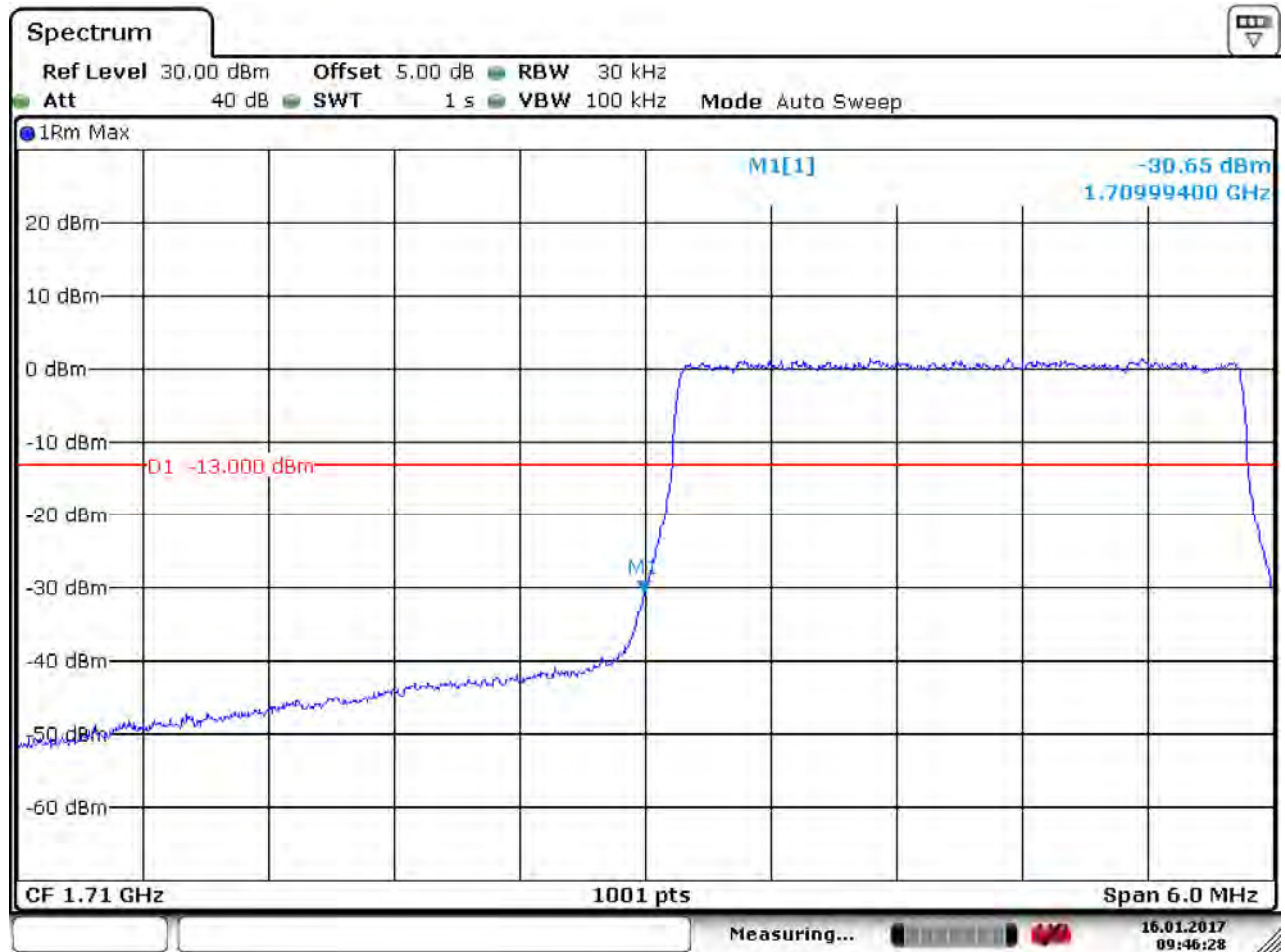




5.1.1.6.2.1 Test RB=15RB

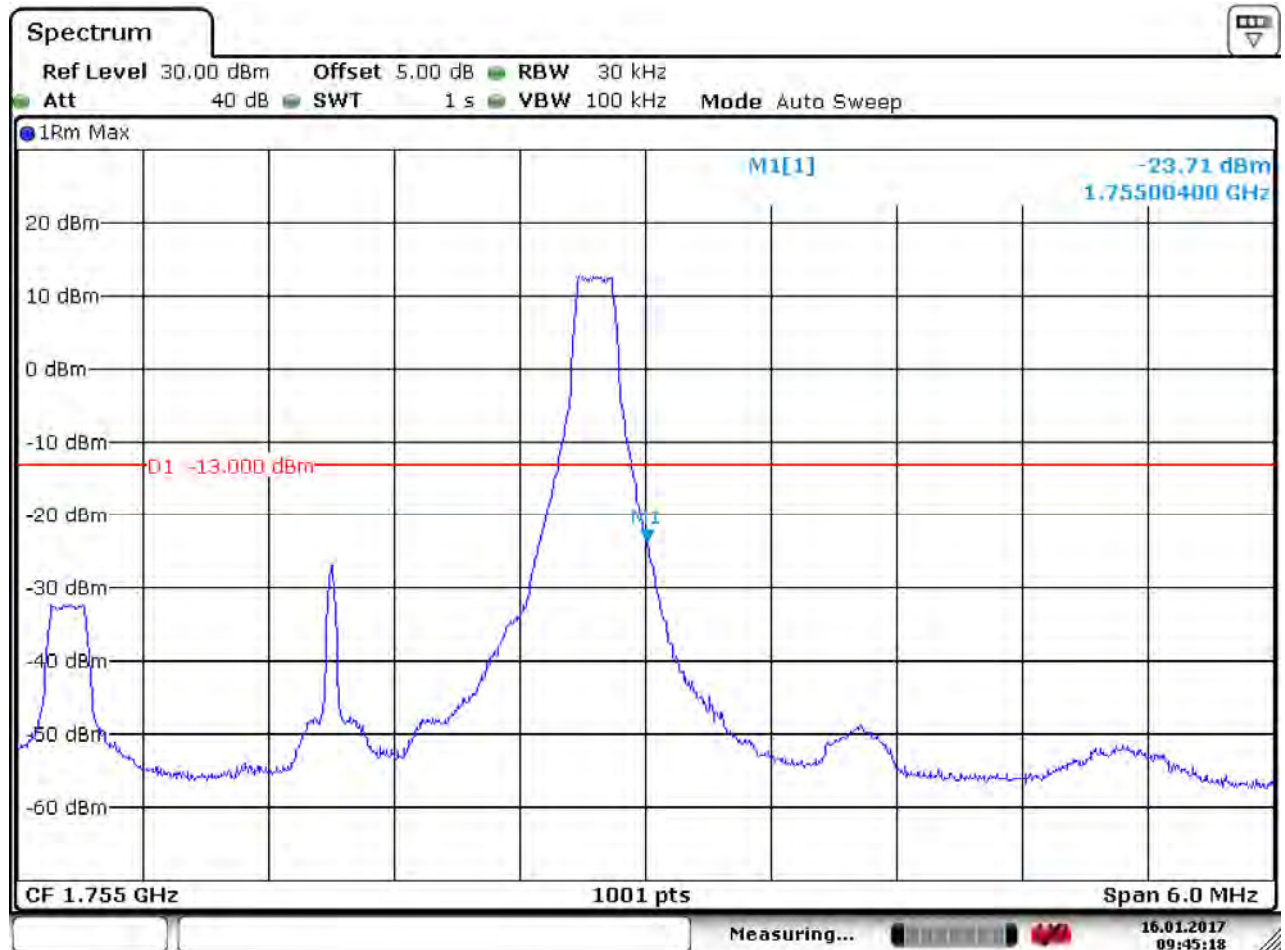


Date: 16.JAN.2017 09:46:28



5.1.1.6.3 Test Channel = HCH

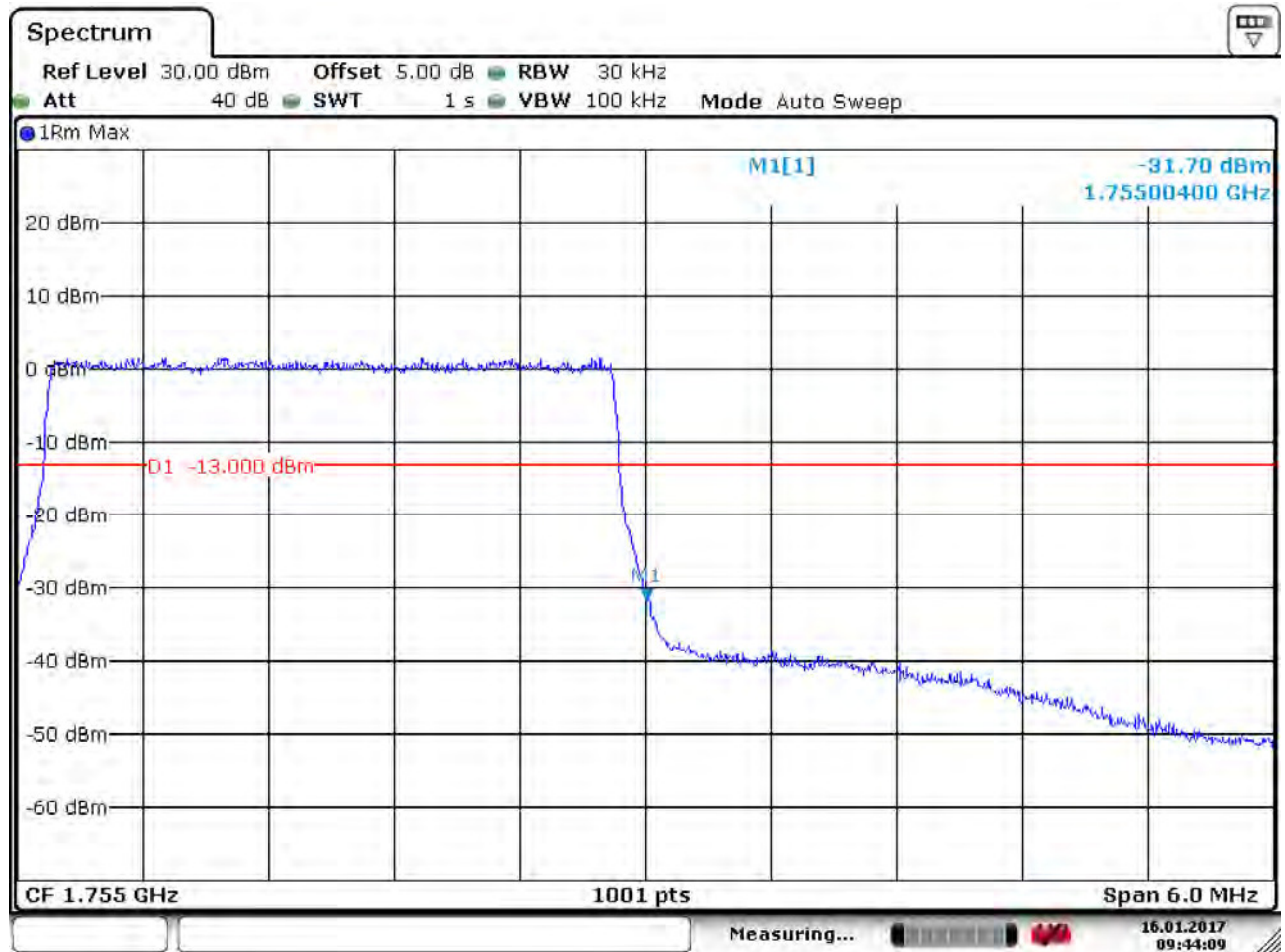
5.1.1.6.3.1 Test RB=1RB



Date: 16.JAN.2017 09:45:19



5.1.1.6.3.2 Test RB=15RB



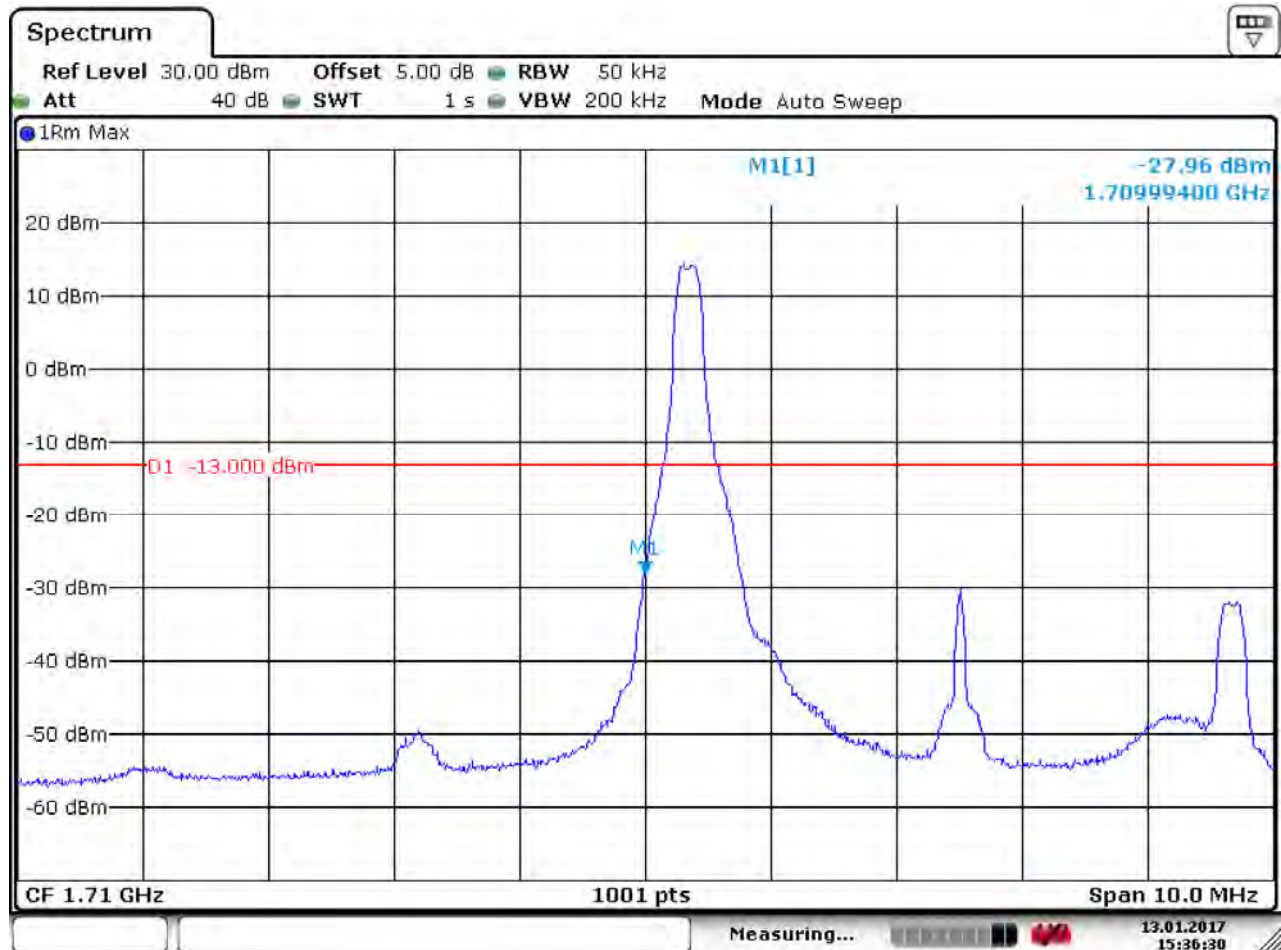
Date: 16.JAN.2017 09:44:10



5.1.1.7 Test Mode = LTE/TM1 5MHz

5.1.1.7.1 Test Channel = LCH

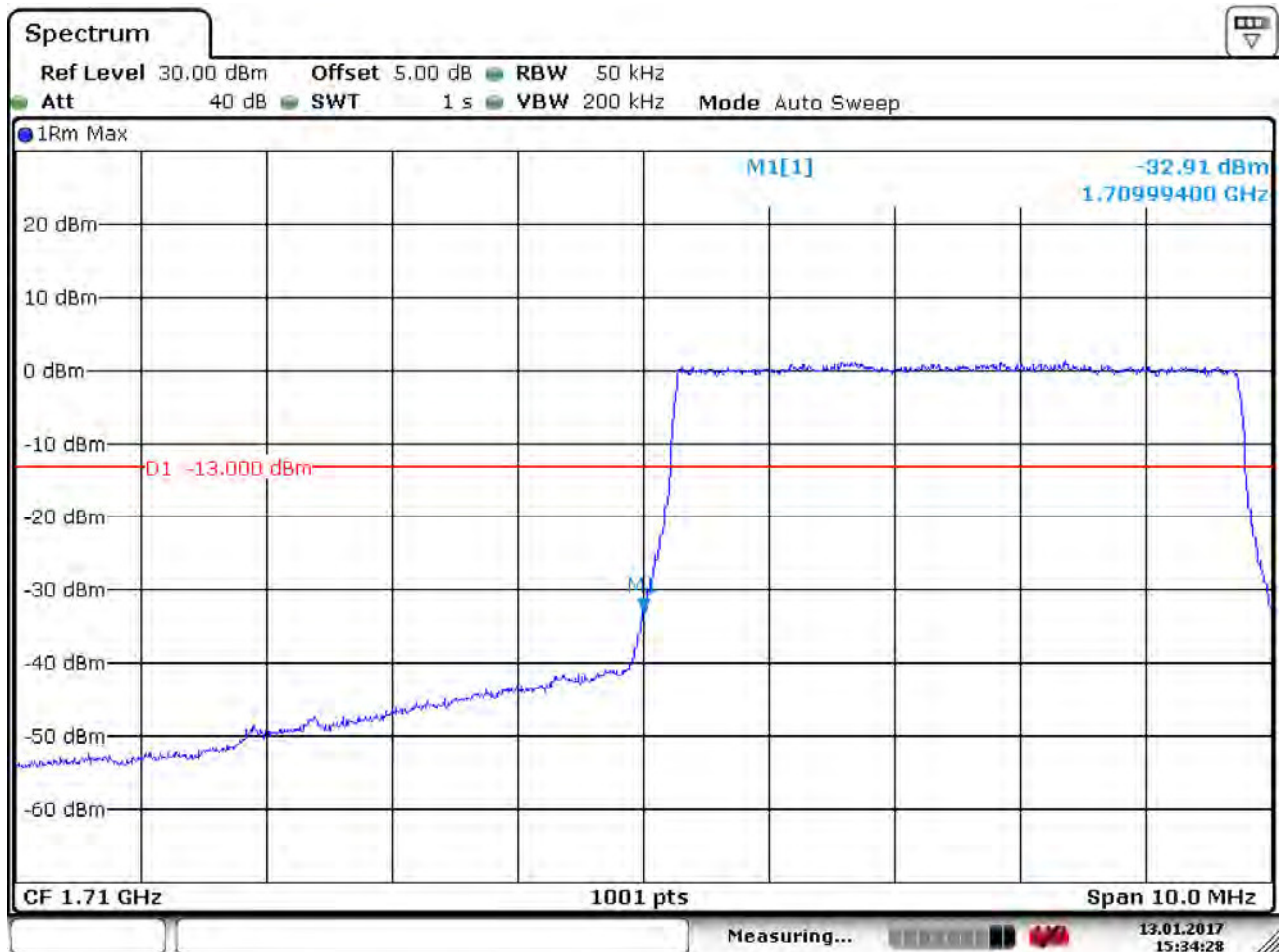
5.1.1.7.1.1 Test RB=1RB



Date: 13.JAN.2017 15:36:31



5.1.1.7.1.2 Test RB=25RB

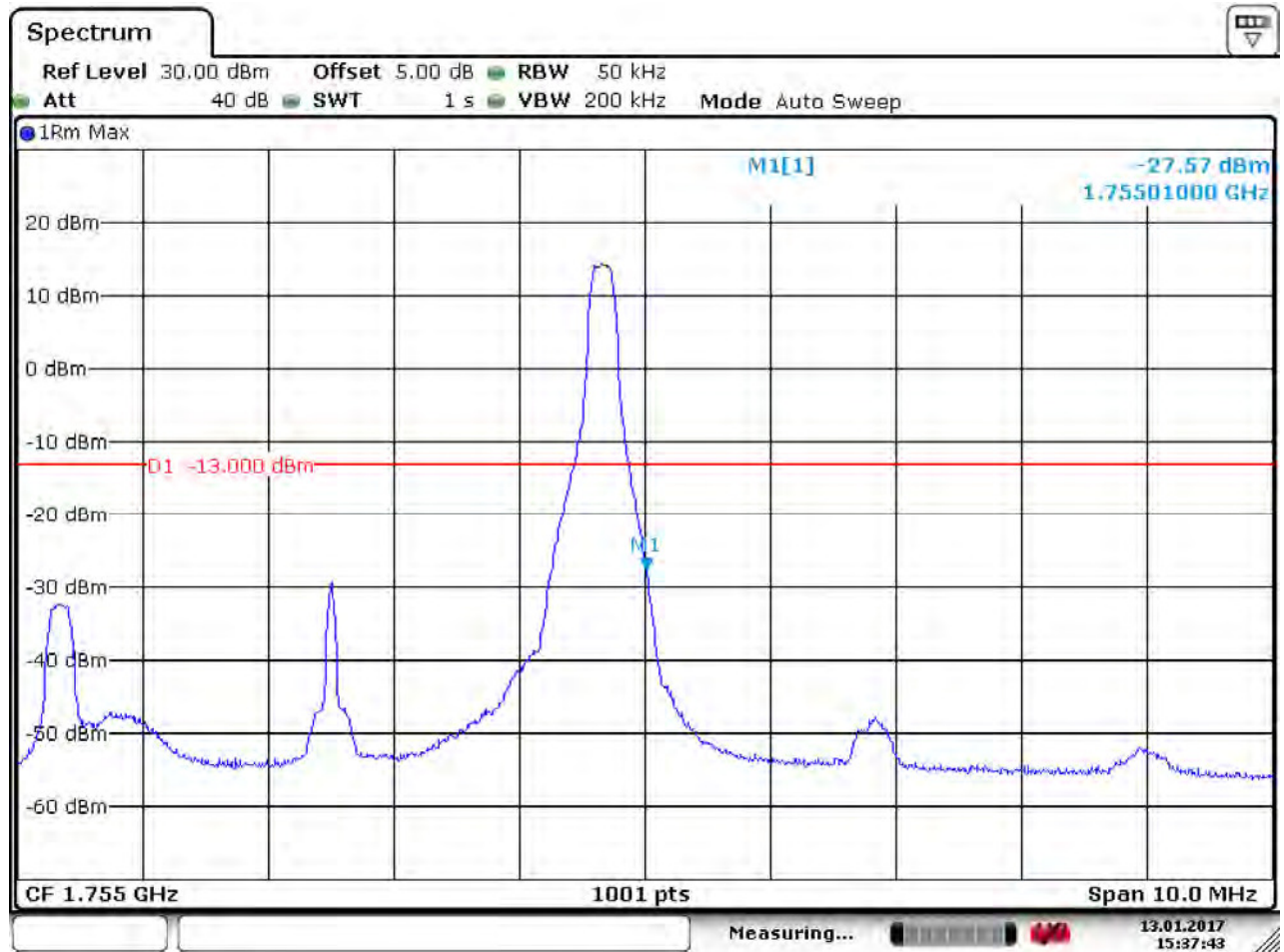


Date: 13.JAN.2017 15:34:28



5.1.1.7.2 Test Channel = HCH

5.1.1.7.2.1 Test RB=1RB



Date: 13.JAN.2017 15:37:44



5.1.1.7.2.2 Test RB=25RB

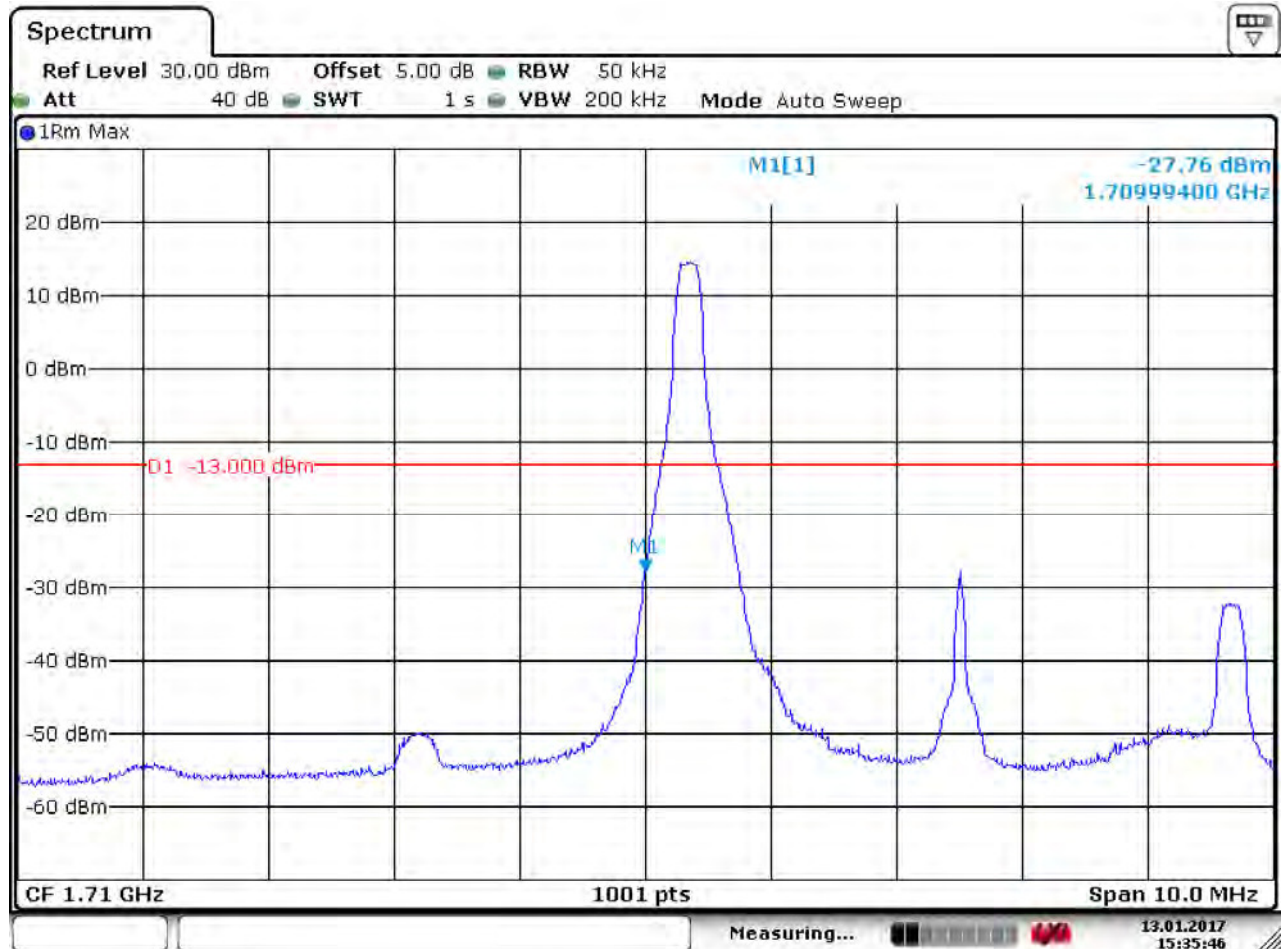


Date: 13.JAN.2017 15:39:43

5.1.1.8 Test Mode = LTE/TM2 5MHz

5.1.1.8.1 Test Channel = LCH

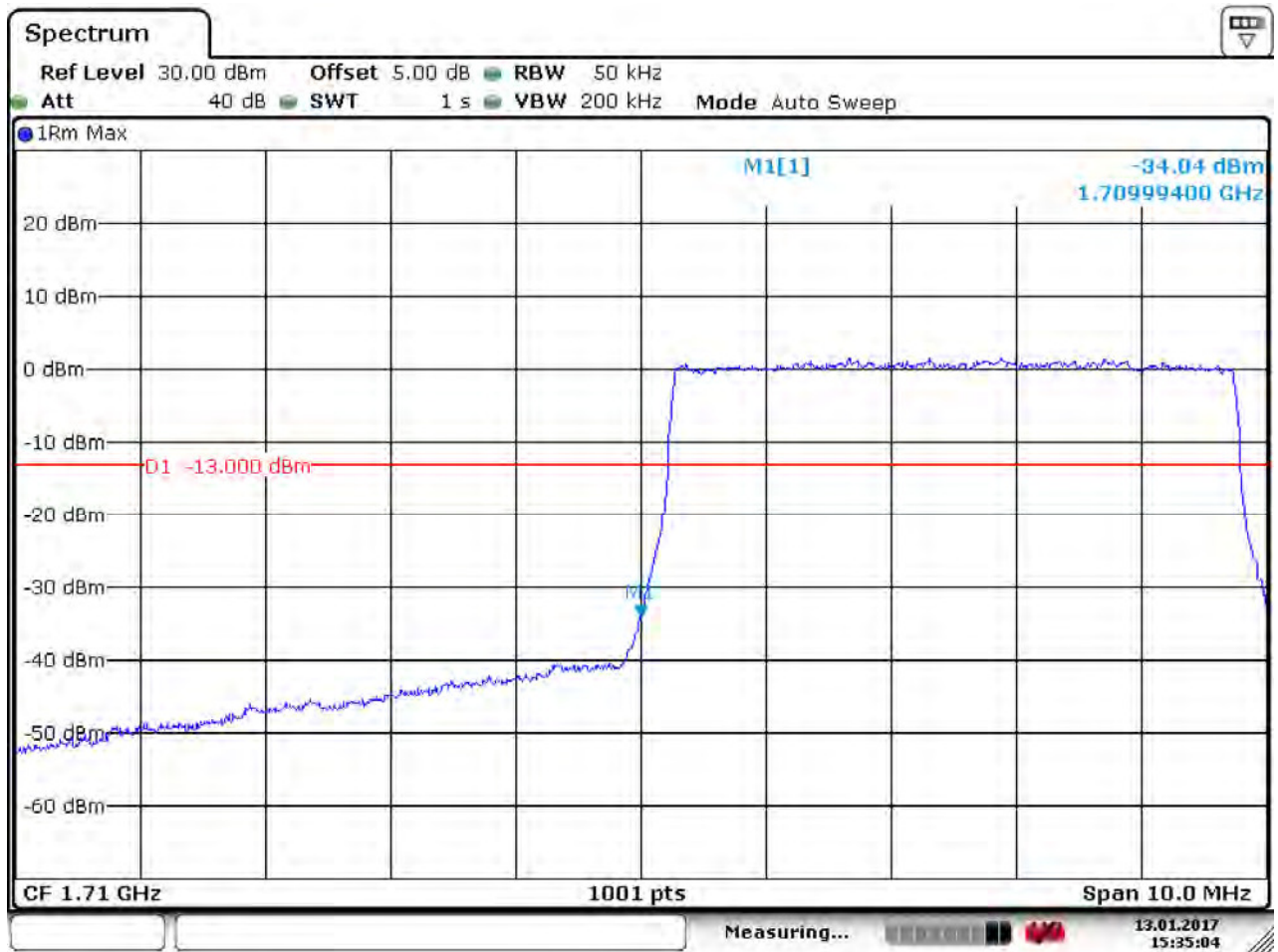
5.1.1.8.1.1 Test RB=1RB



Date: 13.JAN.2017 15:35:46



5.1.1.8.1.2 Test RB=25RB

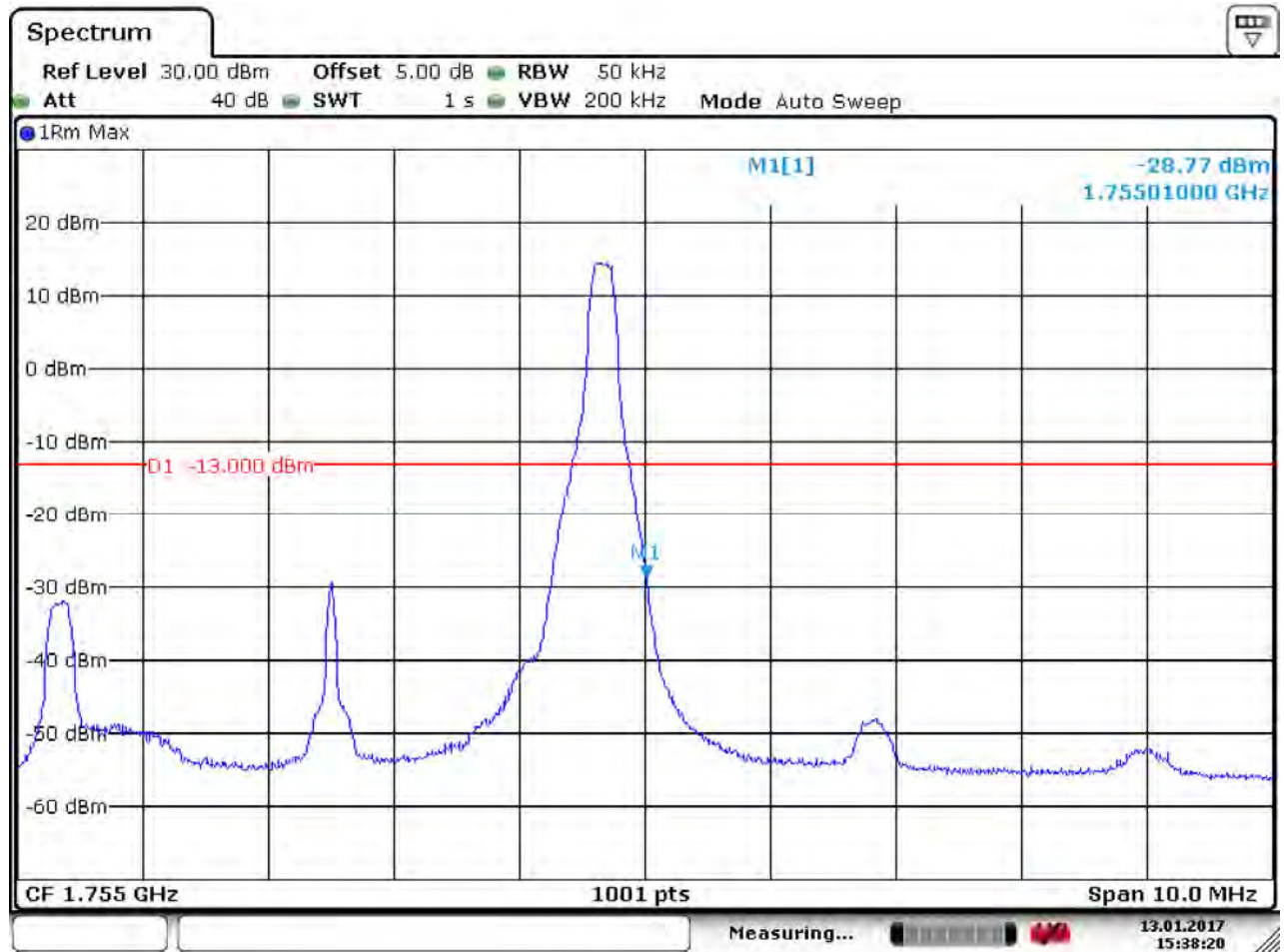


Date: 13.JAN.2017 15:35:05



5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=1RB



Date: 13.JAN.2017 15:38:20

5.1.1.8.2.2 Test RB=25RB



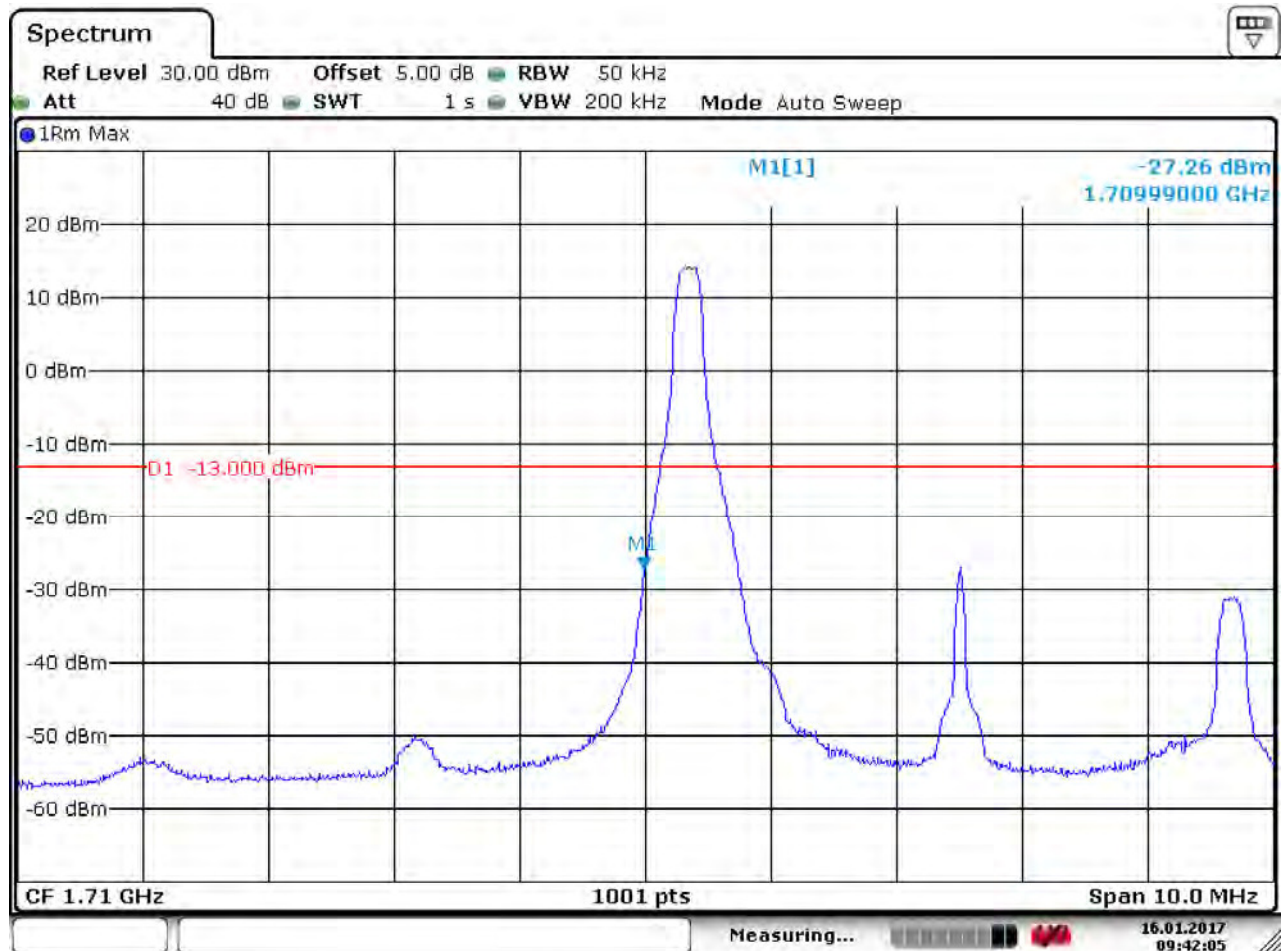
Date: 13.JAN.2017 15:39:03



5.1.1.9 Test Mode = LTE/TM3 5MHz

5.1.1.9.1 Test Channel = LCH

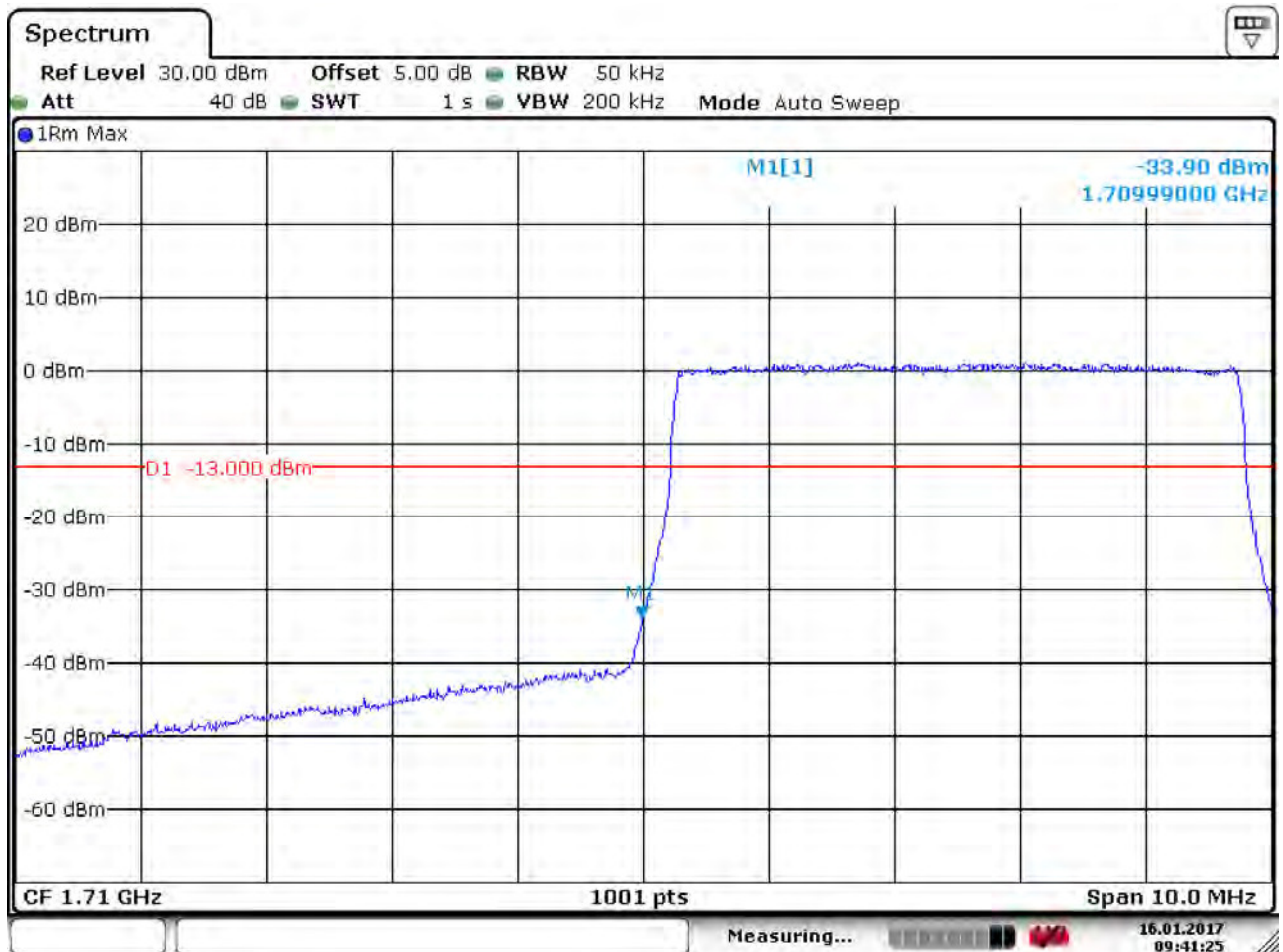
5.1.1.9.1.1 Test RB=1RB



Date: 16.JAN.2017 09:42:05



5.1.1.9.1.2 Test RB=25RB

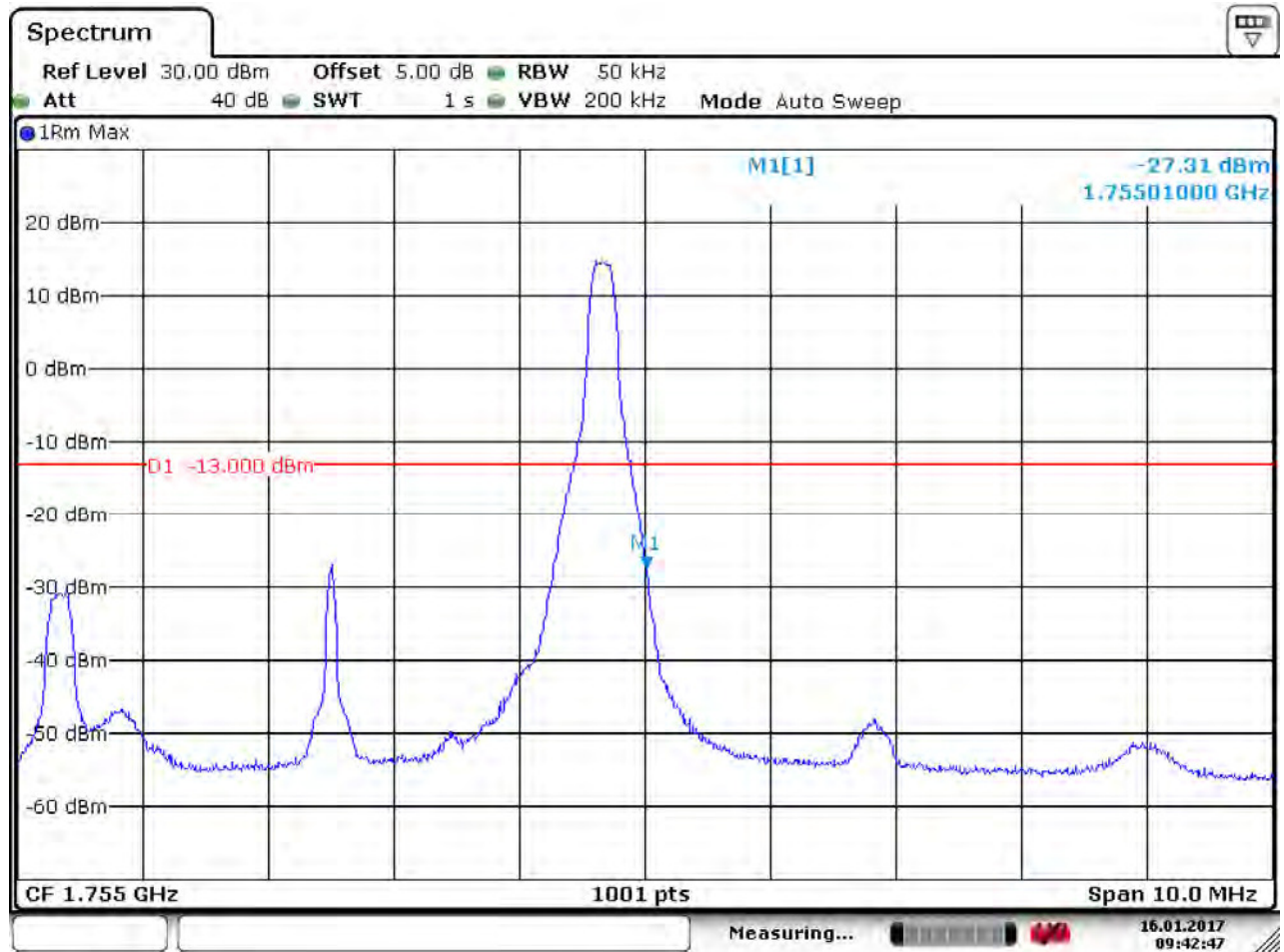


Date: 16.JAN.2017 09:41:26



5.1.1.9.2 Test Channel = HCH

5.1.1.9.2.1 Test RB=1RB



Date: 16.JAN.2017 09:42:47



5.1.1.9.2.2 Test RB=25RB



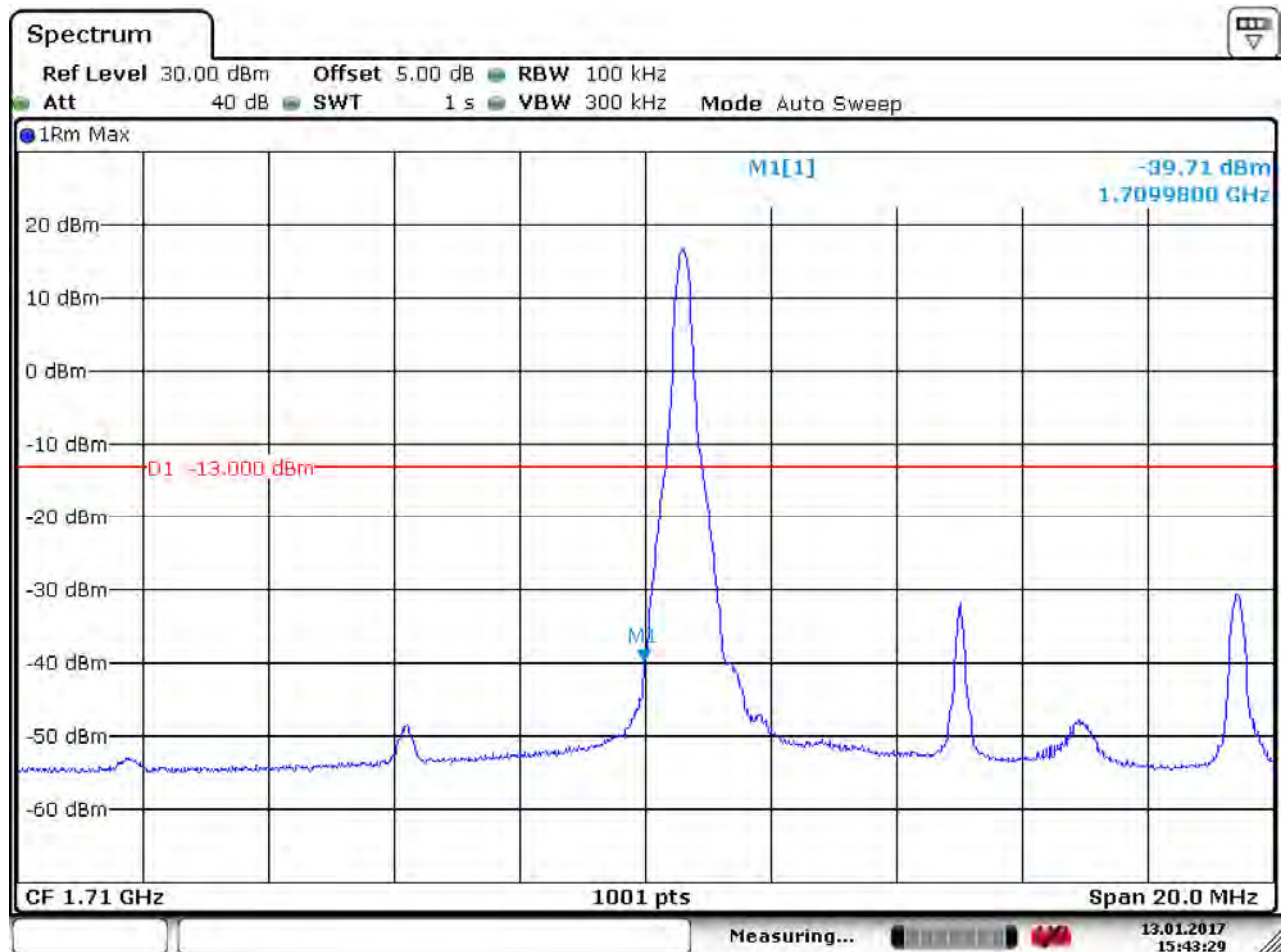
Date: 16.JAN.2017 09:43:21



5.1.1.10 Test Mode = LTE/TM1 10MHz

5.1.1.10.1 Test Channel = LCH

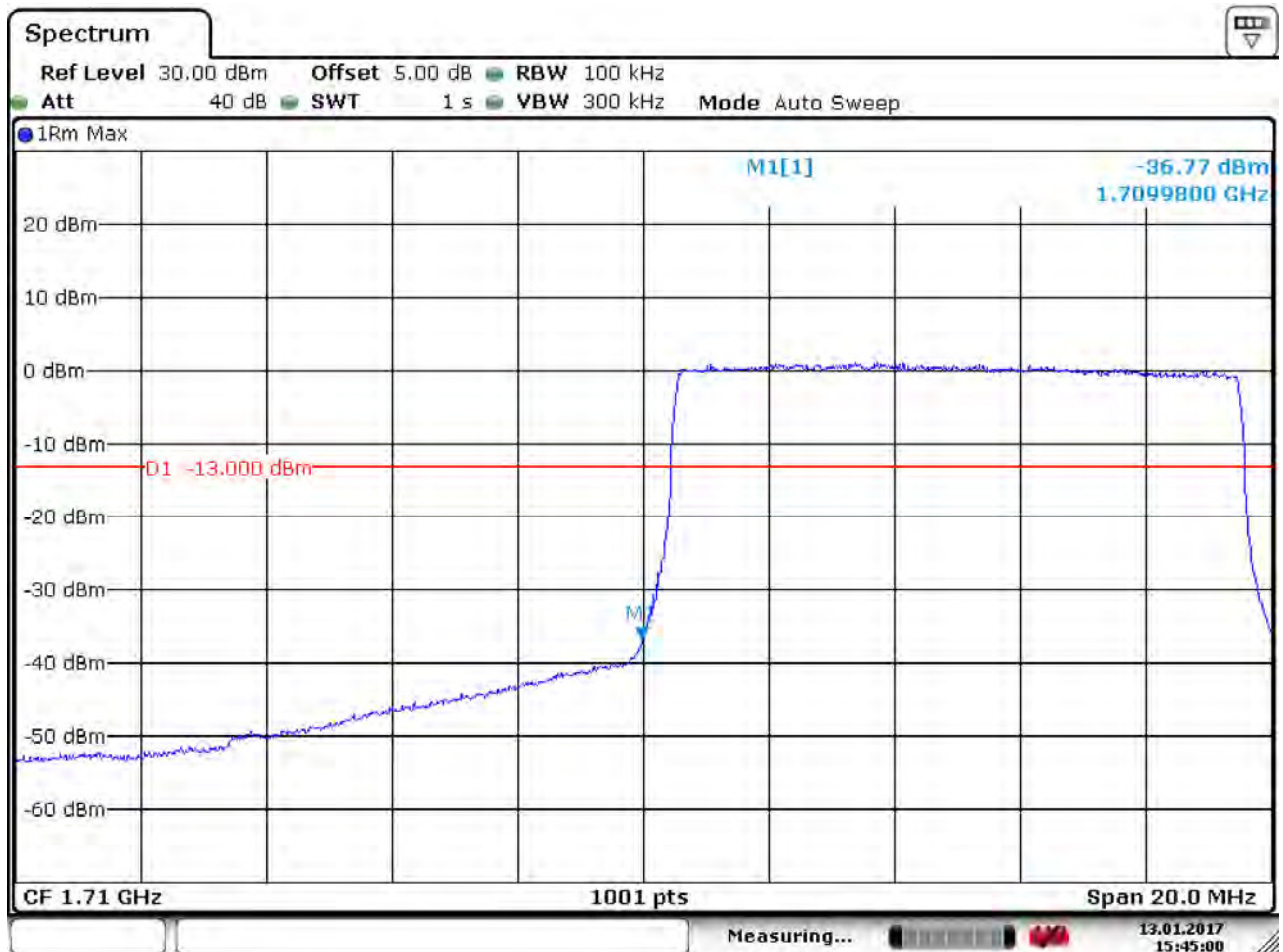
5.1.1.10.1.1 Test RB=1RB



Date: 13.JAN.2017 15:43:29



5.1.1.10.1.2 Test RB=50RB

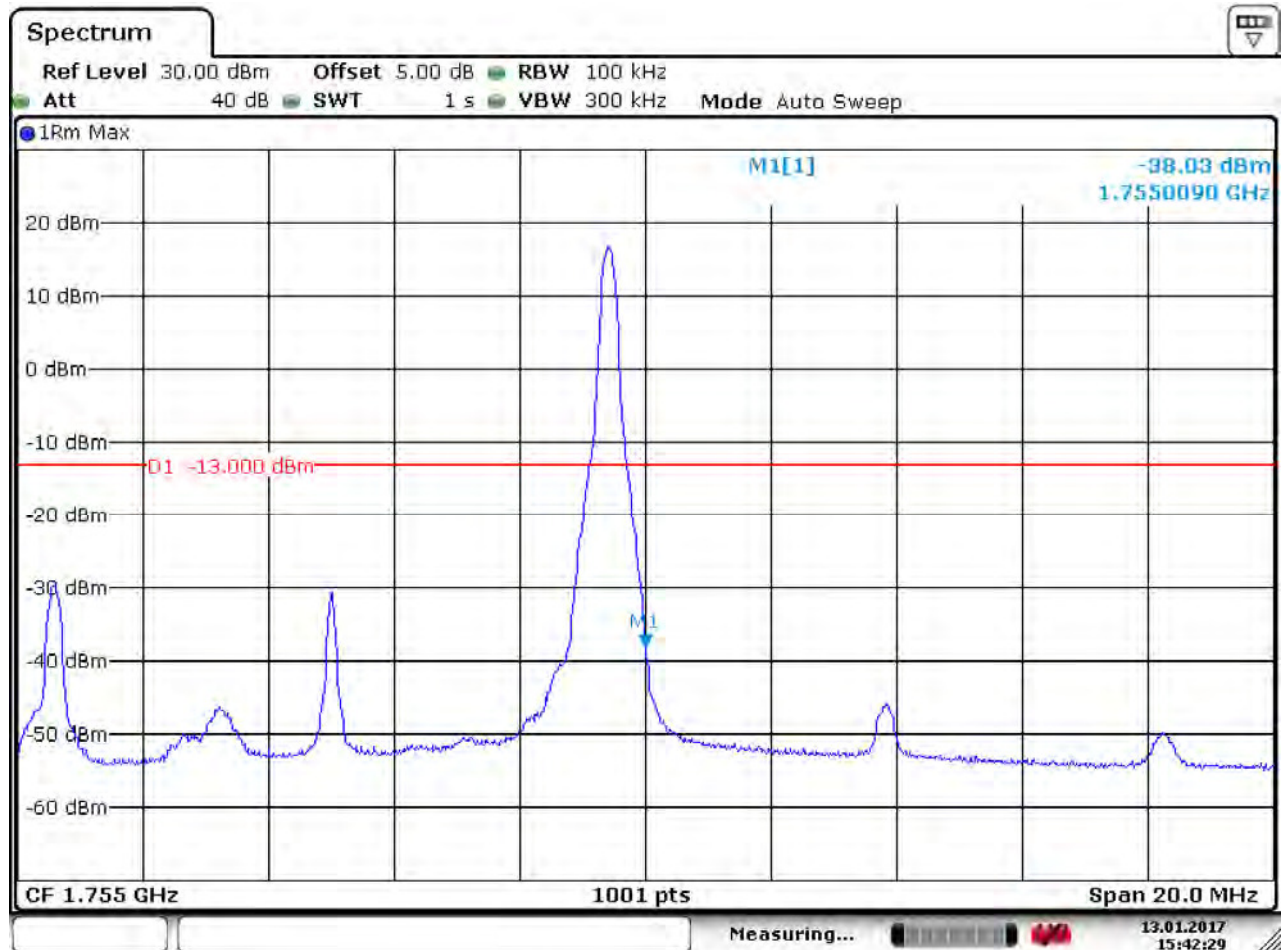


Date: 13.JAN.2017 15:45:00



