



# Appendix B

## **E-UTRA Band 2&4&25**



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# 1 Effective (Isotropic) Radiated Power Output Data

Effective Isotropic Radiated Power of Transmitter (EIRP) for LTE BAND 2

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	1.4M	LCH	RB1#0	22.45	25.45	33.00	PASS
				RB1#2	22.57	25.57	33.00	PASS
				RB1#5	22.47	25.47	33.00	PASS
				RB3#0	22.21	25.21	33.00	PASS
				RB3#2	22.20	25.2	33.00	PASS
				RB3#3	22.23	25.23	33.00	PASS
				RB6#0	21.30	24.3	33.00	PASS
			MCH	RB1#0	22.32	25.32	33.00	PASS
				RB1#2	22.47	25.47	33.00	PASS
				RB1#5	22.42	25.42	33.00	PASS
				RB3#0	22.46	25.46	33.00	PASS
				RB3#2	22.47	25.47	33.00	PASS
				RB3#3	22.33	25.33	33.00	PASS
				RB6#0	21.53	24.53	33.00	PASS
			HCH	RB1#0	22.47	25.47	33.00	PASS
				RB1#2	22.37	25.37	33.00	PASS
				RB1#5	22.44	25.44	33.00	PASS
				RB3#0	22.51	25.51	33.00	PASS
				RB3#2	22.49	25.49	33.00	PASS
				RB3#3	22.39	25.39	33.00	PASS
				RB6#0	21.68	24.68	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM2	1.4M	LCH	RB1#0	21.56	24.56	33.00	PASS
				RB1#2	21.69	24.69	33.00	PASS
				RB1#5	21.46	24.46	33.00	PASS
				RB3#0	21.19	24.19	33.00	PASS
				RB3#2	21.18	24.18	33.00	PASS
				RB3#3	21.22	24.22	33.00	PASS
				RB6#0	20.42	23.42	33.00	PASS
			MCH	RB1#0	21.17	24.17	33.00	PASS
				RB1#2	21.40	24.4	33.00	PASS
				RB1#5	21.38	24.38	33.00	PASS
				RB3#0	21.34	24.34	33.00	PASS
				RB3#2	21.33	24.33	33.00	PASS
				RB3#3	21.56	24.56	33.00	PASS
				RB6#0	20.39	23.39	33.00	PASS
			HCH	RB1#0	21.43	24.43	33.00	PASS
				RB1#2	21.63	24.63	33.00	PASS
				RB1#5	21.76	24.76	33.00	PASS
				RB3#0	21.52	24.52	33.00	PASS
				RB3#2	21.50	24.5	33.00	PASS
				RB3#3	21.54	24.54	33.00	PASS
				RB6#0	20.56	23.56	33.00	PASS

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BAND2	LTE/TM1	3M	LCH	RB1#0	21.29	24.29	33.00	PASS
				RB1#7	22.57	25.57	33.00	PASS
				RB1#14	22.17	25.17	33.00	PASS
				RB8#0	22.21	25.21	33.00	PASS
				RB8#4	21.33	24.33	33.00	PASS
				RB8#7	21.32	24.32	33.00	PASS
				RB15#0	21.26	24.26	33.00	PASS
			MCH	RB1#0	21.49	24.49	33.00	PASS
				RB1#7	22.69	25.69	33.00	PASS
				RB1#14	22.45	25.45	33.00	PASS
				RB8#0	22.83	25.83	33.00	PASS
				RB8#4	21.53	24.53	33.00	PASS
				RB8#7	21.44	24.44	33.00	PASS
				RB15#0	21.55	24.55	33.00	PASS
			HCH	RB1#0	21.69	24.69	33.00	PASS
				RB1#7	22.48	25.48	33.00	PASS
				RB1#14	22.43	25.43	33.00	PASS
				RB8#0	22.49	25.49	33.00	PASS
				RB8#4	21.67	24.67	33.00	PASS
				RB8#7	21.56	24.56	33.00	PASS
				RB15#0	21.63	24.63	33.00	PASS

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BAND2	LTE/TM2	3M	LCH	RB1#0	20.28	23.28	33.00	PASS
				RB1#7	21.63	24.63	33.00	PASS
				RB1#14	21.29	24.29	33.00	PASS
				RB8#0	21.18	24.18	33.00	PASS
				RB8#4	20.40	23.4	33.00	PASS
				RB8#7	20.40	23.4	33.00	PASS
				RB15#0	20.53	23.53	33.00	PASS
			MCH	RB1#0	20.61	23.61	33.00	PASS
				RB1#7	21.68	24.68	33.00	PASS
				RB1#14	21.53	24.53	33.00	PASS
				RB8#0	21.63	24.63	33.00	PASS
				RB8#4	20.61	23.61	33.00	PASS
				RB8#7	20.52	23.52	33.00	PASS
				RB15#0	20.74	23.74	33.00	PASS
			HCH	RB1#0	20.75	23.75	33.00	PASS
				RB1#7	21.65	24.65	33.00	PASS
				RB1#14	21.58	24.58	33.00	PASS
				RB8#0	21.54	24.54	33.00	PASS
				RB8#4	20.65	23.65	33.00	PASS
				RB8#7	20.76	23.76	33.00	PASS
				RB15#0	20.67	23.67	33.00	PASS

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BAND2	LTE/TM1	5M	LCH	RB1#0	21.38	24.38	33.00	PASS
				RB1#13	21.38	24.38	33.00	PASS
				RB1#24	21.38	24.38	33.00	PASS
				RB12#0	22.44	25.44	33.00	PASS
				RB12#6	22.43	25.43	33.00	PASS
				RB12#13	22.37	25.37	33.00	PASS
				RB25#0	21.34	24.34	33.00	PASS
			MCH	RB1#0	21.50	24.5	33.00	PASS
				RB1#13	21.53	24.53	33.00	PASS
				RB1#24	21.49	24.49	33.00	PASS
				RB12#0	22.38	25.38	33.00	PASS
				RB12#6	22.37	25.37	33.00	PASS
				RB12#13	22.54	25.54	33.00	PASS
				RB25#0	21.51	24.51	33.00	PASS
			HCH	RB1#0	21.73	24.73	33.00	PASS
				RB1#13	21.61	24.61	33.00	PASS
				RB1#24	21.63	24.63	33.00	PASS
				RB12#0	22.63	25.63	33.00	PASS
				RB12#6	22.63	25.63	33.00	PASS
				RB12#13	22.59	25.59	33.00	PASS
				RB25#0	21.57	24.57	33.00	PASS

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BAND2	LTE/TM2	5M	LCH	RB1#0	20.52	23.52	33.00	PASS
				RB1#13	20.40	23.4	33.00	PASS
				RB1#24	20.44	23.44	33.00	PASS
				RB12#0	21.32	24.32	33.00	PASS
				RB12#6	21.69	24.69	33.00	PASS
				RB12#13	21.40	24.4	33.00	PASS
				RB25#0	20.31	23.31	33.00	PASS
			MCH	RB1#0	20.40	23.4	33.00	PASS
				RB1#13	20.35	23.35	33.00	PASS
				RB1#24	20.40	23.4	33.00	PASS
				RB12#0	21.46	24.46	33.00	PASS
				RB12#6	21.58	24.58	33.00	PASS
				RB12#13	21.46	24.46	33.00	PASS
				RB25#0	20.52	23.52	33.00	PASS
			HCH	RB1#0	20.68	23.68	33.00	PASS
				RB1#13	20.67	23.67	33.00	PASS
				RB1#24	20.67	23.67	33.00	PASS
				RB12#0	21.09	24.09	33.00	PASS
				RB12#6	21.12	24.12	33.00	PASS
				RB12#13	21.38	24.38	33.00	PASS
				RB25#0	20.64	23.64	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	10M	LCH	RB1#0	22.50	25.5	33.00	PASS
				RB1#25	22.67	25.67	33.00	PASS
				RB1#49	22.32	25.32	33.00	PASS
				RB25#0	21.54	24.54	33.00	PASS
				RB25#13	21.54	24.54	33.00	PASS
				RB25#25	21.40	24.4	33.00	PASS
				RB50#0	21.54	24.54	33.00	PASS
			MCH	RB1#0	22.43	25.43	33.00	PASS
				RB1#25	22.94	25.94	33.00	PASS
				RB1#49	22.21	25.21	33.00	PASS
				RB25#0	21.54	24.54	33.00	PASS
				RB25#13	21.63	24.63	33.00	PASS
				RB25#25	21.55	24.55	33.00	PASS
				RB50#0	21.57	24.57	33.00	PASS
			HCH	RB1#0	22.65	25.65	33.00	PASS
				RB1#25	23.09	26.09	33.00	PASS
				RB1#49	22.50	25.5	33.00	PASS
				RB25#0	21.67	24.67	33.00	PASS
				RB25#13	21.66	24.66	33.00	PASS
				RB25#25	21.80	24.8	33.00	PASS
				RB50#0	21.77	24.77	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	15M	LCH	RB1#0	22.28	25.28	33.00	PASS
				RB1#38	22.53	25.53	33.00	PASS
				RB1#74	22.36	25.36	33.00	PASS
				RB36#0	22.61	25.61	33.00	PASS
				RB36#18	22.54	25.54	33.00	PASS
				RB36#39	22.39	25.39	33.00	PASS
				RB75#0	21.67	24.67	33.00	PASS
			MCH	RB1#0	22.57	25.57	33.00	PASS
				RB1#38	22.92	25.92	33.00	PASS
				RB1#74	22.43	25.43	33.00	PASS
				RB36#0	22.59	25.59	33.00	PASS
				RB36#18	22.87	25.87	33.00	PASS
				RB36#39	22.41	25.41	33.00	PASS
				RB75#0	21.69	24.69	33.00	PASS
			HCH	RB1#0	22.64	25.64	33.00	PASS
				RB1#38	22.86	25.86	33.00	PASS
				RB1#74	22.58	25.58	33.00	PASS
				RB36#0	22.72	25.72	33.00	PASS
				RB36#18	22.88	25.88	33.00	PASS
				RB36#39	22.62	25.62	33.00	PASS
				RB75#0	21.86	24.86	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	20M	LCH	RB1#0	21.52	24.52	33.00	PASS
				RB1#50	22.35	25.35	33.00	PASS
				RB1#99	22.90	25.9	33.00	PASS
				RB50#0	22.30	25.3	33.00	PASS
				RB50#25	21.56	24.56	33.00	PASS
				RB50#50	21.56	24.56	33.00	PASS
				RB100#0	21.45	24.45	33.00	PASS
			MCH	RB1#0	21.64	24.64	33.00	PASS
				RB1#50	22.68	25.68	33.00	PASS
				RB1#99	22.73	25.73	33.00	PASS
				RB50#0	22.33	25.33	33.00	PASS
				RB50#25	21.53	24.53	33.00	PASS
				RB50#50	21.52	24.52	33.00	PASS
				RB100#0	21.54	24.54	33.00	PASS
			HCH	RB1#0	21.90	24.9	33.00	PASS
				RB1#50	22.54	25.54	33.00	PASS
				RB1#99	23.09	26.09	33.00	PASS
				RB50#0	22.59	25.59	33.00	PASS
				RB50#25	21.78	24.78	33.00	PASS
				RB50#50	21.78	24.78	33.00	PASS
				RB100#0	21.76	24.76	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

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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 2	TM1/20M	LCH	3.97	13	PASS
		MCH	4.20	13	PASS
		HCH	4.06	13	PASS

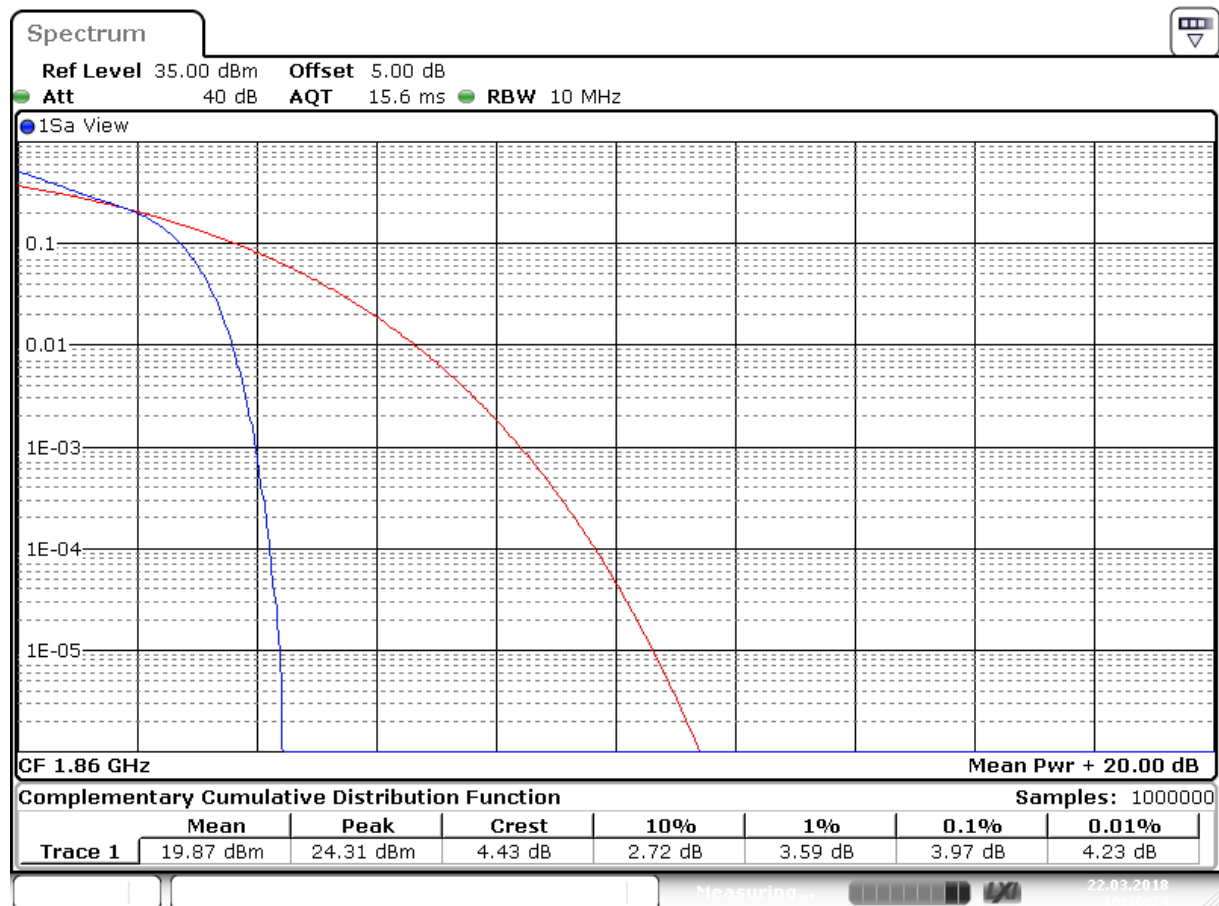
### Part II - Test Plots

## 2.1 For LTE

### 2.1.1 Test Band = LTE band2

#### 2.1.1.1 Test Mode = LTE/TM1.Bandwidth=20MHz

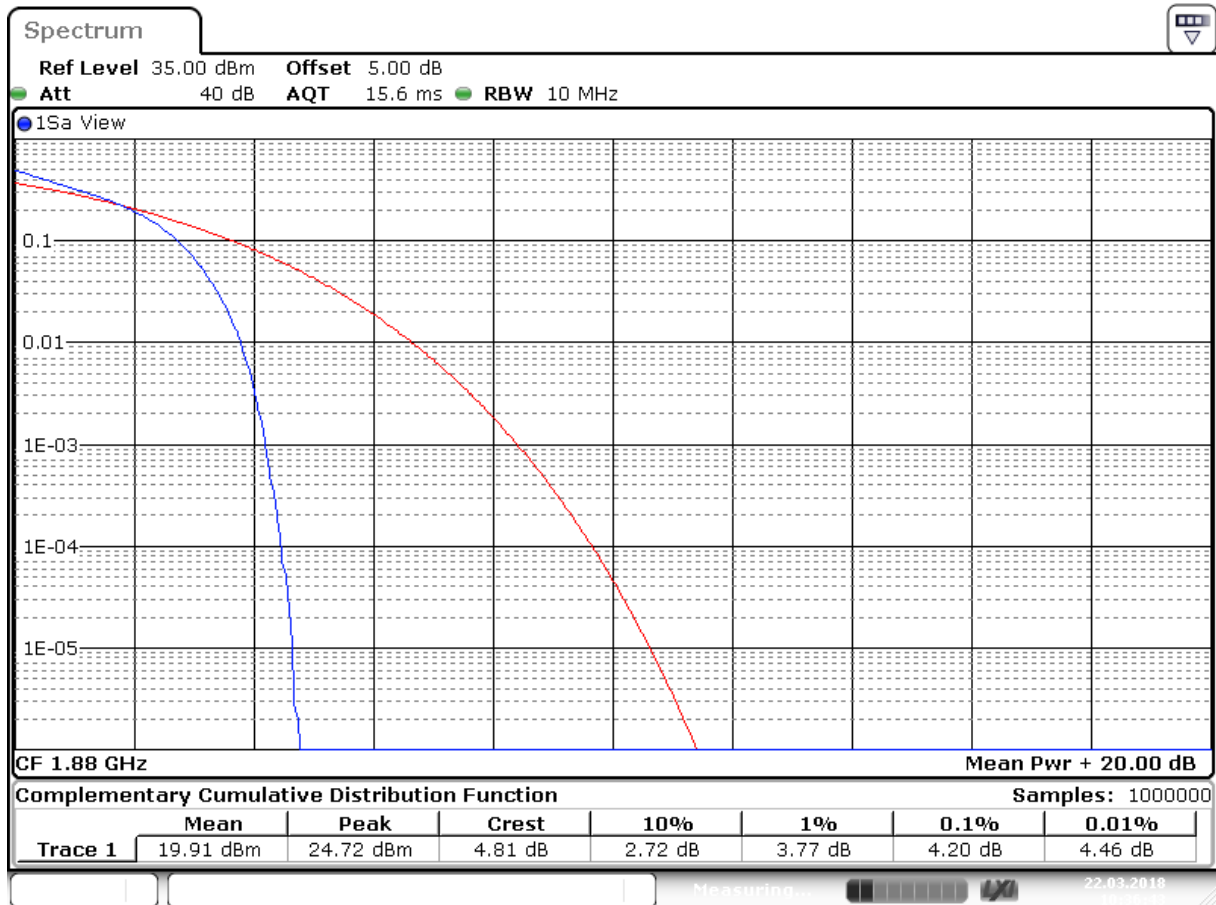
##### 2.1.1.1.1 Test Channel = LCH



Date: 22 MAR 2018 10:36:24



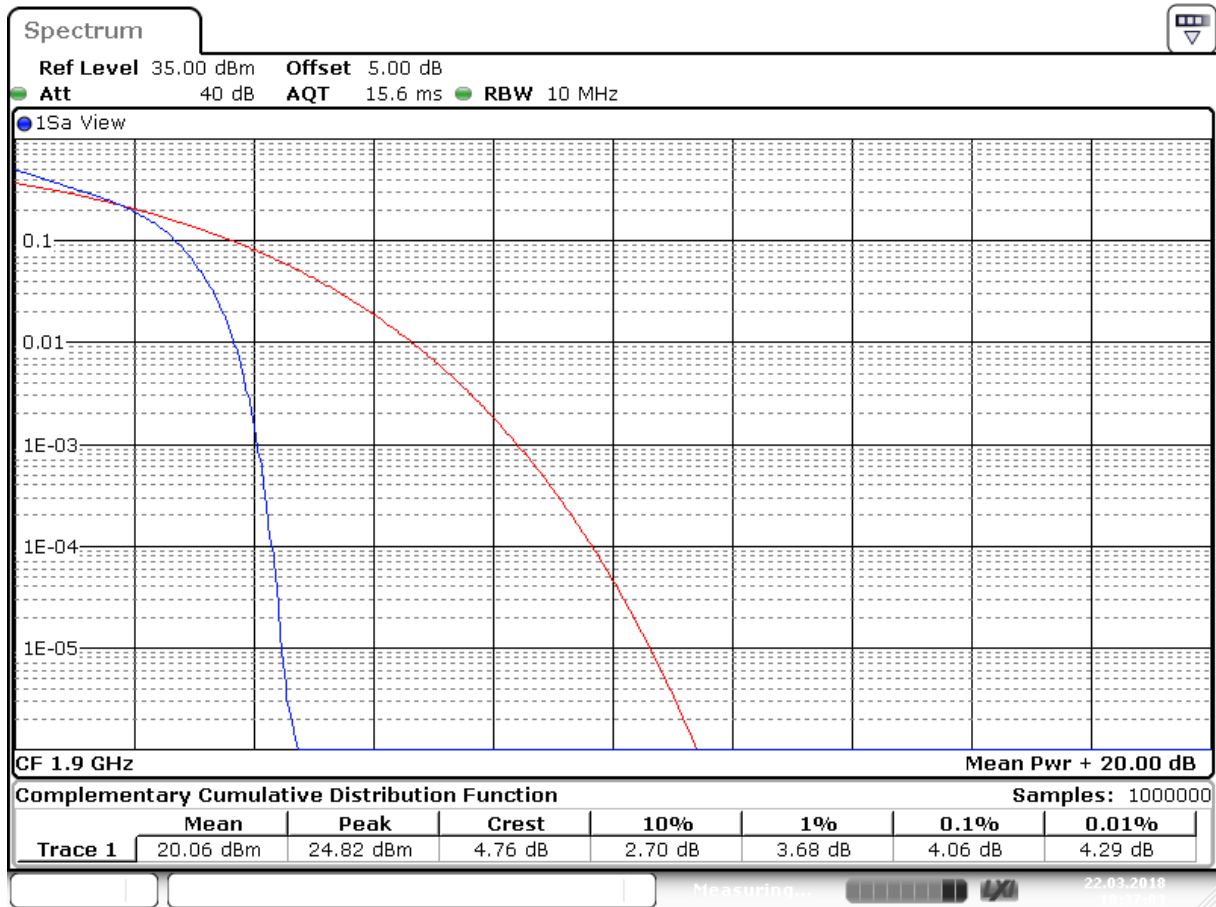
2.1.1.1.2 Test Channel = MCH



Date: 22 MAR 2018 10:36:44



2.1.1.1.3 Test Channel = HCH



Date: 22 MAR 2018 10:37:03

### 3 Modulation Characteristics

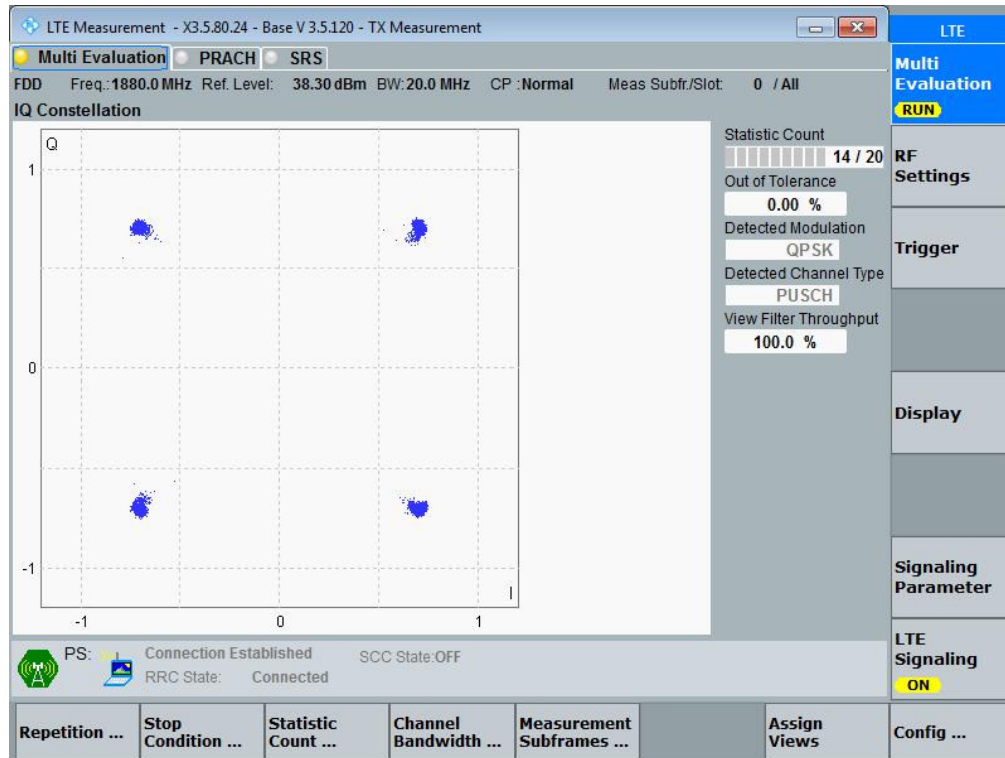
#### Part I - Test Plots

#### 3.1 For LTE

##### 3.1.1 Test Band = LTE band2

##### 3.1.1.1 Test Mode = LTE /TM1 20MHz

##### 3.1.1.1.1 Test Channel = MCH





## 4 Bandwidth

### Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 2	TM1/1.4MHz	LCH	1.091	1.227	PASS
		MCH	1.091	1.242	PASS
		HCH	1.094	1.245	PASS
	TM2/1.4MHz	LCH	1.091	1.248	PASS
		MCH	1.088	1.245	PASS
		HCH	1.091	1.251	PASS
	TM1/ 3MHz	LCH	2.697	2.892	PASS
		MCH	2.697	2.856	PASS
		HCH	2.691	2.880	PASS
	TM2/3MHz	LCH	2.697	2.886	PASS
		MCH	2.697	2.850	PASS
		HCH	2.691	2.880	PASS
	TM1/ 5MHz	LCH	4.476	4.700	PASS
		MCH	4.476	4.730	PASS
		HCH	4.476	4.740	PASS
	TM2/ 5MHz	LCH	4.466	4.780	PASS
		MCH	4.486	4.730	PASS
		HCH	4.476	4.720	PASS
	TM1/10MHz	LCH	8.931	9.320	PASS
		MCH	8.931	9.300	PASS
		HCH	8.951	9.280	PASS
	TM1/ 15MHz	LCH	13.457	14.280	PASS
		MCH	13.457	14.280	PASS
		HCH	13.457	14.280	PASS
TM1/ 20MHz	LCH	17.862	18.800	PASS	
	MCH	17.942	19.421	PASS	
	HCH	17.902	18.800	PASS	

