



# Appendix B

## E-UTRA Band CA\_2C



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# 1 Effective (Isotropic) Radiated Power Output Data

Effective Isotropic Radiated Power of Transmitter (EIRP) for LTE Band CA\_2C

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	PCC RB/ SCC RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
CA_2C	LTE/TM1	100RB+25RB	LCH	100RB#0/25RB#0	20.98	20.58	33.00	PASS
				25RB#0/0RB#0	22.36	21.96	33.00	PASS
				8RB#0/0RB#0	23.50	23.10	33.00	PASS
				1RB#24/1RB#0	18.72	18.32	33.00	PASS
				1RB#0/1RB#24	14.98	14.58	33.00	PASS
				1RB#0/0RB#0	23.63	23.23	33.00	PASS
			MCH	100RB#0/25RB#0	20.85	20.45	33.00	PASS
				25RB#0/0RB#0	22.35	21.95	33.00	PASS
				8RB#0/0RB#0	23.55	23.15	33.00	PASS
				1RB#24/1RB#0	18.62	18.22	33.00	PASS
				1RB#0/1RB#24	14.54	14.14	33.00	PASS
				1RB#0/0RB#0	23.64	23.24	33.00	PASS
			HCH	100RB#0/25RB#0	21.02	20.62	33.00	PASS
				25RB#0/0RB#0	22.33	21.93	33.00	PASS
				8RB#0/0RB#0	23.52	23.12	33.00	PASS
				1RB#24/1RB#0	18.54	18.14	33.00	PASS
				1RB#0/1RB#24	14.82	14.42	33.00	PASS
				1RB#0/0RB#0	23.48	23.08	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	PCC RB/ SCC RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
CA_2C	LTE/TM2	100RB+25RB	LCH	100RB#0/25RB#0	20.06	19.66	33.00	PASS
				25RB#0/0RB#0	21.36	20.96	33.00	PASS
				8RB#0/0RB#0	22.57	22.17	33.00	PASS
			MCH	100RB#0/25RB#0	19.78	19.38	33.00	PASS
				25RB#0/0RB#0	21.38	20.98	33.00	PASS
				8RB#0/0RB#0	22.54	22.14	33.00	PASS
			HCH	100RB#0/25RB#0	19.92	19.52	33.00	PASS
				25RB#0/0RB#0	21.28	20.88	33.00	PASS
				8RB#0/0RB#0	22.47	22.07	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	PCC RB/ SCC RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
CA_2C	LTE/TM3	100RB+25RB	LCH	100RB#0/25RB#0	19.50	19.10	33.00	PASS
				25RB#0/0RB#0	20.43	20.03	33.00	PASS
				8RB#0/0RB#0	21.68	21.28	33.00	PASS
			MCH	100RB#0/25RB#0	19.91	19.51	33.00	PASS
				25RB#0/0RB#0	20.45	20.05	33.00	PASS
				8RB#0/0RB#0	21.62	21.22	33.00	PASS
			HCH	100RB#0/25RB#0	19.89	19.49	33.00	PASS
				25RB#0/0RB#0	20.28	19.88	33.00	PASS
				8RB#0/0RB#0	21.52	21.12	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	PCC RB/ SCC RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
CA_2C	LTE/TM1	100RB+100 RB	LCH	100RB#0/100RB#0	21.12	20.72	33.00	PASS
				100RB#0/0RB#0	22.15	21.75	33.00	PASS
				18RB#0/0RB#0	23.60	23.20	33.00	PASS
				1RB#0/1RB#99	15.16	14.76	33.00	PASS
				1RB#0/0RB#0	23.63	23.23	33.00	PASS
				1RB#99/1RB#0	22.94	22.54	33.00	PASS
			MCH	100RB#0/100RB#0	21.04	20.64	33.00	PASS
				100RB#0/0RB#0	22.14	21.74	33.00	PASS
				18RB#0/0RB#0	23.55	23.15	33.00	PASS
				1RB#99/1RB#0	22.97	22.57	33.00	PASS
				1RB#0/1RB#99	15.12	14.72	33.00	PASS
				1RB#0/0RB#0	23.72	23.32	33.00	PASS
			HCH	100RB#0/100RB#0	20.93	20.53	33.00	PASS
				100RB#0/0RB#0	22.09	21.69	33.00	PASS
				18RB#0/0RB#0	23.68	23.28	33.00	PASS
				1RB#99/1RB#0	22.77	22.37	33.00	PASS
				1RB#0/1RB#99	15.04	14.64	33.00	PASS
				1RB#0/0RB#0	23.55	23.15	33.00	PASS

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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	PCC RB/ SCC RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
CA_2C	LTE/TM2	100 RB +100 RB	LCH	100RB#0/100RB#0	20.02	19.62	33.00	PASS
				100RB#0/0RB#0	21.08	20.68	33.00	PASS
				18RB#0/0RB#0	22.55	22.15	33.00	PASS
			MCH	100RB#0/100RB#0	19.98	19.58	33.00	PASS
				100RB#0/0RB#0	21.06	20.66	33.00	PASS
				18RB#0/0RB#0	22.44	22.04	33.00	PASS
			HCH	100RB#0/100RB#0	19.86	19.46	33.00	PASS
				100RB#0/0RB#0	20.98	20.58	33.00	PASS
				18RB#0/0RB#0	22.56	22.16	33.00	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	PCC RB/ SCC RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
CA_2C	LTE/TM3	100 RB +100 RB	LCH	100RB#0/100RB#0	19.83	19.43	33.00	PASS
				100RB#0/0RB#0	20.14	19.74	33.00	PASS
				18RB#0/0RB#0	21.56	21.16	33.00	PASS
			MCH	100RB#0/100RB#0	19.56	19.16	33.00	PASS
				100RB#0/0RB#0	20.07	19.67	33.00	PASS
				18RB#0/0RB#0	21.43	21.03	33.00	PASS
			HCH	100RB#0/100RB#0	19.97	19.57	33.00	PASS
				100RB#0/0RB#0	20.02	19.62	33.00	PASS
				18RB#0/0RB#0	21.44	21.04	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



## 2 Peak-to-Average Ratio

### Part I - Test Results

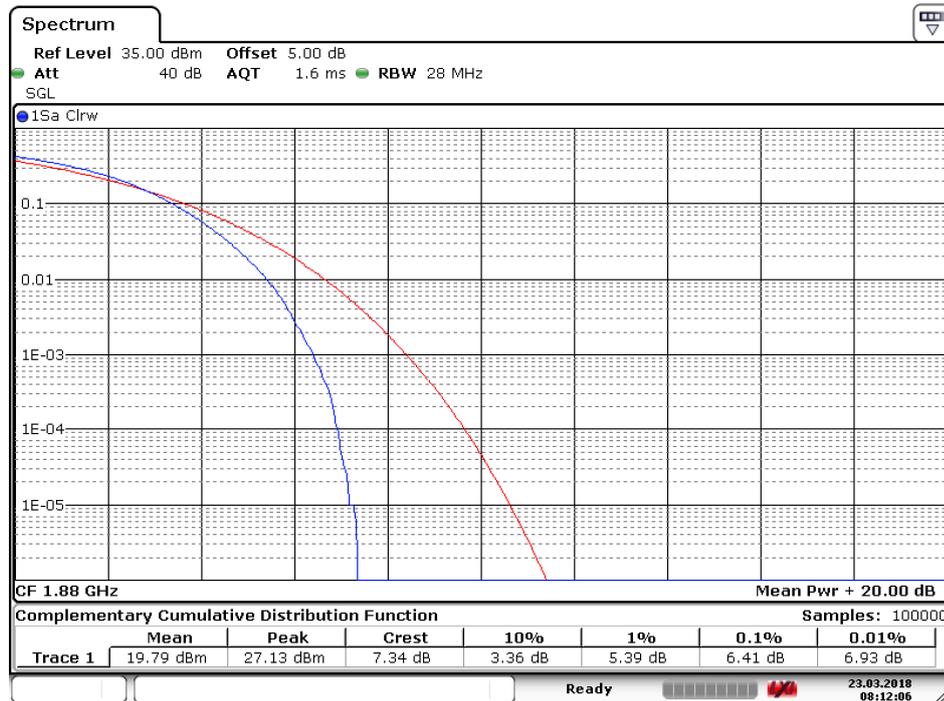
Test Band	Test Mode	PCC RB	SCC RB	Test Channel	Measured[dB]	Limit [dB]	Verdict
CA_2C	TM1/100RB+25RB	P_100@0	S_25@0	MCH	6.41	13	PASS
	TM2/100RB+25RB	P_100@0	S_25@0	MCH	6.93	13	PASS
	TM3/100RB+25RB	P_100@0	S_25@0	MCH	7.04	13	PASS
	TM1/100RB+100RB	P_100@0	S_100@0	MCH	6.41	13	PASS
	TM2/100RB+100RB	P_100@0	S_100@0	MCH	6.78	13	PASS
	TM3/100RB+100RB	P_100@0	S_100@0	MCH	6.84	13	PASS

### 2.1 For LTE

#### 2.1.1 Test Band = LTE Band CA\_2C

##### 2.1.1.1 Test Mode = LTE/TM1.Bandwidth=100RB+25RB

##### 2.1.1.1.1 Test Channel = MCH

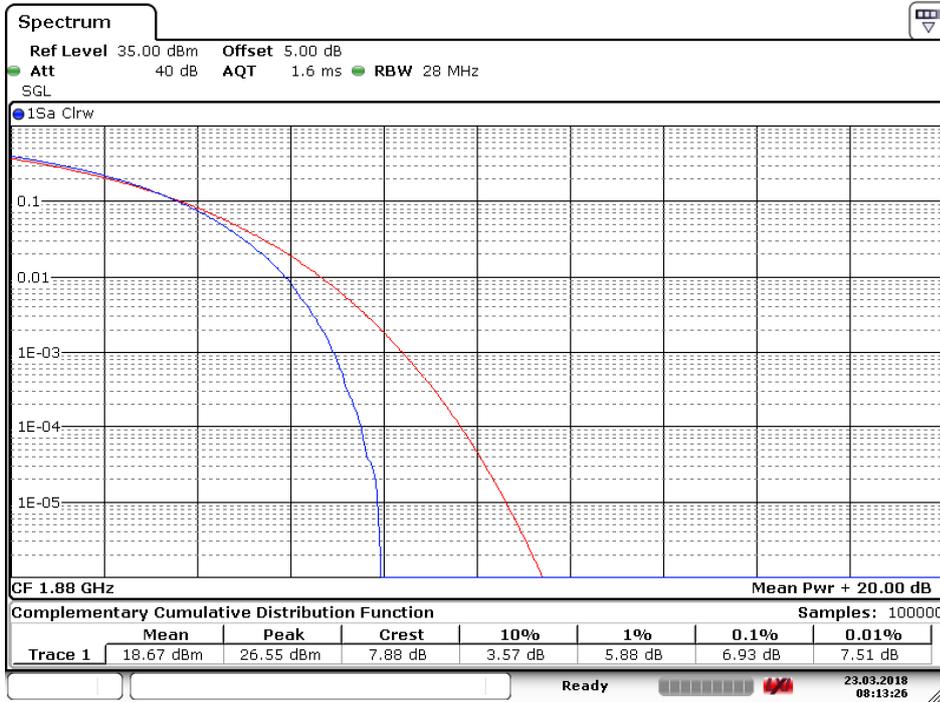


Date: 23.MAR.2018 08:12:07



2.1.1.2 Test Mode = LTE/TM2.Bandwidth=100RB+25RB

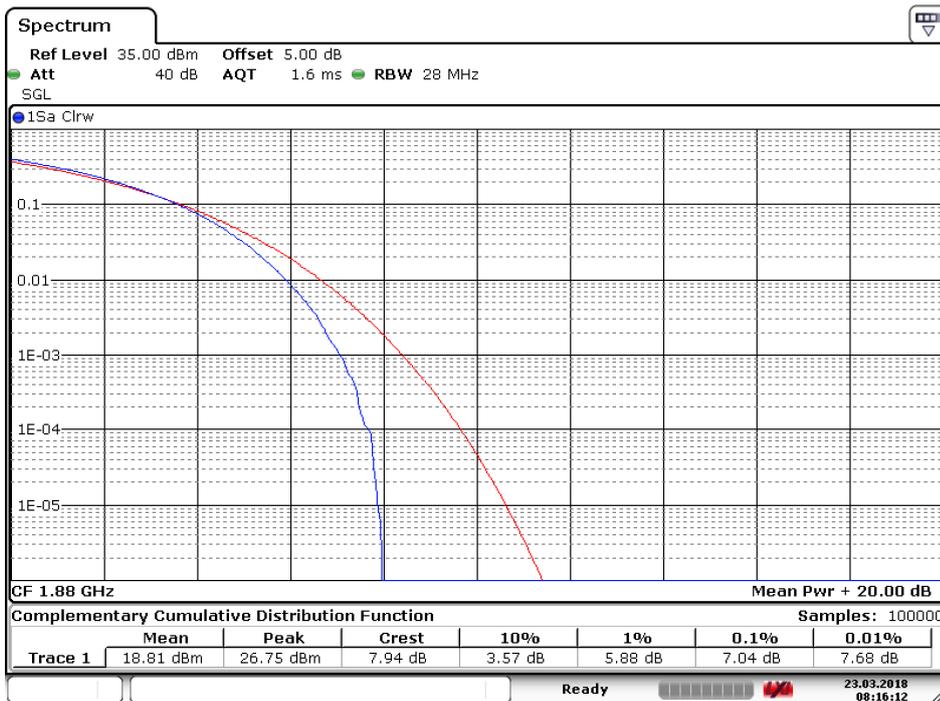
2.1.1.2.1 Test Channel = MCH



Date: 23.MAR.2018 08:13:26

2.1.1.3 Test Mode = LTE/TM3.Bandwidth=100RB+25RB

2.1.1.3.1 Test Channel = MCH



Date: 23.MAR.2018 08:16:13

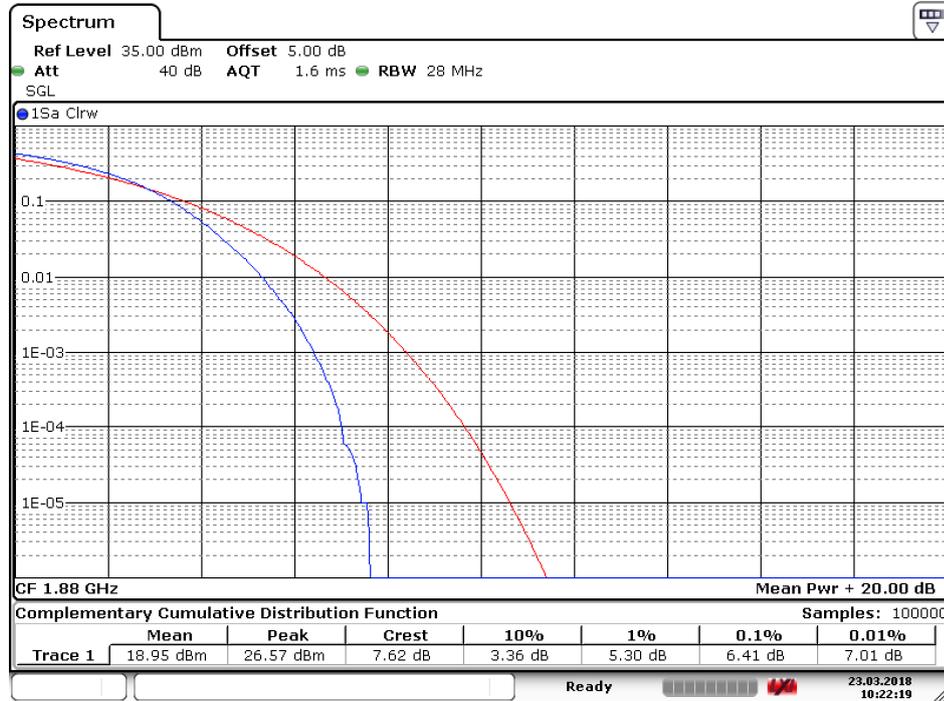




2.1.2 Test Band = LTE Band CA\_2C

2.1.2.1 Test Mode = LTE/TM1.Bandwidth=100RB+100RBHz

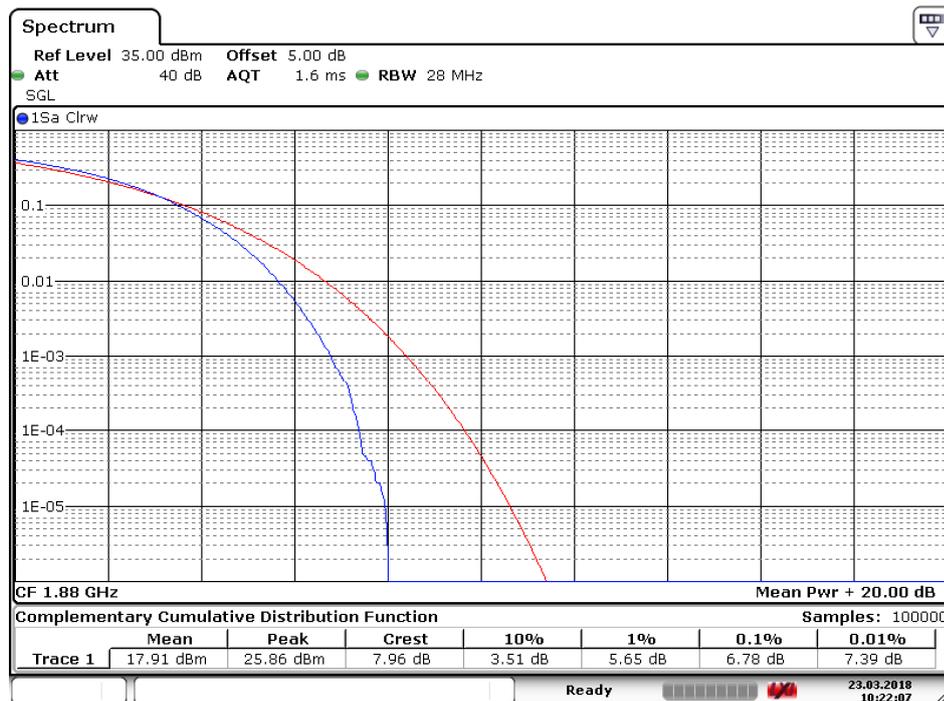
2.1.2.1.1 Test Channel = MCH



Date: 23.MAR.2018 10:22:20

2.1.2.2 Test Mode = LTE/TM2.Bandwidth=100RB+100RB

2.1.2.2.1 Test Channel = MCH

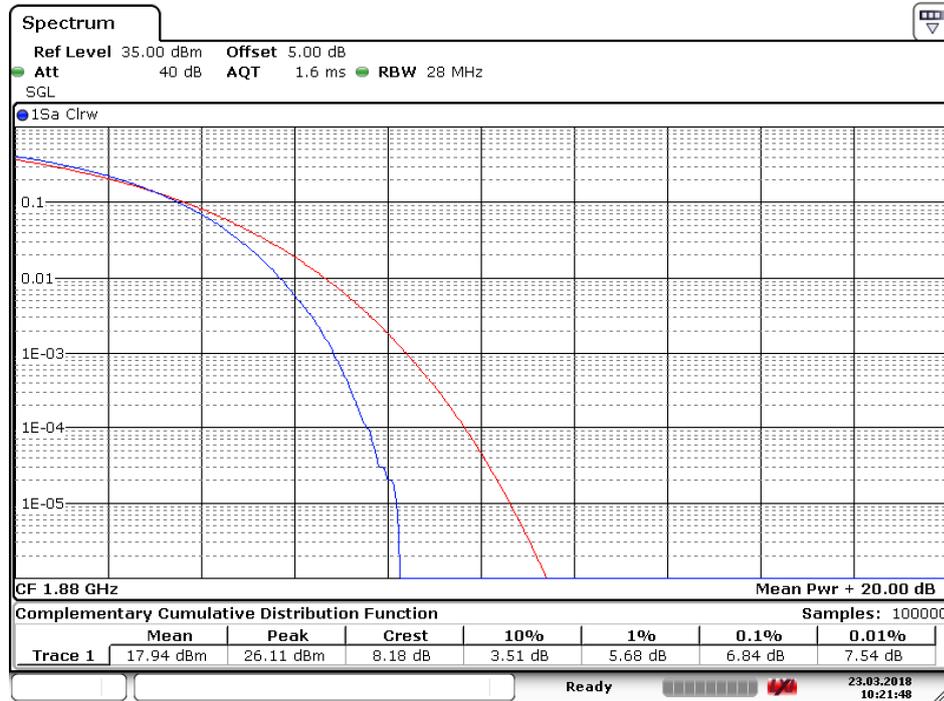


Date: 23.MAR.2018 10:22:07

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2.1.2.3 Test Mode = LTE/TM3.Bandwidth=100RB+100RB  
2.1.2.3.1 Test Channel = MCH



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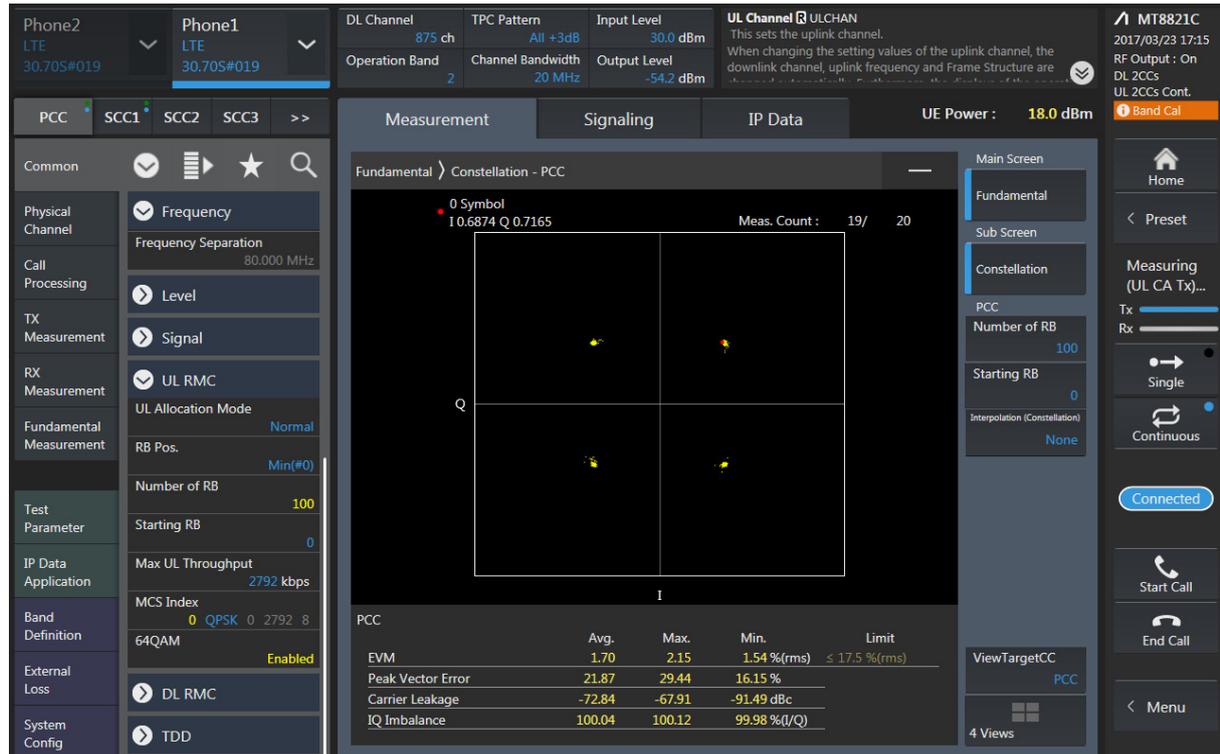
### 3 Modulation Characteristics

#### 3.1 For LTE

##### 3.1.1 Test Band = LTE Band CA\_2C

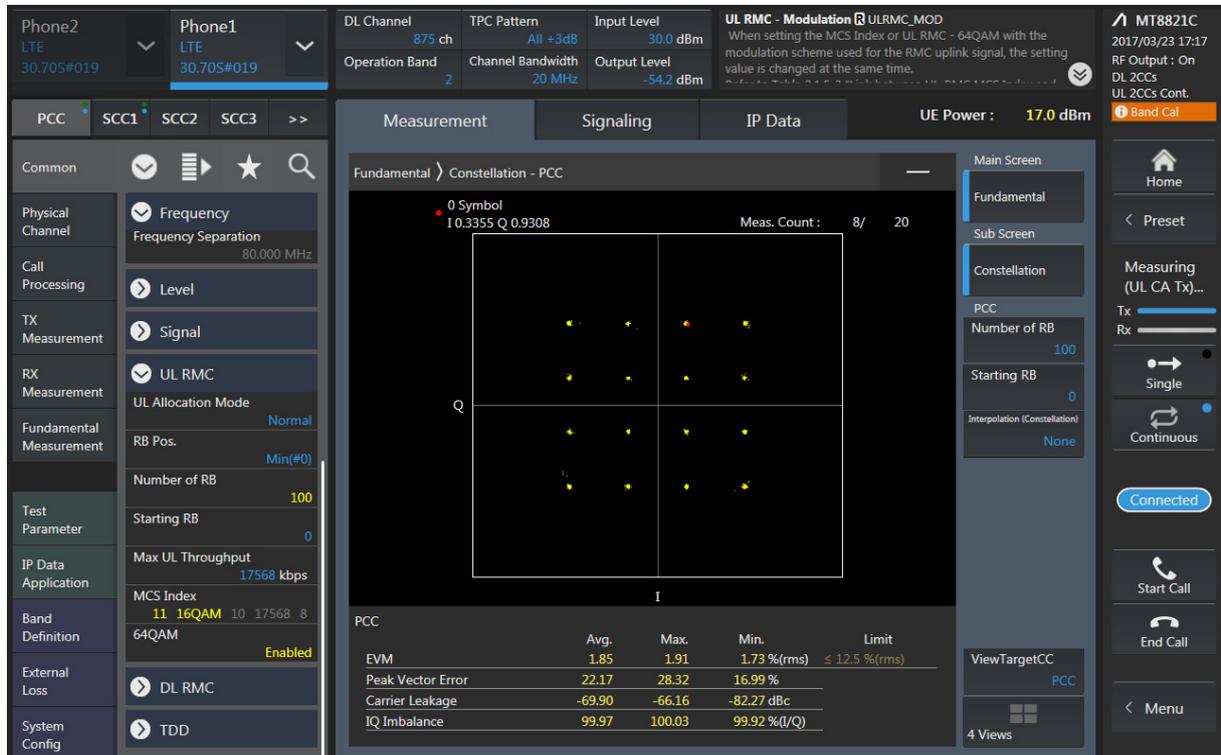
##### 3.1.1.1 Test Mode = LTE /TM1 100RB+25RB

