



# Appendix B

## Test Data for SZEM161000916605RG



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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	23.55	24.04	33.00	PASS
				RB1#13	23.58	24.07	33.00	PASS
				RB1#24	23.52	24.01	33.00	PASS
				RB12#0	22.68	23.17	33.00	PASS
				RB12#6	22.68	23.17	33.00	PASS
				RB12#13	22.69	23.18	33.00	PASS
				RB25#0	23.55	24.04	33.00	PASS
			MCH	RB1#0	23.82	24.31	33.00	PASS
				RB1#13	23.80	24.29	33.00	PASS
				RB1#24	23.77	24.26	33.00	PASS
				RB12#0	22.94	23.43	33.00	PASS
				RB12#6	22.93	23.42	33.00	PASS
				RB12#13	22.92	23.41	33.00	PASS
				RB25#0	23.82	24.31	33.00	PASS
			HCH	RB1#0	23.42	23.91	33.00	PASS
				RB1#13	23.46	23.95	33.00	PASS
				RB1#24	23.42	23.91	33.00	PASS
				RB12#0	22.57	23.06	33.00	PASS
				RB12#6	22.57	23.06	33.00	PASS
				RB12#13	22.56	23.05	33.00	PASS
				RB25#0	23.42	23.91	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	22.78	23.27	33.00	PASS
				RB1#13	22.79	23.28	33.00	PASS
				RB1#24	22.77	23.26	33.00	PASS
				RB12#0	21.66	22.15	33.00	PASS
				RB12#6	21.67	22.16	33.00	PASS
				RB12#13	21.68	22.17	33.00	PASS
			MCH	RB25#0	21.62	22.11	33.00	PASS
				RB1#0	23.04	23.53	33.00	PASS
				RB1#13	23.03	23.52	33.00	PASS
				RB1#24	22.99	23.48	33.00	PASS
				RB12#0	21.91	22.40	33.00	PASS
				RB12#6	21.92	22.41	33.00	PASS
			HCH	RB12#13	21.93	22.42	33.00	PASS
				RB25#0	21.88	22.37	33.00	PASS
				RB1#0	22.65	23.14	33.00	PASS
				RB1#13	22.69	23.18	33.00	PASS
				RB1#24	22.64	23.13	33.00	PASS
				RB12#0	21.57	22.06	33.00	PASS
			RB12#6	21.56	22.05	33.00	PASS	
			RB12#13	21.55	22.04	33.00	PASS	
			RB25#0	21.51	22.00	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	23.56	24.05	33.00	PASS
				RB1#25	23.59	24.08	33.00	PASS
				RB1#49	23.67	24.16	33.00	PASS
				RB25#0	22.68	23.17	33.00	PASS
				RB25#13	22.71	23.20	33.00	PASS
				RB25#25	22.72	23.21	33.00	PASS
				RB50#0	22.75	23.24	33.00	PASS
			MCH	RB1#0	23.84	24.33	33.00	PASS
				RB1#25	23.83	24.32	33.00	PASS
				RB1#49	23.81	24.30	33.00	PASS
				RB25#0	22.95	23.44	33.00	PASS
				RB25#13	22.94	23.43	33.00	PASS
				RB25#25	22.93	23.42	33.00	PASS
				RB50#0	22.99	23.48	33.00	PASS
			HCH	RB1#0	23.45	23.94	33.00	PASS
				RB1#25	23.47	23.96	33.00	PASS
				RB1#49	23.49	23.98	33.00	PASS
				RB25#0	22.55	23.04	33.00	PASS
				RB25#13	22.56	23.05	33.00	PASS
				RB25#25	22.58	23.07	33.00	PASS
				RB50#0	22.58	23.07	33.00	PASS

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BAND7	LTE/TM2	10M	LCH	RB1#0	22.73	23.22	33.00	PASS
				RB1#25	22.78	23.27	33.00	PASS
				RB1#49	22.88	23.37	33.00	PASS
				RB25#0	21.64	22.13	33.00	PASS
				RB25#13	21.69	22.18	33.00	PASS
				RB25#25	21.69	22.18	33.00	PASS
				RB50#0	21.70	22.19	33.00	PASS
			MCH	RB1#0	23.03	23.52	33.00	PASS
				RB1#25	23.02	23.51	33.00	PASS
				RB1#49	23.02	23.51	33.00	PASS
				RB25#0	21.90	22.39	33.00	PASS
				RB25#13	21.90	22.39	33.00	PASS
				RB25#25	21.88	22.37	33.00	PASS
				RB50#0	21.94	22.43	33.00	PASS
			HCH	RB1#0	22.66	23.15	33.00	PASS
				RB1#25	22.69	23.18	33.00	PASS
				RB1#49	22.70	23.19	33.00	PASS
				RB25#0	21.51	22.00	33.00	PASS
				RB25#13	21.54	22.03	33.00	PASS
				RB25#25	21.56	22.05	33.00	PASS
				RB50#0	21.55	22.04	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	23.67	24.16	33.00	PASS
				RB1#38	23.75	24.24	33.00	PASS
				RB1#74	23.90	24.39	33.00	PASS
				RB36#0	22.82	23.31	33.00	PASS
				RB36#18	22.85	23.34	33.00	PASS
				RB36#39	22.94	23.43	33.00	PASS
				RB75#0	22.88	23.37	33.00	PASS
			MCH	RB1#0	23.81	24.30	33.00	PASS
				RB1#38	23.85	24.34	33.00	PASS
				RB1#74	23.86	24.35	33.00	PASS
				RB36#0	22.99	23.48	33.00	PASS
				RB36#18	22.96	23.45	33.00	PASS
				RB36#39	22.97	23.46	33.00	PASS
				RB75#0	22.98	23.47	33.00	PASS
			HCH	RB1#0	23.53	24.02	33.00	PASS
				RB1#38	23.52	24.01	33.00	PASS
				RB1#74	23.59	24.08	33.00	PASS
				RB36#0	22.66	23.15	33.00	PASS
				RB36#18	22.67	23.16	33.00	PASS
				RB36#39	22.69	23.18	33.00	PASS
				RB75#0	22.66	23.15	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	22.90	23.39	33.00	PASS
				RB1#38	23.00	23.49	33.00	PASS
				RB1#74	23.15	23.64	33.00	PASS
				RB36#0	21.78	22.27	33.00	PASS
				RB36#18	21.83	22.32	33.00	PASS
				RB36#39	21.92	22.41	33.00	PASS
				RB75#0	21.85	22.34	33.00	PASS
			MCH	RB1#0	23.08	23.57	33.00	PASS
				RB1#38	23.10	23.59	33.00	PASS
				RB1#74	23.13	23.62	33.00	PASS
				RB36#0	21.96	22.45	33.00	PASS
				RB36#18	21.96	22.45	33.00	PASS
				RB36#39	21.94	22.43	33.00	PASS
				RB75#0	21.95	22.44	33.00	PASS
			HCH	RB1#0	22.79	23.28	33.00	PASS
				RB1#38	22.77	23.26	33.00	PASS
				RB1#74	22.84	23.33	33.00	PASS
				RB36#0	21.63	22.12	33.00	PASS
				RB36#18	21.65	22.14	33.00	PASS
				RB36#39	21.67	22.16	33.00	PASS
				RB75#0	21.64	22.13	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	23.70	24.19	33.00	PASS
				RB1#50	23.82	24.31	33.00	PASS
				RB1#99	23.96	24.45	33.00	PASS
				RB50#0	22.97	23.46	33.00	PASS
				RB50#25	22.98	23.47	33.00	PASS
				RB50#50	23.04	23.53	33.00	PASS
				RB100#0	22.95	23.44	33.00	PASS
			MCH	RB1#0	23.89	24.38	33.00	PASS
				RB1#50	23.87	24.36	33.00	PASS
				RB1#99	23.88	24.37	33.00	PASS
				RB50#0	23.05	23.54	33.00	PASS
				RB50#25	23.00	23.49	33.00	PASS
				RB50#50	22.98	23.47	33.00	PASS
				RB100#0	22.99	23.48	33.00	PASS
			HCH	RB1#0	23.63	24.12	33.00	PASS
				RB1#50	23.64	24.13	33.00	PASS
				RB1#99	23.74	24.23	33.00	PASS
				RB50#0	22.93	23.42	33.00	PASS
				RB50#25	22.76	23.25	33.00	PASS
				RB50#50	22.79	23.28	33.00	PASS
				RB100#0	22.91	23.40	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	20M	LCH	RB1#0	22.83	23.32	33.00	PASS
				RB1#50	23.02	23.51	33.00	PASS
				RB1#99	23.17	23.66	33.00	PASS
				RB50#0	21.80	22.29	33.00	PASS
				RB50#25	21.86	22.35	33.00	PASS
				RB50#50	21.93	22.42	33.00	PASS
				RB100#0	21.82	22.31	33.00	PASS
			MCH	RB1#0	23.07	23.56	33.00	PASS
				RB1#50	23.05	23.54	33.00	PASS
				RB1#99	23.02	23.51	33.00	PASS
				RB50#0	21.94	22.43	33.00	PASS
				RB50#25	21.94	22.43	33.00	PASS
				RB50#50	21.92	22.41	33.00	PASS
				RB100#0	21.91	22.40	33.00	PASS
			HCH	RB1#0	22.75	23.24	33.00	PASS
				RB1#50	22.69	23.18	33.00	PASS
				RB1#99	22.81	23.30	33.00	PASS
				RB50#0	21.65	22.14	33.00	PASS
				RB50#25	21.65	22.14	33.00	PASS
				RB50#50	21.67	22.16	33.00	PASS
				RB100#0	21.64	22.13	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 7	TM1/20M	LCH	4.99	13	PASS
		MCH	5.10	13	PASS
		HCH	4.99	13	PASS
	TM2/20M	LCH	5.71	13	PASS
		MCH	5.59	13	PASS
		HCH	5.57	13	PASS



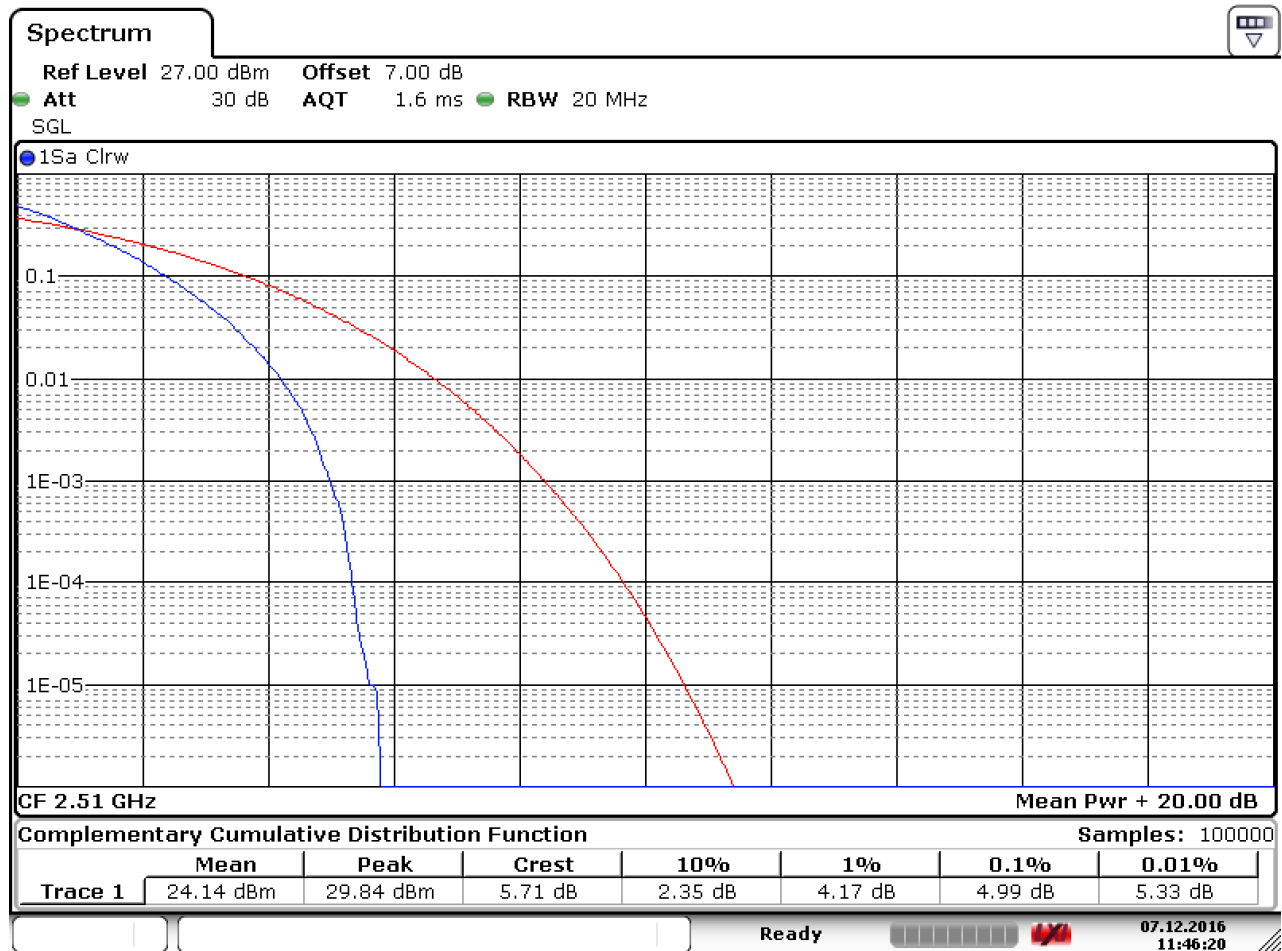
Part II - Test Plots

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

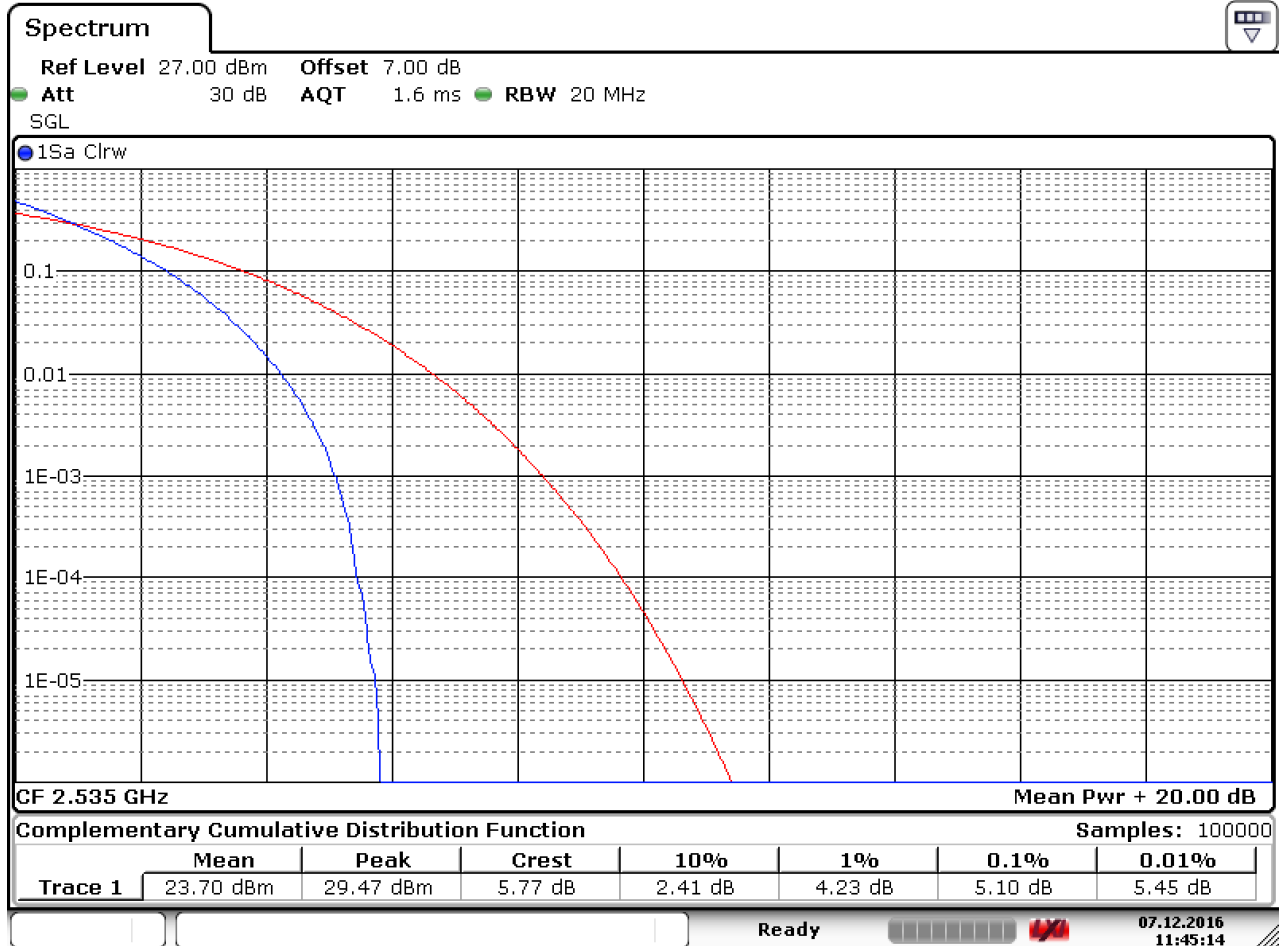


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2.1.1.1.2 Test Channel = MCH

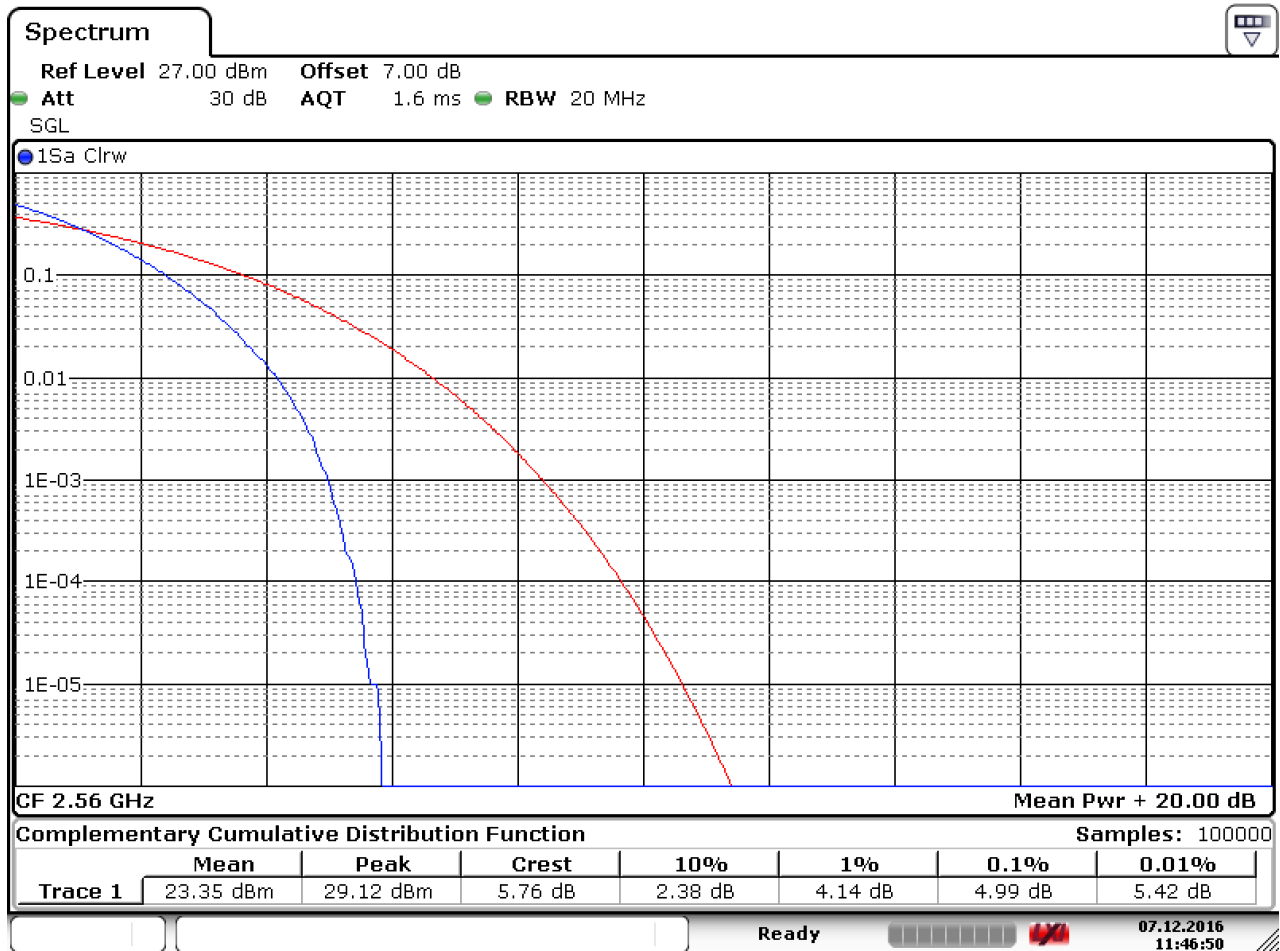


Date: 7.DEC.2016 11:45:14

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2.1.1.1.3 Test Channel = HCH



