



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]	ERP [dBm]	Limit [dBm]	Verdict
BAND12	LTE/TM1	1.4	LCH	RB1#0	22.71	19.12	34.7	PASS
				RB1#3	22.78	19.16	34.7	PASS
				RB1#5	22.9	19.60	34.7	PASS
				RB3#0	22.77	19.48	34.7	PASS
				RB3#2	22.78	19.15	34.7	PASS
				RB3#3	22.79	19.29	34.7	PASS
				RB6#0	21.52	18.26	34.7	PASS
			MCH	RB1#0	22.43	18.85	34.7	PASS
				RB1#3	22.5	19.04	34.7	PASS
				RB1#5	22.62	19.21	34.7	PASS
				RB3#0	22.38	18.73	34.7	PASS
				RB3#2	22.4	19.11	34.7	PASS
				RB3#3	22.57	19.05	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB6#0	21.16	17.67	34.7	PASS
			HCH	RB1#0	22.15	18.89	34.7	PASS
				RB1#3	21.95	18.57	34.7	PASS
				RB1#5	21.87	18.49	34.7	PASS
				RB3#0	22.05	18.69	34.7	PASS
				RB3#2	21.87	18.44	34.7	PASS
				RB3#3	21.77	18.32	34.7	PASS
				RB6#0	20.74	17.37	34.7	PASS
		3	LCH	RB1#0	22.64	19.00	34.7	PASS
				RB1#7	22.79	19.26	34.7	PASS
				RB1#14	22.11	18.80	34.7	PASS
				RB8#0	21.44	17.89	34.7	PASS
				RB8#4	21.38	18.12	34.7	PASS
				RB8#7	20.95	17.33	34.7	PASS
				RB15#0	21.24	17.59	34.7	PASS
			MCH	RB1#0	22.14	18.79	34.7	PASS
				RB1#7	22.52	18.91	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#14	22.58	19.26	34.7	PASS
				RB8#0	21.05	17.62	34.7	PASS
				RB8#4	21.19	17.67	34.7	PASS
				RB8#7	21.33	17.89	34.7	PASS
				RB15#0	21.19	17.65	34.7	PASS
			HCH	RB1#0	22.5	18.88	34.7	PASS
				RB1#7	22.45	19.15	34.7	PASS
				RB1#14	21.71	18.30	34.7	PASS
				RB8#0	21.38	18.06	34.7	PASS
				RB8#4	21.01	17.69	34.7	PASS
				RB8#7	20.5	17.05	34.7	PASS
				RB15#0	20.83	17.32	34.7	PASS
		5	LCH	RB1#0	22.71	19.37	34.7	PASS
				RB1#13	22.29	18.85	34.7	PASS
				RB1#24	21.71	18.10	34.7	PASS
				RB12#0	21.33	17.87	34.7	PASS
				RB12#6	20.97	17.63	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB12#13	20.87	17.38	34.7	PASS
				RB25#0	20.85	17.58	34.7	PASS
			MCH	RB1#0	22.08	18.82	34.7	PASS
				RB1#13	22.54	18.89	34.7	PASS
				RB1#24	22.77	19.49	34.7	PASS
				RB12#0	21.02	17.69	34.7	PASS
				RB12#6	21.17	17.79	34.7	PASS
				RB12#13	21.39	17.92	34.7	PASS
				RB25#0	21.4	17.95	34.7	PASS
			HCH	RB1#0	22.94	19.36	34.7	PASS
				RB1#13	22.47	18.96	34.7	PASS
				RB1#24	21.8	18.17	34.7	PASS
				RB12#0	21.48	17.94	34.7	PASS
				RB12#6	21.35	17.84	34.7	PASS
				RB12#13	20.96	17.60	34.7	PASS
				RB25#0	21.27	17.89	34.7	PASS
		10	LCH	RB1#0	22.68	19.14	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#25	23.57	20.16	34.7	PASS
				RB1#49	23.07	19.43	34.7	PASS
				RB25#0	20.88	17.33	34.7	PASS
				RB25#13	21.36	17.78	34.7	PASS
				RB25#25	20.91	17.55	34.7	PASS
				RB50#0	21.22	17.71	34.7	PASS
			MCH	RB1#0	22.05	18.70	34.7	PASS
				RB1#25	23.97	20.49	34.7	PASS
				RB1#49	22.95	19.53	34.7	PASS
				RB25#0	21.15	17.53	34.7	PASS
				RB25#13	21.43	17.83	34.7	PASS
				RB25#25	21.09	17.67	34.7	PASS
				RB50#0	21.37	17.84	34.7	PASS
			HCH	RB1#0	22.48	18.85	34.7	PASS
				RB1#25	23.99	20.46	34.7	PASS
				RB1#49	22.24	18.92	34.7	PASS
				RB25#0	21.63	18.34	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#13	21.3	17.89	34.7	PASS
				RB25#25	21.33	17.80	34.7	PASS
				RB50#0	21.3	18.00	34.7	PASS
	LTE/TM2	1.4	LCH	RB1#0	21.24	17.84	34.7	PASS
				RB1#3	21.29	17.64	34.7	PASS
				RB1#5	21.32	17.74	34.7	PASS
				RB3#0	21.48	18.02	34.7	PASS
				RB3#2	21.49	18.06	34.7	PASS
				RB3#3	21.49	18.23	34.7	PASS
				RB6#0	20.58	17.25	34.7	PASS
			MCH	RB1#0	21.01	17.50	34.7	PASS
				RB1#3	21.16	17.57	34.7	PASS
				RB1#5	21.23	17.83	34.7	PASS
				RB3#0	21.17	17.61	34.7	PASS
				RB3#2	21.19	17.59	34.7	PASS
				RB3#3	21.26	17.89	34.7	PASS
				RB6#0	20.18	16.84	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
			HCH	RB1#0	21.12	17.52	34.7	PASS
				RB1#3	20.87	17.51	34.7	PASS
				RB1#5	20.7	17.36	34.7	PASS
				RB3#0	20.93	17.35	34.7	PASS
				RB3#2	20.77	17.22	34.7	PASS
				RB3#3	20.67	17.15	34.7	PASS
				RB6#0	19.97	16.51	34.7	PASS
		3	LCH	RB1#0	21.38	17.78	34.7	PASS
				RB1#7	21.61	18.16	34.7	PASS
				RB1#14	20.95	17.46	34.7	PASS
				RB8#0	20.51	16.88	34.7	PASS
				RB8#4	20.46	17.17	34.7	PASS
				RB8#7	20.04	16.56	34.7	PASS
				RB15#0	20.34	16.92	34.7	PASS
			MCH	RB1#0	21.01	17.71	34.7	PASS
				RB1#7	21.29	17.71	34.7	PASS
				RB1#14	21.33	17.69	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB8#0	20.13	16.77	34.7	PASS
				RB8#4	20.26	17.00	34.7	PASS
				RB8#7	20.41	17.05	34.7	PASS
				RB15#0	20.22	16.86	34.7	PASS
			HCH	RB1#0	21.34	17.81	34.7	PASS
				RB1#7	21.45	18.19	34.7	PASS
				RB1#14	20.59	17.23	34.7	PASS
				RB8#0	20.37	16.74	34.7	PASS
				RB8#4	20.02	16.59	34.7	PASS
				RB8#7	19.63	16.07	34.7	PASS
				RB15#0	19.8	16.20	34.7	PASS
		5	LCH	RB1#0	21.7	18.20	34.7	PASS
				RB1#13	21.25	17.82	34.7	PASS
				RB1#24	20.83	17.46	34.7	PASS
				RB12#0	20.46	16.83	34.7	PASS
				RB12#6	20.1	16.69	34.7	PASS
				RB12#13	19.95	16.42	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#0	19.96	16.62	34.7	PASS
			MCH	RB1#0	21.1	17.56	34.7	PASS
				RB1#13	21.43	18.02	34.7	PASS
				RB1#24	21.78	18.42	34.7	PASS
				RB12#0	20.13	16.69	34.7	PASS
				RB12#6	20.24	16.89	34.7	PASS
				RB12#13	20.32	16.98	34.7	PASS
				RB25#0	20.48	16.84	34.7	PASS
			HCH	RB1#0	22.03	18.39	34.7	PASS
				RB1#13	21.71	18.29	34.7	PASS
				RB1#24	20.92	17.47	34.7	PASS
				RB12#0	20.54	16.92	34.7	PASS
				RB12#6	20.43	16.82	34.7	PASS
				RB12#13	20	16.70	34.7	PASS
				RB25#0	20.29	16.97	34.7	PASS
		10	LCH	RB1#0	21.4	17.92	34.7	PASS
				RB1#25	22.2	18.82	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB1#49	21.8	18.45	34.7	PASS
				RB25#0	19.87	16.42	34.7	PASS
				RB25#13	20.43	17.18	34.7	PASS
				RB25#25	19.97	16.72	34.7	PASS
				RB50#0	20.27	16.83	34.7	PASS
			MCH	RB1#0	20.78	17.26	34.7	PASS
				RB1#25	22.64	19.21	34.7	PASS
				RB1#49	21.59	17.98	34.7	PASS
				RB25#0	20.23	16.96	34.7	PASS
				RB25#13	20.49	17.05	34.7	PASS
				RB25#25	20.06	16.57	34.7	PASS
				RB50#0	20.33	17.02	34.7	PASS
			HCH	RB1#0	21.2	17.87	34.7	PASS
				RB1#25	22.95	19.46	34.7	PASS
				RB1#49	21.15	17.70	34.7	PASS
				RB25#0	20.45	17.11	34.7	PASS
				RB25#13	20.21	16.67	34.7	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
				RB25#25	20.34	16.93	34.7	PASS
				RB50#0	20.24	16.75	34.7	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:

SET Span=1.5*OBW

SET RBW=1%of the OBW,not to wxceed 1MHz

SET VBW>= 3*RBW

SET Sweep time=auto-couple.

Detector:RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
BAND12	LTE/TM1	1.4	LCH	RB1#0	4.03	13	PASS
				RB1#3	4.03	13	PASS
				RB1#5	4.11	13	PASS
				RB3#0	4.49	13	PASS
				RB3#2	4.49	13	PASS
				RB3#3	4.63	13	PASS
				RB6#0	5.22	13	PASS
			MCH	RB1#0	3.94	13	PASS
				RB1#3	3.75	13	PASS
				RB1#5	3.52	13	PASS
				RB3#0	4.3	13	PASS
				RB3#2	4.12	13	PASS
				RB3#3	4.17	13	PASS
				RB6#0	5.49	13	PASS
			HCH	RB1#0	4.21	13	PASS
				RB1#3	4.04	13	PASS
				RB1#5	3.9	13	PASS
				RB3#0	4.67	13	PASS
				RB3#2	4.39	13	PASS
				RB3#3	4.43	13	PASS
				RB6#0	5.57	13	PASS
		3	LCH	RB1#0	4.2	13	PASS
				RB1#7	4.36	13	PASS
				RB1#14	4.77	13	PASS
				RB8#0	5.1	13	PASS
				RB8#4	5.21	13	PASS
				RB8#7	5.31	13	PASS
				RB15#0	5.54	13	PASS
			MCH	RB1#0	4	13	PASS
				RB1#7	3.71	13	PASS
				RB1#14	3.53	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB8#0	5.33	13	PASS
				RB8#4	5.12	13	PASS
				RB8#7	5.16	13	PASS
				RB15#0	5.84	13	PASS
			HCH	RB1#0	4.5	13	PASS
				RB1#7	4.43	13	PASS
				RB1#14	4.22	13	PASS
				RB8#0	5.4	13	PASS
				RB8#4	5.28	13	PASS
				RB8#7	5.44	13	PASS
				RB15#0	5.8	13	PASS
		5	LCH	RB1#0	4.05	13	PASS
				RB1#13	4.54	13	PASS
				RB1#24	4.51	13	PASS
				RB12#0	5.56	13	PASS
				RB12#6	5.6	13	PASS
				RB12#13	5.83	13	PASS
				RB25#0	5.86	13	PASS
			MCH	RB1#0	4.2	13	PASS
				RB1#13	3.76	13	PASS
				RB1#24	3.28	13	PASS
				RB12#0	5.32	13	PASS
				RB12#6	5.17	13	PASS
				RB12#13	5.16	13	PASS
				RB25#0	5.53	13	PASS
			HCH	RB1#0	3.42	13	PASS
				RB1#13	4.3	13	PASS
				RB1#24	3.95	13	PASS
				RB12#0	5.2	13	PASS
				RB12#6	5.37	13	PASS
				RB12#13	5.43	13	PASS
				RB25#0	5.42	13	PASS
		10	LCH	RB1#0	4.21	13	PASS
				RB1#25	3.74	13	PASS
				RB1#49	3.18	13	PASS
				RB25#0	5.77	13	PASS
				RB25#13	5.49	13	PASS
				RB25#25	5.59	13	PASS
				RB50#0	6.04	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
			MCH	RB1#0	4.46	13	PASS
				RB1#25	2.96	13	PASS
				RB1#49	3.5	13	PASS
				RB25#0	5.43	13	PASS
				RB25#13	5.09	13	PASS
				RB25#25	5.27	13	PASS
				RB50#0	6.02	13	PASS
			HCH	RB1#0	4.09	13	PASS
				RB1#25	2.23	13	PASS
				RB1#49	3.87	13	PASS
				RB25#0	4.92	13	PASS
				RB25#13	5.24	13	PASS
				RB25#25	5.44	13	PASS
				RB50#0	5.41	13	PASS
	LTE/TM2	1.4	LCH	RB1#0	5.09	13	PASS
				RB1#3	5.1	13	PASS
				RB1#5	5.26	13	PASS
				RB3#0	5.65	13	PASS
				RB3#2	5.62	13	PASS
				RB3#3	5.72	13	PASS
				RB6#0	6.32	13	PASS
			MCH	RB1#0	4.98	13	PASS
				RB1#3	4.82	13	PASS
				RB1#5	4.72	13	PASS
				RB3#0	5.39	13	PASS
				RB3#2	5.41	13	PASS
				RB3#3	5.26	13	PASS
				RB6#0	6.09	13	PASS
			HCH	RB1#0	5.16	13	PASS
				RB1#3	5.09	13	PASS
				RB1#5	4.87	13	PASS
				RB3#0	5.57	13	PASS
				RB3#2	5.41	13	PASS
				RB3#3	5.4	13	PASS
				RB6#0	6.82	13	PASS
		3	LCH	RB1#0	5.36	13	PASS
				RB1#7	5.6	13	PASS
				RB1#14	6.12	13	PASS
				RB8#0	6.09	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB8#4	6.16	13	PASS
				RB8#7	6.34	13	PASS
				RB15#0	6.67	13	PASS
			MCH	RB1#0	5.31	13	PASS
				RB1#7	5.01	13	PASS
				RB1#14	4.84	13	PASS
				RB8#0	6.04	13	PASS
				RB8#4	5.88	13	PASS
				RB8#7	5.92	13	PASS
				RB15#0	6.4	13	PASS
			HCH	RB1#0	5.13	13	PASS
				RB1#7	5.17	13	PASS
				RB1#14	5.05	13	PASS
				RB8#0	6.11	13	PASS
				RB8#4	5.94	13	PASS
				RB8#7	5.99	13	PASS
				RB15#0	6.36	13	PASS
		5	LCH	RB1#0	5.07	13	PASS
				RB1#13	5.62	13	PASS
				RB1#24	5.59	13	PASS
				RB12#0	6.38	13	PASS
				RB12#6	6.35	13	PASS
				RB12#13	6.44	13	PASS
				RB25#0	6.92	13	PASS
			MCH	RB1#0	5.12	13	PASS
				RB1#13	4.84	13	PASS
				RB1#24	4.2	13	PASS
				RB12#0	6.05	13	PASS
				RB12#6	5.83	13	PASS
				RB12#13	5.83	13	PASS
				RB25#0	6.59	13	PASS
			HCH	RB1#0	4.22	13	PASS
				RB1#13	5.04	13	PASS
				RB1#24	4.94	13	PASS
				RB12#0	5.87	13	PASS
				RB12#6	6.15	13	PASS
				RB12#13	6.29	13	PASS
				RB25#0	6.51	13	PASS
		10	LCH	RB1#0	5.16	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB1#25	4.79	13	PASS
				RB1#49	4.45	13	PASS
				RB25#0	6.71	13	PASS
				RB25#13	6.17	13	PASS
				RB25#25	6.34	13	PASS
				RB50#0	6.89	13	PASS
			MCH	RB1#0	5.37	13	PASS
				RB1#25	3.76	13	PASS
				RB1#49	4.61	13	PASS
				RB25#0	6.32	13	PASS
				RB25#13	5.9	13	PASS
				RB25#25	6.22	13	PASS
				RB50#0	6.88	13	PASS
			HCH	RB1#0	5.07	13	PASS
				RB1#25	3.54	13	PASS
				RB1#49	5.46	13	PASS
				RB25#0	5.74	13	PASS
				RB25#13	5.88	13	PASS
				RB25#25	6.31	13	PASS
				RB50#0	6.5	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

