



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	21.99	20.19	33	PASS
				RB1#13	22.07	20.27	33	PASS
				RB1#24	22.01	20.21	33	PASS
				RB12#0	21.11	19.31	33	PASS
				RB12#6	21.19	19.39	33	PASS
				RB12#13	21.13	19.33	33	PASS
				RB25#0	21.15	19.35	33	PASS
			MCH	RB1#0	22.15	20.35	33	PASS
				RB1#13	22.56	20.76	33	PASS
				RB1#24	22.25	20.45	33	PASS
				RB12#0	21.48	19.68	33	PASS
				RB12#6	21.41	19.61	33	PASS
				RB12#13	21.44	19.64	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.45	19.65	33	PASS
			HCH	RB1#0	22	20.2	33	PASS
				RB1#13	22.23	20.43	33	PASS
				RB1#24	21.82	20.02	33	PASS
				RB12#0	21.1	19.3	33	PASS
				RB12#6	21.17	19.37	33	PASS
				RB12#13	21.07	19.27	33	PASS
				RB25#0	21.14	19.34	33	PASS
		10	LCH	RB1#0	22.33	20.53	33	PASS
				RB1#25	22.56	20.76	33	PASS
				RB1#49	22.54	20.74	33	PASS
				RB25#0	21.27	19.47	33	PASS
				RB25#13	21.23	19.43	33	PASS
				RB25#25	21.16	19.36	33	PASS
				RB50#0	21.25	19.45	33	PASS
			MCH	RB1#0	22.64	20.84	33	PASS
				RB1#25	22.79	20.99	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	22.74	20.94	33	PASS
				RB25#0	21.58	19.78	33	PASS
				RB25#13	21.56	19.76	33	PASS
				RB25#25	21.47	19.67	33	PASS
				RB50#0	21.53	19.73	33	PASS
			HCH	RB1#0	22.41	20.61	33	PASS
				RB1#25	22.38	20.58	33	PASS
				RB1#49	22.05	20.25	33	PASS
				RB25#0	21.33	19.53	33	PASS
				RB25#13	21.21	19.41	33	PASS
				RB25#25	21.13	19.33	33	PASS
				RB50#0	21.23	19.43	33	PASS
		15	LCH	RB1#0	22.37	20.57	33	PASS
				RB1#38	22.41	20.61	33	PASS
				RB1#74	22.35	20.55	33	PASS
				RB36#0	21.24	19.44	33	PASS
				RB36#18	21.18	19.38	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	21.21	19.41	33	PASS
				RB75#0	21.17	19.37	33	PASS
			MCH	RB1#0	22.69	20.89	33	PASS
				RB1#38	22.82	21.02	33	PASS
				RB1#74	22.62	20.82	33	PASS
				RB36#0	21.49	19.69	33	PASS
				RB36#18	21.54	19.74	33	PASS
				RB36#39	21.5	19.7	33	PASS
				RB75#0	21.5	19.7	33	PASS
			HCH	RB1#0	22.49	20.69	33	PASS
				RB1#38	22.23	20.43	33	PASS
				RB1#74	22.19	20.39	33	PASS
				RB36#0	21.35	19.55	33	PASS
				RB36#18	21.34	19.54	33	PASS
				RB36#39	21.26	19.46	33	PASS
				RB75#0	21.3	19.5	33	PASS
		20	LCH	RB1#0	21.64	19.84	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	22.09	20.29	33	PASS
				RB1#99	22.1	20.3	33	PASS
				RB50#0	21.19	19.39	33	PASS
				RB50#25	21.34	19.54	33	PASS
				RB50#50	21.24	19.44	33	PASS
				RB100#0	21.25	19.45	33	PASS
			MCH	RB1#0	21.92	20.12	33	PASS
				RB1#50	22.54	20.74	33	PASS
				RB1#99	21.99	20.19	33	PASS
				RB50#0	21.56	19.76	33	PASS
				RB50#25	21.49	19.69	33	PASS
				RB50#50	21.44	19.64	33	PASS
				RB100#0	21.53	19.73	33	PASS
			HCH	RB1#0	21.93	20.13	33	PASS
				RB1#50	22.1	20.3	33	PASS
				RB1#99	21.79	19.99	33	PASS
				RB50#0	21.41	19.61	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	21.43	19.63	33	PASS
				RB50#50	21.22	19.42	33	PASS
				RB100#0	21.33	19.53	33	PASS
	LTE/TM2	5	LCH	RB1#0	21.28	19.48	33	PASS
				RB1#13	21.38	19.58	33	PASS
				RB1#24	20.97	19.17	33	PASS
				RB12#0	20.46	18.66	33	PASS
				RB12#6	20.49	18.69	33	PASS
				RB12#13	20.14	18.34	33	PASS
				RB25#0	20.27	18.47	33	PASS
			MCH	RB1#0	21.32	19.52	33	PASS
				RB1#13	21.71	19.91	33	PASS
				RB1#24	21.14	19.34	33	PASS
				RB12#0	20.79	18.99	33	PASS
				RB12#6	20.71	18.91	33	PASS
				RB12#13	20.67	18.87	33	PASS
				RB25#0	20.51	18.71	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	21.4	19.6	33	PASS
				RB1#13	21.35	19.55	33	PASS
				RB1#24	20.97	19.17	33	PASS
				RB12#0	20.05	18.25	33	PASS
				RB12#6	20.16	18.36	33	PASS
				RB12#13	19.95	18.15	33	PASS
				RB25#0	20	18.2	33	PASS
		10	LCH	RB1#0	21.21	19.41	33	PASS
				RB1#25	21.35	19.55	33	PASS
				RB1#49	21.38	19.58	33	PASS
				RB25#0	20.35	18.55	33	PASS
				RB25#13	20.23	18.43	33	PASS
				RB25#25	20.17	18.37	33	PASS
				RB50#0	20.28	18.48	33	PASS
			MCH	RB1#0	21.71	19.91	33	PASS
				RB1#25	21.65	19.85	33	PASS
				RB1#49	21.53	19.73	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	20.59	18.79	33	PASS
				RB25#13	20.59	18.79	33	PASS
				RB25#25	20.4	18.6	33	PASS
				RB50#0	20.58	18.78	33	PASS
			HCH	RB1#0	20.77	18.97	33	PASS
				RB1#25	21.48	19.68	33	PASS
				RB1#49	21.1	19.3	33	PASS
				RB25#0	20.33	18.53	33	PASS
				RB25#13	20.35	18.55	33	PASS
				RB25#25	20.29	18.49	33	PASS
				RB50#0	20.31	18.51	33	PASS
		15	LCH	RB1#0	21.38	19.58	33	PASS
				RB1#38	21.39	19.59	33	PASS
				RB1#74	21.23	19.43	33	PASS
				RB36#0	20.38	18.58	33	PASS
				RB36#18	20.24	18.44	33	PASS
				RB36#39	20.27	18.47	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	20.26	18.46	33	PASS
			MCH	RB1#0	21.54	19.74	33	PASS
				RB1#38	21.56	19.76	33	PASS
				RB1#74	21.62	19.82	33	PASS
				RB36#0	20.56	18.76	33	PASS
				RB36#18	20.48	18.68	33	PASS
				RB36#39	20.41	18.61	33	PASS
				RB75#0	20.48	18.68	33	PASS
			HCH	RB1#0	21.12	19.32	33	PASS
				RB1#38	21.35	19.55	33	PASS
				RB1#74	20.88	19.08	33	PASS
				RB36#0	20.36	18.56	33	PASS
				RB36#18	20.4	18.6	33	PASS
				RB36#39	20.27	18.47	33	PASS
				RB75#0	20.35	18.55	33	PASS
		20	LCH	RB1#0	21.07	19.27	33	PASS
				RB1#50	21.78	19.98	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	20.85	19.05	33	PASS
				RB50#0	20.34	18.54	33	PASS
				RB50#25	20.38	18.58	33	PASS
				RB50#50	20.37	18.57	33	PASS
				RB100#0	20.3	18.5	33	PASS
			MCH	RB1#0	21.31	19.51	33	PASS
				RB1#50	21.93	20.13	33	PASS
				RB1#99	21.47	19.67	33	PASS
				RB50#0	20.6	18.8	33	PASS
				RB50#25	20.54	18.74	33	PASS
				RB50#50	20.5	18.7	33	PASS
				RB100#0	20.43	18.63	33	PASS
			HCH	RB1#0	20.74	18.94	33	PASS
				RB1#50	21.34	19.54	33	PASS
				RB1#99	21.07	19.27	33	PASS
				RB50#0	20.39	18.59	33	PASS
				RB50#25	20.37	18.57	33	PASS



Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	20.27	18.47	33	PASS
				RB100#0	20.29	18.49	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:

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

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

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

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

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	3.47	13	PASS
				RB1#13	3.36	13	PASS
				RB1#24	3.49	13	PASS
				RB12#0	4.45	13	PASS
				RB12#6	4.34	13	PASS
				RB12#13	4.47	13	PASS
				RB25#0	4.98	13	PASS
			MCH	RB1#0	3.39	13	PASS
				RB1#13	3.24	13	PASS
				RB1#24	3.37	13	PASS
				RB12#0	4.35	13	PASS
				RB12#6	4.14	13	PASS
				RB12#13	4.28	13	PASS
				RB25#0	4.92	13	PASS
			HCH	RB1#0	3.47	13	PASS
				RB1#13	3.31	13	PASS
				RB1#24	3.49	13	PASS
				RB12#0	4.56	13	PASS
				RB12#6	4.3	13	PASS
				RB12#13	4.45	13	PASS
				RB25#0	5.01	13	PASS
		10	LCH	RB1#0	3.43	13	PASS
				RB1#25	3.33	13	PASS
				RB1#49	3.53	13	PASS
				RB25#0	4.44	13	PASS
				RB25#13	4.47	13	PASS
				RB25#25	4.57	13	PASS
				RB50#0	4.67	13	PASS
			MCH	RB1#0	3.33	13	PASS
				RB1#25	3.05	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#49	3.23	13	PASS
				RB25#0	4.28	13	PASS
				RB25#13	4.23	13	PASS
				RB25#25	4.34	13	PASS
				RB50#0	5.02	13	PASS
			HCH	RB1#0	3.46	13	PASS
				RB1#25	3.37	13	PASS
				RB1#49	3.44	13	PASS
				RB25#0	4.44	13	PASS
				RB25#13	4.39	13	PASS
				RB25#25	4.4	13	PASS
				RB50#0	5.48	13	PASS
		15	LCH	RB1#0	3.35	13	PASS
				RB1#38	3.42	13	PASS
				RB1#74	3.54	13	PASS
				RB36#0	4.54	13	PASS
				RB36#18	4.52	13	PASS
				RB36#39	4.6	13	PASS
				RB75#0	5.3	13	PASS
			MCH	RB1#0	3.31	13	PASS
				RB1#38	3.06	13	PASS
				RB1#74	3.42	13	PASS
				RB36#0	4.32	13	PASS
				RB36#18	4.27	13	PASS
				RB36#39	4.38	13	PASS
				RB75#0	5.15	13	PASS
			HCH	RB1#0	3.52	13	PASS
				RB1#38	3.36	13	PASS
				RB1#74	3.33	13	PASS
				RB36#0	4.54	13	PASS
				RB36#18	4.44	13	PASS
				RB36#39	4.46	13	PASS
				RB75#0	5.26	13	PASS
		20	LCH	RB1#0	3.61	13	PASS
				RB1#50	3.52	13	PASS
				RB1#99	3.56	13	PASS
				RB50#0	4.6	13	PASS
				RB50#25	4.52	13	PASS
				RB50#50	4.73	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB100#0	4.91	13	PASS
			MCH	RB1#0	3.54	13	PASS
				RB1#50	3.18	13	PASS
				RB1#99	3.53	13	PASS
				RB50#0	4.33	13	PASS
				RB50#25	4.25	13	PASS
				RB50#50	4.44	13	PASS
				RB100#0	5.17	13	PASS
			HCH	RB1#0	3.67	13	PASS
				RB1#50	3.46	13	PASS
				RB1#99	3.48	13	PASS
				RB50#0	4.7	13	PASS
				RB50#25	4.52	13	PASS
				RB50#50	4.48	13	PASS
				RB100#0	4.92	13	PASS
	LTE/TM2	5	LCH	RB1#0	4.39	13	PASS
				RB1#13	4.35	13	PASS
				RB1#24	4.51	13	PASS
				RB12#0	5.33	13	PASS
				RB12#6	5.25	13	PASS
				RB12#13	5.33	13	PASS
				RB25#0	6.05	13	PASS
			MCH	RB1#0	4.32	13	PASS
				RB1#13	4.15	13	PASS
				RB1#24	4.28	13	PASS
				RB12#0	5.11	13	PASS
				RB12#6	5.04	13	PASS
				RB12#13	5.15	13	PASS
				RB25#0	5.88	13	PASS
			HCH	RB1#0	3.69	13	PASS
				RB1#13	3.8	13	PASS
				RB1#24	3.86	13	PASS
				RB12#0	5.29	13	PASS
				RB12#6	5.22	13	PASS
				RB12#13	5.34	13	PASS
				RB25#0	6.22	13	PASS
		10	LCH	RB1#0	4.54	13	PASS
				RB1#25	4.48	13	PASS
				RB1#49	4.6	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	5.42	13	PASS
				RB25#13	5.41	13	PASS
				RB25#25	5.58	13	PASS
				RB50#0	6.19	13	PASS
			MCH	RB1#0	4.37	13	PASS
				RB1#25	4	13	PASS
				RB1#49	4.39	13	PASS
				RB25#0	5.27	13	PASS
				RB25#13	5.11	13	PASS
				RB25#25	5.31	13	PASS
				RB50#0	6.22	13	PASS
			HCH	RB1#0	4.47	13	PASS
				RB1#25	4.38	13	PASS
				RB1#49	4.42	13	PASS
				RB25#0	5.25	13	PASS
				RB25#13	5.24	13	PASS
				RB25#25	5.32	13	PASS
				RB50#0	6.08	13	PASS
		15	LCH	RB1#0	4.51	13	PASS
				RB1#38	4.4	13	PASS
				RB1#74	4.62	13	PASS
				RB36#0	5.51	13	PASS
				RB36#18	5.43	13	PASS
				RB36#39	5.6	13	PASS
				RB75#0	6.11	13	PASS
			MCH	RB1#0	4.45	13	PASS
				RB1#38	4.02	13	PASS
				RB1#74	4.45	13	PASS
				RB36#0	5.33	13	PASS
				RB36#18	5.18	13	PASS
				RB36#39	5.39	13	PASS
				RB75#0	5.96	13	PASS
			HCH	RB1#0	4.23	13	PASS
				RB1#38	4.06	13	PASS
				RB1#74	4.07	13	PASS
				RB36#0	5.59	13	PASS
				RB36#18	5.37	13	PASS
				RB36#39	5.42	13	PASS
				RB75#0	6	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
		20	LCH	RB1#0	4.08	13	PASS
				RB1#50	4	13	PASS
				RB1#99	4.06	13	PASS
				RB50#0	5.54	13	PASS
				RB50#25	5.41	13	PASS
				RB50#50	5.57	13	PASS
				RB100#0	6.3	13	PASS
			MCH	RB1#0	4	13	PASS
				RB1#50	3.77	13	PASS
				RB1#99	3.99	13	PASS
				RB50#0	5.32	13	PASS
				RB50#25	5.23	13	PASS
				RB50#50	5.34	13	PASS
				RB100#0	5.82	13	PASS
			HCH	RB1#0	4.35	13	PASS
				RB1#50	4.2	13	PASS
				RB1#99	4.19	13	PASS
				RB50#0	5.71	13	PASS
				RB50#25	5.46	13	PASS
				RB50#50	5.46	13	PASS
				RB100#0	5.91	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

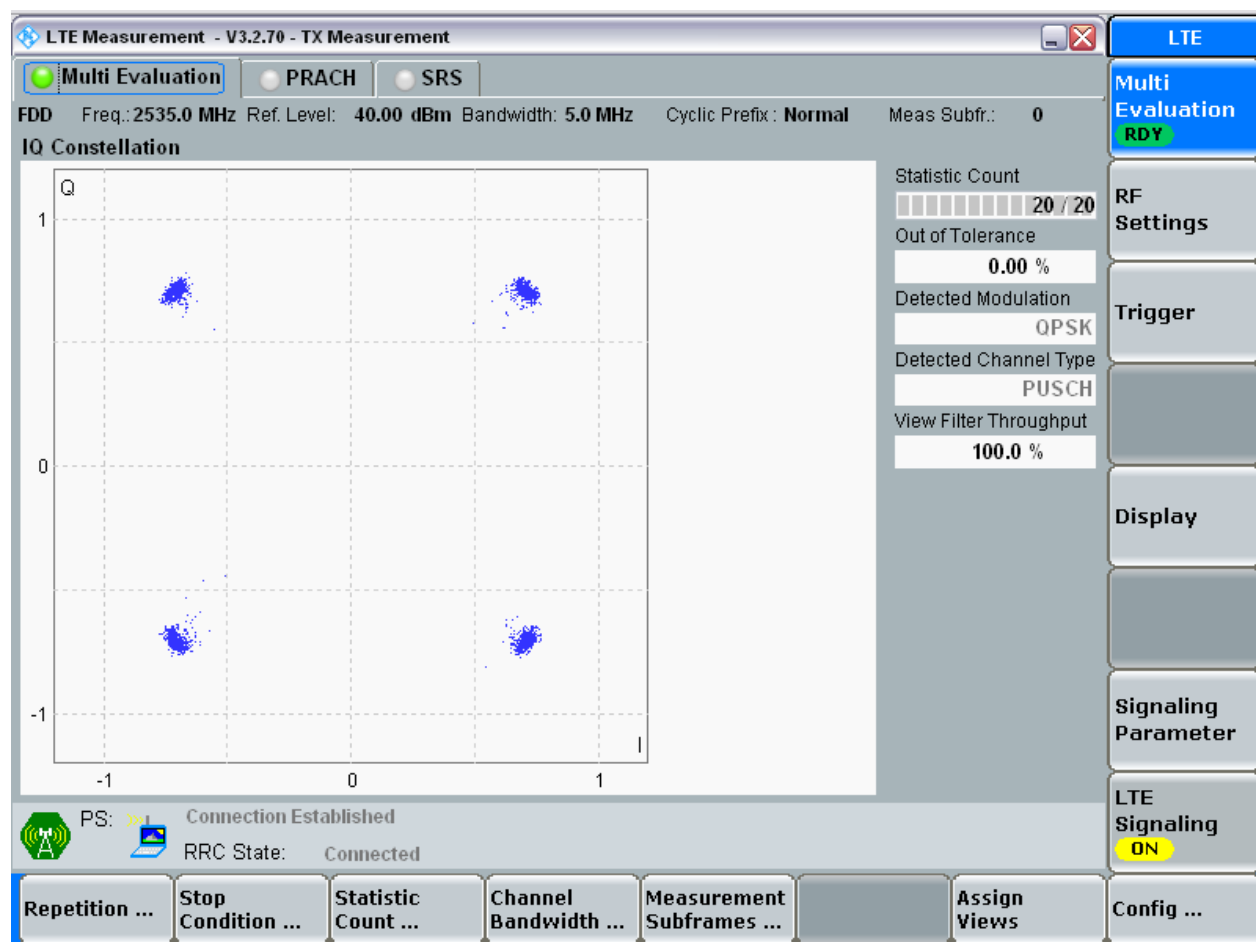
3.1.1 Test Band = BAND7

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

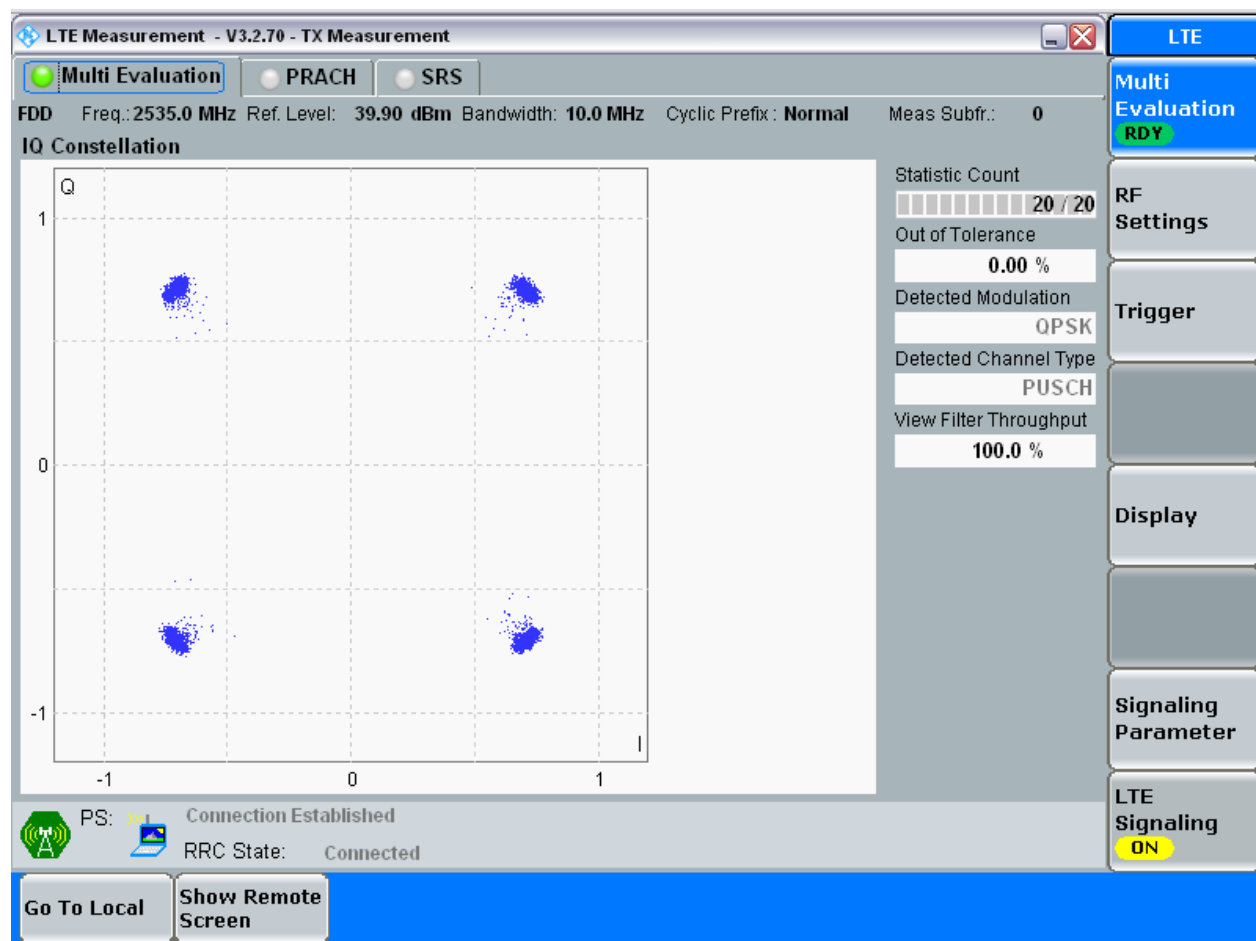
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

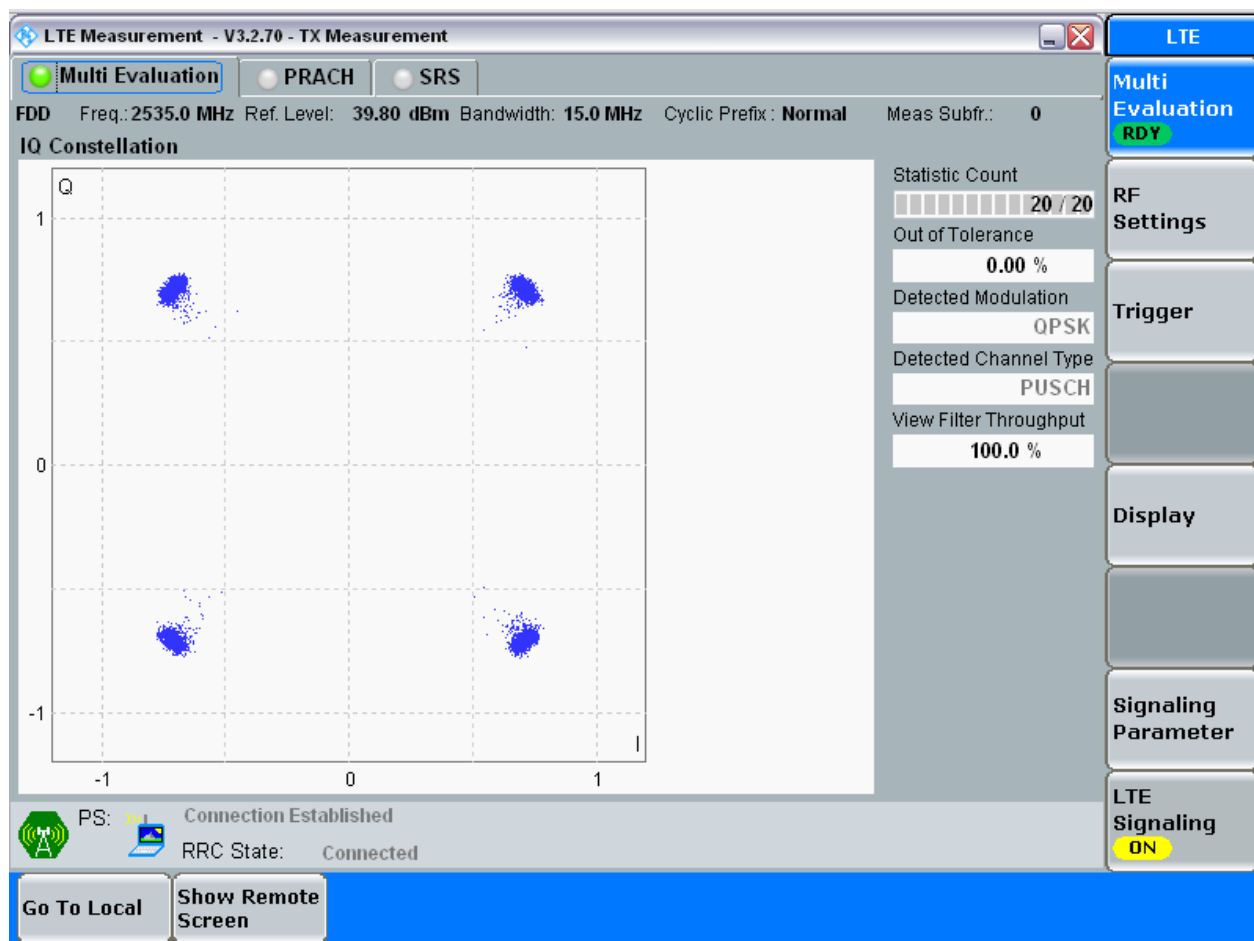
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

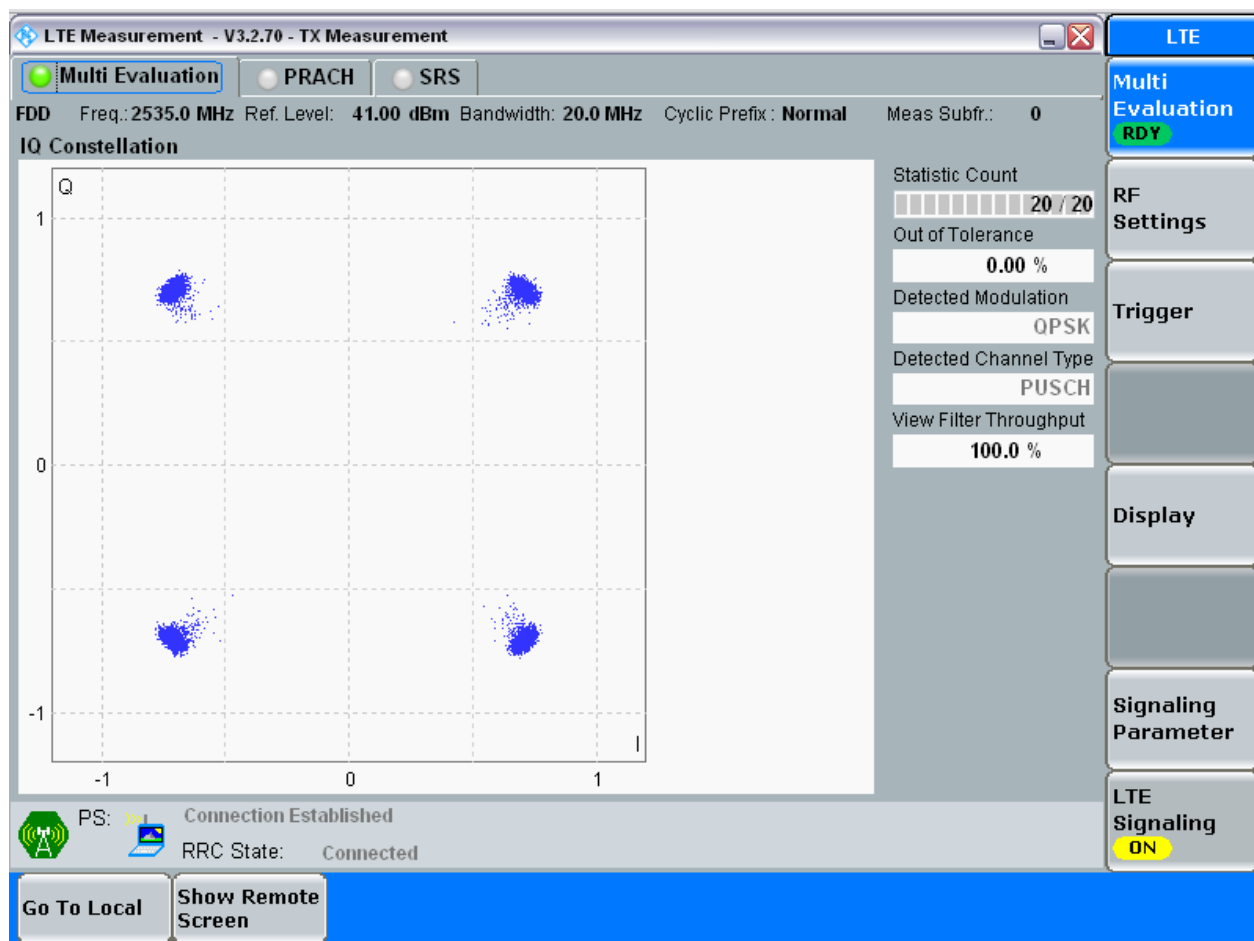
3.1.1.1.3.1.1 Test RB = RB75#0



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

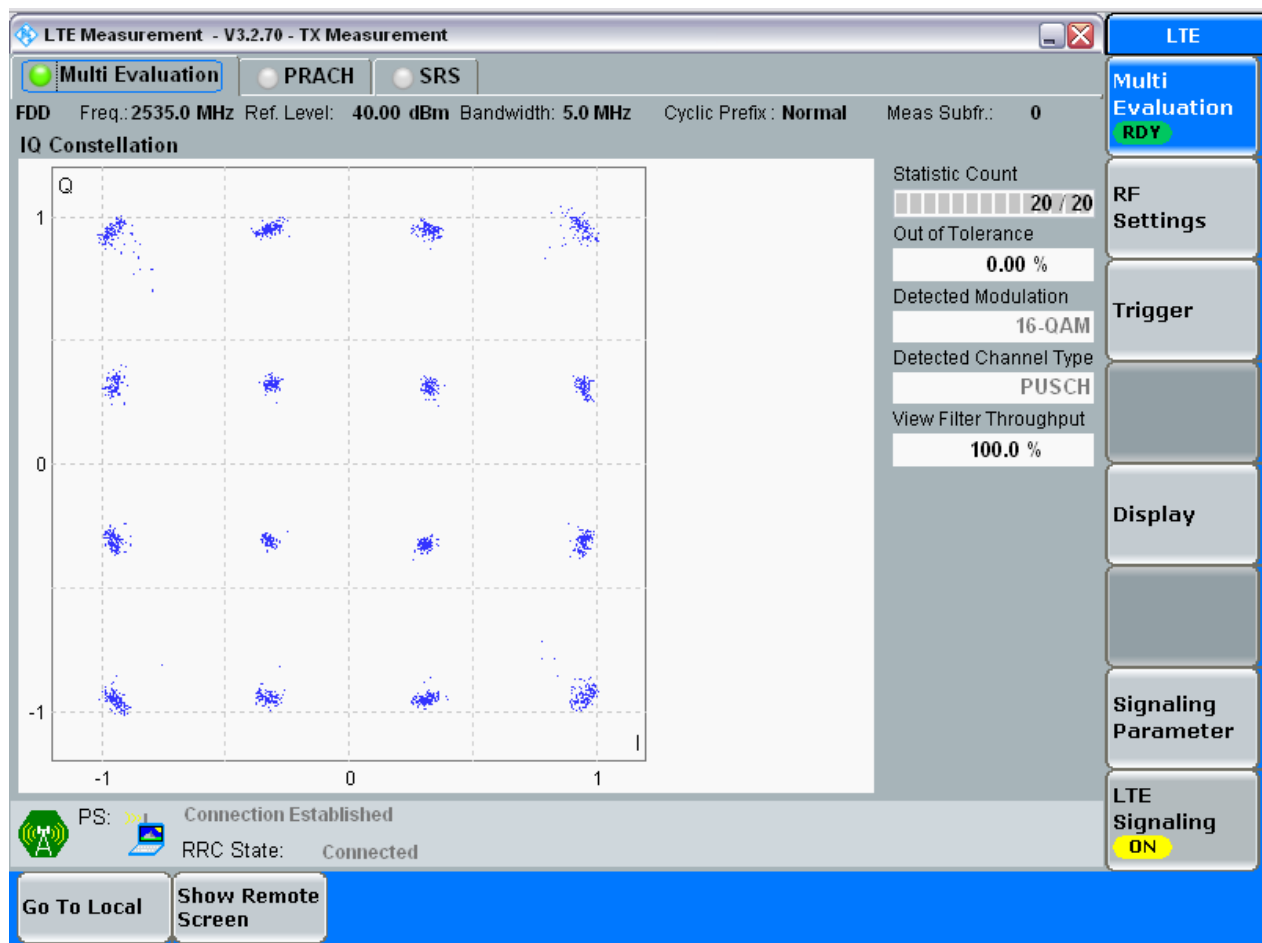


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

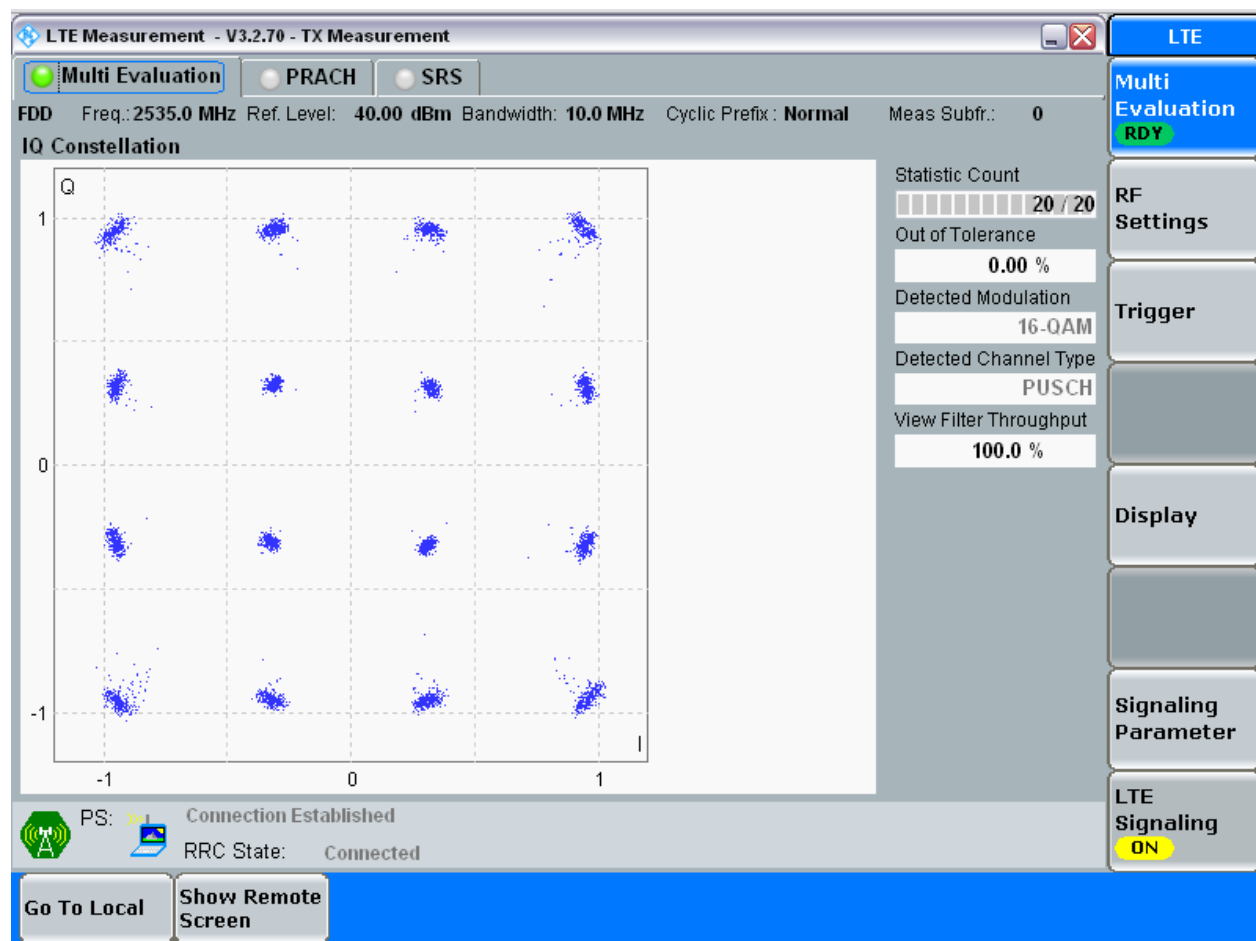
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

