



# Appendix B

## E-UTRA Band 41



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# 1 Effective (Isotropic) Radiated Power Output Data

**Effective Isotropic Radiated Power of Transmitter (EIRP) for LTE BAND 41**

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND41	LTE/TM1	5M	LCH	RB1#0	20.80	20.00	33.00	PASS
				RB1#13	20.81	20.01	33.00	PASS
				RB1#24	20.82	20.02	33.00	PASS
				RB12#0	19.68	18.88	33.00	PASS
				RB12#6	19.64	18.84	33.00	PASS
				RB12#13	19.67	18.87	33.00	PASS
				RB25#0	19.73	18.93	33.00	PASS
			MCH	RB1#0	21.64	20.84	33.00	PASS
				RB1#13	21.76	20.96	33.00	PASS
				RB1#24	21.77	20.97	33.00	PASS
				RB12#0	20.62	19.82	33.00	PASS
				RB12#6	20.63	19.83	33.00	PASS
				RB12#13	20.58	19.78	33.00	PASS
				RB25#0	20.59	19.79	33.00	PASS
			HCH	RB1#0	21.66	20.86	33.00	PASS
				RB1#13	21.70	20.90	33.00	PASS
				RB1#24	21.66	20.86	33.00	PASS
				RB12#0	20.52	19.72	33.00	PASS
				RB12#6	20.57	19.77	33.00	PASS
				RB12#13	20.56	19.76	33.00	PASS
				RB25#0	20.58	19.78	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
BAND41	LTE/TM2	5M	LCH	RB1#0	19.46	18.66	33.00	PASS
				RB1#13	19.43	18.63	33.00	PASS
				RB1#24	19.46	18.66	33.00	PASS
				RB12#0	18.68	17.88	33.00	PASS
				RB12#6	18.61	17.81	33.00	PASS
				RB12#13	18.66	17.86	33.00	PASS
				RB25#0	18.65	17.85	33.00	PASS
			MCH	RB1#0	20.28	19.48	33.00	PASS
				RB1#13	20.38	19.58	33.00	PASS
				RB1#24	20.50	19.70	33.00	PASS
				RB12#0	19.52	18.72	33.00	PASS
				RB12#6	19.53	18.73	33.00	PASS
				RB12#13	19.56	18.76	33.00	PASS
				RB25#0	19.54	18.74	33.00	PASS
			HCH	RB1#0	20.30	19.50	33.00	PASS
				RB1#13	20.29	19.49	33.00	PASS
				RB1#24	20.37	19.57	33.00	PASS
				RB12#0	19.50	18.70	33.00	PASS
				RB12#6	19.46	18.66	33.00	PASS
				RB12#13	19.50	18.70	33.00	PASS
				RB25#0	19.53	18.73	33.00	PASS

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BAND41	LTE/TM1	10M	LCH	RB1#0	20.81	20.01	33.00	PASS
				RB1#25	20.81	20.01	33.00	PASS
				RB1#49	20.99	20.19	33.00	PASS
				RB25#0	19.69	18.89	33.00	PASS
				RB25#13	19.71	18.91	33.00	PASS
				RB25#25	19.75	18.95	33.00	PASS
				RB50#0	19.74	18.94	33.00	PASS
			MCH	RB1#0	21.69	20.89	33.00	PASS
				RB1#25	21.72	20.92	33.00	PASS
				RB1#49	21.80	210	33.00	PASS
				RB25#0	20.49	19.69	33.00	PASS
				RB25#13	20.62	19.82	33.00	PASS
				RB25#25	20.72	19.92	33.00	PASS
				RB50#0	20.62	19.82	33.00	PASS
			HCH	RB1#0	21.66	20.86	33.00	PASS
				RB1#25	21.69	20.89	33.00	PASS
				RB1#49	21.75	20.95	33.00	PASS
				RB25#0	20.55	19.75	33.00	PASS
				RB25#13	20.58	19.78	33.00	PASS
				RB25#25	20.53	19.73	33.00	PASS
				RB50#0	20.51	19.71	33.00	PASS

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BAND41	LTE/TM2	10M	LCH	RB1#0	19.50	18.70	33.00	PASS
				RB1#25	19.44	18.64	33.00	PASS
				RB1#49	19.57	18.77	33.00	PASS
				RB25#0	18.65	17.85	33.00	PASS
				RB25#13	18.70	17.90	33.00	PASS
				RB25#25	18.71	17.91	33.00	PASS
				RB50#0	18.58	17.78	33.00	PASS
			MCH	RB1#0	20.37	19.57	33.00	PASS
				RB1#25	20.41	19.61	33.00	PASS
				RB1#49	20.49	19.69	33.00	PASS
				RB25#0	19.49	18.69	33.00	PASS
				RB25#13	19.52	18.72	33.00	PASS
				RB25#25	19.63	18.83	33.00	PASS
				RB50#0	19.48	18.68	33.00	PASS
			HCH	RB1#0	20.30	19.50	33.00	PASS
				RB1#25	20.27	19.47	33.00	PASS
				RB1#49	20.31	19.51	33.00	PASS
				RB25#0	19.51	18.71	33.00	PASS
				RB25#13	19.44	18.64	33.00	PASS
				RB25#25	19.48	18.68	33.00	PASS
				RB50#0	19.45	18.65	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
BAND41	LTE/TM1	15M	LCH	RB1#0	20.87	20.07	33.00	PASS
				RB1#38	20.93	20.13	33.00	PASS
				RB1#74	21.12	20.32	33.00	PASS
				RB36#0	19.74	18.94	33.00	PASS
				RB36#18	19.75	18.95	33.00	PASS
				RB36#39	19.85	19.05	33.00	PASS
				RB75#0	19.80	19.00	33.00	PASS
			MCH	RB1#0	21.71	20.91	33.00	PASS
				RB1#38	21.77	20.97	33.00	PASS
				RB1#74	21.82	21.02	33.00	PASS
				RB36#0	20.50	19.70	33.00	PASS
				RB36#18	20.72	19.92	33.00	PASS
				RB36#39	20.68	19.88	33.00	PASS
				RB75#0	20.69	19.89	33.00	PASS
			HCH	RB1#0	21.69	20.89	33.00	PASS
				RB1#38	21.67	20.87	33.00	PASS
				RB1#74	21.80	21.00	33.00	PASS
				RB36#0	20.51	19.71	33.00	PASS
				RB36#18	20.52	19.72	33.00	PASS
				RB36#39	20.51	19.71	33.00	PASS
				RB75#0	20.52	19.72	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
BAND41	LTE/TM2	15M	LCH	RB1#0	19.44	18.64	33.00	PASS
				RB1#38	19.48	18.68	33.00	PASS
				RB1#74	19.65	18.85	33.00	PASS
				RB36#0	18.59	17.79	33.00	PASS
				RB36#18	18.59	17.79	33.00	PASS
				RB36#39	18.70	17.90	33.00	PASS
				RB75#0	18.68	17.88	33.00	PASS
			MCH	RB1#0	20.33	19.53	33.00	PASS
				RB1#38	20.38	19.58	33.00	PASS
				RB1#74	20.45	19.65	33.00	PASS
				RB36#0	19.45	18.65	33.00	PASS
				RB36#18	19.59	18.79	33.00	PASS
				RB36#39	19.57	18.77	33.00	PASS
				RB75#0	19.51	18.71	33.00	PASS
			HCH	RB1#0	20.27	19.47	33.00	PASS
				RB1#38	20.27	19.47	33.00	PASS
				RB1#74	20.27	19.47	33.00	PASS
				RB36#0	19.40	18.60	33.00	PASS
				RB36#18	19.35	18.55	33.00	PASS
				RB36#39	19.42	18.62	33.00	PASS
				RB75#0	19.39	18.59	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
BAND41	LTE/TM1	20M	LCH	RB1#0	20.77	19.97	33.00	PASS
				RB1#50	20.93	20.13	33.00	PASS
				RB1#99	21.15	20.35	33.00	PASS
				RB50#0	19.75	18.95	33.00	PASS
				RB50#25	19.81	19.01	33.00	PASS
				RB50#50	19.92	19.12	33.00	PASS
				RB100#0	19.82	19.02	33.00	PASS
			MCH	RB1#0	21.68	20.88	33.00	PASS
				RB1#50	21.76	20.96	33.00	PASS
				RB1#99	21.73	20.93	33.00	PASS
				RB50#0	20.60	19.80	33.00	PASS
				RB50#25	20.66	19.86	33.00	PASS
				RB50#50	20.69	19.89	33.00	PASS
				RB100#0	20.64	19.84	33.00	PASS
			HCH	RB1#0	21.65	20.85	33.00	PASS
				RB1#50	21.65	20.85	33.00	PASS
				RB1#99	21.68	20.88	33.00	PASS
				RB50#0	20.56	19.76	33.00	PASS
				RB50#25	20.54	19.74	33.00	PASS
				RB50#50	20.50	19.70	33.00	PASS
				RB100#0	20.53	19.73	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
BAND41	LTE/TM2	20M	LCH	RB1#0	19.47	18.67	33.00	PASS
				RB1#50	19.56	18.76	33.00	PASS
				RB1#99	19.80	19.00	33.00	PASS
				RB50#0	18.58	17.78	33.00	PASS
				RB50#25	18.70	17.90	33.00	PASS
				RB50#50	18.77	17.97	33.00	PASS
				RB100#0	18.73	17.93	33.00	PASS
			MCH	RB1#0	20.40	19.60	33.00	PASS
				RB1#50	20.36	19.56	33.00	PASS
				RB1#99	20.40	19.60	33.00	PASS
				RB50#0	19.40	18.60	33.00	PASS
				RB50#25	19.46	18.66	33.00	PASS
				RB50#50	19.57	18.77	33.00	PASS
				RB100#0	19.50	18.70	33.00	PASS
			HCH	RB1#0	20.31	19.51	33.00	PASS
				RB1#50	20.20	19.40	33.00	PASS
				RB1#99	20.24	19.44	33.00	PASS
				RB50#0	19.40	18.60	33.00	PASS
				RB50#25	19.39	18.59	33.00	PASS
				RB50#50	19.38	18.58	33.00	PASS
				RB100#0	19.42	18.62	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

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

Detector: RMS

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## 2 Peak-to-Average Ratio

### Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 41	TM1/20M	LCH	4.99	13	PASS
		MCH	5.22	13	PASS
		HCH	5.77	13	PASS
	TM2/20M	LCH	5.94	13	PASS
		MCH	6.90	13	PASS
		HCH	6.49	13	PASS



Part II - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE band41

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

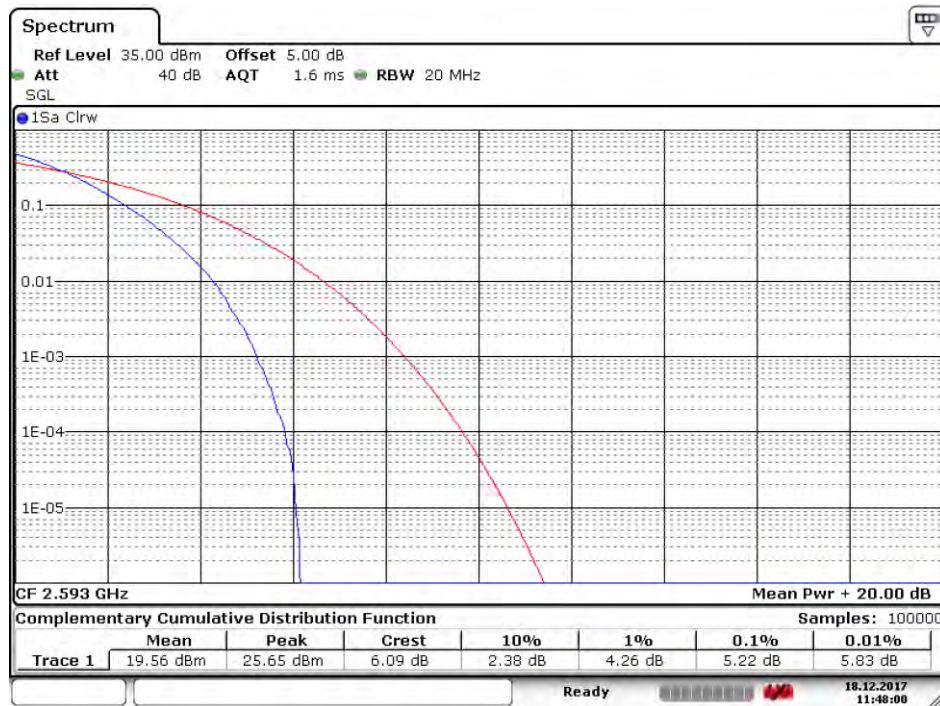
2.1.1.1.1 Test Channel = LCH



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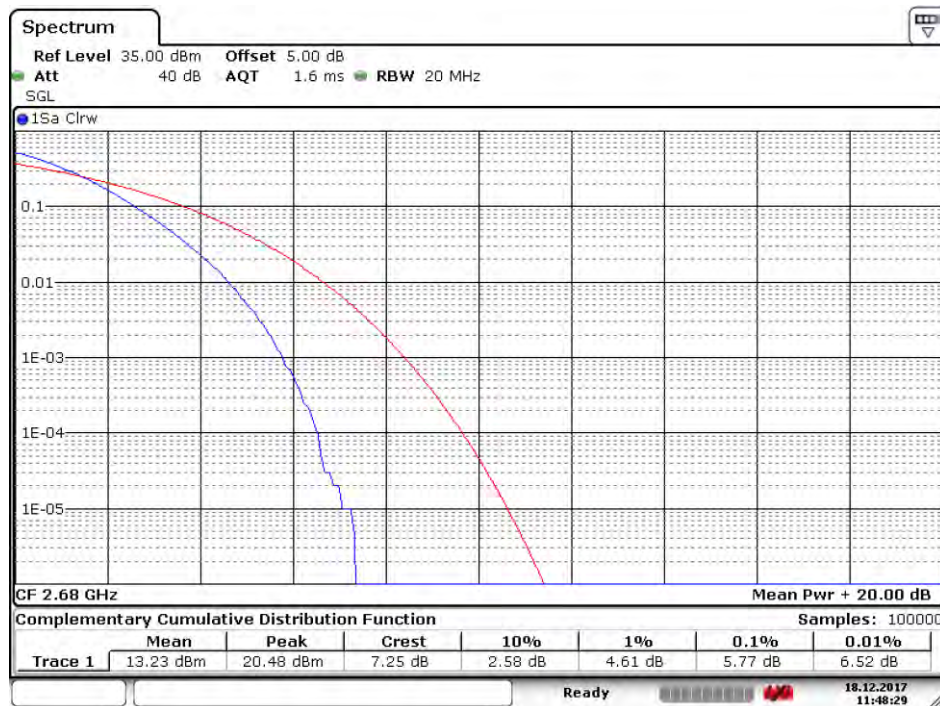


2.1.1.1.2 Test Channel = MCH



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2.1.1.1.3 Test Channel = HCH



Date: 18.DEC.2017 11:48:29



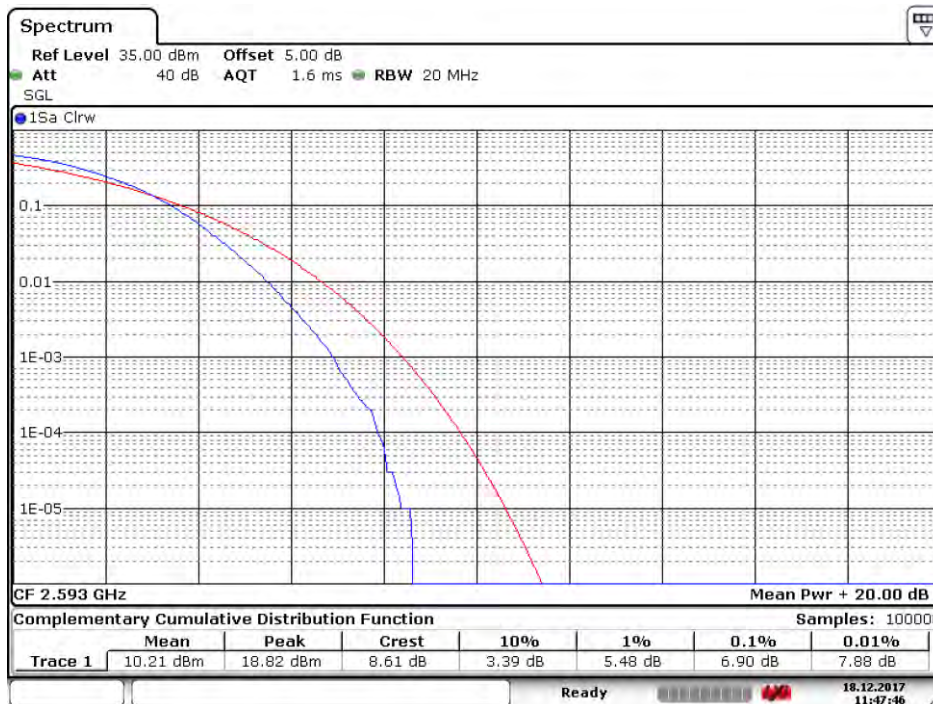
**2.1.1.2 Test Mode = LTE/TM2.Bandwidth=20MHz**

**2.1.1.2.1 Test Channel = LCH**



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**2.1.1.2.2 Test Channel = MCH**



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2.1.1.2.3 Test Channel = HCH



Date: 18.DEC.2017 11:48:49

### 3 Modulation Characteristics

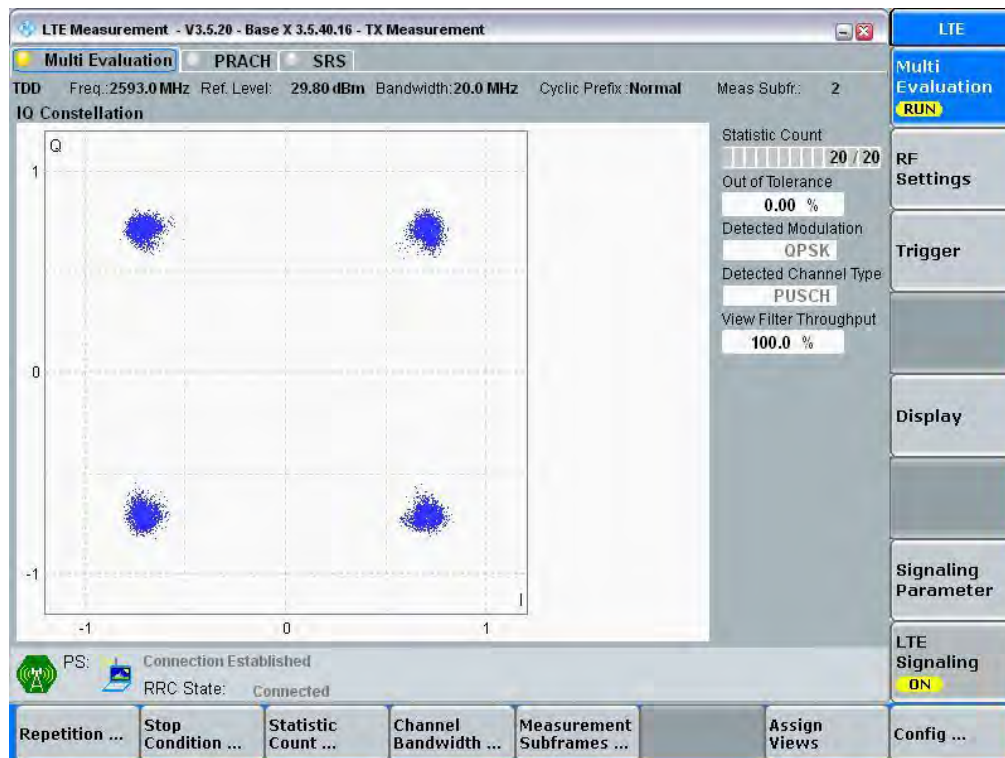
#### Part I - Test Plots

#### 3.1 For LTE

##### 3.1.1 Test Band = LTE band41

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

##### 3.1.1.1.1 Test Channel = MCH

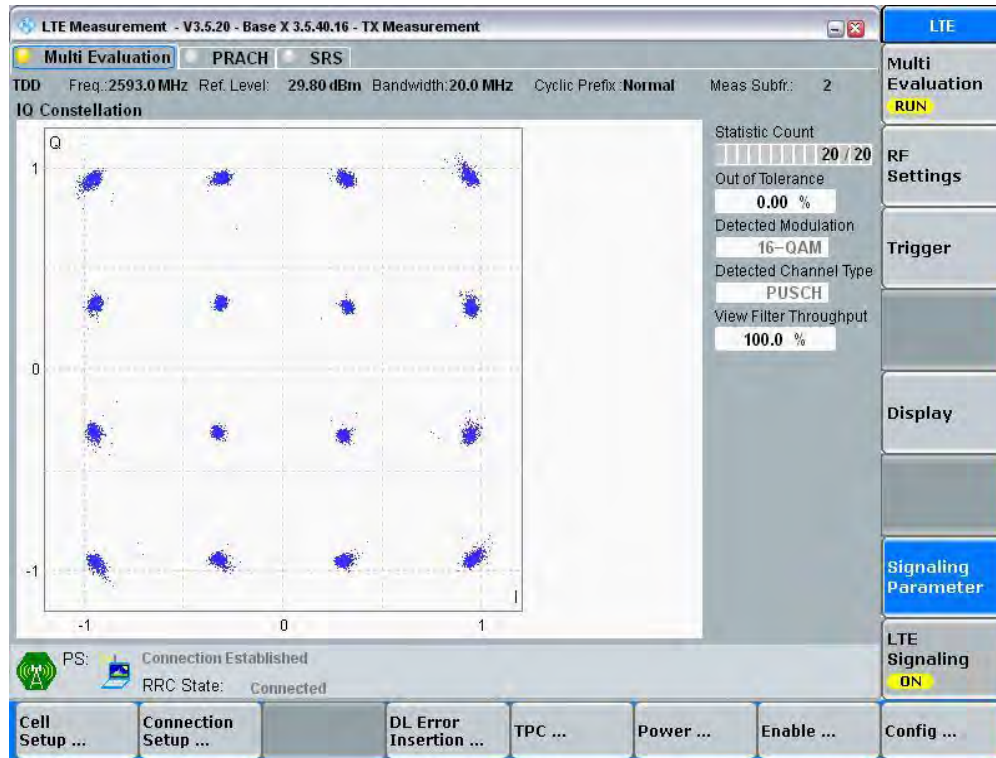






3.1.1.2 Test Mode = LTE /TM2 20MHz

3.1.1.2.1 Test Channel = MCH





## 4 Bandwidth

### Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 41	TM1/ 5MHz	LCH	4.48	4.92	PASS
		MCH	4.49	4.85	PASS
		HCH	4.48	4.90	PASS
	TM2/ 5MHz	LCH	4.47	4.89	PASS
		MCH	4.48	4.89	PASS
		HCH	4.47	4.87	PASS
	TM1/10MHz	LCH	8.93	9.63	PASS
		MCH	8.95	9.75	PASS
		HCH	8.93	9.61	PASS
	TM2/ 10MHz	LCH	8.93	9.63	PASS
		MCH	8.95	9.67	PASS
		HCH	8.95	9.63	PASS
	TM1/ 15MHz	LCH	13.40	14.18	PASS
		MCH	13.40	14.30	PASS
		HCH	13.40	14.30	PASS
	TM2/ 15MHz	LCH	13.40	14.24	PASS
		MCH	13.43	14.21	PASS
		HCH	13.40	14.33	PASS
	TM1/ 20MHz	LCH	17.90	19.42	PASS
		MCH	17.82	19.10	PASS
		HCH	17.90	19.42	PASS
TM2/ 20MHz	LCH	17.86	19.26	PASS	
	MCH	17.86	19.38	PASS	
	HCH	17.82	19.14	PASS	