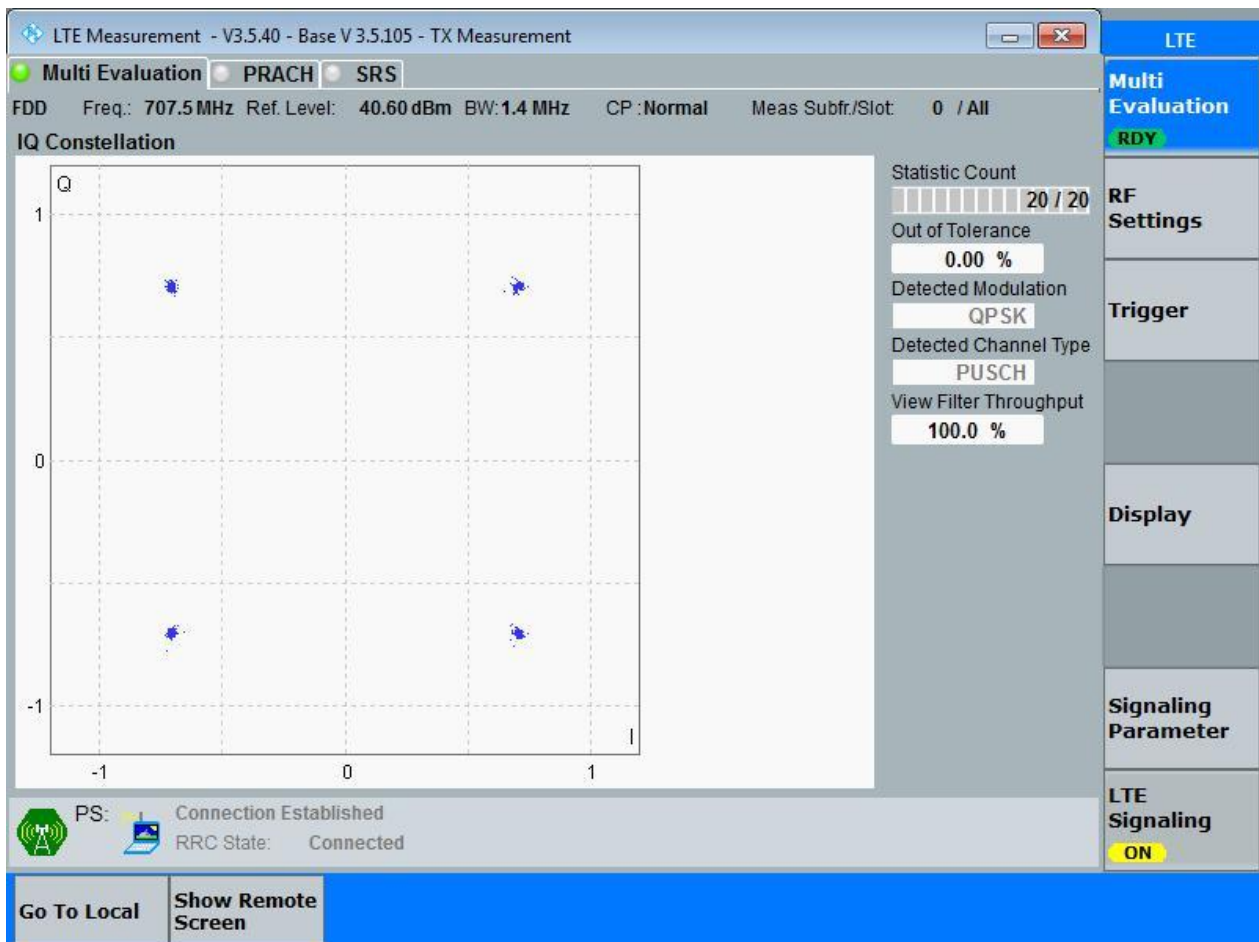
3.1.1 Test Band = BAND12

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 1.4

3.1.1.1.1.1 Test Channel = MCH

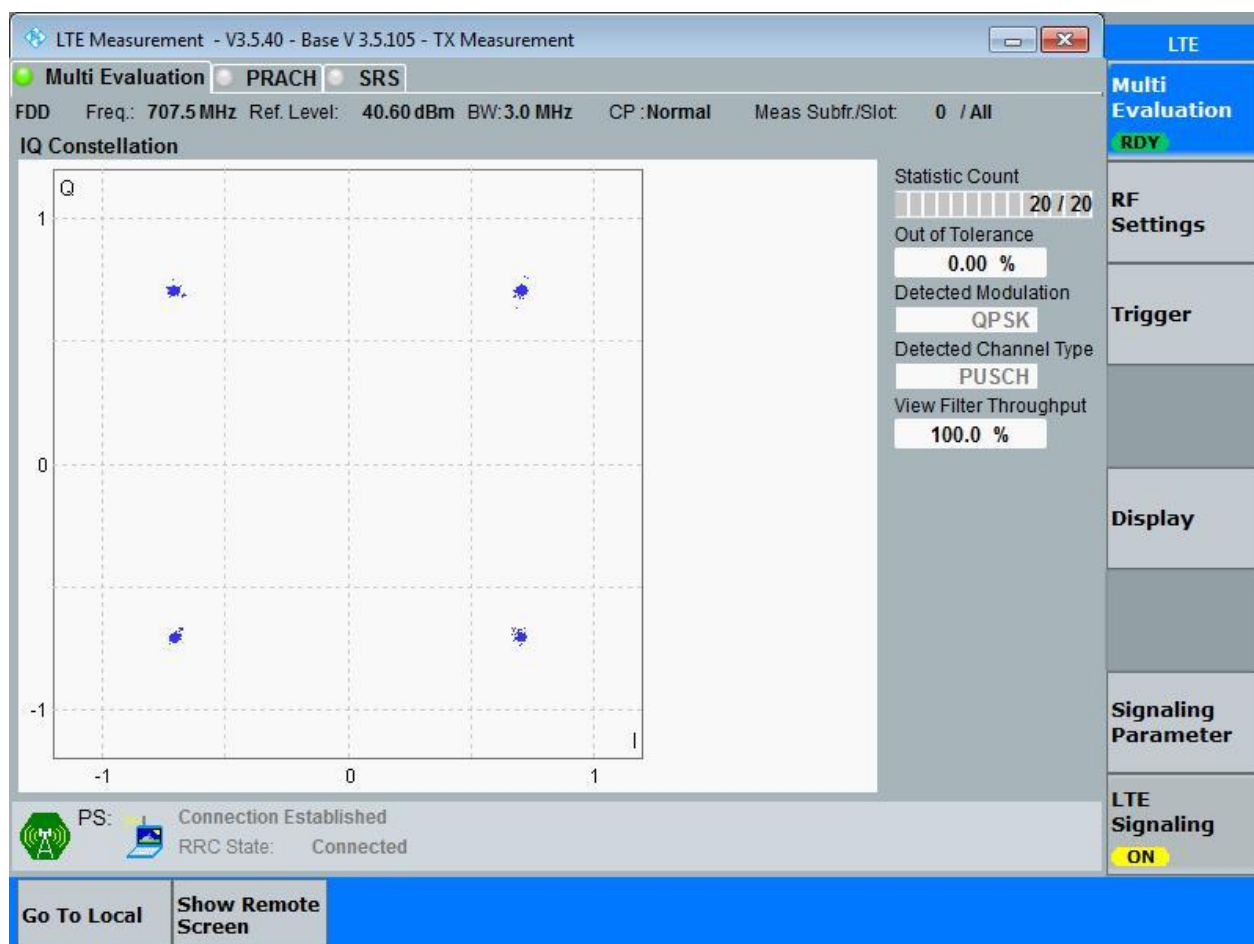
3.1.1.1.1.1.1 Test RB = RB6#0



3.1.1.1.2 Test Bandwidth = 3

3.1.1.1.2.1 Test Channel = MCH

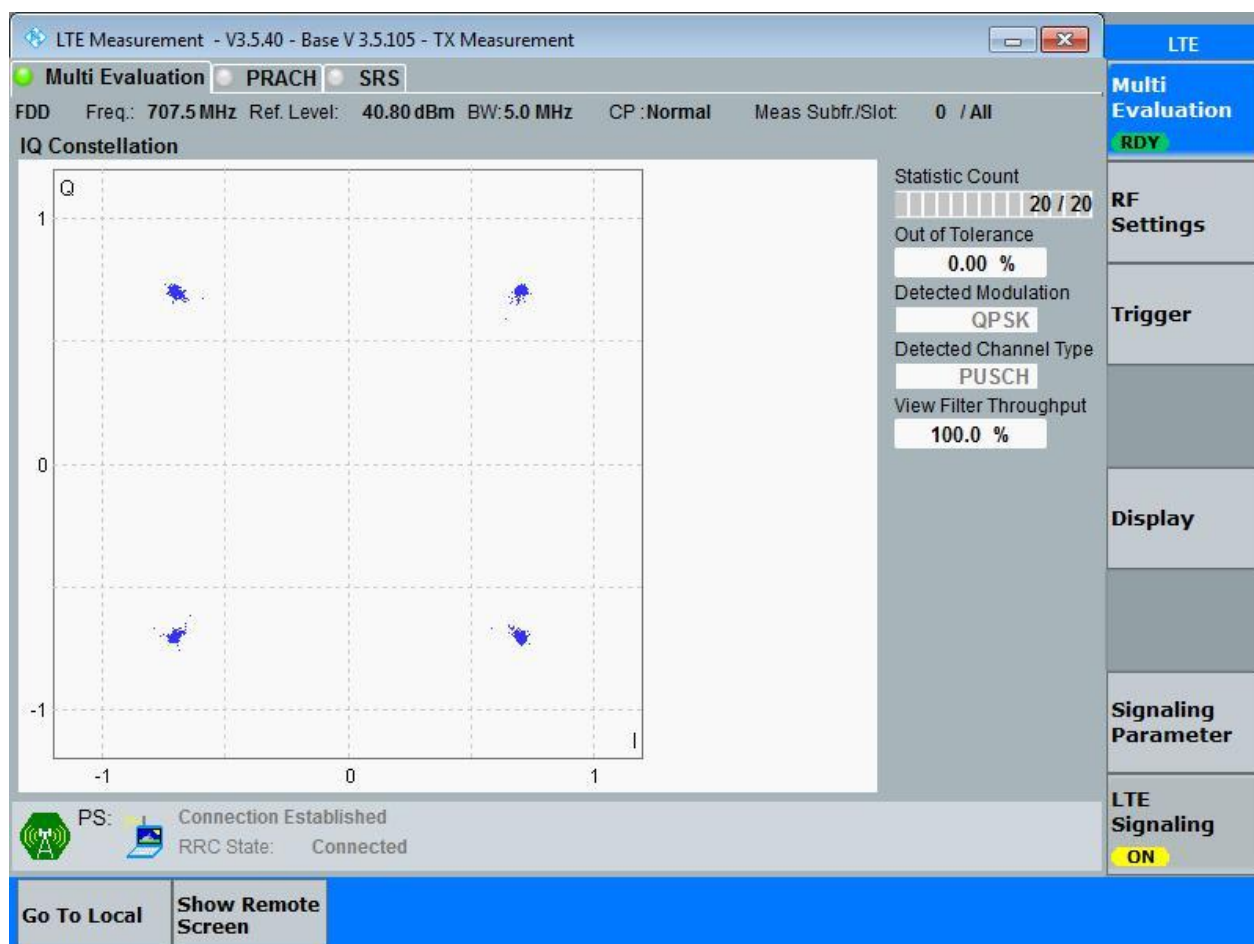
3.1.1.1.2.1.1 Test RB = RB15#0



3.1.1.1.3 Test Bandwidth = 5

3.1.1.1.3.1 Test Channel = MCH

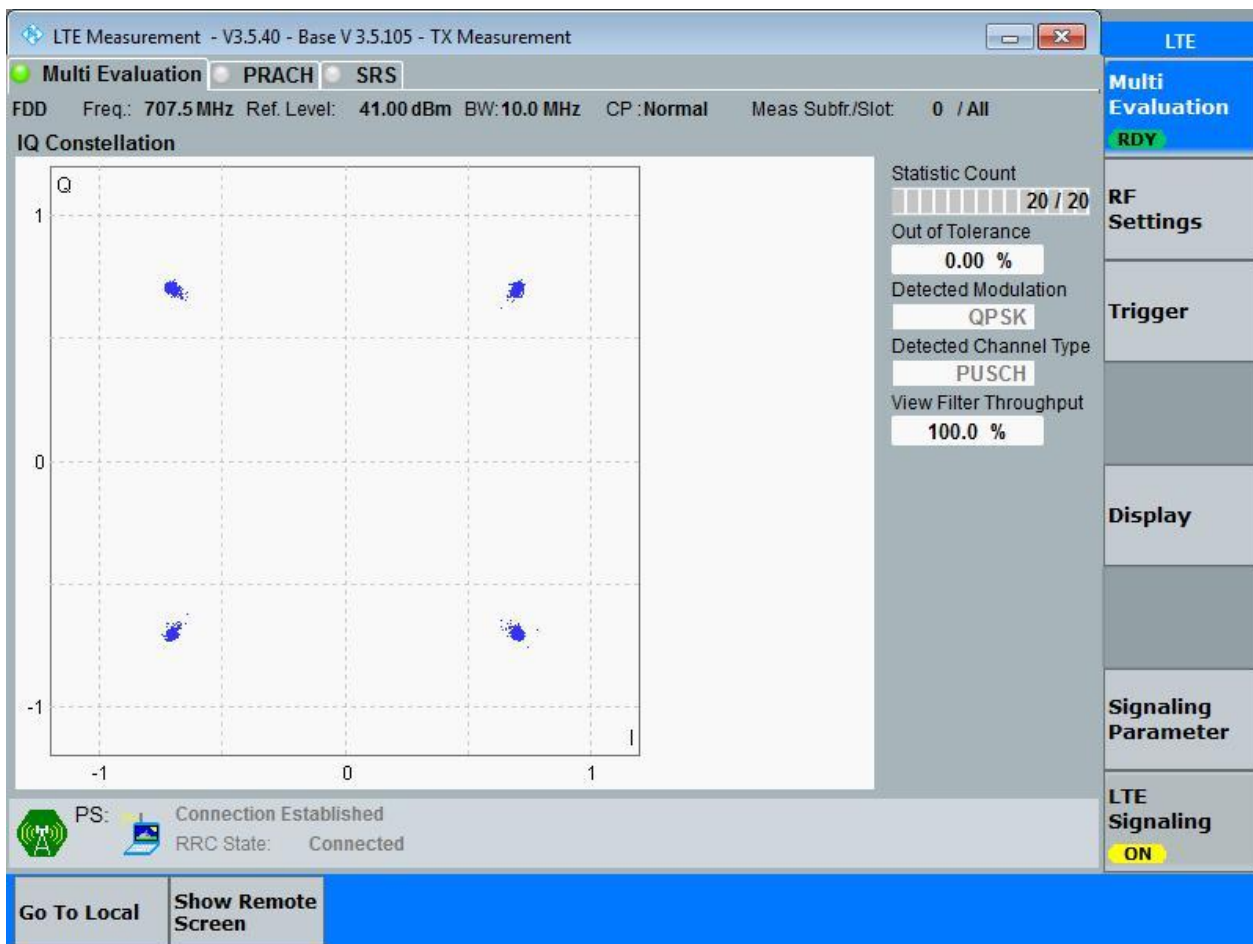
3.1.1.1.3.1.1 Test RB = RB25#0



3.1.1.1.4 Test Bandwidth = 10

3.1.1.1.4.1 Test Channel = MCH

3.1.1.1.4.1.1 Test RB = RB50#0

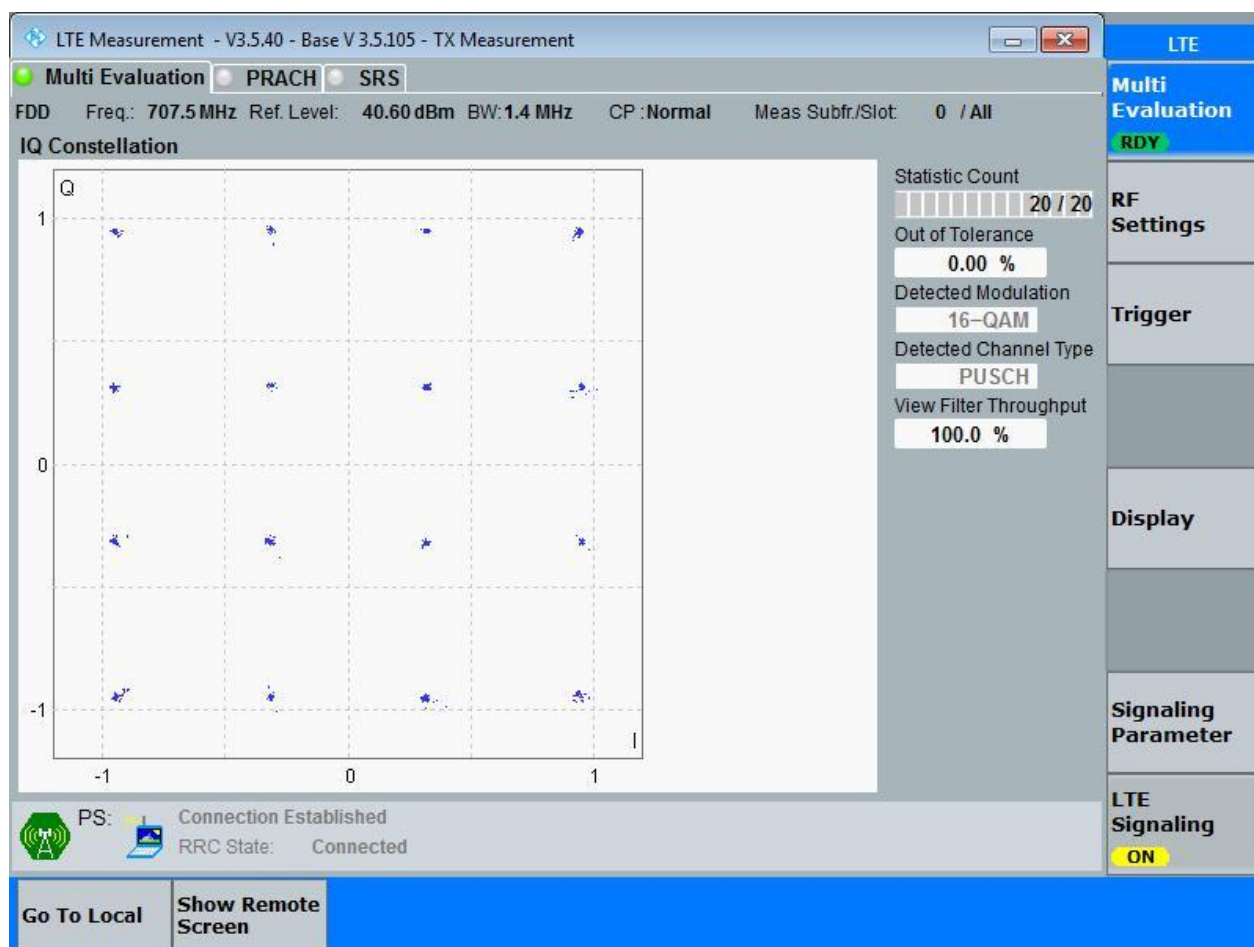


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 1.4

3.1.1.2.1.1 Test Channel = MCH

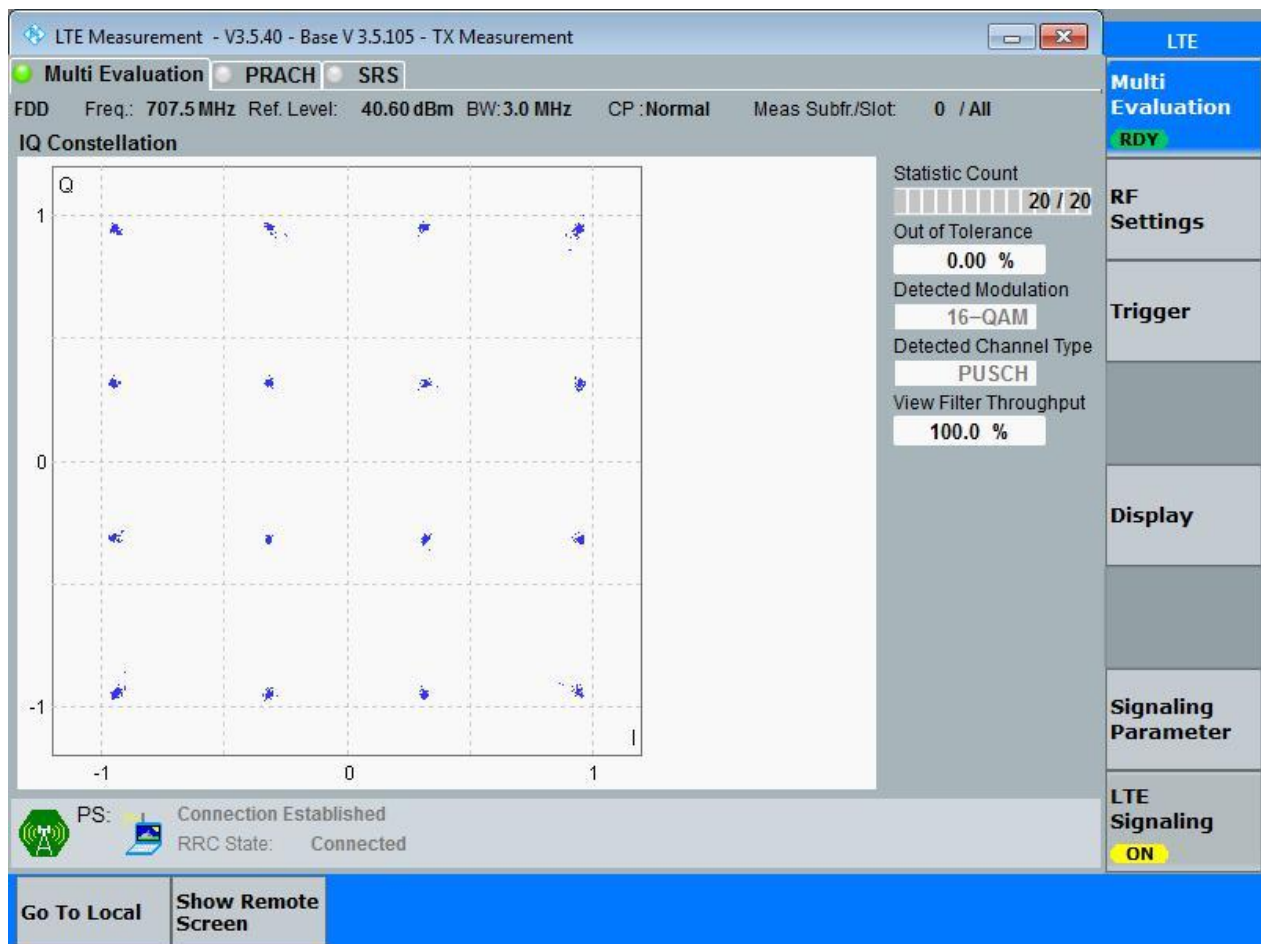
3.1.1.2.1.1.1 Test RB = RB6#0



3.1.1.2.2 Test Bandwidth = 3

3.1.1.2.2.1 Test Channel = MCH

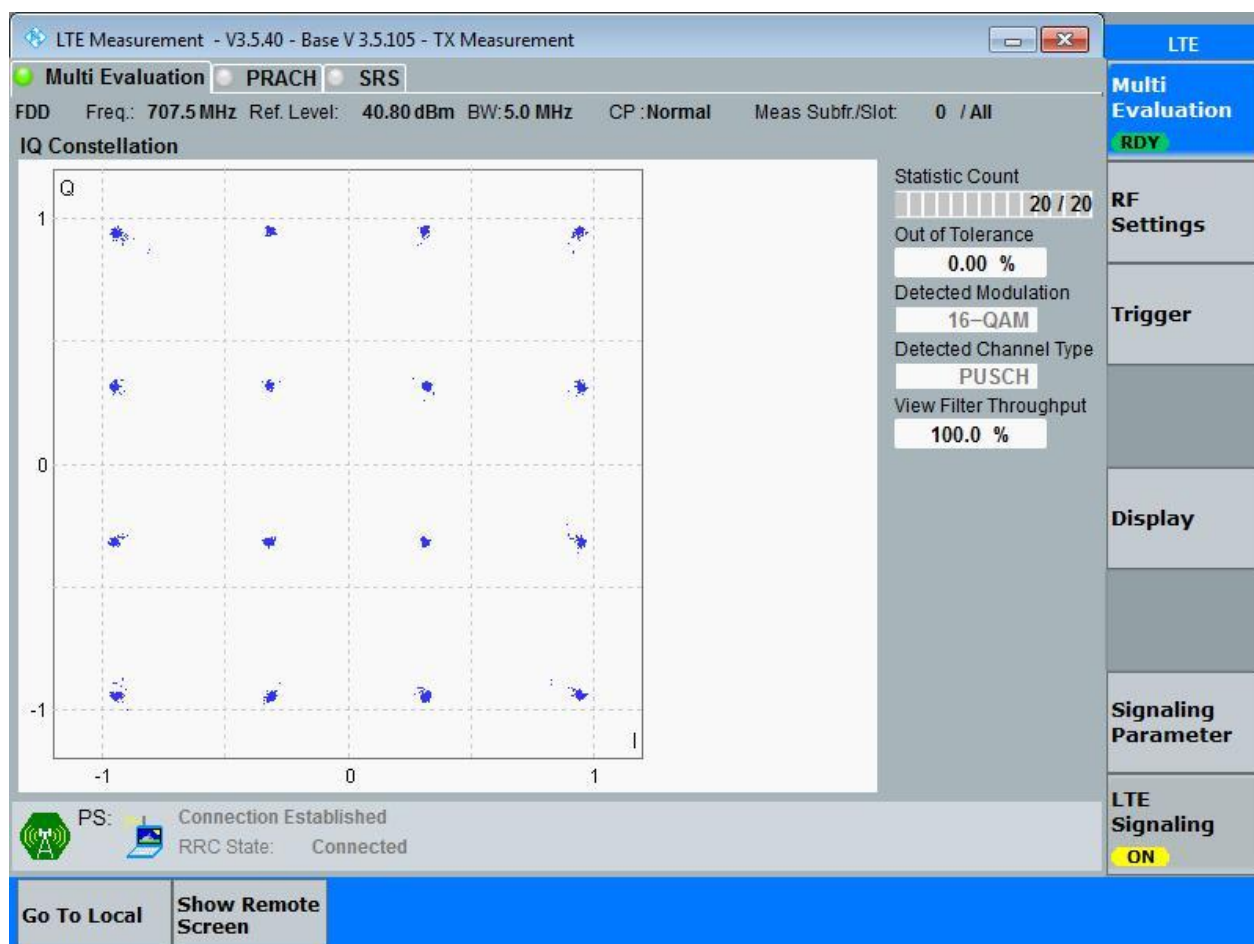
3.1.1.2.2.1.1 Test RB = RB15#0



3.1.1.2.3 Test Bandwidth = 5

3.1.1.2.3.1 Test Channel = MCH

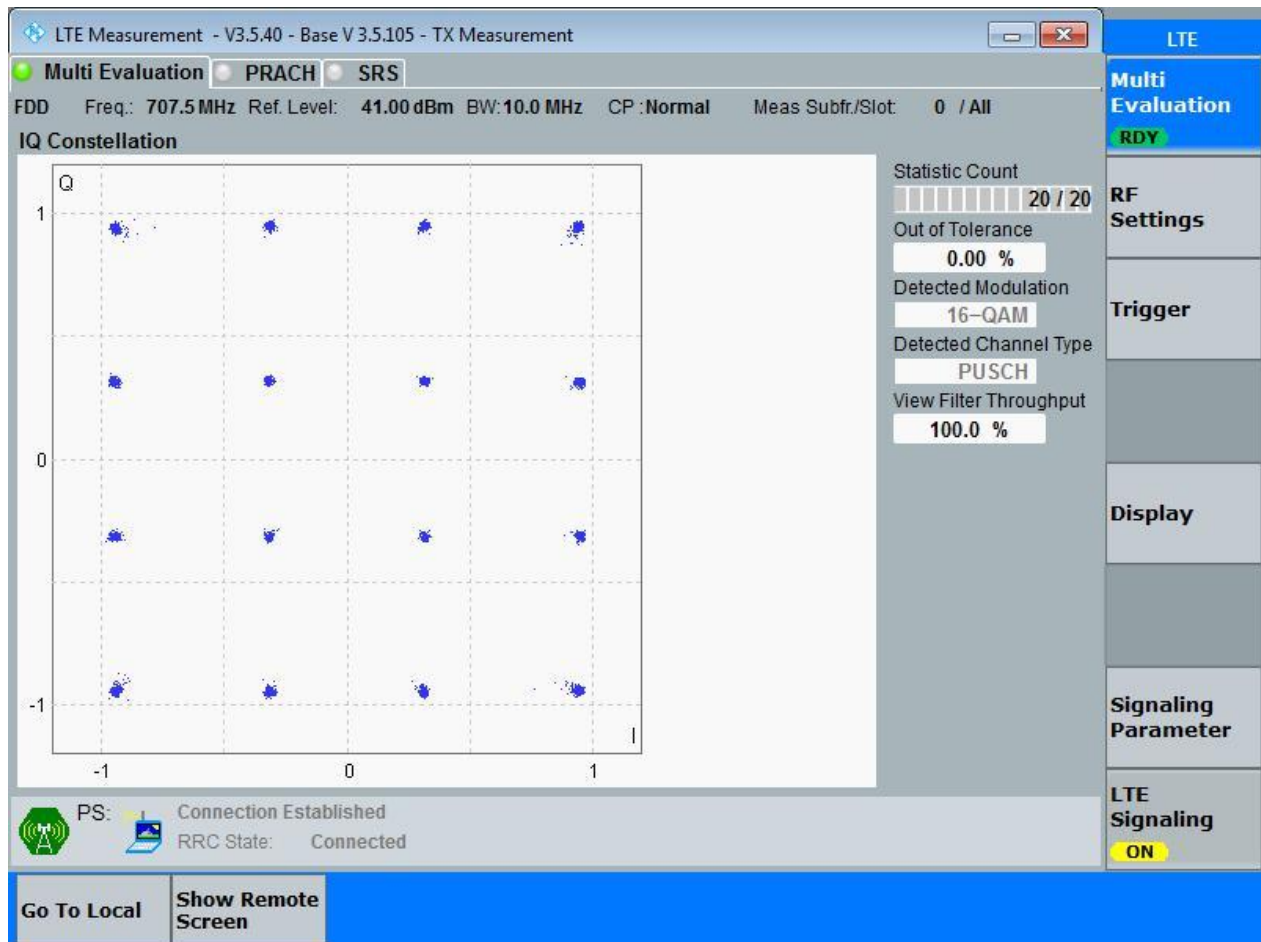
3.1.1.2.3.1.1 Test RB = RB25#0



3.1.1.2.4 Test Bandwidth = 10

3.1.1.2.4.1 Test Channel = MCH

3.1.1.2.4.1.1 Test RB = RB50#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
BAND12	LTE/TM1	1.4	LCH	RB6#0	1.09	1.24	Pass
			MCH	RB6#0	1.09	1.24	Pass
			HCH	RB6#0	1.09	1.24	Pass
		3	LCH	RB15#0	2.70	2.97	Pass
			MCH	RB15#0	2.71	2.98	Pass
			HCH	RB15#0	2.71	2.97	Pass
		5	LCH	RB25#0	4.51	4.98	Pass
			MCH	RB25#0	4.53	4.98	Pass
			HCH	RB25#0	4.50	4.95	Pass
		10	LCH	RB50#0	9.01	9.97	Pass
			MCH	RB50#0	9.02	9.89	Pass
			HCH	RB50#0	8.92	9.78	Pass
	LTE/TM2	1.4	LCH	RB6#0	1.09	1.24	Pass
			MCH	RB6#0	1.10	1.24	Pass
			HCH	RB6#0	1.10	1.24	Pass
		3	LCH	RB15#0	2.70	2.96	Pass
			MCH	RB15#0	2.72	2.97	Pass
			HCH	RB15#0	2.71	2.97	Pass
		5	LCH	RB25#0	4.50	4.94	Pass
			MCH	RB25#0	4.53	4.99	Pass
			HCH	RB25#0	4.49	4.94	Pass
		10	LCH	RB50#0	9.02	9.94	Pass
			MCH	RB50#0	9.05	9.91	Pass
			HCH	RB50#0	8.93	9.81	Pass



Part II - Test Plots

4.1 For LTE

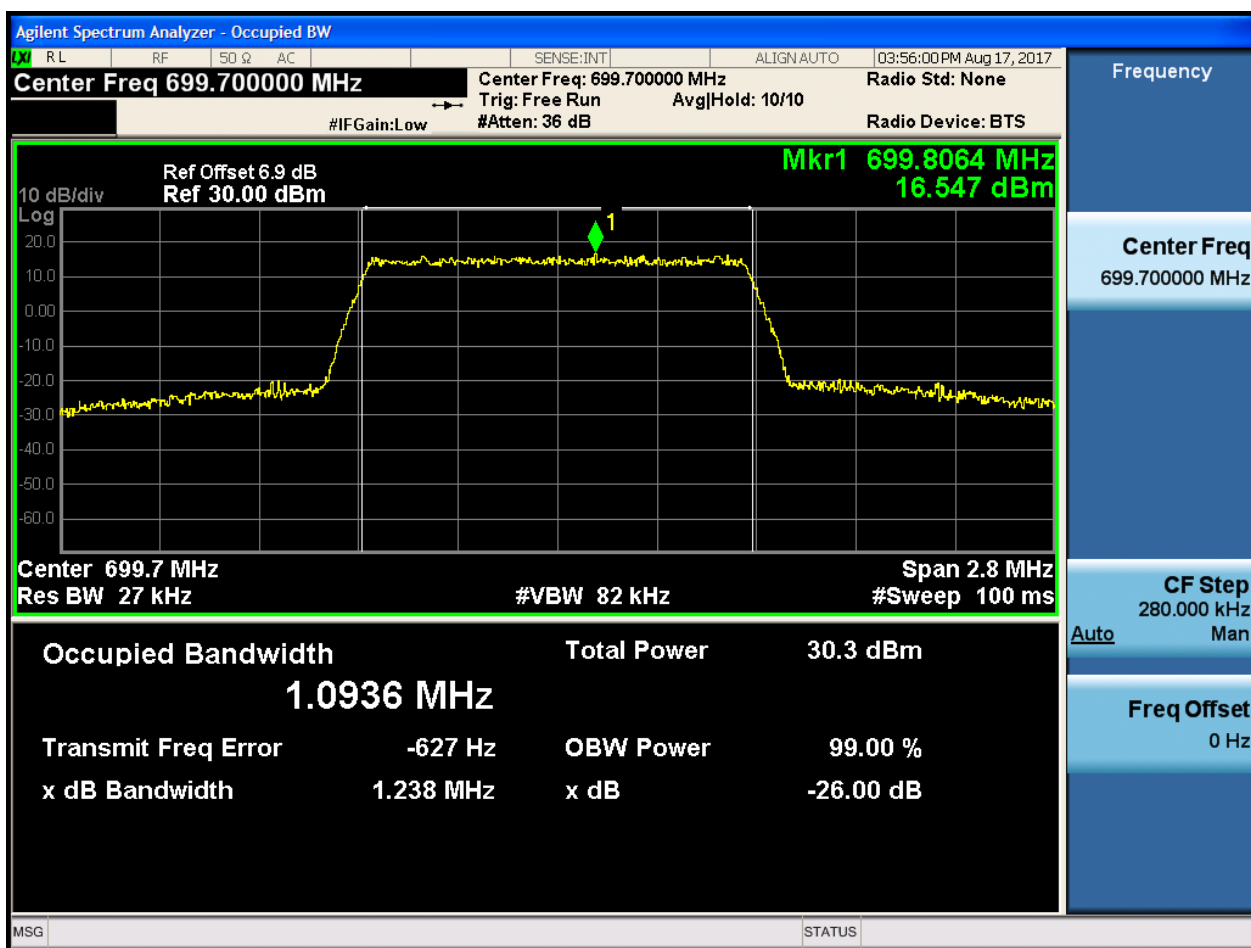
4.1.1 Test Band = BAND12

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 1.4

4.1.1.1.1.1 Test Channel = LCH

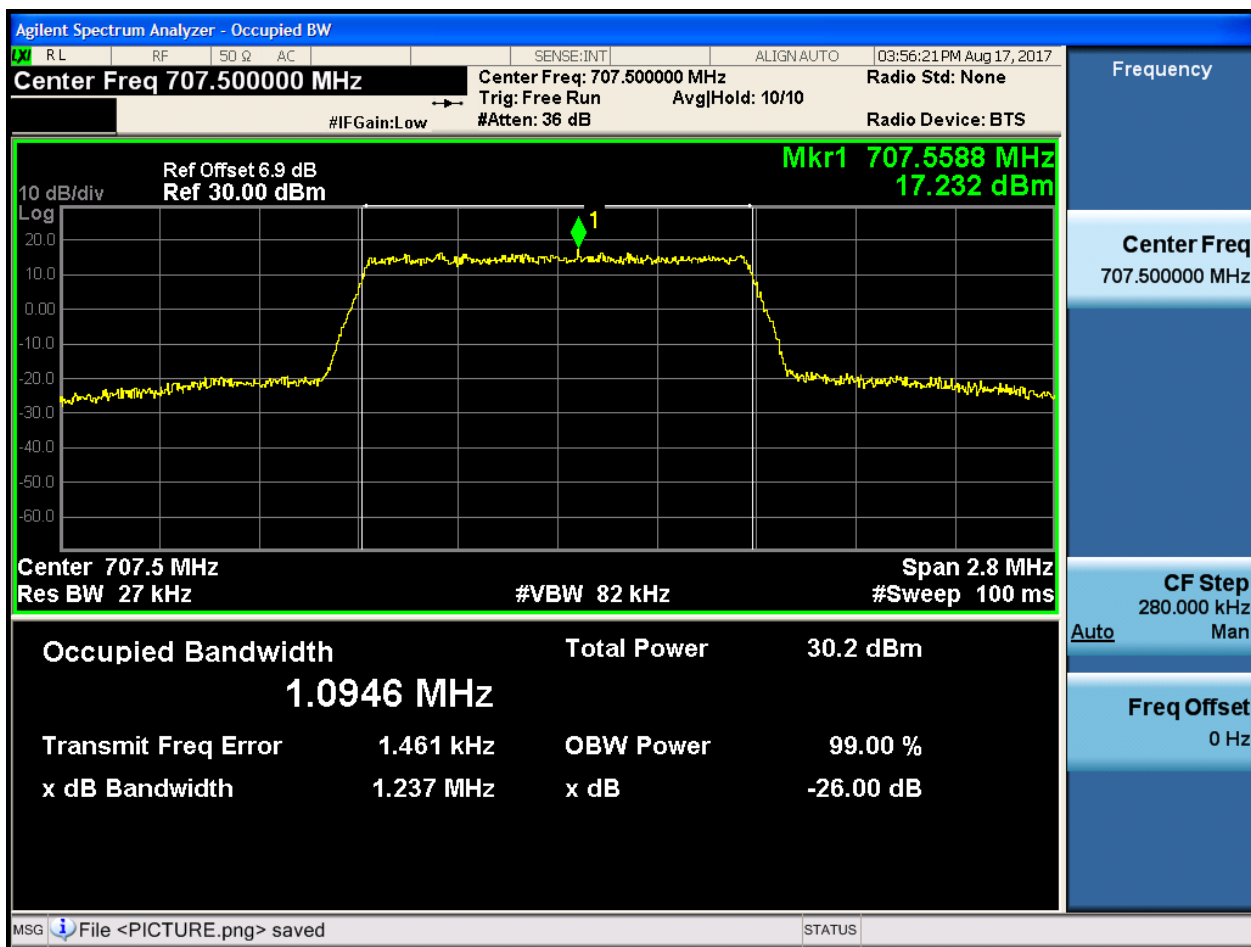
4.1.1.1.1.1.1 Test RB = RB6#0





4.1.1.1.1.2 Test Channel = MCH

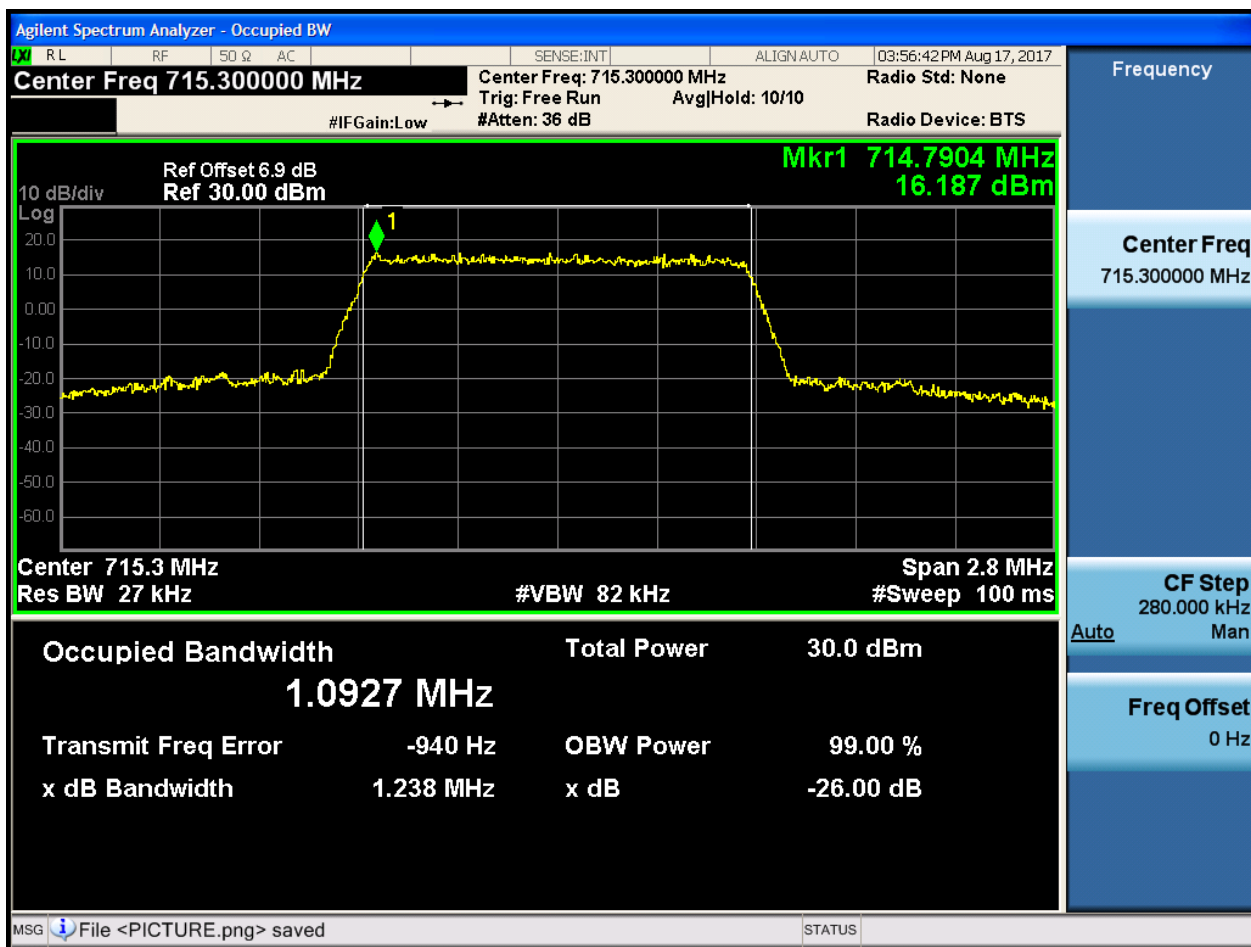
4.1.1.1.1.2.1 Test RB = RB6#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB6#0

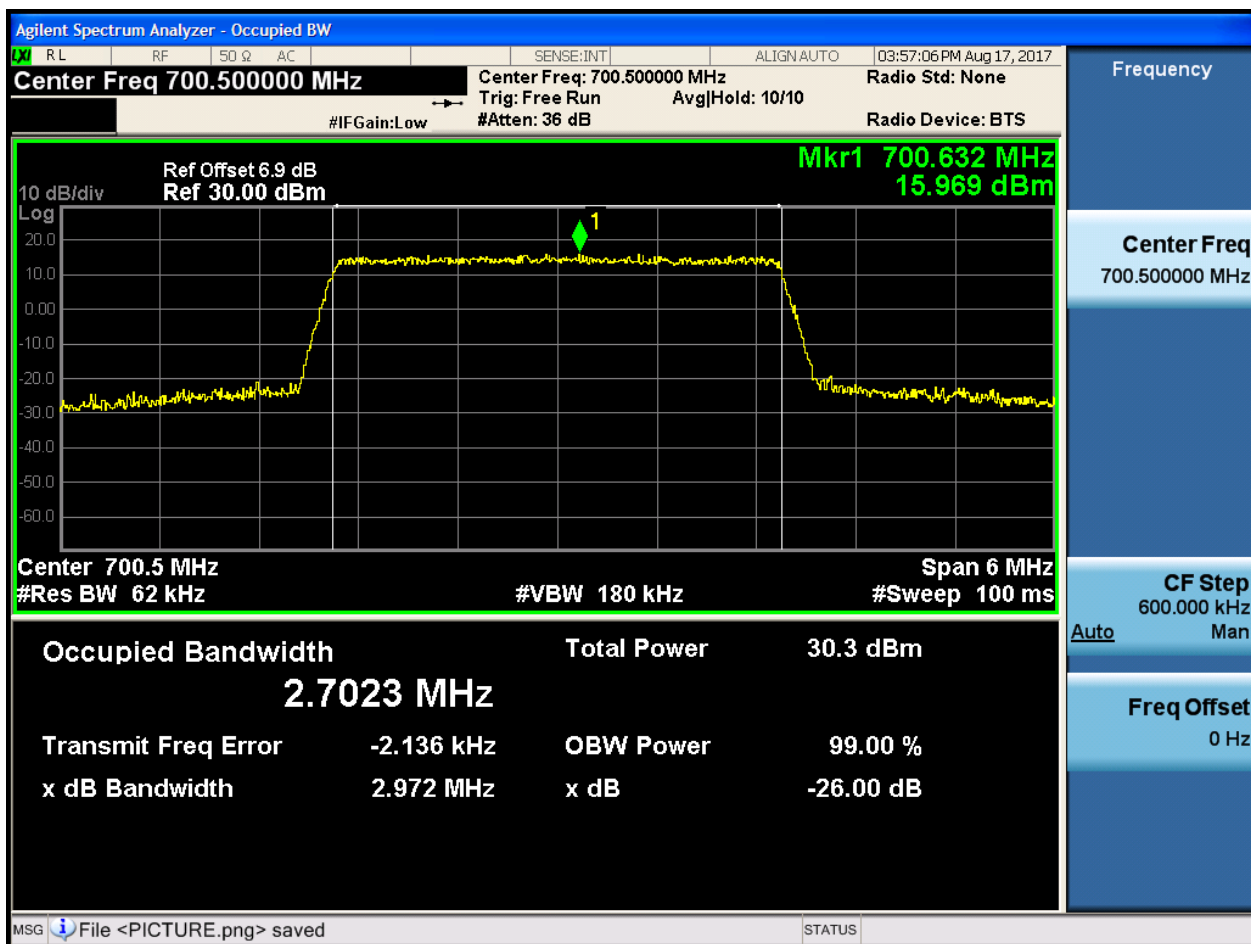




4.1.1.1.2 Test Bandwidth = 3

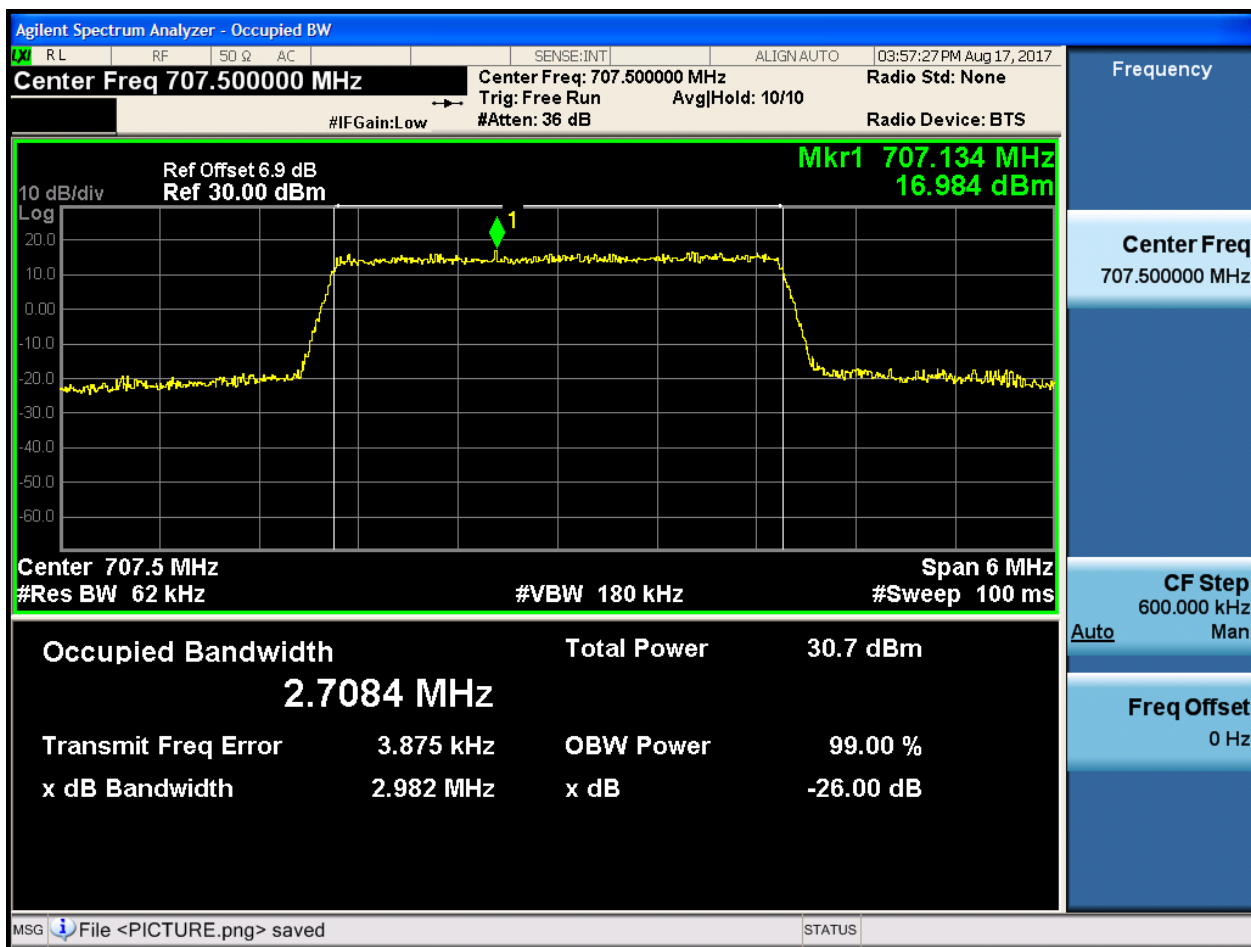
4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 Test RB = RB15#0