<sup>4</sup>This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



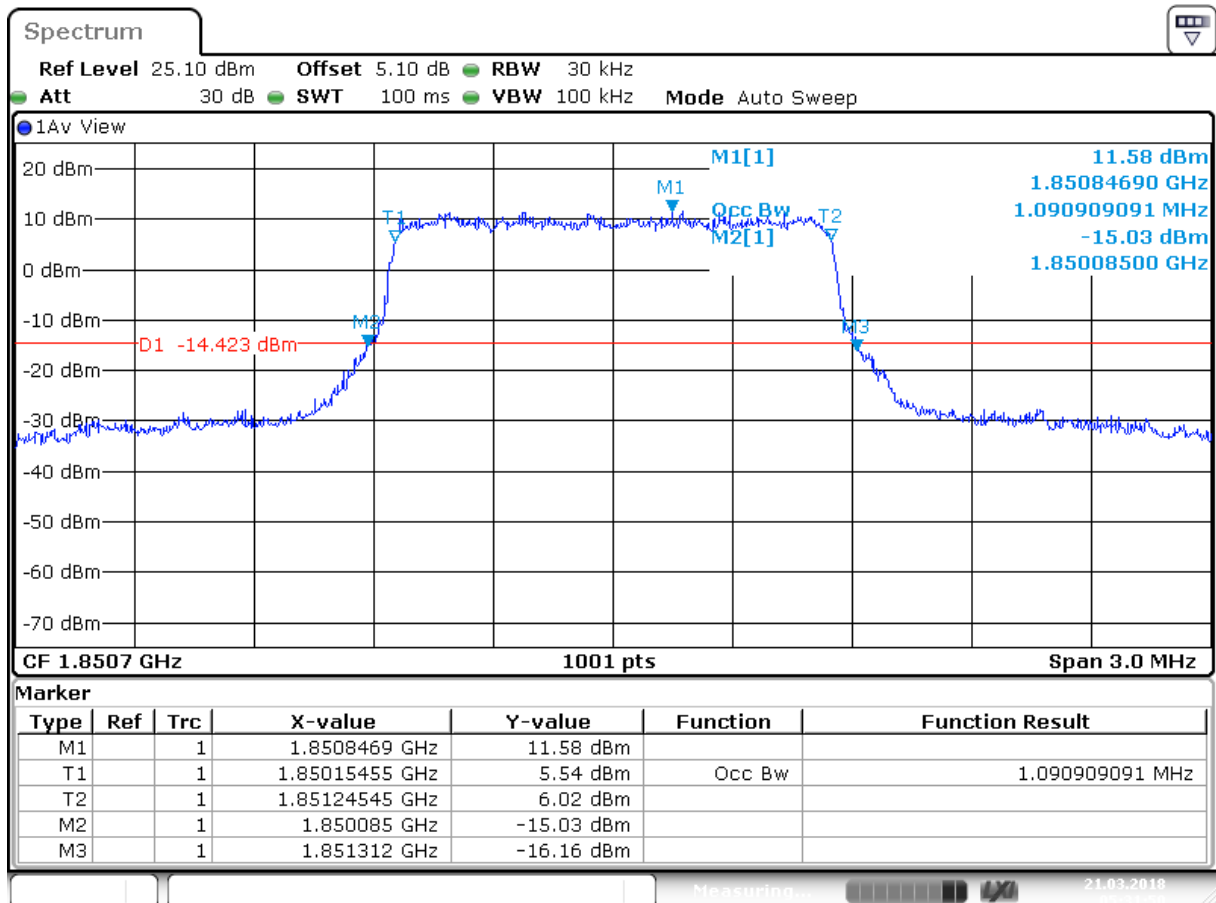


## 4.1 For LTE

### 4.1.1 Test Band = LTE band2

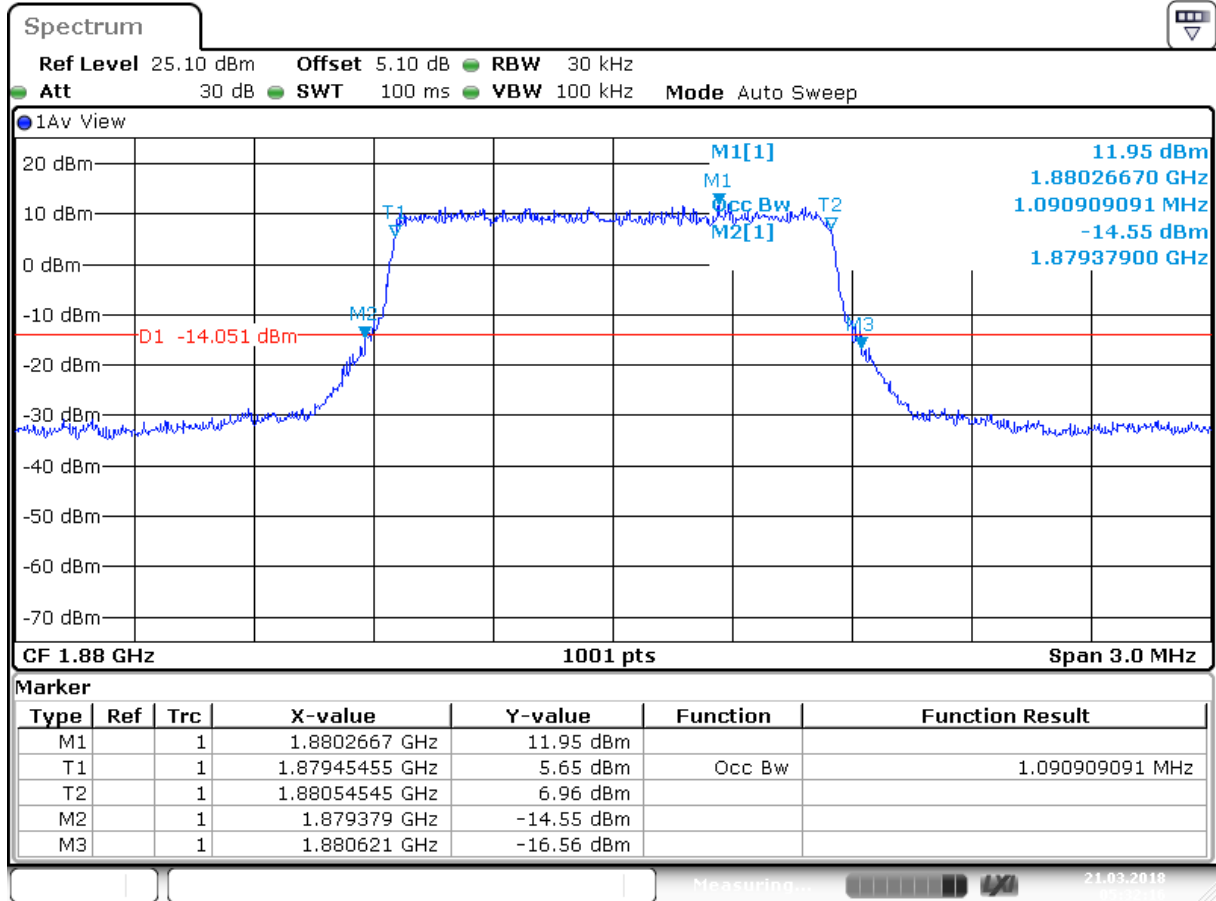
#### 4.1.1.1 Test Mode = LTE/TM1 1.4MHz

##### 4.1.1.1.1 Test Channel = LCH



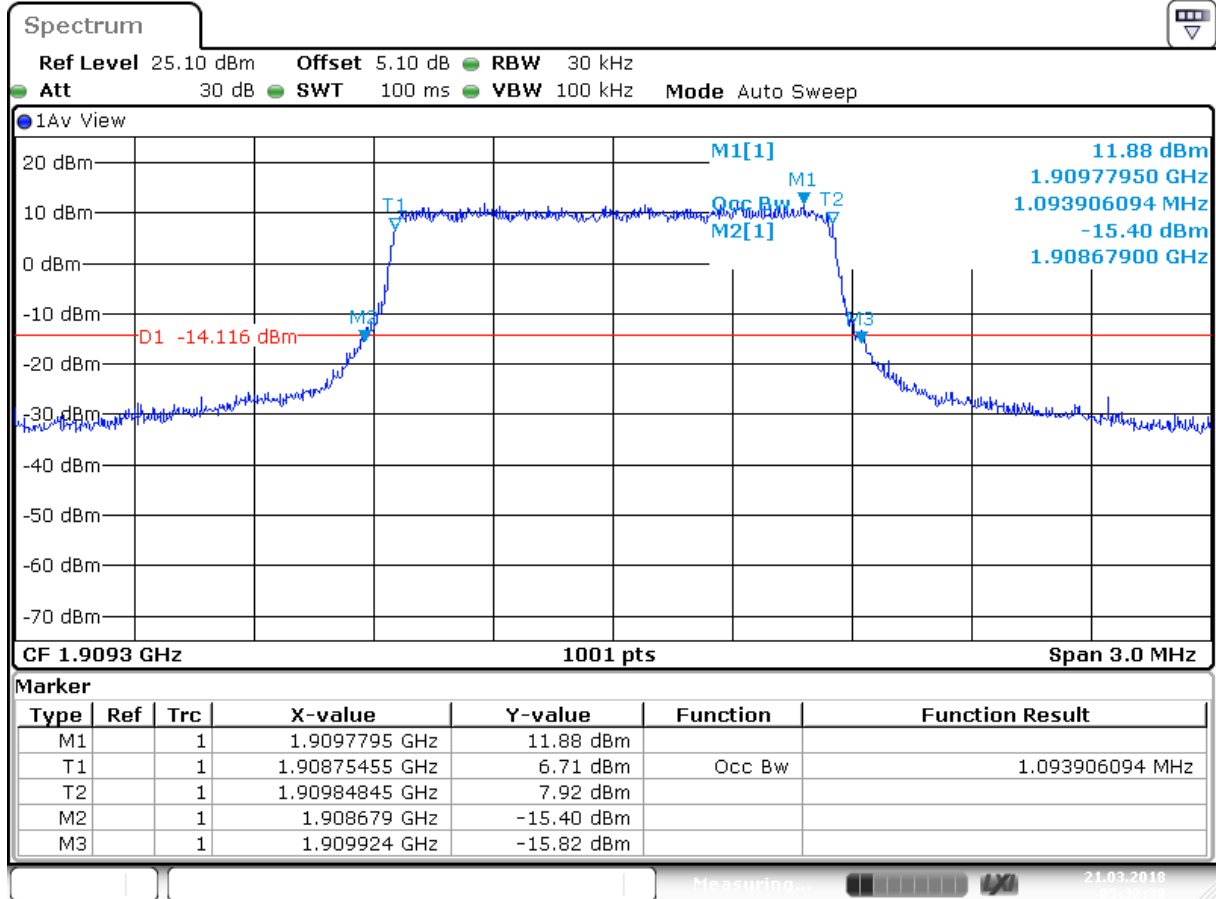
Date: 21 MAR 2018 05:31:51

**4.1.1.1.2 Test Channel = MCH**



Date: 21 MAR 2018 05:32:16

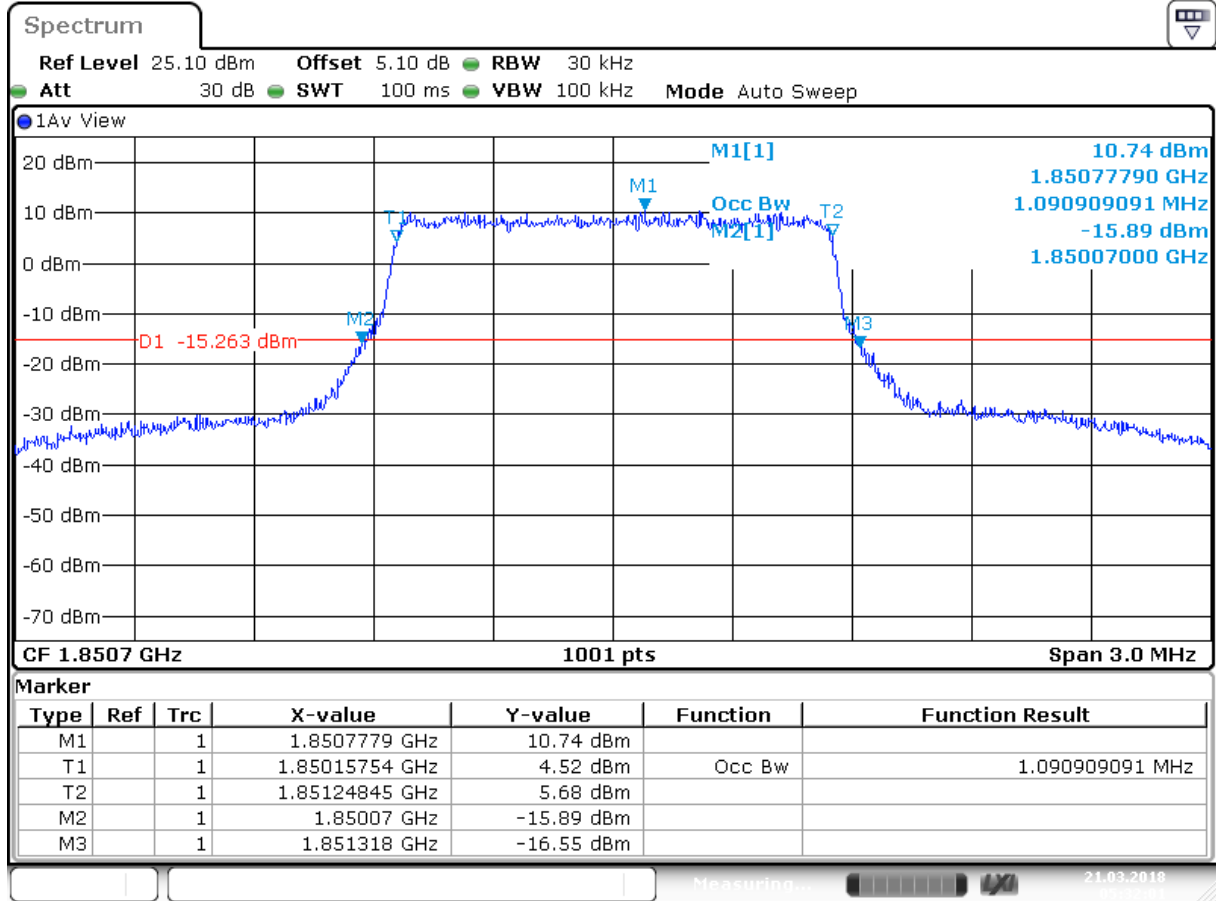
**4.1.1.1.3 Test Channel = HCH**



Date: 21 MAR 2018 05:32:38

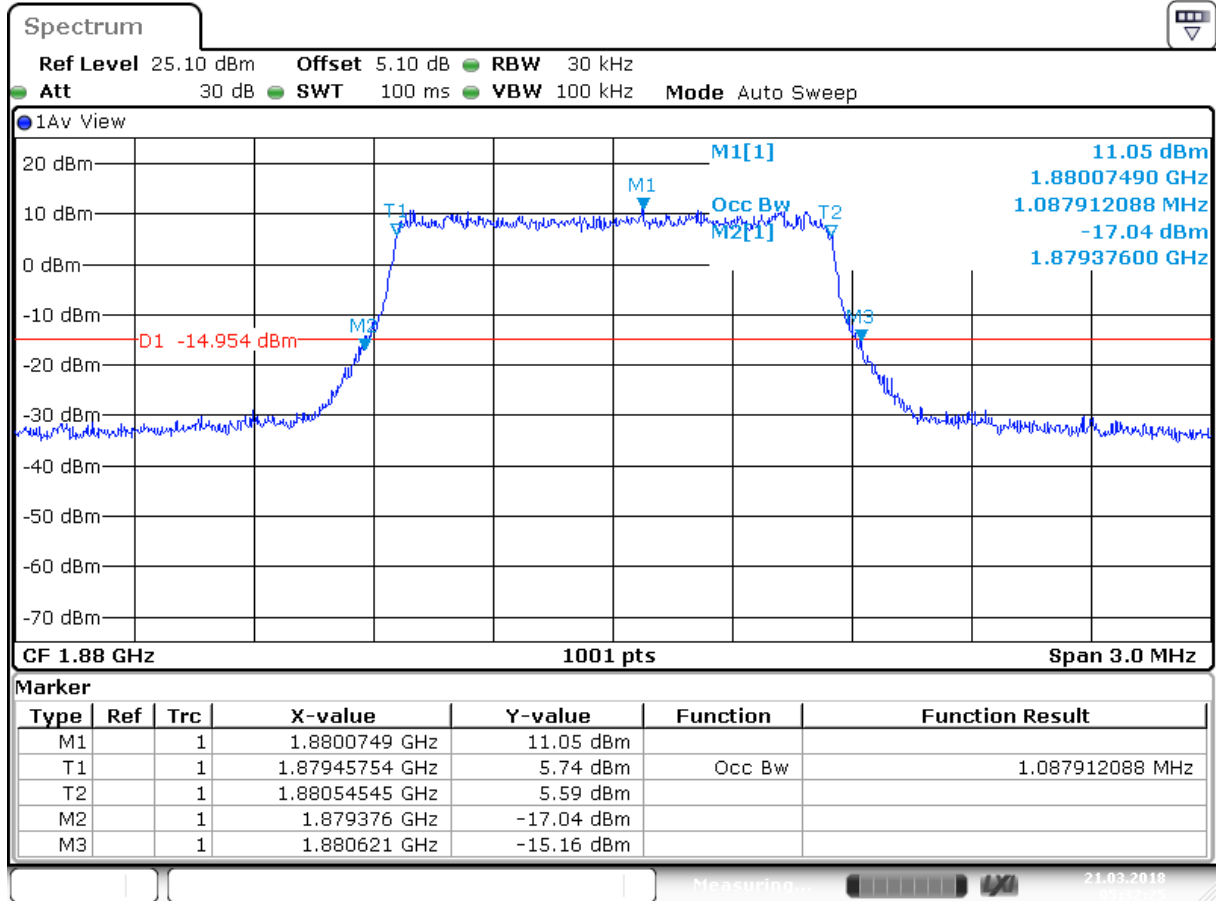
**4.1.1.2 Test Mode = LTE/TM2 1.4MHz**

**4.1.1.2.1 Test Channel = LCH**



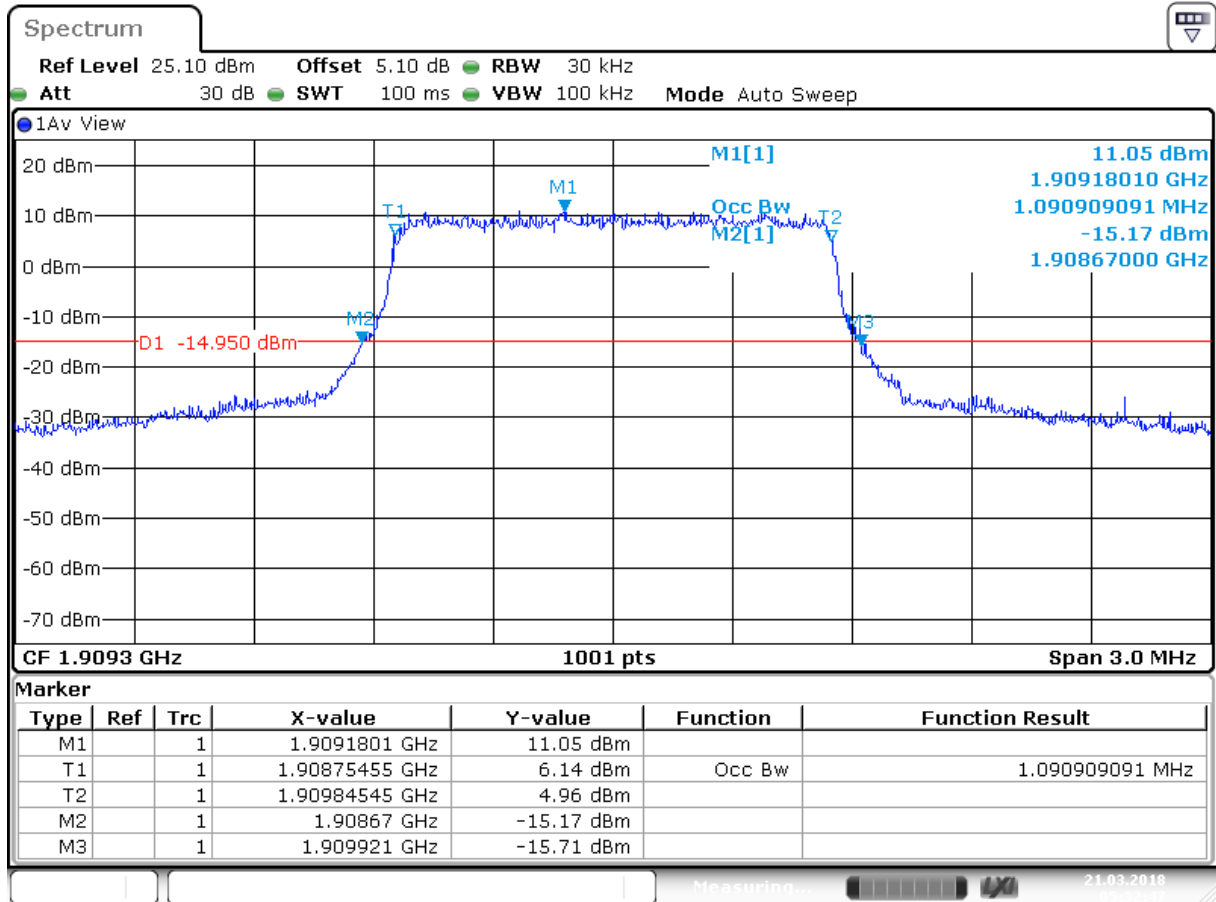
Date: 21 MAR.2018 05:32:01

**4.1.1.2.2 Test Channel = MCH**



Date: 21 MAR 2018 05:32:25

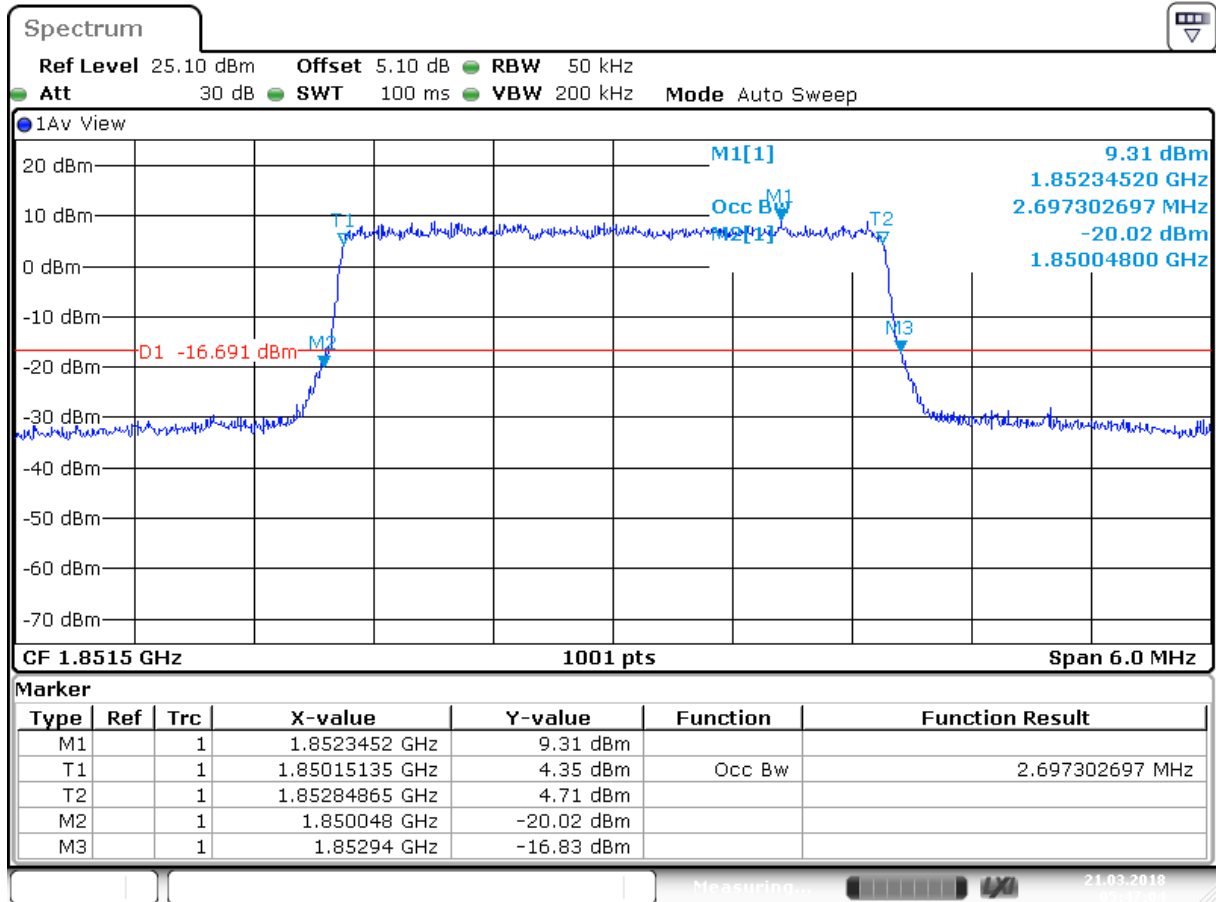
**4.1.1.2.3 Test Channel = HCH**



Date: 21 MAR.2018 05:32:48

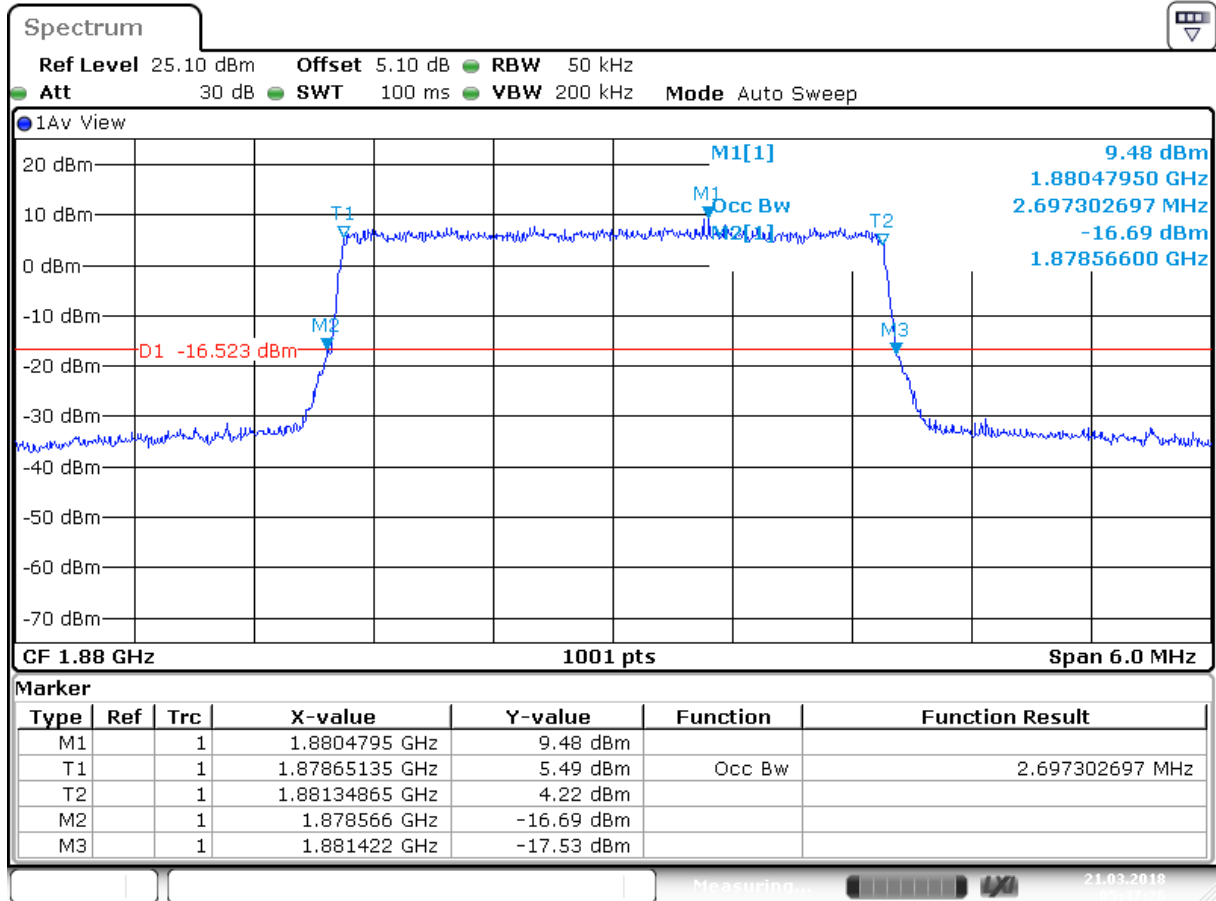
**4.1.1.3 Test Mode = LTE/TM1 3MHz**

**4.1.1.3.1 Test Channel = LCH**



Date: 21 MAR.2018 05:47:05

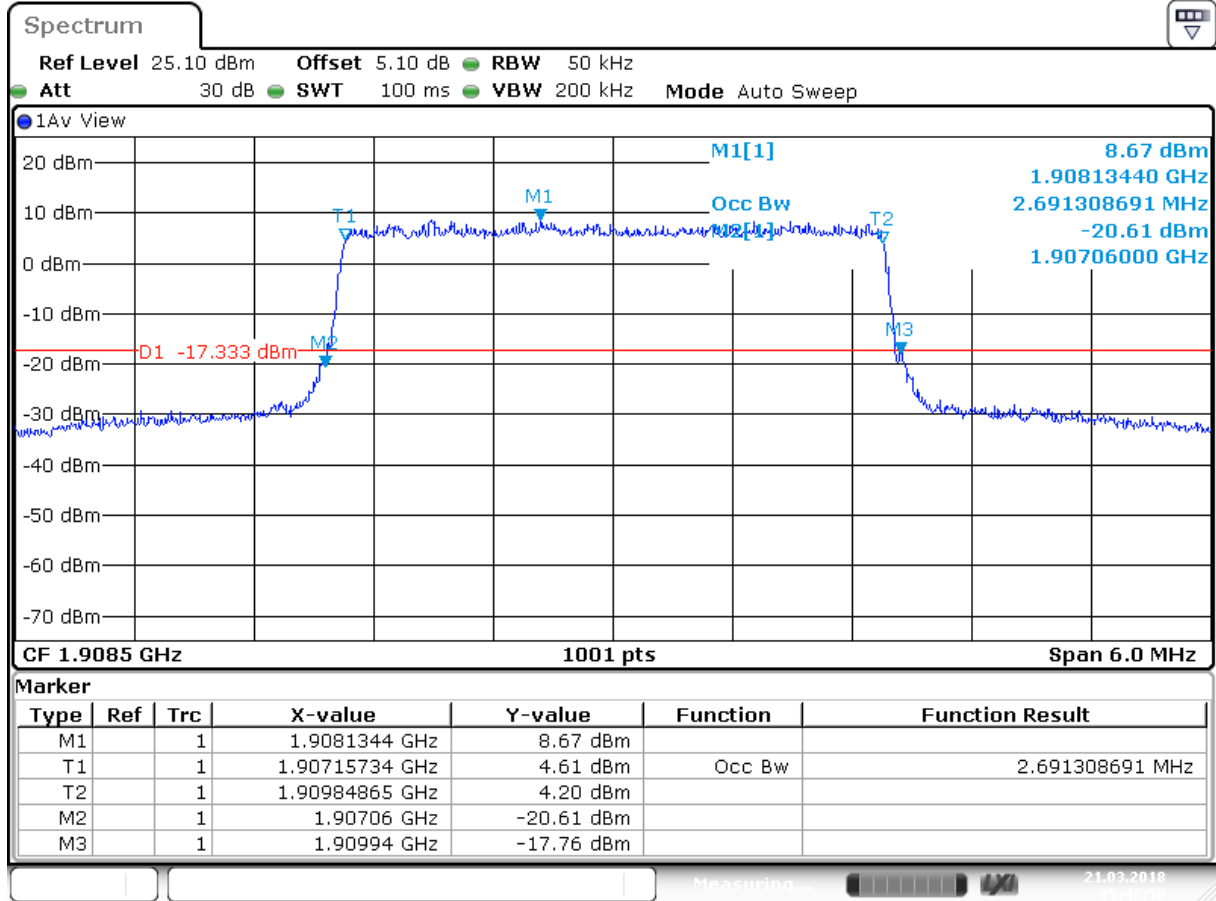
**4.1.1.3.2 Test Channel = MCH**



Date: 21 MAR 2018 05:47:27



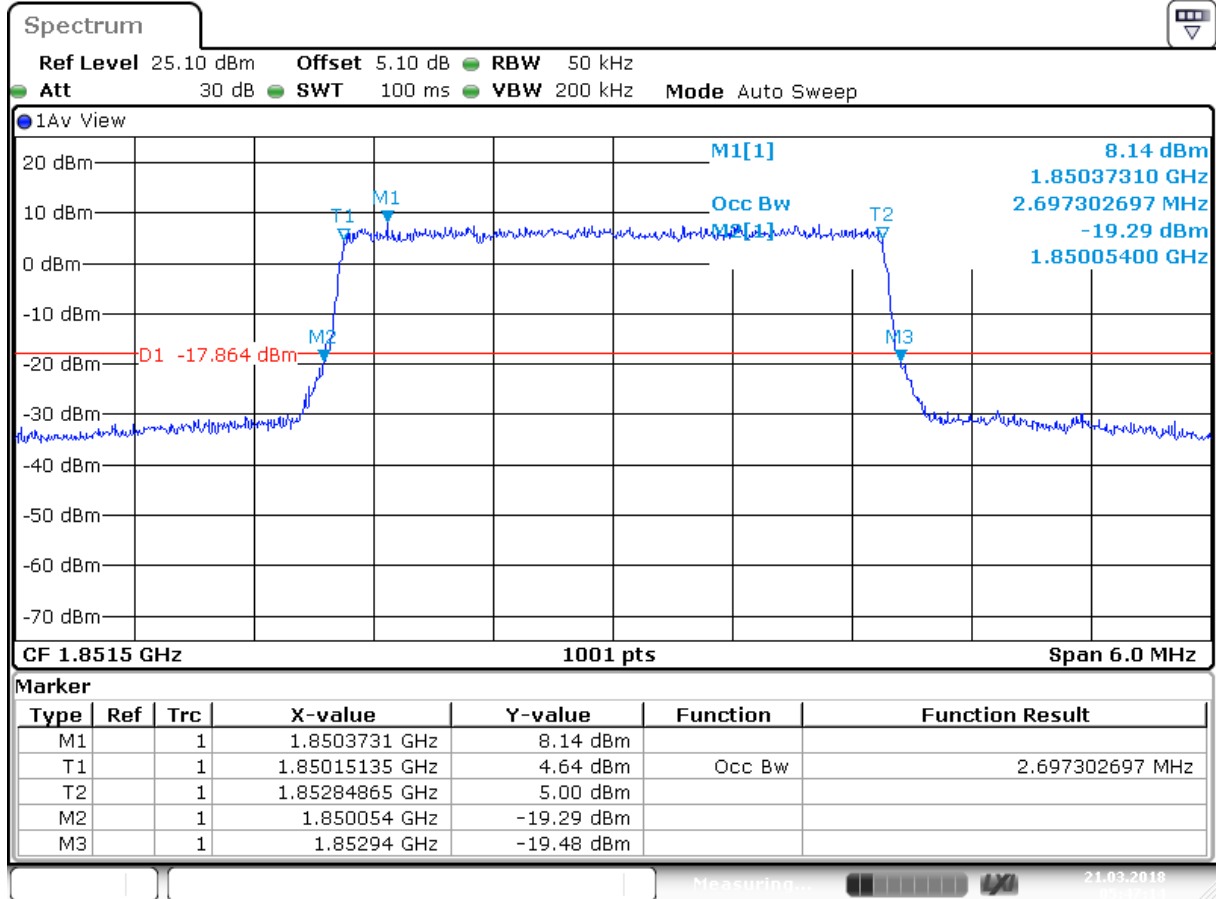
**4.1.1.3.3 Test Channel = HCH**



Date: 21 MAR.2018 05:47:50

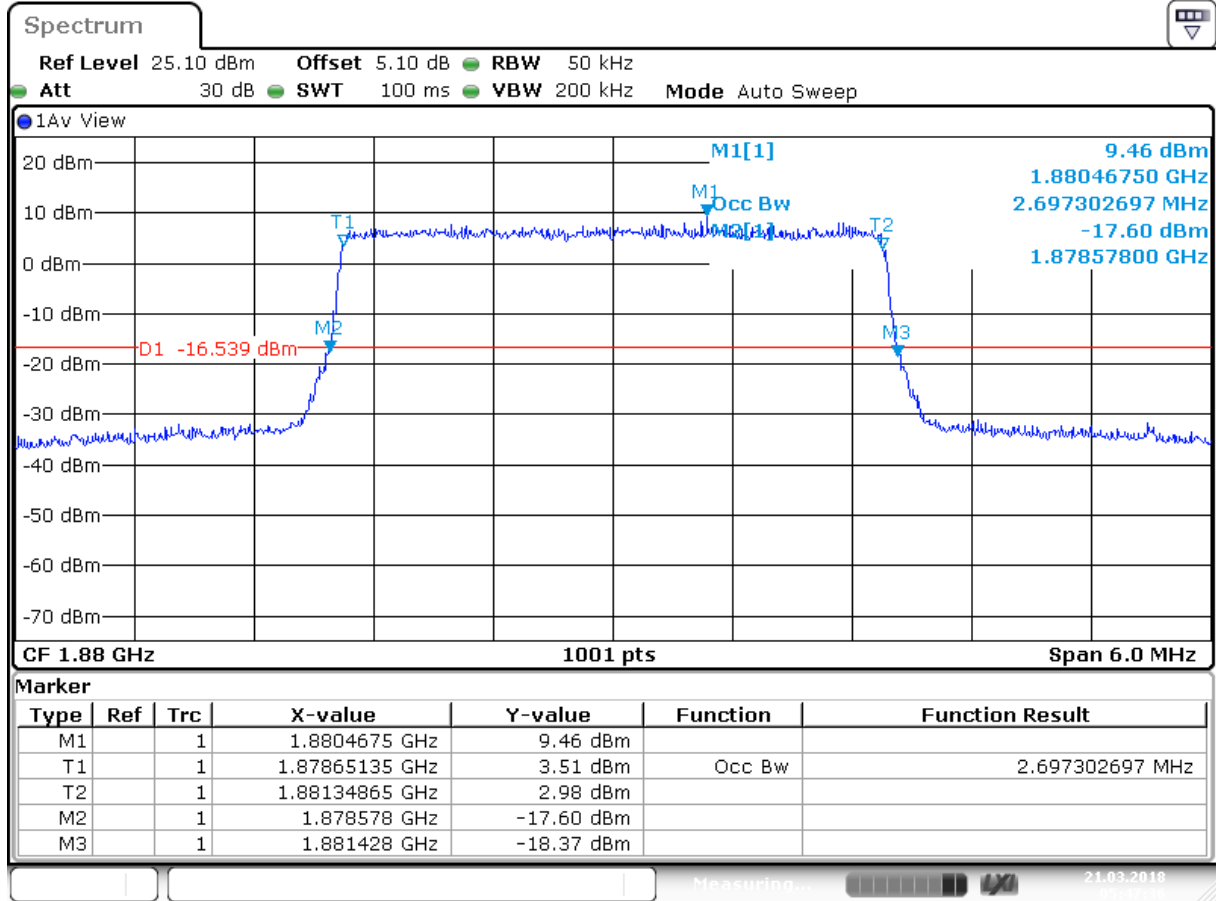
**4.1.1.4 Test Mode = LTE/TM2 3MHz**

**4.1.1.4.1 Test Channel = LCH**



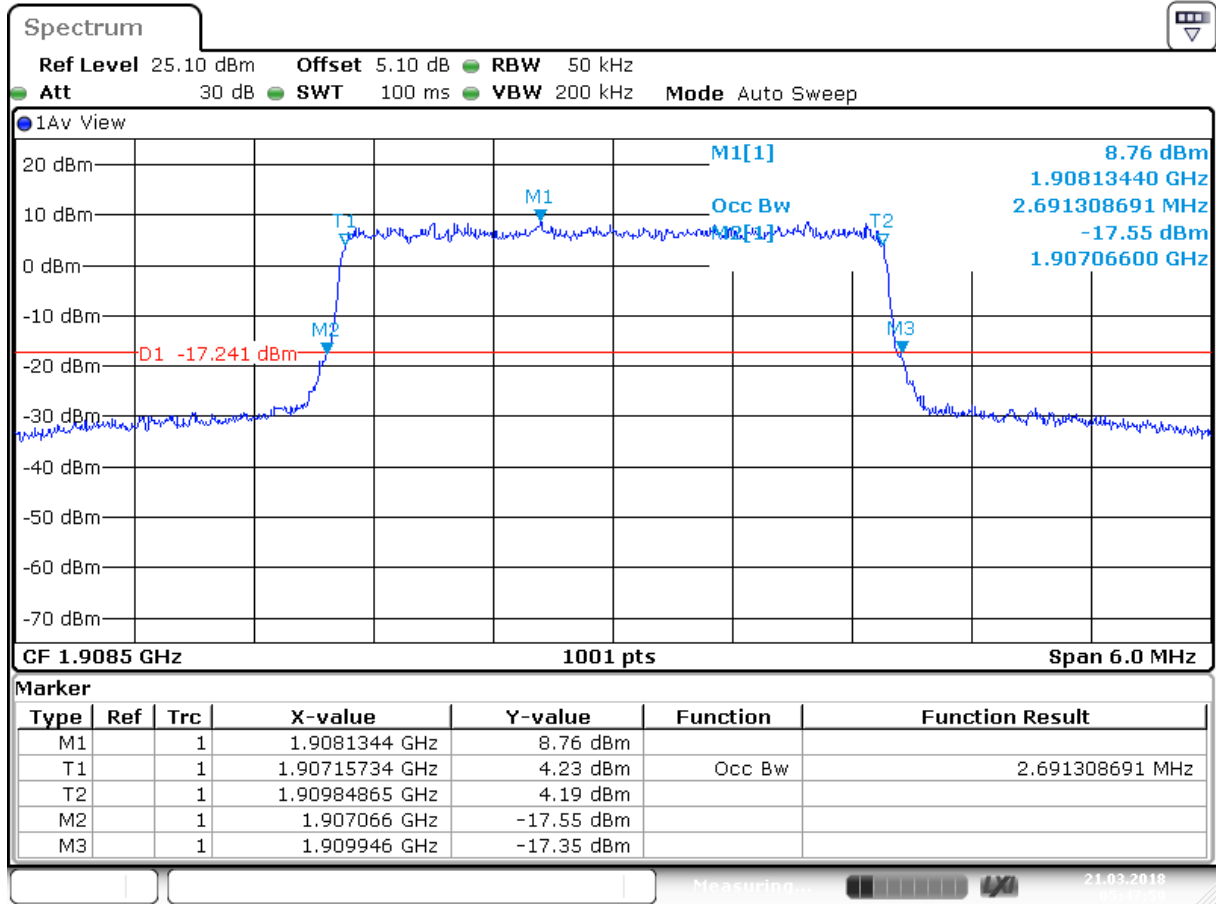
