



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
BAND7	LTE/TM1	5	LCH	RB1#0	22.92	21.52	33	PASS
				RB1#13	22.97	21.57	33	PASS
				RB1#24	22.88	21.48	33	PASS
				RB12#0	22.19	20.79	33	PASS
				RB12#6	22.17	20.77	33	PASS
				RB12#13	22.07	20.67	33	PASS
				RB25#0	22.19	20.79	33	PASS
			MCH	RB1#0	22.94	21.54	33	PASS
				RB1#13	23.09	21.69	33	PASS
				RB1#24	23.03	21.63	33	PASS
				RB12#0	22.22	20.82	33	PASS
				RB12#6	22.26	20.86	33	PASS
				RB12#13	22.12	20.72	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	22.17	20.77	33	PASS
			HCH	RB1#0	22.8	21.4	33	PASS
				RB1#13	22.9	21.5	33	PASS
				RB1#24	22.98	21.58	33	PASS
				RB12#0	22.14	20.74	33	PASS
				RB12#6	22.16	20.76	33	PASS
				RB12#13	22.07	20.67	33	PASS
				RB25#0	22.16	20.76	33	PASS
		10	LCH	RB1#0	23.31	21.91	33	PASS
				RB1#25	23.62	22.22	33	PASS
				RB1#49	23.41	22.01	33	PASS
				RB25#0	22.27	20.87	33	PASS
				RB25#13	22.31	20.91	33	PASS
				RB25#25	22.2	20.8	33	PASS
				RB50#0	22.2	20.8	33	PASS
			MCH	RB1#0	22.83	21.43	33	PASS
				RB1#25	23.29	21.89	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#49	23.08	21.68	33	PASS
				RB25#0	22.28	20.88	33	PASS
				RB25#13	22.29	20.89	33	PASS
				RB25#25	22.17	20.77	33	PASS
				RB50#0	22.28	20.88	33	PASS
			HCH	RB1#0	23.24	21.84	33	PASS
				RB1#25	23.47	22.07	33	PASS
				RB1#49	23.17	21.77	33	PASS
				RB25#0	22.18	20.78	33	PASS
				RB25#13	22.24	20.84	33	PASS
				RB25#25	22.12	20.72	33	PASS
				RB50#0	22.15	20.75	33	PASS
		15	LCH	RB1#0	23.1	21.7	33	PASS
				RB1#38	23.57	22.17	33	PASS
				RB1#74	23.29	21.89	33	PASS
				RB36#0	22.24	20.84	33	PASS
				RB36#18	22.31	20.91	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB36#39	22.14	20.74	33	PASS
				RB75#0	22.26	20.86	33	PASS
			MCH	RB1#0	23.3	21.9	33	PASS
				RB1#38	23.3	21.9	33	PASS
				RB1#74	23.03	21.63	33	PASS
				RB36#0	22.21	20.81	33	PASS
				RB36#18	22.2	20.8	33	PASS
				RB36#39	22.18	20.78	33	PASS
				RB75#0	22.16	20.76	33	PASS
			HCH	RB1#0	23.12	21.72	33	PASS
				RB1#38	23.2	21.8	33	PASS
				RB1#74	23.13	21.73	33	PASS
				RB36#0	22.31	20.91	33	PASS
				RB36#18	22.32	20.92	33	PASS
				RB36#39	22.09	20.69	33	PASS
				RB75#0	22.19	20.79	33	PASS
		20	LCH	RB1#0	22.79	21.39	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#50	23.21	21.81	33	PASS
				RB1#99	22.79	21.39	33	PASS
				RB50#0	22.24	20.84	33	PASS
				RB50#25	22.23	20.83	33	PASS
				RB50#50	22.14	20.74	33	PASS
				RB100#0	22.15	20.75	33	PASS
			MCH	RB1#0	22.97	21.57	33	PASS
				RB1#50	23.33	21.93	33	PASS
				RB1#99	23.06	21.66	33	PASS
				RB50#0	22.2	20.8	33	PASS
				RB50#25	22.2	20.8	33	PASS
				RB50#50	22.1	20.7	33	PASS
				RB100#0	22.22	20.82	33	PASS
			HCH	RB1#0	23.07	21.67	33	PASS
				RB1#50	23.46	22.06	33	PASS
				RB1#99	23.01	21.61	33	PASS
				RB50#0	22.34	20.94	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#25	22.26	20.86	33	PASS
				RB50#50	22.05	20.65	33	PASS
				RB100#0	22.18	20.78	33	PASS
	LTE/TM2	5	LCH	RB1#0	21.84	20.44	33	PASS
				RB1#13	21.95	20.55	33	PASS
				RB1#24	21.7	20.3	33	PASS
				RB12#0	21.1	19.7	33	PASS
				RB12#6	21.15	19.75	33	PASS
				RB12#13	21.08	19.68	33	PASS
				RB25#0	21.19	19.79	33	PASS
			MCH	RB1#0	21.56	20.16	33	PASS
				RB1#13	21.51	20.11	33	PASS
				RB1#24	21.35	19.95	33	PASS
				RB12#0	21.15	19.75	33	PASS
				RB12#6	21.24	19.84	33	PASS
				RB12#13	21.1	19.7	33	PASS
				RB25#0	21.21	19.81	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	22.37	20.97	33	PASS
				RB1#13	22.1	20.7	33	PASS
				RB1#24	22.03	20.63	33	PASS
				RB12#0	21.12	19.72	33	PASS
				RB12#6	21.13	19.73	33	PASS
				RB12#13	21	19.6	33	PASS
				RB25#0	21.11	19.71	33	PASS
		10	LCH	RB1#0	22.33	20.93	33	PASS
				RB1#25	22.22	20.82	33	PASS
				RB1#49	21.52	20.12	33	PASS
				RB25#0	21.12	19.72	33	PASS
				RB25#13	21.25	19.85	33	PASS
				RB25#25	21.13	19.73	33	PASS
				RB50#0	21.15	19.75	33	PASS
			MCH	RB1#0	22.25	20.85	33	PASS
				RB1#25	22.57	21.17	33	PASS
				RB1#49	21.71	20.31	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB25#0	21.35	19.95	33	PASS
				RB25#13	21.36	19.96	33	PASS
				RB25#25	21.24	19.84	33	PASS
				RB50#0	21.37	19.97	33	PASS
			HCH	RB1#0	21.91	20.51	33	PASS
				RB1#25	22.13	20.73	33	PASS
				RB1#49	21.88	20.48	33	PASS
				RB25#0	21.32	19.92	33	PASS
				RB25#13	21.4	20	33	PASS
				RB25#25	21.11	19.71	33	PASS
				RB50#0	21.12	19.72	33	PASS
		15	LCH	RB1#0	22.47	21.07	33	PASS
				RB1#38	22.5	21.1	33	PASS
				RB1#74	22.05	20.65	33	PASS
				RB36#0	21.27	19.87	33	PASS
				RB36#18	21.26	19.86	33	PASS
				RB36#39	21.07	19.67	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB75#0	21.16	19.76	33	PASS
			MCH	RB1#0	22.39	20.99	33	PASS
				RB1#38	22.29	20.89	33	PASS
				RB1#74	22.36	20.96	33	PASS
				RB36#0	21.26	19.86	33	PASS
				RB36#18	21.26	19.86	33	PASS
				RB36#39	20.94	19.54	33	PASS
				RB75#0	21.14	19.74	33	PASS
			HCH	RB1#0	21.84	20.44	33	PASS
				RB1#38	22.19	20.79	33	PASS
				RB1#74	21.8	20.4	33	PASS
				RB36#0	21.2	19.8	33	PASS
				RB36#18	21.3	19.9	33	PASS
				RB36#39	21.05	19.65	33	PASS
				RB75#0	21.12	19.72	33	PASS
		20	LCH	RB1#0	22.18	20.78	33	PASS
				RB1#50	22.43	21.03	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB1#99	22.18	20.78	33	PASS
				RB50#0	21.16	19.76	33	PASS
				RB50#25	21.24	19.84	33	PASS
				RB50#50	21.11	19.71	33	PASS
				RB100#0	21.08	19.68	33	PASS
			MCH	RB1#0	22.22	20.82	33	PASS
				RB1#50	22.54	21.14	33	PASS
				RB1#99	21.9	20.5	33	PASS
				RB50#0	21.18	19.78	33	PASS
				RB50#25	21.15	19.75	33	PASS
				RB50#50	21.13	19.73	33	PASS
				RB100#0	21.24	19.84	33	PASS
			HCH	RB1#0	21.99	20.59	33	PASS
				RB1#50	22.41	21.01	33	PASS
				RB1#99	22.06	20.66	33	PASS
				RB50#0	21.26	19.86	33	PASS
				RB50#25	21.24	19.84	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				RB50#50	21.15	19.75	33	PASS
				RB100#0	21.16	19.76	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:

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

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

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

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

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	3.05	13	PASS
				RB1#13	3.07	13	PASS
				RB1#24	3.15	13	PASS
				RB12#0	3.94	13	PASS
				RB12#6	3.78	13	PASS
				RB12#13	4.05	13	PASS
				RB25#0	4.58	13	PASS
			MCH	RB1#0	3.29	13	PASS
				RB1#13	3.2	13	PASS
				RB1#24	3.22	13	PASS
				RB12#0	4.18	13	PASS
				RB12#6	3.91	13	PASS
				RB12#13	4.09	13	PASS
				RB25#0	4.92	13	PASS
			HCH	RB1#0	3.59	13	PASS
				RB1#13	3.28	13	PASS
				RB1#24	3.24	13	PASS
				RB12#0	4.3	13	PASS
				RB12#6	4.08	13	PASS
				RB12#13	4.26	13	PASS
				RB25#0	4.89	13	PASS
		10	LCH	RB1#0	2.94	13	PASS
				RB1#25	2.98	13	PASS
				RB1#49	3.57	13	PASS
				RB25#0	4.05	13	PASS
				RB25#13	4.06	13	PASS
				RB25#25	4.4	13	PASS
				RB50#0	4.75	13	PASS
			MCH	RB1#0	3.49	13	PASS
				RB1#25	3.06	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#49	3.26	13	PASS
				RB25#0	4.21	13	PASS
				RB25#13	3.95	13	PASS
				RB25#25	4.14	13	PASS
				RB50#0	4.73	13	PASS
			HCH	RB1#0	3.86	13	PASS
				RB1#25	3.1	13	PASS
				RB1#49	3.2	13	PASS
				RB25#0	4.67	13	PASS
				RB25#13	4.24	13	PASS
				RB25#25	4.33	13	PASS
				RB50#0	4.84	13	PASS
		15	LCH	RB1#0	2.81	13	PASS
				RB1#38	3.38	13	PASS
				RB1#74	3.93	13	PASS
				RB36#0	4.11	13	PASS
				RB36#18	4.34	13	PASS
				RB36#39	4.75	13	PASS
				RB75#0	5.29	13	PASS
			MCH	RB1#0	3.53	13	PASS
				RB1#38	3.06	13	PASS
				RB1#74	3.18	13	PASS
				RB36#0	4.37	13	PASS
				RB36#18	4.02	13	PASS
				RB36#39	4.17	13	PASS
				RB75#0	5.02	13	PASS
			HCH	RB1#0	4.79	13	PASS
				RB1#38	4.82	13	PASS
				RB1#74	4.73	13	PASS
				RB36#0	5.26	13	PASS
				RB36#18	5.2	13	PASS
				RB36#39	5.25	13	PASS
				RB75#0	5.82	13	PASS
		20	LCH	RB1#0	3.37	13	PASS
				RB1#50	3.76	13	PASS
				RB1#99	4.33	13	PASS
				RB50#0	4.36	13	PASS
				RB50#25	4.55	13	PASS
				RB50#50	4.9	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB100#0	5.46	13	PASS
			MCH	RB1#0	3.85	13	PASS
				RB1#50	3.06	13	PASS
				RB1#99	3.51	13	PASS
				RB50#0	4.39	13	PASS
				RB50#25	4.16	13	PASS
				RB50#50	4.21	13	PASS
				RB100#0	4.9	13	PASS
			HCH	RB1#0	3.67	13	PASS
				RB1#50	3.57	13	PASS
				RB1#99	3.15	13	PASS
				RB50#0	4.71	13	PASS
				RB50#25	4.65	13	PASS
				RB50#50	4.56	13	PASS
				RB100#0	5.27	13	PASS
	LTE/TM2	5	LCH	RB1#0	4.24	13	PASS
				RB1#13	4.15	13	PASS
				RB1#24	4.45	13	PASS
				RB12#0	4.92	13	PASS
				RB12#6	4.87	13	PASS
				RB12#13	5.06	13	PASS
				RB25#0	5.49	13	PASS
			MCH	RB1#0	4.55	13	PASS
				RB1#13	4.35	13	PASS
				RB1#24	4.44	13	PASS
				RB12#0	5.1	13	PASS
				RB12#6	4.82	13	PASS
				RB12#13	5.07	13	PASS
				RB25#0	5.71	13	PASS
			HCH	RB1#0	4.45	13	PASS
				RB1#13	4.17	13	PASS
				RB1#24	4.16	13	PASS
				RB12#0	5.26	13	PASS
				RB12#6	5.16	13	PASS
				RB12#13	5.27	13	PASS
				RB25#0	5.78	13	PASS
		10	LCH	RB1#0	3.9	13	PASS
				RB1#25	3.93	13	PASS
				RB1#49	4.45	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB25#0	4.95	13	PASS
				RB25#13	5.02	13	PASS
				RB25#25	5.42	13	PASS
				RB50#0	6.06	13	PASS
			MCH	RB1#0	4.39	13	PASS
				RB1#25	4.1	13	PASS
				RB1#49	4.12	13	PASS
				RB25#0	5.03	13	PASS
				RB25#13	4.83	13	PASS
				RB25#25	4.94	13	PASS
				RB50#0	5.5	13	PASS
			HCH	RB1#0	4.42	13	PASS
				RB1#25	4.01	13	PASS
				RB1#49	3.84	13	PASS
				RB25#0	5.51	13	PASS
				RB25#13	5.22	13	PASS
				RB25#25	5.32	13	PASS
				RB50#0	6.22	13	PASS
		15	LCH	RB1#0	3.84	13	PASS
				RB1#38	4.17	13	PASS
				RB1#74	5	13	PASS
				RB36#0	5.15	13	PASS
				RB36#18	5.23	13	PASS
				RB36#39	5.72	13	PASS
				RB75#0	6.1	13	PASS
			MCH	RB1#0	4.11	13	PASS
				RB1#38	3.59	13	PASS
				RB1#74	3.78	13	PASS
				RB36#0	5.35	13	PASS
				RB36#18	5.06	13	PASS
				RB36#39	5.16	13	PASS
				RB75#0	5.96	13	PASS
			HCH	RB1#0	4.54	13	PASS
				RB1#38	4.29	13	PASS
				RB1#74	3.79	13	PASS
				RB36#0	5.57	13	PASS
				RB36#18	5.39	13	PASS
				RB36#39	5.38	13	PASS
				RB75#0	6.05	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
		20	LCH	RB1#0	3.78	13	PASS
				RB1#50	4.37	13	PASS
				RB1#99	4.84	13	PASS
				RB50#0	5.3	13	PASS
				RB50#25	5.4	13	PASS
				RB50#50	5.78	13	PASS
				RB100#0	6.02	13	PASS
			MCH	RB1#0	4.62	13	PASS
				RB1#50	4.28	13	PASS
				RB1#99	4.5	13	PASS
				RB50#0	5.27	13	PASS
				RB50#25	5.04	13	PASS
				RB50#50	5.2	13	PASS
				RB100#0	5.82	13	PASS
			HCH	RB1#0	4.77	13	PASS
				RB1#50	4.54	13	PASS
				RB1#99	4.25	13	PASS
				RB50#0	5.74	13	PASS
				RB50#25	5.6	13	PASS
				RB50#50	5.61	13	PASS
				RB100#0	6.29	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

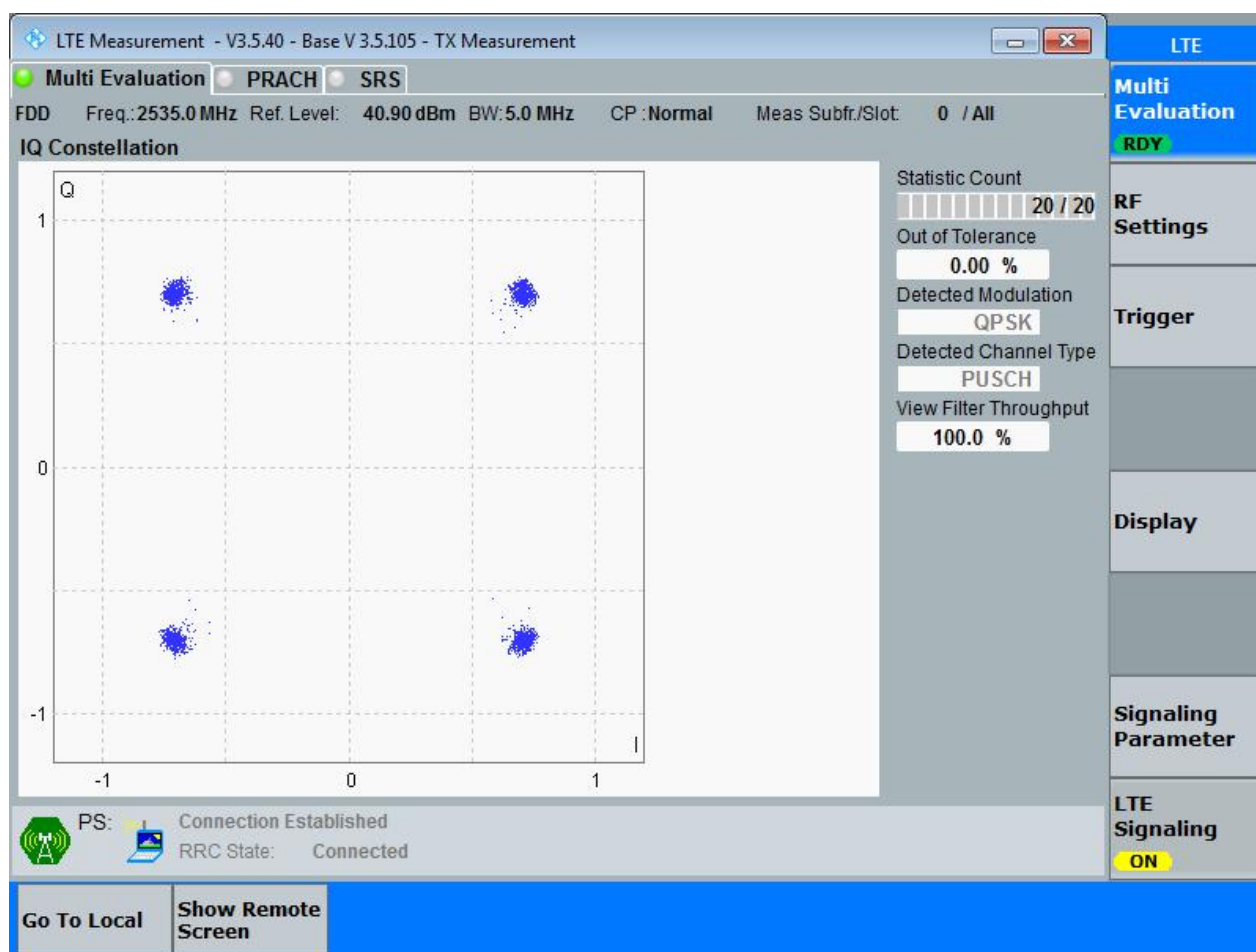
3.1.1 Test Band = BAND7

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

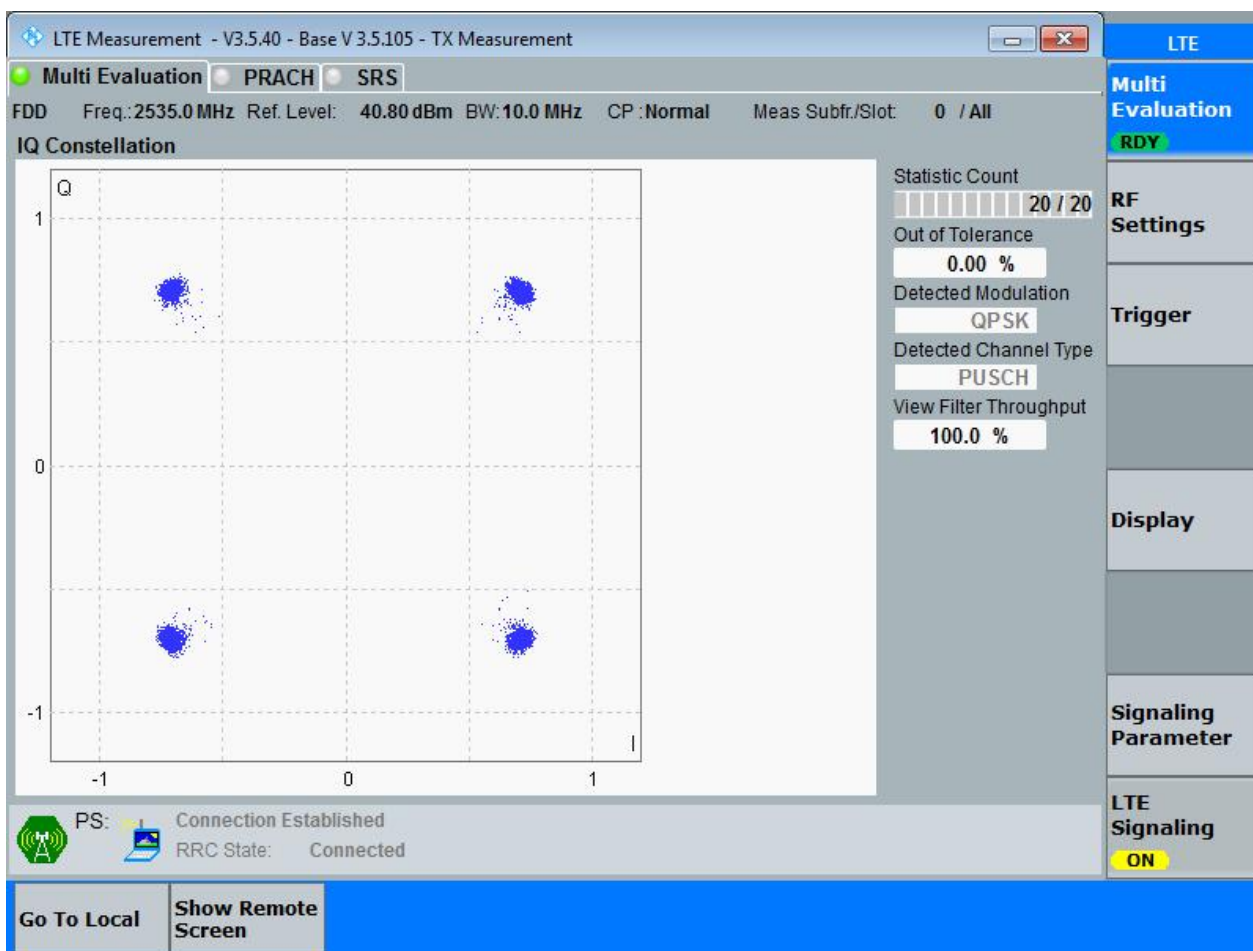
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

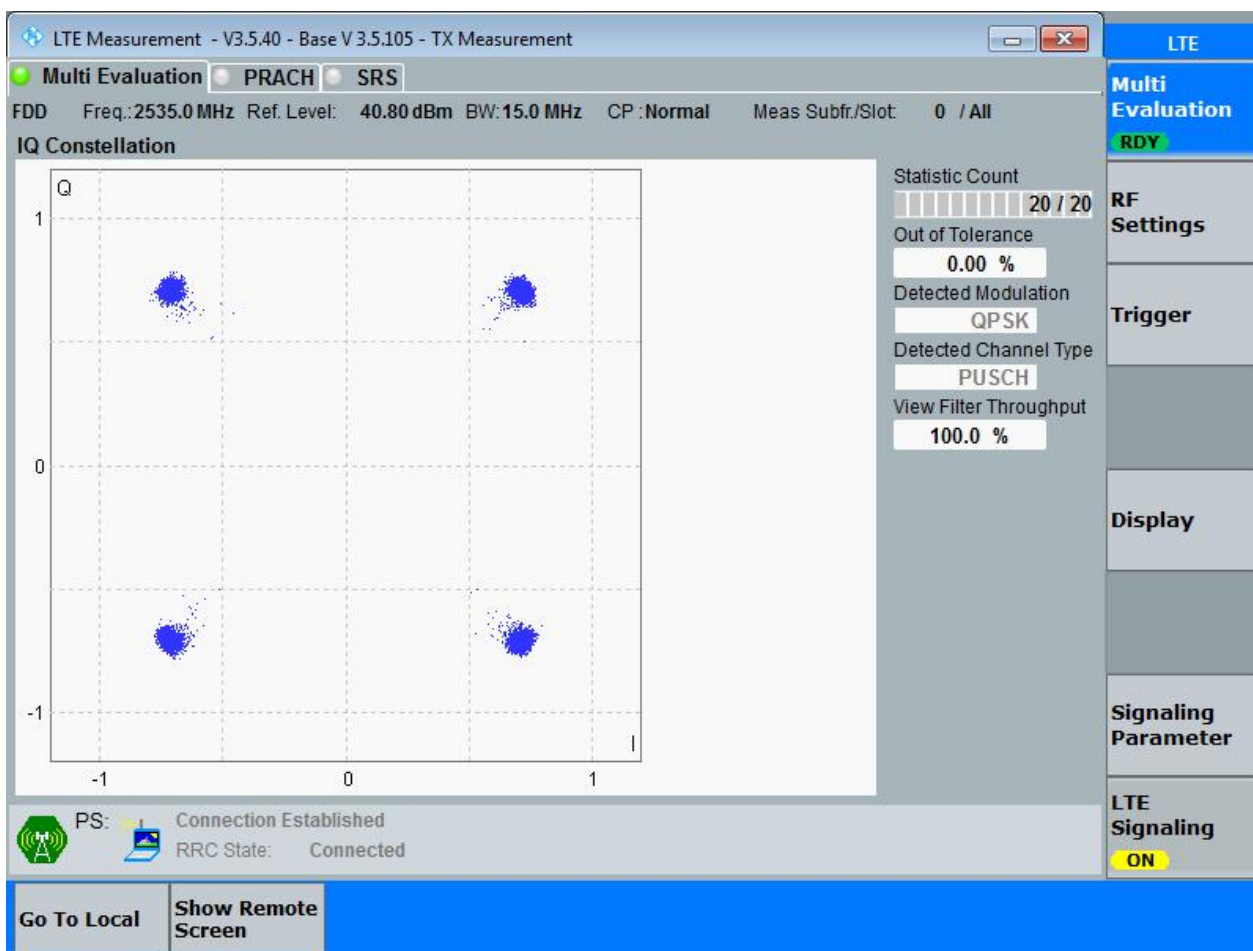
3.1.1.1.2.1.1 Test RB = RB50#0



3.1.1.1.3 Test Bandwidth = 15

3.1.1.1.3.1 Test Channel = MCH

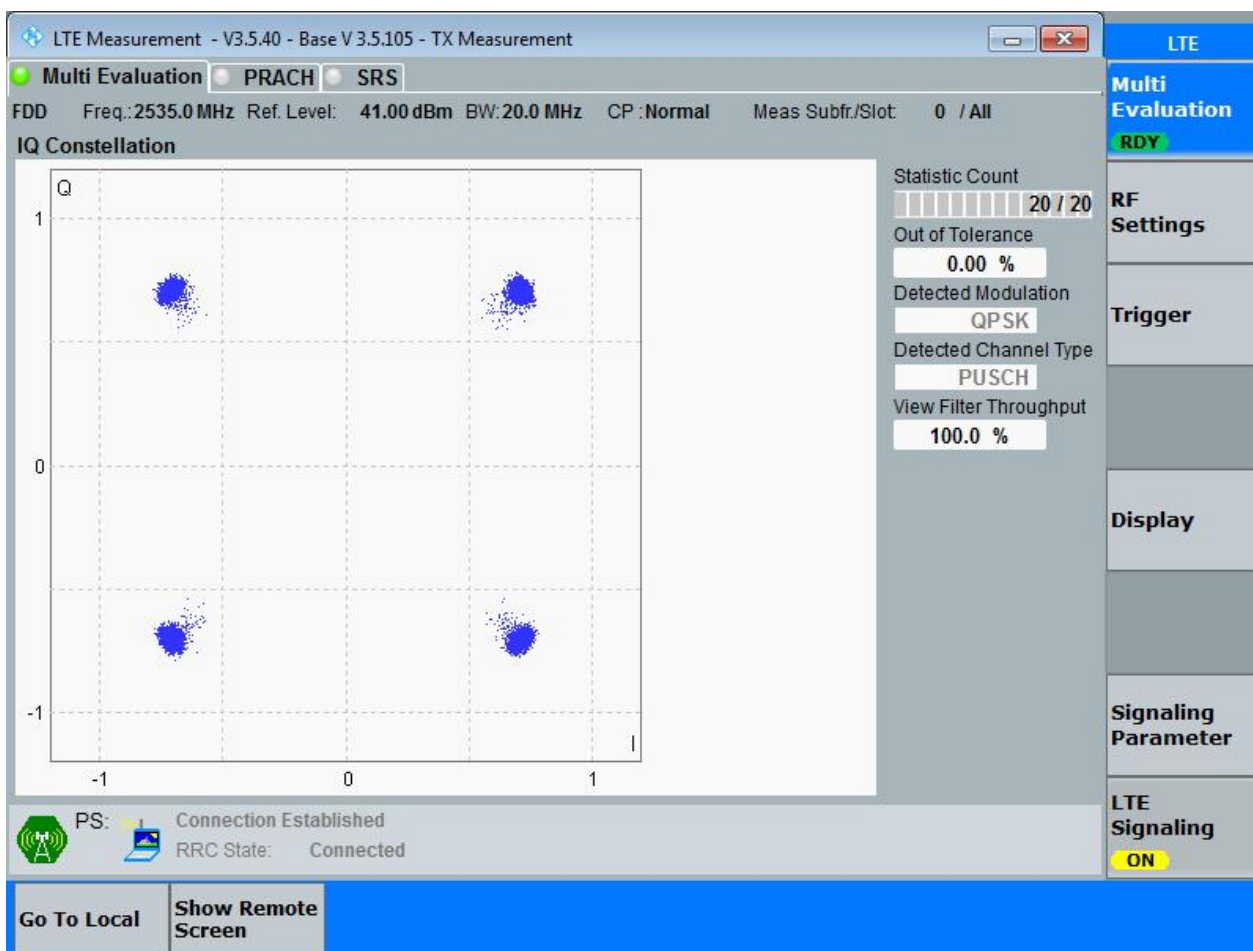
3.1.1.1.3.1.1 Test RB = RB75#0



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

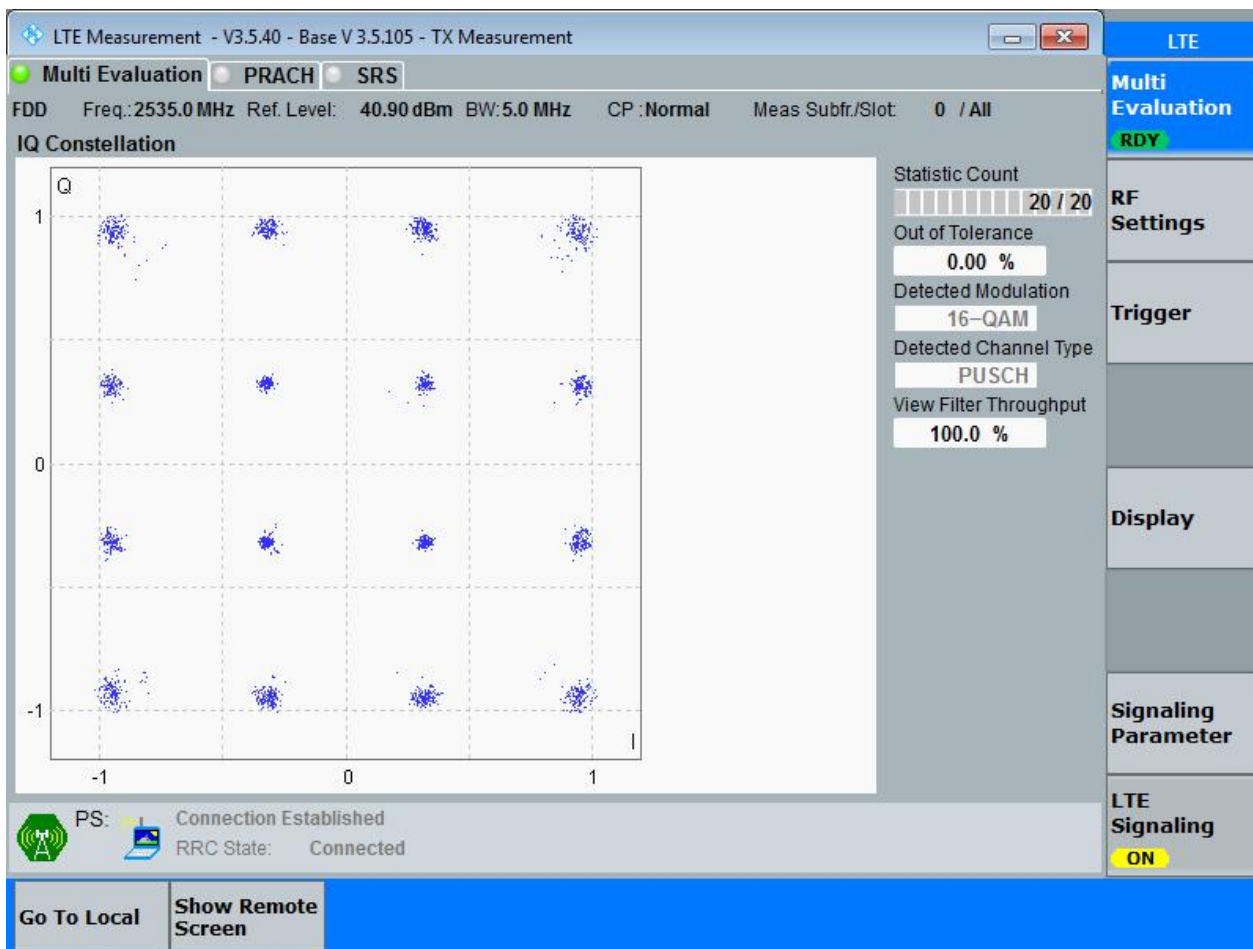


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

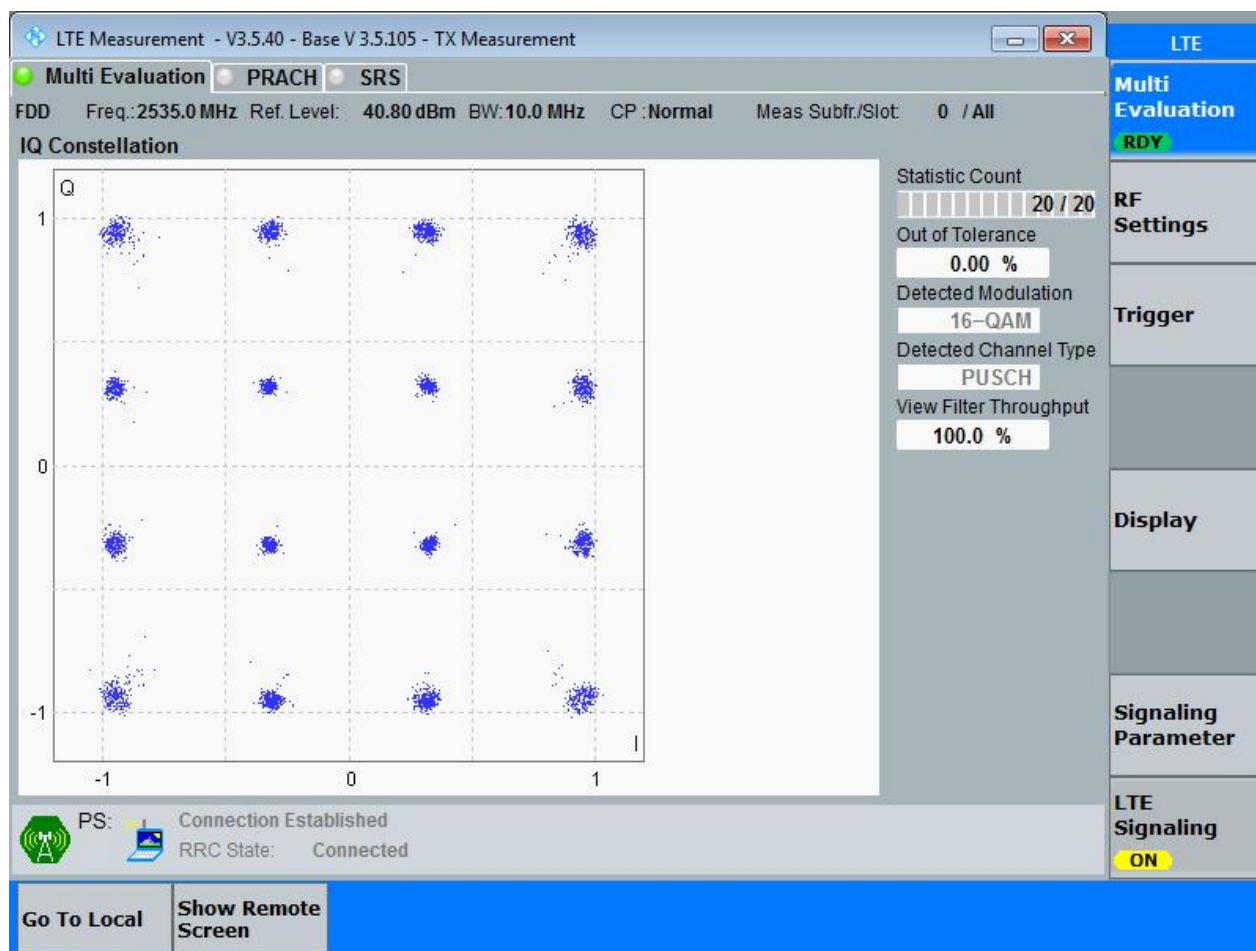
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