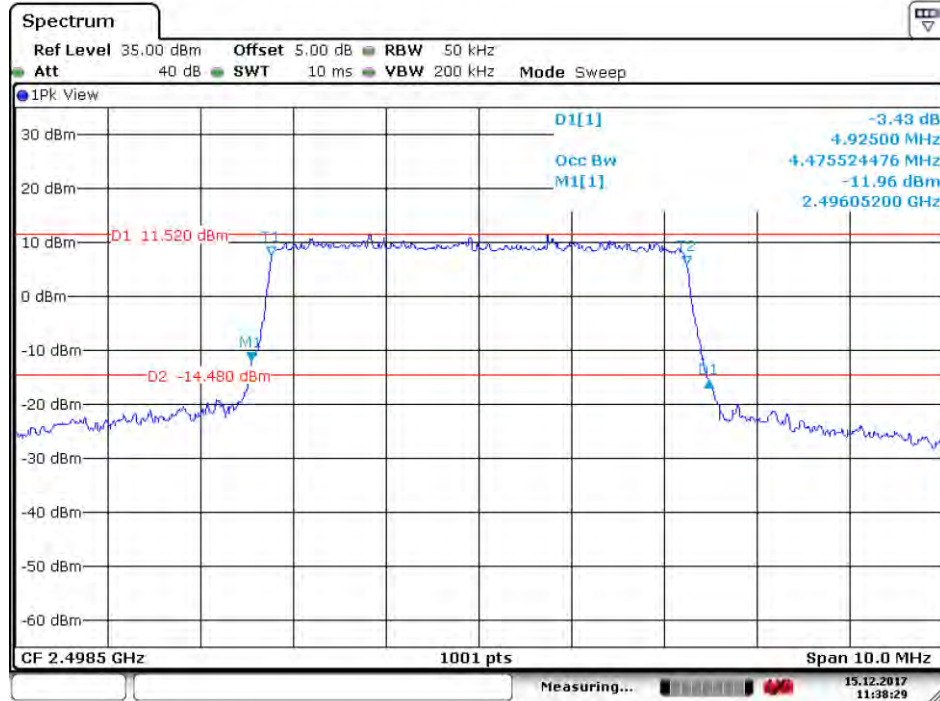


## 4.1 For LTE

### 4.1.1 Test Band = LTE band41

#### 4.1.1.1 Test Mode = LTE/TM1 5MHz

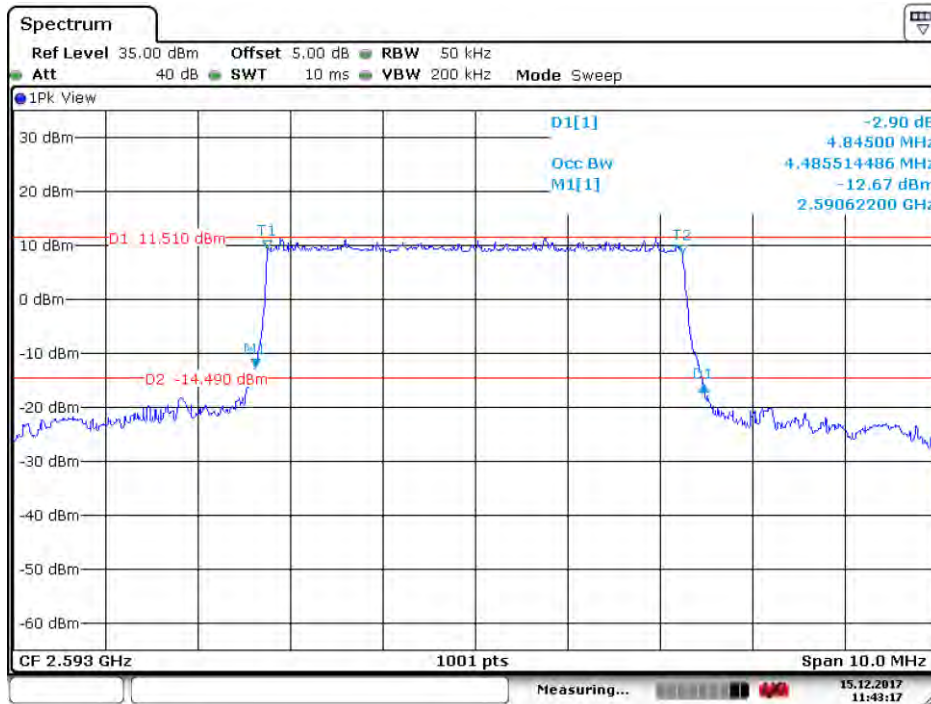
##### 4.1.1.1.1 Test Channel = LCH



Date: 15.DEC.2017 11:38:29

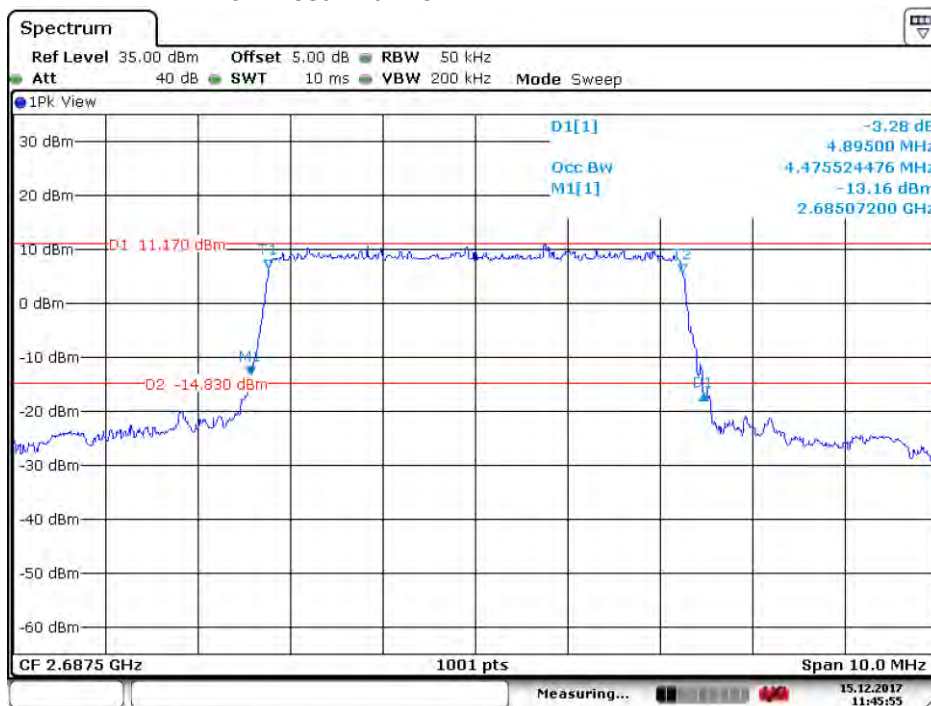


4.1.1.1.2 Test Channel = MCH



Date: 15.DEC.2017 11:43:17

4.1.1.1.3 Test Channel = HCH

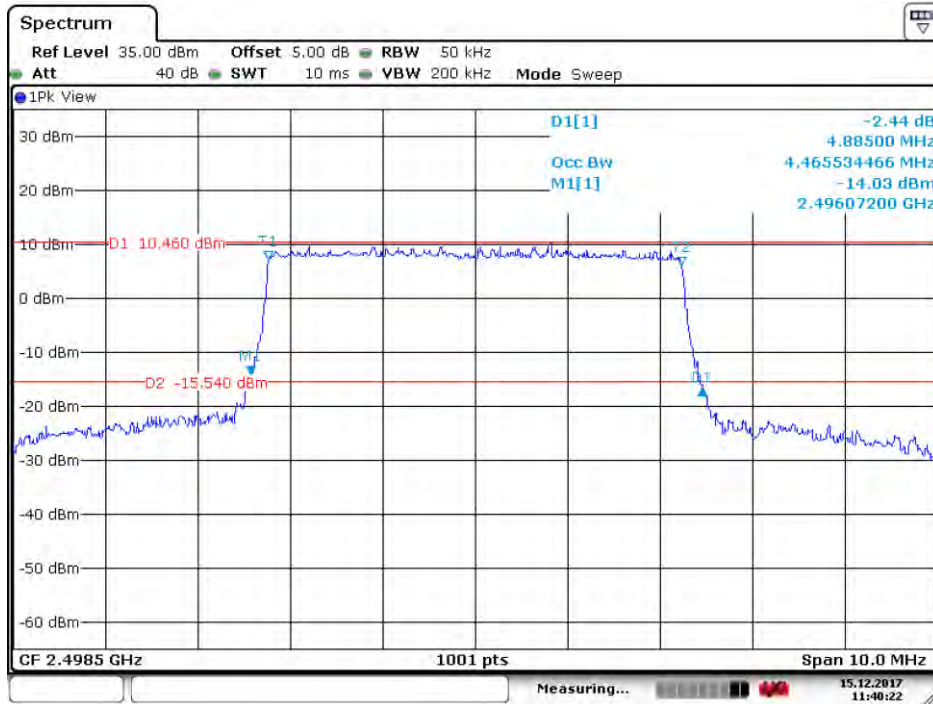


Date: 15.DEC.2017 11:45:55



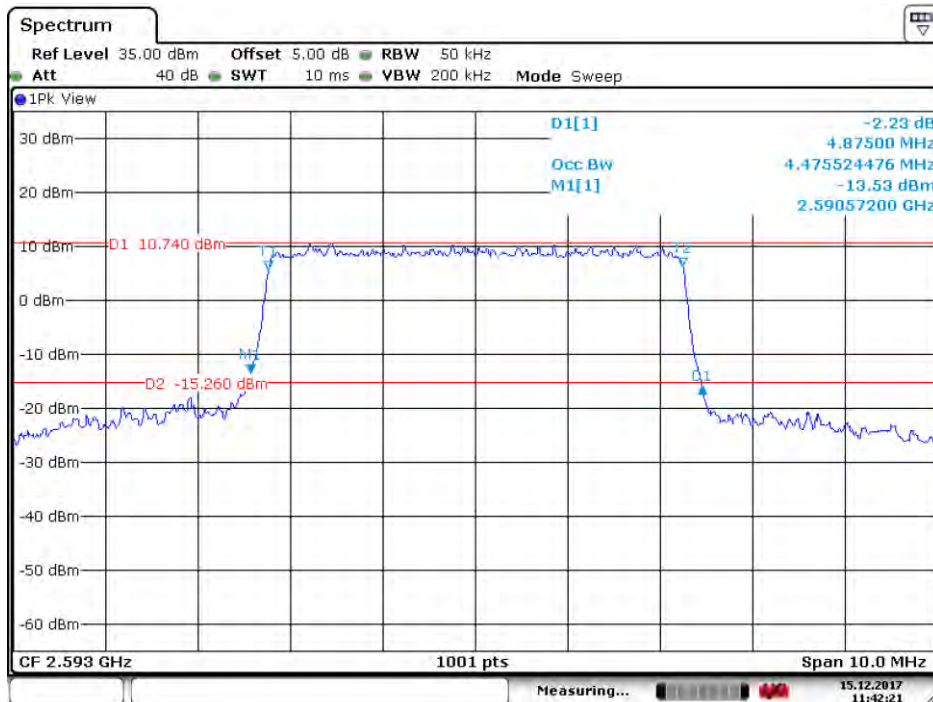
4.1.1.2 Test Mode = LTE/TM2 5MHz

4.1.1.2.1 Test Channel = LCH



Date: 15.DEC.2017 11:40:23

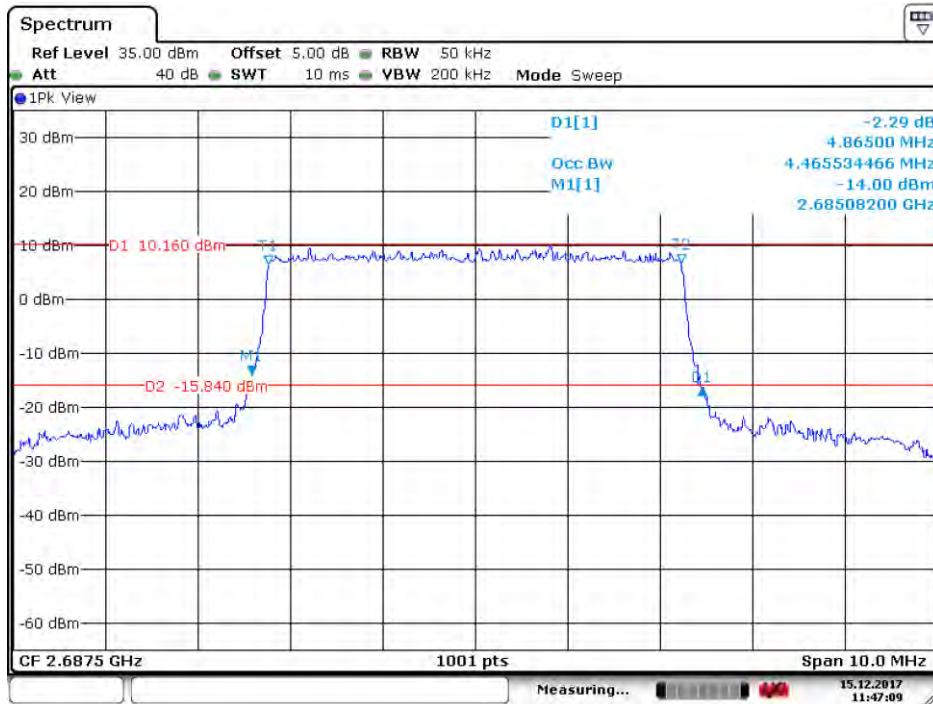
4.1.1.2.2 Test Channel = MCH



Date: 15.DEC.2017 11:42:21



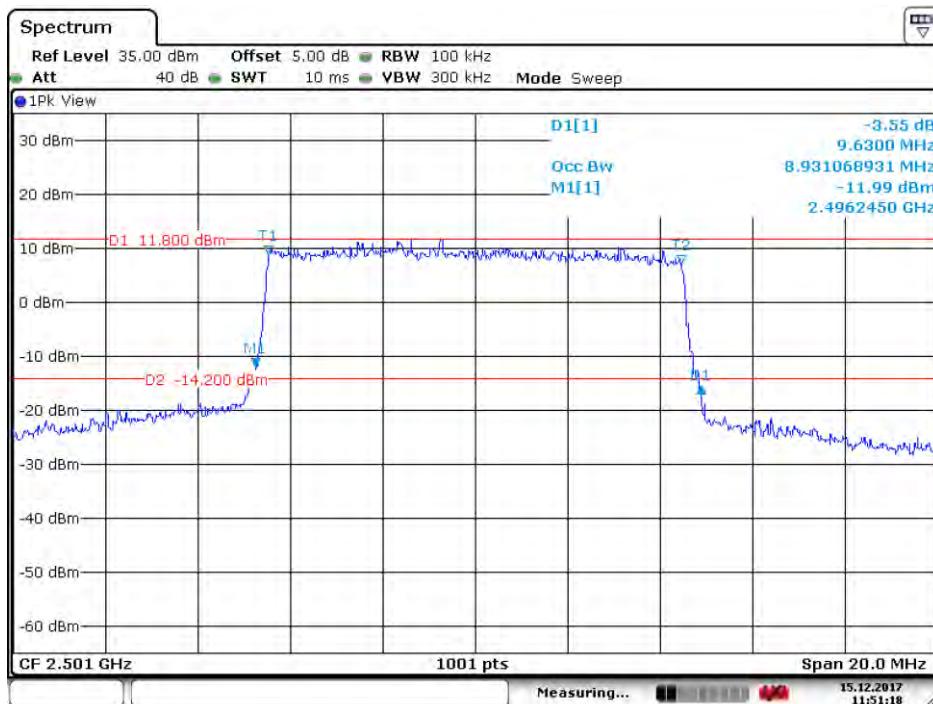
#### 4.1.1.2.3 Test Channel = HCH



Date: 15.DEC.2017 11:47:10

#### 4.1.1.3 Test Mode = LTE/TM1 10MHz

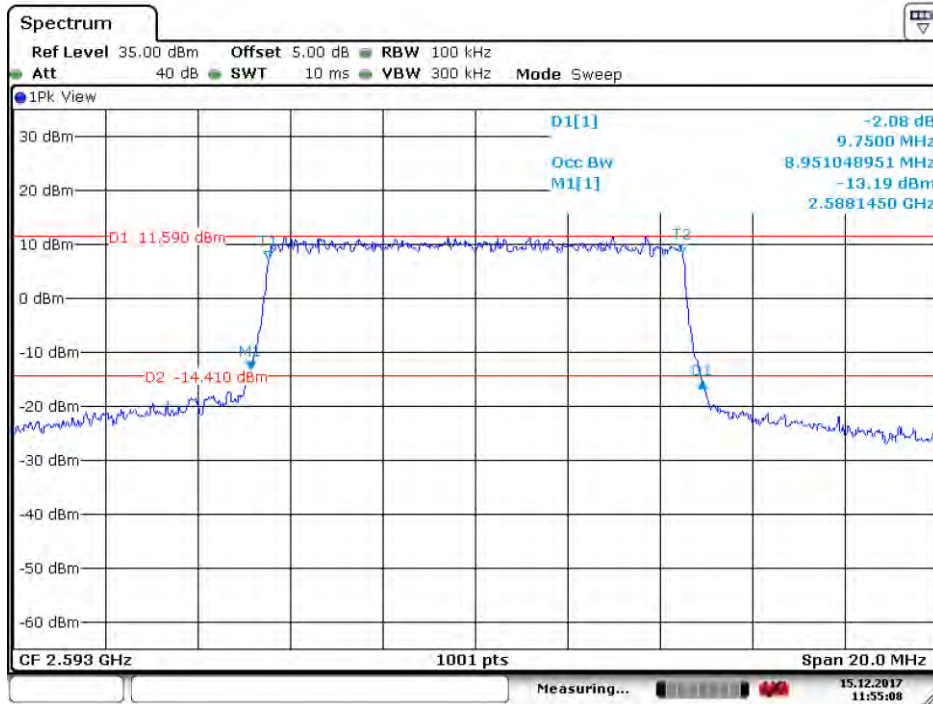
##### 4.1.1.3.1 Test Channel = LCH



Date: 15.DEC.2017 11:51:18

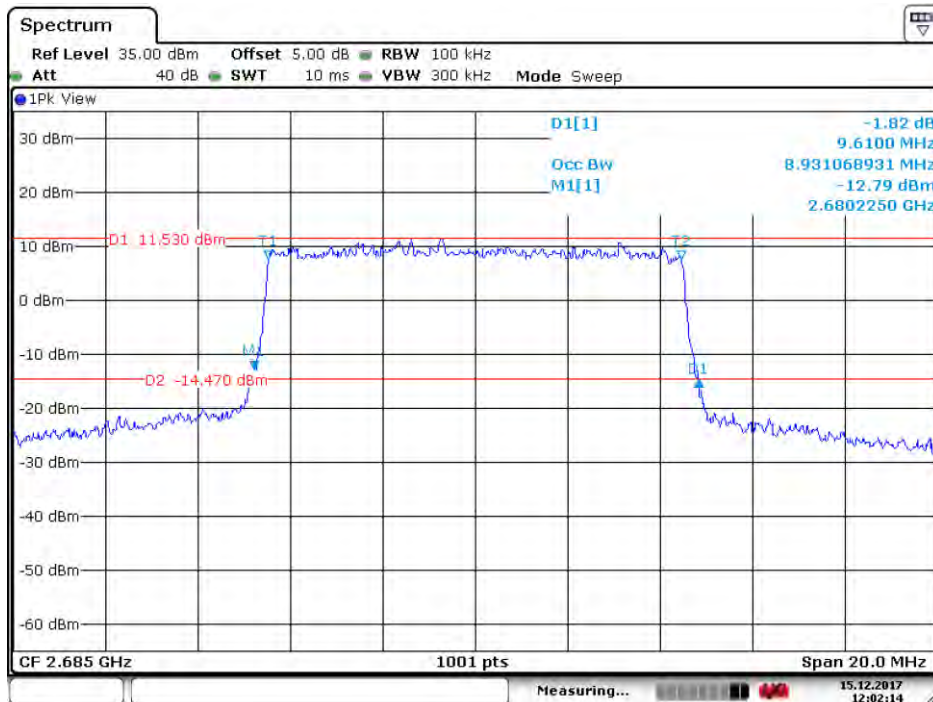


#### 4.1.1.3.2 Test Channel = MCH



Date: 15.DEC.2017 11:55:08

#### 4.1.1.3.3 Test Channel = HCH

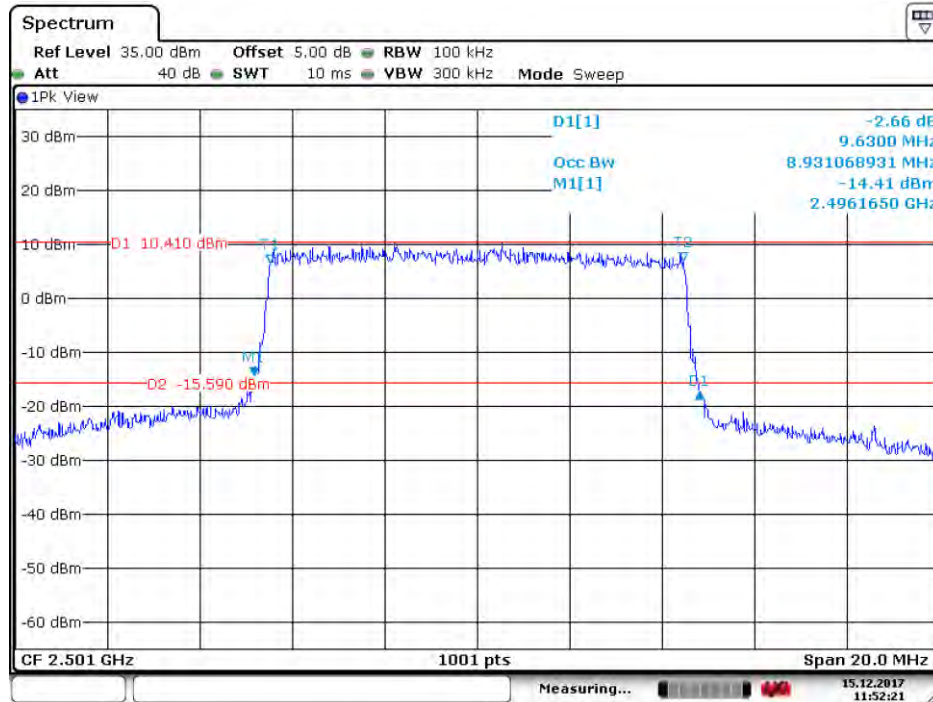