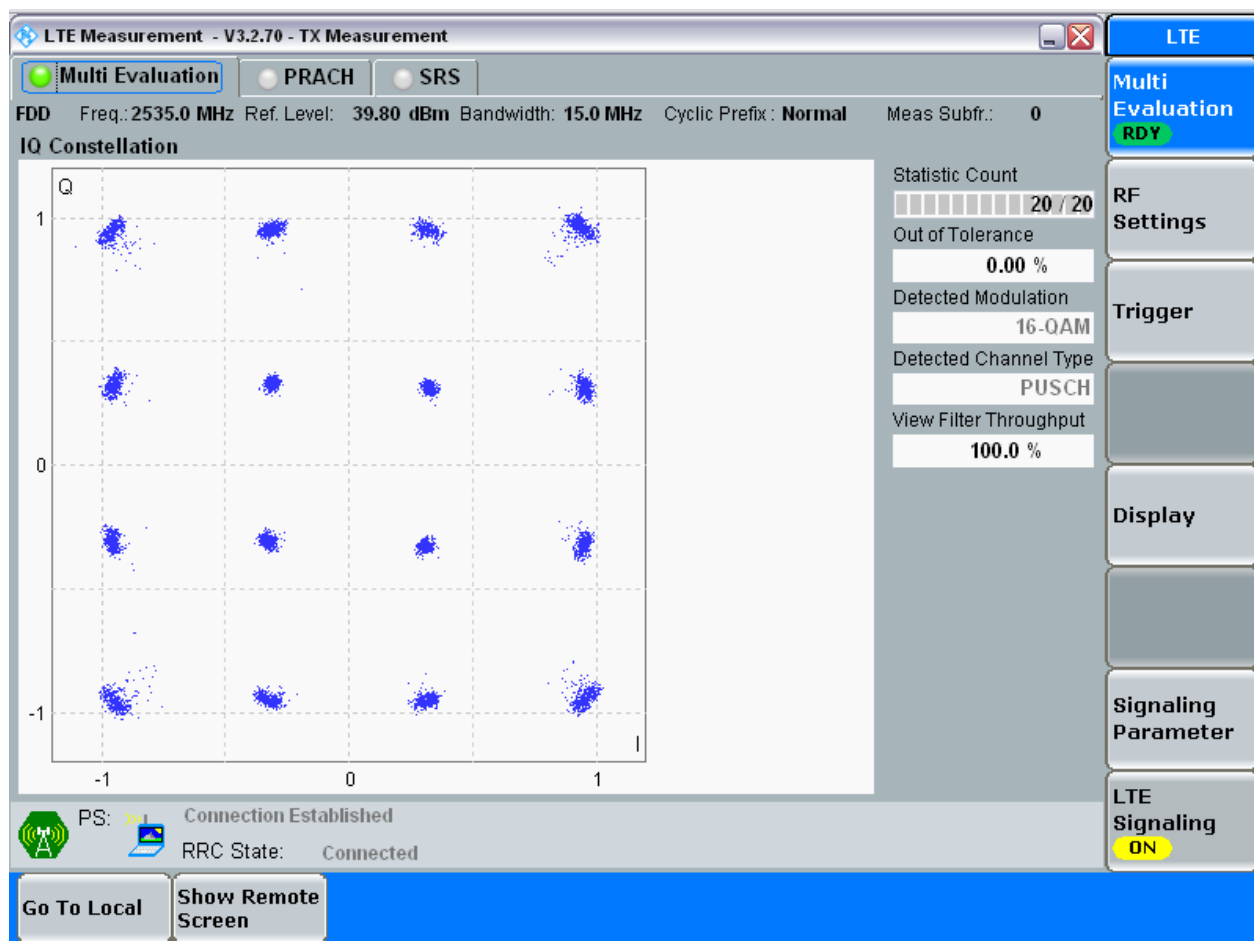
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

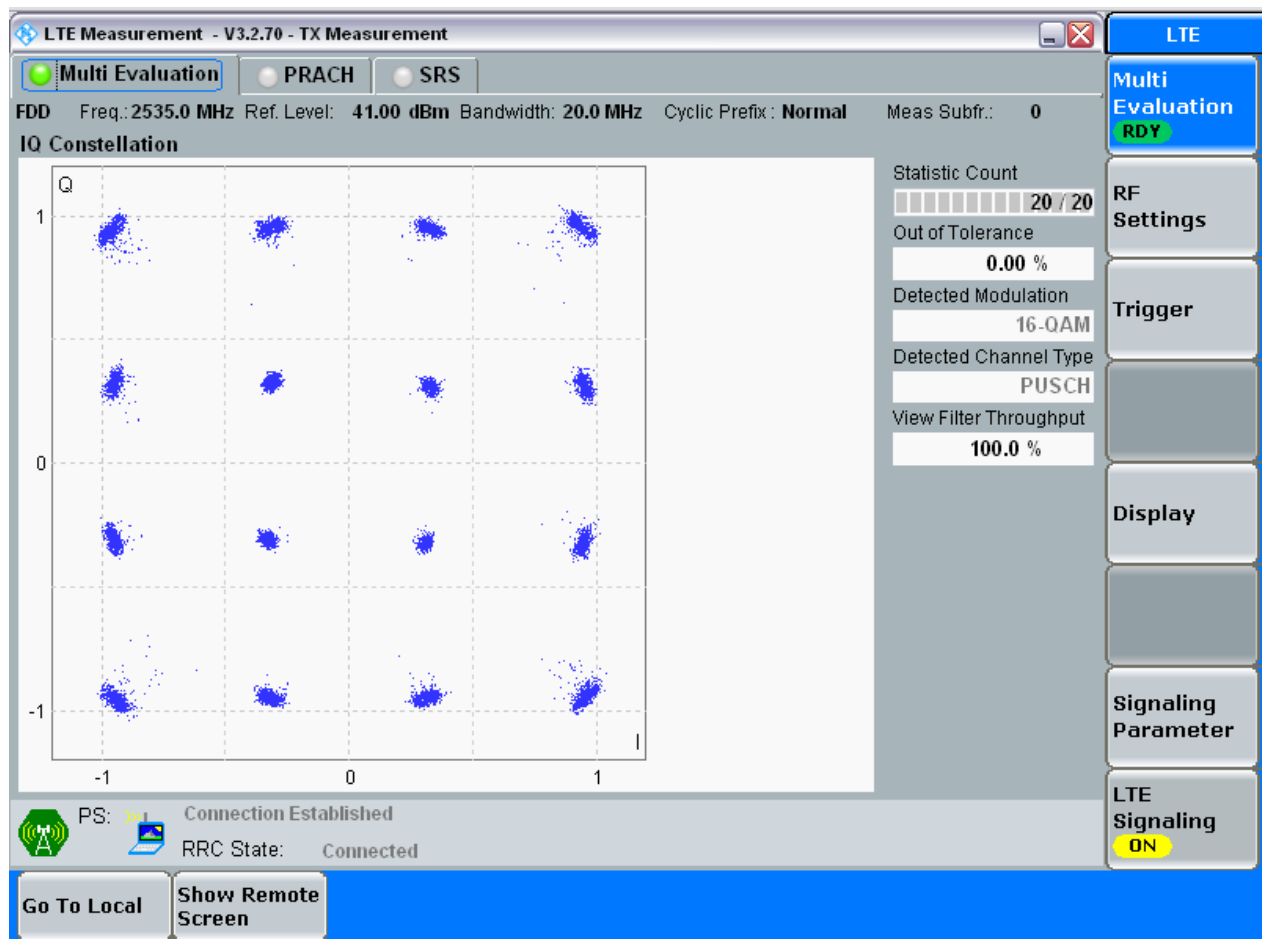
3.1.1.2.3.1.1 Test RB = RB75#0



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	4.49	4.86	Pass
			MCH	RB25#0	4.49	4.87	Pass
			HCH	RB25#0	4.49	4.85	Pass
		10	LCH	RB50#0	8.99	9.59	Pass
			MCH	RB50#0	8.98	9.59	Pass
			HCH	RB50#0	8.96	9.59	Pass
		15	LCH	RB75#0	13.45	14.35	Pass
			MCH	RB75#0	13.46	14.38	Pass
			HCH	RB75#0	13.43	14.27	Pass
		20	LCH	RB100#0	17.90	18.98	Pass
			MCH	RB100#0	17.90	18.97	Pass
			HCH	RB100#0	17.92	18.97	Pass
	LTE/TM2	5	LCH	RB25#0	4.49	4.88	Pass
			MCH	RB25#0	4.49	4.89	Pass
			HCH	RB25#0	4.50	4.90	Pass
		10	LCH	RB50#0	8.97	9.59	Pass
			MCH	RB50#0	8.97	9.62	Pass
			HCH	RB50#0	8.98	9.56	Pass
		15	LCH	RB75#0	13.45	14.25	Pass
			MCH	RB75#0	13.44	14.25	Pass
			HCH	RB75#0	13.43	14.28	Pass
		20	LCH	RB100#0	17.93	18.95	Pass
			MCH	RB100#0	17.91	18.95	Pass
			HCH	RB100#0	17.92	18.98	Pass



Part II - Test Plots

4.1 For LTE

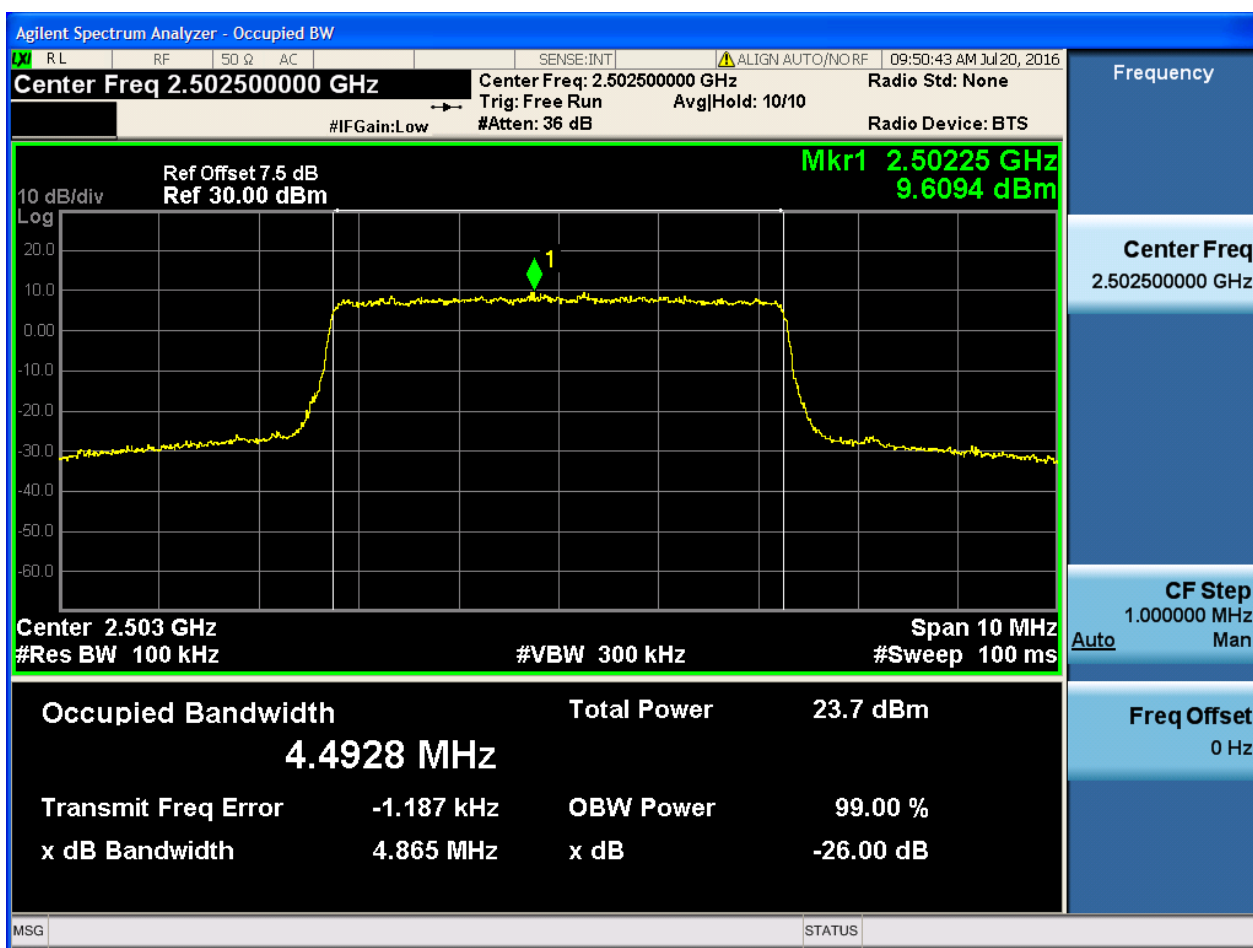
4.1.1 Test Band = BAND7

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

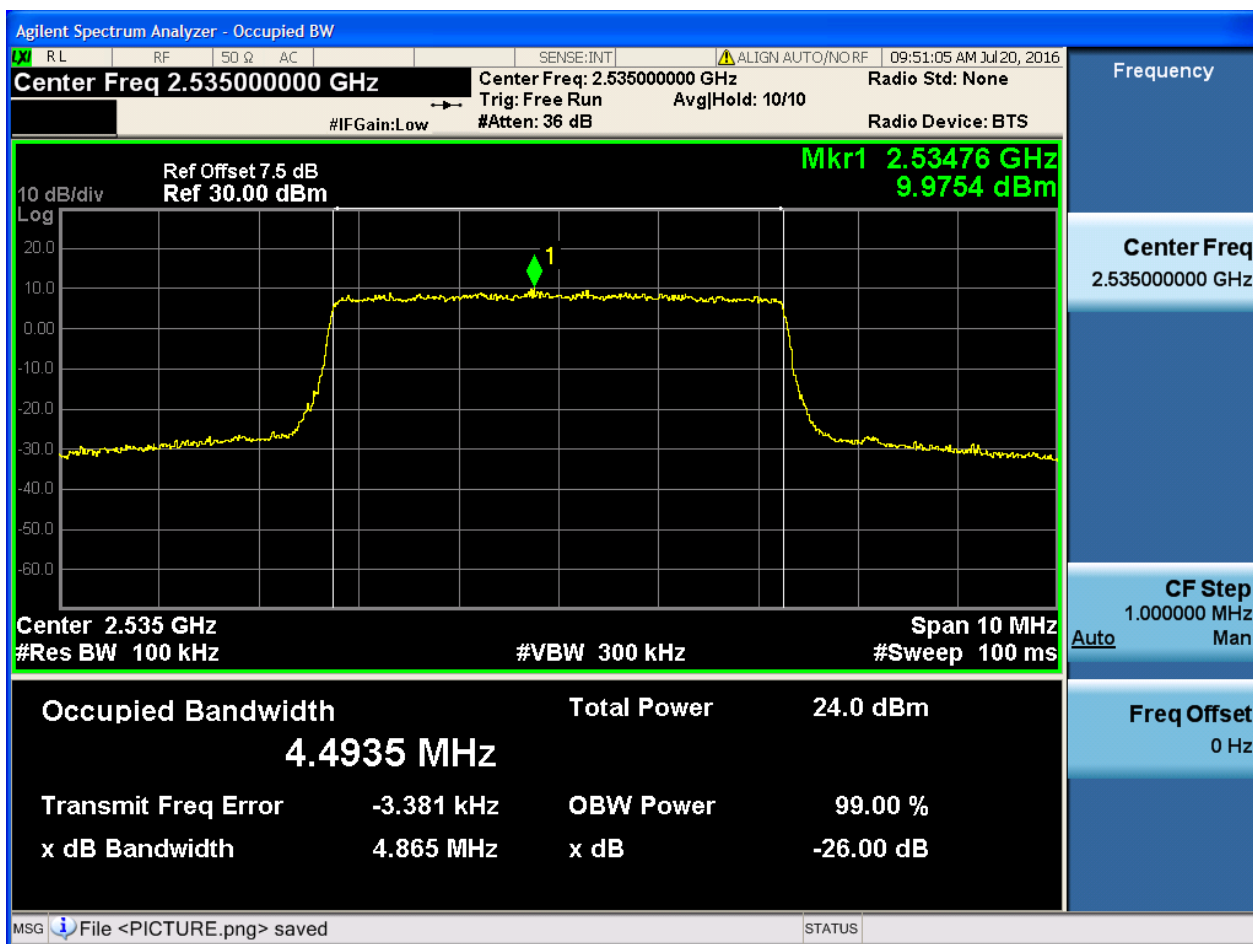
4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

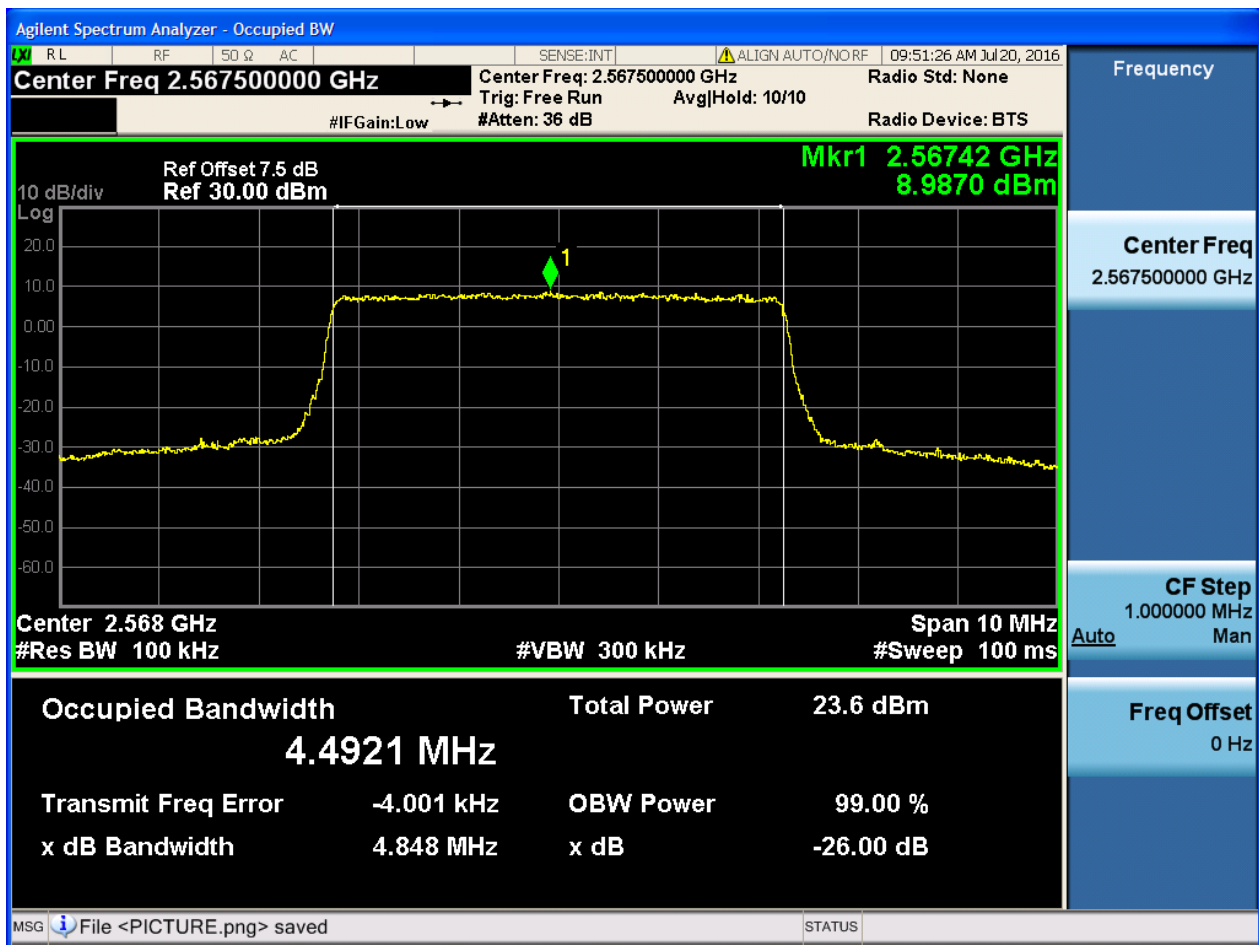
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