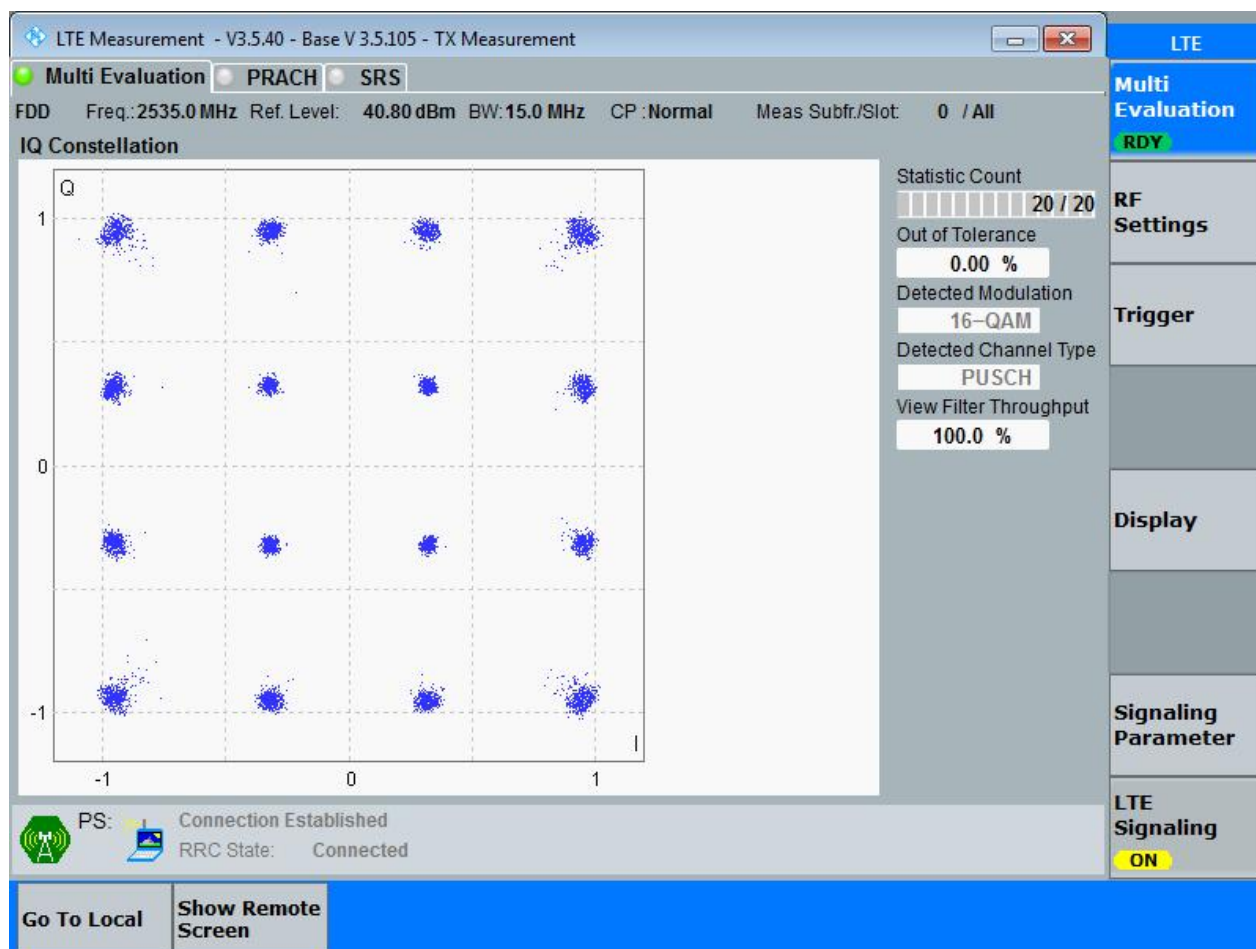
3.1.1.2.2.1.1 Test RB = RB50#0



3.1.1.2.3 Test Bandwidth = 15

3.1.1.2.3.1 Test Channel = MCH

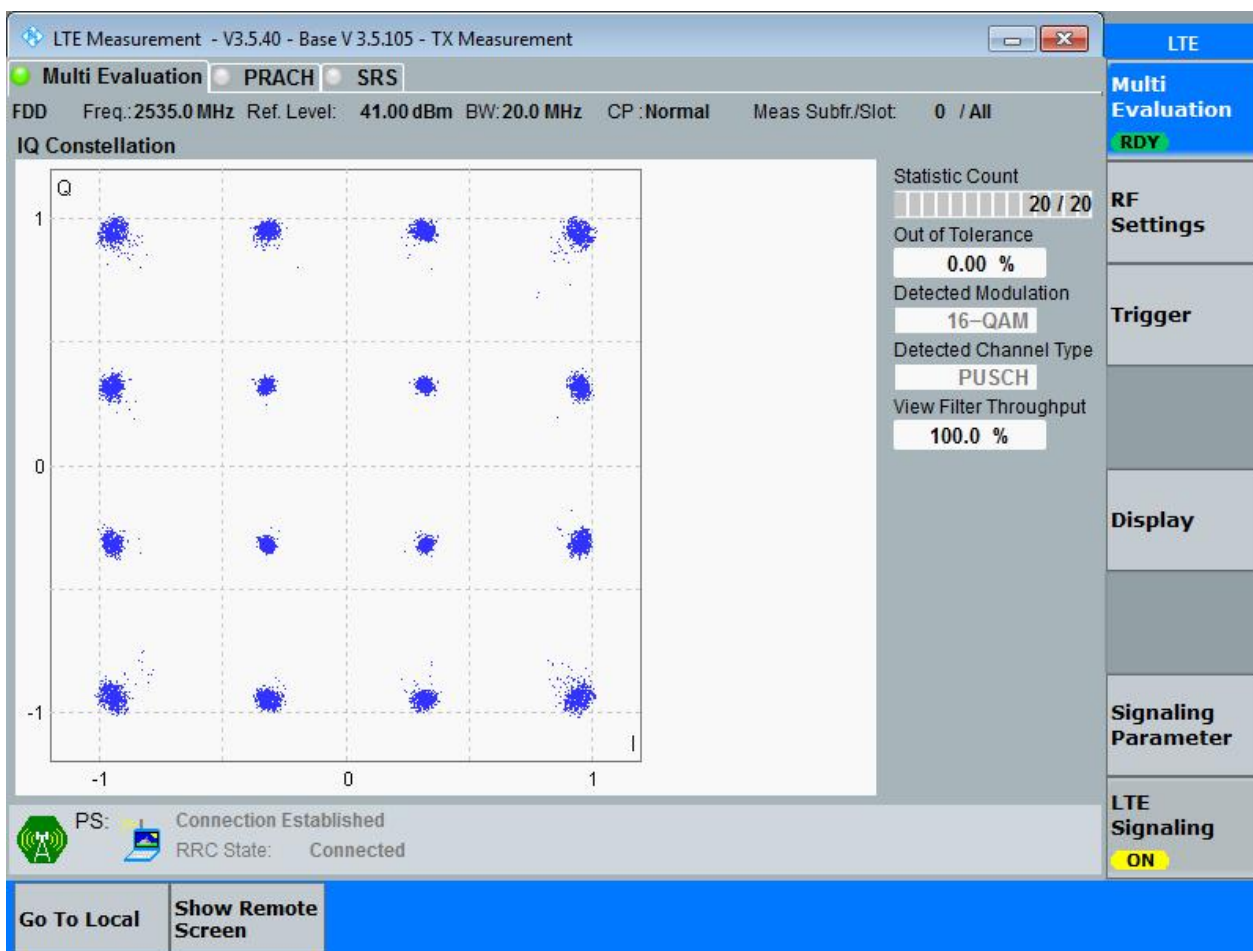
3.1.1.2.3.1.1 Test RB = RB75#0



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	5.03	Pass
			MCH	RB25#0	4.50	5.03	Pass
			HCH	RB25#0	4.50	5.02	Pass
		10	LCH	RB50#0	8.99	9.92	Pass
			MCH	RB50#0	8.96	9.92	Pass
			HCH	RB50#0	8.98	9.86	Pass
		15	LCH	RB75#0	13.47	14.83	Pass
			MCH	RB75#0	13.45	14.77	Pass
			HCH	RB75#0	13.44	14.74	Pass
		20	LCH	RB100#0	17.94	19.44	Pass
			MCH	RB100#0	17.89	19.58	Pass
			HCH	RB100#0	17.91	19.43	Pass
	LTE/TM2	5	LCH	RB25#0	4.51	5.06	Pass
			MCH	RB25#0	4.50	4.99	Pass
			HCH	RB25#0	4.50	5.02	Pass
		10	LCH	RB50#0	8.97	9.95	Pass
			MCH	RB50#0	9.00	9.91	Pass
			HCH	RB50#0	8.97	9.94	Pass
		15	LCH	RB75#0	13.46	14.77	Pass
			MCH	RB75#0	13.42	14.73	Pass
			HCH	RB75#0	13.42	14.75	Pass
		20	LCH	RB100#0	17.93	19.49	Pass
			MCH	RB100#0	17.87	19.49	Pass
			HCH	RB100#0	17.88	19.50	Pass



Part II - Test Plots

4.1 For LTE

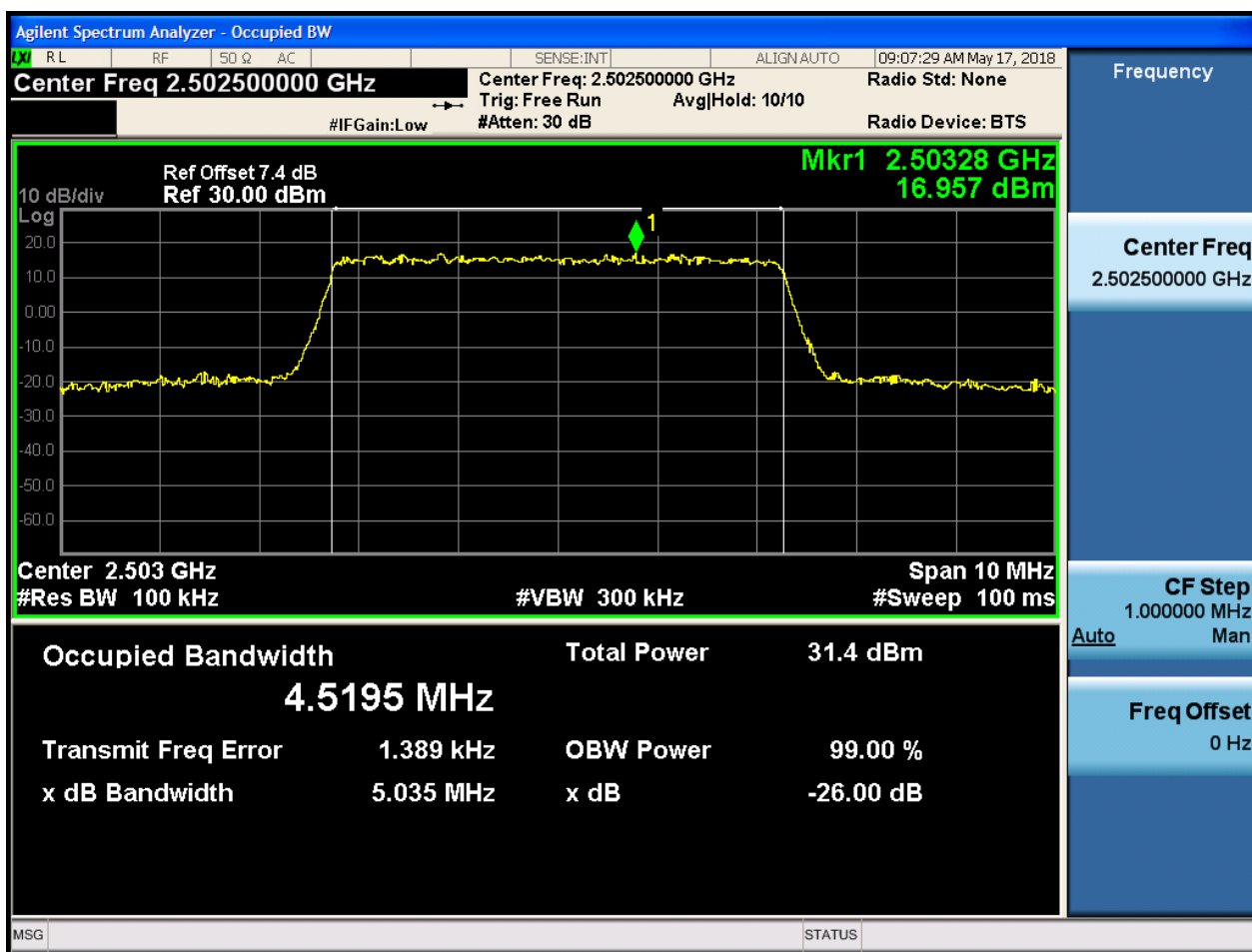
4.1.1 Test Band = BAND7

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

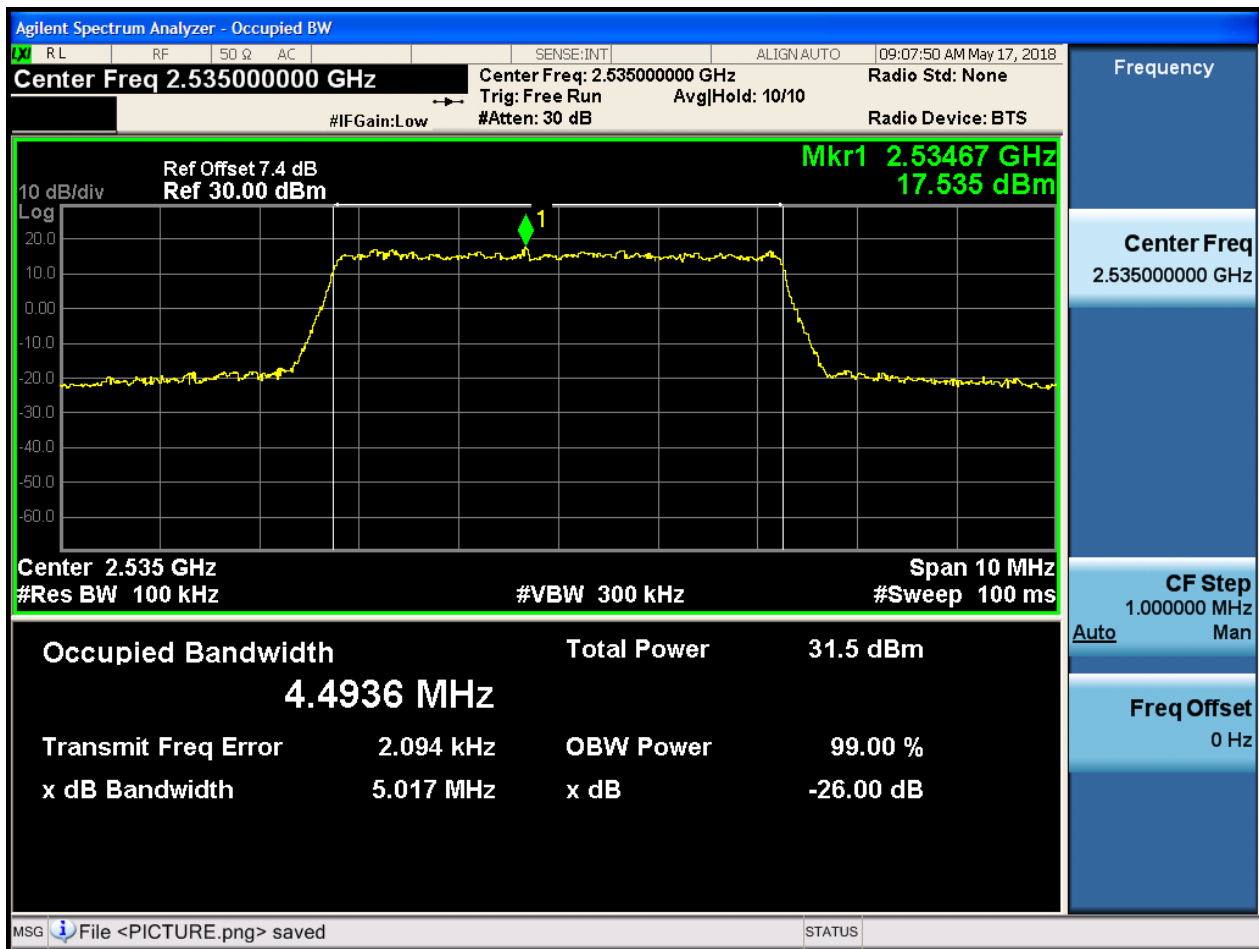
4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 Test RB = RB25#0



4.1.1.1.1.2 Test Channel = MCH

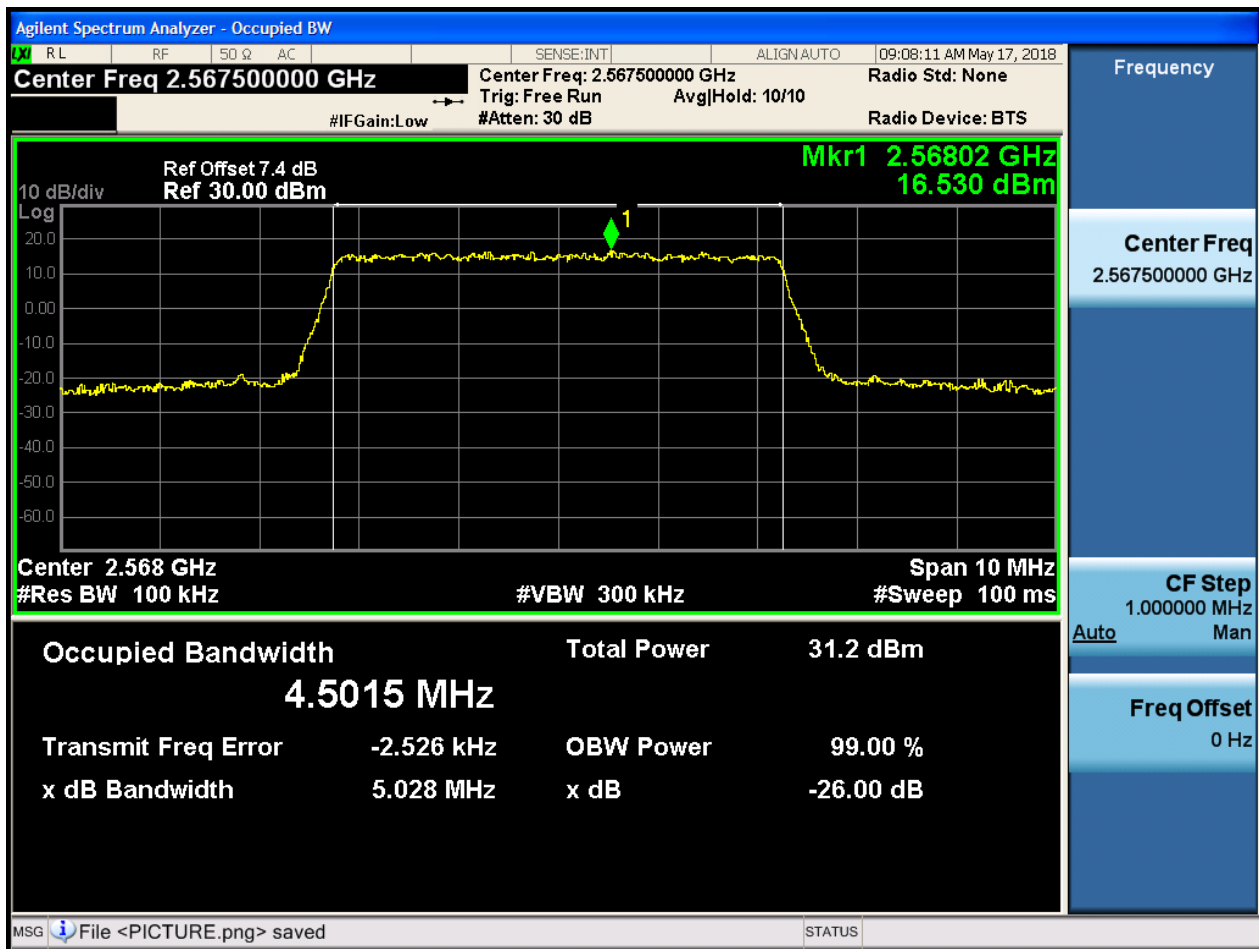
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