5.1.1.10.2 Test Channel = HCH

5.1.1.10.2.1 Test RB=1RB



Date: 13.JAN.2017 15:42:30



5.1.1.10.2.2 Test RB=50RB



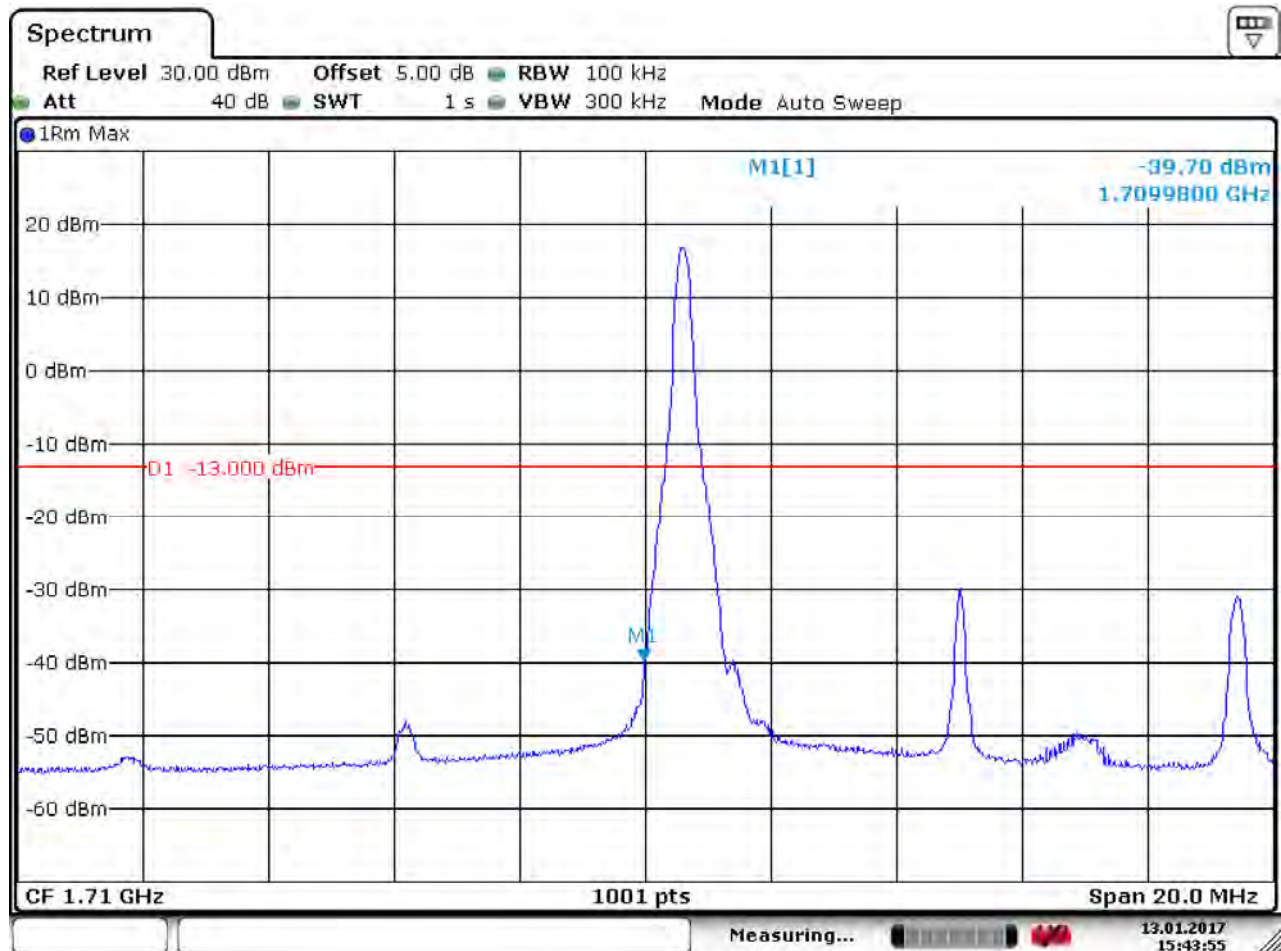
Date: 13.JAN.2017 15:40:44



5.1.1.11 Test Mode = LTE/TM2 10MHz

5.1.1.11.1 Test Channel = LCH

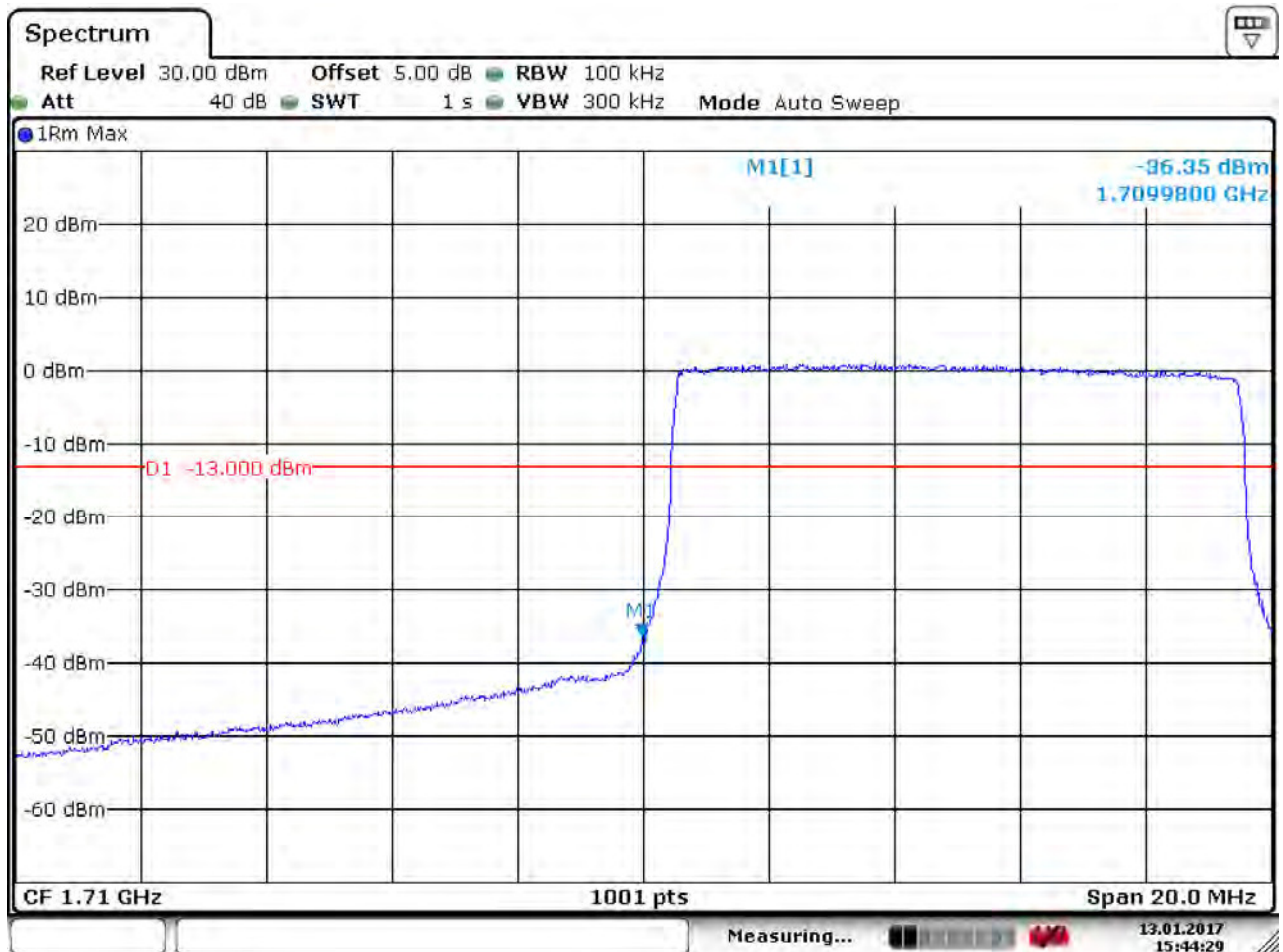
5.1.1.11.1.1 Test RB=1RB



Date: 13.JAN.2017 15:43:55



5.1.1.11.1.2 Test RB=50RB

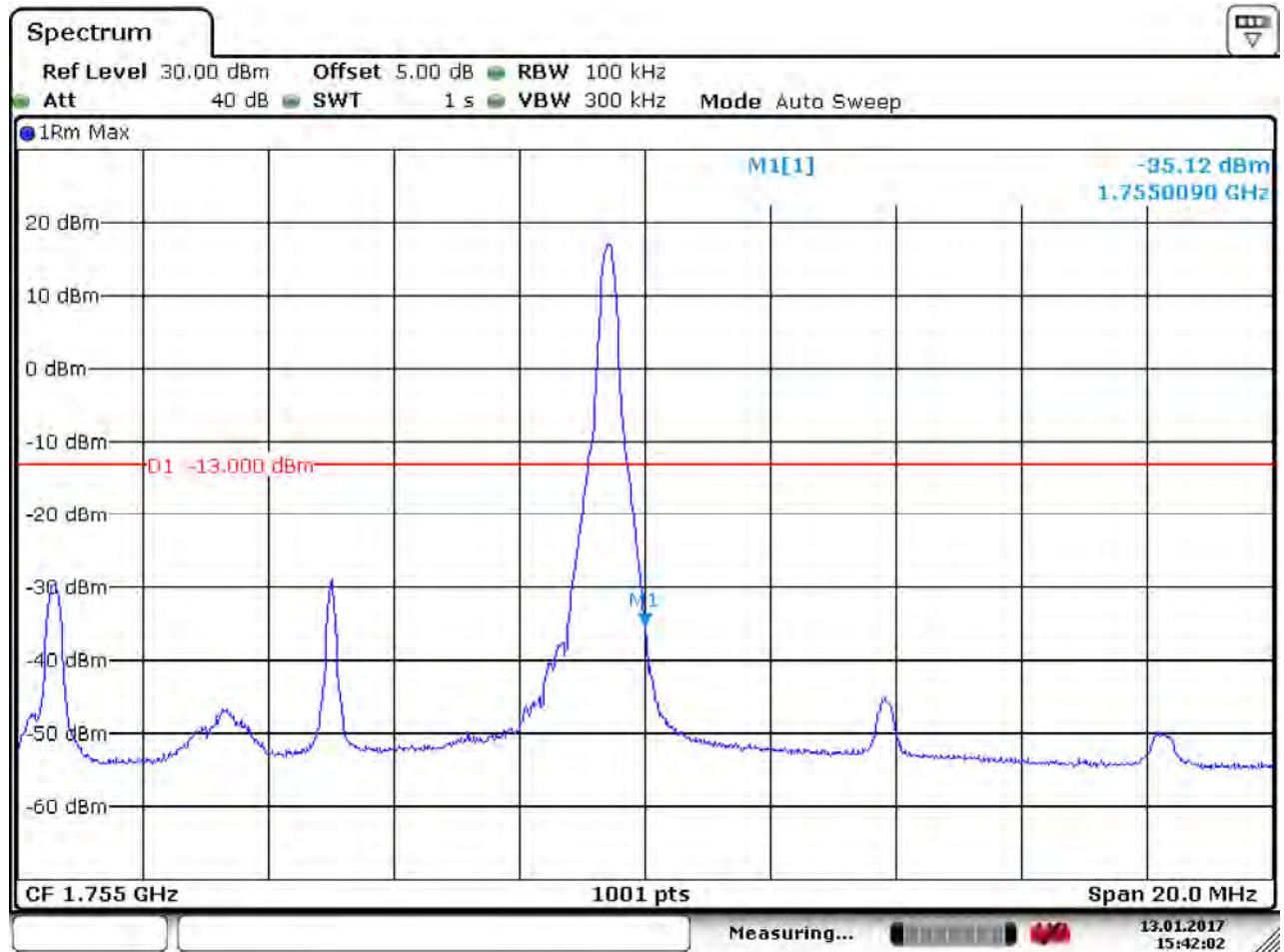


Date: 13.JAN.2017 15:44:29



5.1.1.11.2 Test Channel = HCH

5.1.1.11.2.1 Test RB=1RB



Date: 13.JAN.2017 15:42:03

5.1.1.11.2.2 Test RB=50RB

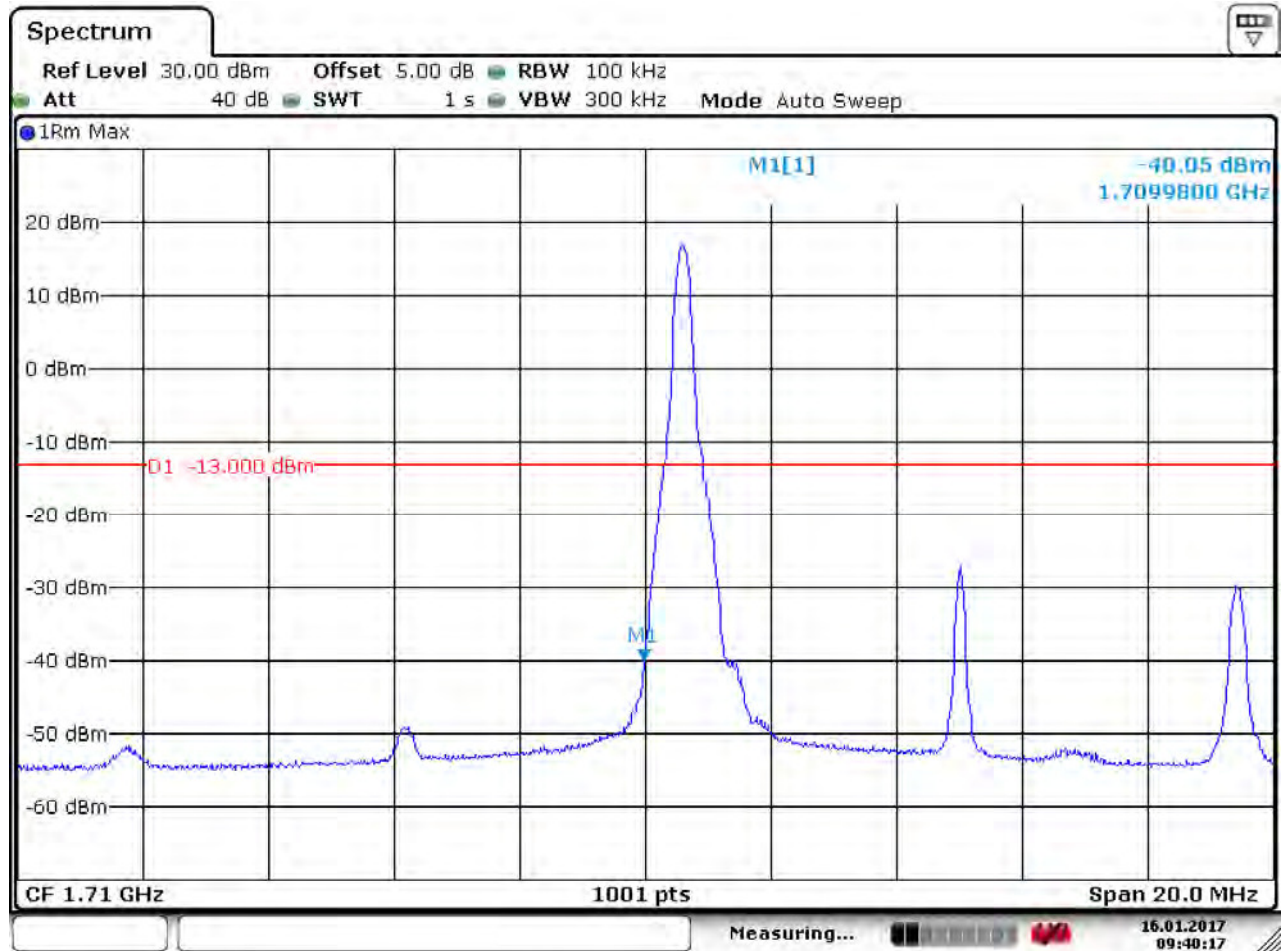


Date: 13.JAN.2017 15:41:24

5.1.1.12 Test Mode = LTE/TM3 10MHz

5.1.1.12.1 Test Channel = LCH

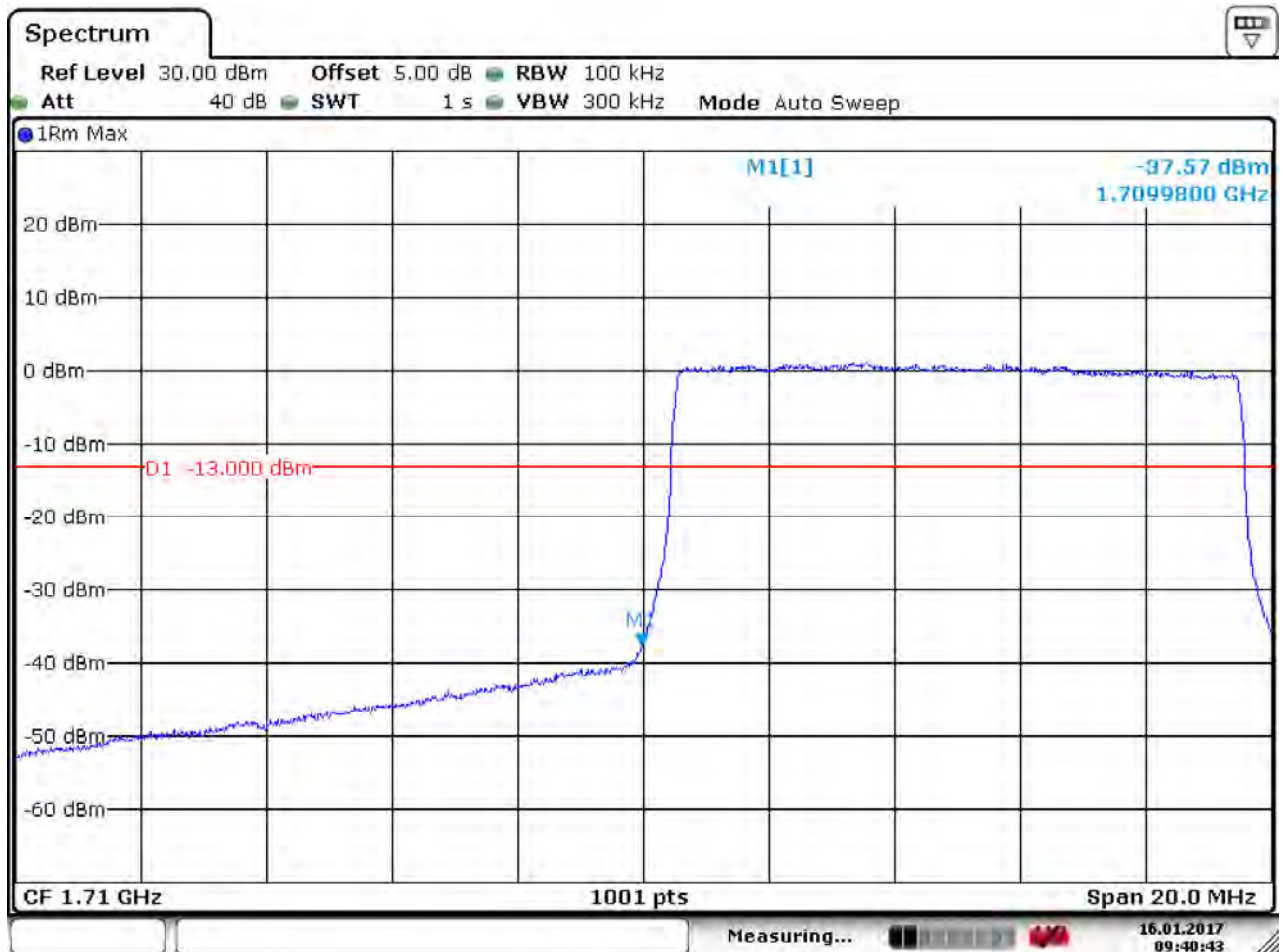
5.1.1.12.1.1 Test RB=1RB



Date: 16.JAN.2017 09:40:17



5.1.1.12.1.2 Test RB=50RB

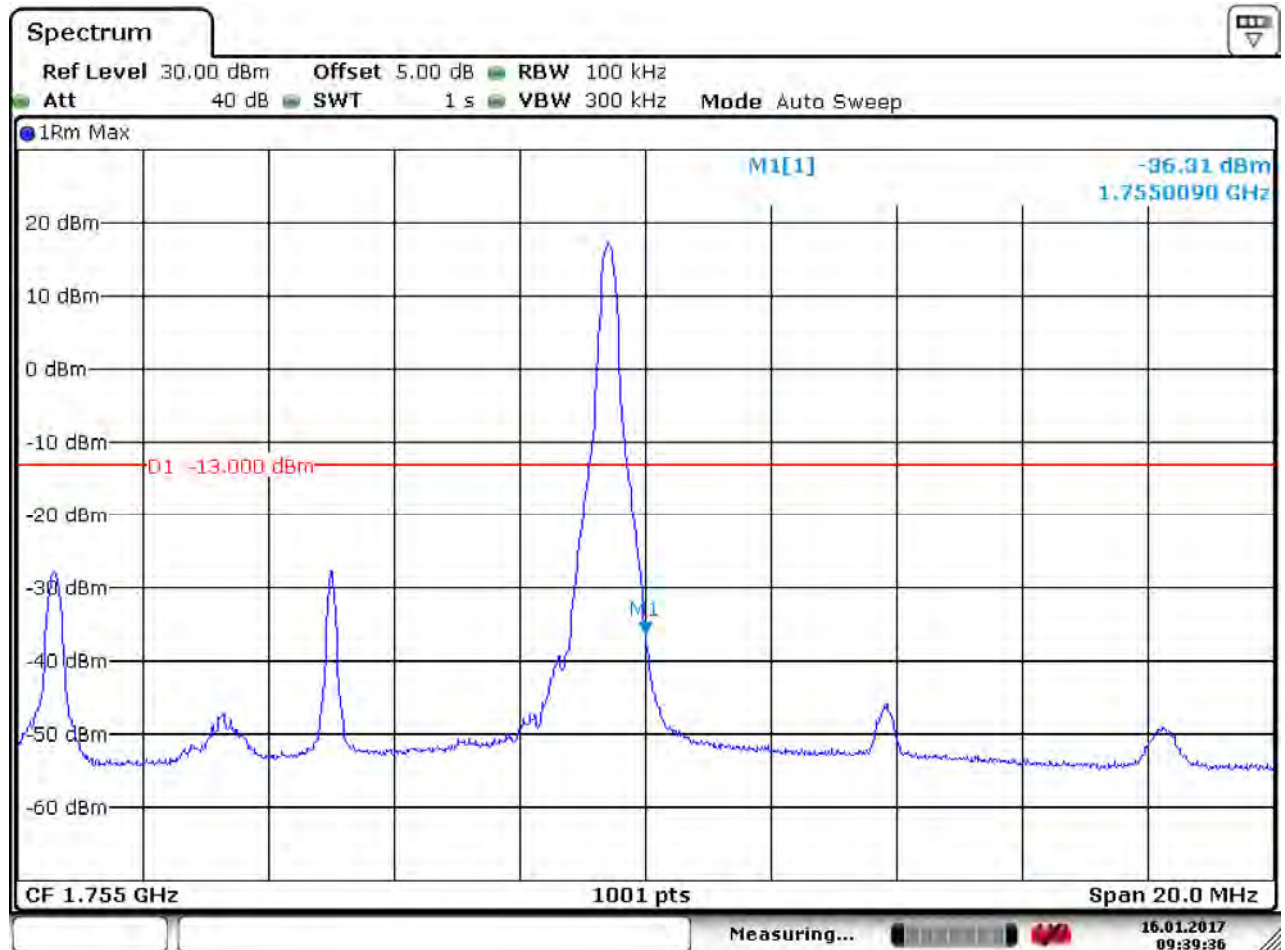


Date: 16.JAN.2017 09:40:44



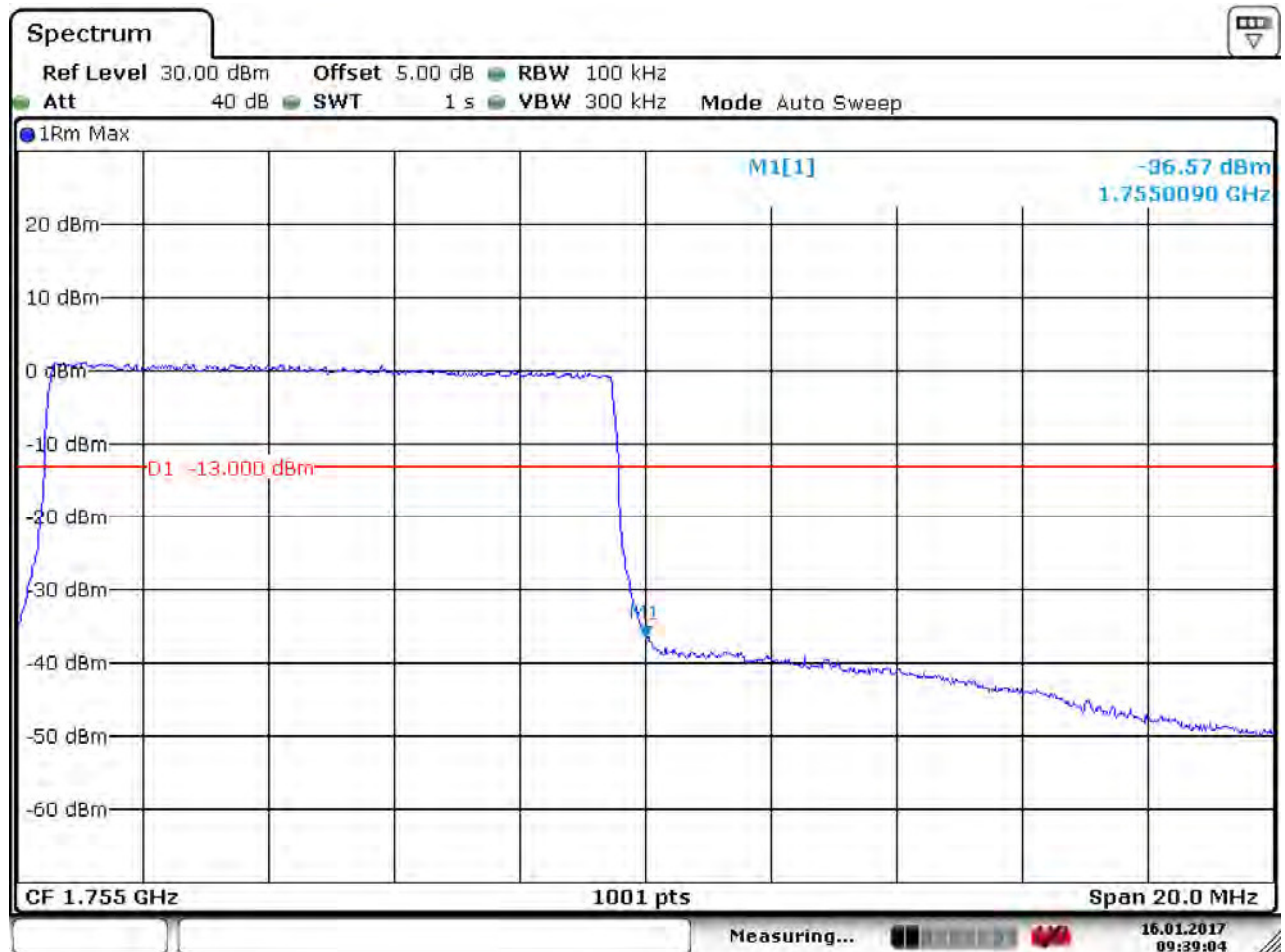
5.1.1.12.2 Test Channel = HCH

5.1.1.12.2.1 Test RB=1RB



Date: 16.JAN.2017 09:39:37

5.1.1.12.2.2 Test RB=50RB



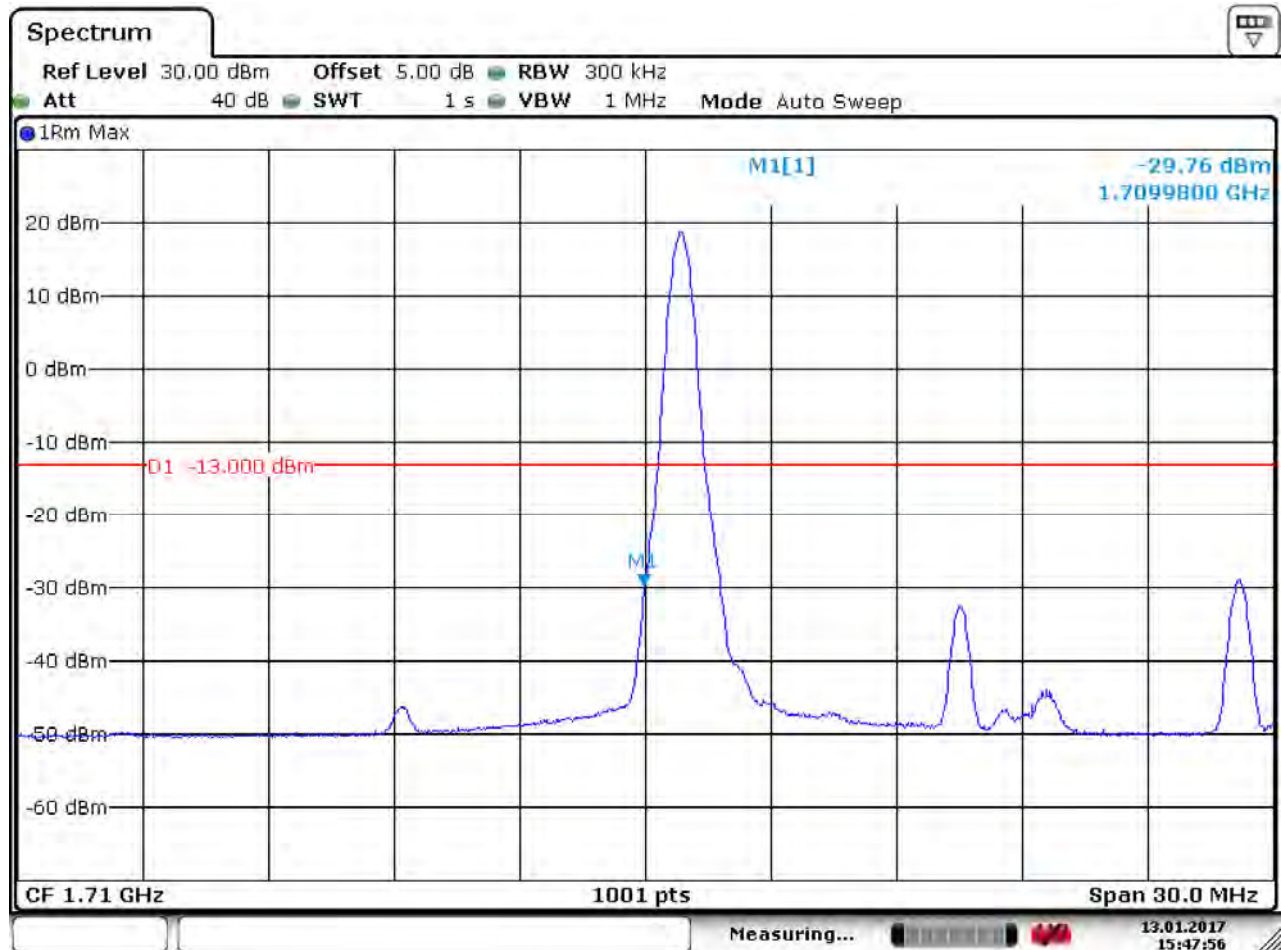
Date: 16.JAN.2017 09:39:04



5.1.1.13 Test Mode = LTE/TM1 15MHz

5.1.1.13.1 Test Channel = LCH

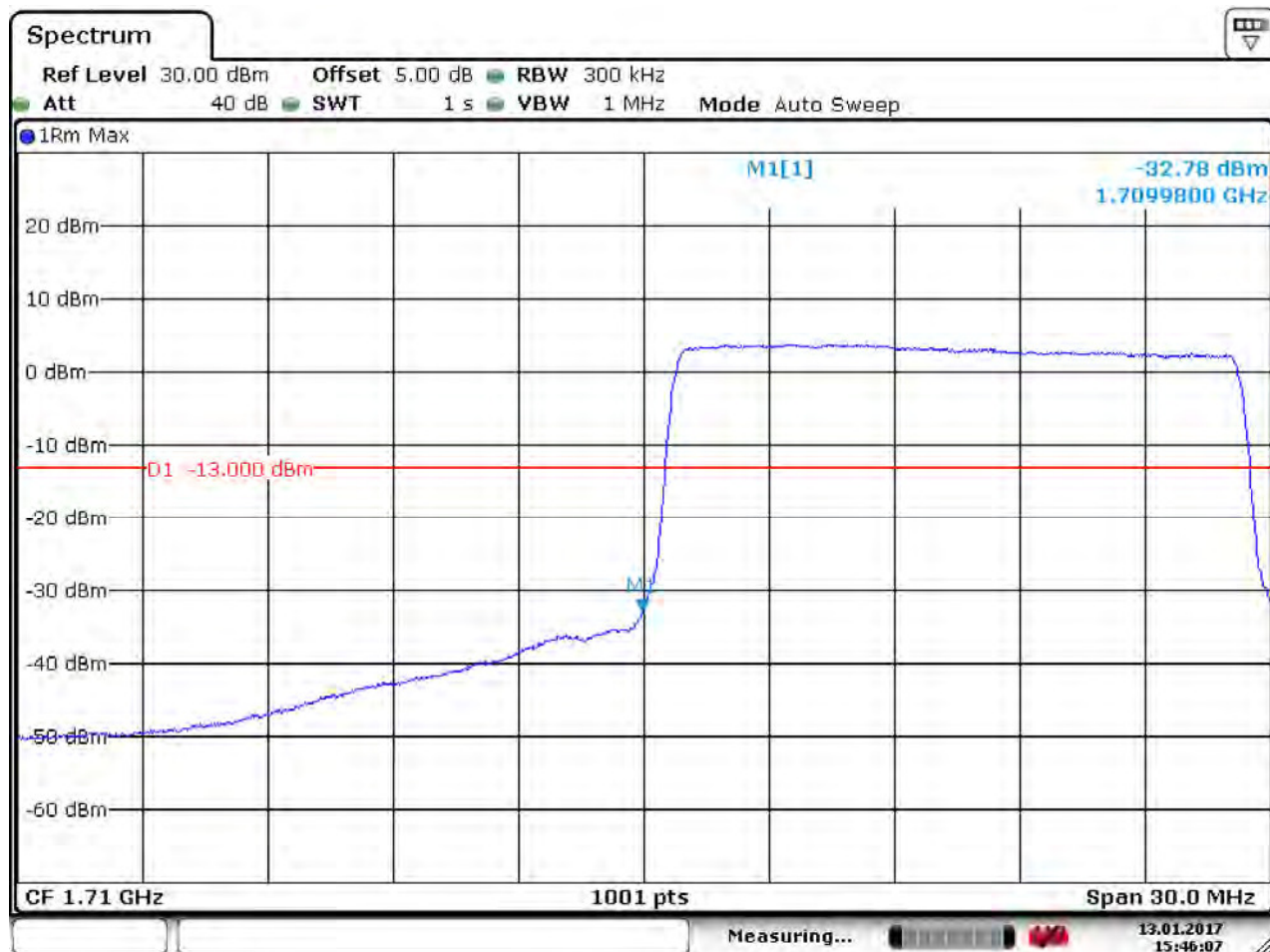
5.1.1.13.1.1 Test RB=1RB



Date: 13.JAN.2017 15:47:56



5.1.13.1.2 Test RB=75RB

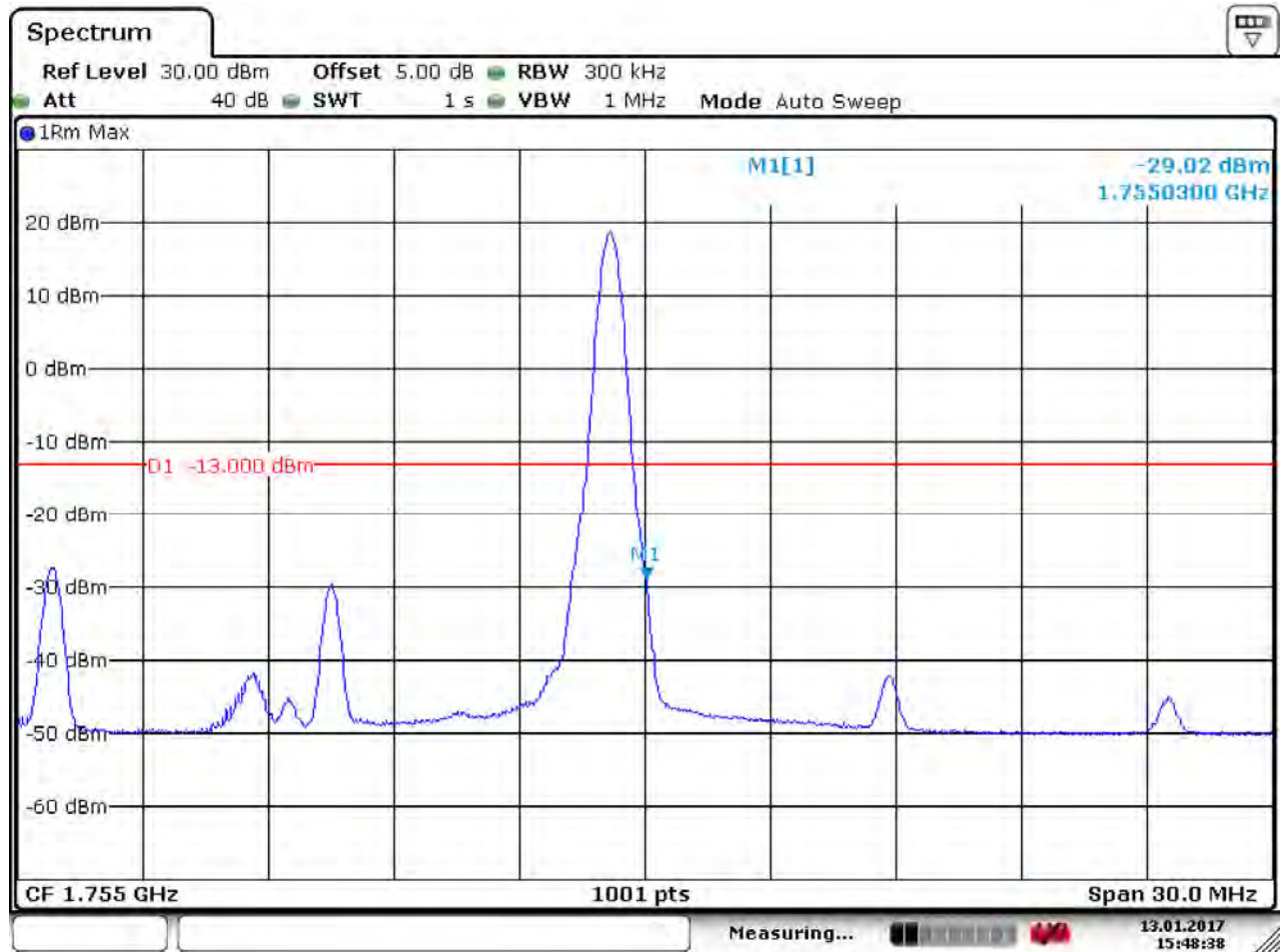


Date: 13.JAN.2017 15:46:08



5.1.1.13.2 Test Channel = HCH

5.1.1.13.2.1 Test RB=1RB



Date: 13.JAN.2017 15:48:39



5.1.1.13.2.2 Test RB=75RB



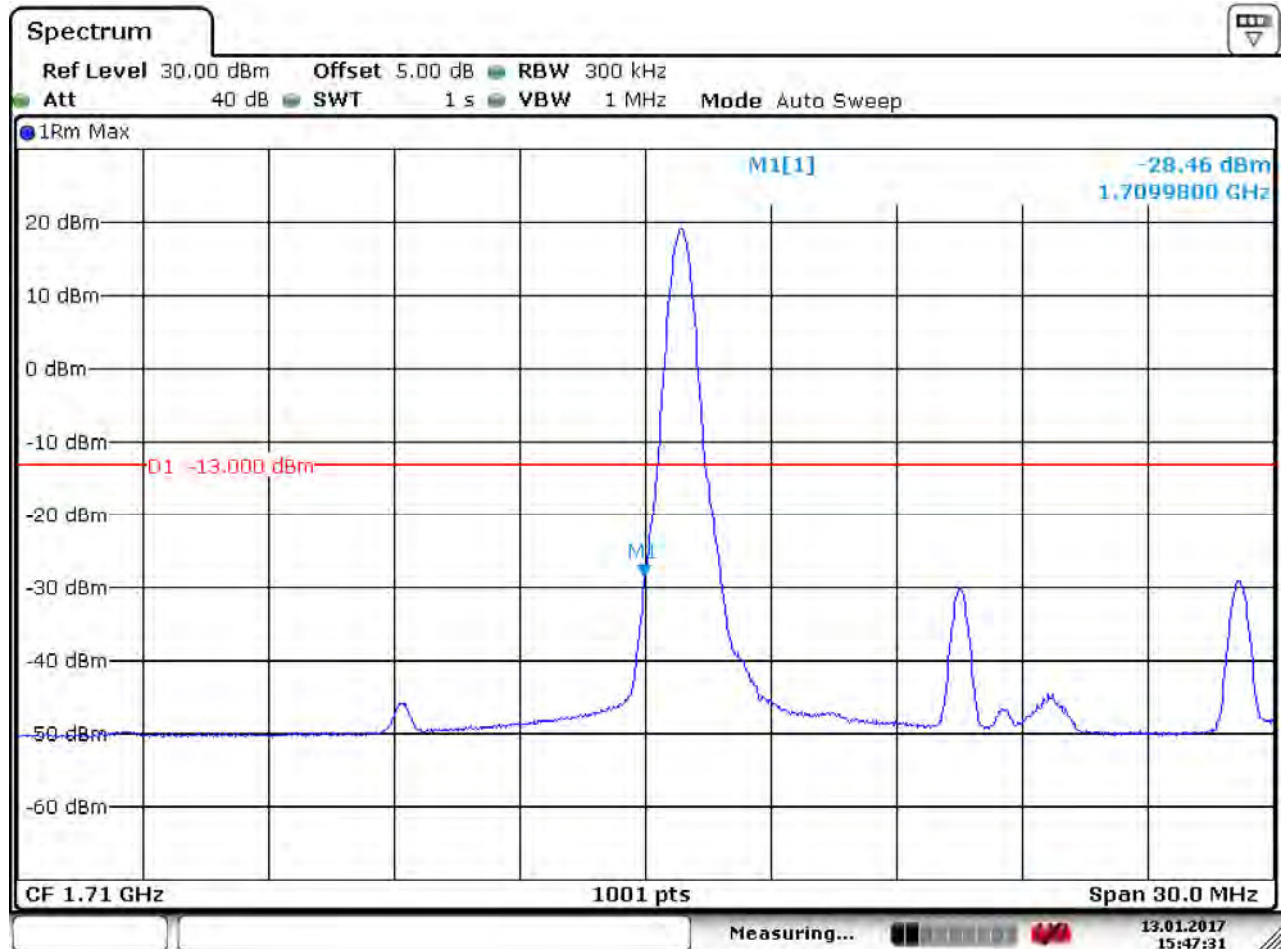
Date: 13.JAN.2017 15:50:06



5.1.1.14 Test Mode = LTE/TM2 15MHz

5.1.1.14.1 Test Channel = LCH

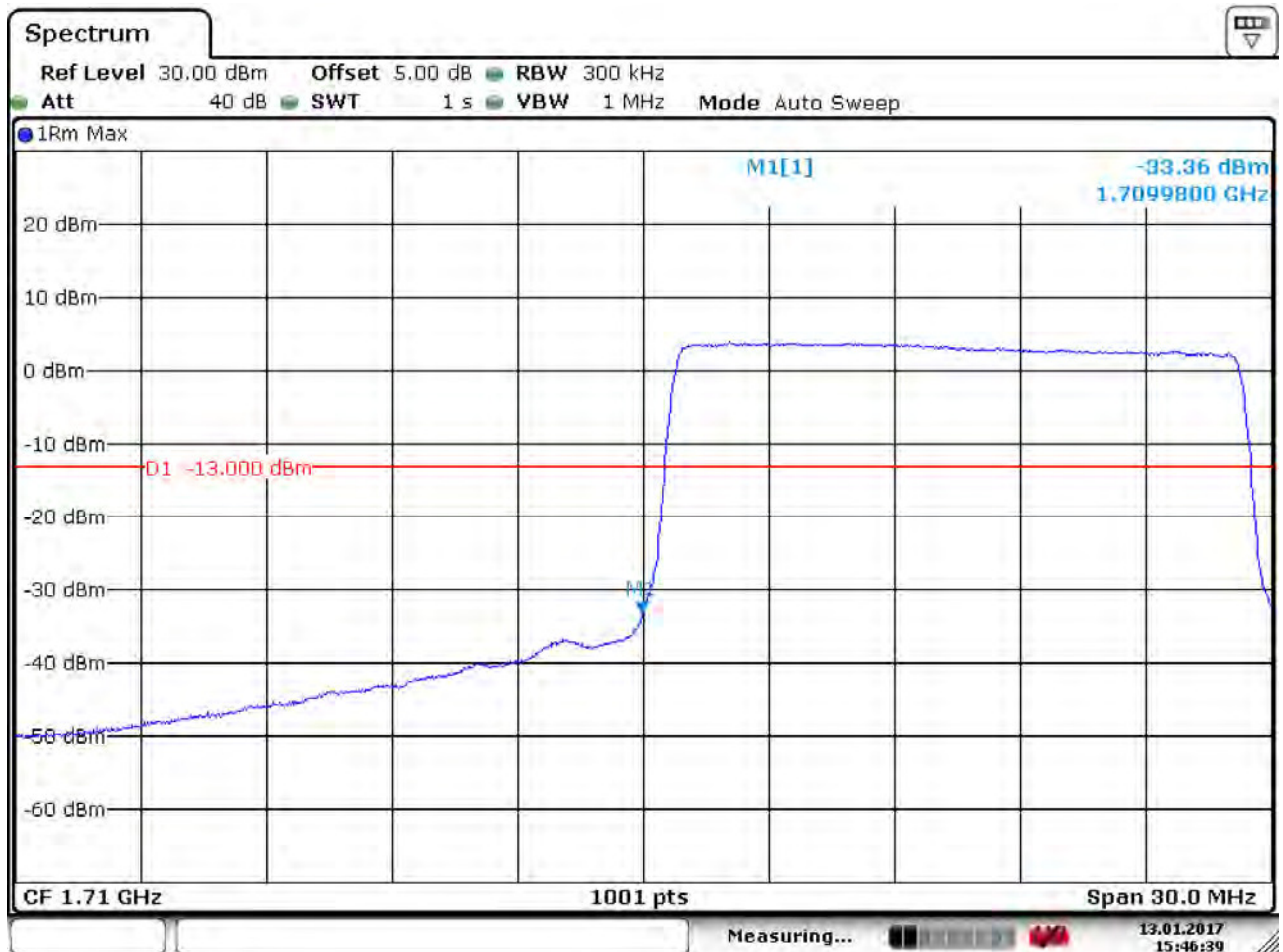
5.1.1.14.1.1 Test RB=1RB



Date: 13.JAN.2017 15:47:32



5.1.14.1.2 Test RB=75RB

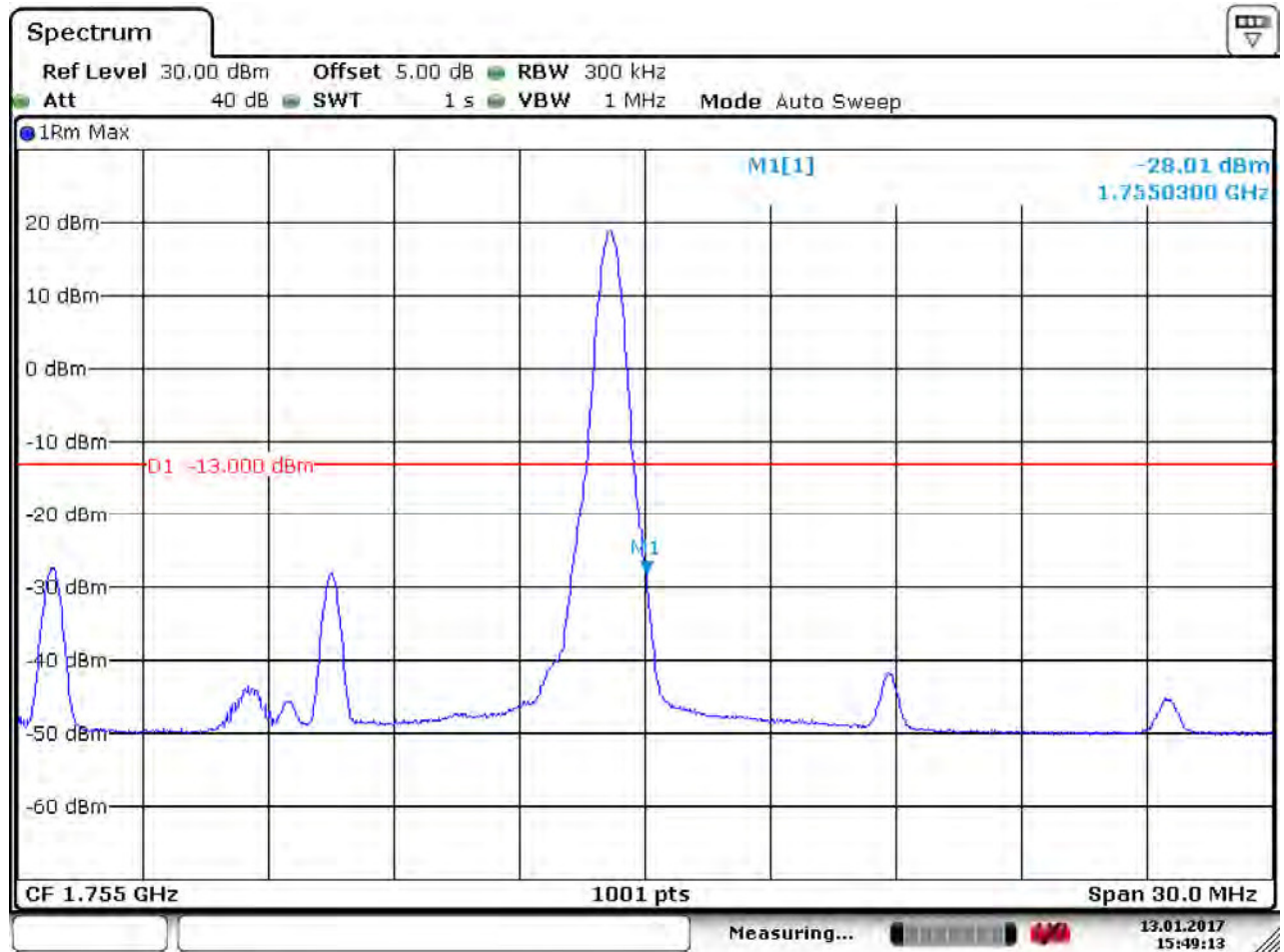


Date: 13.JAN.2017 15:46:39



5.1.1.14.2 Test Channel = HCH

5.1.1.14.2.1 Test RB=1RB



Date: 13.JAN.2017 15:49:13

5.1.1.14.2.2 Test RB=75RB



