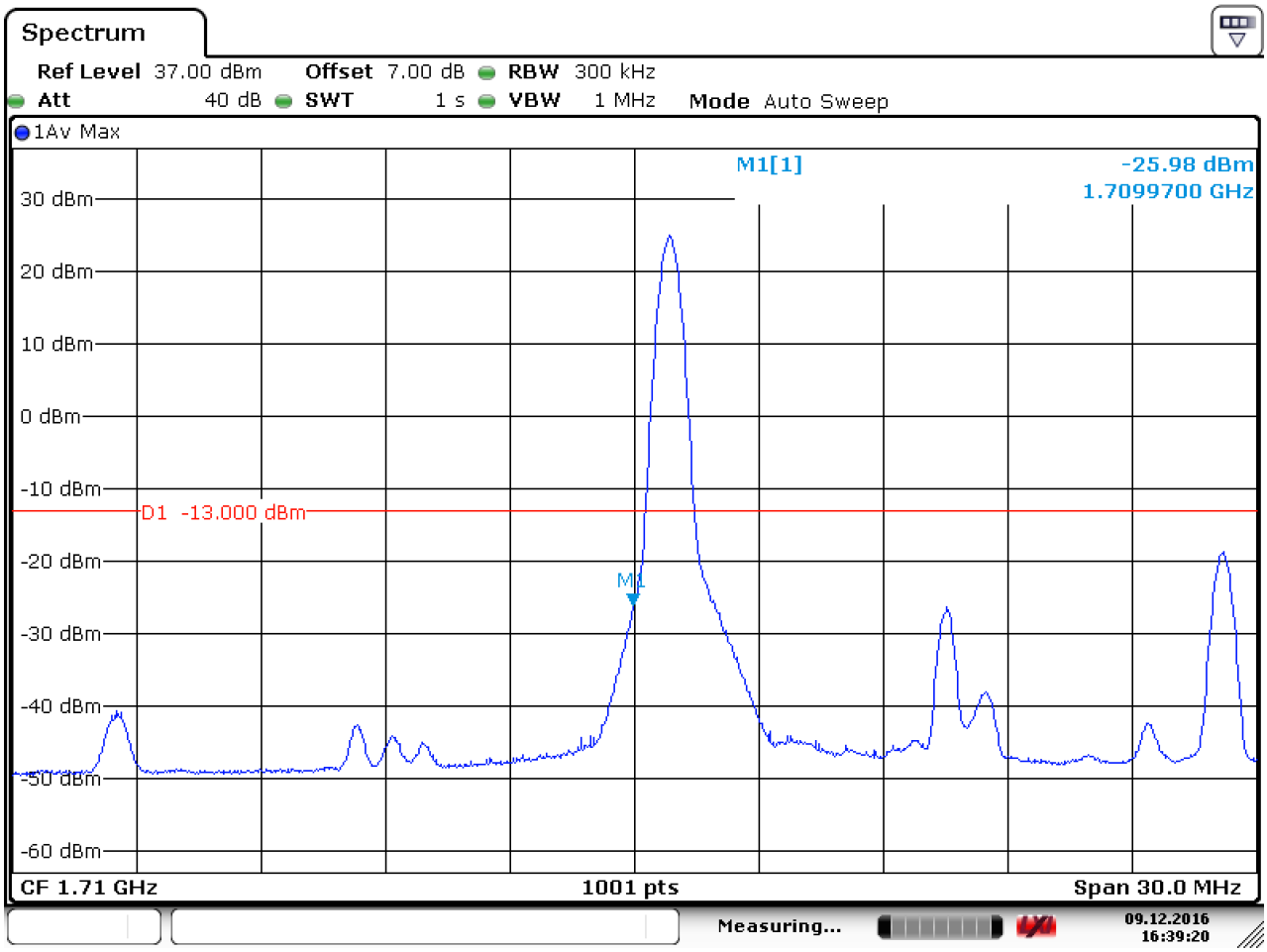
5.1.1.10 Test Mode = LTE/TM2 15MHz

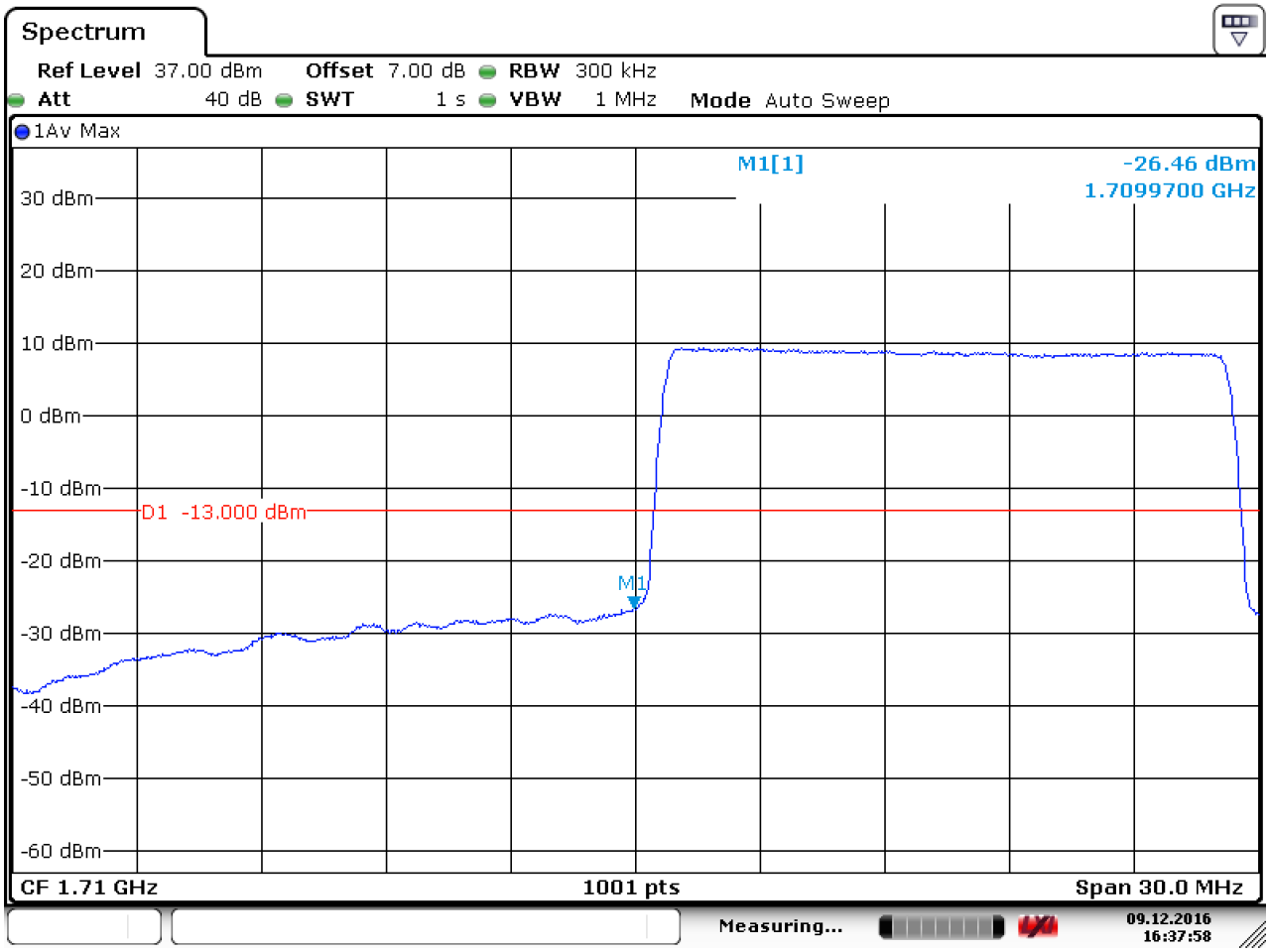
5.1.1.10.1 Test Channel = LCH

5.1.1.10.1.1 Test RB=1RB



Date: 9.DEC.2016 16:39:20

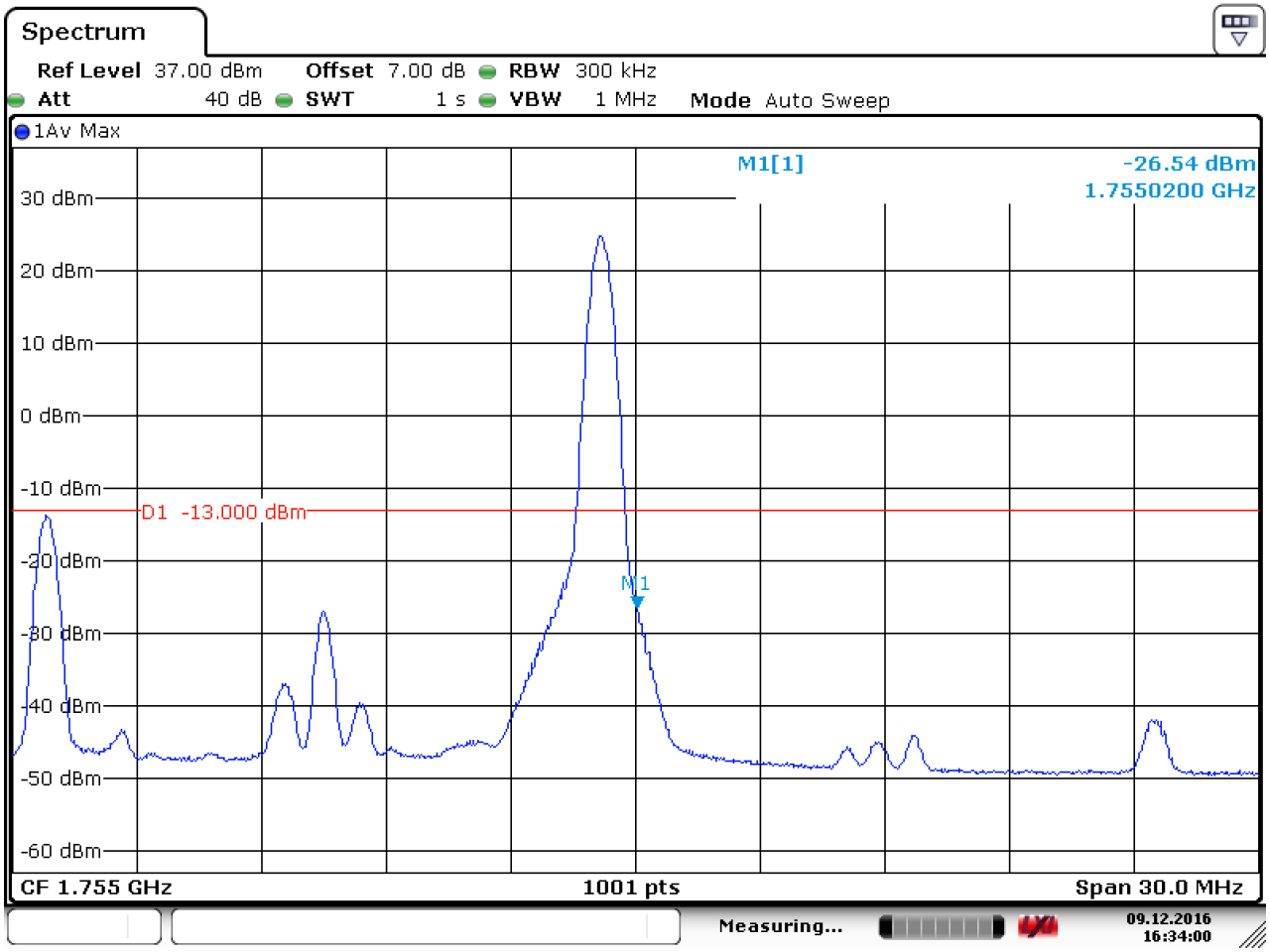
5.1.1.10.1.2 Test RB=75RB



Date: 9.DEC.2016 16:37:58

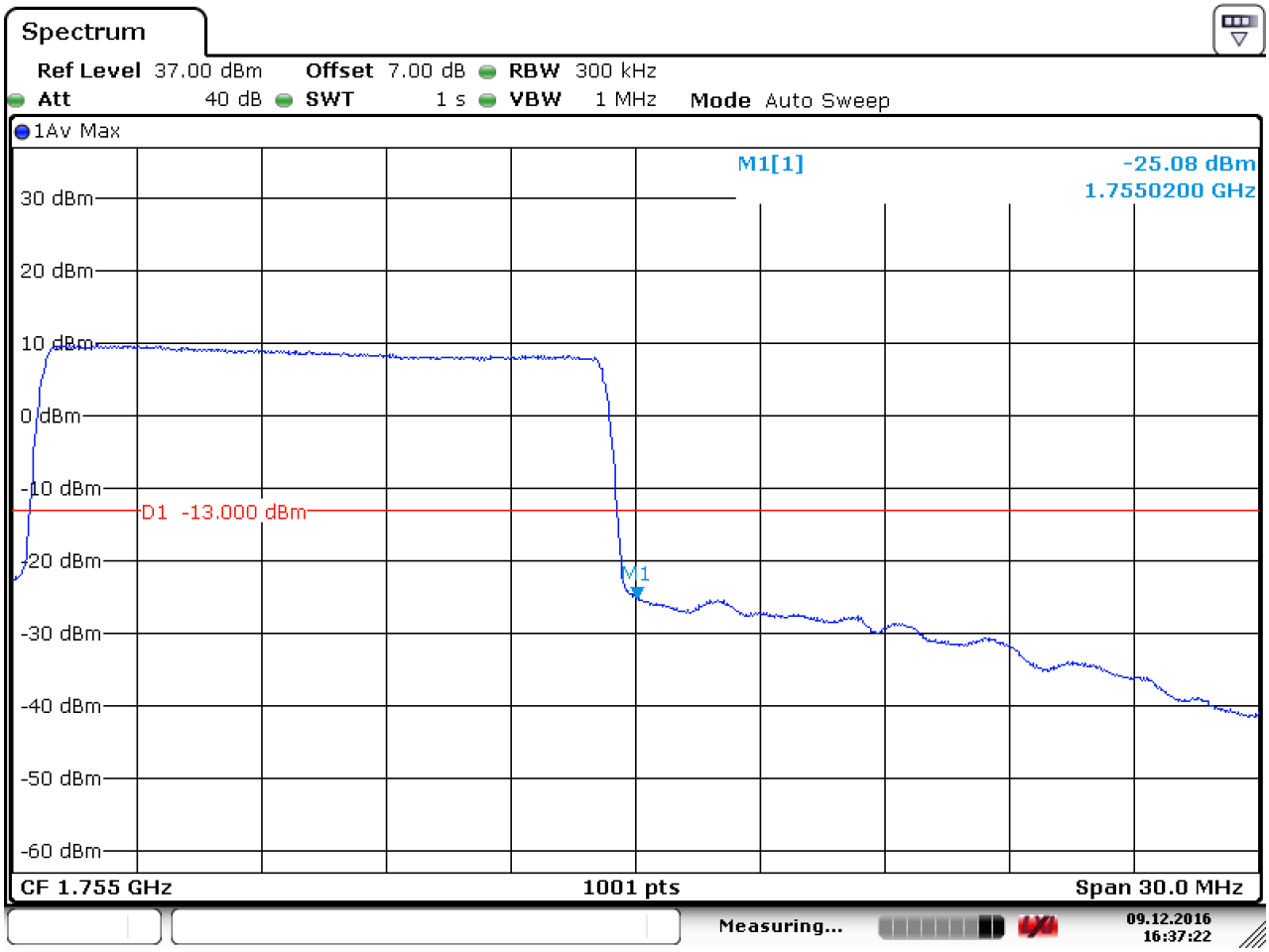
5.1.1.10.2 Test Channel = HCH

5.1.1.10.2.1 Test RB=1RB



Date: 9.DEC.2016 16:34:01

5.1.1.10.2.2 Test RB=75RB

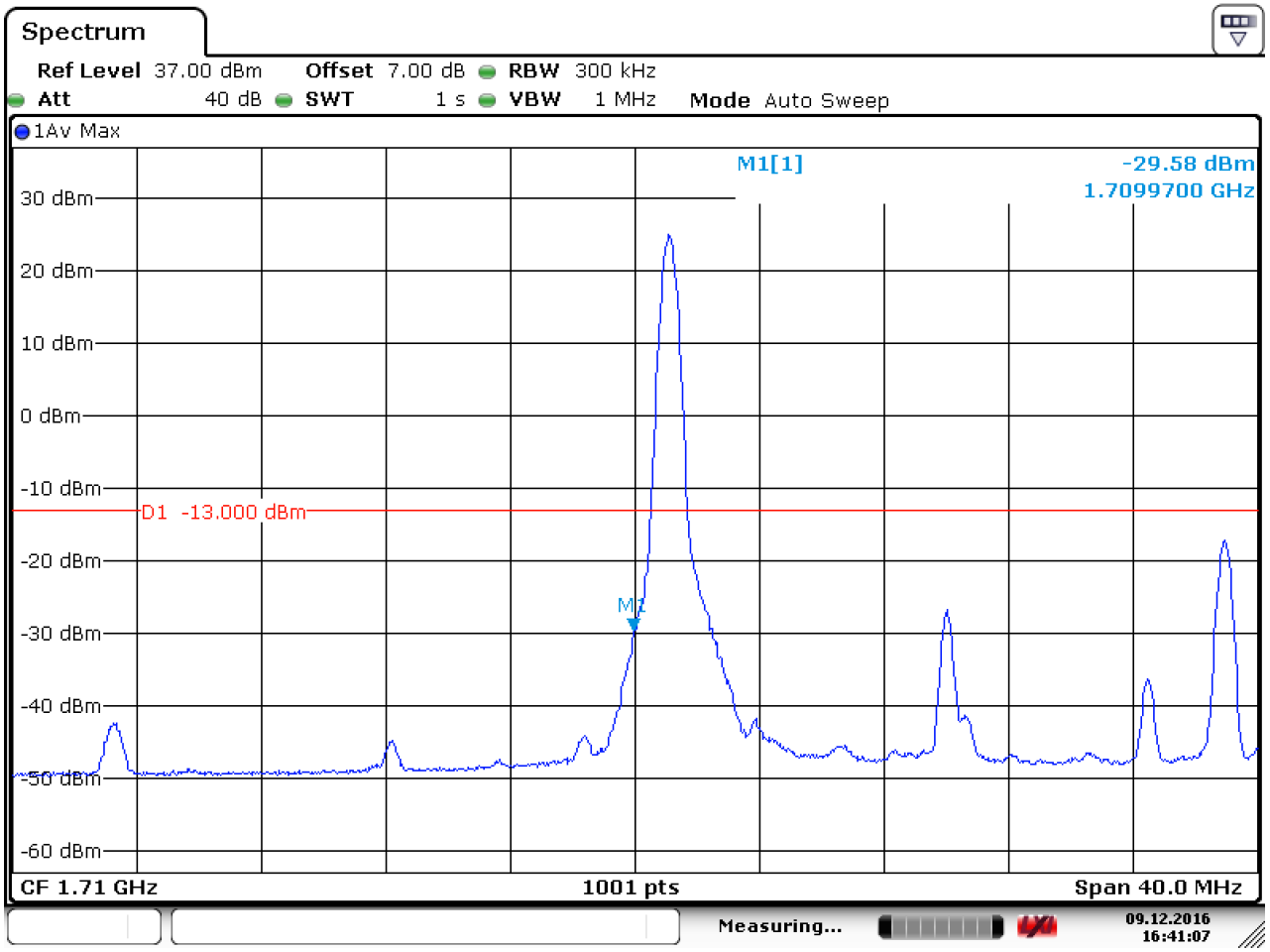


Date: 9.DEC.2016 16:37:22

5.1.1.11 Test Mode = LTE/TM1 20MHz

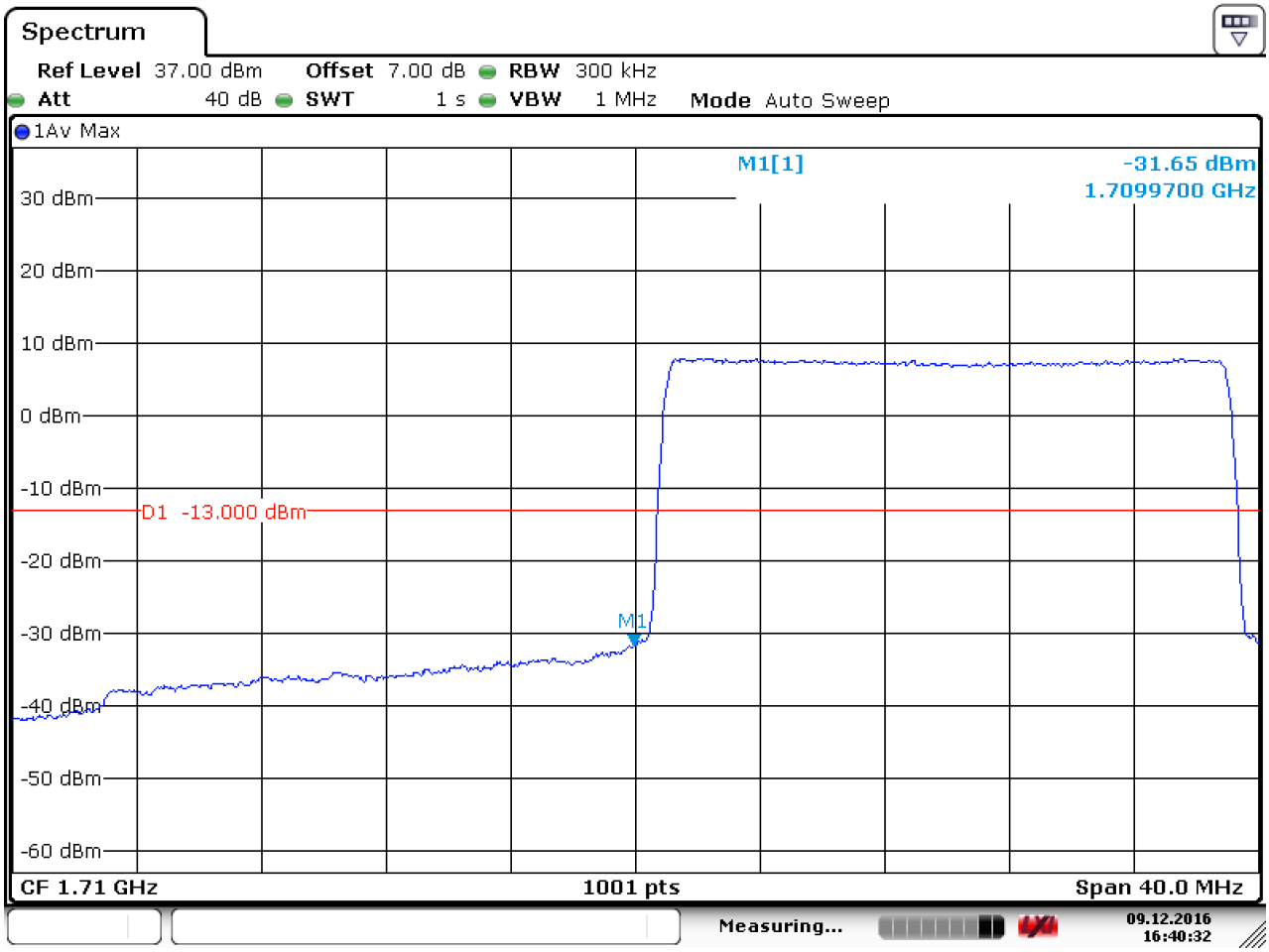
5.1.1.11.1 Test Channel = LCH

5.1.1.11.1.1 Test RB=1RB



Date: 9.DEC.2016 16:41:07

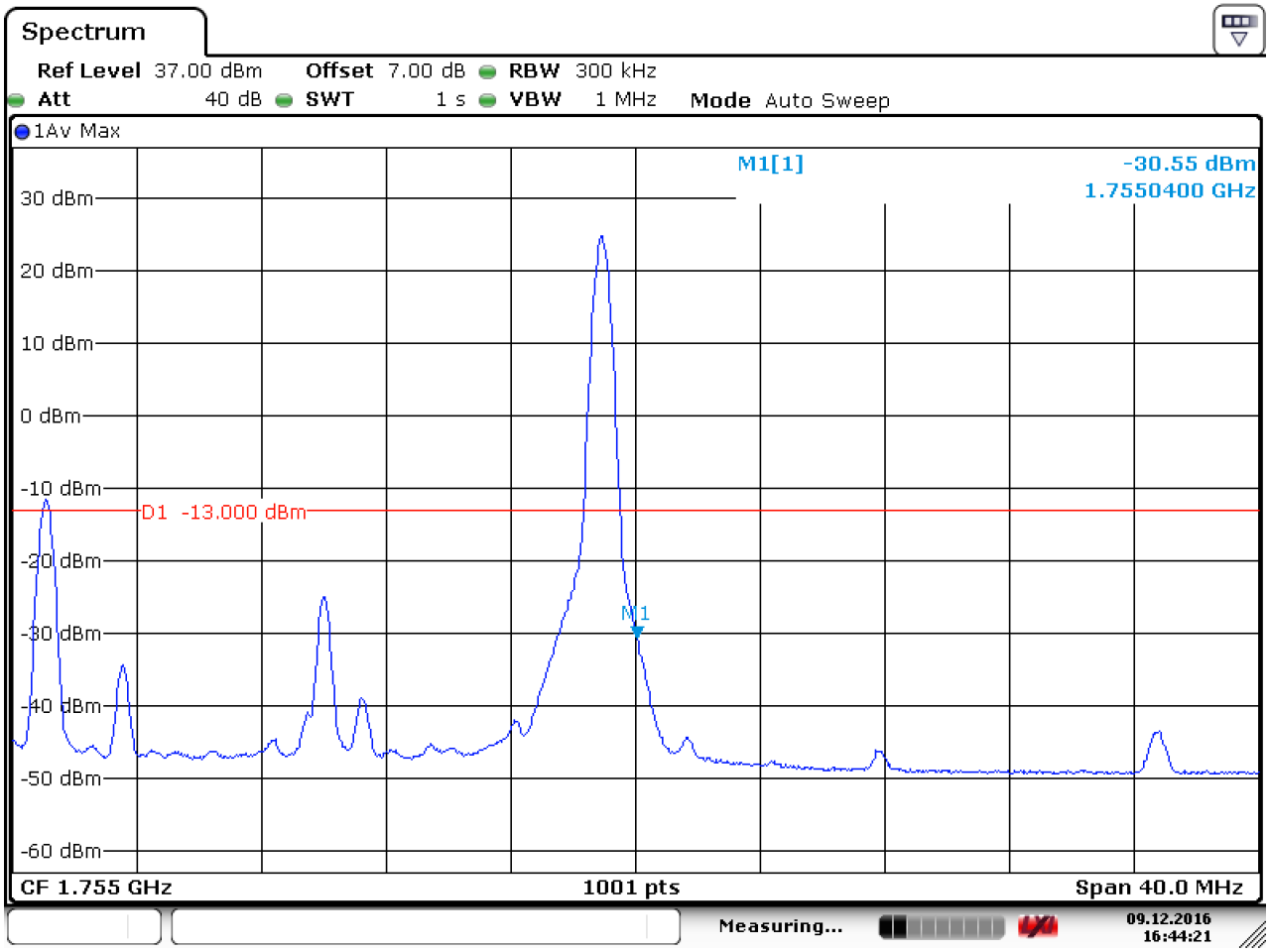
5.1.1.11.1.2 Test RB=100RB



Date: 9.DEC.2016 16:40:33

