



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	21.15	19.54	33	PASS
				RB1#13	21.65	19.78	33	PASS
				RB1#24	21.31	19.68	33	PASS
				RB12#0	20.56	18.78	33	PASS
				RB12#6	20.68	18.95	33	PASS
				RB12#13	20.61	18.94	33	PASS
				RB25#0	20.57	18.59	33	PASS
			MCH	RB1#0	21.56	19.83	33	PASS
				RB1#13	21.68	19.77	33	PASS
				RB1#24	21.27	19.48	33	PASS
				RB12#0	20.79	19.01	33	PASS
				RB12#6	20.81	18.92	33	PASS
				RB12#13	20.56	18.95	33	PASS
				RB25#0	20.62	18.77	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	21.17	19.45	33	PASS
				RB1#13	21.37	19.70	33	PASS
				RB1#24	20.79	18.96	33	PASS
				RB12#0	20.32	18.63	33	PASS
				RB12#6	20.32	18.57	33	PASS
				RB12#13	20.1	18.36	33	PASS
				RB25#0	20.28	18.42	33	PASS
		10	LCH	RB1#0	21.16	19.45	33	PASS
				RB1#25	21.68	19.96	33	PASS
				RB1#49	21.32	19.62	33	PASS
				RB25#0	20.59	18.84	33	PASS
				RB25#13	20.65	18.83	33	PASS
				RB25#25	20.57	18.87	33	PASS
				RB50#0	20.57	18.89	33	PASS
			MCH	RB1#0	21.4	19.61	33	PASS
				RB1#25	21.71	19.92	33	PASS
				RB1#49	21.32	19.61	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.69	18.85	33	PASS
				RB25#13	20.67	18.82	33	PASS
				RB25#25	20.56	18.87	33	PASS
				RB50#0	20.58	18.73	33	PASS
			HCH	RB1#0	21.21	19.30	33	PASS
				RB1#25	21.35	19.50	33	PASS
				RB1#49	20.83	19.20	33	PASS
				RB25#0	20.25	18.34	33	PASS
				RB25#13	20.3	18.42	33	PASS
				RB25#25	20.24	18.63	33	PASS
				RB50#0	20.3	18.63	33	PASS
		15	LCH	RB1#0	20.96	19.29	33	PASS
				RB1#38	21.69	20.07	33	PASS
				RB1#74	21.09	19.38	33	PASS
				RB36#0	20.58	18.83	33	PASS
				RB36#18	20.76	18.89	33	PASS
				RB36#39	20.58	18.69	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	20.49	18.59	33	PASS
			MCH	RB1#0	21.29	19.54	33	PASS
				RB1#38	21.69	20.00	33	PASS
				RB1#74	21.08	19.27	33	PASS
				RB36#0	20.6	18.61	33	PASS
				RB36#18	20.73	19.07	33	PASS
				RB36#39	20.52	18.79	33	PASS
				RB75#0	20.52	18.91	33	PASS
			HCH	RB1#0	20.87	19.25	33	PASS
				RB1#38	21.24	19.59	33	PASS
				RB1#74	20.63	18.86	33	PASS
				RB36#0	20.28	18.28	33	PASS
				RB36#18	20.32	18.42	33	PASS
				RB36#39	20.17	18.31	33	PASS
				RB75#0	20.28	18.52	33	PASS
		20	LCH	RB1#0	21.26	19.61	33	PASS
				RB1#50	21.75	19.83	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	21.42	19.78	33	PASS
				RB50#0	20.68	18.72	33	PASS
				RB50#25	20.8	18.91	33	PASS
				RB50#50	20.6	18.92	33	PASS
				RB100#0	20.62	18.68	33	PASS
			MCH	RB1#0	21.6	19.63	33	PASS
				RB1#50	21.74	20.00	33	PASS
				RB1#99	21.4	19.76	33	PASS
				RB50#0	20.67	18.78	33	PASS
				RB50#25	20.75	19.07	33	PASS
				RB50#50	20.64	18.99	33	PASS
				RB100#0	20.67	18.78	33	PASS
			HCH	RB1#0	21.53	19.87	33	PASS
				RB1#50	21.56	19.78	33	PASS
				RB1#99	21.07	19.12	33	PASS
				RB50#0	20.52	18.74	33	PASS
				RB50#25	20.43	18.70	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.26	18.55	33	PASS
				RB100#0	20.45	18.61	33	PASS
	LTE/TM2	5	LCH	RB1#0	20.31	18.63	33	PASS
				RB1#13	20.72	18.79	33	PASS
				RB1#24	20.36	18.49	33	PASS
				RB12#0	20.18	18.32	33	PASS
				RB12#6	20.3	18.53	33	PASS
				RB12#13	20.17	18.44	33	PASS
				RB25#0	20.2	18.22	33	PASS
			MCH	RB1#0	20.66	18.99	33	PASS
				RB1#13	20.76	18.86	33	PASS
				RB1#24	20.38	18.77	33	PASS
				RB12#0	20.39	18.66	33	PASS
				RB12#6	20.42	18.42	33	PASS
				RB12#13	20.17	18.44	33	PASS
				RB25#0	20.27	18.52	33	PASS
			HCH	RB1#0	20.43	18.58	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#13	20.62	18.69	33	PASS
				RB1#24	20.01	18.25	33	PASS
				RB12#0	19.86	18.13	33	PASS
				RB12#6	19.85	17.97	33	PASS
				RB12#13	19.62	17.85	33	PASS
				RB25#0	19.77	18.06	33	PASS
		10	LCH	RB1#0	20.53	18.59	33	PASS
				RB1#25	20.99	19.33	33	PASS
				RB1#49	20.64	18.80	33	PASS
				RB25#0	20.2	18.49	33	PASS
				RB25#13	20.25	18.33	33	PASS
				RB25#25	20.17	18.51	33	PASS
				RB50#0	20.18	18.43	33	PASS
			MCH	RB1#0	20.75	19.08	33	PASS
				RB1#25	21	19.37	33	PASS
				RB1#49	20.63	18.76	33	PASS
				RB25#0	20.31	18.61	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#13	20.29	18.64	33	PASS
				RB25#25	20.19	18.57	33	PASS
				RB50#0	20.19	18.44	33	PASS
			HCH	RB1#0	20.3	18.42	33	PASS
				RB1#25	20.42	18.72	33	PASS
				RB1#49	19.91	18.07	33	PASS
				RB25#0	19.84	17.98	33	PASS
				RB25#13	19.9	17.94	33	PASS
				RB25#25	19.81	17.85	33	PASS
				RB50#0	19.84	18.07	33	PASS
		15	LCH	RB1#0	20.31	18.54	33	PASS
				RB1#38	21.07	19.10	33	PASS
				RB1#74	20.44	18.56	33	PASS
				RB36#0	20.14	18.34	33	PASS
				RB36#18	20.31	18.67	33	PASS
				RB36#39	20.04	18.37	33	PASS
				RB75#0	20.05	18.37	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			MCH	RB1#0	20.58	18.78	33	PASS
				RB1#38	20.95	18.96	33	PASS
				RB1#74	20.34	18.34	33	PASS
				RB36#0	20.21	18.37	33	PASS
				RB36#18	20.33	18.38	33	PASS
				RB36#39	20.13	18.20	33	PASS
				RB75#0	20.12	18.40	33	PASS
			HCH	RB1#0	20	18.23	33	PASS
				RB1#38	20.41	18.63	33	PASS
				RB1#74	19.77	17.96	33	PASS
				RB36#0	19.81	17.88	33	PASS
				RB36#18	19.86	18.14	33	PASS
				RB36#39	19.71	17.82	33	PASS
				RB75#0	19.83	18.14	33	PASS
		20	LCH	RB1#0	20.64	18.95	33	PASS
				RB1#50	21.08	19.47	33	PASS
				RB1#99	20.69	18.88	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#0	20.13	18.40	33	PASS
				RB50#25	20.29	18.66	33	PASS
				RB50#50	20.09	18.21	33	PASS
				RB100#0	20.07	18.42	33	PASS
			MCH	RB1#0	20.9	18.96	33	PASS
				RB1#50	21.09	19.36	33	PASS
				RB1#99	20.69	19.06	33	PASS
				RB50#0	20.14	18.27	33	PASS
				RB50#25	20.2	18.43	33	PASS
				RB50#50	20.05	18.44	33	PASS
				RB100#0	20.07	18.43	33	PASS
			HCH	RB1#0	20.79	19.12	33	PASS
				RB1#50	20.85	18.94	33	PASS
				RB1#99	20.27	18.46	33	PASS
				RB50#0	20.02	18.11	33	PASS
				RB50#25	19.97	18.05	33	PASS
				RB50#50	19.8	17.81	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB100#0	19.99	18.38	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
BAND7	LTE/TM1	5	LCH	RB1#0	4.46	13	PASS
				RB1#13	4.01	13	PASS
				RB1#24	4.19	13	PASS
				RB12#0	5.29	13	PASS
				RB12#6	5.16	13	PASS
				RB12#13	5.3	13	PASS
				RB25#0	5.73	13	PASS
			MCH	RB1#0	4.22	13	PASS
				RB1#13	4.08	13	PASS
				RB1#24	4.34	13	PASS
				RB12#0	5.45	13	PASS
				RB12#6	5.39	13	PASS
				RB12#13	5.59	13	PASS
				RB25#0	6.05	13	PASS
		10	HCH	RB1#0	4.48	13	PASS
				RB1#13	4.29	13	PASS
				RB1#24	4.59	13	PASS
				RB12#0	5.74	13	PASS
				RB12#6	5.77	13	PASS
				RB12#13	5.88	13	PASS
				RB25#0	5.97	13	PASS
			LCH	RB1#0	4.35	13	PASS
				RB1#25	3.95	13	PASS
				RB1#49	4.33	13	PASS
				RB25#0	5.44	13	PASS
				RB25#13	5.32	13	PASS
				RB25#25	5.39	13	PASS
			MCH	RB50#0	5.76	13	PASS
				RB1#0	4.39	13	PASS
				RB1#25	4.17	13	PASS
				RB1#49	4.55	13	PASS
				RB25#0	5.56	13	PASS
				RB25#13	5.57	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#25	5.71	13	PASS
				RB50#0	5.99	13	PASS
			HCH	RB1#0	4.36	13	PASS
				RB1#25	4.11	13	PASS
				RB1#49	4.47	13	PASS
				RB25#0	6	13	PASS
				RB25#13	5.9	13	PASS
				RB25#25	5.94	13	PASS
				RB50#0	6.33	13	PASS
		15	LCH	RB1#0	4.31	13	PASS
				RB1#38	3.89	13	PASS
				RB1#74	4.33	13	PASS
				RB36#0	5.58	13	PASS
				RB36#18	5.35	13	PASS
				RB36#39	5.59	13	PASS
				RB75#0	6.16	13	PASS
			MCH	RB1#0	4.38	13	PASS
				RB1#38	4.14	13	PASS
				RB1#74	4.65	13	PASS
				RB36#0	5.79	13	PASS
				RB36#18	5.66	13	PASS
				RB36#39	5.9	13	PASS
				RB75#0	6.29	13	PASS
			HCH	RB1#0	5.14	13	PASS
				RB1#38	4.6	13	PASS
				RB1#74	5.02	13	PASS
				RB36#0	6.09	13	PASS
				RB36#18	5.94	13	PASS
				RB36#39	5.97	13	PASS
				RB75#0	6.31	13	PASS
		20	LCH	RB1#0	4.31	13	PASS
				RB1#50	4.08	13	PASS
				RB1#99	4.41	13	PASS
				RB50#0	5.58	13	PASS
				RB50#25	5.48	13	PASS
				RB50#50	5.74	13	PASS
				RB100#0	6.13	13	PASS
			MCH	RB1#0	4.4	13	PASS
				RB1#50	4.27	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#99	4.64	13	PASS
				RB50#0	5.84	13	PASS
				RB50#25	5.74	13	PASS
				RB50#50	5.91	13	PASS
				RB100#0	6.33	13	PASS
			HCH	RB1#0	4.69	13	PASS
				RB1#50	4.49	13	PASS
				RB1#99	4.69	13	PASS
				RB50#0	6.22	13	PASS
				RB50#25	6.1	13	PASS
				RB50#50	6.14	13	PASS
				RB100#0	6.33	13	PASS
	LTE/TM2	5	LCH	RB1#0	5.44	13	PASS
				RB1#13	5.28	13	PASS
				RB1#24	5.41	13	PASS
				RB12#0	5.8	13	PASS
				RB12#6	5.62	13	PASS
				RB12#13	5.73	13	PASS
				RB25#0	6.39	13	PASS
			MCH	RB1#0	5.56	13	PASS
				RB1#13	5.4	13	PASS
				RB1#24	5.66	13	PASS
				RB12#0	5.84	13	PASS
				RB12#6	5.81	13	PASS
				RB12#13	5.96	13	PASS
				RB25#0	6.65	13	PASS
			HCH	RB1#0	5.43	13	PASS
				RB1#13	5.29	13	PASS
				RB1#24	5.58	13	PASS
				RB12#0	6.33	13	PASS
				RB12#6	6.2	13	PASS
				RB12#13	6.36	13	PASS
				RB25#0	6.8	13	PASS
		10	LCH	RB1#0	5.31	13	PASS
				RB1#25	4.98	13	PASS
				RB1#49	5.24	13	PASS
				RB25#0	5.93	13	PASS
				RB25#13	5.79	13	PASS
				RB25#25	5.91	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB50#0	6.34	13	PASS
				RB1#0	5.39	13	PASS
			MCH	RB1#25	5.21	13	PASS
				RB1#49	5.51	13	PASS
				RB25#0	6.07	13	PASS
				RB25#13	6.01	13	PASS
				RB25#25	6.26	13	PASS
				RB50#0	6.42	13	PASS
			HCH	RB1#0	5.8	13	PASS
				RB1#25	5.52	13	PASS
				RB1#49	5.72	13	PASS
				RB25#0	6.62	13	PASS
				RB25#13	6.53	13	PASS
				RB25#25	6.45	13	PASS
				RB50#0	6.75	13	PASS
		15	LCH	RB1#0	5.87	13	PASS
				RB1#38	5.32	13	PASS
				RB1#74	5.78	13	PASS
				RB36#0	5.99	13	PASS
				RB36#18	5.8	13	PASS
				RB36#39	6.18	13	PASS
				RB75#0	6.59	13	PASS
			MCH	RB1#0	5.57	13	PASS
				RB1#38	5.31	13	PASS
				RB1#74	5.58	13	PASS
				RB36#0	6.19	13	PASS
				RB36#18	6.07	13	PASS
				RB36#39	6.31	13	PASS
				RB75#0	6.7	13	PASS
			HCH	RB1#0	5.94	13	PASS
				RB1#38	5.53	13	PASS
				RB1#74	5.73	13	PASS
				RB36#0	6.7	13	PASS
				RB36#18	6.6	13	PASS
				RB36#39	6.55	13	PASS
				RB75#0	7.01	13	PASS
		20	LCH	RB1#0	5.22	13	PASS
				RB1#50	4.9	13	PASS
				RB1#99	5.32	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB50#0	6.22	13	PASS
				RB50#25	6.1	13	PASS
				RB50#50	6.45	13	PASS
				RB100#0	6.8	13	PASS
			MCH	RB1#0	5.35	13	PASS
				RB1#50	5.18	13	PASS
				RB1#99	5.65	13	PASS
				RB50#0	6.55	13	PASS
				RB50#25	6.4	13	PASS
				RB50#50	6.62	13	PASS
				RB100#0	6.98	13	PASS
			HCH	RB1#0	5.54	13	PASS
				RB1#50	5.2	13	PASS
				RB1#99	5.45	13	PASS
				RB50#0	6.8	13	PASS
				RB50#25	6.64	13	PASS
				RB50#50	6.75	13	PASS
				RB100#0	7.17	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

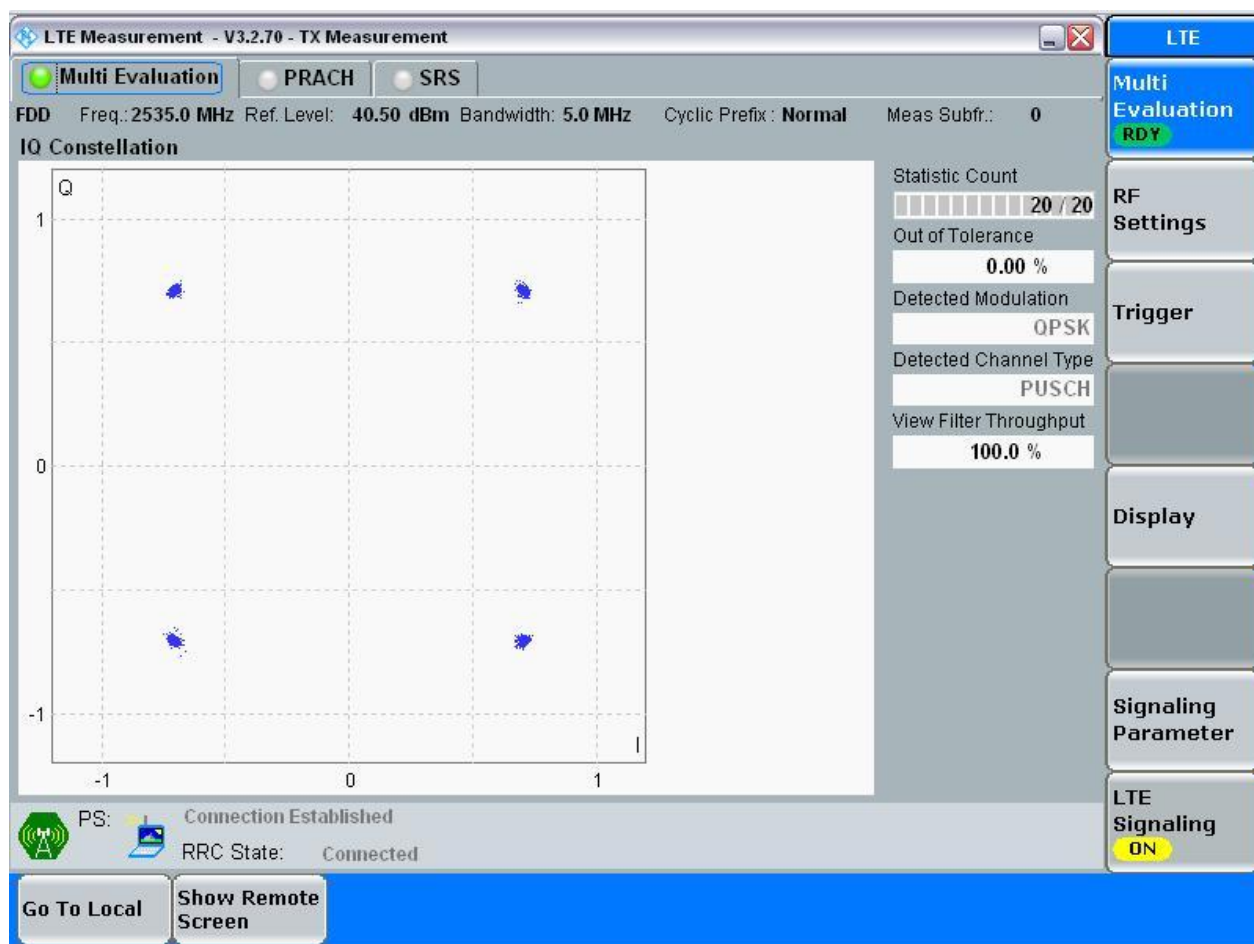
3.1.1 Test Band = BAND7

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

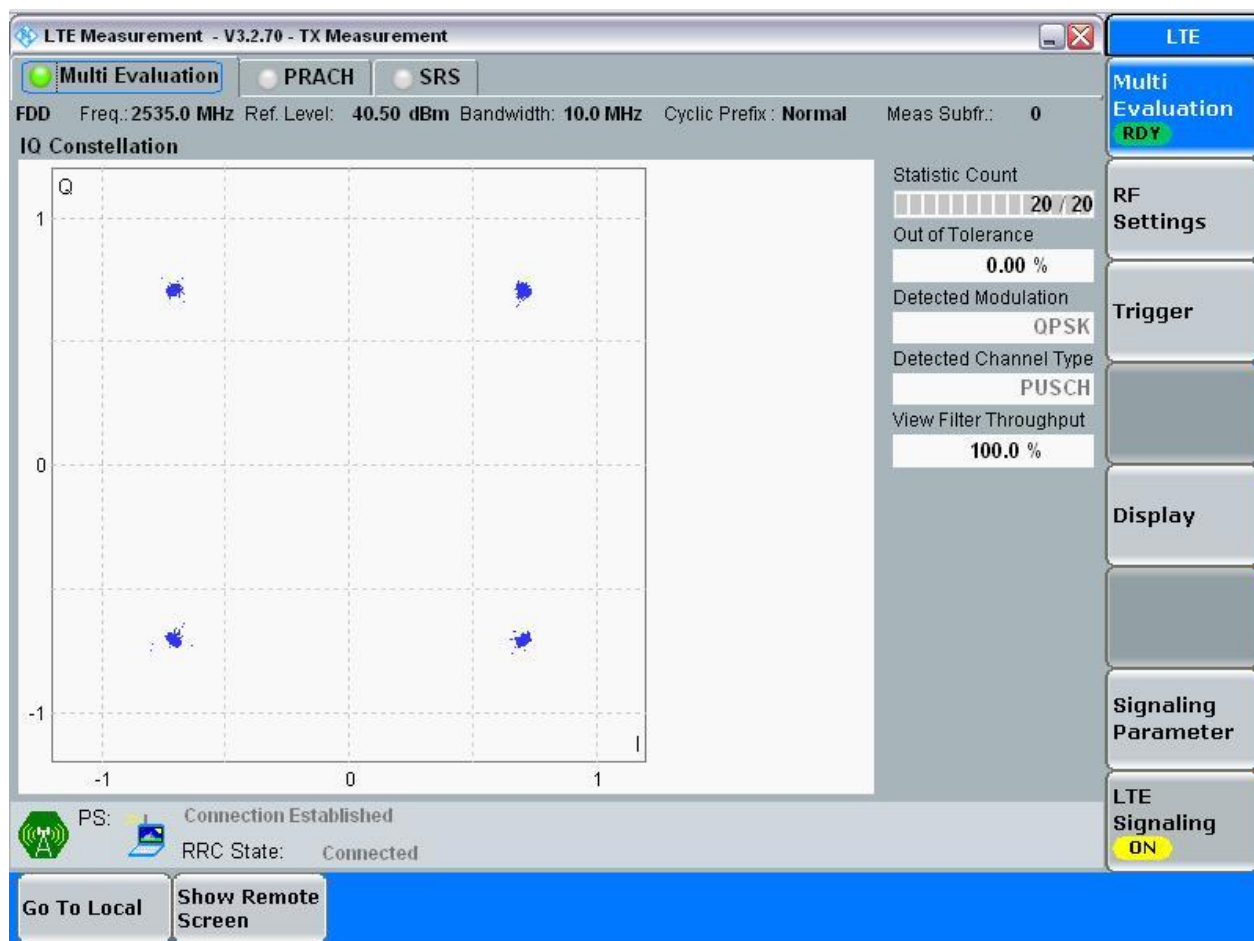
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

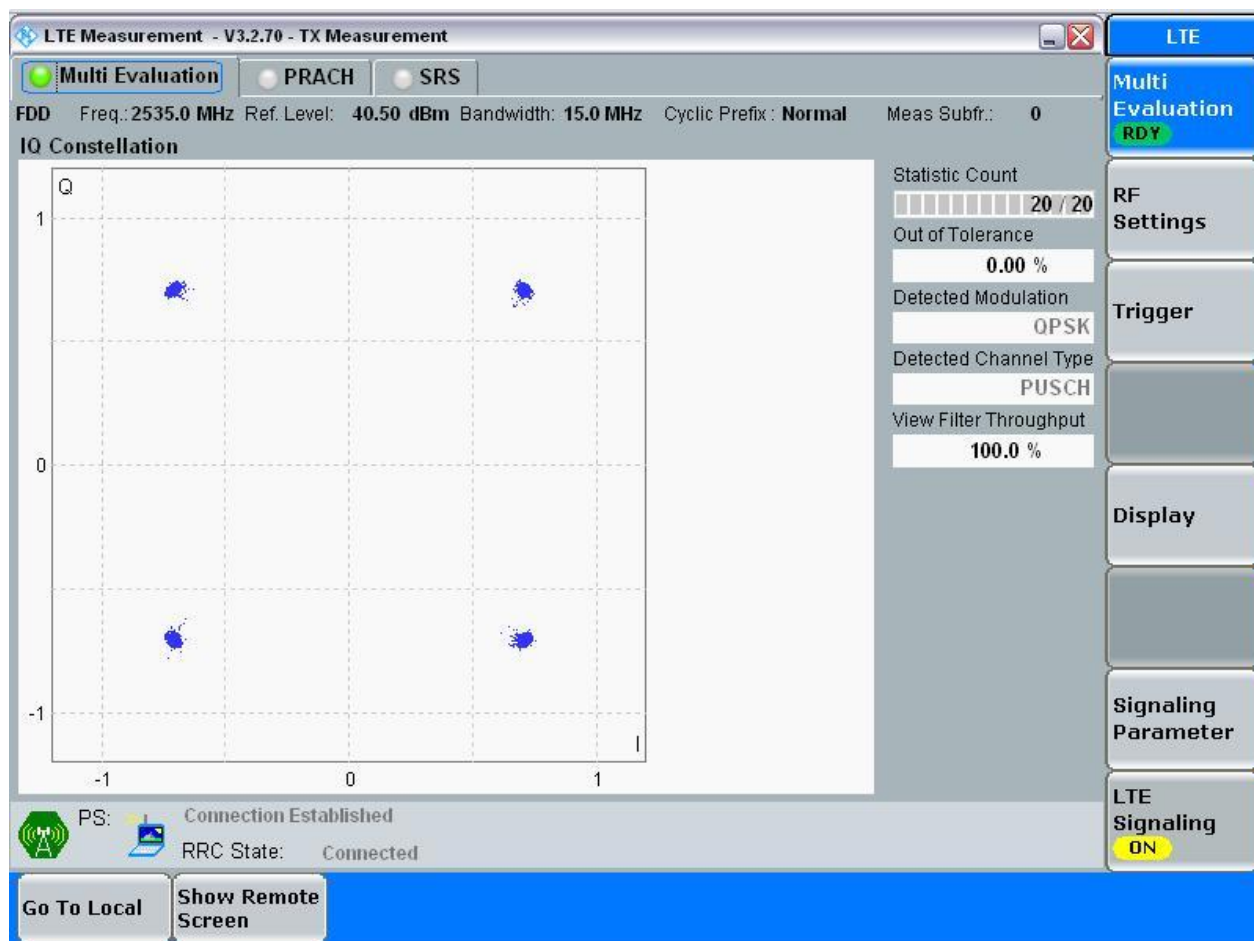
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