Date: 21 MAR.2018 05:47:15

**4.1.1.4.2 Test Channel = MCH**



Date: 21 MAR.2018 05:47:37

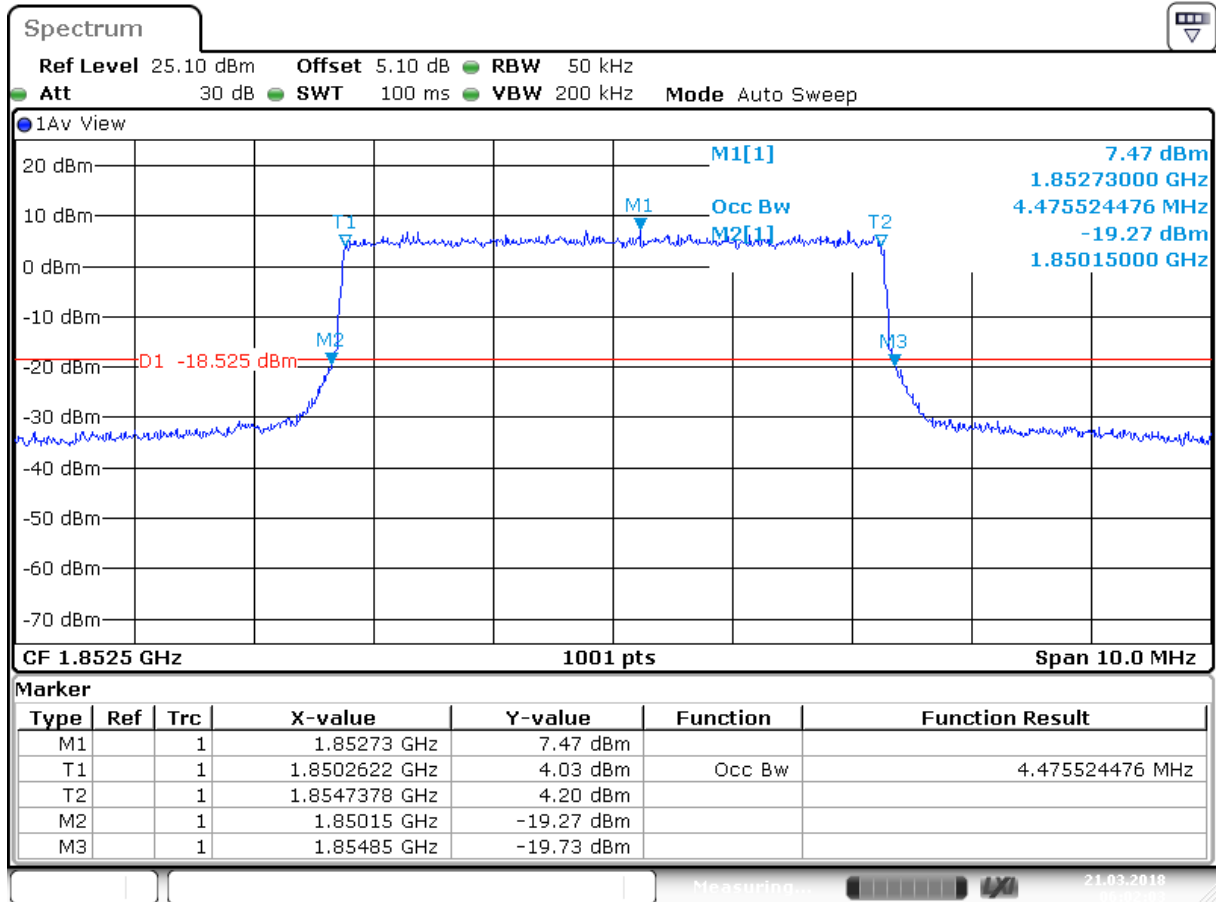
**4.1.1.4.3 Test Channel = HCH**



Date: 21 MAR 2018 05:47:59

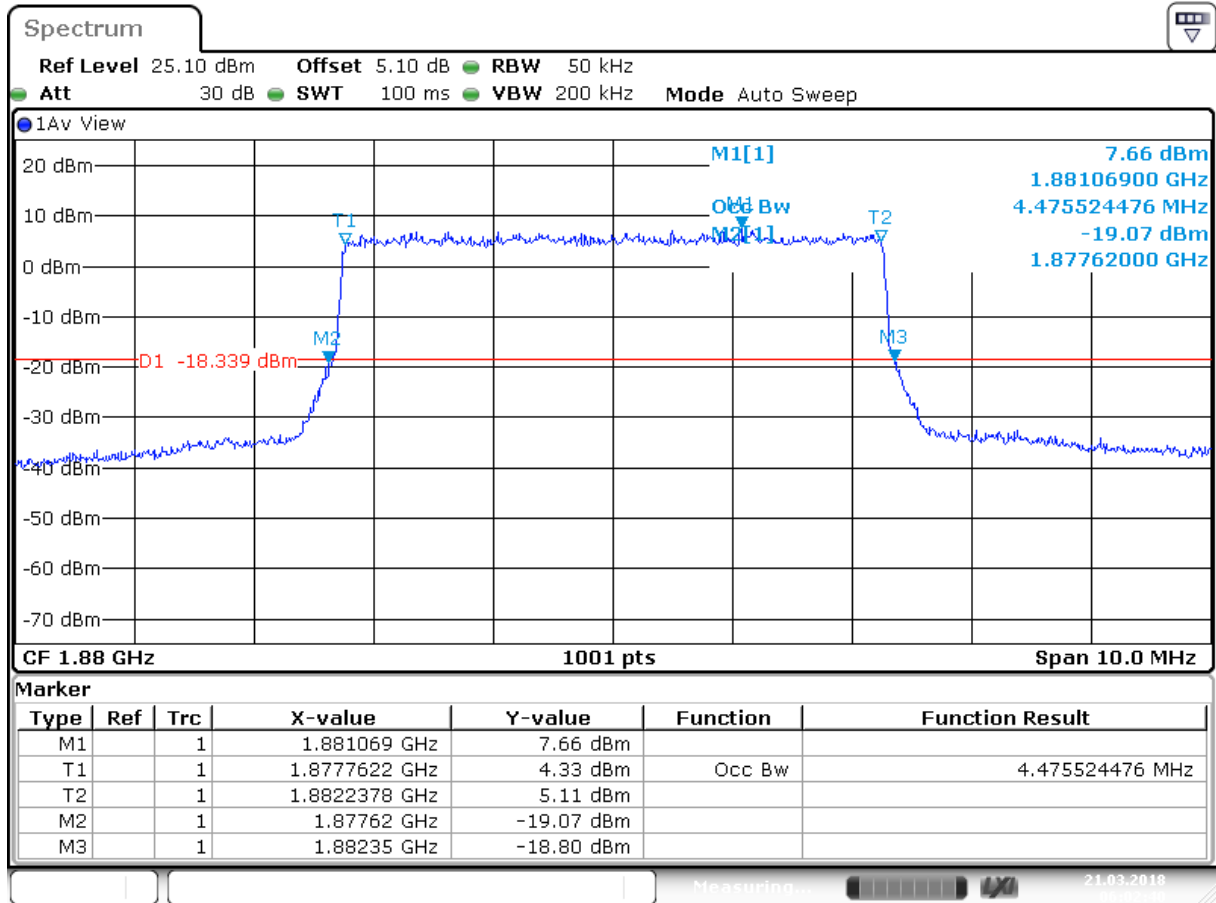
**4.1.1.5 Test Mode = LTE/TM1 5MHz**

**4.1.1.5.1 Test Channel = LCH**



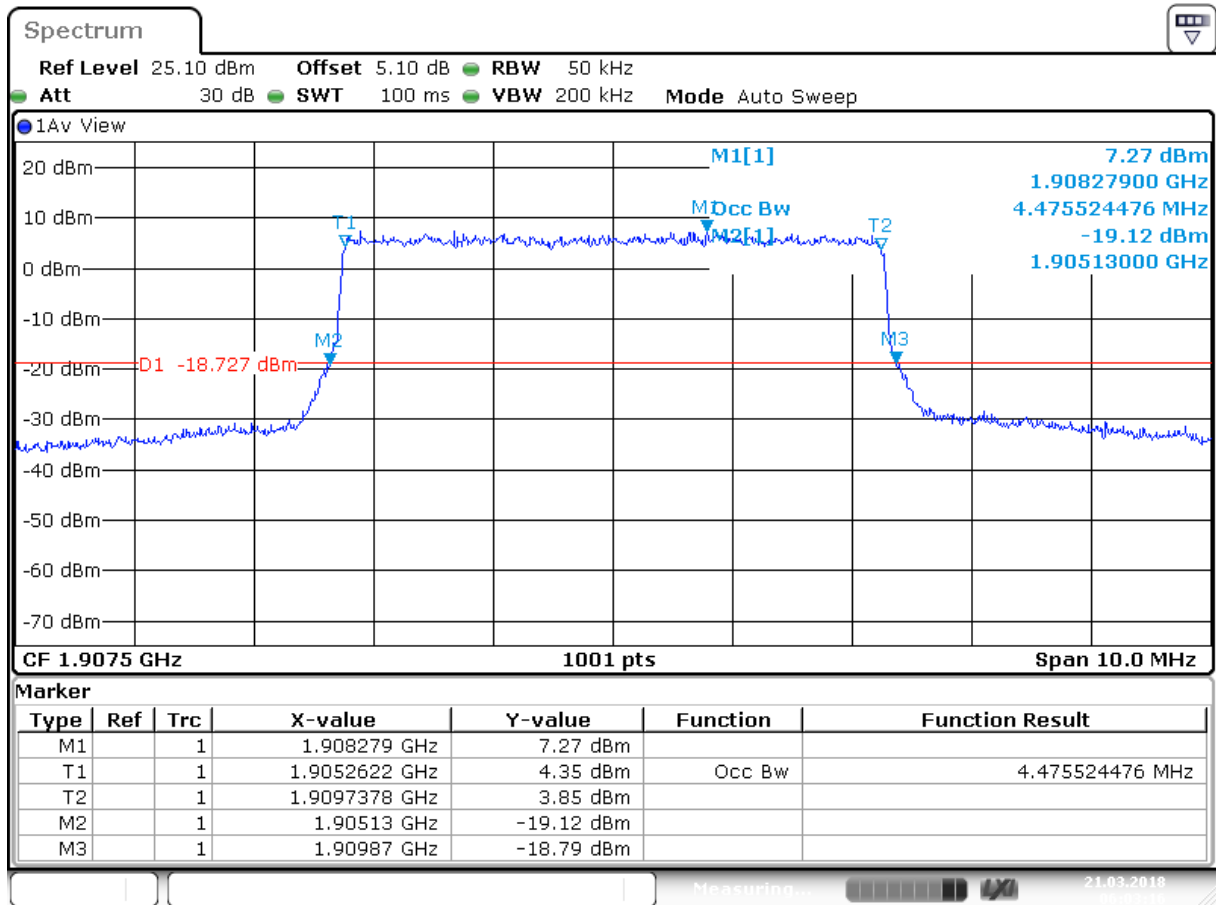
Date: 21 MAR.2018 06:02:04

**4.1.1.5.2 Test Channel = MCH**



Date: 21 MAR 2018 06:02:41

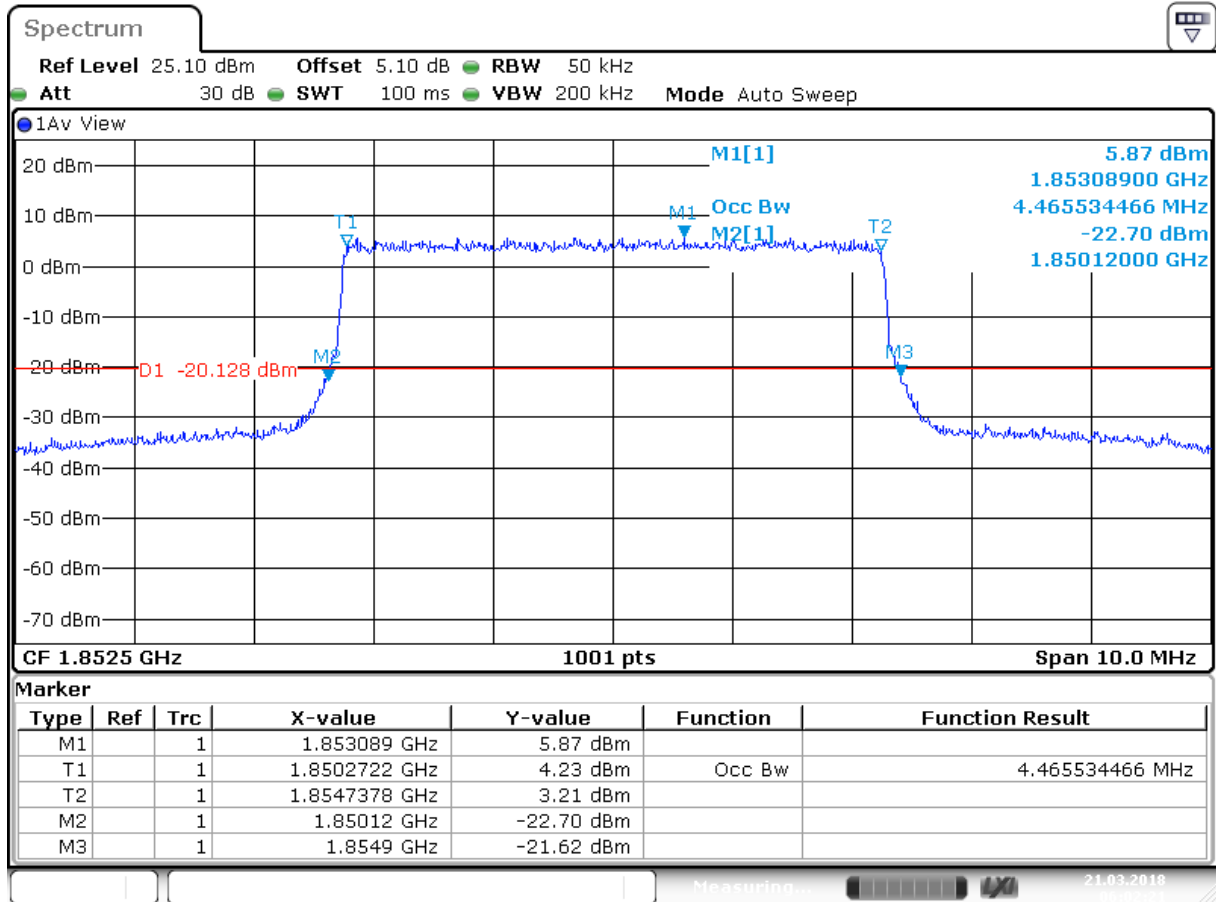
4.1.1.5.3 Test Channel = HCH



Date: 21 MAR 2018 06:03:17

**4.1.1.6 Test Mode = LTE/TM2 5MHz**

**4.1.1.6.1 Test Channel = LCH**

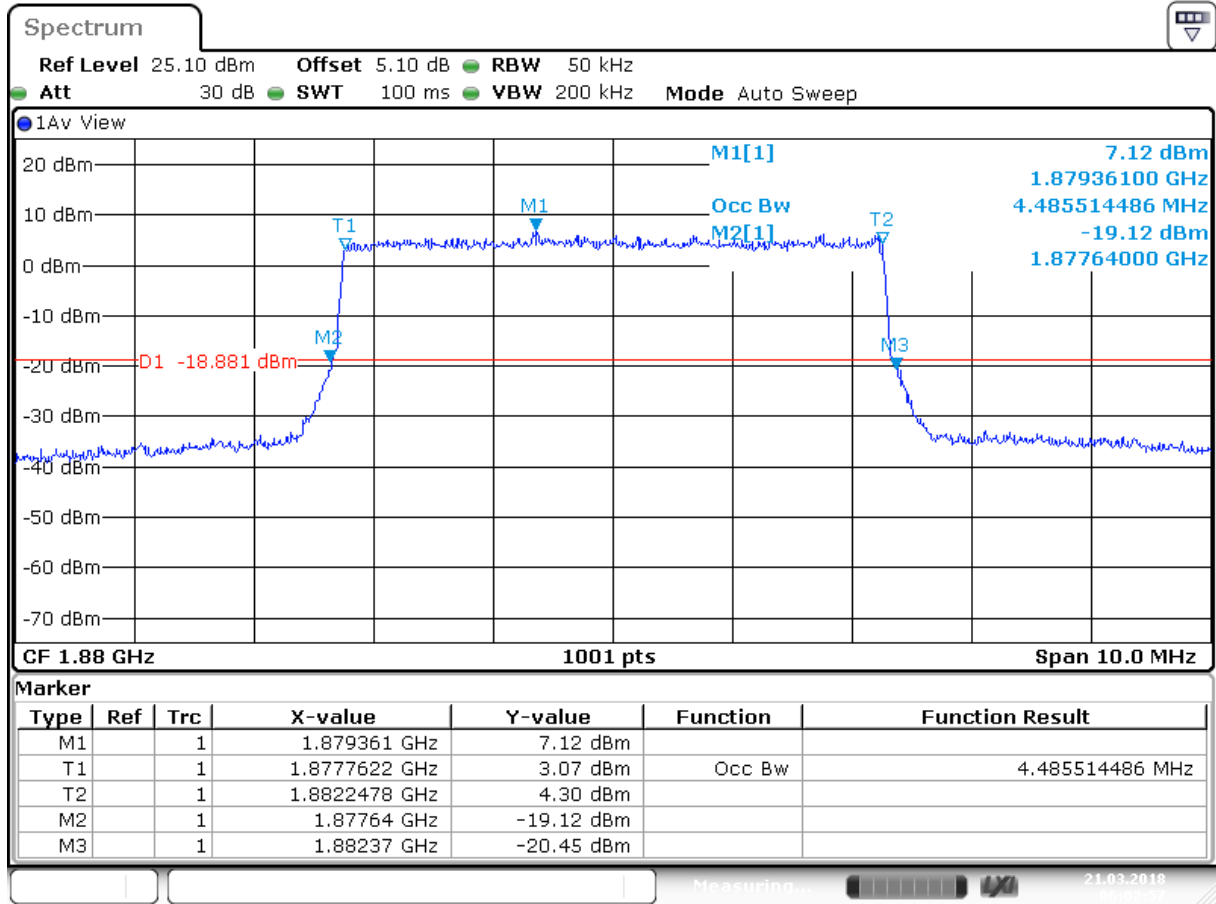


Date: 21 MAR 2018 06:02:21



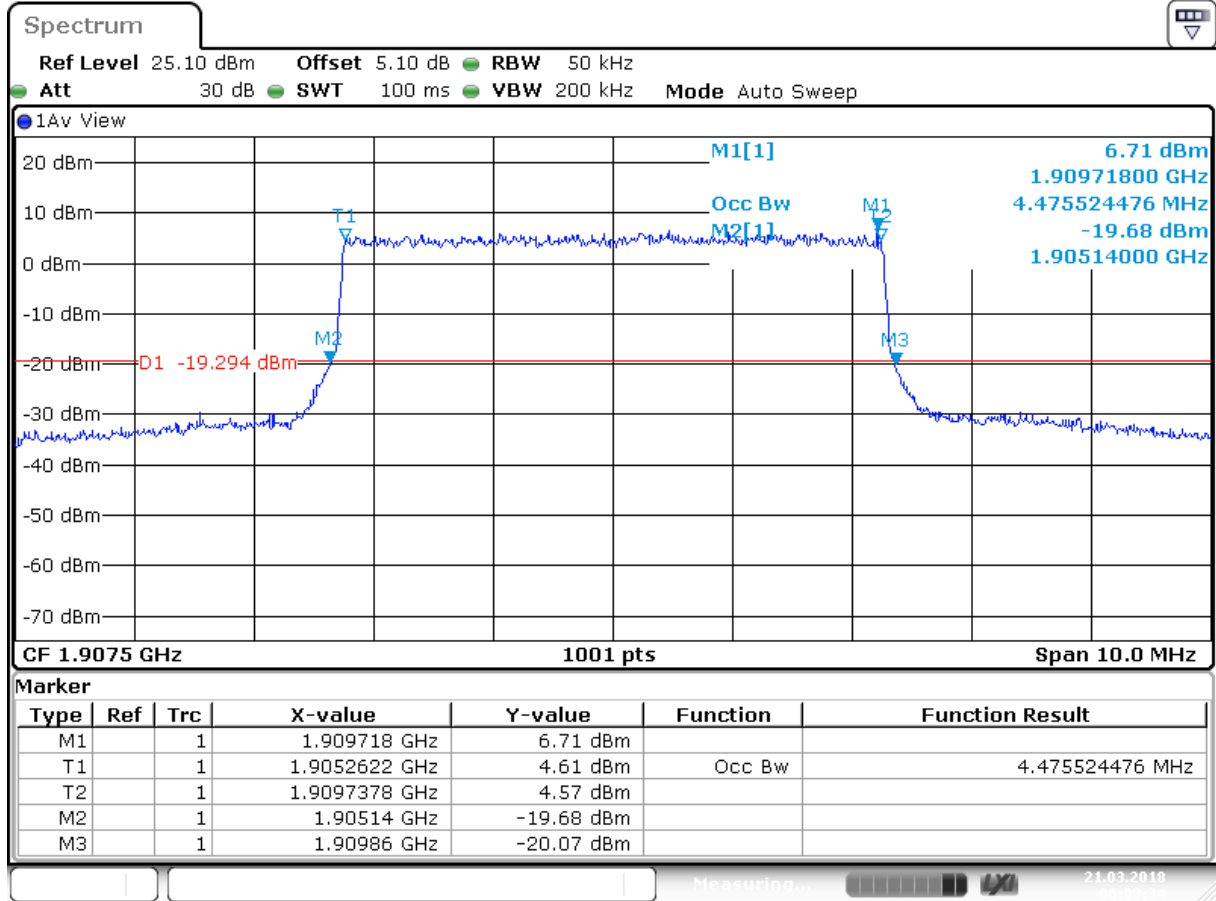


4.1.1.6.2 Test Channel = MCH



Date: 21 MAR 2018 06:02:57

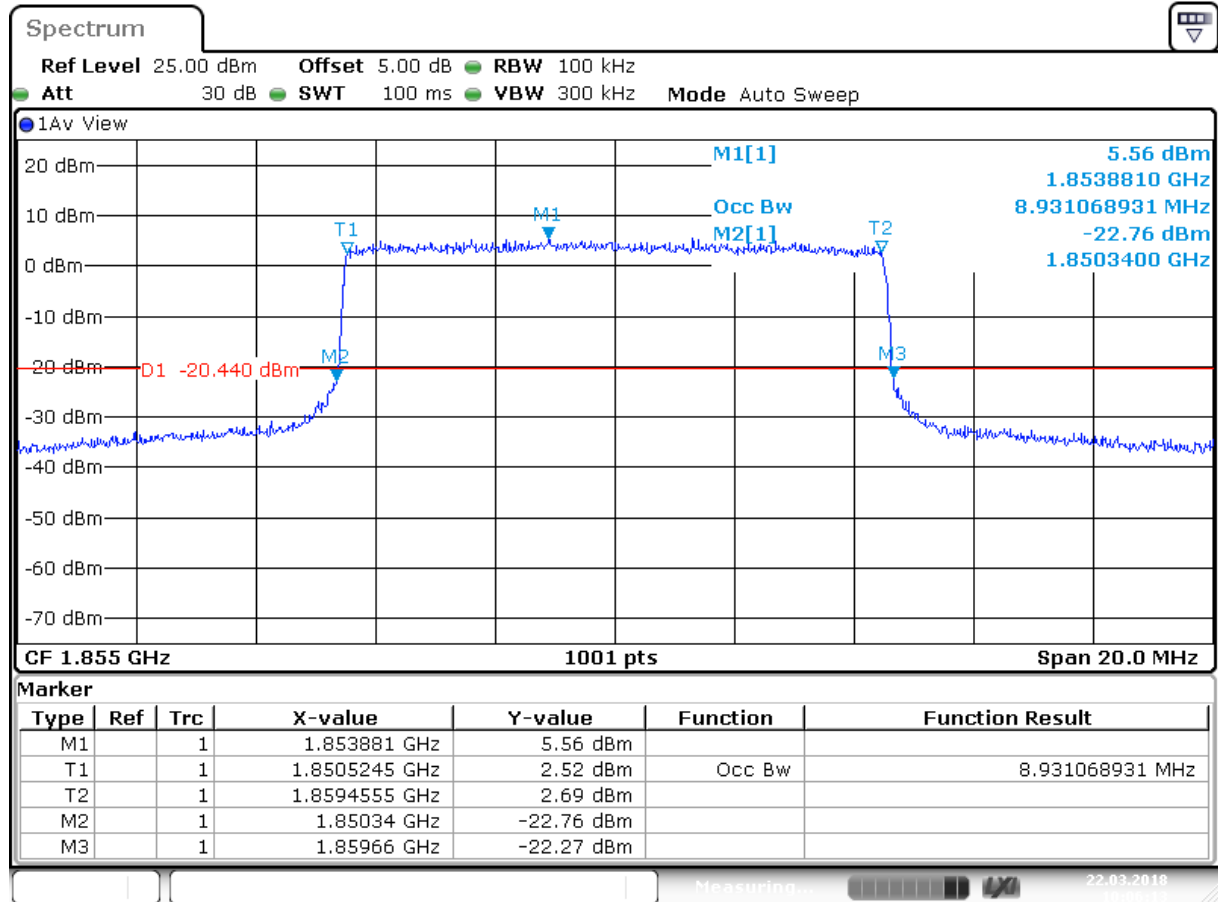
**4.1.1.6.3 Test Channel = HCH**



Date: 21 MAR 2018 06:03:34

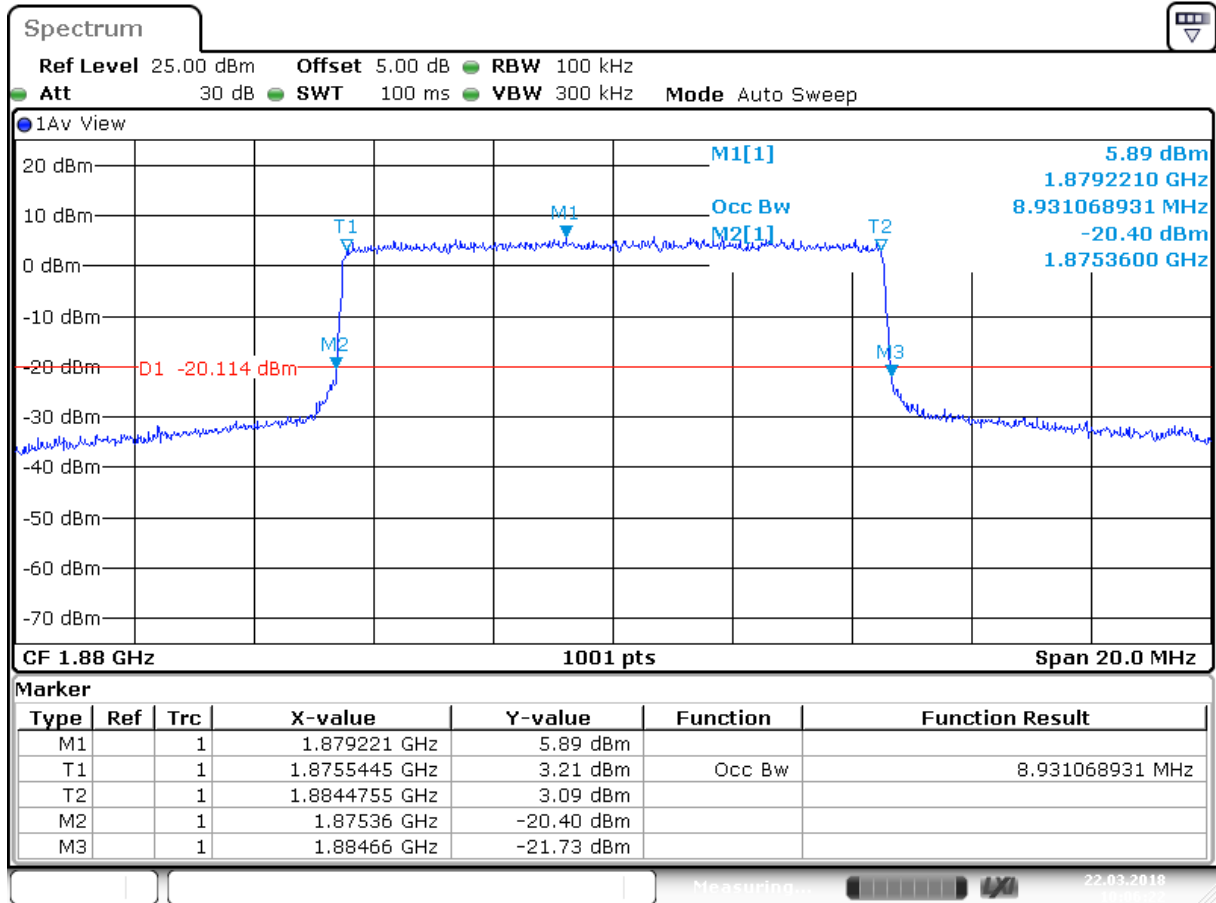
**4.1.1.7 Test Mode = LTE/TM1 10MHz**

**4.1.1.7.1 Test Channel = LCH**



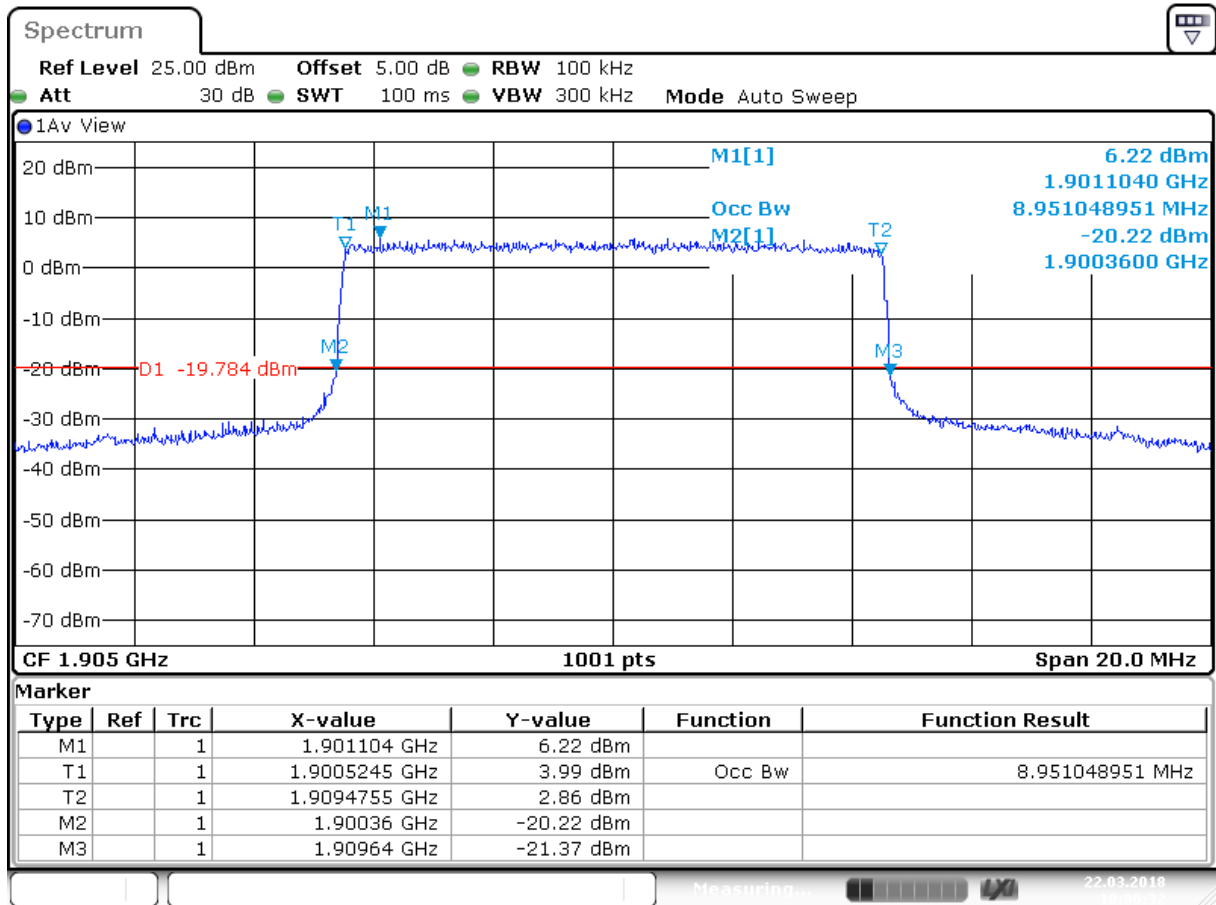
Date: 22 MAR 2018 10:06:13

**4.1.1.7.2 Test Channel = MCH**



Date: 22 MAR 2018 10:06:23

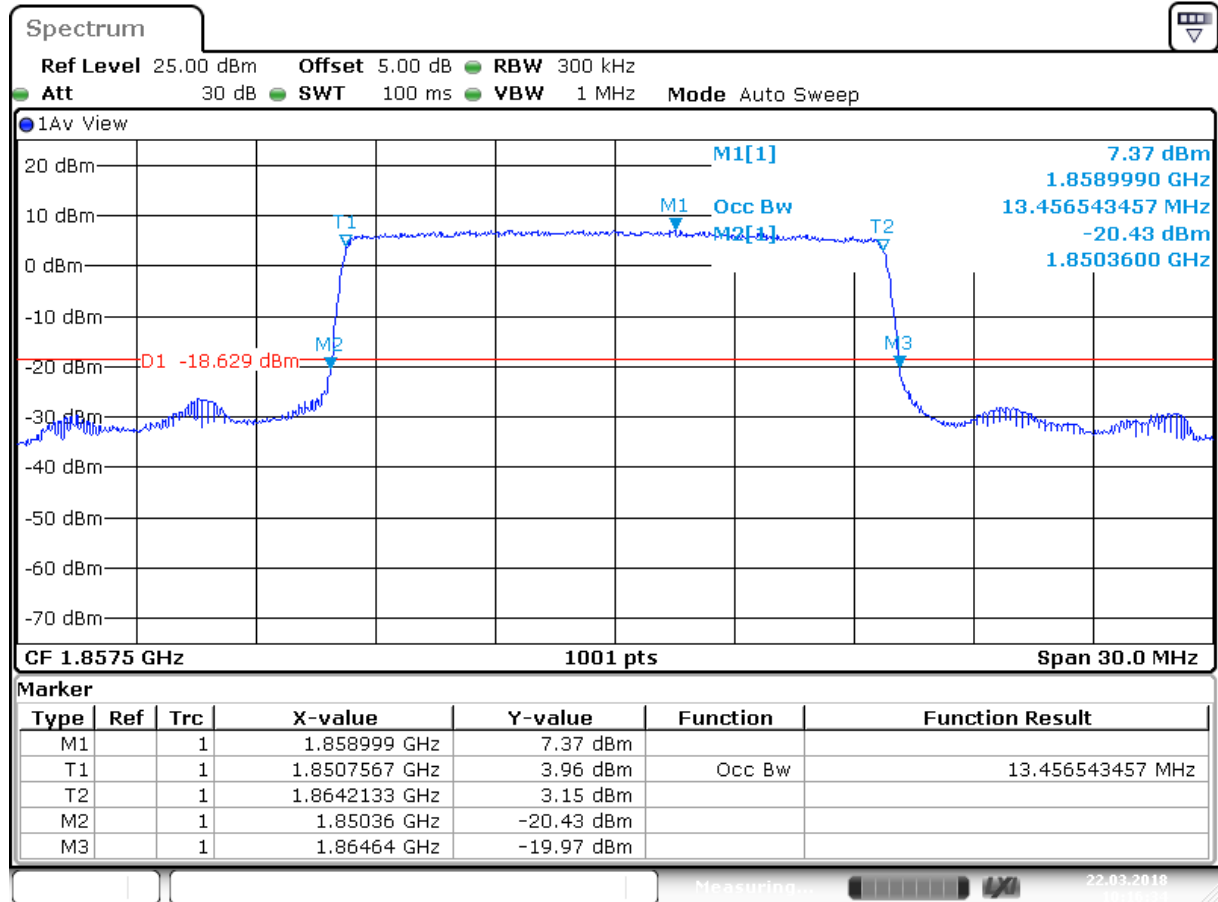
4.1.1.7.3 Test Channel = HCH



Date: 22 MAR 2018 10:06:32

**4.1.1.8 Test Mode = LTE/TM1 15MHz**

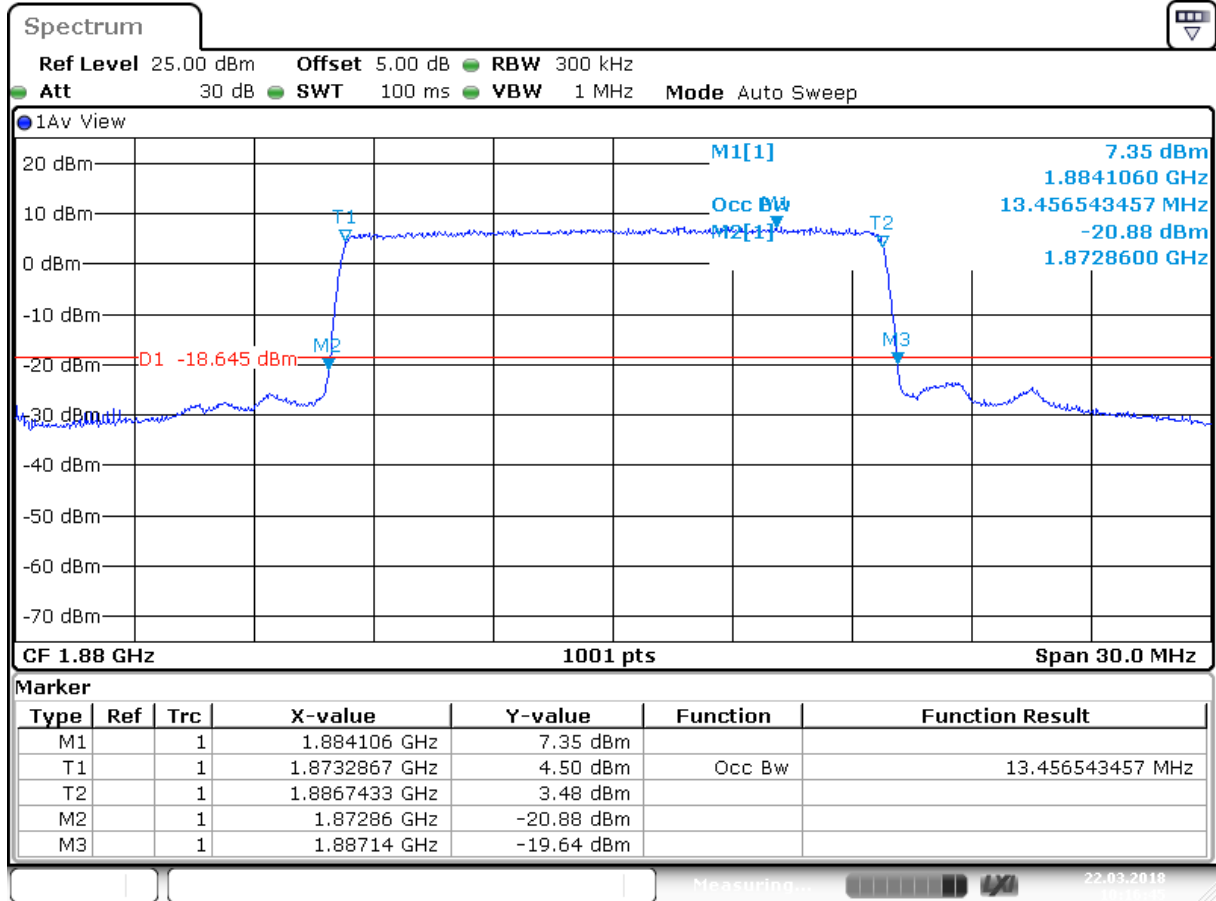