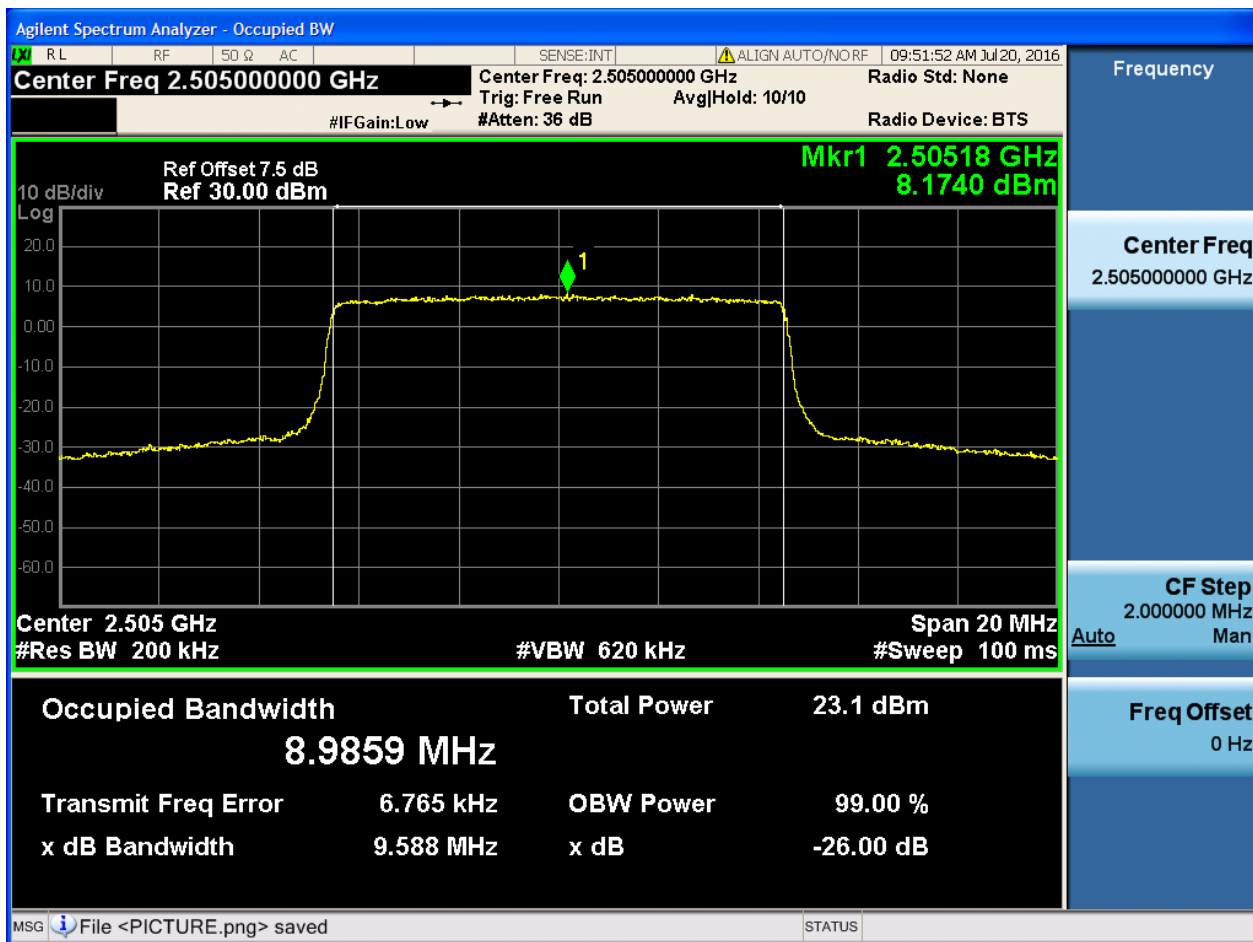




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

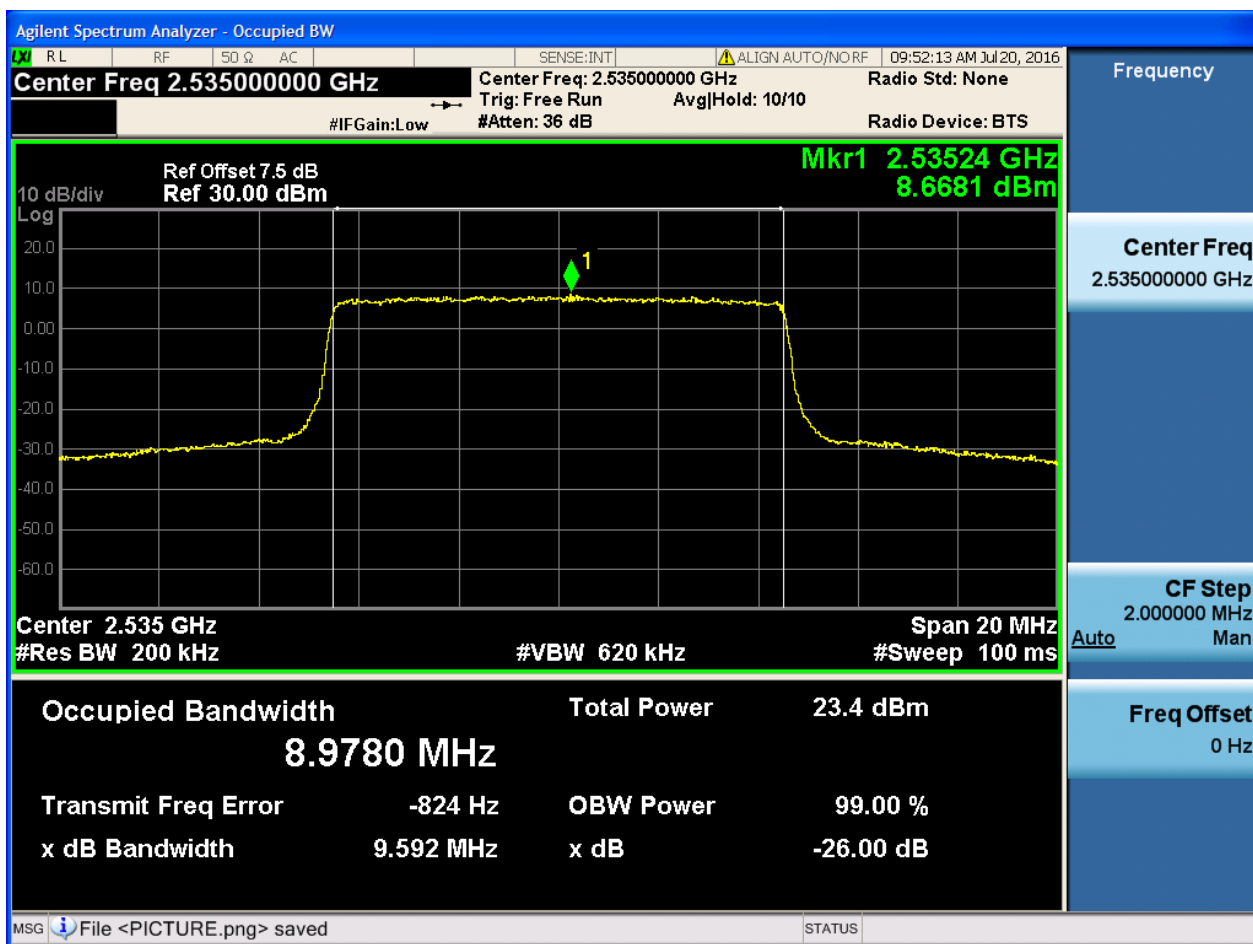
4.1.1.1.2.1.1 Test RB = RB50#0





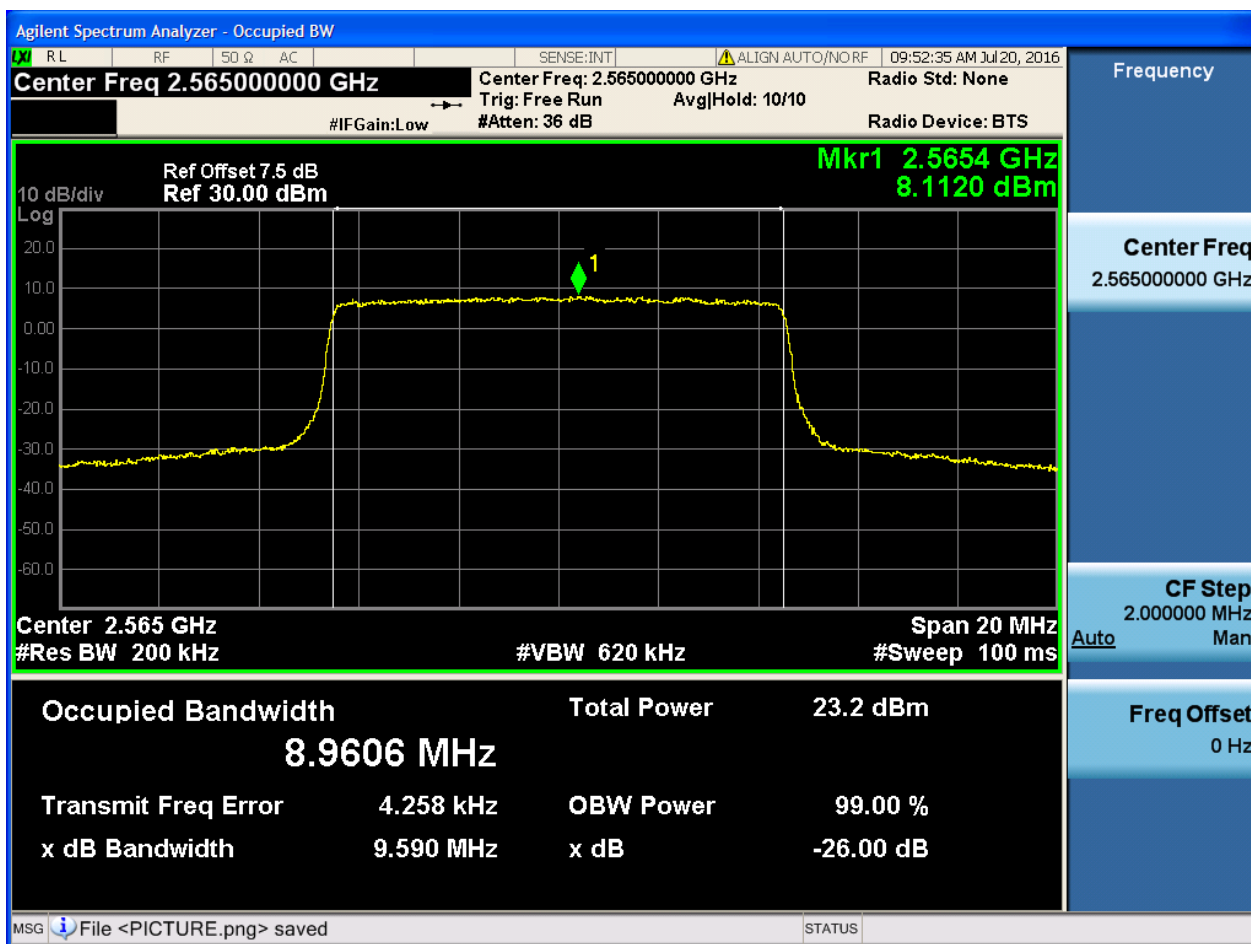
4.1.1.1.2.2 Test Channel = MCH

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

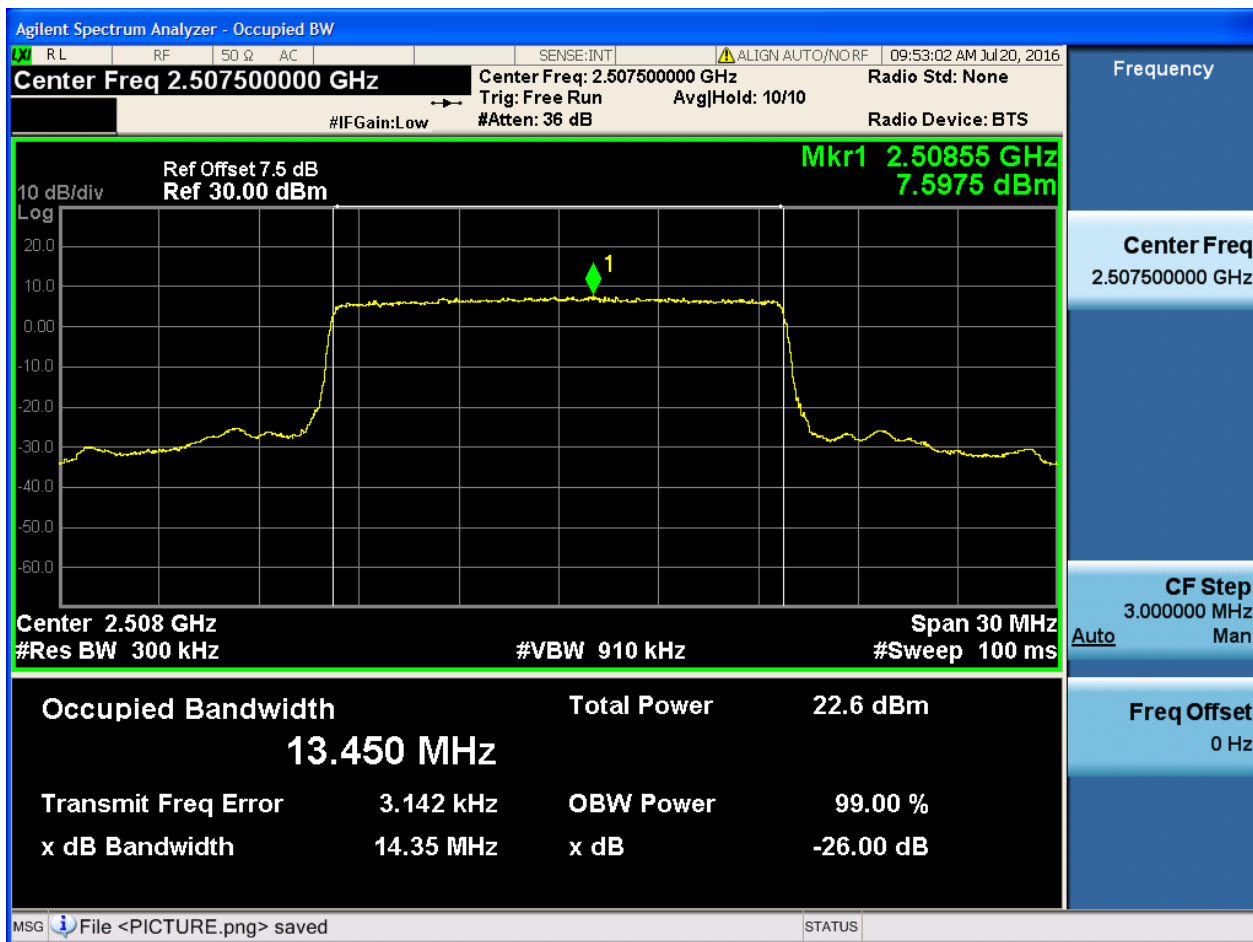




4.1.1.1.3 Test Bandwidth = 15

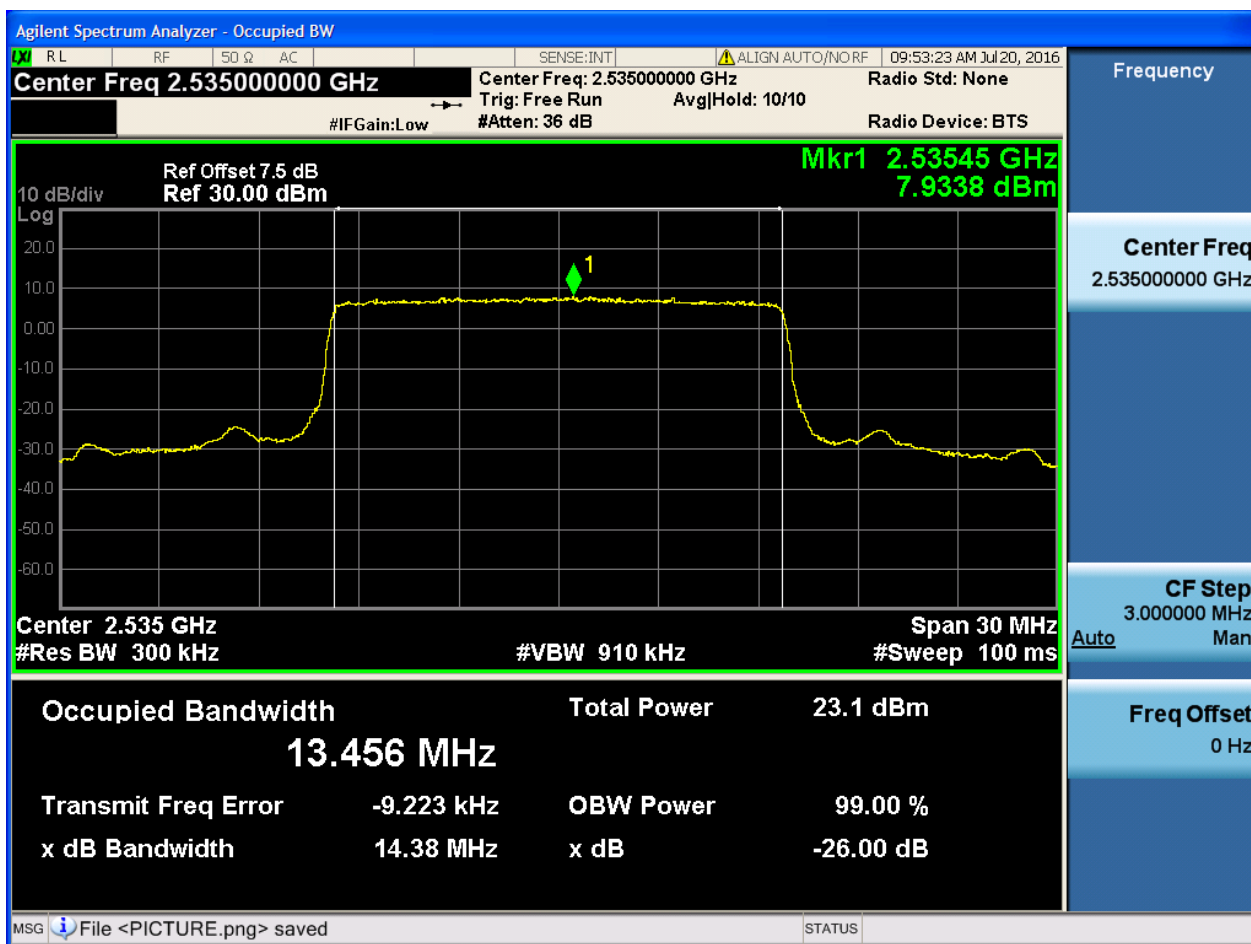
4.1.1.1.3.1 Test Channel = LCH

4.1.1.1.3.1.1 Test RB = RB75#0



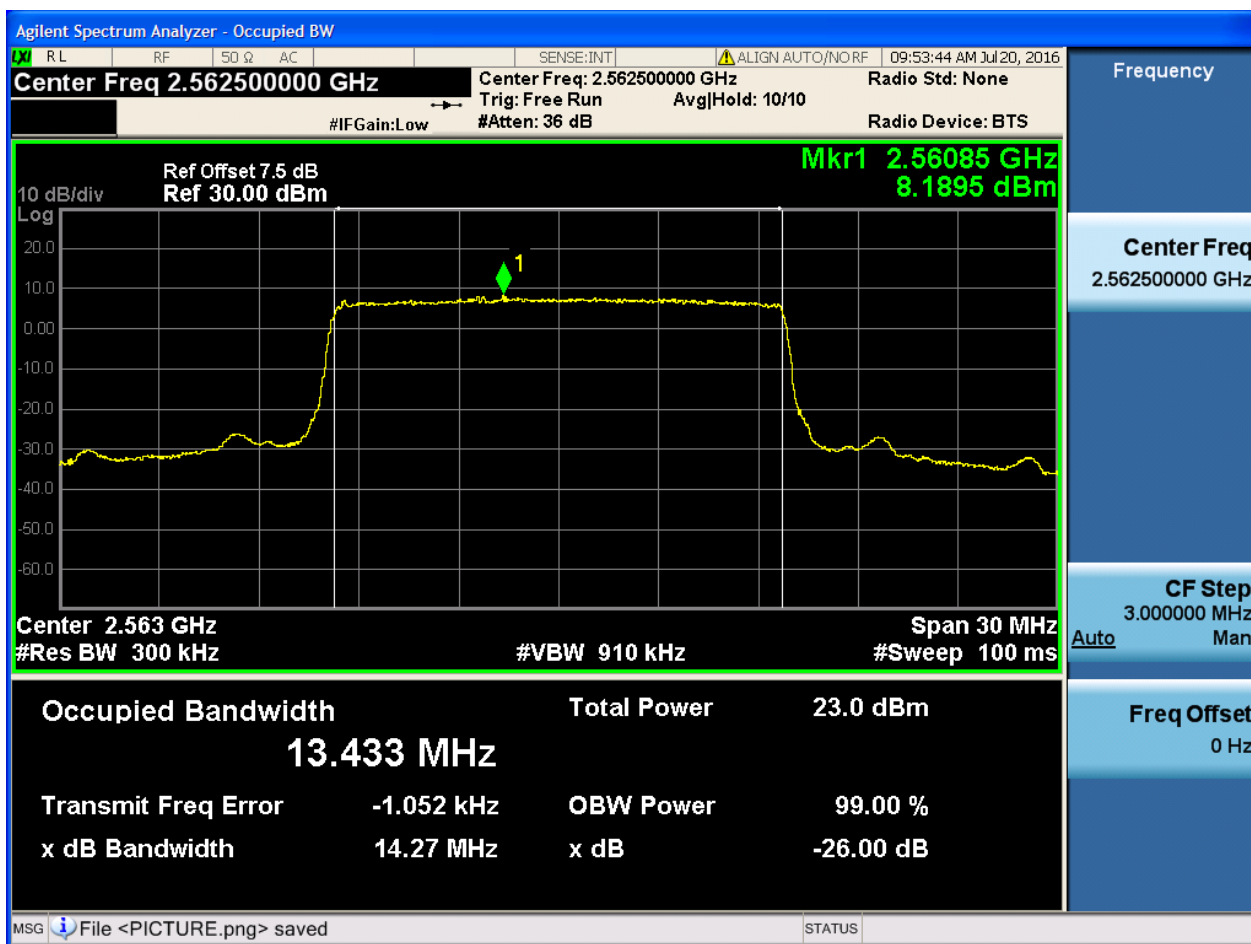
4.1.1.1.3.2 Test Channel = MCH

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

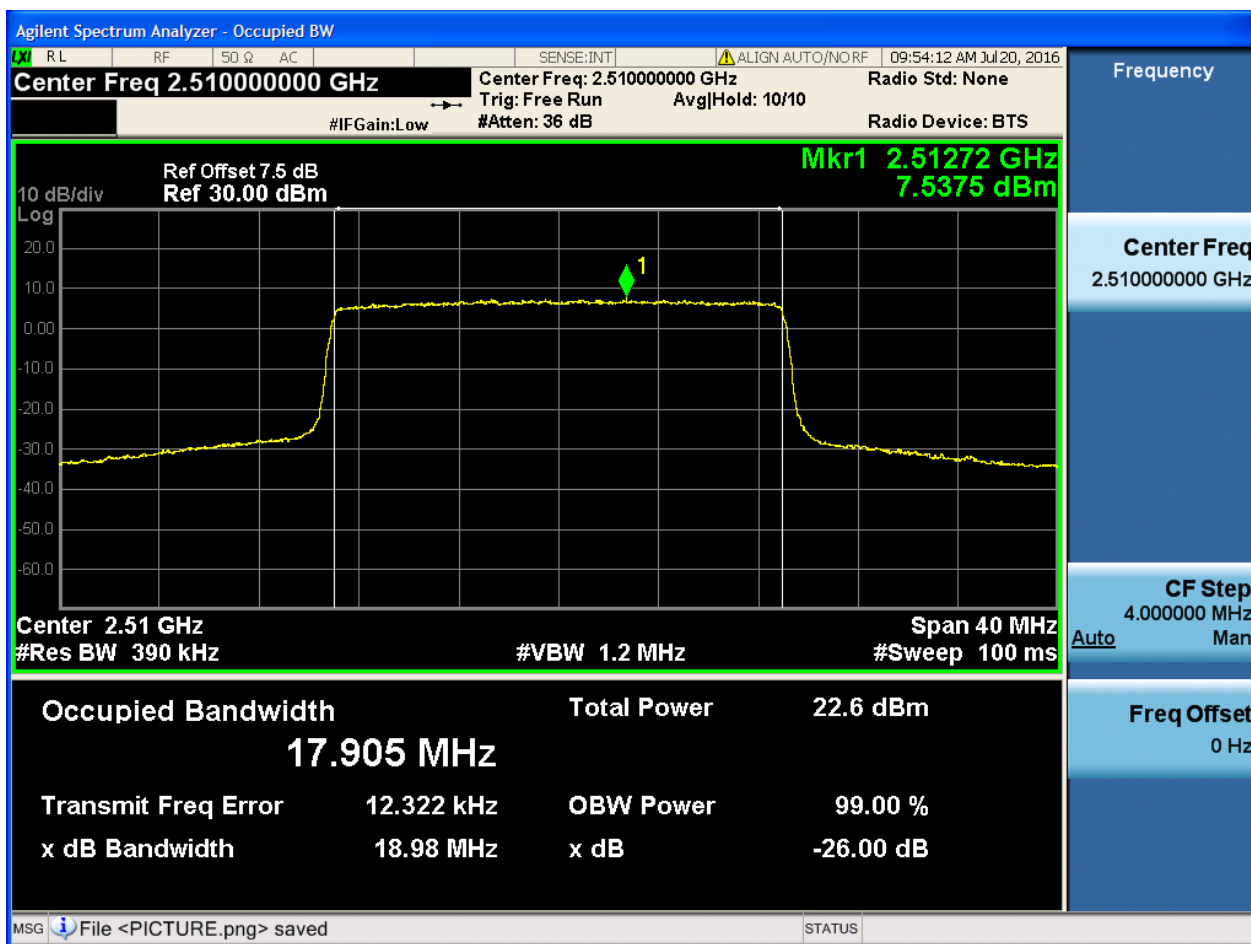




4.1.1.1.4 Test Bandwidth = 20

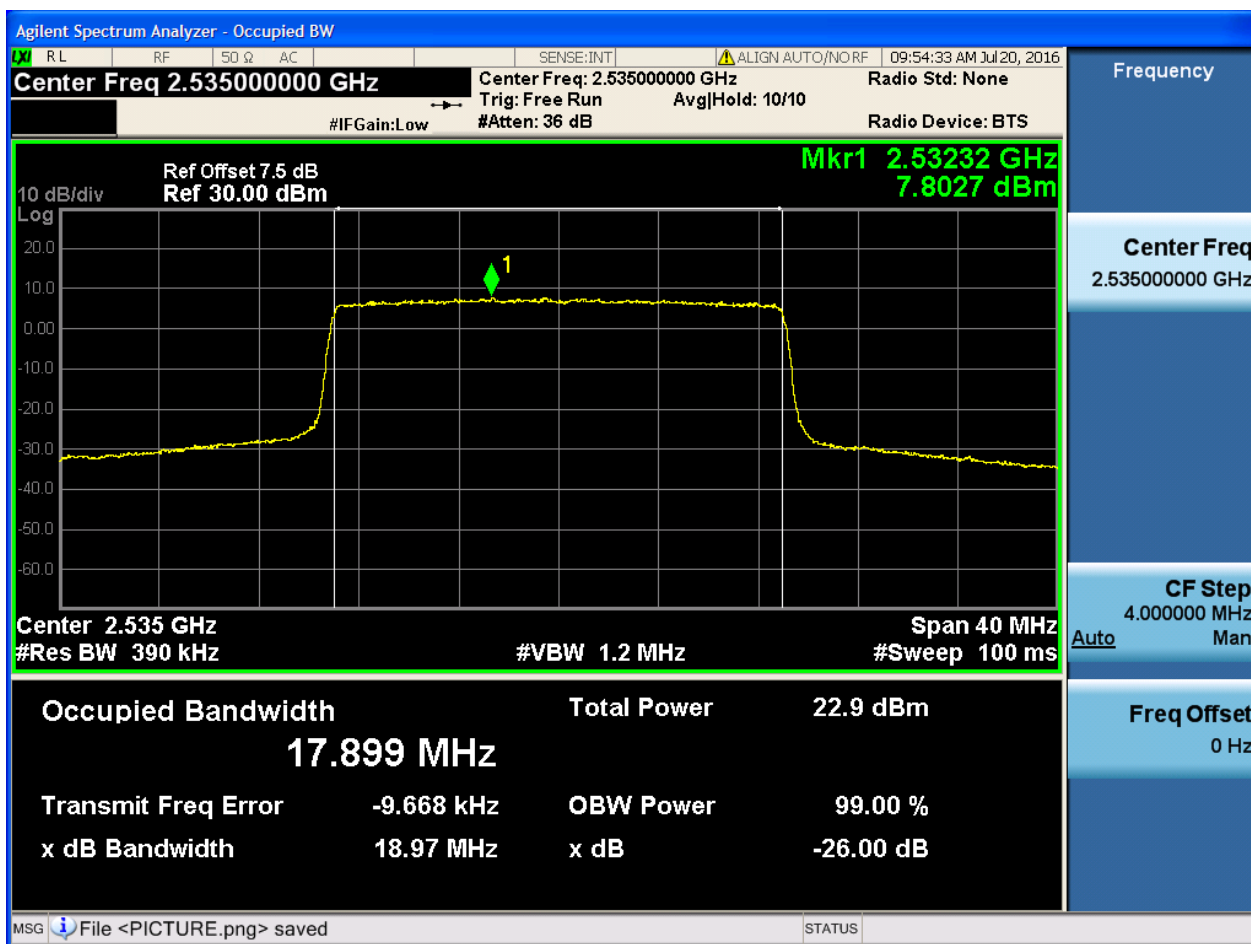
4.1.1.1.4.1 Test Channel = LCH

4.1.1.1.4.1.1 Test RB = RB100#0



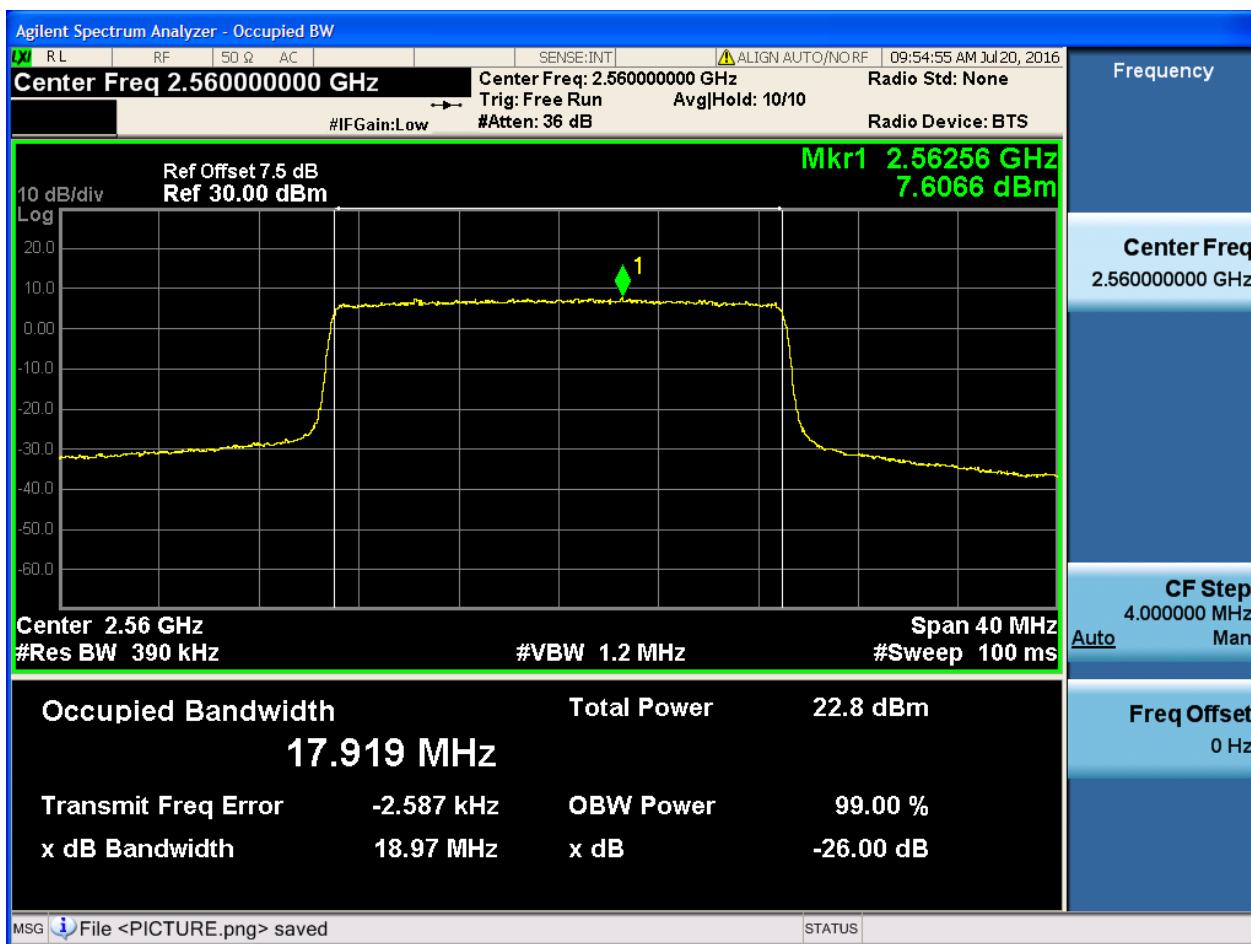
4.1.1.1.4.2 Test Channel = MCH

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



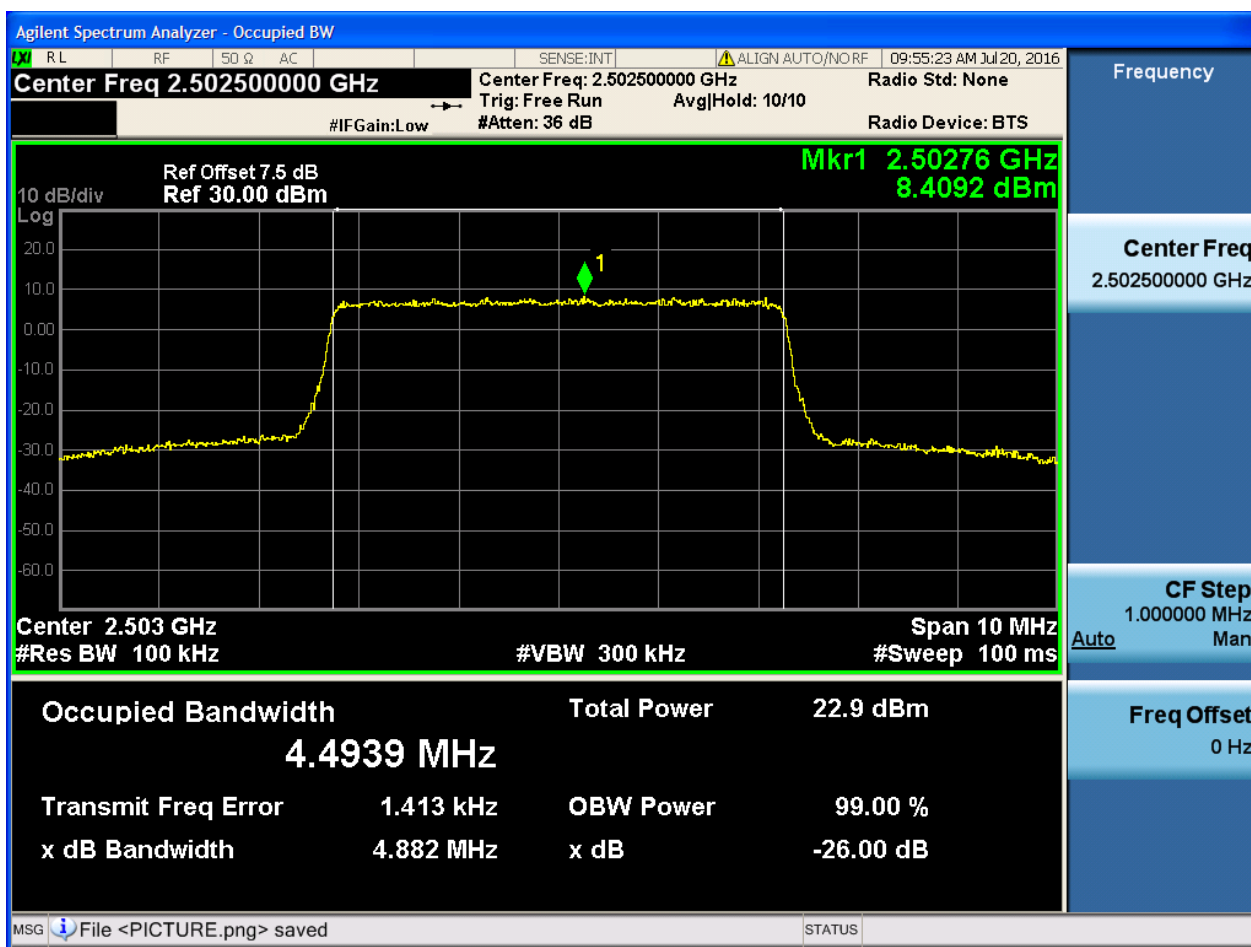


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

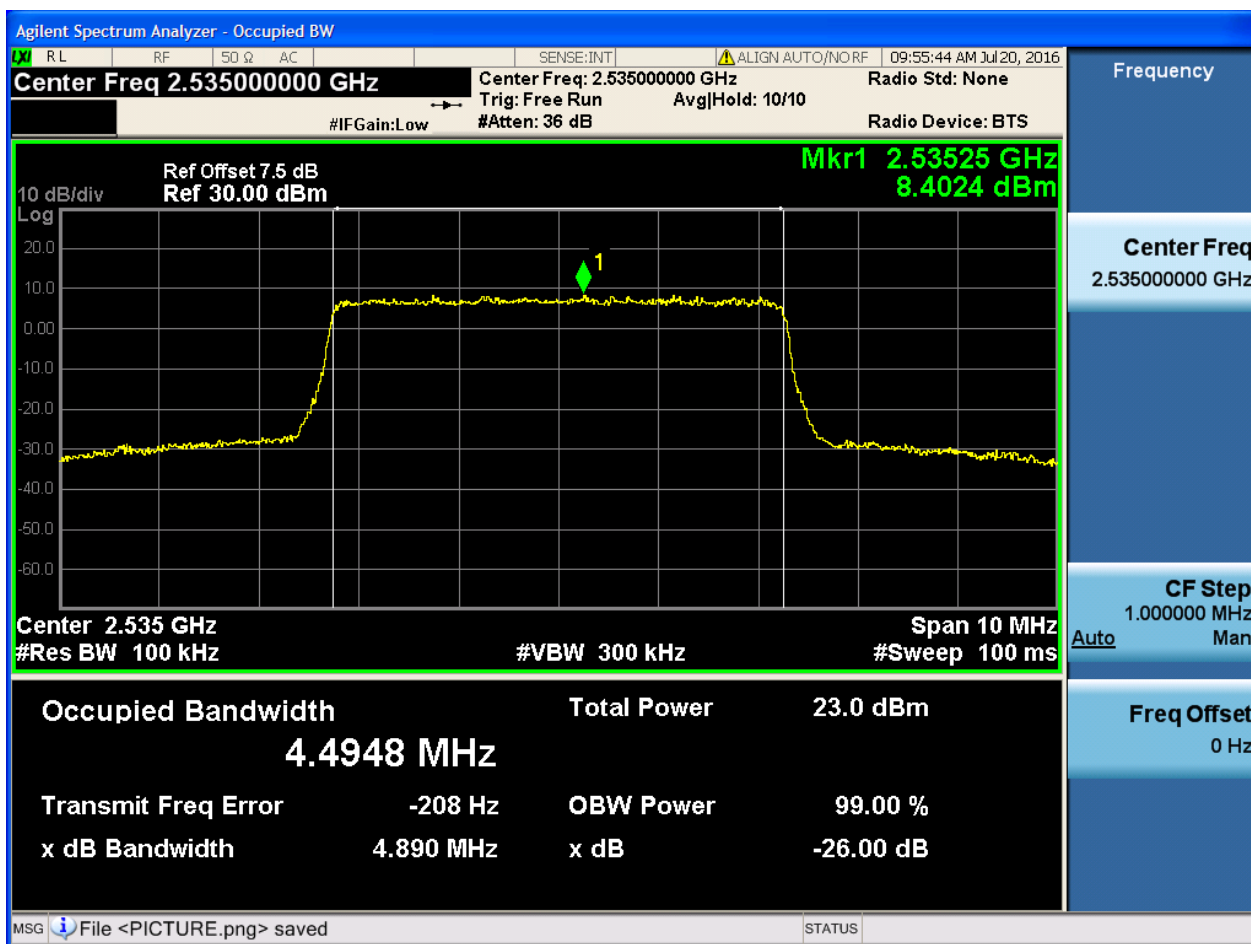
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

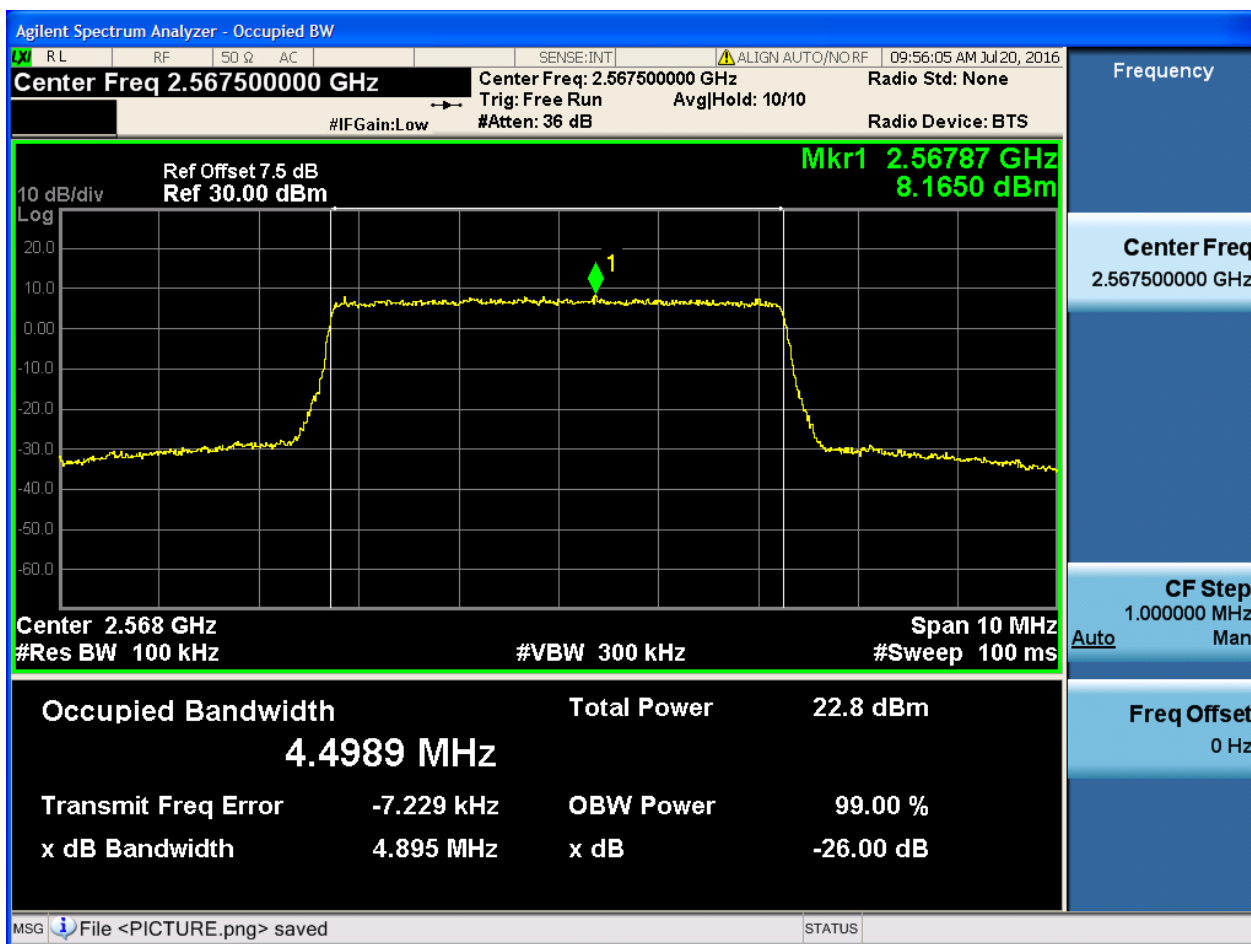
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