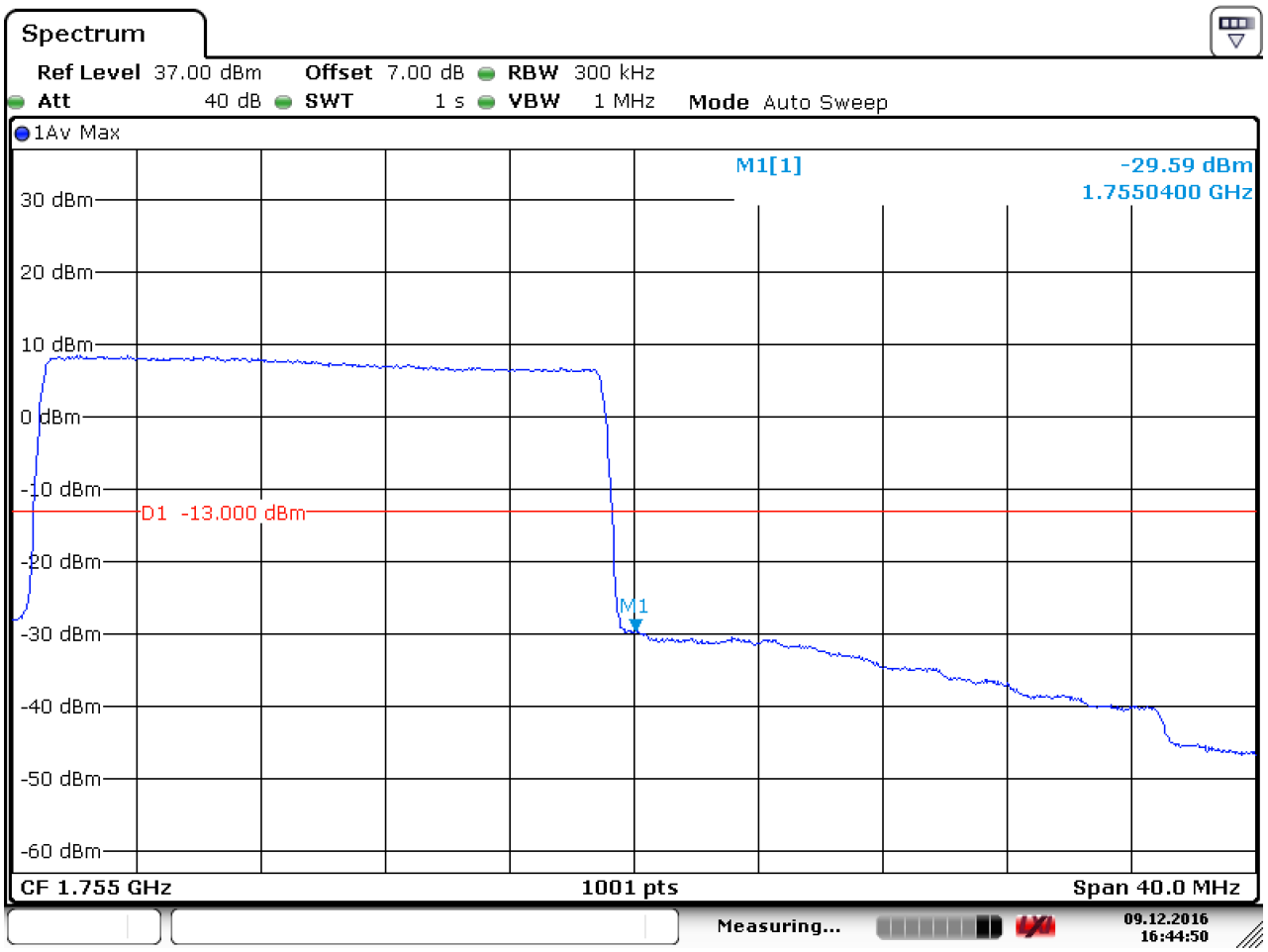
5.1.1.11.2 Test Channel = HCH

5.1.1.11.2.1 Test RB=1RB



Date: 9.DEC.2016 16:44:22

5.1.1.11.2.2 Test RB=100RB

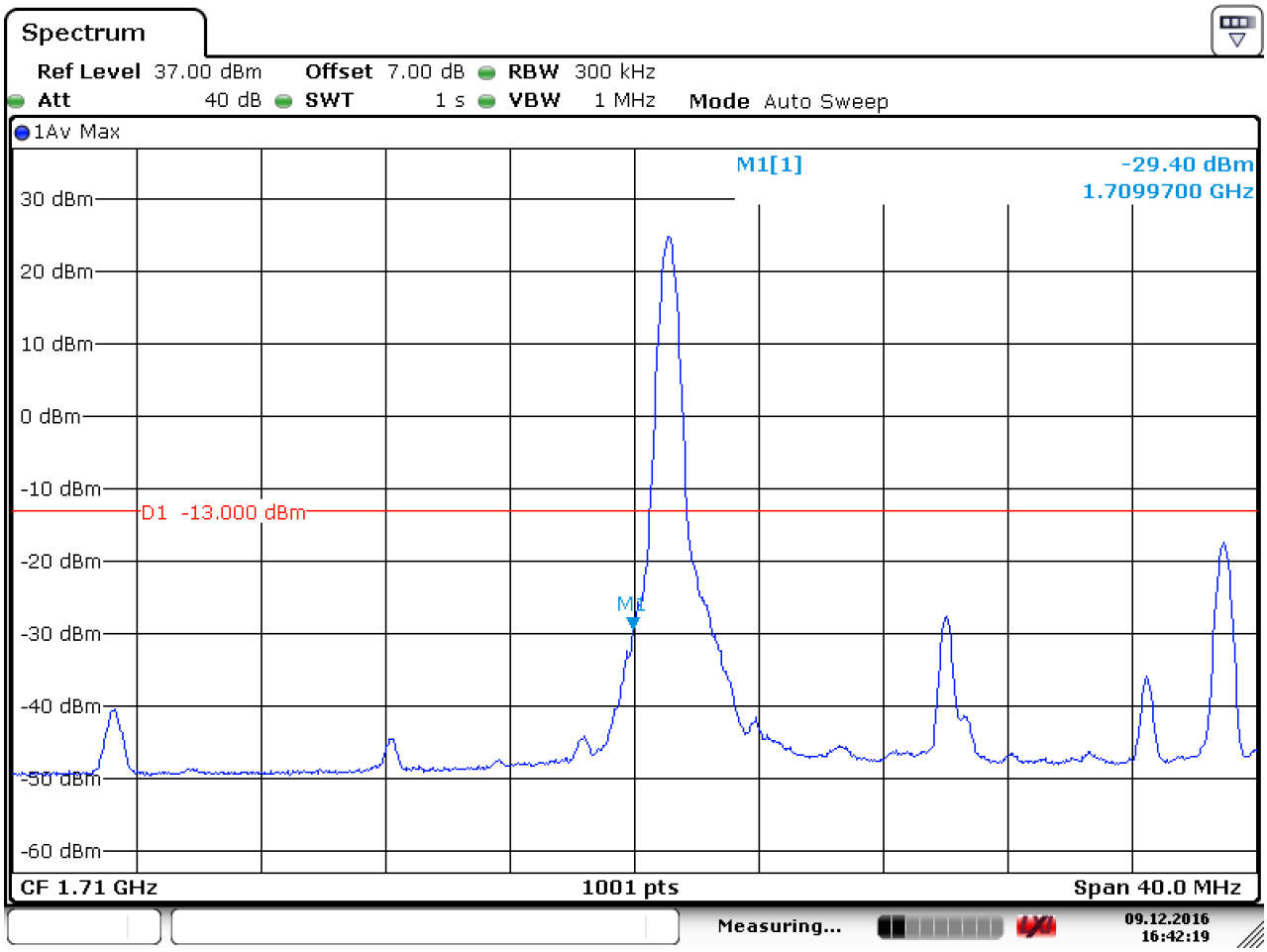


Date: 9.DEC.2016 16:44:50

5.1.1.12 Test Mode = LTE/TM2 20MHz

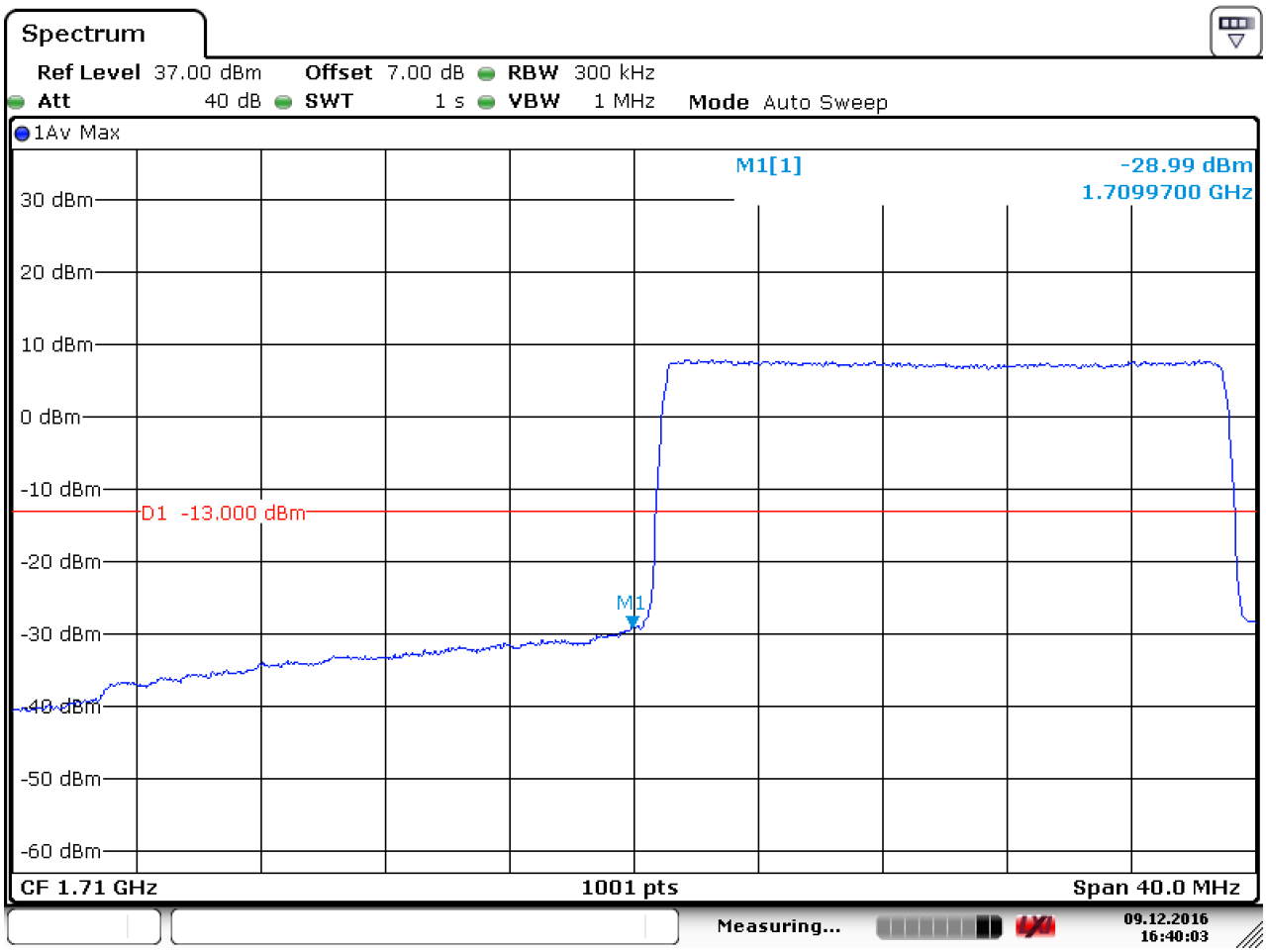
5.1.1.12.1 Test Channel = LCH

5.1.1.12.1.1 Test RB=1RB



Date: 9.DEC.2016 16:42:19

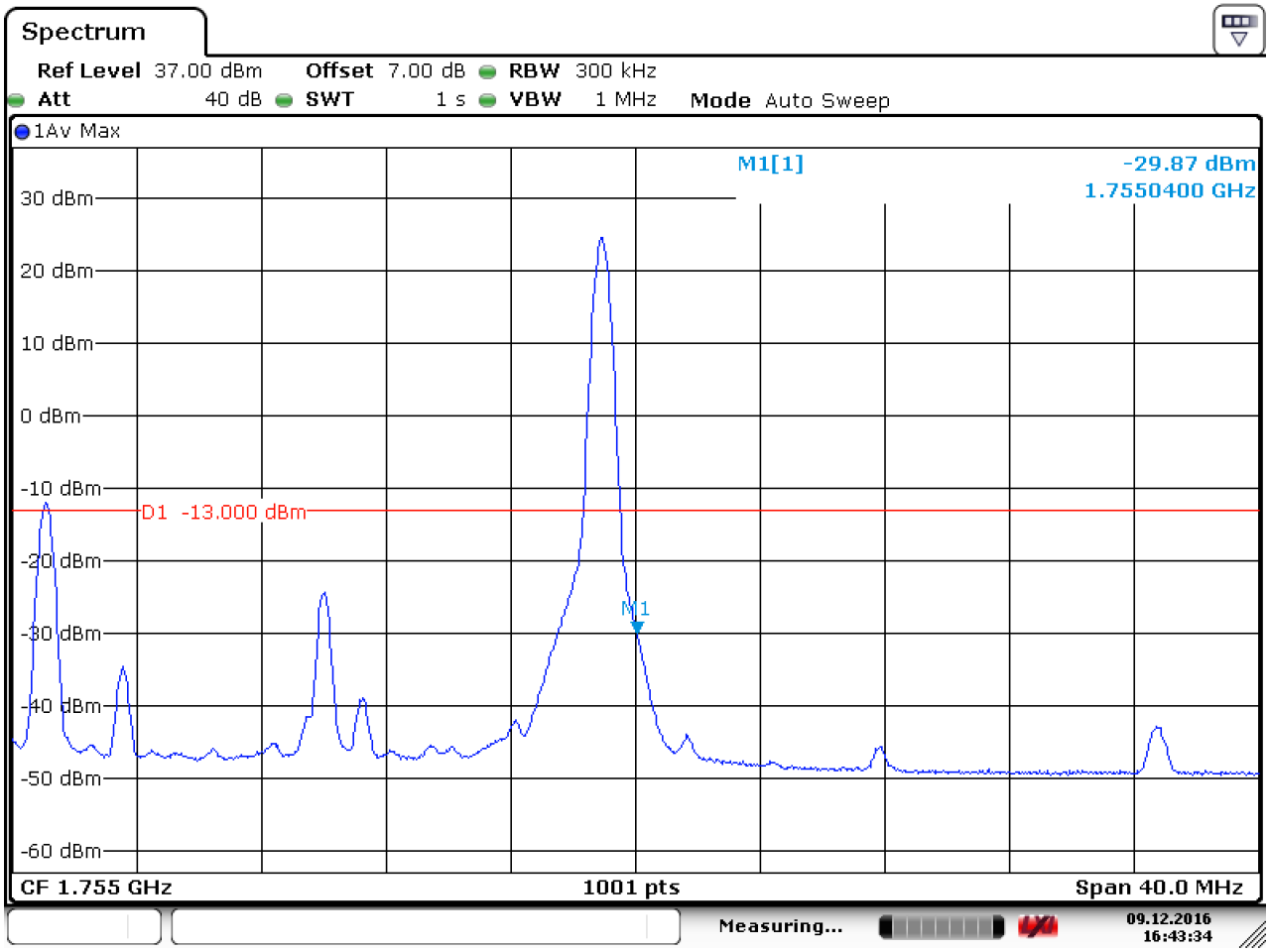
5.1.1.12.1.2 Test RB=100RB



Date: 9.DEC.2016 16:40:03

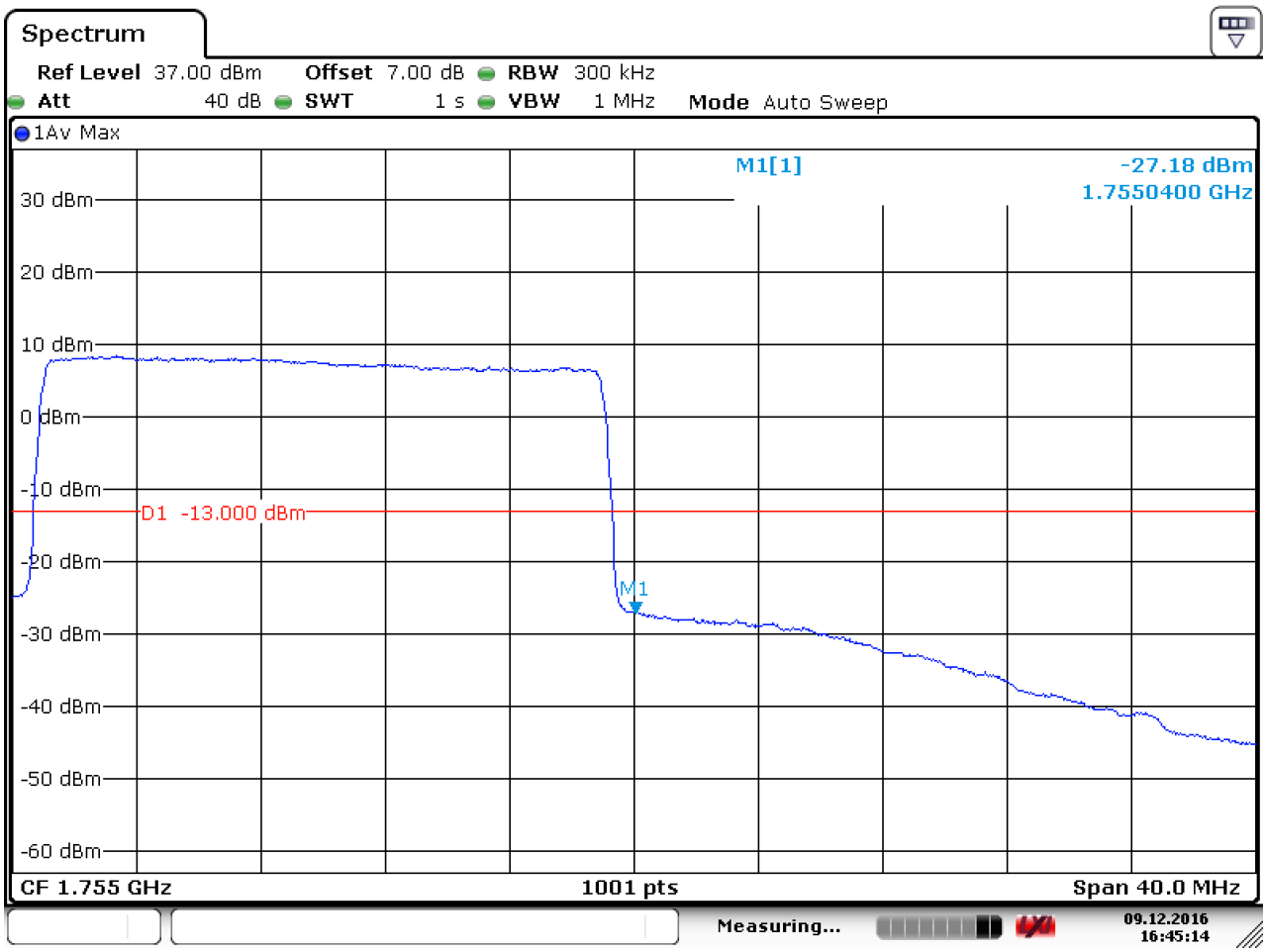
5.1.1.12.2 Test Channel = HCH

5.1.1.12.2.1 Test RB=1RB



Date: 9.DEC.2016 16:43:34

5.1.1.12.2.2 Test RB=100RB



Date: 9.DEC.2016 16:45:14

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 * (Span / RBW)" with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