##### 3.1.1.1.1 Test Channel = MCH



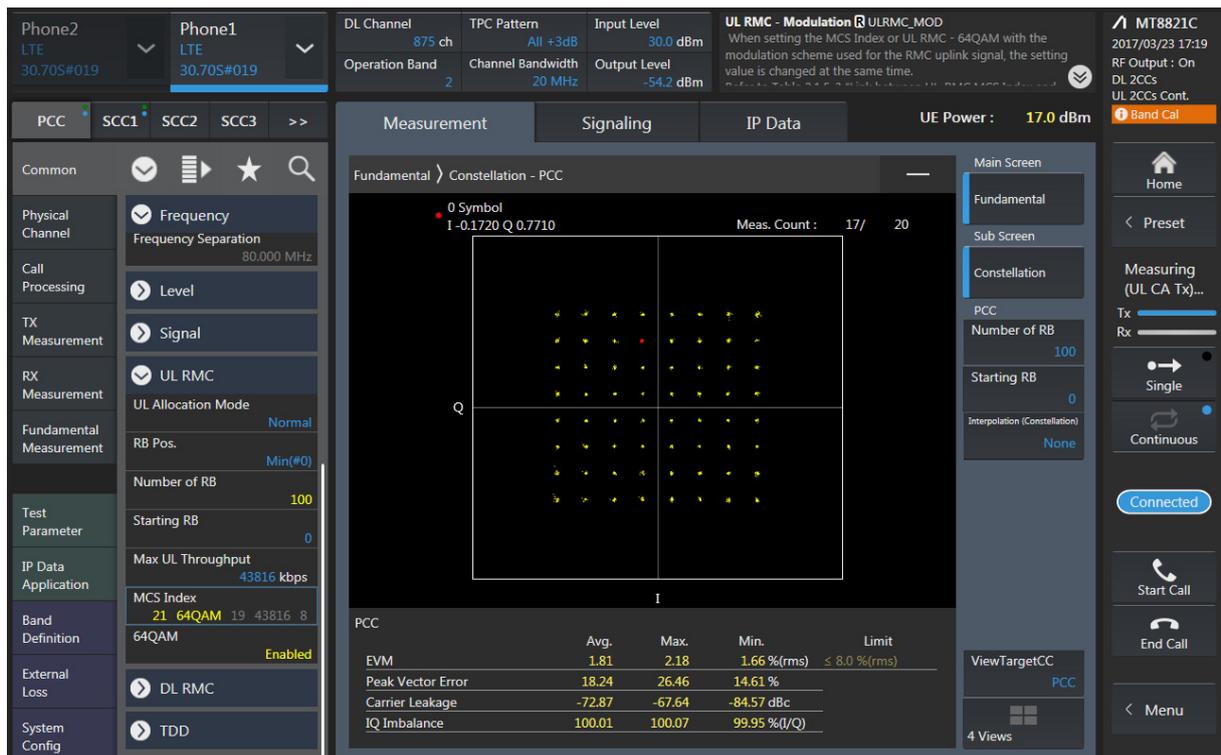
**3.1.1.2 Test Mode = LTE /TM2 100RB+25RB**

**3.1.1.2.1 Test Channel = MCH**



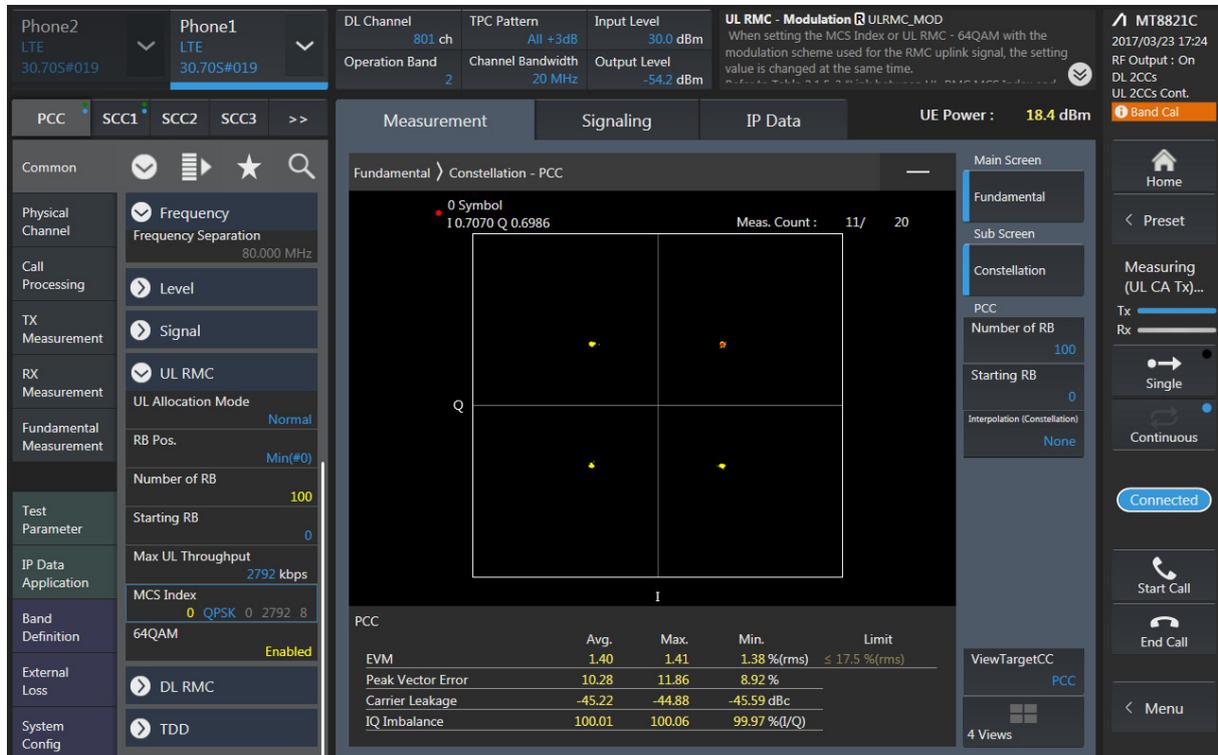
**3.1.1.3 Test Mode = LTE /TM3 100RB+25RB**

**3.1.1.3.1 Test Channel = MCH**



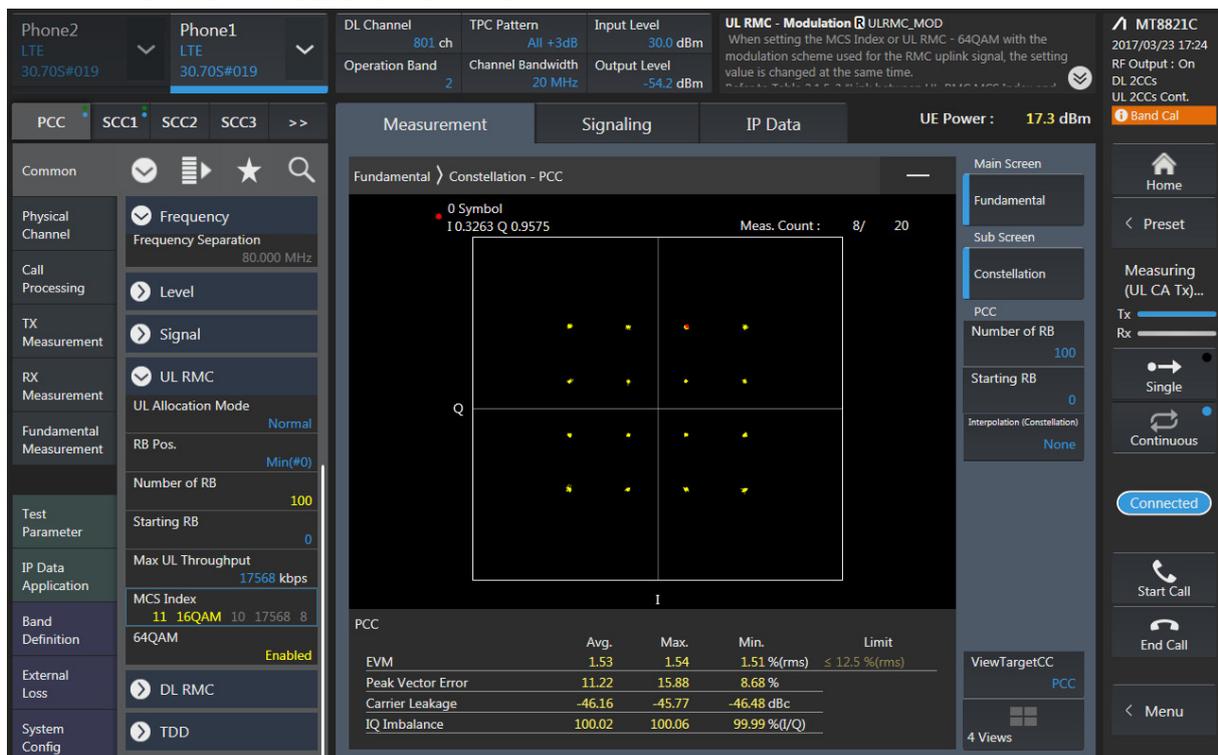
**3.1.1.4 Test Mode = LTE /TM1 100RB+100RB**

**3.1.1.4.1 Test Channel = MCH**



**3.1.1.5 Test Mode = LTE /TM2 100RB+100RB**

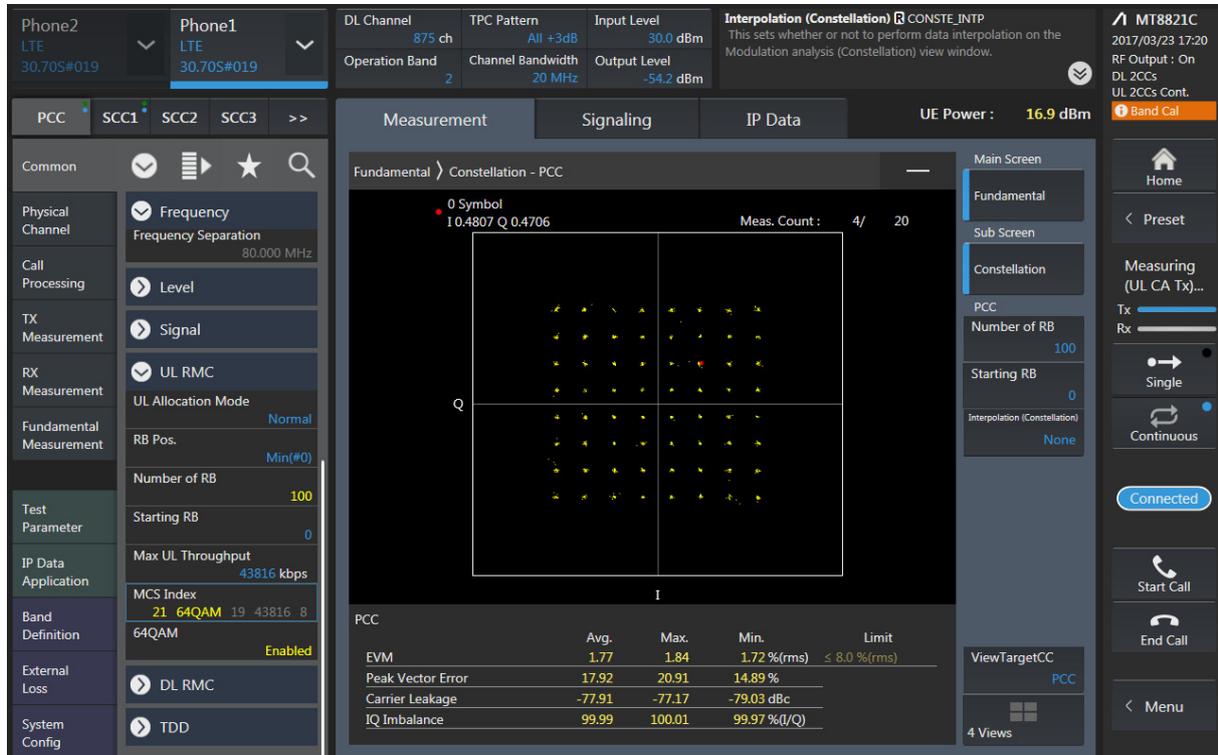
**3.1.1.5.1 Test Channel = MCH**



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**3.1.1.6 Test Mode = LTE /TM3 100RB+100RB**

**3.1.1.6.1 Test Channel = MCH**





## 4 Bandwidth

### Part I - Test Results

Test Band	Test Mode	PCC RB	SCC RB	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
CA_2C	TM1/100RB+25RB	P_100@0	S_25@0	MCH	22.93	24.08	PASS
	TM2/100RB+25RB	P_100@0	S_25@0	MCH	22.88	24.08	PASS
	TM3/100RB+25RB	P_100@0	S_25@0	MCH	22.88	24.08	PASS
	TM1/100RB+100RB	P_100@0	S_100@0	MCH	37.64	39.64	PASS
	TM2/100RB+100RB	P_100@0	S_100@0	MCH	37.64	39.72	PASS
	TM3/100RB+100RB	P_100@0	S_100@0	MCH	37.64	39.64	PASS

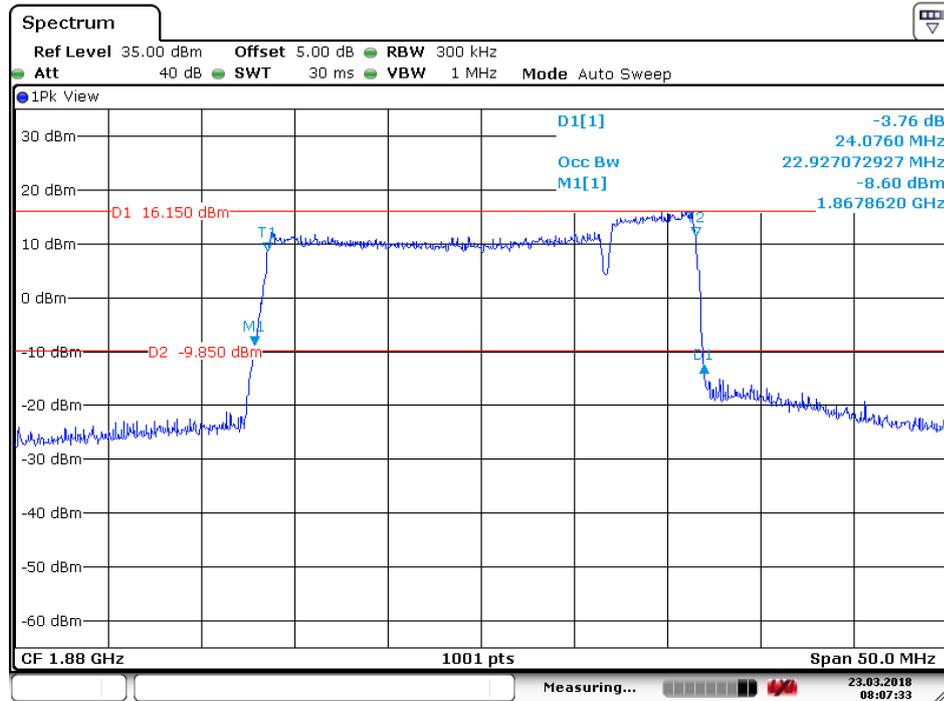


## 4.1 For LTE

### 4.1.1 Test Band = LTE Band CA\_2C

#### 4.1.1.1 Test Mode = LTE/TM1 100RB+25RB

##### 4.1.1.1.1 Test Channel = MCH



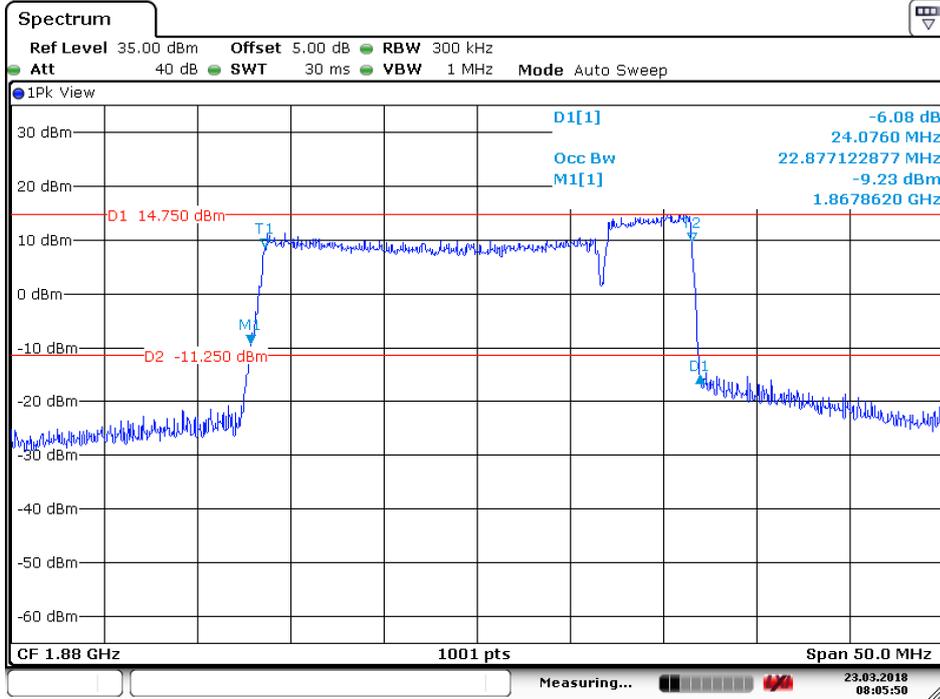
Date: 23.MAR.2018 08:07:33





4.1.1.2 Test Mode = LTE/TM2 100RB+25RB

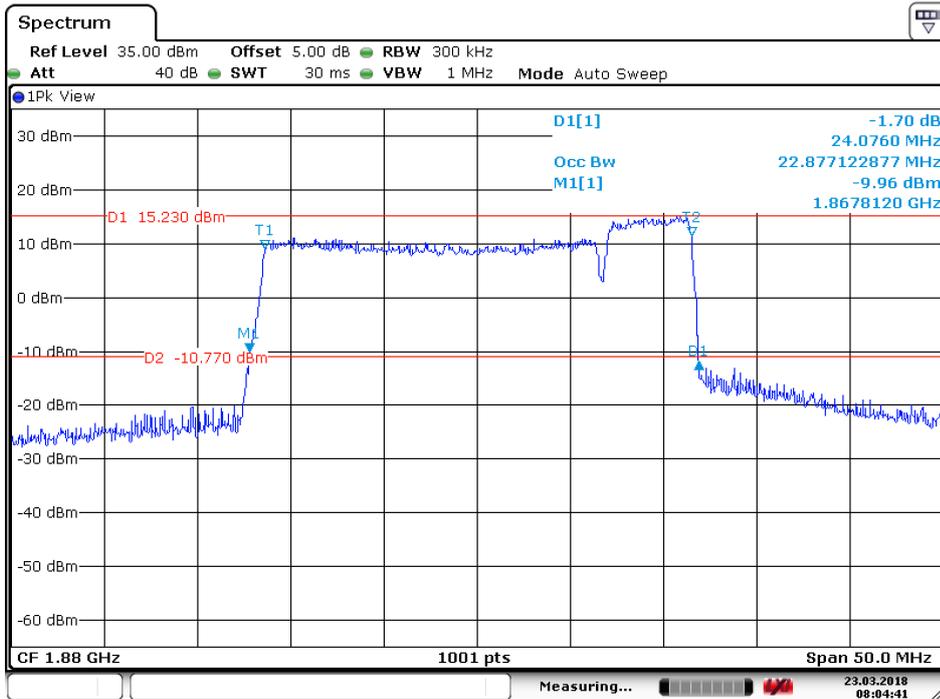
4.1.1.2.1 Test Channel = MCH



Date: 23.MAR.2018 08:05:51

4.1.1.3 Test Mode = LTE/TM3 100RB+25RB

4.1.1.3.1 Test Channel = MCH

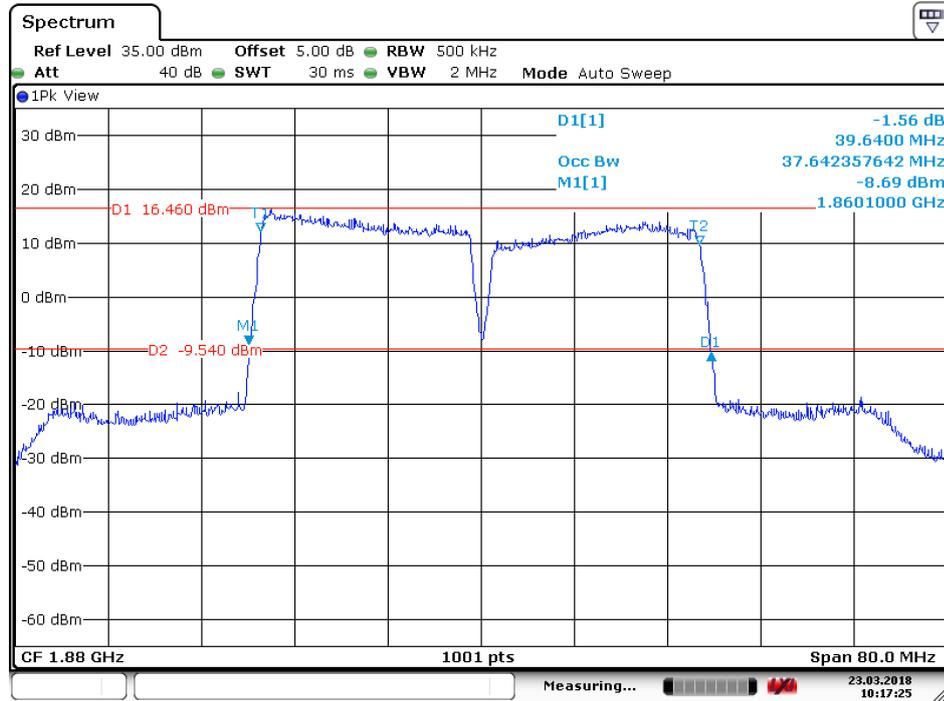


Date: 23.MAR.2018 08:04:41



4.1.1.4 Test Mode = LTE/TM1 100RB+100RB

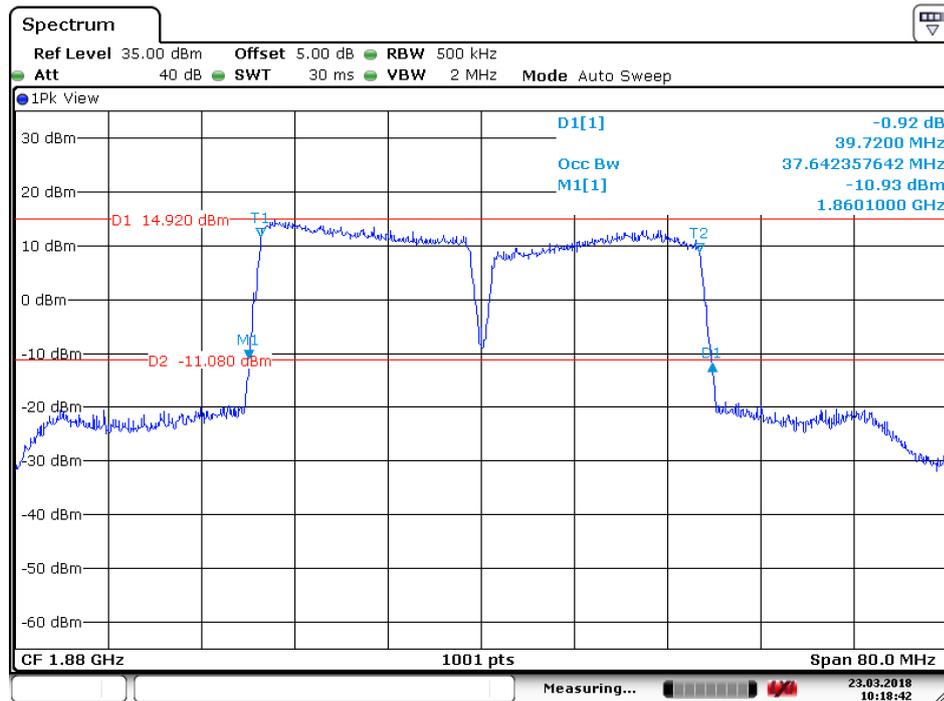
4.1.1.4.1 Test Channel = MCH



Date: 23.MAR.2018 10:17:26

4.1.1.5 Test Mode = LTE/TM2 100RB+100RB

4.1.1.5.1 Test Channel = MCH

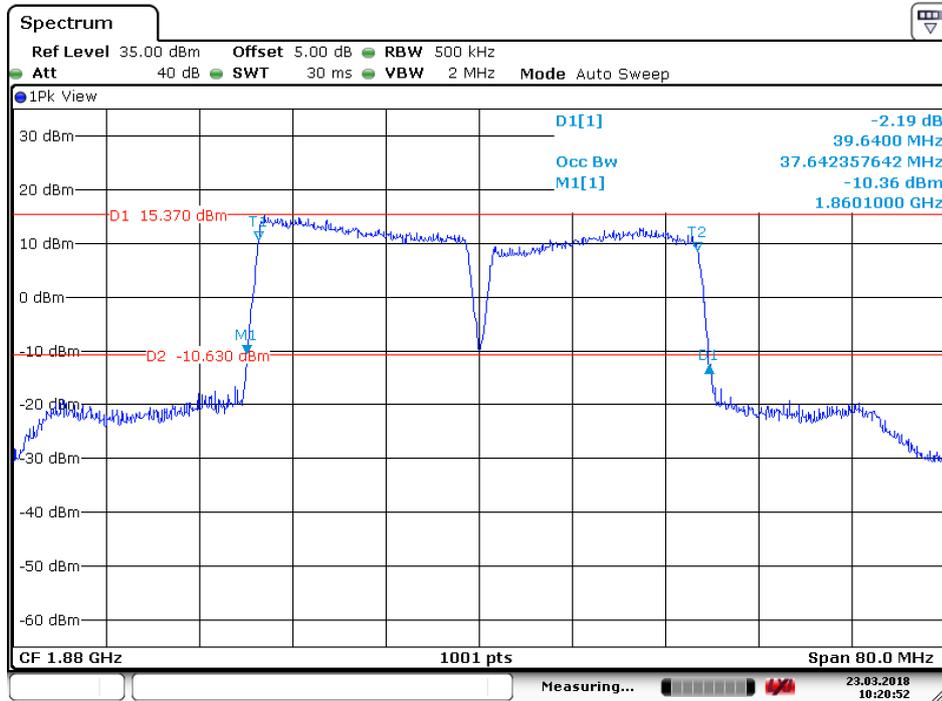


Date: 23.MAR.2018 10:18:42



4.1.1.6 Test Mode = LTE/TM3 100RB+100RB

4.1.1.6.1 Test Channel =MCH



Date: 23.MAR.2018 10:20:52

## 5 Band Edges Compliance

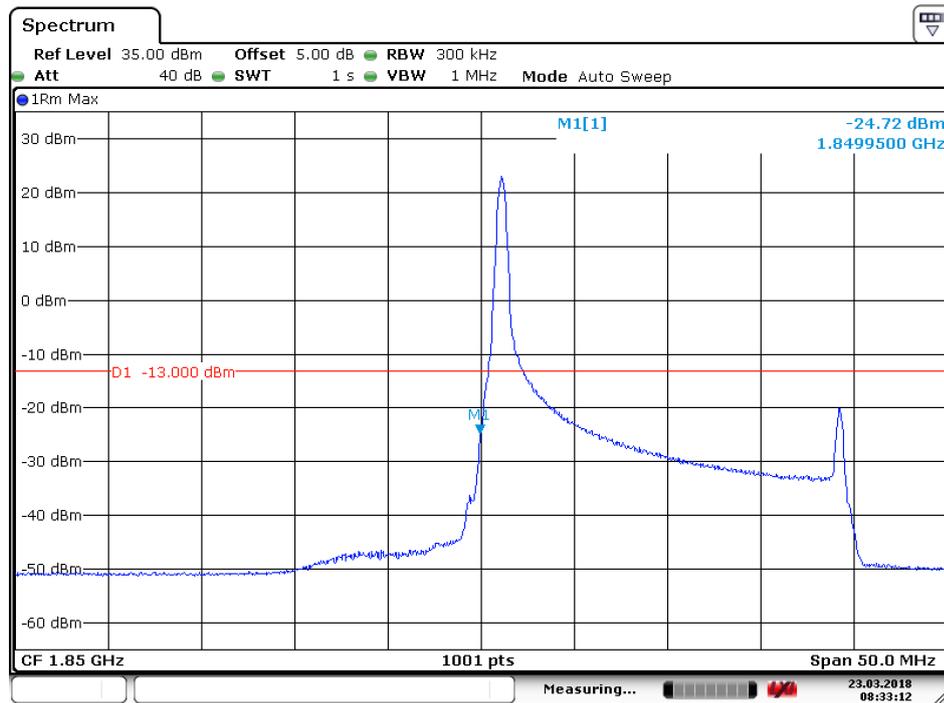
### 5.1 For LTE

#### 5.1.1 Test Band = LTE Band CA\_2C

##### 5.1.1.1 Test Mode = LTE/TM1 100RB+25RB

##### 5.1.1.1.1 Test Channel = LCH

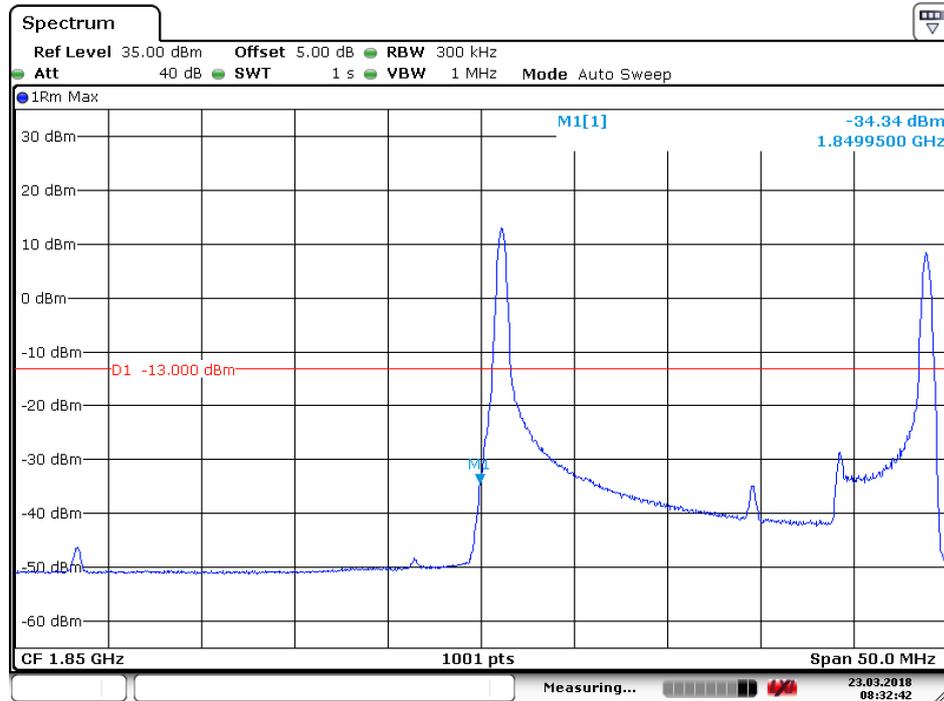
##### 5.1.1.1.1.1 Test RB= P\_1@0 S\_0@0