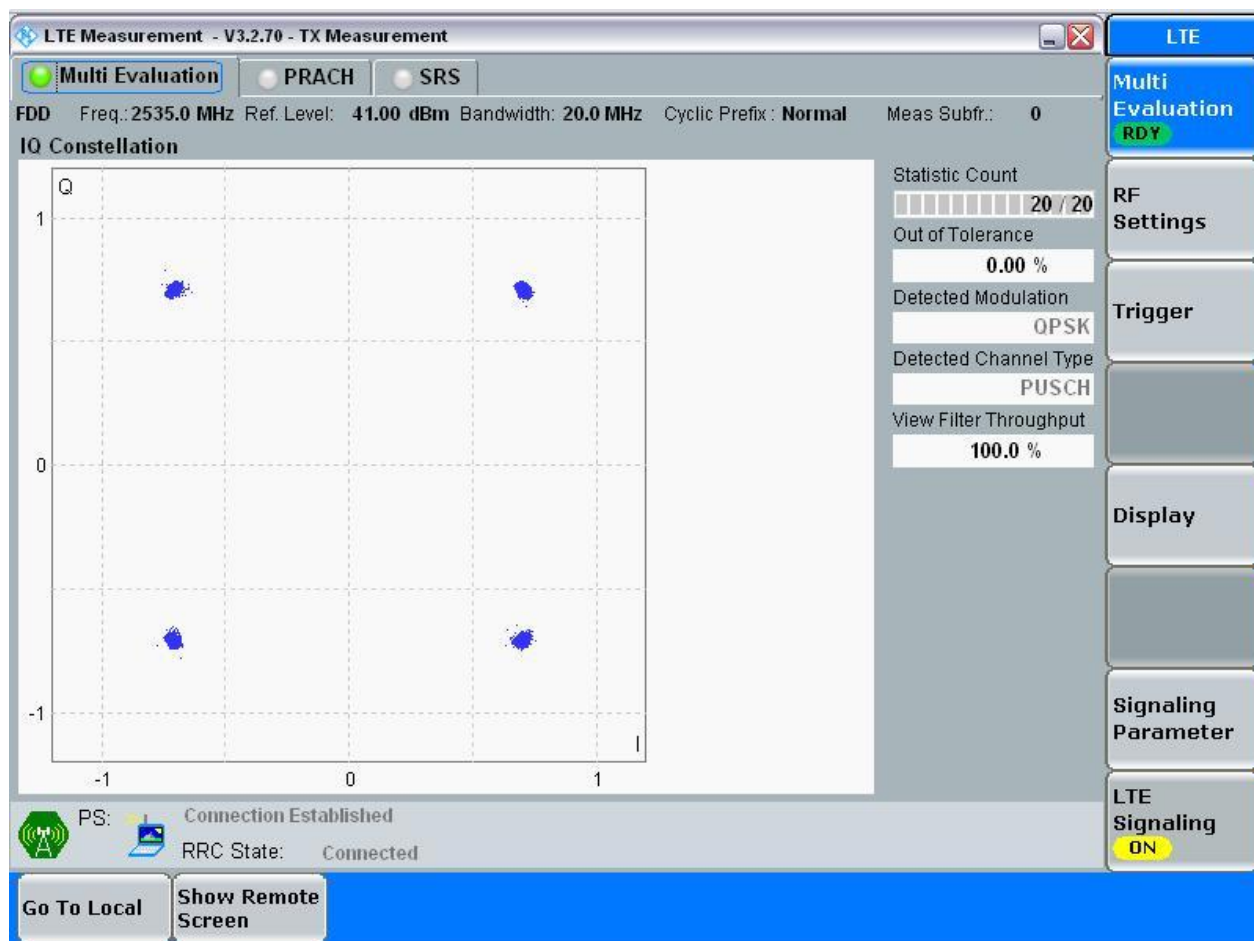
3.1.1.1.3.1.1 Test RB = RB75#0



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

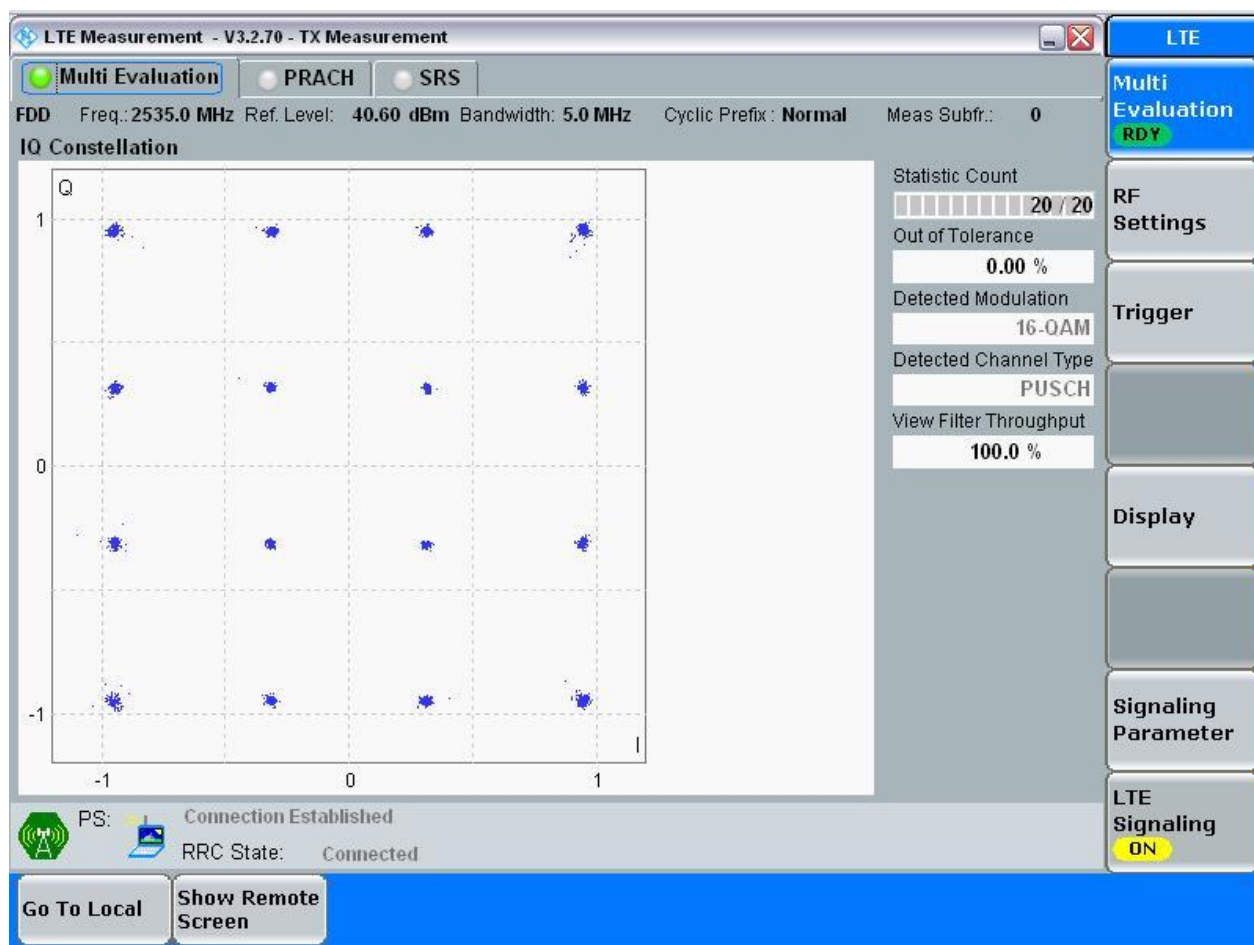


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

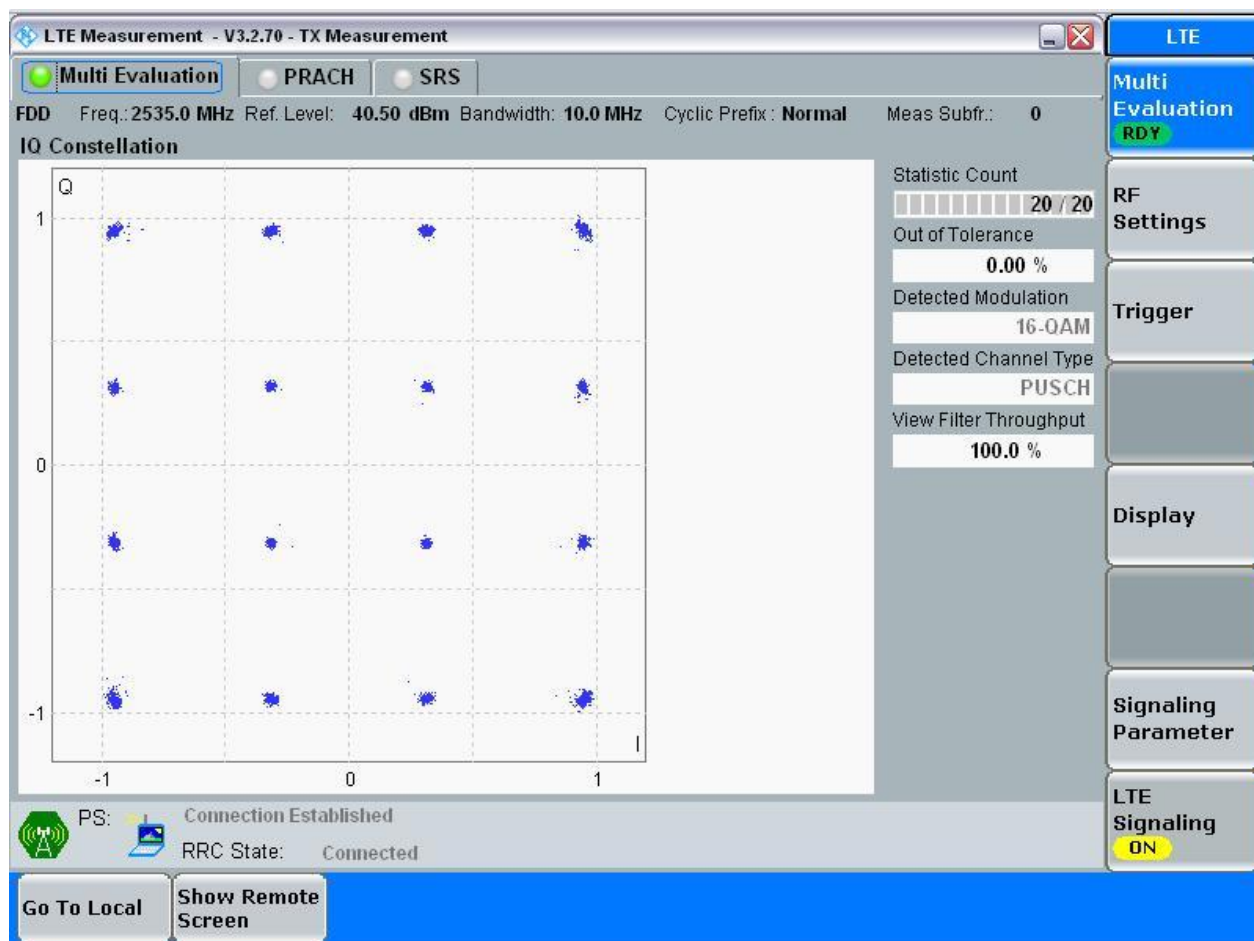
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

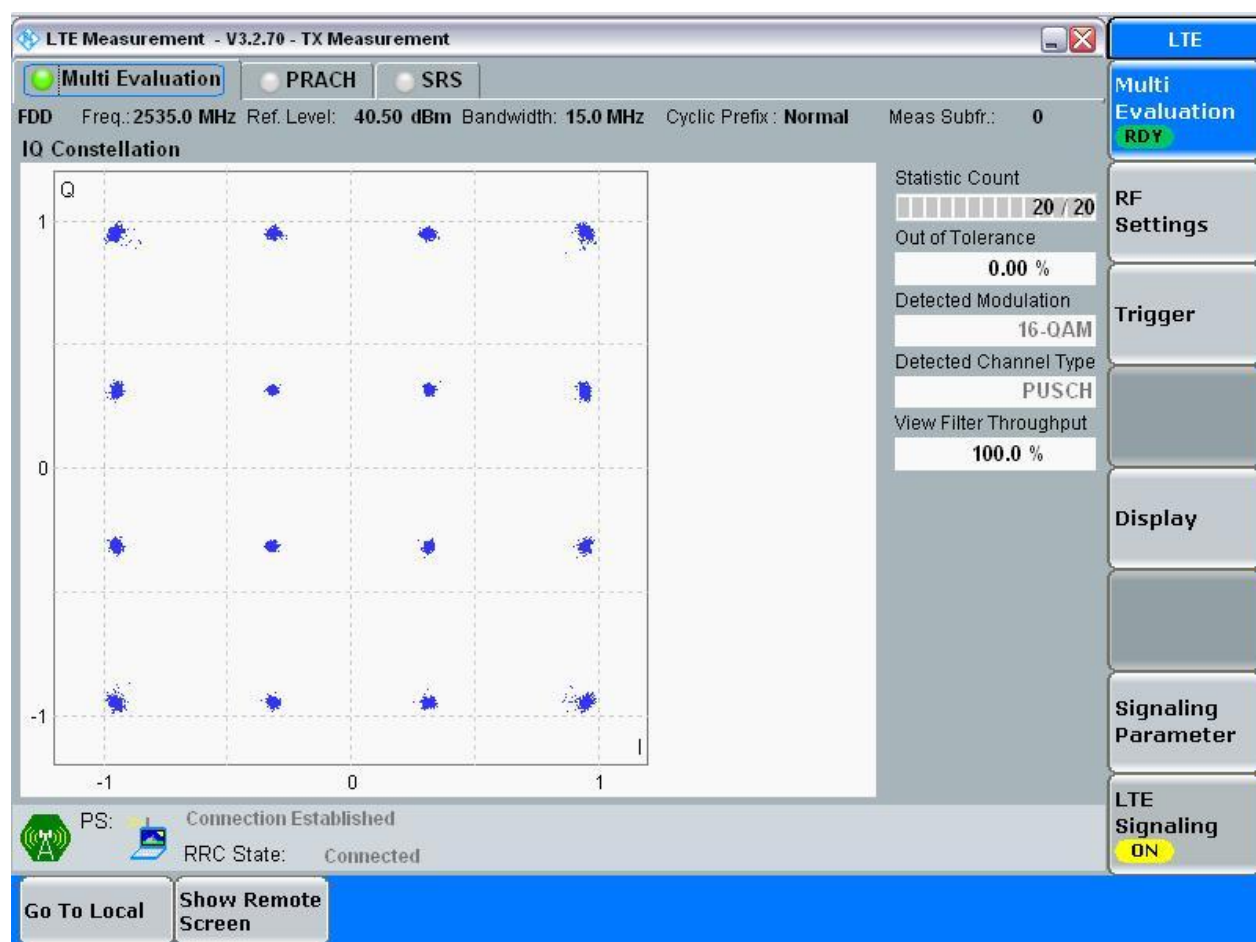
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

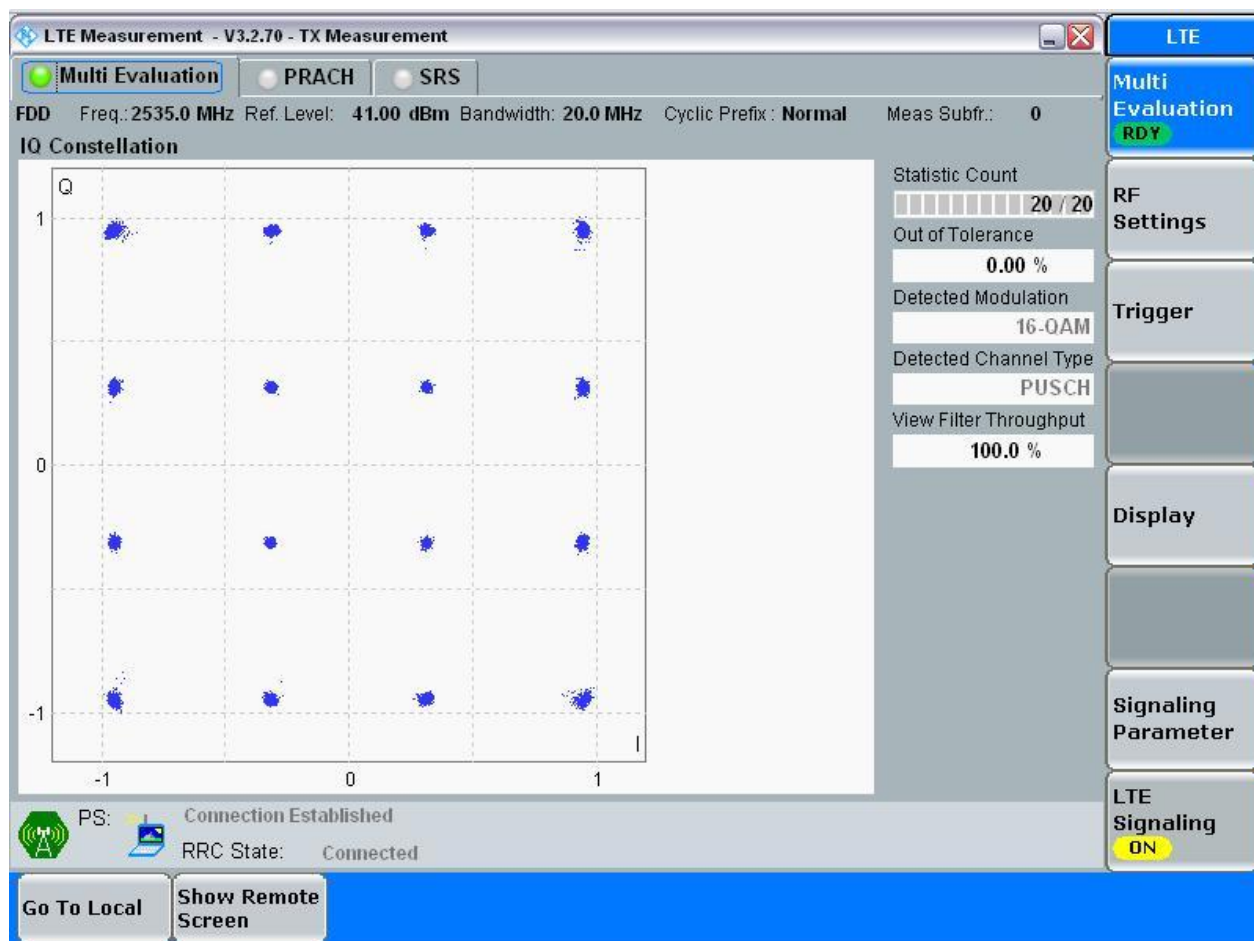
3.1.1.2.3.1.1 Test RB = RB75#0



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	4.52	4.99	Pass
			MCH	RB25#0	4.51	4.96	Pass
			HCH	RB25#0	4.50	4.96	Pass
		10	LCH	RB50#0	8.99	9.93	Pass
			MCH	RB50#0	8.98	9.90	Pass
			HCH	RB50#0	9.01	9.97	Pass
		15	LCH	RB75#0	13.49	15.01	Pass
			MCH	RB75#0	13.49	15.01	Pass
			HCH	RB75#0	13.47	14.98	Pass
		20	LCH	RB100#0	17.99	19.78	Pass
			MCH	RB100#0	17.98	19.87	Pass
			HCH	RB100#0	17.97	19.77	Pass
	LTE/TM2	5	LCH	RB25#0	4.51	4.98	Pass
			MCH	RB25#0	4.52	4.99	Pass
			HCH	RB25#0	4.51	4.99	Pass
		10	LCH	RB50#0	8.98	9.88	Pass
			MCH	RB50#0	8.99	9.88	Pass
			HCH	RB50#0	8.99	9.91	Pass
		15	LCH	RB75#0	13.49	15.06	Pass
			MCH	RB75#0	13.51	14.97	Pass
			HCH	RB75#0	13.48	14.99	Pass
		20	LCH	RB100#0	17.98	19.72	Pass
			MCH	RB100#0	18.02	19.83	Pass
			HCH	RB100#0	17.98	19.85	Pass



Part II - Test Plots

4.1 For LTE

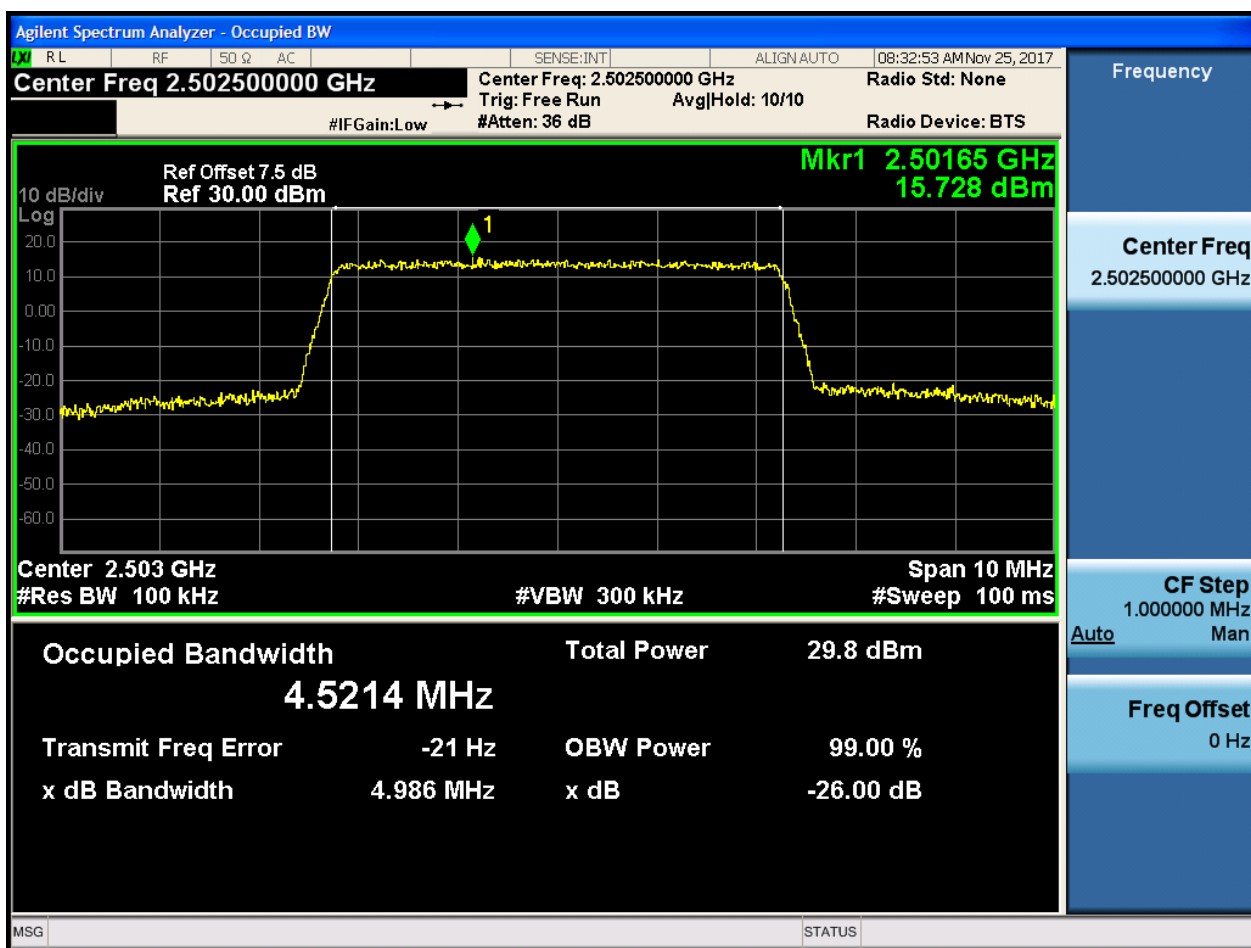
4.1.1 Test Band = BAND7

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

4.1.1.1.1.1 Test Channel = LCH

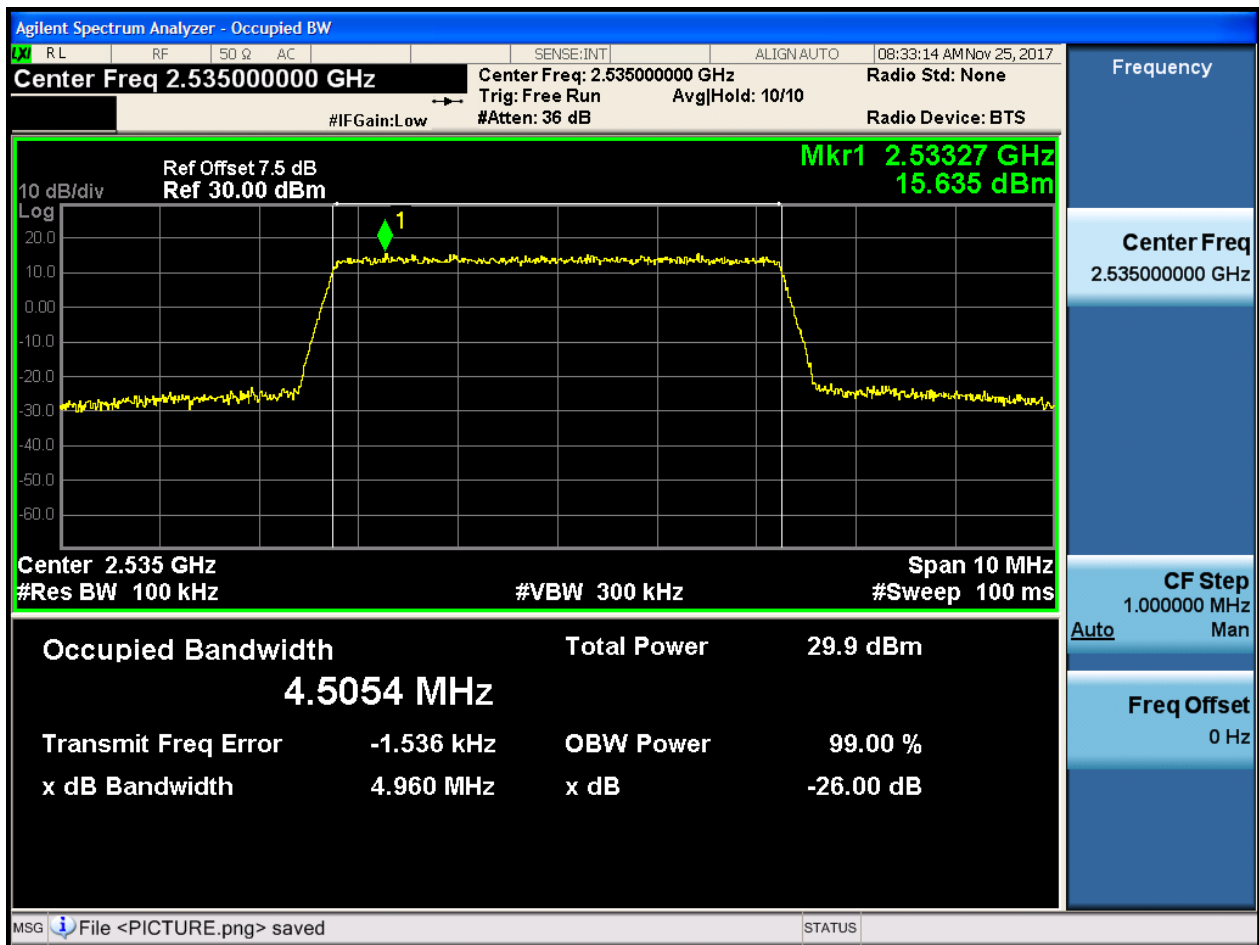
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

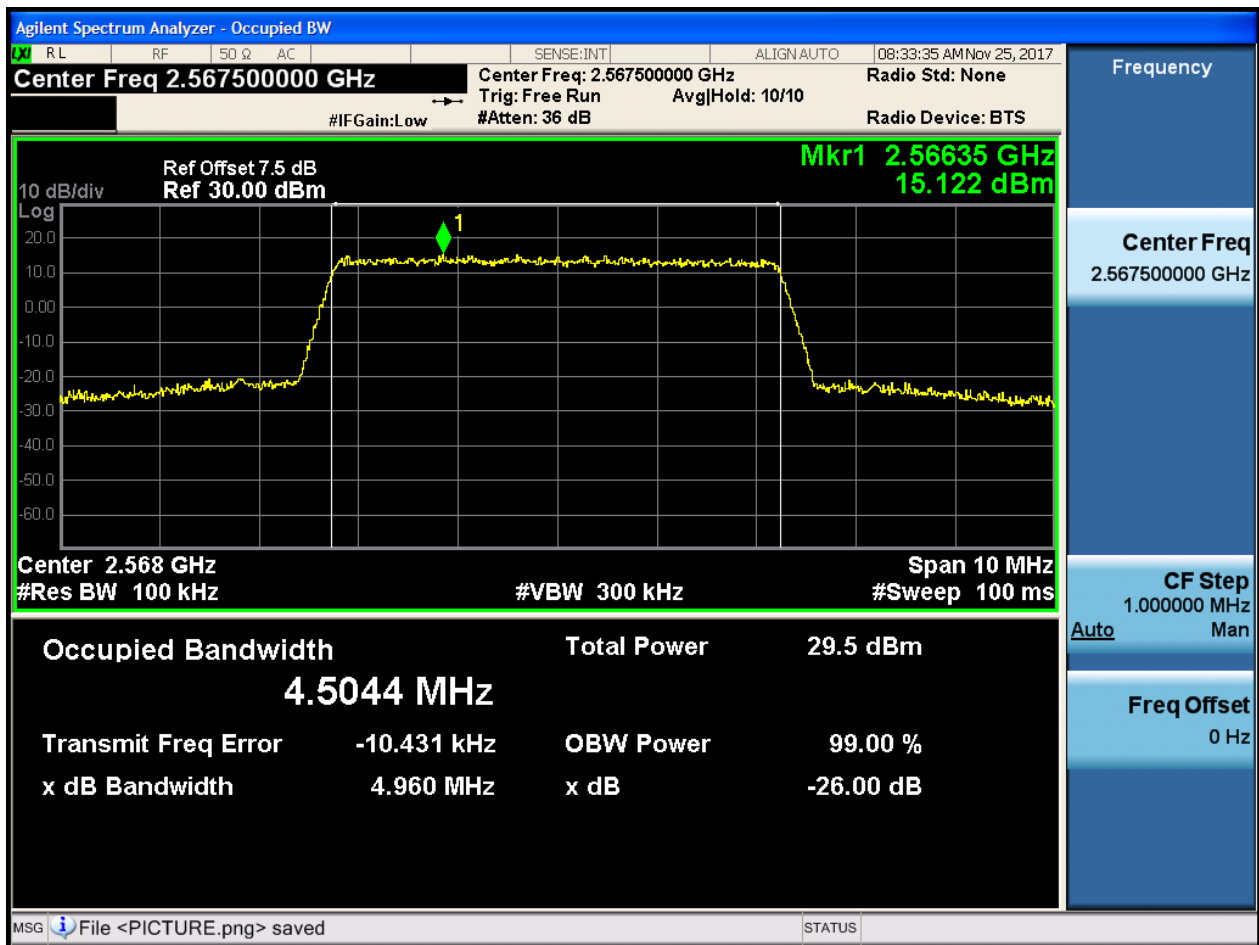
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

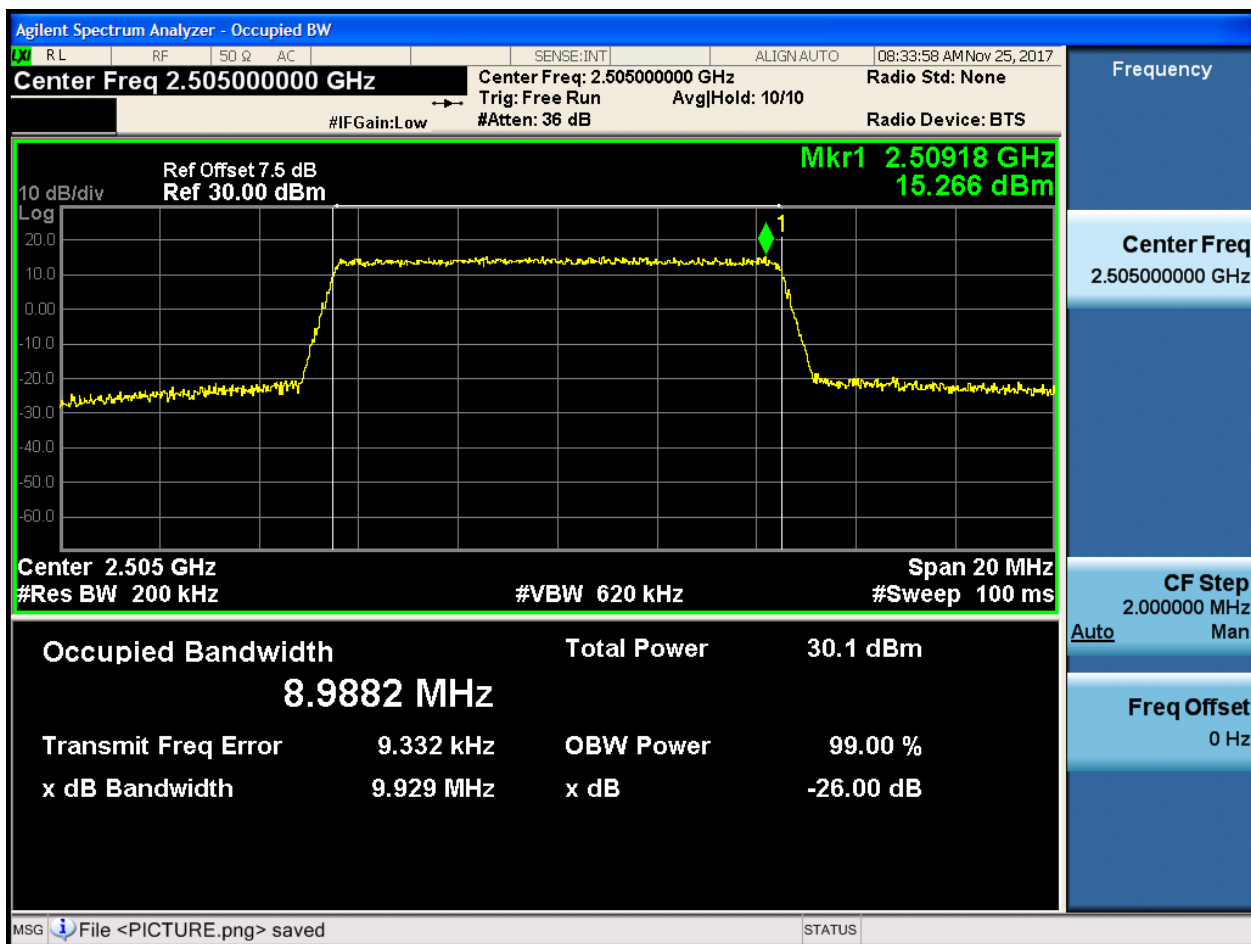




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

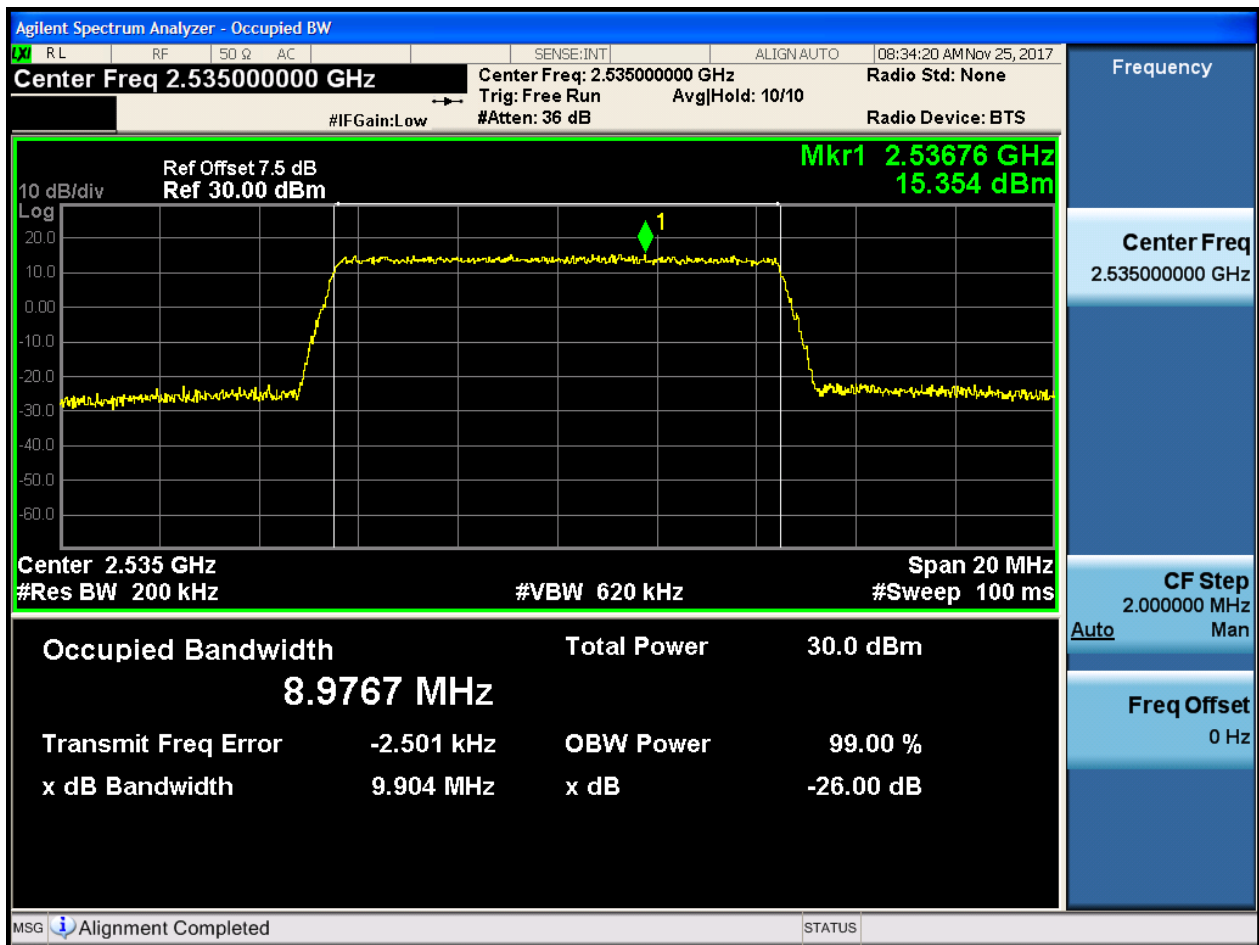
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