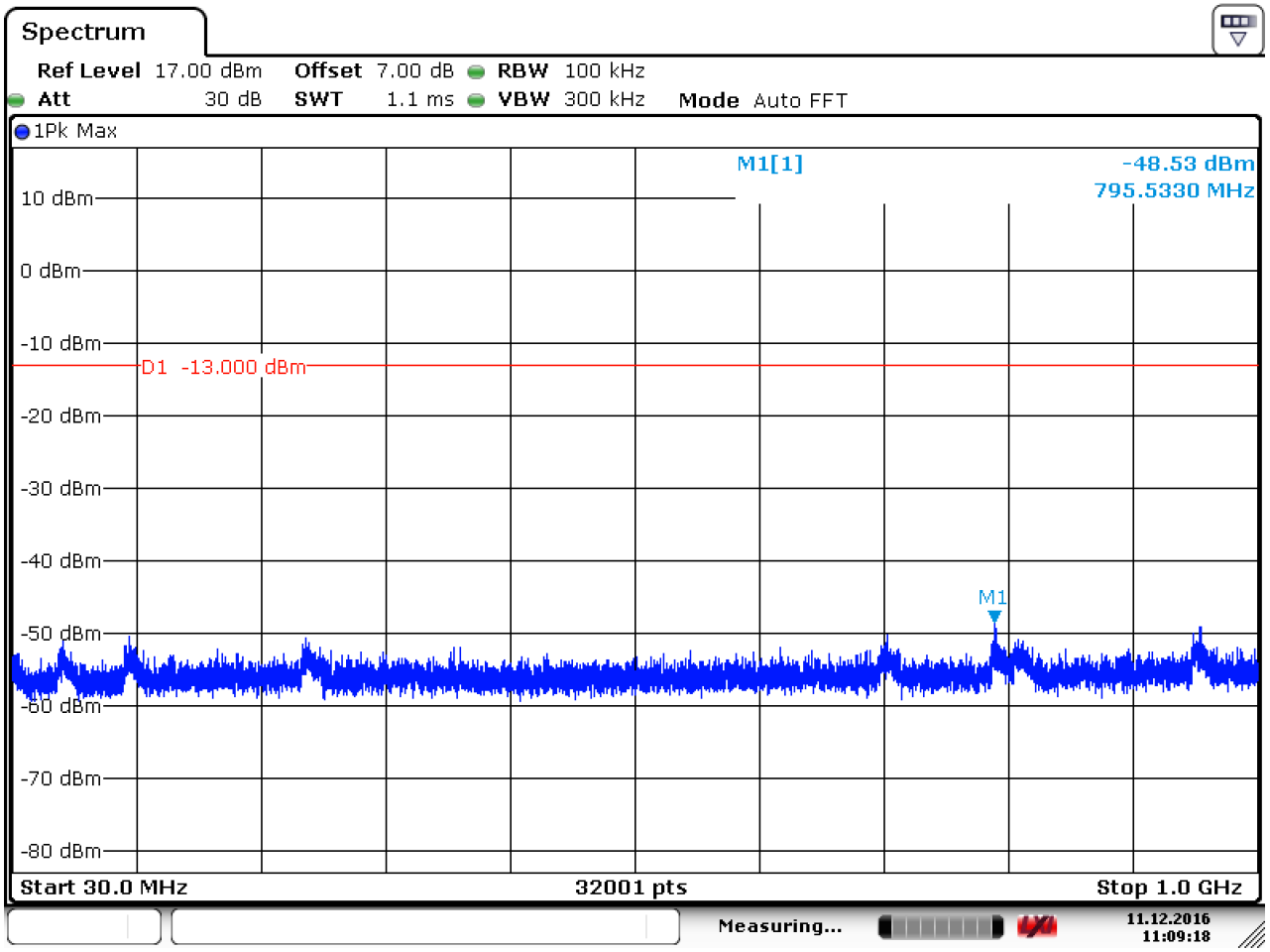
Part I - Test Plots

6.1 For LTE

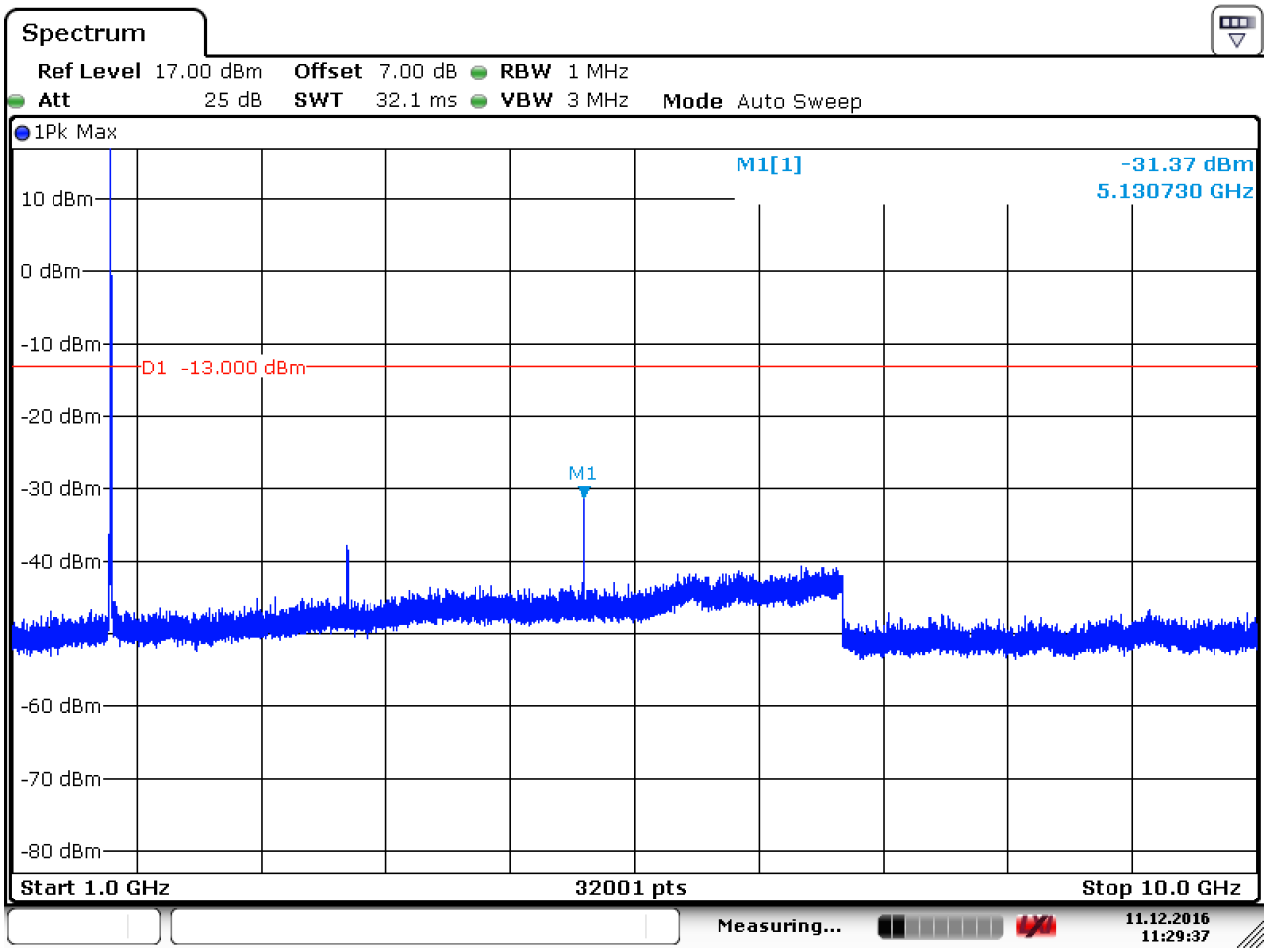
6.1.1 Test Band = LTE band4

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

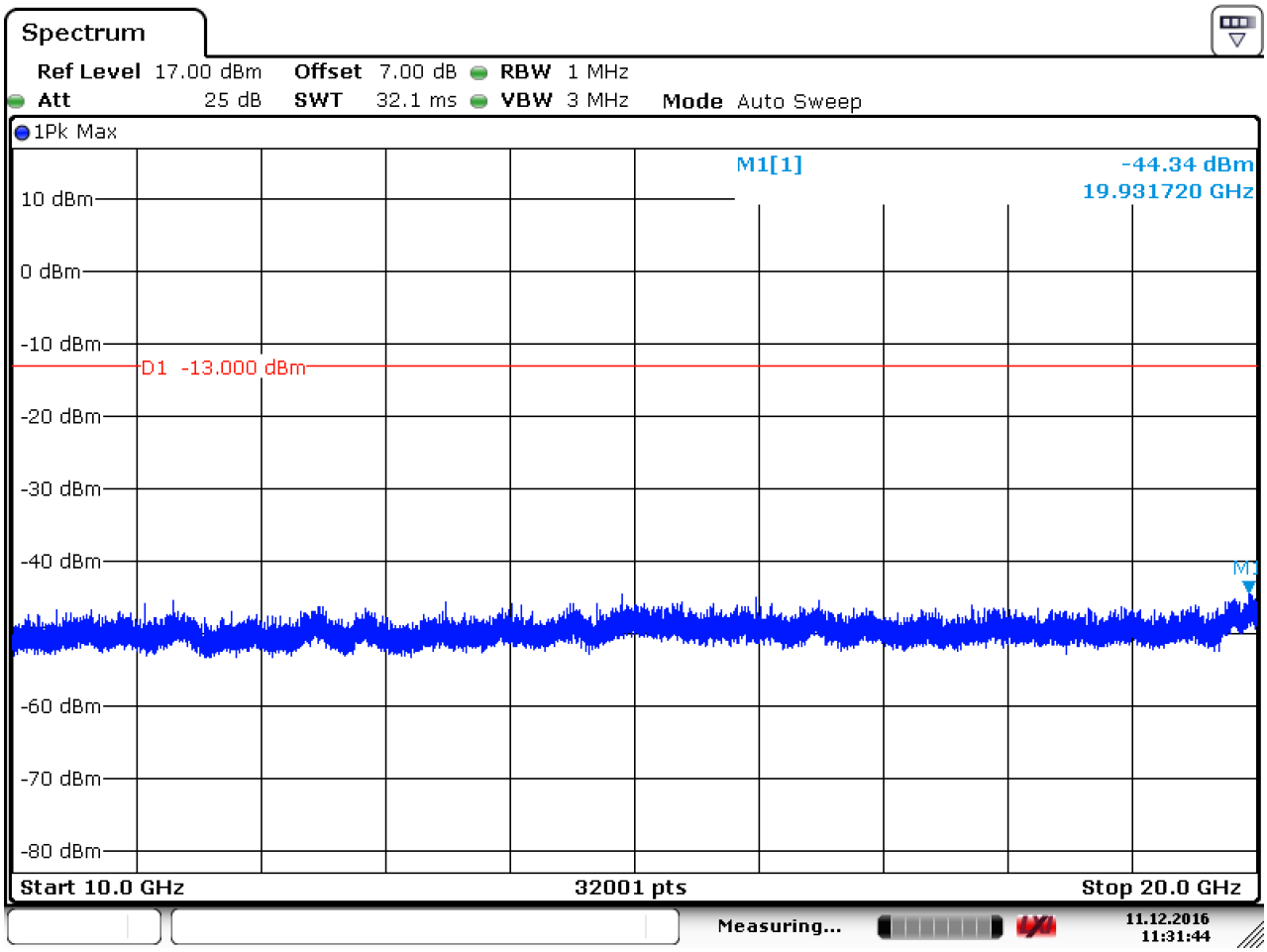
6.1.1.1.1 Test Channel = LCH



Date: 11.DEC.2016 11:09:18

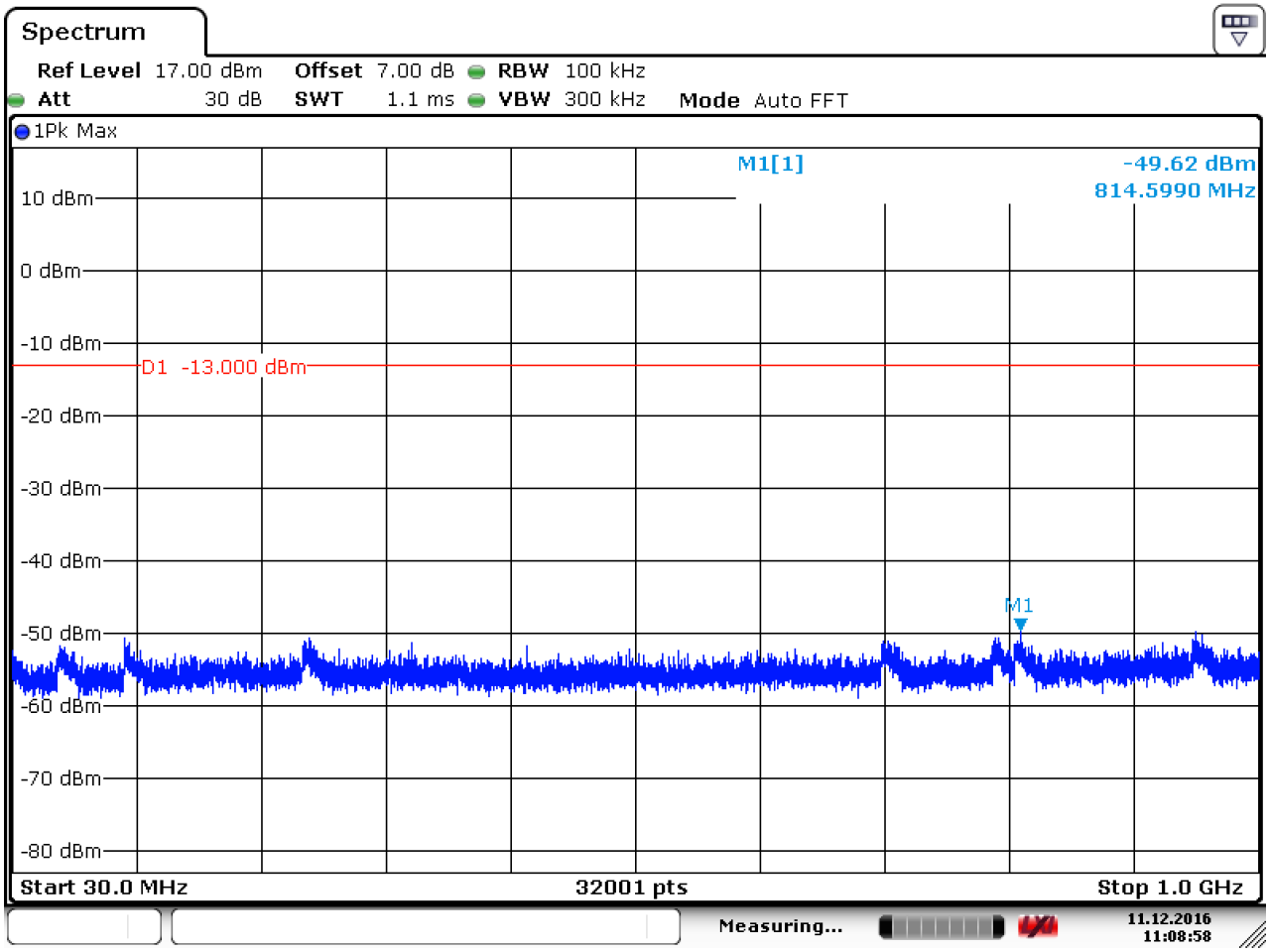


Date: 11.DEC.2016 11:29:37

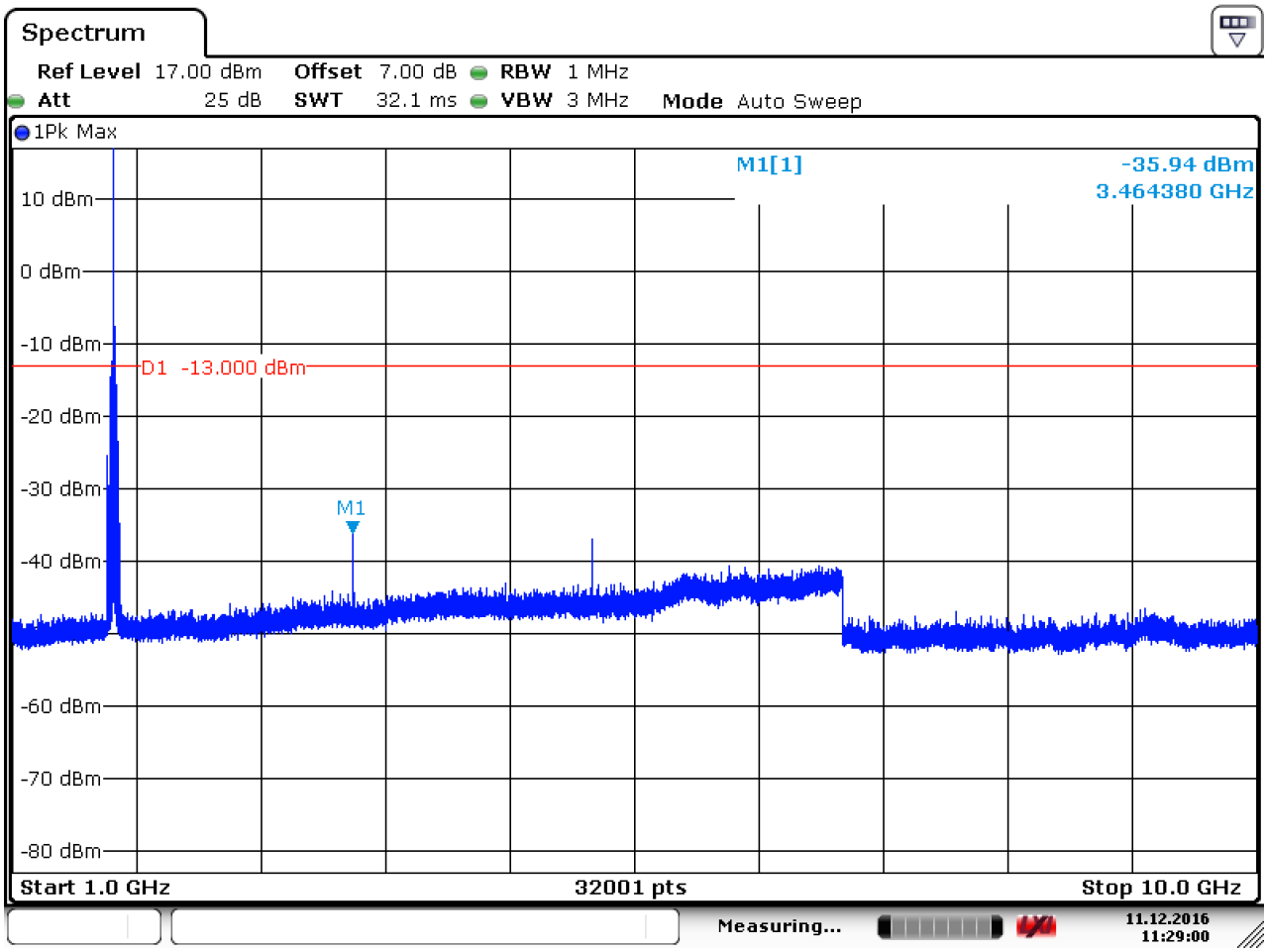


Date: 11.DEC.2016 11:31:45

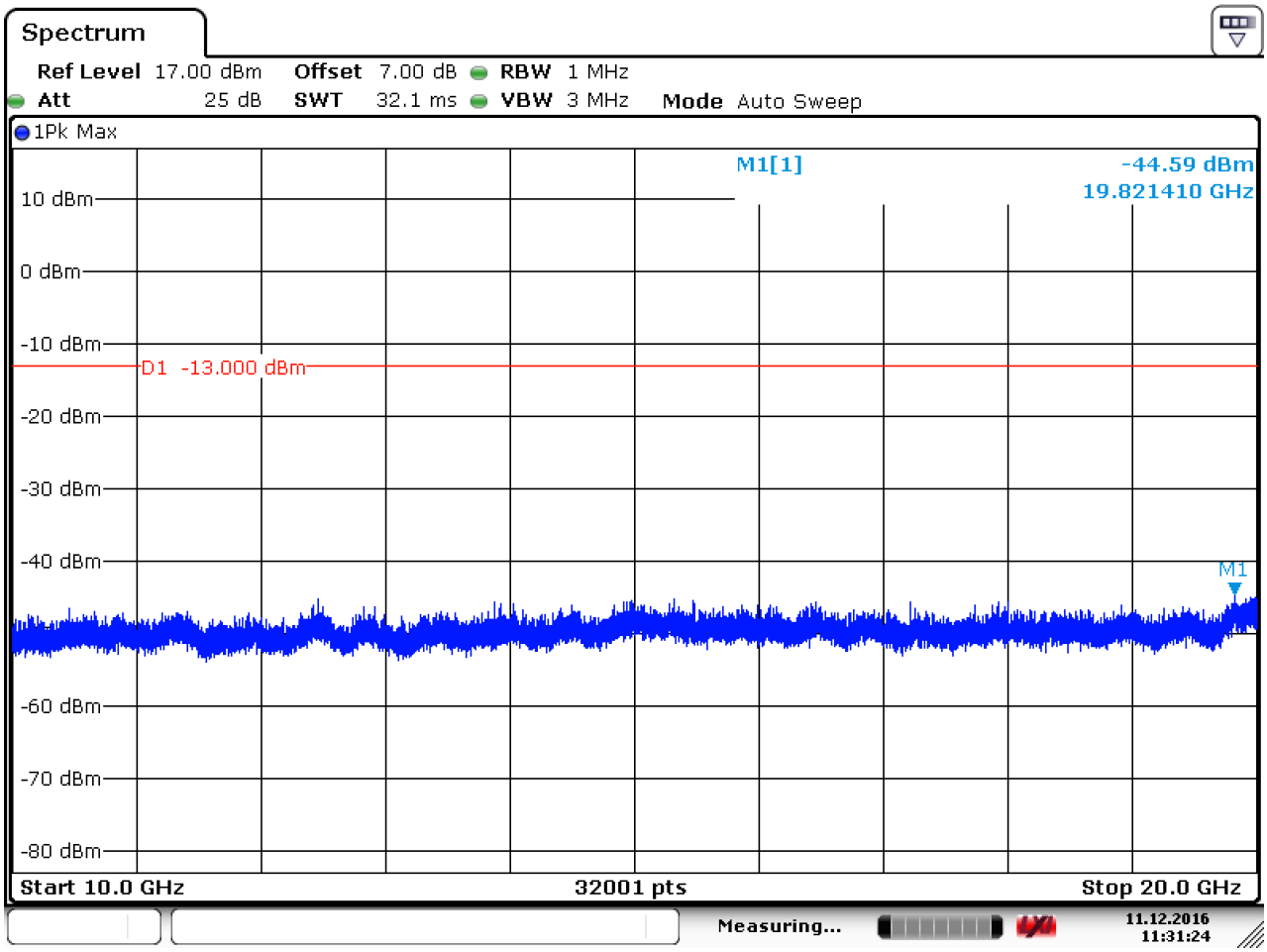
6.1.1.1.2 Test Channel = MCH



Date: 11.DEC.2016 11:08:58

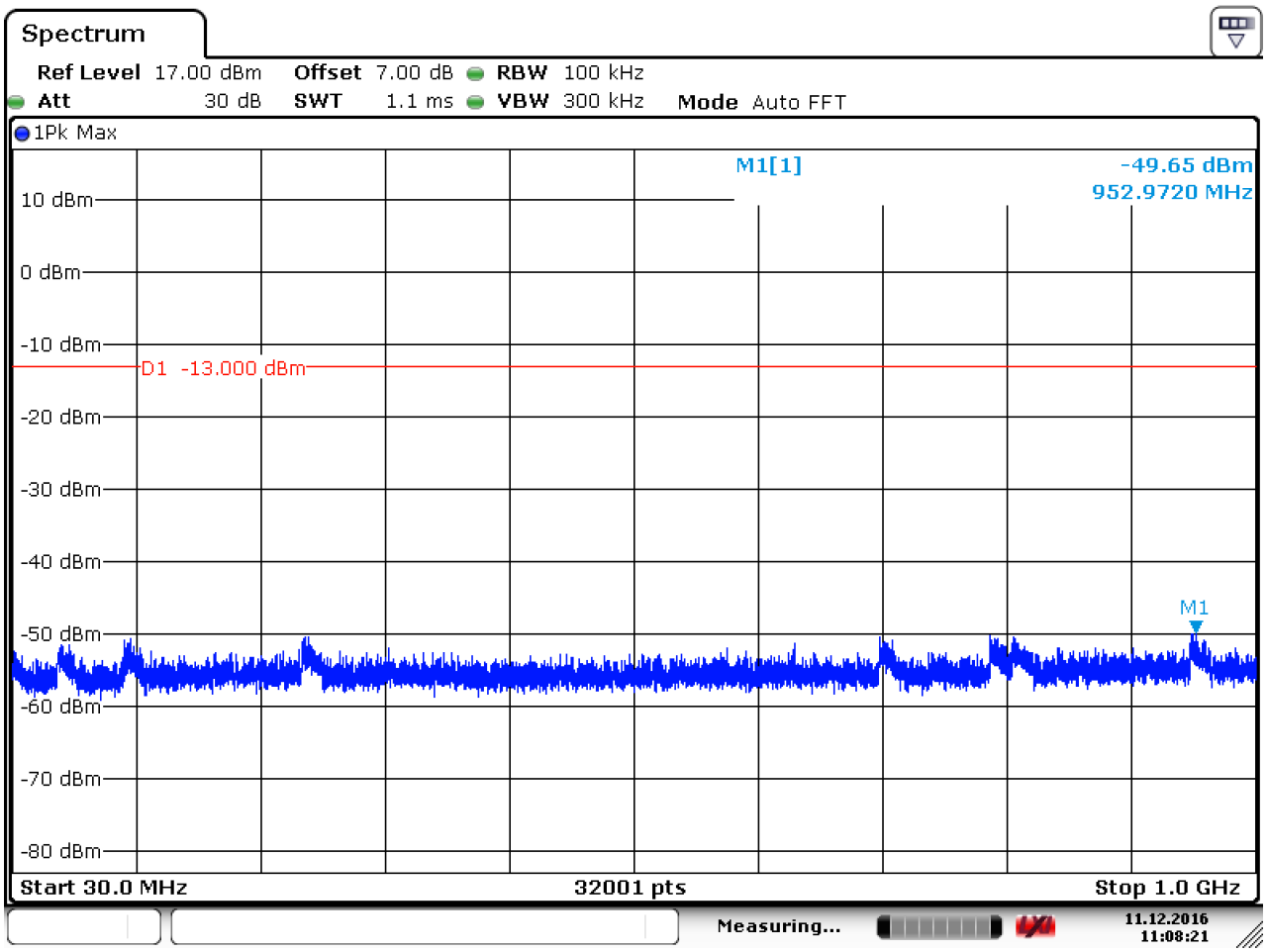


Date: 11.DEC.2016 11:29:01

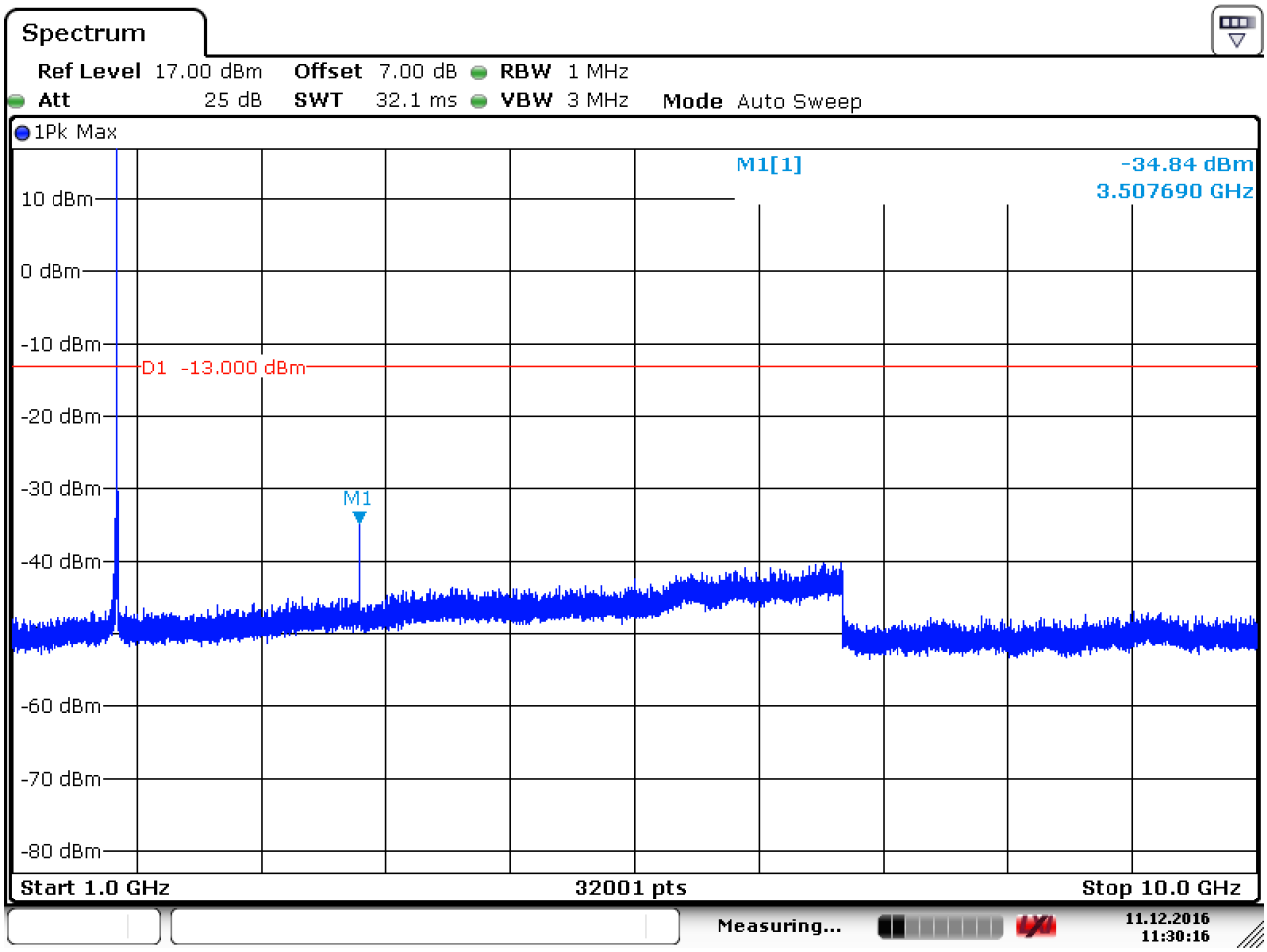


Date: 11.DEC.2016 11:31:25

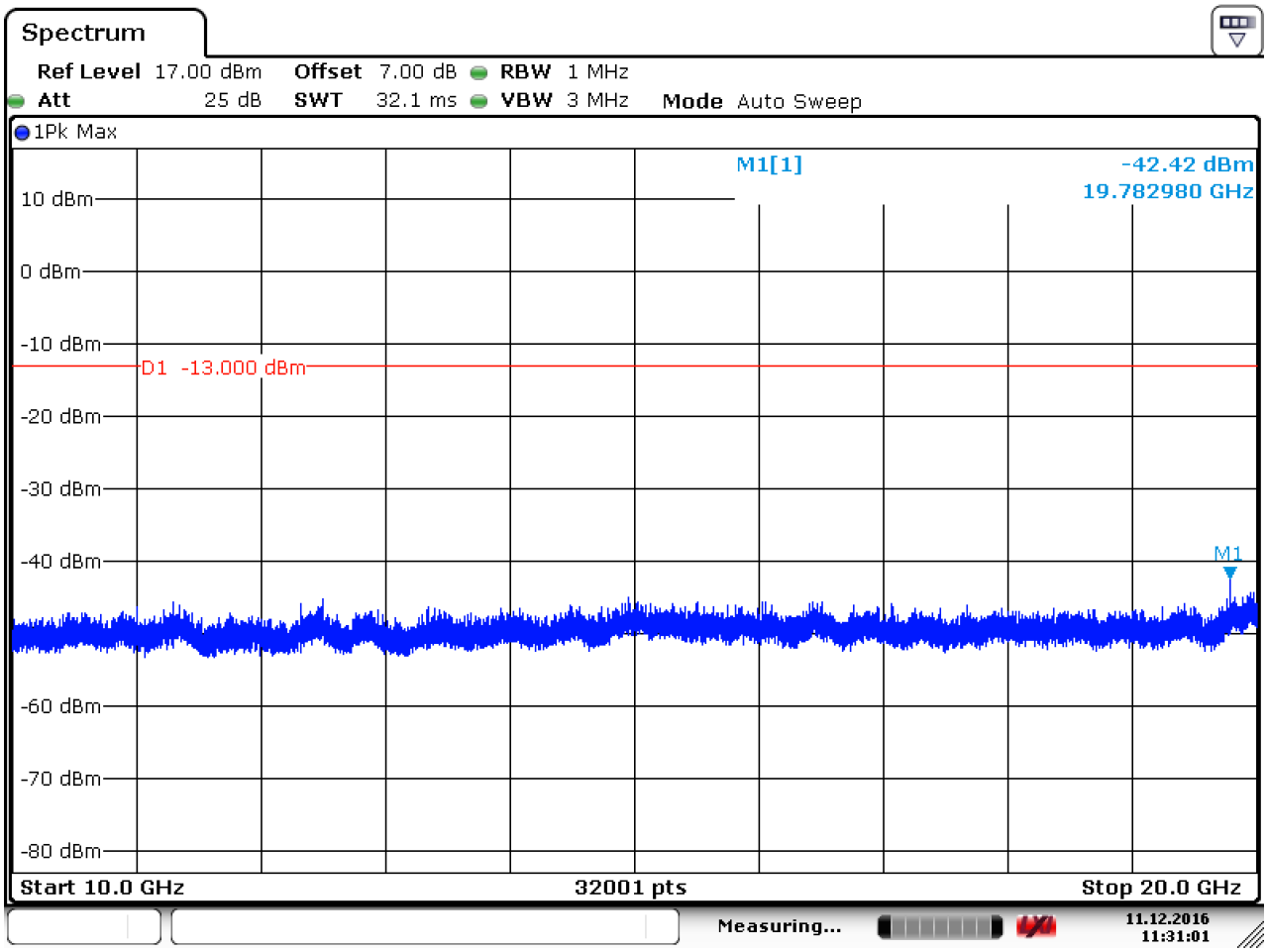
6.1.1.1.3 Test Channel = HCH



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