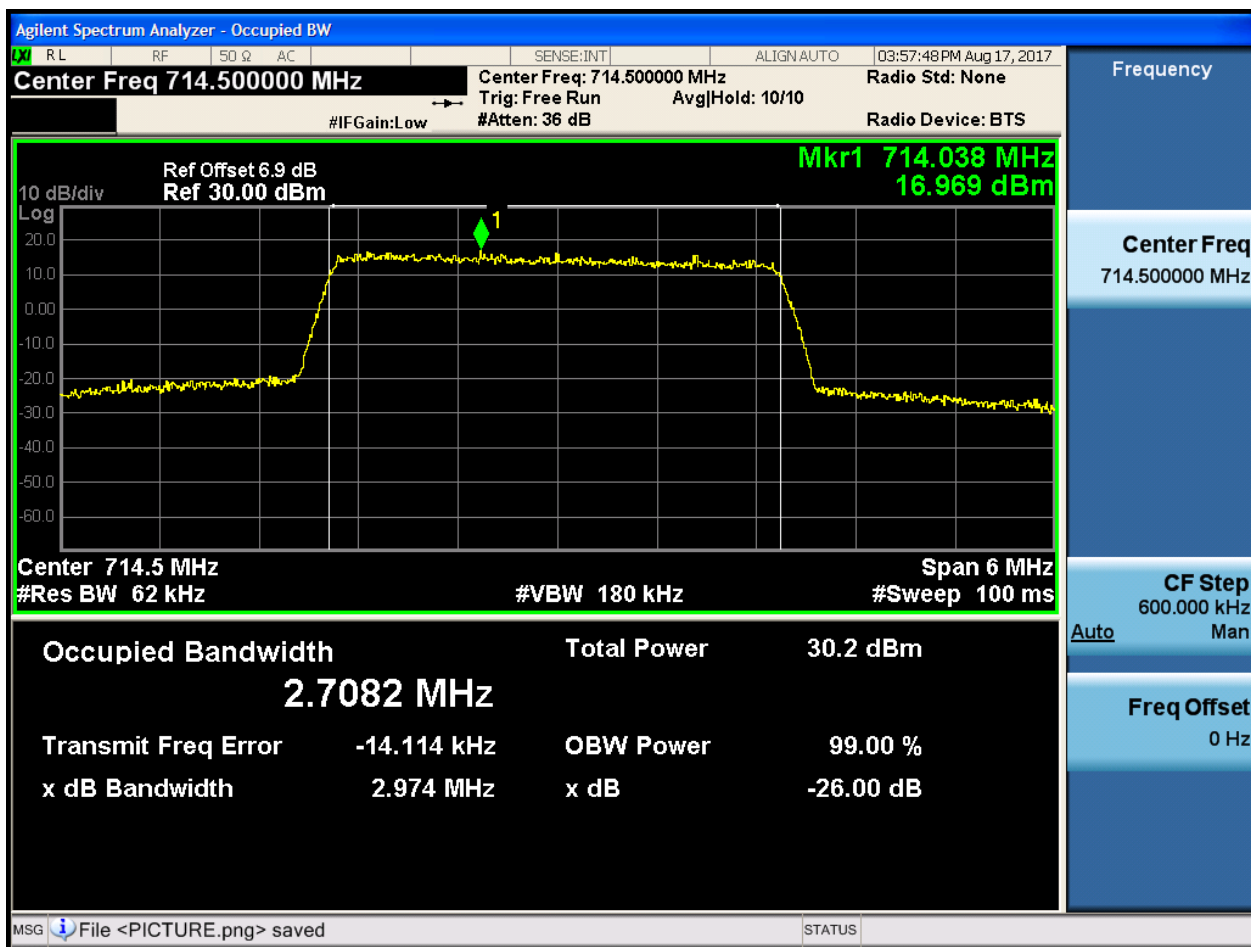
4.1.1.1.2.2 Test Channel = MCH

4.1.1.1.2.2.1 Test RB = RB15#0



4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB15#0

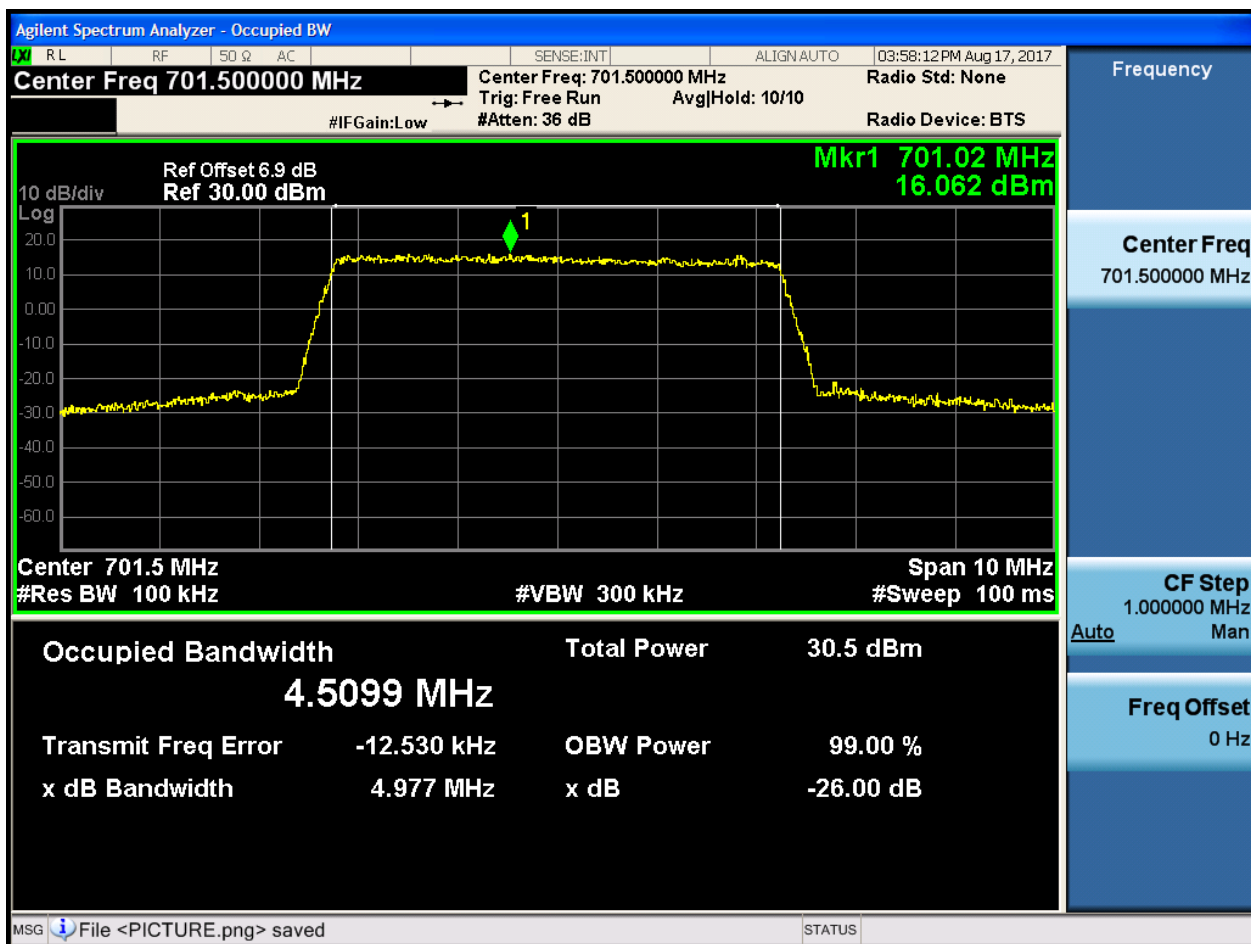




4.1.1.1.3 Test Bandwidth = 5

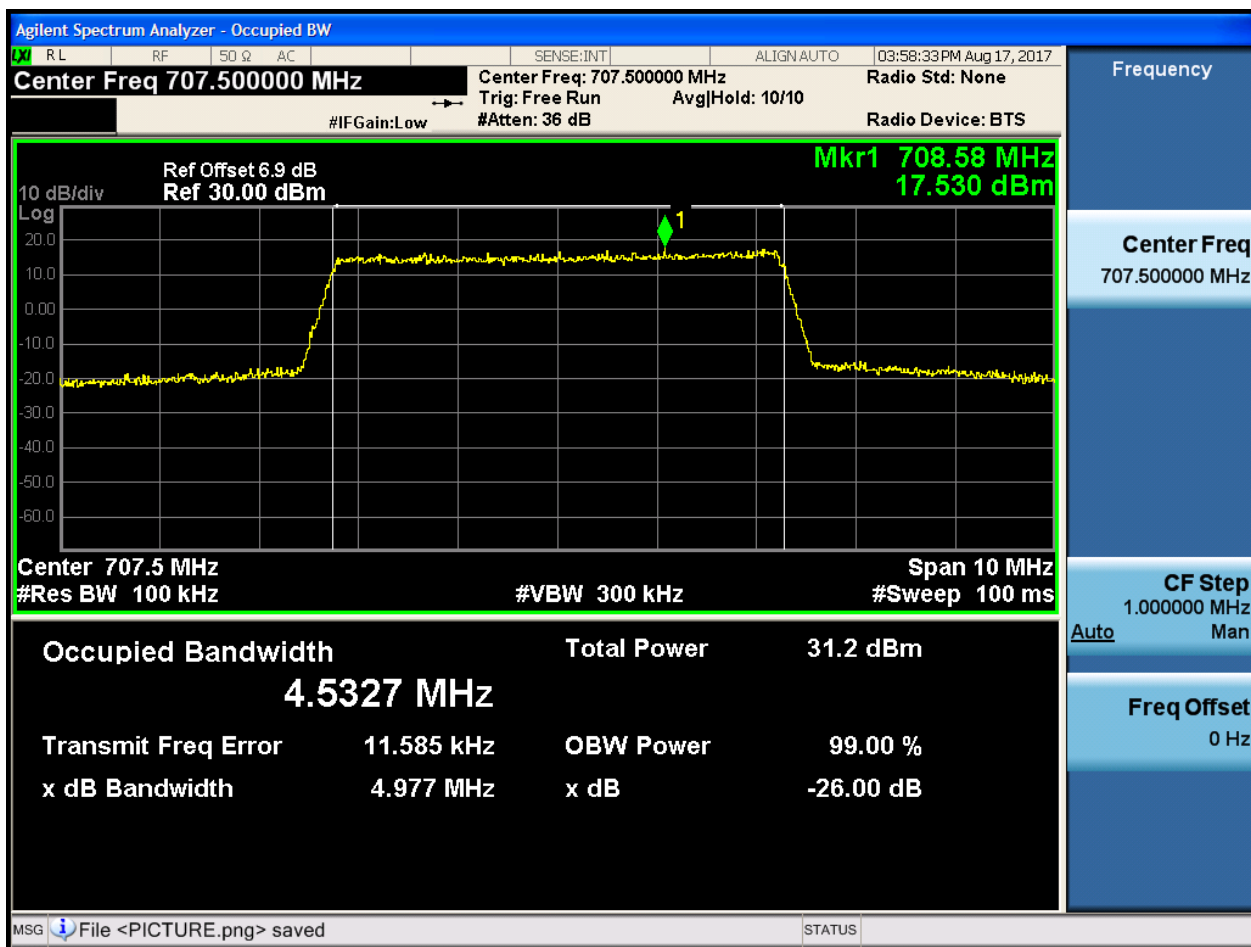
4.1.1.1.3.1 Test Channel = LCH

4.1.1.1.3.1.1 Test RB = RB25#0



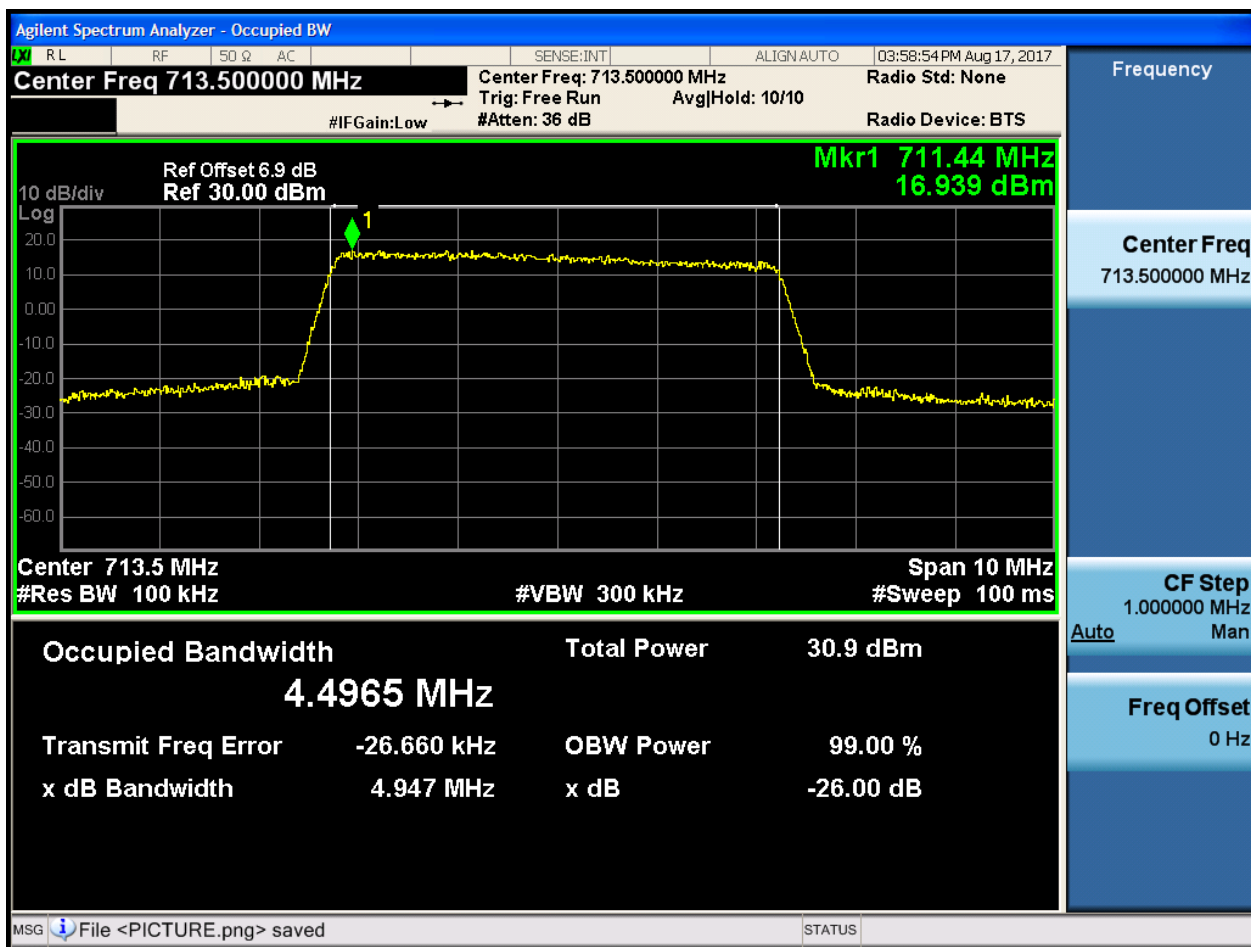
4.1.1.1.3.2 Test Channel = MCH

4.1.1.1.3.2.1 Test RB = RB25#0



4.1.1.1.3.3 Test Channel = HCH

4.1.1.1.3.3.1 Test RB = RB25#0

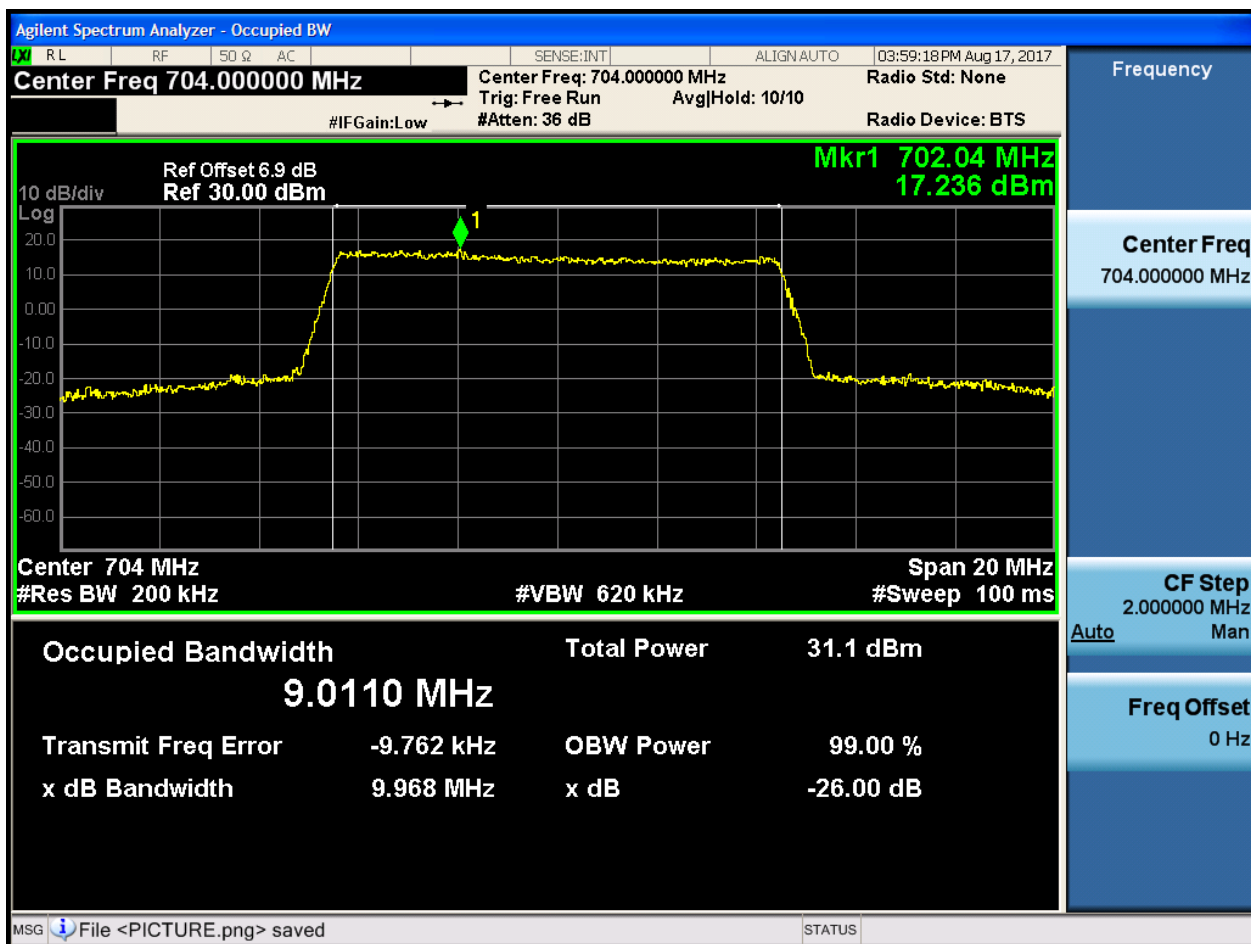




4.1.1.1.4 Test Bandwidth = 10

4.1.1.1.4.1 Test Channel = LCH

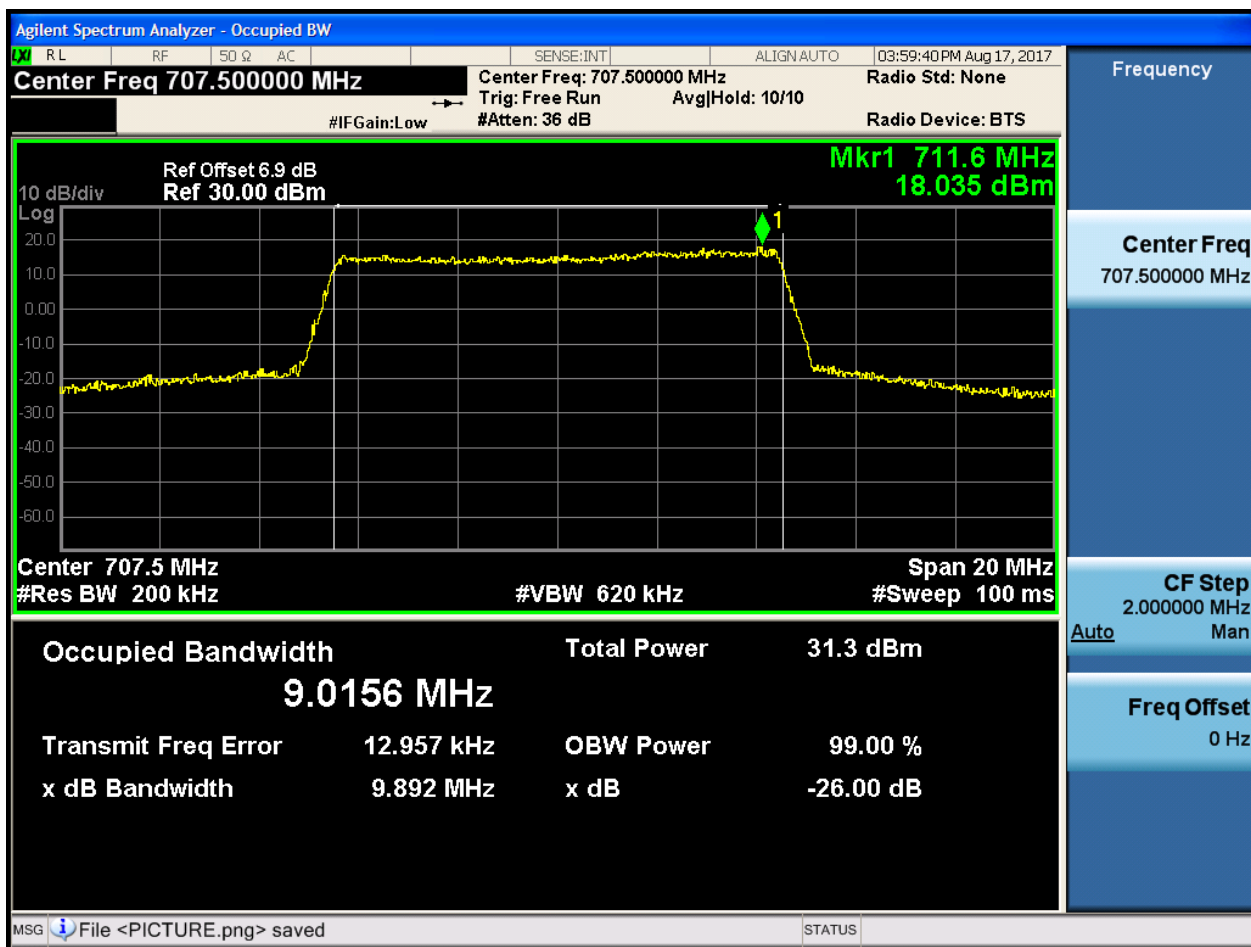
4.1.1.1.4.1.1 Test RB = RB50#0





4.1.1.1.4.2 Test Channel = MCH

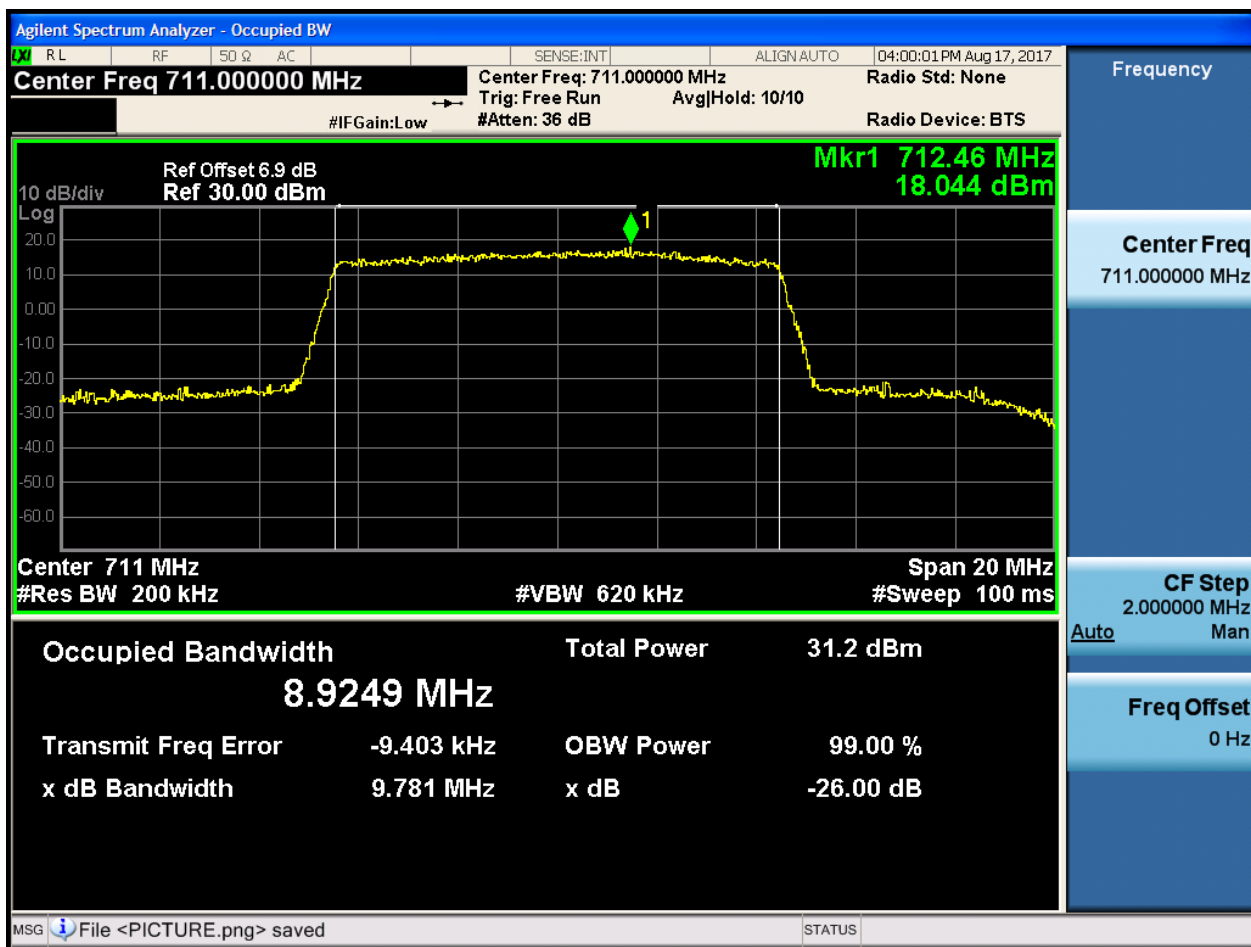
4.1.1.1.4.2.1 Test RB = RB50#0





4.1.1.1.4.3 Test Channel = HCH

4.1.1.1.4.3.1 Test RB = RB50#0



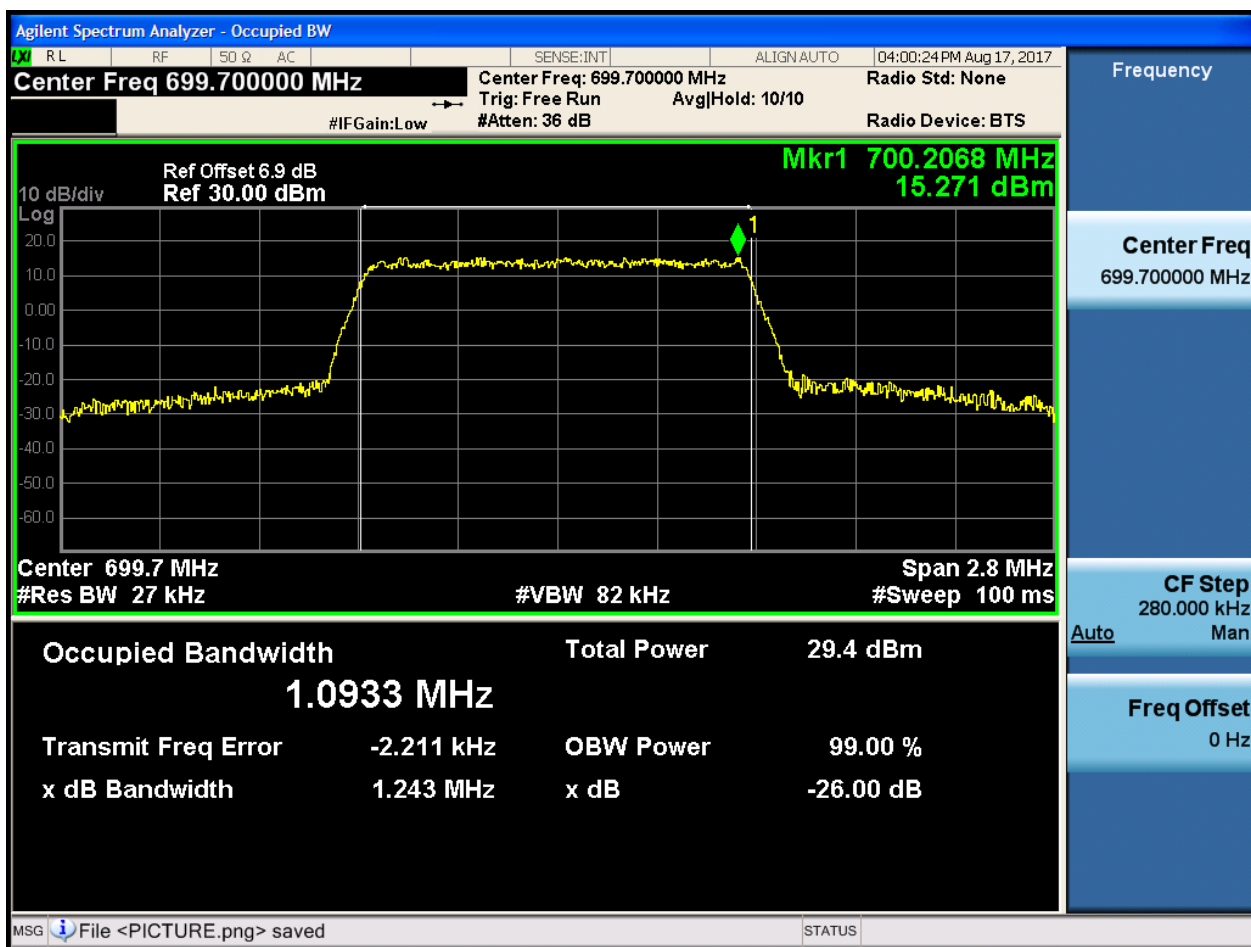


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 1.4

4.1.1.2.1.1 Test Channel = LCH

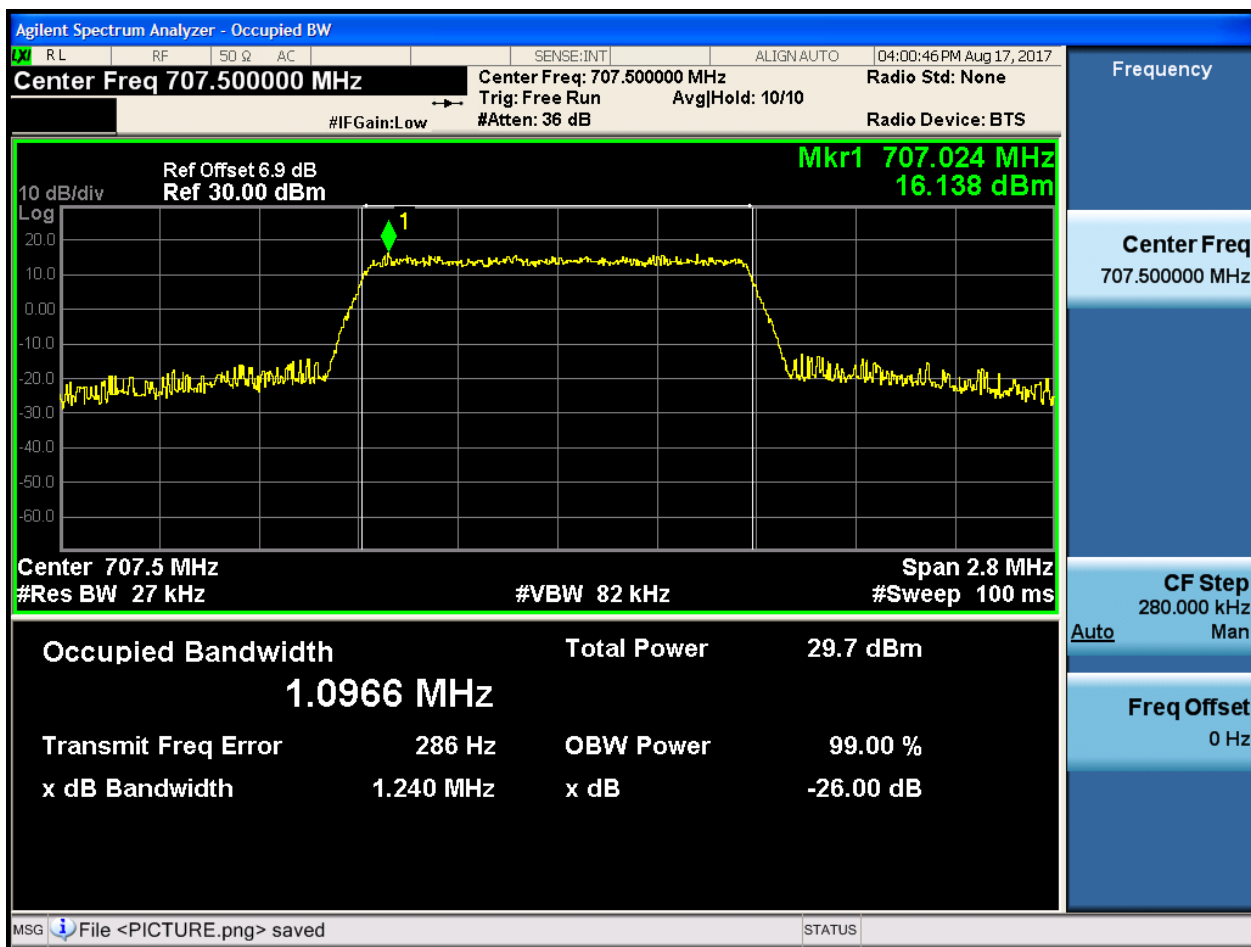
4.1.1.2.1.1.1 Test RB = RB6#0





4.1.1.2.1.2 Test Channel = MCH

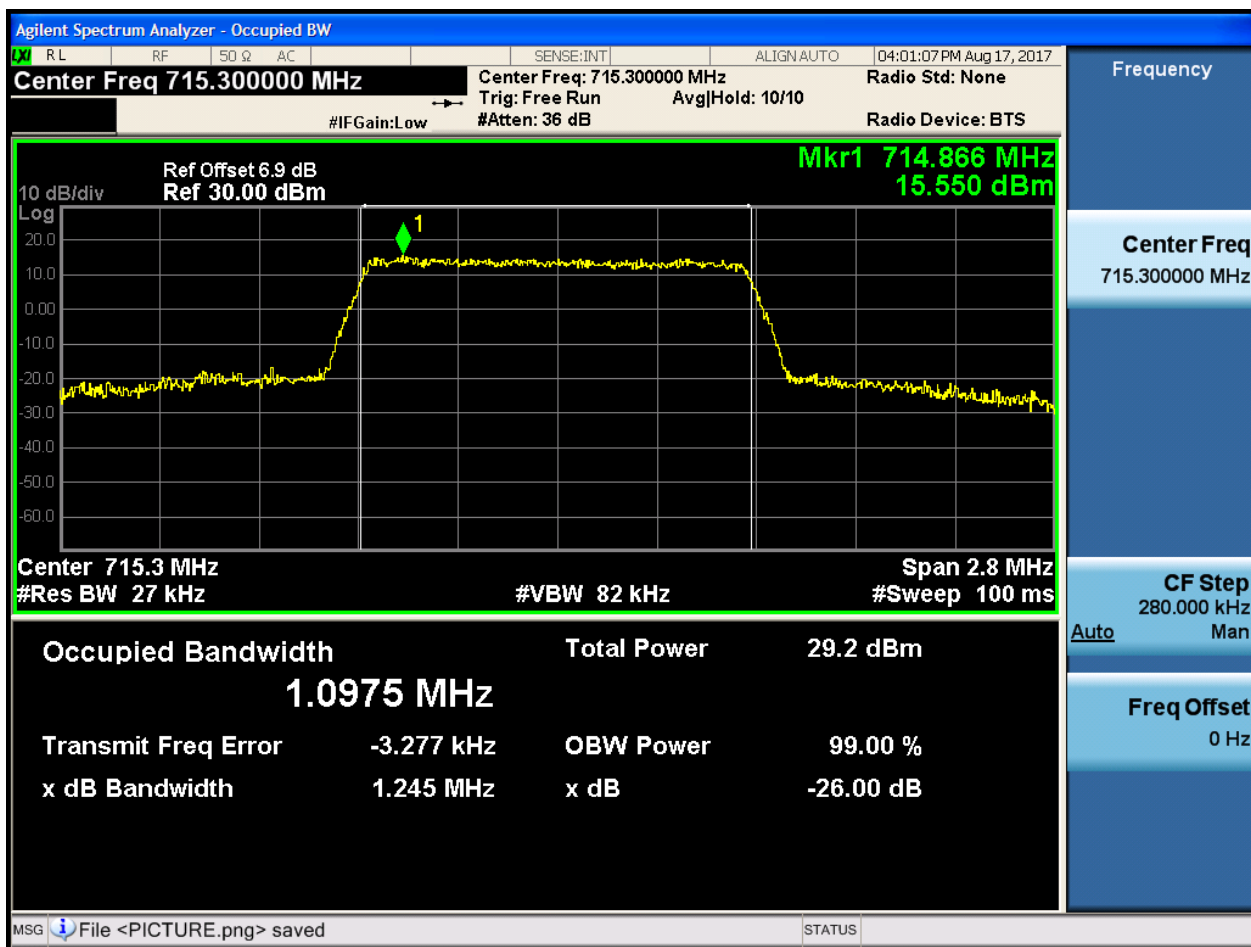
4.1.1.2.1.2.1 Test RB = RB6#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB6#0