Date: 23.MAR.2018 08:33:13

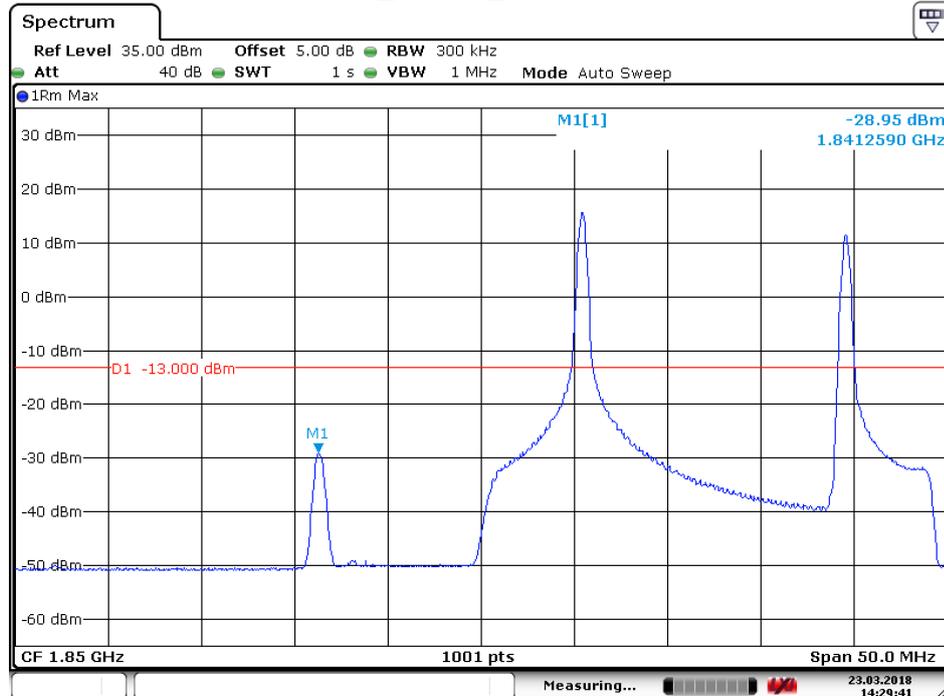


5.1.1.1.2 Test RB= P\_1@0 S\_1@24



Date: 23.MAR.2018 08:32:42

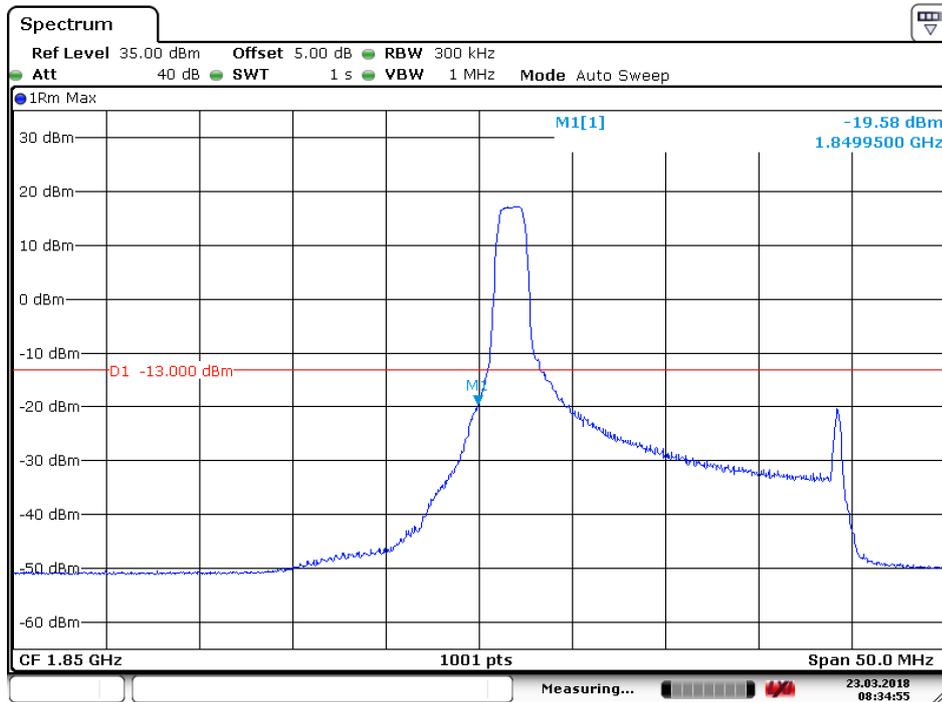
5.1.1.1.3 Test RB= P\_1@24 S\_1@0



Date: 23.MAR.2018 14:29:41

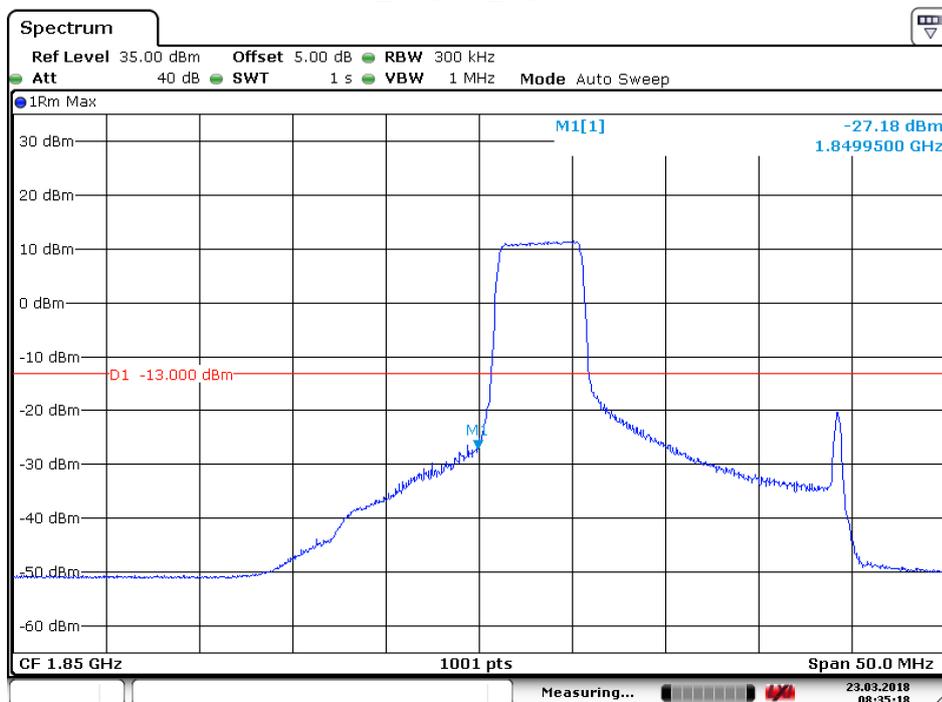


5.1.1.1.4 Test RB= P\_8@0 S\_0@0



Date: 23.MAR.2018 08:34:56

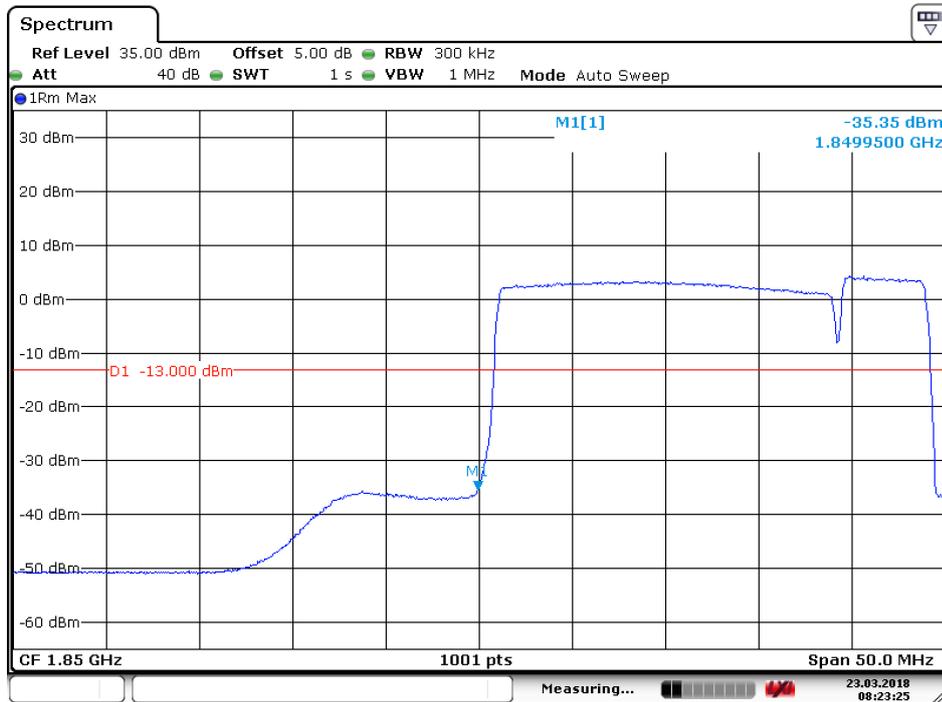
5.1.1.1.5 Test RB= P\_25@0 S\_0@0



Date: 23.MAR.2018 08:35:18



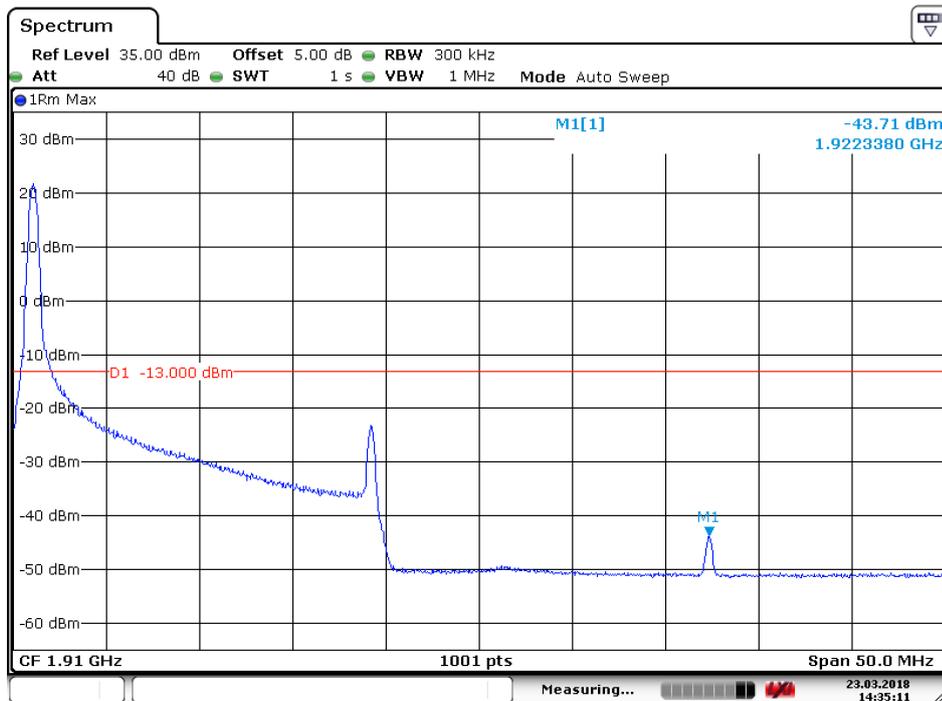
5.1.1.1.6 Test RB= P\_100@0 S\_25@0



Date: 23.MAR.2018 08:23:25

5.1.1.1.2 Test Channel = HCH

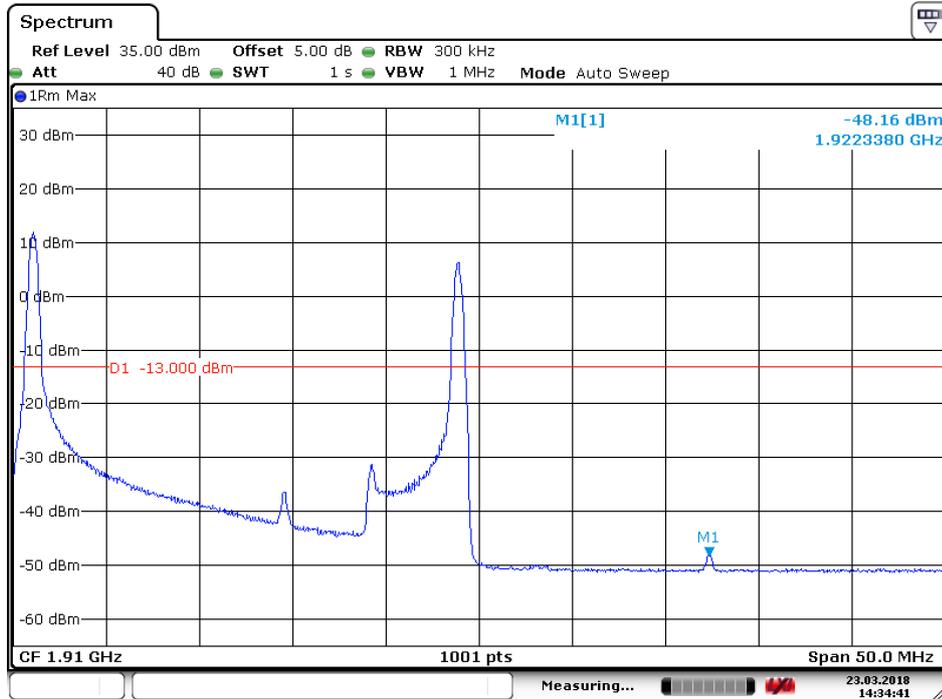
5.1.1.1.2.1 Test RB= P\_1@0 S\_0@0



Date: 23.MAR.2018 14:35:11

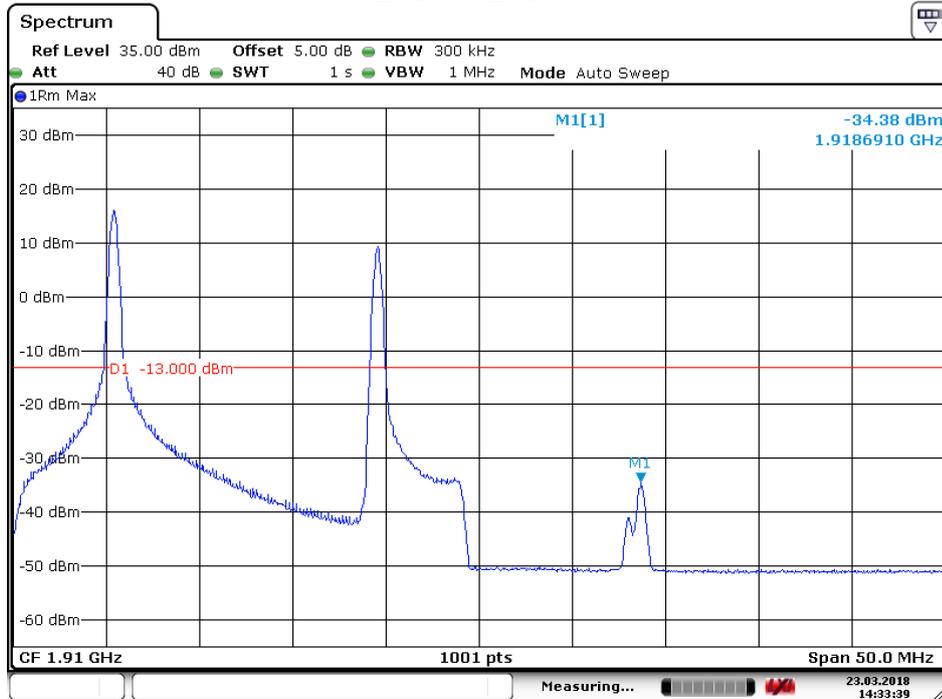


5.1.1.1.2.2 Test RB= P\_1@0 S\_1@24



Date: 23.MAR.2018 14:34:41

5.1.1.1.2.3 Test RB= P\_1@24 S\_1@0

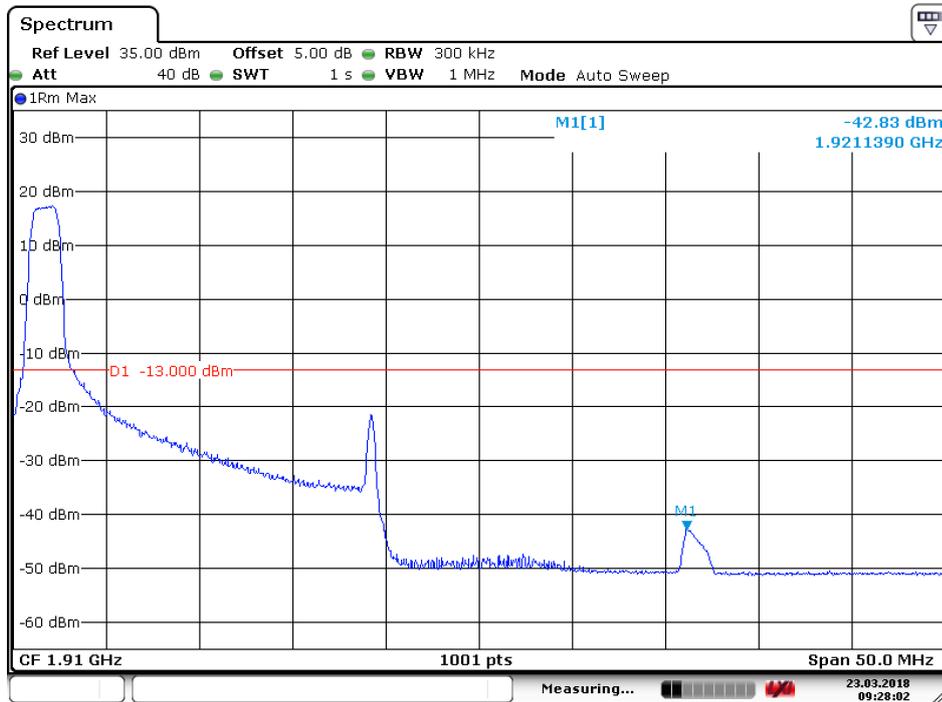


Date: 23.MAR.2018 14:33:39



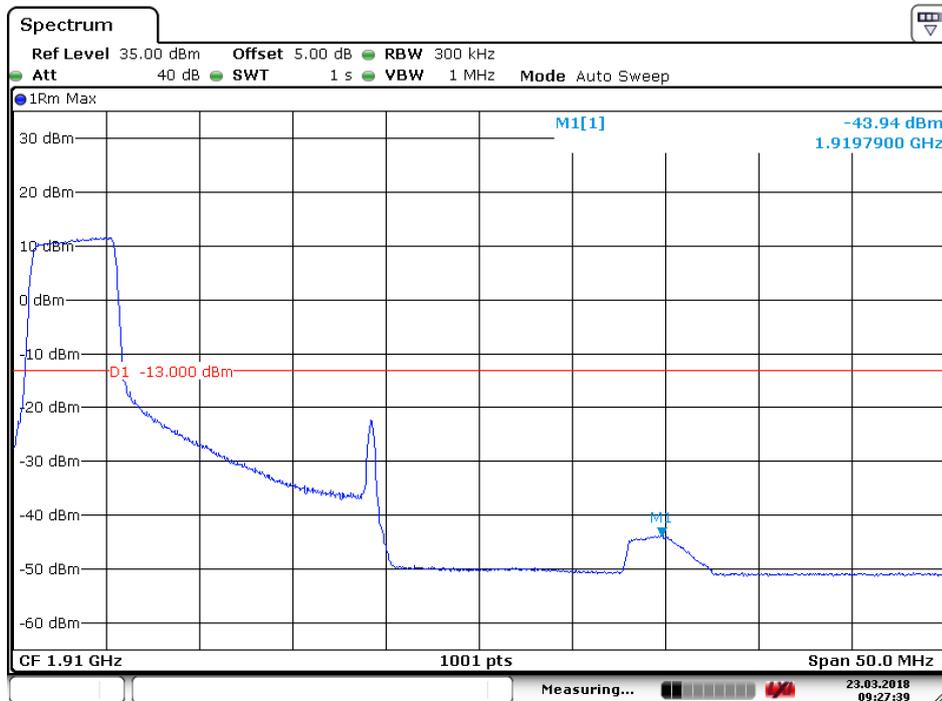


5.1.1.1.2.4 Test RB= P\_8@0 S\_0@0



Date: 23.MAR.2018 09:28:03

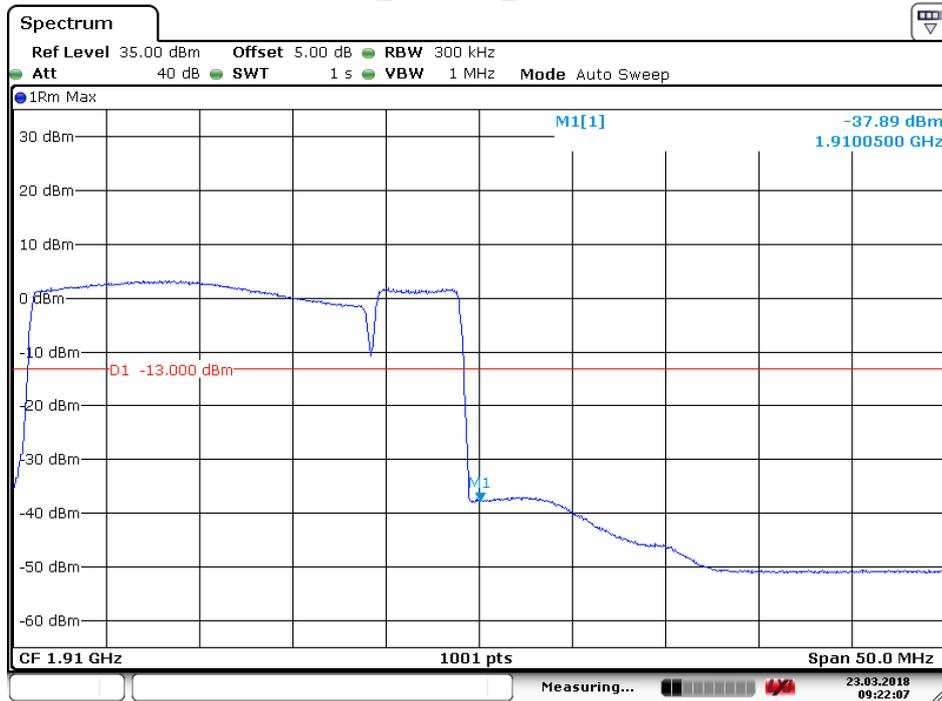
5.1.1.1.2.5 Test RB= P\_25@0 S\_0@0



Date: 23.MAR.2018 09:27:40



5.1.1.1.2.6 Test RB= P\_100@0 S\_25@0

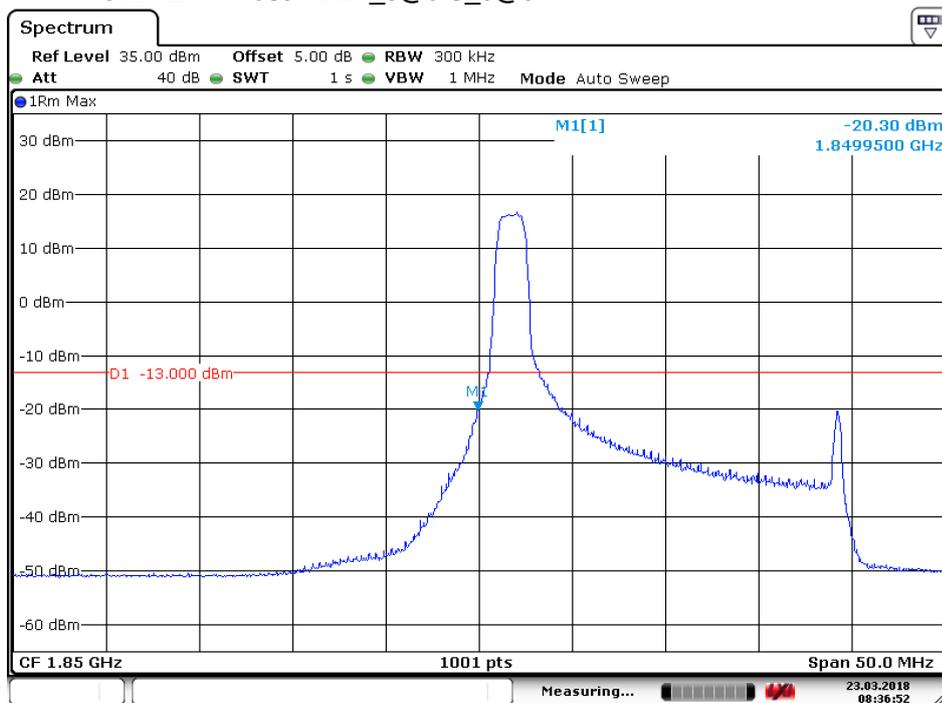


Date: 23.MAR.2018 09:22:08

5.1.1.2 Test Mode = LTE/TM2 100RB+25RB

5.1.1.2.1 Test Channel = LCH

5.1.1.2.1.1 Test RB=P\_8@0 S\_0@@

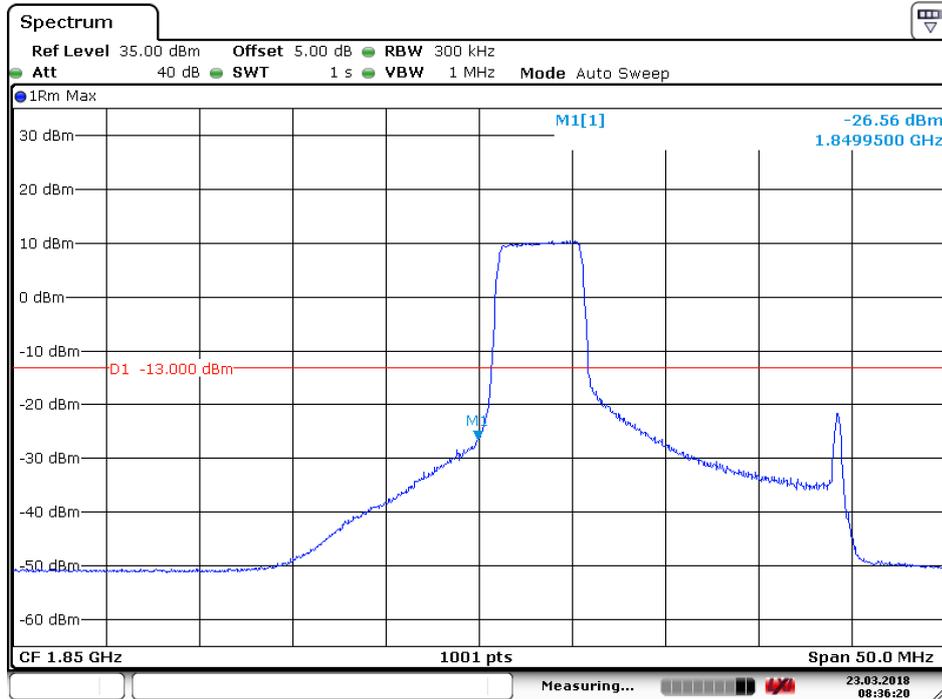


Date: 23.MAR.2018 08:36:53

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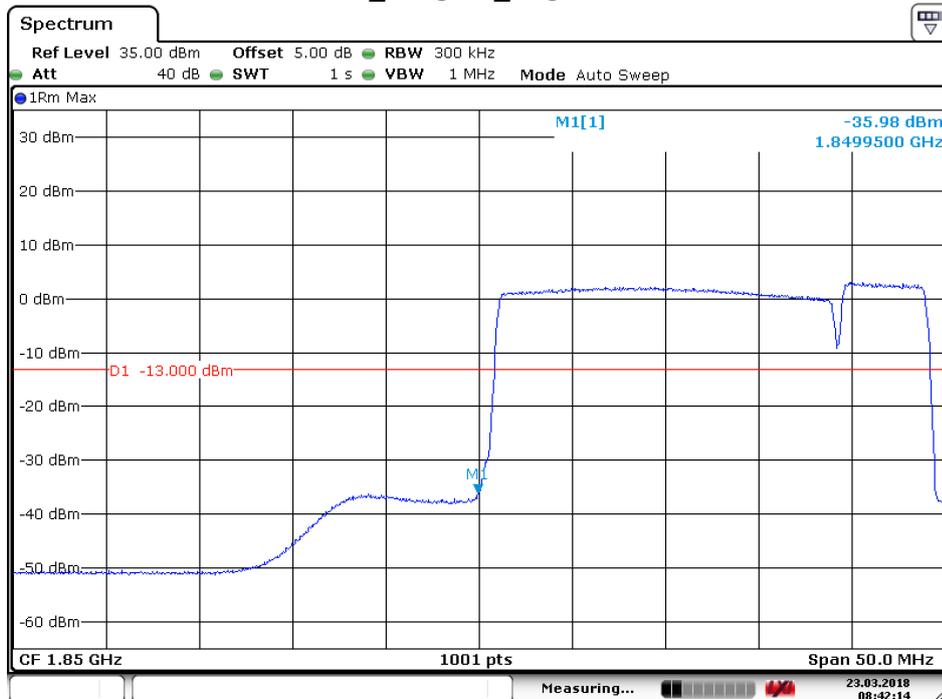


