



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	22.86	23.15	33	PASS
				RB1#13	22.81	23.36	33	PASS
				RB1#24	22.63	22.89	33	PASS
				RB12#0	21.96	22.31	33	PASS
				RB12#6	21.92	22.17	33	PASS
				RB12#13	21.83	22.30	33	PASS
				RB25#0	21.87	22.18	33	PASS
			MCH	RB1#0	23.43	23.84	33	PASS
				RB1#13	23.4	23.69	33	PASS
				RB1#24	23.23	23.60	33	PASS
				RB12#0	22.44	22.75	33	PASS
				RB12#6	22.41	22.93	33	PASS
				RB12#13	22.32	22.84	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	22.36	22.71	33	PASS
			HCH	RB1#0	22.92	23.42	33	PASS
				RB1#13	22.82	23.14	33	PASS
				RB1#24	22.58	23.12	33	PASS
				RB12#0	21.96	22.42	33	PASS
				RB12#6	21.84	22.22	33	PASS
				RB12#13	21.65	22.10	33	PASS
				RB25#0	21.88	22.22	33	PASS
		10	LCH	RB1#0	22.89	23.20	33	PASS
				RB1#25	22.82	23.32	33	PASS
				RB1#49	22.71	23.03	33	PASS
				RB25#0	22.01	22.42	33	PASS
				RB25#13	22.03	22.38	33	PASS
				RB25#25	21.9	22.40	33	PASS
				RB50#0	22.01	22.53	33	PASS
			MCH	RB1#0	23.56	23.85	33	PASS
				RB1#25	23.55	23.93	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	23.09	23.64	33	PASS
				RB25#0	22.58	22.90	33	PASS
				RB25#13	22.38	22.89	33	PASS
				RB25#25	22.27	22.59	33	PASS
				RB50#0	22.35	22.65	33	PASS
			HCH	RB1#0	23.1	23.36	33	PASS
				RB1#25	22.93	23.28	33	PASS
				RB1#49	22.48	22.87	33	PASS
				RB25#0	21.96	22.24	33	PASS
				RB25#13	21.95	22.27	33	PASS
				RB25#25	21.77	22.28	33	PASS
				RB50#0	22.03	22.47	33	PASS
		15	LCH	RB1#0	23.02	23.33	33	PASS
				RB1#38	23.04	23.33	33	PASS
				RB1#74	22.91	23.17	33	PASS
				RB36#0	22.07	22.49	33	PASS
				RB36#18	21.97	22.42	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	22.14	22.65	33	PASS
				RB75#0	22.1	22.59	33	PASS
			MCH	RB1#0	23.57	24.03	33	PASS
				RB1#38	23.58	24.06	33	PASS
				RB1#74	23.25	23.66	33	PASS
				RB36#0	22.47	22.85	33	PASS
				RB36#18	22.54	22.96	33	PASS
				RB36#39	22.3	22.72	33	PASS
				RB75#0	22.41	22.79	33	PASS
			HCH	RB1#0	23.38	23.80	33	PASS
				RB1#38	22.82	23.19	33	PASS
				RB1#74	22.5	22.86	33	PASS
				RB36#0	22.06	22.59	33	PASS
				RB36#18	21.78	22.17	33	PASS
				RB36#39	21.86	22.15	33	PASS
				RB75#0	22	22.39	33	PASS
		20	LCH	RB1#0	22.72	23.04	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	22.89	23.36	33	PASS
				RB1#99	23.07	23.37	33	PASS
				RB50#0	21.94	22.47	33	PASS
				RB50#25	21.95	22.38	33	PASS
				RB50#50	21.91	22.17	33	PASS
				RB100#0	22.04	22.36	33	PASS
			MCH	RB1#0	23.06	23.51	33	PASS
				RB1#50	23.24	23.54	33	PASS
				RB1#99	22.95	23.39	33	PASS
				RB50#0	22.42	22.96	33	PASS
				RB50#25	22.21	22.66	33	PASS
				RB50#50	22.26	22.61	33	PASS
				RB100#0	22.27	22.74	33	PASS
			HCH	RB1#0	23.29	23.73	33	PASS
				RB1#50	22.68	23.17	33	PASS
				RB1#99	22.44	22.82	33	PASS
				RB50#0	21.95	22.25	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	21.64	22.02	33	PASS
				RB50#50	21.75	22.21	33	PASS
				RB100#0	22.03	22.57	33	PASS
	LTE/TM2	5	LCH	RB1#0	22.22	22.65	33	PASS
				RB1#13	22.19	22.59	33	PASS
				RB1#24	22	22.29	33	PASS
				RB12#0	20.91	21.17	33	PASS
				RB12#6	20.88	21.25	33	PASS
				RB12#13	20.8	21.13	33	PASS
				RB25#0	20.84	21.35	33	PASS
			MCH	RB1#0	22.59	22.91	33	PASS
				RB1#13	22.65	23.05	33	PASS
				RB1#24	22.48	22.74	33	PASS
				RB12#0	21.54	21.94	33	PASS
				RB12#6	21.51	21.89	33	PASS
				RB12#13	21.43	21.74	33	PASS
				RB25#0	21.38	21.92	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	22.41	22.86	33	PASS
				RB1#13	22.31	22.85	33	PASS
				RB1#24	22.08	22.52	33	PASS
				RB12#0	20.86	21.38	33	PASS
				RB12#6	20.74	21.03	33	PASS
				RB12#13	20.55	21.05	33	PASS
				RB25#0	20.86	21.23	33	PASS
		10	LCH	RB1#0	21.97	22.39	33	PASS
				RB1#25	21.91	22.35	33	PASS
				RB1#49	21.67	22.09	33	PASS
				RB25#0	20.95	21.43	33	PASS
				RB25#13	20.94	21.21	33	PASS
				RB25#25	20.81	21.25	33	PASS
				RB50#0	20.95	21.25	33	PASS
			MCH	RB1#0	22.64	23.10	33	PASS
				RB1#25	22.62	22.89	33	PASS
				RB1#49	22.2	22.68	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.53	21.78	33	PASS
				RB25#13	21.35	21.68	33	PASS
				RB25#25	21.24	21.77	33	PASS
				RB50#0	21.3	21.61	33	PASS
			HCH	RB1#0	22.38	22.91	33	PASS
				RB1#25	22.13	22.41	33	PASS
				RB1#49	21.7	22.12	33	PASS
				RB25#0	20.99	21.38	33	PASS
				RB25#13	20.99	21.38	33	PASS
				RB25#25	20.83	21.38	33	PASS
				RB50#0	20.97	21.51	33	PASS
		15	LCH	RB1#0	22.36	22.74	33	PASS
				RB1#38	22.39	22.70	33	PASS
				RB1#74	22.28	22.78	33	PASS
				RB36#0	21.1	21.46	33	PASS
				RB36#18	21.01	21.41	33	PASS
				RB36#39	21.12	21.55	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	21.03	21.45	33	PASS
			MCH	RB1#0	22.55	22.83	33	PASS
				RB1#38	22.45	22.98	33	PASS
				RB1#74	22.16	22.64	33	PASS
				RB36#0	21.43	21.92	33	PASS
				RB36#18	21.46	21.78	33	PASS
				RB36#39	21.23	21.51	33	PASS
				RB75#0	21.31	21.80	33	PASS
			HCH	RB1#0	22.79	23.15	33	PASS
				RB1#38	22.22	22.71	33	PASS
				RB1#74	21.95	22.39	33	PASS
				RB36#0	21.1	21.55	33	PASS
				RB36#18	20.82	21.16	33	PASS
				RB36#39	20.9	21.27	33	PASS
				RB75#0	21.05	21.40	33	PASS
		20	LCH	RB1#0	21.66	22.06	33	PASS
				RB1#50	21.96	22.29	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	22.09	22.57	33	PASS
				RB50#0	20.97	21.26	33	PASS
				RB50#25	20.98	21.44	33	PASS
				RB50#50	20.94	21.41	33	PASS
				RB100#0	21.03	21.30	33	PASS
			MCH	RB1#0	22.42	22.68	33	PASS
				RB1#50	22.47	22.91	33	PASS
				RB1#99	22.3	22.59	33	PASS
				RB50#0	21.37	21.63	33	PASS
				RB50#25	21.16	21.55	33	PASS
				RB50#50	21.21	21.74	33	PASS
				RB100#0	21.19	21.61	33	PASS
			HCH	RB1#0	22.43	22.84	33	PASS
				RB1#50	21.87	22.39	33	PASS
				RB1#99	21.62	21.97	33	PASS
				RB50#0	20.94	21.32	33	PASS
				RB50#25	20.62	21.11	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.76	21.29	33	PASS
				RB100#0	21.08	21.38	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:

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

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

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

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

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	4.82	13	PASS
				RB1#13	4.74	13	PASS
				RB1#24	4.9	13	PASS
				RB12#0	5.6	13	PASS
				RB12#6	5.55	13	PASS
				RB12#13	5.69	13	PASS
				RB25#0	5.88	13	PASS
			MCH	RB1#0	4.39	13	PASS
				RB1#13	4.39	13	PASS
				RB1#24	4.63	13	PASS
				RB12#0	5.62	13	PASS
				RB12#6	5.5	13	PASS
				RB12#13	5.79	13	PASS
				RB25#0	5.78	13	PASS
			HCH	RB1#0	4.33	13	PASS
				RB1#13	4.32	13	PASS
				RB1#24	4.4	13	PASS
				RB12#0	5.68	13	PASS
				RB12#6	5.62	13	PASS
				RB12#13	5.7	13	PASS
				RB25#0	5.82	13	PASS
		10	LCH	RB1#0	3.9	13	PASS
				RB1#25	3.9	13	PASS
				RB1#49	4.03	13	PASS
				RB25#0	5.7	13	PASS
				RB25#13	5.62	13	PASS
				RB25#25	5.74	13	PASS
				RB50#0	5.87	13	PASS
			MCH	RB1#0	4.32	13	PASS
				RB1#25	4.3	13	PASS
				RB1#49	4.58	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	5.8	13	PASS
				RB25#13	5.62	13	PASS
				RB25#25	5.88	13	PASS
				RB50#0	5.7	13	PASS
			HCH	RB1#0	4.74	13	PASS
				RB1#25	4.82	13	PASS
				RB1#49	4.94	13	PASS
				RB25#0	5.87	13	PASS
				RB25#13	5.77	13	PASS
				RB25#25	5.84	13	PASS
				RB50#0	6.49	13	PASS
		15	LCH	RB1#0	4.55	13	PASS
				RB1#38	4.53	13	PASS
				RB1#74	4.65	13	PASS
				RB36#0	5.89	13	PASS
				RB36#18	5.82	13	PASS
				RB36#39	6	13	PASS
				RB75#0	6.04	13	PASS
			MCH	RB1#0	4.39	13	PASS
				RB1#38	4.41	13	PASS
				RB1#74	4.67	13	PASS
				RB36#0	5.69	13	PASS
				RB36#18	5.73	13	PASS
				RB36#39	5.88	13	PASS
				RB75#0	6.09	13	PASS
			HCH	RB1#0	4.2	13	PASS
				RB1#38	4.34	13	PASS
				RB1#74	4.37	13	PASS
				RB36#0	5.8	13	PASS
				RB36#18	5.87	13	PASS
				RB36#39	5.9	13	PASS
				RB75#0	6.4	13	PASS
		20	LCH	RB1#0	4.66	13	PASS
				RB1#50	4.61	13	PASS
				RB1#99	4.71	13	PASS
				RB50#0	5.98	13	PASS
				RB50#25	5.84	13	PASS
				RB50#50	6.03	13	PASS
				RB100#0	6.18	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			MCH	RB1#0	4.42	13	PASS
				RB1#50	4.39	13	PASS
				RB1#99	4.52	13	PASS
				RB50#0	5.94	13	PASS
				RB50#25	5.85	13	PASS
				RB50#50	6.04	13	PASS
				RB100#0	6.36	13	PASS
			HCH	RB1#0	4.21	13	PASS
				RB1#50	4.51	13	PASS
				RB1#99	4.43	13	PASS
				RB50#0	5.64	13	PASS
				RB50#25	5.7	13	PASS
				RB50#50	5.93	13	PASS
				RB100#0	6.18	13	PASS
	LTE/TM2	5	LCH	RB1#0	5.45	13	PASS
				RB1#13	5.46	13	PASS
				RB1#24	5.54	13	PASS
				RB12#0	6.51	13	PASS
				RB12#6	6.45	13	PASS
				RB12#13	6.68	13	PASS
				RB25#0	6.47	13	PASS
			MCH	RB1#0	5.08	13	PASS
				RB1#13	4.75	13	PASS
				RB1#24	4.9	13	PASS
				RB12#0	6.04	13	PASS
				RB12#6	5.91	13	PASS
				RB12#13	6	13	PASS
				RB25#0	6.72	13	PASS
			HCH	RB1#0	5.5	13	PASS
				RB1#13	5.57	13	PASS
				RB1#24	5.64	13	PASS
				RB12#0	6.65	13	PASS
				RB12#6	6.62	13	PASS
				RB12#13	6.75	13	PASS
				RB25#0	6.7	13	PASS
		10	LCH	RB1#0	5.19	13	PASS
				RB1#25	5.11	13	PASS
				RB1#49	5.18	13	PASS
				RB25#0	6.68	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#13	6.59	13	PASS
				RB25#25	6.78	13	PASS
				RB50#0	6.56	13	PASS
			MCH	RB1#0	4.9	13	PASS
				RB1#25	4.87	13	PASS
				RB1#49	5.2	13	PASS
				RB25#0	6.45	13	PASS
				RB25#13	6.16	13	PASS
				RB25#25	6.54	13	PASS
				RB50#0	6.73	13	PASS
			HCH	RB1#0	5.26	13	PASS
				RB1#25	5.41	13	PASS
				RB1#49	5.72	13	PASS
				RB25#0	6.77	13	PASS
				RB25#13	6.64	13	PASS
				RB25#25	6.78	13	PASS
				RB50#0	6.6	13	PASS
		15	LCH	RB1#0	5.3	13	PASS
				RB1#38	5.27	13	PASS
				RB1#74	5.36	13	PASS
				RB36#0	6.49	13	PASS
				RB36#18	6.44	13	PASS
				RB36#39	6.55	13	PASS
				RB75#0	7.24	13	PASS
			MCH	RB1#0	4.8	13	PASS
				RB1#38	4.77	13	PASS
				RB1#74	5.03	13	PASS
				RB36#0	6.15	13	PASS
				RB36#18	6.12	13	PASS
				RB36#39	6.26	13	PASS
				RB75#0	6.49	13	PASS
			HCH	RB1#0	4.9	13	PASS
				RB1#38	5.19	13	PASS
				RB1#74	5.63	13	PASS
				RB36#0	6.61	13	PASS
				RB36#18	6.73	13	PASS
				RB36#39	6.7	13	PASS
				RB75#0	7.18	13	PASS
		20	LCH	RB1#0	5.52	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#50	5.5	13	PASS
				RB1#99	5.35	13	PASS
				RB50#0	6.46	13	PASS
				RB50#25	6.36	13	PASS
				RB50#50	6.49	13	PASS
				RB100#0	6.97	13	PASS
			MCH	RB1#0	5.16	13	PASS
				RB1#50	4.96	13	PASS
				RB1#99	5.24	13	PASS
				RB50#0	6.33	13	PASS
				RB50#25	6.32	13	PASS
				RB50#50	6.44	13	PASS
				RB100#0	6.83	13	PASS
			HCH	RB1#0	5.03	13	PASS
				RB1#50	5.62	13	PASS
				RB1#99	5.96	13	PASS
				RB50#0	6.55	13	PASS
				RB50#25	6.61	13	PASS
				RB50#50	7.02	13	PASS
				RB100#0	6.93	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

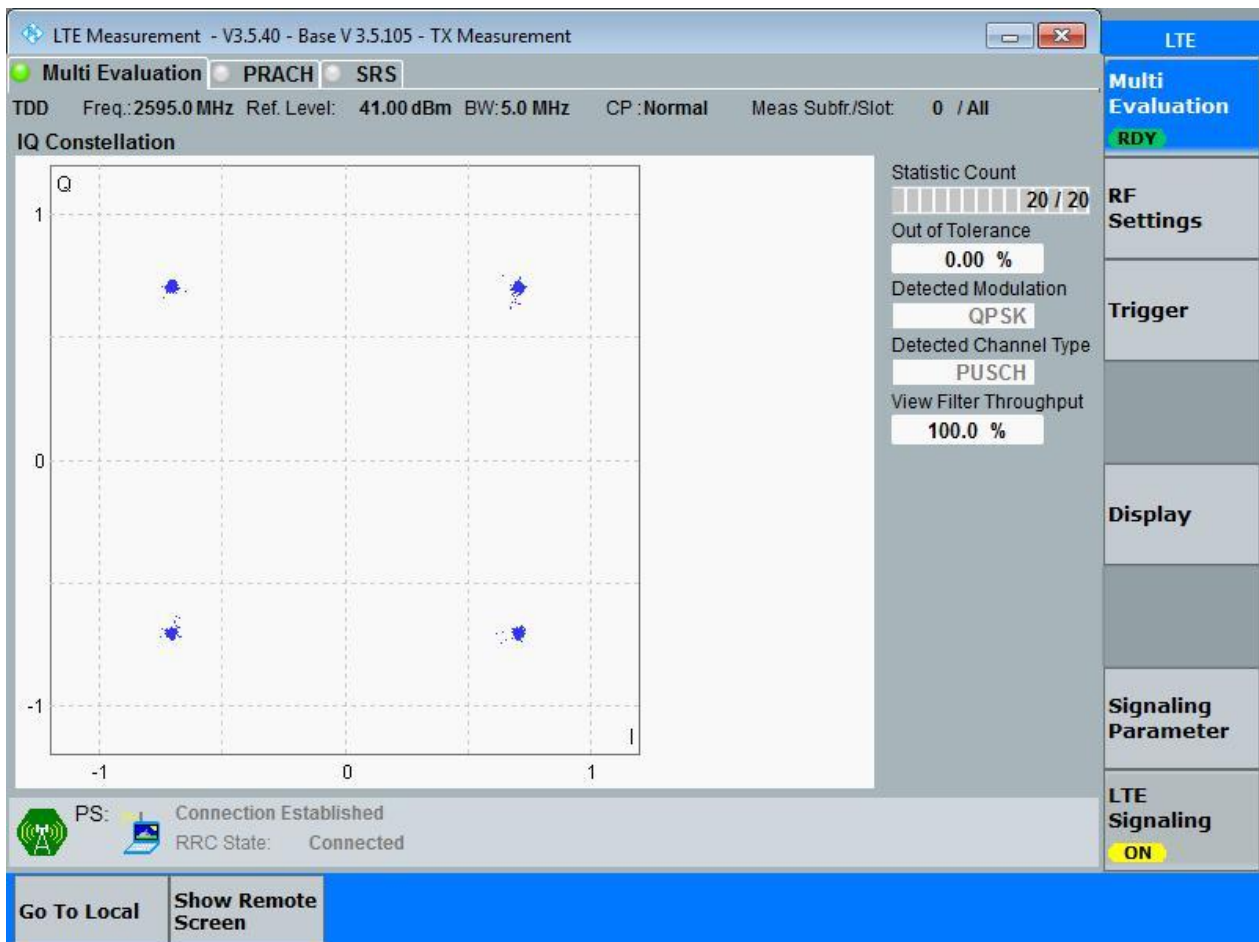
3.1.1 Test Band = BAND38

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

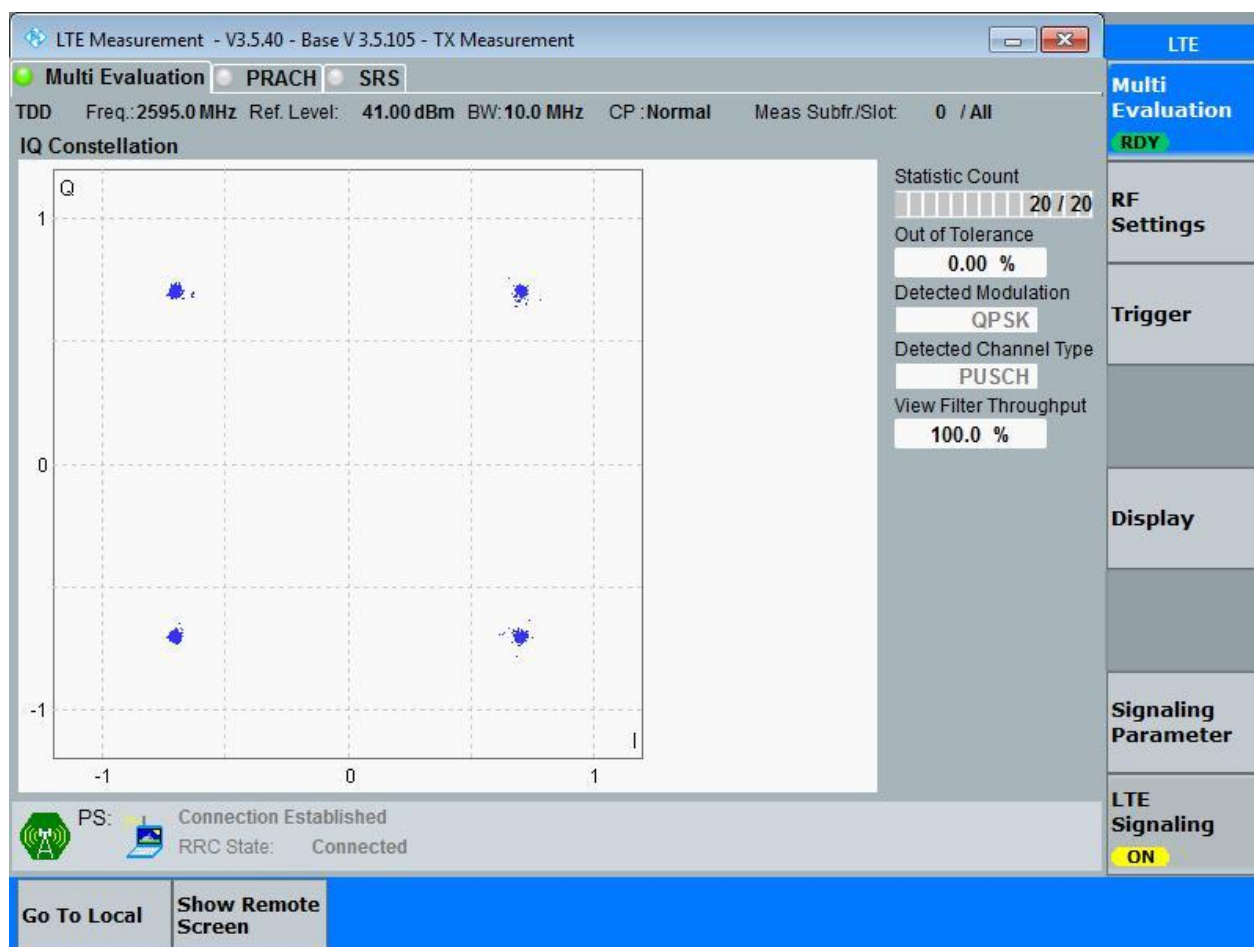
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

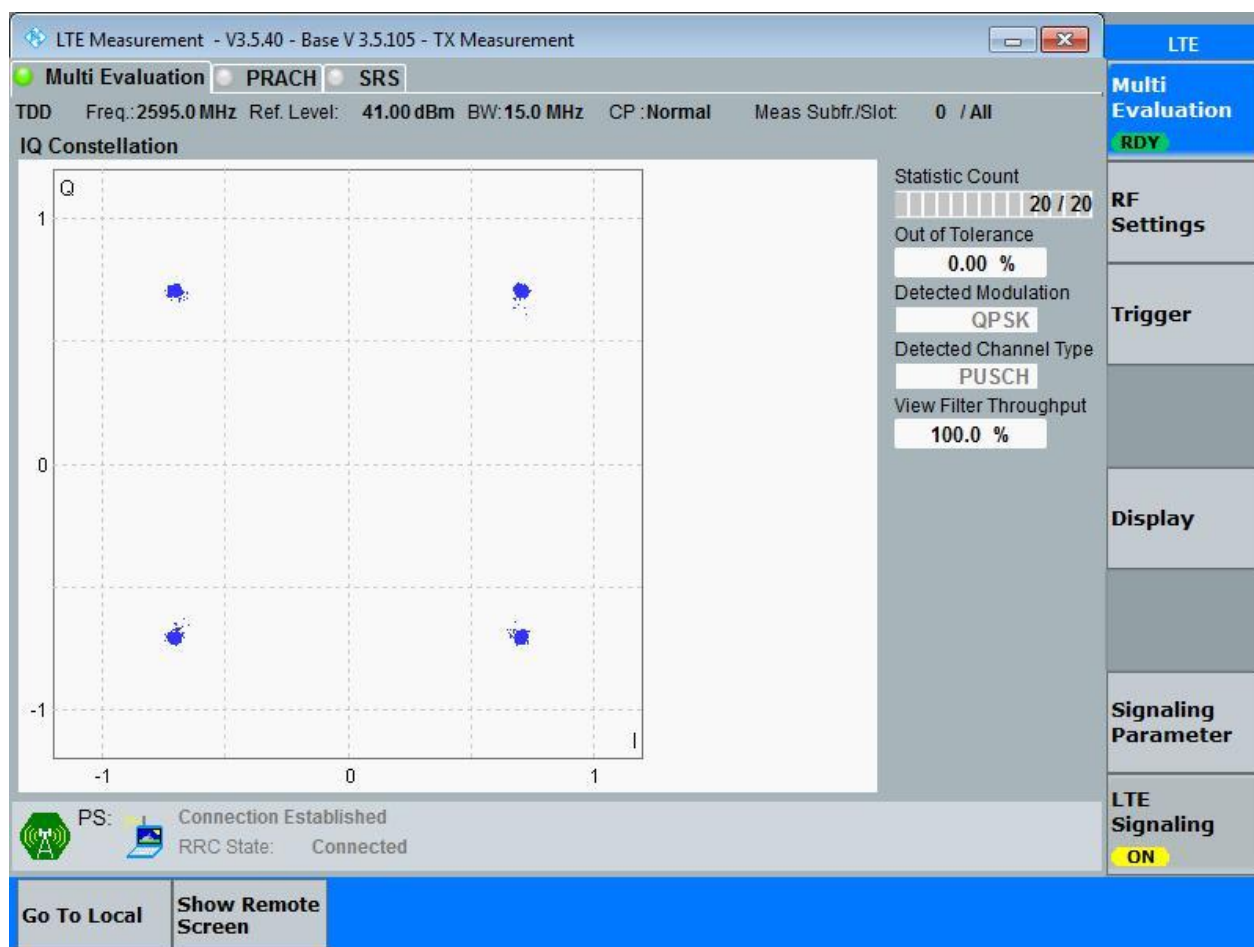
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

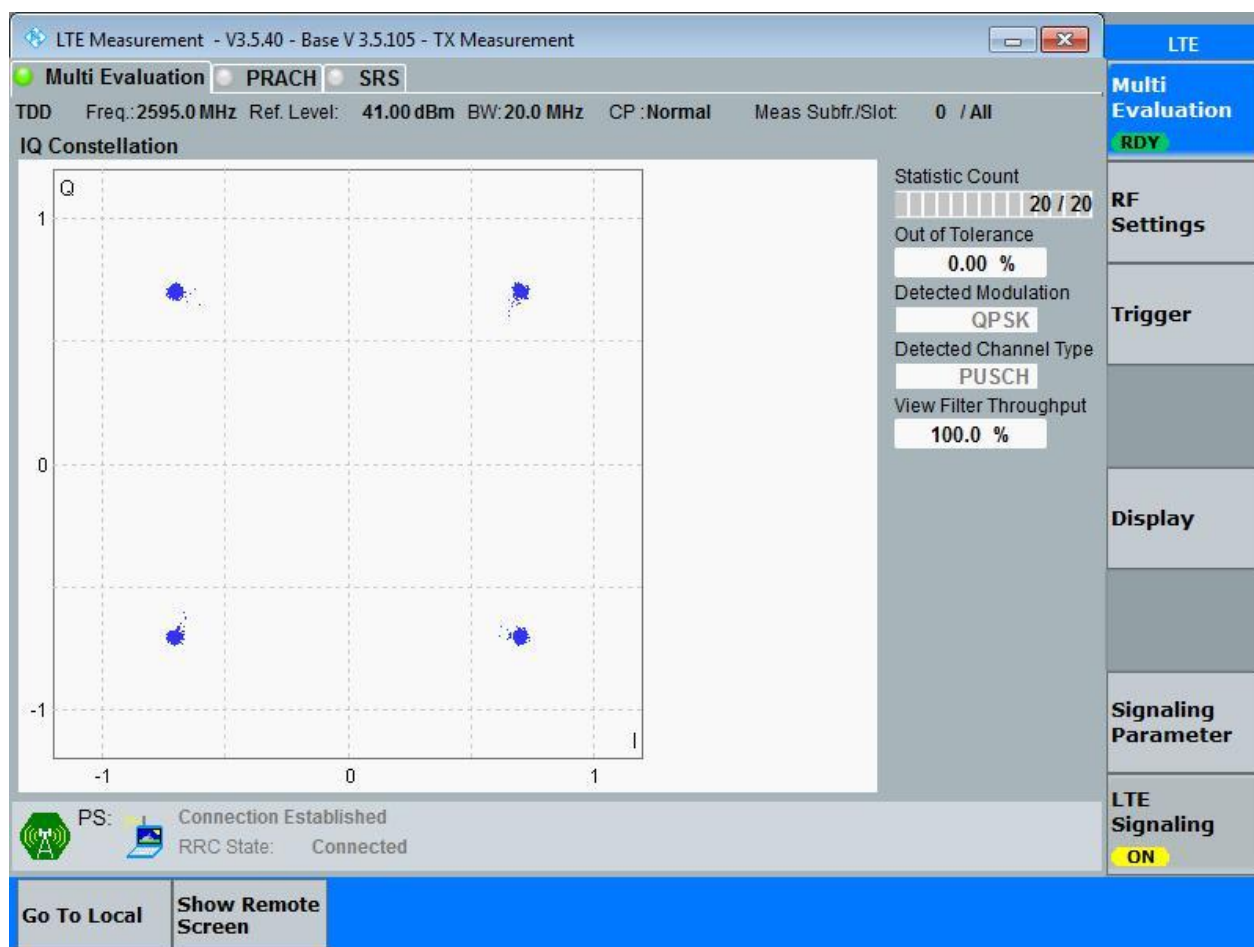
3.1.1.1.3.1.1 Test RB = RB75#0



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

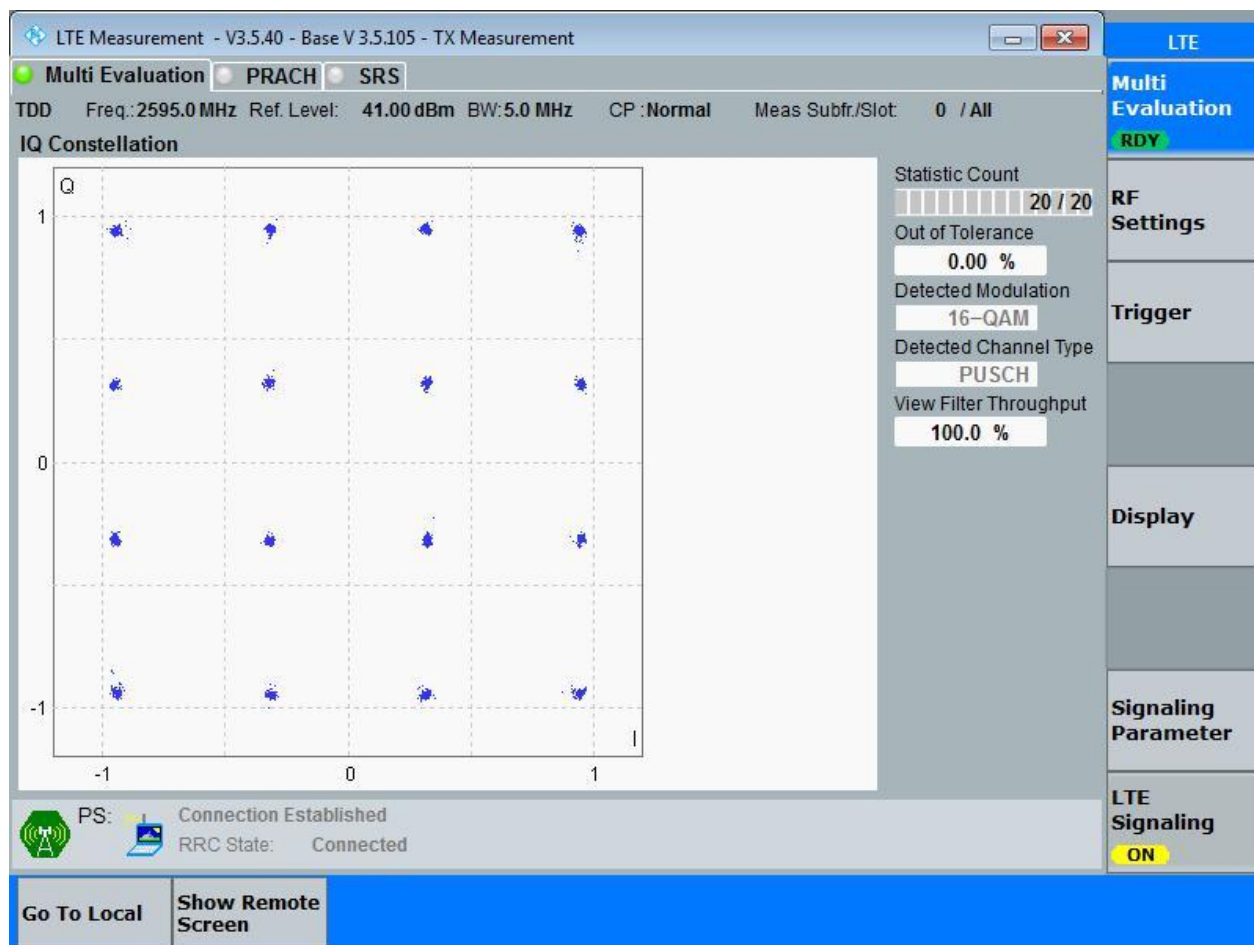


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

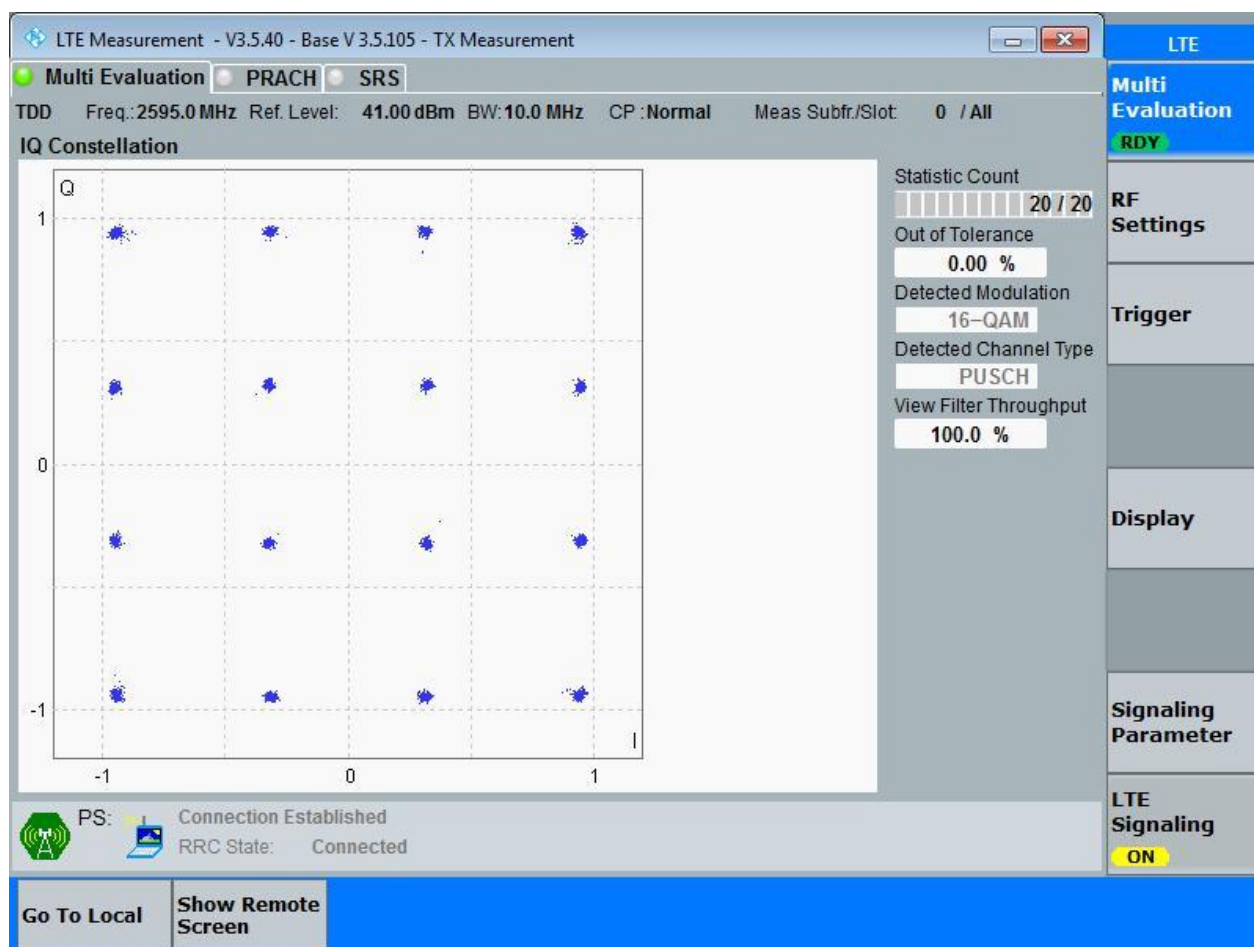
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