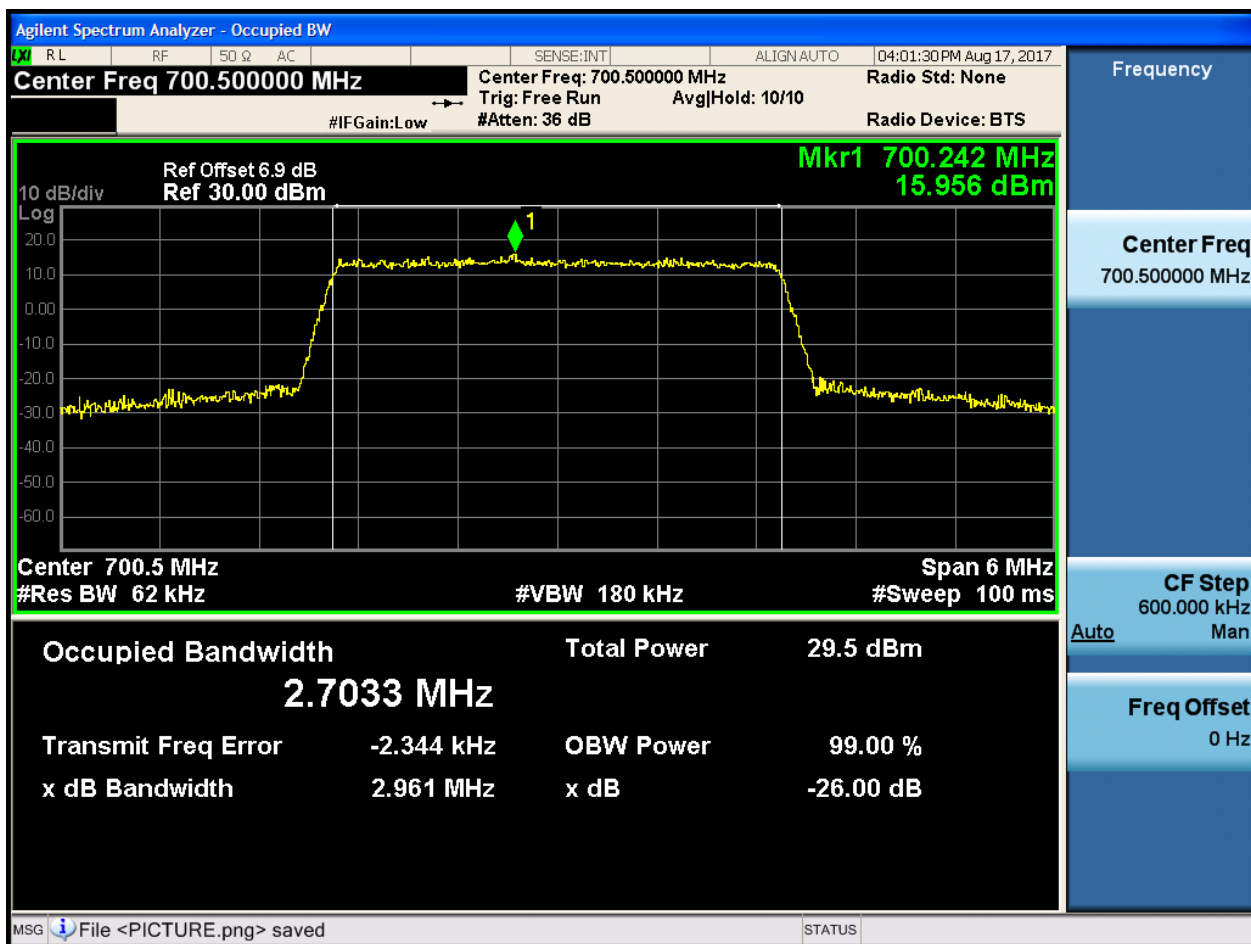




4.1.1.2.2 Test Bandwidth = 3

4.1.1.2.2.1 Test Channel = LCH

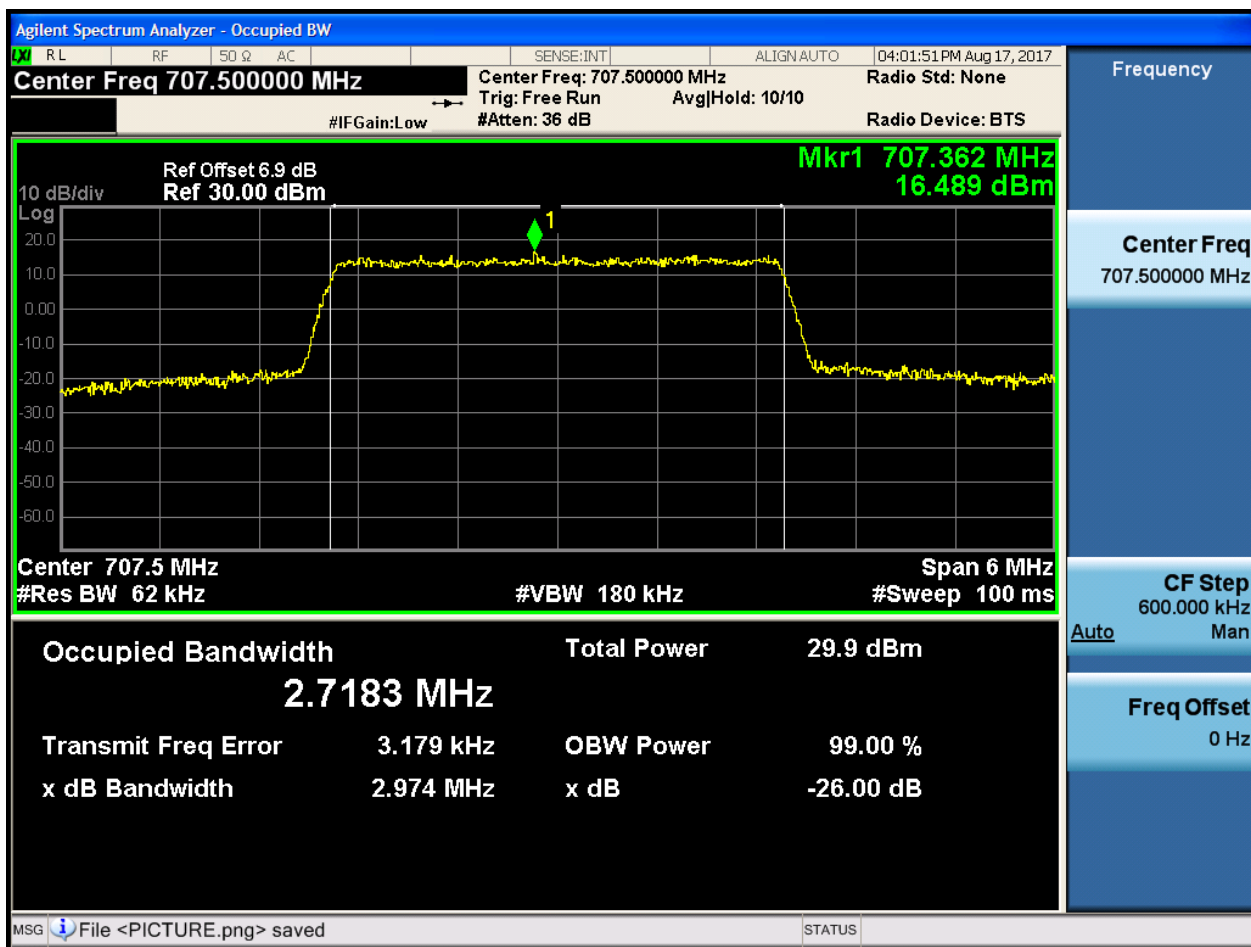
4.1.1.2.2.1.1 Test RB = RB15#0





4.1.1.2.2.2 Test Channel = MCH

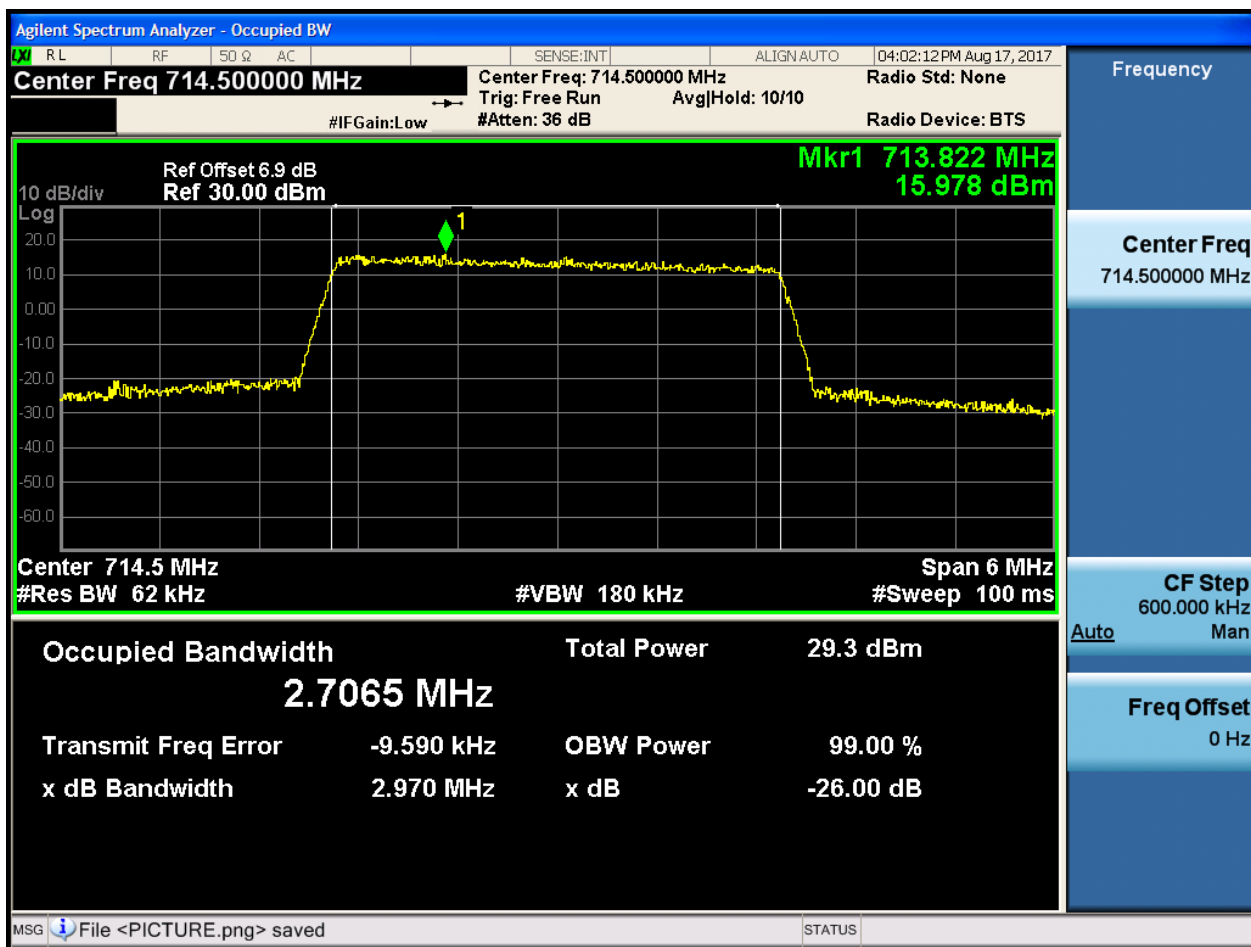
4.1.1.2.2.2.1 Test RB = RB15#0





4.1.1.2.2.3 Test Channel = HCH

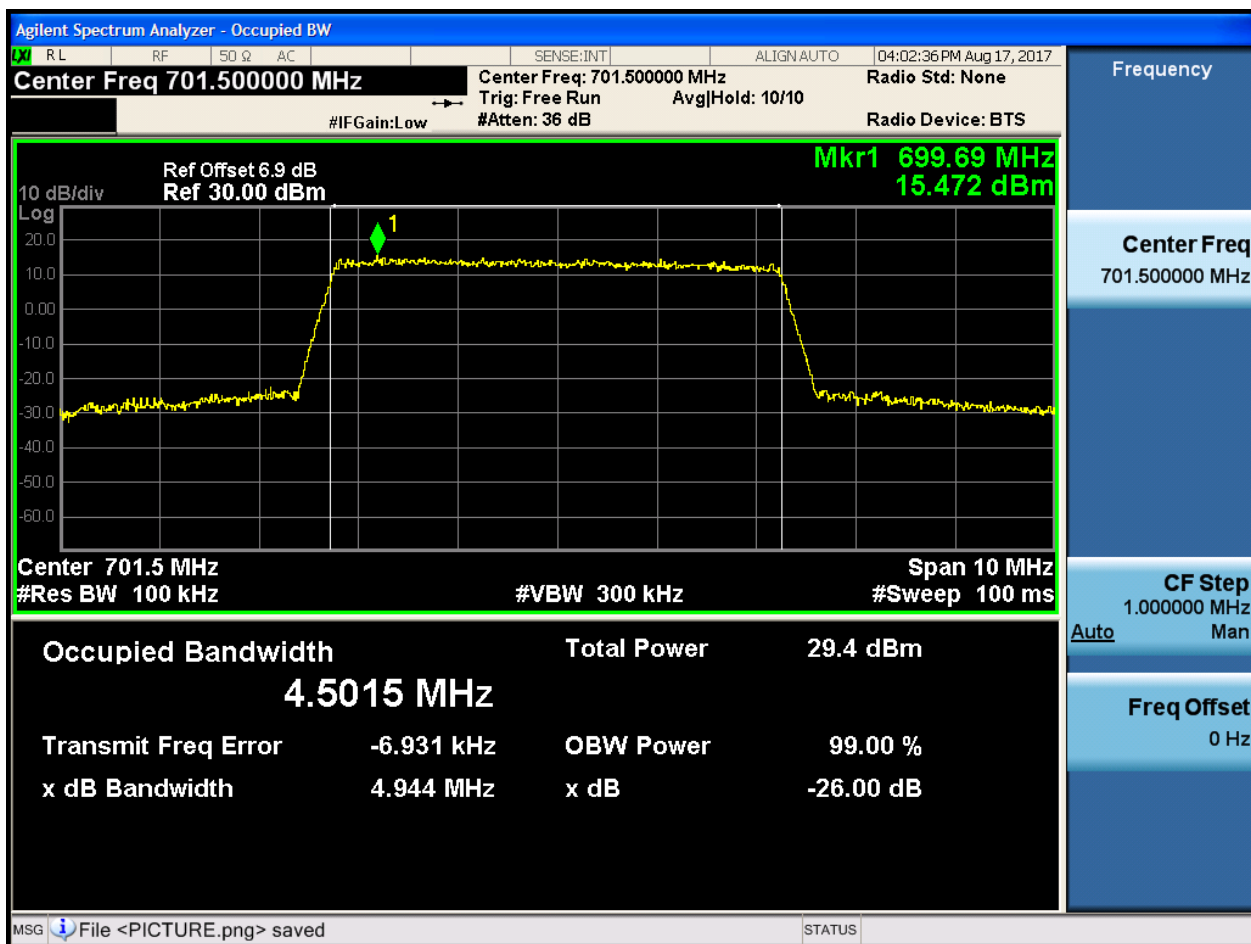
4.1.1.2.2.3.1 Test RB = RB15#0



4.1.1.2.3 Test Bandwidth = 5

4.1.1.2.3.1 Test Channel = LCH

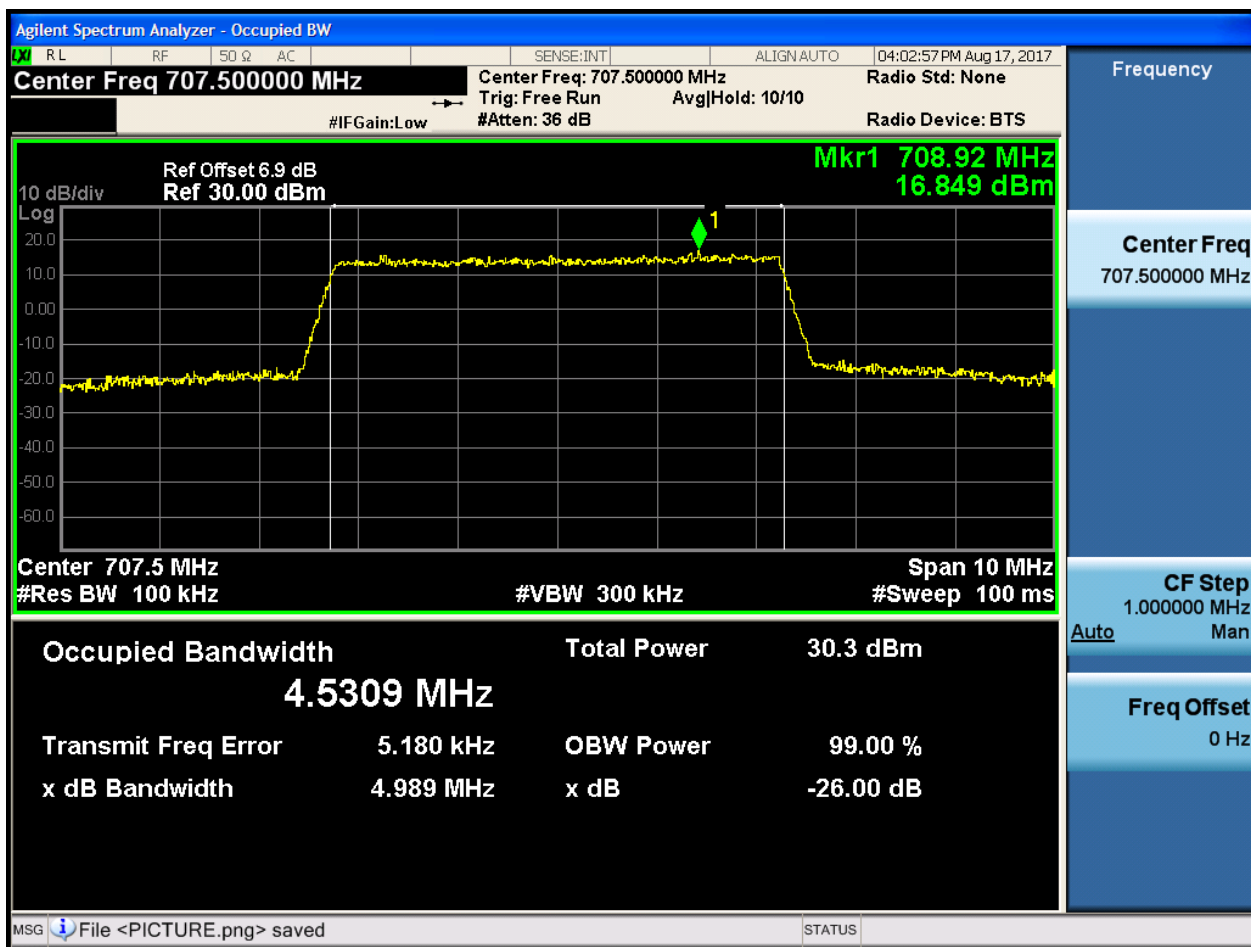
4.1.1.2.3.1.1 Test RB = RB25#0





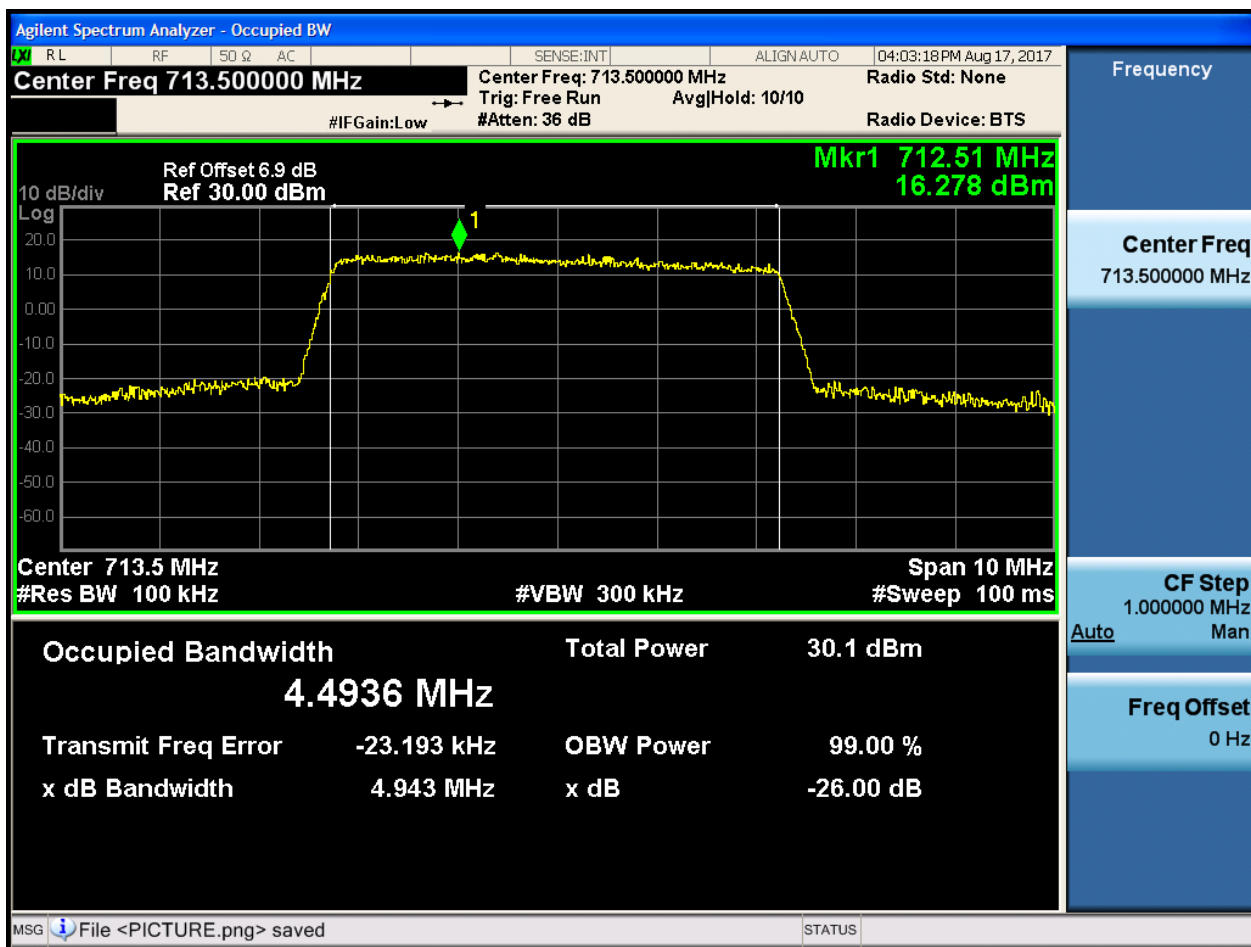
4.1.1.2.3.2 Test Channel = MCH

4.1.1.2.3.2.1 Test RB = RB25#0



4.1.1.2.3.3 Test Channel = HCH

4.1.1.2.3.3.1 Test RB = RB25#0

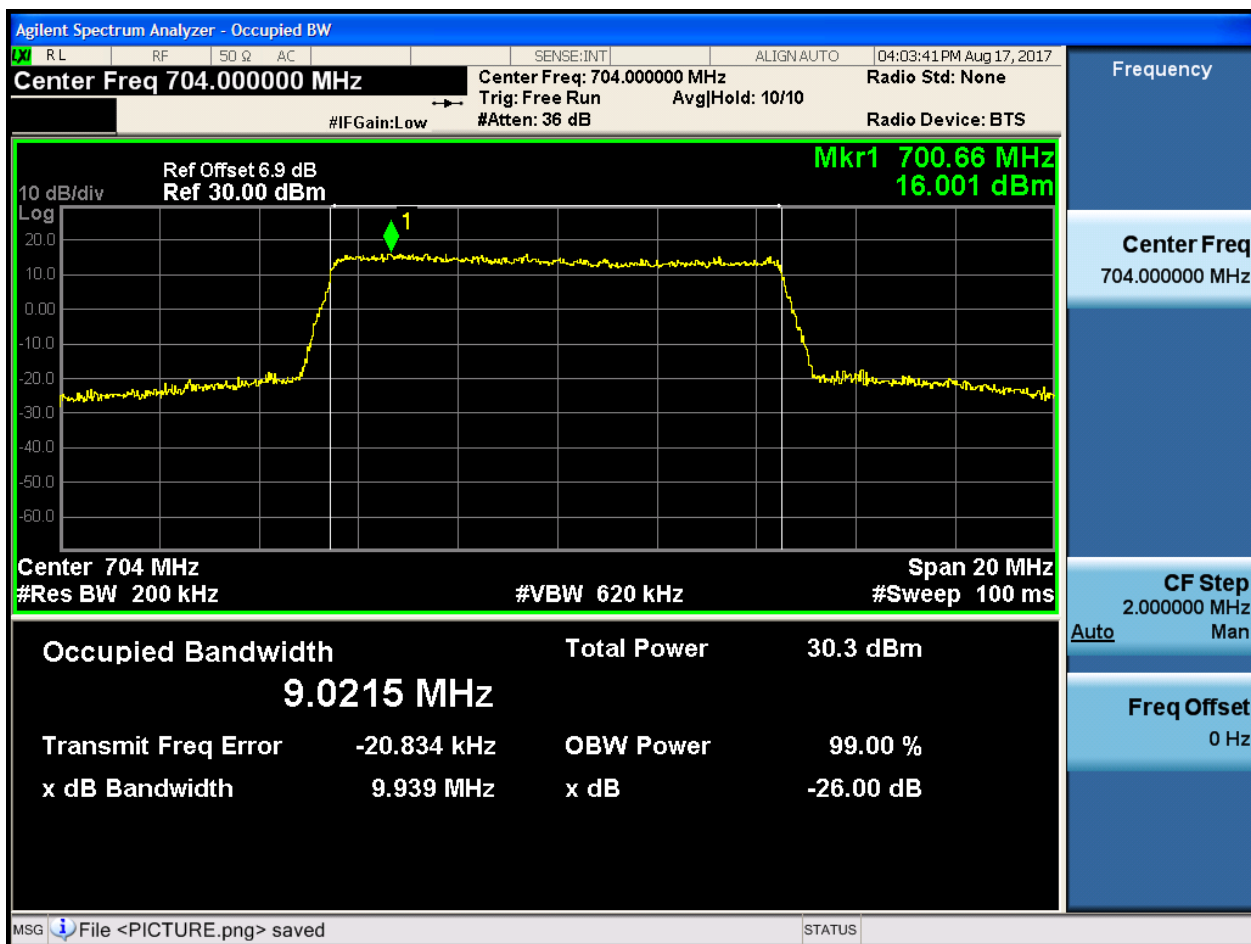




4.1.1.2.4 Test Bandwidth = 10

4.1.1.2.4.1 Test Channel = LCH

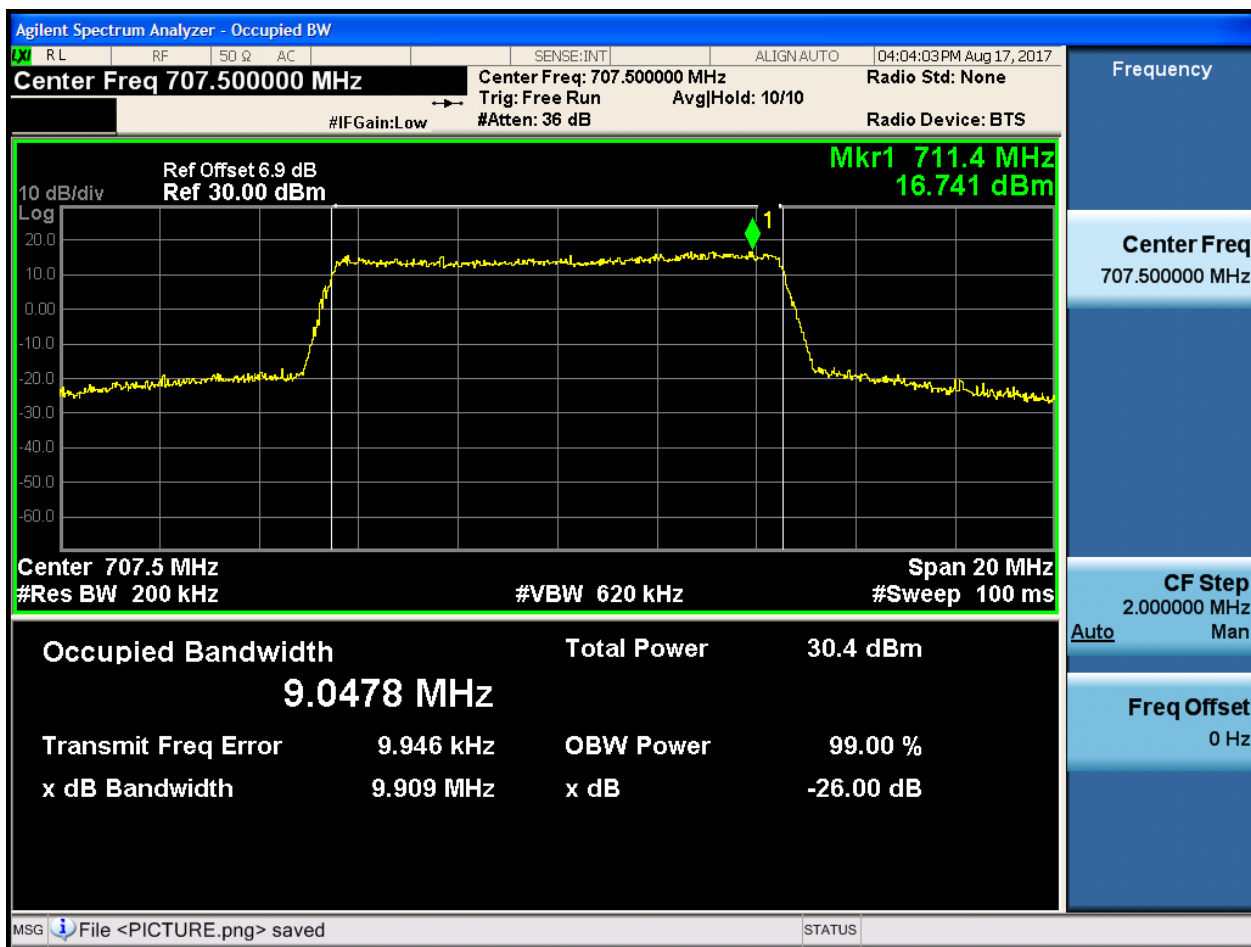
4.1.1.2.4.1.1 Test RB = RB50#0





4.1.1.2.4.2 Test Channel = MCH

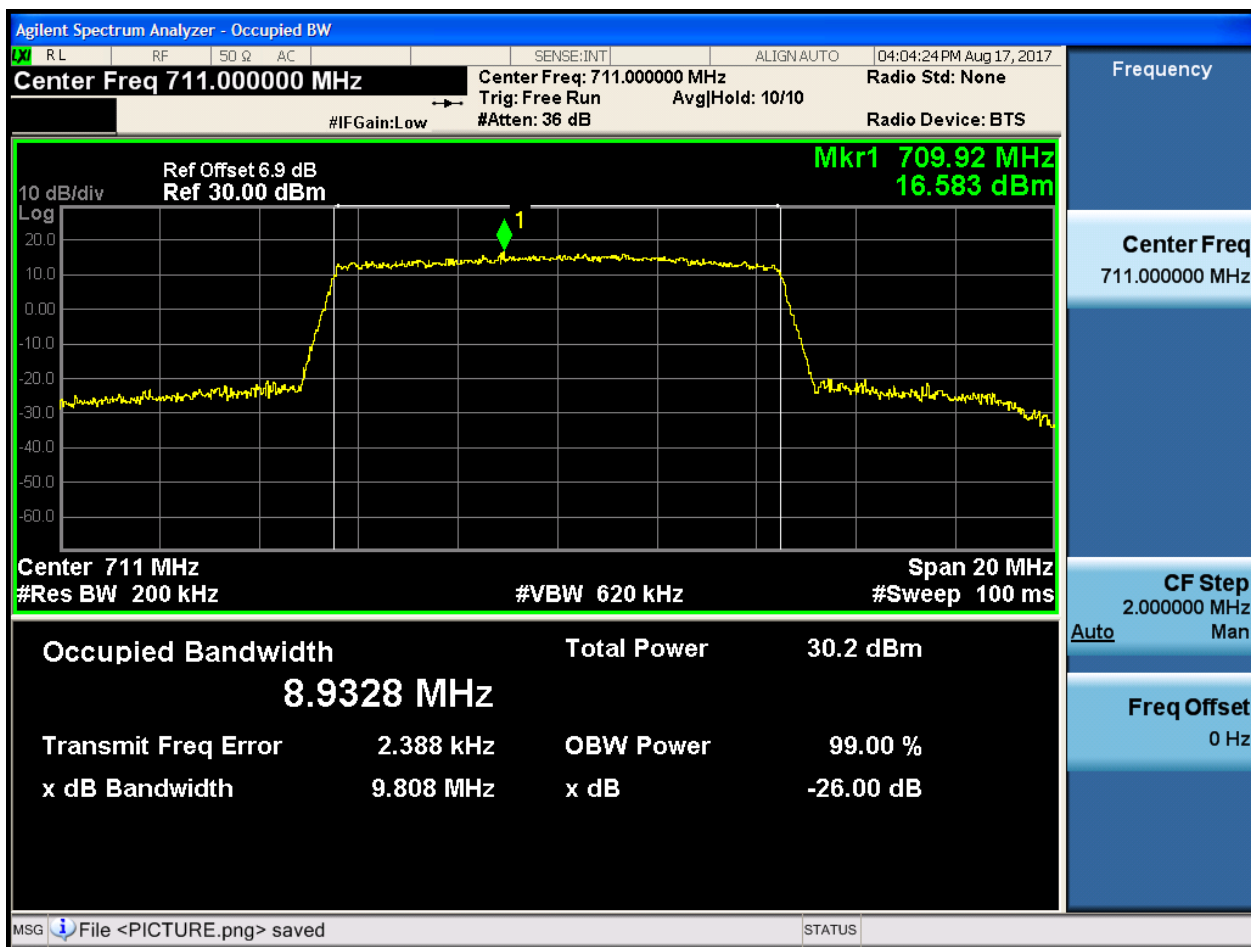
4.1.1.2.4.2.1 Test RB = RB50#0





4.1.1.2.4.3 Test Channel = HCH

4.1.1.2.4.3.1 Test RB = RB50#0



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

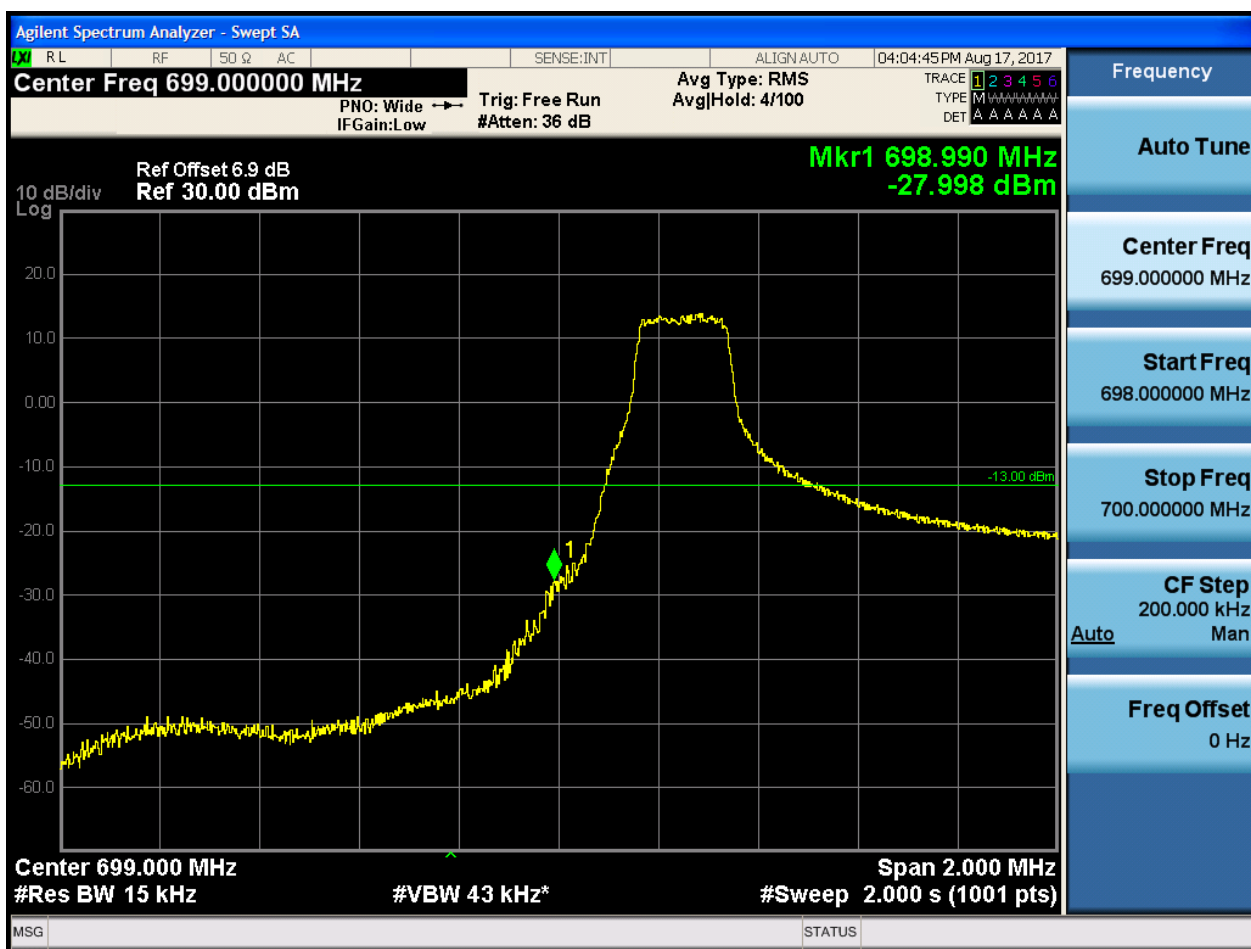
5.1.1 Test Band = BAND12

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 1.4

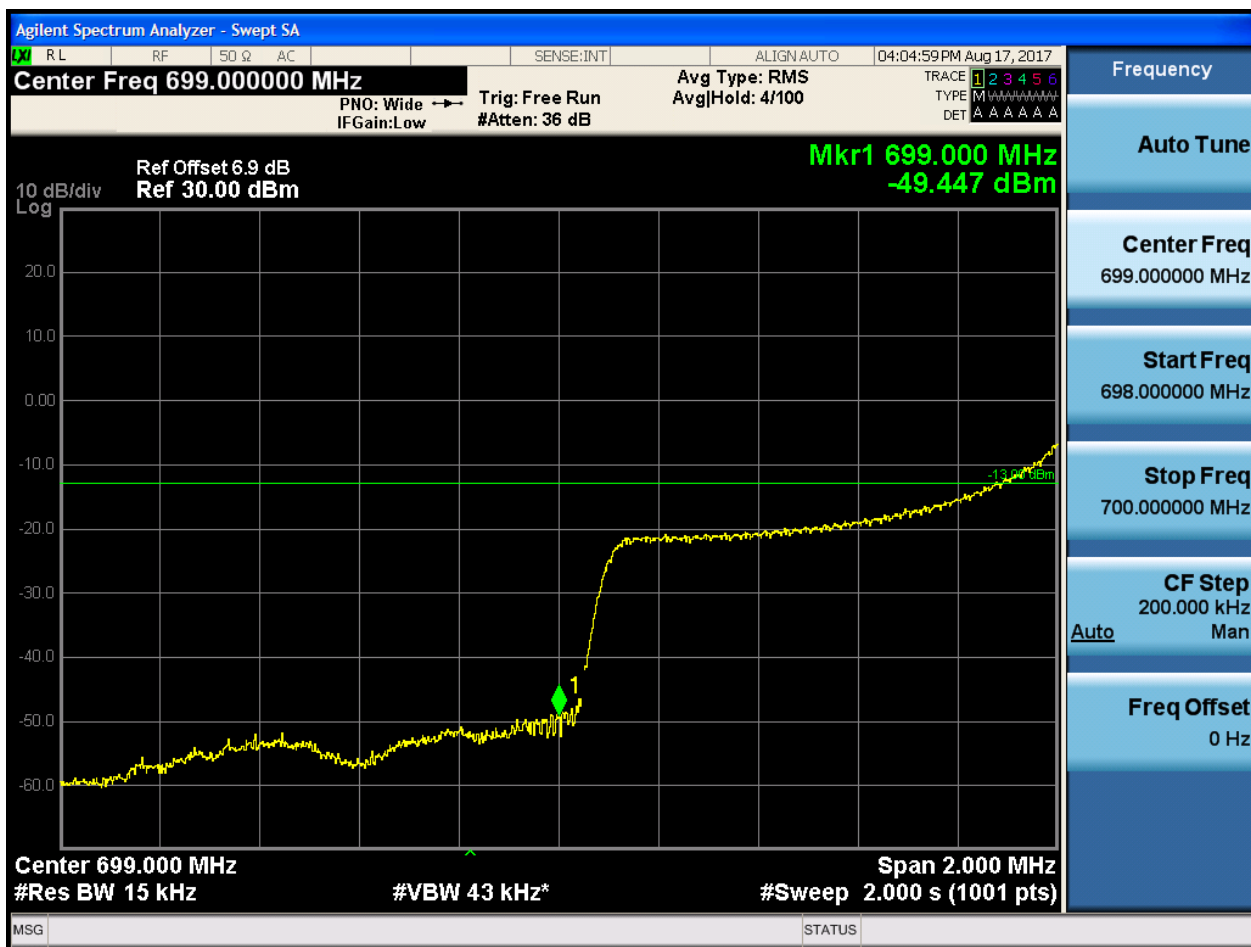
5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