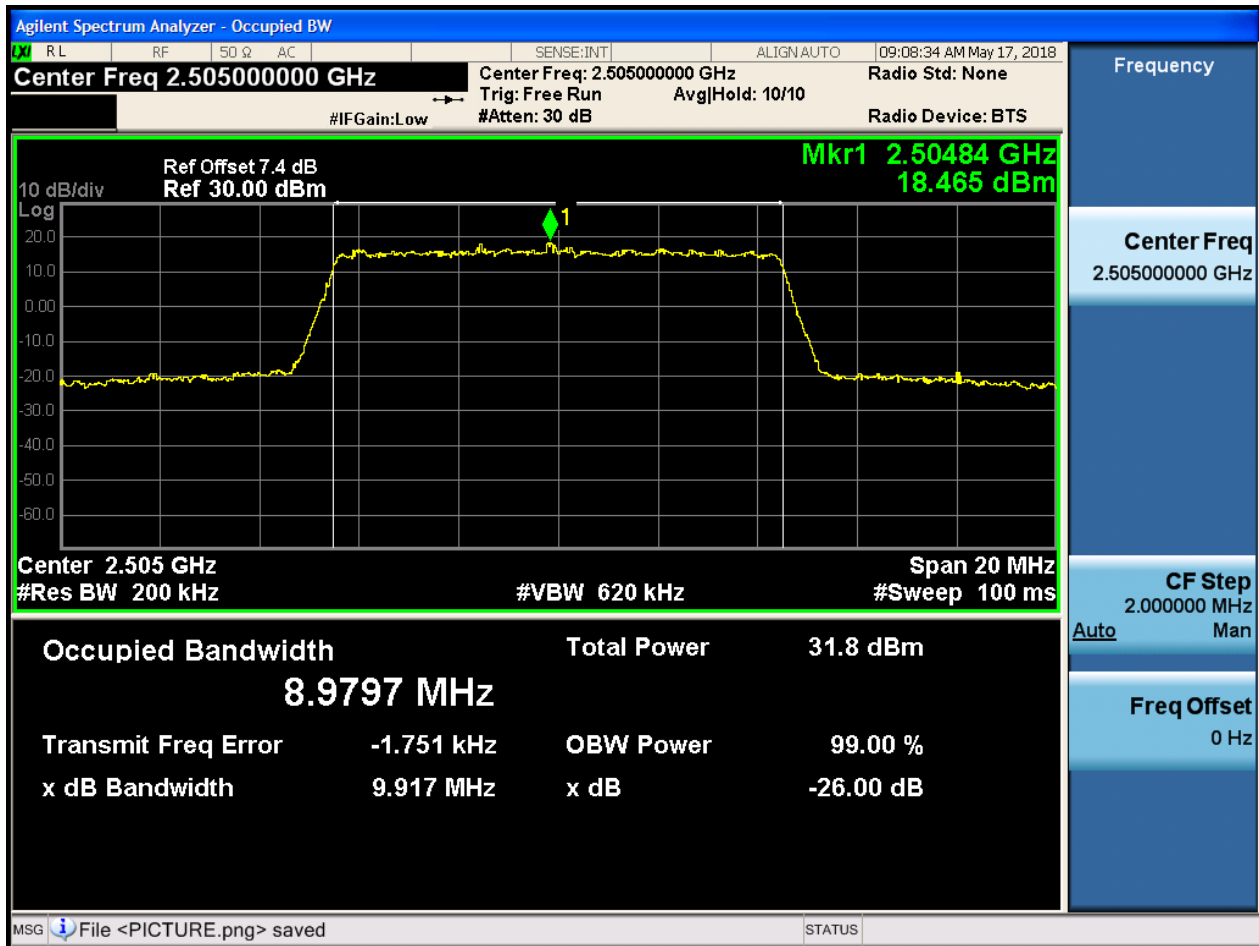




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

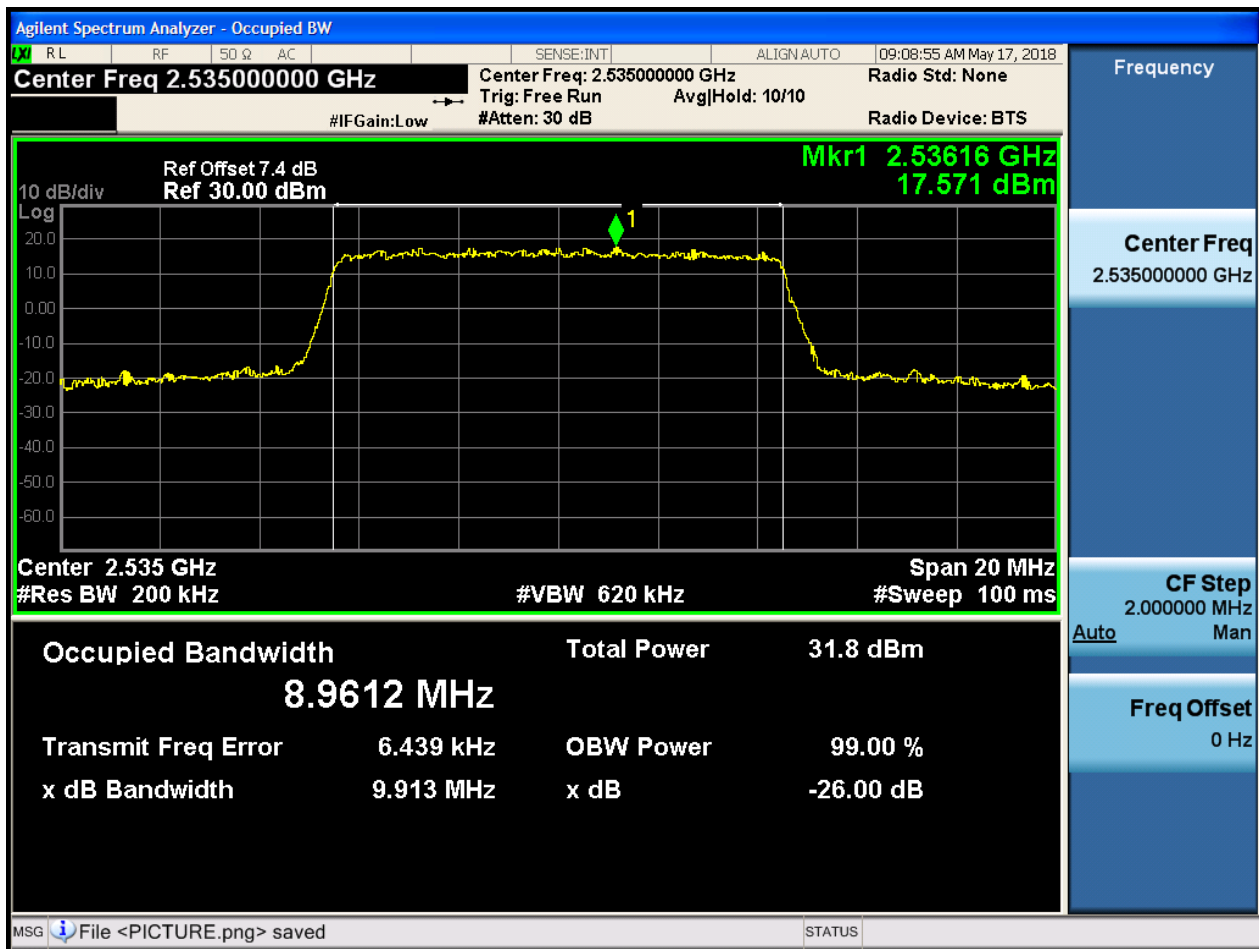
4.1.1.1.2.1.1 Test RB = RB50#0





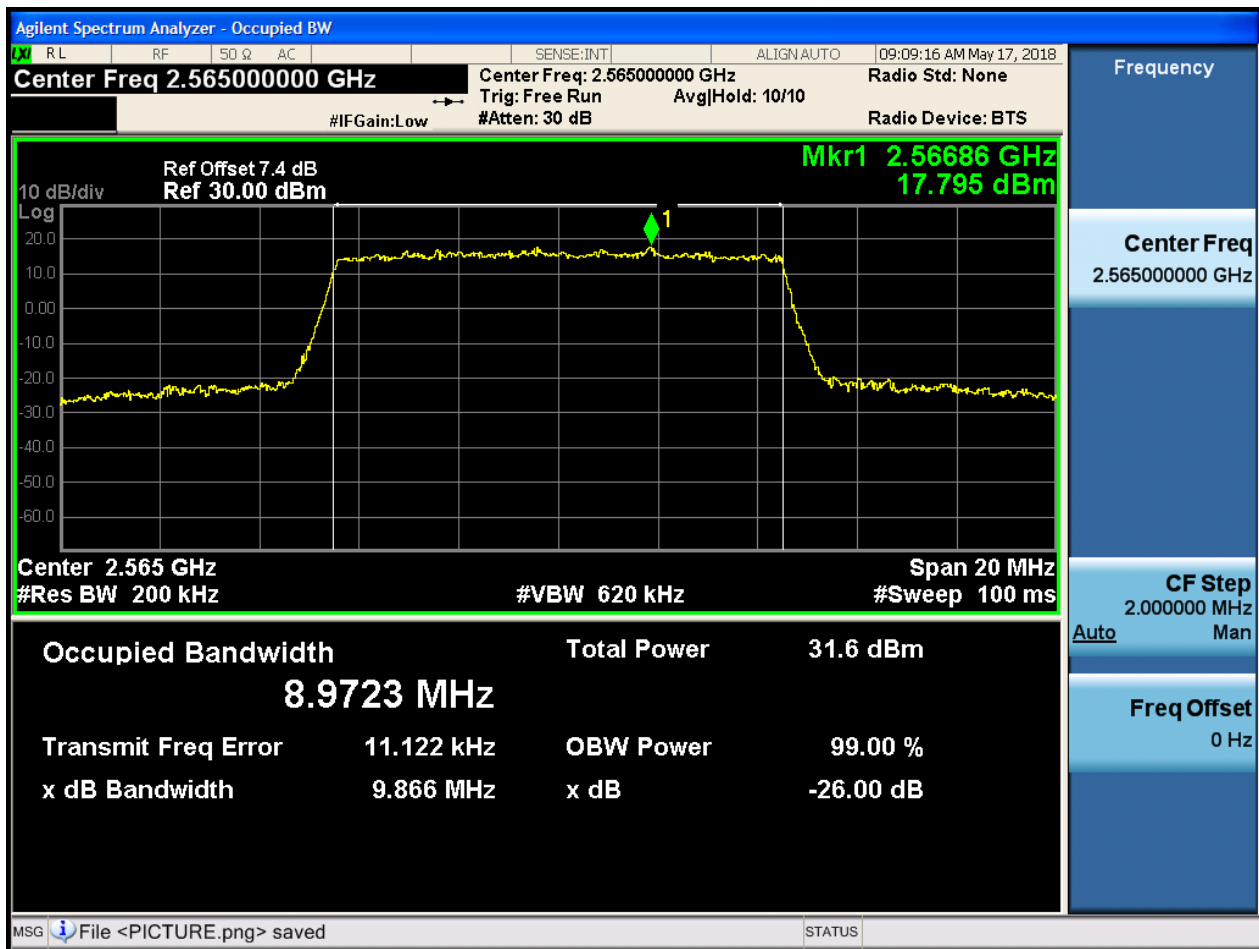
4.1.1.1.2.2 Test Channel = MCH

4.1.1.1.2.2.1 Test RB = RB50#0



4.1.1.1.2.3 Test Channel = HCH

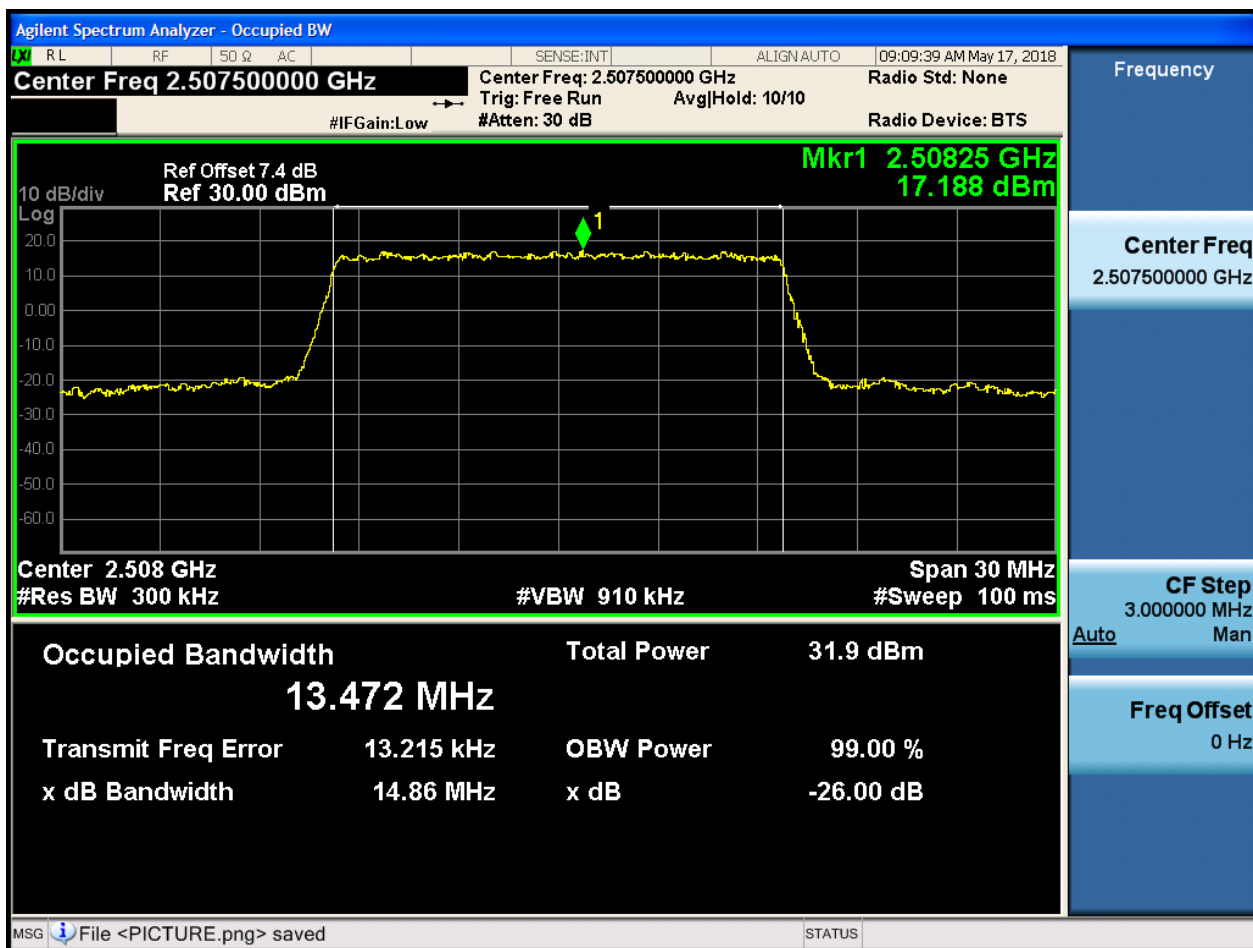
4.1.1.1.2.3.1 Test RB = RB50#0



4.1.1.1.3 Test Bandwidth = 15

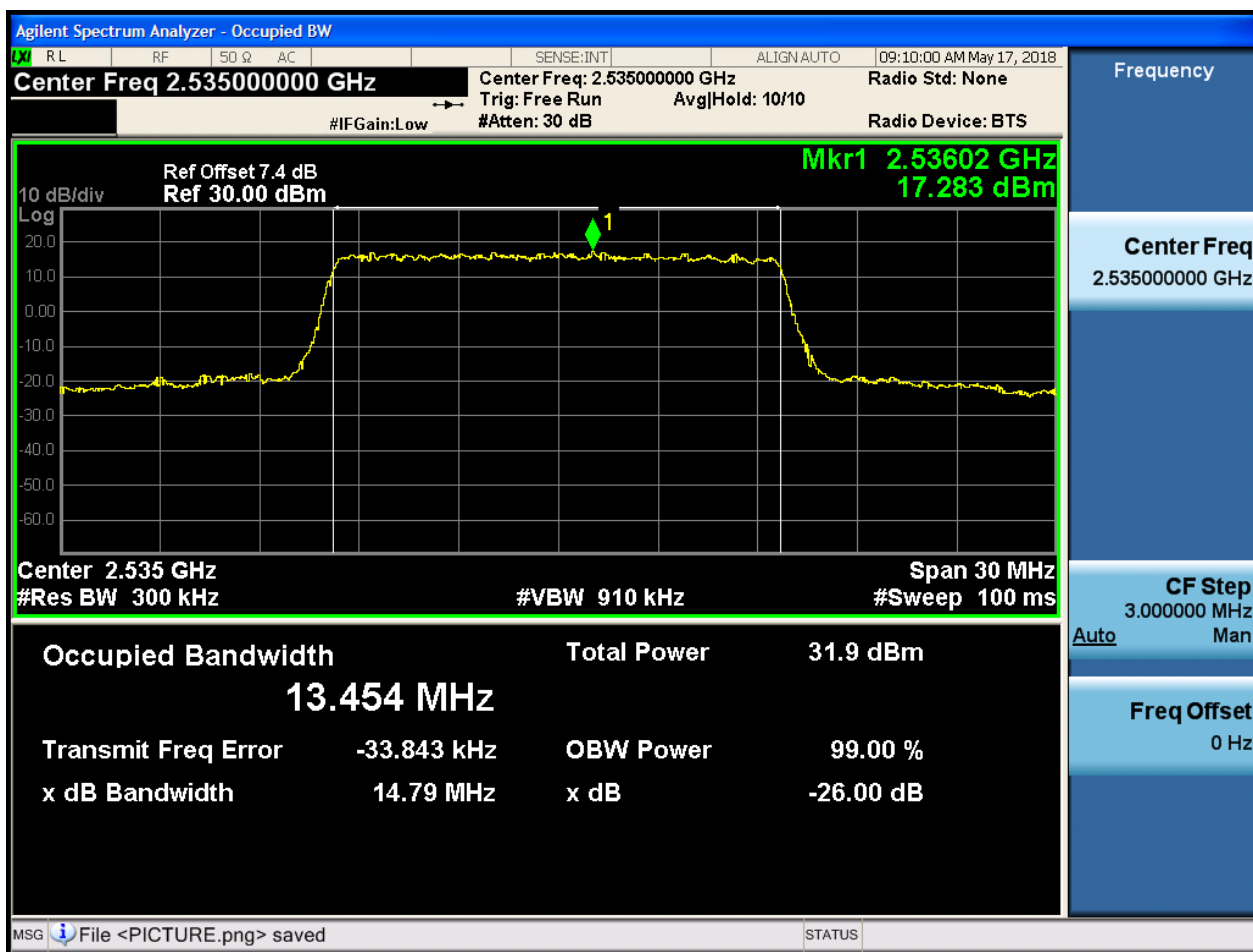
4.1.1.1.3.1 Test Channel = LCH

4.1.1.1.3.1.1 Test RB = RB75#0



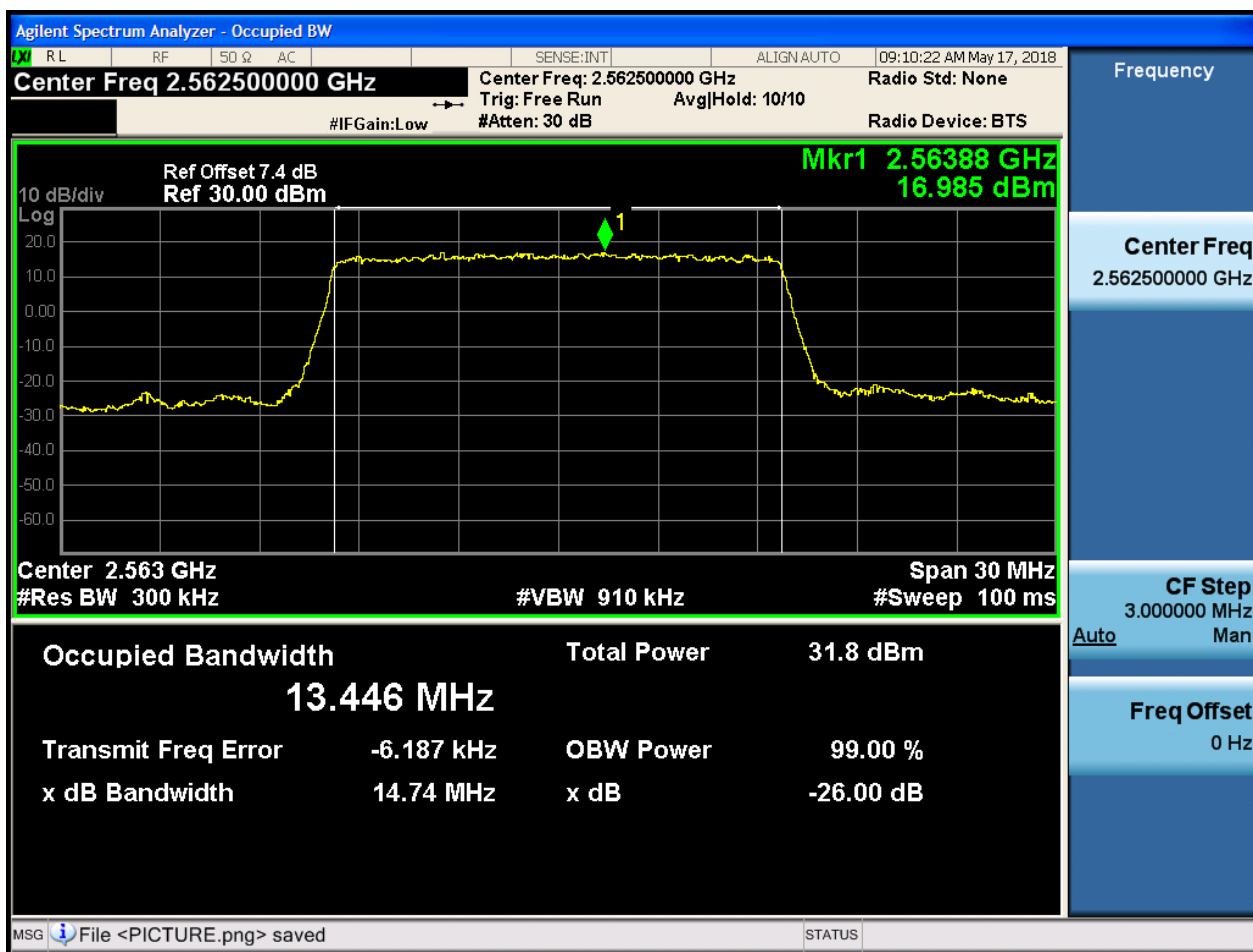
4.1.1.1.3.2 Test Channel = MCH

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

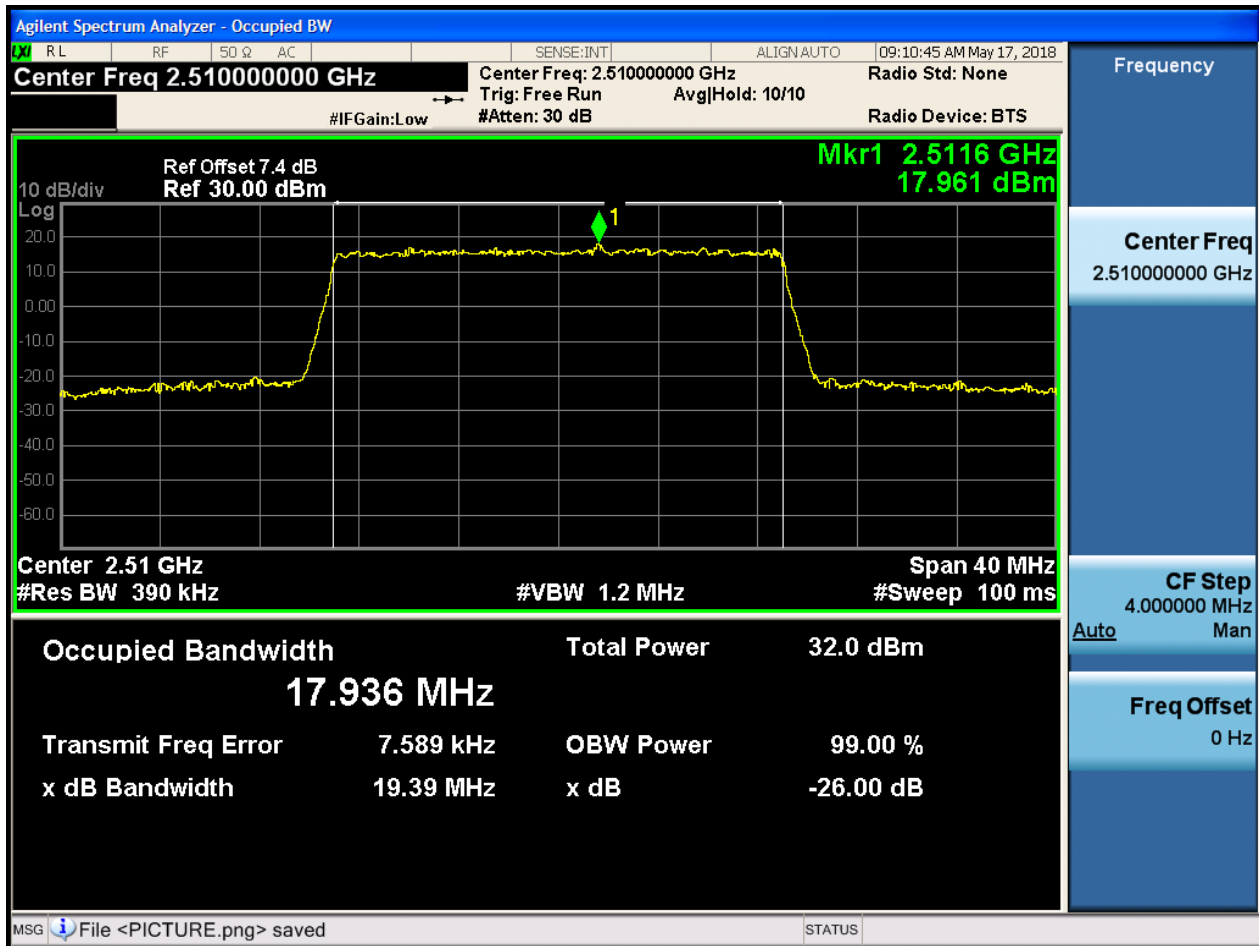




4.1.1.1.4 Test Bandwidth = 20

4.1.1.1.4.1 Test Channel = LCH

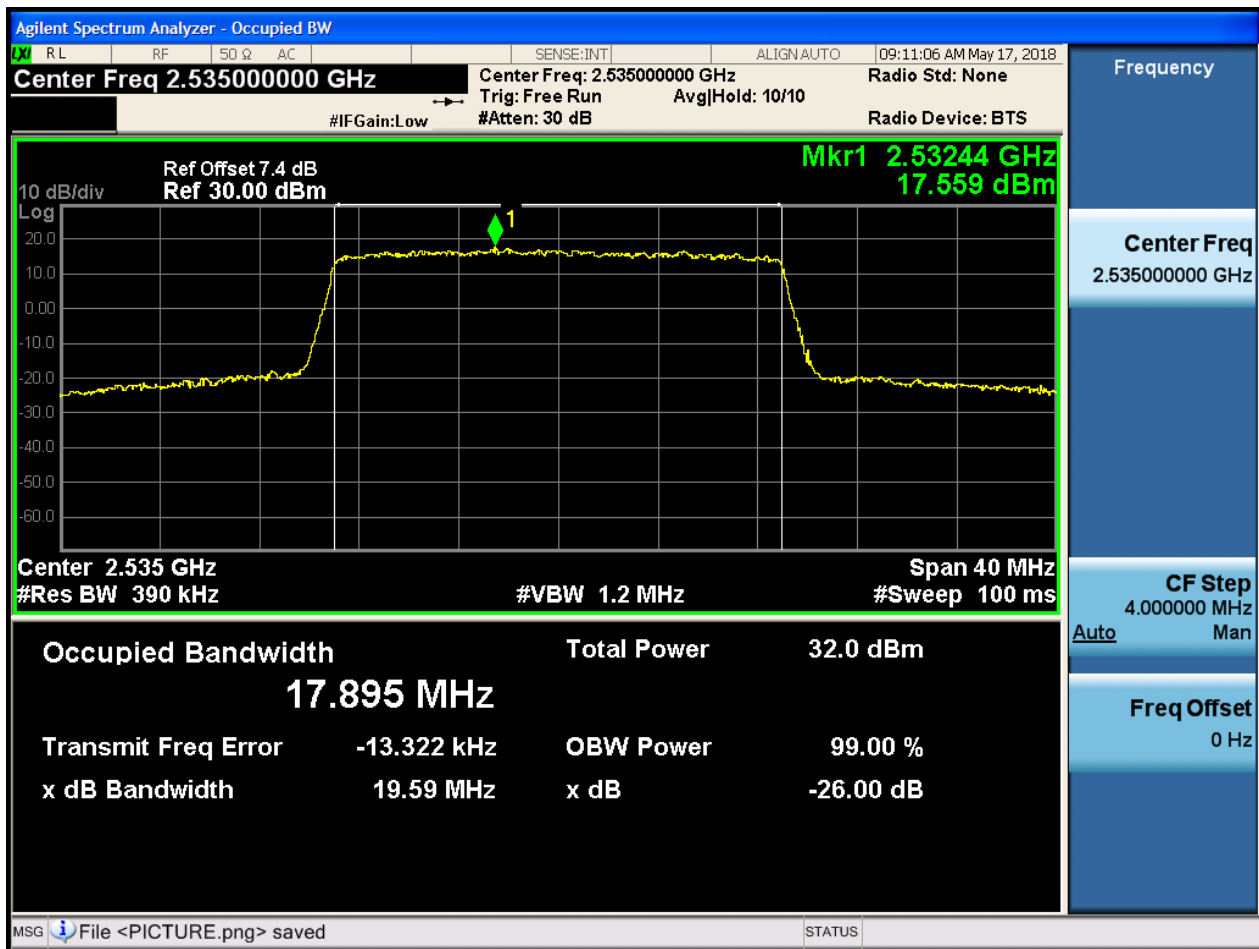
4.1.1.1.4.1.1 Test RB = RB100#0





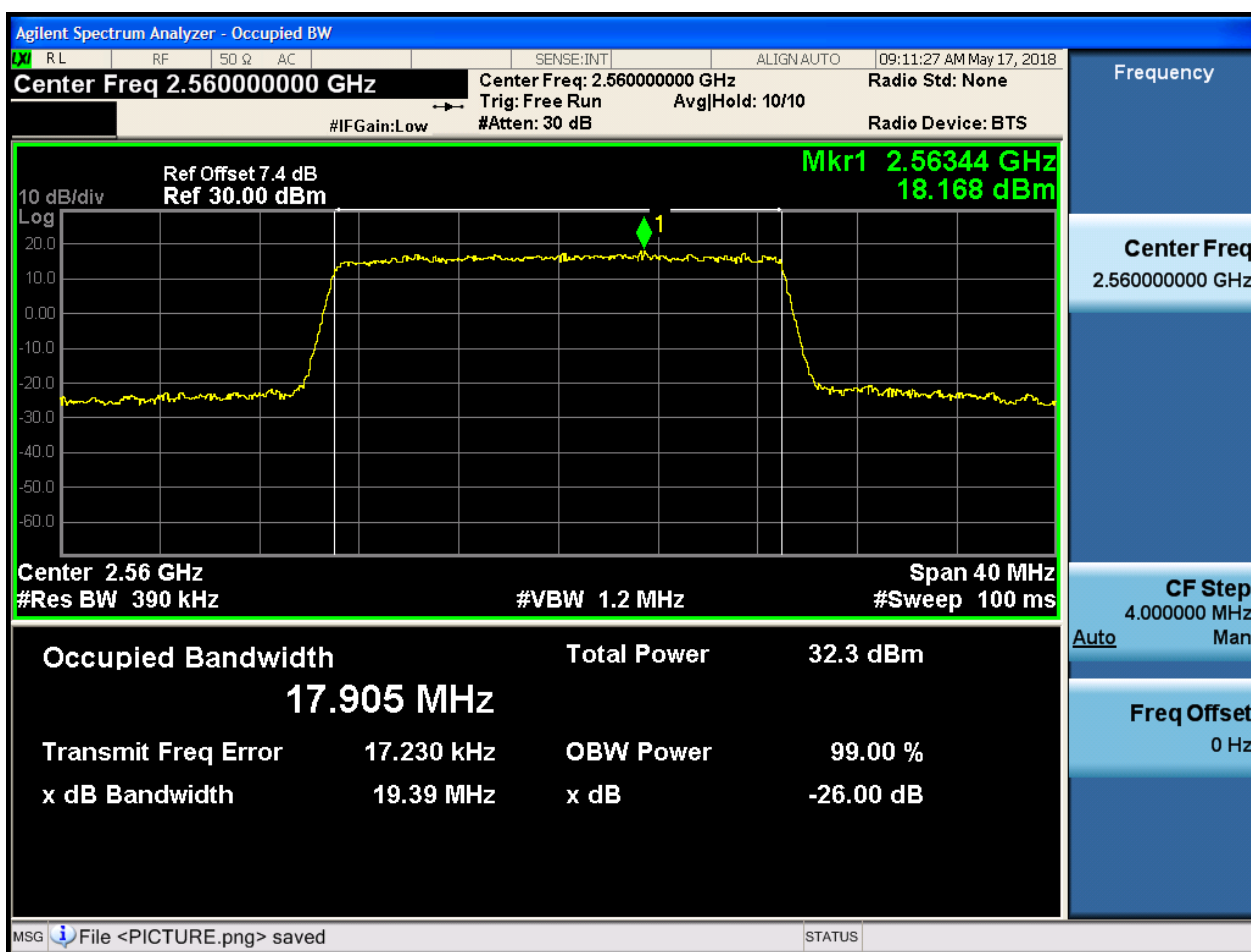
4.1.1.1.4.2 Test Channel = MCH

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

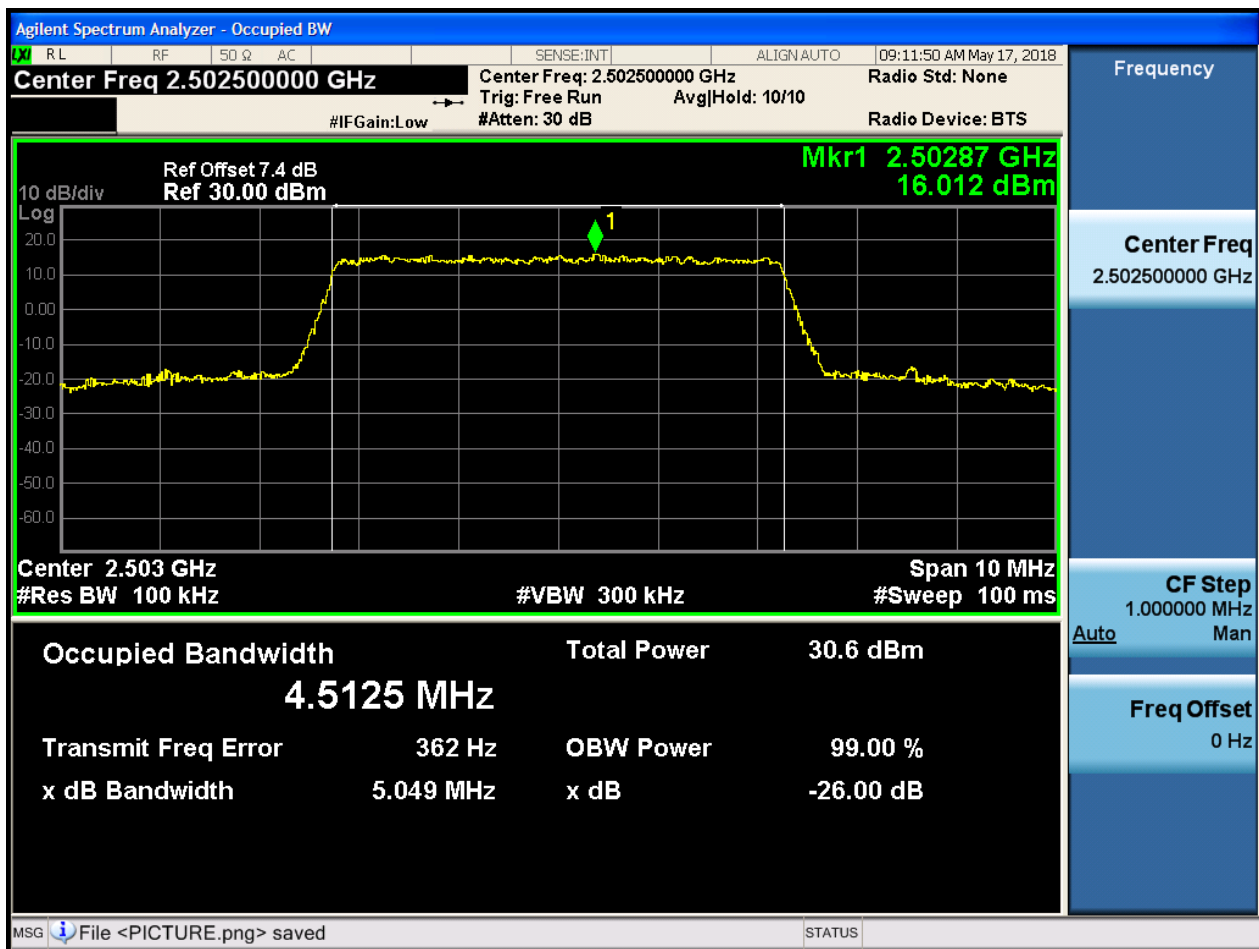


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

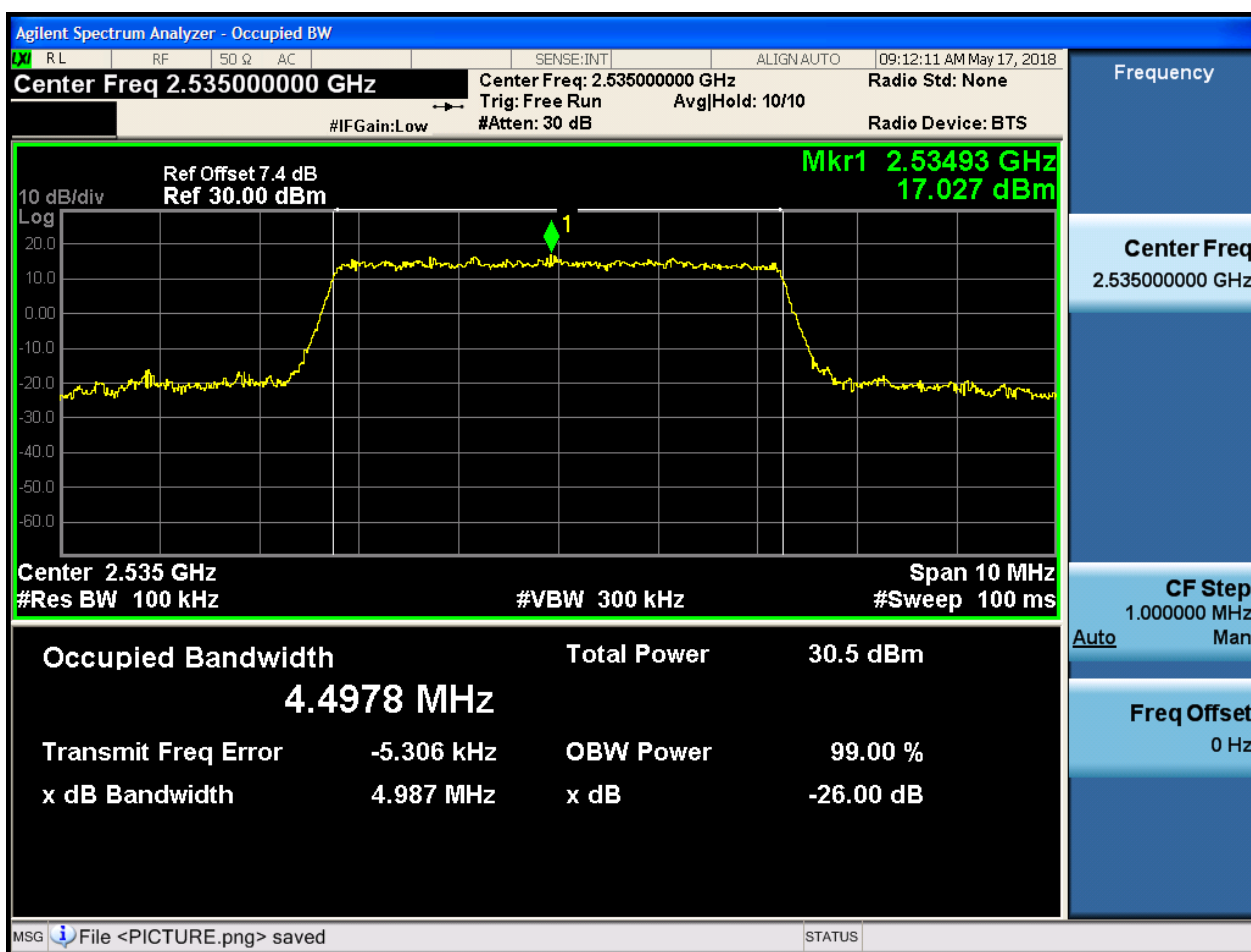
4.1.1.2.1.1 Test Channel = LCH

4.1.1.2.1.1.1 Test RB = RB25#0



4.1.1.2.1.2 Test Channel = MCH

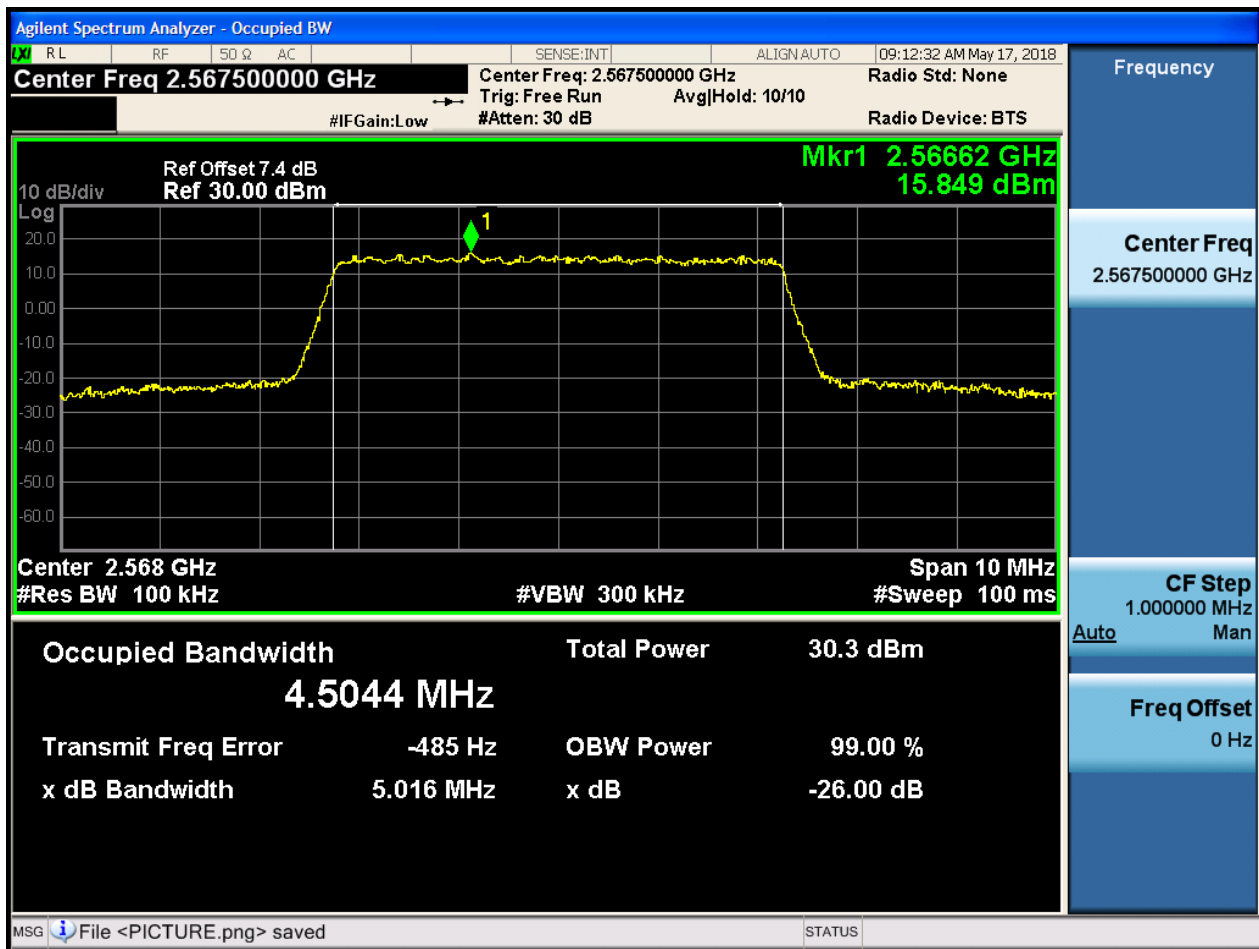
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

