



Appendix B

Test Data for SZEM161201074805RG



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1 Effective (Isotropic) Radiated Power Output Data

Effective Radiated Power of Transmitter (ERP) for LTE BAND 5

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM1	1.4M	LCH	RB1#0	23.27	23.38	38.45	PASS
				RB1#2	23.29	23.40	38.45	PASS
				RB1#5	23.30	23.41	38.45	PASS
				RB3#0	22.37	22.48	38.45	PASS
				RB3#2	22.52	22.63	38.45	PASS
				RB3#3	22.59	22.70	38.45	PASS
				RB6#0	22.48	22.59	38.45	PASS
			MCH	RB1#0	23.23	23.34	38.45	PASS
				RB1#2	23.25	23.36	38.45	PASS
				RB1#5	23.40	23.51	38.45	PASS
				RB3#0	22.43	22.54	38.45	PASS
				RB3#2	22.28	22.39	38.45	PASS
				RB3#3	22.45	22.56	38.45	PASS
				RB6#0	22.49	22.60	38.45	PASS
			HCH	RB1#0	23.51	23.62	38.45	PASS
				RB1#2	23.22	23.33	38.45	PASS
				RB1#5	23.32	23.43	38.45	PASS
				RB3#0	22.63	22.74	38.45	PASS
				RB3#2	22.36	22.47	38.45	PASS
				RB3#3	22.51	22.62	38.45	PASS
				RB6#0	22.50	22.61	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM2	1.4M	LCH	RB1#0	22.45	22.56	38.45	PASS
				RB1#2	22.75	22.86	38.45	PASS
				RB1#5	22.73	22.84	38.45	PASS
				RB3#0	21.48	21.59	38.45	PASS
				RB3#2	21.87	21.98	38.45	PASS
				RB3#3	21.71	21.82	38.45	PASS
				RB6#0	21.65	21.76	38.45	PASS
			MCH	RB1#0	22.78	22.89	38.45	PASS
				RB1#2	22.22	22.33	38.45	PASS
				RB1#5	22.79	22.90	38.45	PASS
				RB3#0	21.50	21.61	38.45	PASS
				RB3#2	21.34	21.45	38.45	PASS
				RB3#3	21.58	21.69	38.45	PASS
				RB6#0	21.60	21.71	38.45	PASS
			HCH	RB1#0	22.78	22.89	38.45	PASS
				RB1#2	22.25	22.36	38.45	PASS
				RB1#5	22.83	22.94	38.45	PASS
				RB3#0	21.44	21.55	38.45	PASS
				RB3#2	21.23	21.34	38.45	PASS
				RB3#3	21.57	21.68	38.45	PASS
				RB6#0	21.55	21.66	38.45	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM1	3M	LCH	RB1#0	23.27	23.38	38.45	PASS
				RB1#7	23.30	23.41	38.45	PASS
				RB1#14	23.31	23.42	38.45	PASS
				RB8#0	22.38	22.49	38.45	PASS
				RB8#4	22.55	22.66	38.45	PASS
				RB8#7	22.62	22.73	38.45	PASS
				RB15#0	22.49	22.60	38.45	PASS
			MCH	RB1#0	23.31	23.42	38.45	PASS
				RB1#7	23.26	23.37	38.45	PASS
				RB1#14	23.43	23.54	38.45	PASS
				RB8#0	22.44	22.55	38.45	PASS
				RB8#4	22.31	22.42	38.45	PASS
				RB8#7	22.46	22.57	38.45	PASS
				RB15#0	22.50	22.61	38.45	PASS
			HCH	RB1#0	23.27	23.38	38.45	PASS
				RB1#7	23.22	23.33	38.45	PASS
				RB1#14	23.35	23.46	38.45	PASS
				RB8#0	22.65	22.76	38.45	PASS
				RB8#4	22.37	22.48	38.45	PASS
				RB8#7	22.52	22.63	38.45	PASS
				RB15#0	22.51	22.62	38.45	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM2	3M	LCH	RB1#0	22.48	22.59	38.45	PASS
				RB1#7	22.76	22.87	38.45	PASS
				RB1#14	22.74	22.85	38.45	PASS
				RB8#0	21.49	21.60	38.45	PASS
				RB8#4	21.88	21.99	38.45	PASS
				RB8#7	21.74	21.85	38.45	PASS
				RB15#0	21.70	21.81	38.45	PASS
			MCH	RB1#0	22.79	22.90	38.45	PASS
				RB1#7	22.22	22.33	38.45	PASS
				RB1#14	22.80	22.91	38.45	PASS
				RB8#0	21.53	21.64	38.45	PASS
				RB8#4	21.35	21.46	38.45	PASS
				RB8#7	21.59	21.70	38.45	PASS
				RB15#0	21.62	21.73	38.45	PASS
			HCH	RB1#0	22.80	22.91	38.45	PASS
				RB1#7	22.23	22.34	38.45	PASS
				RB1#14	22.82	22.93	38.45	PASS
				RB8#0	21.45	21.56	38.45	PASS
				RB8#4	21.24	21.35	38.45	PASS
				RB8#7	21.58	21.69	38.45	PASS
				RB15#0	21.59	21.70	38.45	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM1	5M	LCH	RB1#0	23.26	23.37	38.45	PASS
				RB1#13	23.33	23.44	38.45	PASS
				RB1#24	23.51	23.62	38.45	PASS
				RB12#0	22.41	22.52	38.45	PASS
				RB12#6	22.58	22.69	38.45	PASS
				RB12#13	22.65	22.76	38.45	PASS
				RB25#0	22.52	22.63	38.45	PASS
			MCH	RB1#0	23.57	23.68	38.45	PASS
				RB1#13	23.29	23.40	38.45	PASS
				RB1#24	23.66	23.77	38.45	PASS
				RB12#0	22.47	22.58	38.45	PASS
				RB12#6	22.26	22.37	38.45	PASS
				RB12#13	22.49	22.60	38.45	PASS
				RB25#0	22.53	22.64	38.45	PASS
			HCH	RB1#0	23.27	23.38	38.45	PASS
				RB1#13	23.25	23.36	38.45	PASS
				RB1#24	23.54	23.65	38.45	PASS
				RB12#0	22.68	22.79	38.45	PASS
				RB12#6	22.35	22.46	38.45	PASS
				RB12#13	22.55	22.66	38.45	PASS
				RB25#0	22.54	22.65	38.45	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM2	5M	LCH	RB1#0	22.51	22.62	38.45	PASS
				RB1#13	22.79	22.90	38.45	PASS
				RB1#24	22.77	22.88	38.45	PASS
				RB12#0	21.52	21.63	38.45	PASS
				RB12#6	21.90	22.01	38.45	PASS
				RB12#13	21.76	21.87	38.45	PASS
				RB25#0	21.73	21.84	38.45	PASS
			MCH	RB1#0	22.82	22.93	38.45	PASS
				RB1#13	22.25	22.36	38.45	PASS
				RB1#24	22.83	22.94	38.45	PASS
				RB12#0	21.54	21.65	38.45	PASS
				RB12#6	21.35	21.46	38.45	PASS
				RB12#13	21.60	21.71	38.45	PASS
				RB25#0	21.65	21.76	38.45	PASS
			HCH	RB1#0	22.83	22.94	38.45	PASS
				RB1#13	22.23	22.34	38.45	PASS
				RB1#24	22.85	22.96	38.45	PASS
				RB12#0	21.49	21.60	38.45	PASS
				RB12#6	21.28	21.39	38.45	PASS
				RB12#13	21.62	21.73	38.45	PASS
				RB25#0	21.63	21.74	38.45	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM1	10M	LCH	RB1#0	23.78	23.89	38.45	PASS
				RB1#25	23.69	23.80	38.45	PASS
				RB1#49	23.72	23.83	38.45	PASS
				RB25#0	22.51	22.62	38.45	PASS
				RB25#13	22.68	22.79	38.45	PASS
				RB25#25	22.75	22.86	38.45	PASS
				RB50#0	22.62	22.73	38.45	PASS
			MCH	RB1#0	23.86	23.97	38.45	PASS
				RB1#25	23.47	23.58	38.45	PASS
				RB1#49	23.81	23.92	38.45	PASS
				RB25#0	22.57	22.68	38.45	PASS
				RB25#13	22.36	22.47	38.45	PASS
				RB25#25	22.59	22.70	38.45	PASS
				RB50#0	22.63	22.74	38.45	PASS
			HCH	RB1#0	23.90	24.01	38.45	PASS
				RB1#25	23.52	23.63	38.45	PASS
				RB1#49	23.84	23.95	38.45	PASS
				RB25#0	22.78	22.89	38.45	PASS
				RB25#13	22.46	22.57	38.45	PASS
				RB25#25	22.65	22.76	38.45	PASS
				RB50#0	22.64	22.75	38.45	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	LTE/TM2	10M	LCH	RB1#0	22.61	22.72	38.45	PASS
				RB1#25	22.89	23.00	38.45	PASS
				RB1#49	22.87	22.98	38.45	PASS
				RB25#0	21.62	21.73	38.45	PASS
				RB25#13	22.01	22.12	38.45	PASS
				RB25#25	21.87	21.98	38.45	PASS
				RB50#0	21.84	21.95	38.45	PASS
			MCH	RB1#0	22.92	23.03	38.45	PASS
				RB1#25	22.27	22.38	38.45	PASS
				RB1#49	22.93	23.04	38.45	PASS
				RB25#0	21.64	21.75	38.45	PASS
				RB25#13	21.48	21.59	38.45	PASS
				RB25#25	21.72	21.83	38.45	PASS
				RB50#0	21.74	21.85	38.45	PASS
			HCH	RB1#0	22.93	23.04	38.45	PASS
				RB1#25	22.29	22.40	38.45	PASS
				RB1#49	22.95	23.06	38.45	PASS
				RB25#0	21.58	21.69	38.45	PASS
				RB25#13	21.37	21.48	38.45	PASS
				RB25#25	21.71	21.82	38.45	PASS
				RB50#0	21.72	21.83	38.45	PASS

Note:

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

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

b: SGP=Signal Generator Level

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

Detector: RMS

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2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 5	TM1/10M	LCH	5.71	13	PASS
		MCH	6.17	13	PASS
		HCH	5.48	13	PASS
	TM2/10M	LCH	6.55	13	PASS
		MCH	6.84	13	PASS
		HCH	6.17	13	PASS



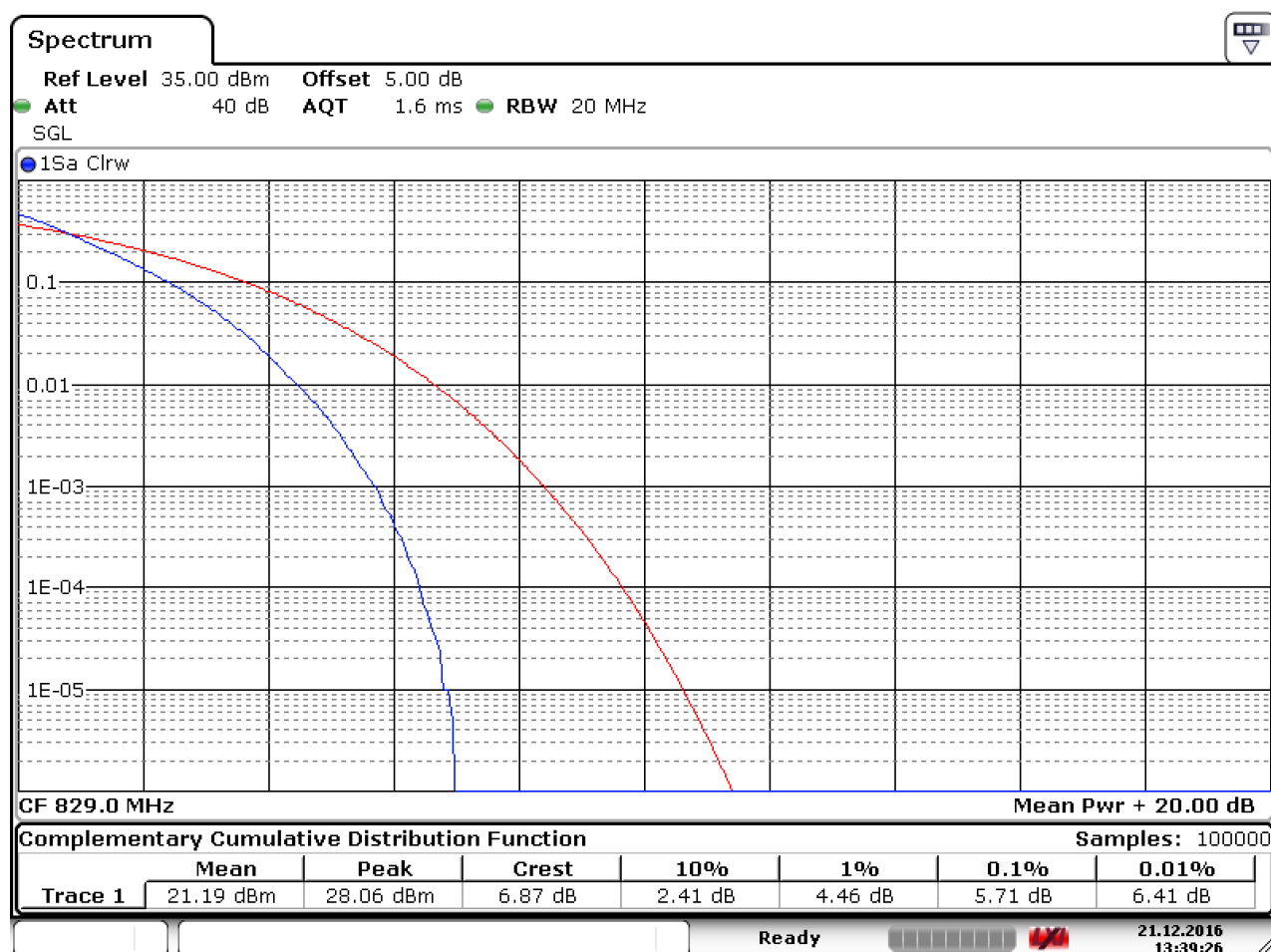
Part II - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE band5