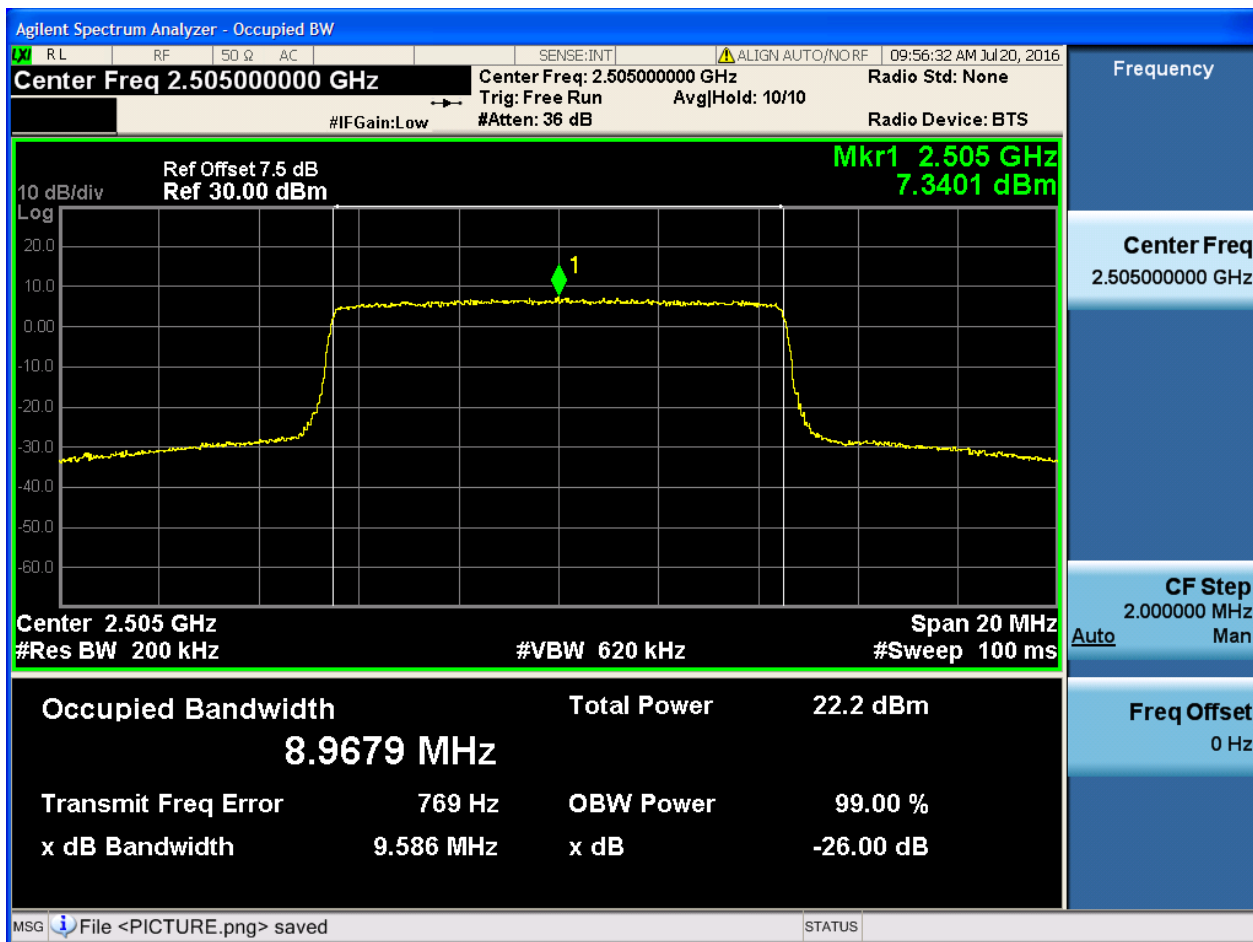




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

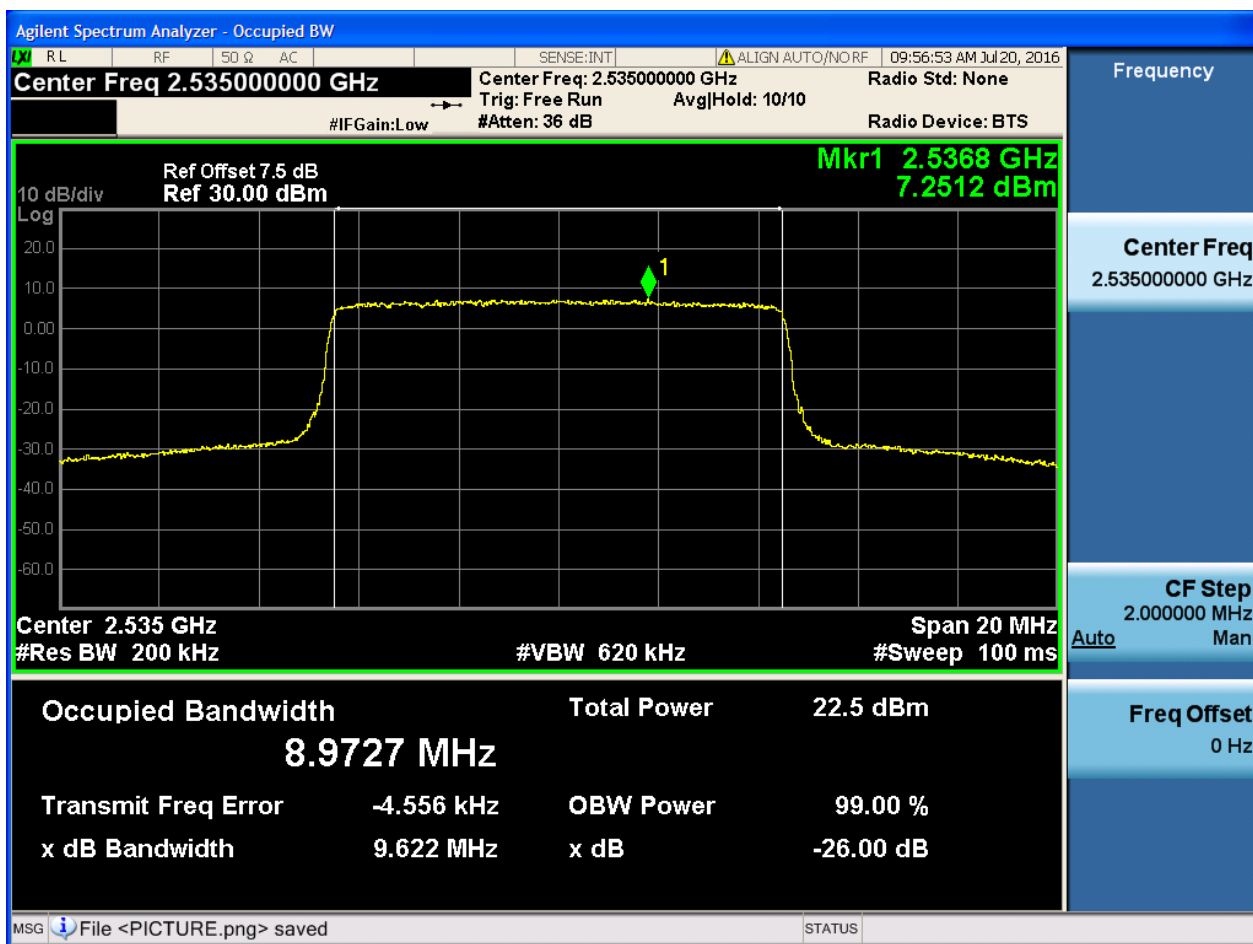
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2 Test Channel = MCH

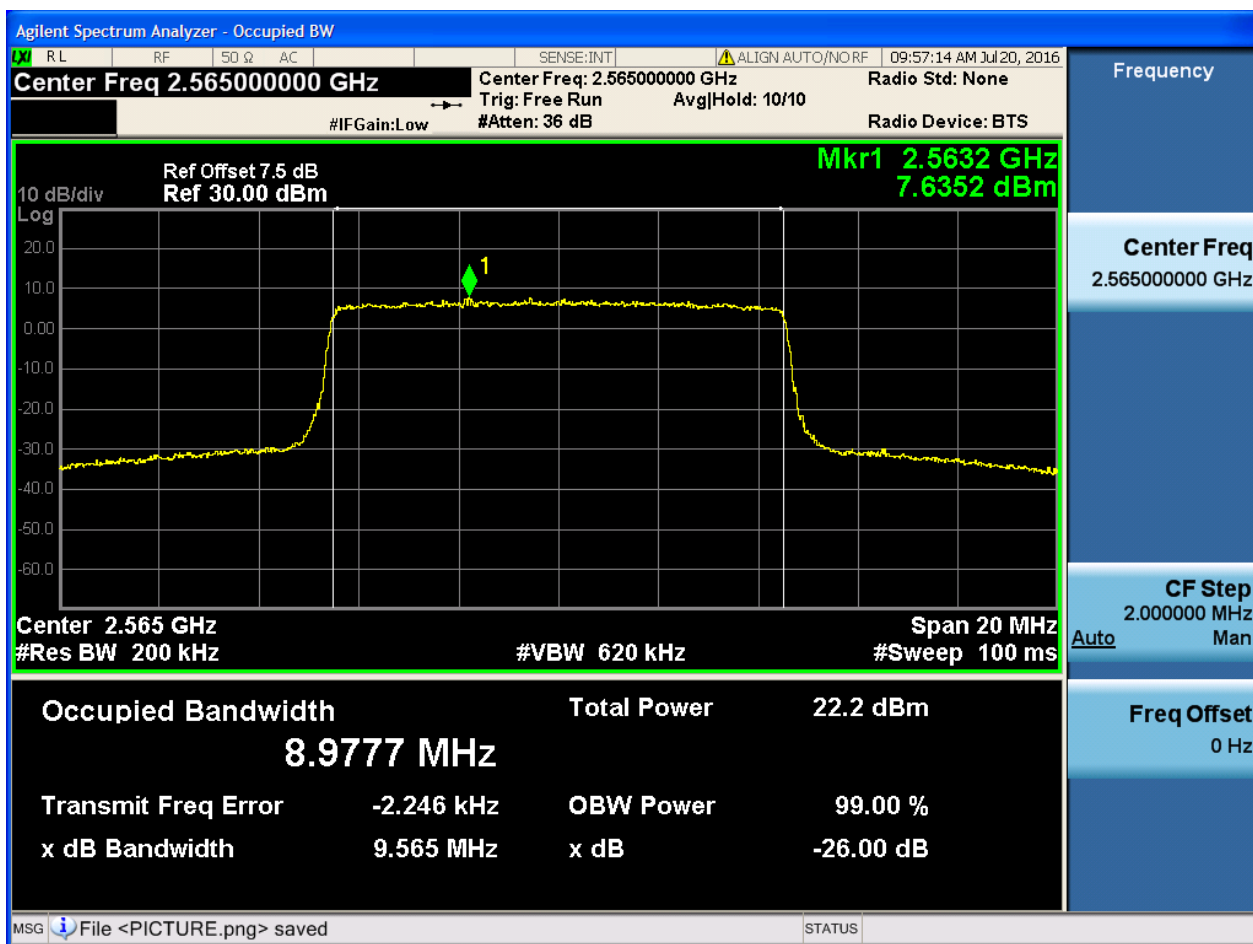
4.1.1.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

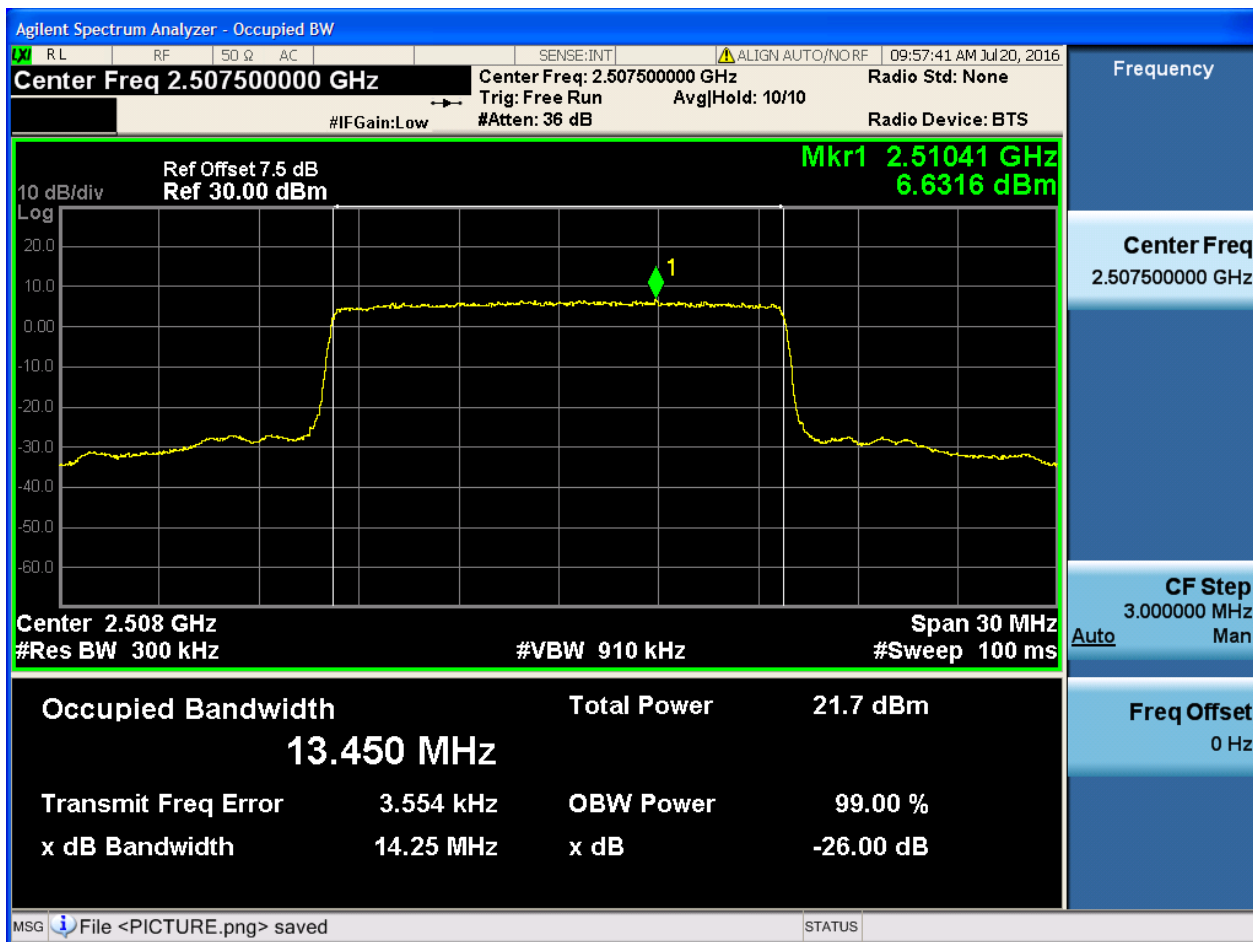




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

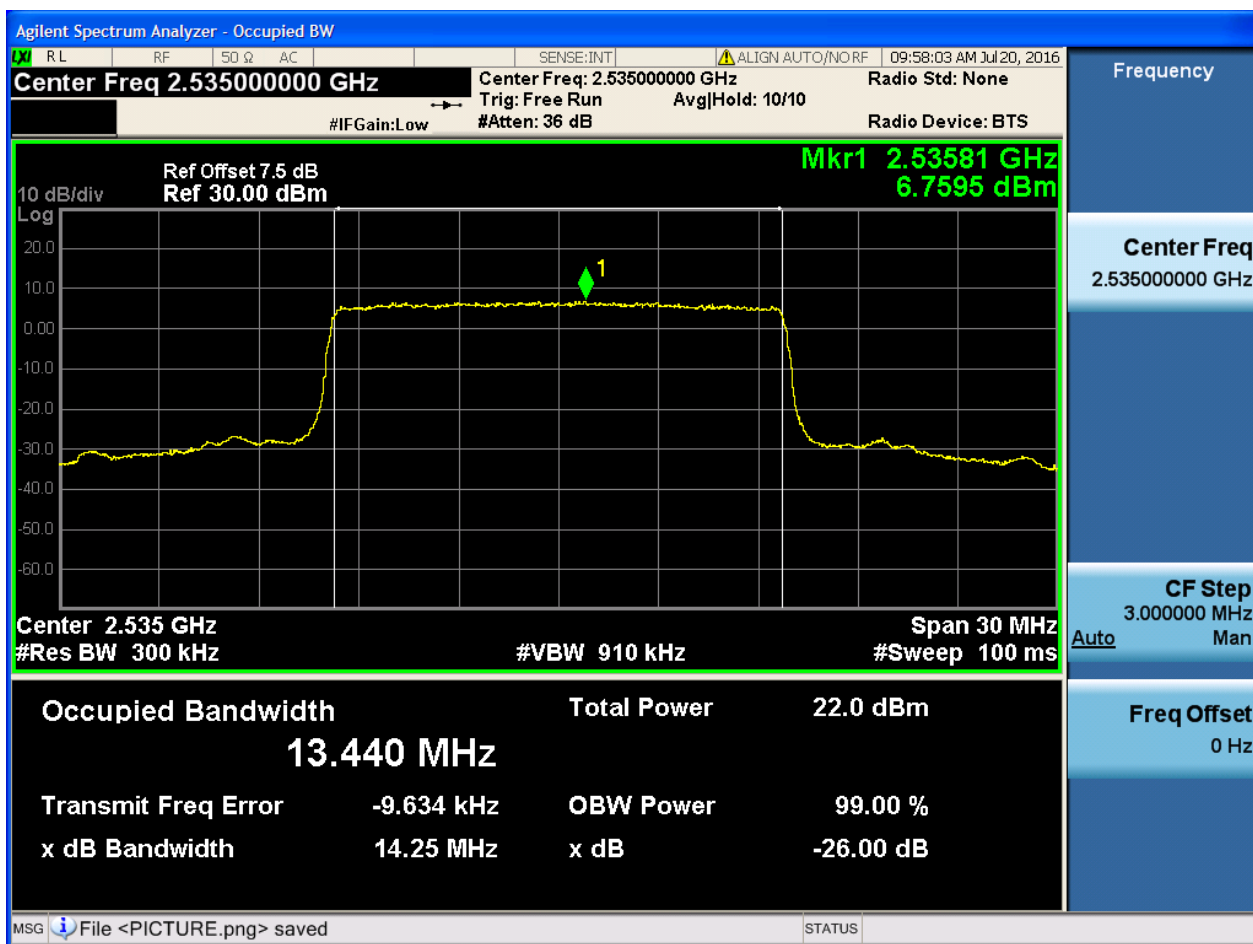
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

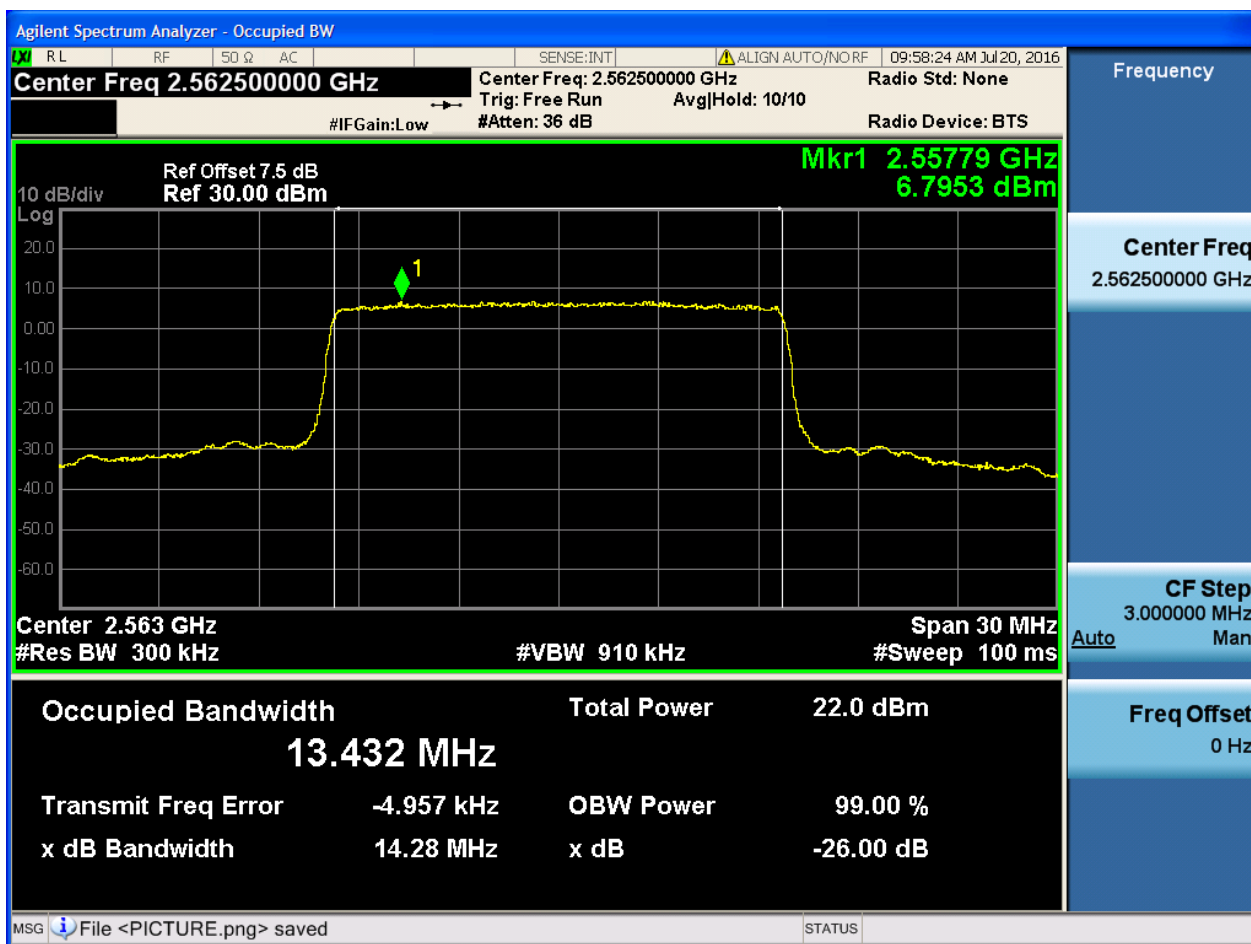
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