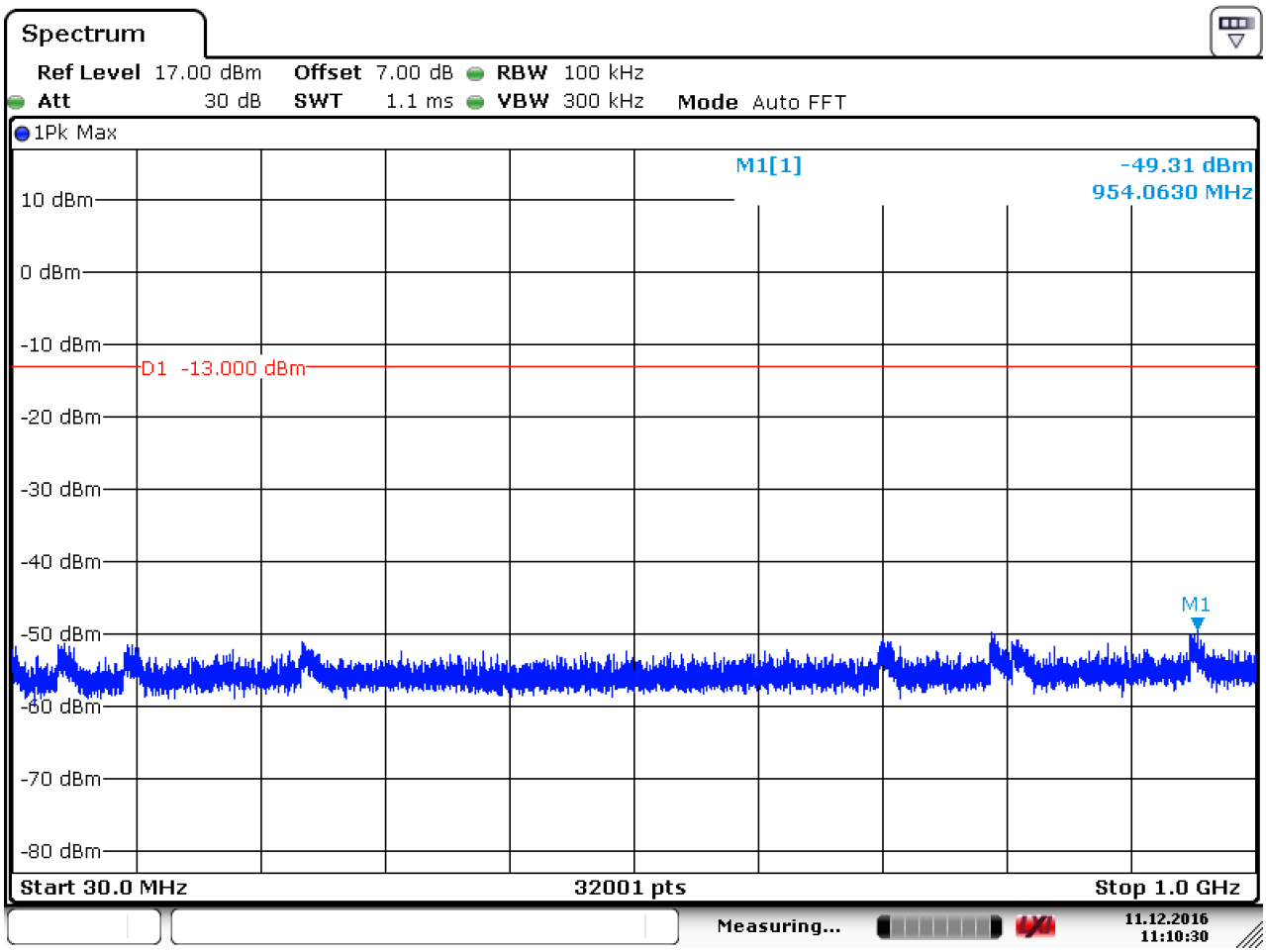
Date: 11.DEC.2016 11:30:16



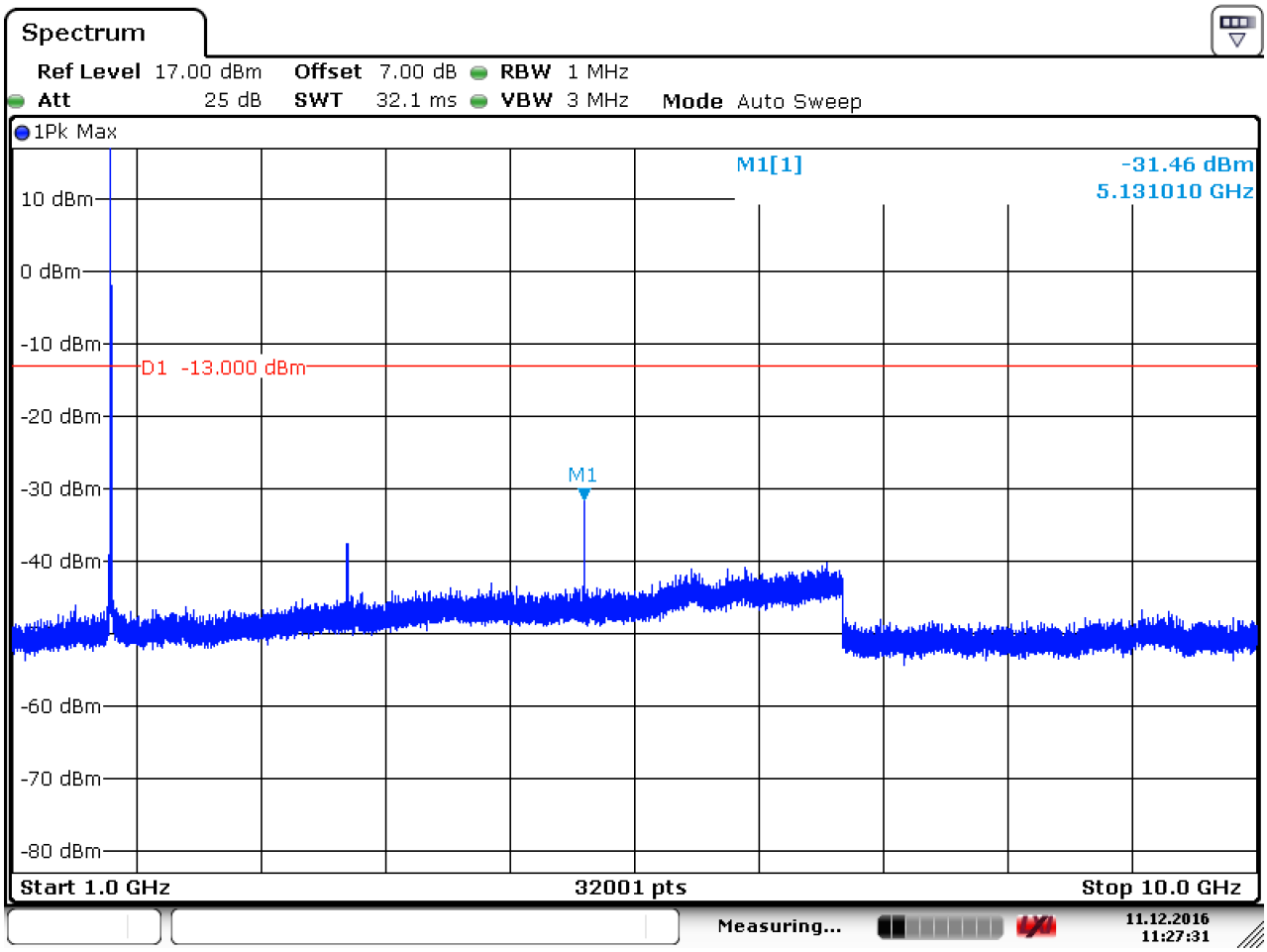
Date: 11.DEC.2016 11:31:02

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

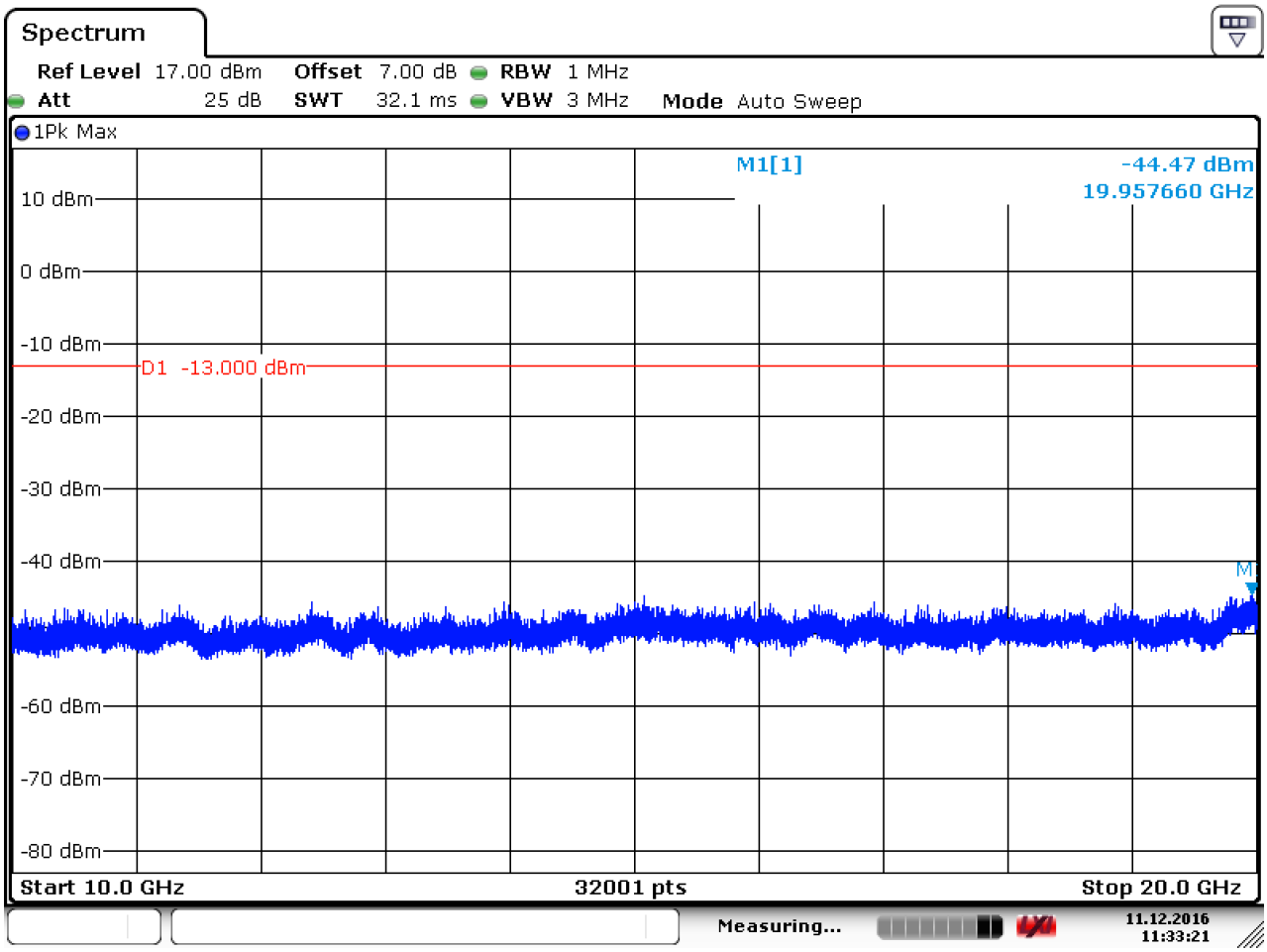
6.1.1.2.1 Test Channel = LCH



Date: 11.DEC.2016 11:10:31

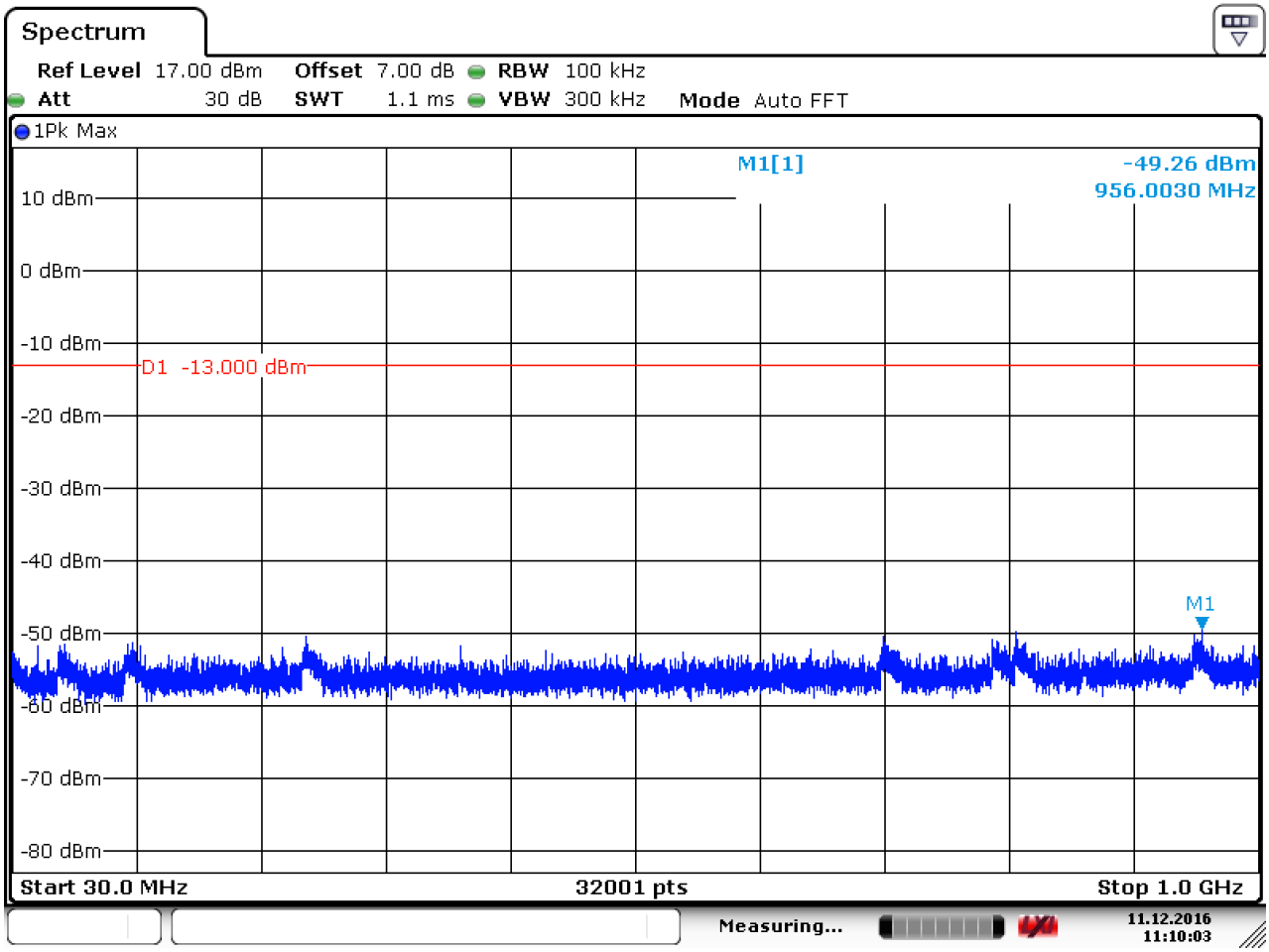


Date: 11.DEC.2016 11:27:31

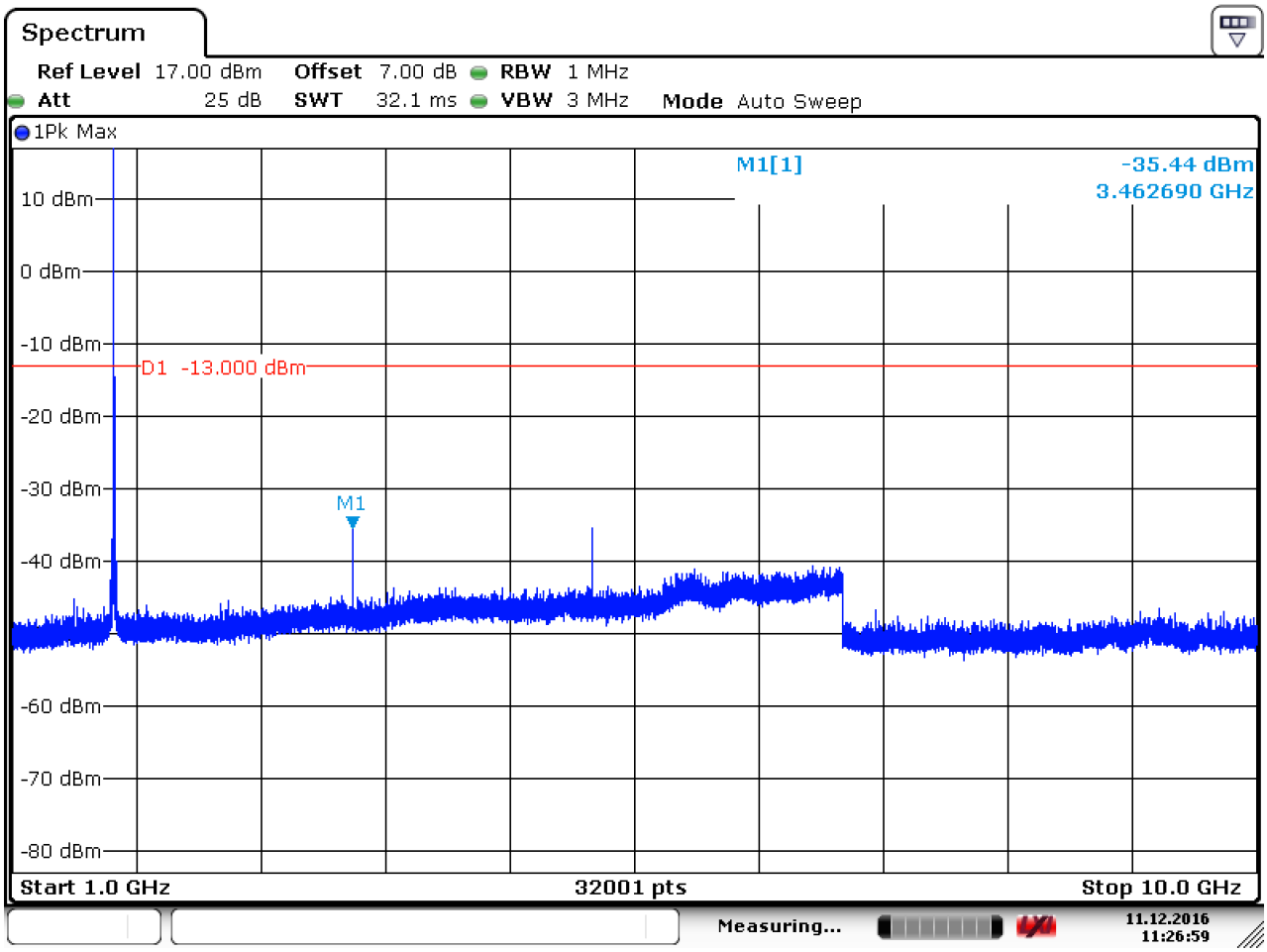


Date: 11.DEC.2016 11:33:22

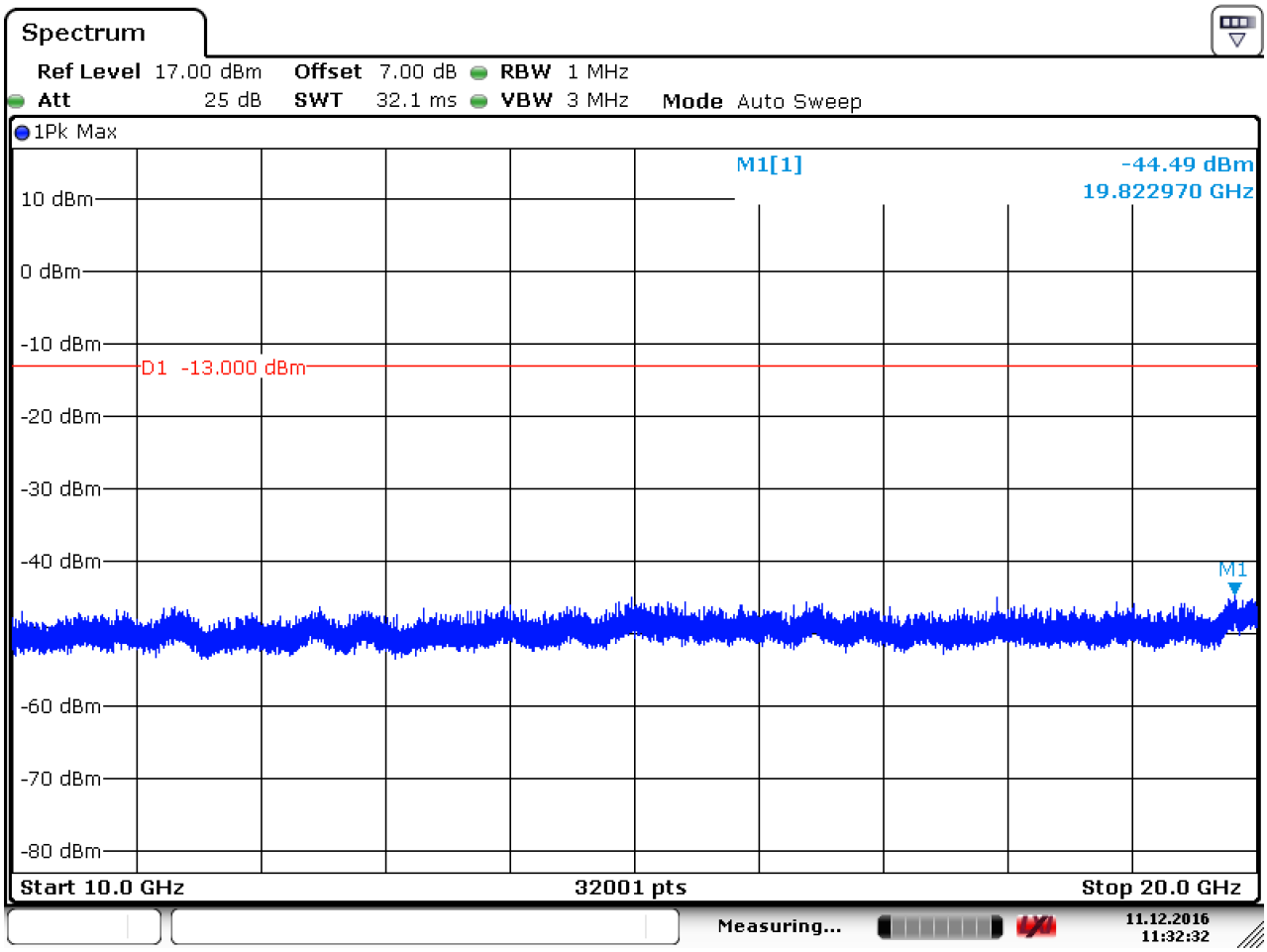
6.1.1.2.2 Test Channel = MCH



Date: 11.DEC.2016 11:10:04

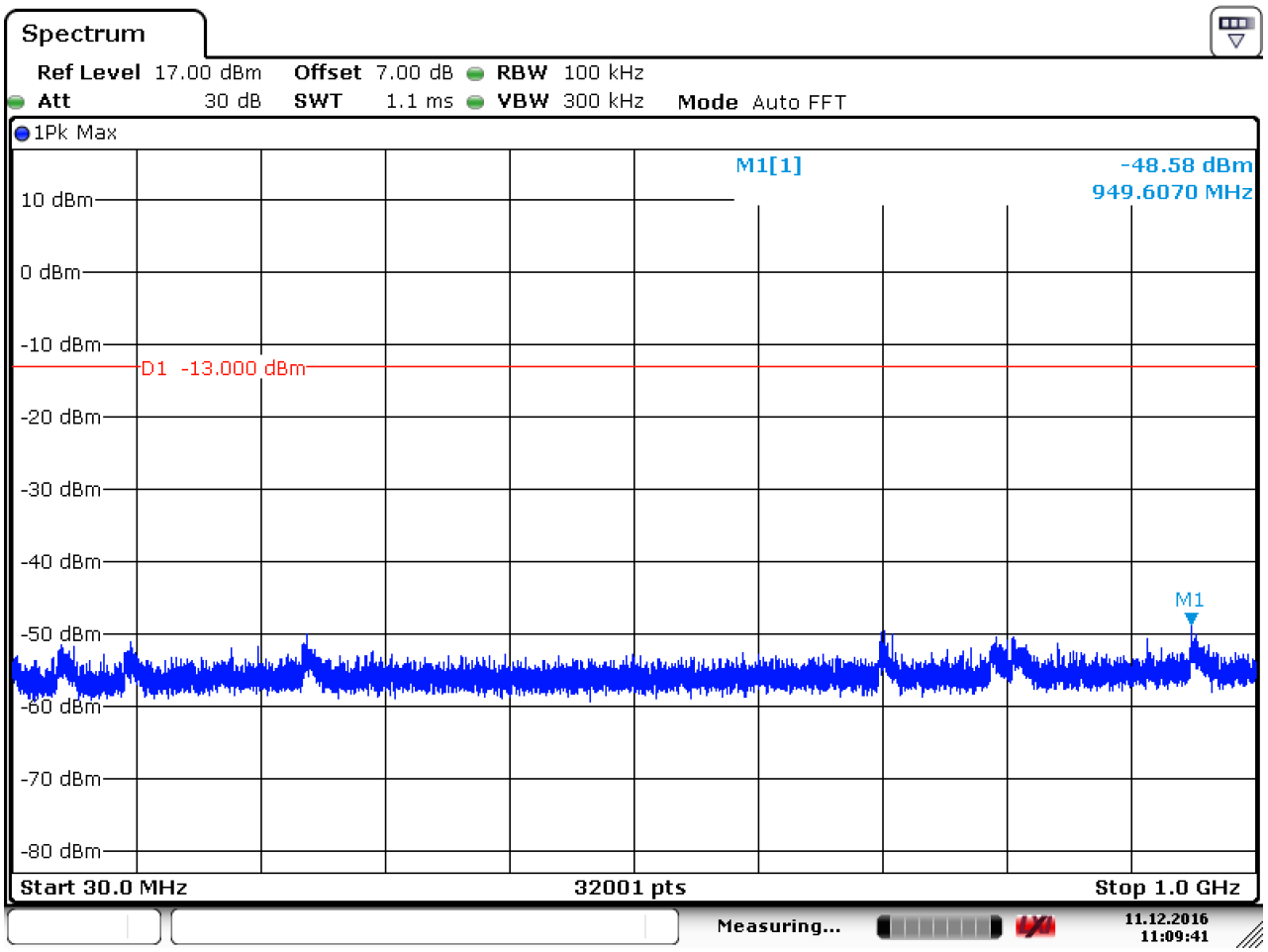


Date: 11.DEC.2016 11:27:00

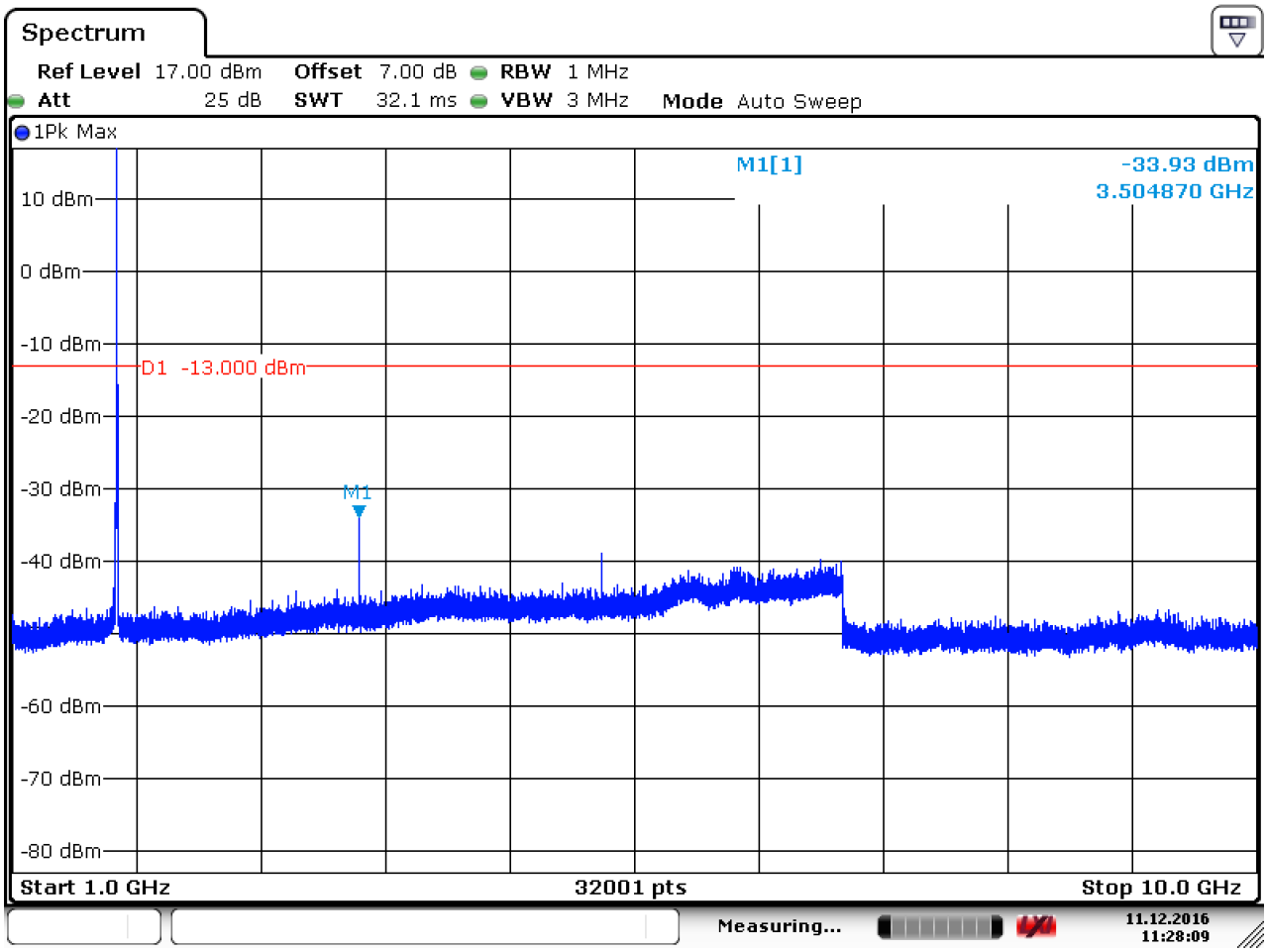


Date: 11.DEC.2016 11:32:32

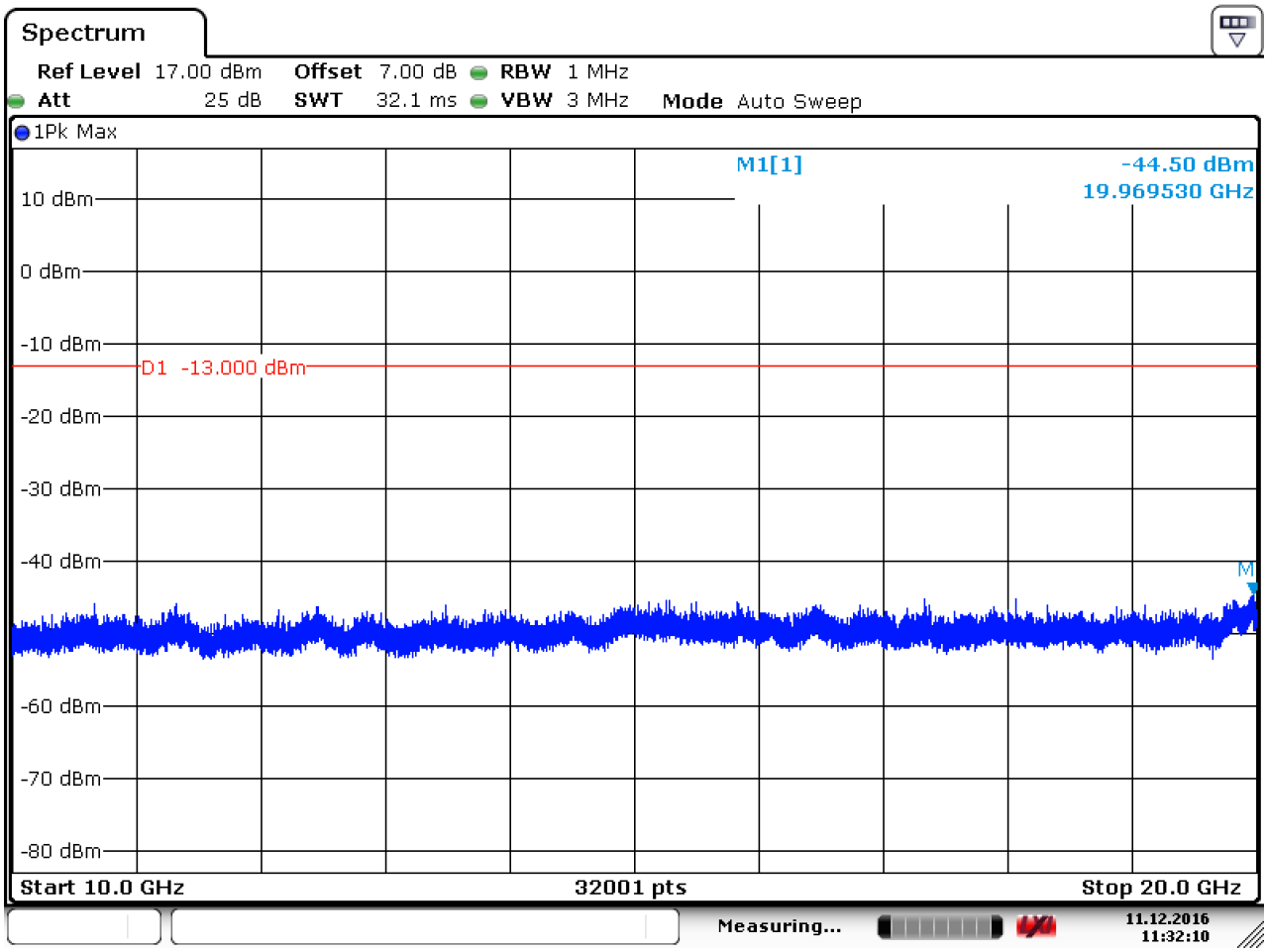
6.1.1.2.3 Test Channel = HCH



Date: 11.DEC.2016 11:09:41