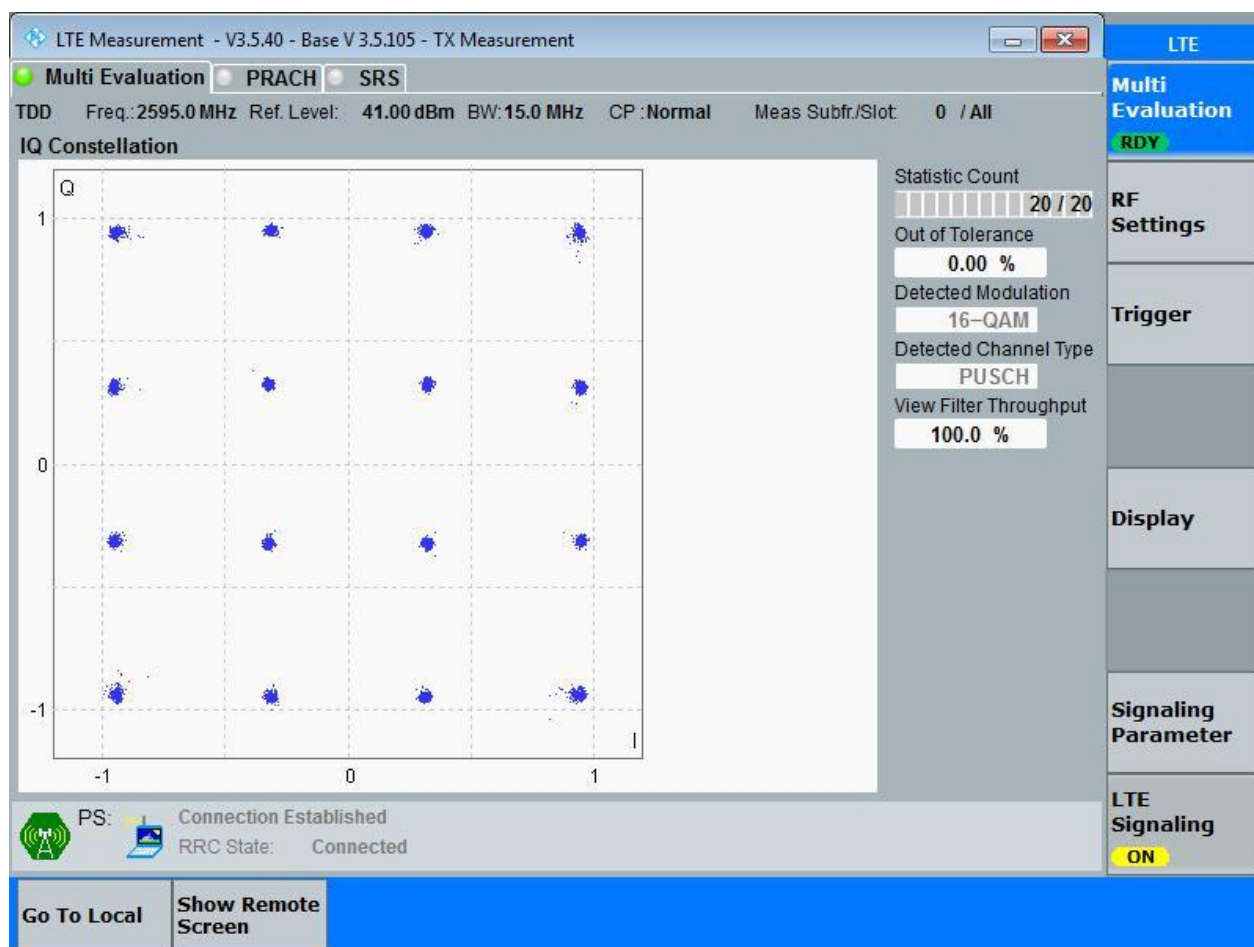
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

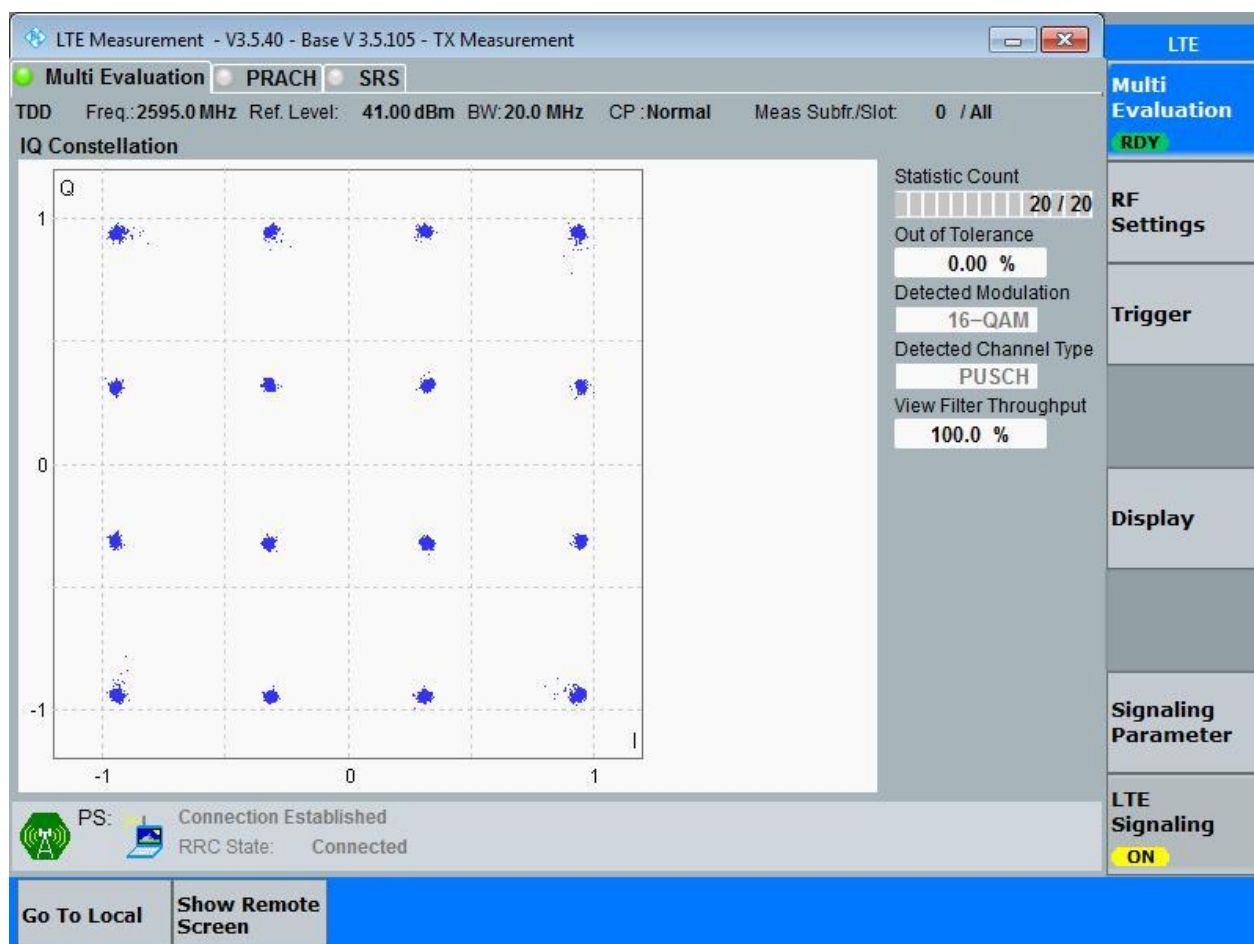
3.1.1.2.3.1.1 Test RB = RB75#0



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	4.92	Pass
			MCH	RB25#0	4.52	5.16	Pass
			HCH	RB25#0	4.50	4.99	Pass
		10	LCH	RB50#0	8.99	9.87	Pass
			MCH	RB50#0	9.00	9.89	Pass
			HCH	RB50#0	8.97	9.92	Pass
		15	LCH	RB75#0	13.52	15.17	Pass
			MCH	RB75#0	13.51	15.33	Pass
			HCH	RB75#0	13.50	15.05	Pass
		20	LCH	RB100#0	18.00	19.78	Pass
			MCH	RB100#0	18.03	19.95	Pass
			HCH	RB100#0	17.99	19.80	Pass
	LTE/TM2	5	LCH	RB25#0	4.50	5.05	Pass
			MCH	RB25#0	4.50	4.95	Pass
			HCH	RB25#0	4.51	5.02	Pass
		10	LCH	RB50#0	9.01	9.87	Pass
			MCH	RB50#0	8.99	9.87	Pass
			HCH	RB50#0	8.98	9.89	Pass
		15	LCH	RB75#0	13.51	15.25	Pass
			MCH	RB75#0	13.48	15.07	Pass
			HCH	RB75#0	13.48	14.93	Pass
		20	LCH	RB100#0	18.07	19.93	Pass
			MCH	RB100#0	18.01	19.79	Pass
			HCH	RB100#0	18.04	19.90	Pass



Part II - Test Plots

4.1 For LTE

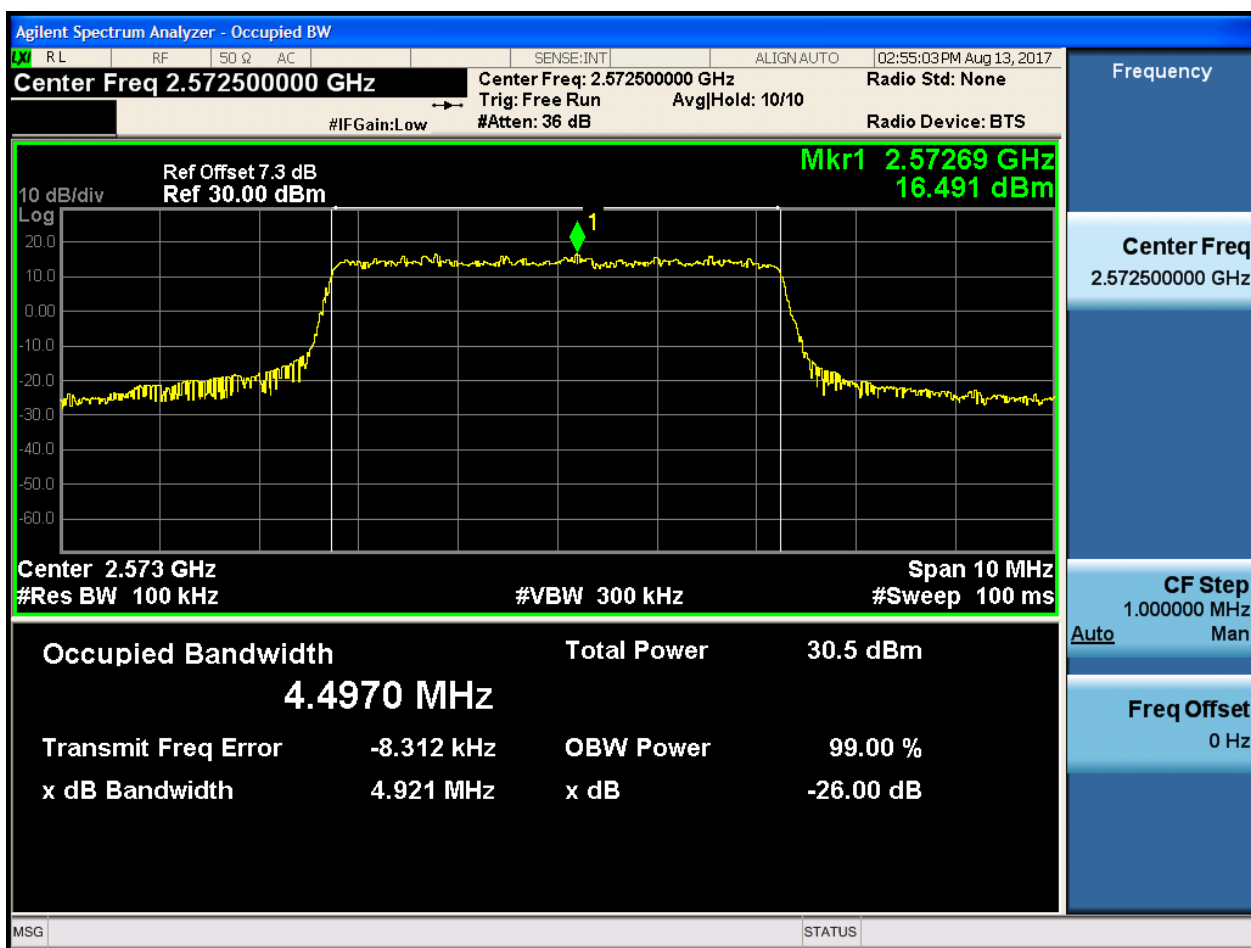
4.1.1 Test Band = BAND38

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

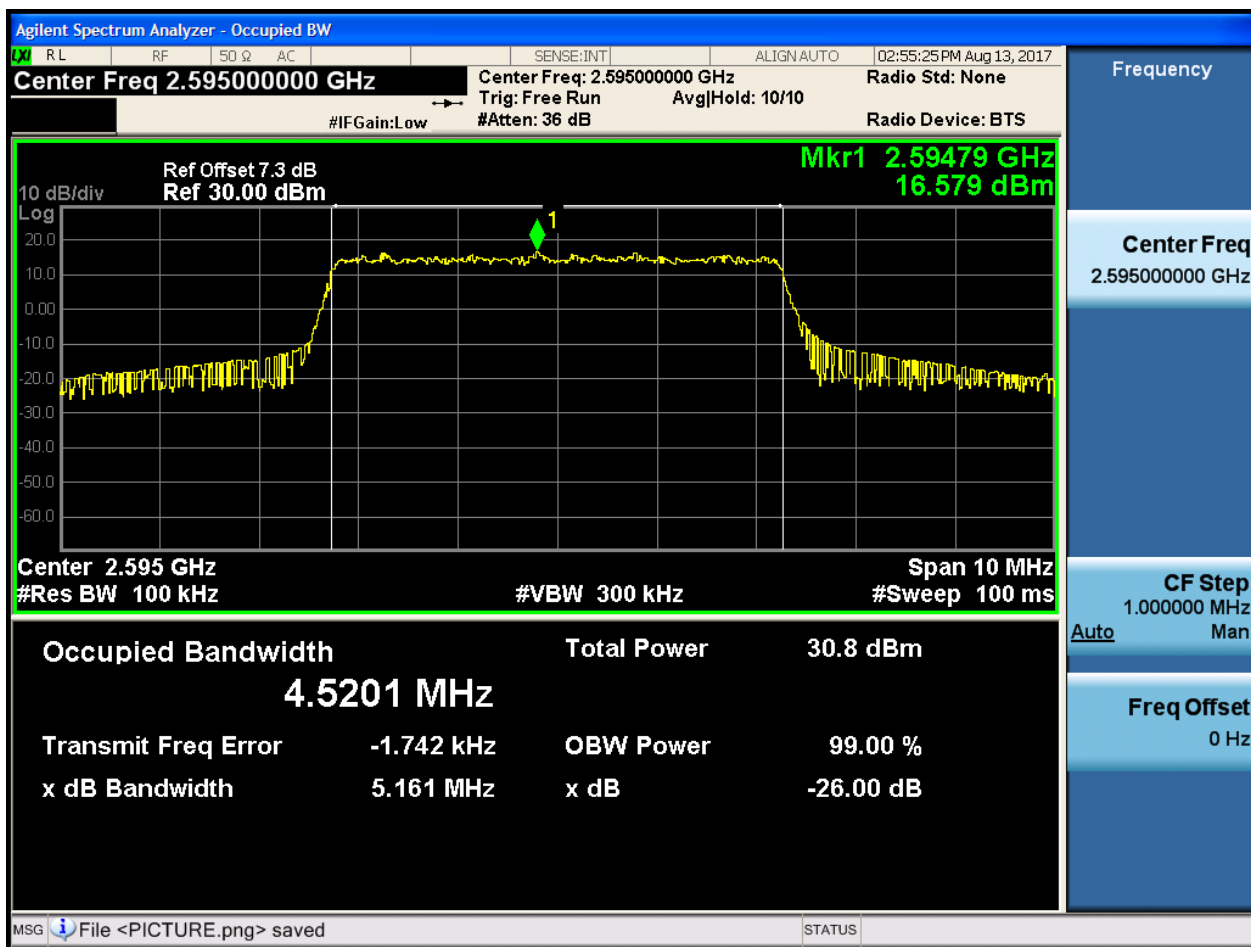
4.1.1.1.1.1.1 Test RB = RB25#0





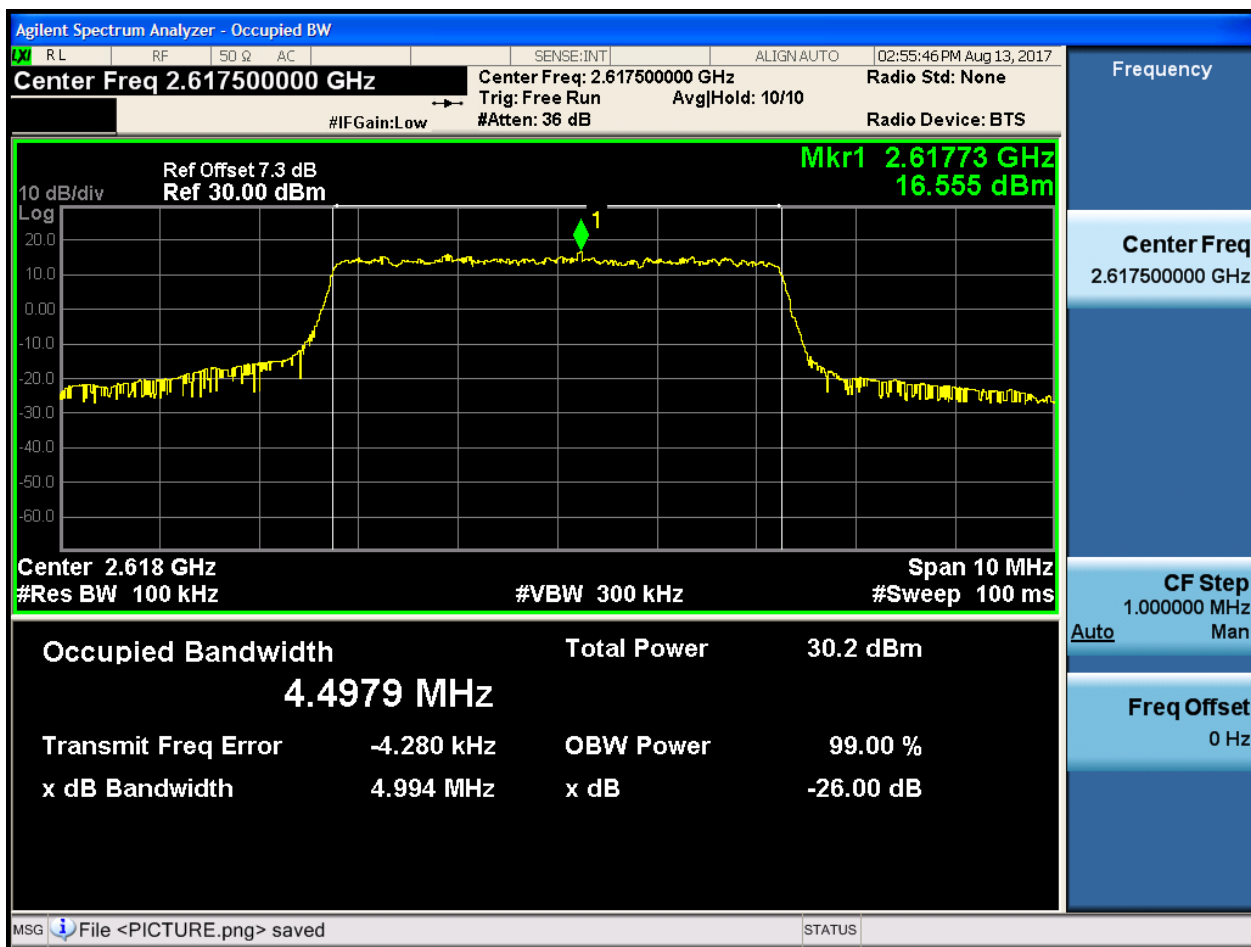
4.1.1.1.1.2 Test Channel = MCH

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

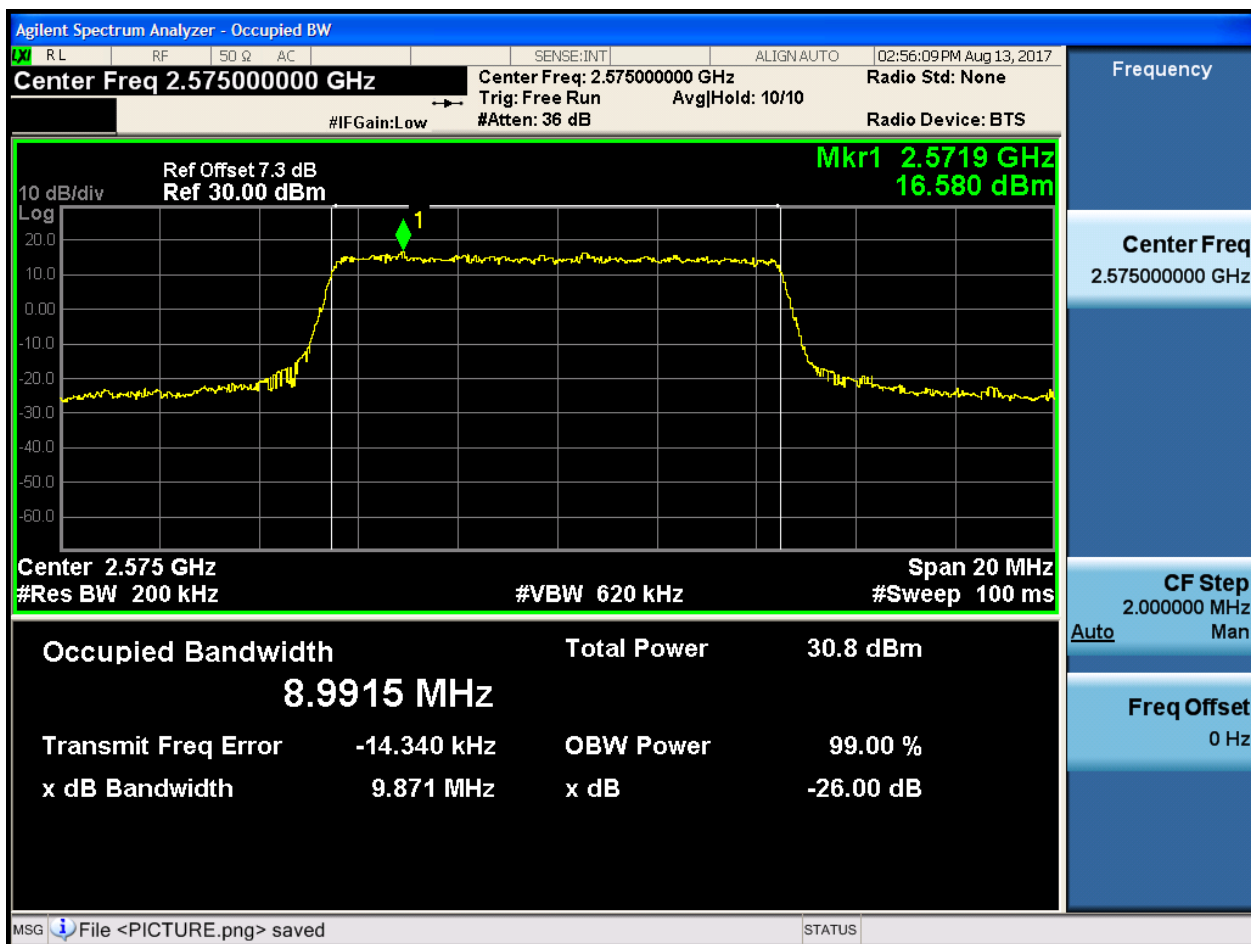




4.1.1.1.2 Test Bandwidth = 10

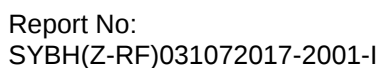
4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB50#0





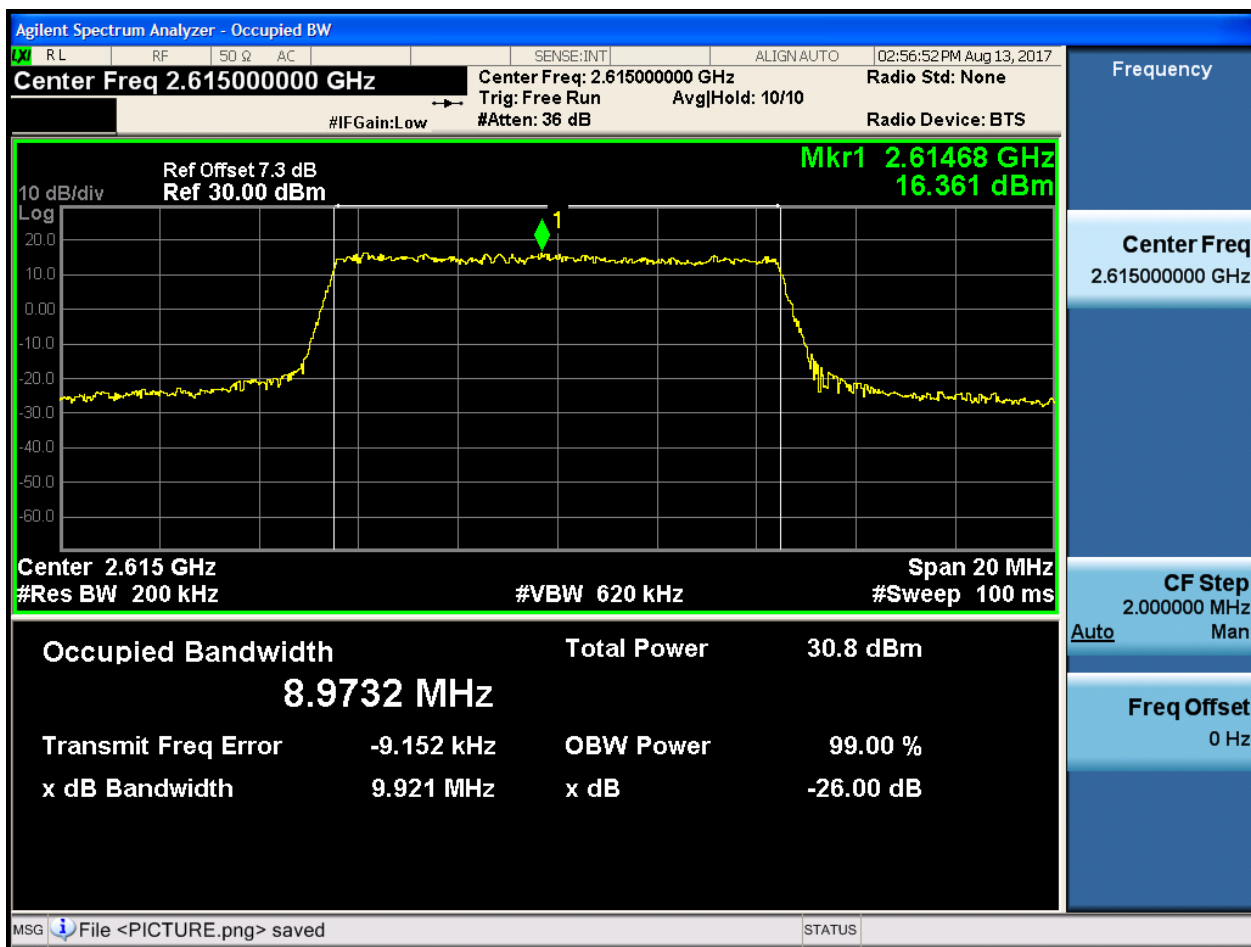
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