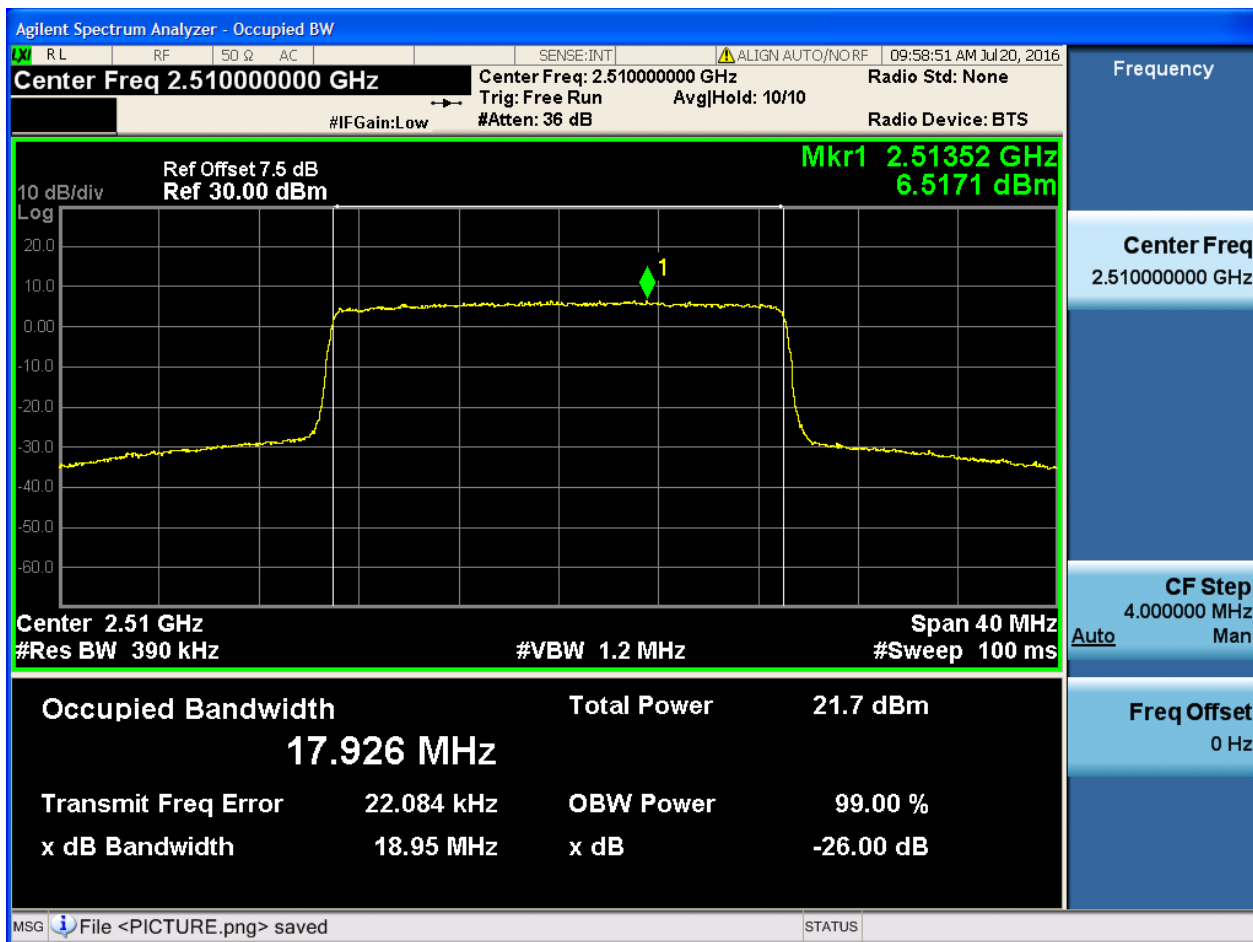




4.1.1.2.4 Test Bandwidth = 20

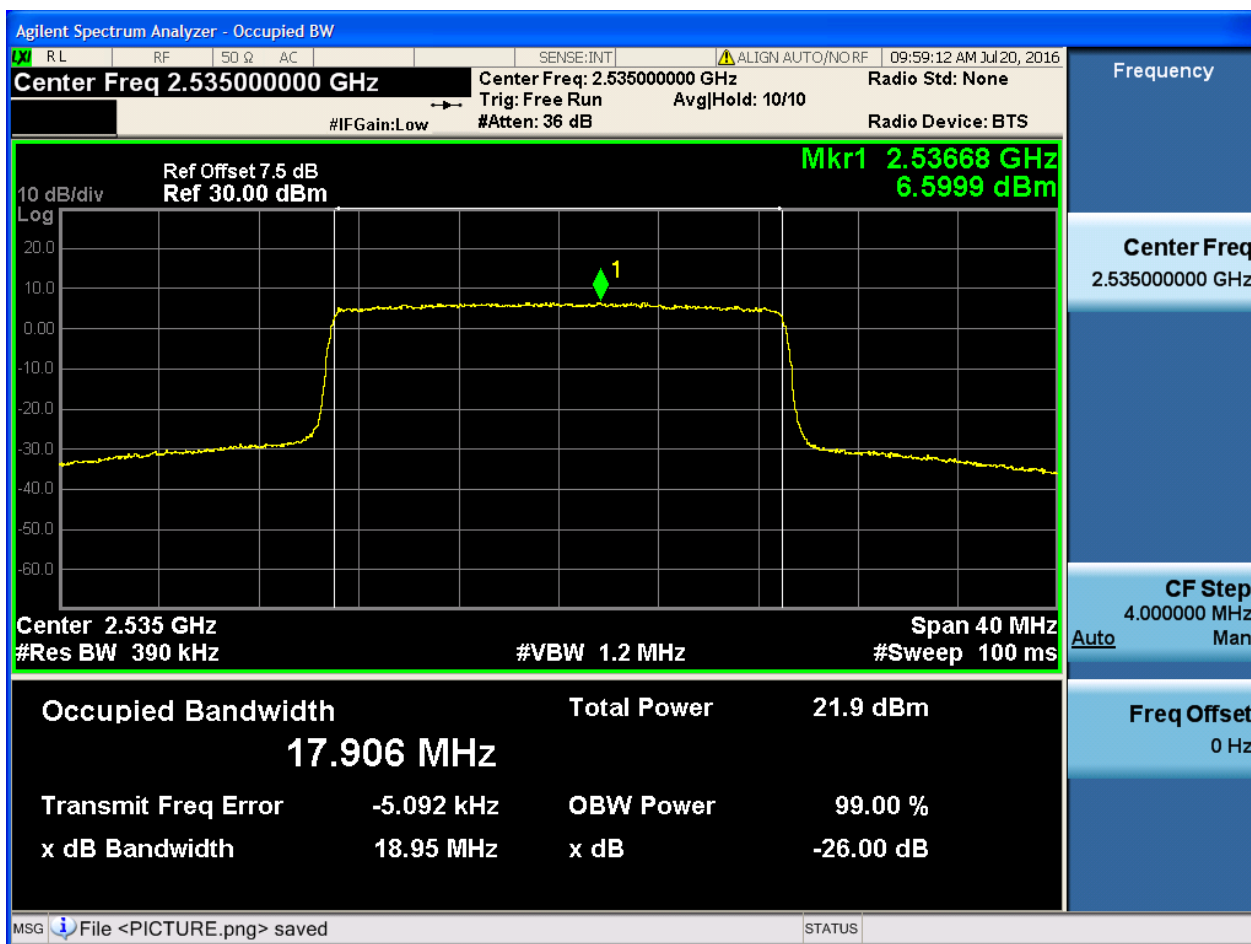
4.1.1.2.4.1 Test Channel = LCH

4.1.1.2.4.1.1 Test RB = RB100#0



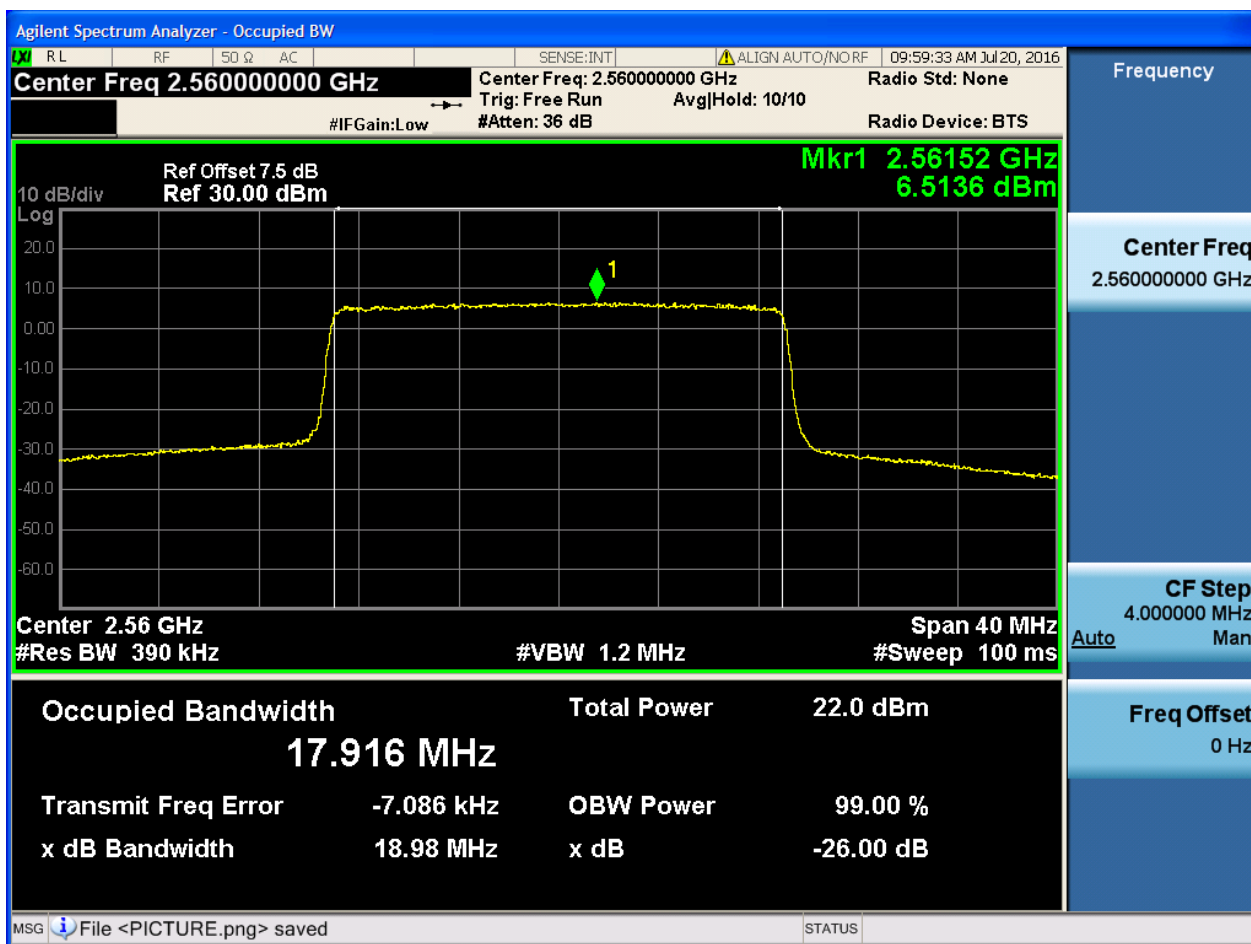
4.1.1.2.4.2 Test Channel = MCH

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

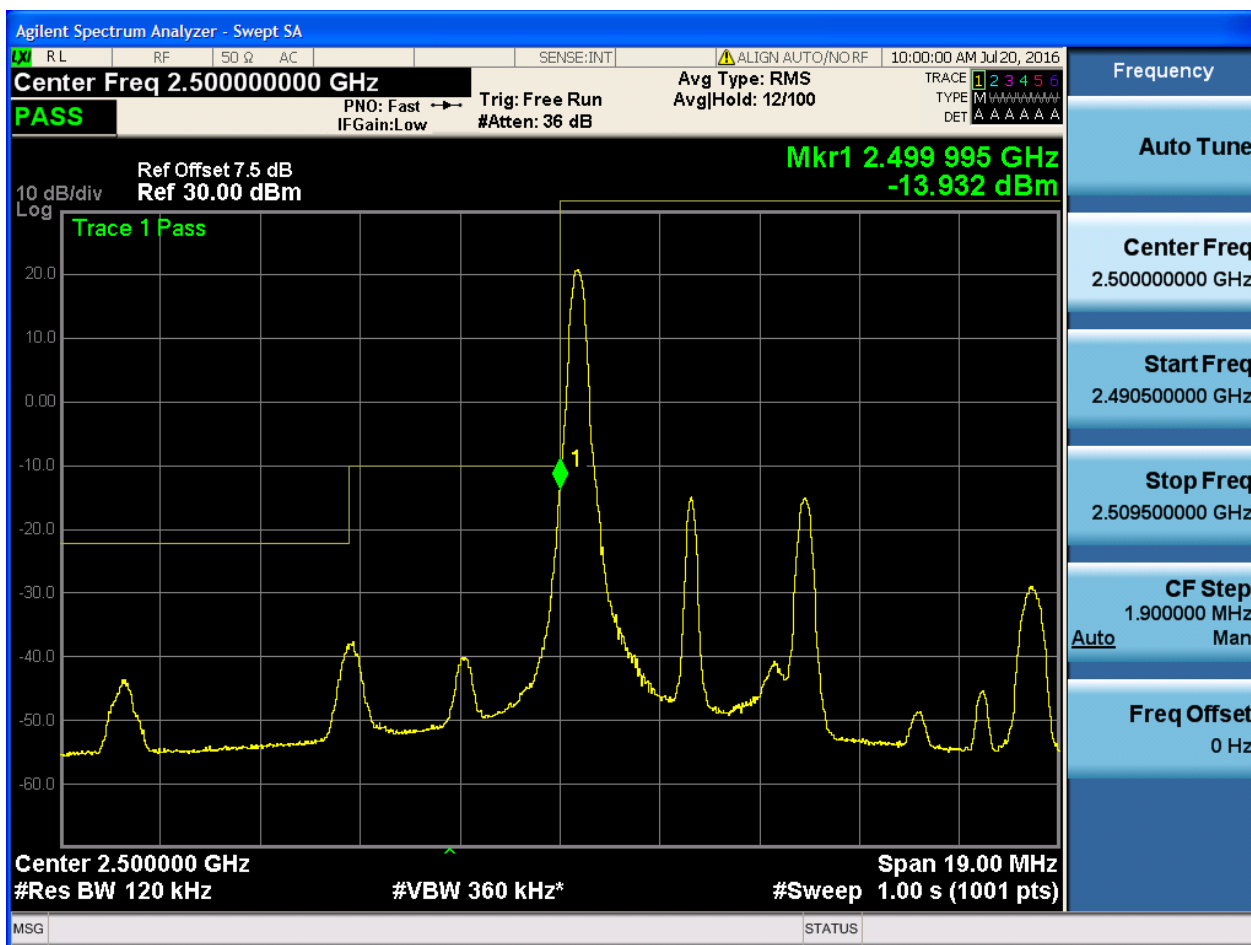
5.1.1 Test Band = BAND7

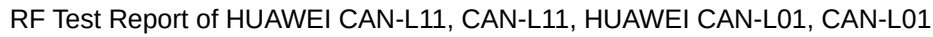
5.1.1.1 Test Mode = LTE/TM1

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

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-47.264 dBm

Trace 1 Pass

Center 2.50000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

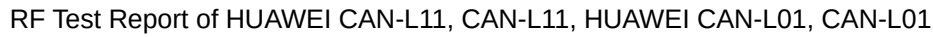
Center Freq
2.50000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-27.372 dBm

Trace 1 Pass

Center 2.50000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.50000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Man

Freq Offset
0 Hz

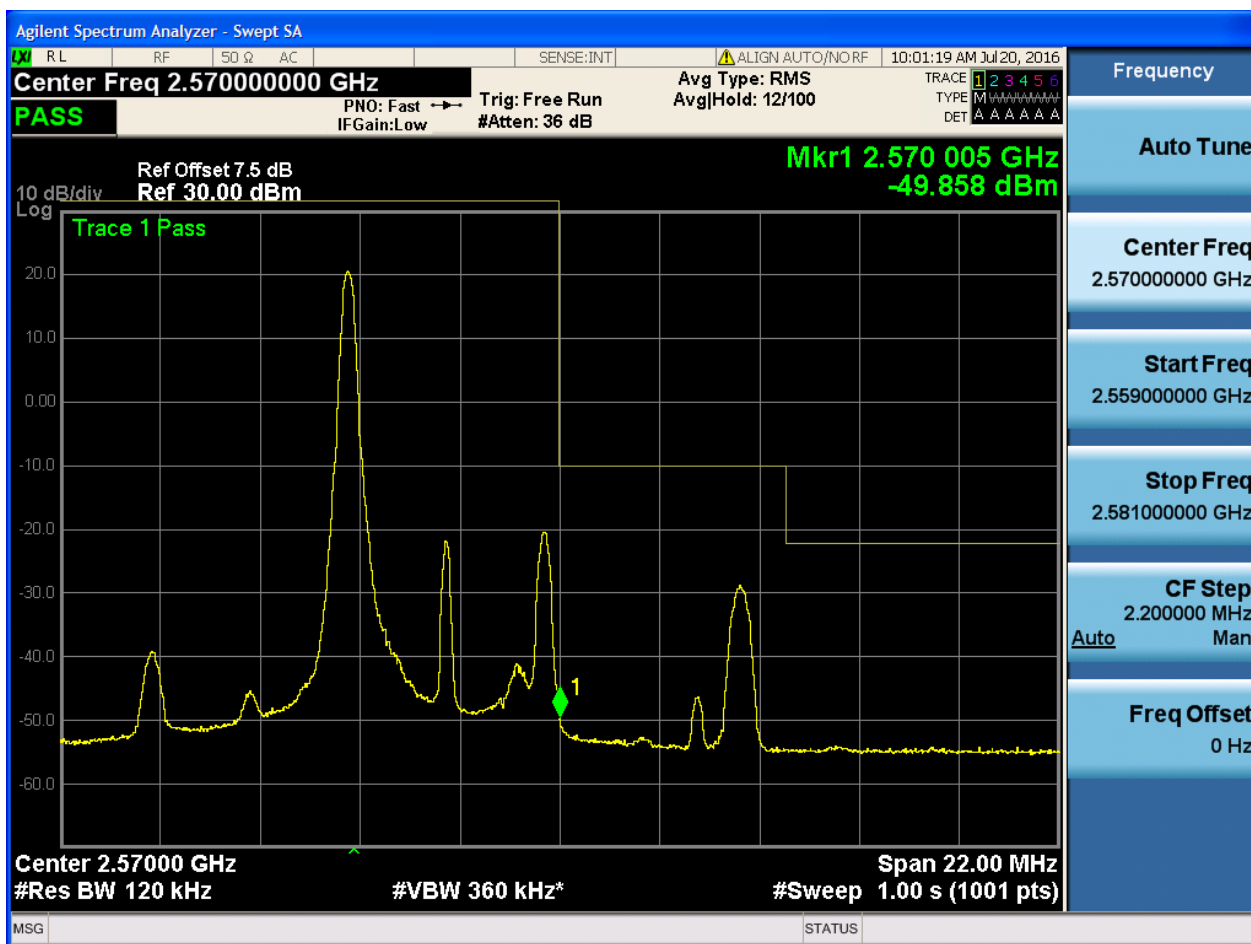


5.1.1.1.1.4 Test RB = RB25#0



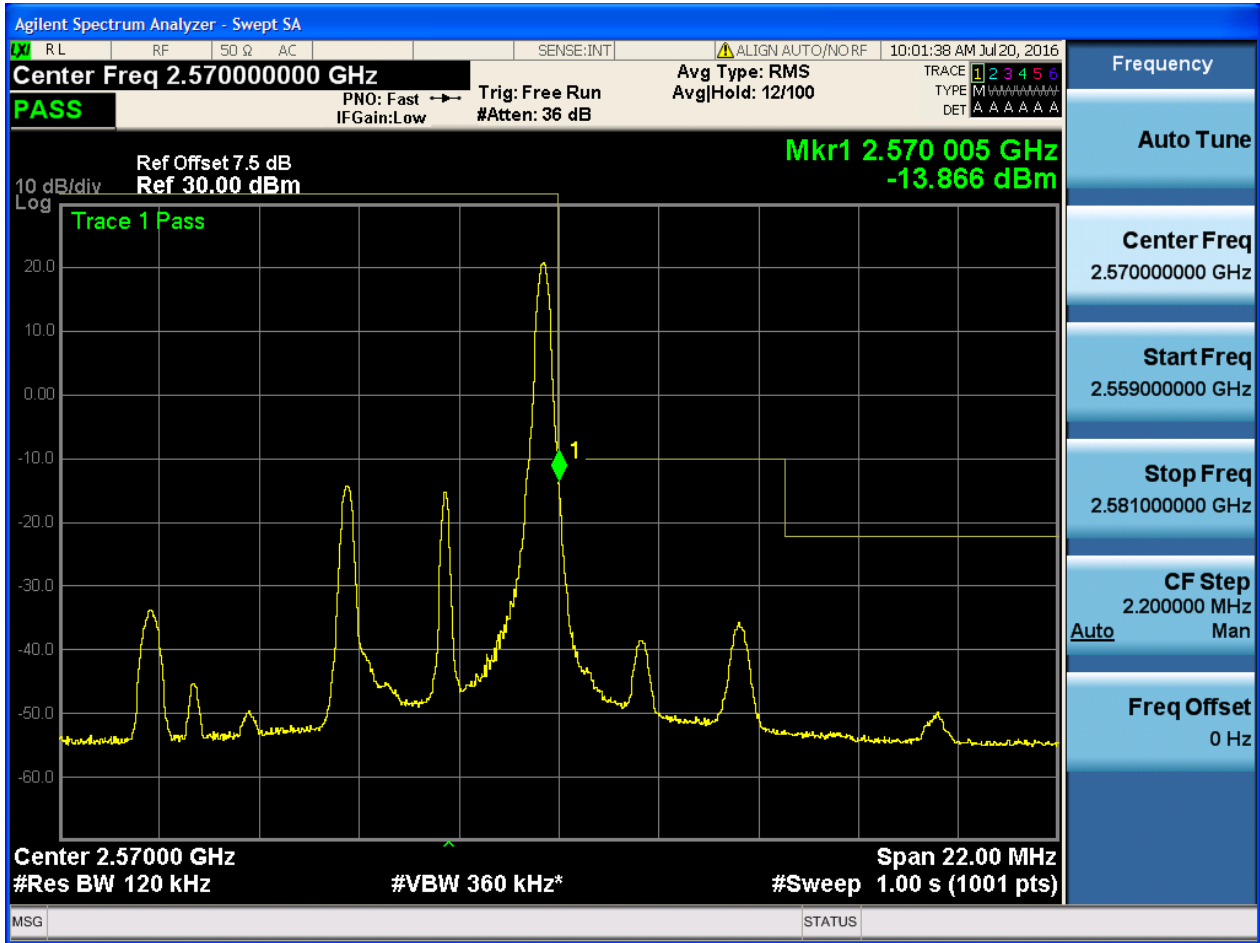
5.1.1.1.1.2 Test Channel = HCH

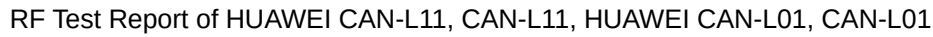
5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.570 005 GHz
-29.391 dBm

Center 2.57000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 22.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.55900000 GHz

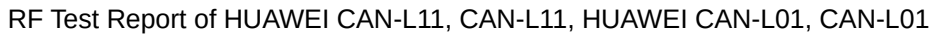
Stop Freq
2.58100000 GHz

CF Step
2.200000 MHz
Man

Auto

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer. The main display is a log-linear plot of power spectral density. The y-axis is labeled '10 dB/div Log' and ranges from -60.0 to 20.0 dBm. The x-axis represents frequency, with a center frequency of 2.570000 GHz and a span of 22.00 MHz. A yellow trace shows a signal with a flat top at approximately 9.5 dBm, centered at 2.570005 GHz. A green marker '1' is placed on the right side of the peak. The signal has a resolution bandwidth (RBW) of 120 kHz and a video bandwidth (VBW) of 360 kHz. The sweep time is 1.00 second. The analyzer is in 'PASS' mode. The right side of the screen displays various parameters: Frequency (Auto Tune), Center Freq (2.57000000 GHz), Start Freq (2.55900000 GHz), Stop Freq (2.58100000 GHz), CF Step (2.200000 MHz, Manual), and Freq Offset (0 Hz). The top status bar shows the date and time (10:01:56 AM Jul 20, 2016) and various settings like SENSE:INT, ALIGN AUTO/NORF, and TRIG: Free Run.



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.570 005 GHz
-23.387 dBm

Center 2.57000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 22.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.570000000 GHz

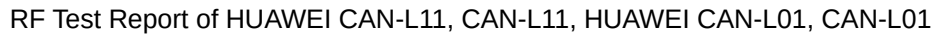
Start Freq
2.559000000 GHz

Stop Freq
2.581000000 GHz

CF Step
2.200000 MHz
Man

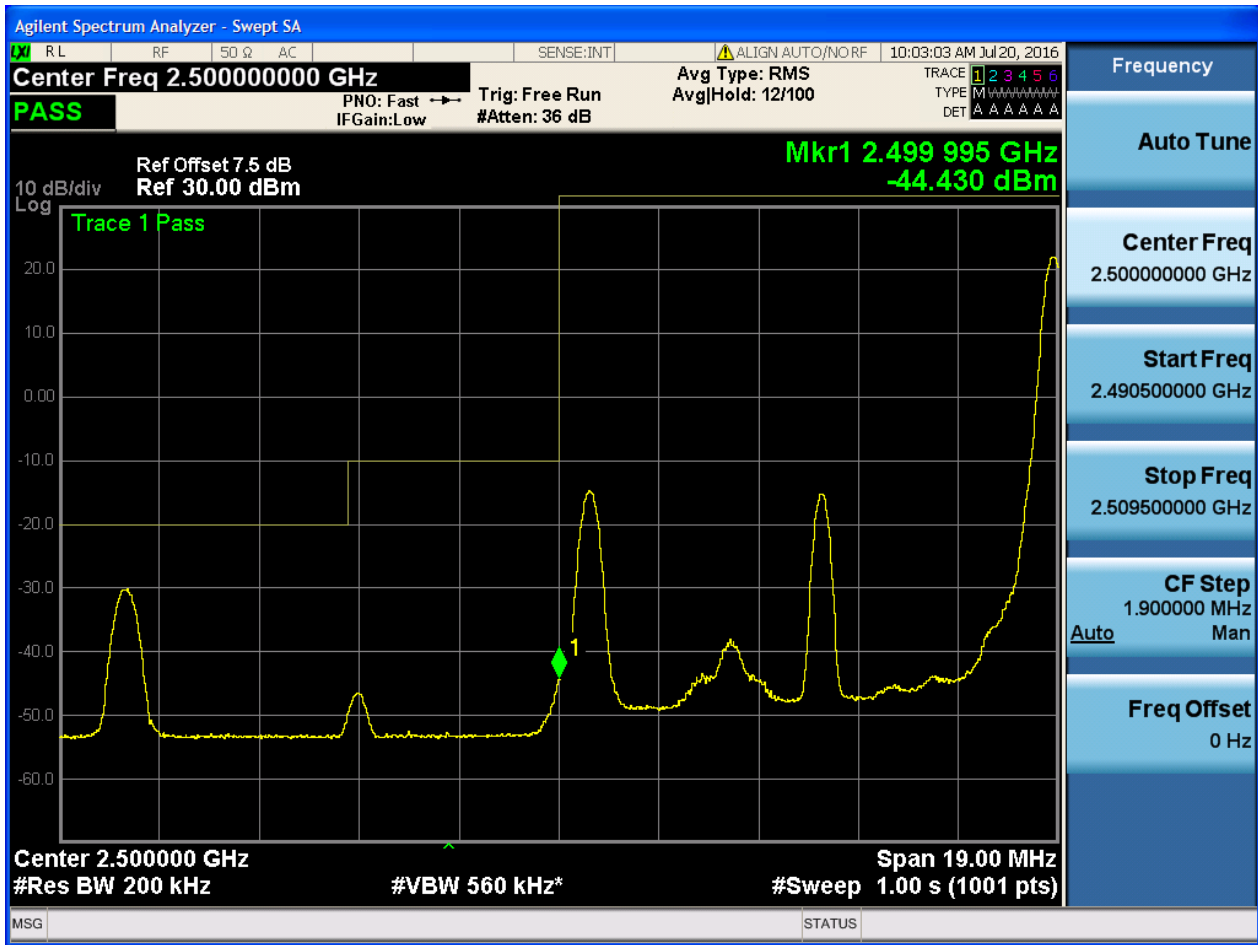
Auto

Freq Offset
0 Hz





5.1.1.1.2.1.2 Test RB = RB1#49



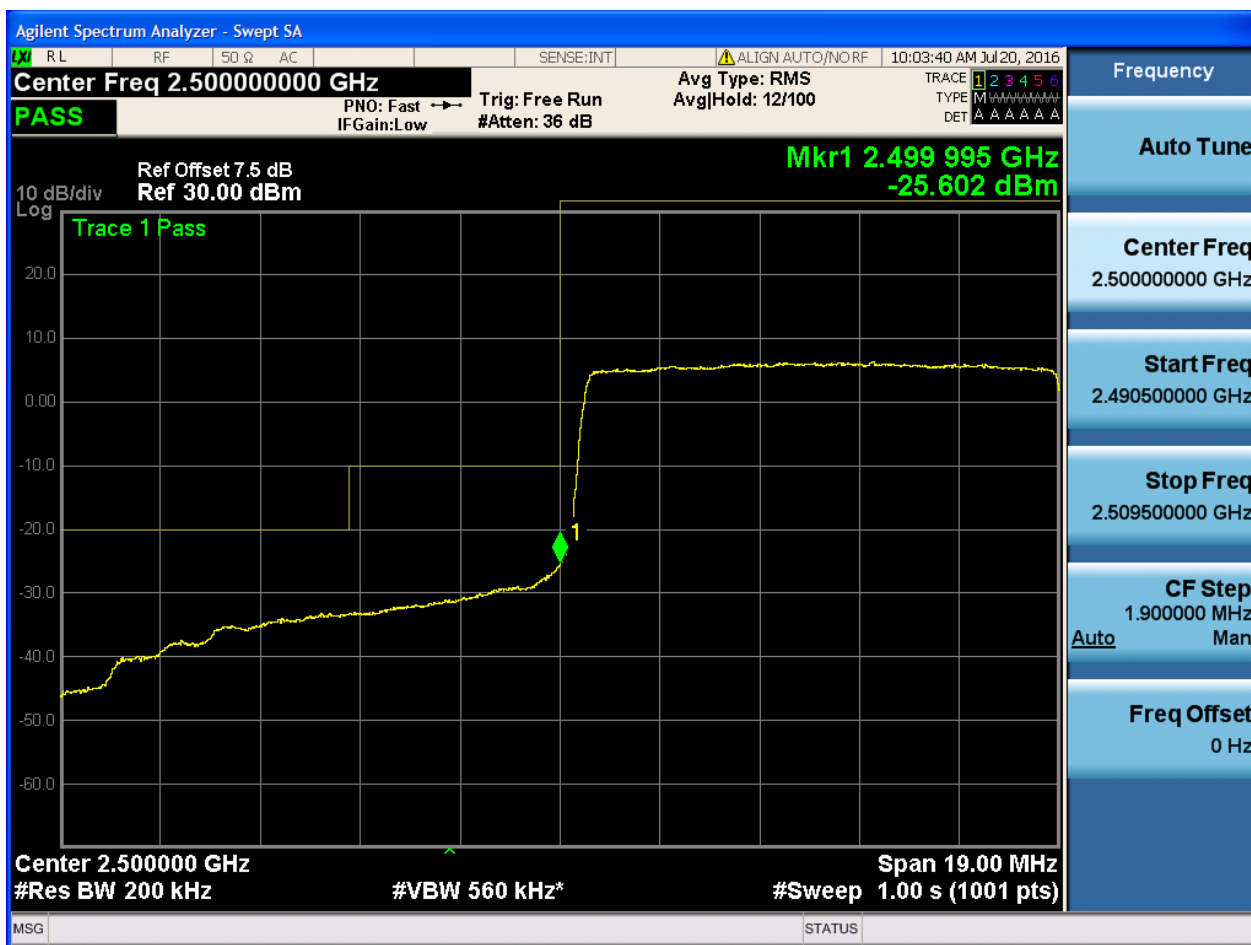


5.1.1.1.2.1.3 Test RB = RB25#13





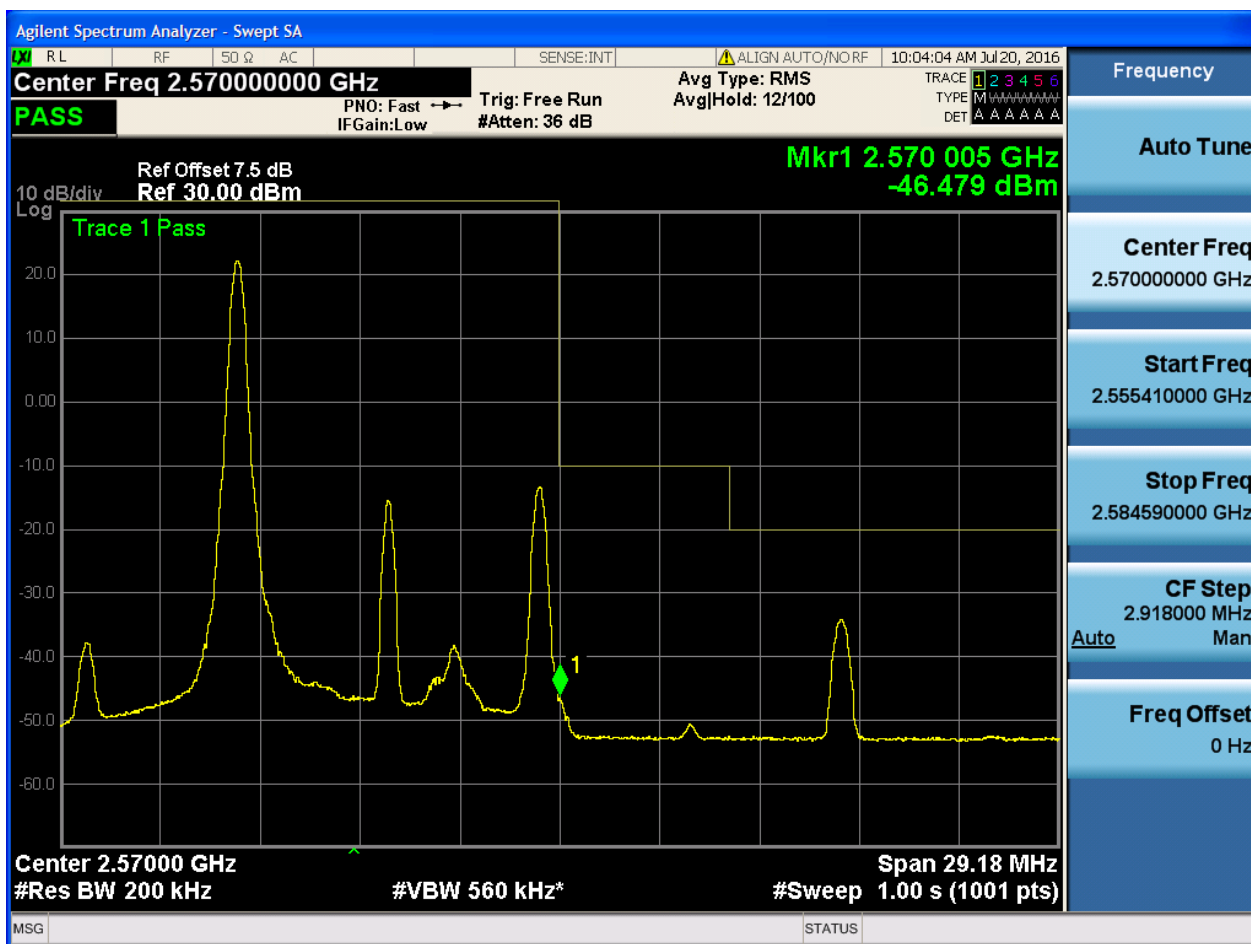
5.1.1.1.2.1.4 Test RB = RB50#0





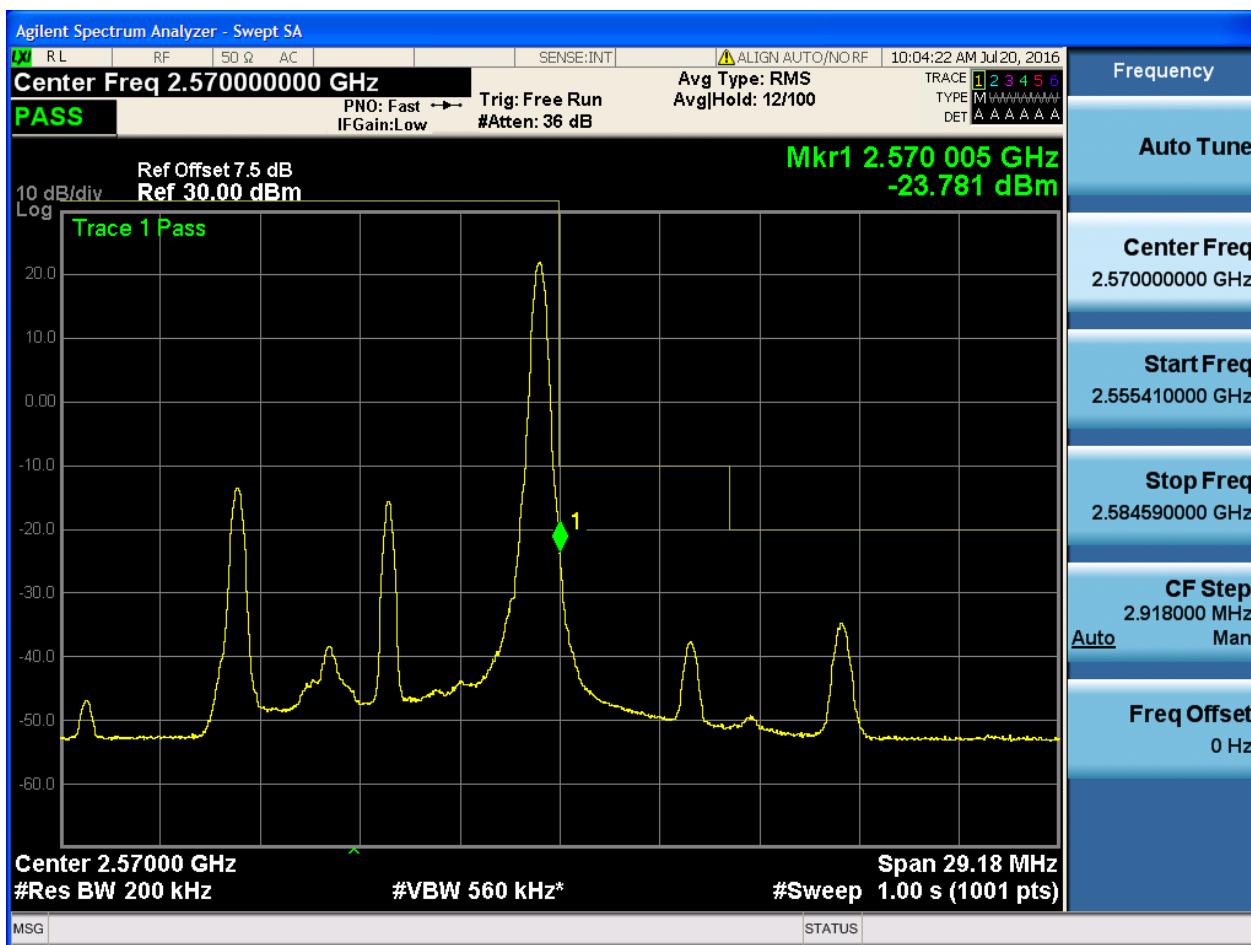
5.1.1.1.2.2 Test Channel = HCH

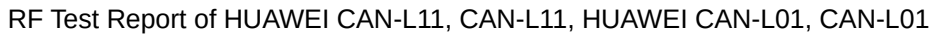
5.1.1.1.2.2.1 Test RB = RB1#0





5.1.1.1.2.2.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO/NORF 10:04:40 AM Jul 20, 2016

Center Freq 2.57000000 GHz Avg Type: RMS
#Res BW 200 kHz #Sweep 1.00 s (1001 pts)

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

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.570 005 GHz
-29.642 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz Span 29.18 MHz
#Res BW 200 kHz #VBW 560 kHz* #Sweep 1.00 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.555410000 GHz

Stop Freq
2.584590000 GHz

CF Step
2.918000 MHz
Man

Auto

Freq Offset
0 Hz



5.1.1.1.2.2.4 Test RB = RB50#0

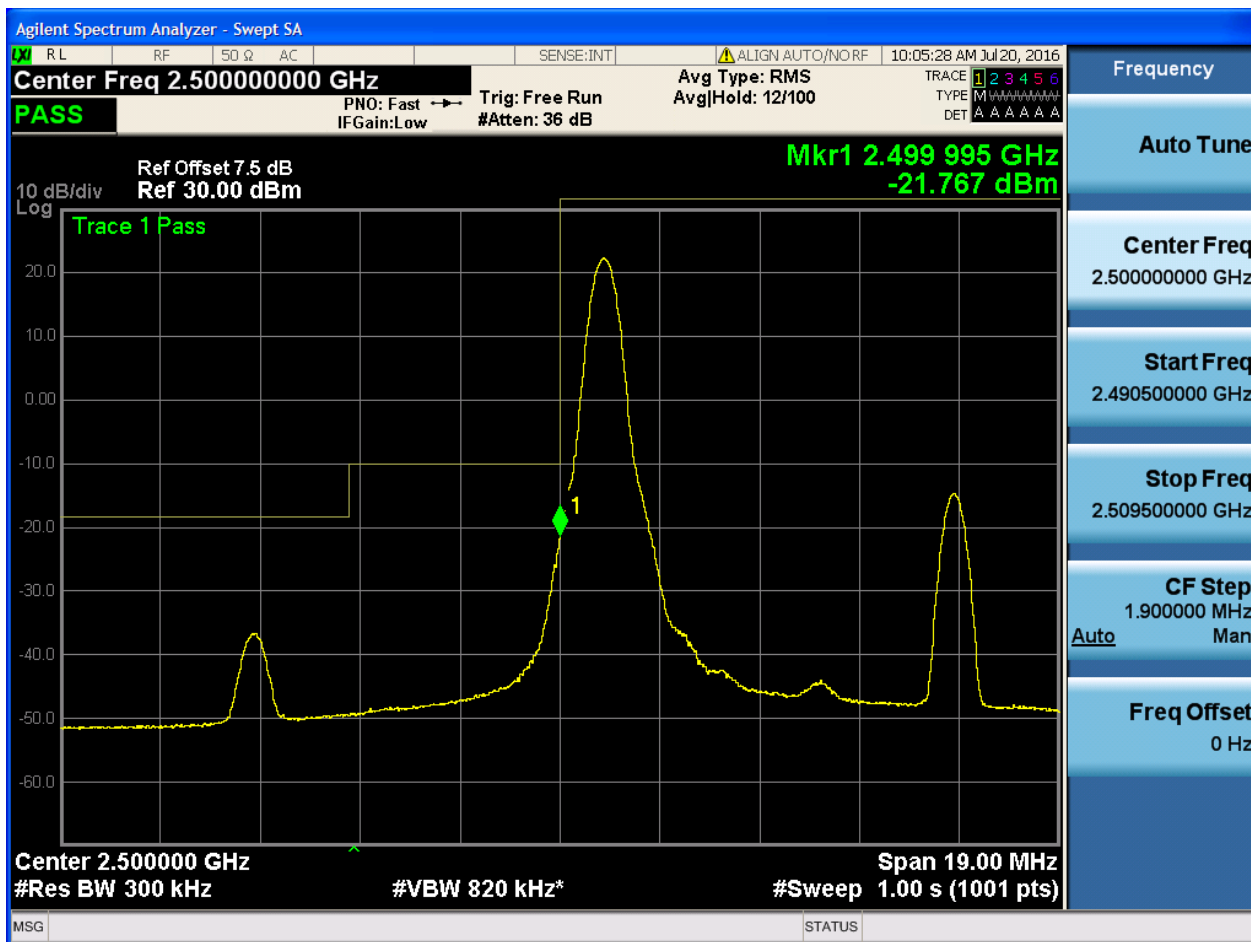


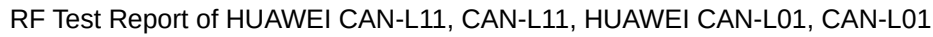


5.1.1.1.3 Test Bandwidth = 15

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

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-46.766 dBm

Trace 1 Pass

Center 2.50000 GHz
#Res BW 300 kHz
#VBW 820 kHz*

Span 19.00 MHz
#Sweep 1.00 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
Man