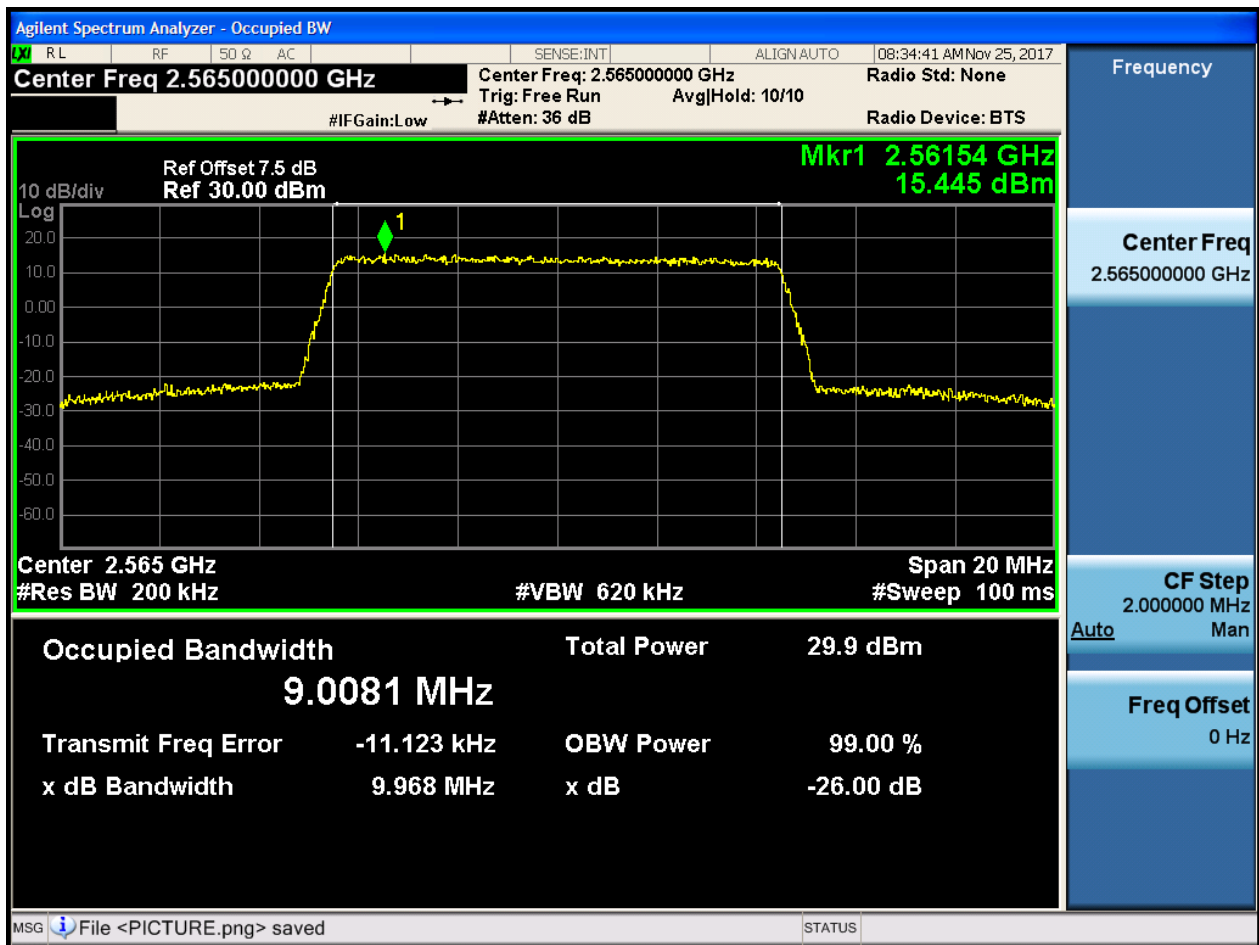
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0

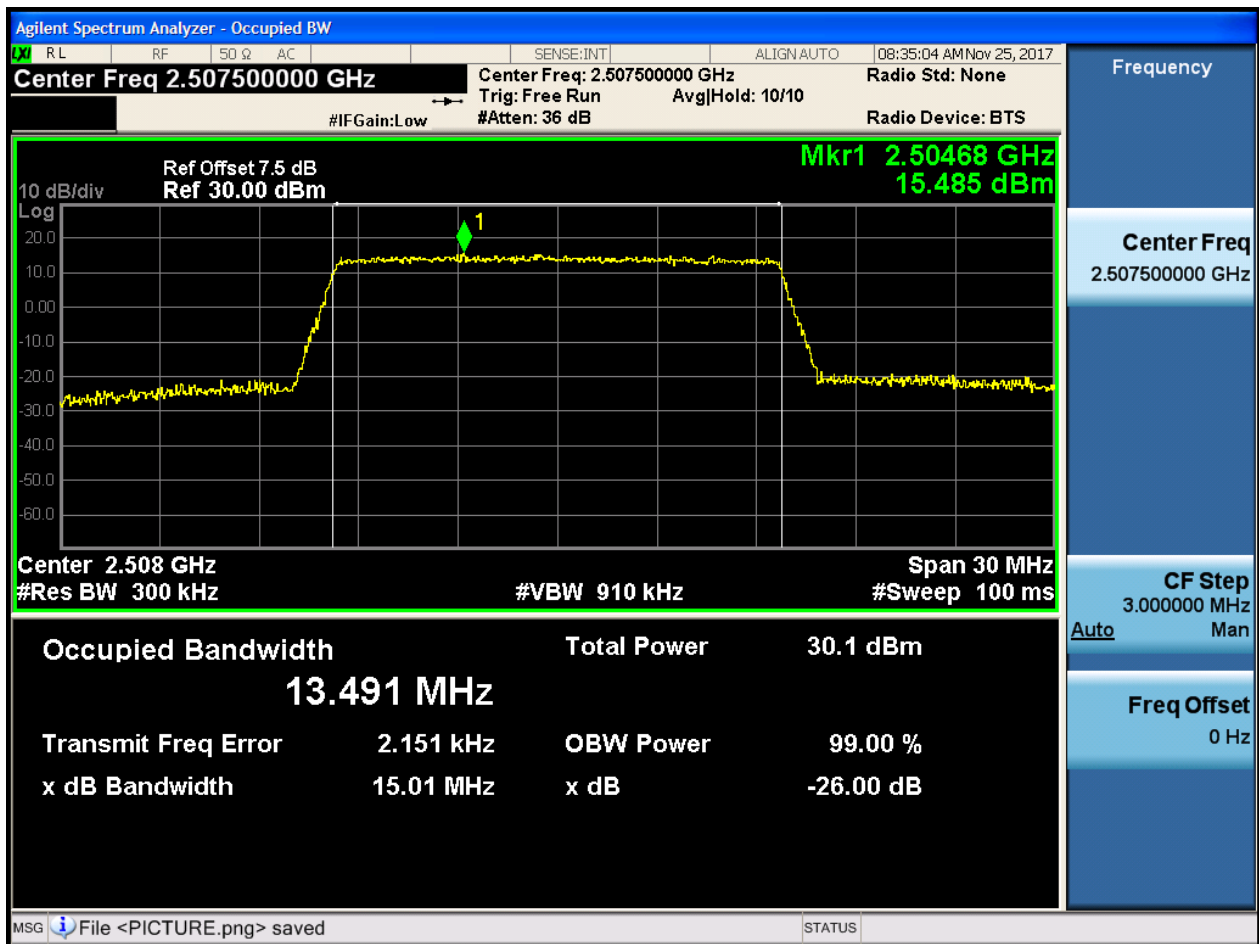




4.1.1.1.3 Test Bandwidth = 15

4.1.1.1.3.1 Test Channel = LCH

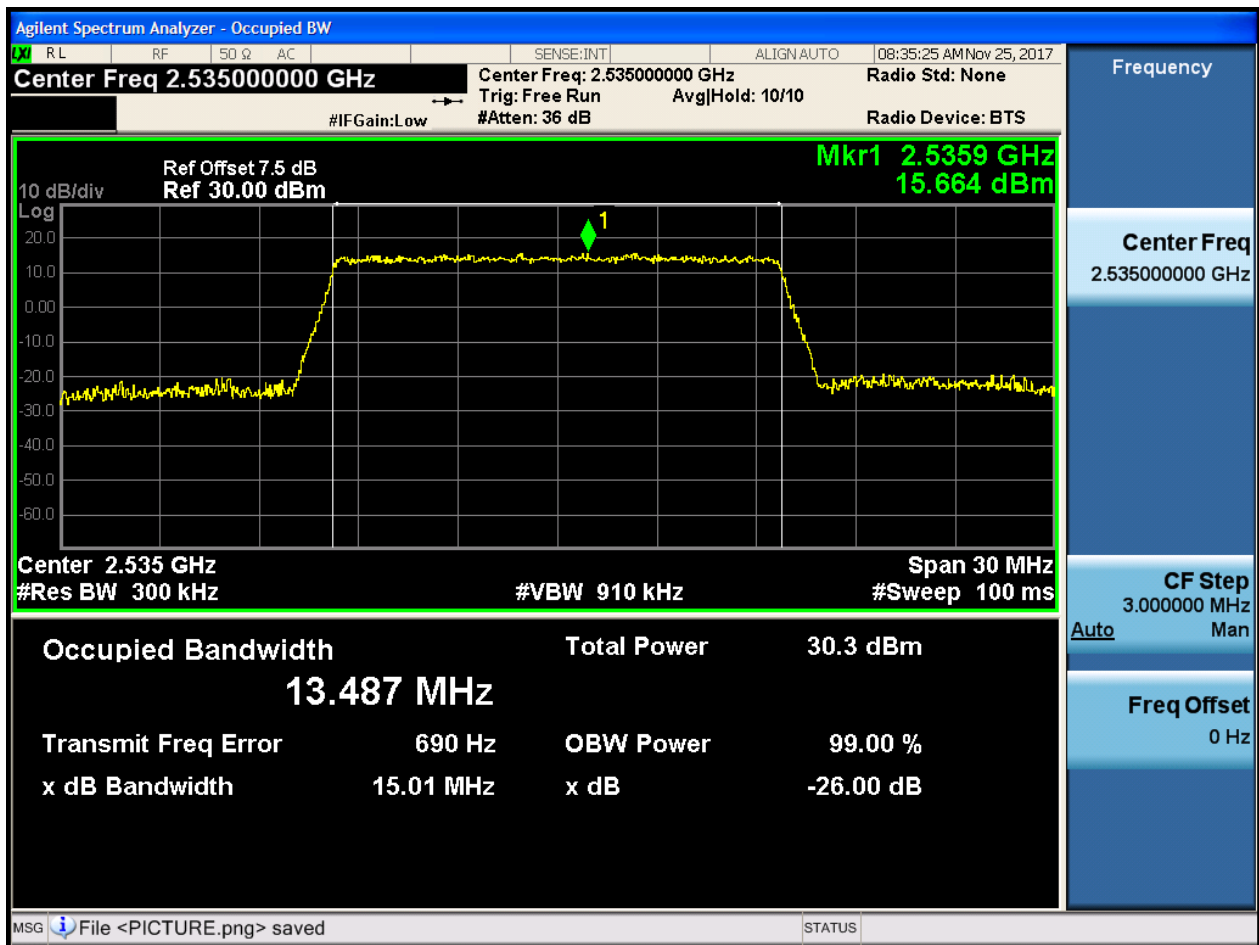
4.1.1.1.3.1.1 Test RB = RB75#0





4.1.1.1.3.2 Test Channel = MCH

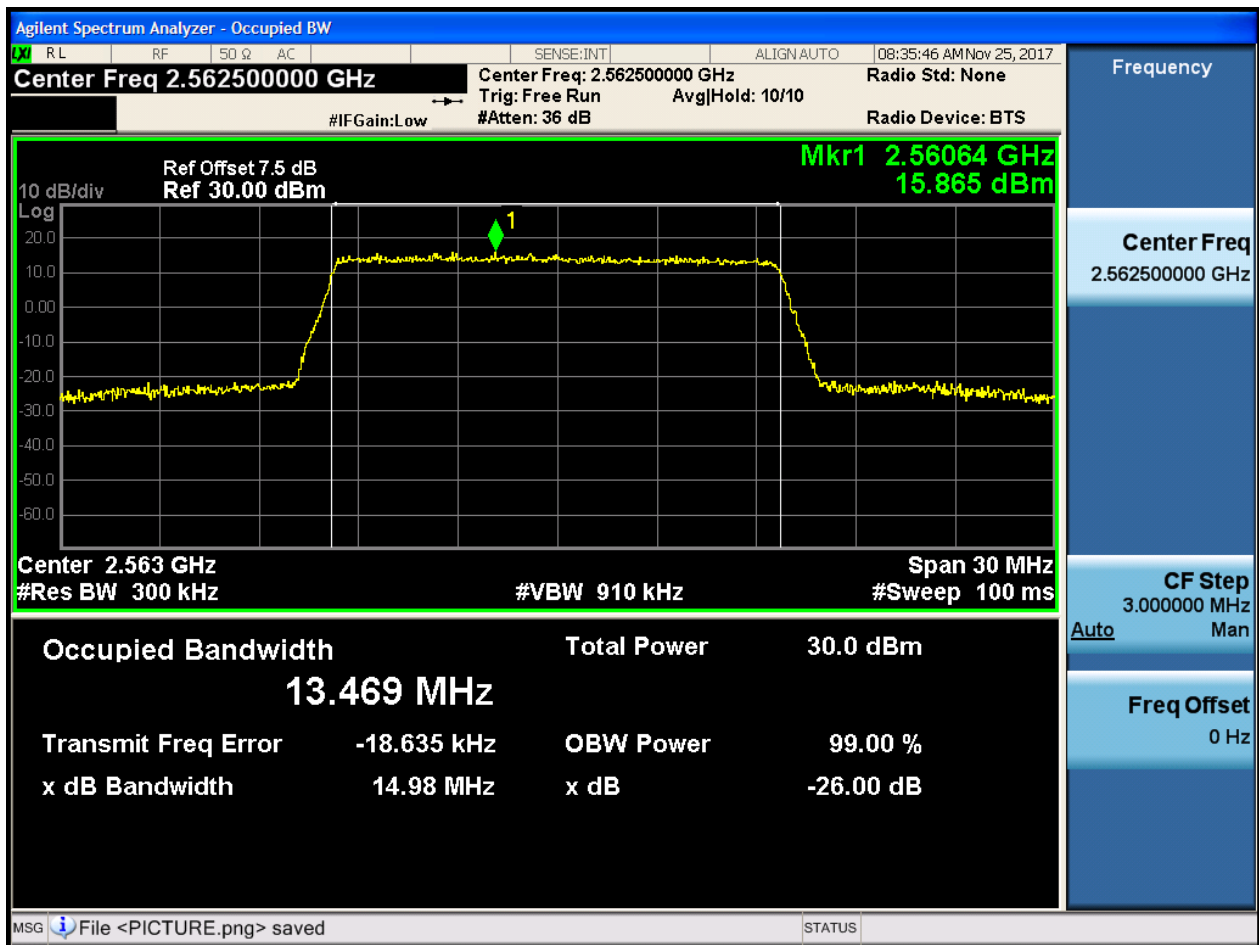
4.1.1.1.3.2.1 Test RB = RB75#0





4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB75#0

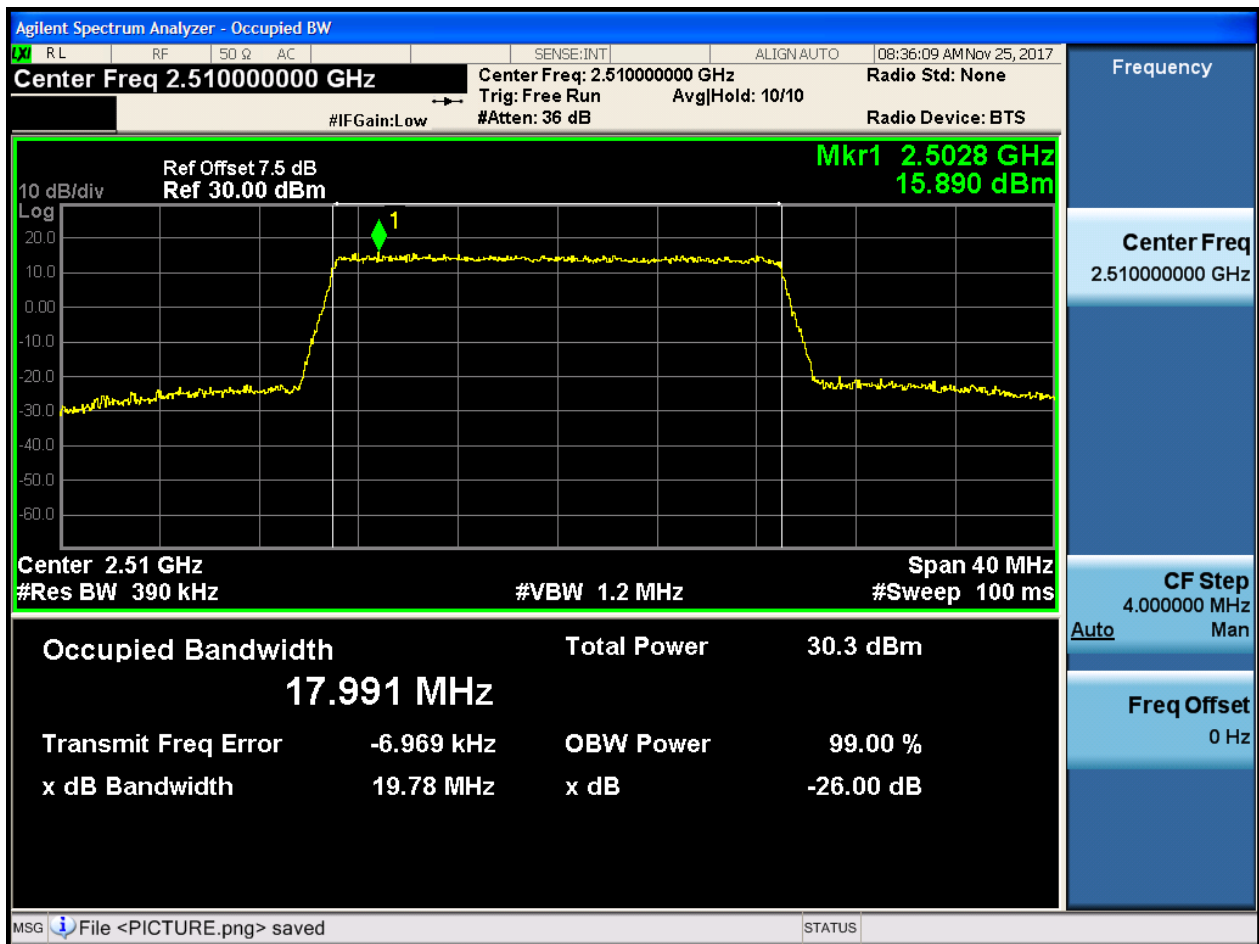




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

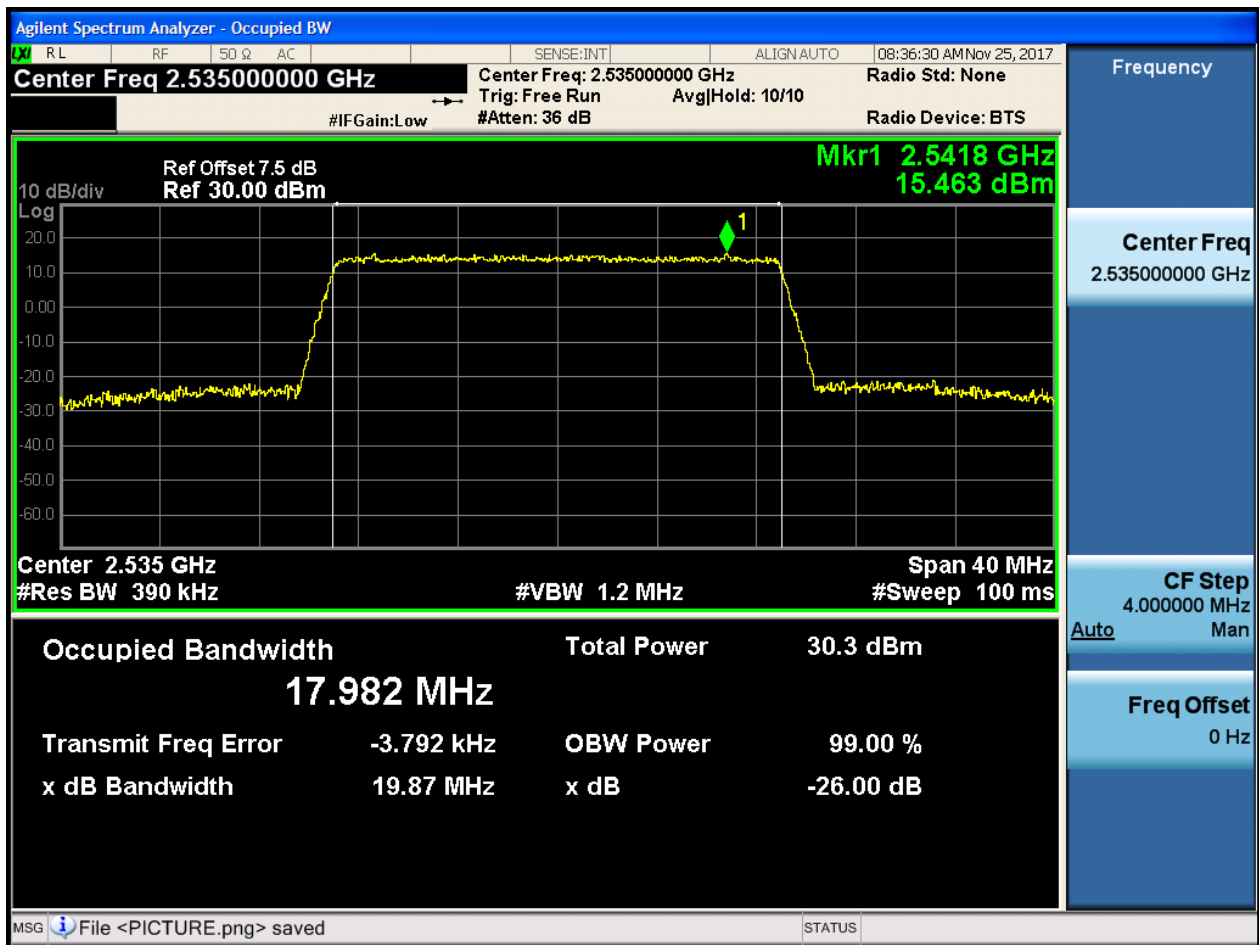
4.1.1.1.4.1.1 Test RB = RB100#0





4.1.1.1.4.2 Test Channel = MCH

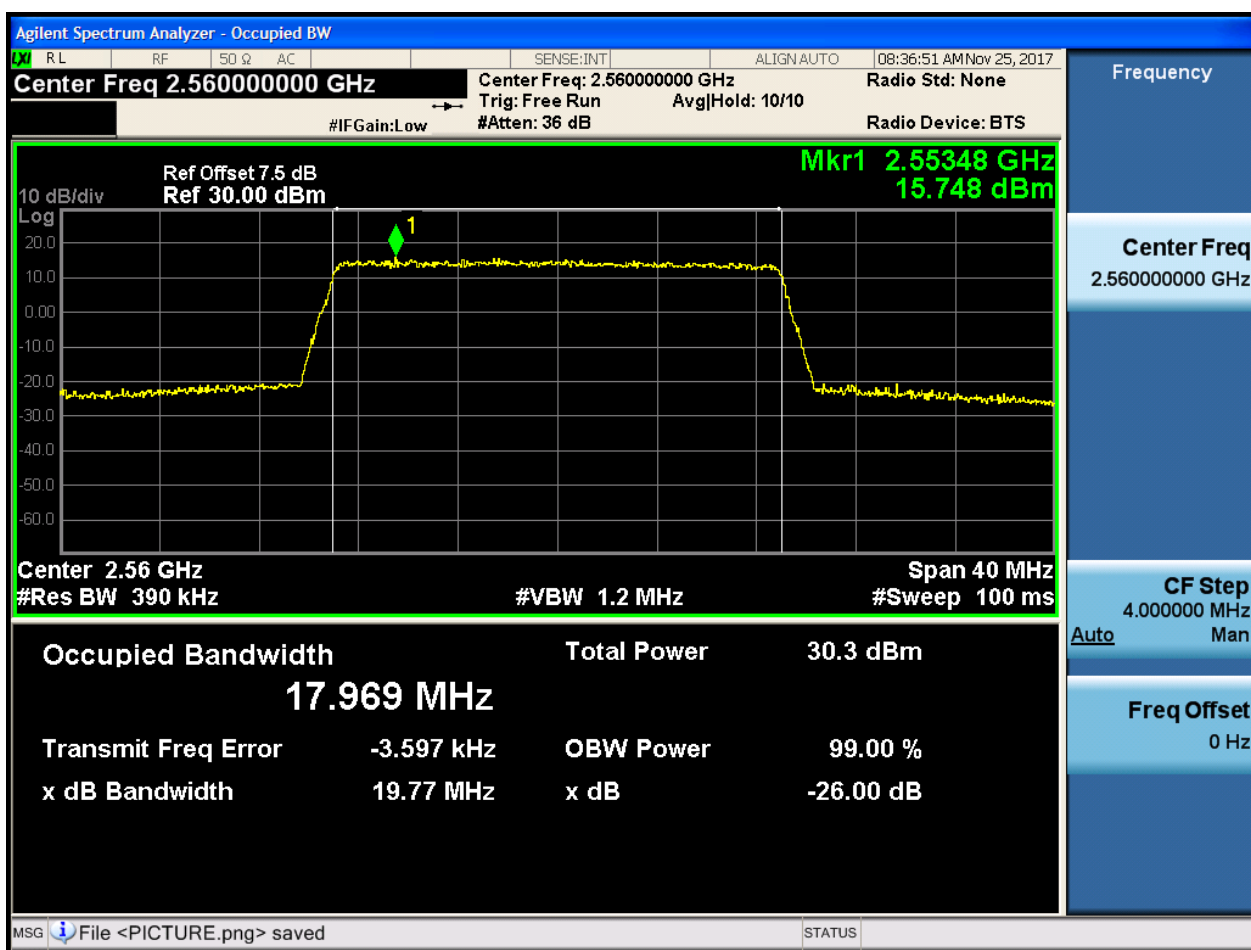
4.1.1.1.4.2.1 Test RB = RB100#0





4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB100#0



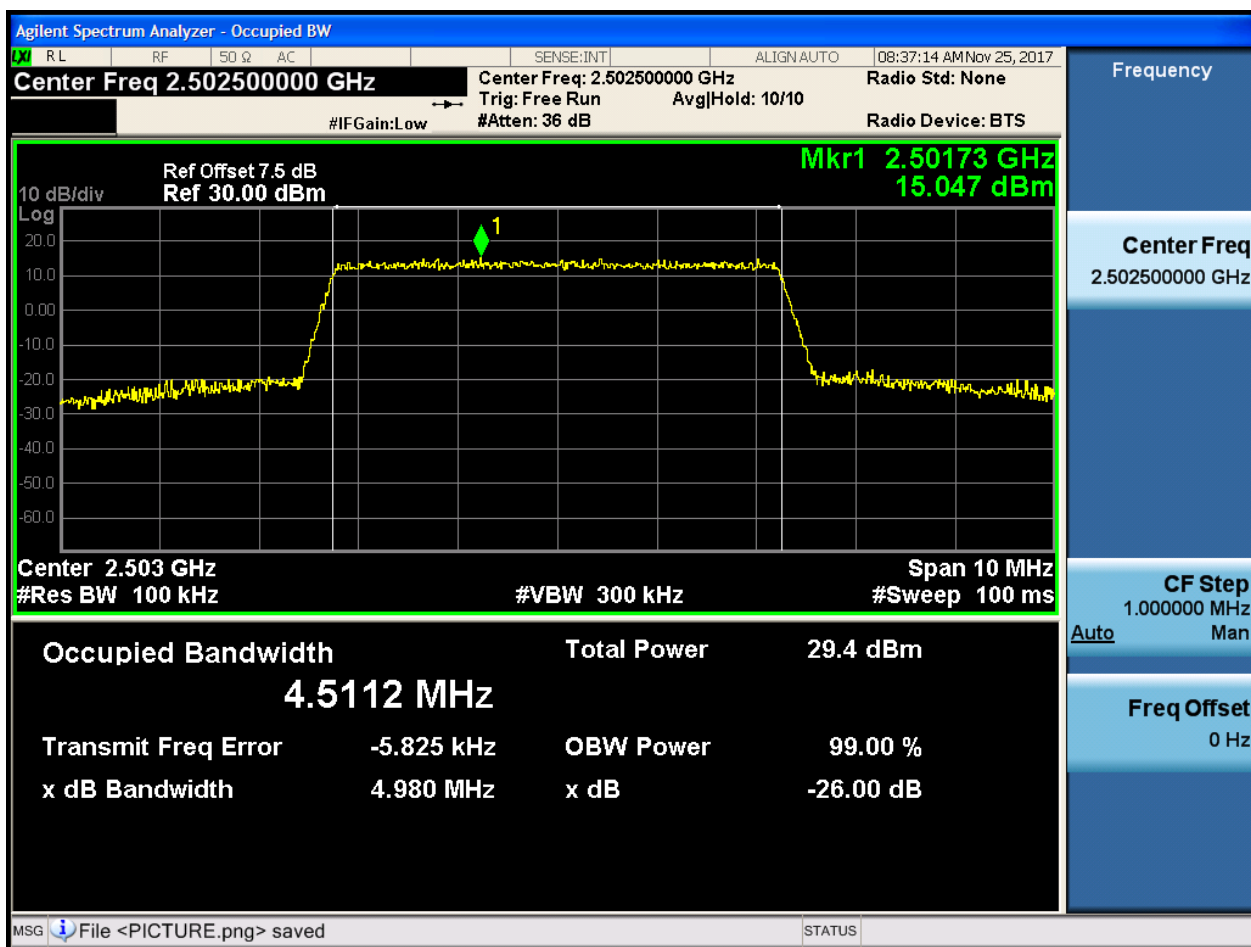


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

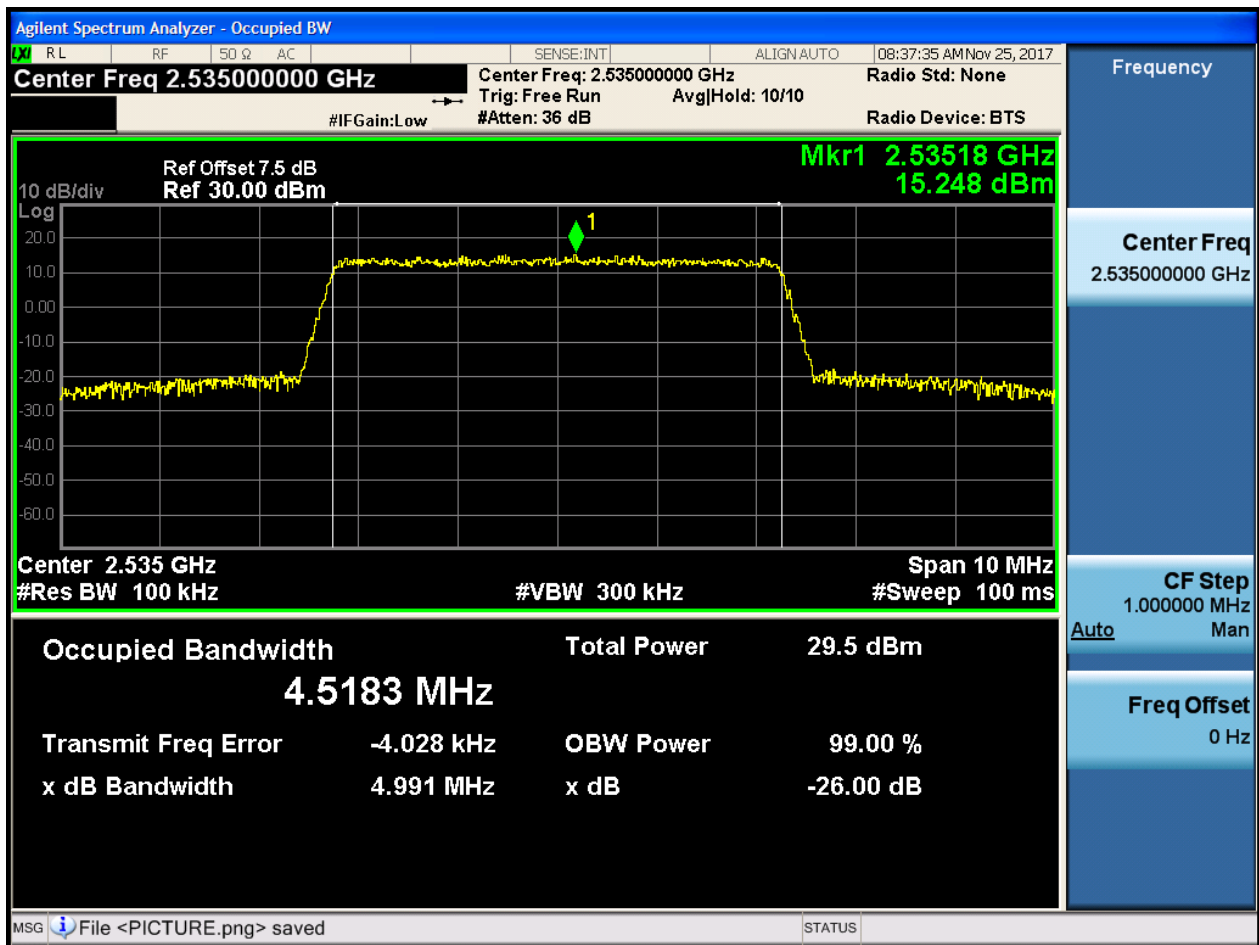
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

