



# Appendix B

## E-UTRA Band 7



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# 1 Effective (Isotropic) Radiated Power Output Data

**Effective Isotropic Radiated Power of Transmitter (EIRP) for LTE BAND 7**

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND7	LTE/TM1	5M	LCH	RB1#0	22.83	23.37	33.00	PASS
				RB1#13	22.83	23.37	33.00	PASS
				RB1#24	22.71	23.25	33.00	PASS
				RB12#0	21.96	22.50	33.00	PASS
				RB12#6	21.89	22.43	33.00	PASS
				RB12#13	21.83	22.37	33.00	PASS
				RB25#0	21.86	22.40	33.00	PASS
			MCH	RB1#0	22.42	22.96	33.00	PASS
				RB1#13	22.44	22.98	33.00	PASS
				RB1#24	22.31	22.85	33.00	PASS
				RB12#0	21.60	22.14	33.00	PASS
				RB12#6	21.56	22.10	33.00	PASS
				RB12#13	21.52	22.06	33.00	PASS
				RB25#0	21.53	22.07	33.00	PASS
			HCH	RB1#0	21.79	22.33	33.00	PASS
				RB1#13	21.81	22.35	33.00	PASS
				RB1#24	21.67	22.21	33.00	PASS
				RB12#0	20.92	21.46	33.00	PASS
				RB12#6	20.89	21.43	33.00	PASS
				RB12#13	20.84	21.38	33.00	PASS
				RB25#0	20.83	21.37	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
BAND7	LTE/TM2	5M	LCH	RB1#0	22.19	22.73	33.00	PASS
				RB1#13	21.93	22.47	33.00	PASS
				RB1#24	21.74	22.28	33.00	PASS
				RB12#0	20.91	21.45	33.00	PASS
				RB12#6	20.91	21.45	33.00	PASS
				RB12#13	20.90	21.44	33.00	PASS
				RB25#0	20.76	21.30	33.00	PASS
			MCH	RB1#0	21.35	21.89	33.00	PASS
				RB1#13	21.67	22.21	33.00	PASS
				RB1#24	21.39	21.93	33.00	PASS
				RB12#0	20.50	21.04	33.00	PASS
				RB12#6	20.46	21.00	33.00	PASS
				RB12#13	20.48	21.02	33.00	PASS
				RB25#0	20.46	21.00	33.00	PASS
			HCH	RB1#0	21.33	21.87	33.00	PASS
				RB1#13	21.25	21.79	33.00	PASS
				RB1#24	20.78	21.32	33.00	PASS
				RB12#0	19.95	20.49	33.00	PASS
				RB12#6	19.91	20.45	33.00	PASS
				RB12#13	19.87	20.41	33.00	PASS
				RB25#0	19.81	20.35	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
BAND7	LTE/TM1	10M	LCH	RB1#0	22.72	23.26	33.00	PASS
				RB1#25	22.72	23.26	33.00	PASS
				RB1#49	22.74	23.28	33.00	PASS
				RB25#0	21.83	22.37	33.00	PASS
				RB25#13	21.88	22.42	33.00	PASS
				RB25#25	21.81	22.35	33.00	PASS
				RB50#0	21.95	22.49	33.00	PASS
			MCH	RB1#0	22.38	22.92	33.00	PASS
				RB1#25	22.38	22.92	33.00	PASS
				RB1#49	22.36	22.90	33.00	PASS
				RB25#0	21.58	22.12	33.00	PASS
				RB25#13	21.54	22.08	33.00	PASS
				RB25#25	21.53	22.07	33.00	PASS
				RB50#0	21.58	22.12	33.00	PASS
			HCH	RB1#0	22.09	22.63	33.00	PASS
				RB1#25	21.90	22.44	33.00	PASS
				RB1#49	21.58	22.12	33.00	PASS
				RB25#0	21.01	21.55	33.00	PASS
				RB25#13	20.96	21.50	33.00	PASS
				RB25#25	20.85	21.39	33.00	PASS
				RB50#0	20.95	21.49	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
BAND7	LTE/TM2	10M	LCH	RB1#0	21.82	22.36	33.00	PASS
				RB1#25	22.15	22.69	33.00	PASS
				RB1#49	22.09	22.63	33.00	PASS
				RB25#0	20.86	21.40	33.00	PASS
				RB25#13	20.85	21.39	33.00	PASS
				RB25#25	20.84	21.38	33.00	PASS
				RB50#0	20.86	21.40	33.00	PASS
			MCH	RB1#0	21.91	22.45	33.00	PASS
				RB1#25	21.53	22.07	33.00	PASS
				RB1#49	21.70	22.24	33.00	PASS
				RB25#0	20.49	21.03	33.00	PASS
				RB25#13	20.51	21.05	33.00	PASS
				RB25#25	20.51	21.05	33.00	PASS
				RB50#0	20.50	21.04	33.00	PASS
			HCH	RB1#0	20.95	21.49	33.00	PASS
				RB1#25	20.82	21.36	33.00	PASS
				RB1#49	20.73	21.27	33.00	PASS
				RB25#0	20.05	20.59	33.00	PASS
				RB25#13	19.92	20.46	33.00	PASS
				RB25#25	19.98	20.52	33.00	PASS
				RB50#0	19.95	20.49	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
BAND7	LTE/TM1	15M	LCH	RB1#0	22.85	23.39	33.00	PASS
				RB1#38	22.68	23.22	33.00	PASS
				RB1#74	22.47	23.01	33.00	PASS
				RB36#0	21.87	22.41	33.00	PASS
				RB36#18	21.85	22.39	33.00	PASS
				RB36#39	21.79	22.33	33.00	PASS
				RB75#0	21.85	22.39	33.00	PASS
			MCH	RB1#0	22.53	23.07	33.00	PASS
				RB1#38	22.47	23.01	33.00	PASS
				RB1#74	22.43	22.97	33.00	PASS
				RB36#0	21.65	22.19	33.00	PASS
				RB36#18	21.59	22.13	33.00	PASS
				RB36#39	21.57	22.11	33.00	PASS
				RB75#0	21.60	22.14	33.00	PASS
			HCH	RB1#0	21.97	22.51	33.00	PASS
				RB1#38	22.01	22.55	33.00	PASS
				RB1#74	21.70	22.24	33.00	PASS
				RB36#0	21.21	21.75	33.00	PASS
				RB36#18	21.08	21.62	33.00	PASS
				RB36#39	20.98	21.52	33.00	PASS
				RB75#0	21.04	21.58	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
BAND7	LTE/TM2	15M	LCH	RB1#0	21.58	22.12	33.00	PASS
				RB1#38	22.20	22.74	33.00	PASS
				RB1#74	21.91	22.45	33.00	PASS
				RB36#0	20.83	21.37	33.00	PASS
				RB36#18	20.85	21.39	33.00	PASS
				RB36#39	20.66	21.20	33.00	PASS
				RB75#0	20.87	21.41	33.00	PASS
			MCH	RB1#0	21.70	22.24	33.00	PASS
				RB1#38	21.78	22.32	33.00	PASS
				RB1#74	21.95	22.49	33.00	PASS
				RB36#0	20.53	21.07	33.00	PASS
				RB36#18	20.53	21.07	33.00	PASS
				RB36#39	20.50	21.04	33.00	PASS
				RB75#0	20.51	21.05	33.00	PASS
			HCH	RB1#0	20.90	21.44	33.00	PASS
				RB1#38	21.55	22.09	33.00	PASS
				RB1#74	20.69	21.23	33.00	PASS
				RB36#0	20.06	20.60	33.00	PASS
				RB36#18	20.10	20.64	33.00	PASS
				RB36#39	20.01	20.55	33.00	PASS
				RB75#0	20.07	20.61	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
BAND7	LTE/TM1	20M	LCH	RB1#0	22.83	23.37	33.00	PASS
				RB1#50	22.06	22.60	33.00	PASS
				RB1#99	21.69	22.23	33.00	PASS
				RB50#0	21.96	22.50	33.00	PASS
				RB50#25	21.25	21.79	33.00	PASS
				RB50#50	20.76	21.30	33.00	PASS
				RB100#0	21.54	22.08	33.00	PASS
			MCH	RB1#0	22.54	23.08	33.00	PASS
				RB1#50	22.54	23.08	33.00	PASS
				RB1#99	22.51	23.05	33.00	PASS
				RB50#0	21.67	22.21	33.00	PASS
				RB50#25	21.72	22.26	33.00	PASS
				RB50#50	21.67	22.21	33.00	PASS
				RB100#0	21.57	22.11	33.00	PASS
			HCH	RB1#0	21.48	22.02	33.00	PASS
				RB1#50	22.07	22.61	33.00	PASS
				RB1#99	21.70	22.24	33.00	PASS
				RB50#0	20.50	21.04	33.00	PASS
				RB50#25	21.20	21.74	33.00	PASS
				RB50#50	21.04	21.58	33.00	PASS
				RB100#0	21.14	21.68	33.00	PASS



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Test Band(LTE )	Test Mode	Test Bandwidth	Test channel I	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND7	LTE/TM2	20M	LCH	RB1#0	21.82	22.36	33.00	PASS
				RB1#50	21.59	22.13	33.00	PASS
				RB1#99	21.21	21.75	33.00	PASS
				RB50#0	20.88	21.42	33.00	PASS
				RB50#25	20.35	20.89	33.00	PASS
				RB50#50	19.81	20.35	33.00	PASS
				RB100#0	20.61	21.15	33.00	PASS
			MCH	RB1#0	21.65	22.19	33.00	PASS
				RB1#50	21.69	22.23	33.00	PASS
				RB1#99	21.63	22.17	33.00	PASS
				RB50#0	20.71	21.25	33.00	PASS
				RB50#25	20.60	21.14	33.00	PASS
				RB50#50	20.60	21.14	33.00	PASS
				RB100#0	20.60	21.14	33.00	PASS
			HCH	RB1#0	20.47	21.01	33.00	PASS
				RB1#50	21.27	21.81	33.00	PASS
				RB1#99	21.34	21.88	33.00	PASS
				RB50#0	19.36	19.90	33.00	PASS
				RB50#25	20.17	20.71	33.00	PASS
				RB50#50	20.05	20.59	33.00	PASS
				RB100#0	20.16	20.70	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



## 2 Peak-to-Average Ratio

### Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 7	TM1/20M	LCH	5.54	13	PASS
		MCH	5.42	13	PASS
		HCH	5.51	13	PASS
	TM2/20M	LCH	6.35	13	PASS
		MCH	6.29	13	PASS
		HCH	6.43	13	PASS



Part II - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE band7

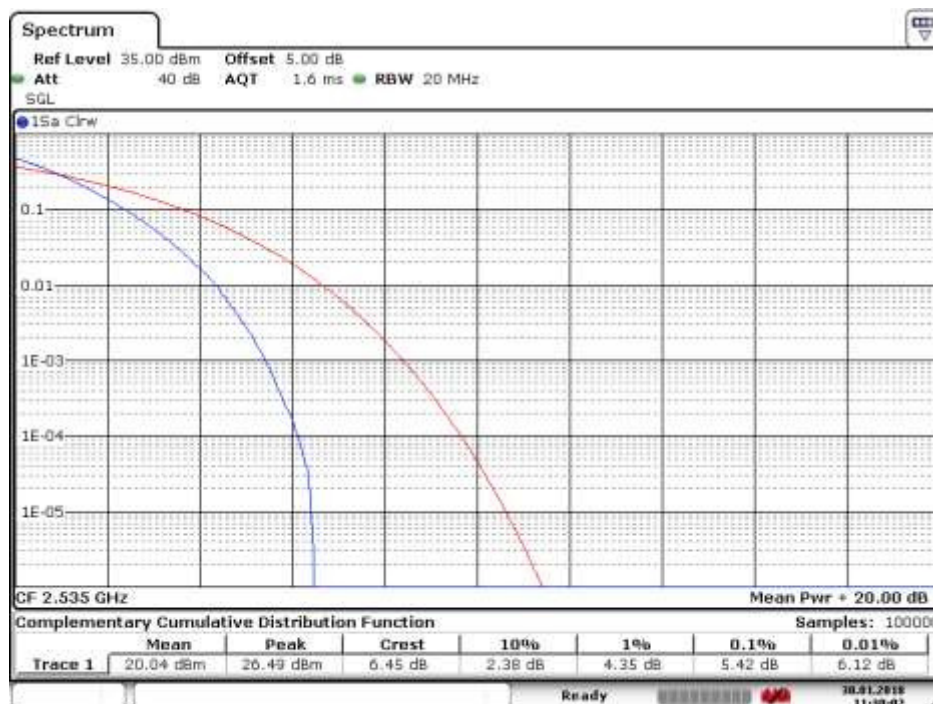
2.1.1.1 Test Mode = LTE/TM1.Bandwidth=20MHz

2.1.1.1.1 Test Channel = LCH



Date: 30 JAN 2018 11:28:50

2.1.1.1.2 Test Channel = MCH



Date: 30 JAN 2018 11:30:03

**2.1.1.1.3 Test Channel = HCH**



Date: 30.JAN.2018 11:30:21

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

**2.1.1.2.1 Test Channel = LCH**



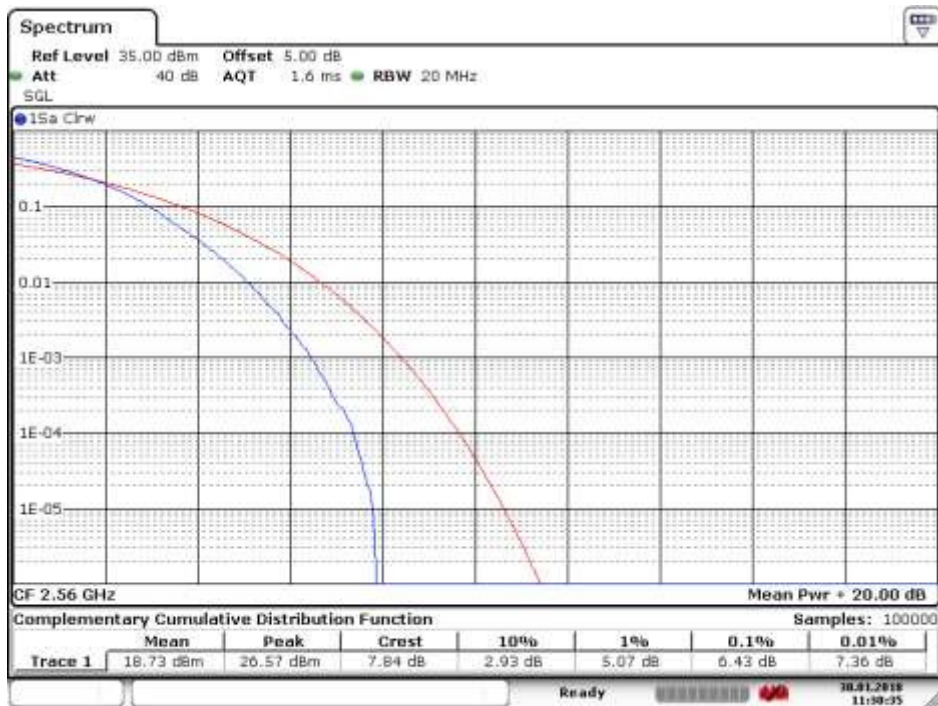
Date: 30.JAN.2018 11:29:30

**2.1.1.2.2 Test Channel = MCH**



Date: 30.JAN.2018 11:29:50

**2.1.1.2.3 Test Channel = HCH**



Date: 30.JAN.2018 11:30:35

### 3 Modulation Characteristics

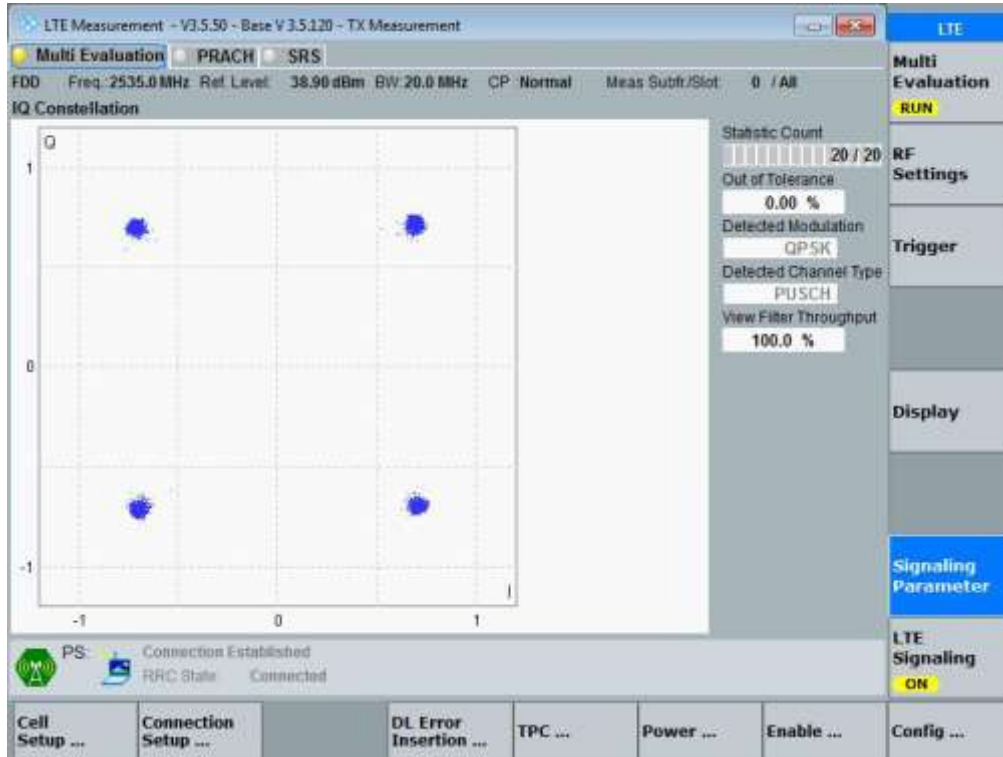
#### Part I - Test Plots

#### 3.1 For LTE

##### 3.1.1 Test Band = LTE band7

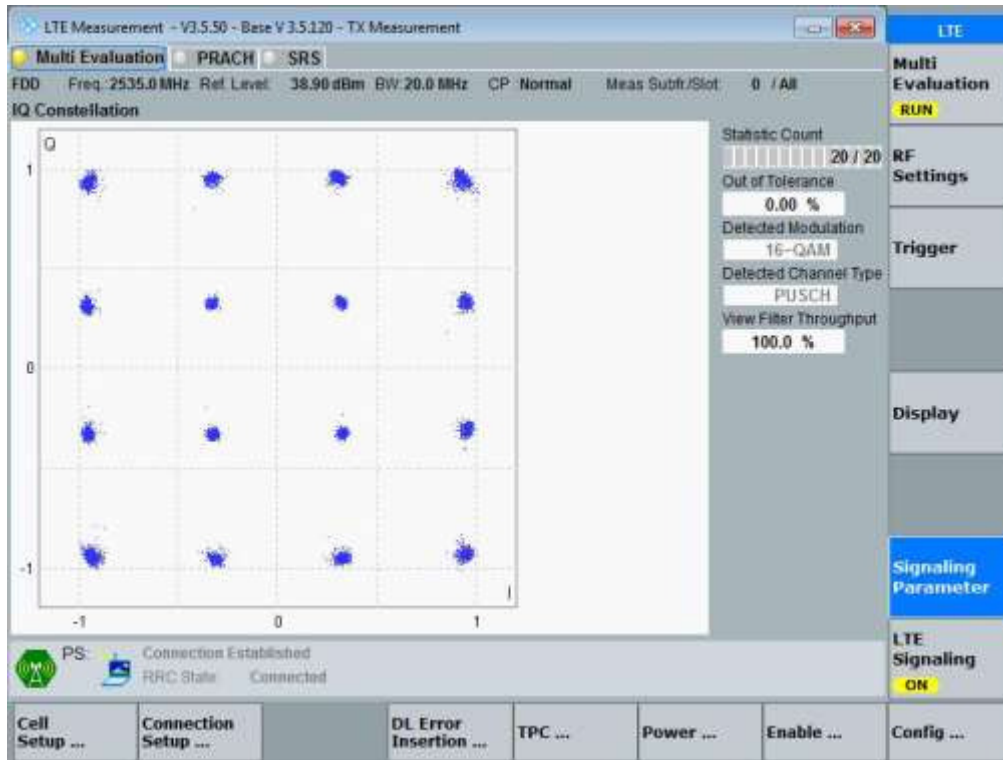
##### 3.1.1.1 Test Mode = LTE /TM1 20MHz

##### 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

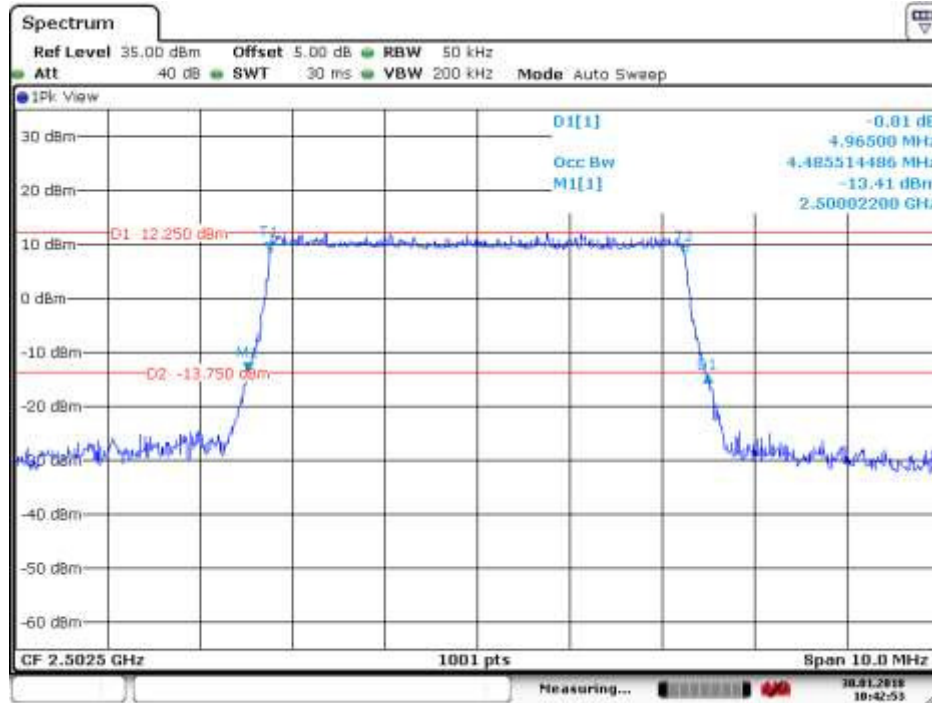
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 7	TM1/ 5MHz	LCH	4.49	4.97	PASS
		MCH	4.48	4.91	PASS
		HCH	4.49	4.90	PASS
	TM2/ 5MHz	LCH	4.48	4.93	PASS
		MCH	4.48	4.97	PASS
		HCH	4.48	4.95	PASS
	TM1/10MHz	LCH	8.93	9.73	PASS
		MCH	8.93	9.61	PASS
		HCH	8.93	9.71	PASS
	TM2/ 10MHz	LCH	8.93	9.69	PASS
		MCH	8.93	9.71	PASS
		HCH	8.93	9.73	PASS
	TM1/ 15MHz	LCH	13.43	14.63	PASS
		MCH	13.42	14.65	PASS
		HCH	13.38	14.55	PASS
	TM2/ 15MHz	LCH	13.49	14.90	PASS
		MCH	13.46	14.90	PASS
		HCH	13.46	14.80	PASS
	TM1/ 20MHz	LCH	17.94	19.42	PASS
		MCH	17.86	19.38	PASS
		HCH	17.94	19.66	PASS
	TM2/ 20MHz	LCH	17.94	19.50	PASS
		MCH	17.90	19.38	PASS
		HCH	17.90	19.30	PASS