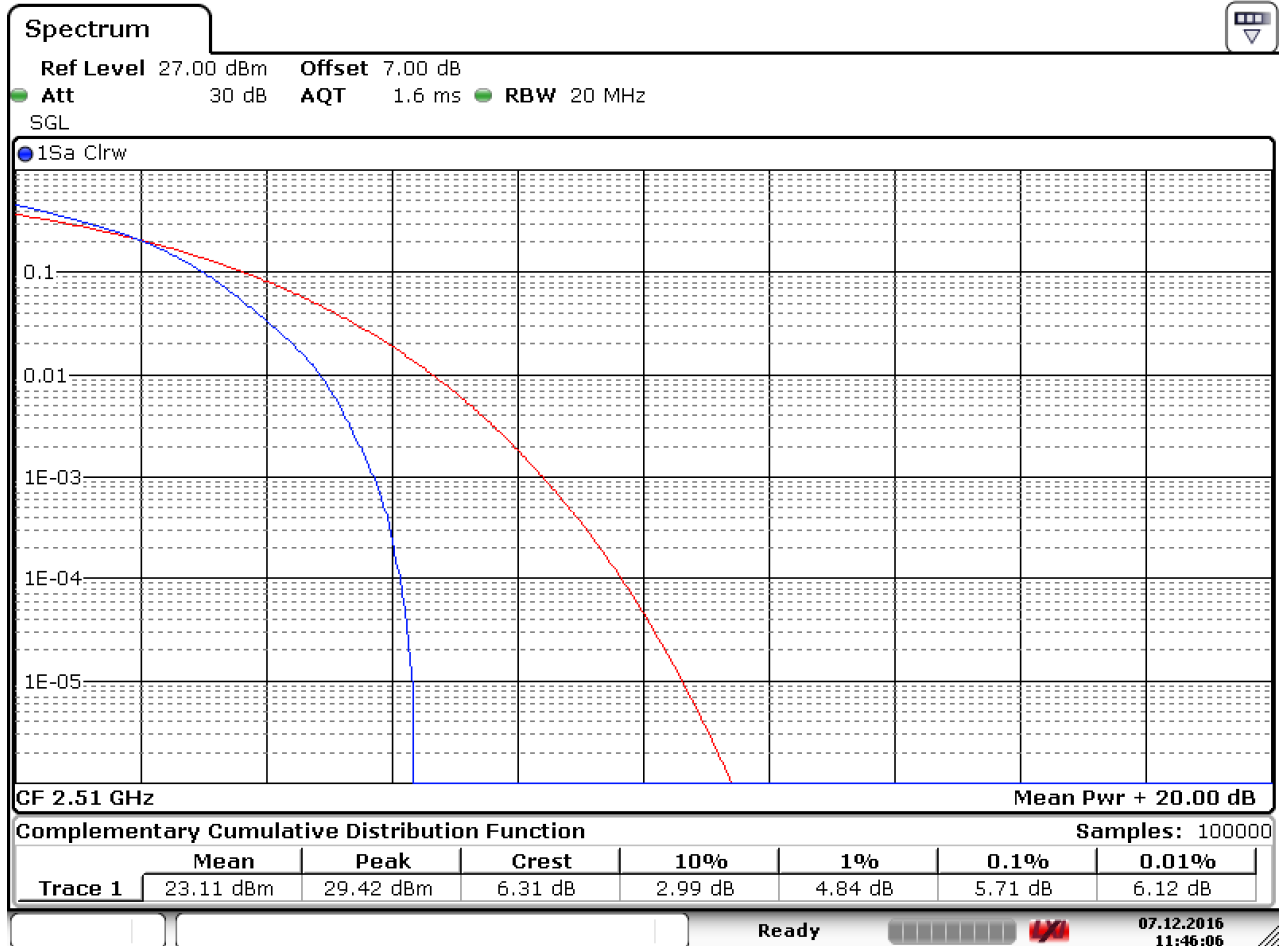
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2.1.1.2 Test Mode = LTE/TM2.Bandwidth=20MHz

2.1.1.2.1 Test Channel = LCH

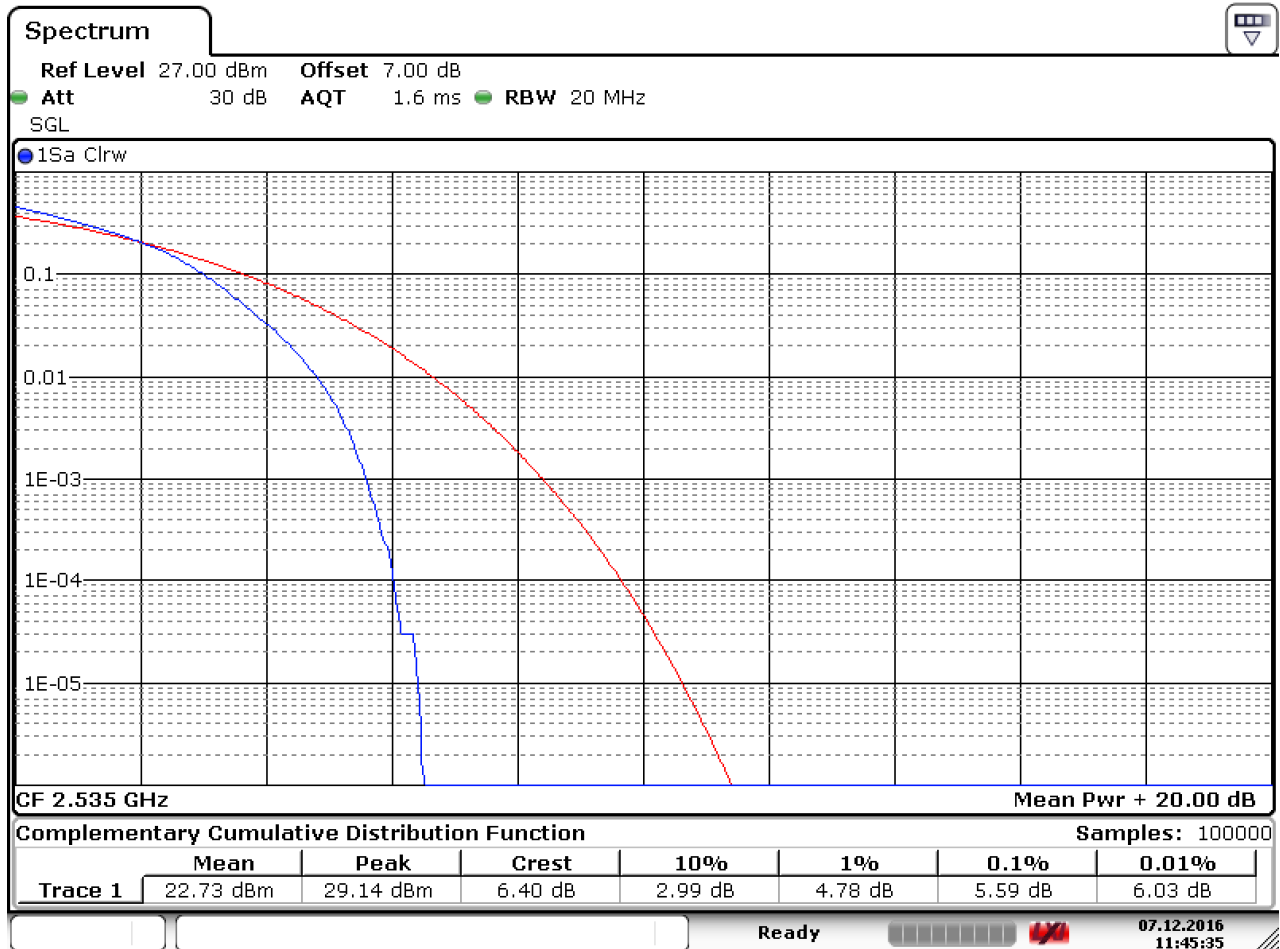


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2.1.1.2.2 Test Channel = MCH



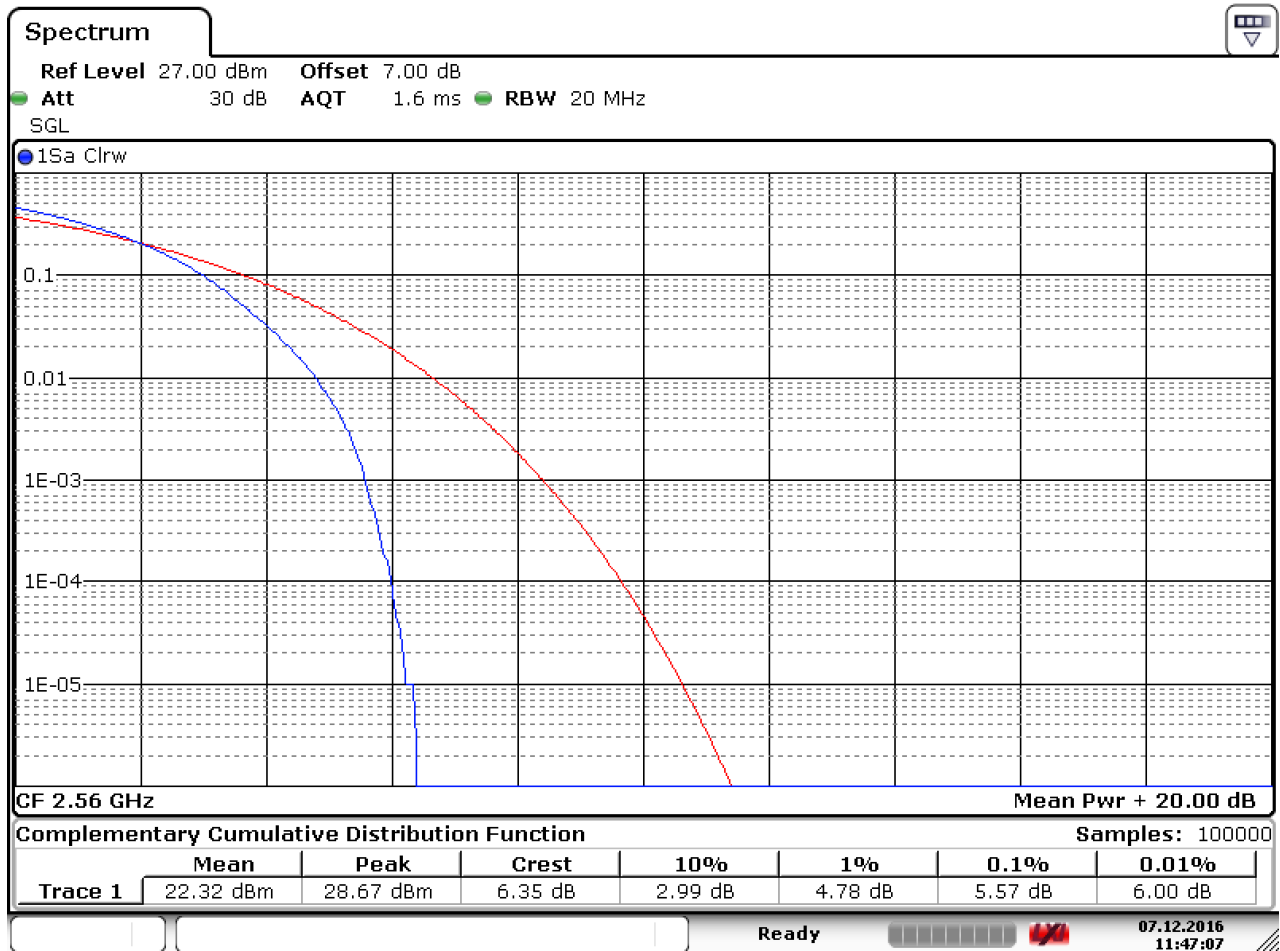
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2.1.1.2.3 Test Channel = HCH



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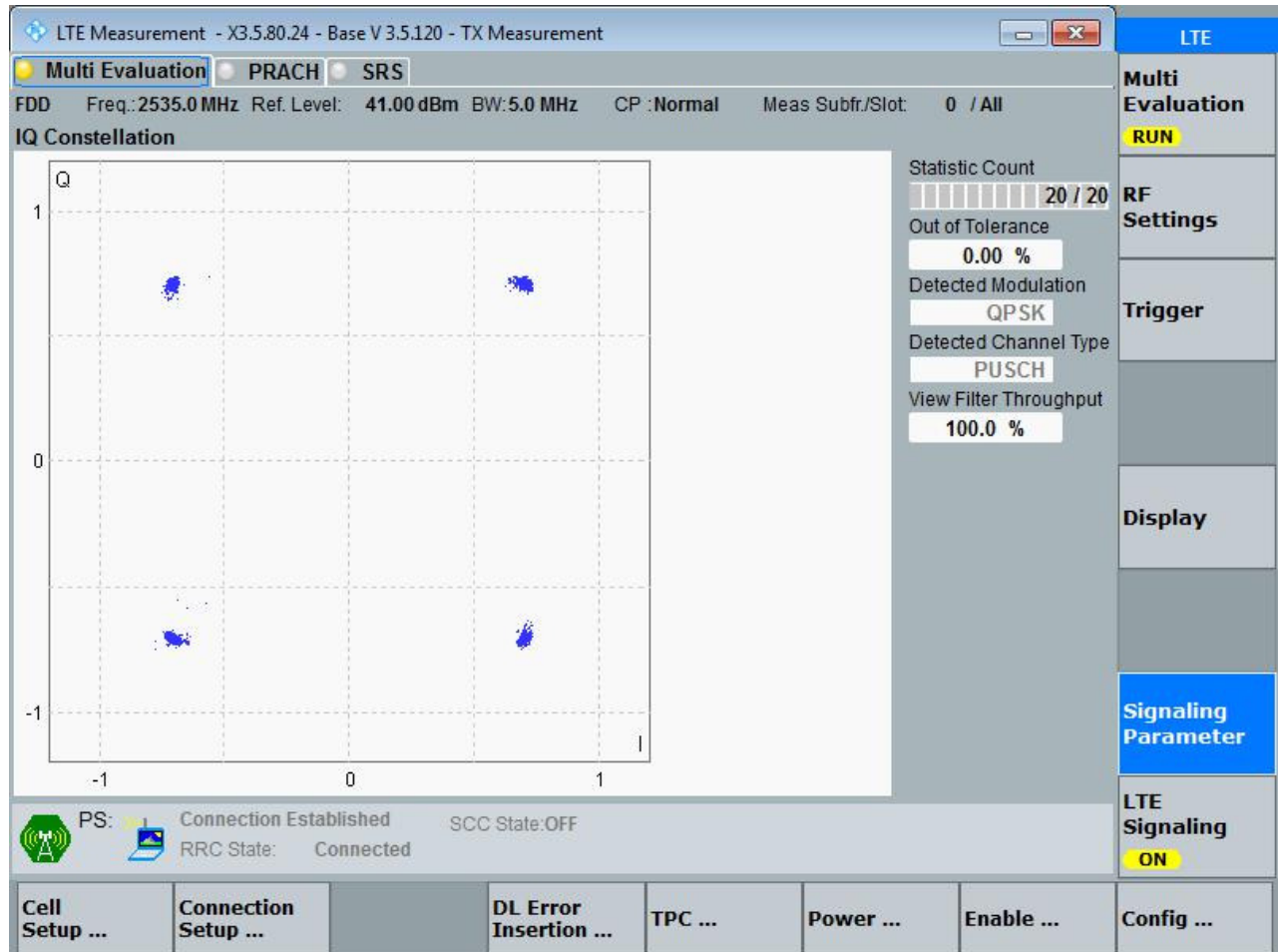
### 3 Modulation Characteristics