**4.1.1.8.1 Test Channel = LCH**



Date: 22 MAR 2018 10:16:35

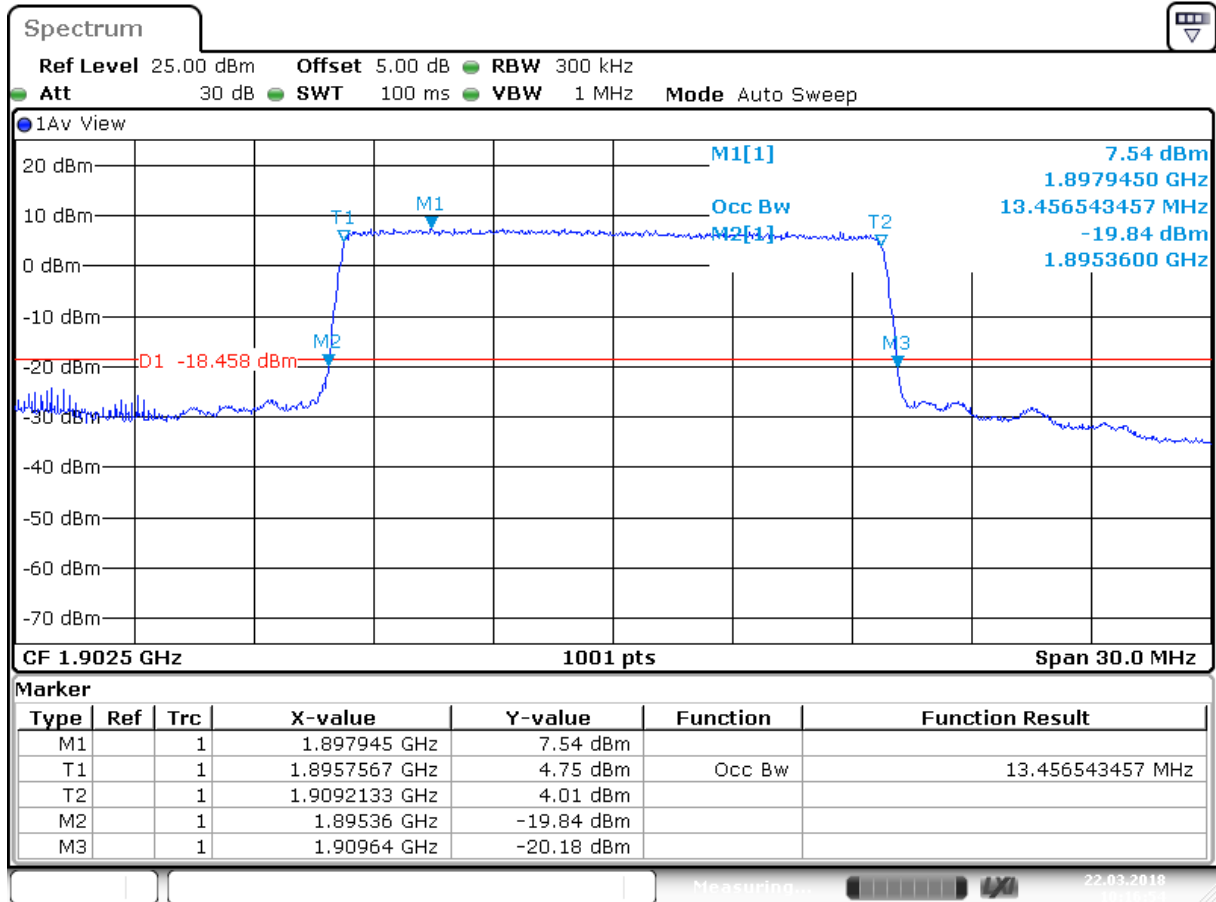


**4.1.1.8.2 Test Channel = MCH**



Date: 22 MAR 2018 10:16:45

**4.1.1.8.3 Test Channel = HCH**

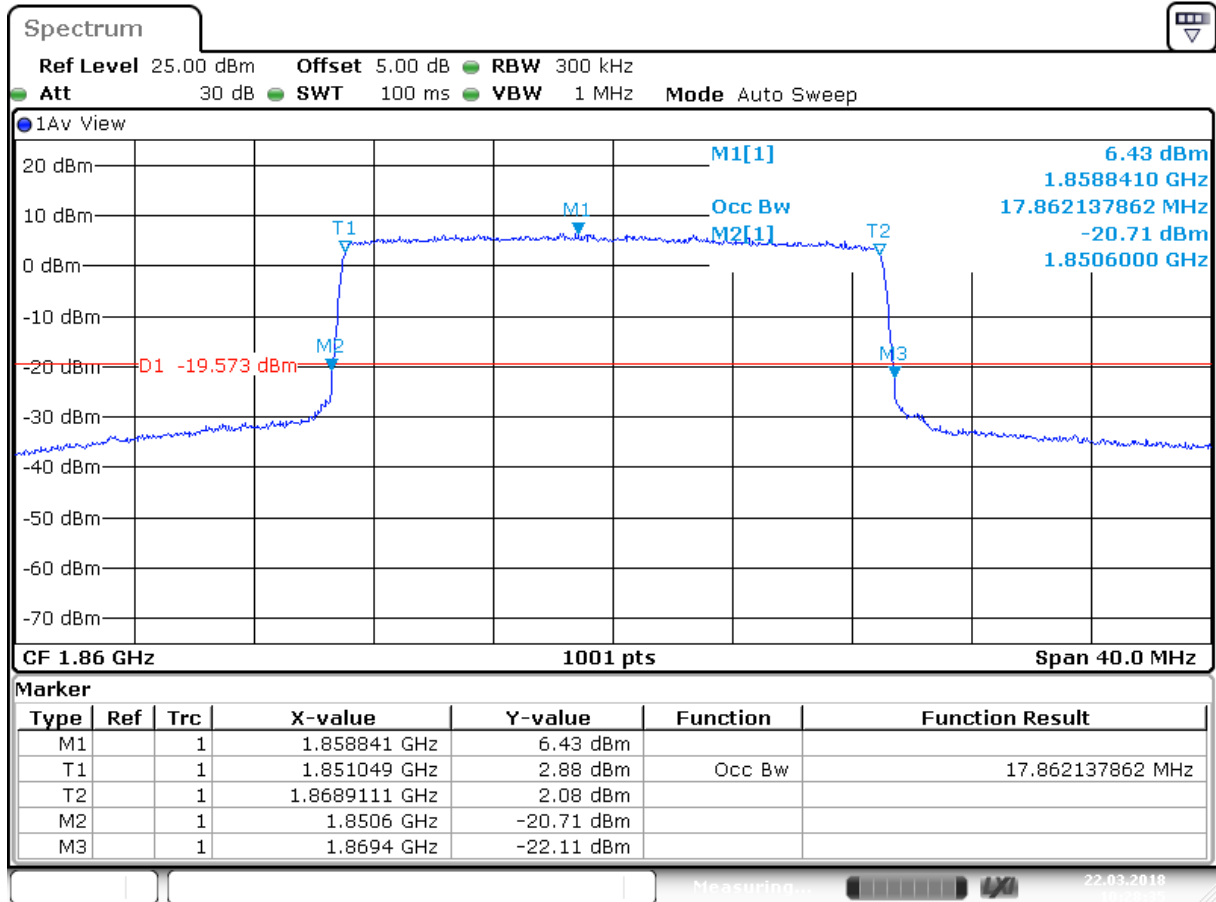


Date: 22 MAR 2018 10:16:54



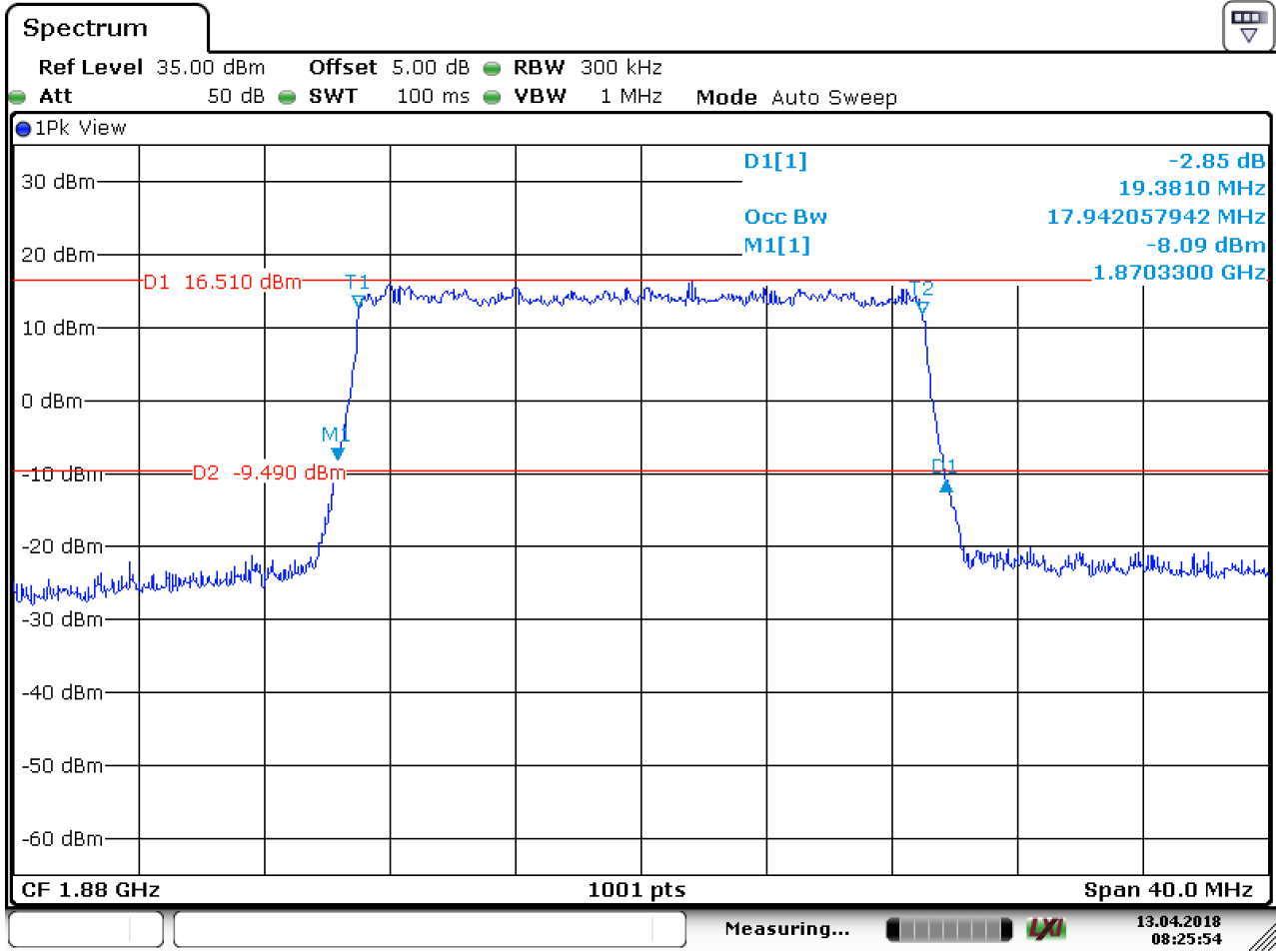
**4.1.1.9 Test Mode = LTE/TM1 20MHz**

**4.1.1.9.1 Test Channel = LCH**



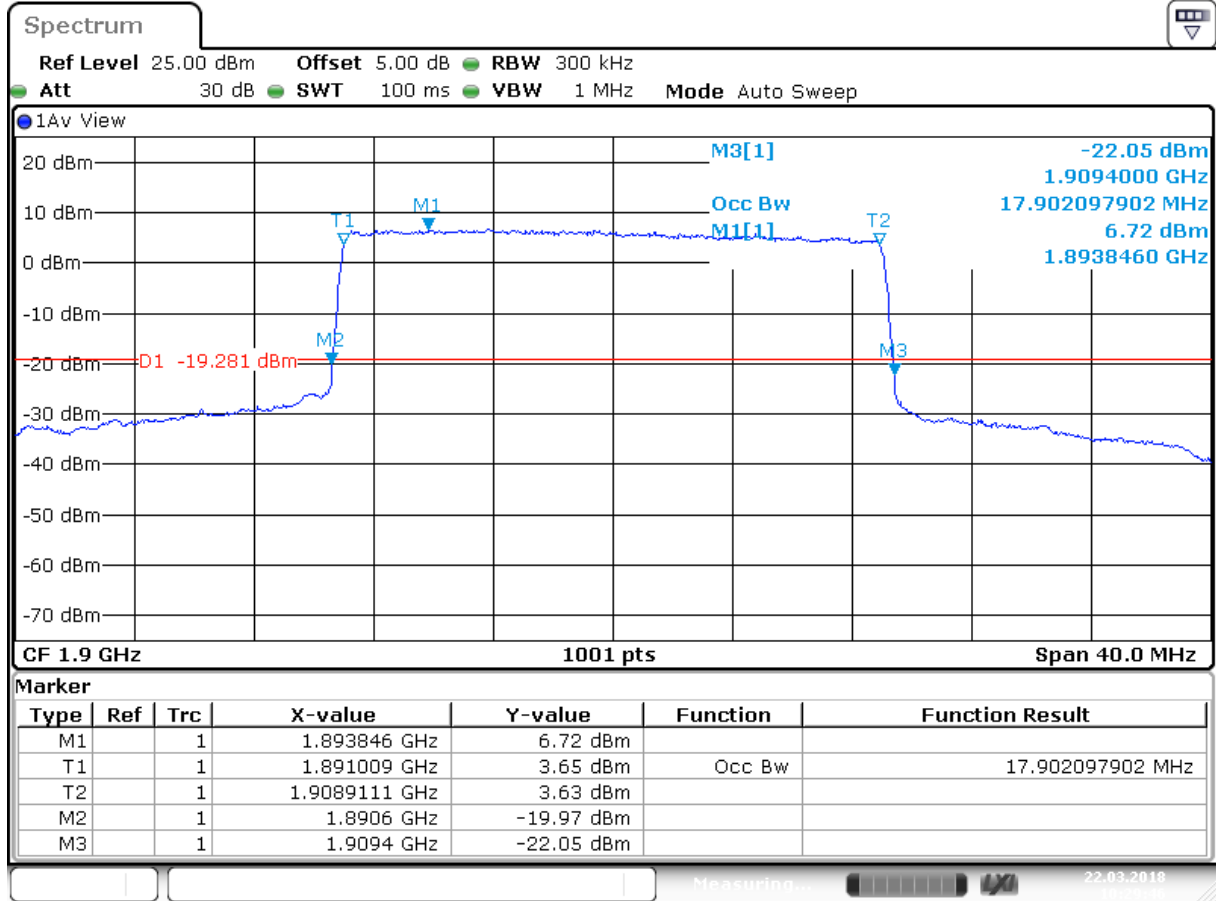
Date: 22 MAR 2018 10:28:36

4.1.1.9.2 Test Channel = MCH



Date: 13.APR.2018 08:25:55

**4.1.1.9.3 Test Channel = HCH**



Date: 22 MAR. 2018 10:29:47

## 5 Band Edges Compliance

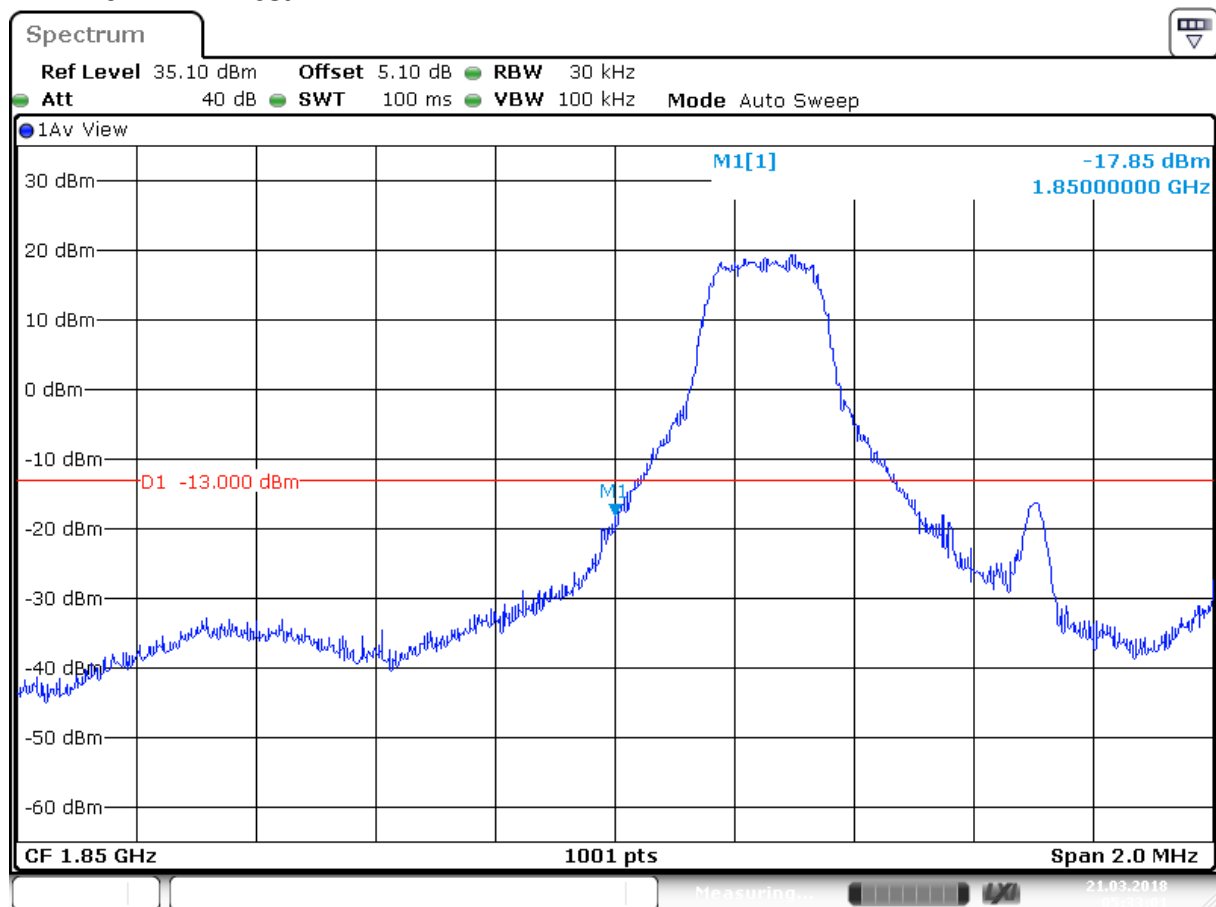
### 5.1 For LTE

#### 5.1.1 Test Band = LTE band2

##### 5.1.1.1 Test Mode = LTE/TM1 1.4MHz

##### 5.1.1.1.1 Test Channel = LCH

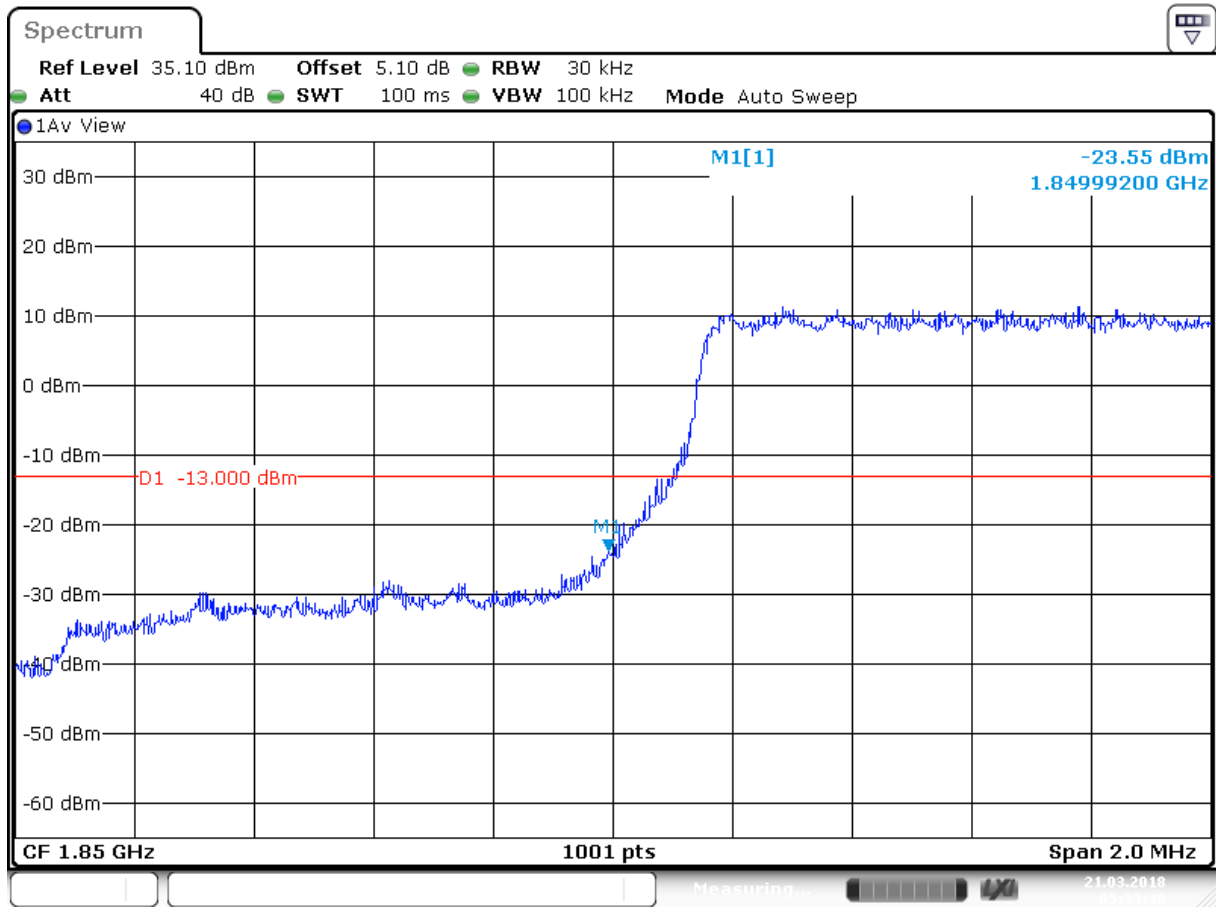
##### 5.1.1.1.1.1 Test RB=1RB



Date: 21 MAR 2018 05:33:02



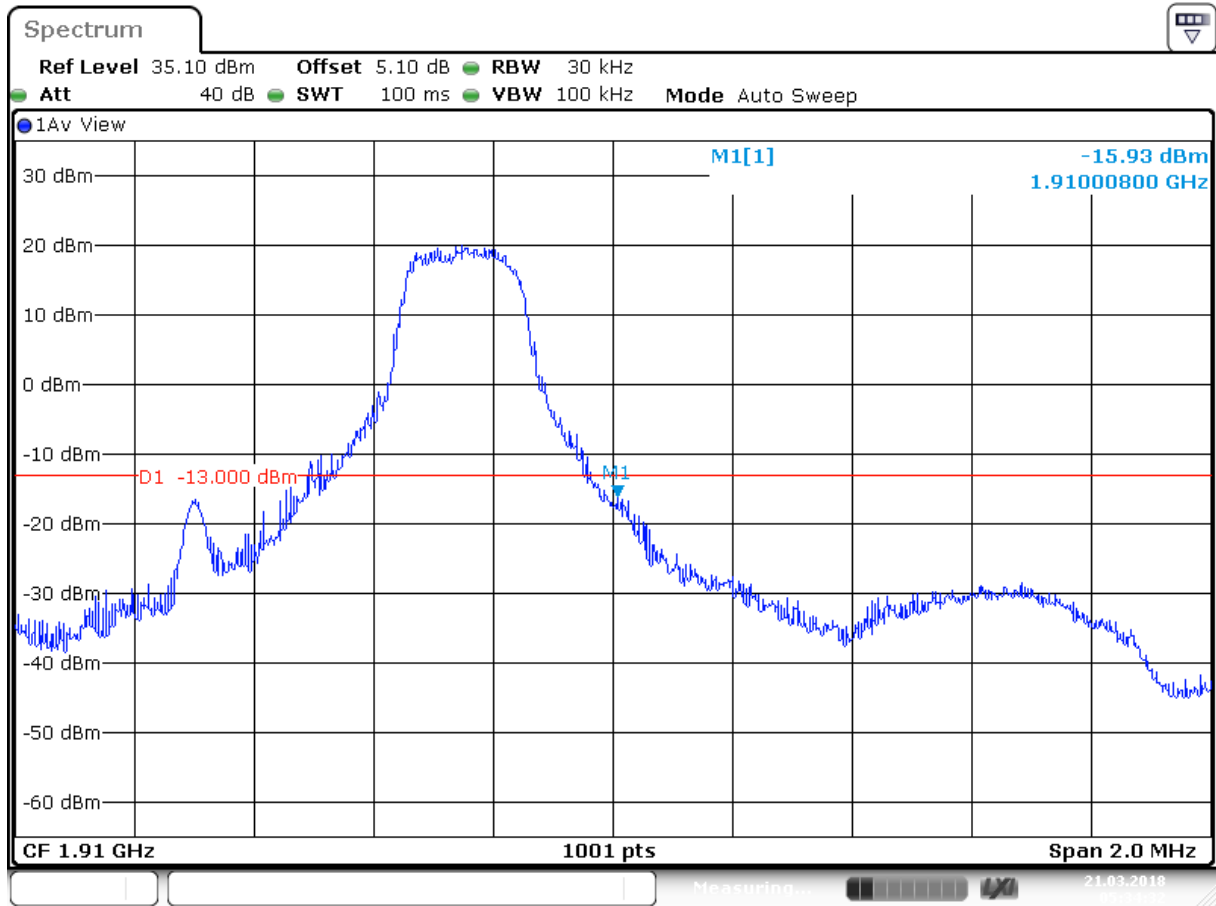
5.1.1.1.2 Test RB=6RB



Date: 21 MAR 2018 05:33:40

**5.1.1.1.2 Test Channel = HCH**

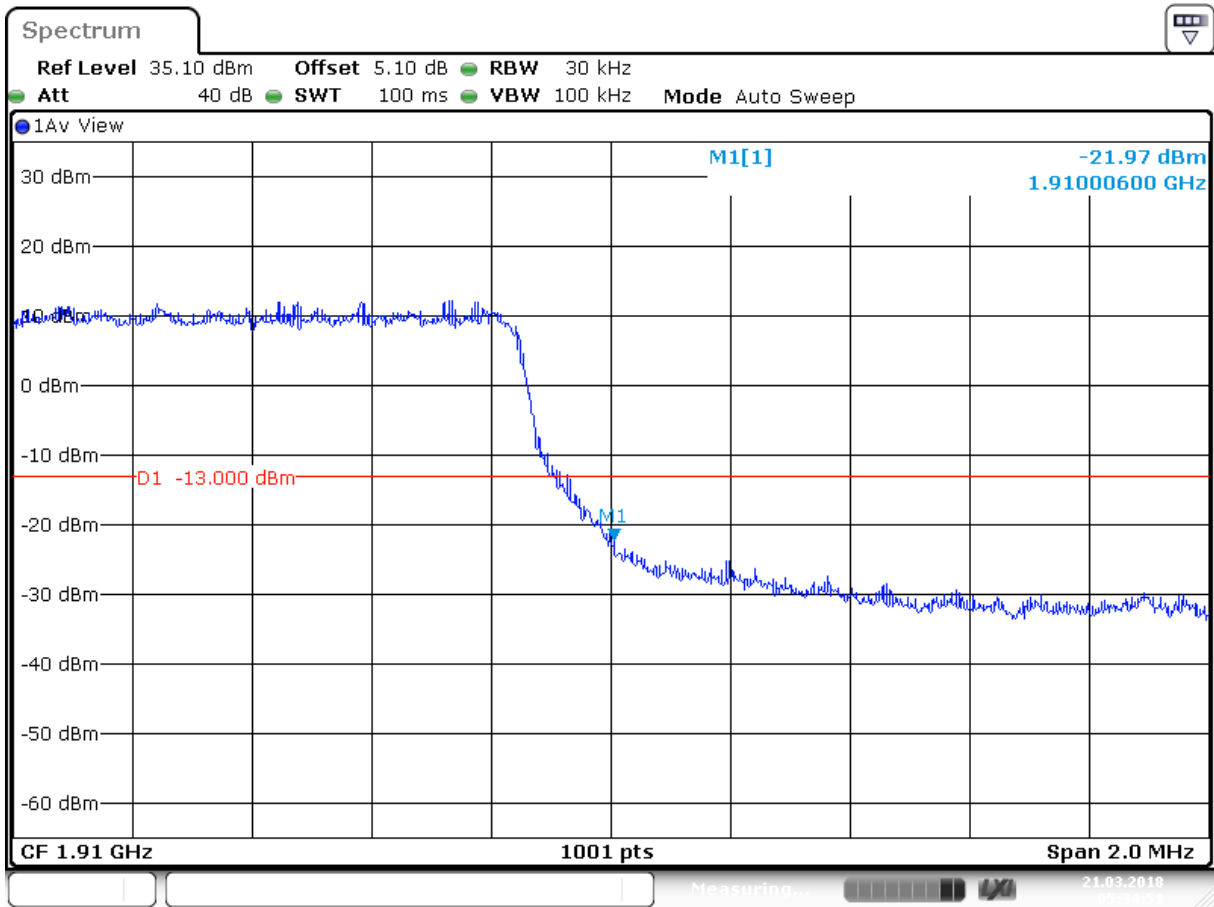
**5.1.1.1.2.1 Test RB=1RB**



Date: 21 MAR 2018 05:34:32



5.1.1.1.2.2 Test RB=6RB



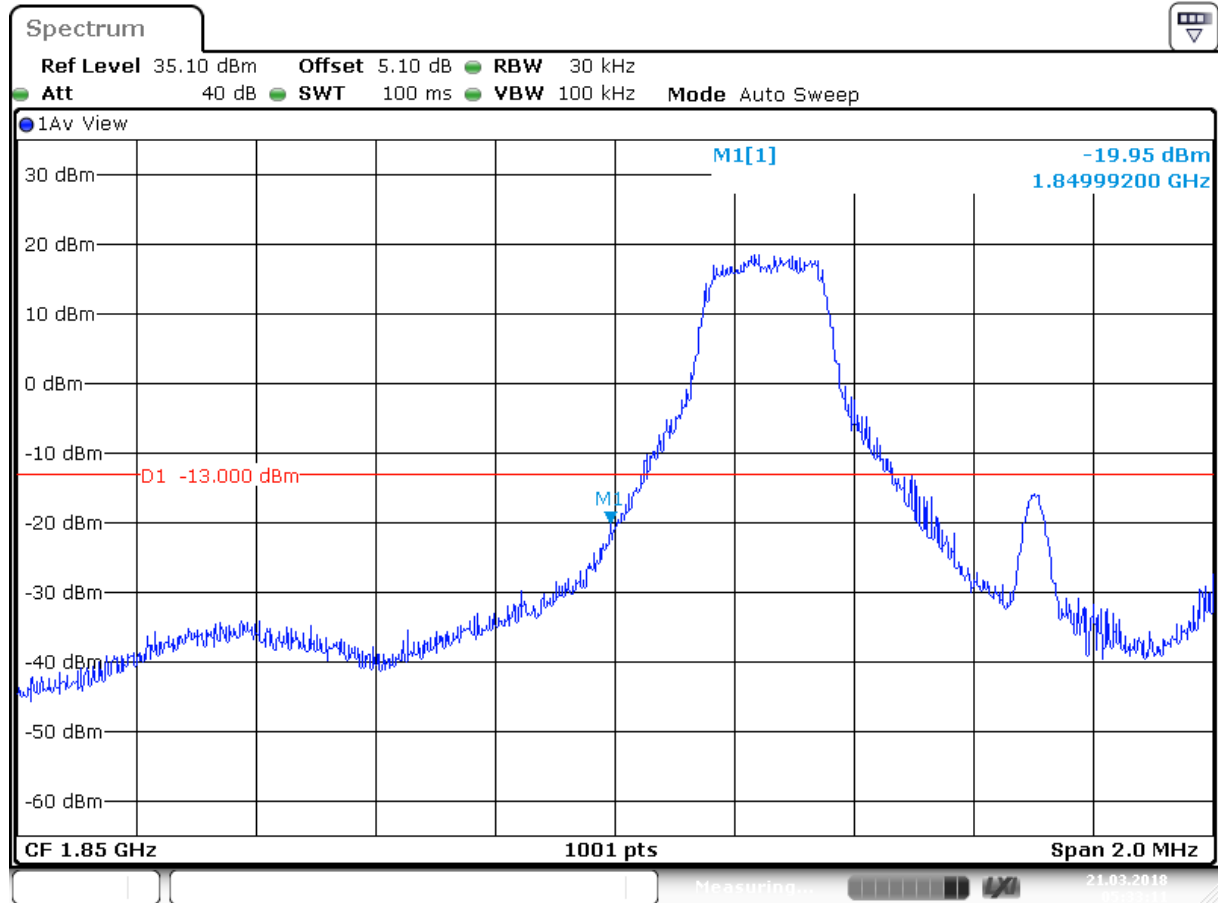
Date: 21 MAR 2018 05:34:51



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

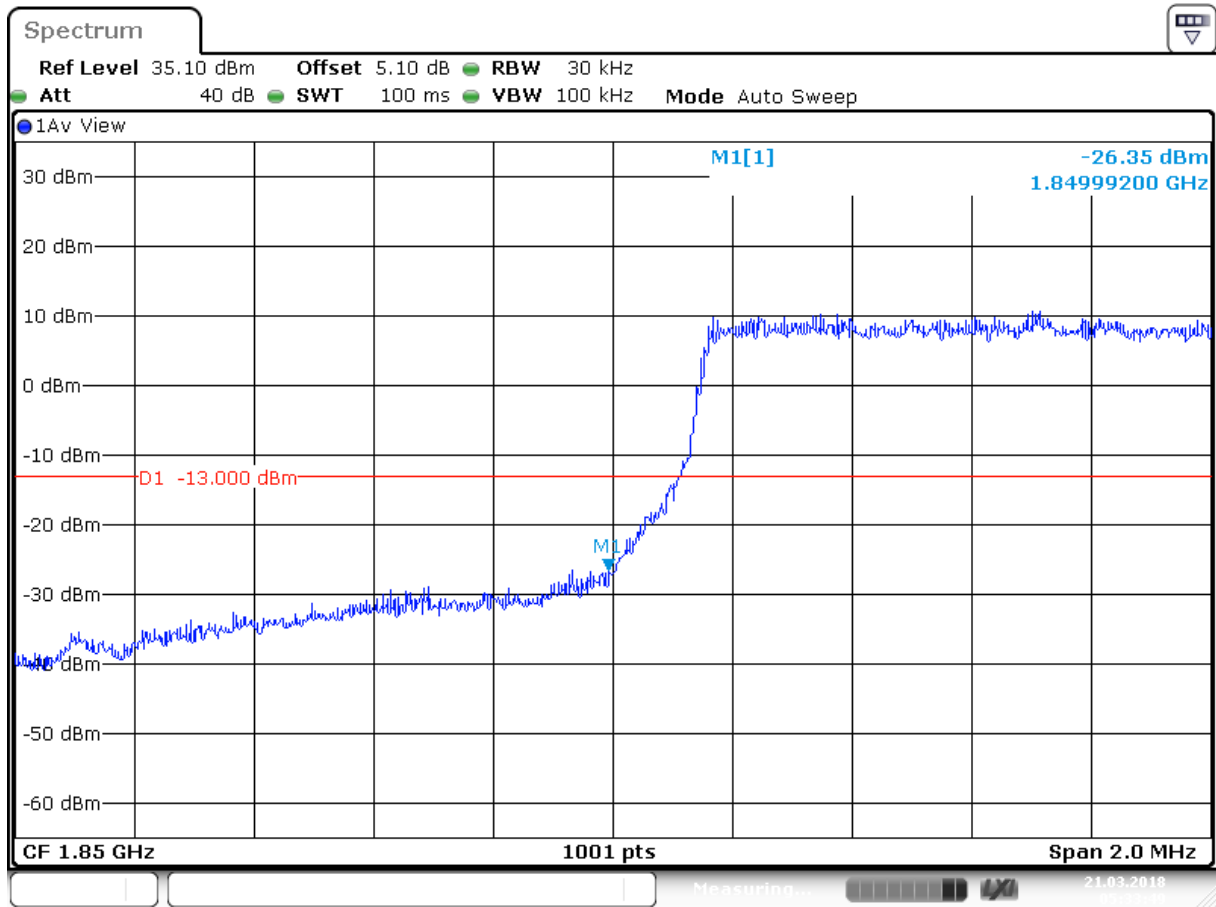