## 4.1 For LTE

### 4.1.1 Test Band = LTE band7

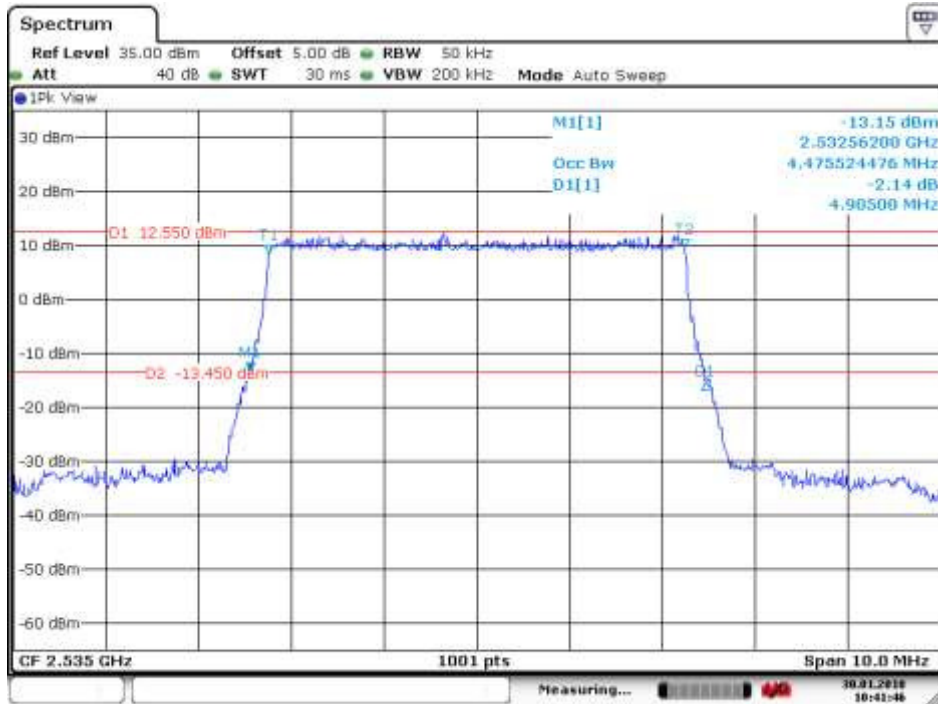
#### 4.1.1.1 Test Mode = LTE/TM1 5MHz

##### 4.1.1.1.1 Test Channel = LCH



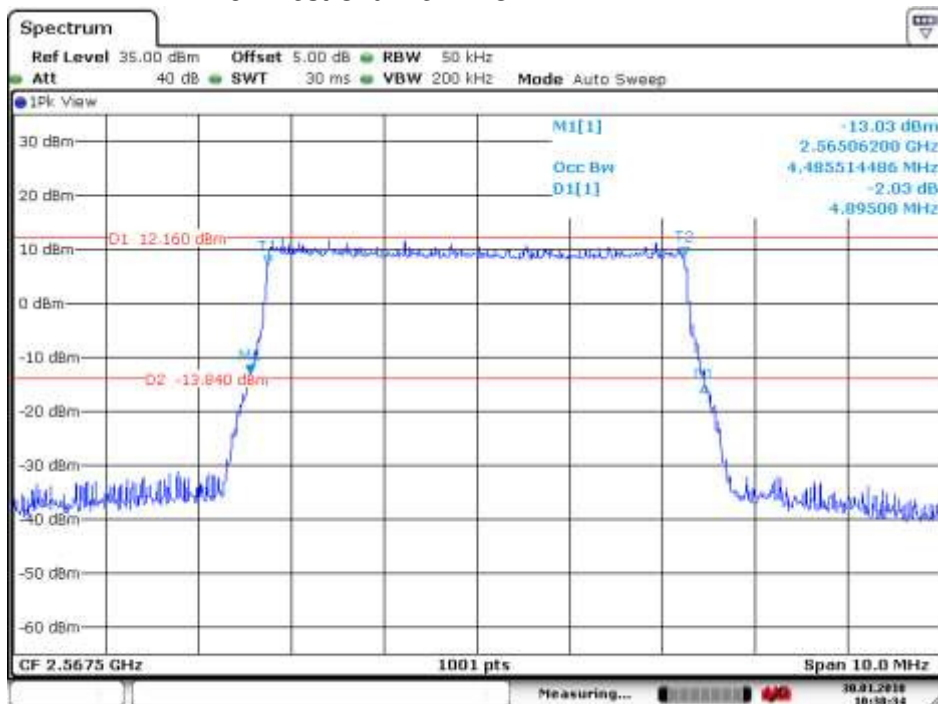
Date: 30 JAN 2018 10:42:53

**4.1.1.1.2 Test Channel = MCH**



Date: 30.JAN 2018 10:41:46

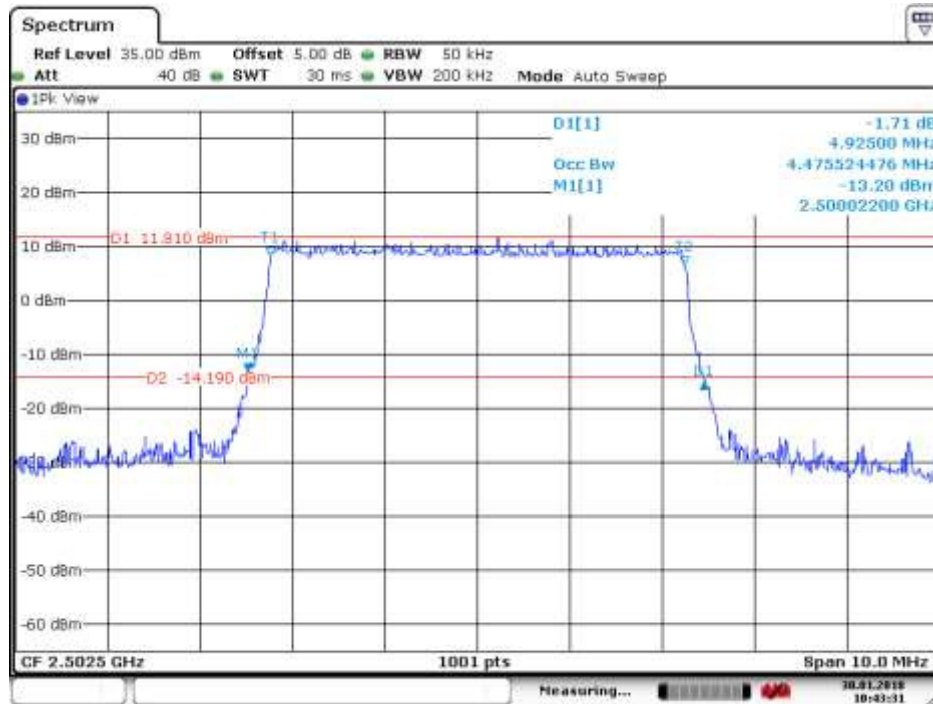
**4.1.1.1.3 Test Channel = HCH**



Date: 30.JAN 2018 10:38:34

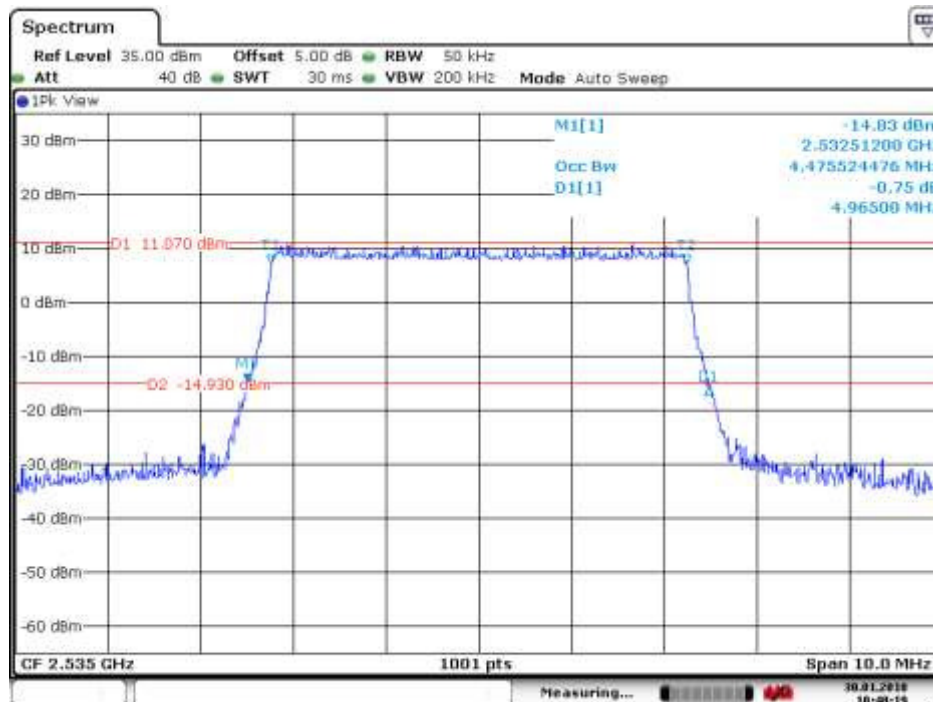
**4.1.1.2 Test Mode = LTE/TM2 5MHz**

**4.1.1.2.1 Test Channel = LCH**



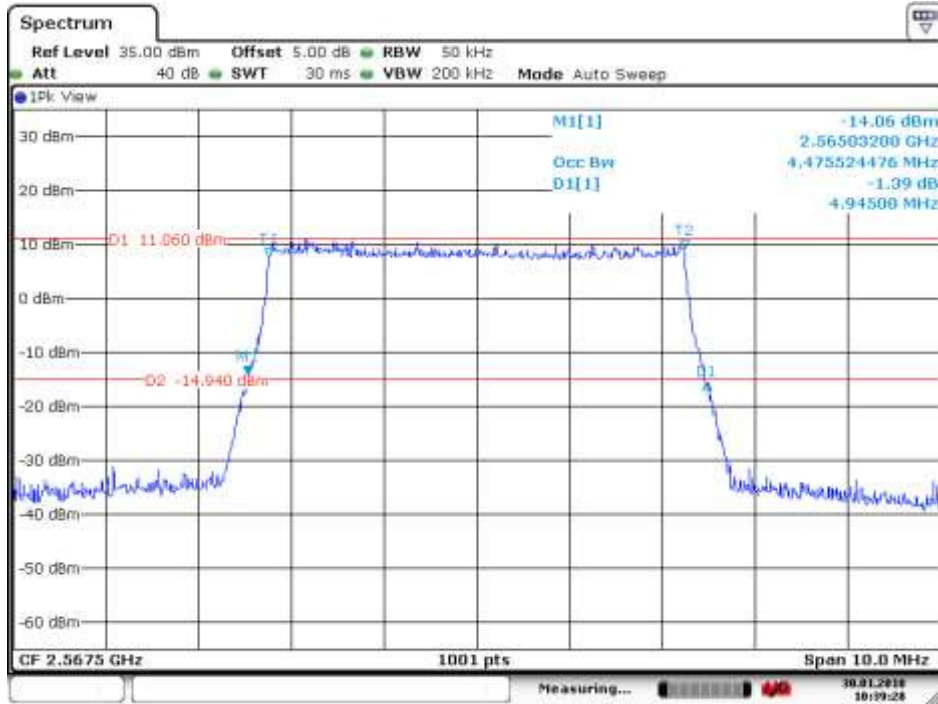
Date: 30 JAN 2018 10:43:32

**4.1.1.2.2 Test Channel = MCH**



Date: 30 JAN 2018 10:40:20

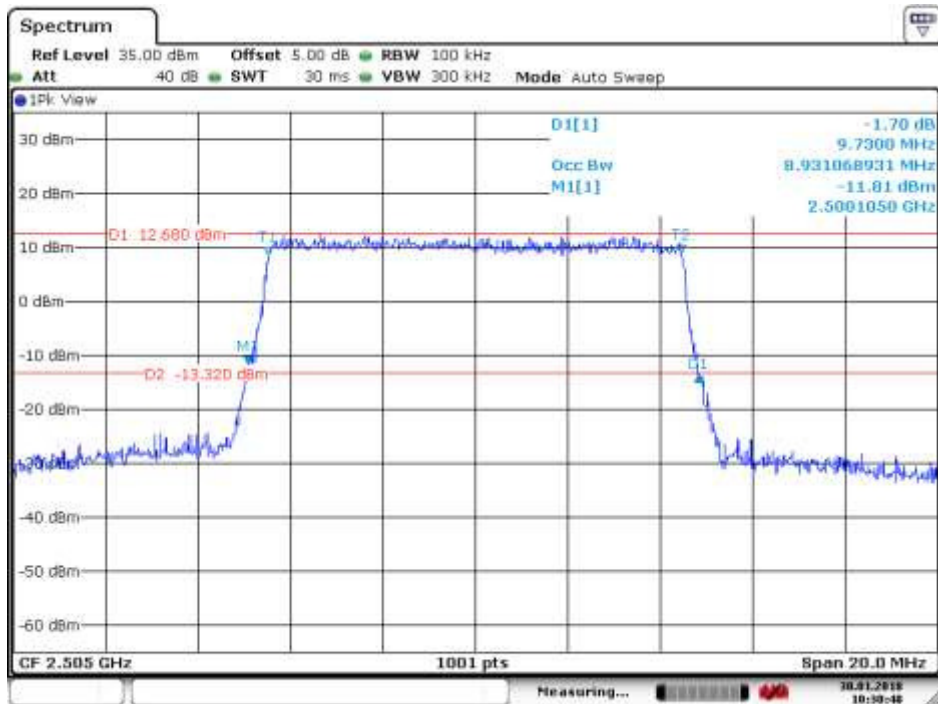
**4.1.1.2.3 Test Channel = HCH**



Date: 30. JAN 2018 10:39:28

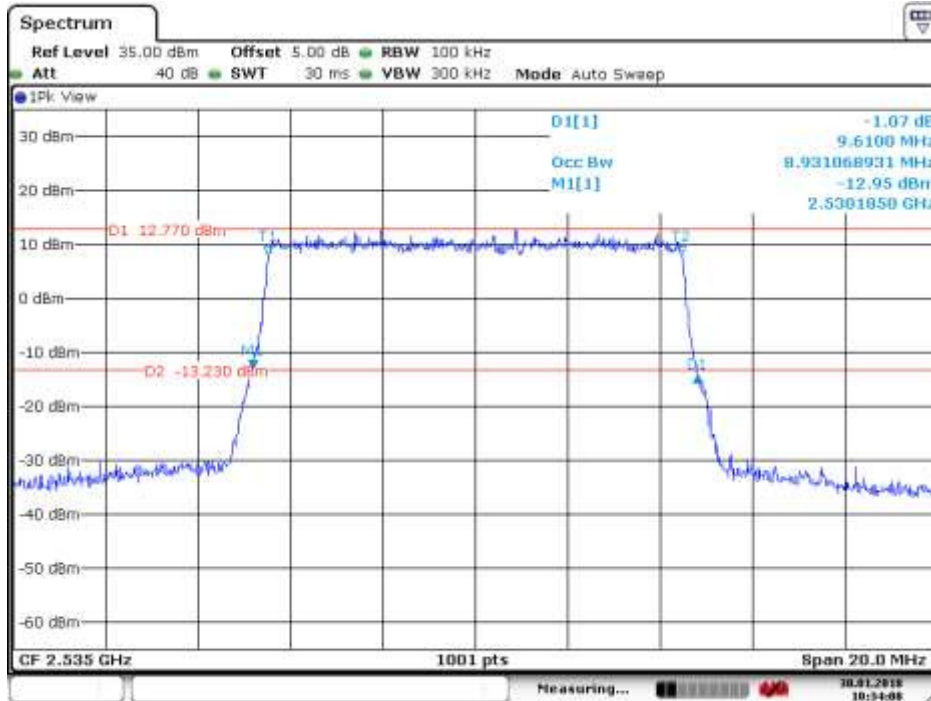
**4.1.1.3 Test Mode = LTE/TM1 10MHz**

**4.1.1.3.1 Test Channel = LCH**



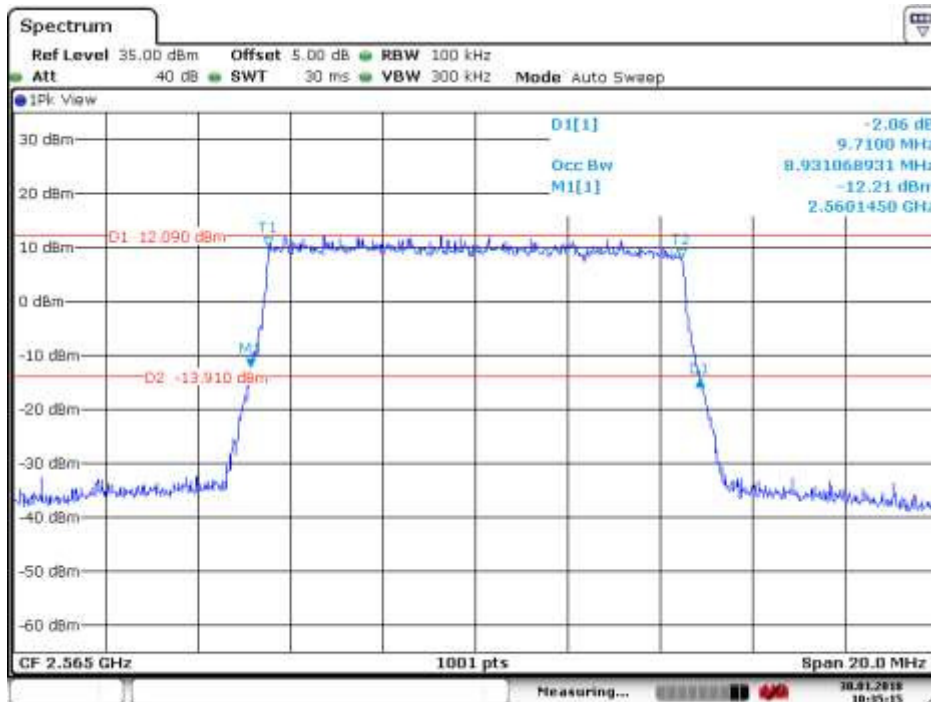
Date: 30. JAN 2018 10:39:48

**4.1.1.3.2 Test Channel = MCH**



Date: 30.JAN.2018 10:34:09

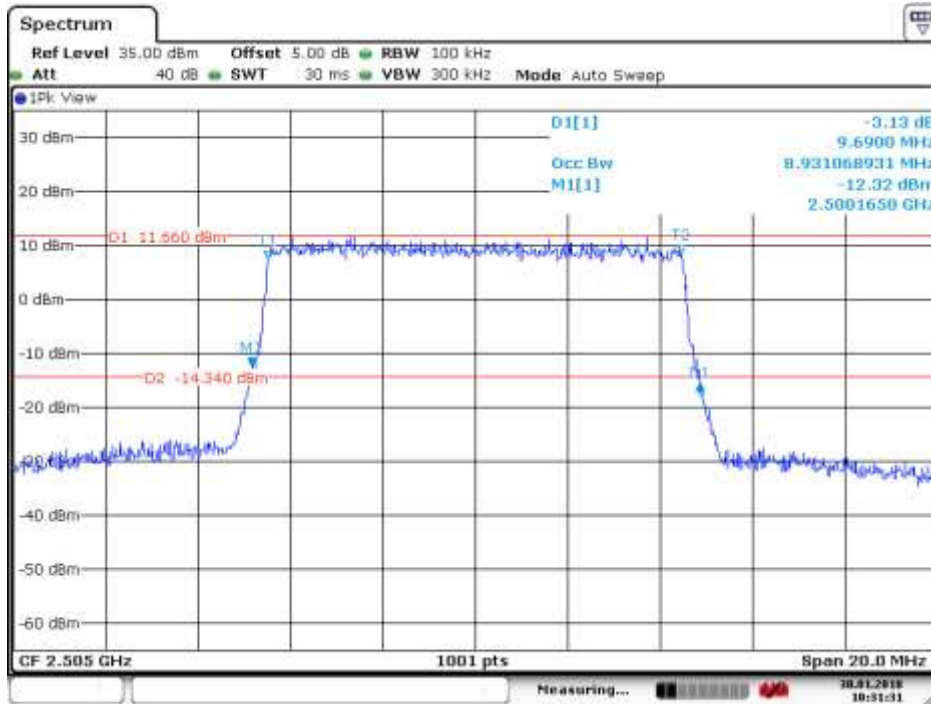
**4.1.1.3.3 Test Channel = HCH**



Date: 30.JAN.2018 10:35:16

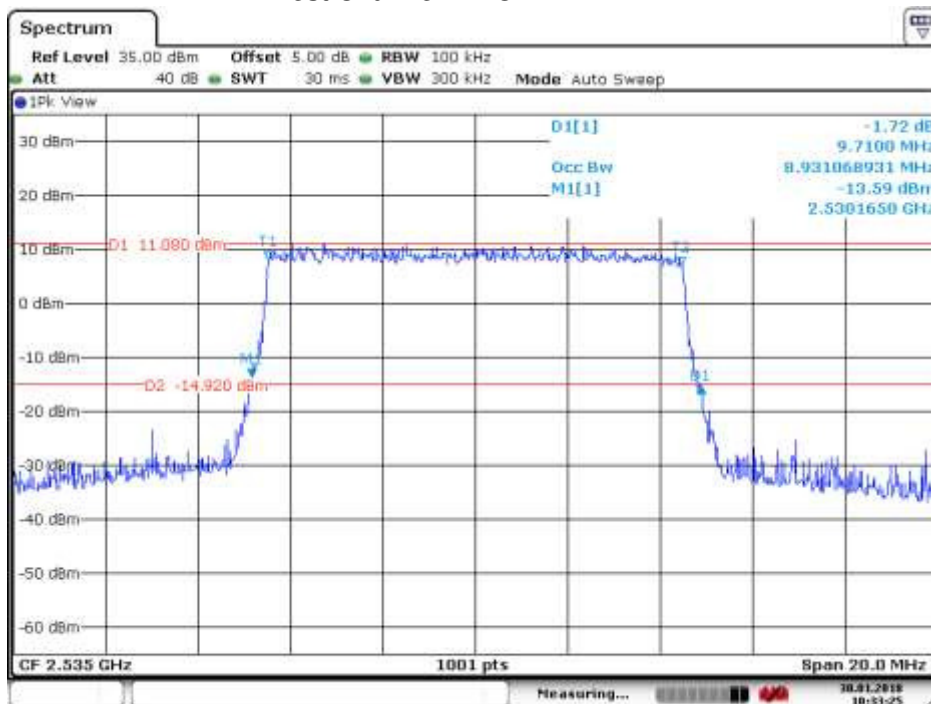