Date: 15.DEC.2017 12:02:14



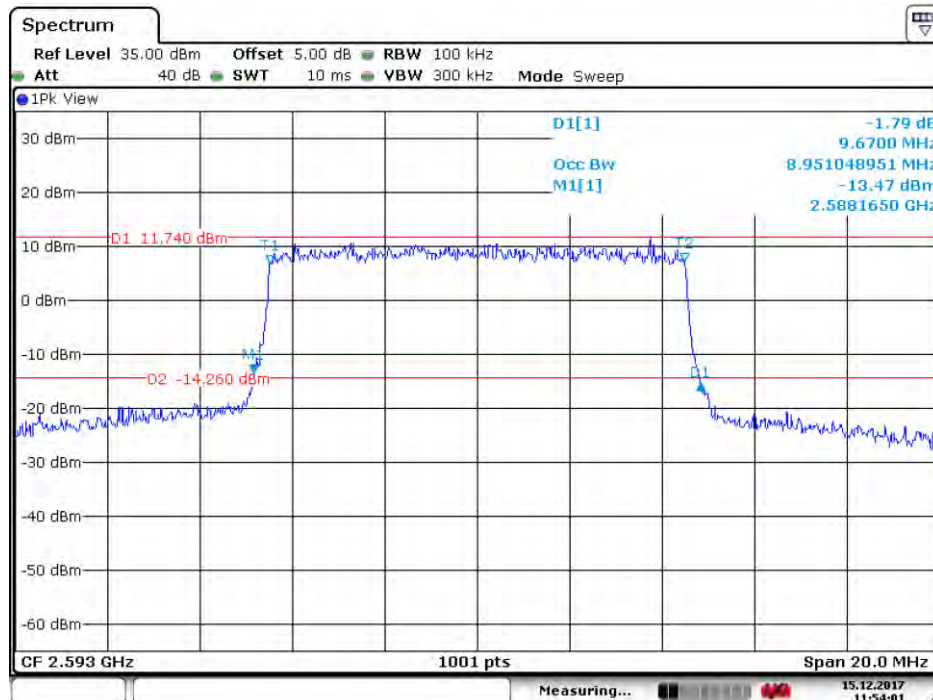
4.1.1.4 Test Mode = LTE/TM2 10MHz

4.1.1.4.1 Test Channel = LCH



Date: 15.DEC.2017 11:52:21

4.1.1.4.2 Test Channel = MCH

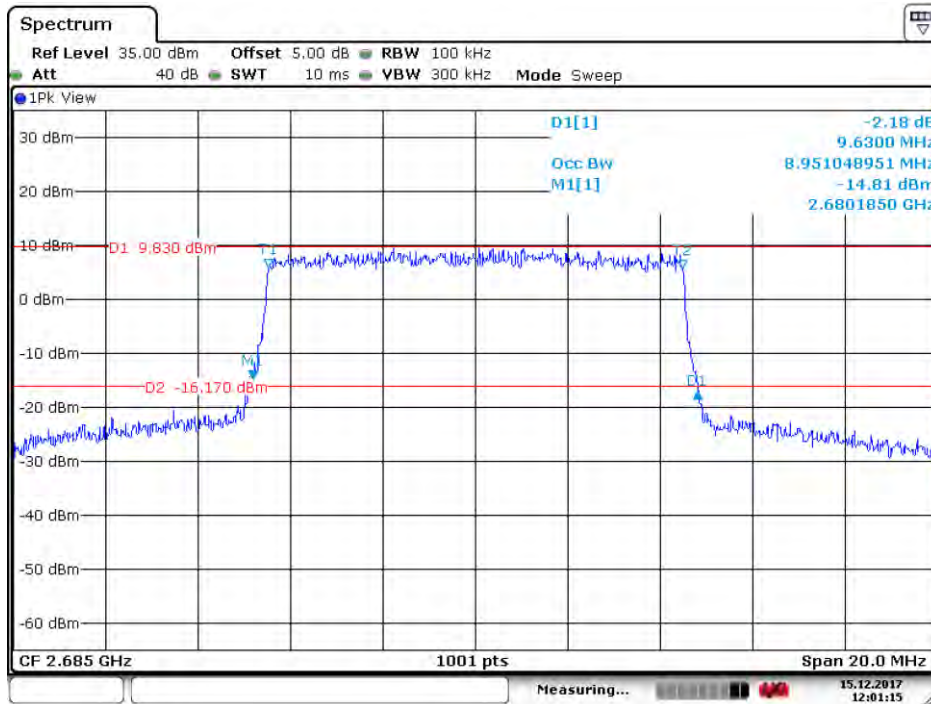


Date: 15.DEC.2017 11:54:02





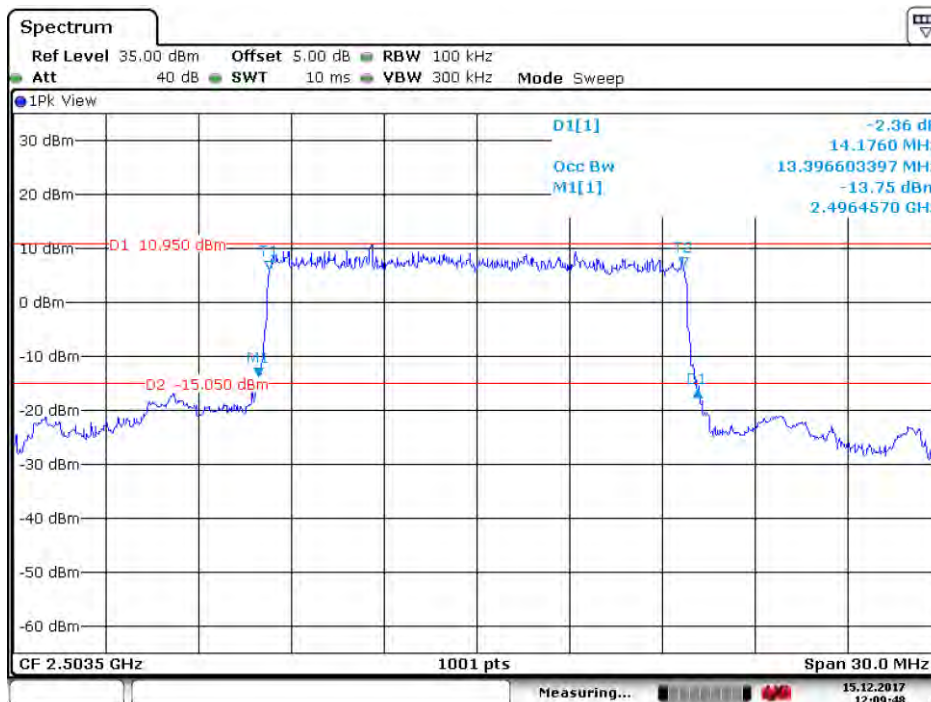
#### 4.1.1.4.3 Test Channel = HCH



Date: 15.DEC.2017 12:01:15

#### 4.1.1.5 Test Mode = LTE/TM1 15MHz

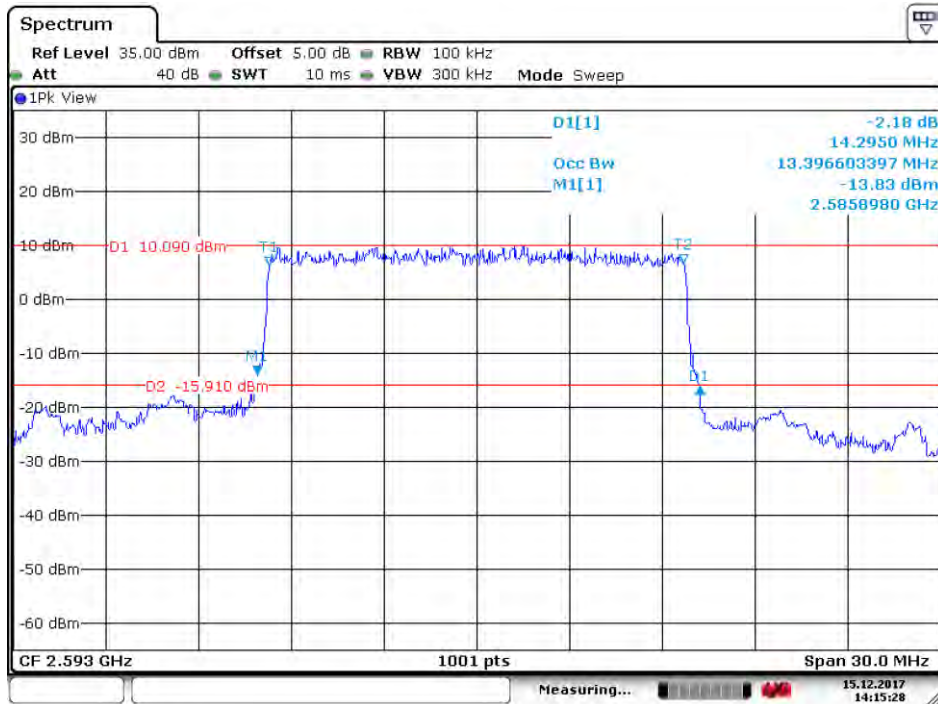
##### 4.1.1.5.1 Test Channel = LCH



Date: 15.DEC.2017 12:09:48

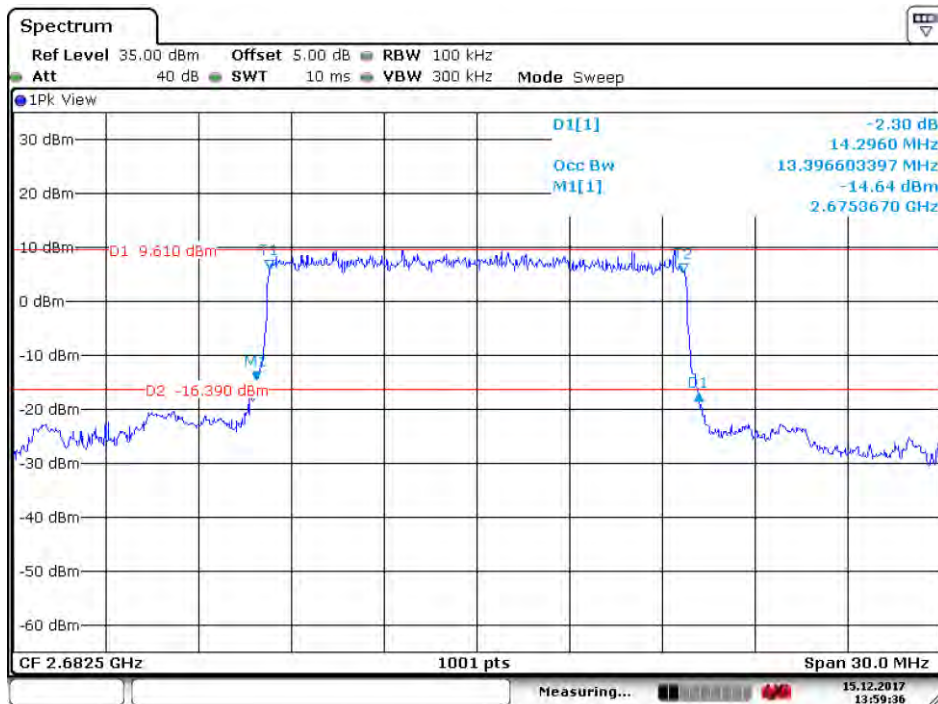


4.1.1.5.2 Test Channel = MCH



Date: 15.DEC.2017 14:15:28

4.1.1.5.3 Test Channel = HCH

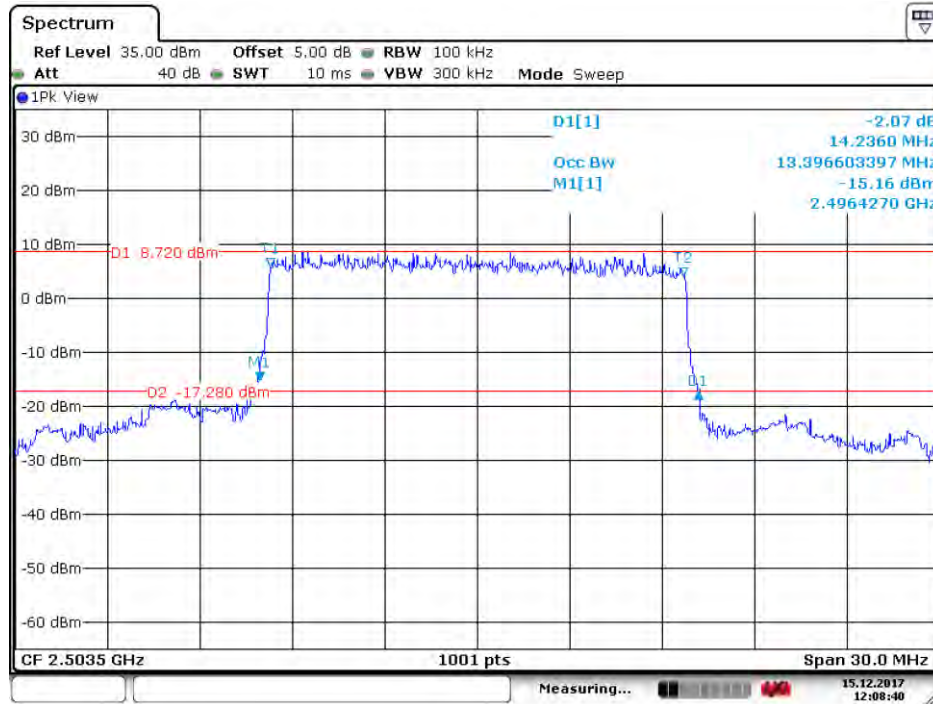


Date: 15.DEC.2017 13:59:36



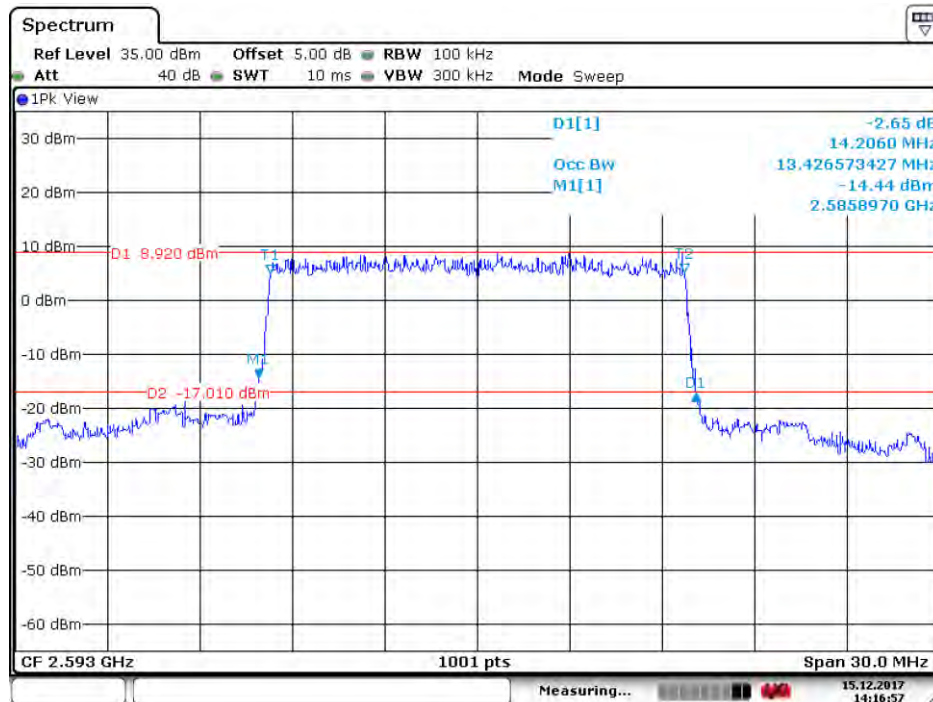
4.1.1.6 Test Mode = LTE/TM2 15MHz

4.1.1.6.1 Test Channel = LCH



Date: 15.DEC.2017 12:08:40

4.1.1.6.2 Test Channel = MCH

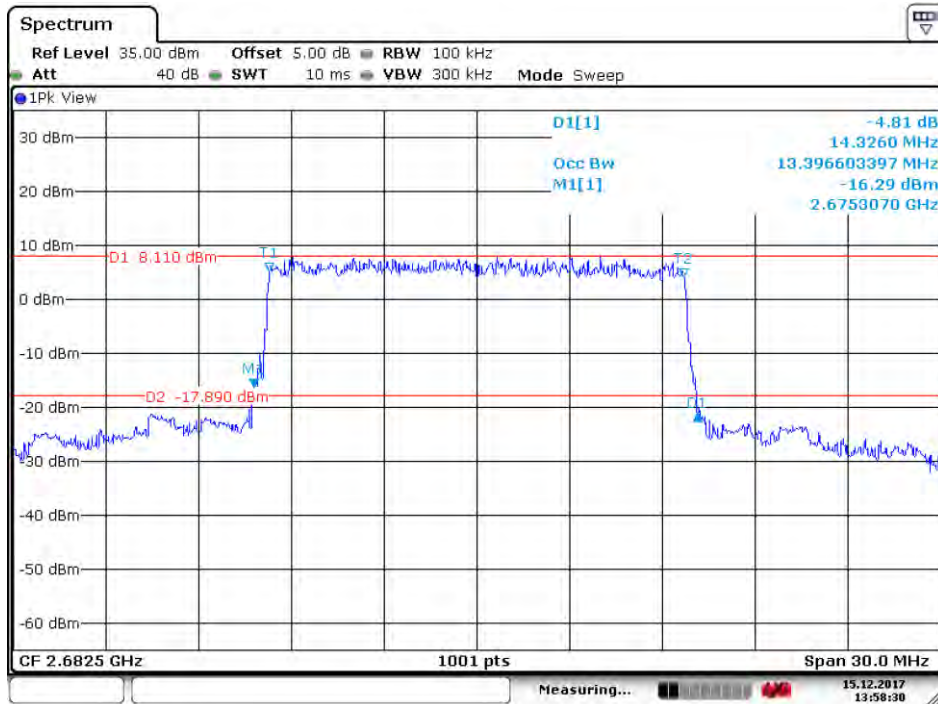


Date: 15.DEC.2017 14:16:37

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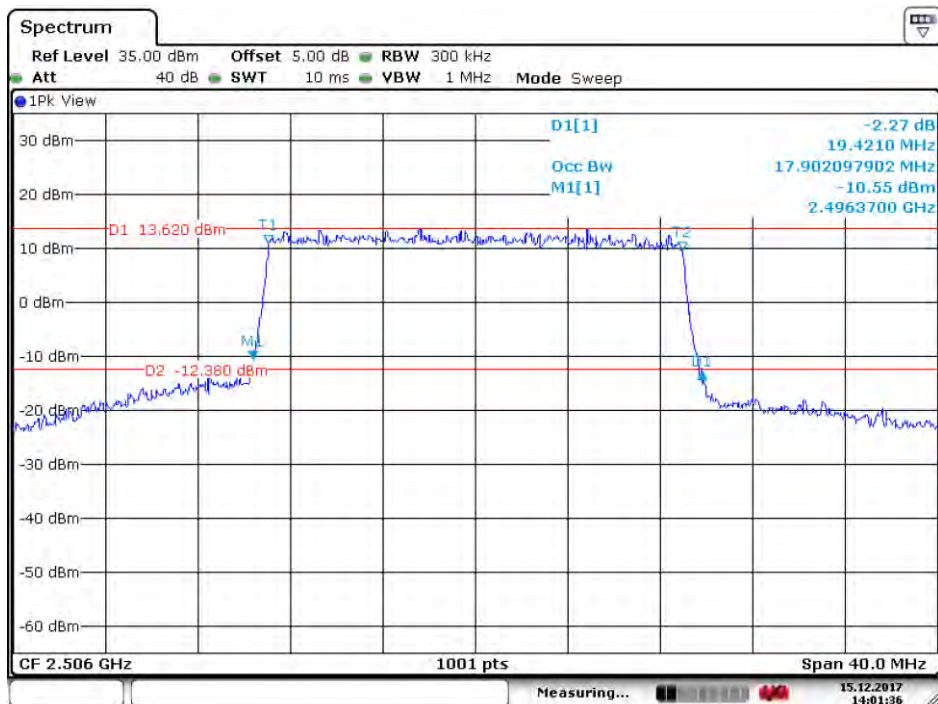
#### 4.1.1.6.3 Test Channel = HCH