#### 3.1 For LTE

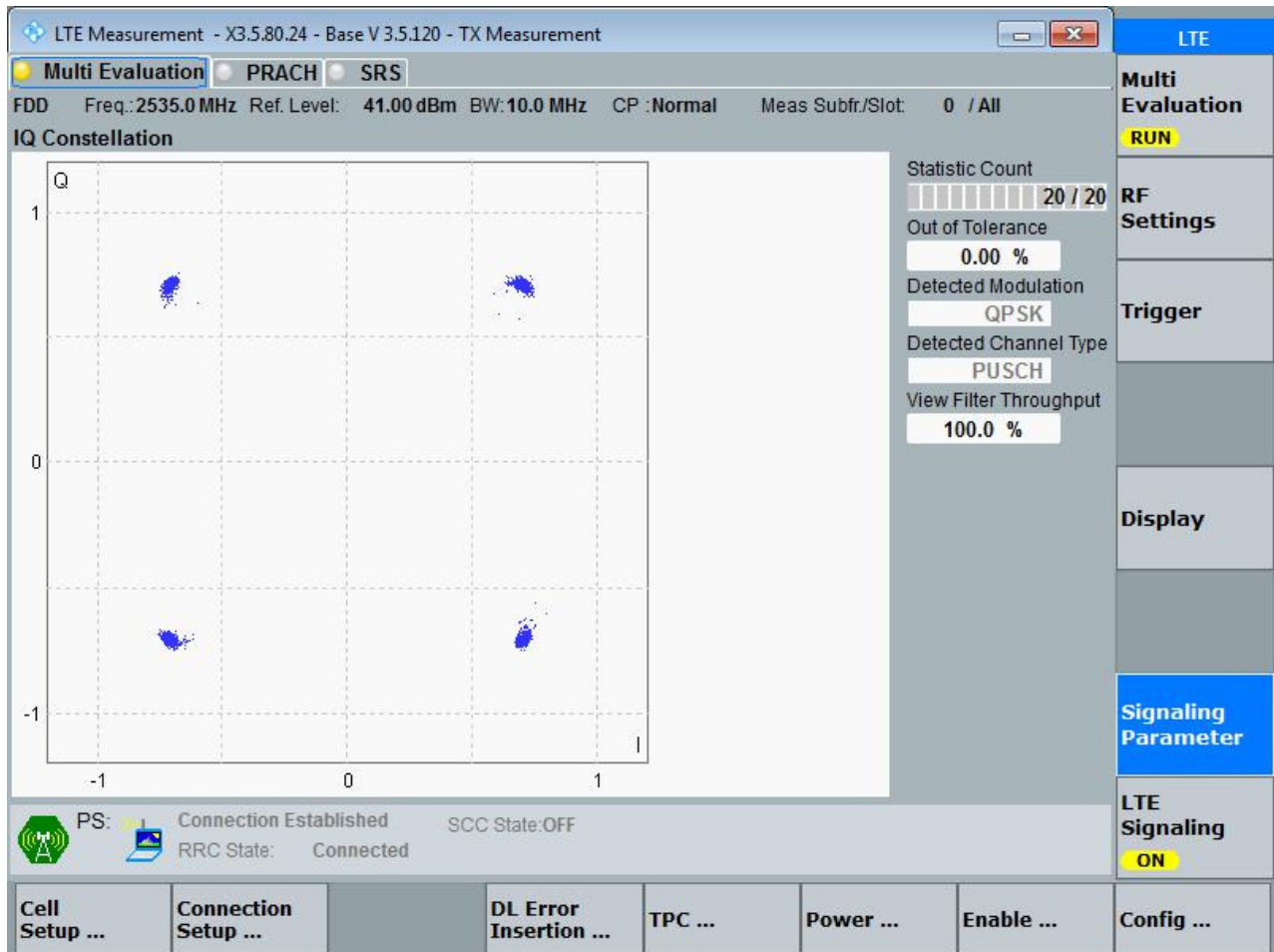
##### 3.1.1 Test Band = LTE band7

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

##### 3.1.1.1.1 Test Channel = MCH

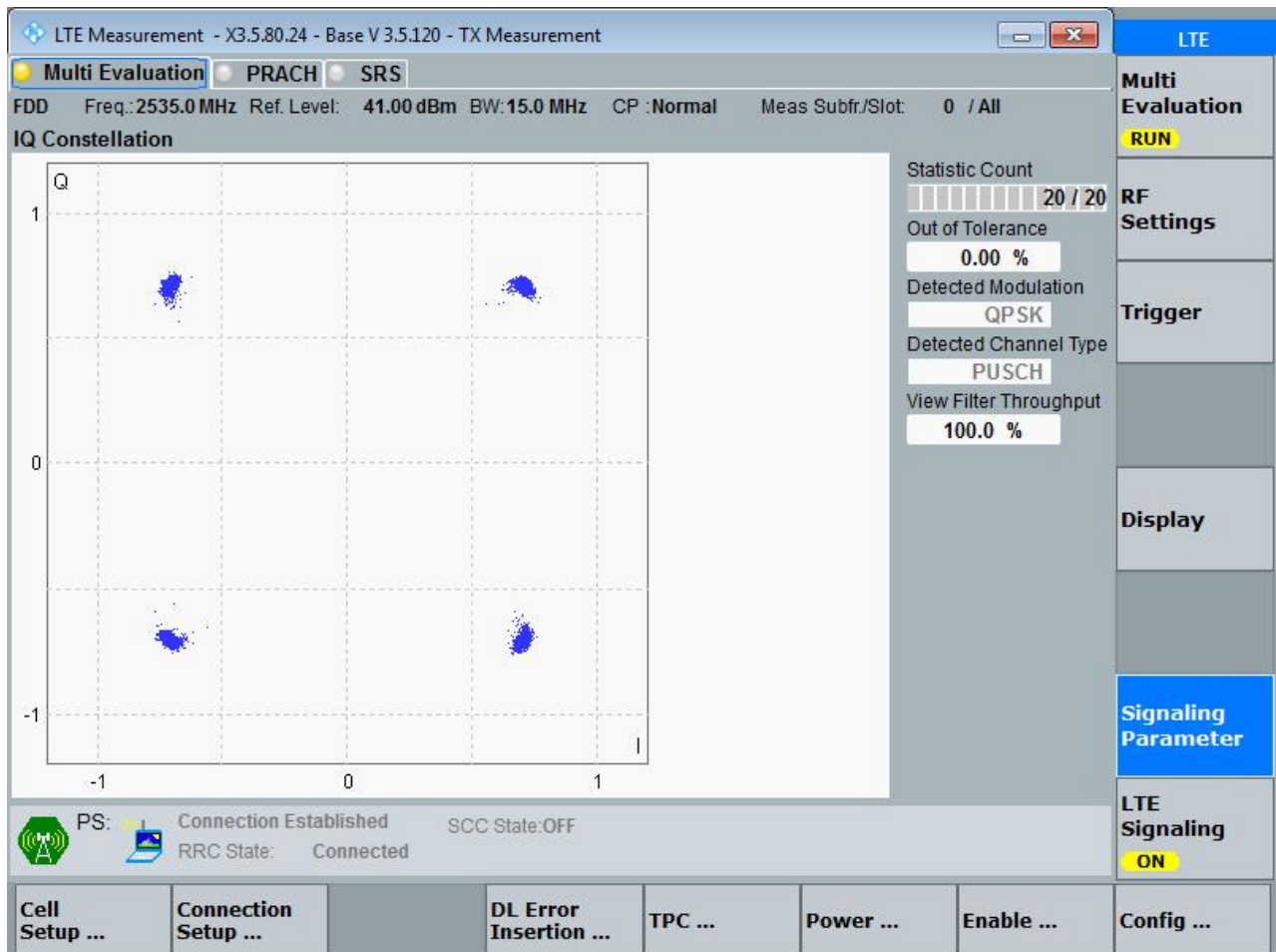


**3.1.1.2 Test Mode = LTE /TM1 10MHz**  
**3.1.1.2.1 Test Channel = MCH**



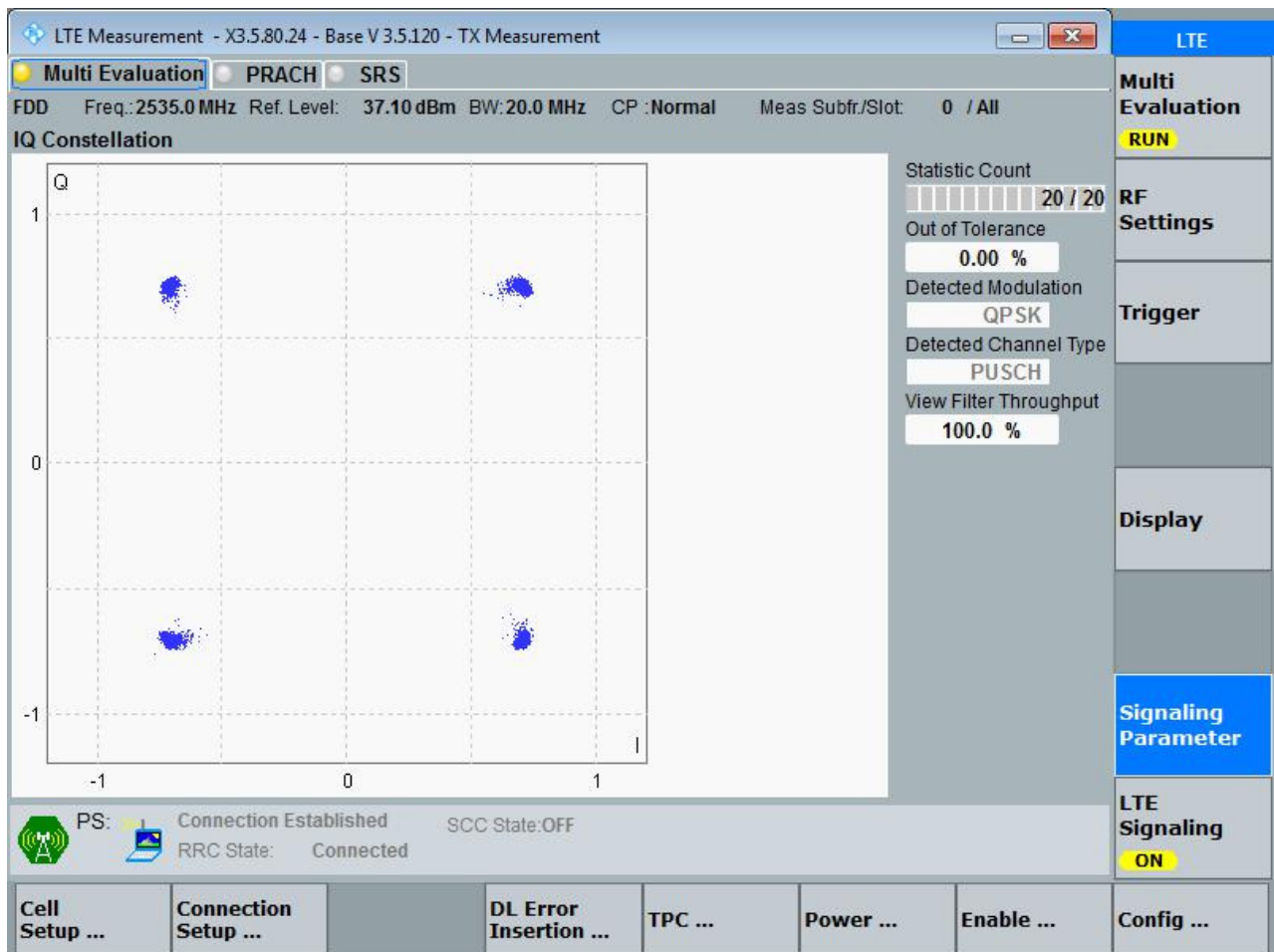
3.1.1.3 Test Mode = LTE /TM1 15MHz

3.1.1.3.1 Test Channel = MCH

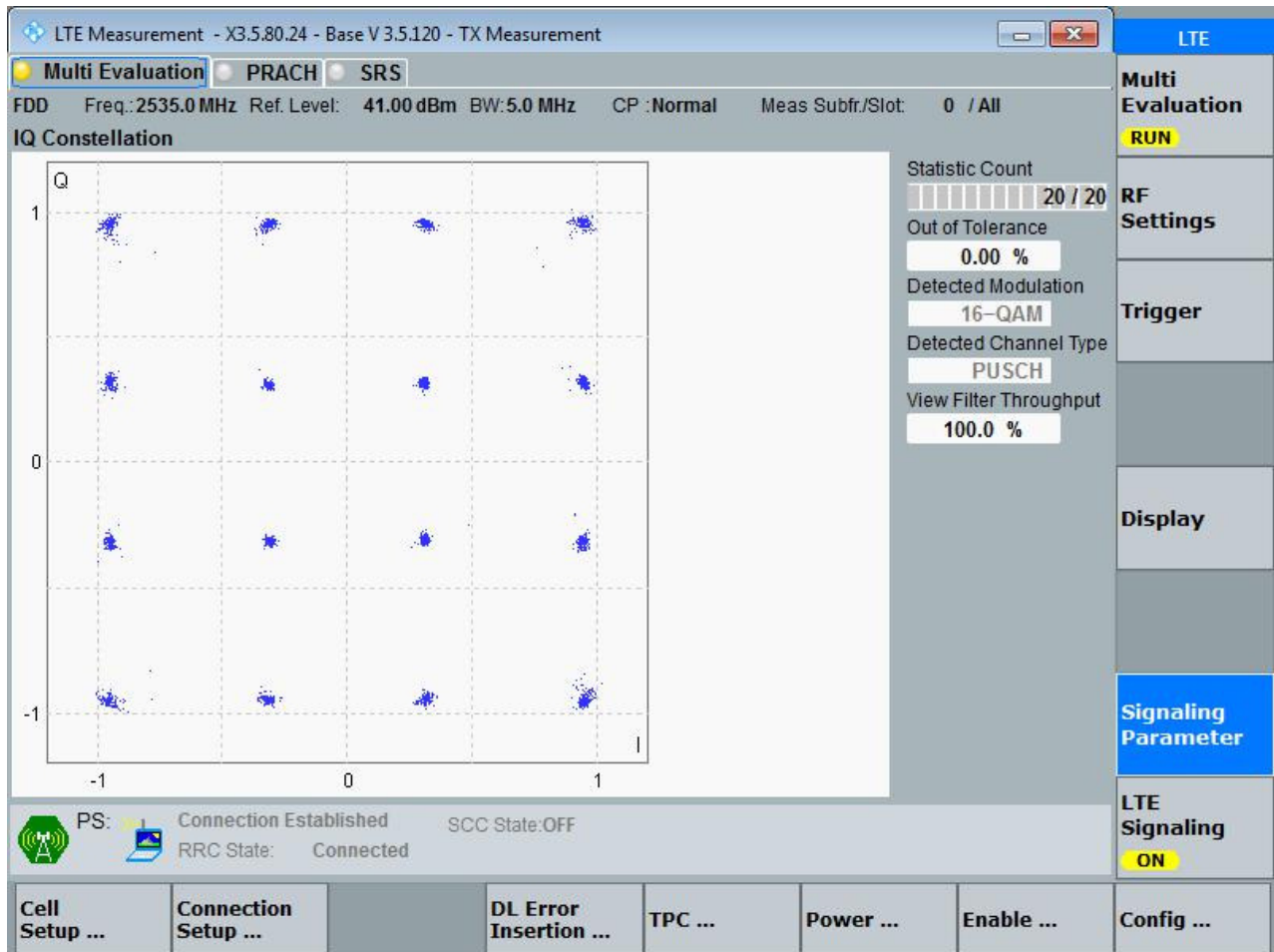




3.1.1.4 Test Mode = LTE /TM1 20MHz  
3.1.1.4.1 Test Channel = MCH



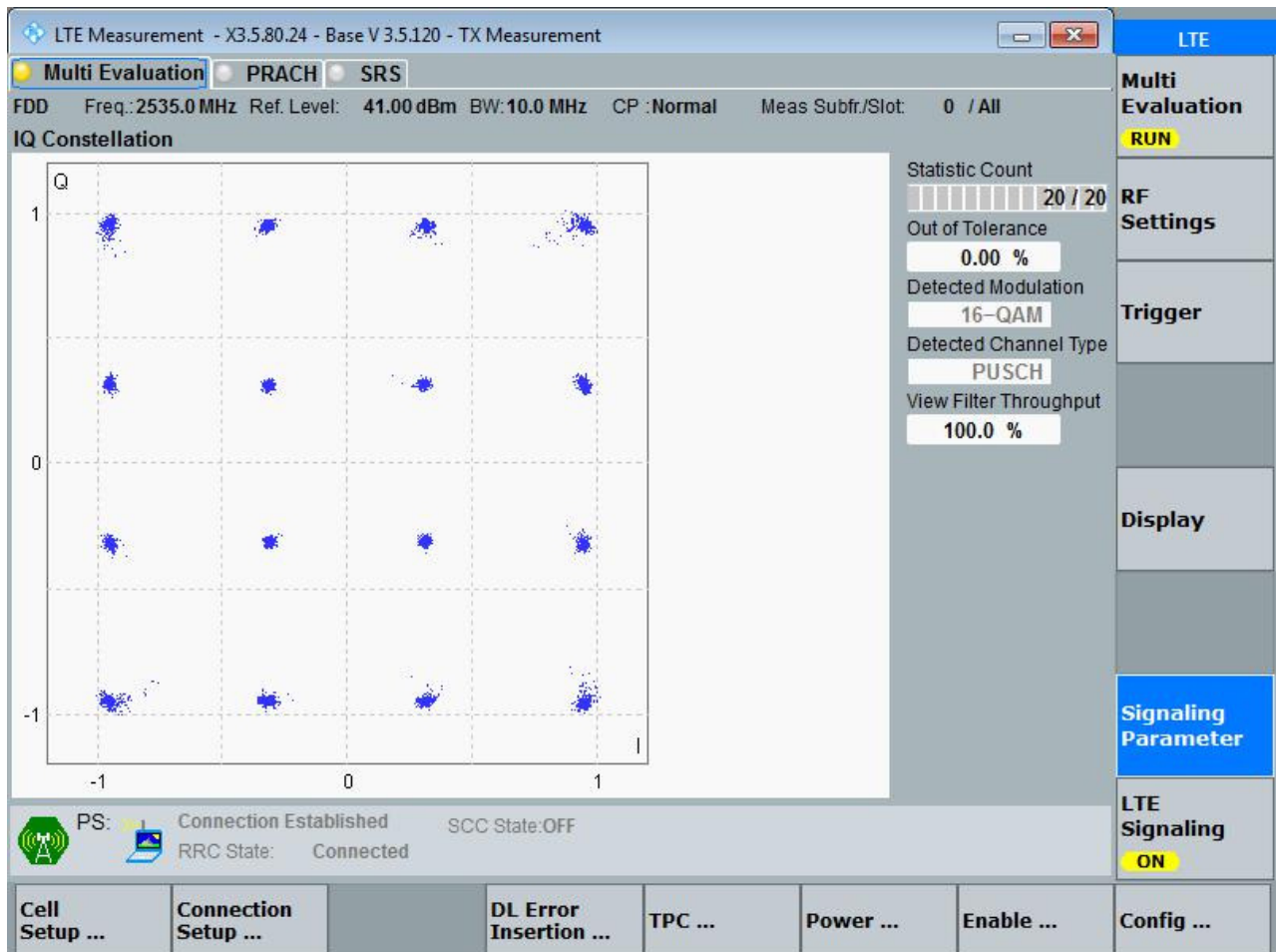
**3.1.1.5 Test Mode = LTE /TM2 5MHz**  
**3.1.1.5.1 Test Channel = MCH**



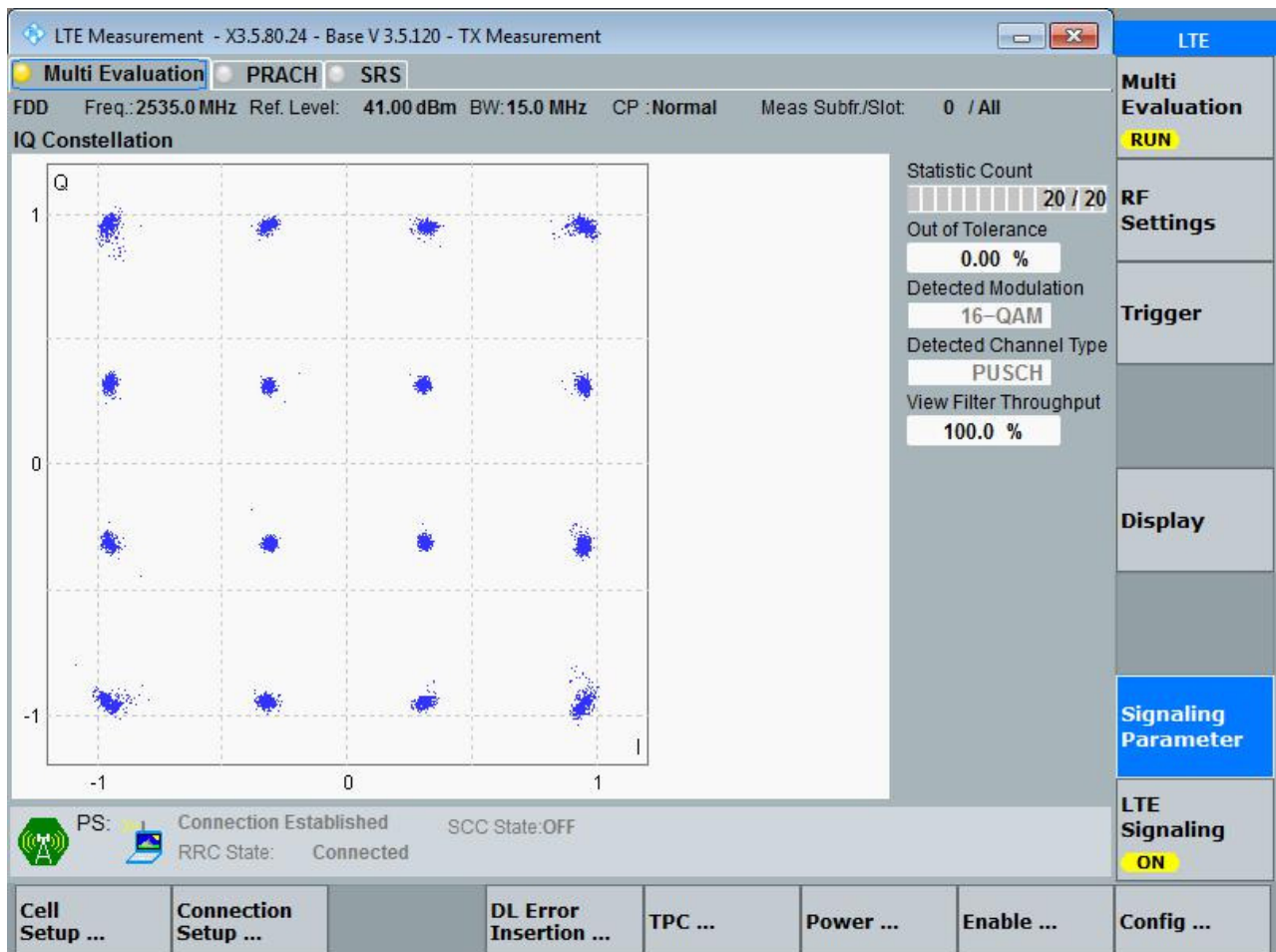


**3.1.1.6 Test Mode = LTE /TM2 10MHz**

**3.1.1.6.1 Test Channel = MCH**

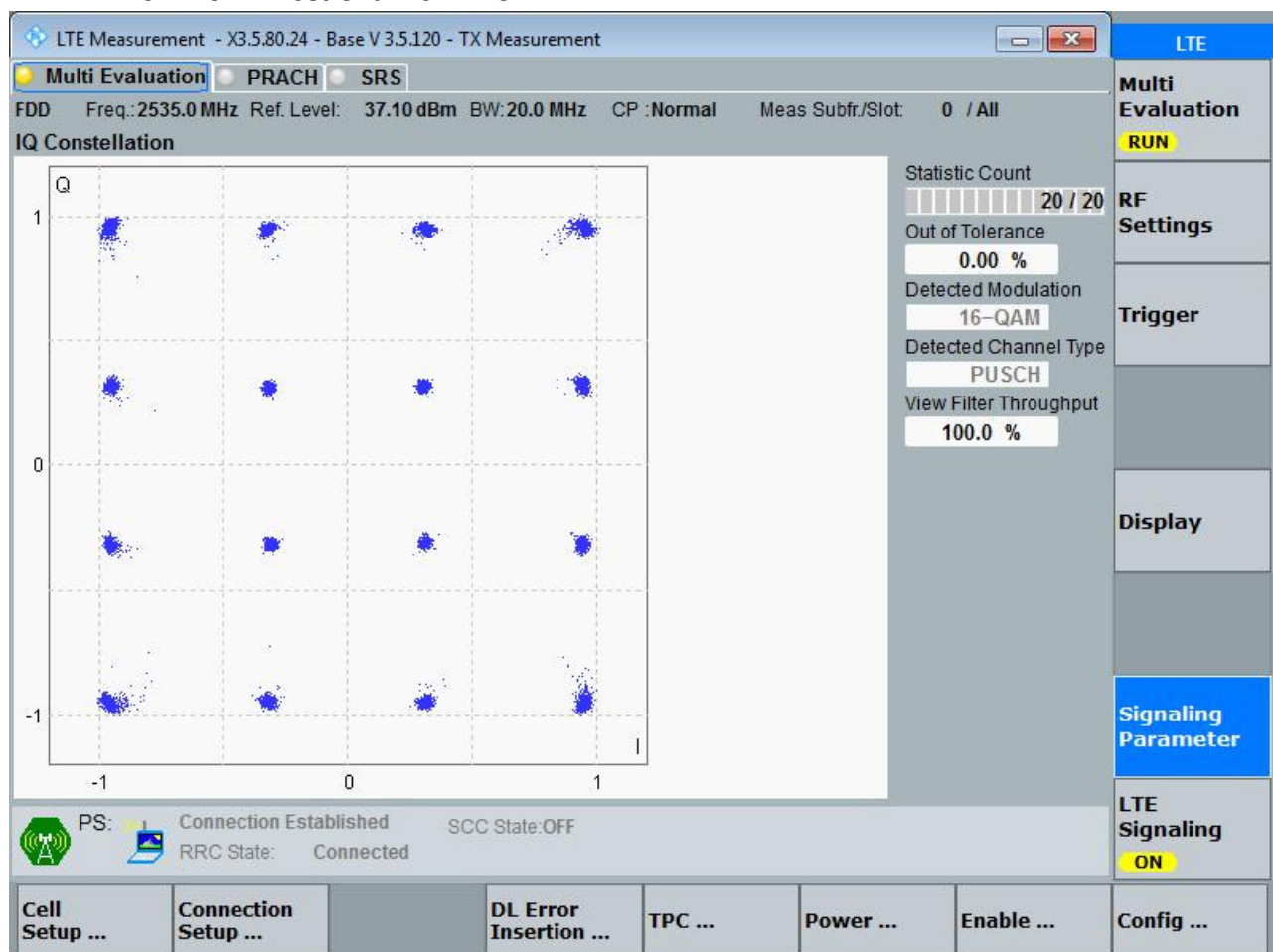


**3.1.1.7 Test Mode = LTE /TM2 15MHz**  
**3.1.1.7.1 Test Channel = MCH**





**3.1.1.8 Test Mode = LTE /TM2 20MHz**  
**3.1.1.8.1 Test Channel = MCH**



The screenshot displays the LTE Measurement software interface. The main window is titled "LTE Measurement - X3.5.80.24 - Base V 3.5.120 - TX Measurement". It features several tabs: "Multi Evaluation" (selected), "PRACH", and "SRS". The interface shows the following parameters and settings:

- Frequency and Power:** FDD, Freq.: 2535.0 MHz, Ref. Level: 37.10 dBm, BW: 20.0 MHz, CP: Normal, Meas Subfr./Slot: 0 / All
- IQ Constellation:** A scatter plot showing the IQ constellation with axes ranging from -1 to 1. The plot shows a grid of points, indicating a 16-QAM modulation scheme.
- Statistic Count:** 20 / 20
- Out of Tolerance:** 0.00 %
- Detected Modulation:** 16-QAM
- Detected Channel Type:** PUSCH
- View Filter Throughput:** 100.0 %
- Connection Status:** PS: Connection Established, RRC State: Connected, SCC State: OFF
- Buttons and Controls:** "RUN" (yellow), "Display", "Signaling Parameter", "LTE Signaling ON" (yellow), "Cell Setup ...", "Connection Setup ...", "DL Error Insertion ...", "TPC ...", "Power ...", "Enable ...", "Config ..."



**SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch**

Report No.: SZEM161000916605

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## 4 Bandwidth

### Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 7	TM1/ 5MHz	LCH	4.50	4.98	PASS
		MCH	4.50	4.97	PASS
		HCH	4.48	4.95	PASS
	TM2/ 5MHz	LCH	4.49	4.94	PASS
		MCH	4.48	4.95	PASS
		HCH	4.49	4.98	PASS
	TM1/10MHz	LCH	8.95	9.81	PASS
		MCH	8.95	9.77	PASS
		HCH	8.93	9.69	PASS
	TM2/ 10MHz	LCH	8.95	9.61	PASS
		MCH	8.95	9.65	PASS
		HCH	8.95	9.77	PASS
	TM1/ 15MHz	LCH	13.46	14.90	PASS
		MCH	13.52	14.96	PASS
		HCH	13.55	14.99	PASS
	TM2/ 15MHz	LCH	13.52	14.90	PASS
		MCH	13.52	14.93	PASS
		HCH	13.52	14.84	PASS
	TM1/ 20MHz	LCH	17.90	19.42	PASS
		MCH	17.94	19.38	PASS
		HCH	17.94	19.74	PASS
TM2/ 20MHz	LCH	17.90	19.58	PASS	
	MCH	17.98	19.58	PASS	
	HCH	17.94	19.50	PASS	

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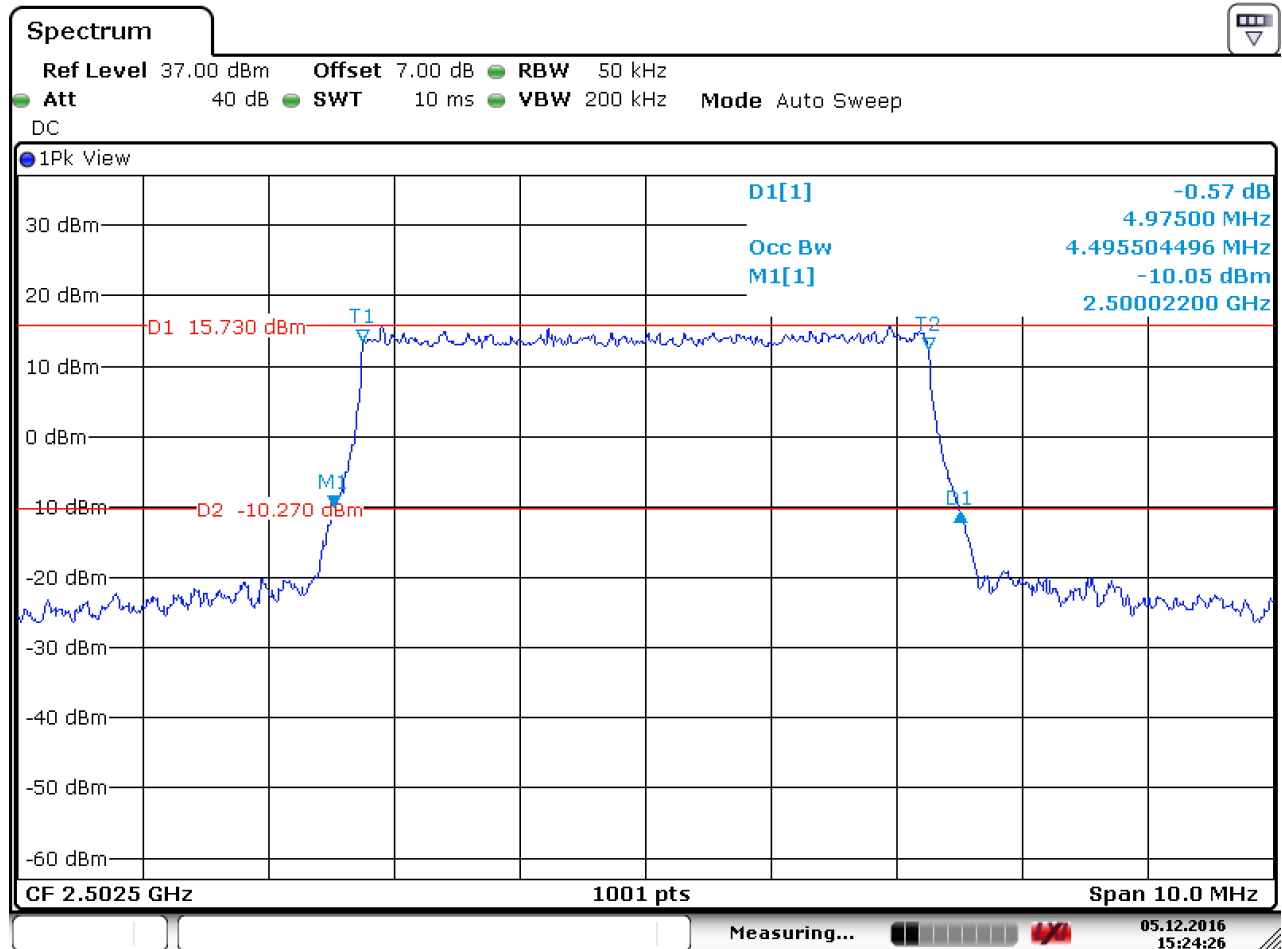
Part II –Test Plots

4.1 For LTE

4.1.1 Test Band = LTE band7

4.1.1.1 Test Mode = LTE/TM1 5MHz

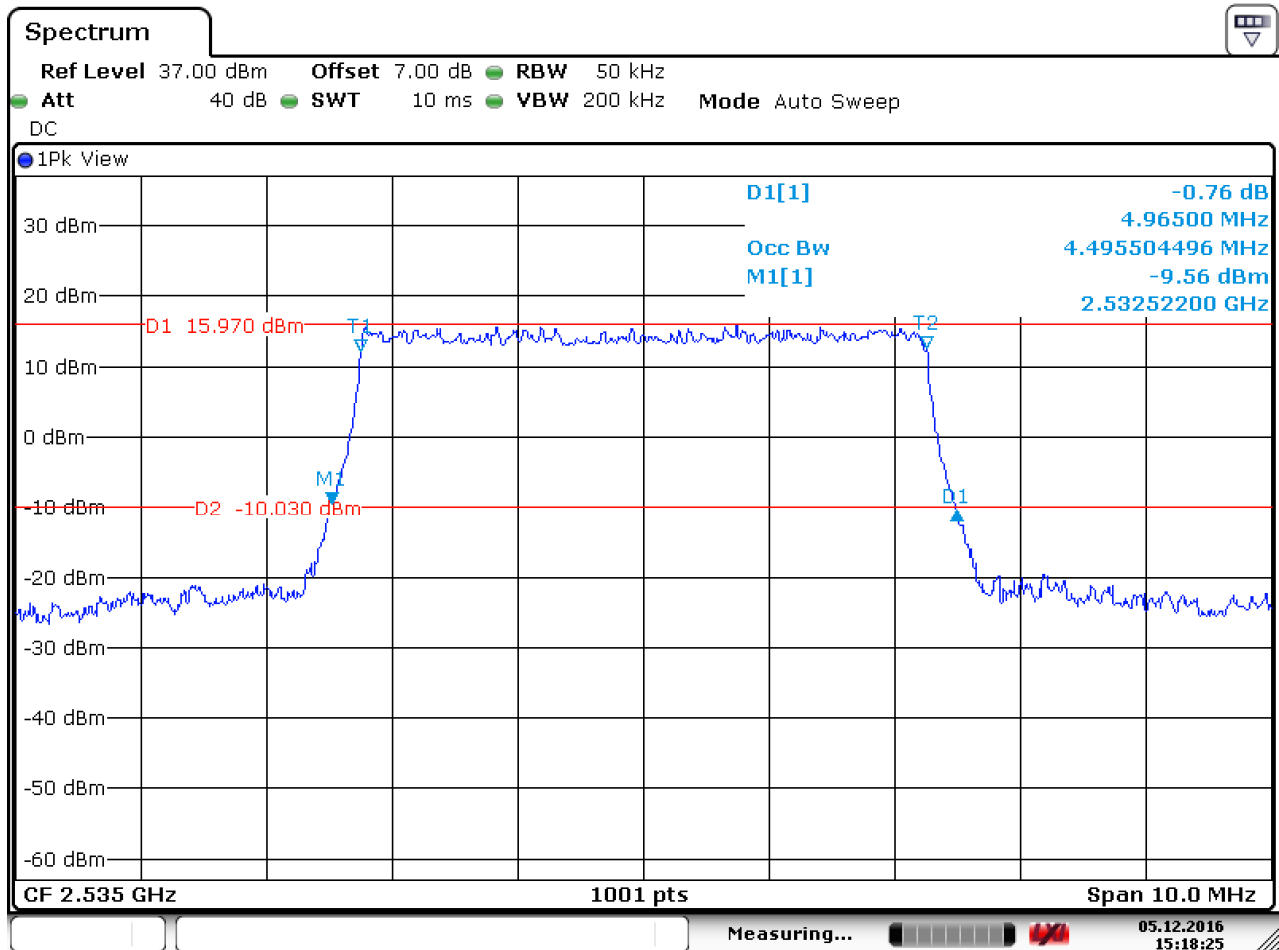
4.1.1.1.1 Test Channel = LCH



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4.1.1.1.2 Test Channel = MCH

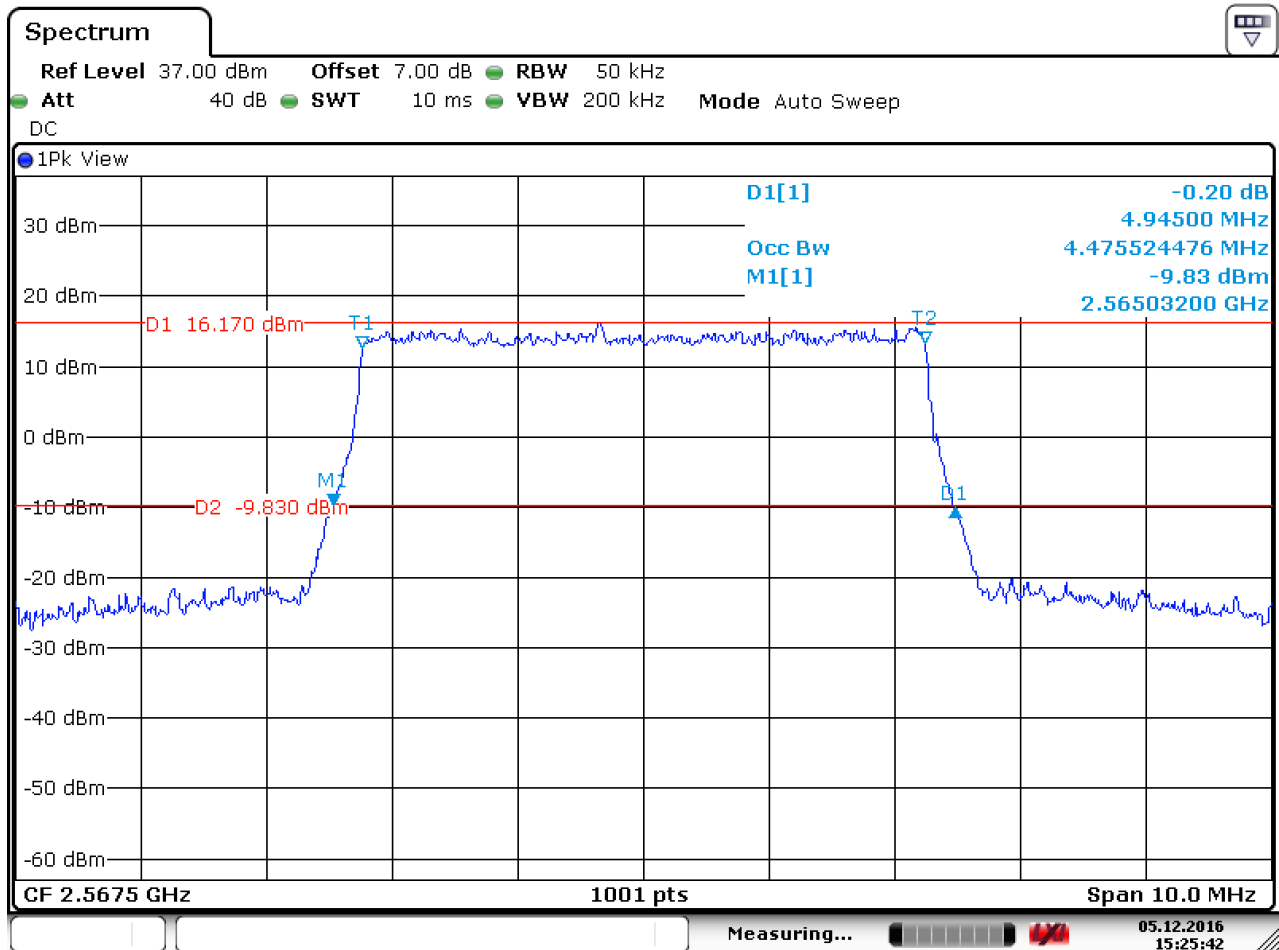


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4.1.1.1.3 Test Channel = HCH



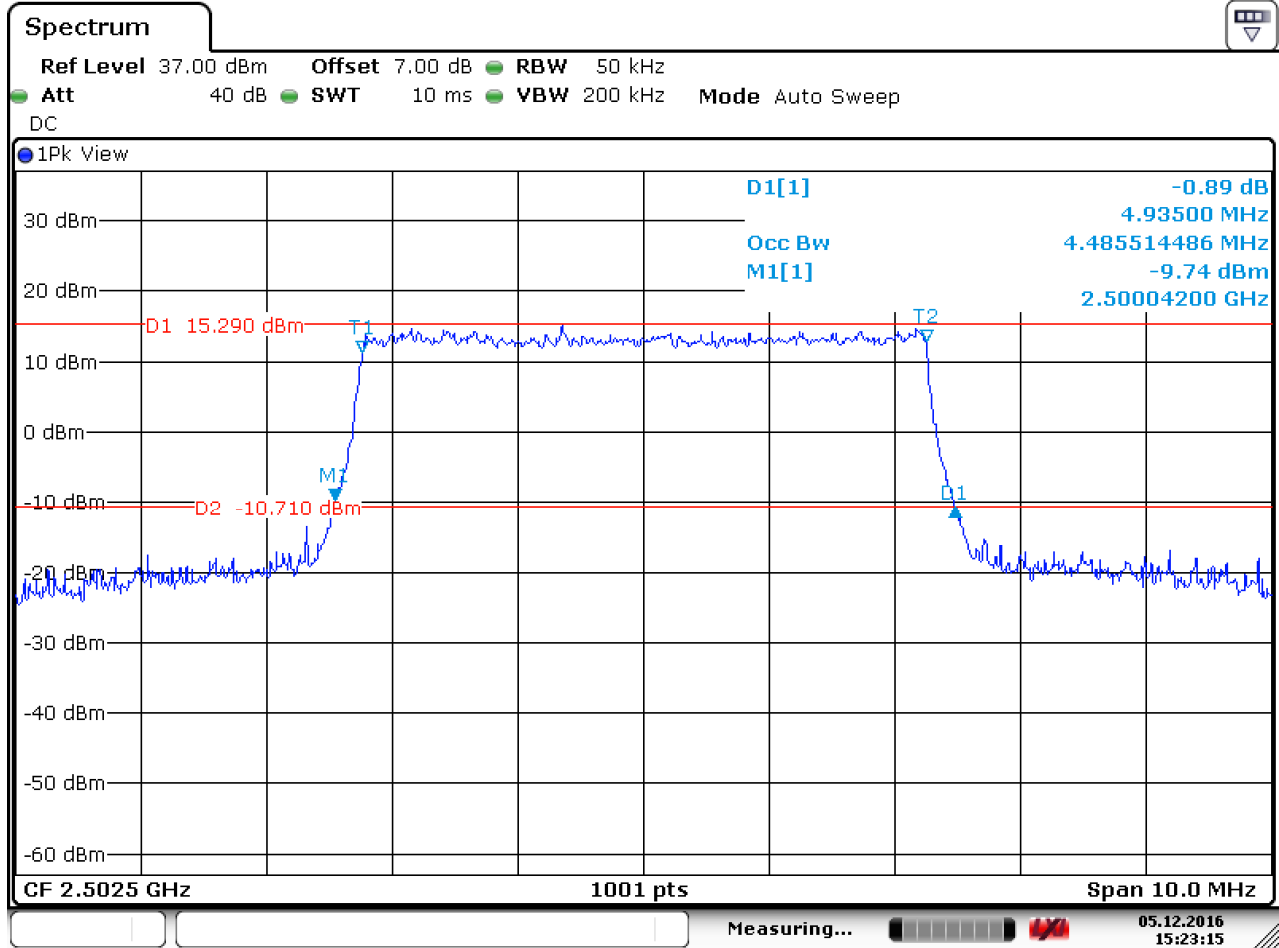
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4.1.1.2 Test Mode = LTE/TM2 5MHz