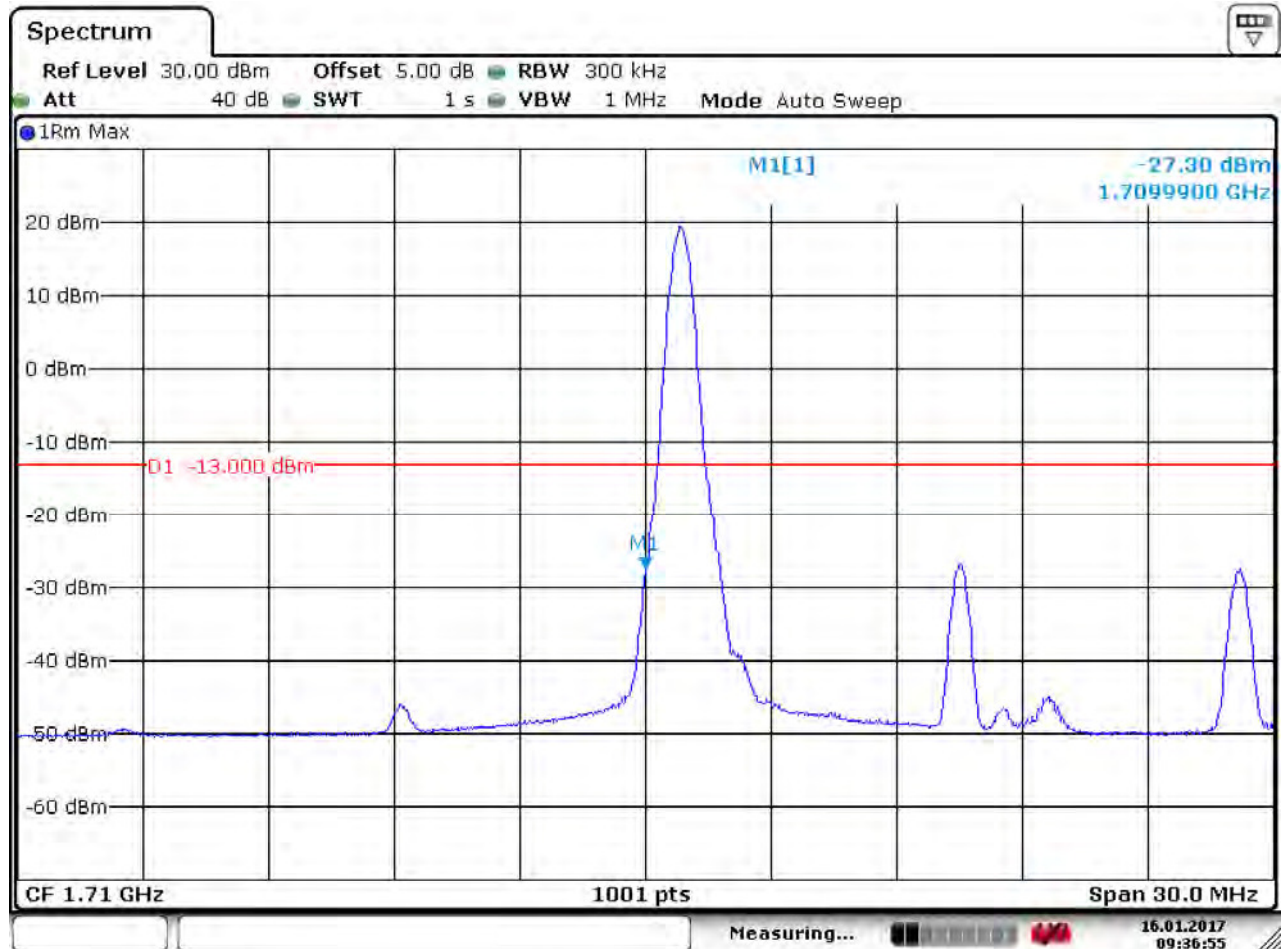
Date: 13.JAN.2017 15:49:40



5.1.1.15 Test Mode = LTE/TM3 15MHz

5.1.1.15.1 Test Channel = LCH

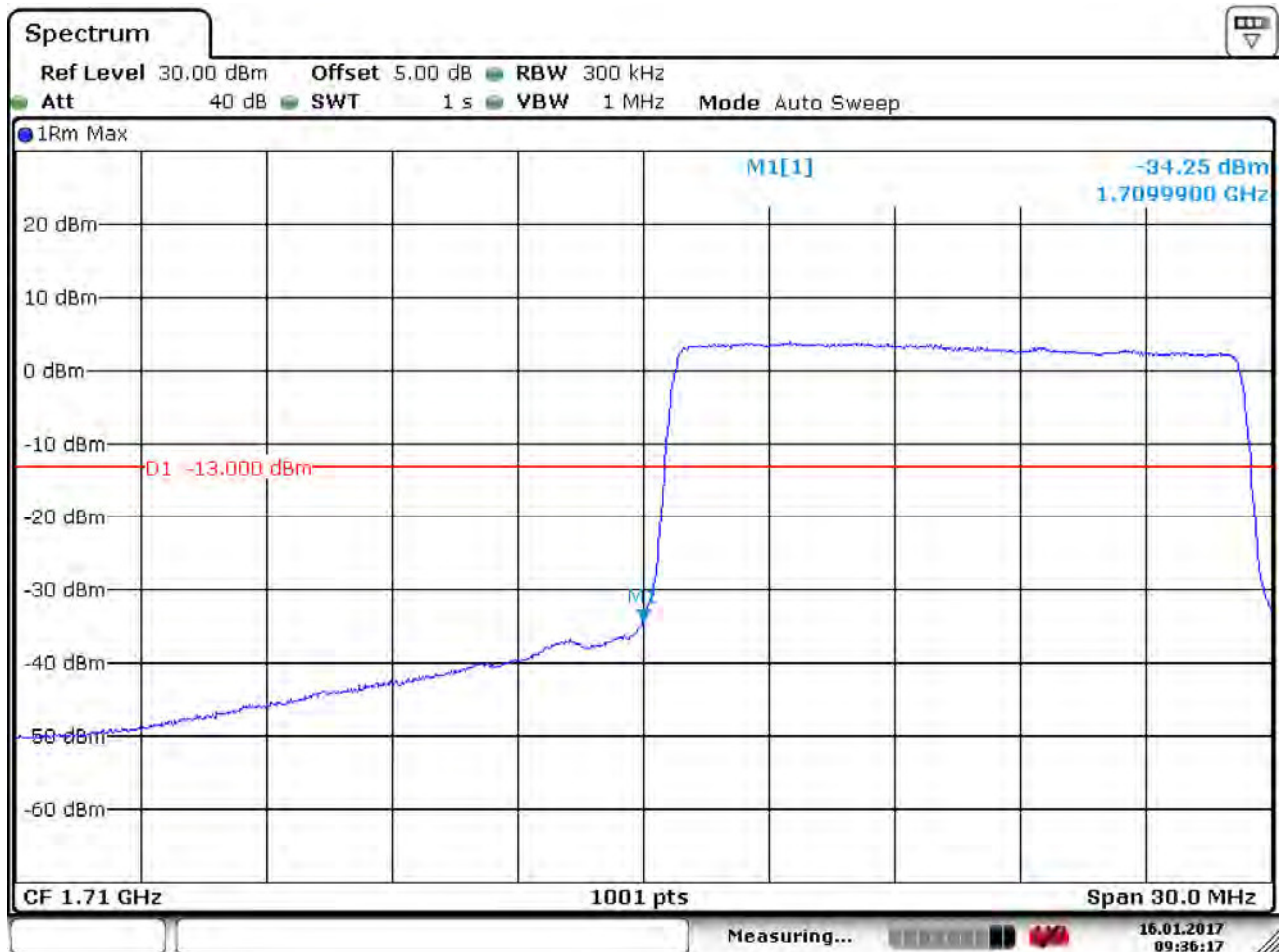
5.1.1.15.1.1 Test RB=1RB



Date: 16.JAN.2017 09:36:55



5.1.1.15.1.2 Test RB=75RB

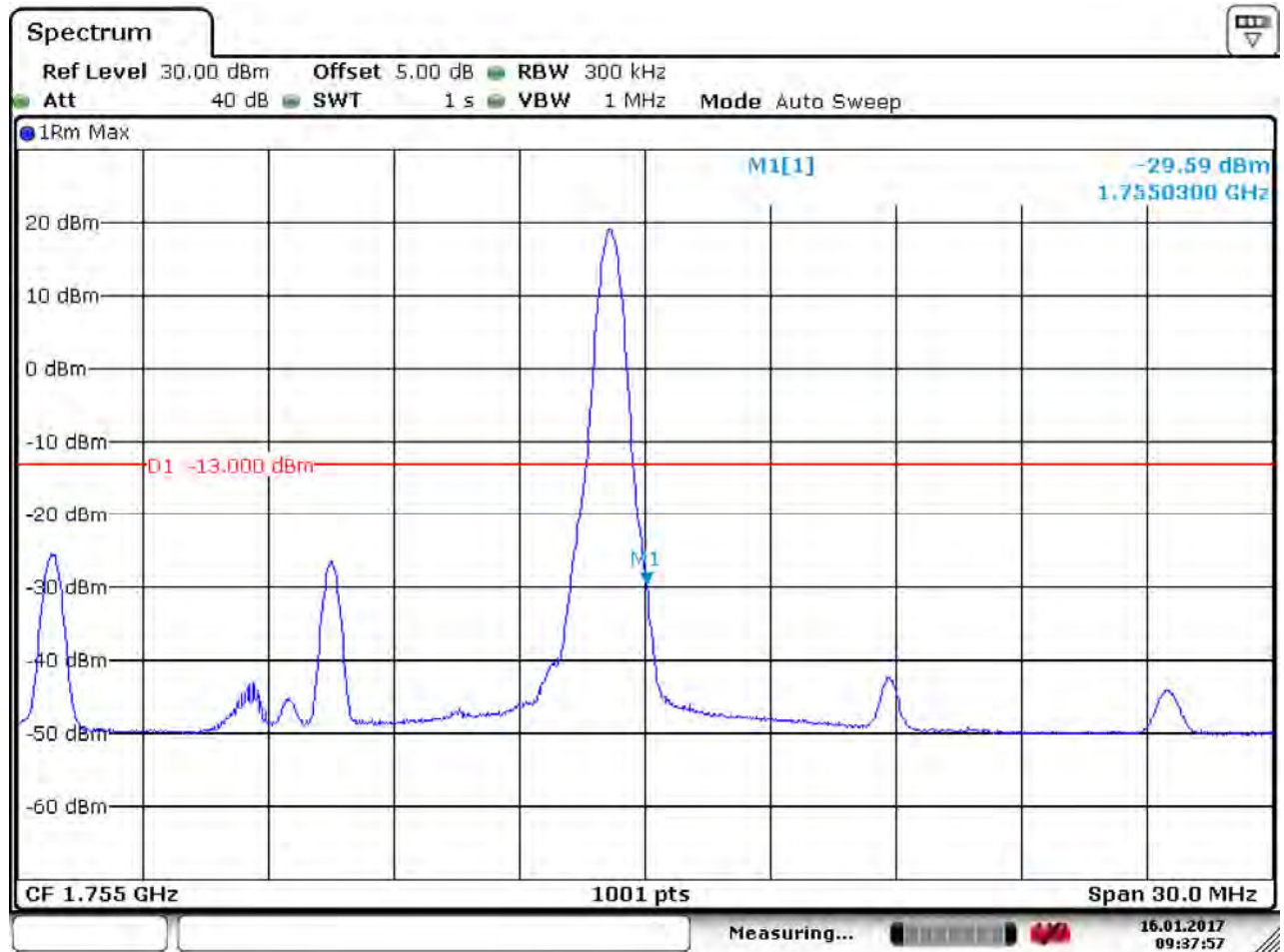


Date: 16.JAN.2017 09:36:17



5.1.1.15.2 Test Channel = HCH

5.1.1.15.2.1 Test RB=1RB



Date: 16.JAN.2017 09:37:57



5.1.1.15.2.2 Test RB=75RB



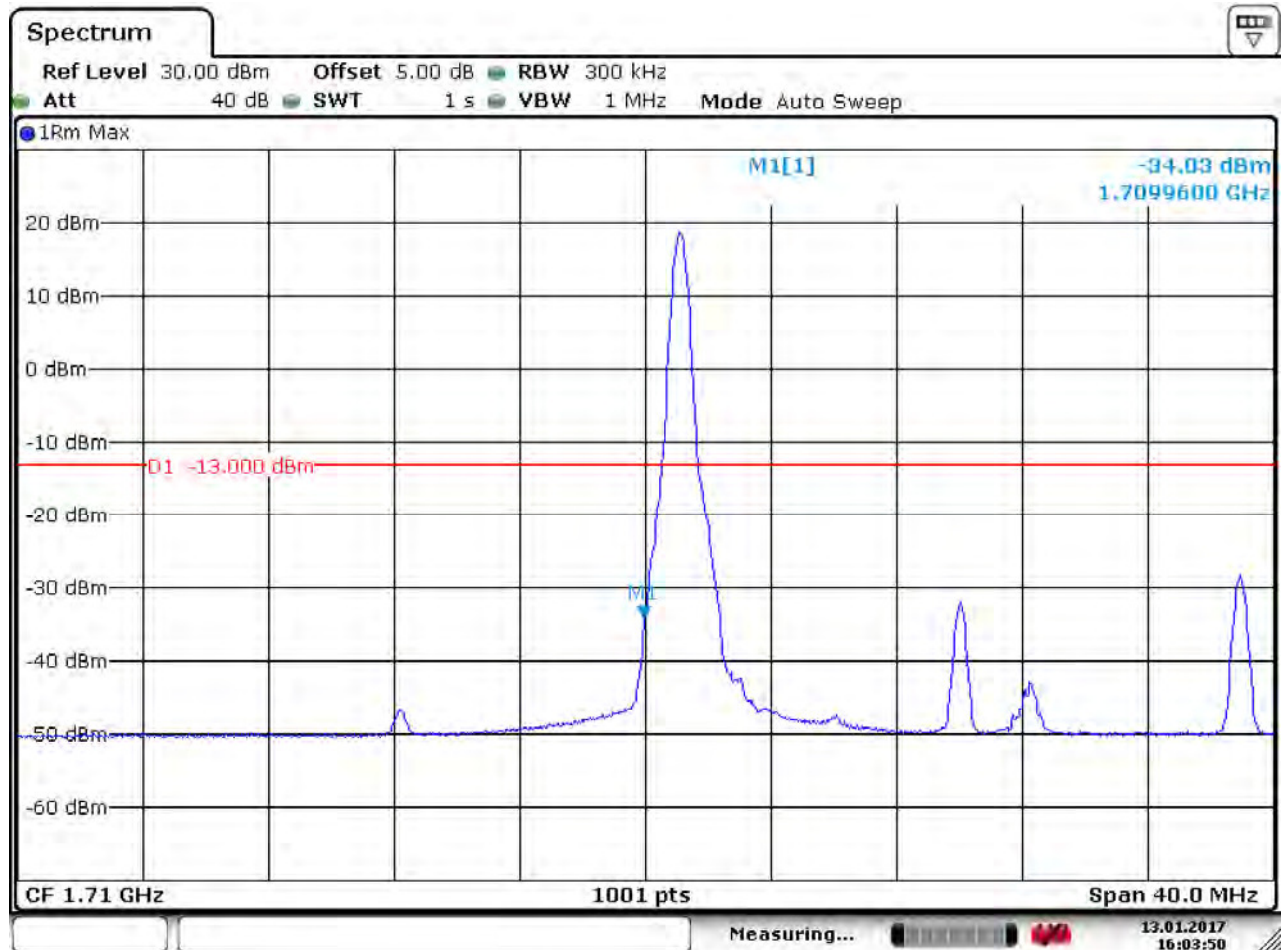
Date: 16.JAN.2017 09:38:27



5.1.1.16 Test Mode = LTE/TM1 20MHz

5.1.1.16.1 Test Channel = LCH

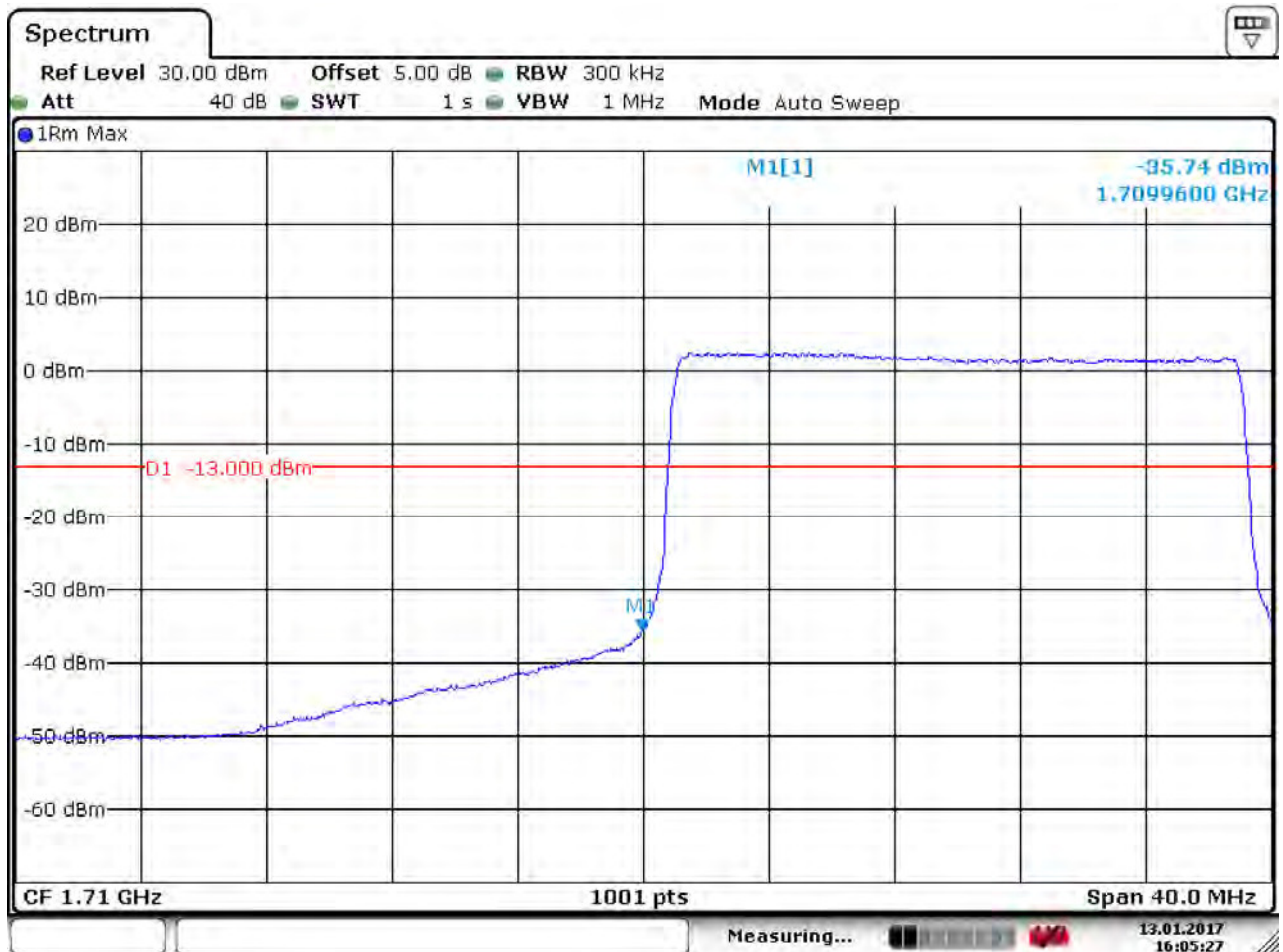
5.1.1.16.1.1 Test RB=1RB



Date: 13.JAN.2017 16:03:50



5.1.1.16.1.2 Test RB=100RB

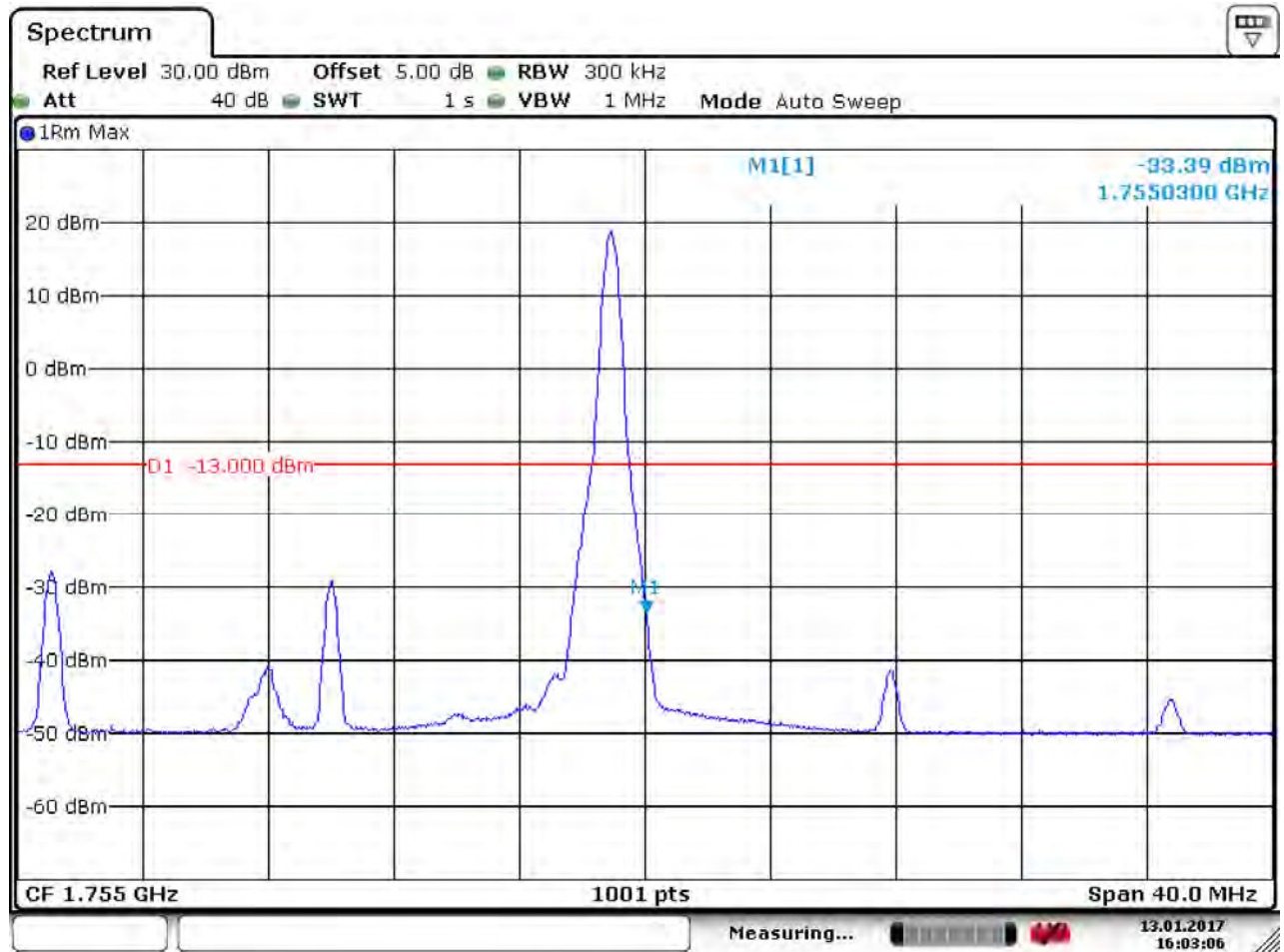


Date: 13.JAN.2017 16:05:28



5.1.1.16.2 Test Channel = HCH

5.1.1.16.2.1 Test RB=1RB



Date: 13.JAN.2017 16:03:07

5.1.1.16.2.2 Test RB=100RB



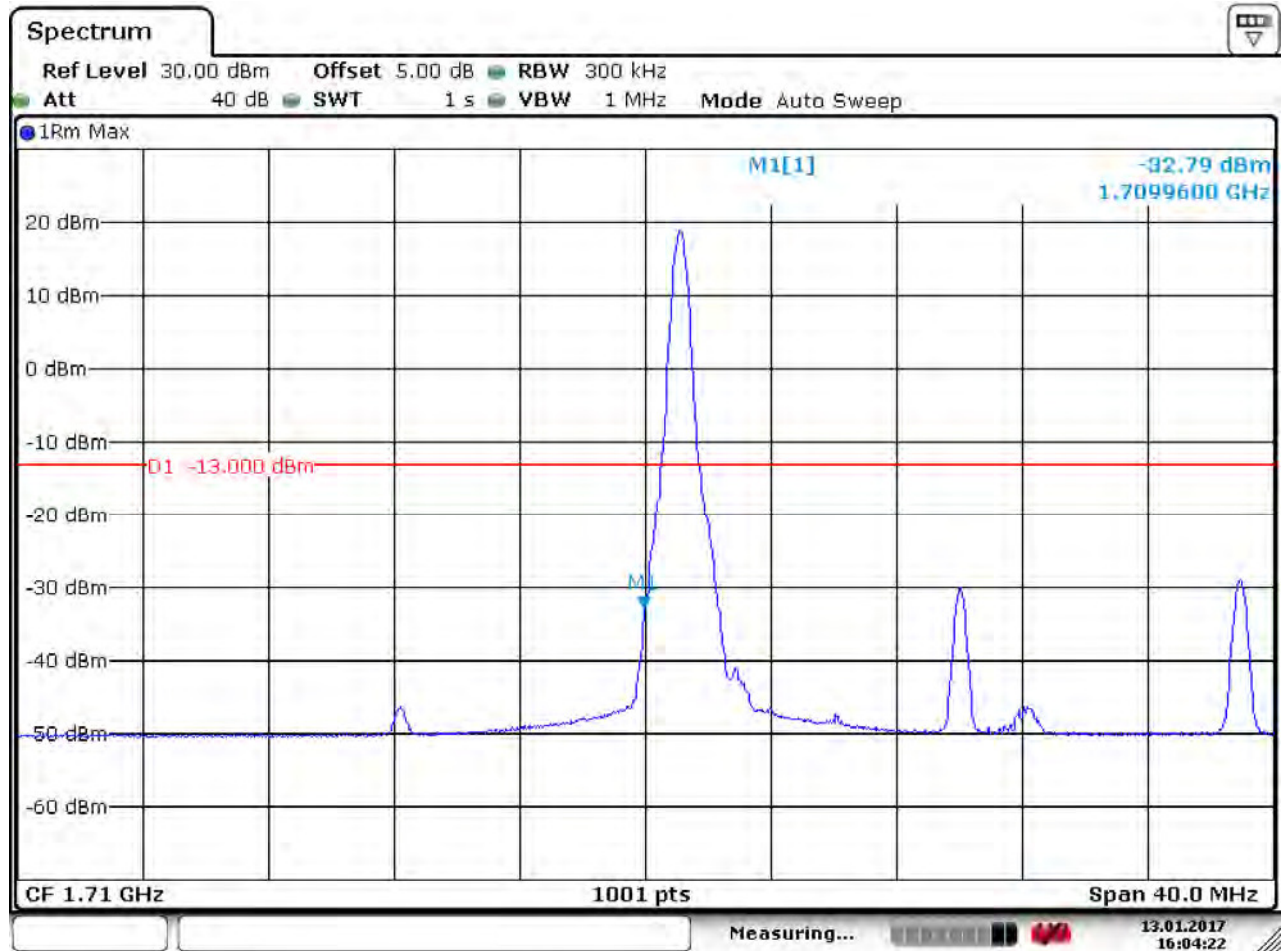
Date: 13.JAN.2017 15:51:22



5.1.1.17 Test Mode = LTE/TM2 20MHz

5.1.1.17.1 Test Channel = LCH

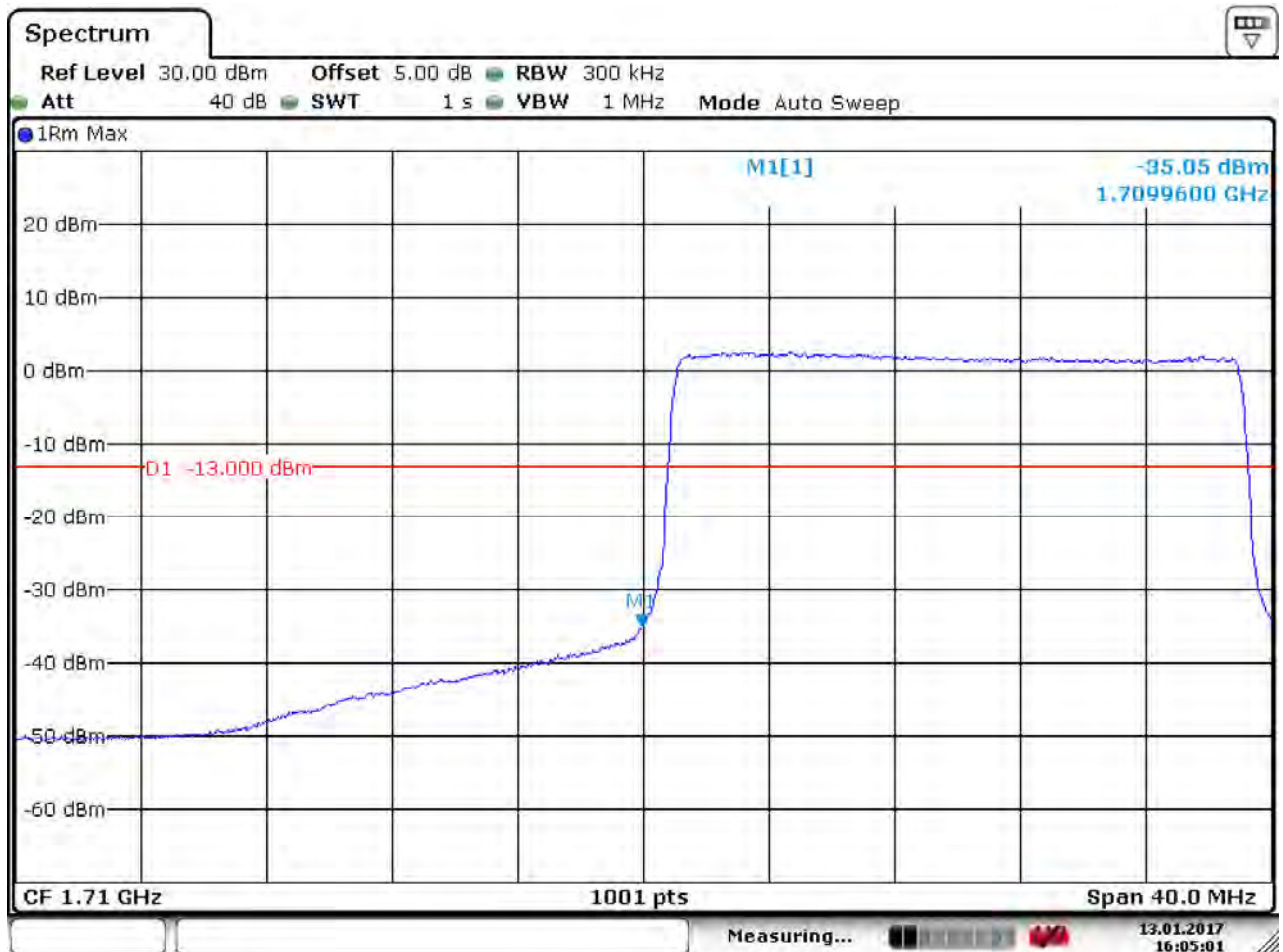
5.1.1.17.1.1 Test RB=1RB



Date: 13.JAN.2017 16:04:23



5.1.1.17.1.2 Test RB=100RB

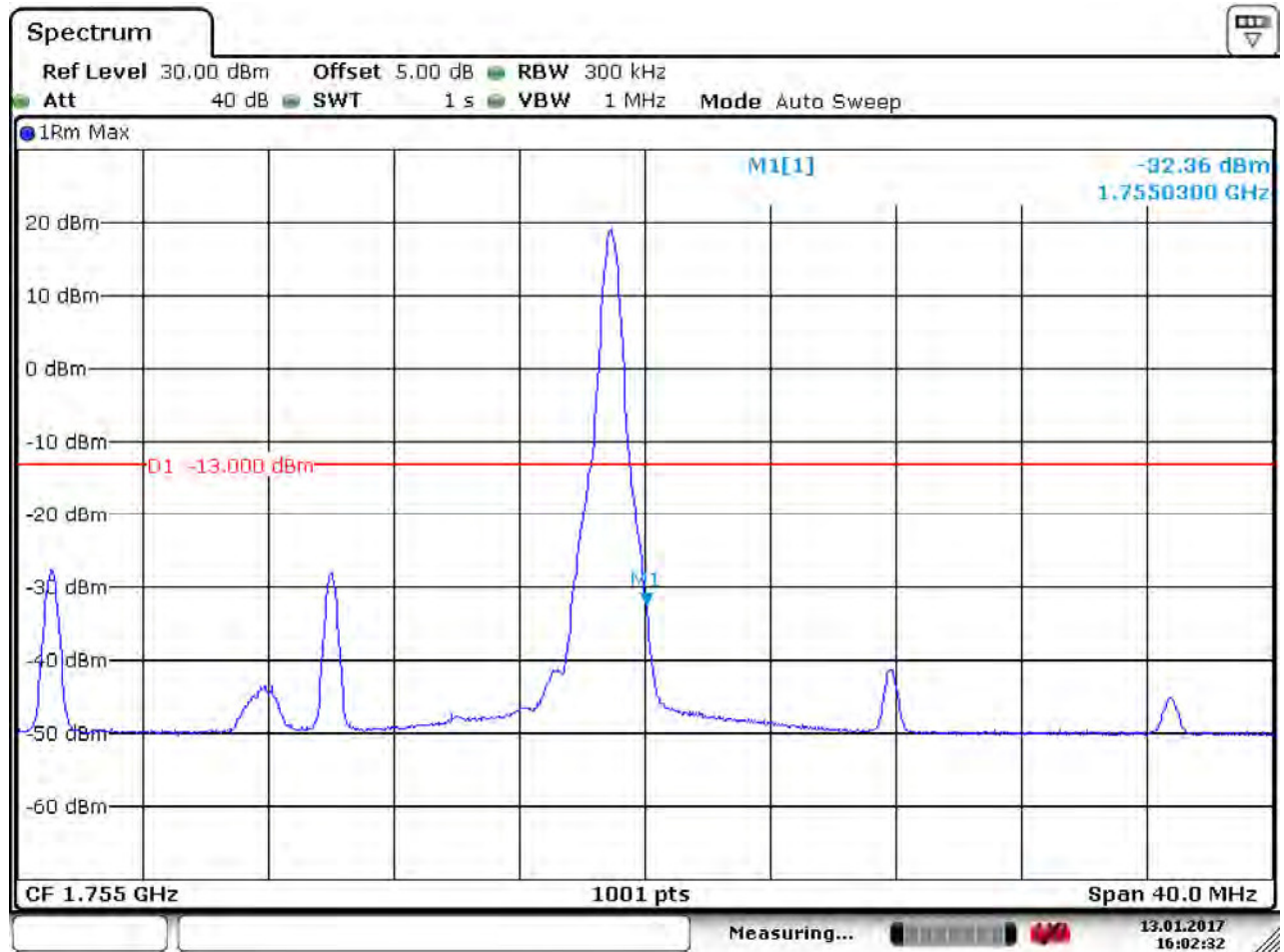


Date: 13.JAN.2017 16:05:01



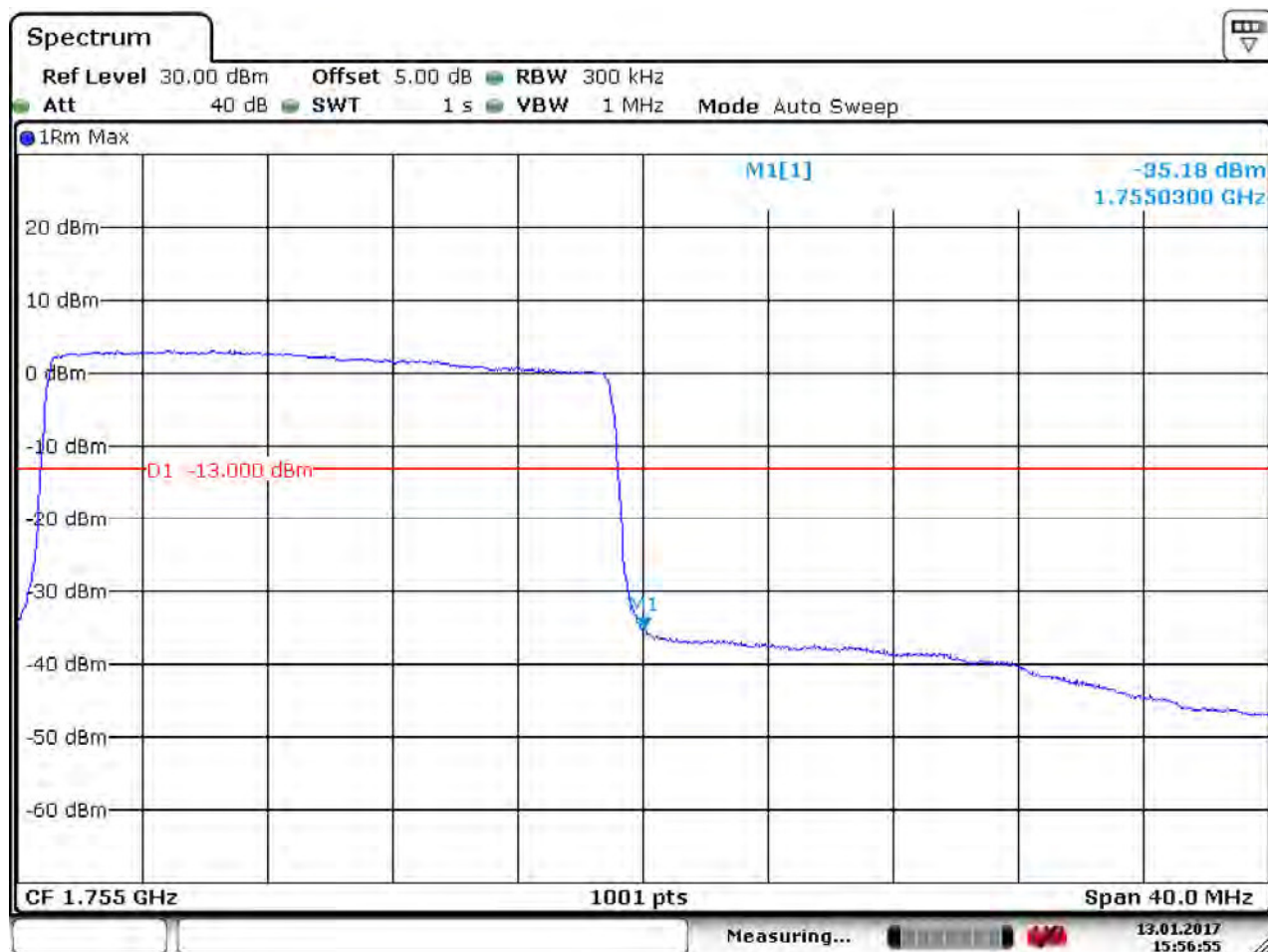
5.1.1.17.2 Test Channel = HCH

5.1.1.17.2.1 Test RB=1RB



Date: 13.JAN.2017 16:02:32

5.1.1.17.2.2 Test RB=100RB



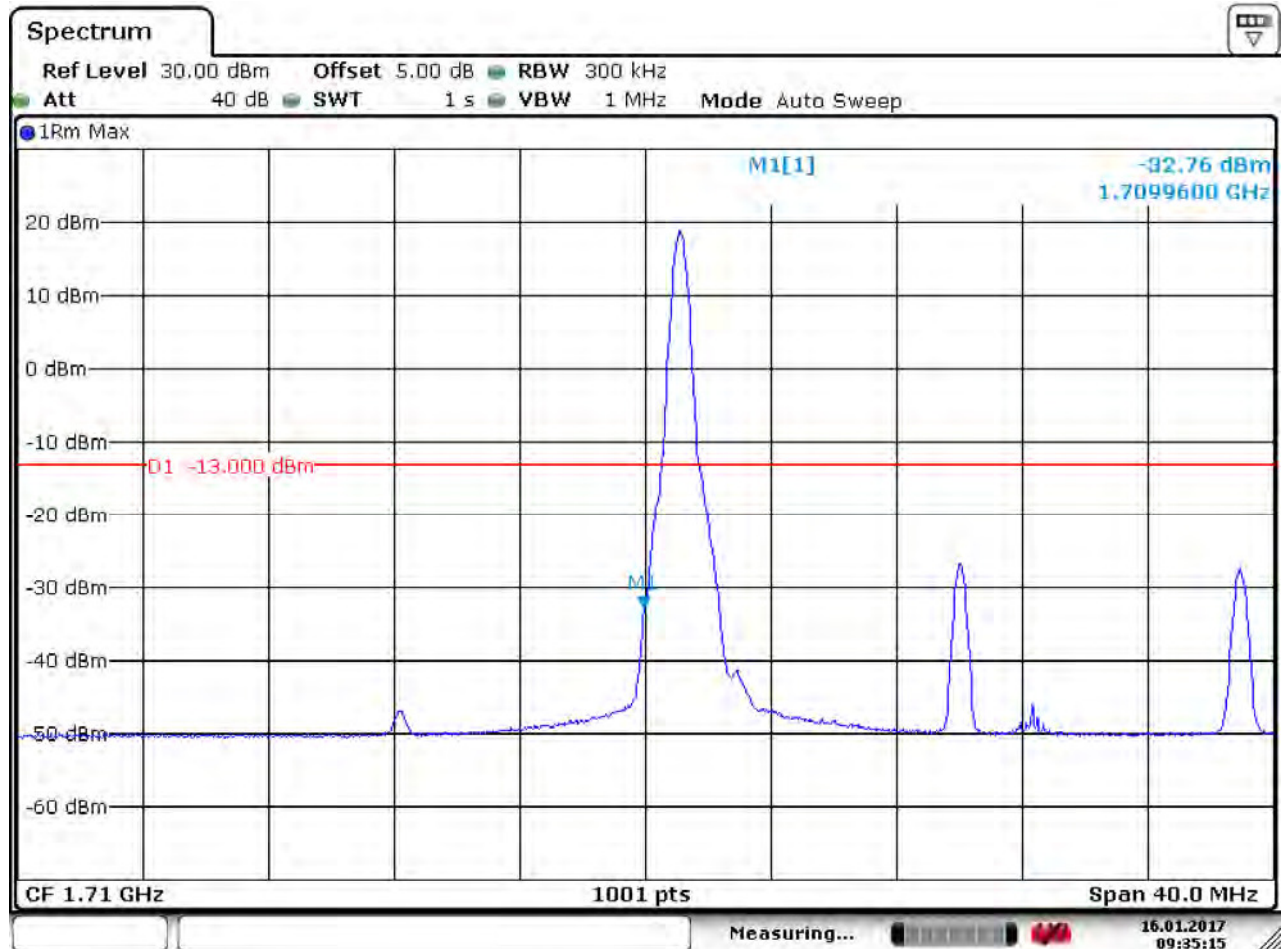
Date: 13.JAN.2017 15:56:55



5.1.1.18 Test Mode = LTE/TM3 20MHz

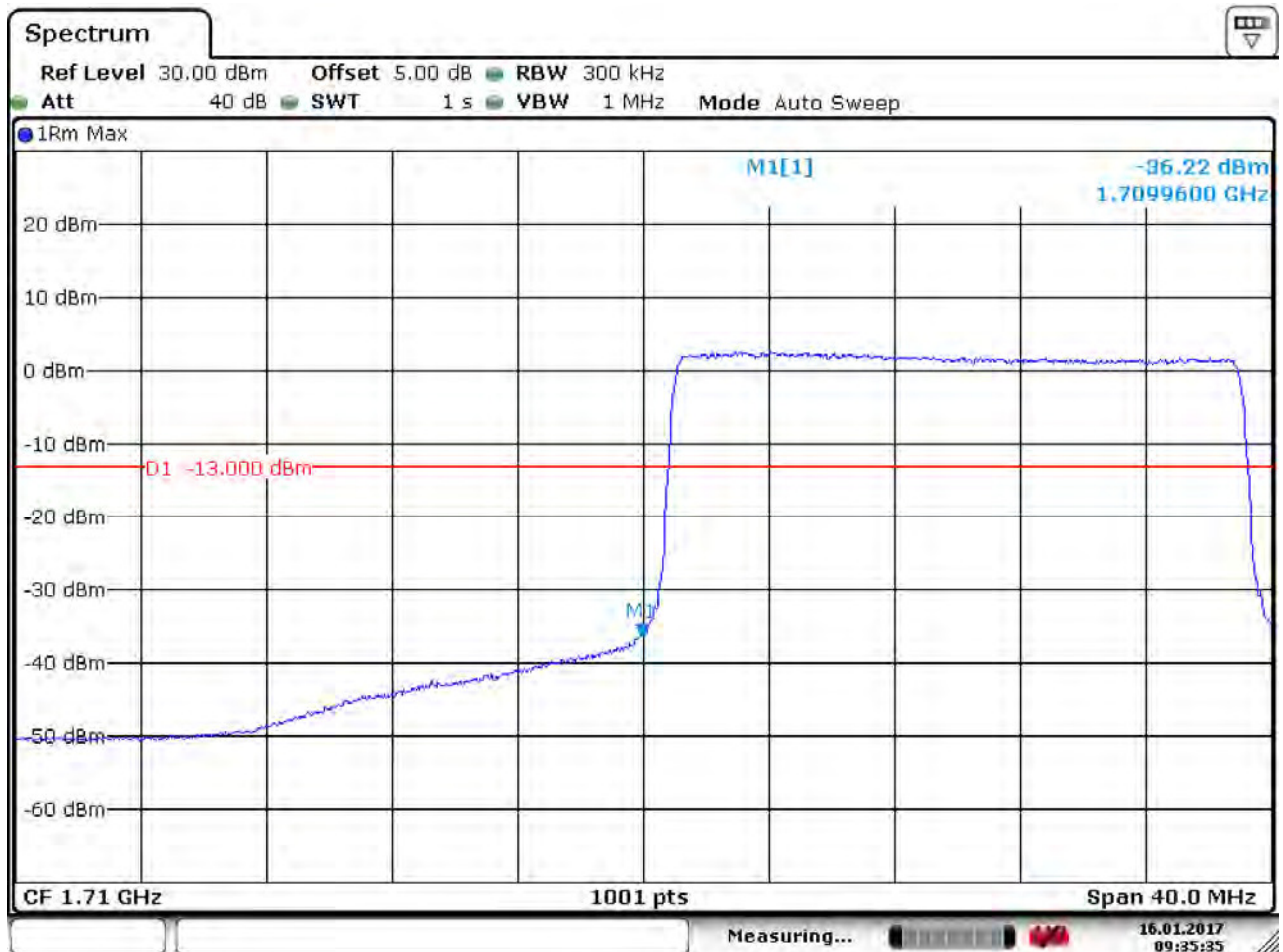
5.1.1.18.1 Test Channel = LCH

5.1.1.18.1.1 Test RB=1RB



Date: 16.JAN.2017 09:35:15

5.1.1.18.1.2 Test RB=100RB

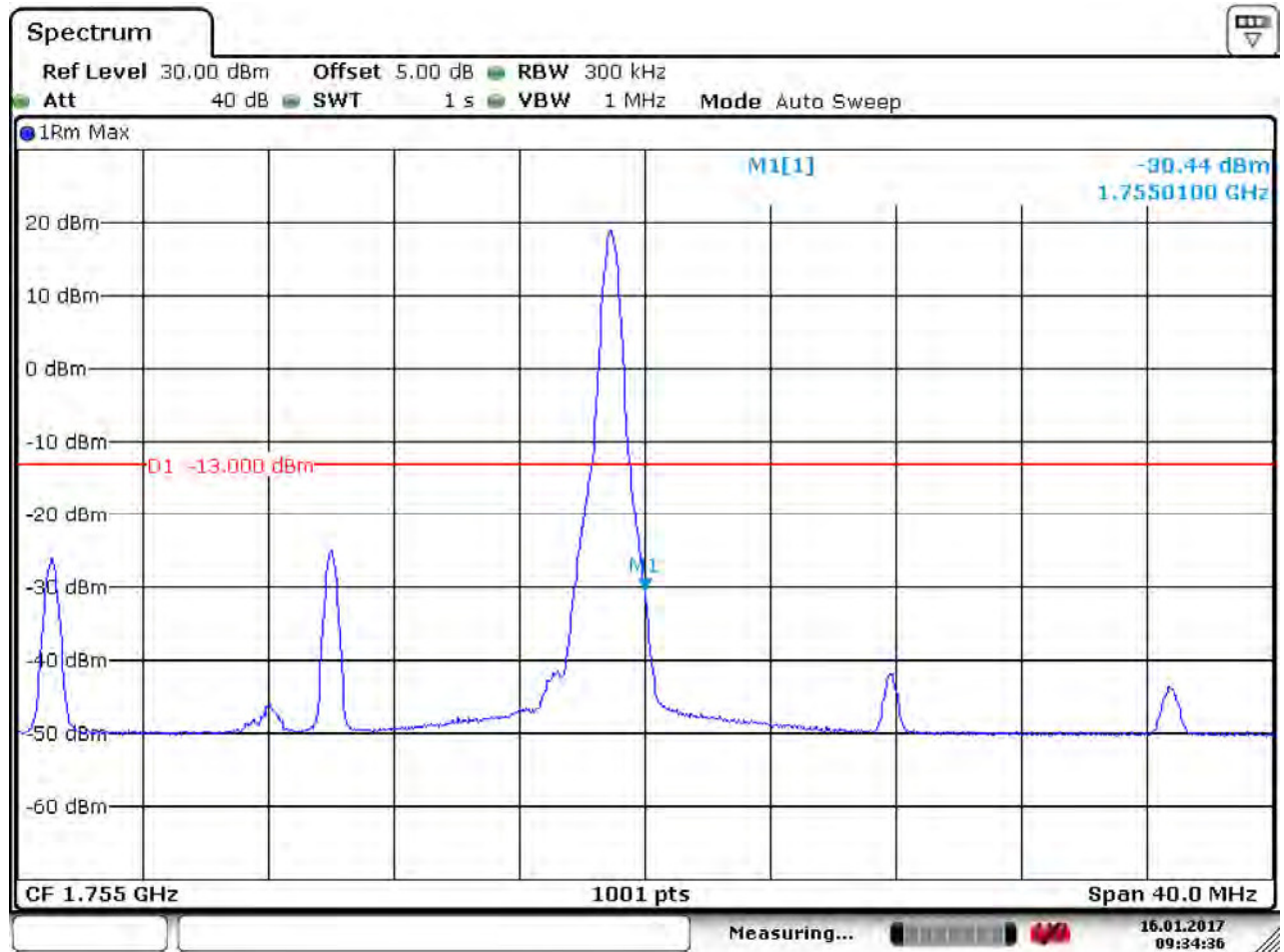


Date: 16.JAN.2017 09:35:35



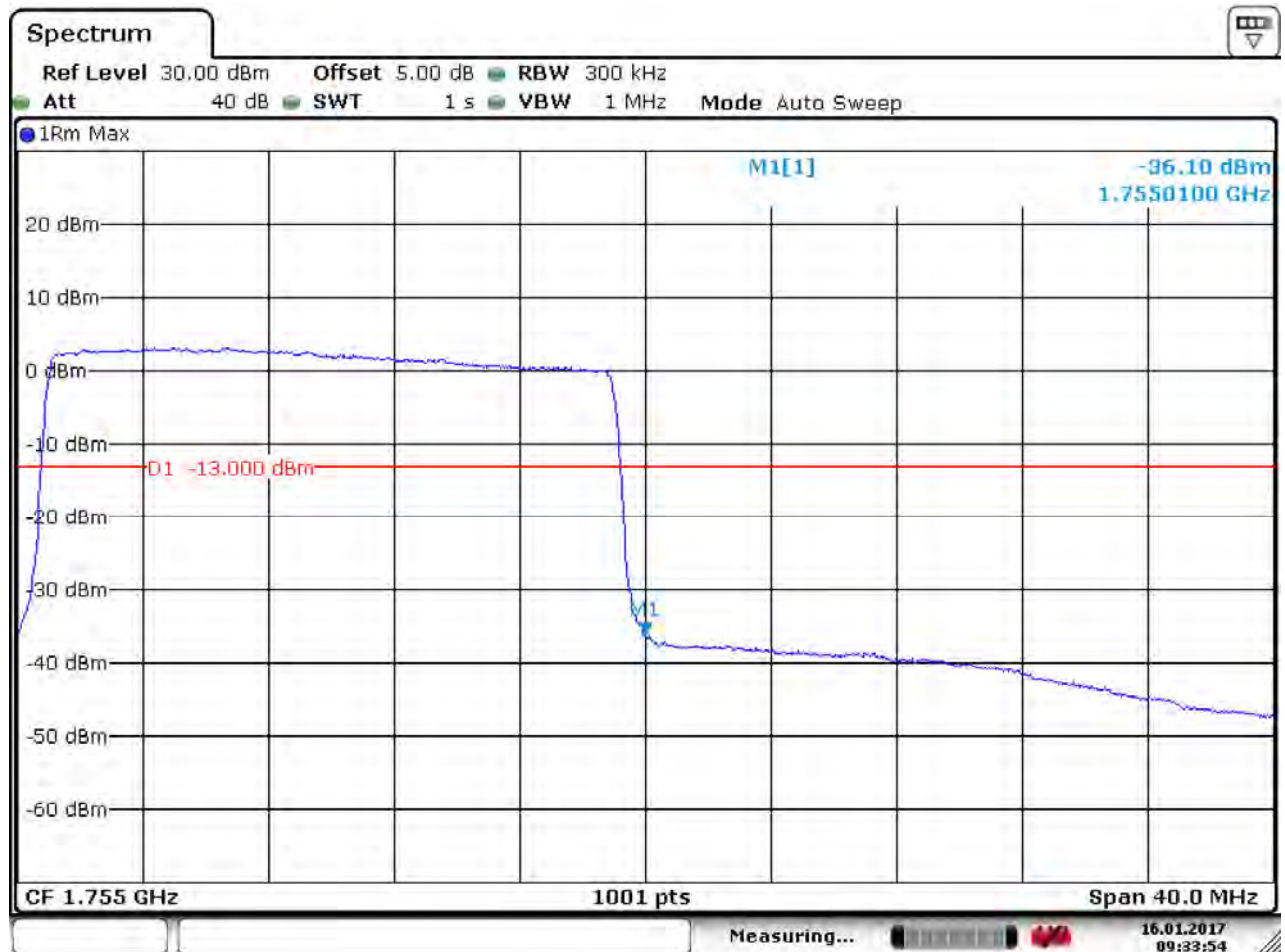
5.1.1.18.2 Test Channel = HCH

5.1.1.18.2.1 Test RB=1RB



Date: 16.JAN.2017 09:34:37

5.1.1.18.2.2 Test RB=100RB



Date: 16.JAN.2017 09:33:54

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.