Date: 15.DEC.2017 13:58:30

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

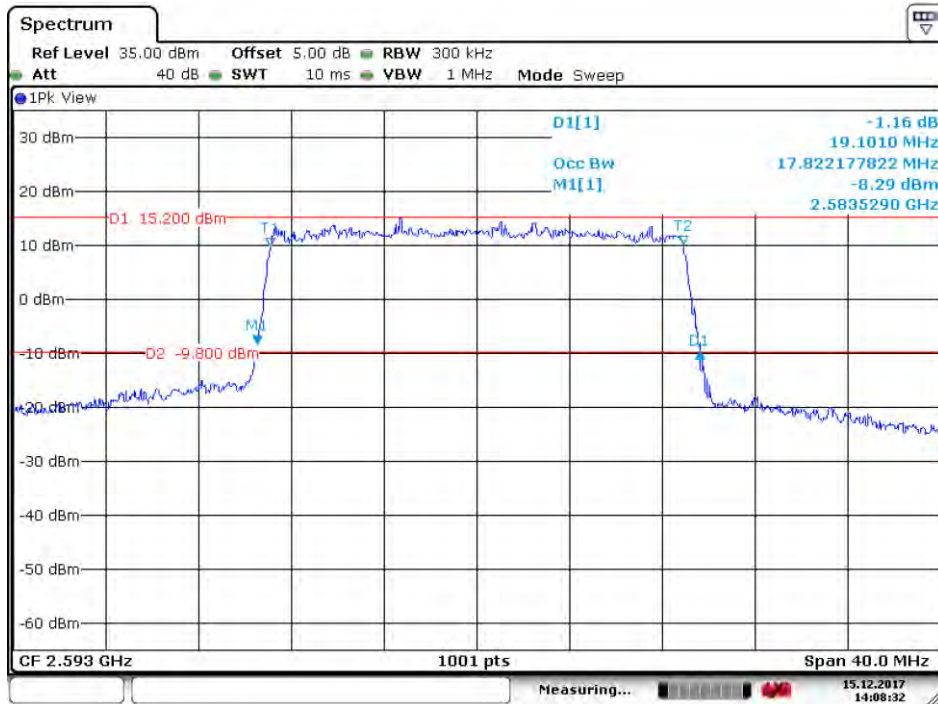
##### 4.1.1.7.1 Test Channel = LCH



Date: 15.DEC.2017 14:01:37

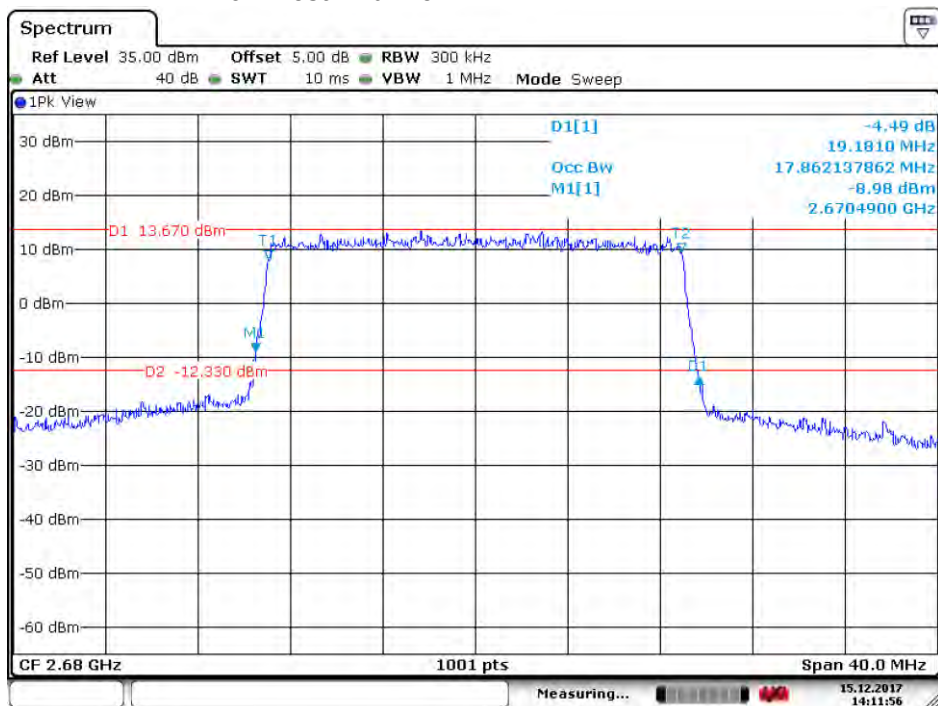


4.1.1.7.2 Test Channel = MCH



Date: 15.DEC.2017 14:08:32

4.1.1.7.3 Test Channel = HCH

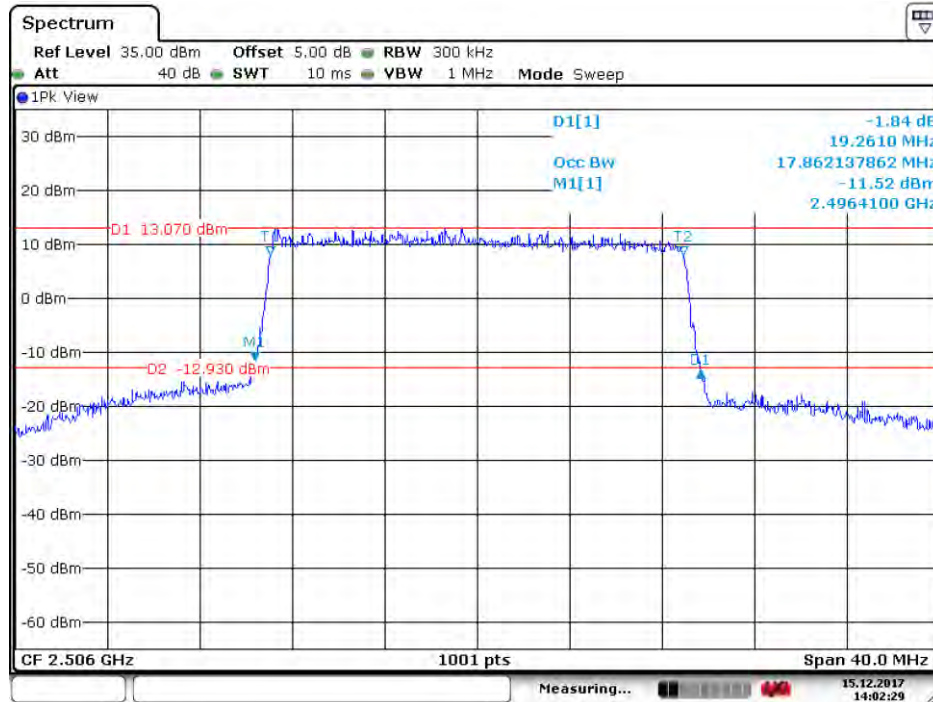


Date: 15.DEC.2017 14:11:56



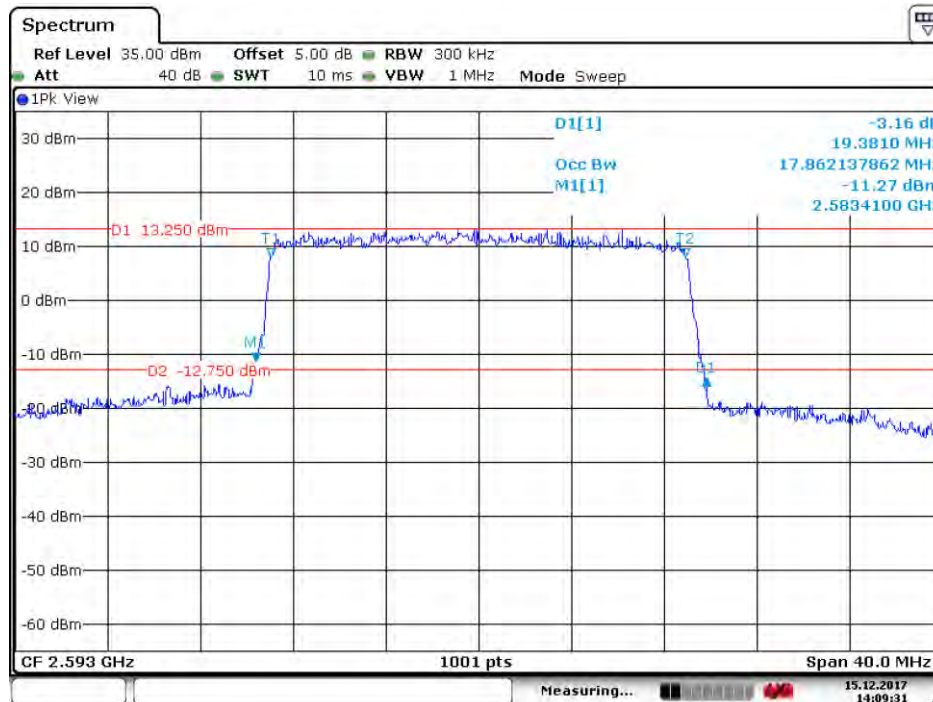
4.1.1.8 Test Mode = LTE/TM2 20MHz

4.1.1.8.1 Test Channel = LCH



Date: 15.DEC.2017 14:02:29

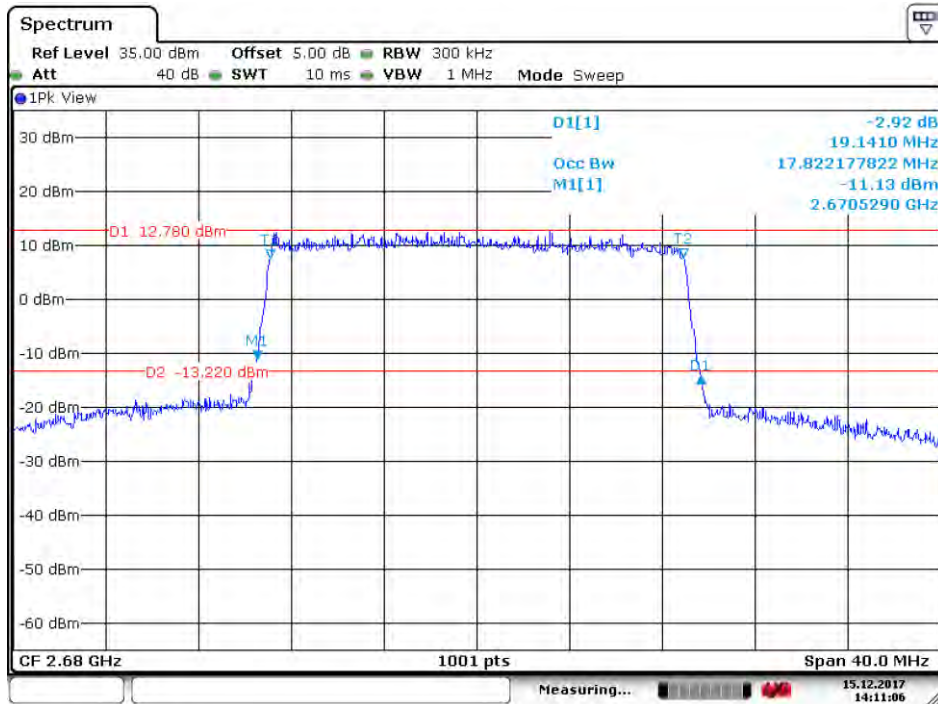
4.1.1.8.2 Test Channel = MCH



Date: 15.DEC.2017 14:09:31



4.1.1.8.3 Test Channel = HCH



Date: 15.DEC.2017 14:11:06



## 5 Band Edges Compliance

Part I –

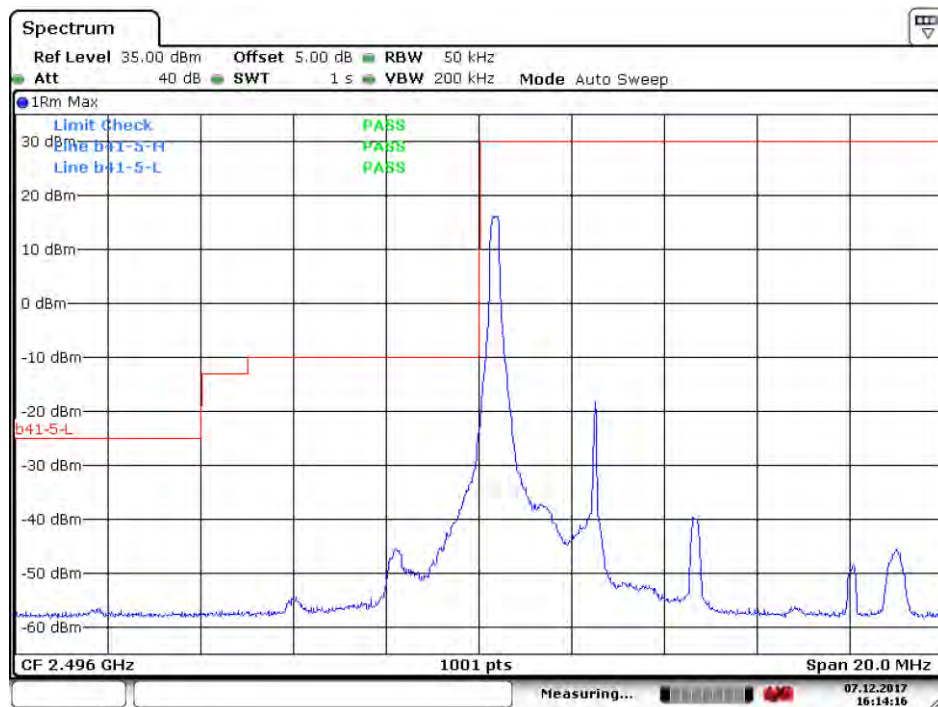
### 5.1 For LTE

#### 5.1.1 Test Band = LTE band41

##### 5.1.1.1 Test Mode = LTE/TM1 5MHz

##### 5.1.1.1.1 Test Channel = LCH

##### 5.1.1.1.1.1 Test RB=1RB

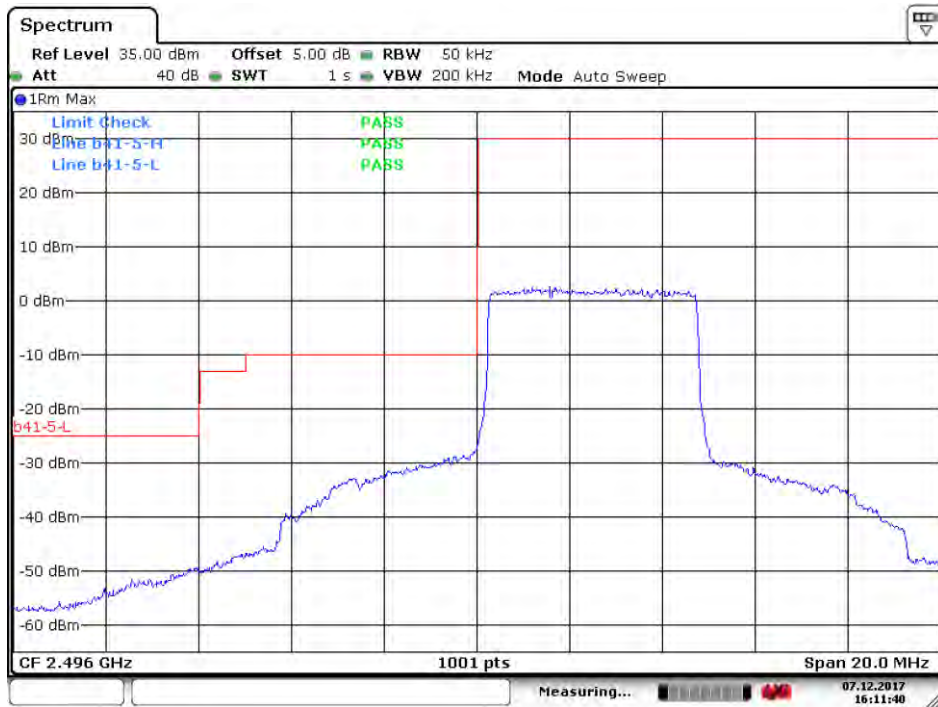


Date: 7.DEC.2017 16:14:17





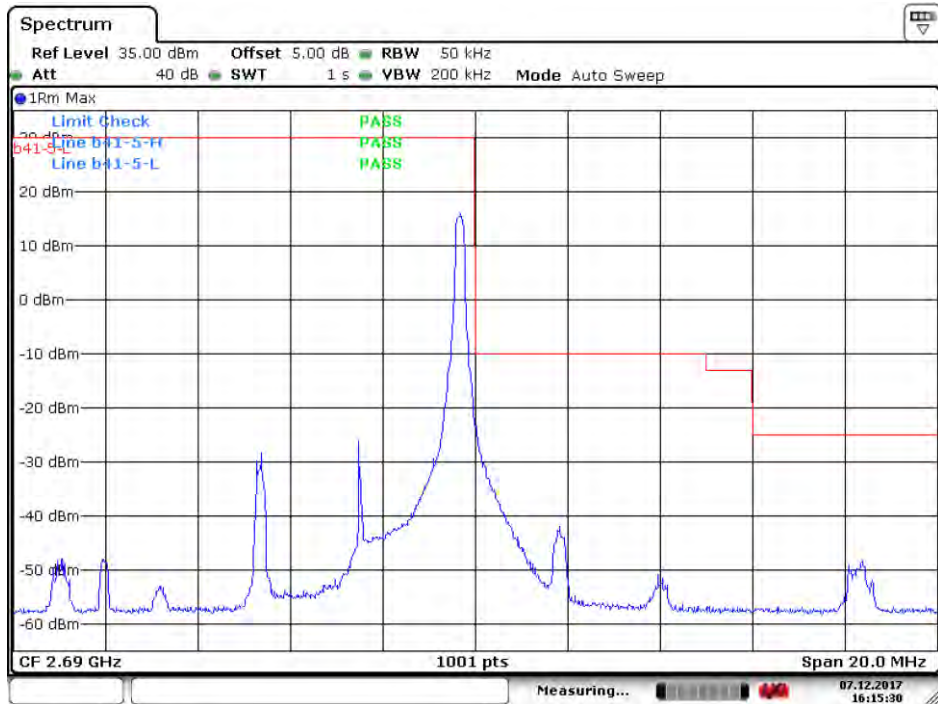
### 5.1.1.1.2 Test RB=25RB



Date: 7.DEC.2017 16:11:40

### 5.1.1.2 Test Channel = HCH

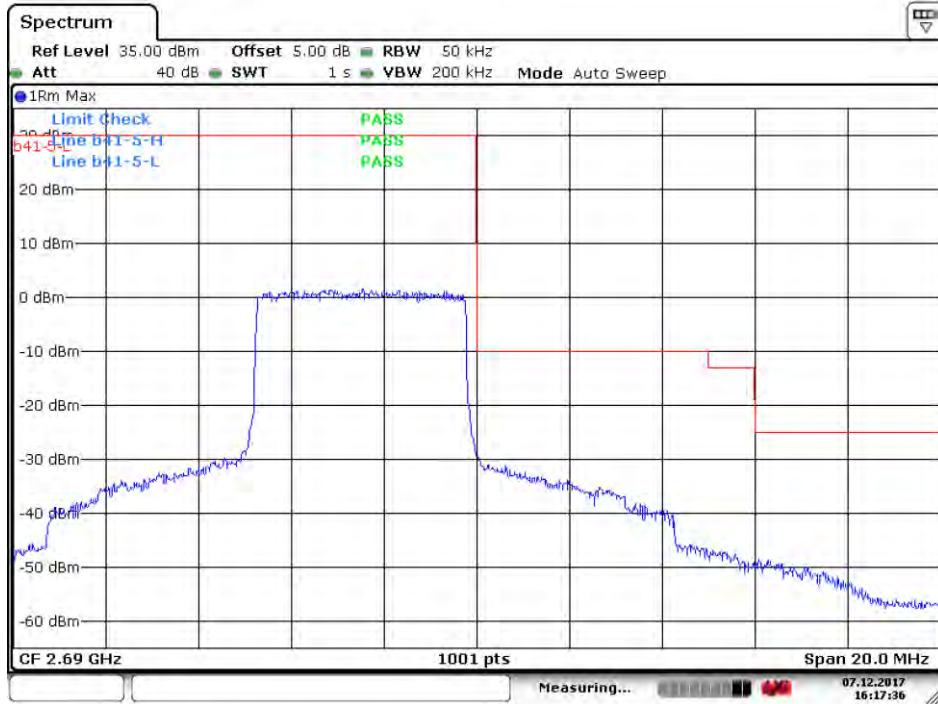
#### 5.1.1.1.2.1 Test RB=1RB



Date: 7.DEC.2017 16:15:31



5.1.1.1.2.2 Test RB=25RB

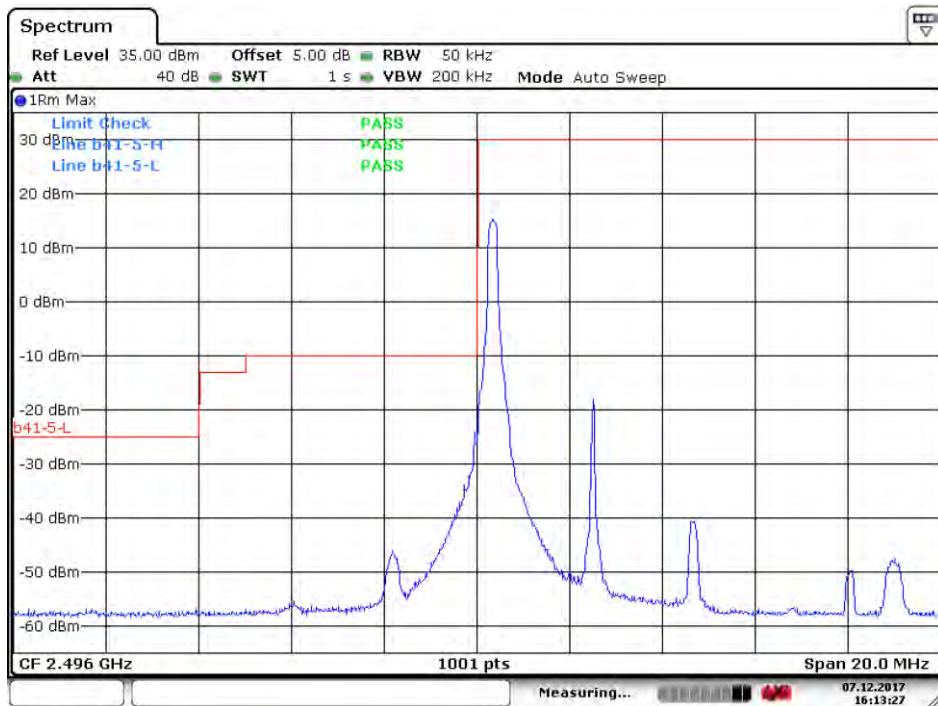


Date: 7.DEC.2017 16:17:36

5.1.1.2 Test Mode = LTE/TM2 5MHz

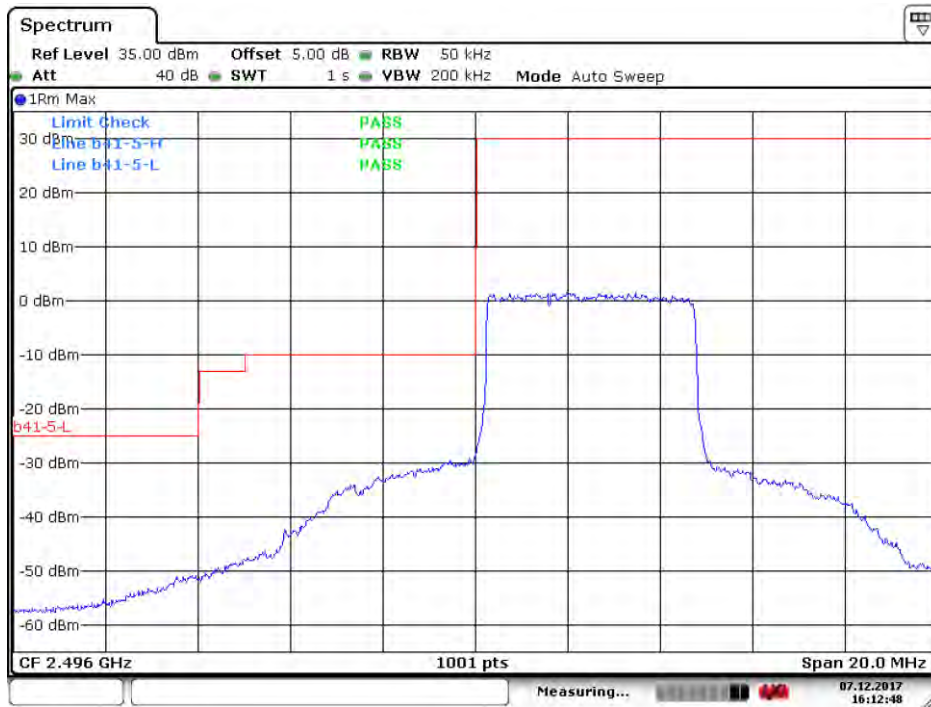
5.1.1.2.1 Test Channel = LCH

5.1.1.2.1.1 Test RB=1RB



Date: 7.DEC.2017 16:13:28

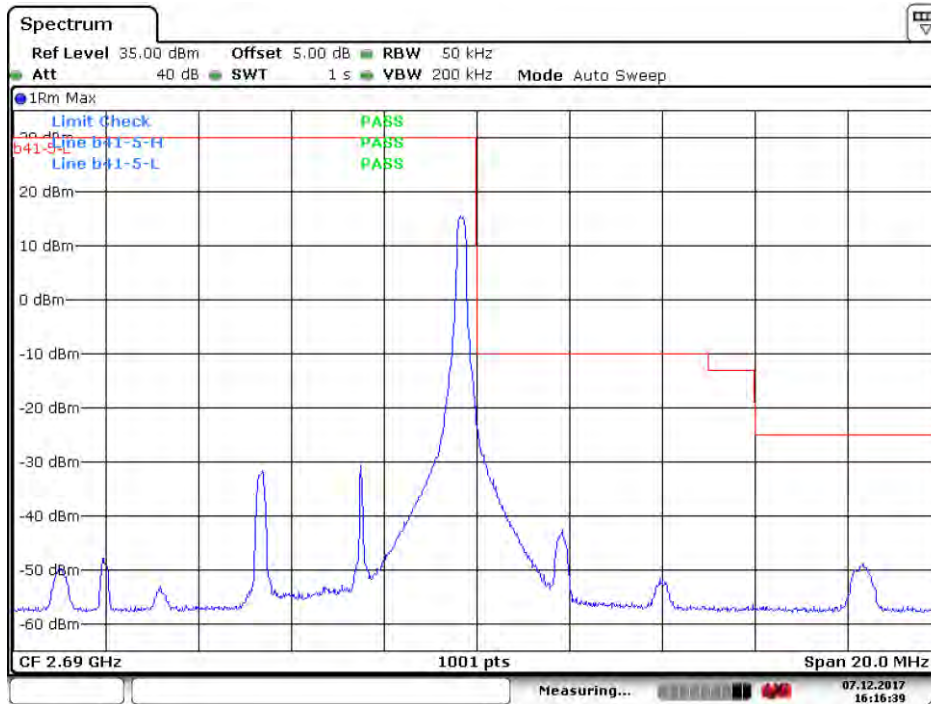
**5.1.1.2.1.2 Test RB=25RB**



Date: 7.DEC.2017 16:12:48

**5.1.1.2.2 Test Channel = HCH0-iuh**

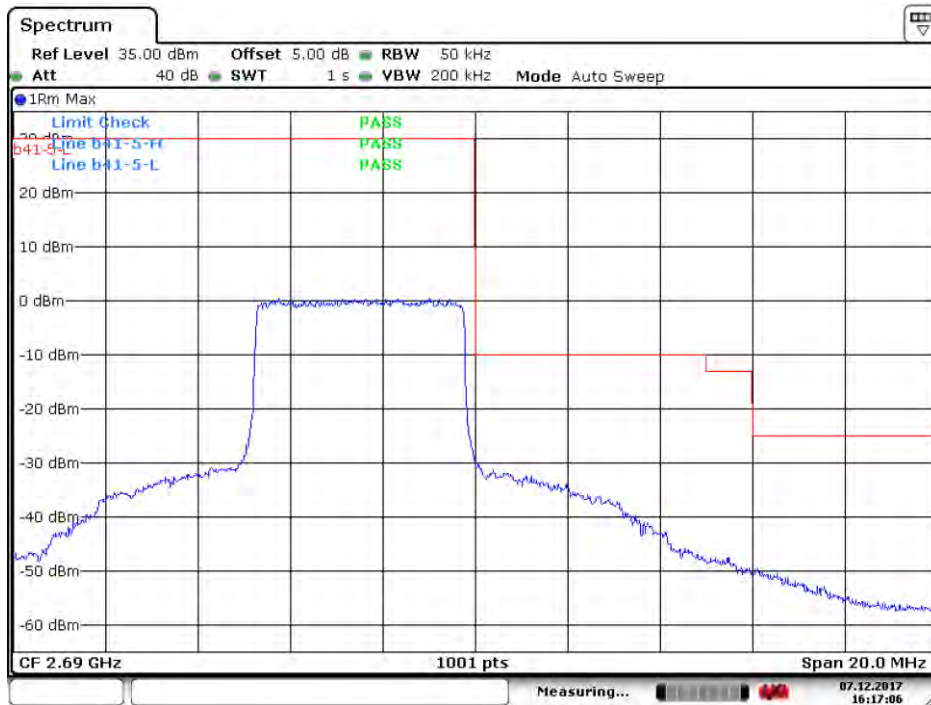
**5.1.1.2.2.1 Test RB=1RB**



Date: 7.DEC.2017 16:16:39



### 5.1.1.2.2 Test RB=25RB

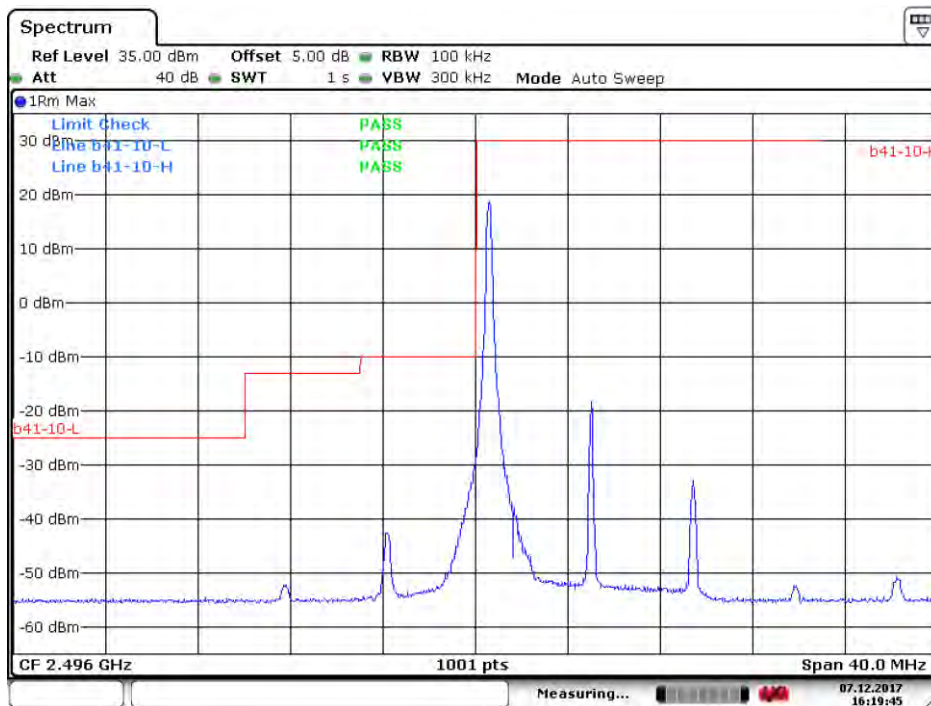


Date: 7.DEC.2017 16:17:07

### 5.1.1.3 Test Mode = LTE/TM1 10MHz

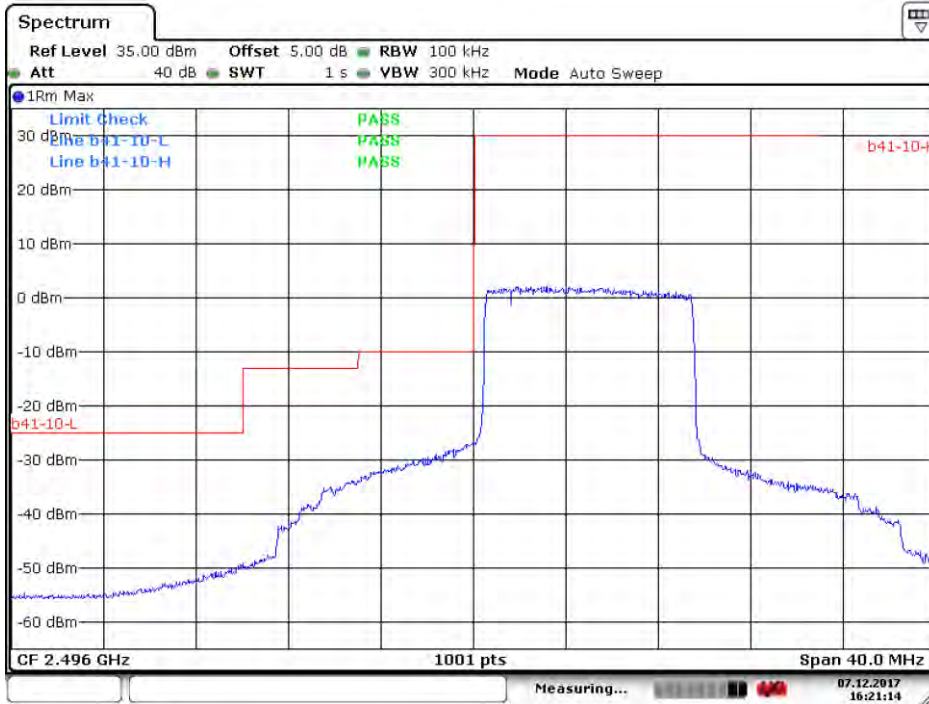
#### 5.1.1.3.1 Test Channel = LCH

##### 5.1.1.3.1.1 Test RB=1RB



Date: 7.DEC.2017 16:19:45