5.1.1.2.1.2 Test RB=P\_25@0 S\_0@0



Date: 23.MAR.2018 08:36:20

5.1.1.2.1.3 Test RB=P\_100@0 S\_25@0



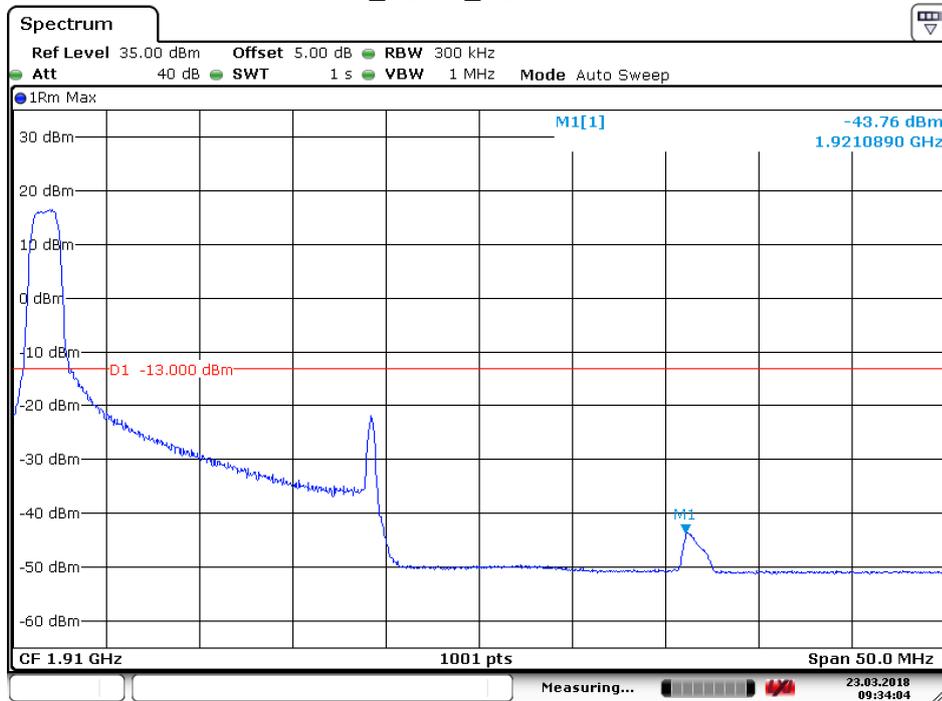
Date: 23.MAR.2018 08:42:15

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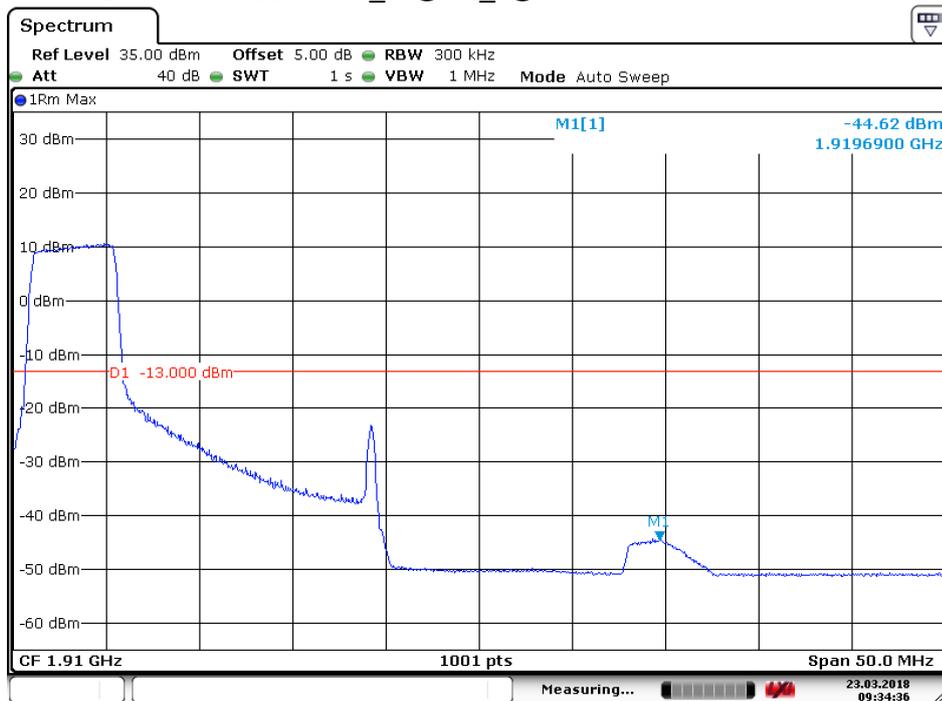
5.1.1.2.2 Test Channel = HCH

5.1.1.2.2.1 Test RB=P\_8@0 S\_0@0



Date: 23.MAR.2018 09:34:05

5.1.1.2.2.2 Test RB=P\_25@0 S\_0@0

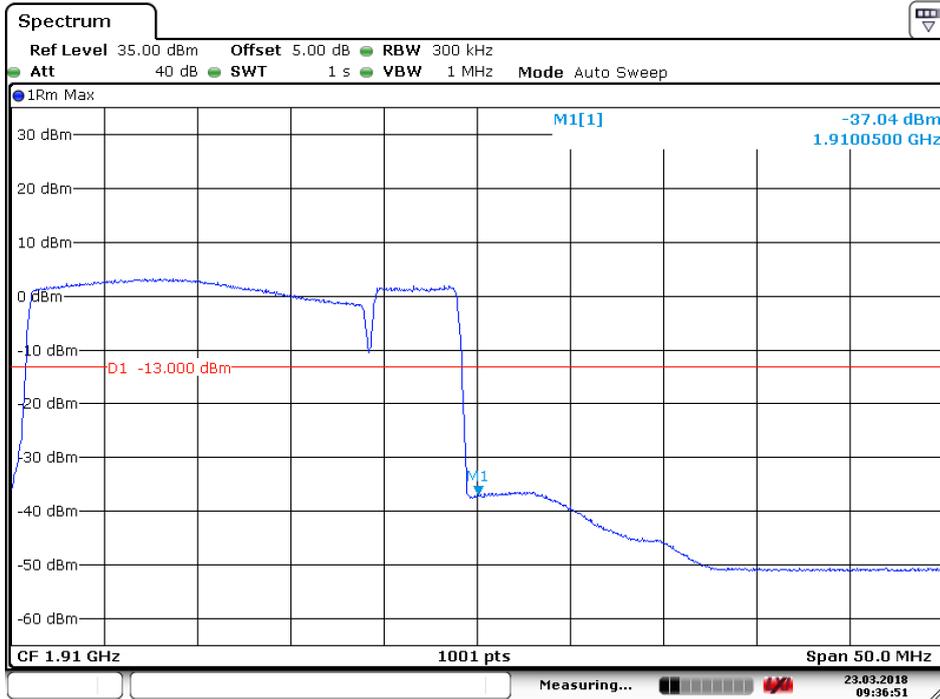


Date: 23.MAR.2018 09:34:37

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5.1.1.2.2.3 Test RB=P\_100@0 S\_25@0

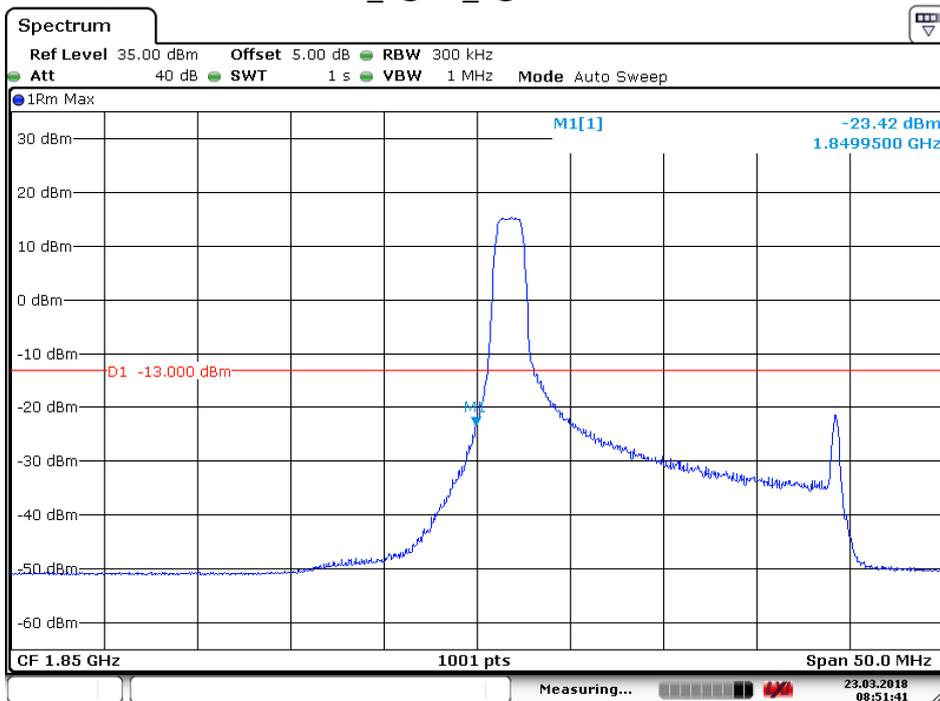


Date: 23.MAR.2018 09:36:51

5.1.1.3 Test Mode = LTE/TM3 100RB+25RB

5.1.1.3.1 Test Channel = LCH

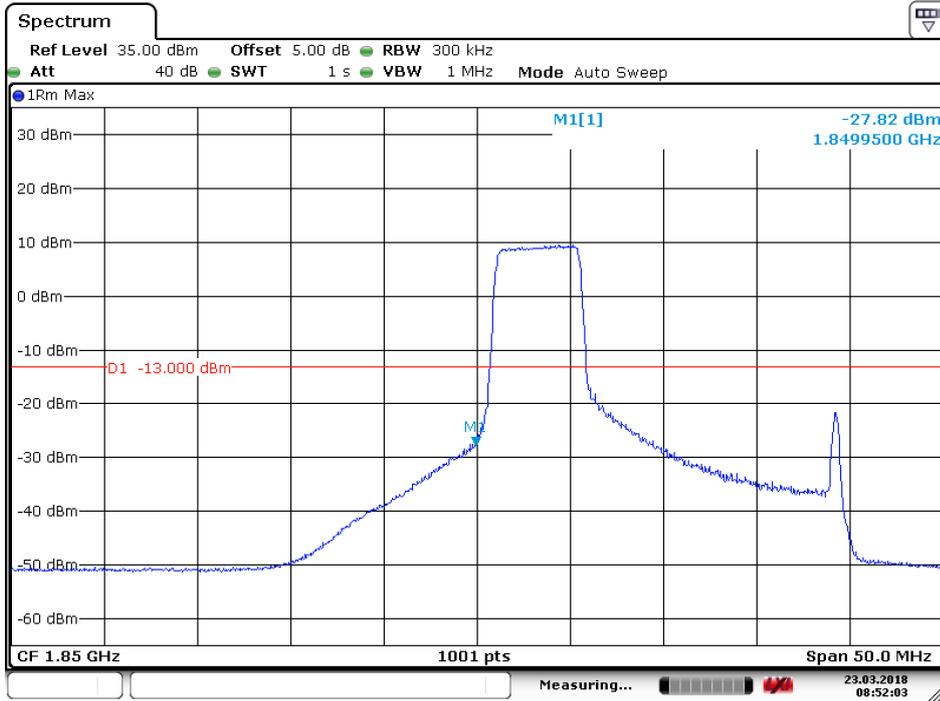
5.1.1.3.1.1 Test RB=P\_8@0 S\_0@@



Date: 23.MAR.2018 08:51:42

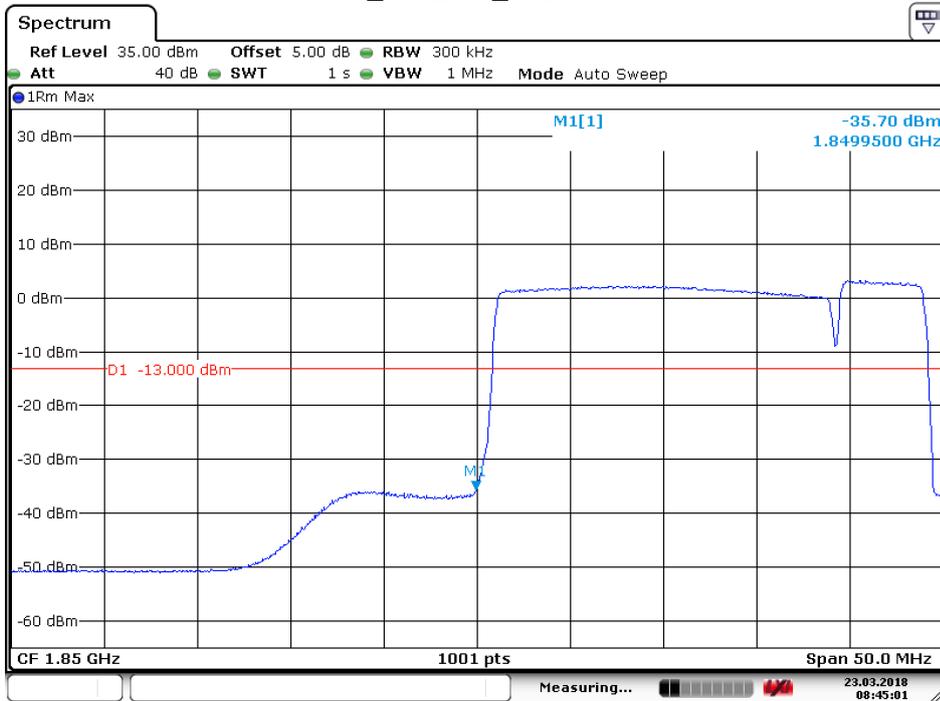


5.1.1.3.1.2 Test RB=P\_25@0 S\_0@0



Date: 23.MAR.2018 08:52:03

5.1.1.3.1.3 Test RB=P\_100@0 S\_25@0

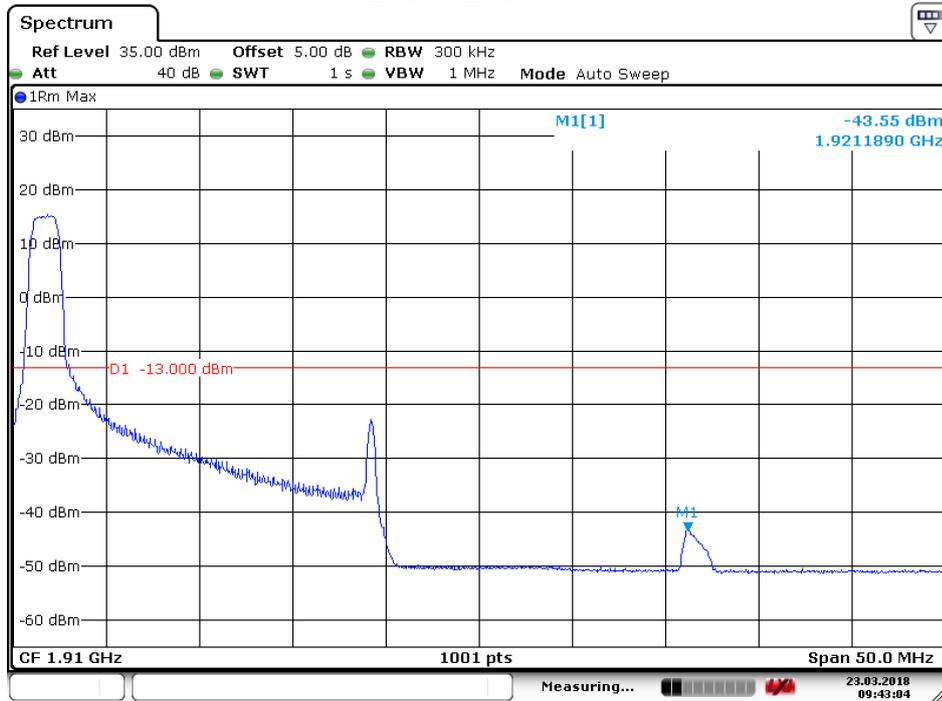


Date: 23.MAR.2018 08:45:01



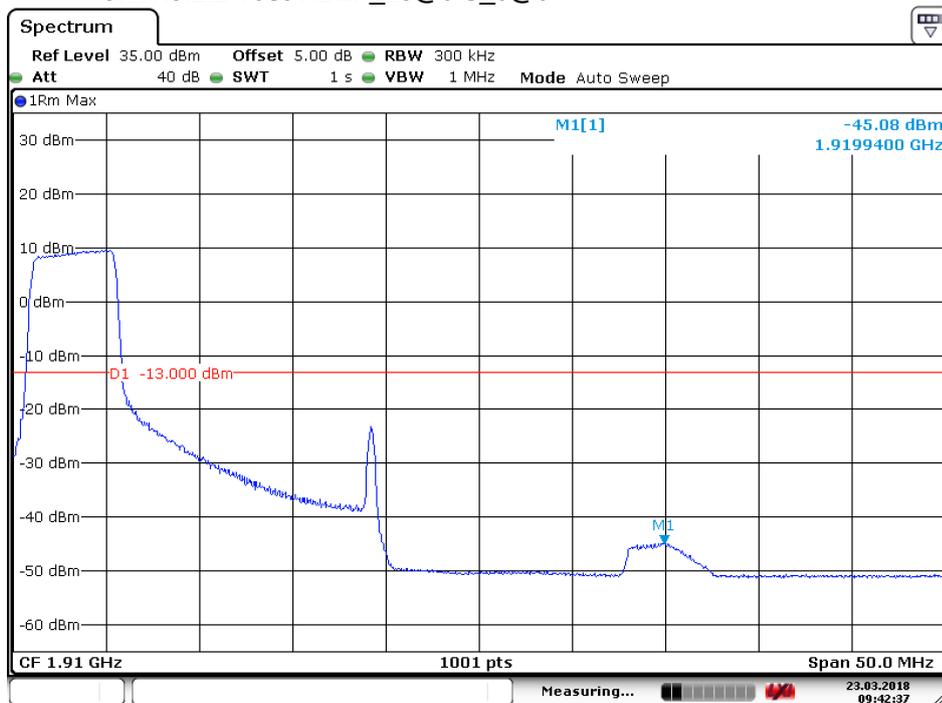
5.1.1.3.2 Test Channel = HCH

5.1.1.3.2.1 Test RB=P\_8@0 S\_0@0



Date: 23.MAR.2018 09:43:04

5.1.1.3.2.2 Test RB=P\_25@0 S\_0@0



Date: 23.MAR.2018 09:42:38



5.1.1.3.2.3 Test RB=P\_100@0 S\_25@0

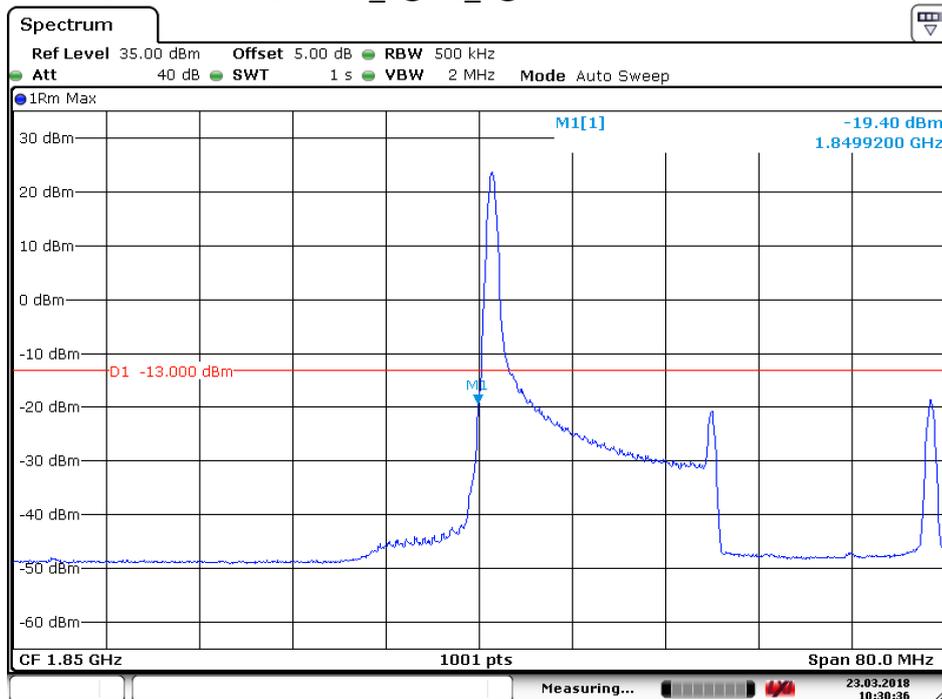


Date: 23.MAR.2018 09:40:22

5.1.1.4 Test Mode = LTE/TM1 100RB+100RB

5.1.1.4.1 Test Channel = LCH

5.1.1.4.1.1 Test RB=P\_1@0 S\_0@0



Date: 23.MAR.2018 10:30:36

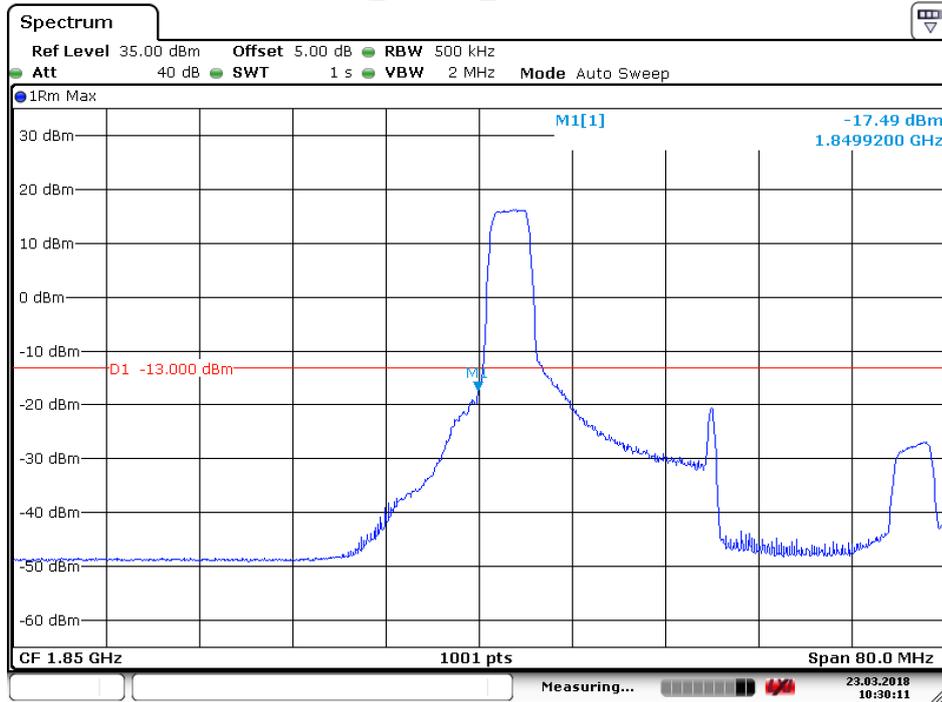
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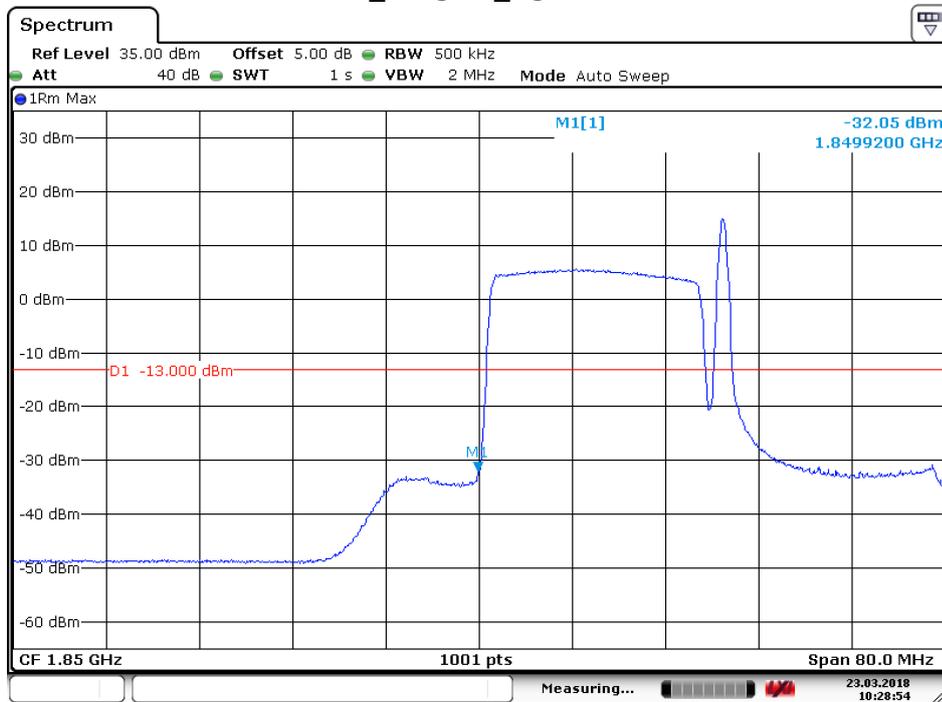