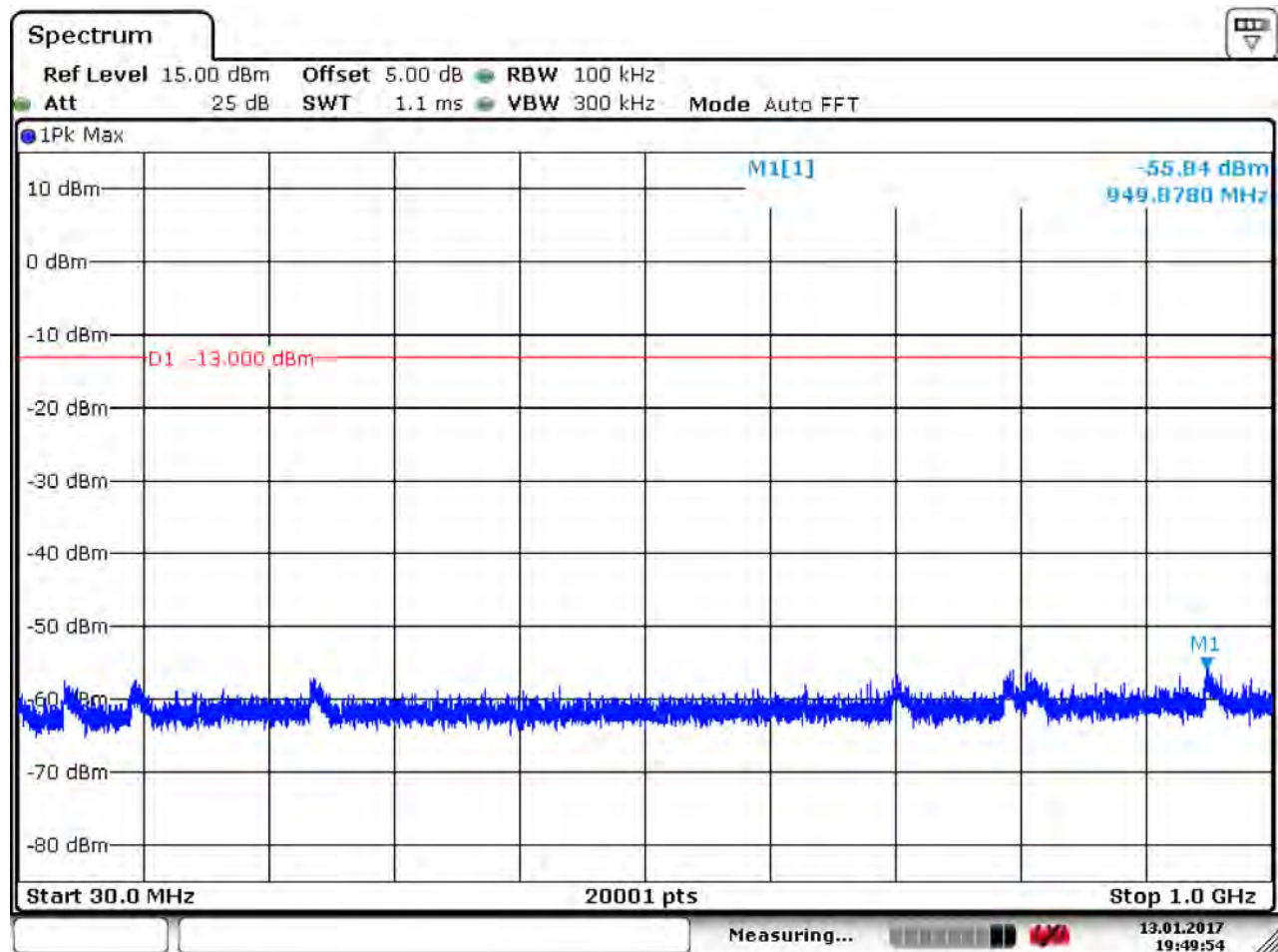
Part I - Test Plots

6.1 For LTE

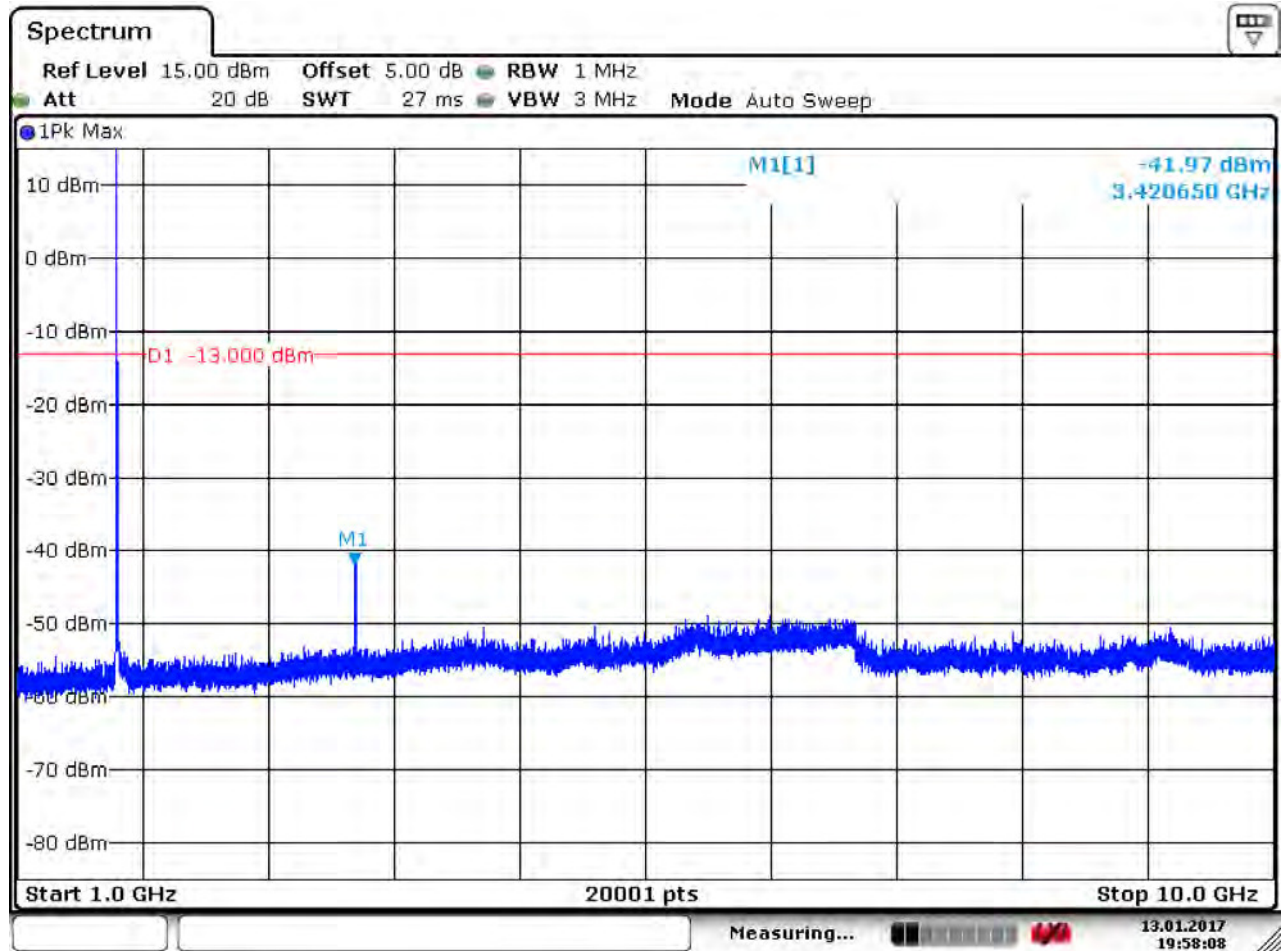
6.1.1 Test Band = LTE band 4

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

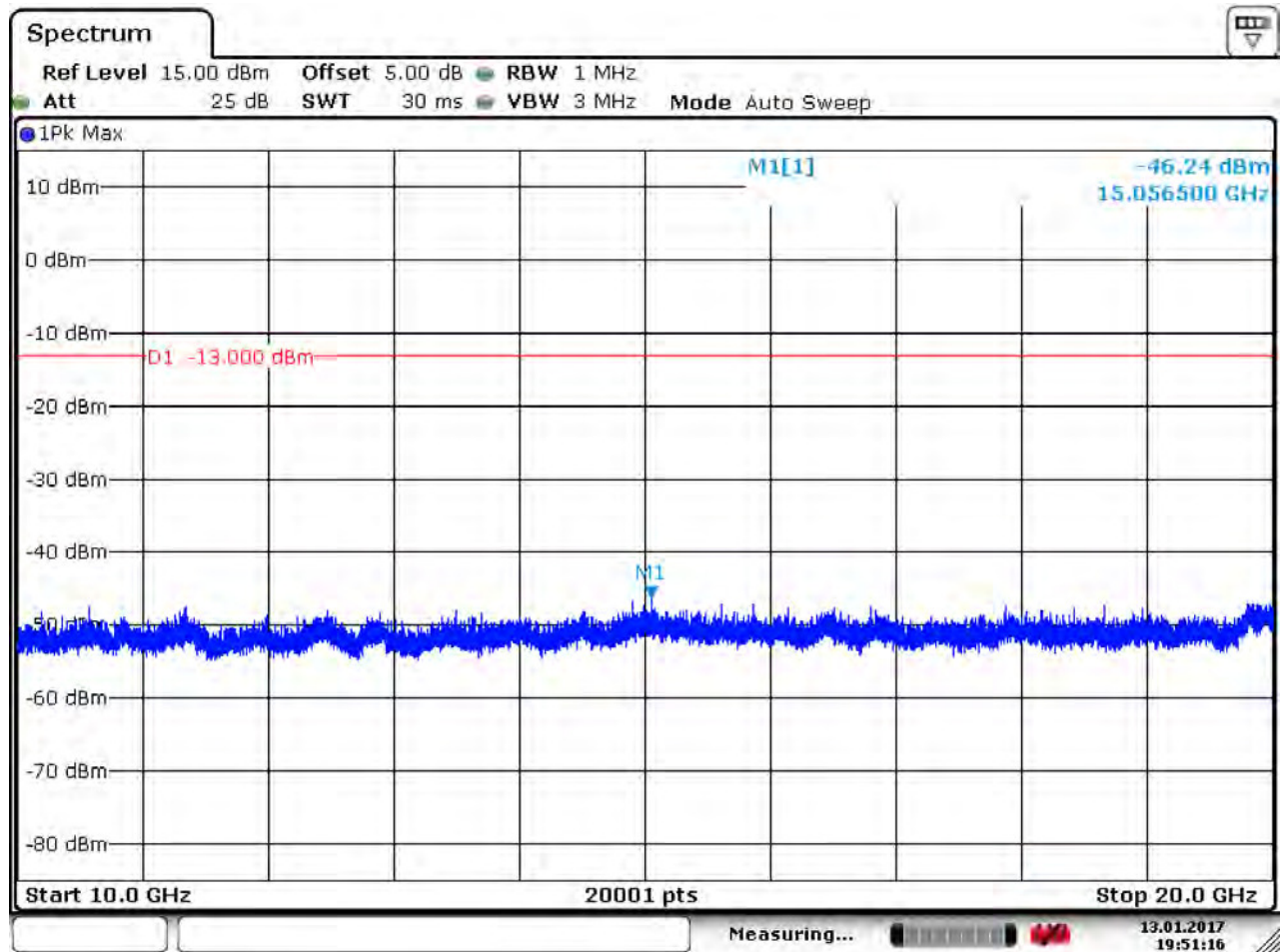
6.1.1.1.1 Test Channel = LCH



Date: 13.JAN.2017 19:49:55



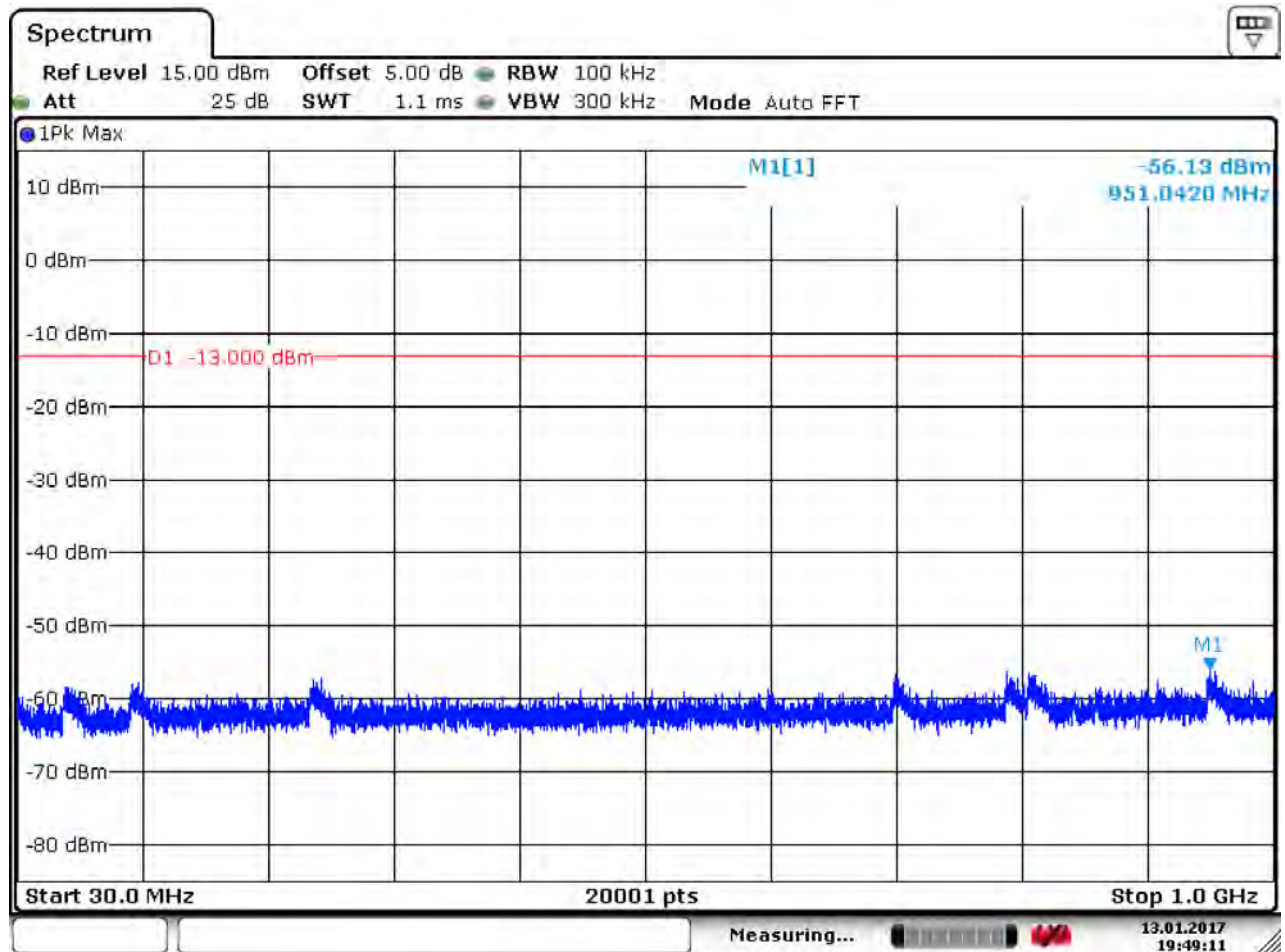
Date: 13.JAN.2017 19:58:09



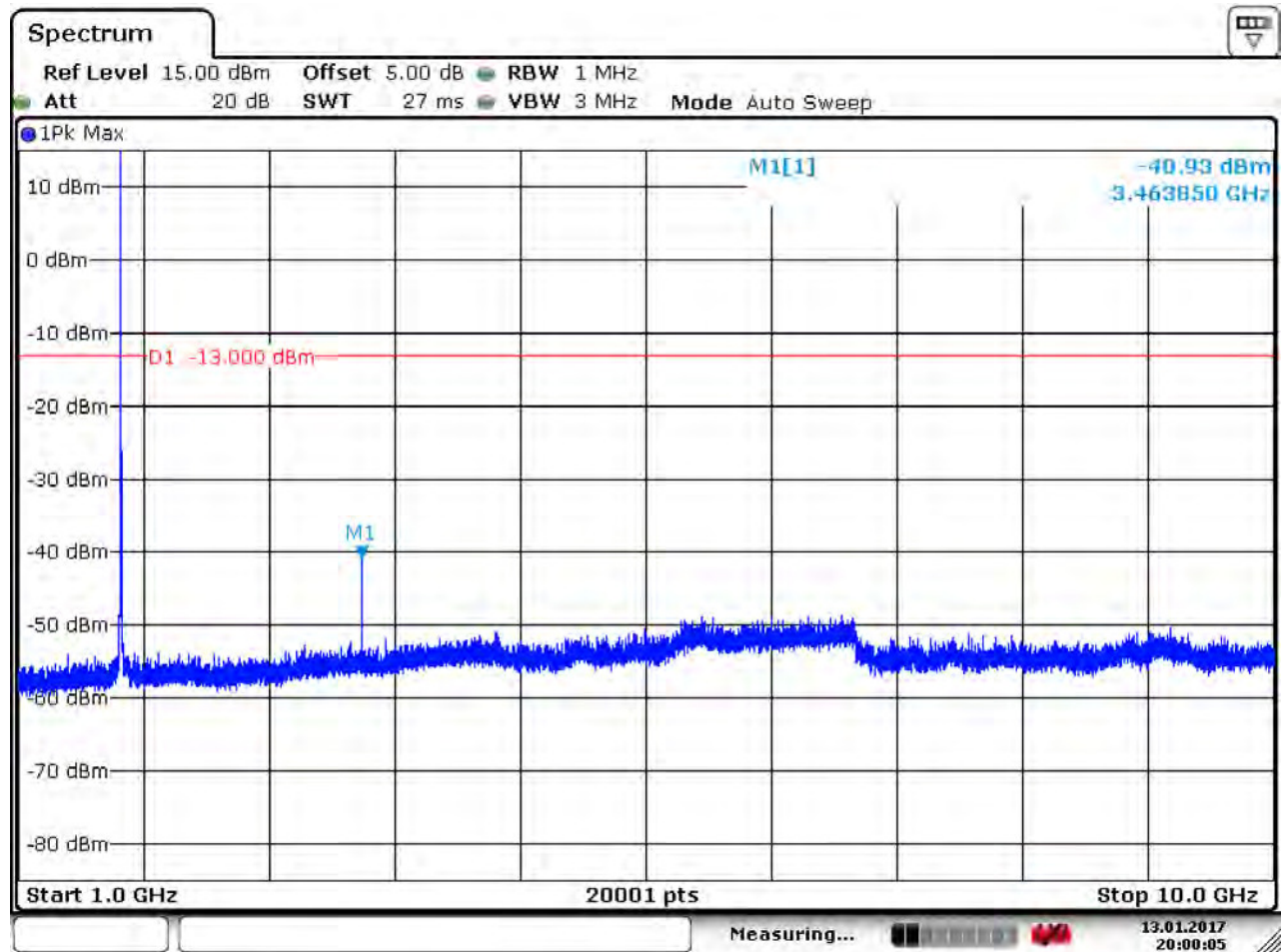
Date: 13.JAN.2017 19:51:16



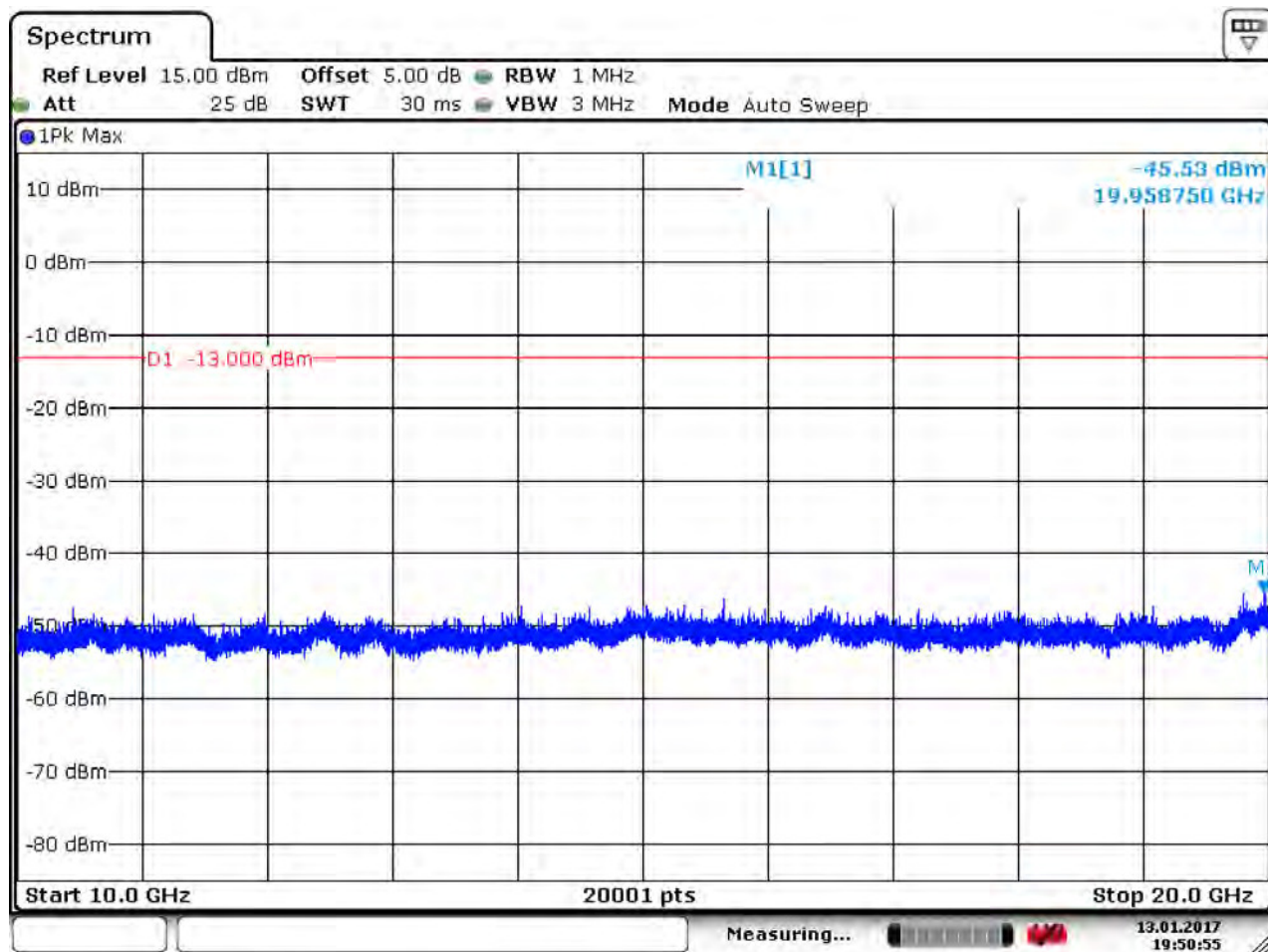
6.1.1.1.2 Test Channel = MCH



Date: 13.JAN.2017 19:49:11



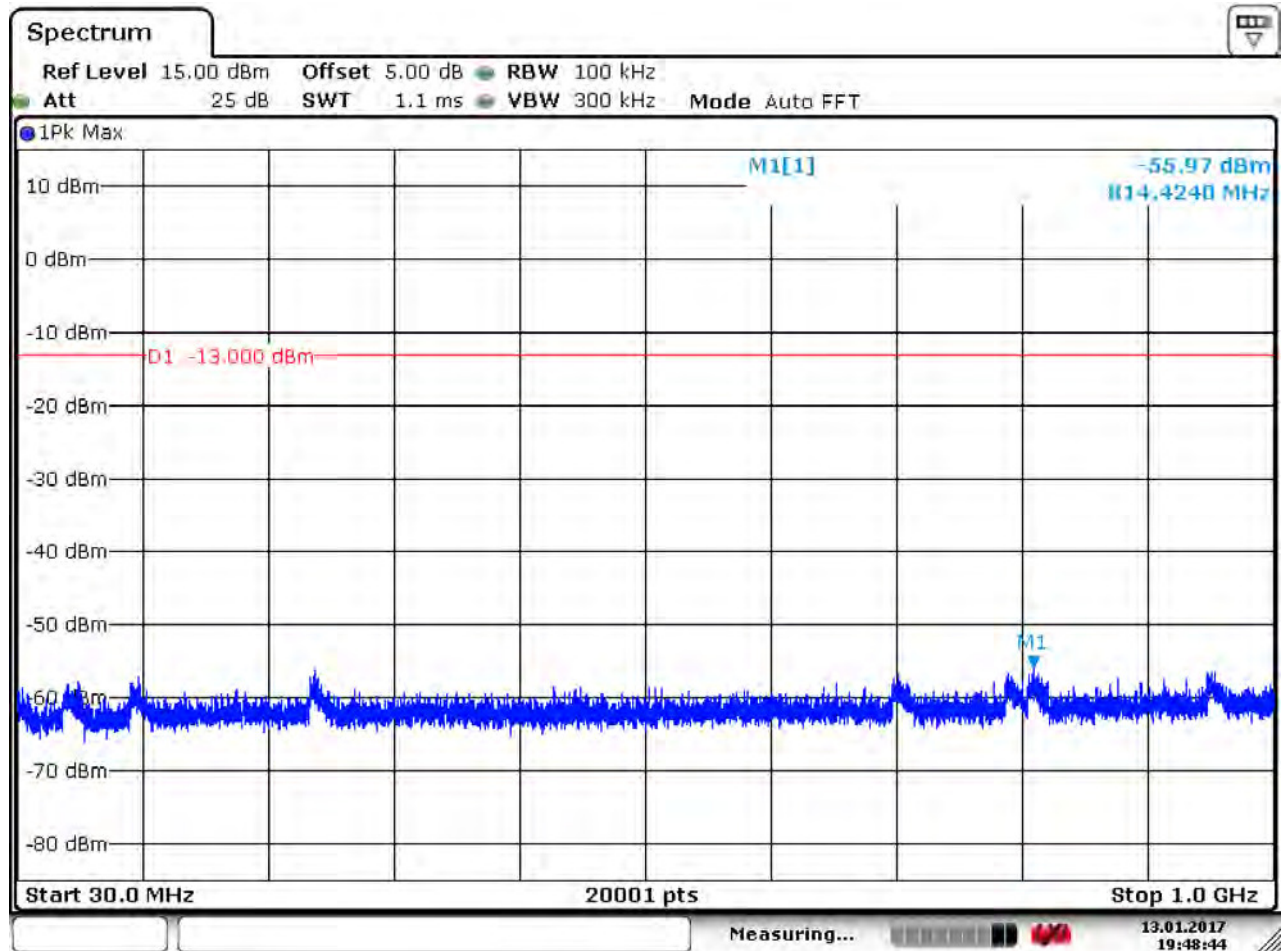
Date: 13.JAN.2017 20:00:05



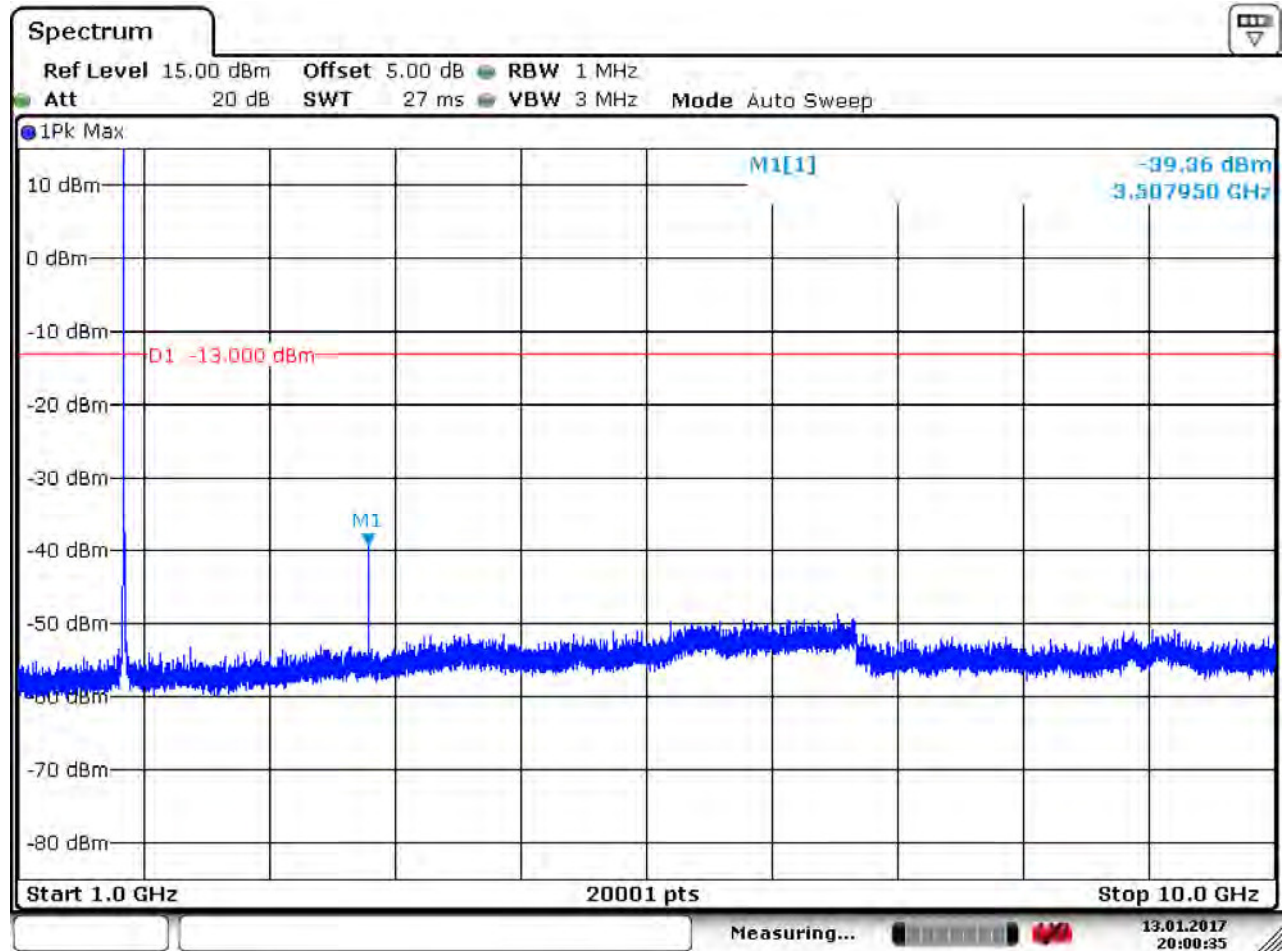
Date: 13.JAN.2017 19:50:56



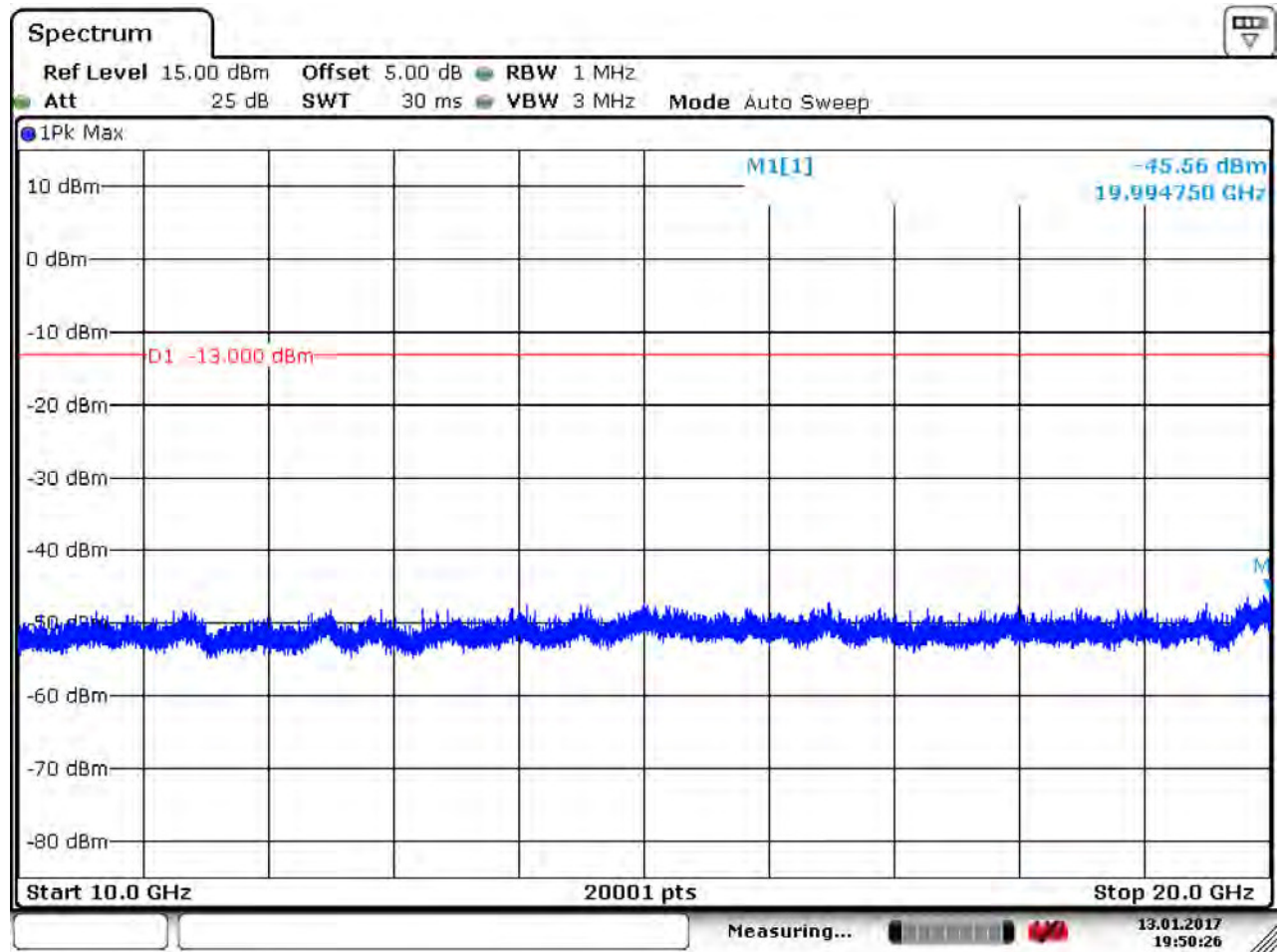
6.1.1.1.3 Test Channel = HCH



Date: 13.JAN.2017 19:48:45



Date: 13.JAN.2017 20:00:36

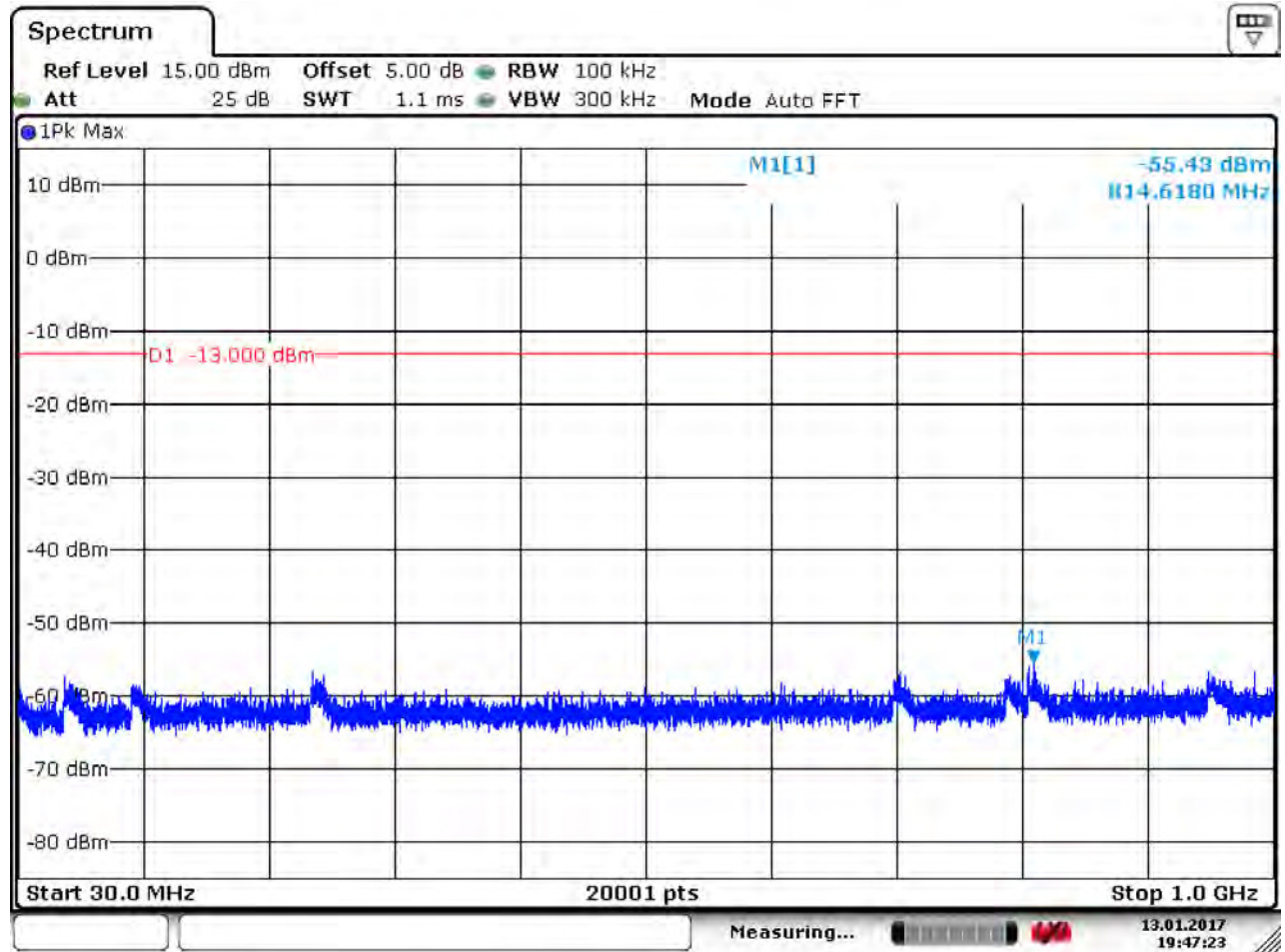


Date: 13.JAN.2017 19:50:26

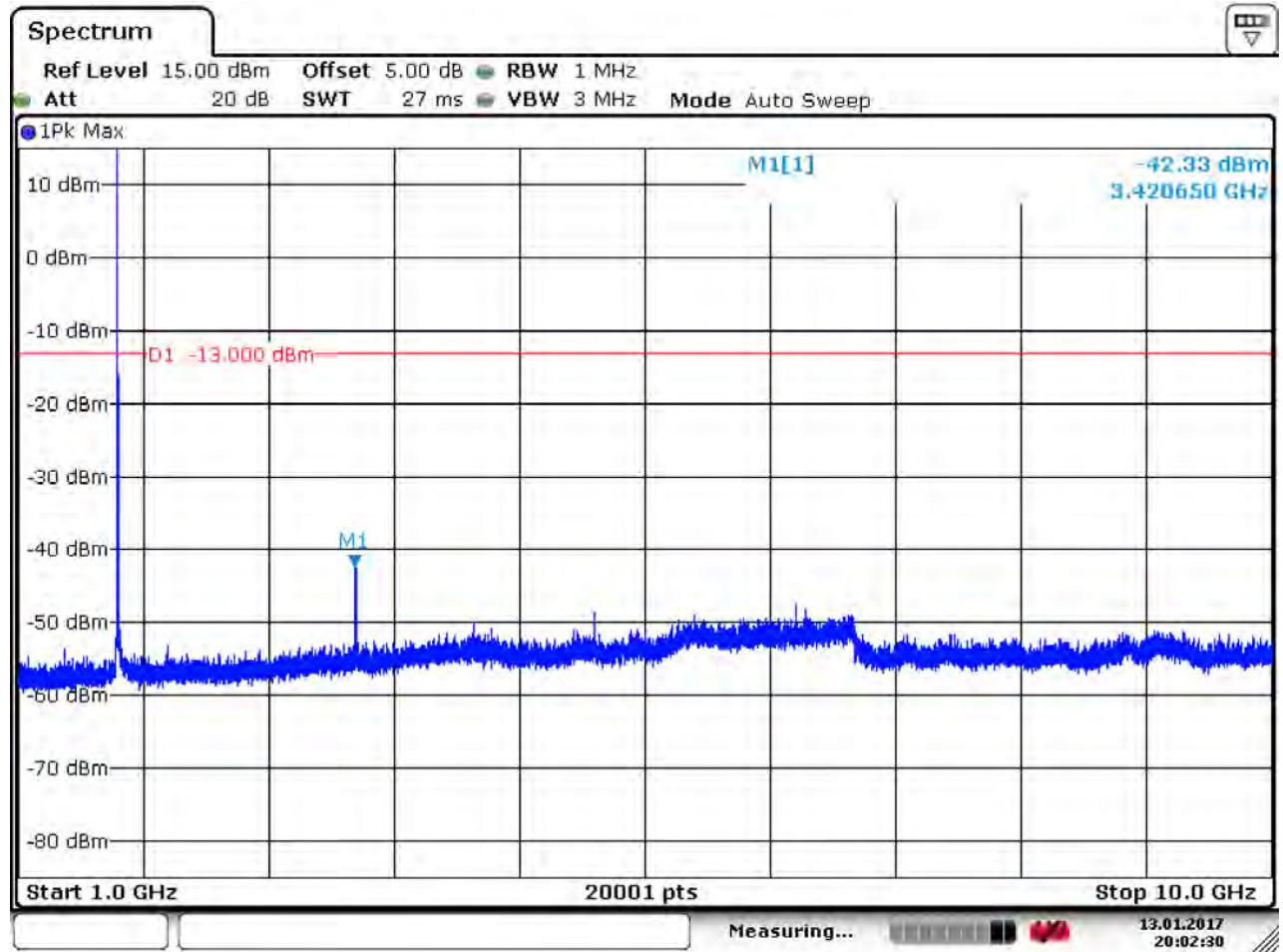


6.1.1.2 Test Mode = LTE / TM1 3MHz RB1#0

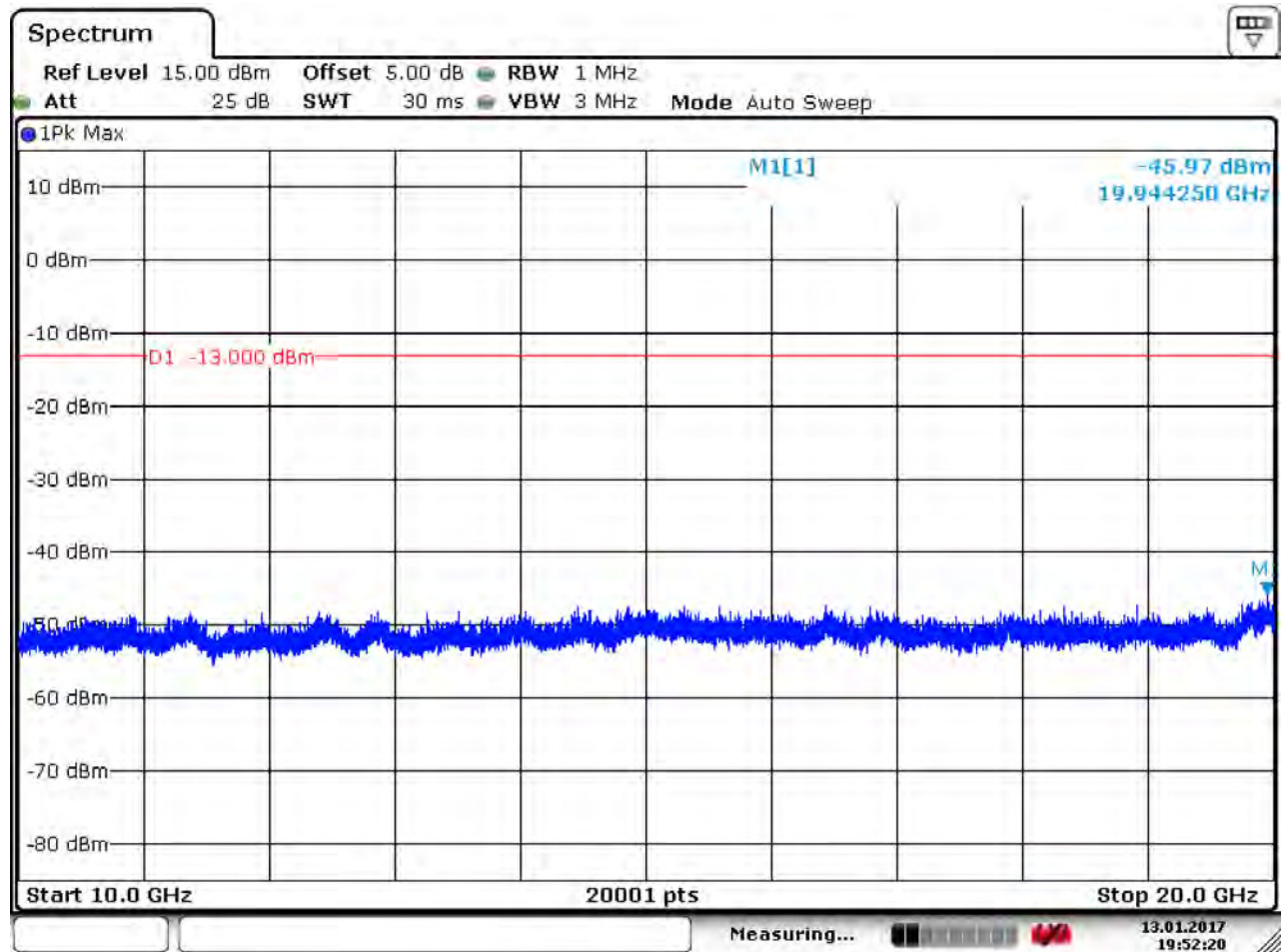
6.1.1.2.1 Test Channel = LCH



Date: 13.JAN.2017 19:47:24



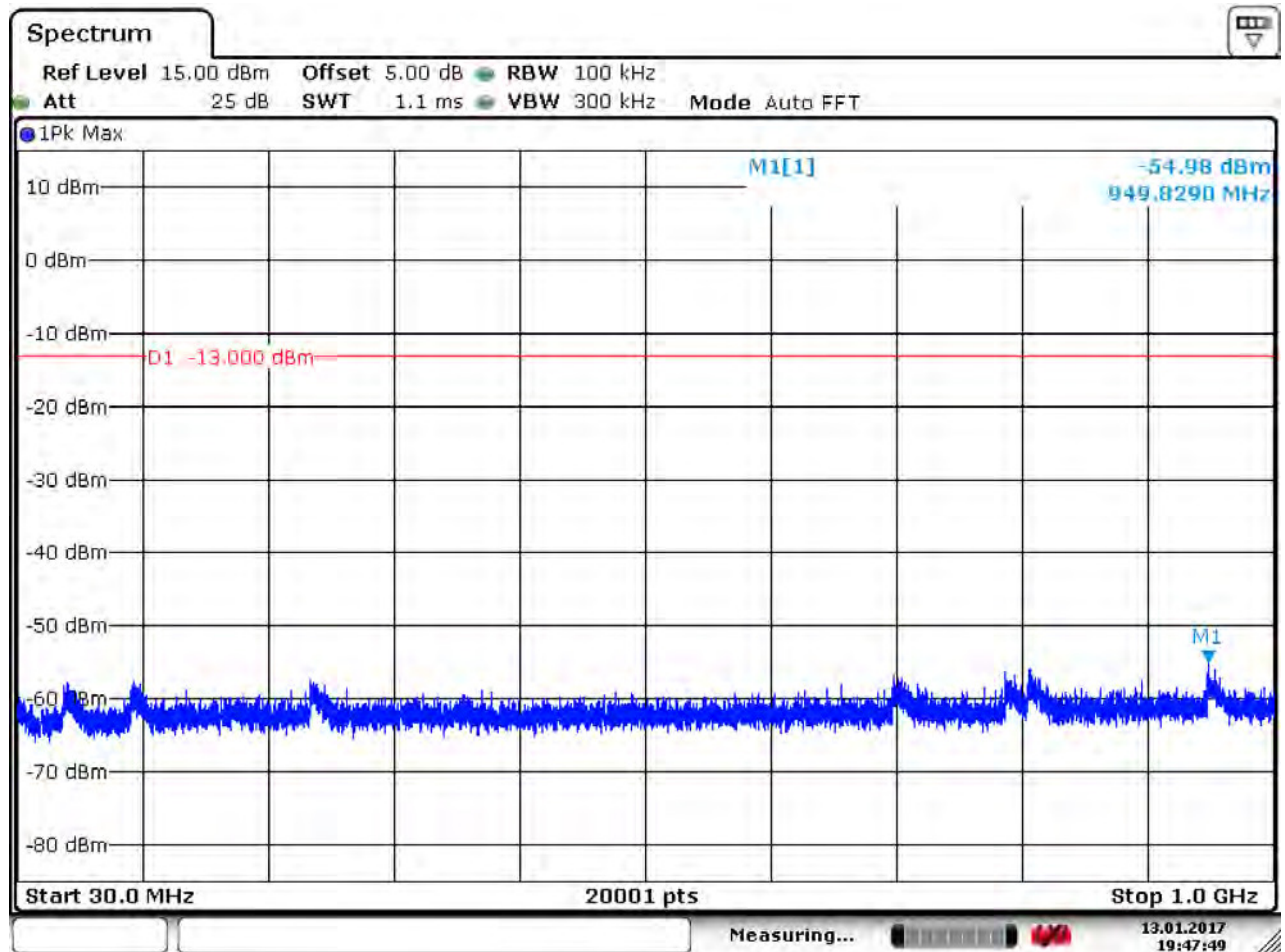
Date: 13.JAN.2017 20:02:30



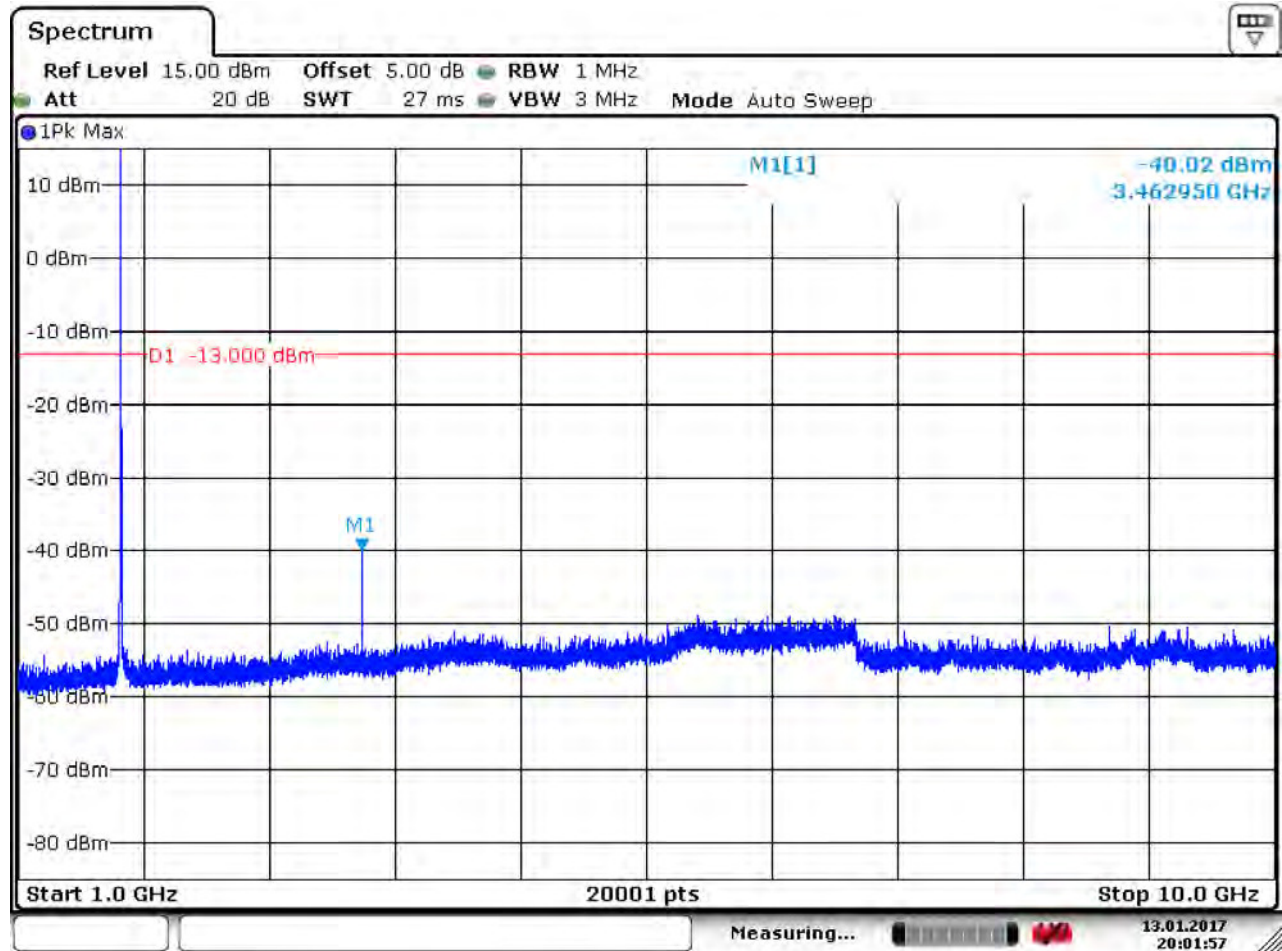
Date: 13.JAN.2017 19:52:21



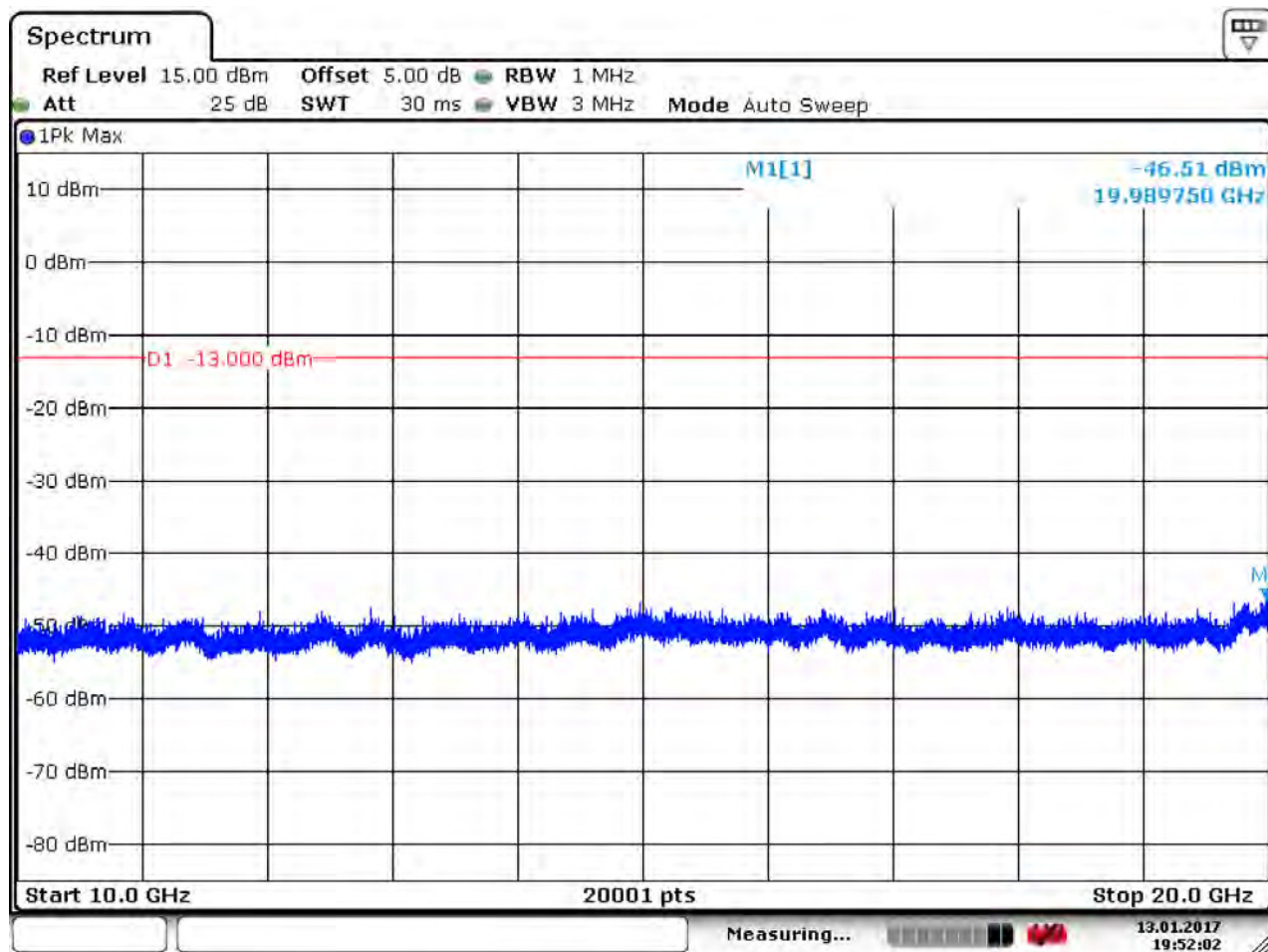
6.1.1.2.2 Test Channel = MCH



Date: 13.JAN.2017 19:47:48



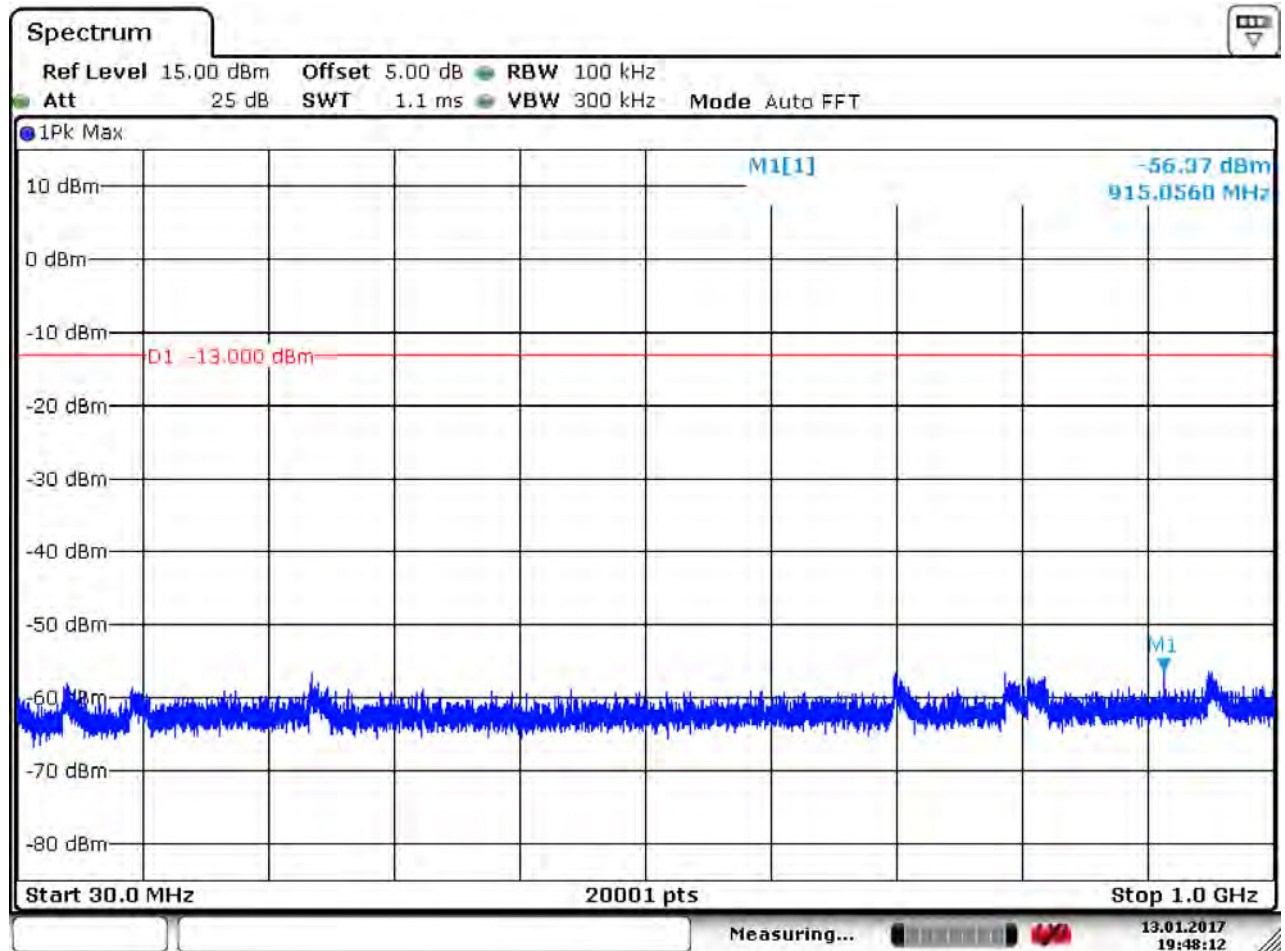
Date: 13.JAN.2017 20:01:58



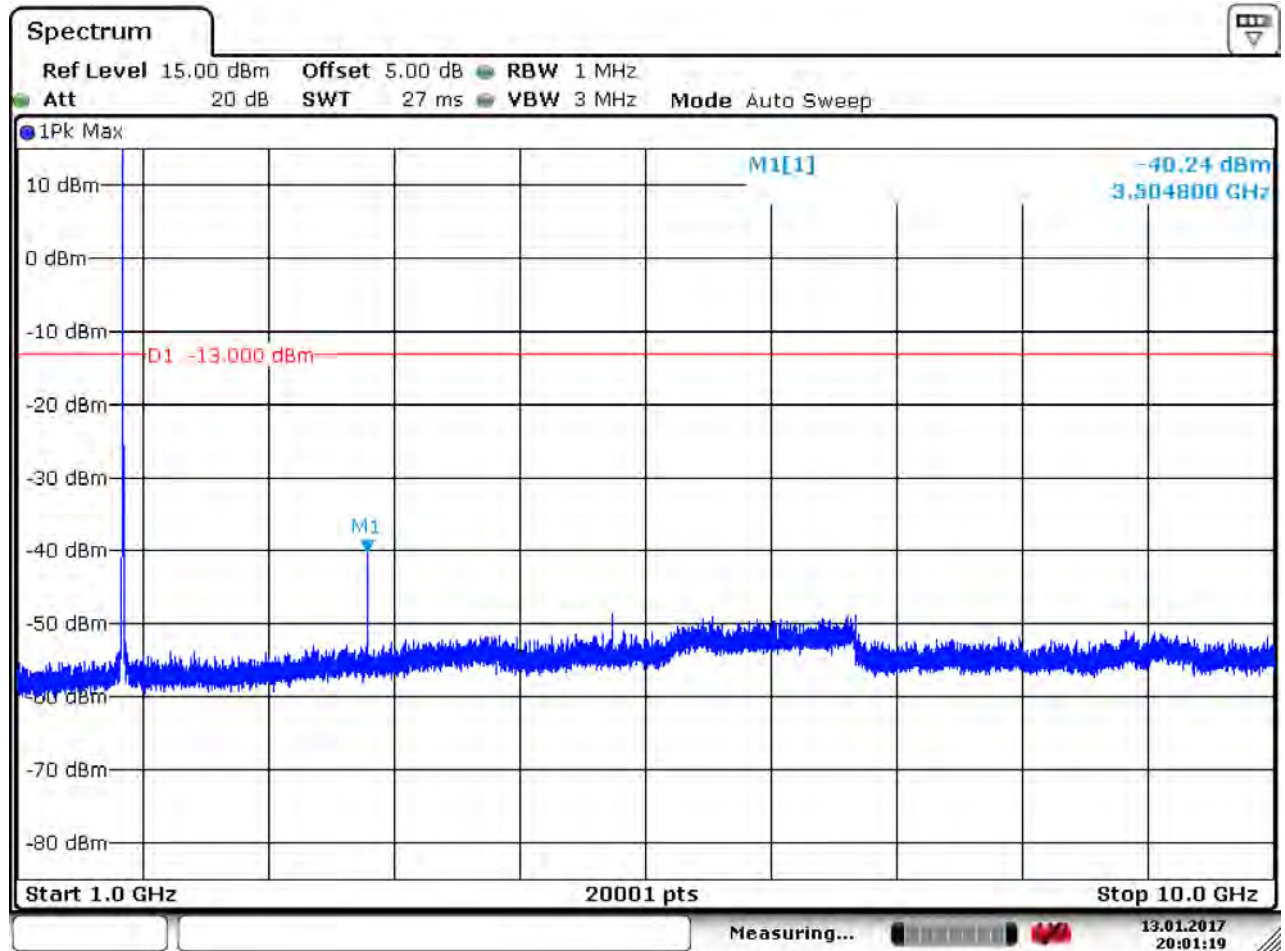
Date: 13.JAN.2017 19:52:02



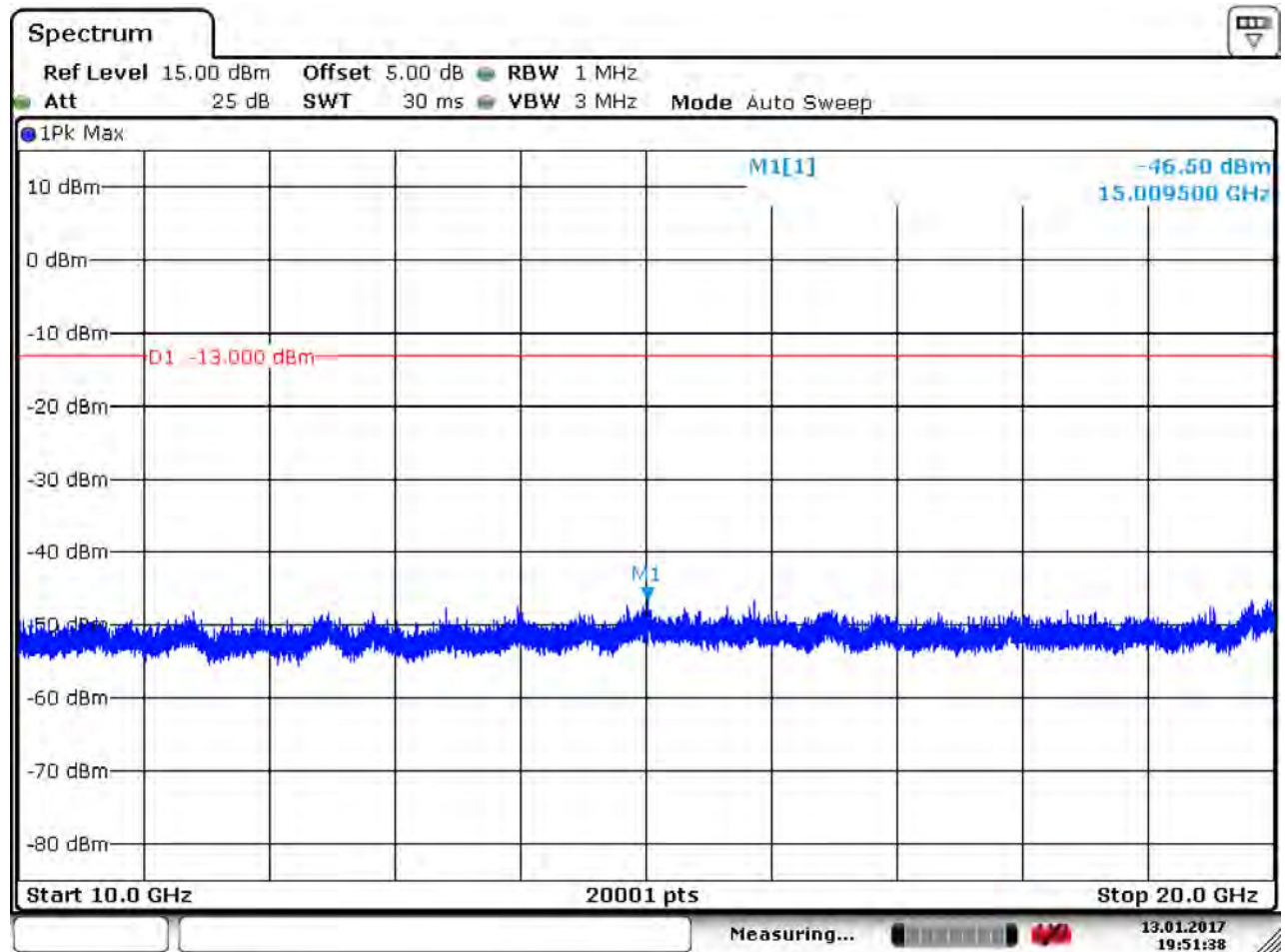
6.1.1.2.3 Test Channel = HCH



Date: 13.JAN.2017 19:48:12



Date: 13.JAN.2017 20:01:19

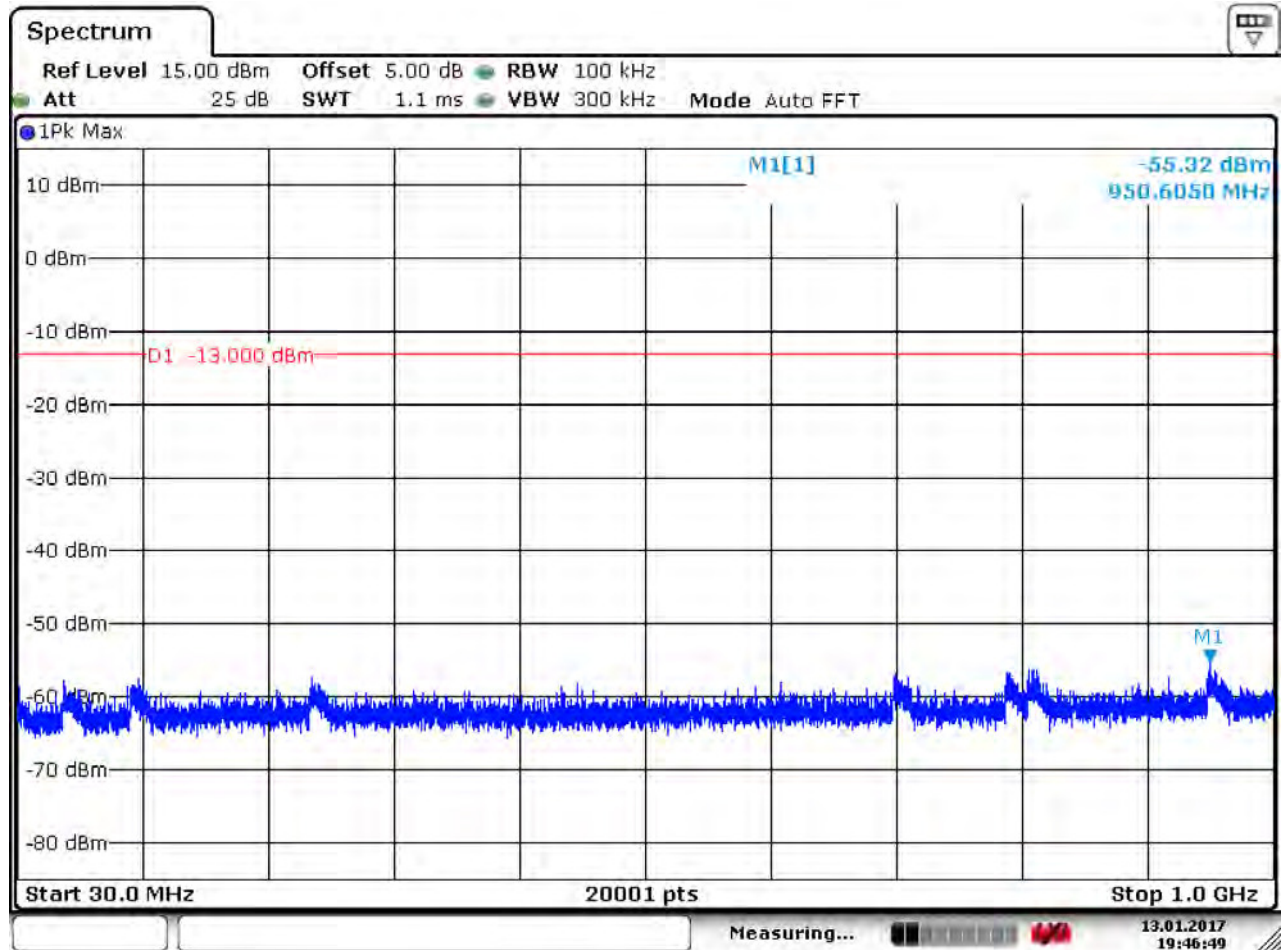


Date: 13.JAN.2017 19:51:38

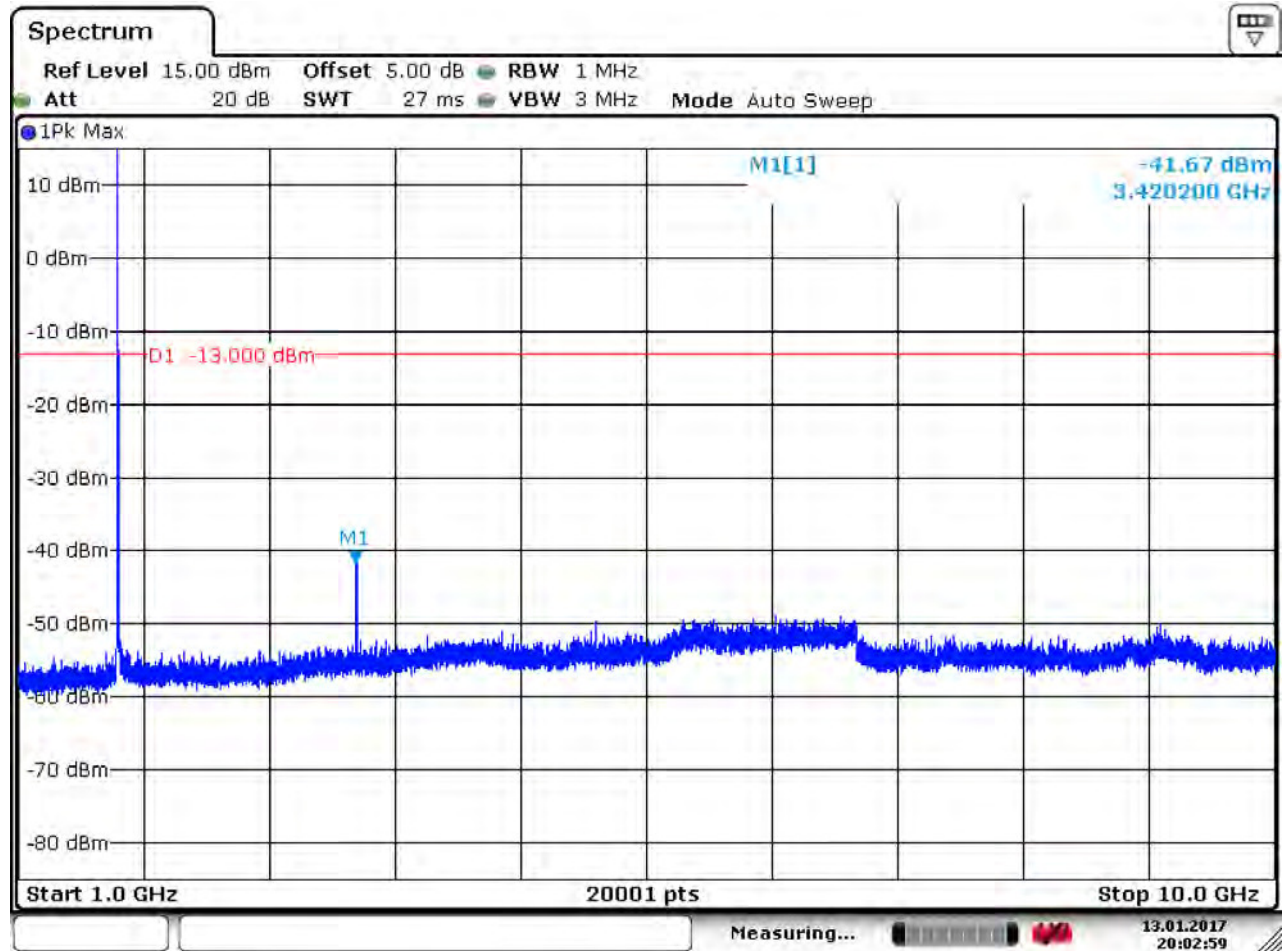


6.1.1.3 Test Mode = LTE / TM1 5MHz RB1#0

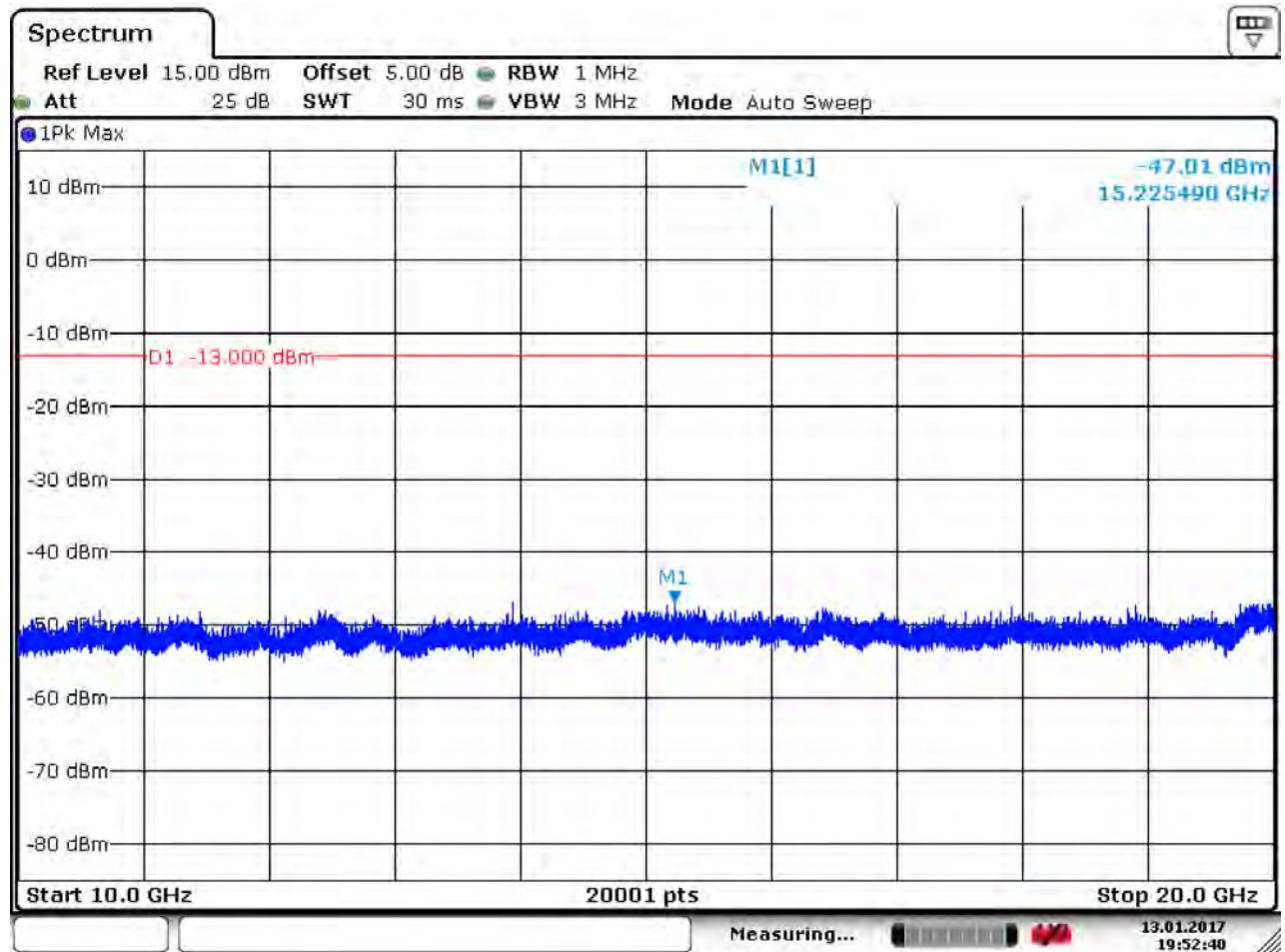