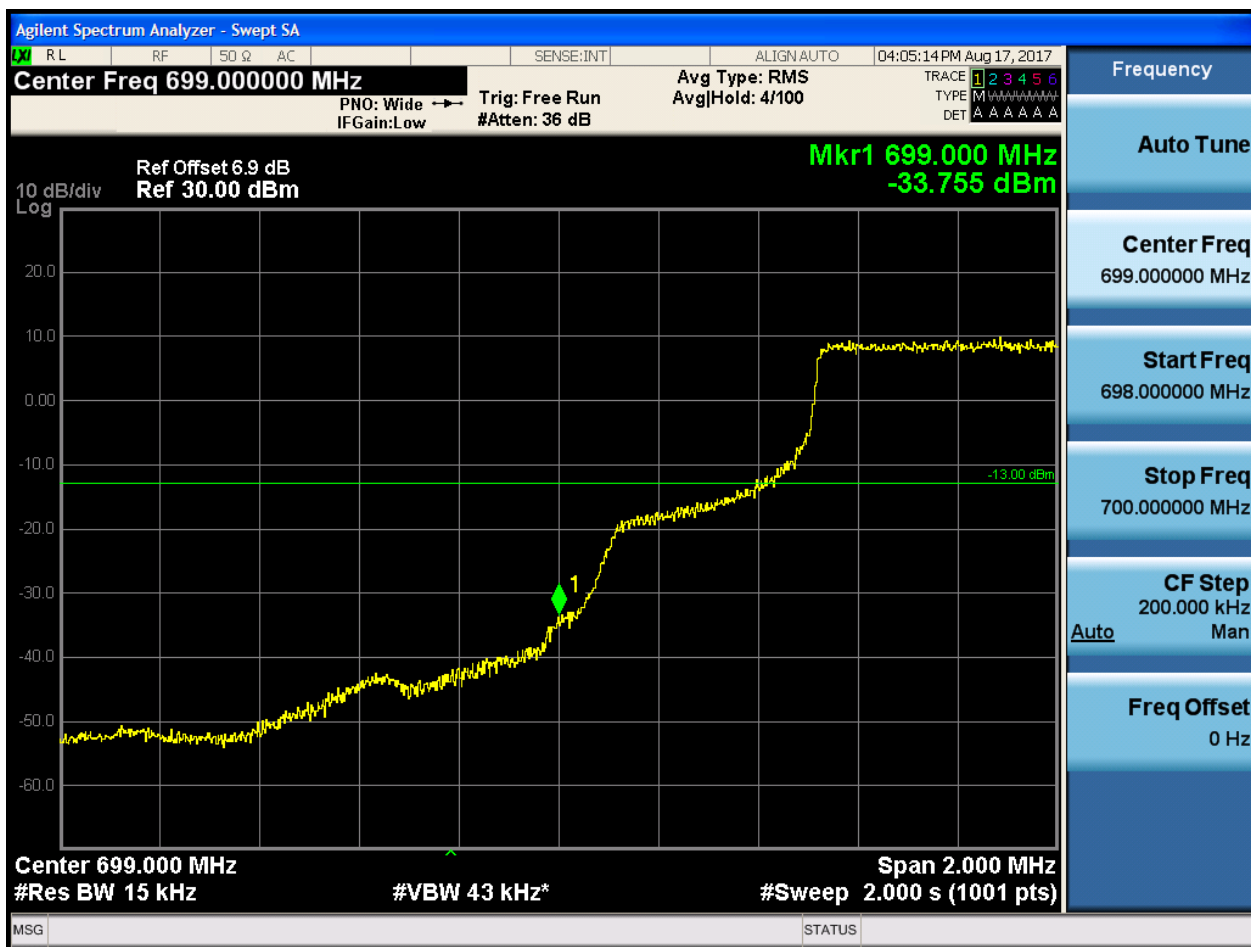


5.1.1.1.1.2 Test RB = RB1#5



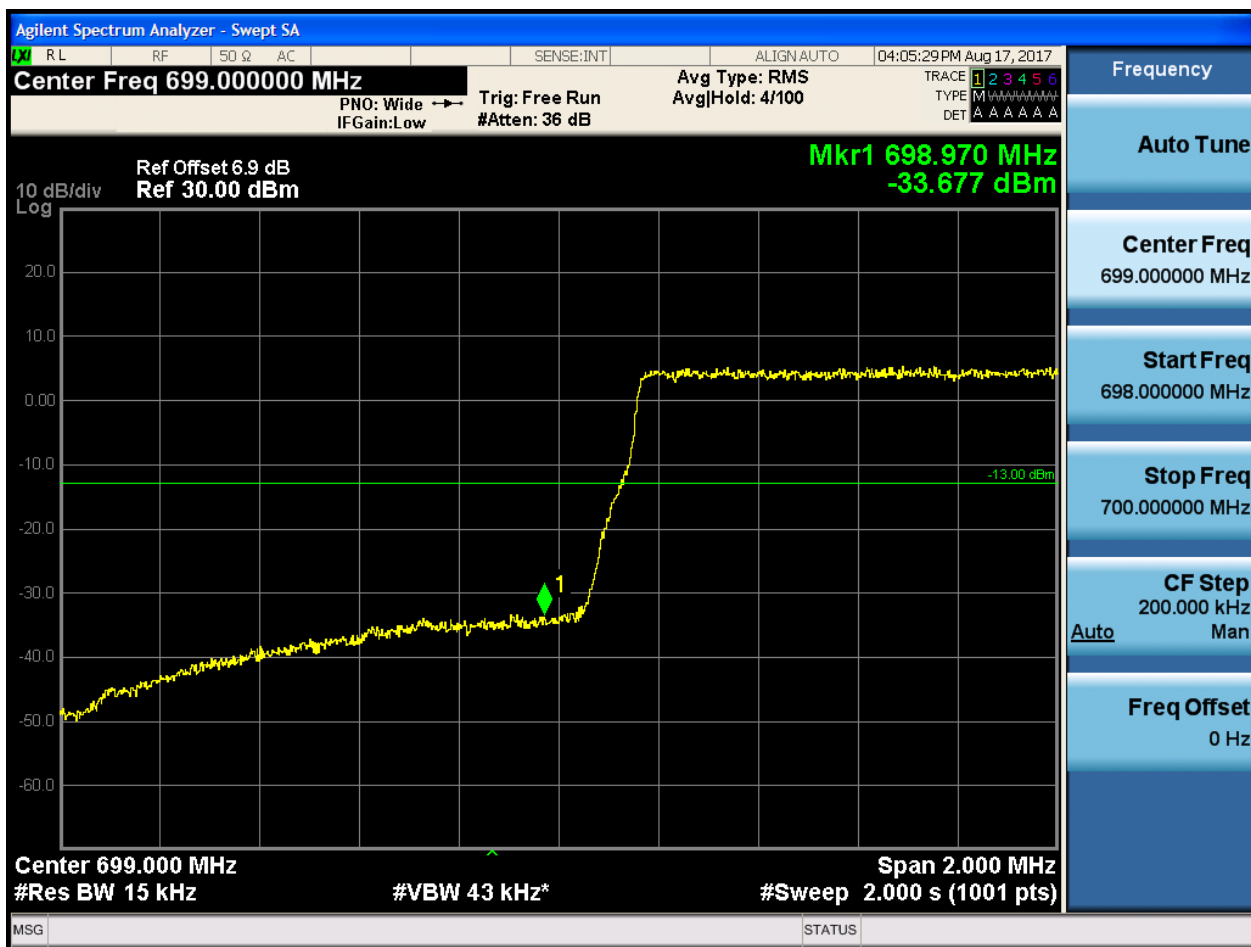


5.1.1.1.1.3 Test RB = RB3#2





5.1.1.1.1.4 Test RB = RB6#0



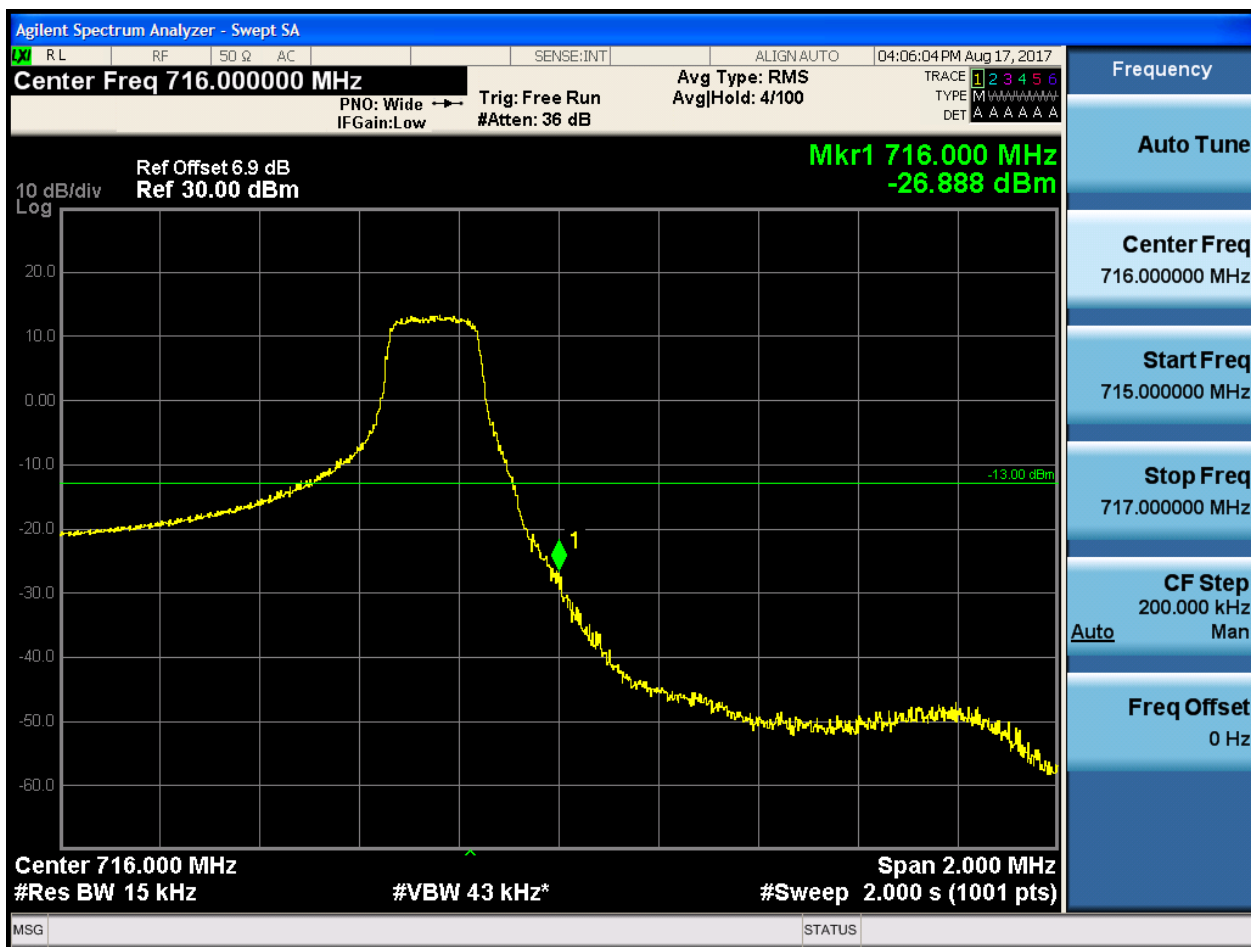
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.2.2 Test RB = RB1#5





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:06:19PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide Trig: 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 6.9 dB
Ref 30.00 dBm

Mkr1 716.010 MHz
-26.699 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 15 kHz
#VBW 43 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

[X] RL	RF	50 Ω AC		SENSE:INT	ALIGN AUTO	04:06:33 PM Aug 17, 2017
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Center Freq 716.000000 MHz

PNO: Wide → Trig: Free Run
IFGain: Low #Atten: 36 dB

Avg Type: RMS
Avg/Hold: 4/100

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 6.9 dB
Ref 30.00 dBm

Mkr1 716.020 MHz
-31.486 dBm

10 dB/div
Log

-13.00 dBm

Center 716.000 MHz
#Res BW 15 kHz

#VBW 43 kHz*

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

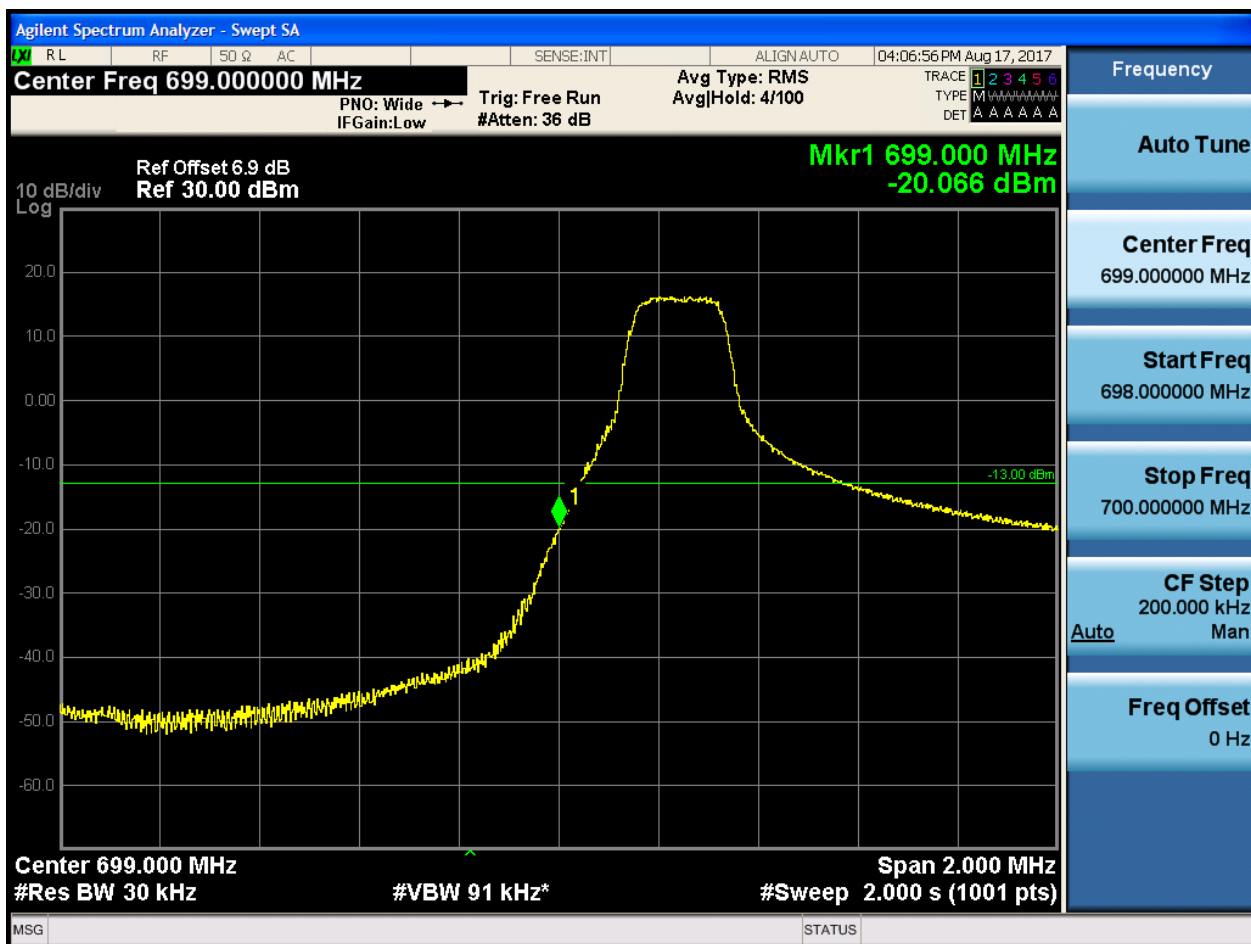
MSG STATUS



5.1.1.1.2 Test Bandwidth = 3

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 04:07:11PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-34.439 dBm

10 dB/div
Log

Center 699.000 MHz
#Res BW 30 kHz
#VBW 91 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



5.1.1.1.2.1.3 Test RB = RB8#4





Agilent Spectrum Analyzer - Swept SA

Center Freq 699.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 699.000 MHz
-30.177 dBm

Center 699.000 MHz
#Res BW 30 kHz
#VBW 91 kHz*

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
699.000000 MHz

Start Freq
698.000000 MHz

Stop Freq
700.000000 MHz

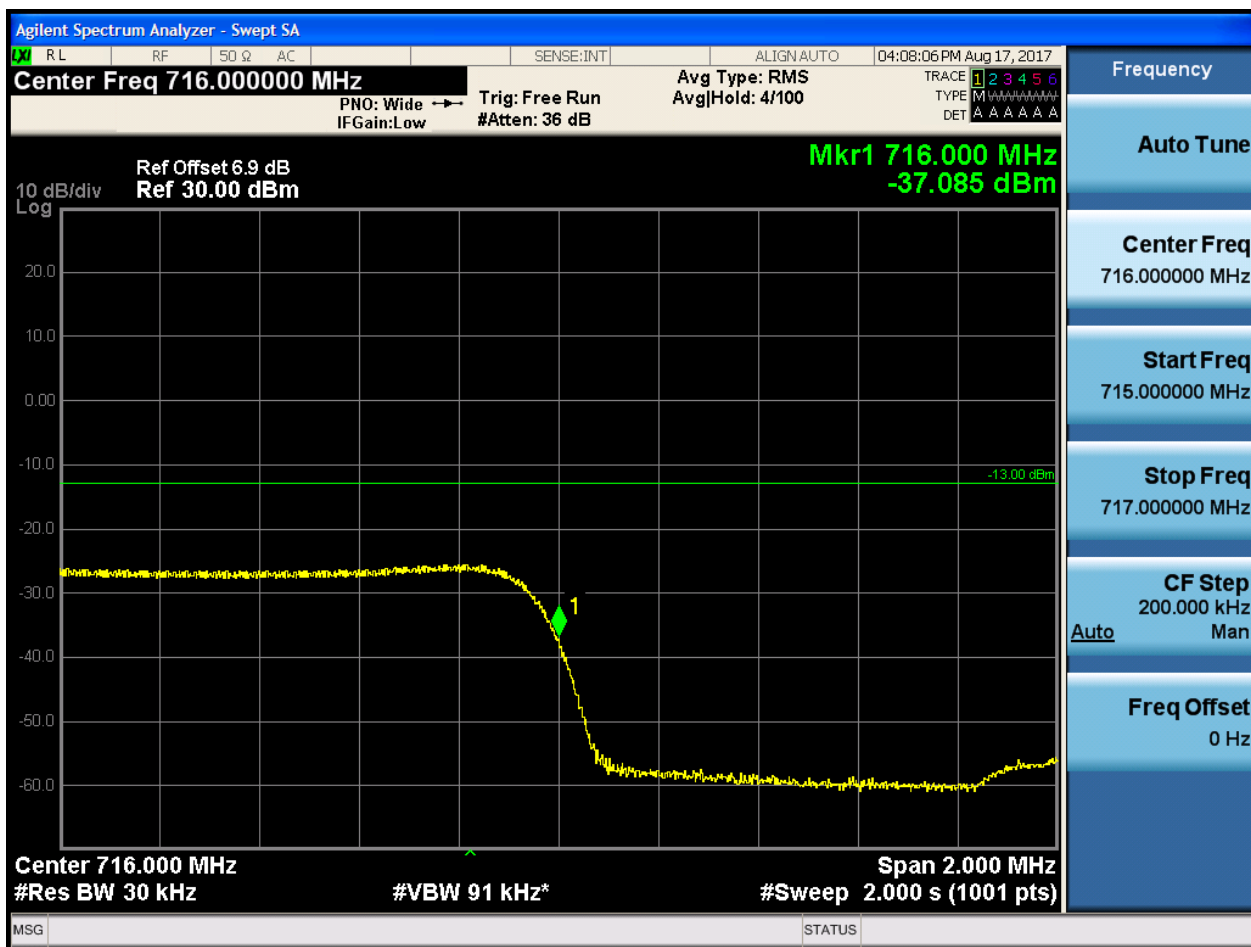
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz



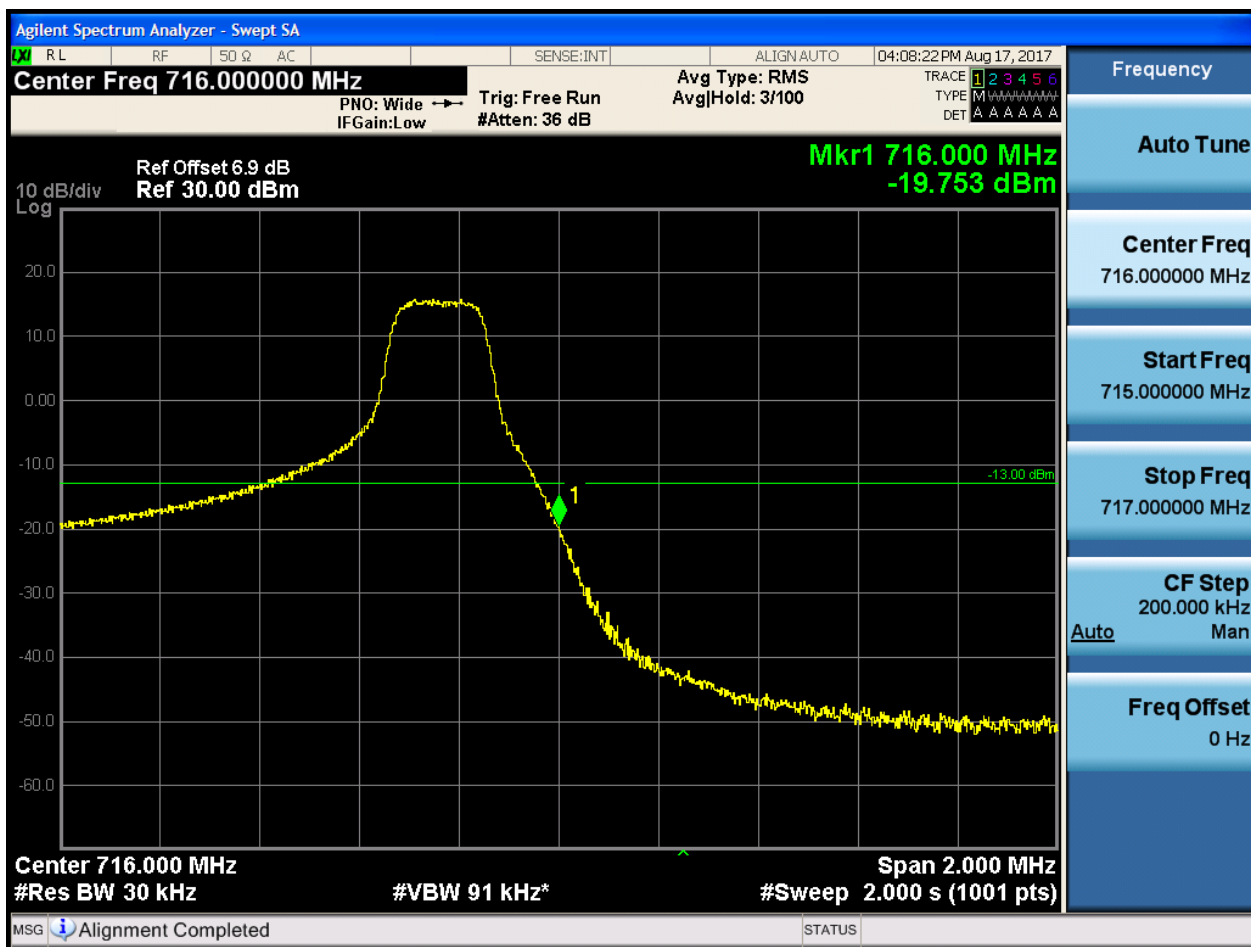
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





5.1.1.1.2.2.2 Test RB = RB1#14





5.1.1.1.2.2.3 Test RB = RB8#4





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:08:56 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide Trig: Free Run
IFGain:Low #Atten: 36 dB

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

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-31.333 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 30 kHz
#VBW 91 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

CF Step
200.000 kHz
Auto Man

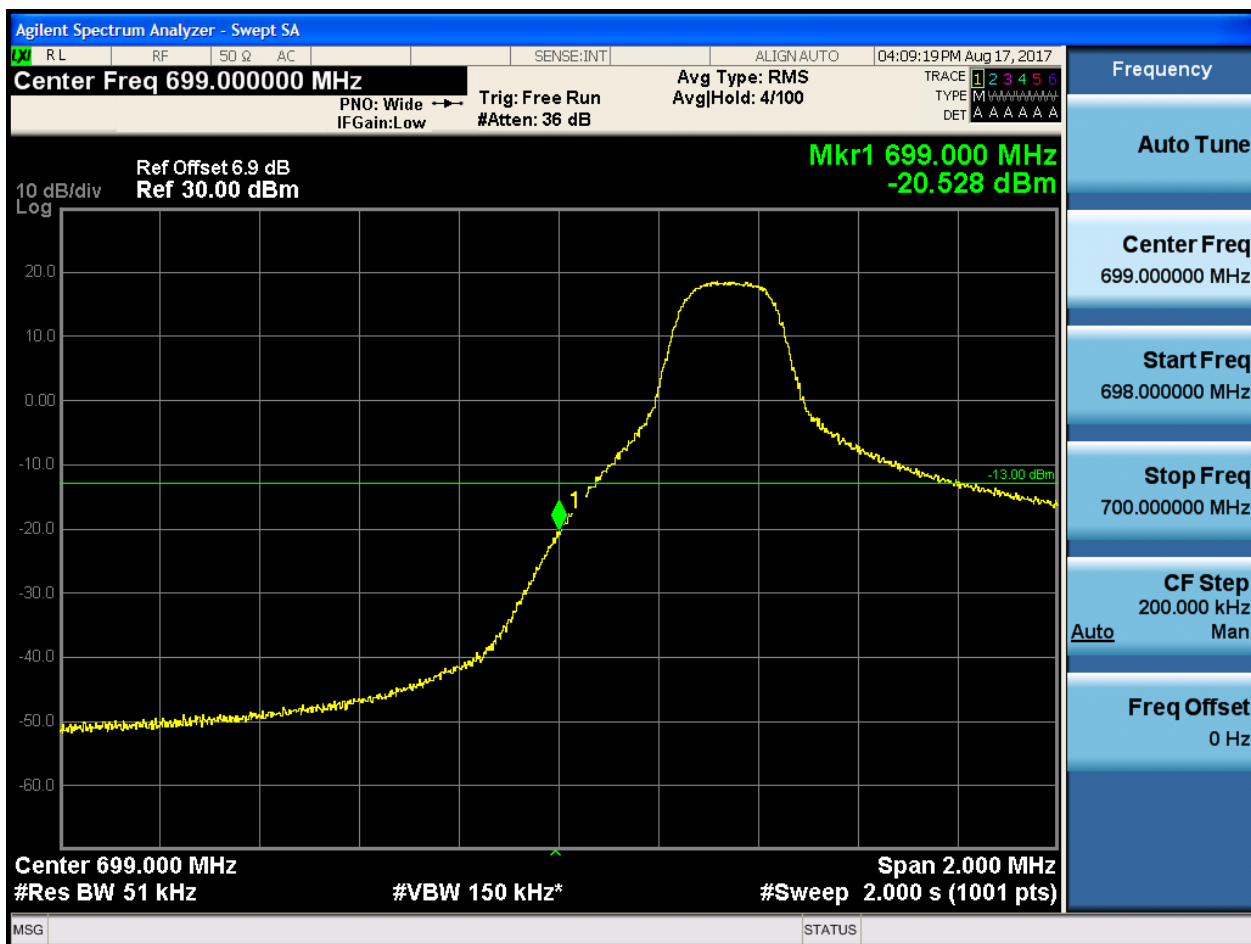
Freq Offset
0 Hz



5.1.1.1.3 Test Bandwidth = 5

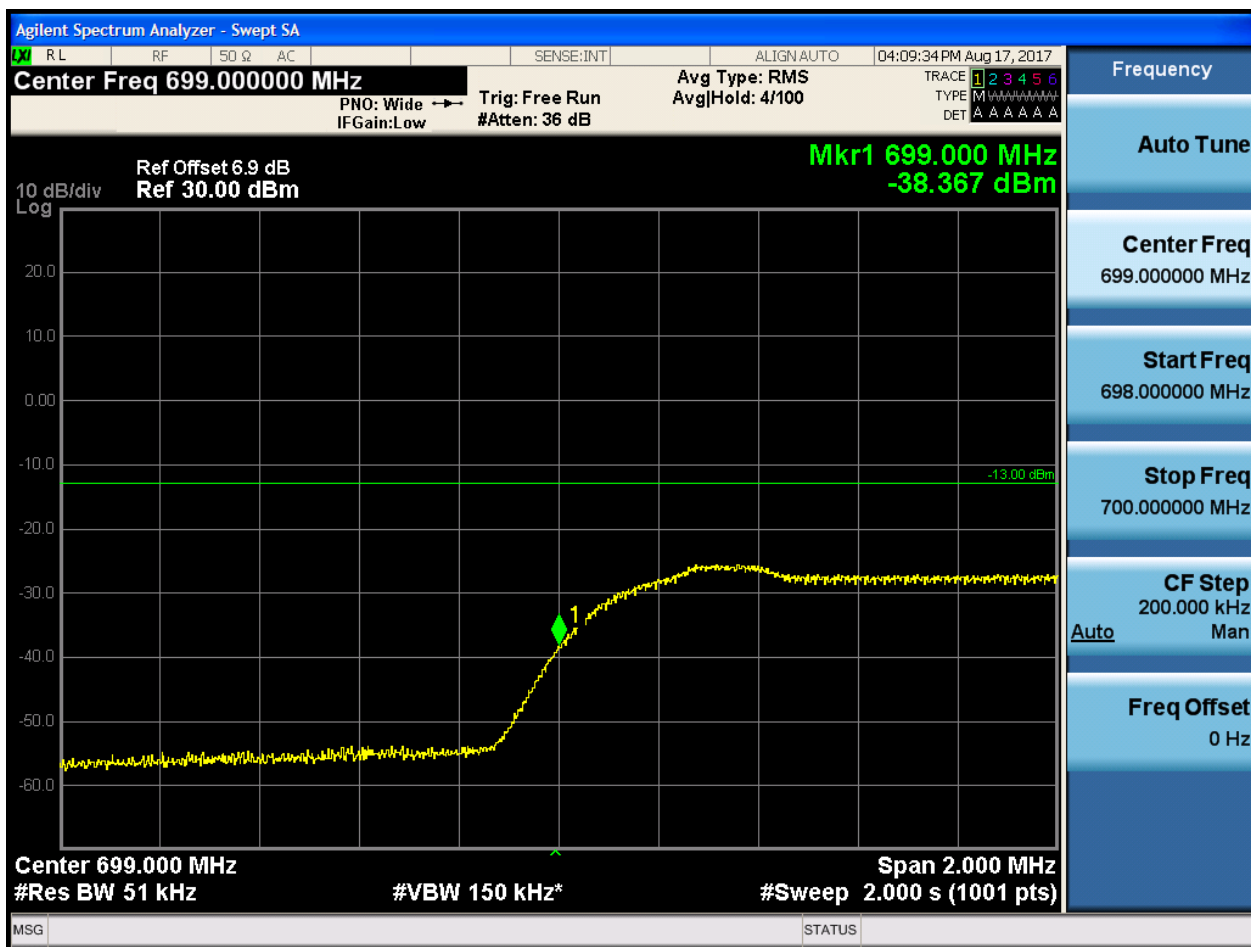
5.1.1.1.3.1 Test Channel = LCH

5.1.1.1.3.1.1 Test RB = RB1#0





5.1.1.1.3.1.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:09:50 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 698.990 MHz
-35.619 dBm

10 dB/div
Log

Center 699.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:10:04 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-31.244 dBm

10 dB/div
Log

-13.00 dBm

Center Freq
699.000000 MHz

Start Freq
698.000000 MHz

Stop Freq
700.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

Center 699.000 MHz
#Res BW 51 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