**4.1.1.4 Test Mode = LTE/TM2 10MHz**

**4.1.1.4.1 Test Channel = LCH**



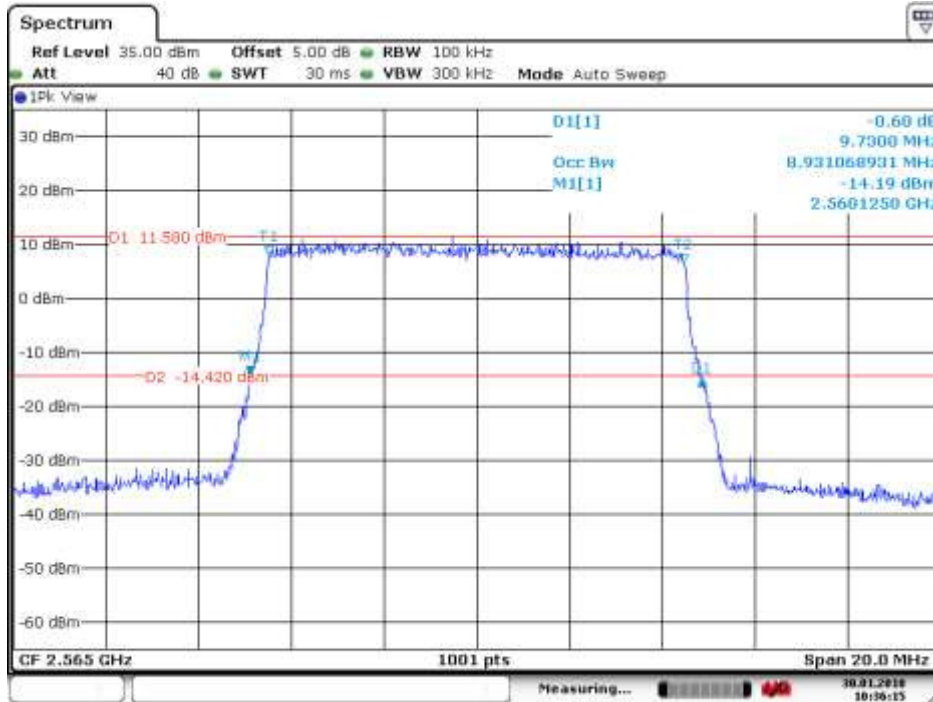
Date: 30 JAN 2018 10:31:32

**4.1.1.4.2 Test Channel = MCH**



Date: 30 JAN 2018 10:33:25

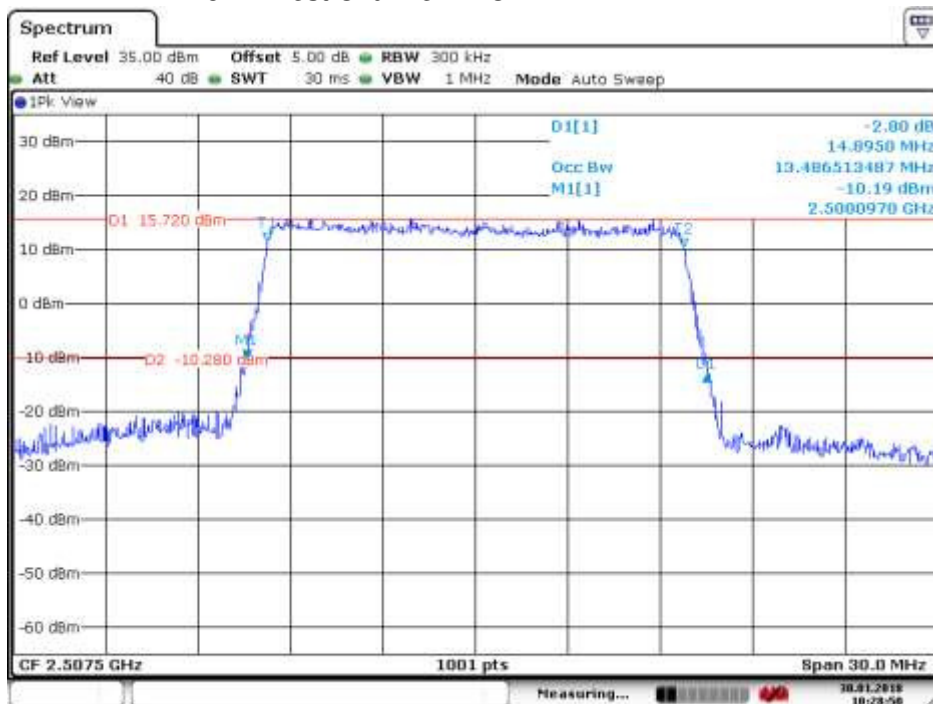
**4.1.1.4.3 Test Channel = HCH**



Date: 30. JAN 2018 10:36:15

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

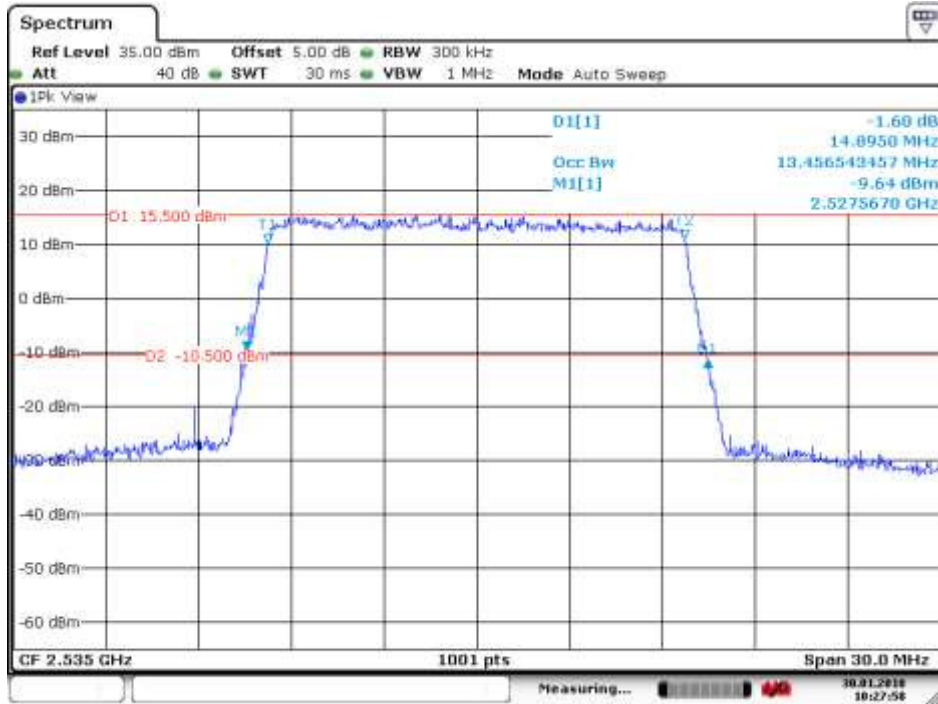
**4.1.1.5.1 Test Channel = LCH**



Date: 30. JAN 2018 10:28:50

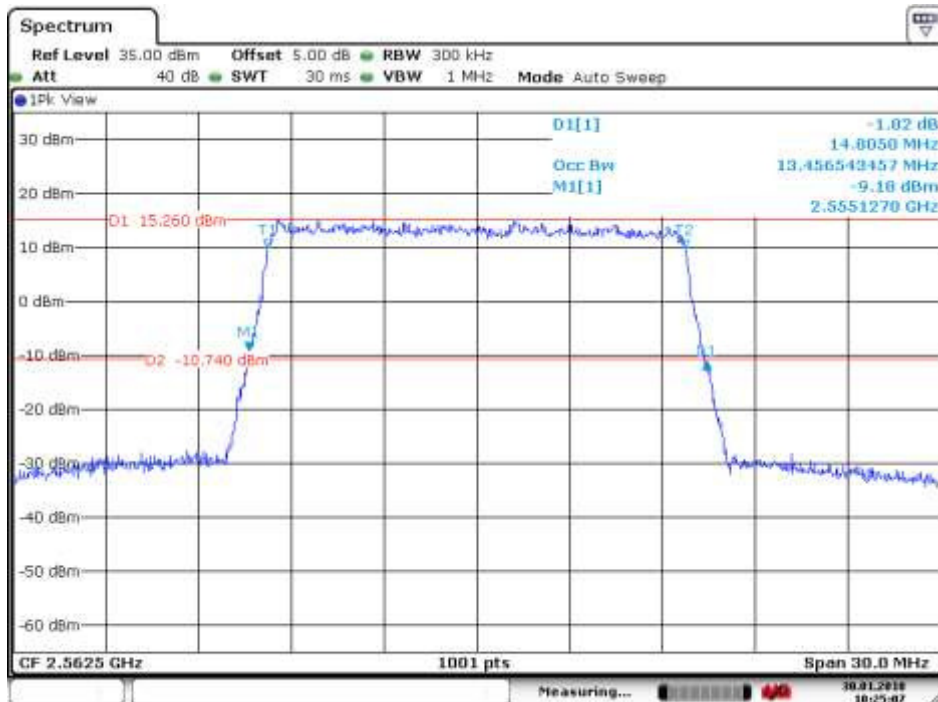


**4.1.1.5.2 Test Channel = MCH**



Date: 30.JAN.2018 10:27:59

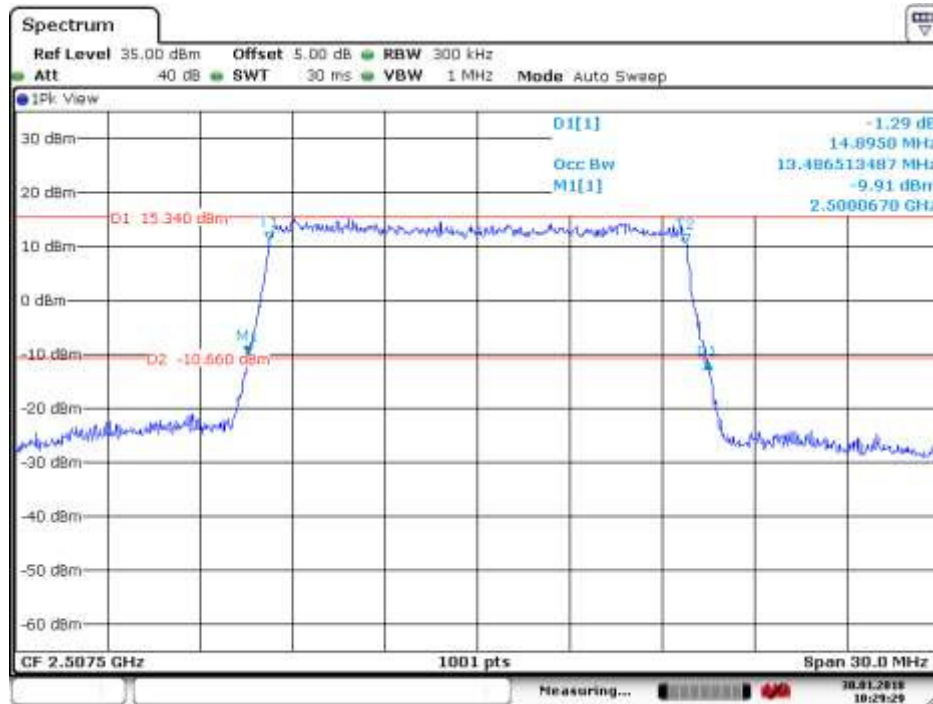
**4.1.1.5.3 Test Channel = HCH**



Date: 30.JAN.2018 10:25:07

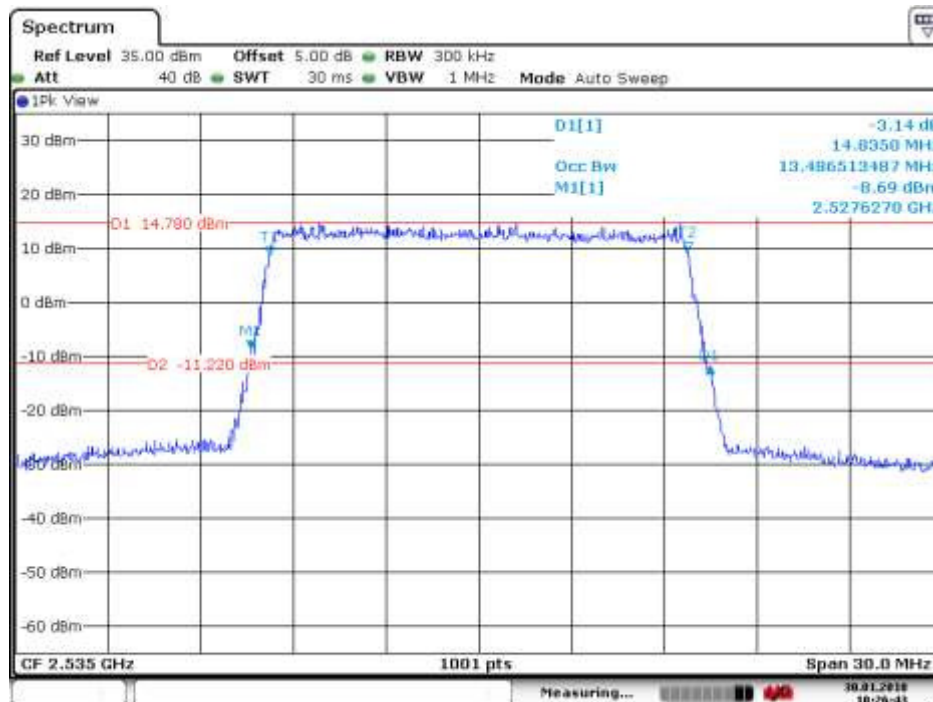
**4.1.1.6 Test Mode = LTE/TM2 15MHz**

**4.1.1.6.1 Test Channel = LCH**



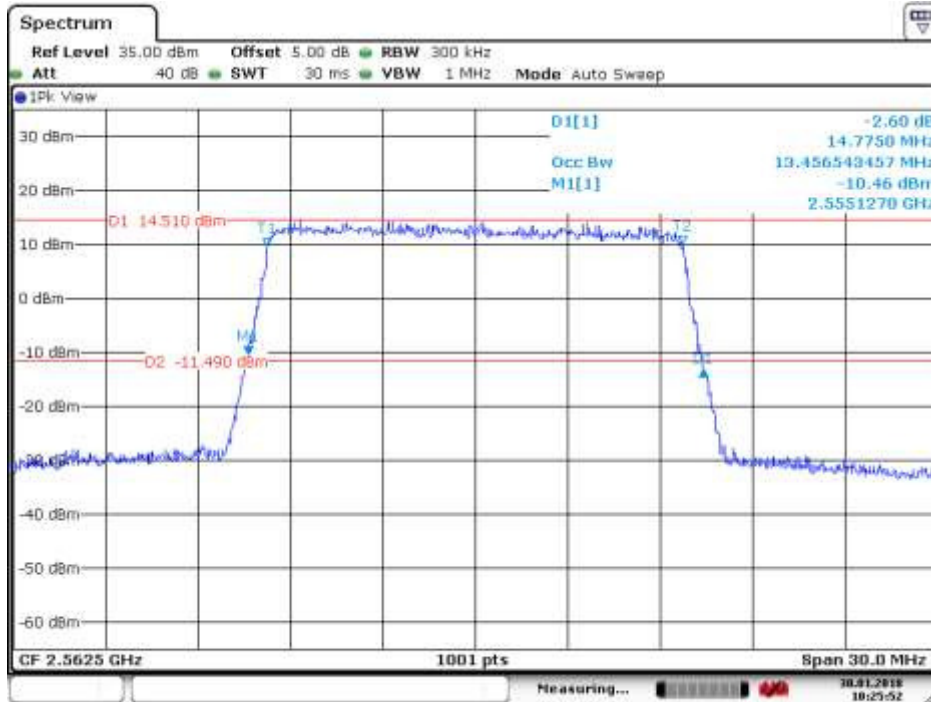
Date: 30.JAN.2018 10:29:29

**4.1.1.6.2 Test Channel = MCH**



Date: 30.JAN.2018 10:29:44

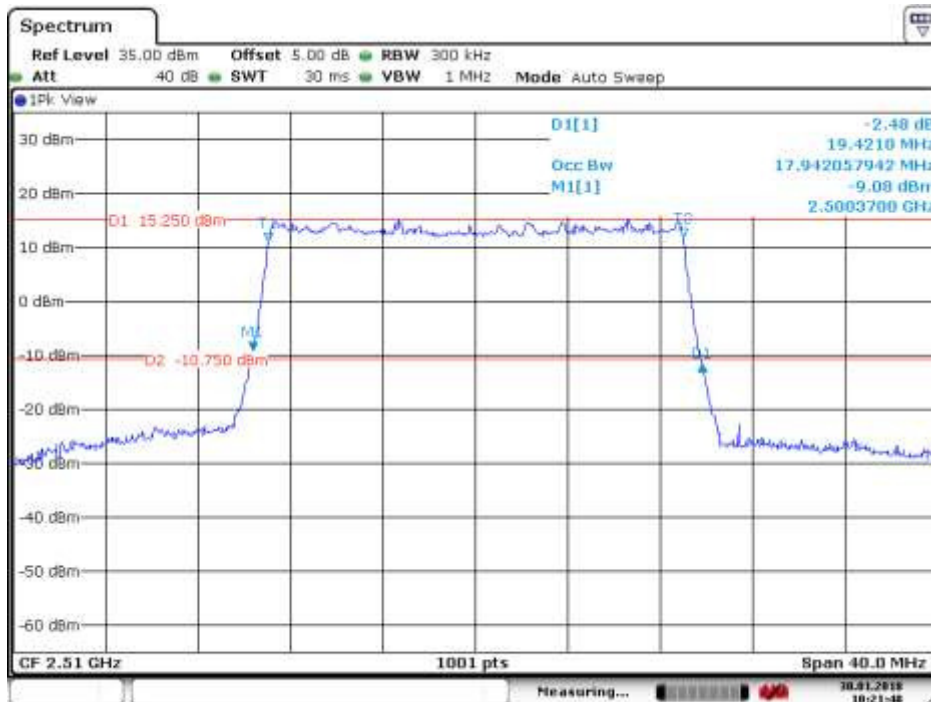
**4.1.1.6.3 Test Channel = HCH**



Date: 30 JAN 2018 10:25:53

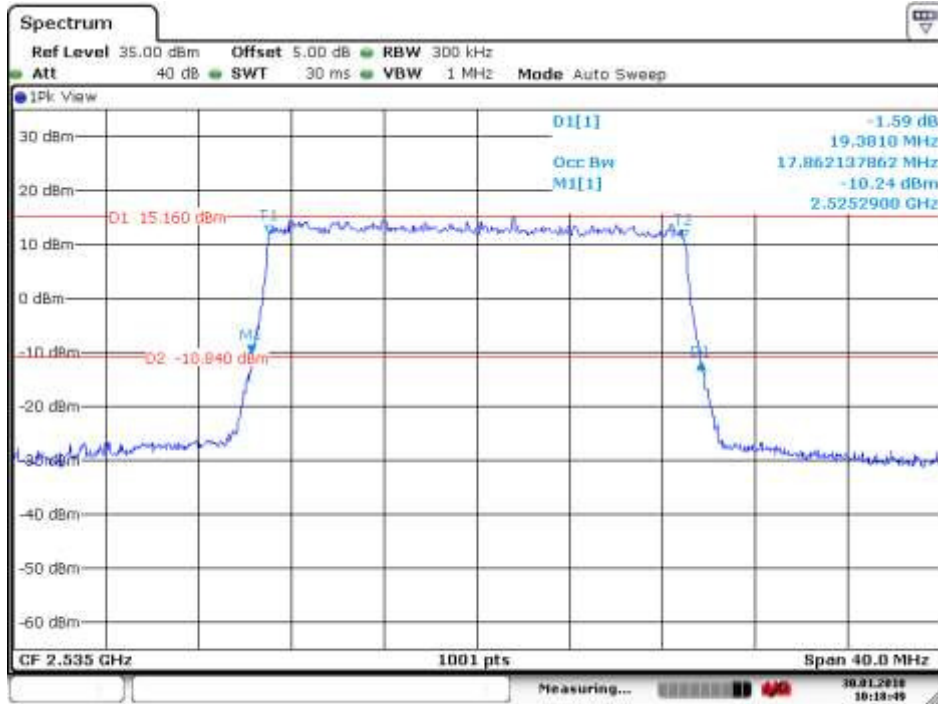
**4.1.1.7 Test Mode = LTE/TM1 20MHz**

**4.1.1.7.1 Test Channel = LCH**



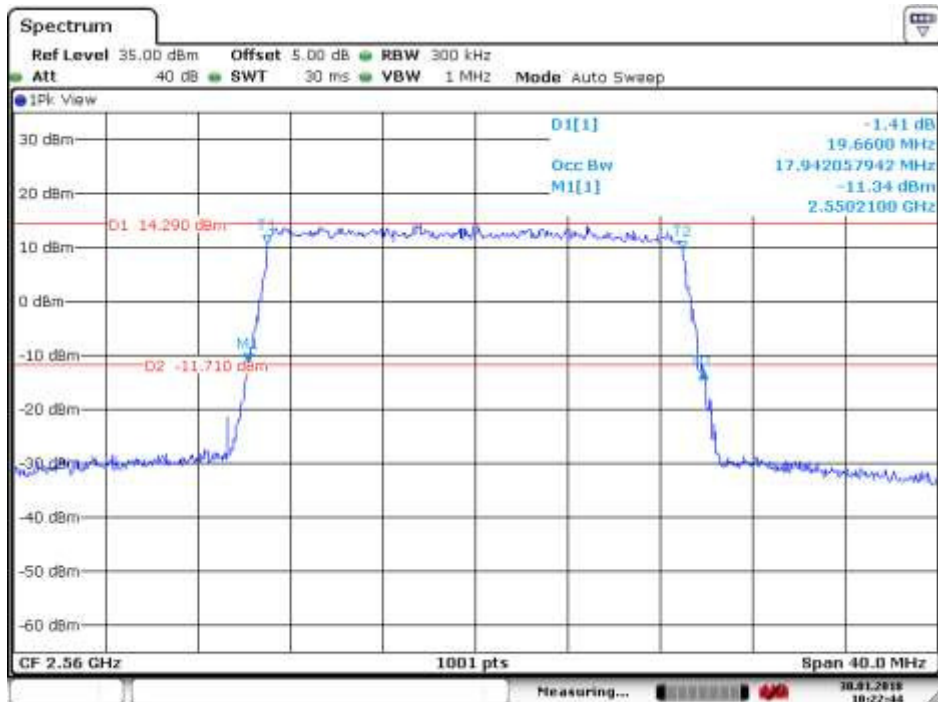
Date: 30 JAN 2018 10:21:49