Freq Offset
0 Hz

MSG Alignment Completed

STATUS



5.1.1.1.3.1.3 Test RB = RB36#18





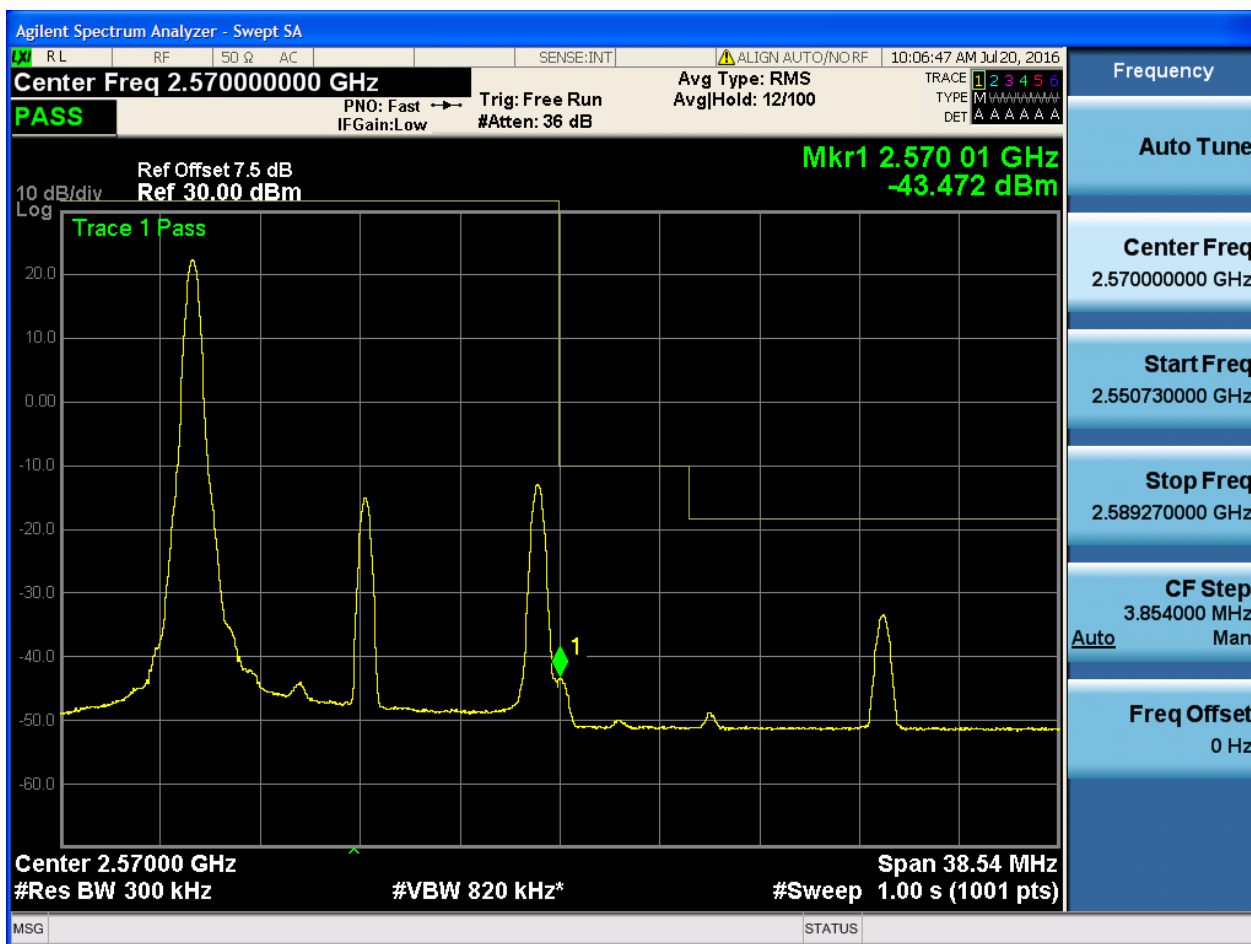
5.1.1.1.3.1.4 Test RB = RB75#0





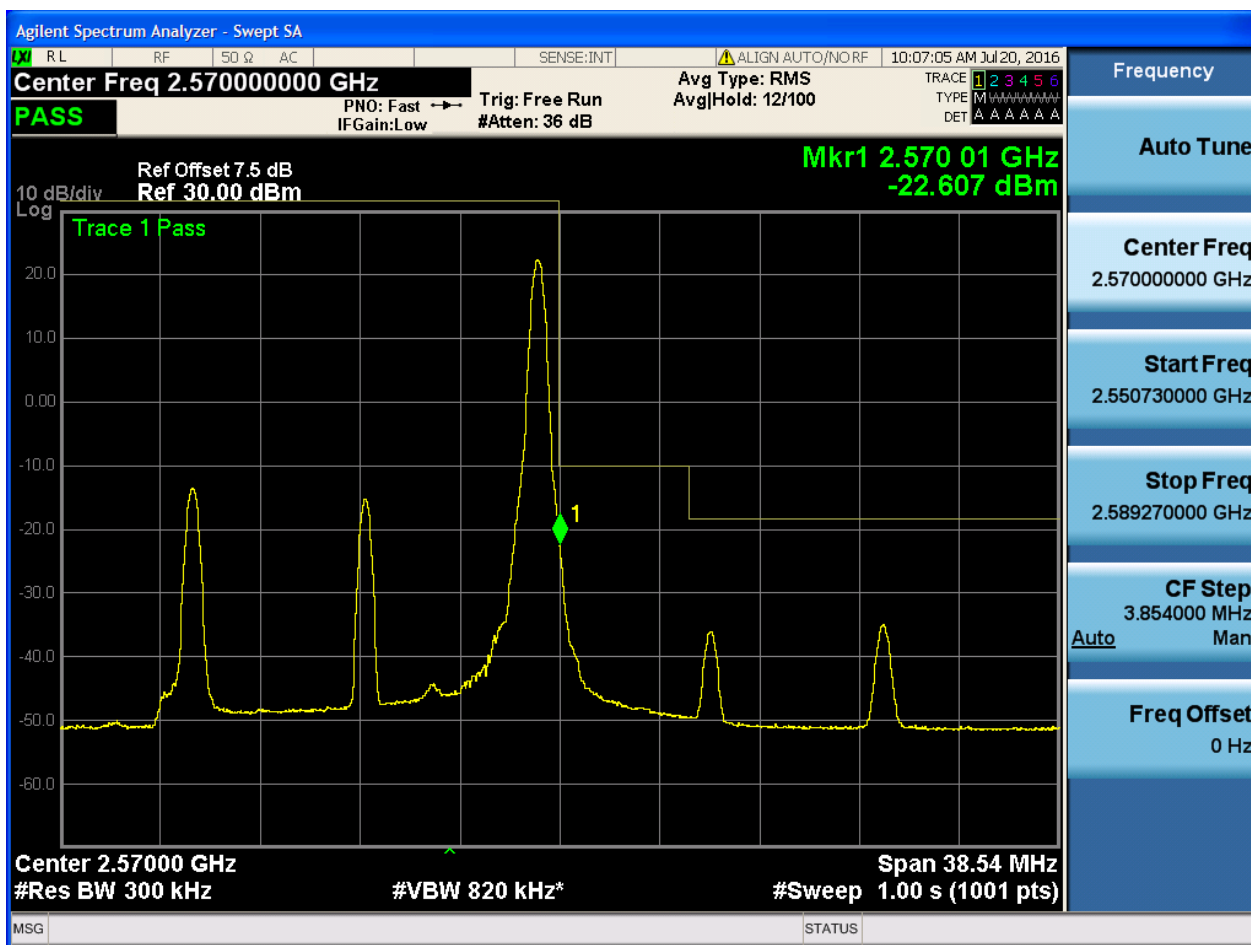
5.1.1.1.3.2 Test Channel = HCH

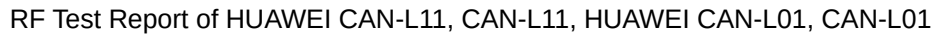
5.1.1.1.3.2.1 Test RB = RB1#0





5.1.1.1.3.2.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

10 dB/div
Log

Trace 1 Pass

Center 2.57000 GHz
#Res BW 300 kHz

Span 38.54 MHz
#Sweep 1.00 s (1001 pts)

Auto Tune

Center Freq
2.57000000 GHz

Start Freq
2.550730000 GHz

Stop Freq
2.589270000 GHz

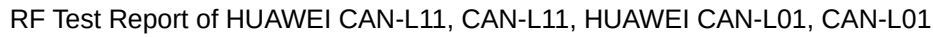
CF Step
3.854000 MHz
Man

Freq Offset
0 Hz



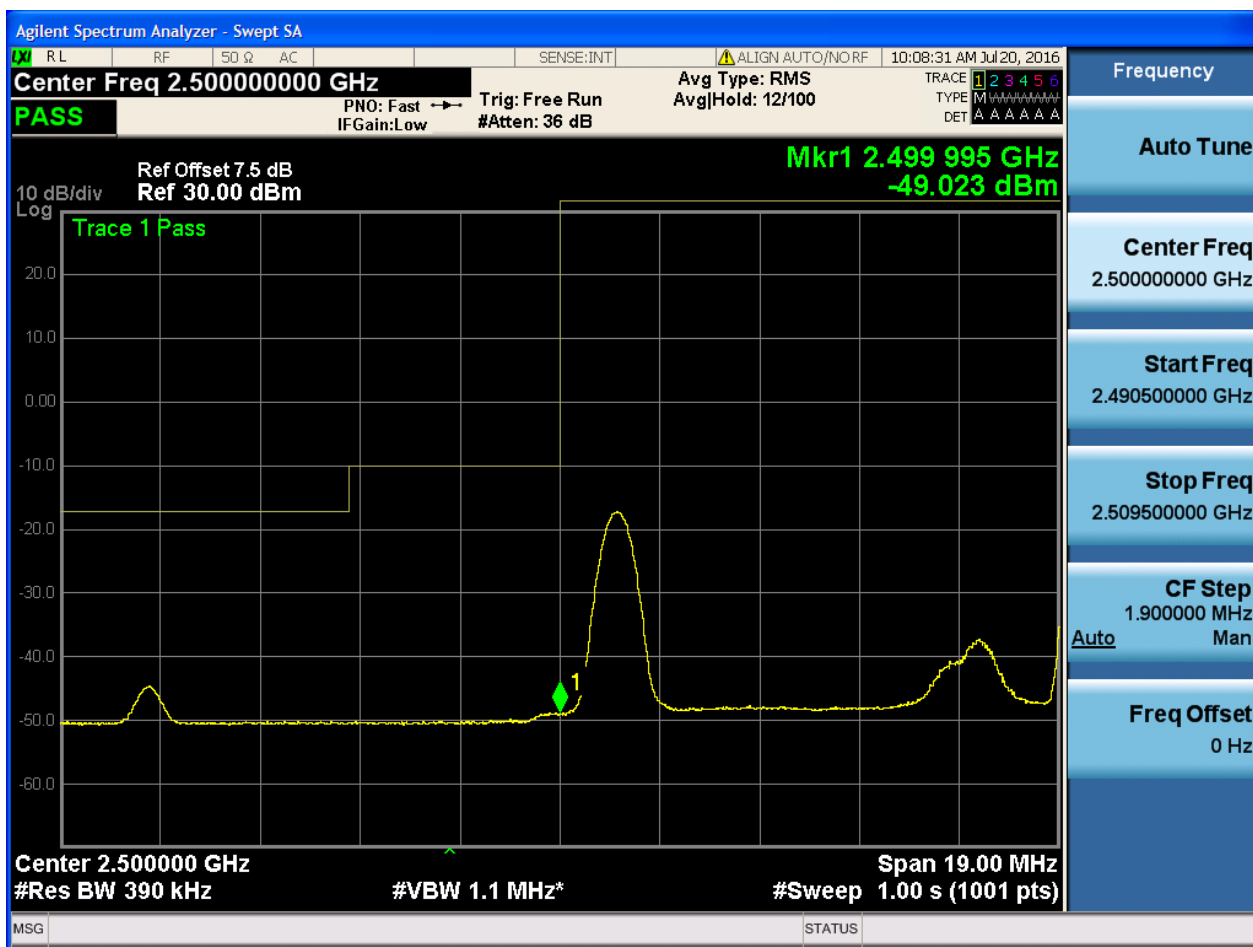
5.1.1.1.3.2.4 Test RB = RB75#0







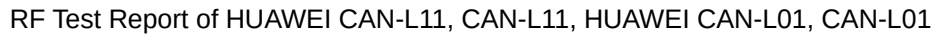
5.1.1.1.4.1.2 Test RB = RB1#99





5.1.1.1.4.1.3 Test RB = RB50#25





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

10 dB/div
Log

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

Auto Tune

Center Freq 2.50000000 GHz

Start Freq 2.490500000 GHz

Stop Freq 2.509500000 GHz

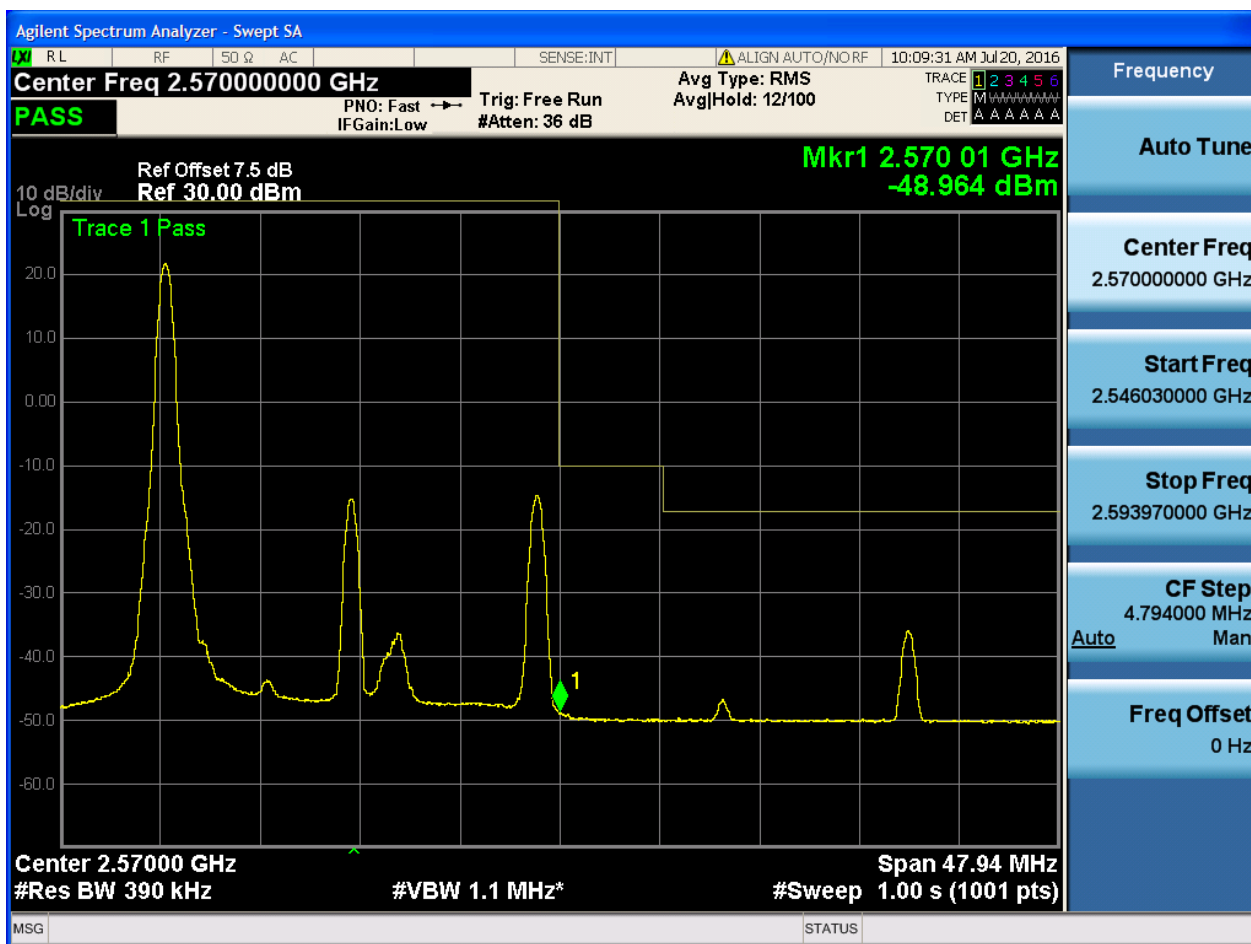
CF Step 1.900000 MHz
Man

Freq Offset 0 Hz

Mkr1 2.499 995 GHz
-26.915 dBm

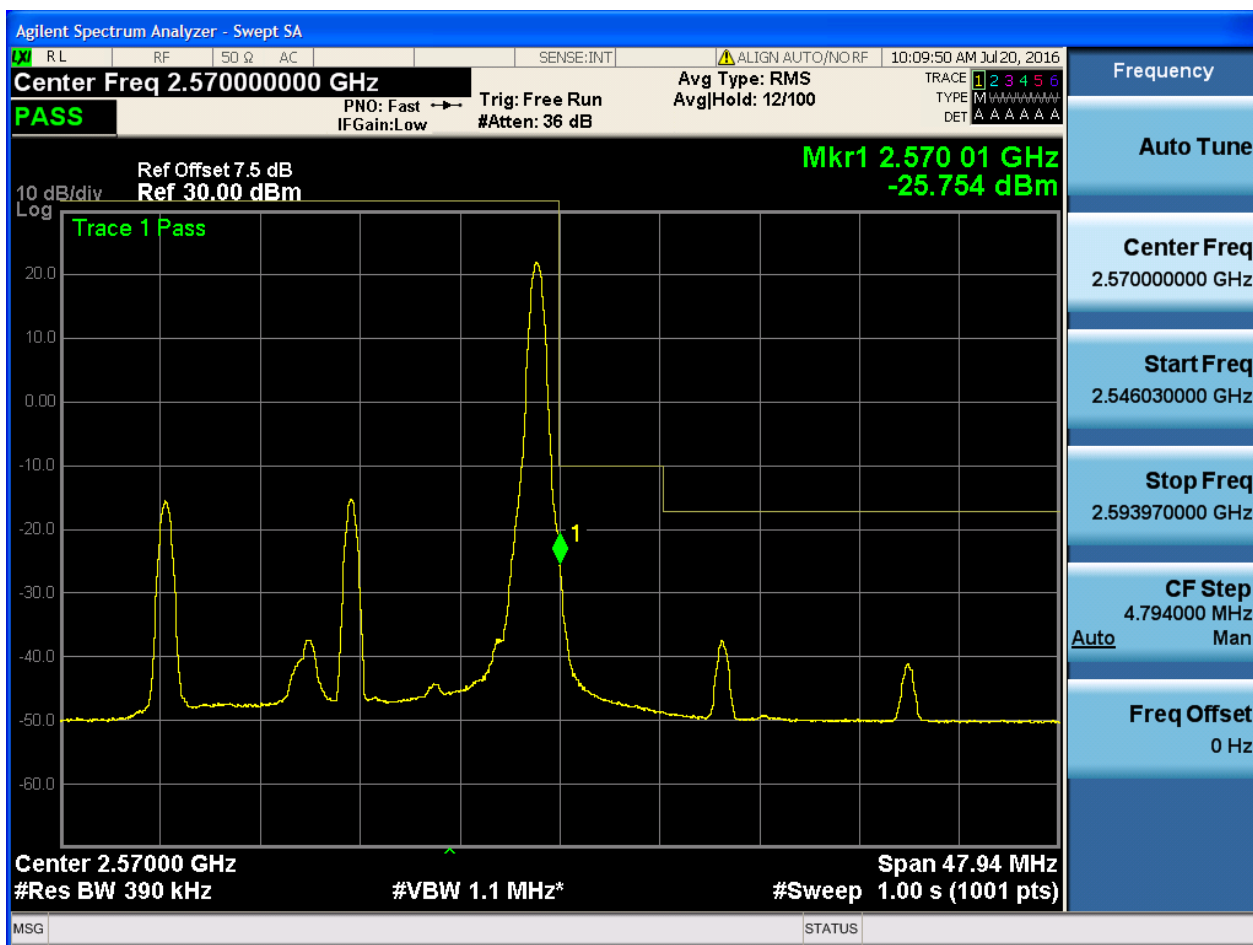
5.1.1.1.4.2 Test Channel = HCH

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



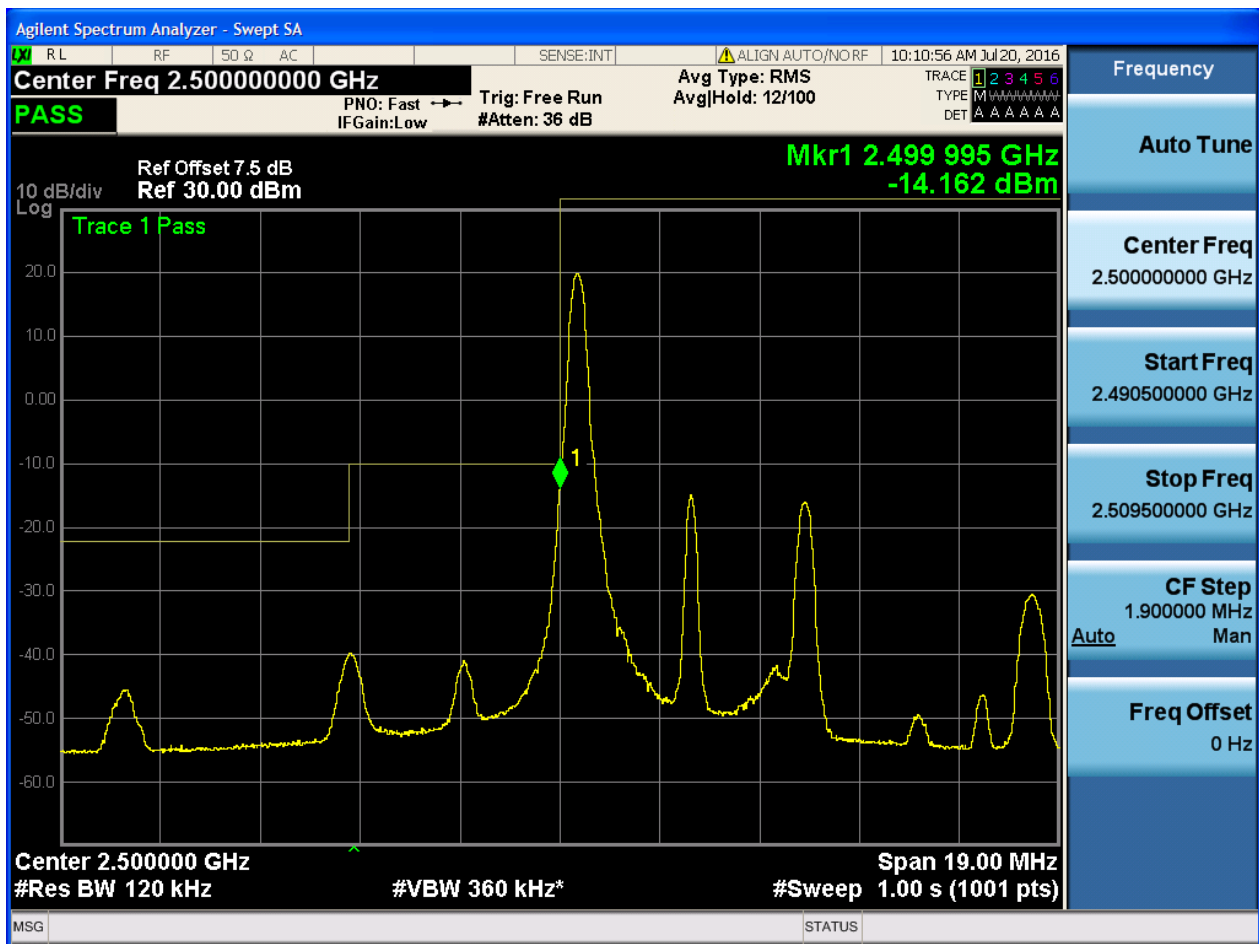


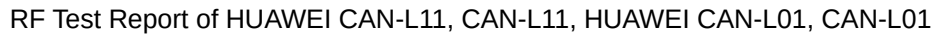
5.1.1.2 Test Mode = LTE/TM2

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





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-48.837 dBm

Trace 1 Pass

Center 2.50000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.500000000 GHz

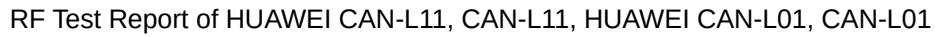
Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Man

Auto

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-28.283 dBm

Trace 1 Pass

Center 2.50000 GHz
#Res BW 120 kHz
#VBW 360 kHz*

Span 19.00 MHz
#Sweep 1.00 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
Man

Freq Offset
0 Hz

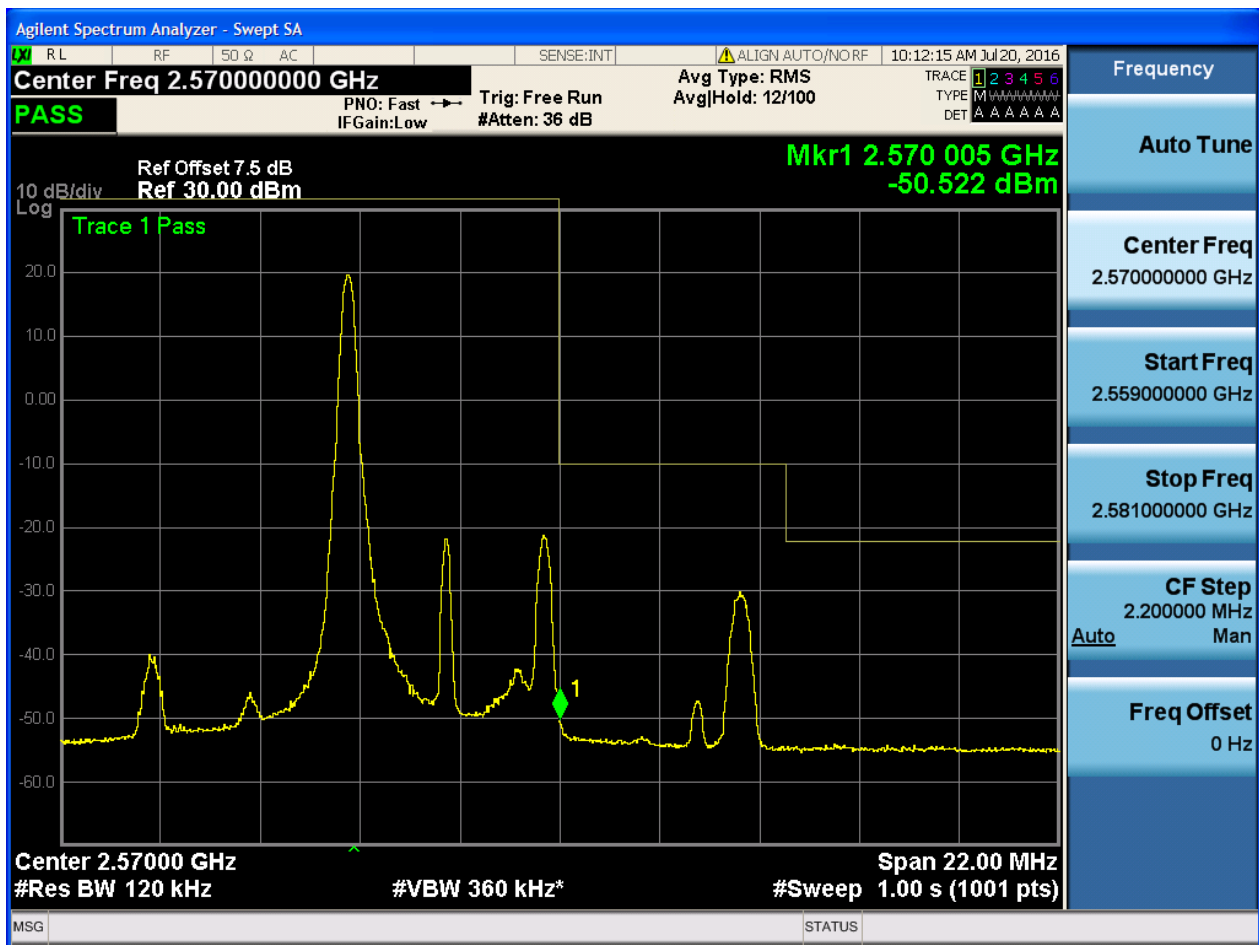


5.1.1.2.1.1.4 Test RB = RB25#0



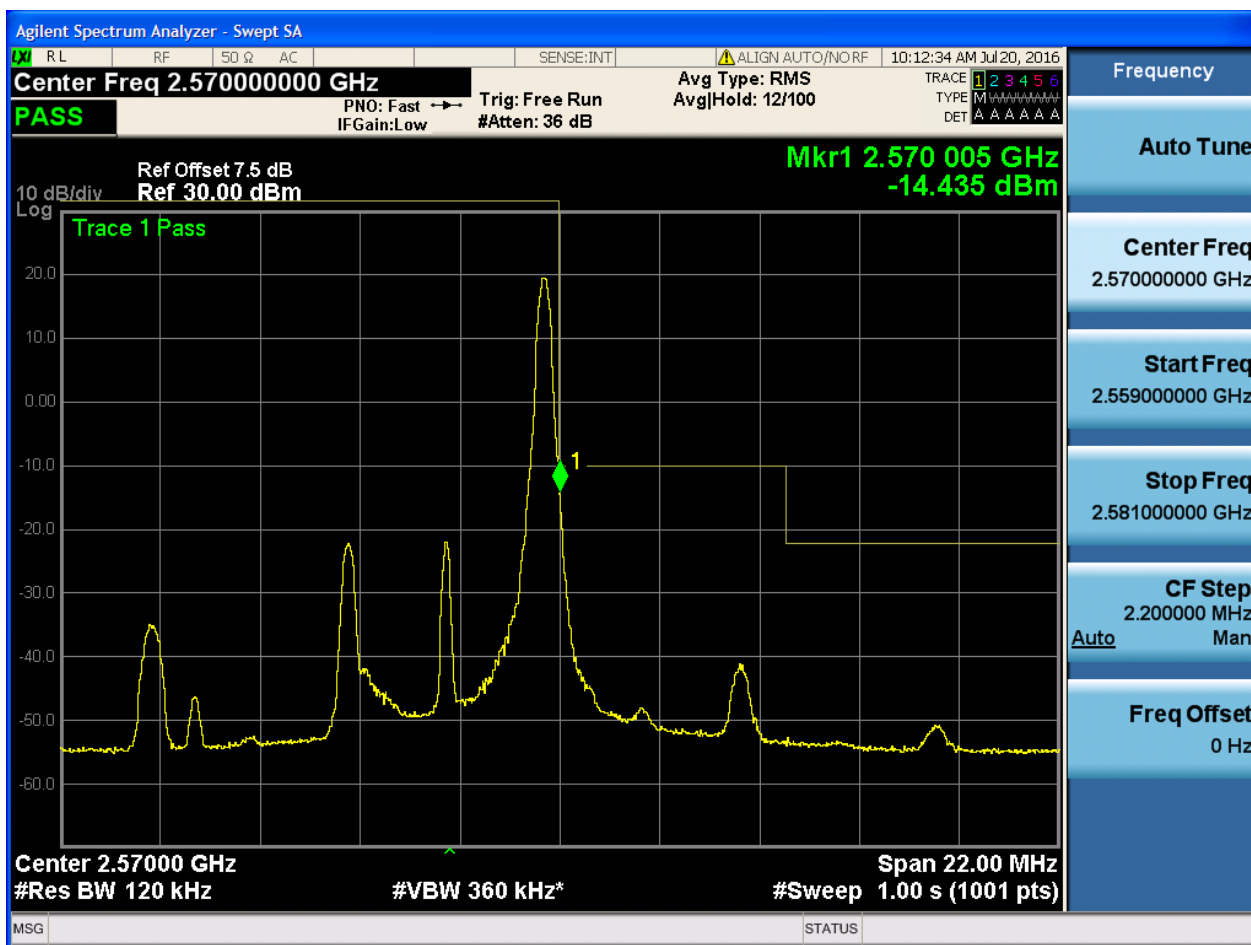
5.1.1.2.1.2 Test Channel = HCH

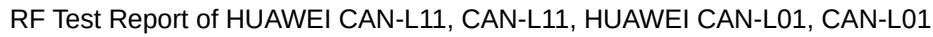
5.1.1.2.1.2.1 Test RB = RB1#0





5.1.1.2.1.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

10 dB/div
Log

Trace 1 Pass

Mkr1 2.570 005 GHz
-30.190 dBm

Center 2.57000 GHz
#Res BW 120 kHz
#VBW 360 kHz*
Span 22.00 MHz
#Sweep 1.00 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
Man