6.1.1.3.1 Test Channel = LCH



Date: 13.JAN.2017 19:46:49



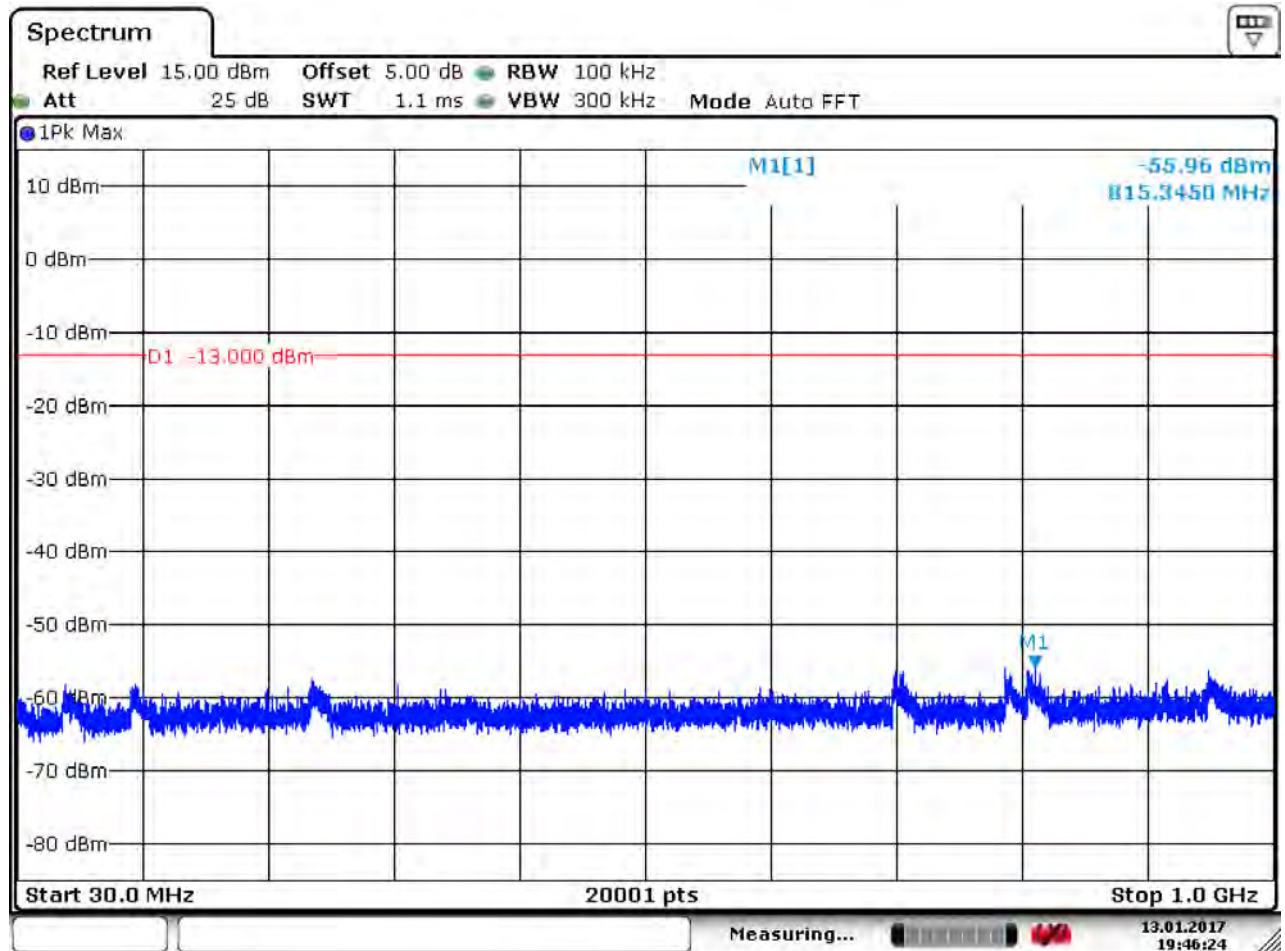
Date: 13.JAN.2017 20:02:59



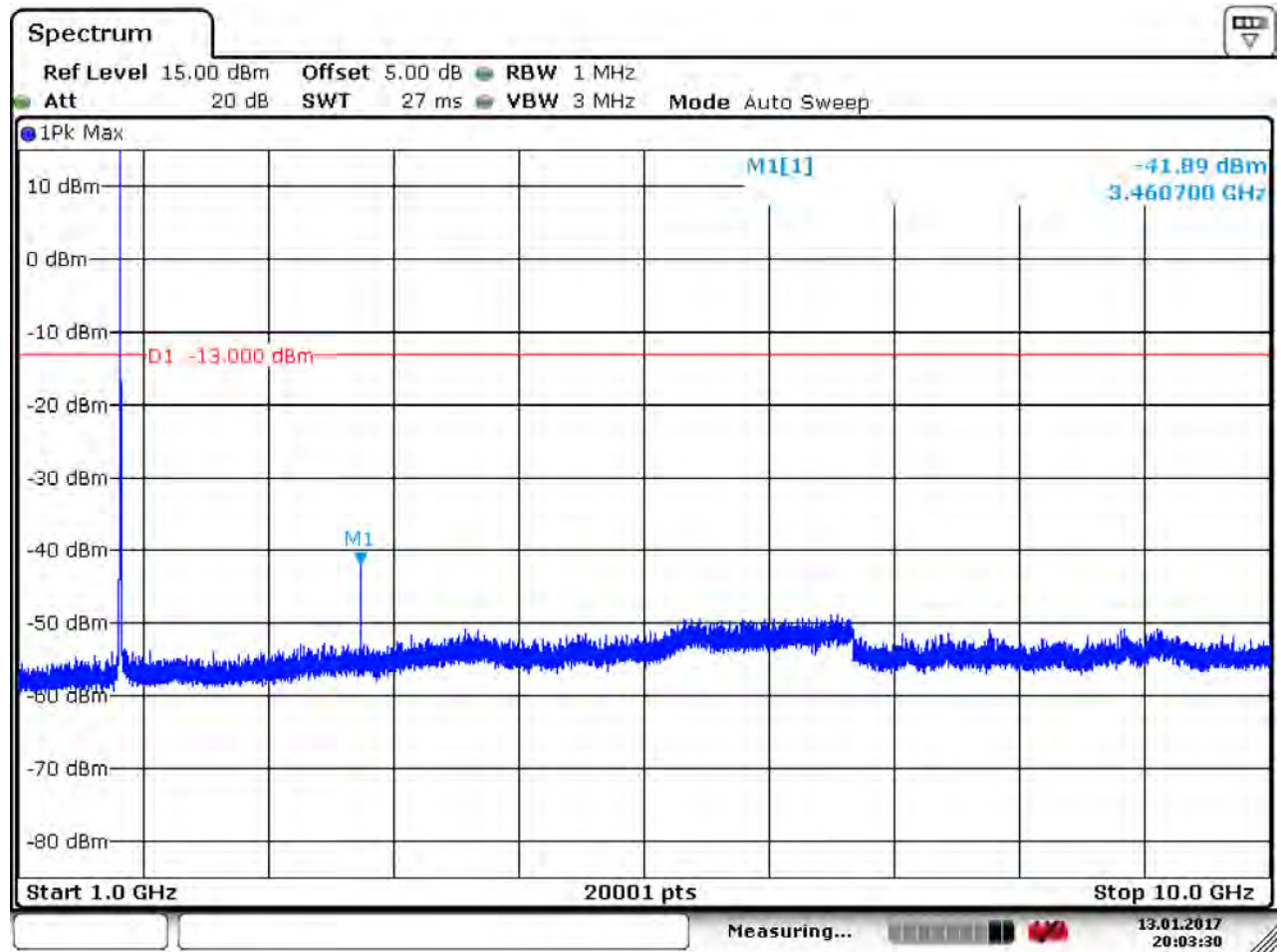
Date: 13.JAN.2017 19:52:40



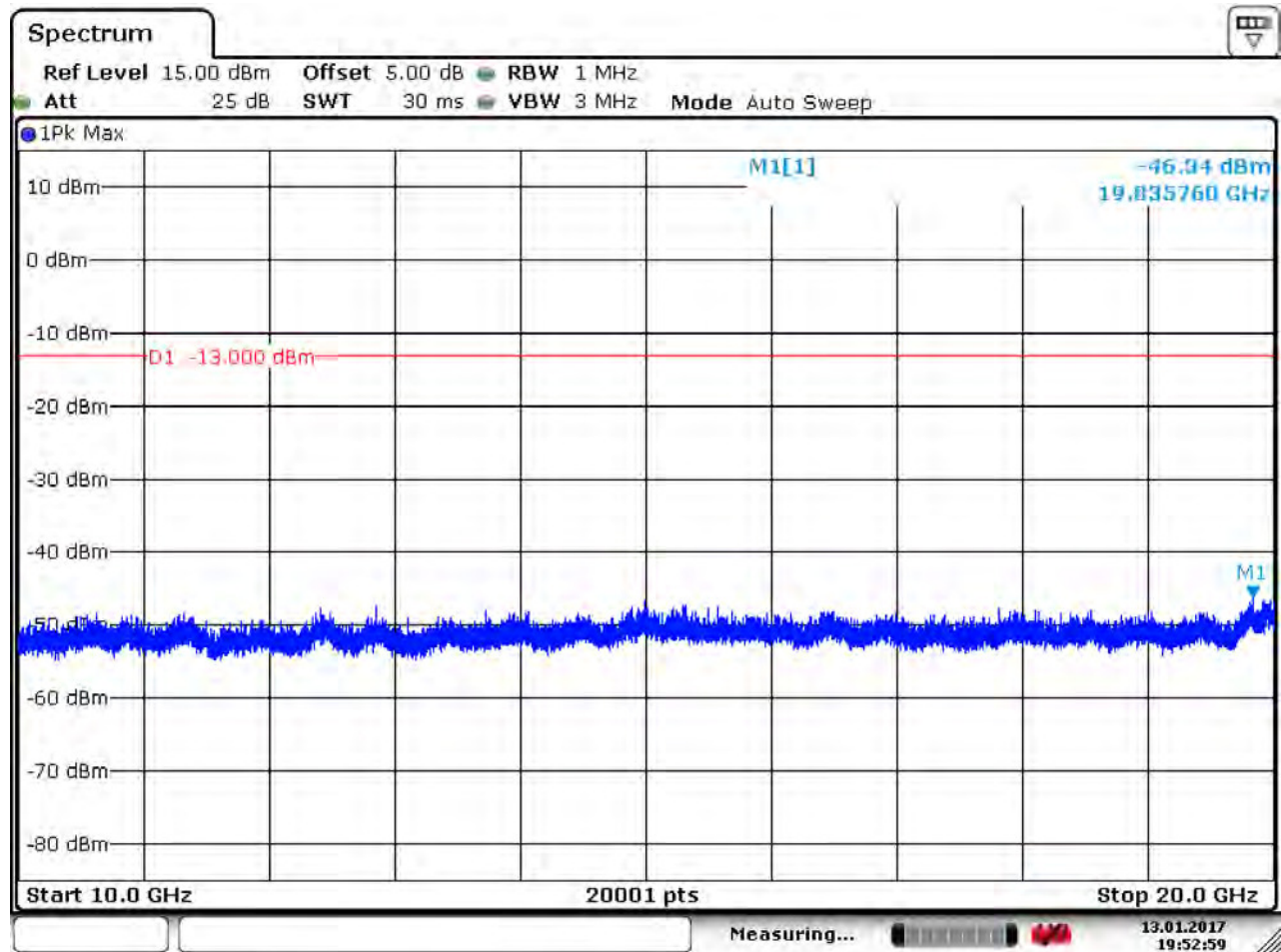
6.1.1.3.2 Test Channel = MCH



Date: 13.JAN.2017 19:46:25



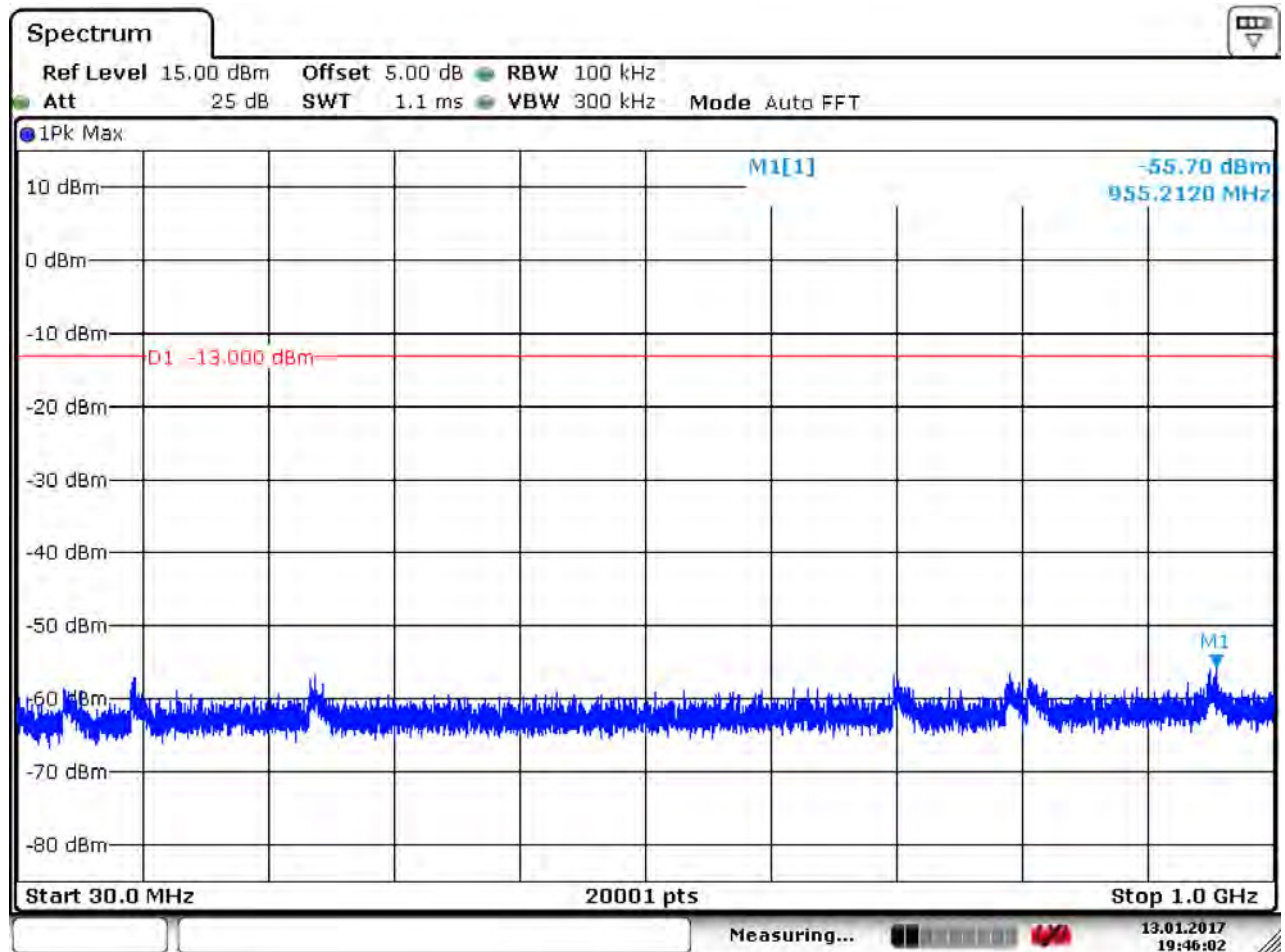
Date: 13.JAN.2017 20:03:30



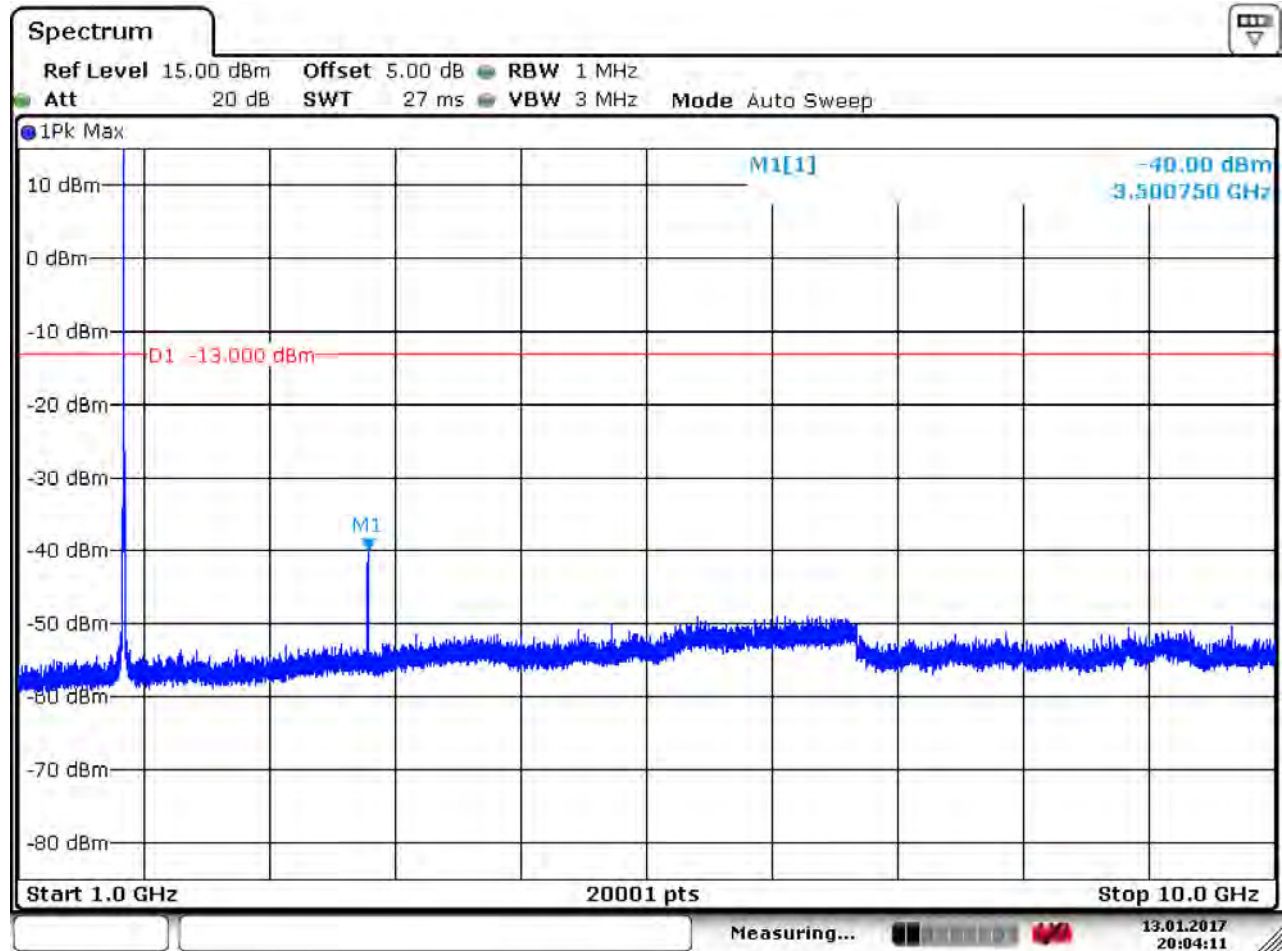
Date: 13.JAN.2017 19:52:59



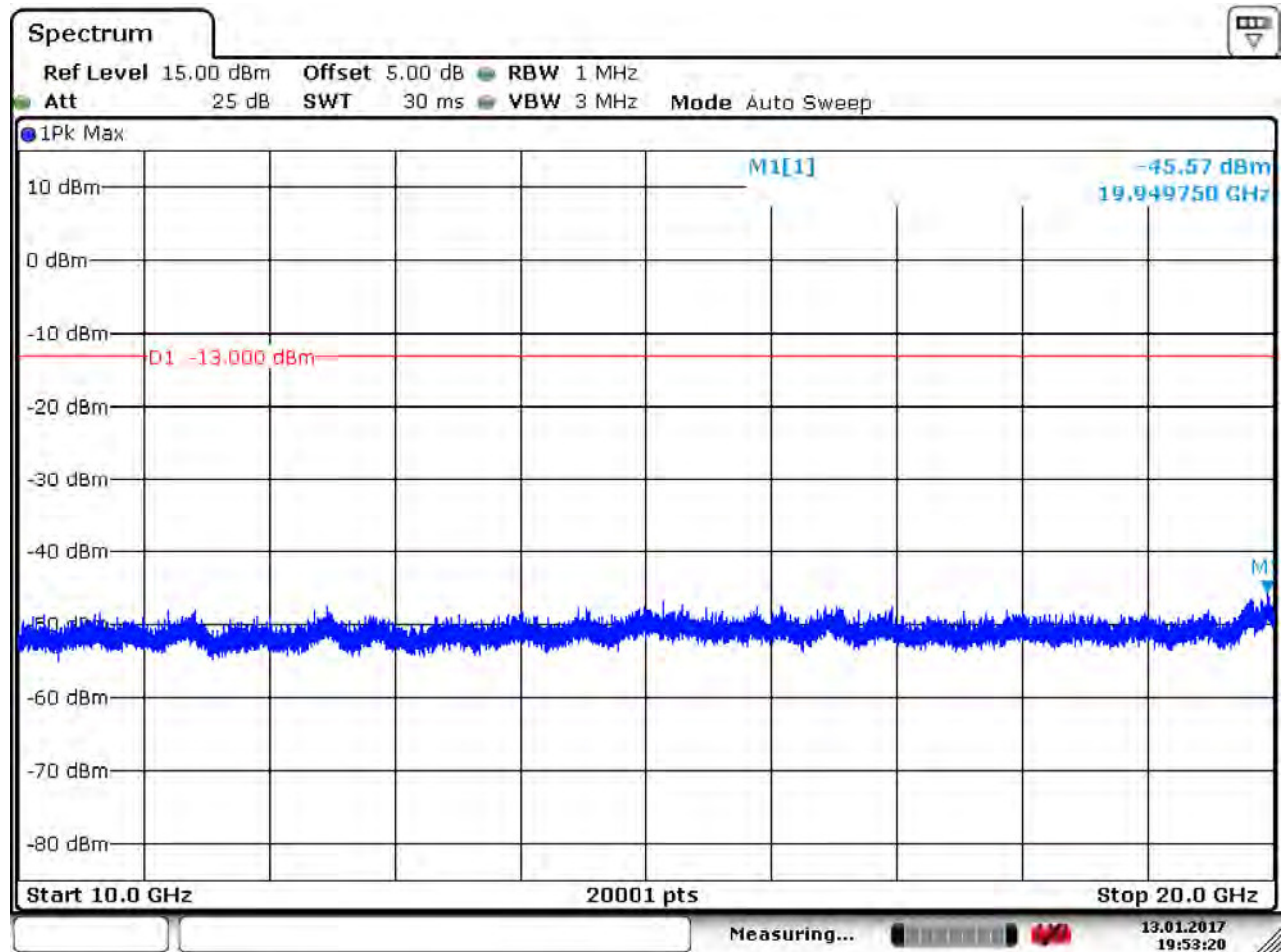
6.1.1.3.3 Test Channel = HCH



Date: 13.JAN.2017 19:46:02



Date: 13.JAN.2017 20:04:11

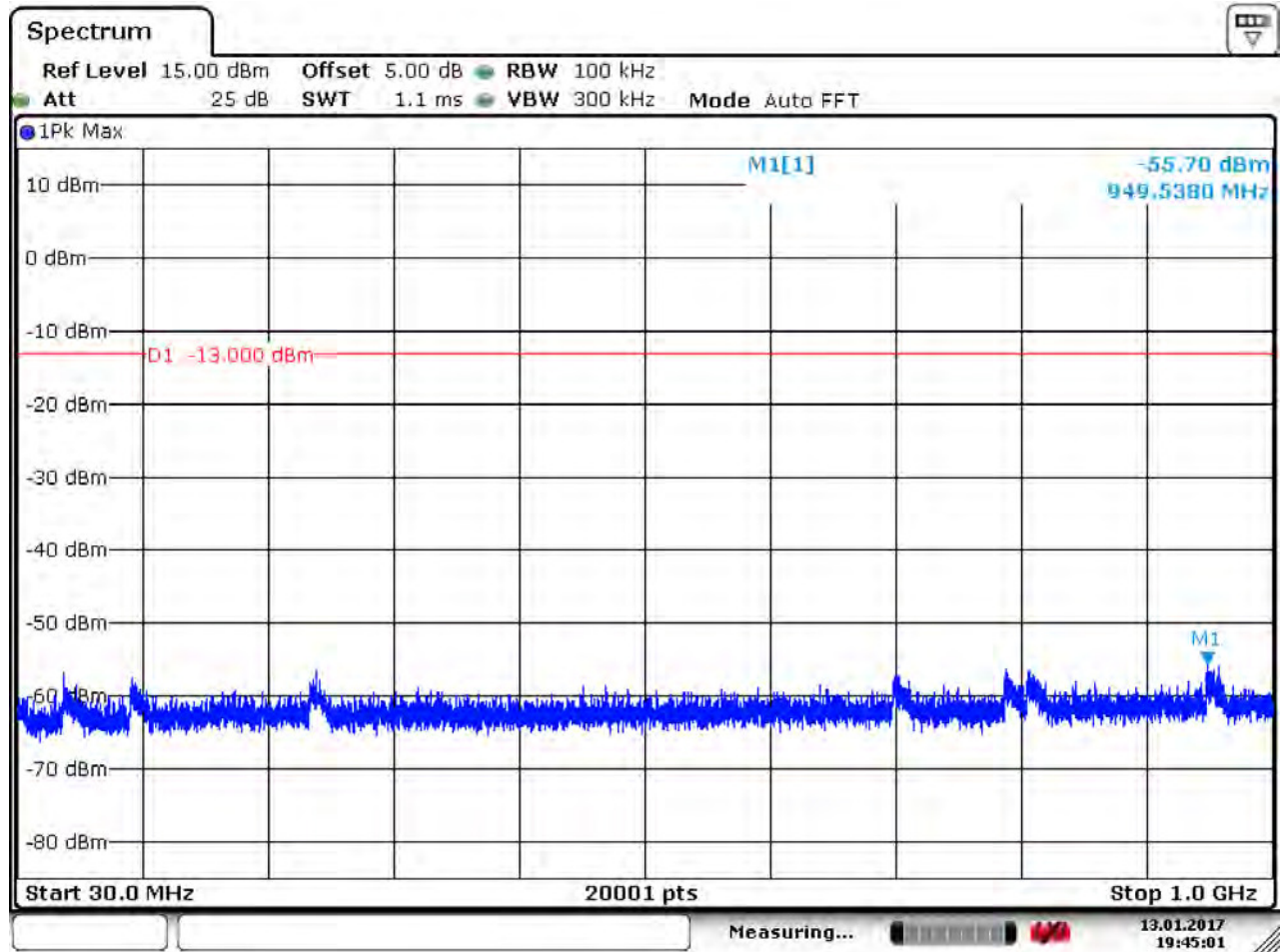


Date: 13.JAN.2017 19:53:21

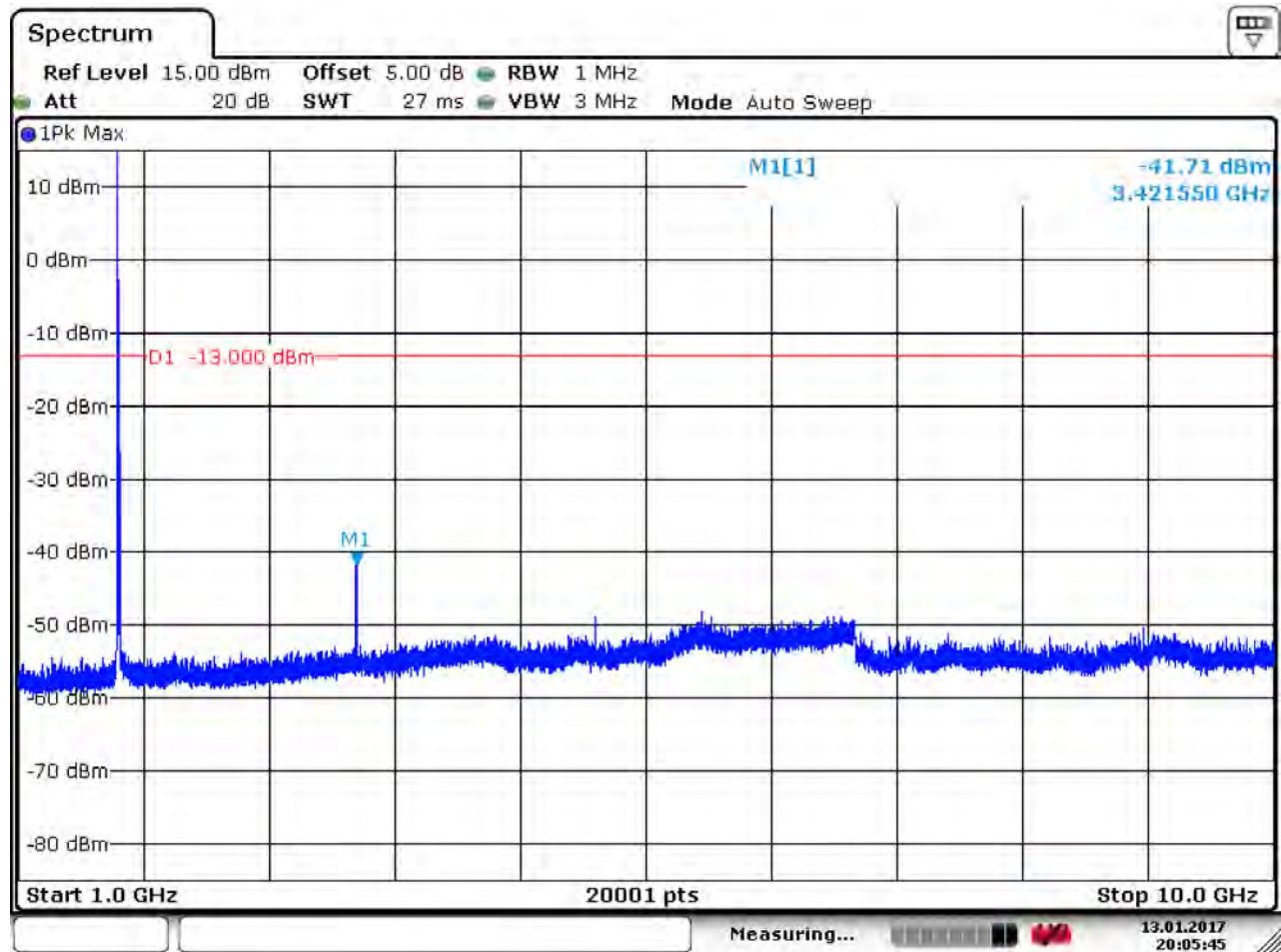


6.1.1.4 Test Mode = LTE / TM1 10MHz RB1#0

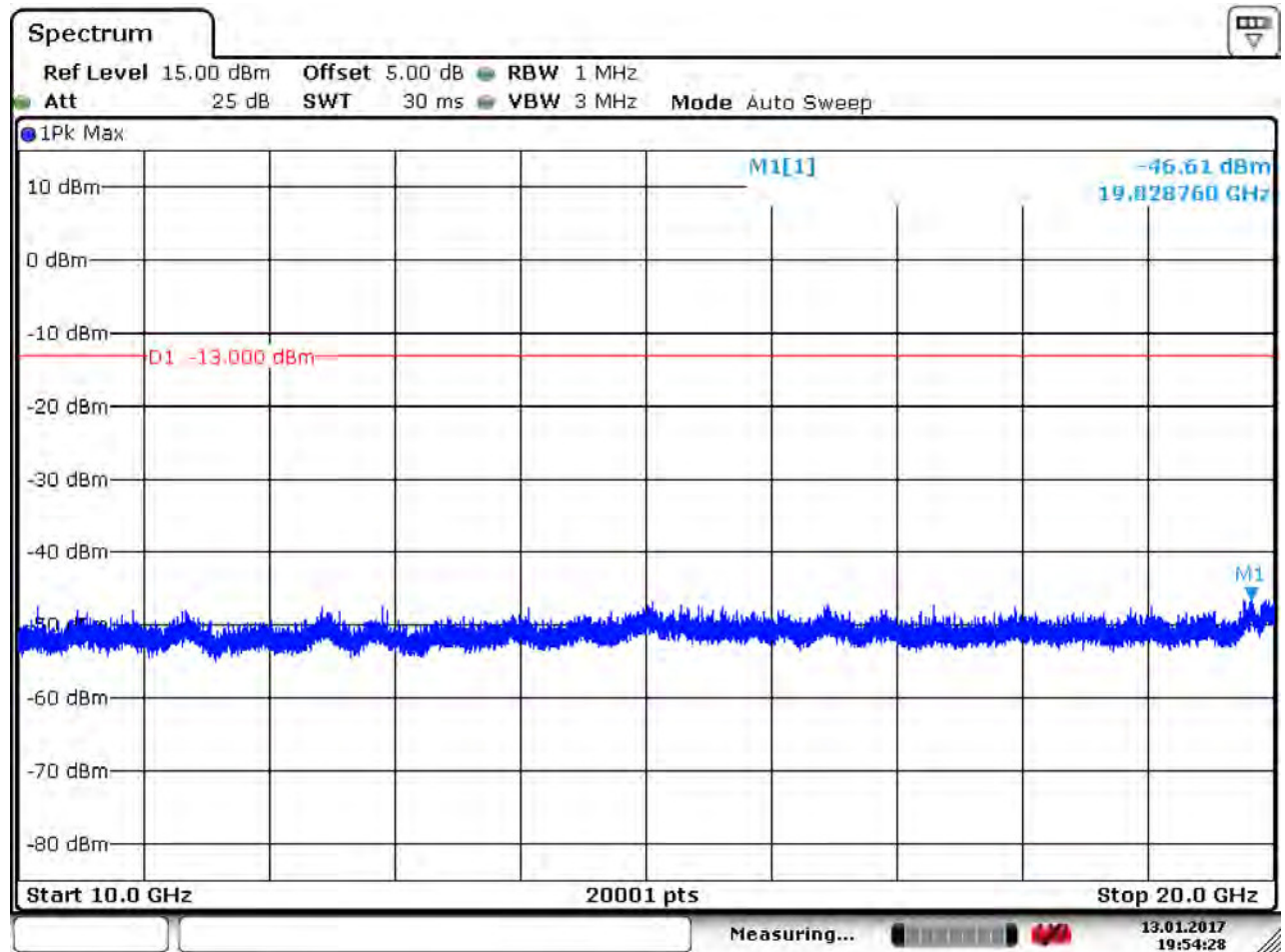
6.1.1.4.1 Test Channel = LCH



Date: 13.JAN.2017 19:45:02



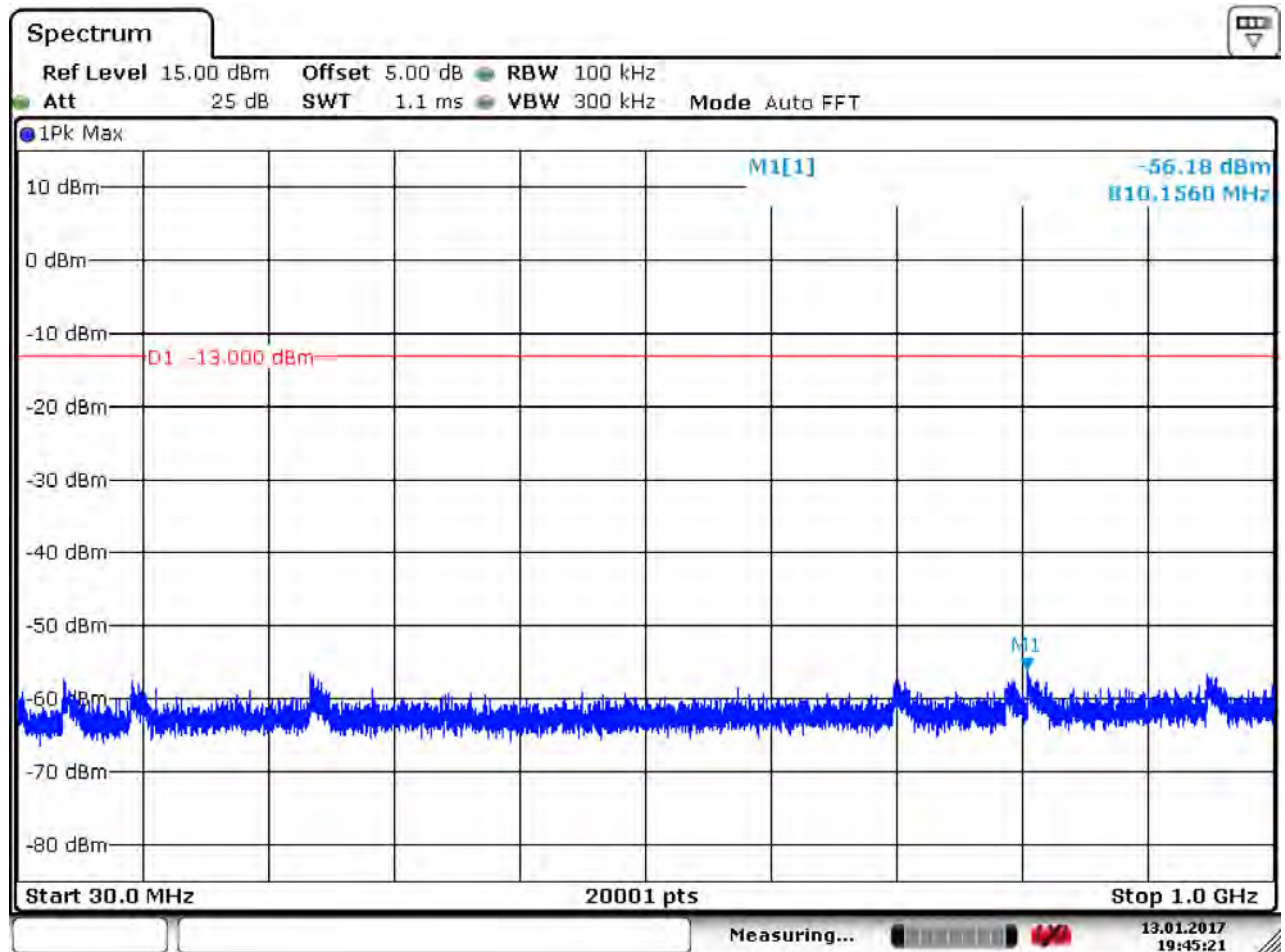
Date: 13.JAN.2017 20:05:46



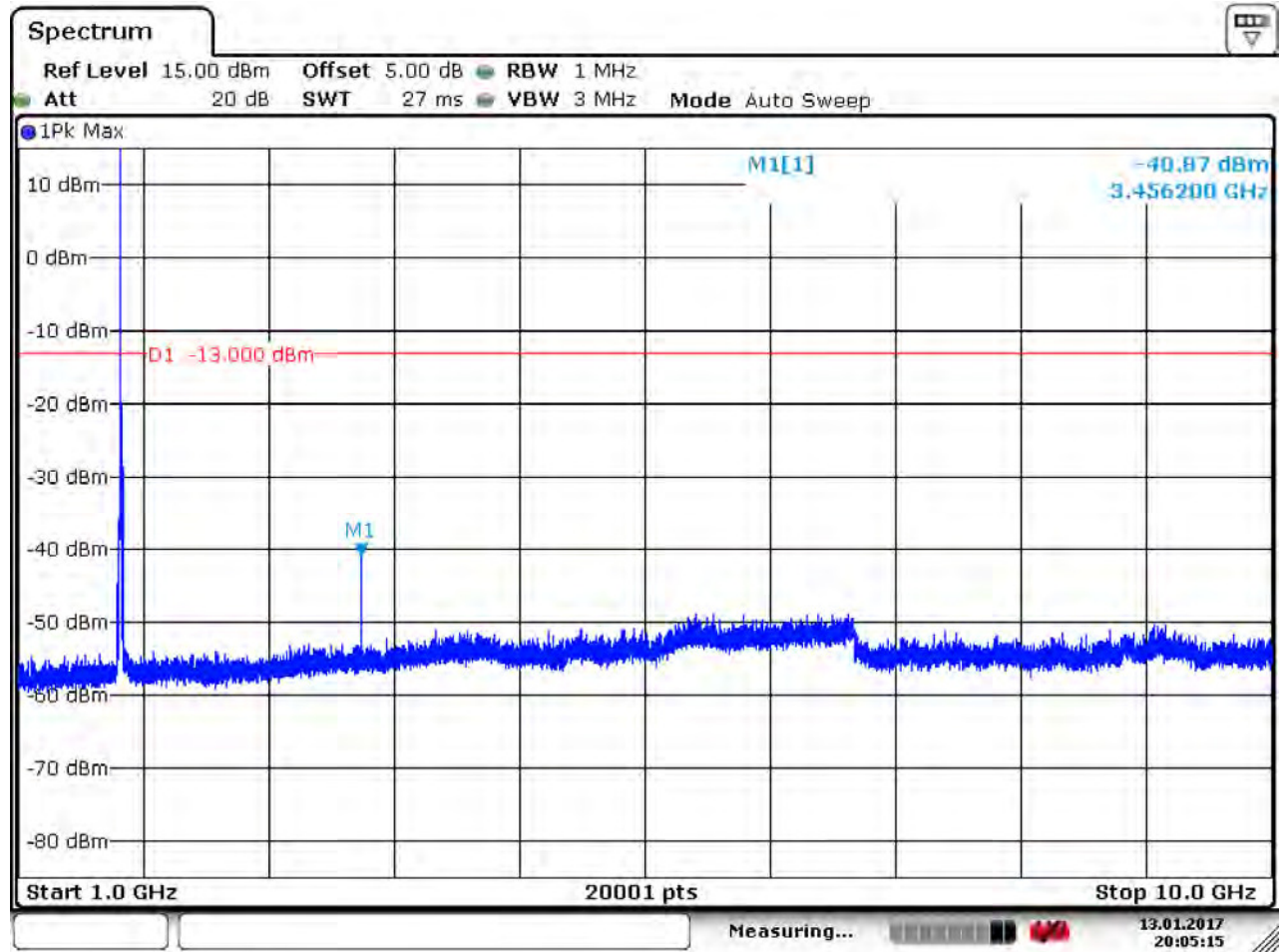
Date: 13.JAN.2017 19:54:29



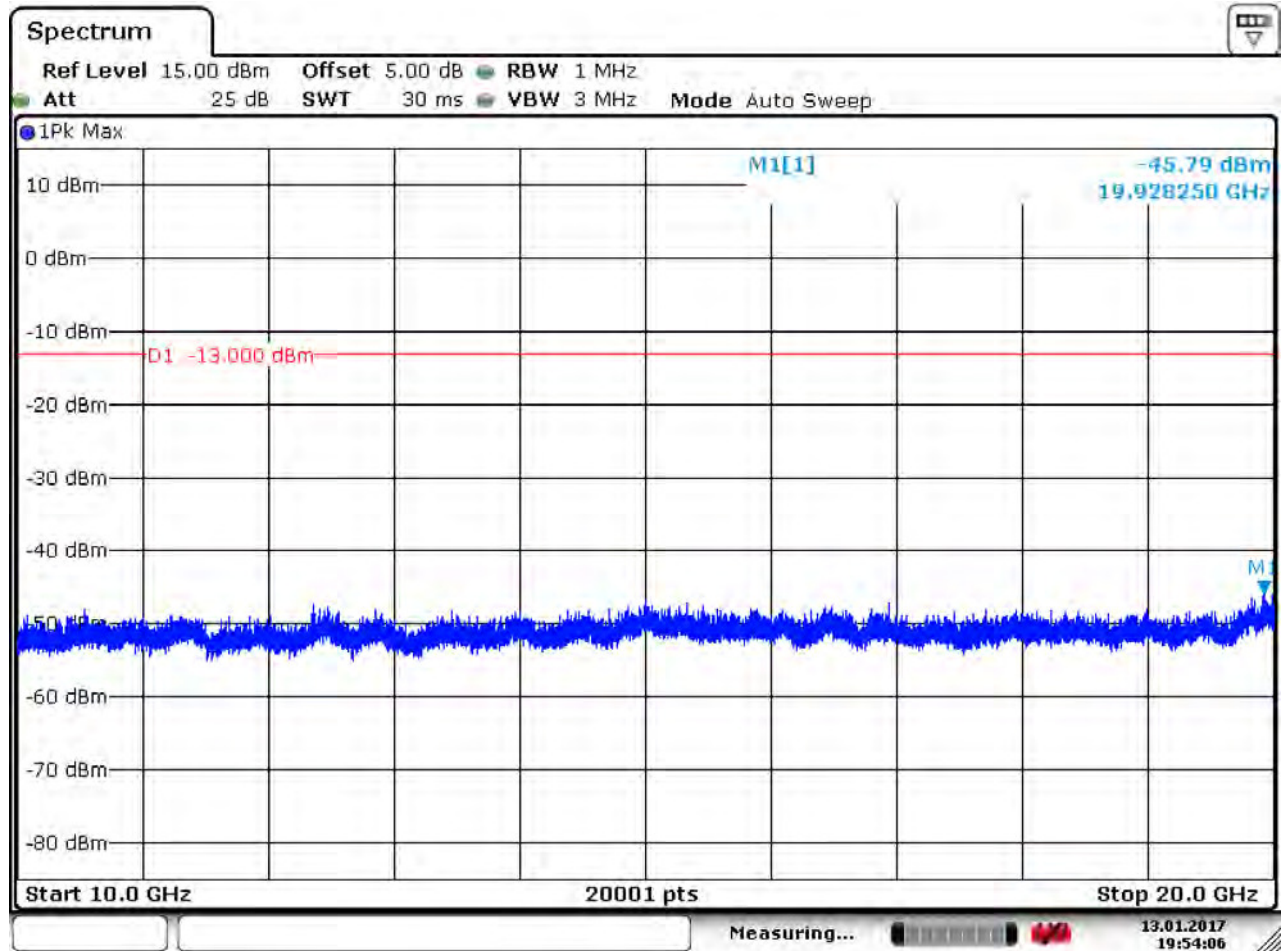
6.1.1.4.2 Test Channel = MCH



Date: 13.JAN.2017 19:45:22



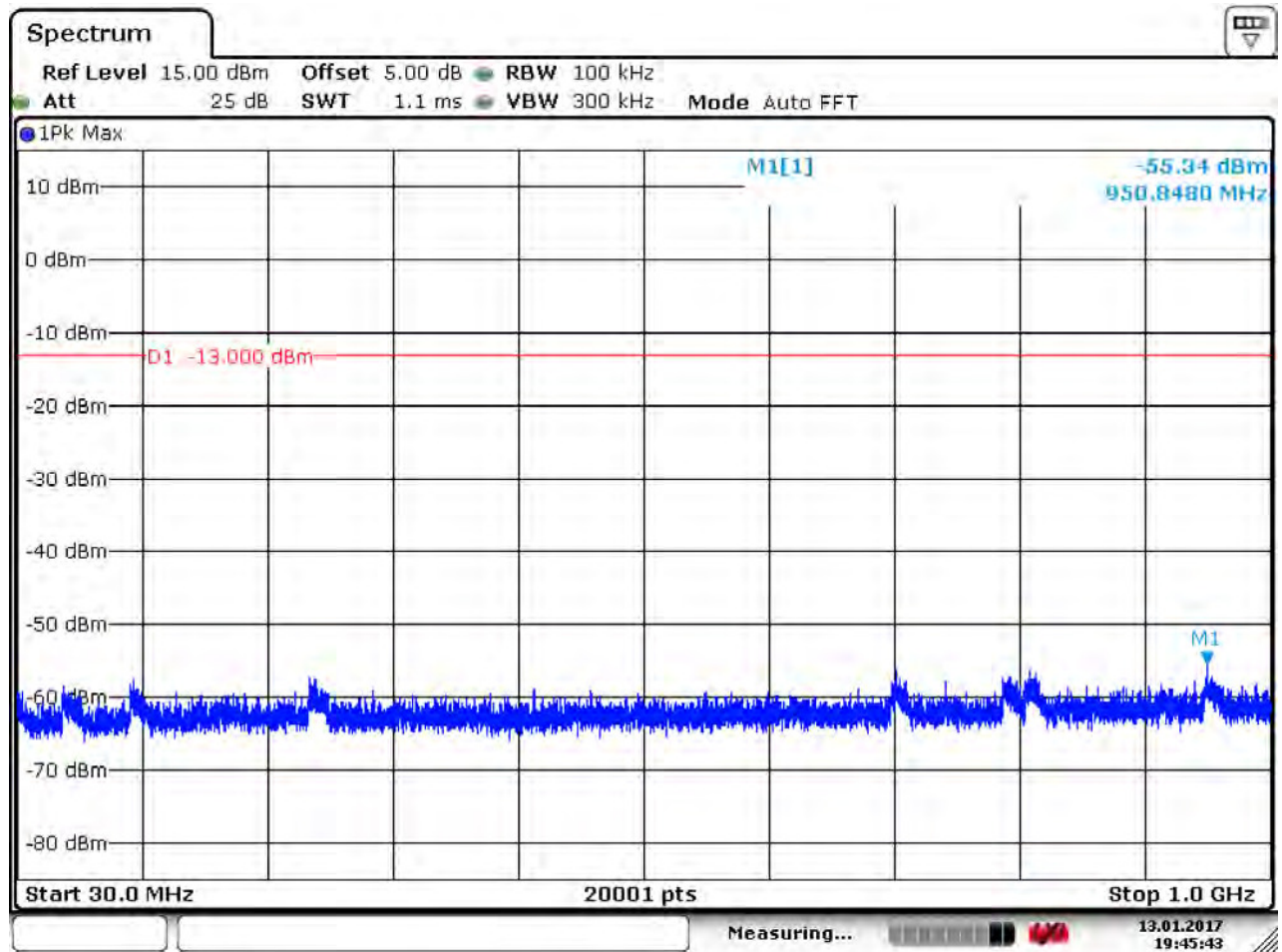
Date: 13.JAN.2017 20:05:16



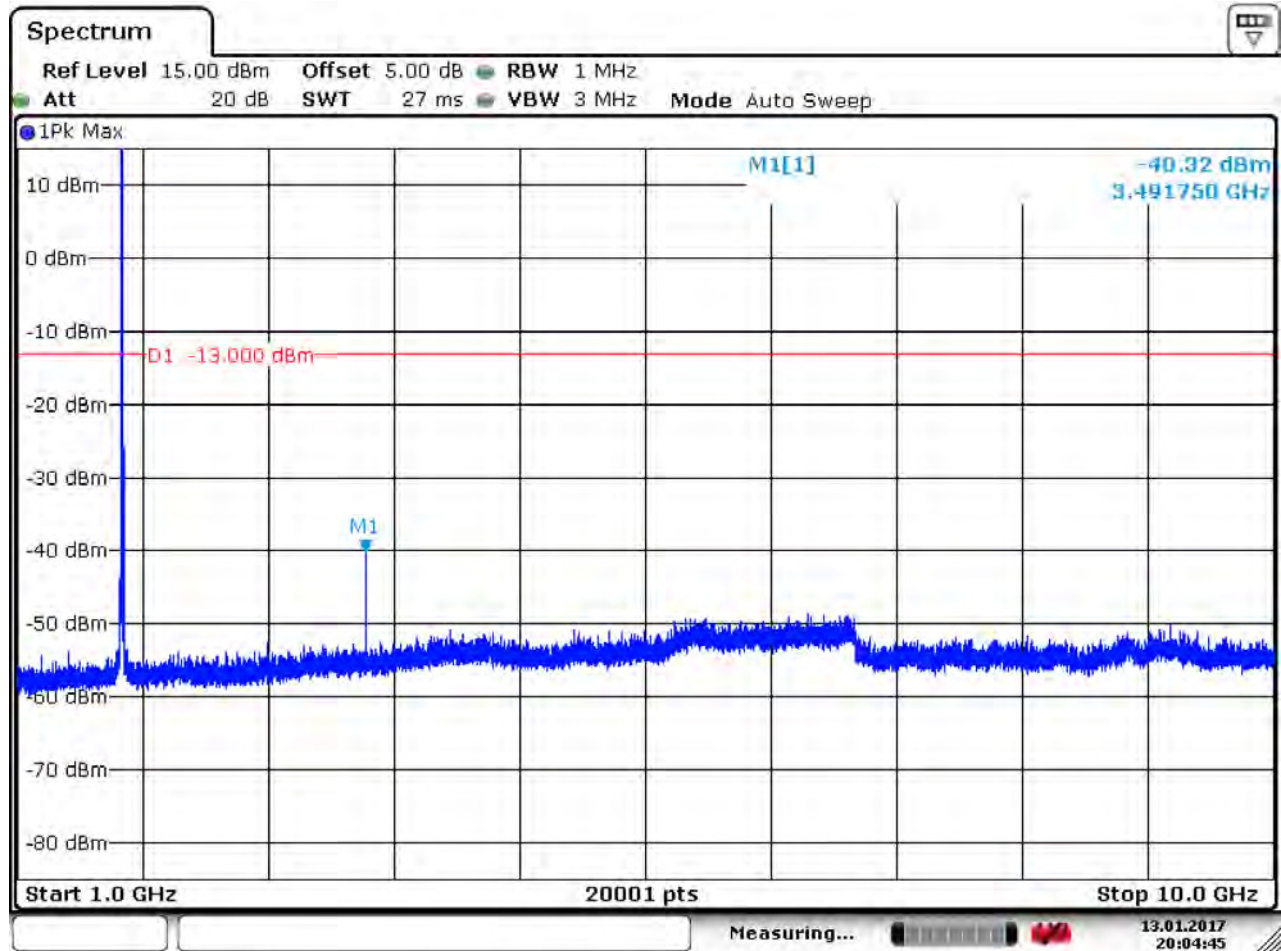
Date: 13.JAN.2017 19:54:07



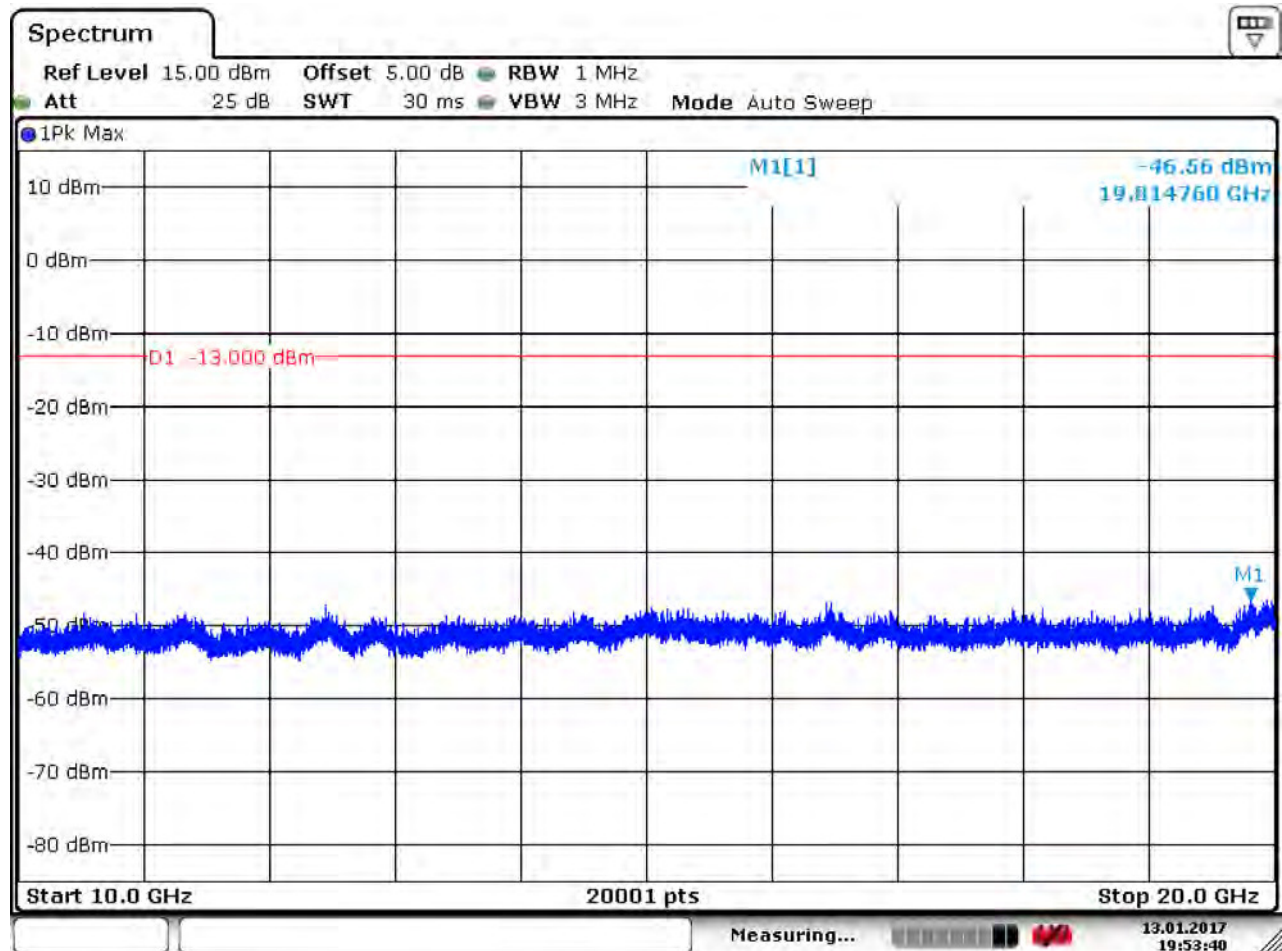
6.1.1.4.3 Test Channel = HCH



Date: 13.JAN.2017 19:45:44



Date: 13.JAN.2017 20:04:45

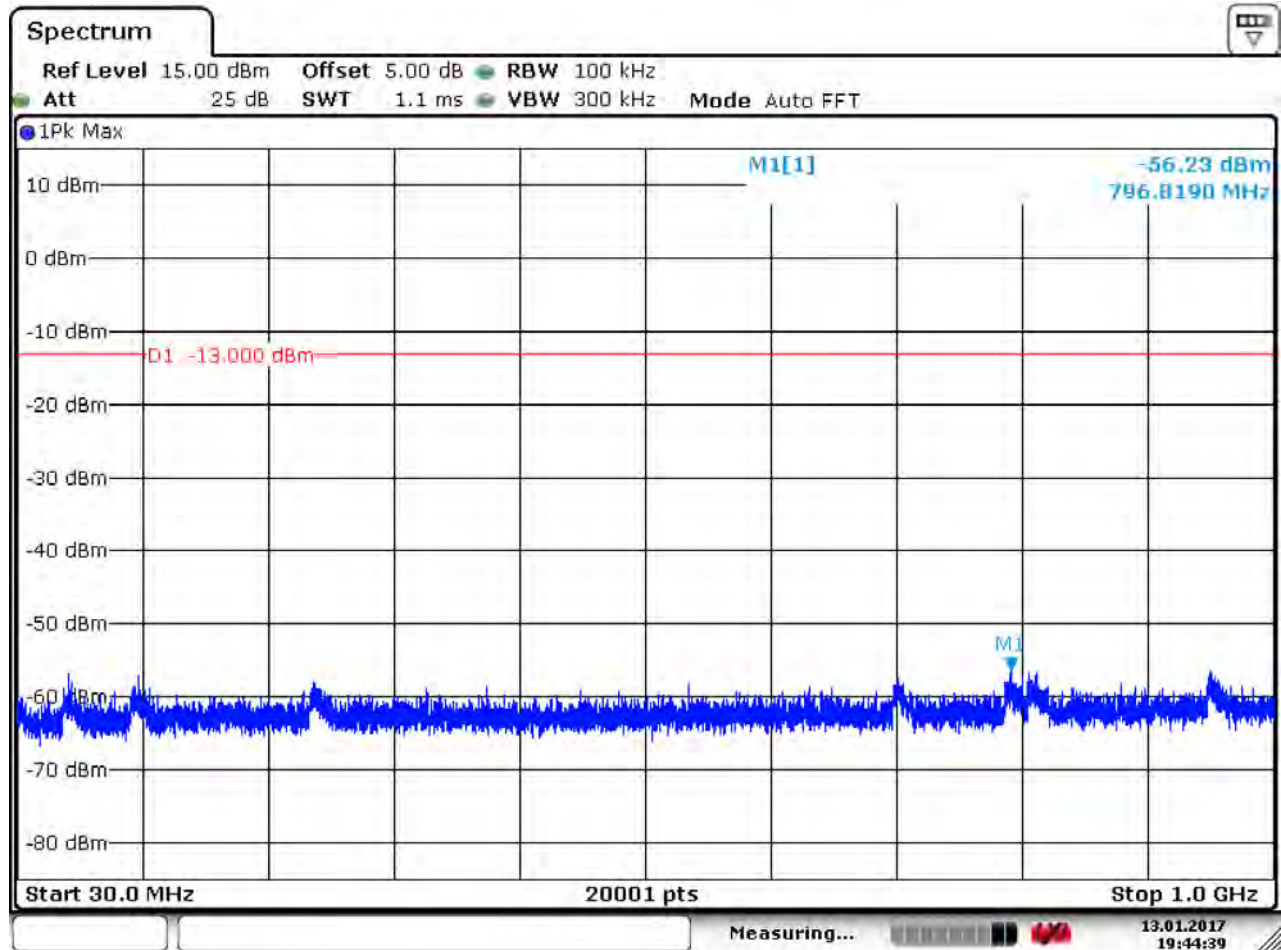


Date: 13.JAN.2017 19:53:40

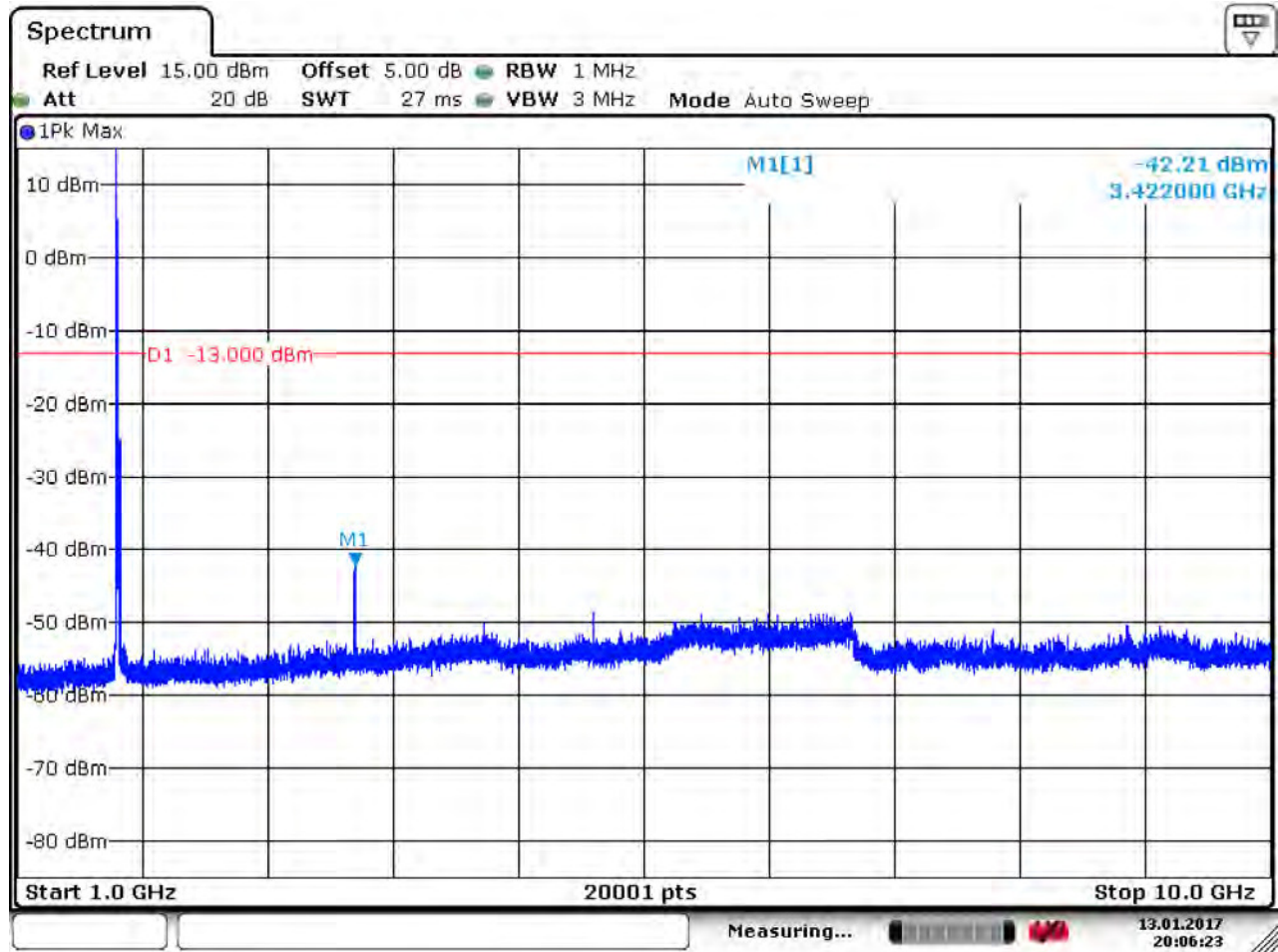


6.1.1.5 Test Mode = LTE / TM1 15MHz RB1#0

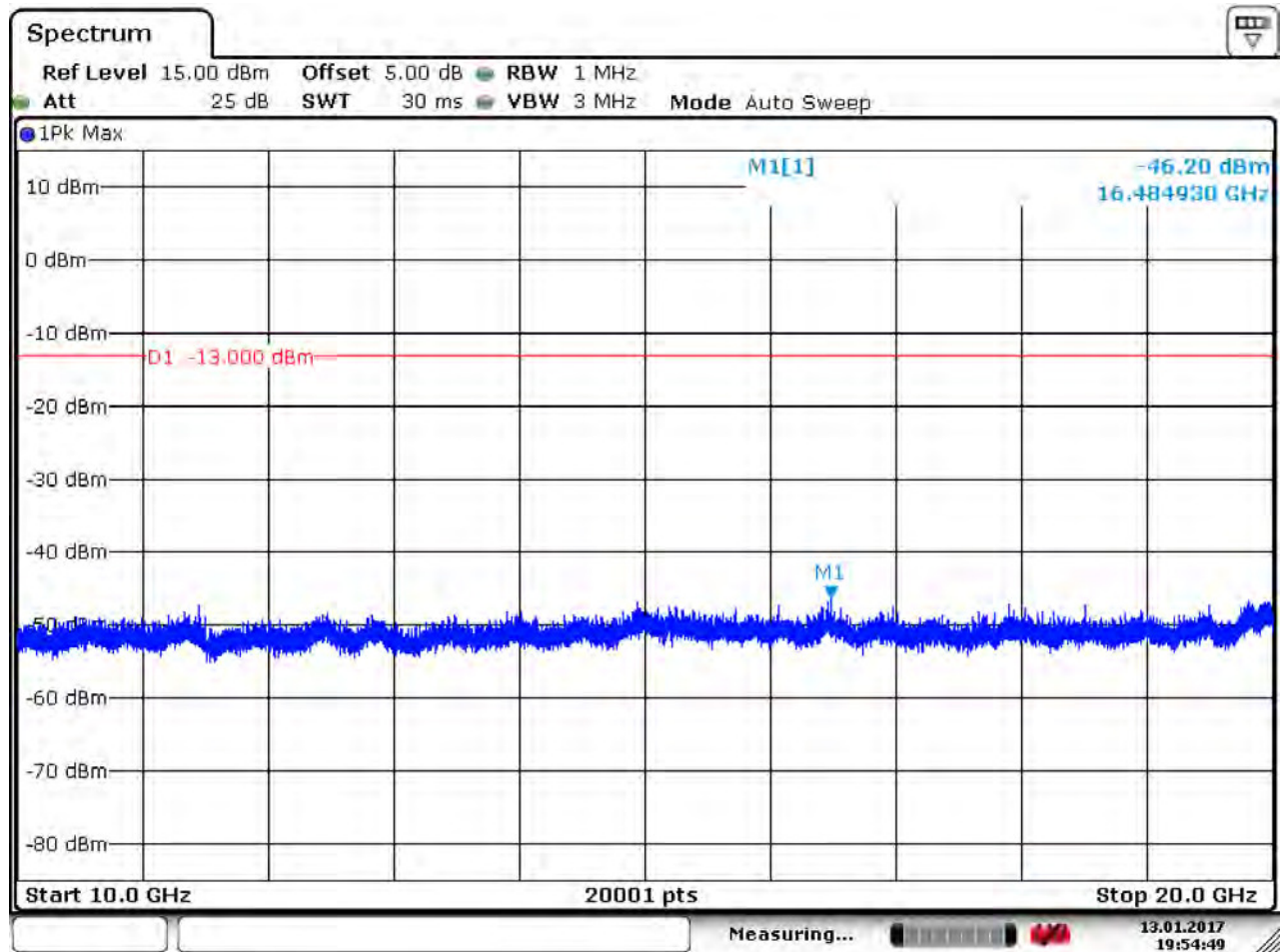
6.1.1.5.1 Test Channel = LCH



Date: 13.JAN.2017 19:44:39



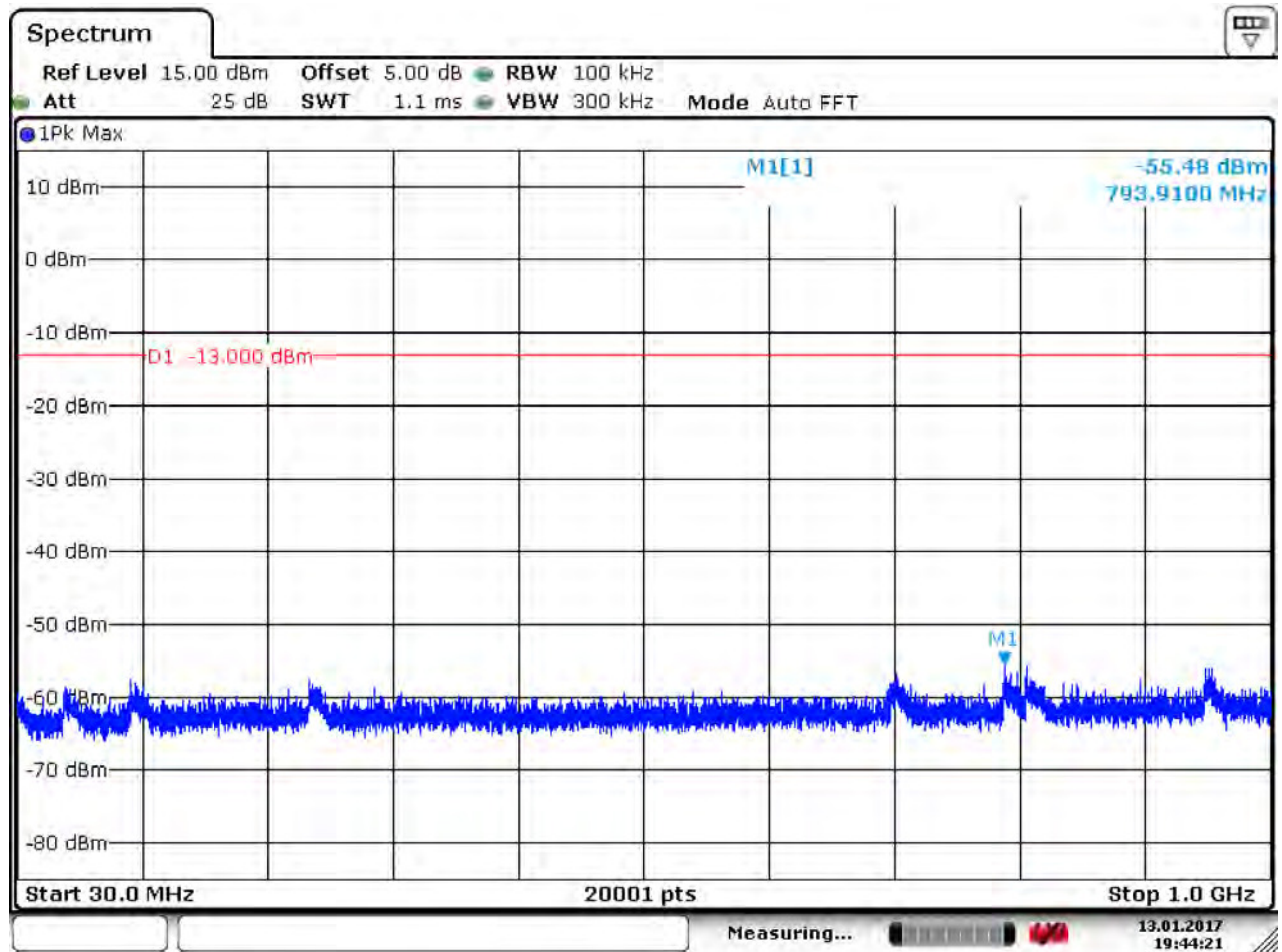
Date: 13.JAN.2017 20:06:24



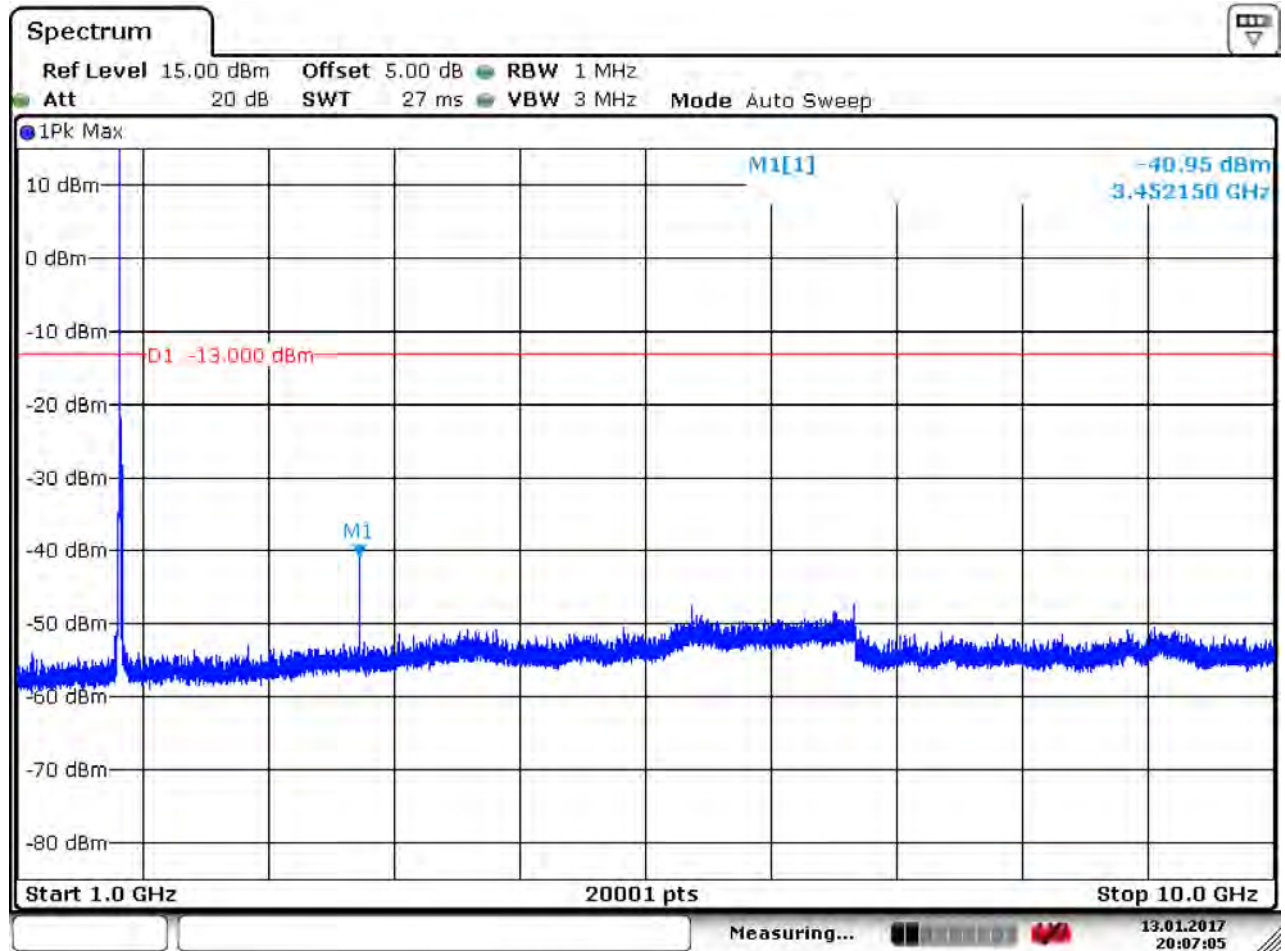
Date: 13.JAN.2017 19:54:50



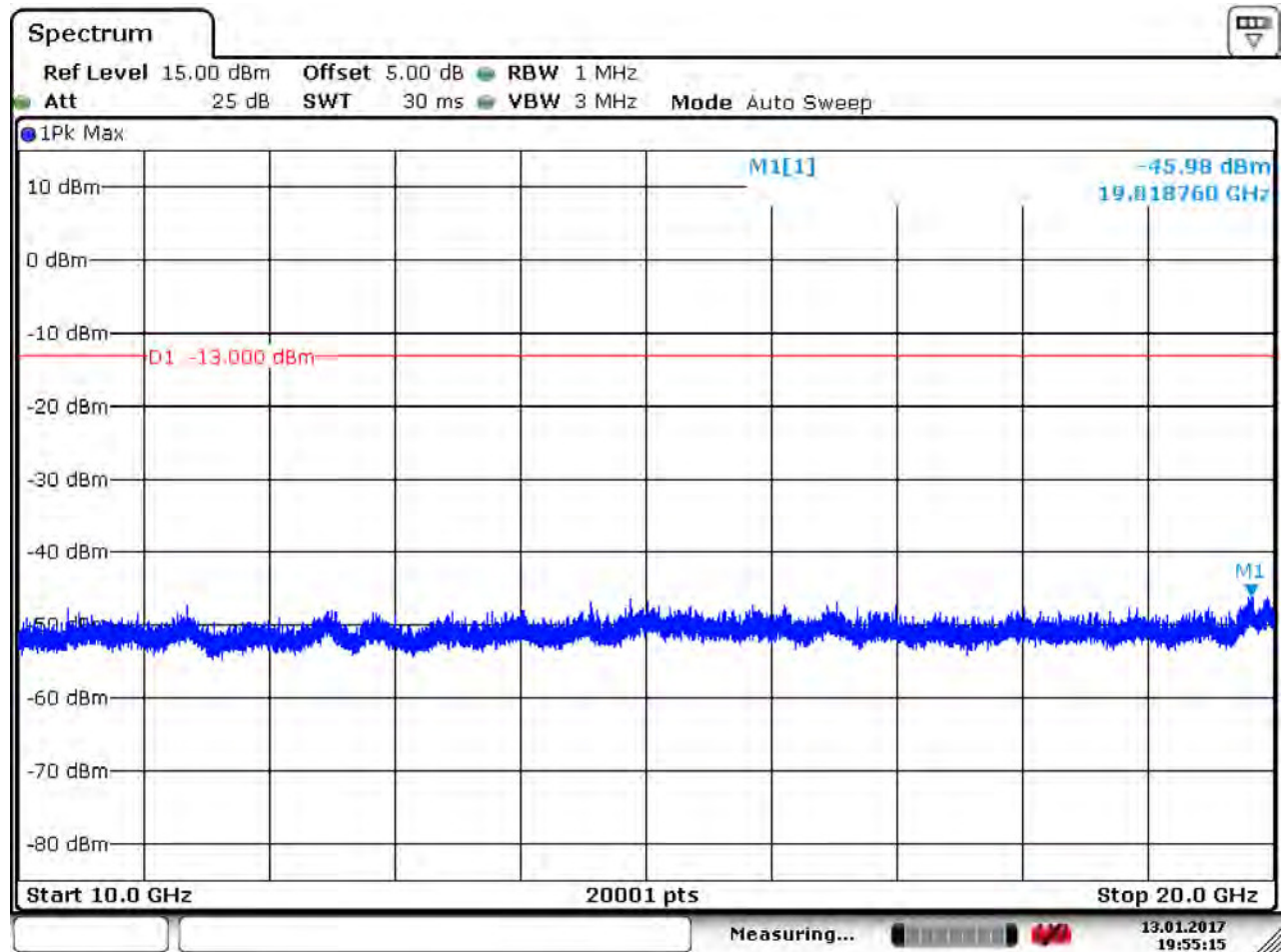