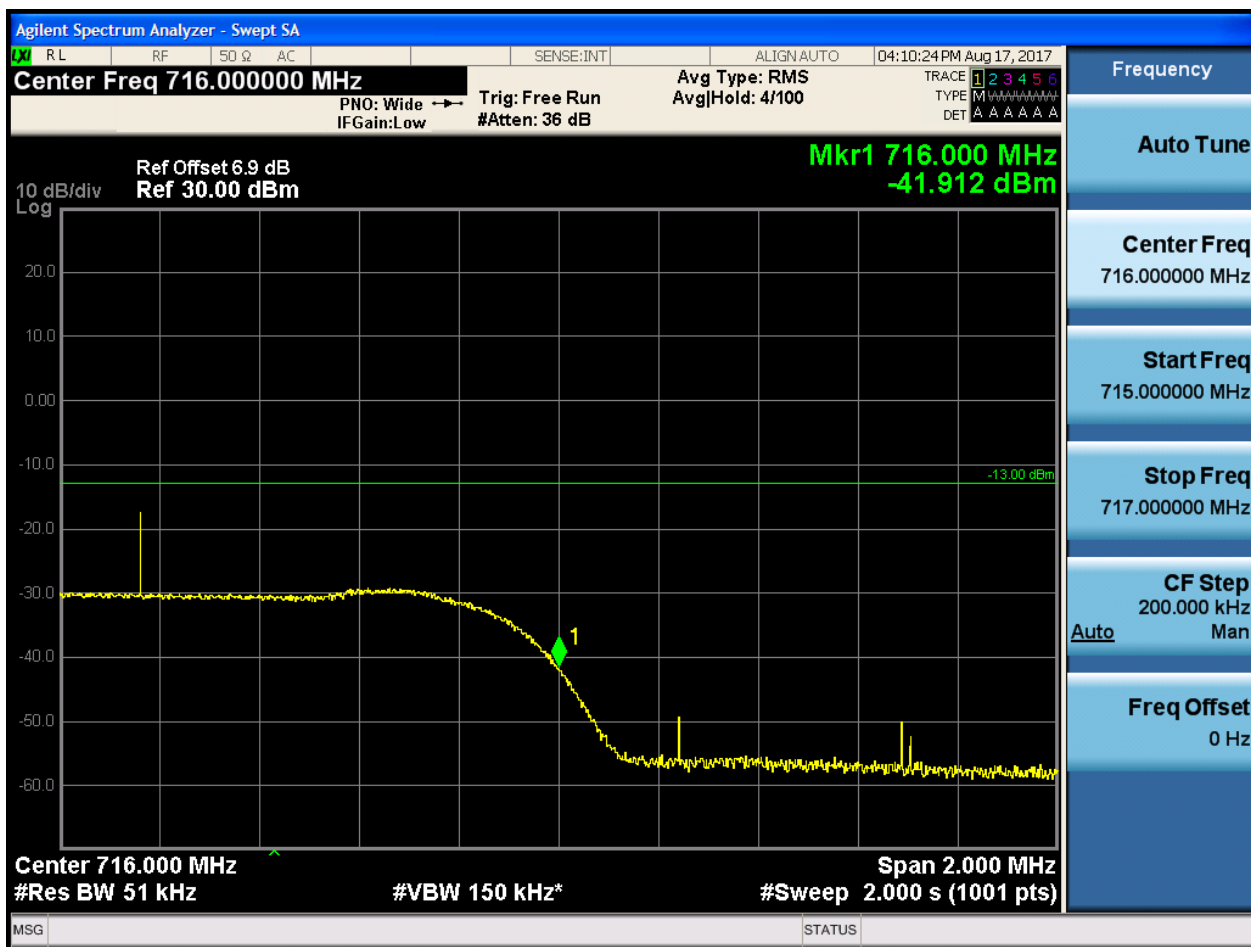
#VBW 150 kHz*

MSG STATUS



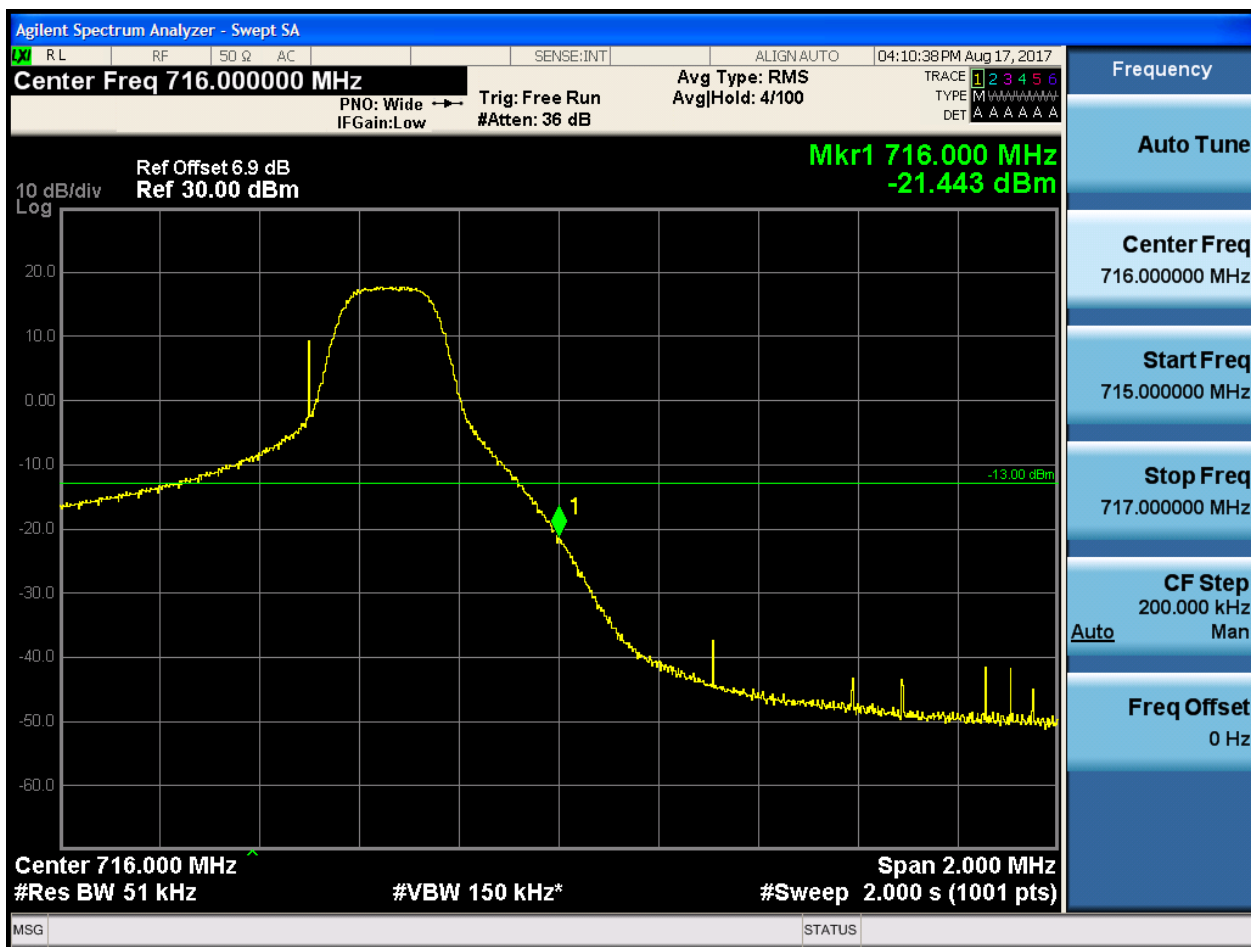
5.1.1.1.3.2 Test Channel = HCH

5.1.1.1.3.2.1 Test RB = RB1#0





5.1.1.1.3.2.2 Test RB = RB1#24





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:10:52 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-36.350 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
716.000000 MHz
Start Freq
715.000000 MHz
Stop Freq
717.000000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz



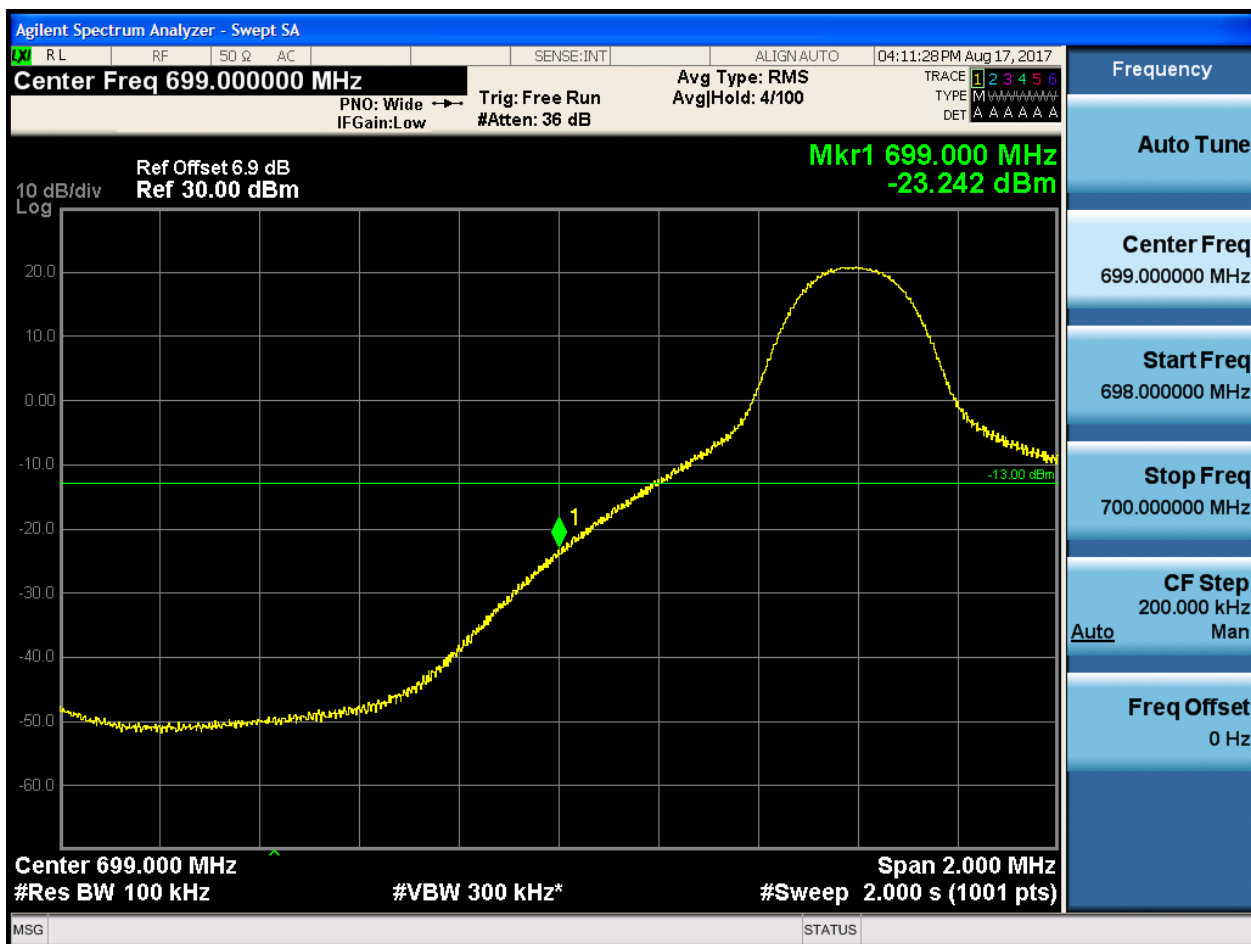
5.1.1.1.3.2.4 Test RB = RB25#0



5.1.1.1.4 Test Bandwidth = 10

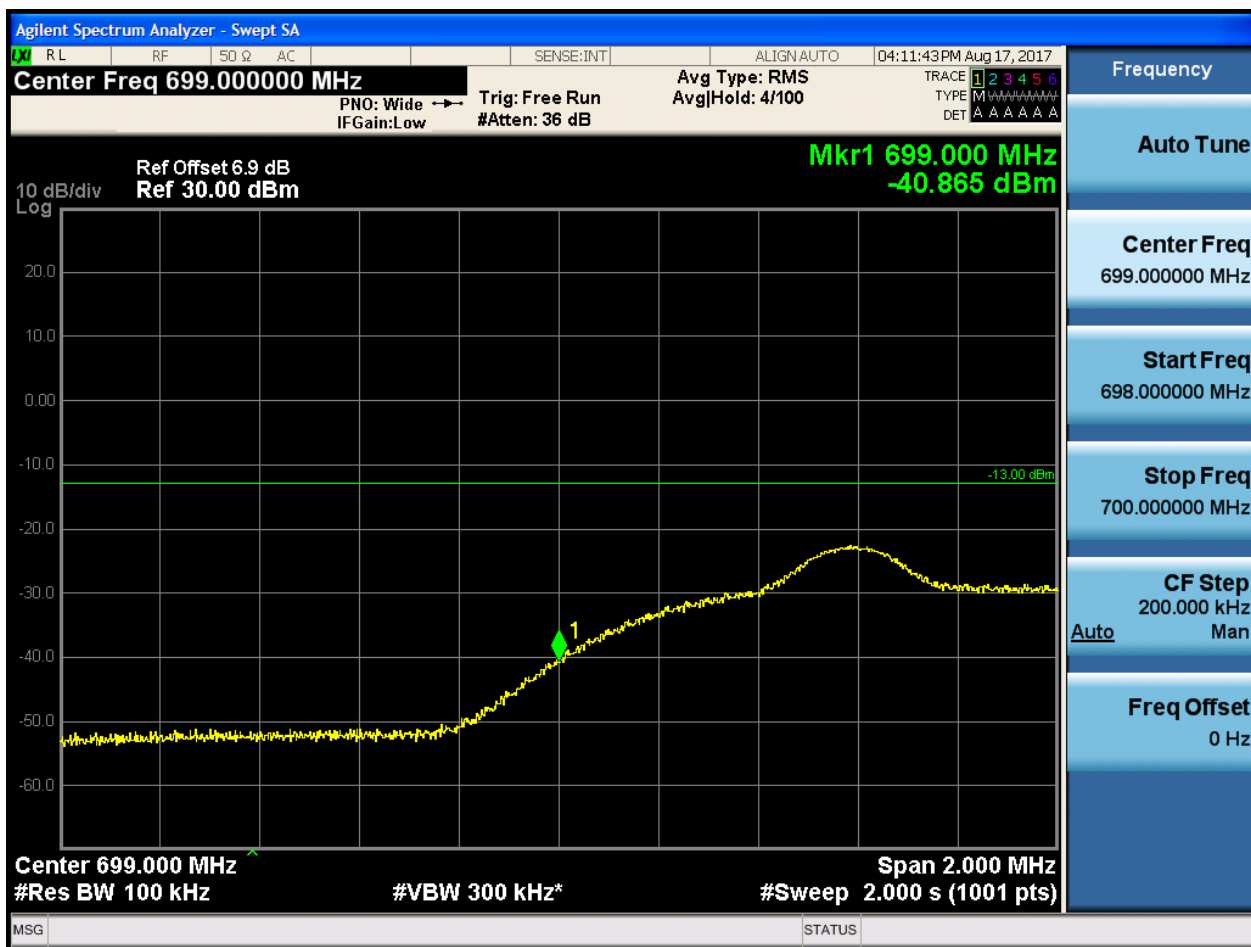
5.1.1.1.4.1 Test Channel = LCH

5.1.1.1.4.1.1 Test RB = RB1#0





5.1.1.1.4.1.2 Test RB = RB1#49





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:11:57 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS Trace 1 2 3 4 5 6
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#Atten: 36 dB DET A A A A A A

10 dB/div Log Ref Offset 6.9 dB Mkr1 698.990 MHz
Ref 30.00 dBm -32.086 dBm

Center 699.000 MHz Span 2.000 MHz
#Res BW 100 kHz #VBW 300 kHz* #Sweep 2.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

Center Freq 699.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-30.874 dBm

10 dB/div
Log

Center 699.000 MHz
#Res BW 100 kHz

#VBW 300 kHz*

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
699.000000 MHz

Start Freq
698.000000 MHz

Stop Freq
700.000000 MHz

CF Step
200.000 kHz
Auto

Freq Offset
0 Hz

Center Freq 699.000000 MHz

Avg Type: RMS
Avg/Hold: 4/100

Trig: Free Run
#Atten: 36 dB

PNO: Wide
IFGain: Low

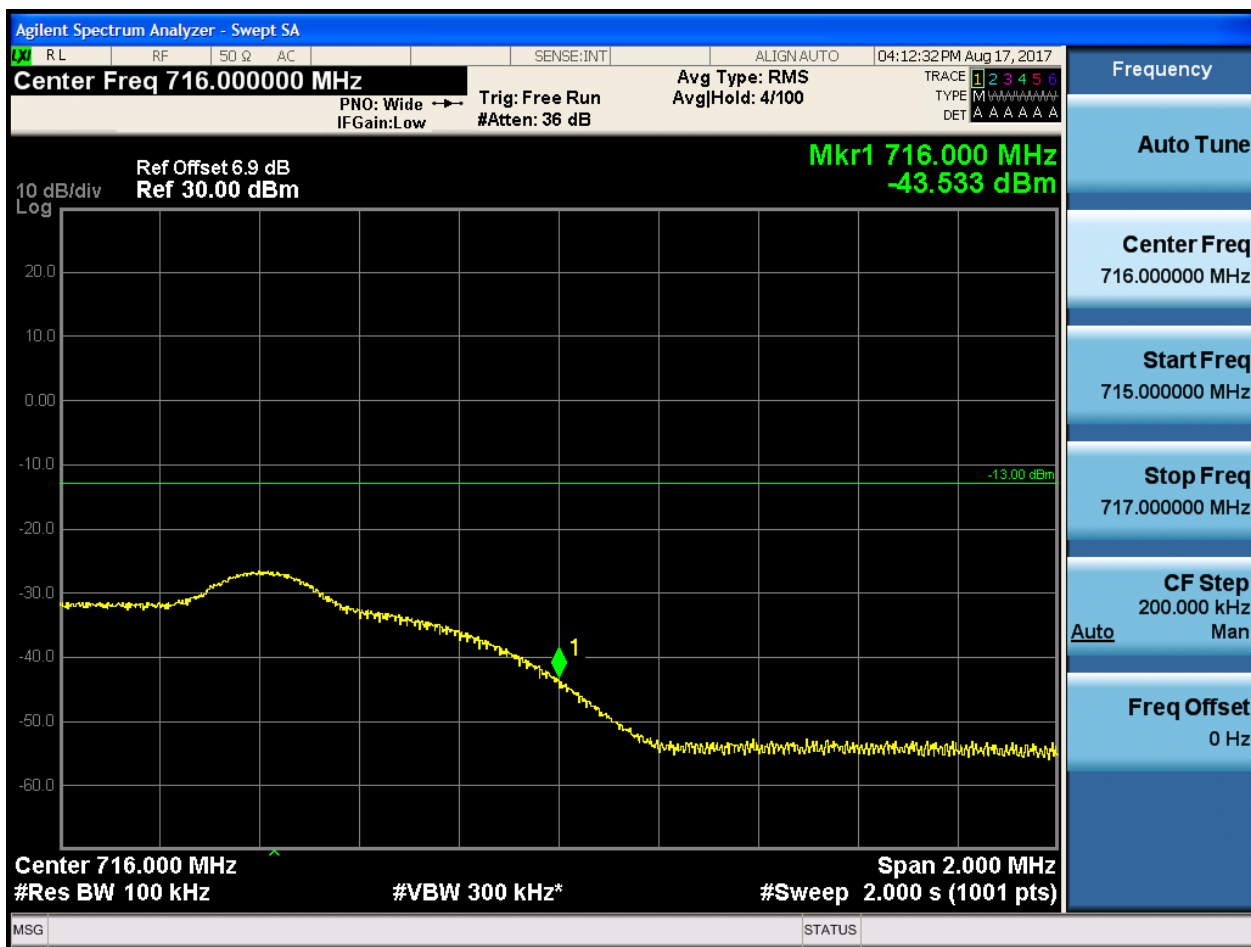
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET A A A A A A

MSG STATUS



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 04:12:46 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run
#Atten: 36 dB

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

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-23.411 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:13:00 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-36.460 dBm

10 dB/div
Log

Center Freq 716.000000 MHz
Start Freq 715.000000 MHz
Stop Freq 717.000000 MHz
CF Step 200.000 kHz
Auto Man
Freq Offset 0 Hz

Center 716.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:13:15 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run
#Atten: 36 dB

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

Ref Offset 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-34.392 dBm

10 dB/div
Log

20.0
10.0
0.0
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0

715.000000 MHz
716.000000 MHz
717.000000 MHz

-13.00 dBm

1

Center 716.000 MHz
#Res BW 100 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

#VBW 300 kHz*

MSG STATUS

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

CF Step
200.000 kHz
Auto Man

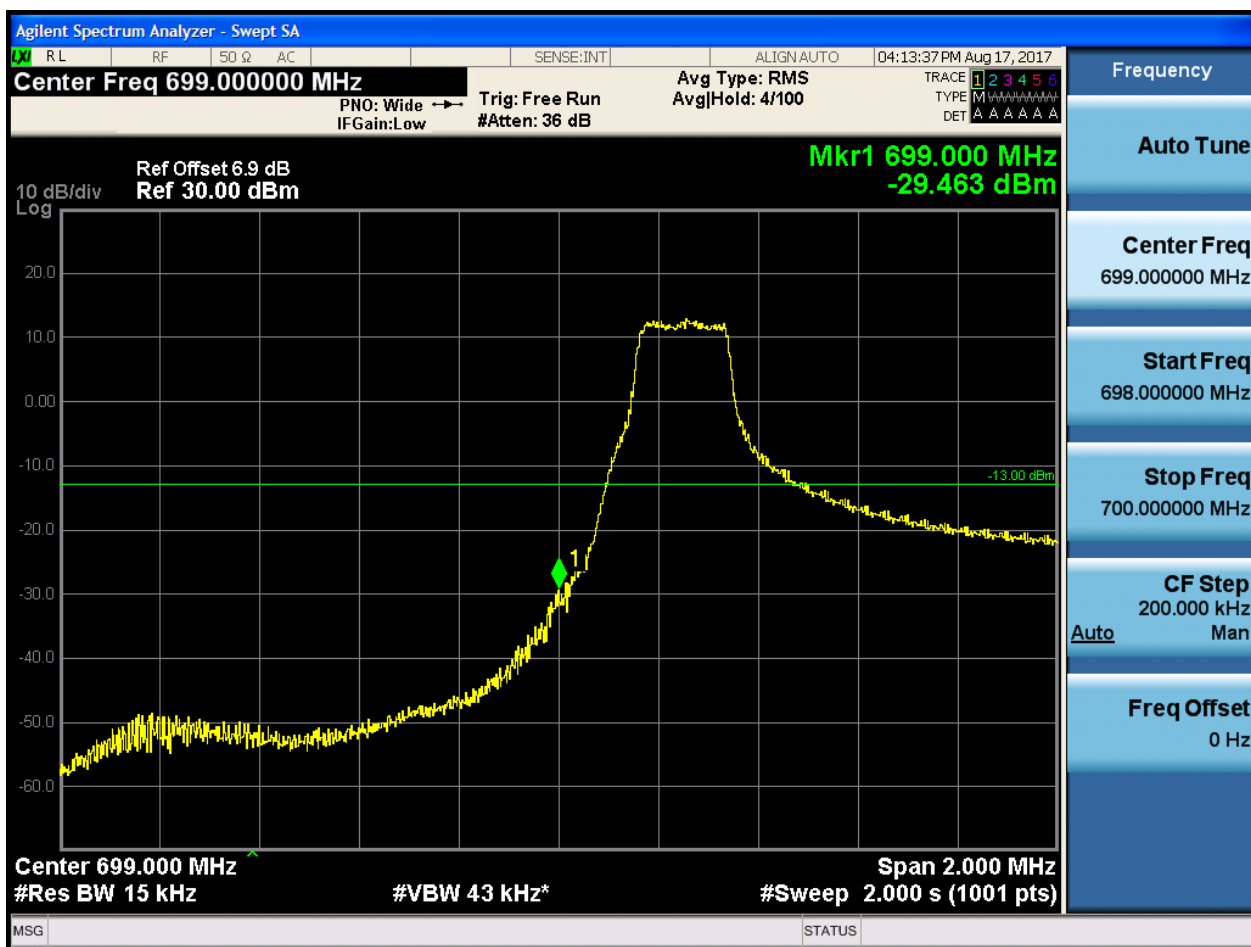
Freq Offset
0 Hz

5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 1.4

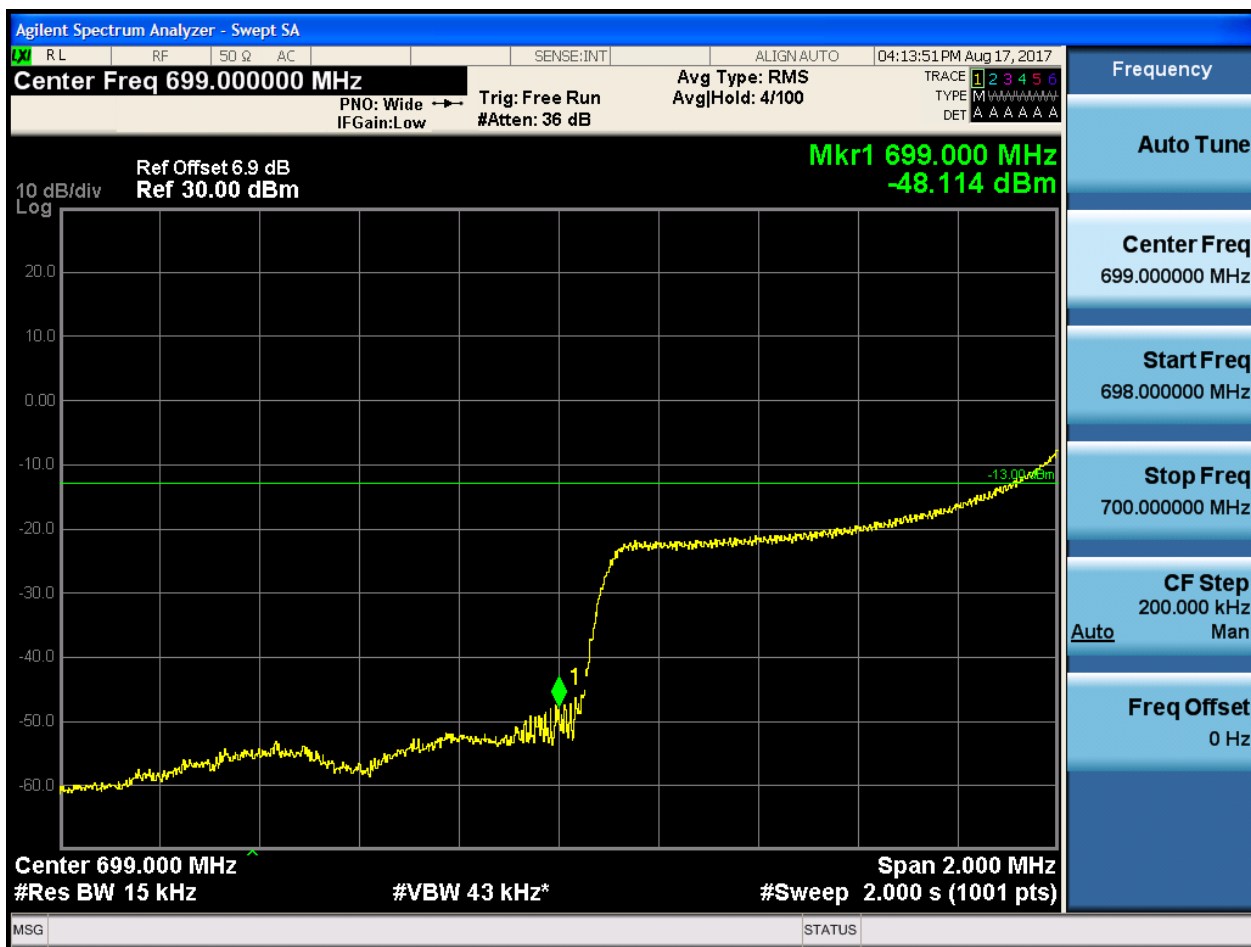
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0





5.1.1.2.1.1.2 Test RB = RB1#5





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:14:05 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-38.789 dBm

10 dB/div
Log

Center 699.000 MHz
#Res BW 15 kHz #VBW 43 kHz* Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
699.000000 MHz

Start Freq
698.000000 MHz

Stop Freq
700.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:14:20 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 698.890 MHz
-36.196 dBm

10 dB/div
Log

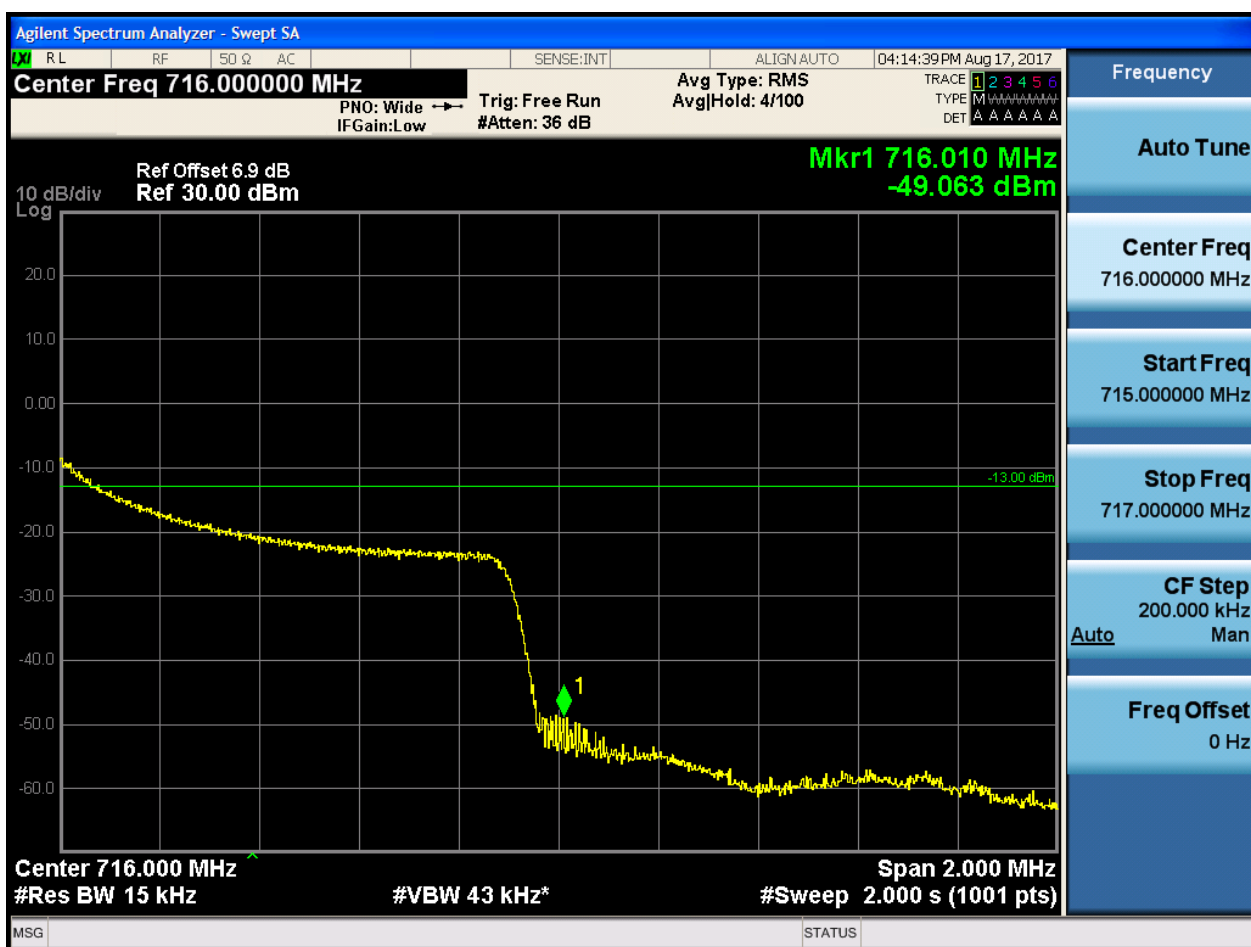
Center 699.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:14:54PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-31.580 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 15 kHz
#VBW 43 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq 716.000000 MHz
Start Freq 715.000000 MHz
Stop Freq 717.000000 MHz
CF Step 200.000 kHz Auto Man
Freq Offset 0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:15:08 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-32.087 dBm

10 dB/div
Log

-13.00 dBm

Center 716.000 MHz
#Res BW 15 kHz

#VBW 43 kHz*

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq 716.000000 MHz
Start Freq 715.000000 MHz
Stop Freq 717.000000 MHz
CF Step 200.000 kHz Auto Man
Freq Offset 0 Hz



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:15:22 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.010 MHz
-32.389 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 15 kHz
#VBW 43 kHz

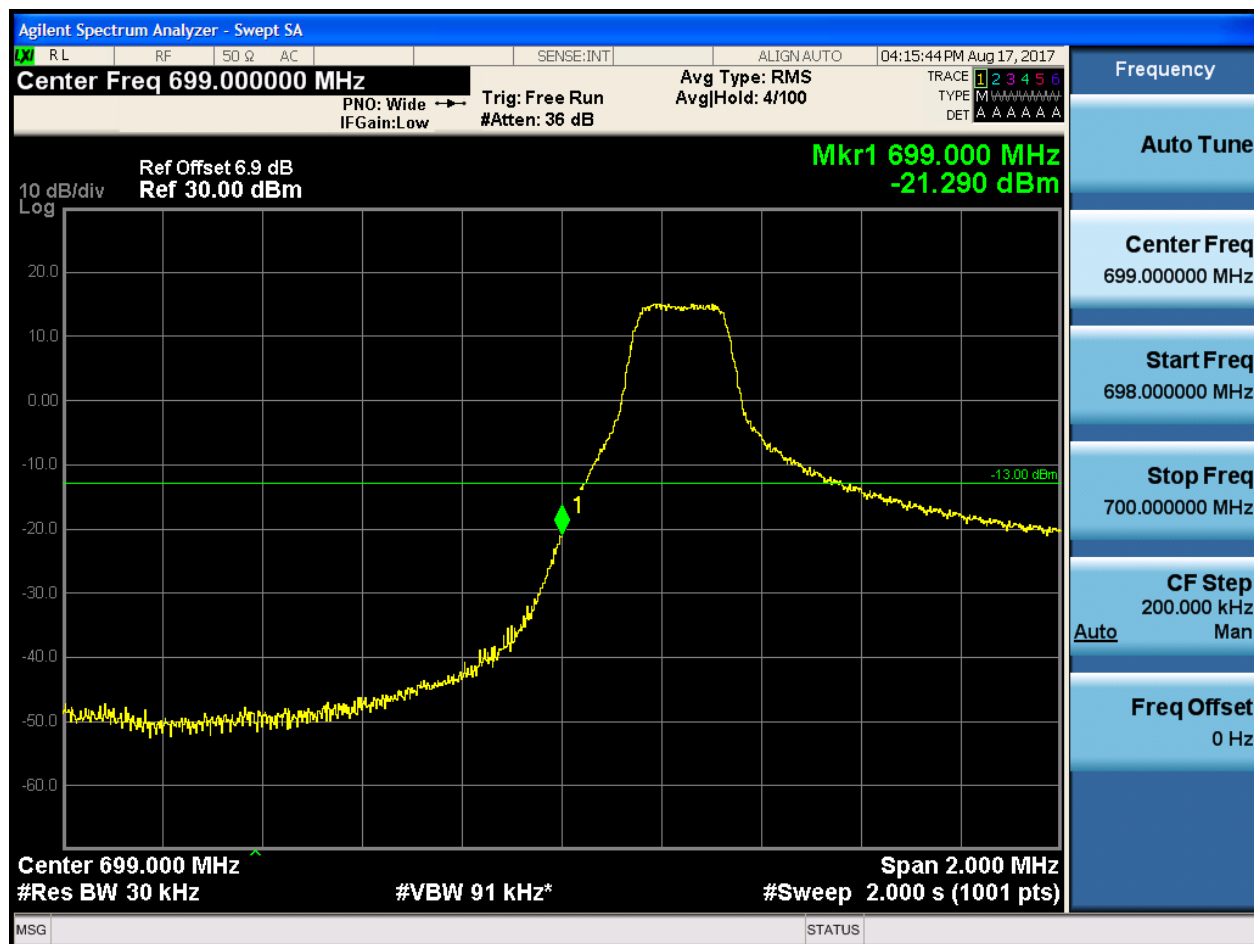
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