Auto

Freq Offset
0 Hz



5.1.1.2.1.2.4 Test RB = RB25#0

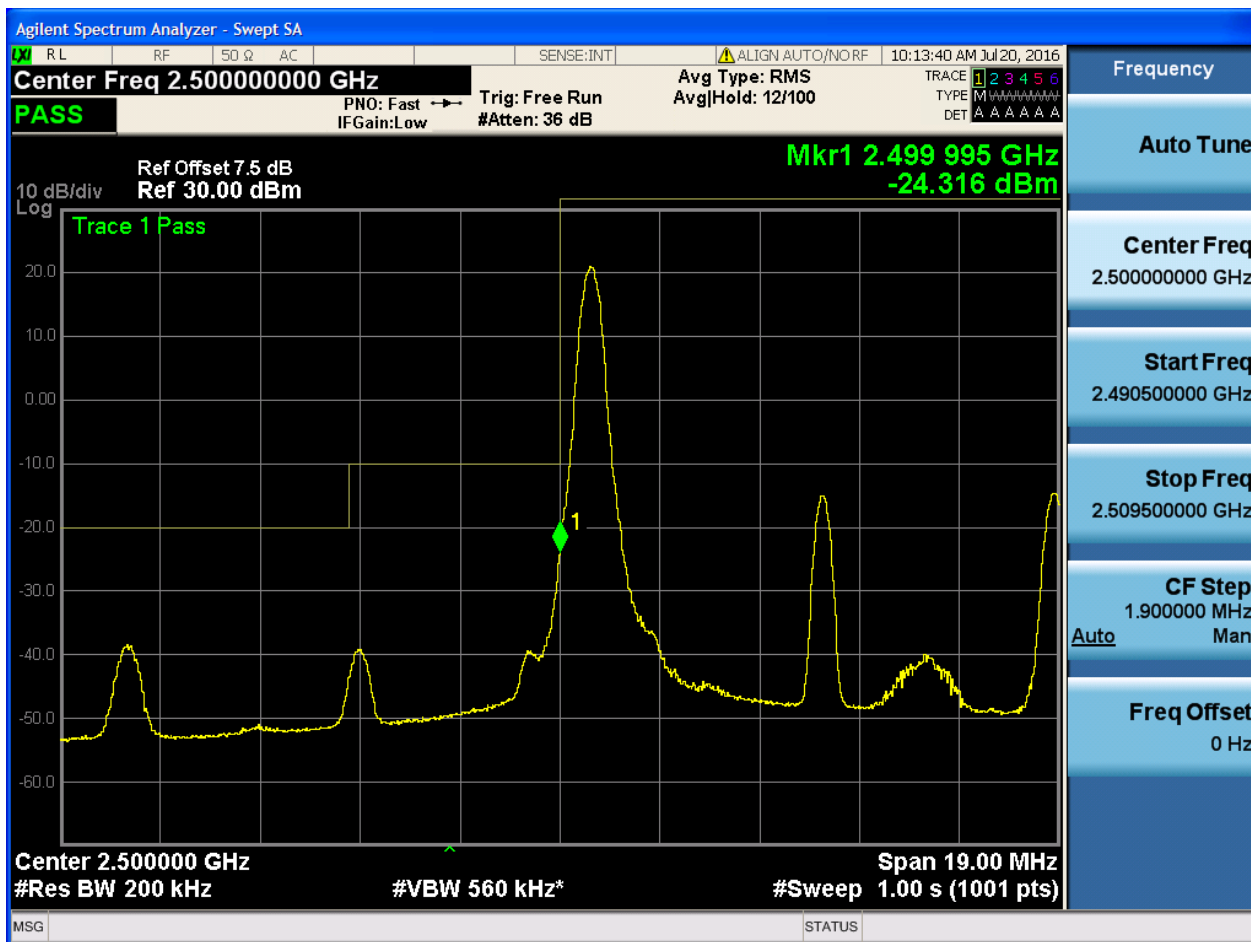


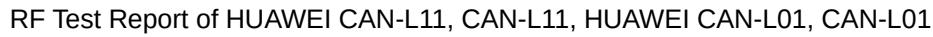


5.1.1.2.2 Test Bandwidth = 10

5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

Mkr1 2.499 995 GHz
-45.772 dBm

10 dB/div
Log

Center 2.50000 GHz
#Res BW 200 kHz
#VBW 560 kHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.50000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

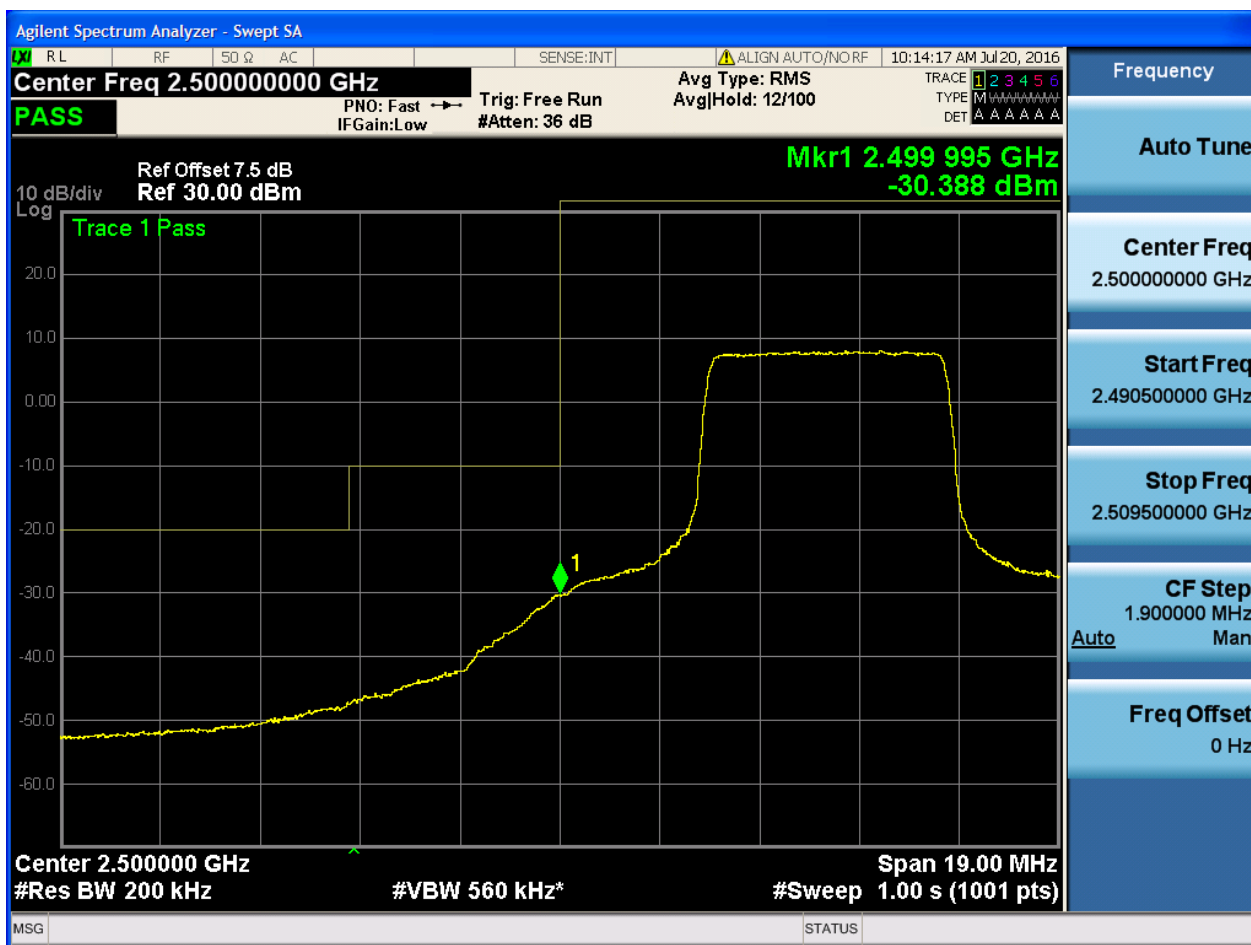
CF Step
1.900000 MHz
Man

Auto

Freq Offset
0 Hz

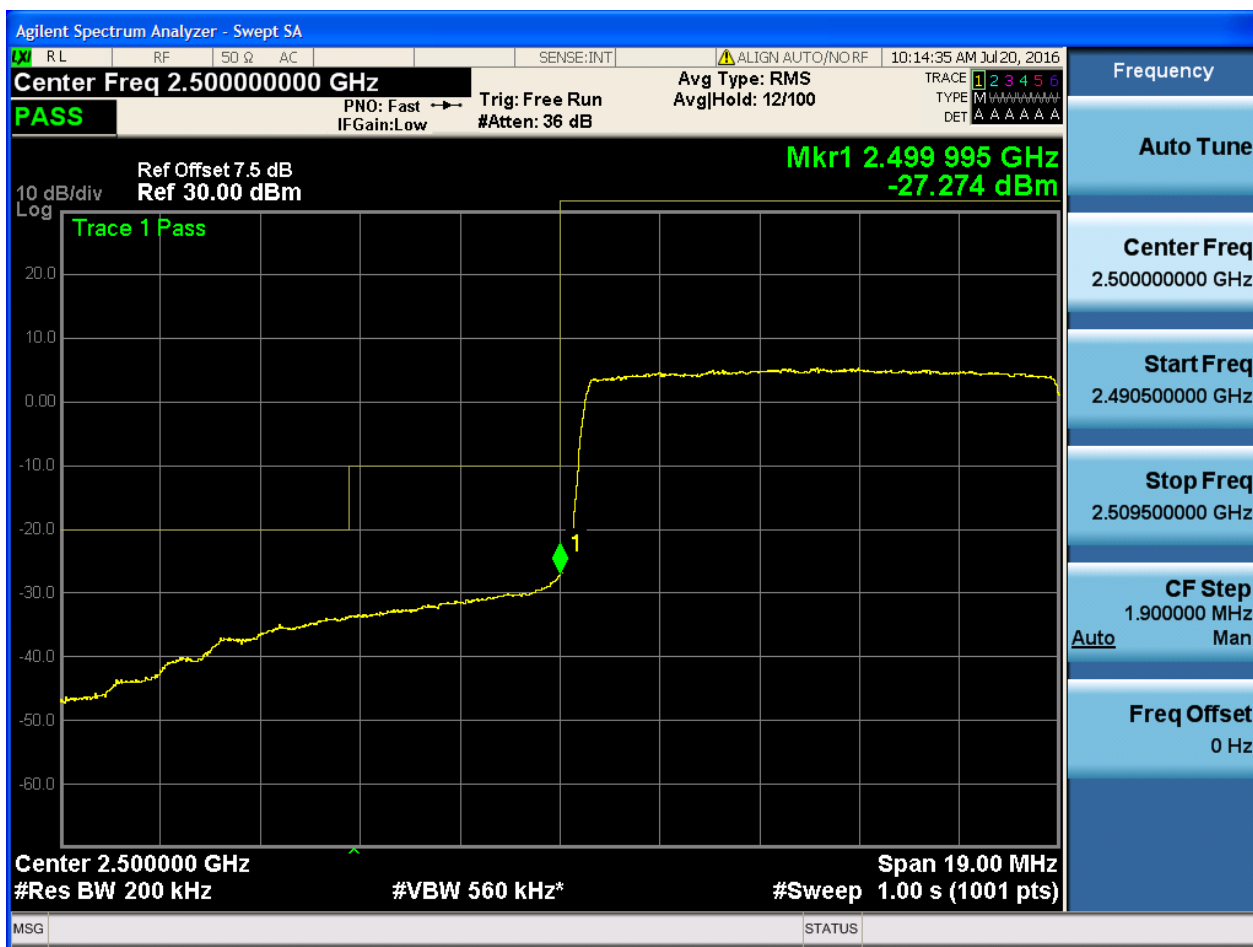


5.1.1.2.2.1.3 Test RB = RB25#13



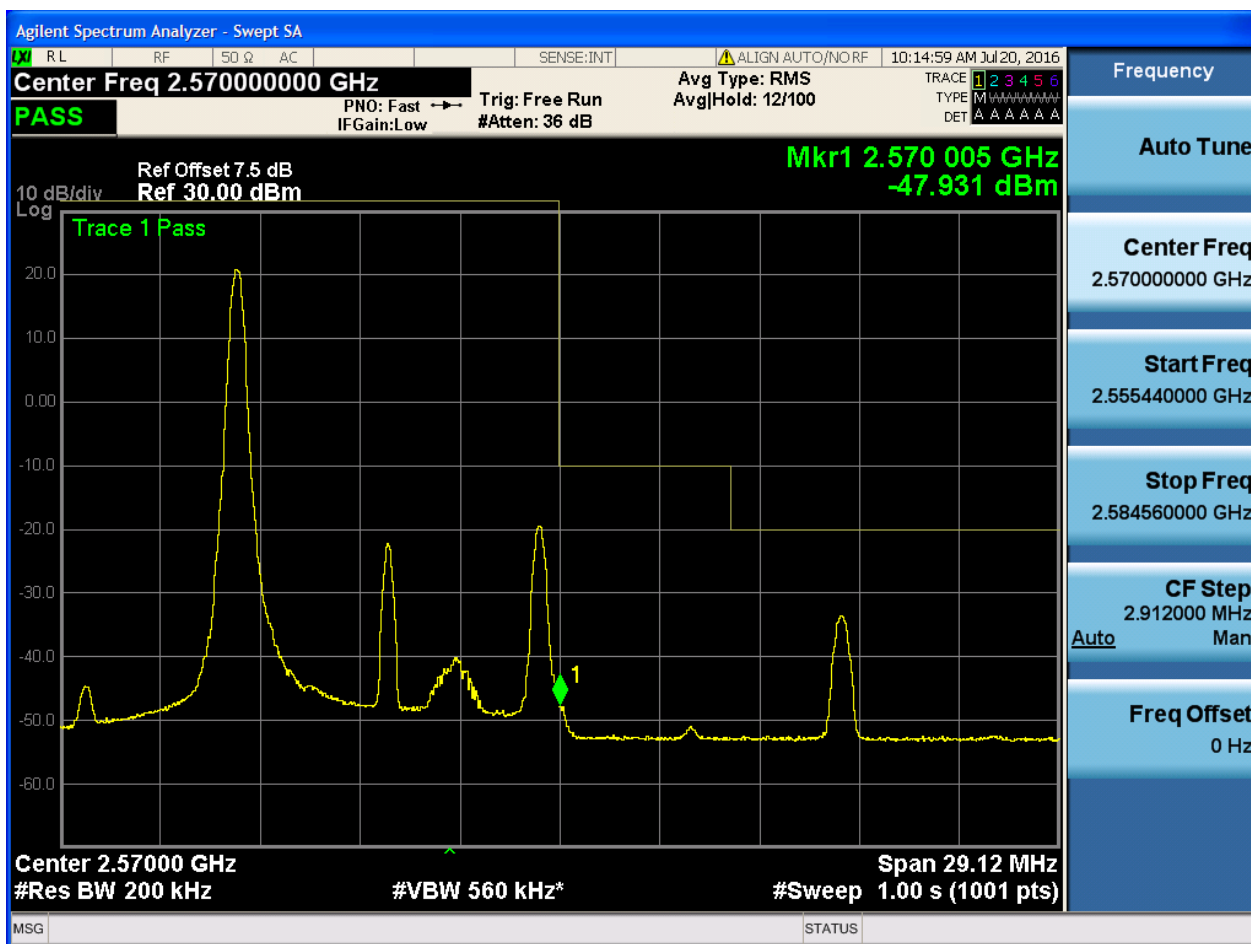


5.1.1.2.2.1.4 Test RB = RB50#0



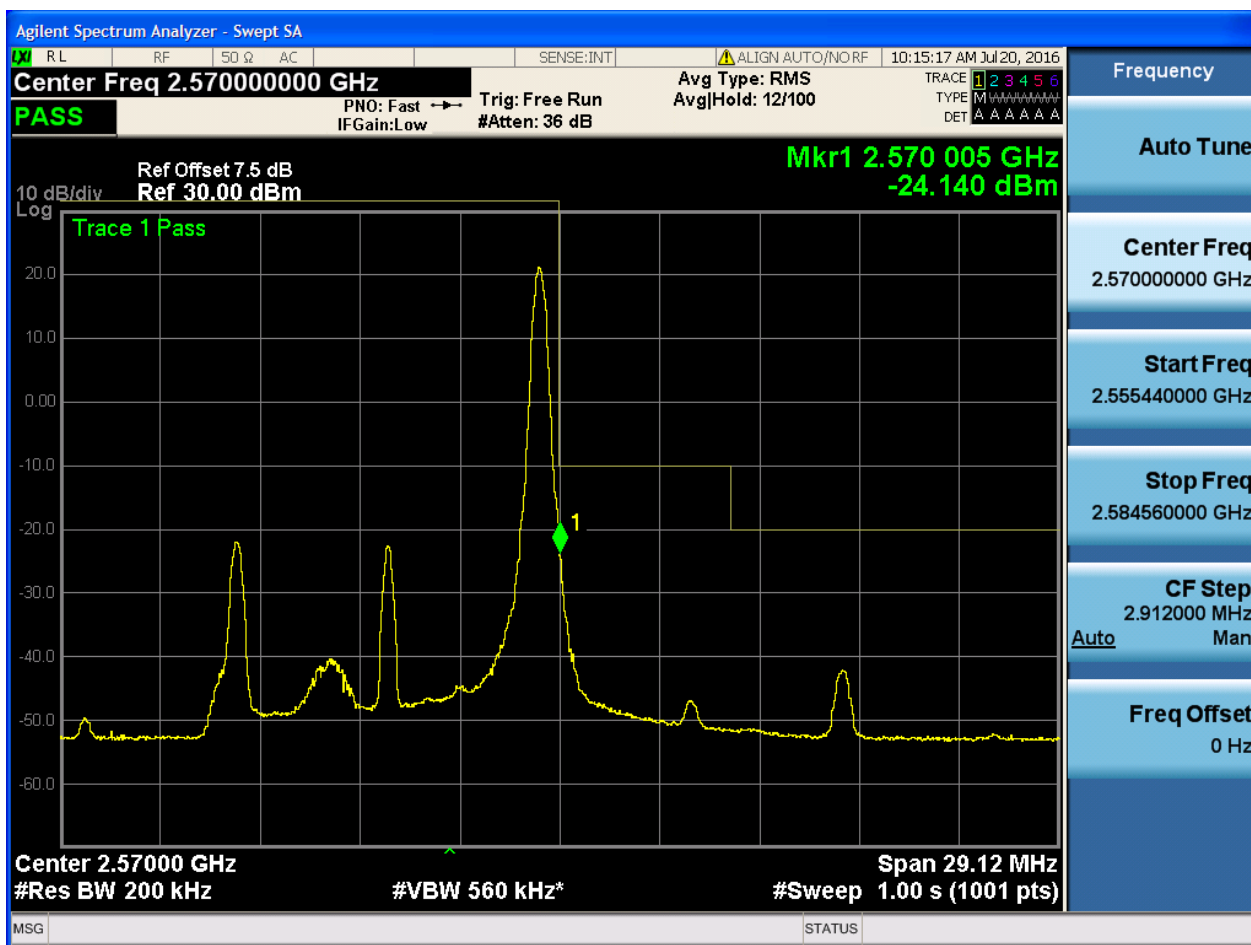
5.1.1.2.2.2 Test Channel = HCH

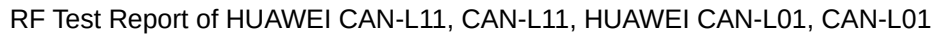
5.1.1.2.2.2.1 Test RB = RB1#0





5.1.1.2.2.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

10 dB/div
Log

Trace 1 Pass

Mkr1 2.570 005 GHz
-30.894 dBm

Center 2.57000 GHz
#Res BW 200 kHz
#VBW 560 kHz*

Span 29.12 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.570000000 GHz

Start Freq
2.555440000 GHz

Stop Freq
2.584560000 GHz

CF Step
2.912000 MHz
Man

Freq Offset
0 Hz



5.1.1.2.2.4 Test RB = RB50#0

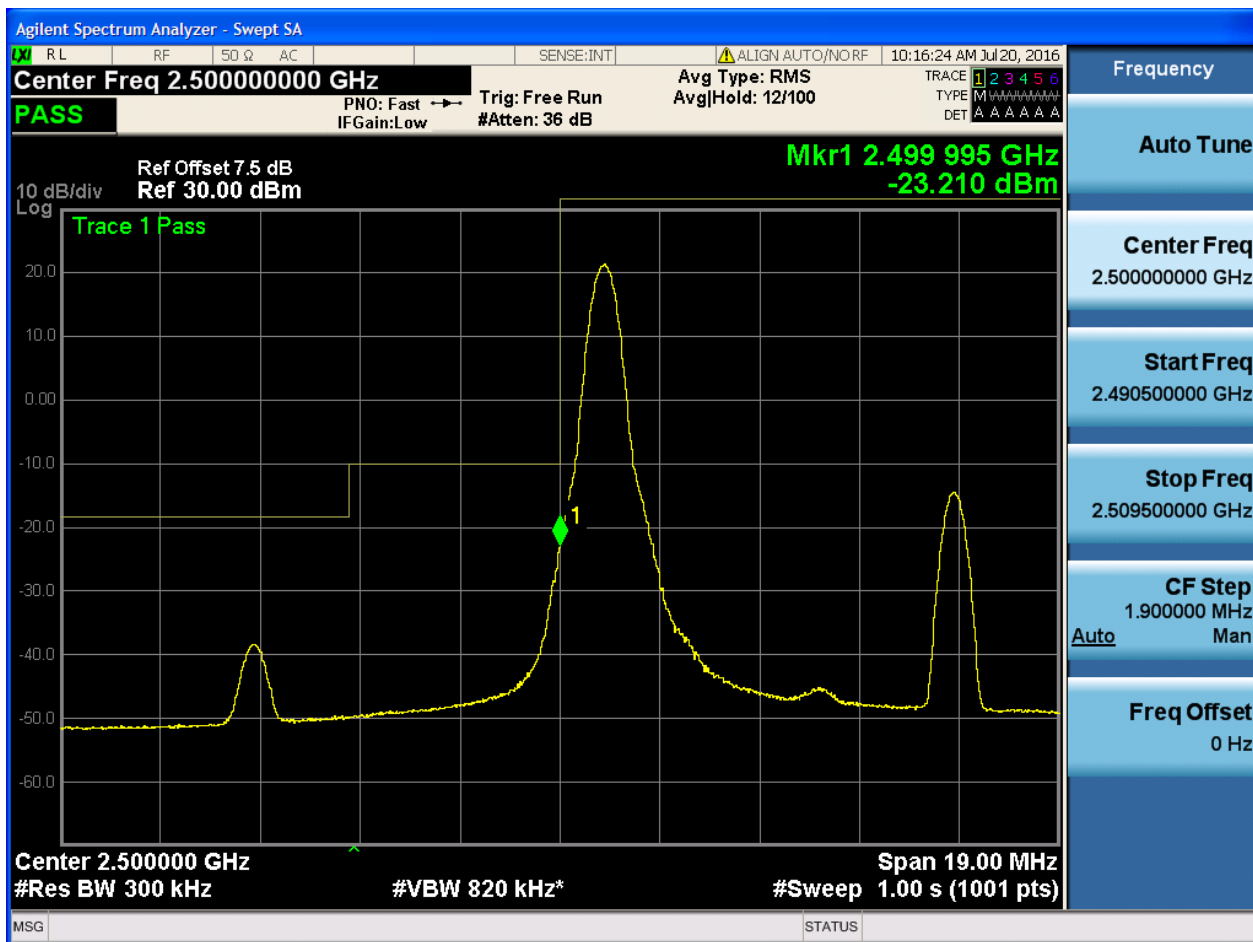




5.1.1.2.3 Test Bandwidth = 15

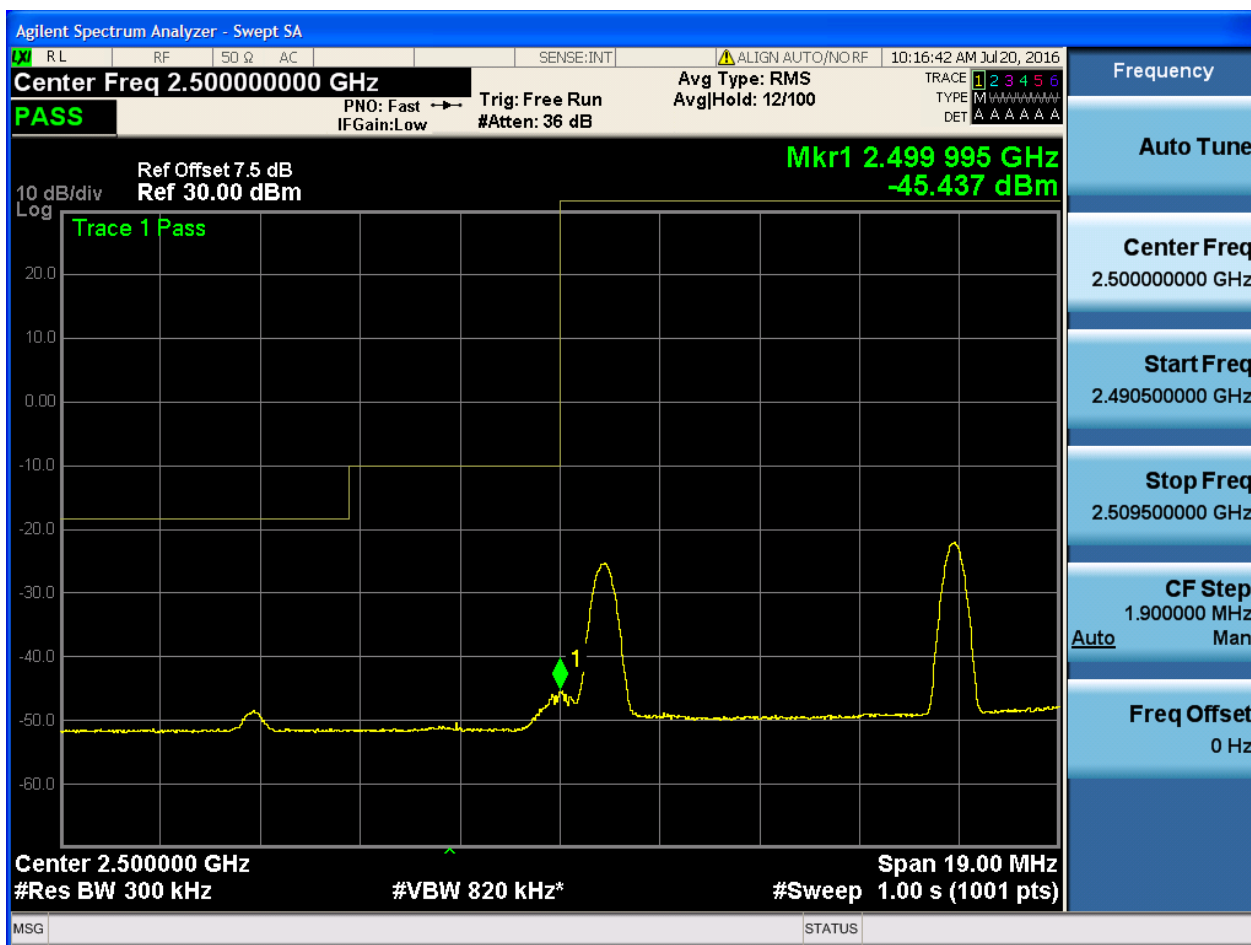
5.1.1.2.3.1 Test Channel = LCH

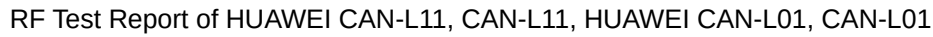
5.1.1.2.3.1.1 Test RB = RB1#0





5.1.1.2.3.1.2 Test RB = RB1#74





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

PASS

Ref Offset 7.5 dB
Ref 30.00 dBm

Mkr1 2.499 995 GHz
-30.031 dBm

Trace 1 Pass

Center 2.50000 GHz
#Res BW 300 kHz
#VBW 820 kHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Frequency

Auto Tune

Center Freq
2.50000000 GHz

Start Freq
2.490500000 GHz

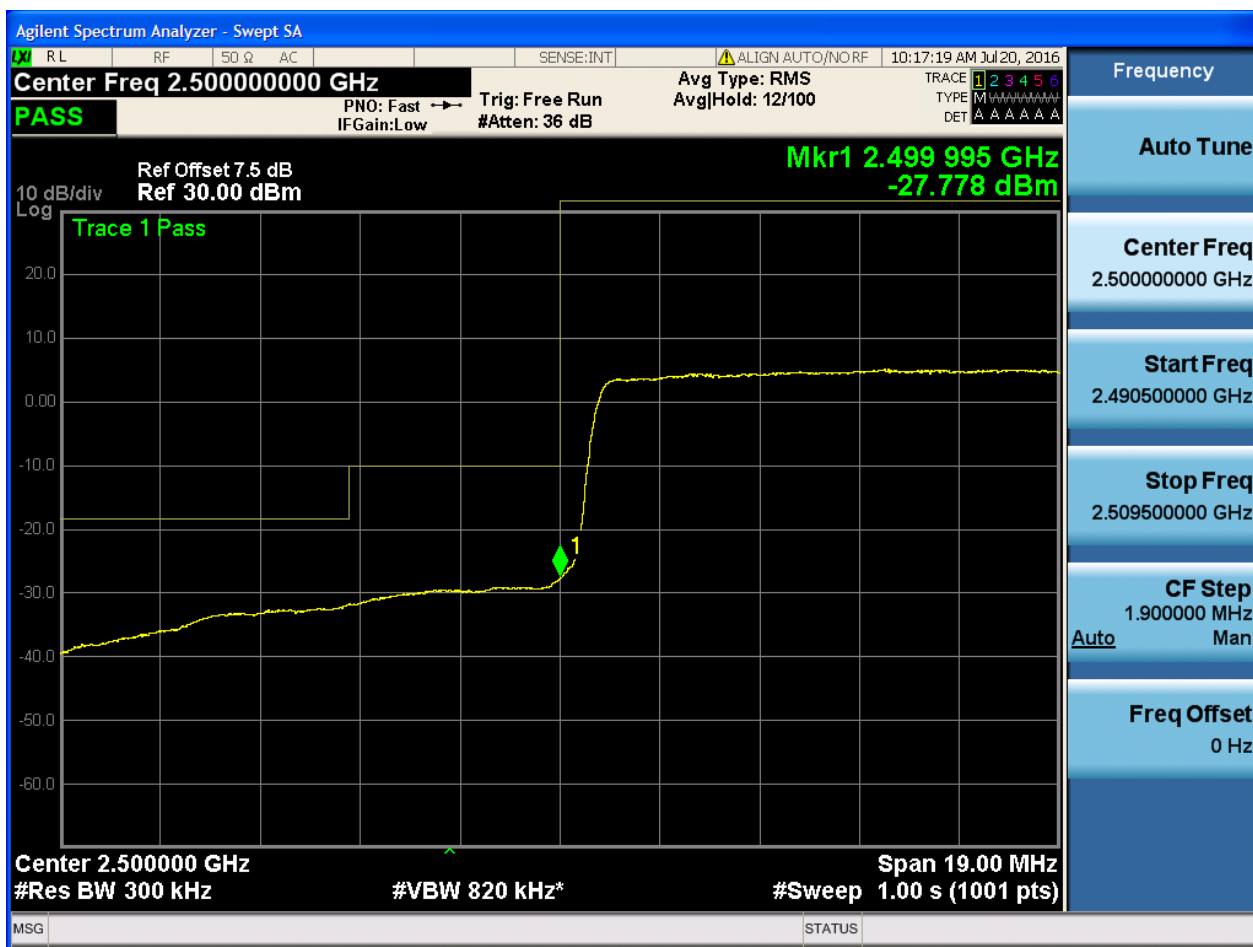
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Man