5.1.1.4.1.4 Test RB=P\_18@0 S\_0@0



Date: 23.MAR.2018 10:30:12

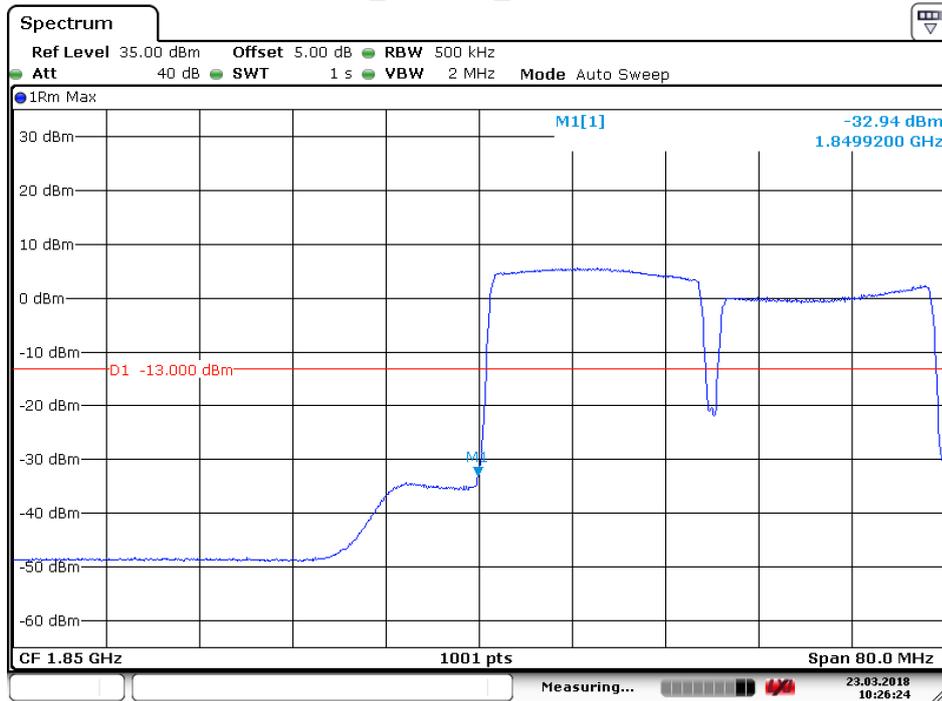
5.1.1.4.1.5 Test RB=P\_100@0 S\_0@0



Date: 23.MAR.2018 10:28:54



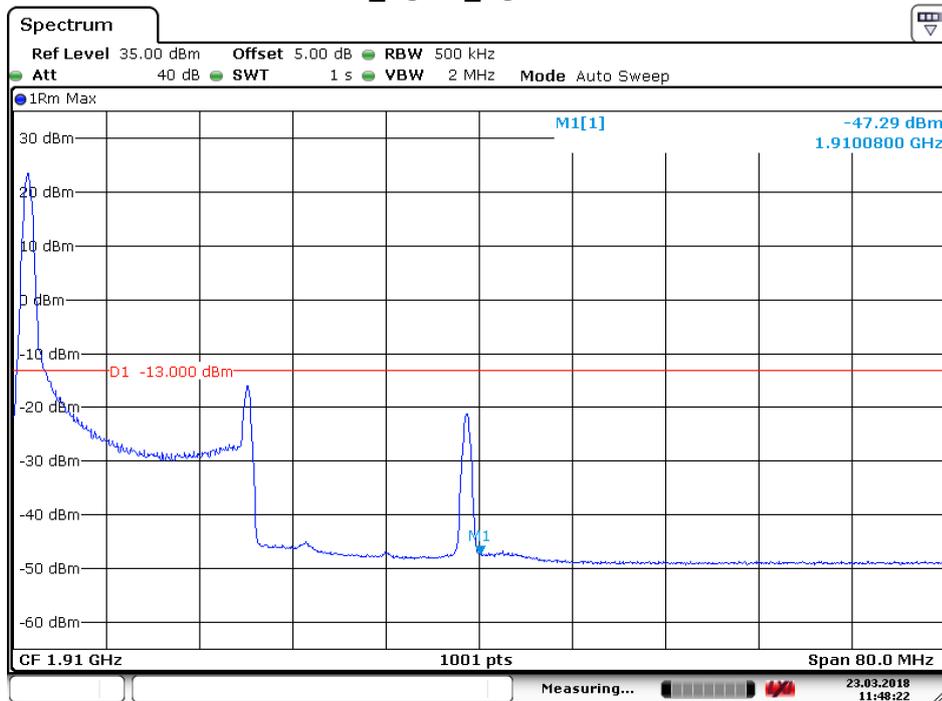
5.1.1.4.1.6 Test RB=P\_100@0 S\_100@0



Date: 23.MAR.2018 10:26:25

5.1.1.4.2 Test Channel = HCH

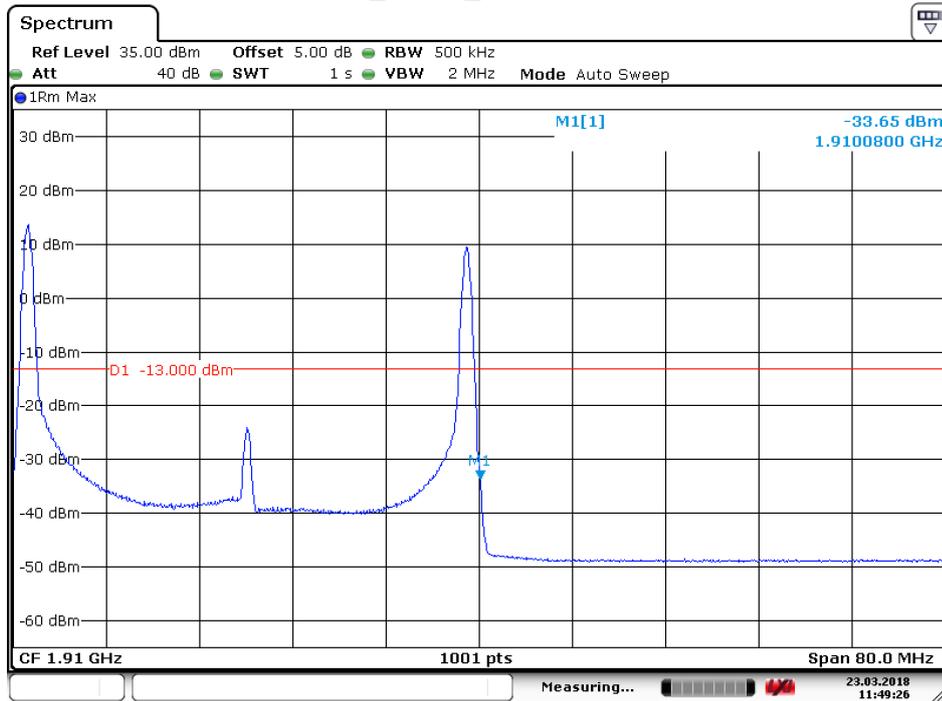
5.1.1.4.2.1 Test RB=P\_1@0 S\_0@0



Date: 23.MAR.2018 11:48:23

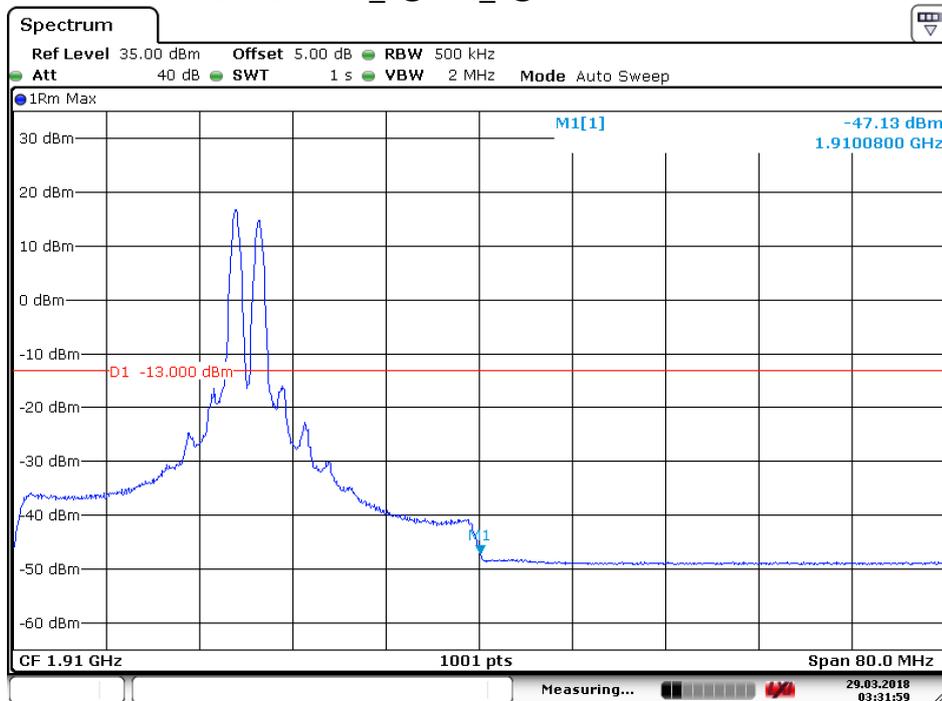


5.1.1.4.2.2 Test RB=P\_1@0 S\_1@99



Date: 23.MAR.2018 11:49:26

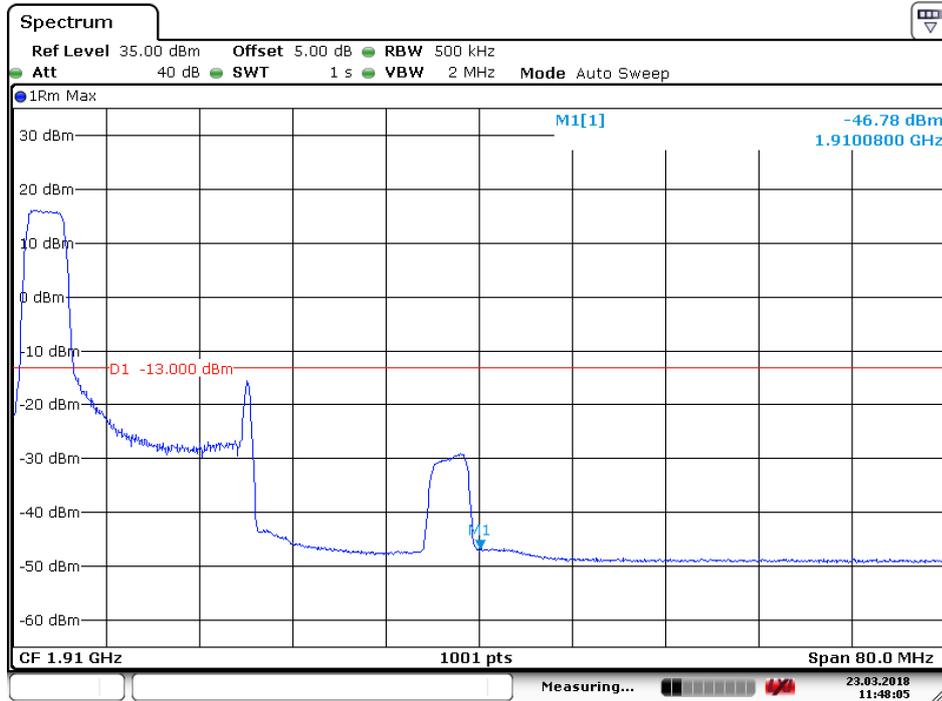
5.1.1.4.2.3 Test RB=P\_1@99 S\_1@0



Date: 29.MAR.2018 03:32:00

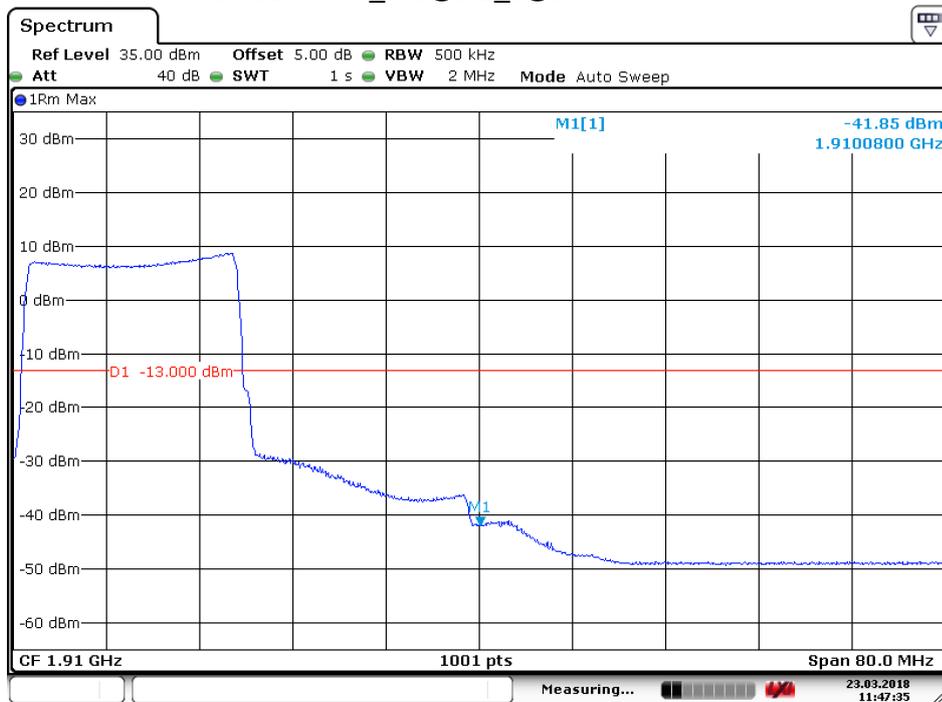


5.1.1.4.2.4 Test RB=P\_18@0 S\_0@0



Date: 23.MAR.2018 11:48:05

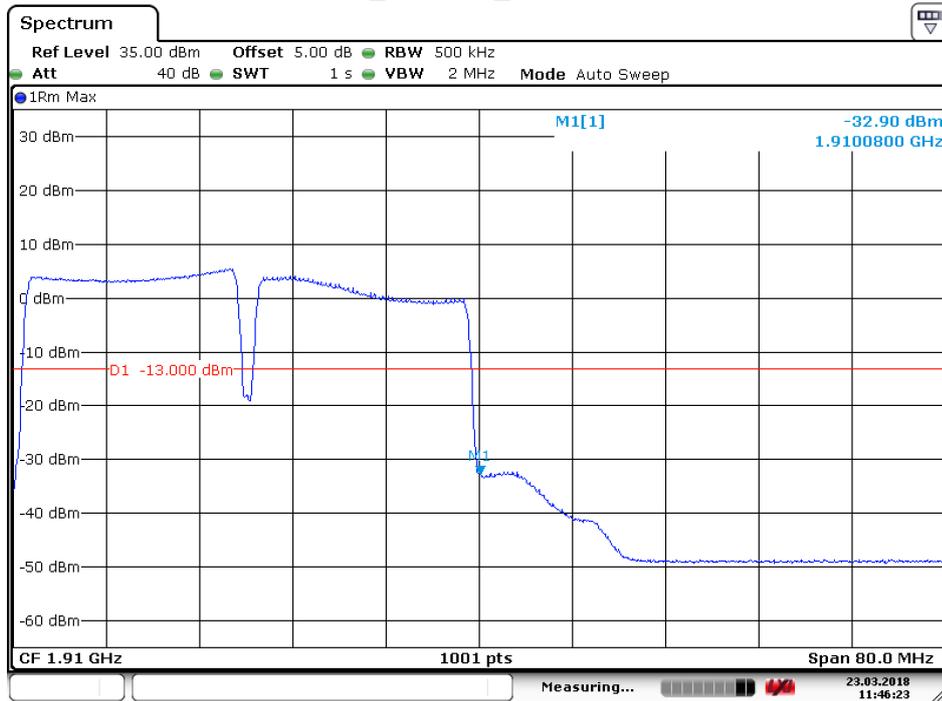
5.1.1.4.2.5 Test RB=P\_100@0 S\_0@0



Date: 23.MAR.2018 11:47:35



5.1.1.4.2.6 Test RB=P\_100@0 S\_100@0

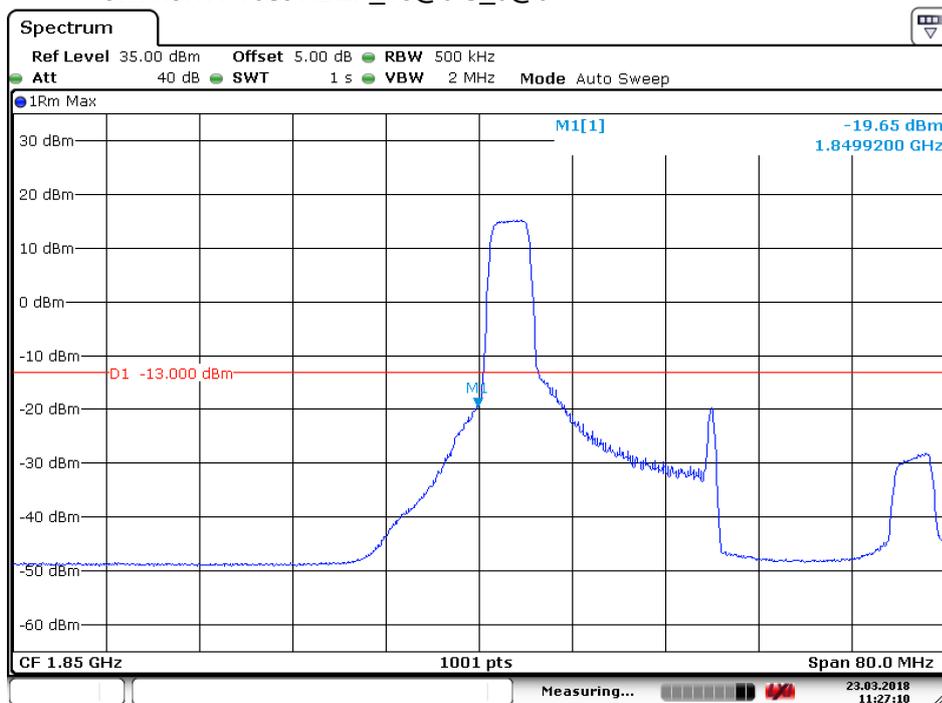


Date: 23.MAR.2018 11:46:23

5.1.1.5 Test Mode = LTE/TM2 100RB+100RB

5.1.1.5.1 Test Channel = LCH

5.1.1.5.1.1 Test RB=P\_18@0 S\_0@0



Date: 23.MAR.2018 11:27:10

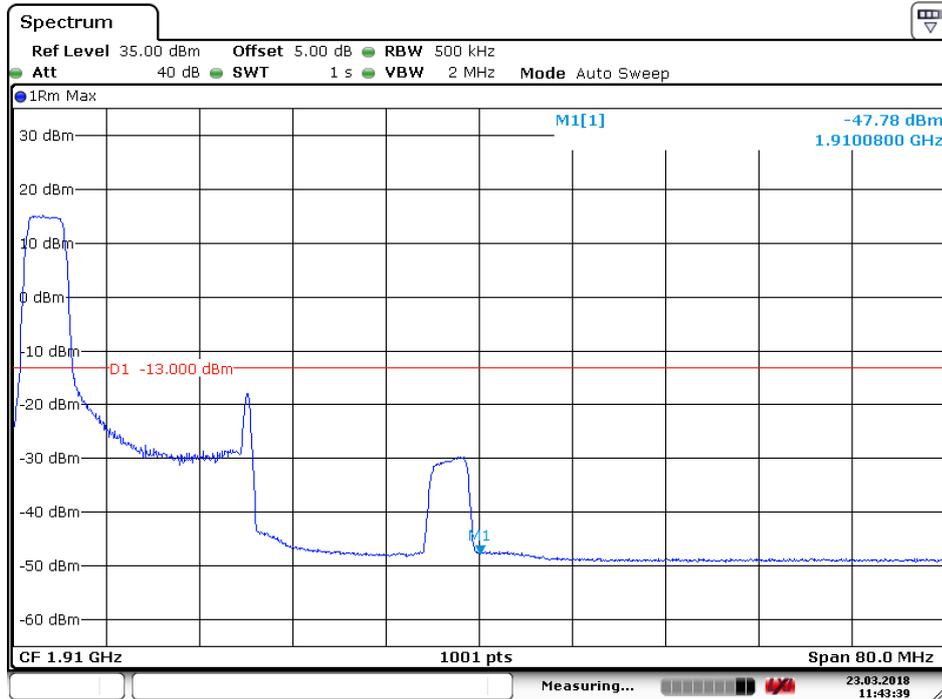
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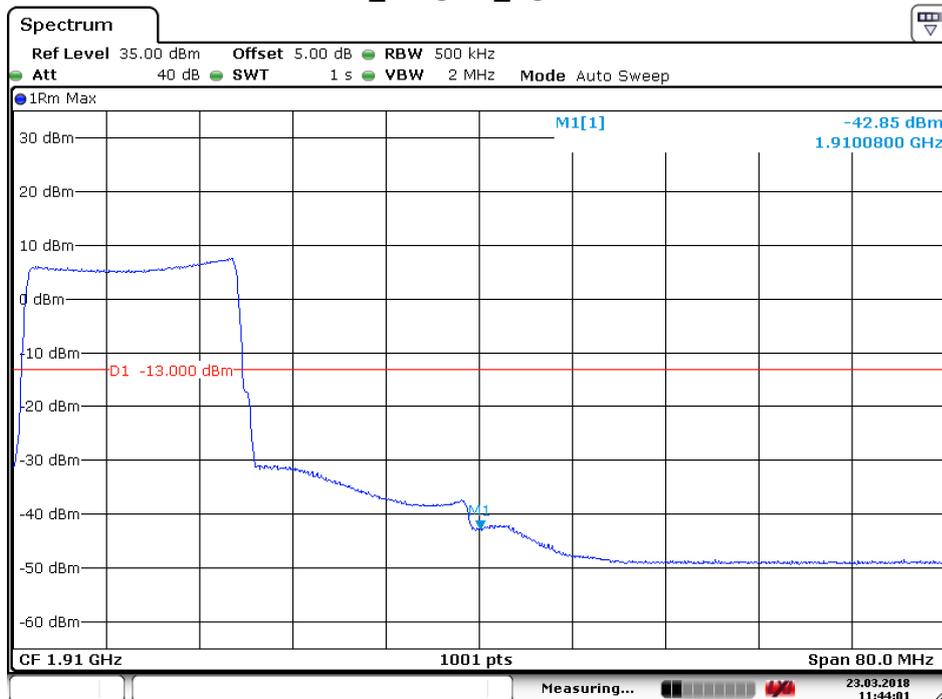
5.1.1.5.2 Test Channel = HCH