6.1.1.5.2 Test Channel = MCH



Date: 13.JAN.2017 19:44:21



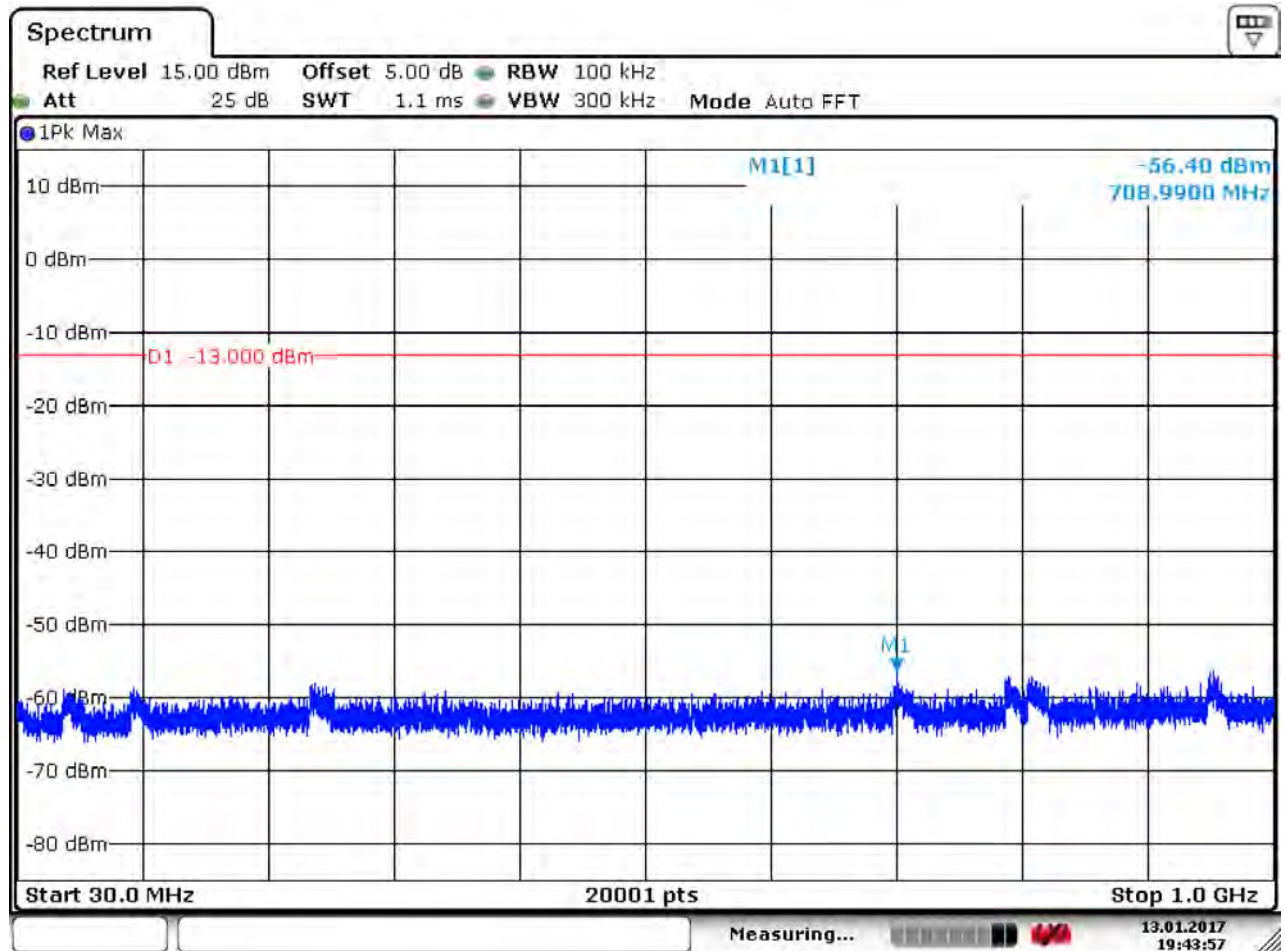
Date: 13.JAN.2017 20:07:05



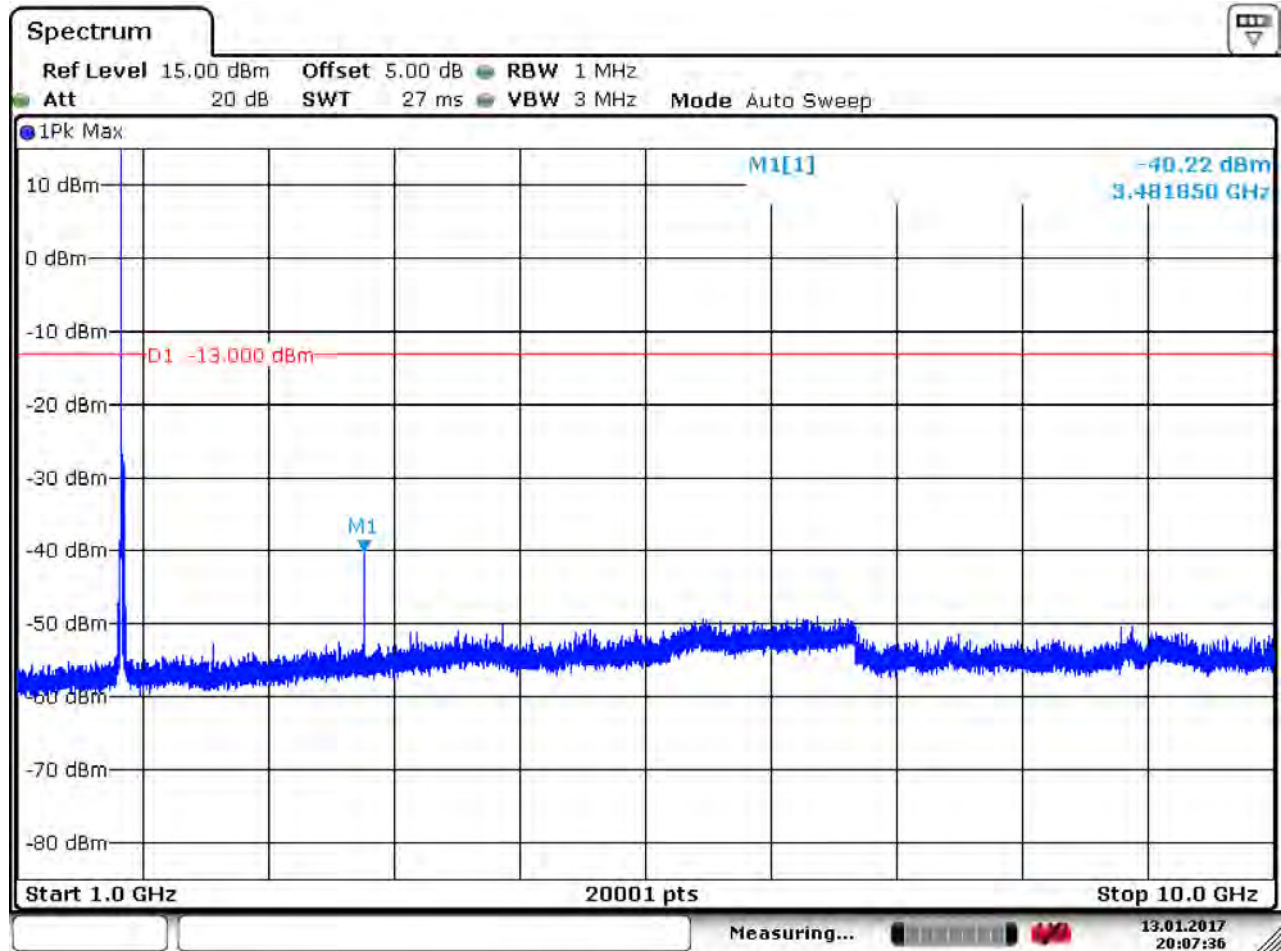
Date: 13.JAN.2017 19:55:15



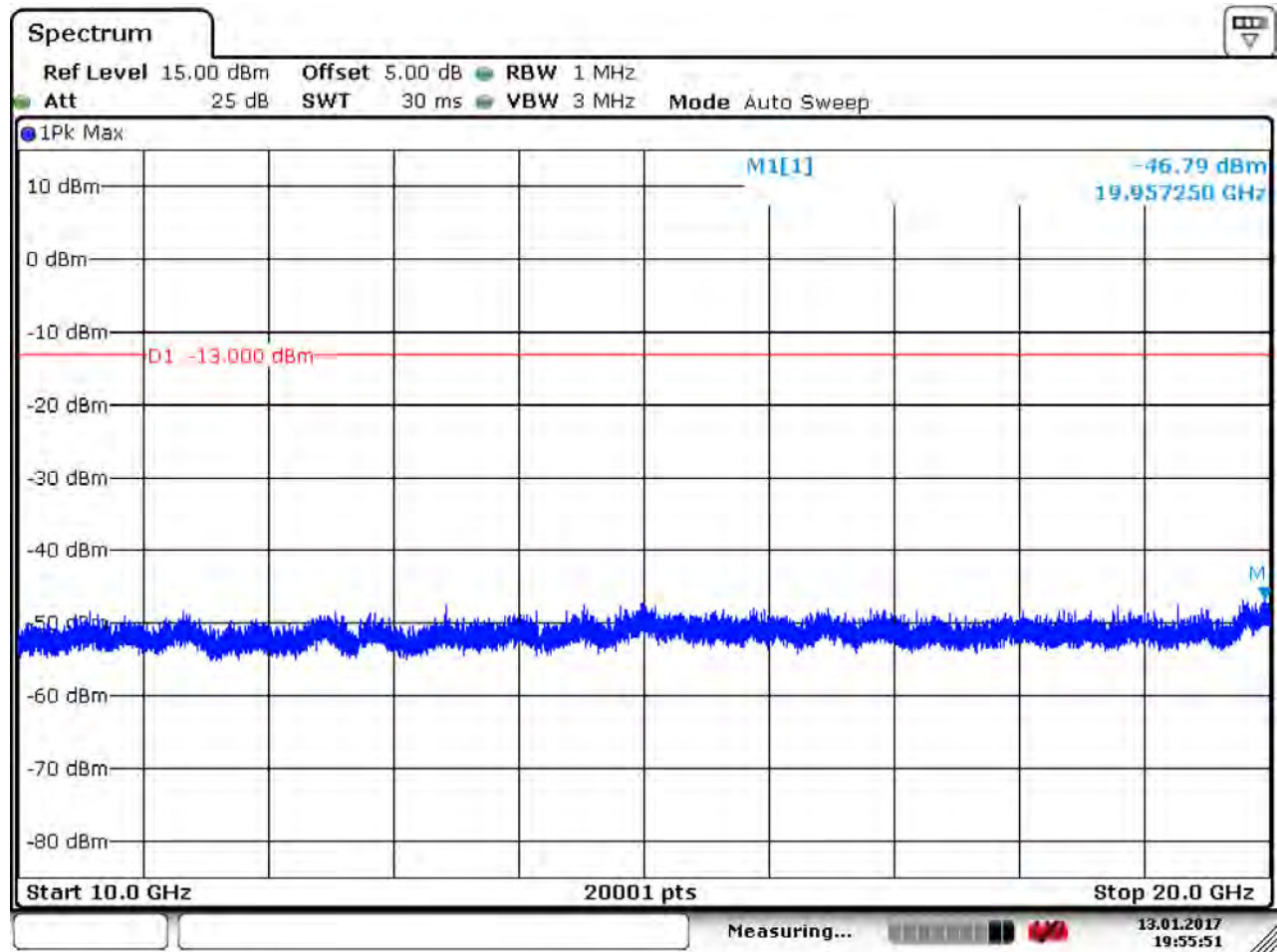
6.1.1.5.3 Test Channel = HCH



Date: 13.JAN.2017 19:43:58



Date: 13.JAN.2017 20:07:36

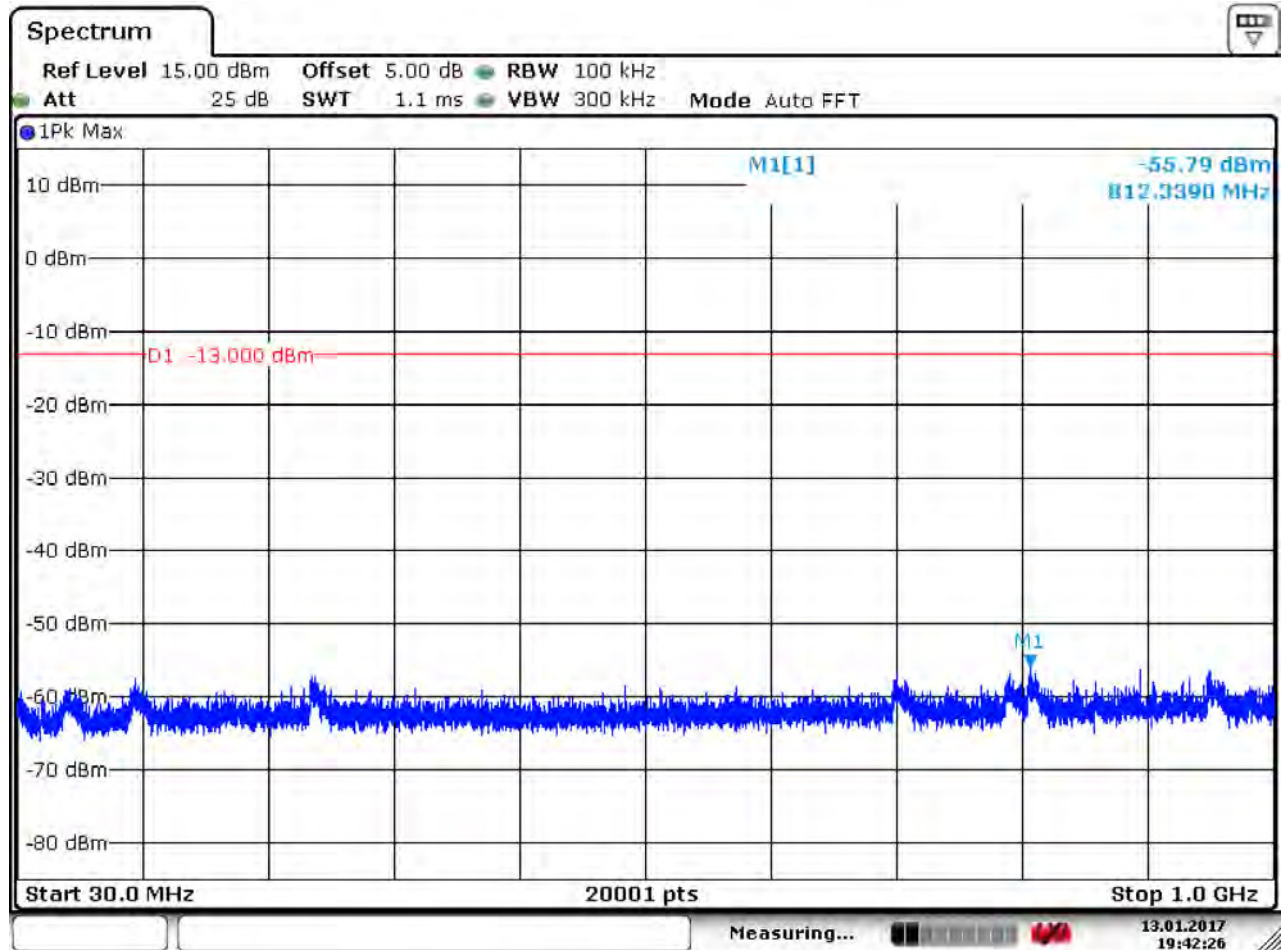


Date: 13.JAN.2017 19:55:51

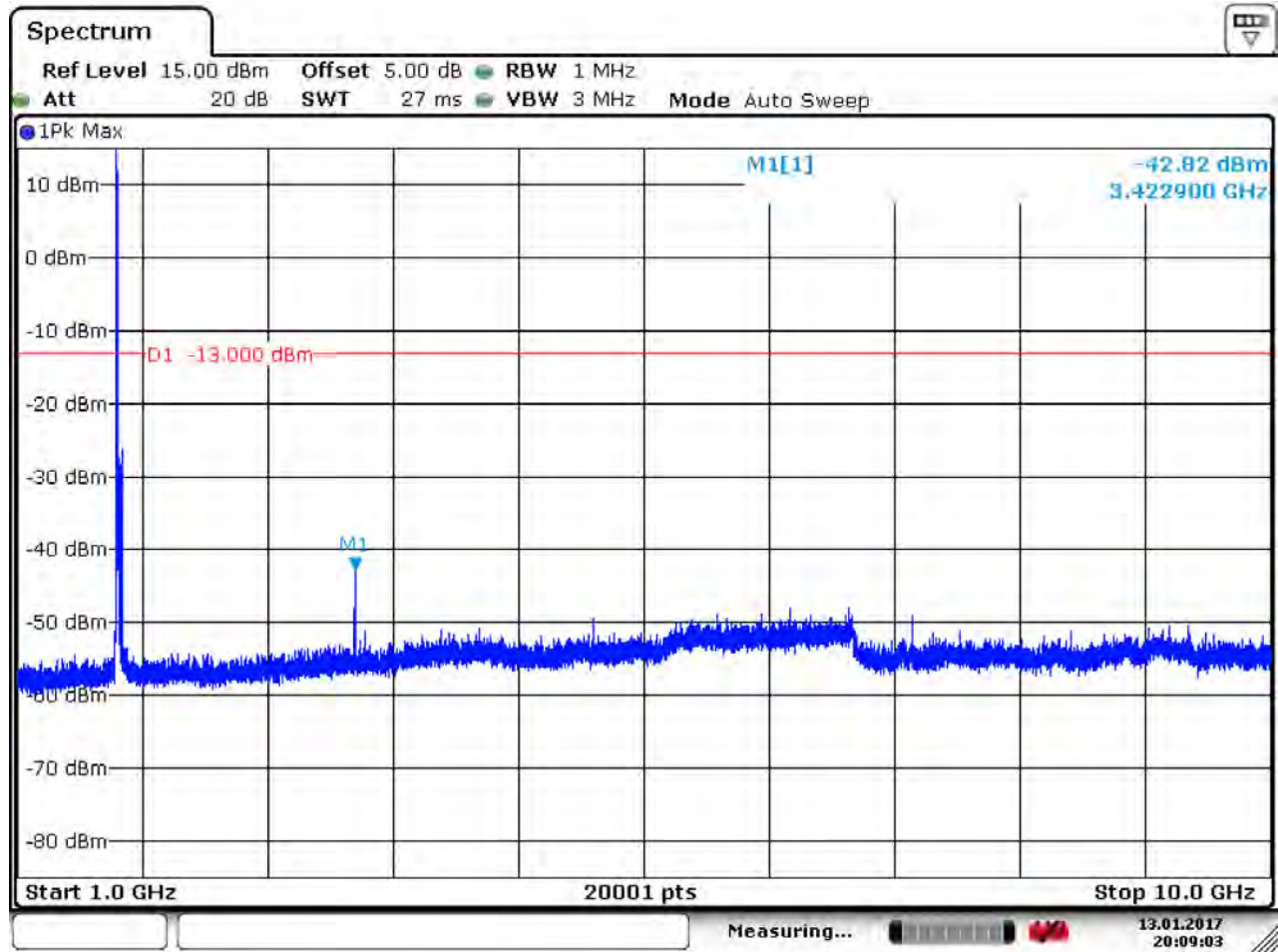


6.1.1.6 Test Mode = LTE / TM1 20MHz RB1#0

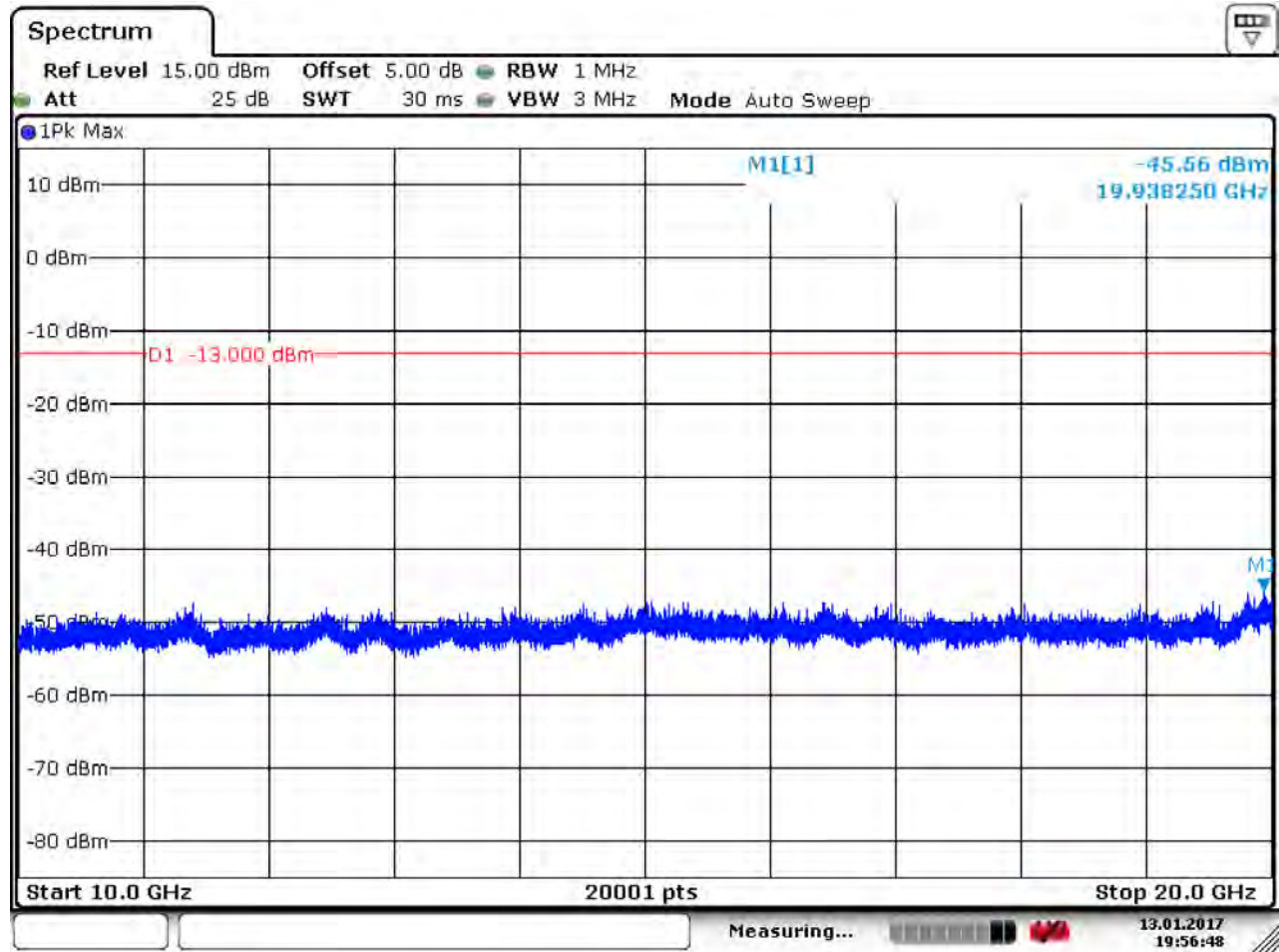
6.1.1.6.1 Test Channel = LCH



Date: 13.JAN.2017 19:42:26



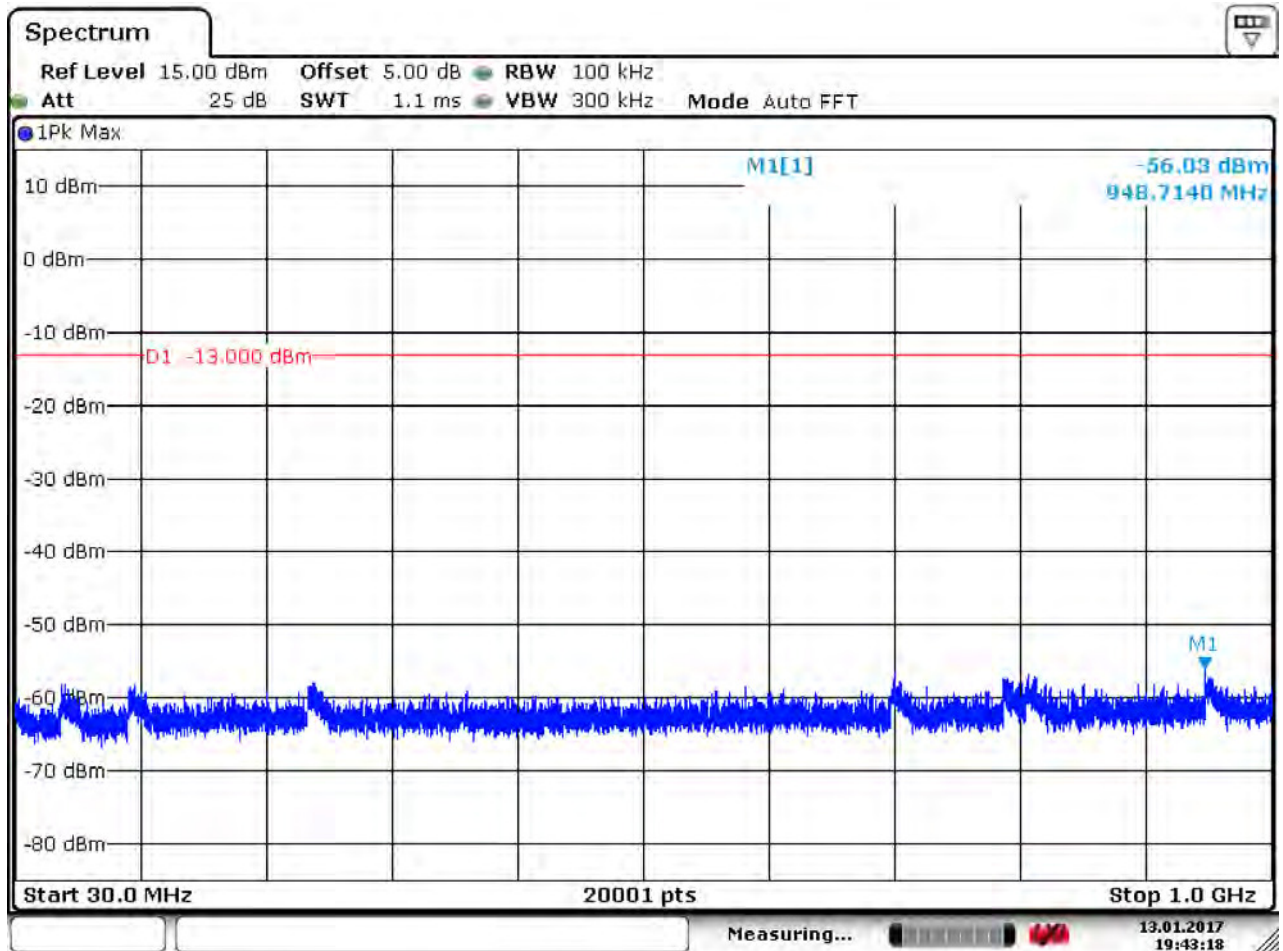
Date: 13.JAN.2017 20:09:03



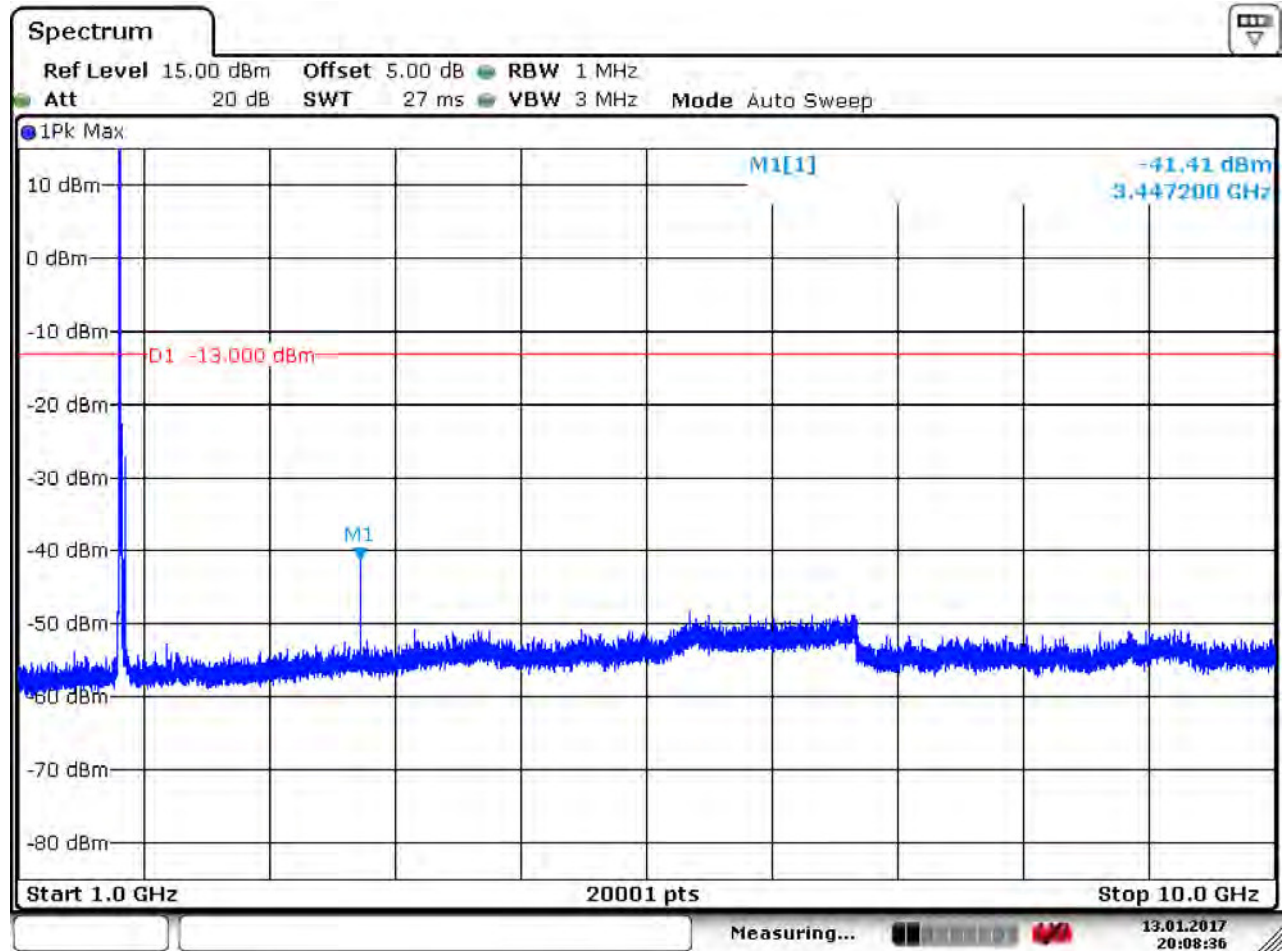
Date: 13.JAN.2017 19:56:48



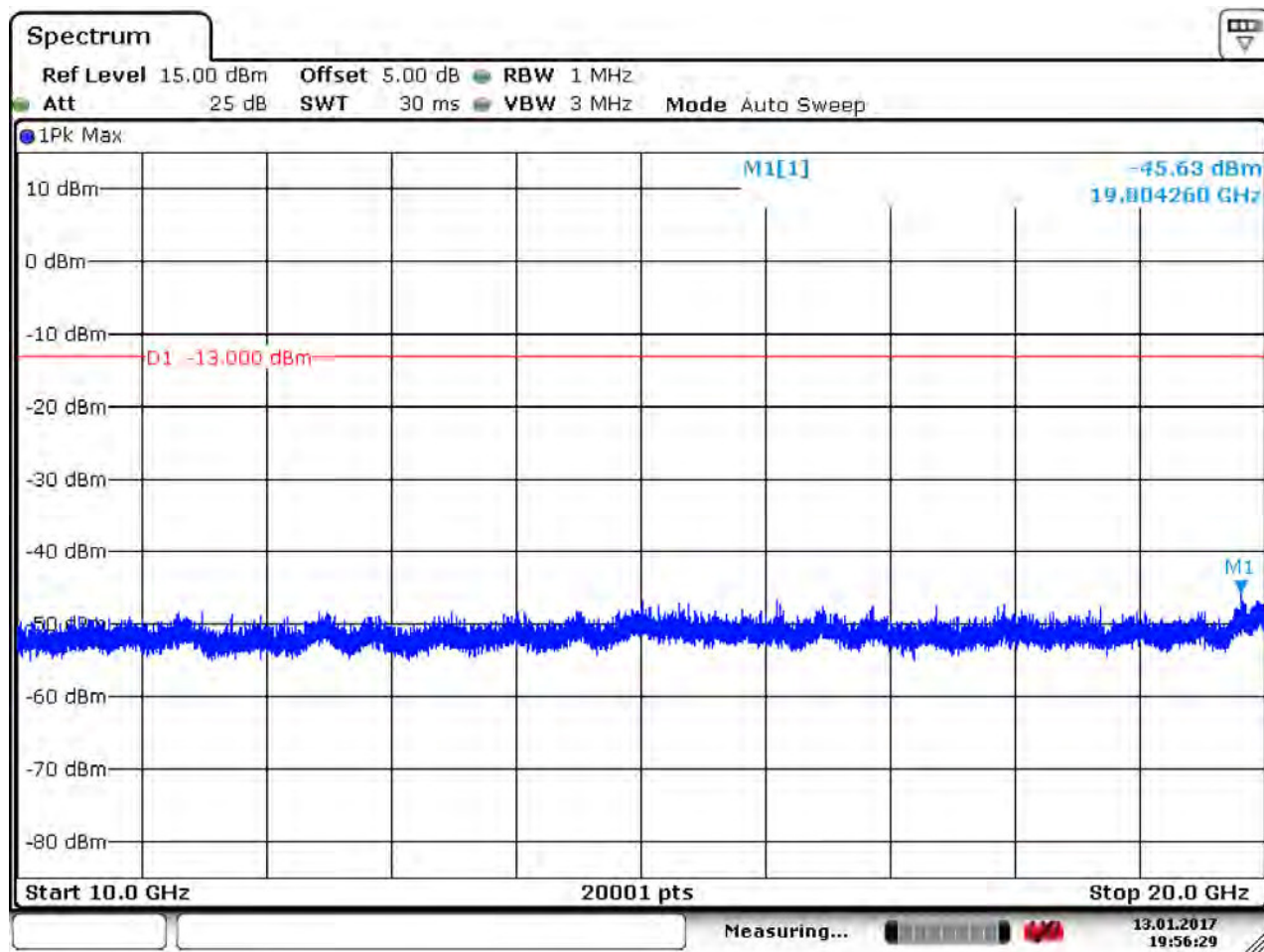
6.1.1.6.2 Test Channel = MCH



Date: 13.JAN.2017 19:43:18



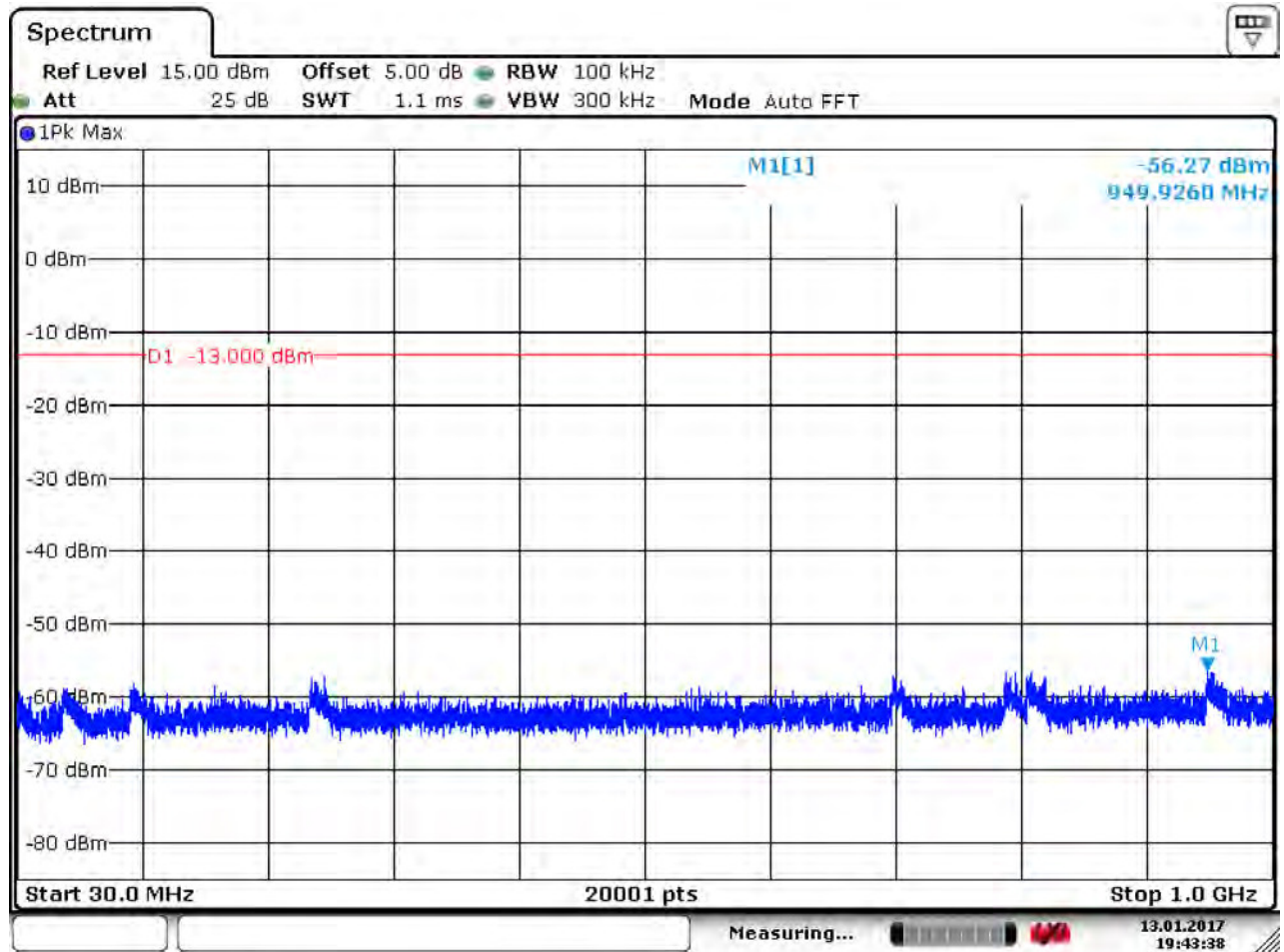
Date: 13.JAN.2017 20:08:36



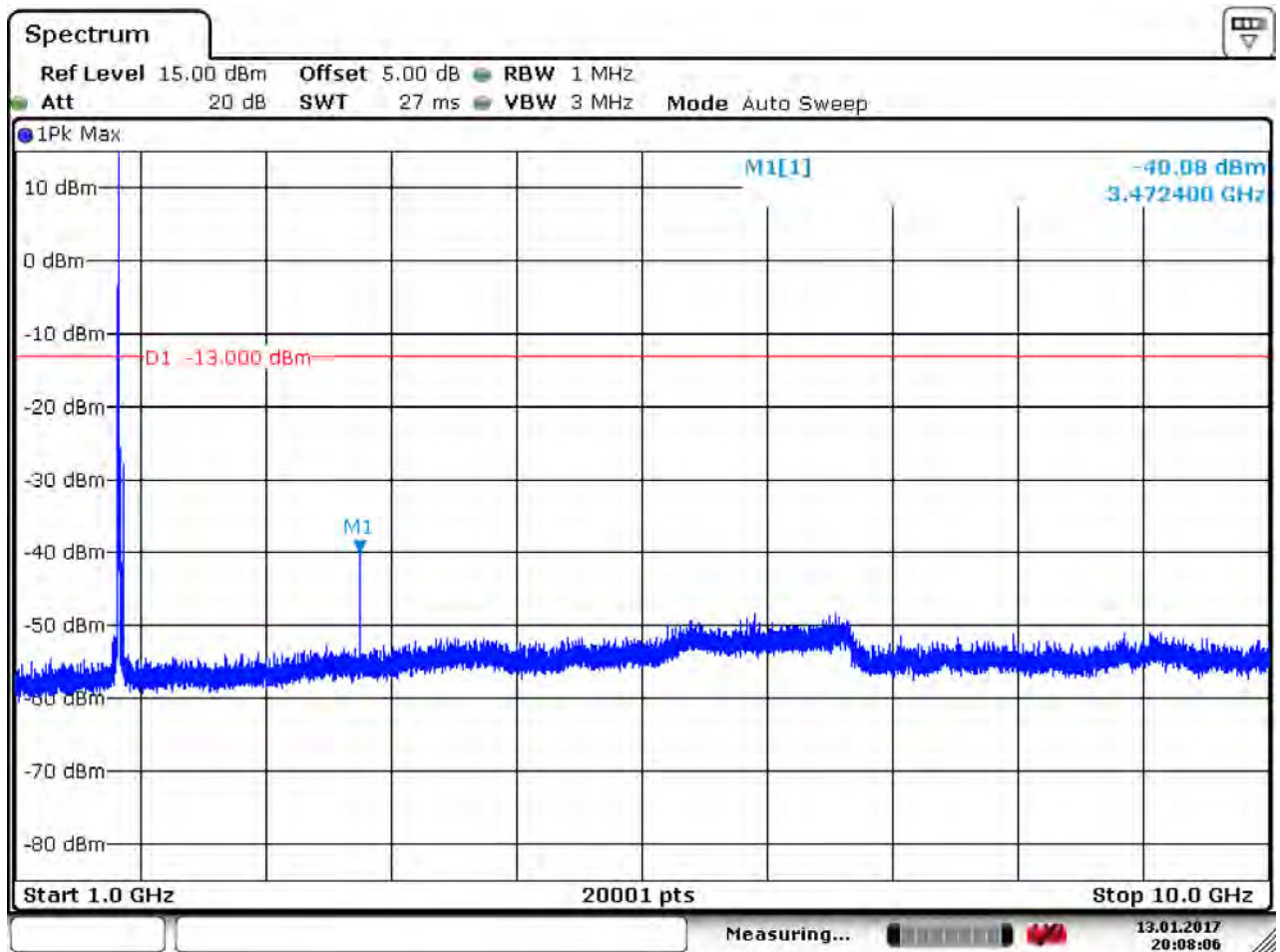
Date: 13.JAN.2017 19:56:29



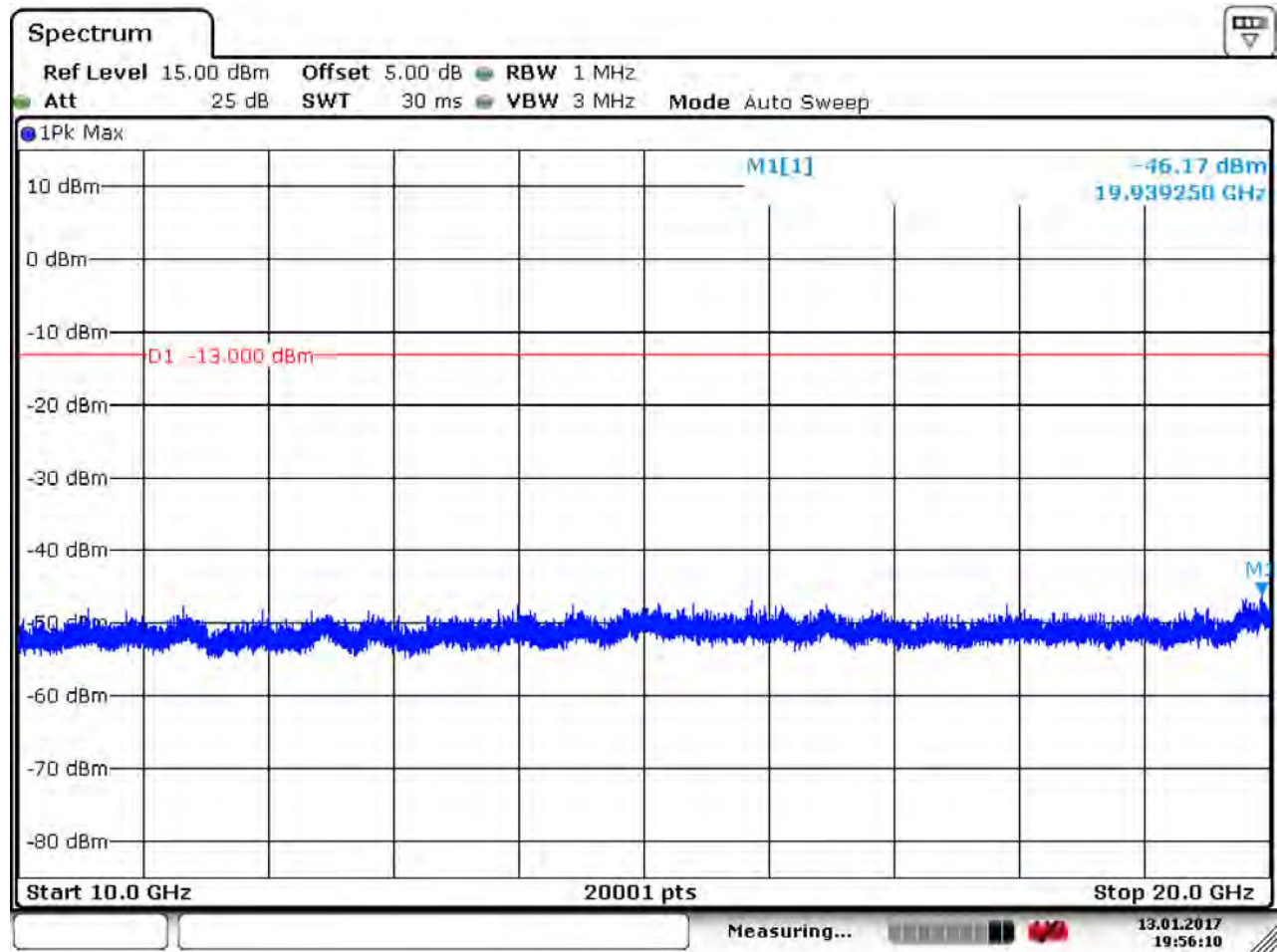
6.1.1.6.3 Test Channel = HCH



Date: 13.JAN.2017 19:43:39



Date: 13.JAN.2017 20:08:06



Date: 13.JAN.2017 19:56:11



7 Field Strength of Spurious Radiation

7.1 For LTE

7.1.1 Test Band = LTEband4

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1617.000	-65.78	-13.00	-52.78	Vertical
4657.500	-68.66	-13.00	-55.66	Vertical
5632.500	-67.08	-13.00	-54.08	Vertical
2592.000	-58.69	-13.00	-45.69	Horizontal
5730.000	-67.96	-13.00	-54.96	Horizontal
8460.000	-65.61	-13.00	-52.61	Horizontal

Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1628.000	-65.46	-13.00	-52.46	Vertical
5632.500	-67.17	-13.00	-54.17	Vertical
7875.000	-64.67	-13.00	-51.67	Vertical
1375.000	-67.71	-13.00	-54.71	Horizontal
2800.000	-57.10	-13.00	-44.10	Horizontal