2.1.1.1 Test Mode = LTE/TM1.Bandwidth=10MHz

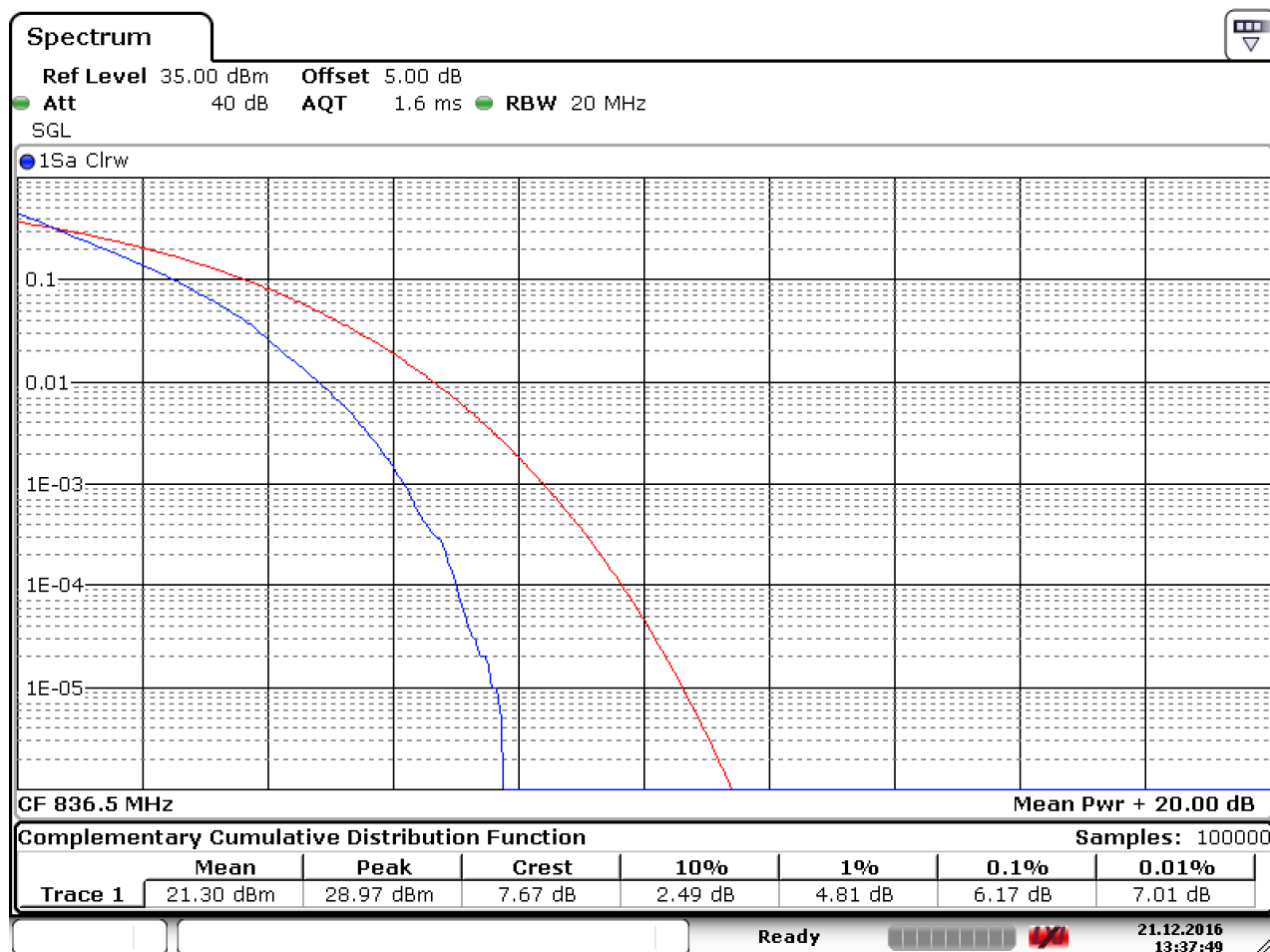
2.1.1.1.1 Test Channel = LCH



Date: 21.DEC.2016 13:39:27



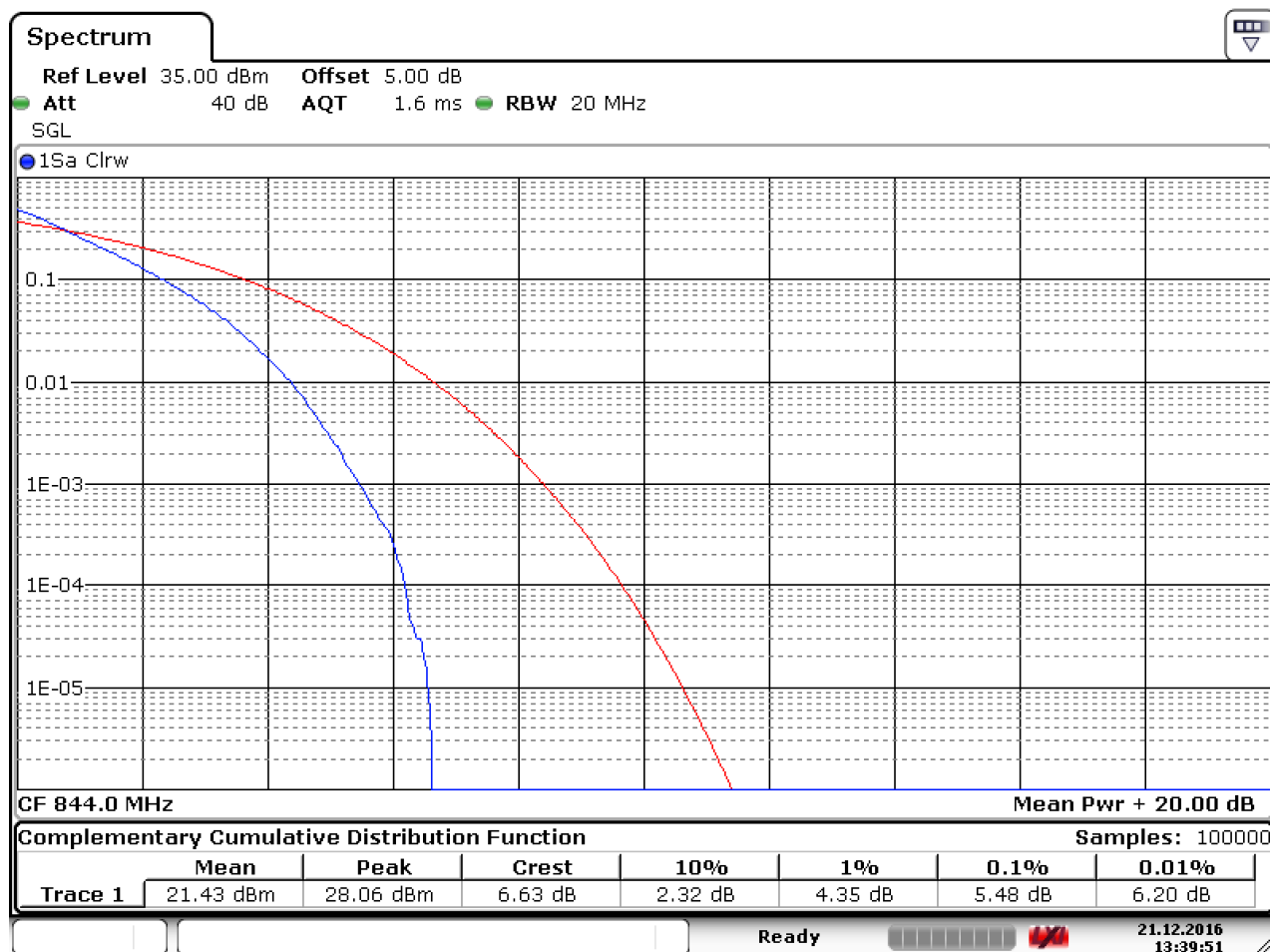
2.1.1.1.2 Test Channel = MCH



Date: 21.DEC.2016 13:37:50



2.1.1.1.3 Test Channel = HCH

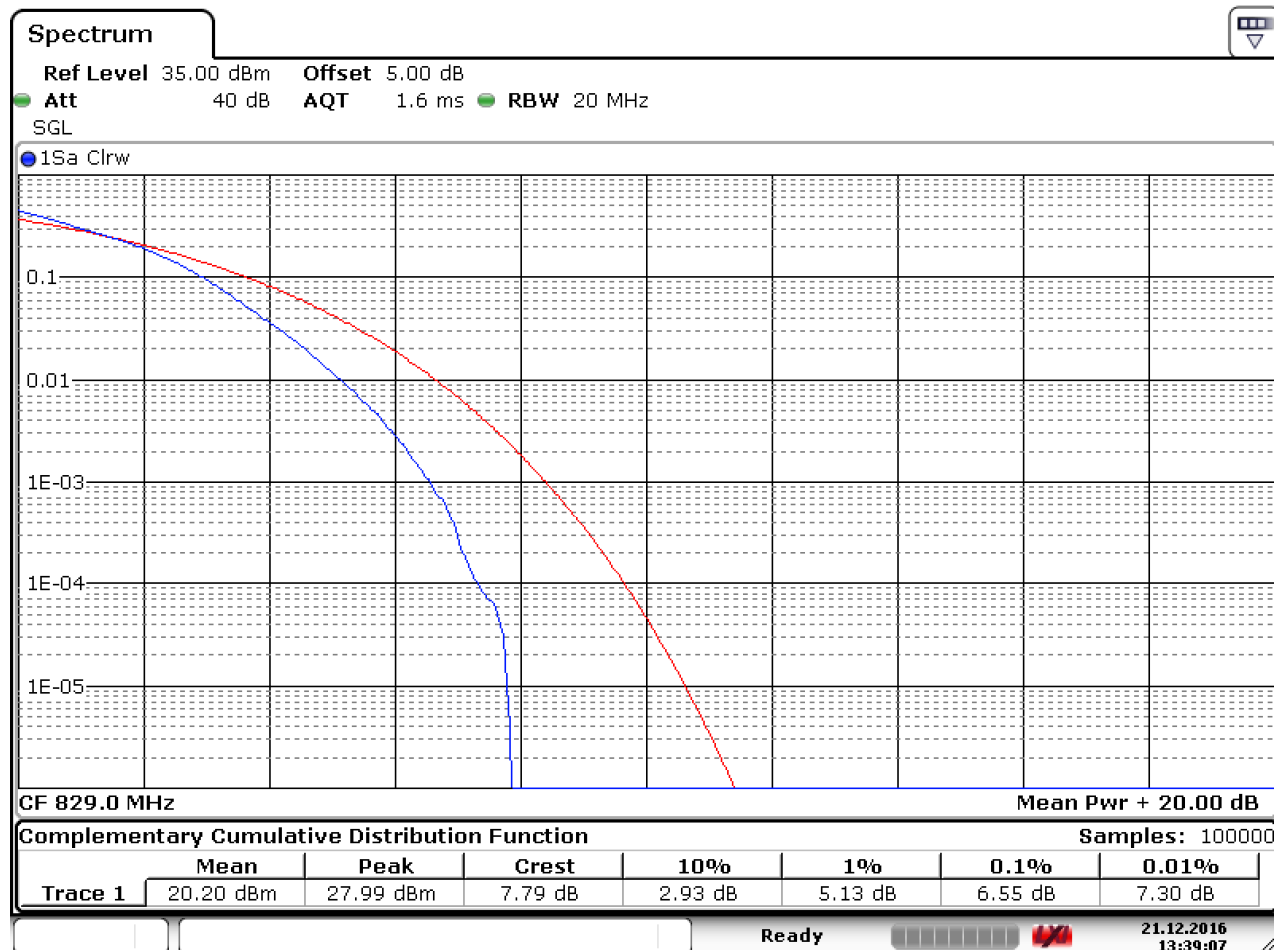


Date: 21.DEC.2016 13:39:52



2.1.1.2 Test Mode = LTE/TM2.Bandwidth=10MHz

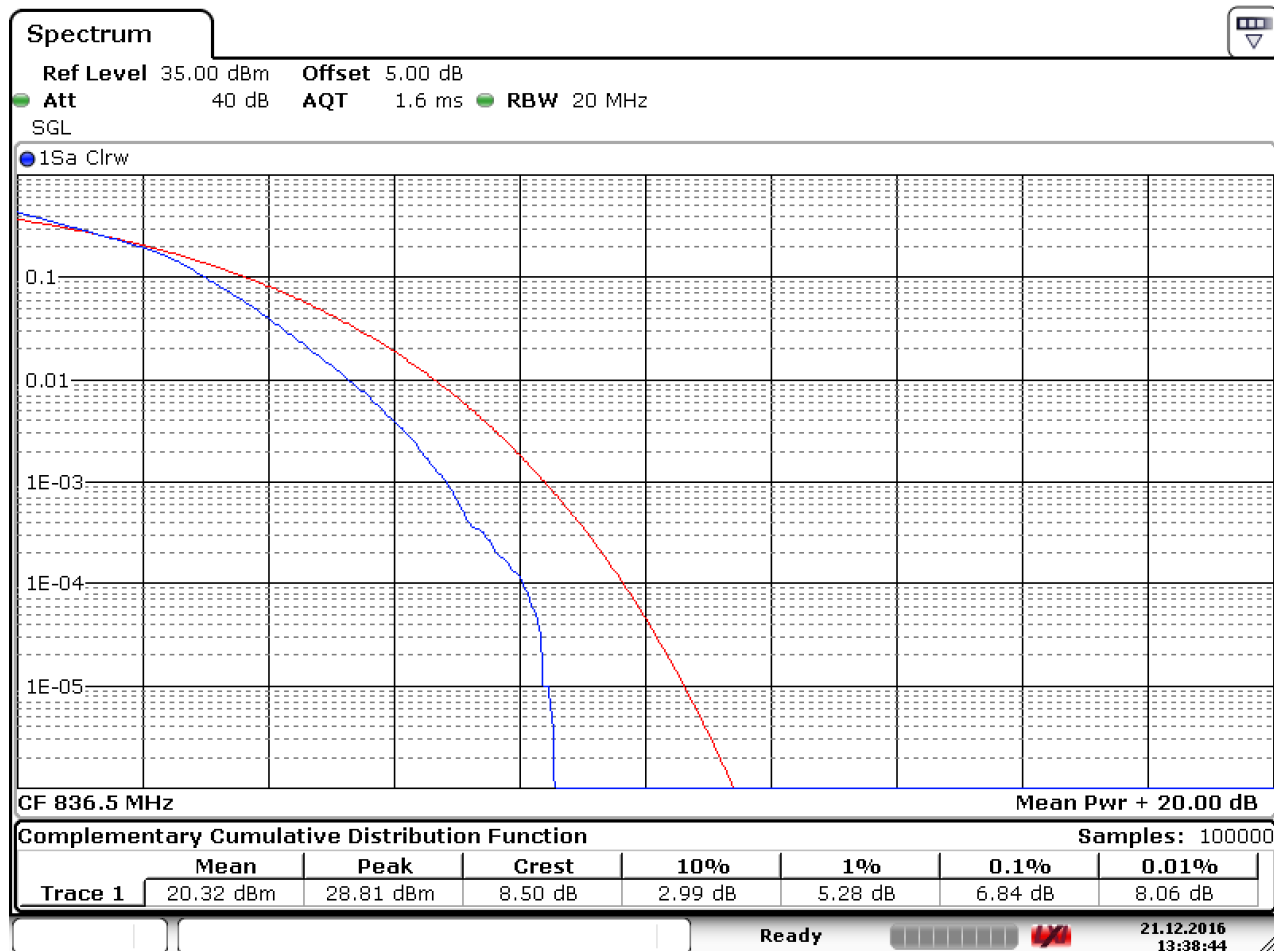
2.1.1.2.1 Test Channel = LCH



Date: 21.DEC.2016 13:39:07



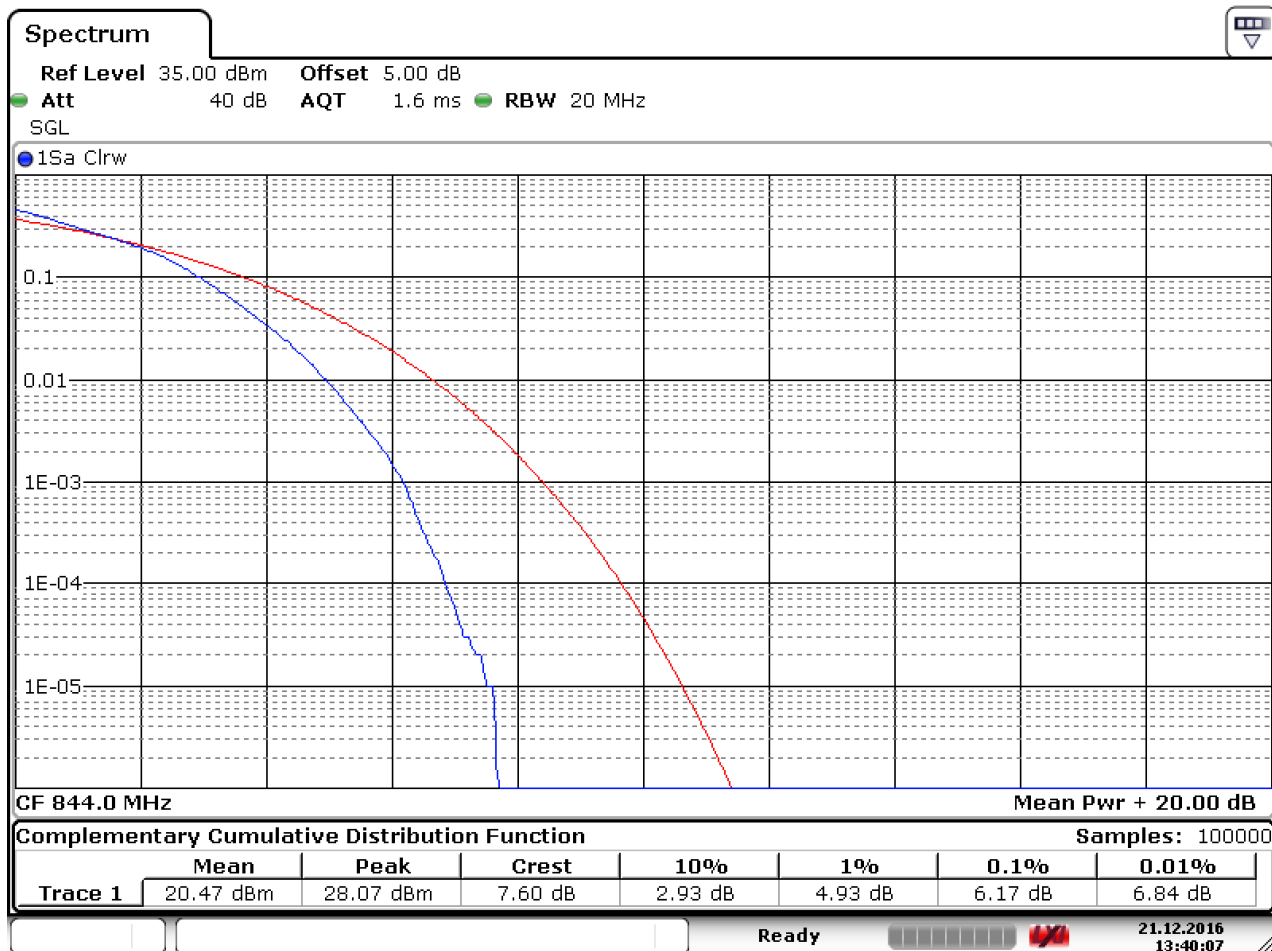
2.1.1.2.2 Test Channel = MCH



Date: 21.DEC.2016 13:38:44



2.1.1.2.3 Test Channel = HCH



Date: 21.DEC.2016 13:40:08

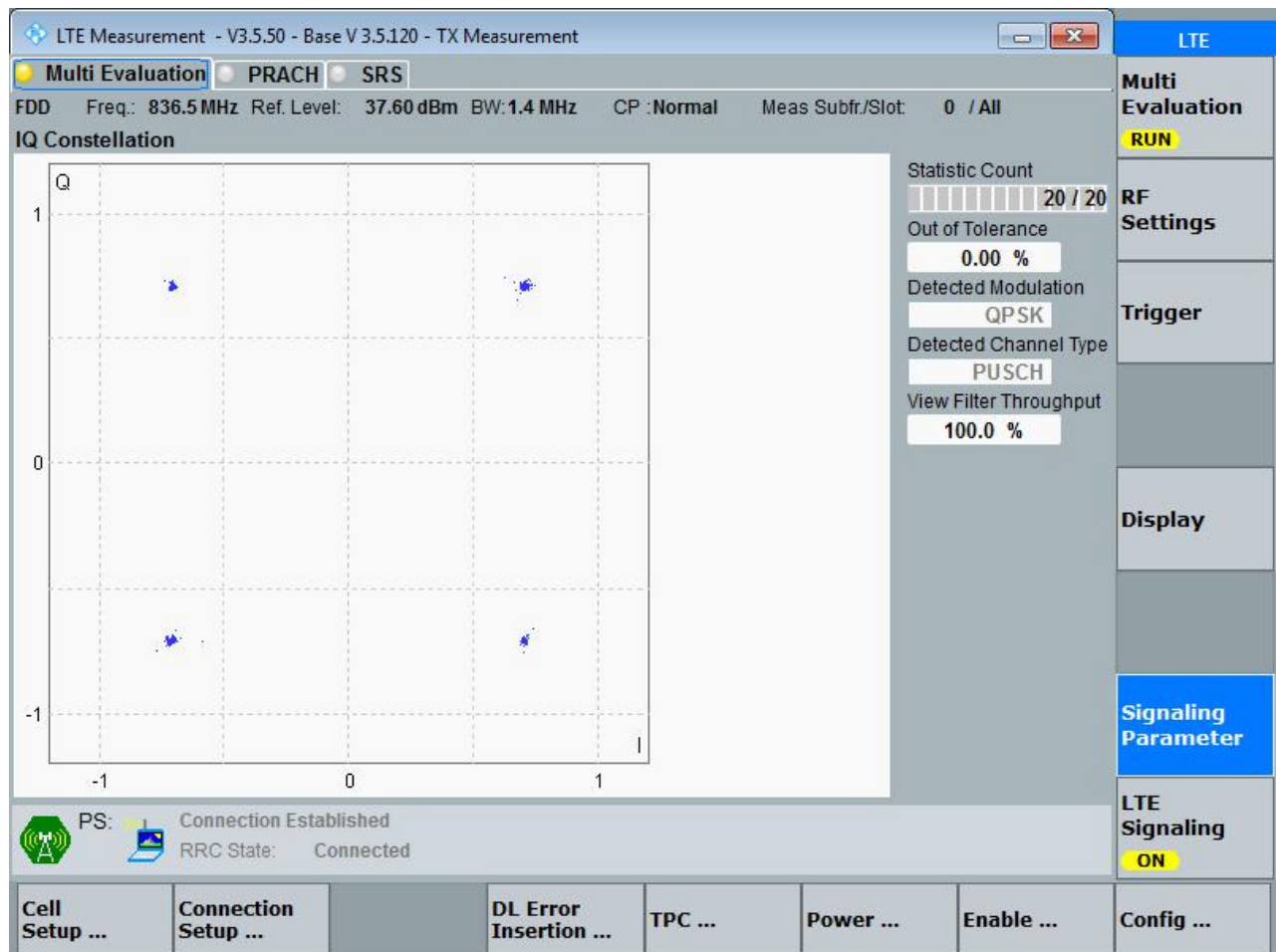
3 Modulation Characteristics

3.1 For LTE

3.1.1 Test Band = LTE band5

3.1.1.1 Test Mode = LTE /TM1 1.4MHz

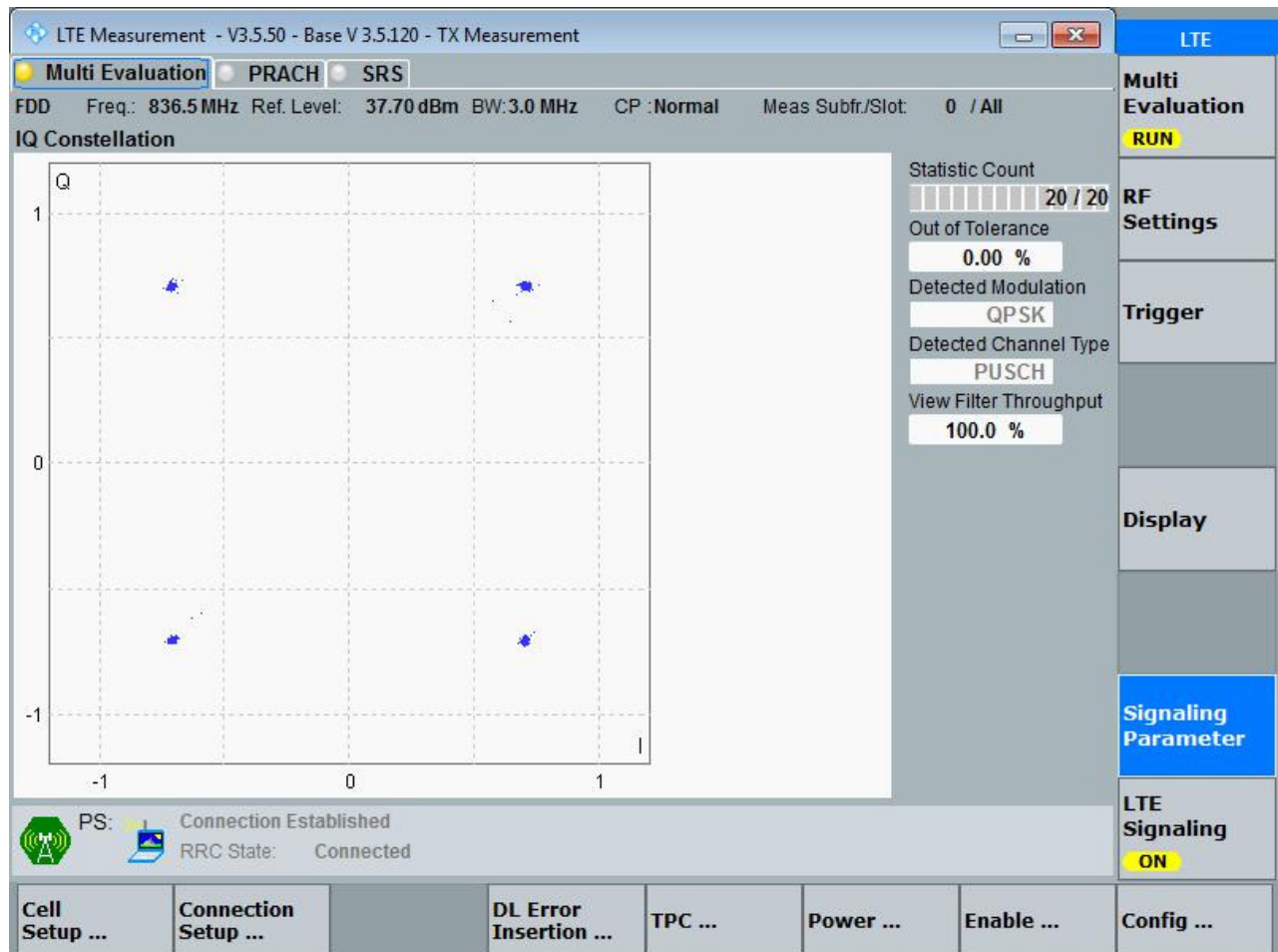
3.1.1.1.1 Test Channel = MCH





3.1.1.2 Test Mode = LTE /TM1 3MHz

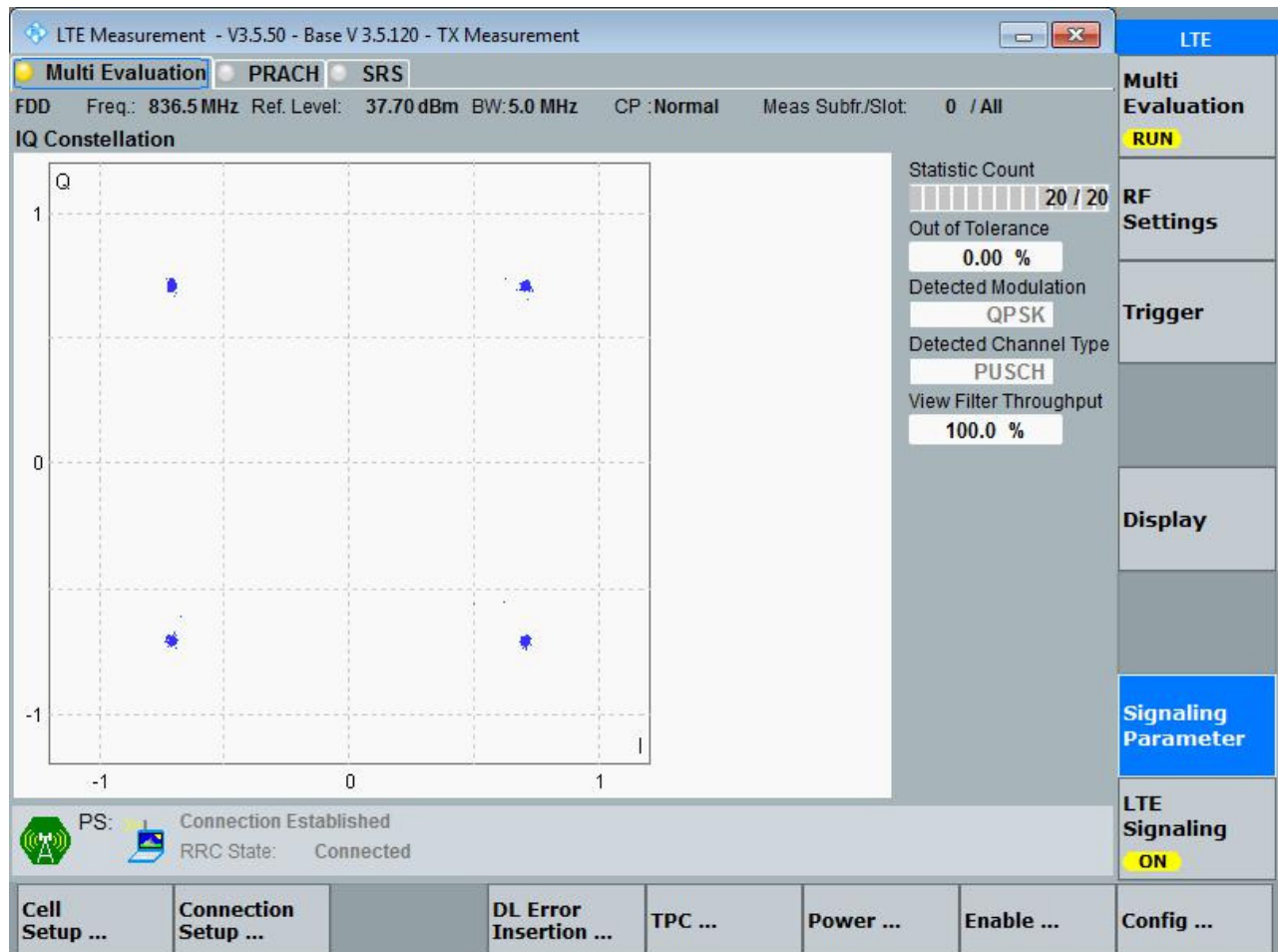
3.1.1.2.1 Test Channel = MCH





3.1.1.3 Test Mode = LTE /TM1 5MHz

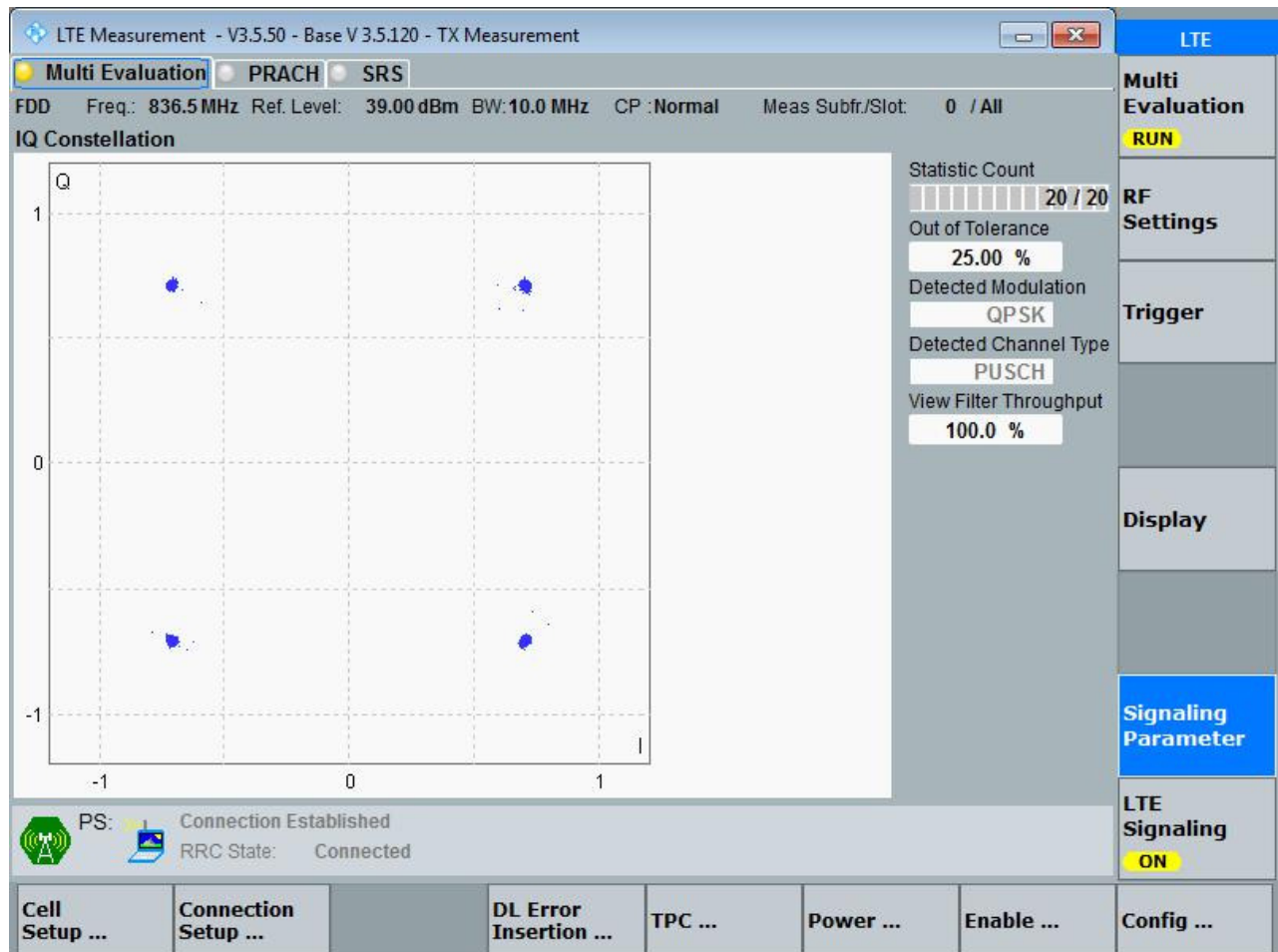
3.1.1.3.1 Test Channel = MCH





3.1.1.4 Test Mode = LTE /TM1 10MHz

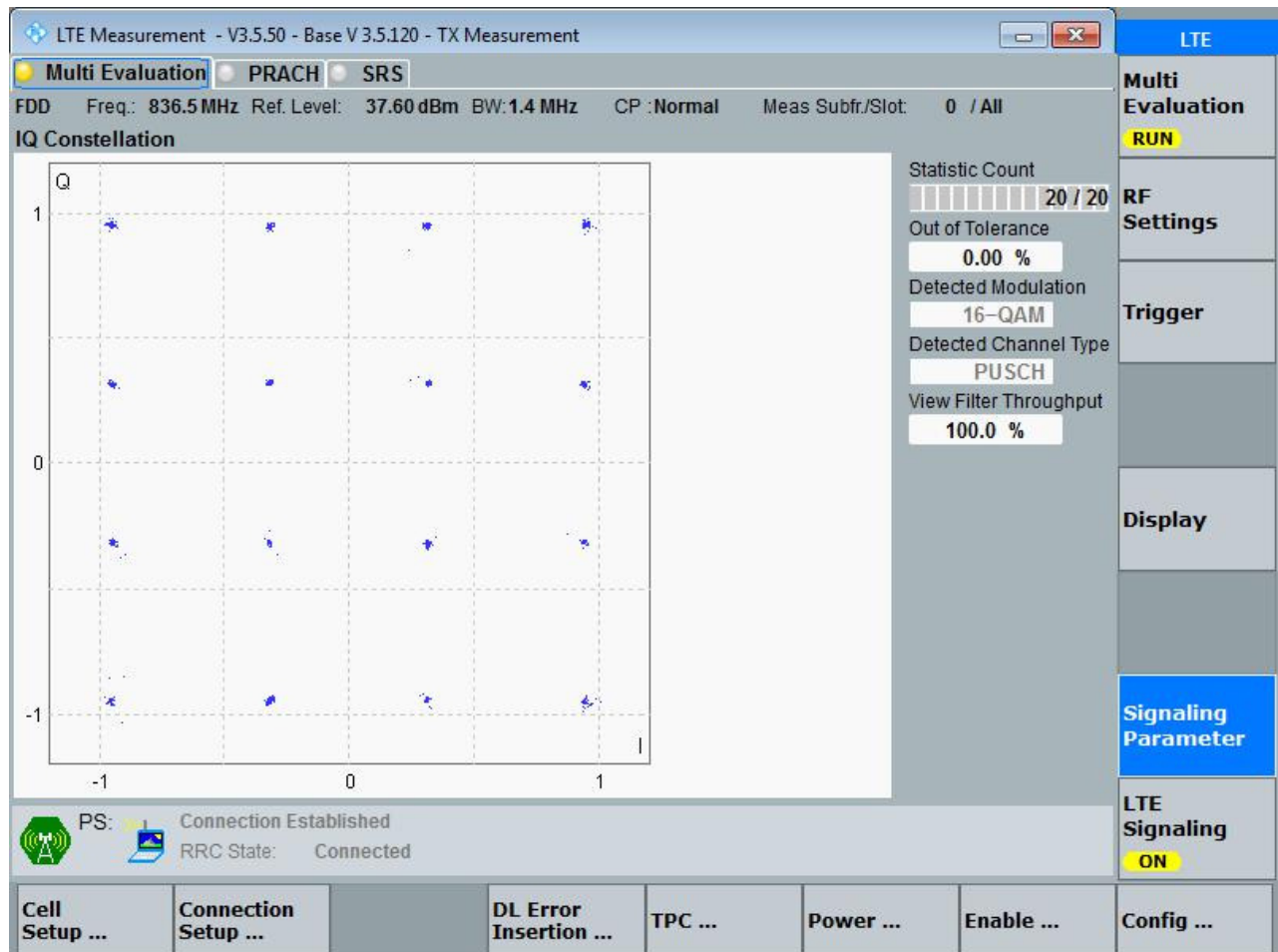
3.1.1.4.1 Test Channel = MCH





3.1.1.5 Test Mode = LTE /TM2 1.4MHz

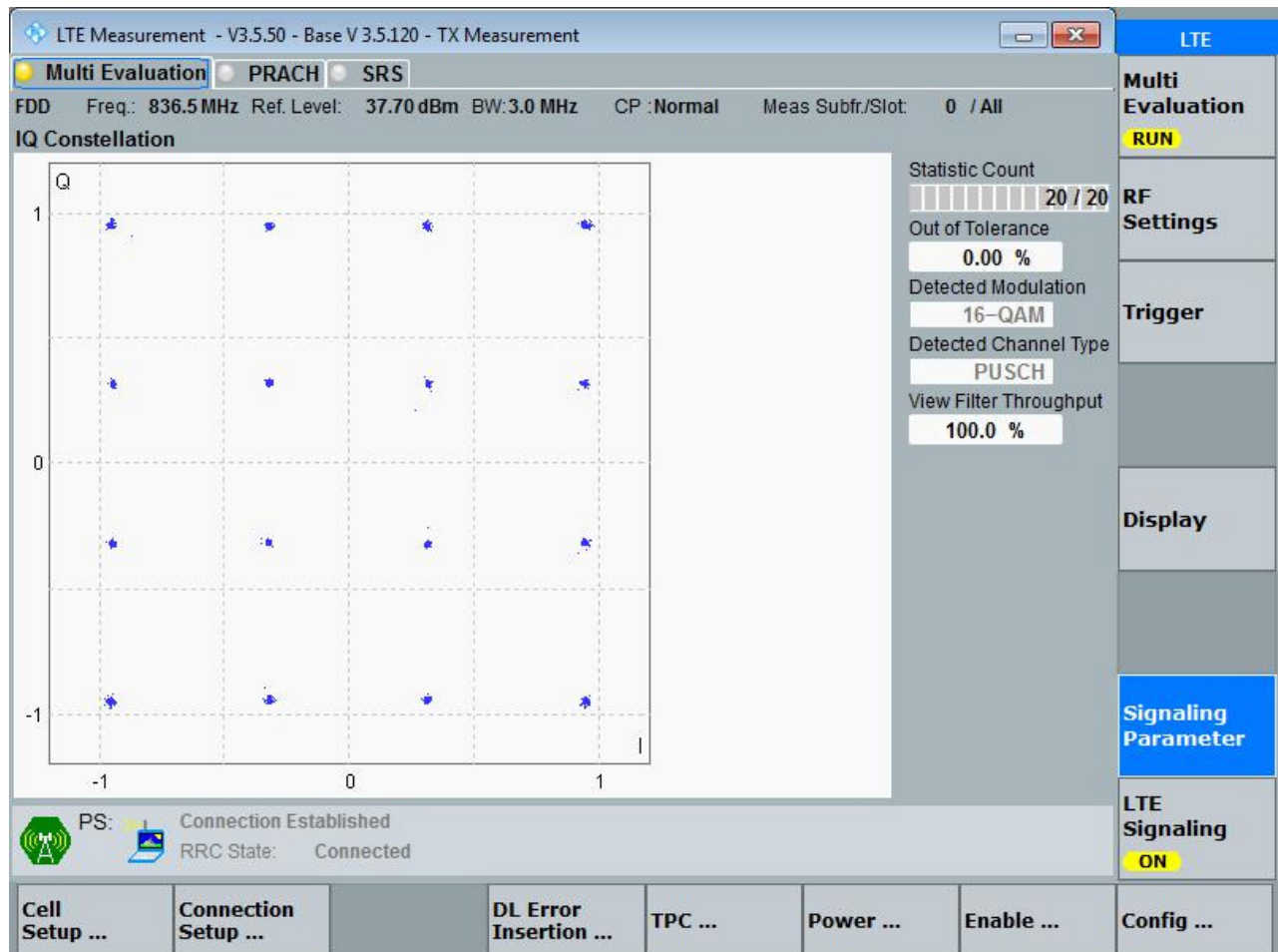
3.1.1.5.1 Test Channel = MCH





3.1.1.6 Test Mode = LTE /TM2 3MHz

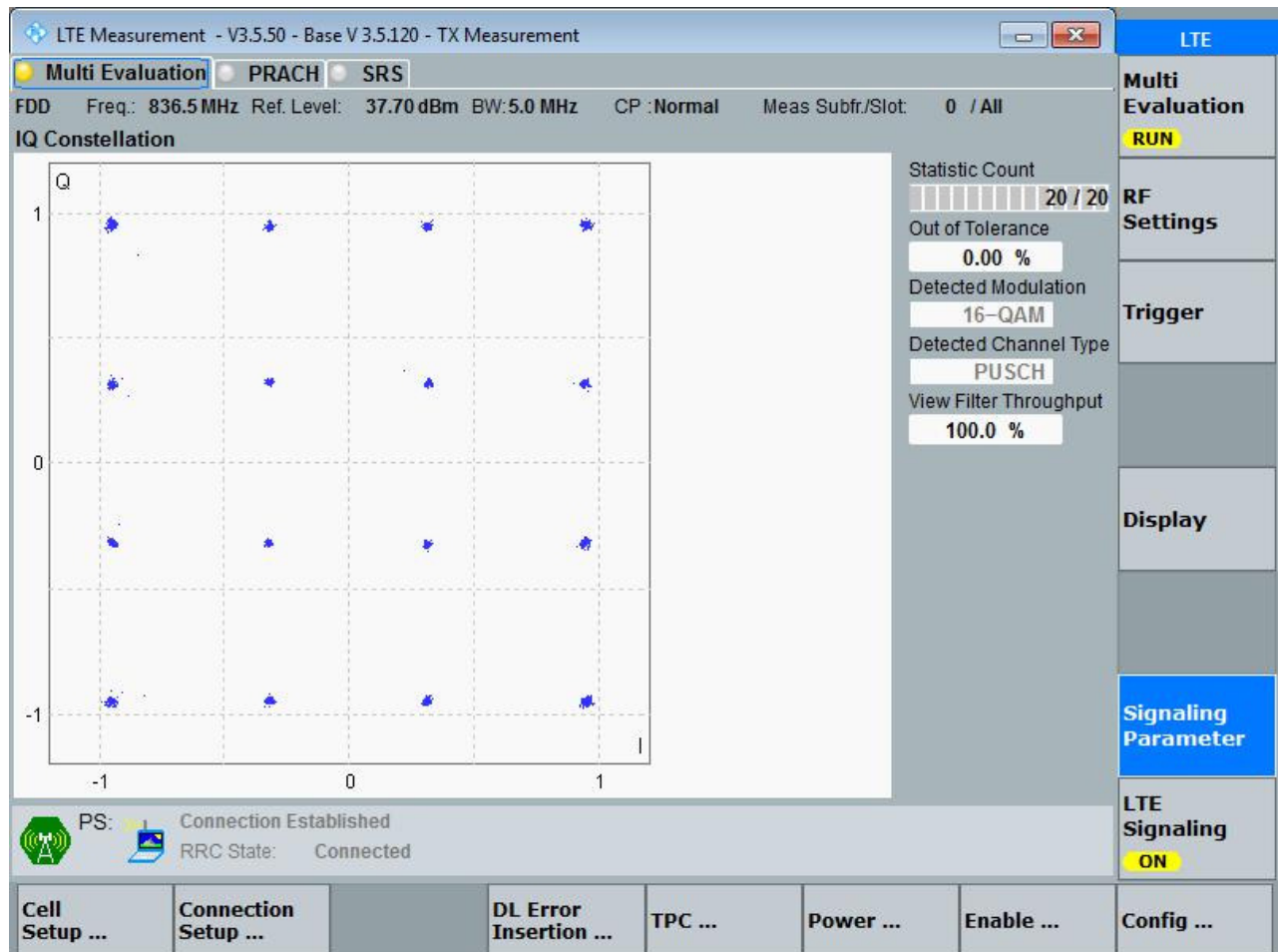
3.1.1.6.1 Test Channel = MCH





3.1.1.7 Test Mode = LTE /TM2 5MHz

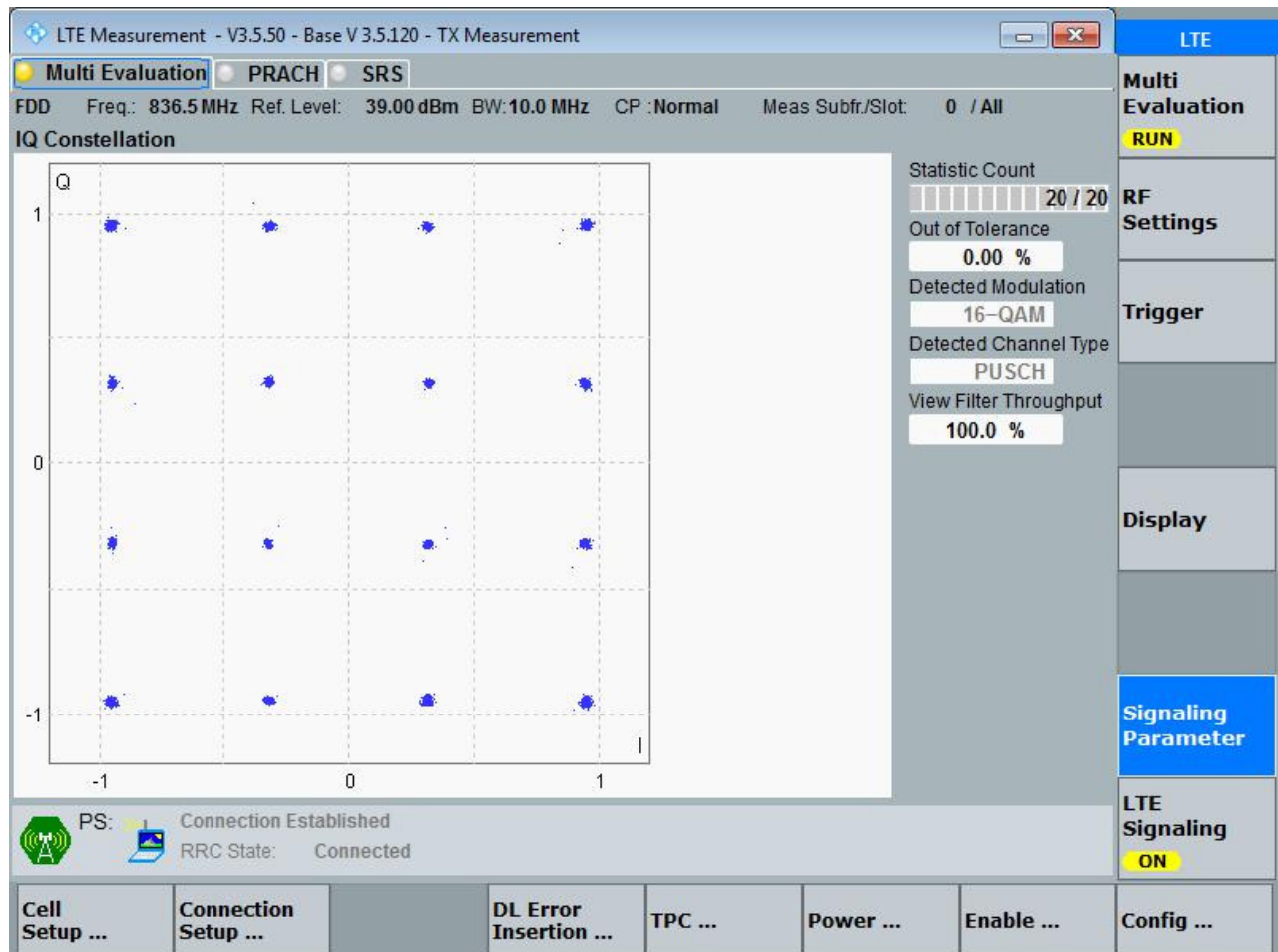
3.1.1.7.1 Test Channel = MCH





3.1.1.8 Test Mode = LTE /TM2 10MHz

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 5	TM1/1.4MHz	LCH	1.10	1.29	PASS
		MCH	1.09	1.27	PASS