5.1.1.5.2.1 Test RB=P\_18@0 S\_0@0



Date: 23.MAR.2018 11:43:39

5.1.1.5.2.2 Test RB=P\_100@0 S\_0@0

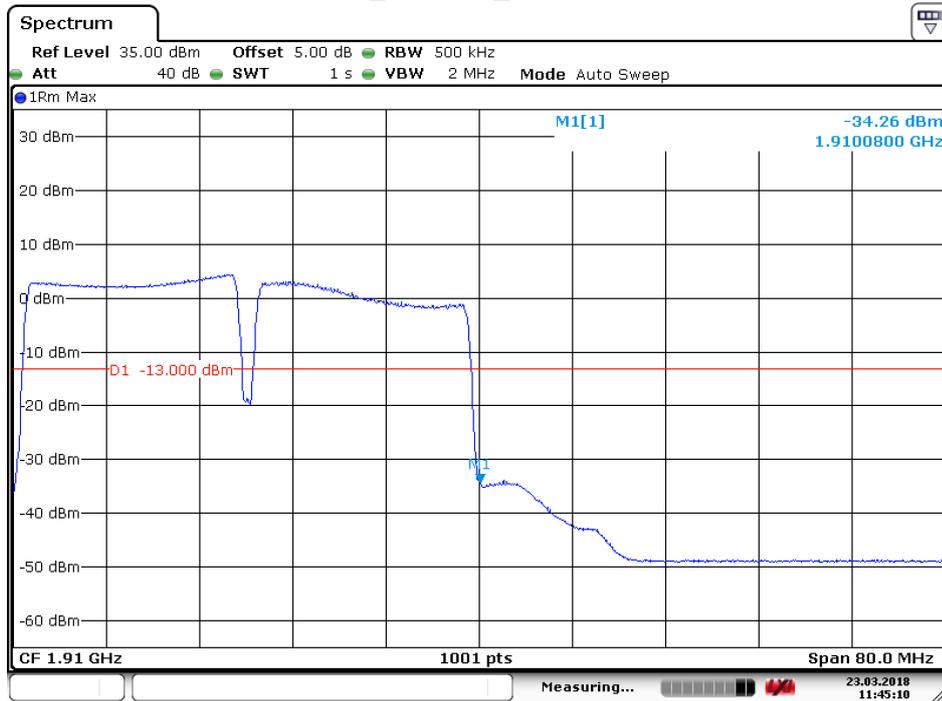


Date: 23.MAR.2018 11:44:01





5.1.1.5.2.3 Test RB=P\_100@0 S\_100@0

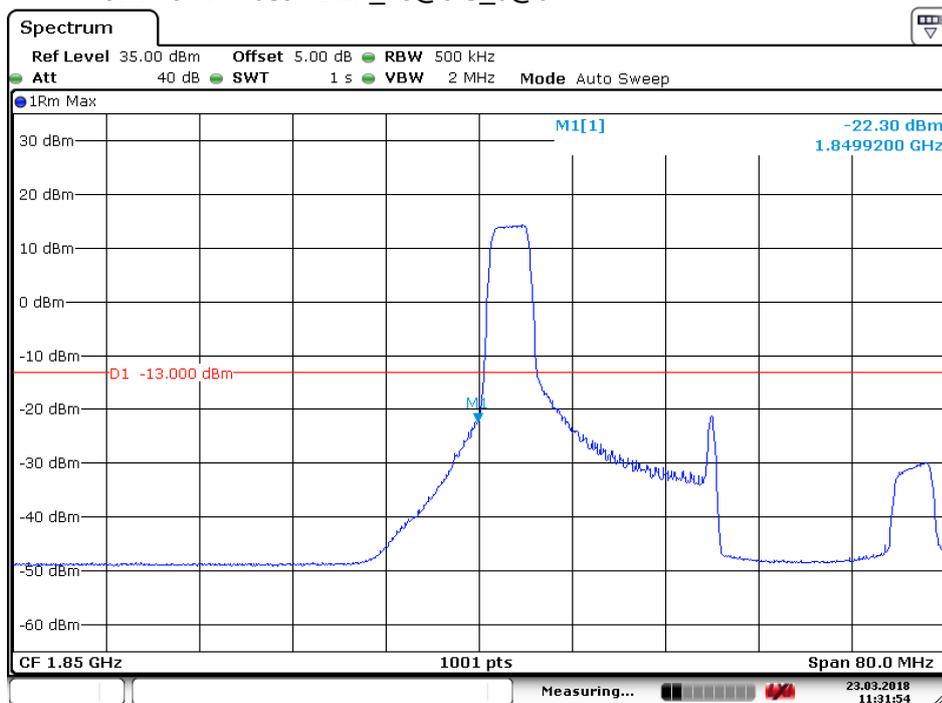


Date: 23.MAR.2018 11:45:10

5.1.1.6 Test Mode = LTE/TM3 100RB+100RB

5.1.1.6.1 Test Channel = LCH

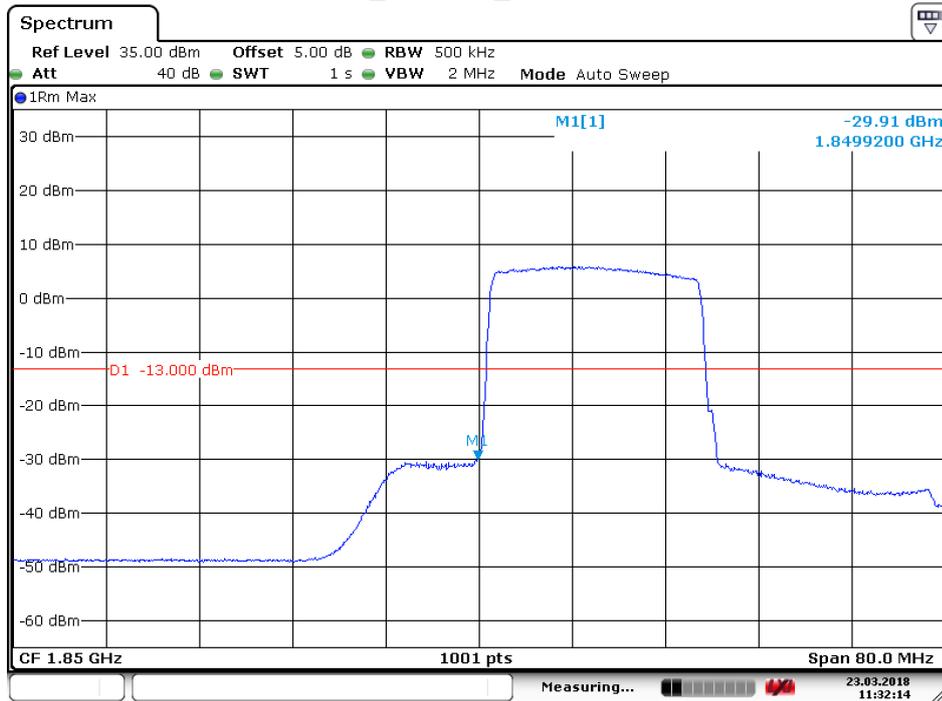
5.1.1.6.1.1 Test RB=P\_18@0 S\_0@0



Date: 23.MAR.2018 11:31:54

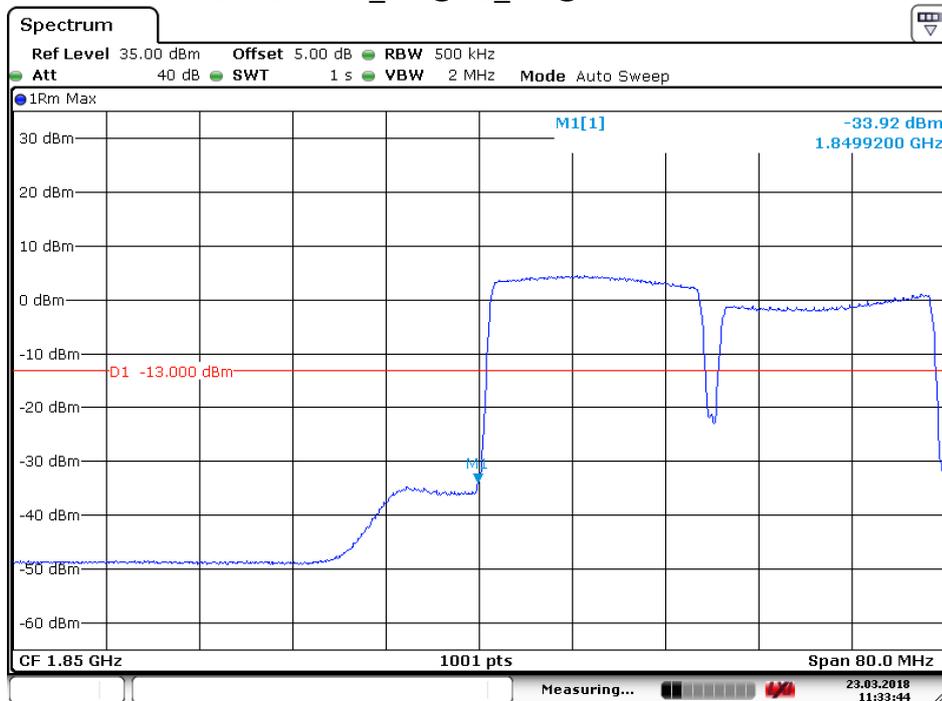


5.1.1.6.1.2 Test RB=P\_100@0 S\_0@0



Date: 23.MAR.2018 11:32:14

5.1.1.6.1.3 Test RB=P\_100@0 S\_100@0



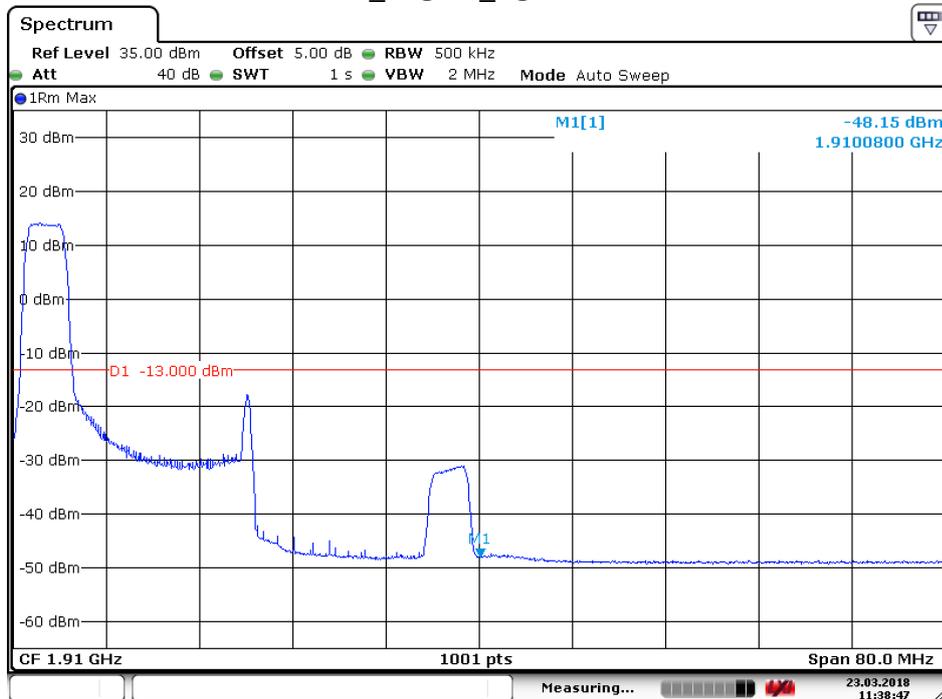
Date: 23.MAR.2018 11:33:44

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5.1.1.6.2 Test Channel = HCH