**4.1.1.7.2 Test Channel = MCH**



Date: 30.JAN.2018 10:18:49

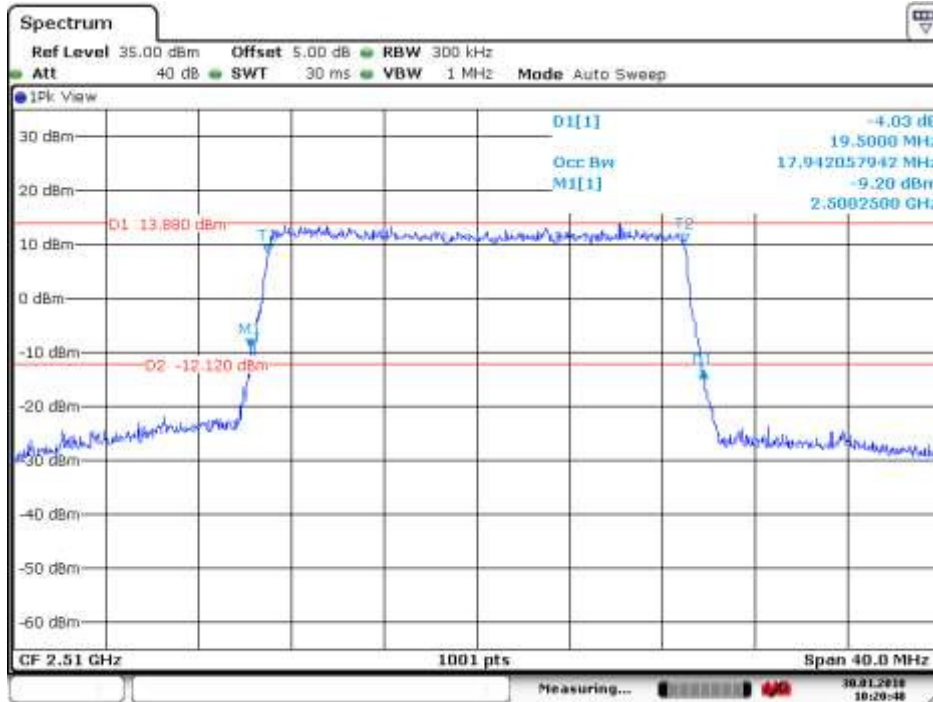
**4.1.1.7.3 Test Channel = HCH**



Date: 30.JAN.2018 10:22:45

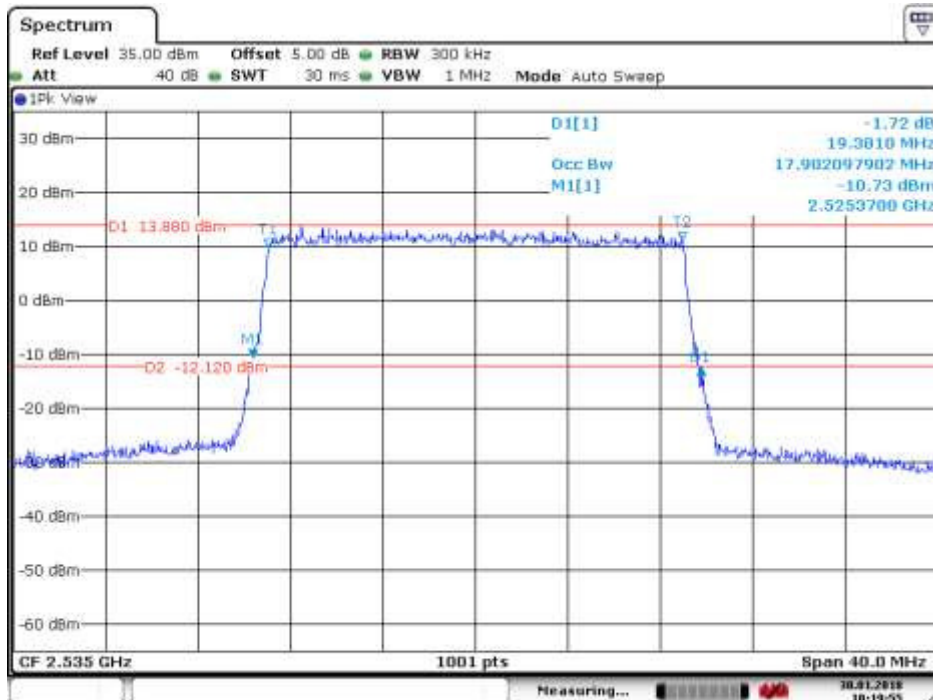
**4.1.1.8 Test Mode = LTE/TM2 20MHz**

**4.1.1.8.1 Test Channel = LCH**



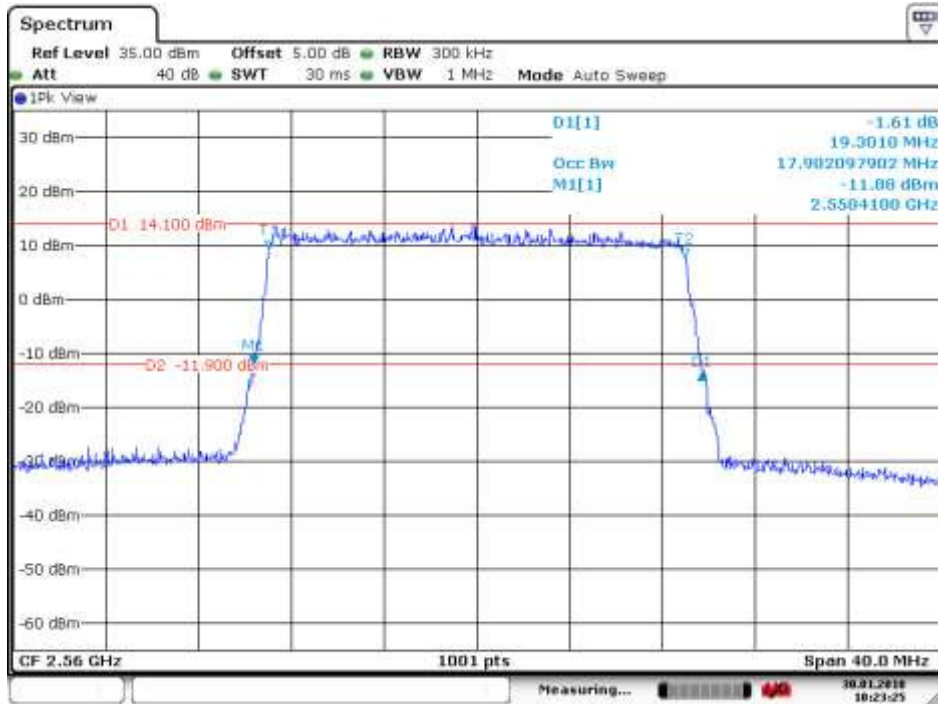
Date: 30.JAN.2018 10:20:49

**4.1.1.8.2 Test Channel = MCH**



Date: 30.JAN.2018 10:19:54

**4.1.1.8.3 Test Channel = HCH**



Date: 30.JAN.2018 10:23:26

## 5 Band Edges Compliance

Part I –

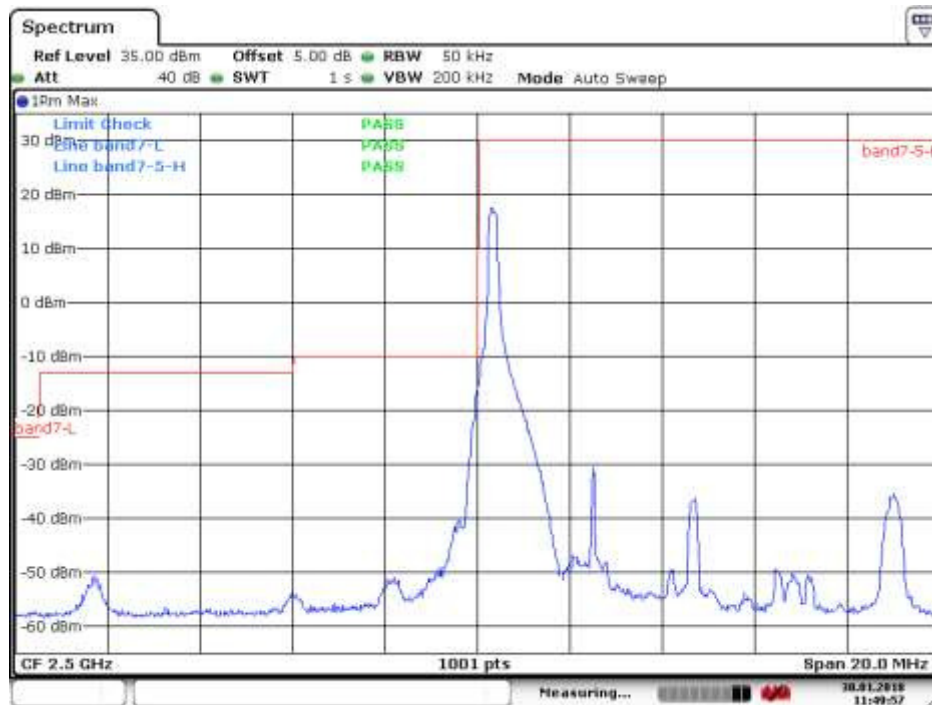
### 5.1 For LTE

#### 5.1.1 Test Band = LTE band7

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

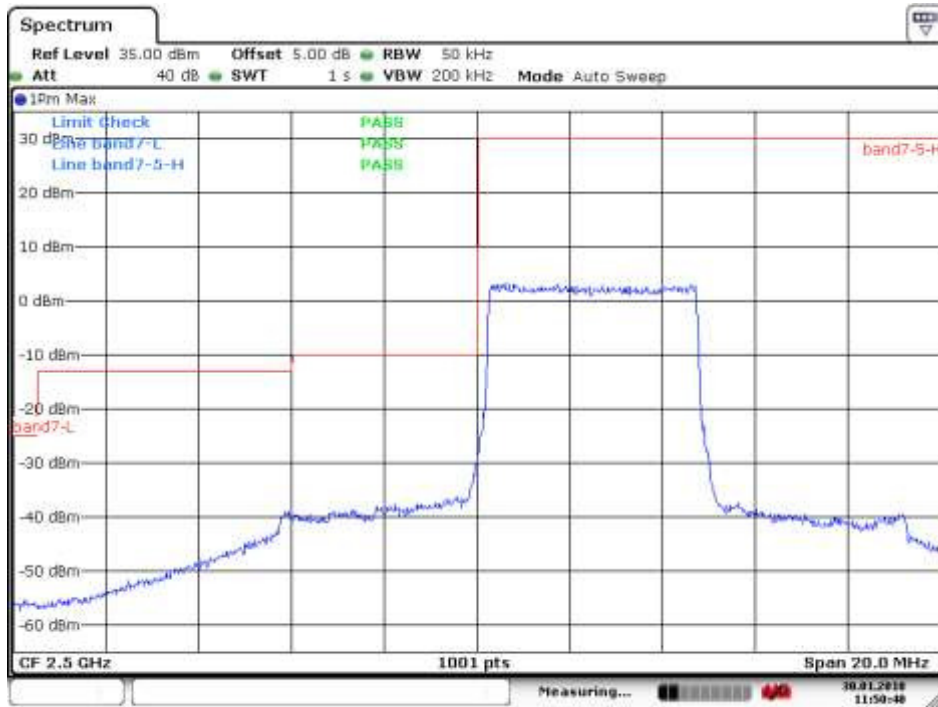
##### 5.1.1.1.1 Test Channel = LCH

##### 5.1.1.1.1.1 Test RB=1RB



Date: 30.JAN.2018 11:49:57

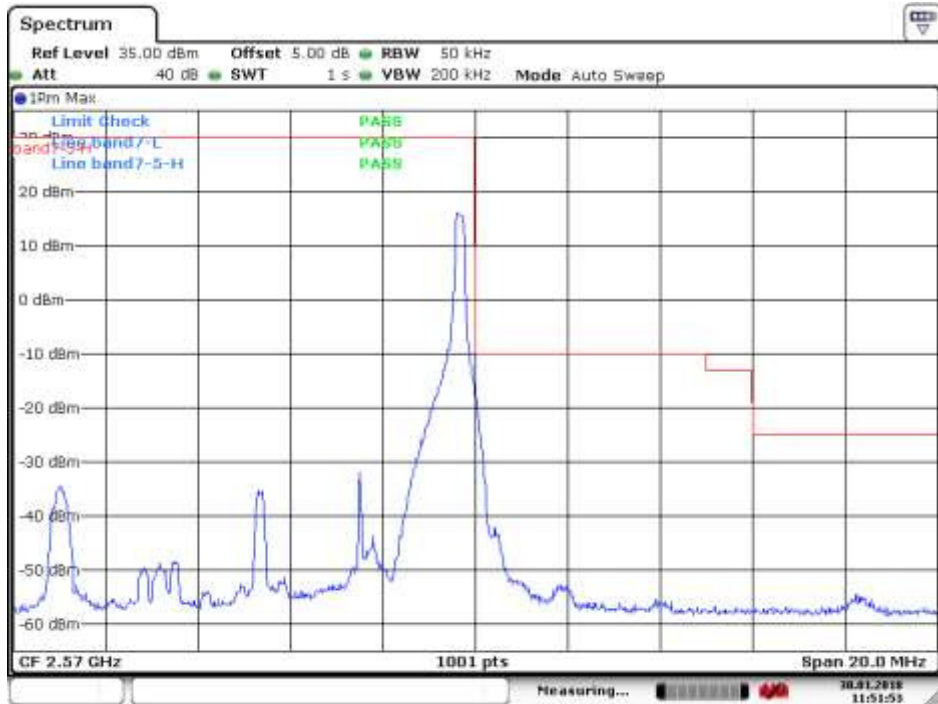
**5.1.1.1.2 Test RB=25RB**



Date: 30.JAN.2018 11:50:40

**5.1.1.1.2 Test Channel = HCH**

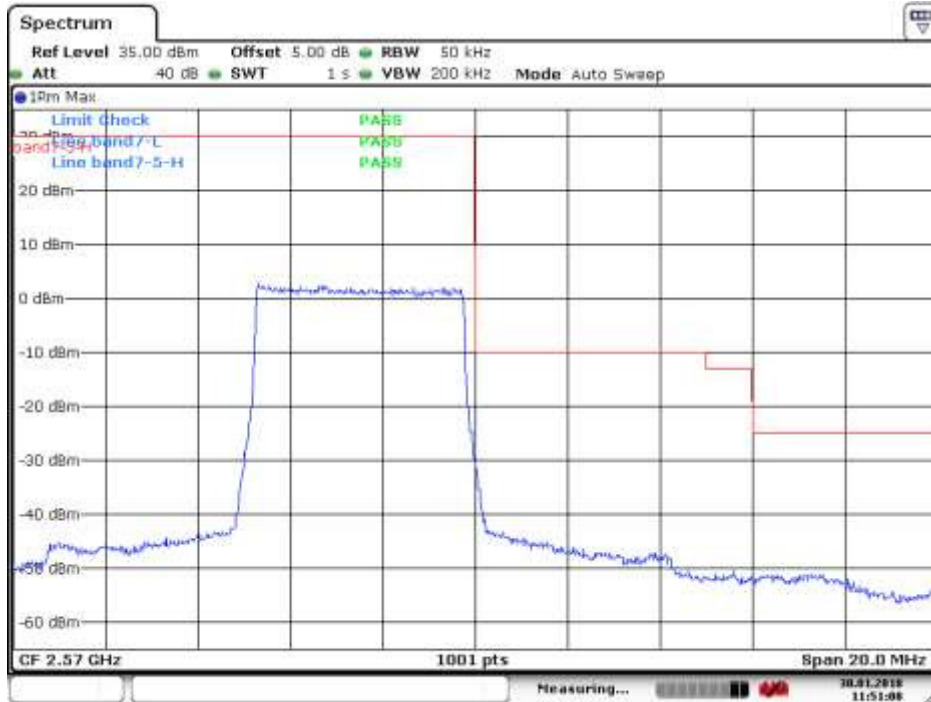
**5.1.1.1.2.1 Test RB=1RB**



Date: 30.JAN.2018 11:51:53



**5.1.1.1.2.2 Test RB=25RB**

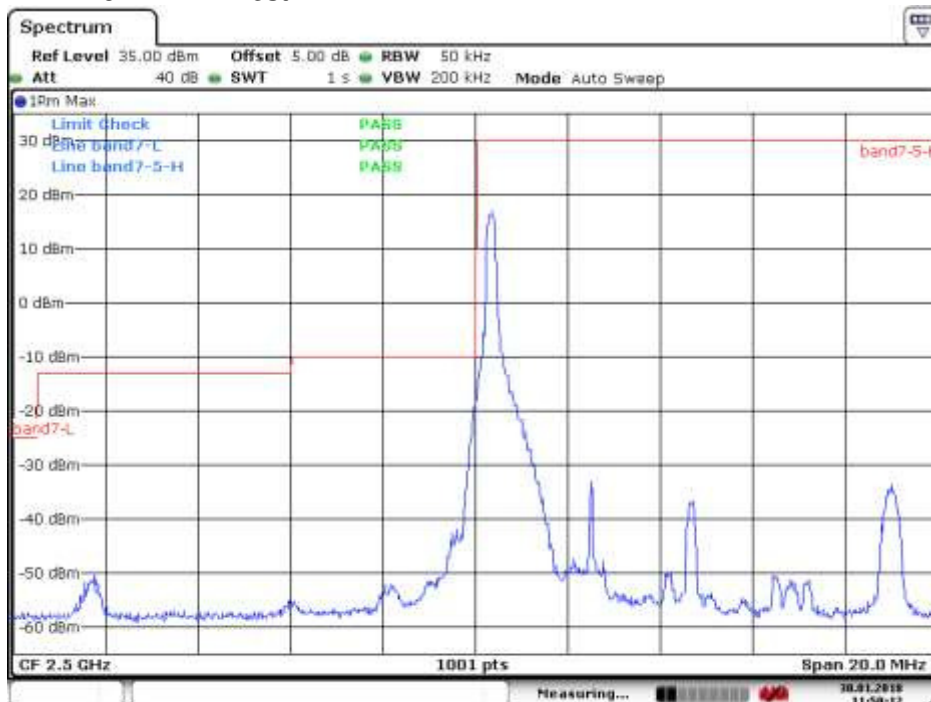


Date: 30.JAN.2018 11:51:09

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

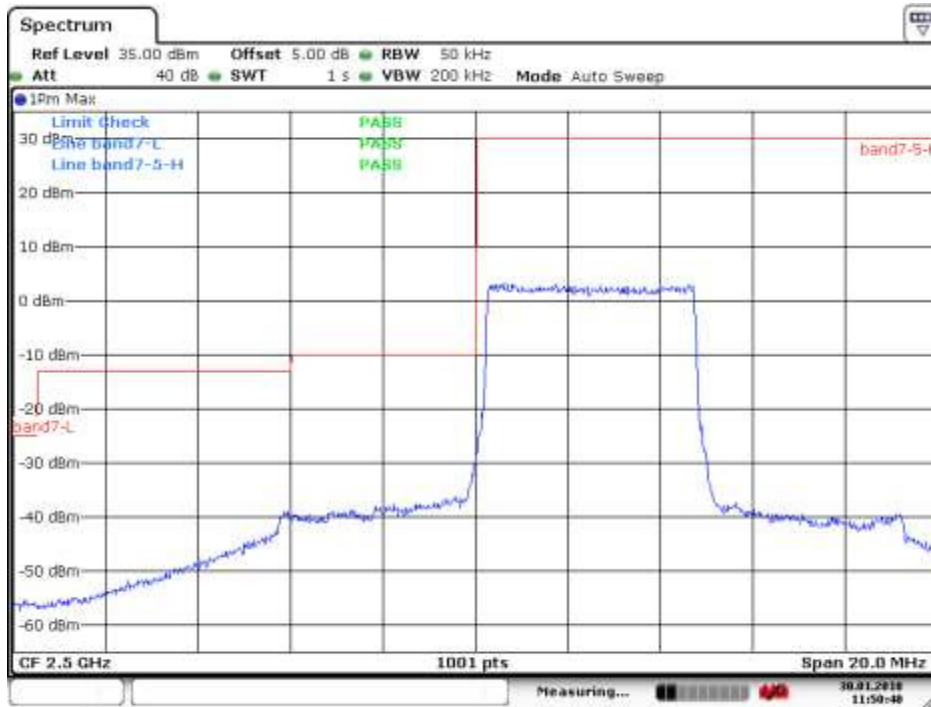