		HCH	1.10	1.26	PASS
	TM2/1.4MHz	LCH	1.09	1.26	PASS
		MCH	1.10	1.28	PASS
		HCH	1.10	1.27	PASS
	TM1/ 3MHz	LCH	2.69	2.90	PASS
		MCH	2.69	2.91	PASS
		HCH	2.68	2.92	PASS
	TM2/3MHz	LCH	2.69	2.90	PASS
		MCH	2.68	2.94	PASS
		HCH	2.68	2.90	PASS
	TM1/ 5MHz	LCH	4.49	4.95	PASS
		MCH	4.50	4.99	PASS
		HCH	4.48	4.94	PASS
	TM2/ 5MHz	LCH	4.49	4.98	PASS
		MCH	4.48	4.93	PASS
		HCH	4.49	4.96	PASS
	TM1/10MHz	LCH	8.93	9.71	PASS
		MCH	8.95	9.75	PASS
		HCH	8.93	9.73	PASS
	TM2/ 10MHz	LCH	8.93	9.65	PASS
		MCH	8.97	9.81	PASS
		HCH	8.91	9.67	PASS

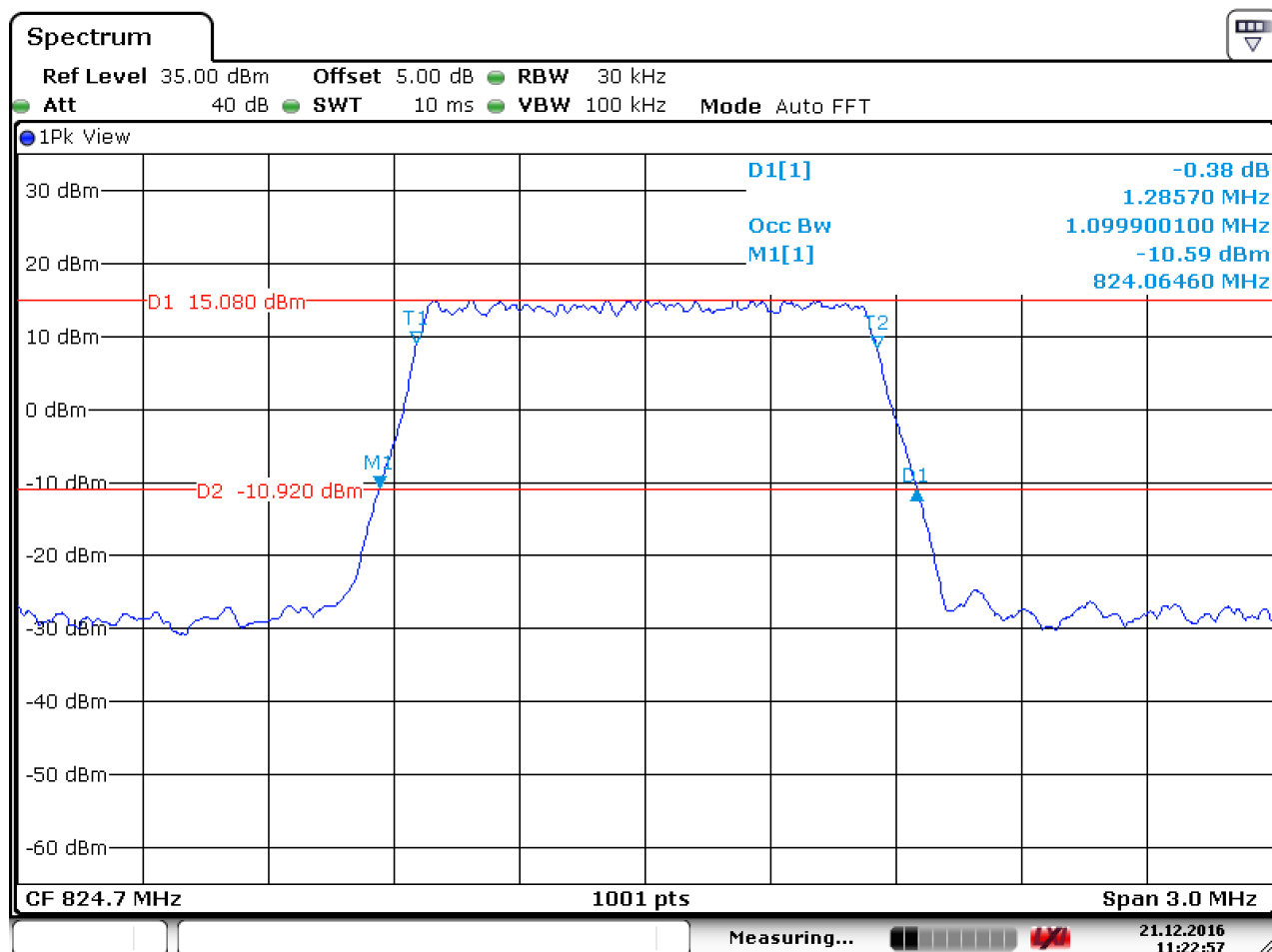
Part II –Test Plots

4.1 For LTE

4.1.1 Test Band = LTE band5

4.1.1.1 Test Mode = LTE/TM1 1.4MHz

4.1.1.1.1 Test Channel = LCH

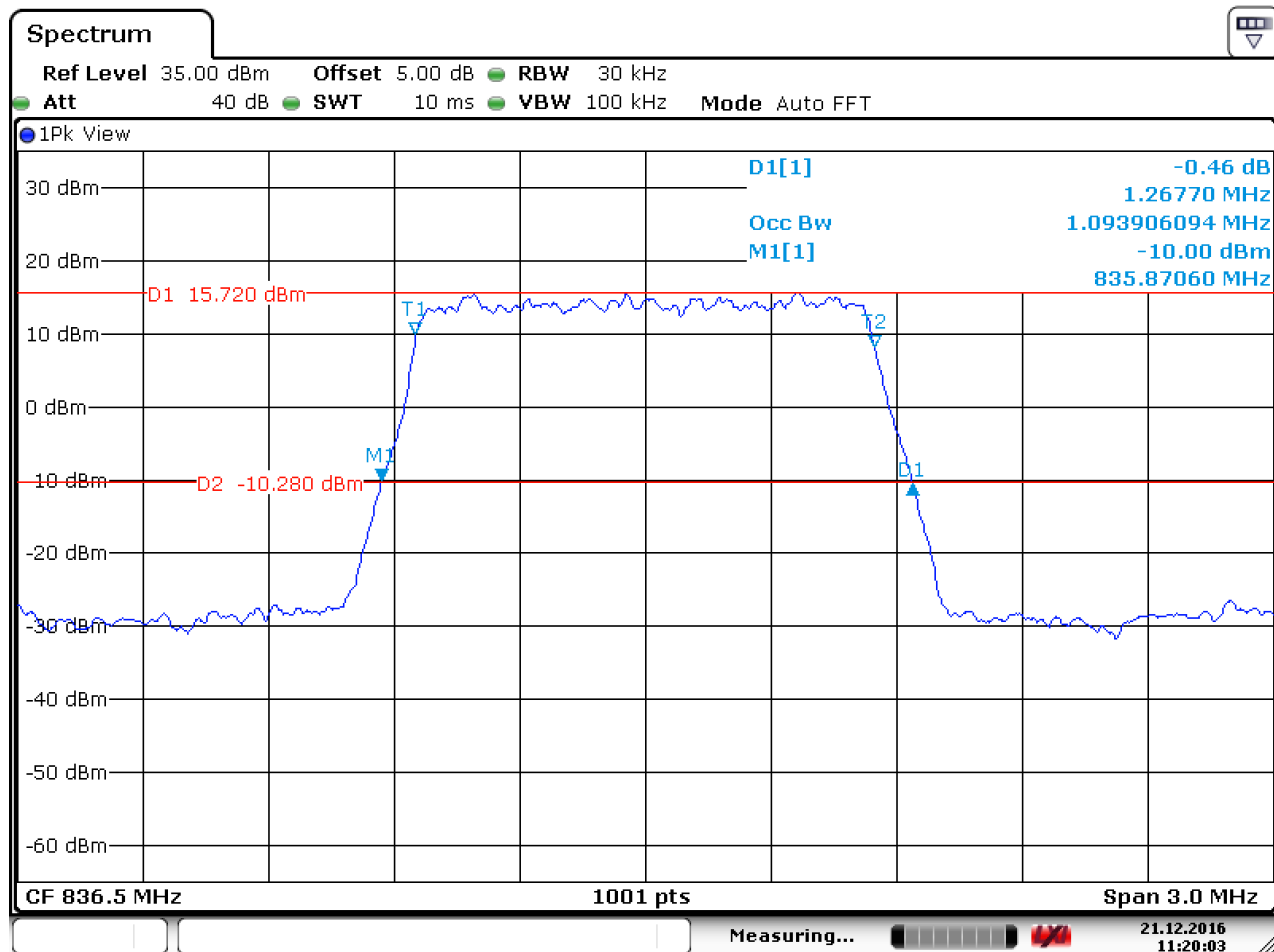


Date: 21.DEC.2016 11:22:57

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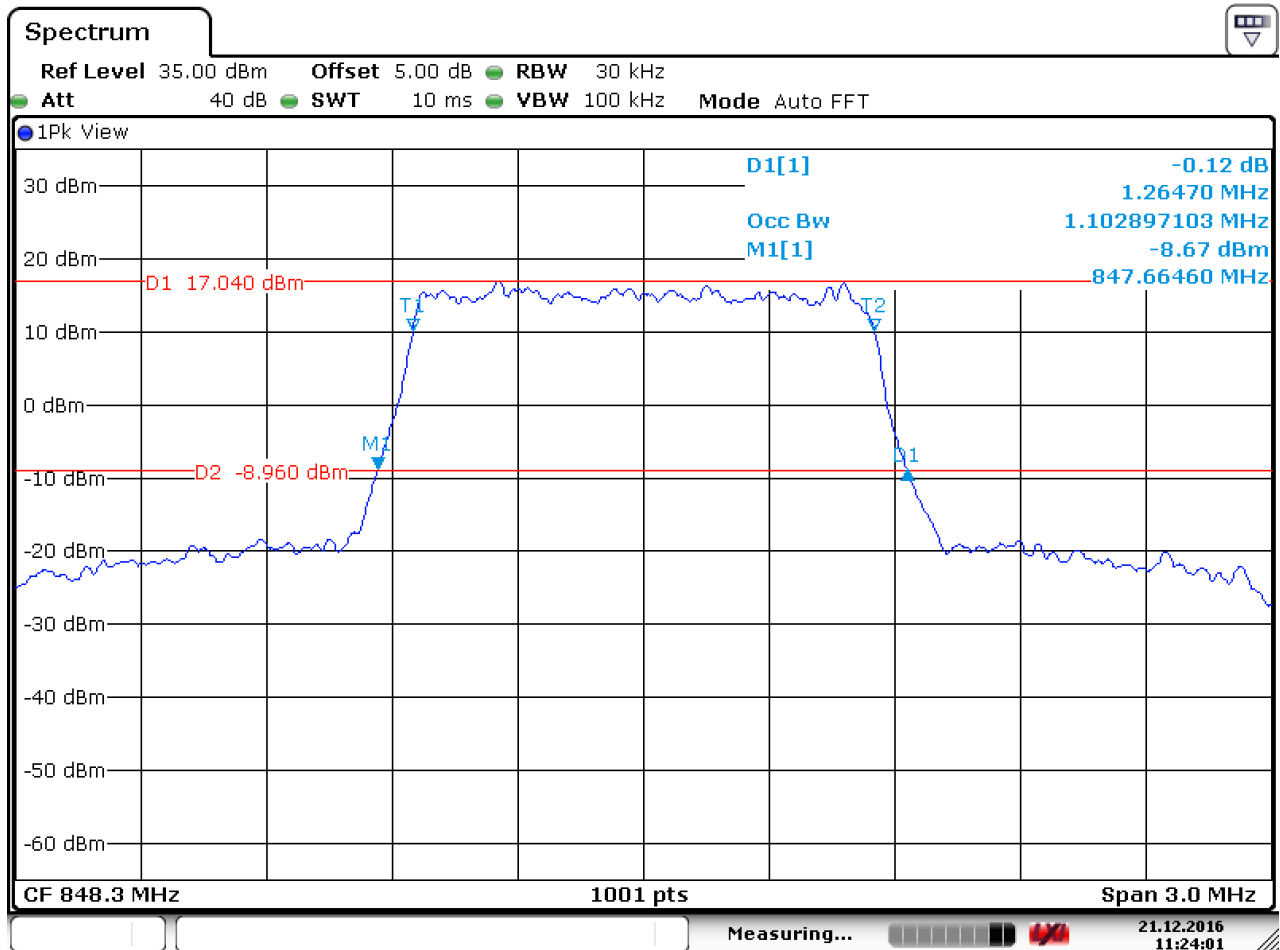


4.1.1.1.2 Test Channel = MCH



Date: 21.DEC.2016 11:20:04

4.1.1.1.3 Test Channel = HCH



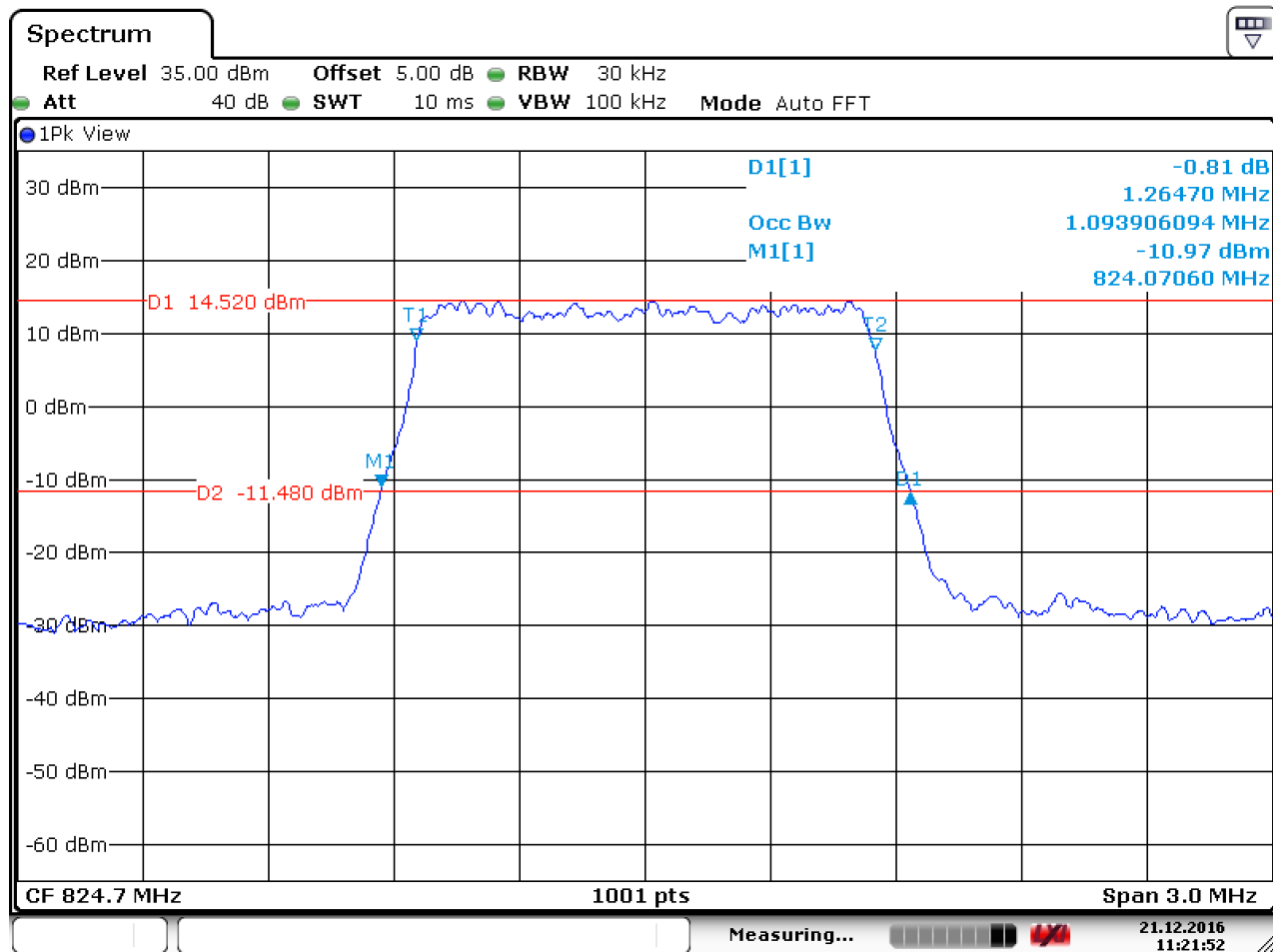
Date: 21.DEC.2016 11:24:02

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4.1.1.2 Test Mode = LTE/TM2 1.4MHz

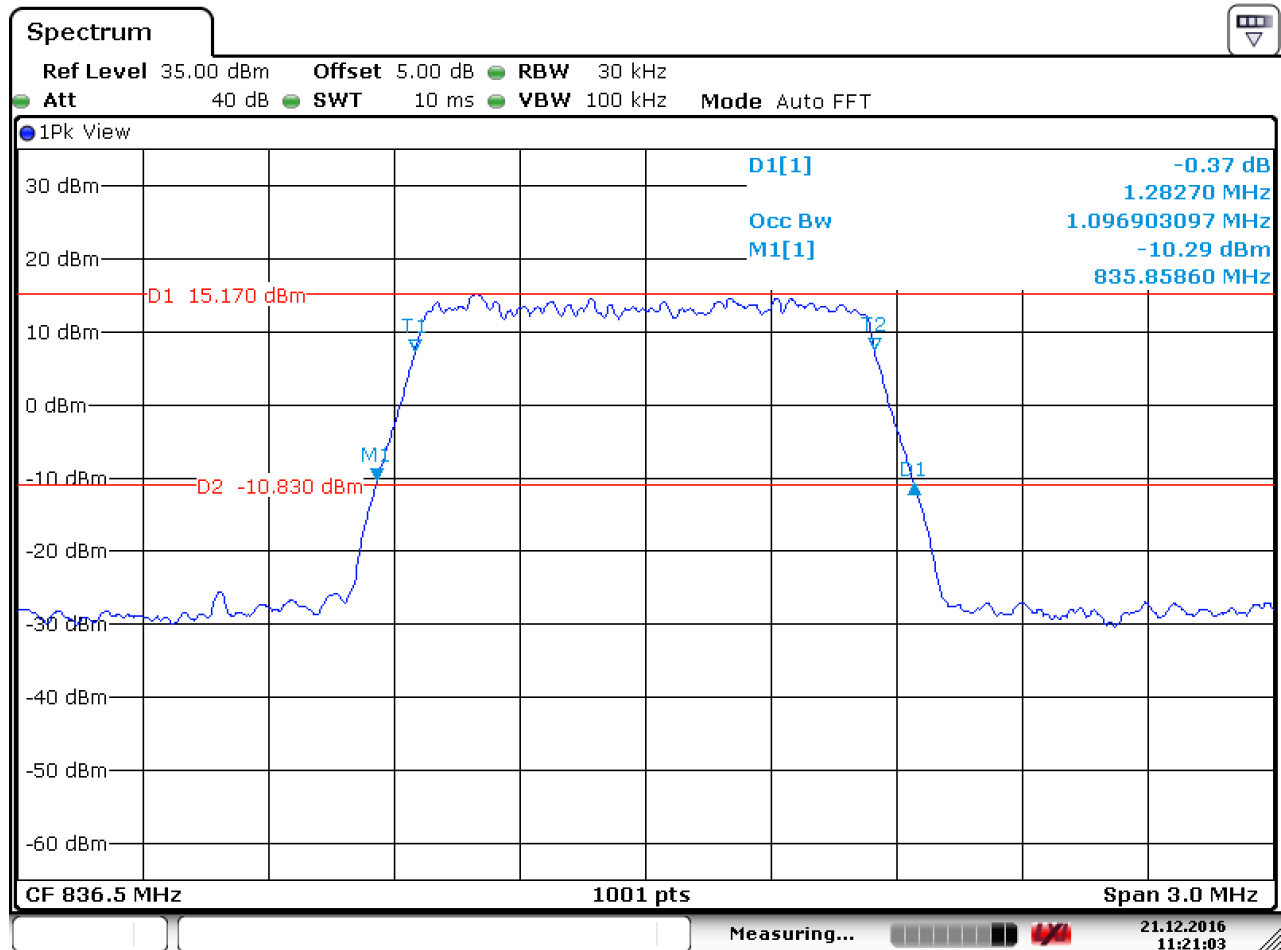
4.1.1.2.1 Test Channel = LCH



Date: 21.DEC.2016 11:21:53



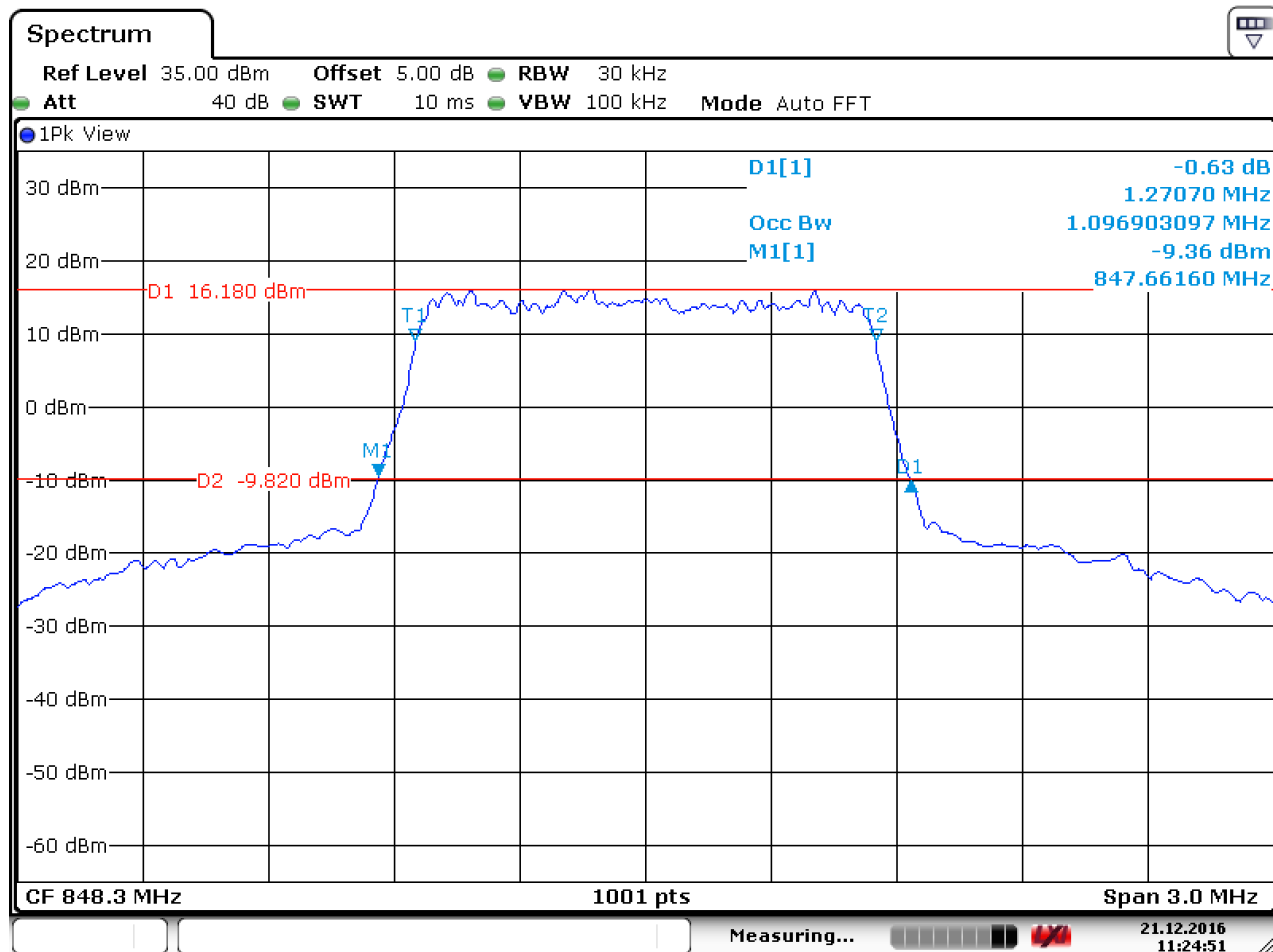
4.1.1.2.2 Test Channel = MCH



Date: 21.DEC.2016 11:21:03



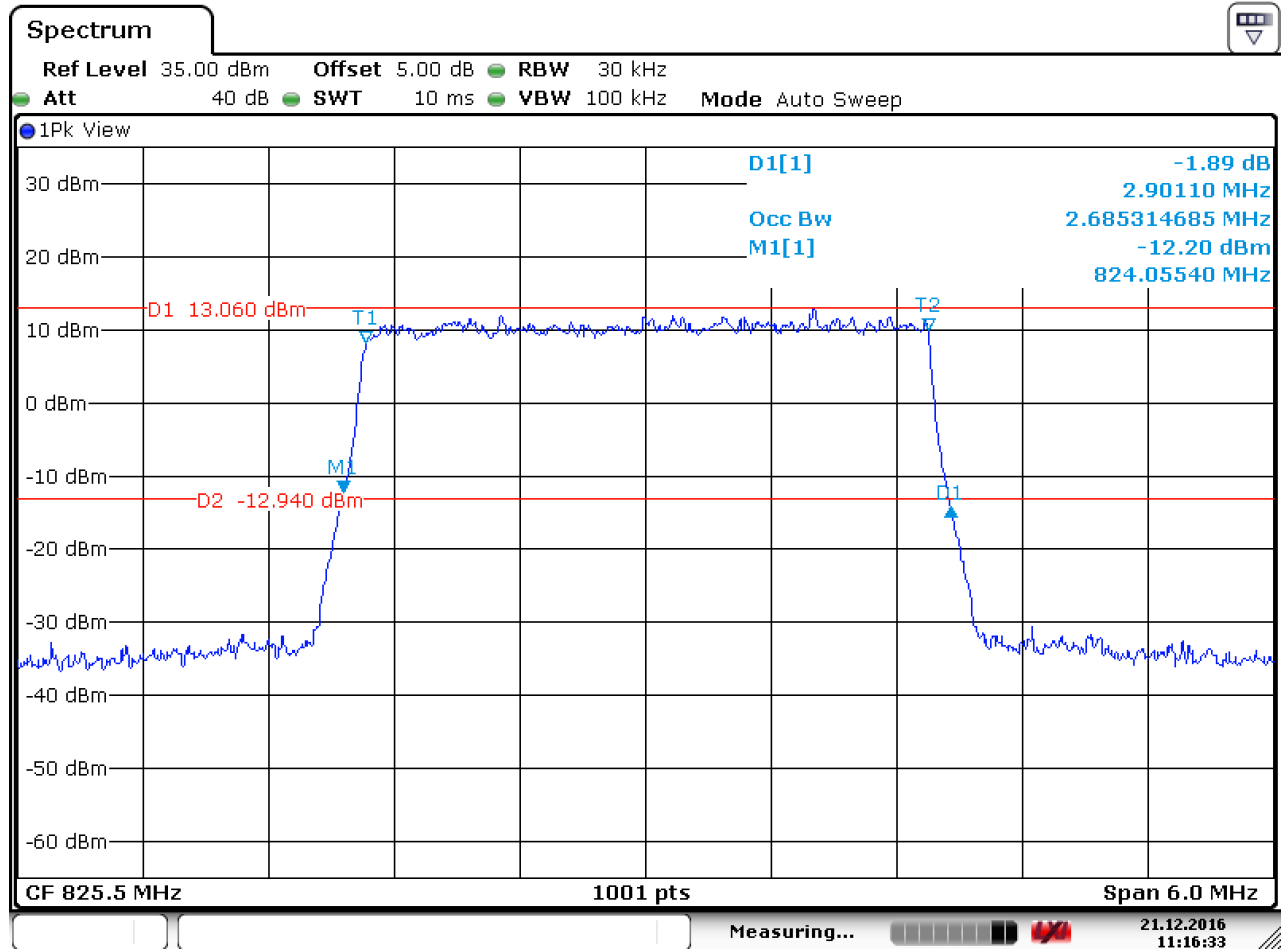
4.1.1.2.3 Test Channel = HCH



Date: 21.DEC.2016 11:24:51

4.1.1.3 Test Mode = LTE/TM1 3MHz

4.1.1.3.1 Test Channel = LCH

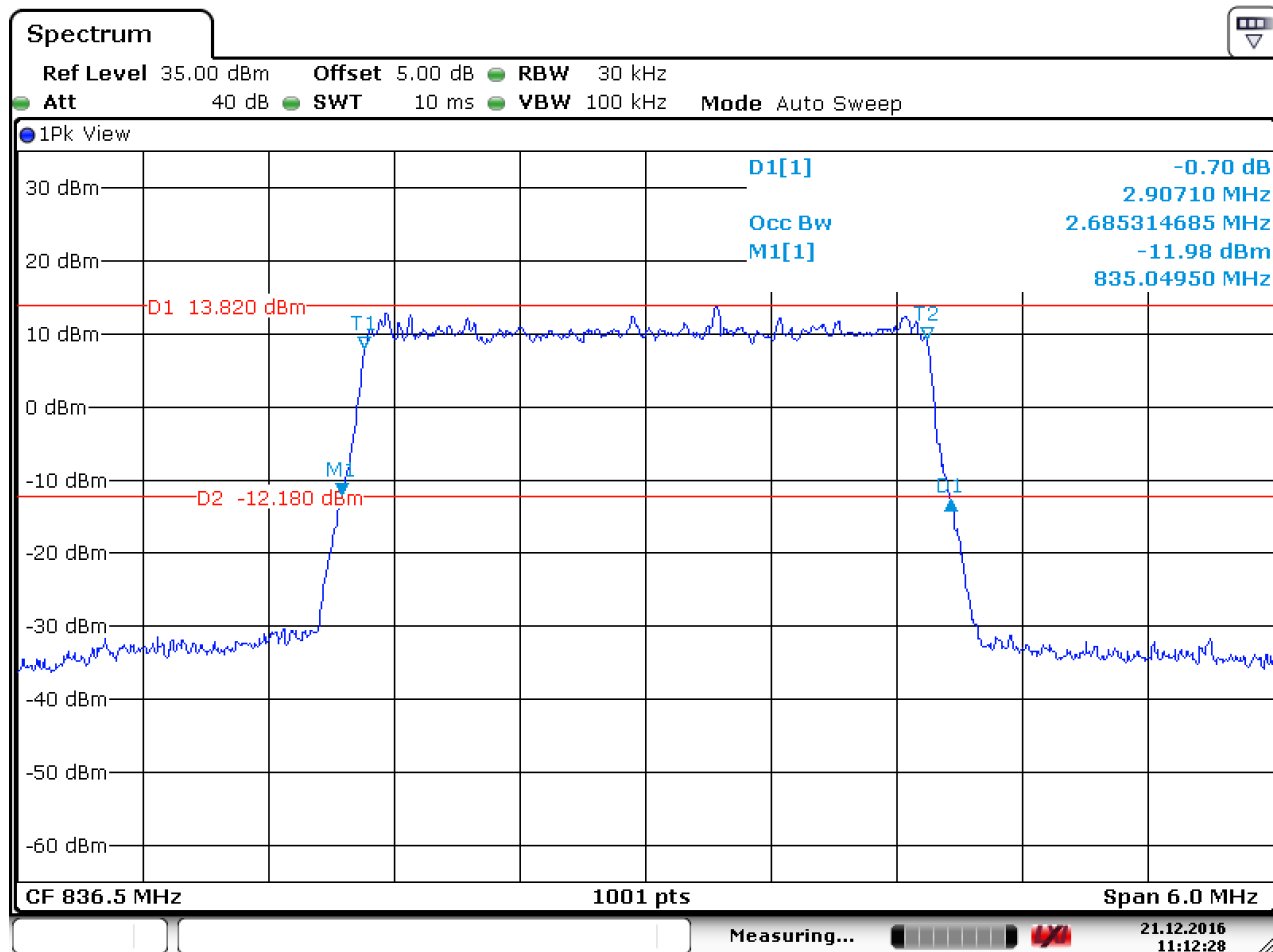


Date: 21.DEC.2016 11:16:33

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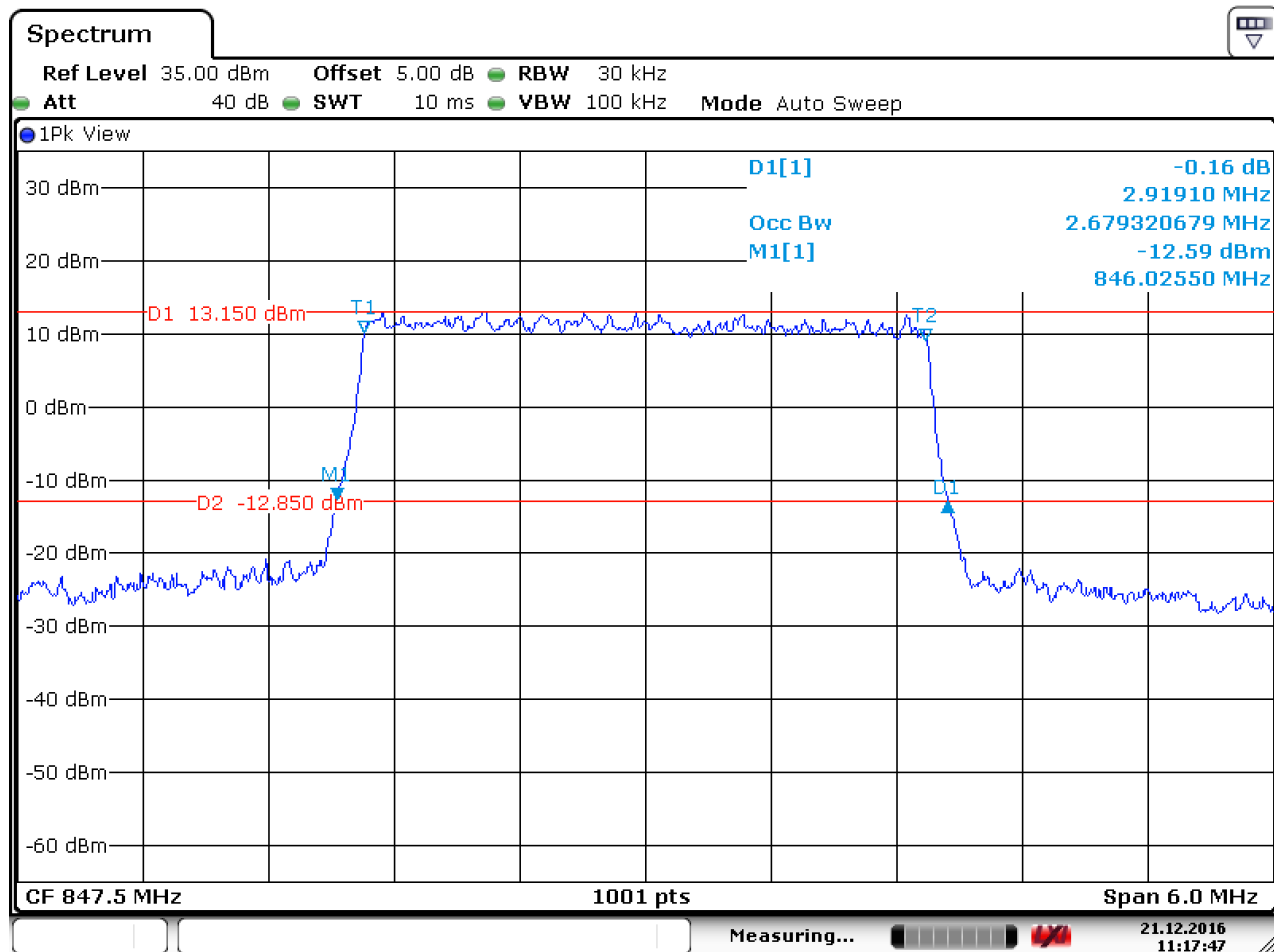
4.1.1.3.2 Test Channel = MCH