Date: 21 MAR 2018 05:33:11





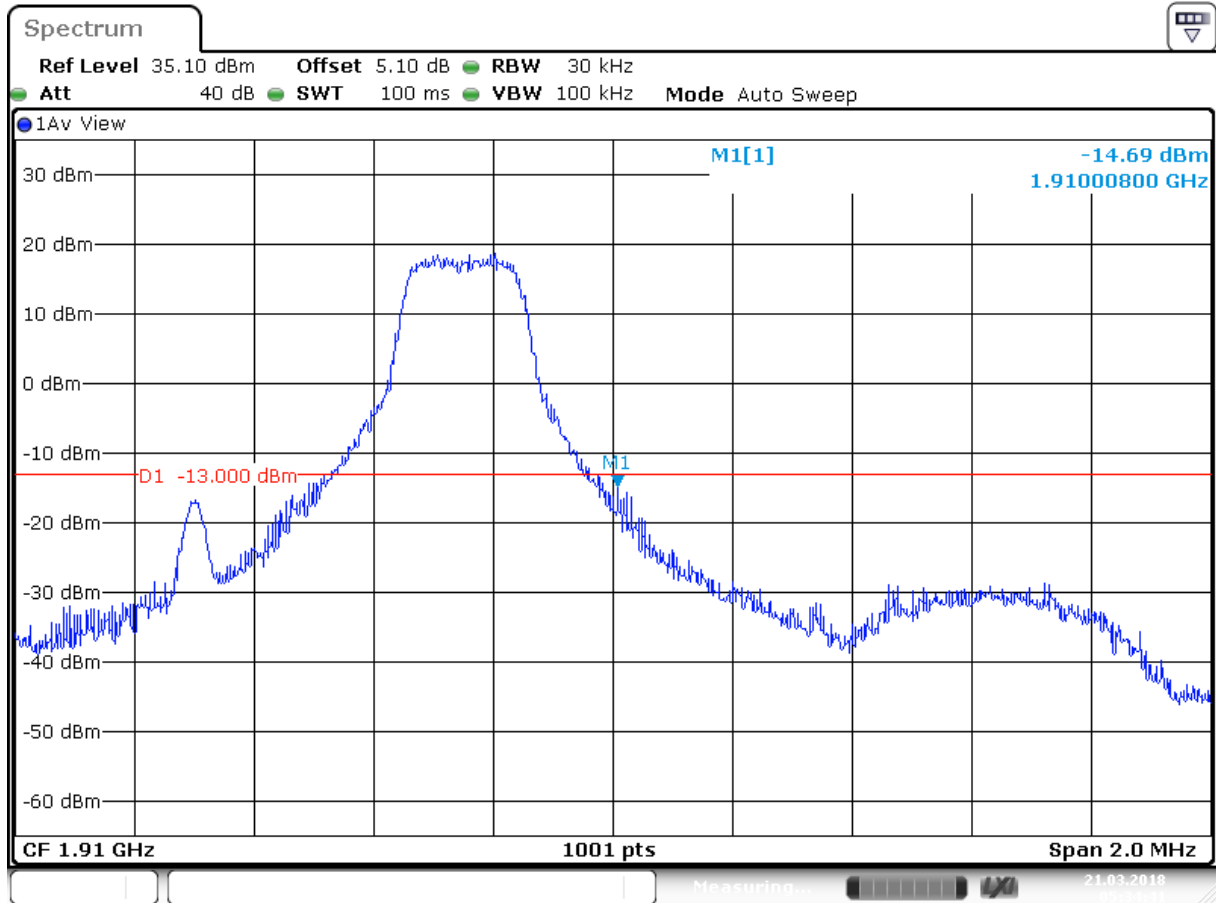
5.1.1.2.1.2 Test RB=6RB



Date: 21 MAR 2018 05:33:49

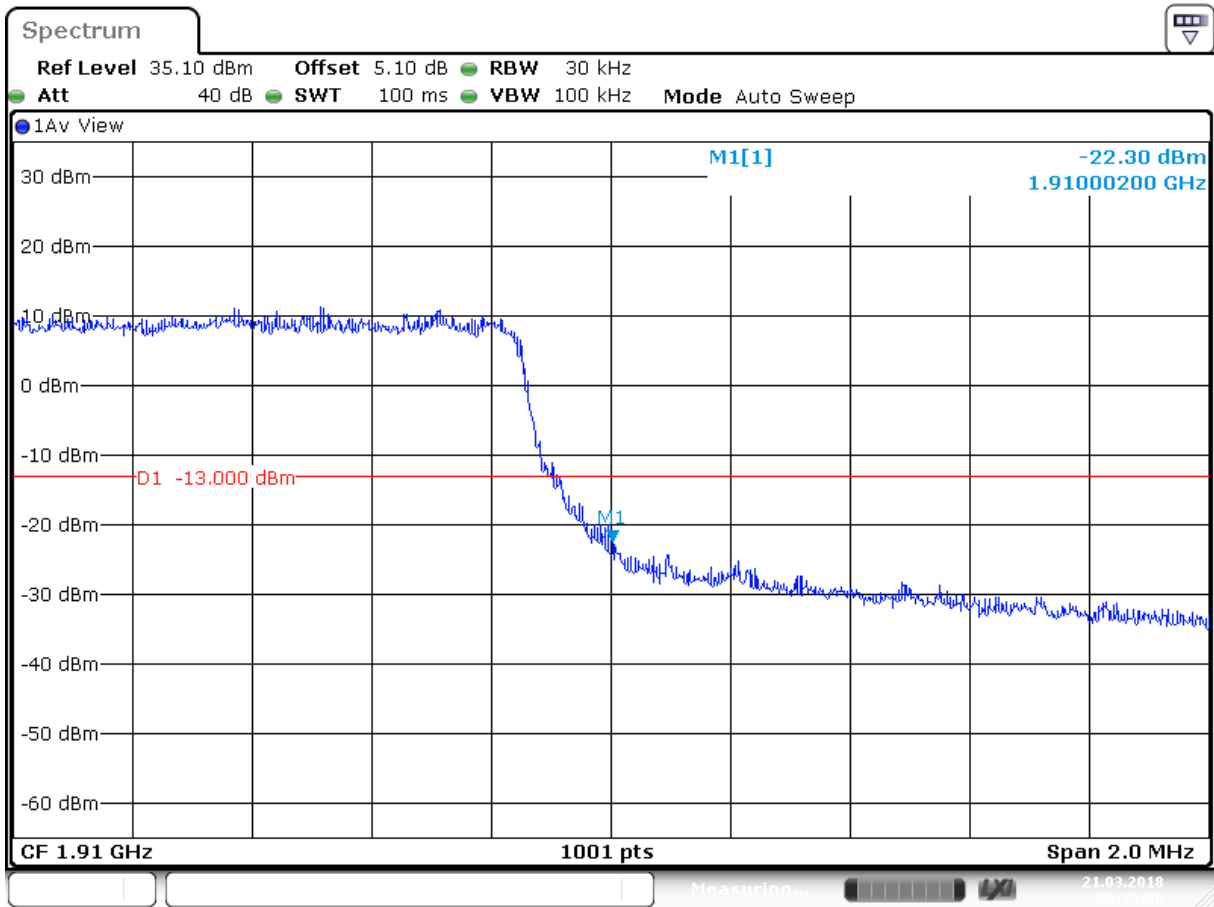
**5.1.1.2.2 Test Channel = HCH**

**5.1.1.2.2.1 Test RB=1RB**



Date: 21 MAR 2018 05:34:41

**5.1.1.2.2.2 Test RB=6RB**



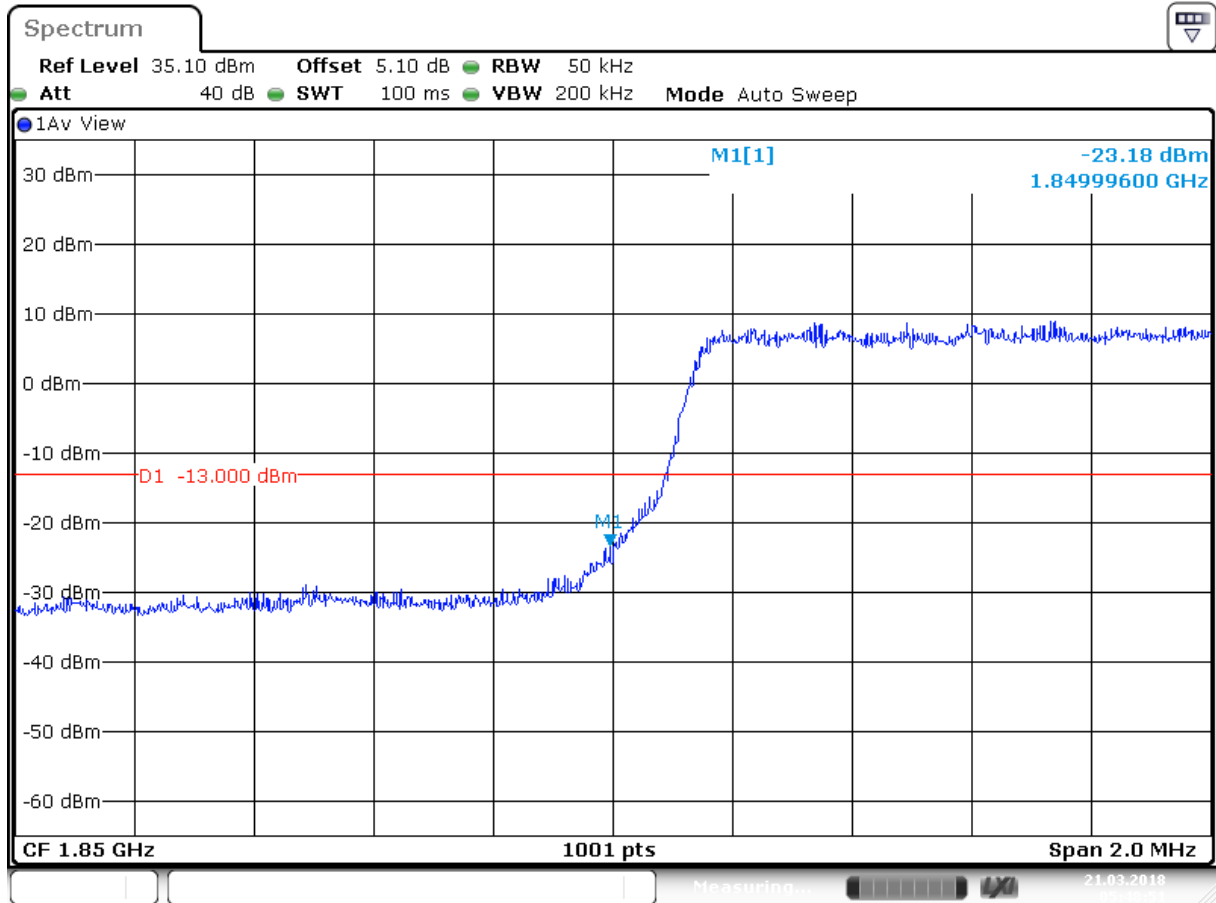
Date: 21 MAR 2018 05:35:00



5.1.1.3 Test Mode = LTE/TM1 3MHz

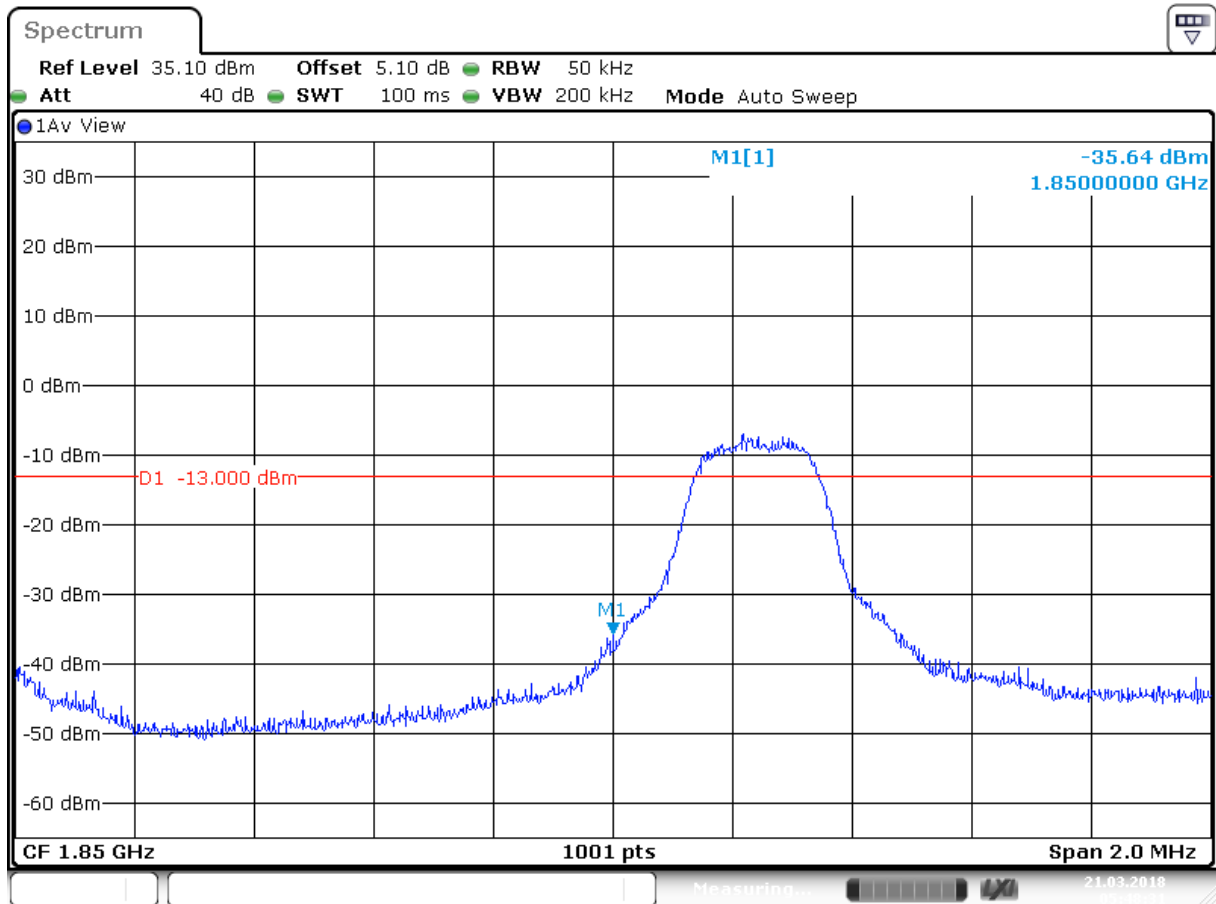
5.1.1.3.1 Test Channel = LCH

5.1.1.3.1.1 Test RB=1RB



Date: 21 MAR 2018 05:48:51

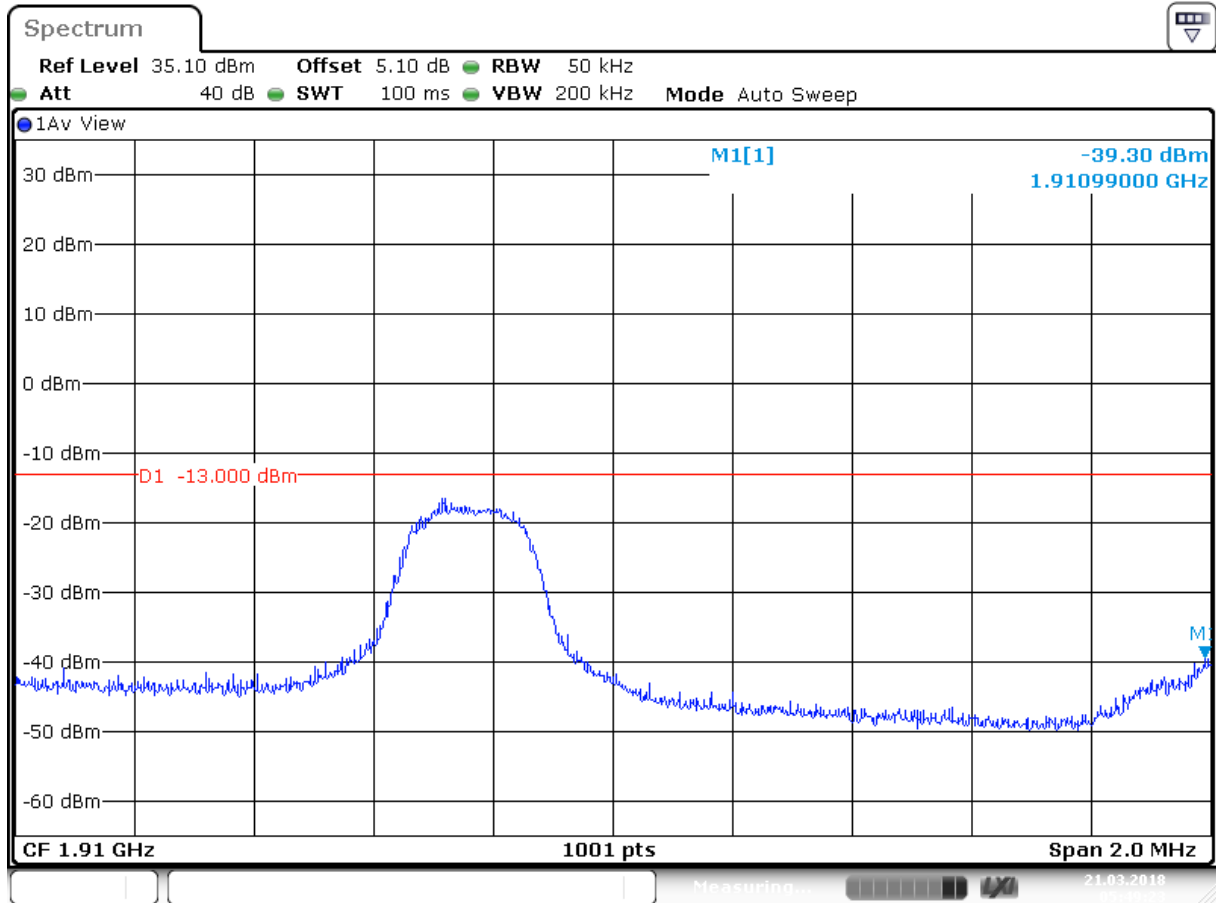
**5.1.1.3.1.2 Test RB=15RB**



Date: 21 MAR 2018 05:48:32

**5.1.1.3.2 Test Channel = HCH**

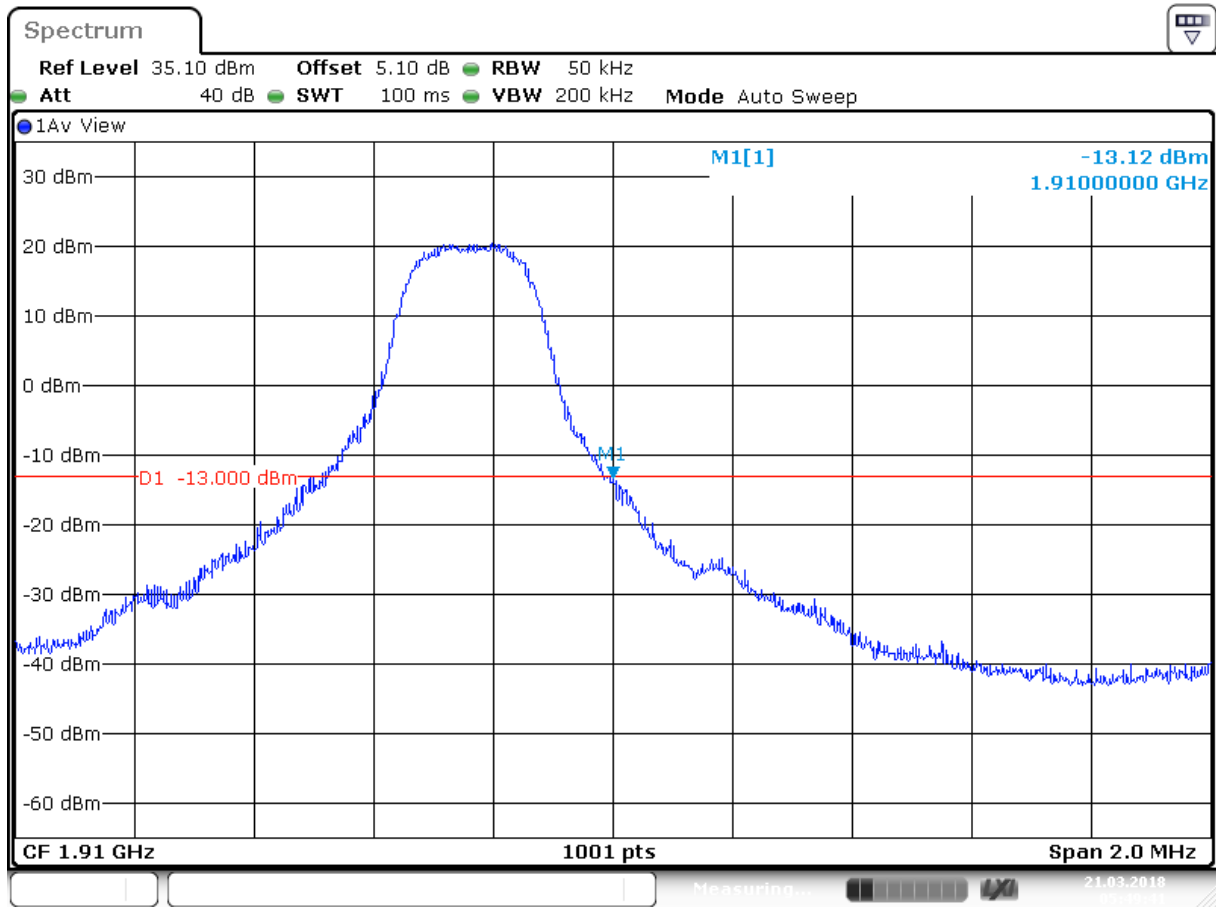
**5.1.1.3.2.1 Test RB=1RB**



Date: 21 MAR 2018 05:49:23



5.1.1.3.2.2 Test RB=15RB



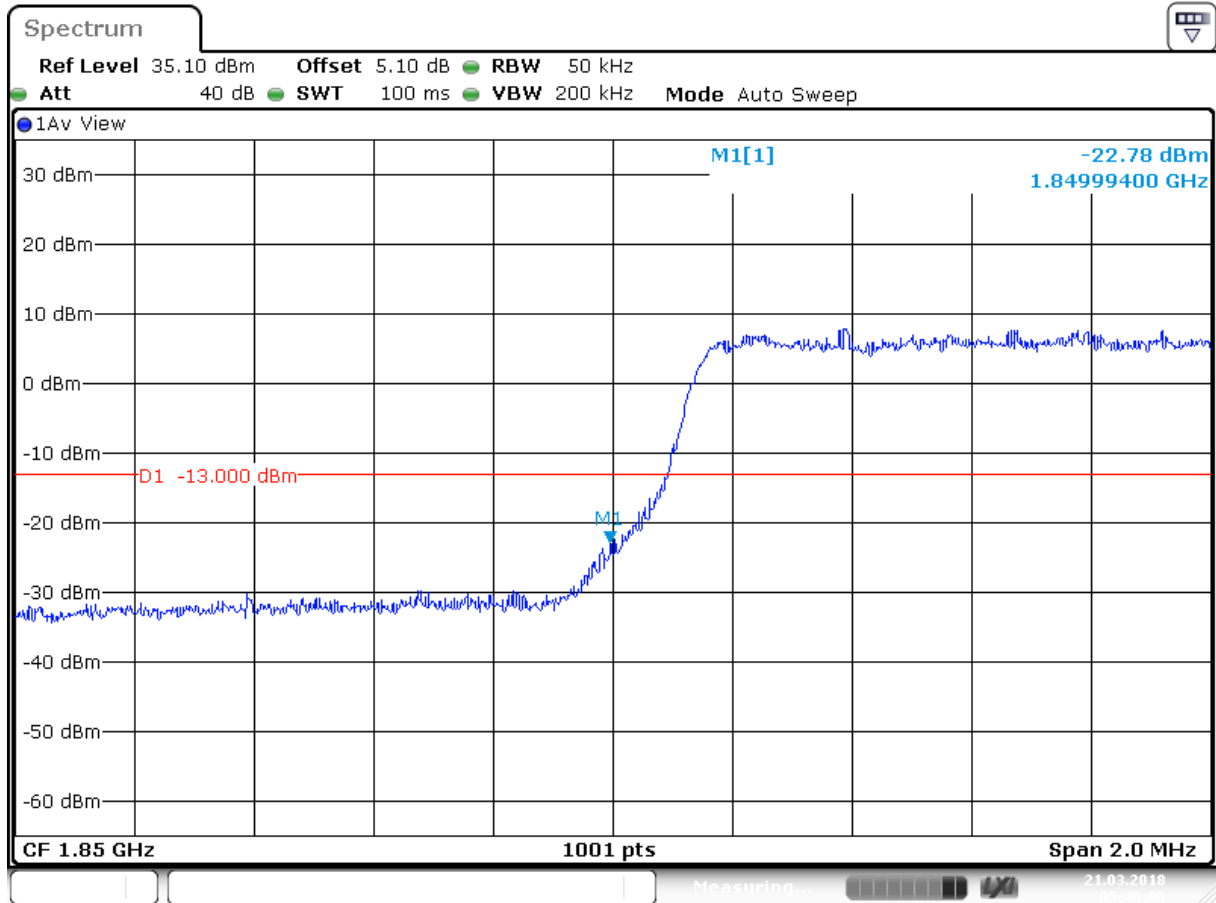
Date: 21 MAR 2018 05:49:42



5.1.1.4 Test Mode = LTE/TM2 3MHz

5.1.1.4.1 Test Channel = LCH

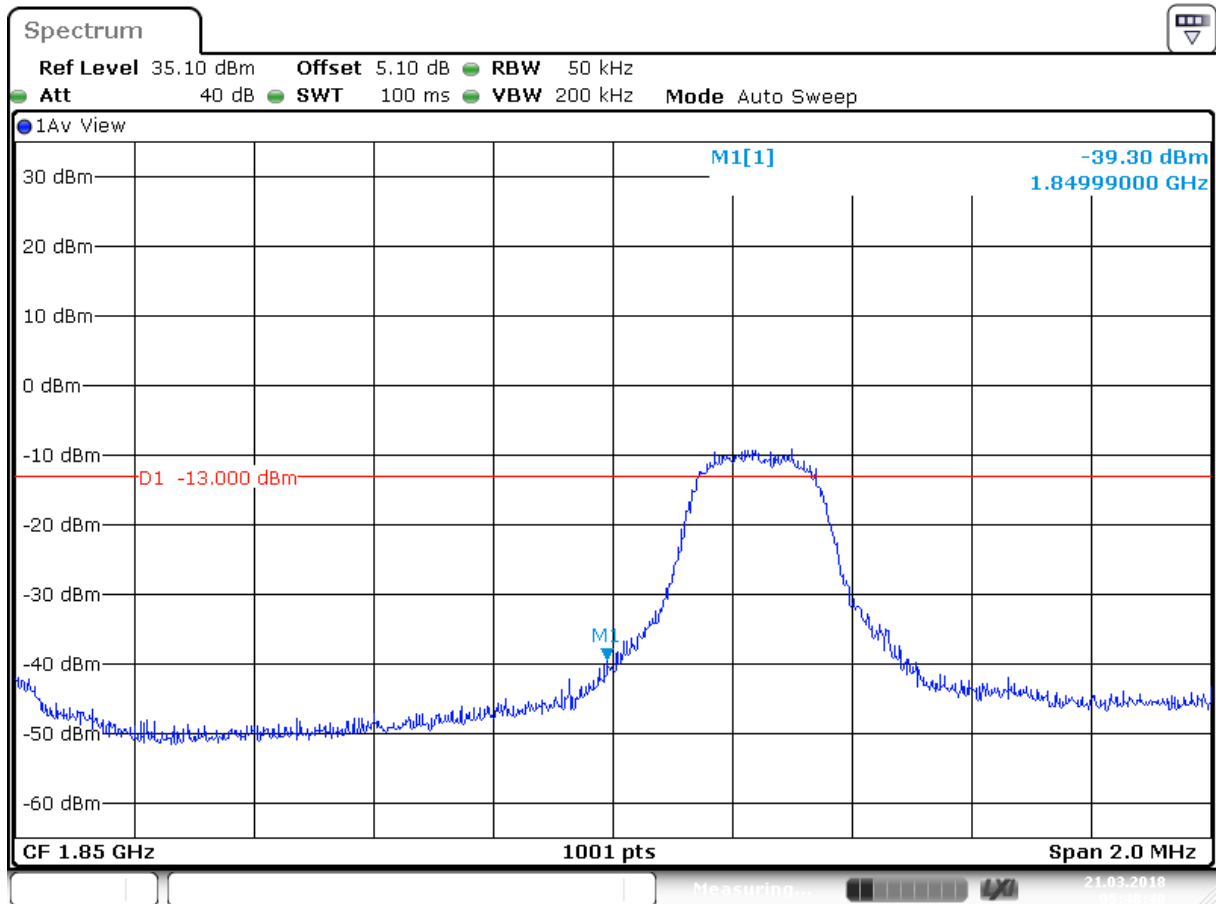
5.1.1.4.1.1 Test RB=1RB



Date: 21 MAR 2018 05:49:00



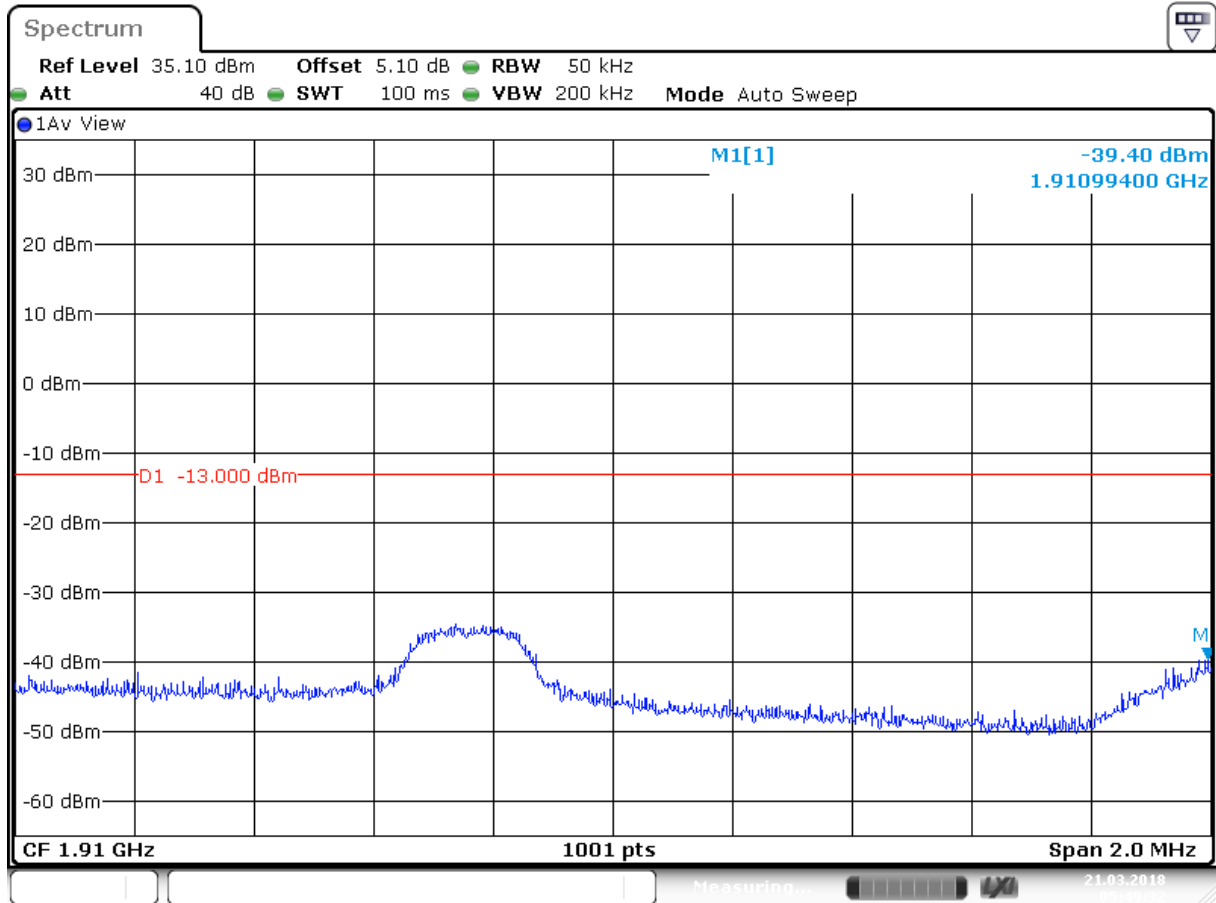
**5.1.1.4.1.2 Test RB=15RB**



Date: 21 MAR 2018 05:48:41

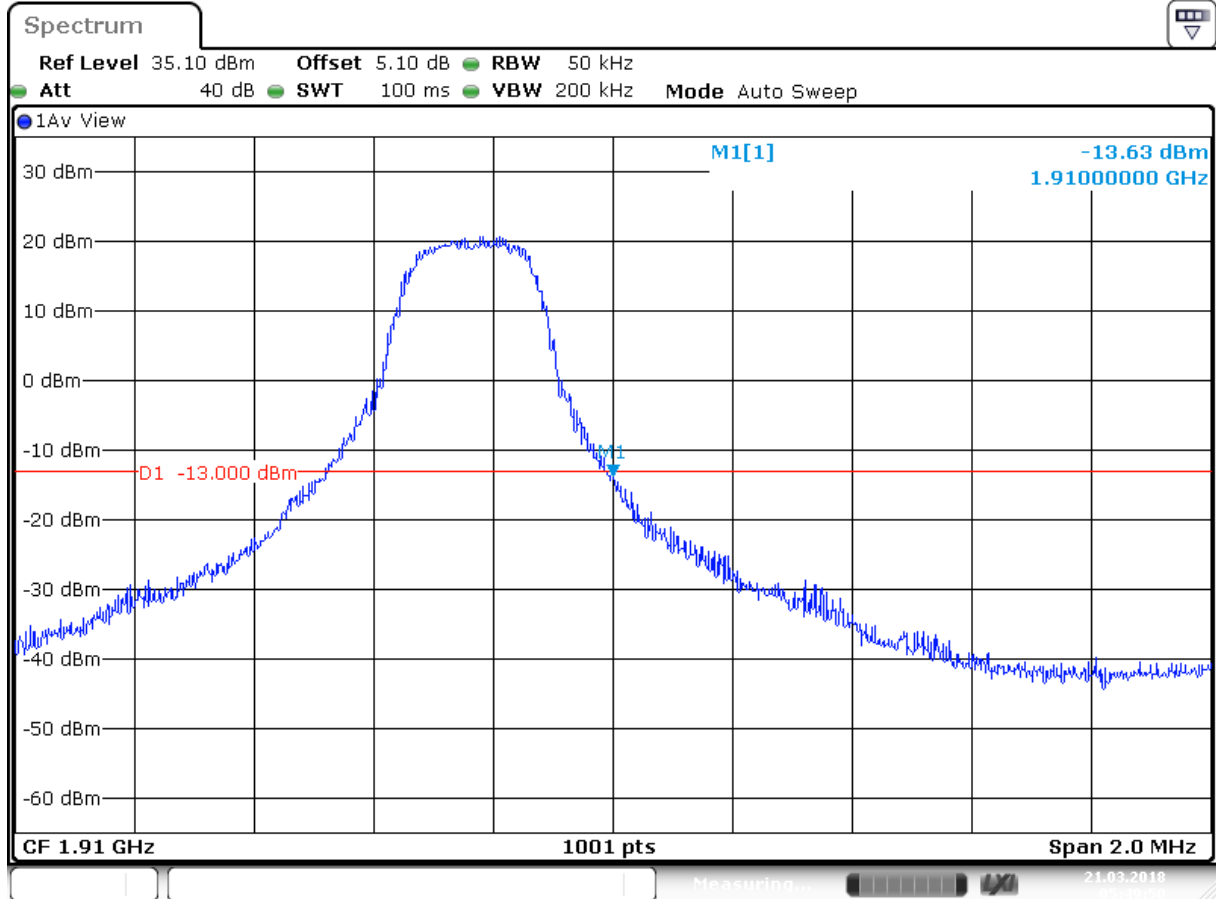
**5.1.1.4.2 Test Channel = HCH**

**5.1.1.4.2.1 Test RB=1RB**



Date: 21 MAR 2018 05:49:33

**5.1.1.4.3 Test RB=15RB**



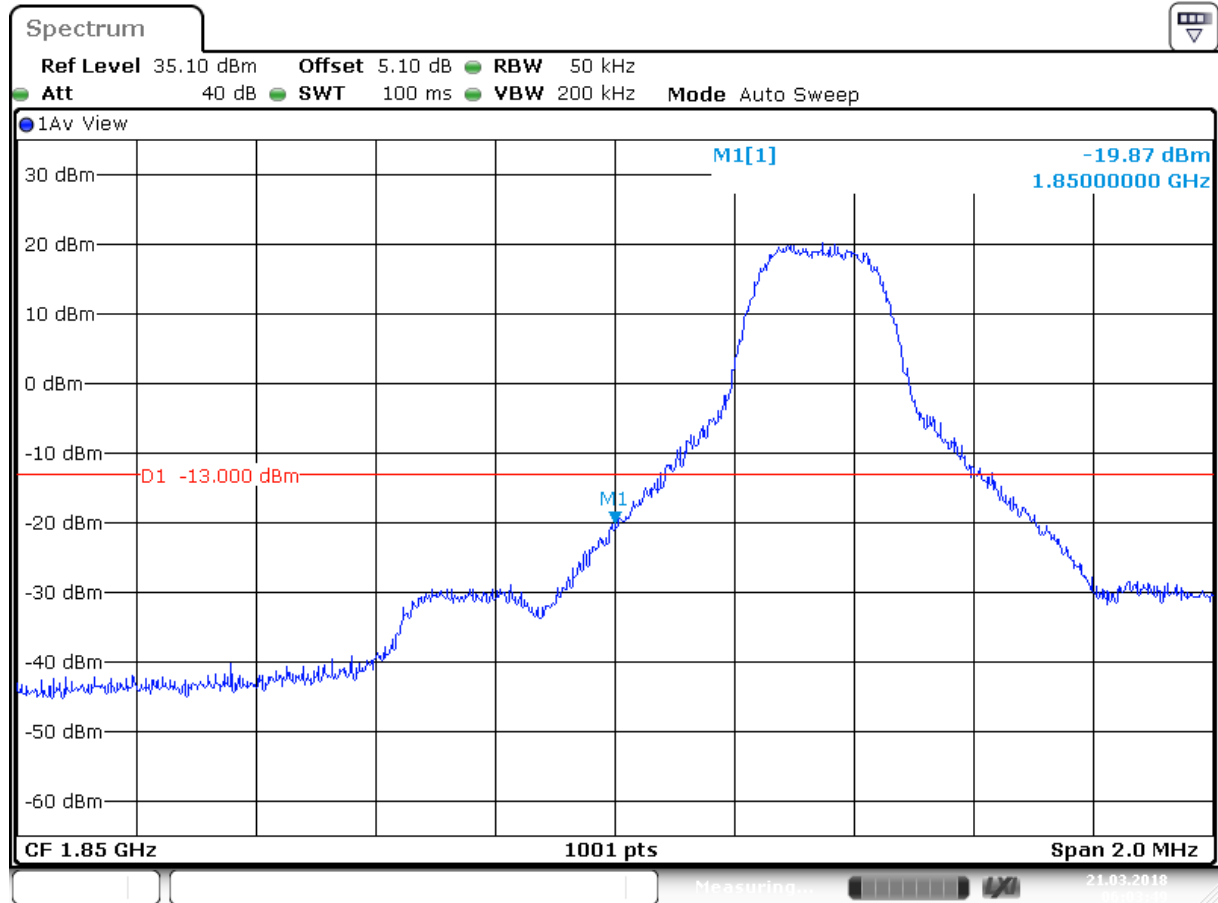
Date: 21 MAR 2018 05:49:51