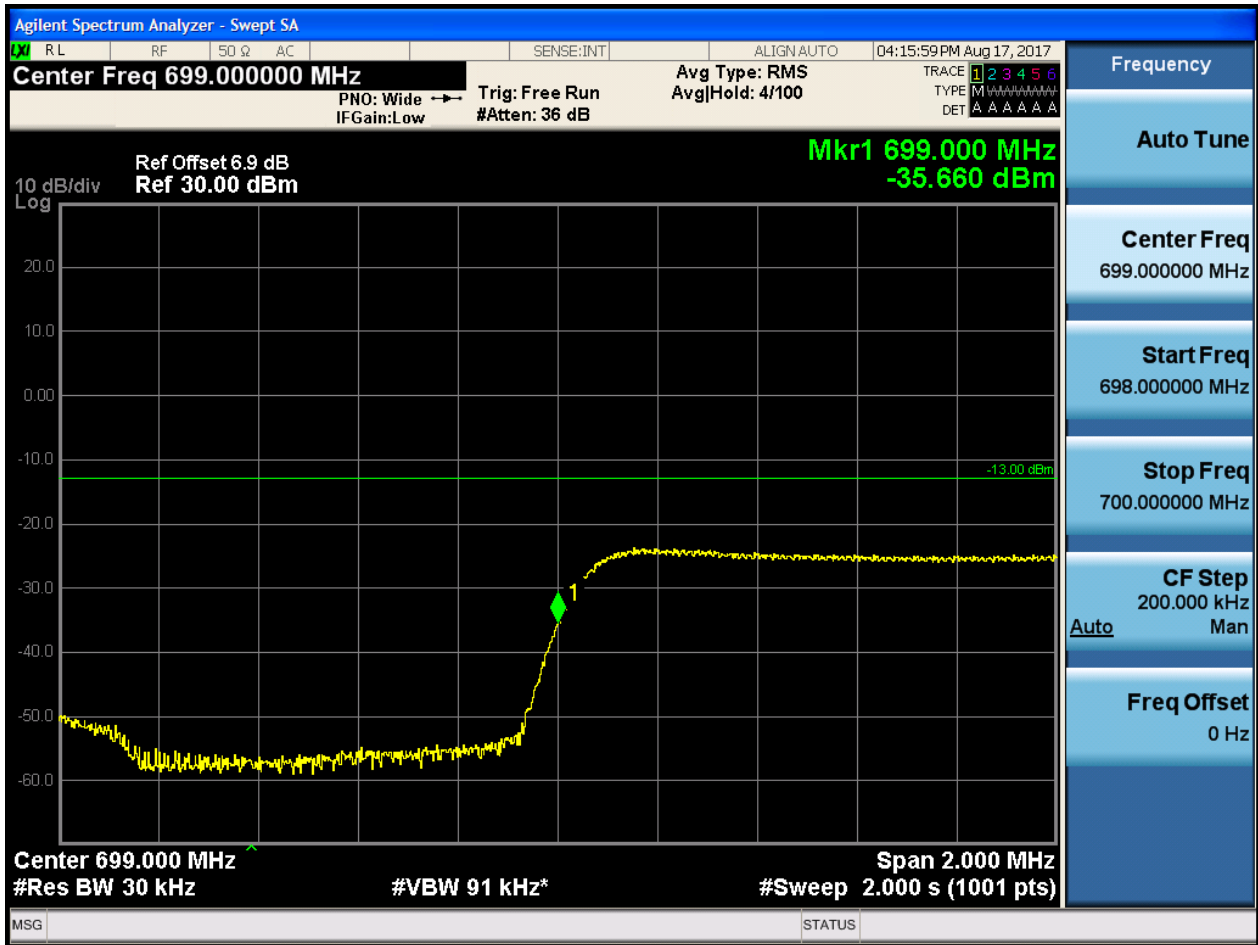
5.1.1.2.2 Test Bandwidth = 3

5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0

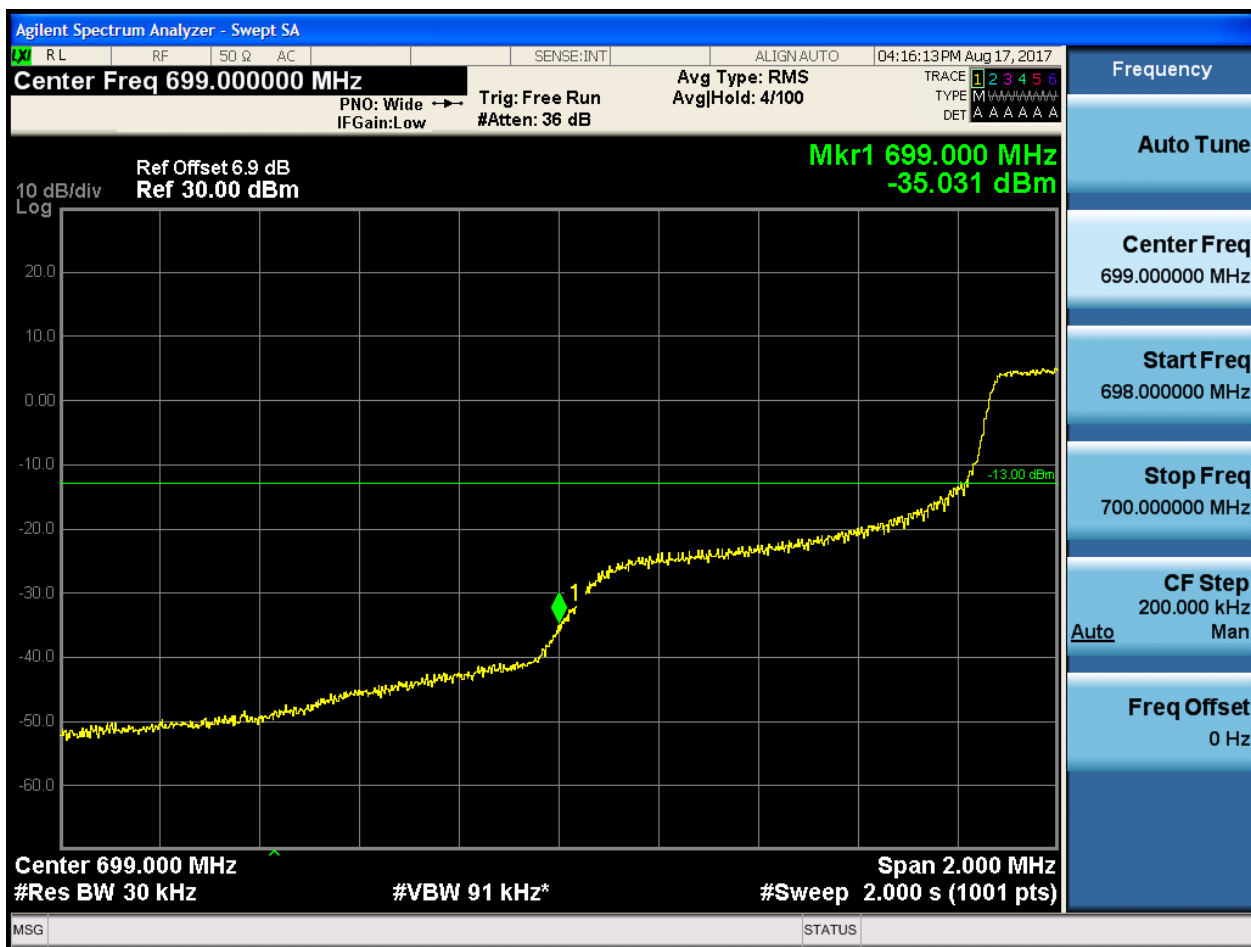


5.1.1.2.2.1.2 Test RB = RB1#14





5.1.1.2.2.1.3 Test RB = RB8#4





Agilent Spectrum Analyzer - Swept SA

Center Freq 699.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 699.000 MHz
-31.421 dBm

Center 699.000 MHz
#Res BW 30 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

#VBW 91 kHz*

MSG STATUS

Frequency

Auto Tune

Center Freq
699.000000 MHz

Start Freq
698.000000 MHz

Stop Freq
700.000000 MHz

CF Step
200.000 kHz
Auto Man

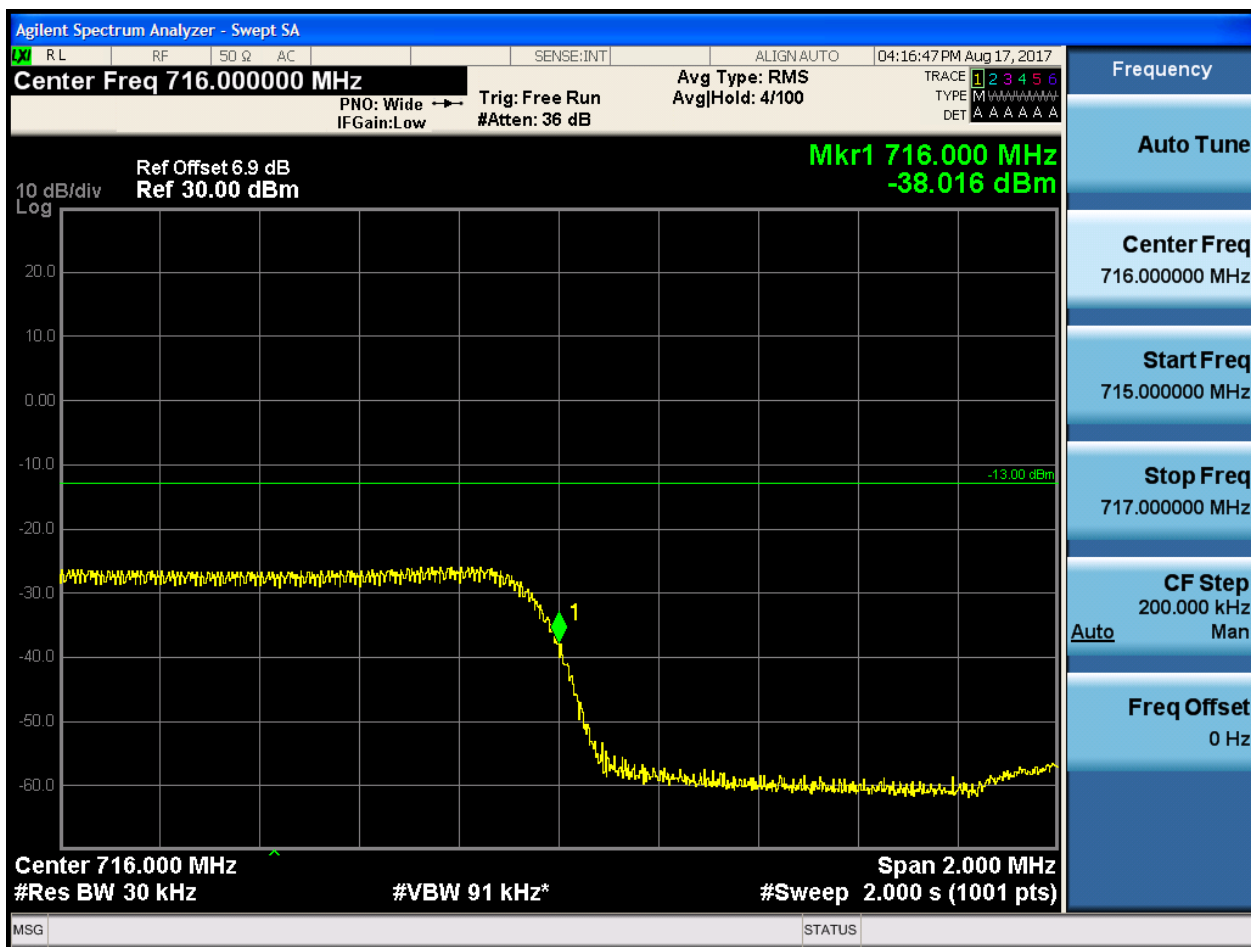
Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer in Swept SA mode. The main display is a log-scale plot of power (dBm) versus frequency (MHz). The signal is centered at 699.000 MHz. The plot shows a signal that is flat at approximately -40 dBm from 698 MHz to 698.5 MHz, then rises sharply to 0 dBm by 699.5 MHz, and remains flat at 0 dBm until 700 MHz. A green horizontal line is drawn at -13.00 dBm. A yellow marker is placed on the rising edge of the signal at approximately 698.8 MHz, with a value of -31.421 dBm. The interface includes a top bar with various settings (RL, RF, 50 Ω, AC, SENSE:INT, ALIGN AUTO, 04:16:27 PM Aug 17, 2017), a left panel with controls (PNO: Wide, IFGain:Low, Trig: Free Run, #Atten: 36 dB), a right panel with frequency settings (Frequency, Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, Freq Offset), and a bottom status bar (MSG, STATUS).



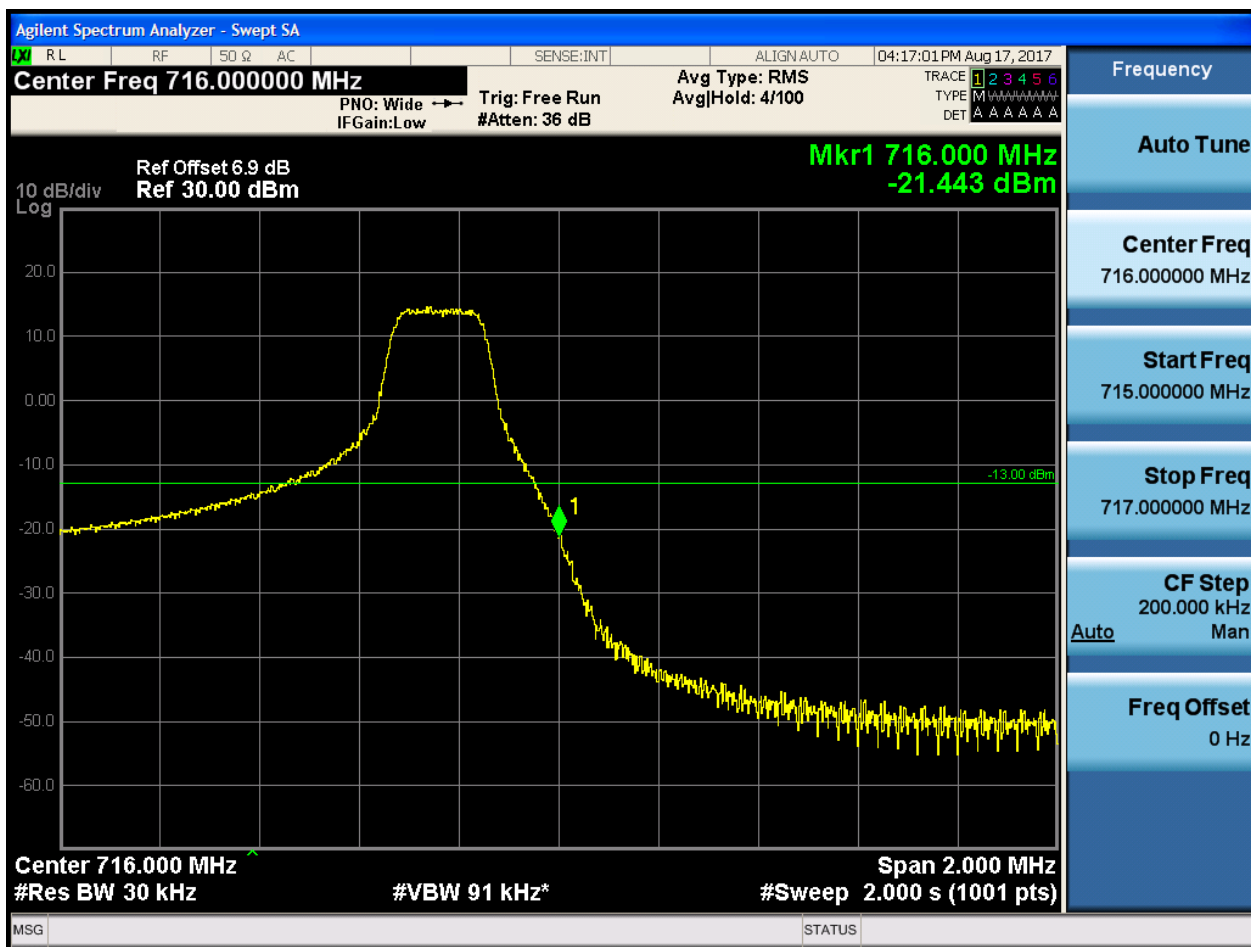
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0





5.1.1.2.2.2 Test RB = RB1#14





5.1.1.2.2.3 Test RB = RB8#4



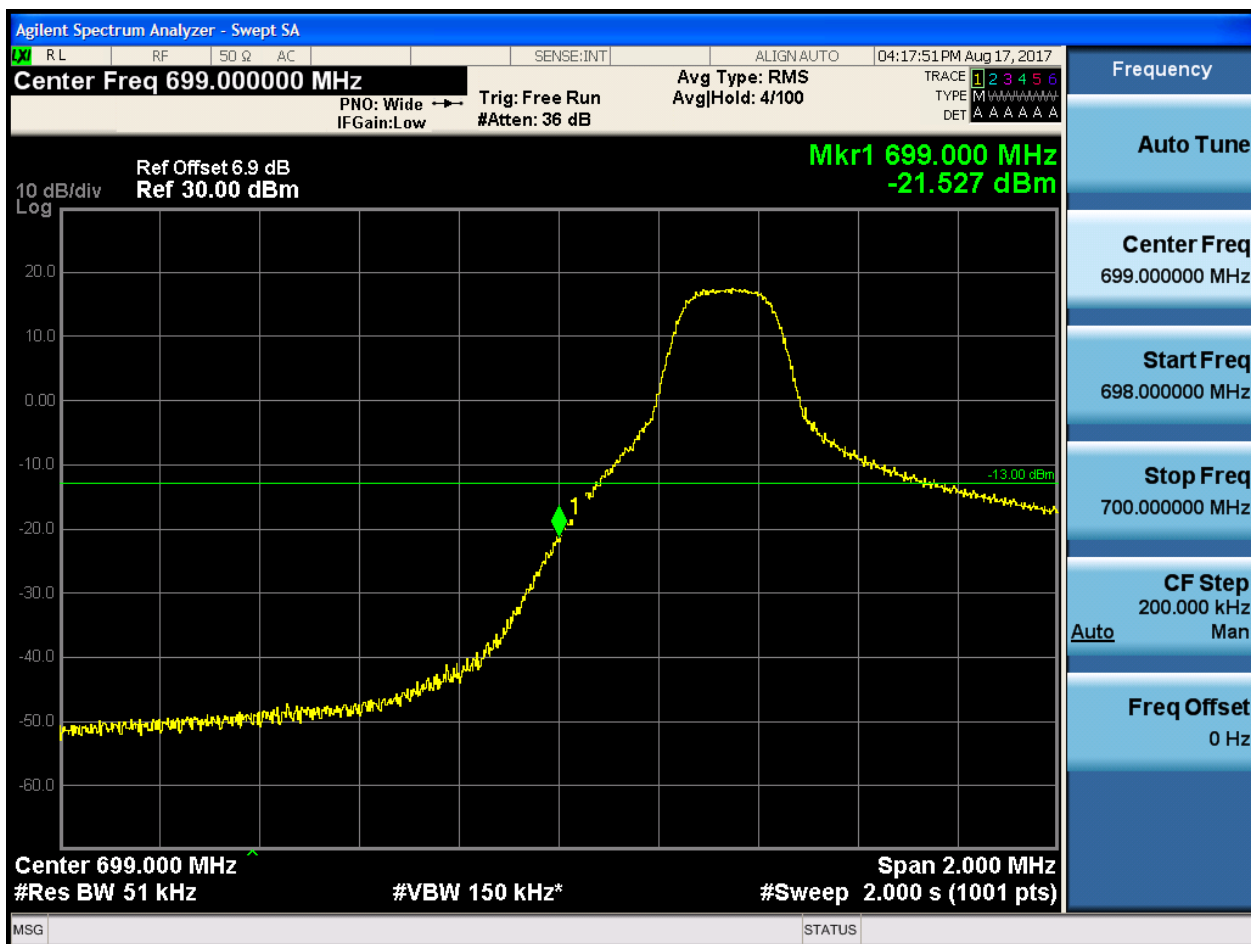
5.1.1.2.2.2.4 Test RB = RB15#0



5.1.1.2.3 Test Bandwidth = 5

5.1.1.2.3.1 Test Channel = LCH

5.1.1.2.3.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 699.000000 MHz

Ref Offset 6.9 dB
Ref 30.00 dBm

10 dB/div
Log

Mkr1 699.000 MHz
-39.885 dBm

Center 699.000 MHz
#Res BW 51 kHz

#VBW 150 kHz*

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

Frequency

Auto Tune

Center Freq
699.000000 MHz

Start Freq
698.000000 MHz

Stop Freq
700.000000 MHz

CF Step
200.000 kHz
Auto

Freq Offset
0 Hz

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:18:20 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-36.947 dBm

10 dB/div
Log

Center 699.000 MHz
#Res BW 51 kHz #VBW 150 kHz* Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:18:34 PM Aug 17, 2017

Center Freq 699.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-33.177 dBm

10 dB/div
Log

Center Freq 699.000000 MHz
Start Freq 698.000000 MHz
Stop Freq 700.000000 MHz
CF Step 200.000 kHz
Auto Man
Freq Offset 0 Hz

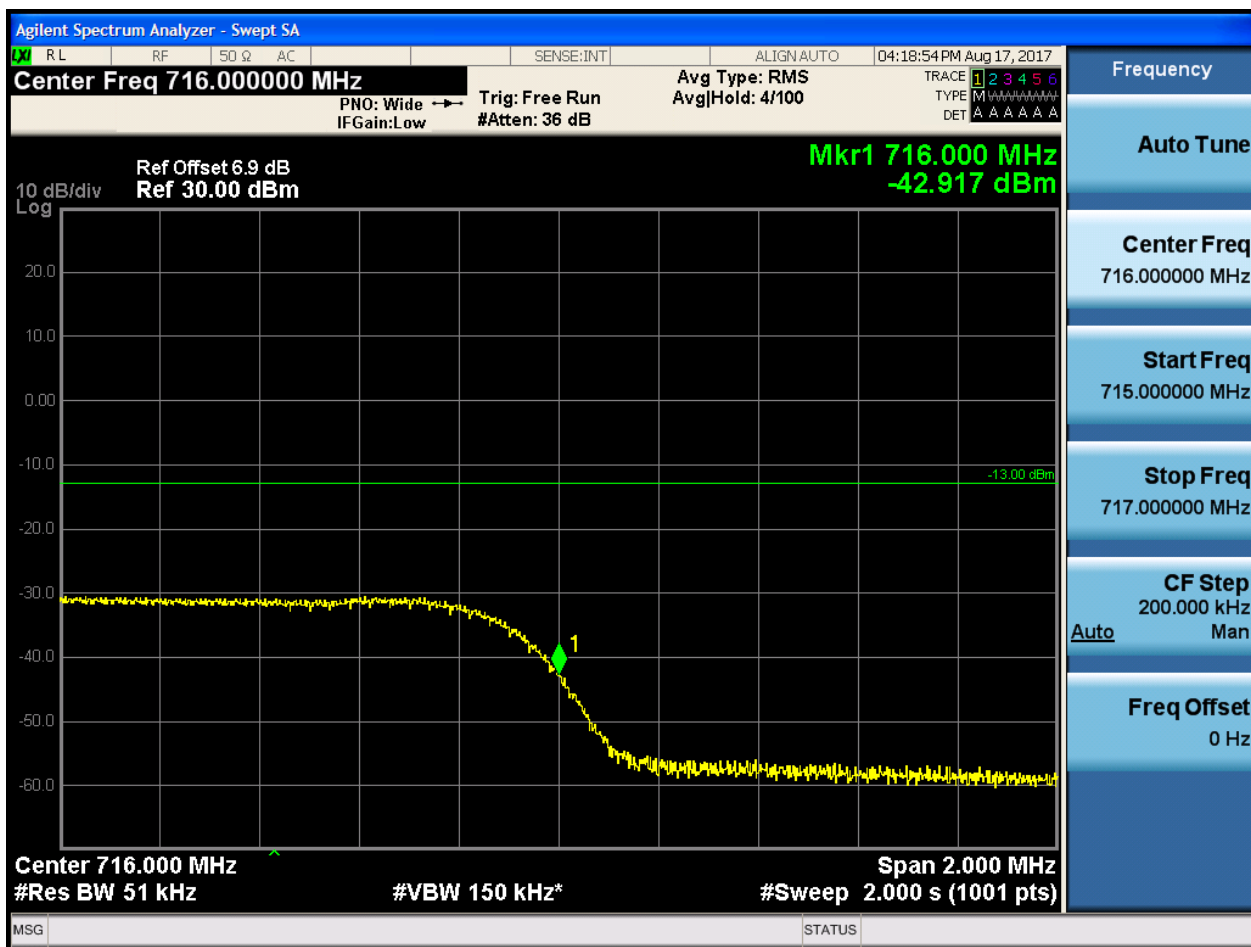
Center 699.000 MHz
#Res BW 51 kHz
#VBW 150 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



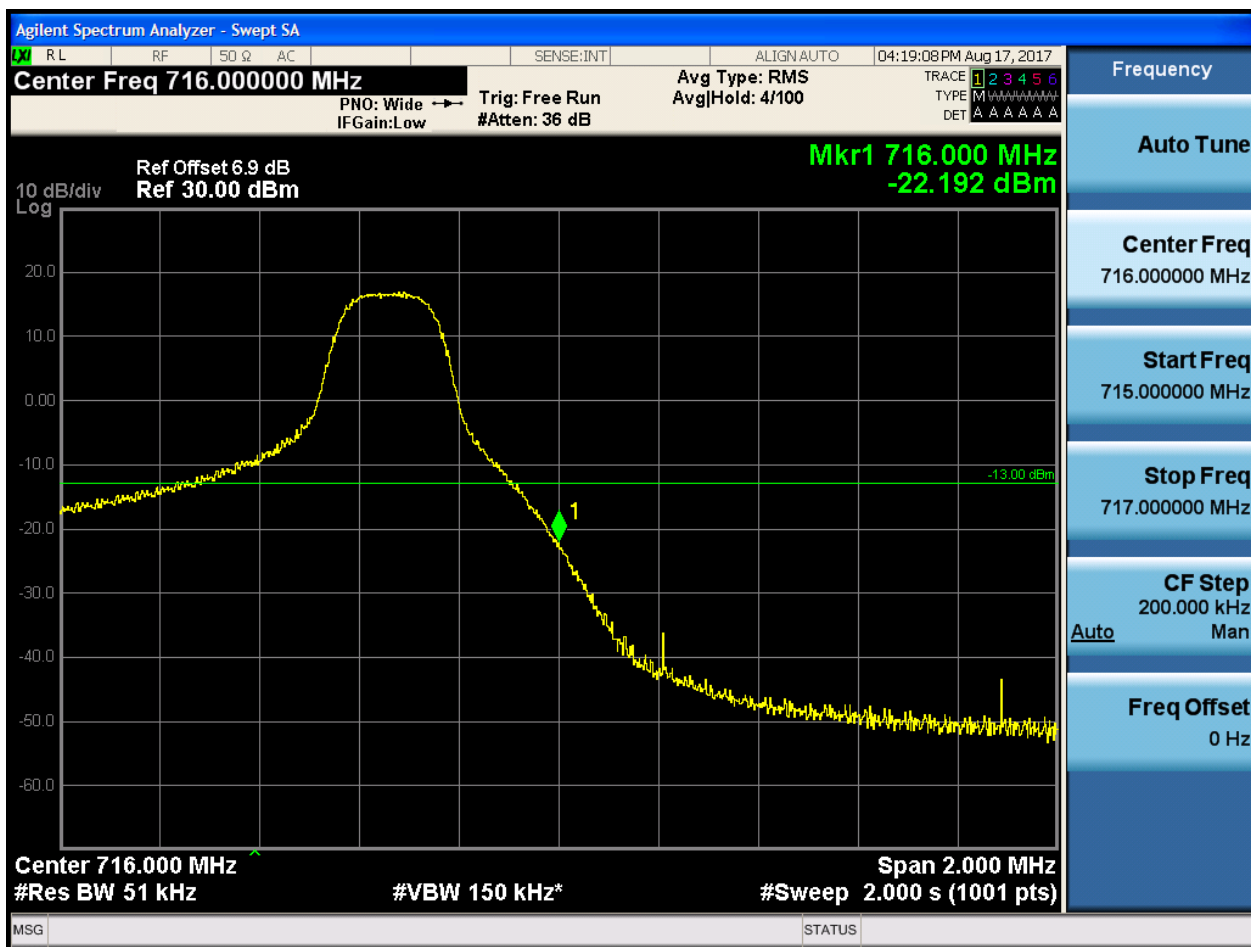
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#24





5.1.1.2.3.2.3 Test RB = RB12#6





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:19:37 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-34.985 dBm

10 dB/div
Log

Center 716.000 MHz
#Res BW 51 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

#VBW 150 kHz*

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

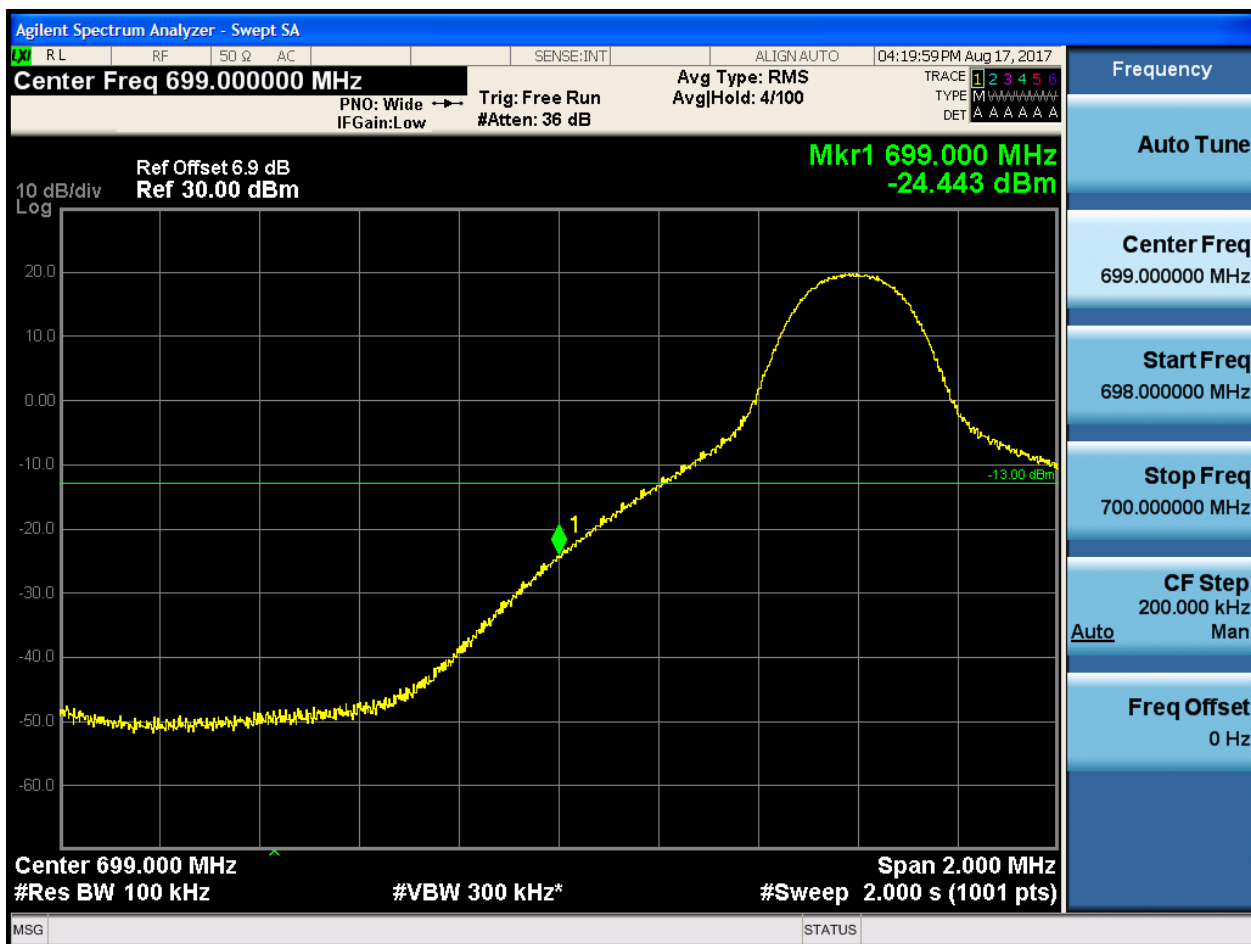
MSG STATUS



5.1.1.2.4 Test Bandwidth = 10

5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

Center Freq 699.000000 MHz

PNO: Wide → Trig: Free Run
IFGain: Low #Atten: 36 dB

Avg Type: RMS
Avg/Hold: 4/100

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 6.9 dB
Ref 30.00 dBm

Mkr1 699.000 MHz
-42.044 dBm

The plot shows a noisy signal trace in yellow. The y-axis is labeled 'Log' and ranges from -60.0 to 20.0 dB/div. The x-axis represents frequency. A green horizontal reference line is at -13.00 dBm. A marker '1' is placed on the rising part of the trace at approximately 699 MHz.

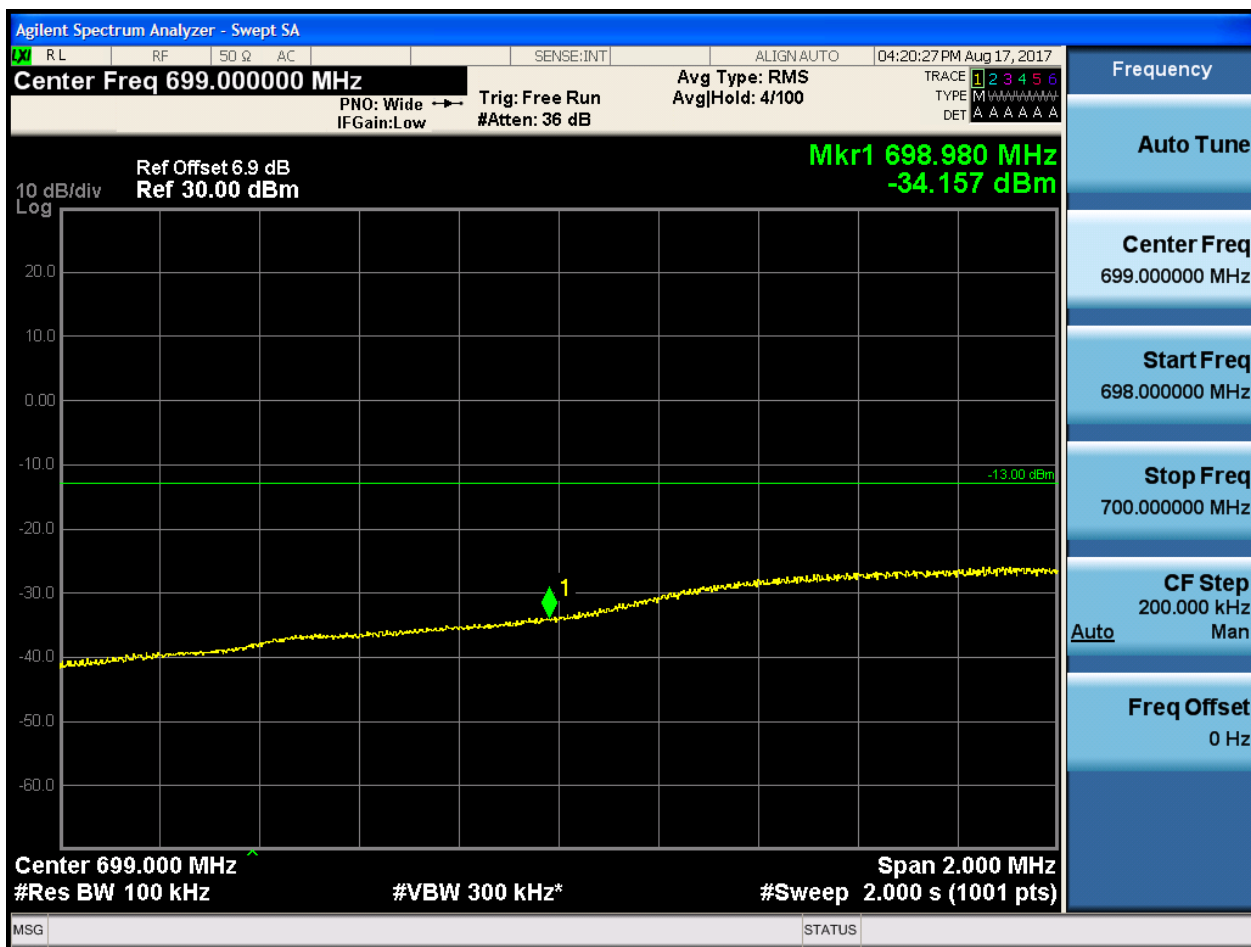
Frequency	Auto Tune
Center Freq	699.000000 MHz
Start Freq	698.000000 MHz
Stop Freq	700.000000 MHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

Center 699.000 MHz
#Res BW 100 kHz #VBW 300 kHz* Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS



5.1.1.2.4.1.3 Test RB = RB25#13





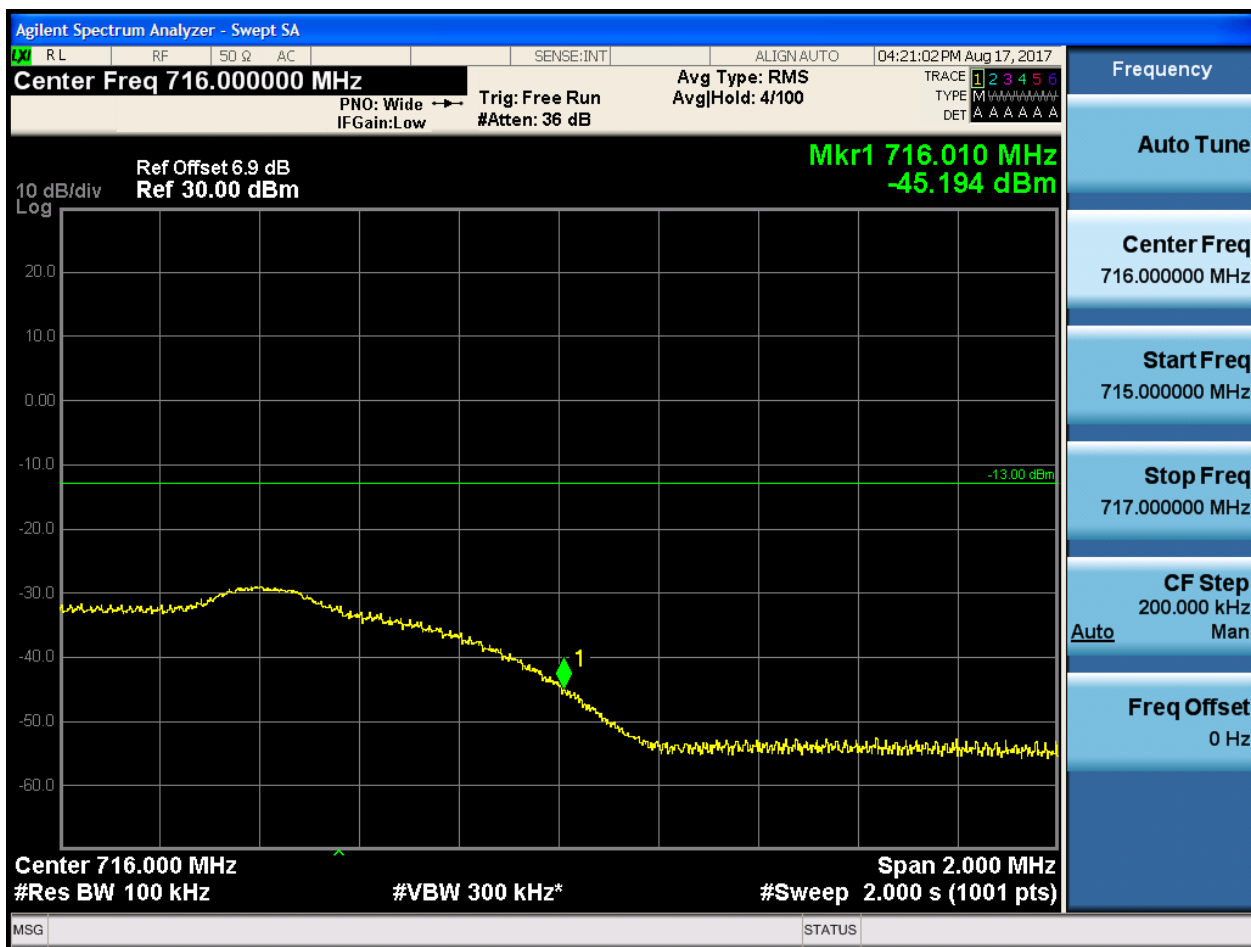
5.1.1.2.4.1.4 Test RB = RB50#0





5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0





Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:21:16 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-24.541 dBm