Date: 21.DEC.2016 11:12:28



4.1.1.3.3 Test Channel = HCH

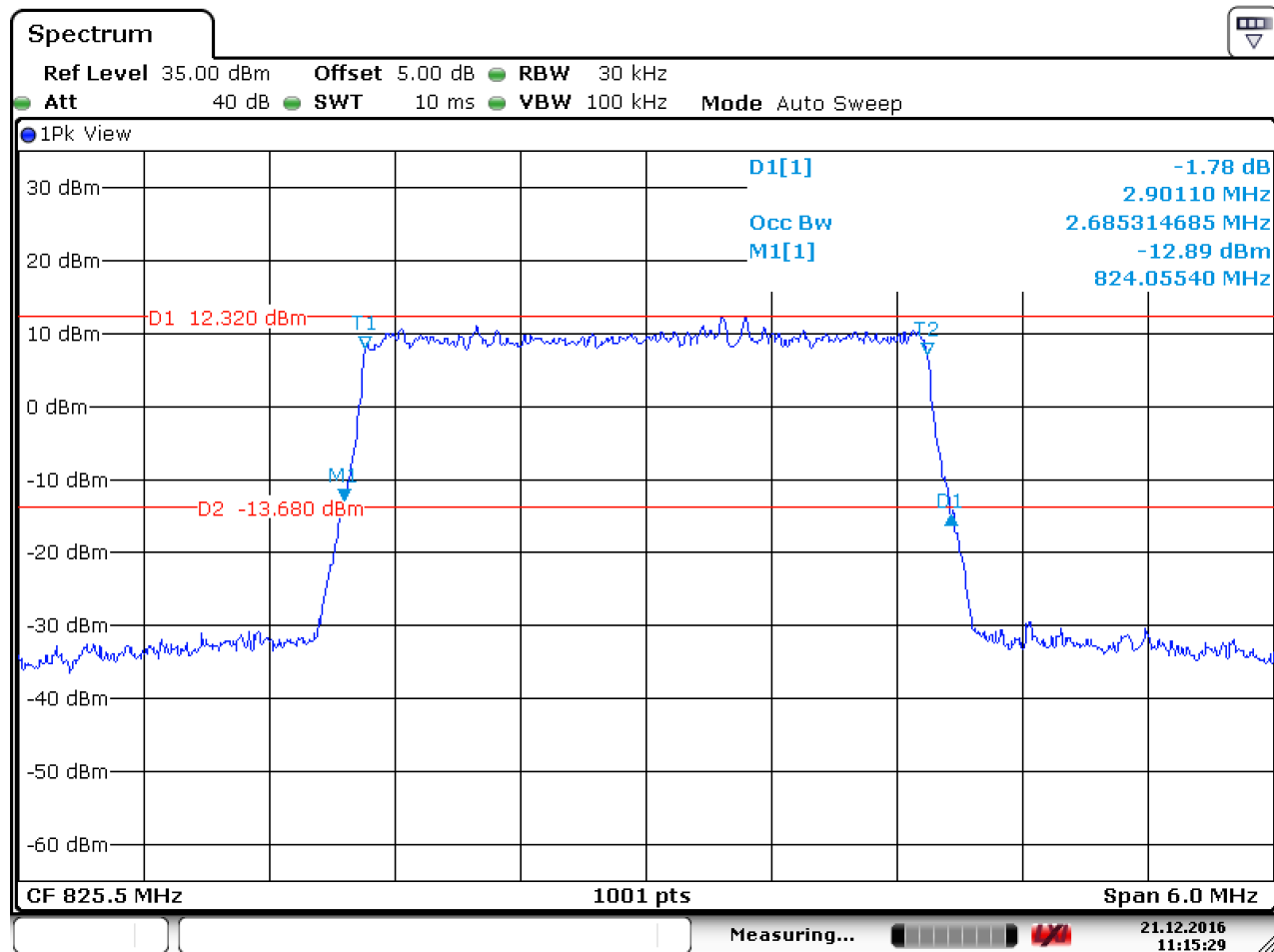


Date: 21.DEC.2016 11:17:47



4.1.1.4 Test Mode = LTE/TM2 3MHz

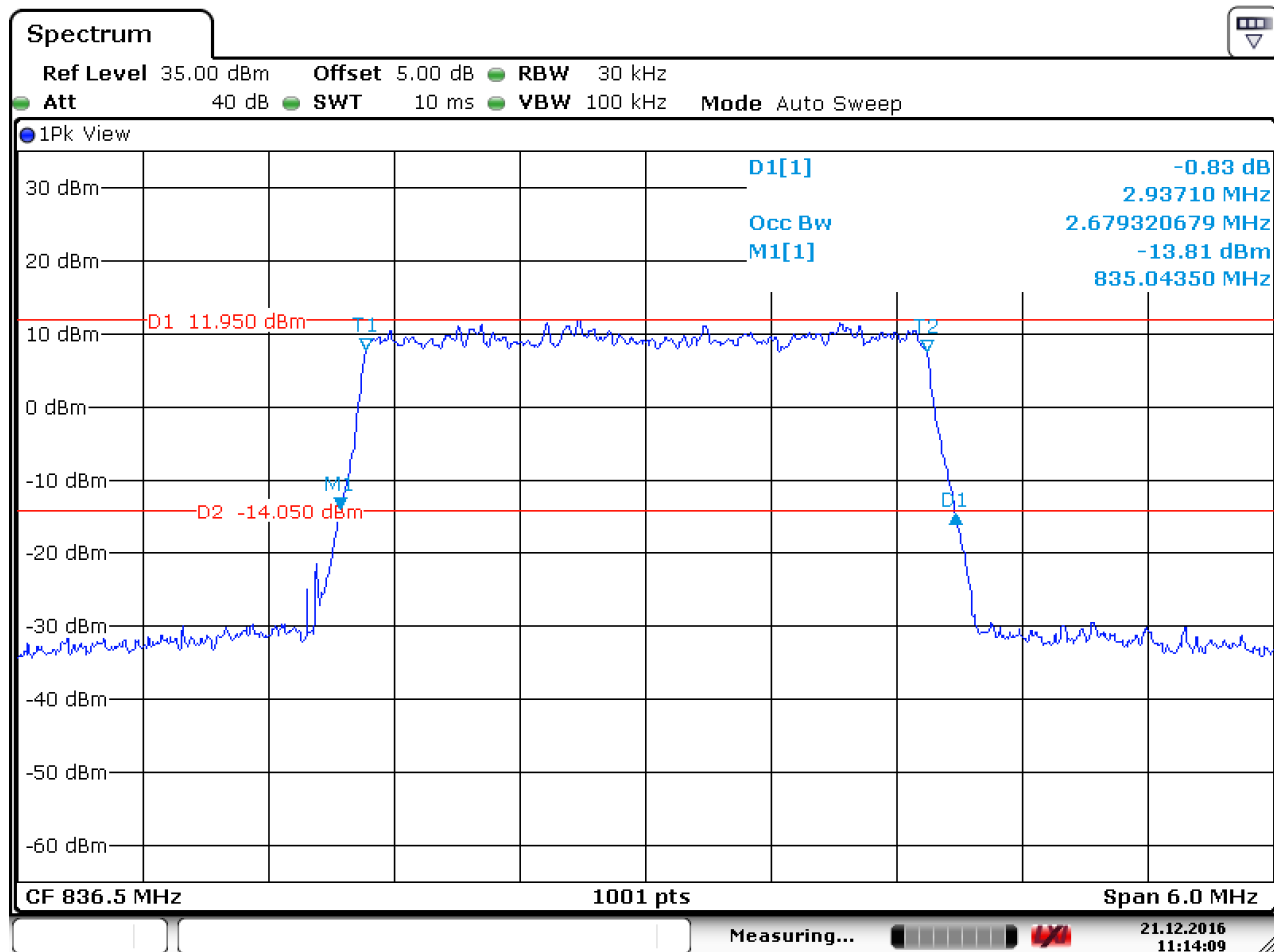
4.1.1.4.1 Test Channel = LCH



Date: 21.DEC.2016 11:15:30



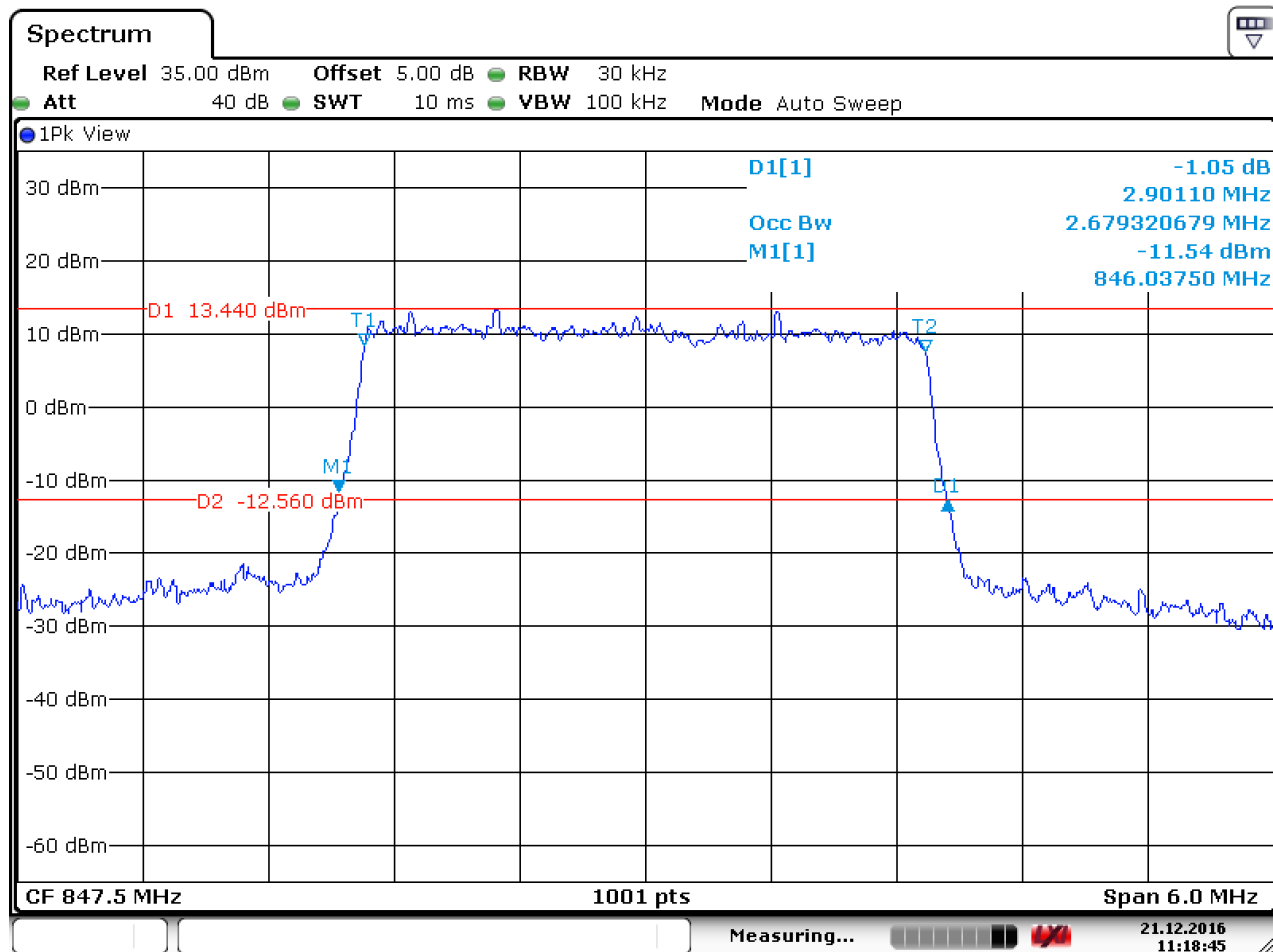
4.1.1.4.2 Test Channel = MCH



Date: 21.DEC.2016 11:14:09



4.1.1.4.3 Test Channel = HCH

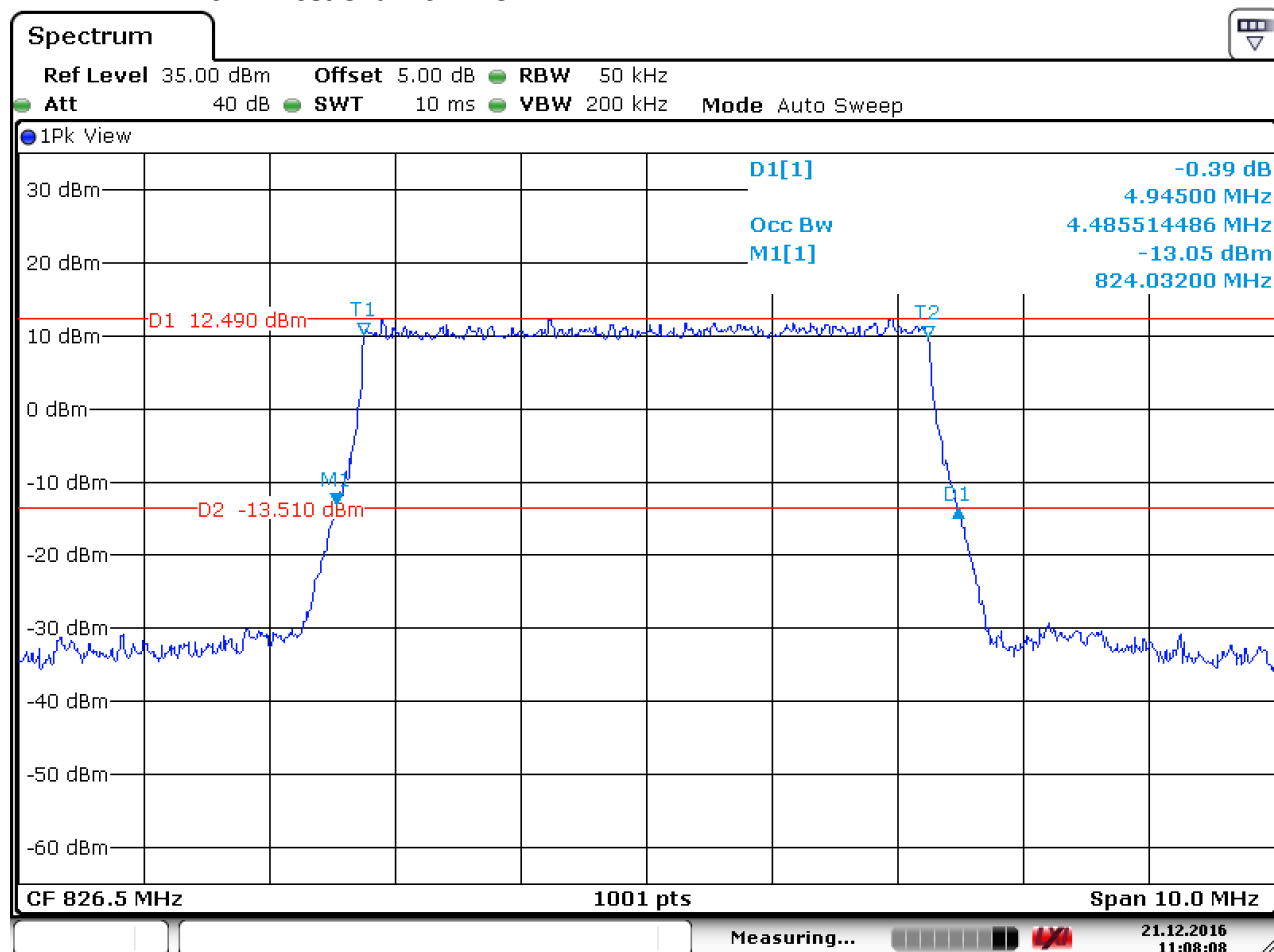


Date: 21.DEC.2016 11:18:46



4.1.1.5 Test Mode = LTE/TM1 5MHz

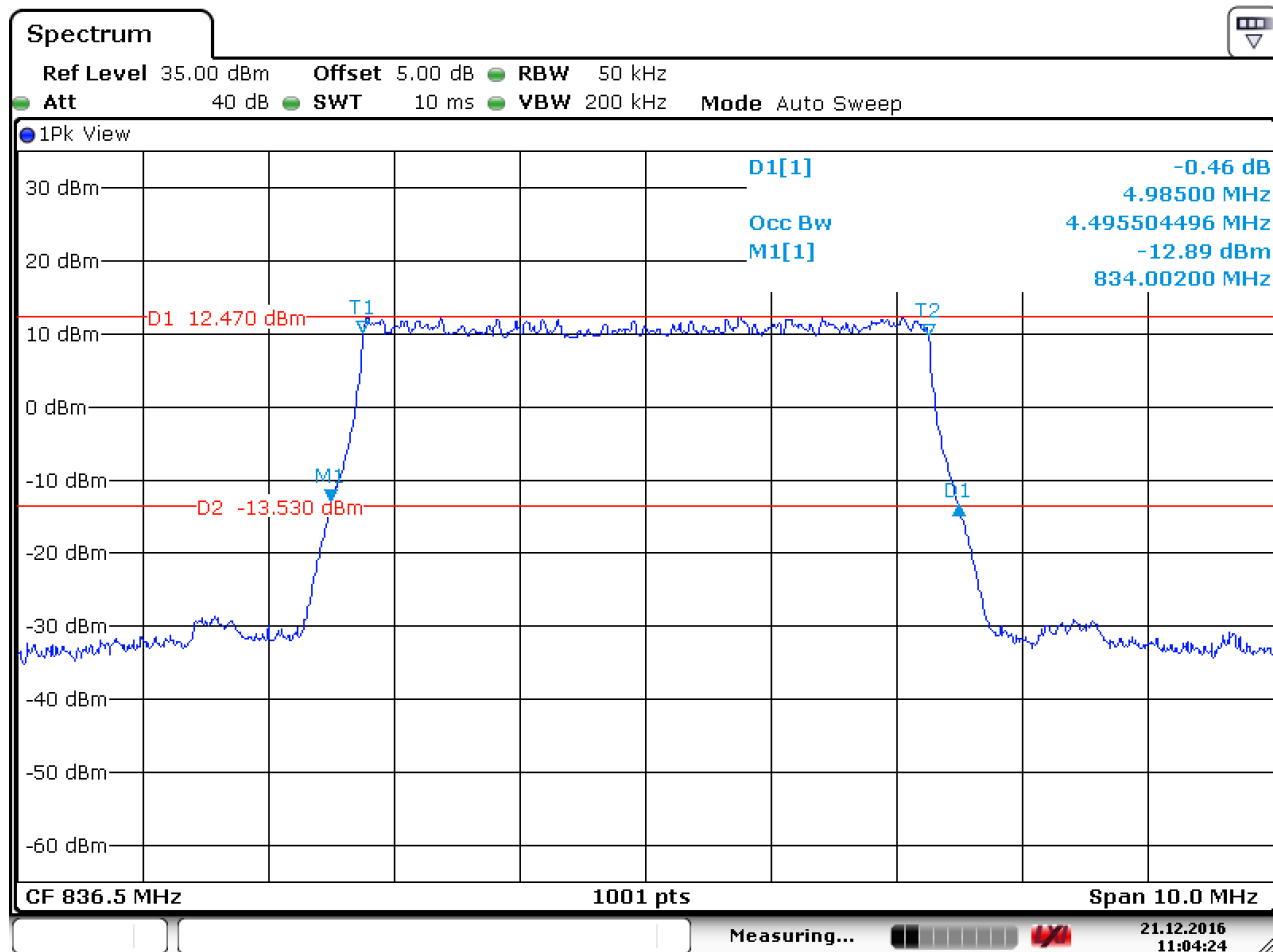
4.1.1.5.1 Test Channel = LCH



Date: 21.DEC.2016 11:08:08



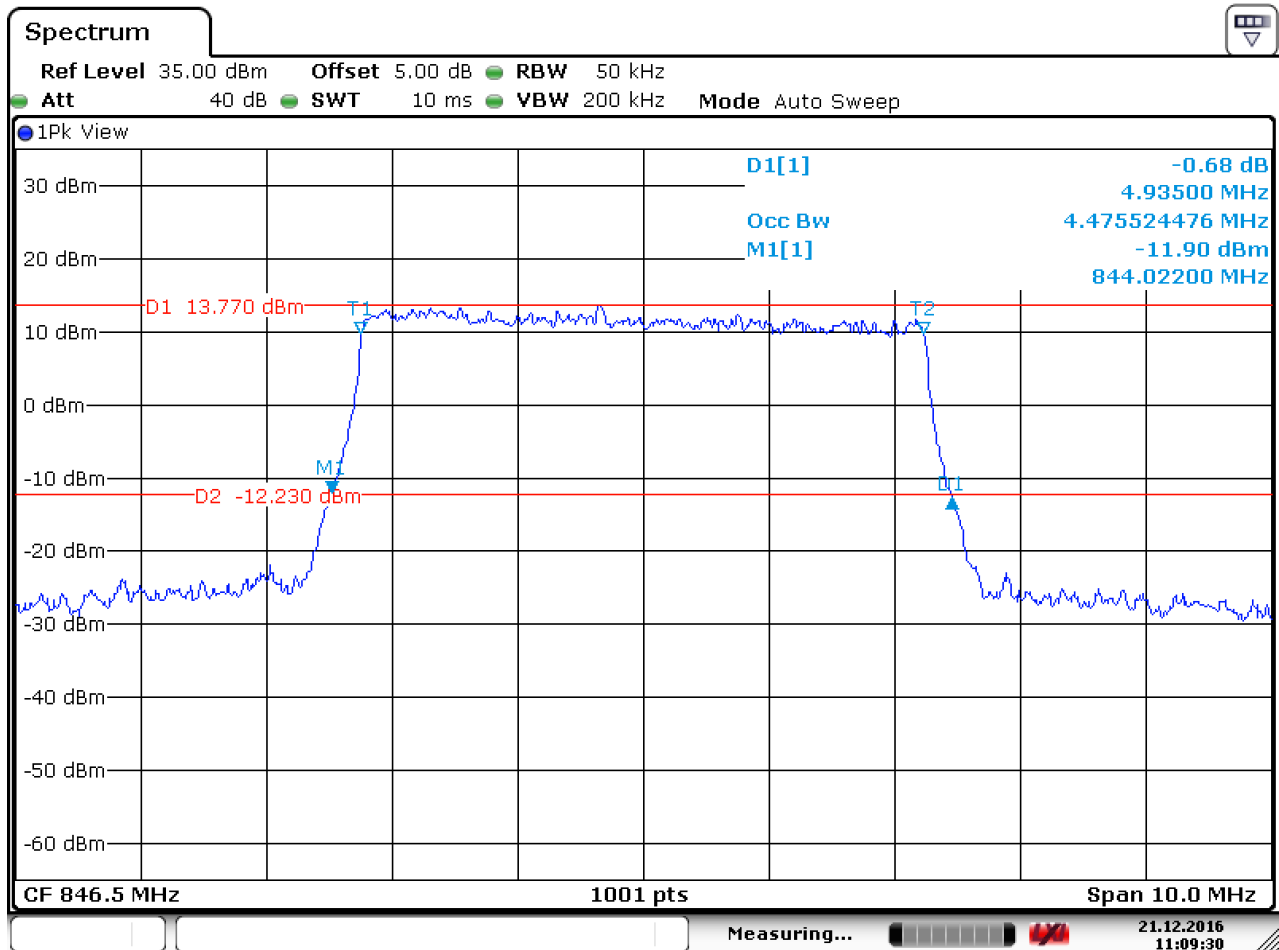
4.1.1.5.2 Test Channel = MCH



Date: 21.DEC.2016 11:04:24



4.1.1.5.3 Test Channel = HCH

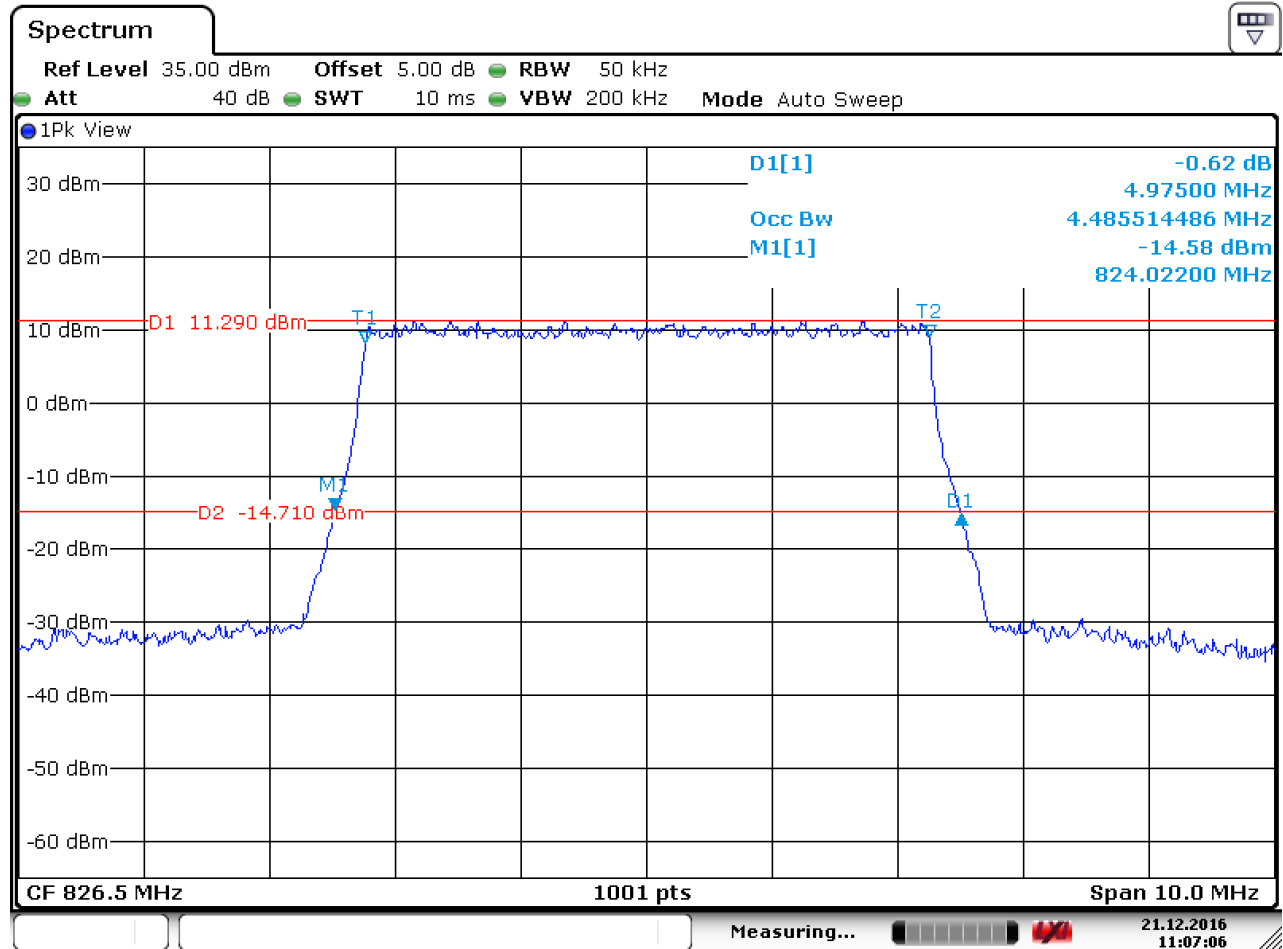


Date: 21.DEC.2016 11:09:31



4.1.1.6 Test Mode = LTE/TM2 5MHz

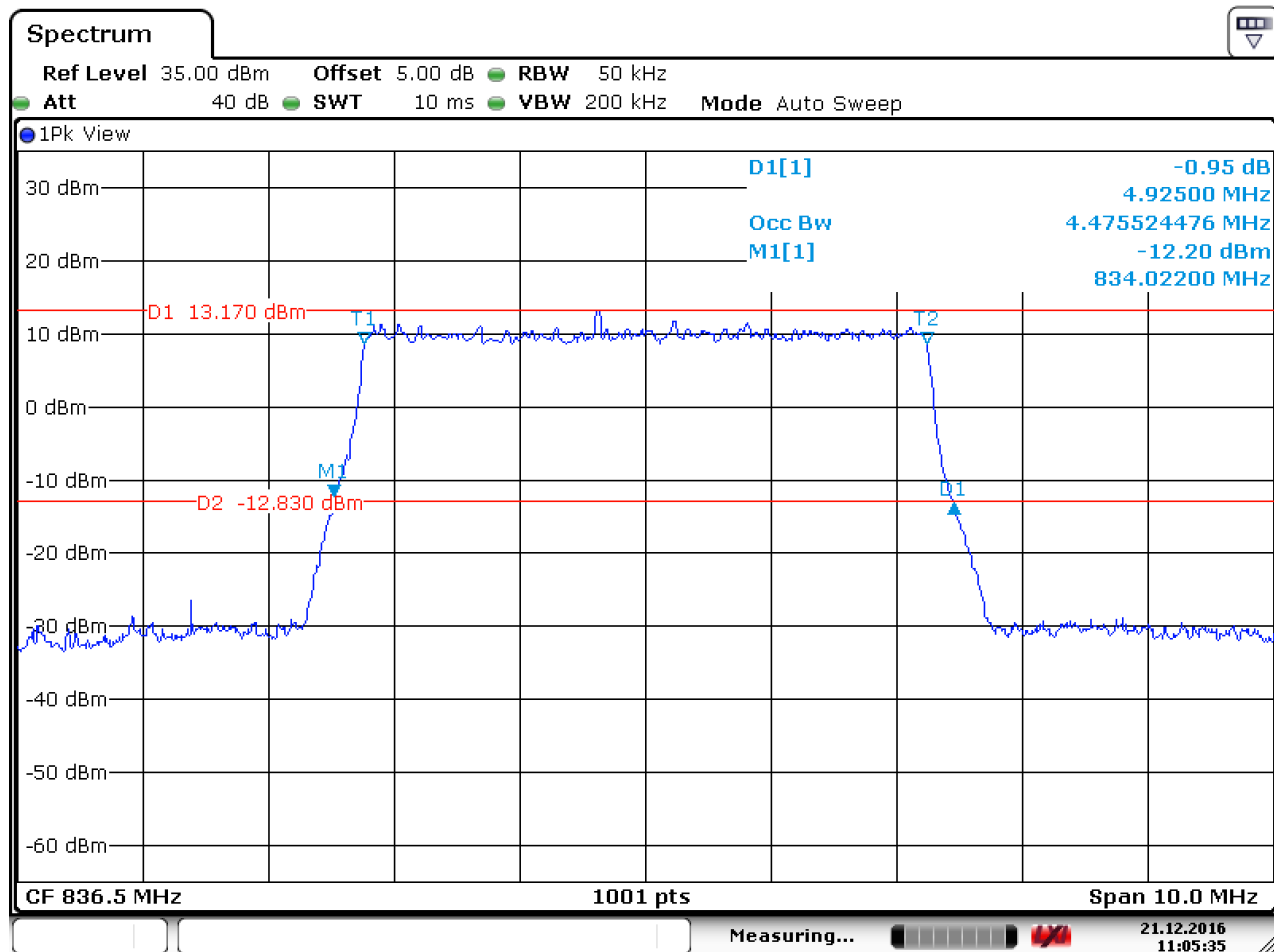
4.1.1.6.1 Test Channel = LCH



Date: 21.DEC.2016 11:07:07

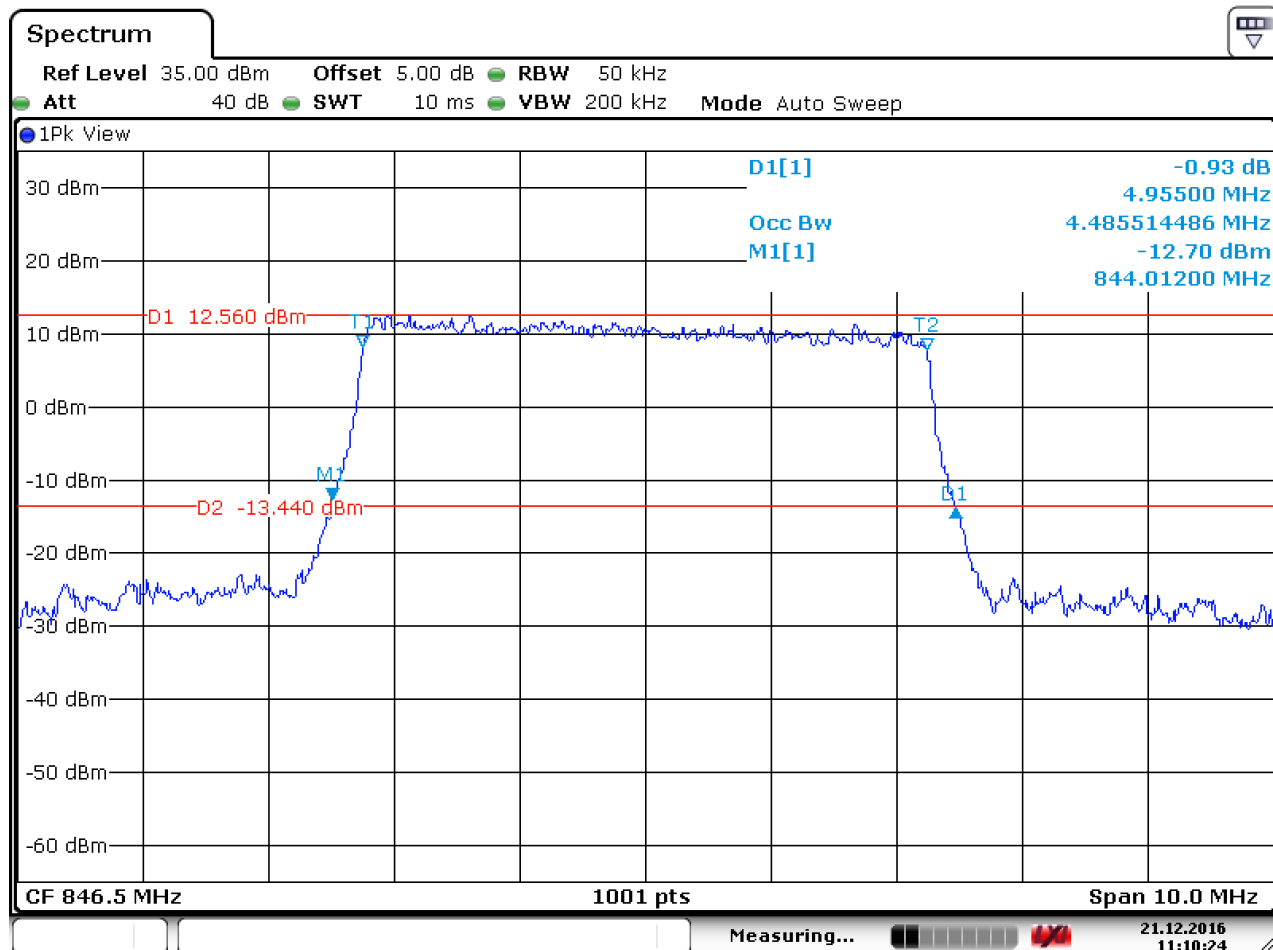


4.1.1.6.2 Test Channel = MCH



Date: 21.DEC.2016 11:05:35

4.1.1.6.3 Test Channel = HCH

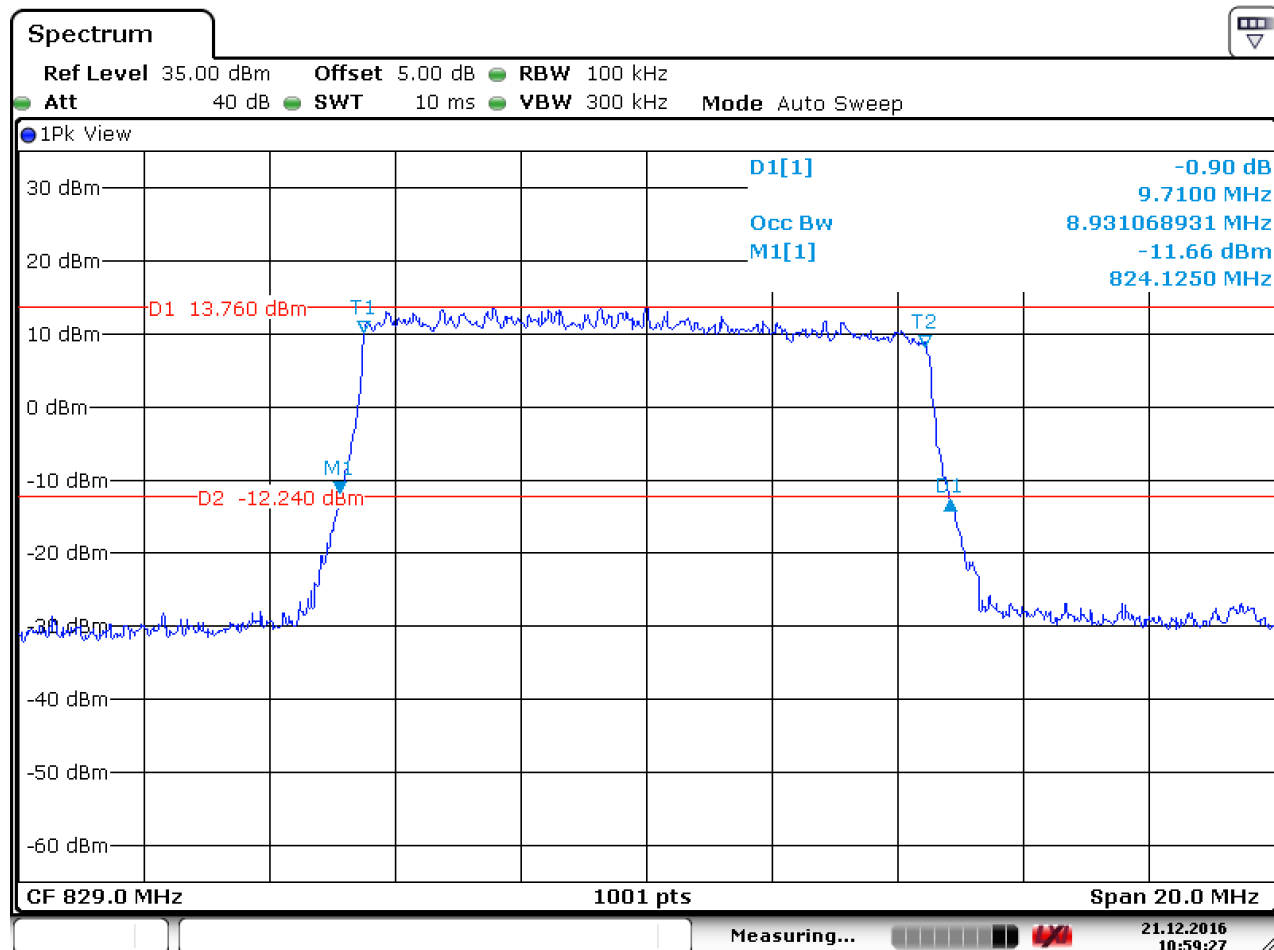


Date: 21.DEC.2016 11:10:24



4.1.1.7 Test Mode = LTE/TM1 10MHz

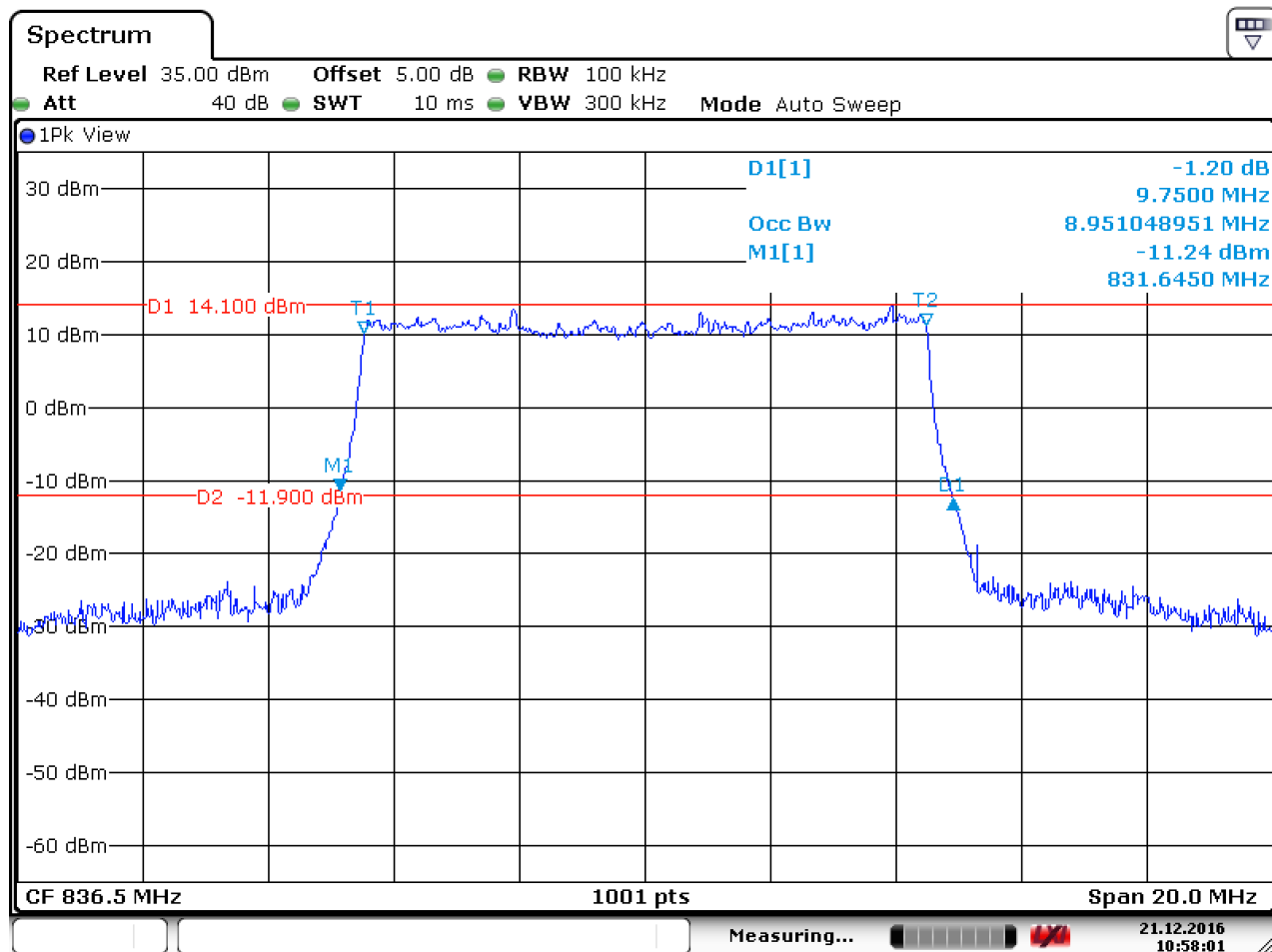
4.1.1.7.1 Test Channel = LCH



Date: 21.DEC.2016 10:59:27



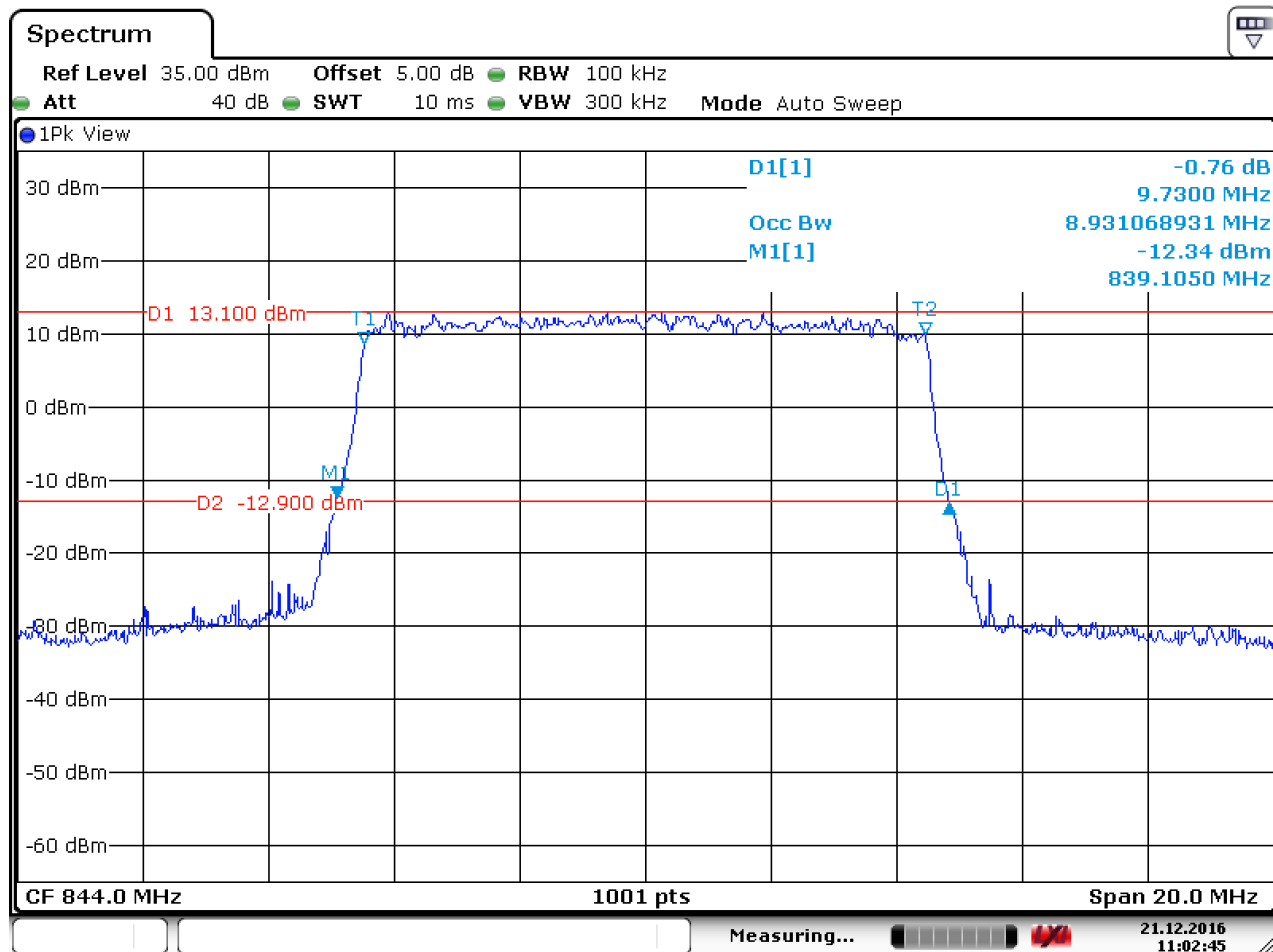
4.1.1.7.2 Test Channel = MCH



Date: 21.DEC.2016 10:58:01



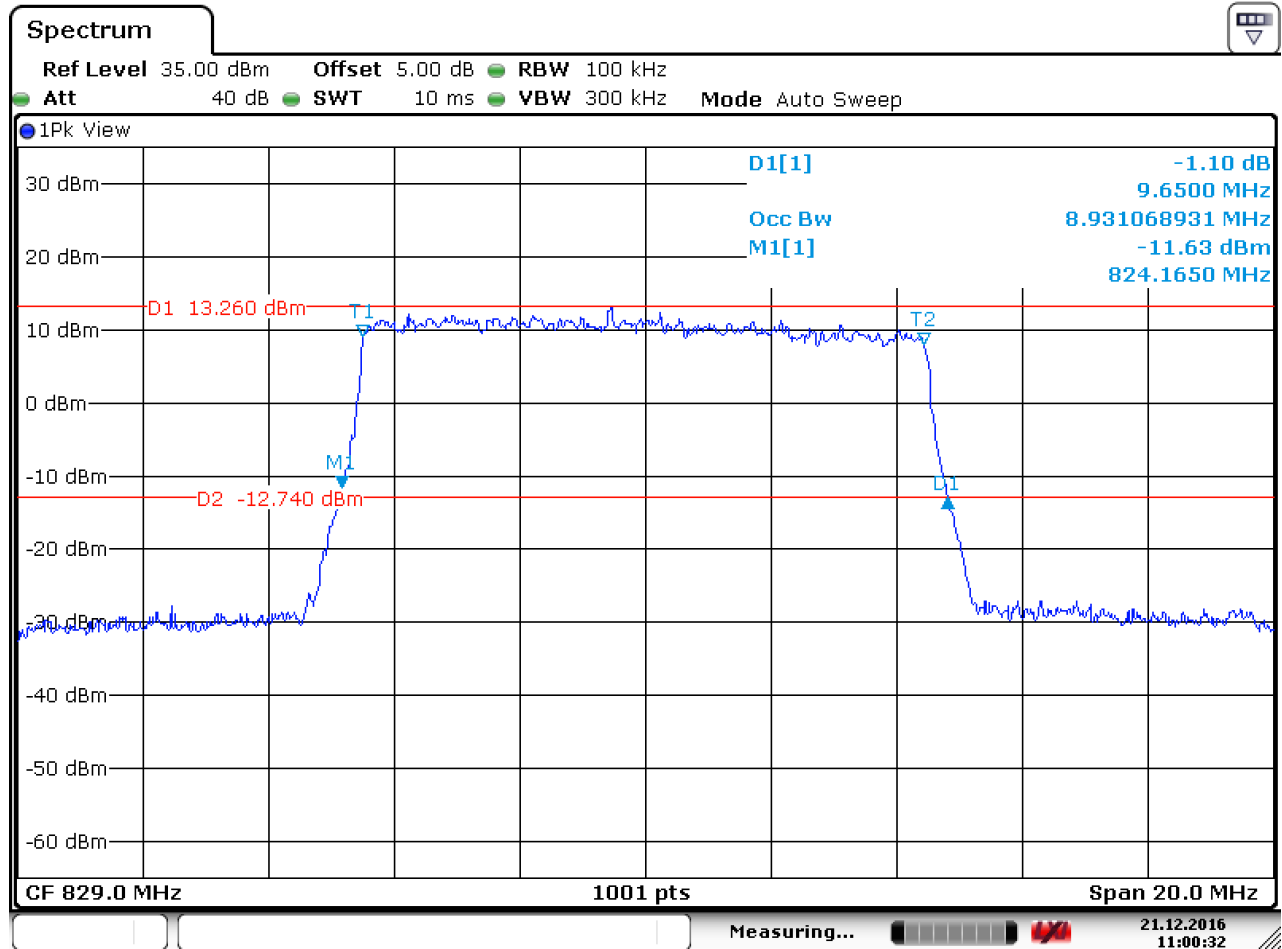
4.1.1.7.3 Test Channel = HCH



Date: 21.DEC.2016 11:02:45

4.1.1.8 Test Mode = LTE/TM2 10MHz

4.1.1.8.1 Test Channel = LCH

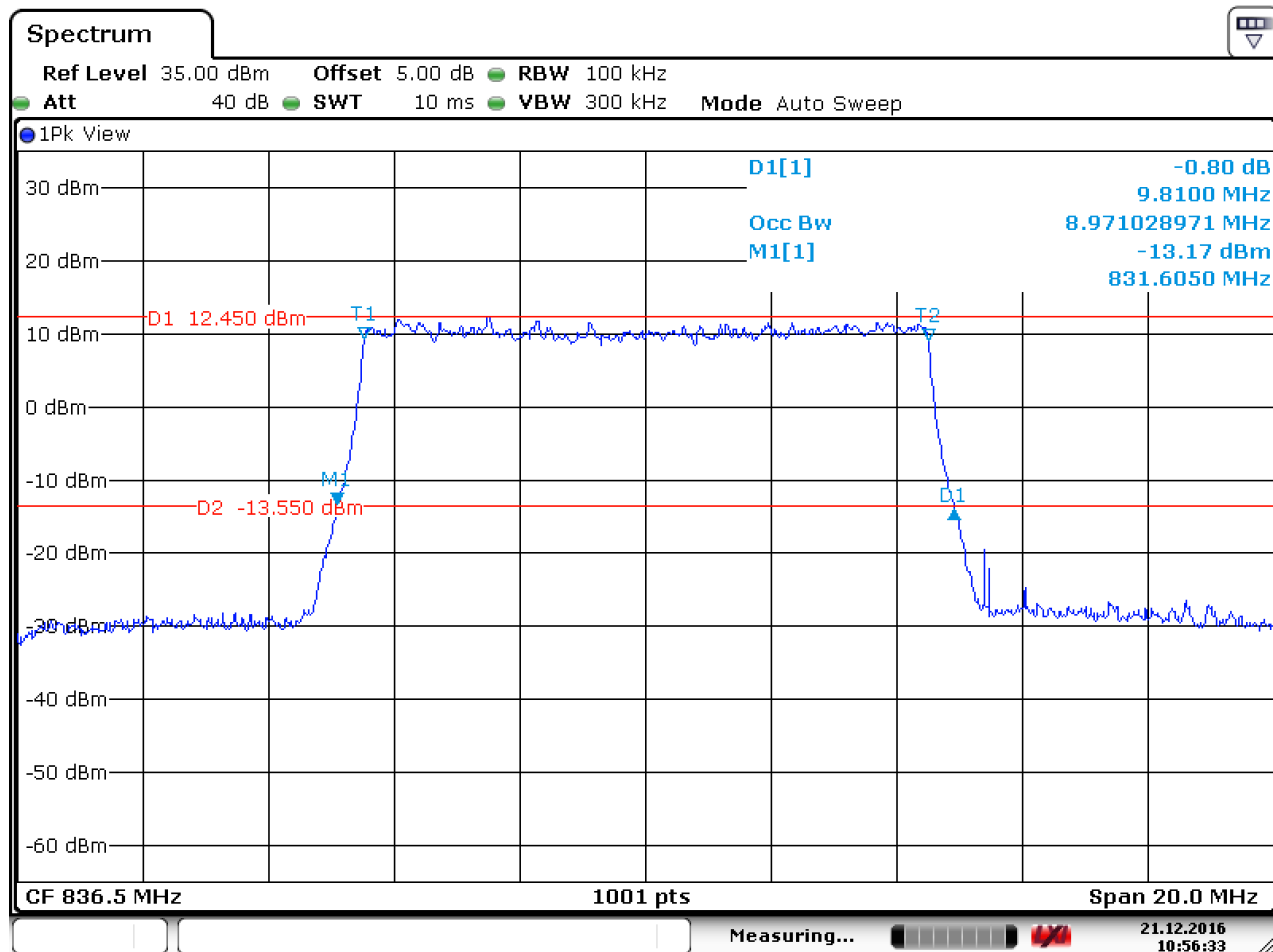


Date: 21.DEC.2016 11:00:32

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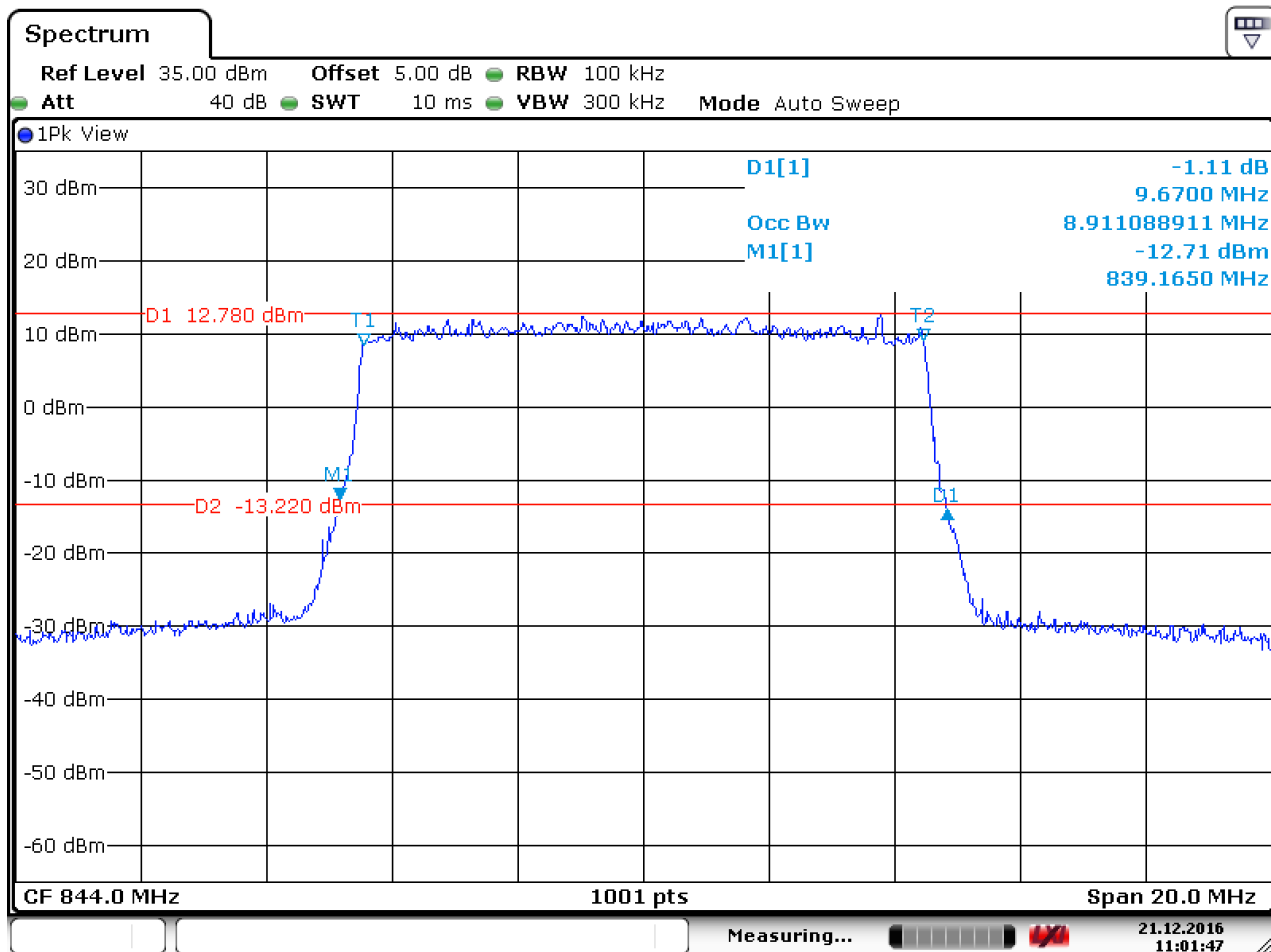
4.1.1.8.2 Test Channel = MCH