4.1.1.2.1 Test Channel = LCH

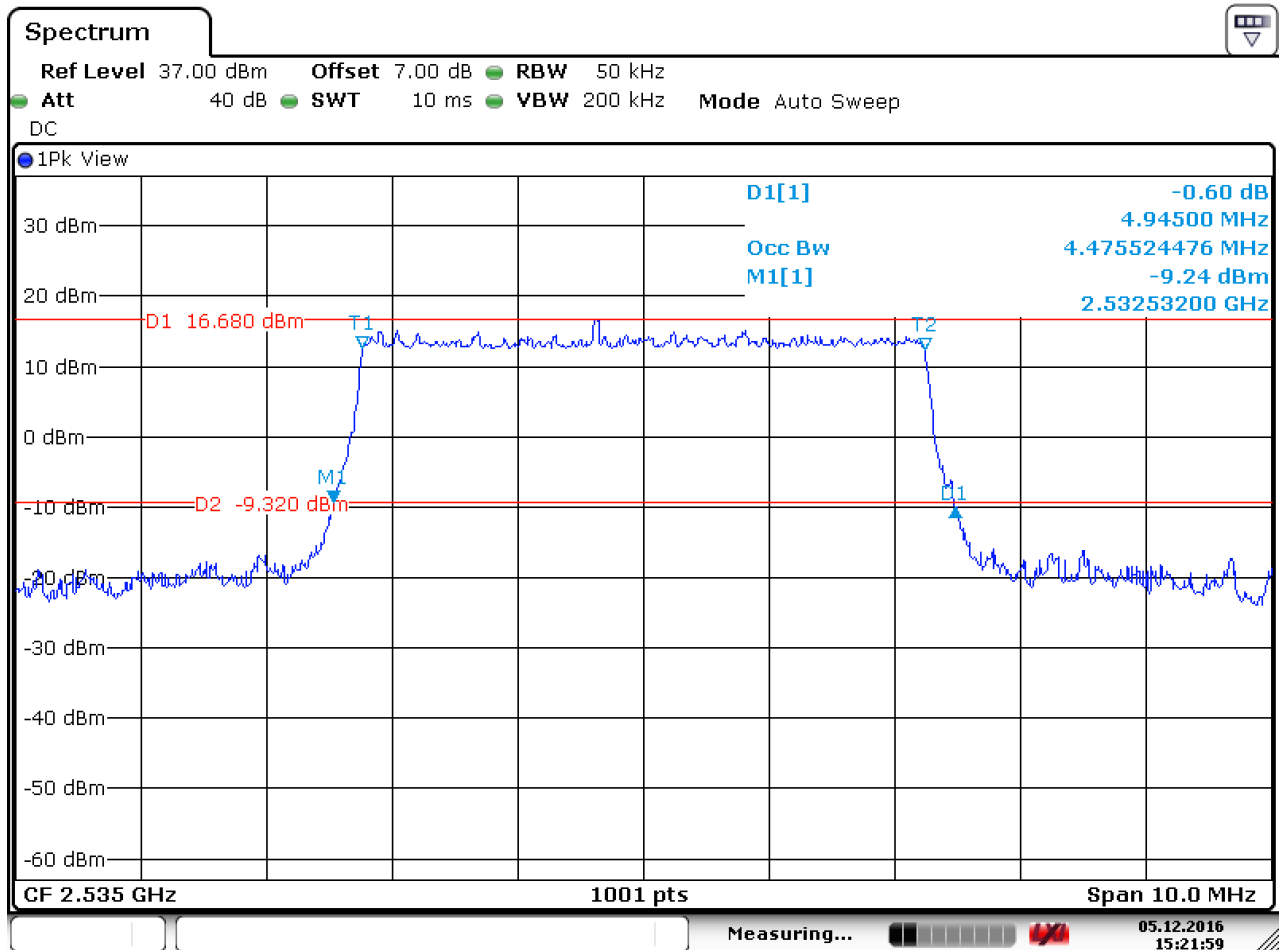


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4.1.1.2.2 Test Channel = MCH



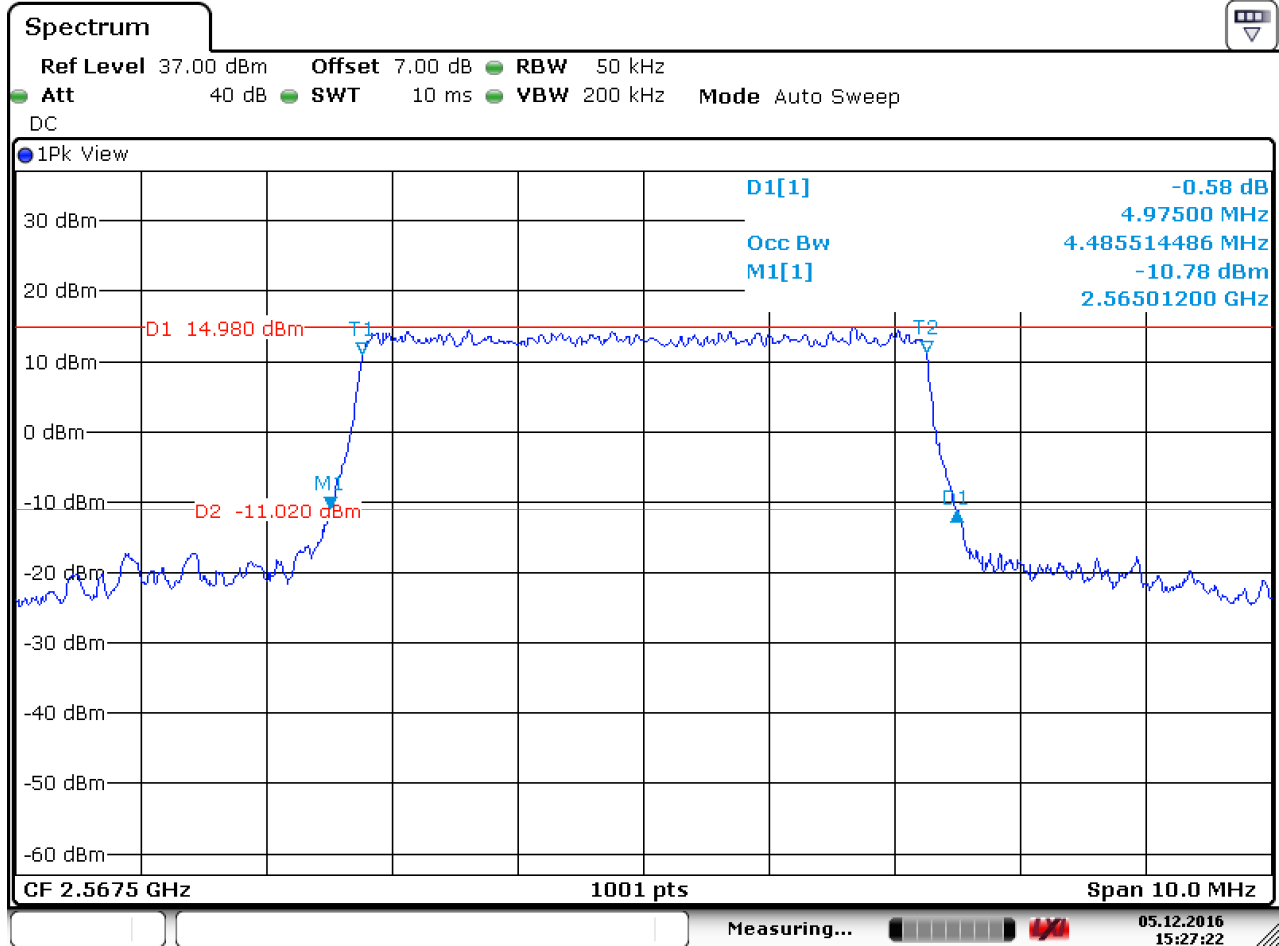
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4.1.1.2.3 Test Channel = HCH



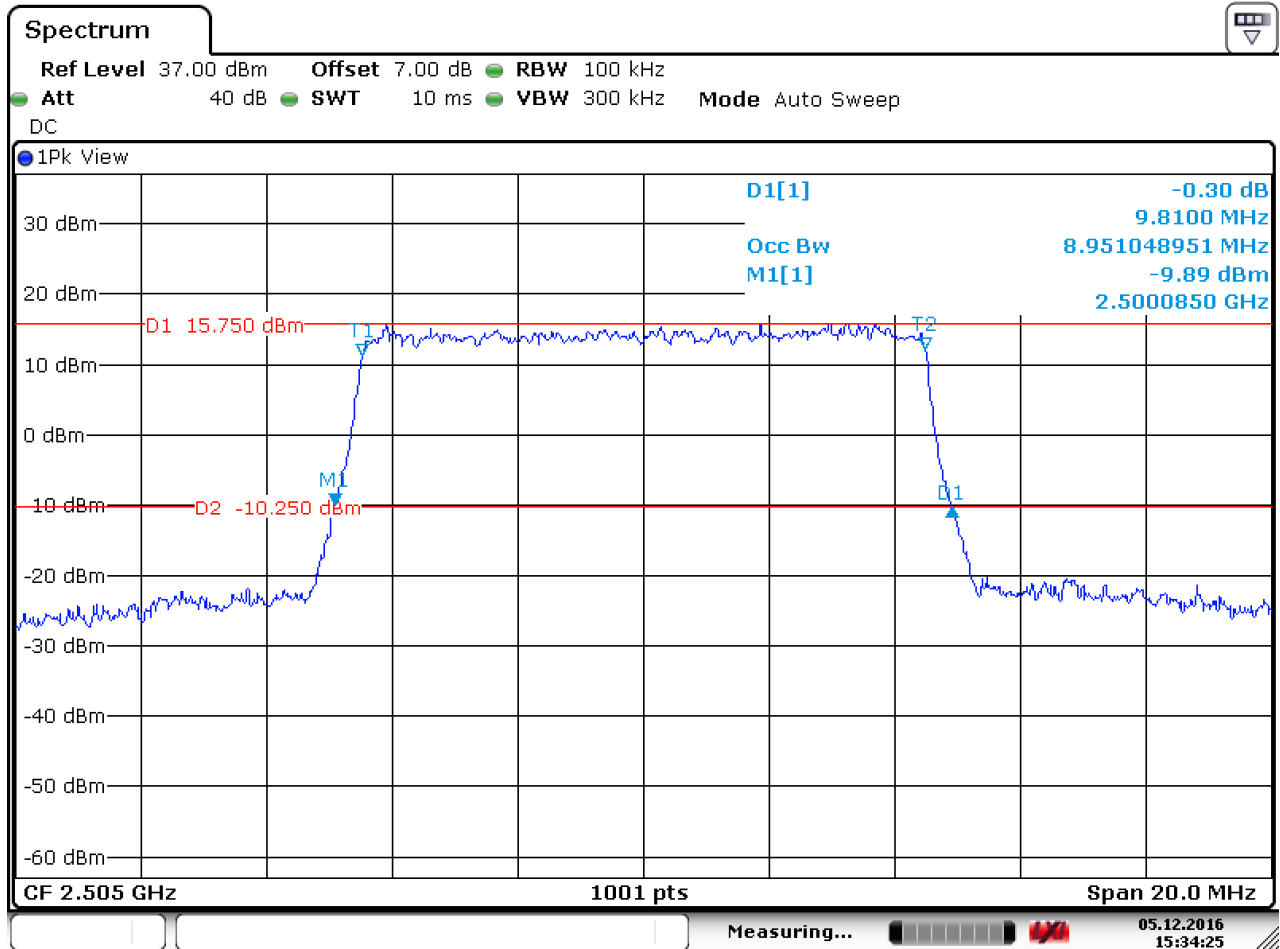
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4.1.1.3 Test Mode = LTE/TM1 10MHz

4.1.1.3.1 Test Channel = LCH

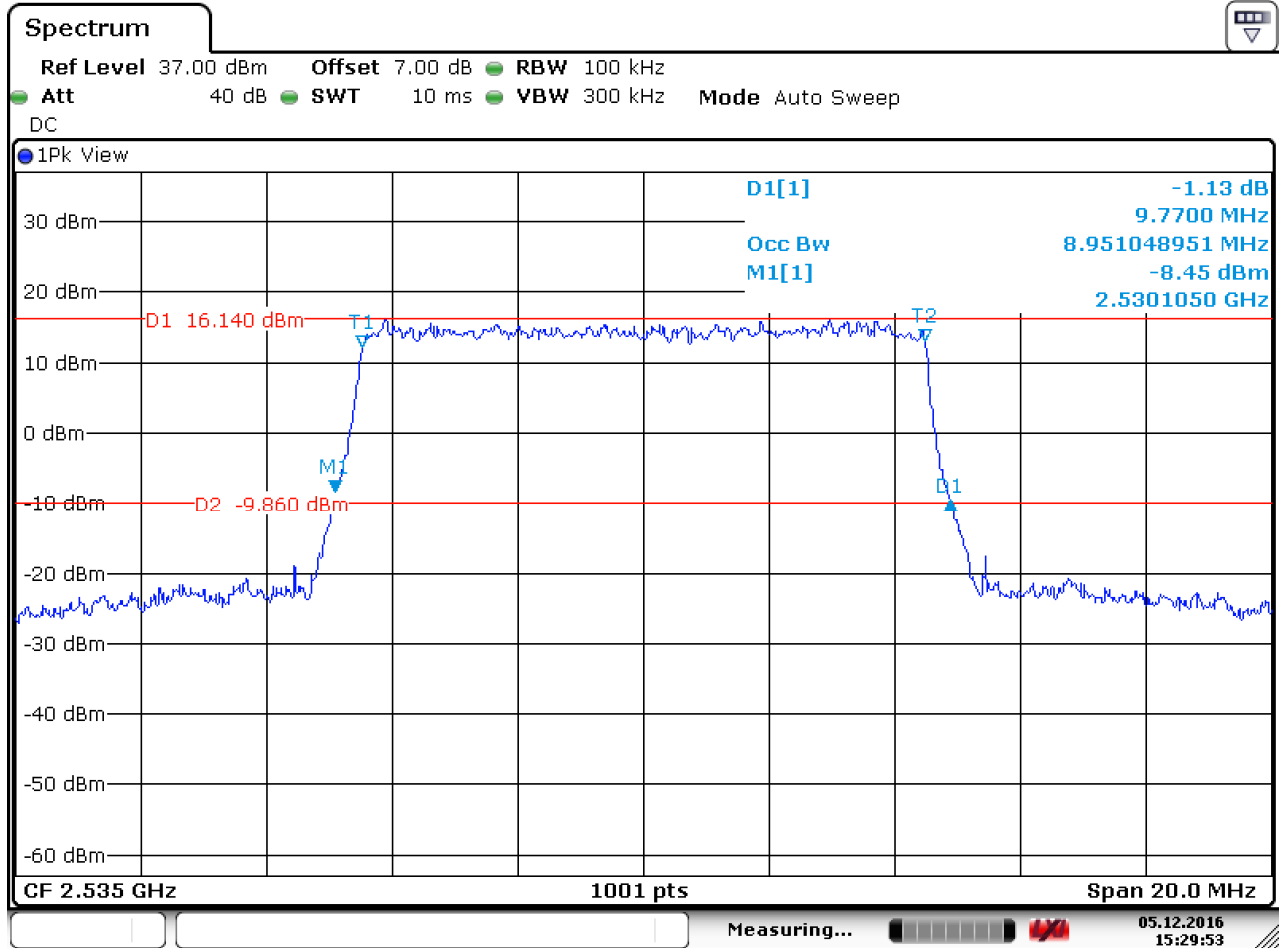


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4.1.1.3.2 Test Channel = MCH

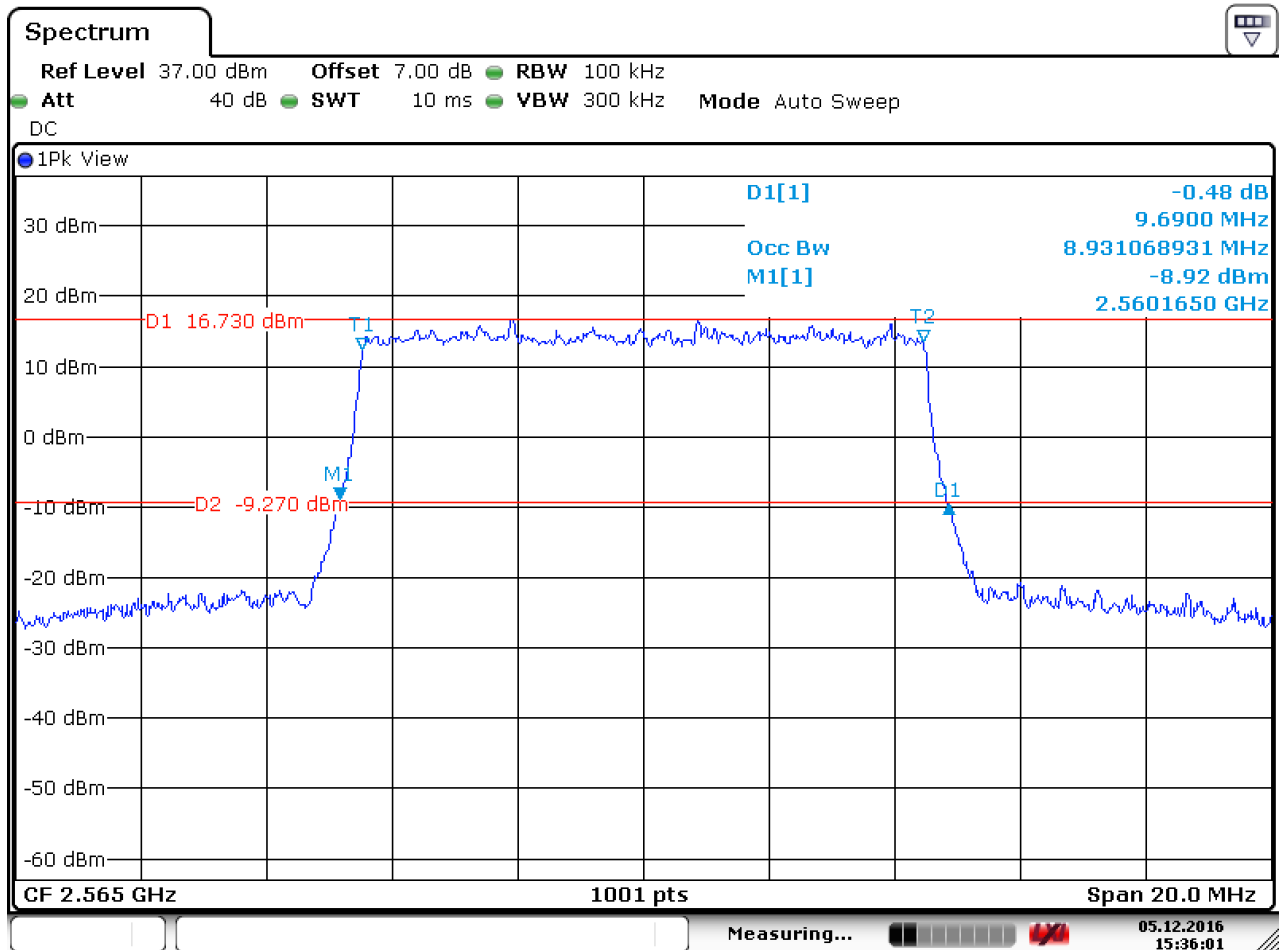


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4.1.1.3.3 Test Channel = HCH



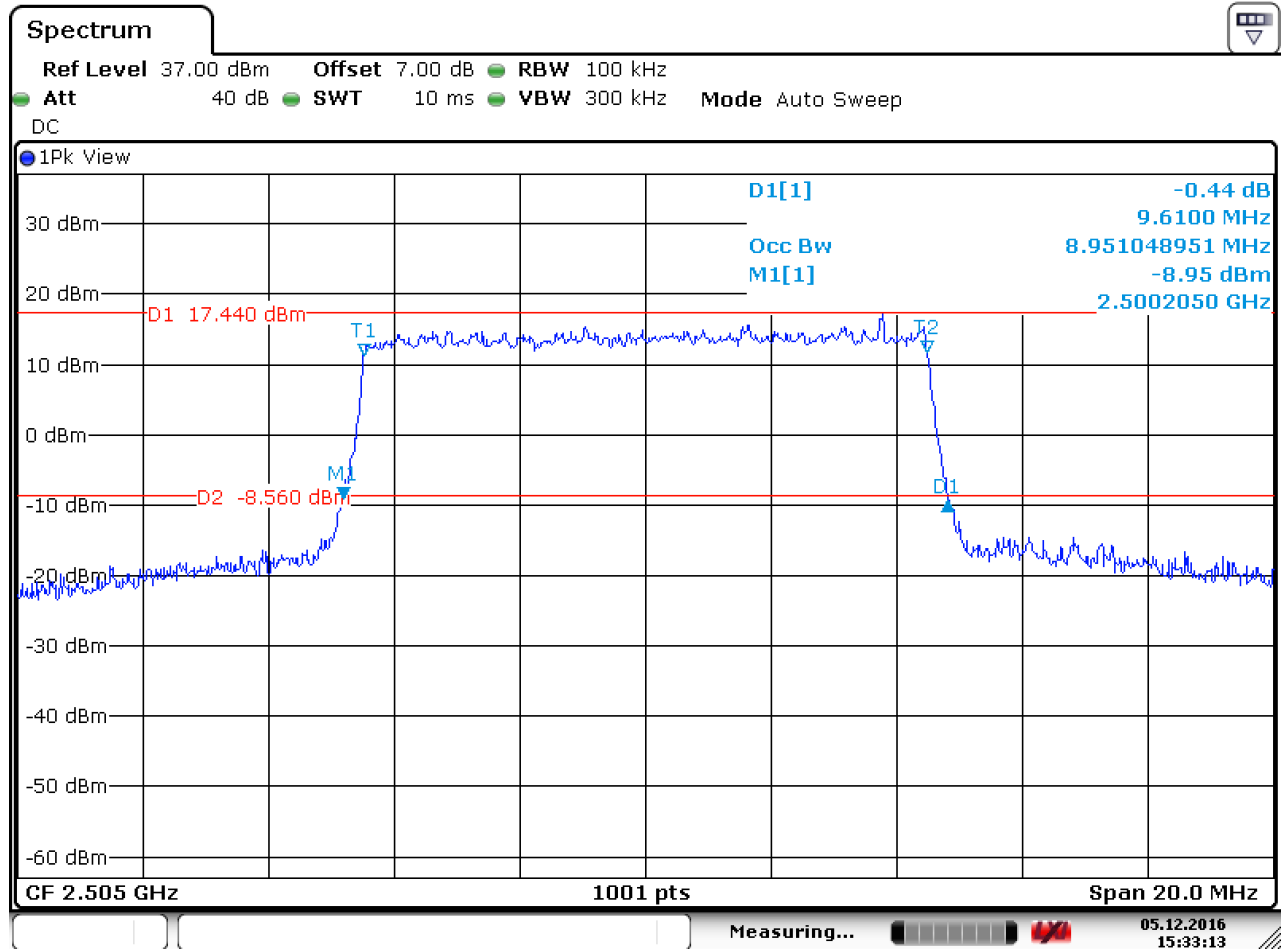
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4.1.1.4 Test Mode = LTE/TM2 10MHz