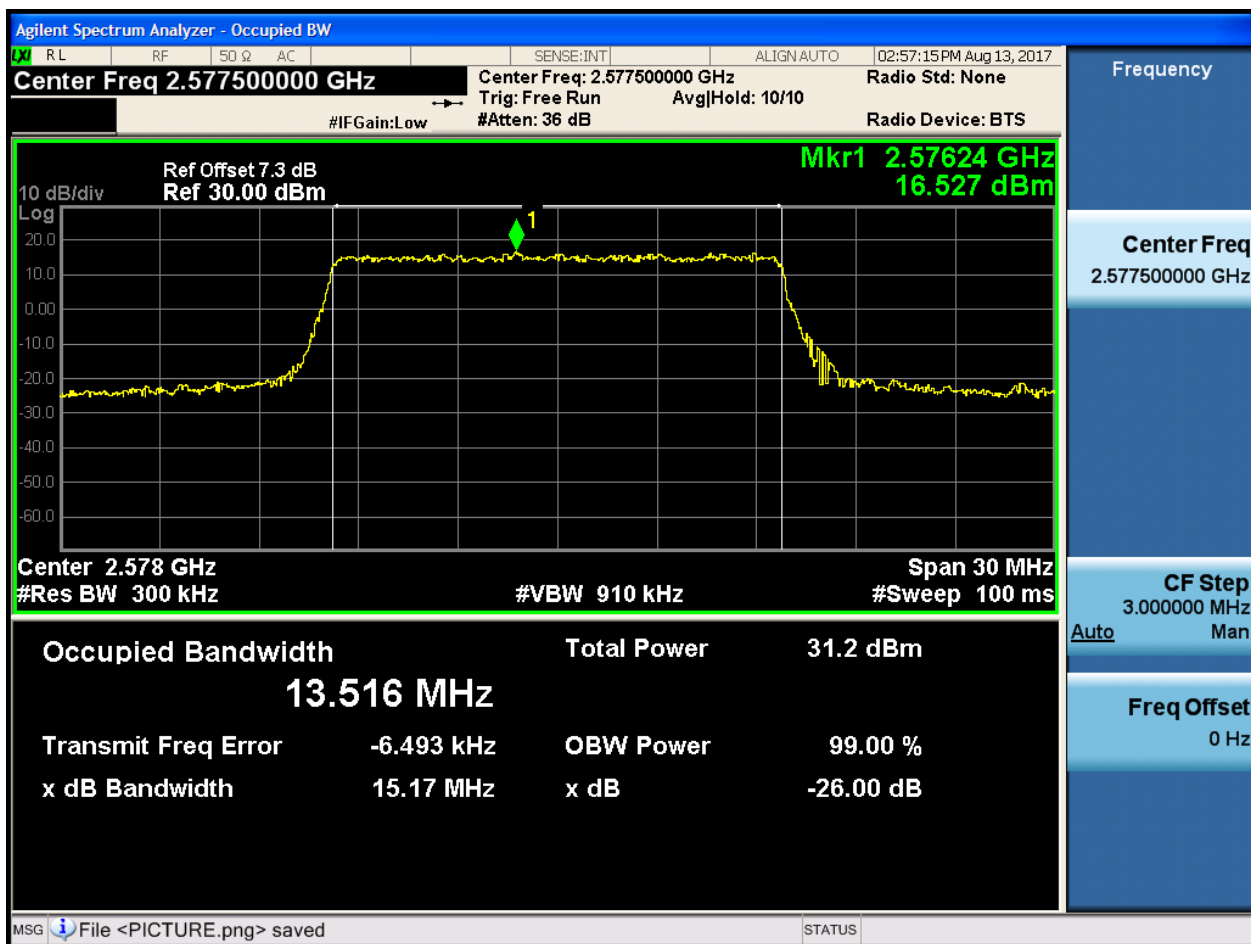




4.1.1.1.3 Test Bandwidth = 15

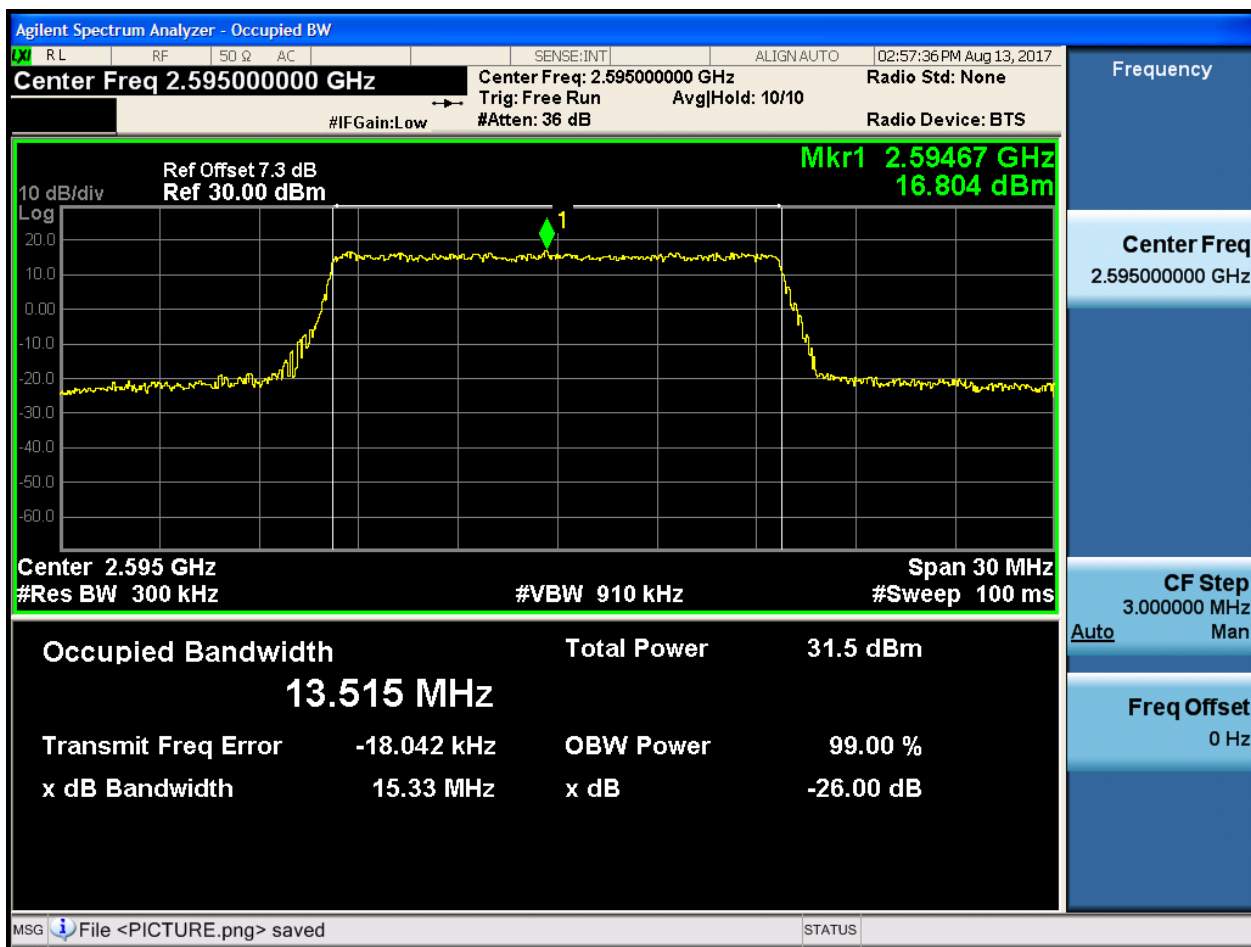
4.1.1.1.3.1 Test Channel = LCH

4.1.1.1.3.1.1 Test RB = RB75#0



4.1.1.1.3.2 Test Channel = MCH

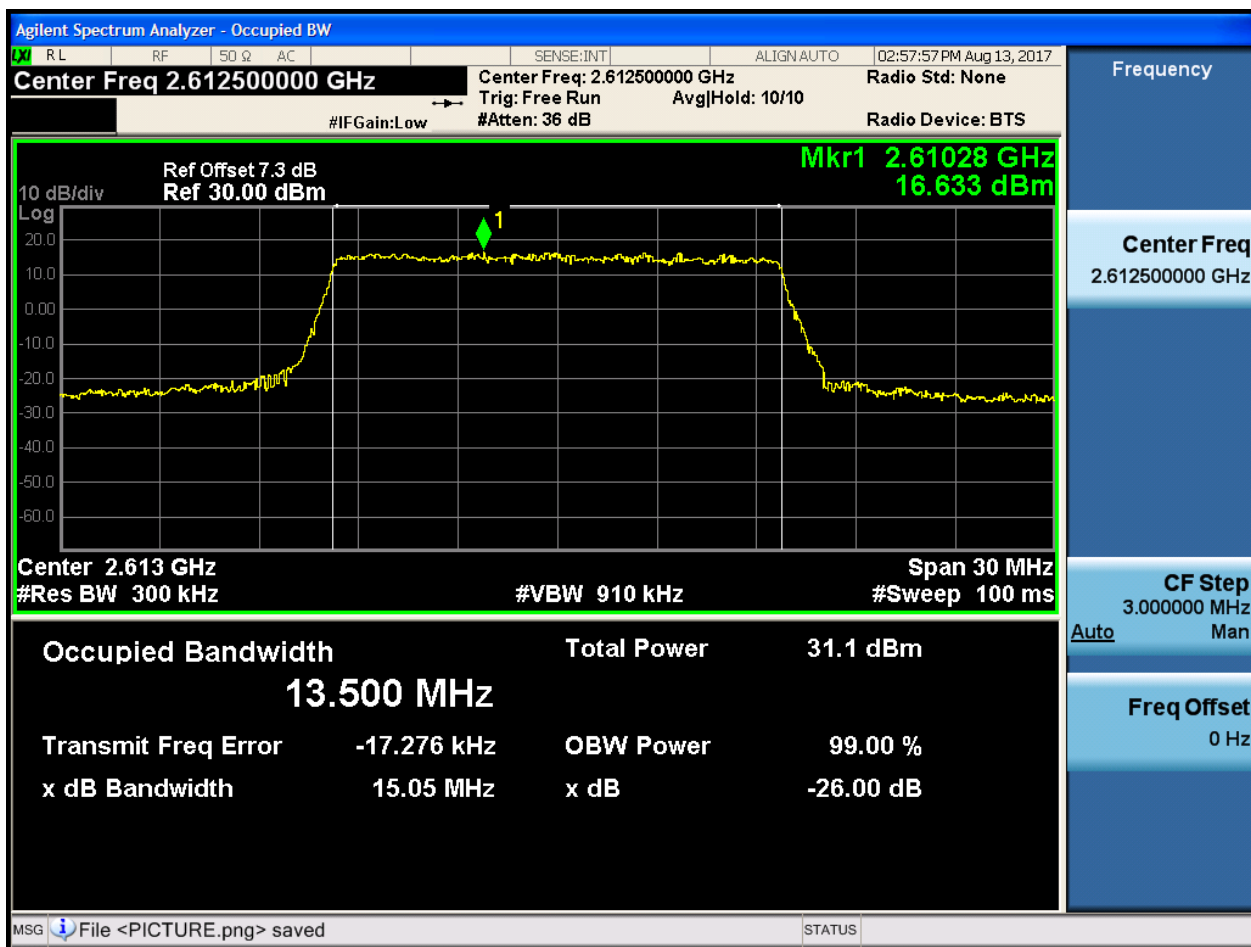
4.1.1.1.3.2.1 Test RB = RB75#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

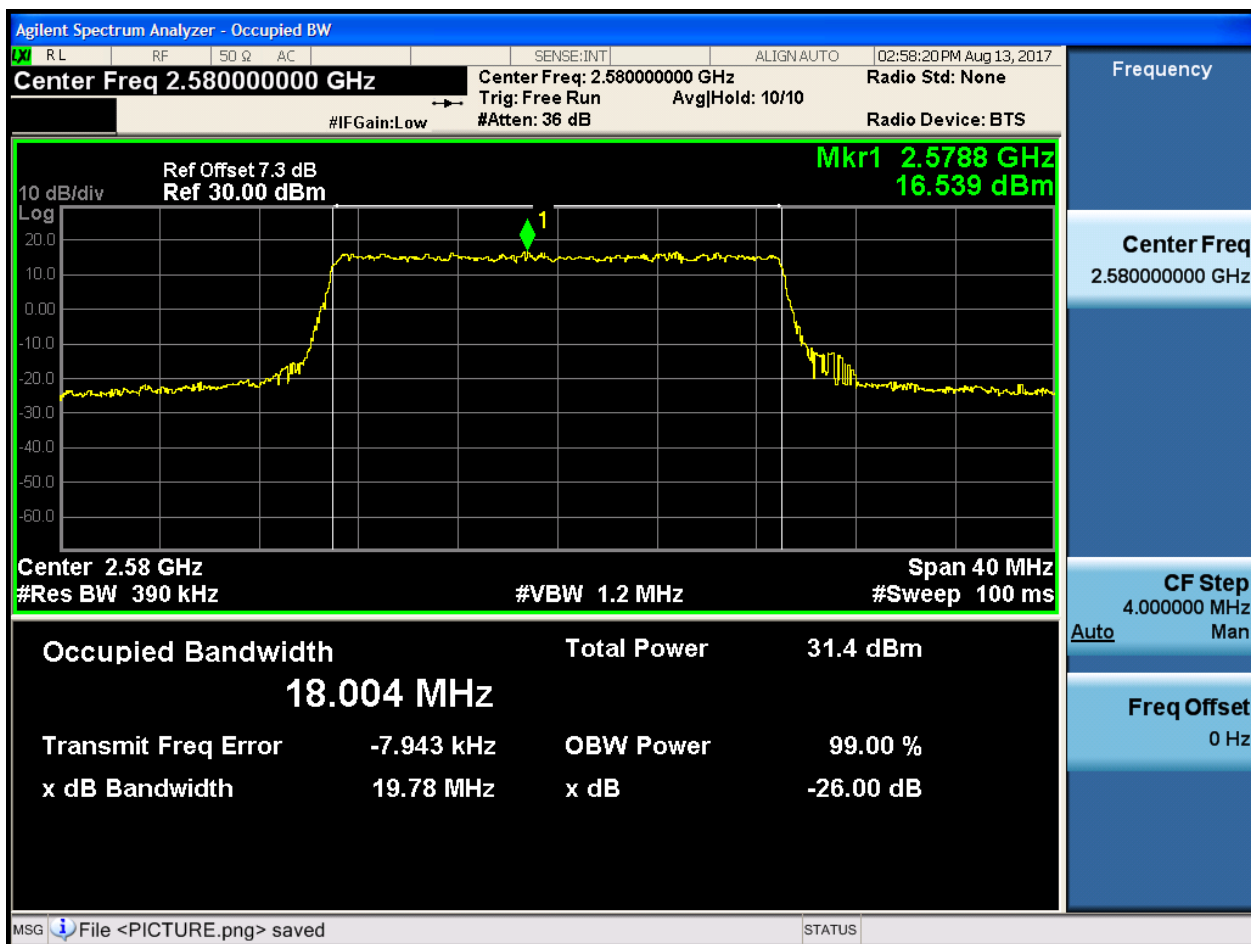




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

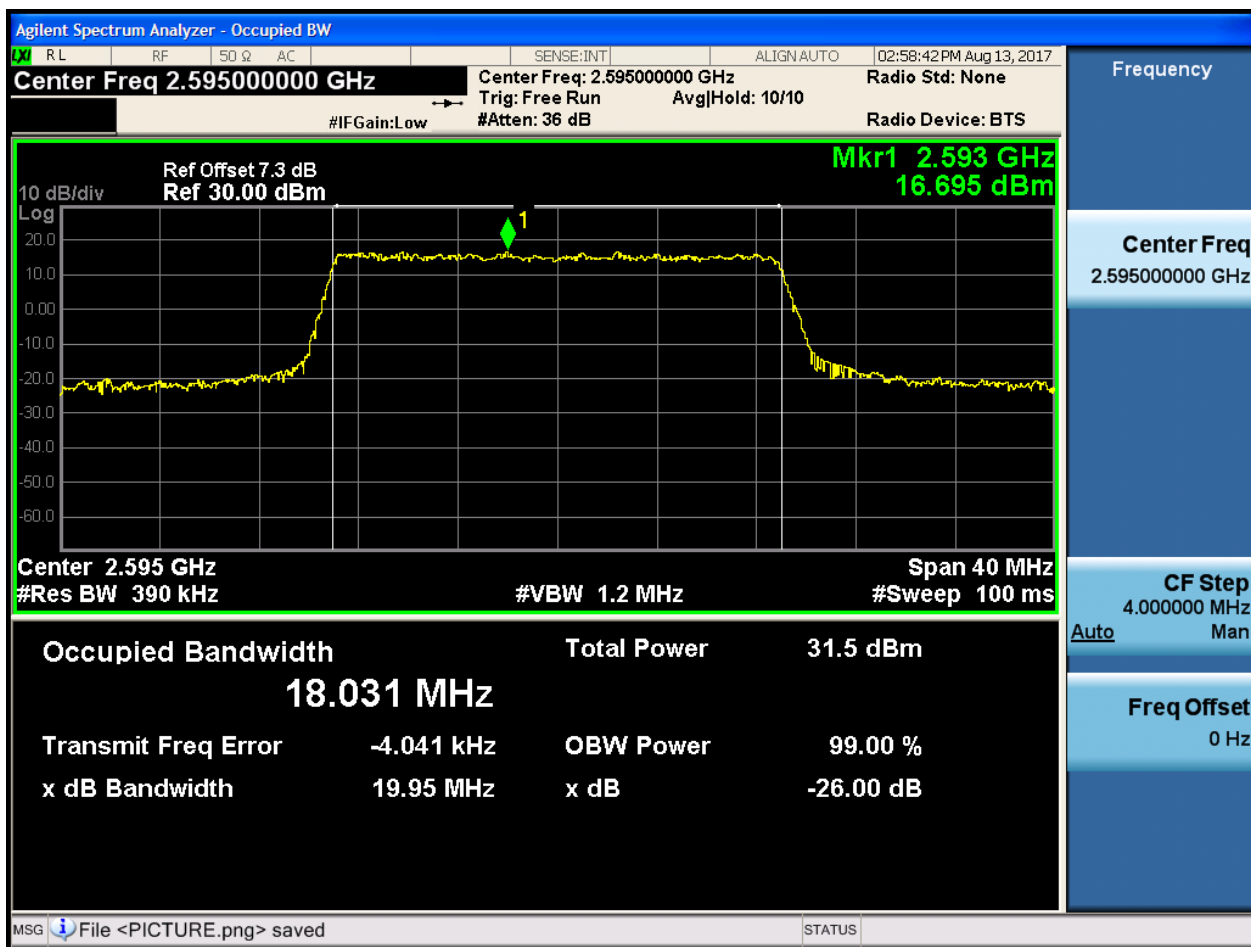
4.1.1.1.4.1.1 Test RB = RB100#0





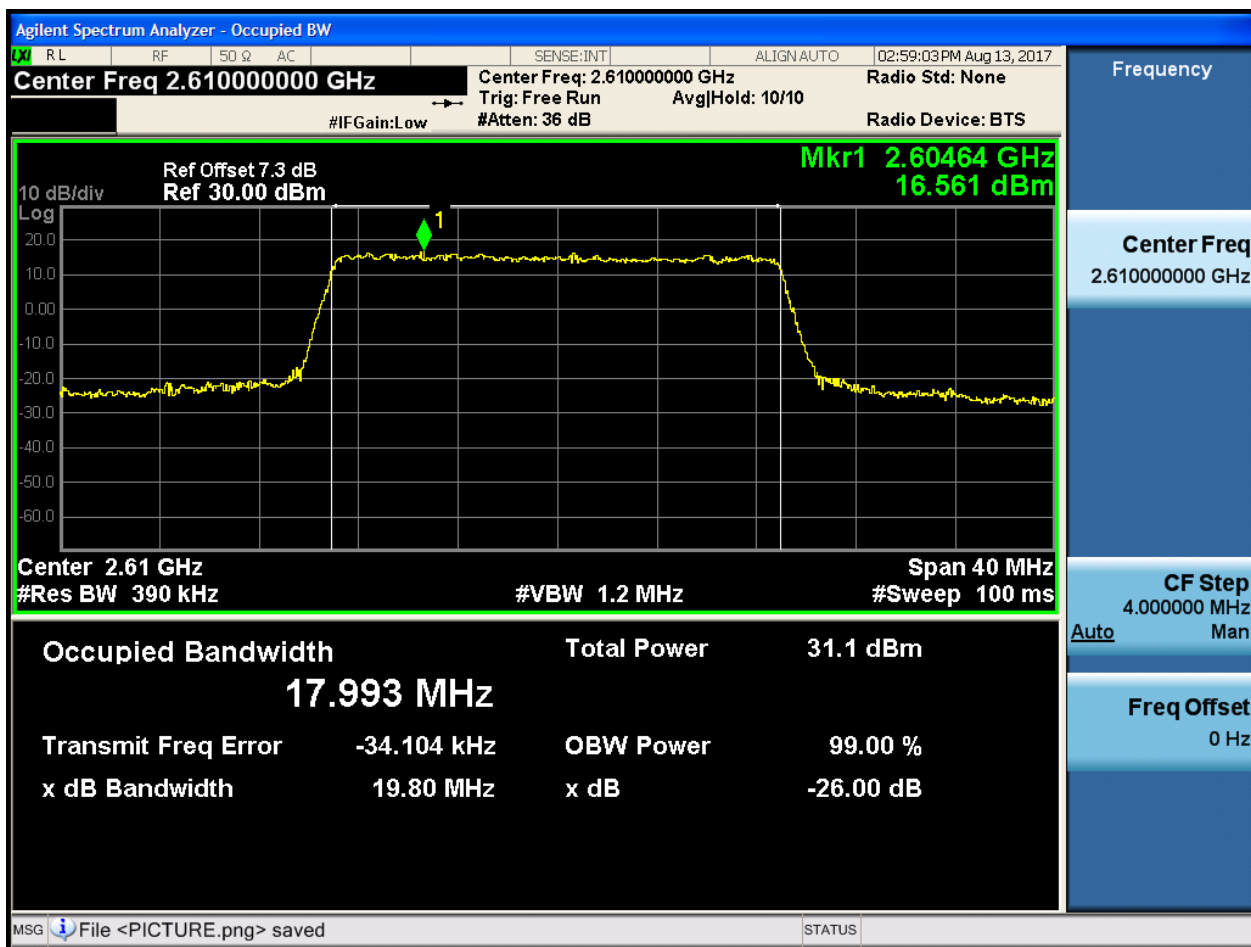
4.1.1.1.4.2 Test Channel = MCH

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

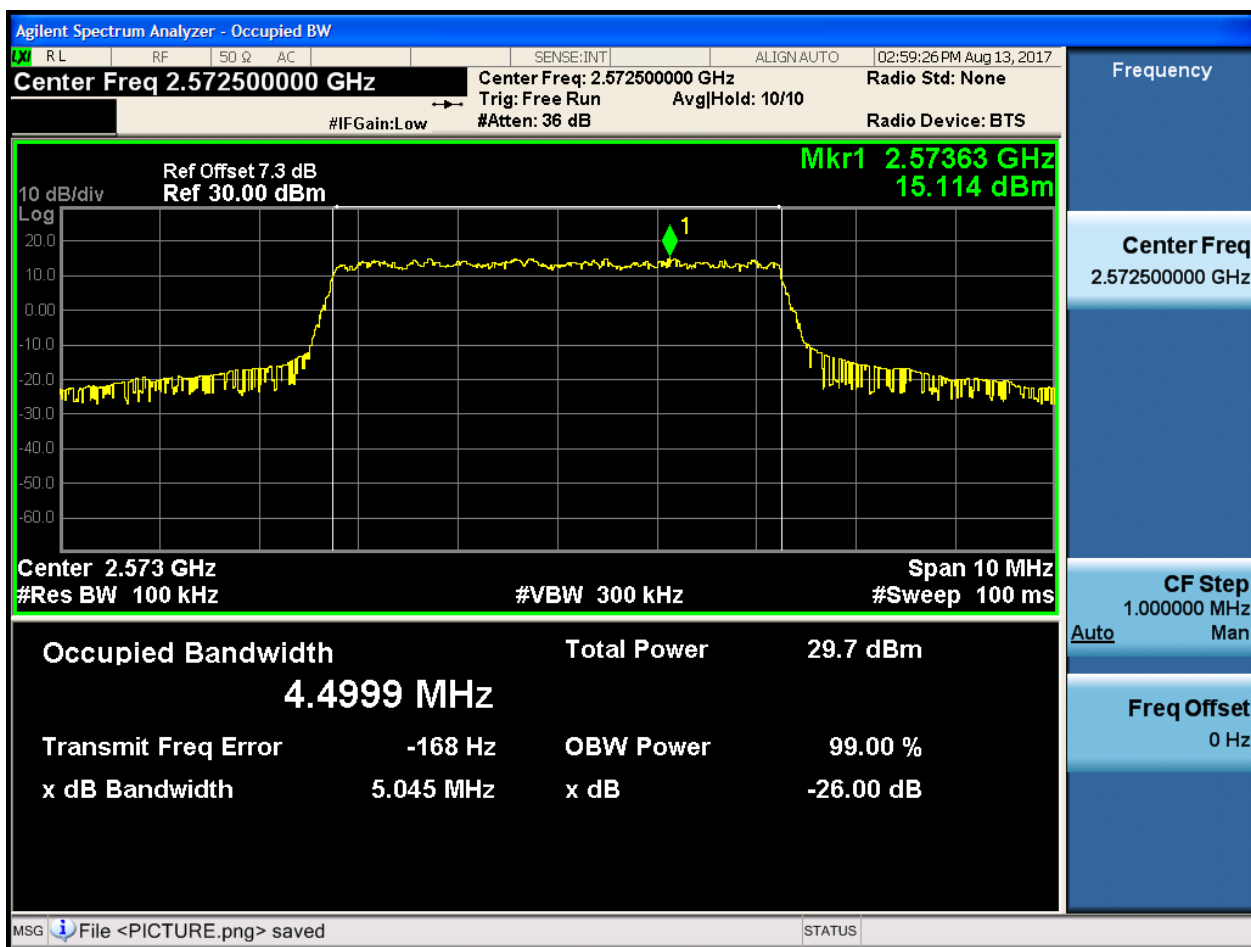


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

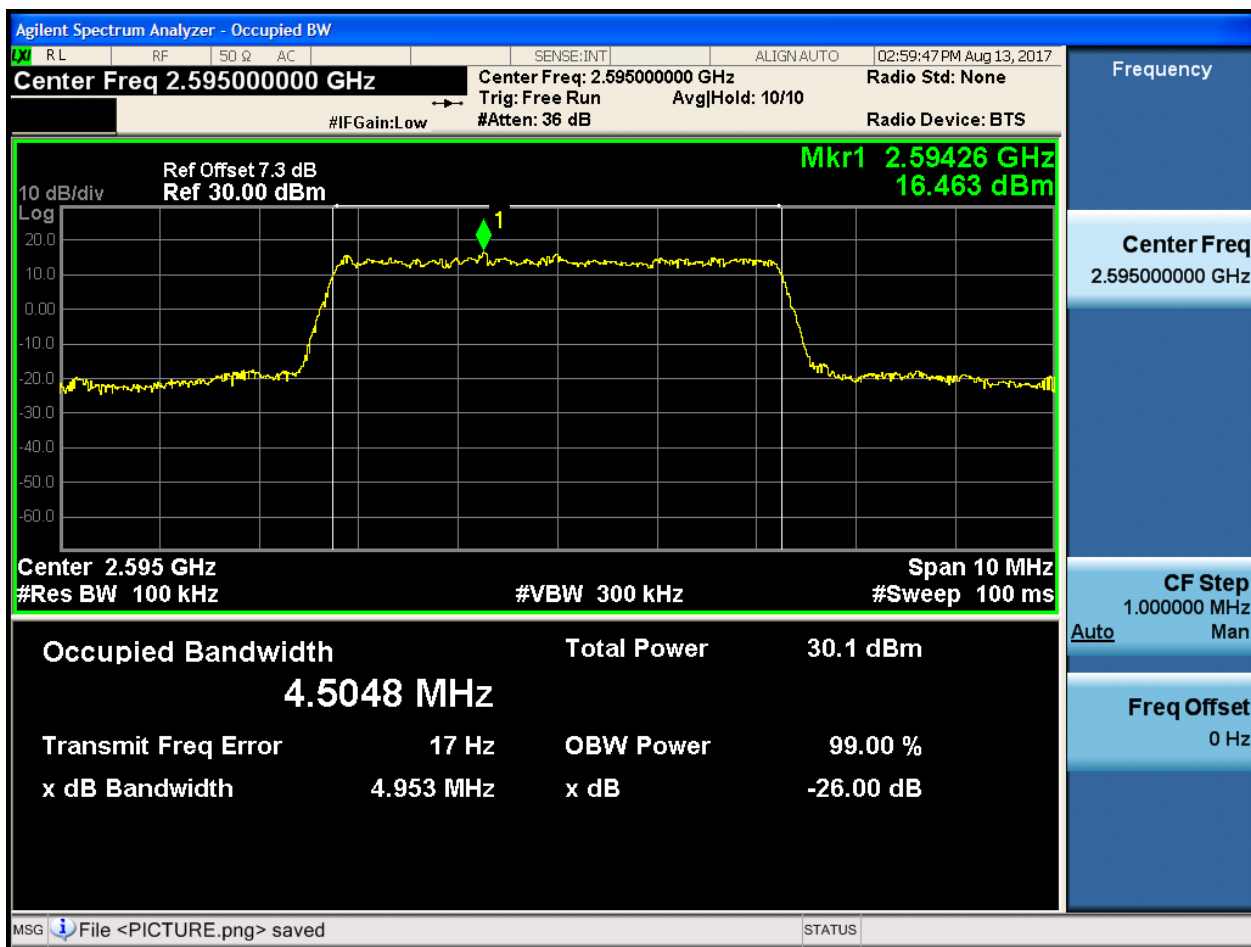
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

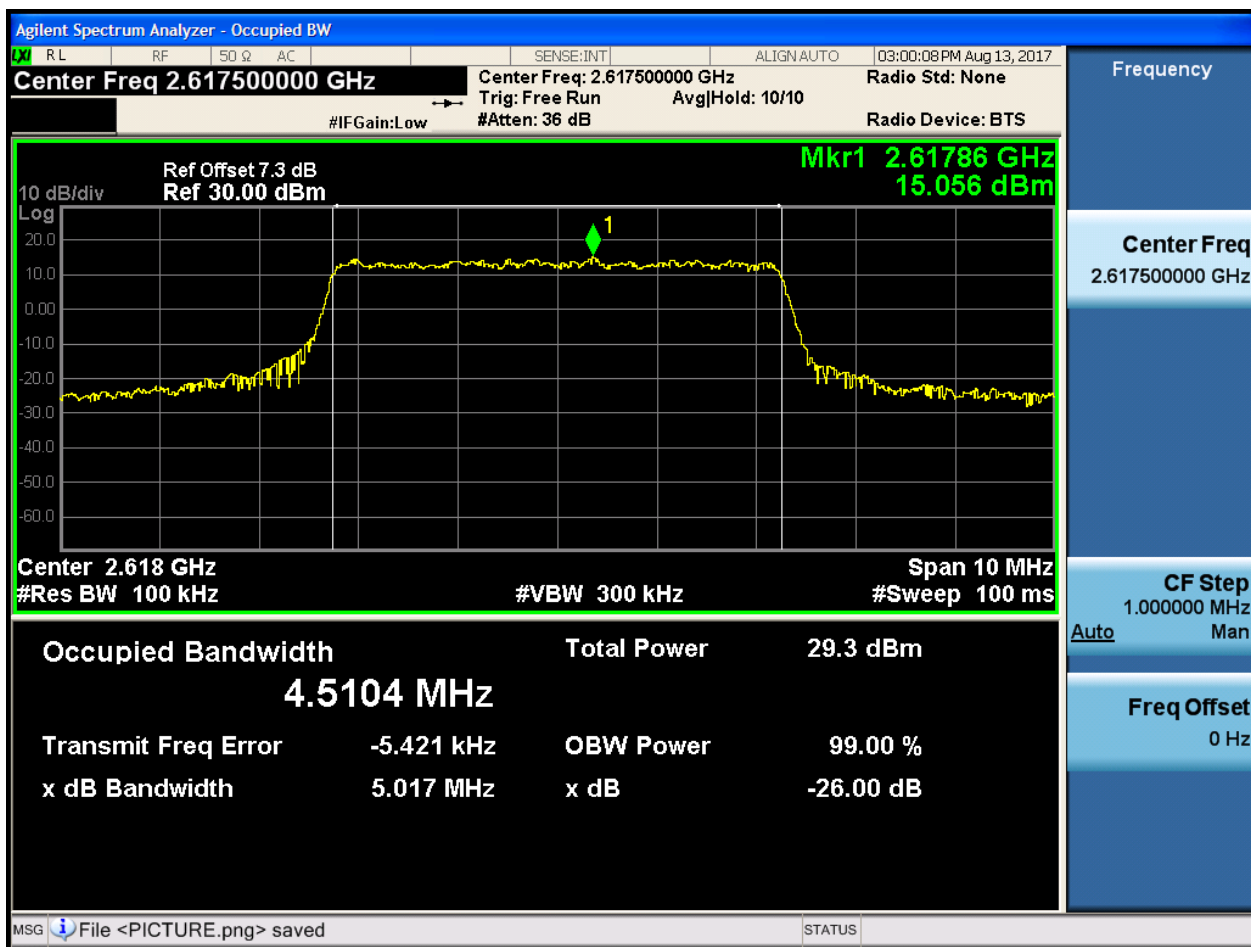
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

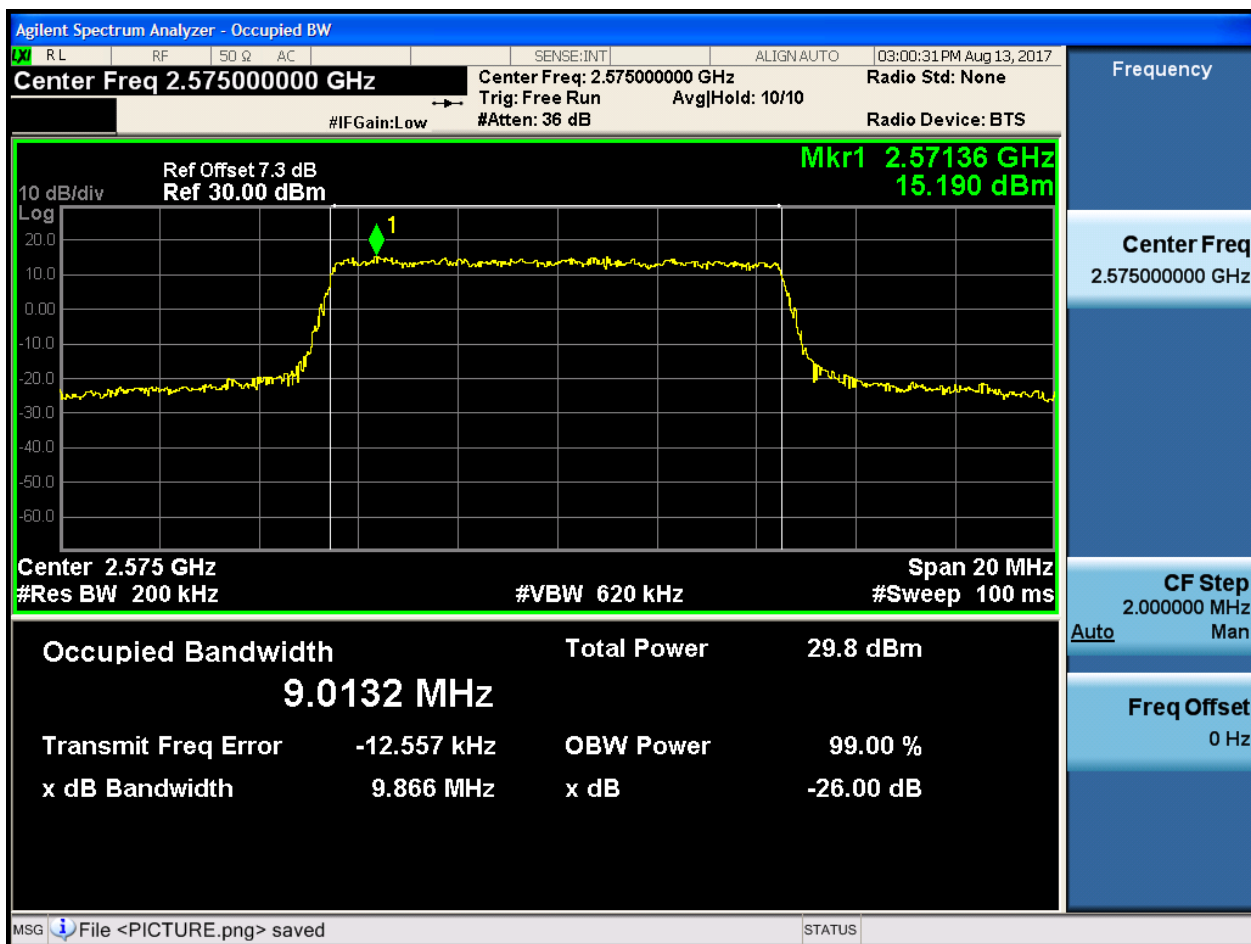




4.1.1.2.2 Test Bandwidth = 10

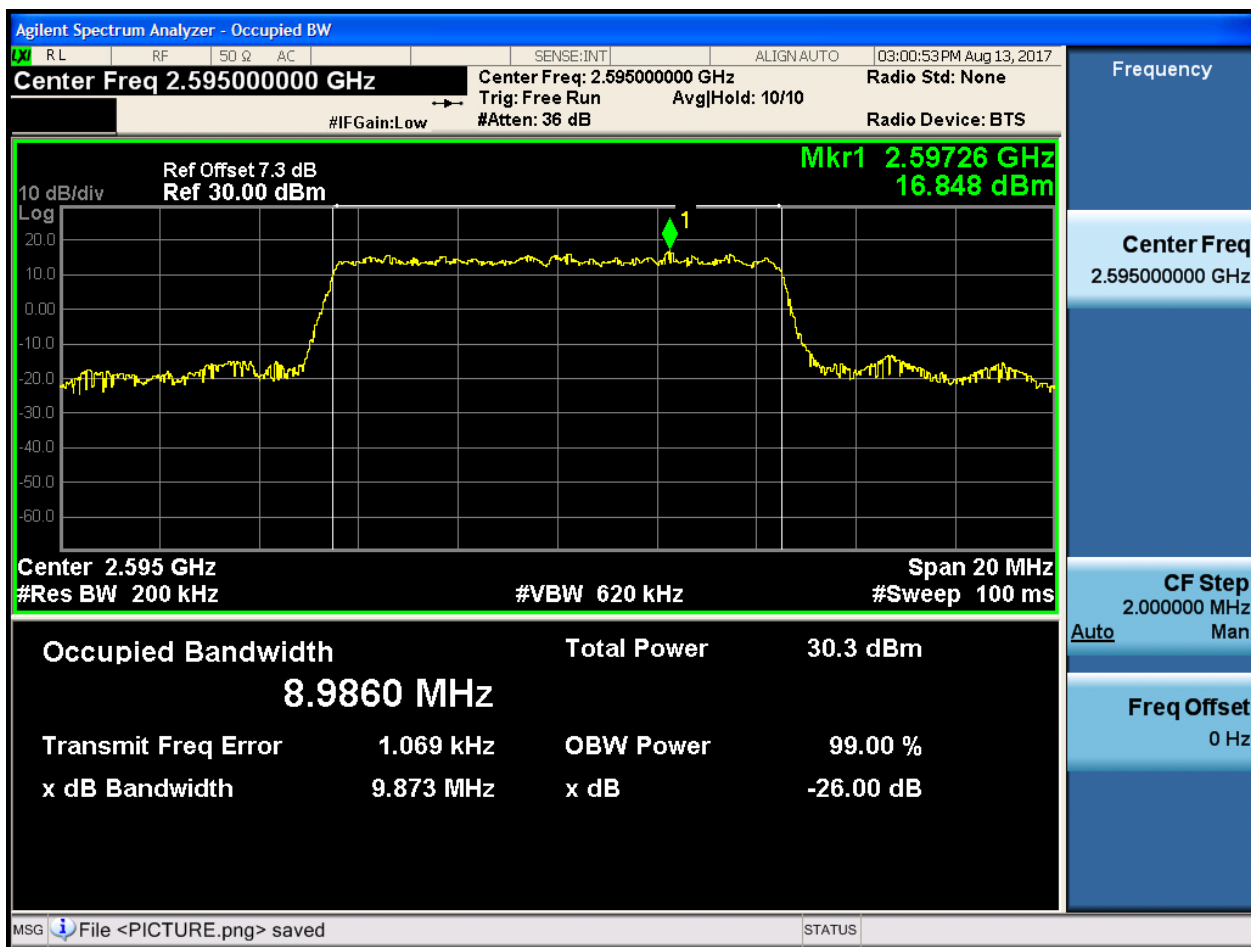
4.1.1.2.2.1 Test Channel = LCH

4.1.1.2.2.1.1 Test RB = RB50#0



4.1.1.2.2.2 Test Channel = MCH

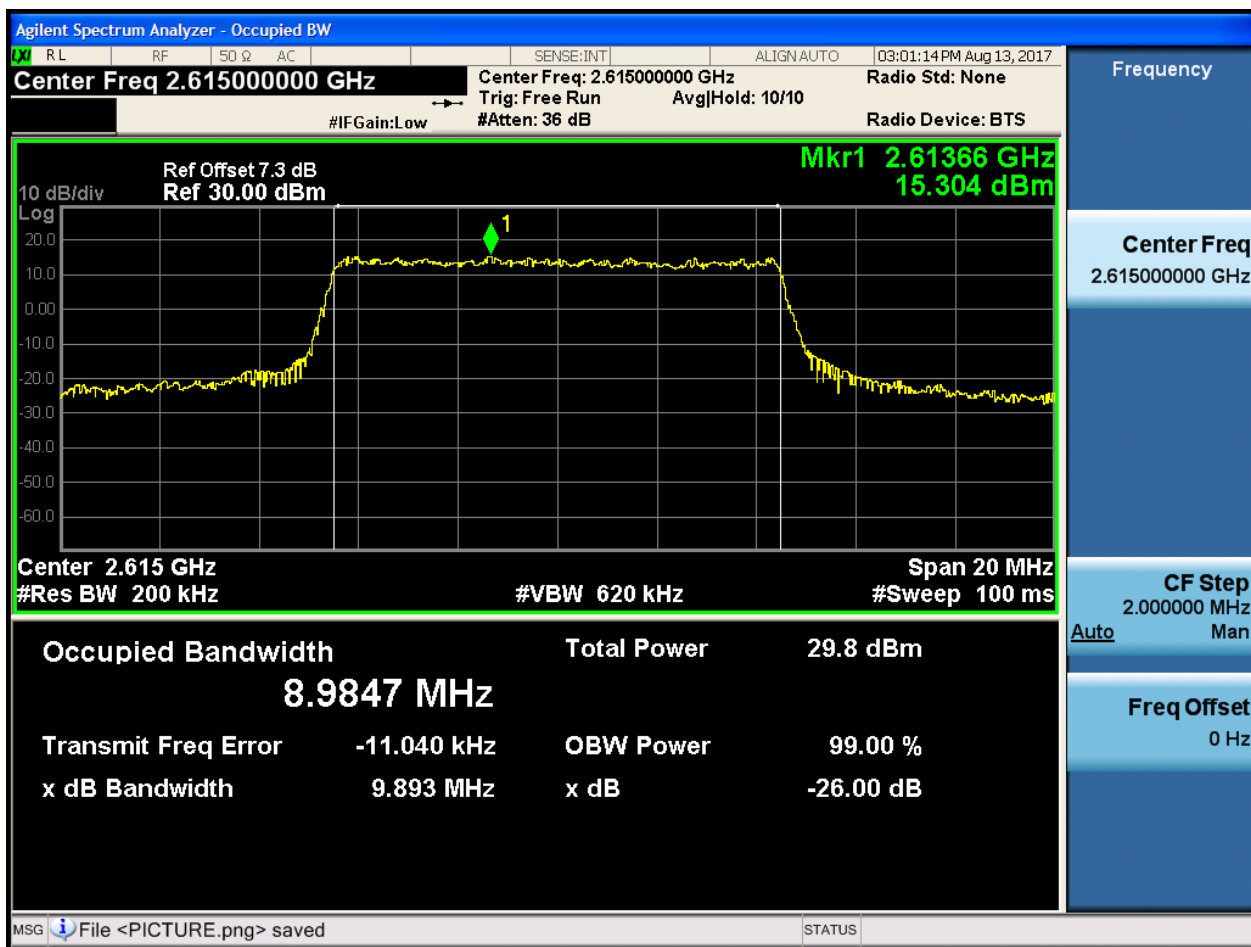
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

