

Appendix D

Test Data for LTE BAND41

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1 Effective (Isotropic) Radiated Power Output Data

Effective Isotropic Radiated Power of Transmitter (EIRP) for LTE BAND 41

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM1	5M	LCH	RB1#0	22.58	22.76	33.00	PASS
				RB1#13	22.21	23.24	33.00	PASS
				RB1#24	22.08	23.19	33.00	PASS
				RB12#0	22.33	21.76	33.00	PASS
				RB12#6	22.36	22.49	33.00	PASS
				RB12#13	22.39	22.51	33.00	PASS
				RB25#0	22.21	22.97	33.00	PASS
			MCH	RB1#0	22.38	22.87	33.00	PASS
				RB1#13	22.98	23.30	33.00	PASS
				RB1#24	22.51	22.25	33.00	PASS
				RB12#0	22.47	21.51	33.00	PASS
				RB12#6	22.52	21.94	33.00	PASS
				RB12#13	22.62	22.65	33.00	PASS
				RB25#0	22.02	22.59	33.00	PASS
			HCH	RB1#0	22.59	22.90	33.00	PASS
				RB1#13	22.56	23.03	33.00	PASS
				RB1#24	23.00	23.31	33.00	PASS
				RB12#0	22.48	22.04	33.00	PASS
				RB12#6	22.45	22.18	33.00	PASS
				RB12#13	22.40	22.99	33.00	PASS
				RB25#0	22.21	21.75	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM2	5M	LCH	RB1#0	22.16	22.11	33.00	PASS
				RB1#13	22.55	23.31	33.00	PASS
				RB1#24	22.28	21.55	33.00	PASS
				RB12#0	22.25	23.20	33.00	PASS
				RB12#6	22.21	22.30	33.00	PASS
				RB12#13	22.25	22.26	33.00	PASS
				RB25#0	22.26	23.18	33.00	PASS
			MCH	RB1#0	22.27	23.43	33.00	PASS
				RB1#13	22.73	22.44	33.00	PASS
				RB1#24	22.36	23.31	33.00	PASS
				RB12#0	22.45	23.21	33.00	PASS
				RB12#6	22.51	22.72	33.00	PASS
				RB12#13	22.57	22.59	33.00	PASS
				RB25#0	22.80	22.19	33.00	PASS
			HCH	RB1#0	22.83	23.00	33.00	PASS
				RB1#13	22.56	22.16	33.00	PASS
				RB1#24	22.61	23.23	33.00	PASS
				RB12#0	22.33	21.60	33.00	PASS
				RB12#6	22.35	22.49	33.00	PASS
				RB12#13	22.35	22.39	33.00	PASS
				RB25#0	22.02	23.16	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM1	10M	LCH	RB1#0	22.92	22.46	33.00	PASS
				RB1#25	22.80	21.85	33.00	PASS
				RB1#49	22.94	21.77	33.00	PASS
				RB25#0	22.33	23.31	33.00	PASS
				RB25#13	22.32	22.67	33.00	PASS
				RB25#25	22.43	23.07	33.00	PASS
				RB50#0	22.20	23.10	33.00	PASS
			MCH	RB1#0	22.87	23.24	33.00	PASS
				RB1#25	22.93	21.60	33.00	PASS
				RB1#49	22.97	23.16	33.00	PASS
				RB25#0	22.43	22.04	33.00	PASS
				RB25#13	22.59	23.40	33.00	PASS
				RB25#25	22.58	23.22	33.00	PASS
				RB50#0	22.09	22.11	33.00	PASS
			HCH	RB1#0	23.00	21.92	33.00	PASS
				RB1#25	22.58	22.73	33.00	PASS
				RB1#49	23.00	21.67	33.00	PASS
				RB25#0	22.52	22.63	33.00	PASS
				RB25#13	22.43	22.73	33.00	PASS
				RB25#25	22.42	21.96	33.00	PASS
				RB50#0	22.23	23.09	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM2	10M	LCH	RB1#0	22.48	23.29	33.00	PASS
				RB1#25	22.54	21.55	33.00	PASS
				RB1#49	22.94	23.35	33.00	PASS
				RB25#0	22.24	22.74	33.00	PASS
				RB25#13	22.20	21.92	33.00	PASS
				RB25#25	22.31	21.50	33.00	PASS
				RB50#0	22.24	22.80	33.00	PASS
			MCH	RB1#0	22.25	22.37	33.00	PASS
				RB1#25	22.75	21.67	33.00	PASS
				RB1#49	22.18	22.44	33.00	PASS
				RB25#0	22.46	22.80	33.00	PASS
				RB25#13	22.51	23.47	33.00	PASS
				RB25#25	22.64	21.61	33.00	PASS
				RB50#0	22.14	22.65	33.00	PASS
			HCH	RB1#0	22.73	22.09	33.00	PASS
				RB1#25	22.56	23.18	33.00	PASS
				RB1#49	22.98	23.48	33.00	PASS
				RB25#0	22.34	22.36	33.00	PASS
				RB25#13	22.38	23.29	33.00	PASS
				RB25#25	22.34	22.75	33.00	PASS
				RB50#0	22.31	22.30	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM1	15M	LCH	RB1#0	22.33	22.34	33.00	PASS
				RB1#38	22.65	21.63	33.00	PASS
				RB1#74	22.36	21.61	33.00	PASS
				RB36#0	22.35	22.48	33.00	PASS
				RB36#18	22.34	22.27	33.00	PASS
				RB36#39	22.41	21.57	33.00	PASS
				RB75#0	22.30	23.29	33.00	PASS
			MCH	RB1#0	23.00	21.63	33.00	PASS
				RB1#38	22.43	21.58	33.00	PASS
				RB1#74	22.23	22.79	33.00	PASS
				RB36#0	22.46	22.91	33.00	PASS
				RB36#18	22.52	21.60	33.00	PASS
				RB36#39	22.61	21.82	33.00	PASS
				RB75#0	22.14	21.81	33.00	PASS
			HCH	RB1#0	22.96	22.42	33.00	PASS
				RB1#38	22.55	22.25	33.00	PASS
				RB1#74	22.62	21.57	33.00	PASS
				RB36#0	22.46	22.80	33.00	PASS
				RB36#18	22.46	22.55	33.00	PASS
				RB36#39	22.39	22.44	33.00	PASS
				RB75#0	22.25	22.26	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM2	15M	LCH	RB1#0	22.26	22.73	33.00	PASS
				RB1#38	22.55	22.24	33.00	PASS
				RB1#74	22.44	22.07	33.00	PASS
				RB36#0	22.23	22.07	33.00	PASS
				RB36#18	22.20	23.24	33.00	PASS
				RB36#39	22.28	21.89	33.00	PASS
				RB75#0	22.27	22.62	33.00	PASS
			MCH	RB1#0	22.99	21.83	33.00	PASS
				RB1#38	22.78	23.40	33.00	PASS
				RB1#74	22.87	21.87	33.00	PASS
				RB36#0	22.46	23.45	33.00	PASS
				RB36#18	22.48	22.96	33.00	PASS
				RB36#39	22.63	23.35	33.00	PASS
				RB75#0	22.14	23.47	33.00	PASS
			HCH	RB1#0	22.58	23.36	33.00	PASS
				RB1#38	22.62	23.32	33.00	PASS
				RB1#74	22.94	23.08	33.00	PASS
				RB36#0	22.36	23.46	33.00	PASS
				RB36#18	22.32	23.04	33.00	PASS
				RB36#39	22.37	22.91	33.00	PASS
				RB75#0	22.23	22.53	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM1	20M	LCH	RB1#0	22.57	22.62	33.00	PASS
				RB1#50	22.60	22.89	33.00	PASS
				RB1#99	22.61	21.80	33.00	PASS
				RB50#0	22.24	23.24	33.00	PASS
				RB50#25	22.30	21.71	33.00	PASS
				RB50#50	22.20	22.40	33.00	PASS
				RB100#0	22.37	22.73	33.00	PASS
			MCH	RB1#0	22.31	21.71	33.00	PASS
				RB1#50	22.05	21.99	33.00	PASS
				RB1#99	22.64	23.24	33.00	PASS
				RB50#0	22.37	22.08	33.00	PASS
				RB50#25	22.36	22.09	33.00	PASS
				RB50#50	22.58	23.43	33.00	PASS
				RB100#0	22.69	21.89	33.00	PASS
			HCH	RB1#0	22.73	22.79	33.00	PASS
				RB1#50	22.63	22.14	33.00	PASS
				RB1#99	22.92	23.22	33.00	PASS
				RB50#0	22.00	22.90	33.00	PASS
				RB50#25	22.04	22.73	33.00	PASS
				RB50#50	22.06	22.78	33.00	PASS
				RB100#0	22.55	22.59	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM2	20M	LCH	RB1#0	22.15	22.56	33.00	PASS
				RB1#50	22.64	22.96	33.00	PASS
				RB1#99	22.50	21.75	33.00	PASS
				RB50#0	22.35	22.19	33.00	PASS
				RB50#25	22.32	23.23	33.00	PASS
				RB50#50	22.36	22.87	33.00	PASS
				RB100#0	22.23	22.00	33.00	PASS
			MCH	RB1#0	22.86	22.12	33.00	PASS
				RB1#50	22.85	22.88	33.00	PASS
				RB1#99	22.10	21.58	33.00	PASS
				RB50#0	22.55	22.15	33.00	PASS
				RB50#25	22.58	23.38	33.00	PASS
				RB50#50	22.69	22.74	33.00	PASS
				RB100#0	22.22	23.46	33.00	PASS
			HCH	RB1#0	22.94	21.91	33.00	PASS
				RB1#50	22.68	22.34	33.00	PASS
				RB1#99	22.92	21.71	33.00	PASS
				RB50#0	22.45	23.02	33.00	PASS
				RB50#25	22.44	22.96	33.00	PASS
				RB50#50	22.43	23.01	33.00	PASS
				RB100#0	22.09	22.42	33.00	PASS

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 41	TM1/20M	LCH	5.07	13	PASS
		MCH	4.75	13	PASS
		HCH	5.01	13	PASS
	TM2/20M	LCH	5.62	13	PASS
		MCH	5.80	13	PASS
		HCH	5.62	13	PASS