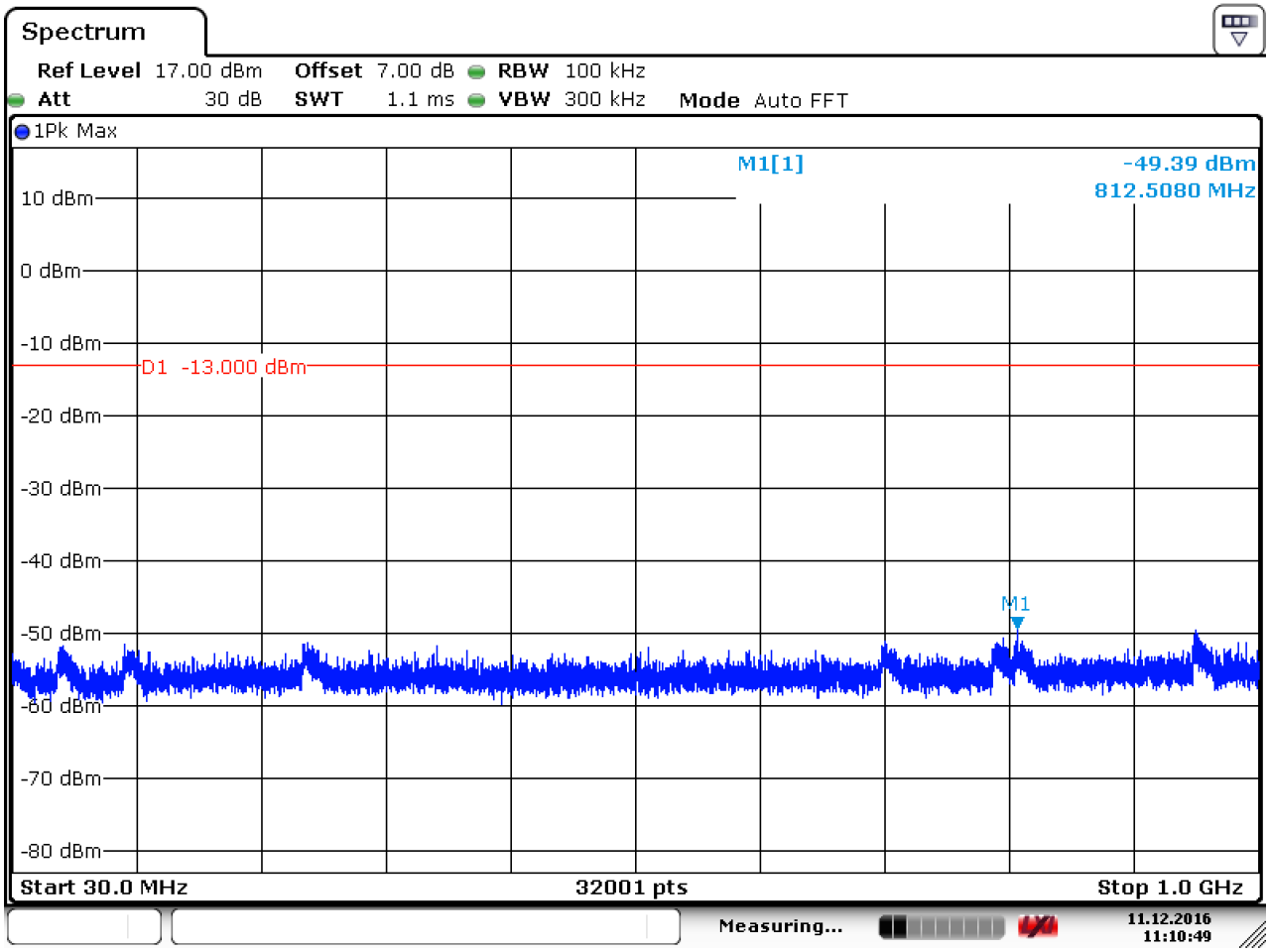
Date: 11.DEC.2016 11:28:10



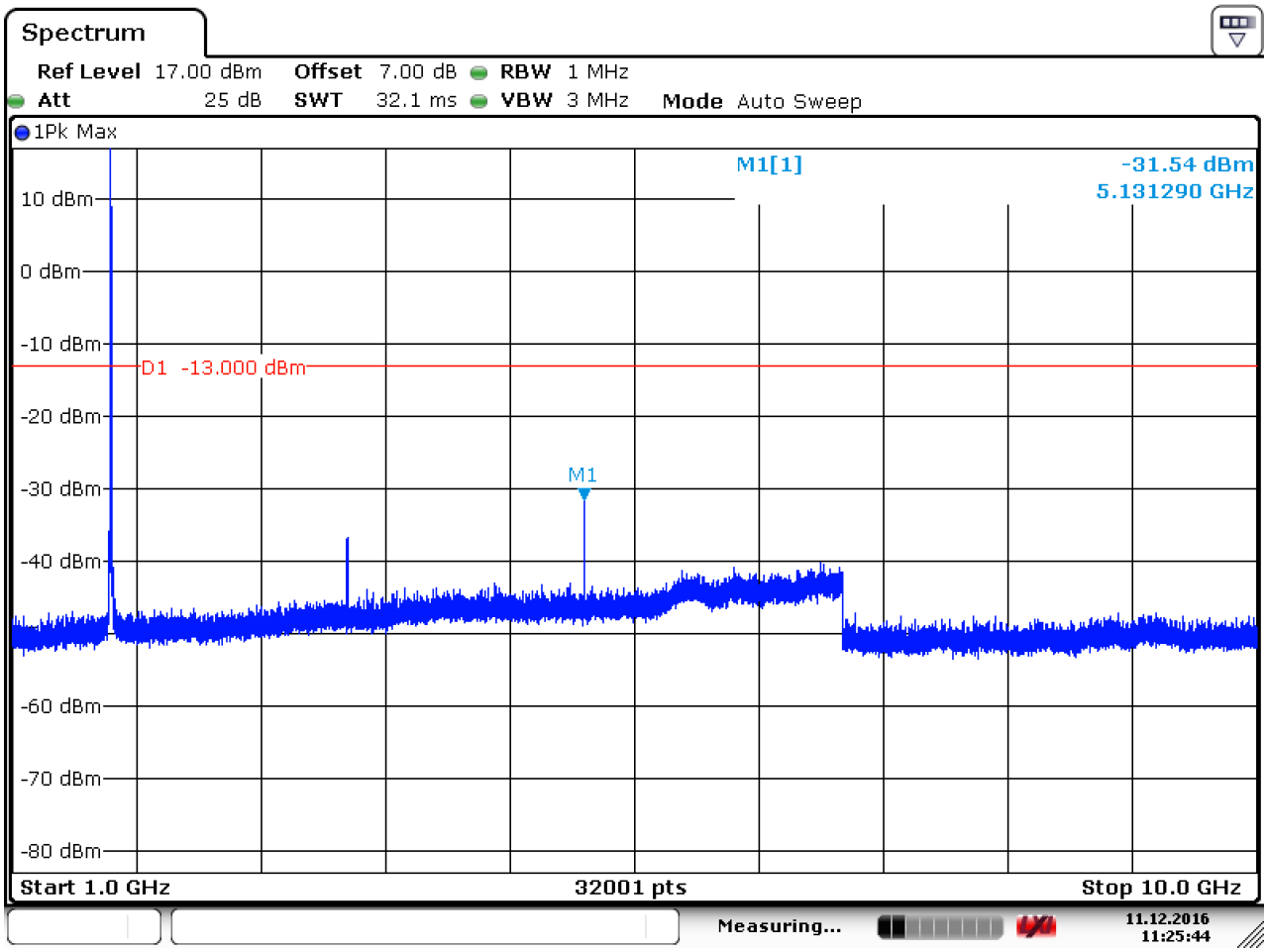
Date: 11.DEC.2016 11:32:10

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

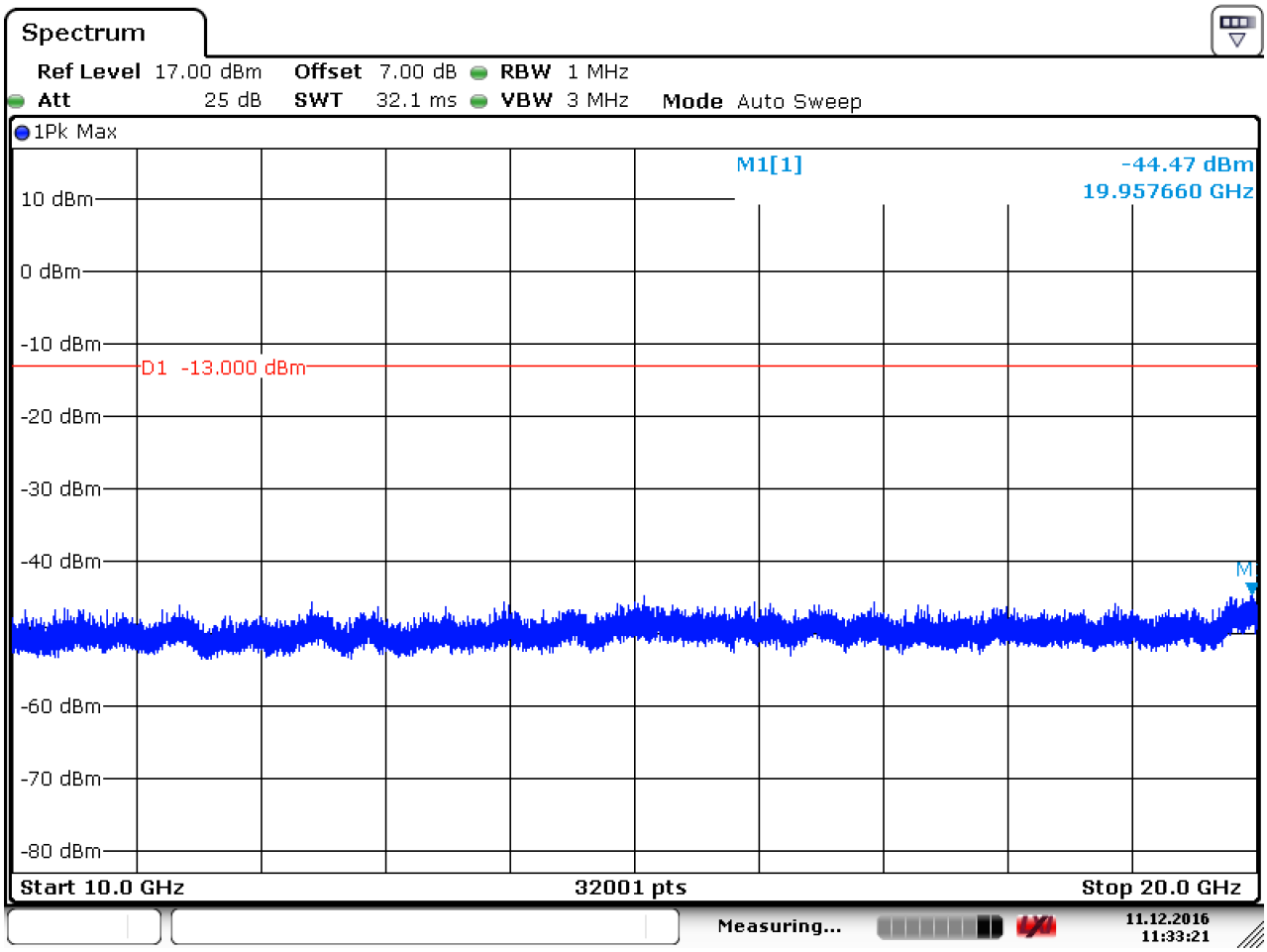
6.1.1.3.1 Test Channel = LCH



Date: 11.DEC.2016 11:10:50

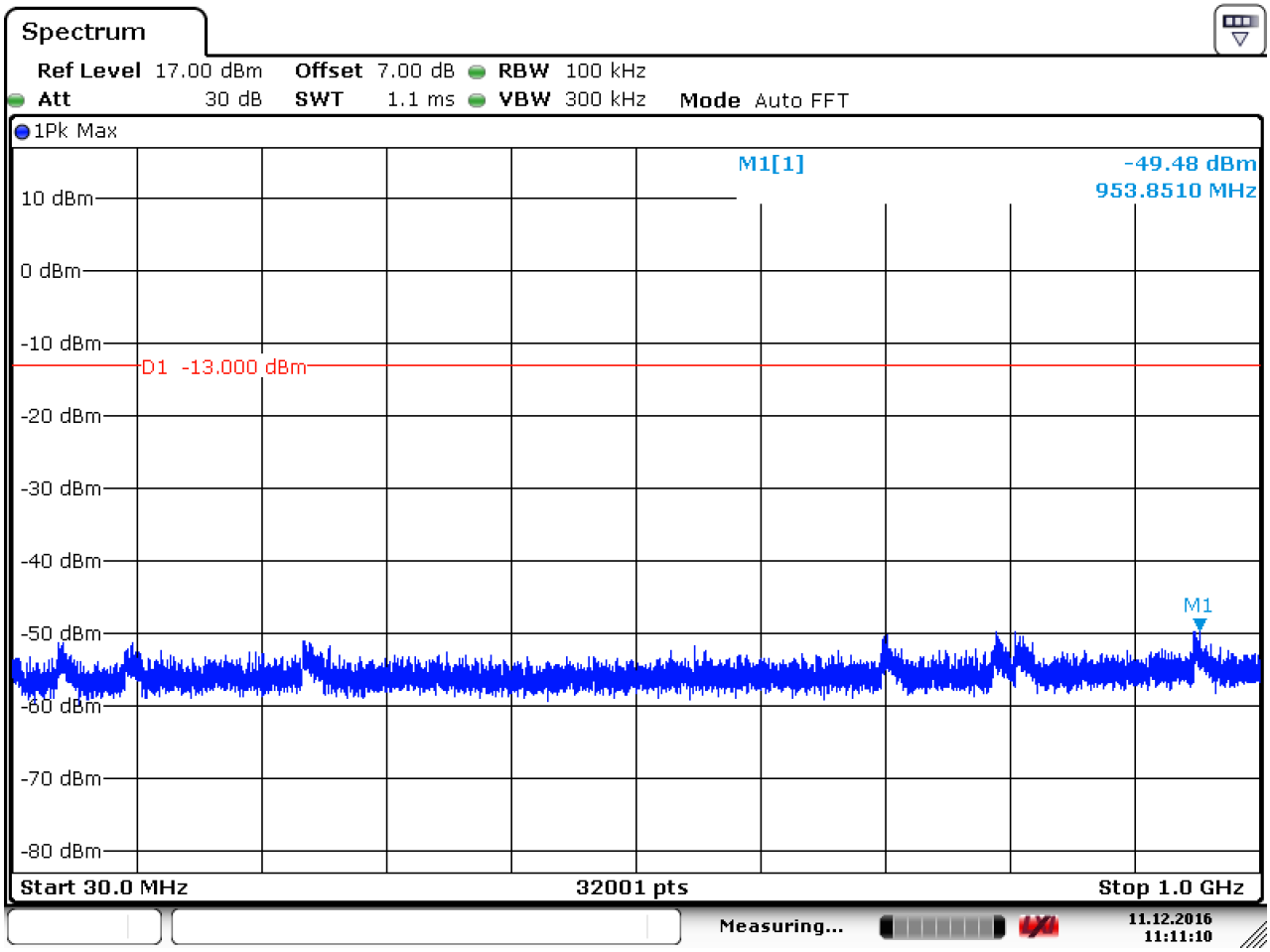


Date: 11.DEC.2016 11:25:45

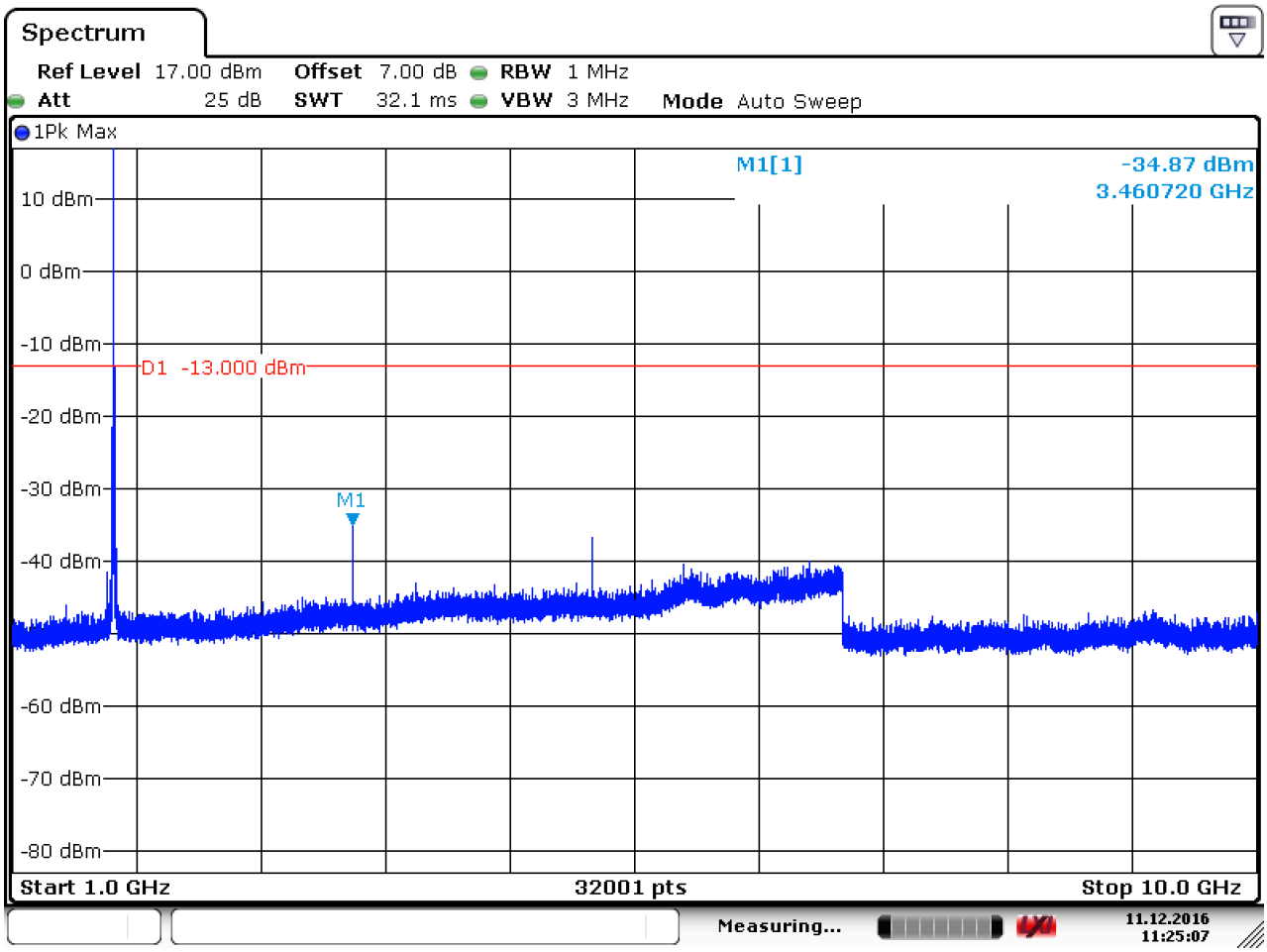


Date: 11.DEC.2016 11:33:22

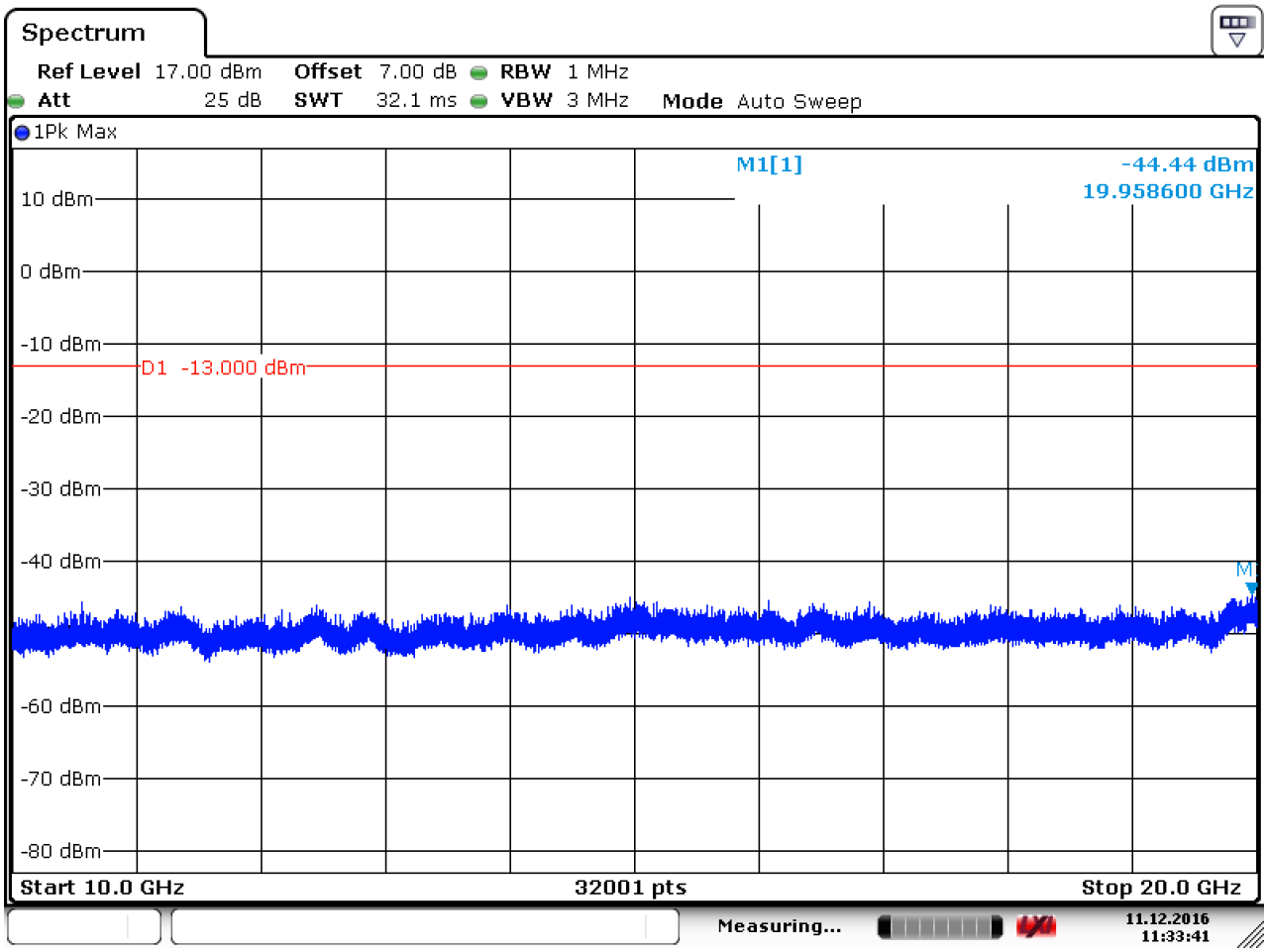
6.1.1.3.2 Test Channel = MCH



Date: 11.DEC.2016 11:11:11

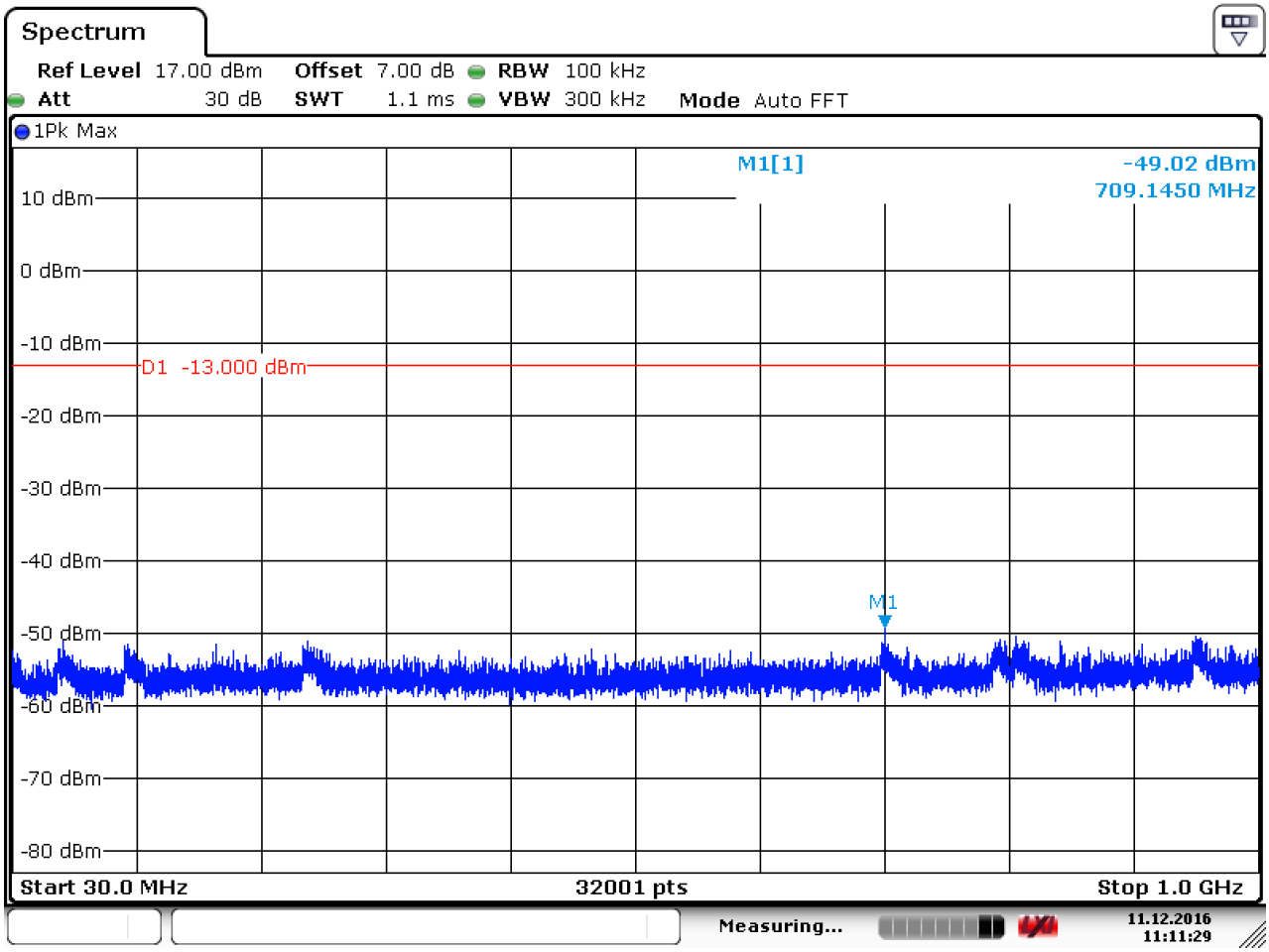


Date: 11.DEC.2016 11:25:07

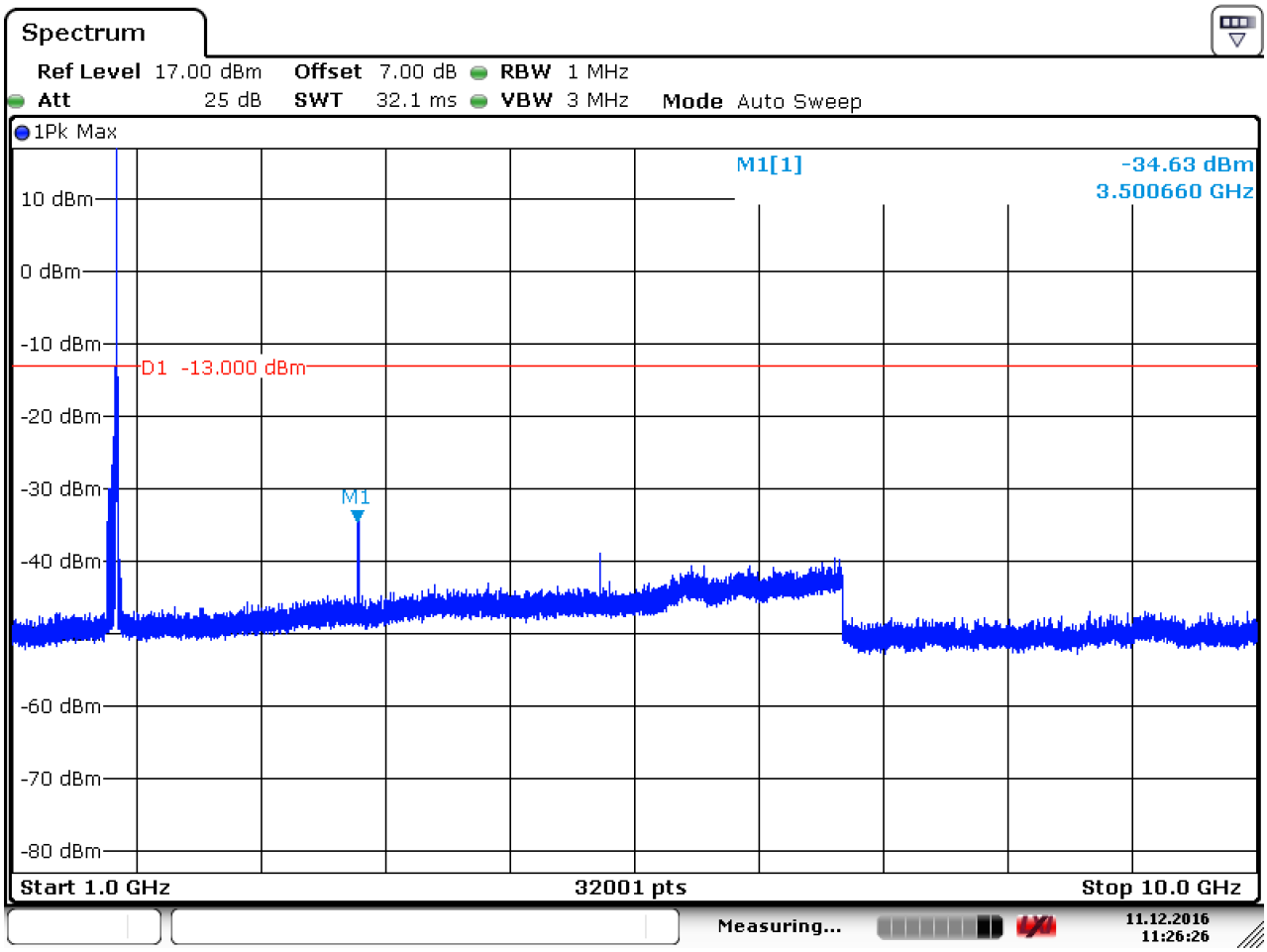


Date: 11.DEC.2016 11:33:41

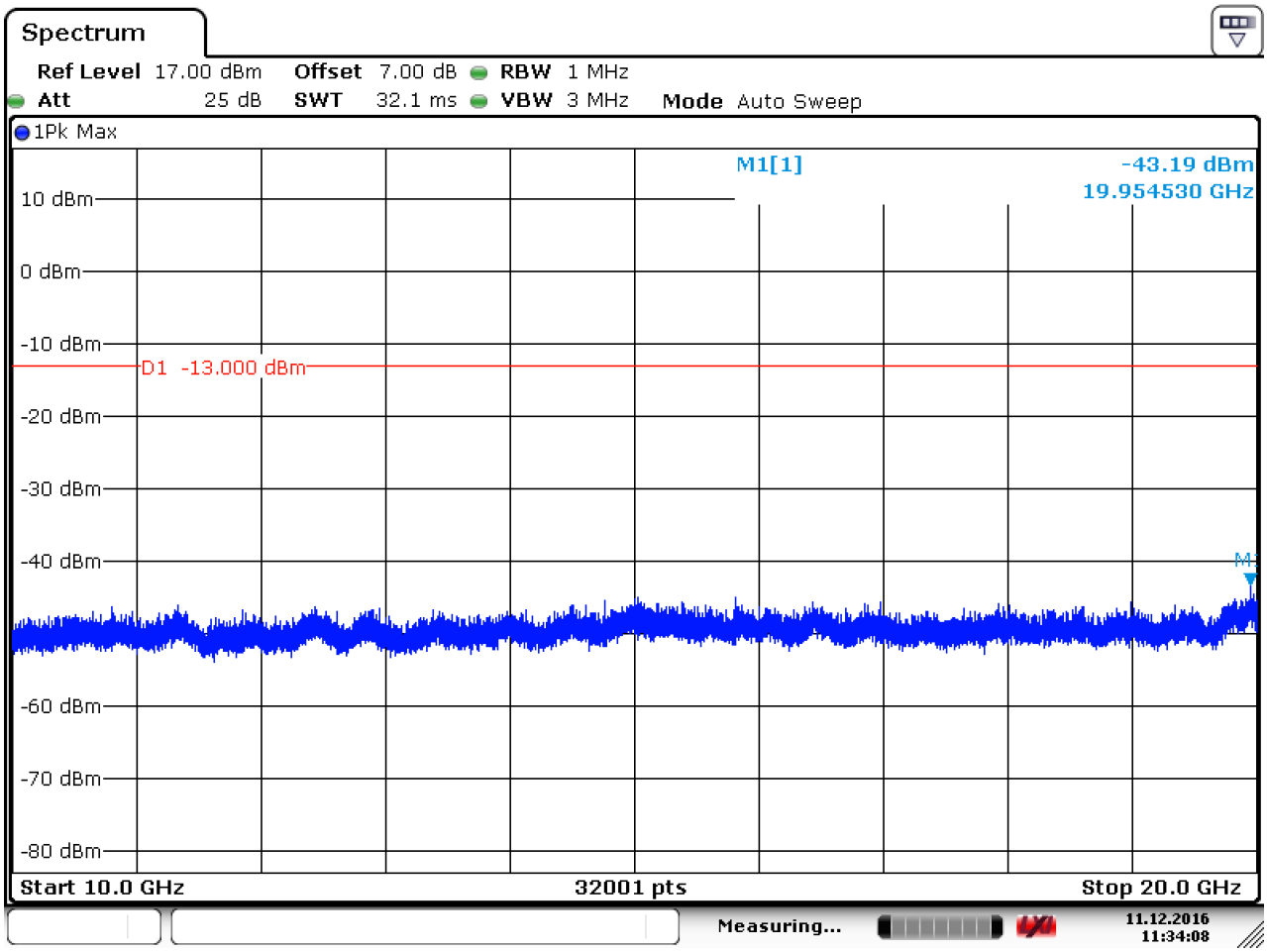
6.1.1.3.3 Test Channel = HCH



Date: 11.DEC.2016 11:11:29