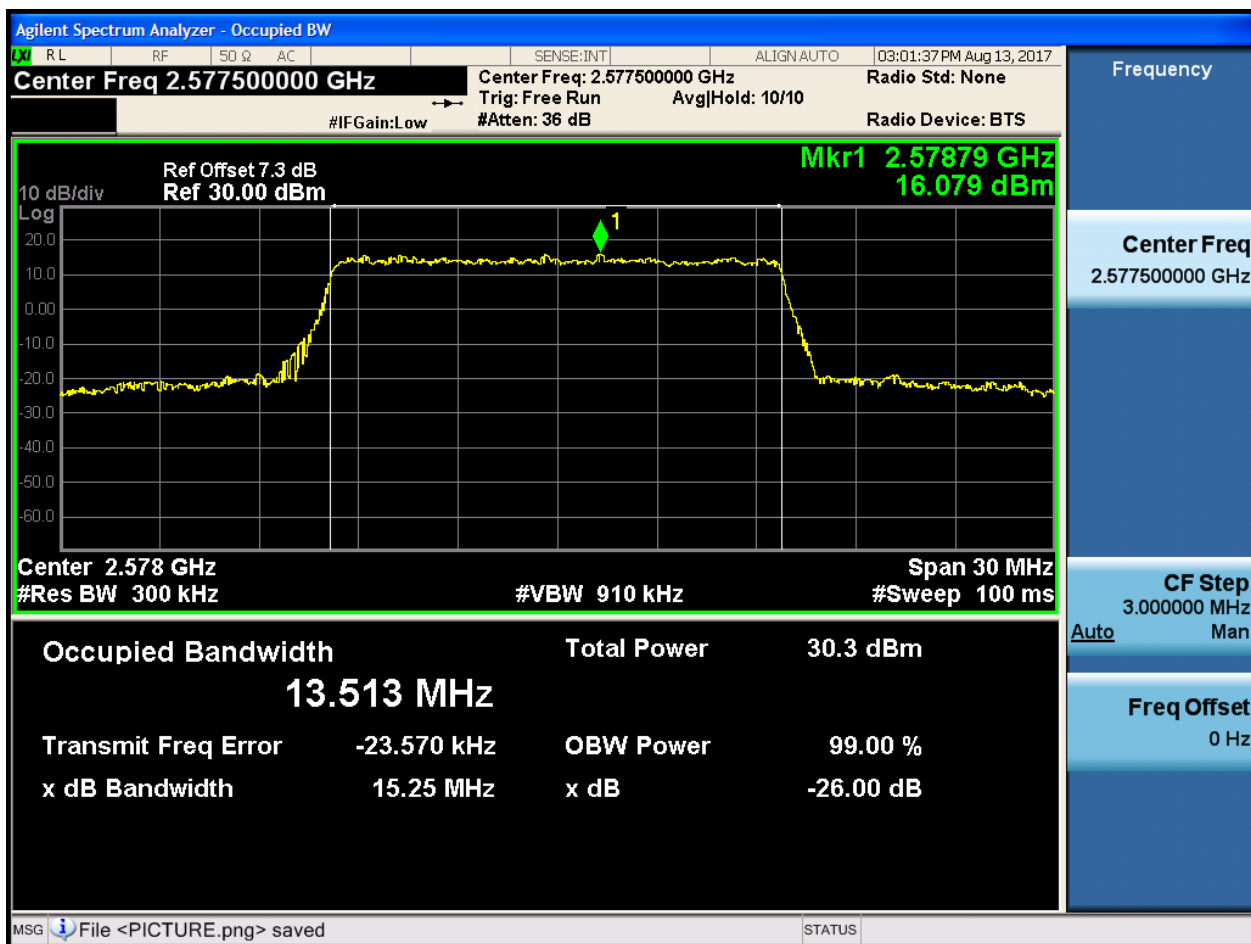
4.1.1.2.2.3.1 Test RB = RB50#0



4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

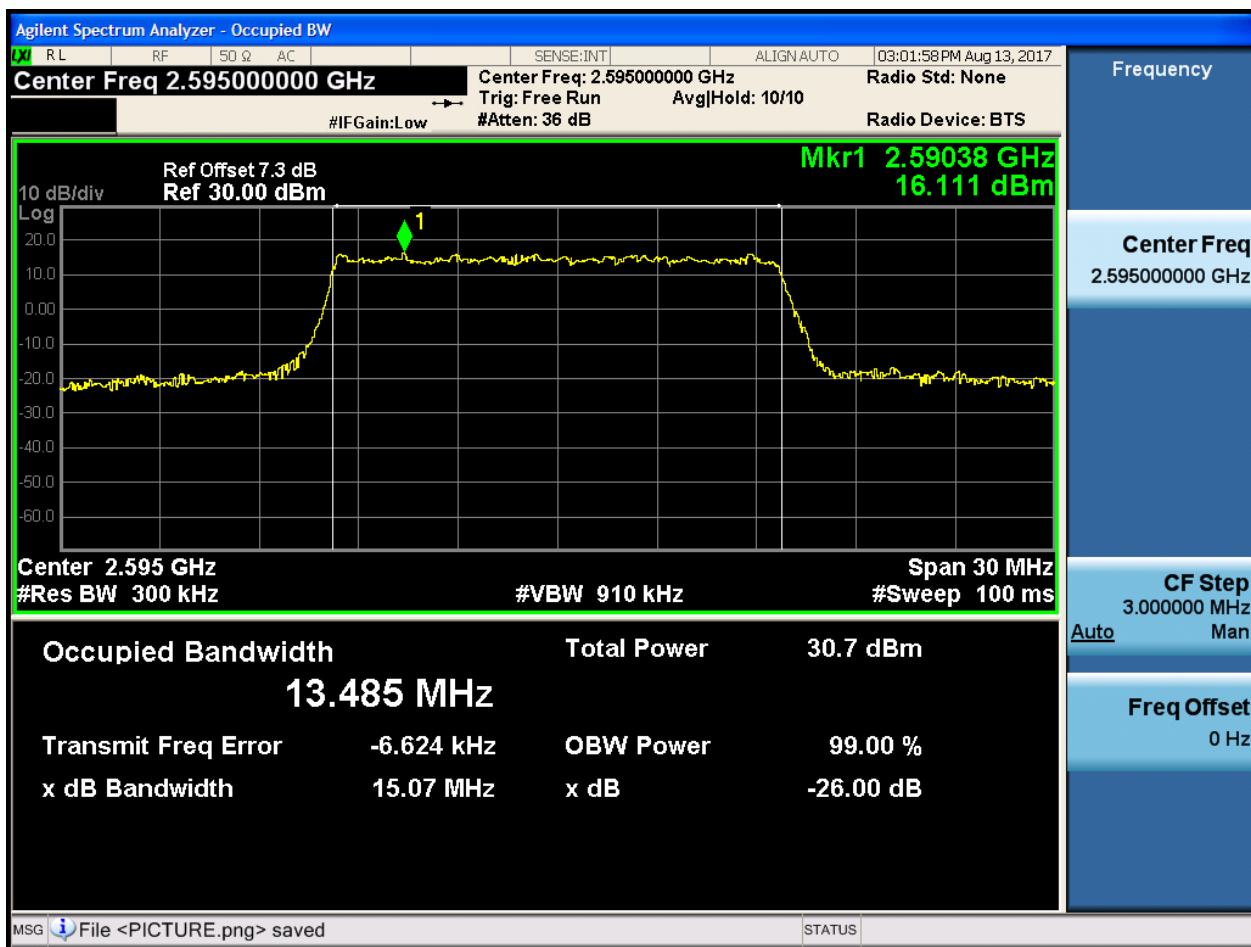
4.1.1.2.3.1.1 Test RB = RB75#0





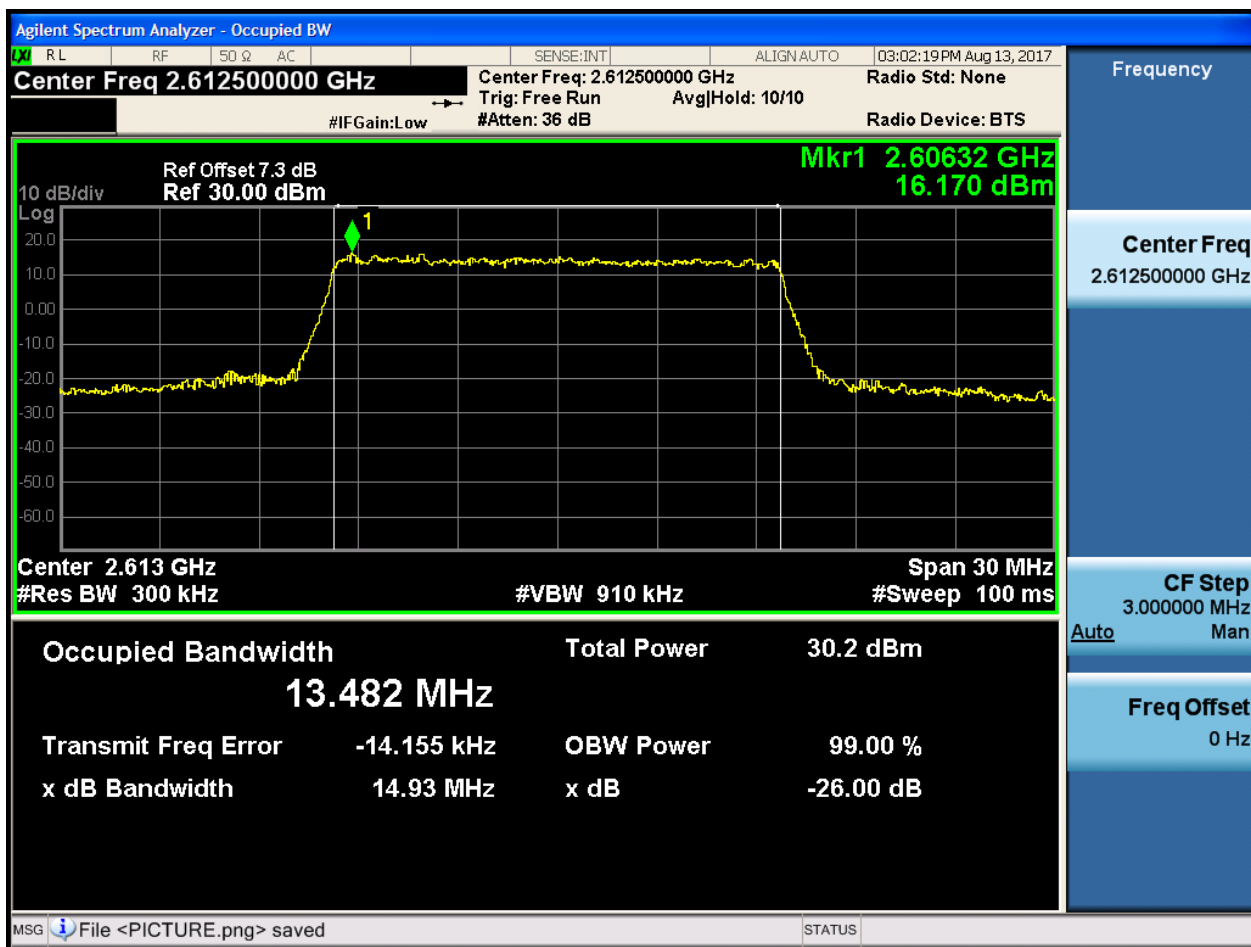
4.1.1.2.3.2 Test Channel = MCH

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

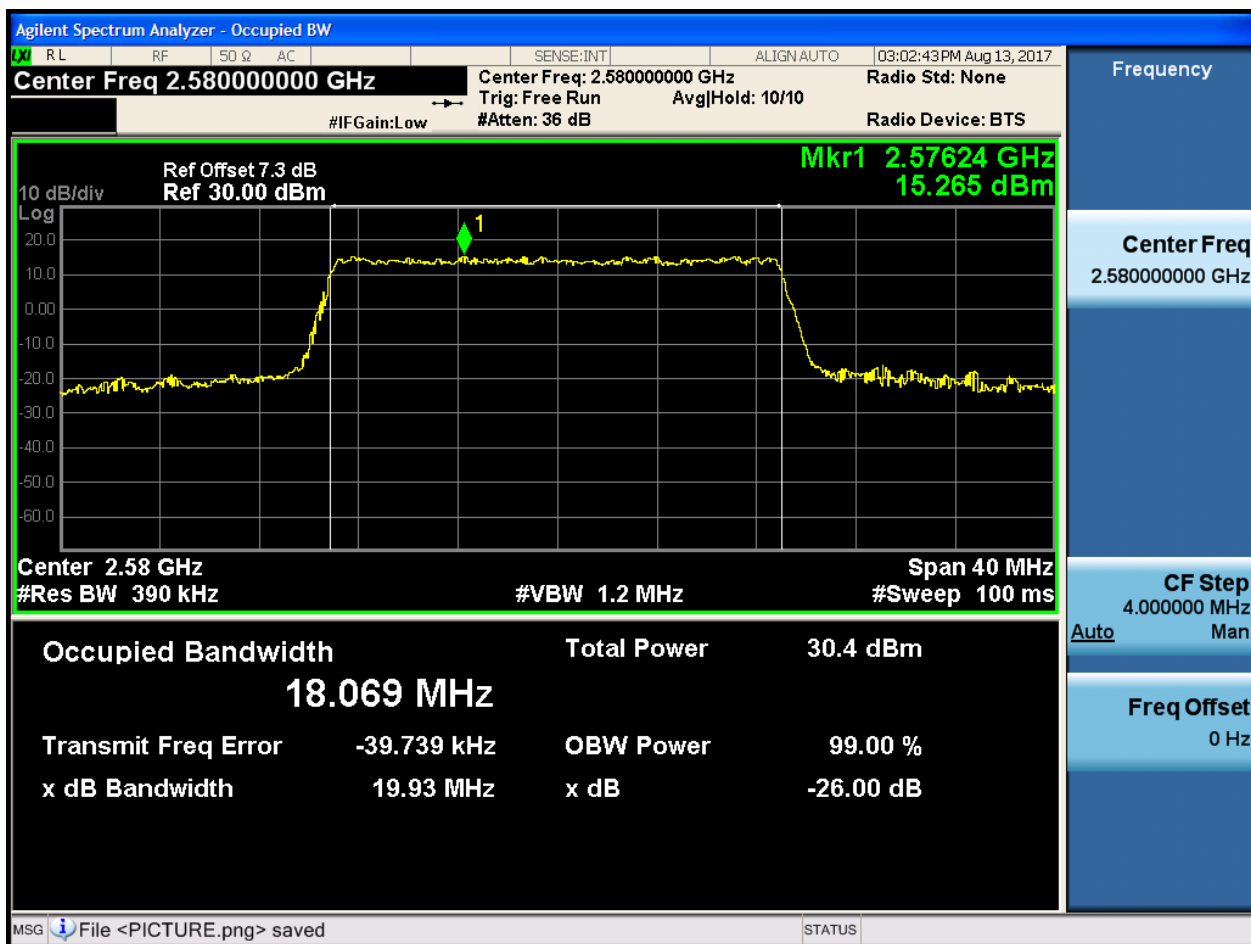




4.1.1.2.4 Test Bandwidth = 20

4.1.1.2.4.1 Test Channel = LCH

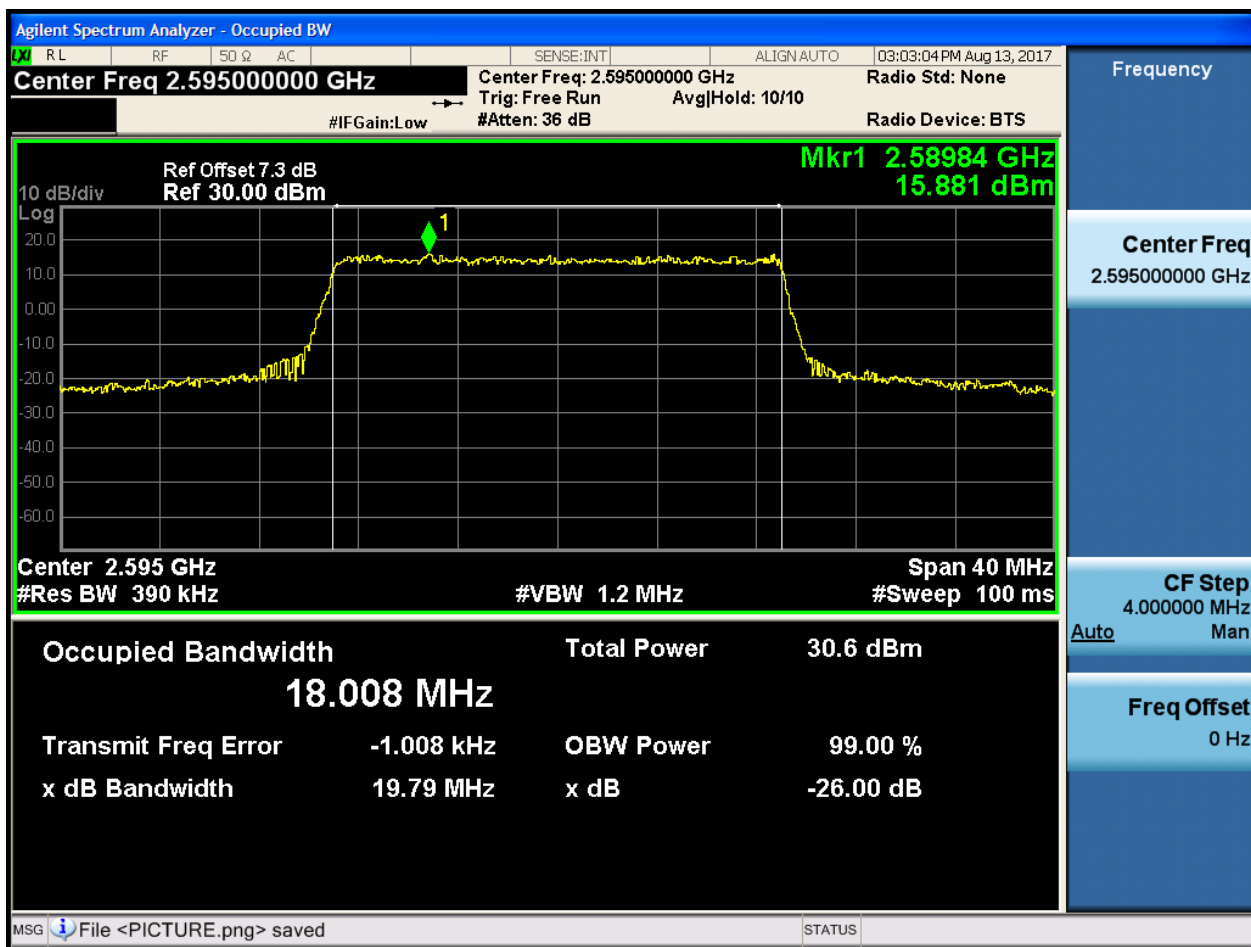
4.1.1.2.4.1.1 Test RB = RB100#0





4.1.1.2.4.2 Test Channel = MCH

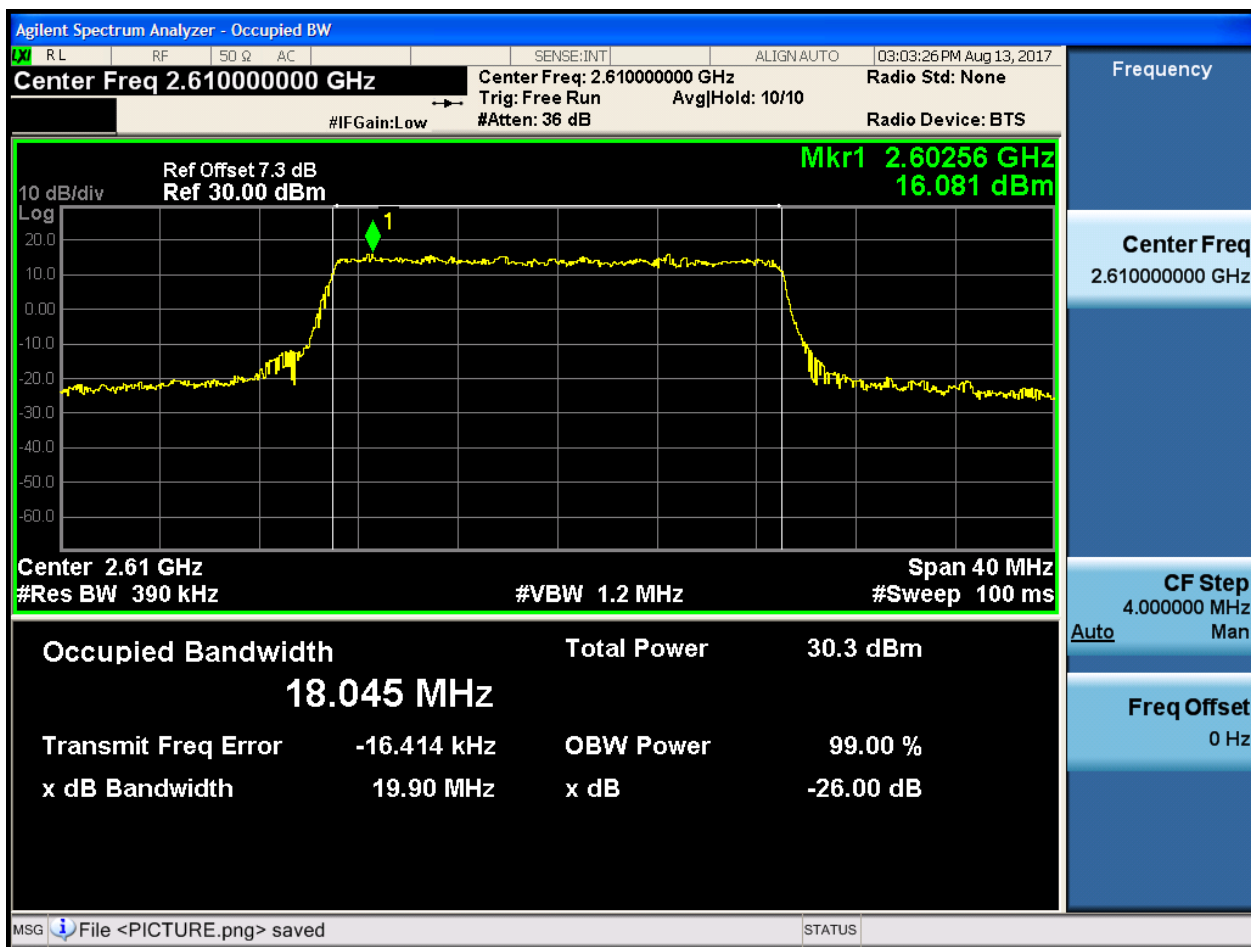
4.1.1.2.4.2.1 Test RB = RB100#0





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

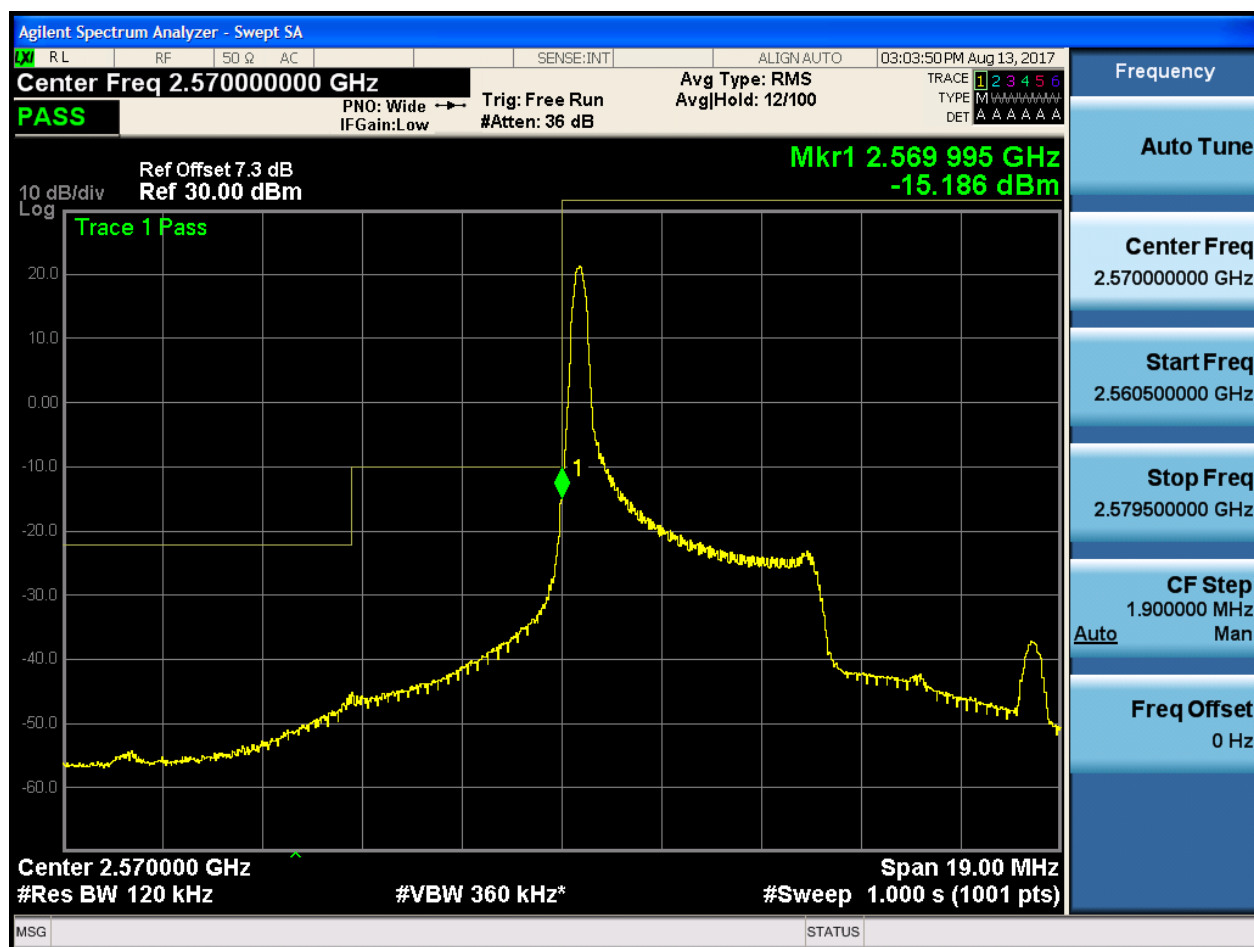
5.1.1 Test Band = BAND38

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 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-34.144 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz
#Res BW 120 kHz
#VBW 360 kHz*
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.56050000 GHz

Stop Freq
2.57950000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

[illegible]



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:04:45 PM Aug 13, 2017

Center Freq 2.570000000 GHz Avg Type: RMS
PASS PNO: Wide Trg: Free Run Avg/Hold: 12/100
IFGain:Low #Atten: 36 dB

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

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-26.426 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.570000 GHz
#Res BW 120 kHz #VBW 360 kHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

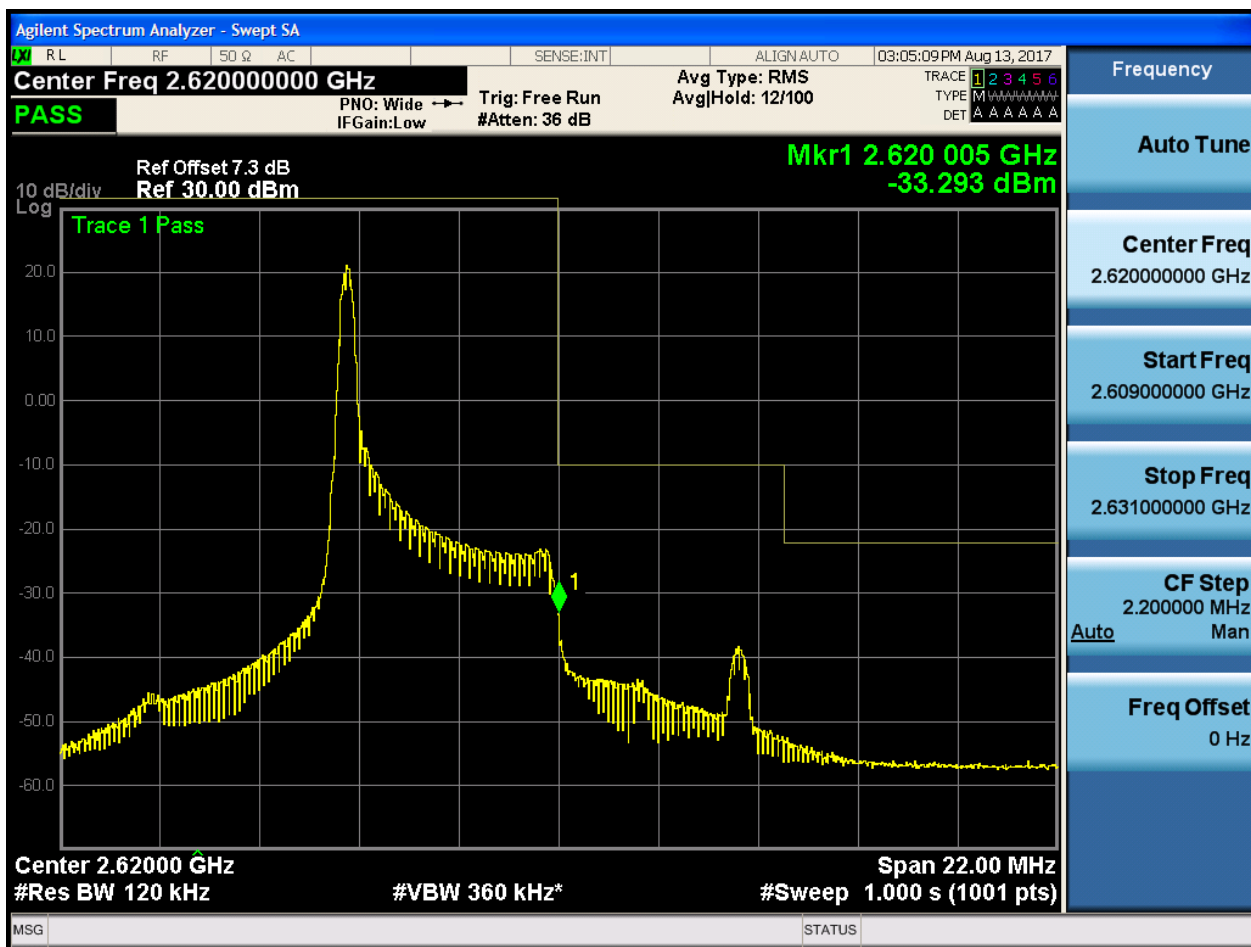
MSG STATUS

Frequency
Auto Tune
Center Freq
2.570000000 GHz
Start Freq
2.560500000 GHz
Stop Freq
2.579500000 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





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:05:27 PM Aug 13, 2017

Center Freq 2.620000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-16.641 dBm