Date: 21.DEC.2016 10:56:34



4.1.1.8.3 Test Channel = HCH



Date: 21.DEC.2016 11:01:48



5 Band Edges Compliance

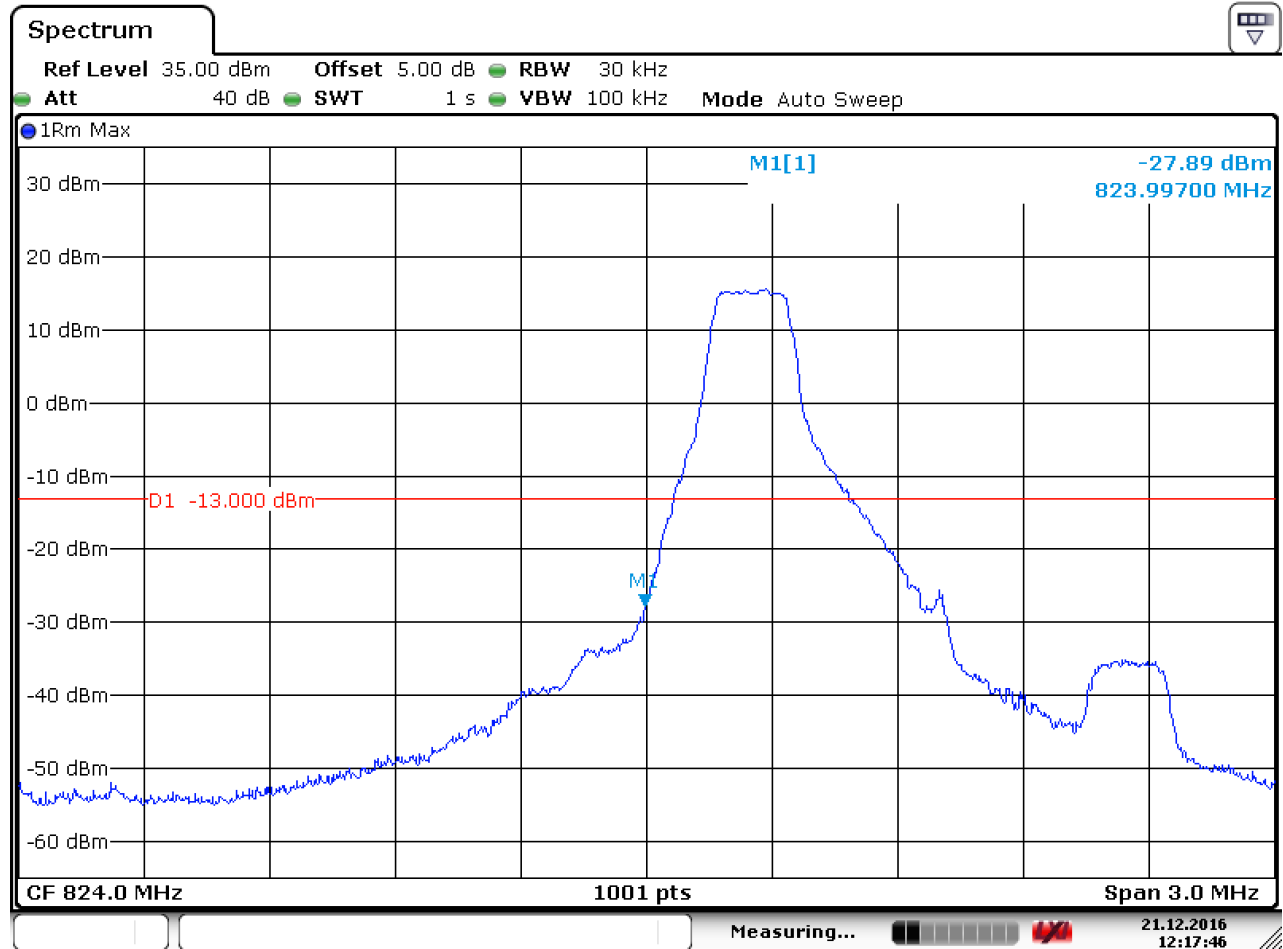
5.1 For LTE

5.1.1 Test Band = LTE band5

5.1.1.1 Test Mode = LTE/TM1 1.4MHz

5.1.1.1.1 Test Channel = LCH

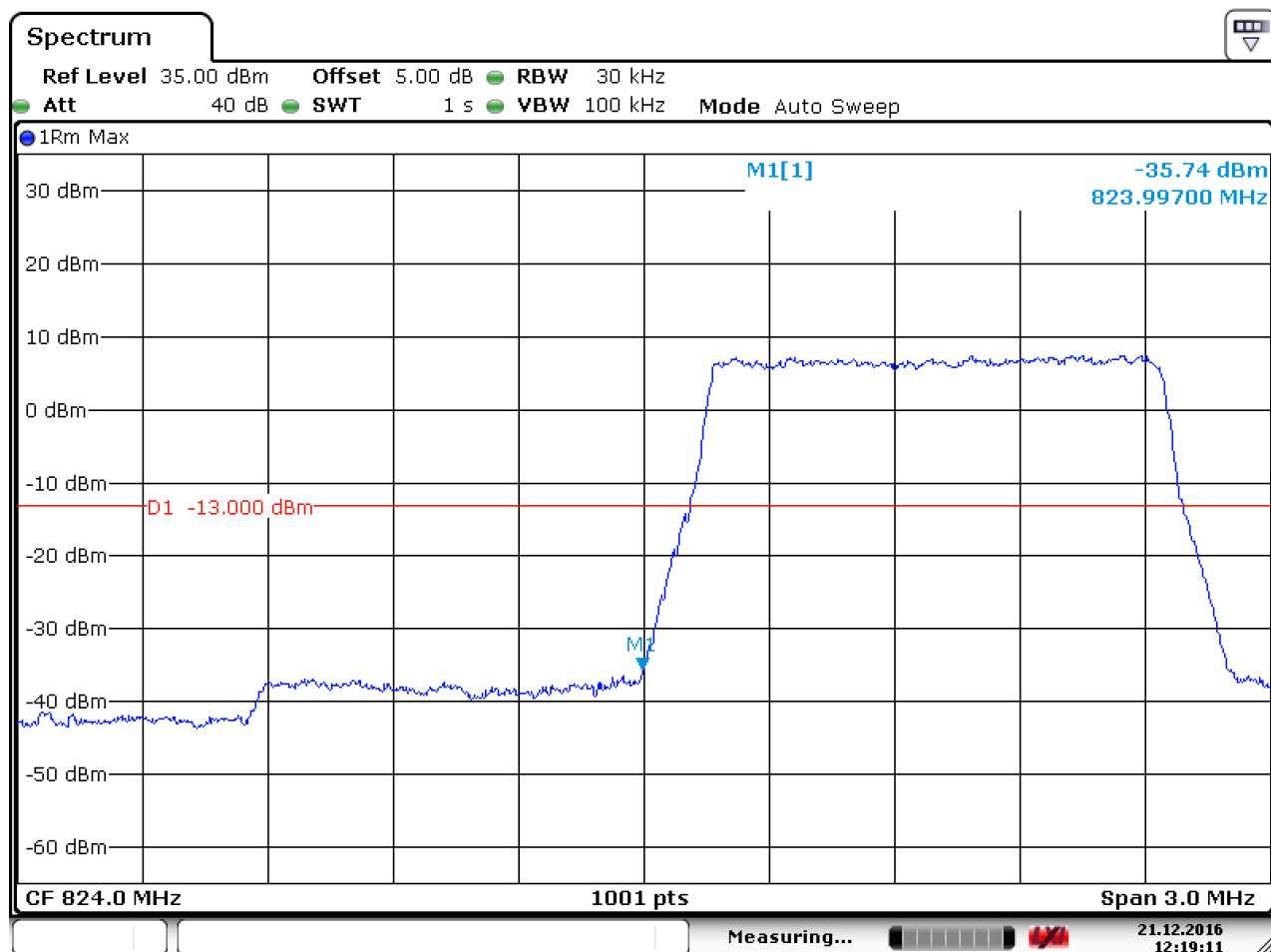
5.1.1.1.1.1 Test RB=1RB



Date: 21.DEC.2016 12:17:47



5.1.1.1.2 Test RB=6RB

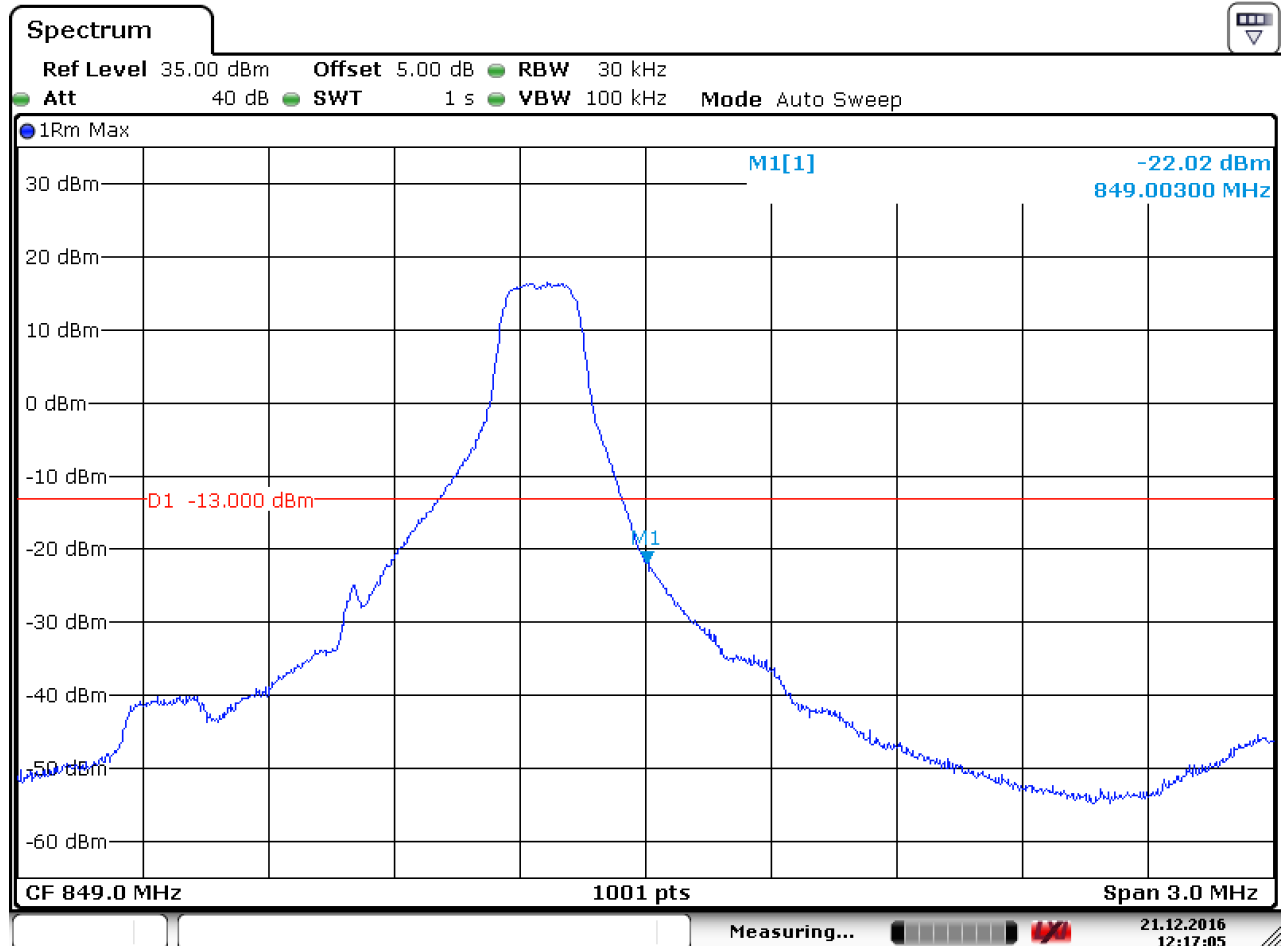


Date: 21.DEC.2016 12:19:11



5.1.1.1.2 Test Channel = HCH

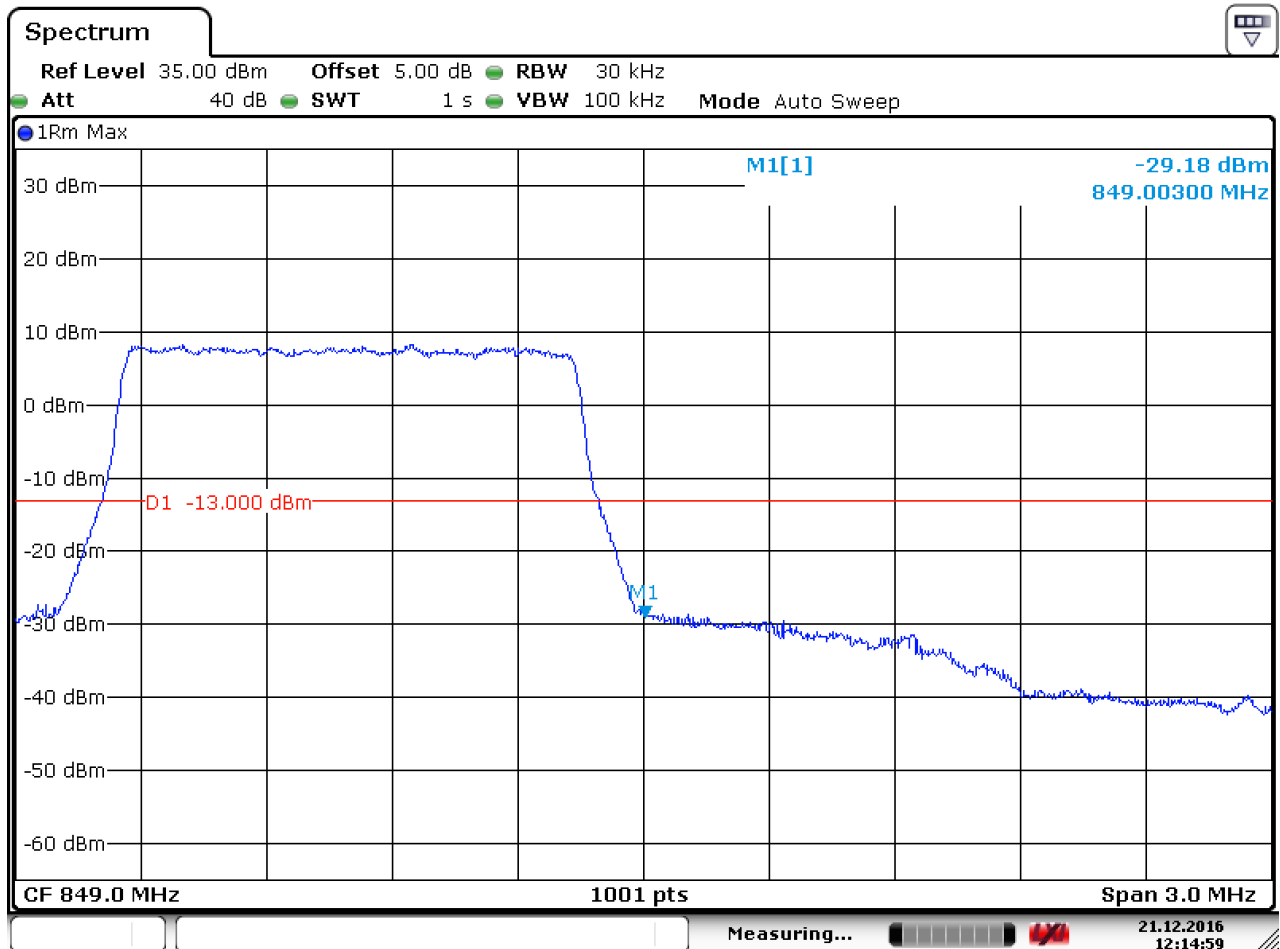
5.1.1.1.2.1 Test RB=1RB



Date: 21.DEC.2016 12:17:06



5.1.1.1.2.2 Test RB=6RB



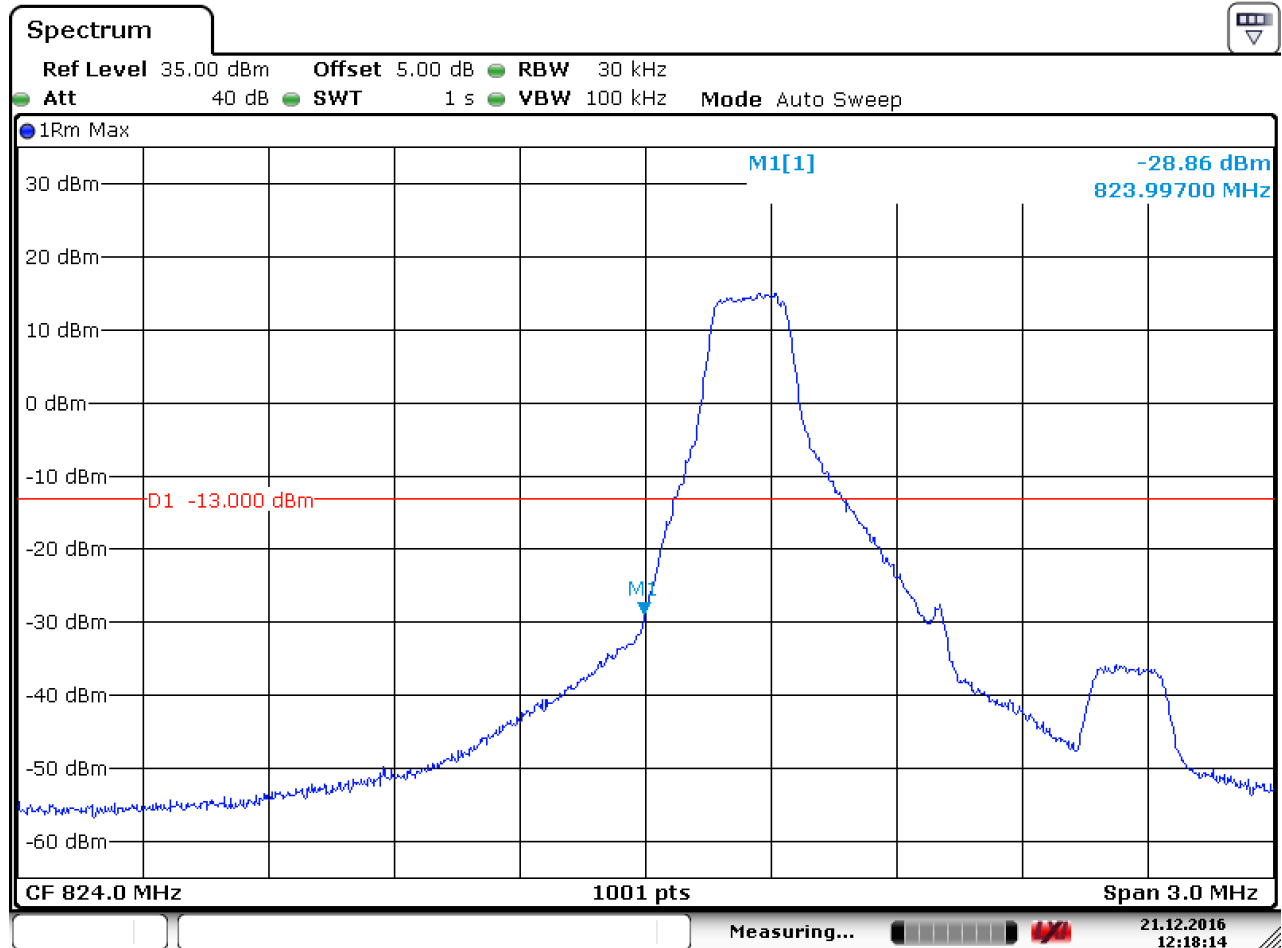
Date: 21.DEC.2016 12:15:00



5.1.1.2 Test Mode = LTE/TM2 1.4MHz

5.1.1.2.1 Test Channel = LCH

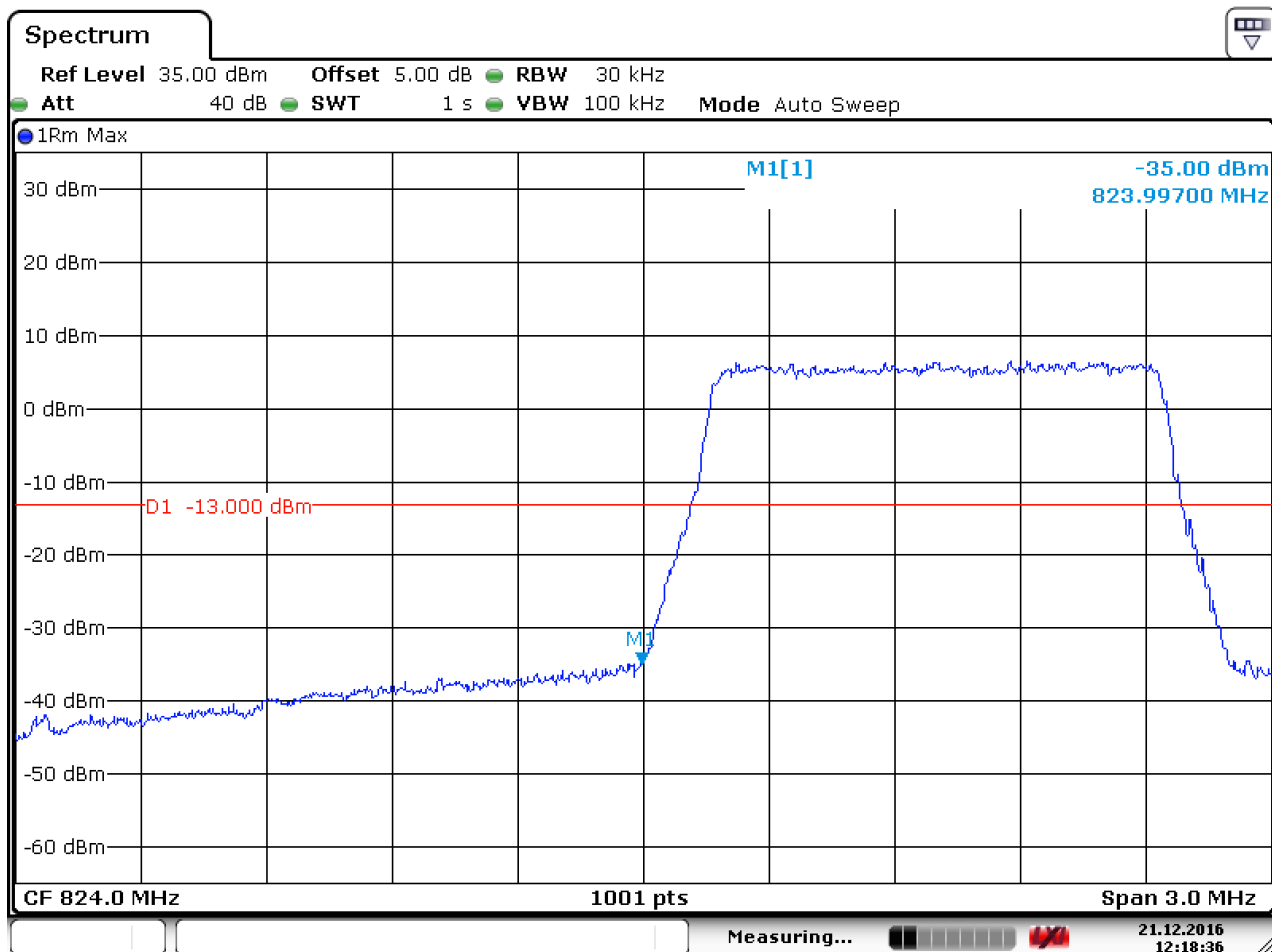
5.1.1.2.1.1 Test RB=1RB



Date: 21.DEC.2016 12:18:14



5.1.1.2.1.2 Test RB=6RB

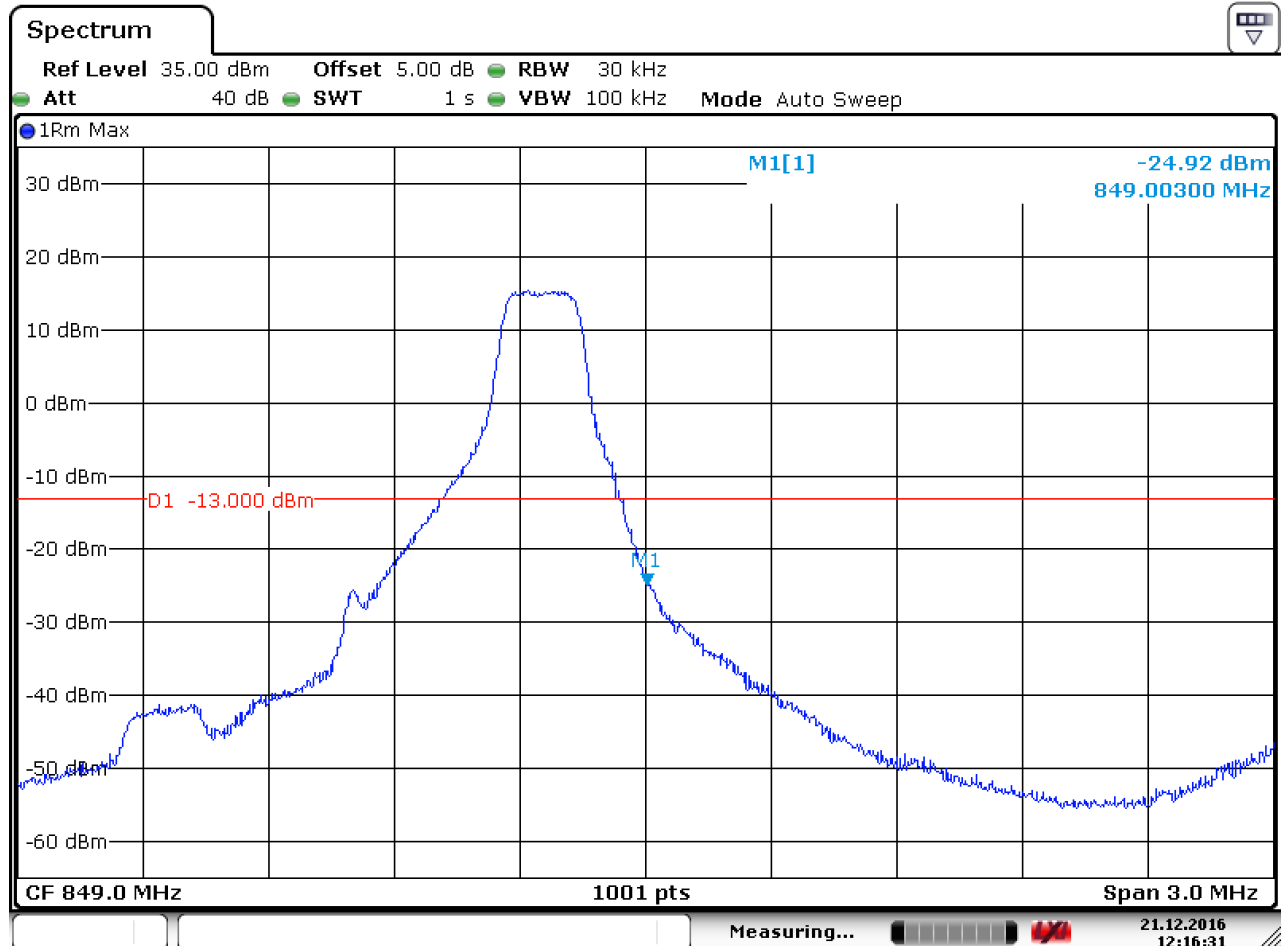


Date: 21.DEC.2016 12:18:37



5.1.1.2.2 Test Channel = HCH

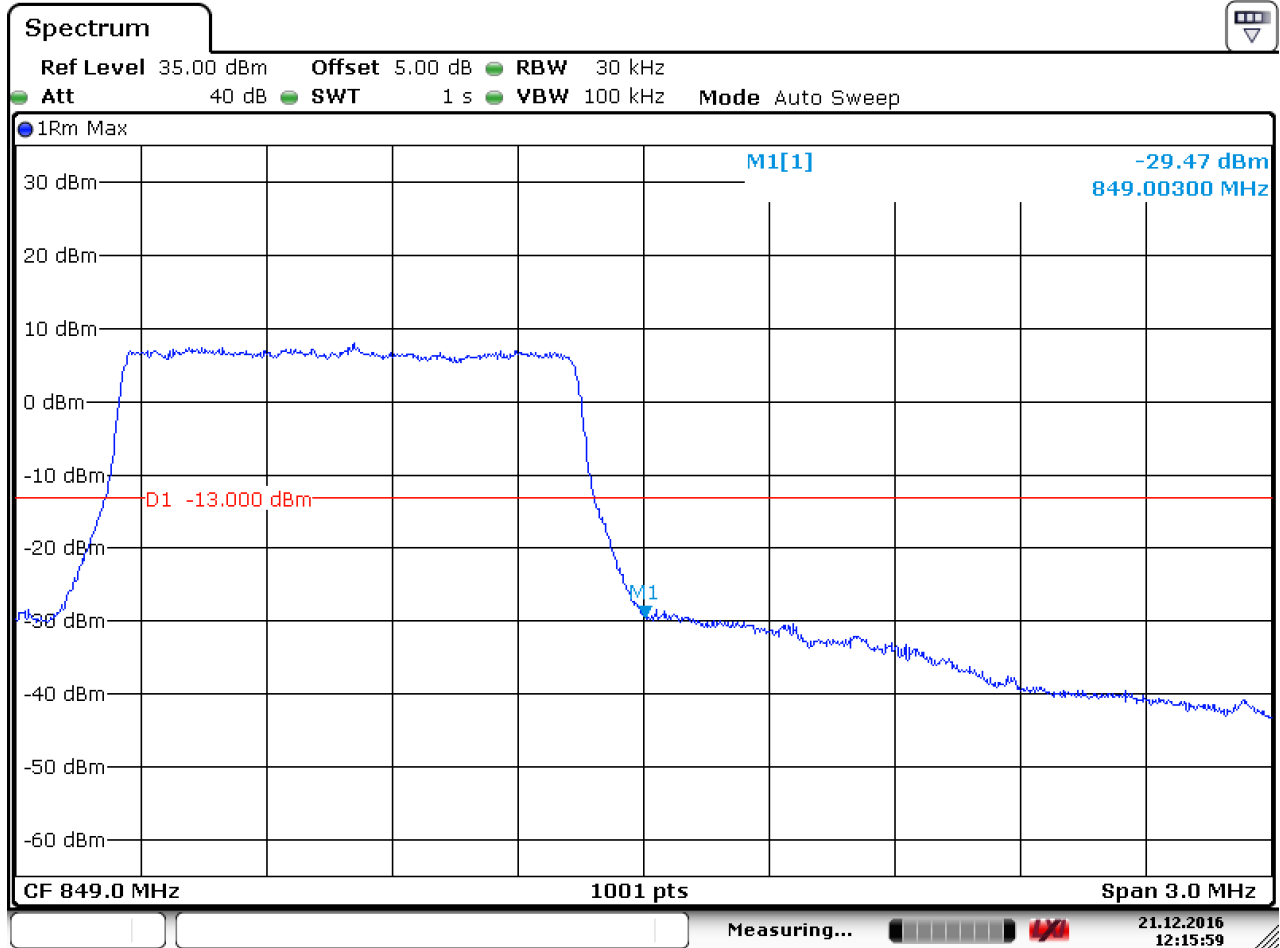
5.1.1.2.2.1 Test RB=1RB



Date: 21.DEC.2016 12:16:31



5.1.1.2.2.2 Test RB=6RB



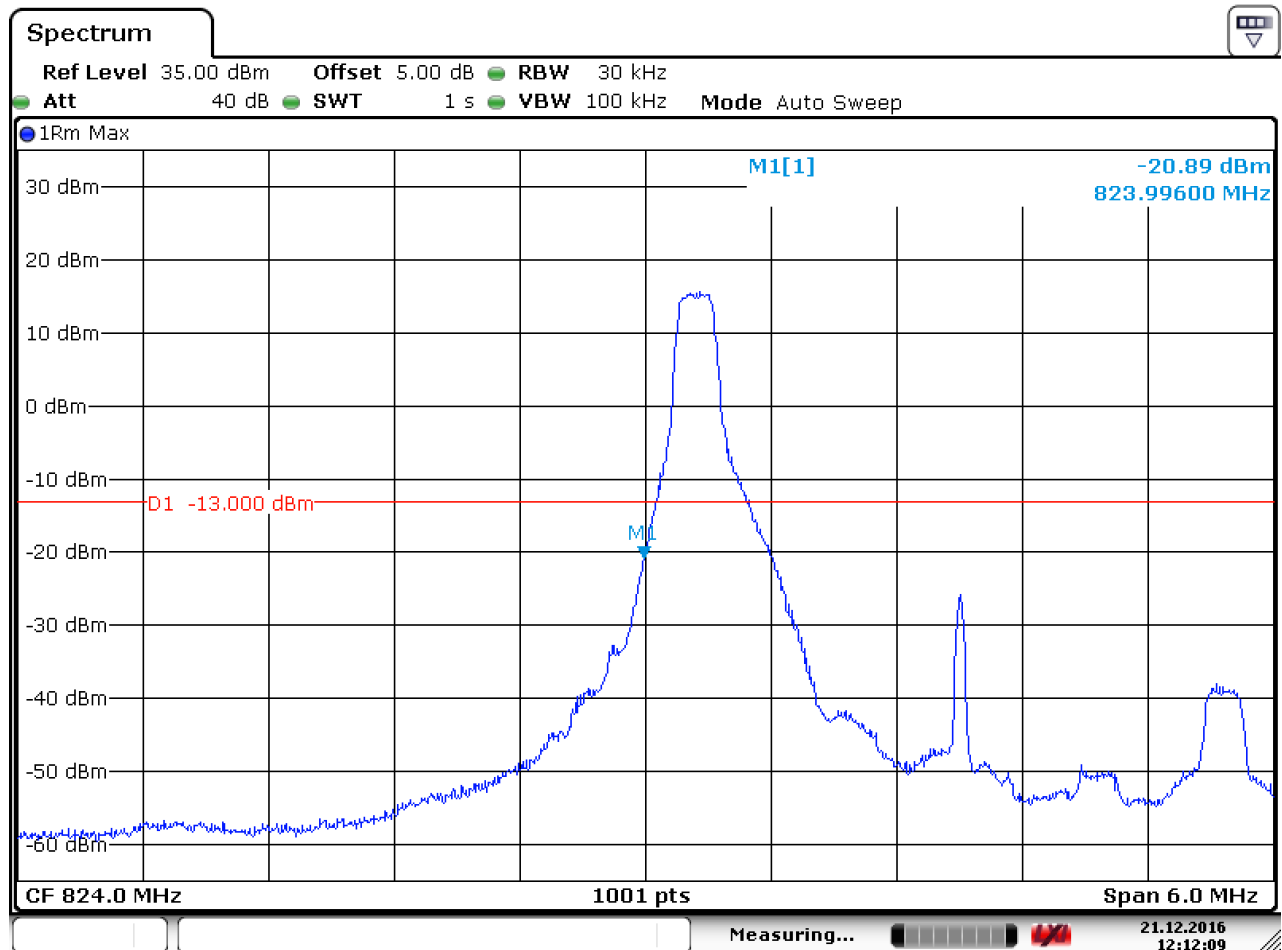
Date: 21.DEC.2016 12:15:59



5.1.1.3 Test Mode = LTE/TM1 3MHz

5.1.1.3.1 Test Channel = LCH

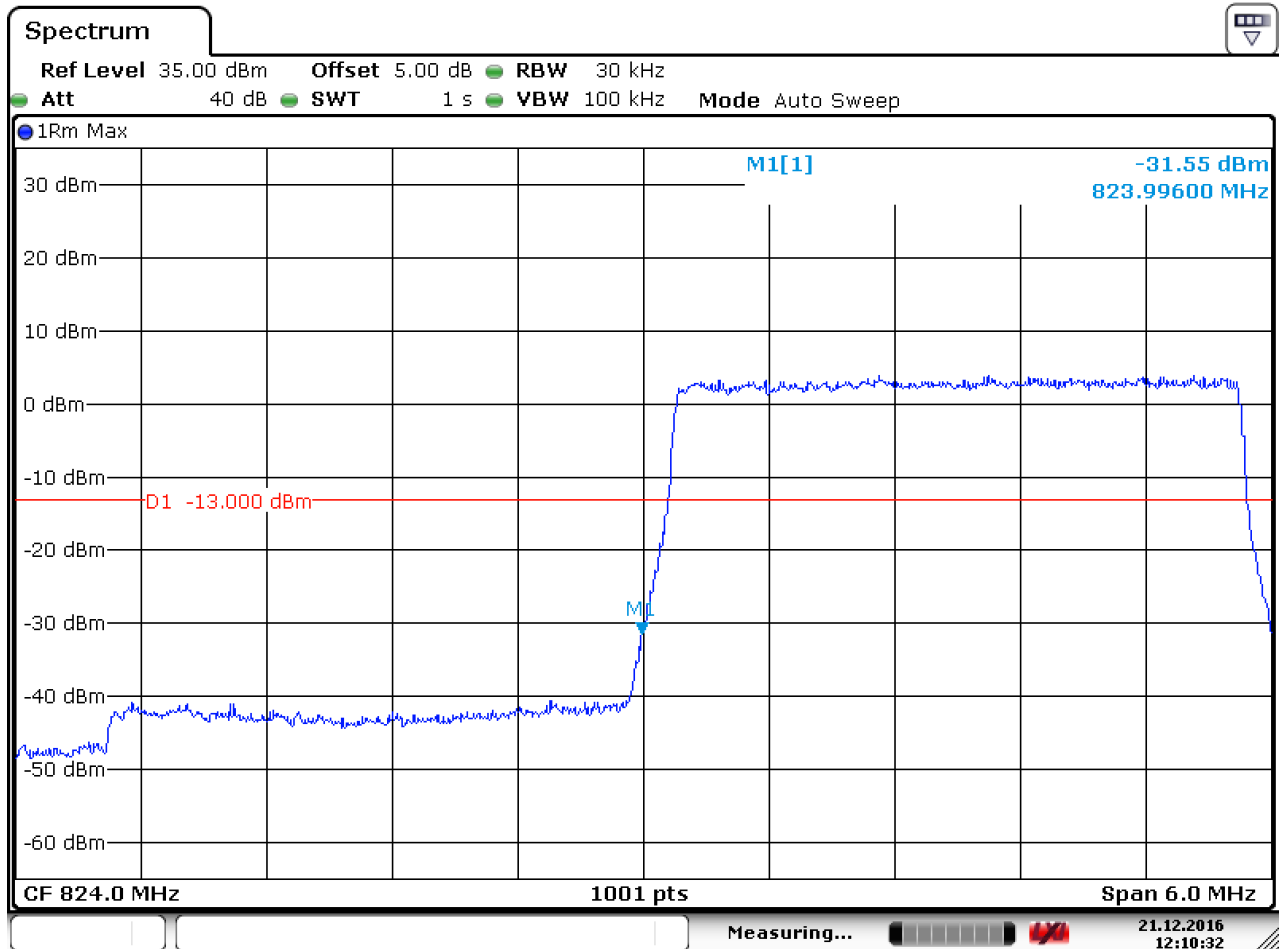
5.1.1.3.1.1 Test RB=1RB



Date: 21.DEC.2016 12:12:09



5.1.1.3.1.2 Test RB=15RB

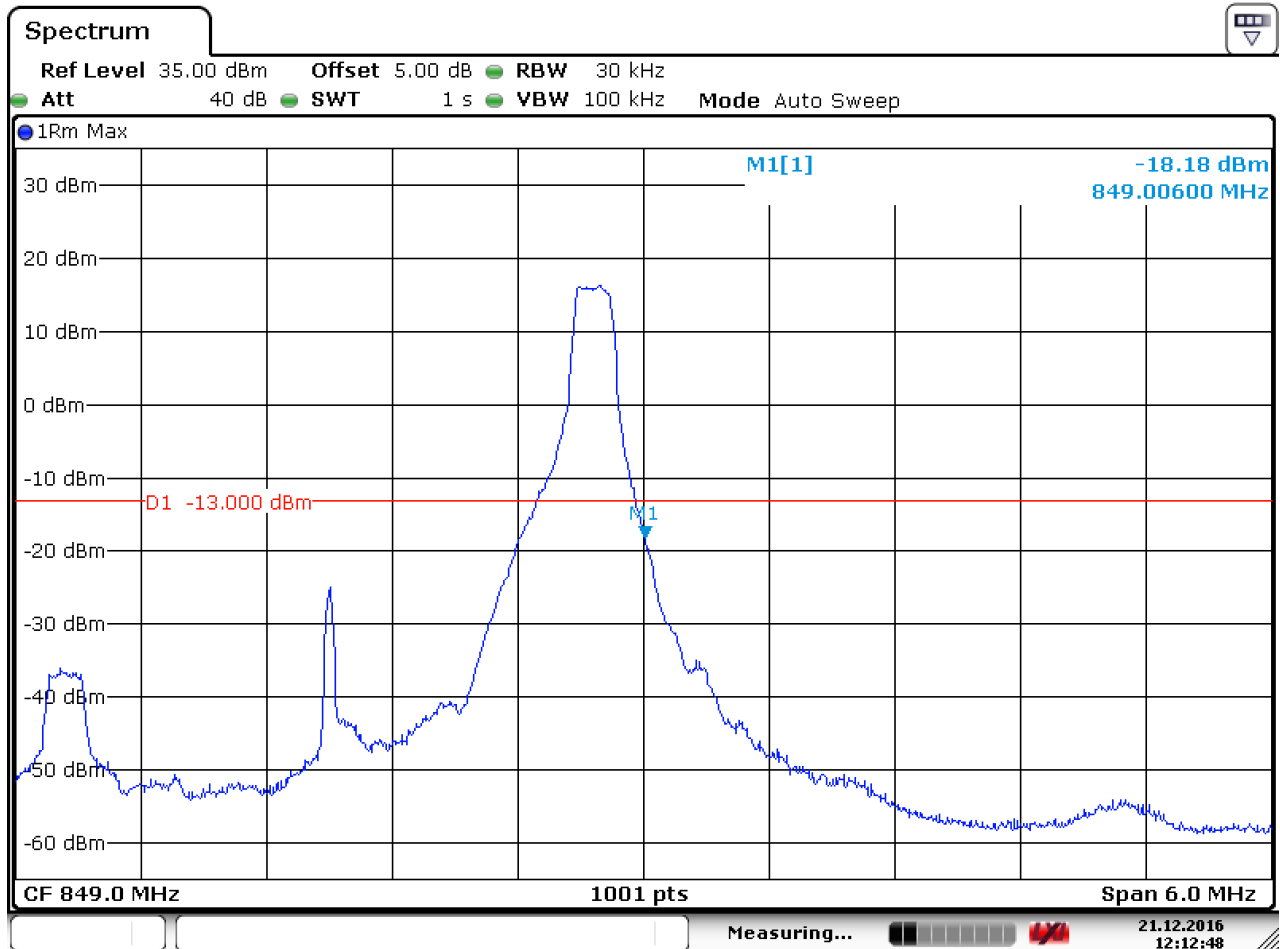


Date: 21.DEC.2016 12:10:32



5.1.1.3.2 Test Channel = HCH

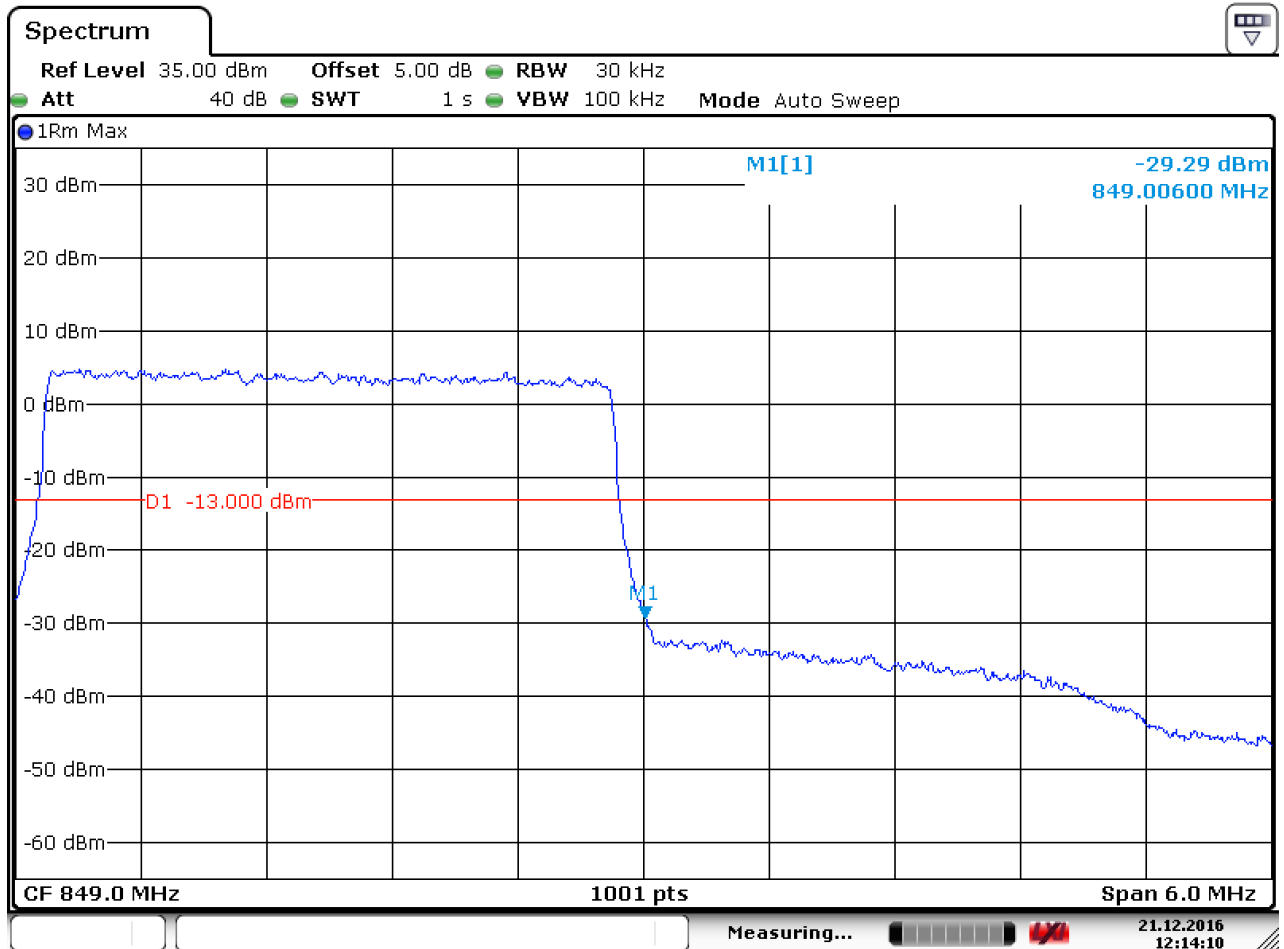
5.1.1.3.2.1 Test RB=1RB



Date: 21.DEC.2016 12:12:48



5.1.1.3.2.2 Test RB=15RB

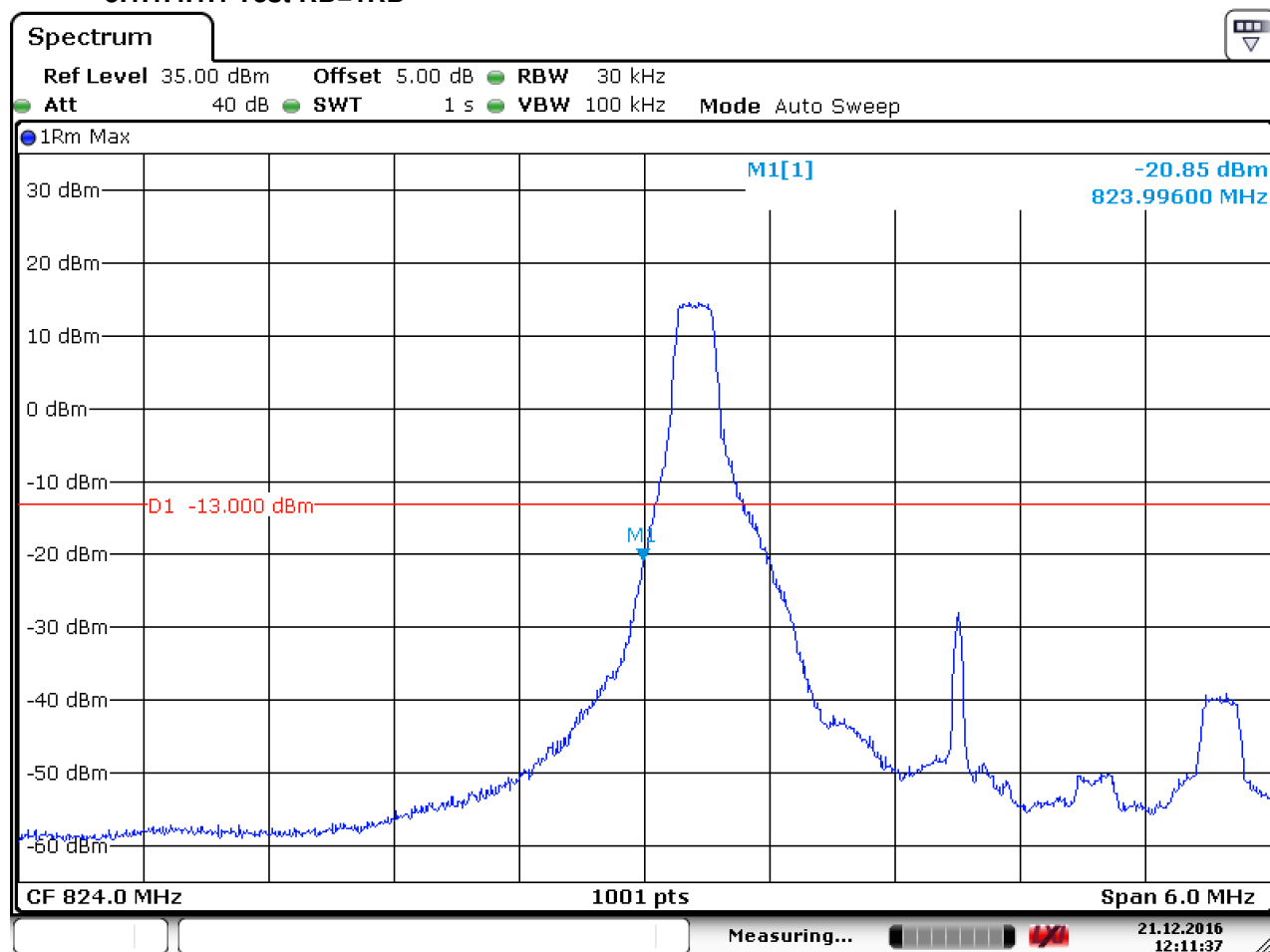


Date: 21.DEC.2016 12:14:10

5.1.1.4 Test Mode = LTE/TM2 3MHz

5.1.1.4.1 Test Channel = LCH

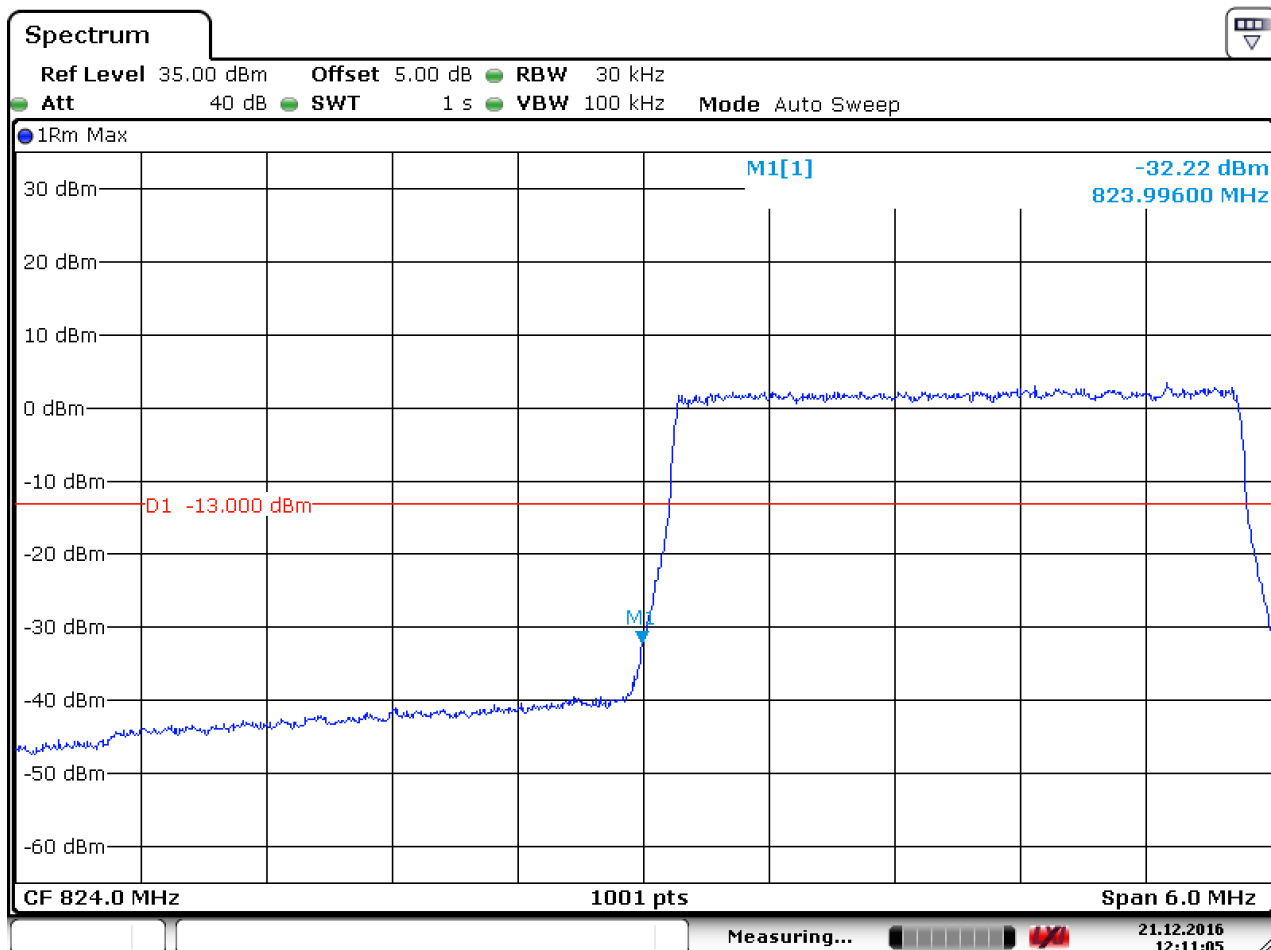
5.1.1.4.1.1 Test RB=1RB



Date: 21.DEC.2016 12:11:37



5.1.1.4.1.2 Test RB=15RB

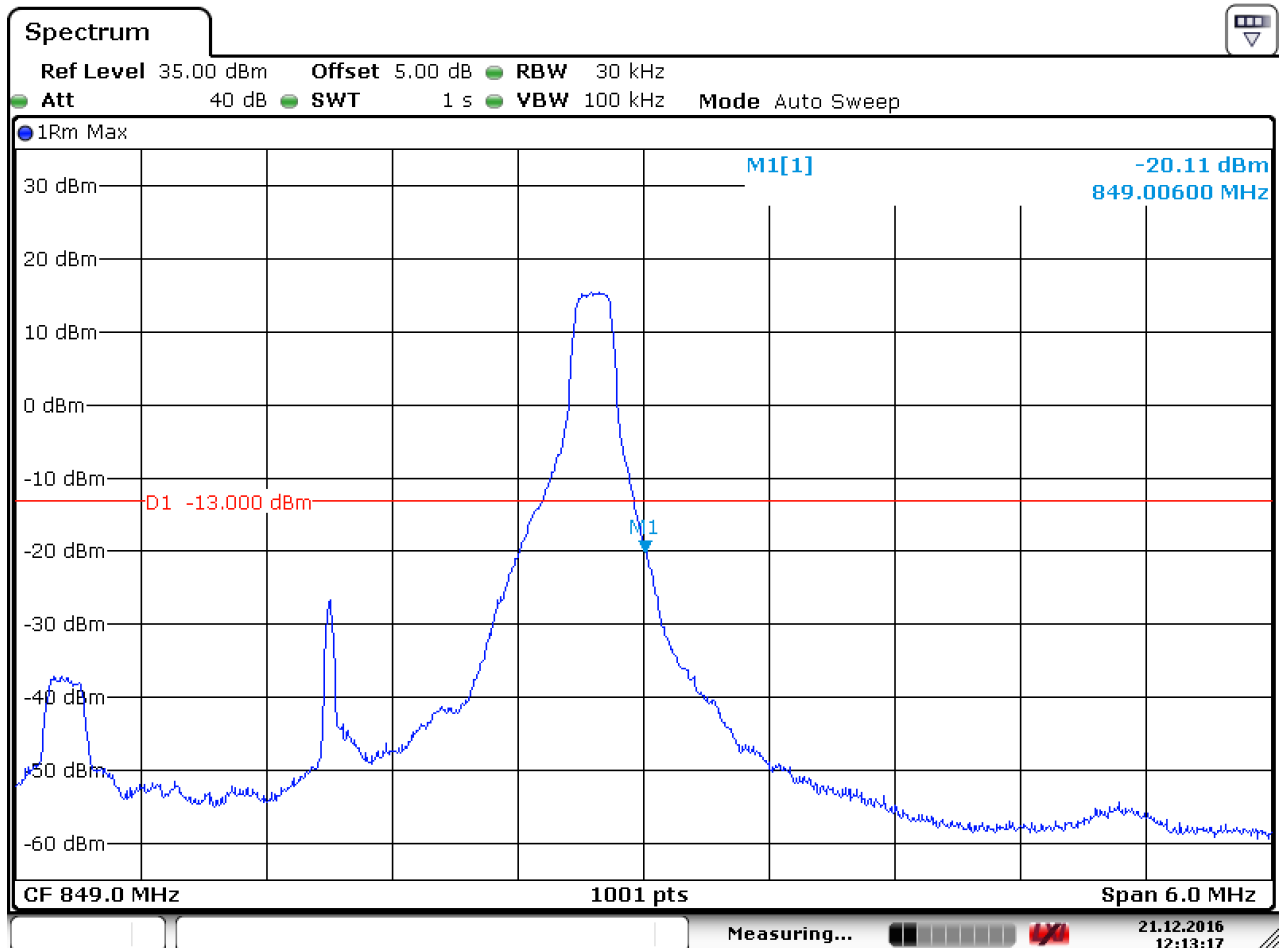


Date: 21.DEC.2016 12:11:05



5.1.1.4.2 Test Channel = HCH

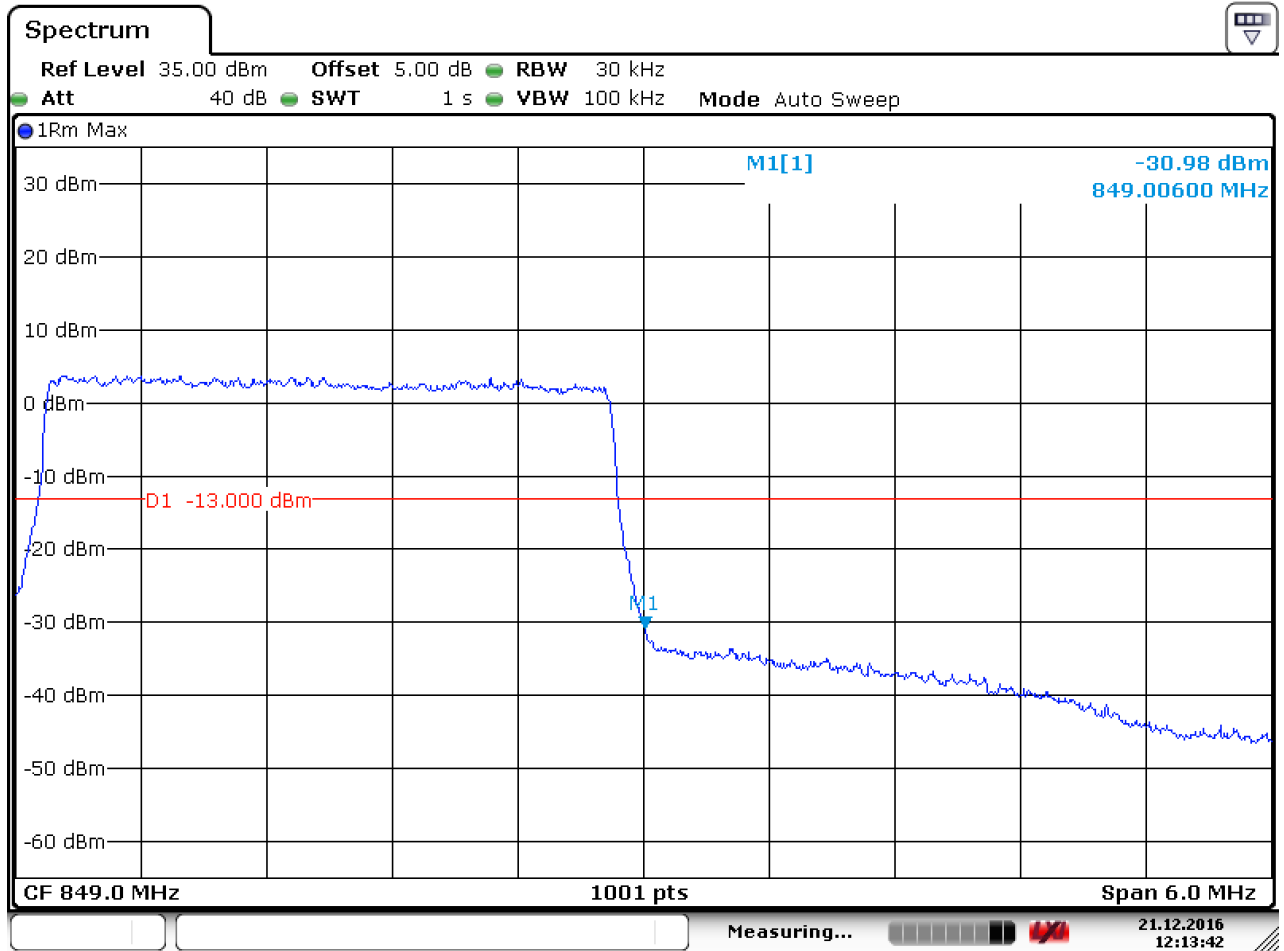
5.1.1.4.2.1 Test RB=1RB



Date: 21.DEC.2016 12:13:17



5.1.1.4.3 Test RB=15RB