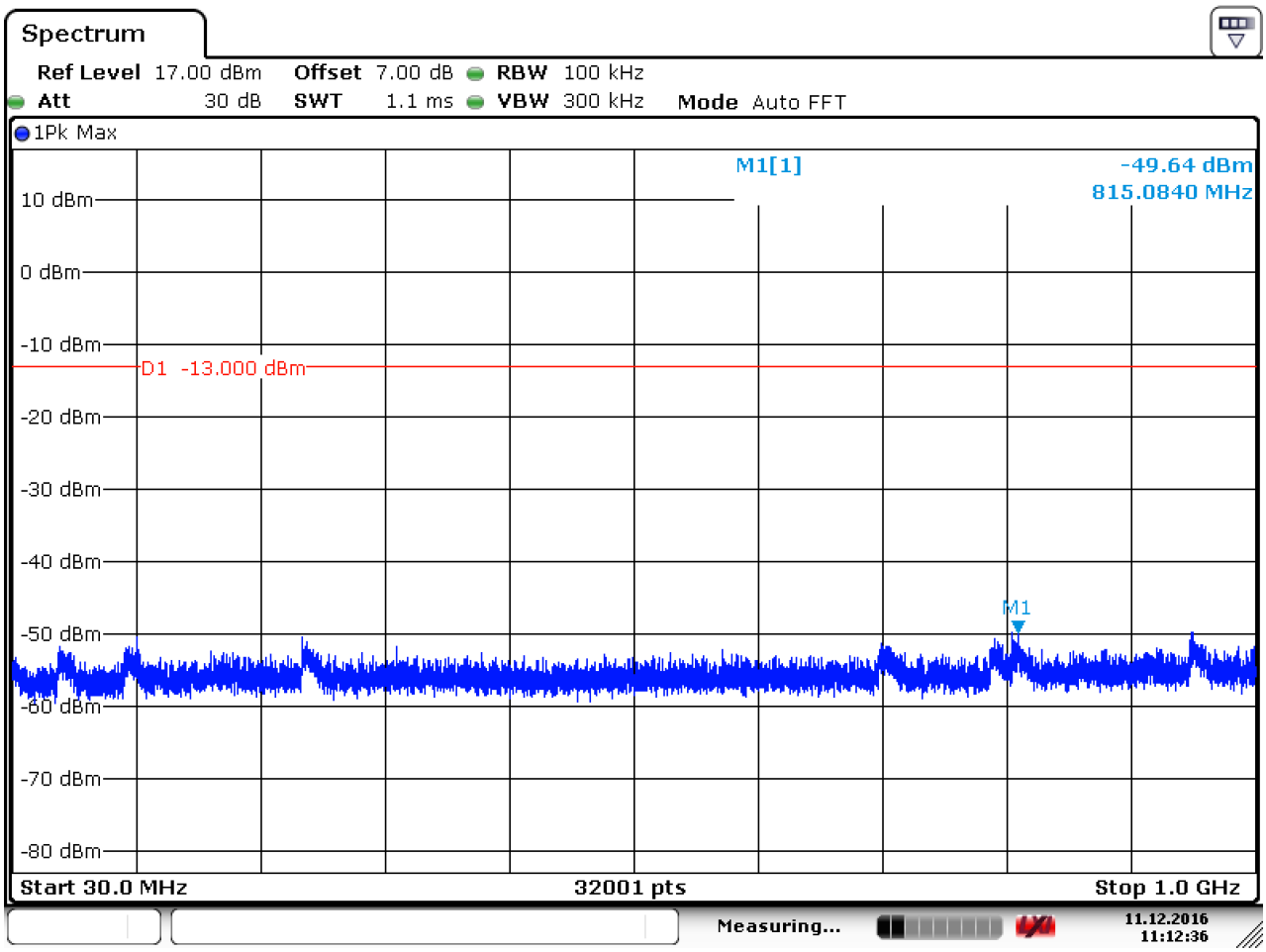
Date: 11.DEC.2016 11:26:26



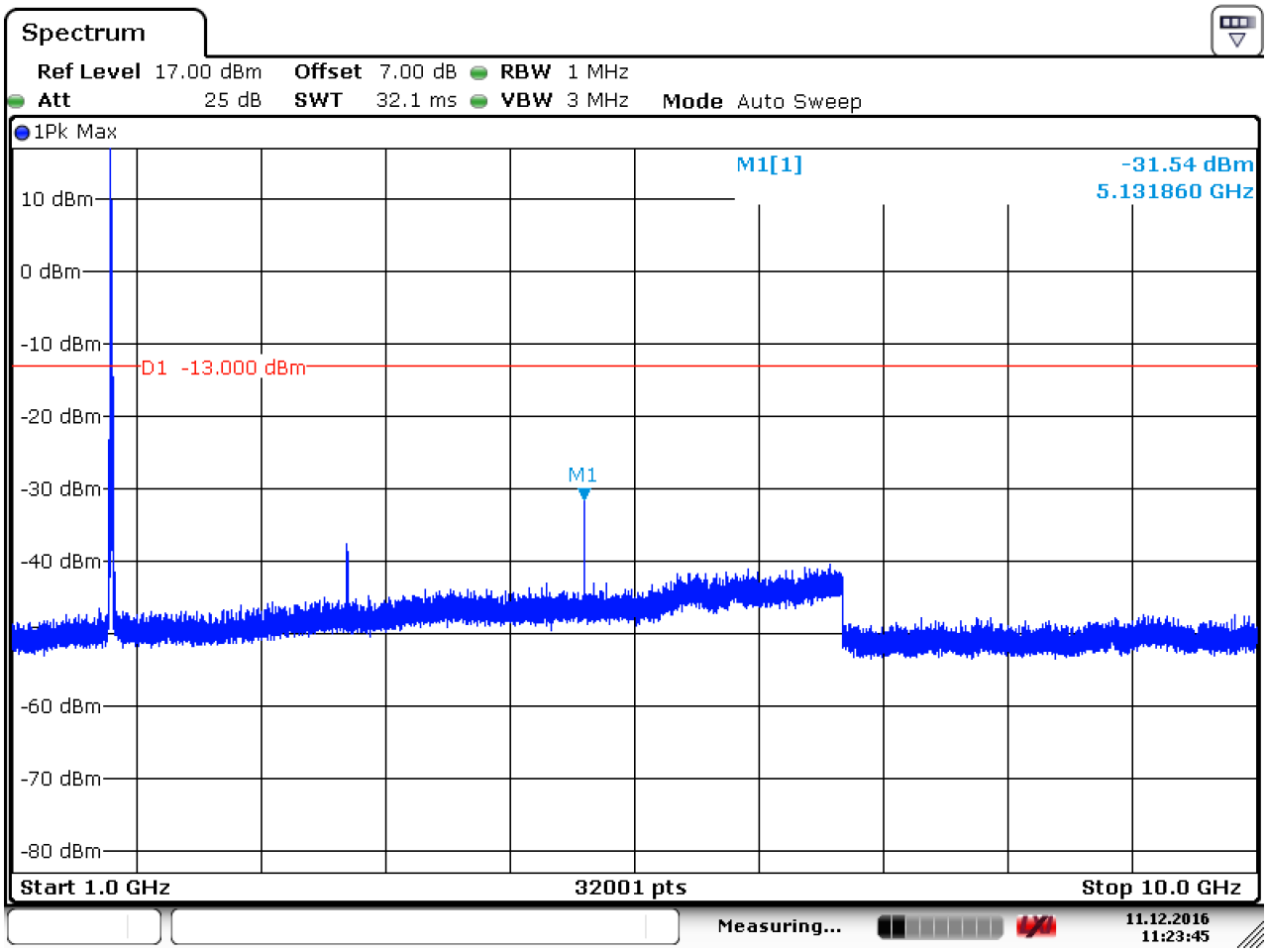
Date: 11.DEC.2016 11:34:08

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

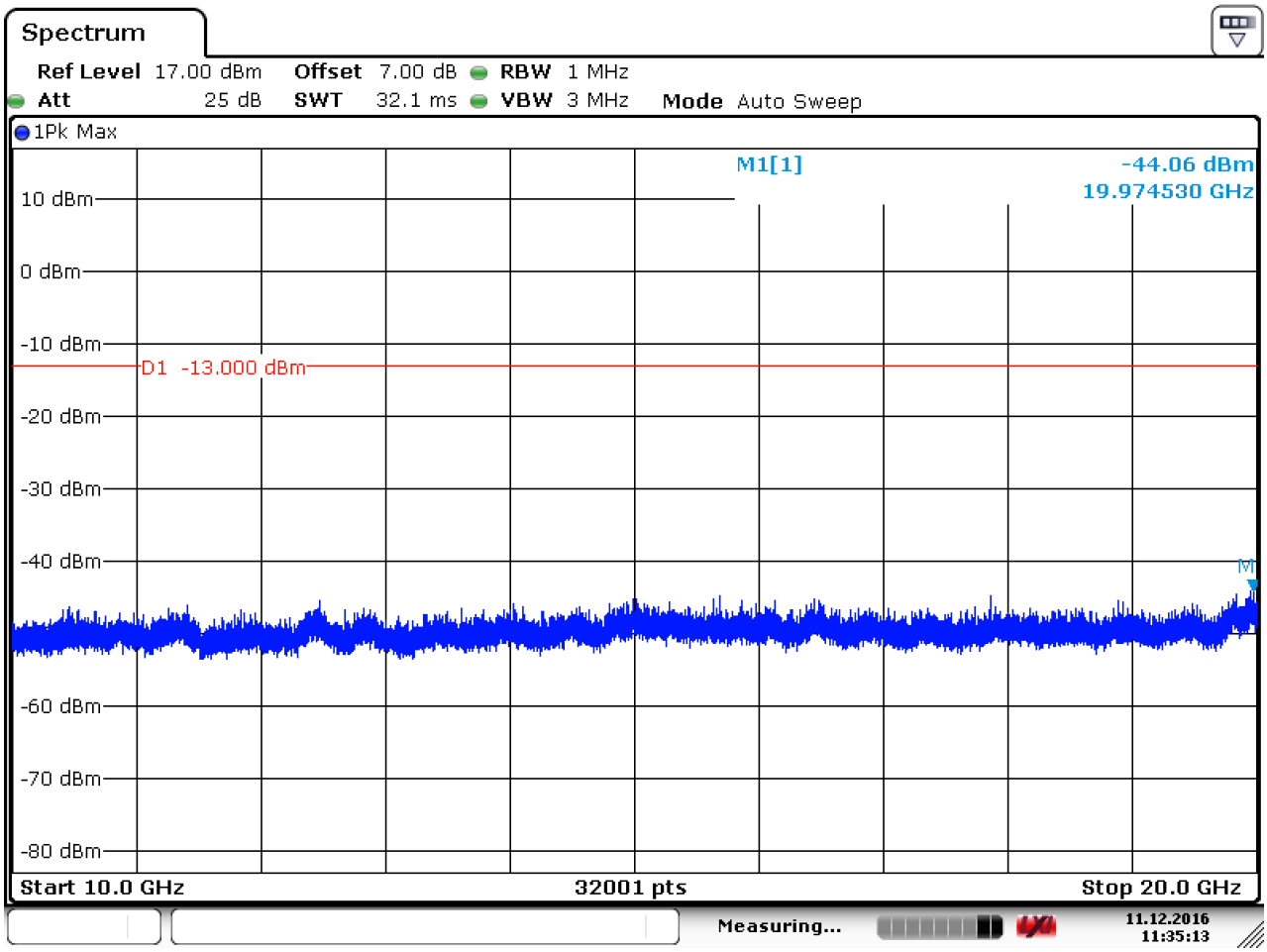
6.1.1.4.1 Test Channel = LCH



Date: 11.DEC.2016 11:12:35

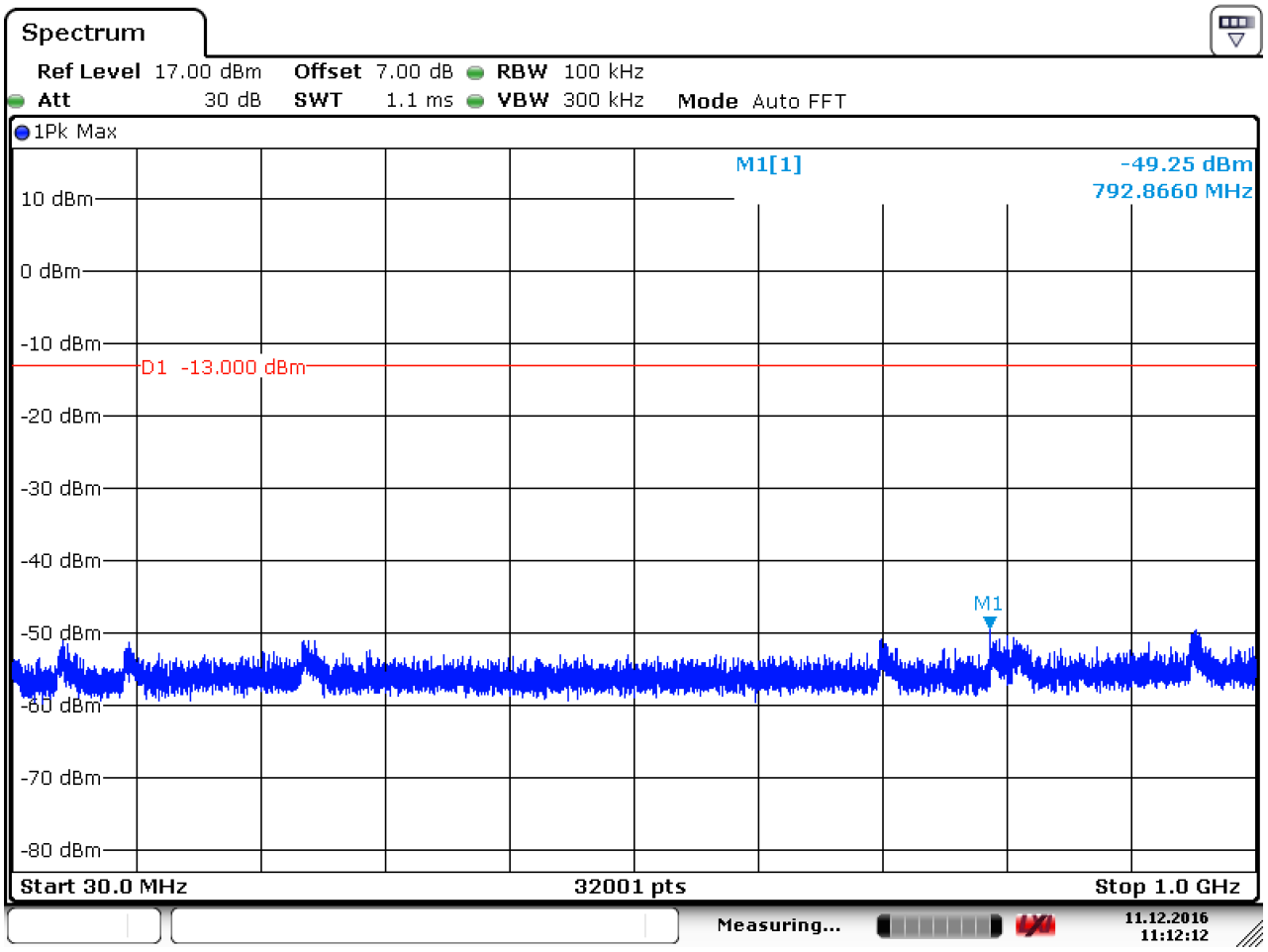


Date: 11.DEC.2016 11:23:45

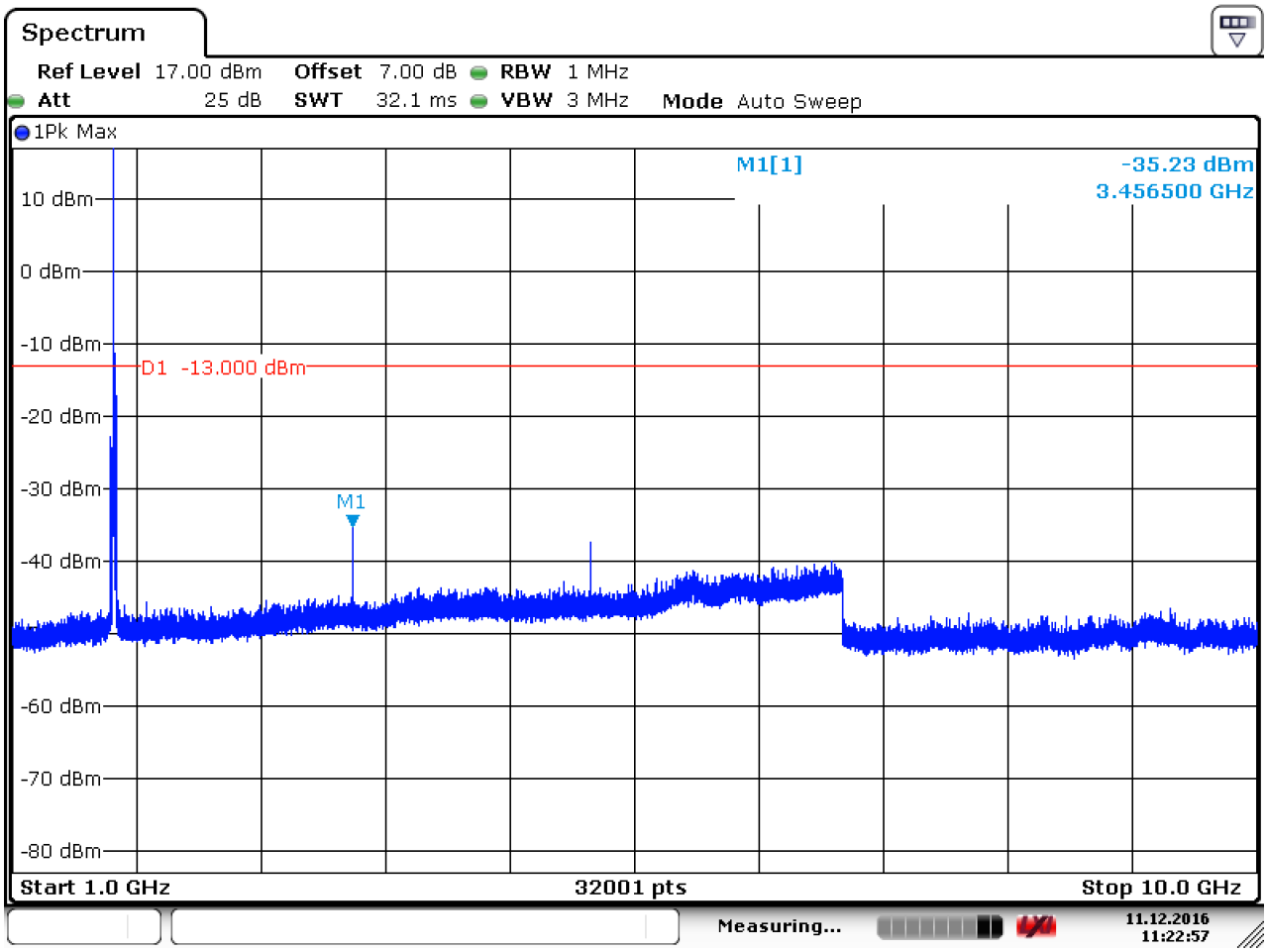


Date: 11.DEC.2016 11:35:13

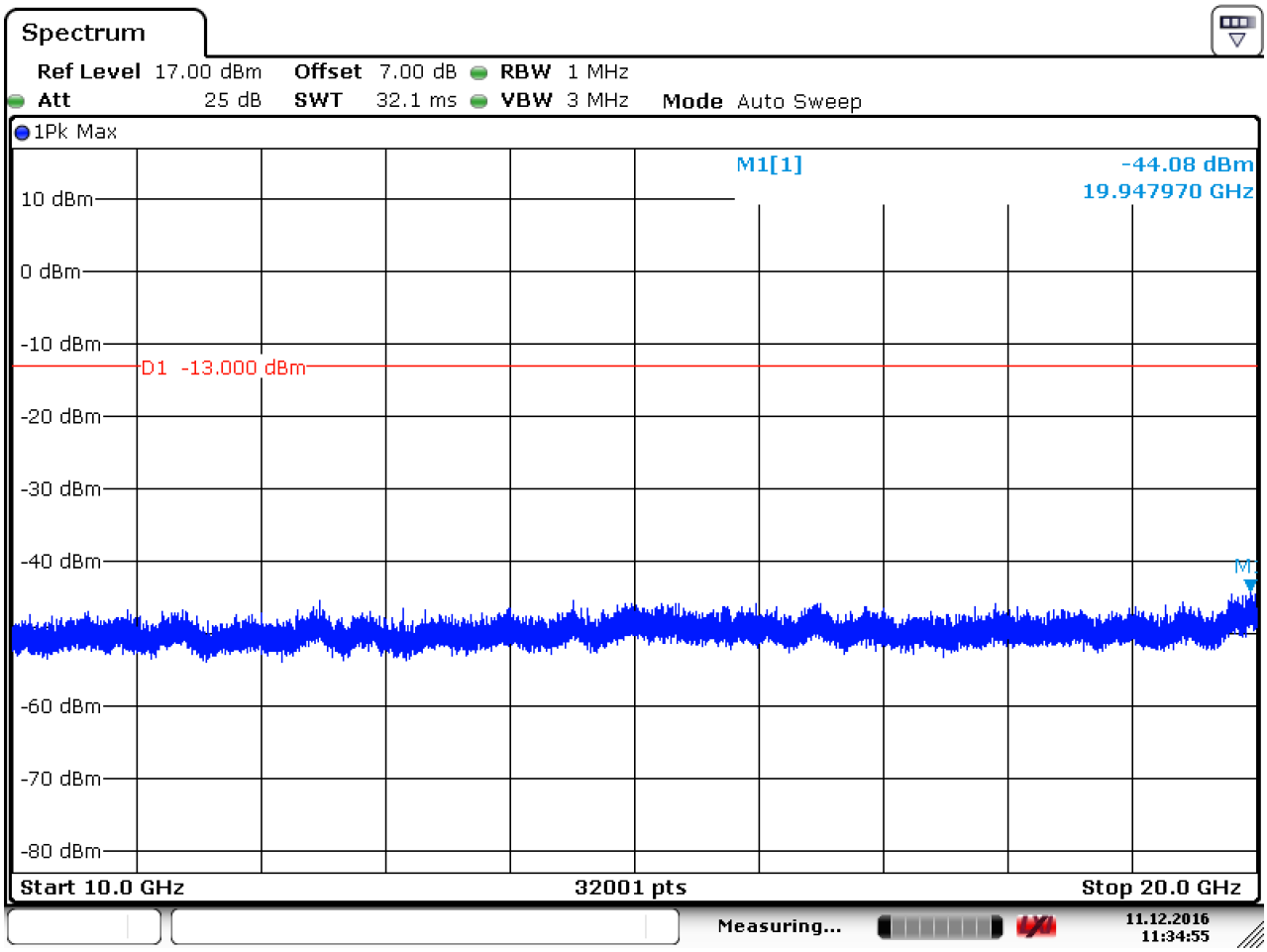
6.1.1.4.2 Test Channel = MCH



Date: 11.DEC.2016 11:12:13

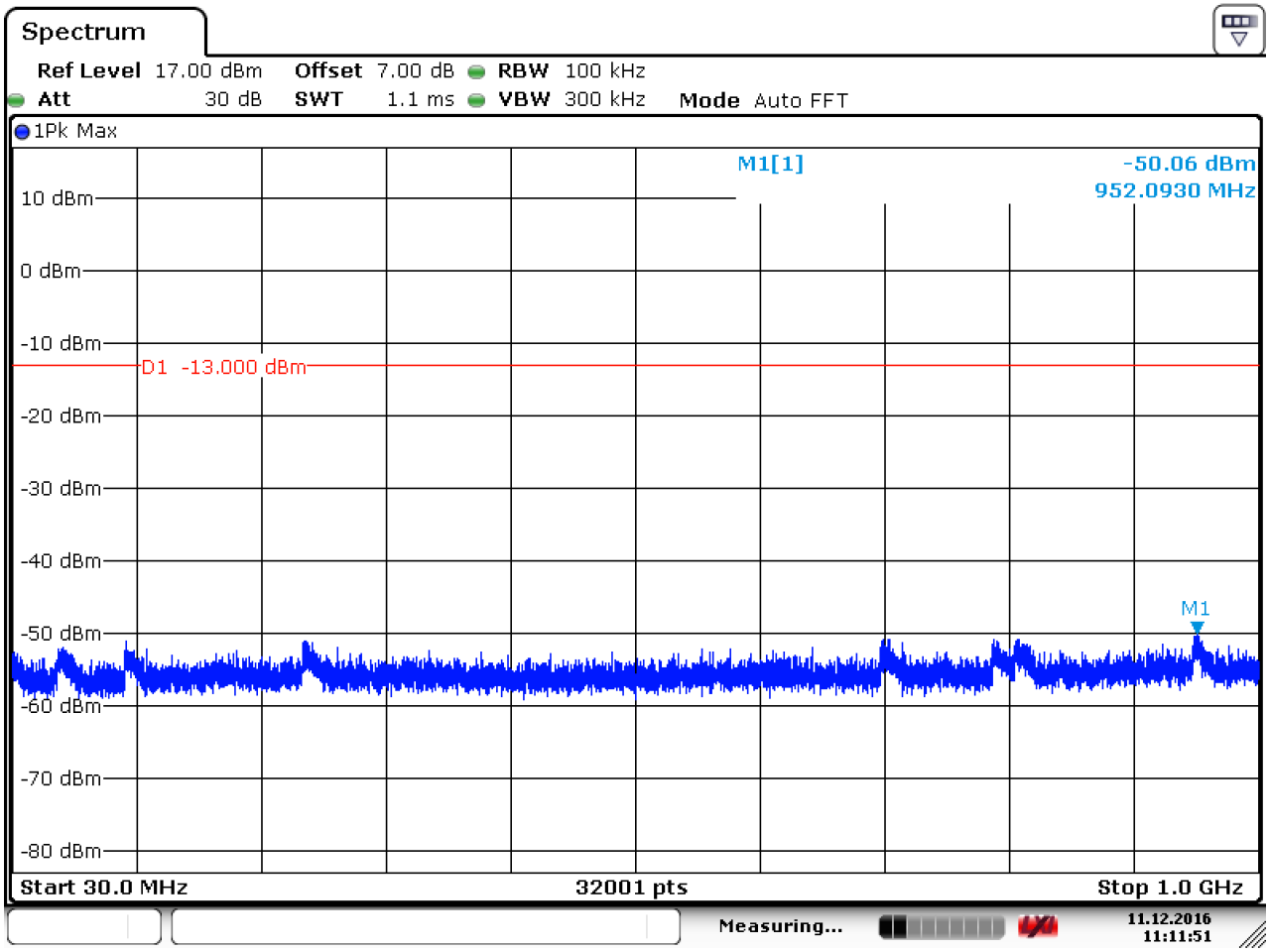


Date: 11.DEC.2016 11:22:57

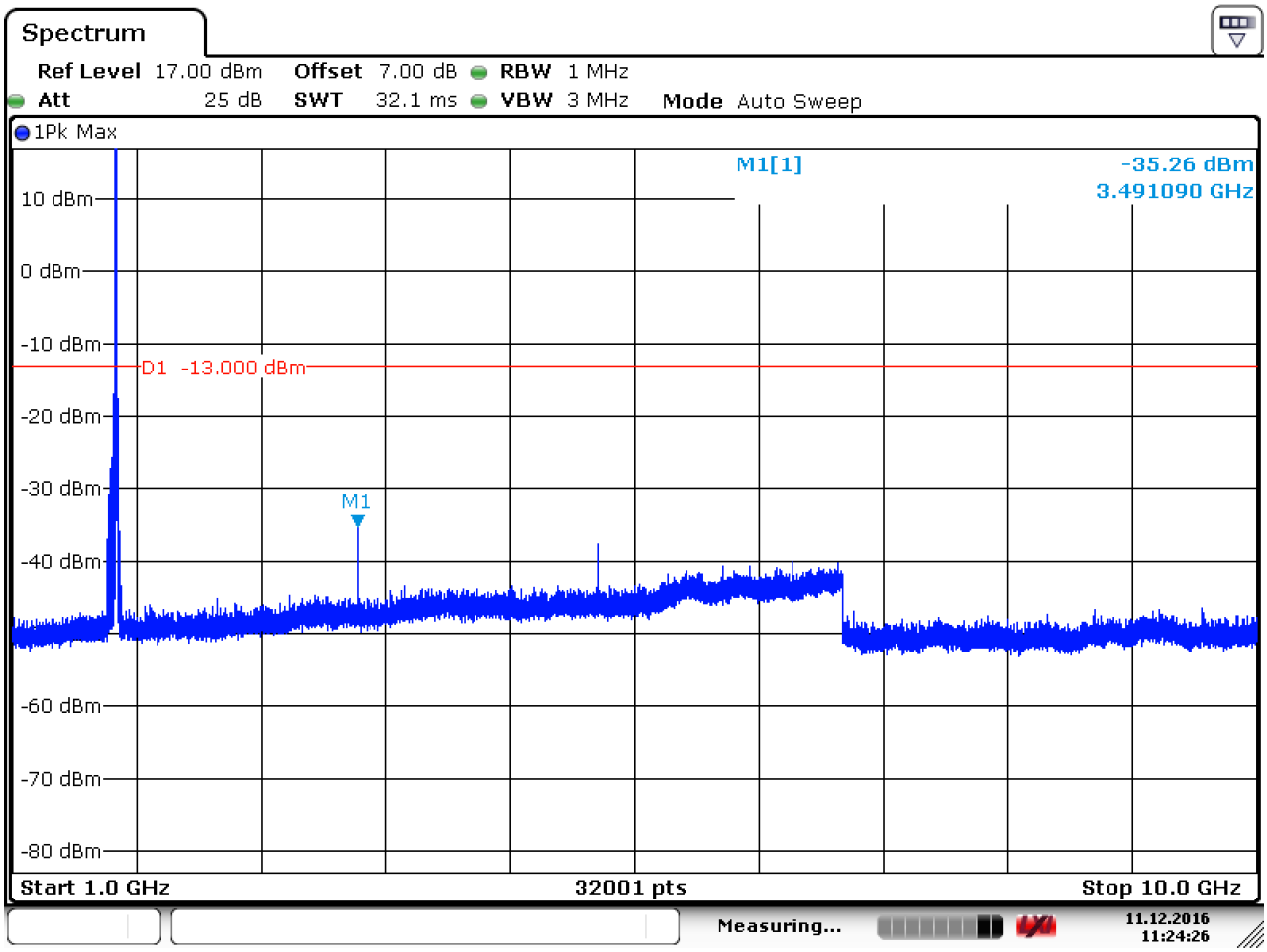


Date: 11.DEC.2016 11:34:55

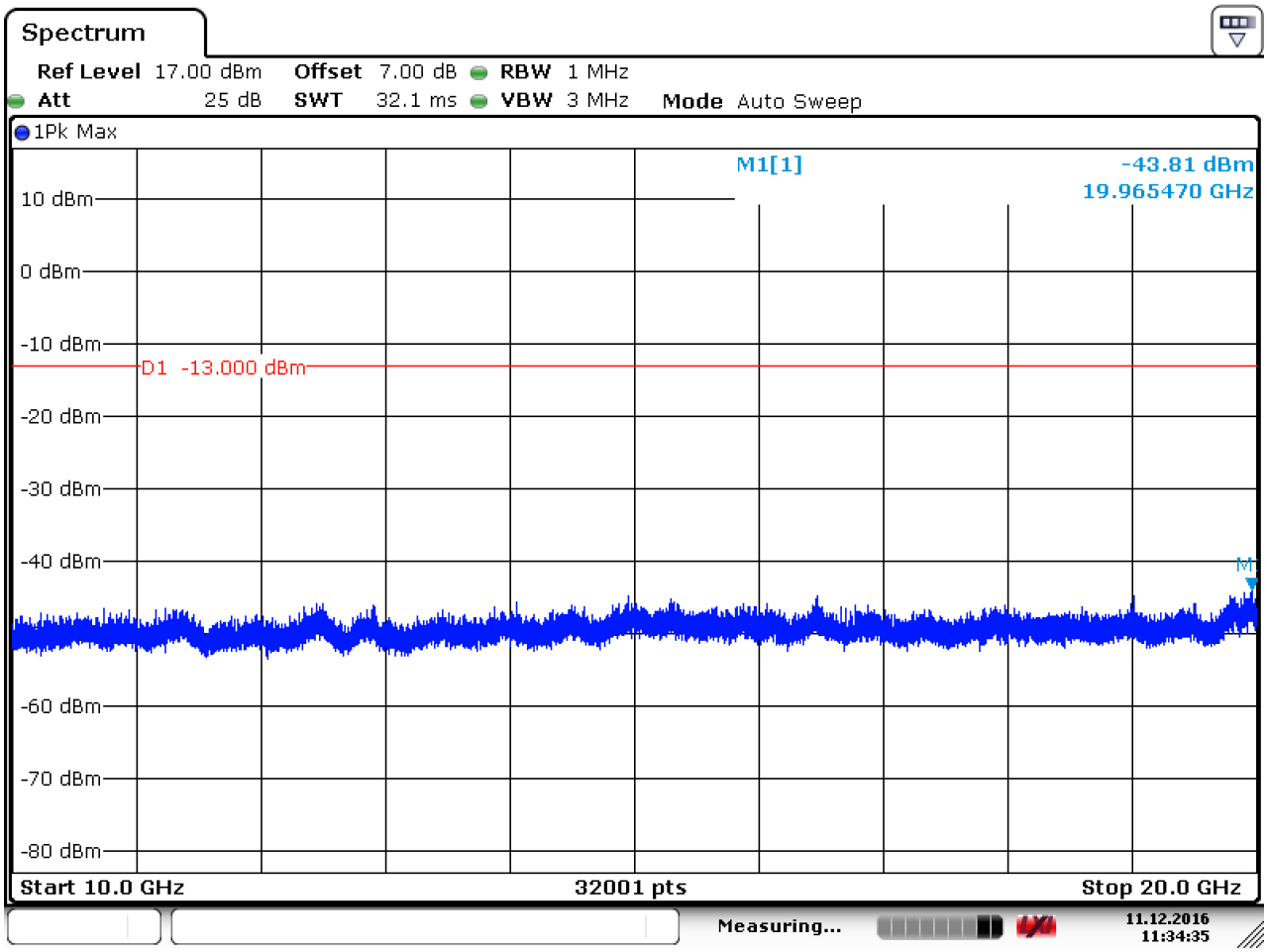
6.1.1.4.3 Test Channel = HCH



Date: 11.DEC.2016 11:11:51



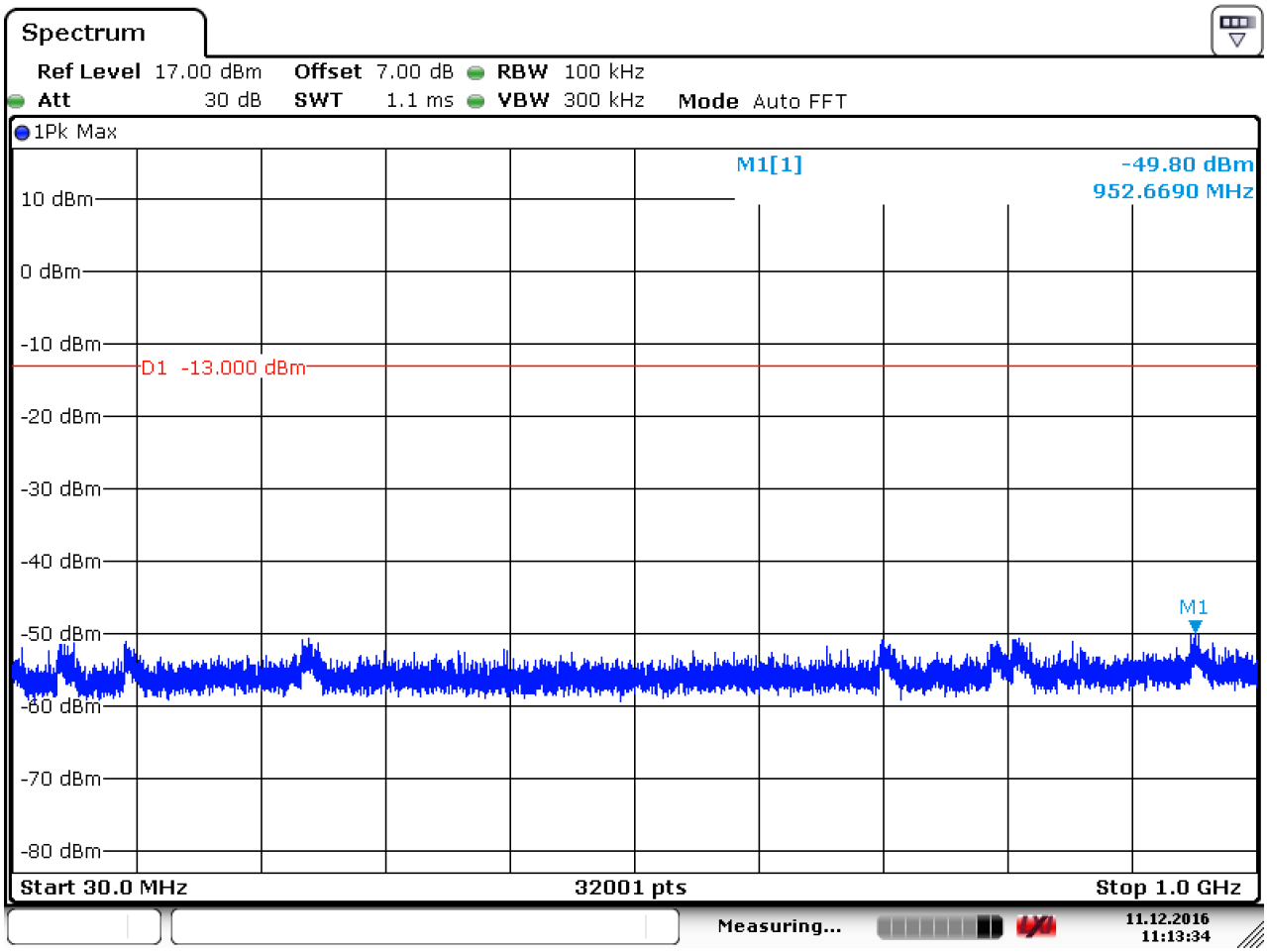