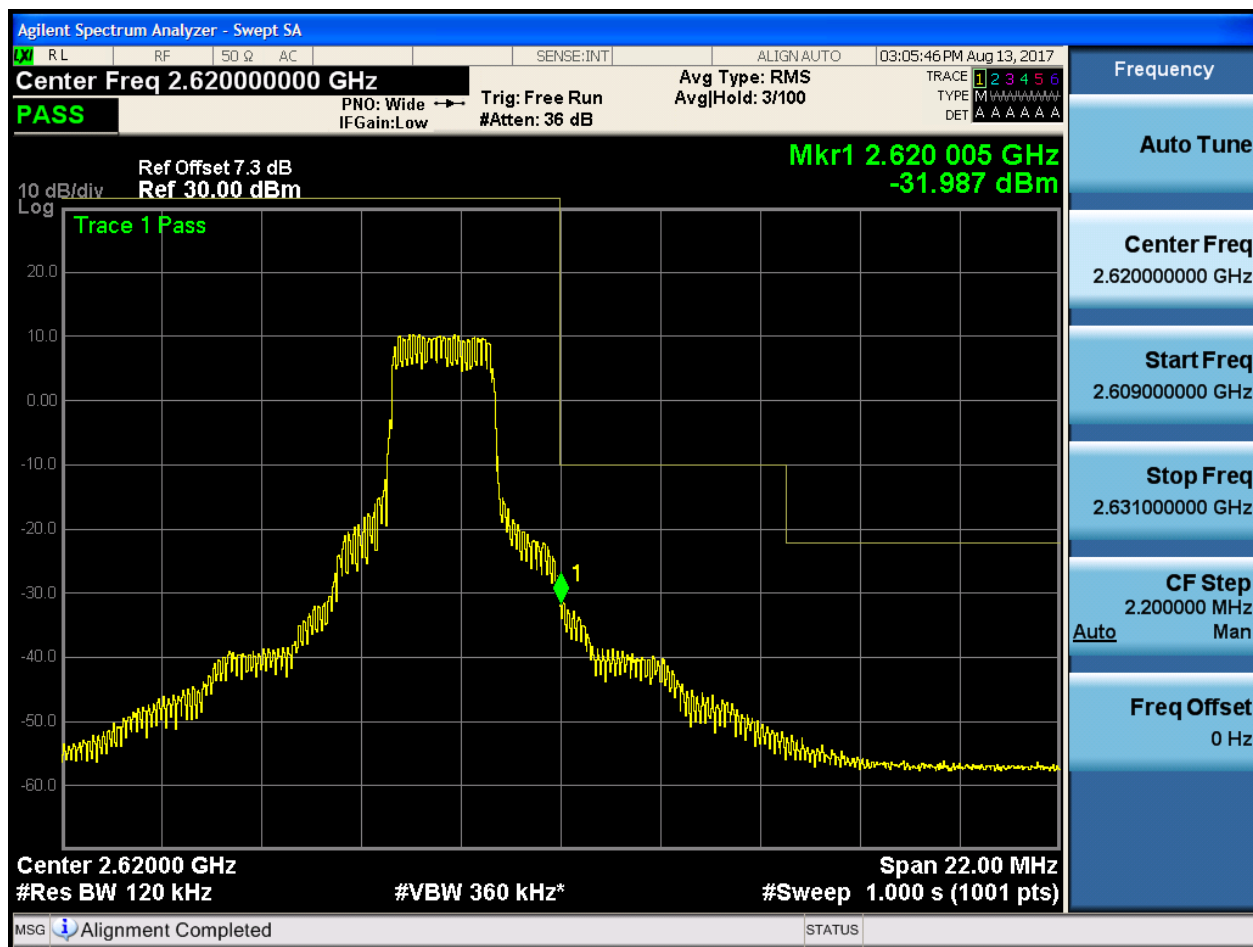
10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz
#Res BW 120 kHz #VBW 360 kHz* Span 22.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

5.1.1.1.1.2.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:06:04 PM Aug 13, 2017

Center Freq 2.620000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
TRACE 1 2 3 4 5 6
TYPE M M M M M M M M
DET A A A A A A

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-28.501 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz
#Res BW 120 kHz
#VBW 360 kHz*
Span 22.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.609000000 GHz

Stop Freq
2.631000000 GHz

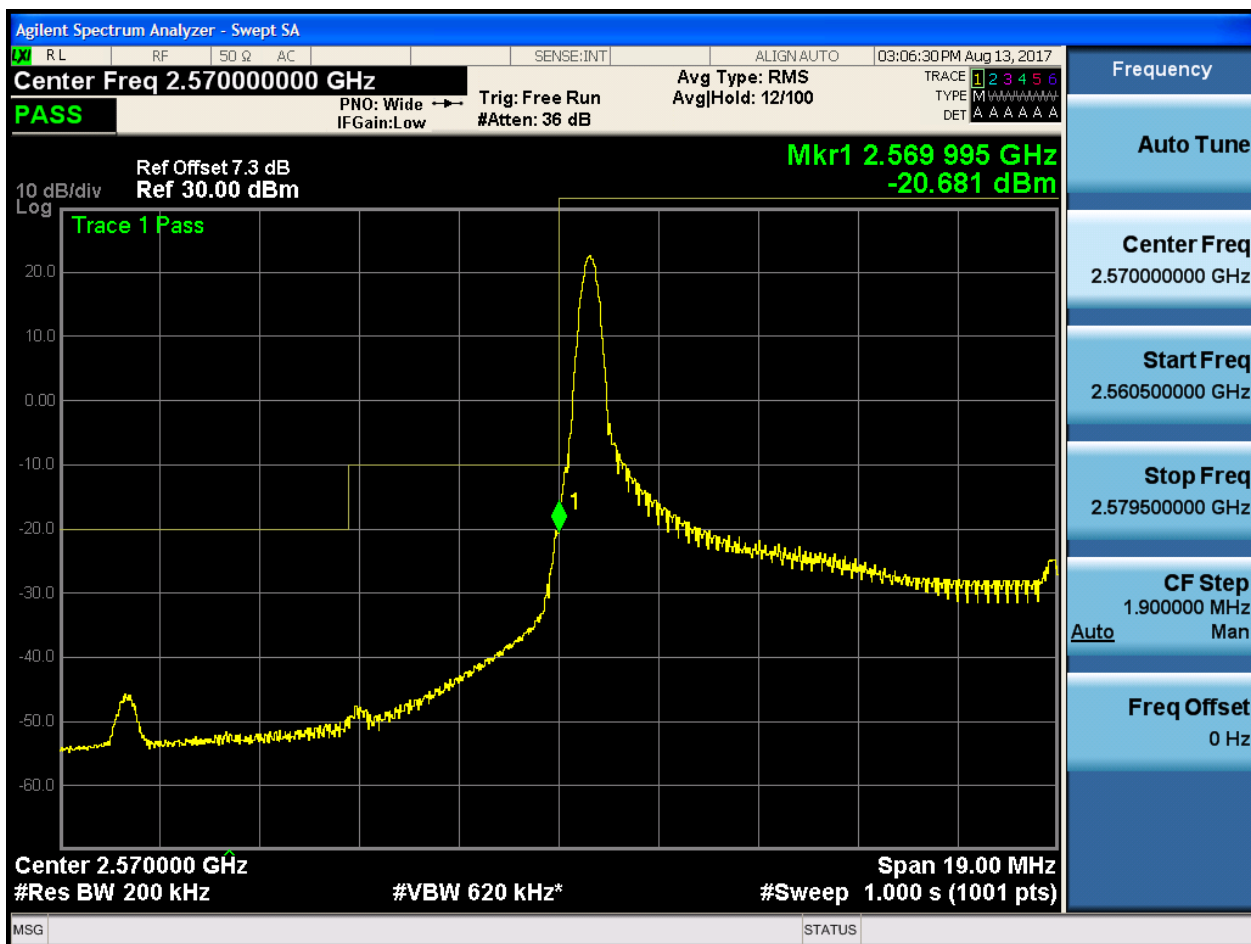
CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL	RF	50 Ω	AC		SENSE:INT	ALIGN AUTO	03:06:49 PM Aug 13, 2017
----	----	------	----	--	-----------	------------	--------------------------

Center Freq 2.57000000 GHz Avg Type: RMS
PASS PNO: Wide → Trig: Free Run Avg/Hold: 12/100
IFGain: Low #Atten: 36 dB TYPE M DET A A A A A A

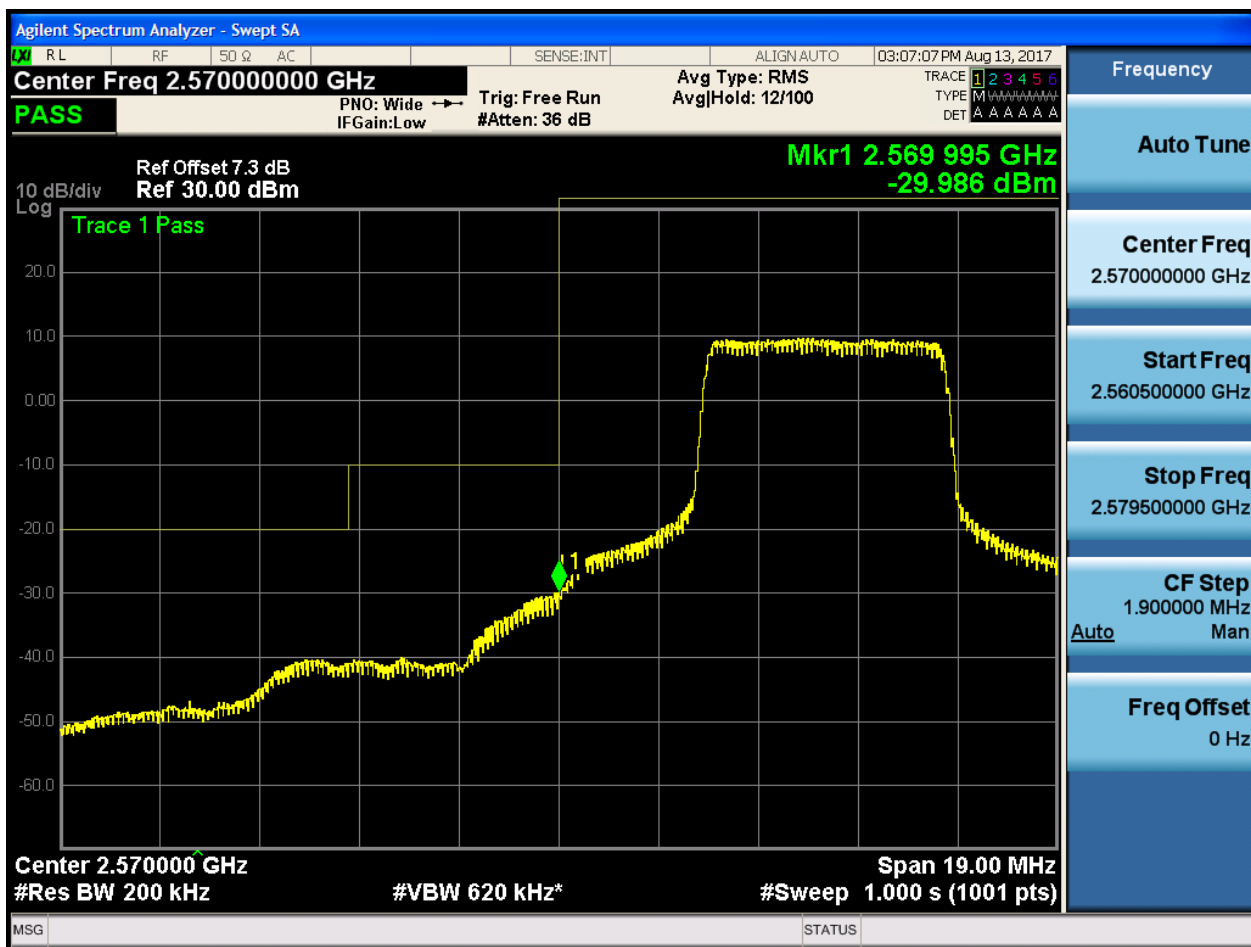
Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-38.107 dBm

Center 2.570000 GHz Span 19.00 MHz
#Res BW 200 kHz #VBW 620 kHz* #Sweep 1.000 s (1001 pts)

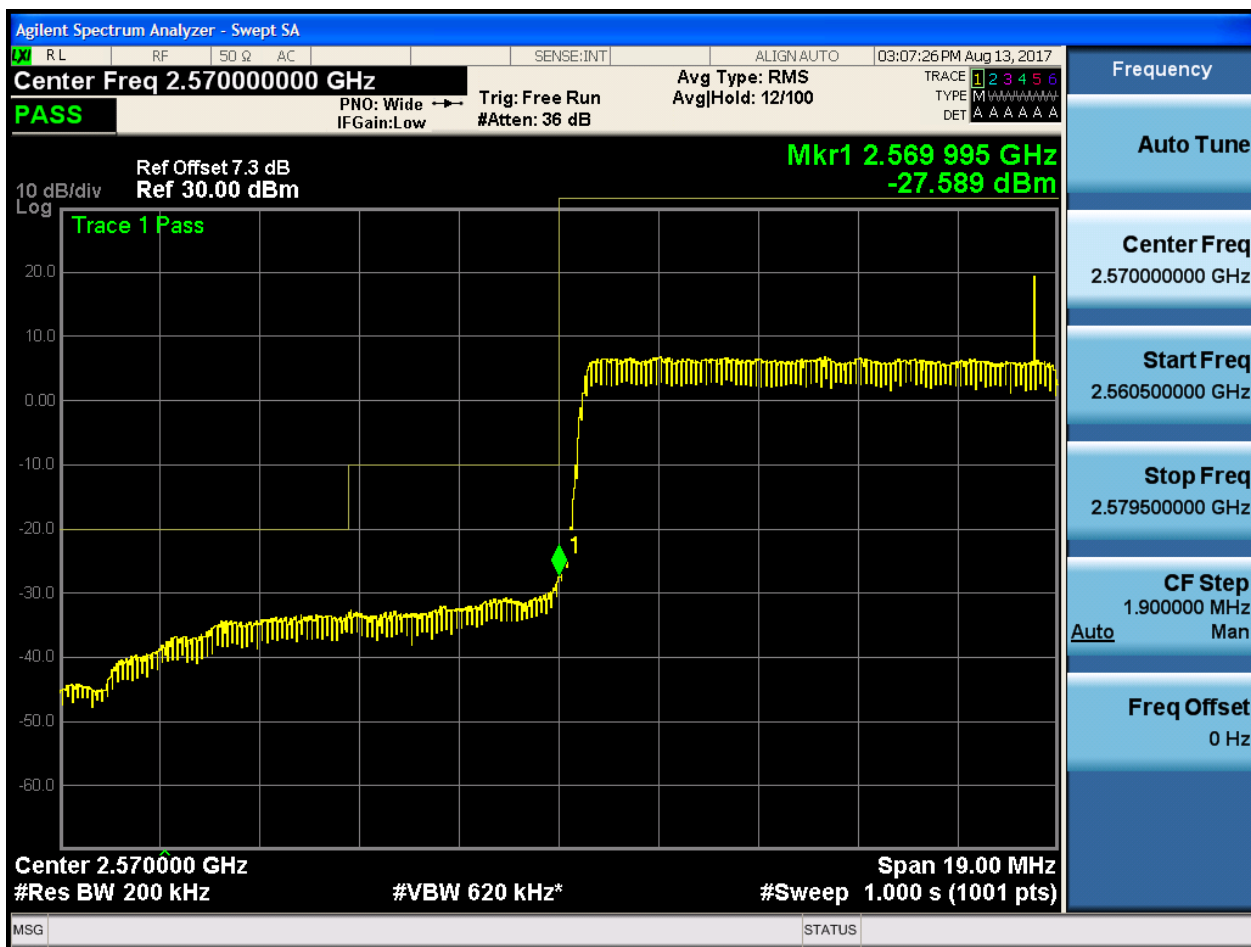


5.1.1.1.2.1.3 Test RB = RB25#13





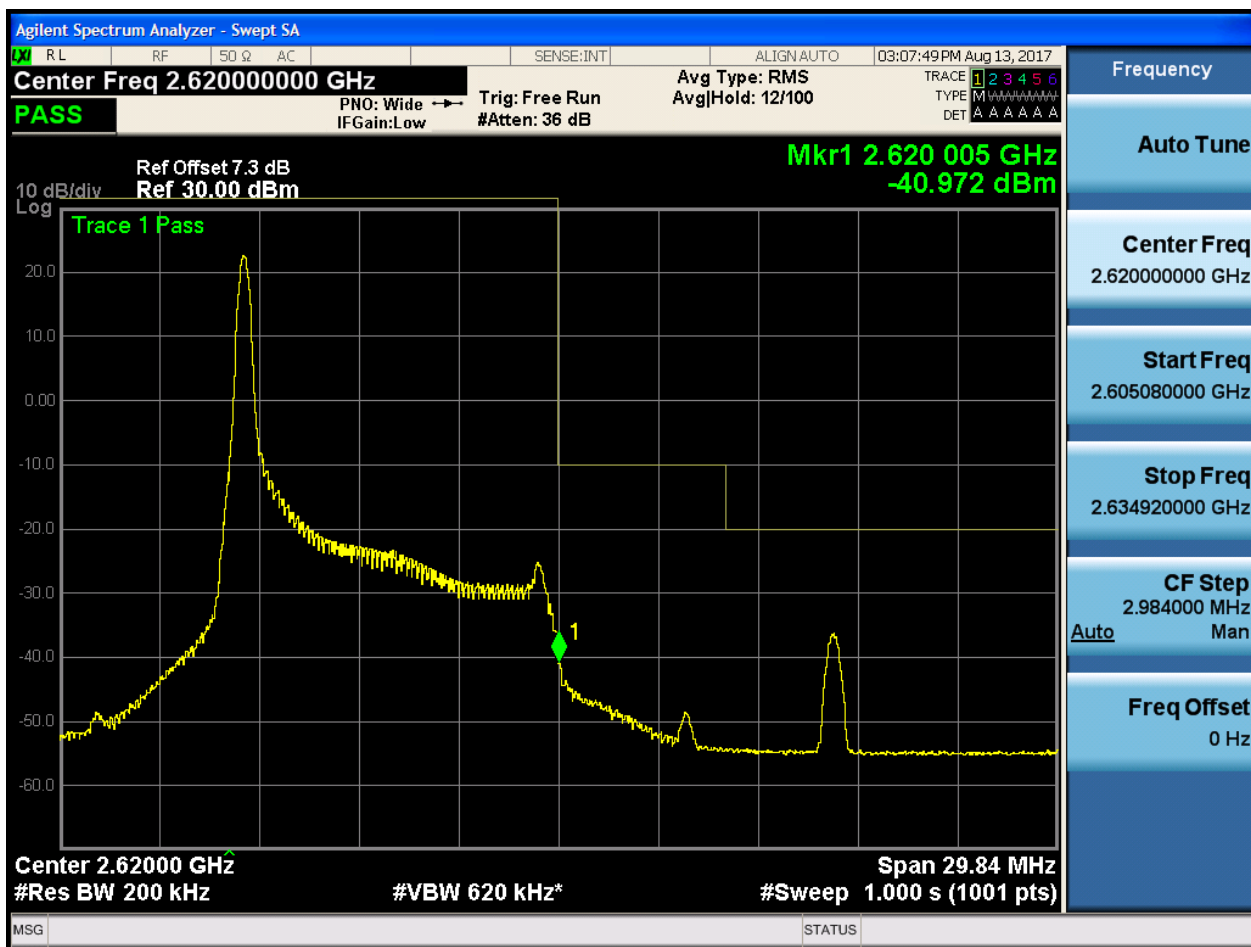
5.1.1.1.2.1.4 Test RB = RB50#0





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

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:08:08 PM Aug 13, 2017

Center Freq 2.620000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-18.258 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz Span 29.84 MHz
#Res BW 200 kHz #VBW 620 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.605080000 GHz

Stop Freq
2.634920000 GHz

CF Step
2.984000 MHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.620000000 GHz

PASS

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-31.921 dBm

Trace 1 Pass

Center 2.62000 GHz
#Res BW 200 kHz
#VBW 620 kHz*
Span 29.84 MHz
#Sweep 1.000 s (1001 pts)

10 dB/div
Log

Center Freq 2.620000000 GHz

Start Freq 2.605080000 GHz

Stop Freq 2.634920000 GHz

CF Step 2.984000 MHz

Freq Offset 0 Hz

Auto Tune

MSG STATUS

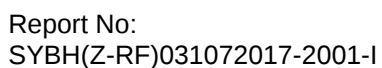


5.1.1.1.2.2.4 Test RB = RB50#0





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 03:09:31PM Aug 13, 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
DET A A A A A A

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-39.728 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.570000 GHz Span 19.00 MHz
#Res BW 330 kHz #VBW 1.0 MHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 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 03:09:50 PM Aug 13, 2017

Center Freq 2.570000000 GHz Avg Type: RMS
#Res BW 330 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Wide Trace 1 2 3 4 5 6
IFGain:Low #Atten: 36 dB TYPE M W W W W W W W W W
DET A A A A A A

PASS

Ref Offset 7.3 dB Mkr1 2.569 995 GHz
Ref 30.00 dBm -29.822 dBm

10 dB/div Log

Trace 1 Pass

Center 2.570000 GHz Span 19.00 MHz
#Res BW 330 kHz #VBW 1.0 MHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

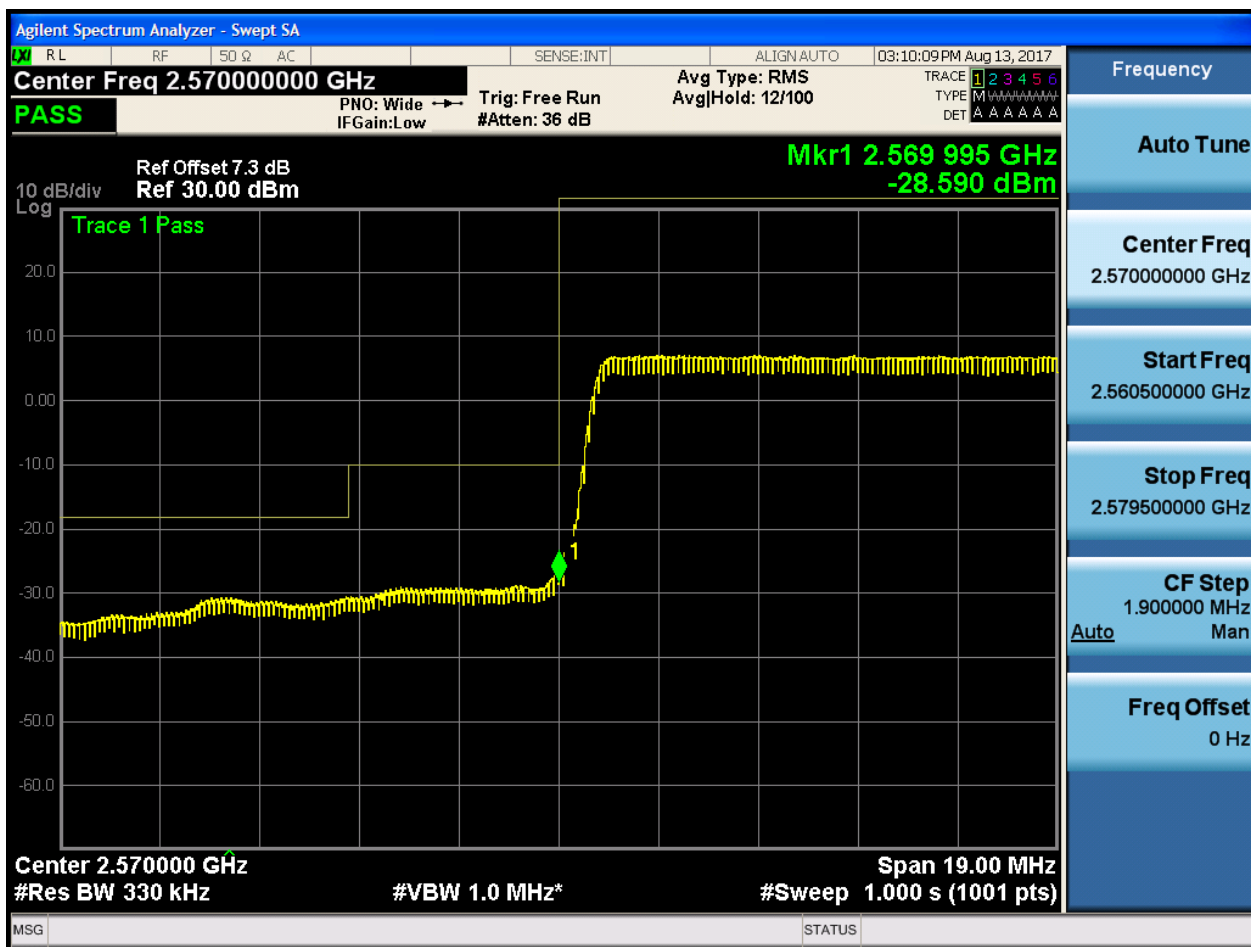
Stop Freq
2.579500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



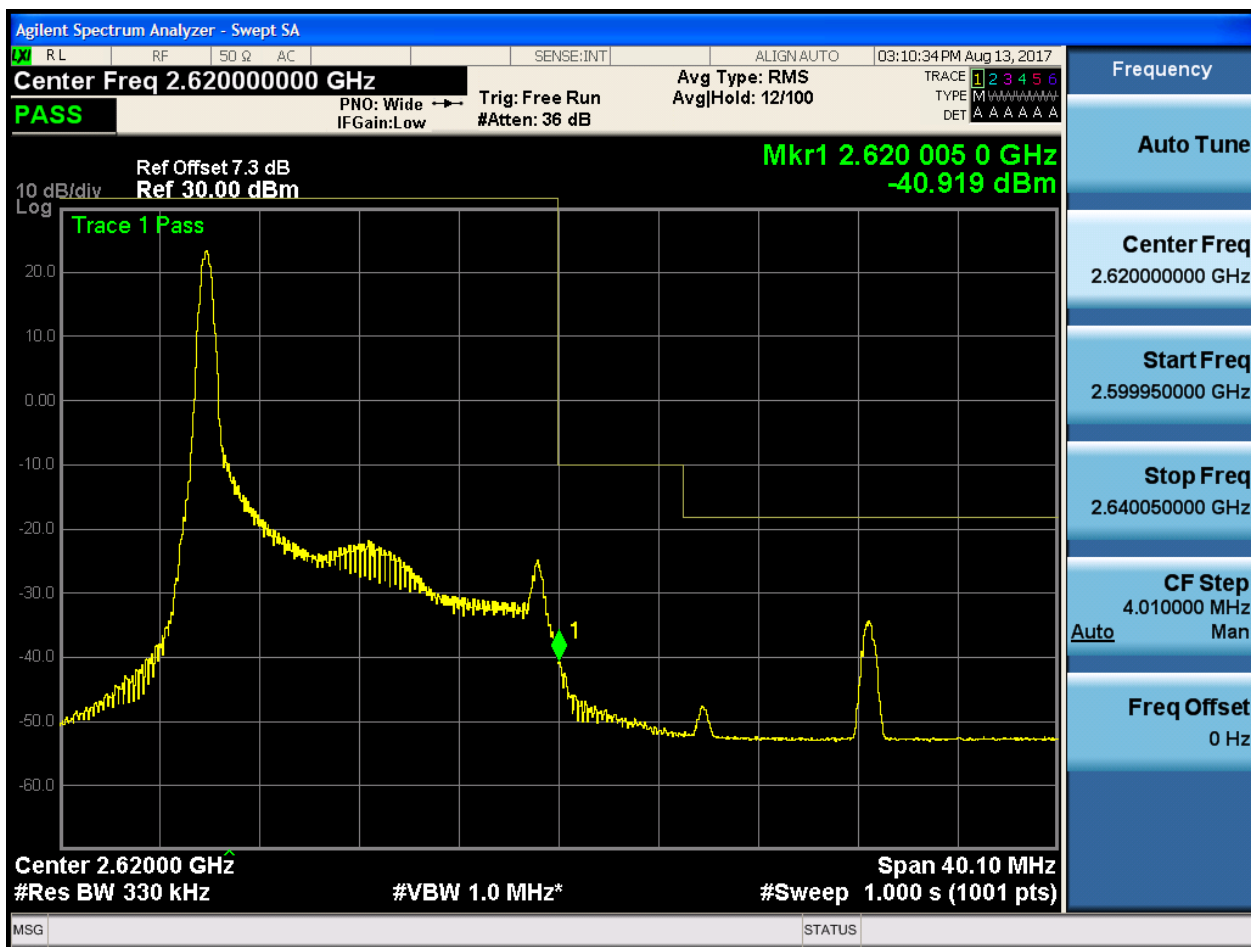
5.1.1.1.3.1.4 Test RB = RB75#0





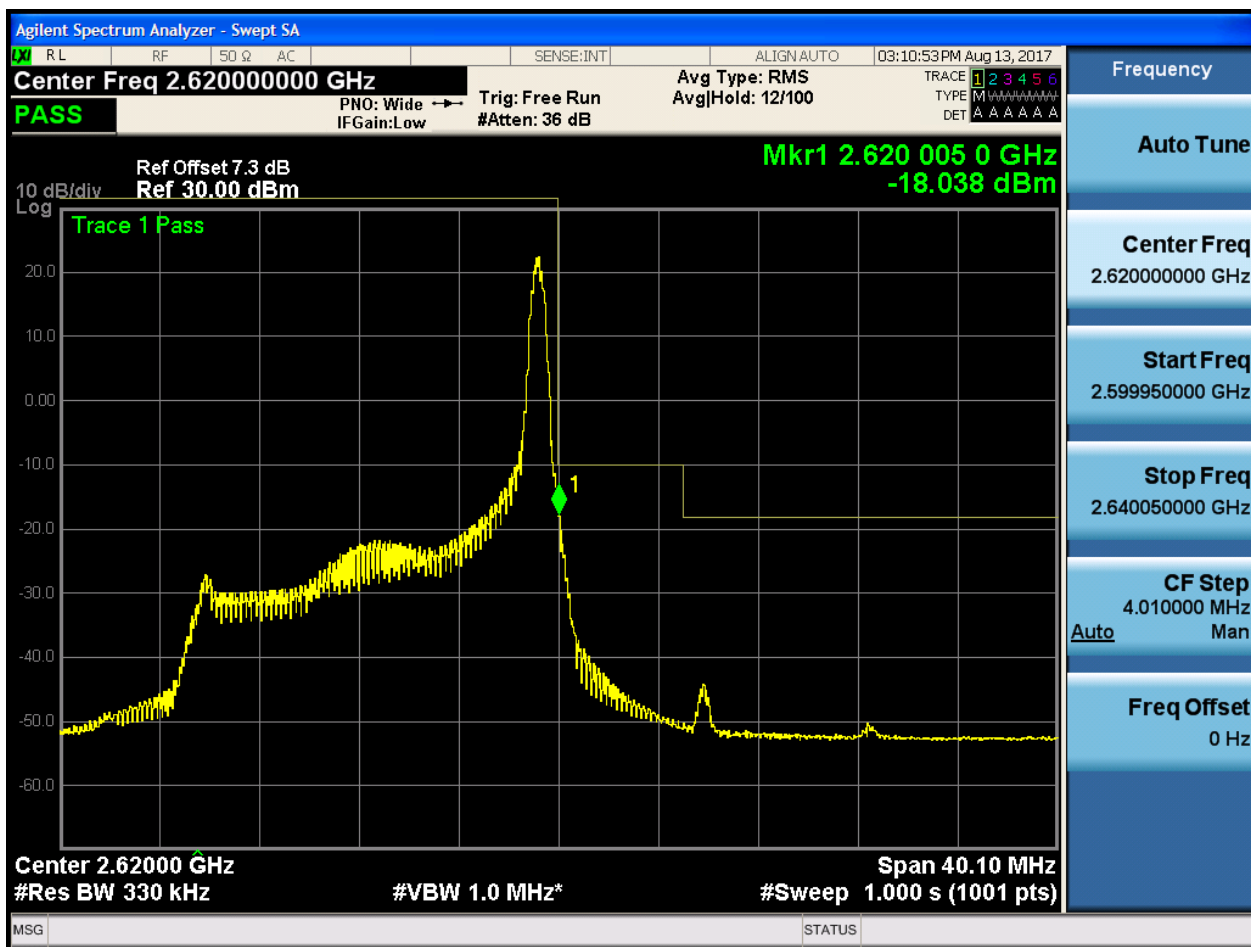
5.1.1.1.3.2 Test Channel = HCH

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 03:11:31PM Aug 13, 2017

Center Freq 2.620000000 GHz Avg Type: RMS
#Res BW 330 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Wide Trace 1 2 3 4 5 6
IFGain:Low #Atten: 36 dB TYPE M W W W W W W W W W
DET A A A A A A

PASS

Ref Offset 7.3 dB Mkr1 2.620 005 0 GHz
Ref 30.00 dBm -27.816 dBm

10 dB/div Log

Trace 1 Pass

Center 2.62000 GHz Span 40.10 MHz
#Res BW 330 kHz #VBW 1.0 MHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.599950000 GHz

Stop Freq
2.640050000 GHz

CF Step
4.010000 MHz
Auto Man

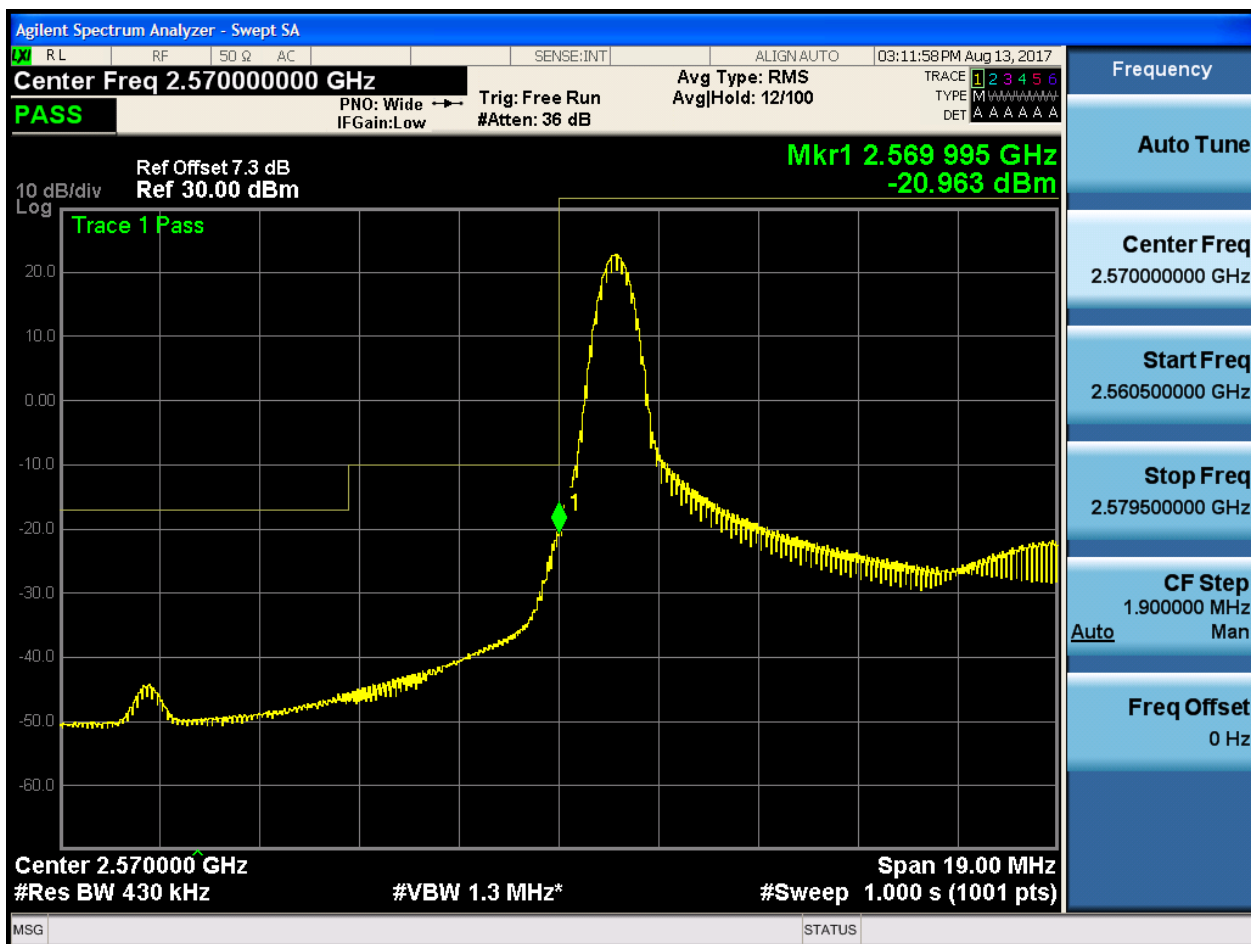
Freq Offset
0 Hz



5.1.1.1.4 Test Bandwidth = 20

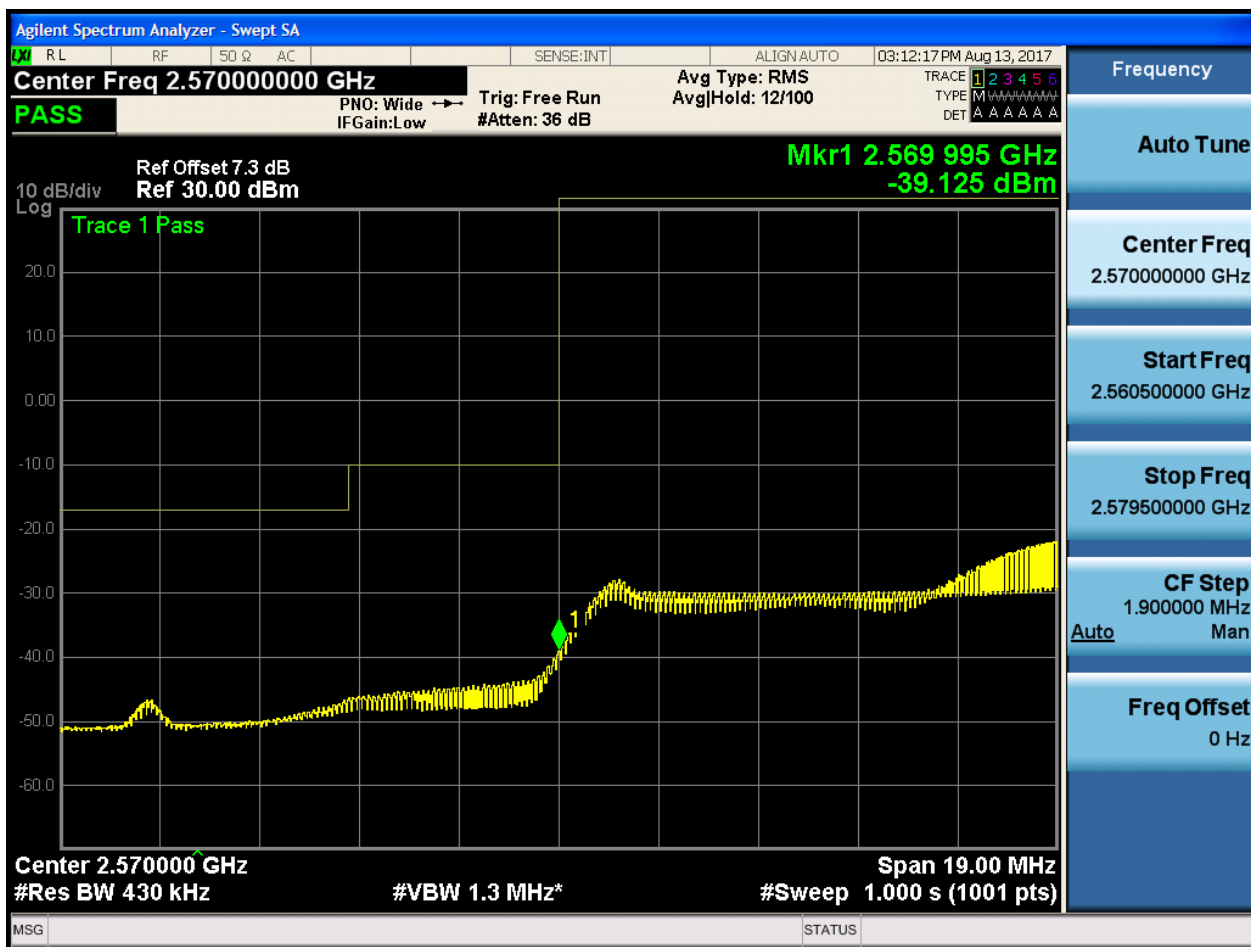
5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0