3 Modulation Characteristics

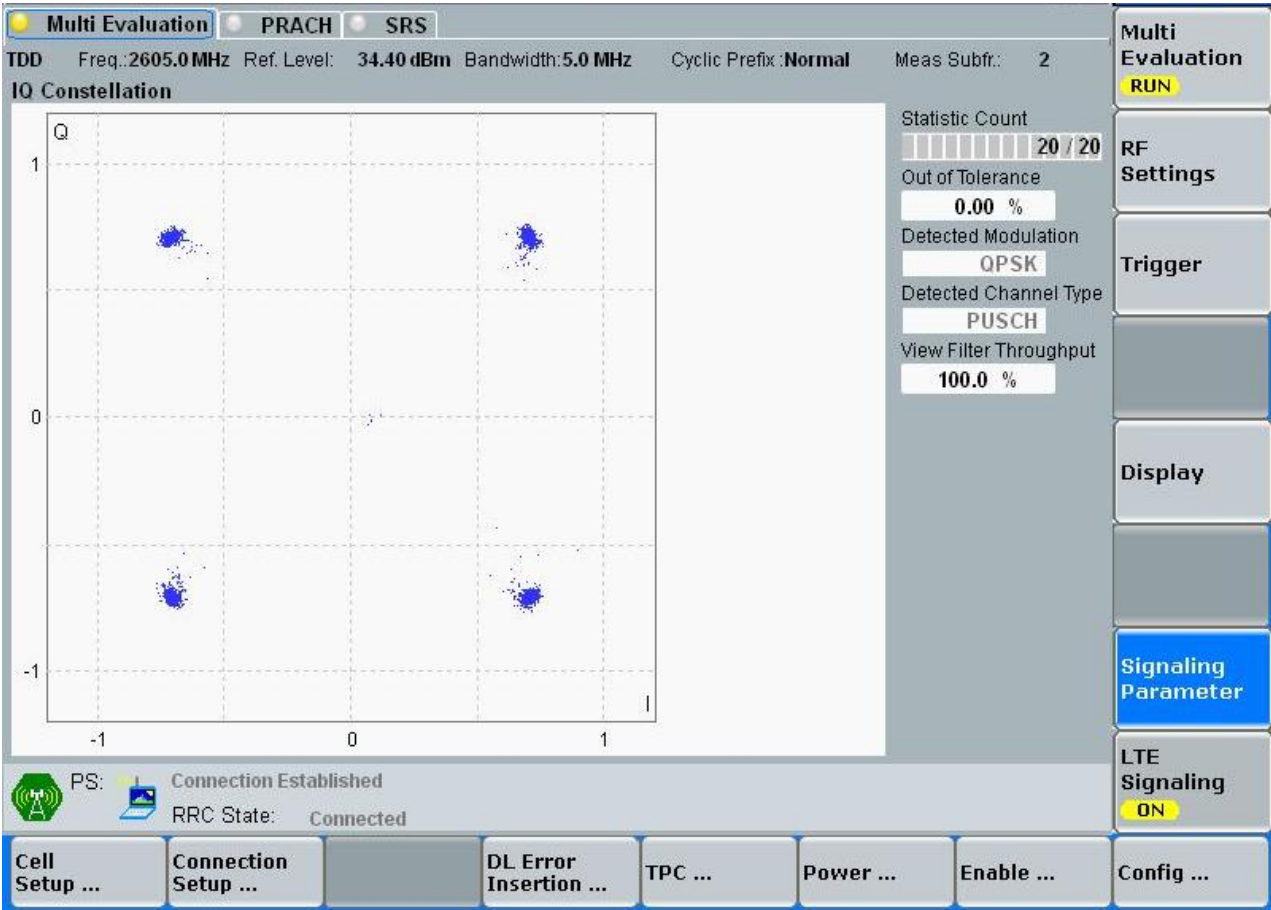
Part I - Test Plots

3.1 For LTE

3.1.1 Test Band = LTE band41

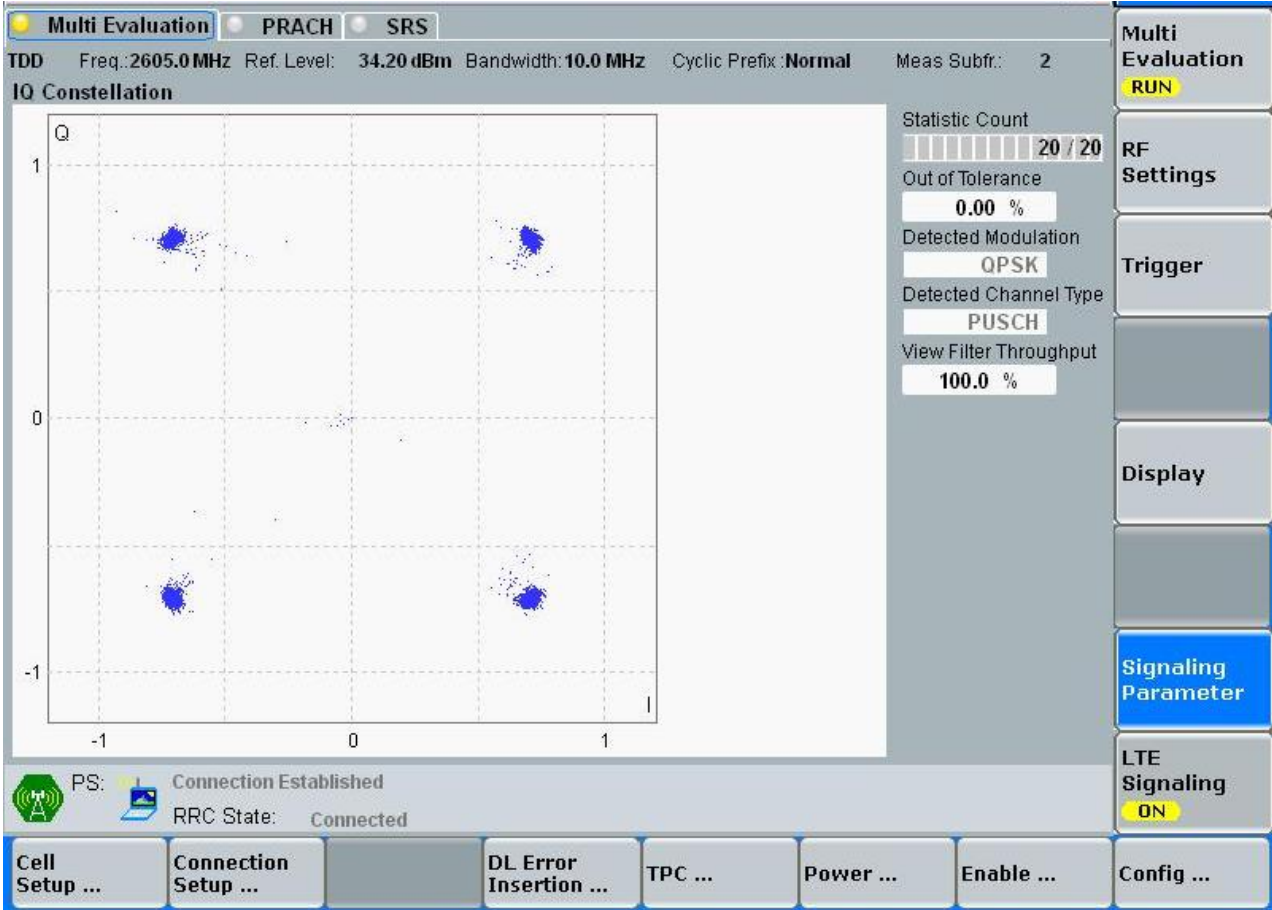
3.1.1.1 Test Mode = LTE /TM1 5MHz

3.1.1.1.1 Test Channel = MCH

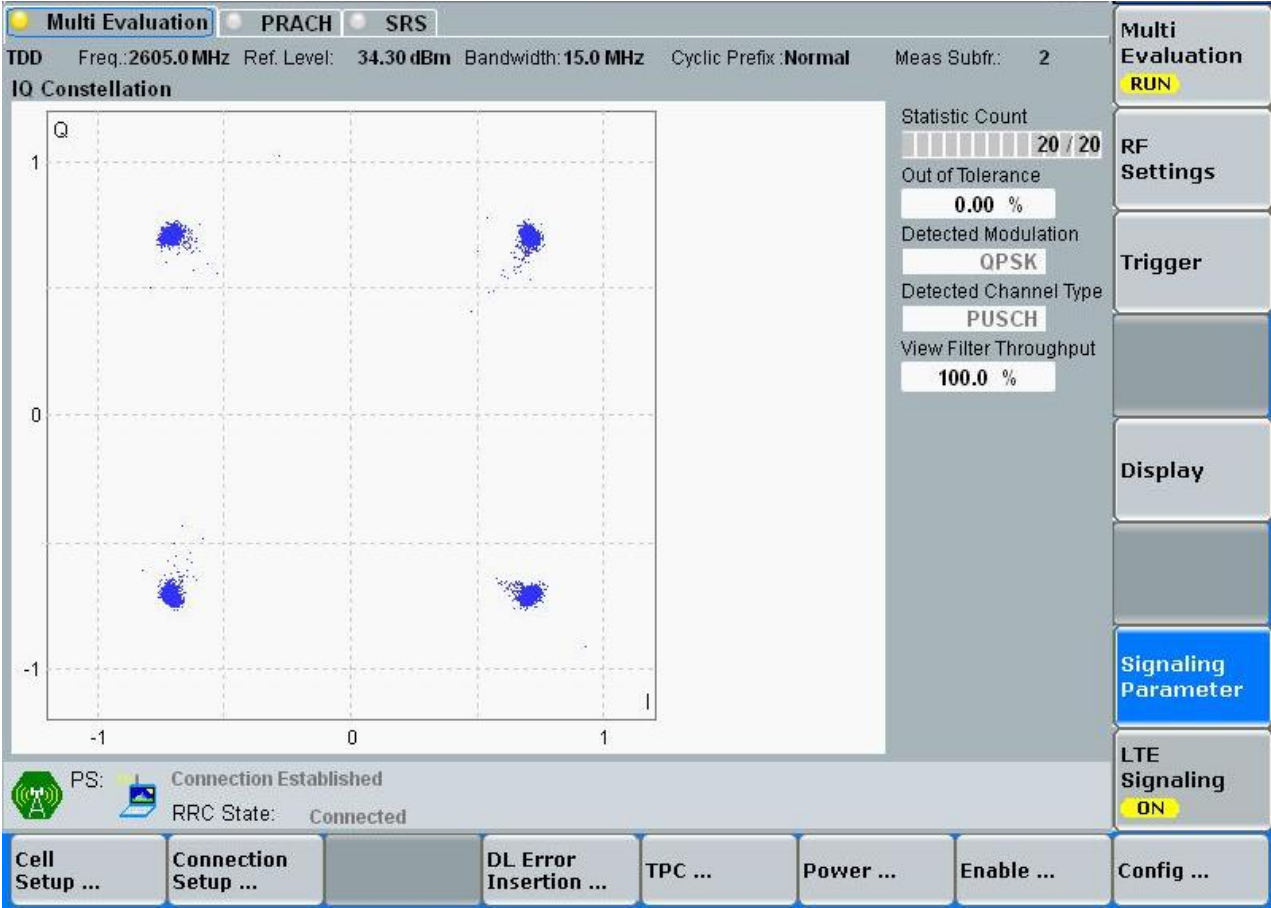


3.1.1.2 Test Mode = LTE /TM1 10MHz

3.1.1.2.1 Test Channel = MCH

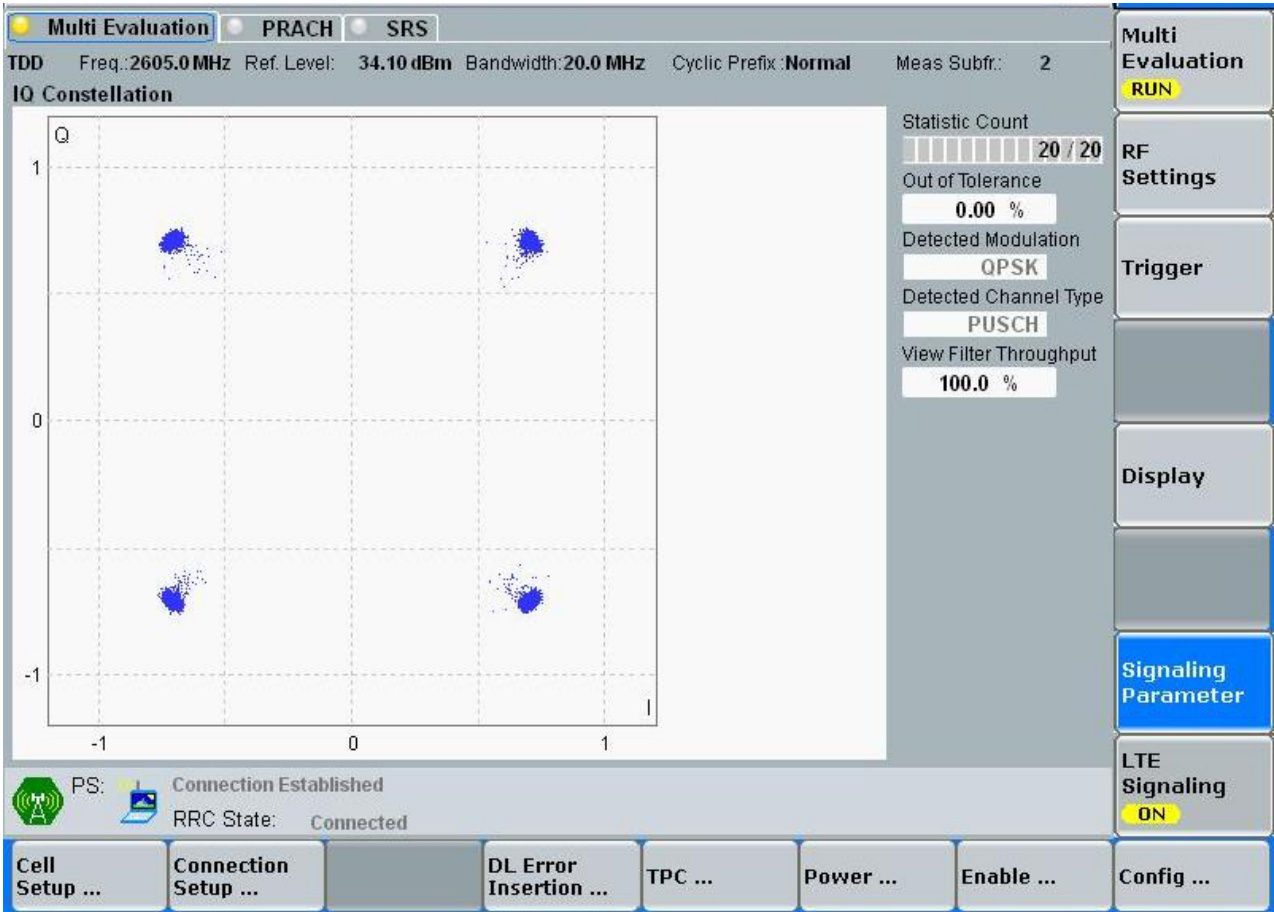


3.1.1.3 Test Mode = LTE /TM1 15MHz
3.1.1.3.1 Test Channel = MCH



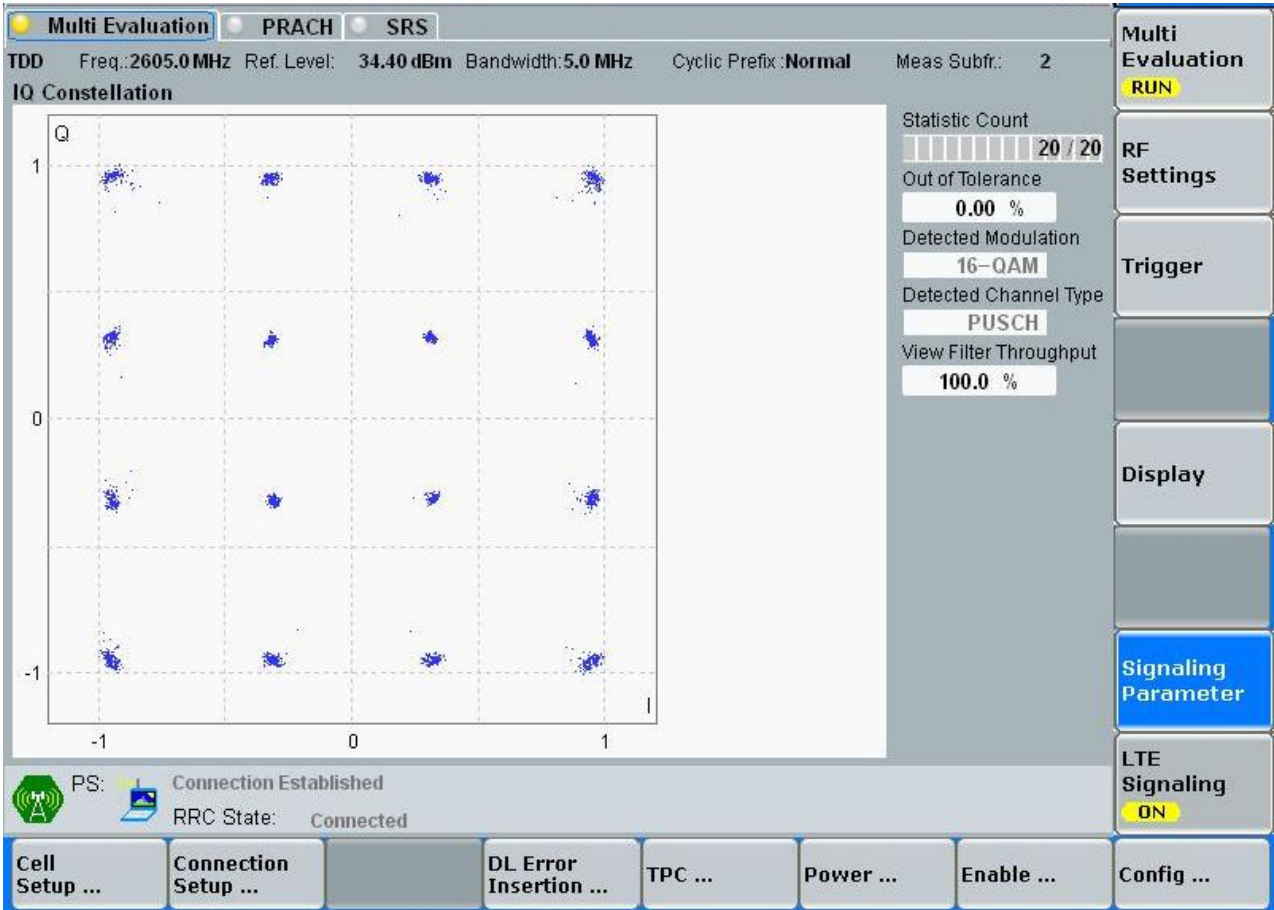
3.1.1.4 Test Mode = LTE /TM1 20MHz

3.1.1.4.1 Test Channel = MCH



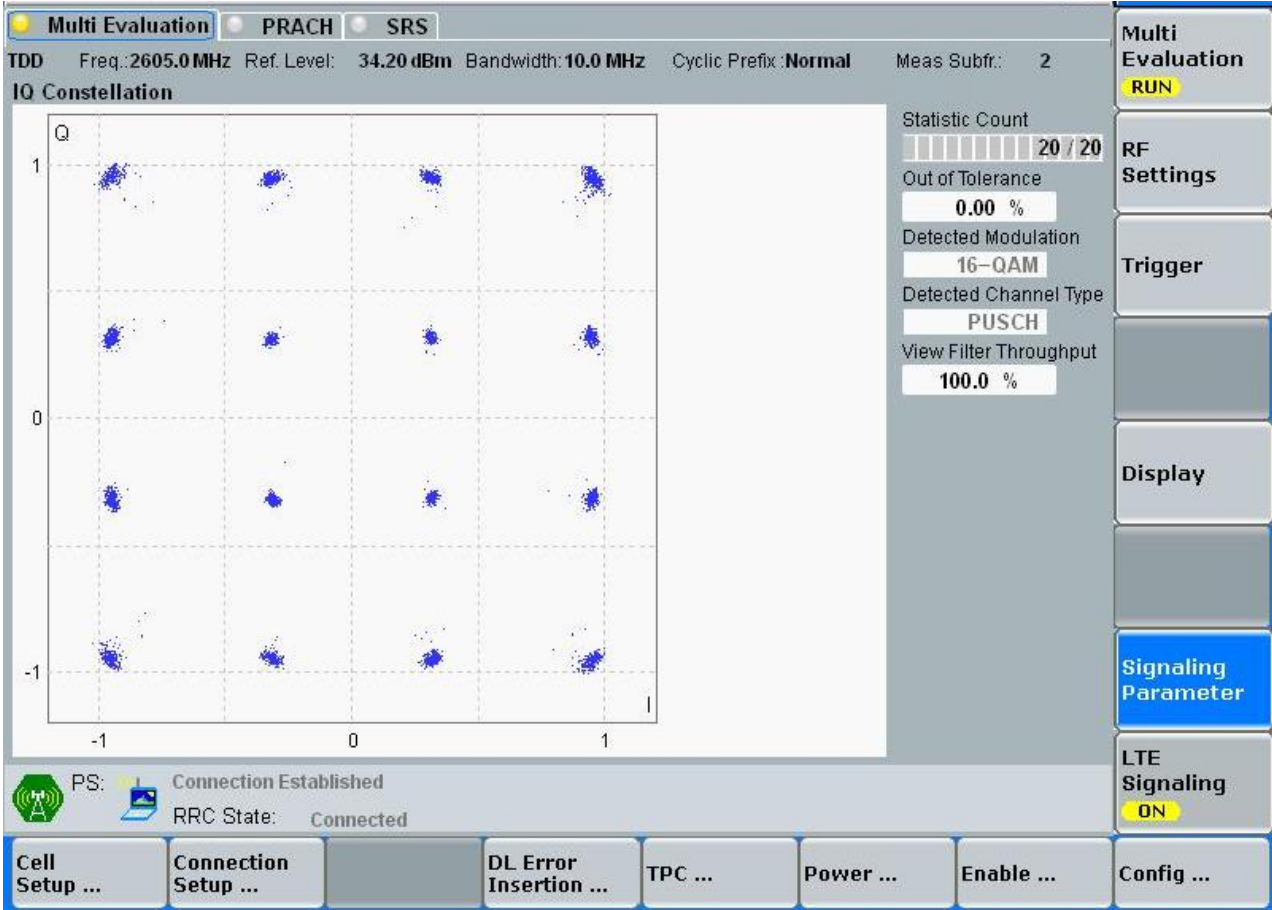
3.1.1.5 Test Mode = LTE /TM2 5MHz

3.1.1.5.1 Test Channel = MCH

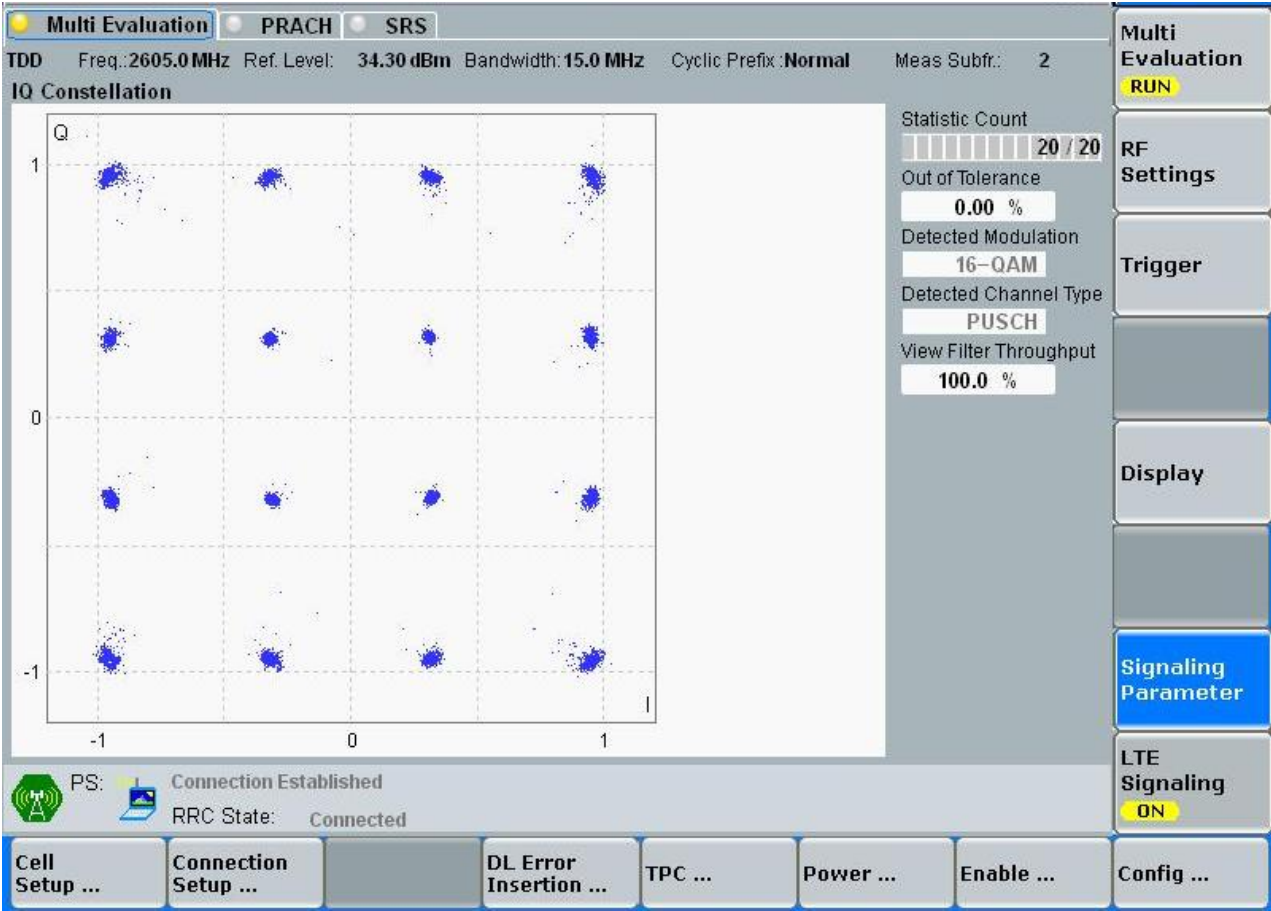


3.1.1.6 Test Mode = LTE /TM2 10MHz

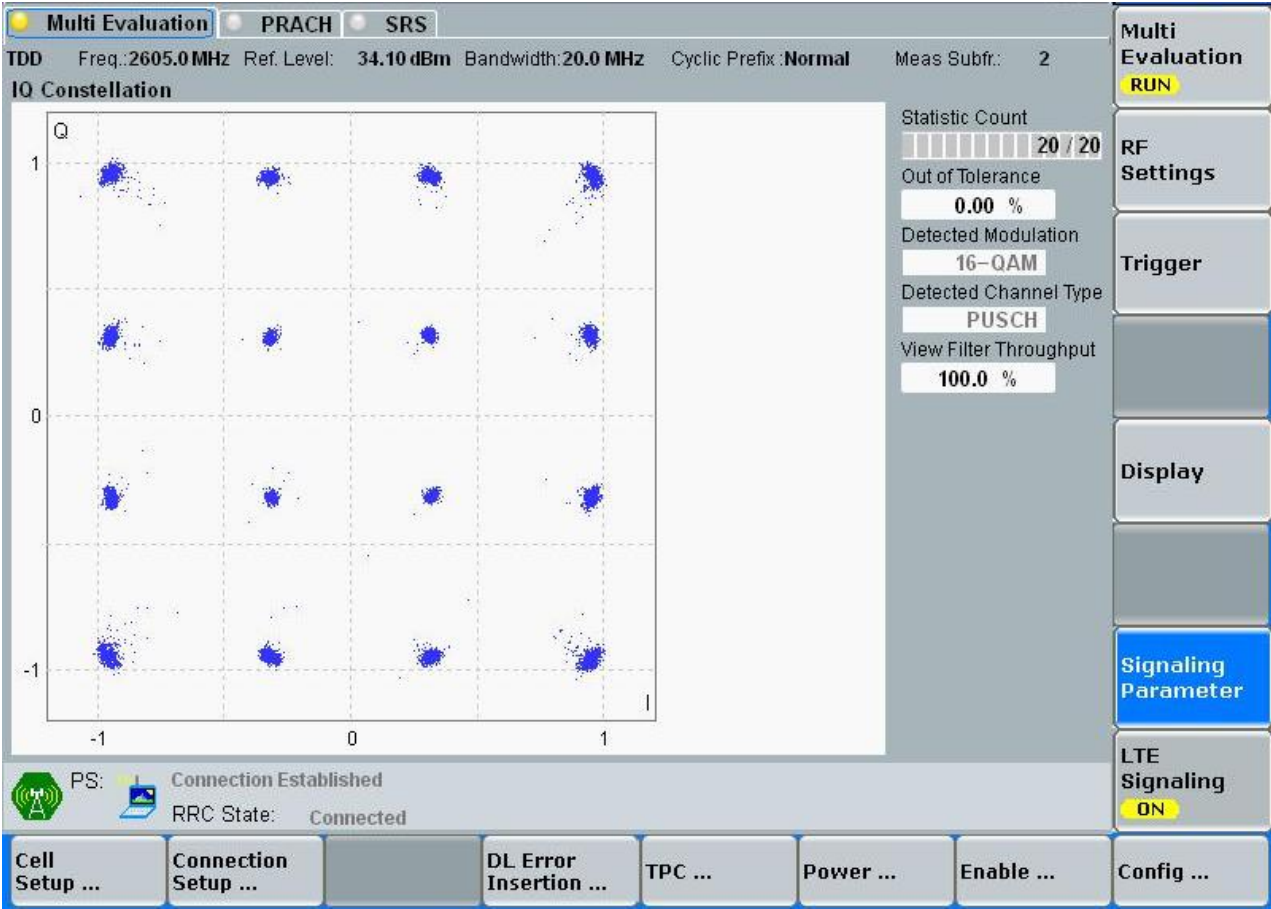
3.1.1.6.1 Test Channel = MCH



3.1.1.7 Test Mode = LTE /TM2 15MHz
3.1.1.7.1 Test Channel = MCH



3.1.1.8 Test Mode = LTE /TM2 20MHz
3.1.1.8.1 Test Channel = MCH



4 Bandwidth

Part I - Test Results

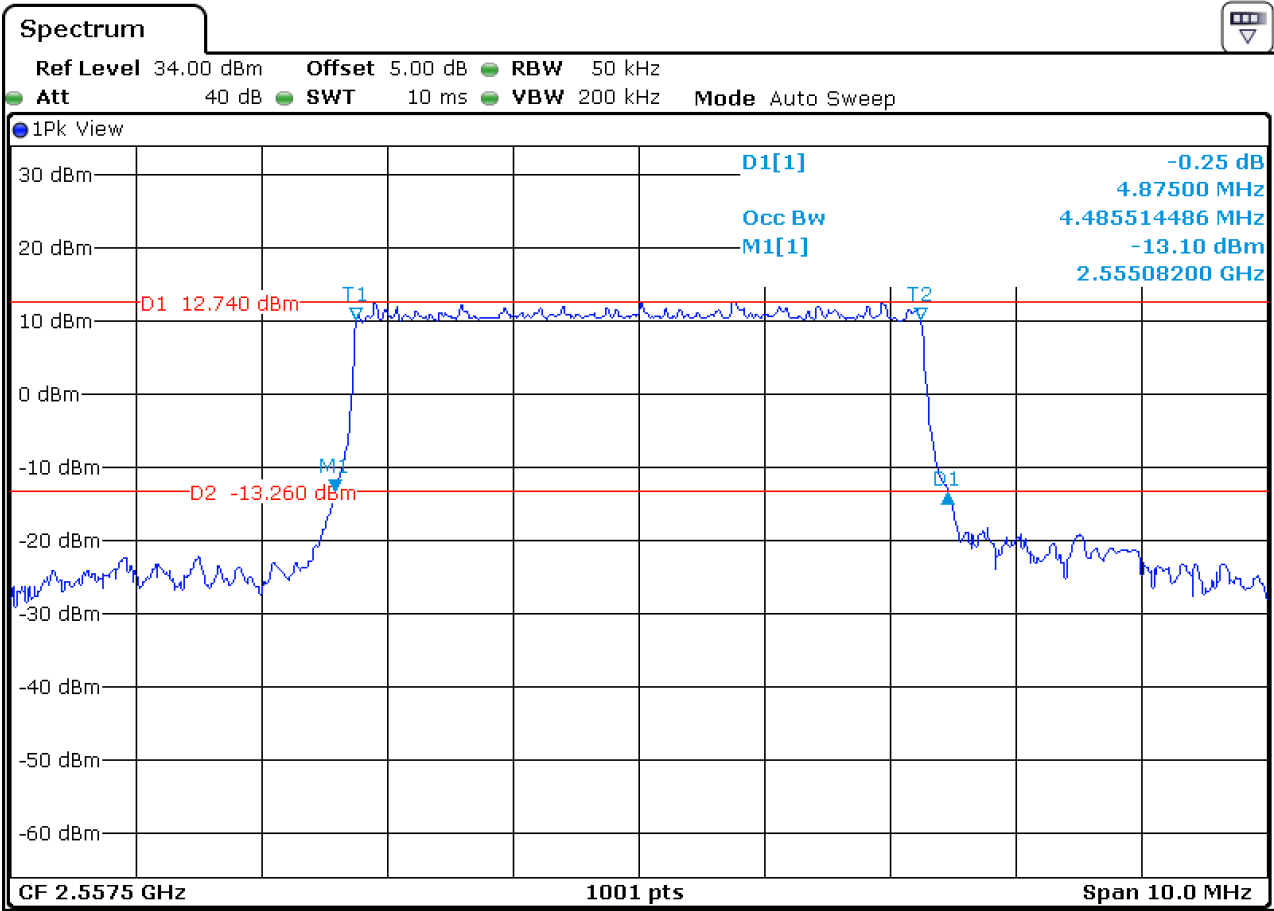
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 41	TM1/ 5MHz	LCH	4.49	4.88	PASS
		MCH	4.48	4.93	PASS
		HCH	4.47	4.91	PASS
	TM2/ 5MHz	LCH	4.47	4.90	PASS
		MCH	4.48	4.96	PASS
		HCH	4.48	4.94	PASS
	TM1/10MHz	LCH	8.93	9.79	PASS
		MCH	8.95	10.55	PASS
		HCH	8.95	9.81	PASS
	TM2/ 10MHz	LCH	8.91	9.56	PASS
		MCH	8.95	9.77	PASS
		HCH	8.91	9.65	PASS
	TM1/ 15MHz	LCH	13.49	15.35	PASS
		MCH	13.58	17.46	PASS
		HCH	13.49	16.66	PASS
	TM2/ 15MHz	LCH	13.58	20.05	PASS
		MCH	13.88	21.52	PASS
		HCH	13.58	16.45	PASS
	TM1/ 20MHz	LCH	17.86	19.70	PASS
		MCH	17.90	19.30	PASS
		HCH	17.90	20.02	PASS
	TM2/ 20MHz	LCH	17.90	20.90	PASS
		MCH	17.90	20.14	PASS
		HCH	17.86	19.82	PASS