Date: 11.DEC.2016 11:24:27



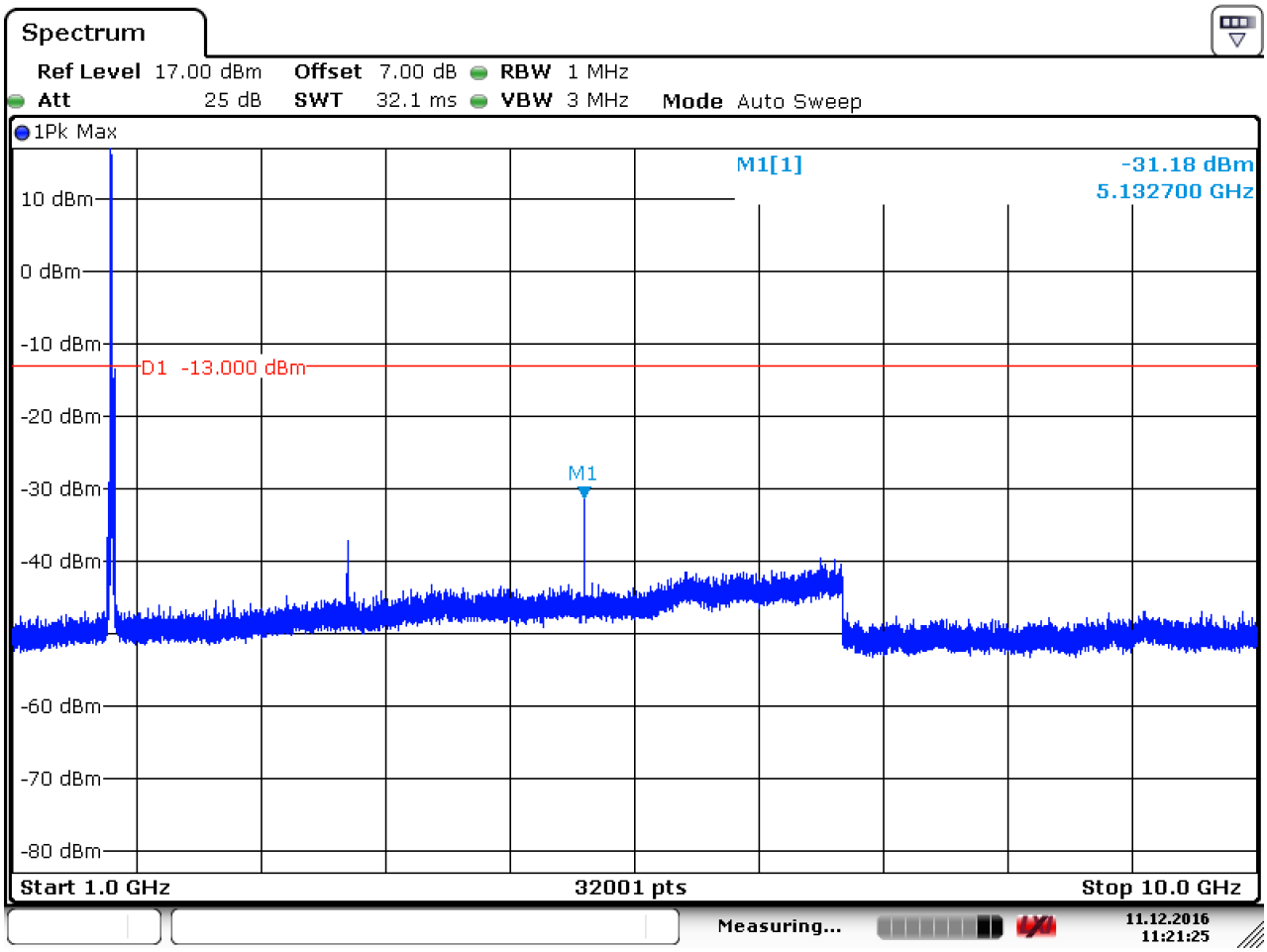
Date: 11.DEC.2016 11:34:36

6.1.1.5 Test Mode = LTE / TM1 15MHz RB1#0

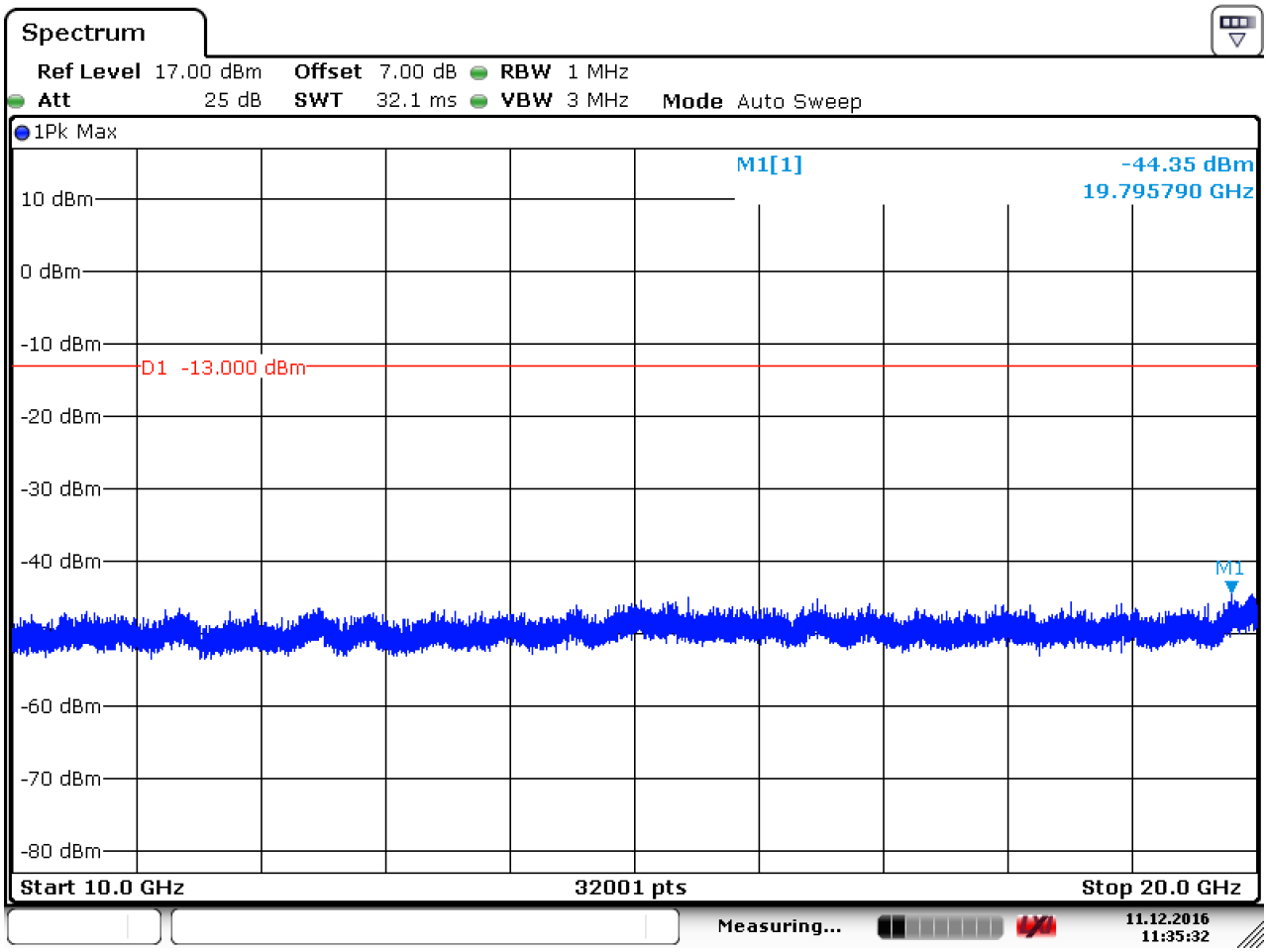
6.1.1.5.1 Test Channel = LCH



Date: 11.DEC.2016 11:13:35

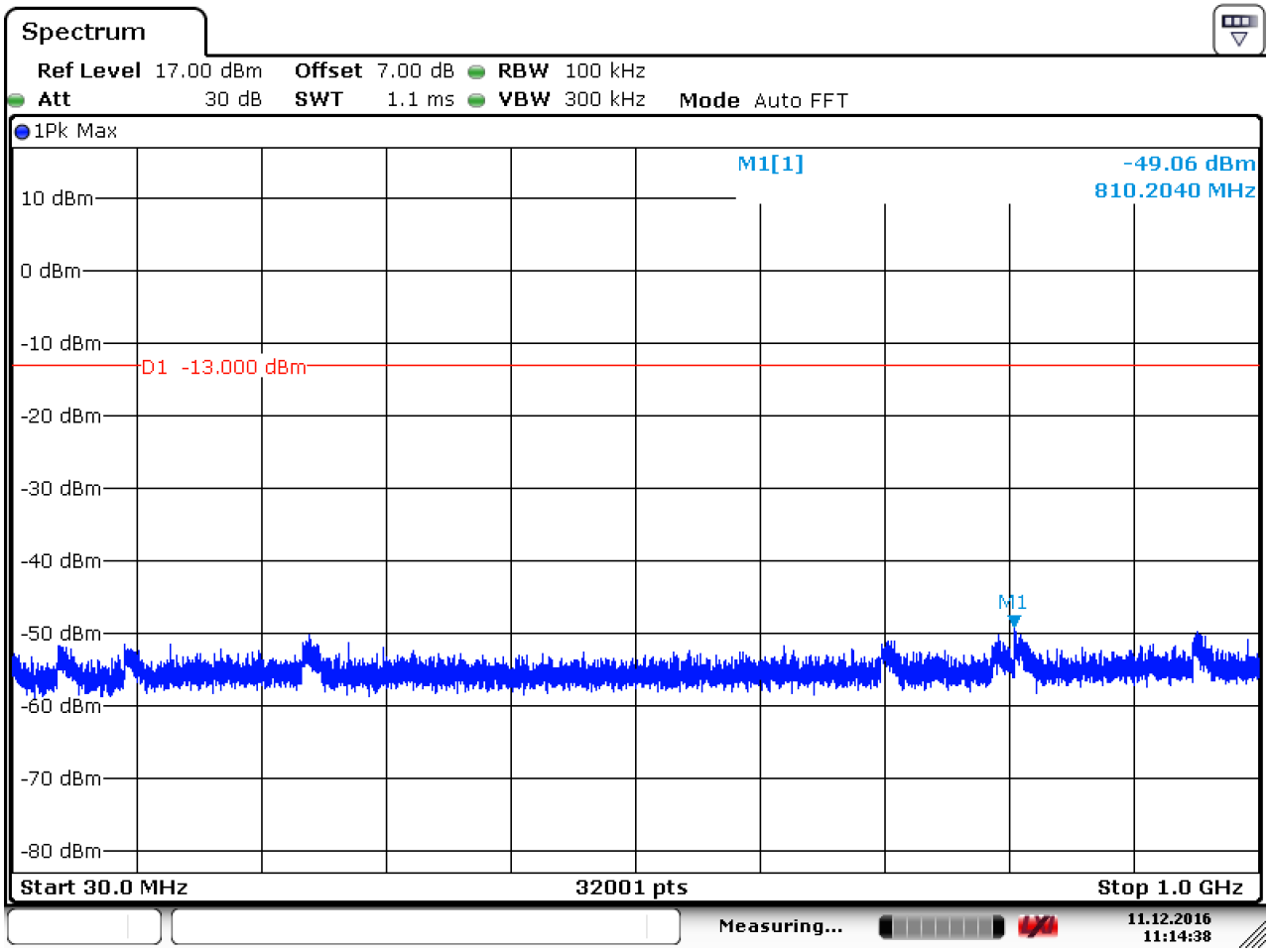


Date: 11.DEC.2016 11:21:25

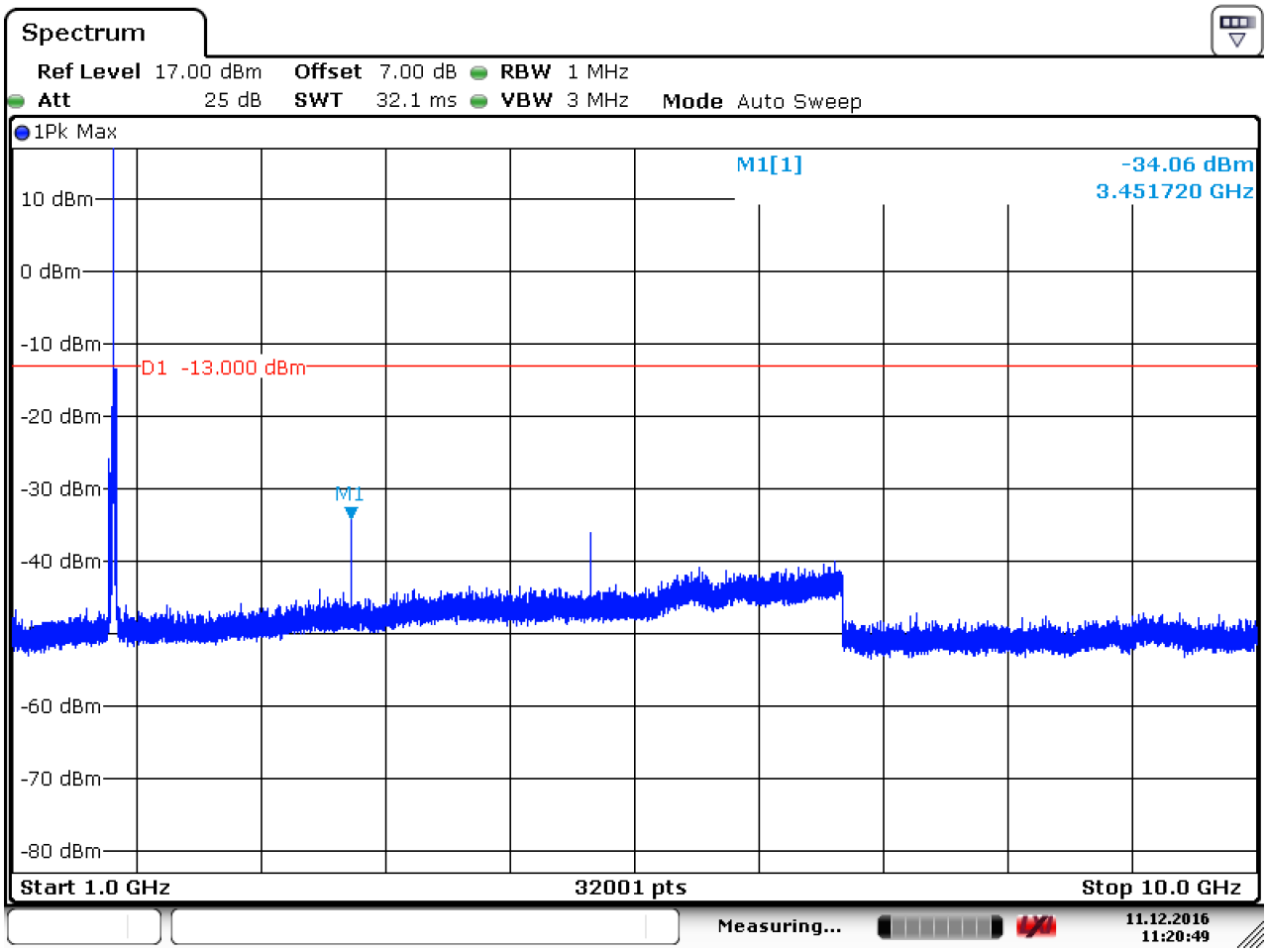


Date: 11.DEC.2016 11:35:32

6.1.1.5.2 Test Channel = MCH



Date: 11.DEC.2016 11:14:38



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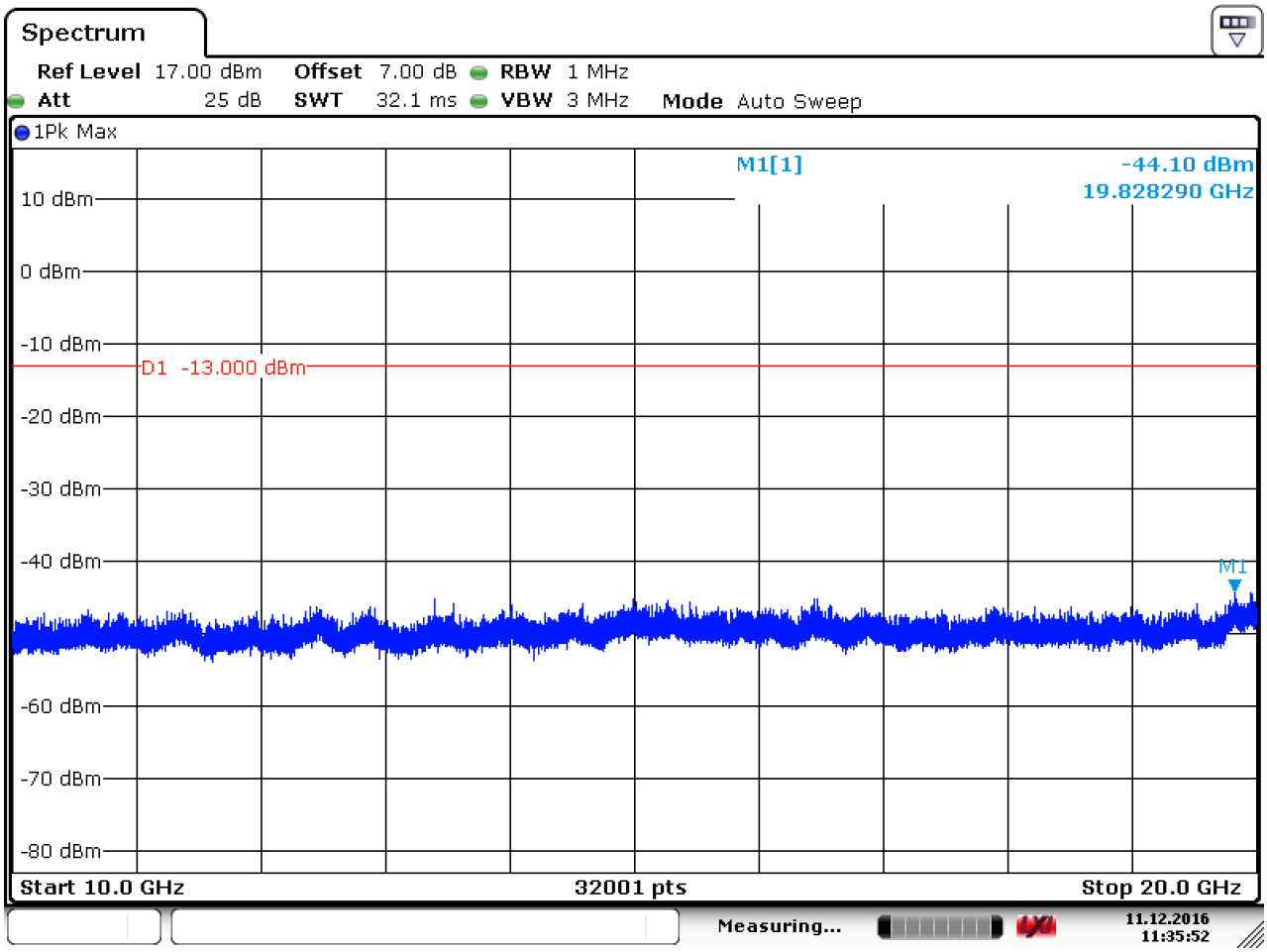
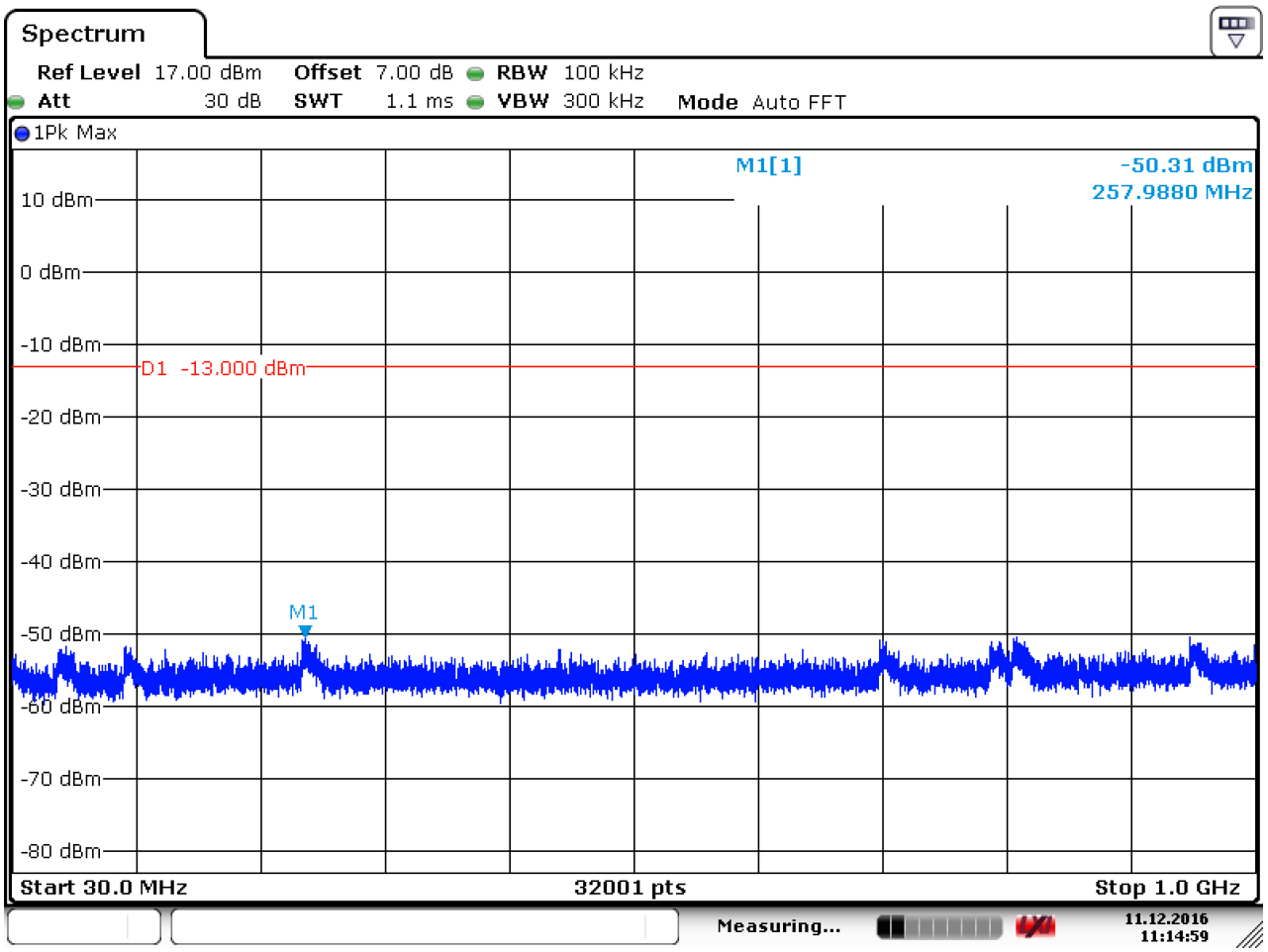


Date: 11.DEC.2016 11:35:52

6.1.1.5.3 Test Channel = HCH



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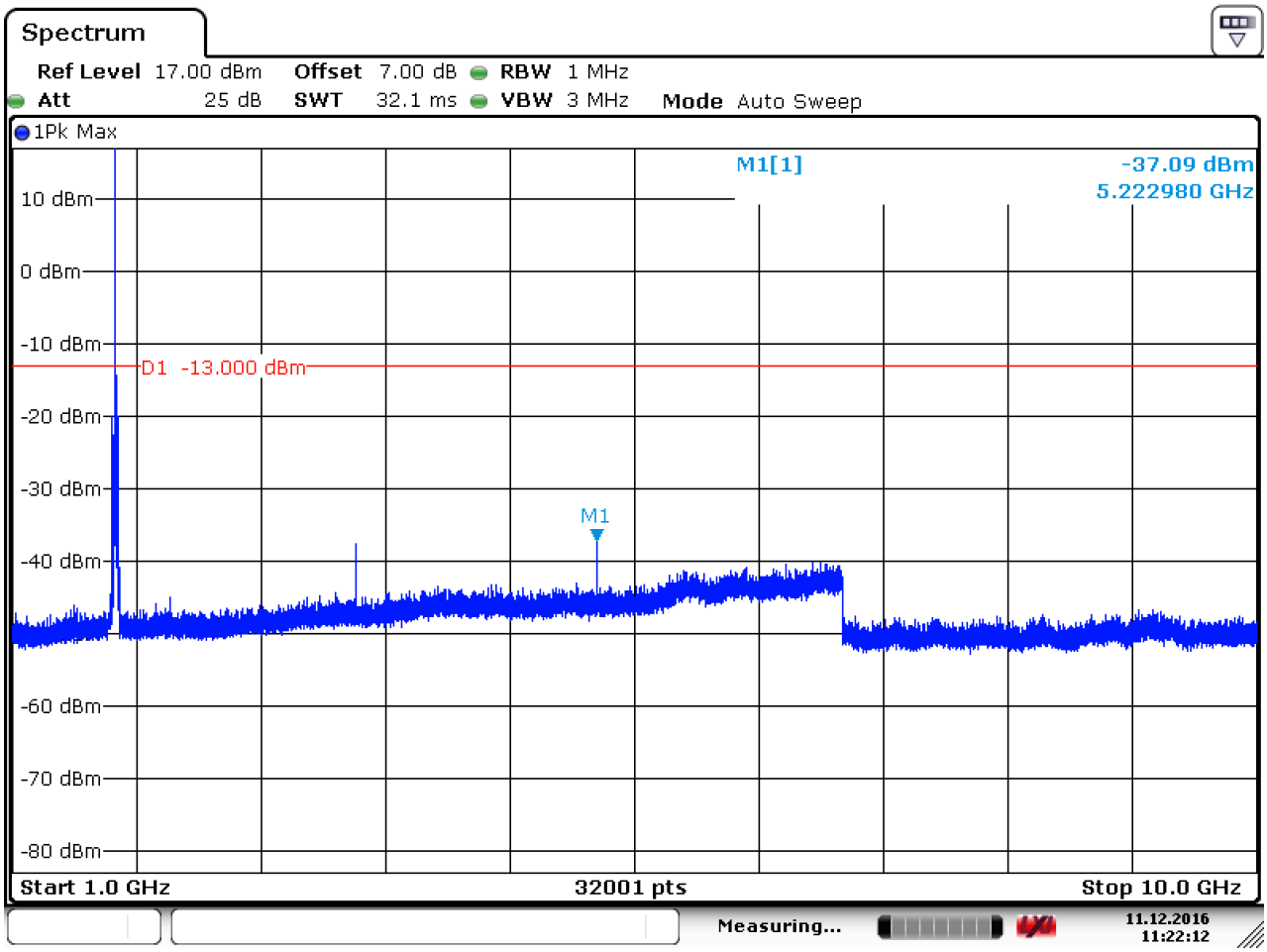
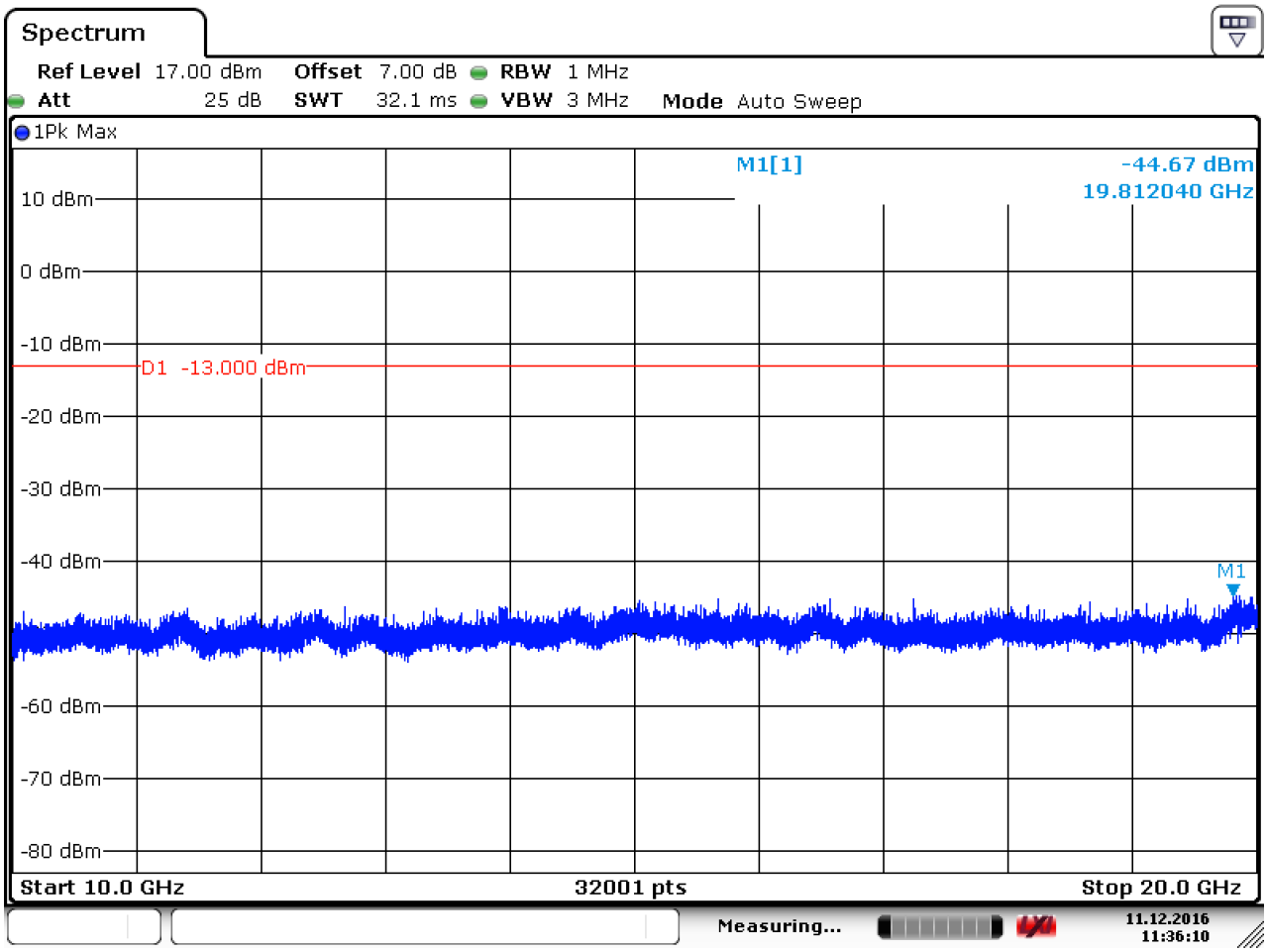