5632.500	-67.25	-13.00	-54.25	Horizontal

7.1.1.1.2 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1573.000	-66.32	-13.00	-53.32	Vertical
2232.000	-59.40	-13.00	-46.40	Vertical
7972.500	-64.63	-13.00	-51.63	Vertical
1221.000	-67.27	-13.00	-54.27	Horizontal
2392.000	-58.99	-13.00	-45.99	Horizontal
5632.500	-67.26	-13.00	-54.26	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 Band 4	LTE/TM1 20MHz	LCH	TN	VL	2.07	0.00120	PASS
				VN	-0.50	-0.00029	PASS
				VH	-4.19	-0.00243	PASS
		MCH	TN	VL	3.65	0.00211	PASS
				VN	-3.44	-0.00199	PASS
				VH	0.60	0.00035	PASS
		HCH	TN	VL	5.89	0.00338	PASS
				VN	6.91	0.00396	PASS
				VH	-1.91	-0.00109	PASS
	LTE/TM2 20MHz	LCH	TN	VL	-0.05	-0.00003	PASS
				VN	3.25	0.00189	PASS
				VH	-1.31	-0.00076	PASS
		MCH	TN	VL	5.69	0.00329	PASS
				VN	1.31	0.00076	PASS
				VH	0.28	0.00016	PASS
		HCH	TN	VL	-1.13	-0.00065	PASS
				VN	-3.55	-0.00204	PASS
				VH	-4.94	-0.00283	PASS
	LTE/TM3 20MHz	LCH	TN	VL	4.44	0.00258	PASS
				VN	-6.90	-0.00401	PASS
				VH	6.37	0.00370	PASS
		MCH	TN	VL	6.82	0.00394	PASS
				VN	6.48	0.00374	PASS
				VH	1.90	0.00110	PASS
		HCH	TN	VL	3.09	0.00177	PASS
				VN	5.88	0.00337	PASS
				VH	5.01	0.00287	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 Band 4	LTE/TM1 20MHz	LCH	VN	-30	4.06	0.00236	PASS
				-20	-3.30	-0.00192	PASS
				-10	-5.25	-0.00305	PASS
				0	6.88	0.00400	PASS
				10	5.02	0.00292	PASS
				20	3.72	0.00216	PASS
				30	-0.67	-0.00039	PASS
				40	2.08	0.00121	PASS
				50	1.54	0.00089	PASS
		MCH	VN	-30	1.68	0.00097	PASS
				-20	-2.40	-0.00139	PASS
				-10	6.65	0.00384	PASS
				0	-0.90	-0.00052	PASS
				10	6.94	0.00401	PASS
				20	0.95	0.00055	PASS
				30	-2.93	-0.00169	PASS
				40	-4.74	-0.00274	PASS
				50	0.87	0.00050	PASS
		HCH	VN	-30	0.37	0.00021	PASS
				-20	-0.87	-0.00050	PASS
				-10	1.11	0.00064	PASS