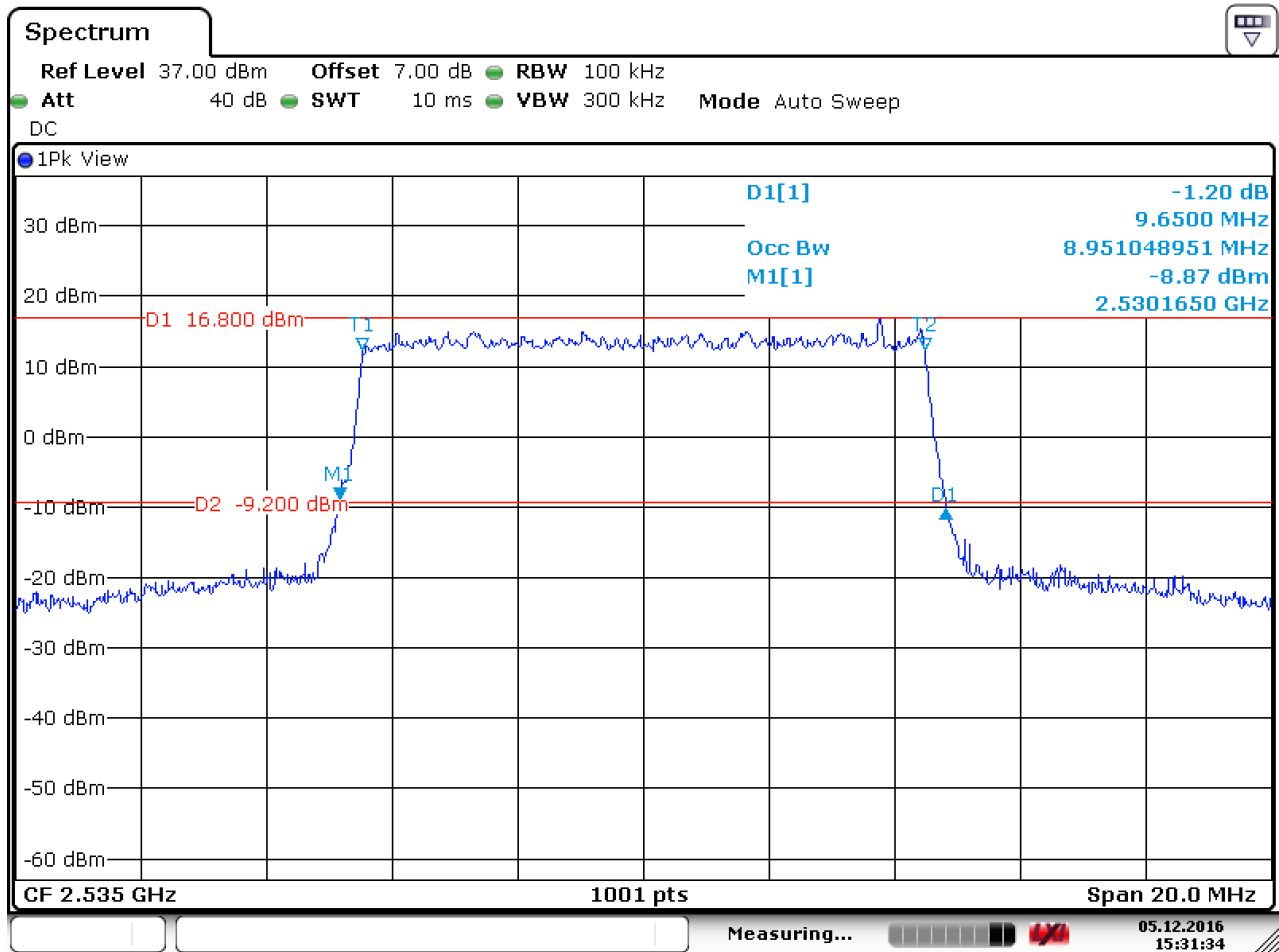
4.1.1.4.1 Test Channel = LCH



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4.1.1.4.2 Test Channel = MCH

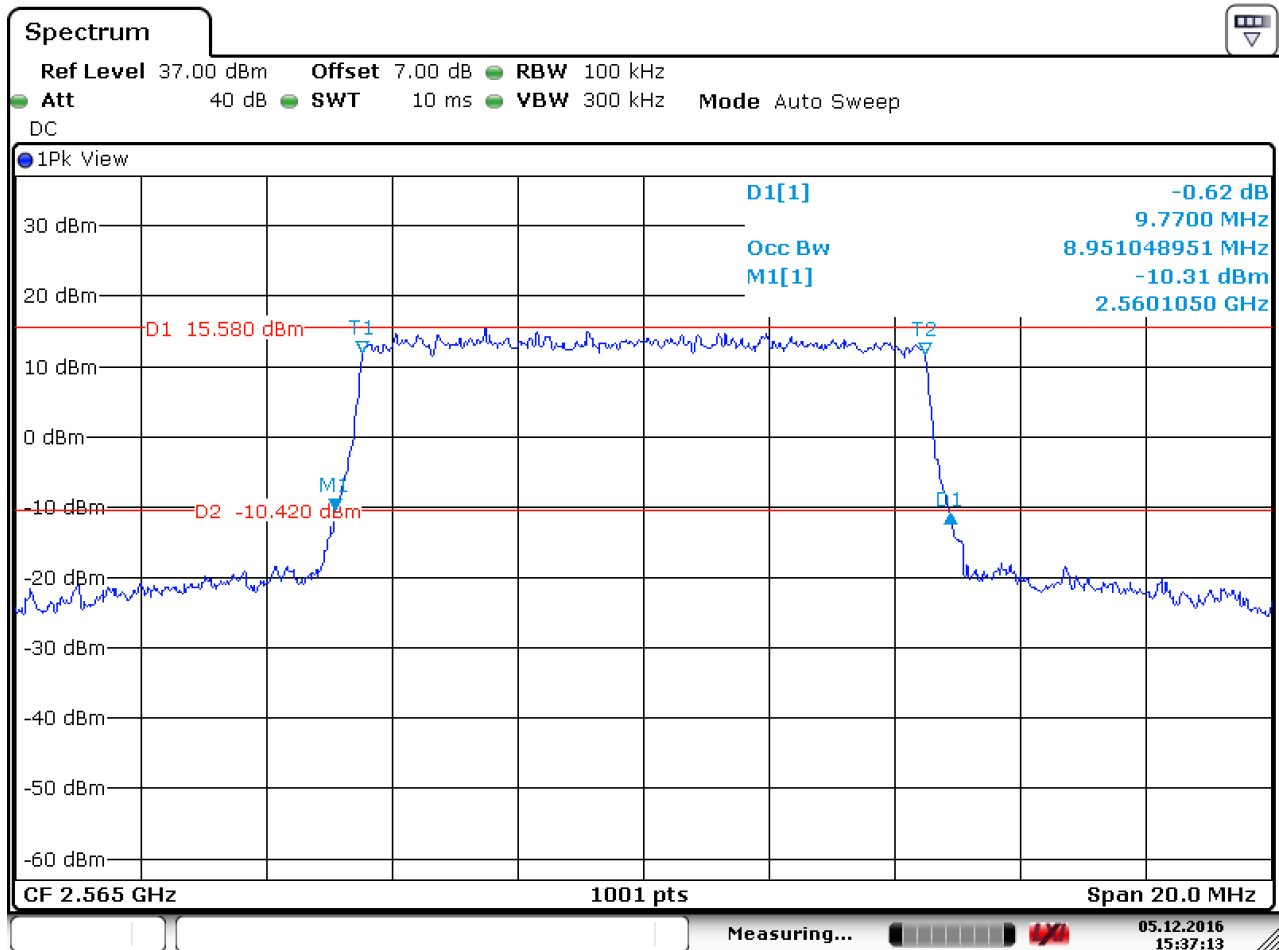


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4.1.1.4.3 Test Channel = HCH



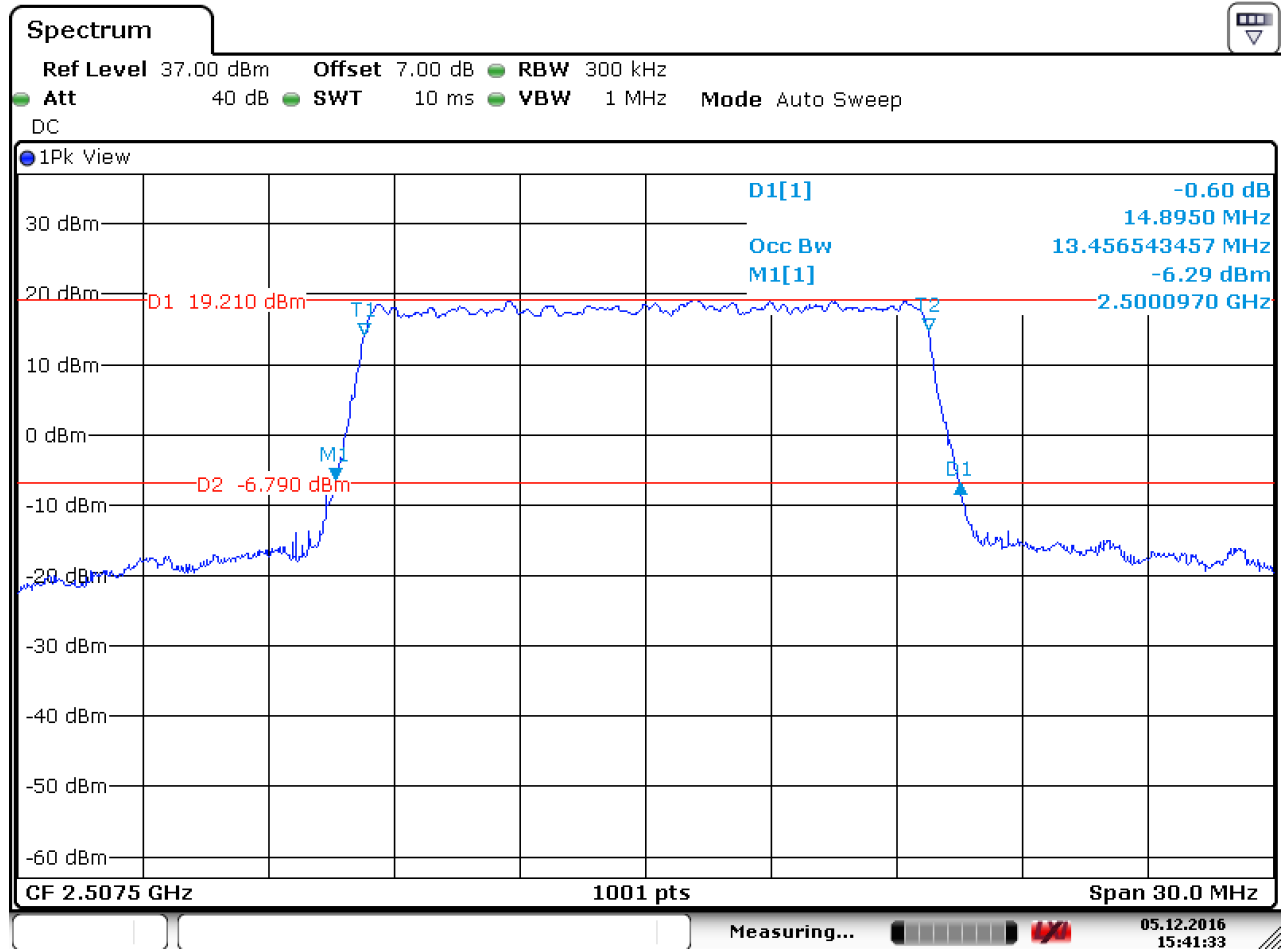
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4.1.1.5 Test Mode = LTE/TM1 15MHz

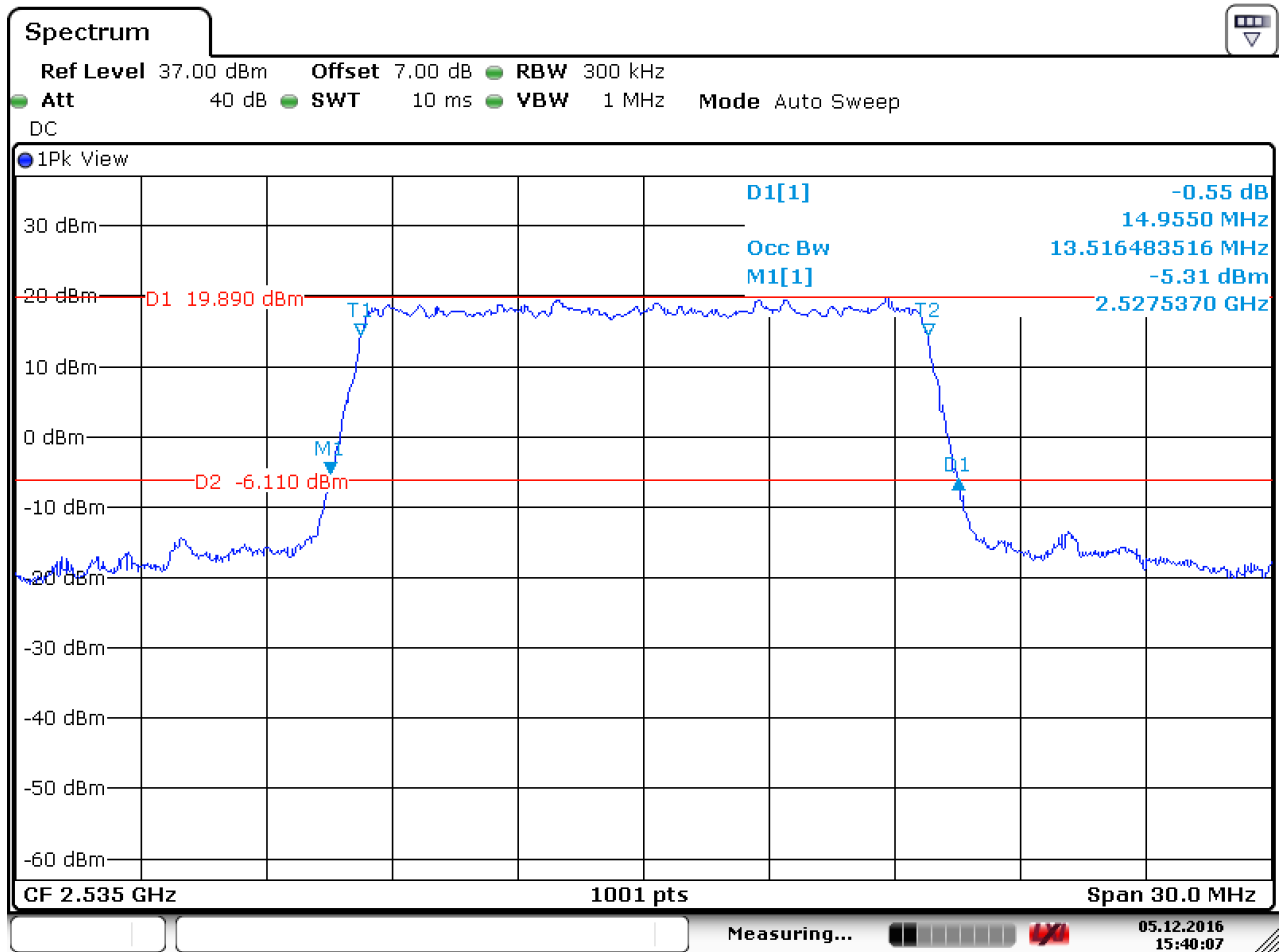
4.1.1.5.1 Test Channel = LCH



Date: 5.DEC.2016 15:41:34



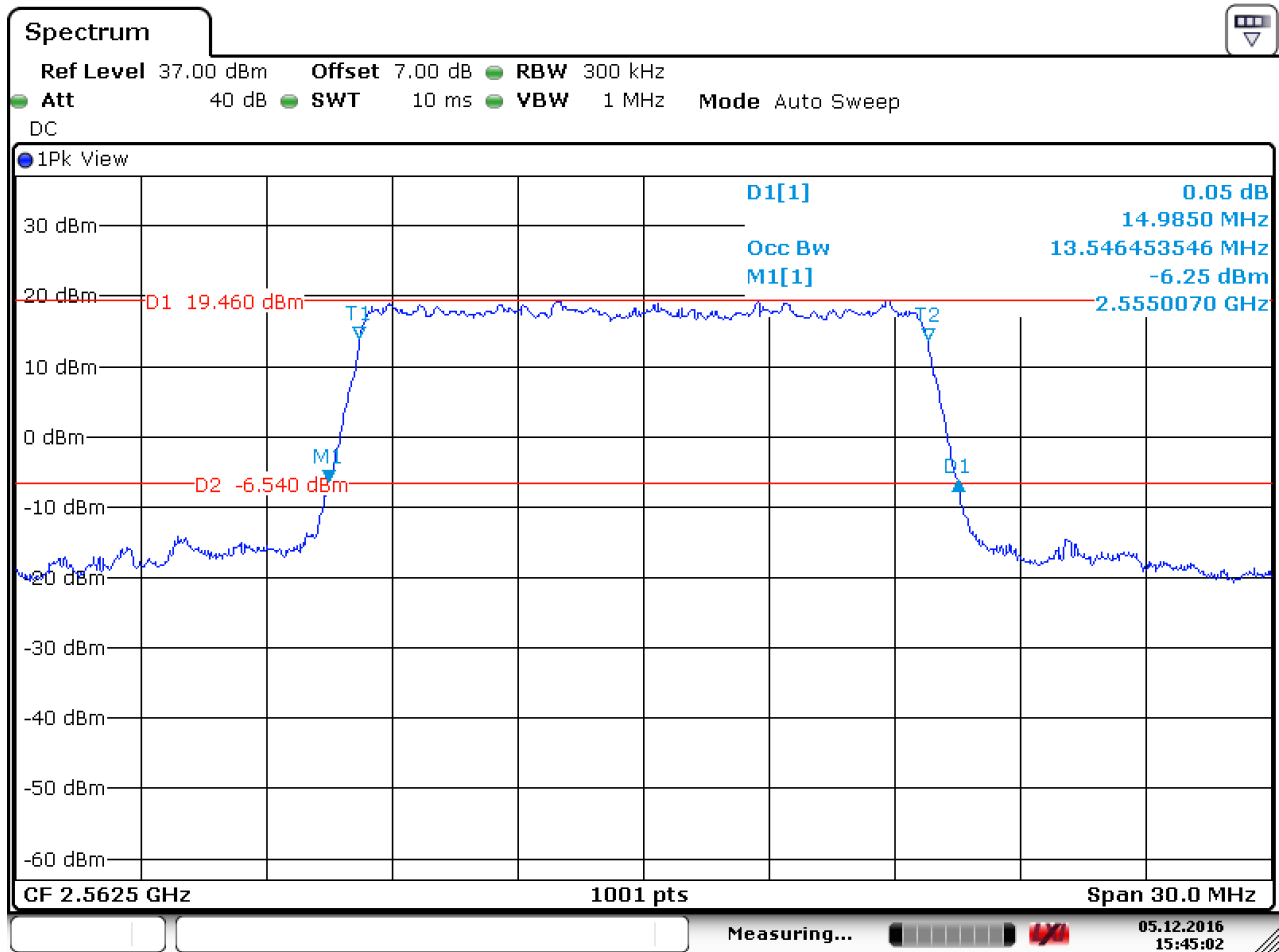
4.1.1.5.2 Test Channel = MCH



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4.1.1.5.3 Test Channel = HCH