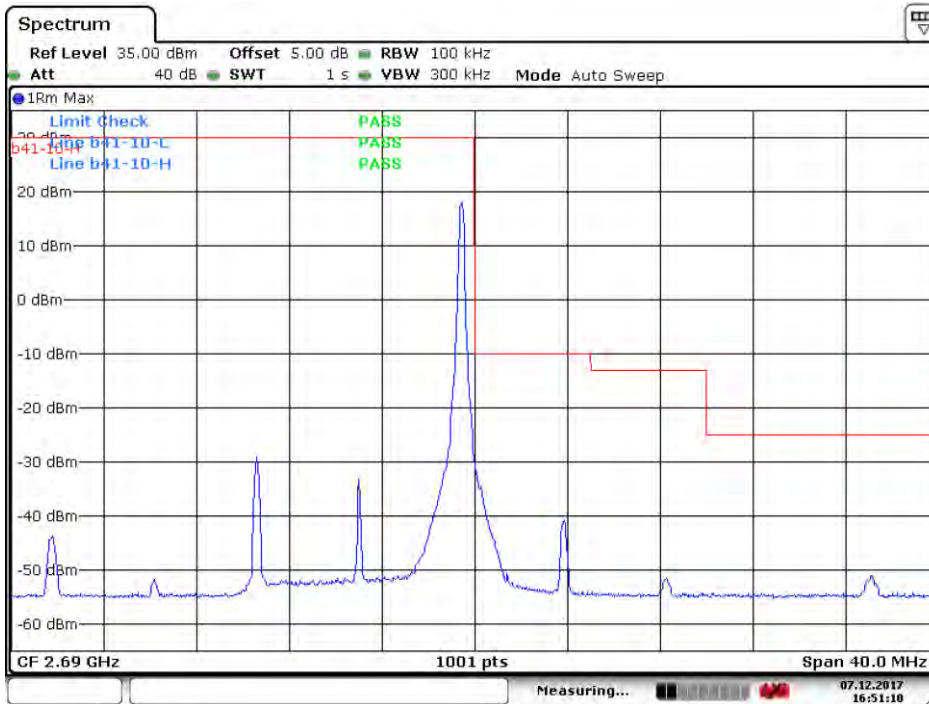
**5.1.1.3.1.2 Test RB=50RB**



Date: 7.DEC.2017 16:21:15

**5.1.1.3.2 Test Channel = HCH**

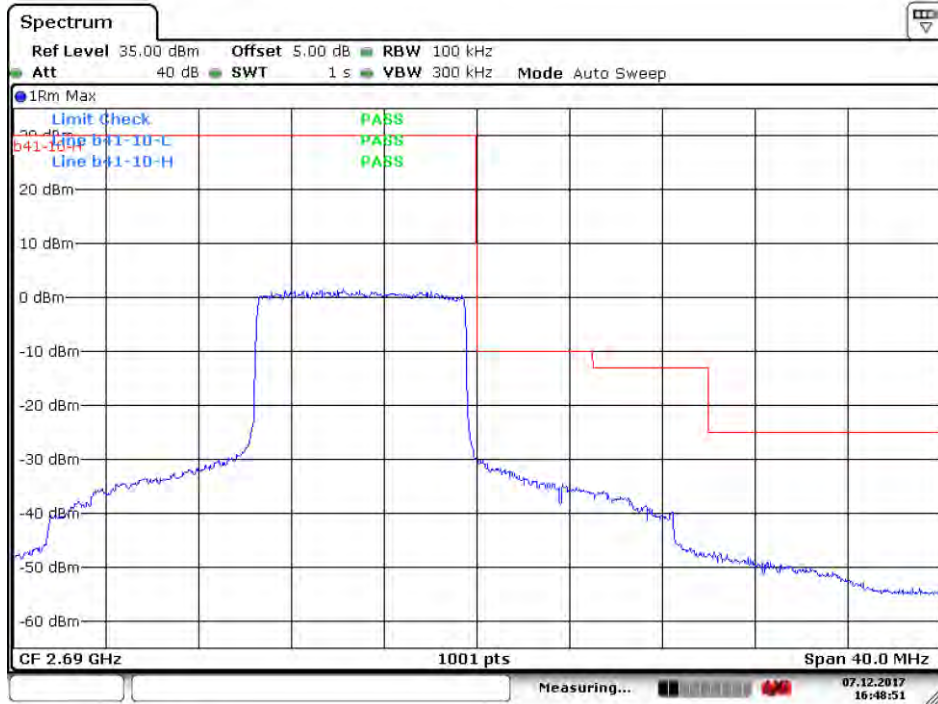
**5.1.1.3.2.1 Test RB=1RB**



Date: 7.DEC.2017 16:51:10



5.1.1.3.2.2 Test RB=50RB

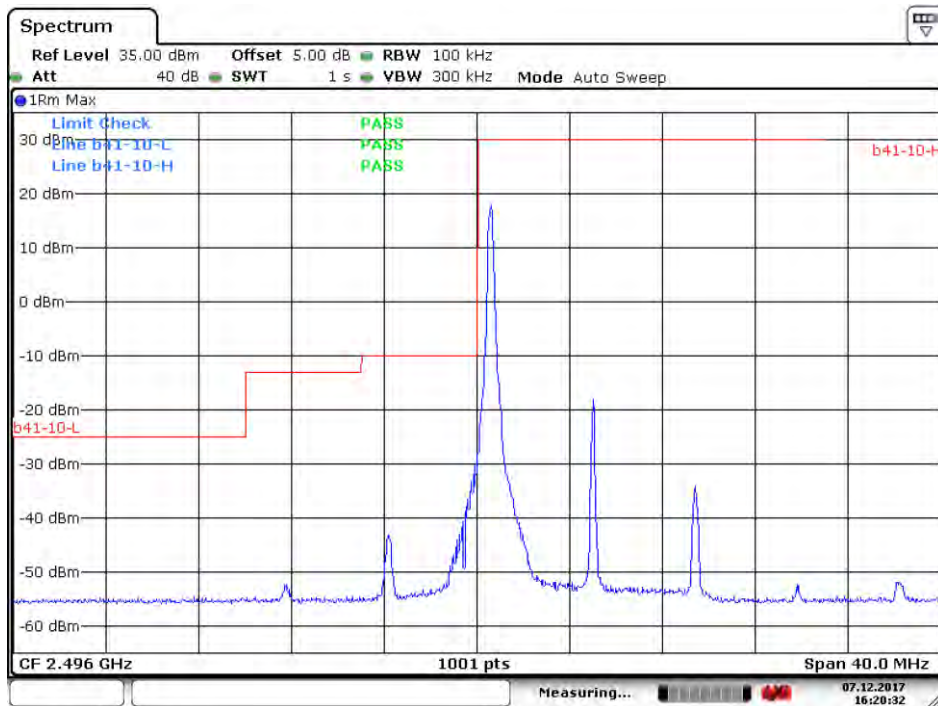


Date: 7.DEC.2017 16:48:51

5.1.1.4 Test Mode = LTE/TM2 10MHz

5.1.1.4.1 Test Channel = LCH

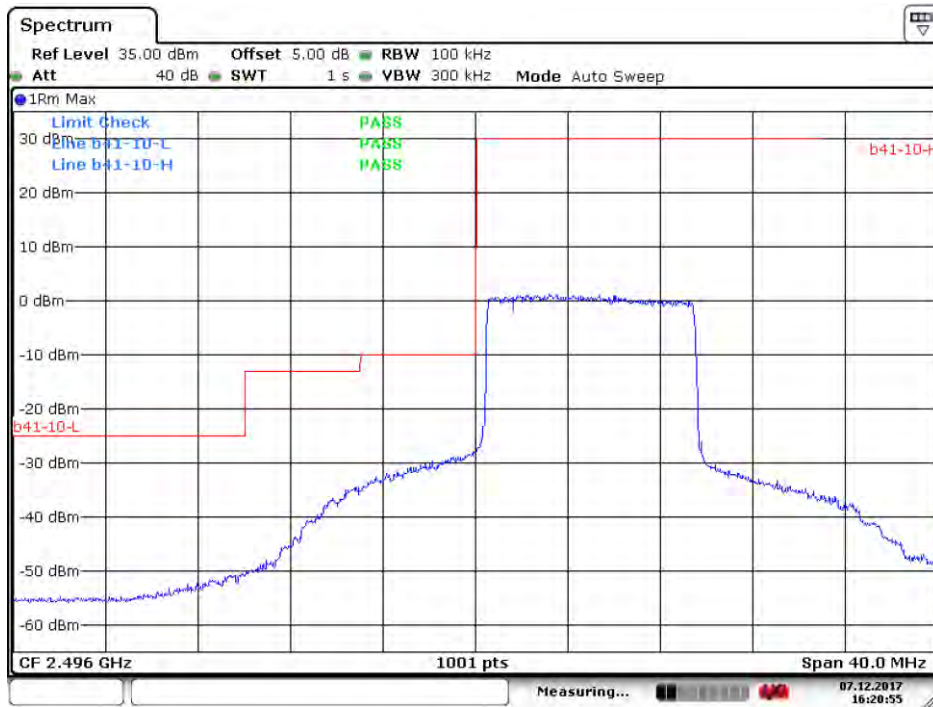
5.1.1.4.1.1 Test RB=1RB



Date: 7.DEC.2017 16:20:32



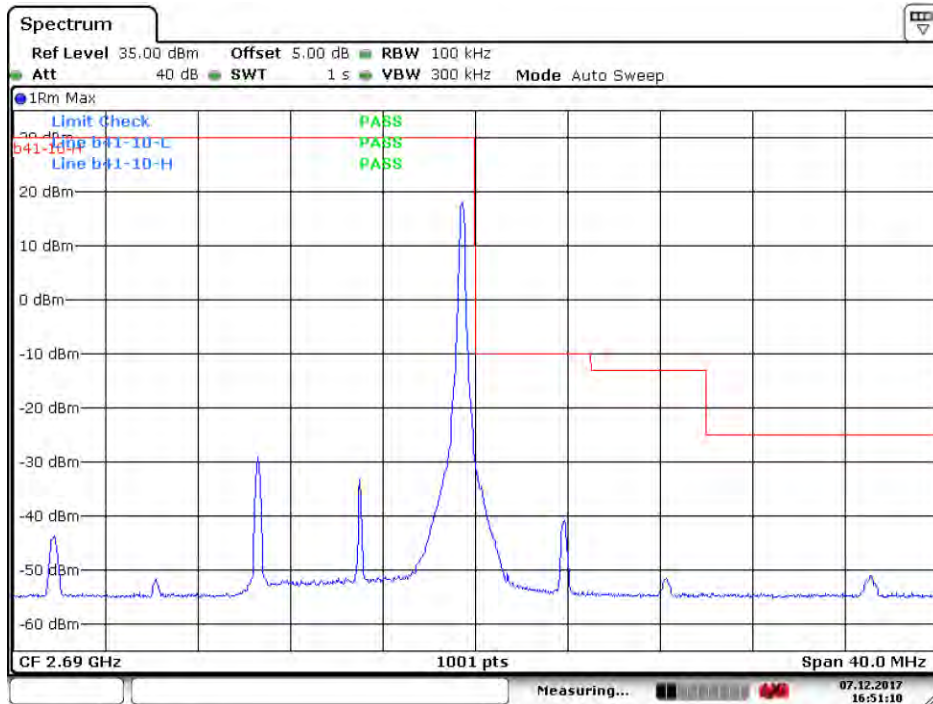
### 5.1.1.4.1.2 Test RB=50RB



Date: 7.DEC.2017 16:20:56

### 5.1.1.4.2 Test Channel = HCH

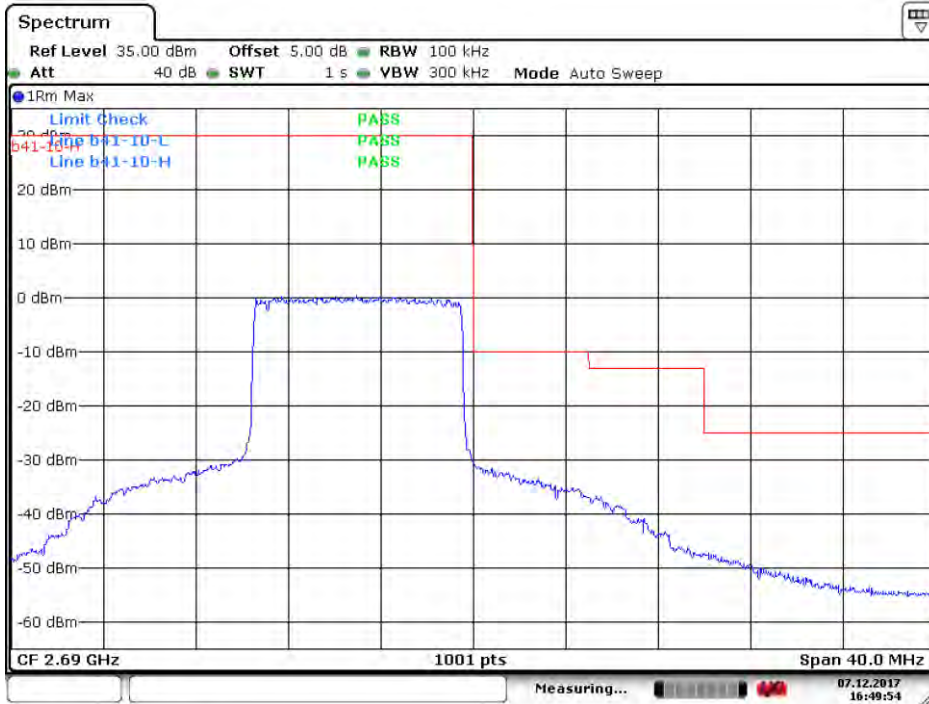
#### 5.1.1.4.2.1 Test RB=1RB



Date: 7.DEC.2017 16:51:10



5.1.1.4.2.2 Test RB=50RB

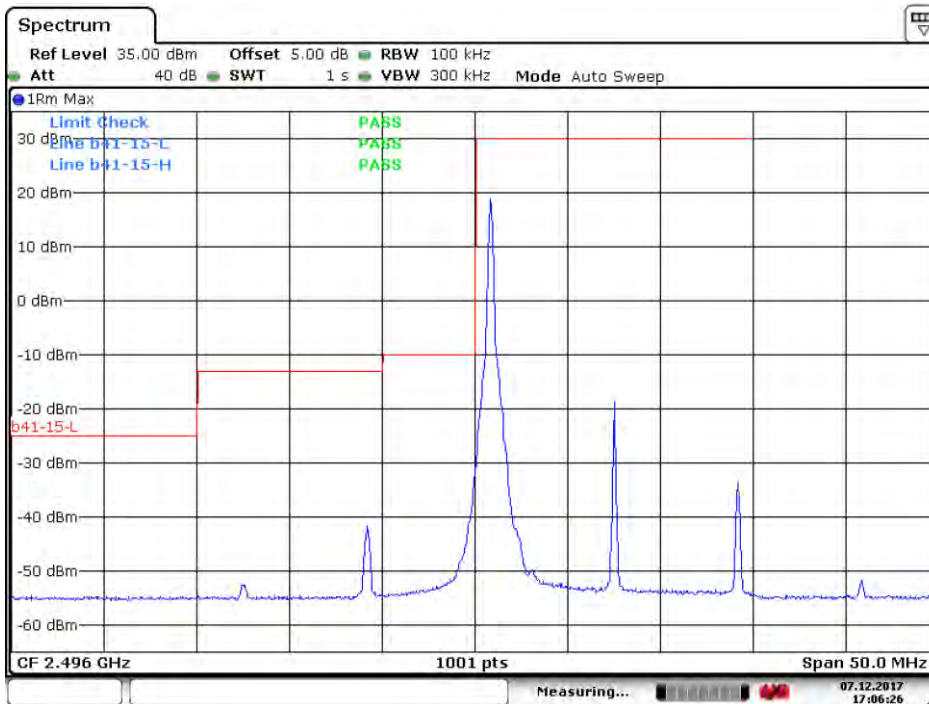


Date: 7.DEC.2017 16:49:54

Test Mode = LTE/TM1 15MHz

5.1.1.4.3 Test Channel = LCH

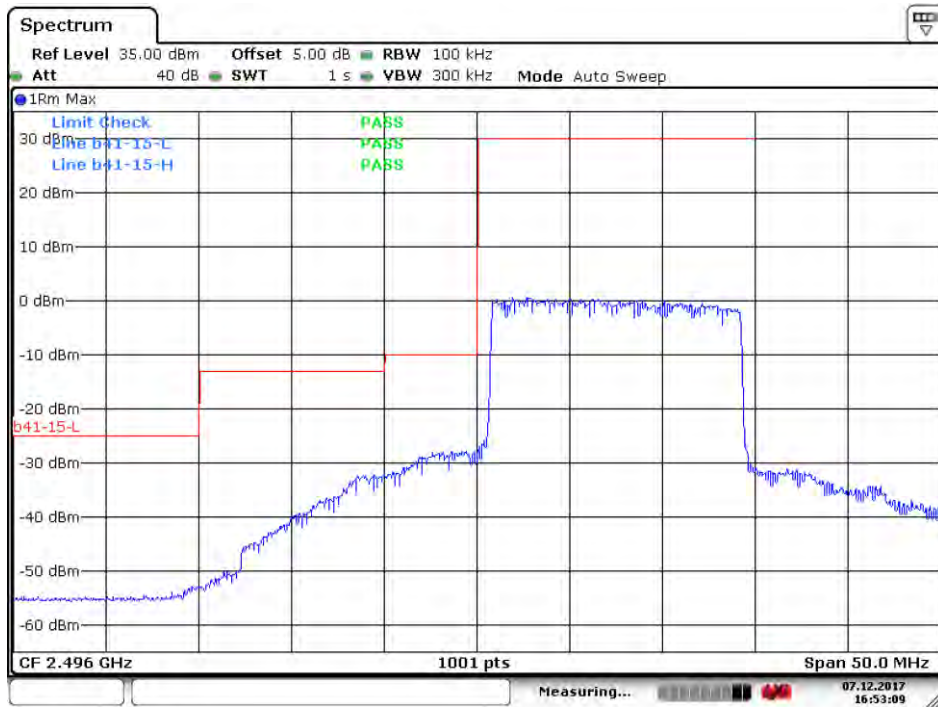
5.1.1.4.3.1 Test RB=1RB



Date: 7.DEC.2017 17:06:26



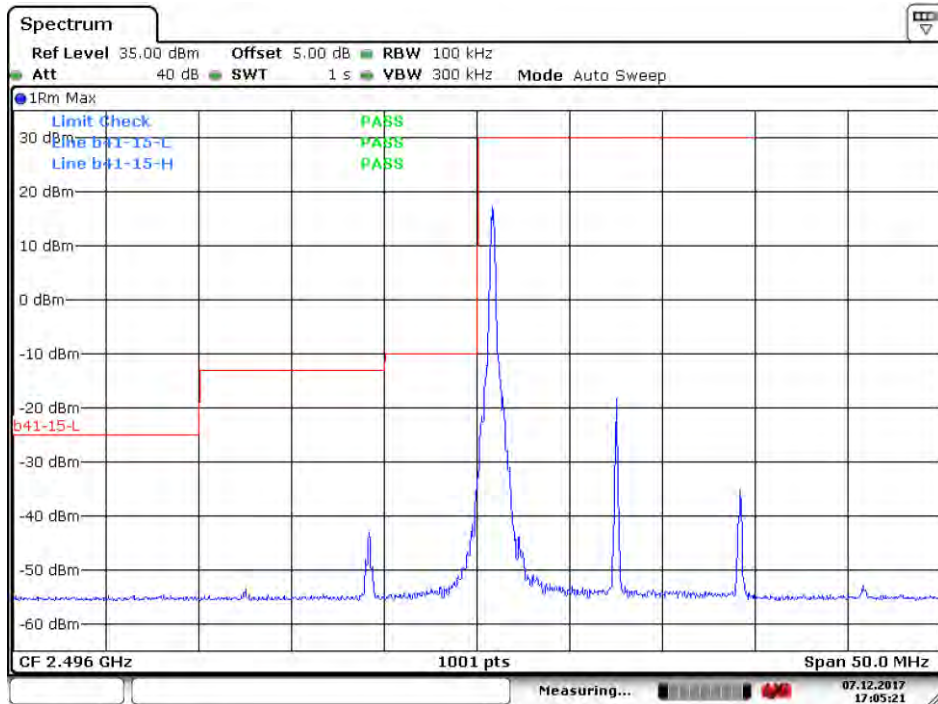
**5.1.1.4.3.2 Test RB=75RB**



Date: 7. DEC. 2017 16:53:09

**5.1.1.4.4 Test Channel = HCH**

**5.1.1.4.4.1 Test RB=1RB**



Date: 7. DEC. 2017 17:05:22



5.1.1.4.4.2 Test RB=75RB

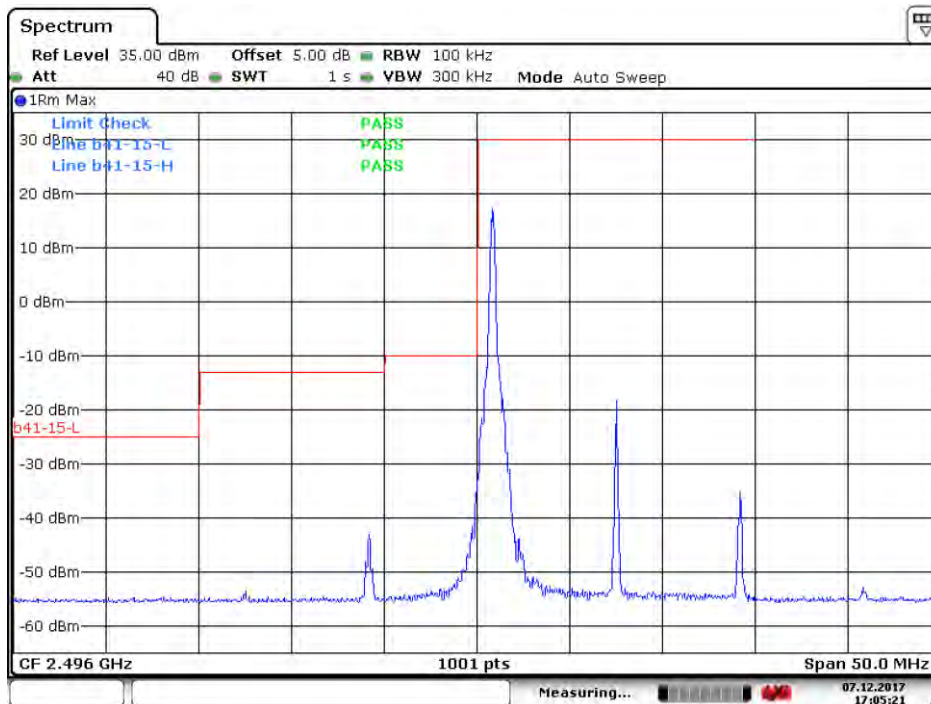


Date: 7.DEC.2017 17:10:04

5.1.1.5 Test Mode = LTE/TM2 15MHz

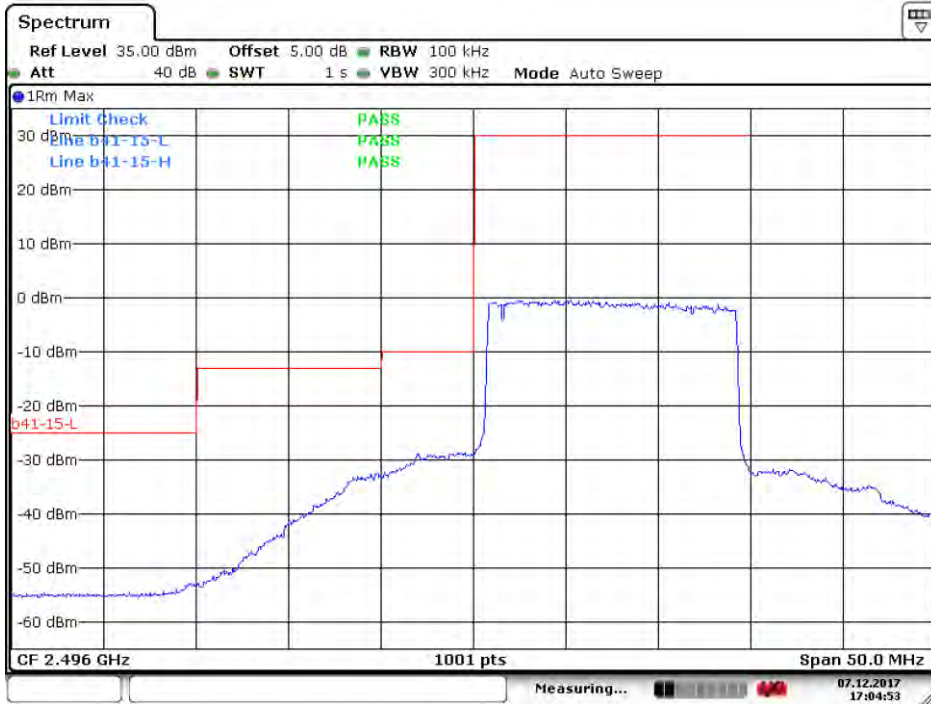
5.1.1.5.1 Test Channel = LCH

5.1.1.5.1.1 Test RB=1RB



Date: 7.DEC.2017 17:05:22

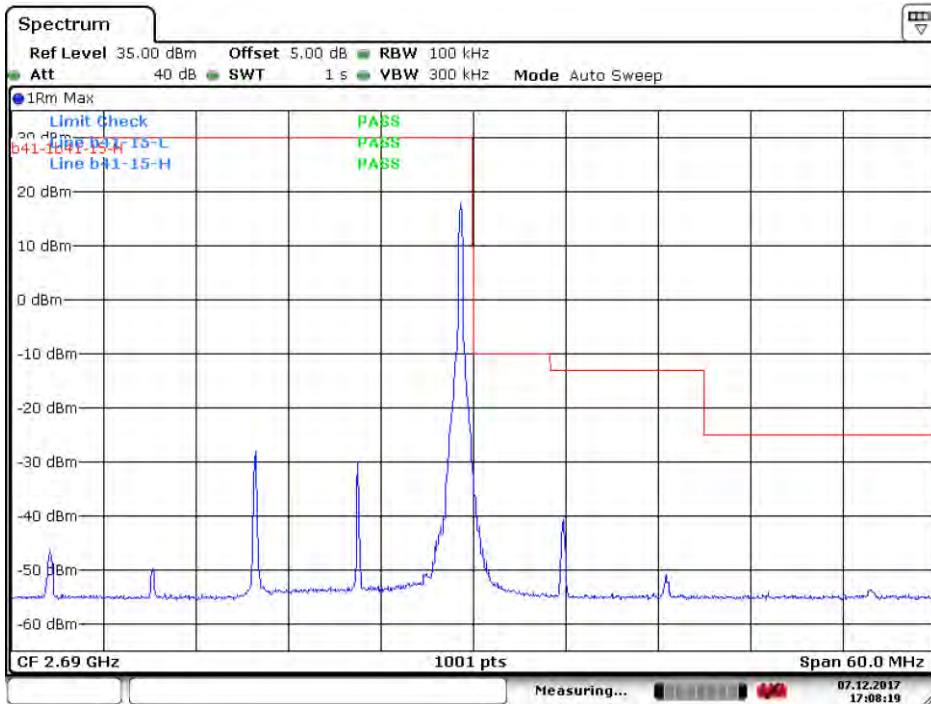
**5.1.1.5.1.2 Test RB=75RB**



Date: 7.DEC.2017 17:04:53

**5.1.1.5.2 Test Channel = HCH**

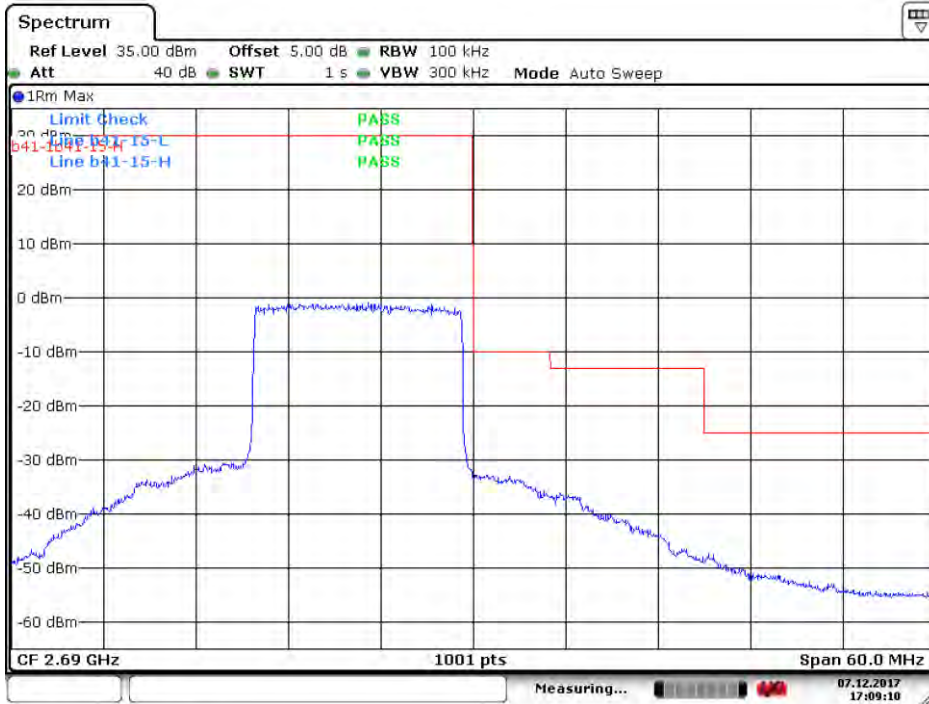
**5.1.1.5.2.1 Test RB=1RB**



Date: 7.DEC.2017 17:08:20



5.1.1.5.2.2 Test RB=75RB

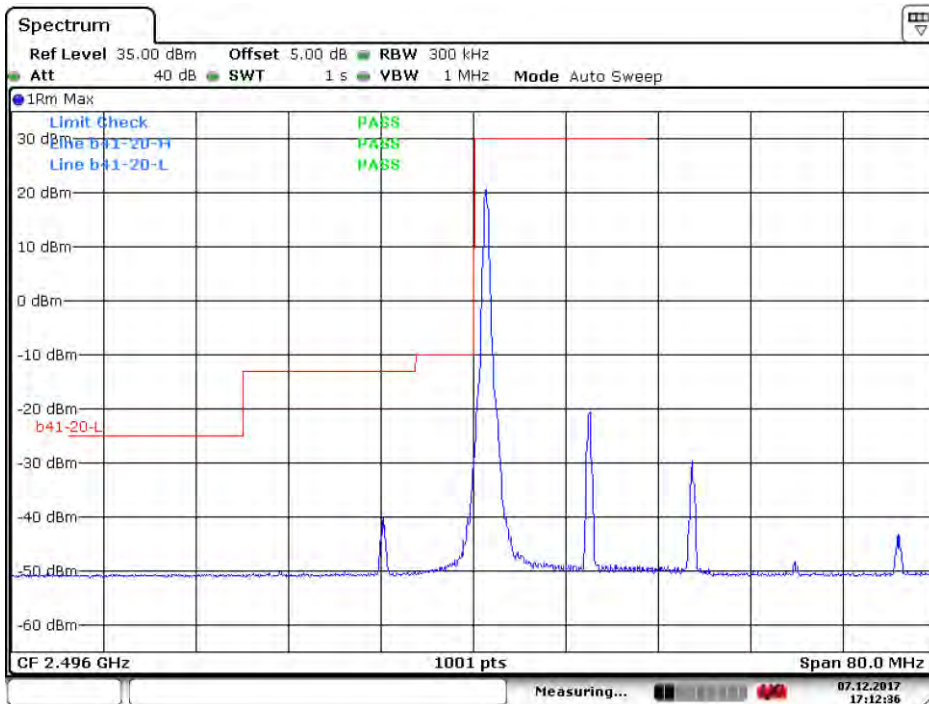


Date: 7.DEC.2017 17:09:10

5.1.1.6 Test Mode = LTE/TM1 20MHz

5.1.1.6.1 Test Channel = LCH

5.1.1.6.1.1 Test RB=1RB



Date: 7.DEC.2017 17:12:36



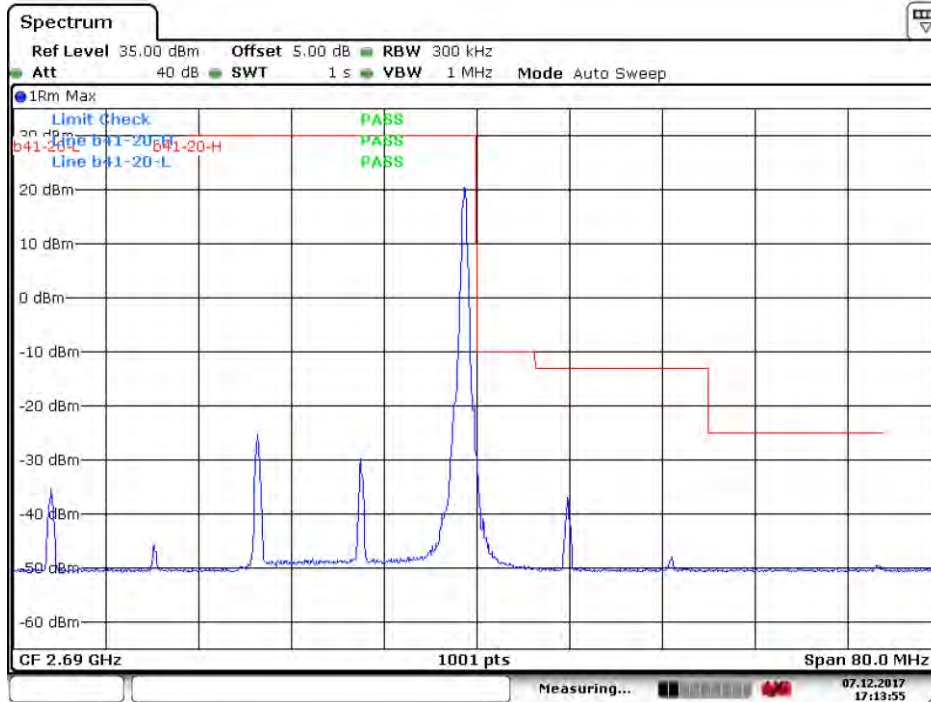
5.1.1.6.1.2 Test RB=100RB



Date: 7.DEC.2017 17:11:18

5.1.1.6.2 Test Channel = HCH