10 dB/div
Log

-13.00 dBm

Center 716.000 MHz
#Res BW 100 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

#VBW 300 kHz*

Frequency

Auto Tune

Center Freq
716.000000 MHz

Start Freq
715.000000 MHz

Stop Freq
717.000000 MHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:21:30 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.000 MHz
-38.835 dBm

10 dB/div
Log

-13.00 dBm

Center Freq 716.000000 MHz

Start Freq 715.000000 MHz

Stop Freq 717.000000 MHz

CF Step 200.000 kHz
Auto Man

Freq Offset 0 Hz

Center 716.000 MHz
#Res BW 100 kHz

Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

#VBW 300 kHz*

MSG STATUS



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:INT ALIGN AUTO 04:21:45 PM Aug 17, 2017

Center Freq 716.000000 MHz Avg Type: RMS
PNO: Wide IFGain:Low Trig: Free Run AvgHold: 4/100
#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 6.9 dB
Ref 30.00 dBm

Mkr1 716.020 MHz
-36.404 dBm

10 dB/div
Log

Center Freq 716.000000 MHz
Start Freq 715.000000 MHz
Stop Freq 717.000000 MHz
CF Step 200.000 kHz
Auto Man
Freq Offset 0 Hz

Center 716.000 MHz
#Res BW 100 kHz
#VBW 300 kHz*
Span 2.000 MHz
#Sweep 2.000 s (1001 pts)

MSG STATUS

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

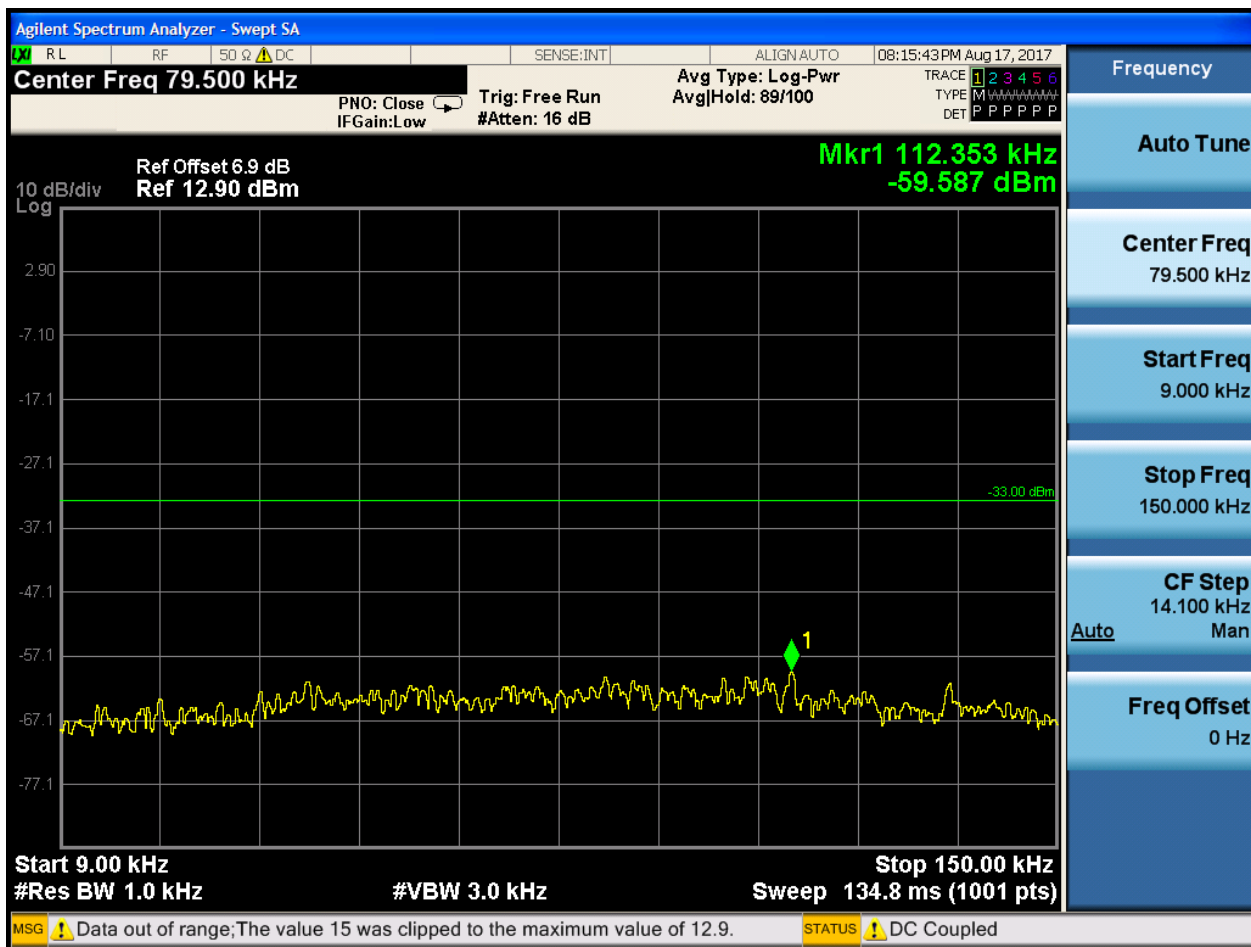
6.1.1 Test Band = BAND12

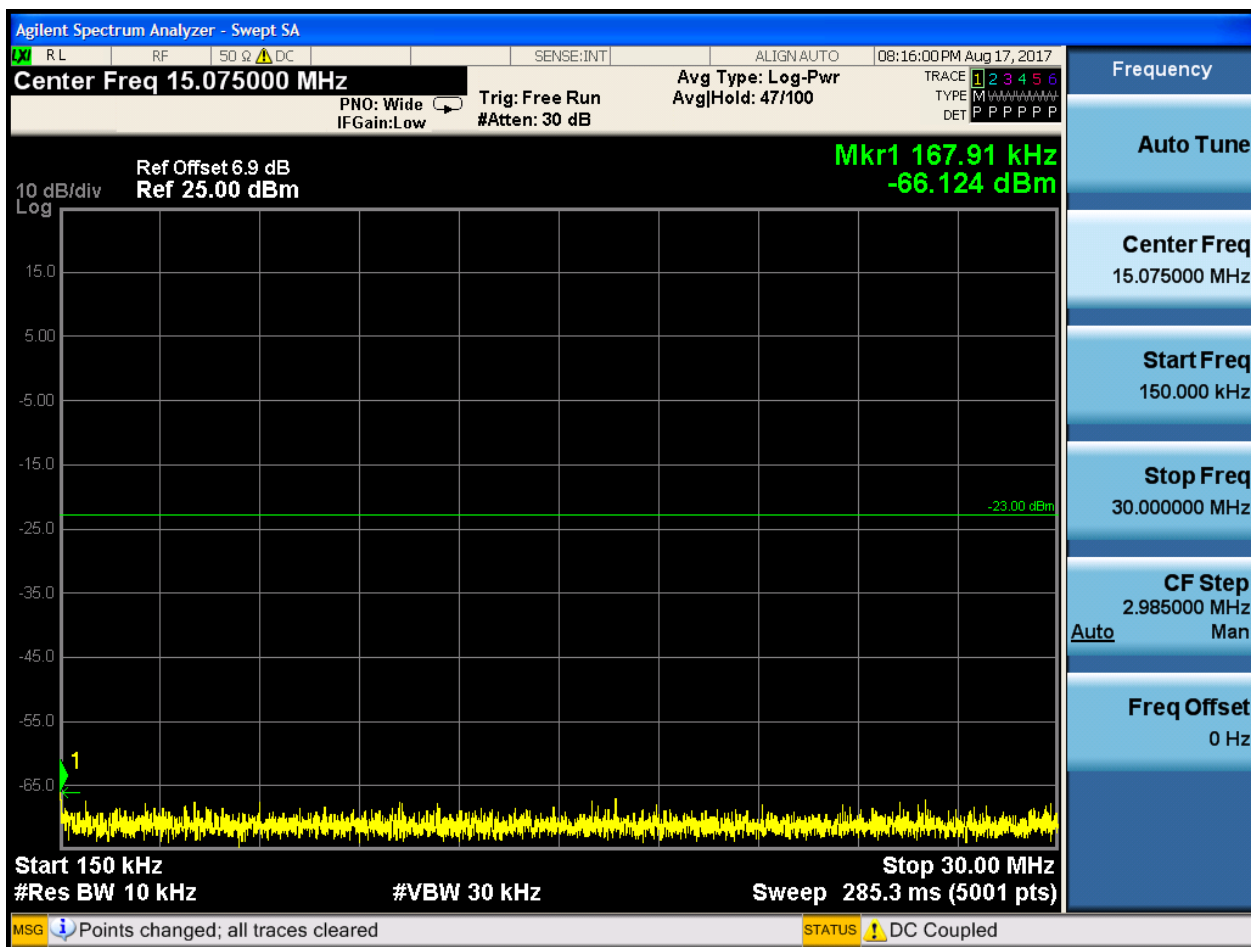
6.1.1.1 Test Mode = LTE/TM1

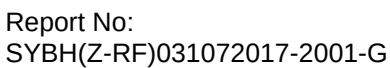
6.1.1.1.1 Test Bandwidth = 1.4

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0



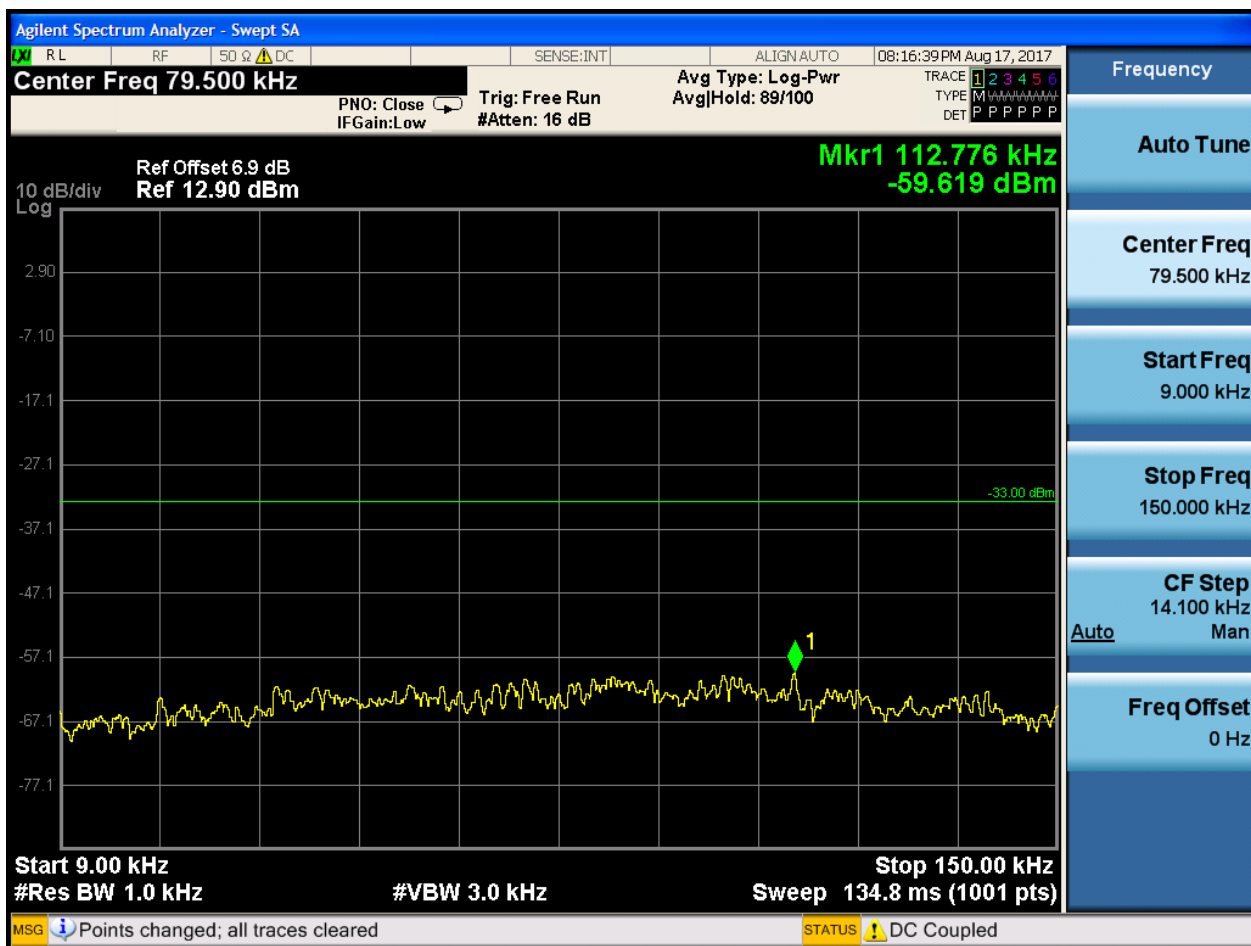




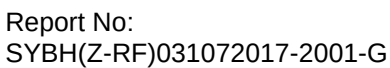


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0

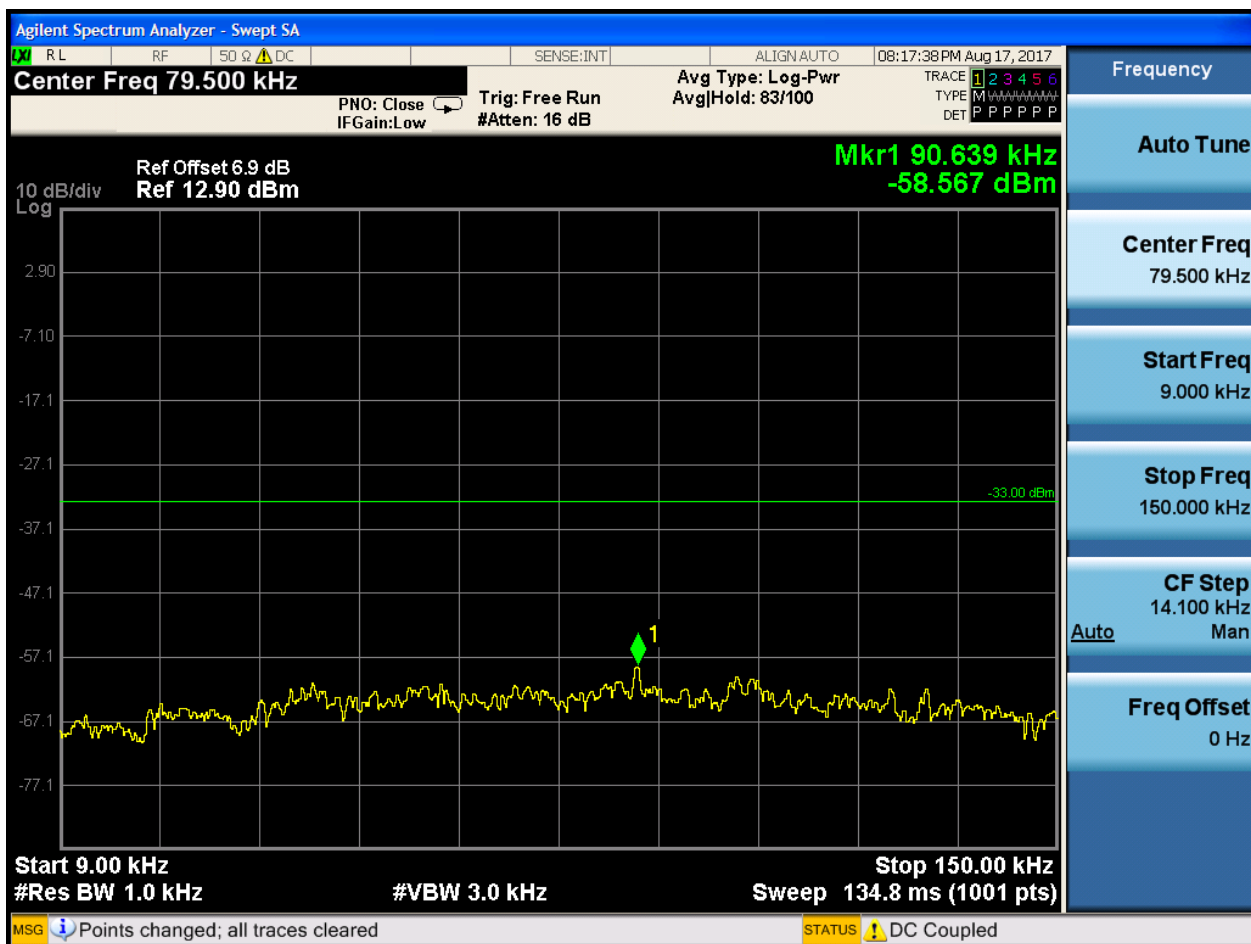


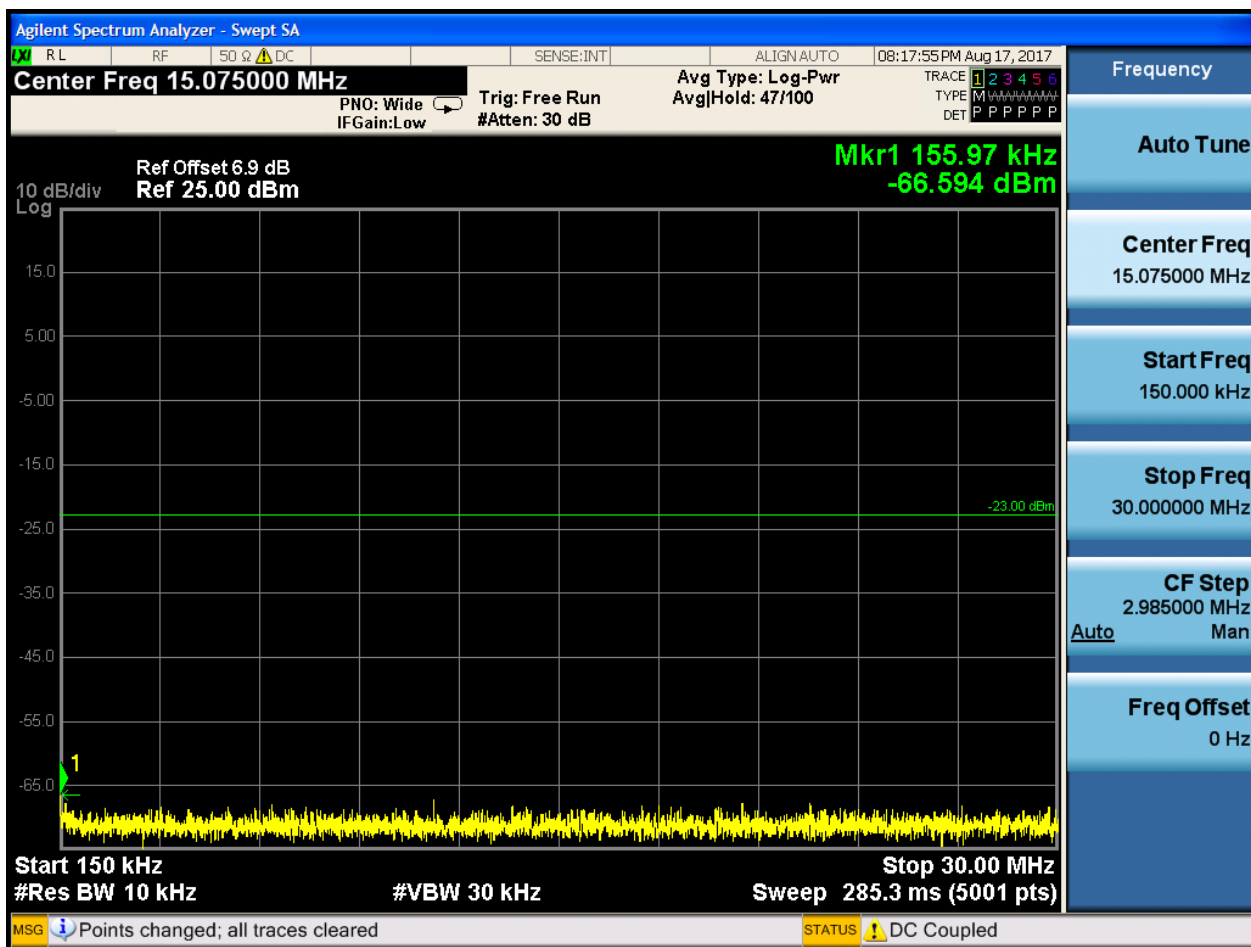


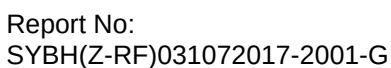


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0





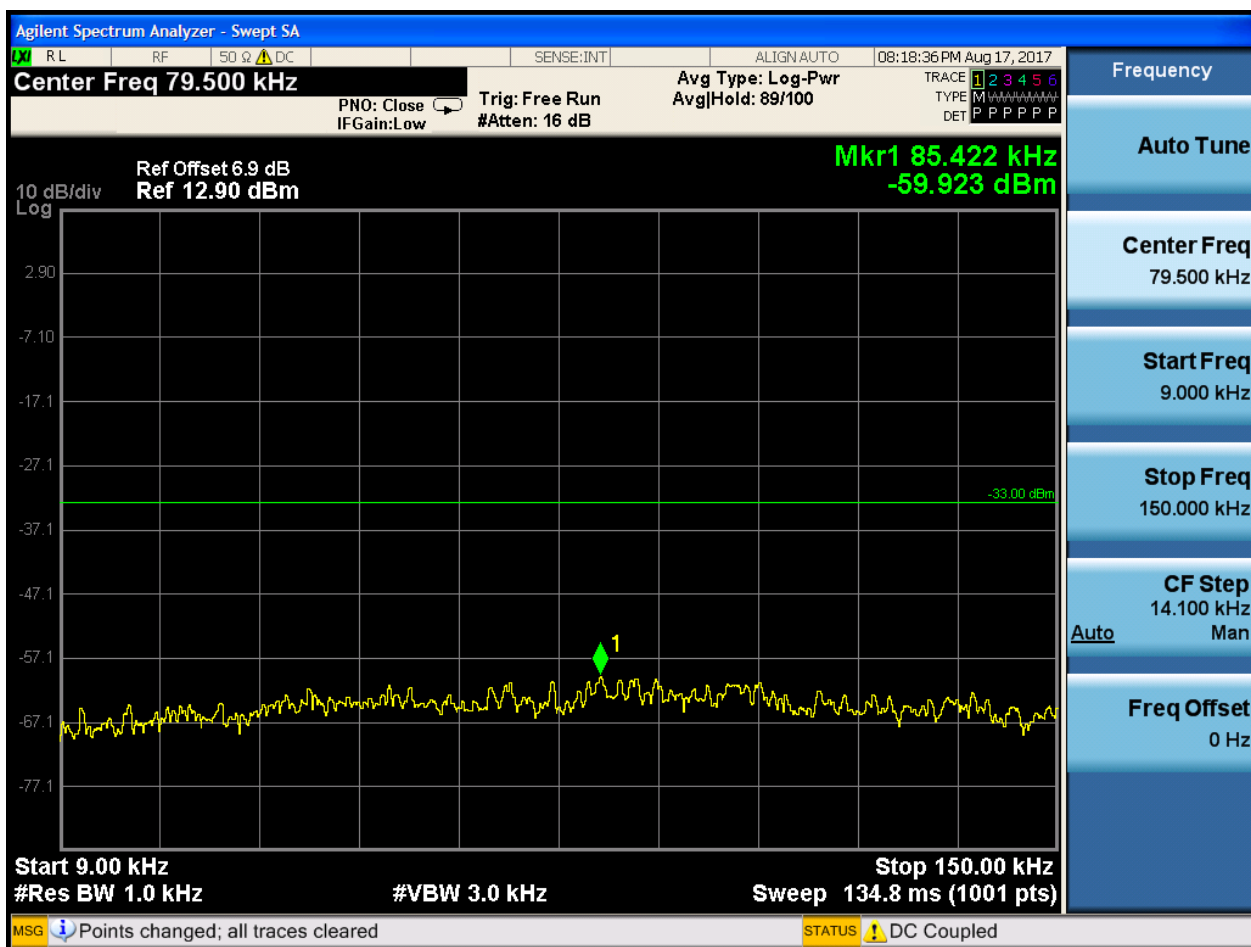




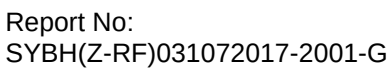
6.1.1.1.2 Test Bandwidth = 3

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0

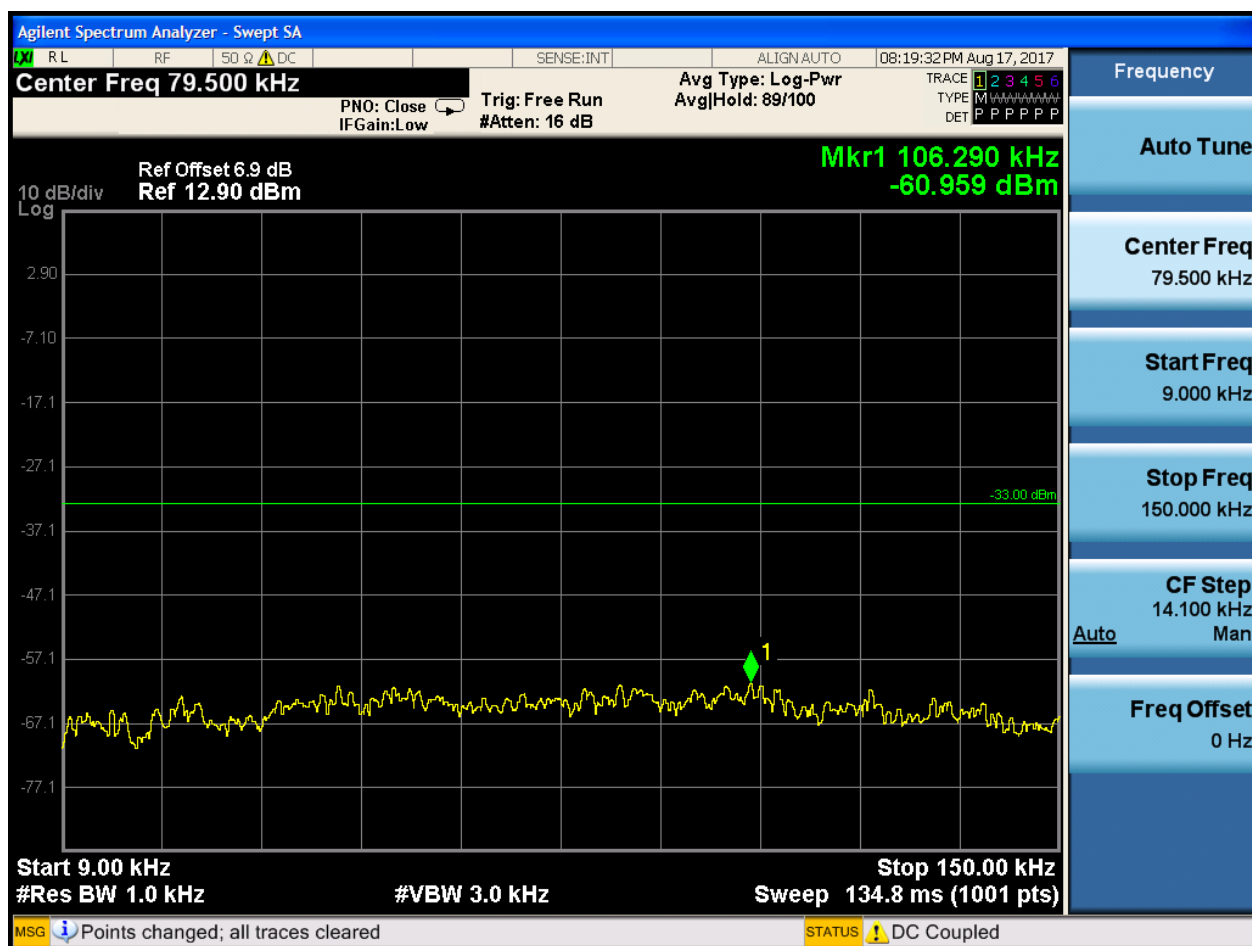


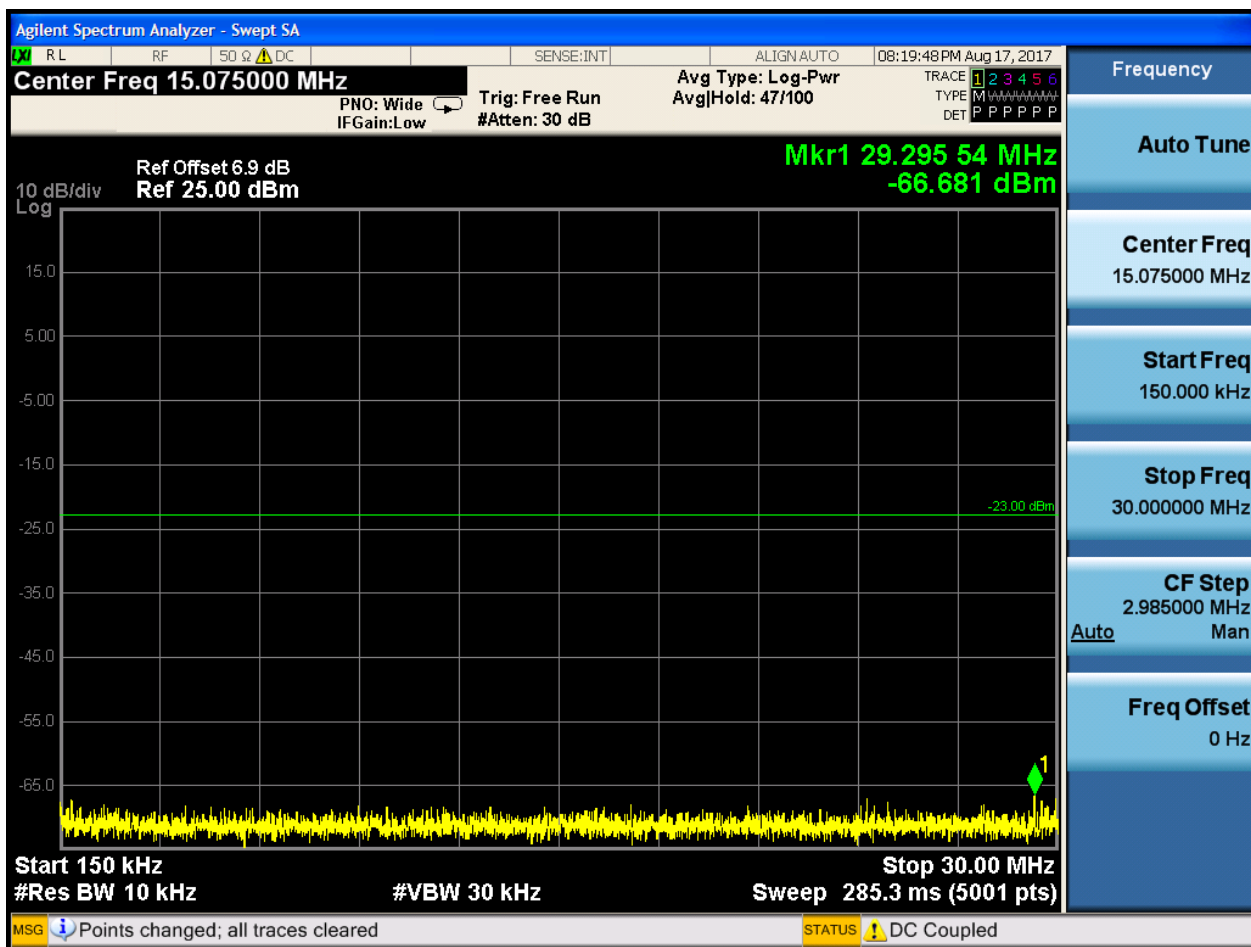


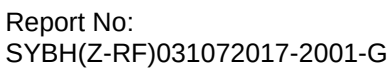




6.1.1.1.2.2.1 Test RB = RB1#0



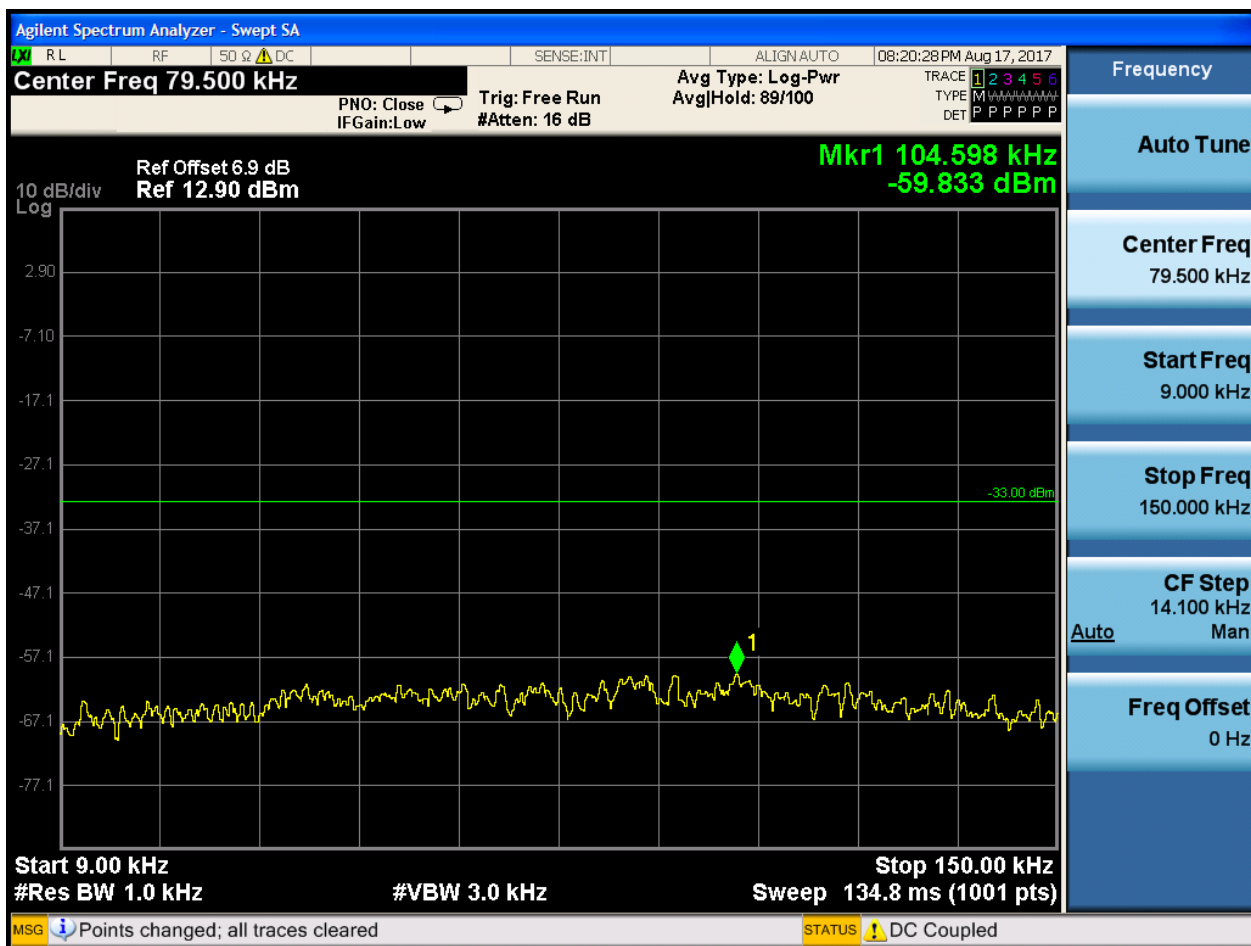




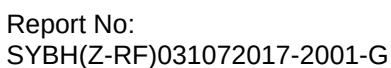


6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0







6.1.1.1.3 Test Bandwidth = 5

6.1.1.1.3.1 Test Channel = LCH

6.1.1.1.3.1.1 Test RB = RB1#0