				0	-2.92	-0.00167	PASS
				10	6.80	0.00390	PASS
				20	2.49	0.00142	PASS
				30	-4.65	-0.00266	PASS
				40	-6.36	-0.00365	PASS
				50	0.22	0.00012	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE Band 4	LTE/TM2 20MHz	LCH	VN	-30	2.56	0.00149	PASS
				-20	-6.49	-0.00377	PASS
				-10	4.44	0.00258	PASS
				0	-5.25	-0.00305	PASS
				10	-0.66	-0.00038	PASS
				20	4.18	0.00243	PASS
				30	-3.35	-0.00195	PASS
				40	-2.29	-0.00133	PASS
				50	0.39	0.00023	PASS
		MCH	VN	-30	5.15	0.00297	PASS
				-20	-6.92	-0.00400	PASS
				-10	-0.61	-0.00035	PASS
				0	5.55	0.00320	PASS
				10	1.17	0.00068	PASS
				20	0.11	0.00006	PASS
				30	2.50	0.00144	PASS
				40	-6.52	-0.00376	PASS
				50	4.05	0.00234	PASS
		HCH	VN	-30	4.74	0.00272	PASS
				-20	2.04	0.00117	PASS
				-10	0.63	0.00036	PASS
				0	1.79	0.00103	PASS
				10	5.78	0.00331	PASS
				20	3.73	0.00214	PASS
				30	3.10	0.00178	PASS
				40	3.69	0.00212	PASS
				50	-4.76	-0.00273	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE Band 4	LTE/TM3 20MHz	LCH	VN	-30	-2.76	-0.00160	PASS
				-20	-5.14	-0.00299	PASS
				-10	-6.12	-0.00356	PASS
				0	-1.78	-0.00103	PASS
				10	1.32	0.00076	PASS
				20	-0.13	-0.00008	PASS
				30	-1.08	-0.00063	PASS
				40	5.99	0.00348	PASS
				50	2.94	0.00171	PASS
		MCH	VN	-30	1.58	0.00091	PASS
				-20	-6.18	-0.00357	PASS
				-10	2.07	0.00120	PASS
				0	2.40	0.00138	PASS
				10	6.04	0.00348	PASS
				20	0.51	0.00030	PASS
				30	-4.09	-0.00236	PASS
				40	3.82	0.00221	PASS
				50	-2.38	-0.00137	PASS
		HCH	VN	-30	1.02	0.00058	PASS
				-20	4.16	0.00239	PASS
				-10	-6.73	-0.00385	PASS
				0	-0.36	-0.00021	PASS
				10	-4.70	-0.00269	PASS
				20	-5.14	-0.00295	PASS
				30	-3.81	-0.00218	PASS
				40	-3.38	-0.00193	PASS
				50	0.49	0.00028	PASS

The End

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