5.1.1.5 Test Mode = LTE/TM1 5MHz

5.1.1.5.1 Test Channel = LCH

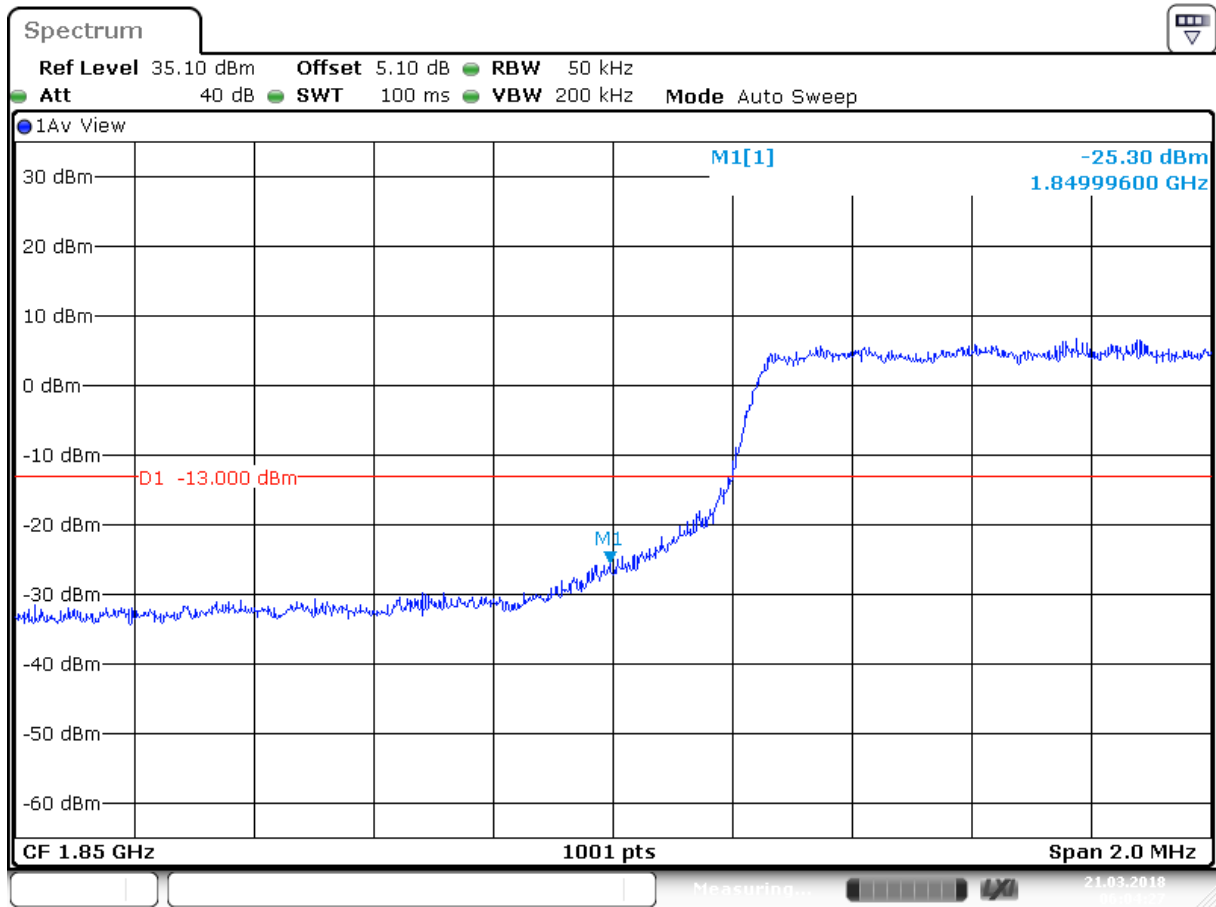
5.1.1.5.1.1 Test RB=1RB



Date: 21 MAR 2018 06:03:49



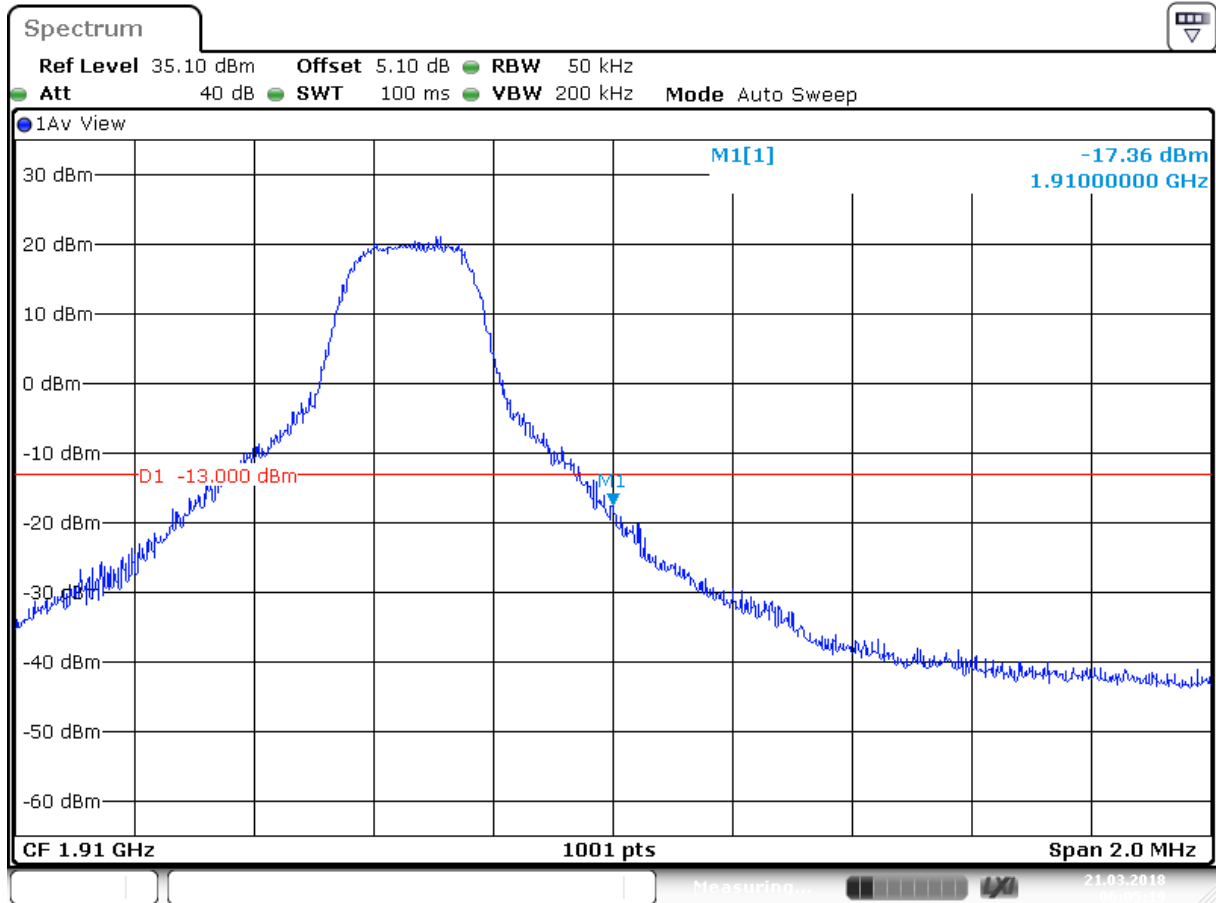
5.1.1.5.1.2 Test RB=25RB



Date: 21 MAR 2018 06:04:27

**5.1.1.5.2 Test Channel = HCH**

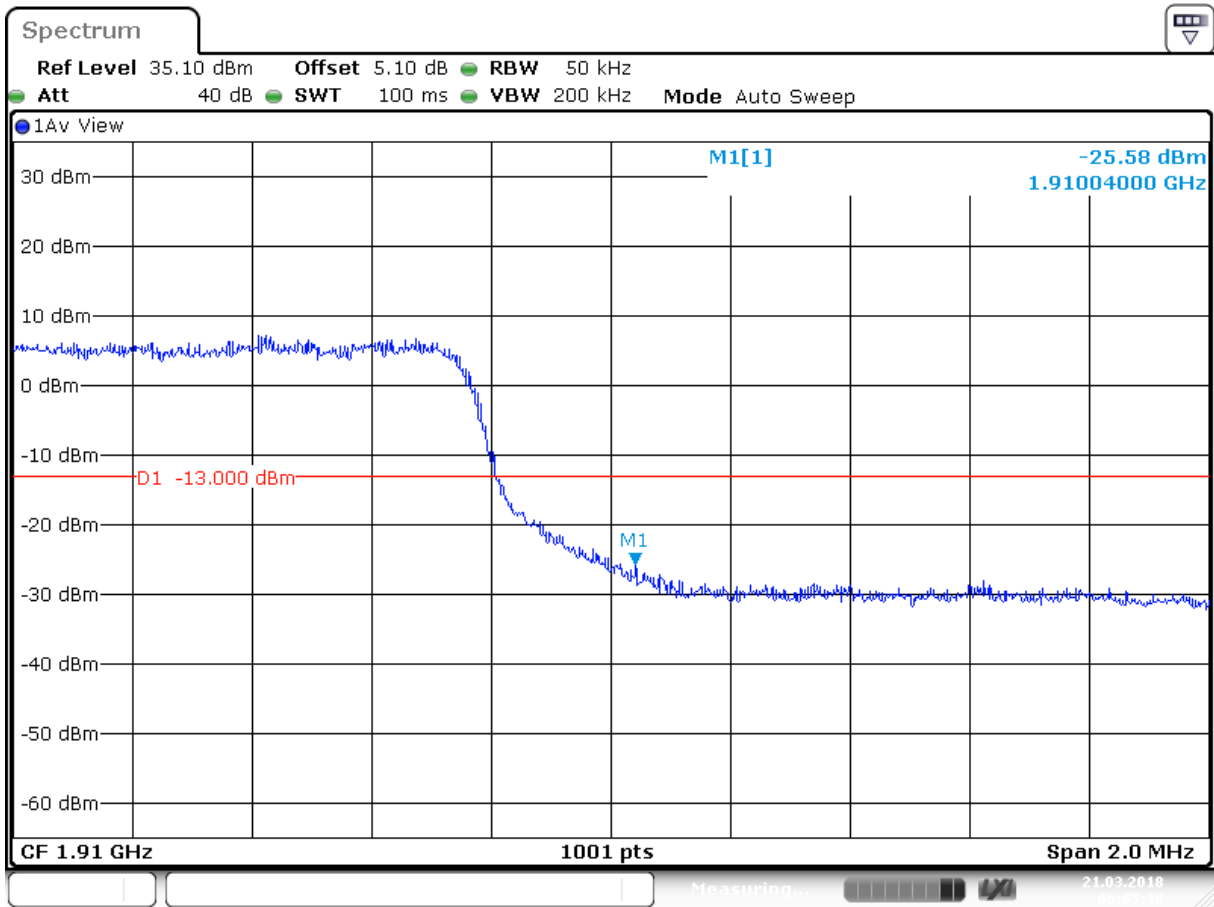
**5.1.1.5.2.1 Test RB=1RB**



Date: 21 MAR 2018 06:05:19



5.1.1.5.2.2 Test RB=25RB

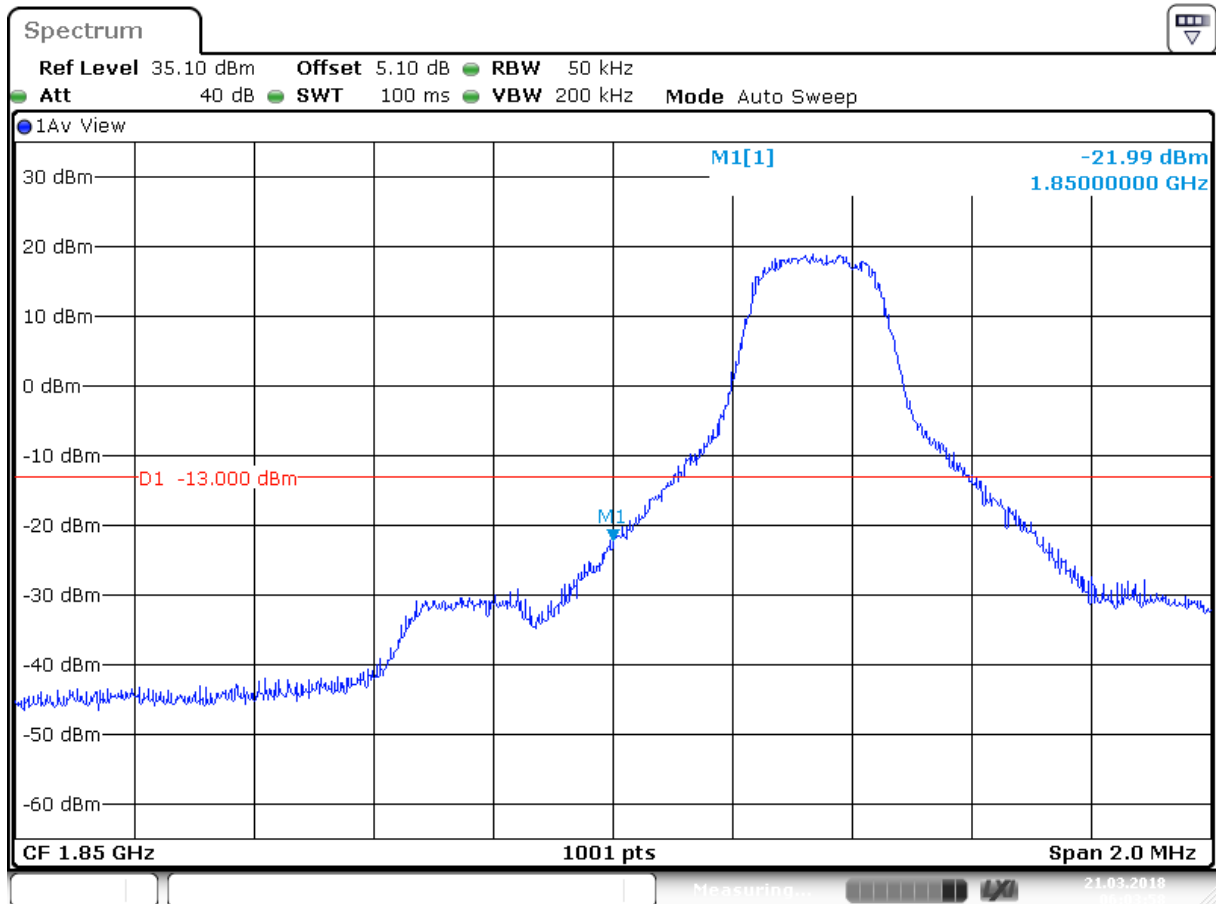


Date: 21 MAR 2018 06:05:39

**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**

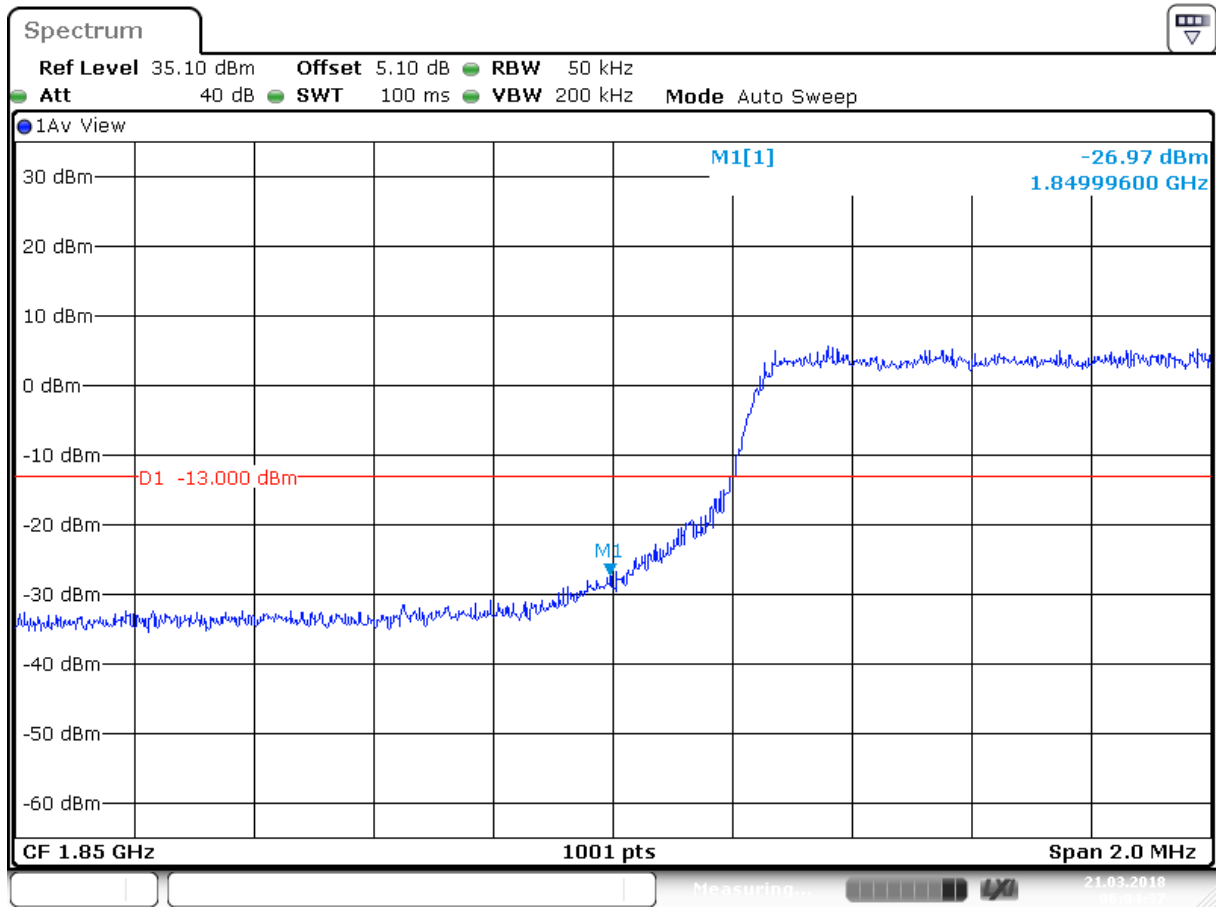


Date: 21 MAR 2018 06:03:59





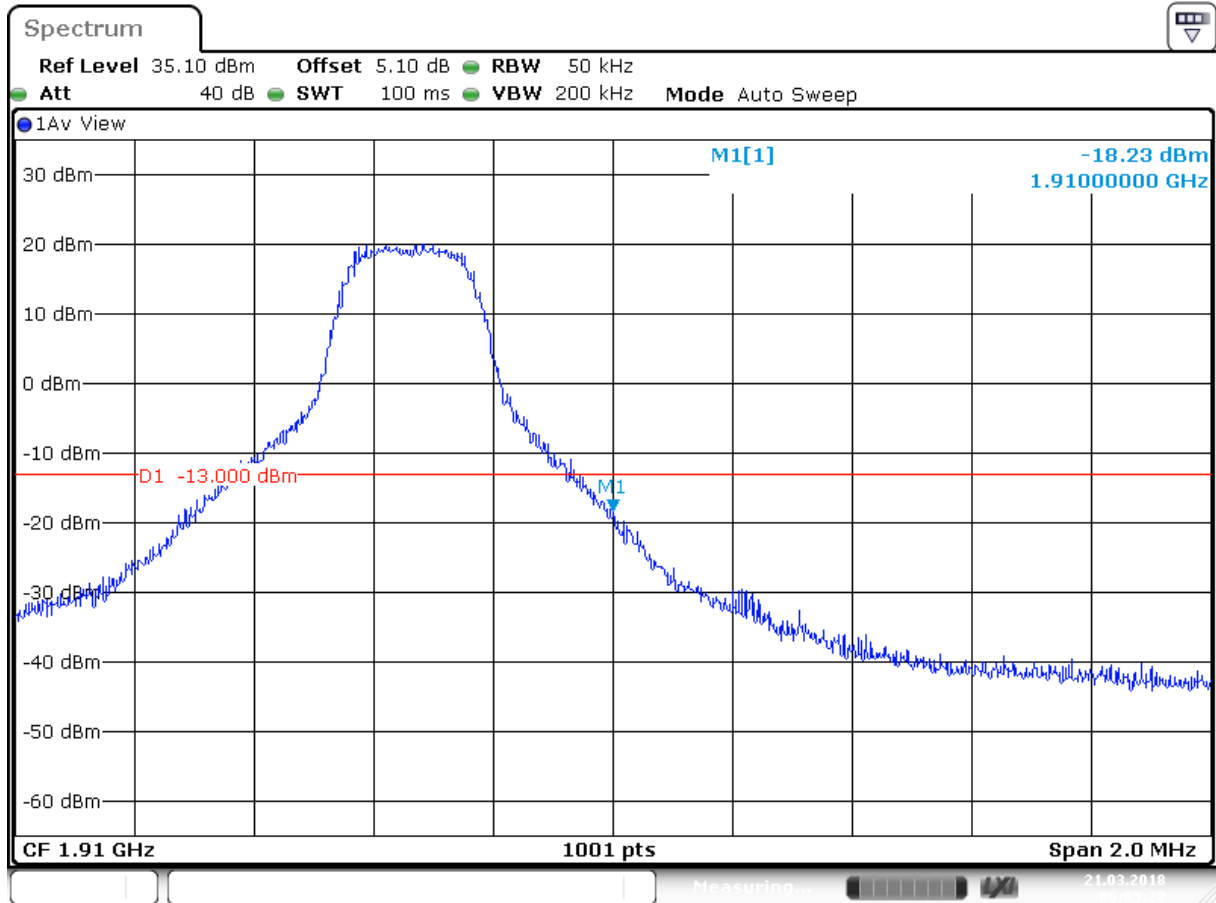
5.1.1.6.1.2 Test RB=25RB



Date: 21 MAR 2018 06:04:37

**5.1.1.6.2 Test Channel = HCH**

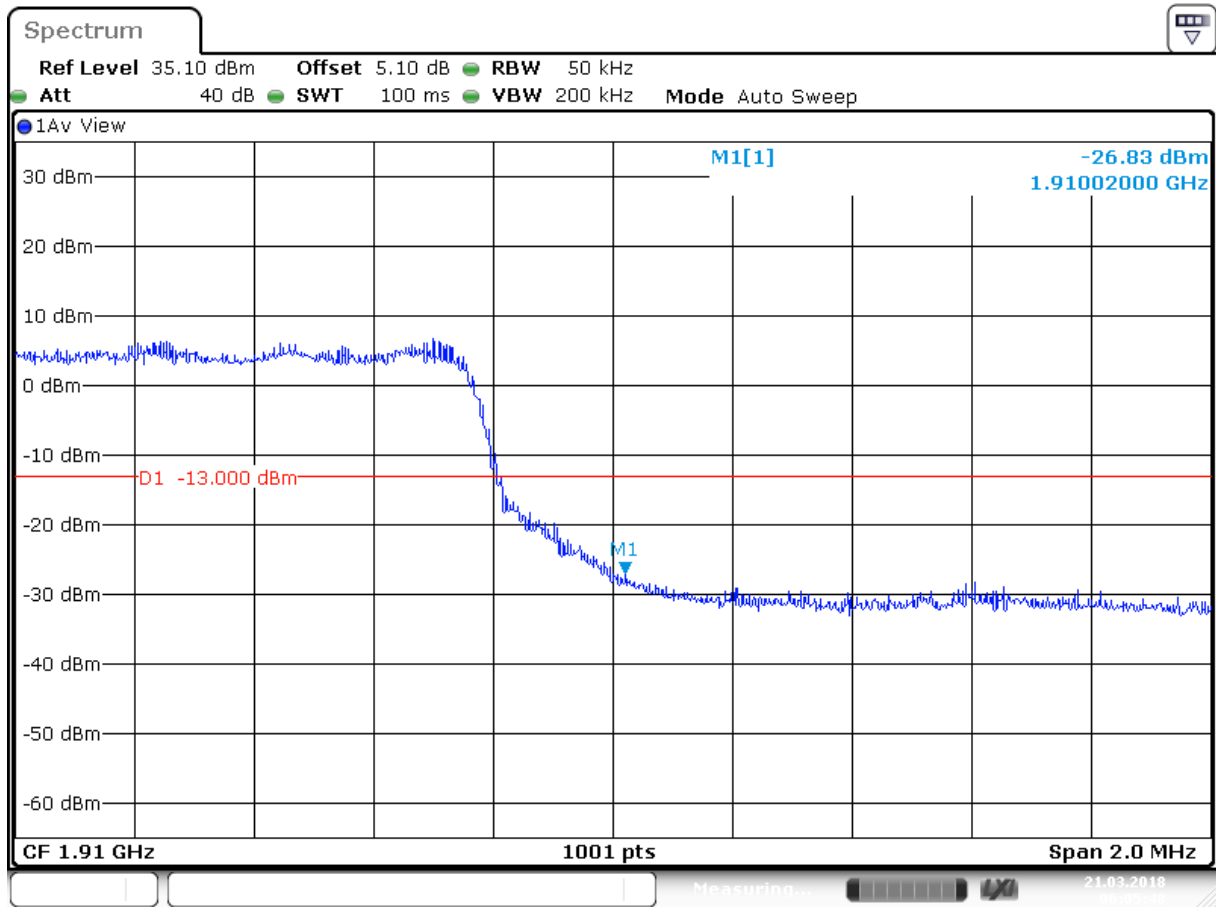
**5.1.1.6.2.1 Test RB=1RB**



Date: 21 MAR 2018 06:05:29



5.1.1.6.2.2 Test RB=25RB

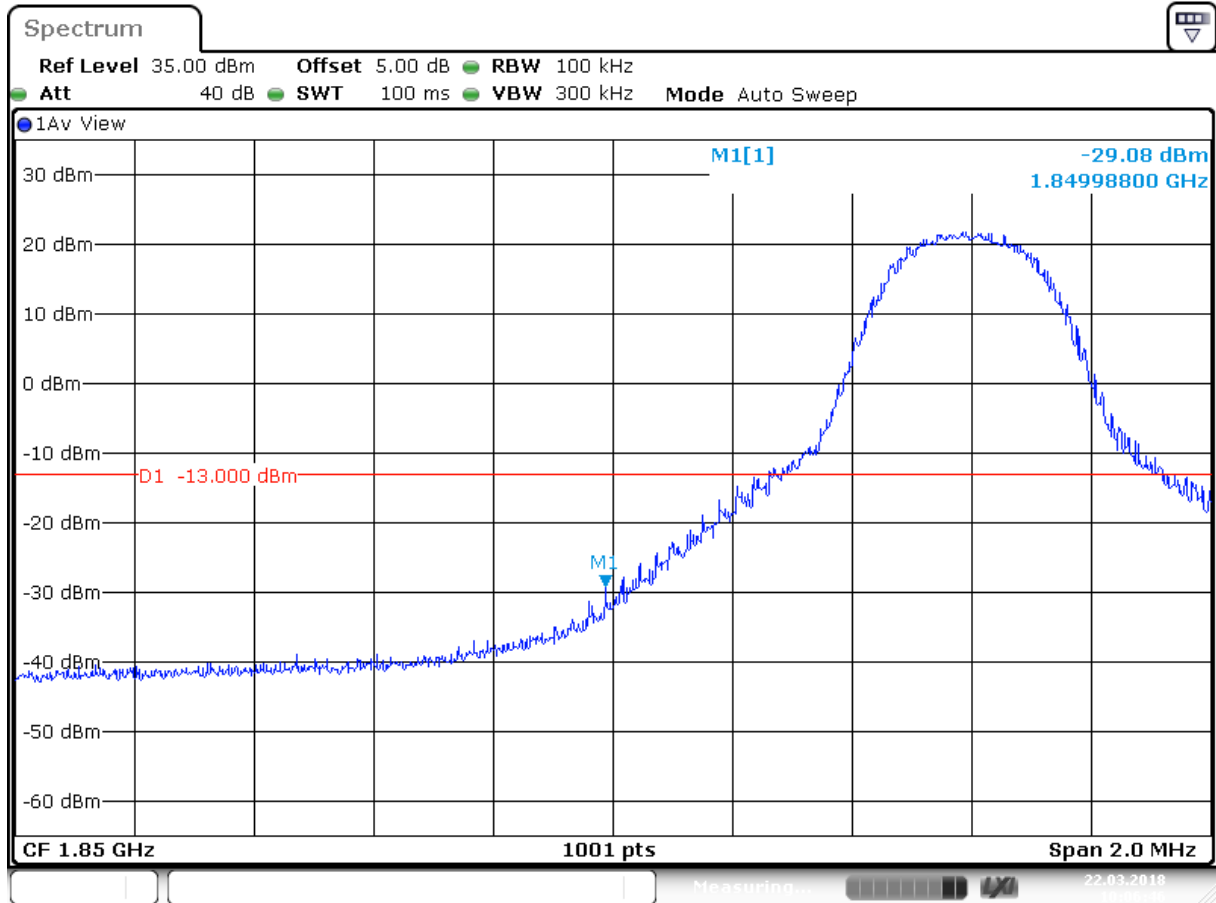


Date: 21 MAR 2018 06:05:48

**5.1.1.7 Test Mode = LTE/TM1 10MHz**

**5.1.1.7.1 Test Channel = LCH**

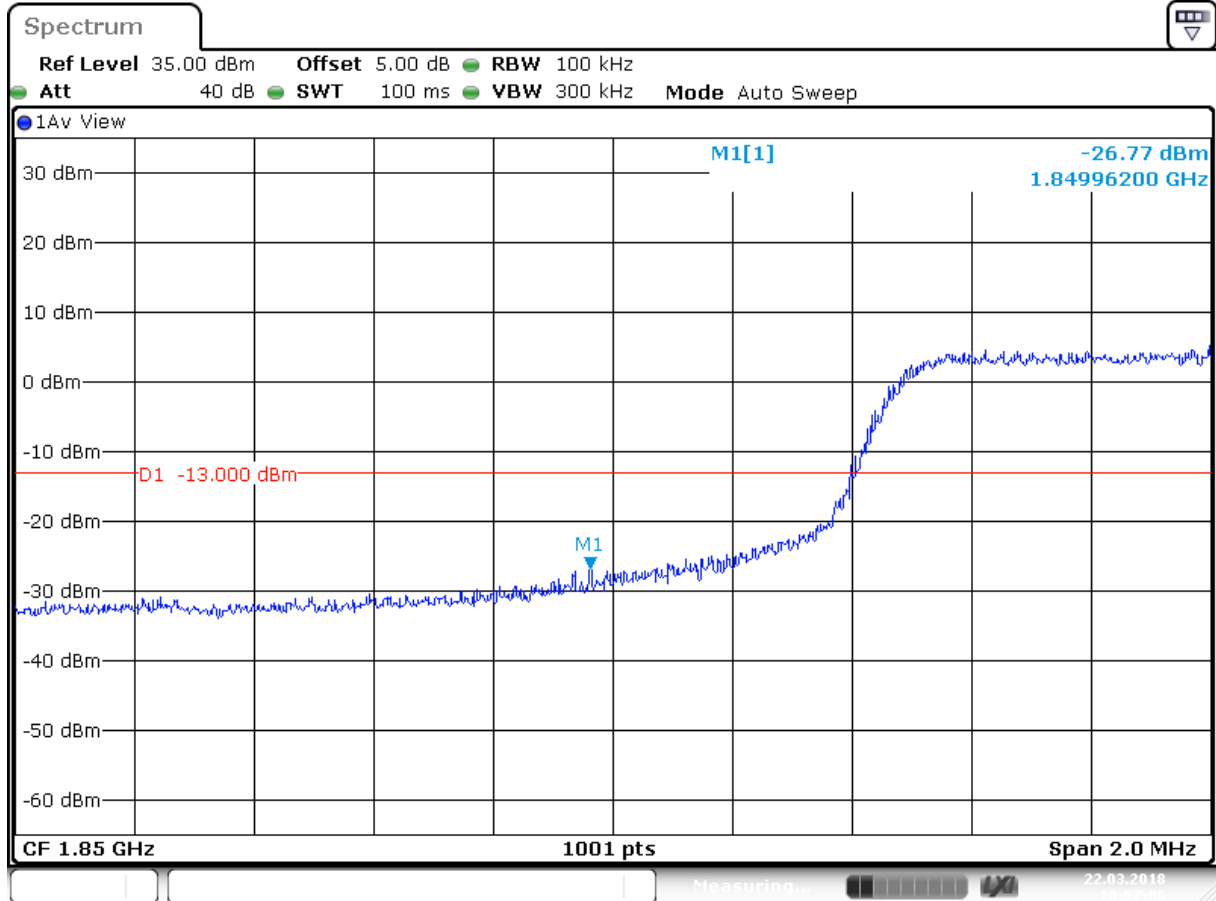
**5.1.1.7.1.1 Test RB=1RB**



Date: 22 MAR 2018 10:06:47



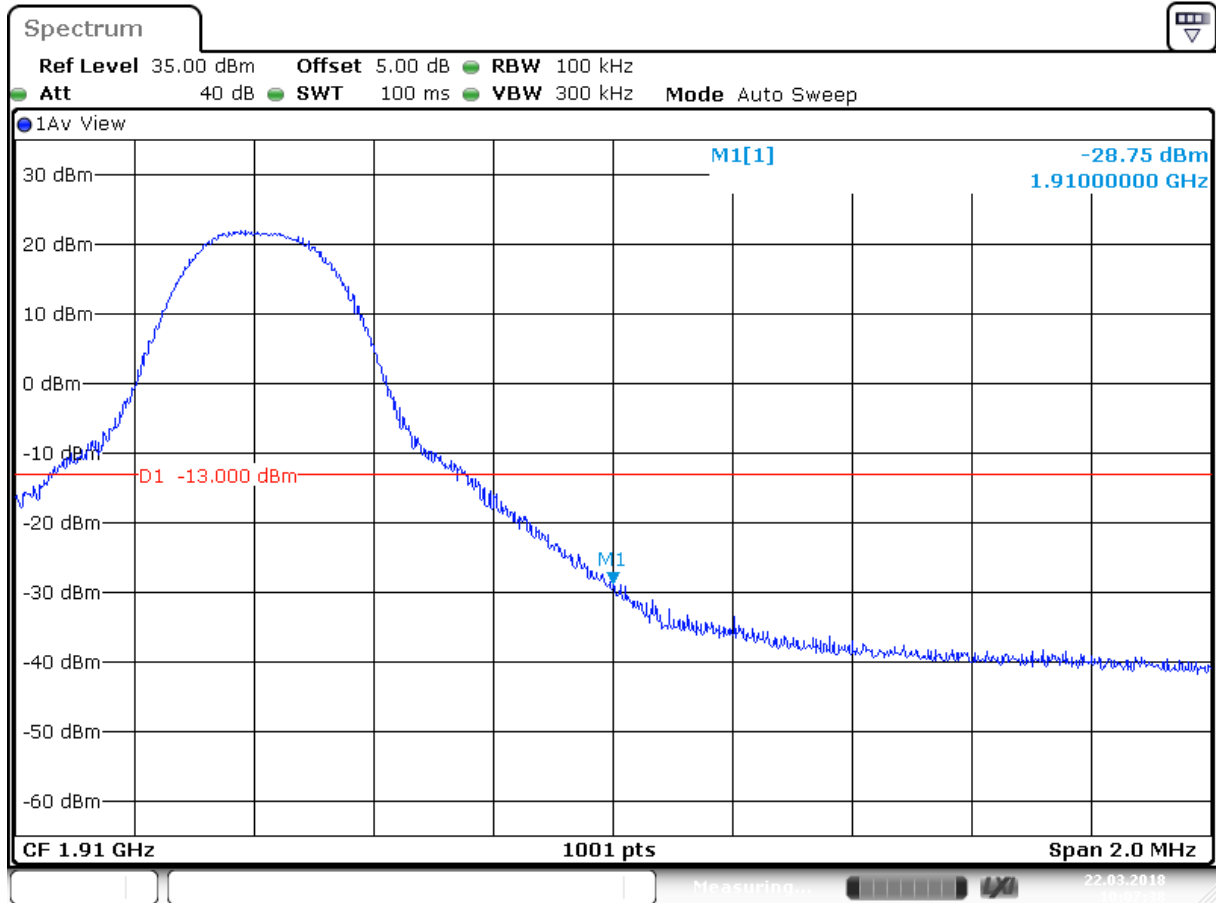
5.1.1.7.1.2 Test RB=50RB



Date: 22 MAR 2018 10:07:06

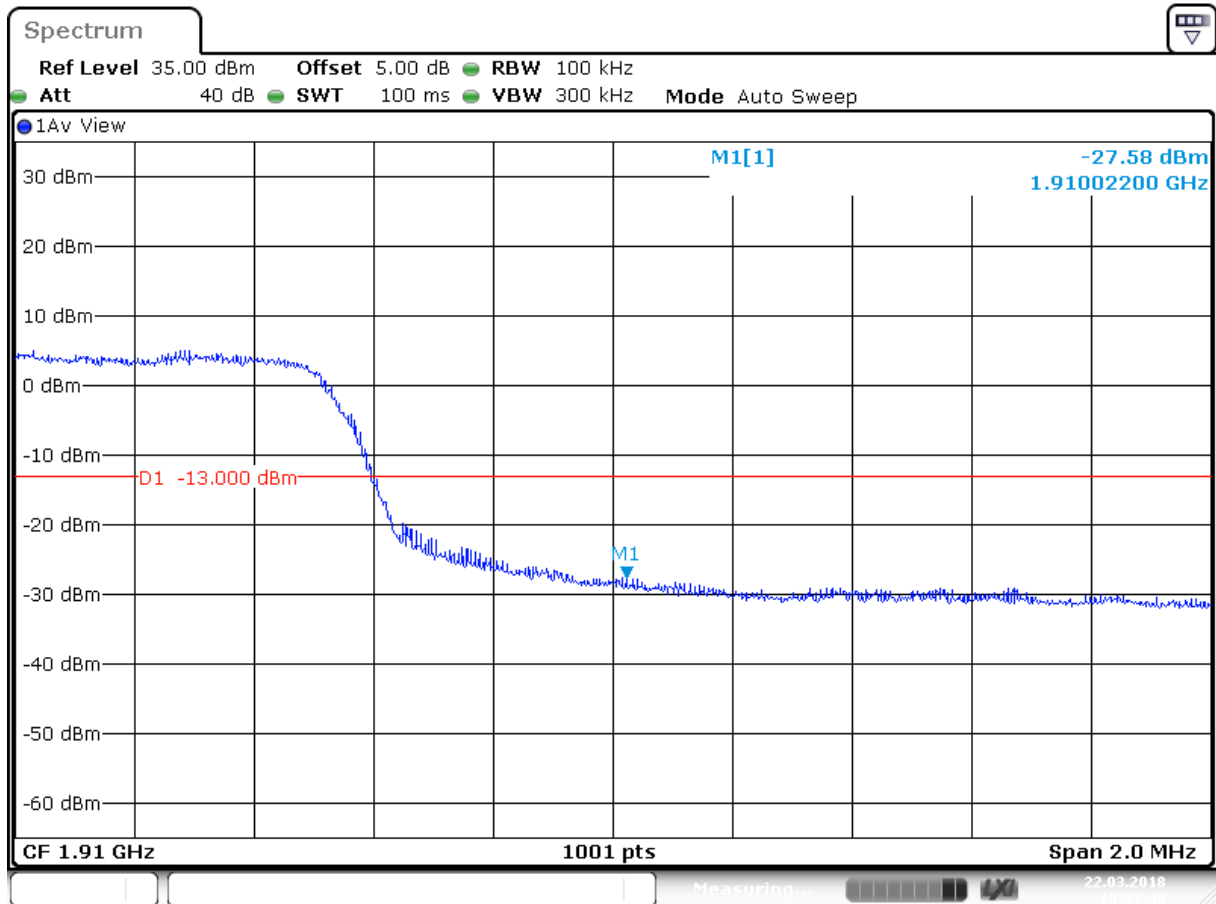
**5.1.1.7.2 Test Channel = HCH**

**5.1.1.7.2.1 Test RB=1RB**



Date: 22 MAR 2018 10:07:39