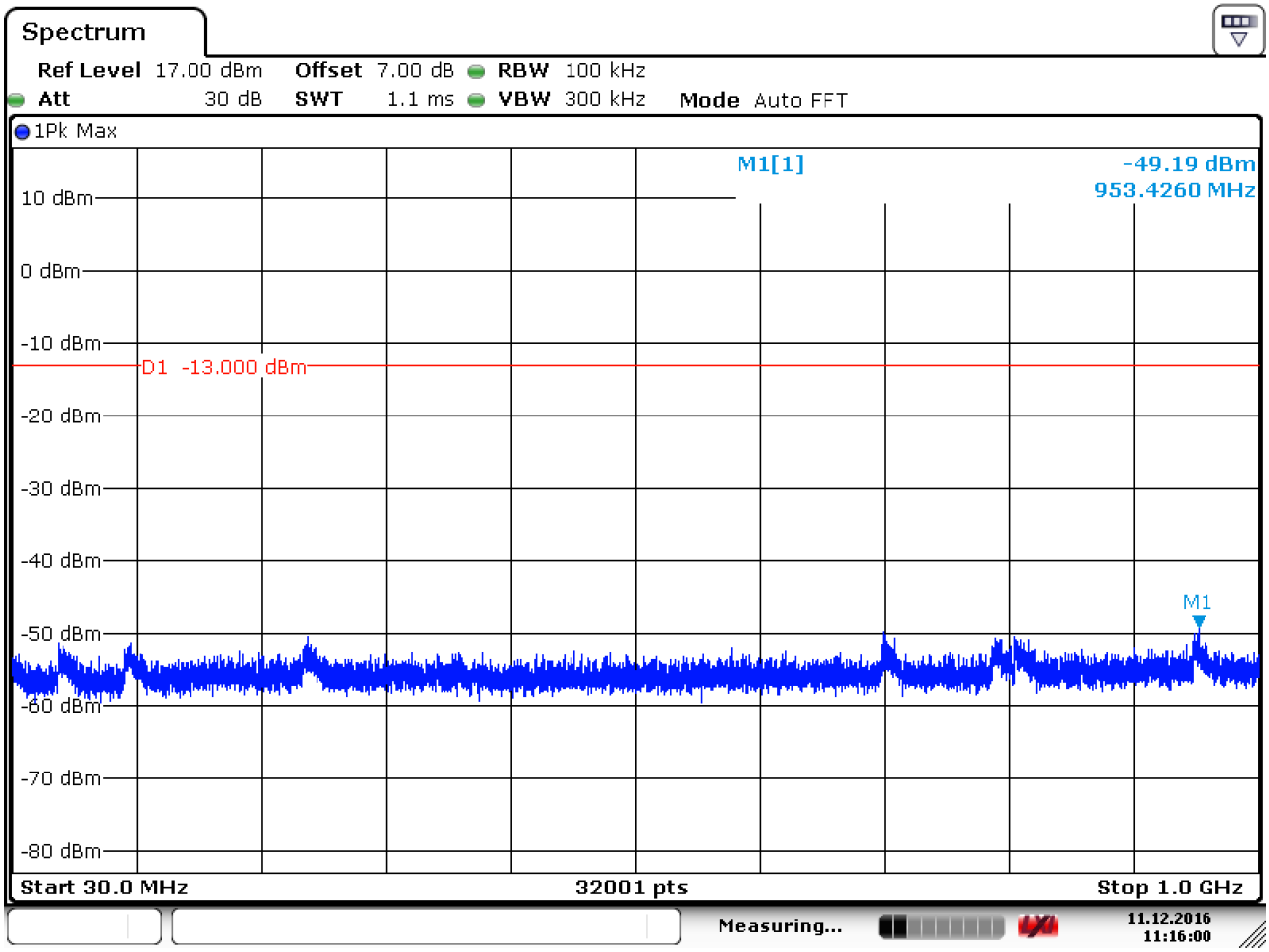
Date: 11.DEC.2016 11:22:12



Date: 11.DEC.2016 11:36:10

6.1.1.6 Test Mode = LTE / TM1 20MHz RB1#0

6.1.1.6.1 Test Channel = LCH



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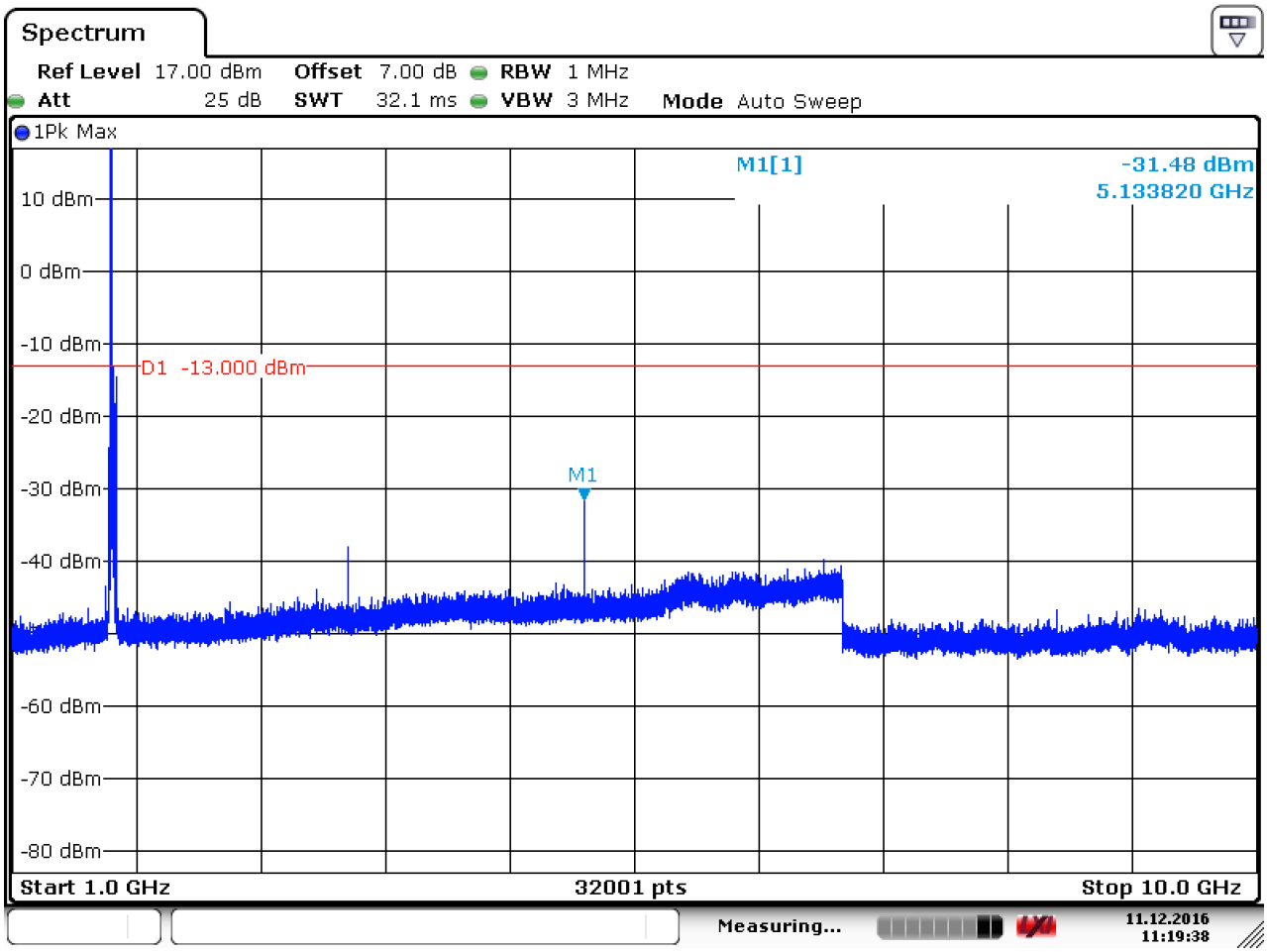
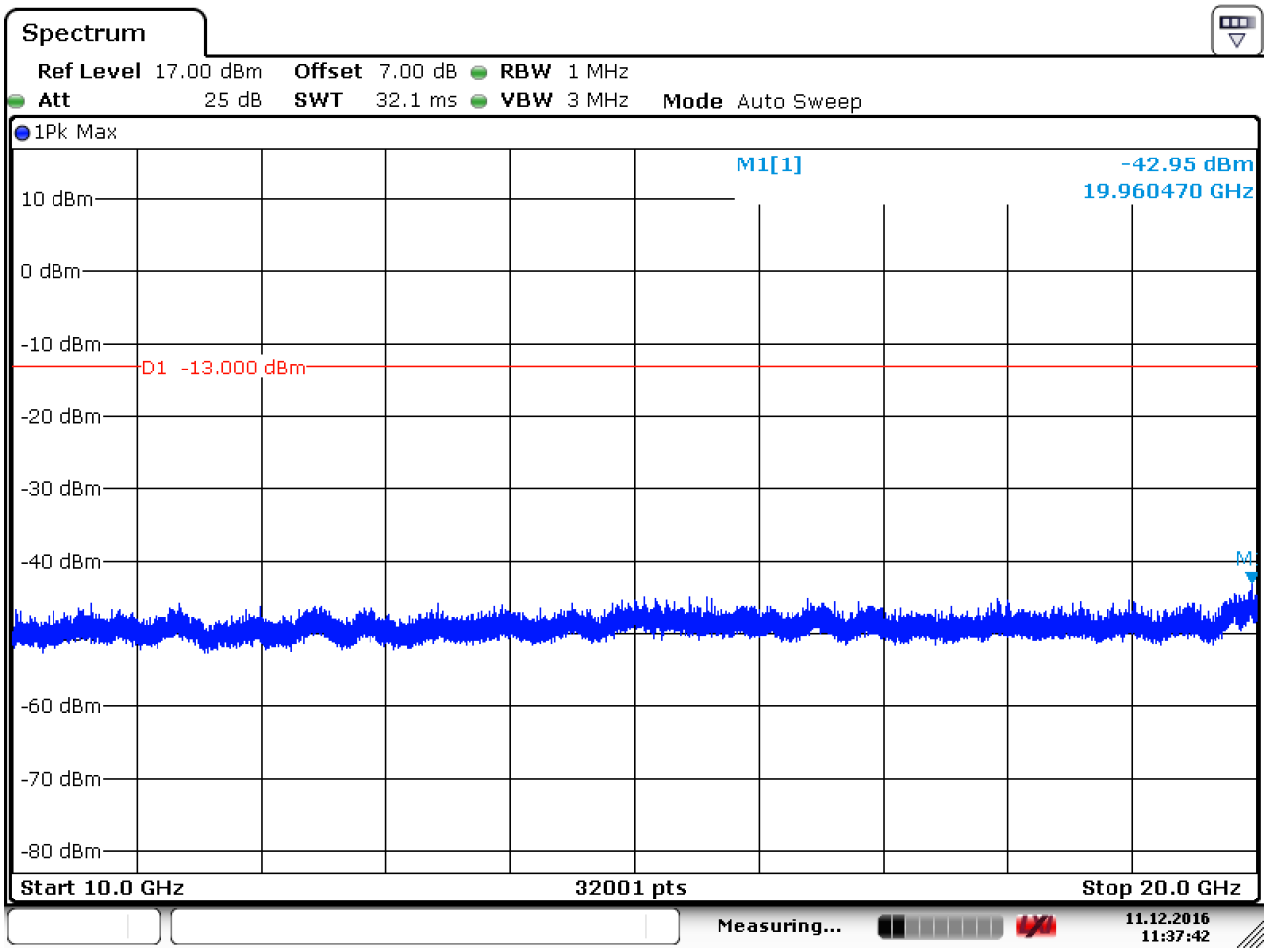
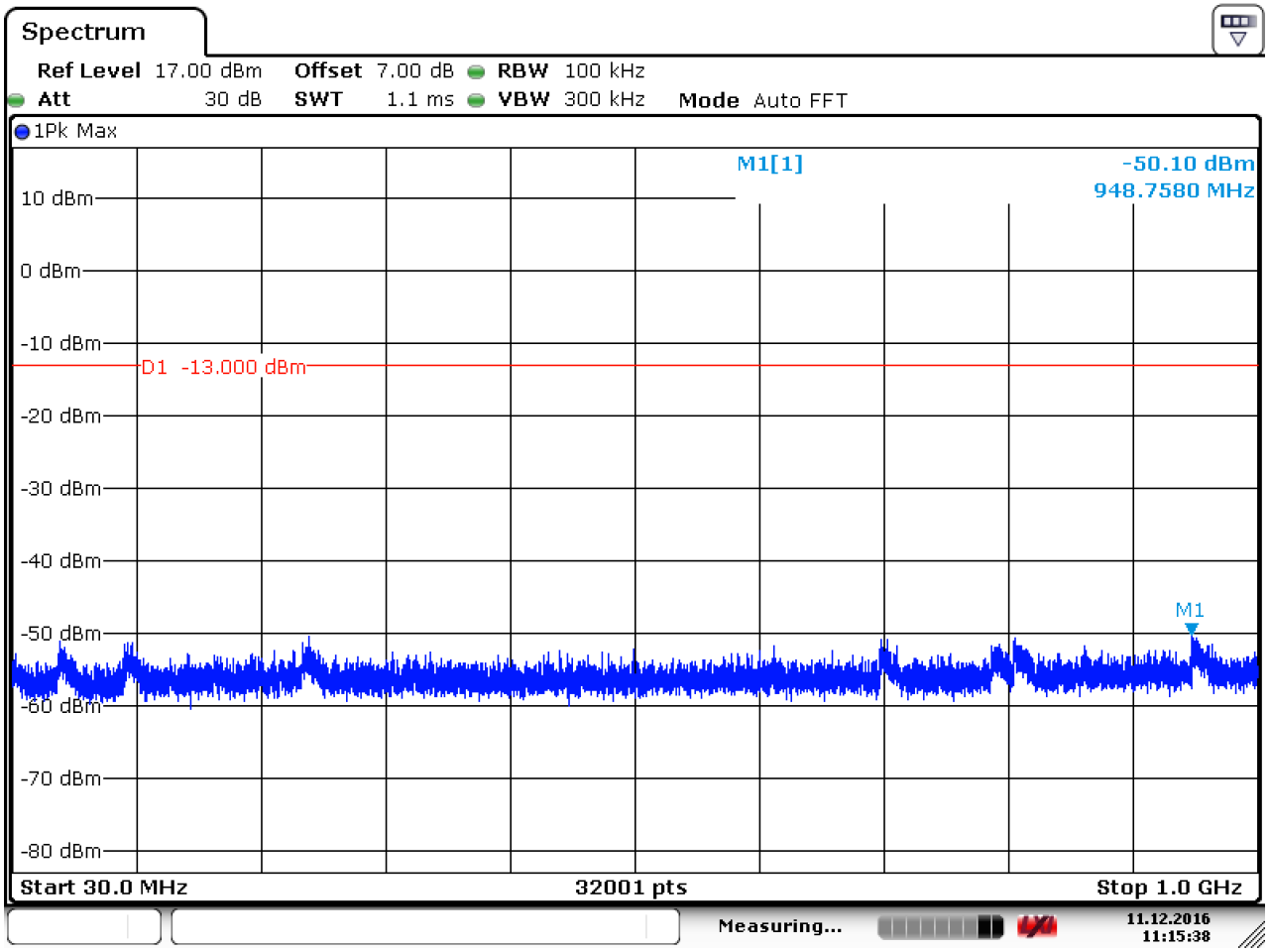


Date: 11.DEC.2016 11:19:39

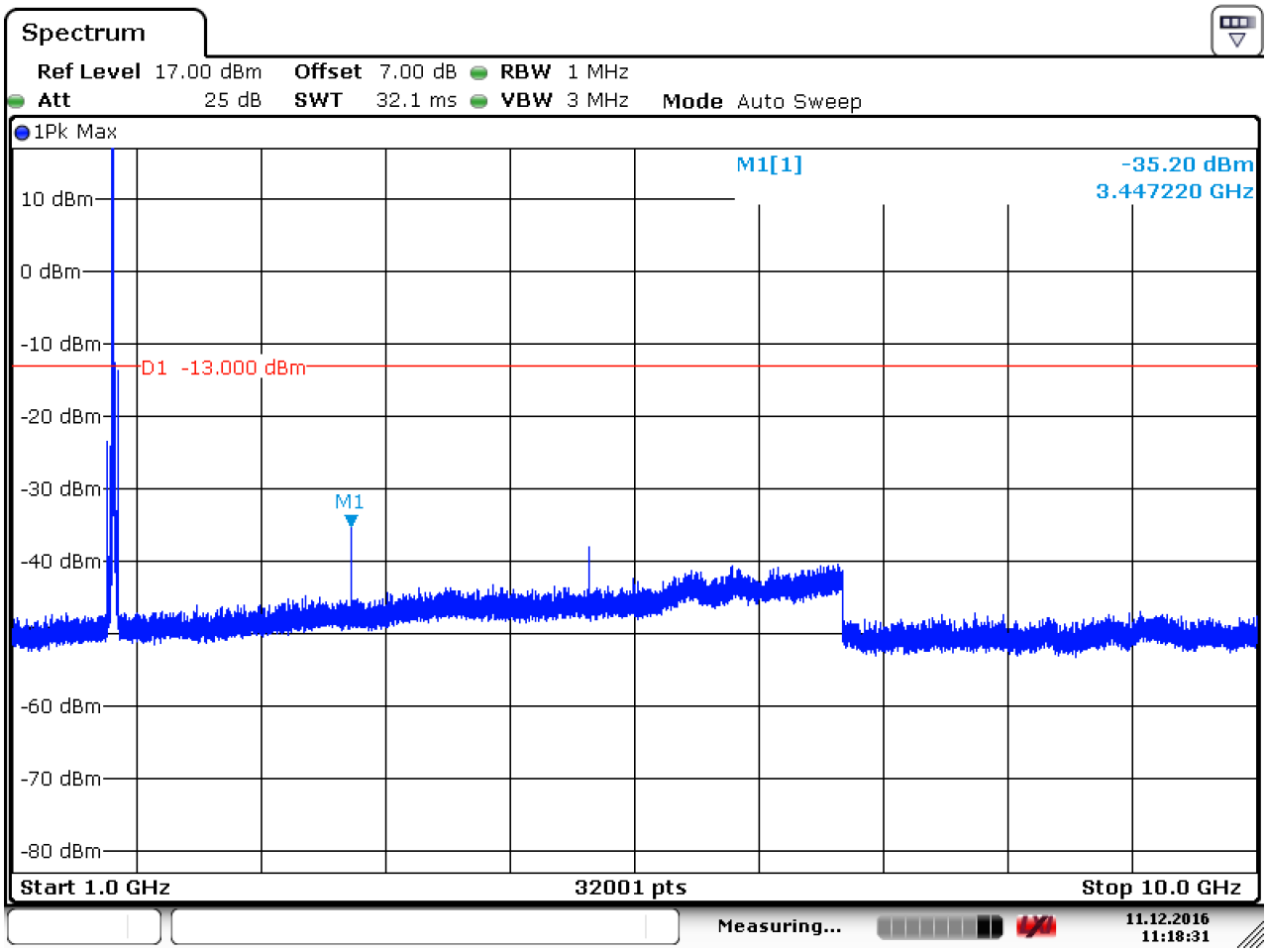


Date: 11.DEC.2016 11:37:43

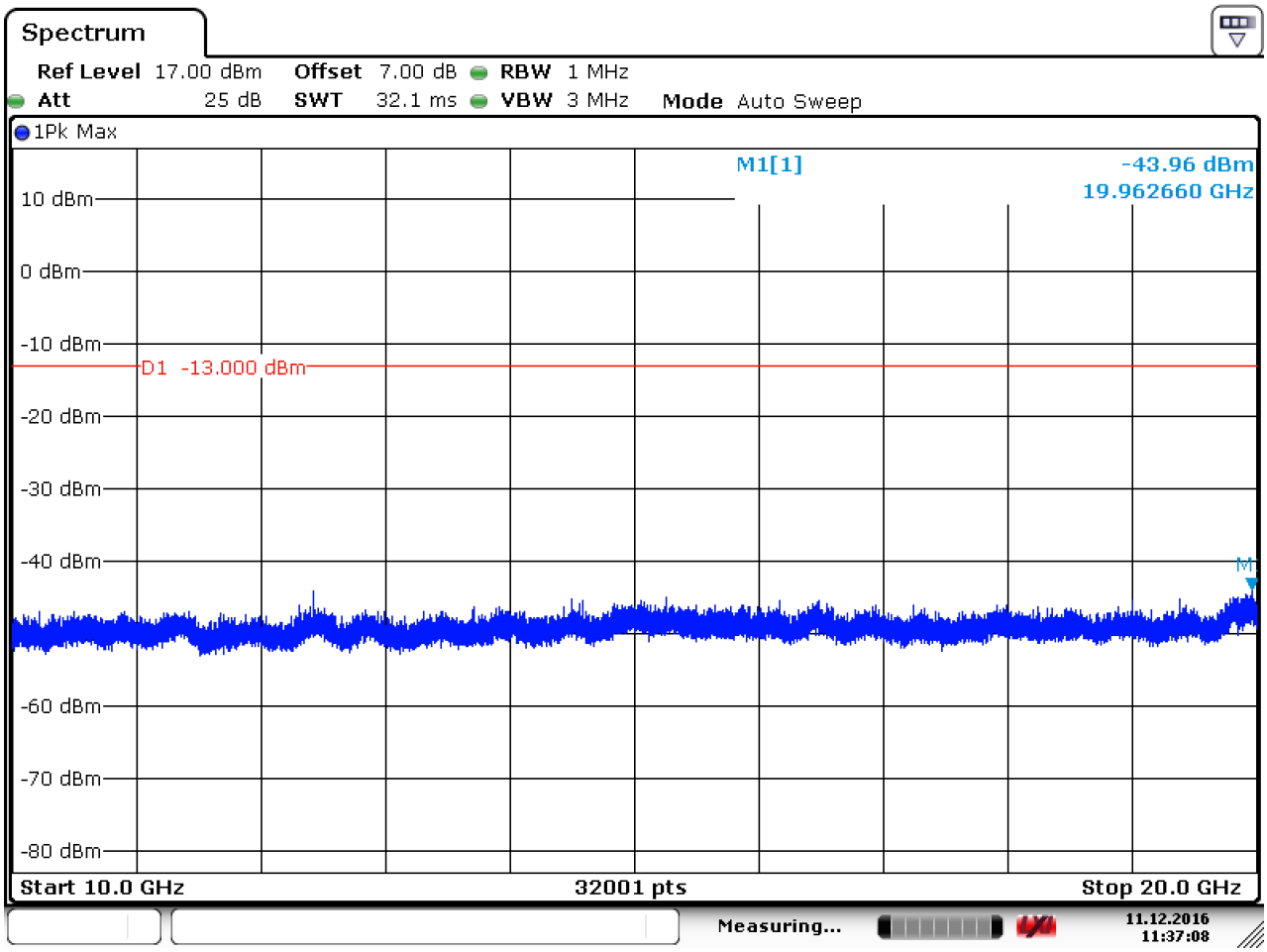
6.1.1.6.2 Test Channel = MCH



Date: 11.DEC.2016 11:15:38

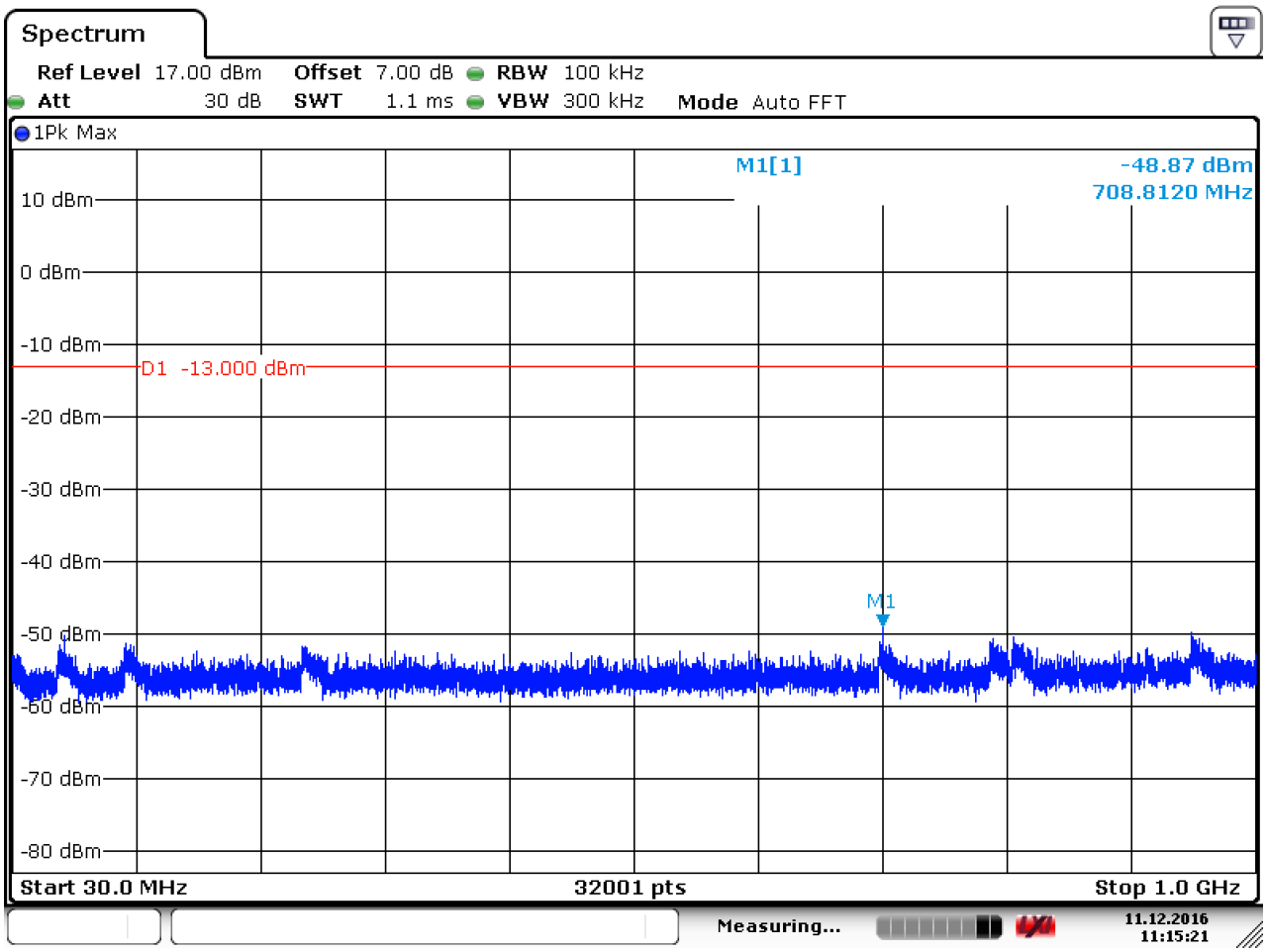


Date: 11.DEC.2016 11:18:32



Date: 11.DEC.2016 11:37:09

6.1.1.6.3 Test Channel = HCH



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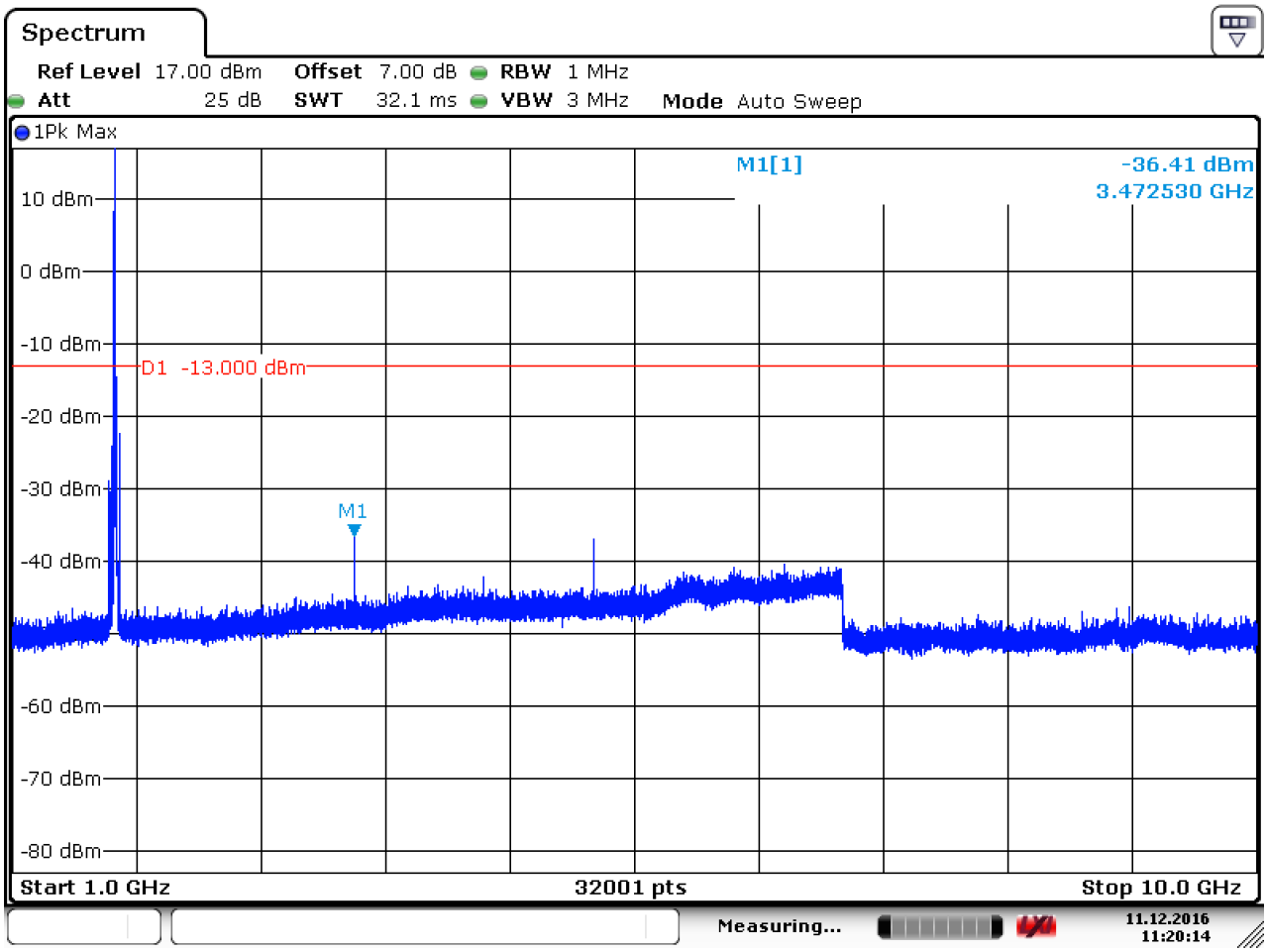

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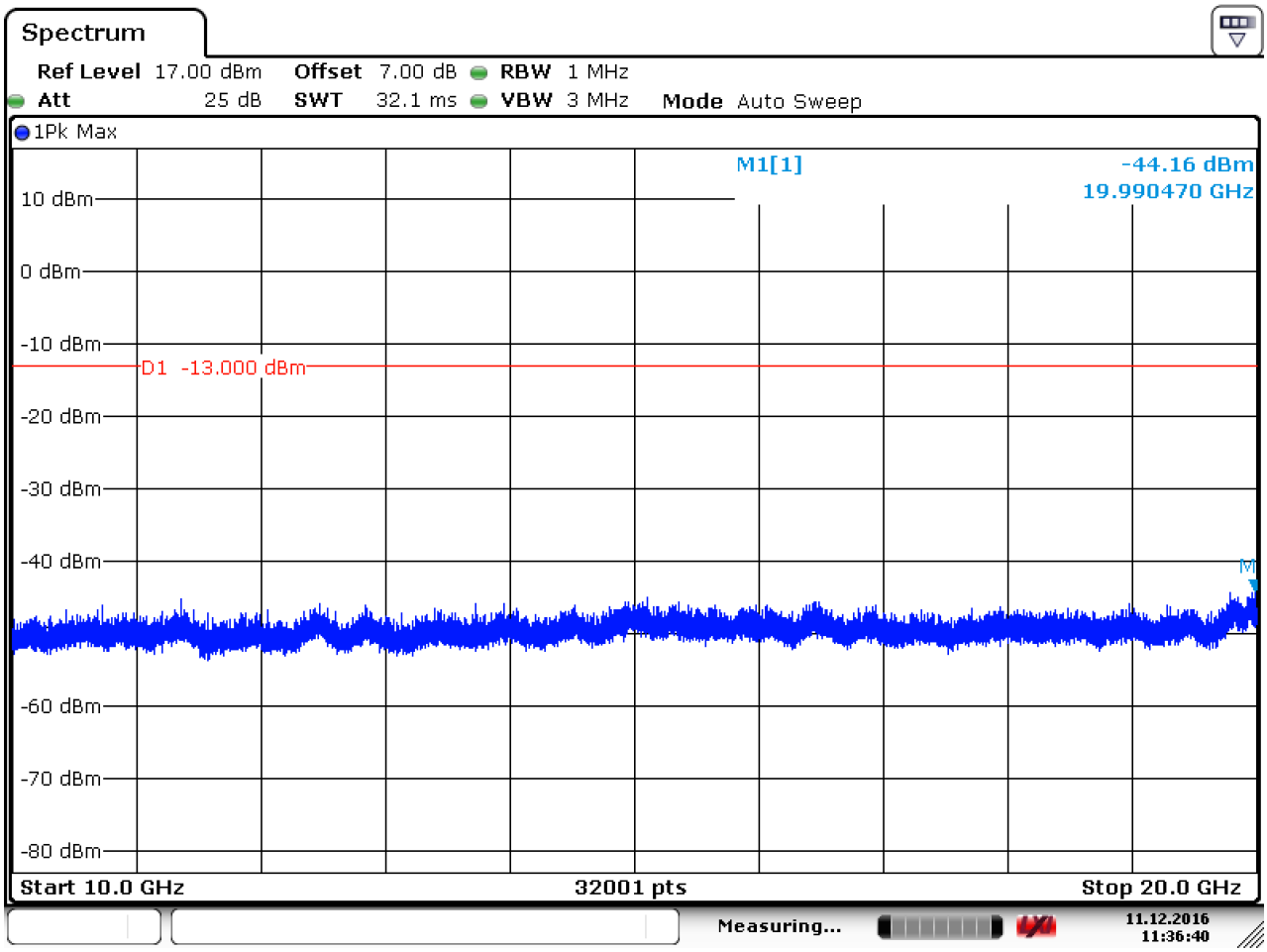

Date: 11.DEC.2016 11:36:40

7 Field Strength of Spurious Radiation

7.1 For LTE

7.1.1 Test Band = LTE band4

7.1.1.1 Test Mode =LTE/TM1 20MHz RB1#0

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1133.000	-67.06	-13.00	54.06	Vertical
2424.000	-59.04	-13.00	46.04	Vertical
6022.500	-66.49	-13.00	53.49	Vertical
1276.000	-67.43	-13.00	54.43	Horizontal
1804.000	-63.61	-13.00	50.61	Horizontal
5047.500	-67.50	-13.00	54.50	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1507.000	-66.70	-13.00	53.70	Vertical
1837.000	-63.12	-13.00	50.12	Vertical
4657.500	-67.97	-13.00	54.97	Vertical
1364.000	-67.82	-13.00	54.82	Horizontal
2520.000	-59.32	-13.00	46.32	Horizontal
5340.000	-67.61	-13.00	54.61	Horizontal

7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1441.000	-67.02	-13.00	54.02	Vertical
2360.000	-59.35	-13.00	46.35	Vertical
4755.000	-67.82	-13.00	54.82	Vertical
1595.000	-65.76	-13.00	52.76	Horizontal
2320.000	-59.44	-13.00	46.44	Horizontal
2664.000	-57.93	-13.00	44.93	Horizontal

NOTE:

1) 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 band 4	LTE/TM1 20MHz	LCH	TN	VL	-3.12	-0.00181	PASS
				VN	1.26	0.00073	PASS
				VH	-5.83	-0.00339	PASS
		MCH	TN	VL	1.33	0.00077	PASS
				VN	-2.38	-0.00137	PASS
				VH	2.55	0.00147	PASS
		HCH	TN	VL	-6.28	-0.00360	PASS
				VN	-5.13	-0.00294	PASS
				VH	-1.29	-0.00074	PASS
	LTE/TM2 20MHz	LCH	TN	VL	-4.23	-0.00246	PASS
				VN	-2.25	-0.00131	PASS
				VH	-4.56	-0.00265	PASS
		MCH	TN	VL	1.33	0.00077	PASS
				VN	-3.00	-0.00173	PASS
				VH	2.19	0.00126	PASS
		HCH	TN	VL	-3.22	-0.00185	PASS
				VN	-6.86	-0.00393	PASS
				VH	1.04	0.00060	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
LTEband4	LTE/TM1 20MHz	LCH	VN	-30	-4.70	-0.00273	PASS
				-20	-4.28	-0.00249	PASS
				-10	2.31	0.00134	PASS
				0	1.65	0.00096	PASS
				10	-1.65	-0.00096	PASS
				20	0.42	0.00024	PASS
				30	-4.31	-0.00251	PASS
				40	-2.12	-0.00123	PASS
				50	3.49	0.00203	PASS
		MCH	VN	-30	-2.54	-0.00147	PASS
				-20	-3.21	-0.00185	PASS
				-10	-4.28	-0.00247	PASS
				0	-3.49	-0.00201	PASS
				10	-4.28	-0.00247	PASS
				20	-2.97	-0.00171	PASS
				30	-4.16	-0.00240	PASS
				40	-5.82	-0.00336	PASS
				50	-6.28	-0.00362	PASS
		HCH	VN	-30	0.25	0.00014	PASS
				-20	-2.26	-0.00130	PASS
				-10	1.37	0.00079	PASS
				0	-2.83	-0.00162	PASS
				10	2.92	0.00167	PASS
				20	-1.35	-0.00077	PASS
				30	-2.67	-0.00153	PASS
				40	-4.62	-0.00265	PASS
				50	-7.05	-0.00404	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband4	LTE/TM2 20MHz	LCH	VN	-30	-1.46	-0.00085	PASS
				-20	-2.05	-0.00119	PASS
				-10	3.28	0.00191	PASS
				0	2.44	0.00142	PASS
				10	1.67	0.00097	PASS
				20	-0.13	-0.00008	PASS
				30	-2.84	-0.00165	PASS
				40	5.38	0.00313	PASS
				50	1.79	0.00104	PASS
		MCH	VN	-30	-3.80	-0.00219	PASS
				-20	-5.05	-0.00291	PASS
				-10	-3.13	-0.00181	PASS
				0	-3.31	-0.00191	PASS
				10	-2.34	-0.00135	PASS
				20	1.78	0.00103	PASS
				30	-3.36	-0.00194	PASS
				40	-2.39	-0.00138	PASS
				50	-3.13	-0.00181	PASS
		HCH	VN	-30	-3.84	-0.00220	PASS
				-20	-2.50	-0.00143	PASS
				-10	1.33	0.00076	PASS
				0	-2.93	-0.00168	PASS
				10	0.55	0.00032	PASS
				20	-1.27	-0.00073	PASS
				30	2.29	0.00131	PASS
				40	-4.66	-0.00267	PASS
				50	-8.17	-0.00468	PASS

The End