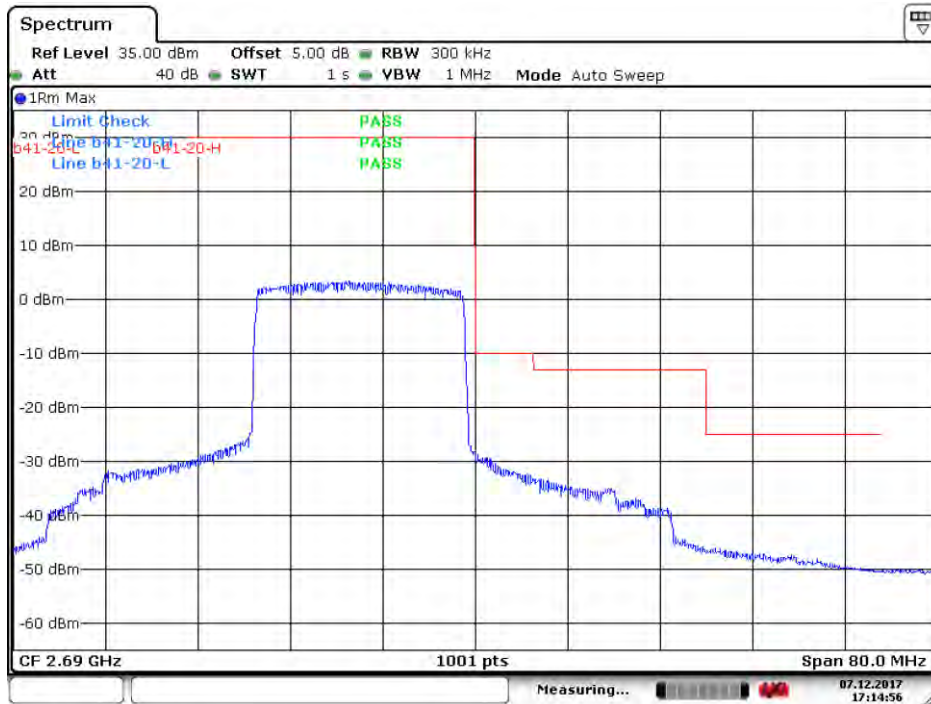
5.1.1.6.2.1 Test RB=1RB



Date: 7.DEC.2017 17:13:55



### 5.1.1.6.2.2 Test RB=100RB

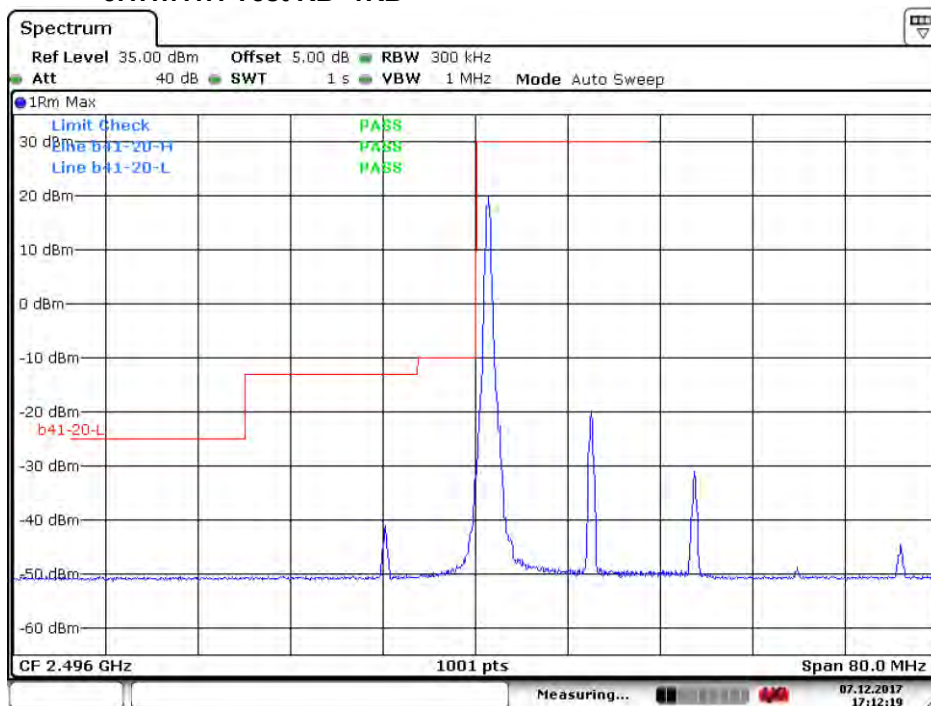


Date: 7.DEC.2017 17:14:56

### 5.1.1.7 Test Mode = LTE/TM2 20MHz

#### 5.1.1.7.1 Test Channel = LCH

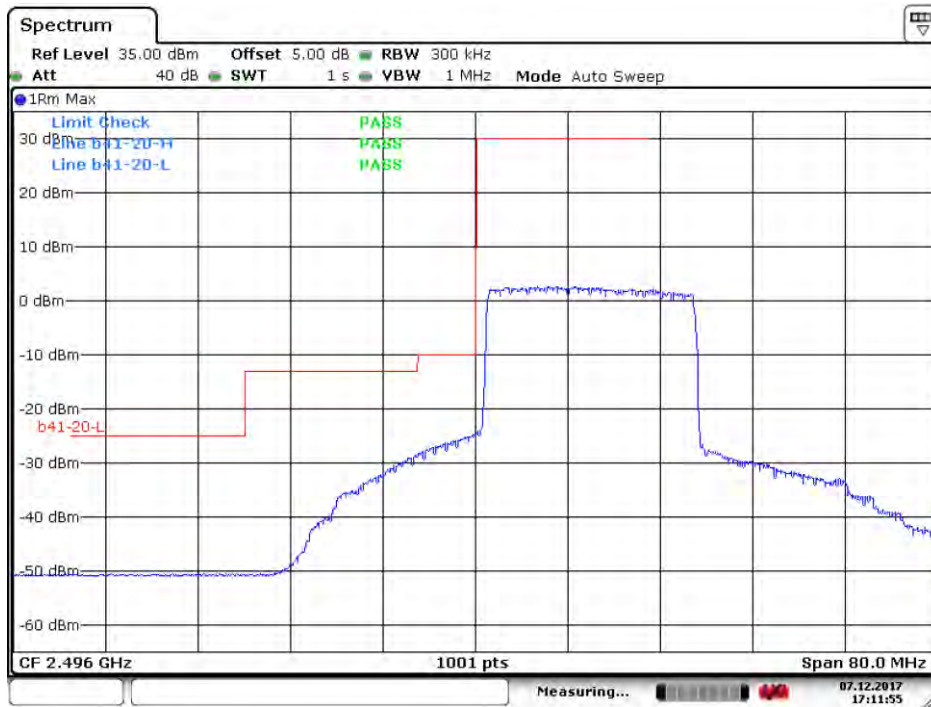
##### 5.1.1.7.1.1 Test RB=1RB



Date: 7.DEC.2017 17:12:20



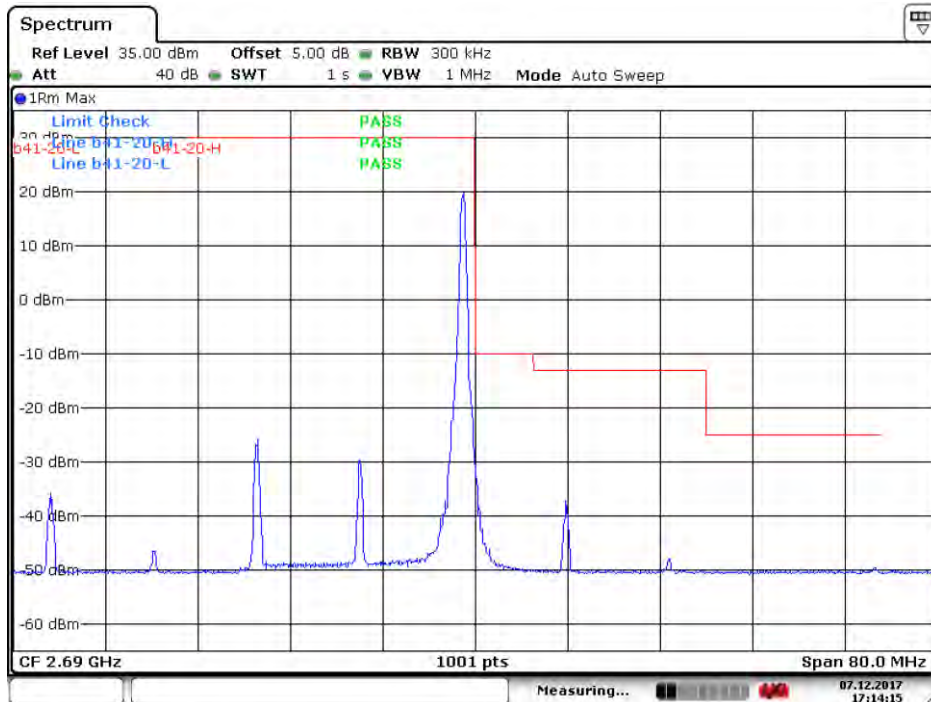
### 5.1.1.7.1.2 Test RB=100RB



Date: 7.DEC.2017 17:11:56

### 5.1.1.7.2 Test Channel = HCH

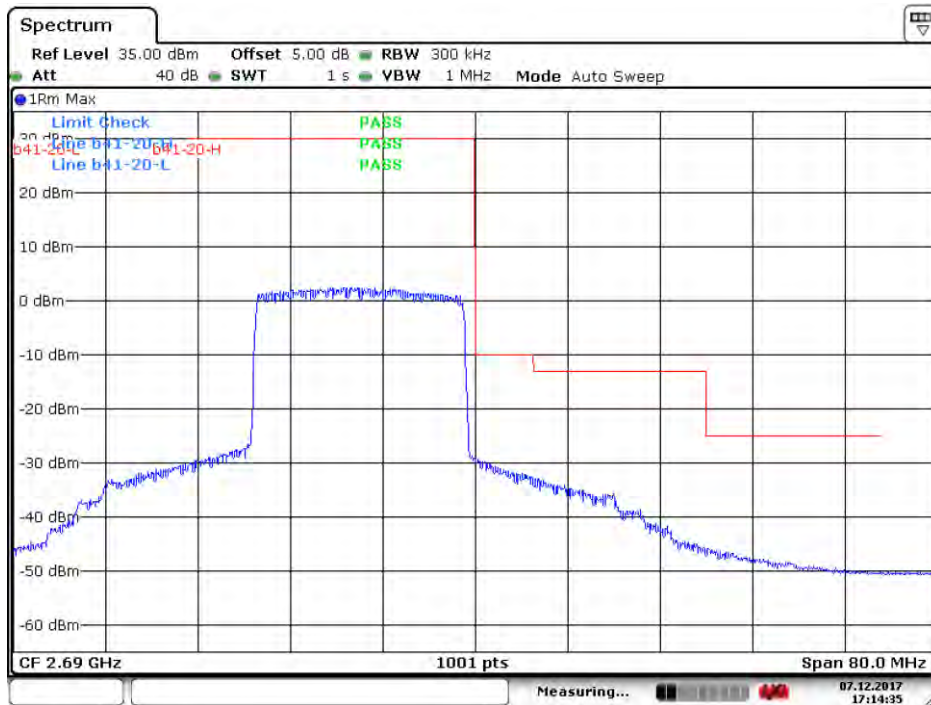
#### 5.1.1.7.2.1 Test RB=1RB



Date: 7.DEC.2017 17:14:15



5.1.1.7.2.2 Test RB=100RB



Date: 7.DEC.2017 17:14:36





## 6 Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep are 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.

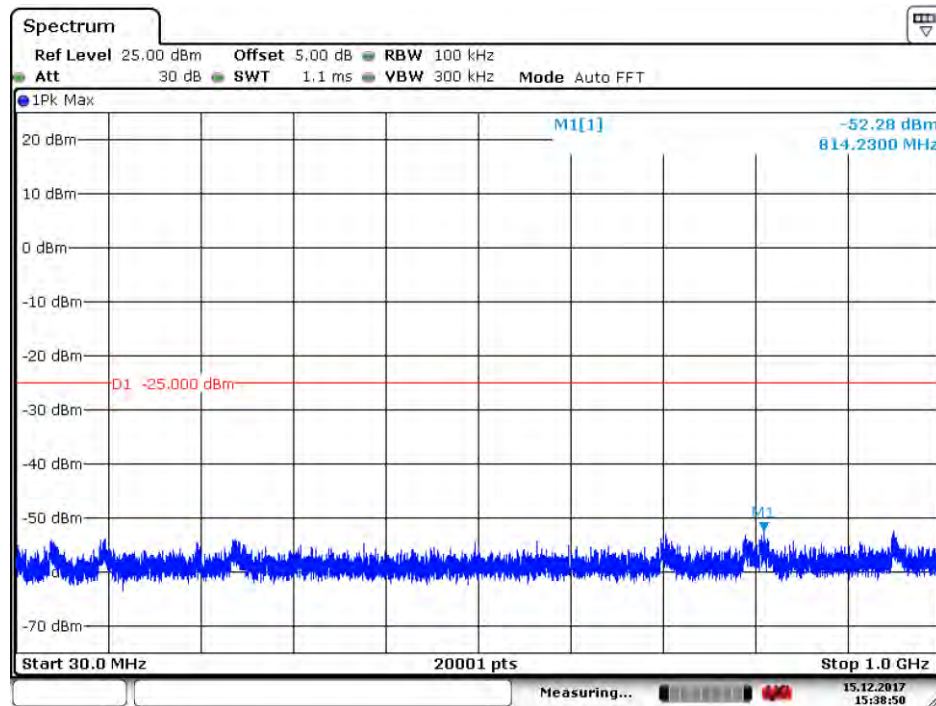
Part I - Test Plots

### 6.1 For LTE

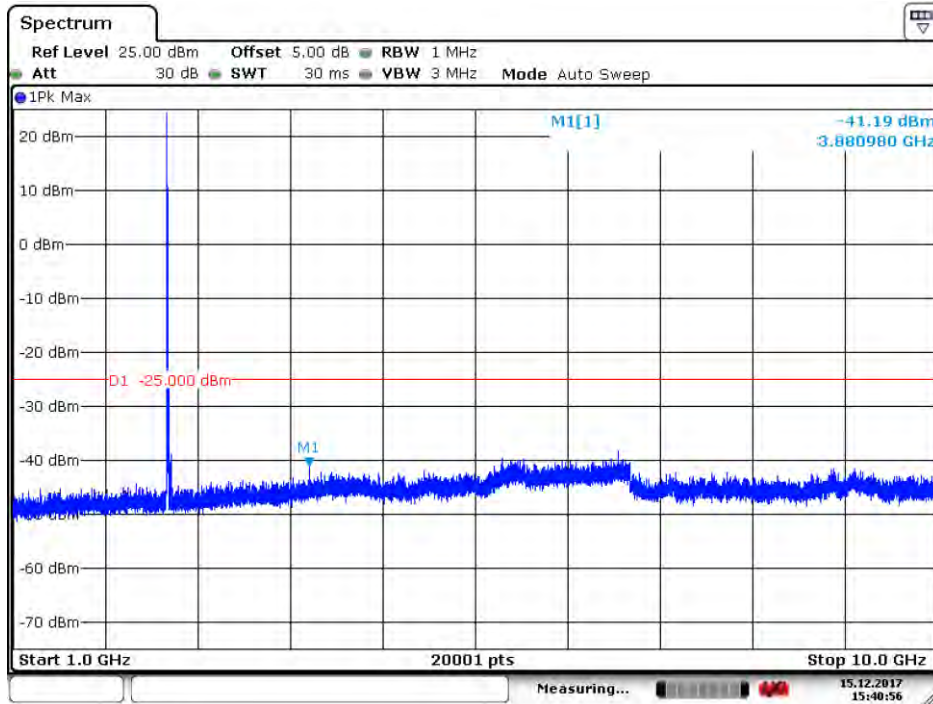
#### 6.1.1 Test Band = LTE band41

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

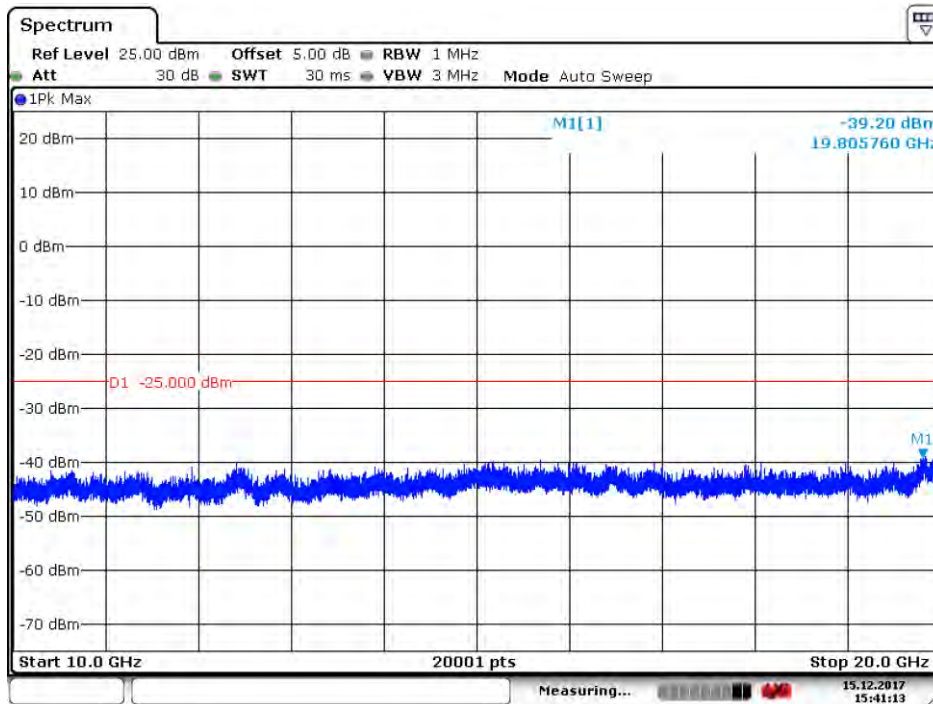
##### 6.1.1.1.1 Test Channel = LCH



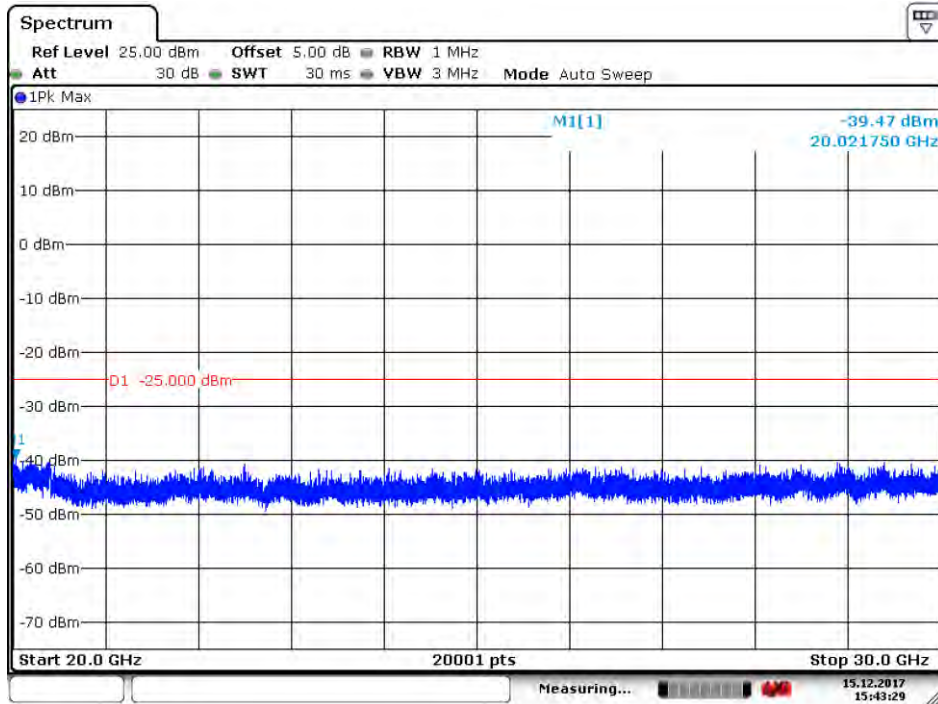
Date: 15.DEC.2017 15:38:50



Date: 15.DEC.2017 15:40:56

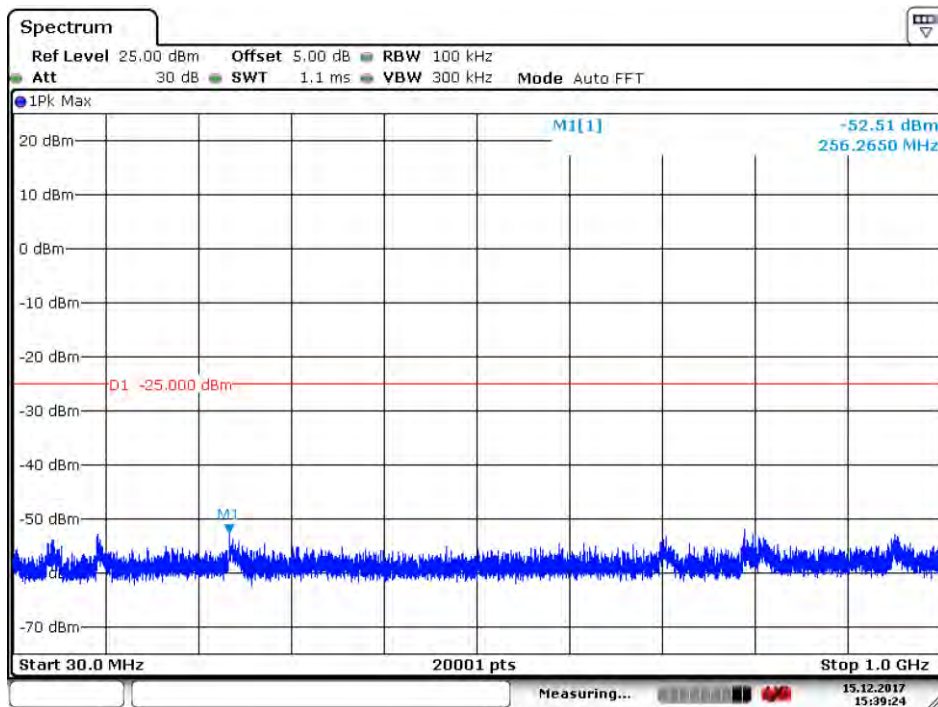


Date: 15.DEC.2017 15:41:13

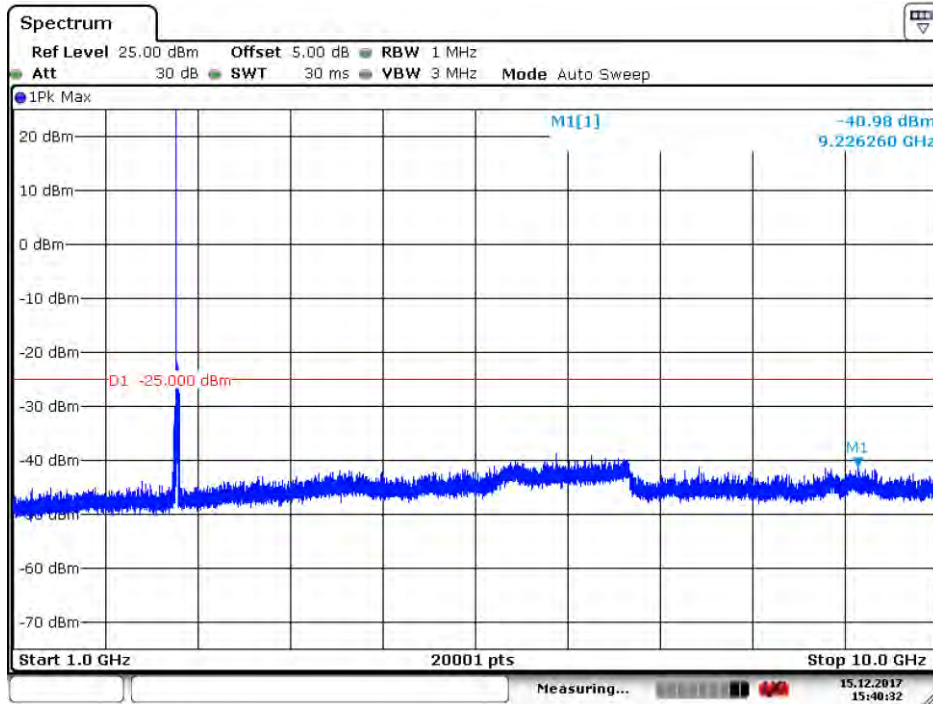


Date: 15.DEC.2017 15:43:29

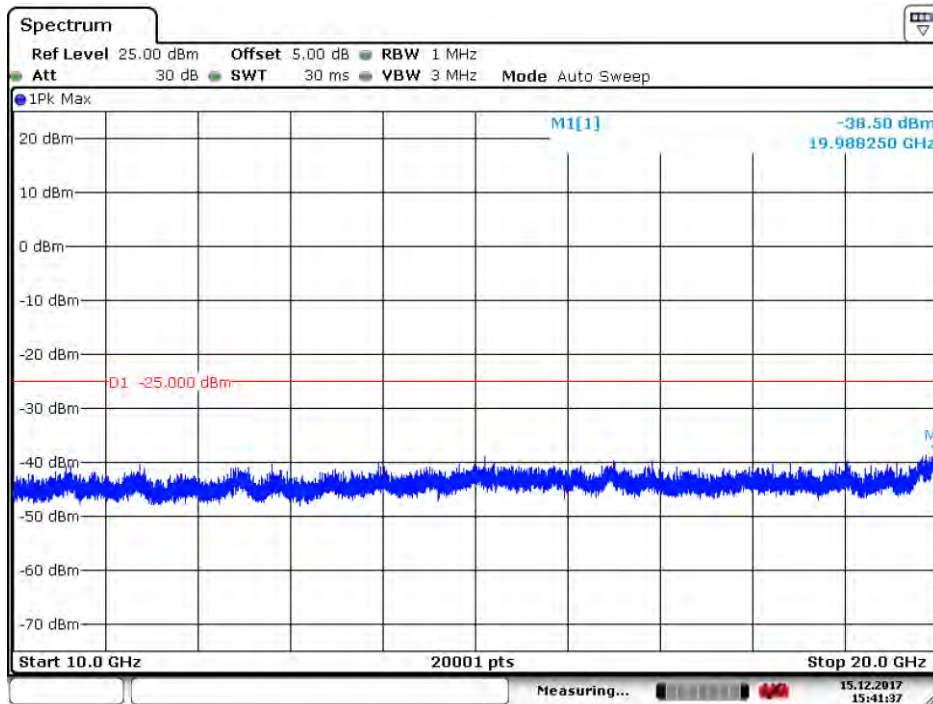
### 6.1.1.1.2 Test Channel = MCH



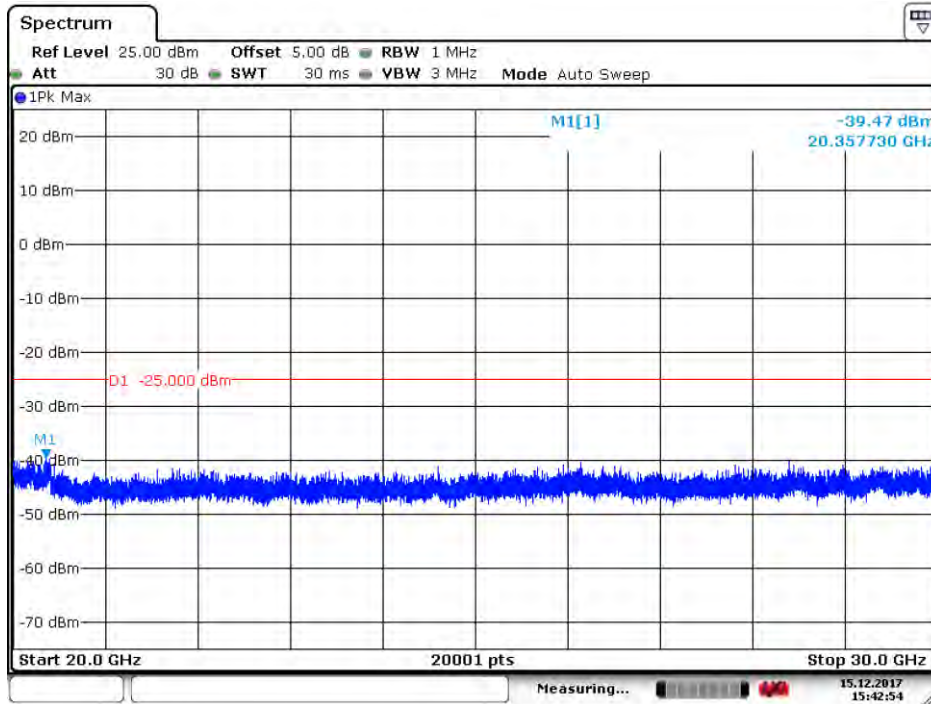
Date: 15.DEC.2017 15:39:25



Date: 15.DEC.2017 15:40:33

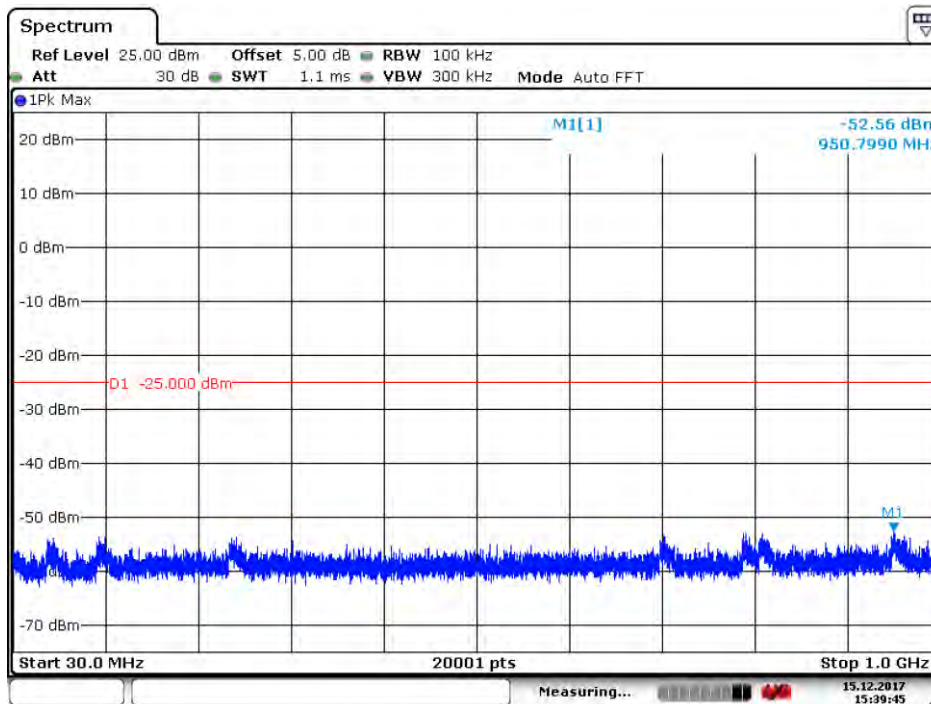


Date: 15.DEC.2017 15:41:38

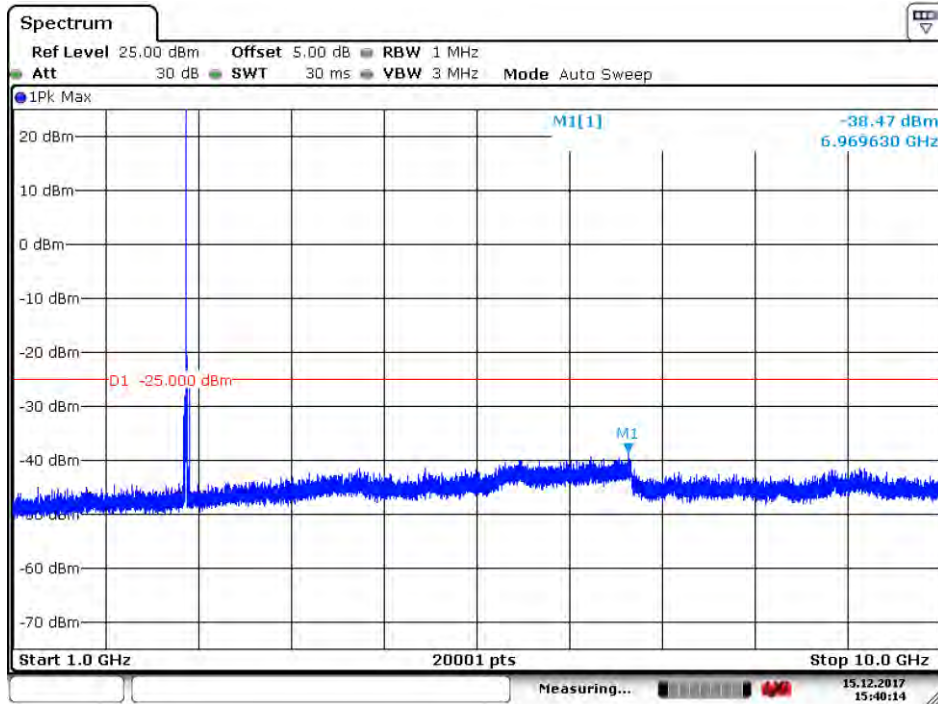


Date: 15.DEC.2017 15:42:54

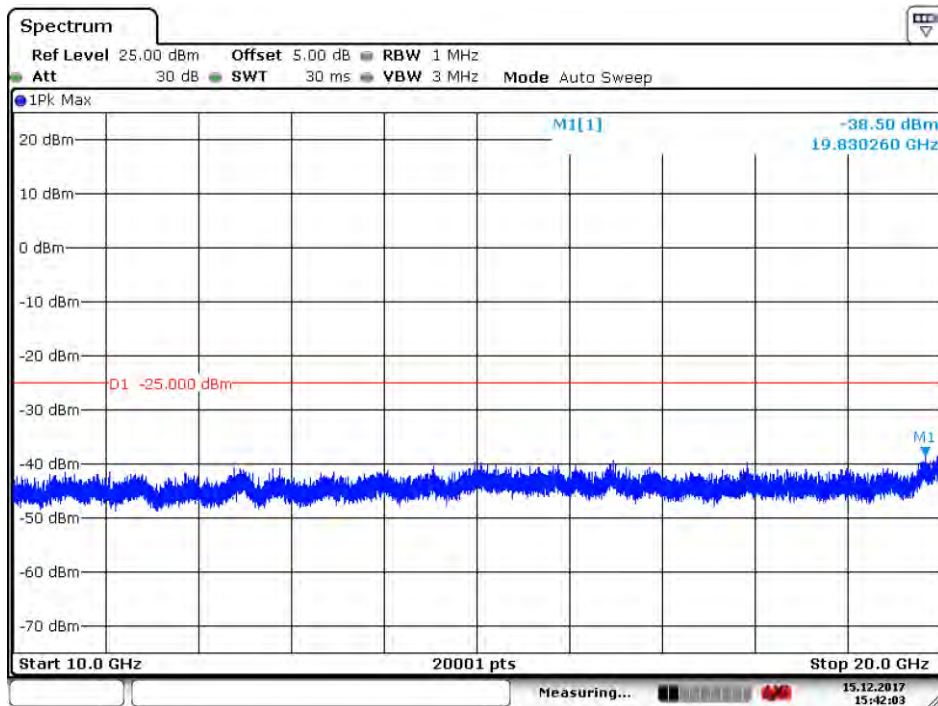
### 6.1.1.1.3 Test Channel = HCH



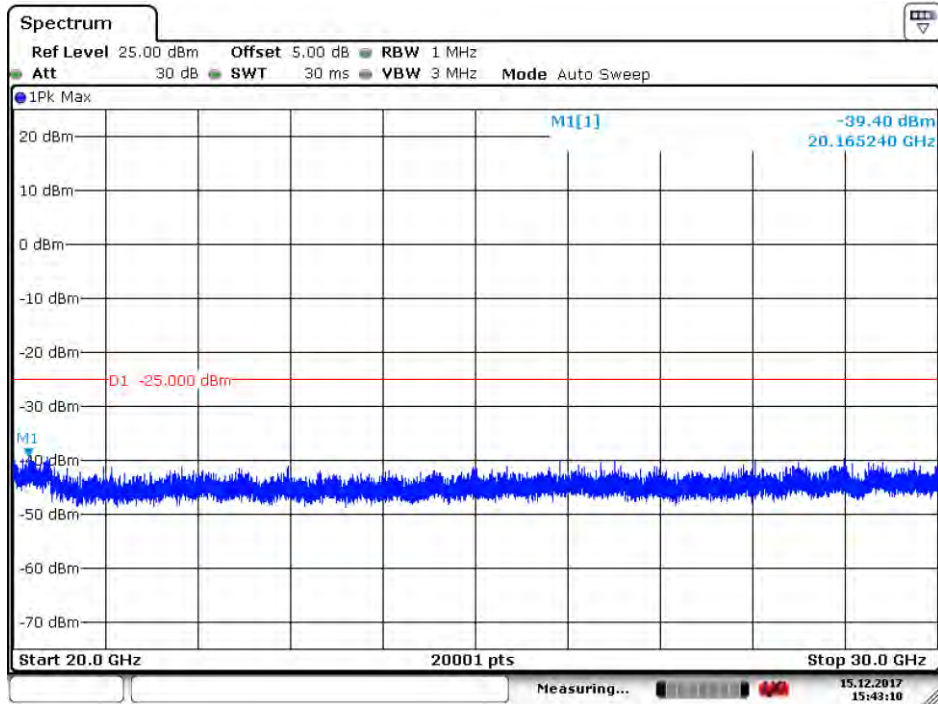
Date: 15.DEC.2017 15:39:45



Date: 15.DEC.2017 15:40:15



Date: 15.DEC.2017 15:42:03



Date: 15.DEC.2017 15:43:10



## 7 Field Strength of Spurious Radiation

### 7.1 For LTE

#### 7.1.1 Test Band = LTE band41

##### 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
40.050000	-72.44	-25.00	-47.44	Vertical