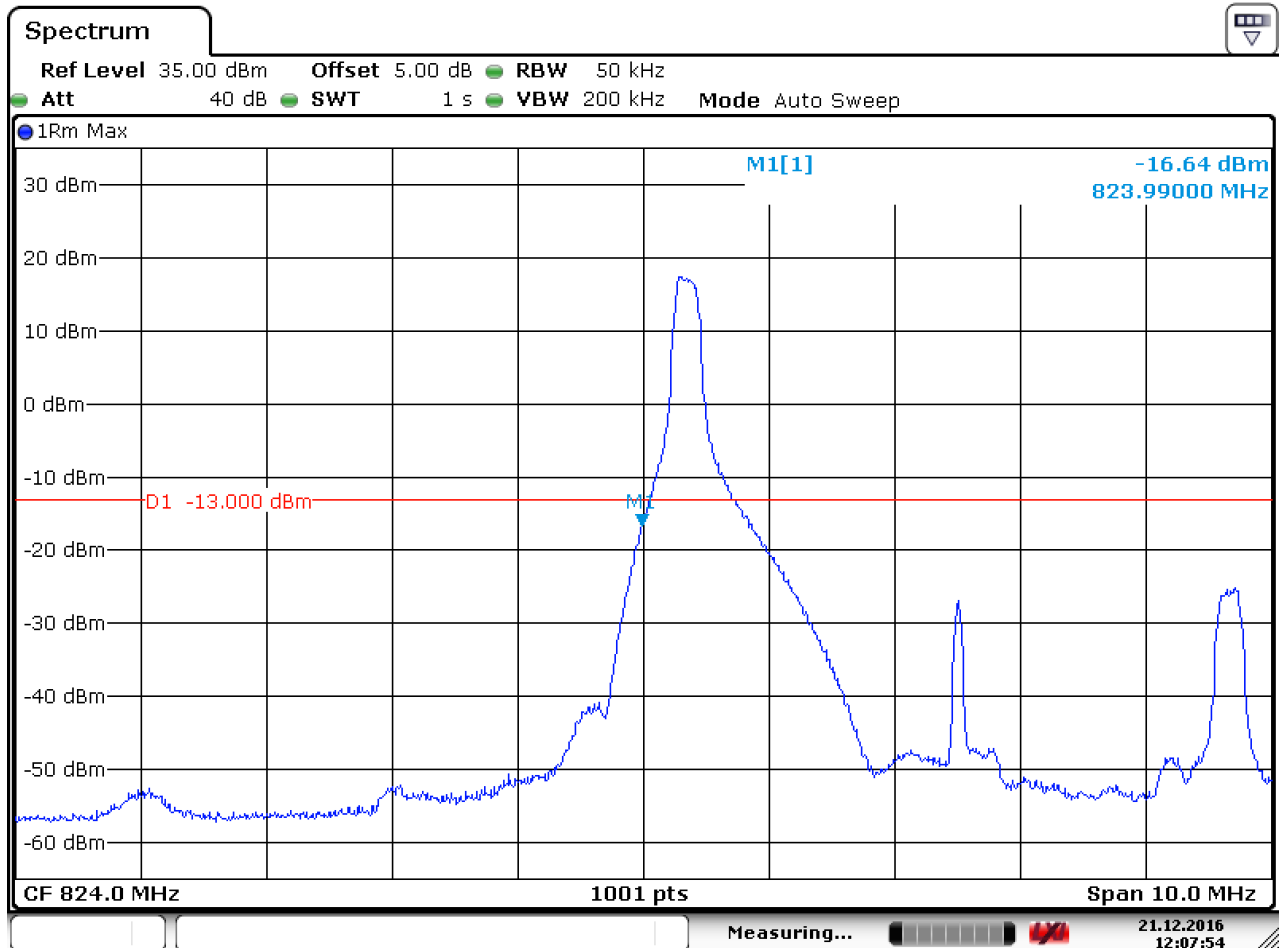
Date: 21.DEC.2016 12:13:42



5.1.1.5 Test Mode = LTE/TM1 5MHz

5.1.1.5.1 Test Channel = LCH

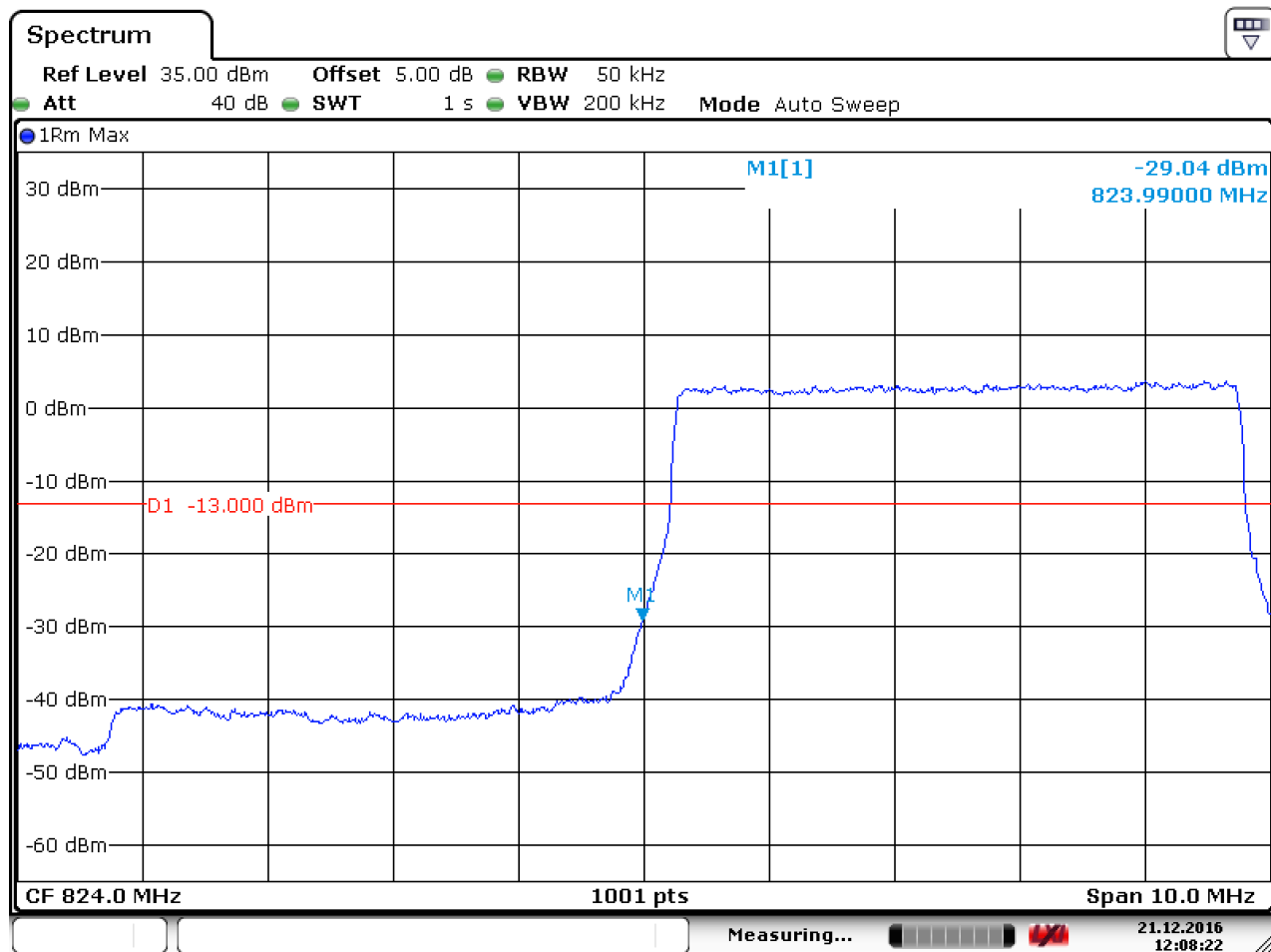
5.1.1.5.1.1 Test RB=1RB



Date: 21.DEC.2016 12:07:54



5.1.1.5.1.2 Test RB=25RB

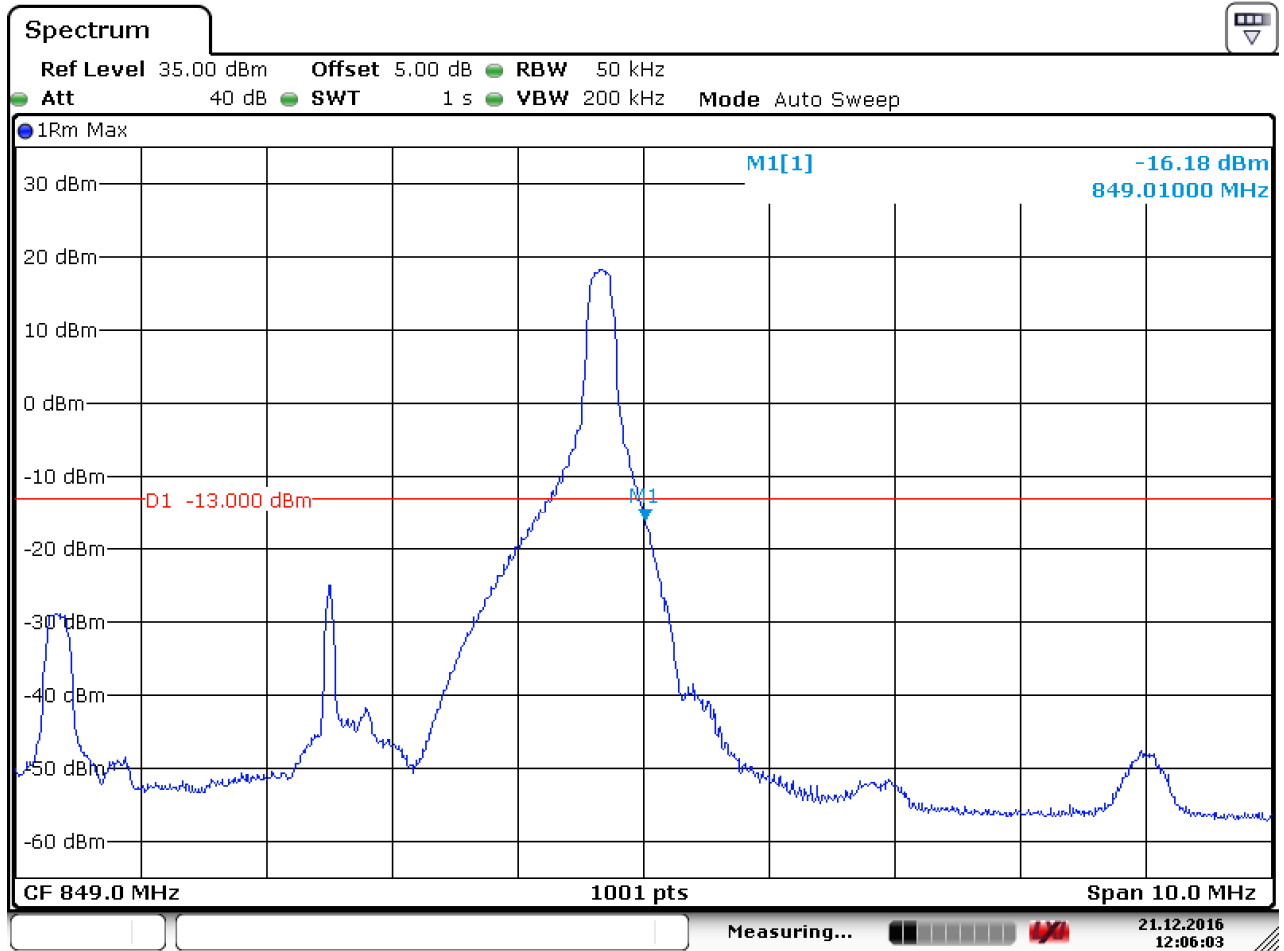


Date: 21.DEC.2016 12:08:22



5.1.1.5.2 Test Channel = HCH

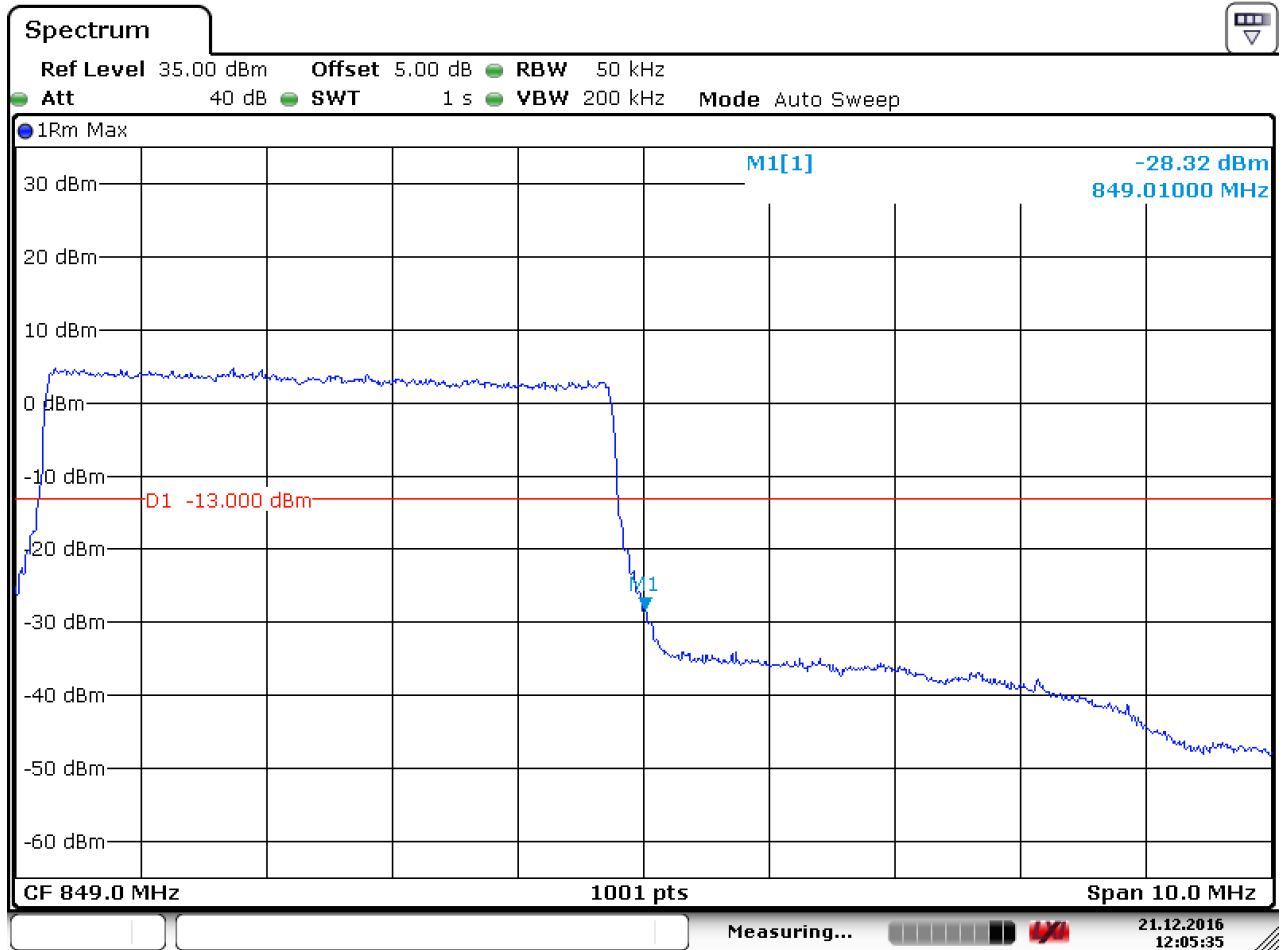
5.1.1.5.2.1 Test RB=1RB



Date: 21.DEC.2016 12:06:03



5.1.1.5.2.2 Test RB=25RB



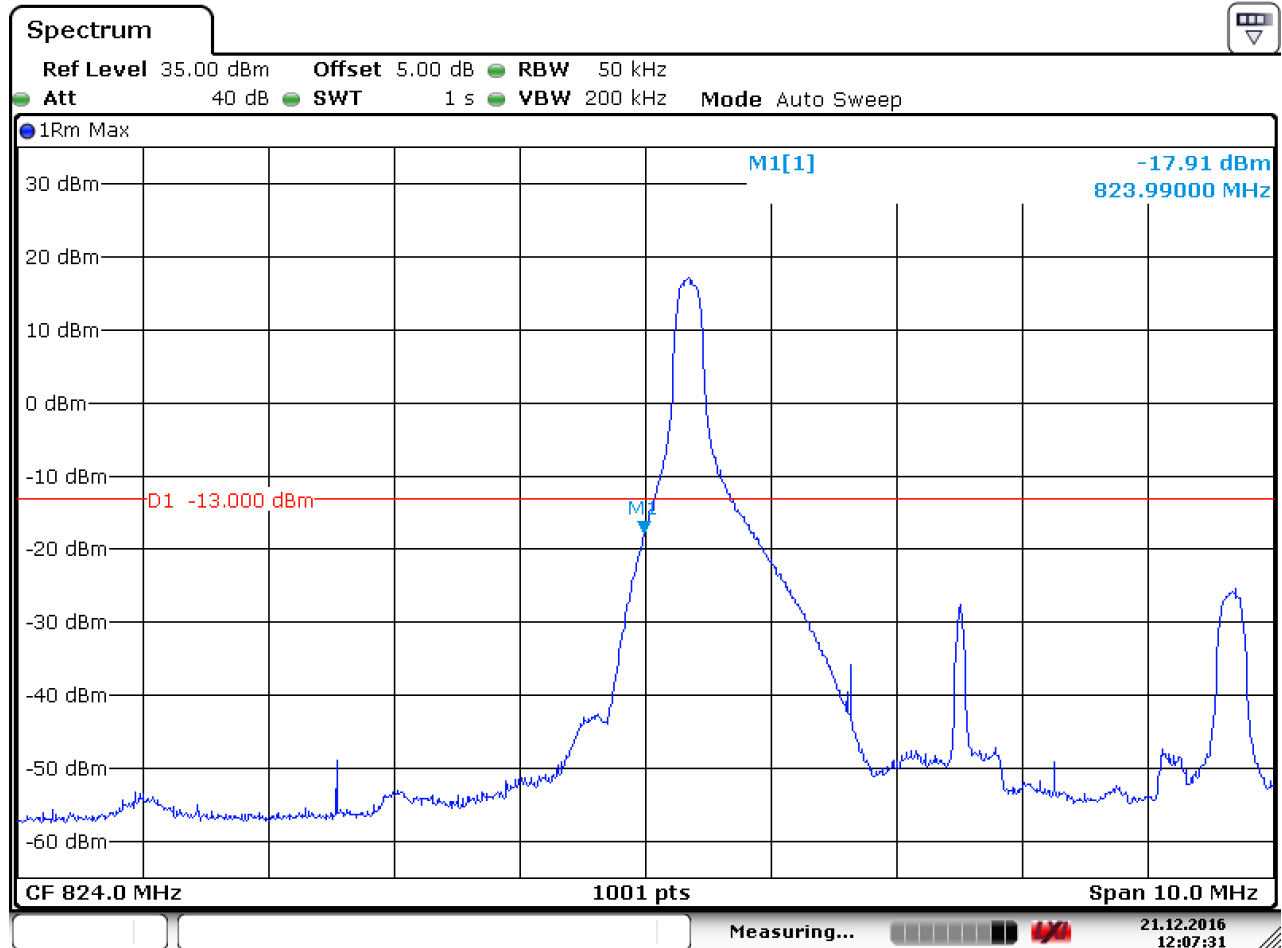
Date: 21.DEC.2016 12:05:35



5.1.1.6 Test Mode = LTE/TM2 5MHz

5.1.1.6.1 Test Channel = LCH

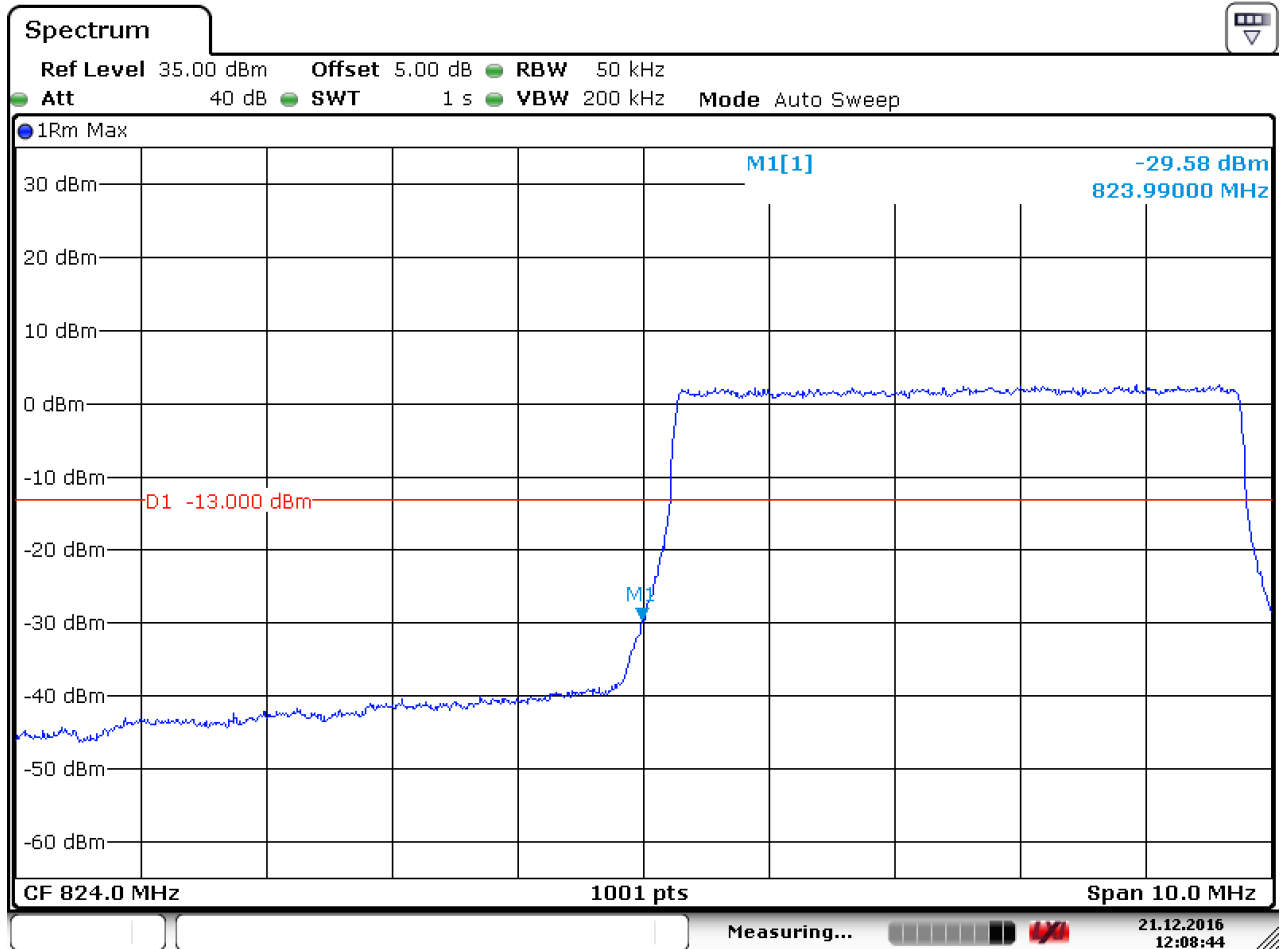
5.1.1.6.1.1 Test RB=1RB



Date: 21.DEC.2016 12:07:32



5.1.1.6.1.2 Test RB=25RB

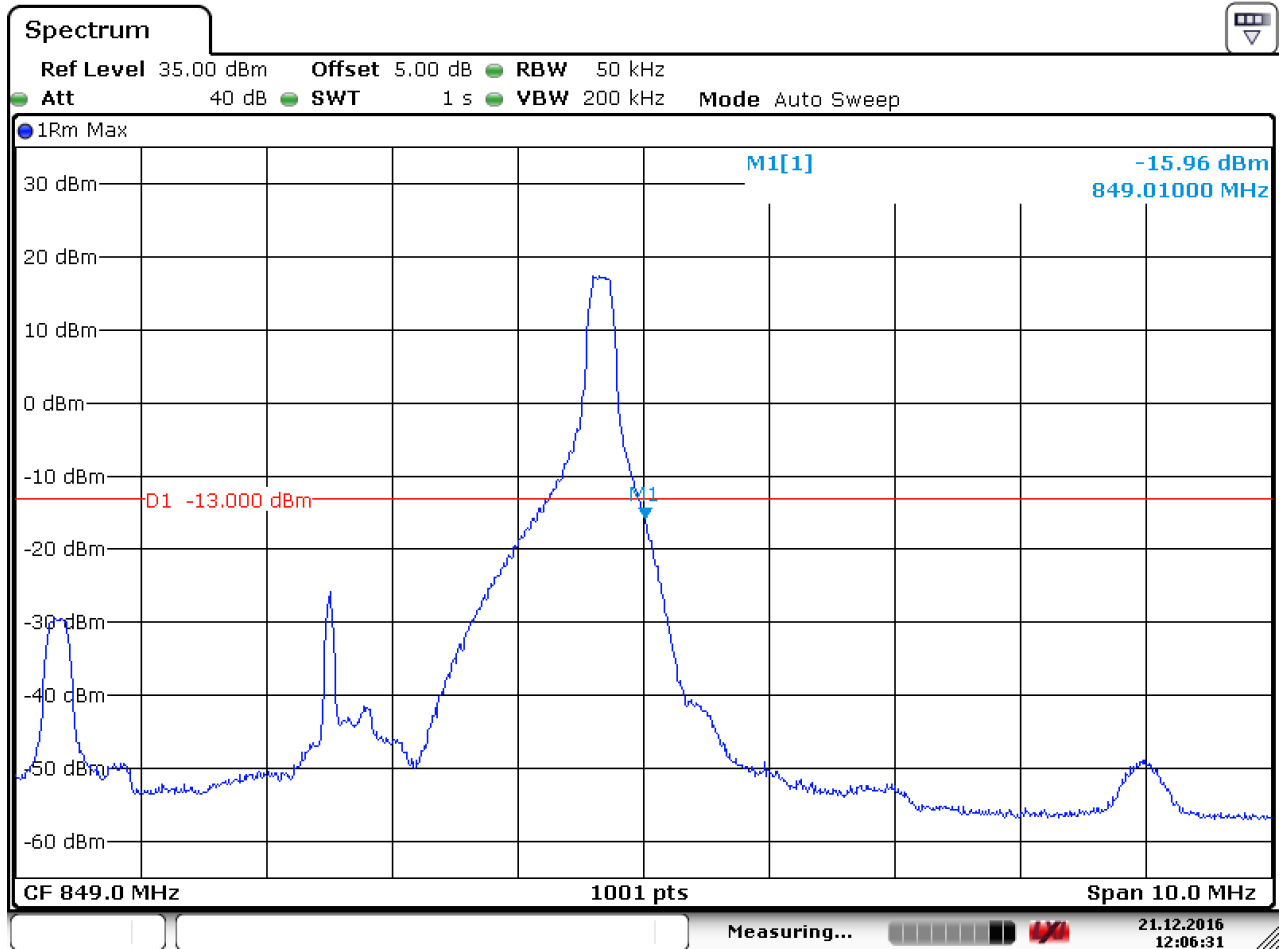


Date: 21.DEC.2016 12:08:45



5.1.1.6.2 Test Channel = HCH

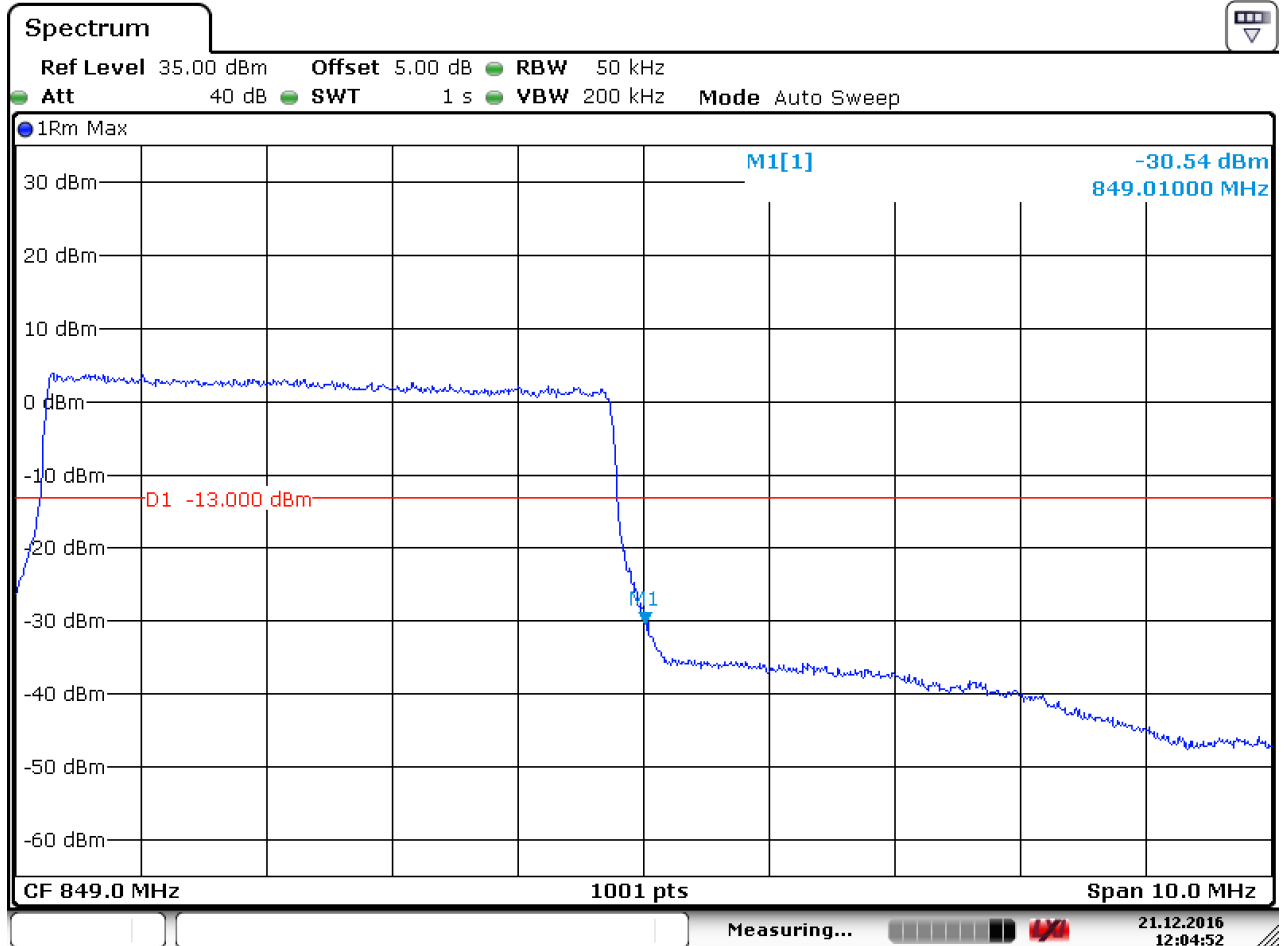
5.1.1.6.2.1 Test RB=1RB



Date: 21.DEC.2016 12:06:32



5.1.1.6.2.2 Test RB=25RB



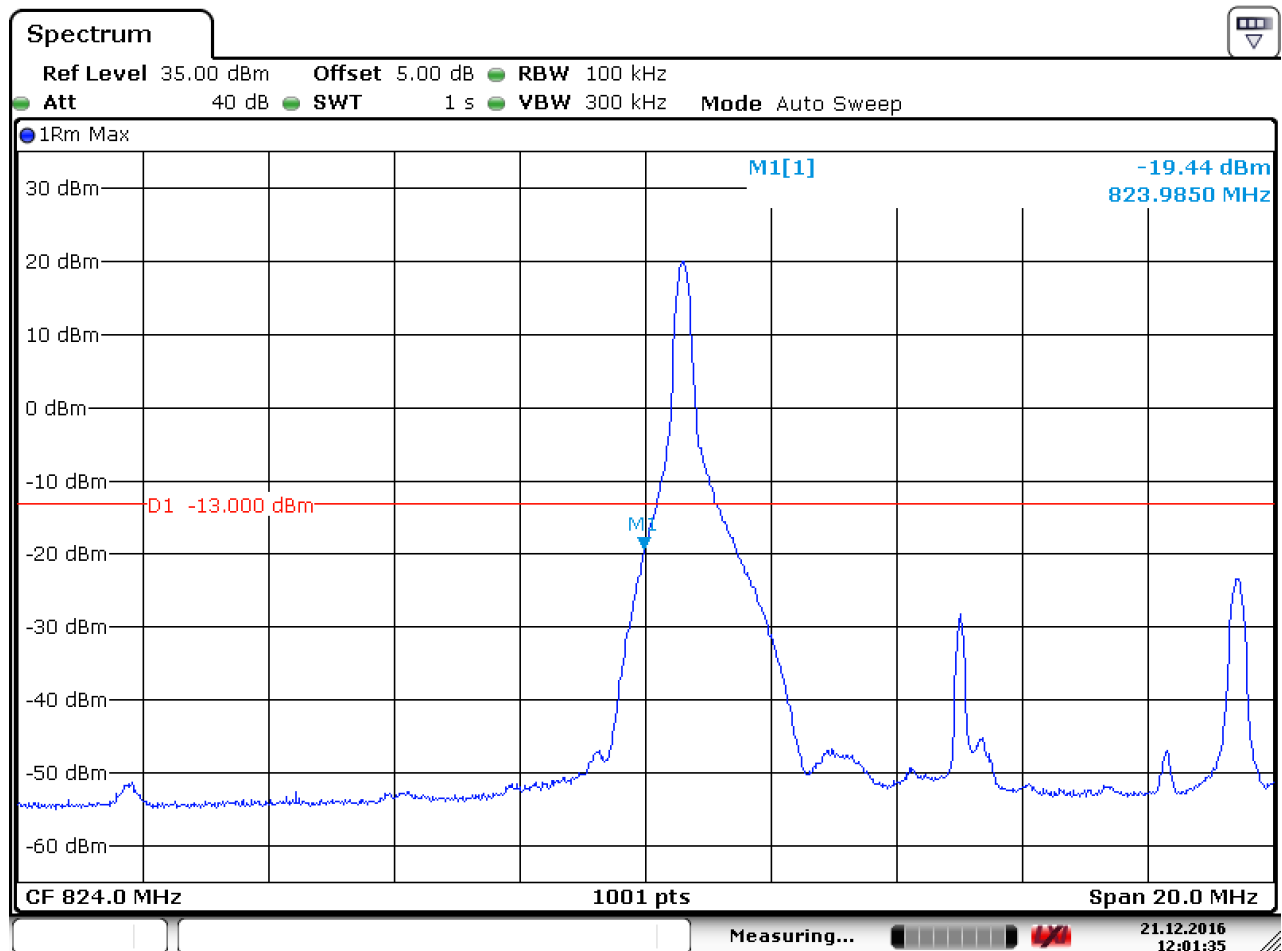
Date: 21.DEC.2016 12:04:52



5.1.1.7 Test Mode = LTE/TM1 10MHz

5.1.1.7.1 Test Channel = LCH

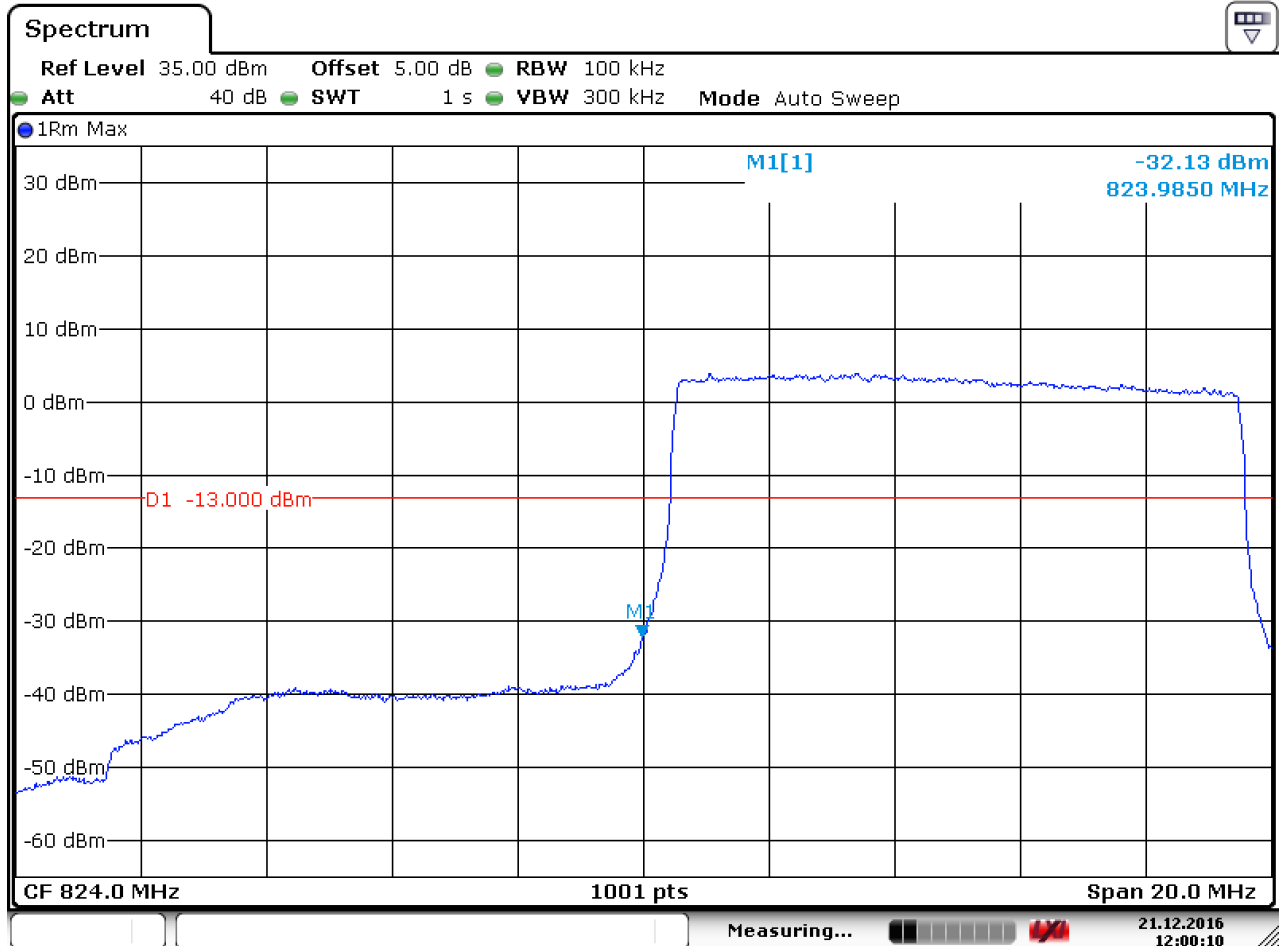
5.1.1.7.1.1 Test RB=1RB



Date: 21.DEC.2016 12:01:35



5.1.1.7.1.2 Test RB=50RB

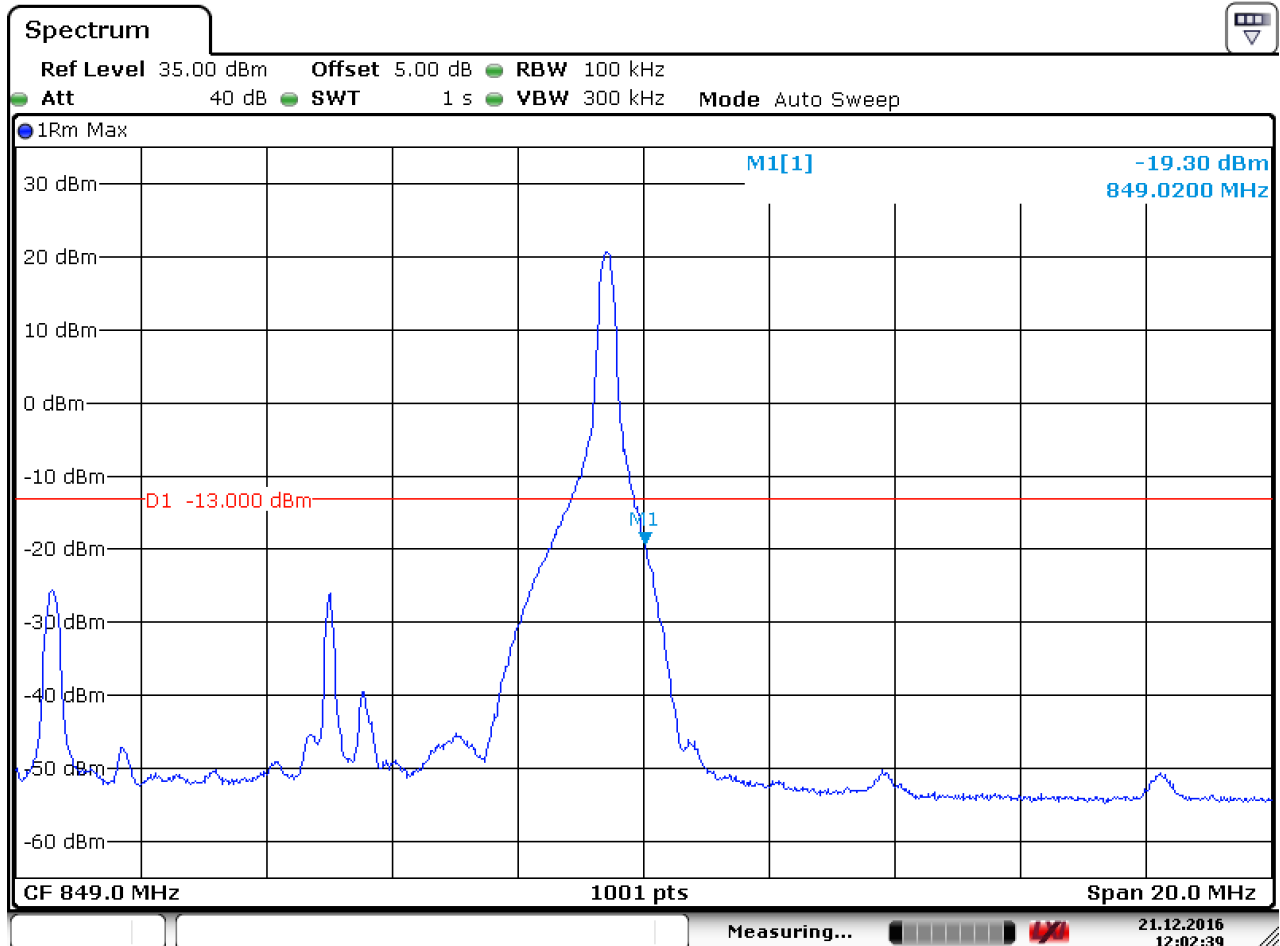


Date: 21.DEC.2016 12:00:11



5.1.1.7.2 Test Channel = HCH

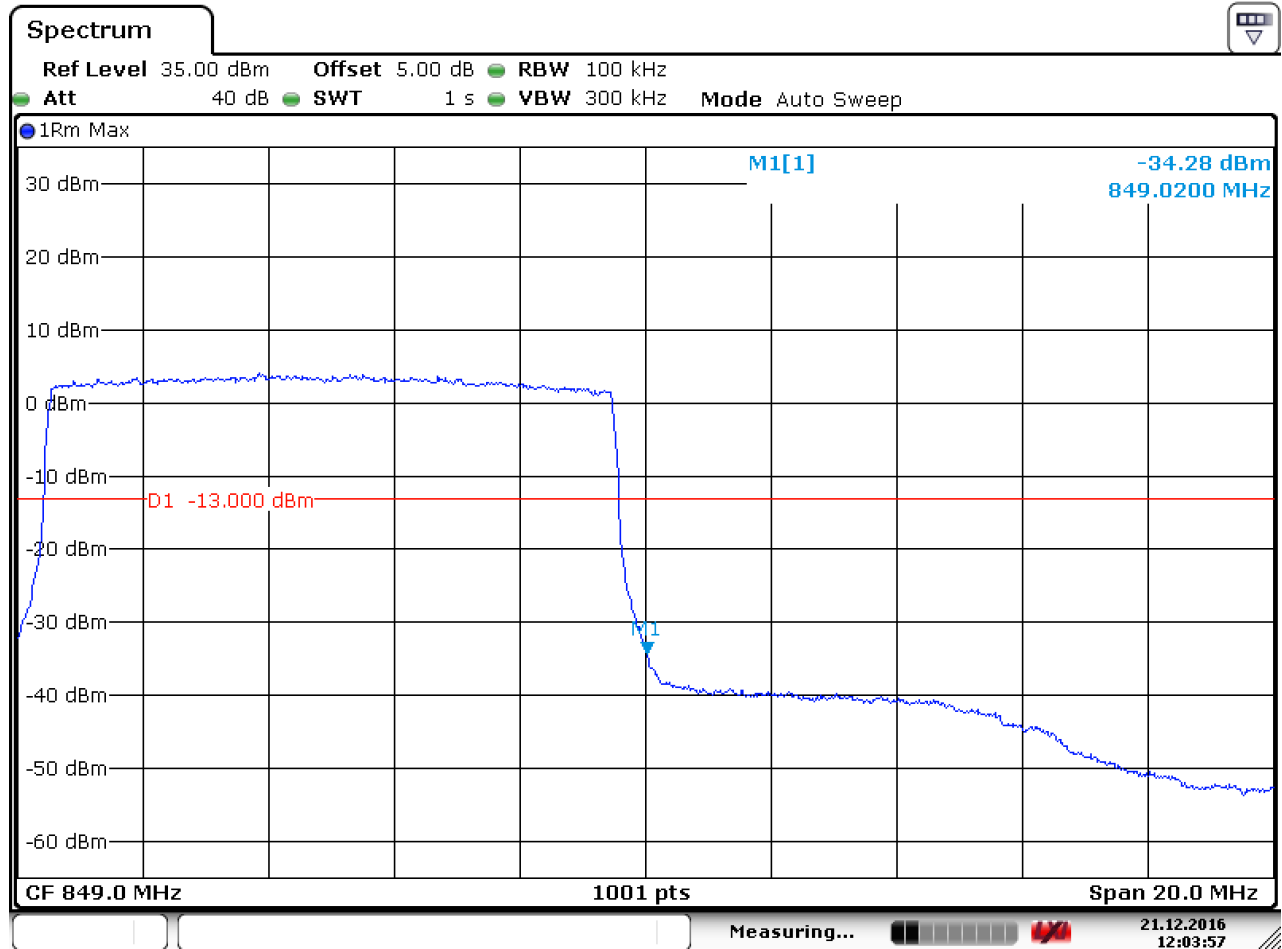
5.1.1.7.2.1 Test RB=1RB



Date: 21.DEC.2016 12:02:40



5.1.1.7.2.2 Test RB=50RB



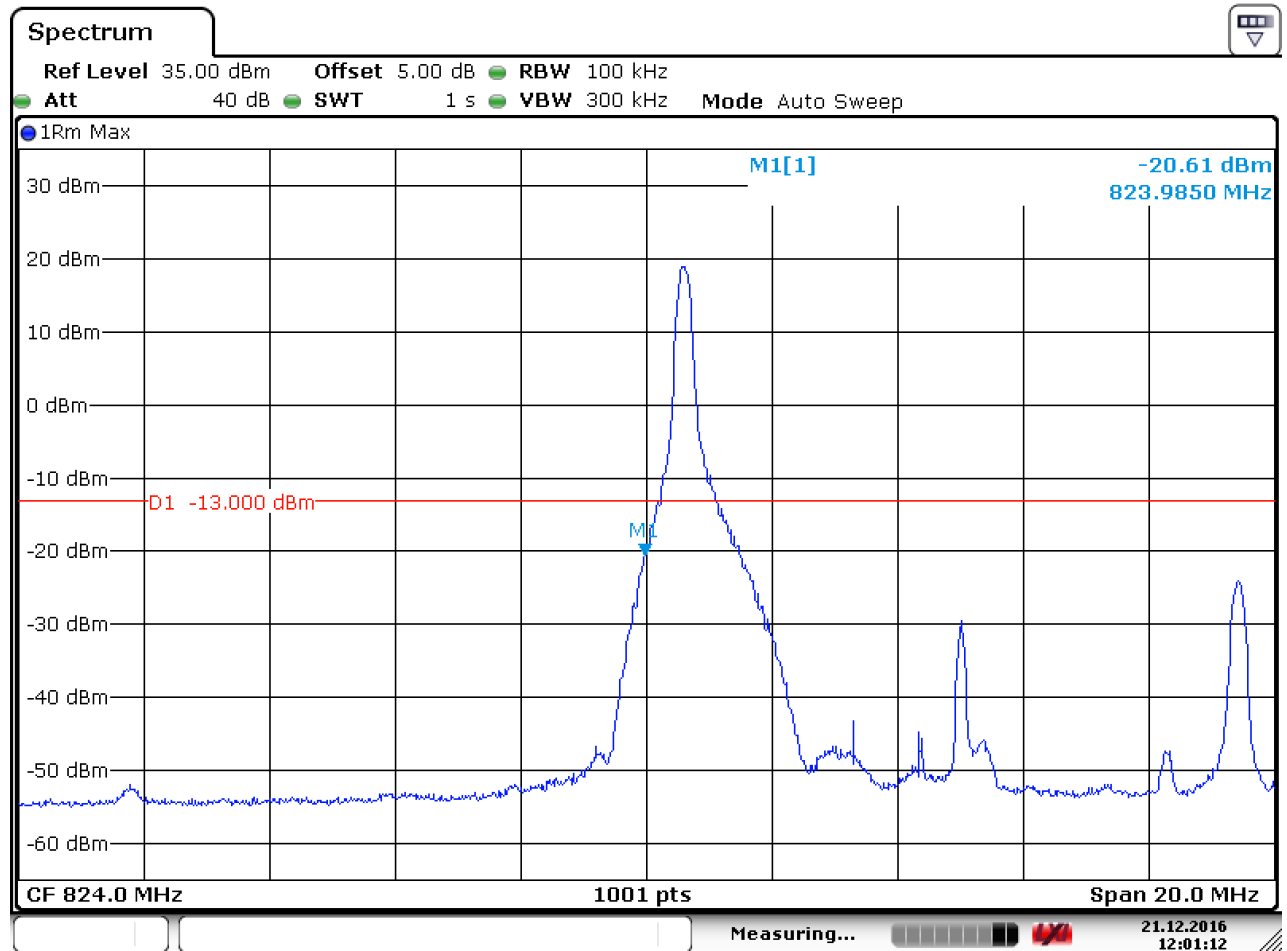
Date: 21.DEC.2016 12:03:58



5.1.1.8 Test Mode = LTE/TM2 10MHz

5.1.1.8.1 Test Channel = LCH

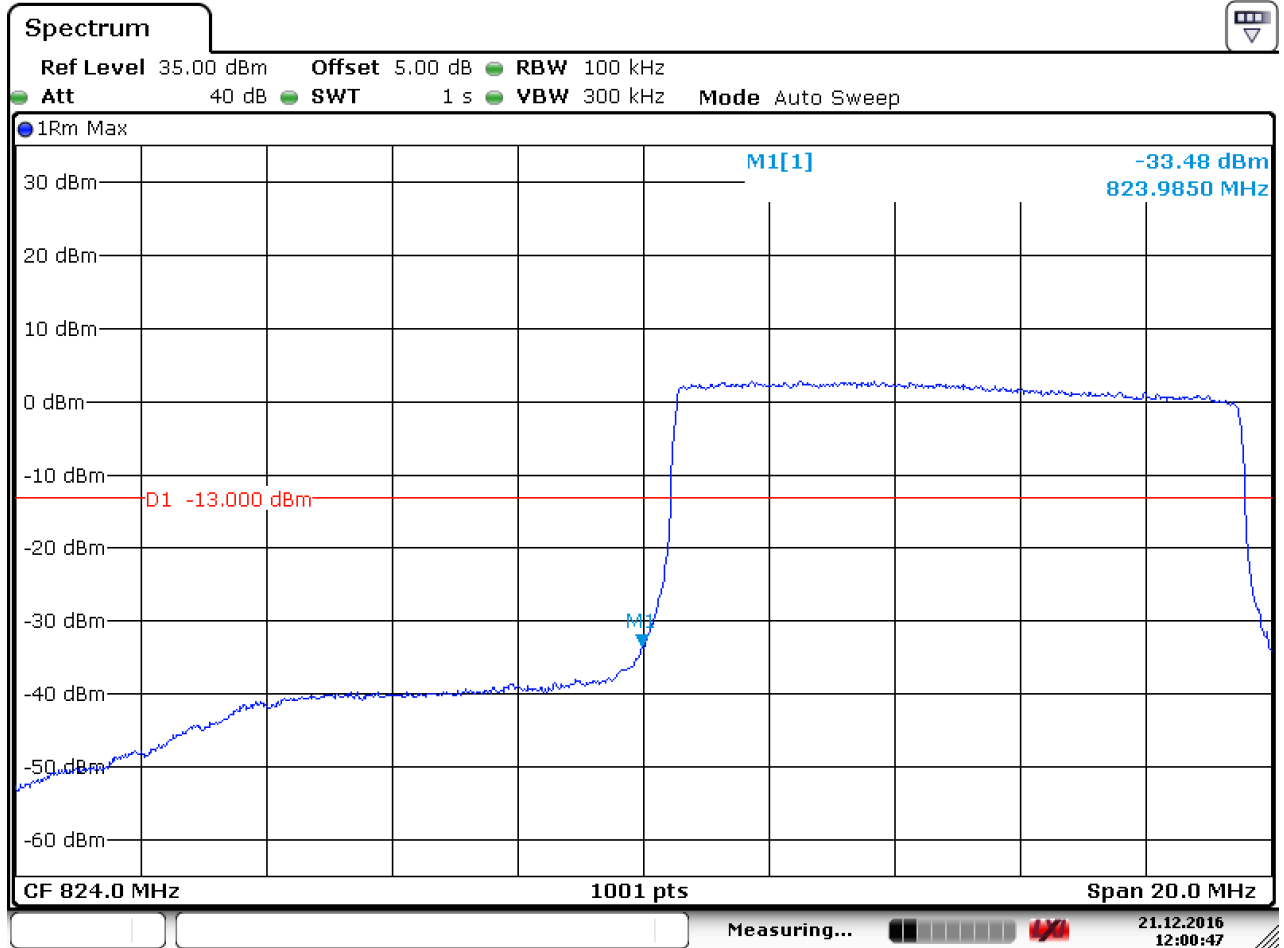
5.1.1.8.1.1 Test RB=1RB



Date: 21.DEC.2016 12:01:13



5.1.1.8.1.2 Test RB=50RB

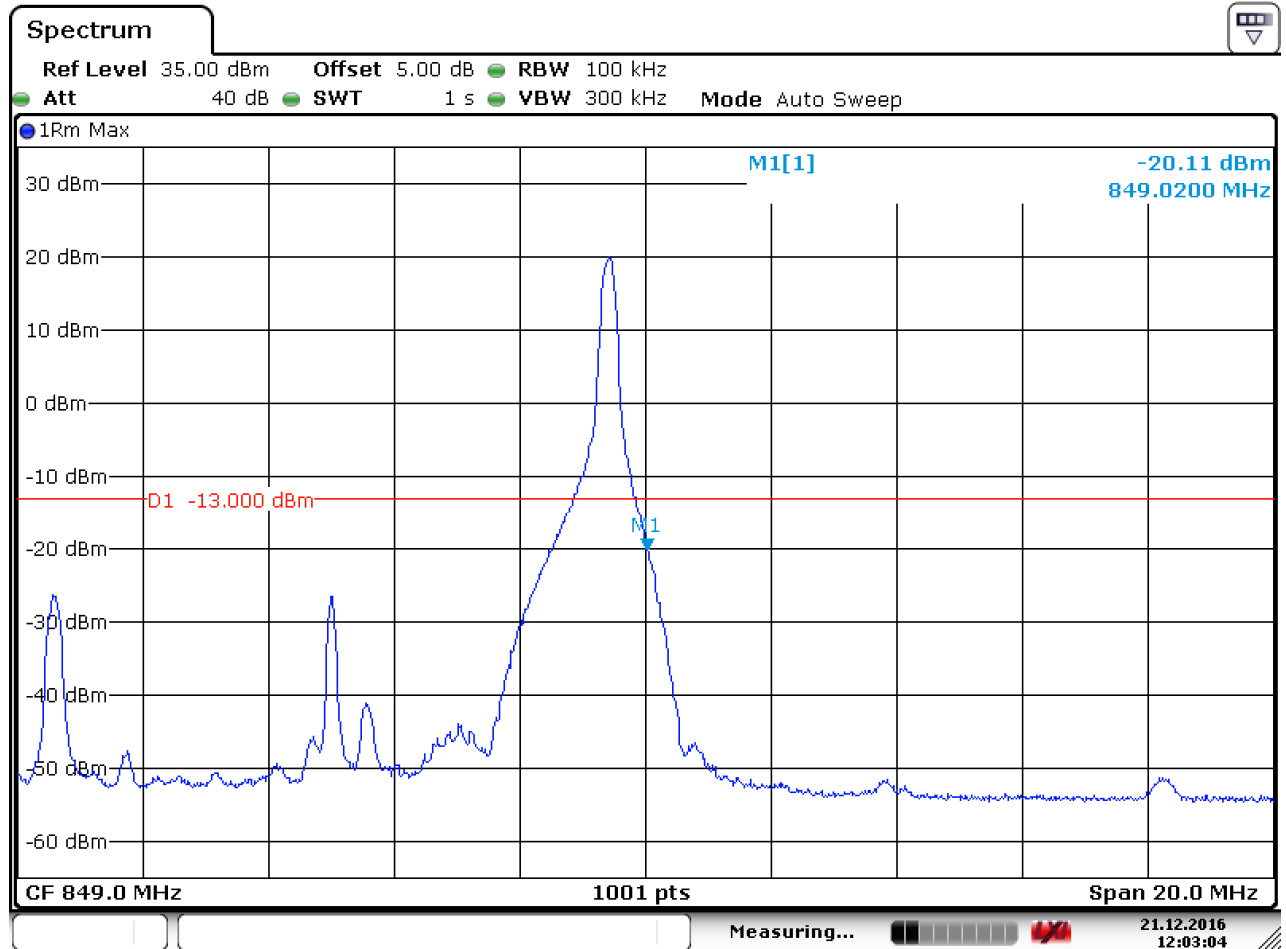


Date: 21.DEC.2016 12:00:47



5.1.1.8.2 Test Channel = HCH

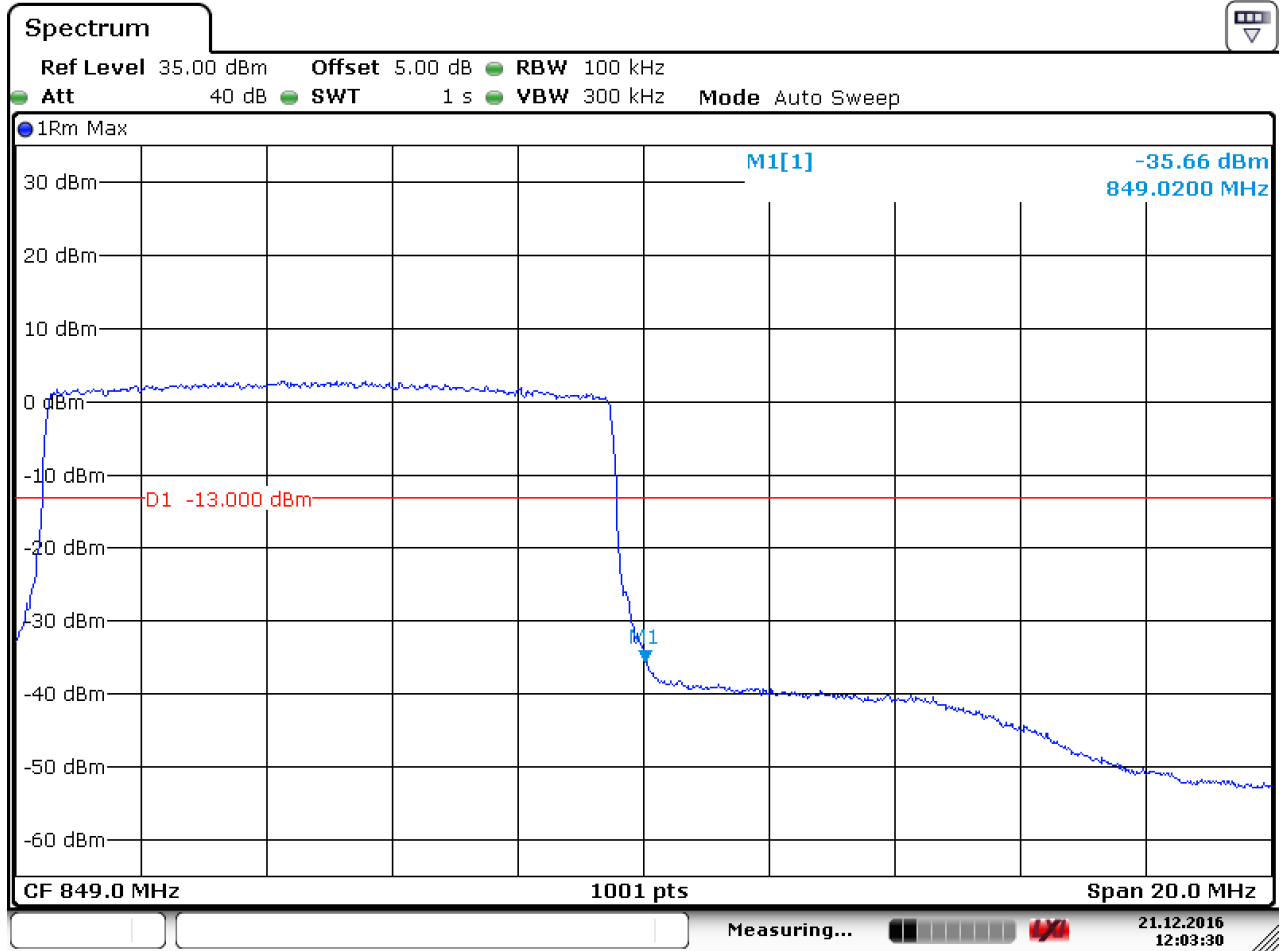
5.1.1.8.2.1 Test RB=1RB



Date: 21.DEC.2016 12:03:04



5.1.1.8.2.2 Test RB=50RB



Date: 21.DEC.2016 12:03:31

6 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 = $k \cdot (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