4.1 For LTE

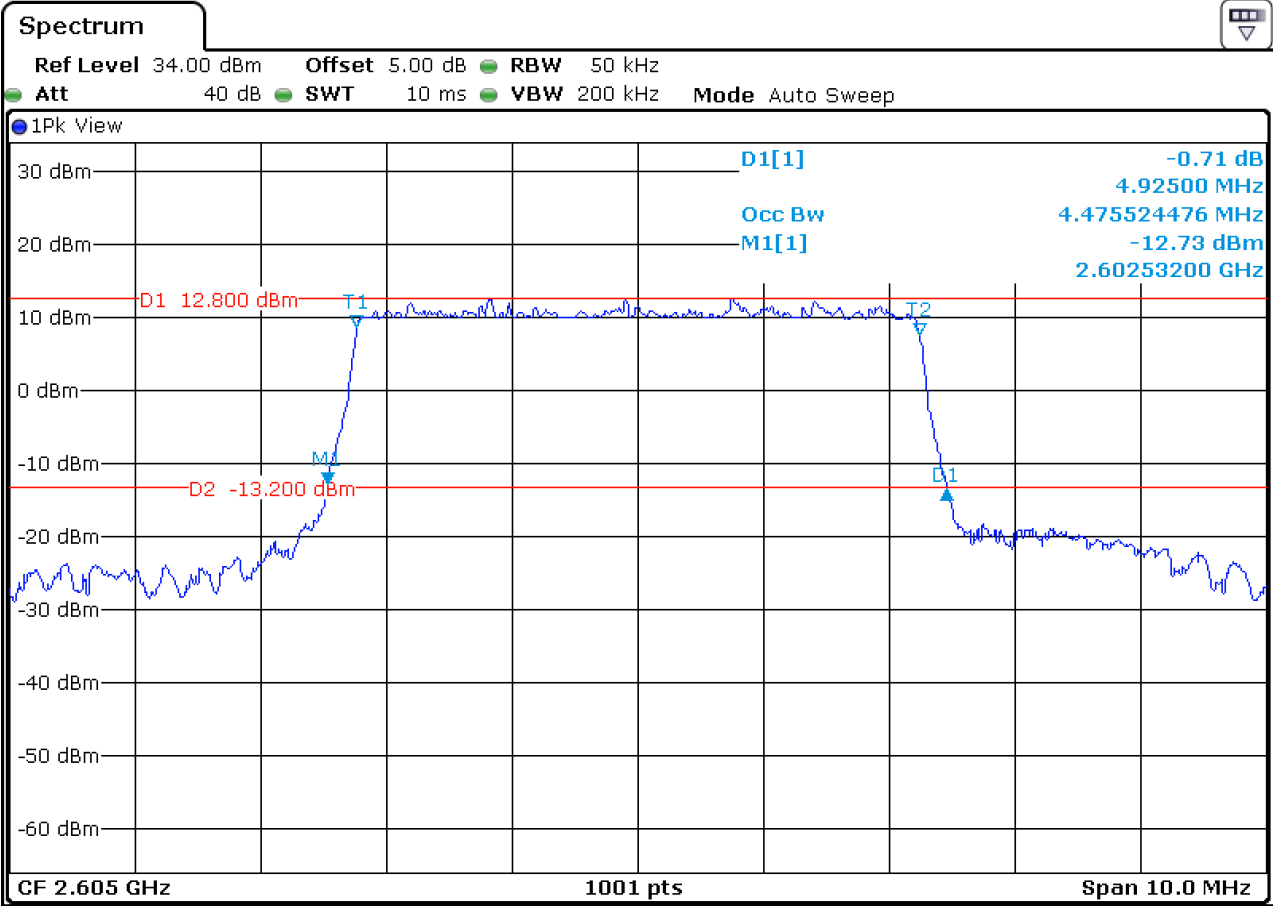
4.1.1 Test Band = LTE band41

4.1.1.1 Test Mode = LTE/TM1 5MHz

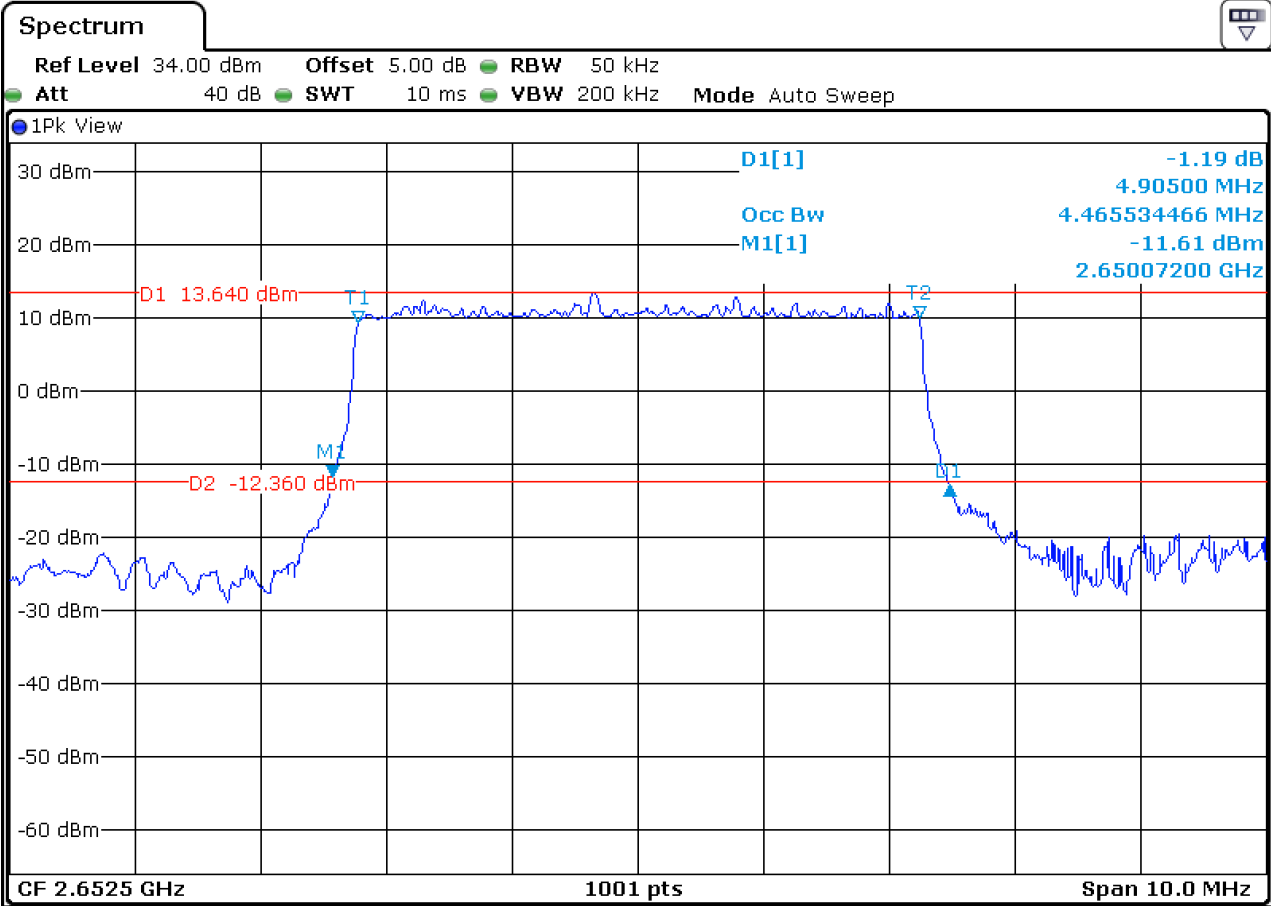
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH

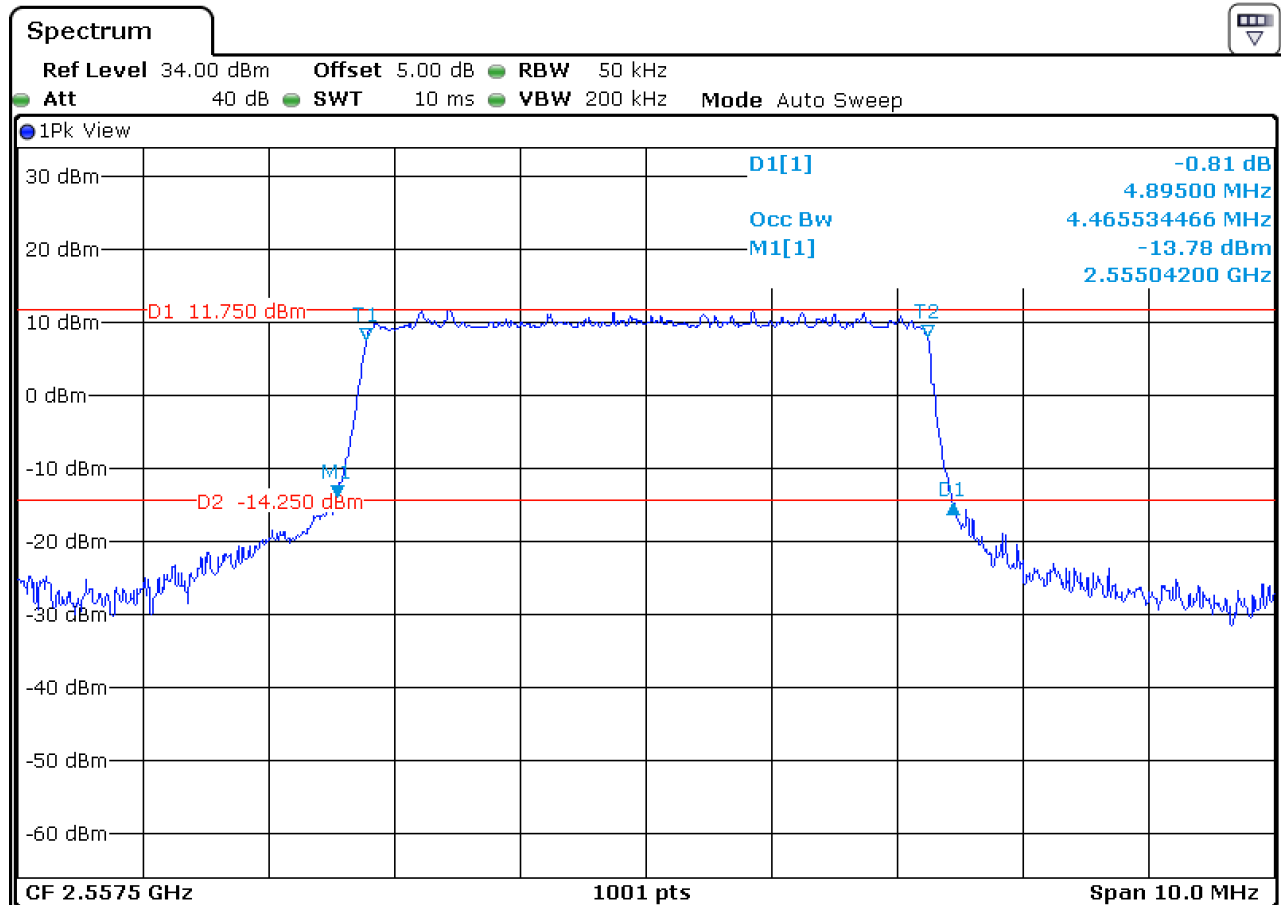


4.1.1.1.3 Test Channel = HCH

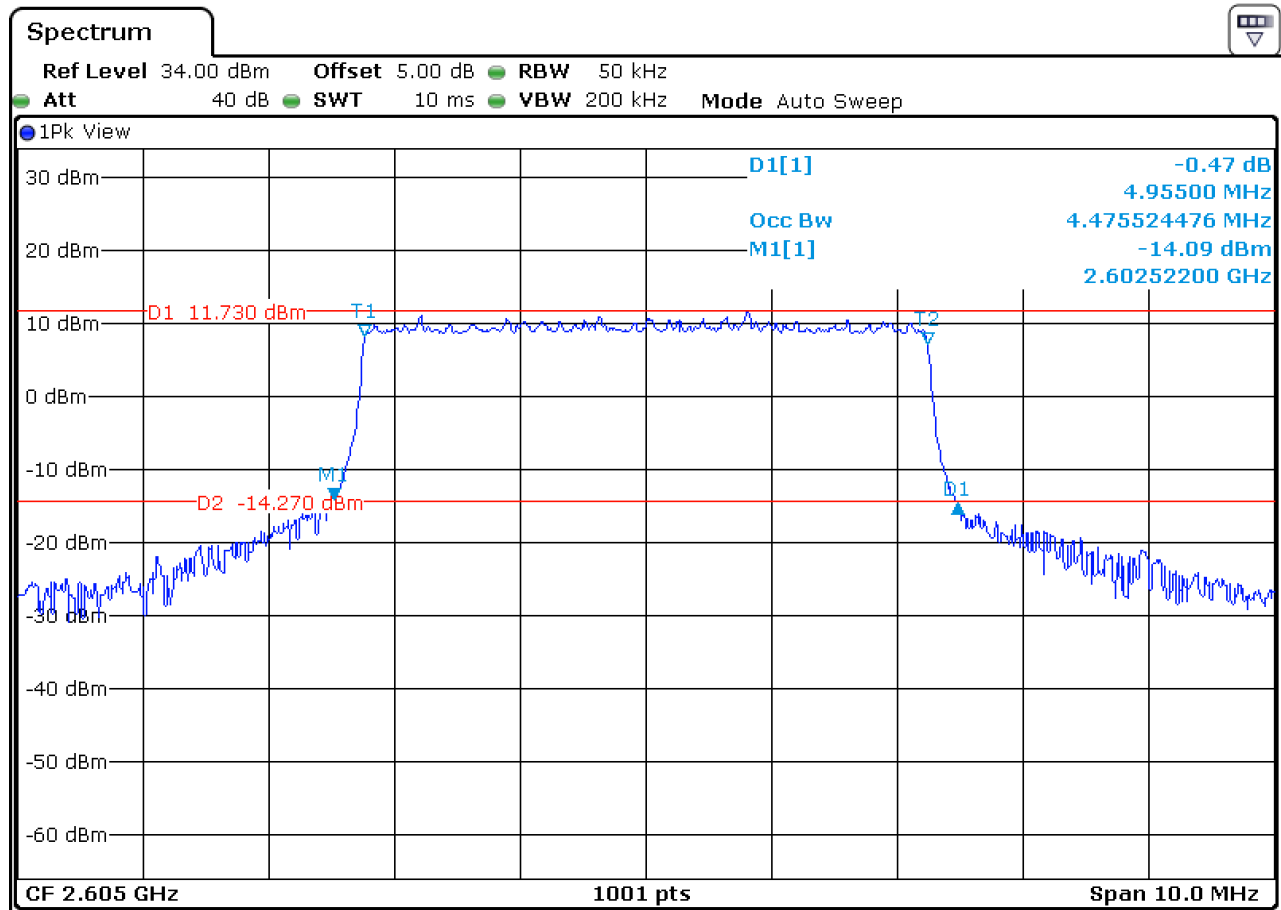


4.1.1.2 Test Mode = LTE/TM2 5MHz

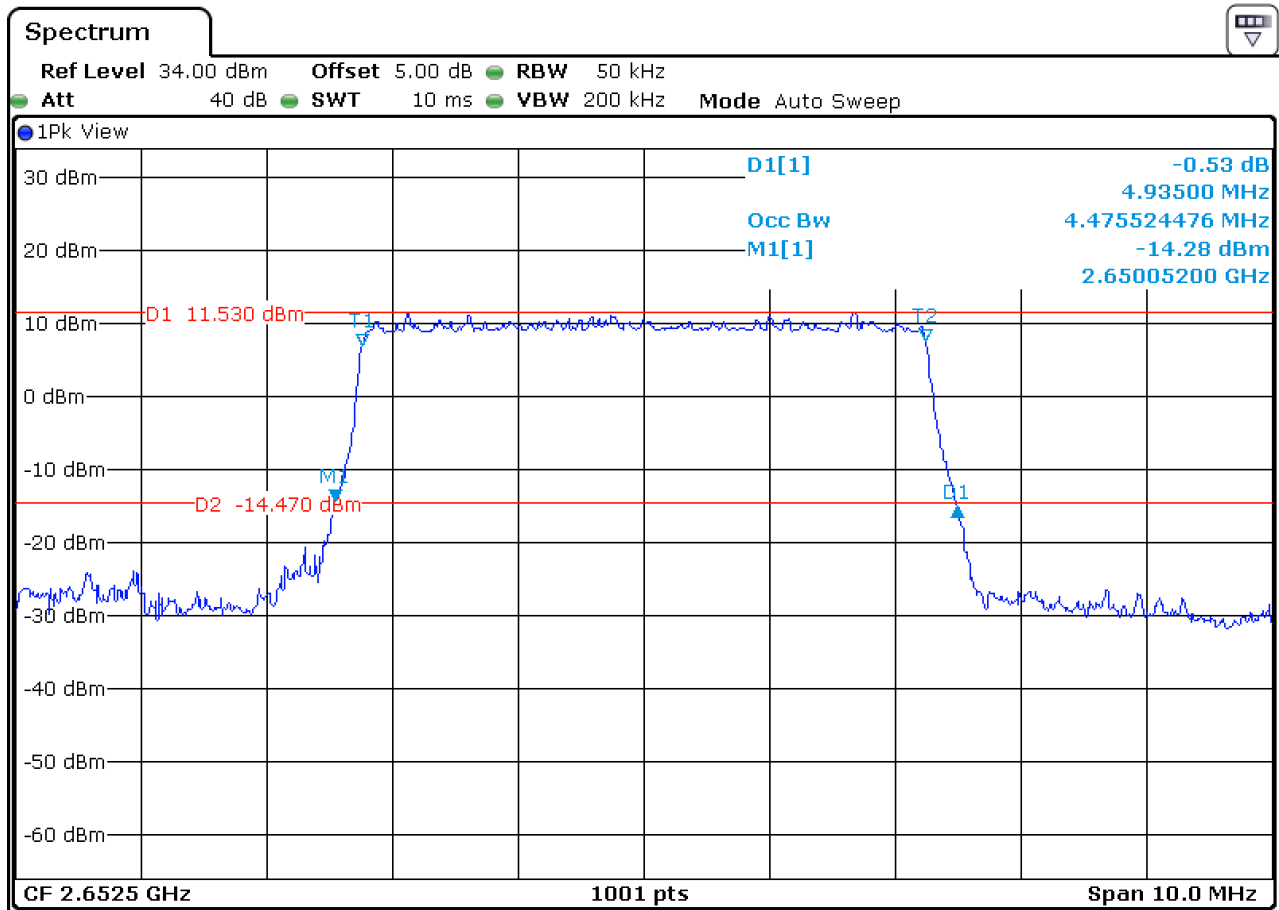
4.1.1.2.1 Test Channel = LCH



4.1.1.2.2 Test Channel = MCH

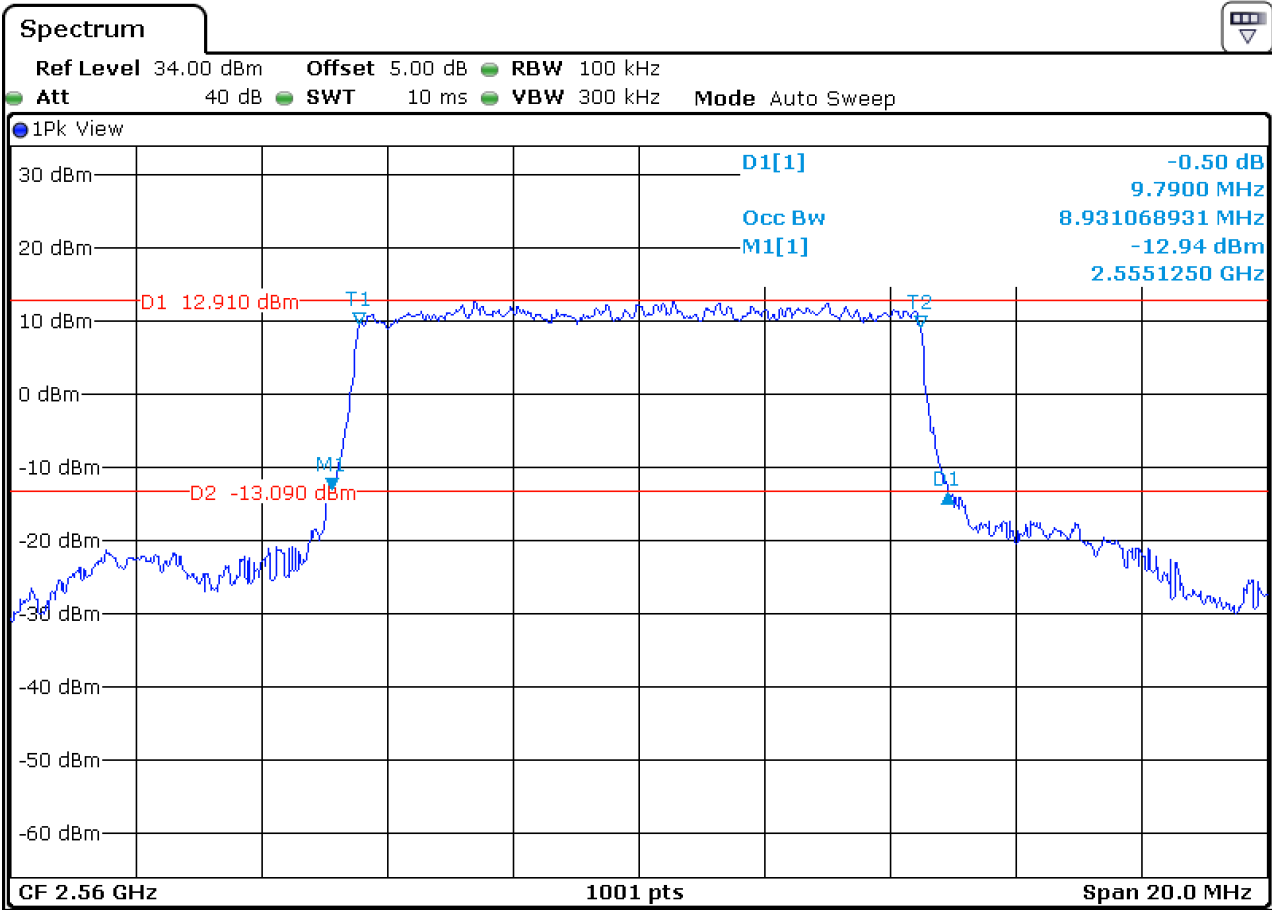


4.1.1.2.3 Test Channel = HCH

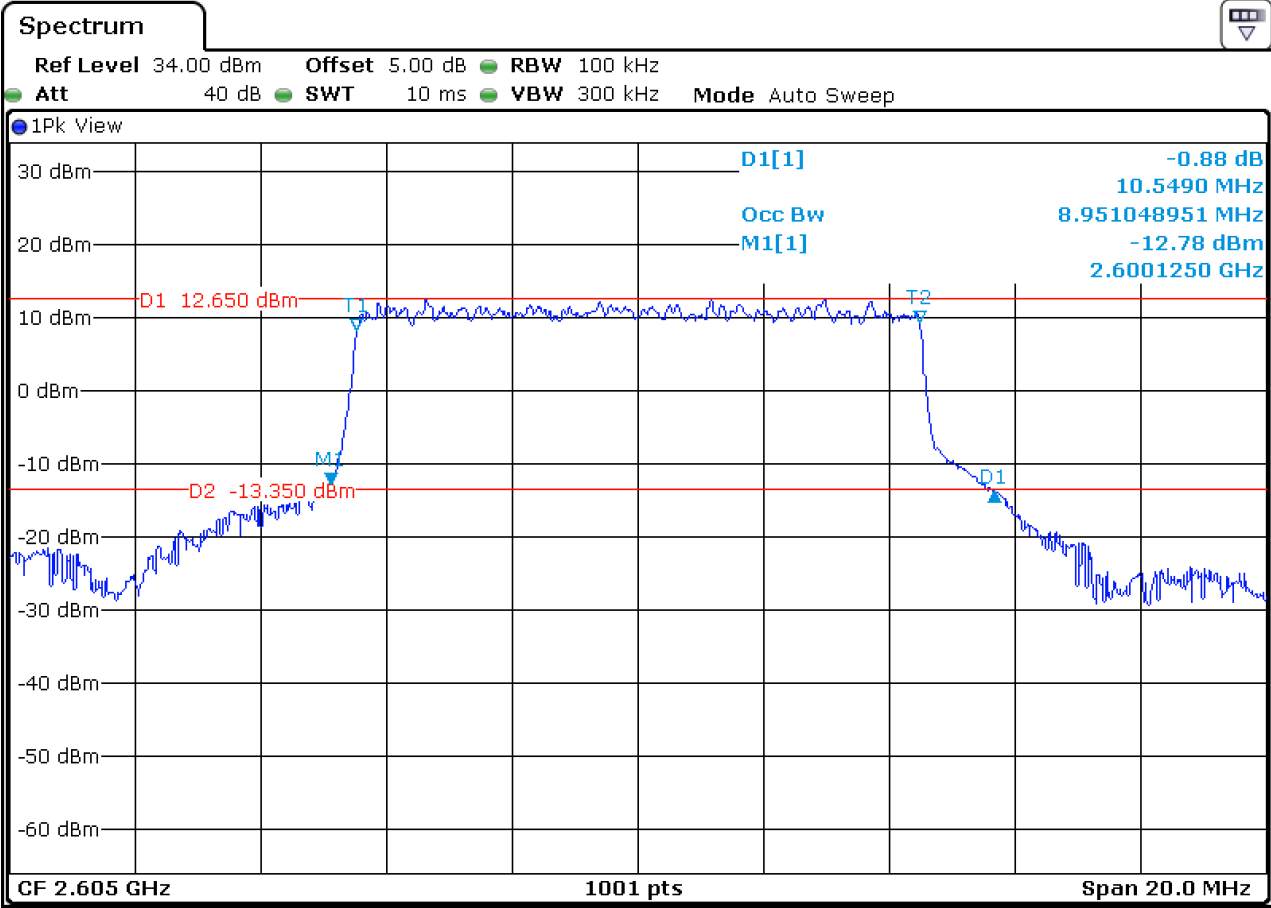


4.1.1.3 Test Mode = LTE/TM1 10MHz

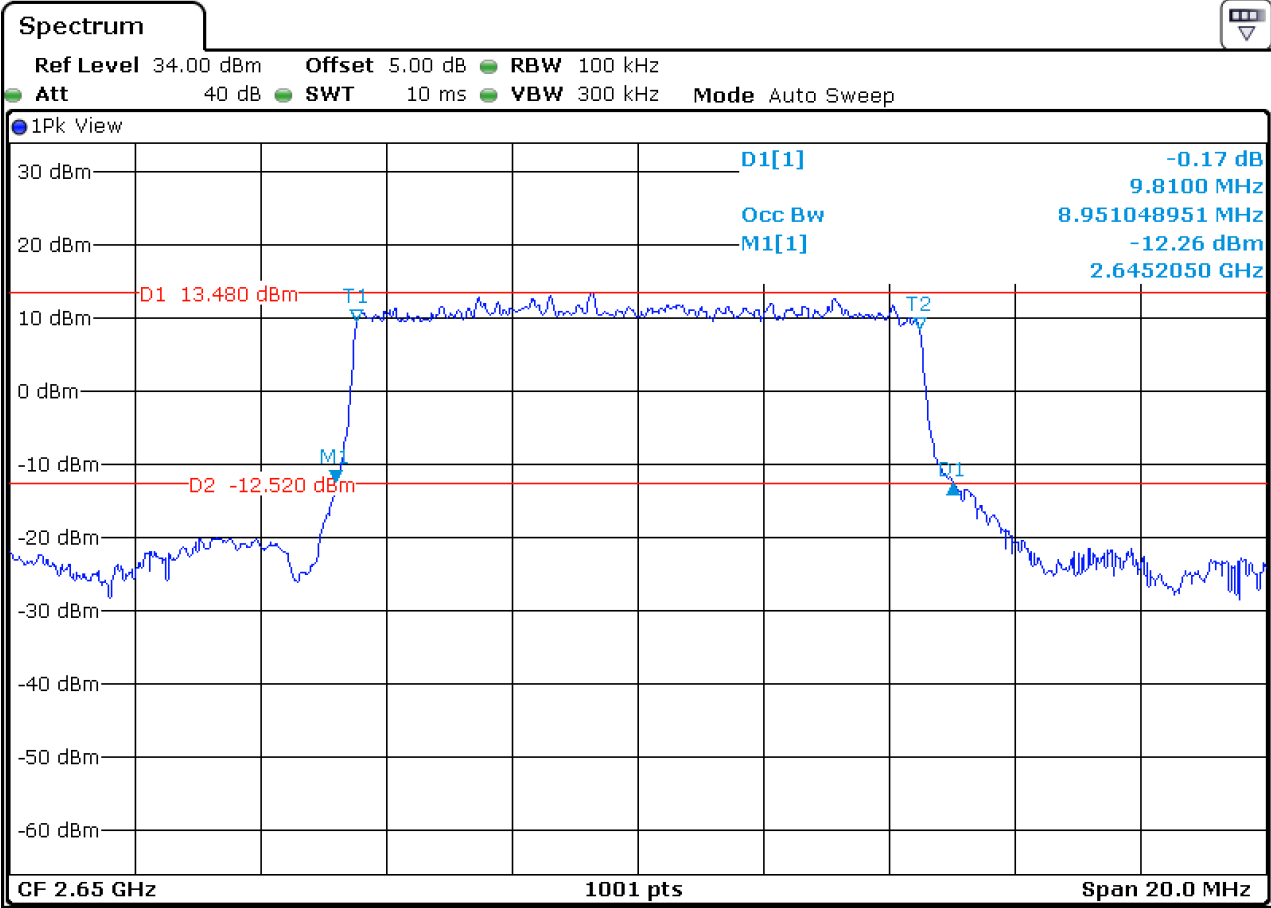
4.1.1.3.1 Test Channel = LCH



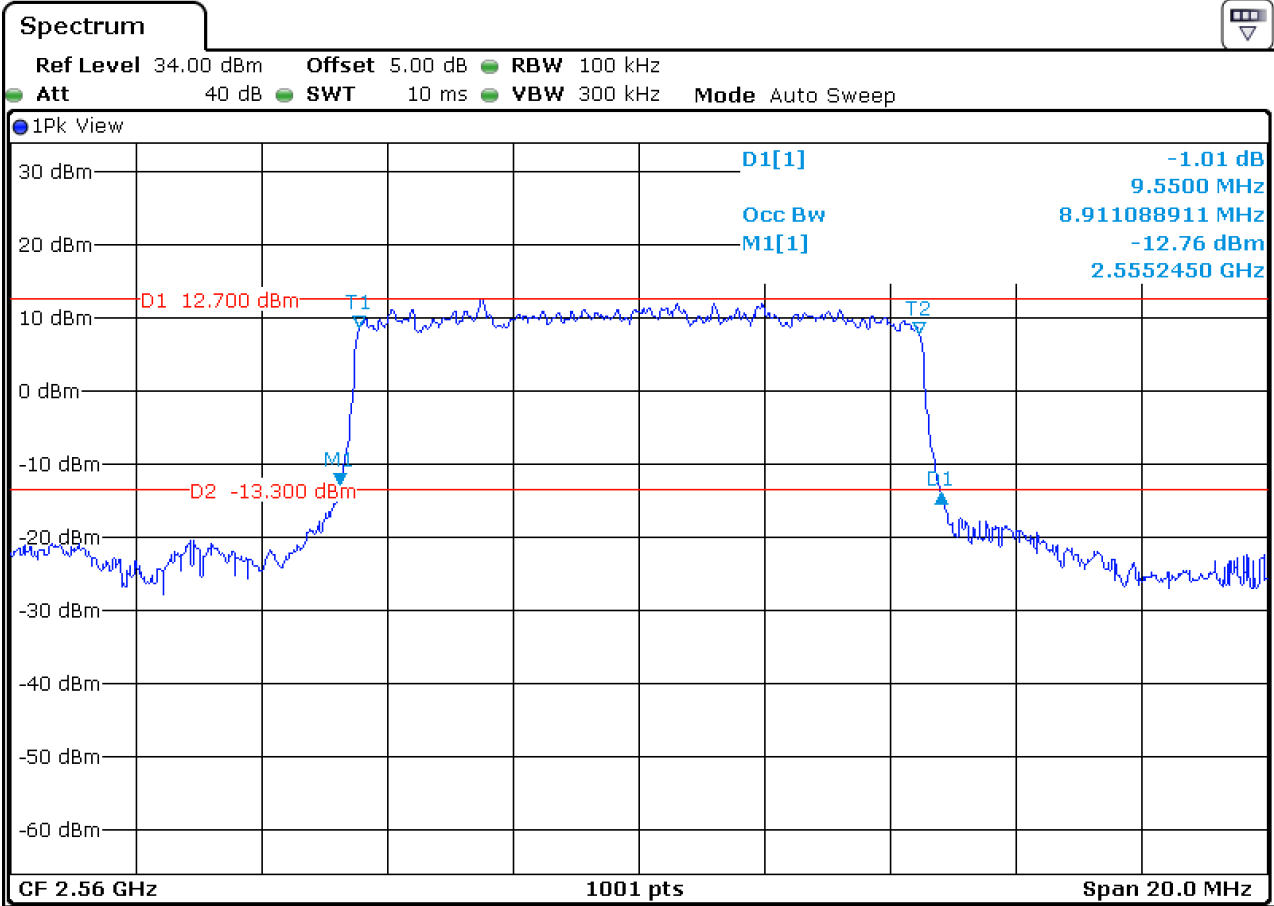
4.1.1.3.2 Test Channel = MCH



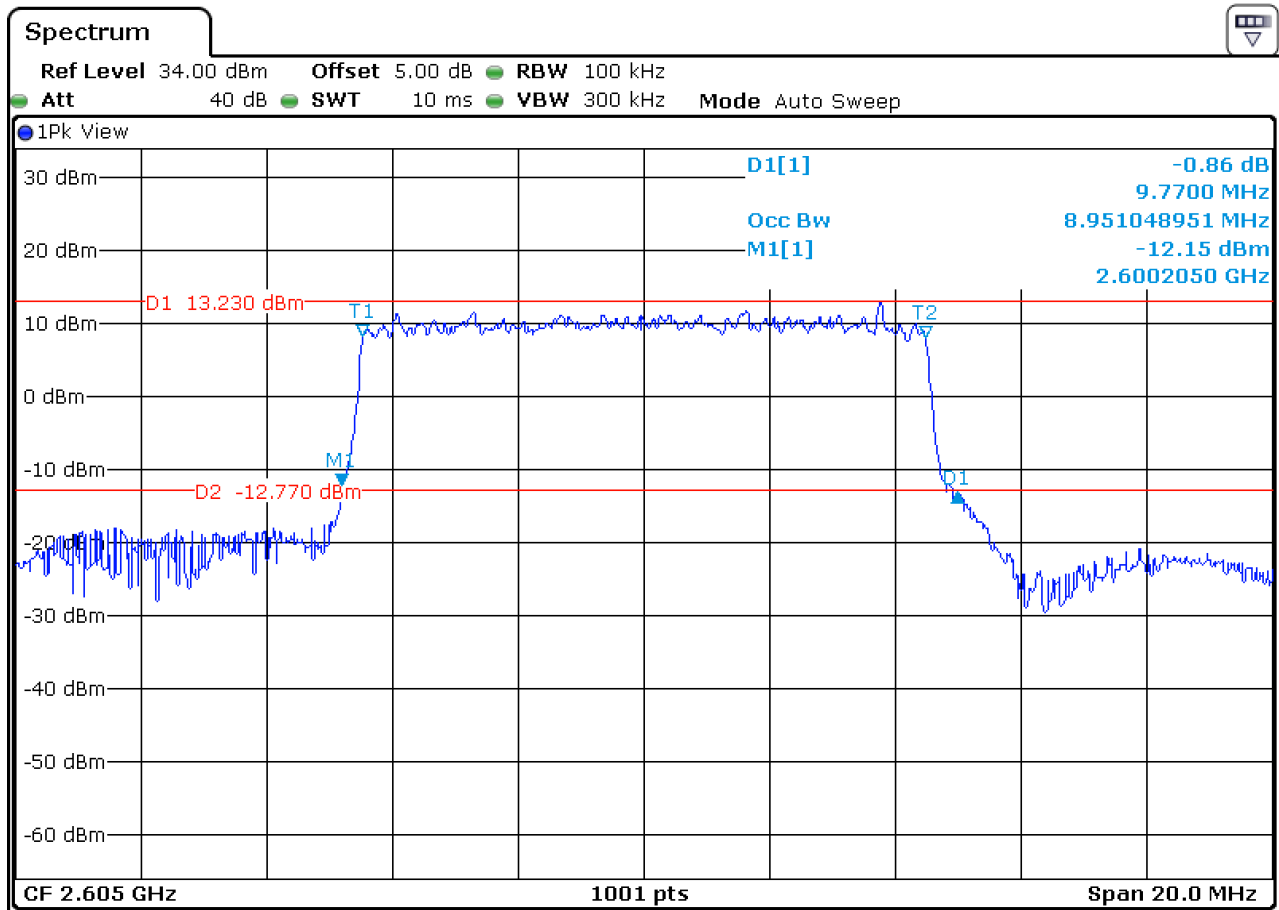
4.1.1.3.3 Test Channel = HCH



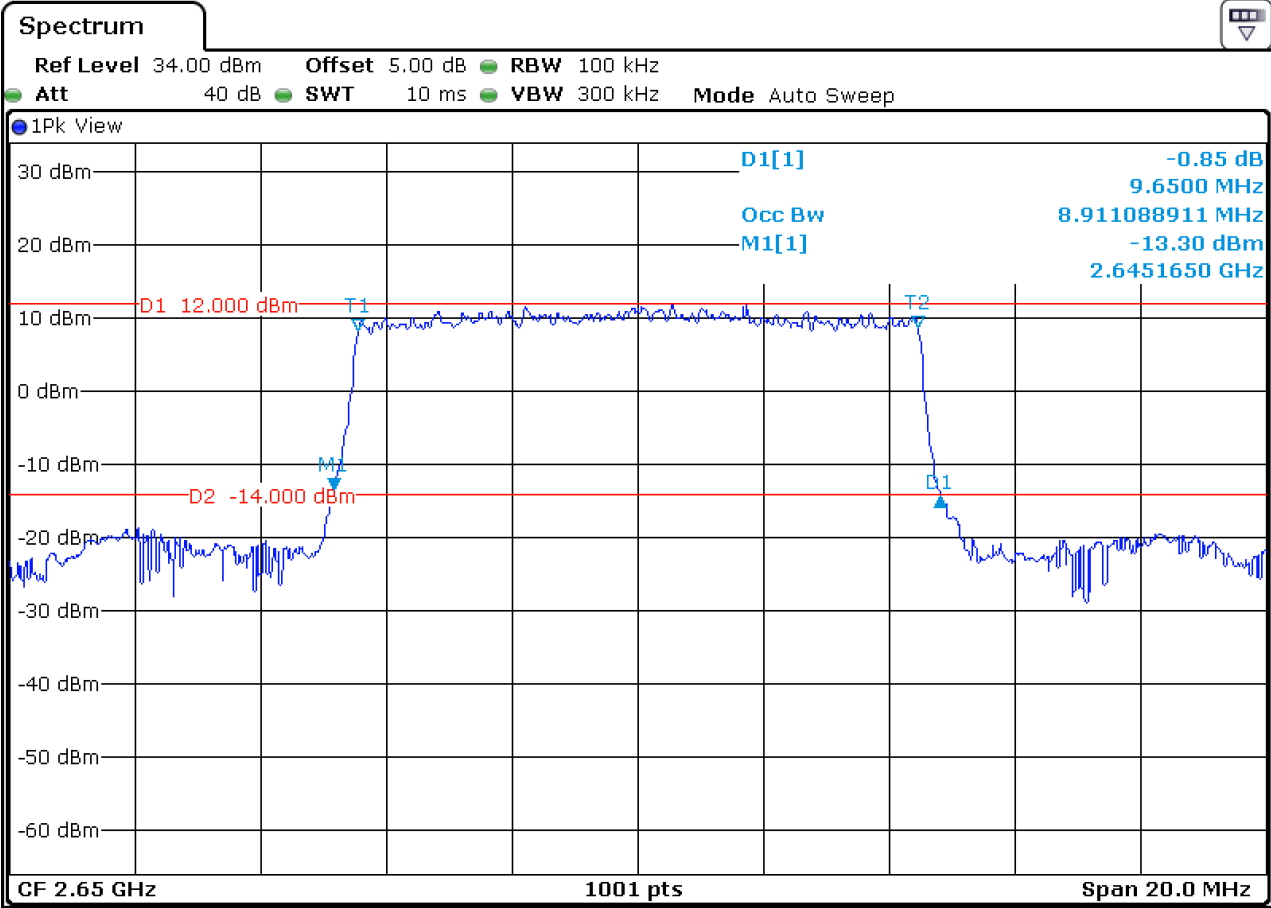
4.1.1.4 Test Mode = LTE/TM2 10MHz
4.1.1.4.1 Test Channel = LCH