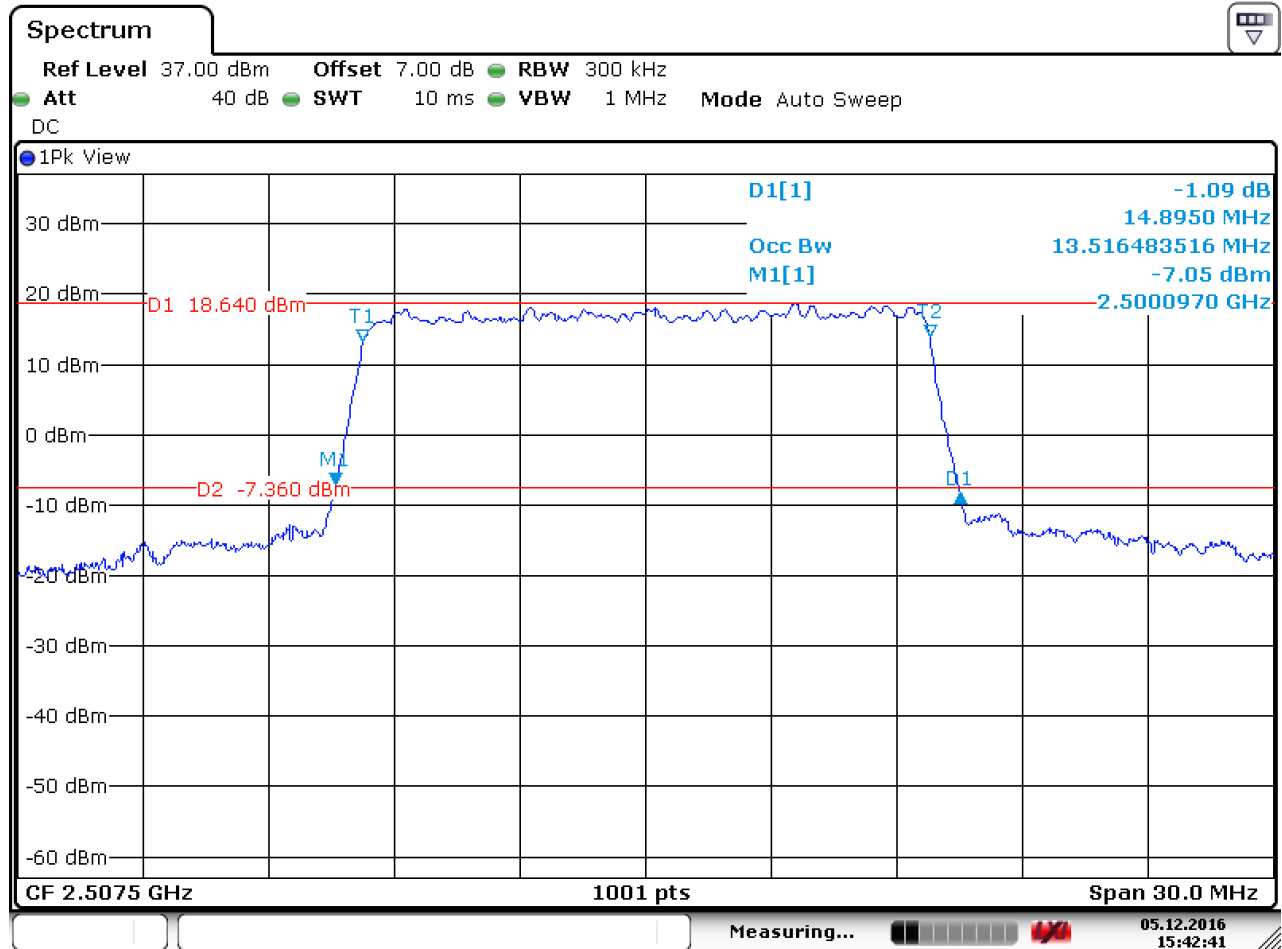
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4.1.1.6 Test Mode = LTE/TM2 15MHz

4.1.1.6.1 Test Channel = LCH

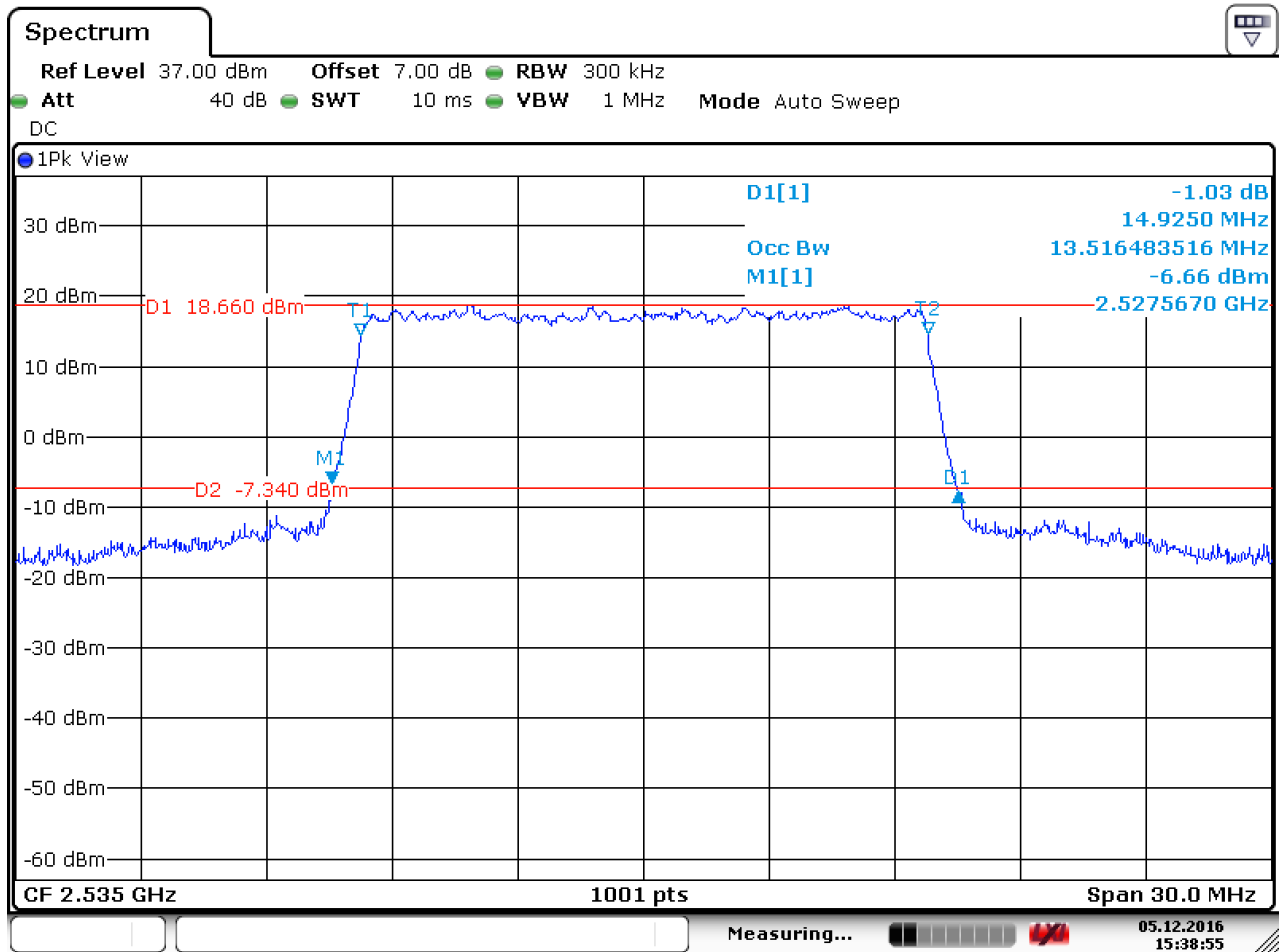


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4.1.1.6.2 Test Channel = MCH

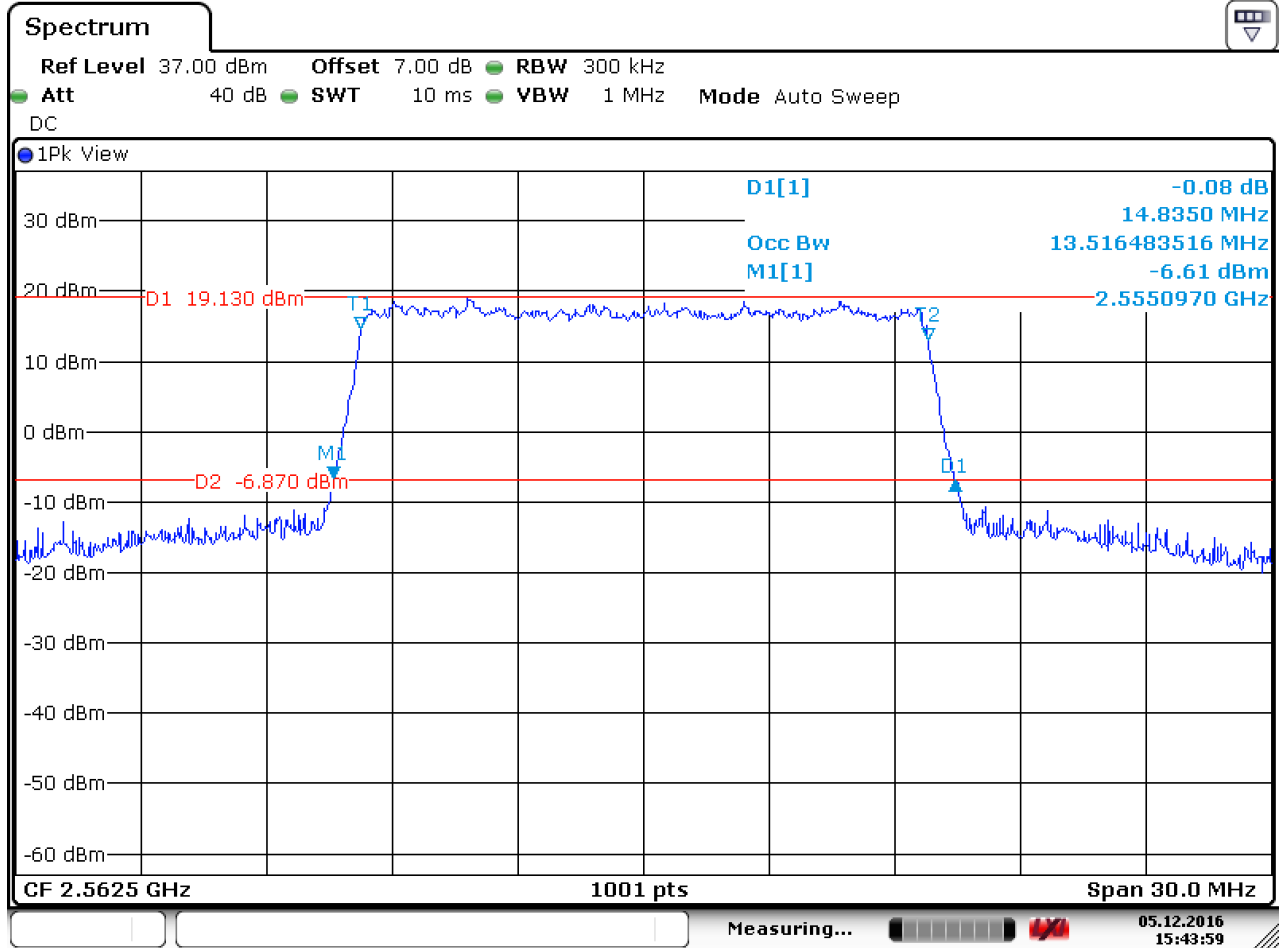


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4.1.1.6.3 Test Channel = HCH

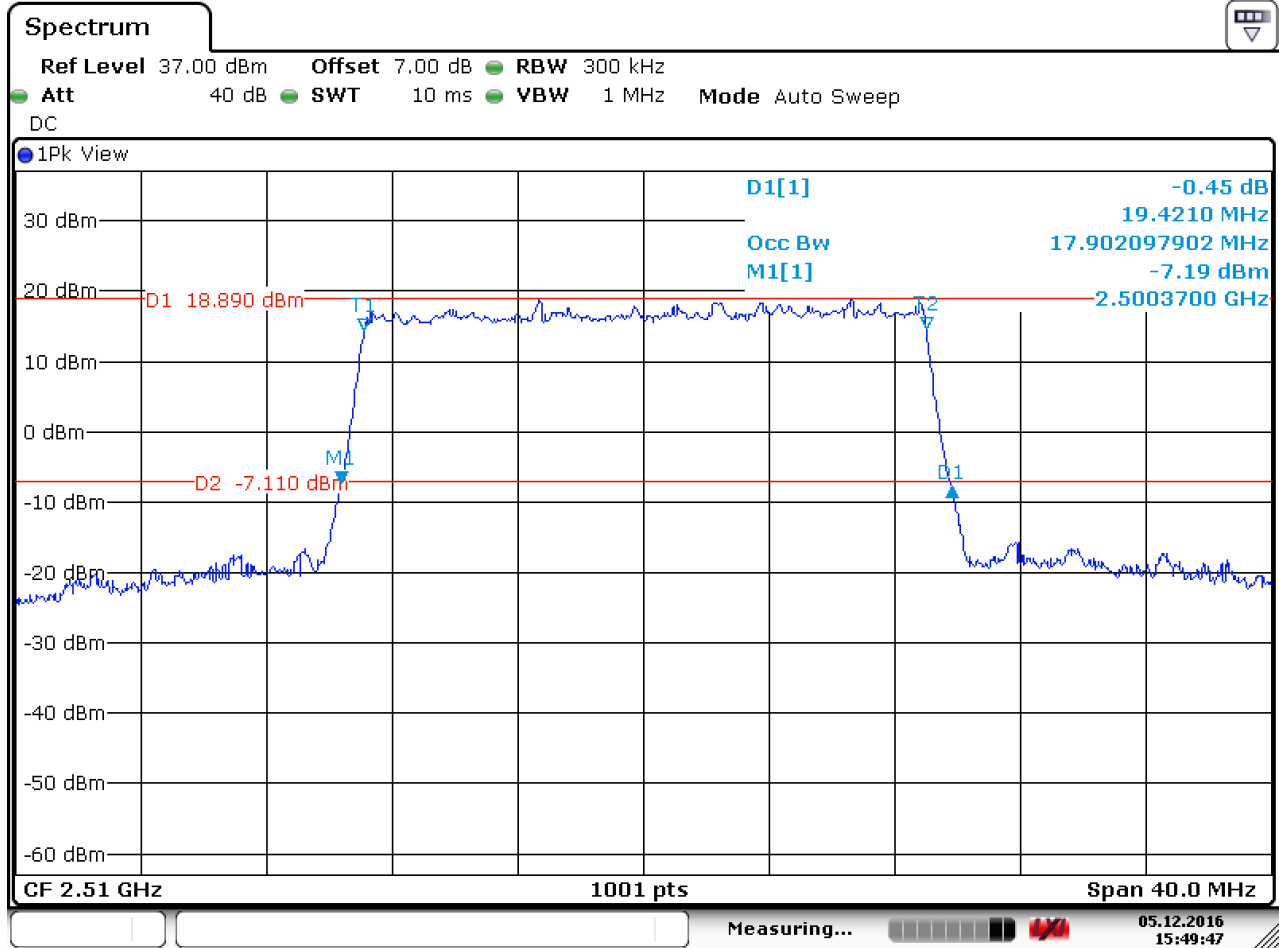


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**4.1.1.7 Test Mode = LTE/TM1 20MHz**

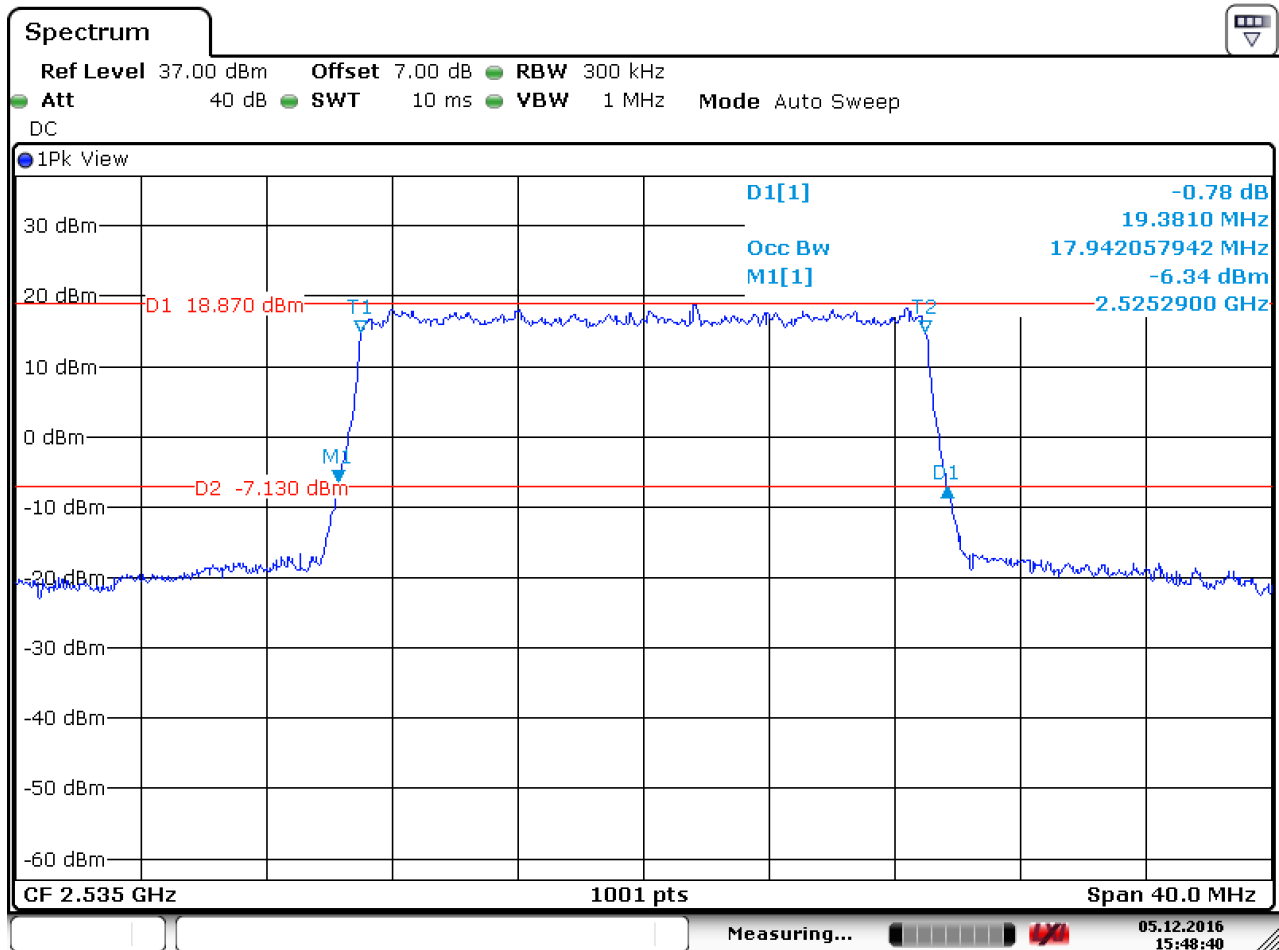
**4.1.1.7.1 Test Channel = LCH**



Date: 5.DEC.2016 15:49:47



4.1.1.7.2 Test Channel = MCH

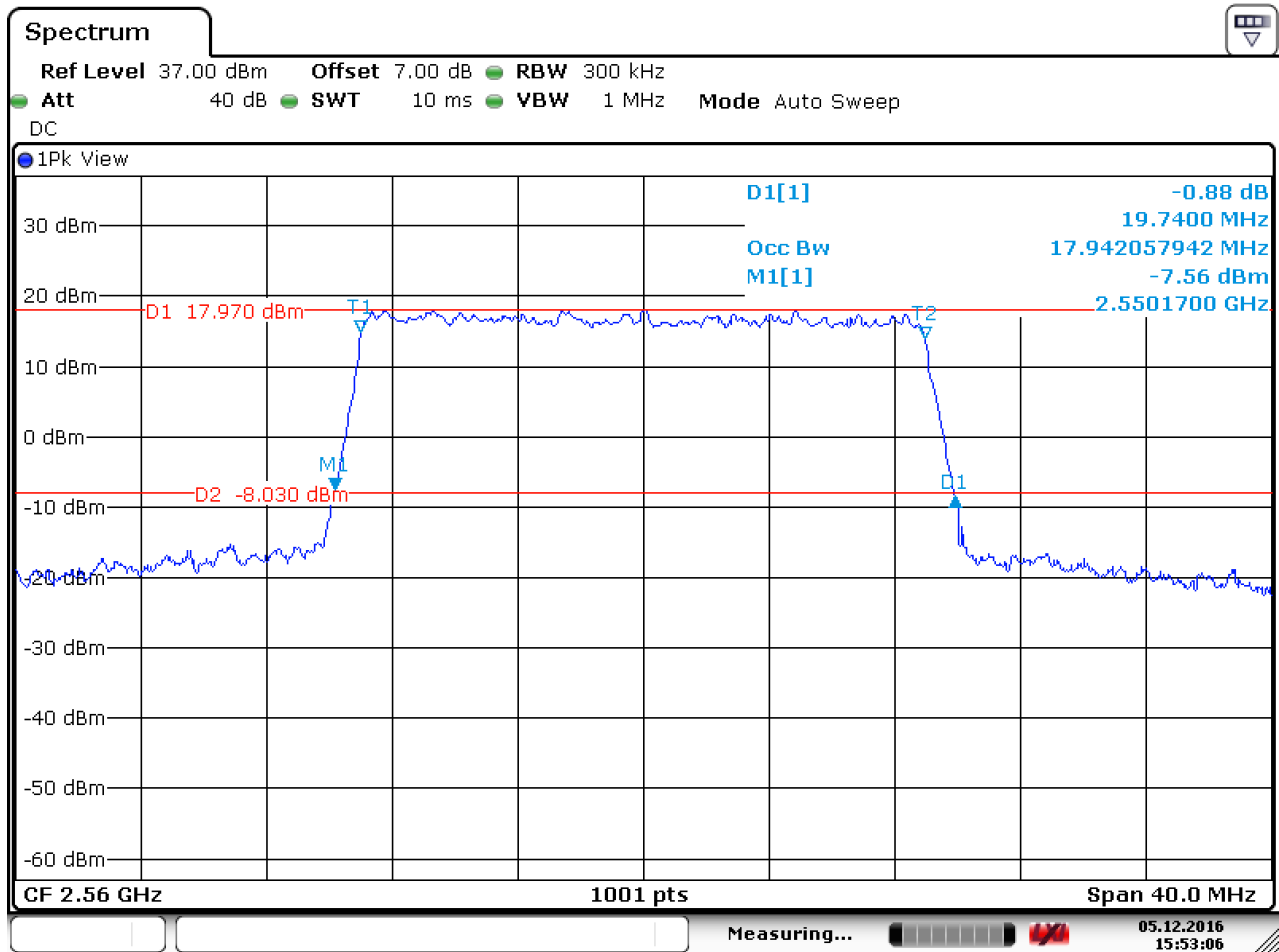


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4.1.1.7.3 Test Channel = HCH