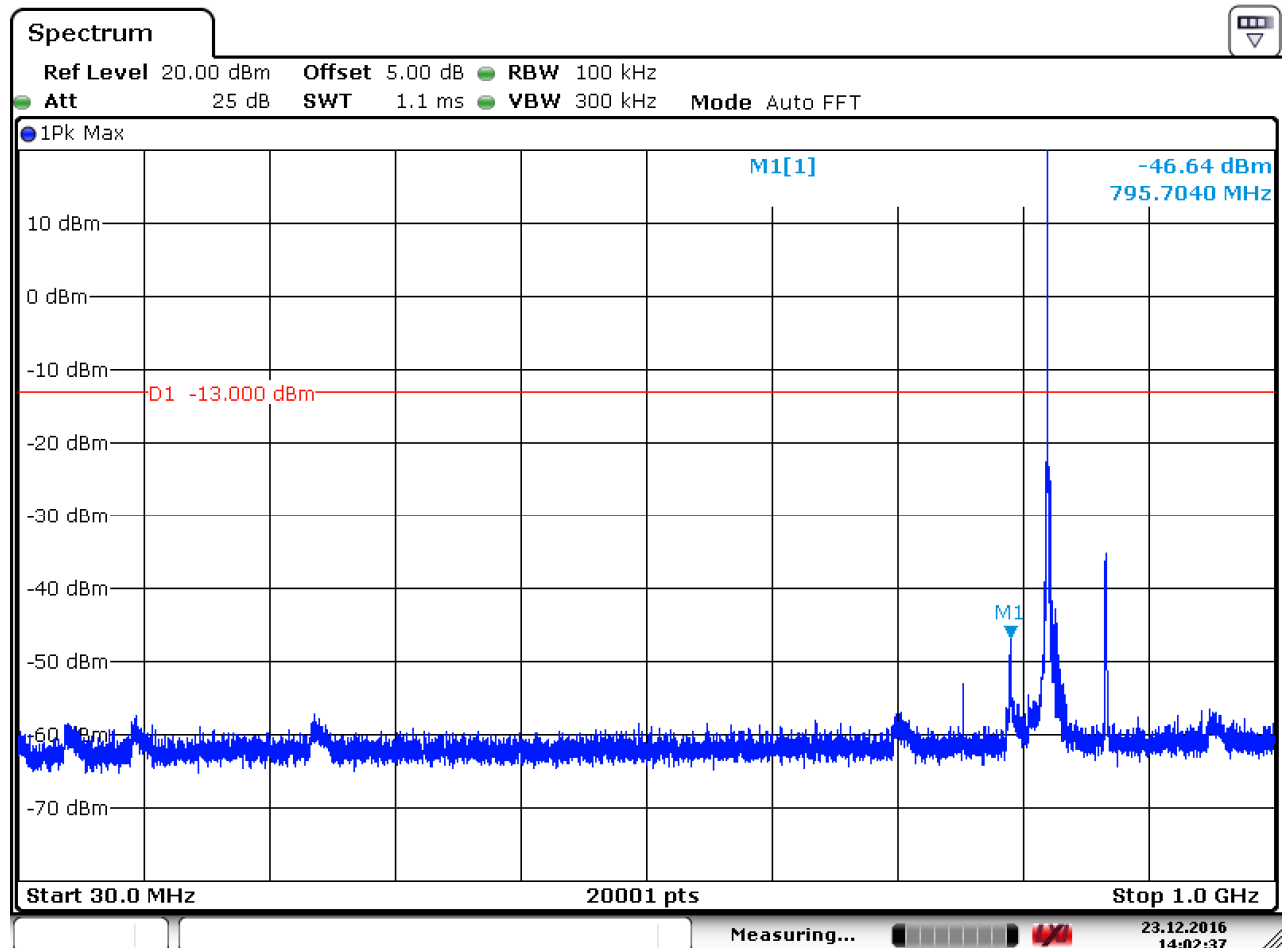
Part I - Test Plots

6.1 For LTE

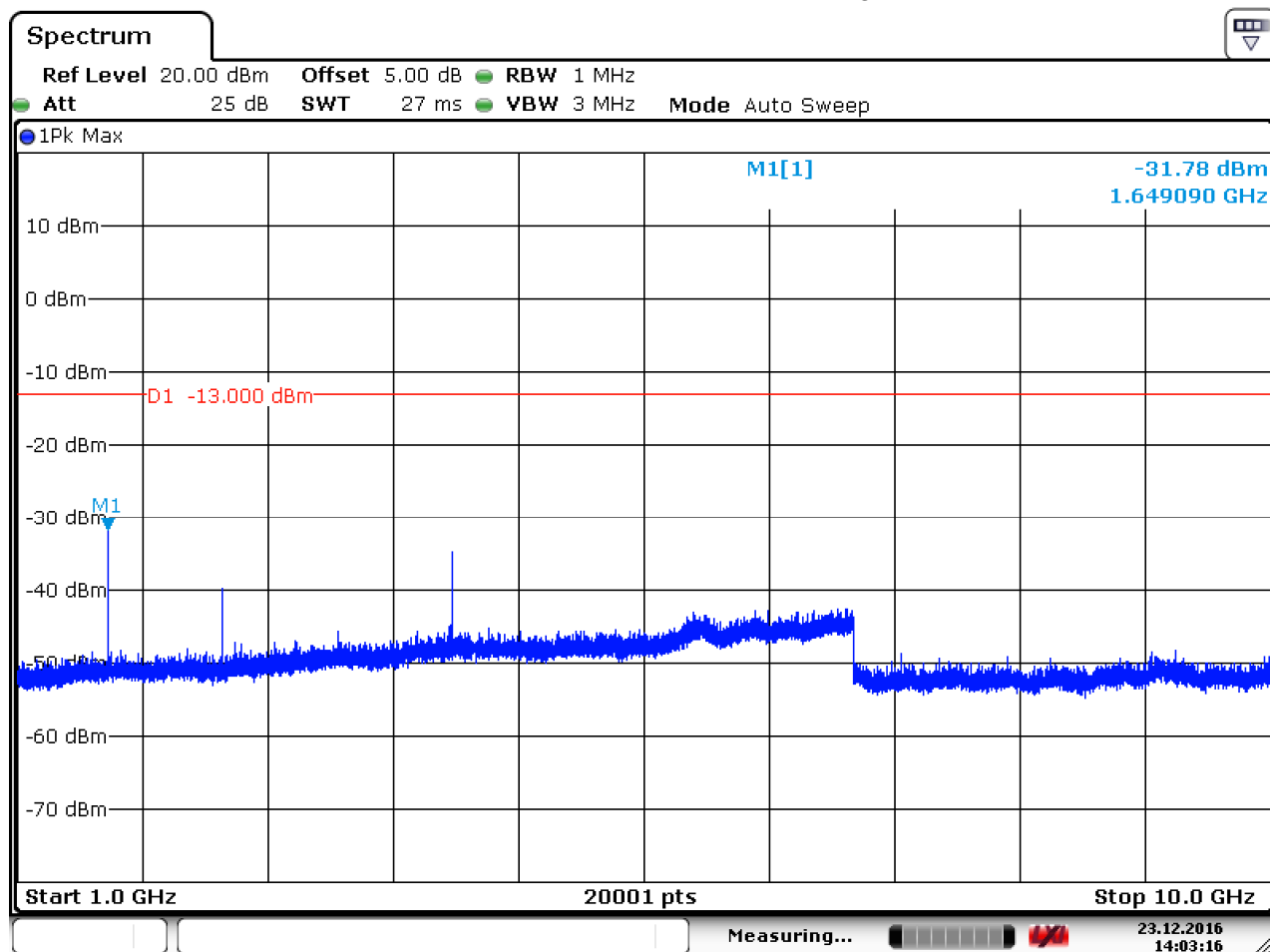
6.1.1 Test Band = LTE band5

6.1.1.1 Test Mode = LTE / TM1 1.4MHz RB1#0

6.1.1.1.1 Test Channel = LCH



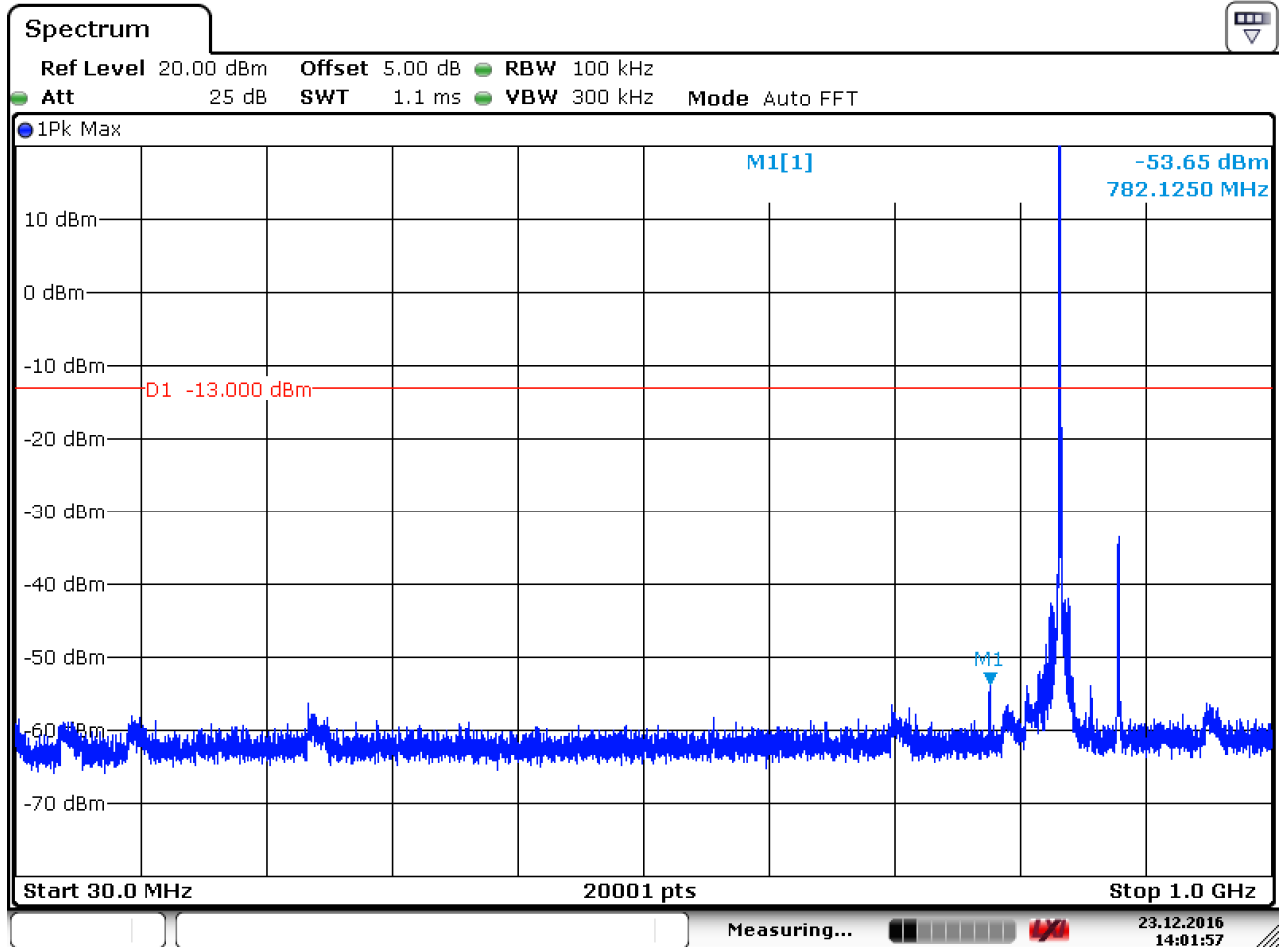
Date: 23.DEC.2016 14:02:37



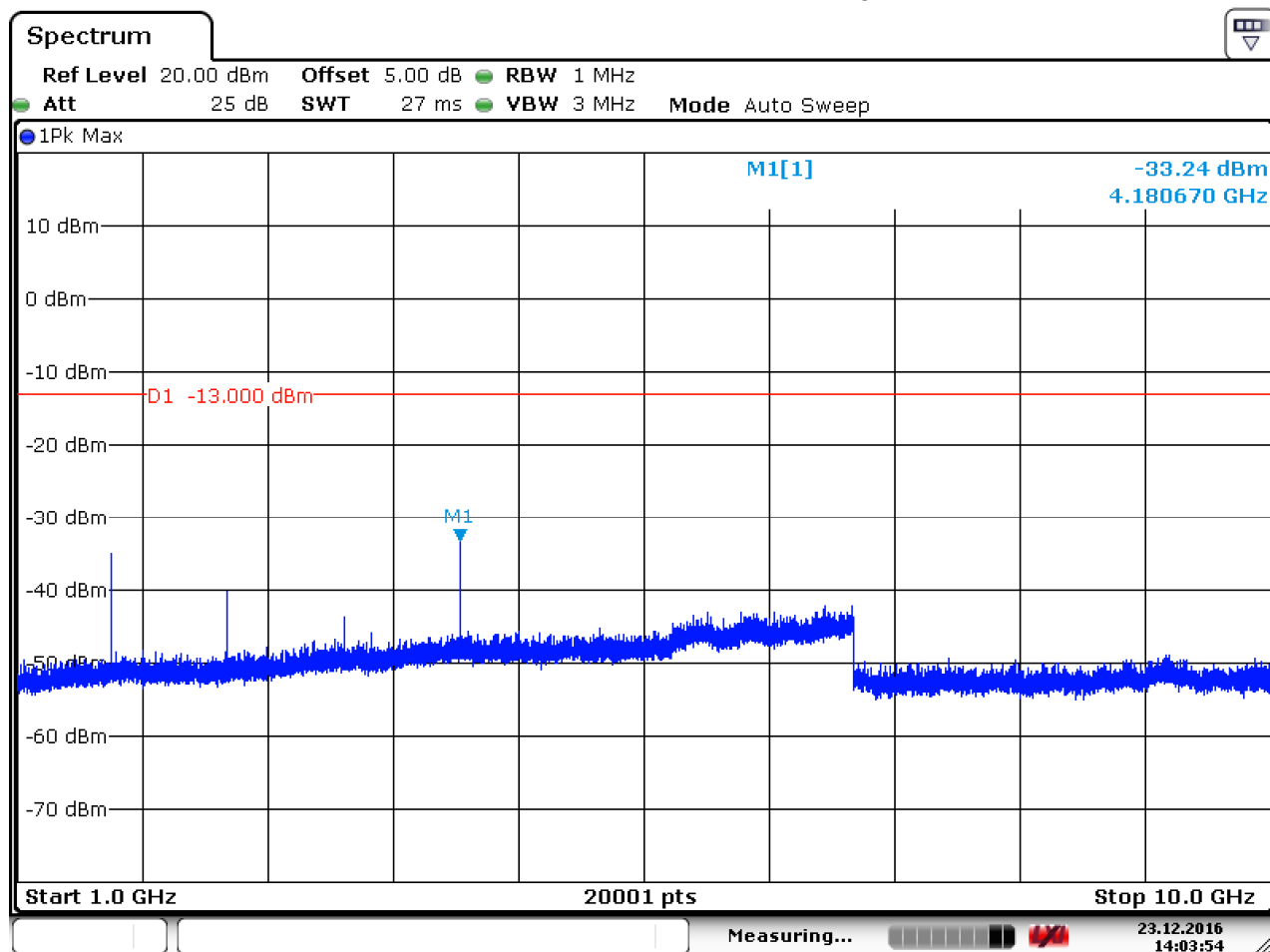
Date: 23.DEC.2016 14:03:17



6.1.1.1.2 Test Channel = MCH



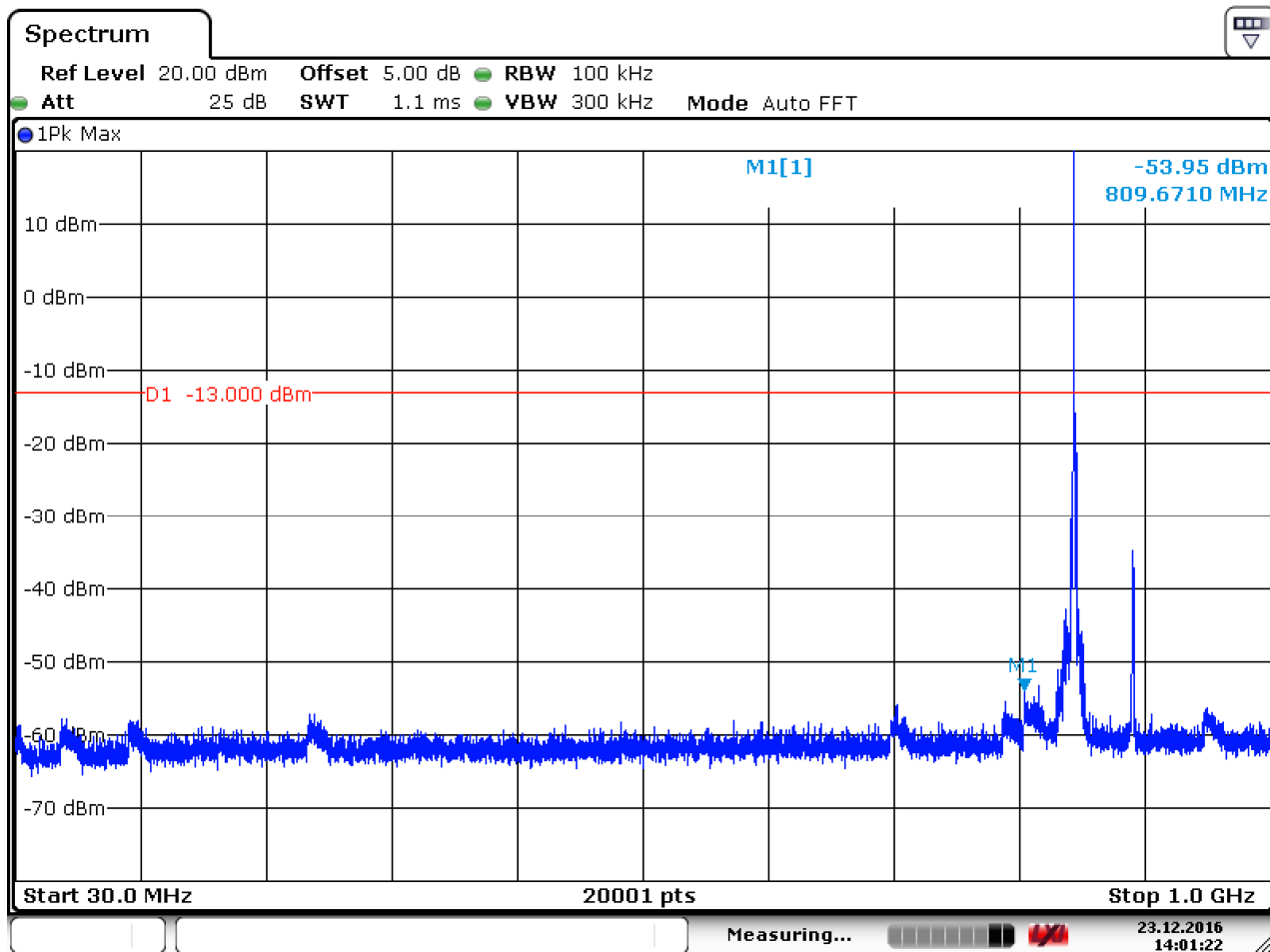
Date: 23.DEC.2016 14:01:57



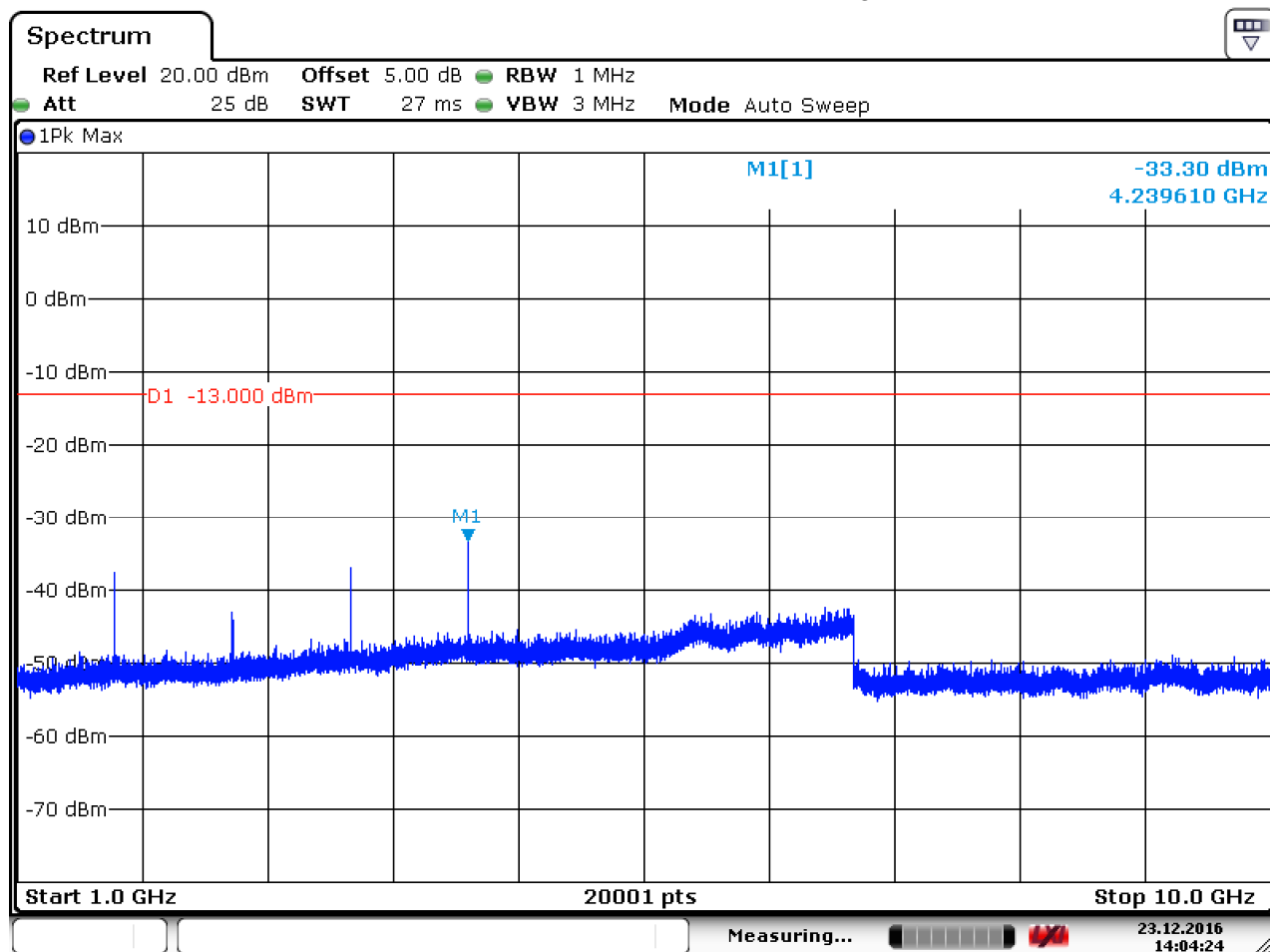
Date: 23.DEC.2016 14:03:54



6.1.1.1.3 Test Channel = HCH



Date: 23.DEC.2016 14:01:22

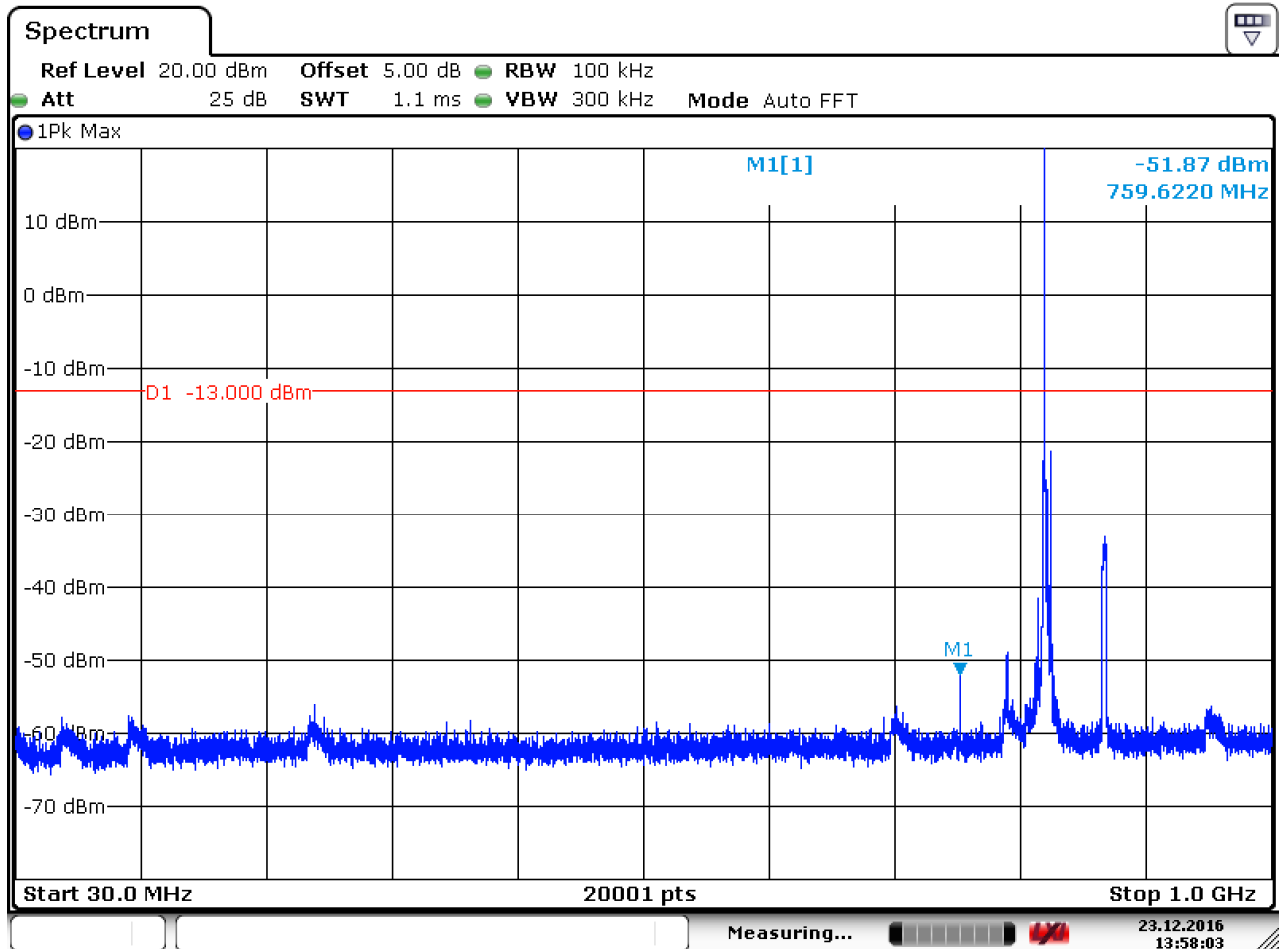


Date: 23.DEC.2016 14:04:25

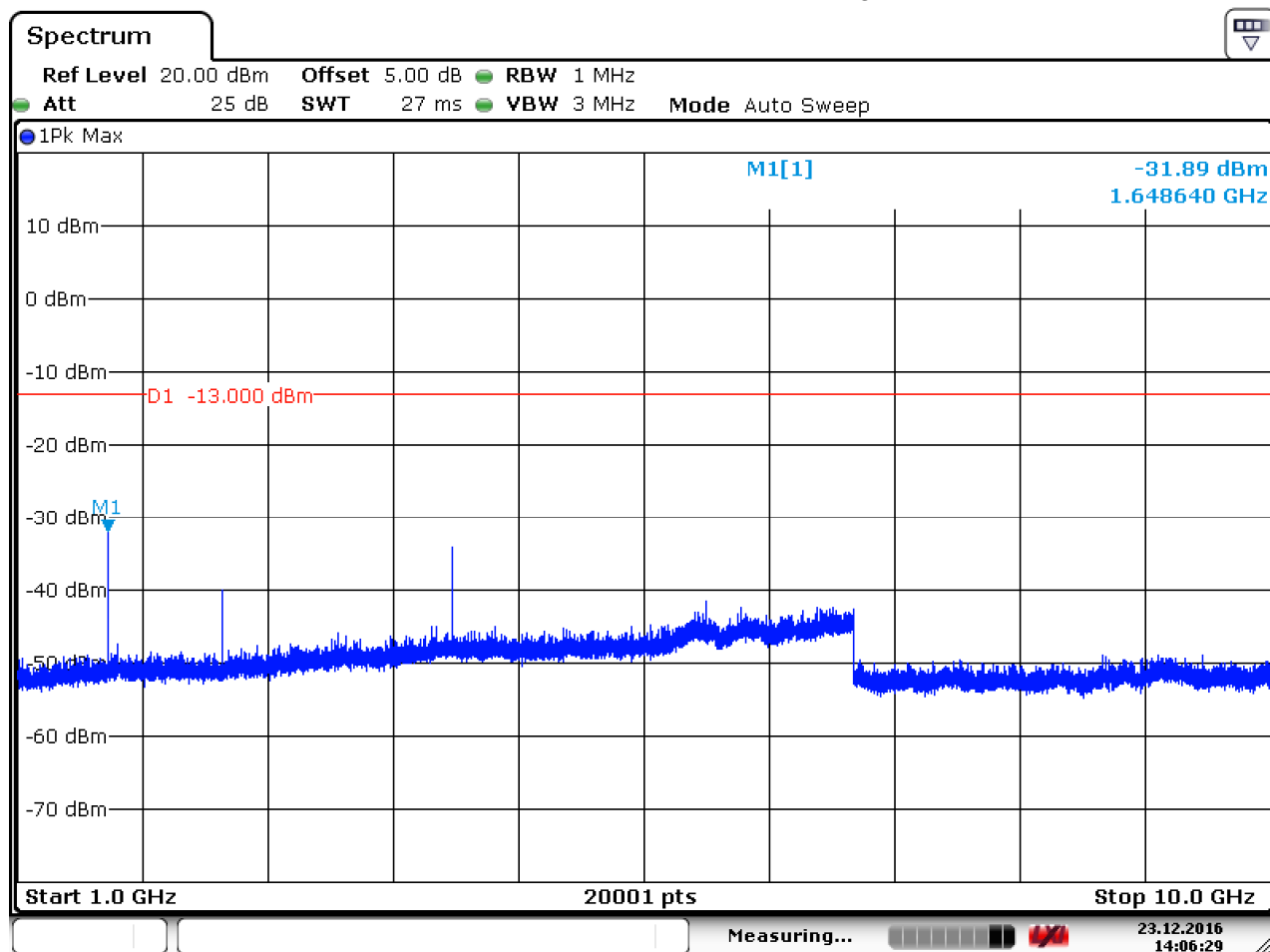


6.1.1.2 Test Mode = LTE / TM1 3MHz RB1#0

6.1.1.2.1 Test Channel = LCH



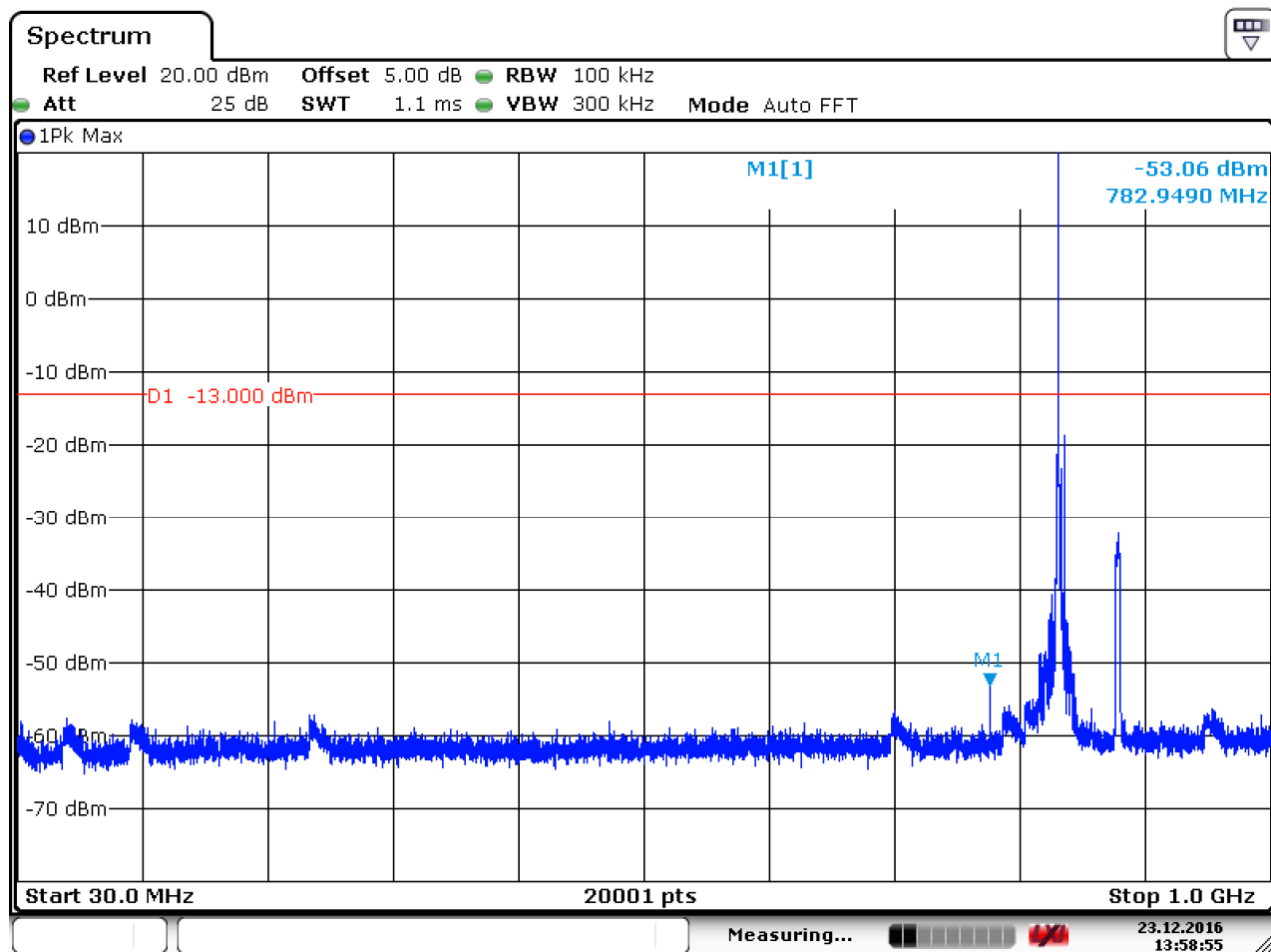
Date: 23.DEC.2016 13:58:03



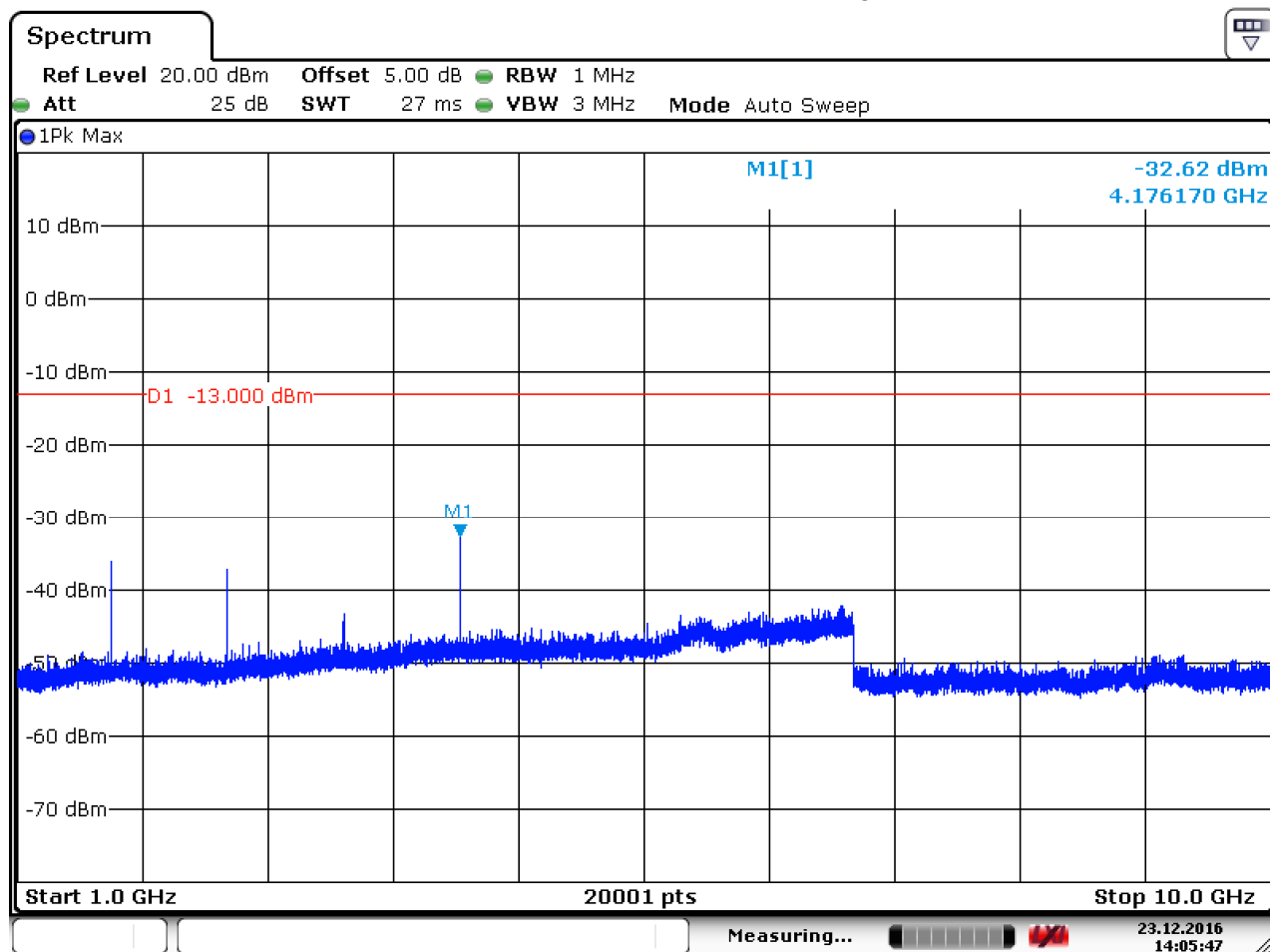
Date: 23.DEC.2016 14:06:30



6.1.1.2.2 Test Channel = MCH



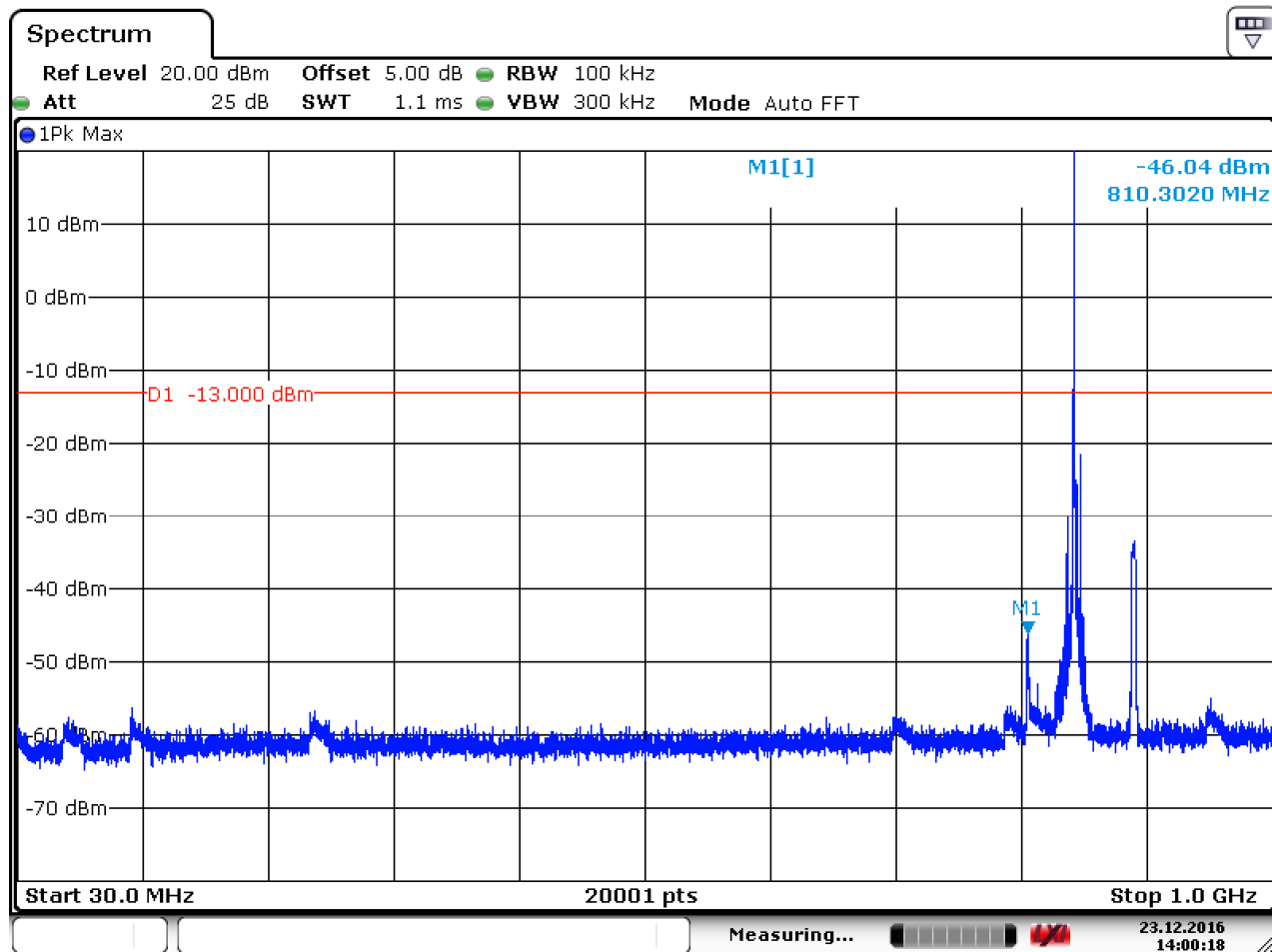
Date: 23.DEC.2016 13:58:55



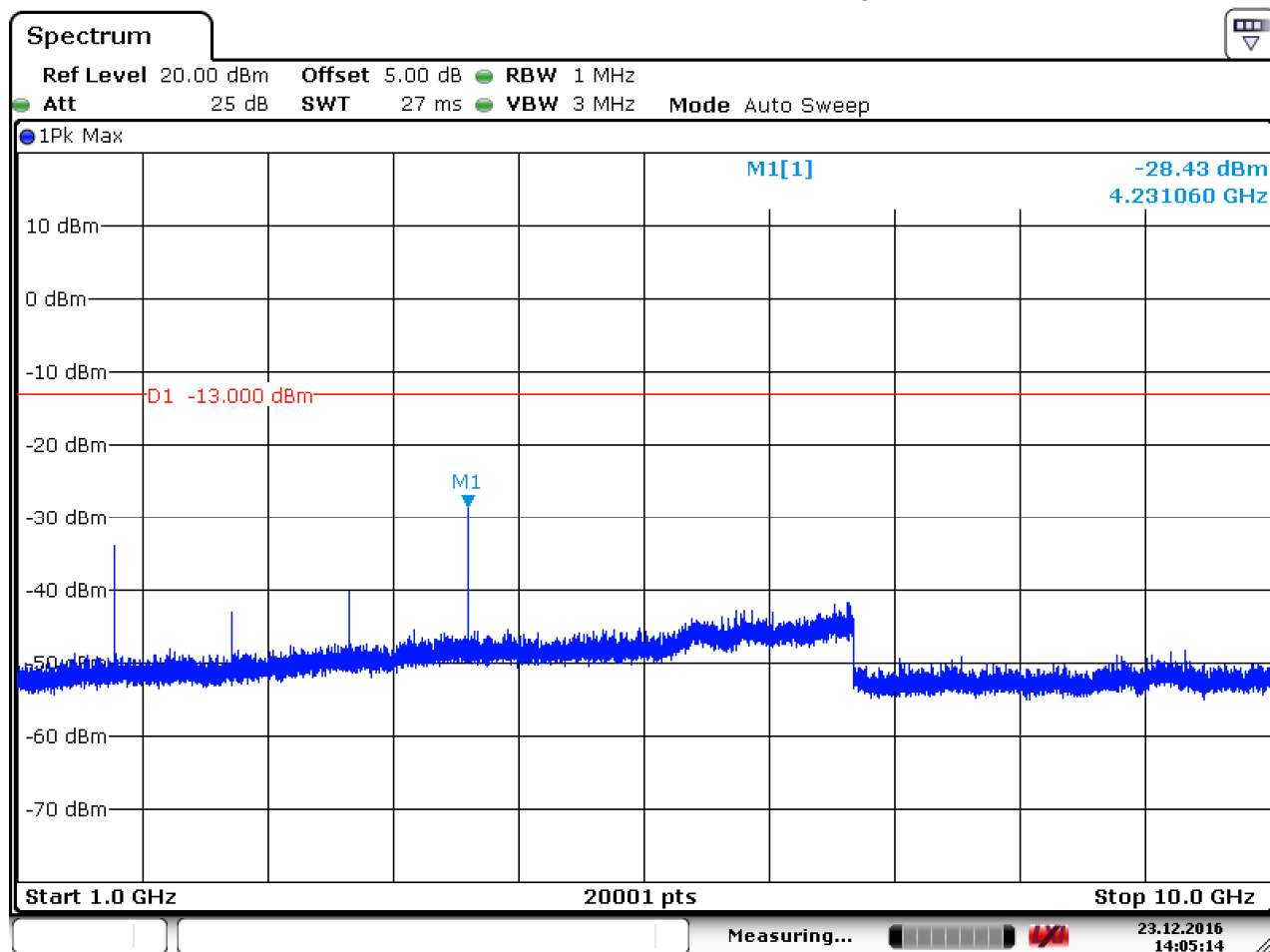
Date: 23.DEC.2016 14:05:47



6.1.1.2.3 Test Channel = HCH



Date: 23.DEC.2016 14:00:18

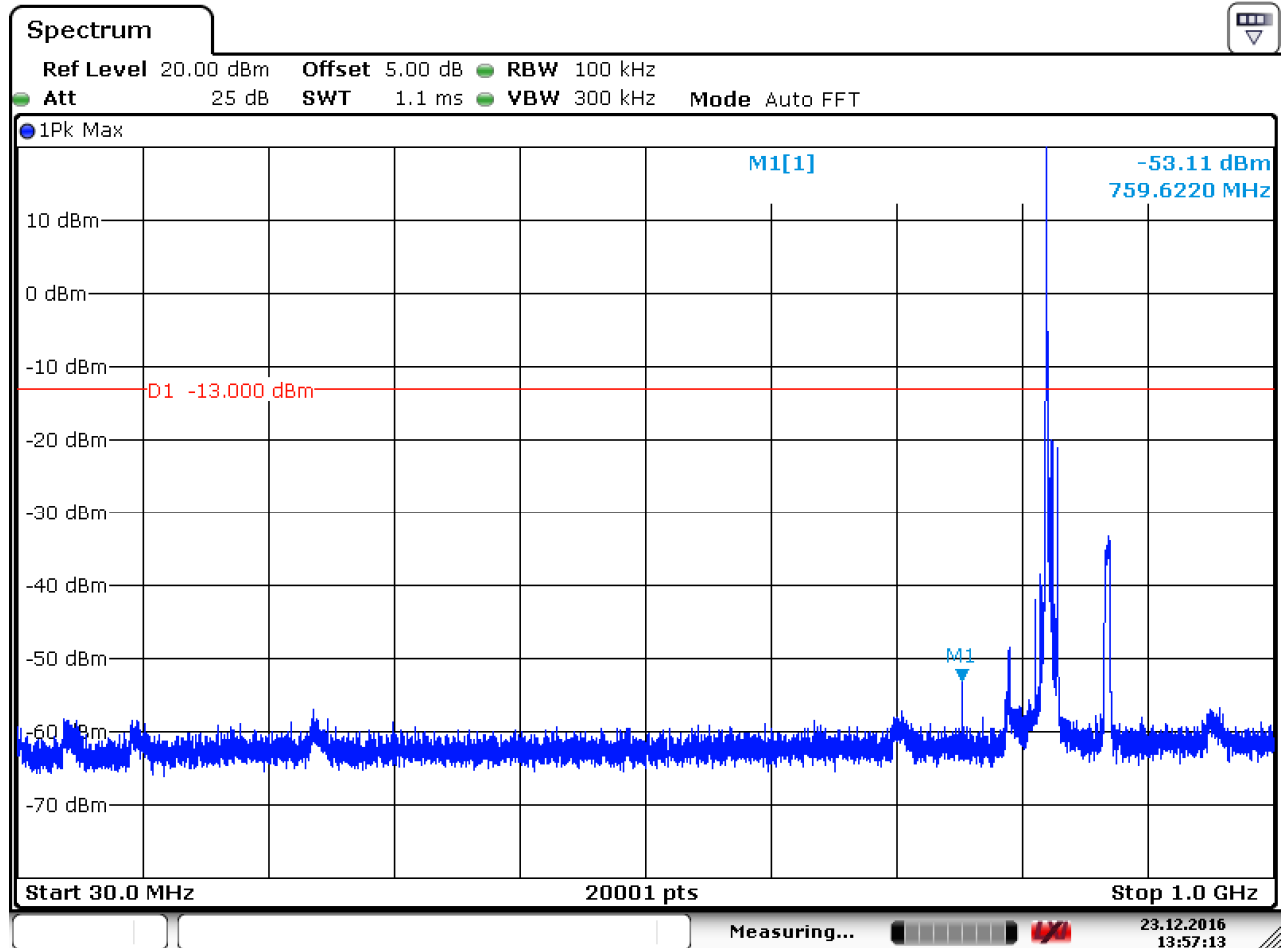


Date: 23.DEC.2016 14:05:14

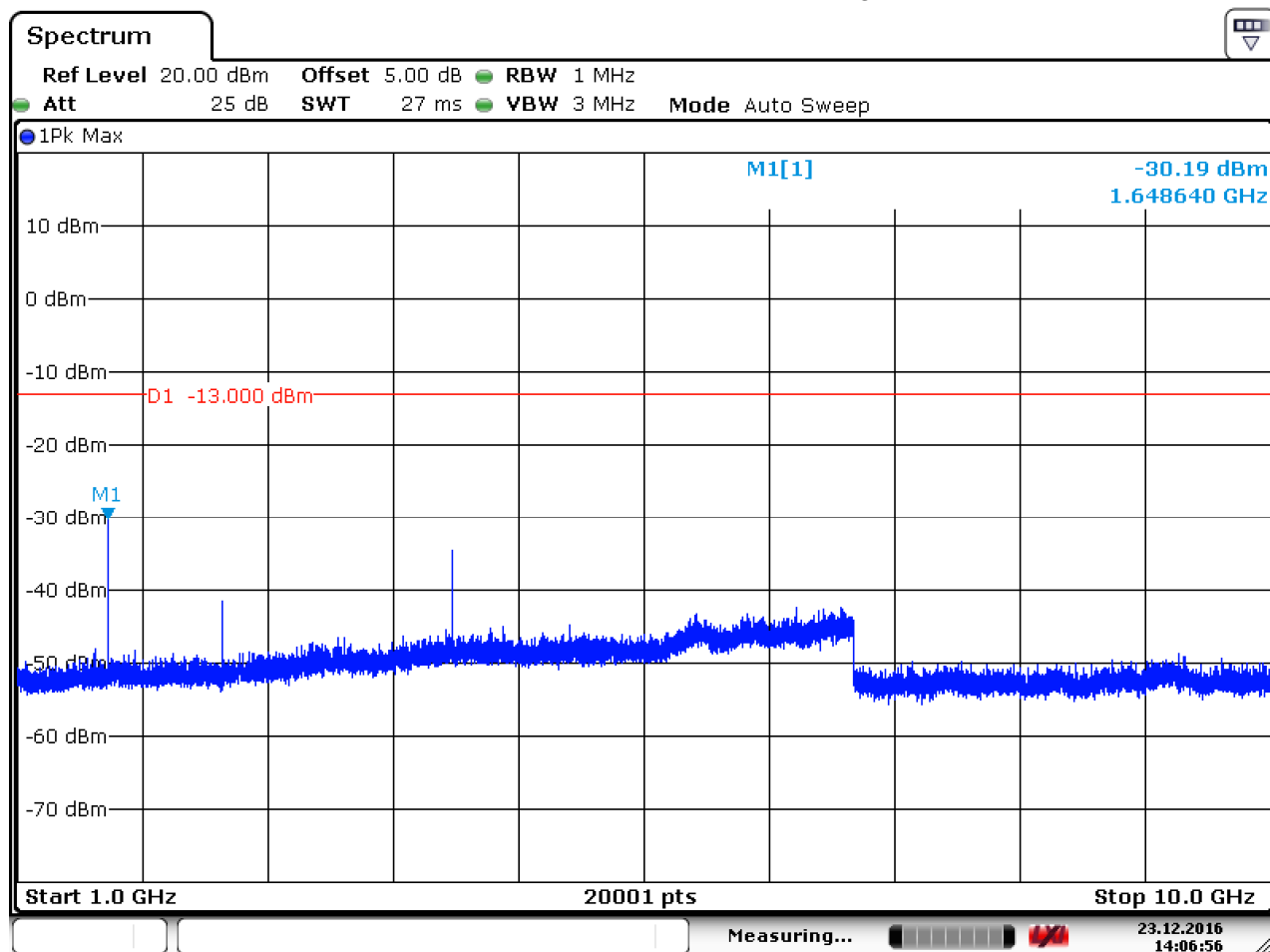


6.1.1.3 Test Mode = LTE / TM1 5MHz RB1#0

6.1.1.3.1 Test Channel = LCH



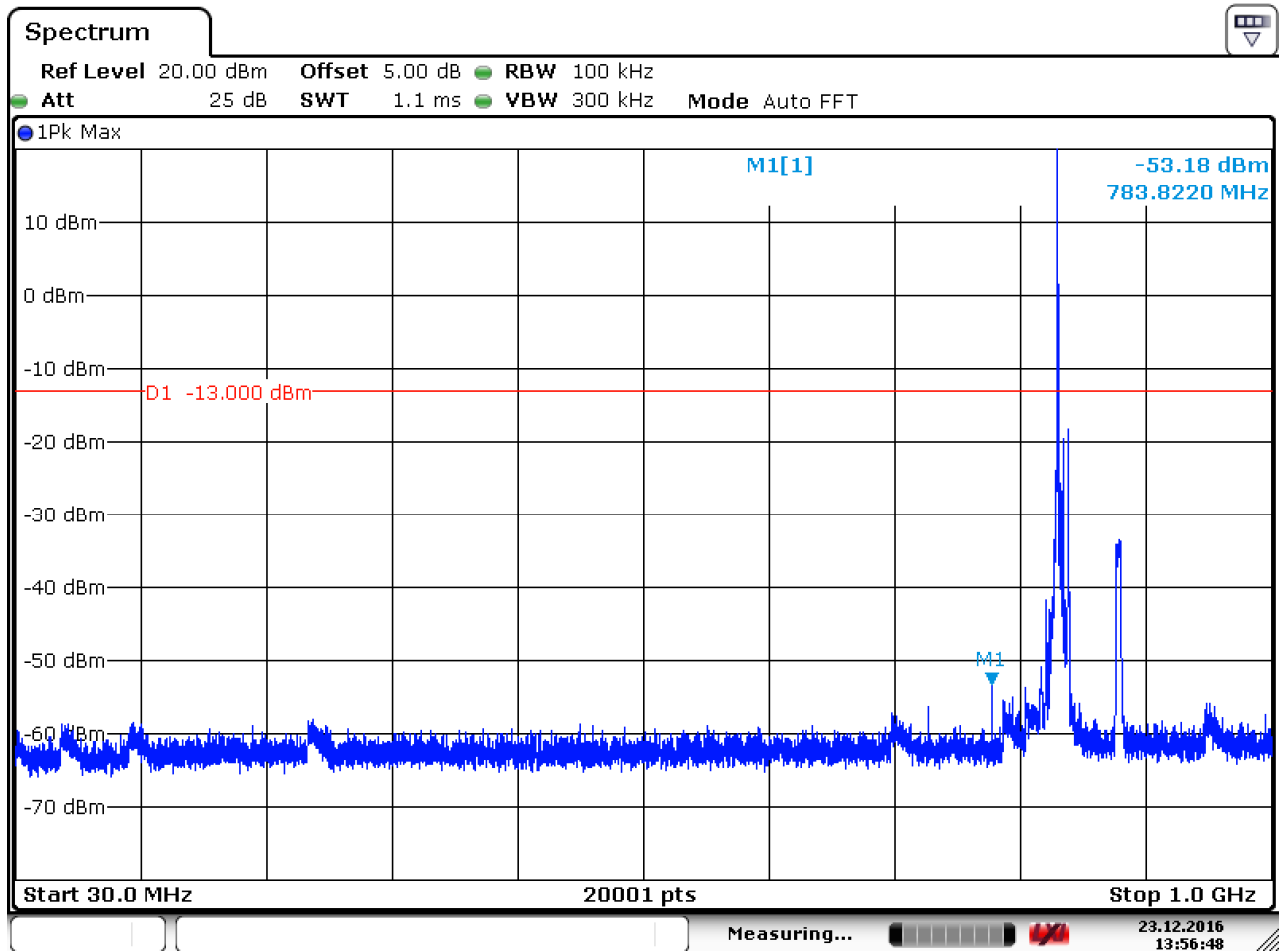
Date: 23.DEC.2016 13:57:13



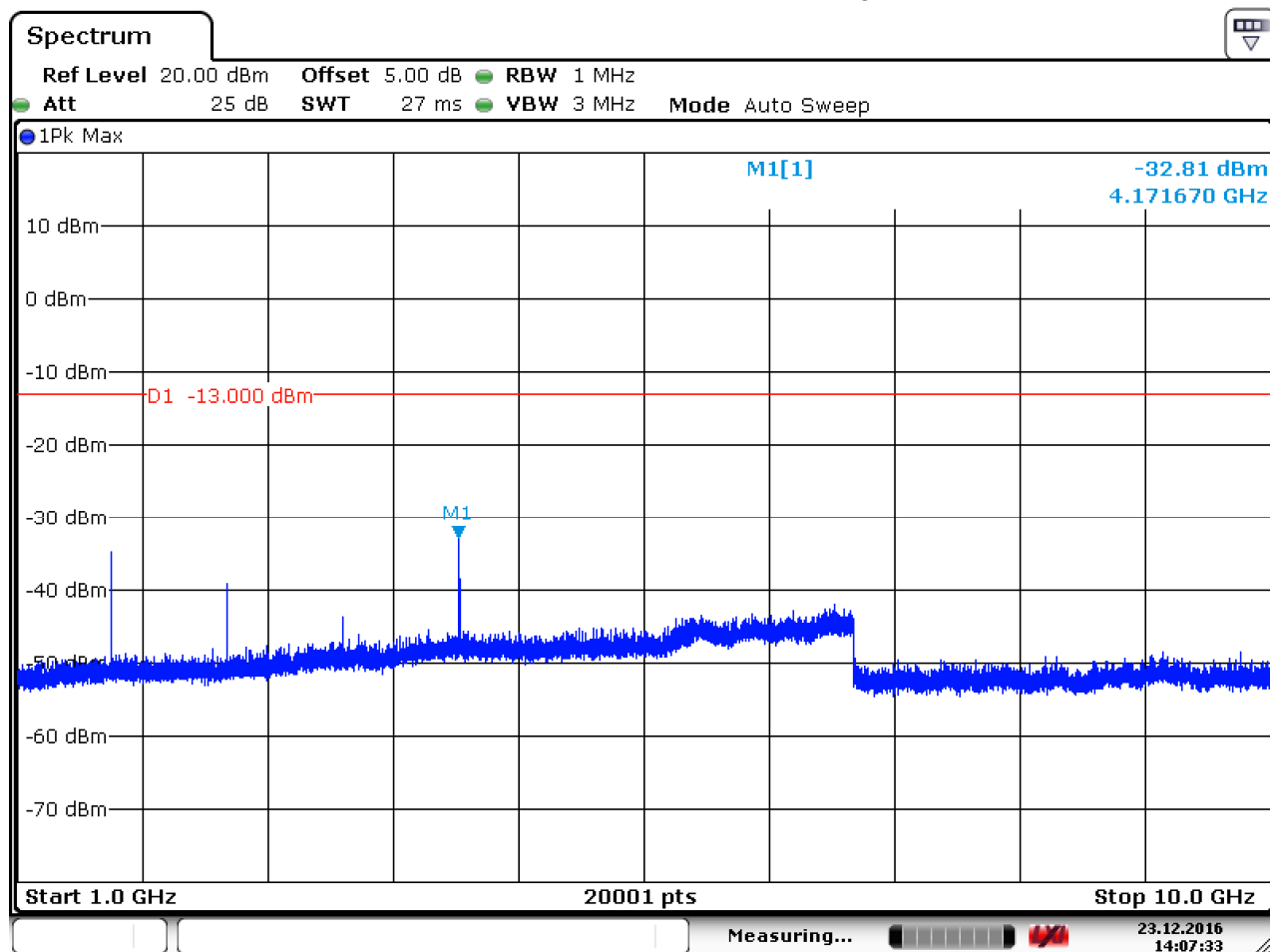
Date: 23.DEC.2016 14:06:57



6.1.1.3.2 Test Channel = MCH



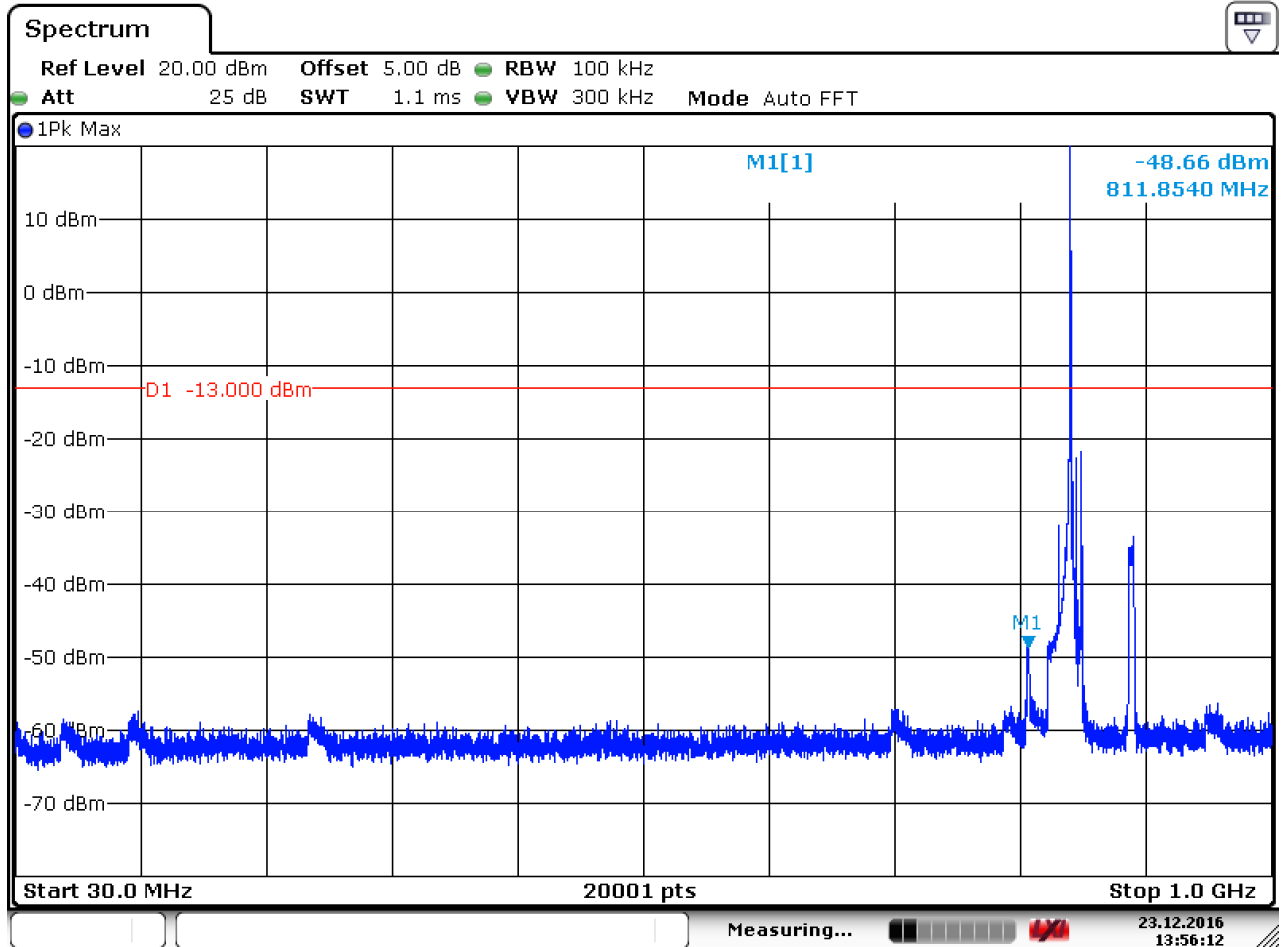
Date: 23.DEC.2016 13:56:48



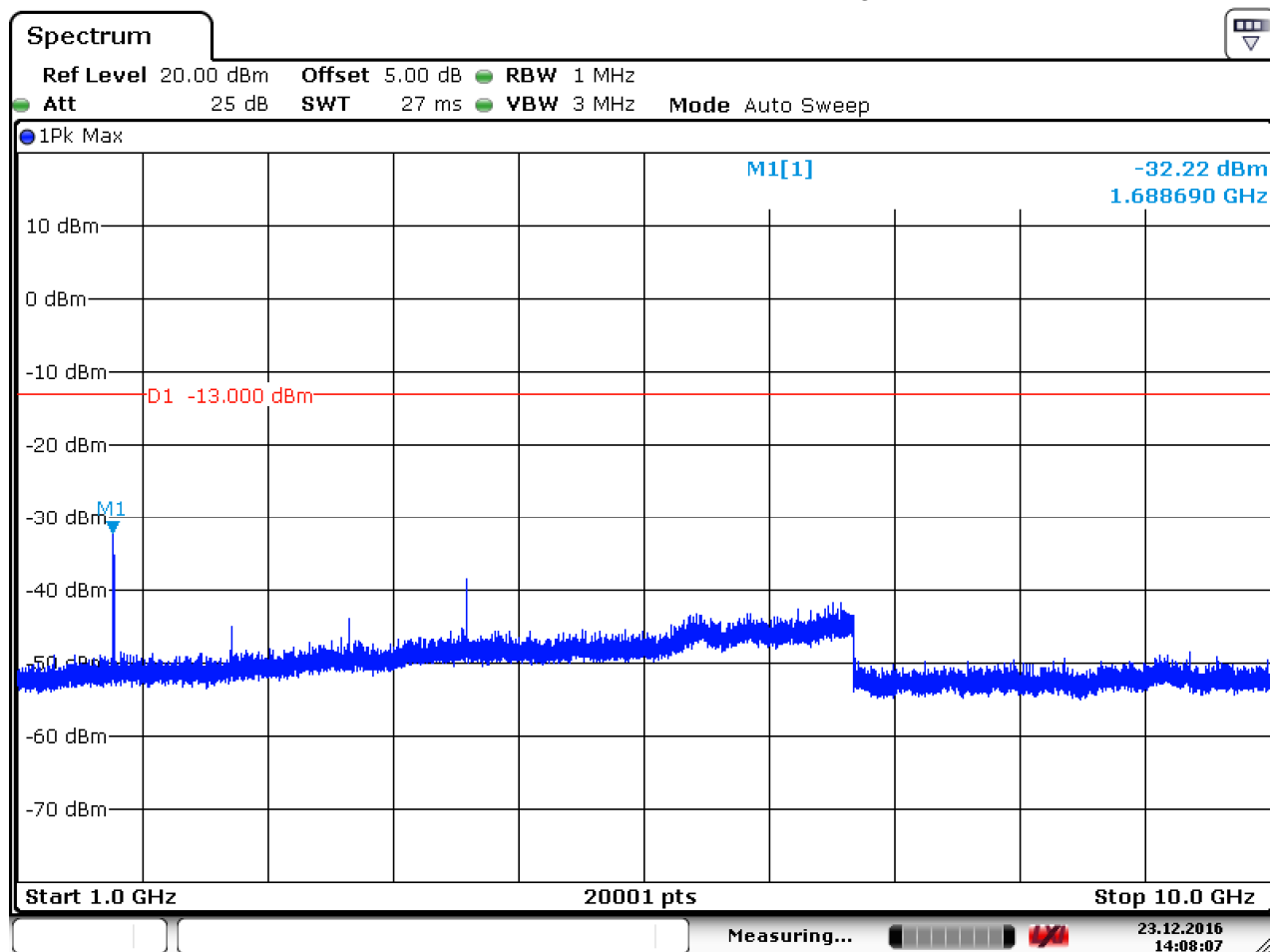
Date: 23.DEC.2016 14:07:34



6.1.1.3.3 Test Channel = HCH



Date: 23.DEC.2016 13:56:12

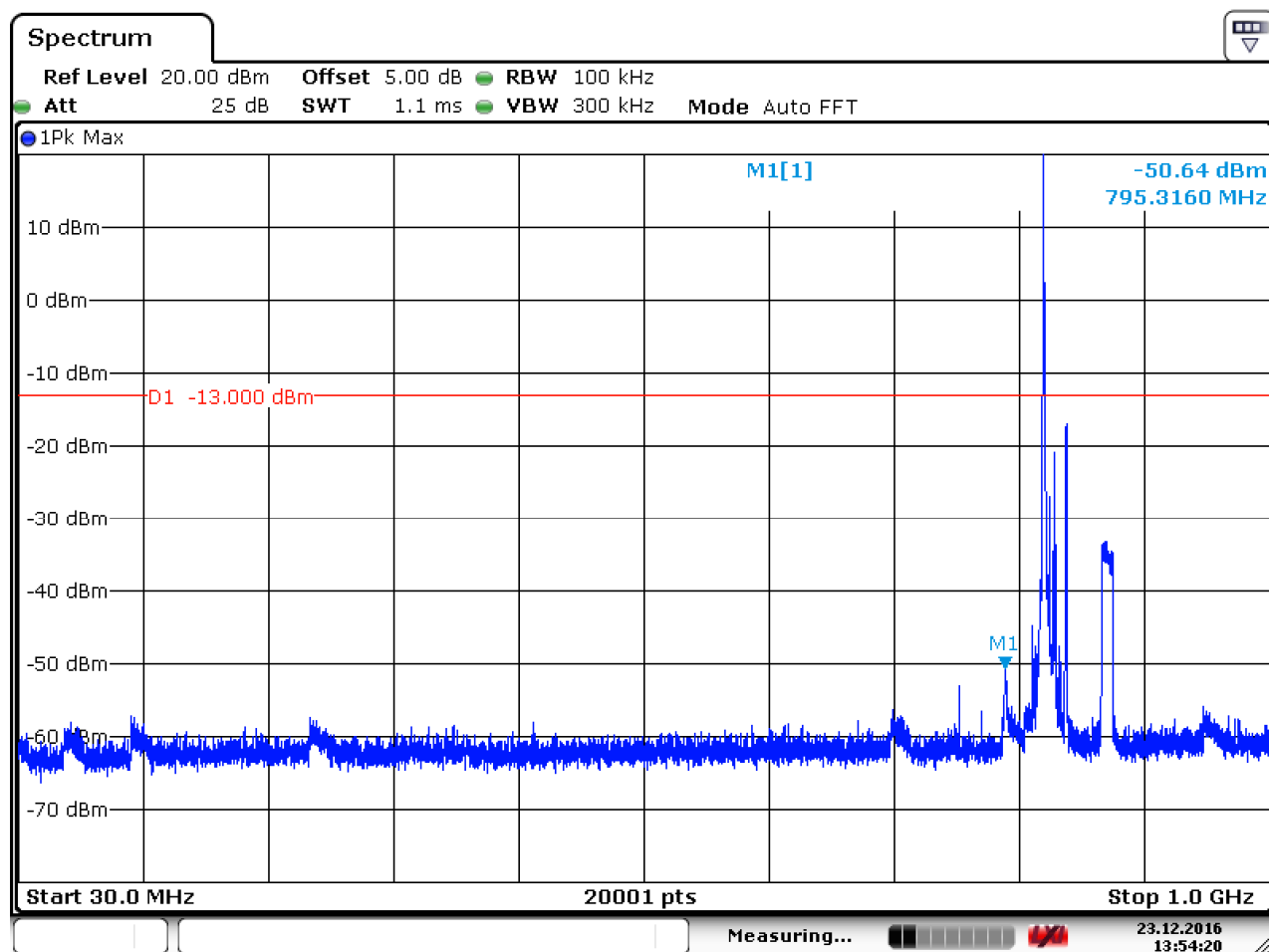


Date: 23.DEC.2016 14:08:07

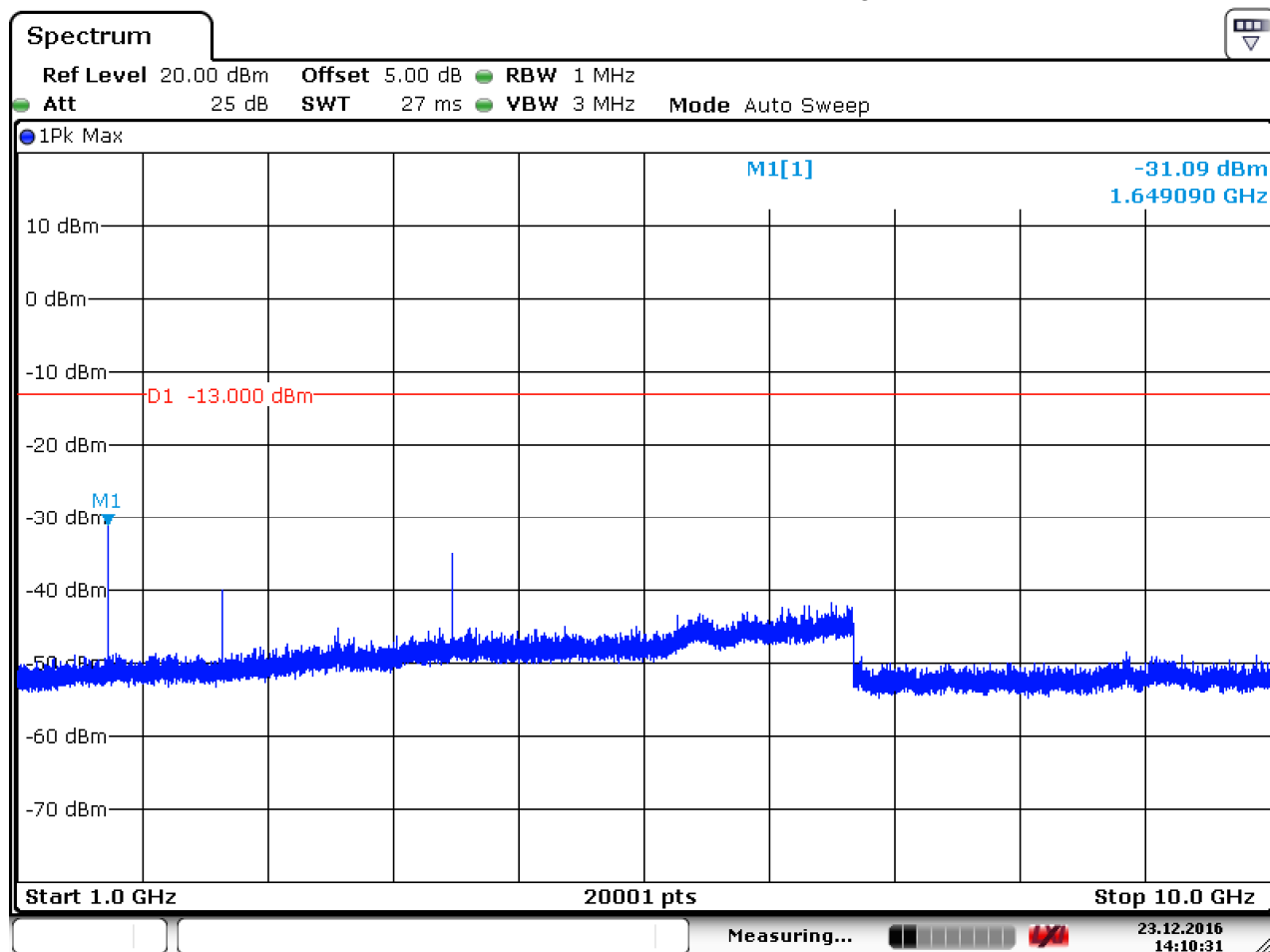


6.1.1.4 Test Mode = LTE / TM1 10MHz RB1#0

6.1.1.4.1 Test Channel = LCH



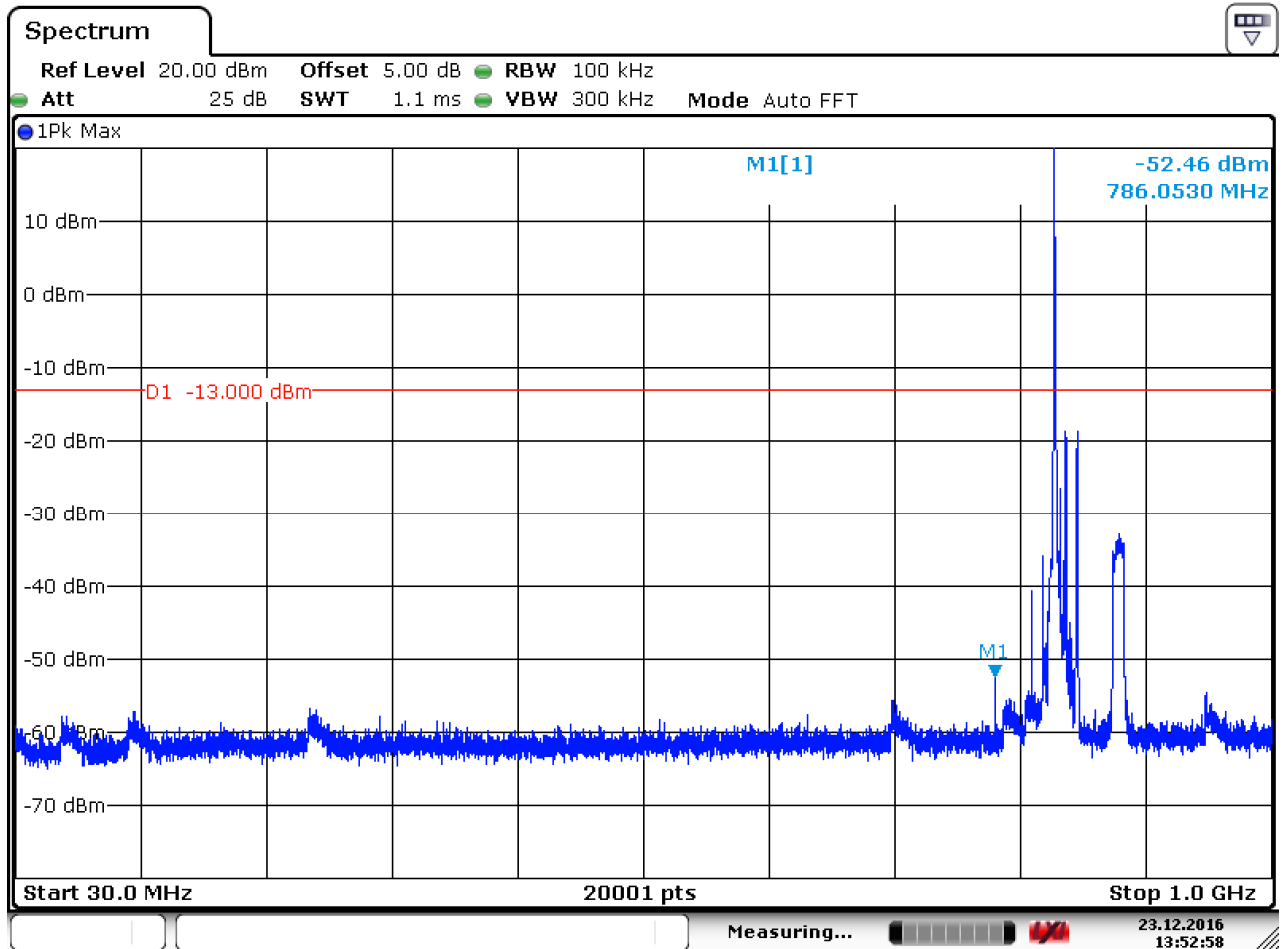
Date: 23.DEC.2016 13:54:20



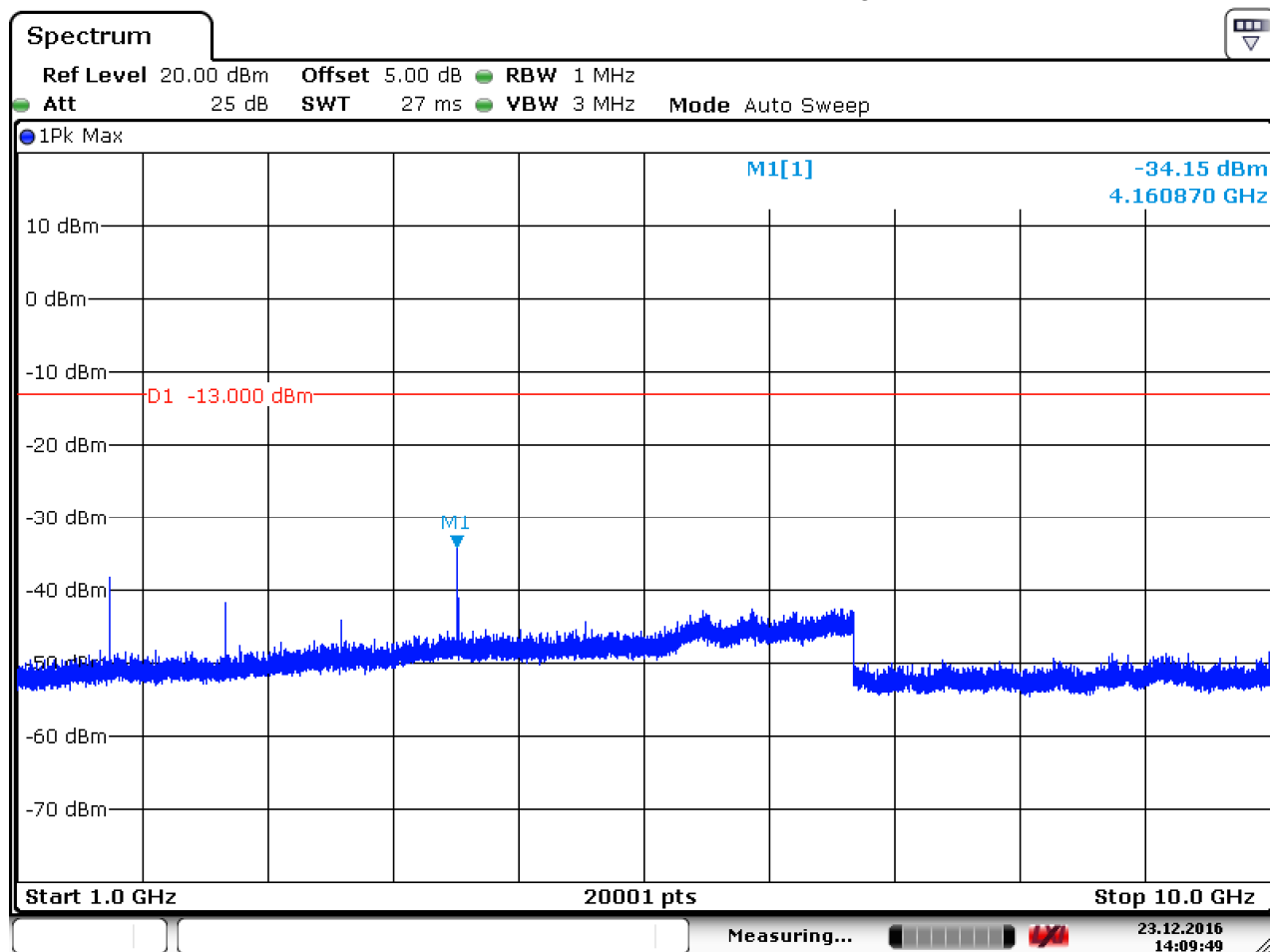
Date: 23.DEC.2016 14:10:31



6.1.1.4.2 Test Channel = MCH



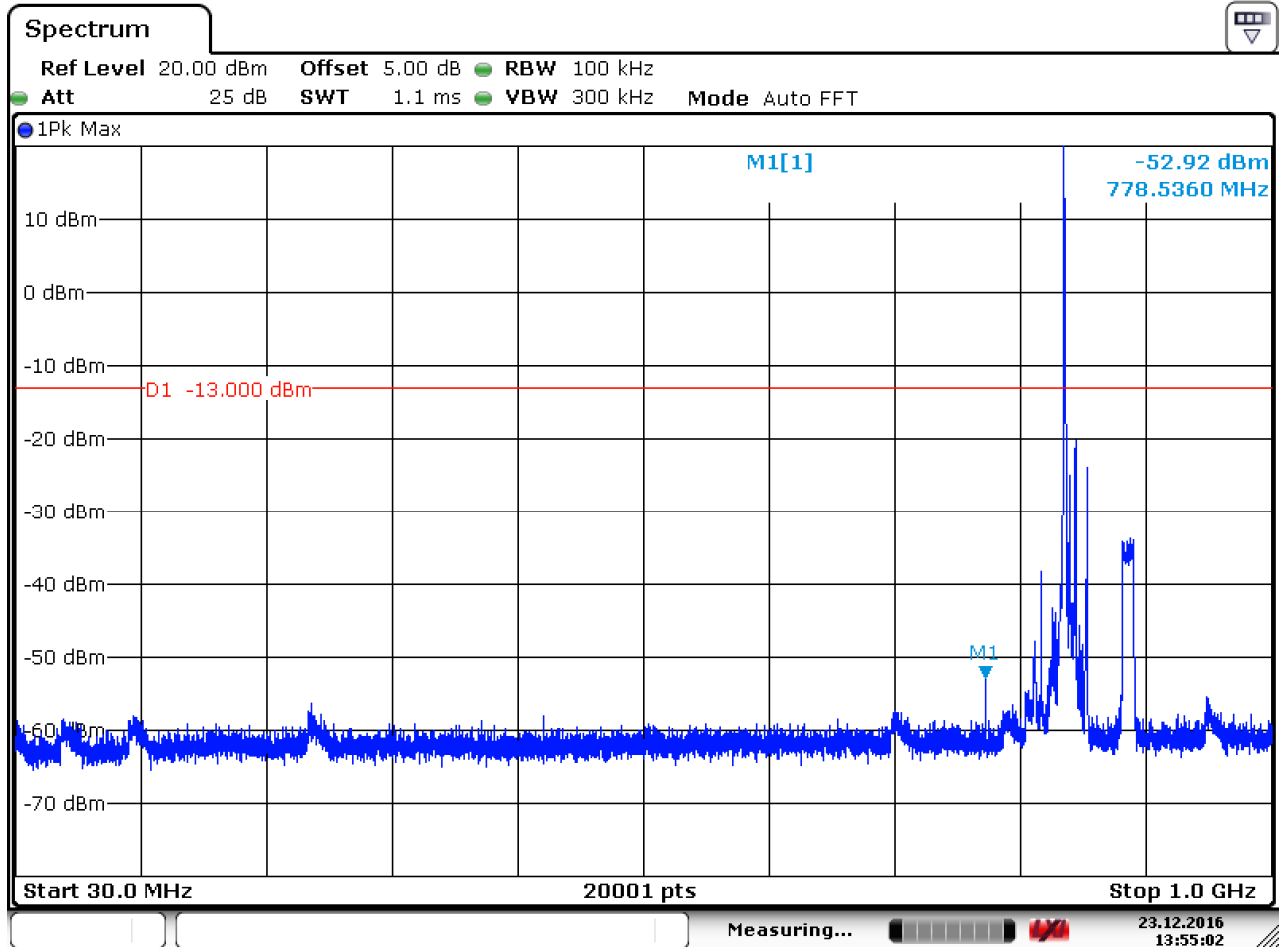
Date: 23.DEC.2016 13:52:58



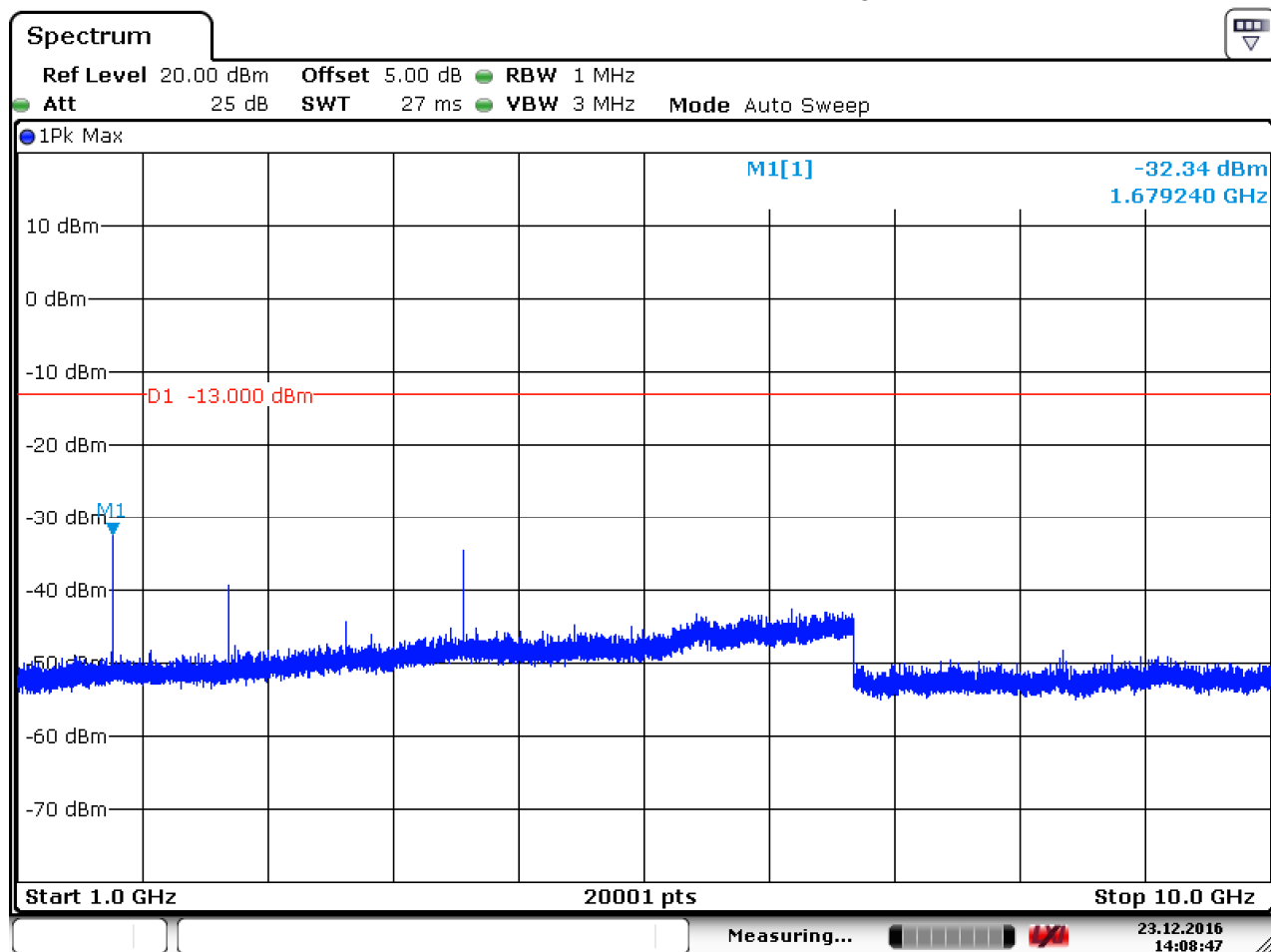
Date: 23.DEC.2016 14:09:49



6.1.1.4.3 Test Channel = HCH



Date: 23.DEC.2016 13:55:02



Date: 23.DEC.2016 14:08:47



7 Field Strength of Spurious Radiation

7.1 For LTE

7.1.1 Test Band = LTE band5

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1177.000	-66.80	-13.00	53.80	Vertical
2712.000	-57.36	-13.00	44.36	Vertical
3975.000	-67.94	-13.00	54.94	Vertical
1452.000	-66.27	-13.00	53.27	Horizontal
2360.000	-58.96	-13.00	45.96	Horizontal
6217.500	-65.85	-13.00	52.85	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
901.000	-75.75	-13.00	62.75	Vertical
1419.000	-67.24	-13.00	54.24	Vertical
1914.000	-63.25	-13.00	50.25	Vertical