4.1.1.4.2 Test Channel = MCH

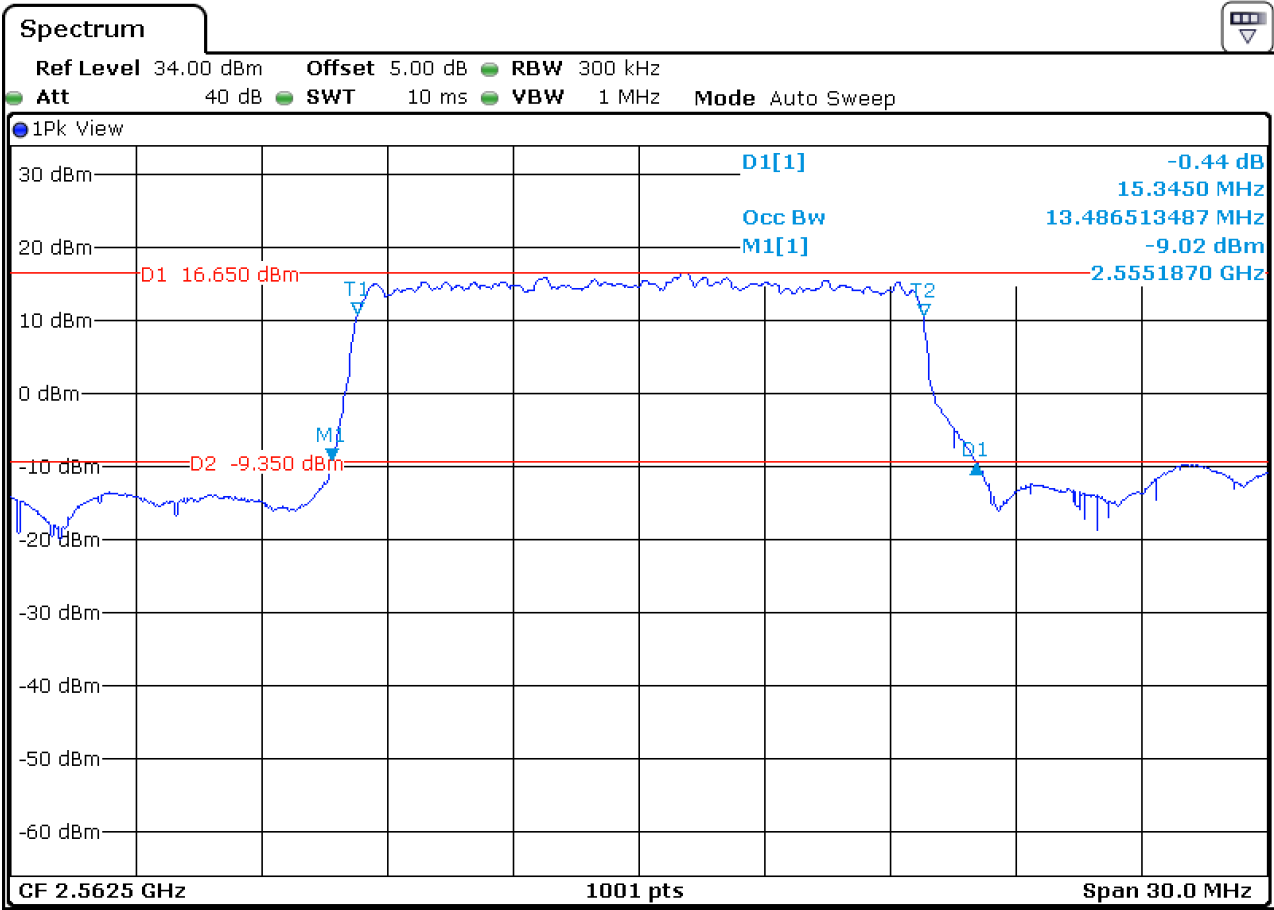


4.1.1.4.3 Test Channel = HCH

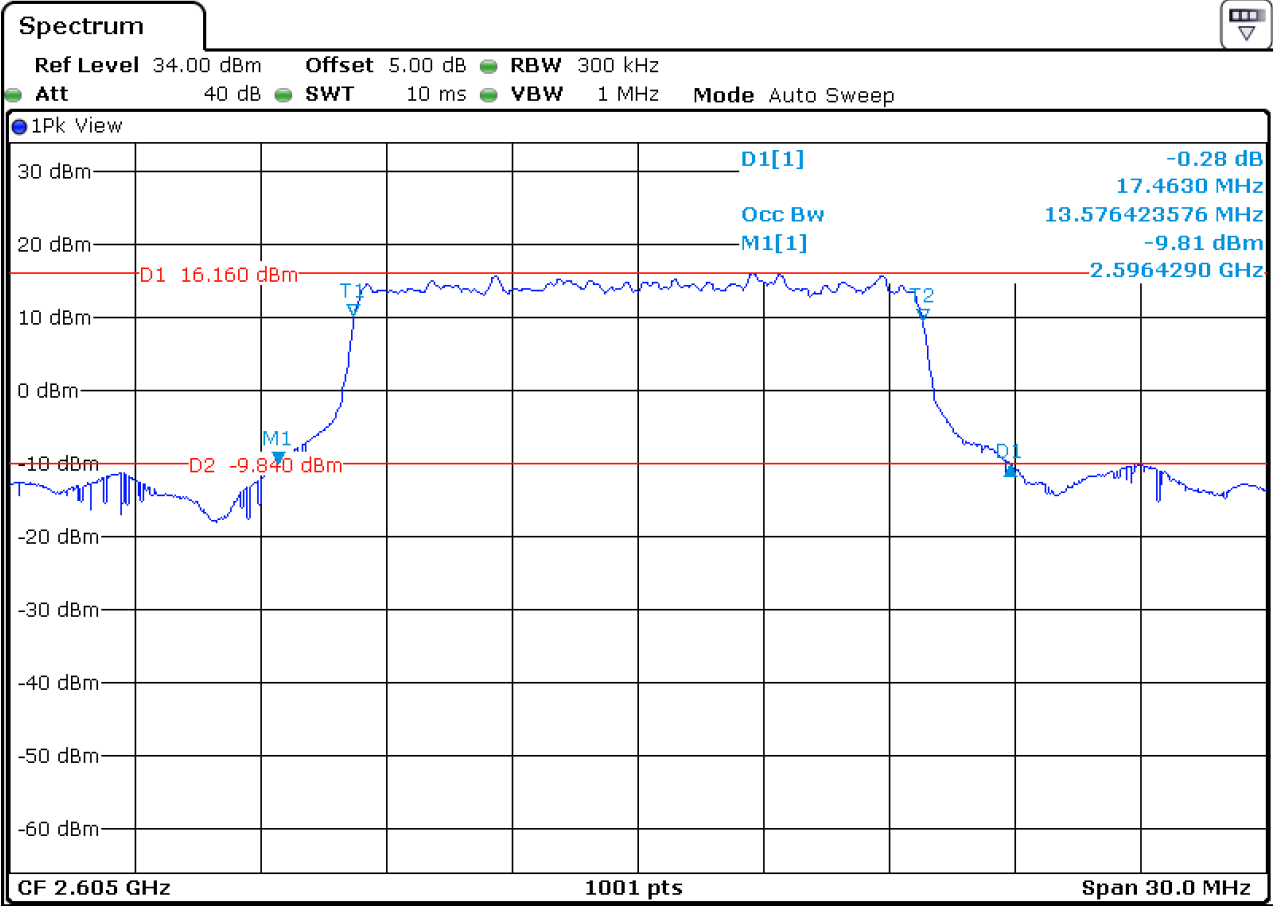


4.1.1.5 Test Mode = LTE/TM1 15MHz

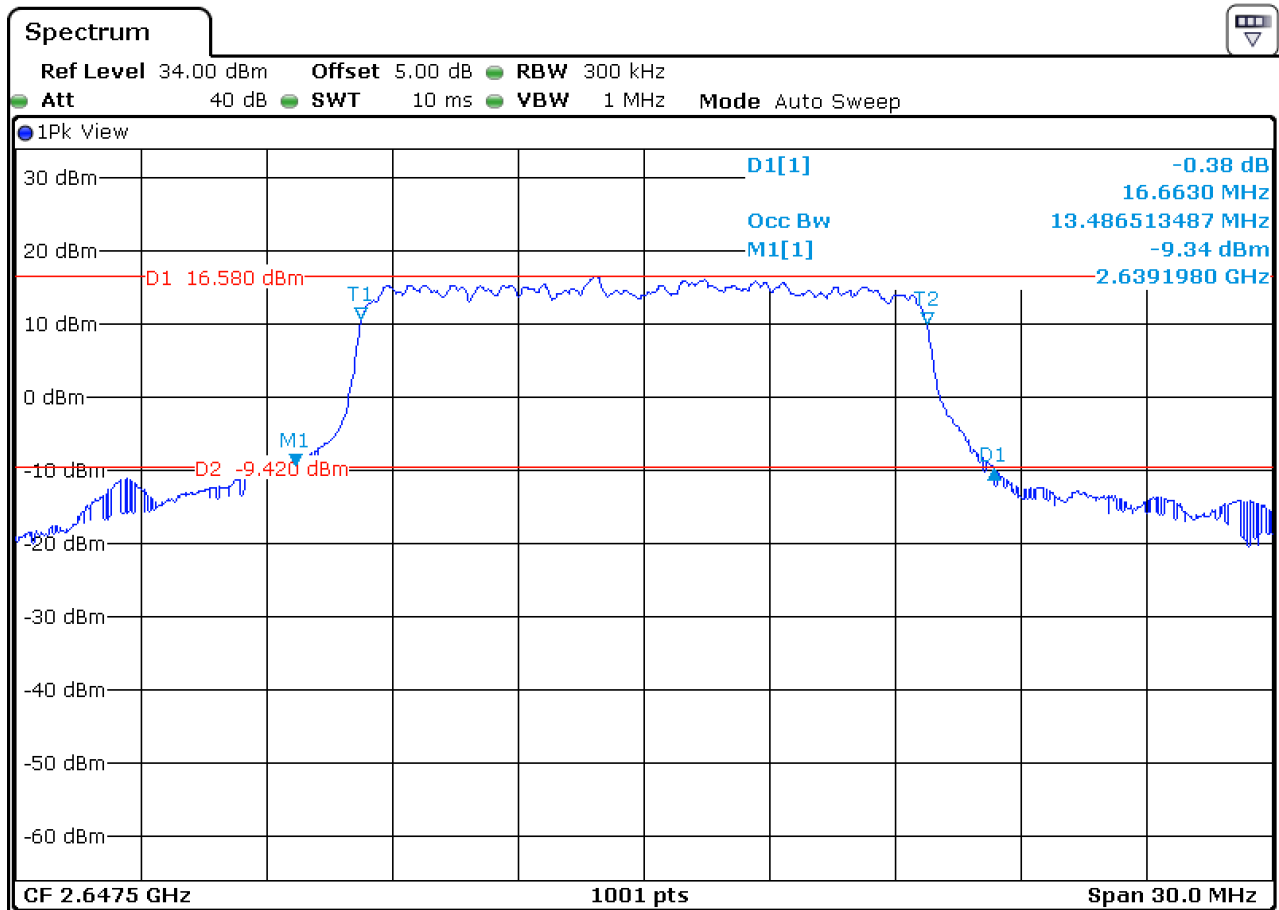
4.1.1.5.1 Test Channel = LCH



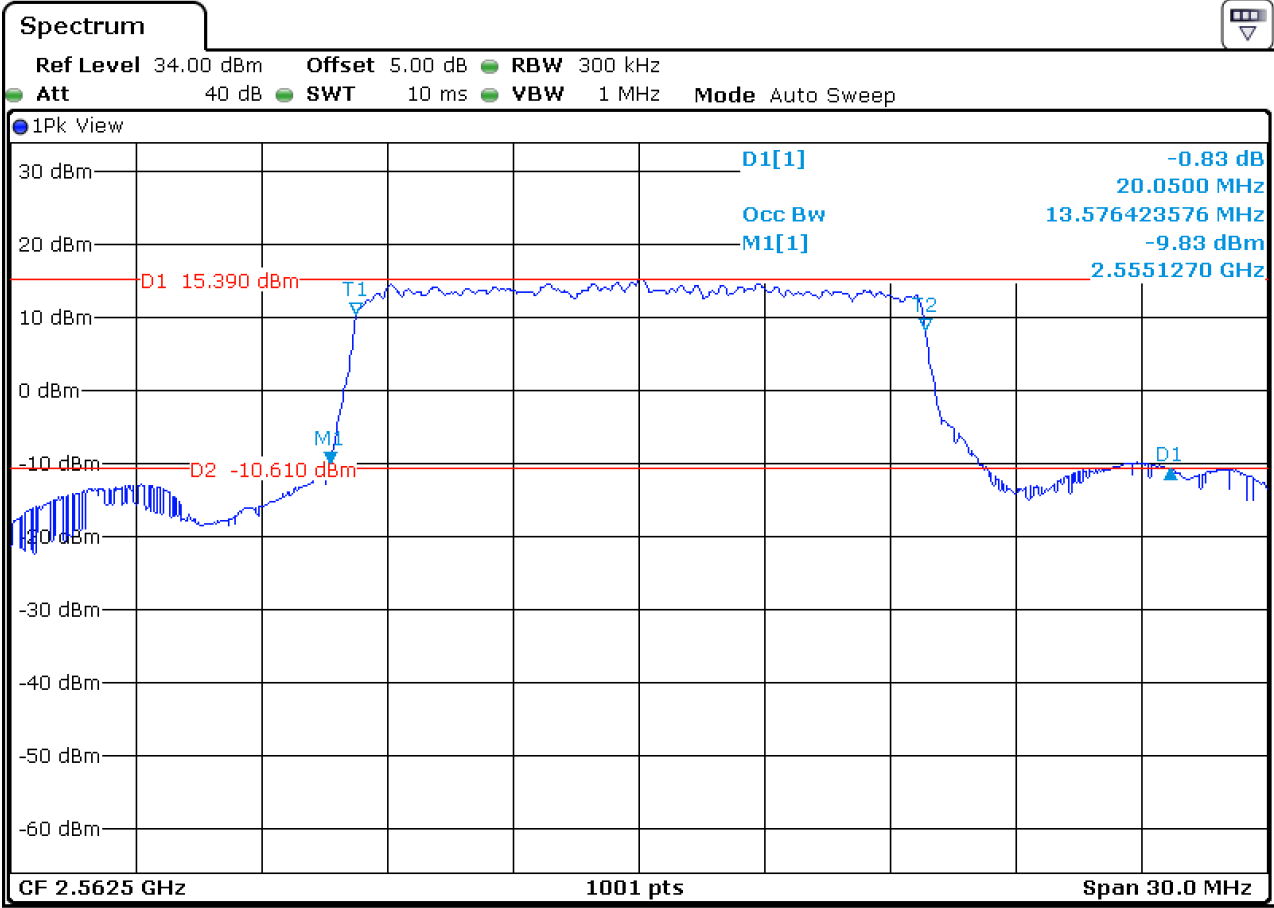
4.1.1.5.2 Test Channel = MCH



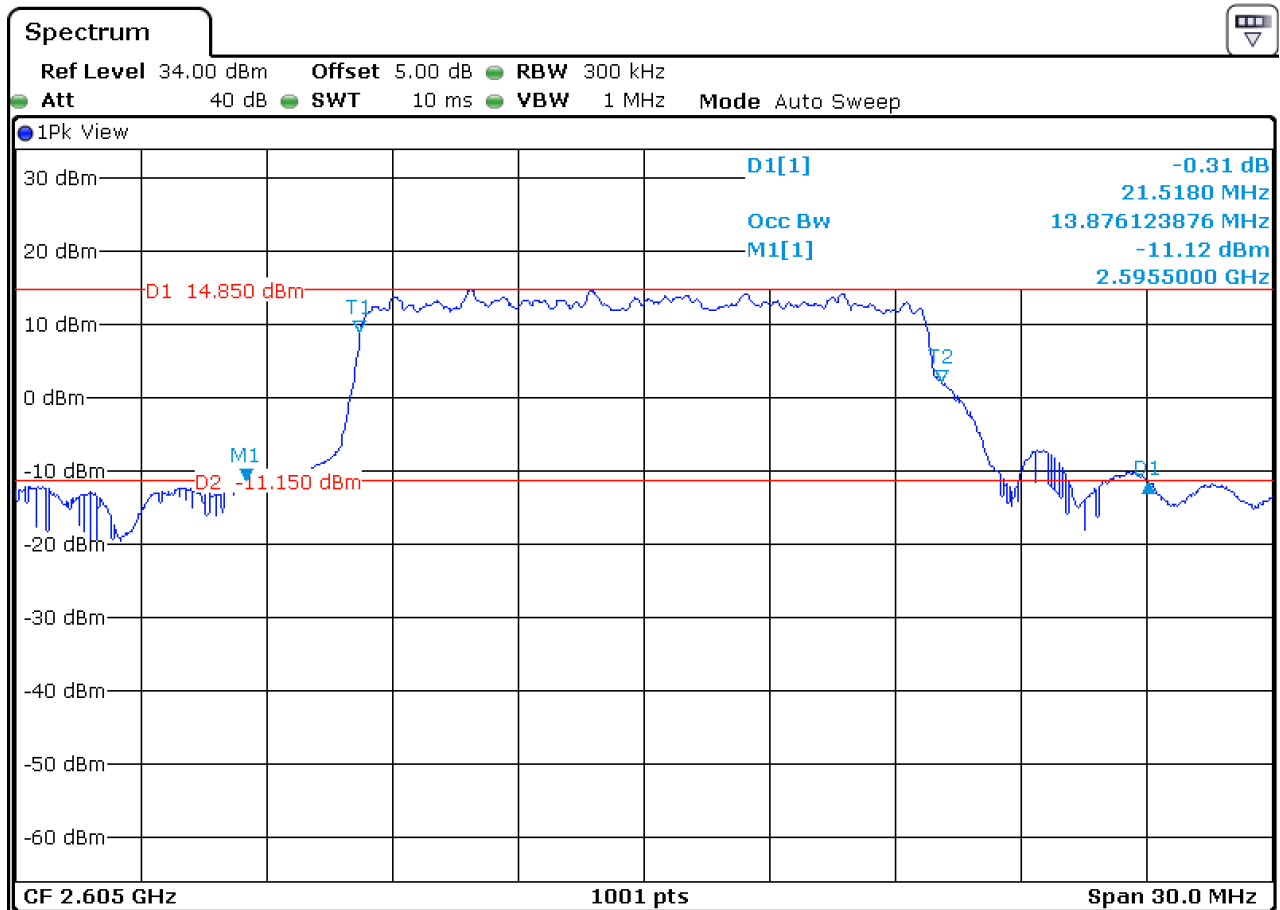
4.1.1.5.3 Test Channel = HCH



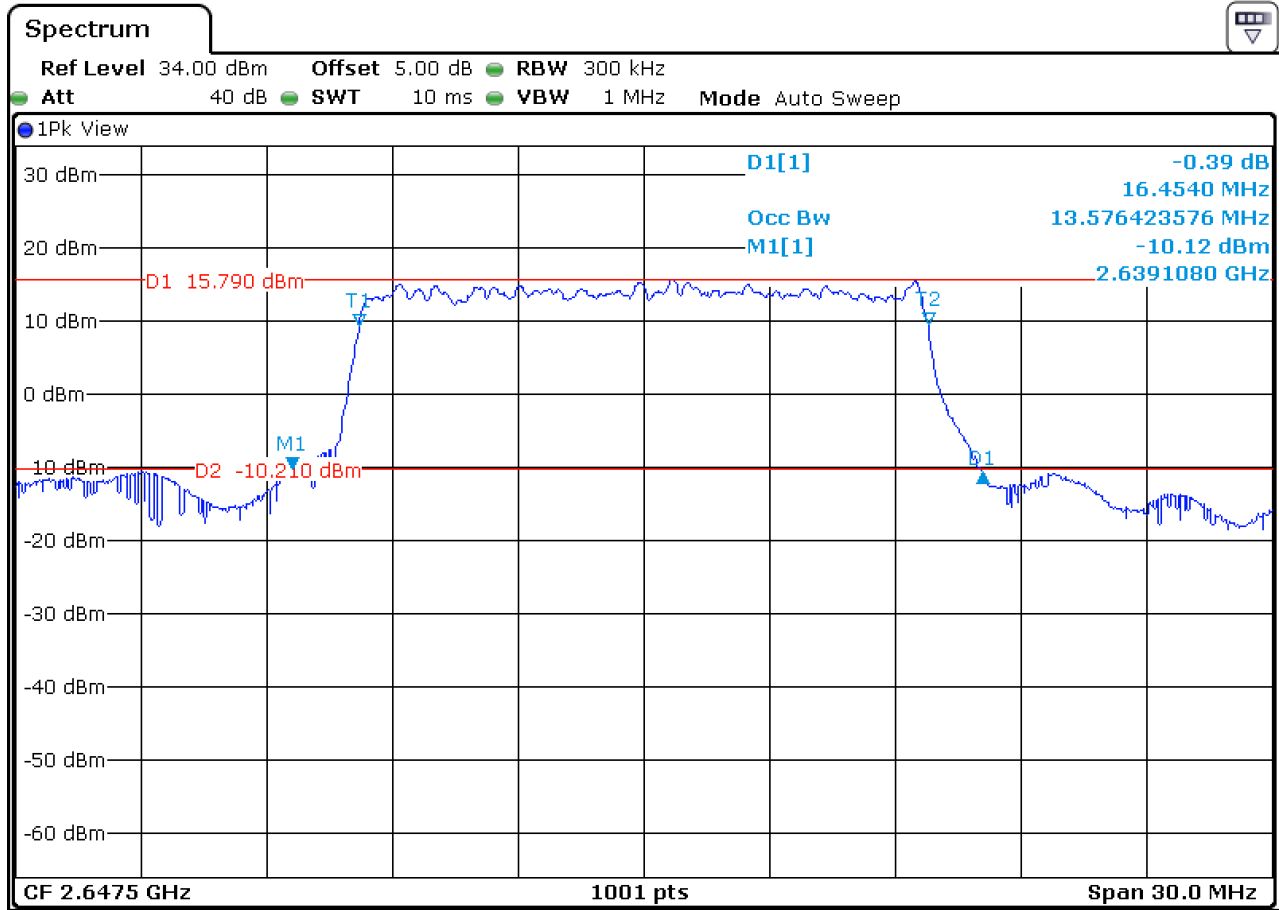
4.1.1.6 Test Mode = LTE/TM2 15MHz
4.1.1.6.1 Test Channel = LCH