73.300000	-72.57	-25.00	-47.57	Vertical
172.800000	-69.31	-25.00	-44.31	Vertical
1193.000000	-66.35	-25.00	-41.35	Vertical
4433.250000	-67.06	-25.00	-42.06	Vertical
7491.175000	-63.00	-25.00	-38.00	Vertical
62.750000	-63.00	-25.00	-38.00	Horizontal
126.050000	-74.38	-25.00	-49.38	Horizontal
194.500000	-78.17	-25.00	-53.17	Horizontal
1476.500000	-65.97	-25.00	-40.97	Horizontal
4205.100000	-67.09	-25.00	-42.09	Horizontal
7491.175000	-62.11	-25.00	-37.11	Horizontal

###### 7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
41.100000	-66.34	-25.00	-41.34	Vertical
166.700000	-66.18	-25.00	-41.18	Vertical
800.716667	-66.95	-25.00	-41.95	Vertical
1213.500000	-65.97	-25.00	-40.97	Vertical
4202.825000	-66.99	-25.00	-41.99	Vertical
6029.325000	-65.22	-25.00	-40.22	Vertical
66.000000	-73.31	-25.00	-48.31	Horizontal
128.700000	-68.32	-25.00	-43.32	Horizontal
165.500000	-70.33	-25.00	-45.33	Horizontal
1204.000000	-66.71	-25.00	-41.71	Horizontal
3642.525000	-68.60	-25.00	-43.60	Horizontal
7801.550000	-64.11	-25.00	-39.11	Horizontal





**7.1.1.1.3 Test Channel = HCH**

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
72.500000	-72.74	-25.00	-47.74	Vertical
168.050000	-70.36	-25.00	-45.36	Vertical
301.100000	-73.98	-25.00	-48.98	Vertical
1225.000000	-66.25	-25.00	-41.25	Vertical
5341.950000	-65.65	-25.00	-40.65	Vertical
10684.625000	-59.62	-25.00	-34.62	Vertical
64.100000	-77.44	-25.00	-52.44	Horizontal
128.150000	-75.25	-25.00	-50.25	Horizontal
198.700000	-77.16	-25.00	-52.16	Horizontal
5341.625000	-64.03	-25.00	-39.03	Horizontal
8013.450000	-53.70	-25.00	-28.70	Horizontal
10684.300000	-54.43	-25.00	-29.43	Horizontal

**NOTE:**

- 1) The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



## 8 Frequency Stability

### 8.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband41	LTE/TM1 20MHz	LCH	TN	VL	-4.69	-0.00187	PASS
				VN	1.46	0.00058	PASS
				VH	-2.73	-0.00109	PASS
		MCH	TN	VL	4.29	0.00165	PASS
				VN	-2.84	-0.00110	PASS