**5.1.1.7.2.2 Test RB=50RB**



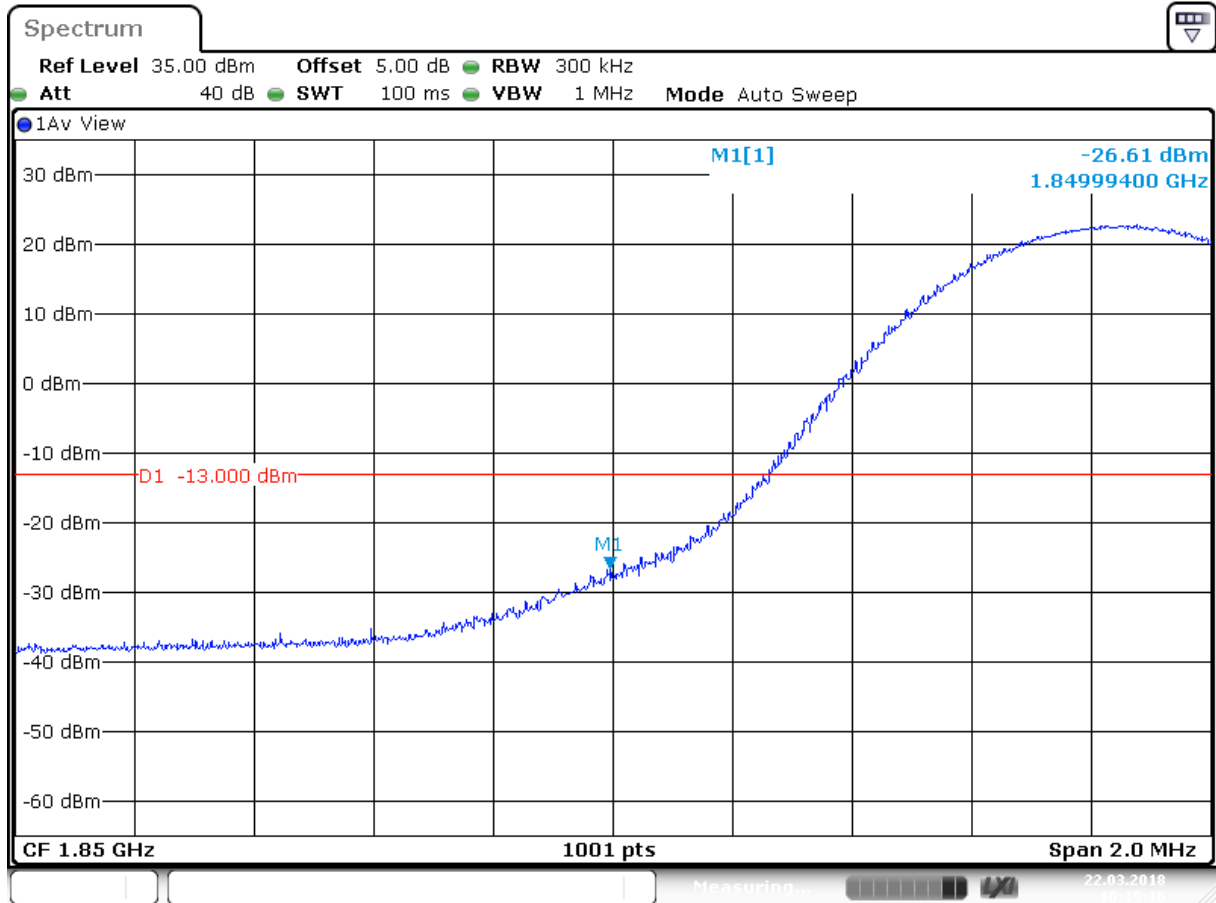
Date: 22 MAR 2018 10:07:48



5.1.1.8 Test Mode = LTE/TM1 15MHz

5.1.1.8.1 Test Channel = LCH

5.1.1.8.1.1 Test RB=1RB

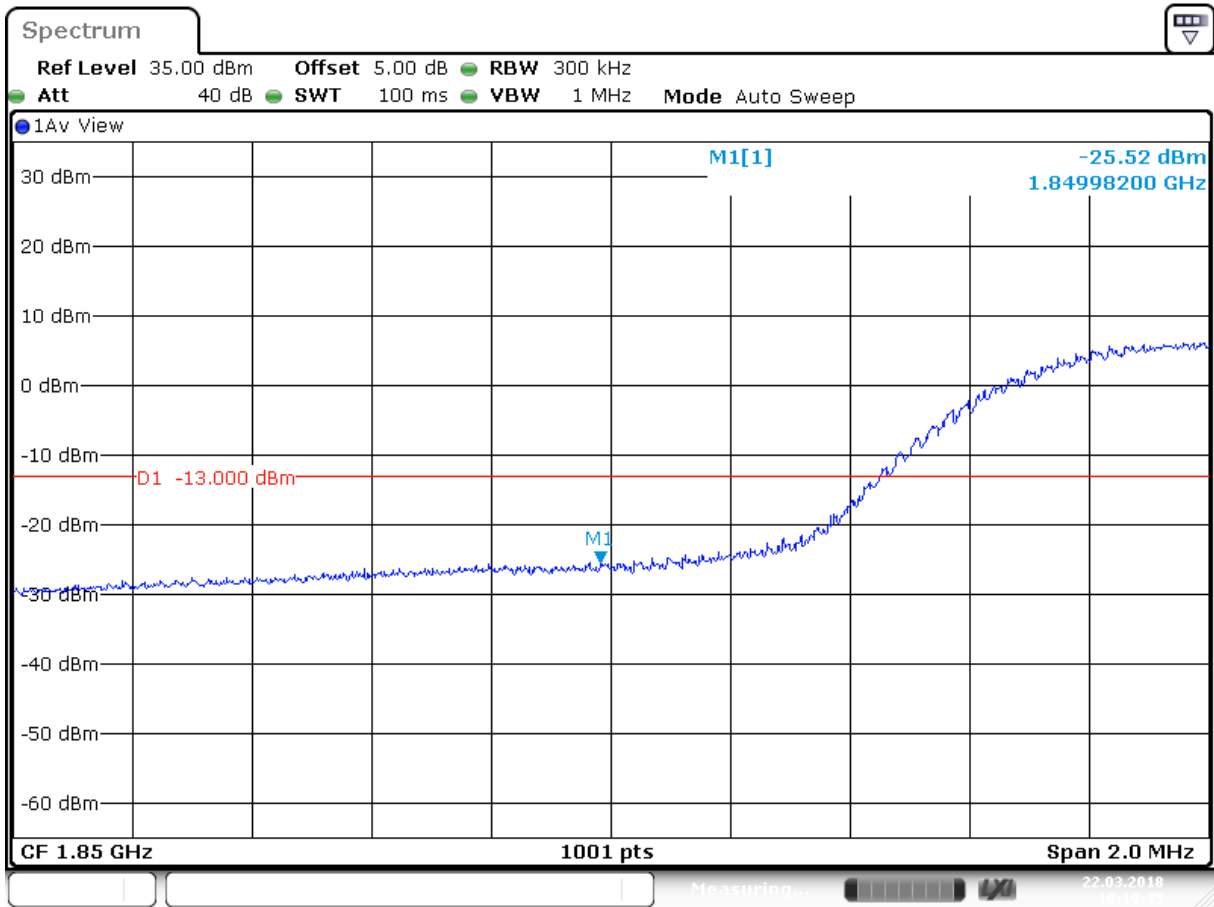


Date: 22 MAR 2018 10:19:16





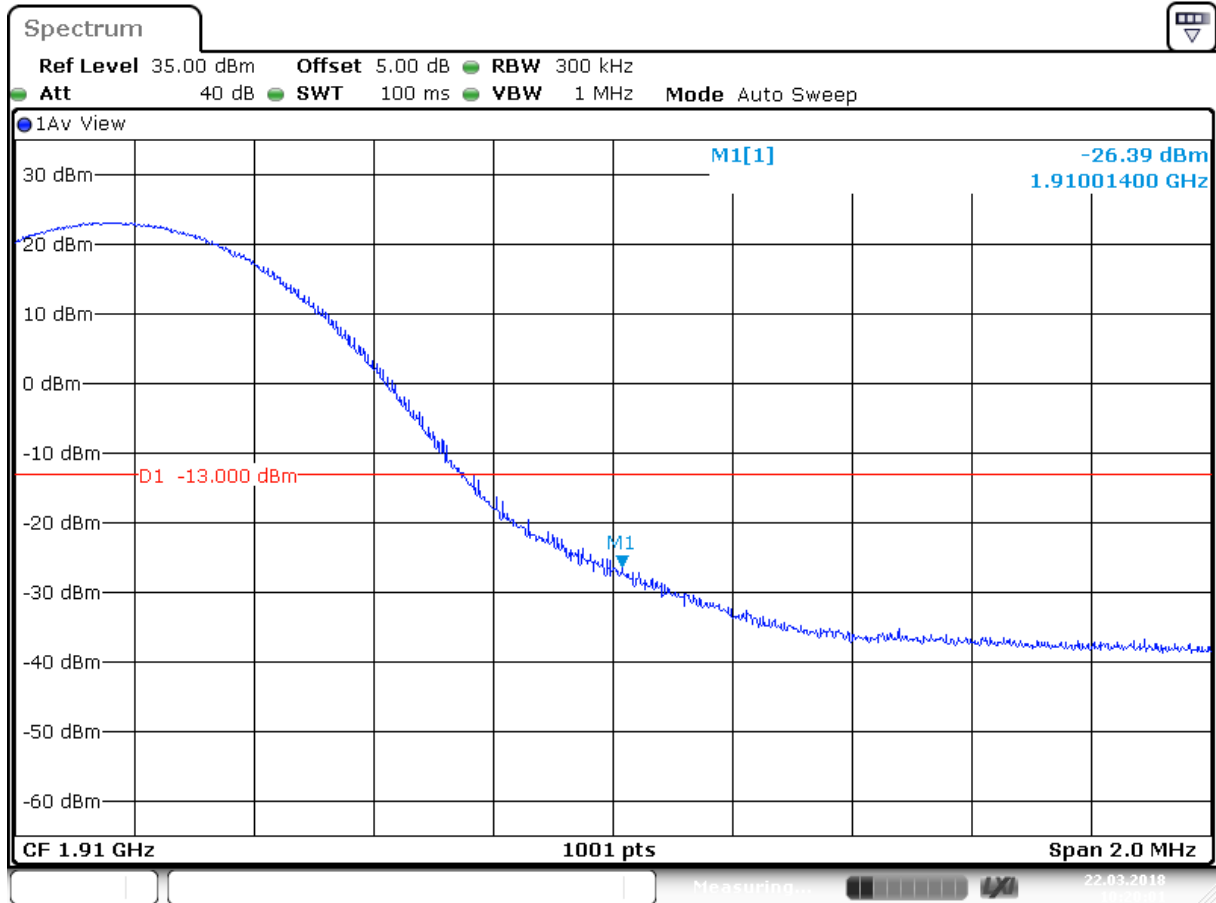
5.1.1.8.1.2 Test RB=75RB



Date: 22 MAR 2018 10:19:35

**5.1.1.8.2 Test Channel = HCH**

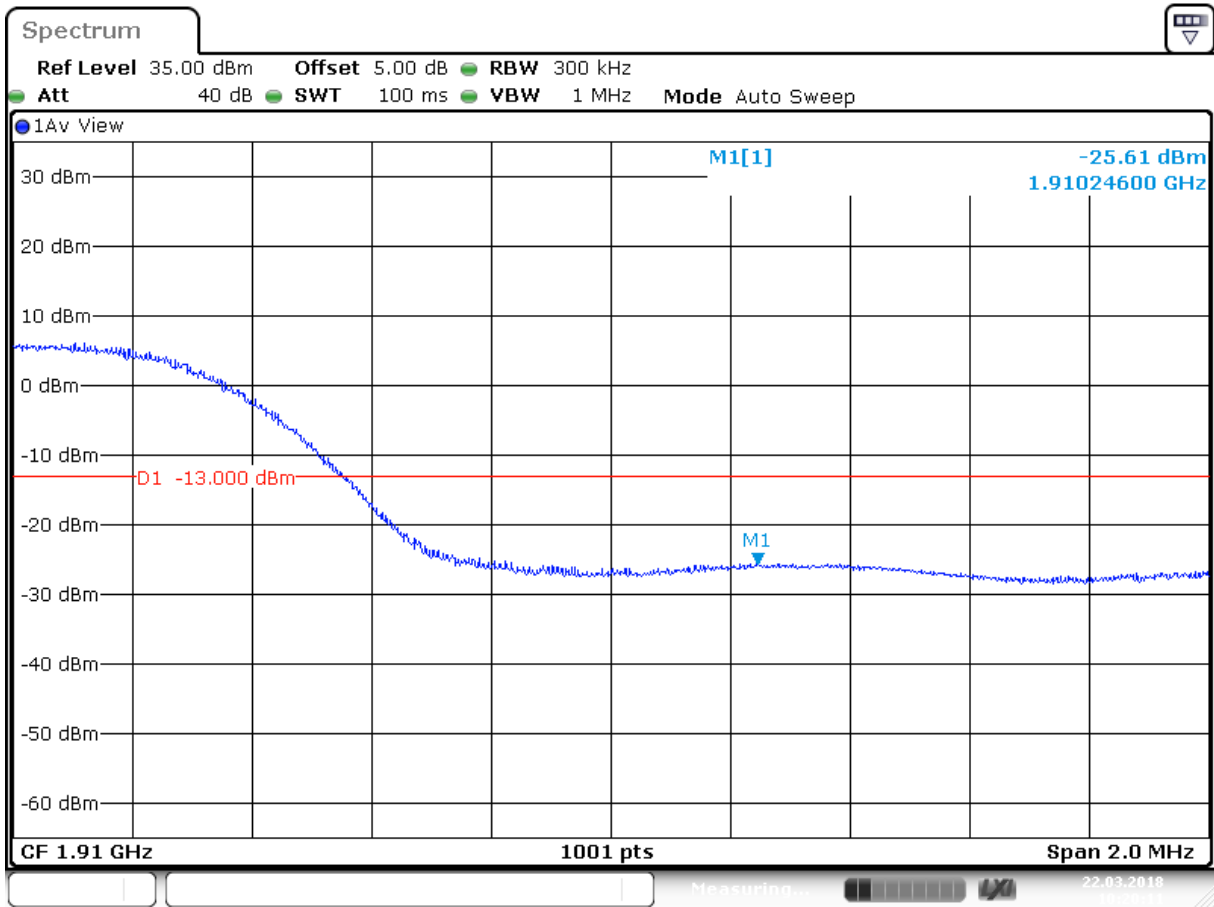
**5.1.1.8.2.1 Test RB=1RB**



Date: 22 MAR 2018 10:20:02



5.1.1.8.2.2 Test RB=75RB



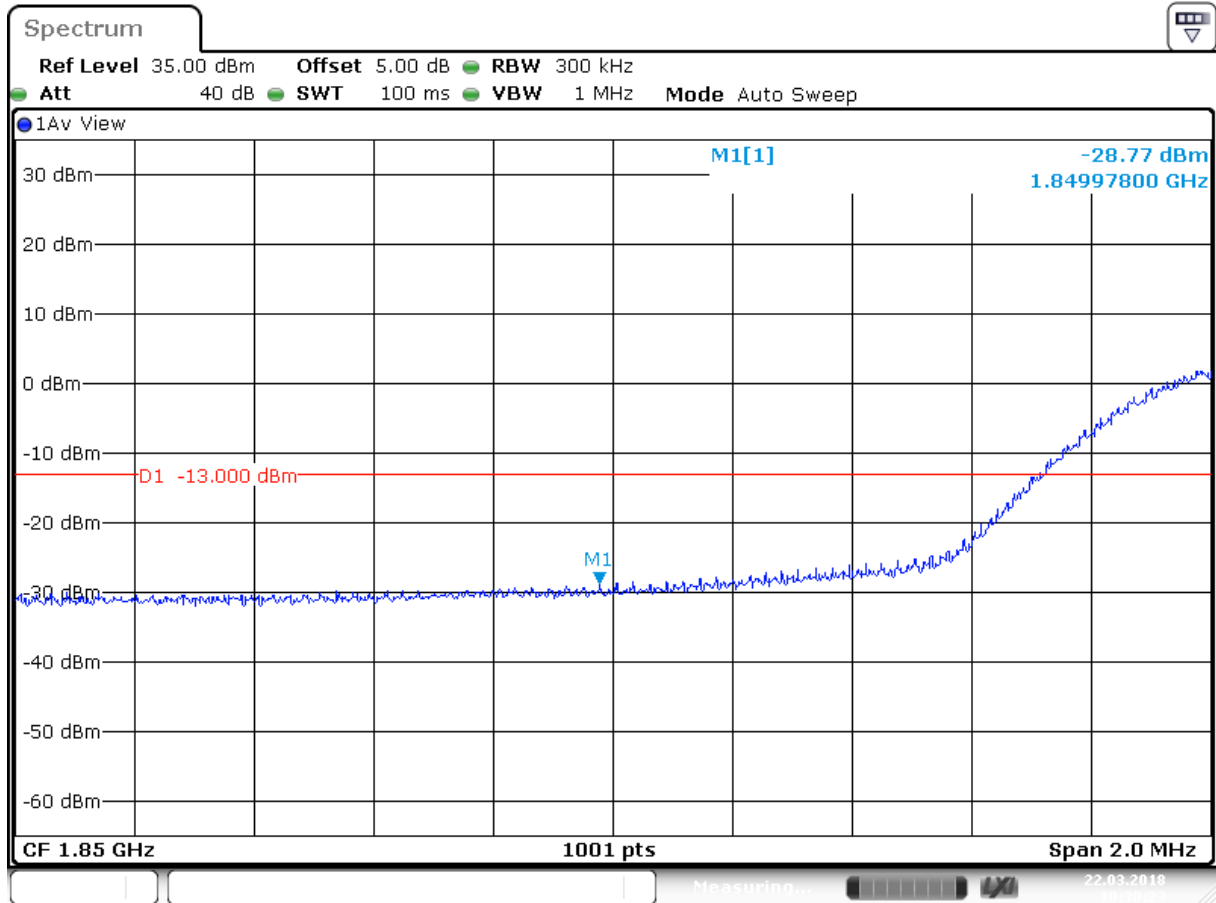
Date: 22 MAR 2018 10:20:12



5.1.1.9 Test Mode = LTE/TM1 20MHz

5.1.1.9.1 Test Channel = LCH

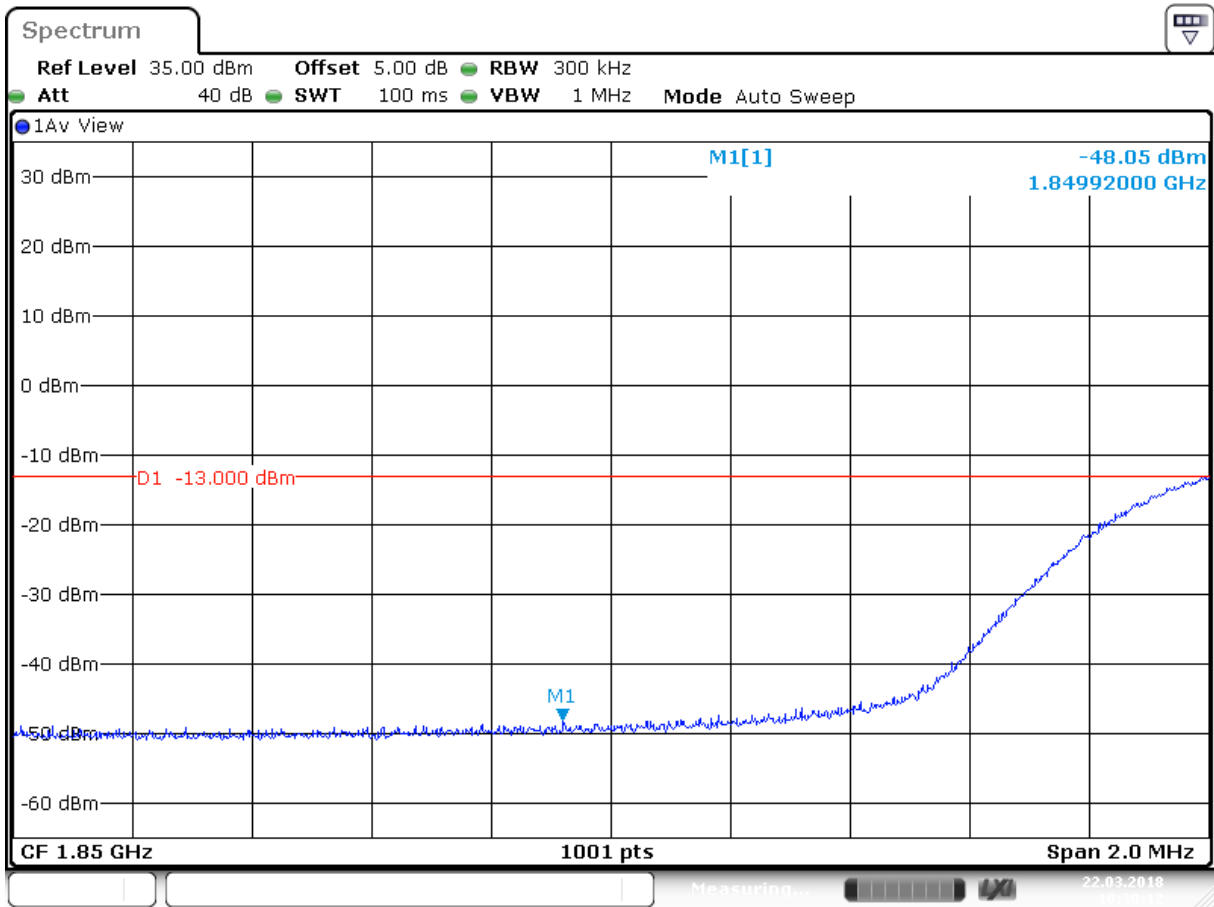
5.1.1.9.1.1 Test RB=1RB



Date: 22 MAR 2018 10:30:23



5.1.1.9.1.2 Test RB=100RB

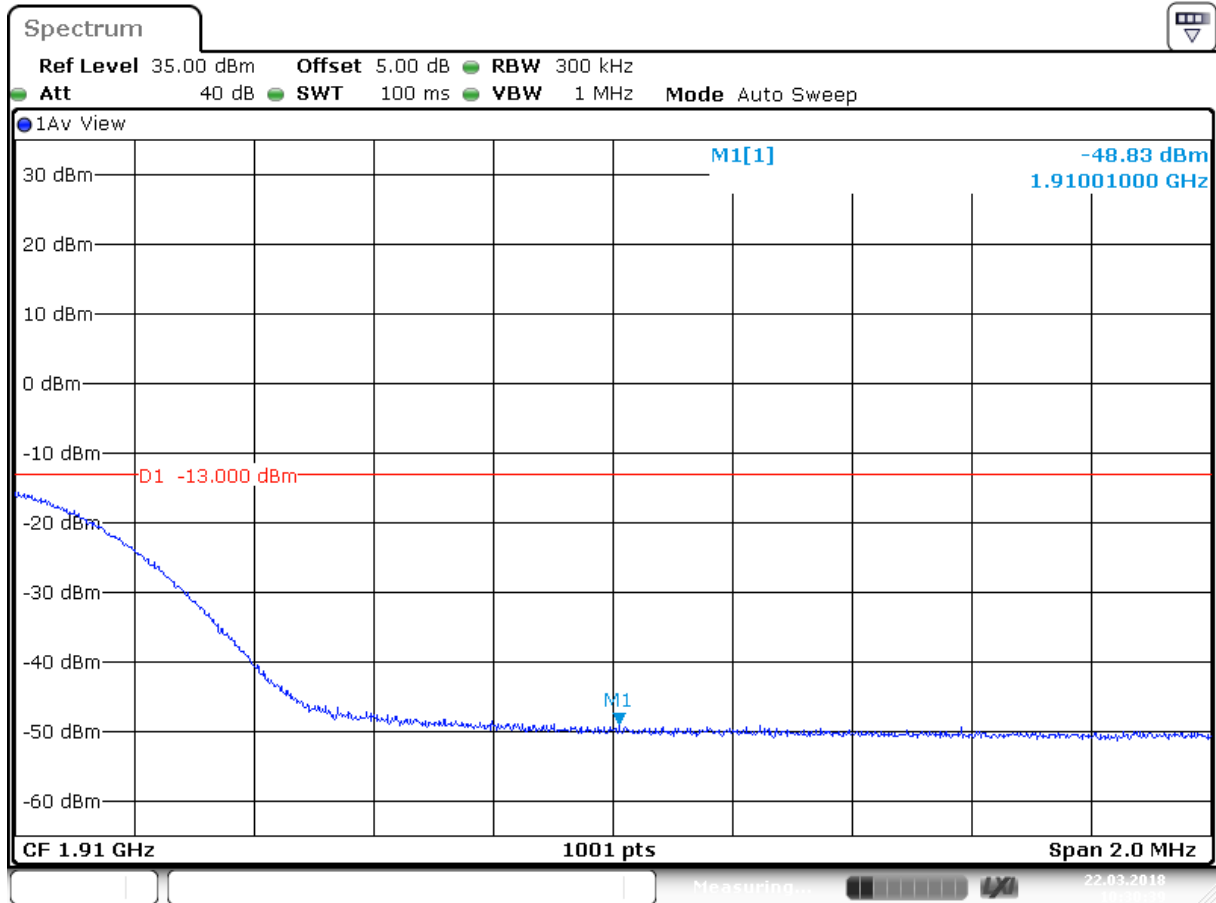


Date: 22 MAR 2018 10:30:13



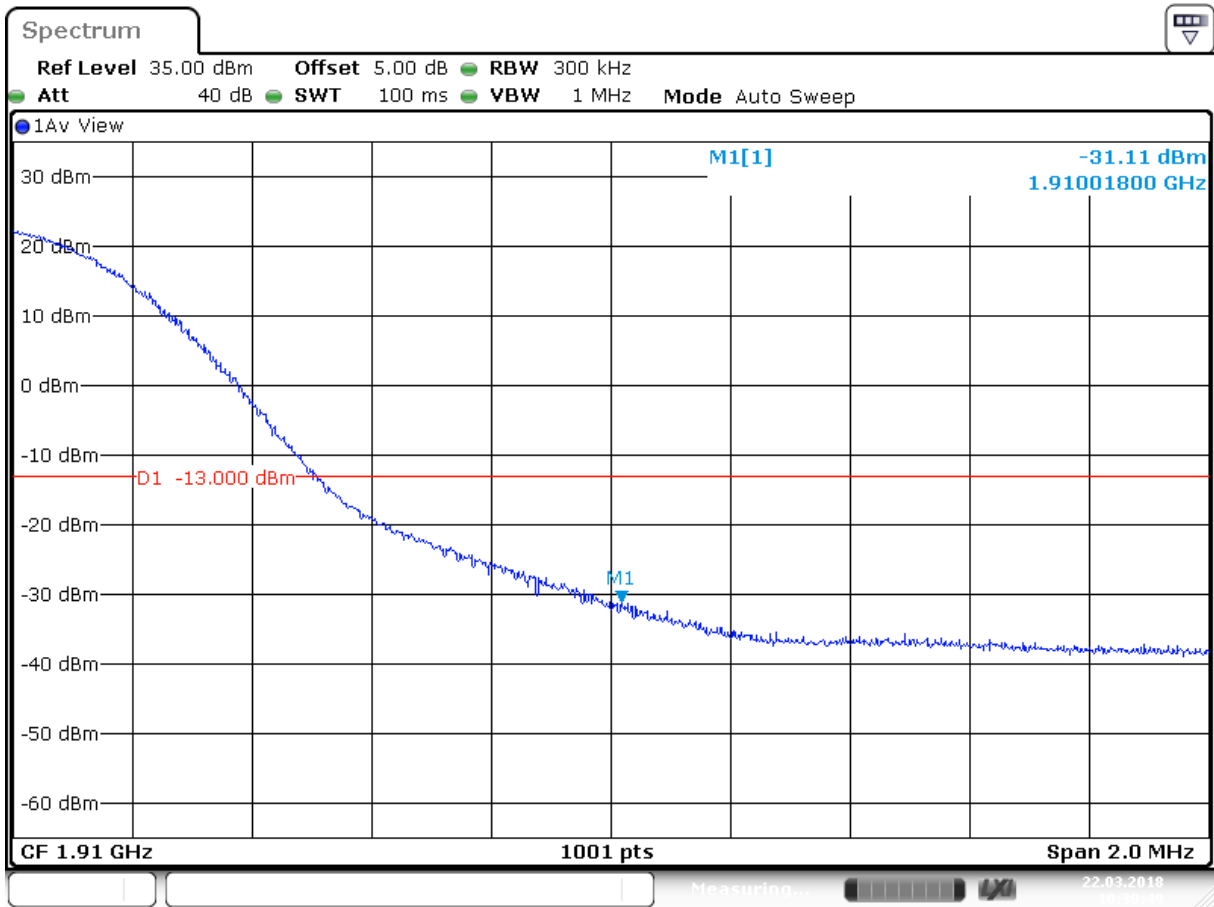
5.1.1.9.2 Test Channel = HCH

5.1.1.9.2.1 Test RB=1RB



Date: 22 MAR 2018 10:30:39

**5.1.1.9.2.2 Test RB=100RB**



Date: 22 MAR 2018 10:30:49

## 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.

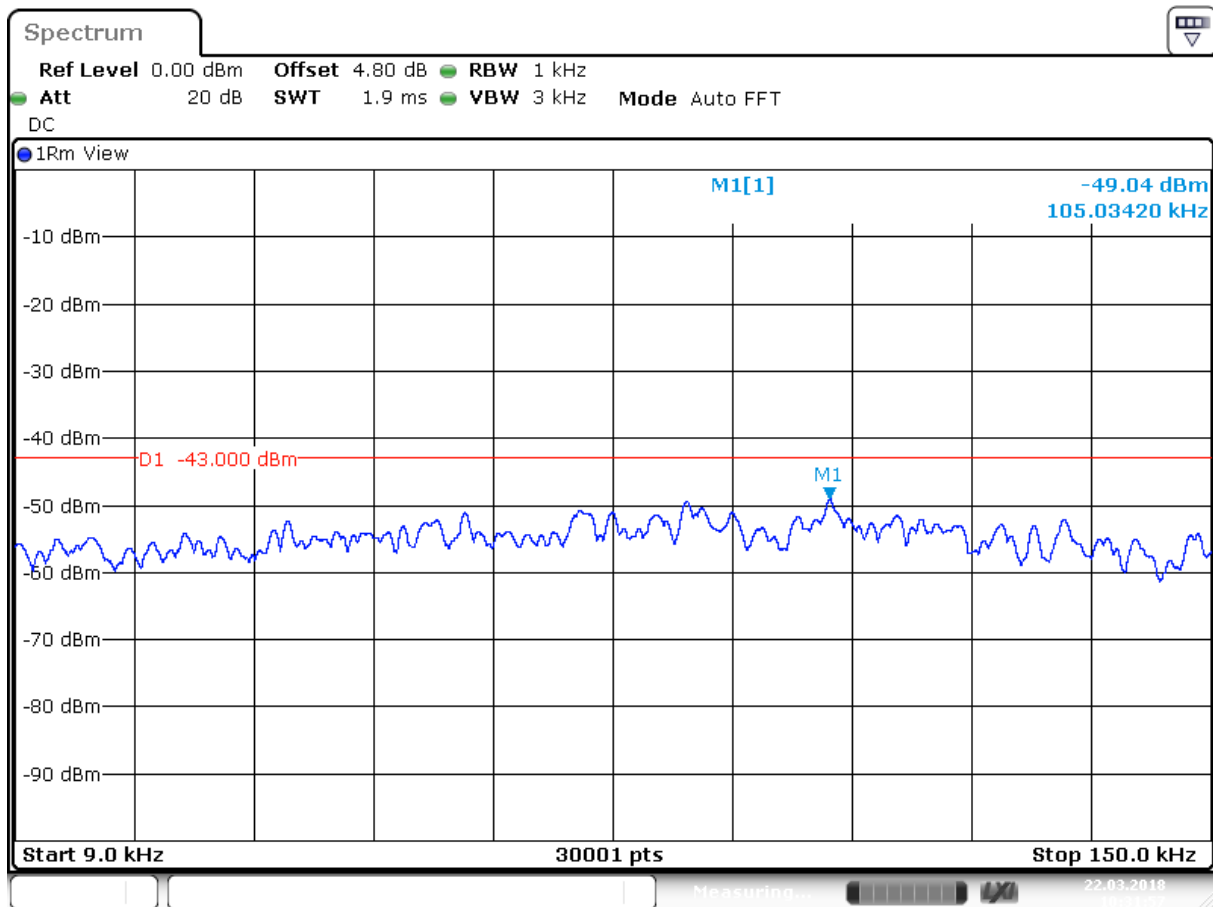
Part I - Test Plots

### 6.1 For LTE

#### 6.1.1 Test Band = LTE band2

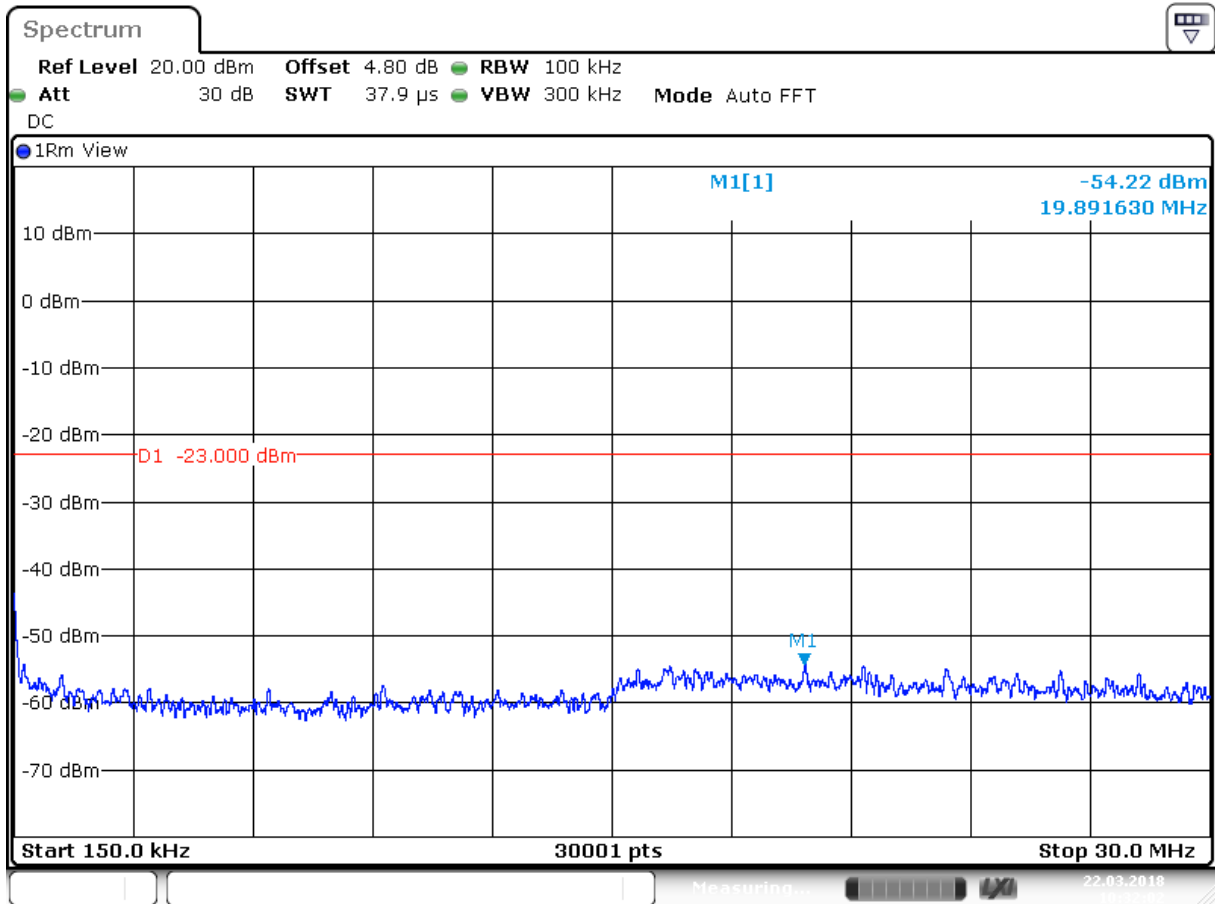
##### 6.1.1.1 Test Mode = LTE / TM1 20MHz RB1#0