Freq Offset
0 Hz

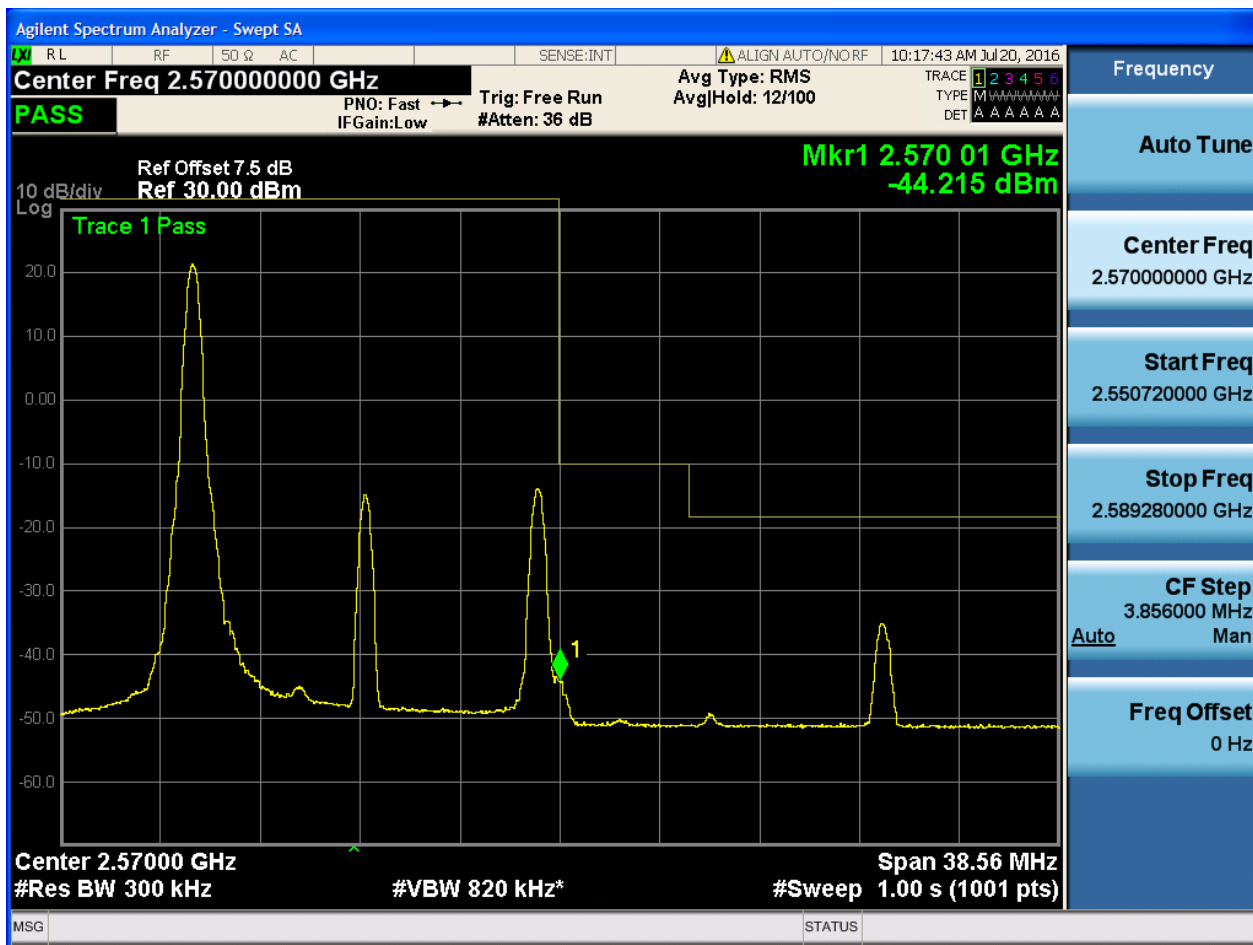


5.1.1.2.3.1.4 Test RB = RB75#0



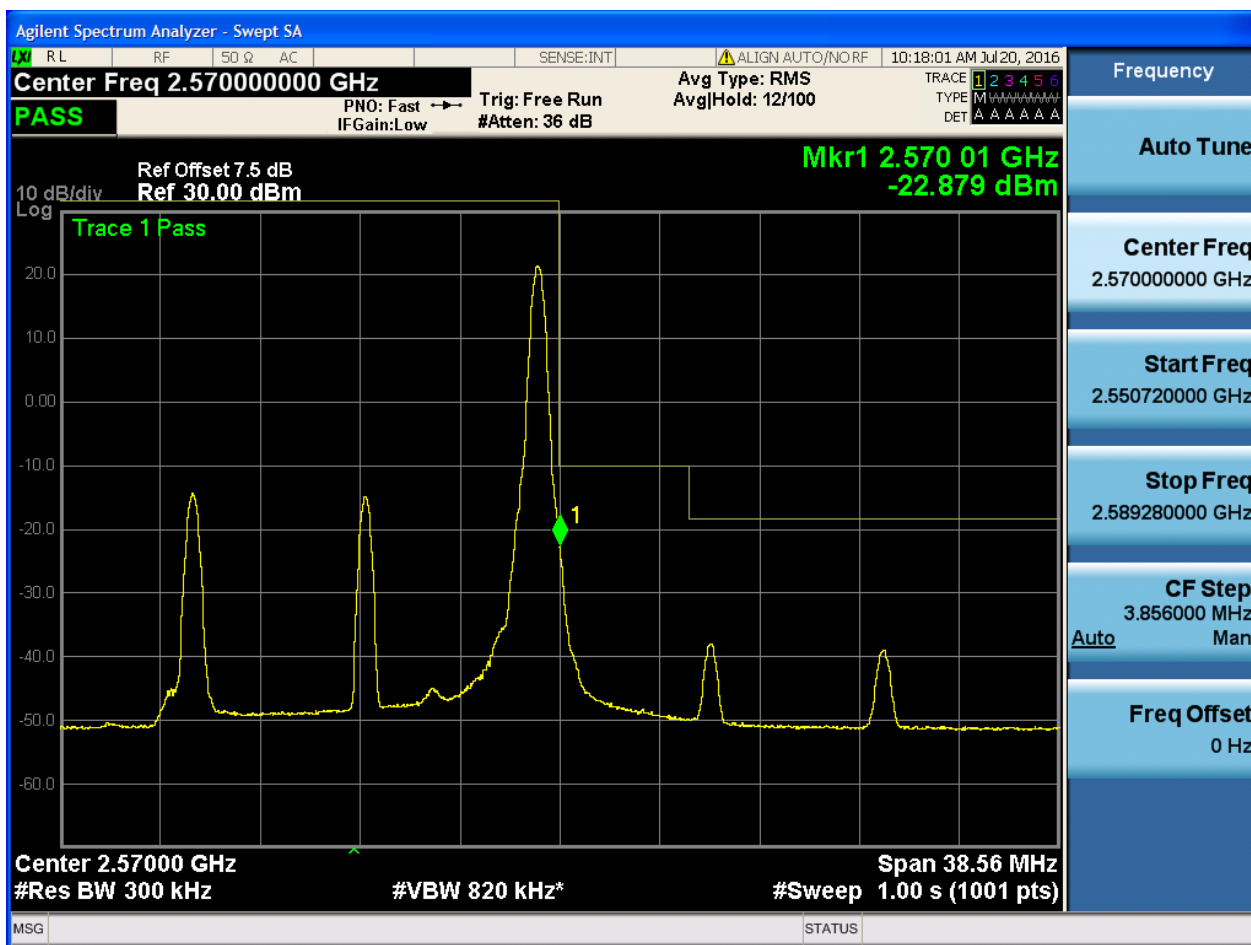
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0



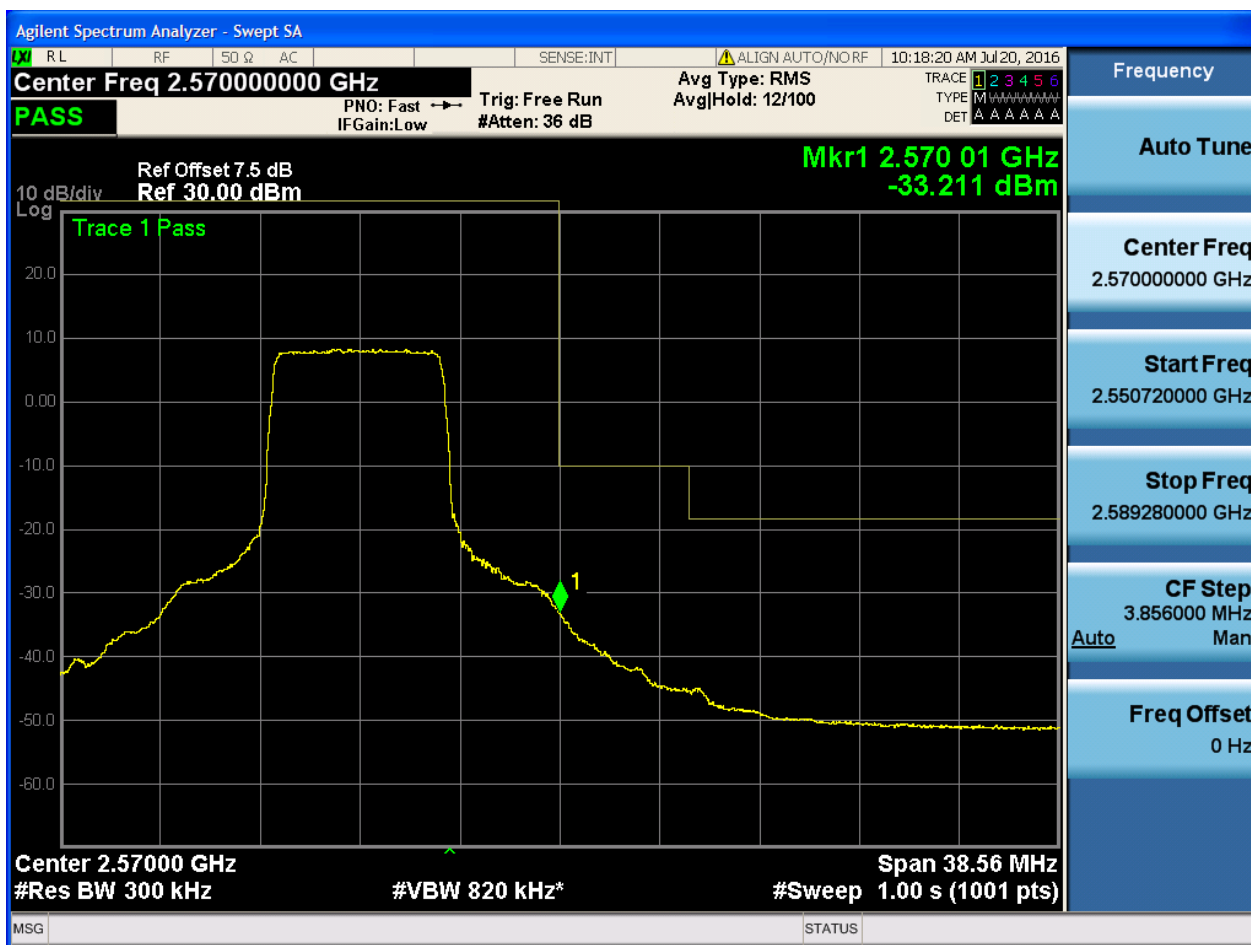


5.1.1.2.3.2.2 Test RB = RB1#74





5.1.1.2.3.2.3 Test RB = RB36#18





5.1.1.2.3.2.4 Test RB = RB75#0

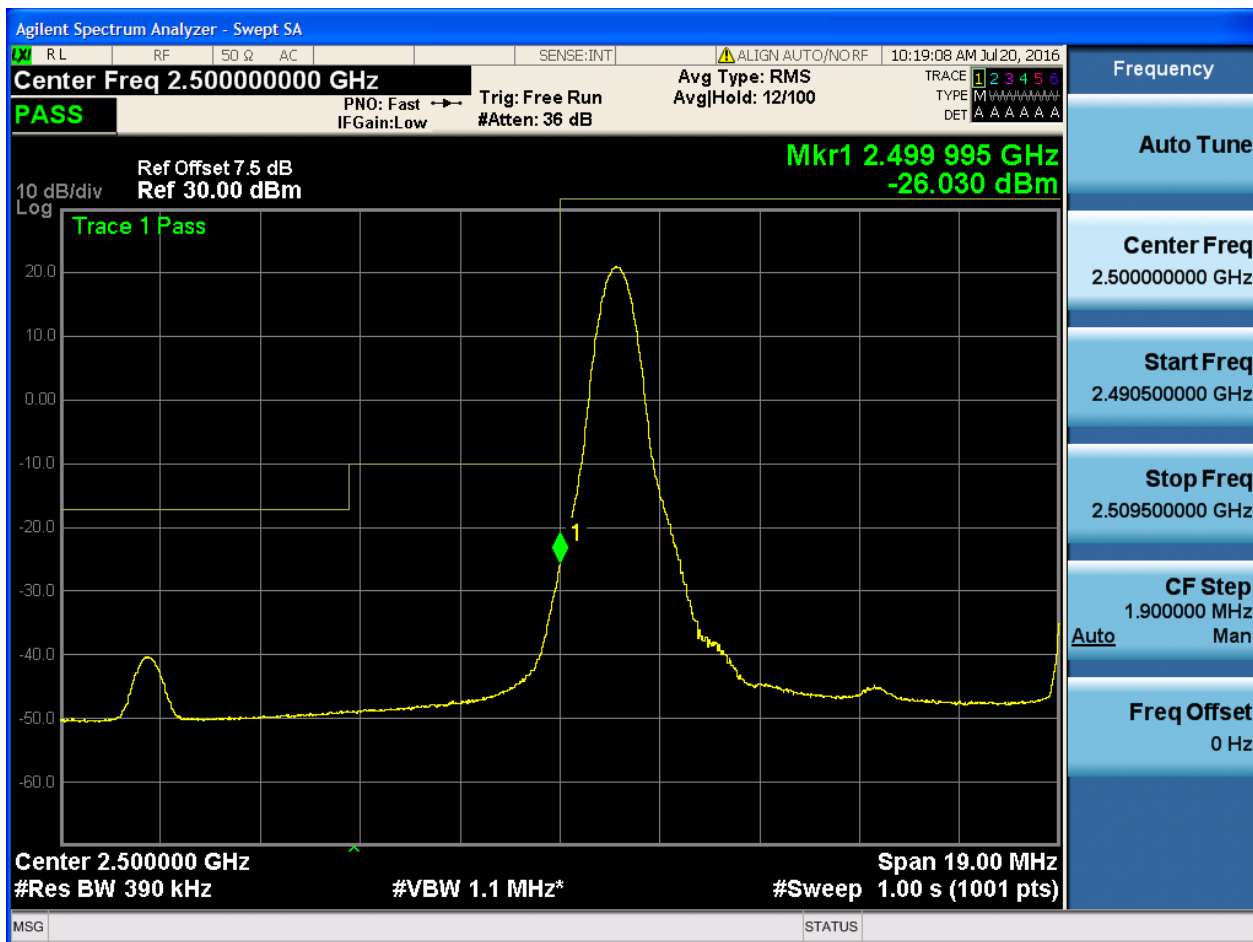




5.1.1.2.4 Test Bandwidth = 20

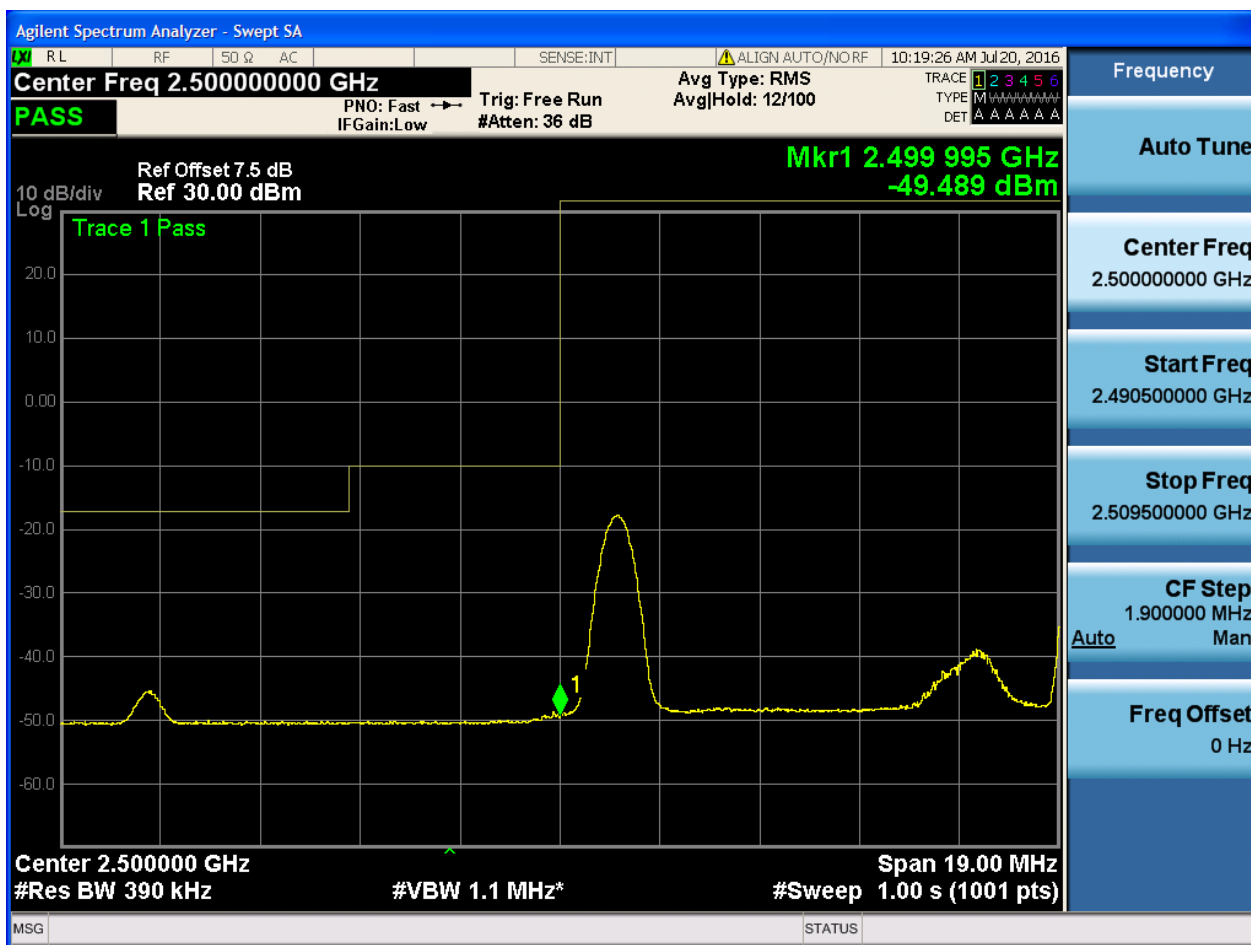
5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0



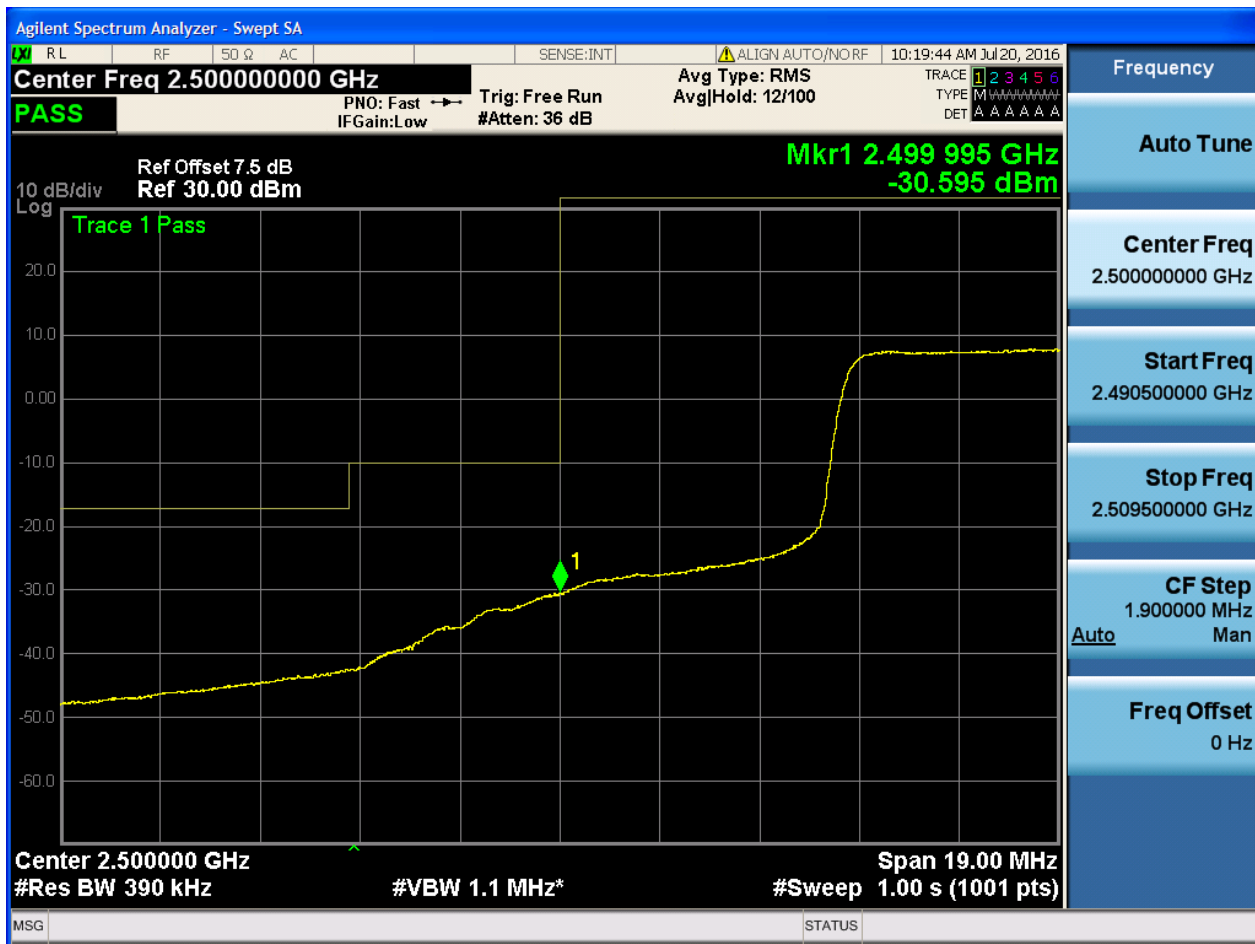


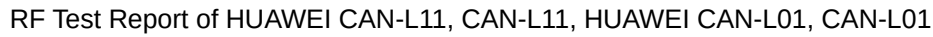
5.1.1.2.4.1.2 Test RB = RB1#99





5.1.1.2.4.1.3 Test RB = RB50#25





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.50000000 GHz

Ref Offset 7.5 dB
Ref 30.00 dBm

Trace 1 Pass

10 dB/div
Log

Center 2.50000 GHz
#Res BW 390 kHz
#VBW 1.1 MHz*

Span 19.00 MHz
#Sweep 1.00 s (1001 pts)

Auto Tune

Center Freq
2.50000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Man

Freq Offset
0 Hz

Mkr1 2.499 995 GHz
-28.192 dBm

Trig: Free Run
#Atten: 36 dB

PNO: Fast
IFGain: Low

ALIGN AUTO/NORF

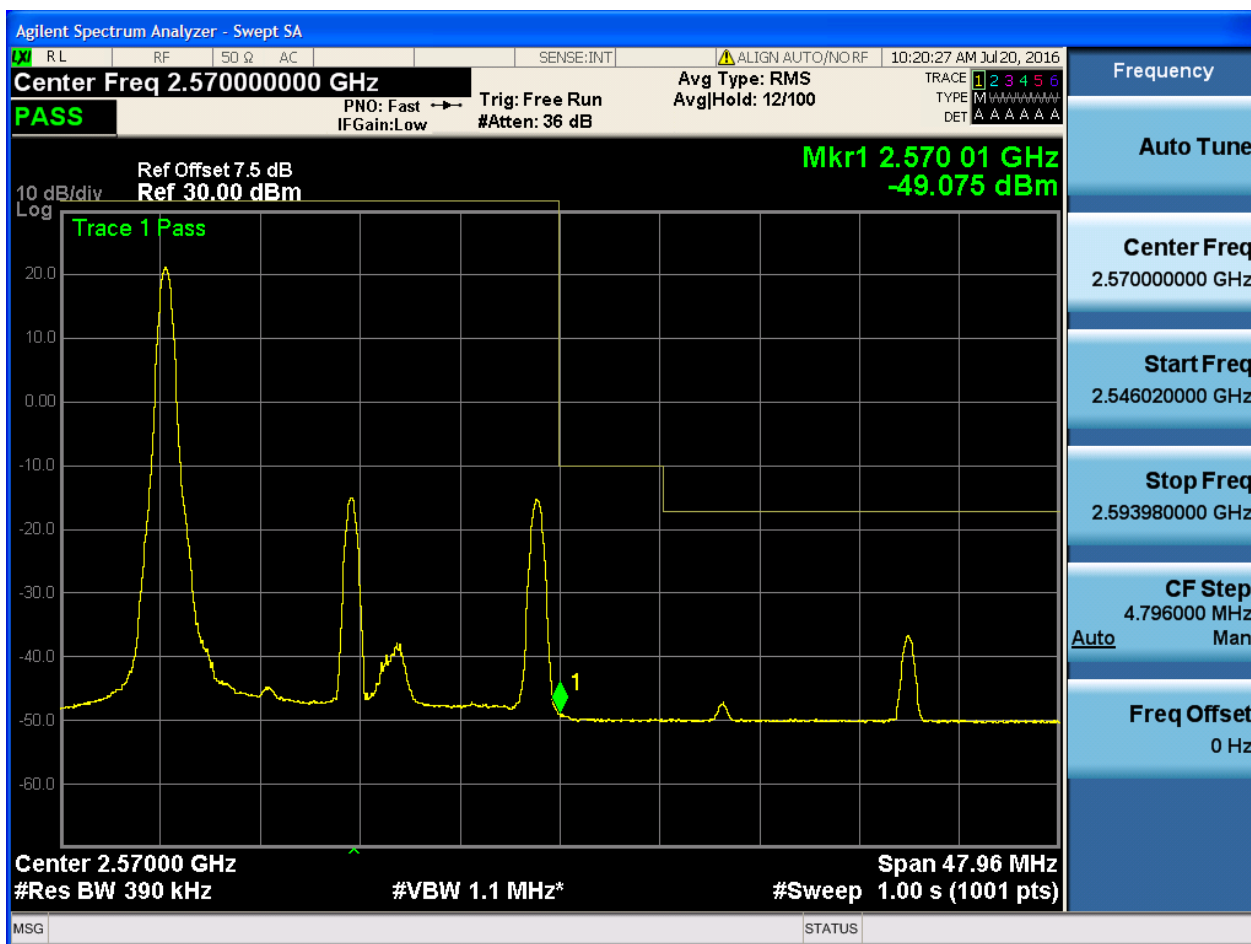
10:20:03 AM Jul 20, 2016

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

MSG STATUS

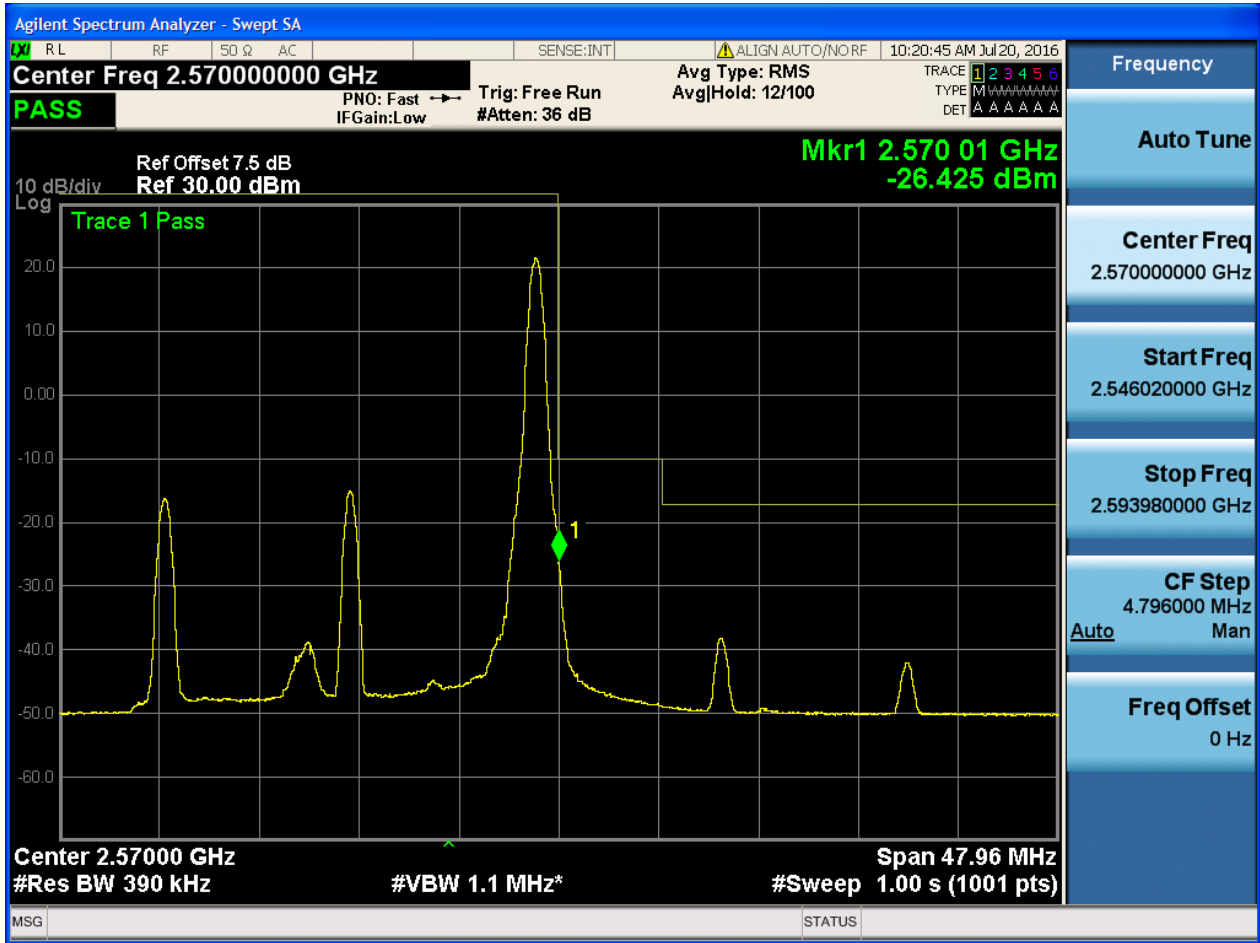
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



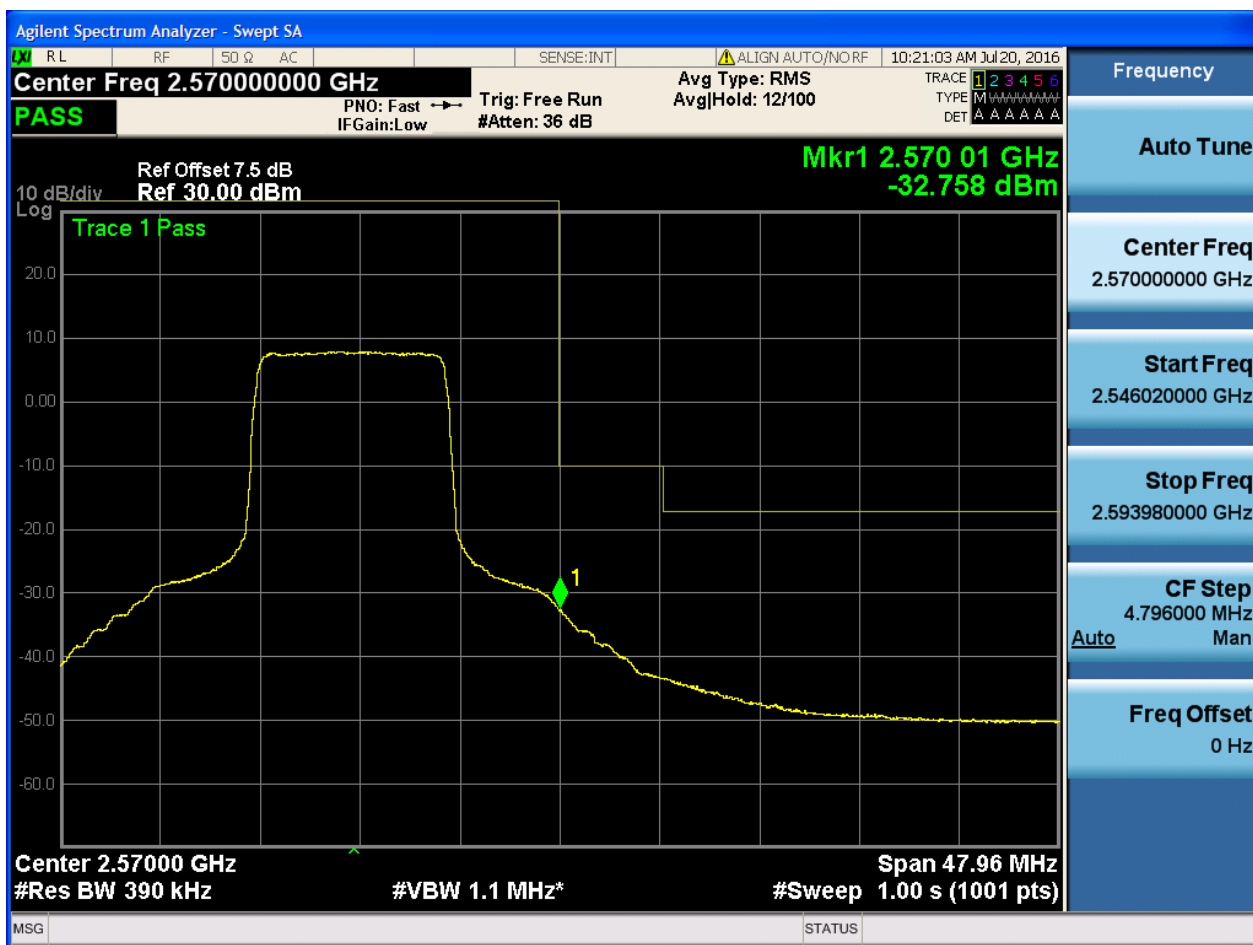


5.1.1.2.4.2.2 Test RB = RB1#99





5.1.1.2.4.2.3 Test RB = RB50#25





5.1.1.2.4.2.4 Test RB = RB100#0





6Appendix_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Part I - Test Plots

6.1 For LTE

6.1.1 Test Band = BAND7

6.1.1.1 Test Mode = LTE/TM1

6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0