5.1.1.6.2.1 Test RB=P\_18@0 S\_0@0



Date: 23.MAR.2018 11:38:48

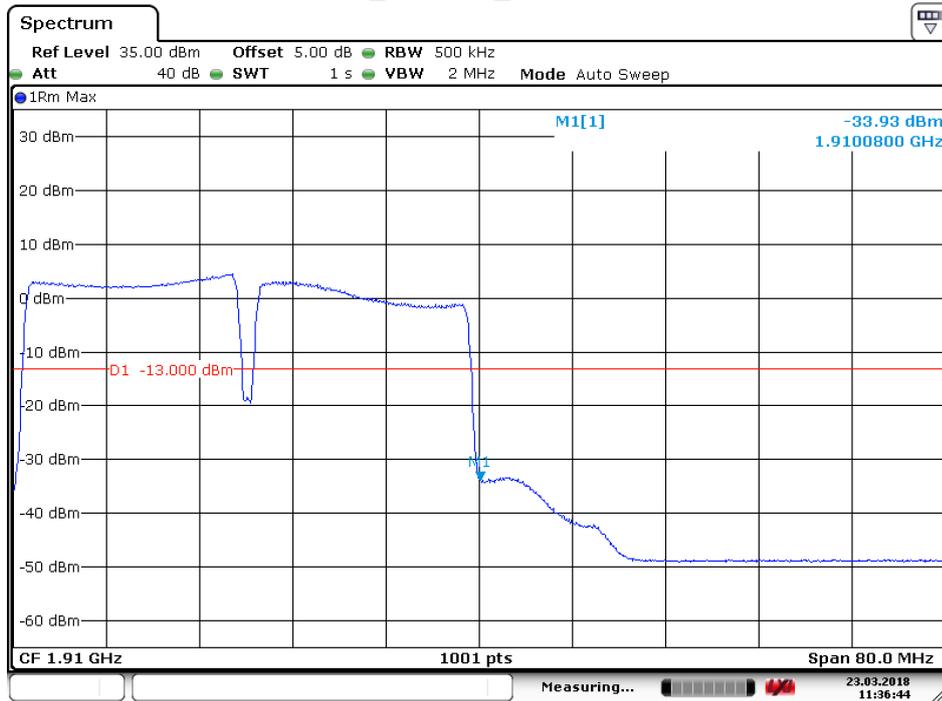
5.1.1.6.2.2 Test RB=P\_100@0 S\_0@0



Date: 23.MAR.2018 11:38:20



5.1.1.6.2.3 Test RB=P\_100@0 S\_100@0



Date: 23.MAR.2018 11:36:44



## 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.

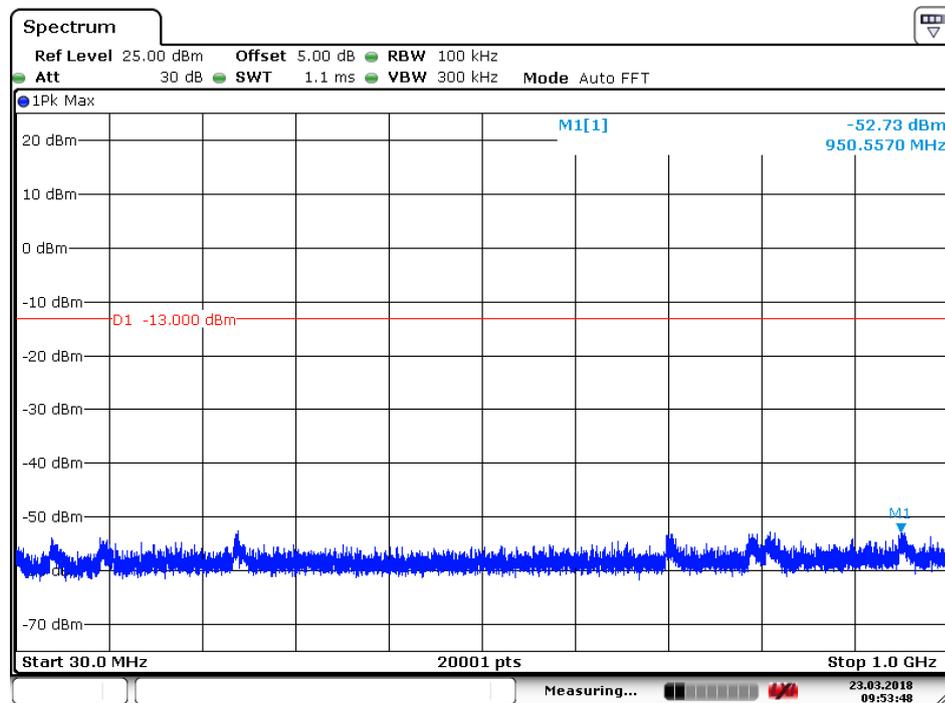
Part I - Test Plots

### 6.1 For LTE

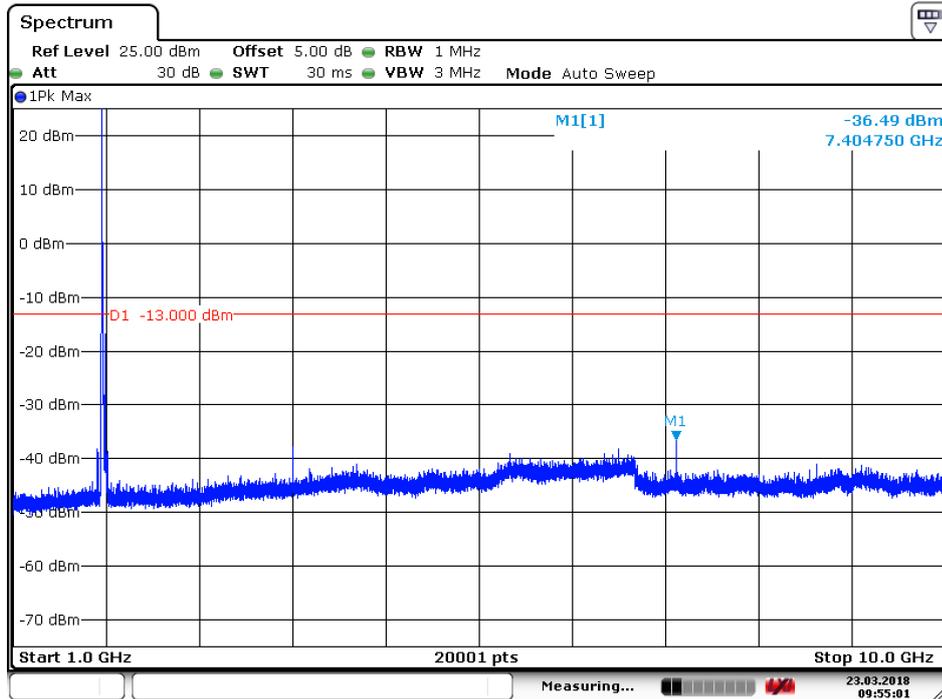
#### 6.1.1 Test Band = LTE Band CA\_2C

##### 6.1.1.1 Test Mode = LTE / TM1 100RB+25RB P\_1RB@0/S\_0RB@0

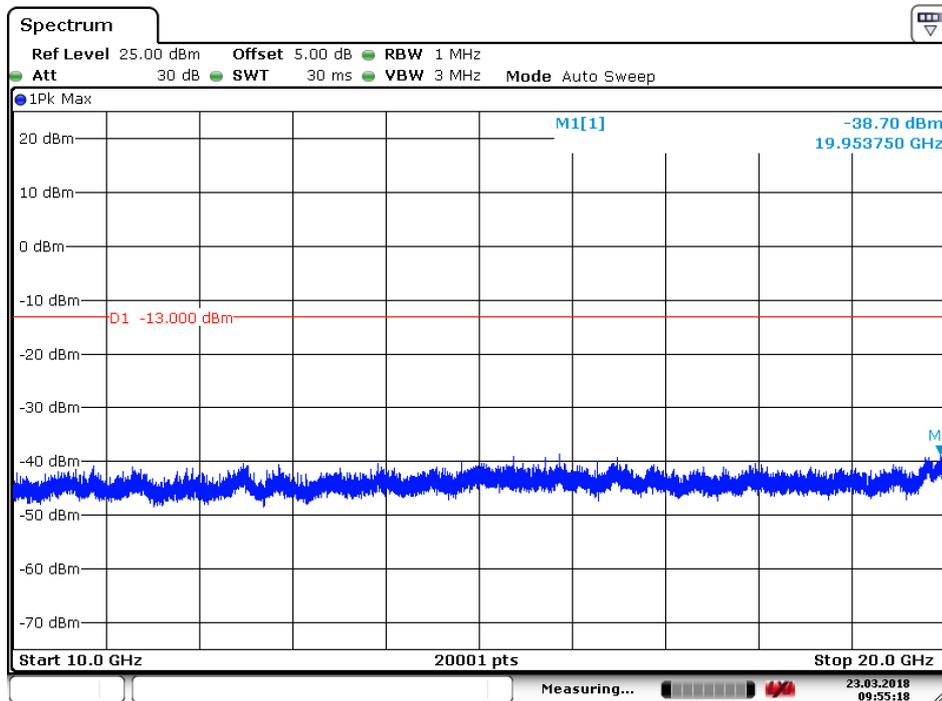
##### 6.1.1.1.1 Test Channel = LCH



Date: 23.MAR.2018 09:53:48



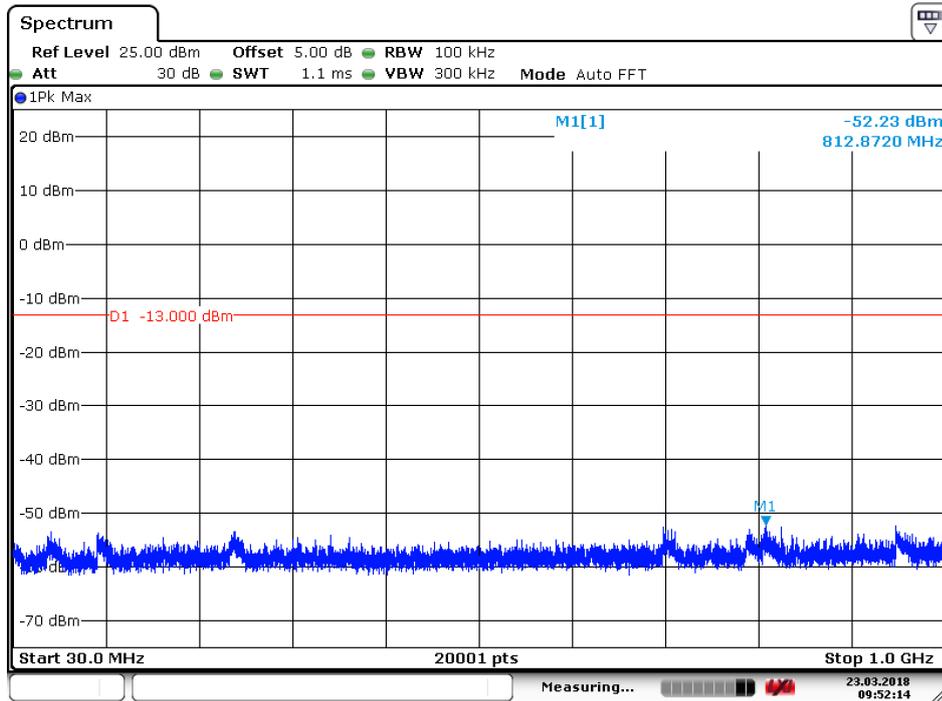
Date: 23.MAR.2018 09:55:01



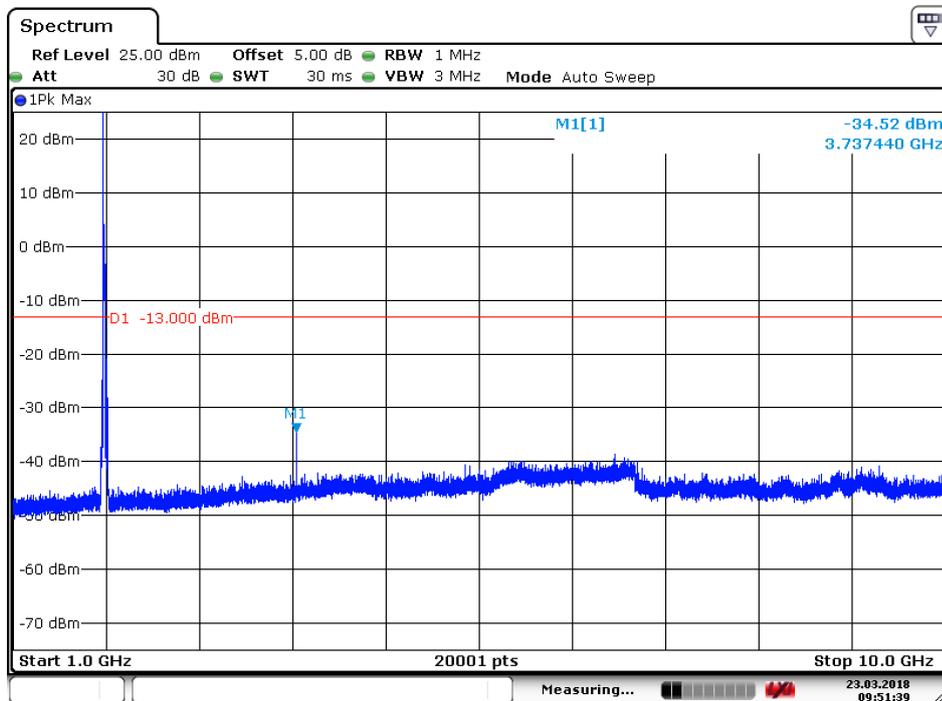
Date: 23.MAR.2018 09:55:18



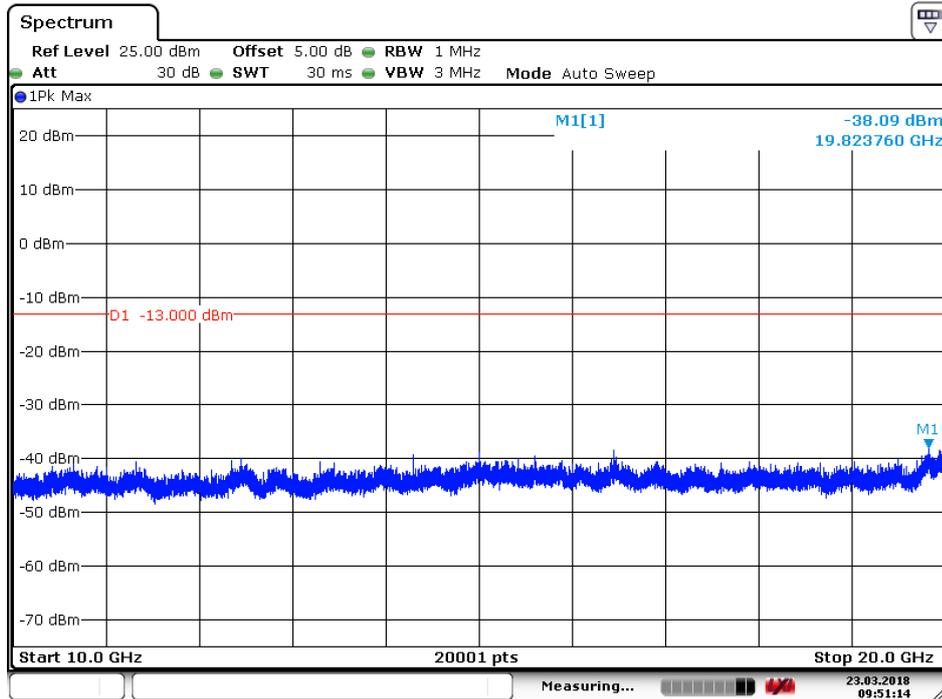
6.1.1.1.2 Test Channel = MCH



Date: 23.MAR.2018 09:52:15

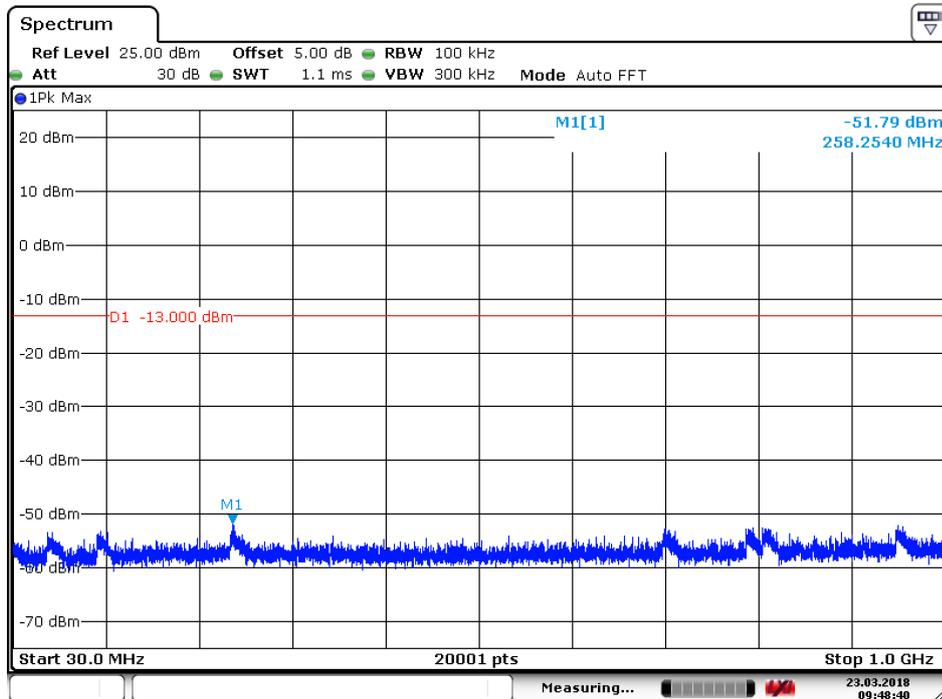


Date: 23.MAR.2018 09:51:39



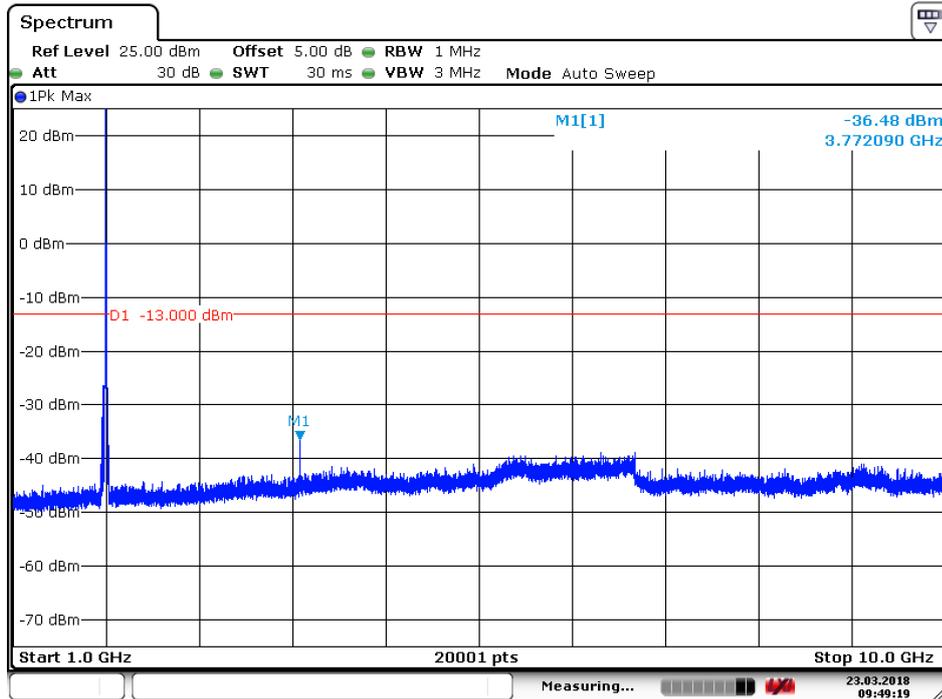
Date: 23.MAR.2018 09:51:14

### 6.1.1.1.3 Test Channel = HCH

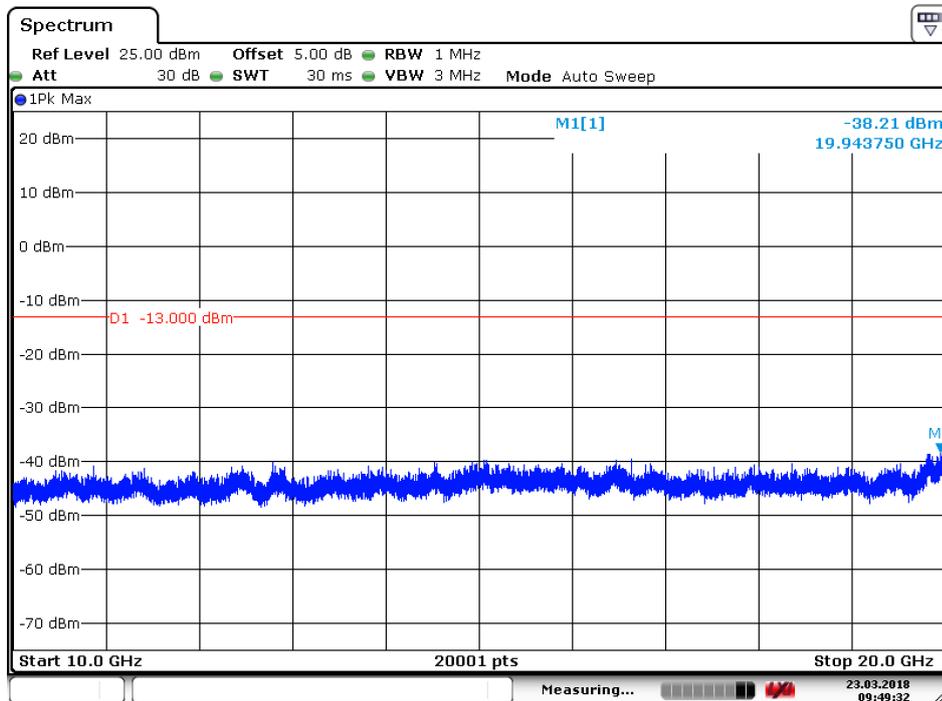


Date: 23.MAR.2018 09:48:41





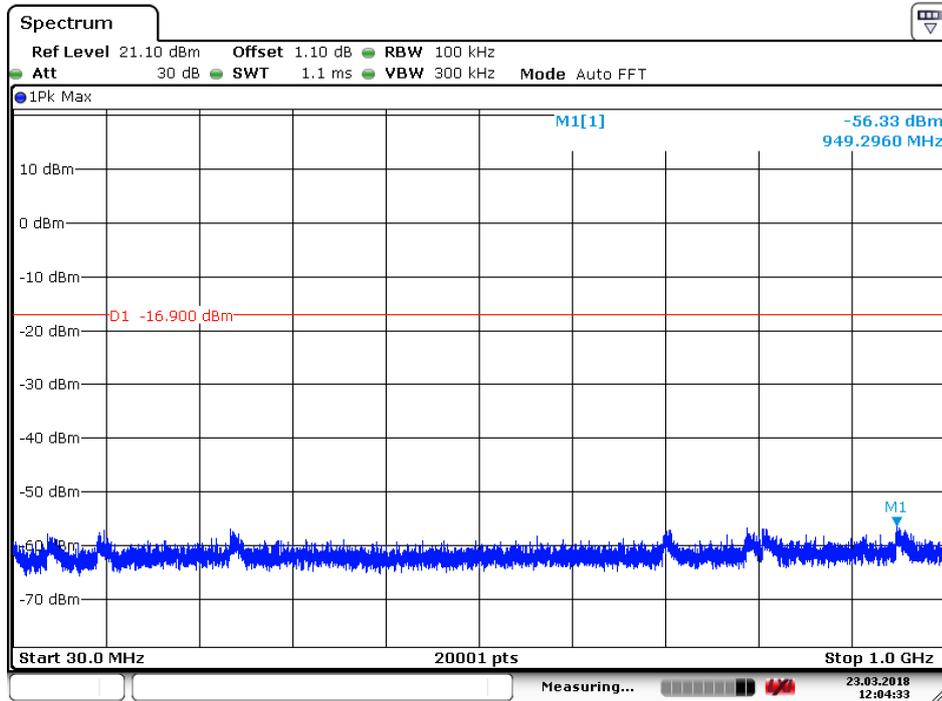
Date: 23.MAR.2018 09:49:19



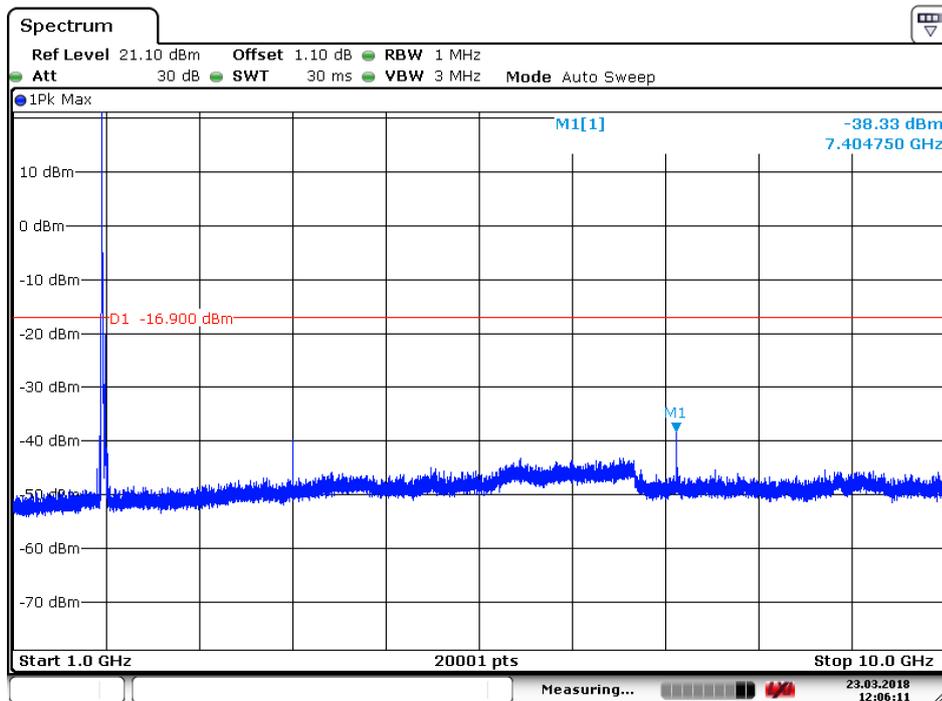
Date: 23.MAR.2018 09:49:33



6.1.1.2 Test Mode = LTE / TM1 100RB+100RB P\_1RB@0/S\_0RB@0  
6.1.1.2.1 Test Channel = LCH

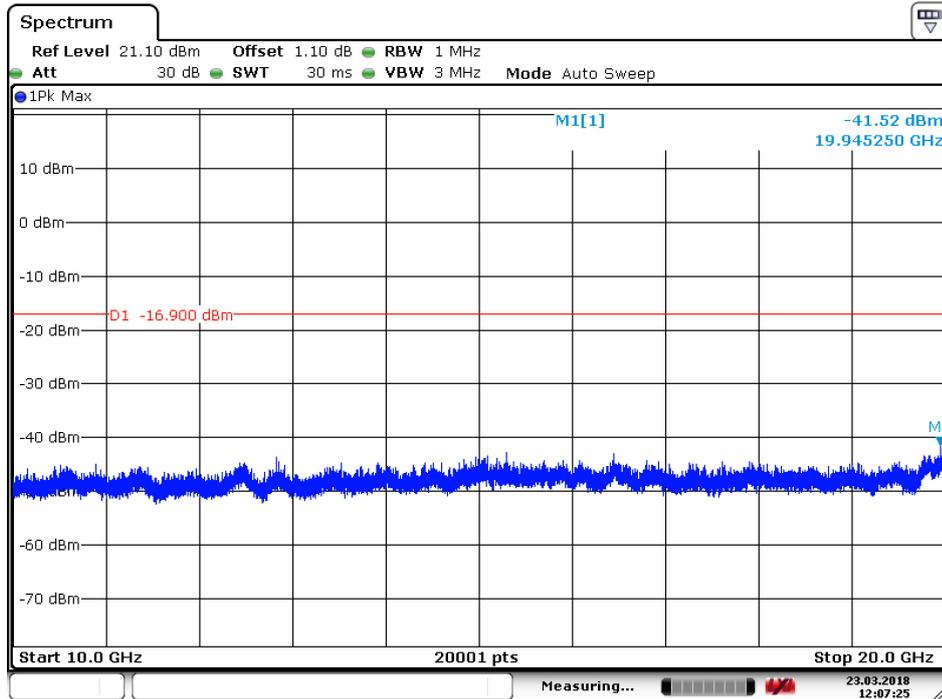


Date: 23.MAR.2018 12:04:33



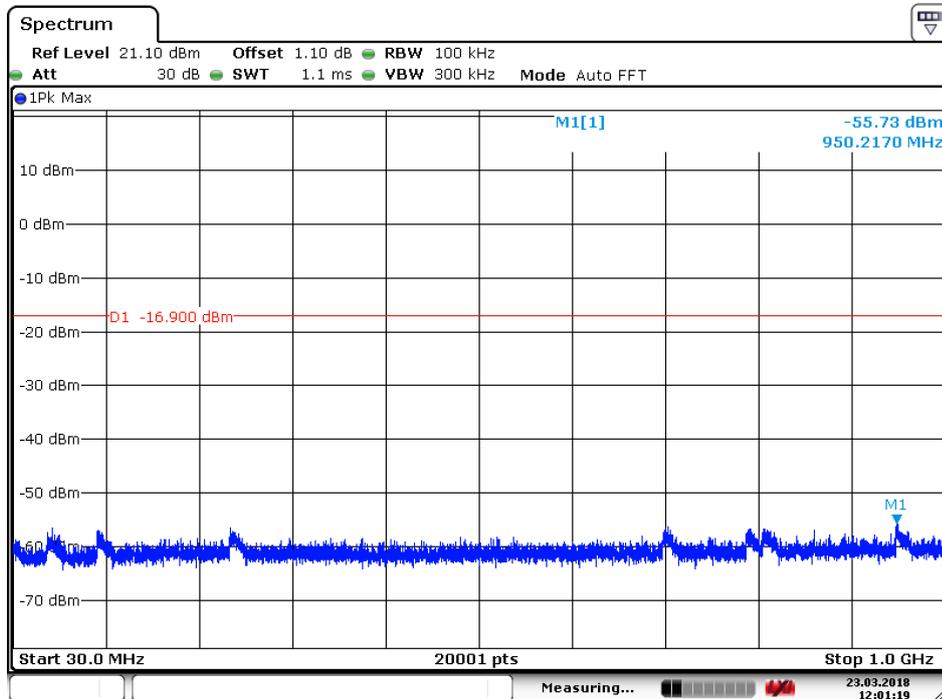
Date: 23.MAR.2018 12:06:12

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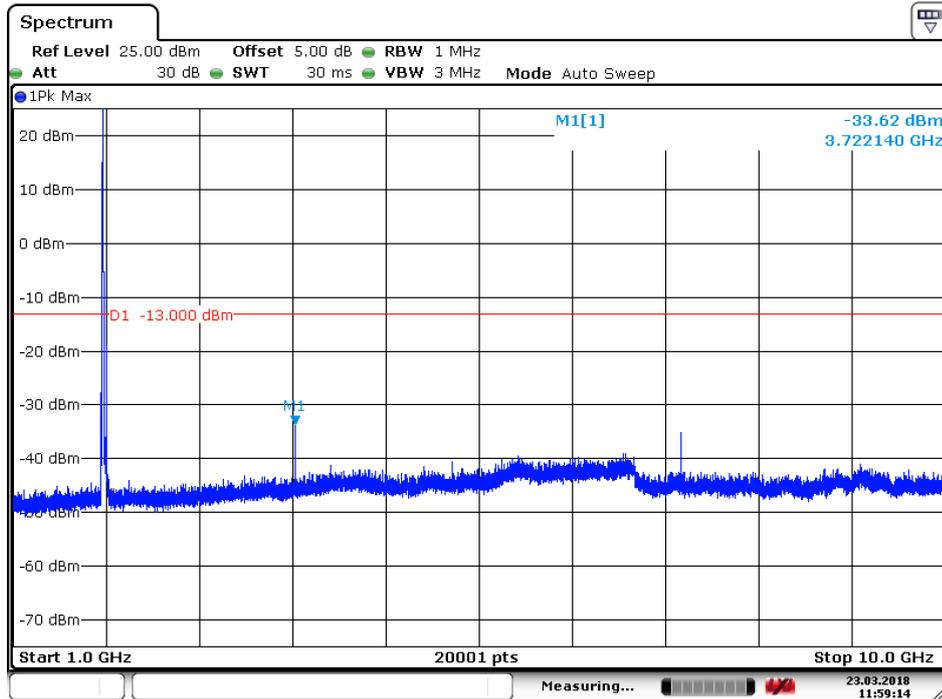


Date: 23.MAR.2018 12:07:25

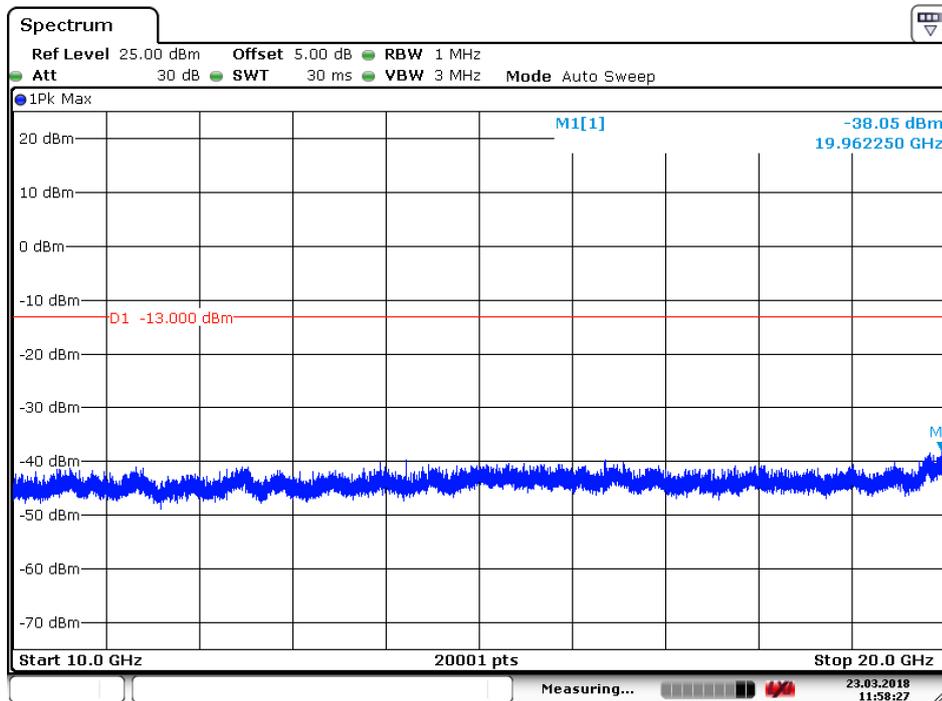
### 6.1.1.2.2 Test Channel = MCH



Date: 23.MAR.2018 12:01:19



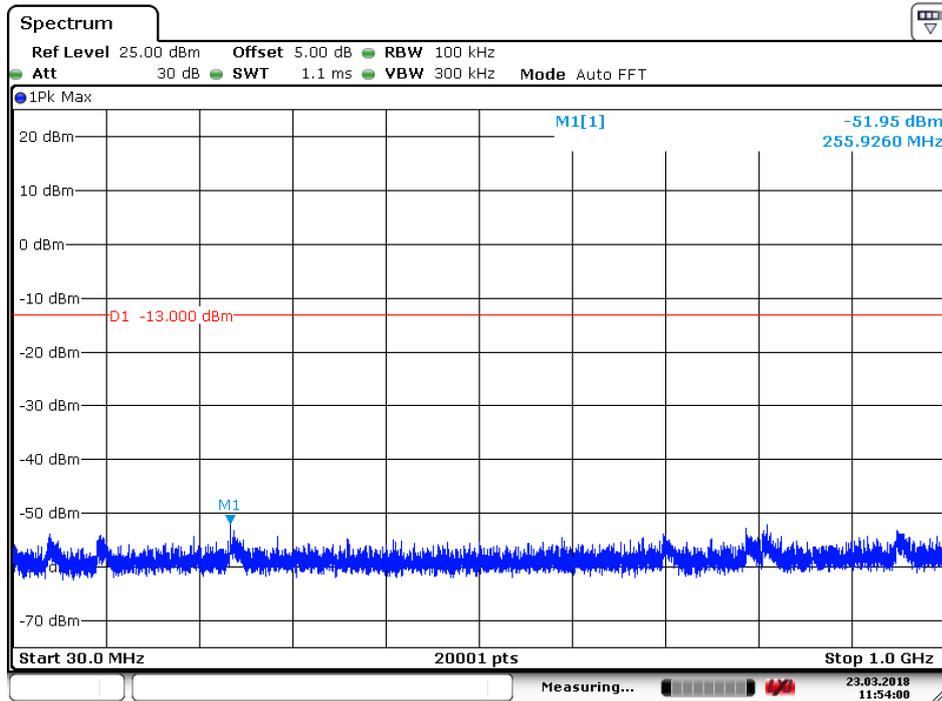
Date: 23.MAR.2018 11:59:14



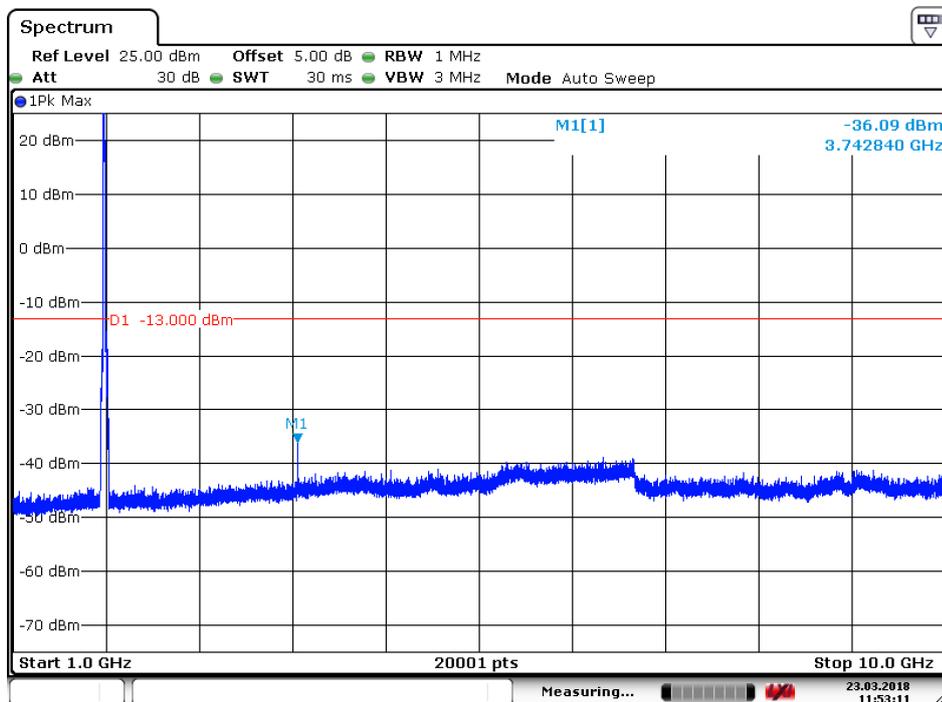
Date: 23.MAR.2018 11:58:27



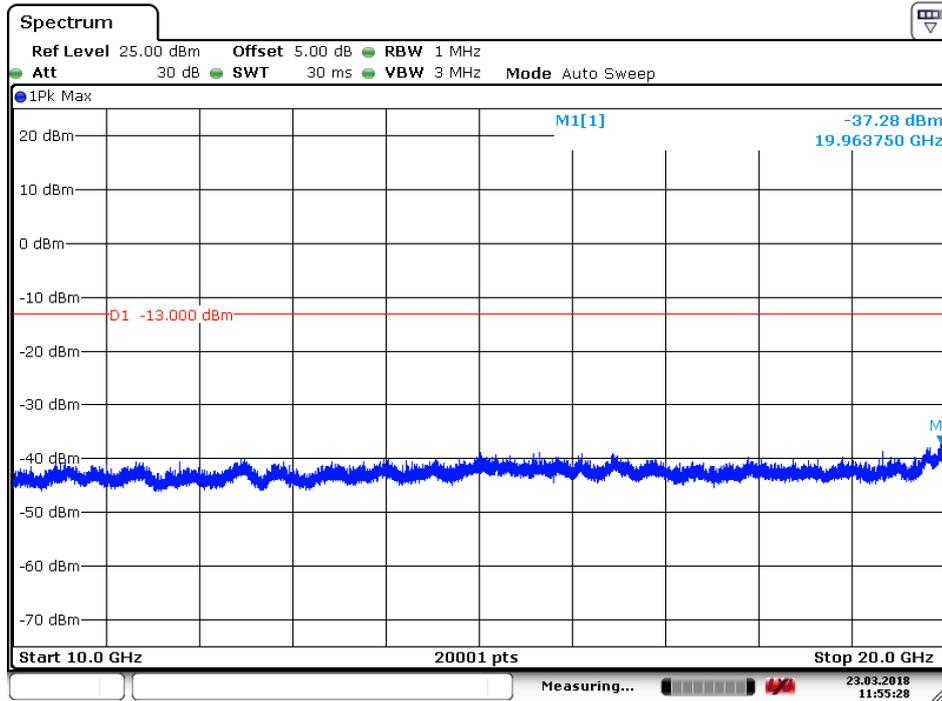
6.1.1.2.3 Test Channel = HCH



Date: 23.MAR.2018 11:54:00



Date: 23.MAR.2018 11:53:12



Date: 23.MAR.2018 11:55:28

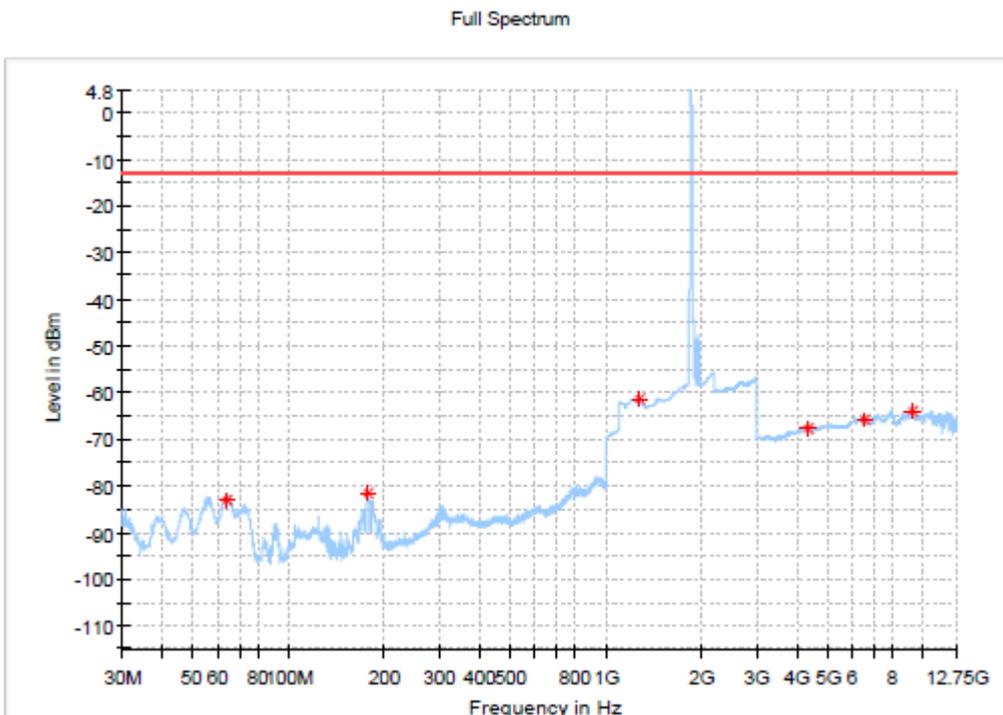
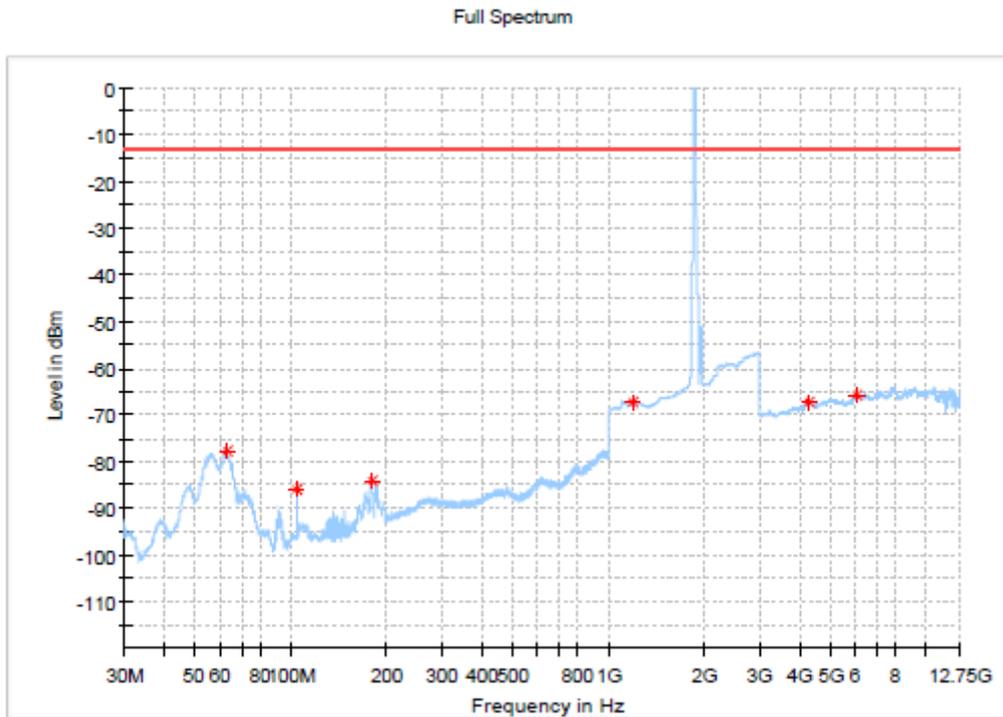
## 7 Field Strength of Spurious Radiation