**5.1.1.2.1 Test Channel = LCH**

**5.1.1.2.1.1 Test RB=1RB**



Date: 30.JAN.2018 11:50:12

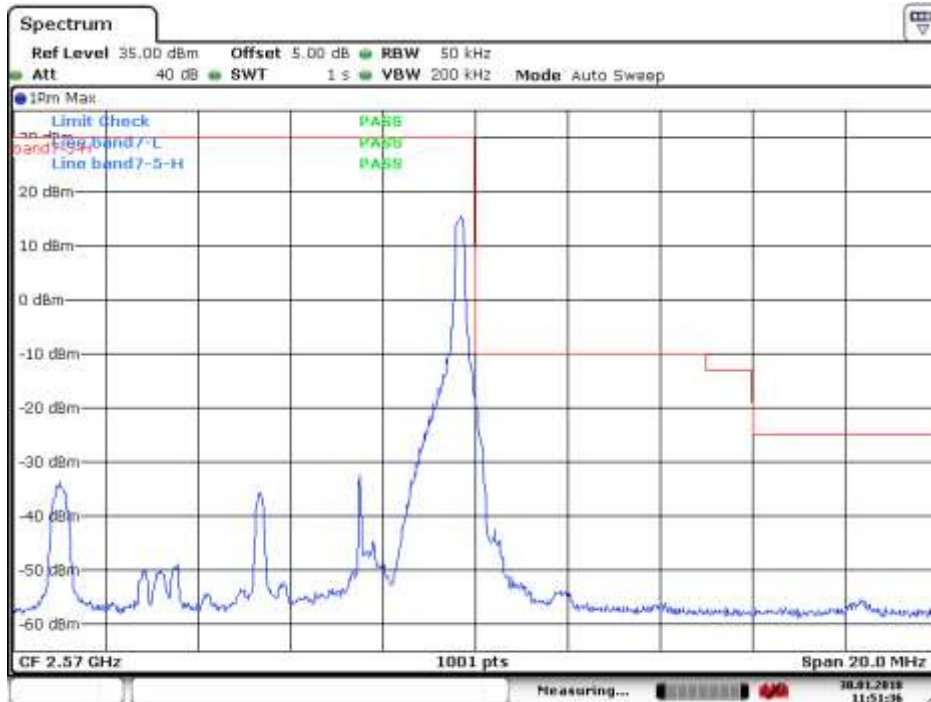
5.1.1.2.1.2 Test RB=25RB



Date: 30.JAN.2018 11:50:40

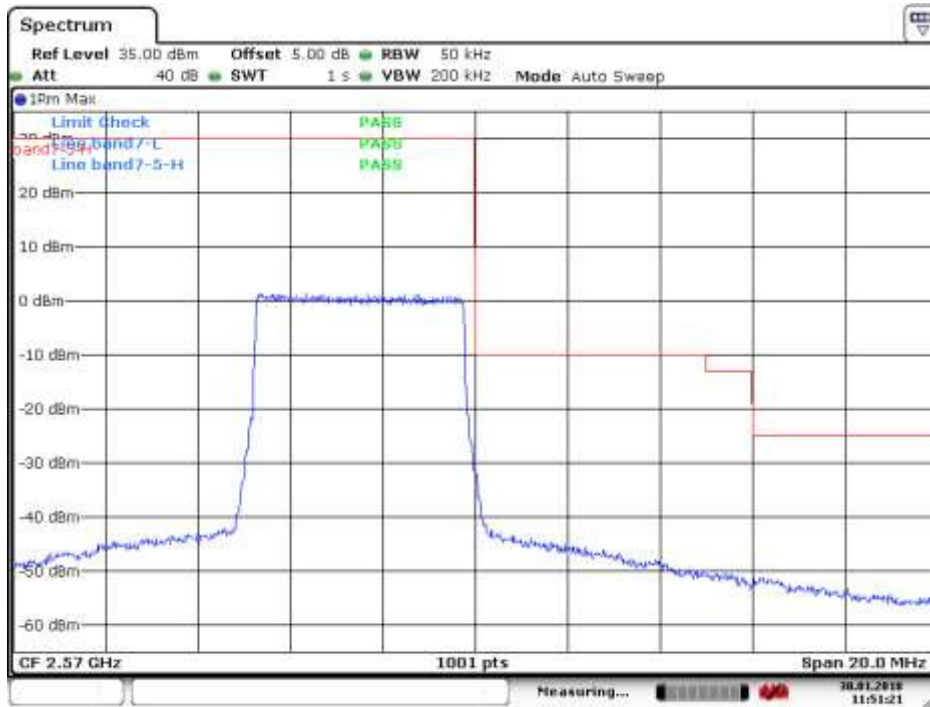
5.1.1.2.2 Test Channel = HCH

5.1.1.2.2.1 Test RB=1RB



Date: 30.JAN.2018 11:51:37

**5.1.1.2.2 Test RB=25RB**

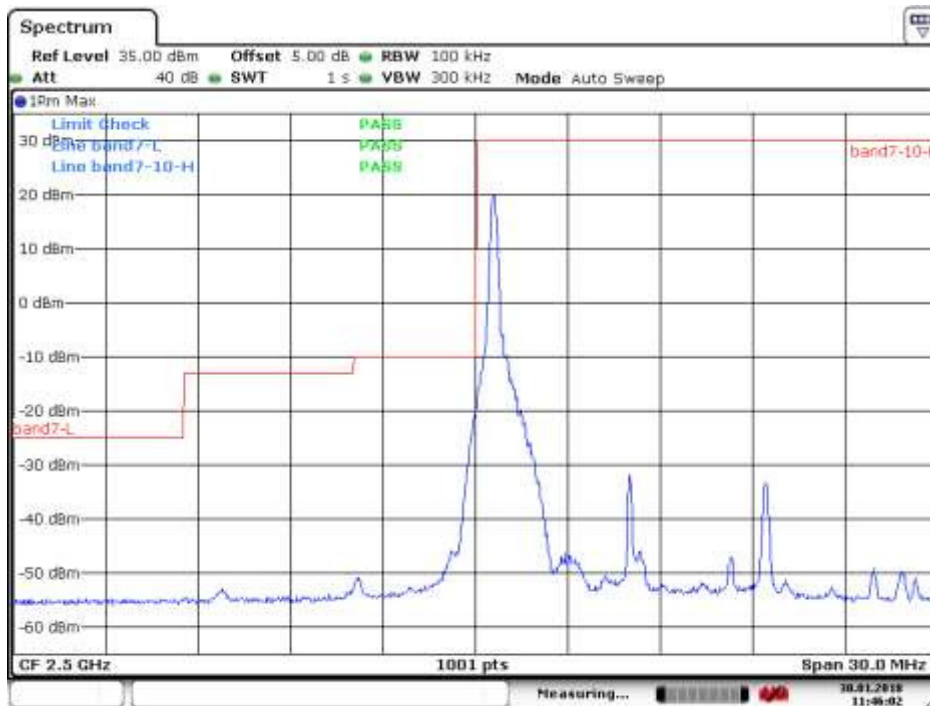


Date: 30.JAN.2018 11:51:21

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

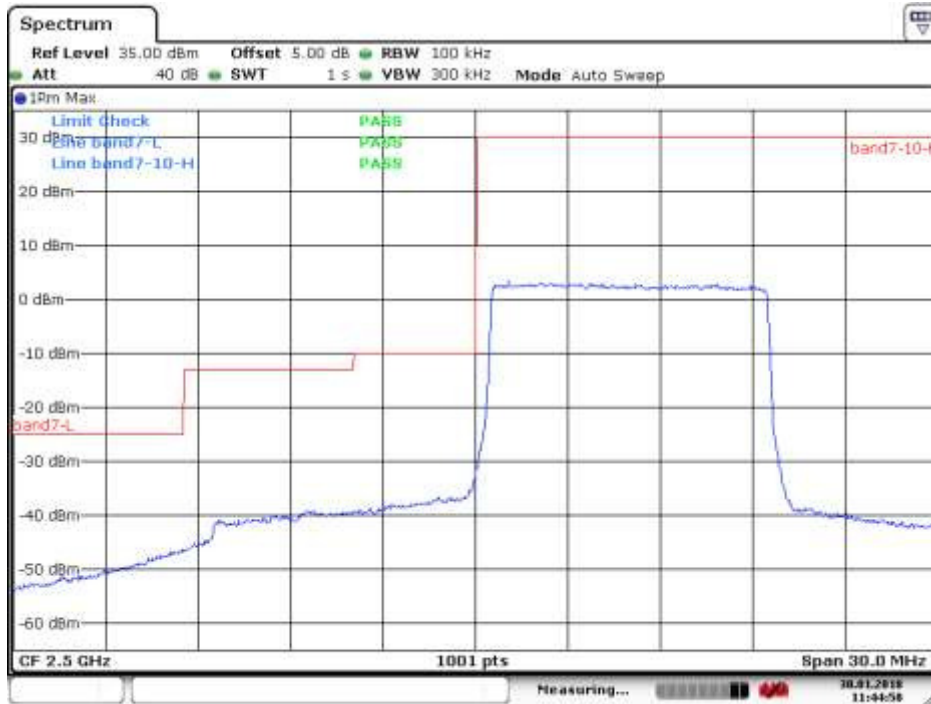
**5.1.1.3.1 Test Channel = LCH**

**5.1.1.3.1.1 Test RB=1RB**



Date: 30.JAN.2018 11:46:02

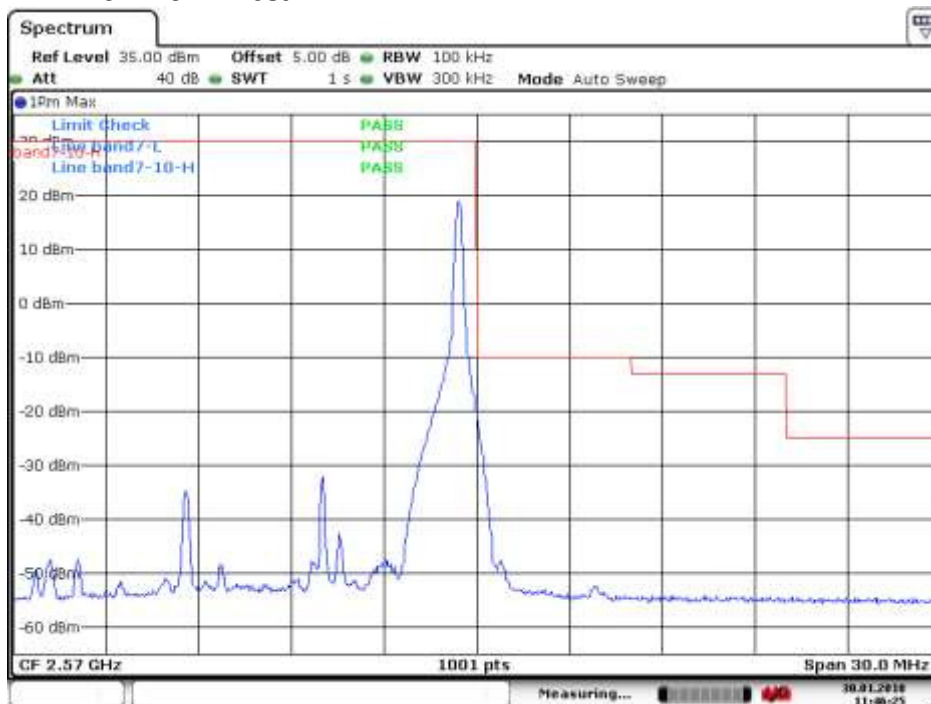
**5.1.1.3.1.2 Test RB=50RB**



Date: 30 JAN 2018 11:44:58

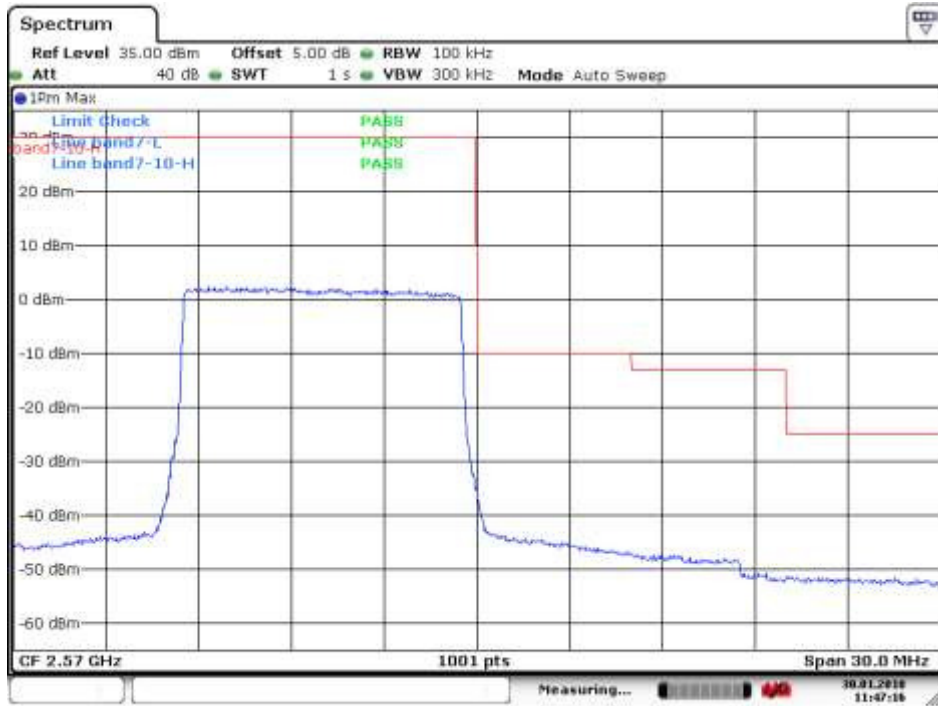
**5.1.1.3.2 Test Channel = HCH**

**5.1.1.3.2.1 Test RB=1RB**



Date: 30 JAN 2018 11:46:25

**5.1.1.3.2.2 Test RB=50RB**

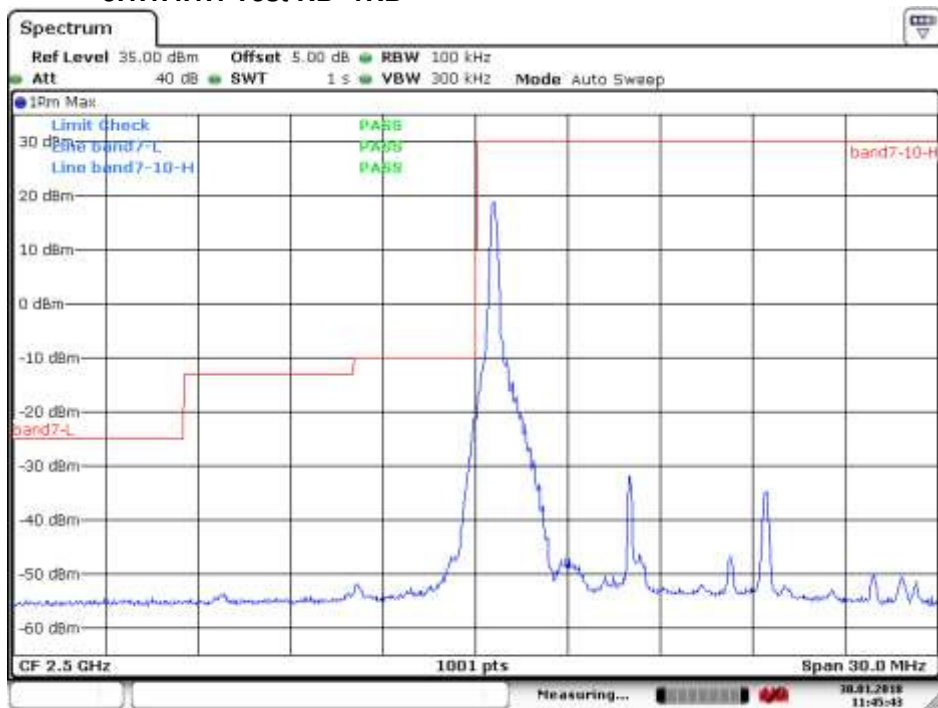


Date: 30.JAN 2018 11:47:17

**5.1.1.4 Test Mode = LTE/TM2 10MHz**

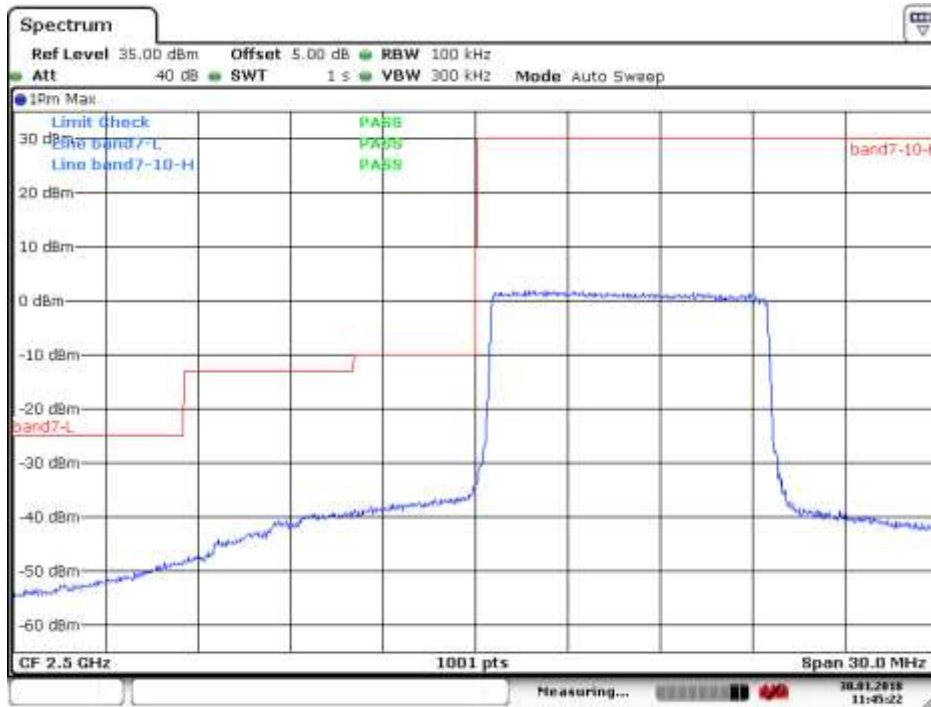
**5.1.1.4.1 Test Channel = LCH**

**5.1.1.4.1.1 Test RB=1RB**



Date: 30.JAN 2018 11:45:43

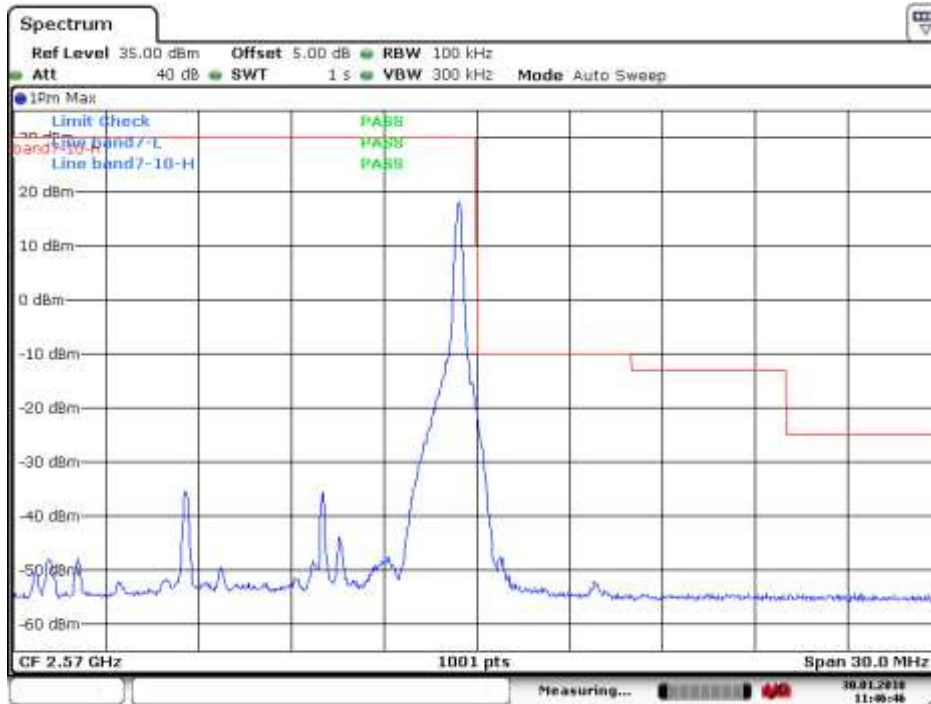
**5.1.1.4.1.2 Test RB=50RB**



Date: 30.JAN.2018 11:45:22