4.1.1.6.2 Test Channel = MCH

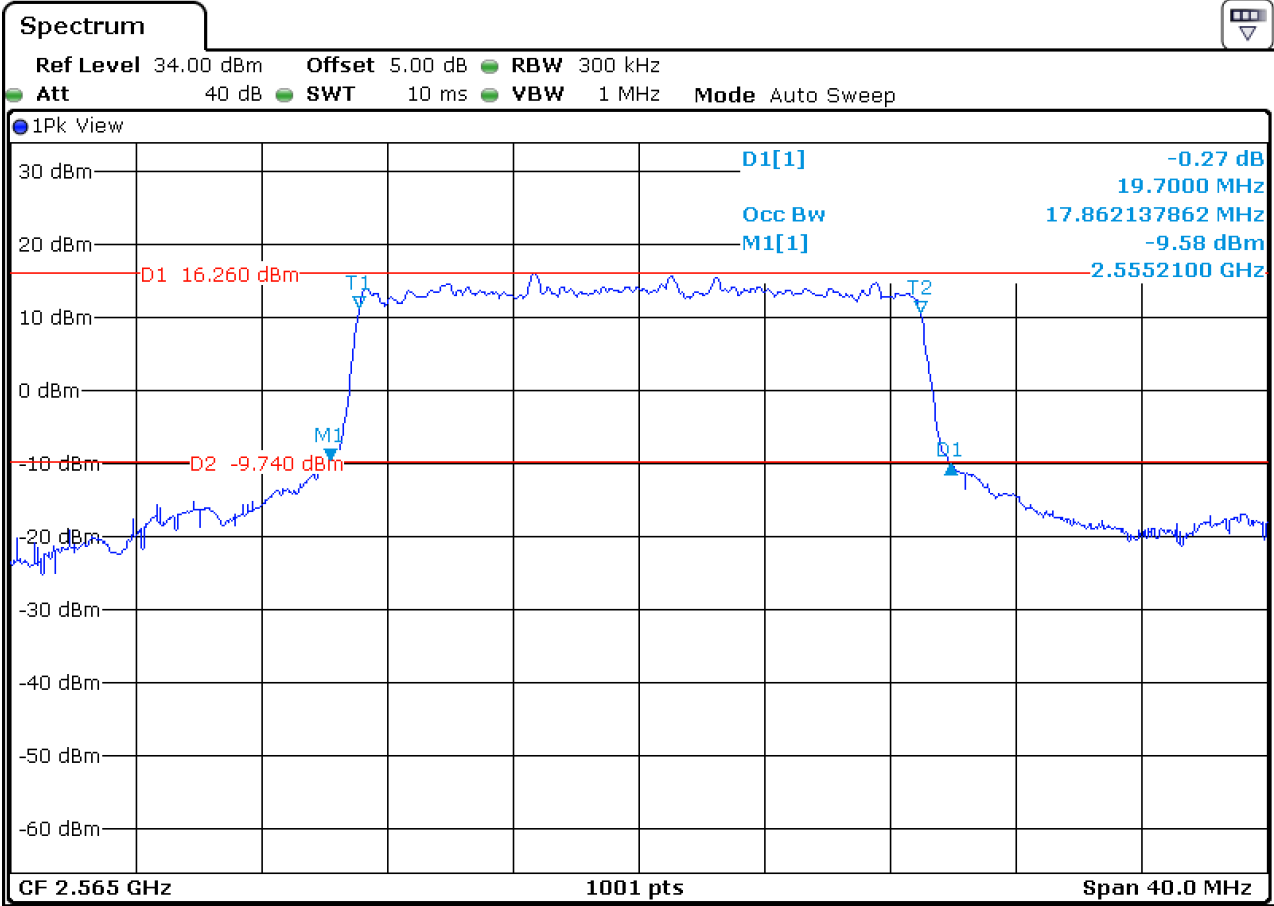


4.1.1.6.3 Test Channel = HCH

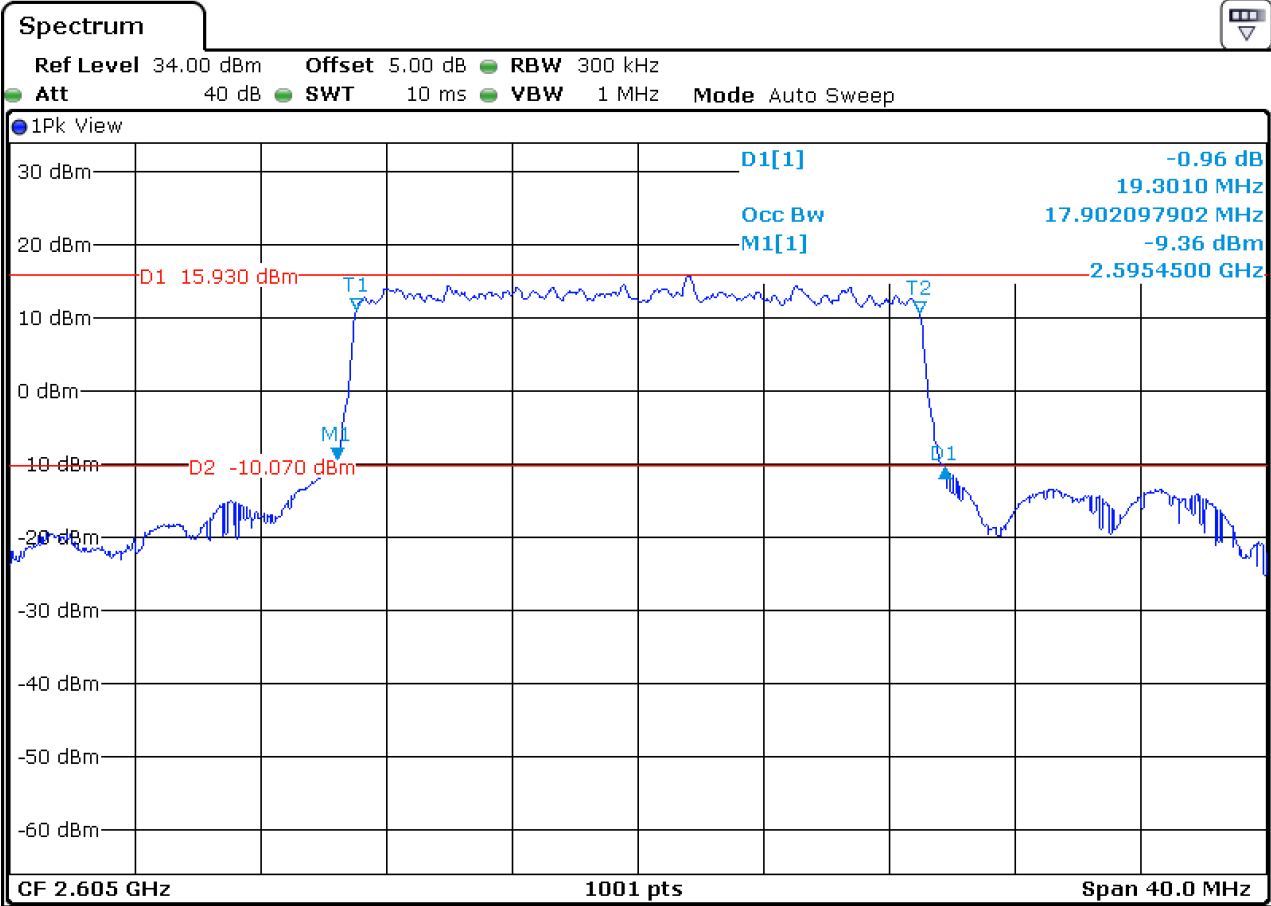


4.1.1.7 Test Mode = LTE/TM1 20MHz

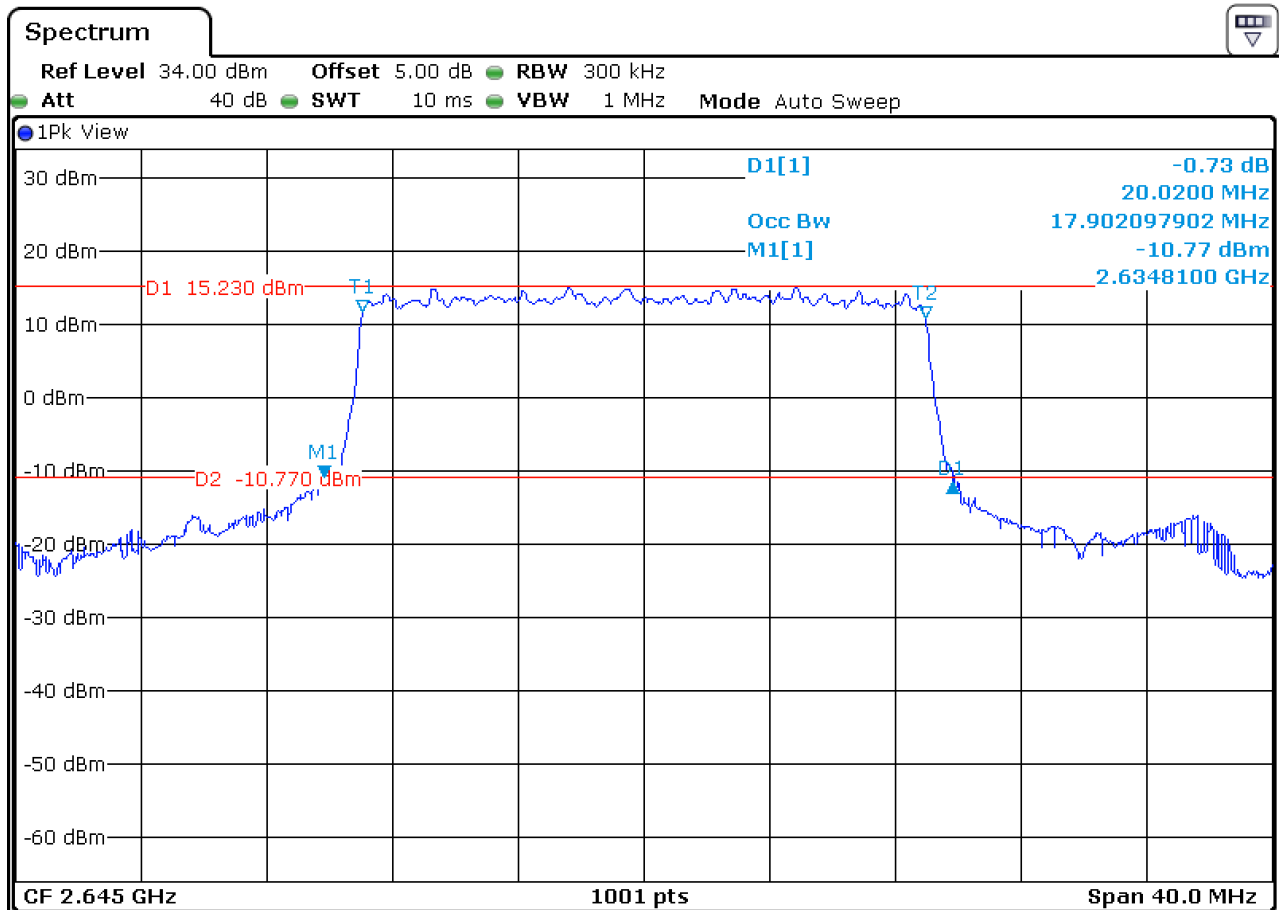
4.1.1.7.1 Test Channel = LCH



4.1.1.7.2 Test Channel = MCH

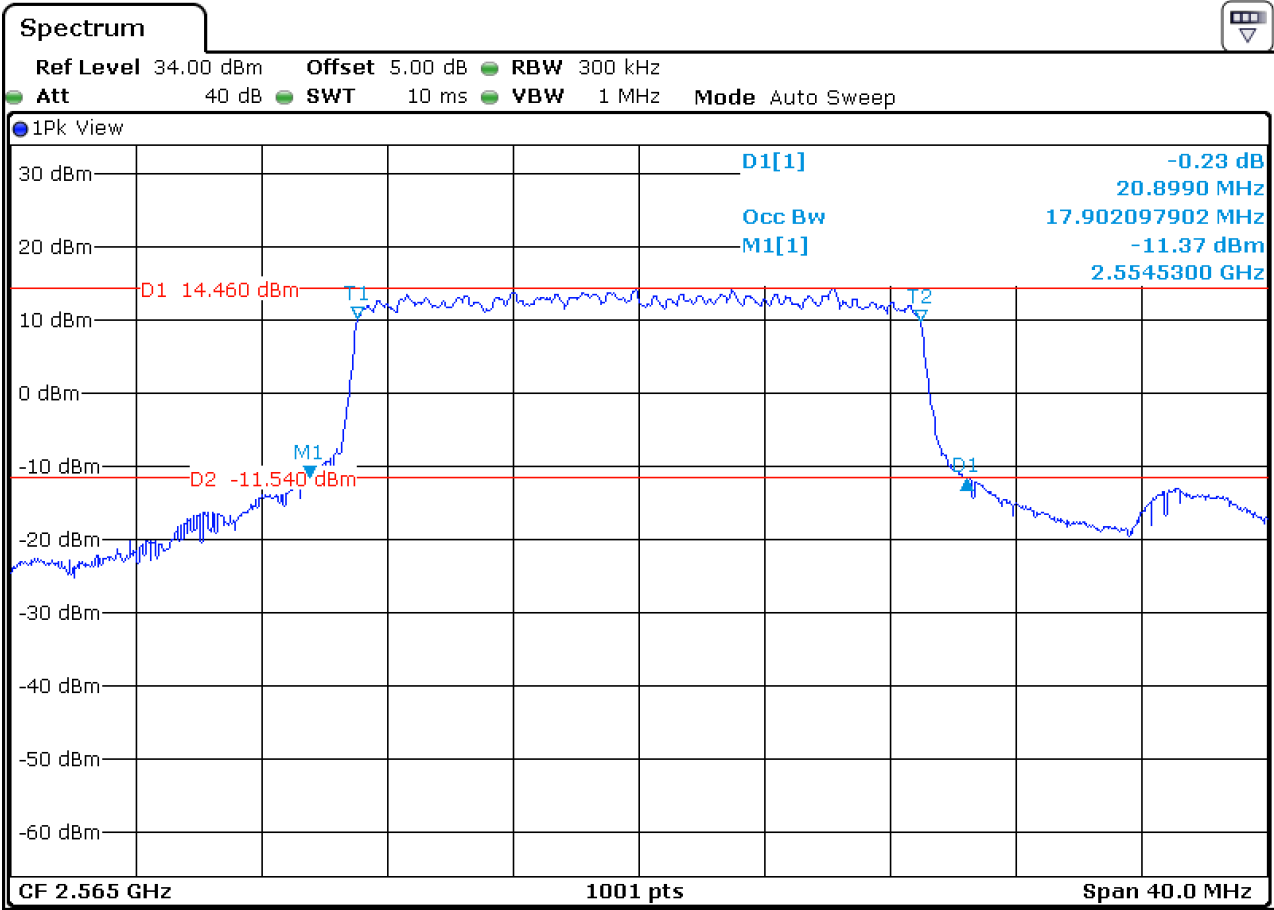


4.1.1.7.3 Test Channel = HCH

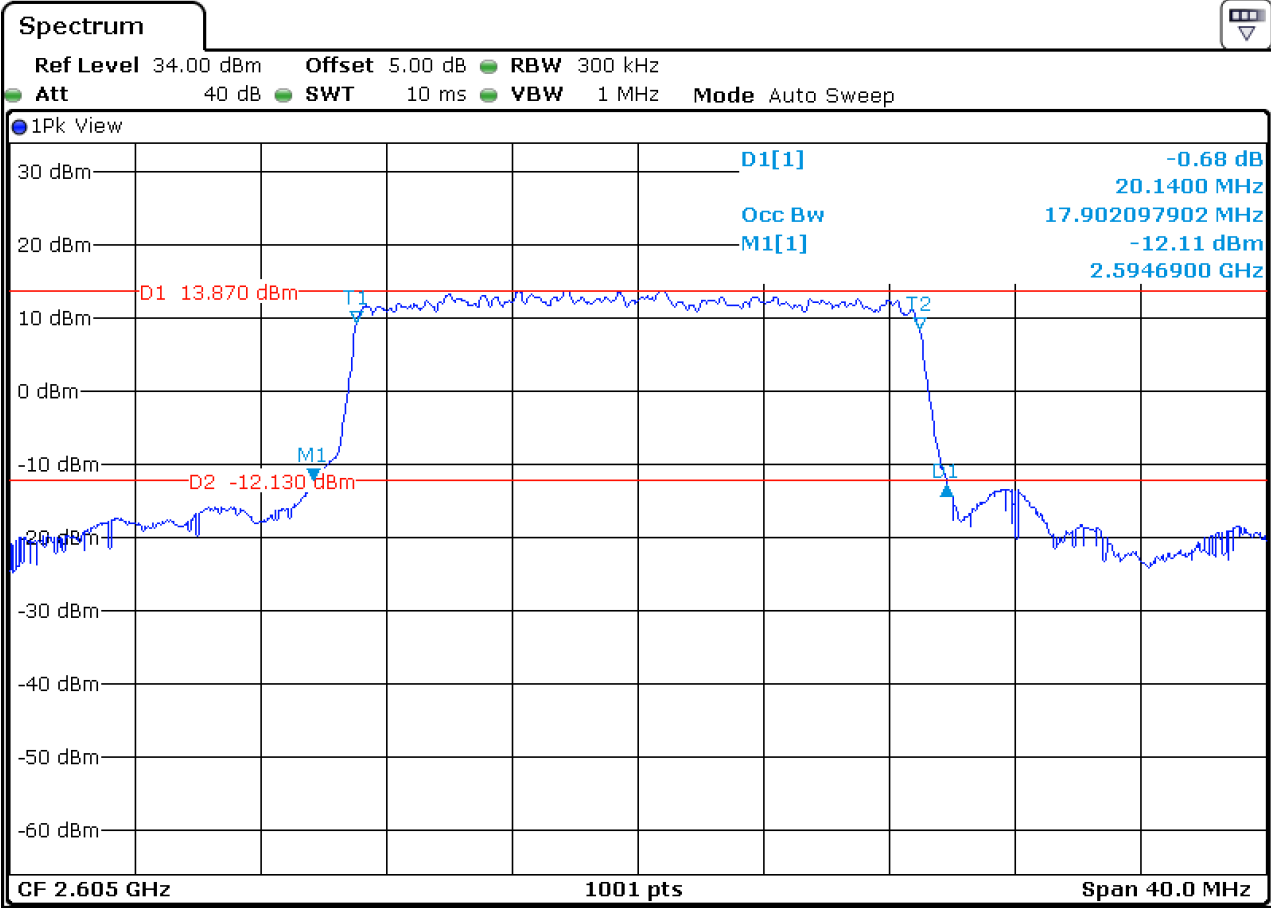


4.1.1.8 Test Mode = LTE/TM2 20MHz

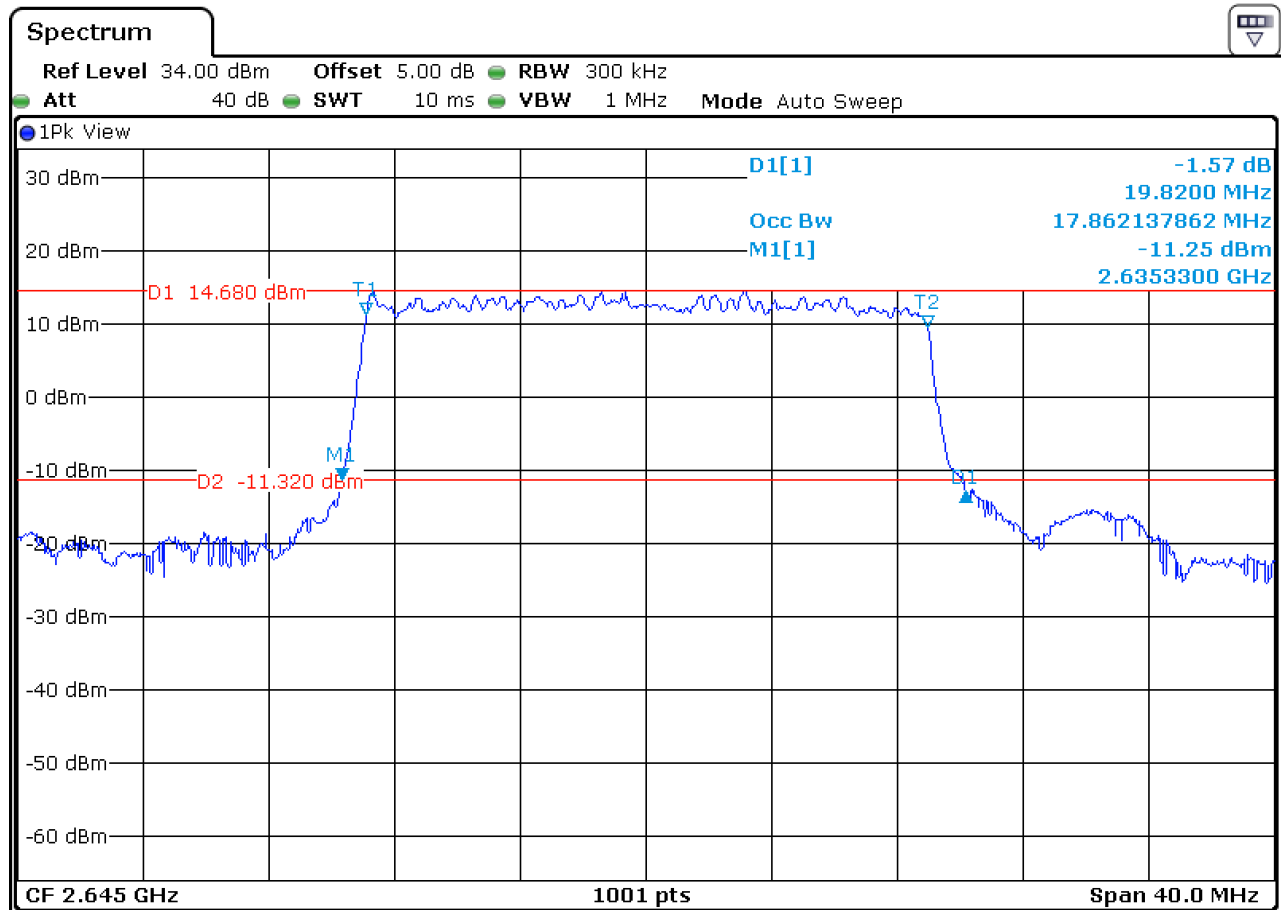
4.1.1.8.1 Test Channel = LCH



4.1.1.8.2 Test Channel = MCH



4.1.1.8.3 Test Channel = HCH



5 Band Edges Compliance

Part I –

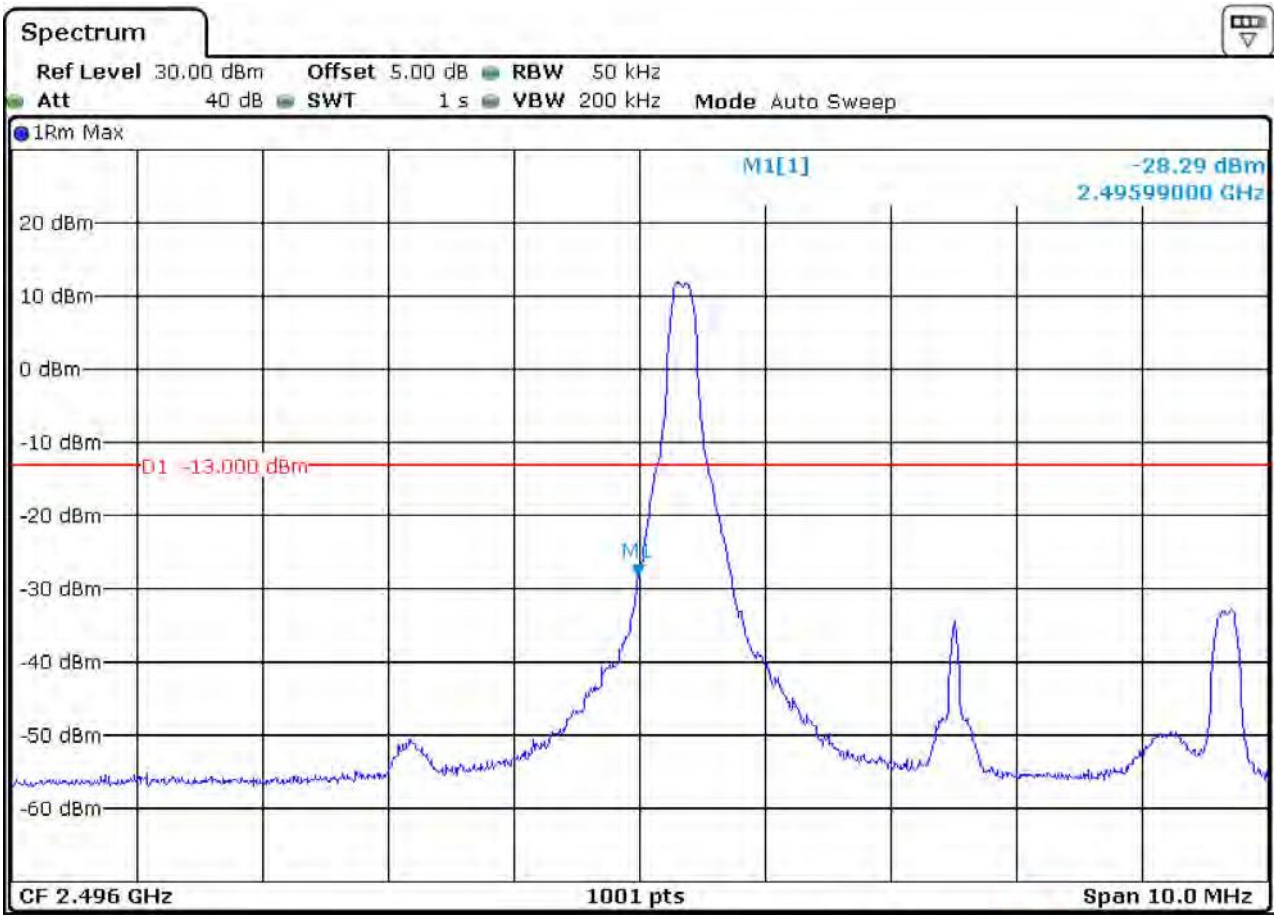
5.1 For LTE

5.1.1 Test Band = LTE band41

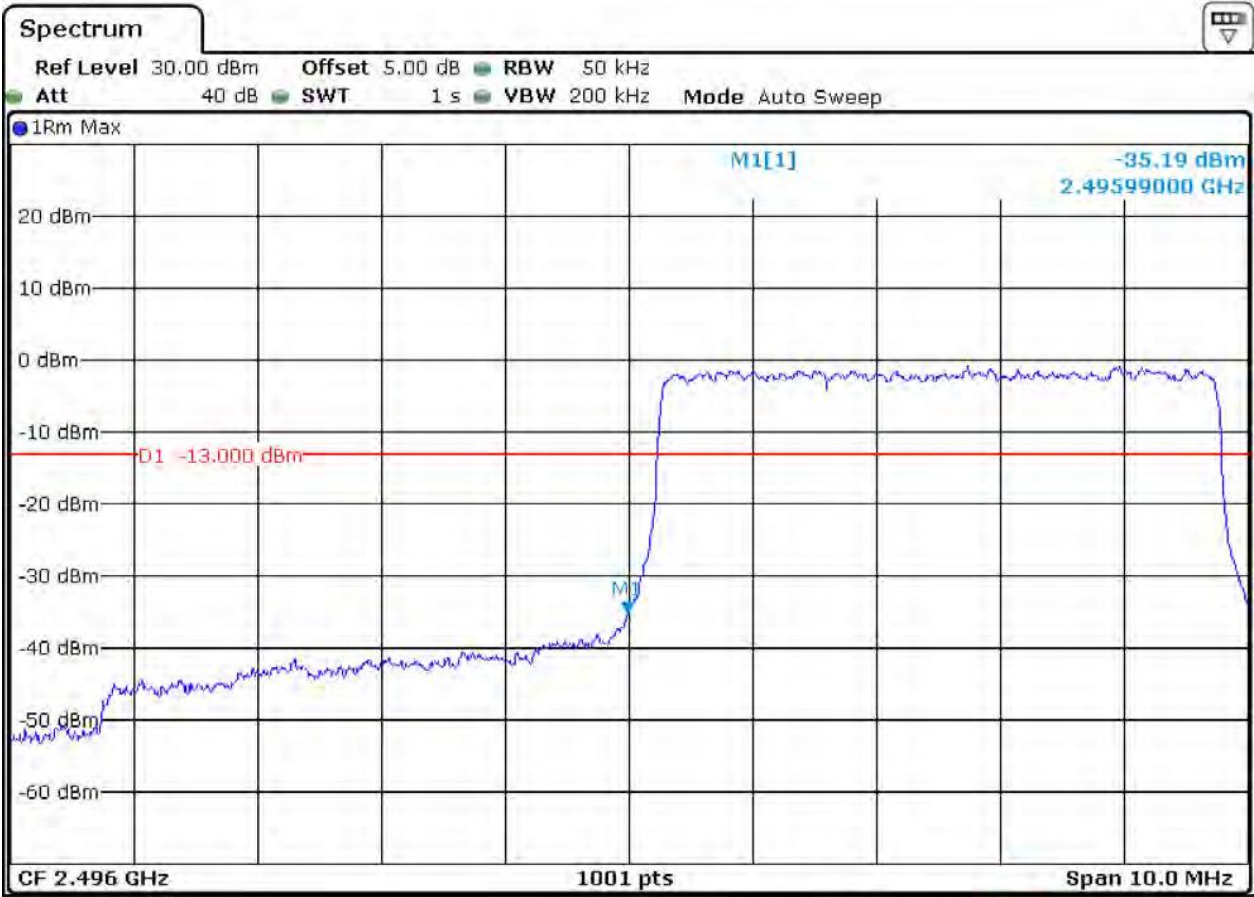