##### 6.1.1.1.1 Test Channel = LCH

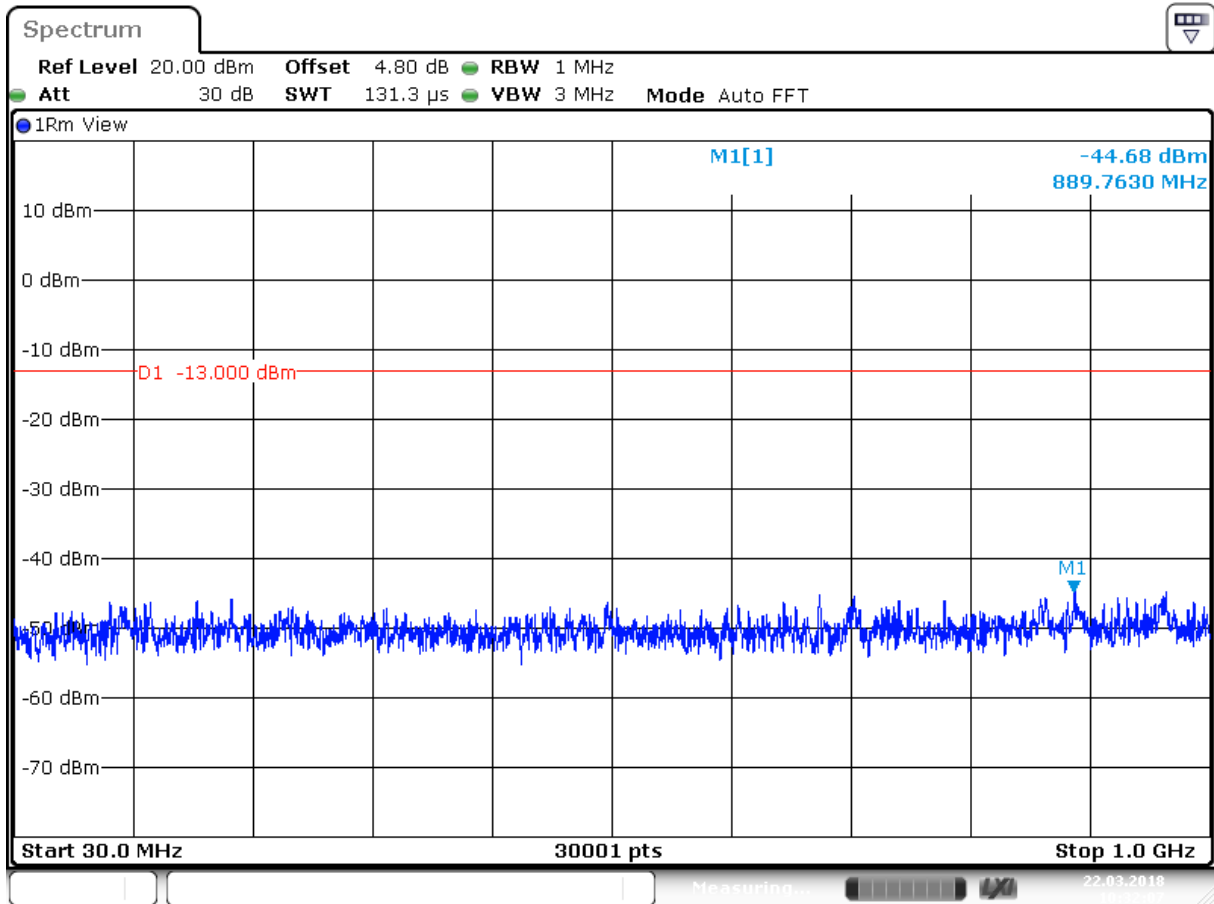


Date: 22 MAR 2018 10:31:57

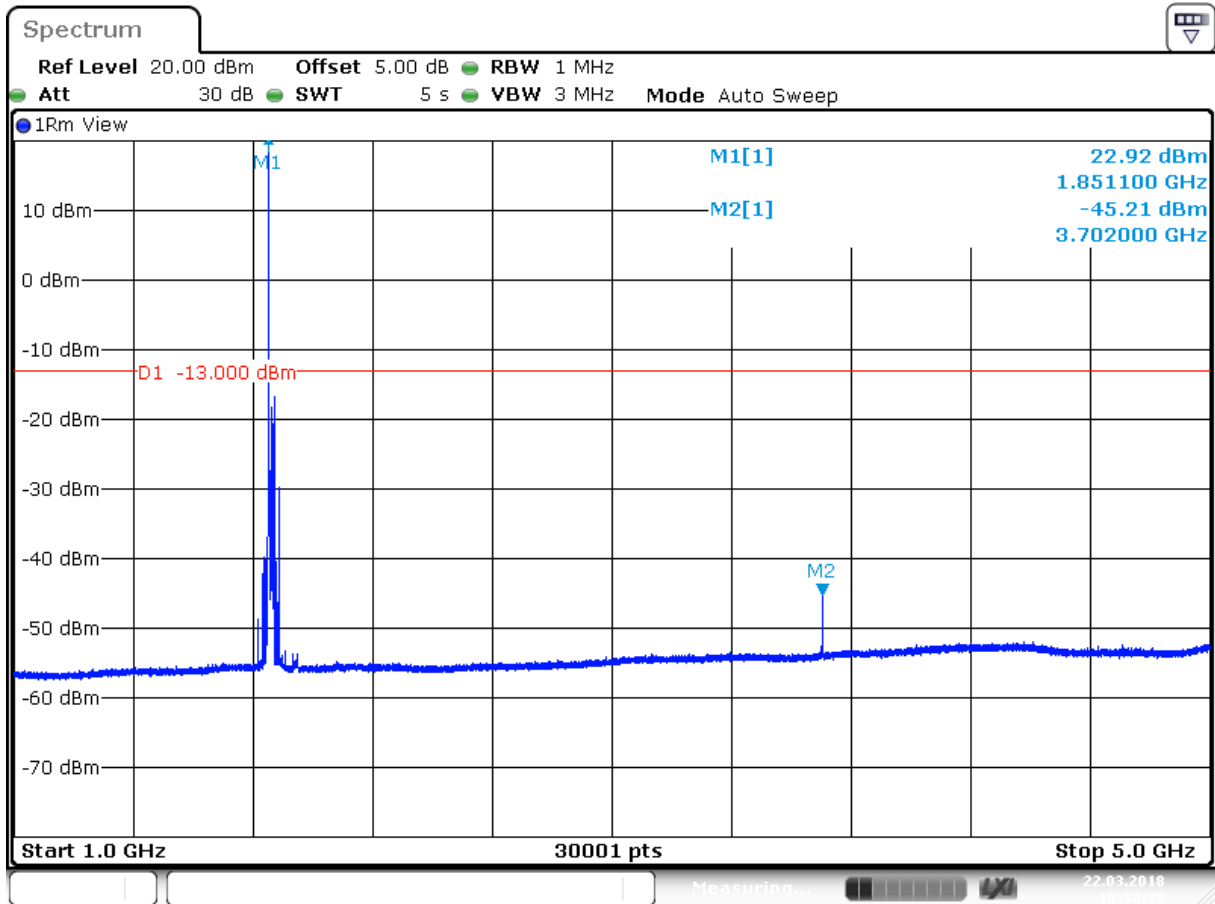




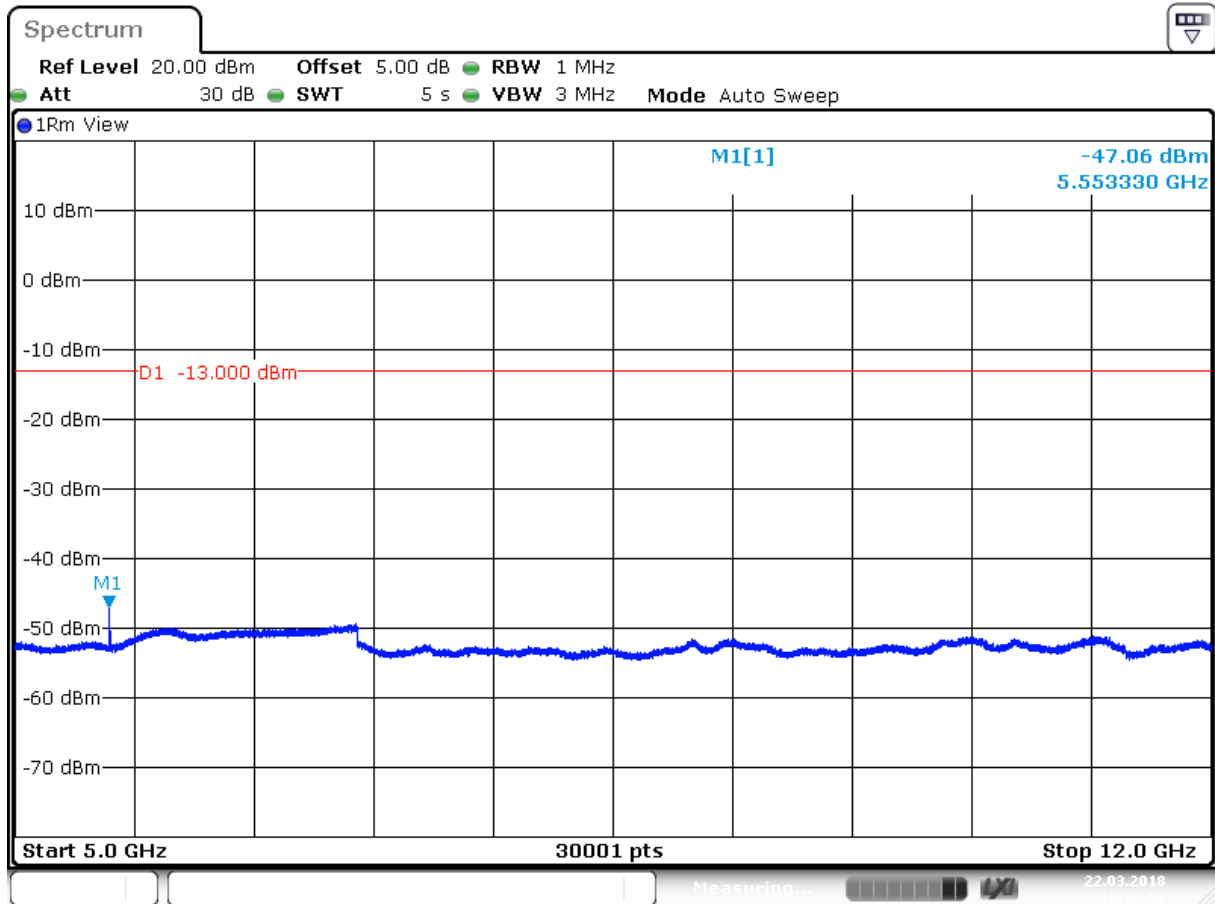
Date: 22 MAR 2018 10:32:03



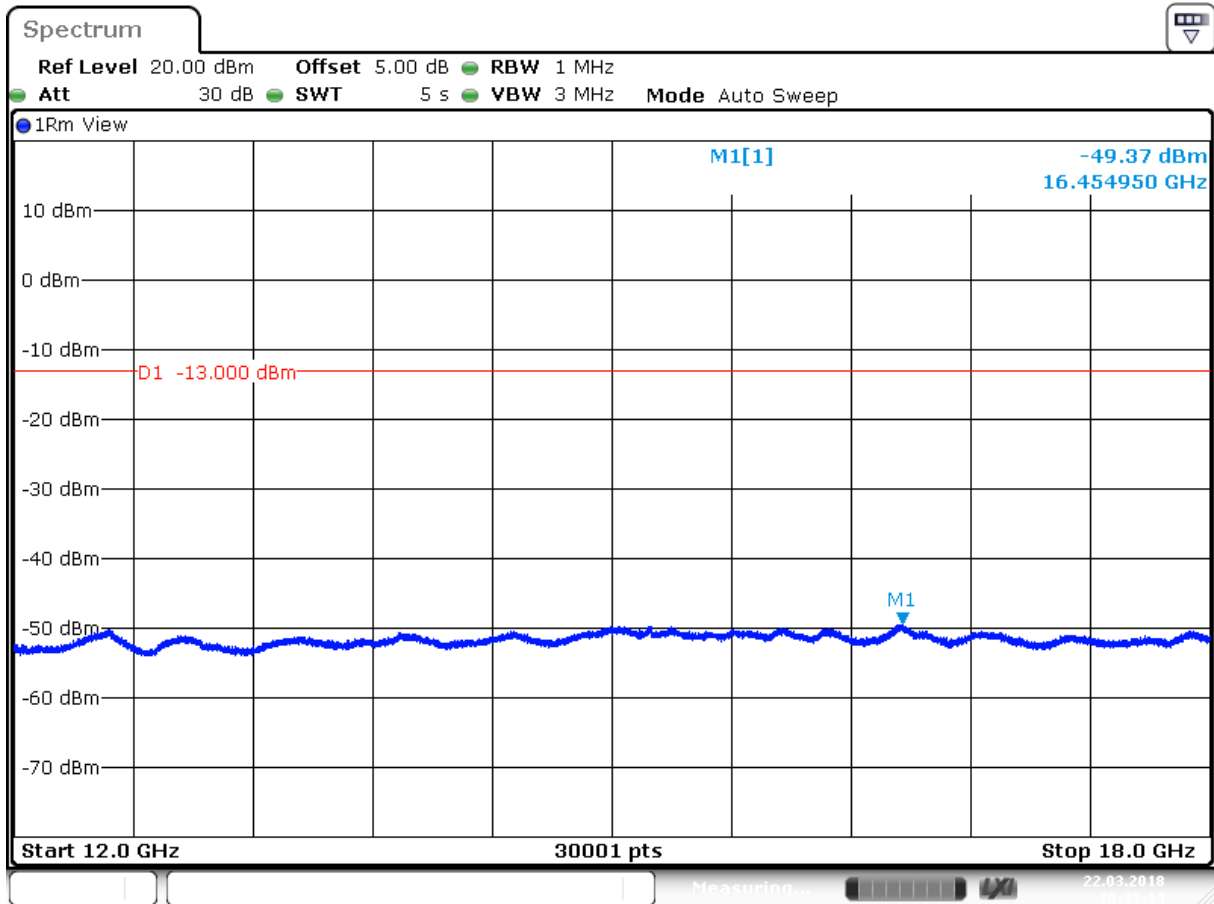
Date: 22 MAR 2018 10:32:08



Date: 22 MAR 2018 10:32:30

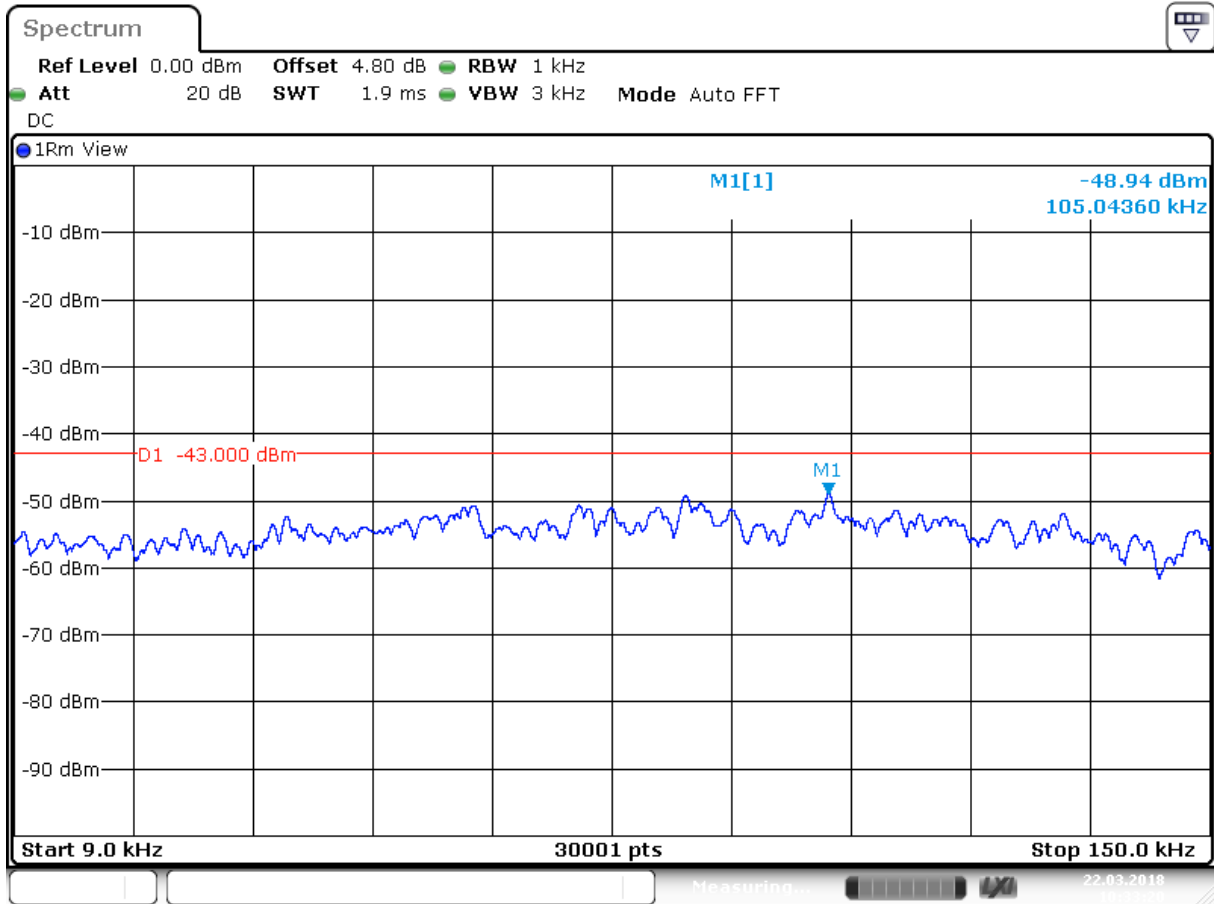


Date: 22 MAR 2018 10:32:52

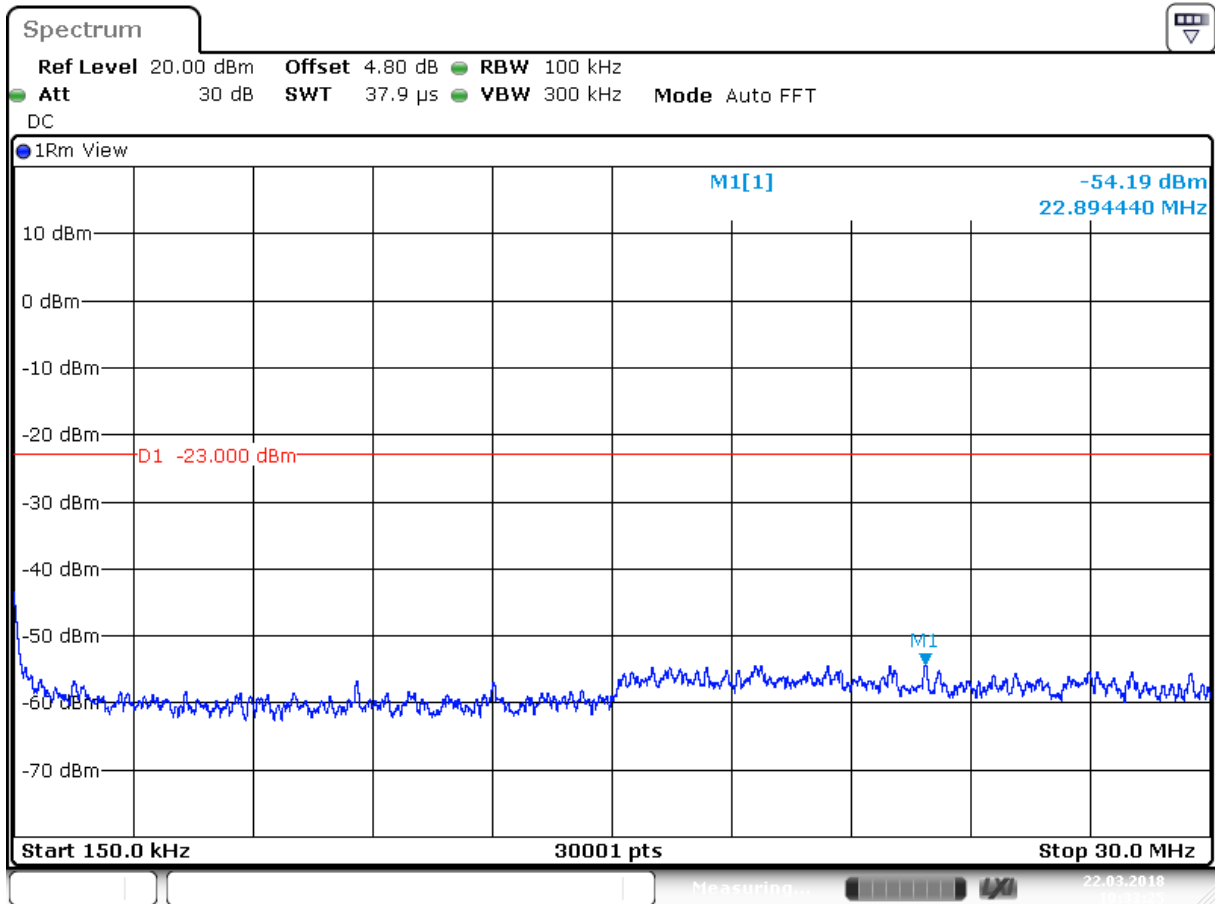


Date: 22 MAR 2018 10:33:14

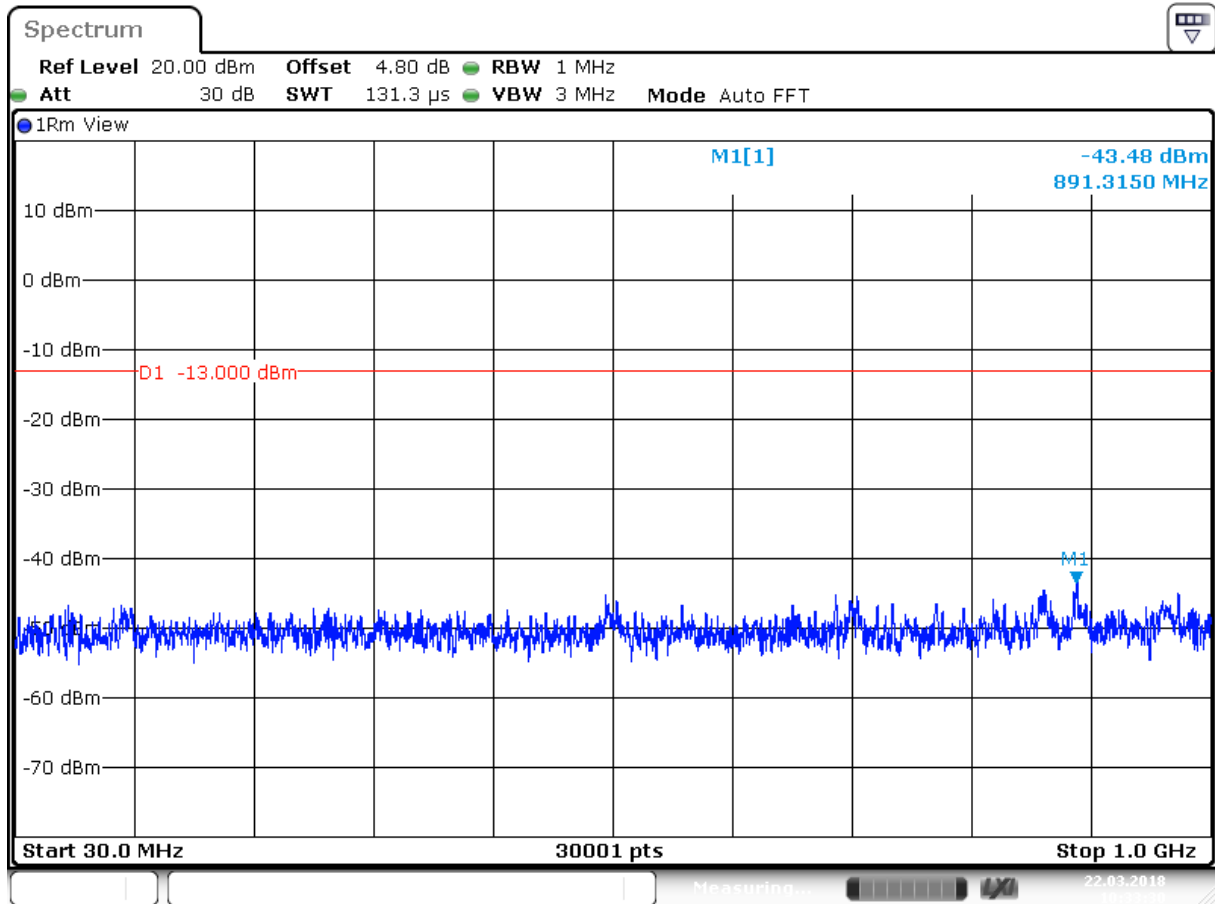
**6.1.1.1.2 Test Channel = MCH**



Date: 22 MAR. 2018 10:33:20

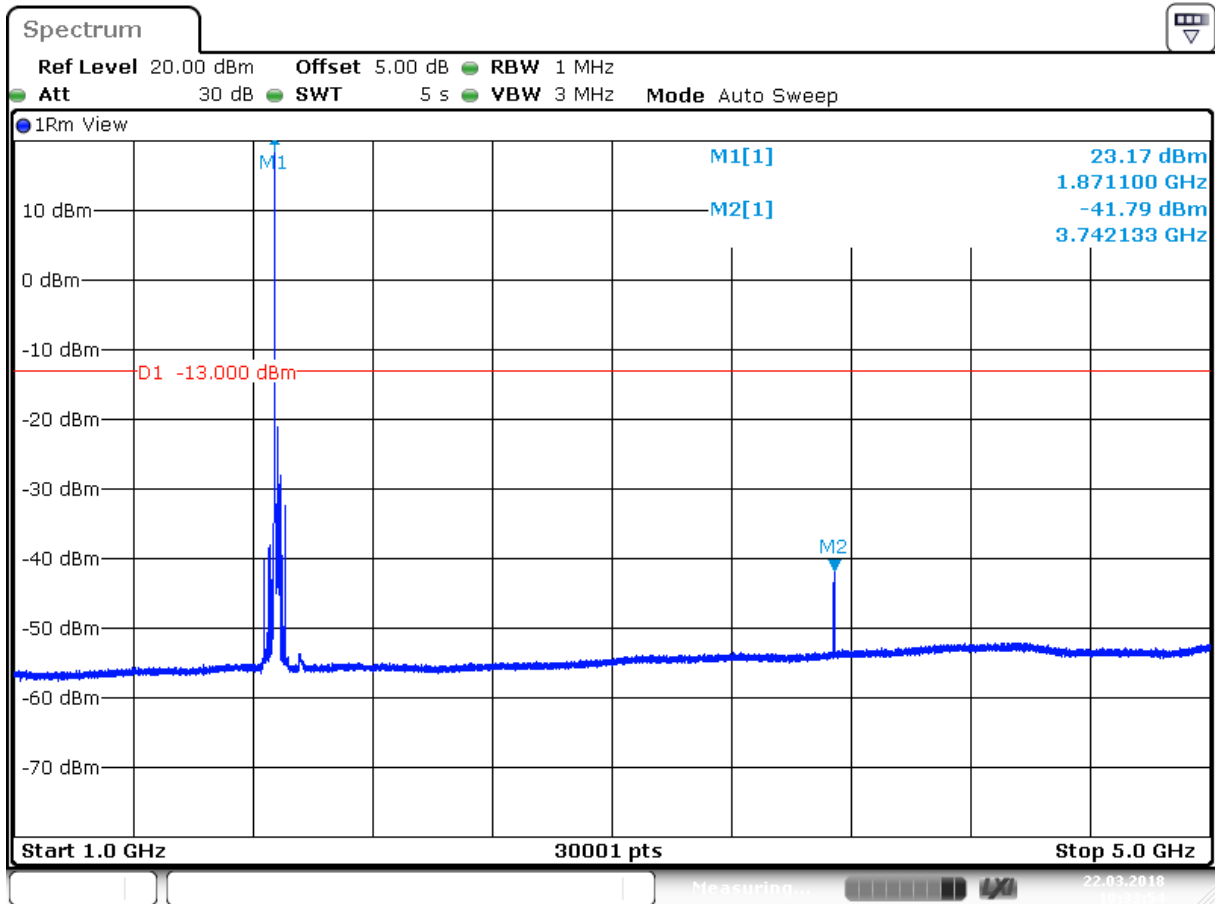


Date: 22 MAR 2018 10:33:26

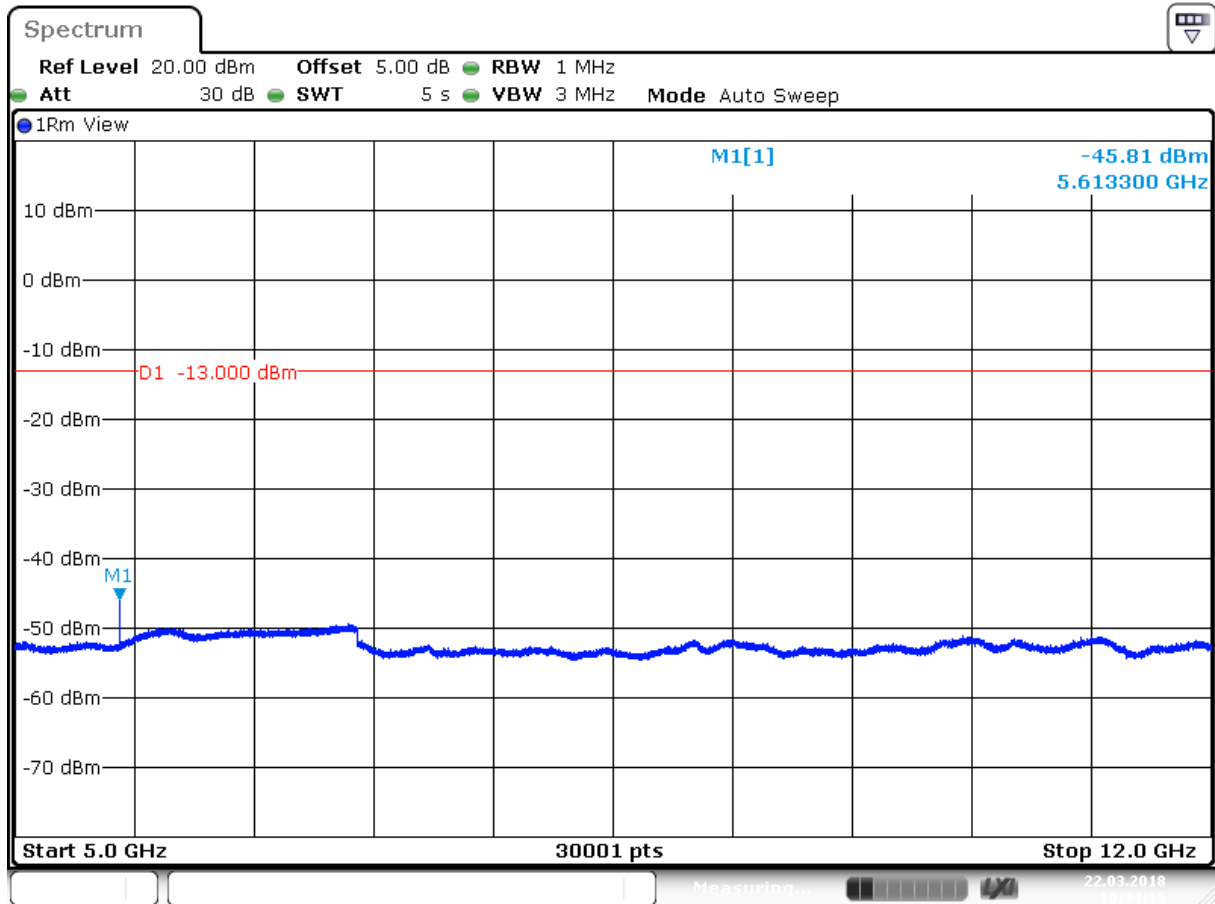


Date: 22 MAR 2018 10:33:31

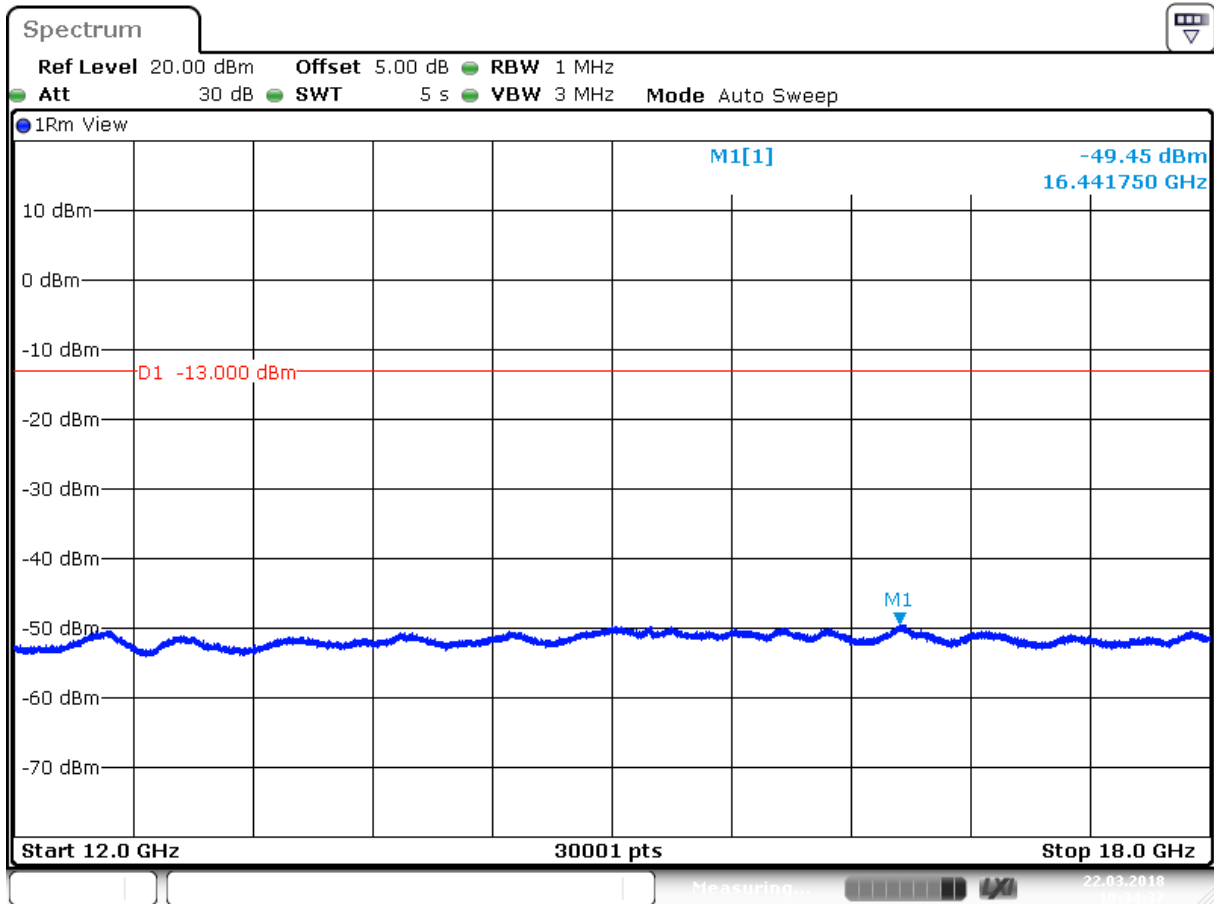




Date: 22 MAR 2018 10:33:54



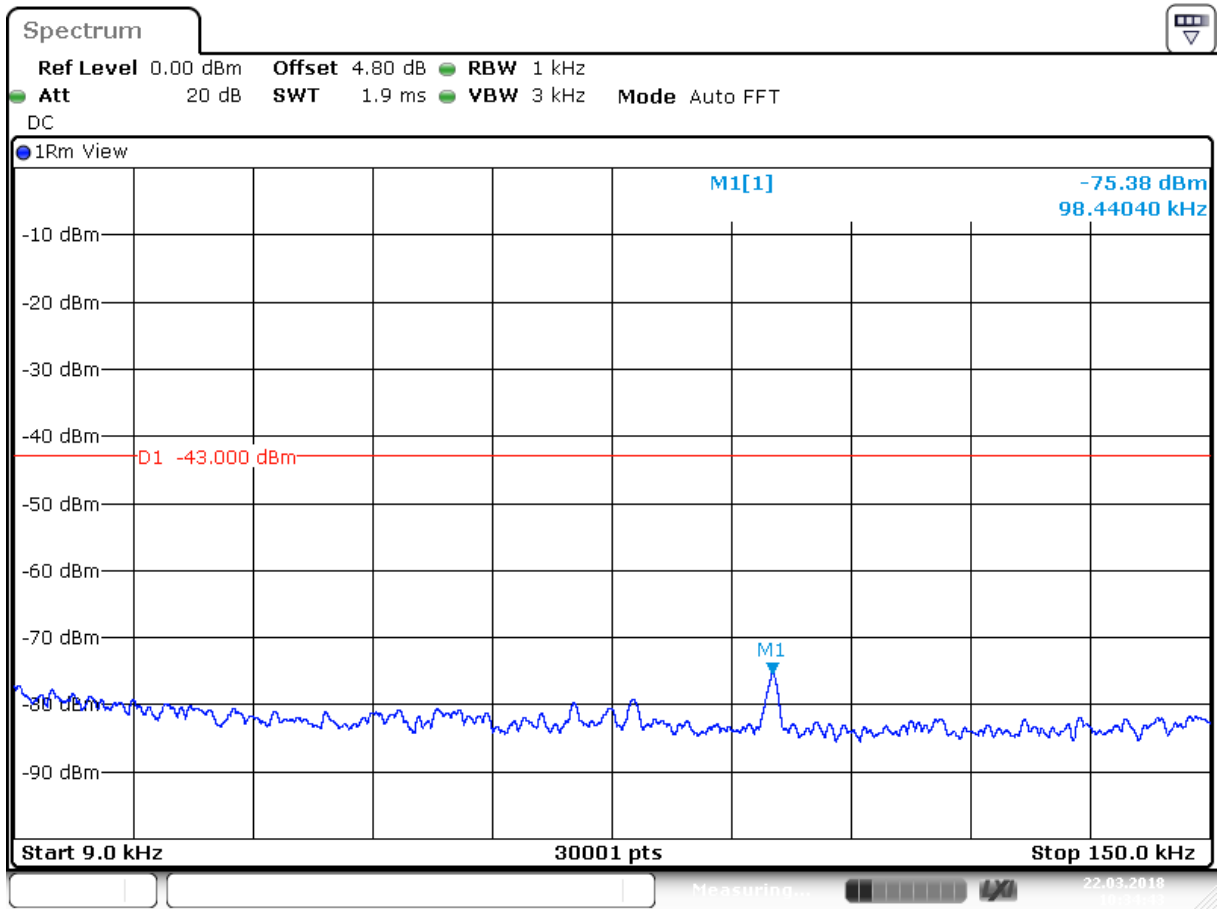
Date: 22 MAR 2018 10:34:16



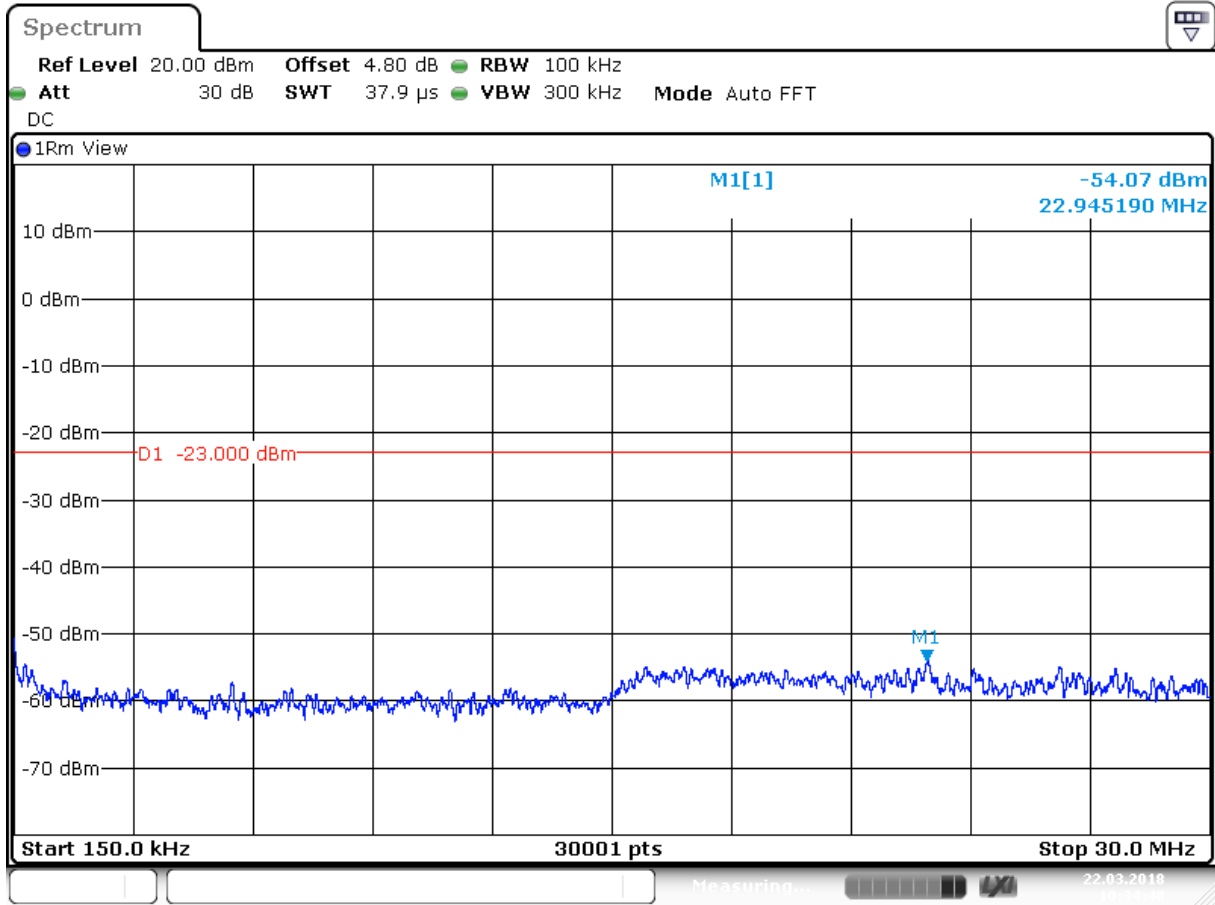
Date: 22 MAR 2018 10:34:38



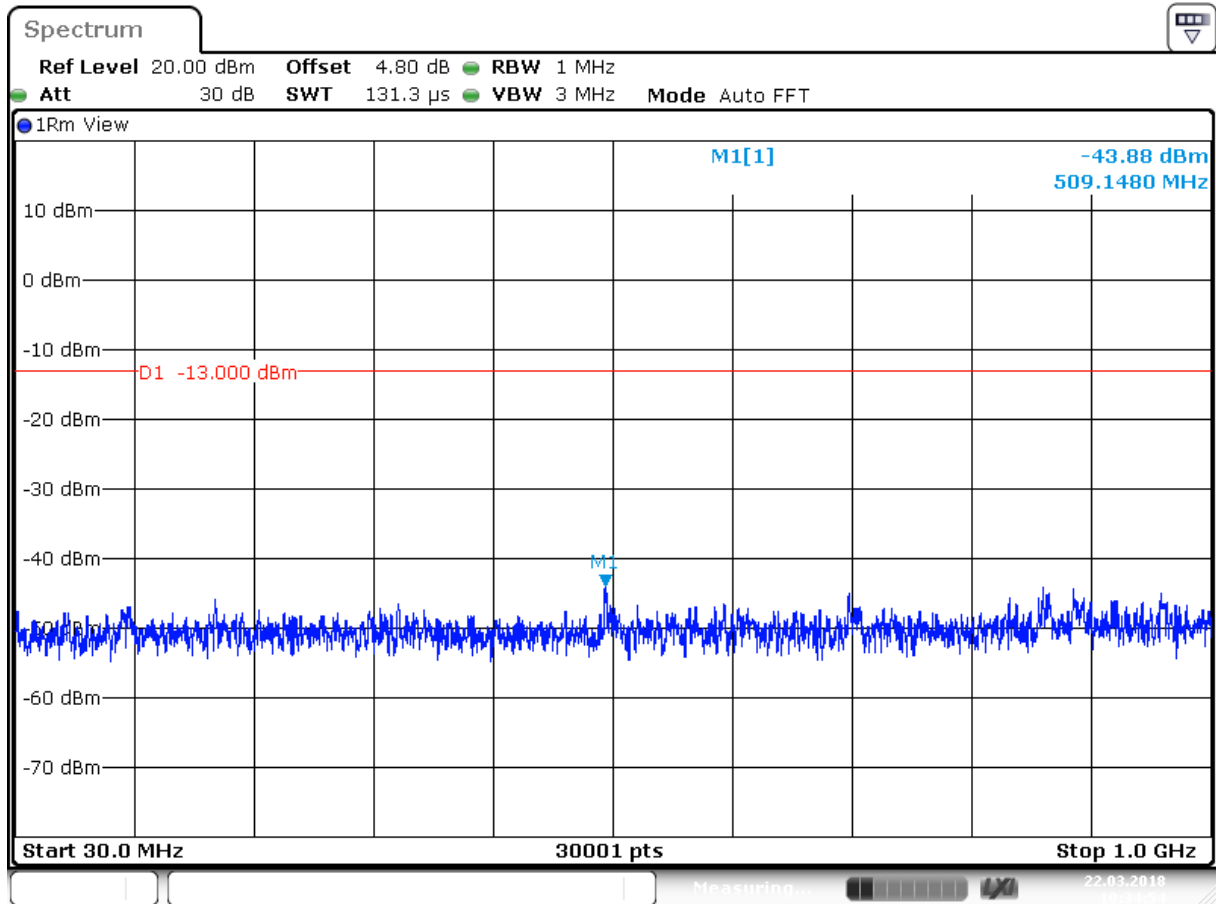
6.1.1.1.3 Test Channel = HCH



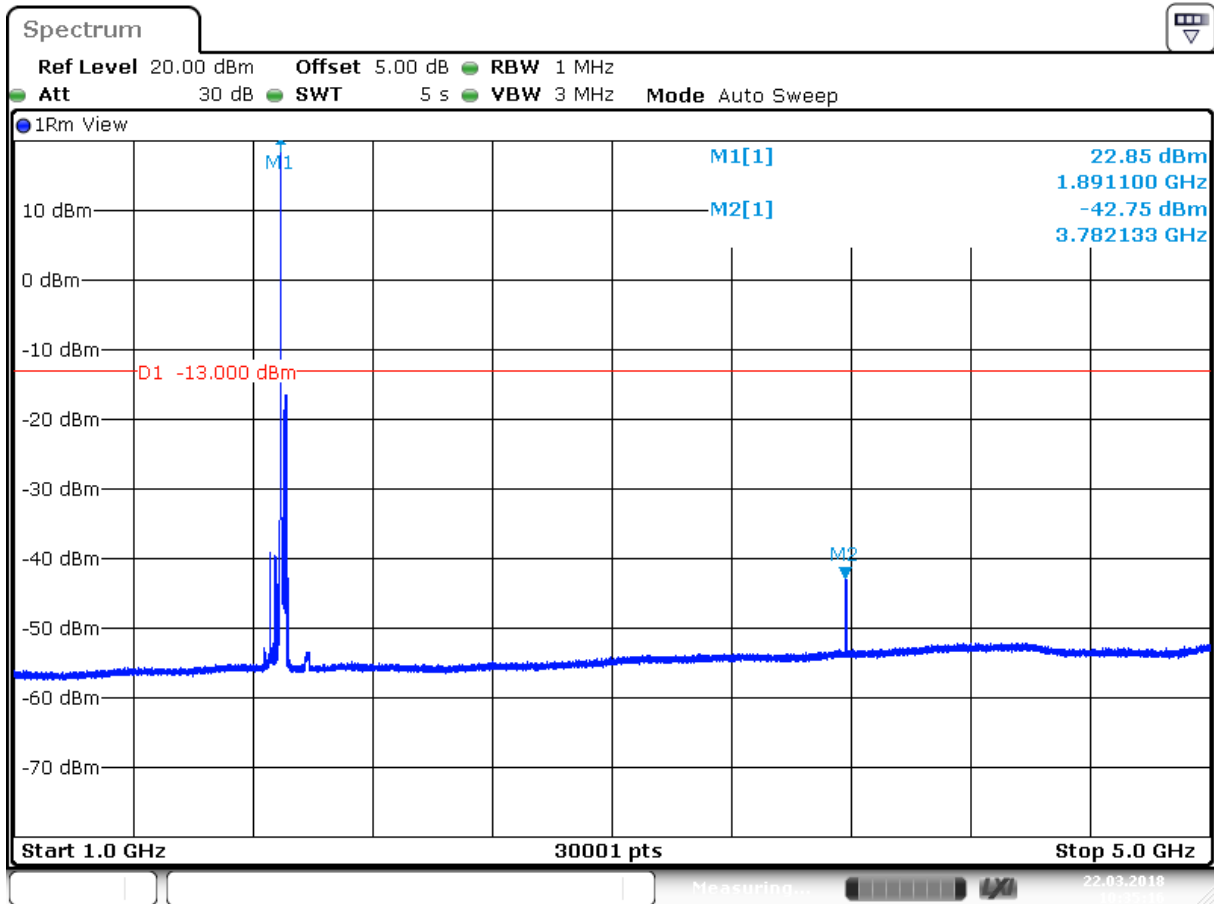
Date: 22 MAR. 2018 10:34:43



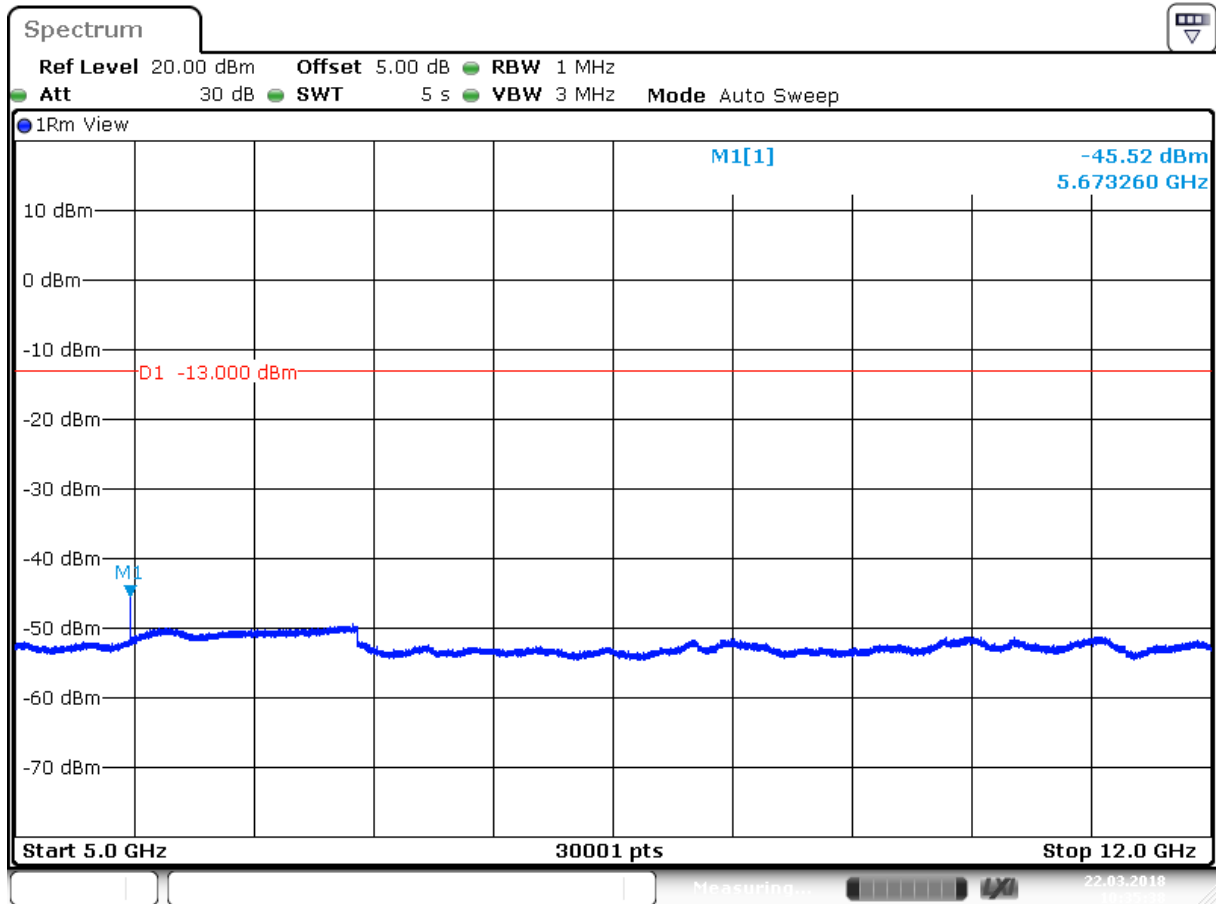
Date: 22 MAR 2018 10:34:49



Date: 22 MAR 2018 10:34:54

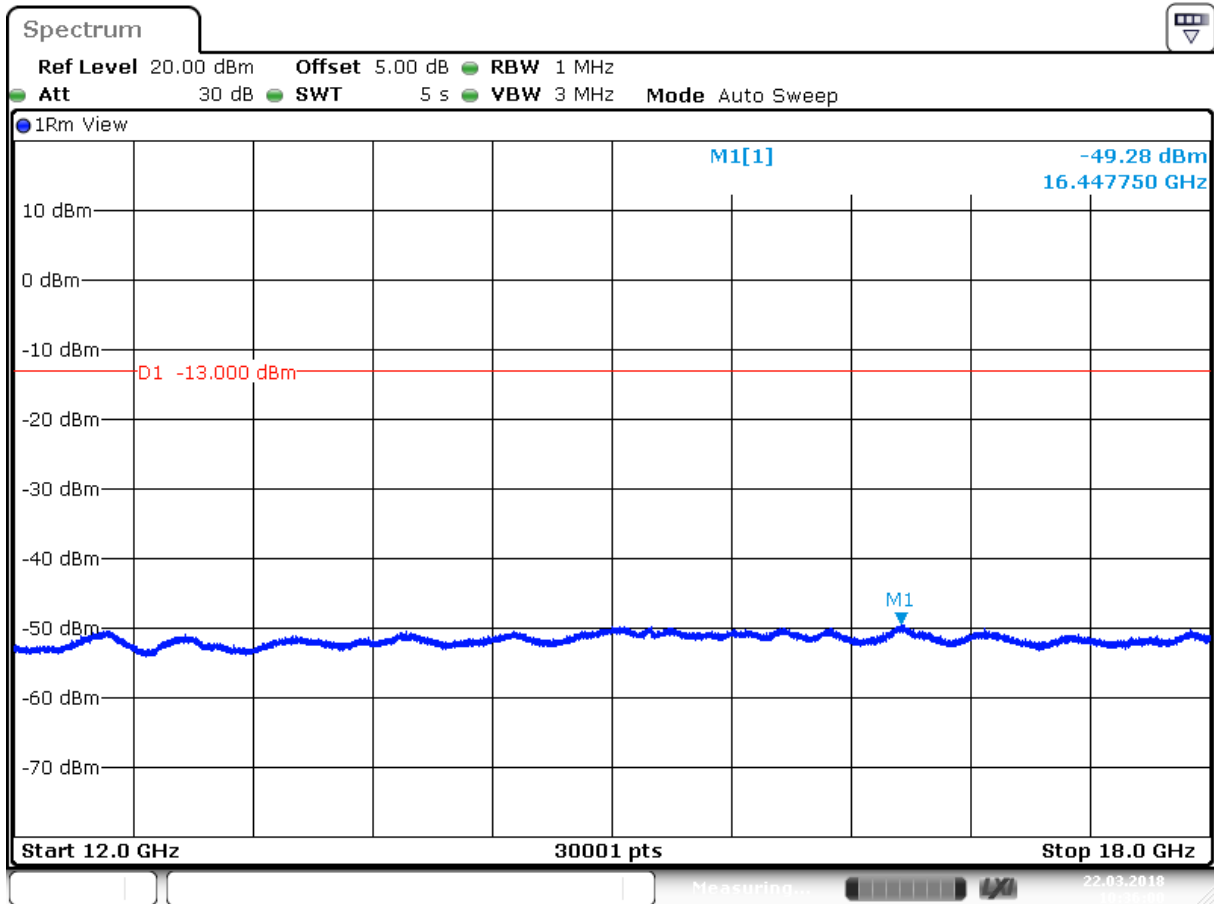


Date: 22 MAR 2018 10:35:17



Date: 22 MAR 2018 10:35:39





Date: 22 MAR 2018 10:36:01



## 7 Field Strength of Spurious Radiation

### 7.1 For LTE

#### 7.1.1 Test Band = LTE band2

##### 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
64.950000	-82.22	-13.00	69.22	Vertical
325.600000	-62.18	-13.00	49.18	Vertical
691.175000	-76.23	-13.00	63.23	Vertical
1502.500000	-55.19	-13.00	42.19	Vertical
3702.000000	-57.08	-13.00	44.08	Vertical
5553.200000	-57.60	-13.00	44.60	Vertical
62.700000	-77.94	-13.00	64.94	Horizontal
192.000000	-73.50	-13.00	60.50	Horizontal
787.195833	-75.80	-13.00	62.80	Horizontal
1502.500000	-48.00	-13.00	35.00	Horizontal
3702.000000	-55.99	-13.00	42.99	Horizontal
5553.200000	-54.67	-13.00	41.67	Horizontal

###### 7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
63.850000	-82.05	-13.00	69.05	Vertical
192.000000	-79.35	-13.00	66.35	Vertical
288.000000	-79.27	-13.00	66.27	Vertical
1522.500000	-54.11	-13.00	41.11	Vertical
3741.975000	-59.51	-13.00	46.51	Vertical
5613.000000	-58.77	-13.00	45.77	Vertical
63.300000	-78.13	-13.00	65.13	Horizontal
192.000000	-72.39	-13.00	59.39	Horizontal
542.354167	-63.72	-13.00	50.72	Horizontal
3741.975000	-57.62	-13.00	44.62	Horizontal
5613.000000	-53.51	-13.00	40.51	Horizontal
7484.350000	-61.58	-13.00	48.58	Horizontal

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**7.1.1.1.3 Test Channel = HCH**

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
64.050000	-81.49	-13.00	68.49	Vertical
81.350000	-77.67	-13.00	64.67	Vertical
298.300000	-51.28	-13.00	38.28	Vertical
1542.500000	-55.70	-13.00	42.70	Vertical
3781.950000	-58.57	-13.00	45.57	Vertical
5673.125000	-61.67	-13.00	48.67	Vertical
56.300000	-77.19	-13.00	64.19	Horizontal
192.000000	-73.57	-13.00	60.57	Horizontal
1542.500000	-50.60	-13.00	37.60	Horizontal
3782.275000	-57.60	-13.00	44.60	Horizontal
5673.125000	-52.76	-13.00	39.76	Horizontal
7564.300000	-61.31	-13.00	48.31	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.
- 2) We have tested all modulation, but only the worst case data presented in this report.



## 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
LTEband2	LTE/TM1 20MHz	LCH	TN	VL	-4.03	-0.00217	PASS
				VN	0.46	0.00025	PASS
				VH	-7.73	-0.00416	PASS
		MCH	TN	VL	1.49	0.00079	PASS
				VN	-2.84	-0.00151	PASS
				VH	2.63	0.00140	PASS
		HCH	TN	VL	-6.56	-0.00345	PASS
				VN	-5.17	-0.00272	PASS
				VH	-0.79	-0.00042	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
LTEband2	LTE/TM1 20MHz	LCH	VN	-30	-0.40	-0.00022	PASS
				-20	-1.34	-0.00072	PASS
				-10	2.38	0.00128	PASS
				0	1.75	0.00094	PASS
				10	1.65	0.00089	PASS
				20	0.11	0.00006	PASS
				30	-0.31	-0.00017	PASS
				40	-0.14	-0.00008	PASS
				50	0.59	0.00032	PASS
		MCH	VN	-30	-7.80	-0.00415	PASS
				-20	-5.95	-0.00316	PASS
				-10	-7.49	-0.00398	PASS
				0	-5.62	-0.00299	PASS
				10	-4.04	-0.00215	PASS
				20	-9.94	-0.00529	PASS
				30	-5.66	-0.00301	PASS
				40	-4.62	-0.00246	PASS
				50	-6.92	-0.00368	PASS
		HCH	VN	-30	0.54	0.00028	PASS
				-20	-1.49	-0.00078	PASS
				-10	1.53	0.00081	PASS
				0	-2.83	-0.00149	PASS
				10	2.60	0.00137	PASS
				20	-0.57	-0.00030	PASS
				30	-2.66	-0.00140	PASS
				40	-5.43	-0.00286	PASS
				50	-8.90	-0.00468	PASS

The End

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