### 7.1 For LTE

#### 7.1.1 Test Band = LTE Band CA\_2C\_Main Antenna

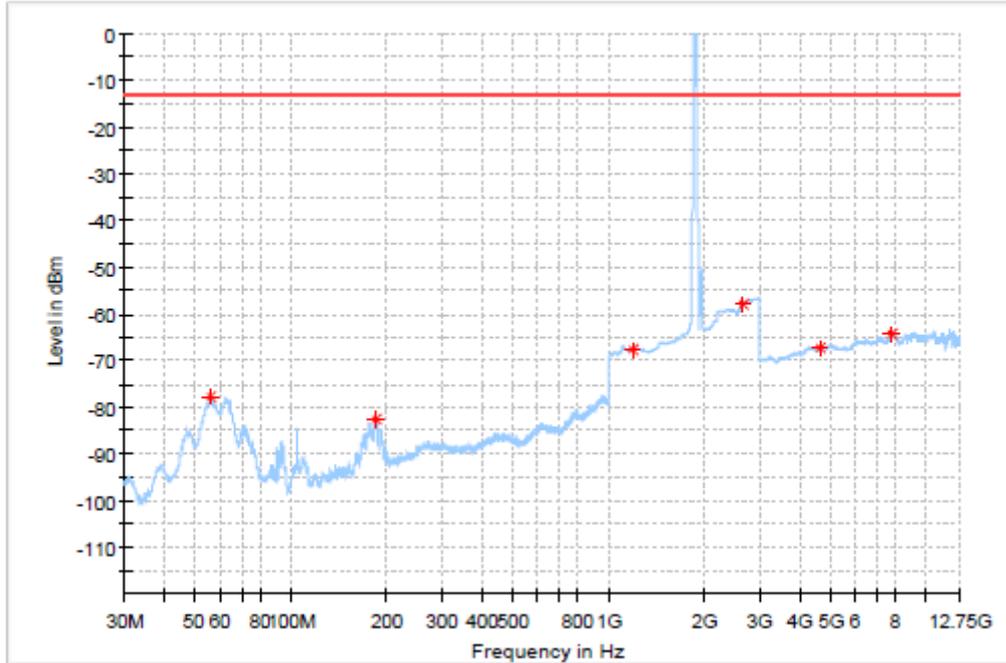
##### 7.1.1.1 Test Mode =LTE/TM1 100RB+100RB

##### 7.1.1.1.1 Test Channel = LCH

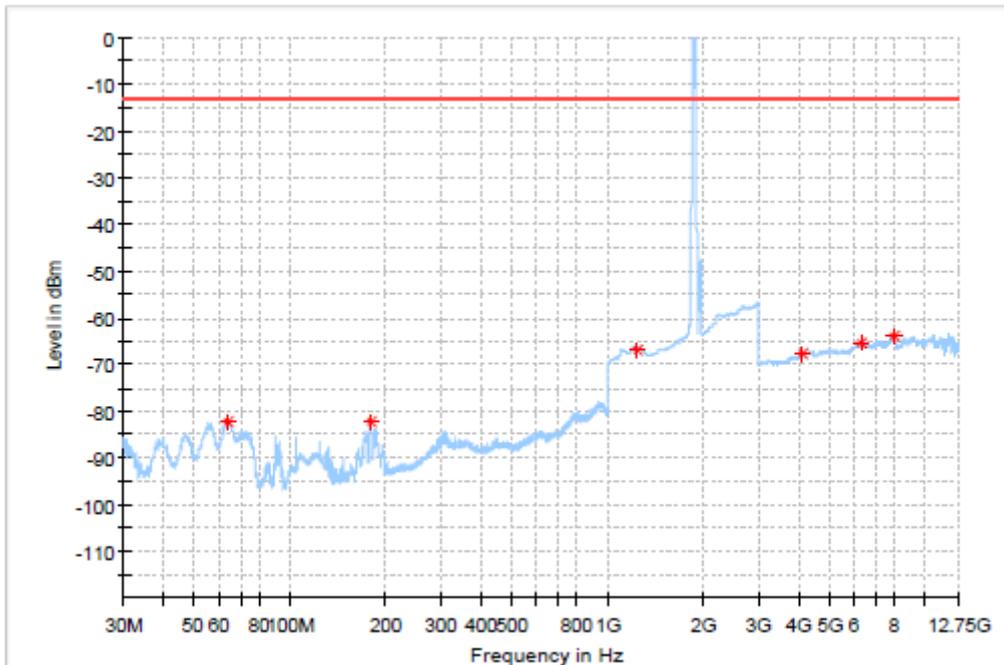


7.1.1.1.2 Test Channel = MCH

Full Spectrum



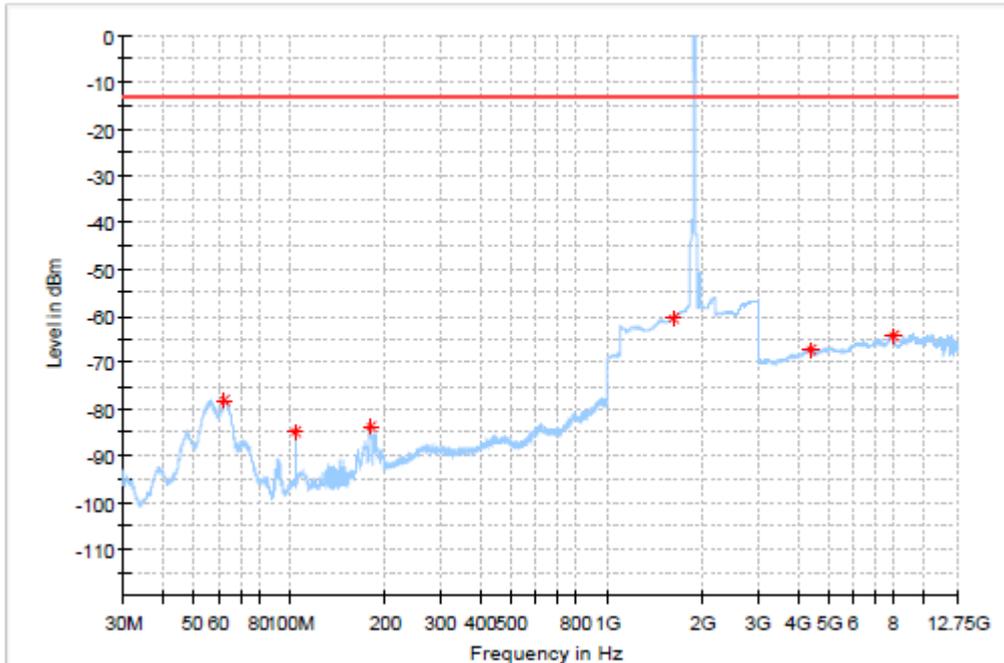
Full Spectrum



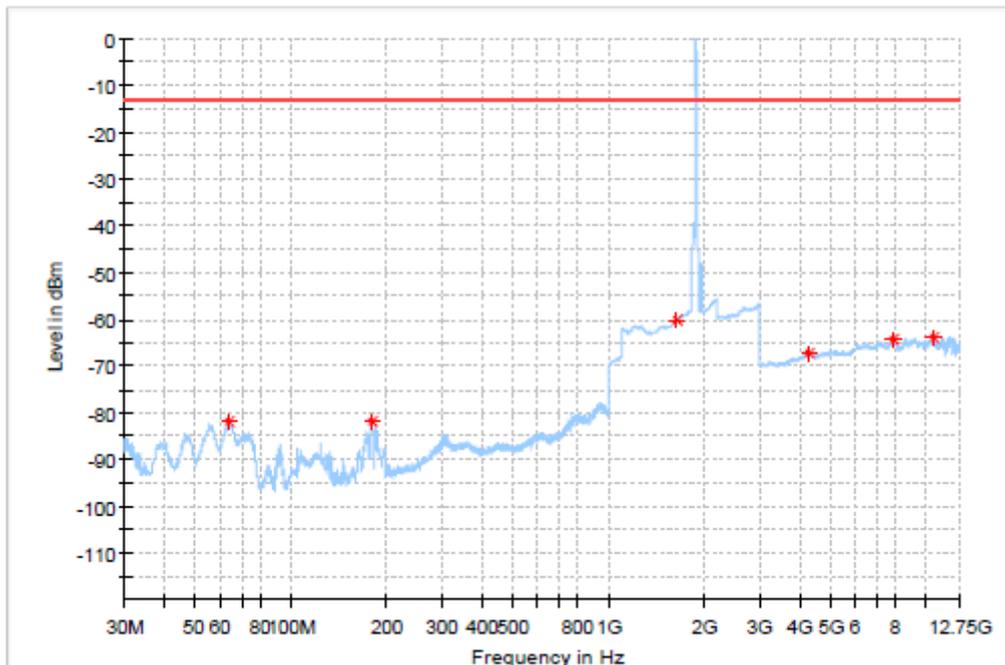


**7.1.1.1.3 Test Channel = HCH**

Full Spectrum



Full Spectrum

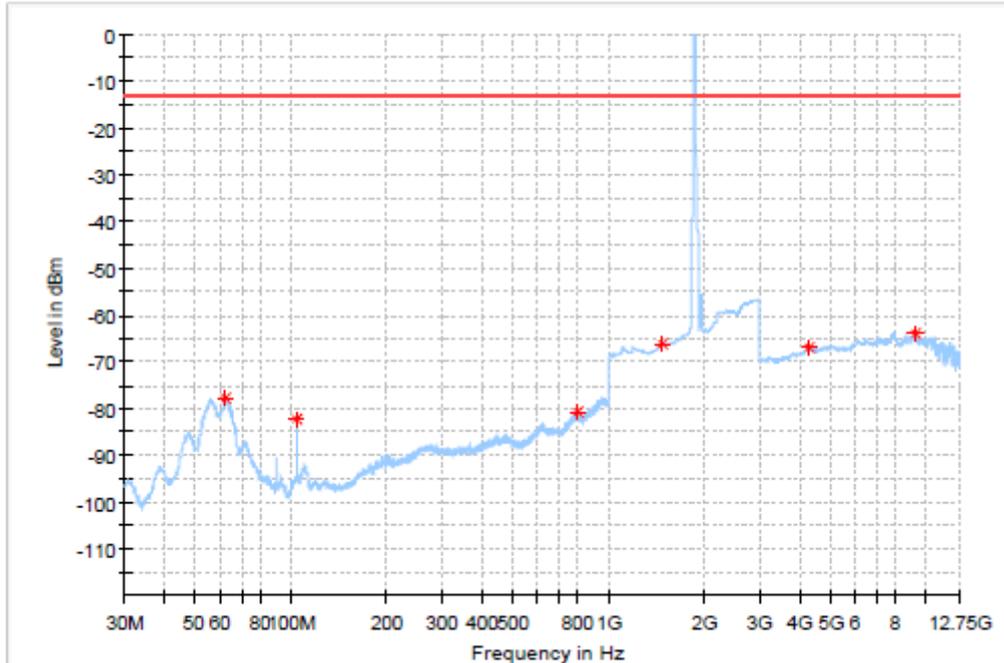


**7.1.2 Test Band = LTE Band CA\_2C\_Secondary Antenna**

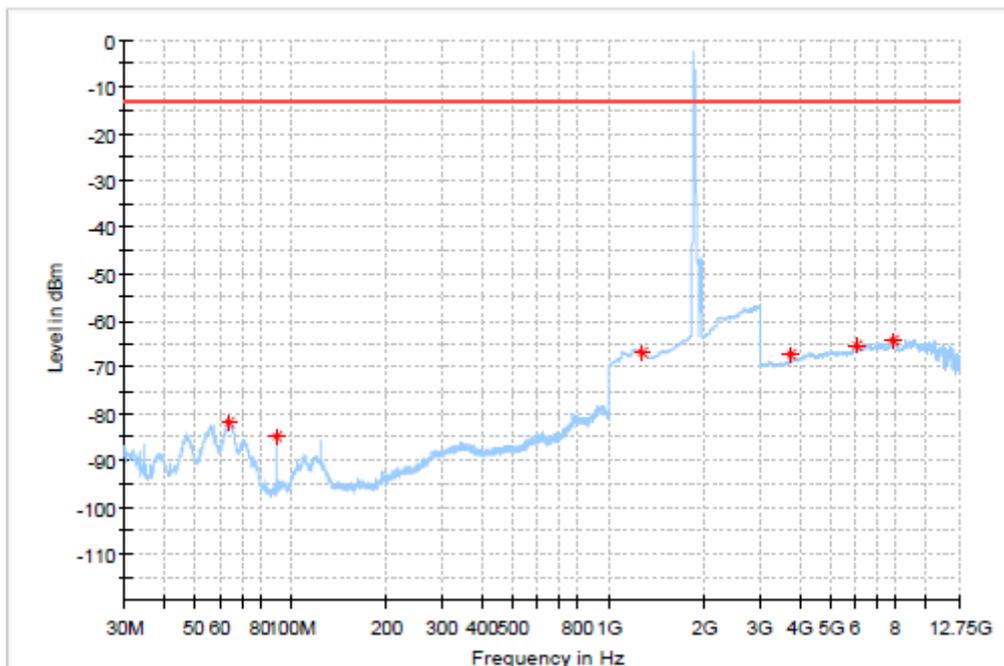
**7.1.2.1 Test Mode =LTE/TM1 100RB+100RB**

**7.1.2.1.1 Test Channel = LCH**

Full Spectrum

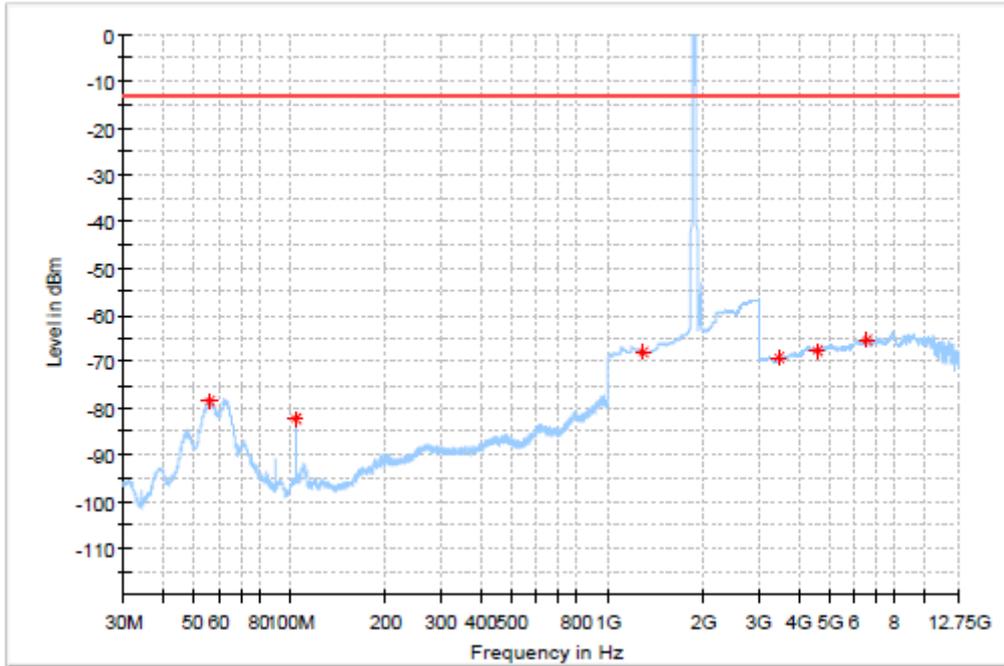


Full Spectrum

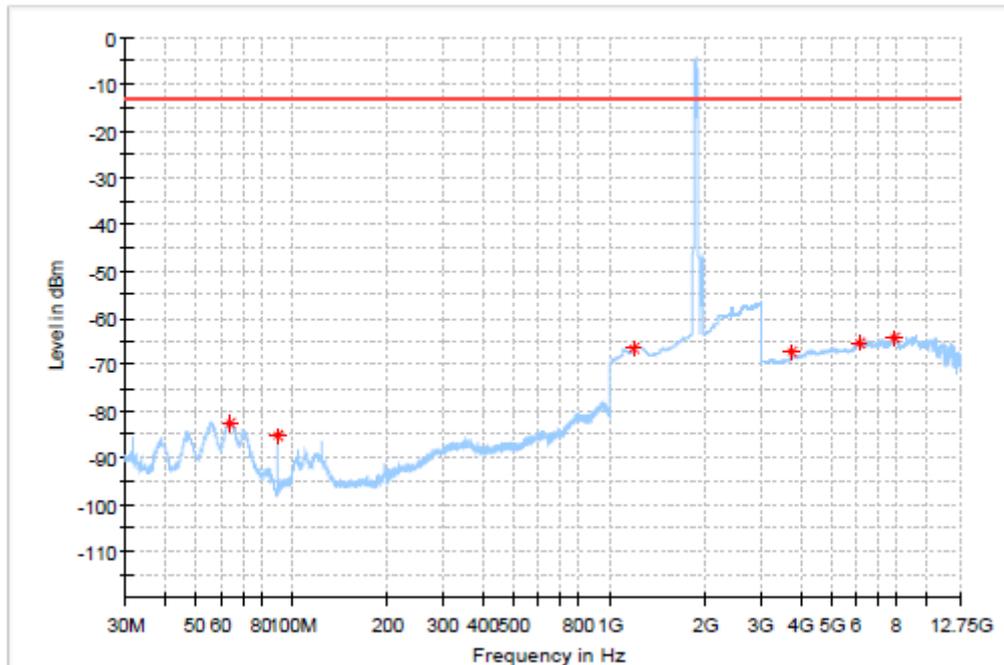


7.1.2.1.2 Test Channel = MCH

Full Spectrum

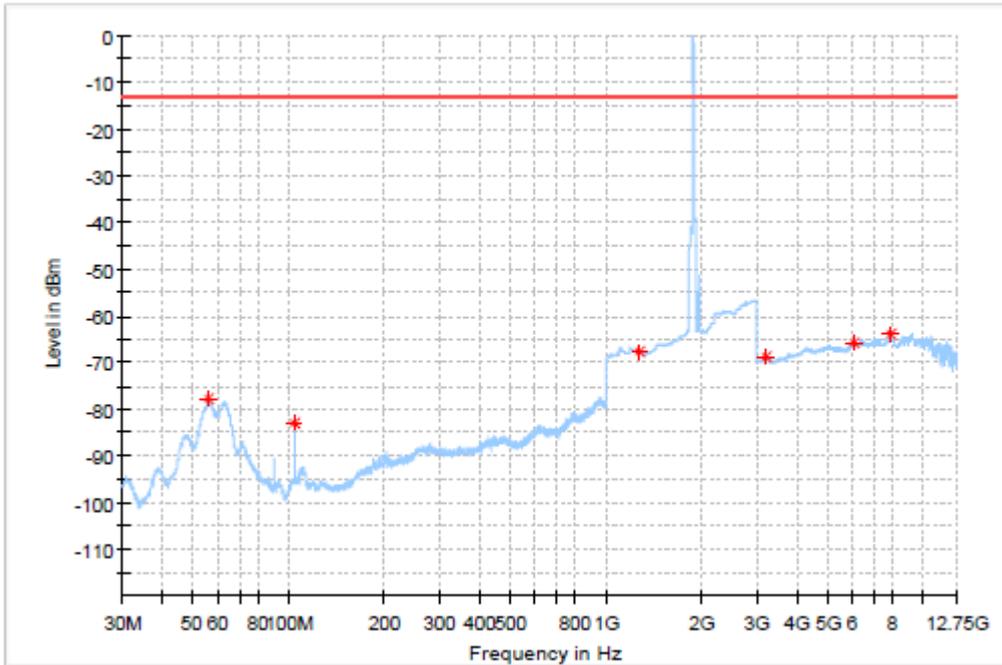


Full Spectrum

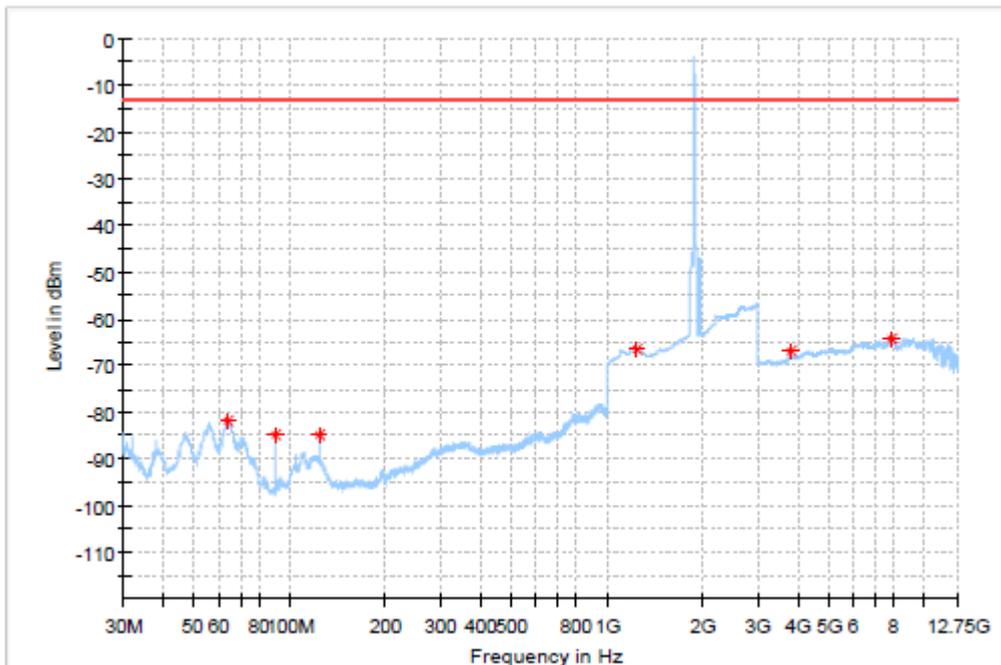


**7.1.2.1.3 Test Channel = HCH**

Full Spectrum



Full Spectrum



**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 combinations and all modulations, but only the worst case data presented in this report.

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## 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
CA_2C	LTE/TM1 100RB+25RB	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
	LTE/TM2 100RB+25RB	LCH	TN	VL	-4.28	-0.00230	PASS
				VN	-2.95	-0.00159	PASS
				VH	-5.16	-0.00277	PASS
		MCH	TN	VL	1.56	0.00083	PASS
				VN	-2.80	-0.00149	PASS
				VH	2.59	0.00138	PASS
		HCH	TN	VL	-3.08	-0.00162	PASS
				VN	-8.00	-0.00421	PASS
				VH	0.44	0.00023	PASS
	LTE/TM3 100RB+25RB	LCH	TN	VL	2.09	0.00112	PASS
				VN	-0.32	-0.00017	PASS
				VH	4.38	0.00235	PASS
		MCH	TN	VL	-2.83	-0.00151	PASS
				VN	0.43	0.00023	PASS
				VH	-3.54	-0.00188	PASS
		HCH	TN	VL	3.23	0.00170	PASS
				VN	1.45	0.00076	PASS
				VH	-2.05	-0.00108	PASS



Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM1 100RB+100RB	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
	LTE/TM2 100RB+100RB	LCH	TN	VL	-4.28	-0.00230	PASS
				VN	-2.95	-0.00159	PASS
				VH	-5.16	-0.00277	PASS
		MCH	TN	VL	1.56	0.00083	PASS
				VN	-2.80	-0.00149	PASS
				VH	2.59	0.00138	PASS
		HCH	TN	VL	-3.08	-0.00162	PASS
				VN	-8.00	-0.00421	PASS
				VH	0.44	0.00023	PASS
	LTE/TM3 100RB+100RB	LCH	TN	VL	2.09	0.00112	PASS
				VN	-0.32	-0.00017	PASS
				VH	4.38	0.00235	PASS
		MCH	TN	VL	-2.83	-0.00151	PASS
				VN	0.43	0.00023	PASS
				VH	-3.54	-0.00188	PASS
		HCH	TN	VL	3.23	0.00170	PASS
				VN	1.45	0.00076	PASS
				VH	-2.05	-0.00108	PASS

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## 8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM1 100RB+25RB	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



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM2 100RB+25RB	LCH	VN	-30	-0.50	-0.00027	PASS
				-20	-2.45	-0.00132	PASS
				-10	3.38	0.00182	PASS
				0	2.64	0.00142	PASS
				10	1.60	0.00086	PASS
				20	-0.23	-0.00012	PASS
				30	-0.44	-0.00024	PASS
				40	5.34	0.00287	PASS
		MCH	VN	-30	-3.80	-0.00202	PASS
				-20	-5.38	-0.00286	PASS
				-10	-7.29	-0.00388	PASS
				0	-4.32	-0.00230	PASS
				10	-0.34	-0.00018	PASS
				20	1.74	0.00093	PASS
				30	-3.64	-0.00194	PASS
				40	-2.62	-0.00139	PASS
		HCH	VN	-30	1.34	0.00071	PASS
				-20	-2.55	-0.00134	PASS
				-10	1.59	0.00084	PASS
				0	-3.73	-0.00196	PASS
				10	2.88	0.00152	PASS
				20	-1.47	-0.00077	PASS
				30	-2.59	-0.00136	PASS
				40	-4.33	-0.00228	PASS
				50	-7.60	-0.00400	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM3 100RB+25RB	LCH	VN	-30	1.50	0.00081	PASS
				-20	-1.60	-0.00086	PASS
				-10	4.38	0.00235	PASS
				0	1.69	0.00091	PASS
				10	1.43	0.00077	PASS
				20	0.54	0.00029	PASS
				30	-2.61	-0.00140	PASS
				40	-0.69	-0.00037	PASS
		MCH	VN	-30	-7.34	-0.00390	PASS
				-20	-5.33	-0.00284	PASS
				-10	-7.23	-0.00385	PASS
				0	-5.34	-0.00284	PASS
				10	-4.04	-0.00215	PASS
				20	-6.34	-0.00337	PASS
				30	-5.26	-0.00280	PASS
				40	-4.13	-0.00220	PASS
		HCH	VN	-30	2.34	0.00123	PASS
				-20	-1.83	-0.00096	PASS
				-10	1.57	0.00083	PASS
				0	-2.43	-0.00128	PASS
				10	1.60	0.00084	PASS
				20	-0.57	-0.00030	PASS
				30	0.66	0.00035	PASS
				40	-5.43	-0.00286	PASS
			50	-5.90	-0.00311	PASS	

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM1 100RB+100RB	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
		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
		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	

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM2 100RB+100RB	LCH	VN	-30	-0.50	-0.00027	PASS
				-20	-2.45	-0.00132	PASS
				-10	3.38	0.00182	PASS
				0	2.64	0.00142	PASS
				10	1.60	0.00086	PASS
				20	-0.23	-0.00012	PASS
				30	-0.44	-0.00024	PASS
				40	5.34	0.00287	PASS
		MCH	VN	-30	-3.80	-0.00202	PASS
				-20	-5.38	-0.00286	PASS
				-10	-7.29	-0.00388	PASS
				0	-4.32	-0.00230	PASS
				10	-0.34	-0.00018	PASS
				20	1.74	0.00093	PASS
				30	-3.64	-0.00194	PASS
				40	-2.62	-0.00139	PASS
		HCH	VN	-30	1.34	0.00071	PASS
				-20	-2.55	-0.00134	PASS
				-10	1.59	0.00084	PASS
				0	-3.73	-0.00196	PASS
				10	2.88	0.00152	PASS
				20	-1.47	-0.00077	PASS
				30	-2.59	-0.00136	PASS
				40	-4.33	-0.00228	PASS
				50	-7.60	-0.00400	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_2C	LTE/TM3 100RB+100RB	LCH	VN	-30	1.50	0.00081	PASS
				-20	-1.60	-0.00086	PASS
				-10	4.38	0.00235	PASS
				0	1.69	0.00091	PASS
				10	1.43	0.00077	PASS
				20	0.54	0.00029	PASS
				30	-2.61	-0.00140	PASS
				40	-0.69	-0.00037	PASS
		MCH	VN	-30	-7.34	-0.00390	PASS
				-20	-5.33	-0.00284	PASS
				-10	-7.23	-0.00385	PASS
				0	-5.34	-0.00284	PASS
				10	-4.04	-0.00215	PASS
				20	-6.34	-0.00337	PASS
				30	-5.26	-0.00280	PASS
				40	-4.13	-0.00220	PASS
		HCH	VN	-30	2.34	0.00123	PASS
				-20	-1.83	-0.00096	PASS
				-10	1.57	0.00083	PASS
				0	-2.43	-0.00128	PASS
				10	1.60	0.00084	PASS
				20	-0.57	-0.00030	PASS
				30	0.66	0.00035	PASS
				40	-5.43	-0.00286	PASS
			50	-5.90	-0.00311	PASS	

The End