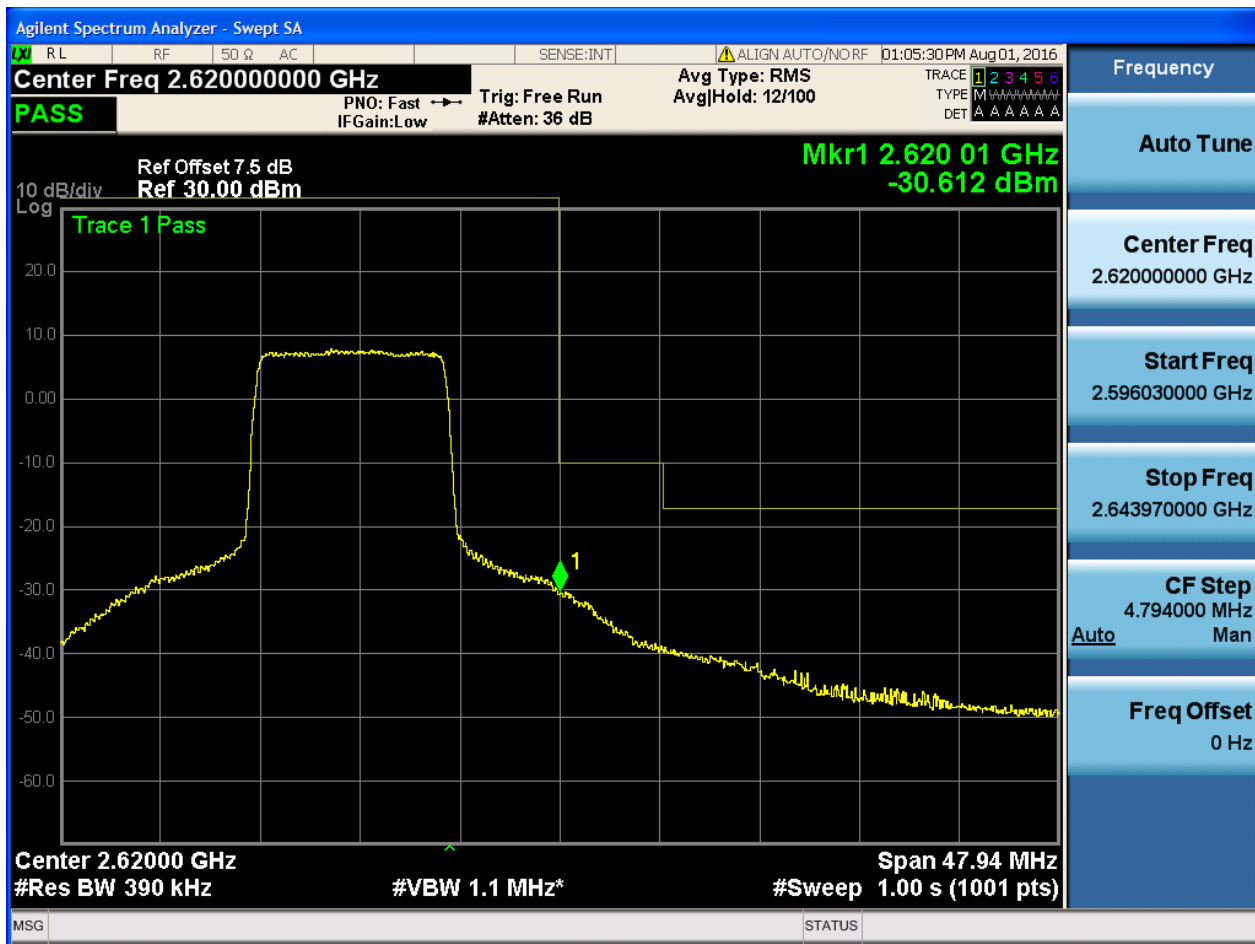


5.1.1.2.4.2.2 Test RB = RB1#99





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 = BAND38

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