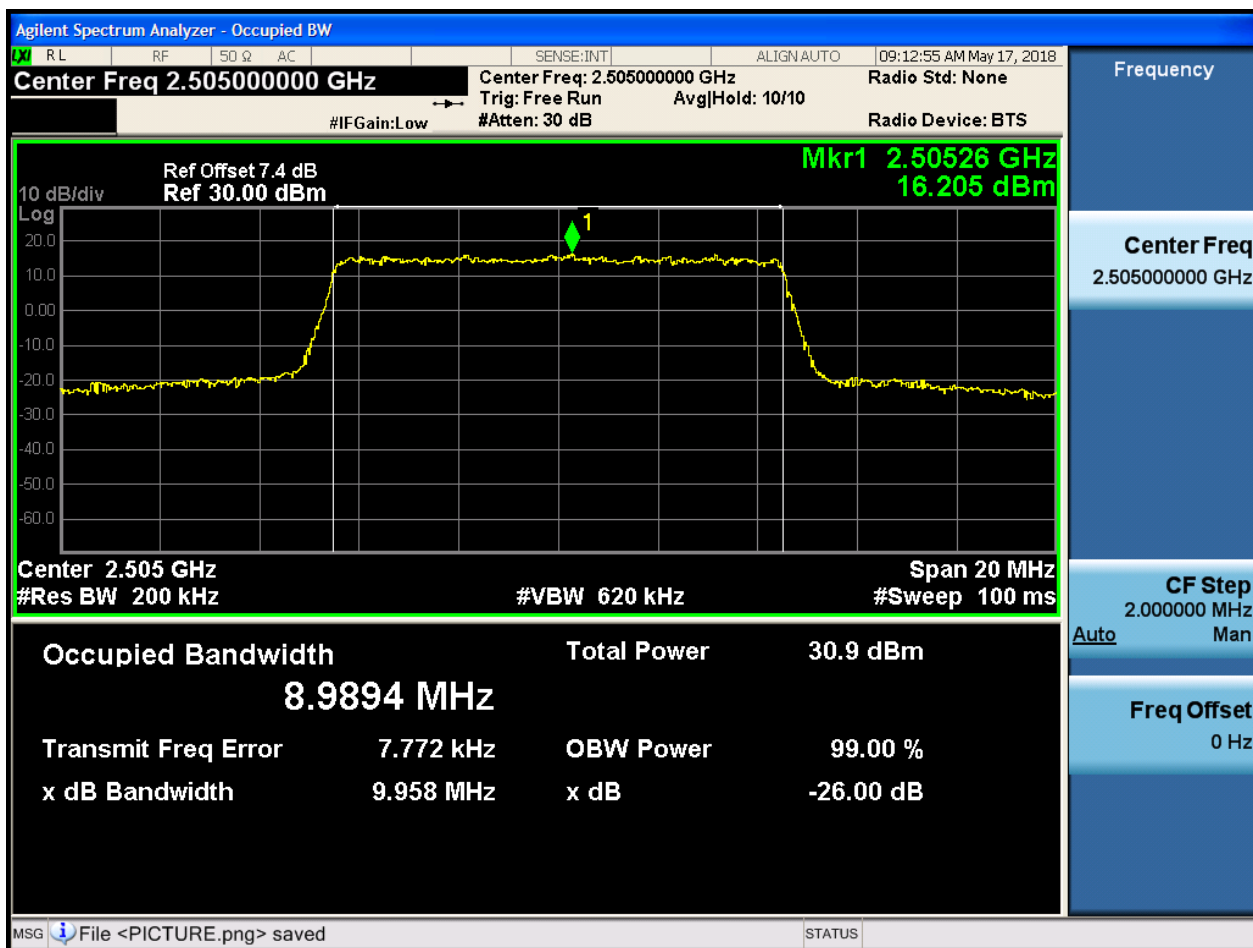
4.1.1.2.1.3.1 Test RB = RB25#0



4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

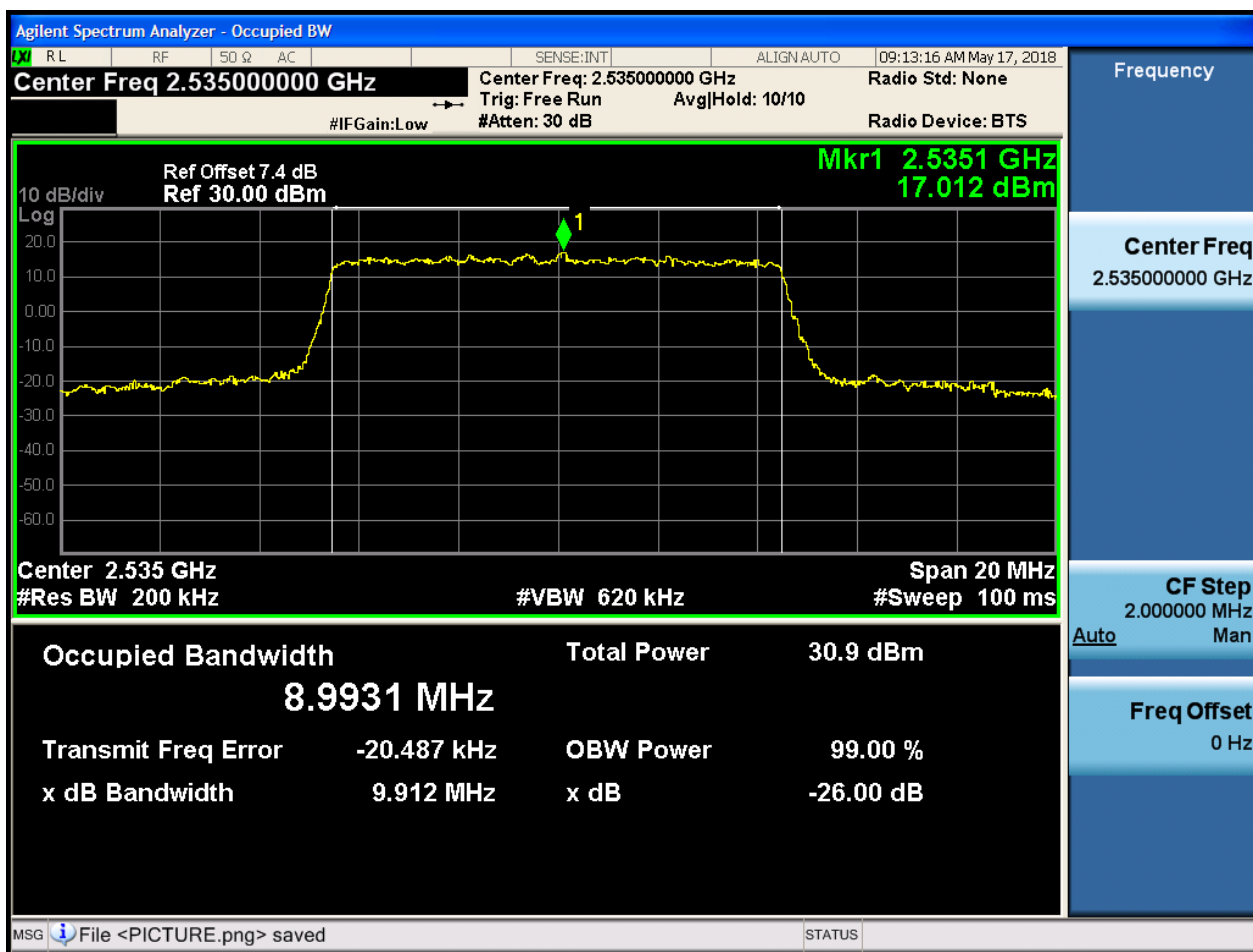
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

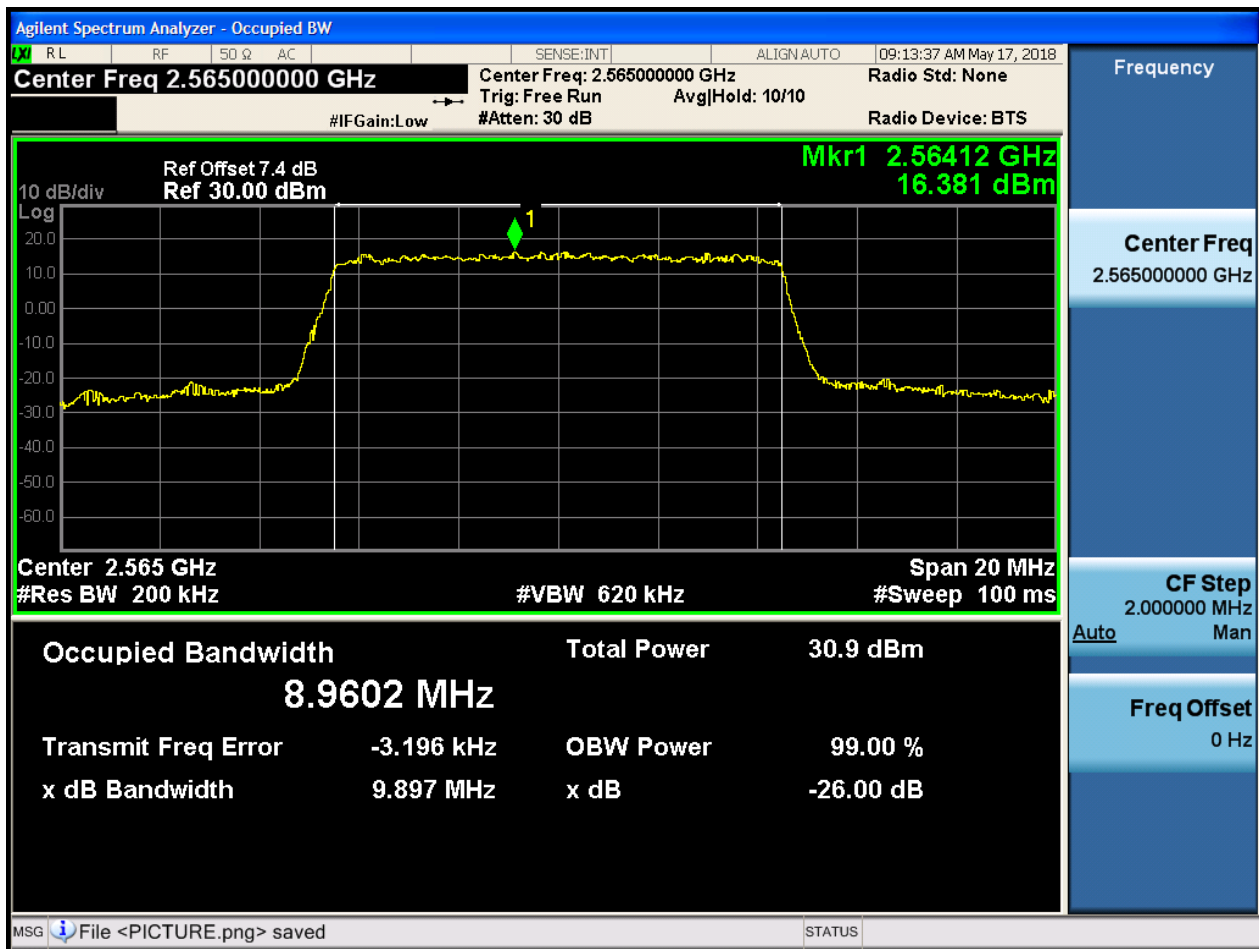
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0