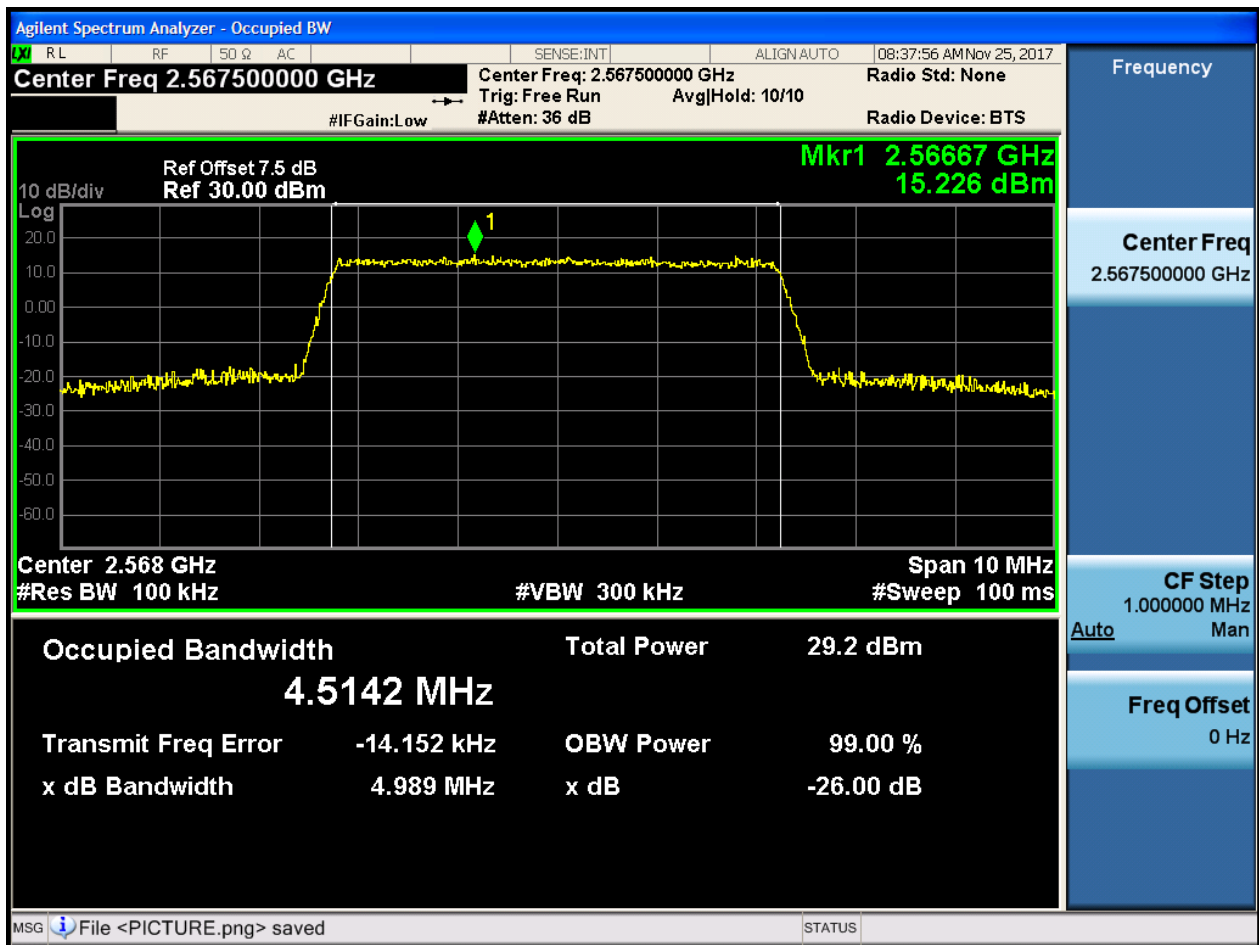
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

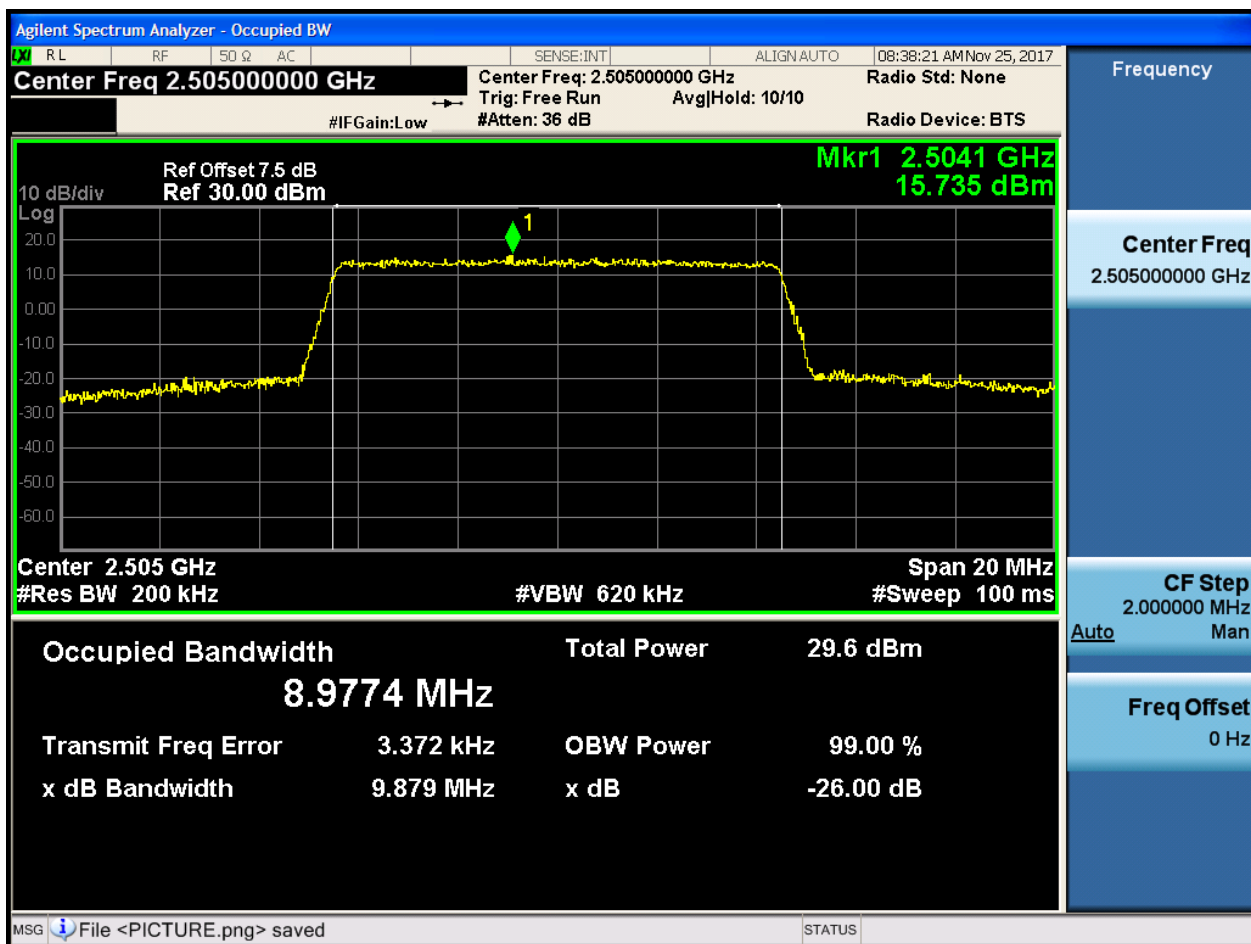




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

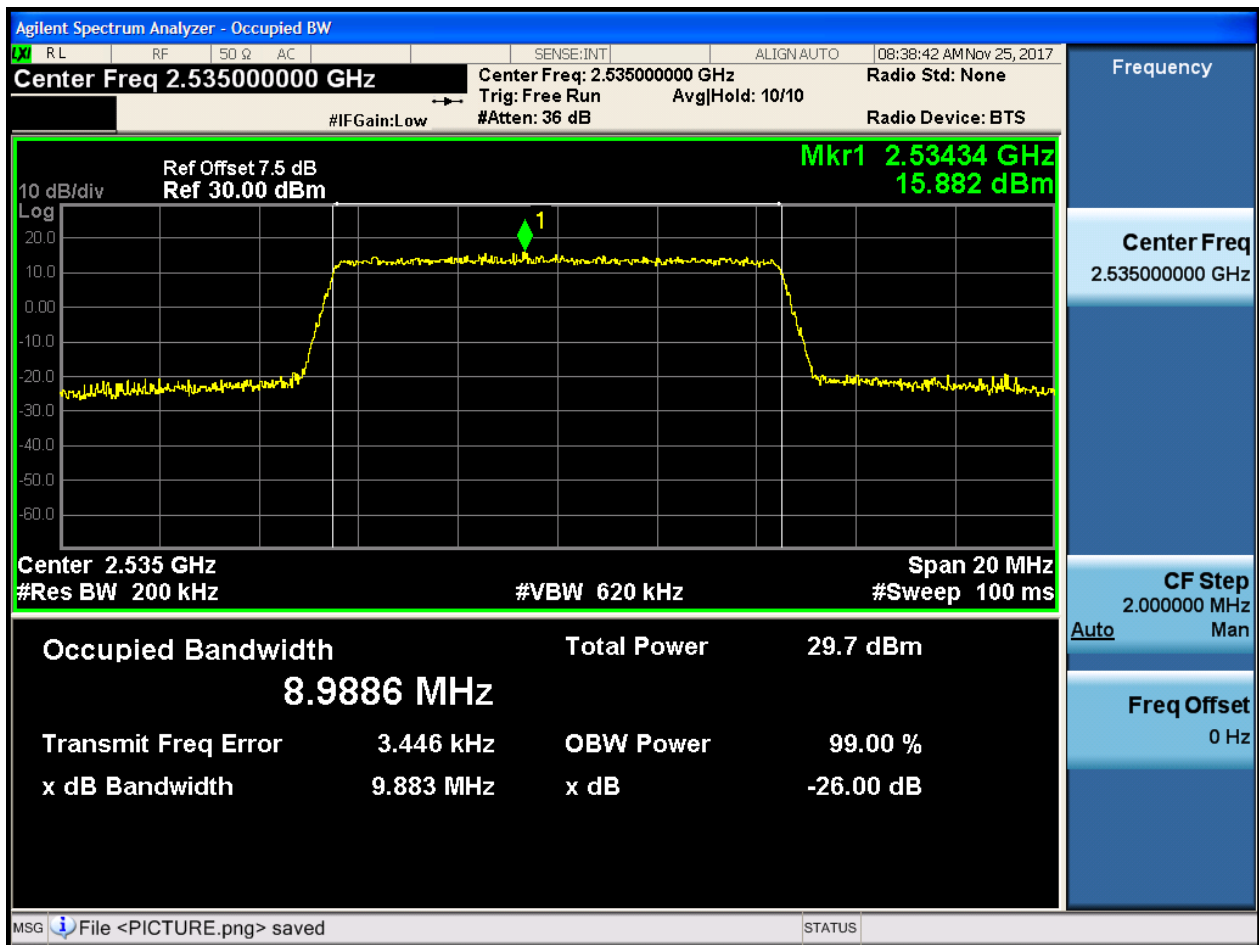
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

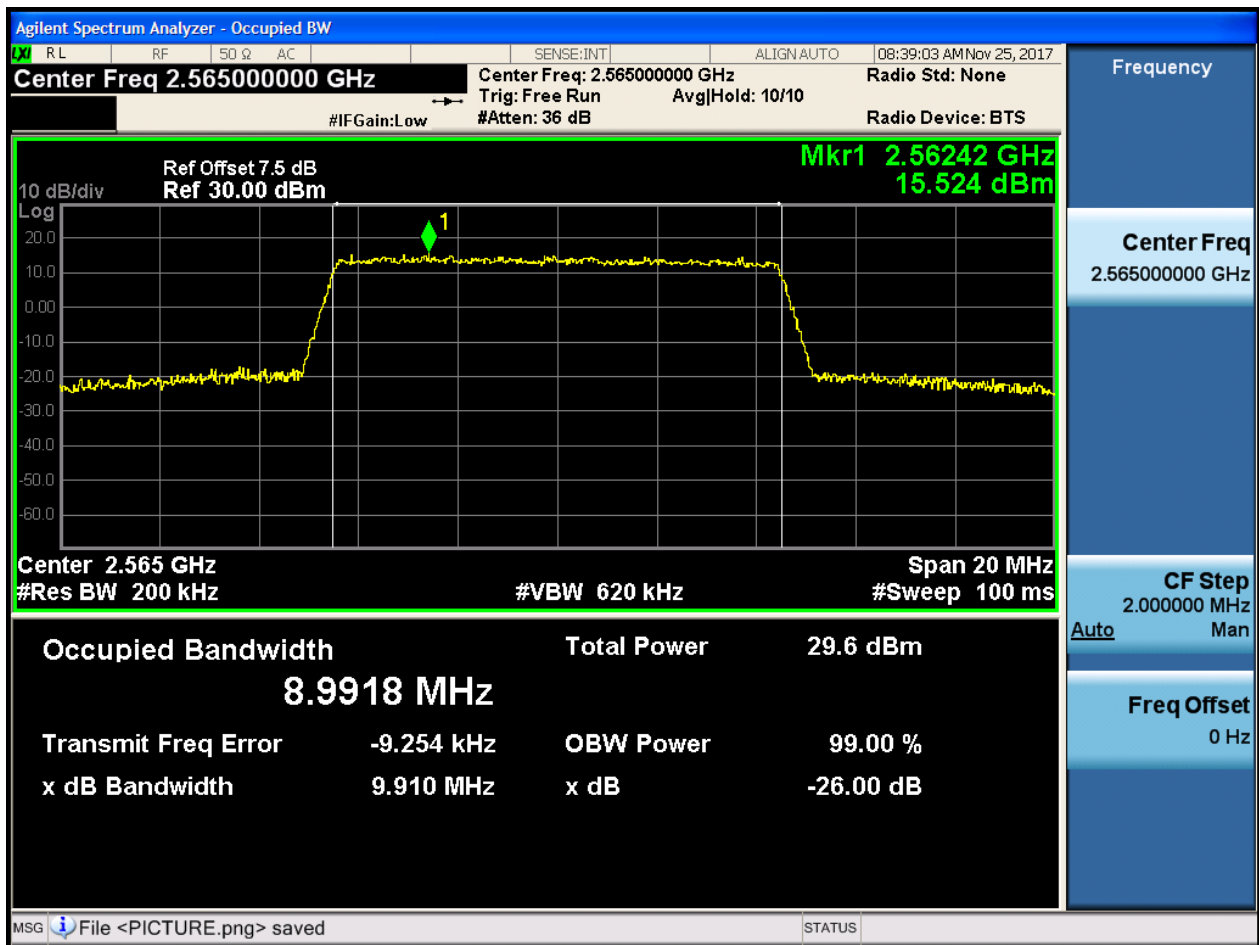
4.1.1.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

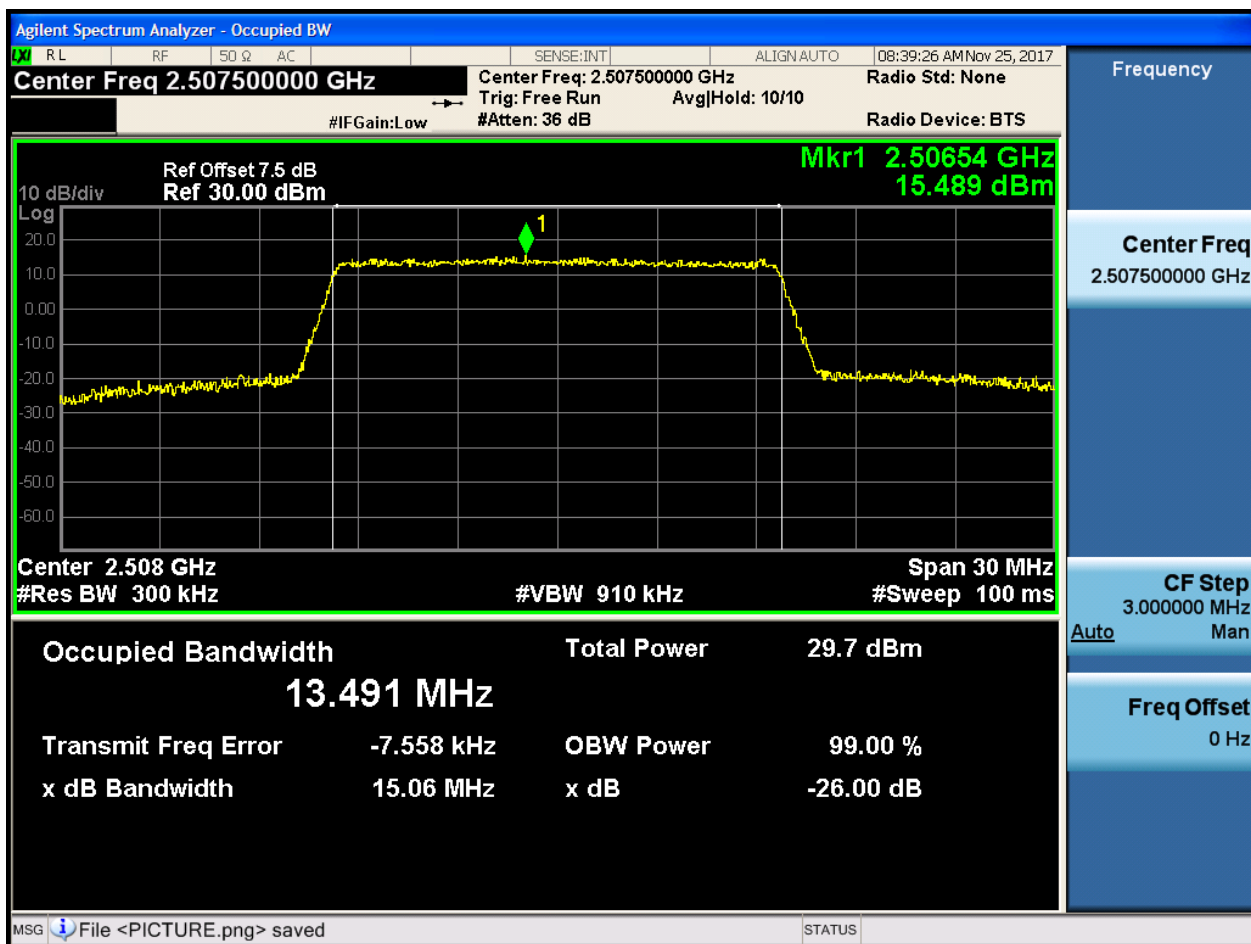




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

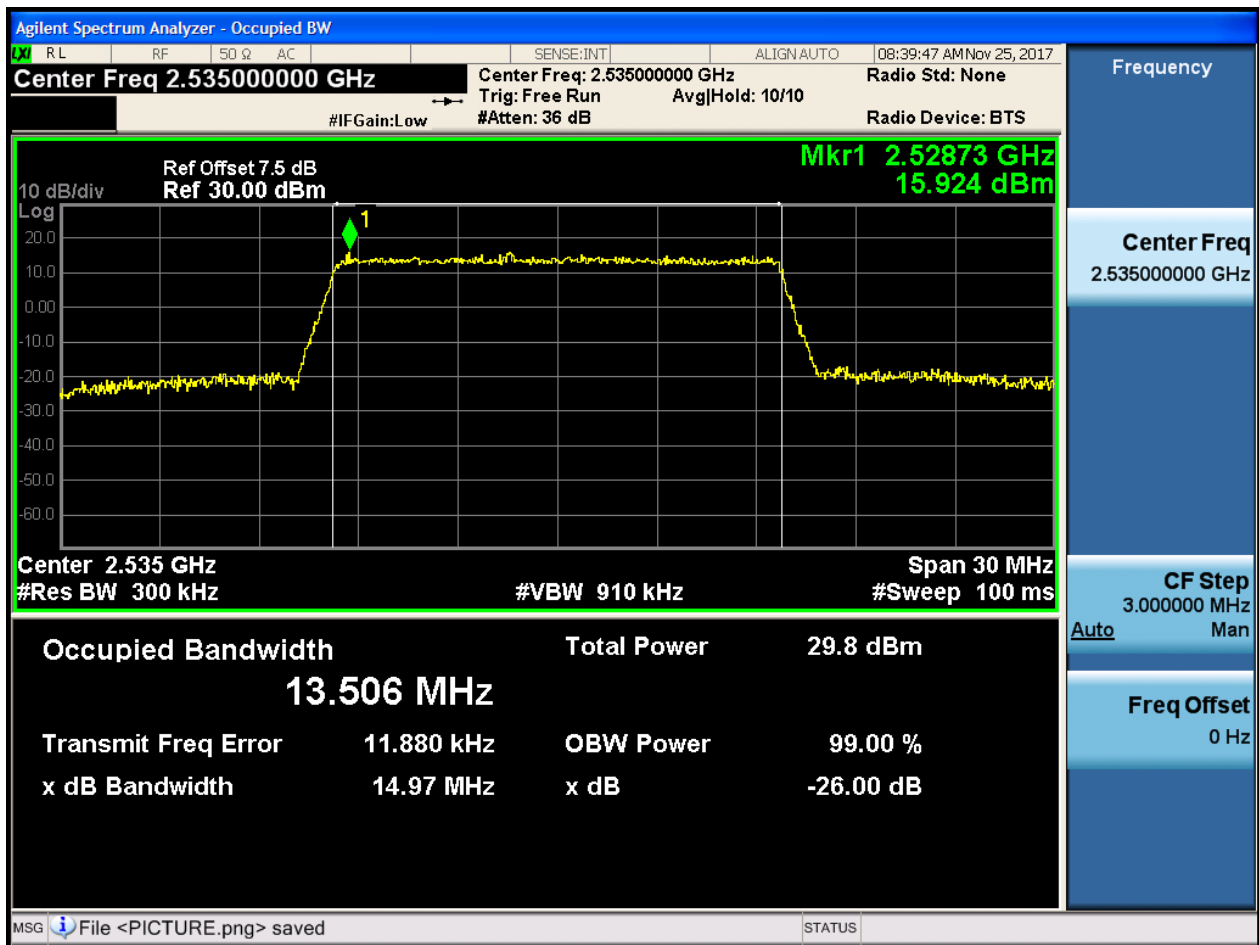
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

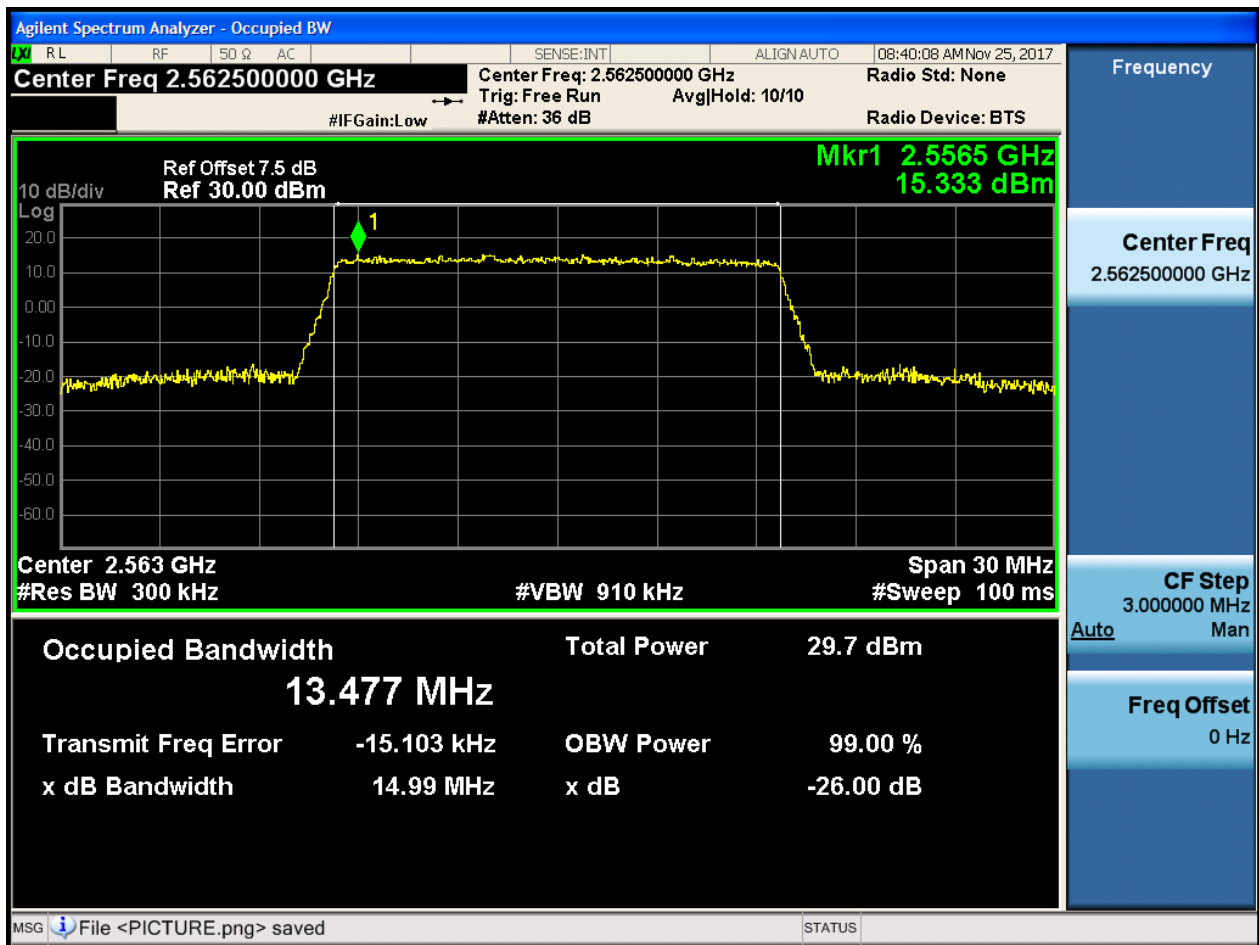
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