5.1.1.1 Test Mode = LTE/TM1 5MHz

5.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1 Test RB=1RB

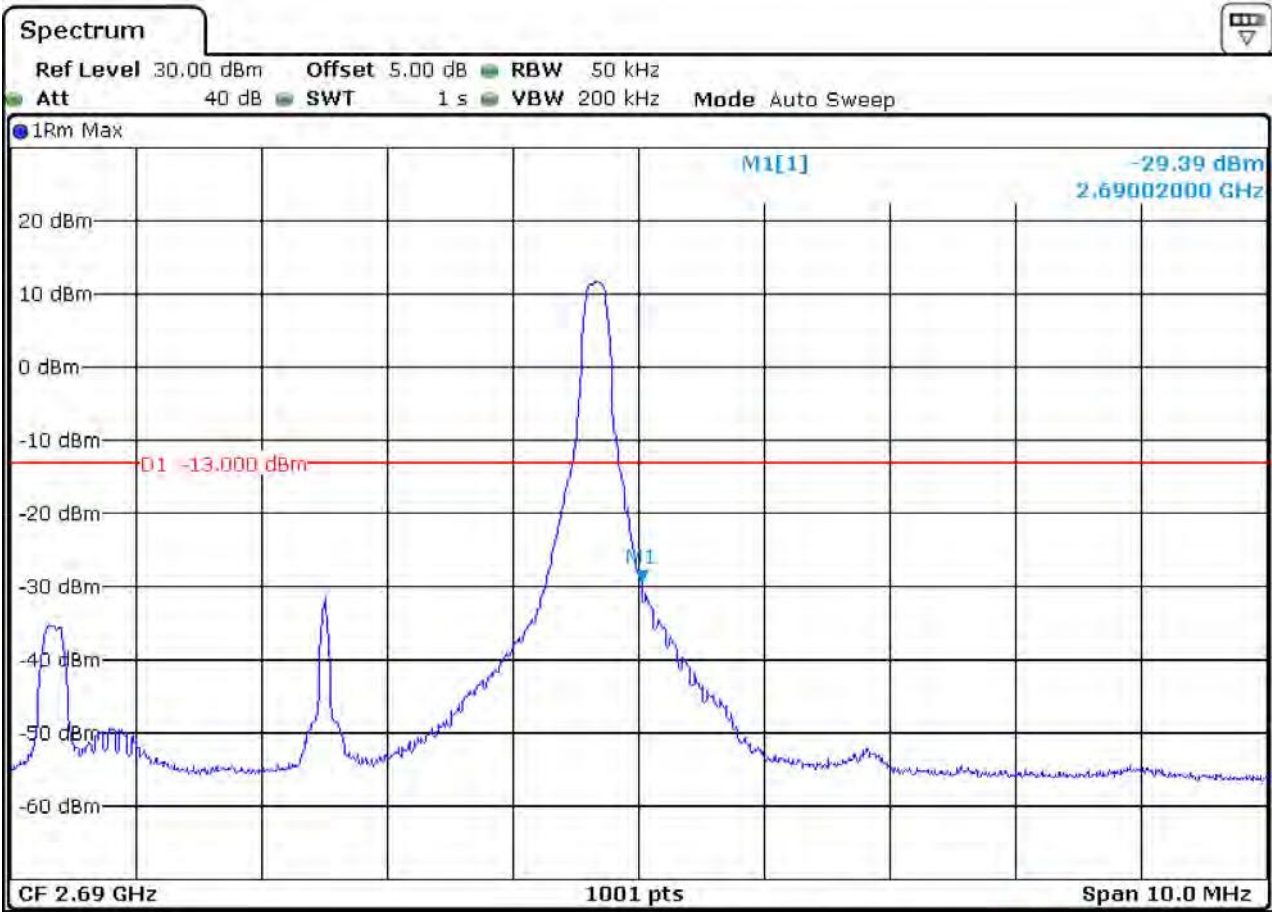


5.1.1.1.2 Test RB=25RB



5.1.1.1.2 Test Channel = HCH

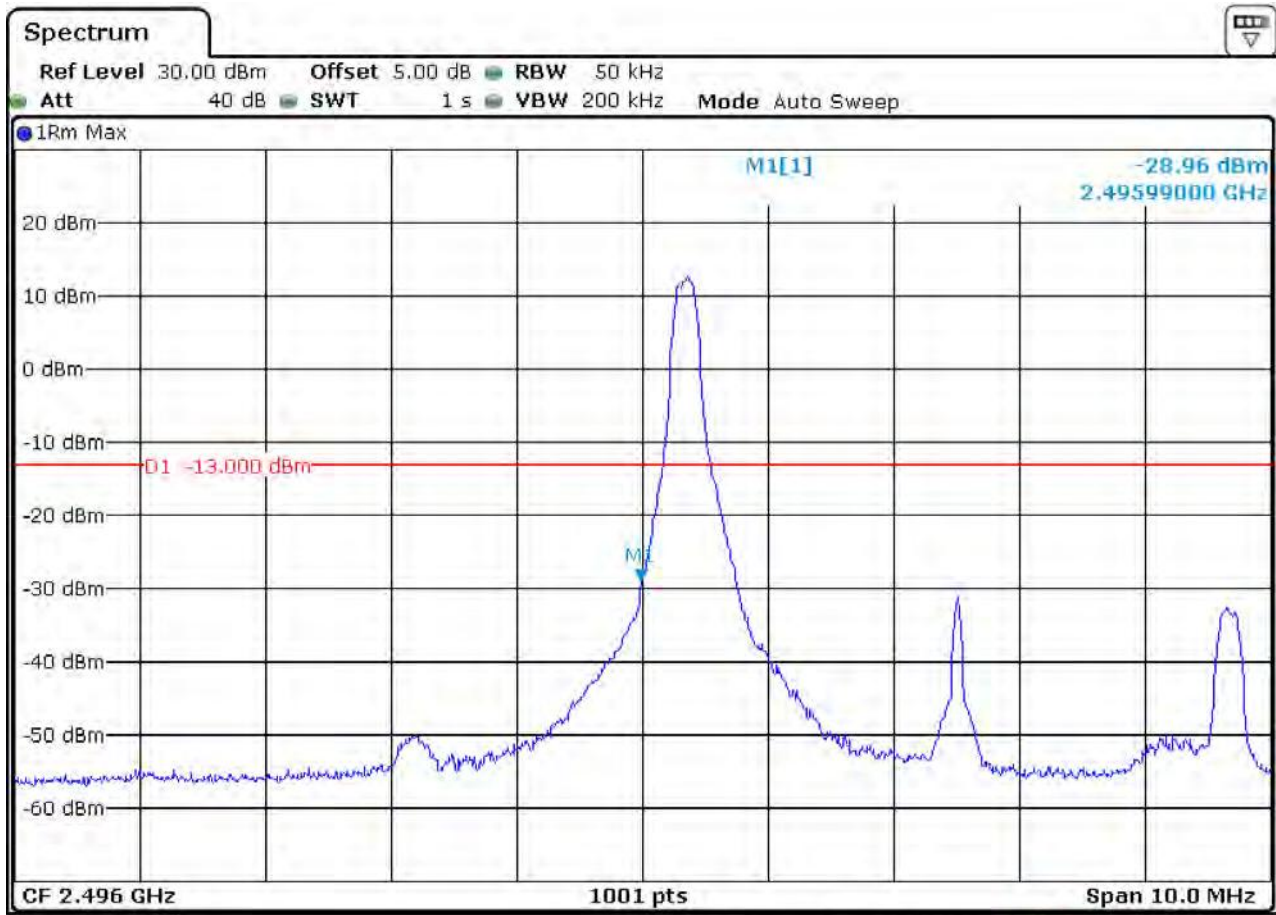
5.1.1.1.2.1 Test RB=1RB



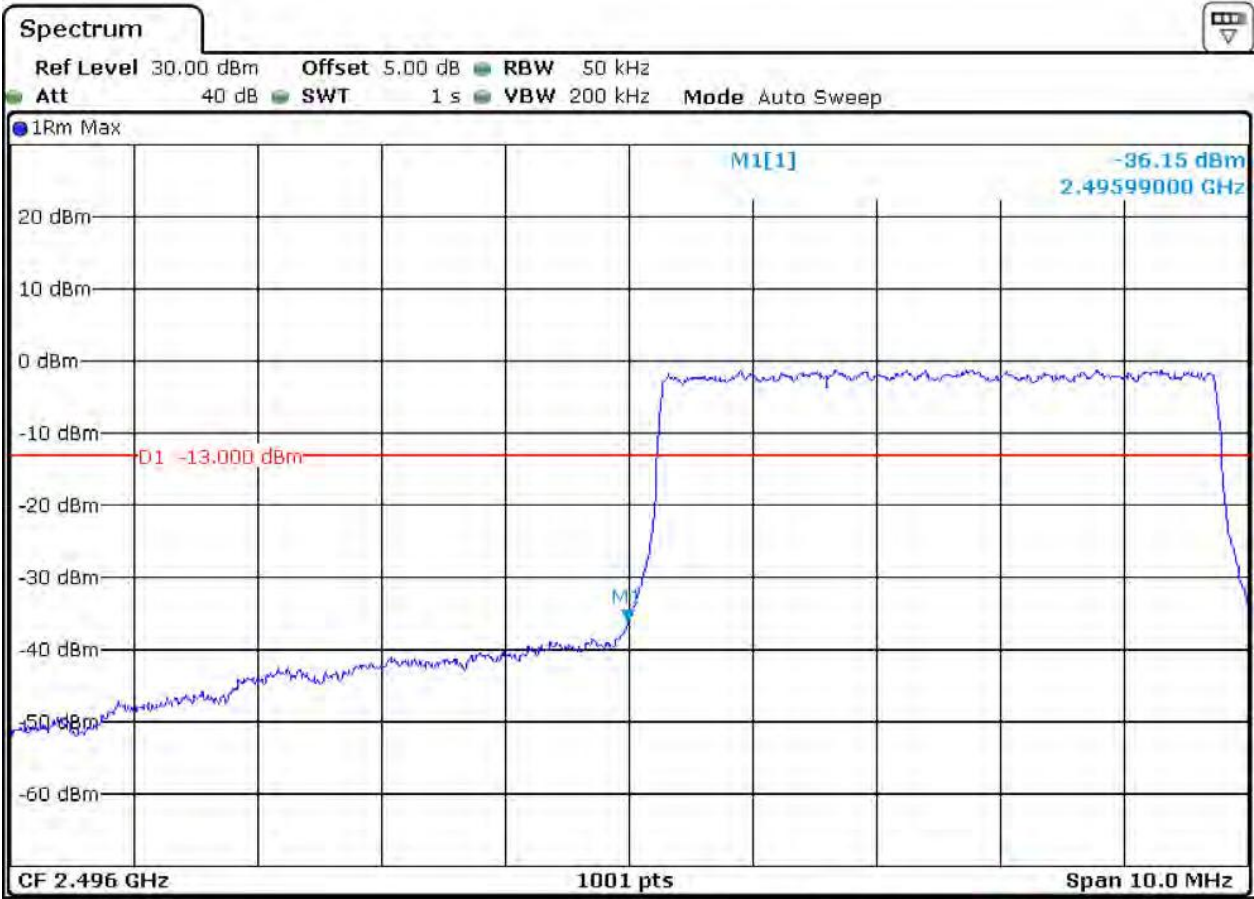
5.1.1.1.2.2 Test RB=25RB



5.1.1.2 Test Mode = LTE/TM2 5MHz
5.1.1.2.1 Test Channel = LCH
5.1.1.2.1.1 Test RB=1RB

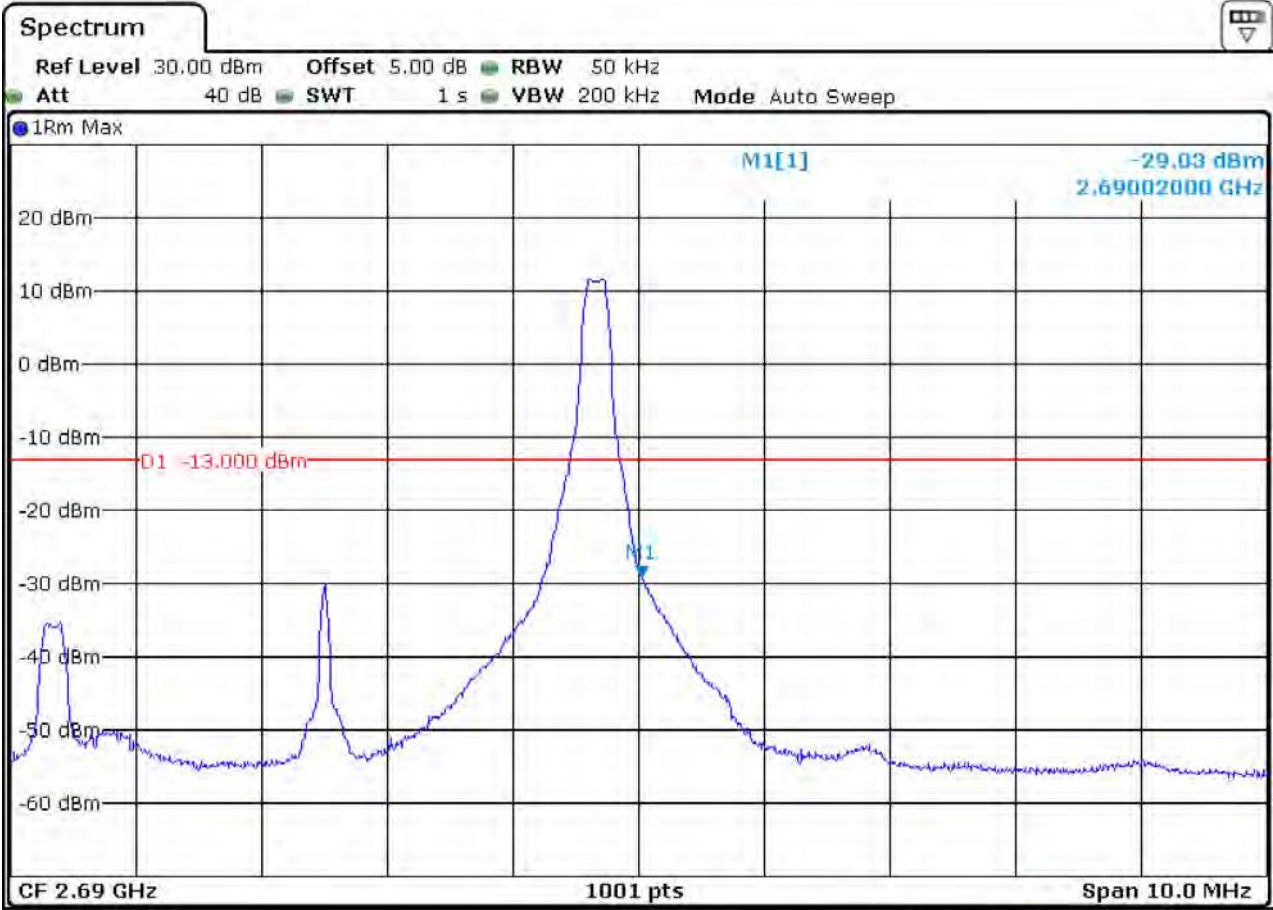


5.1.1.2.1.2 Test RB=25RB



5.1.1.2.2 Test Channel = HCH

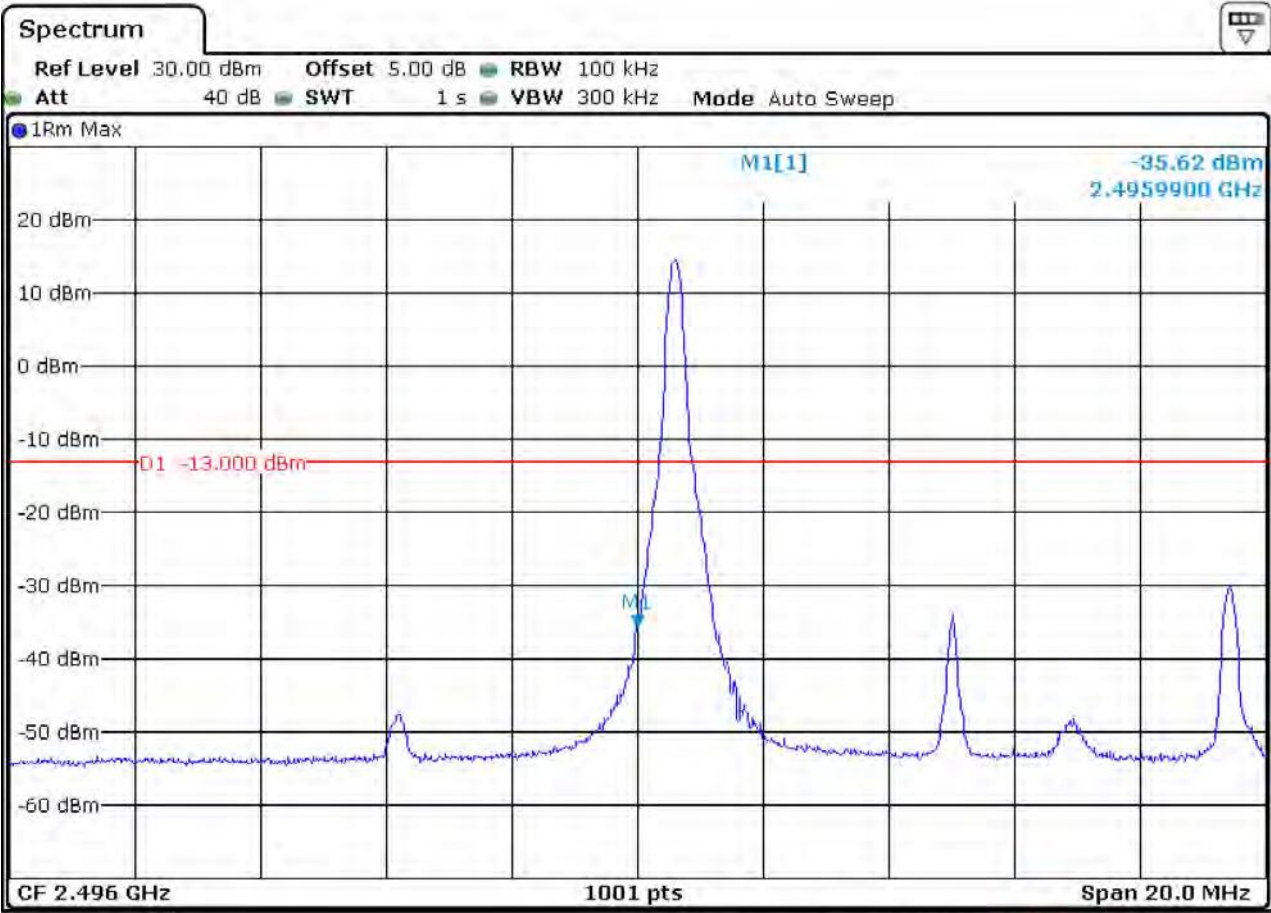
5.1.1.2.2.1 Test RB=1RB



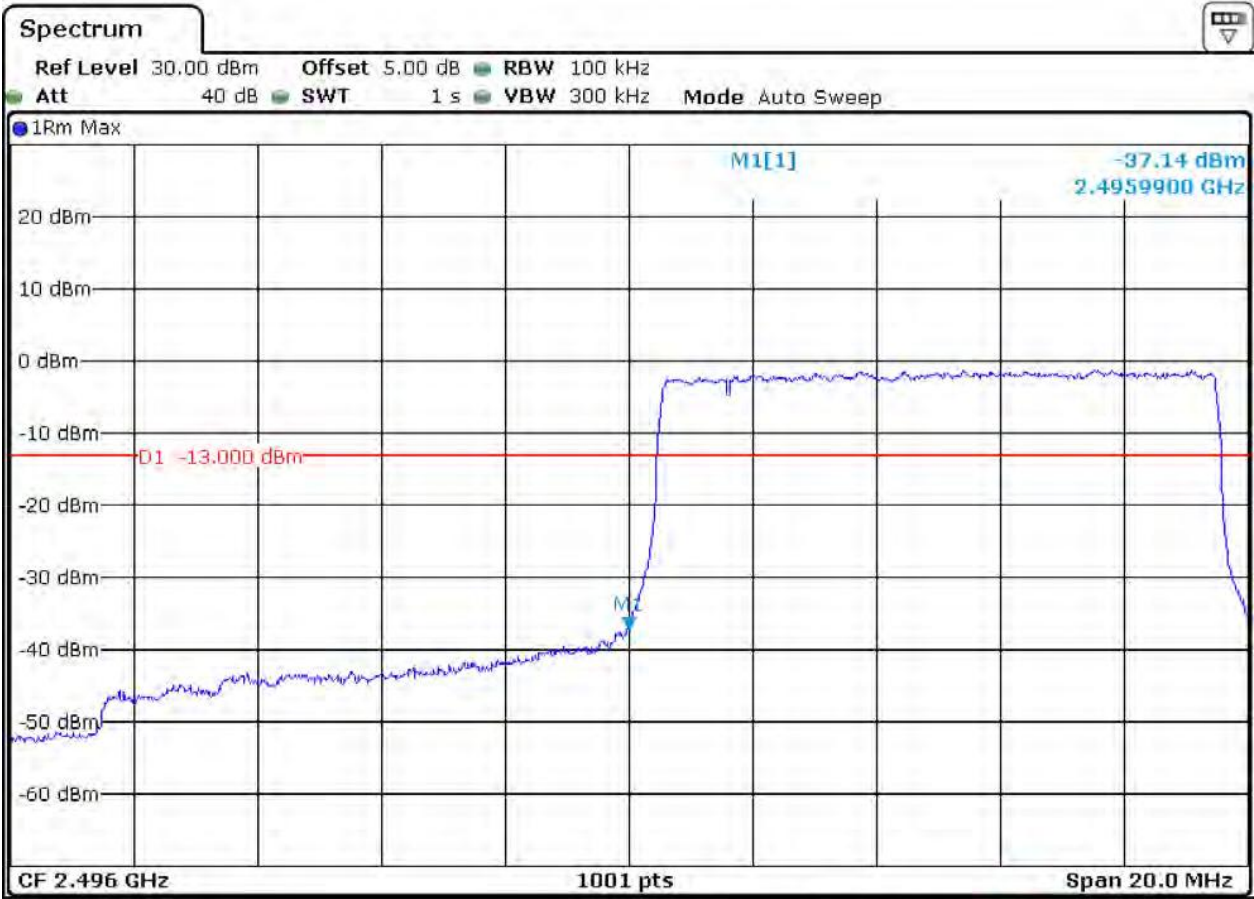
5.1.1.2.2.2 Test RB=25RB



5.1.1.3 Test Mode = LTE/TM1 10MHz
5.1.1.3.1 Test Channel = LCH
5.1.1.3.1.1 Test RB=1RB