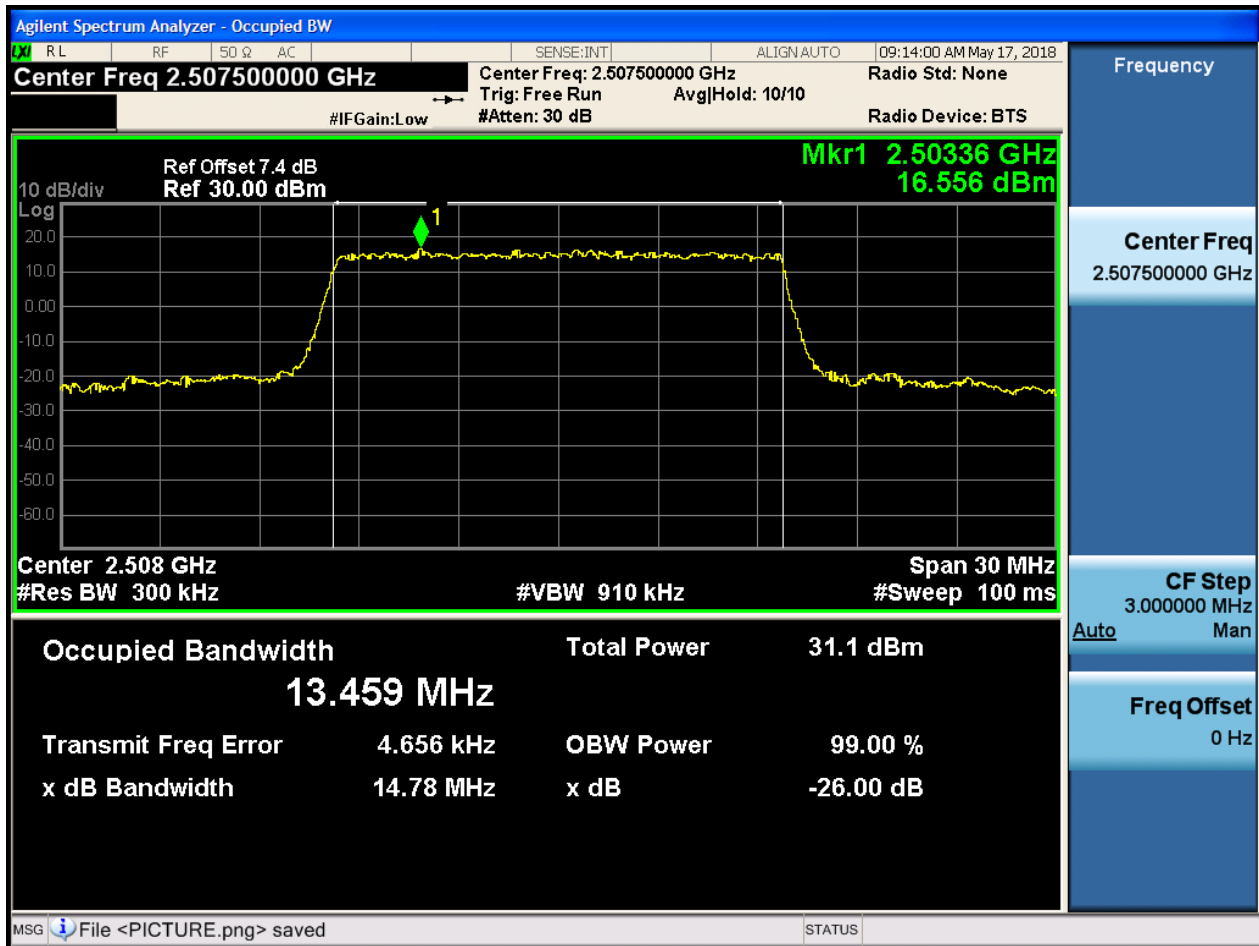




4.1.1.2.3 Test Bandwidth = 15

4.1.1.2.3.1 Test Channel = LCH

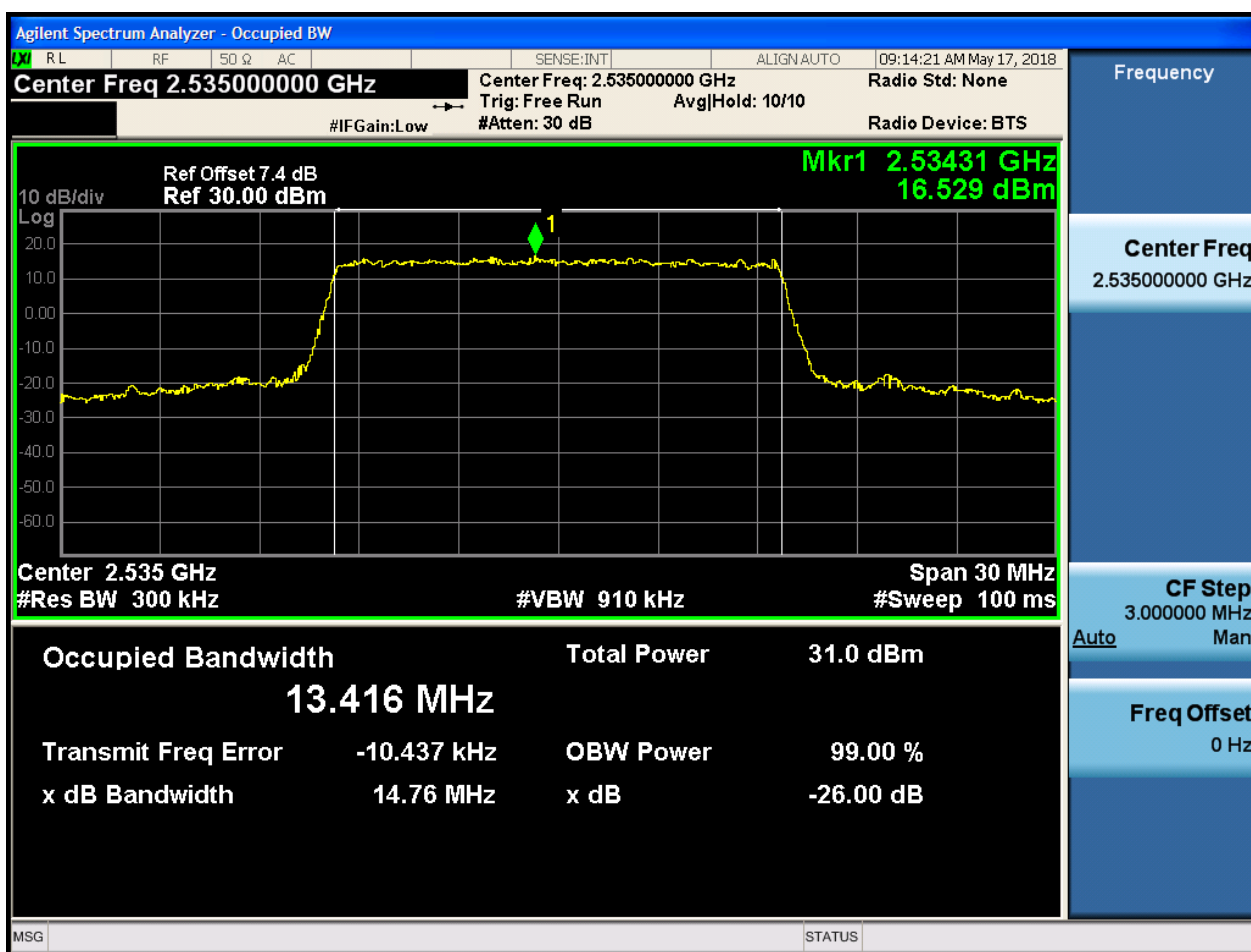
4.1.1.2.3.1.1 Test RB = RB75#0





4.1.1.2.3.2 Test Channel = MCH

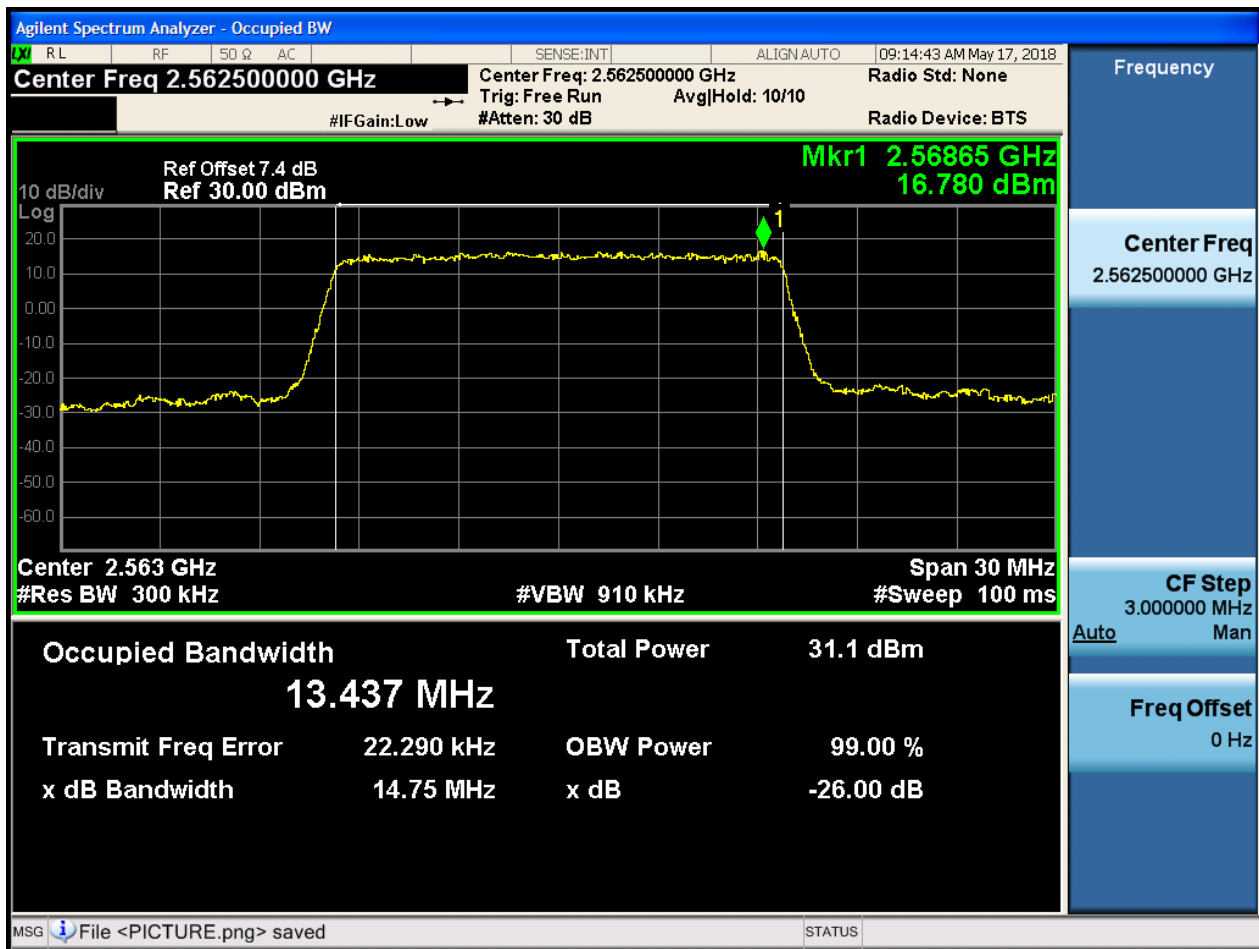
4.1.1.2.3.2.1 Test RB = RB75#0





4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB75#0

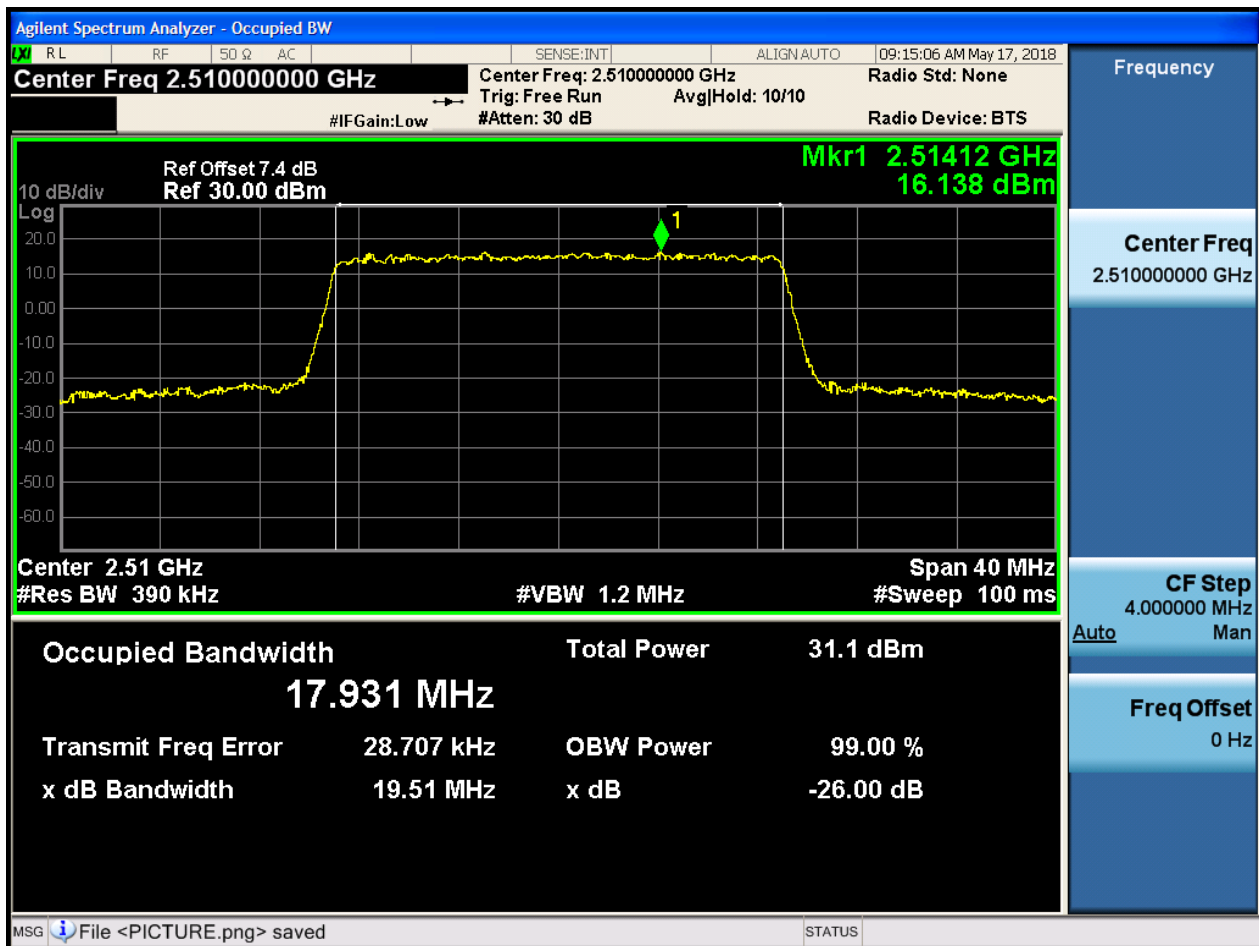




4.1.1.2.4 Test Bandwidth = 20

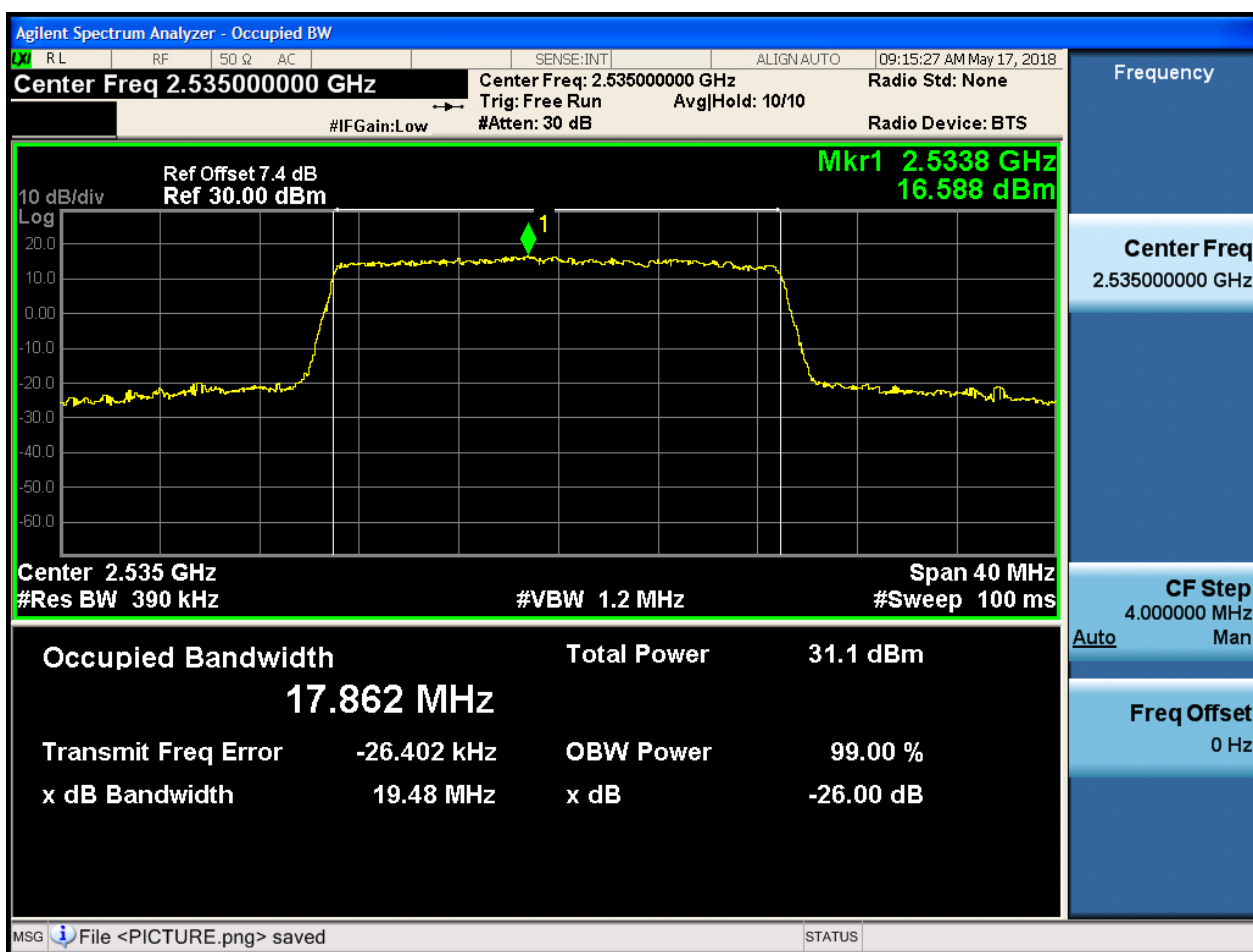
4.1.1.2.4.1 Test Channel = LCH

4.1.1.2.4.1.1 Test RB = RB100#0



4.1.1.2.4.2 Test Channel = MCH

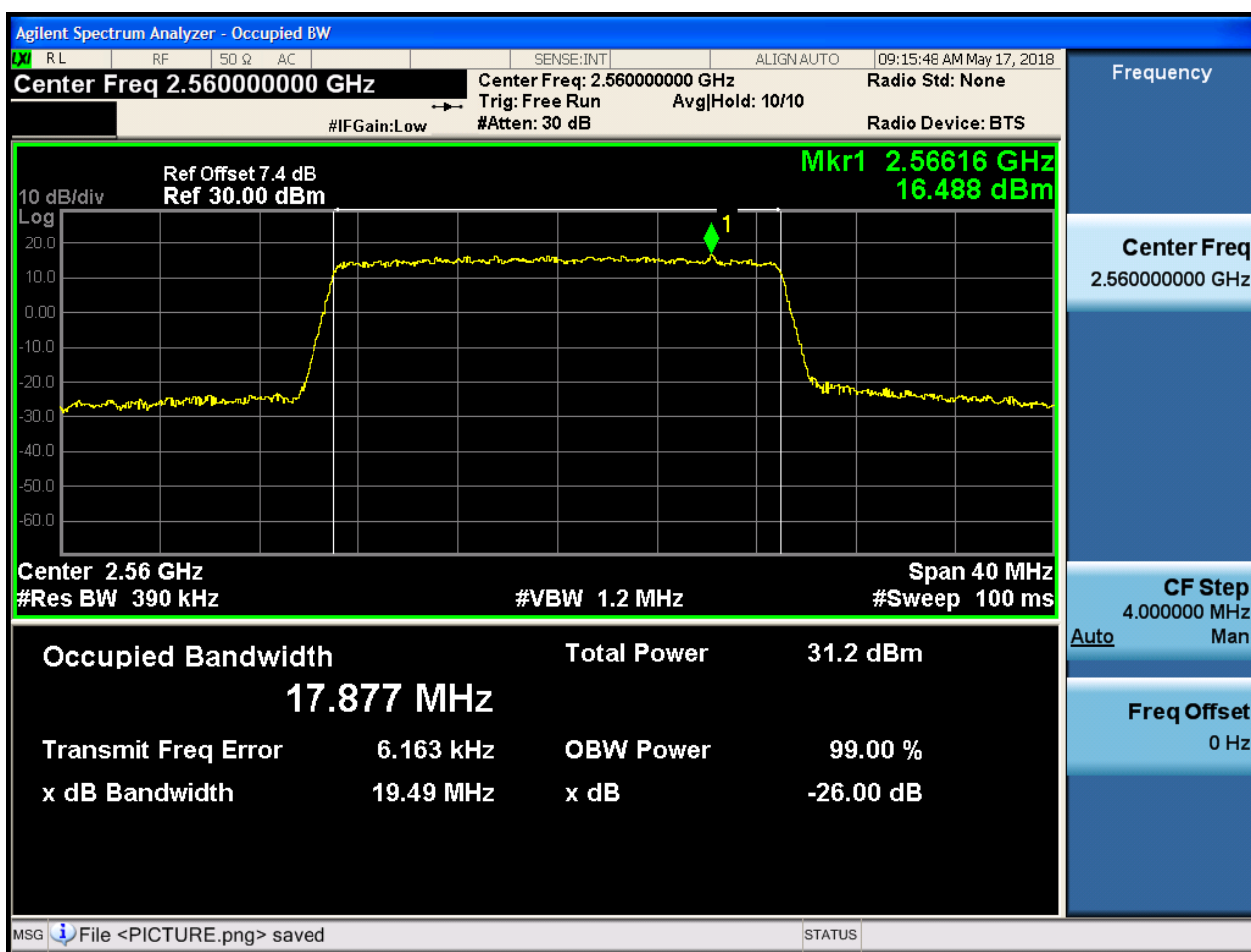
4.1.1.2.4.2.1 Test RB = RB100#0





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

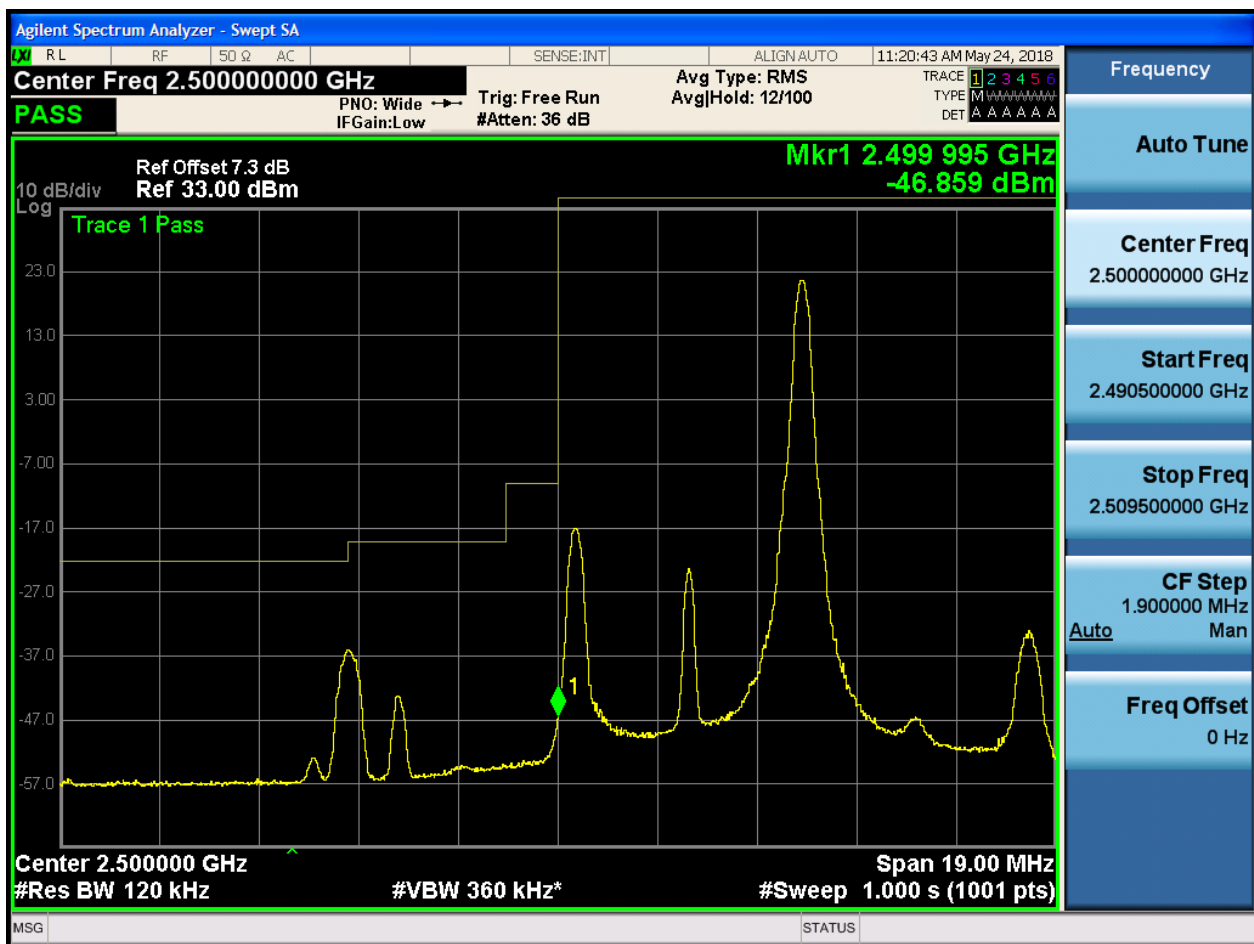
5.1 For LTE

5.1.1 Test Band = BAND7

5.1.1.1 Test Mode = LTE/TM1

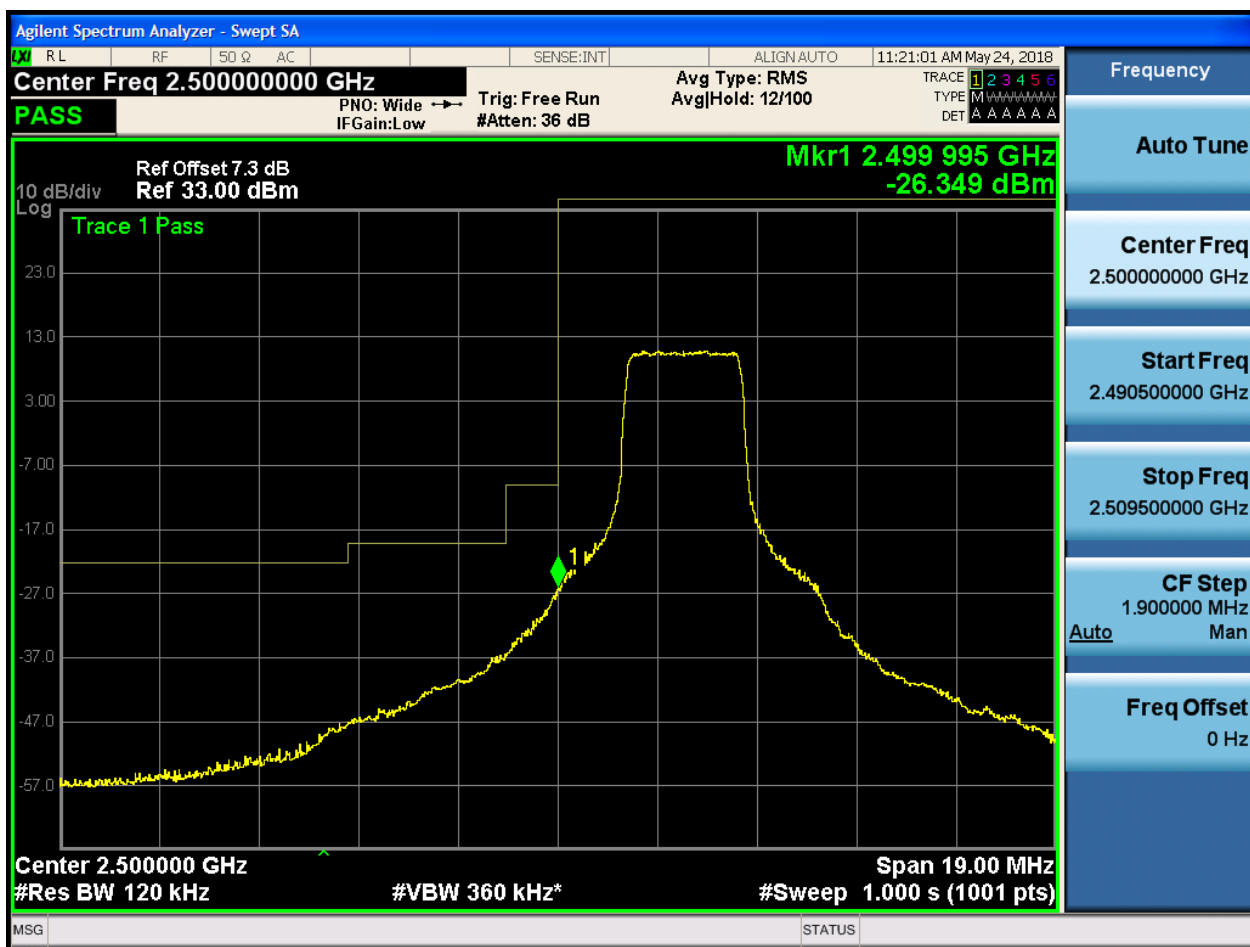
5.1.1.1.1 Test Bandwidth = 5

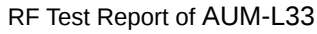
5.1.1.1.1.2 Test RB = RB1#24





5.1.1.1.1.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 11:21:20 AM May 24, 2018

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

Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -21.978 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

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

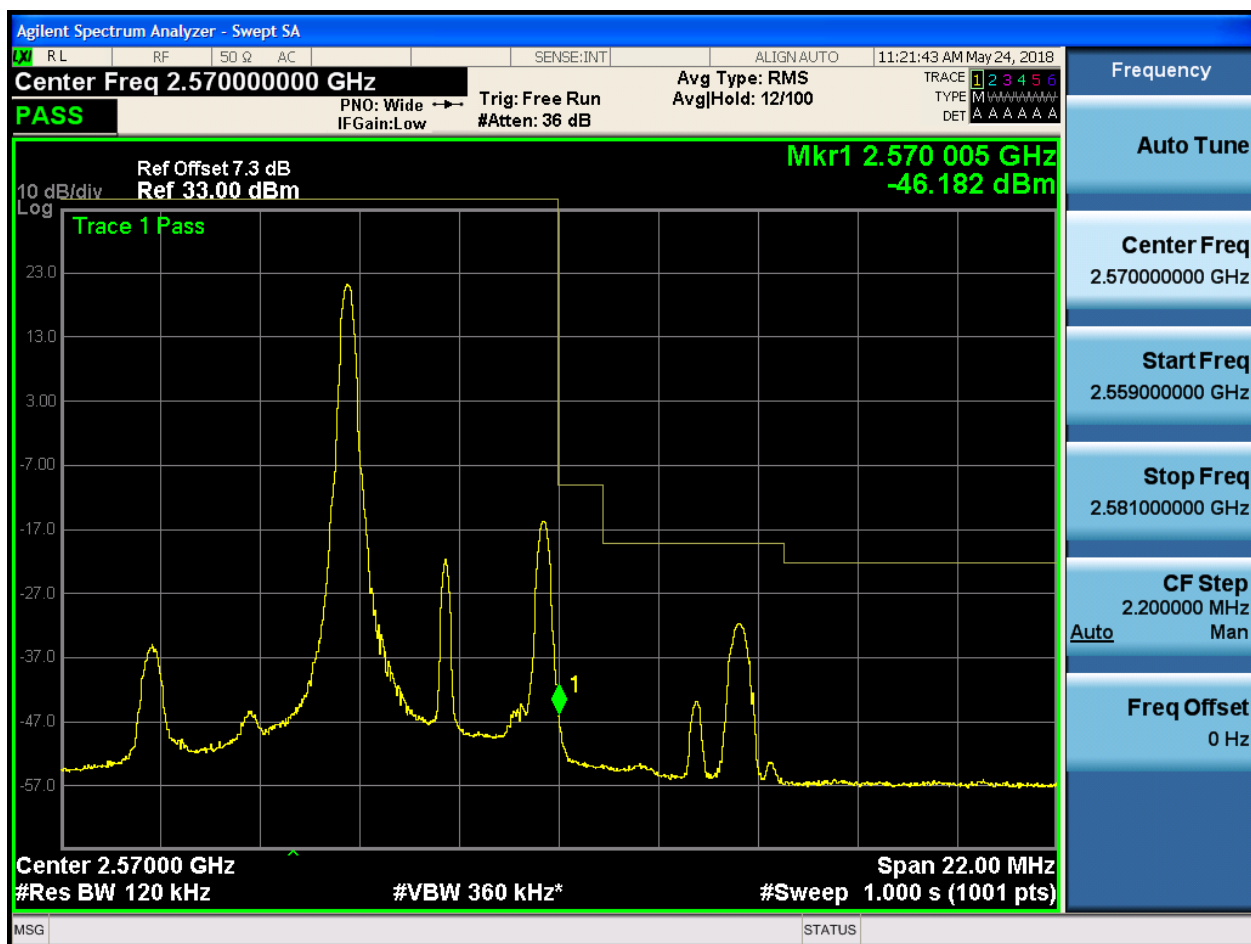
Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

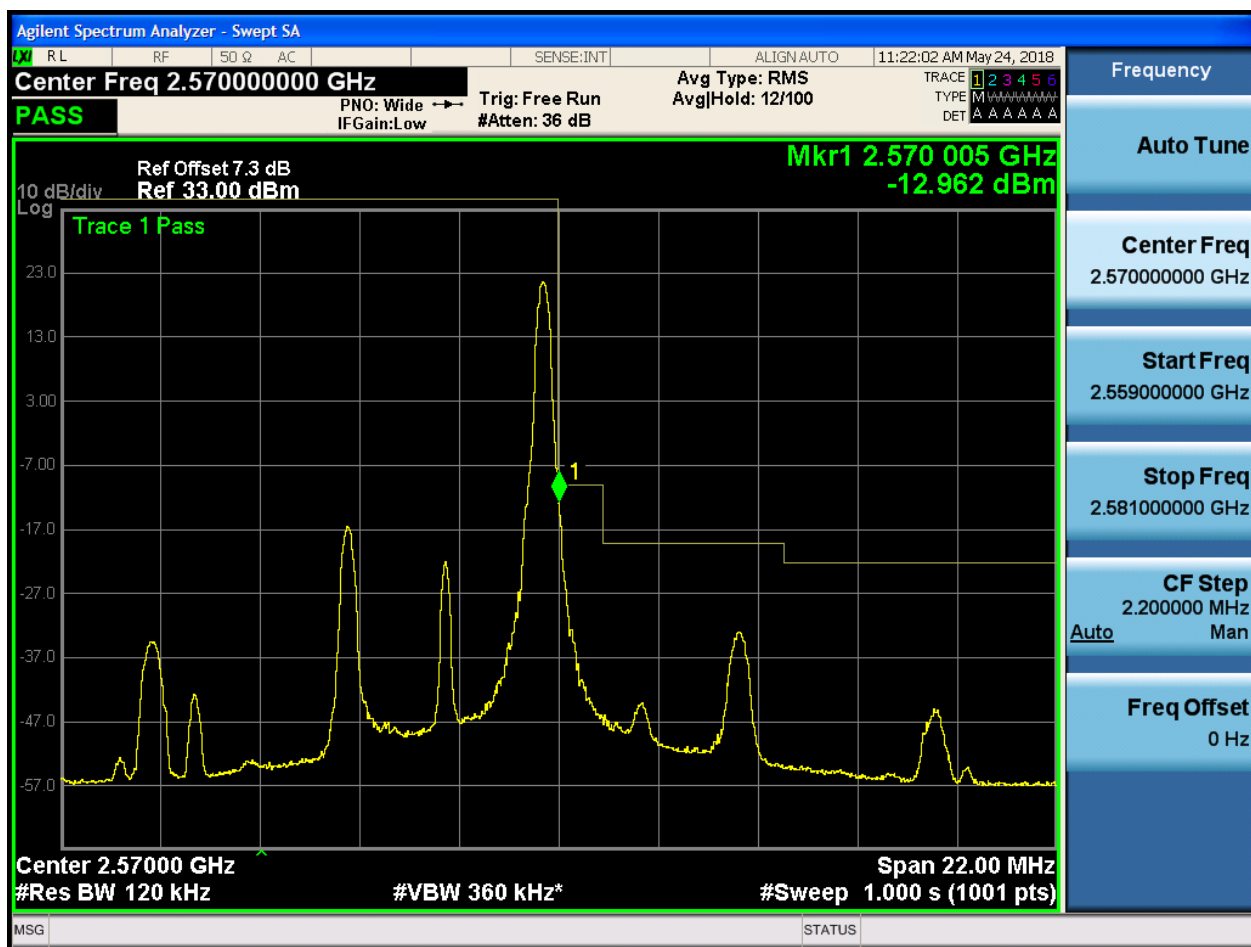
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.1 .2.2 Test RB = RB1#24





5.1.1.1.1 .2.3 Test RB = RB12#6





5.1.1.1.1 .2.4 Test RB = RB25#0

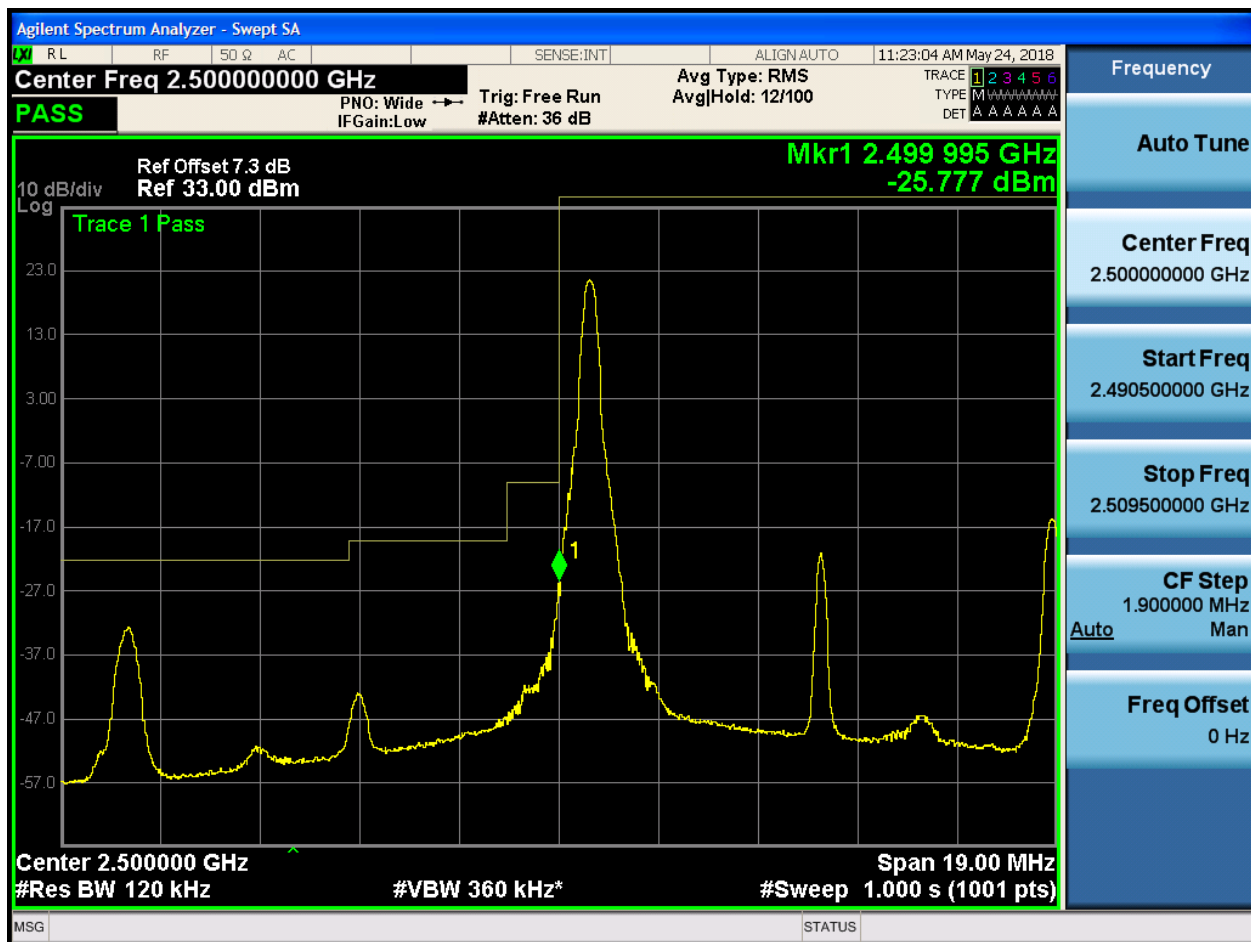




5.1.1.1.2 Test Bandwidth = 10

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

Center Freq 2.500000000 GHz

PASS

Ref Offset 7.3 dB
Ref 33.00 dBm

Mkr1 2.499 995 GHz
-49.681 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)

10 dB/div Log

23.0

13.0

3.00

-7.00

-17.0

-27.0

-37.0

-47.0

-57.0

Center 2.500000 GHz

Span 19.00 MHz

#Res BW 120 kHz

#VBW 360 kHz*

#Sweep 1.000 s (1001 pts)

MSG

STATUS

Frequency

Auto Tune

Center Freq

2.500000000 GHz

Start Freq

2.490500000 GHz

Stop Freq

2.509500000 GHz

CF Step

1.900000 MHz

Auto

Man

Freq Offset

0 Hz

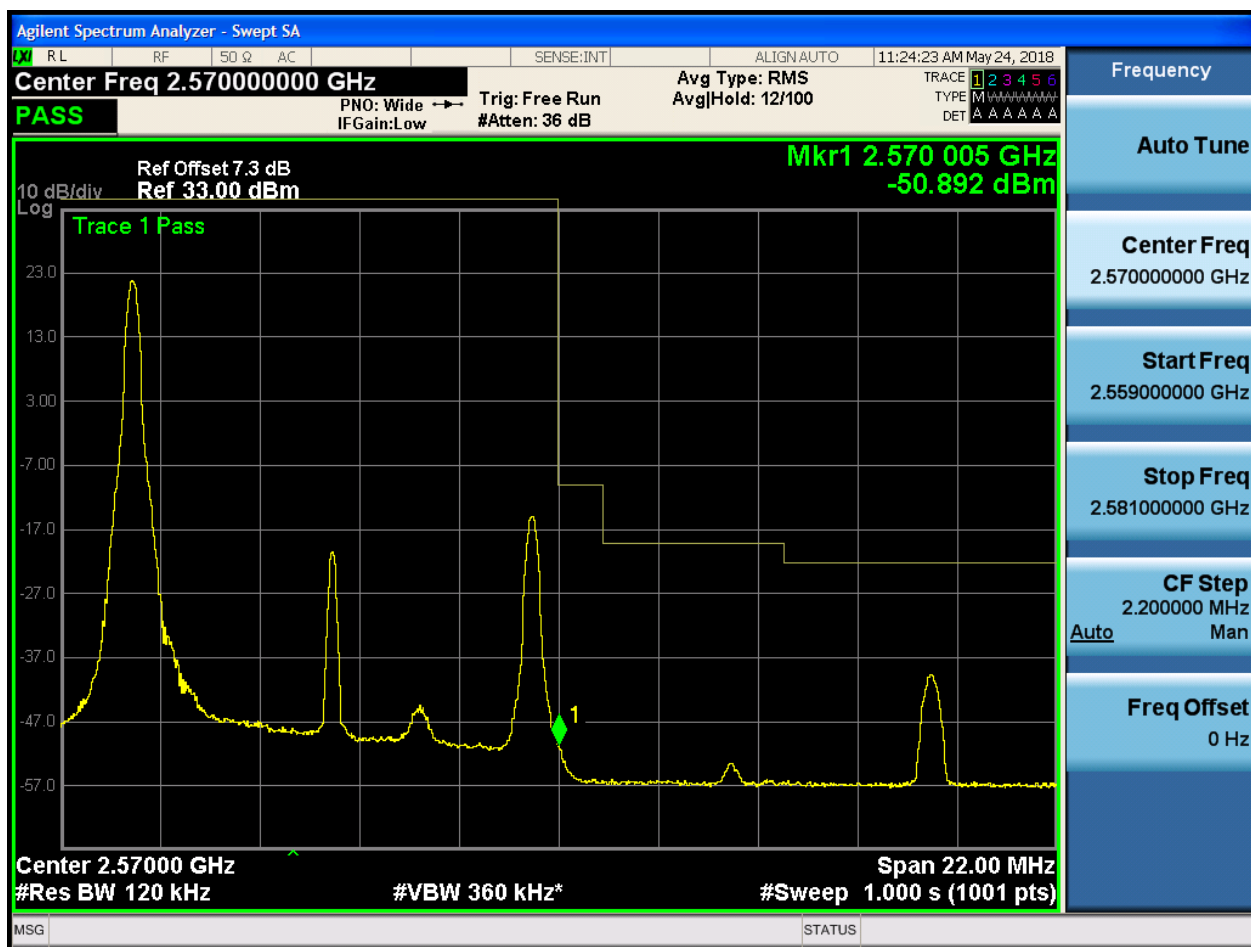


5.1.1.1.2.1.3 Test RB = RB25#13



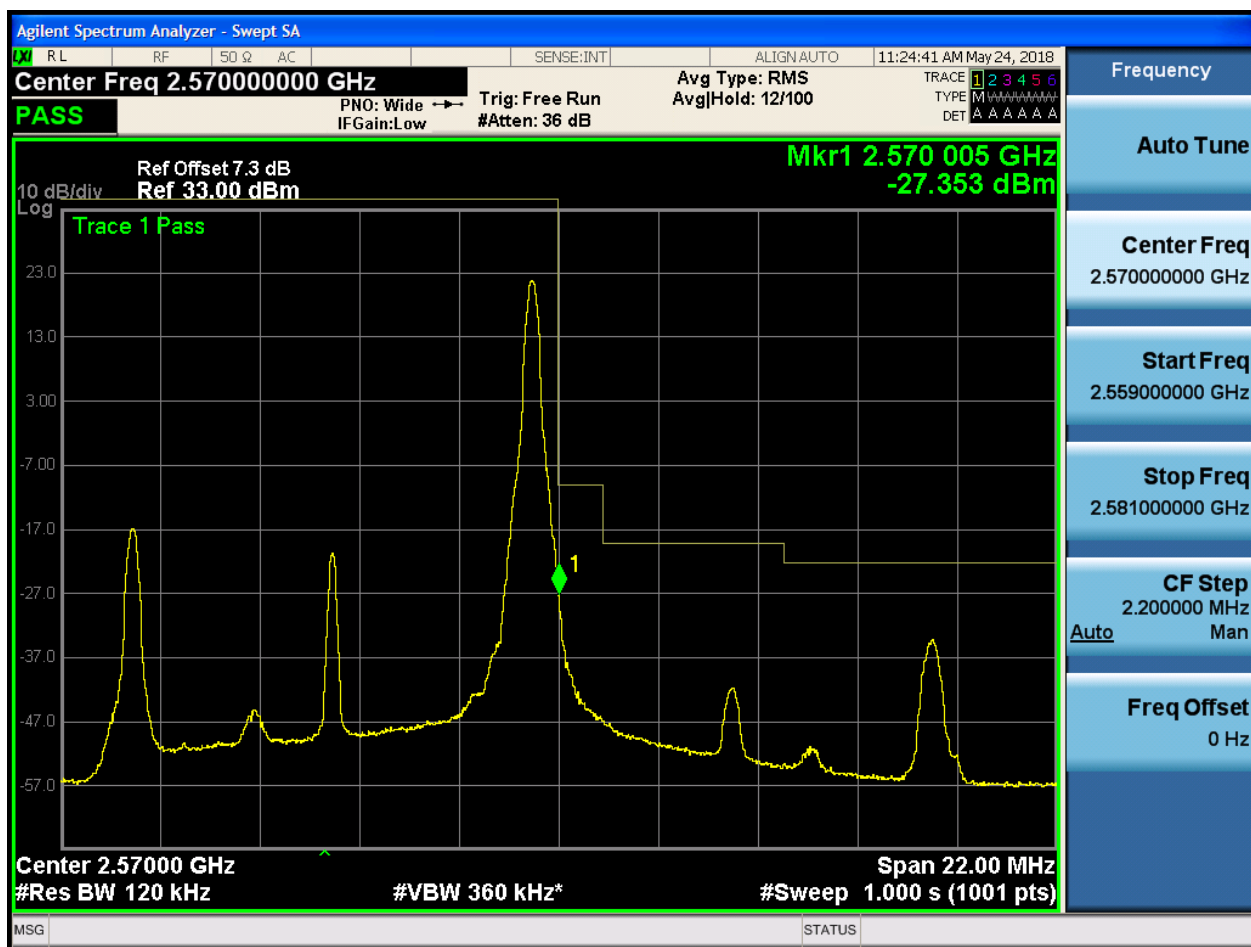
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





5.1.1.1.2.2.2 Test RB = RB1#49





5.1.1.1.2.2.3 Test RB = RB25#13





5.1.1.1.2.2.4 Test RB = RB50#0

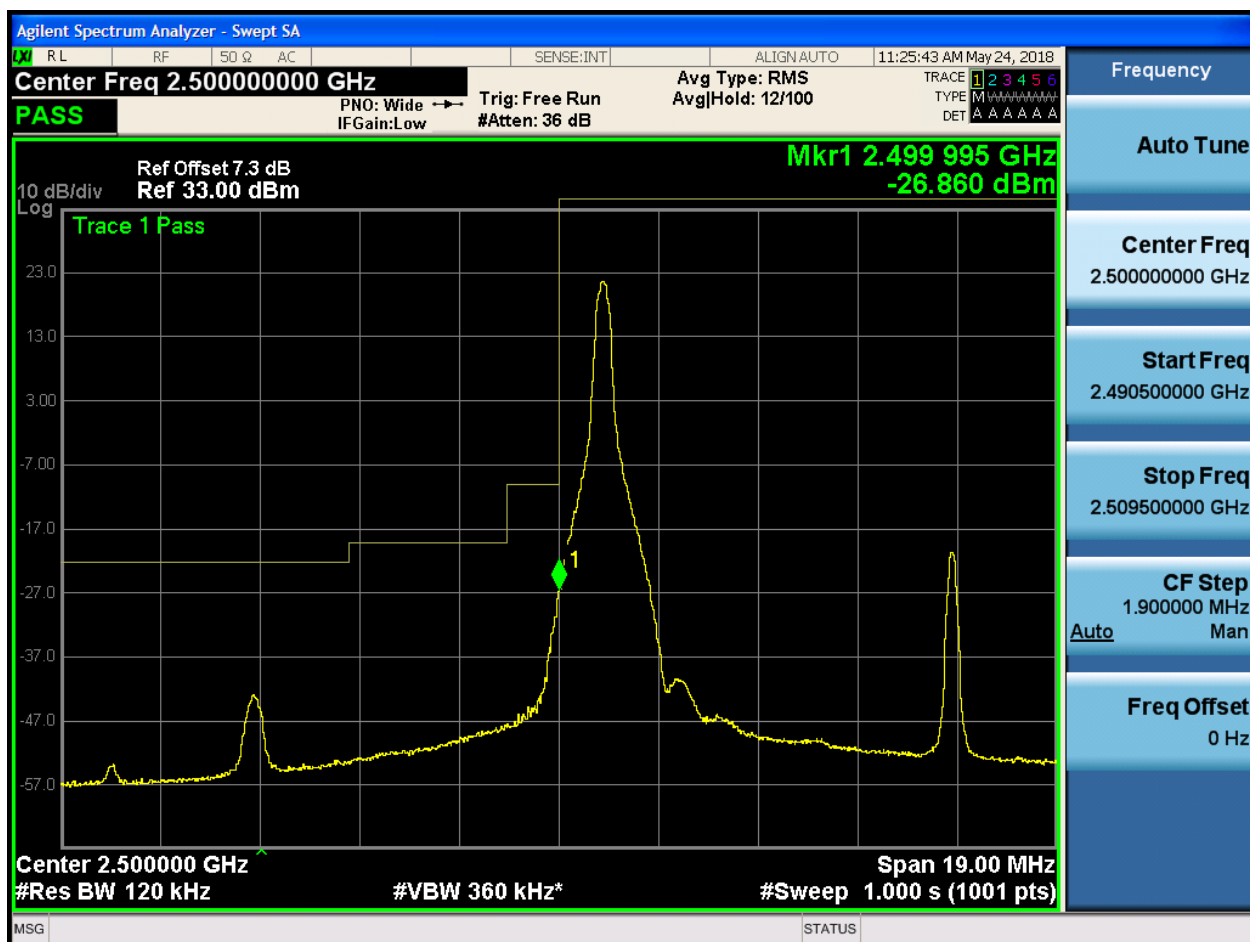


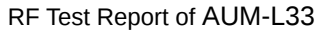


5.1.1.1.3 Test Bandwidth = 15

5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 11:26:01 AM May 24, 2018

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

Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -53.114 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