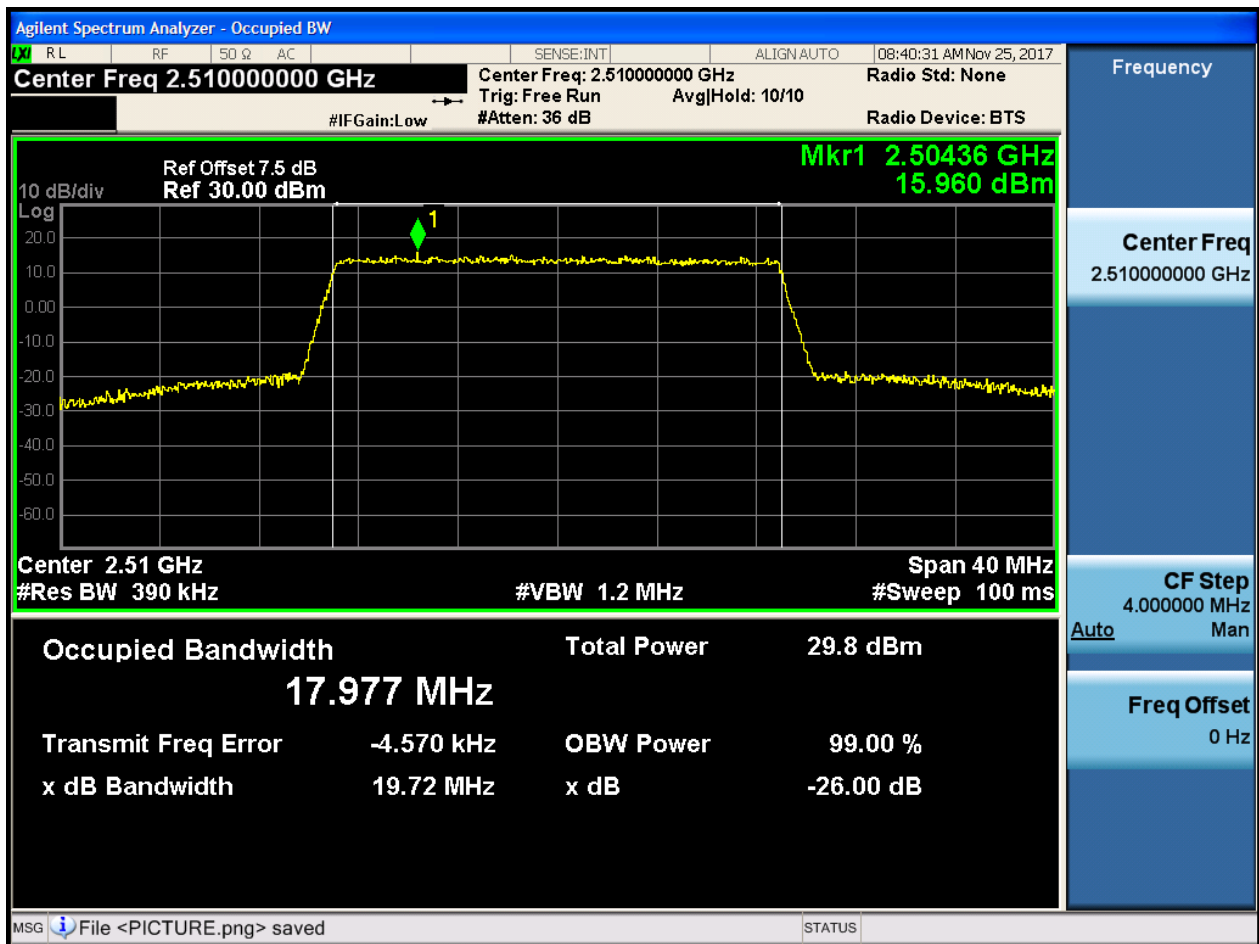




4.1.1.2.4 Test Bandwidth = 20

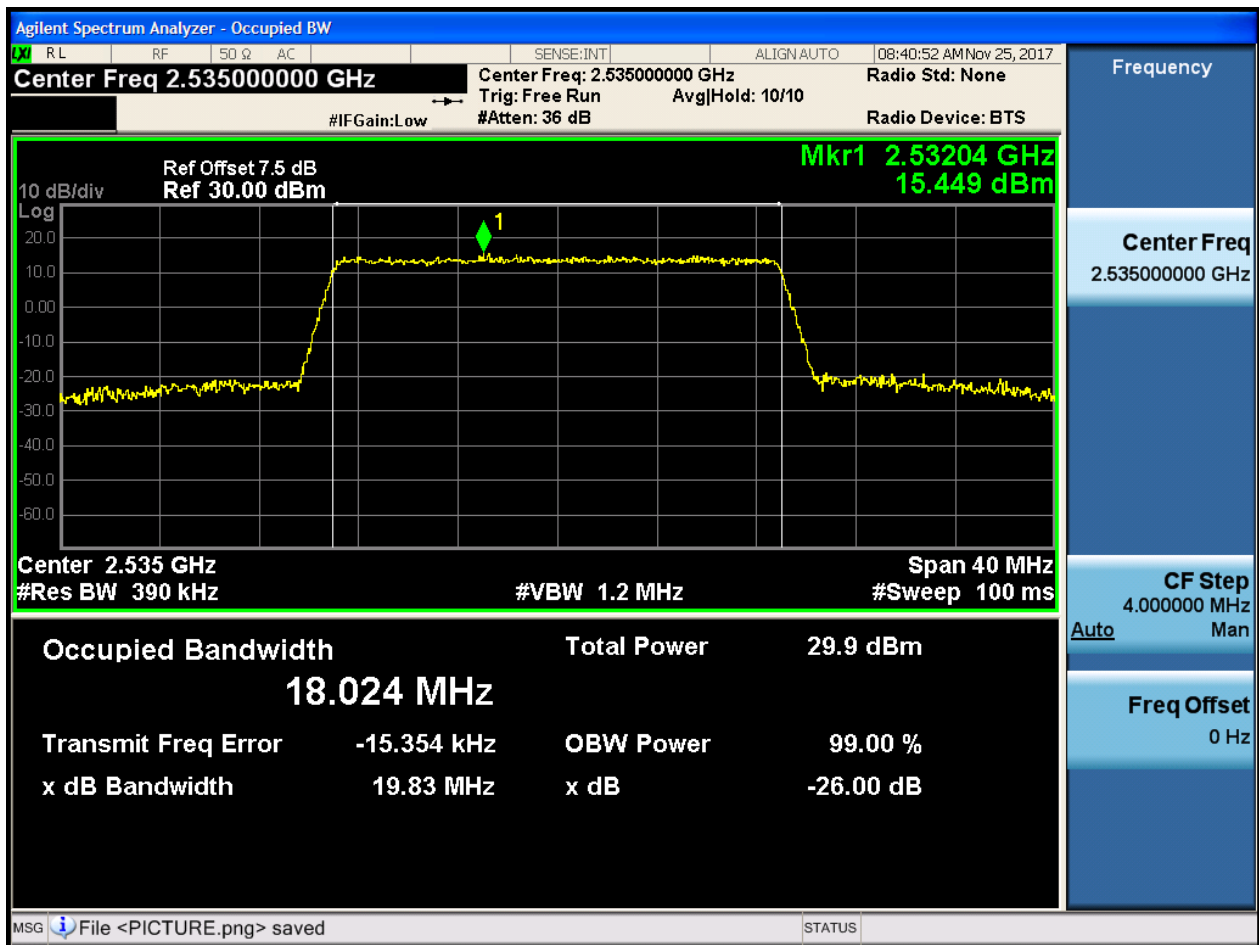
4.1.1.2.4.1 Test Channel = LCH

4.1.1.2.4.1.1 Test RB = RB100#0



4.1.1.2.4.2 Test Channel = MCH

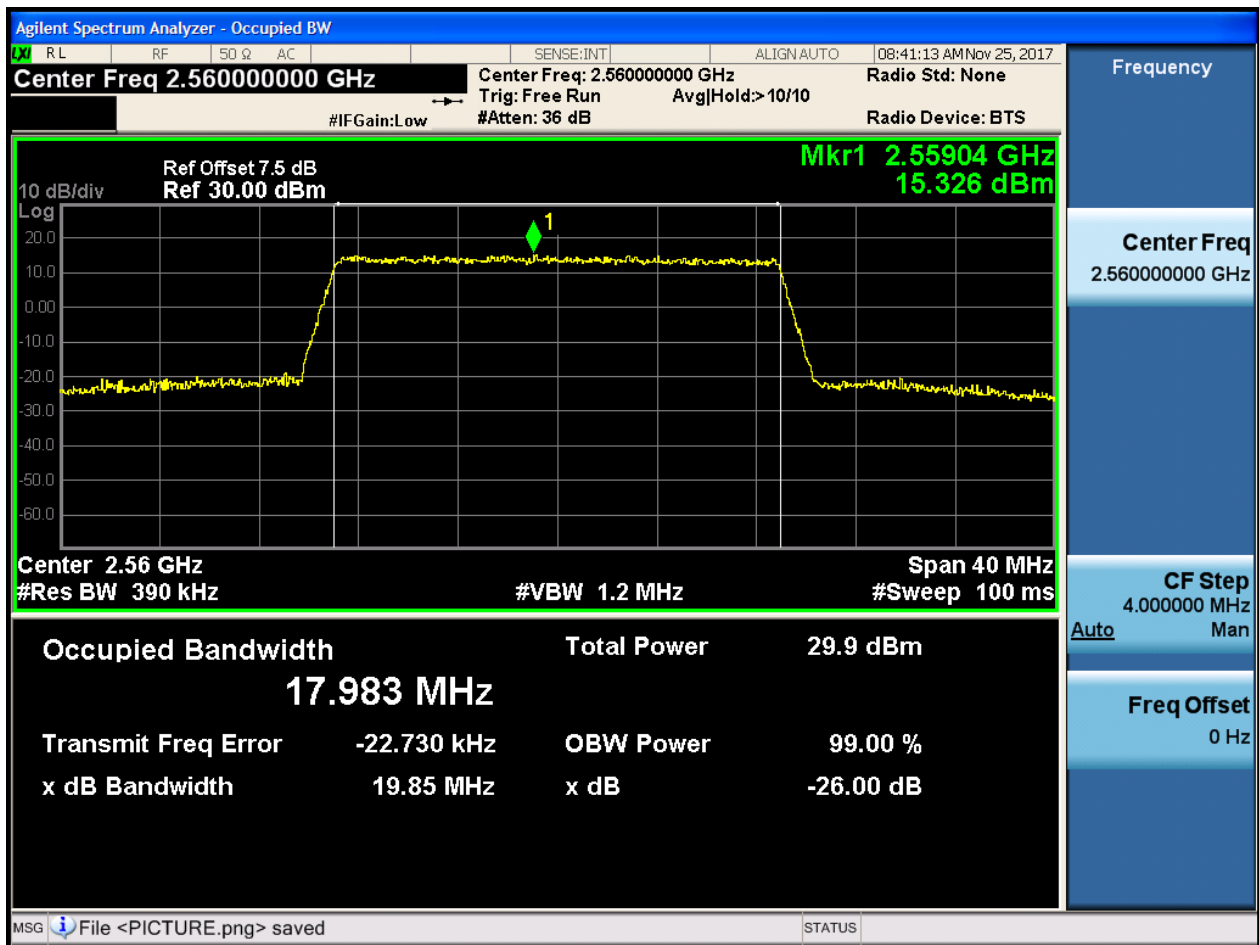
4.1.1.2.4.2.1 Test RB = RB100#0





4.1.1.2.4.3 Test Channel = HCH

4.1.1.2.4.3.1 Test RB = RB100#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

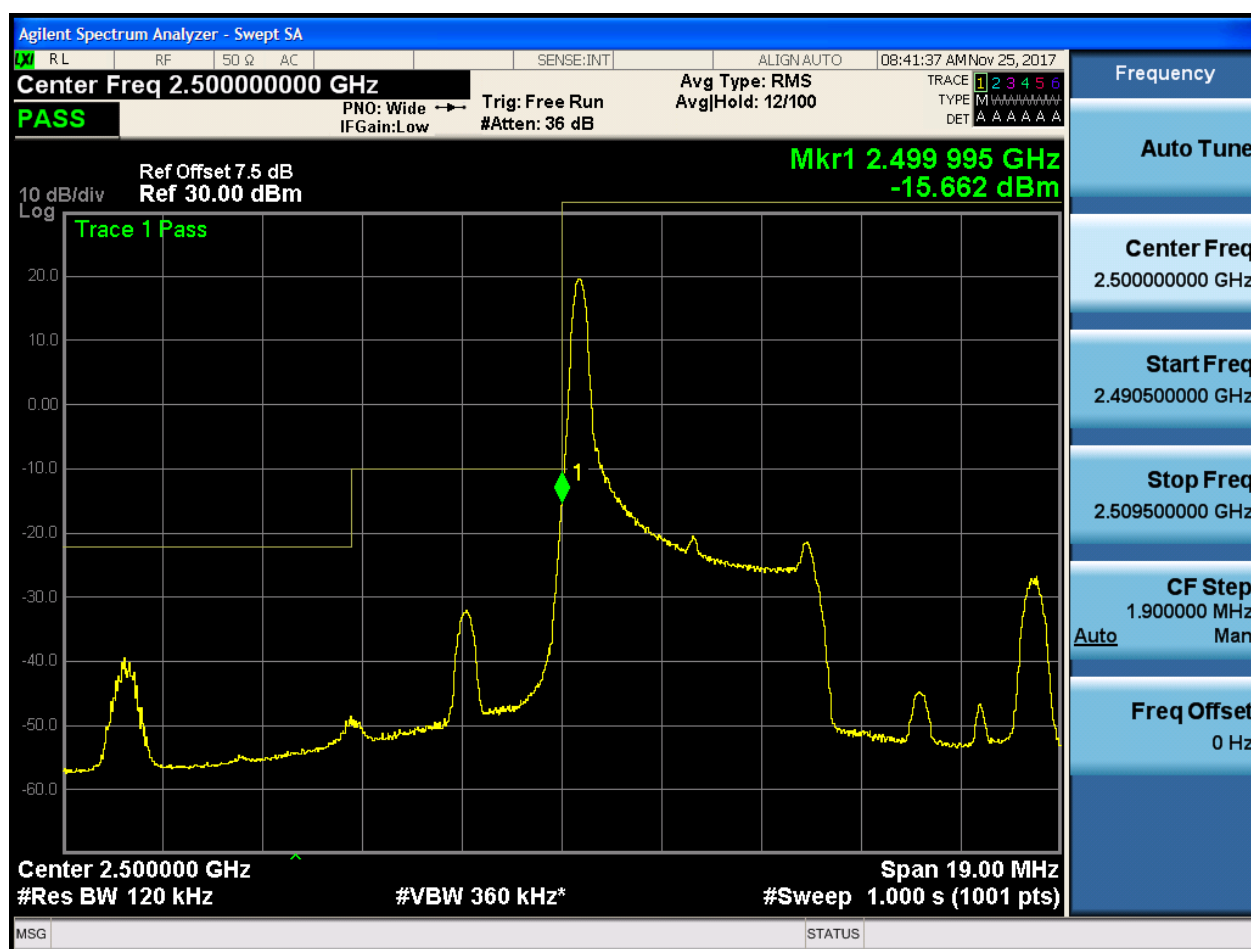
5.1.1 Test Band = BAND7

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:41:56 AM Nov 25, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
PASS PNO: Wide IF Gain: Low Trig: Free Run Avg Hold: 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 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-35.214 dBm

10 dB/div
Log

Trace 1 Pass

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

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:42:14 AM Nov 25, 2017

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

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-30.925 dBm

10 dB/div
Log

Trace 1 Pass

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

MSG STATUS

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

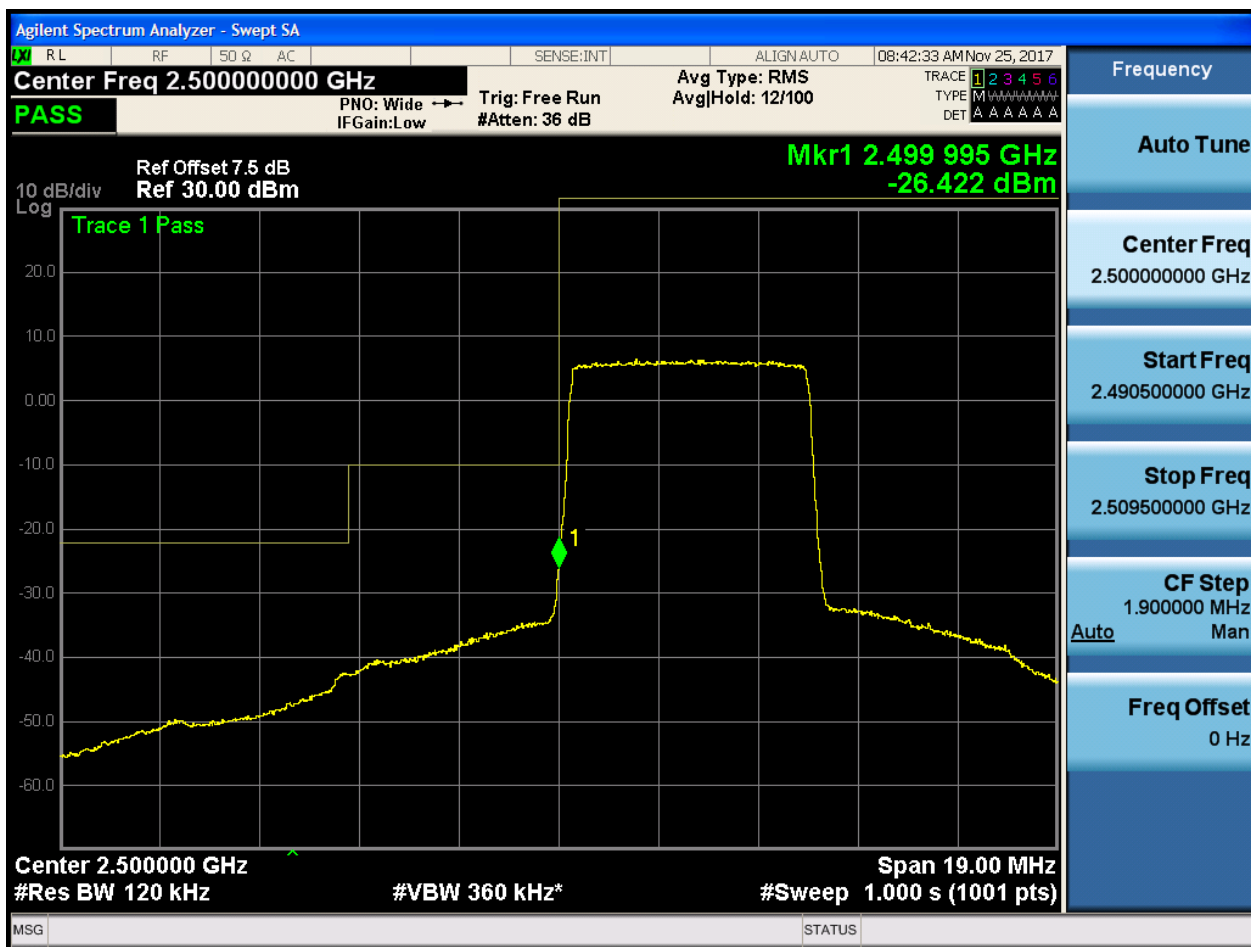
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



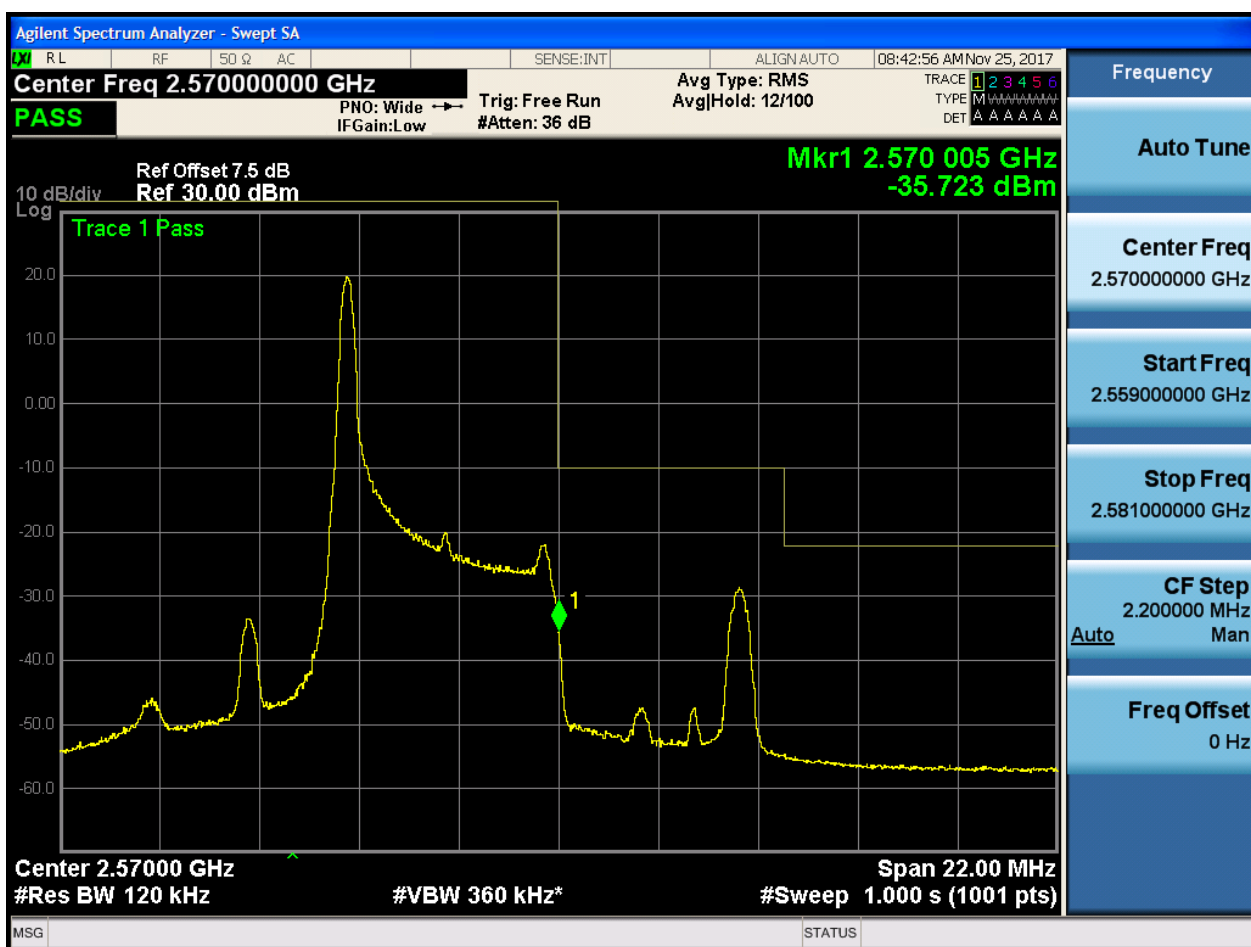
5.1.1.1.1.4 Test RB = RB25#0





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 08:43:15 AM Nov 25, 2017

Center Freq 2.570000000 GHz Avg Type: RMS
#Att: 36 dB

PASS PNO: Wide IFGain:Low Trg: Free Run

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 30.00 dBm

Mkr1 2.570 005 GHz
-15.350 dBm

10 dB/div
Log

Trace 1 Pass

The spectrum analyzer trace displays a signal centered at 2.570 GHz. The main peak is at -15.35 dBm. The trace shows a complex signal with multiple peaks and valleys, indicating a modulated signal. The frequency span is 22.00 MHz, and the resolution bandwidth is 120 kHz. The video bandwidth is 360 kHz, and the sweep time is 1.000 s (1001 pts).

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

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.559000000 GHz

Stop Freq
2.581000000 GHz

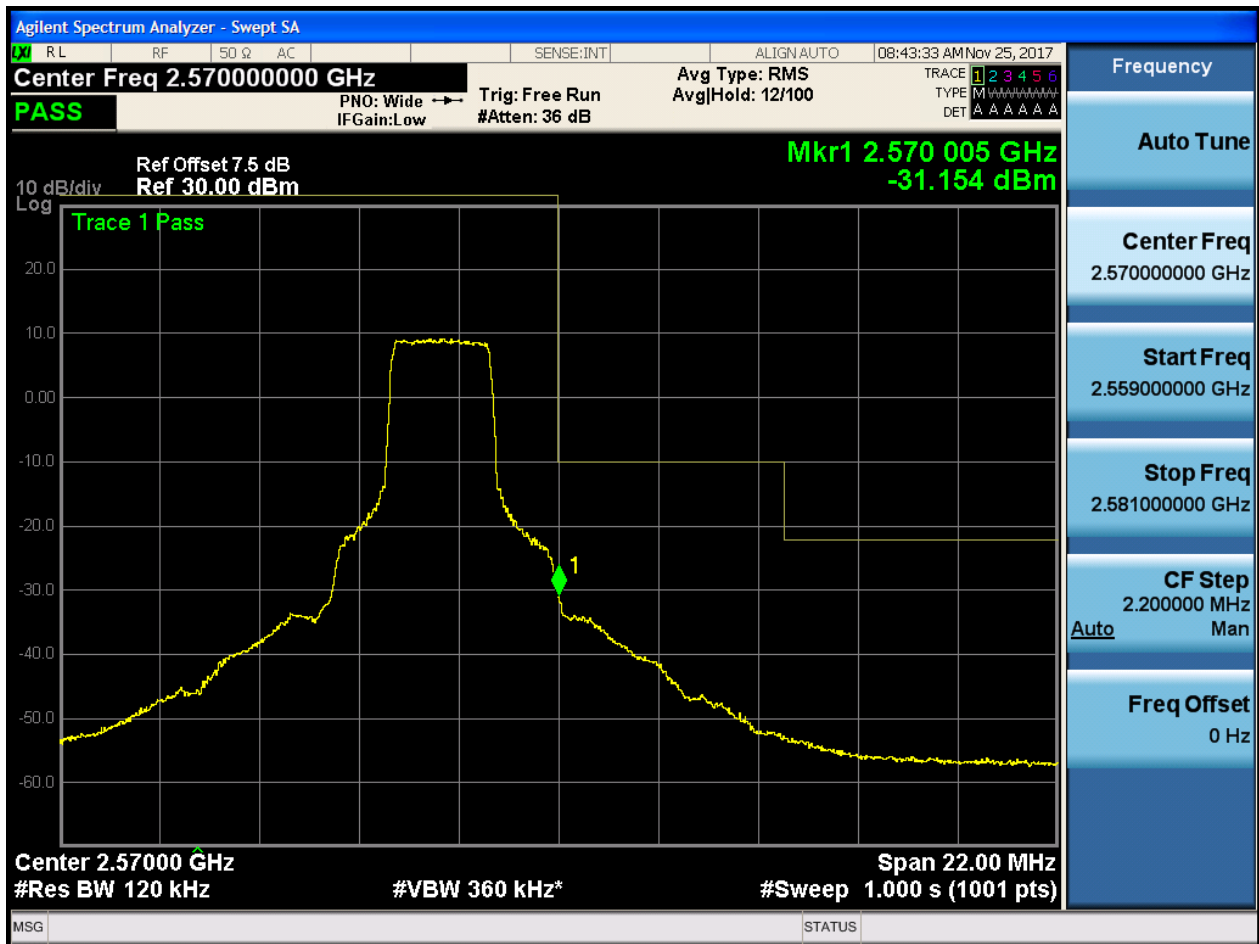
CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

MSG STATUS



5.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.2.4 Test RB = RB25#0

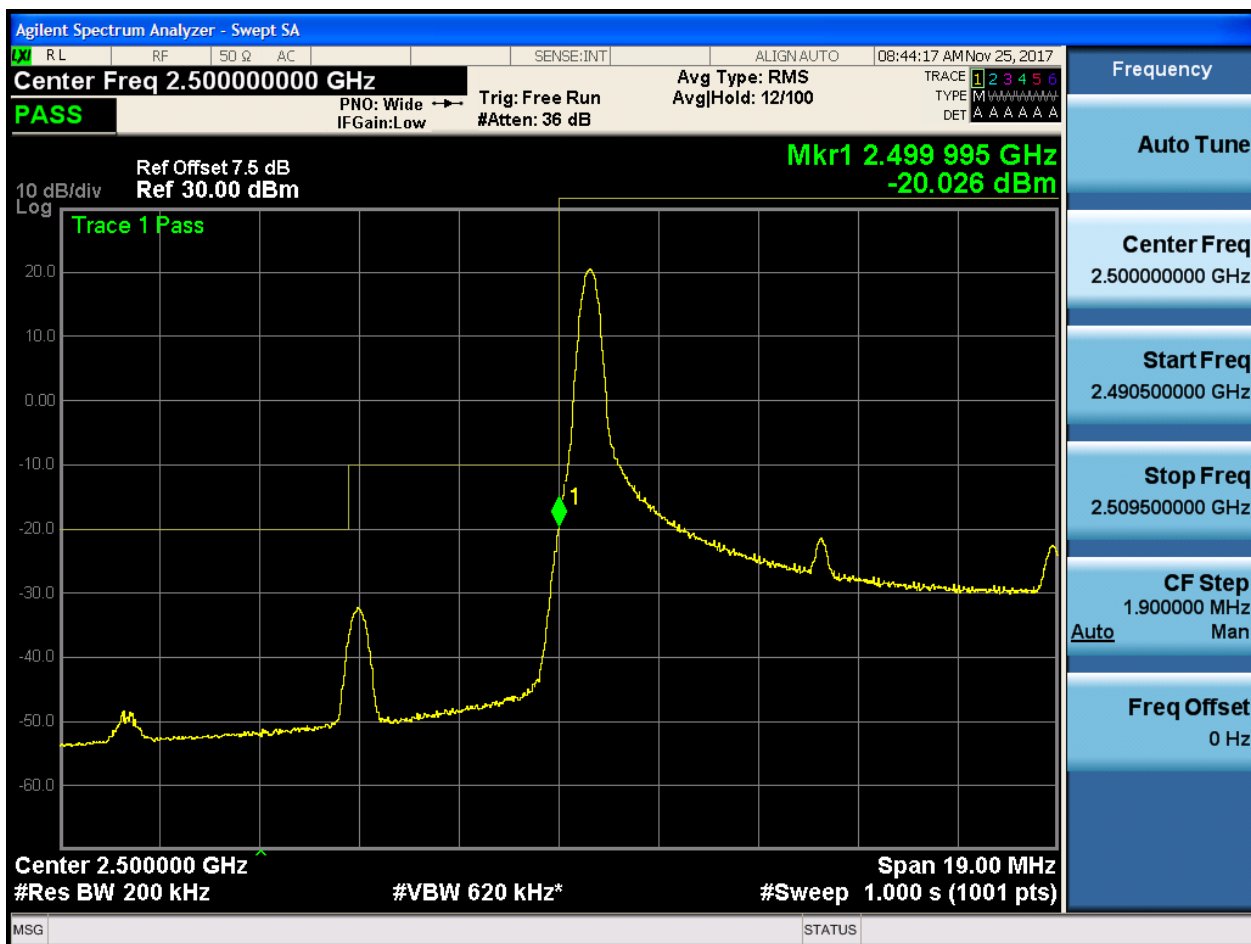




5.1.1.1.2 Test Bandwidth = 10

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 08:44:36 AM Nov 25, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
PASS PNO: Wide IFGain: Low Trig: Free Run AvgHold: 12/100
TRACE 1 2 3 4 5 6
TYPE M M M M M M M M
DET A A A A A A

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-40.261 dBm

10 dB/div
Log

Trace 1 Pass

The spectrum analyzer trace shows a signal at 2.5 GHz. The y-axis is logarithmic, ranging from -60.0 dBm to 20.0 dBm. The x-axis is linear, ranging from 2.490500000 GHz to 2.509500000 GHz. A marker is placed at 2.499 995 GHz, showing a power level of -40.261 dBm. The signal is labeled 'Trace 1 Pass'.

Center 2.500000 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
2.500000000 GHz

Start Freq
2.490500000 GHz

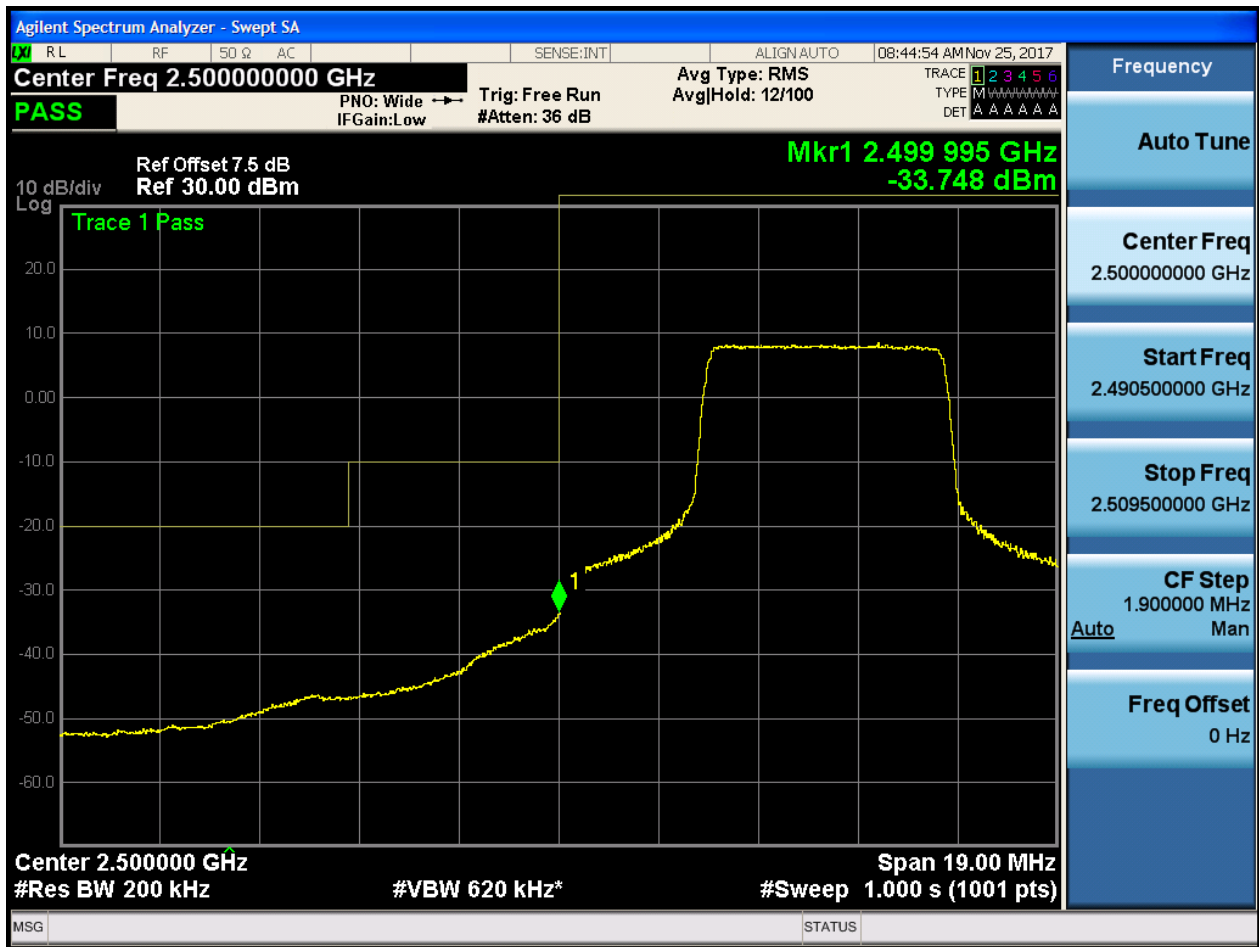
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