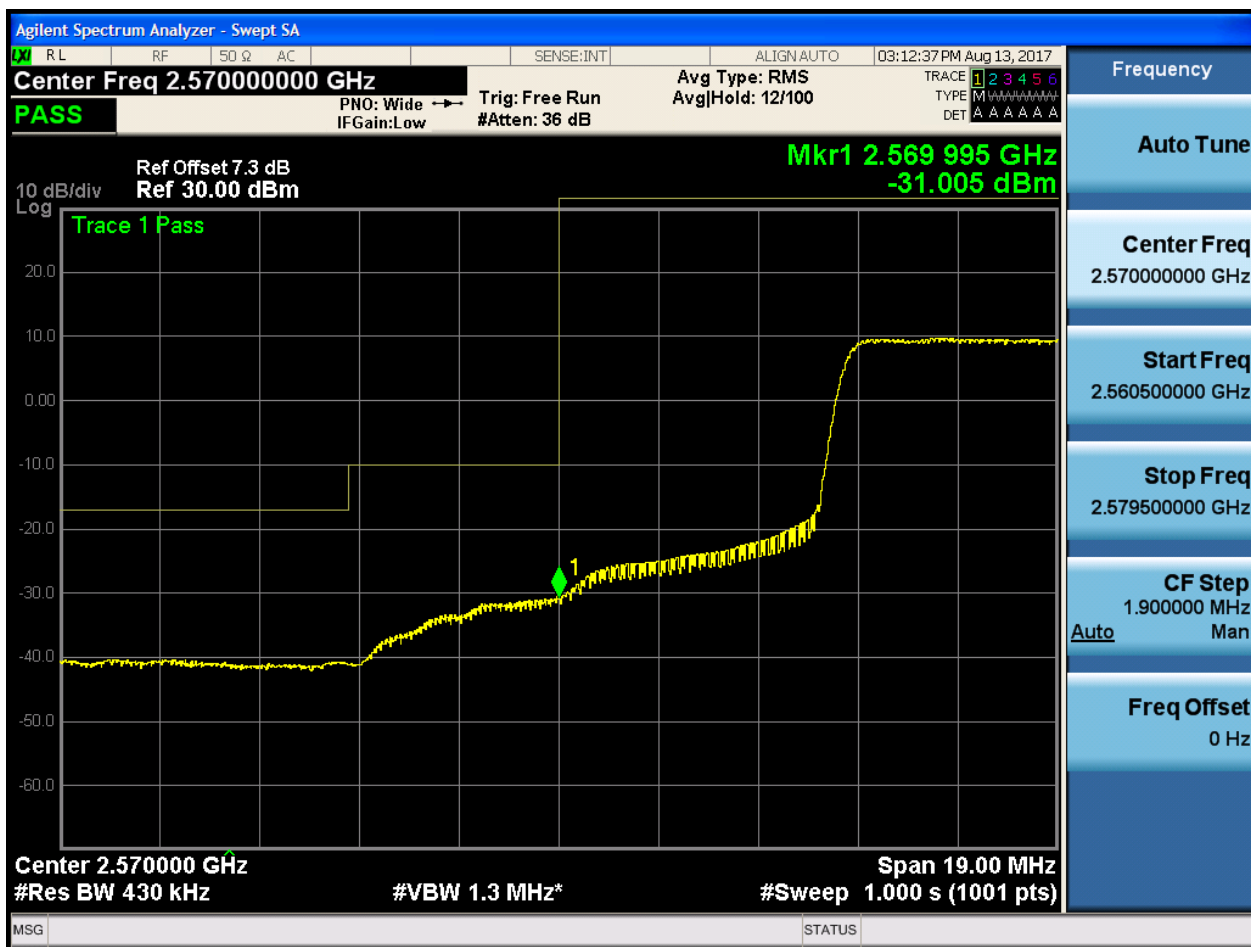


5.1.1.1.4.1.2 Test RB = RB1#99



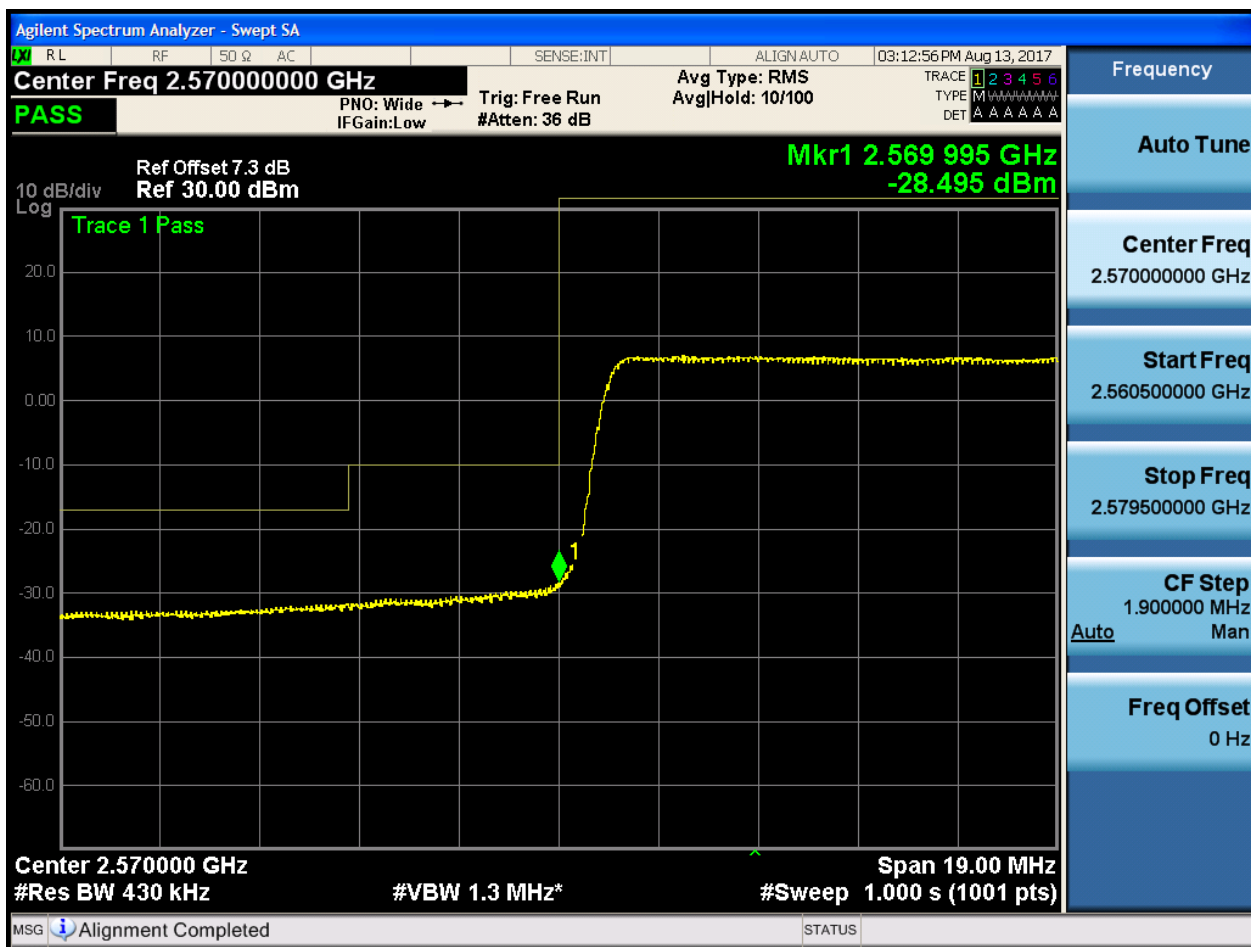


5.1.1.1.4.1.3 Test RB = RB50#25





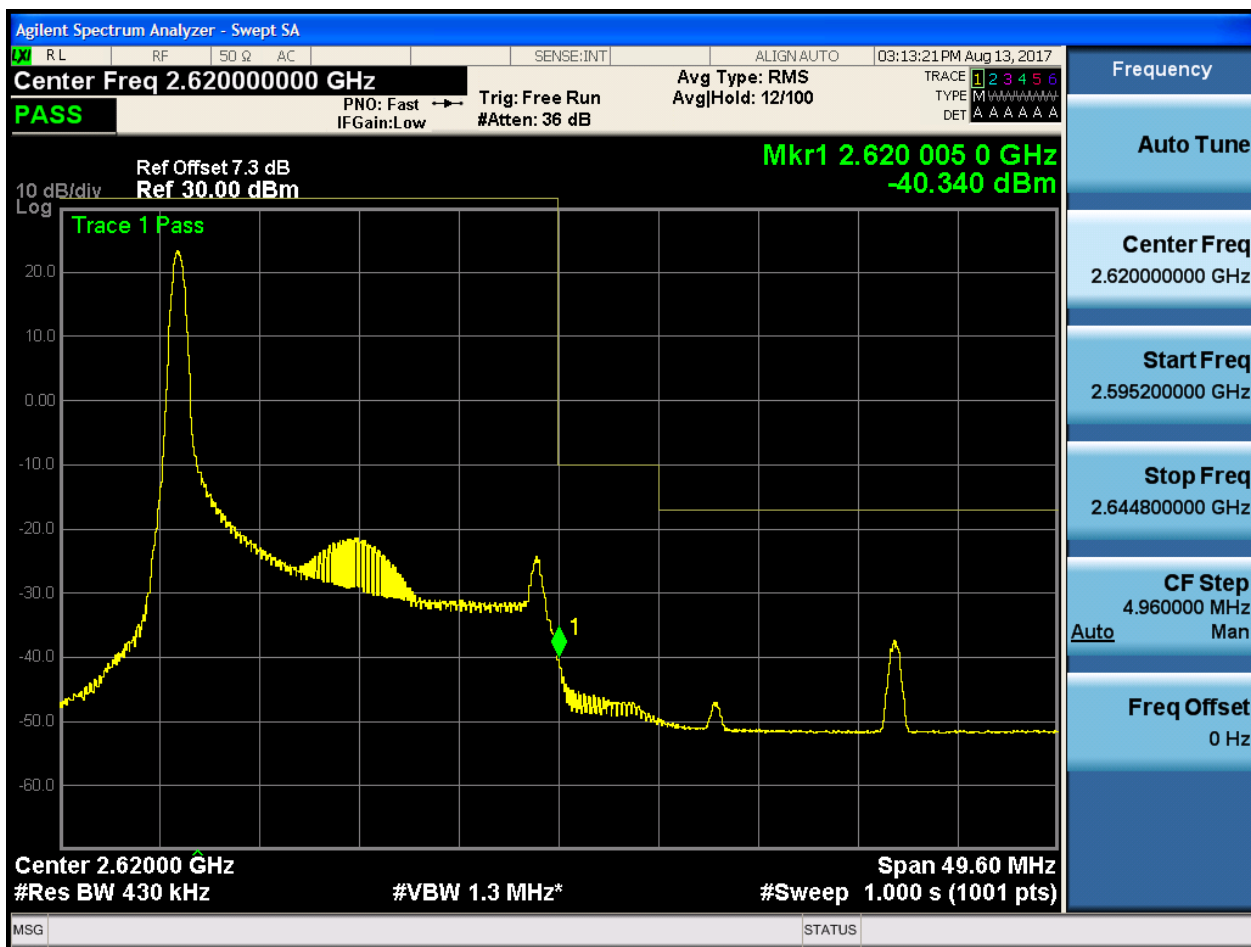
5.1.1.1.4.1.4 Test RB = RB100#0





5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:13:40 PM Aug 13, 2017

Center Freq 2.620000000 GHz Avg Type: RMS
PASS PNO: Fast IFGain:Low Trig: Free Run AvgHold: 12/100
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 0 GHz
-20.313 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz*
Span 49.60 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.595200000 GHz

Stop Freq
2.644800000 GHz

CF Step
4.960000 MHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 03:14:00 PM Aug 13, 2017

Center Freq 2.62000000 GHz Avg Type: RMS
PASS PNO: Fast Trig: Free Run AvgHold: 12/100
IFGain:Low #Atten: 36 dB

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

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 0 GHz
-30.815 dBm

10 dB/div
Log

Trace 1 Pass

The spectrum analyzer displays a signal trace on a grid. The vertical axis is labeled 'Log' and ranges from -60.0 to 20.0 dBm. The horizontal axis represents frequency. A yellow trace shows a signal that rises from approximately -40 dBm at 2.595 GHz to a flat top at about 8 dBm between 2.615 GHz and 2.625 GHz, then falls back to -40 dBm by 2.645 GHz. A green diamond marker labeled '1' is placed on the falling edge of the signal at approximately 2.620 GHz and -30.8 dBm.

Center 2.6200 GHz
#Res BW 430 kHz

#VBW 1.3 MHz*

Span 49.60 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.62000000 GHz

Start Freq
2.595200000 GHz

Stop Freq
2.644800000 GHz

CF Step
4.960000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.4.2.4 Test RB = RB100#0



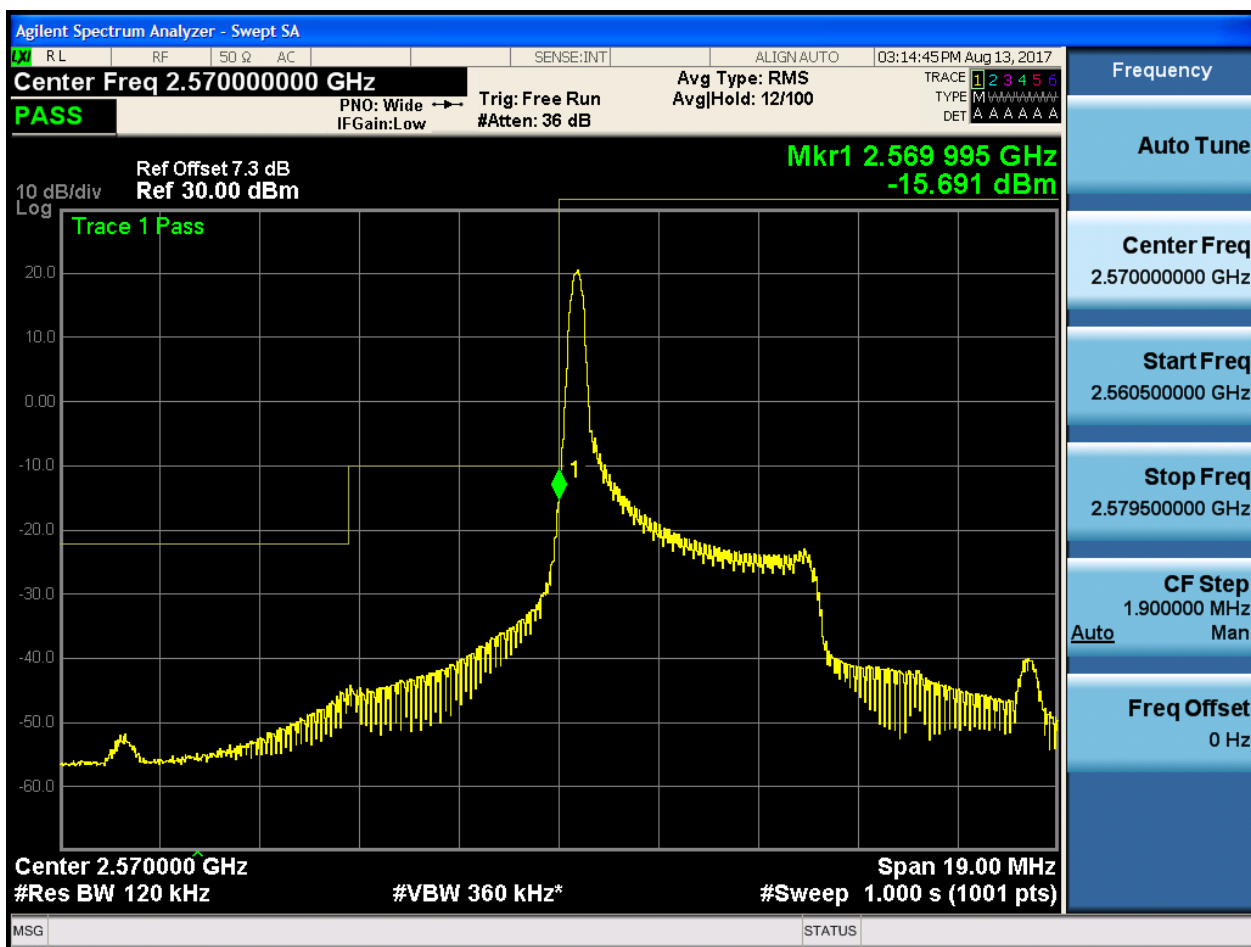


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

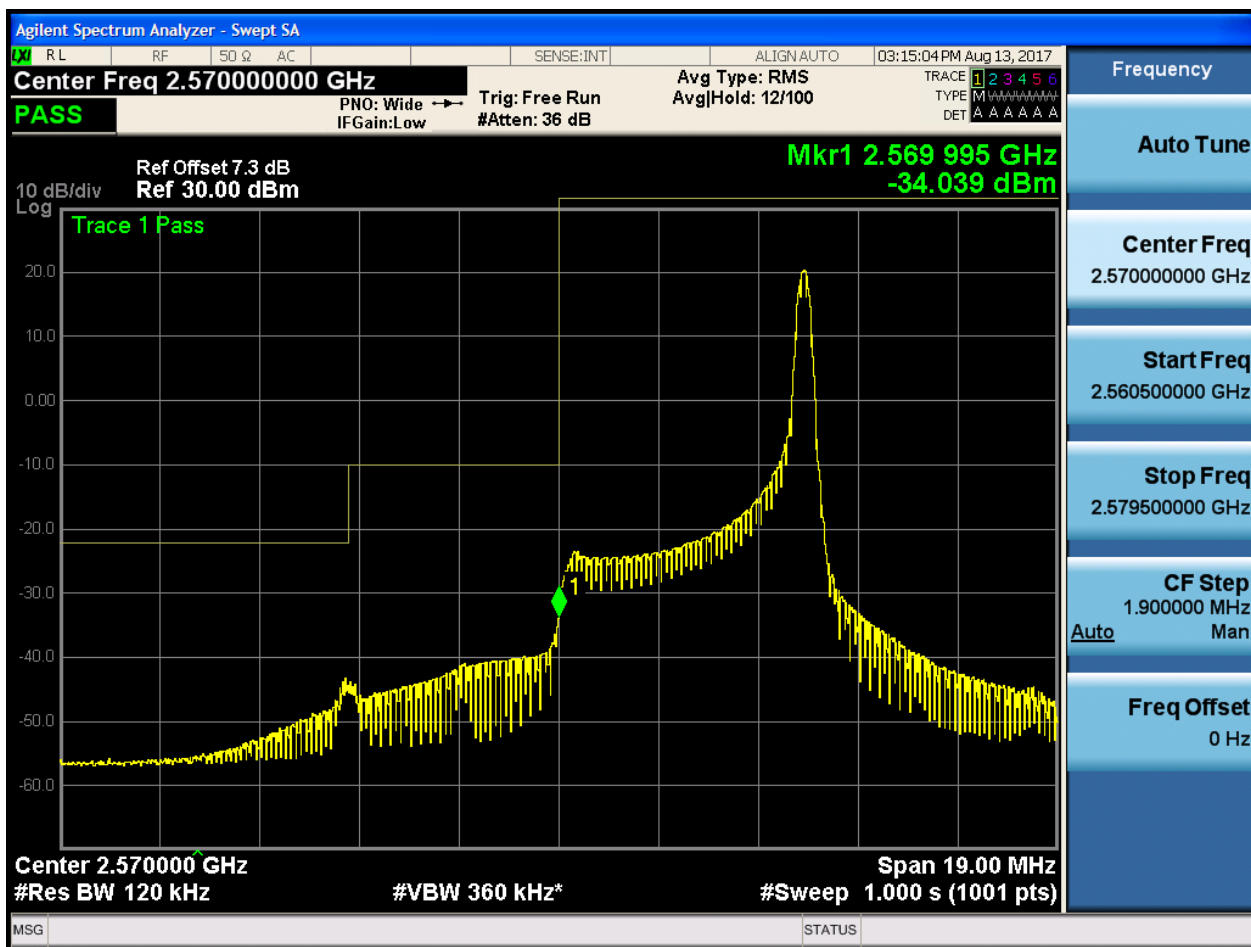
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



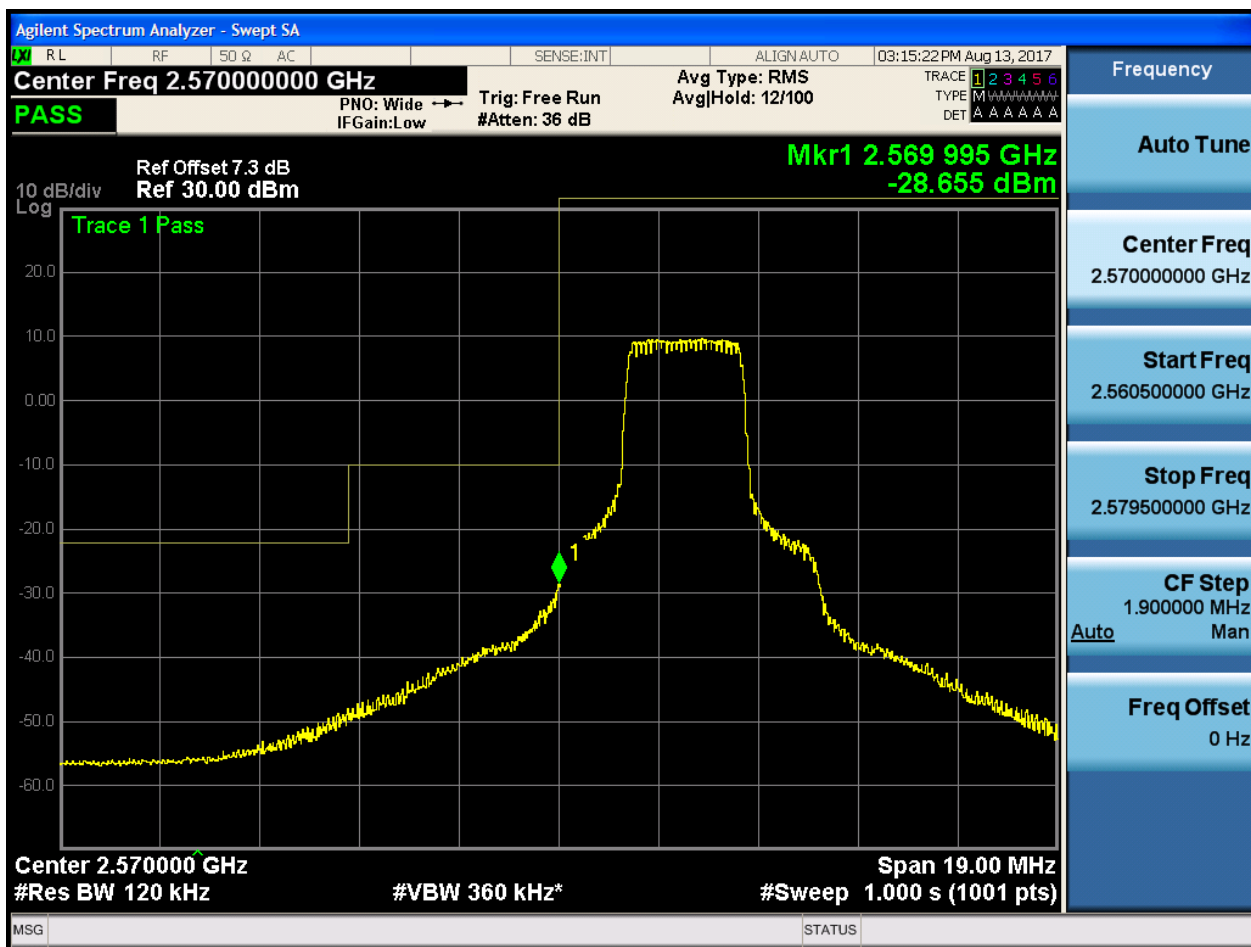


5.1.1.2.1.1.2 Test RB = RB1#24





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 03:15:41 PM Aug 13, 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

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-25.304 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.570000 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
2.570000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 GHz

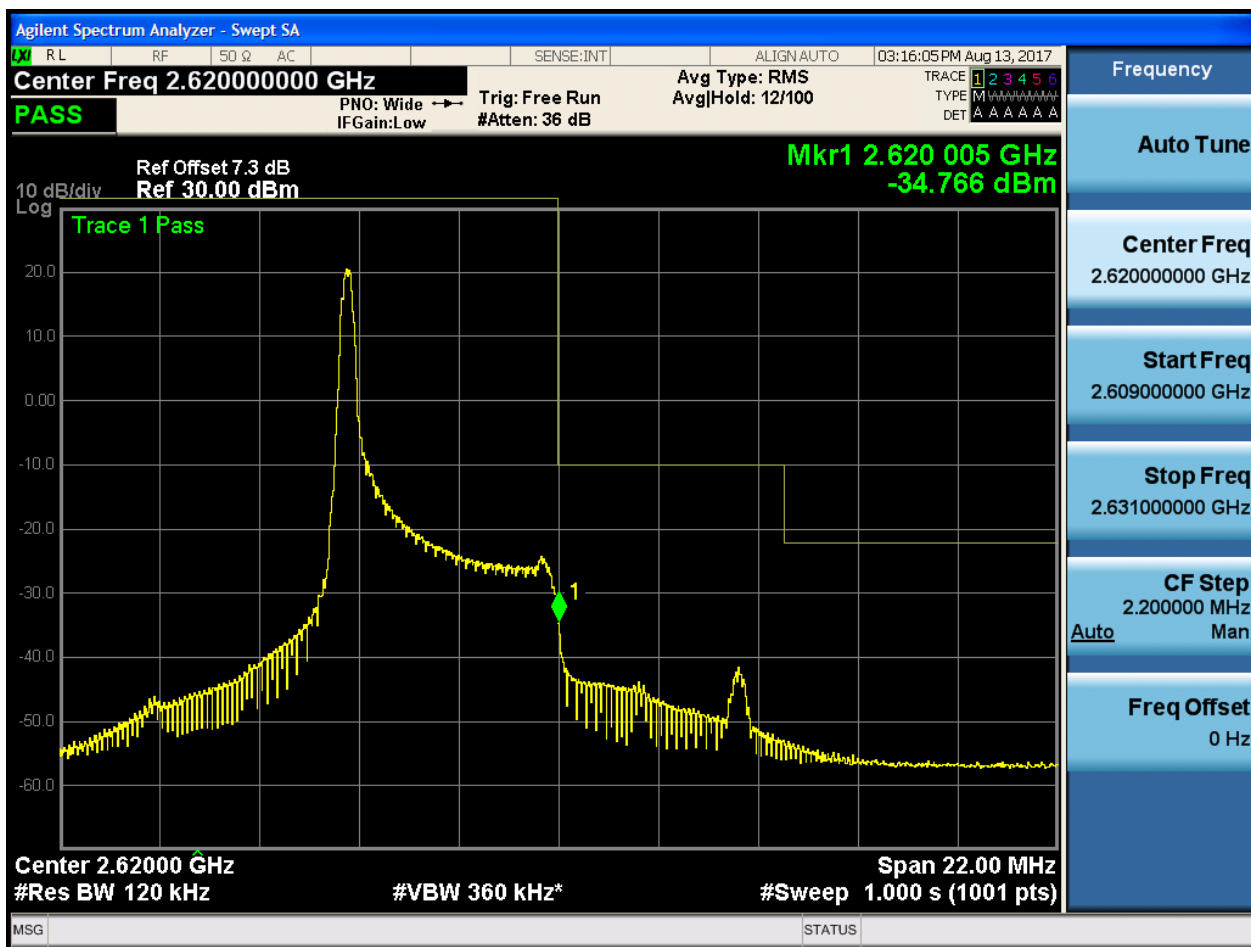
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:16:23 PM Aug 13, 2017

Center Freq 2.620000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-15.680 dBm

10 dB/div
Log

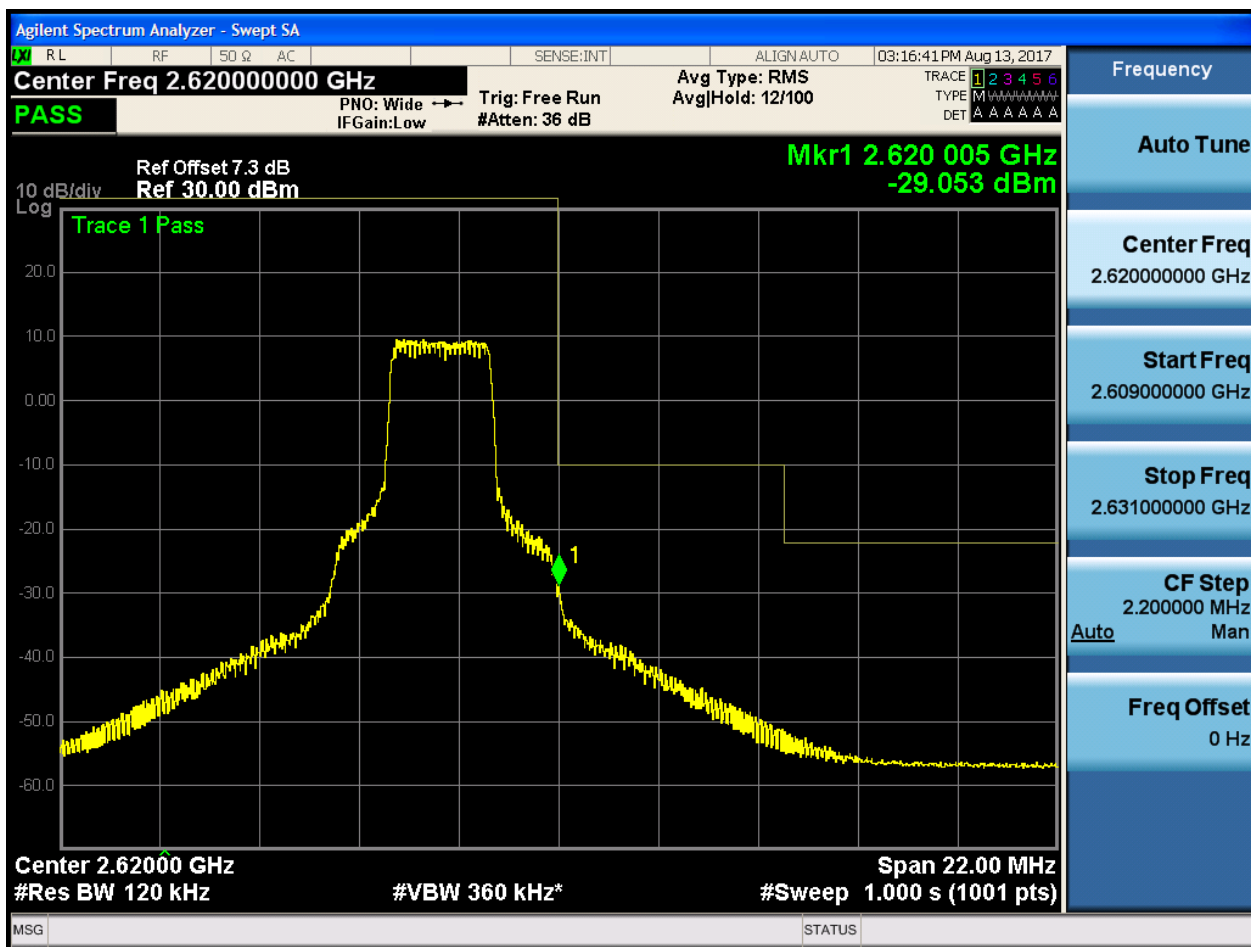
Trace 1 Pass

Center 2.62000 GHz
#Res BW 120 kHz #VBW 360 kHz* Span 22.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS



5.1.1.2.1.2.3 Test RB = RB12#6





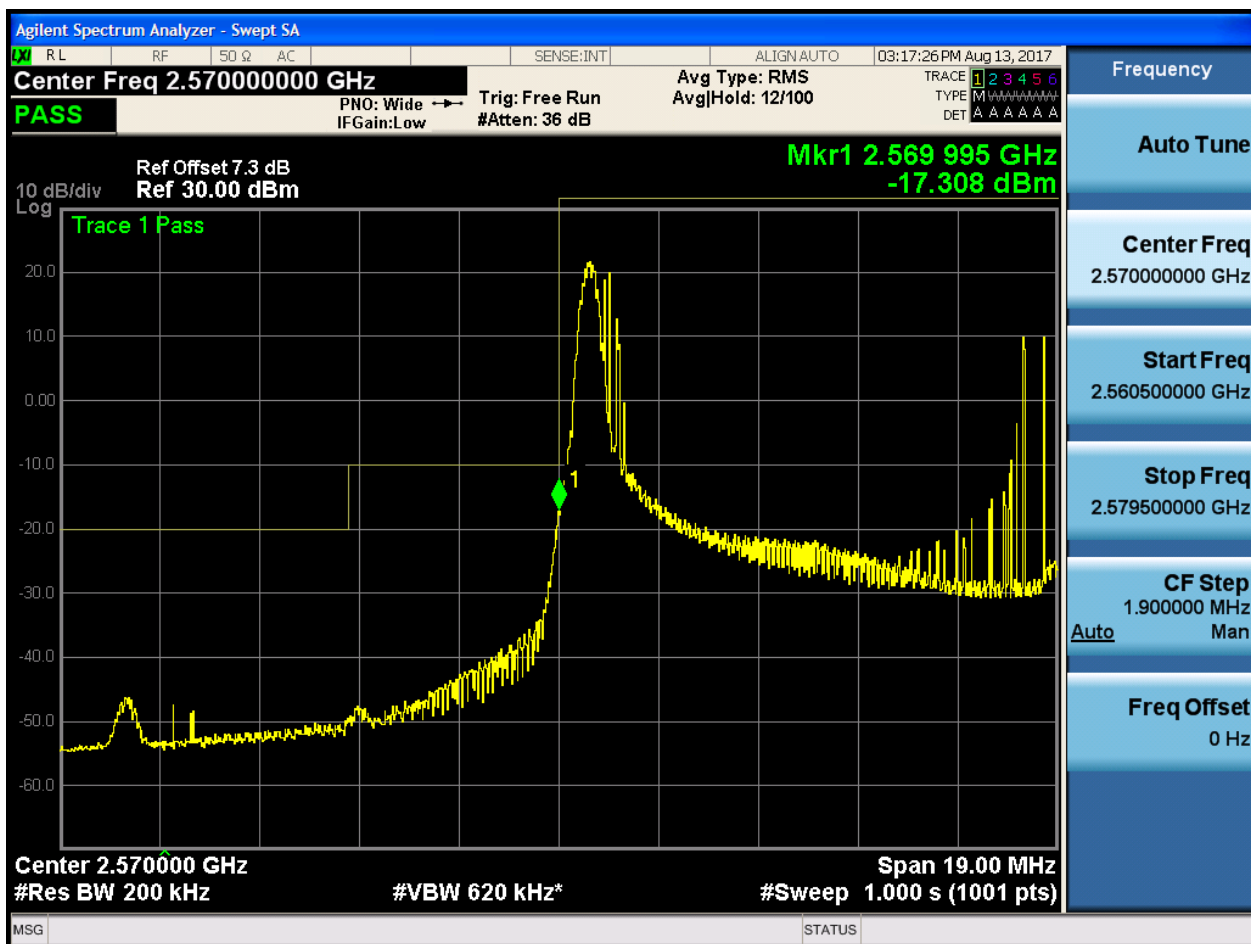
5.1.1.2.1.2.4 Test RB = RB25#0



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 03:17:44 PM Aug 13, 2017

Center Freq 2.570000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-39.068 dBm

10 dB/div
Log

Trace 1 Pass

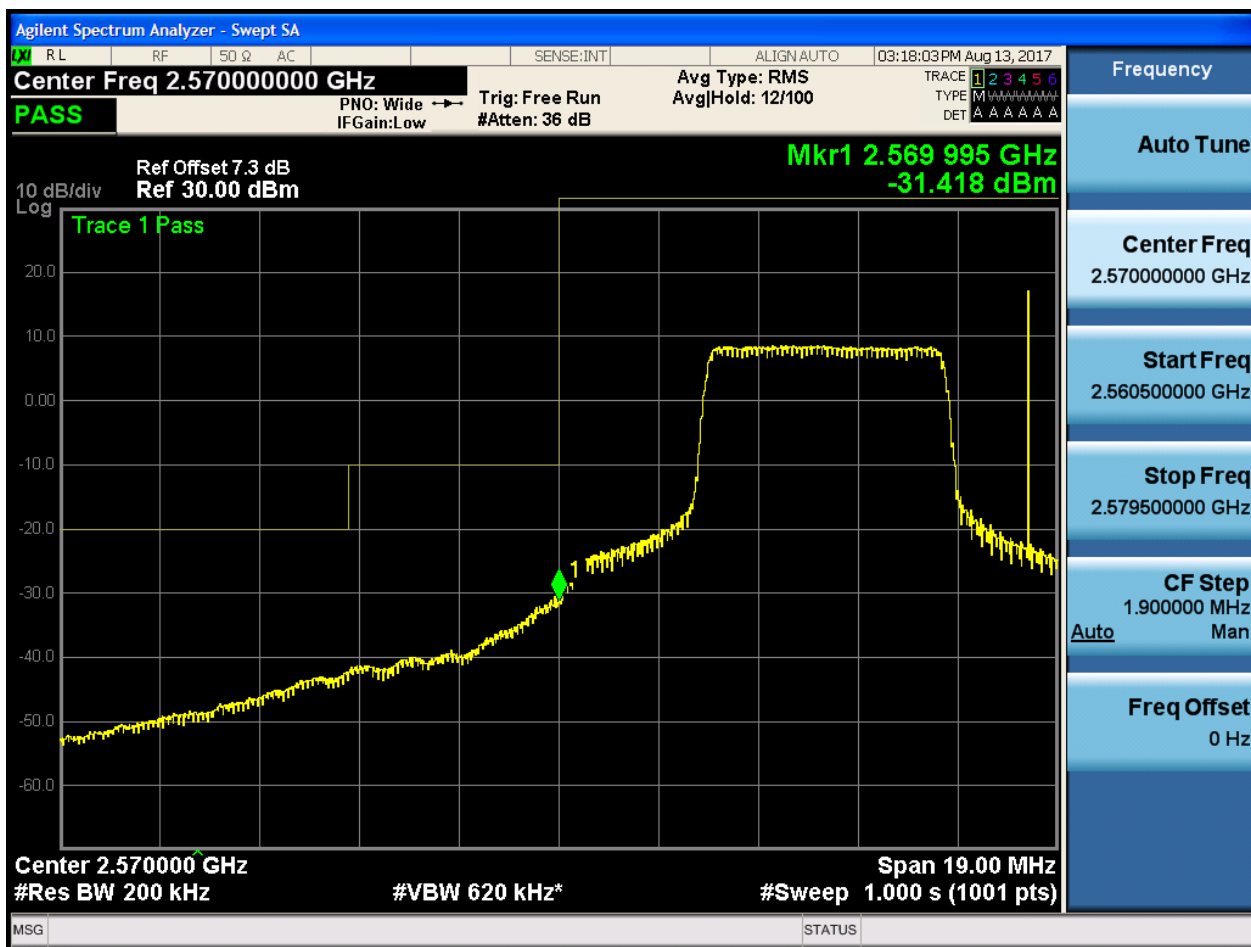
Center 2.570000 GHz
#Res BW 200 kHz
#VBW 620 kHz*
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
2.570000000 GHz
Start Freq
2.560500000 GHz
Stop Freq
2.579500000 GHz
CF Step
1.900000 MHz
Auto Man
Freq Offset
0 Hz



5.1.1.2.2.1.3 Test RB = RB25#13





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.3 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.569 995 GHz
-28.588 dBm

Center 2.570000 GHz
#Res BW 200 kHz
#VBW 620 kHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

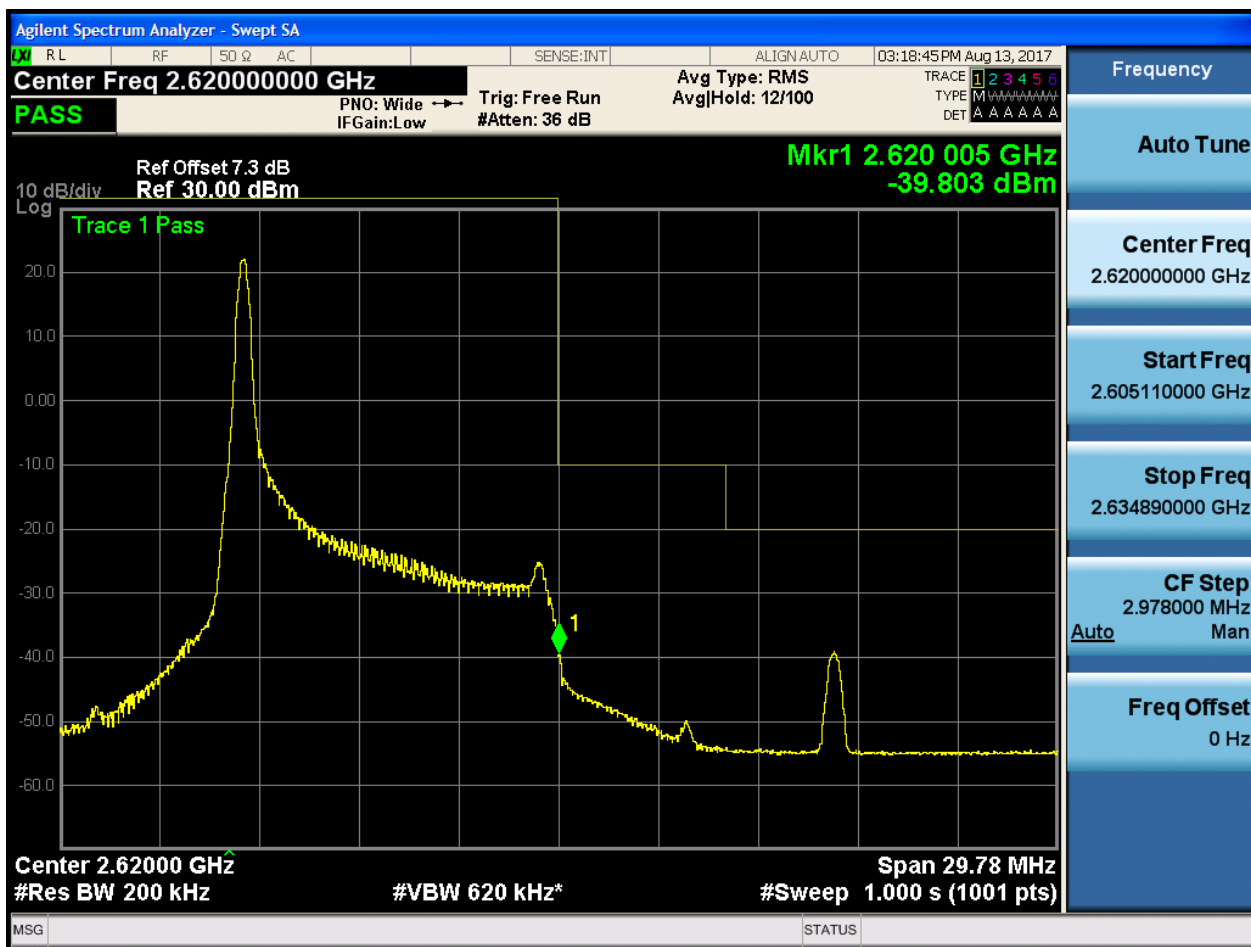
Stop Freq
2.579500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:19:03 PM Aug 13, 2017

Center Freq 2.620000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W W
DET A A A A A A

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 005 GHz
-18.938 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz
#Res BW 200 kHz #VBW 620 kHz* Span 29.78 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.605110000 GHz

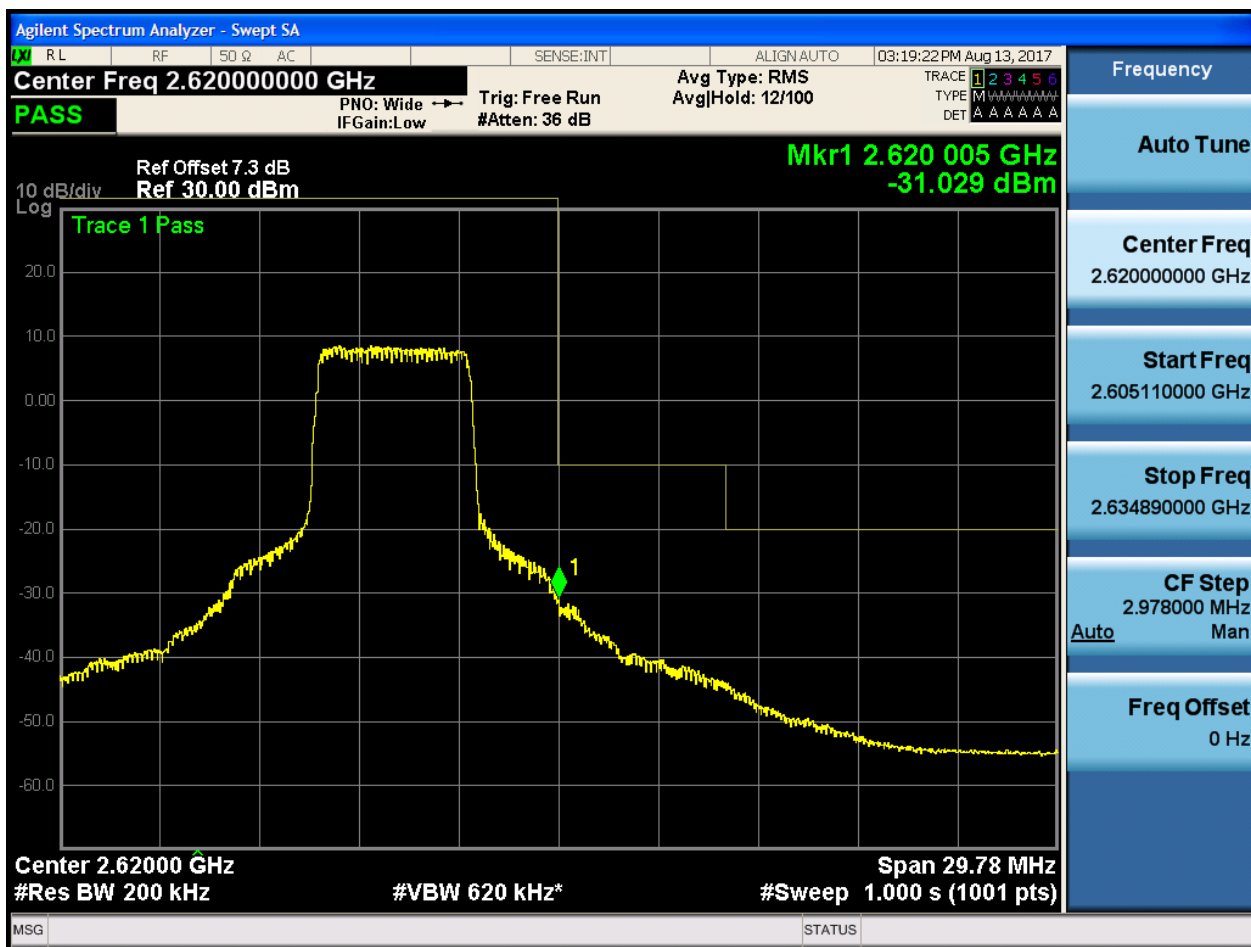
Stop Freq
2.634890000 GHz

CF Step
2.978000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.2.2.3 Test RB = RB25#13





5.1.1.2.2.2.4 Test RB = RB50#0

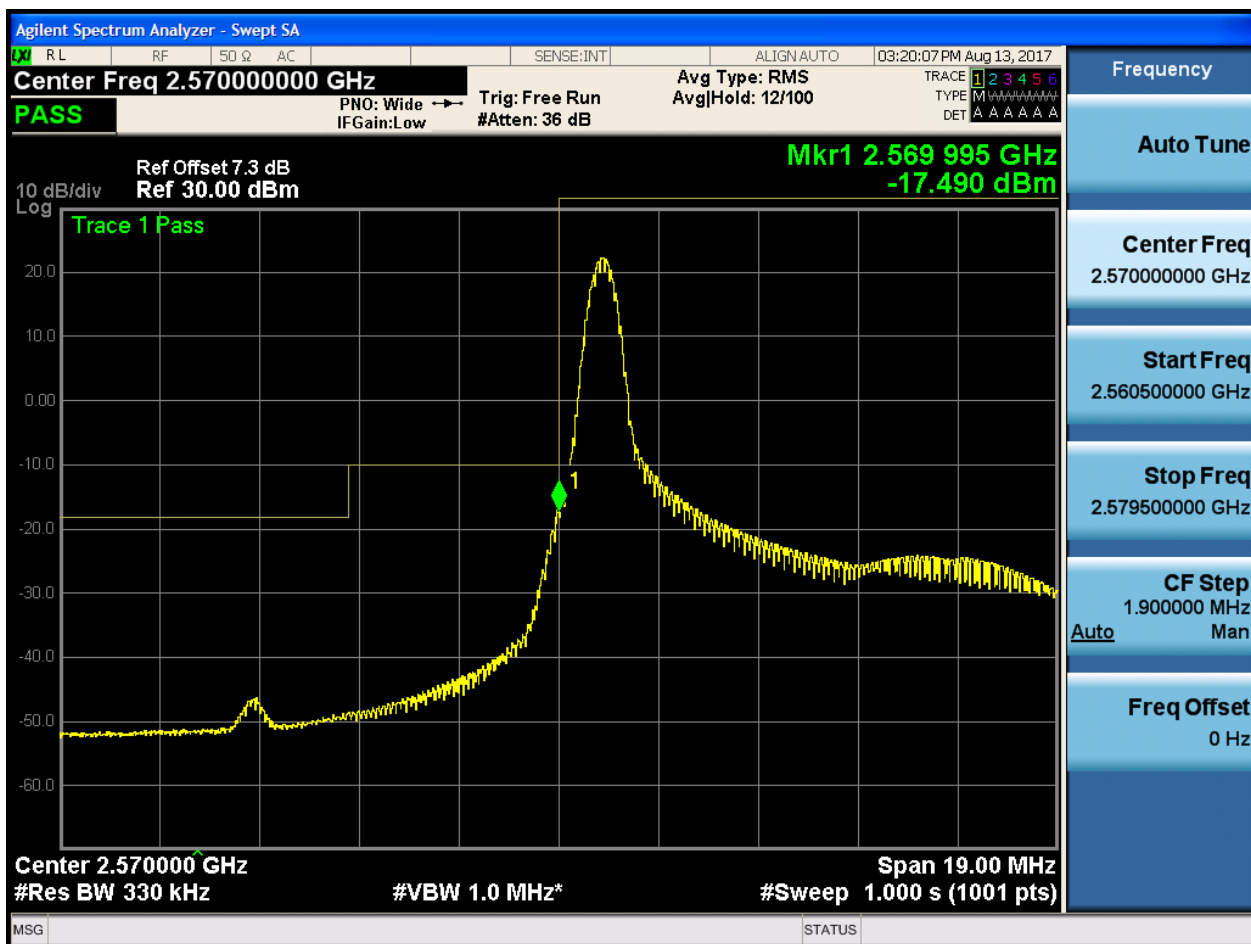




5.1.1.2.3 Test Bandwidth = 15

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

Center Freq 2.570000000 GHz

PASS

Ref Offset 7.3 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.569 995 GHz
-39.649 dBm

Center 2.570000 GHz
#Res BW 330 kHz
#VBW 1.0 MHz*
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 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 03:20:45 PM Aug 13, 2017

Center Freq 2.570000000 GHz Avg Type: RMS
#Res BW 330 kHz #VBW 1.0 MHz* #Sweep 1.000 s (1001 pts)

PASS PNO: Wide IFGain:Low Trig: Free Run #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 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-30.026 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.570000 GHz
#Res BW 330 kHz

Span 19.00 MHz

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 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 03:21:05 PM Aug 13, 2017

Center Freq 2.570000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-28.063 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.570000 GHz
#Res BW 330 kHz #VBW 1.0 MHz* Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 GHz

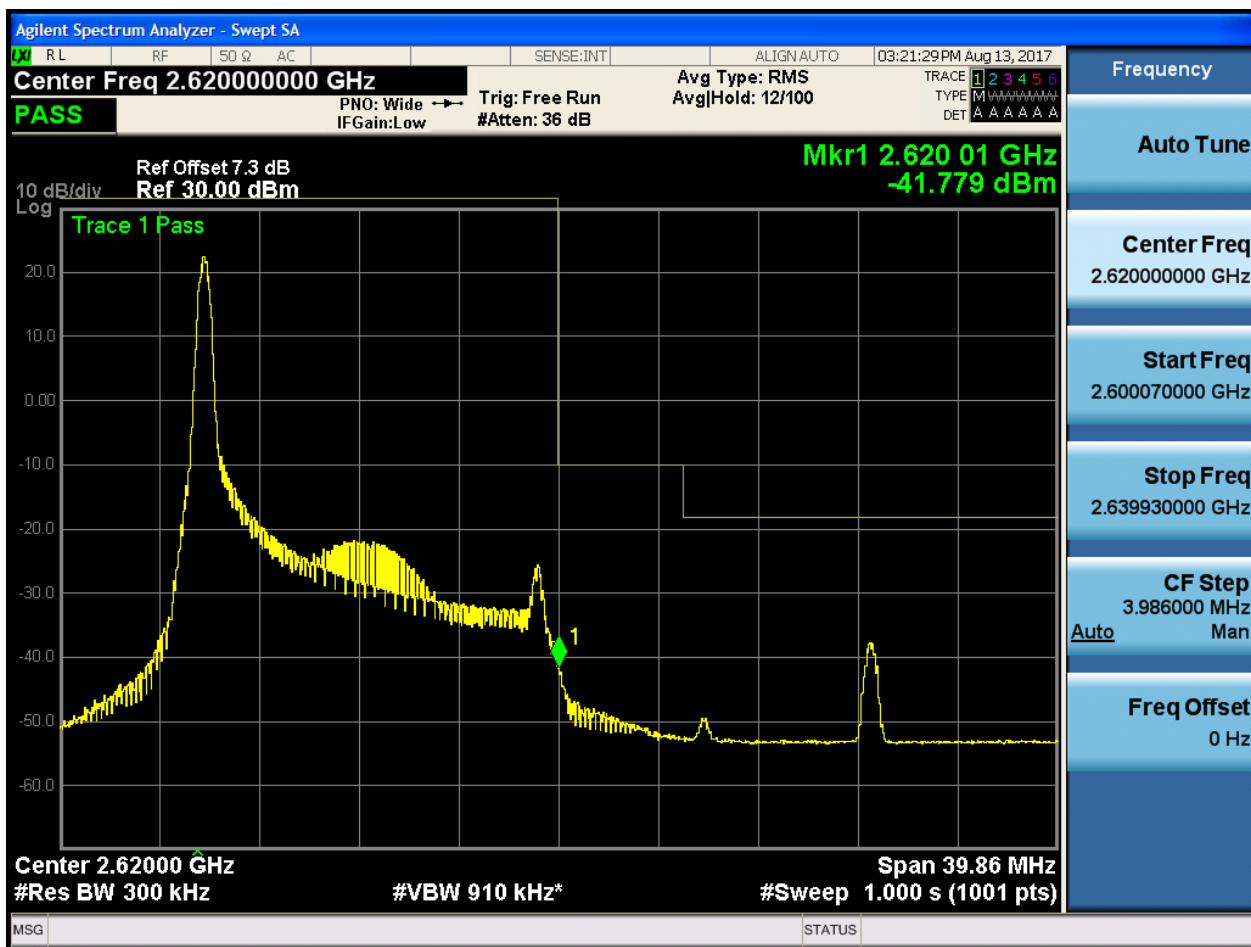
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



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

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:21:47 PM Aug 13, 2017

Center Freq 2.620000000 GHz Avg Type: RMS
#Res BW 300 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Wide #Atten: 36 dB

PASS

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 01 GHz
-19.425 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz Span 39.86 MHz
#Res BW 300 kHz #VBW 910 kHz* #Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.600070000 GHz

Stop Freq
2.639930000 GHz

CF Step
3.986000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.3.2.3 Test RB = RB36#18





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:22:24 PM Aug 13, 2017

Center Freq 2.620000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 01 GHz
-29.563 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz
#Res BW 300 kHz #VBW 910 kHz* #Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.620000000 GHz

Start Freq
2.600070000 GHz

Stop Freq
2.639930000 GHz

CF Step
3.986000 MHz
Auto Man

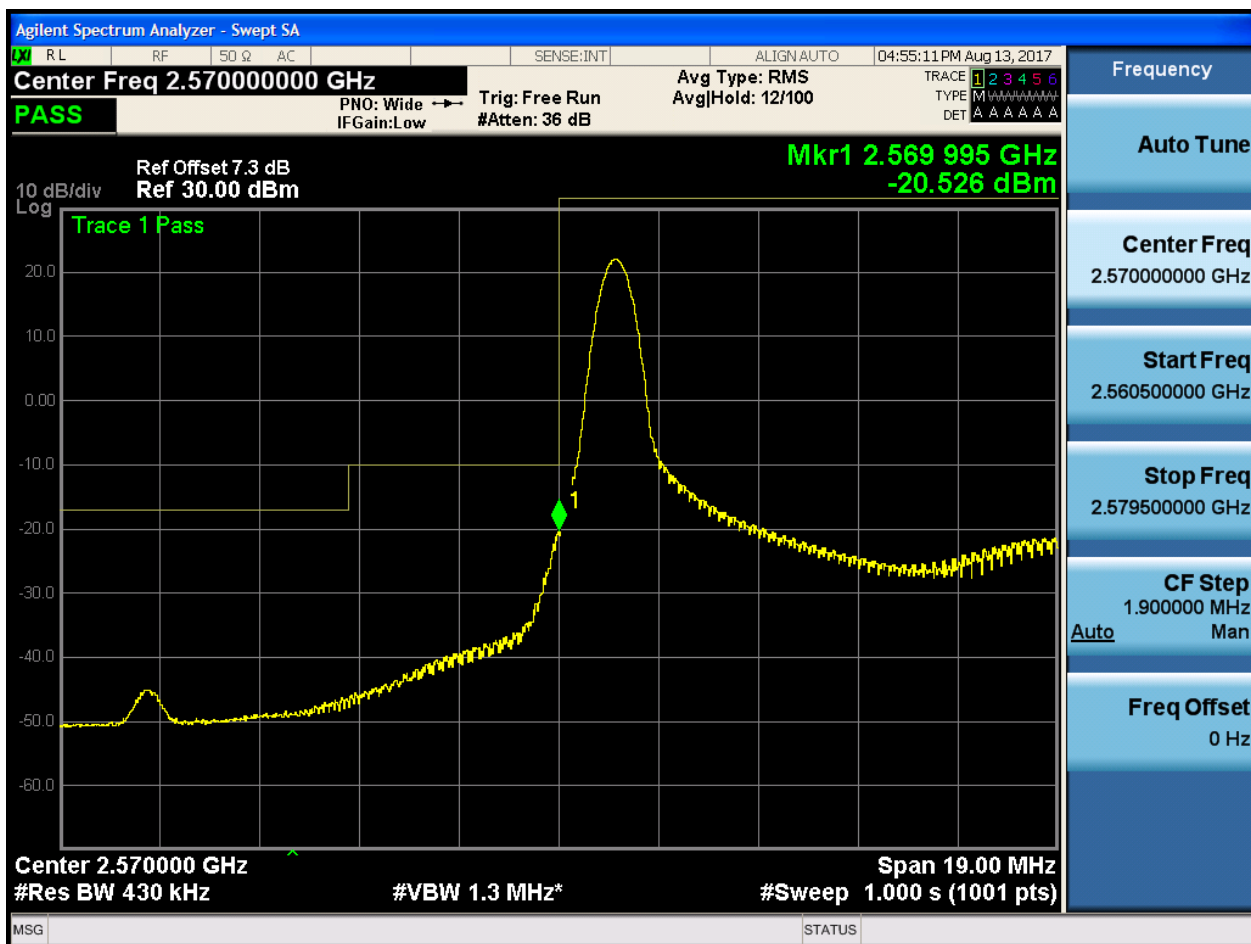
Freq Offset
0 Hz

MSG STATUS

5.1.1.2.4 Test Bandwidth = 20

5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-36.882 dBm

Trace 1 Pass

Center 2.570000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz*
Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.56050000 GHz

Stop Freq
2.57950000 GHz

CF Step
1.900000 MHz
Auto 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 around -50 dBm, with a sharp, high-power peak at approximately 2.569995 GHz, reaching about -36.88 dBm. The peak is labeled 'Mkr1 2.569 995 GHz -36.882 dBm'. The center frequency is set to 2.57000000 GHz. The span is 19.00 MHz, and the resolution bandwidth (RBW) is 430 kHz. The video bandwidth (VBW) is 1.3 MHz. The sweep time is 1.000 s (1001 pts). The trace is labeled 'Trace 1 Pass'. The analyzer is in 'Swept SA' mode. The status bar at the bottom shows 'MSG' and 'STATUS'.



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:23:29 PM Aug 13, 2017

Center Freq 2.570000000 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 7.3 dB
Ref 30.00 dBm

Mkr1 2.569 995 GHz
-27.166 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.570000 GHz
#Res BW 430 kHz

#VBW 1.3 MHz*

Span 19.00 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
2.570000000 GHz
Start Freq
2.560500000 GHz
Stop Freq
2.579500000 GHz
CF Step
1.900000 MHz
Auto Man
Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

Ref Offset 7.3 dB
Ref 30.00 dBm

Trace 1 Pass

Mkr1 2.569 995 GHz
-28.466 dBm

Center 2.570000 GHz

Span 19.00 MHz

#Res BW 430 kHz

#VBW 1.3 MHz*

#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.560500000 GHz

Stop Freq
2.579500000 GHz

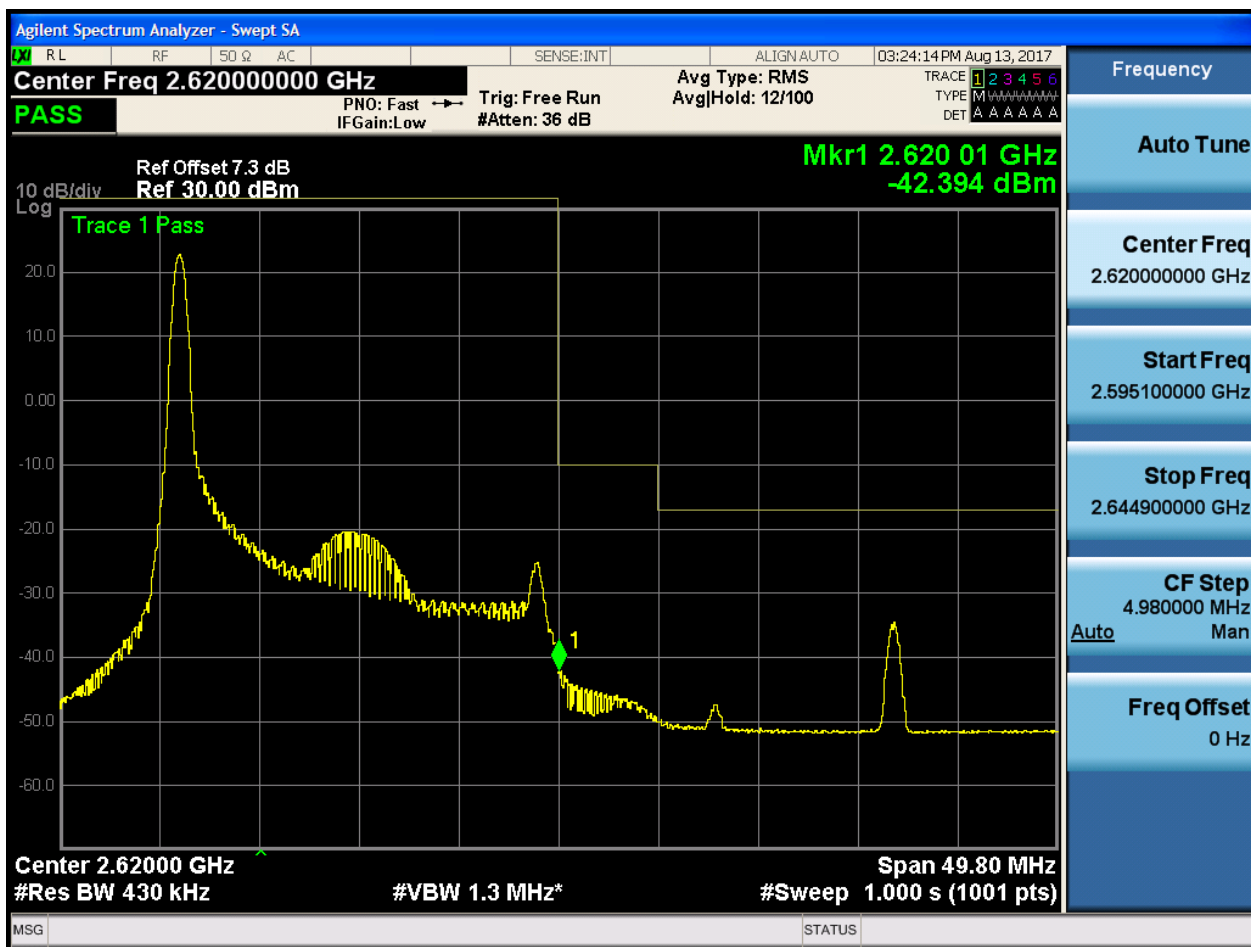
CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



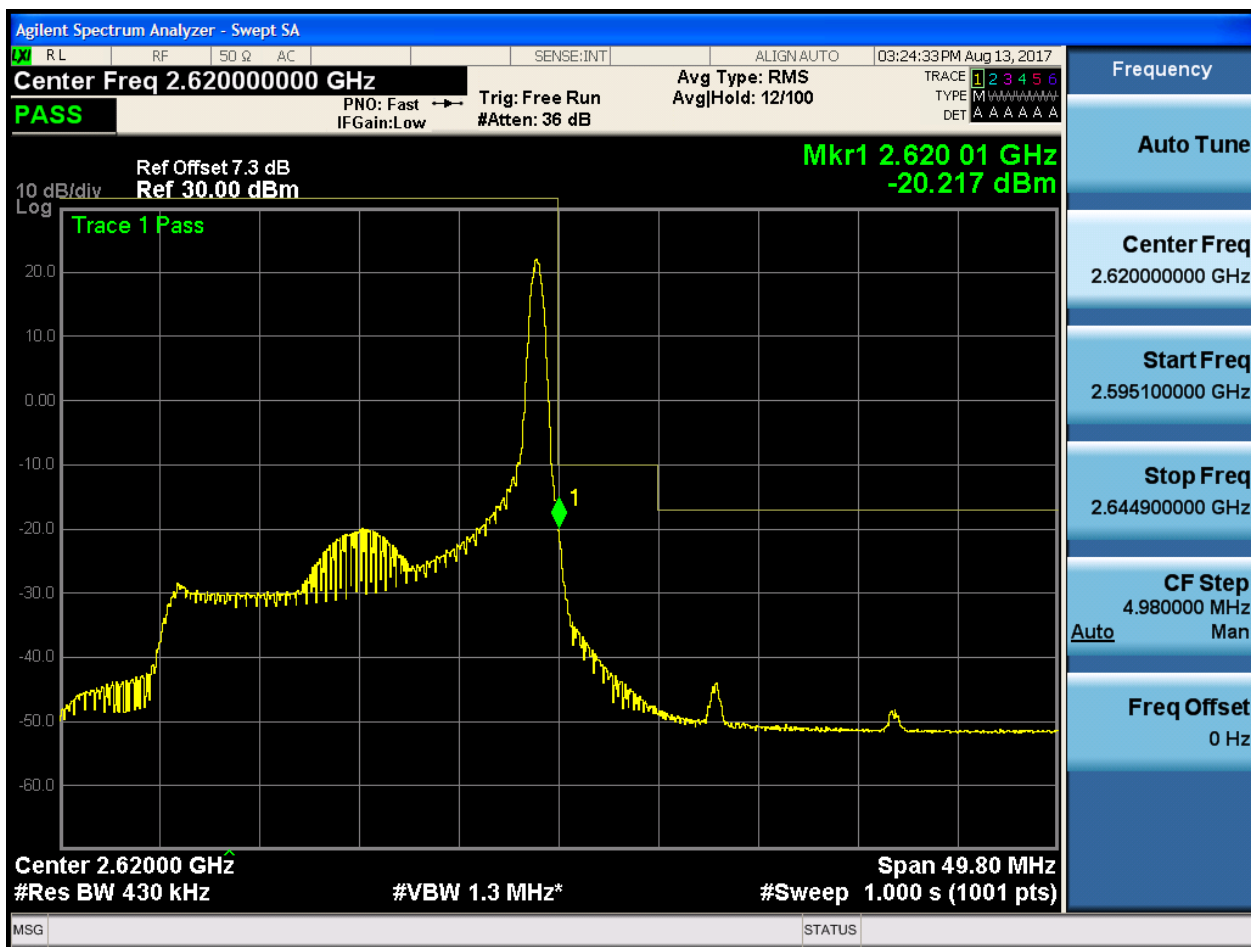
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0