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.1.3.1.3 Test RB = RB36#18





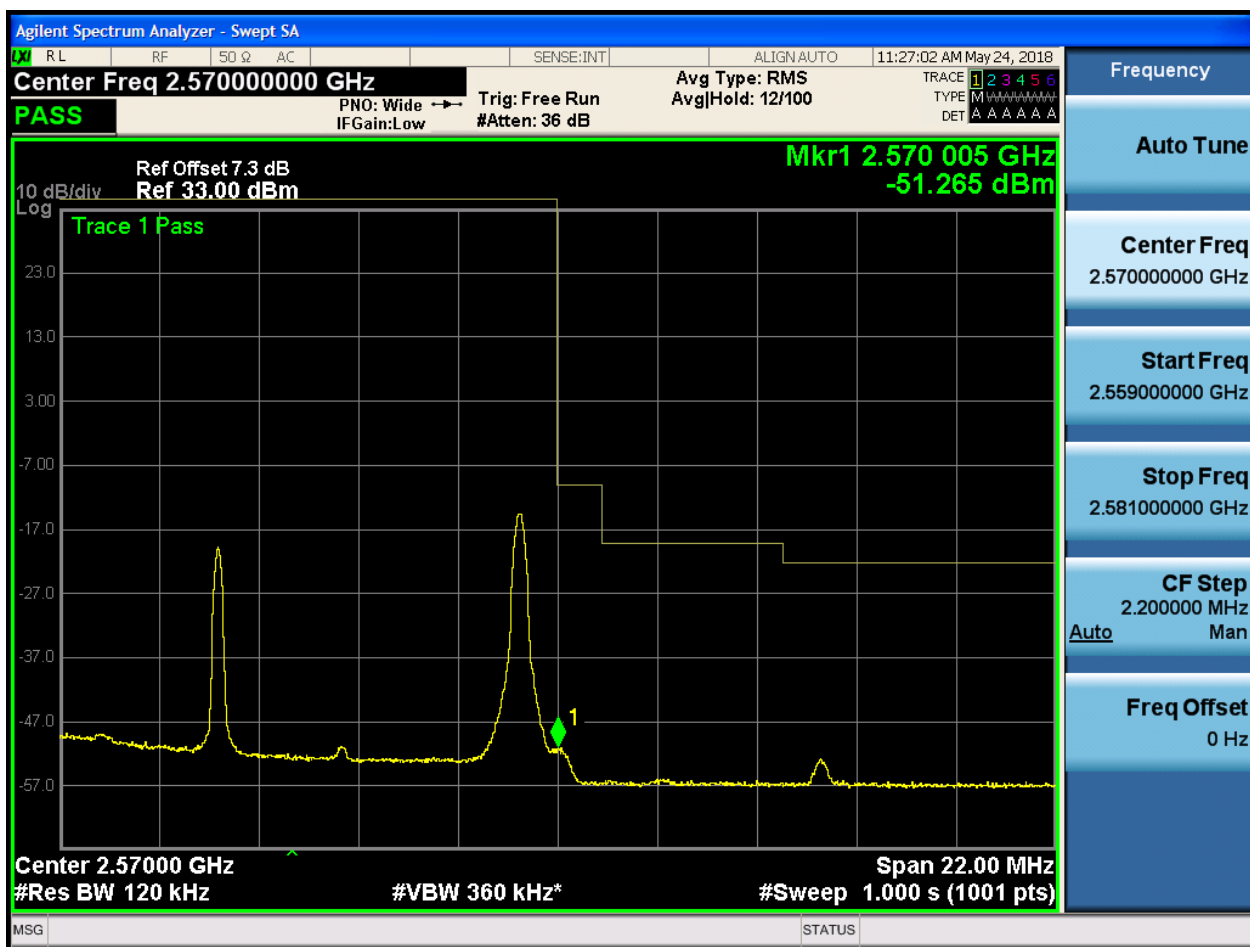
5.1.1.1.3.1.4 Test RB = RB75#0





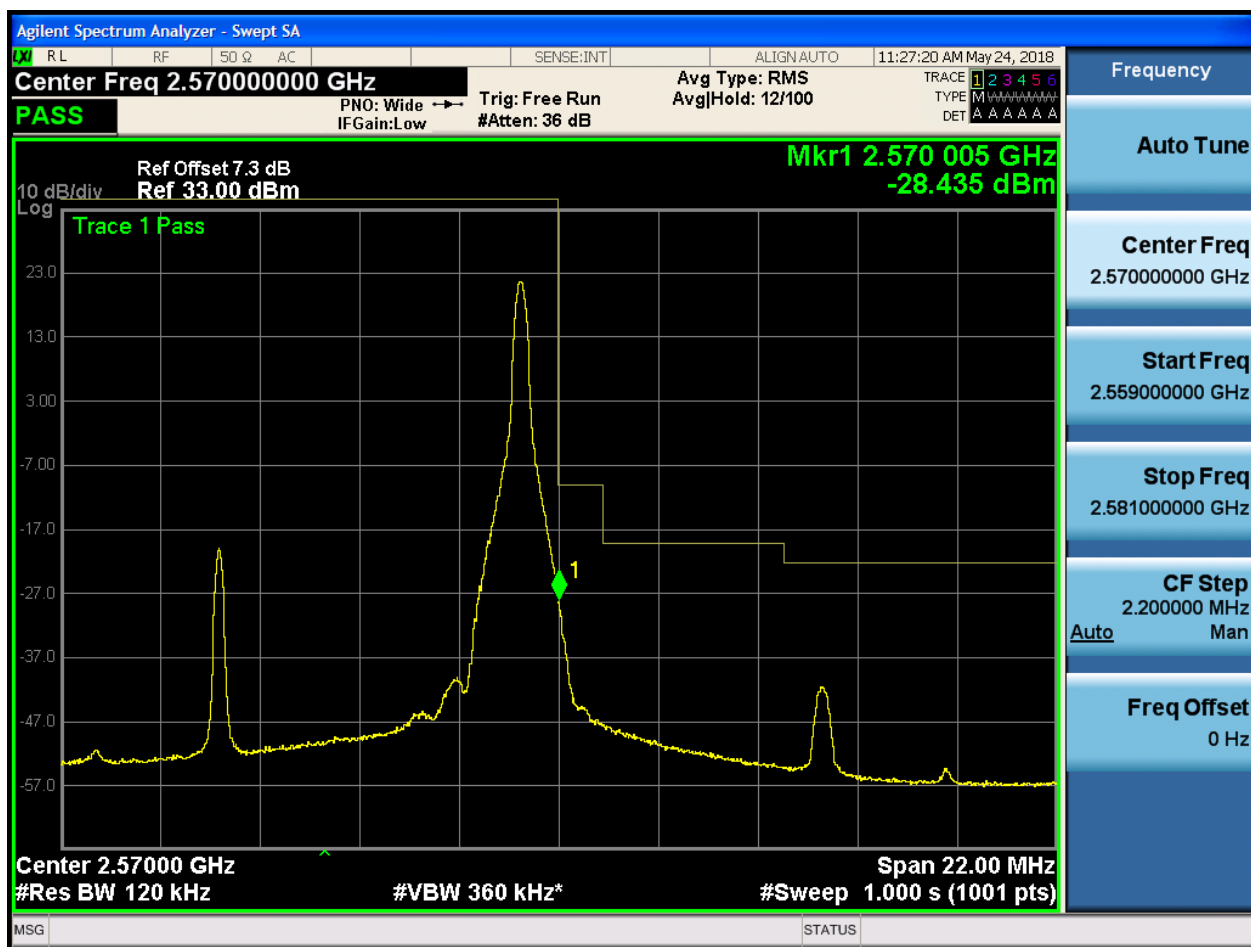
5.1.1.1.3.2 Test Channel = HCH

5.1.1.1.3.2.1 Test RB = RB1#0





5.1.1.1.3.2.2 Test RB = RB1#74





5.1.1.1.3.2.3 Test RB = RB36#18





5.1.1.1.3.2.4 Test RB = RB75#0

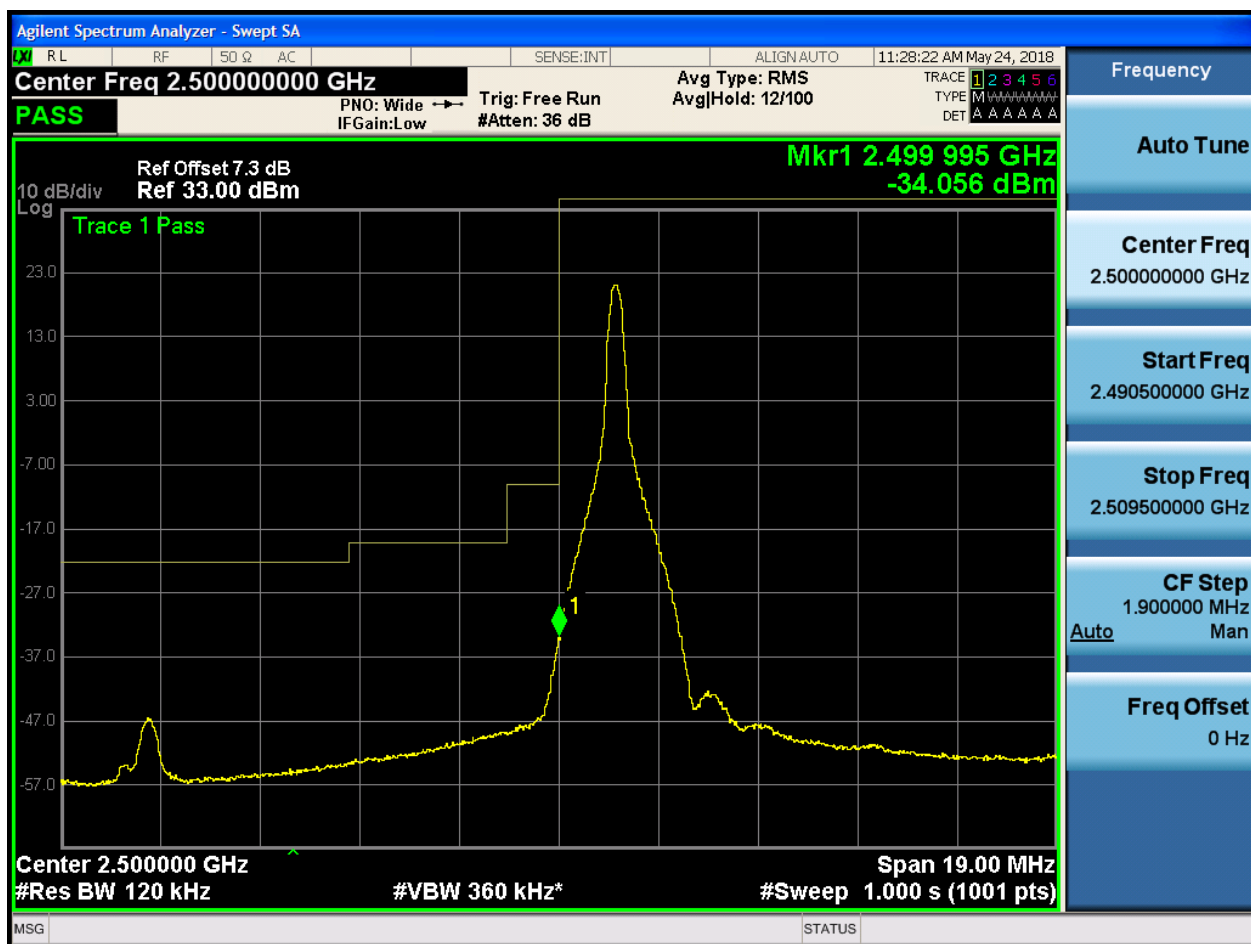


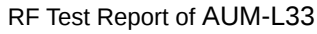


5.1.1.1.4 Test Bandwidth = 20

5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 11:28:41 AM May 24, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
#Res BW 120 kHz IFGain:Low Trig: Free Run AvgHold: 12/100
PNO: Wide Trace 1 1 2 3 4 5 6
IFGain:Low #Atten: 36 dB TYPE M A A A A A A
DET A A A A A A

PASS

Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -56.057 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

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

5.1.1.1.4.1.3 Test RB = RB50#25



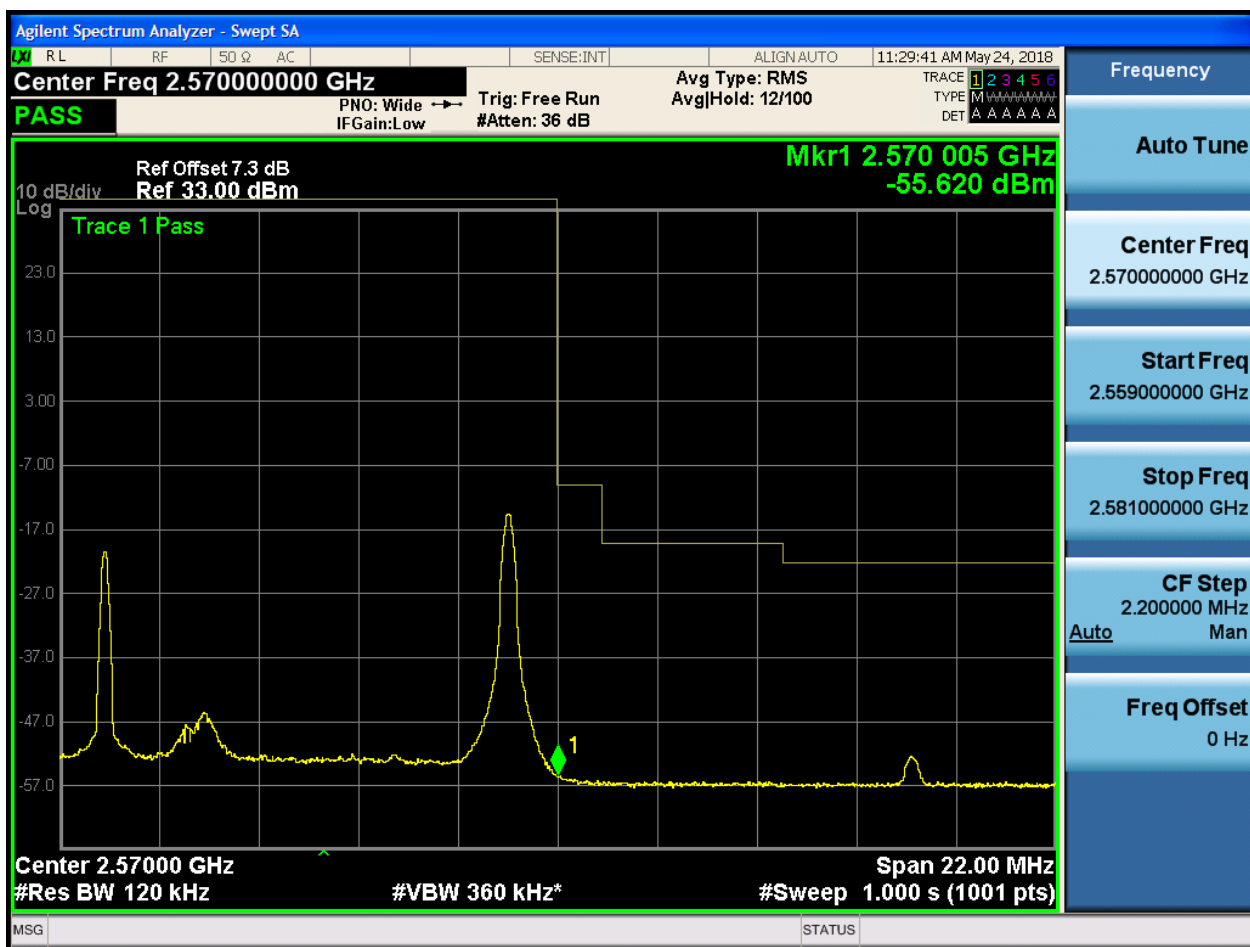


5.1.1.1.4.1.4 Test RB = RB100#0



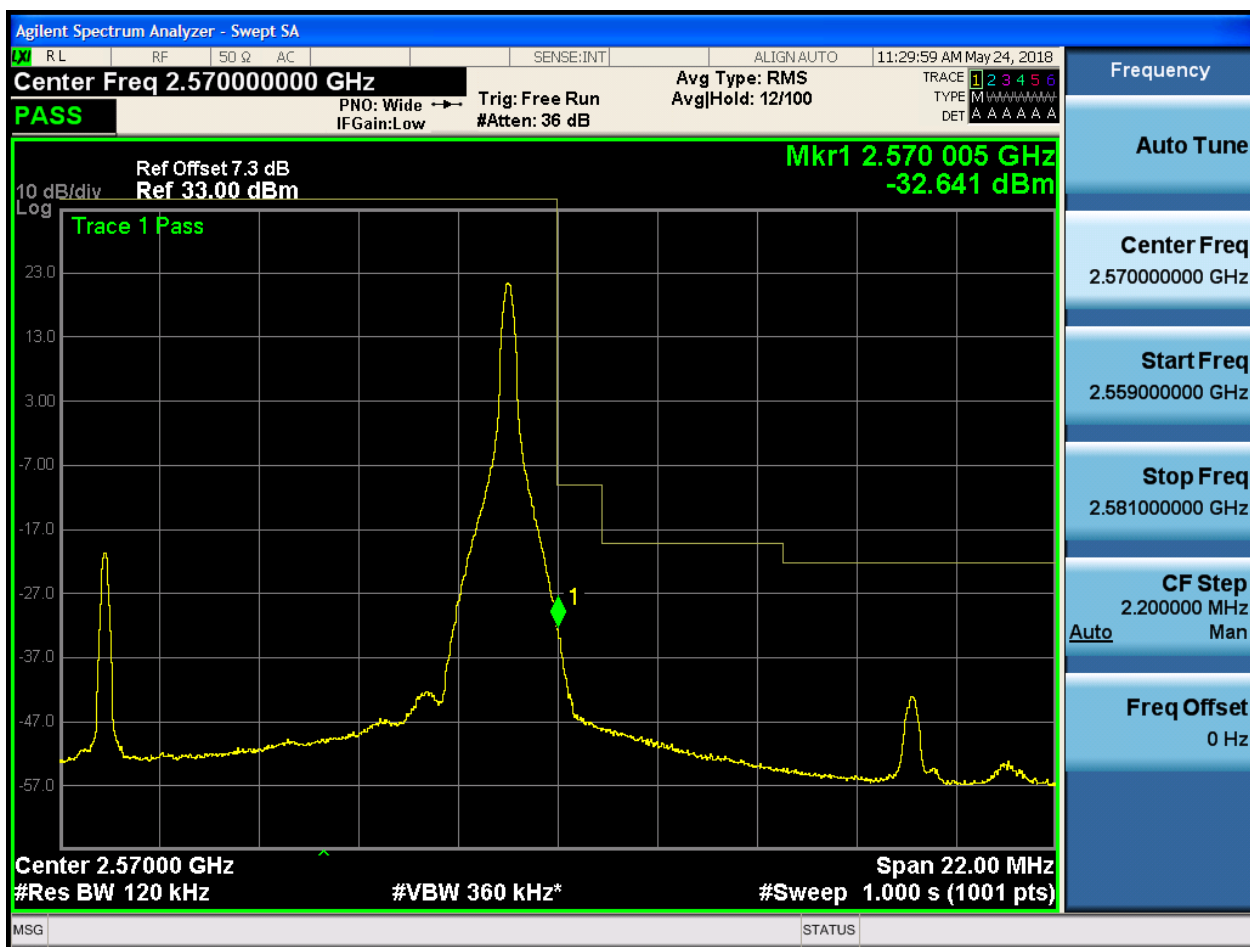
5.1.1.1.4.2 Test Channel = HCH

5.1.1.1.4.2.1 Test RB = RB1#0





5.1.1.1.4.2.2 Test RB = RB1#99





5.1.1.1.4.2.3 Test RB = RB50#25





5.1.1.1.4.2.4 Test RB = RB100#0

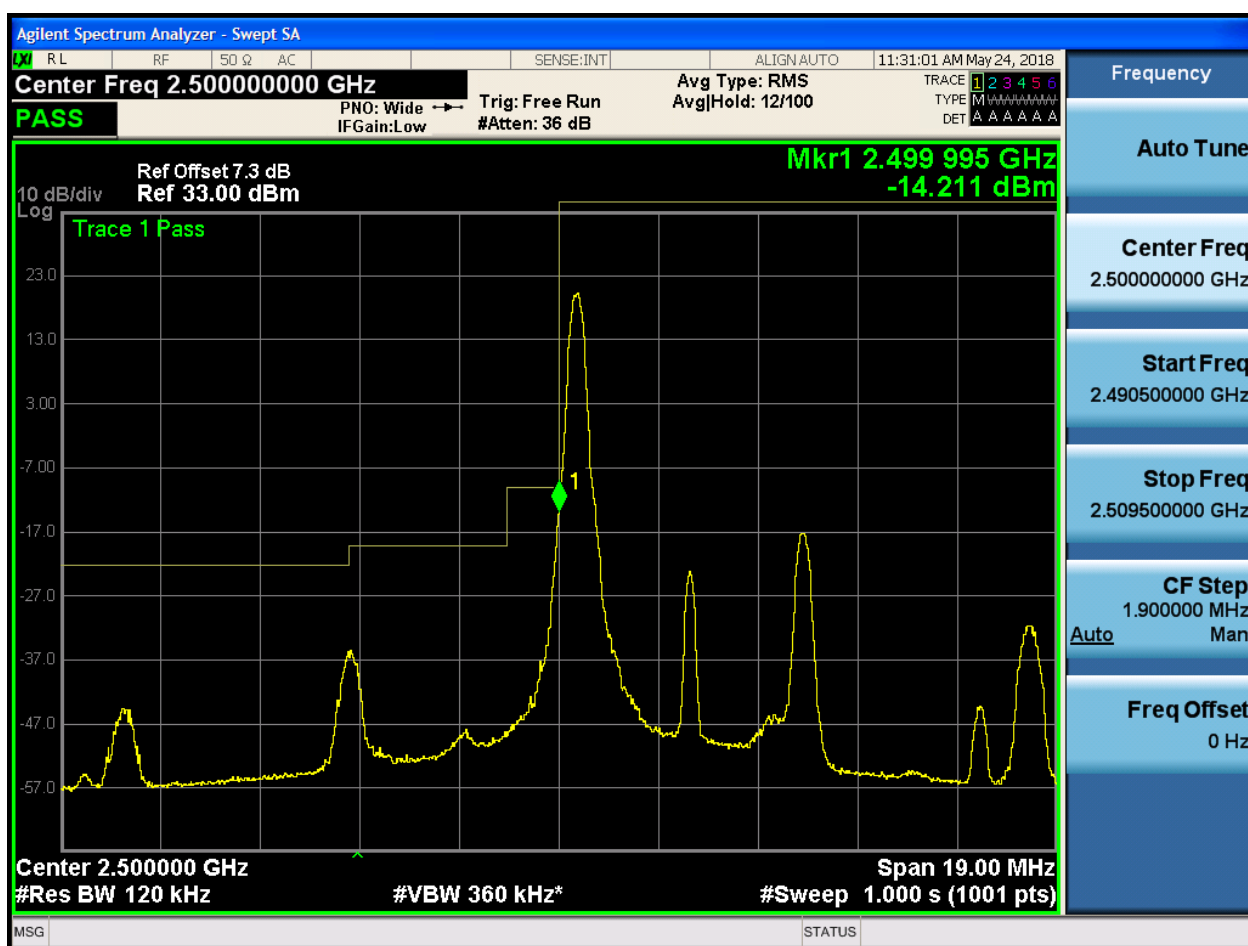


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

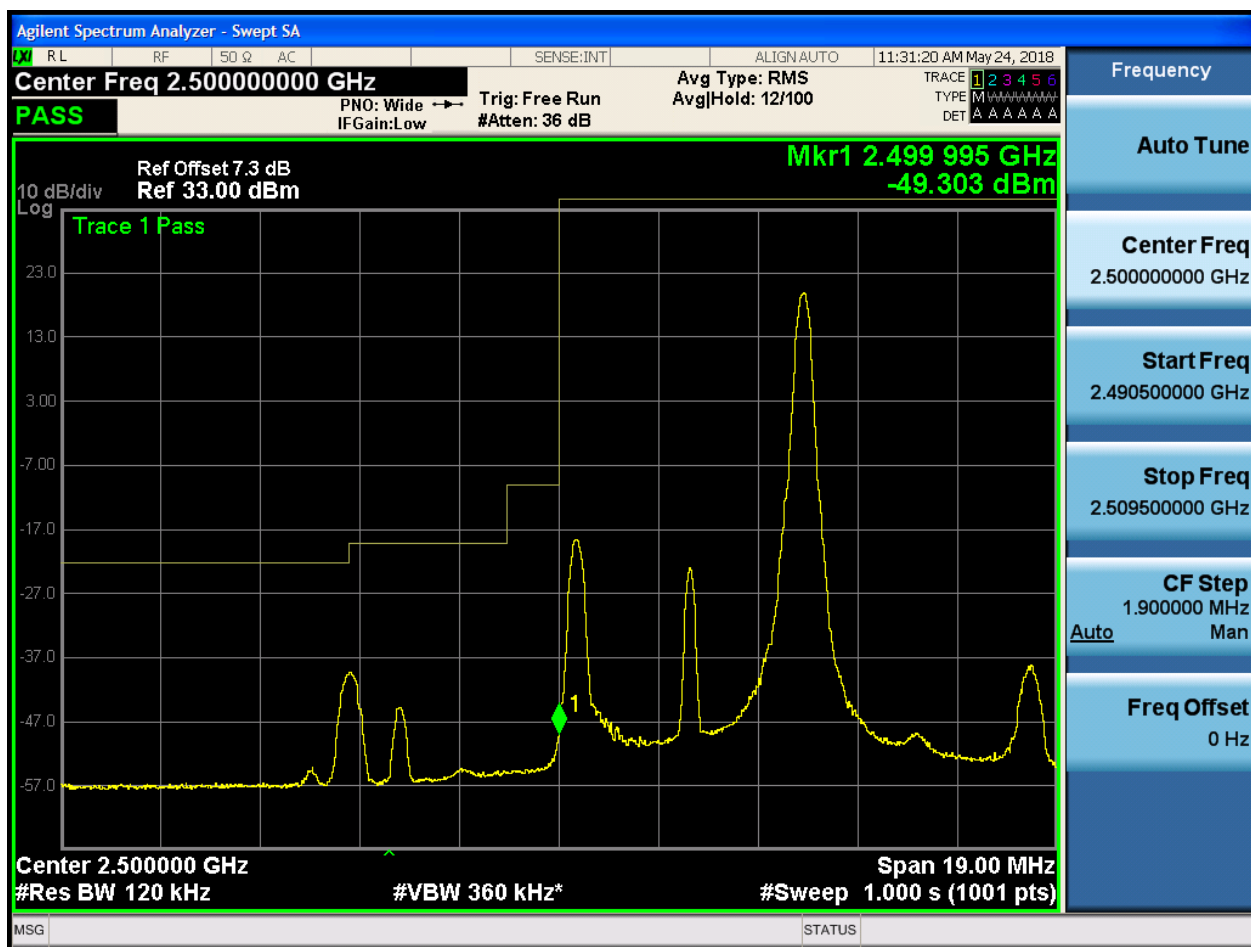
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0



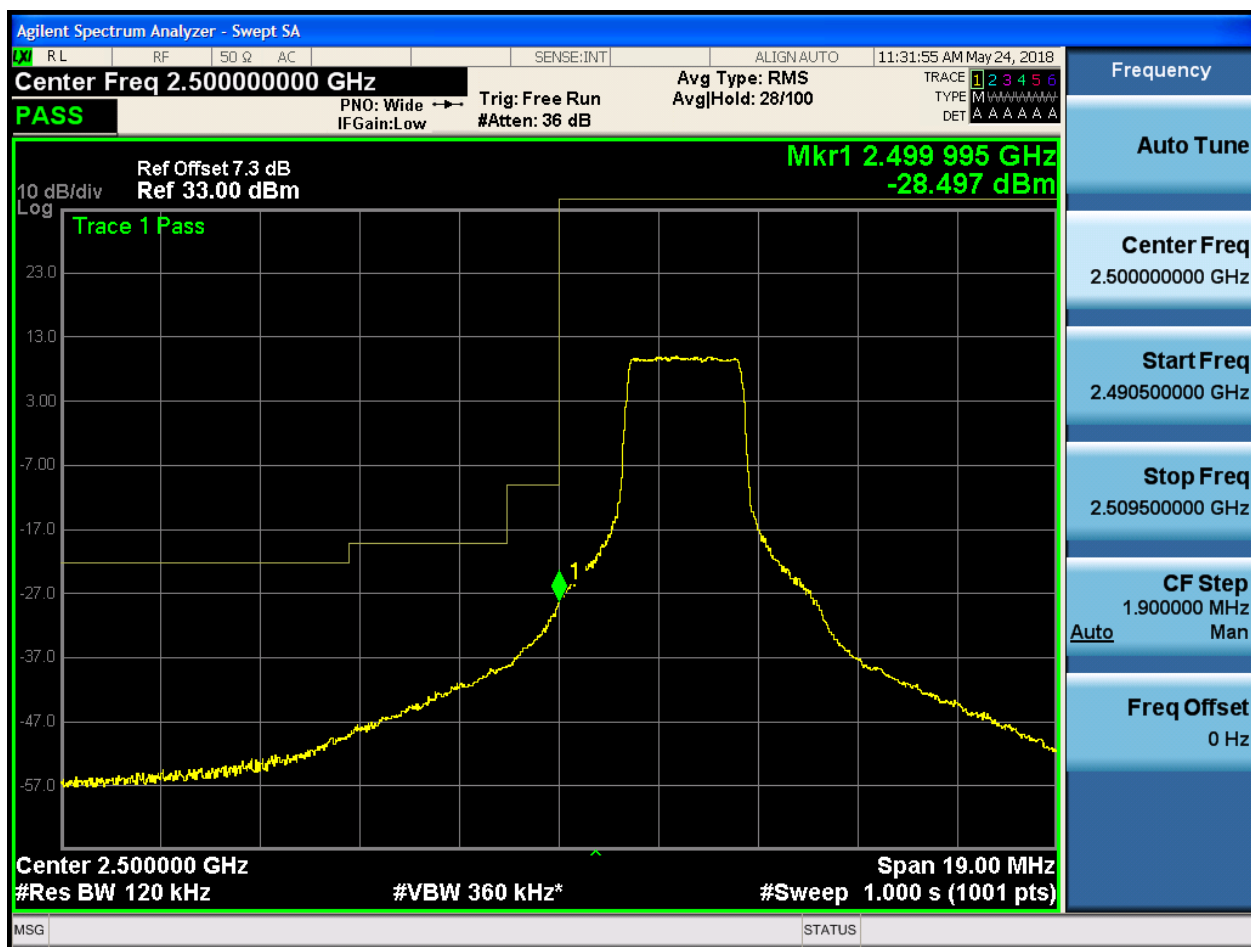


5.1.1.2.1.1.2 Test RB = RB1#24





5.1.1.2.1.1.3 Test RB = RB12#6



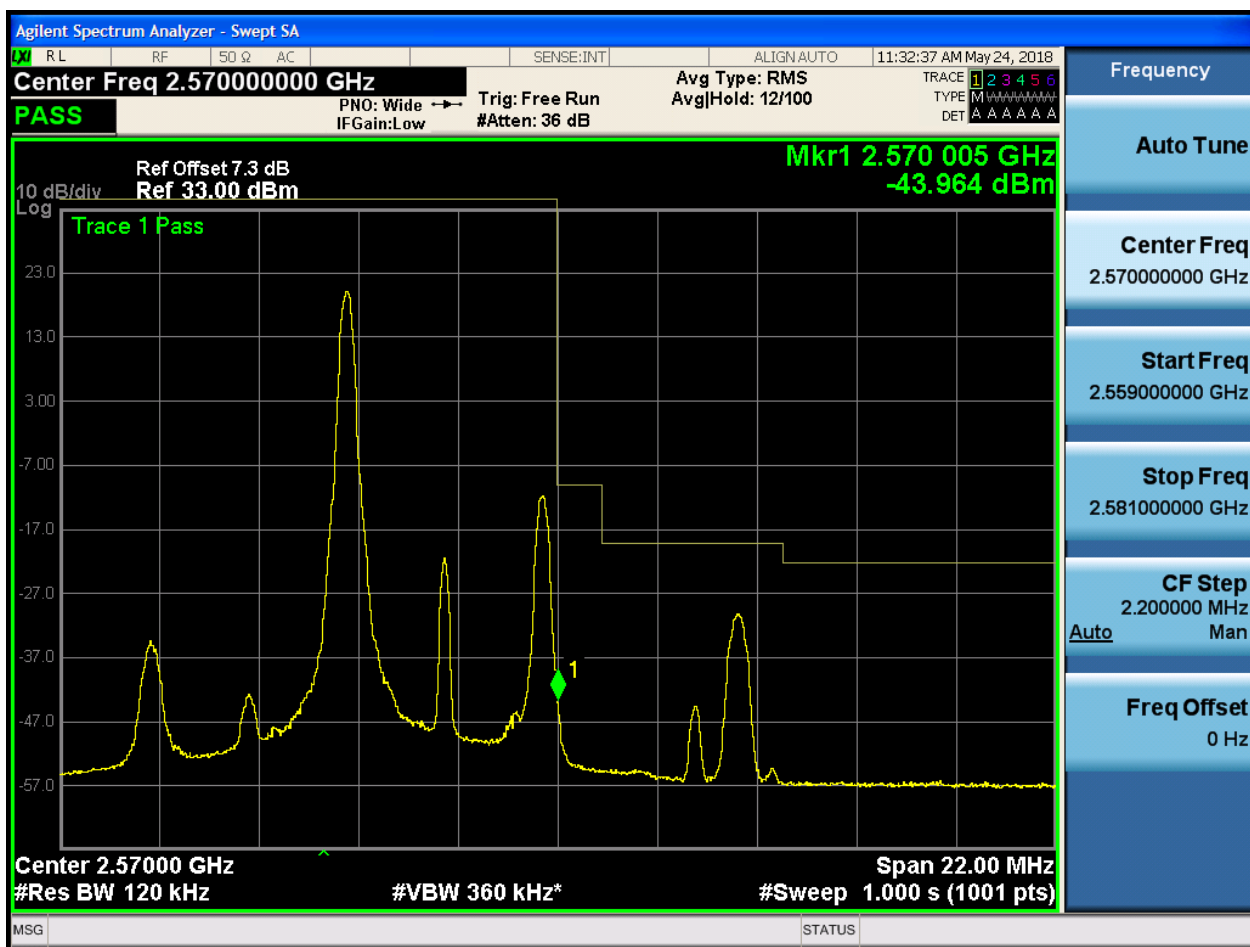


5.1.1.2.1.1.4 Test RB = RB25#0



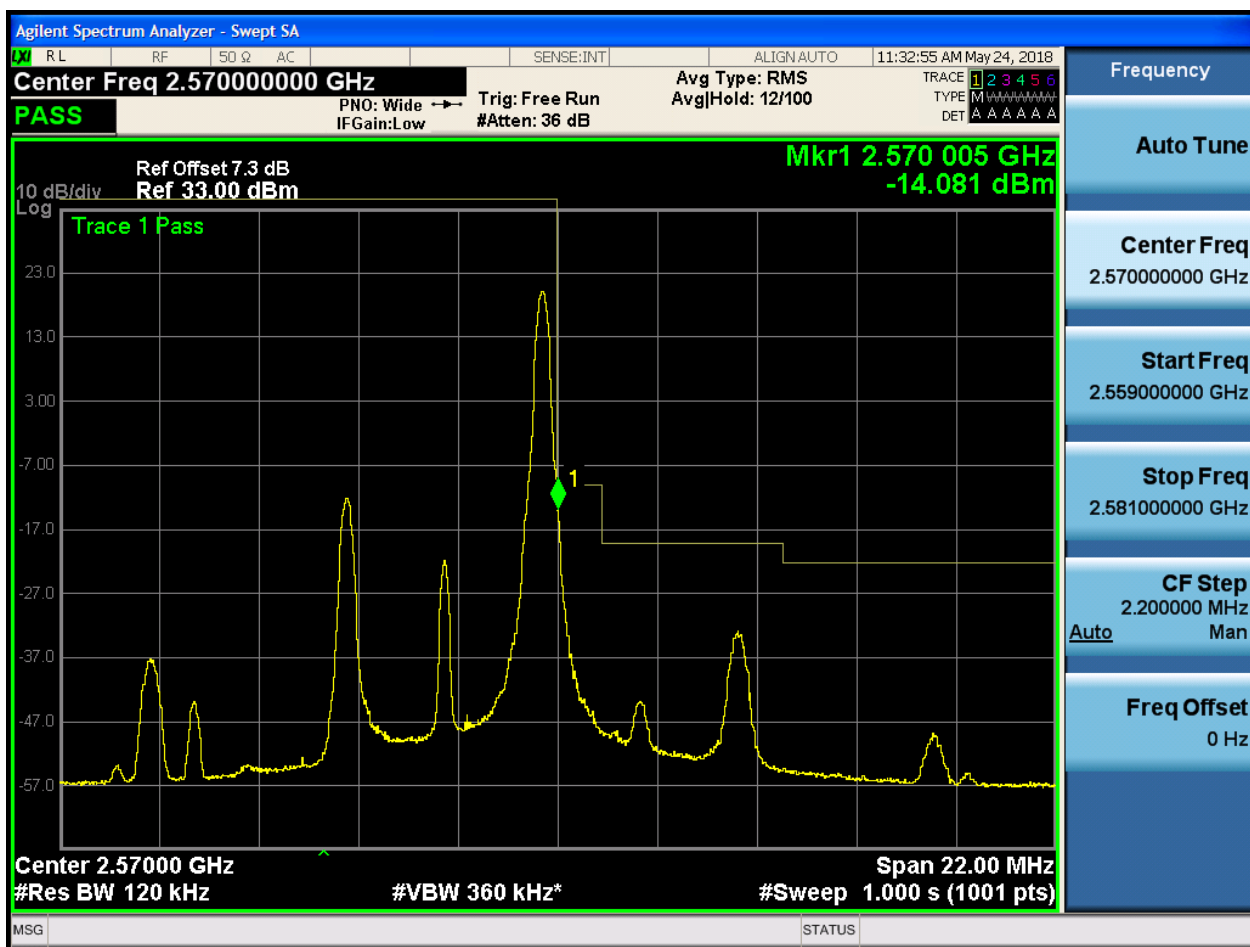
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0