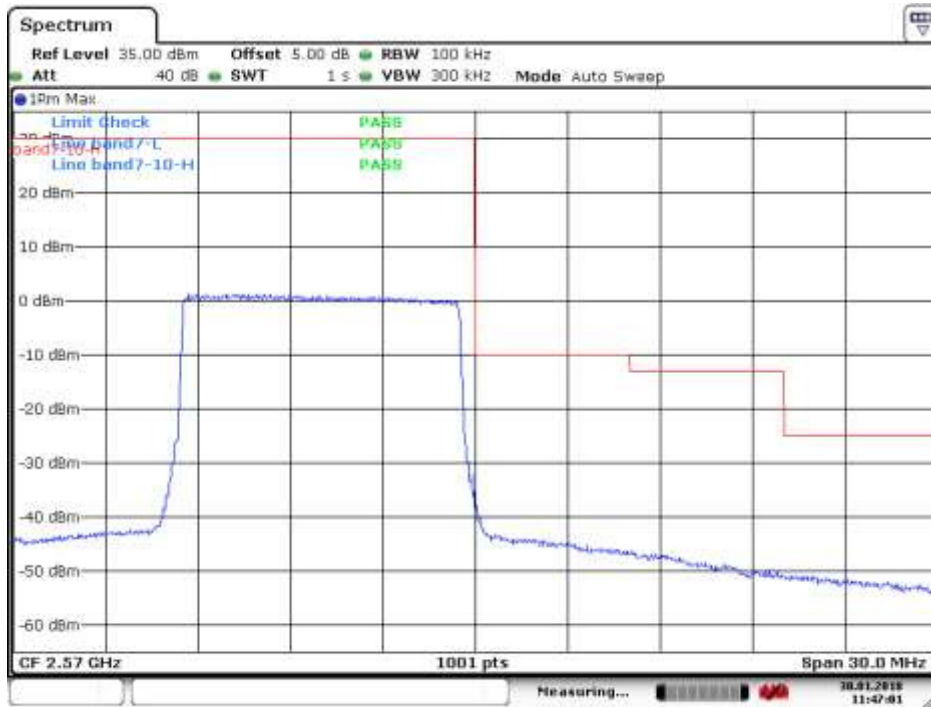
**5.1.1.4.2 Test Channel = HCH**

**5.1.1.4.2.1 Test RB=1RB**



Date: 30.JAN.2018 11:46:46

**5.1.1.4.2.2 Test RB=50RB**

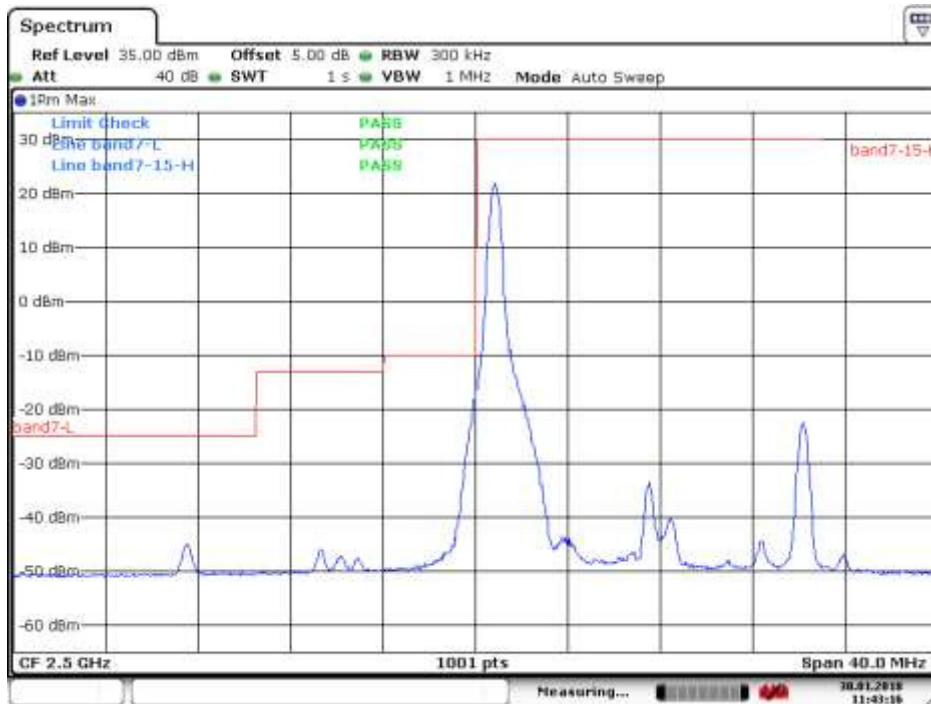


Date: 30.JAN.2018 11:47:02

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

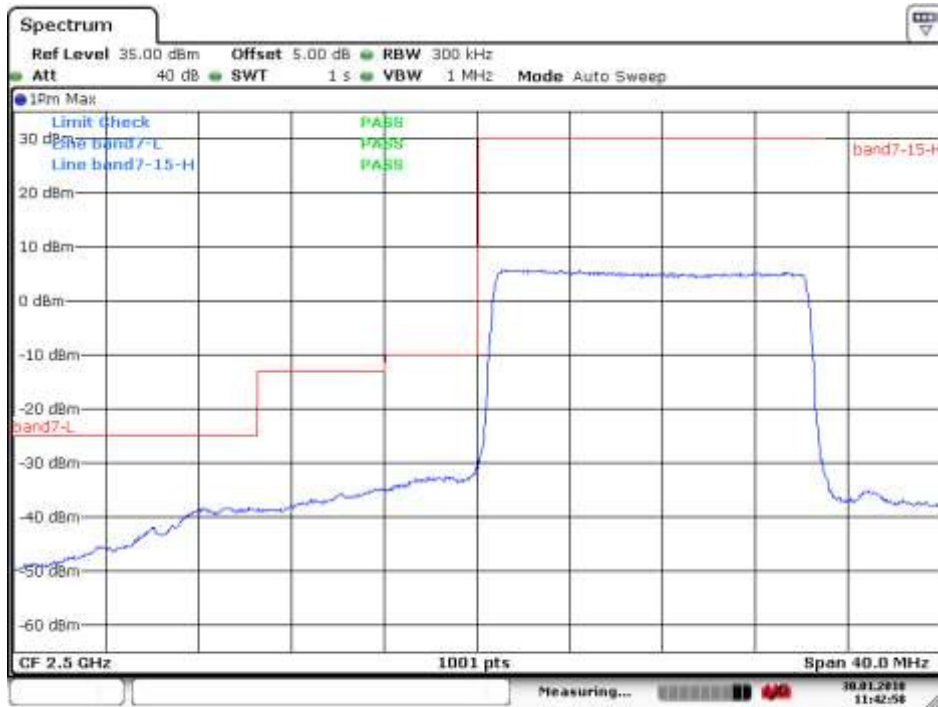
**5.1.1.5.1 Test Channel = LCH**

**5.1.1.5.1.1 Test RB=1RB**



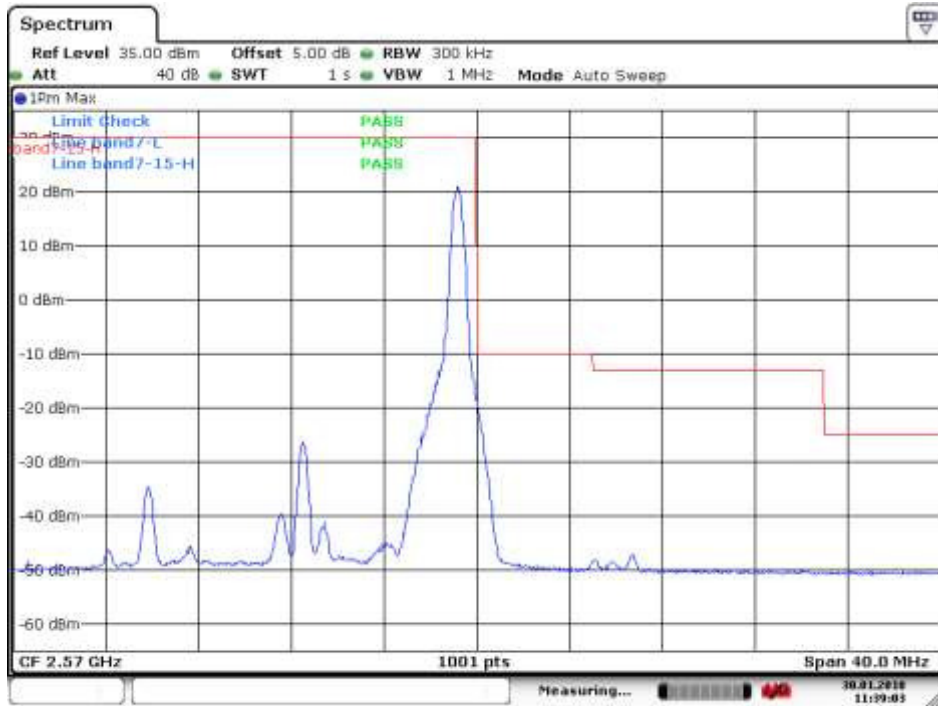
Date: 30.JAN.2018 11:43:17

**5.1.1.5.1.2 Test RB=75RB**



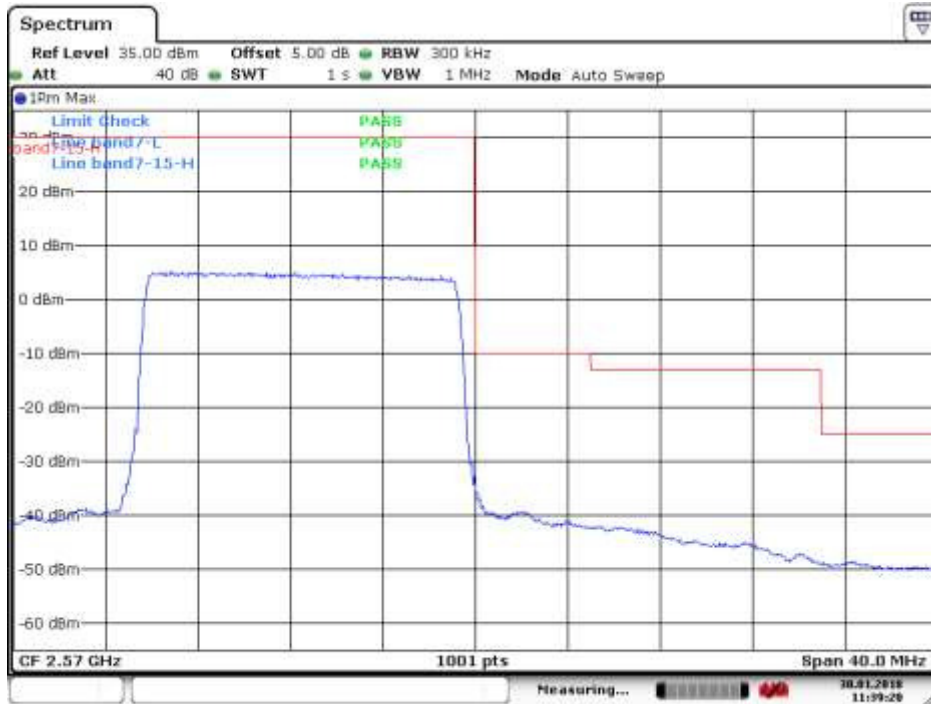
**5.1.1.5.2 Test Channel = HCH**

**5.1.1.5.2.1 Test RB=1RB**





**5.1.1.5.2.2 Test RB=75RB**

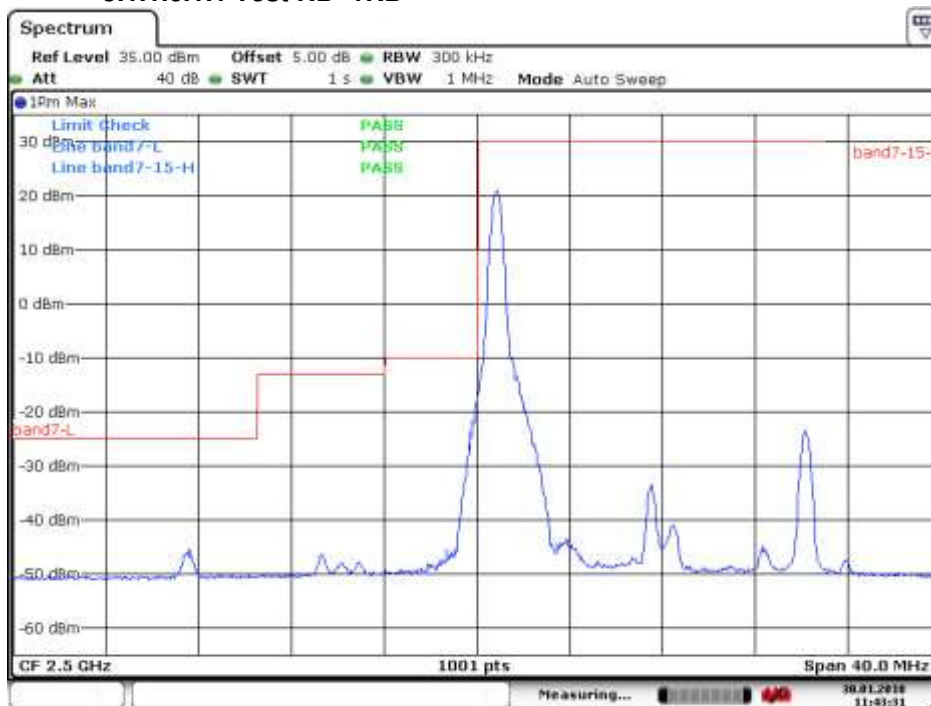


Date: 30. JAN 2018 11:39:20

**5.1.1.6 Test Mode = LTE/TM2 15MHz**

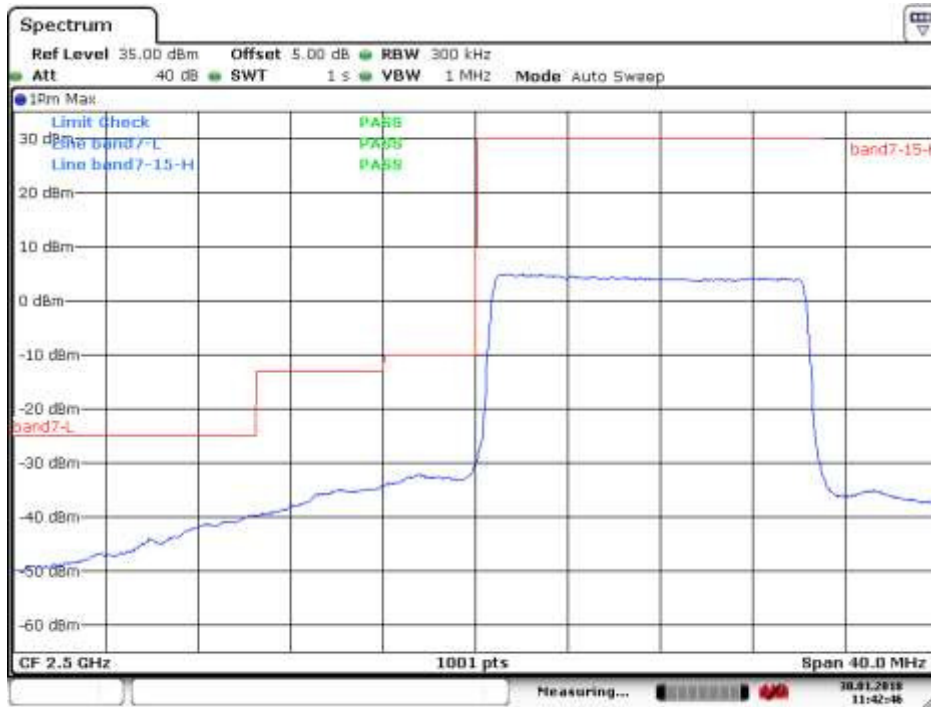
**5.1.1.6.1 Test Channel = LCH**

**5.1.1.6.1.1 Test RB=1RB**



Date: 30. JAN 2018 11:43:32

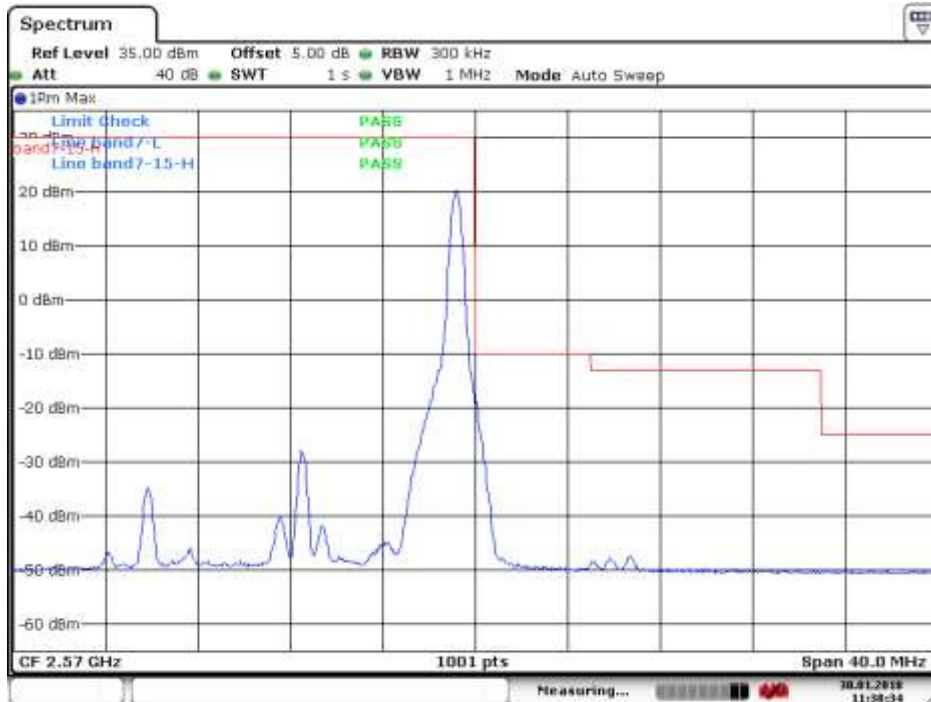
**5.1.1.6.1.2 Test RB=75RB**



Date: 30.JAN.2018 11:42:46

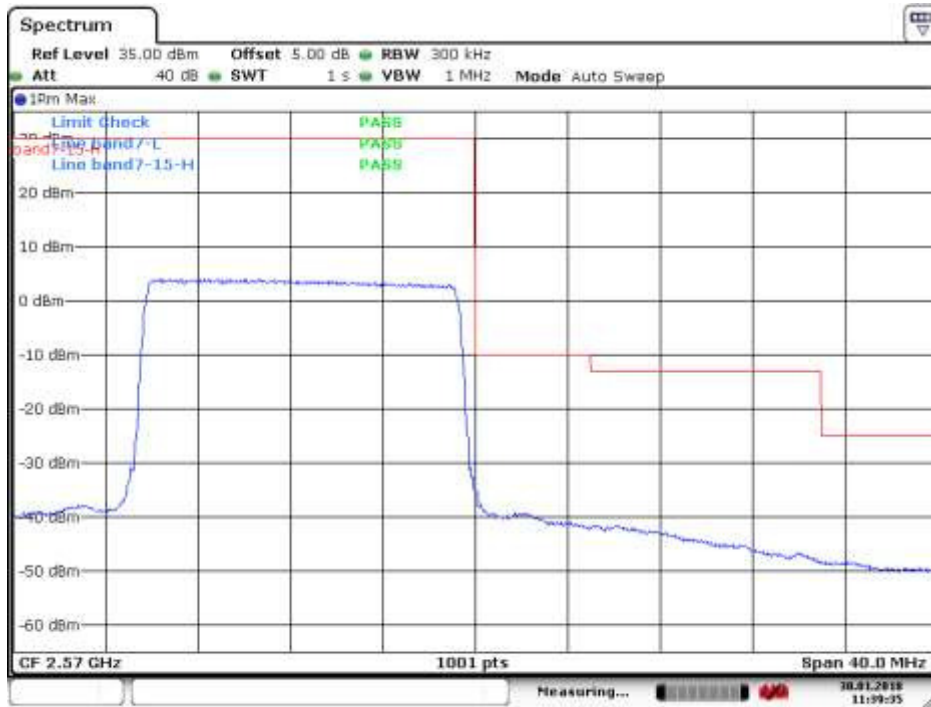
**5.1.1.6.2 Test Channel = HCH**

**5.1.1.6.2.1 Test RB=1RB**



Date: 30.JAN.2018 11:38:34

**5.1.1.6.2.2 Test RB=75RB**

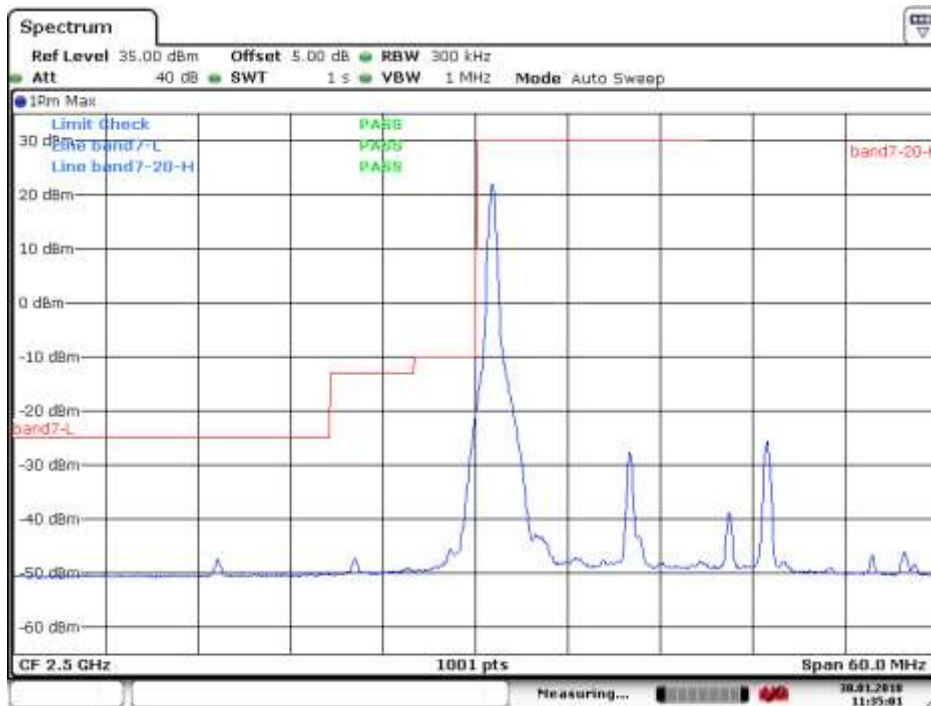