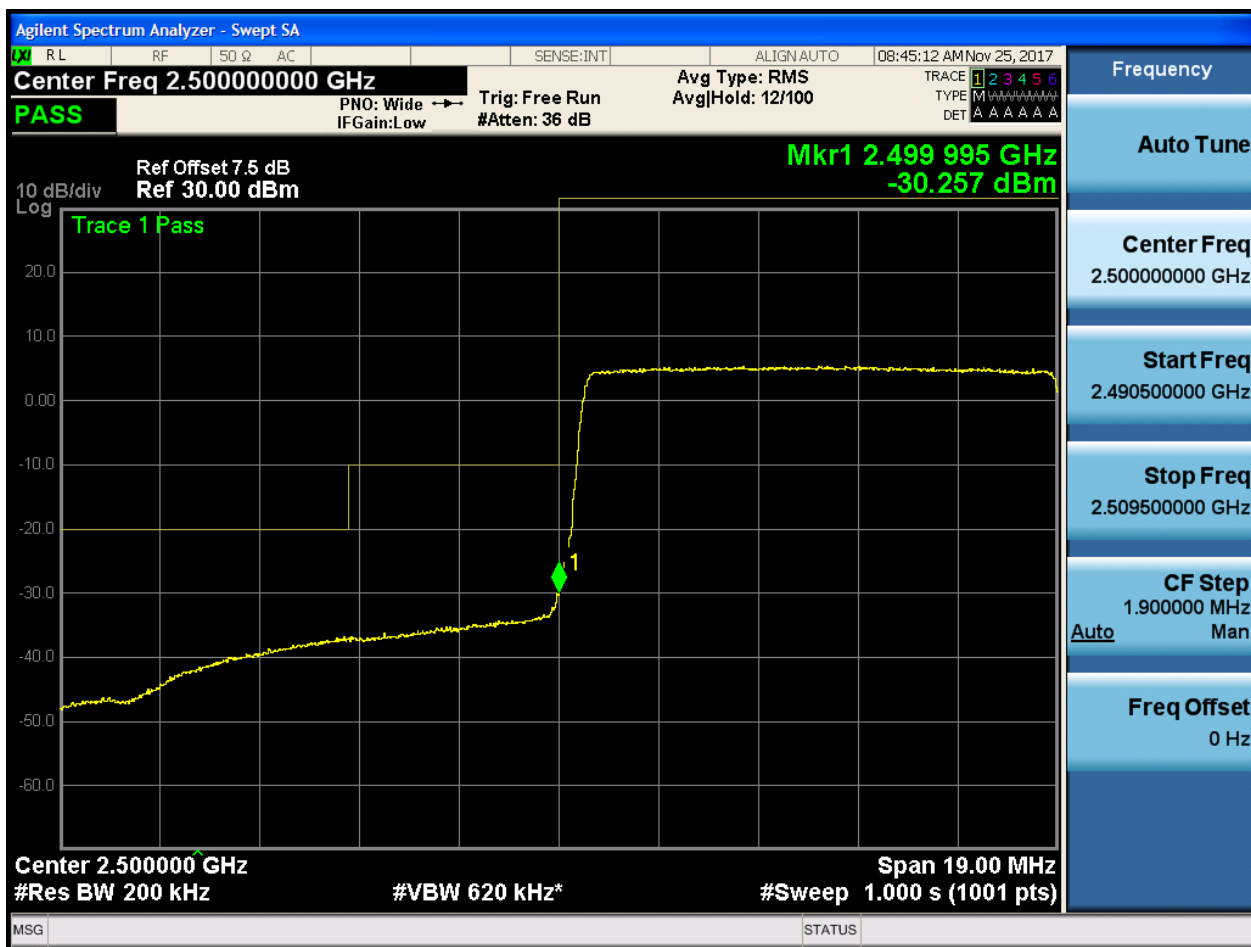


5.1.1.1.2.1.3 Test RB = RB25#13





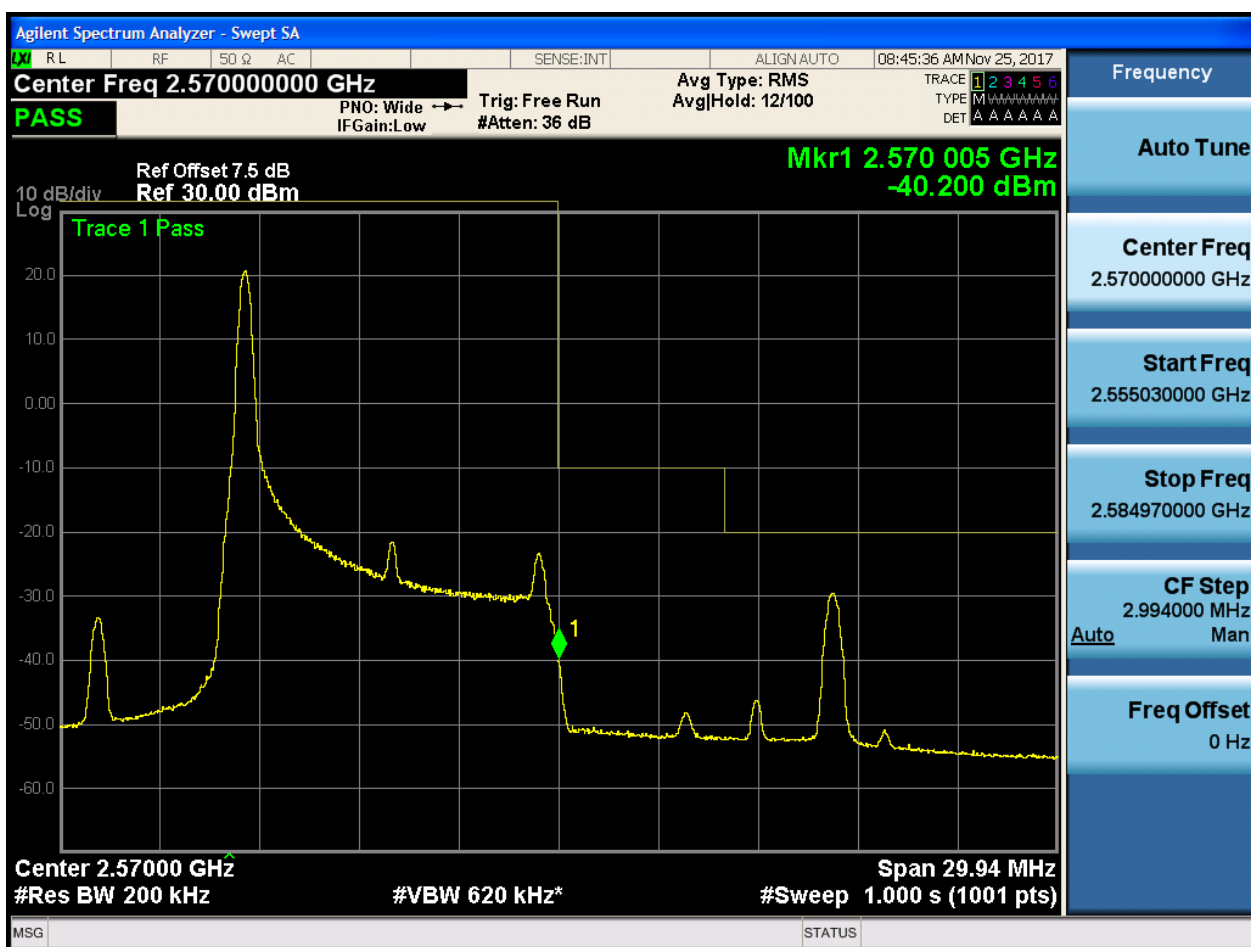
5.1.1.1.2.1.4 Test RB = RB50#0





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 2.570000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.570 005 GHz
-20.689 dBm

Center 2.57000 GHz
#Res BW 200 kHz
#VBW 620 kHz*

Span 29.94 MHz
#Sweep 1.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.555030000 GHz

Stop Freq
2.584970000 GHz

CF Step
2.994000 MHz
Auto Man

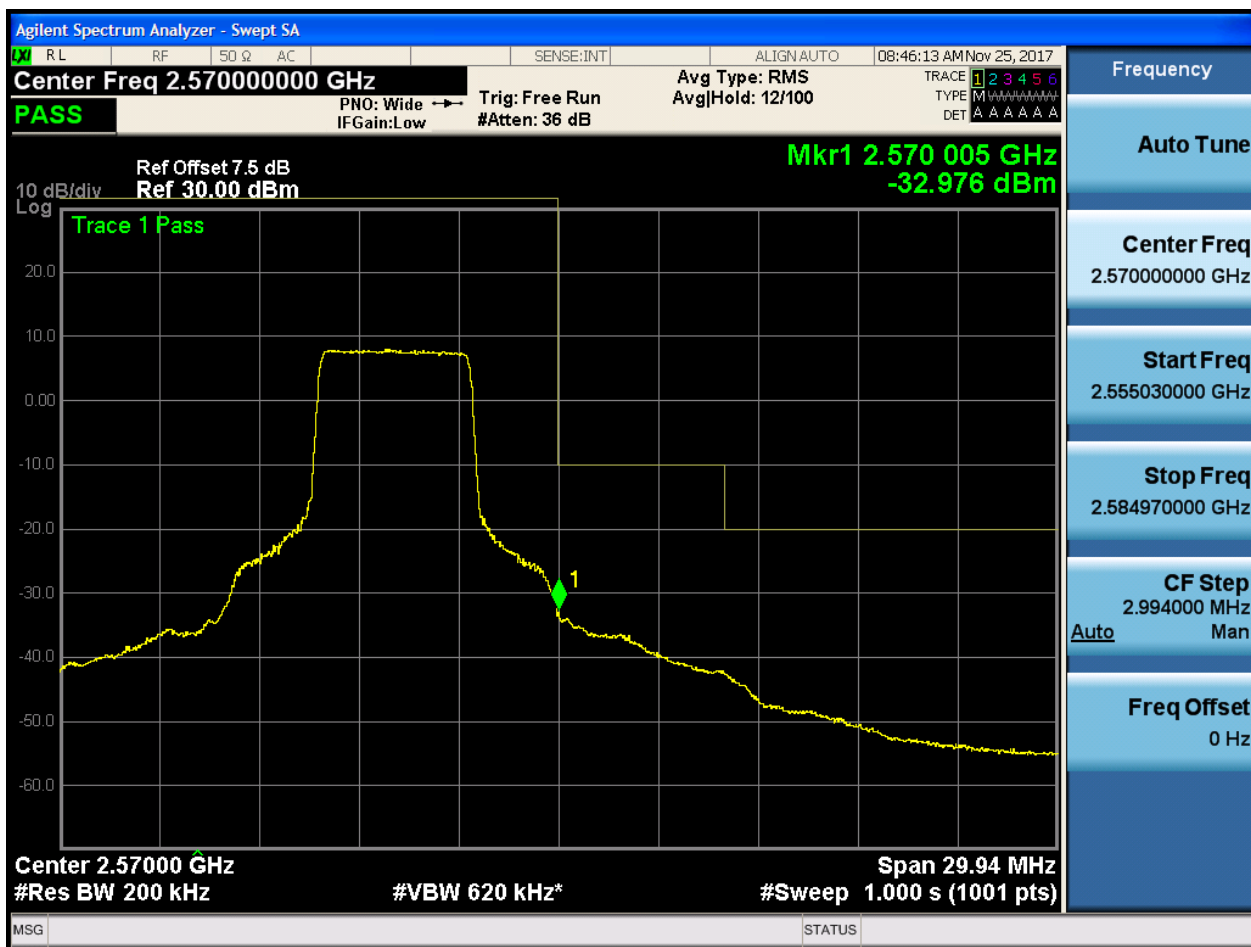
Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer. The main display is a frequency spectrum plot with a yellow trace. The x-axis represents frequency, and the y-axis represents power in dBm. A prominent peak is visible at 2.570 GHz, with a marker labeled '1' indicating a power level of -20.689 dBm. The plot is overlaid on a grid. Various settings and status information are displayed around the plot, including center frequency, span, resolution bandwidth, and a 'PASS' status indicator. The right side of the image features a vertical panel with additional settings and a frequency scale.

Frequency
Auto Tune
Center Freq 2.570000000 GHz
Start Freq 2.555030000 GHz
Stop Freq 2.584970000 GHz
CF Step 2.994000 MHz Auto 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

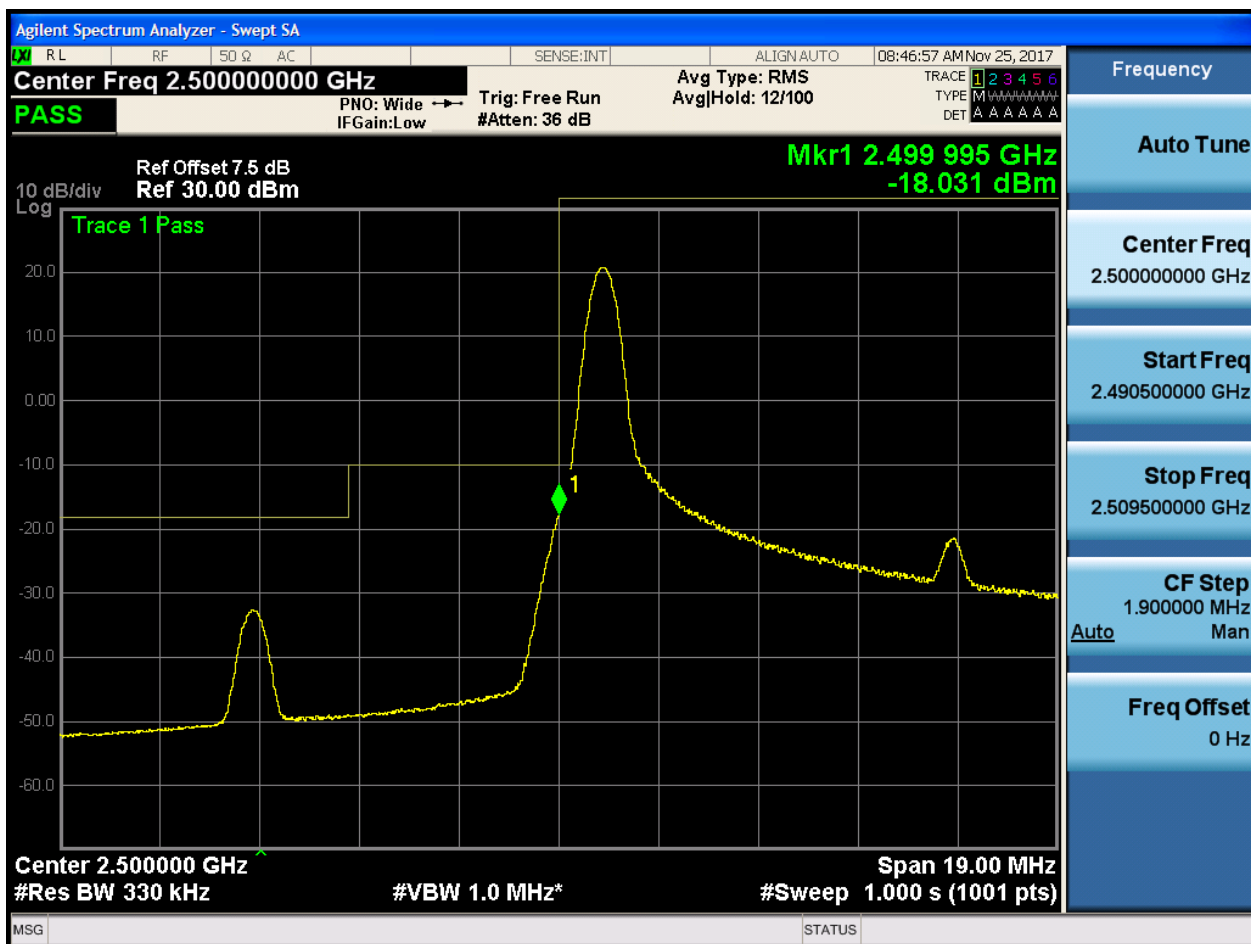




5.1.1.1.3 Test Bandwidth = 15

5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS PNO: Wide IFGain: Low Trig: Free Run #Atten: 36 dB Avg Type: RMS AvgHold: 12/100

Ref Offset 7.5 dB Ref 30.00 dBm

Mkr1 2.499 995 GHz -40.663 dBm

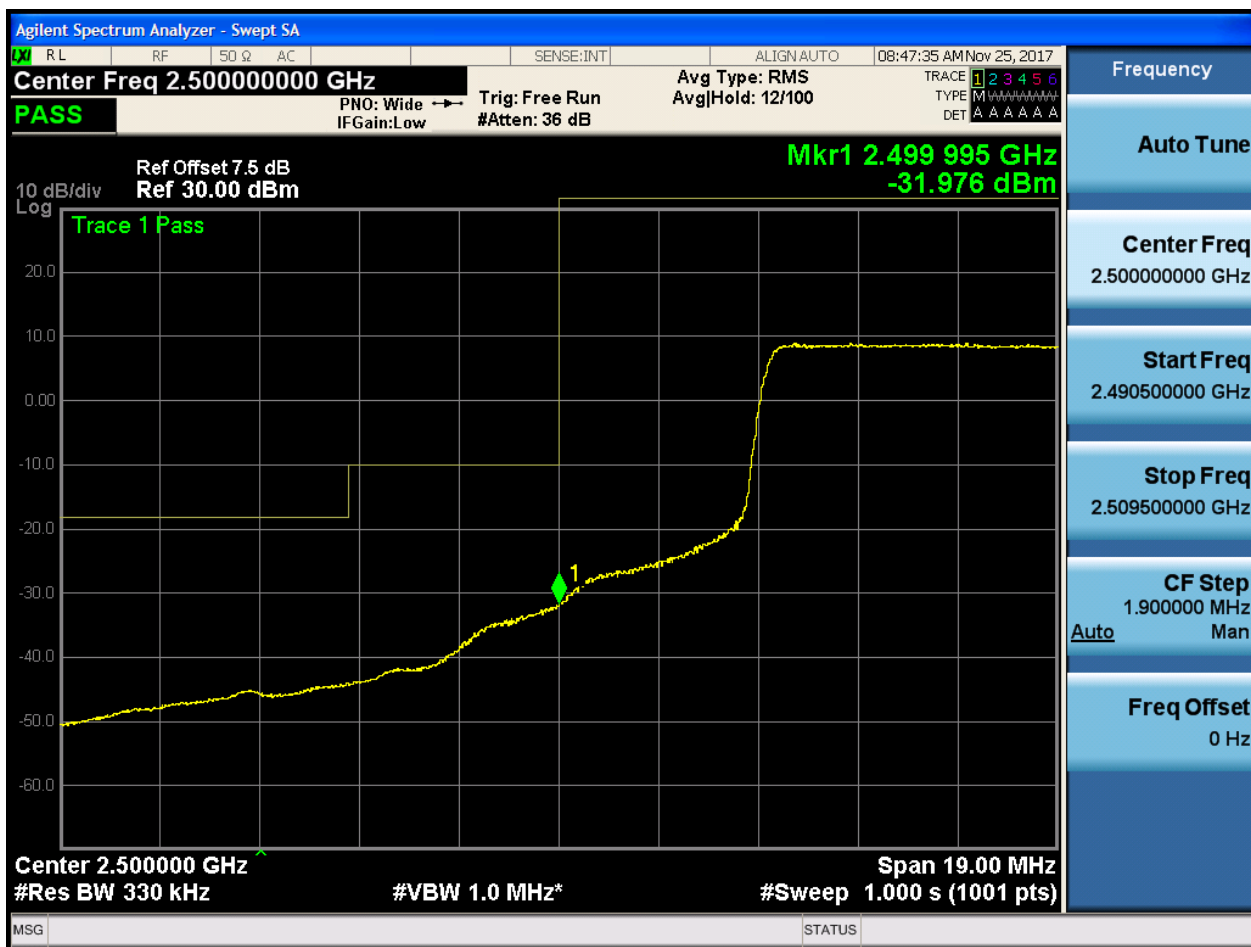
Trace 1 Pass

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

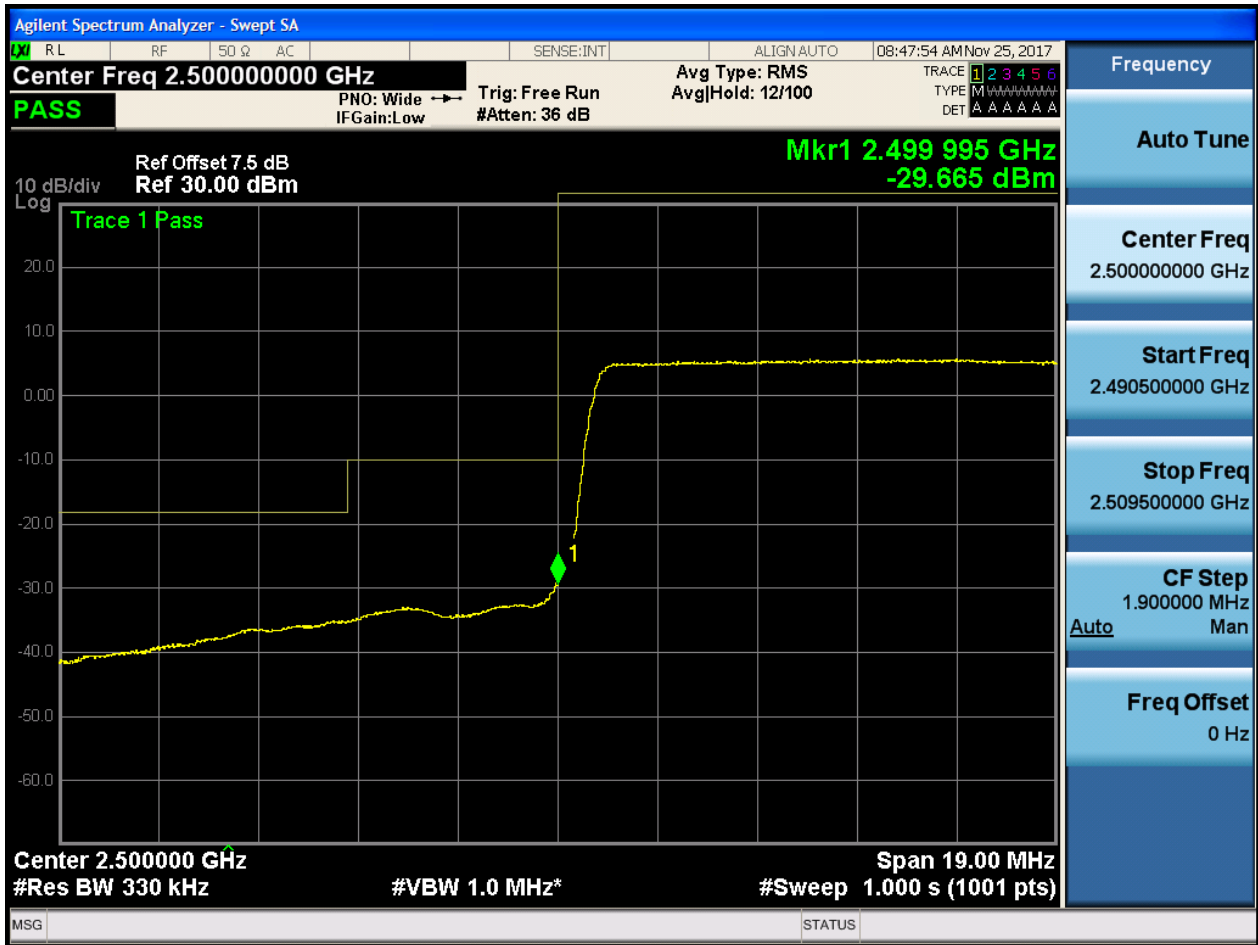
Frequency
Auto Tune
Center Freq 2.500000000 GHz
Start Freq 2.490500000 GHz
Stop Freq 2.509500000 GHz
CF Step 1.900000 MHz <u>Auto</u> Man
Freq Offset 0 Hz



5.1.1.1.3.1.3 Test RB = RB36#18



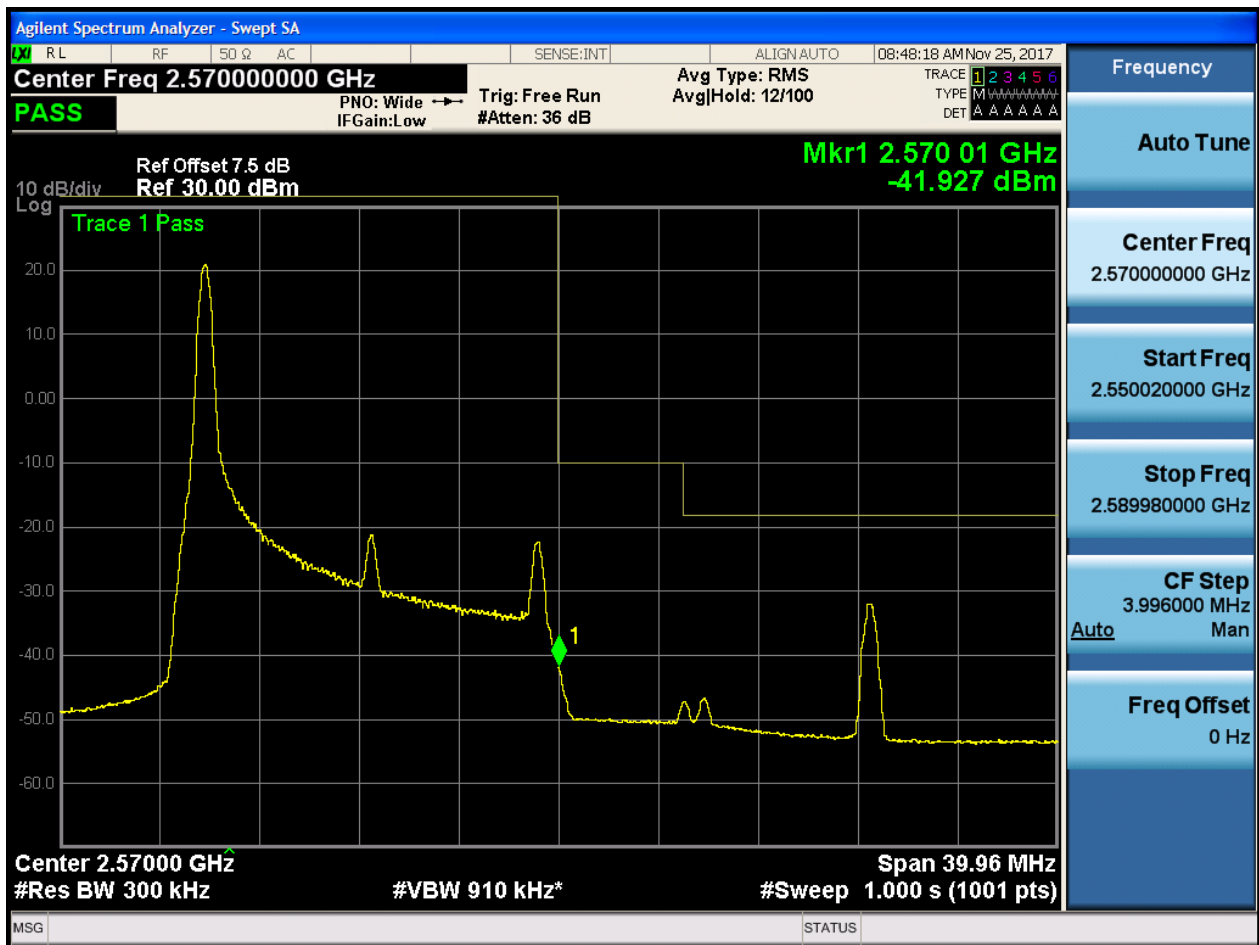
5.1.1.1.3.1.4 Test RB = RB75#0





5.1.1.1.3.2 Test Channel = HCH

5.1.1.1.3.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:48:36 AM Nov 25, 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 7.5 dB
Ref 30.00 dBm

Mkr1 2.570 01 GHz
-19.658 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz
#Res BW 300 kHz
#VBW 910 kHz*
Span 39.96 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.550020000 GHz

Stop Freq
2.589980000 GHz

CF Step
3.996000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.3.2.3 Test RB = RB36#18





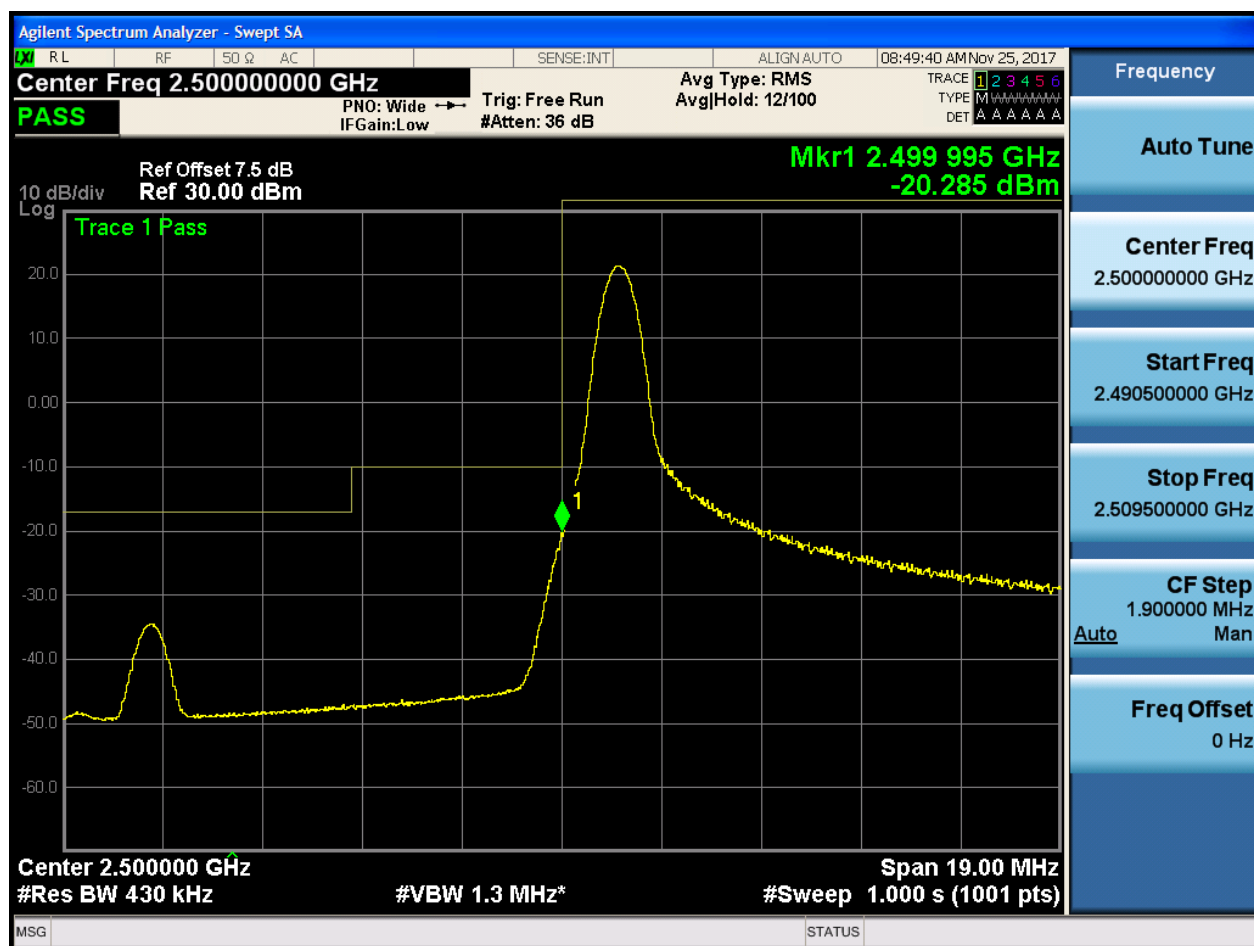
5.1.1.1.3.2.4 Test RB = RB75#0



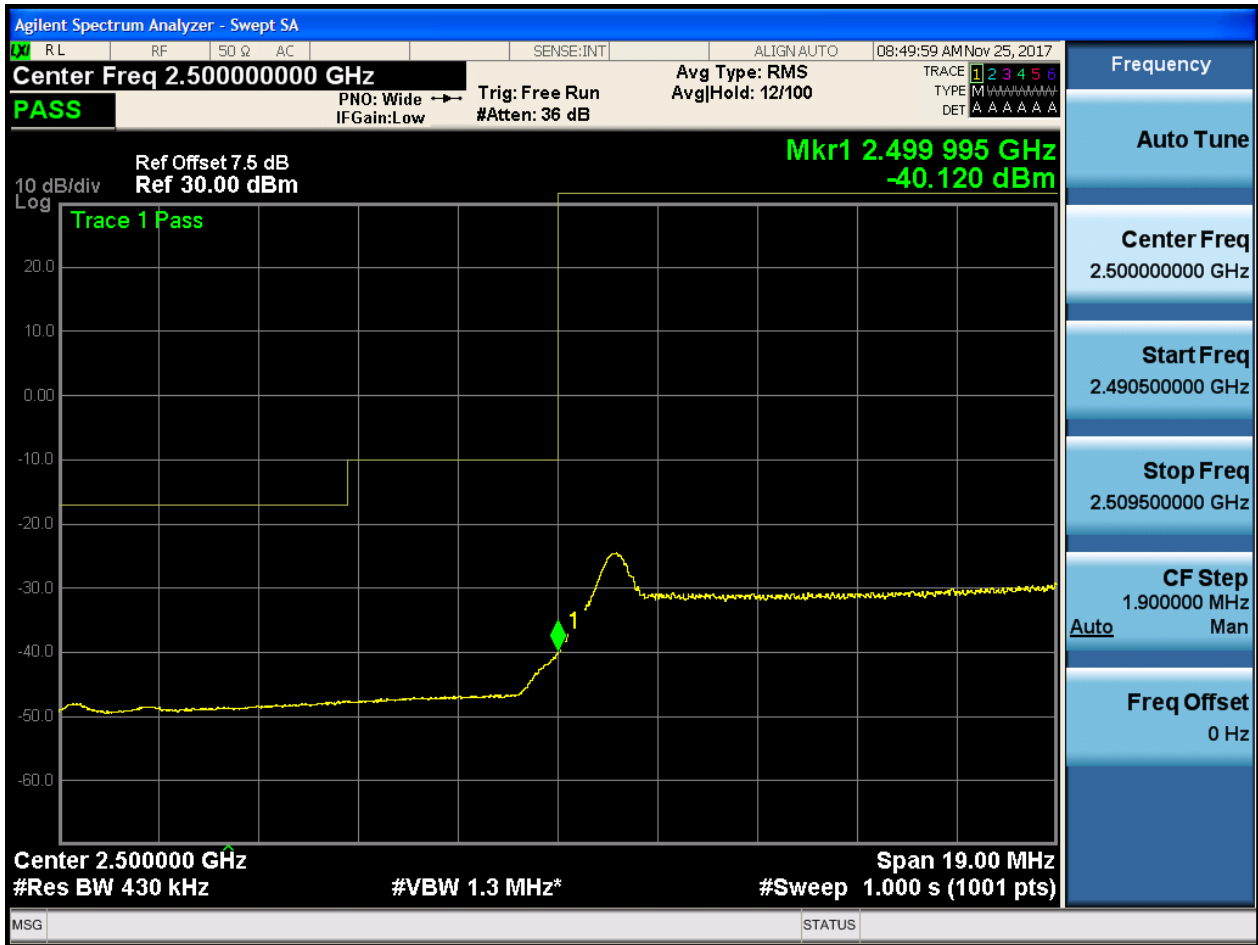
5.1.1.1.4 Test Bandwidth = 20

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





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:50:18 AM Nov 25, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 430 kHz IF Gain: Low Trig: Free Run #Atten: 36 dB