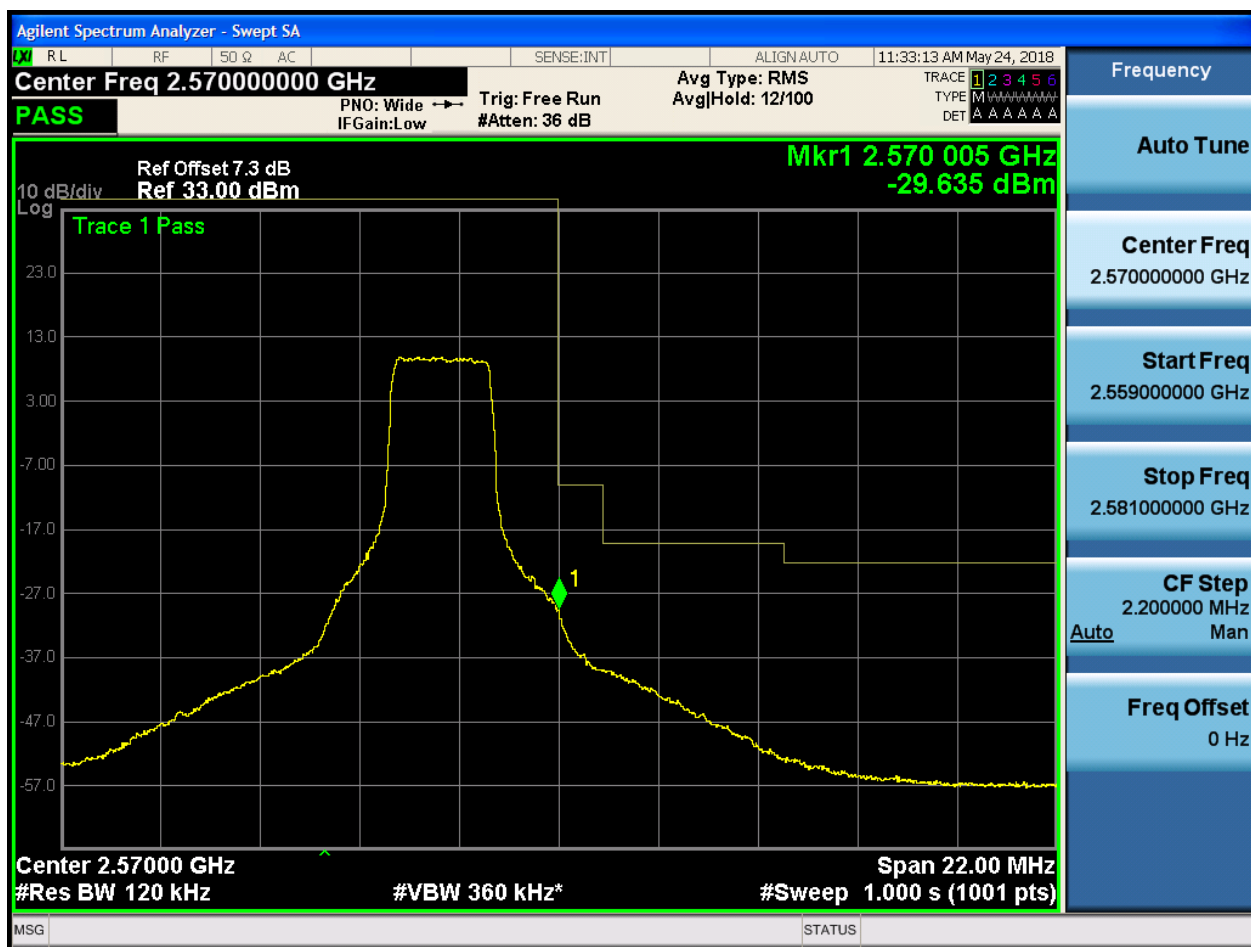


5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





5.1.1.2.1.2.4 Test RB = RB25#0

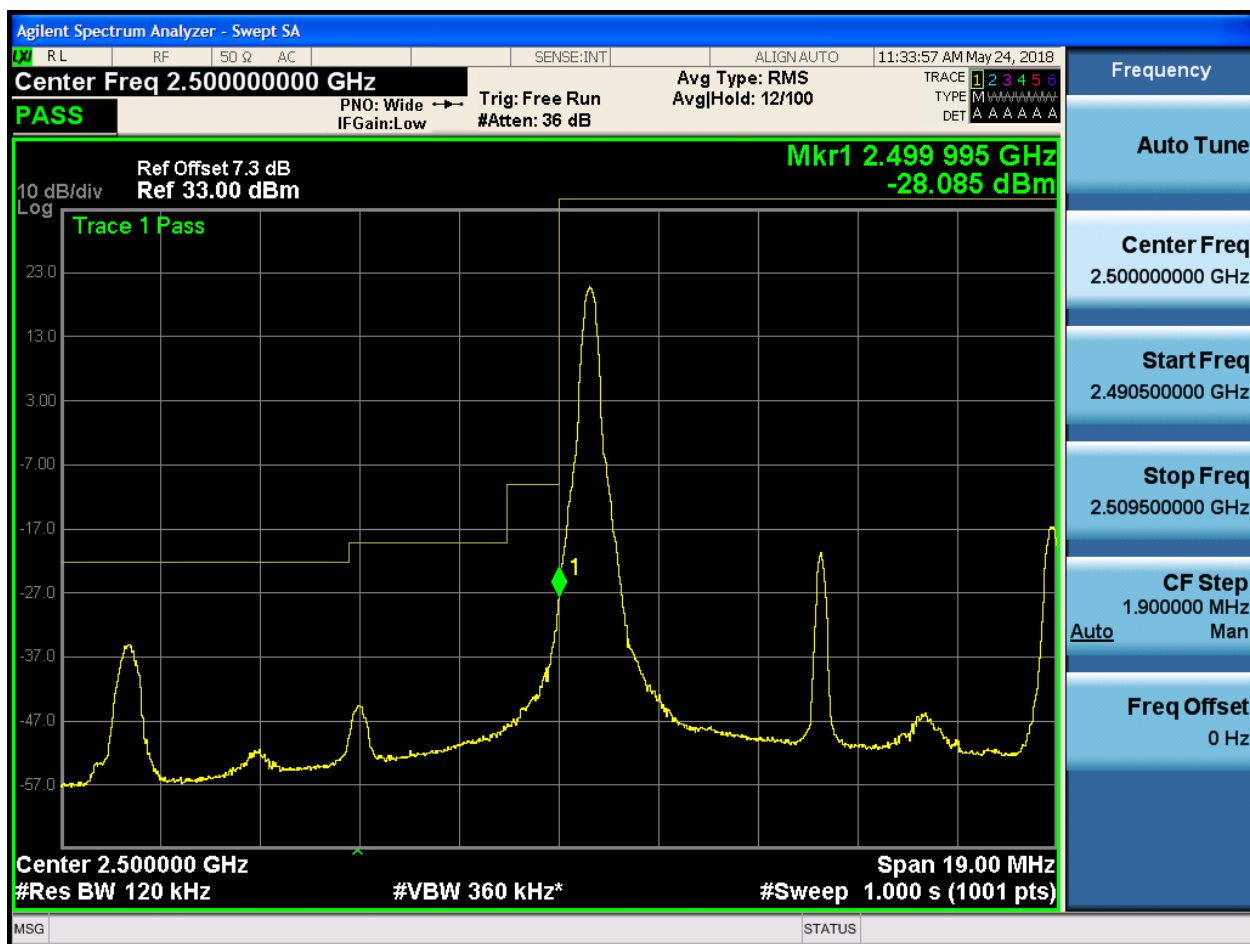


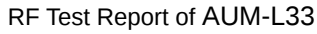


5.1.1.2.2 Test Bandwidth = 10

5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 11:34:16 AM May 24, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 12/100
PASS #Atten: 36 dB TRACE 1 2 3 4 5 6
TYPE M
DET A A A A A A

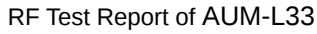
Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -49.529 dBm

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



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 11:34:34 AM May 24, 2018

Center Freq 2.500000000 GHz Avg Type: RMS Trg: Free Run
#Res BW 120 kHz IFGain:Low #Atten: 36 dB

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

Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -33.194 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

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

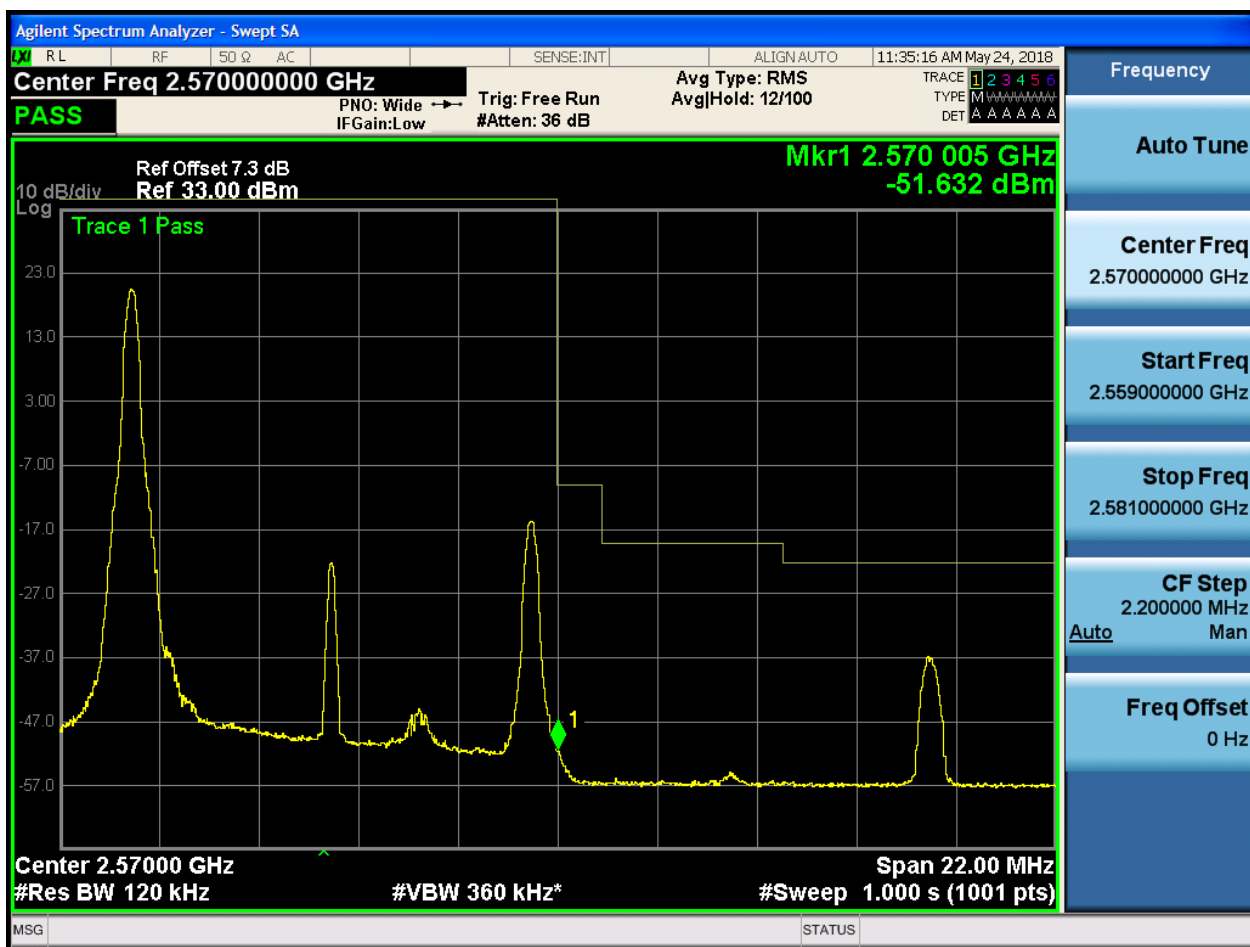


5.1.1.2.2.1.4 Test RB = RB50#0



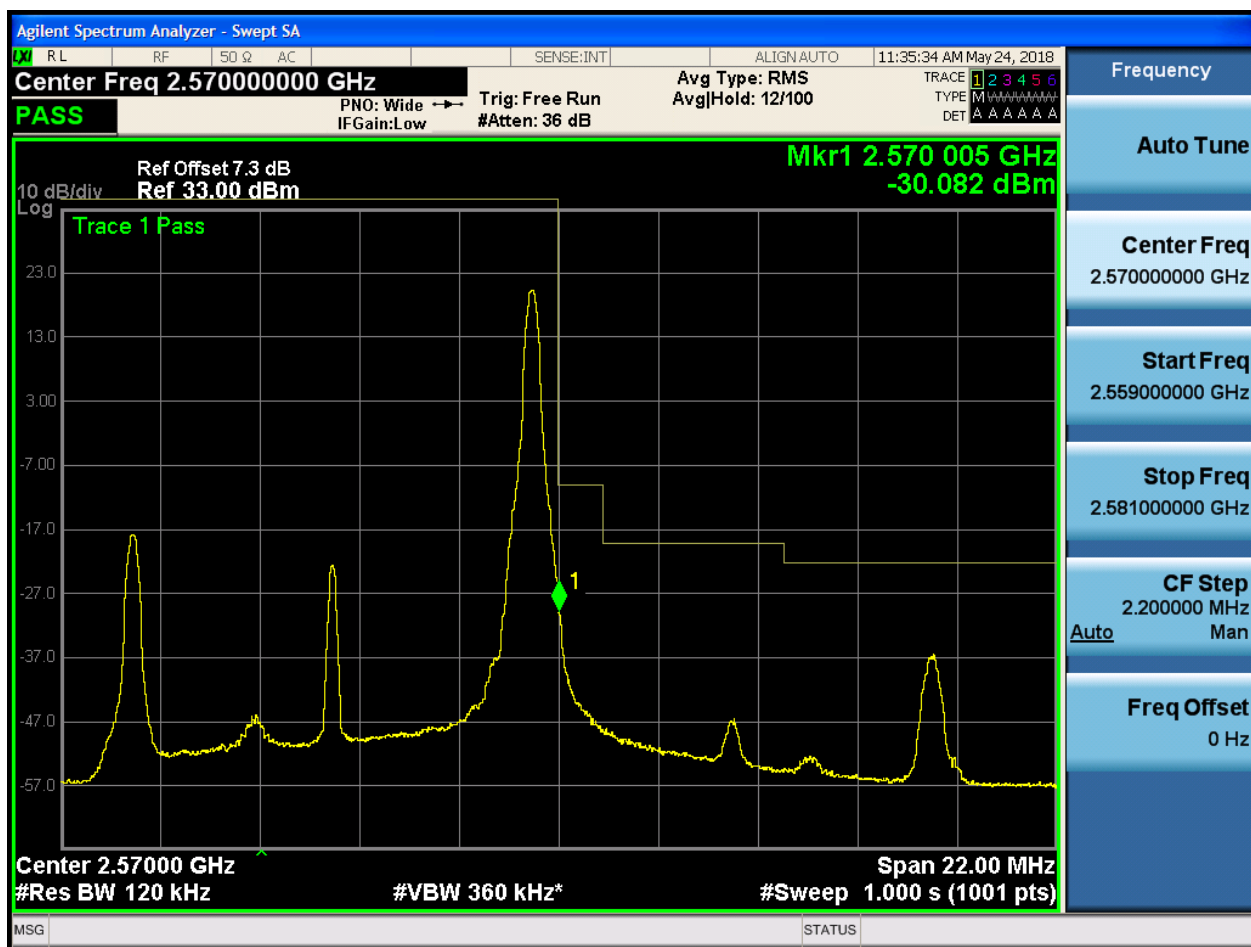
5.1.1.2.2.2 Test Channel = HCH

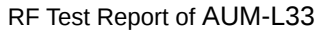
5.1.1.2.2.2.1 Test RB = RB1#0





5.1.1.2.2.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 11:35:52 AM May 24, 2018

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

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

Ref Offset 7.3 dB
Ref 33.00 dBm

Mkr1 2.570 005 GHz
-33.817 dBm

10 dB/div
Log

Trace 1 Pass

Center 2.57000 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
2.57000000 GHz

Start Freq
2.559000000 GHz

Stop Freq
2.581000000 GHz

CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz



5.1.1.2.2.4 Test RB = RB50#0

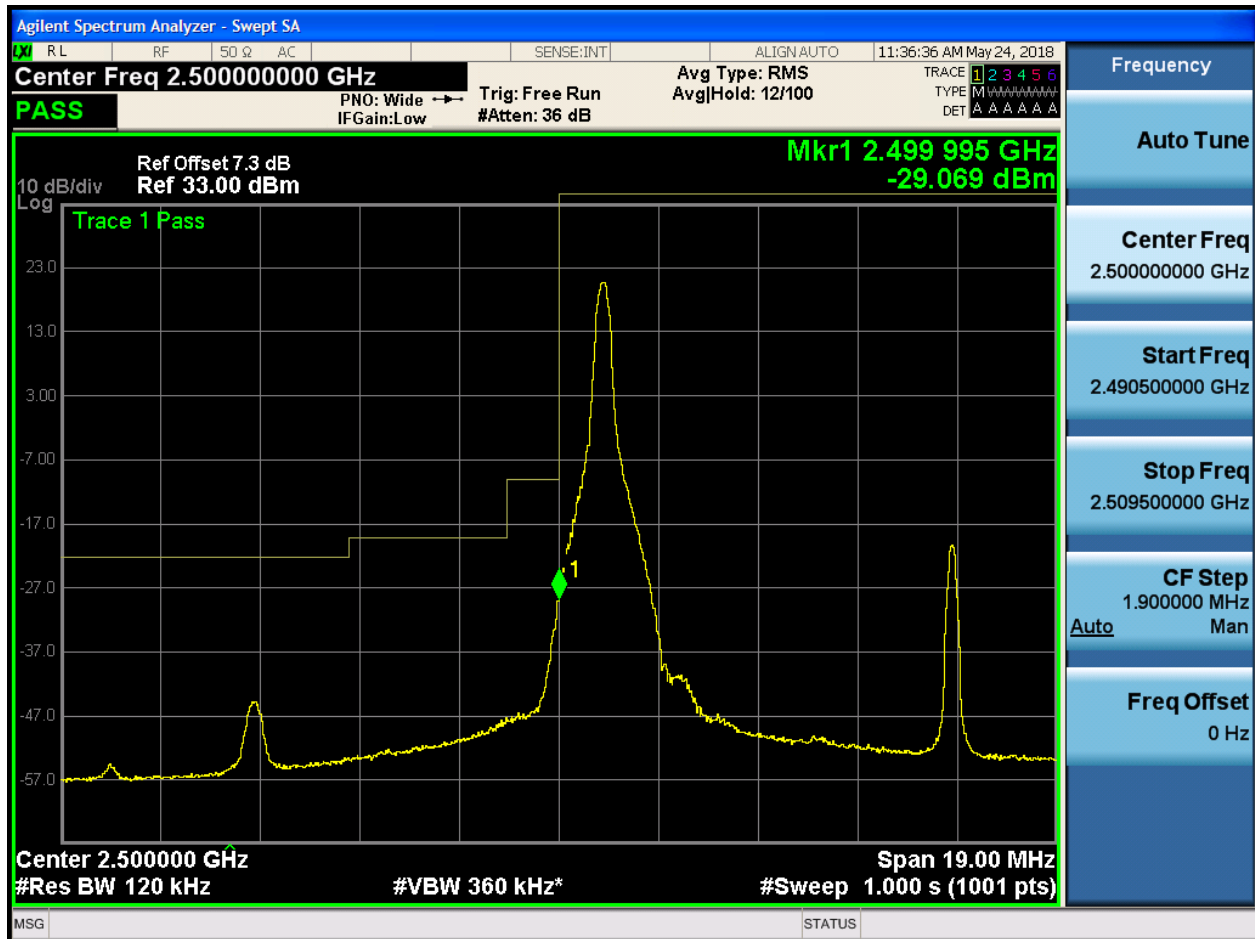


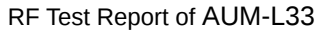


5.1.1.2.3 Test Bandwidth = 15

5.1.1.2.3.1 Test Channel = LCH

5.1.1.2.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 11:36:55 AM May 24, 2018

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

Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -53.119 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



5.1.1.2.3.1.3 Test RB = RB36#18

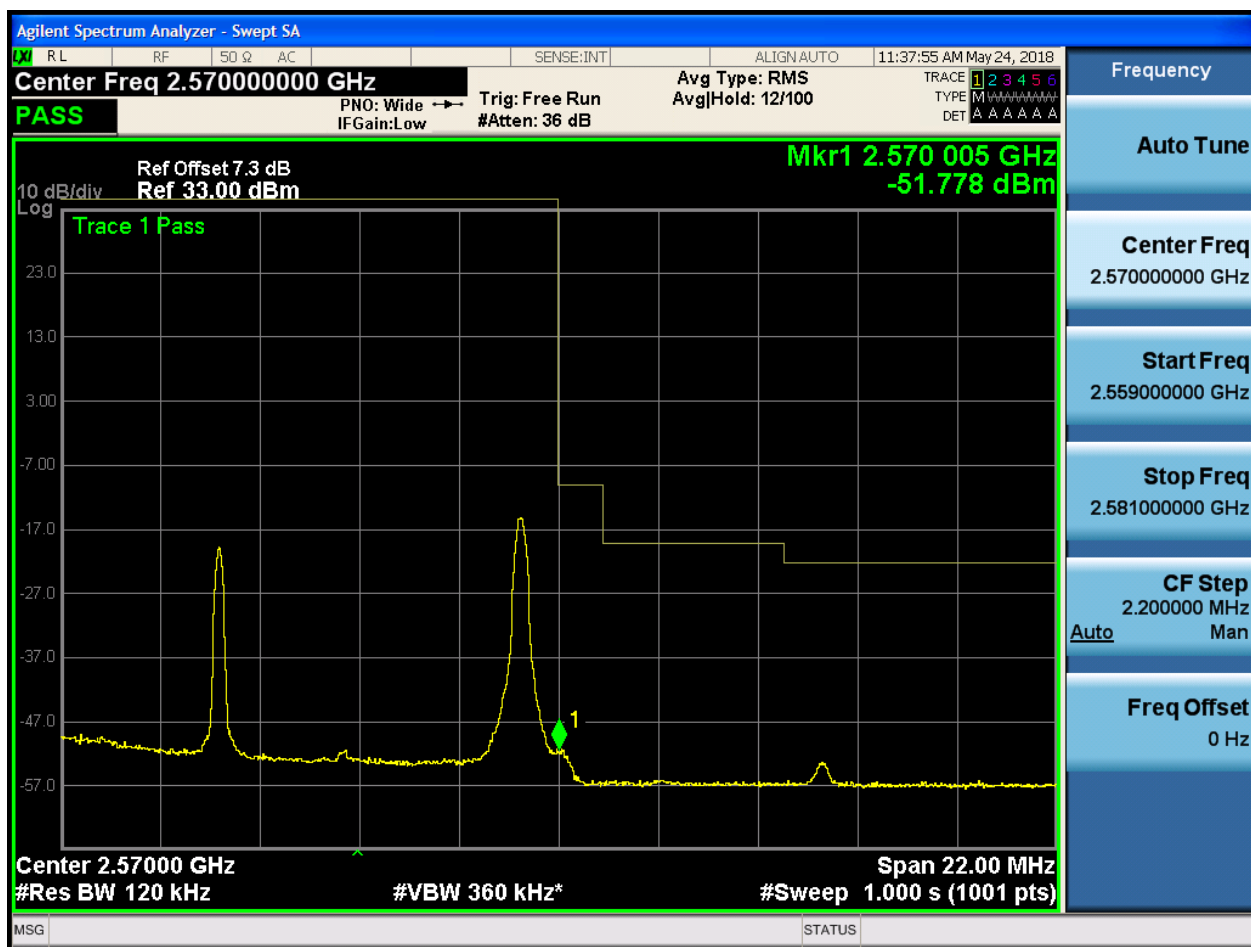


5.1.1.2.3.1.4 Test RB = RB75#0



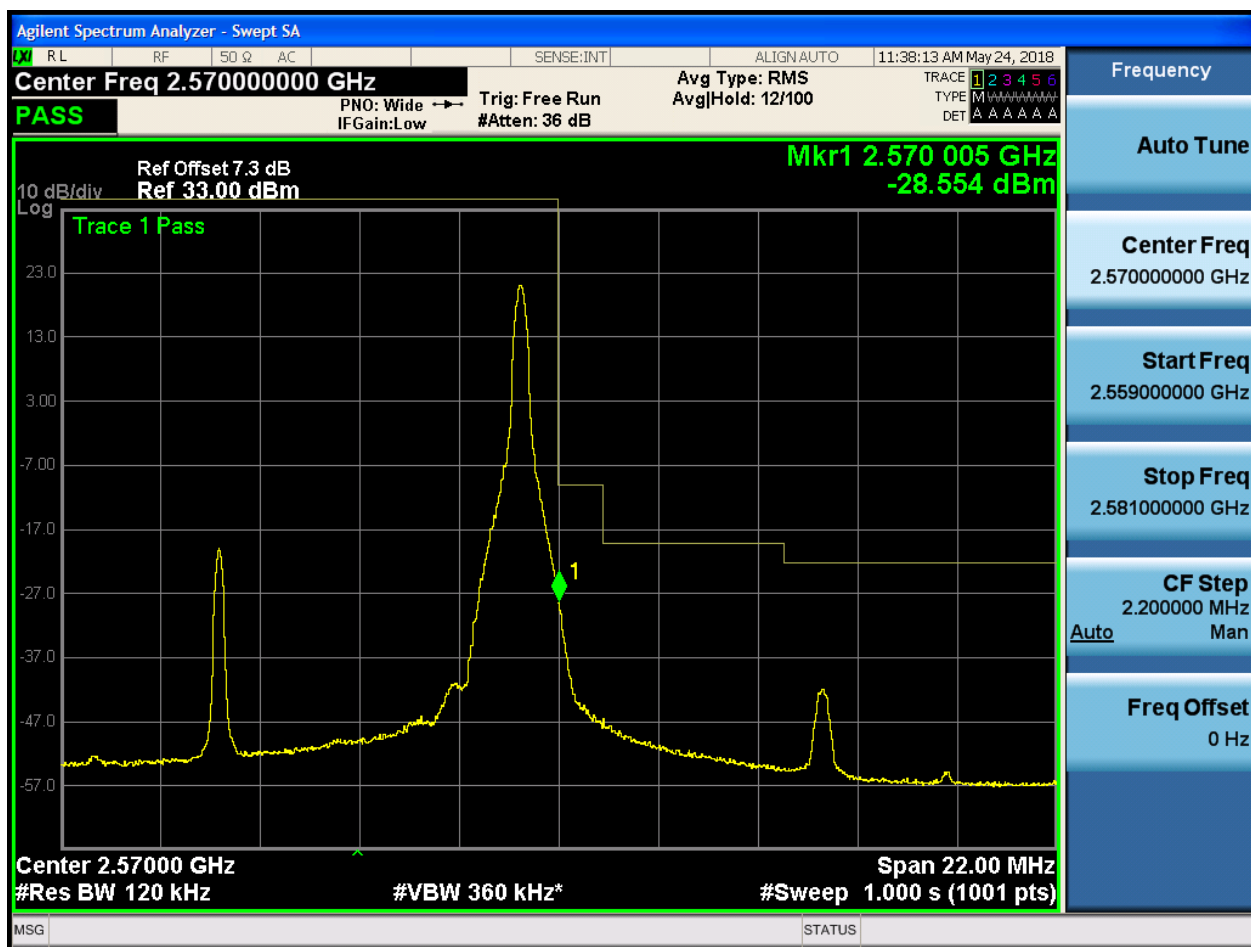
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





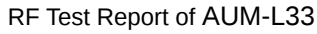
5.1.1.2.3.2.2 Test RB = RB1#74





5.1.1.2.3.2.3 Test RB = RB36#18





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.57000000 GHz

PASS

Ref Offset 7.3 dB
Ref 33.00 dBm

Mkr1 2.570 005 GHz
-34.349 dBm

Trace 1 Pass

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
2.57000000 GHz

Start Freq
2.559000000 GHz

Stop Freq
2.581000000 GHz

CF Step
2.200000 MHz
Man

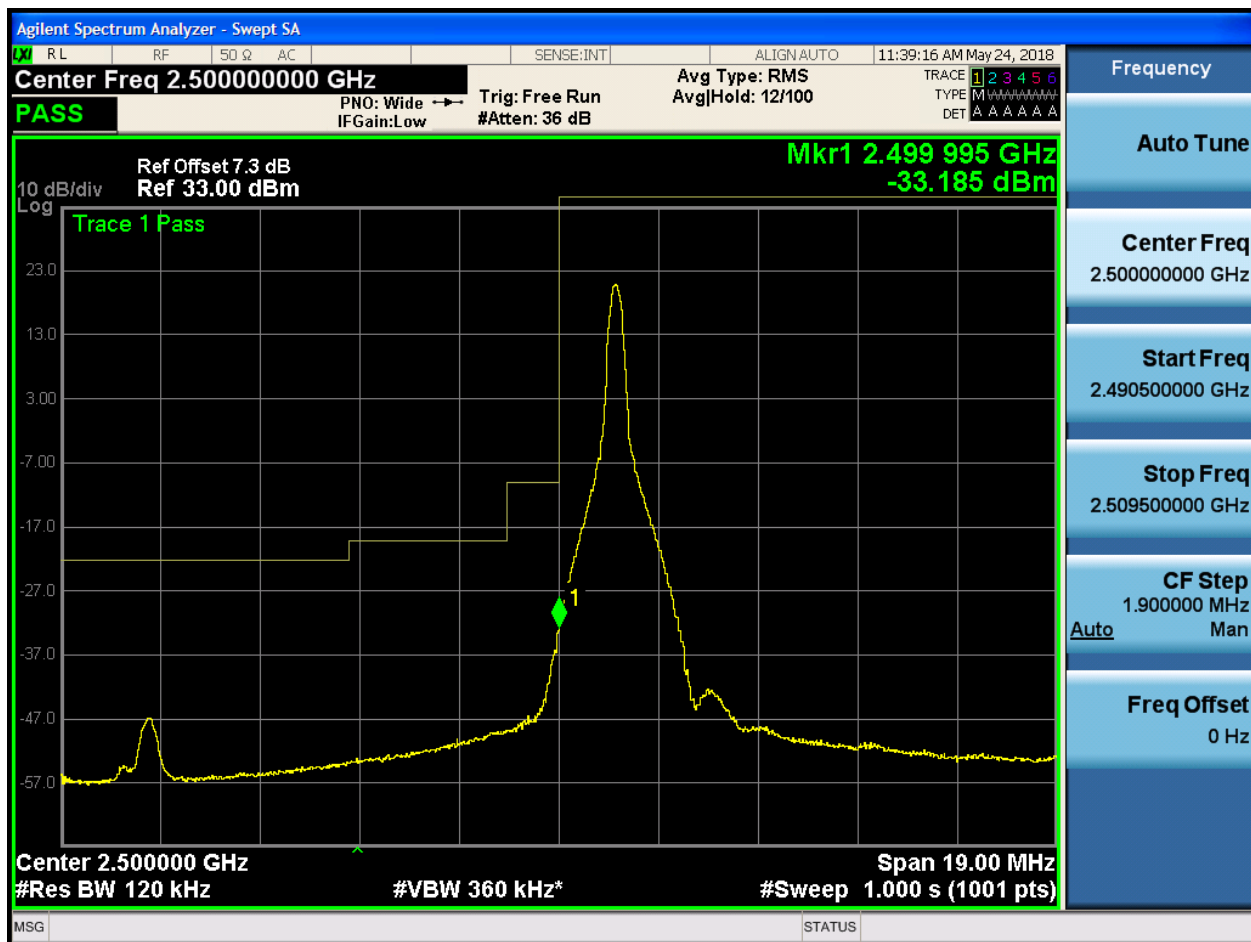
Freq Offset
0 Hz



5.1.1.2.4 Test Bandwidth = 20

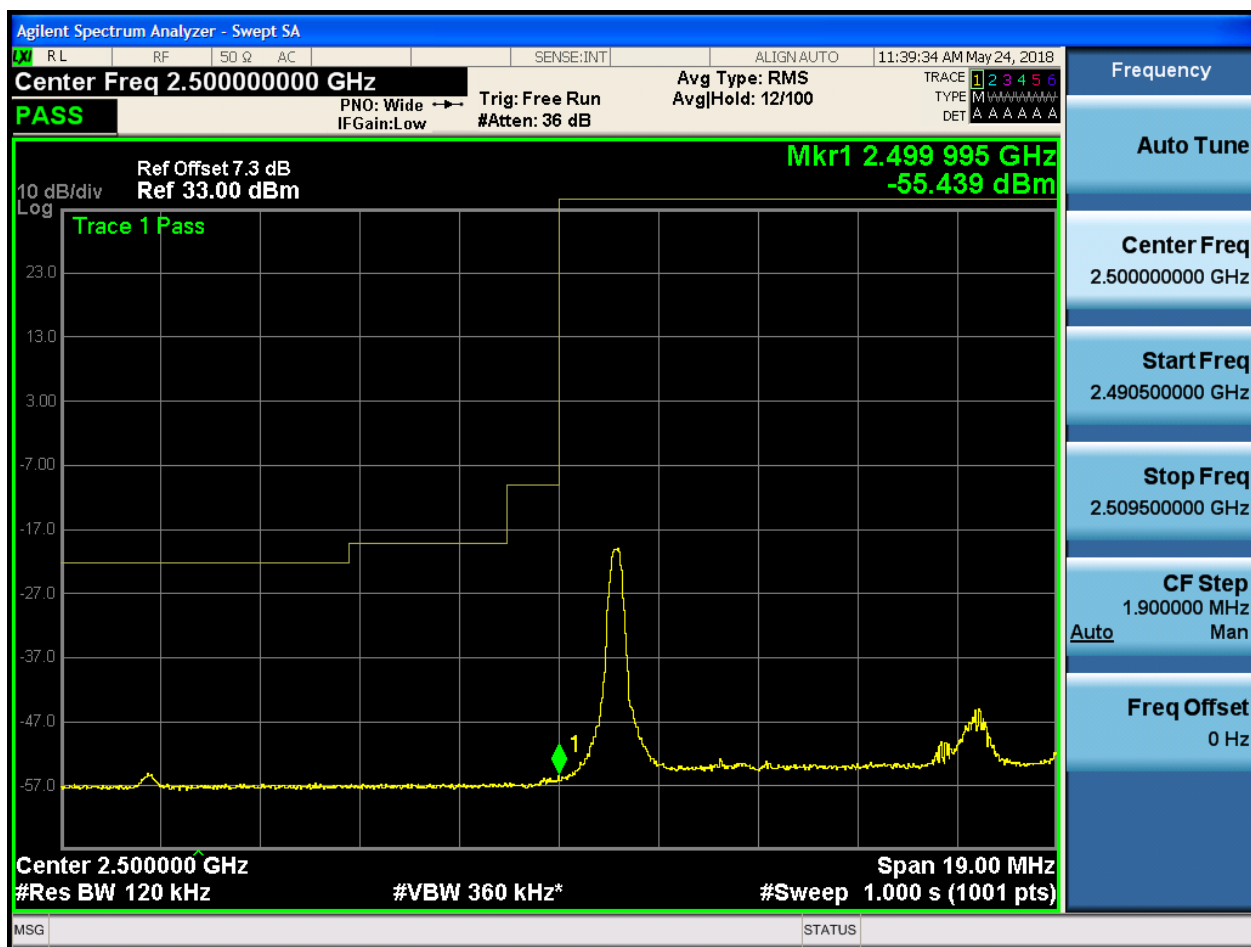
5.1.1.2.4.1 Test Channel = LCH

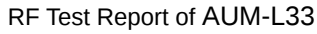
5.1.1.2.4.1.1 Test RB = RB1#0





5.1.1.2.4.1.2 Test RB = RB1#99





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 11:39:52 AM May 24, 2018

Center Freq 2.500000000 GHz Avg Type: RMS
PNO: Wide Trg: Free Run Avg/Hold: 12/100
IFGain:Low #Atten: 36 dB TYPE M DET A A A A A