Date: 30.JAN.2018 11:39:36

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

**5.1.1.7.1 Test Channel = LCH**

**5.1.1.7.1.1 Test RB=1RB**



Date: 30.JAN.2018 11:35:01

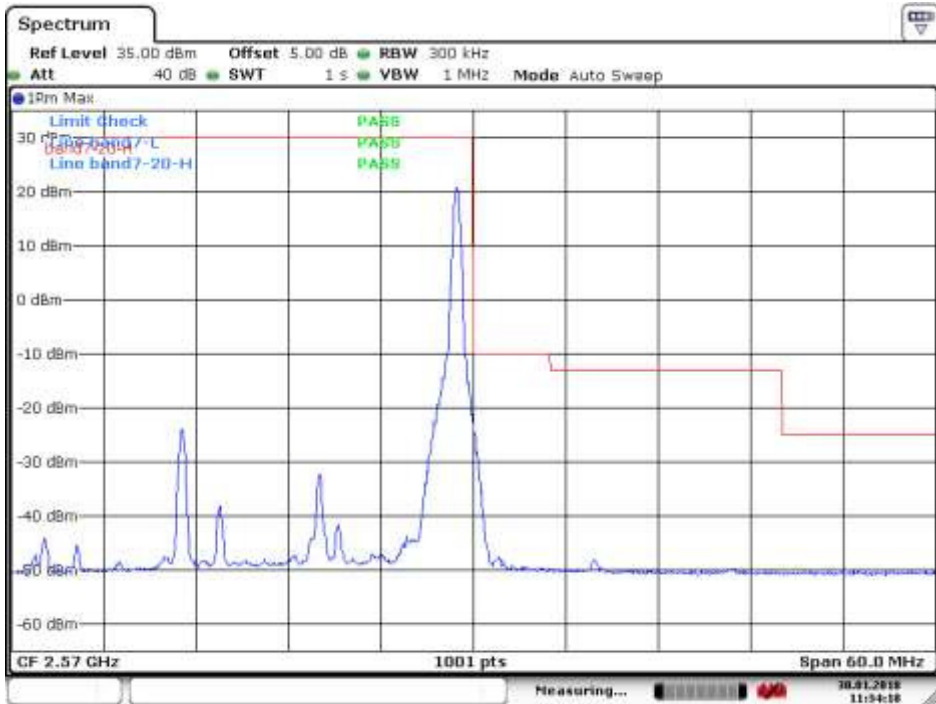
**5.1.1.7.1.2 Test RB=100RB**



Date: 30.JAN 2018 11:35:39

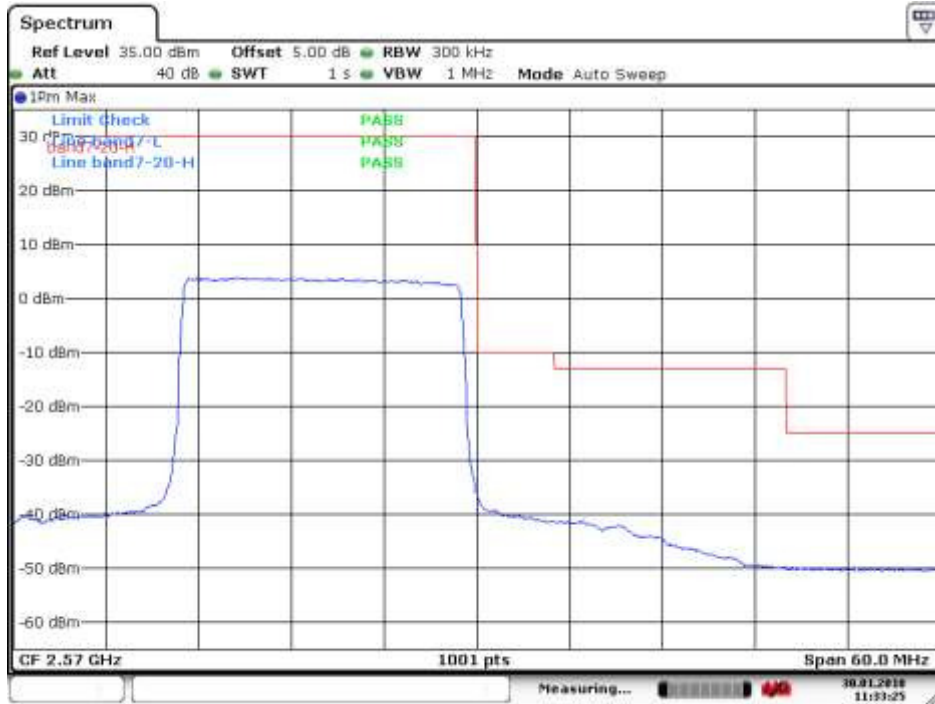
**5.1.1.7.2 Test Channel = HCH**

**5.1.1.7.2.1 Test RB=1RB**



Date: 30.JAN 2018 11:34:18

**5.1.1.7.2.2 Test RB=100RB**

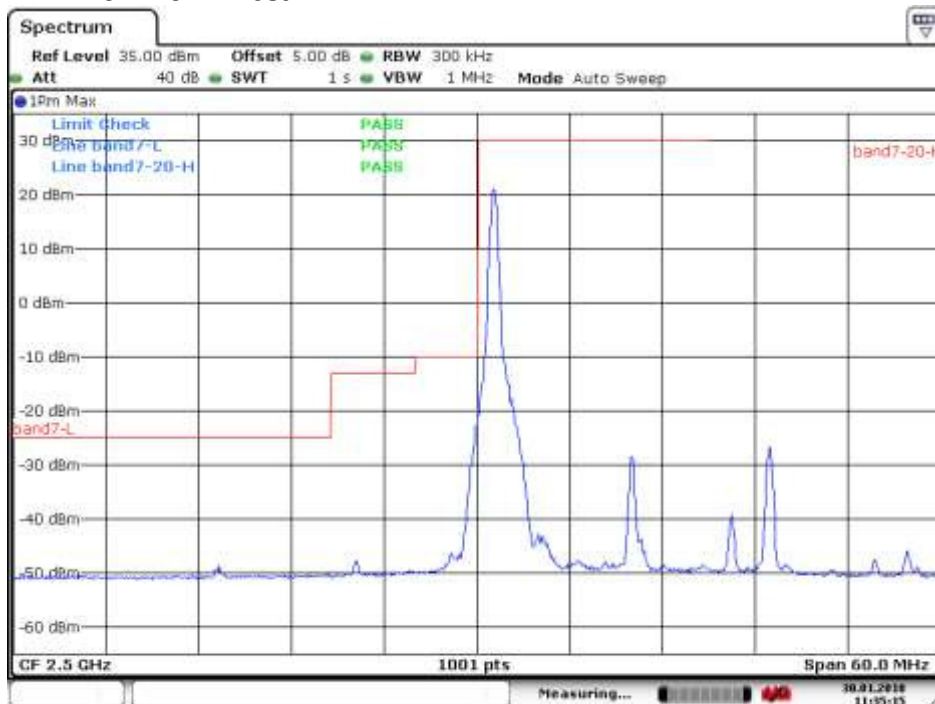


Date: 30. JAN 2018 11:33:25

**5.1.1.8 Test Mode = LTE/TM2 20MHz**

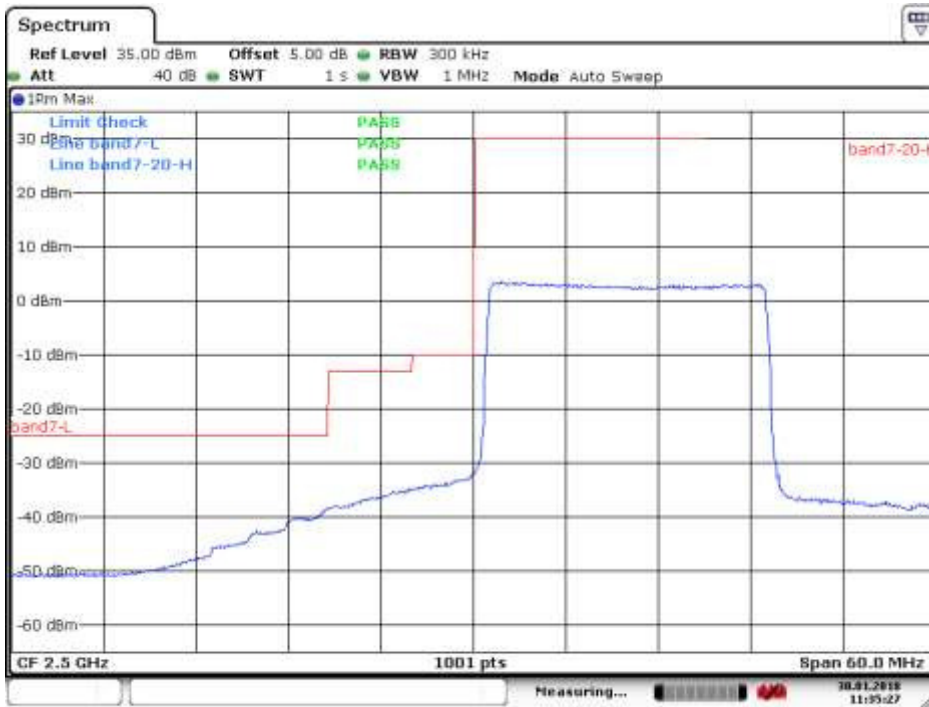
**5.1.1.8.1 Test Channel = LCH**

**5.1.1.8.1.1 Test RB=1RB**



Date: 30. JAN 2018 11:35:15

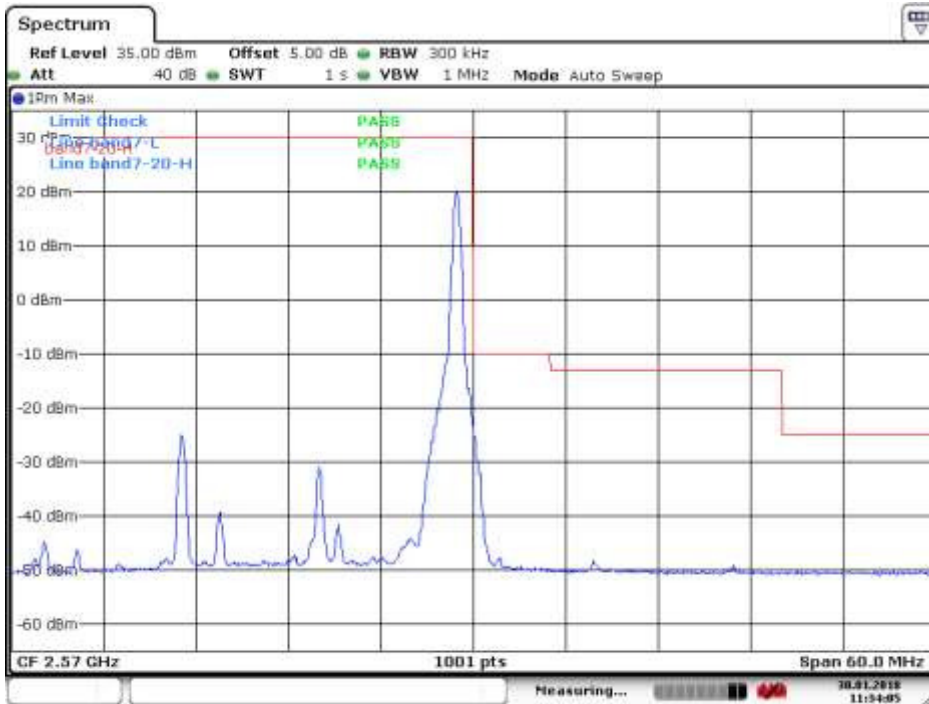
**5.1.1.8.1.2 Test RB=100RB**



Date: 30.JAN.2018 11:35:27

**5.1.1.8.2 Test Channel = HCH**

**5.1.1.8.2.1 Test RB=1RB**



Date: 30.JAN.2018 11:34:05

**5.1.1.8.2.2 Test RB=100RB**



Date: 30.JAN.2018 11:33:52

## 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.

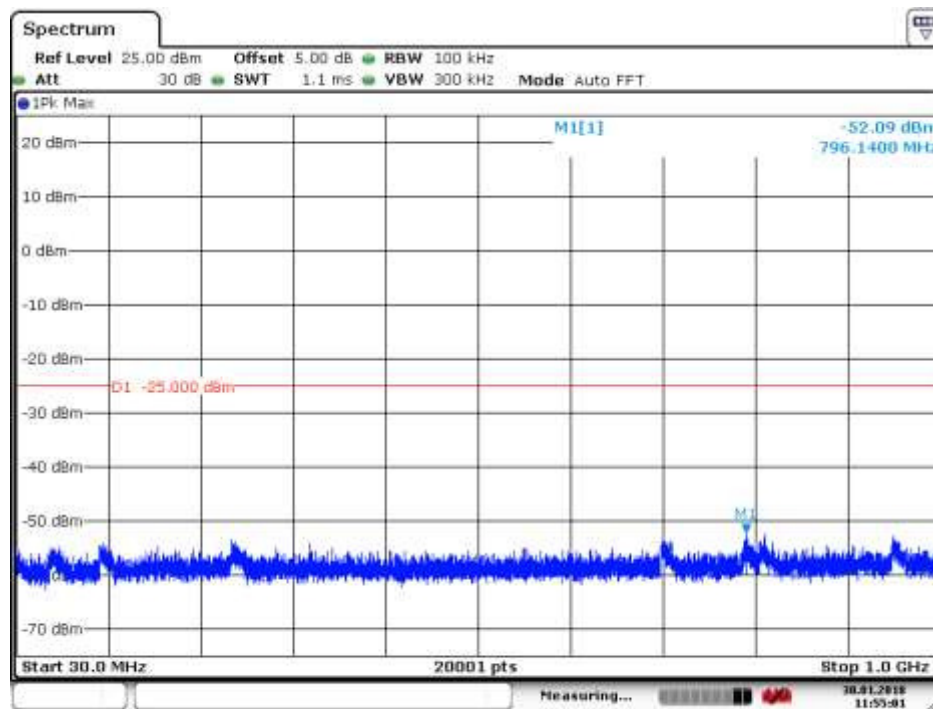
Part I - Test Plots

### 6.1 For LTE

#### 6.1.1 Test Band = LTE band7

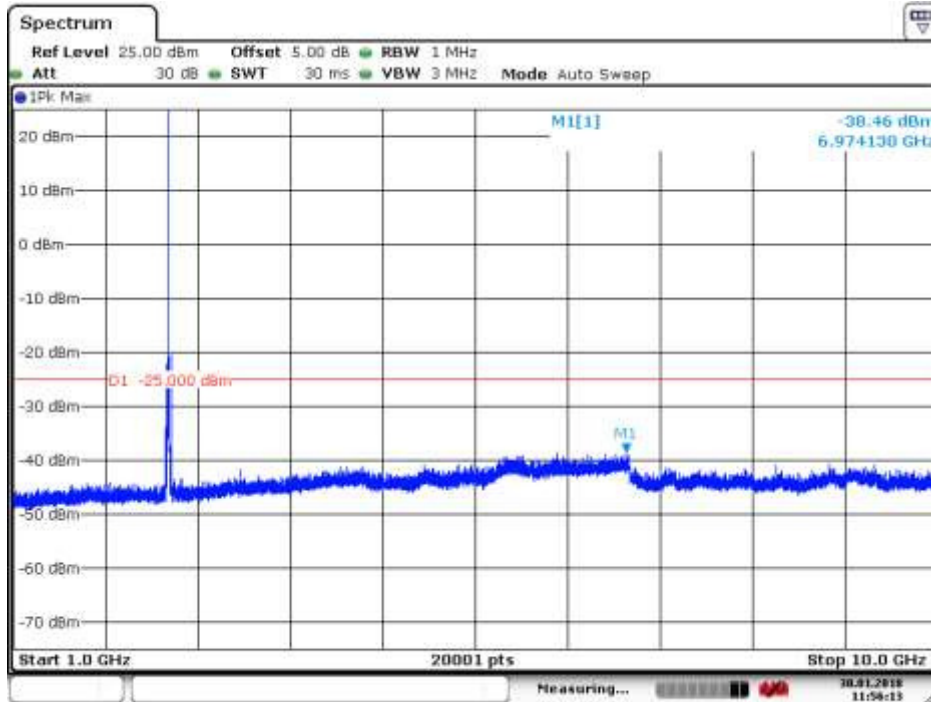
##### 6.1.1.1 Test Mode = LTE / TM1 20MHz RB1#0