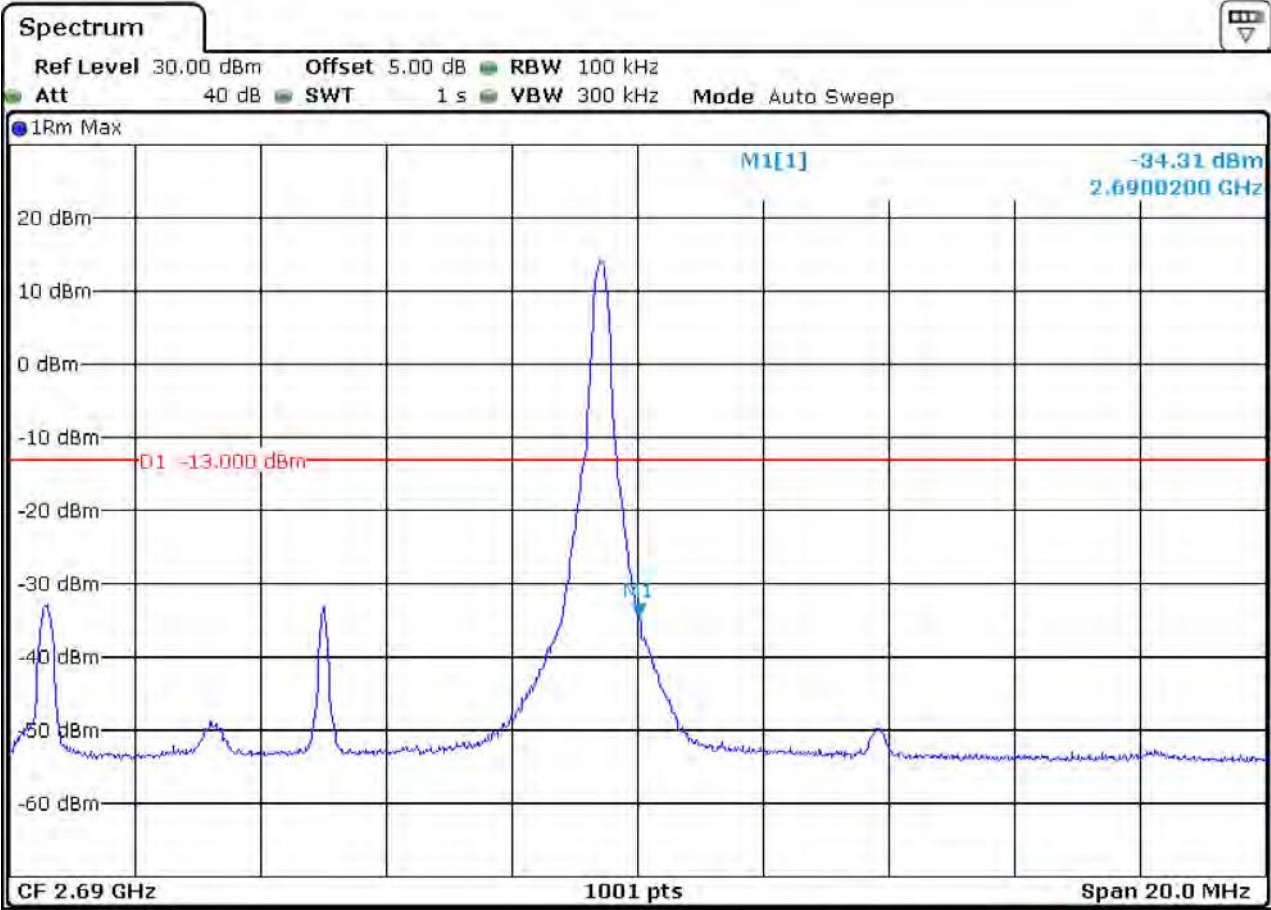


5.1.1.3.1.2 Test RB=50RB

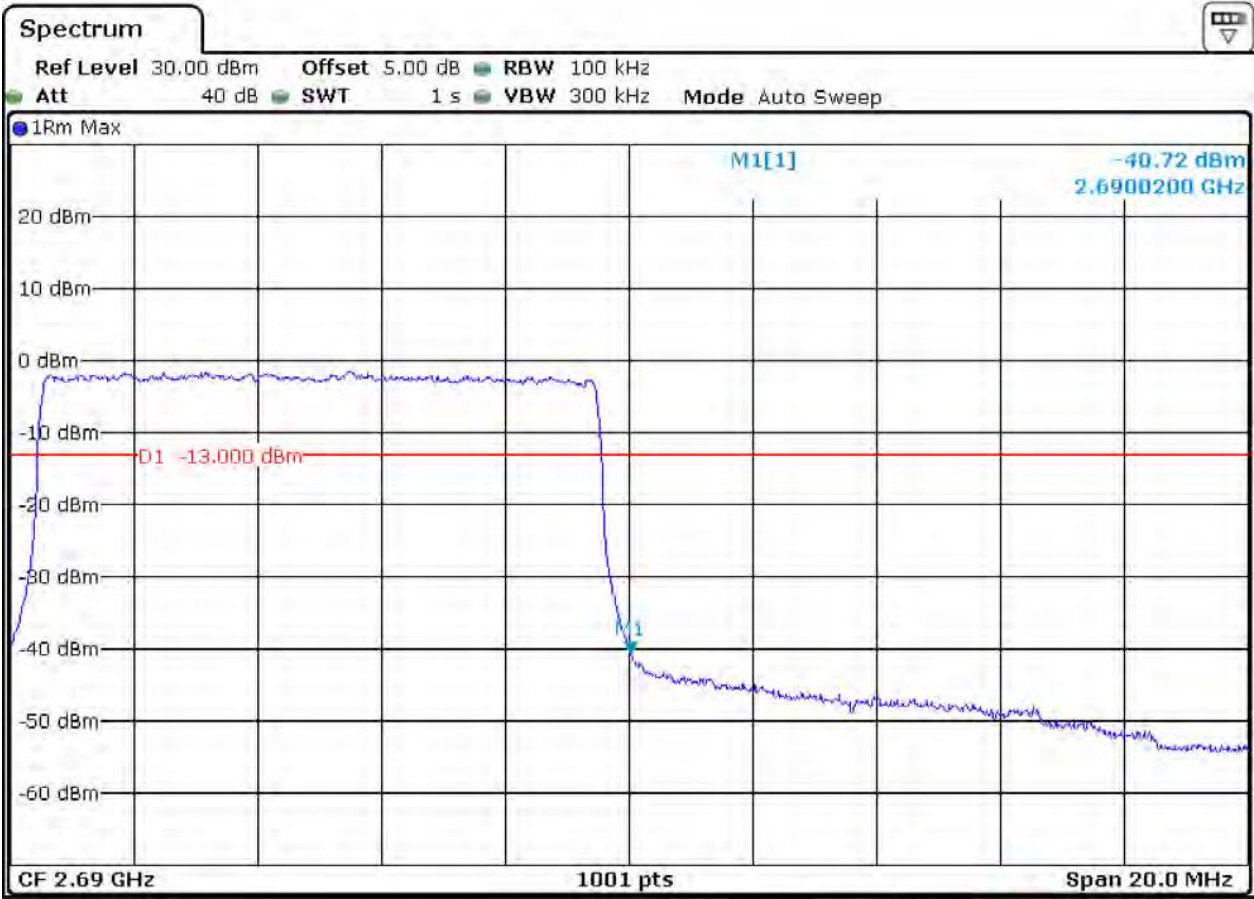


5.1.1.3.2 Test Channel = HCH

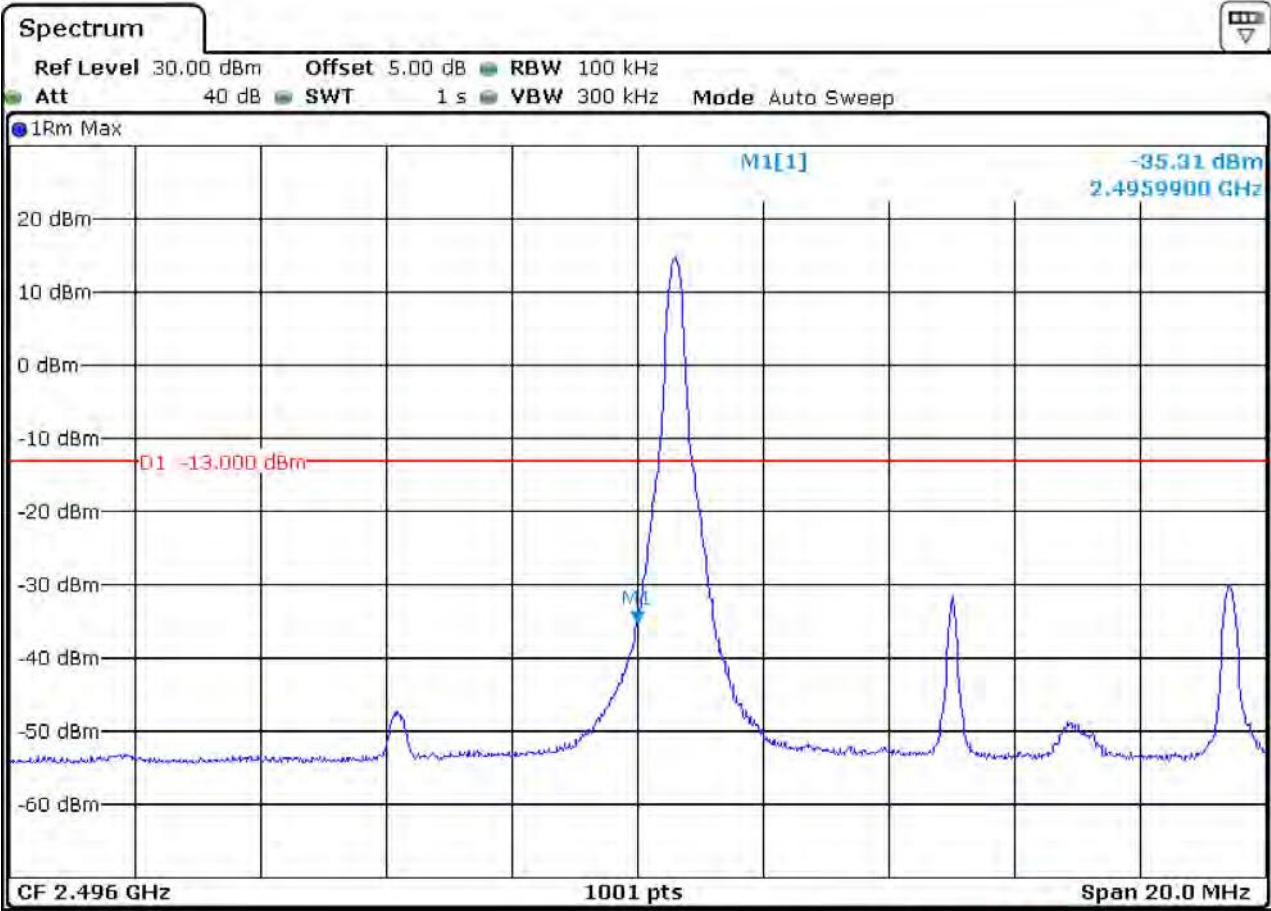
5.1.1.3.2.1 Test RB=1RB



5.1.1.3.2.2 Test RB=50RB



5.1.1.4 Test Mode = LTE/TM2 10MHz
5.1.1.4.1 Test Channel = LCH
5.1.1.4.1.1 Test RB=1RB

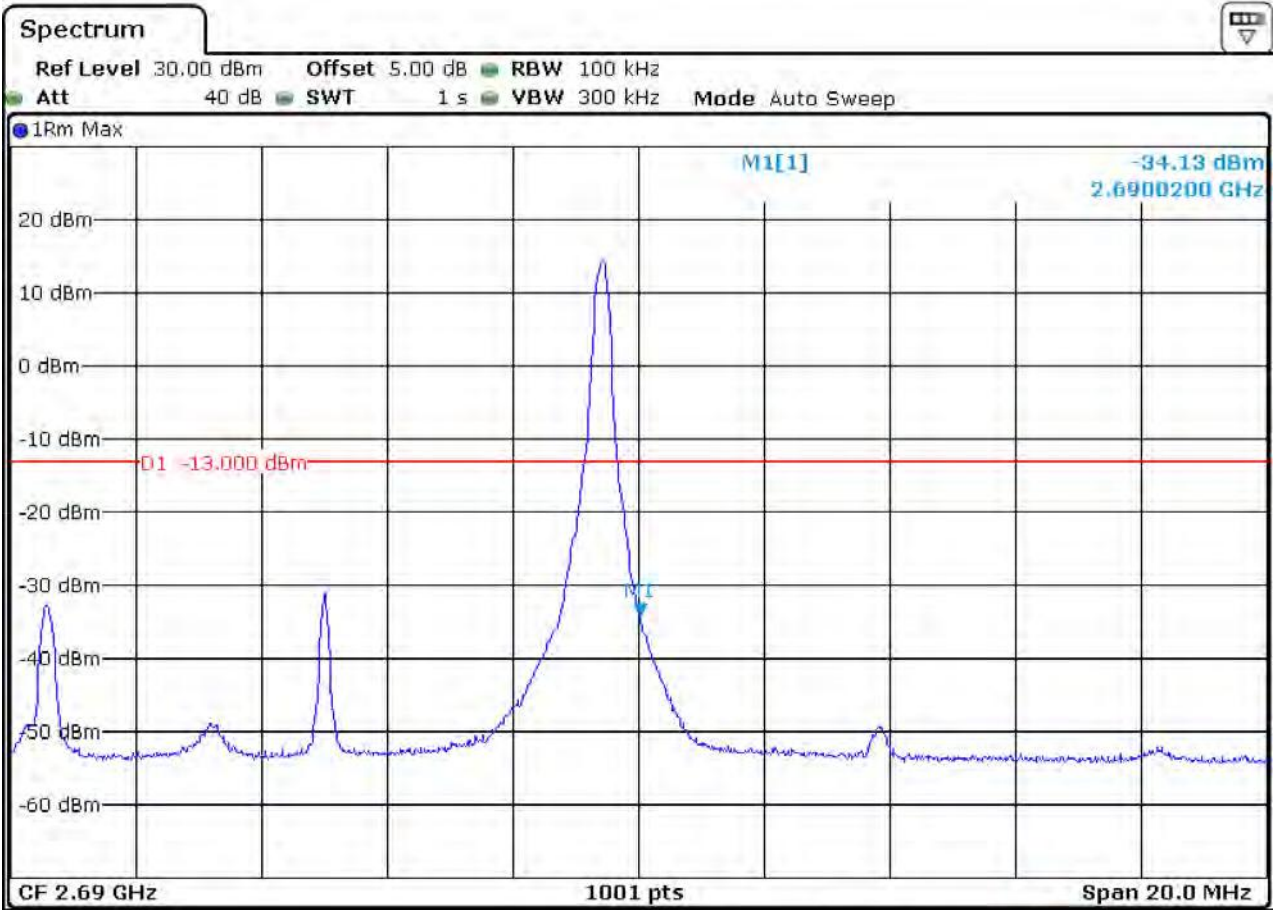


5.1.1.4.1.2 Test RB=50RB

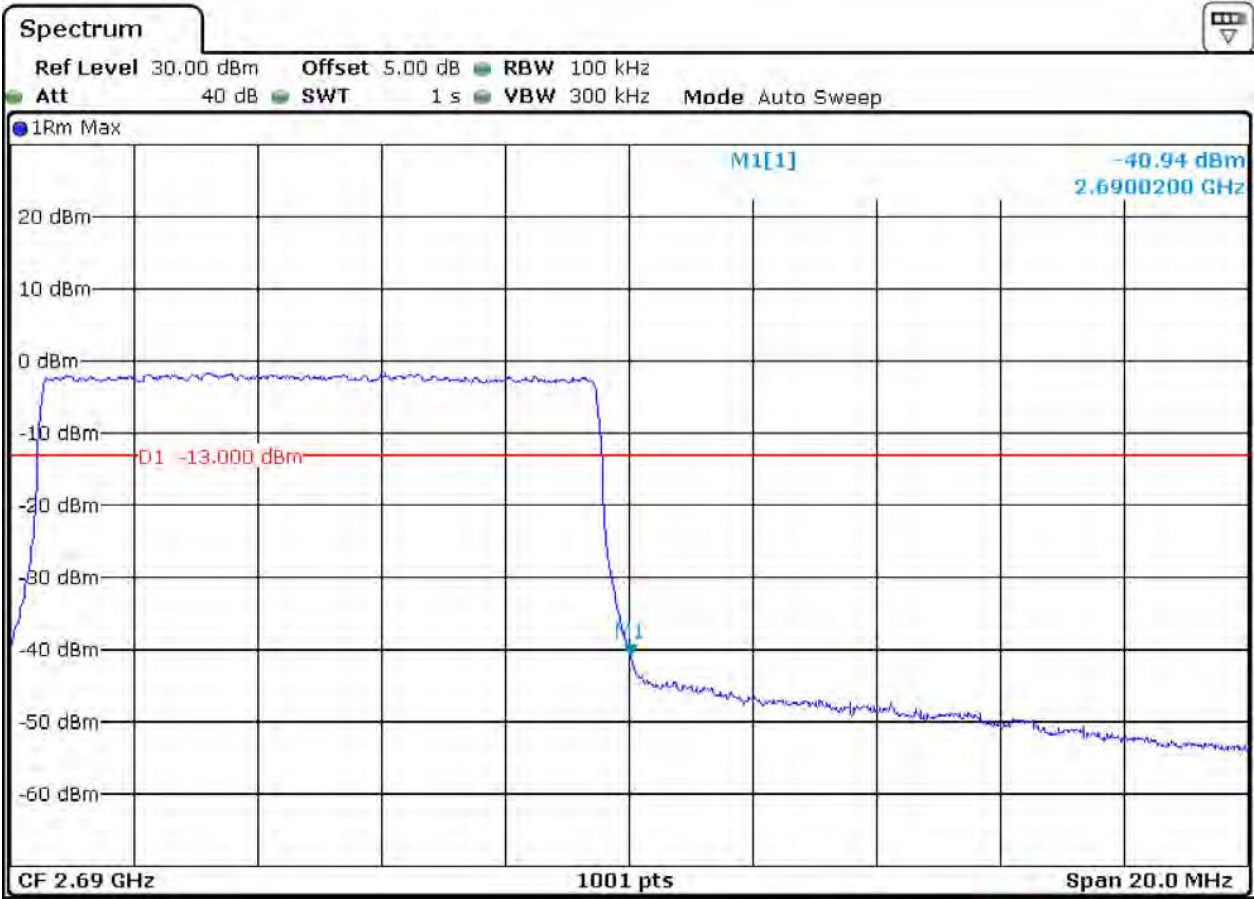


5.1.1.4.2 Test Channel = HCH

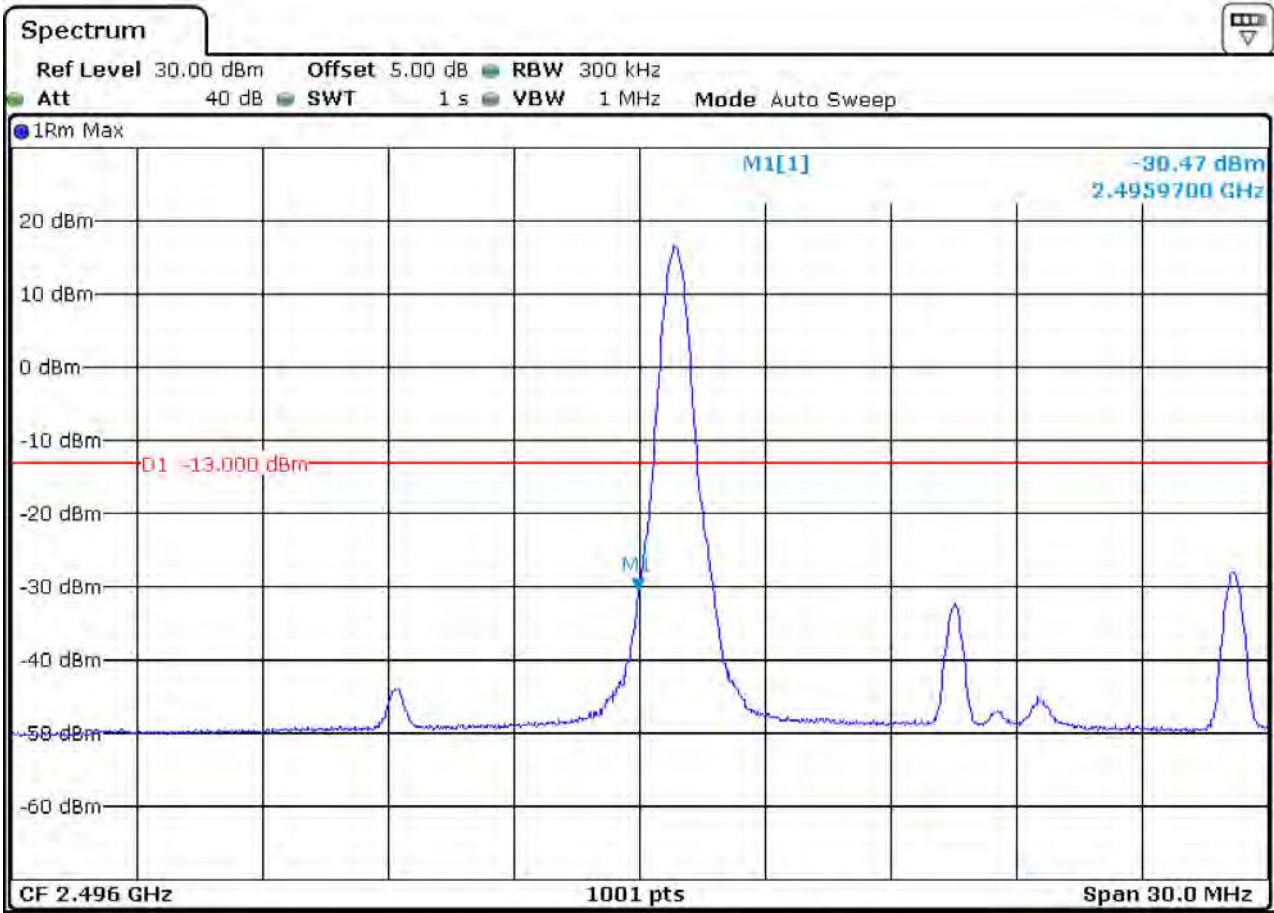
5.1.1.4.2.1 Test RB=1RB



5.1.1.4.2.2 Test RB=50RB



5.1.1.5 Test Mode = LTE/TM1 15MHz
5.1.1.5.1 Test Channel = LCH
5.1.1.5.1.1 Test RB=1RB



5.1.1.5.1.2 Test RB=75RB



5.1.1.5.2 Test Channel = HCH

5.1.1.5.2.1 Test RB=1RB