PASS PNO: Wide → TYPE M DET A A A A A A

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-33.078 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

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

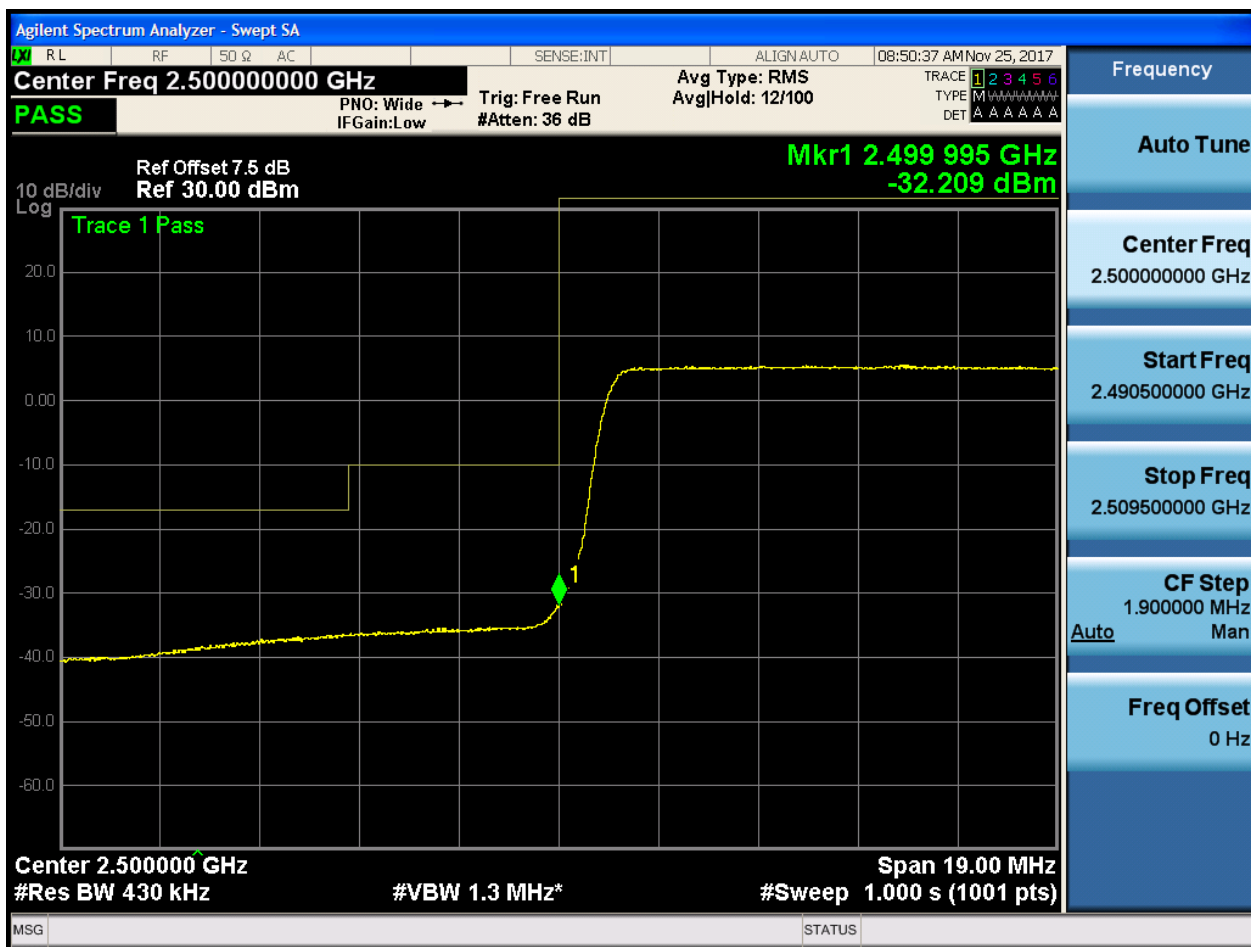
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.4.1.4 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 08:51:21 AM Nov 25, 2017

Center Freq 2.570000000 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 7.5 dB
Ref 30.00 dBm

Mkr1 2.570 01 GHz
-21.391 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz
#Res BW 430 kHz
#VBW 1.3 MHz*
Span 49.54 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.545230000 GHz

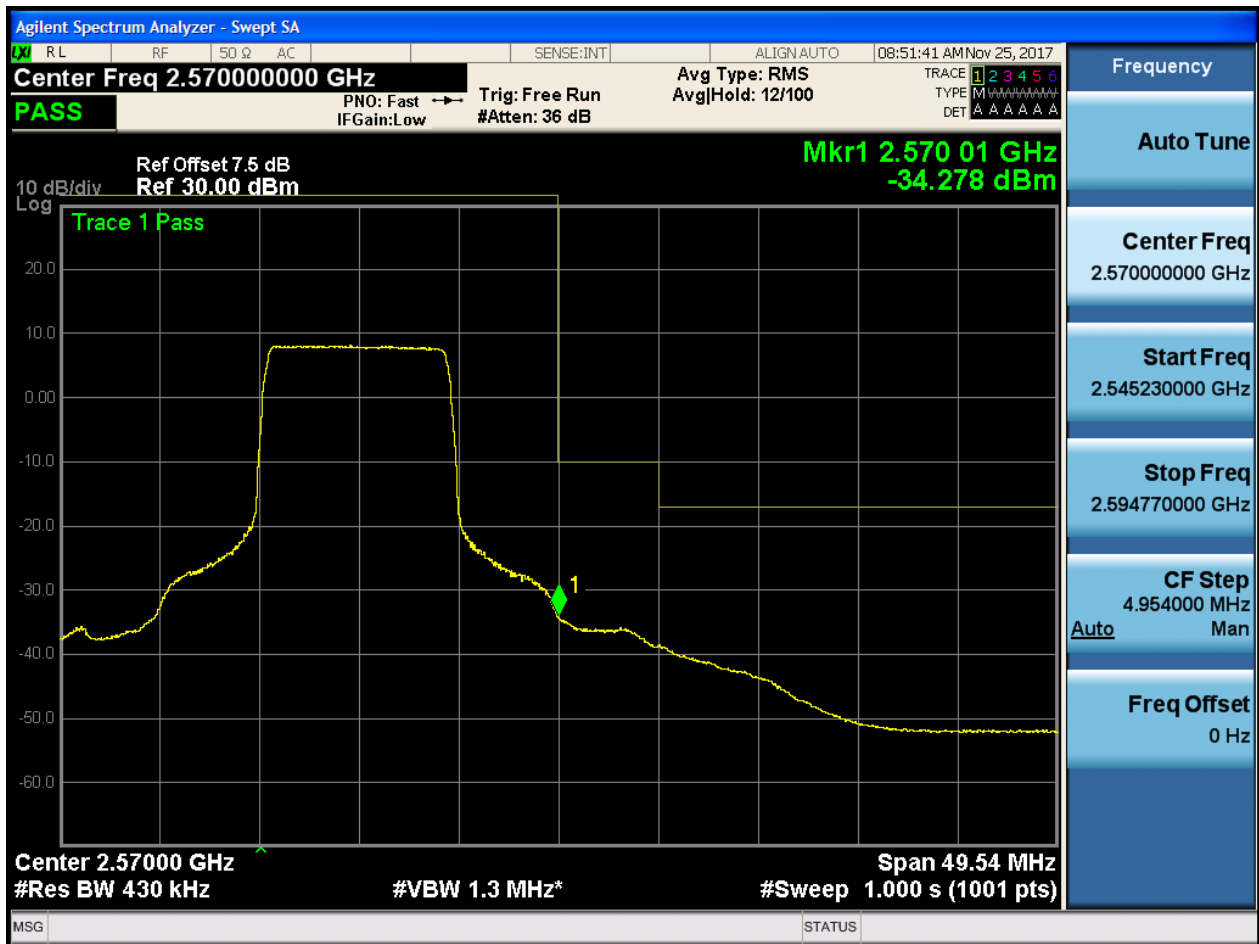
Stop Freq
2.594770000 GHz

CF Step
4.954000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.4.2.3 Test RB = RB50#25





5.1.1.1.4.2.4 Test RB = RB100#0



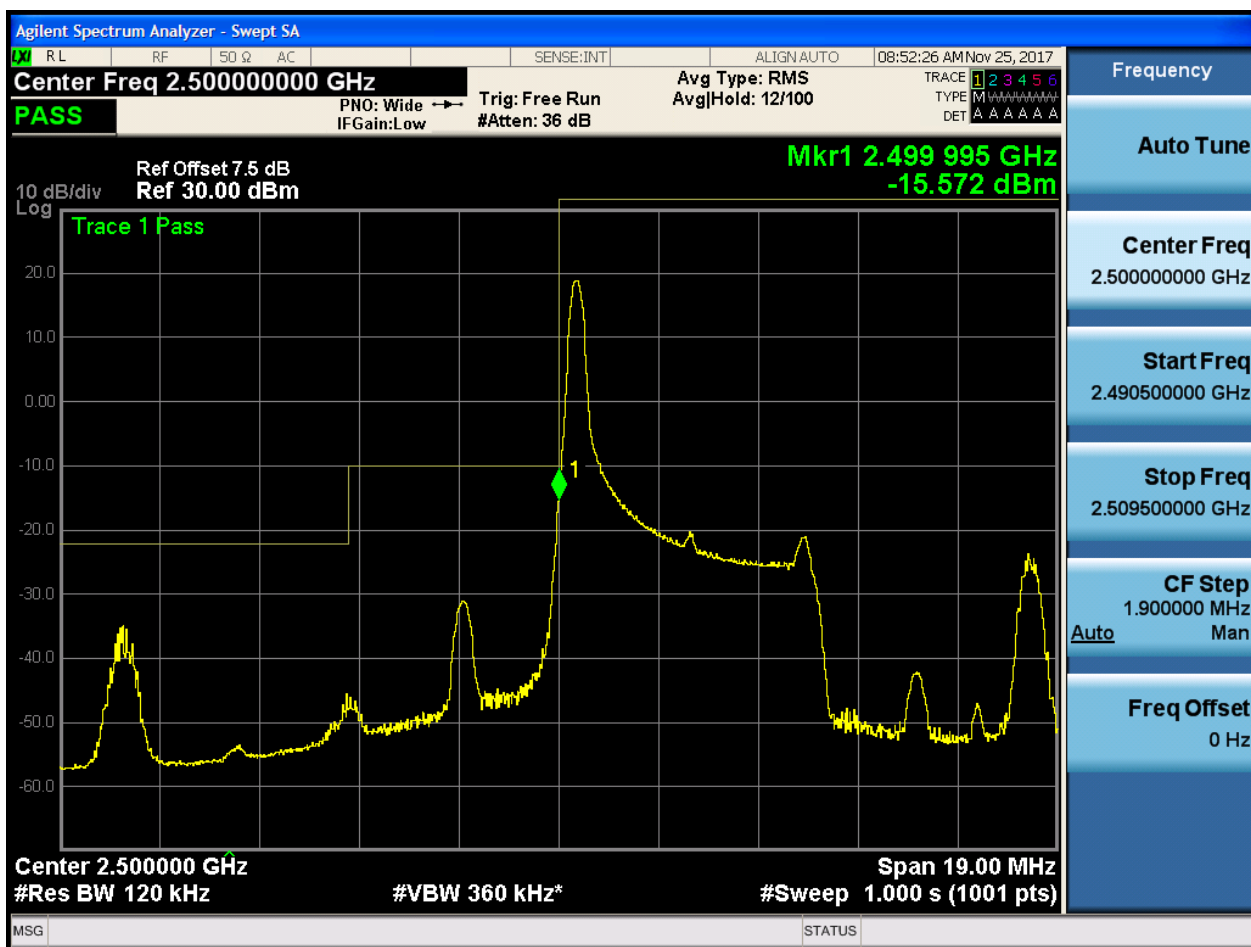


5.1.1.2 Test Mode = LTE/TM2

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





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:52:44 AM Nov 25, 2017

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 120 kHz IF Gain: Low Trig: Free Run Avg Hold: 12/100

PASS PNO: Wide → #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

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

10 dB/div Ref Offset 7.5 dB
Log Ref 30.00 dBm

Mkr1 2.499 995 GHz
-35.225 dBm

Trace 1 Pass

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

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:53:02 AM Nov 25, 2017

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

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

Ref Offset 7.5 dB
 Ref 30.00 dBm

Mkr1 2.499 995 GHz
 -31.019 dBm

10 dB/div
 Log

Trace 1 Pass

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

MSG STATUS

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



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:53:21 AM Nov 25, 2017

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

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-26.245 dBm

10 dB/div
Log

Trace 1 Pass

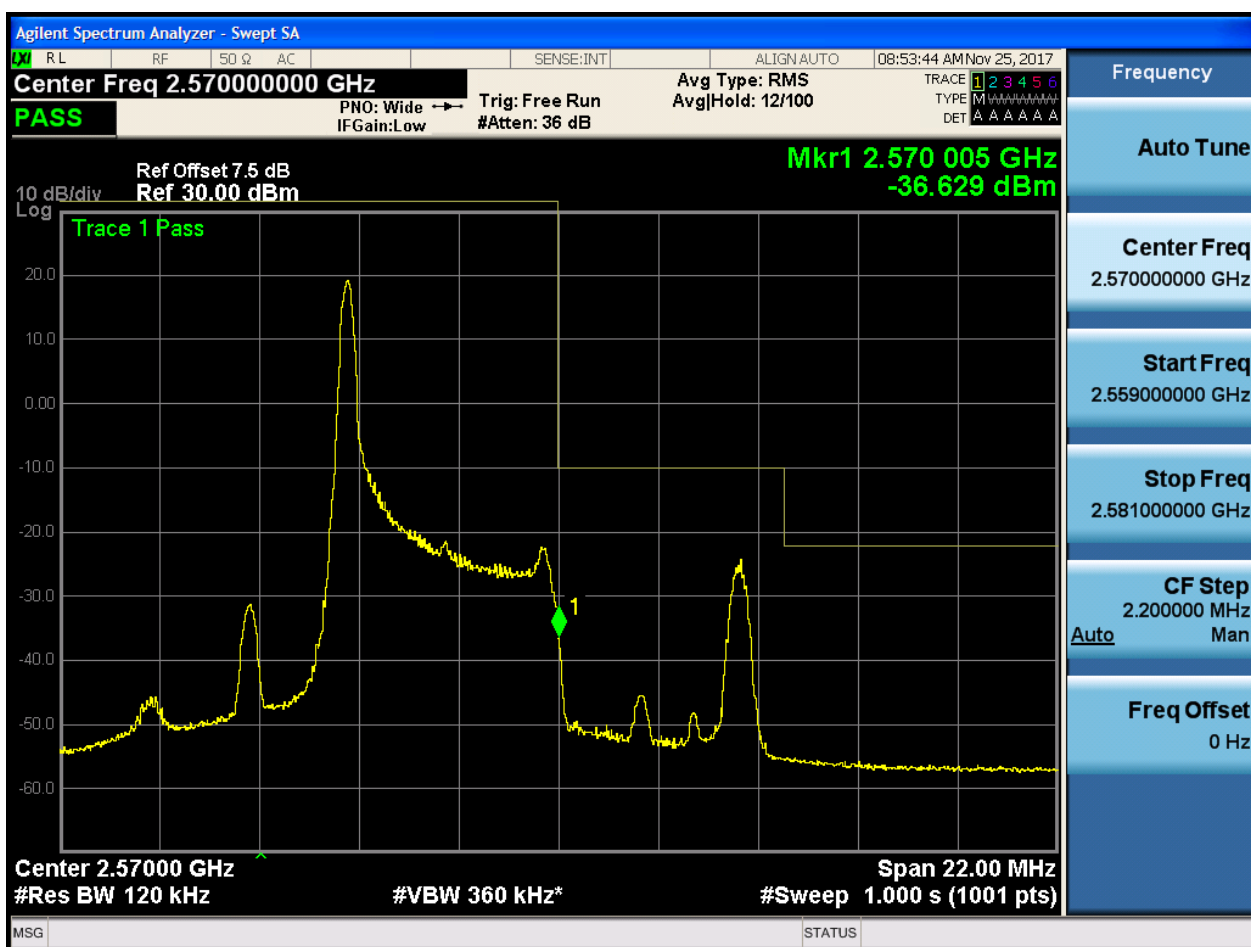
Center 2.500000 GHz Span 19.00 MHz
#Res BW 120 kHz #VBW 360 kHz #Sweep 1.000 s (1001 pts)

MSG STATUS



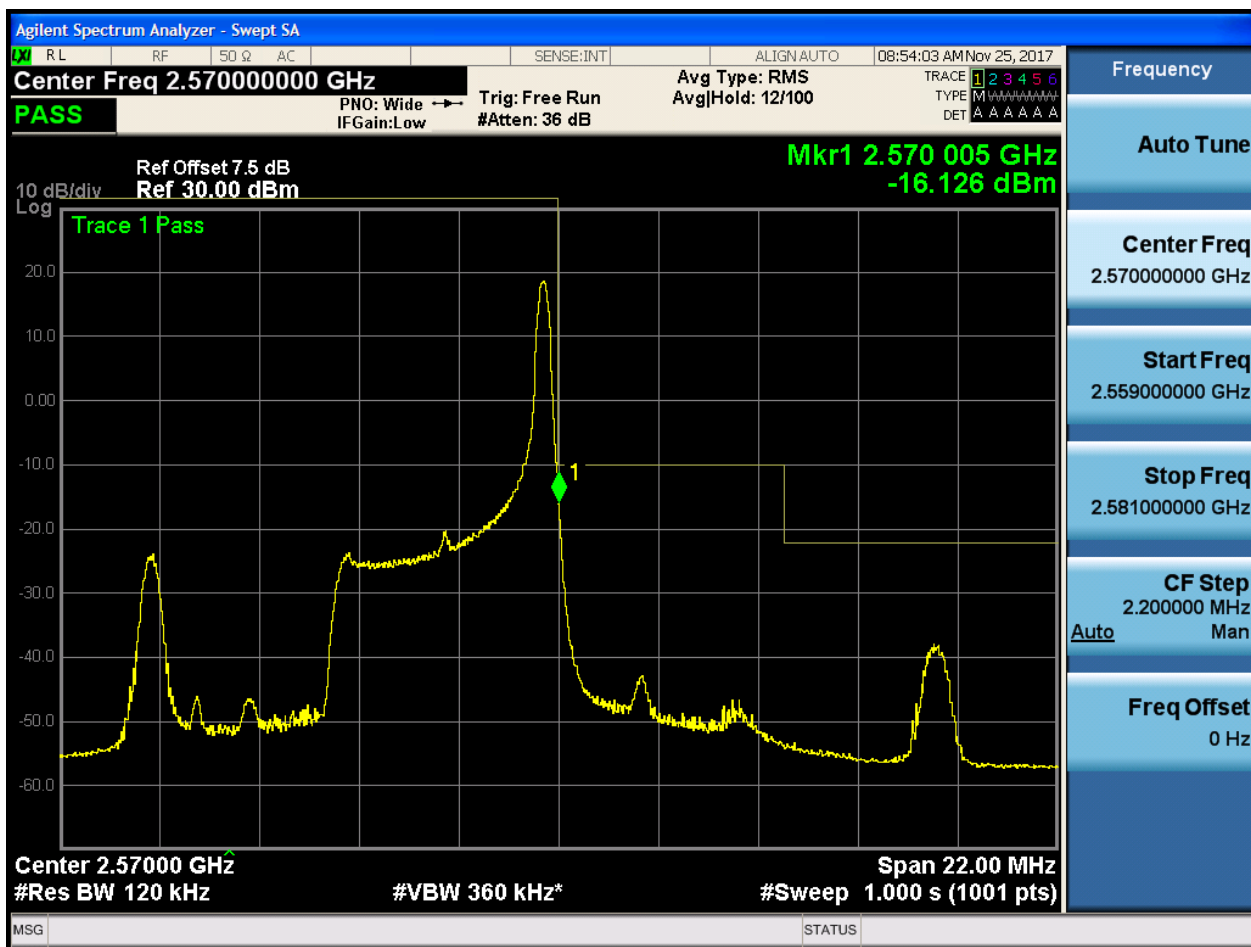
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0



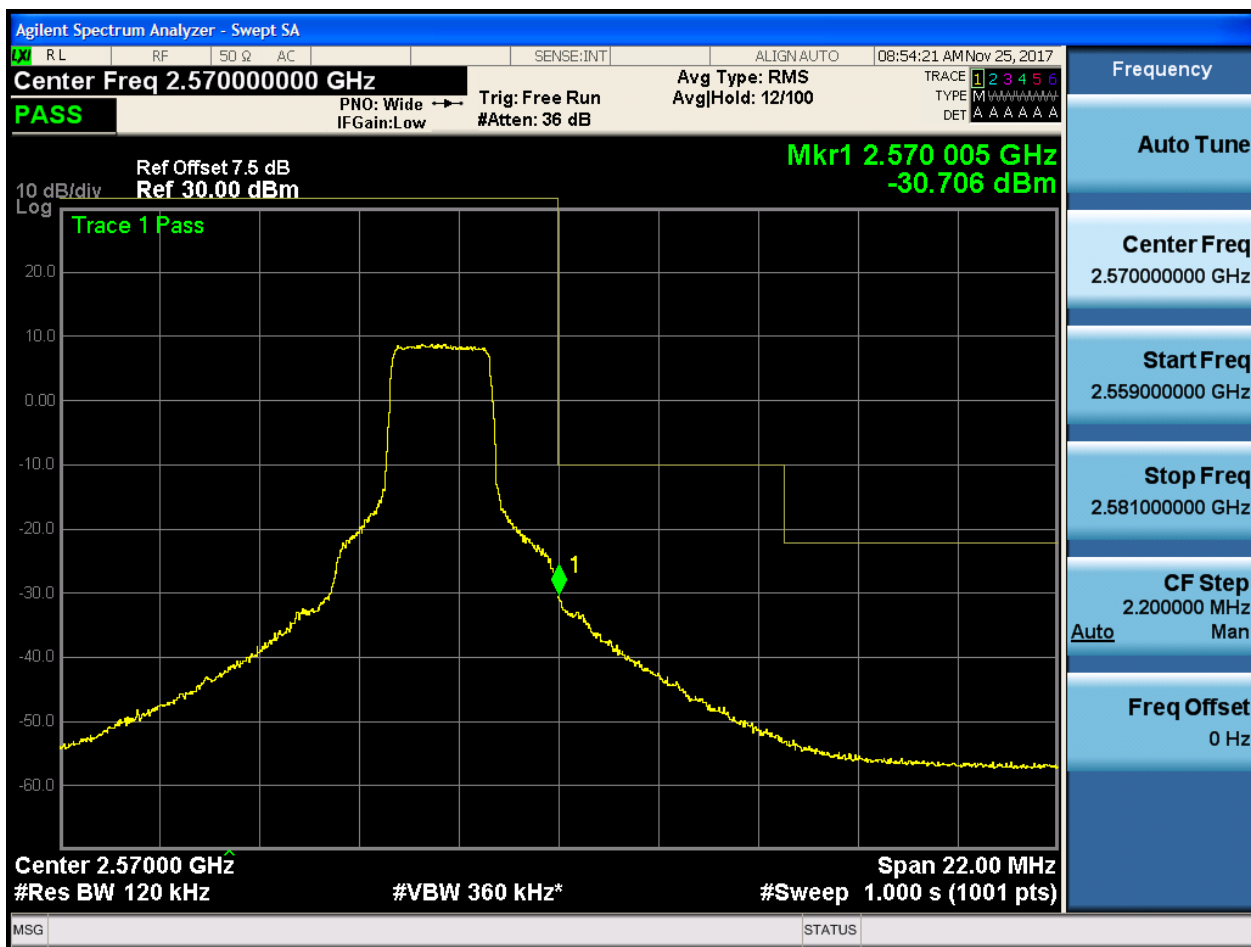


5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





5.1.1.2.1.2.4 Test RB = RB25#0

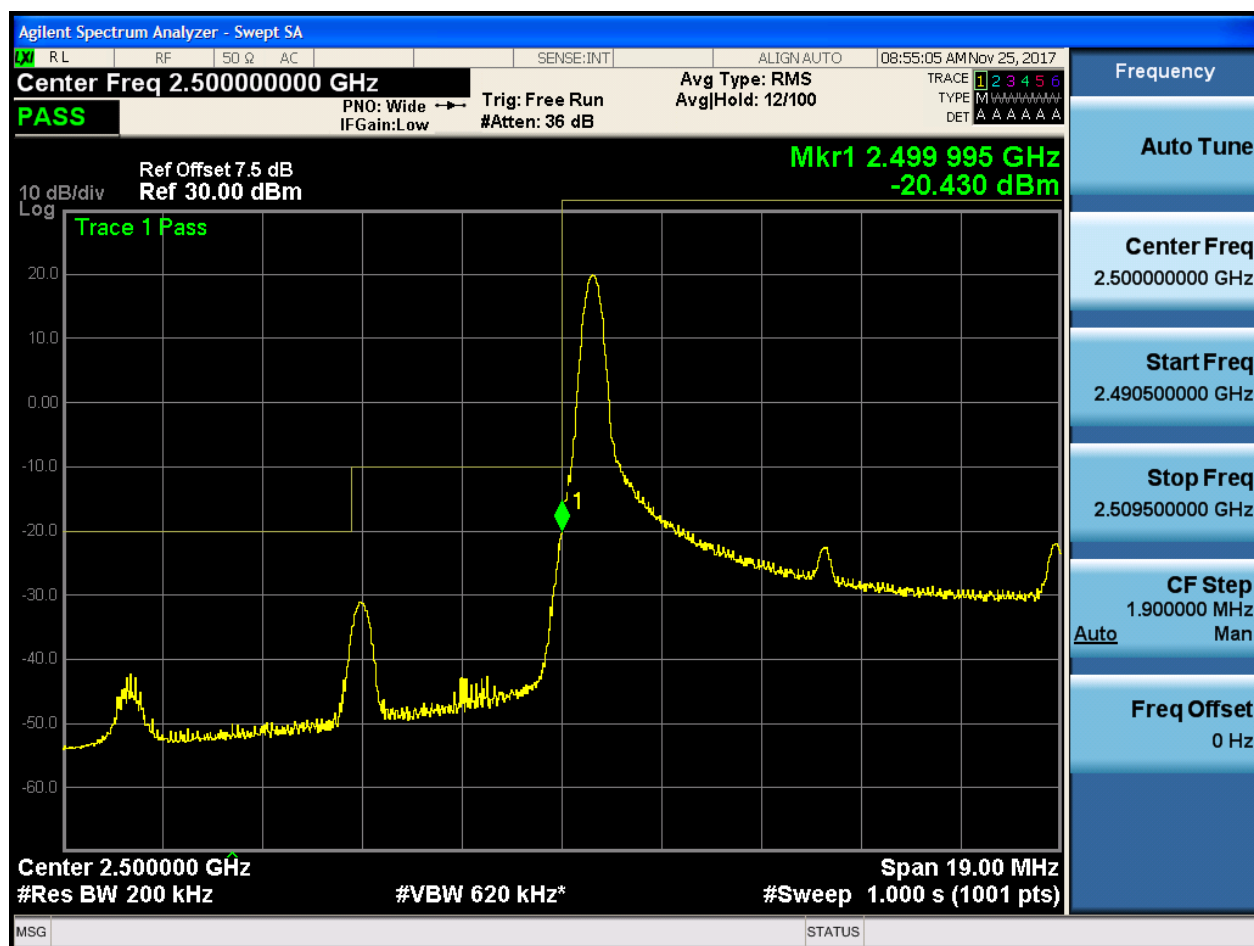




5.1.1.2.2 Test Bandwidth = 10

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 08:55:23 AM Nov 25, 2017

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

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-39.488 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.500000 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
2.500000000 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 08:55:42 AM Nov 25, 2017

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

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-34.158 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

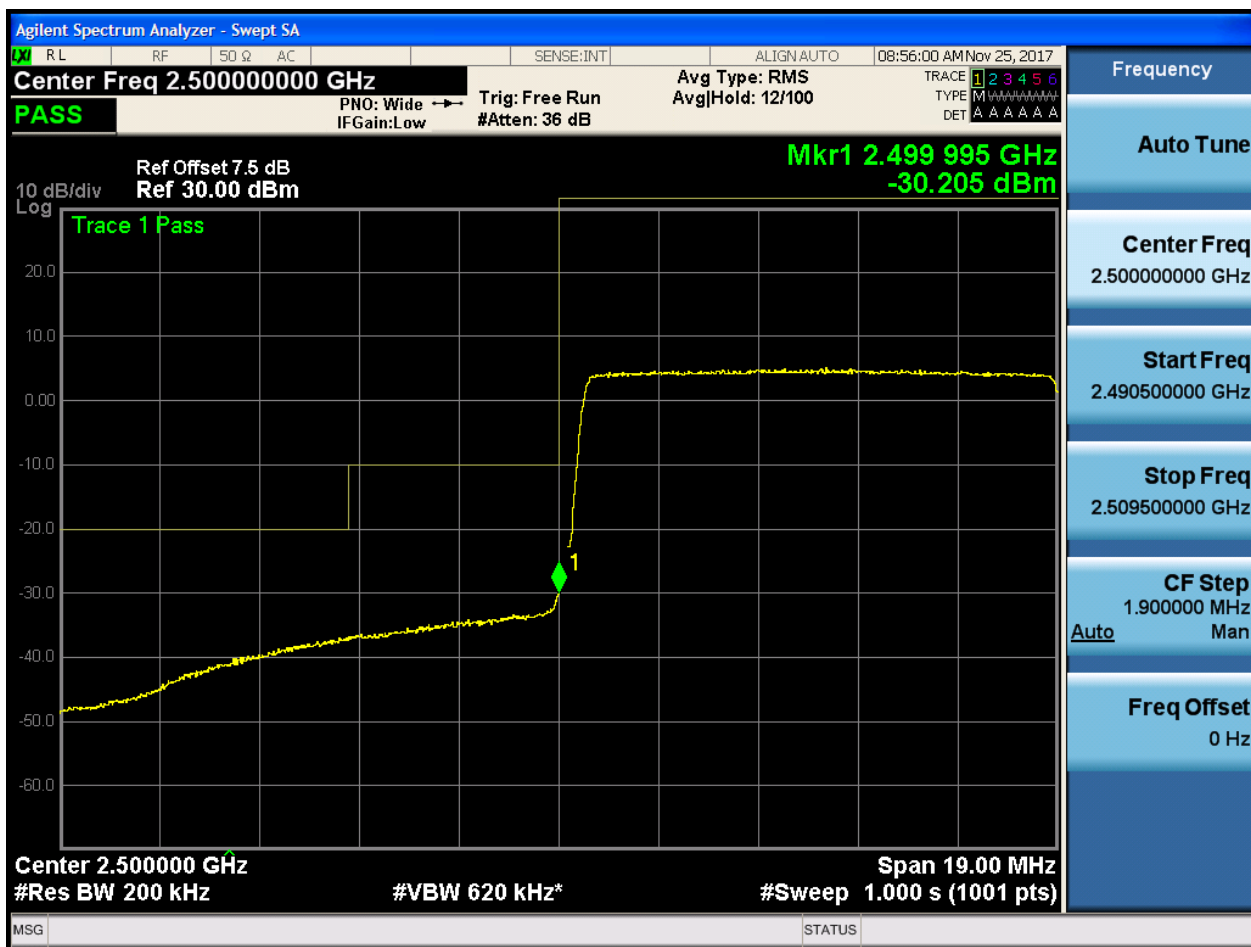
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