##### 6.1.1.1.1 Test Channel = LCH

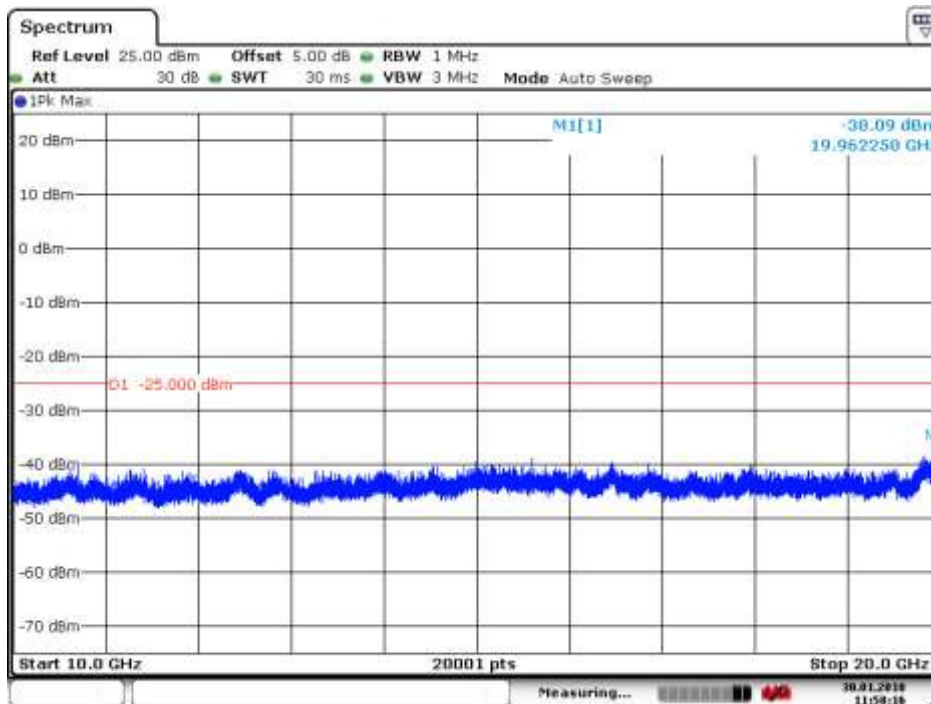


Date: 30.JAN.2018 11:55:02

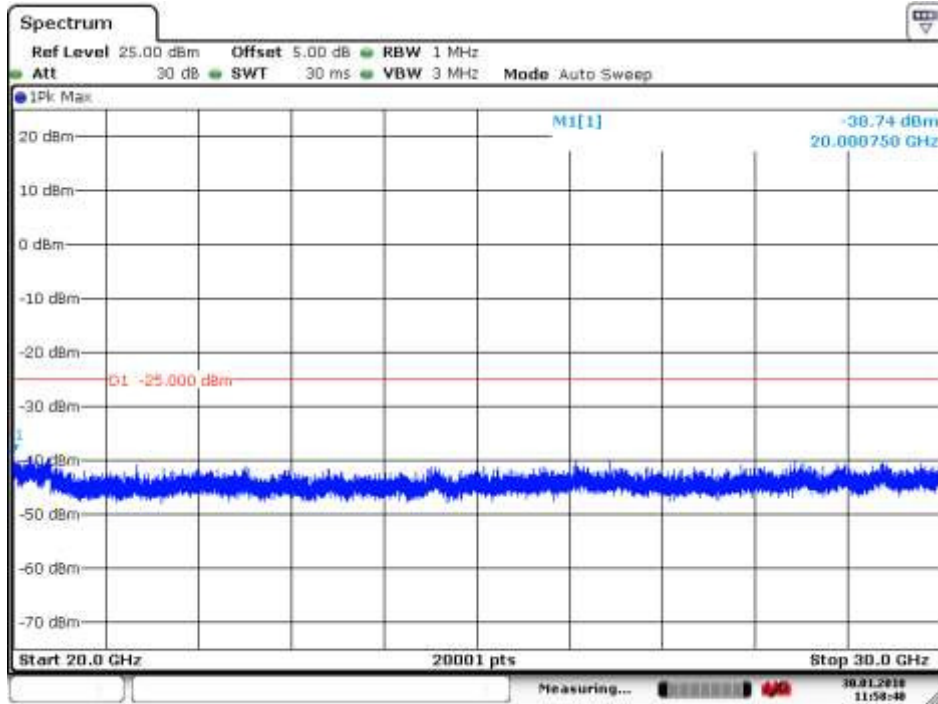




Date: 30 JAN 2018 11:56:14

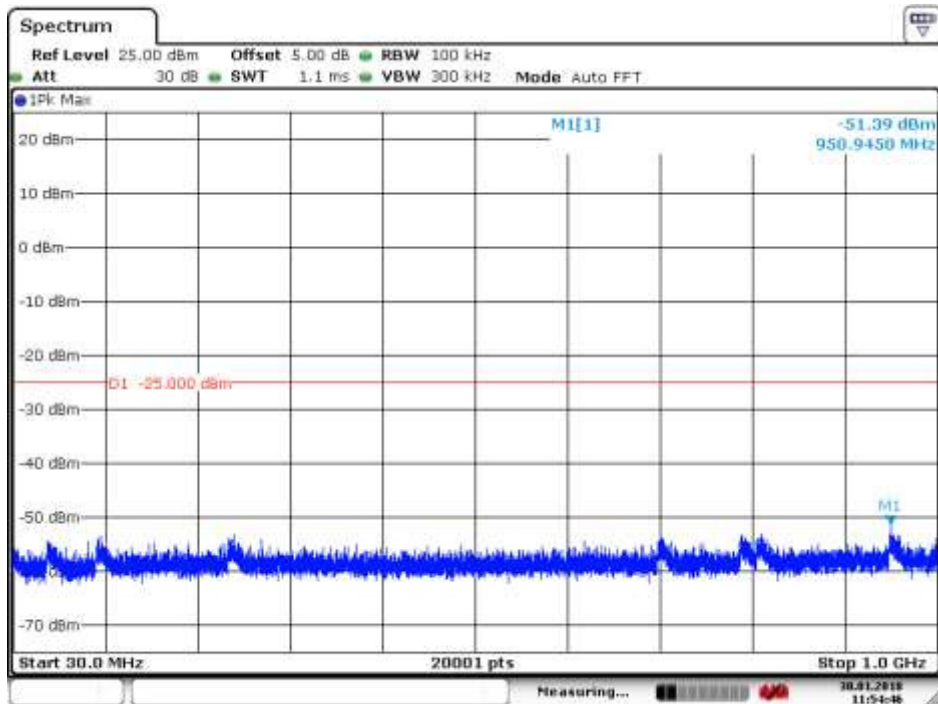


Date: 30 JAN 2018 11:58:16

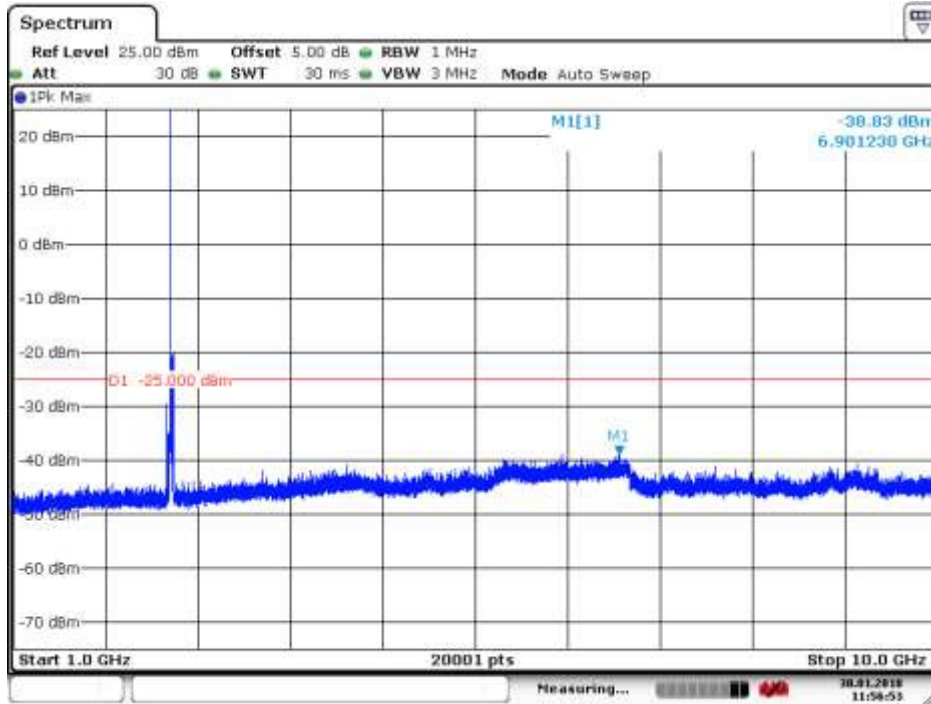


Date: 30.JAN.2018 11:58:40

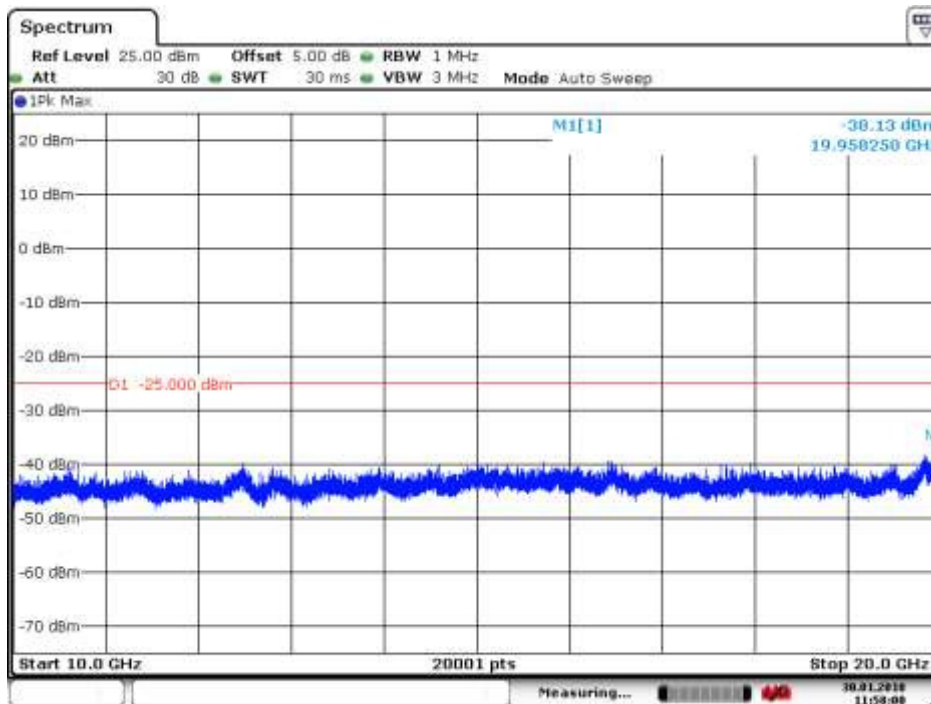
**6.1.1.1.2 Test Channel = MCH**



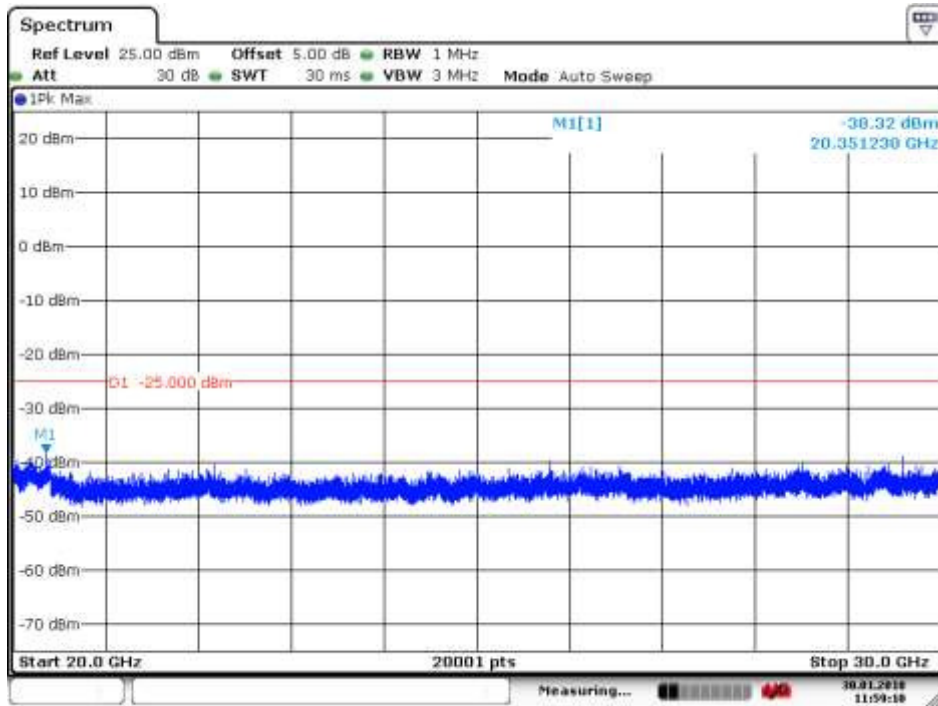
Date: 30.JAN.2018 11:54:46



Date: 30 JAN 2018 11:56:54

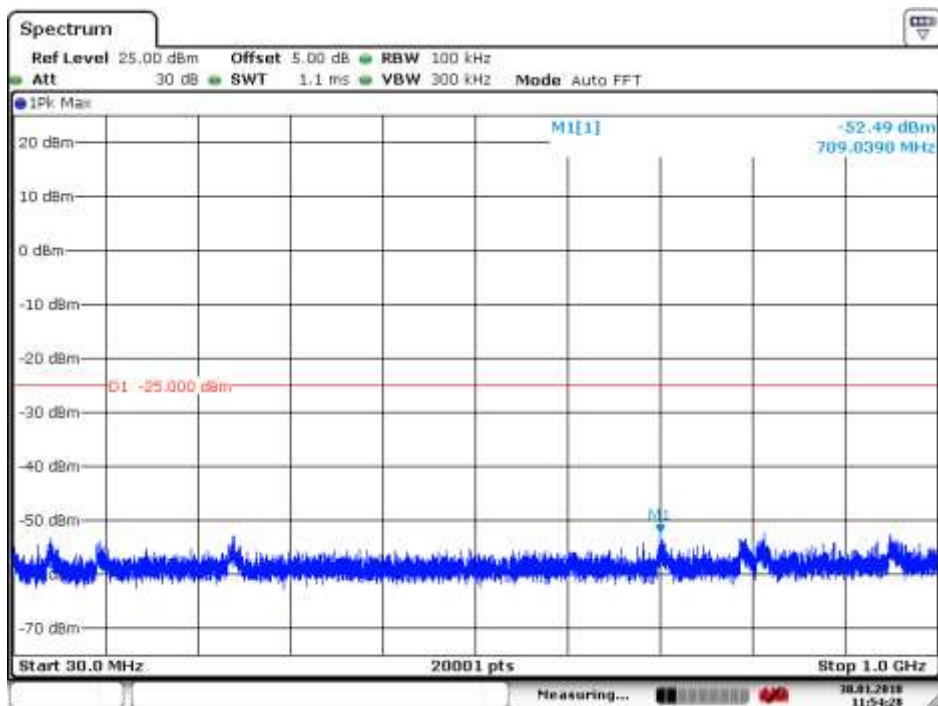


Date: 30 JAN 2018 11:58:01

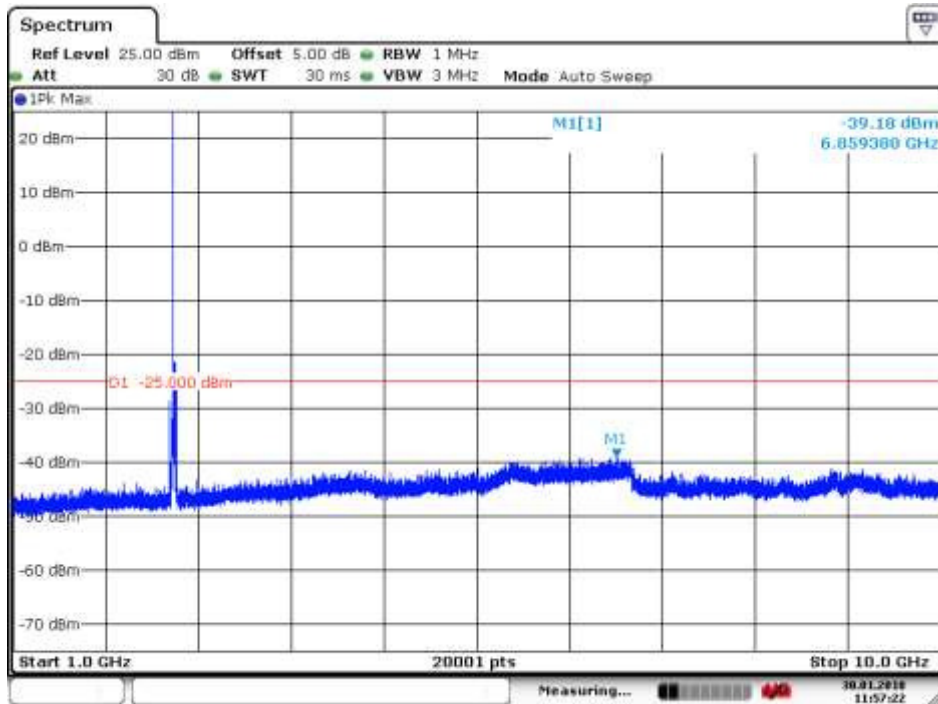


Date: 30.JAN.2018 11:59:11

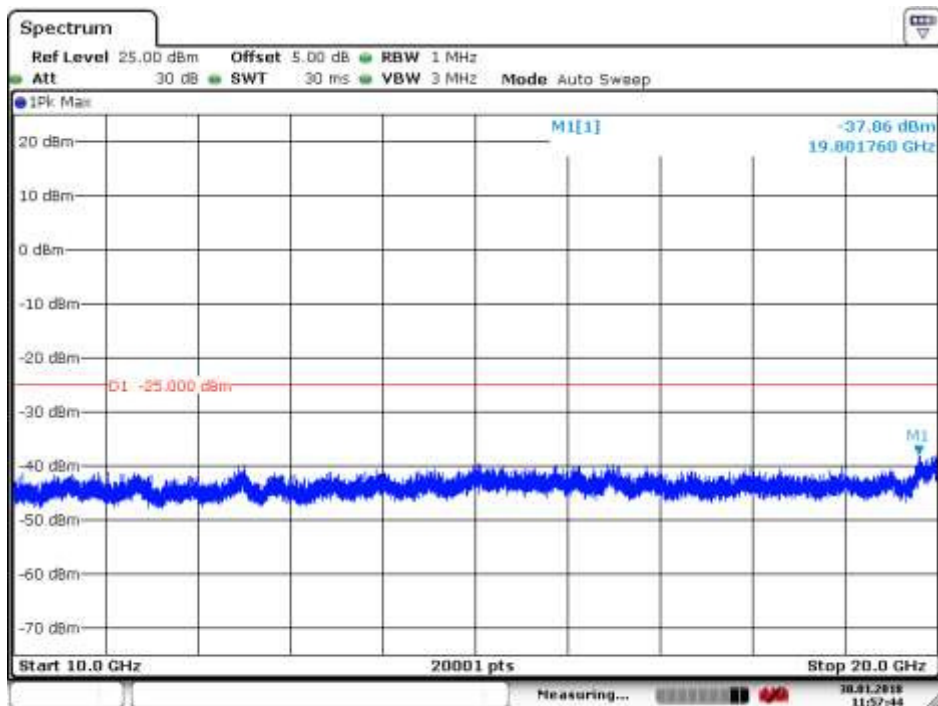
### 6.1.1.1.3 Test Channel = HCH



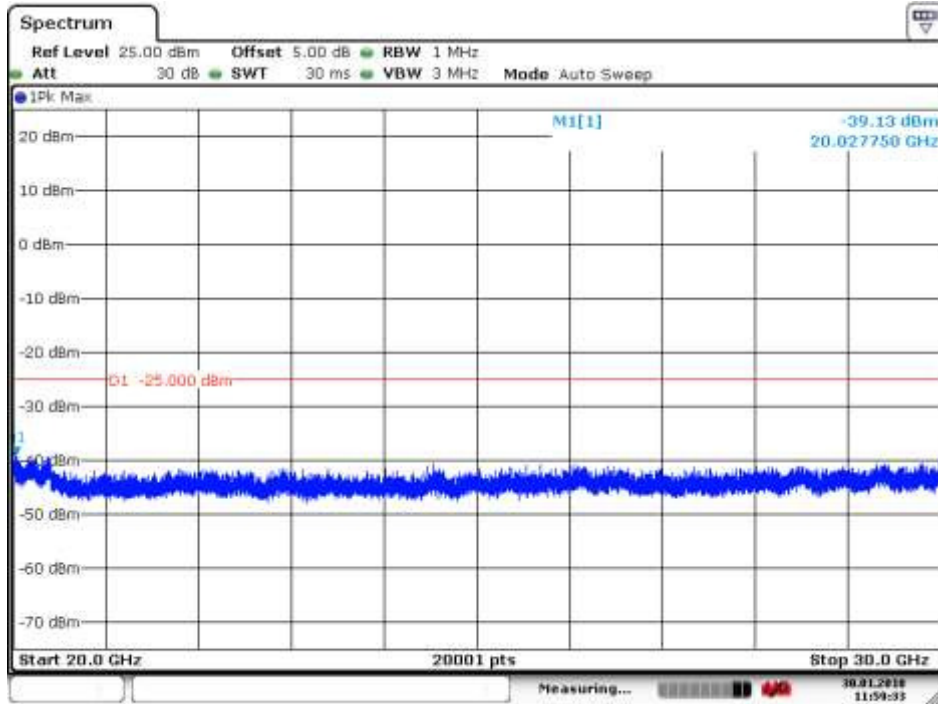
Date: 30.JAN.2018 11:54:29



Date: 30.JAN.2018 11:57:22



Date: 30.JAN.2018 11:57:44



Date: 30.JAN.2018 11:59:33



## 7 Field Strength of Spurious Radiation

### 7.1 For LTE

#### 7.1.1 Test Band = LTE band7

##### 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
829.133	-80.14	-13.00	67.14	Vertical
1163.000	-66.72	-13.00	53.72	Vertical
1465.500	-65.97	-13.00	52.97	Vertical
2580.000	-57.75	-13.00	44.75	Vertical
4710.475	-65.95	-13.00	52.95	Vertical
6471.650	-64.08	-13.00	51.08	Vertical
1308.500	-67.08	-13.00	54.08	Horizontal
2680.500	-56.99	-13.00	43.99	Horizontal
3785.525	-67.40	-13.00	54.40	Horizontal
4581.450	-66.28	-13.00	53.28	Horizontal
7239.950	-64.10	-13.00	51.10	Horizontal
9246.500	-62.59	-13.00	49.59	Horizontal

###### 7.1.1.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1213.000	-65.60	-13.00	52.60	Vertical
1714.500	-63.69	-13.00	50.69	Vertical
2494.000	-58.12	-13.00	45.12	Vertical
4417.000	-66.30	-13.00	53.30	Vertical
5730.325	-65.92	-13.00	52.92	Vertical
7823.000	-63.26	-13.00	50.26	Vertical
1200.000	-66.33	-13.00	53.33	Horizontal
1533.000	-65.53	-13.00	52.53	Horizontal
4197.300	-66.34	-13.00	53.34	Horizontal
5908.100	-65.20	-13.00	52.20	Horizontal
7800.250	-63.34	-13.00	50.34	Horizontal
9194.500	-62.94	-13.00	49.94	Horizontal



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Shenzhen Branch**

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**7.1.1.1.1 Test Channel = HCH**

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1283.500	-66.06	-13.00	53.06	Vertical
1623.500	-64.81	-13.00	51.81	Vertical
2395.000	-58.46	-13.00	45.46	Vertical
2799.000	-56.99	-13.00	43.99	Vertical
4493.375	-66.63	-13.00	53.63	Vertical
6835.325	-64.10	-13.00	51.10	Vertical
1126.500	-66.68	-13.00	53.68	Horizontal
1432.500	-66.35	-13.00	53.35	Horizontal
1747.000	-63.54	-13.00	50.54	Horizontal
2651.500	-57.35	-13.00	44.35	Horizontal
4461.850	-66.34	-13.00	53.34	Horizontal
5643.550	-65.96	-13.00	52.96	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
LTEband7	LTE/TM1 20MHz	LCH	TN	VL	-4.53	-0.00180	PASS
				VN	0.47	0.00019	PASS
				VH	-7.77	-0.00310	PASS
		MCH	TN	VL	1.43	0.00056	PASS
				VN	-2.88	-0.00114	PASS
				VH	2.68	0.00106	PASS
		HCH	TN	VL	-6.55	-0.00256	PASS
				VN	-5.13	-0.00200	PASS
				VH	-0.71	-0.00028	PASS
	LTE/TM2 20MHz	LCH	TN	VL	-4.22	-0.00168	PASS
				VN	-2.90	-0.00116	PASS
				VH	-5.18	-0.00206	PASS
		MCH	TN	VL	1.54	0.00061	PASS
				VN	-2.88	-0.00114	PASS
				VH	2.53	0.00100	PASS
		HCH	TN	VL	-3.01	-0.00118	PASS
				VN	-8.09	-0.00316	PASS
				VH	0.46	0.00018	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
LTEband7	LTE/TM1 20MHz	LCH	VN	-30	-0.45	-0.00018	PASS
				-20	-1.32	-0.00053	PASS
				-10	2.37	0.00094	PASS
				0	1.76	0.00070	PASS
				10	1.63	0.00065	PASS
				20	0.17	0.00007	PASS
				30	-0.32	-0.00013	PASS
				40	-0.17	-0.00007	PASS
				50	0.55	0.00022	PASS
		MCH	VN	-30	-7.83	-0.00309	PASS
				-20	-5.97	-0.00236	PASS
				-10	-7.43	-0.00293	PASS
				0	-5.67	-0.00224	PASS
				10	-4.09	-0.00161	PASS
				20	-9.97	-0.00393	PASS
				30	-5.62	-0.00222	PASS
				40	-4.67	-0.00184	PASS
				50	-6.93	-0.00273	PASS
		HCH	VN	-30	0.58	0.00023	PASS
				-20	-1.49	-0.00058	PASS
				-10	1.52	0.00059	PASS
				0	-2.89	-0.00113	PASS
				10	2.63	0.00103	PASS
				20	-0.55	-0.00021	PASS
				30	-2.68	-0.00105	PASS
				40	-5.42	-0.00212	PASS
				50	-8.98	-0.00351	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband7	LTE/TM2 20MHz	LCH	VN	-30	-0.60	-0.00024	PASS
				-20	-2.45	-0.00098	PASS
				-10	3.18	0.00127	PASS
				0	2.74	0.00109	PASS
				10	1.80	0.00072	PASS
				20	-0.03	-0.00001	PASS
				30	-0.24	-0.00010	PASS
				40	5.94	0.00237	PASS
		MCH	VN	-30	-3.40	-0.00134	PASS
				-20	-5.18	-0.00204	PASS
				-10	-7.59	-0.00299	PASS
				0	-4.72	-0.00186	PASS
				10	-0.84	-0.00033	PASS
				20	1.94	0.00077	PASS
				30	-3.34	-0.00132	PASS
				40	-2.62	-0.00103	PASS
		HCH	VN	-30	1.74	0.00068	PASS
				-20	-2.25	-0.00088	PASS
				-10	1.79	0.00070	PASS
				0	-3.23	-0.00126	PASS
				10	2.88	0.00113	PASS
				20	-1.27	-0.00050	PASS
				30	-2.99	-0.00117	PASS
				40	-4.23	-0.00165	PASS
			50	-7.70	-0.00301	PASS	

The End