2232.000	-59.28	-13.00	46.28	Horizontal
3975.000	-68.29	-13.00	55.29	Horizontal
4852.500	-67.07	-13.00	54.07	Horizontal

7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1474.000	-66.43	-13.00	53.43	Vertical
1738.000	-63.98	-13.00	50.98	Vertical
4950.000	-66.83	-13.00	53.83	Vertical
1661.000	-64.89	-13.00	51.89	Horizontal
2090.000	-62.75	-13.00	49.75	Horizontal
4267.500	-67.43	-13.00	54.43	Horizontal

NOTE:

- 1) All modes are tested, but the data presented above is the worst case. The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



8 Frequency Stability

8.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE band5	LTE/TM1 10MHz	LCH	TN	VL	-2.66	-0.00321	PASS
				VN	1.42	0.00171	PASS
				VH	-5.23	-0.00631	PASS
		MCH	TN	VL	-1.56	-0.00186	PASS
				VN	-2.80	-0.00335	PASS
				VH	1.72	0.00206	PASS
		HCH	TN	VL	-5.36	-0.00635	PASS
				VN	-4.90	-0.00581	PASS
				VH	-1.88	-0.00223	PASS
	LTE/TM2 10MHz	LCH	TN	VL	-4.30	-0.00519	PASS
				VN	-3.33	-0.00402	PASS
				VH	-4.13	-0.00498	PASS
		MCH	TN	VL	1.20	0.00143	PASS
				VN	-3.99	-0.00477	PASS
				VH	1.63	0.00195	PASS
		HCH	TN	VL	-2.01	-0.00238	PASS
				VN	-6.10	-0.00723	PASS
				VH	5.11	0.00605	PASS



8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE band5	LTE/TM1 10MHz	LCH	VN	-30	-4.30	-0.00519	PASS
				-20	-2.38	-0.00287	PASS
				-10	-2.77	-0.00334	PASS
				0	1.20	0.00145	PASS
				10	1.22	0.00147	PASS
				20	0.59	0.00071	PASS
				30	-0.68	-0.00082	PASS
				40	-2.70	-0.00326	PASS
				50	-6.02	-0.00726	PASS
		MCH	VN	-30	-5.44	-0.00650	PASS
				-20	-5.20	-0.00622	PASS
				-10	-3.32	-0.00397	PASS
				0	-1.55	-0.00185	PASS
				10	-2.27	-0.00271	PASS
				20	-0.89	-0.00106	PASS
				30	-3.09	-0.00369	PASS
				40	-4.88	-0.00583	PASS
				50	-5.42	-0.00648	PASS
		HCH	VN	-30	-6.66	-0.00789	PASS
				-20	-3.24	-0.00384	PASS
				-10	0.69	0.00082	PASS
				0	-2.40	-0.00284	PASS
				10	2.44	0.00289	PASS
				20	-0.39	-0.00046	PASS
				30	-2.49	-0.00295	PASS
				40	-4.39	-0.00520	PASS
				50	-3.88	-0.00460	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE band5	LTE/TM2 10MHz	LCH	VN	-30	-3.67	-0.00443	PASS
				-20	-2.42	-0.00292	PASS
				-10	1.20	0.00145	PASS
				0	2.21	0.00267	PASS
				10	1.77	0.00214	PASS
				20	-0.83	-0.00100	PASS
				30	-3.03	-0.00366	PASS
				40	2.27	0.00274	PASS
				50	-4.88	-0.00589	PASS
		MCH	VN	-30	-3.32	-0.00397	PASS
				-20	-2.66	-0.00318	PASS
				-10	-2.10	-0.00251	PASS
				0	-1.83	-0.00219	PASS
				10	-0.79	-0.00094	PASS
				20	1.23	0.00147	PASS
				30	-2.29	-0.00274	PASS
				40	-6.78	-0.00811	PASS
				50	-5.43	-0.00649	PASS
		HCH	VN	-30	-3.03	-0.00359	PASS
				-20	-4.60	-0.00545	PASS
				-10	2.09	0.00248	PASS
				0	-3.48	-0.00412	PASS
				10	2.76	0.00327	PASS
				20	-1.99	-0.00236	PASS
				30	-3.39	-0.00402	PASS
				40	-4.70	-0.00557	PASS
				50	-4.33	-0.00513	PASS

The End

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