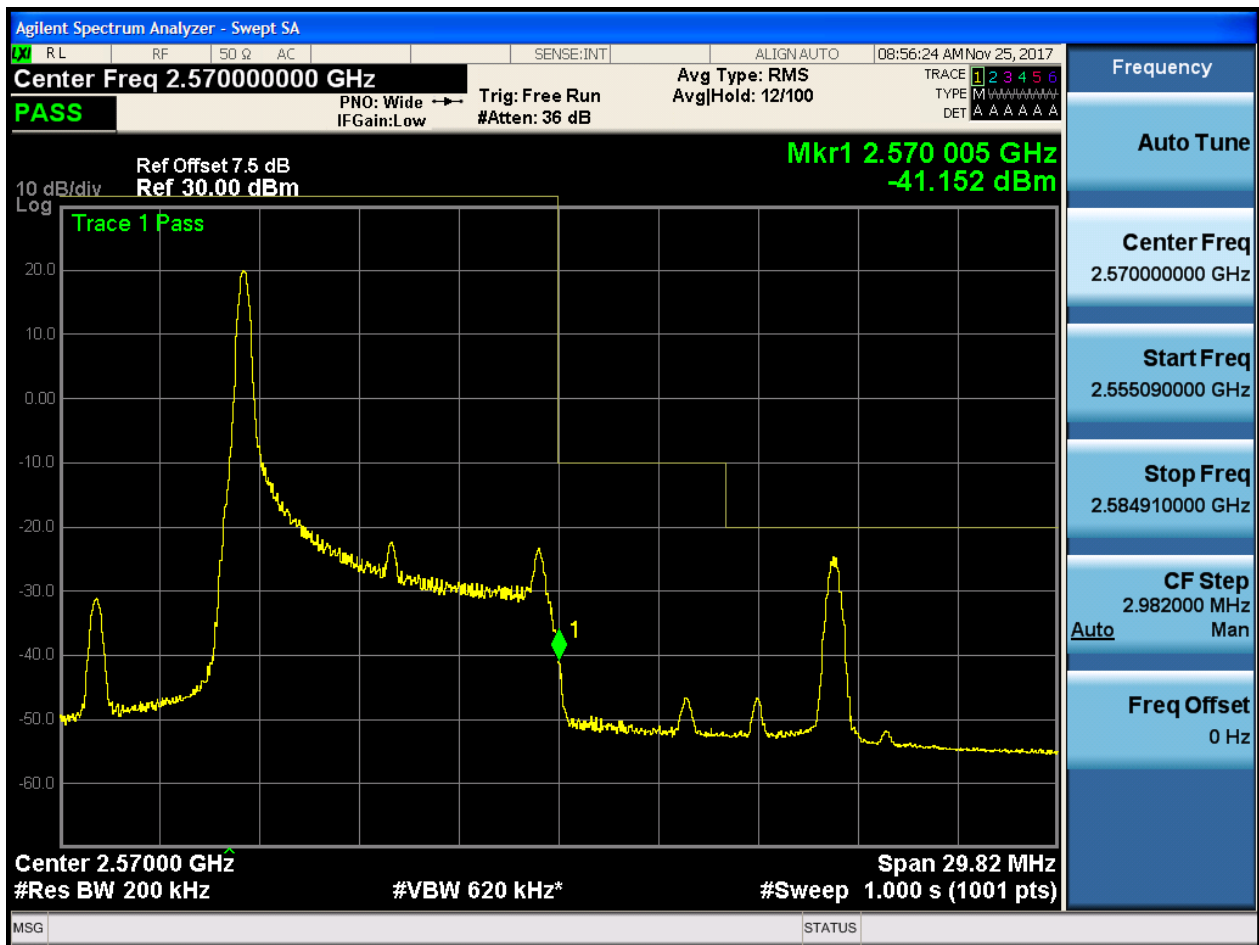
5.1.1.2.2.1.4 Test RB = RB50#0





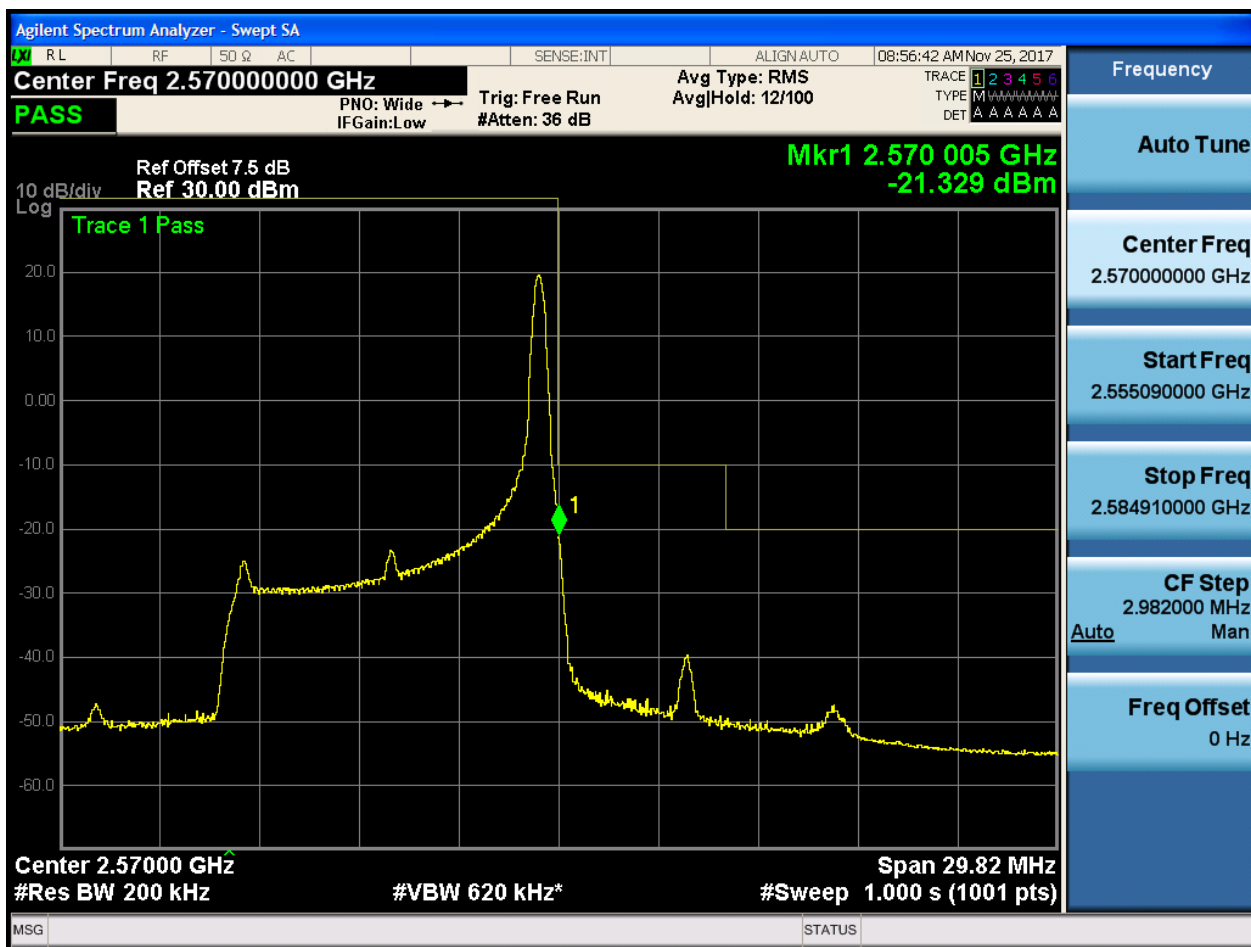
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



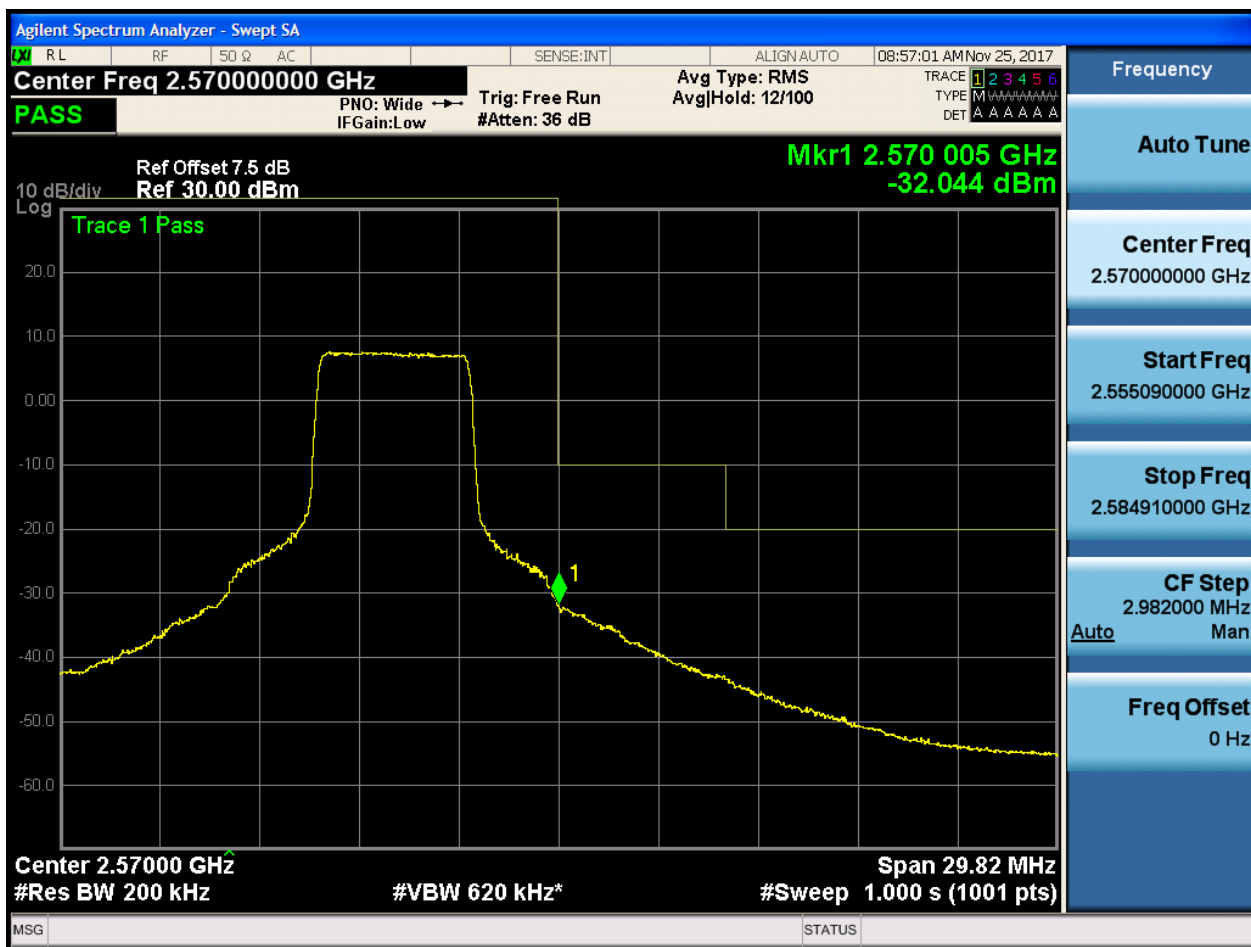


5.1.1.2.2.2 Test RB = RB1#49





5.1.1.2.2.3 Test RB = RB25#13





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:57:19 AM Nov 25, 2017

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

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.570 005 GHz
-30.320 dBm

10 dB/div
Log

Trace 1 Pass

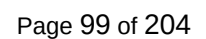
Center 2.57000 GHz
#Res BW 200 kHz #VBW 620 kHz* Span 29.82 MHz
#Sweep 1.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq 2.570000000 GHz
Start Freq 2.555090000 GHz
Stop Freq 2.584910000 GHz
CF Step 2.982000 MHz Auto Man
Freq Offset 0 Hz



5.1.1.2.3.1.1 Test RB = RB1#0





5.1.1.2.3.1.2 Test RB = RB1#74

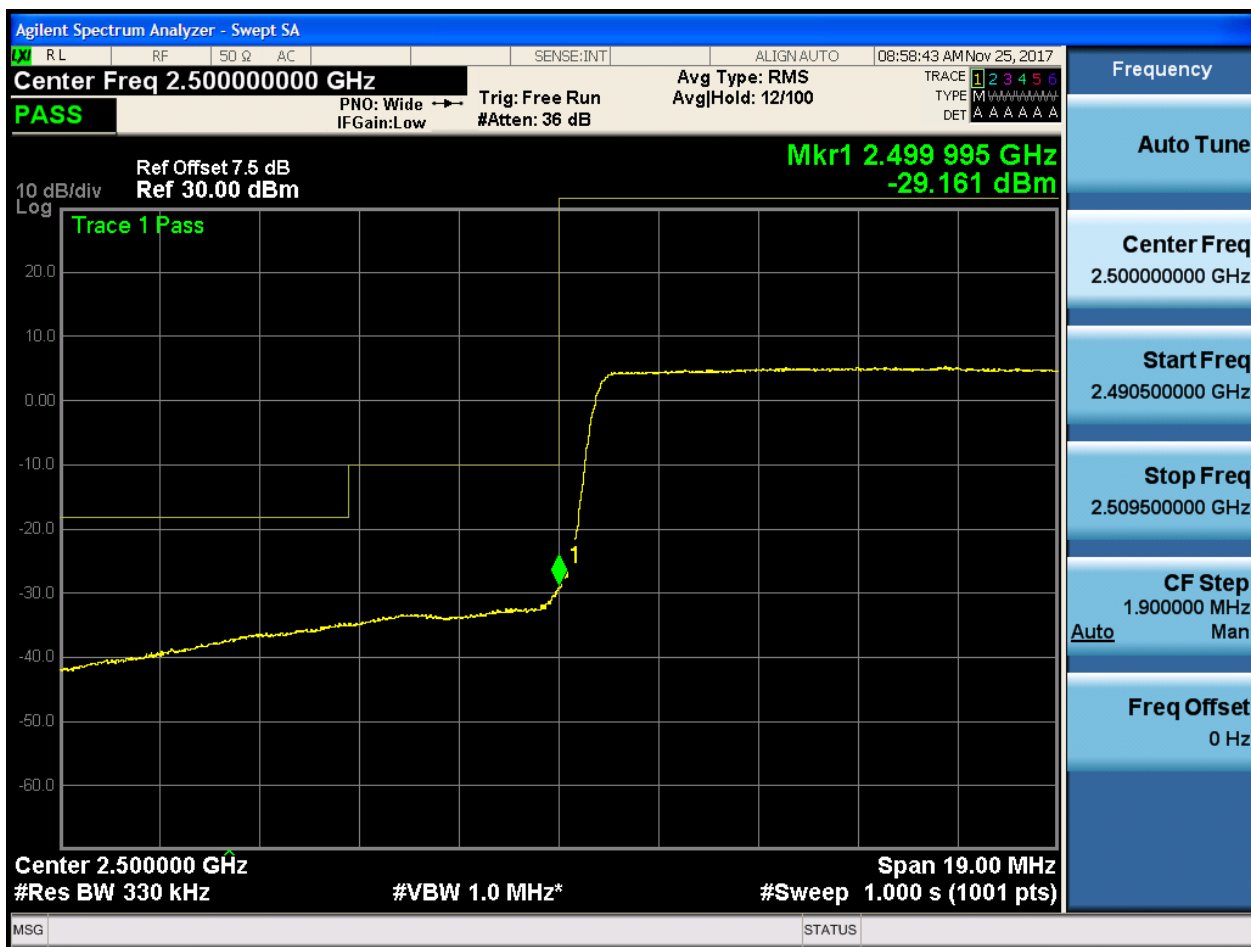


5.1.1.2.3.1.3 Test RB = RB36#18





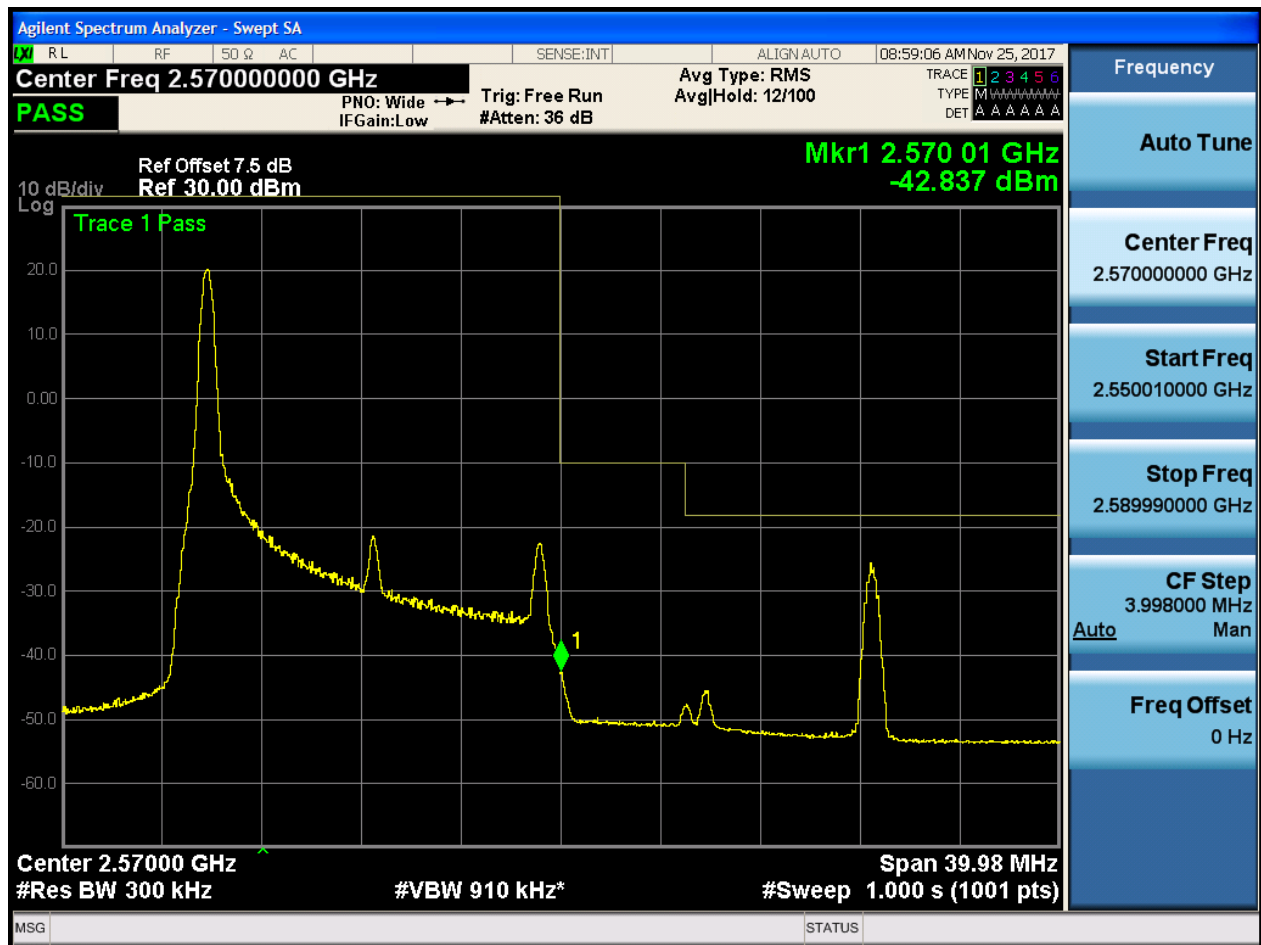
5.1.1.2.3.1.4 Test RB = RB75#0





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

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 08:59:25 AM Nov 25, 2017

Center Freq 2.57000000 GHz Avg Type: RMS
#Res BW 300 kHz IF Gain: Low Trig: Free Run Avg Hold: 12/100

PASS PNO: Wide → #Atten: 36 dB TRACE 1 2 3 4 5 6
TYPE M W W W W W W W W
DET A A A A A A

Ref Offset 7.5 dB Mkr1 2.570 01 GHz
Ref 30.00 dBm -20.496 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
2.570000000 GHz

Start Freq
2.550010000 GHz

Stop Freq
2.589990000 GHz

CF Step
3.998000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.3.2.3 Test RB = RB36#18





5.1.1.2.3.2.4 Test RB = RB75#0

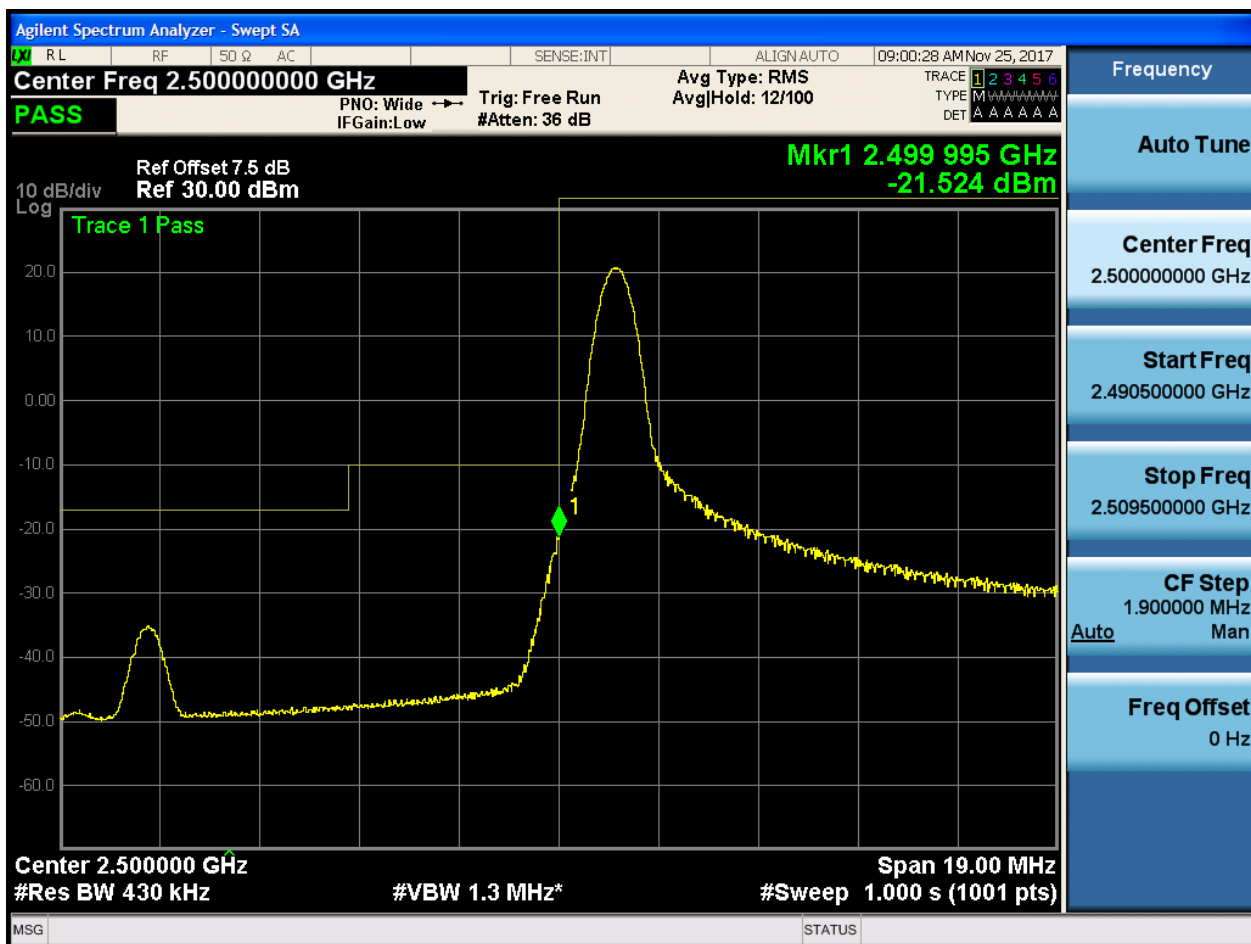




5.1.1.2.4 Test Bandwidth = 20

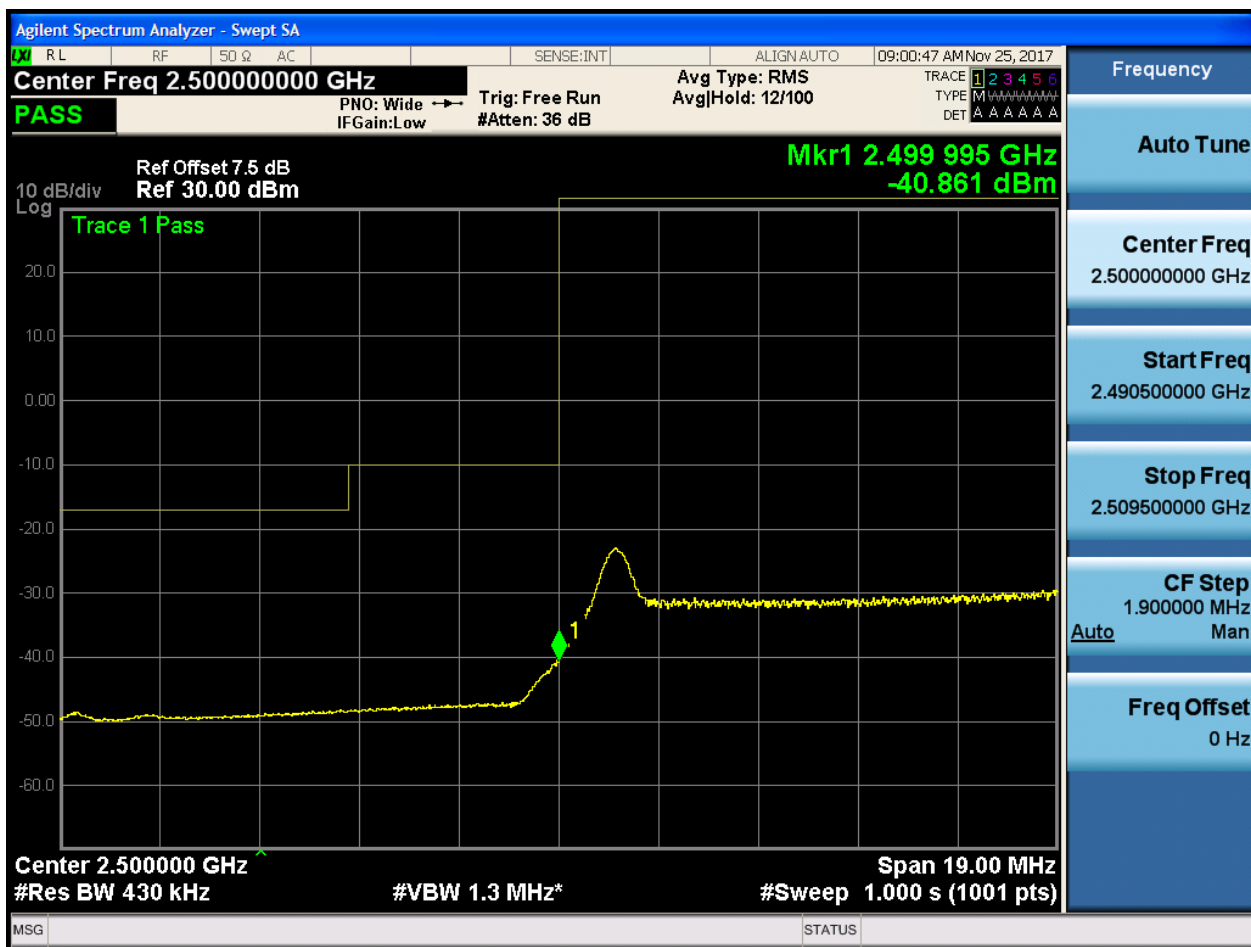
5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0





5.1.1.2.4.1.2 Test RB = RB1#99



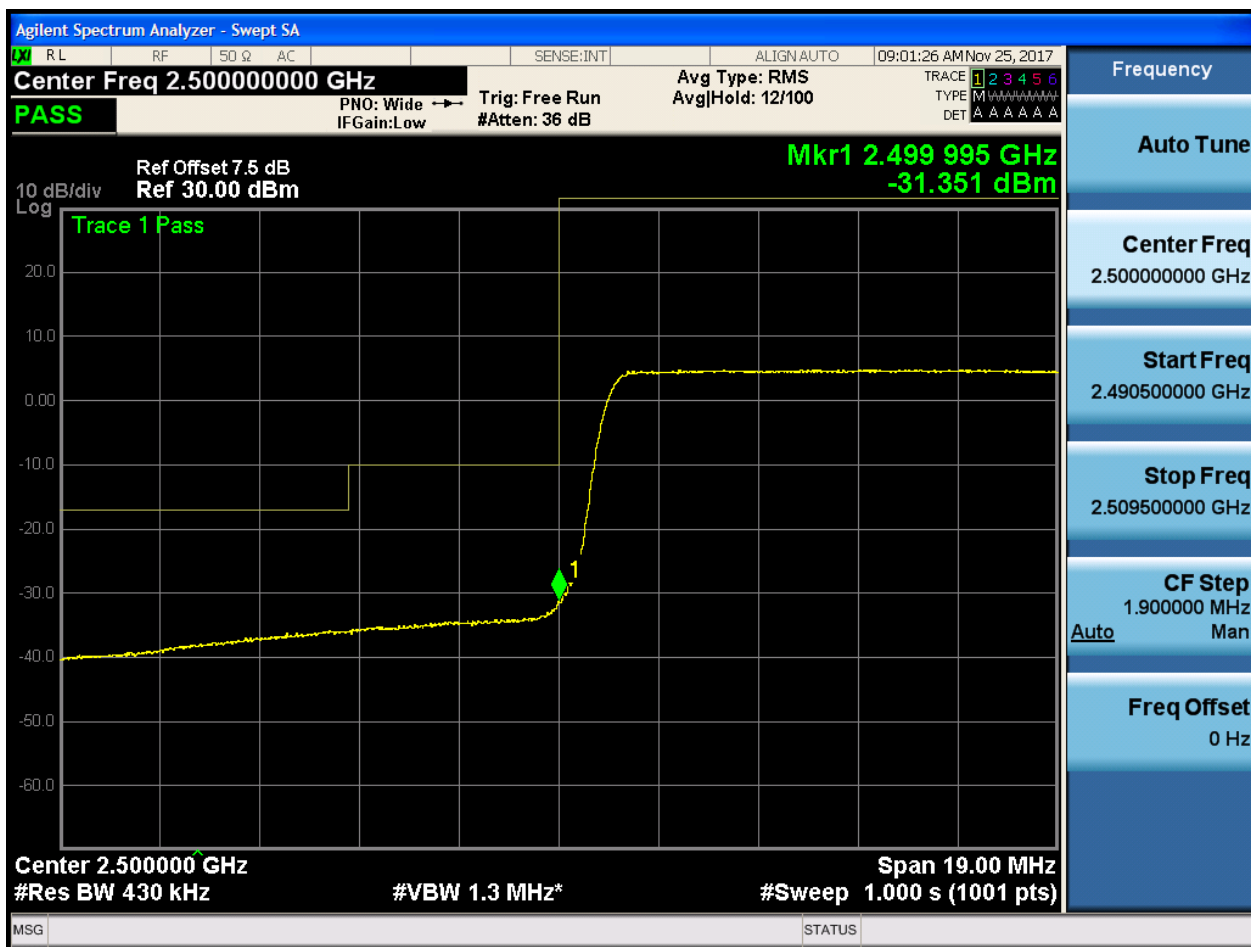


5.1.1.2.4.1.3 Test RB = RB50#25





5.1.1.2.4.1.4 Test RB = RB100#0





5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0