PASS

Ref Offset 7.3 dB Mkr1 2.499 995 GHz
Ref 33.00 dBm -38.019 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

Frequency

Auto Tune

Center Freq
2.500000000 GHz

Start Freq
2.490500000 GHz

Stop Freq
2.509500000 GHz

CF Step
1.900000 MHz
Auto Man

Freq Offset
0 Hz

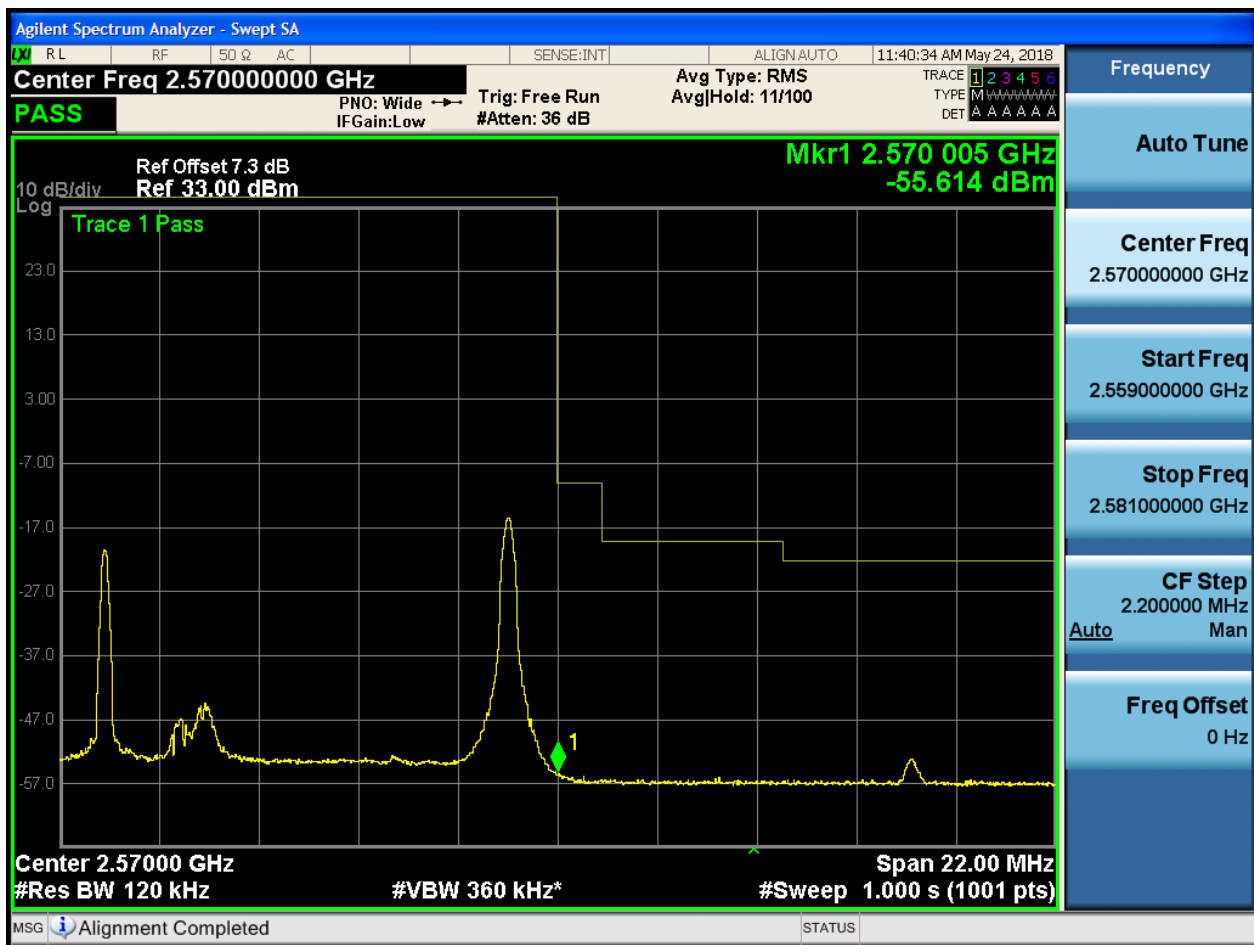


5.1.1.2.4.1.4 Test RB = RB100#0



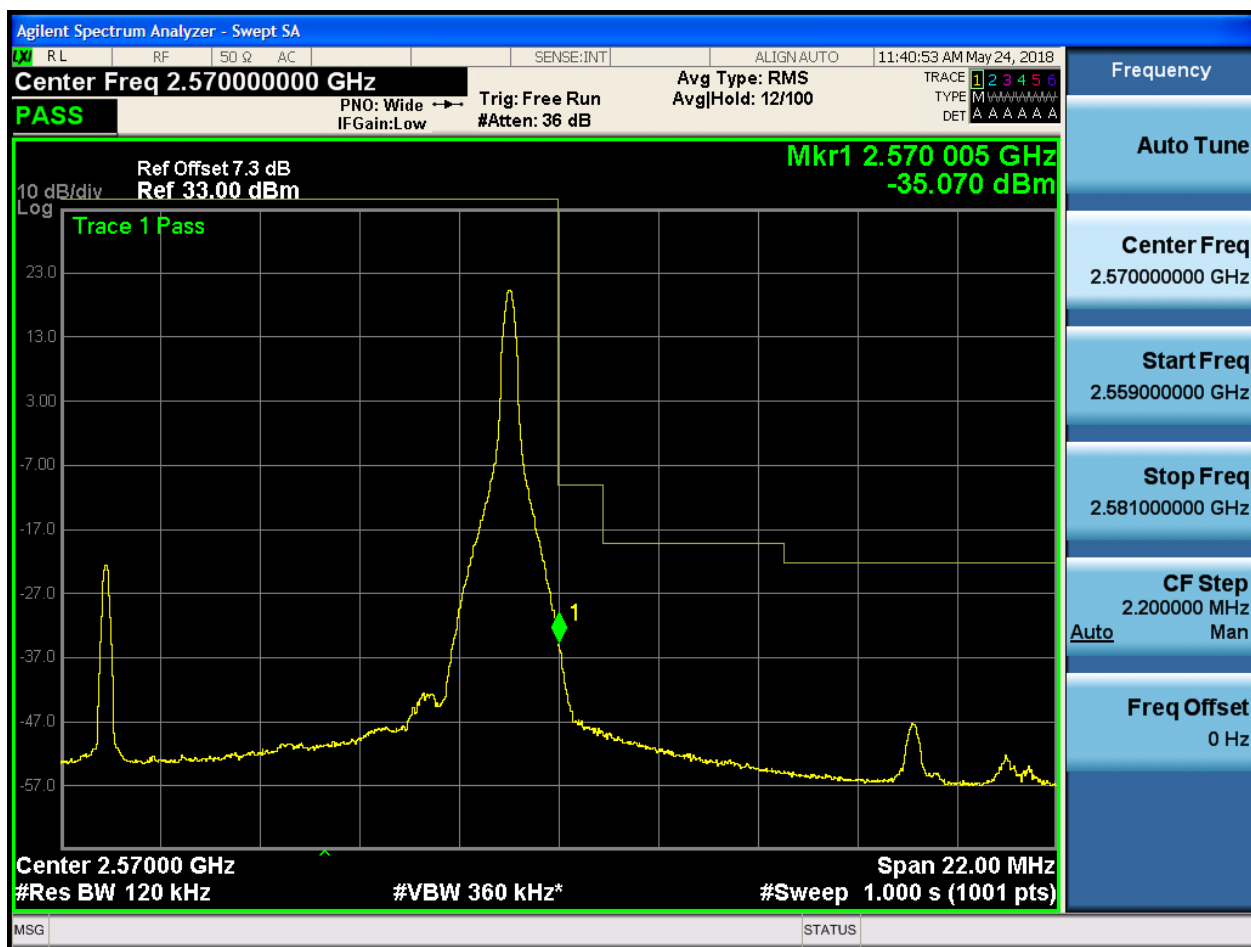
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0





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

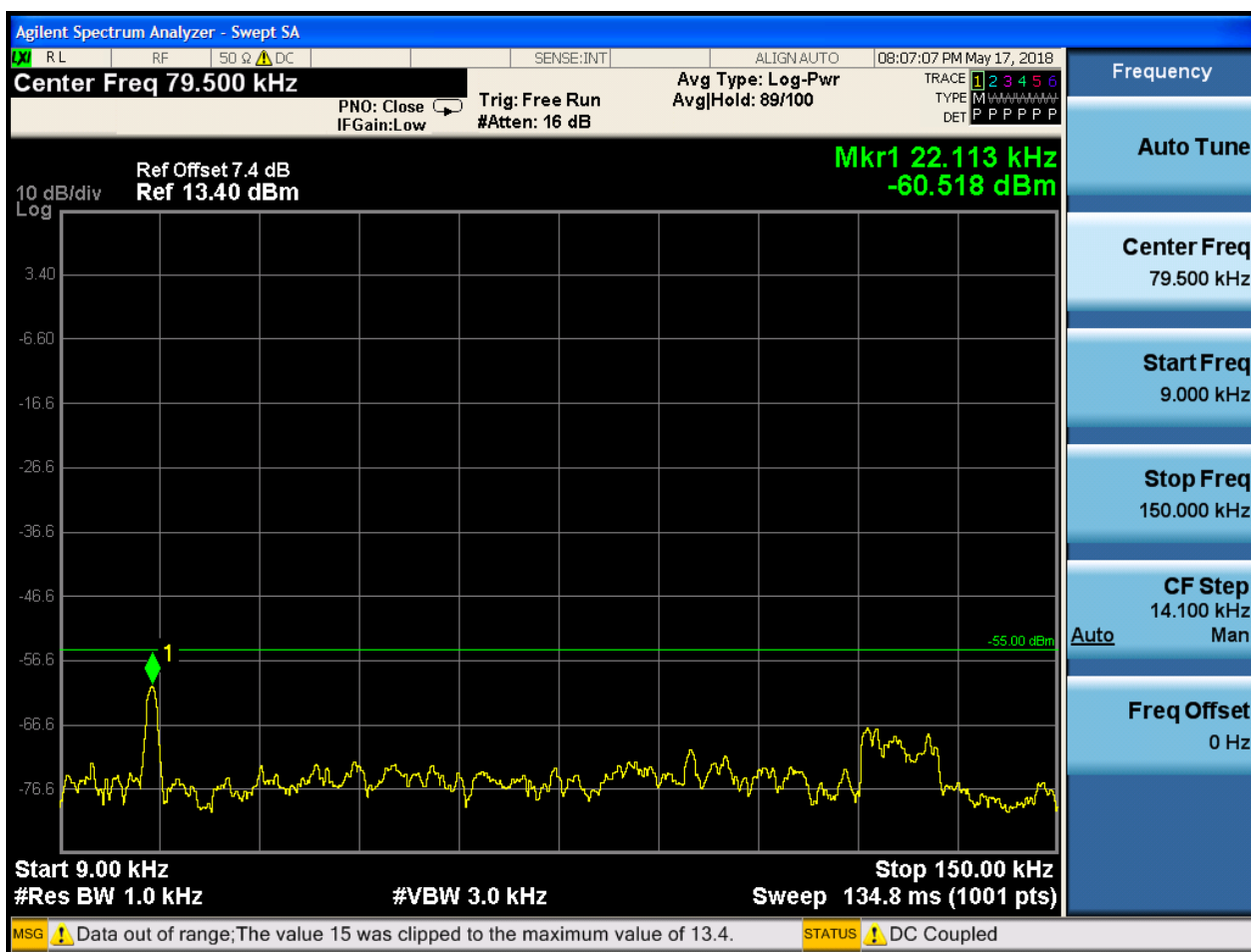
6.1.1 Test Band = BAND7

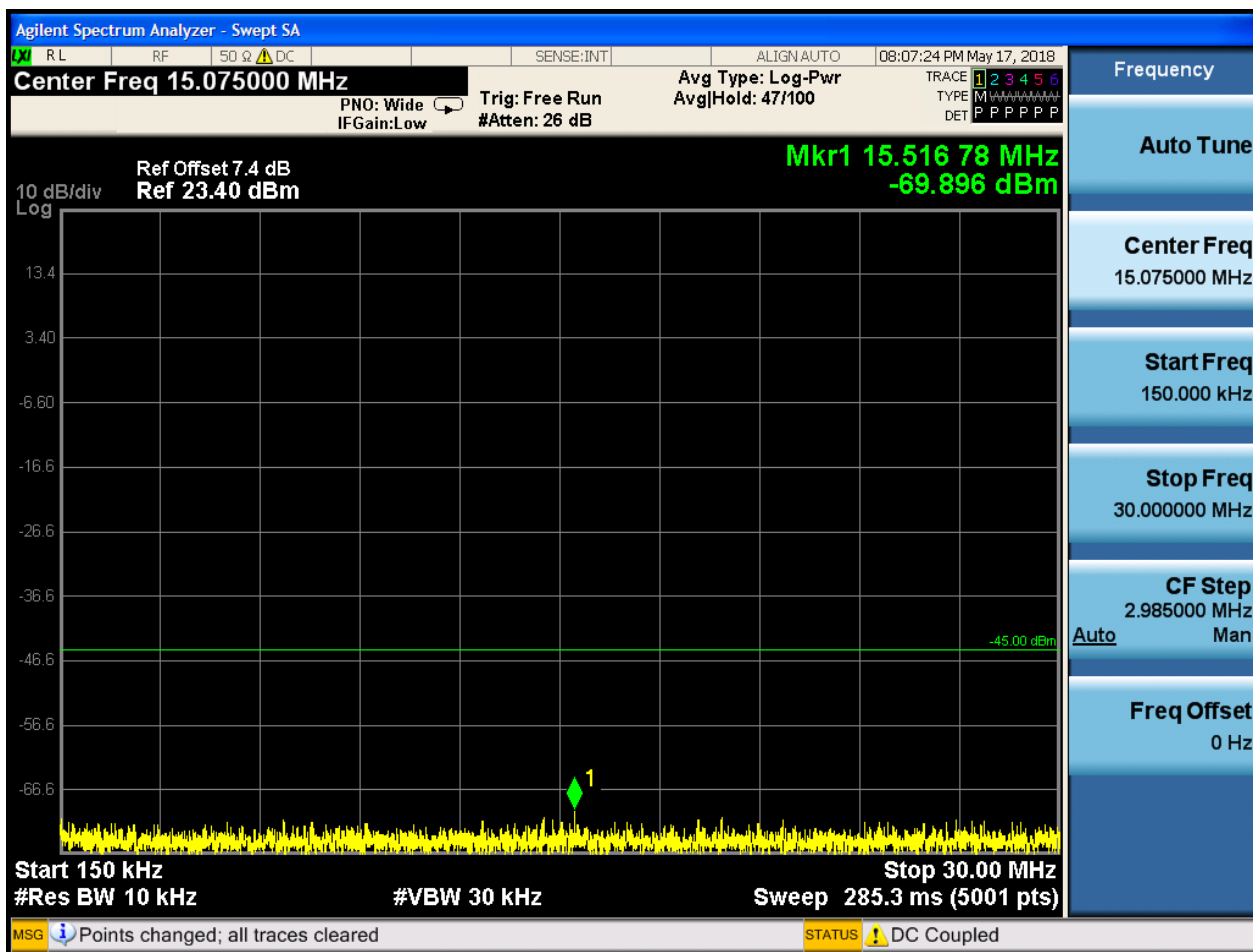
6.1.1.1 Test Mode = LTE/TM1

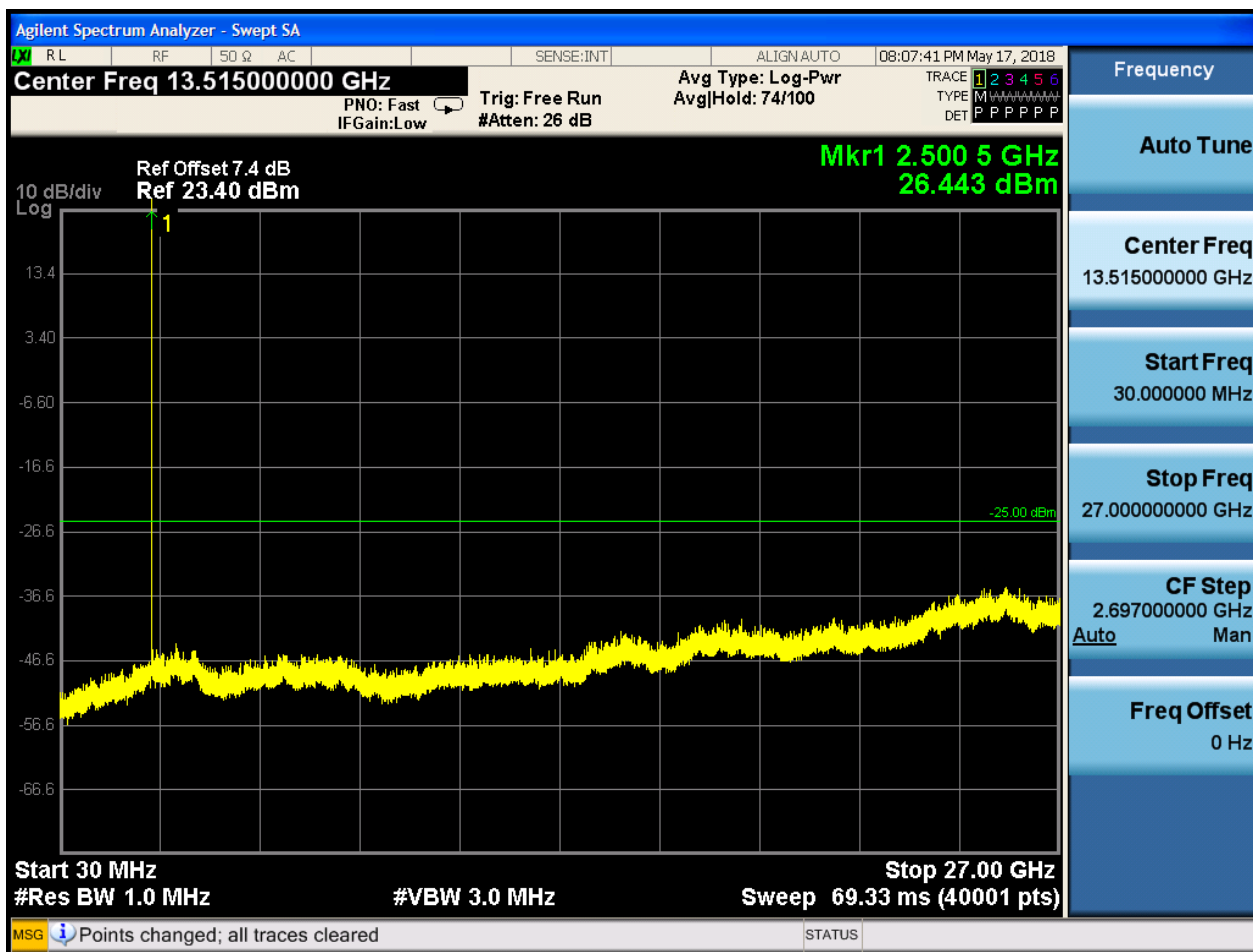
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0



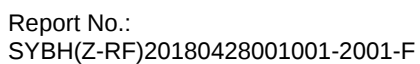
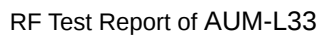


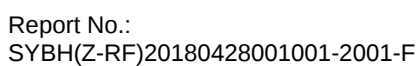
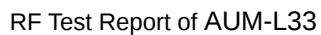


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



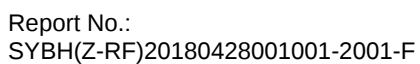
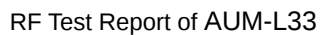


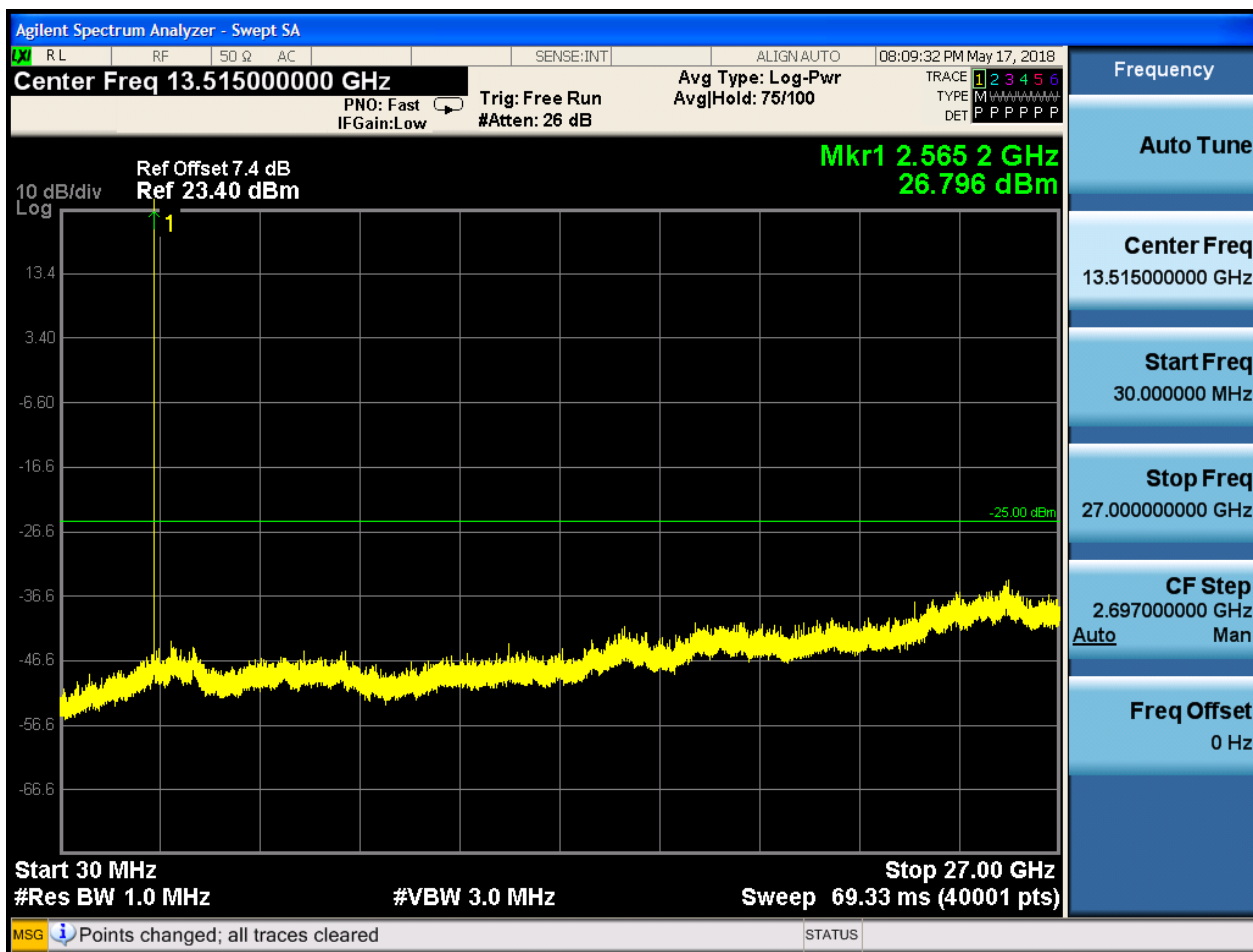


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0



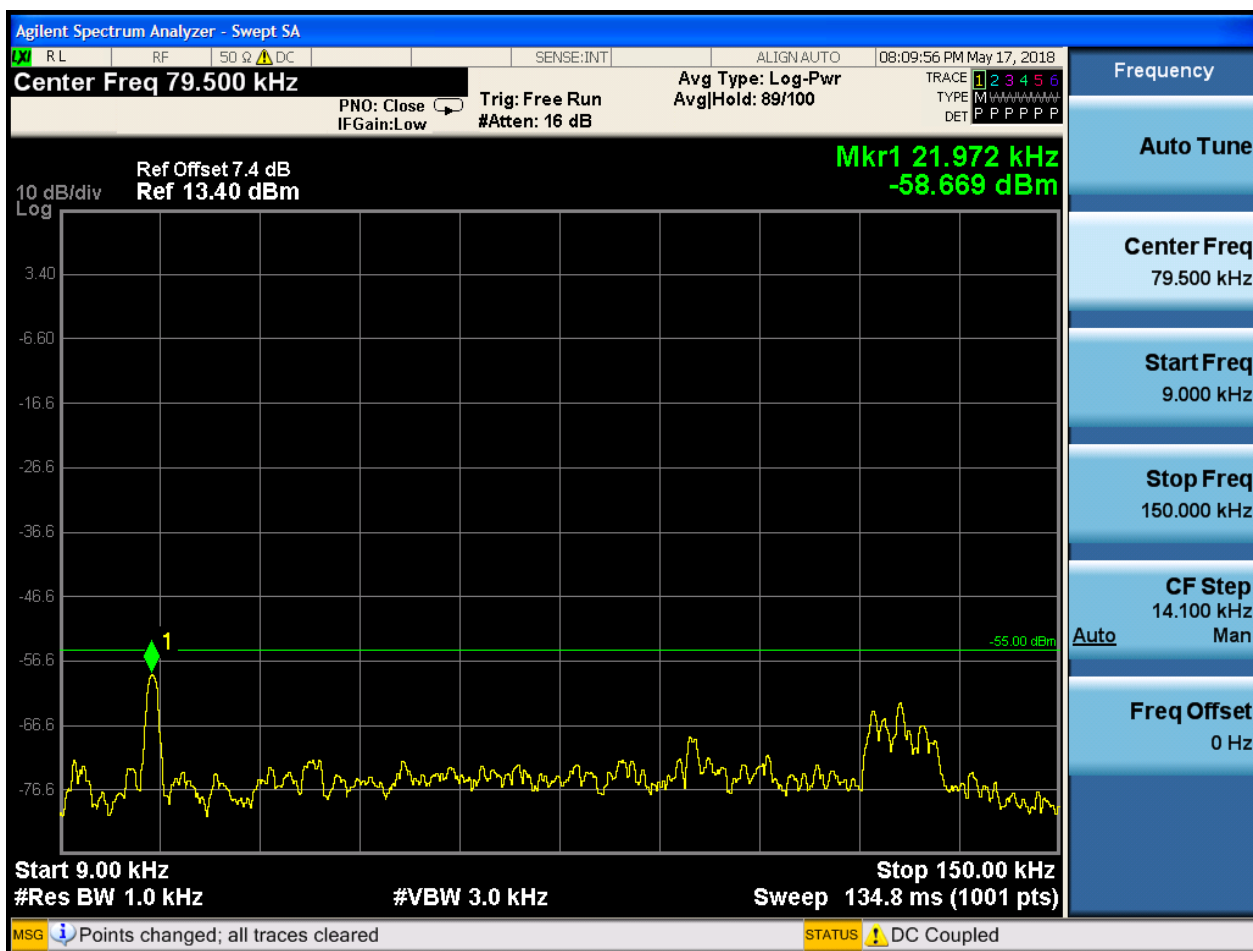


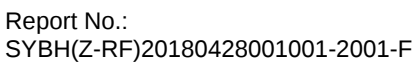
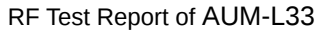


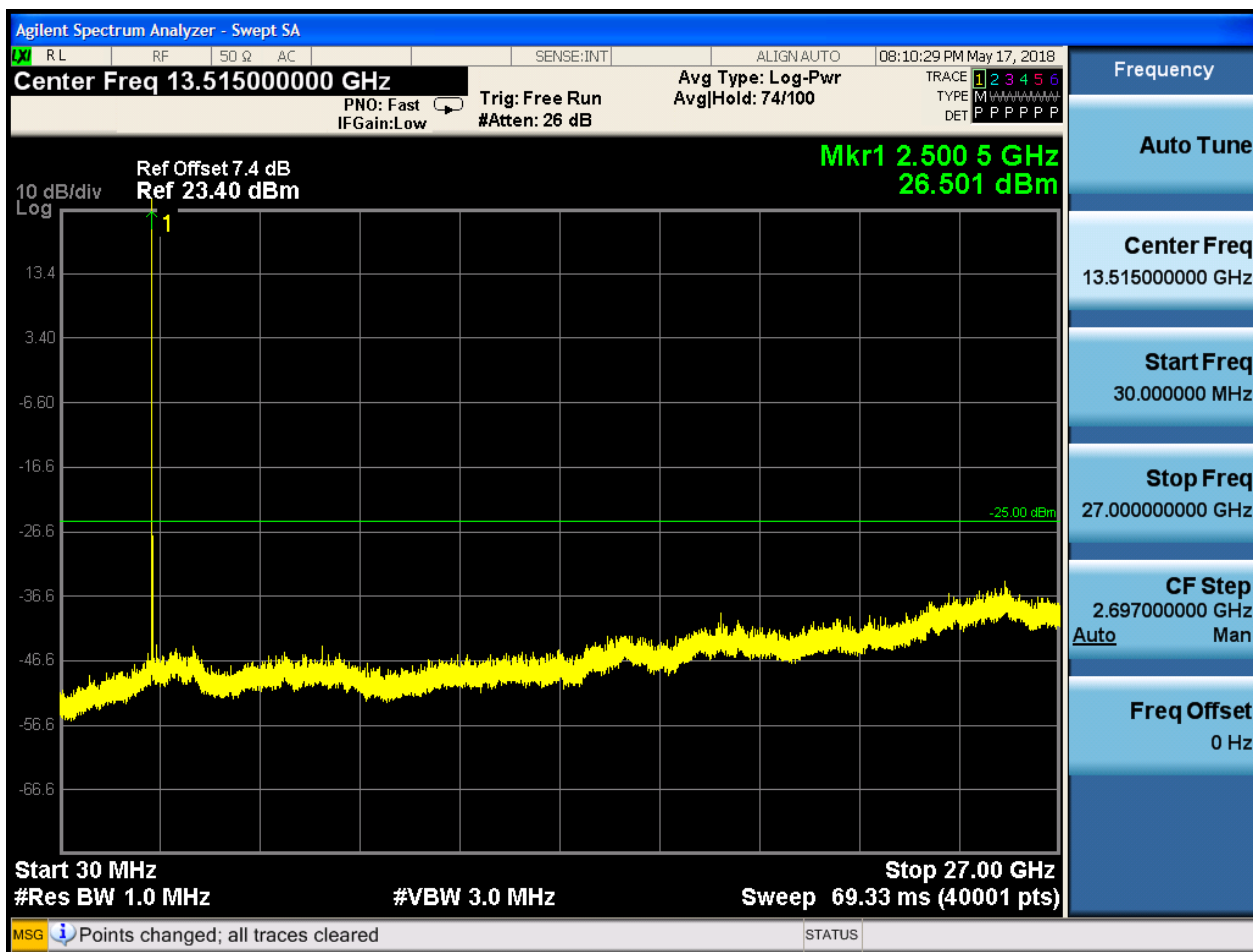
6.1.1.1.2 Test Bandwidth = 10

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