5.1.1.2.4.2.2 Test RB = RB1#99





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 03:24:52 PM Aug 13, 2017

Center Freq 2.62000000 GHz Avg Type: RMS
PNO: Fast IFGain:Low Trig: Free Run AvgHold: 12/100
PASS #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 7.3 dB
Ref 30.00 dBm

Mkr1 2.620 01 GHz
-32.471 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.62000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz*
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.62000000 GHz

Start Freq
2.595100000 GHz

Stop Freq
2.644900000 GHz

CF Step
4.980000 MHz
Auto Man

Freq Offset
0 Hz

MSG STATUS



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

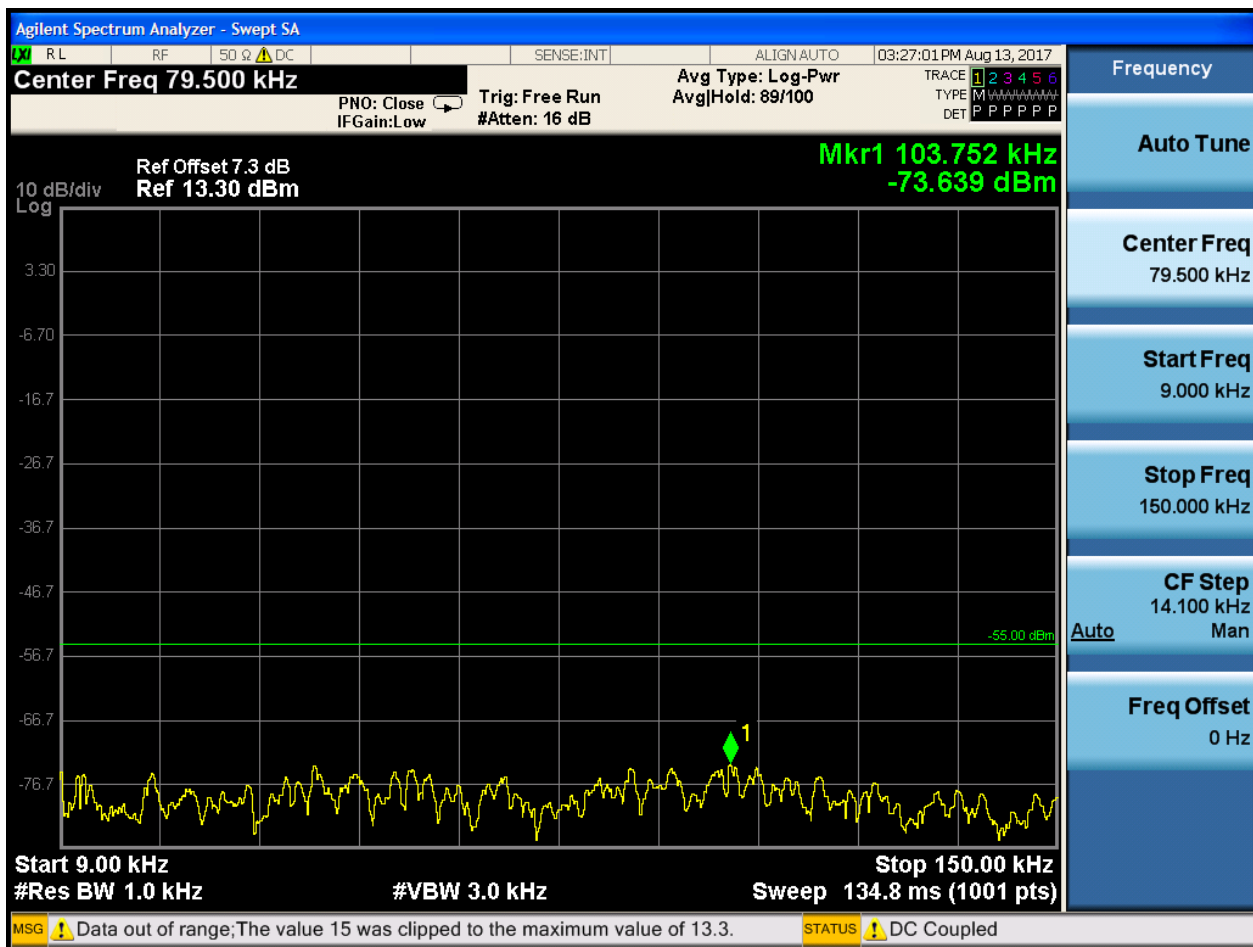
6.1.1 Test Band = BAND38

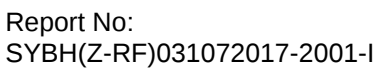
6.1.1.1 Test Mode = LTE/TM1

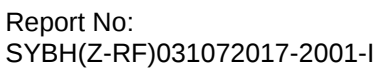
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

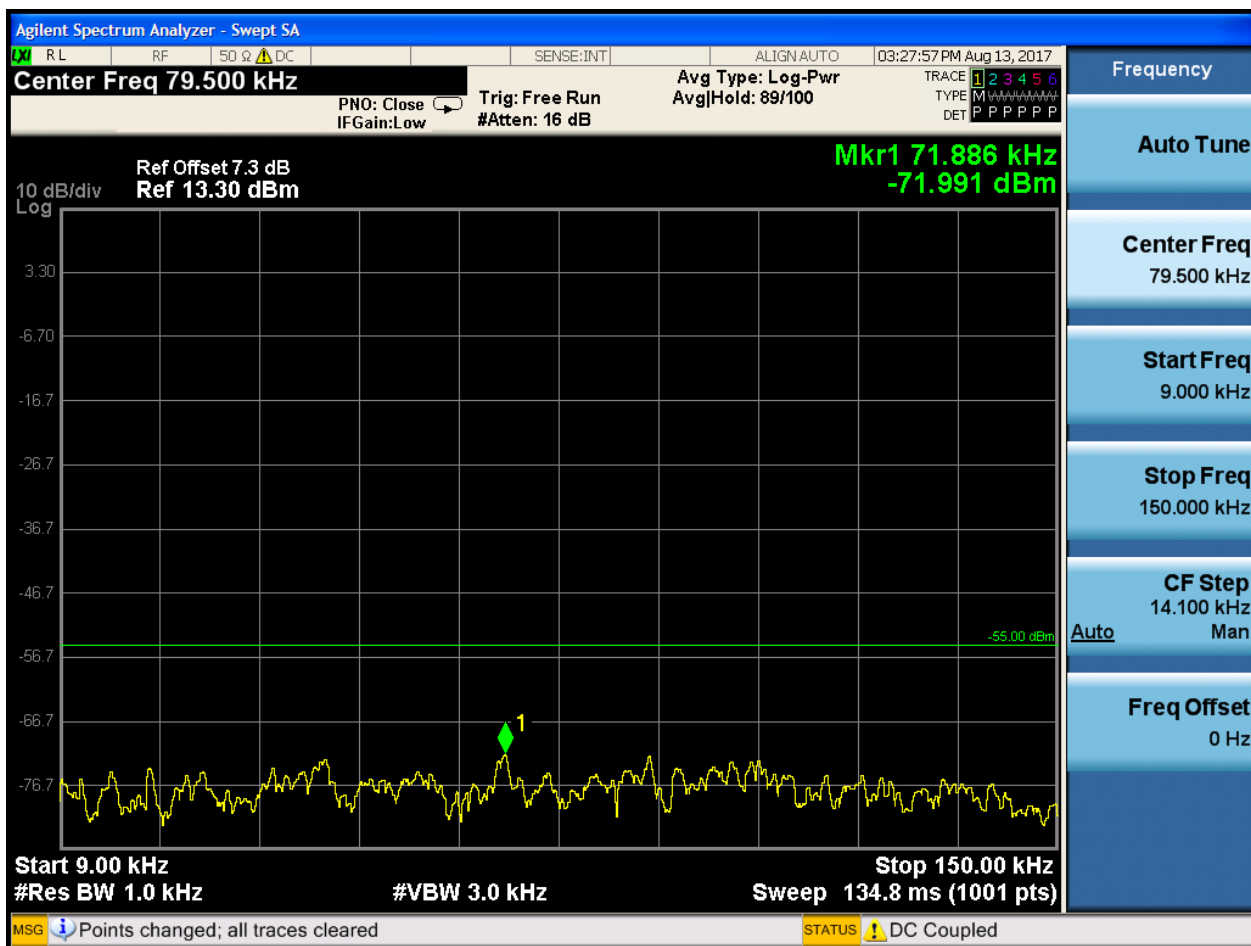


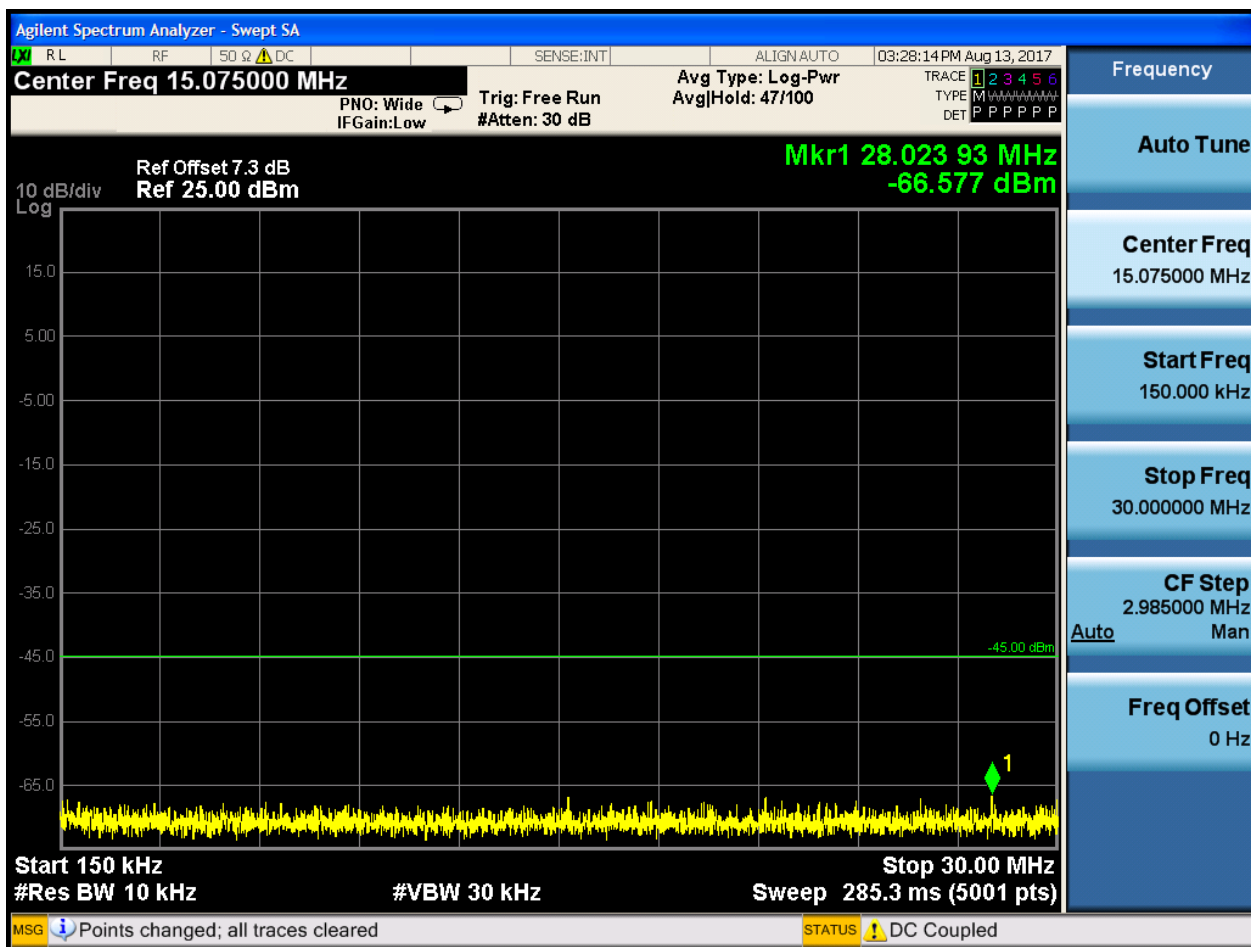


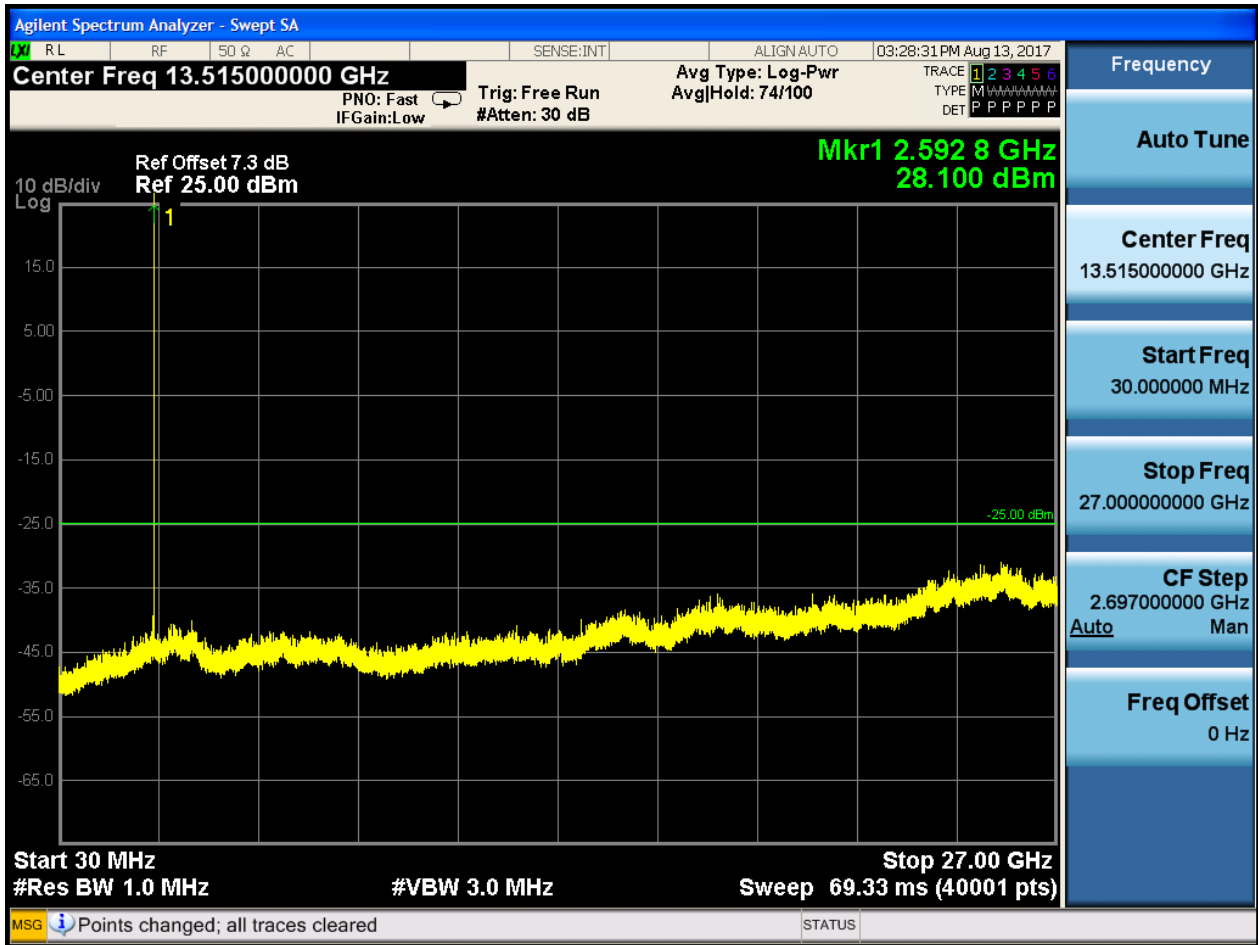


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0

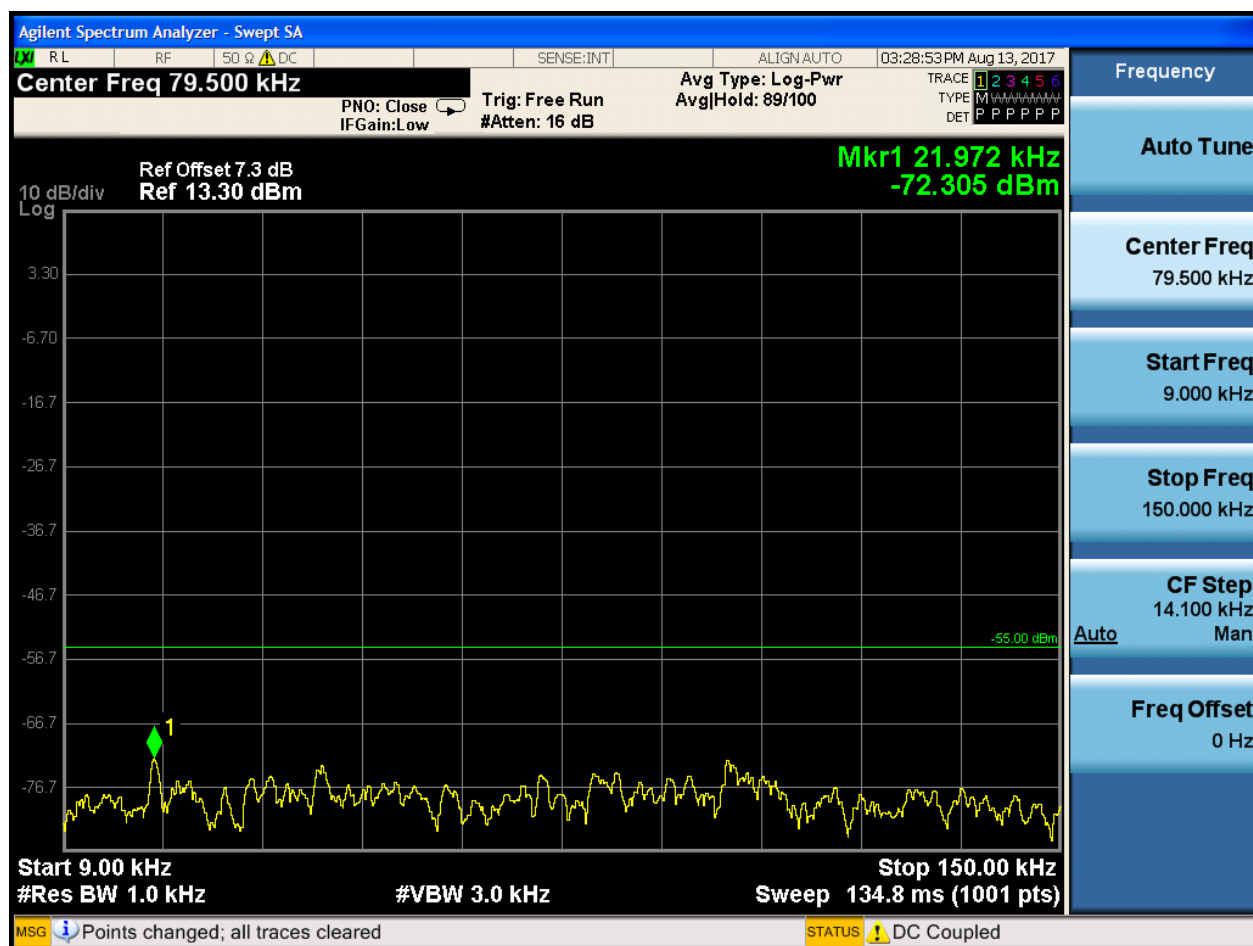


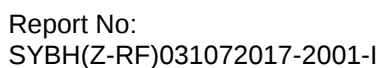


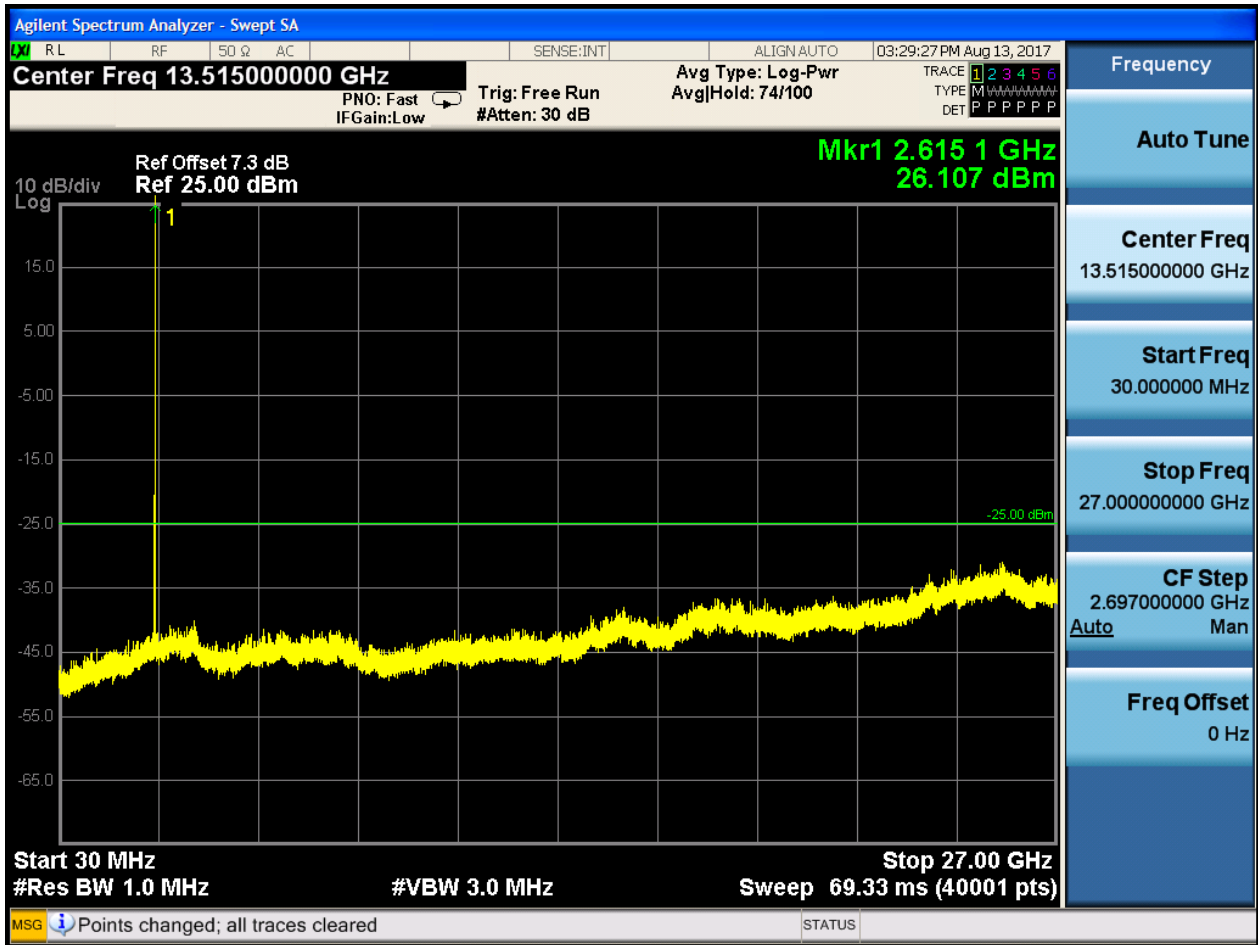


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0



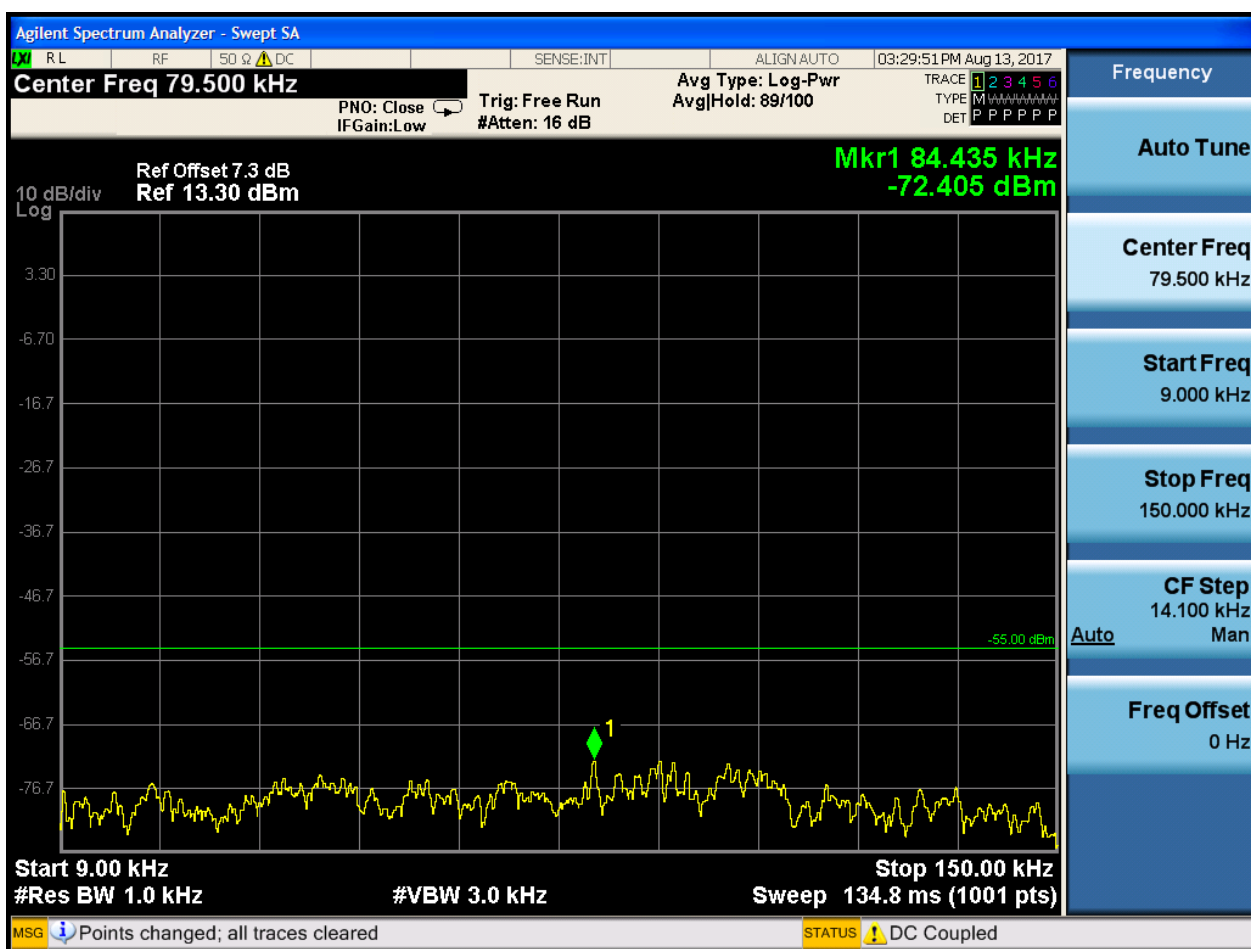


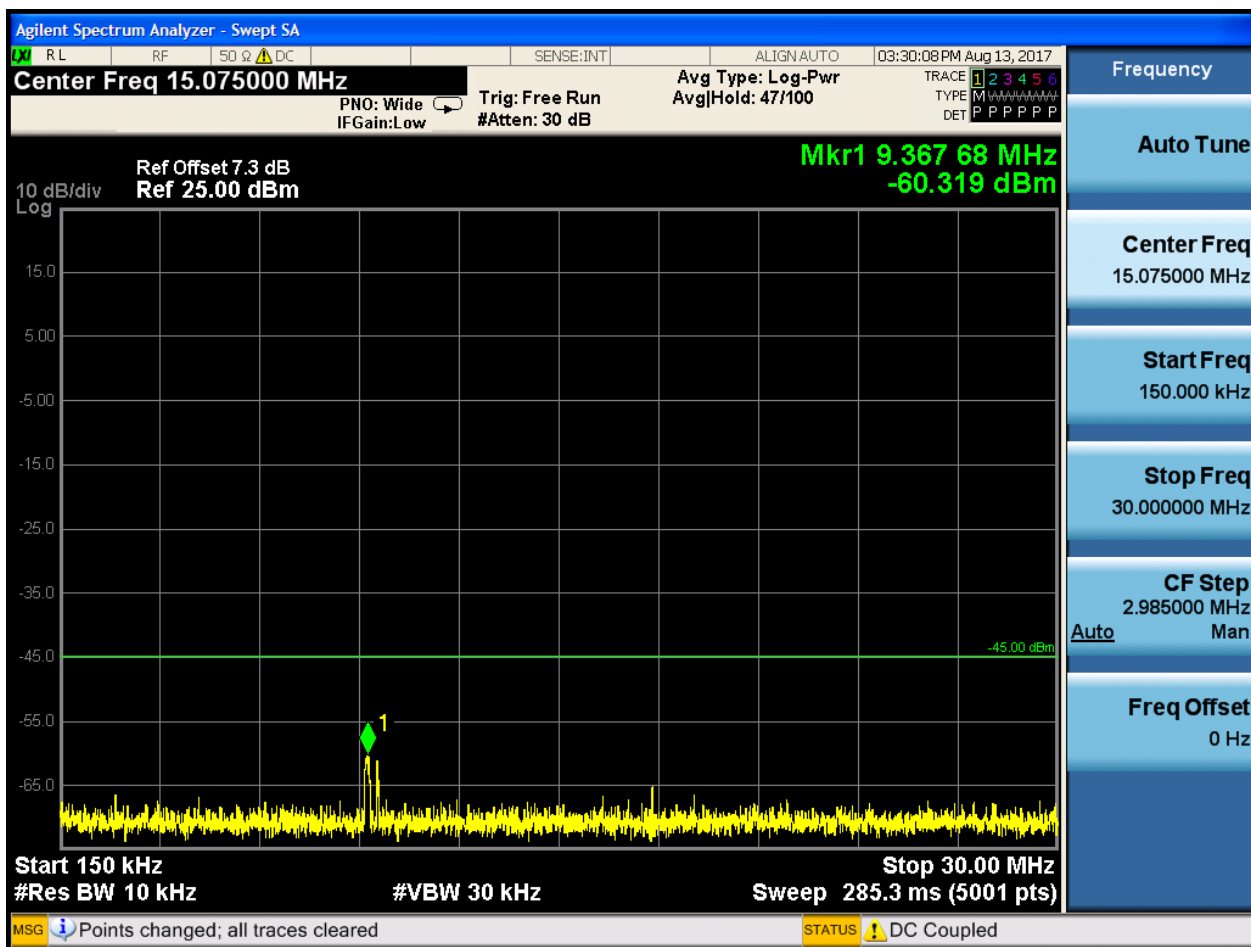


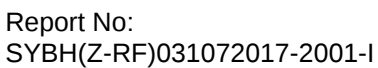
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0

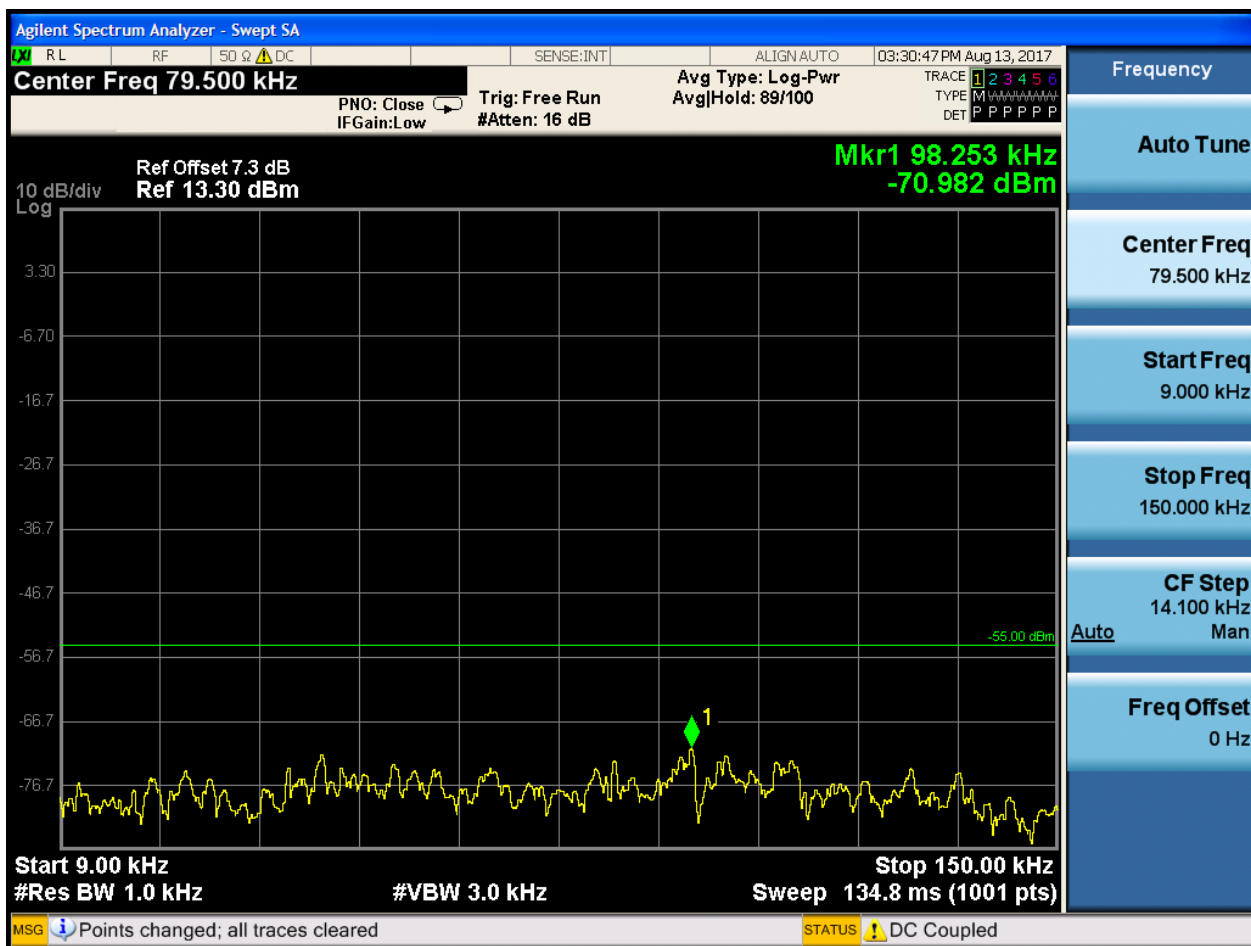


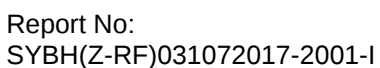


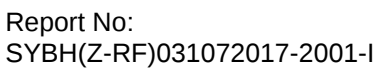


6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0







6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0