				VH	1.13	0.00044	PASS
		HCH	TN	VL	-4.56	-0.00170	PASS
				VN	-2.19	-0.00082	PASS
				VH	-3.79	-0.00141	PASS
	LTE/TM2 20MHz	LCH	TN	VL	-1.25	-0.00050	PASS
				VN	-4.25	-0.00170	PASS
				VH	-2.66	-0.00106	PASS
		MCH	TN	VL	2.56	0.00099	PASS
				VN	-2.40	-0.00093	PASS
				VH	4.39	0.00169	PASS
		HCH	TN	VL	-3.08	-0.00115	PASS
				VN	-8.72	-0.00325	PASS
				VH	4.84	0.00181	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
LTEband41	LTE/TM1 20MHz	LCH	VN	-30	-0.39	-0.00016	PASS
				-20	-1.15	-0.00046	PASS
				-10	2.58	0.00103	PASS
				0	1.80	0.00072	PASS
				10	1.35	0.00054	PASS
				20	0.52	0.00021	PASS
				30	-5.61	-0.00224	PASS
				40	-7.11	-0.00284	PASS
				50	3.69	0.00147	PASS
		MCH	VN	-30	-7.80	-0.00301	PASS
				-20	-2.91	-0.00112	PASS
				-10	-1.49	-0.00057	PASS
				0	-4.69	-0.00181	PASS
				10	-2.04	-0.00079	PASS
				20	-4.74	-0.00183	PASS
				30	-3.56	-0.00137	PASS
				40	-4.32	-0.00167	PASS
				50	-1.62	-0.00062	PASS
		HCH	VN	-30	0.24	0.00009	PASS
				-20	-1.73	-0.00065	PASS
				-10	1.83	0.00068	PASS
				0	-2.33	-0.00087	PASS
				10	2.67	0.00100	PASS
				20	-3.53	-0.00132	PASS
				30	-2.65	-0.00099	PASS
				40	-3.42	-0.00128	PASS
				50	-8.07	-0.00301	PASS

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Shenzhen Branch**

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband41	LTE/TM2 20MHz	LCH	VN	-30	-0.59	-0.00024	PASS
				-20	-2.43	-0.00097	PASS
				-10	3.35	0.00134	PASS
				0	2.63	0.00105	PASS
				10	1.61	0.00064	PASS
				20	-0.25	-0.00010	PASS
				30	-0.43	-0.00017	PASS
				40	5.37	0.00214	PASS
		MCH	VN	-30	-3.86	-0.00149	PASS
				-20	-5.33	-0.00206	PASS
				-10	-7.22	-0.00278	PASS
				0	-4.36	-0.00168	PASS
				10	-0.38	-0.00015	PASS
				20	1.72	0.00066	PASS
				30	-3.67	-0.00142	PASS
				40	-2.62	-0.00101	PASS
		HCH	VN	-30	1.37	0.00051	PASS
				-20	-2.53	-0.00094	PASS
				-10	1.56	0.00058	PASS
				0	-3.72	-0.00139	PASS
				10	2.85	0.00106	PASS
				20	-1.42	-0.00053	PASS
				30	-2.51	-0.00094	PASS
				40	-4.35	-0.00162	PASS
			50	-7.67	-0.00286	PASS	

The End