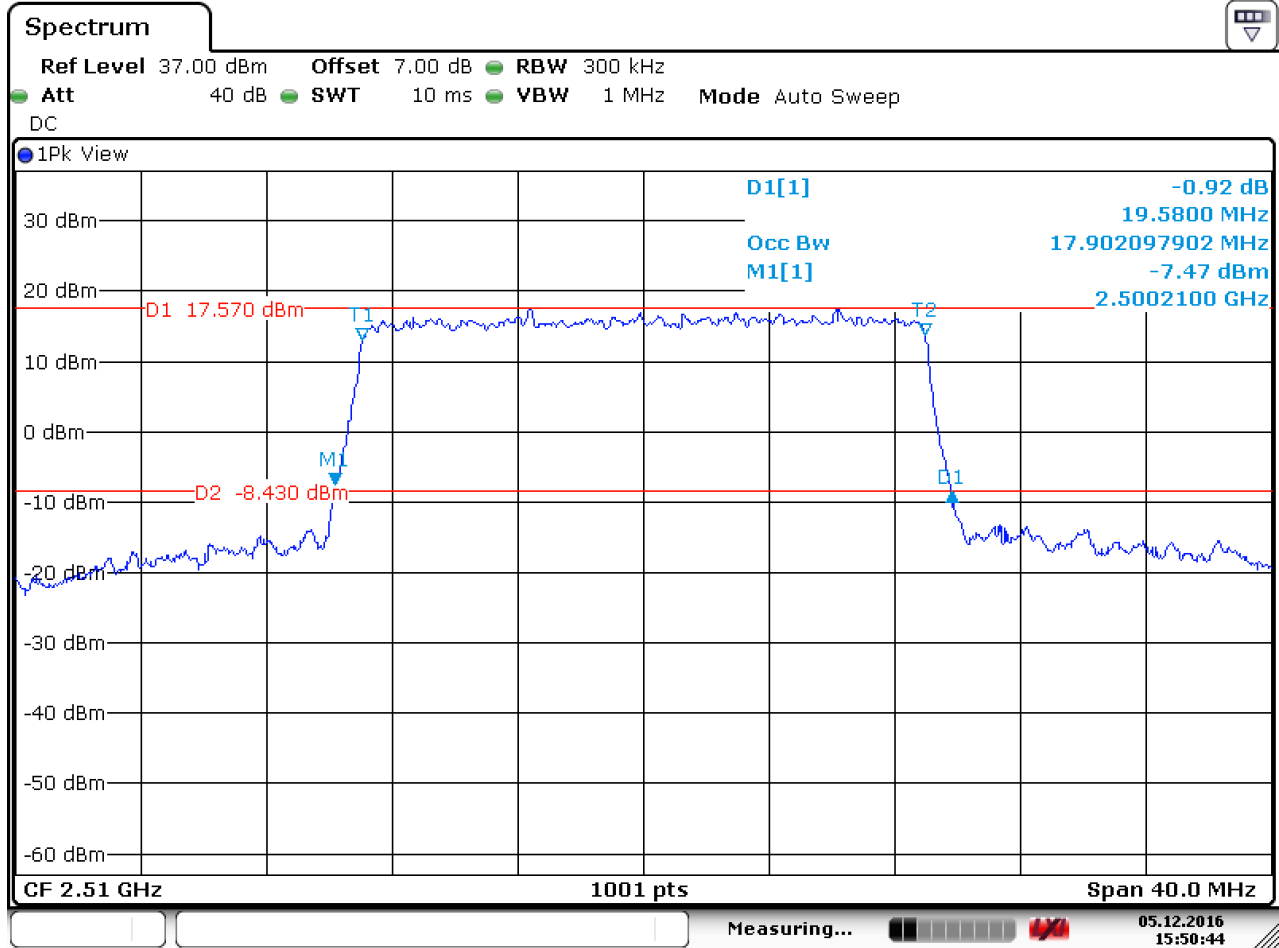
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4.1.1.8 Test Mode = LTE/TM2 20MHz

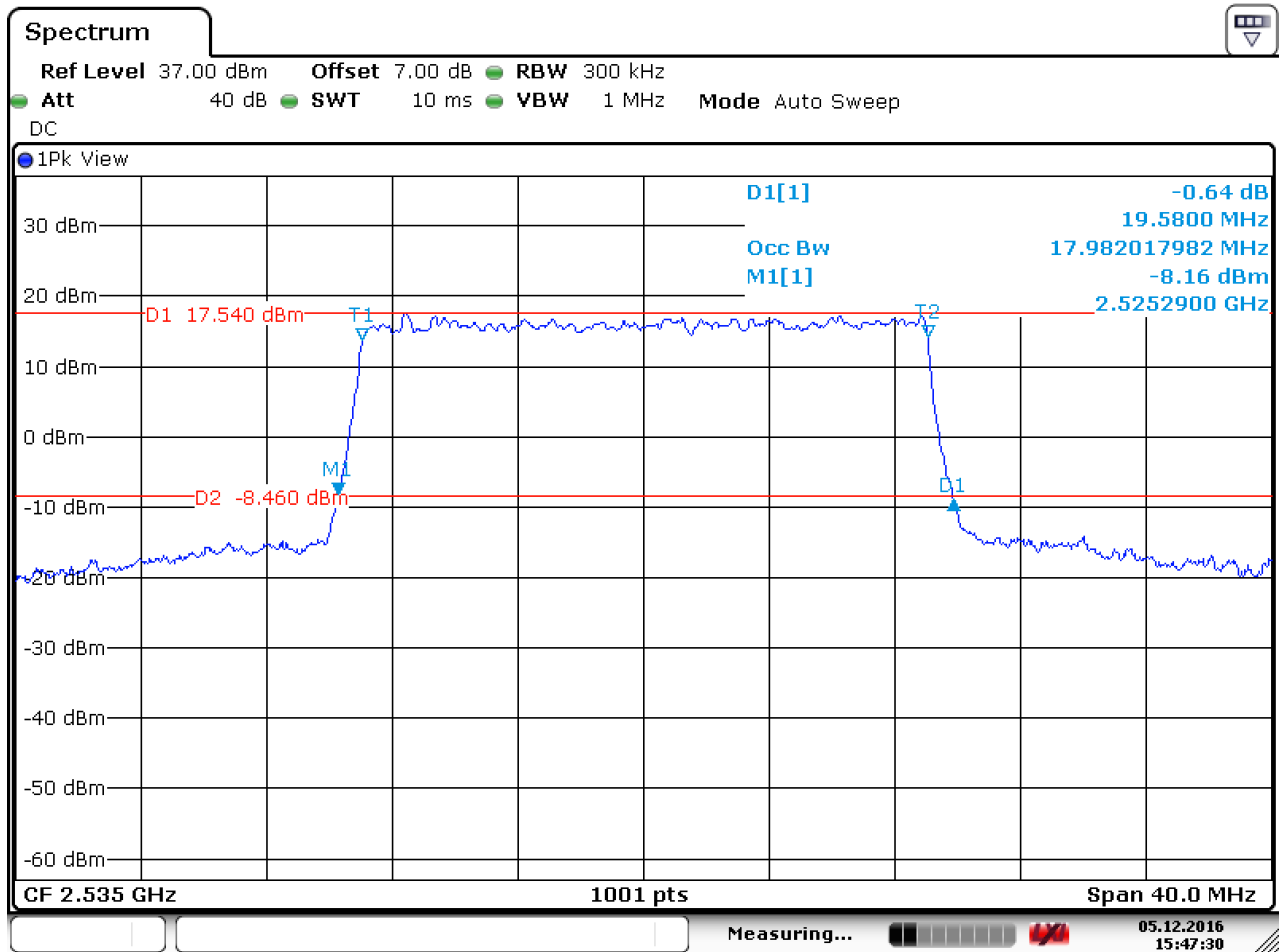
4.1.1.8.1 Test Channel = LCH



Date: 5.DEC.2016 15:50:45



4.1.1.8.2 Test Channel = MCH

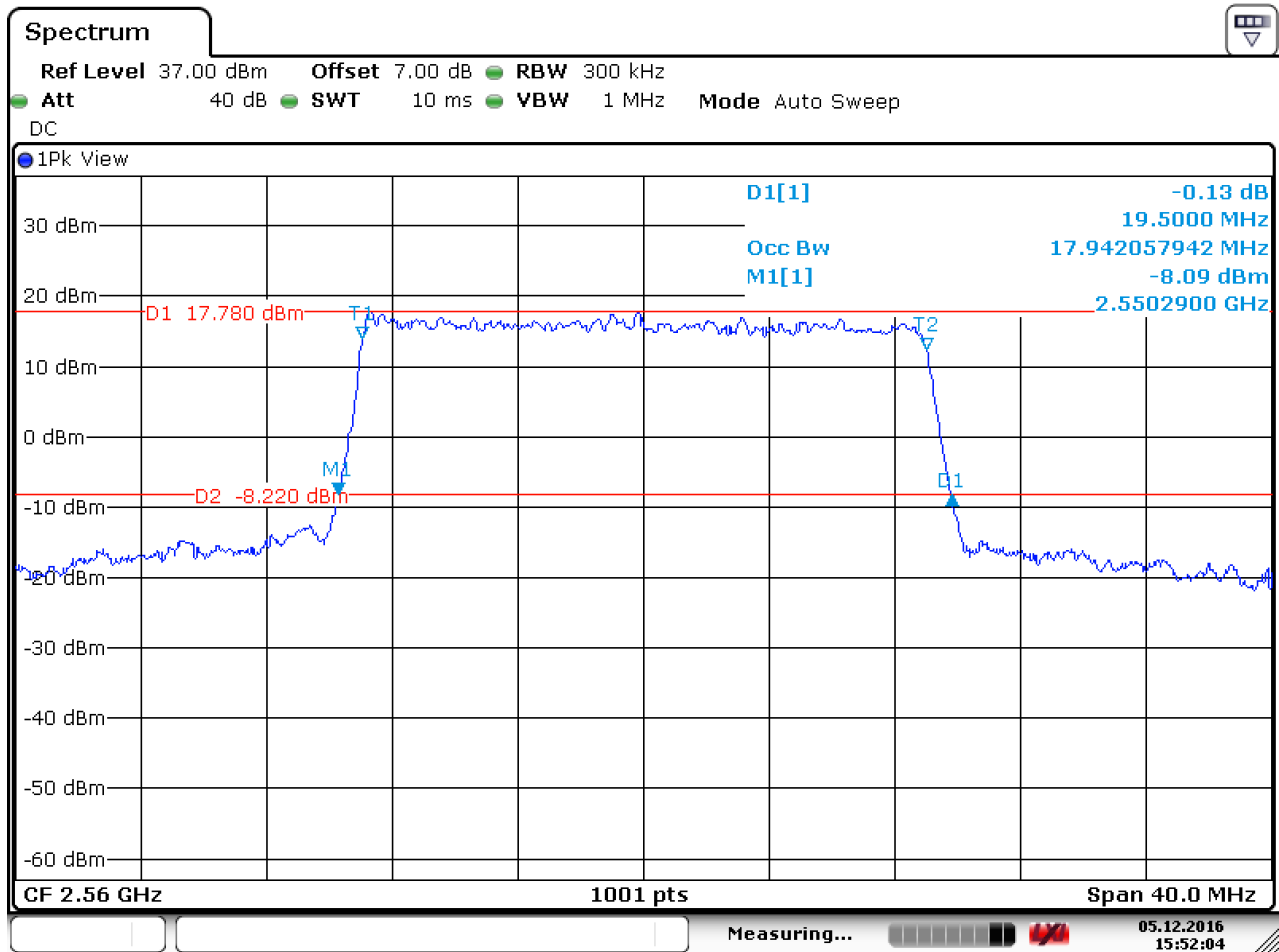


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4.1.1.8.3 Test Channel = HCH



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## 5 Band Edges Compliance

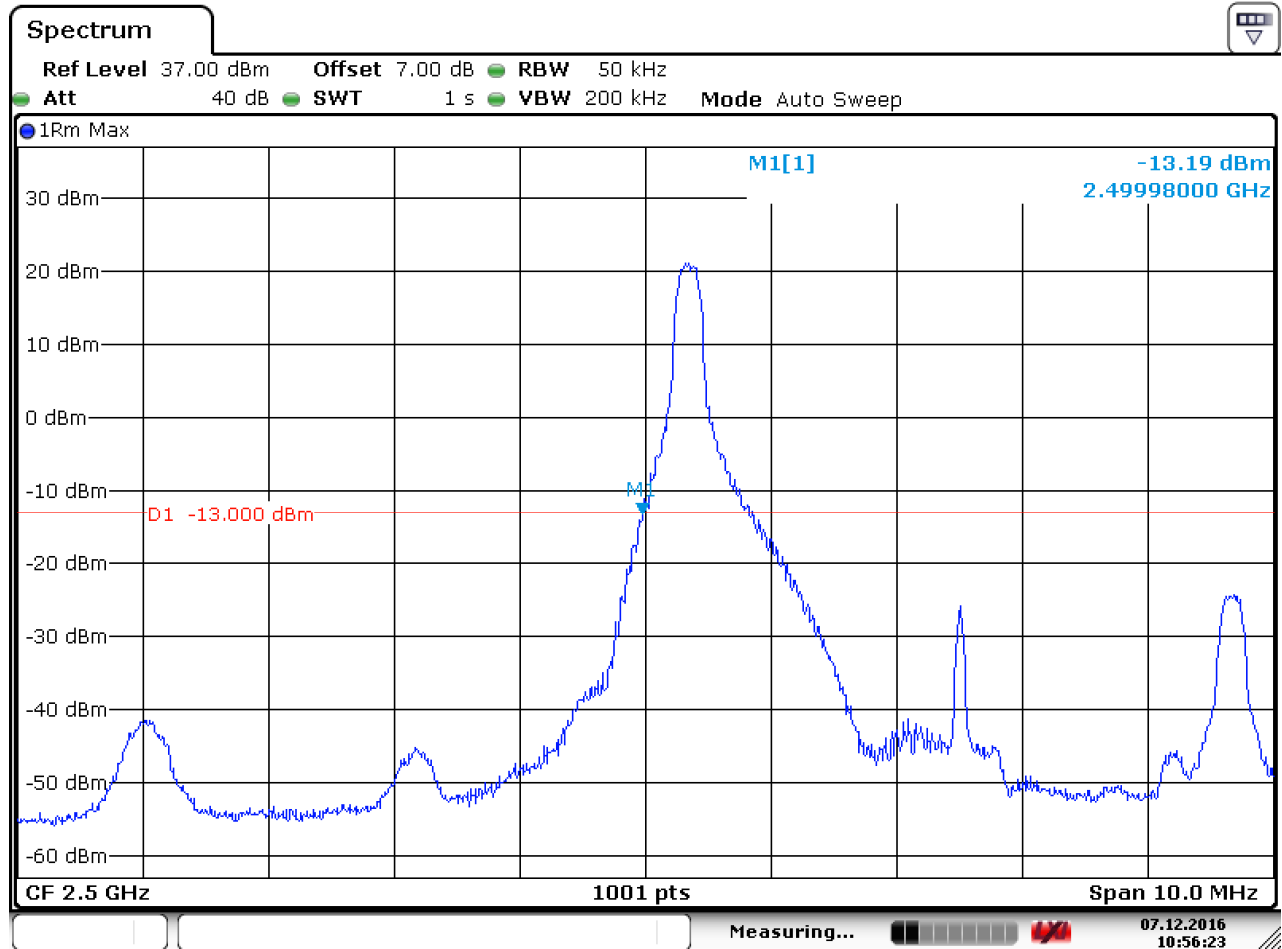
### 5.1 For LTE

#### 5.1.1 Test Band = LTE band7

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

##### 5.1.1.1.1 Test Channel = LCH

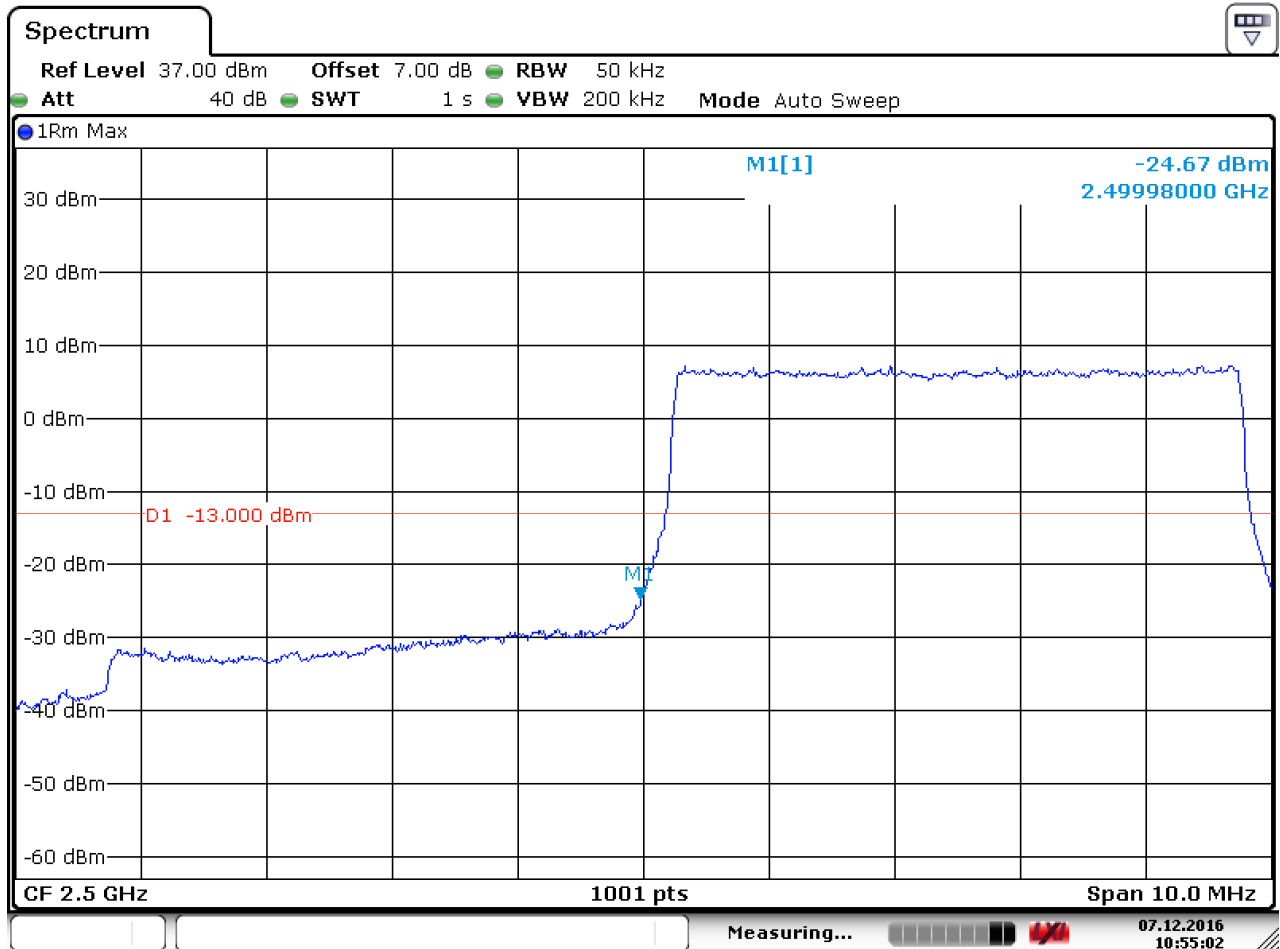
##### 5.1.1.1.1.1 Test RB=1RB



Date: 7.DEC.2016 10:56:24



5.1.1.1.2 Test RB=25RB

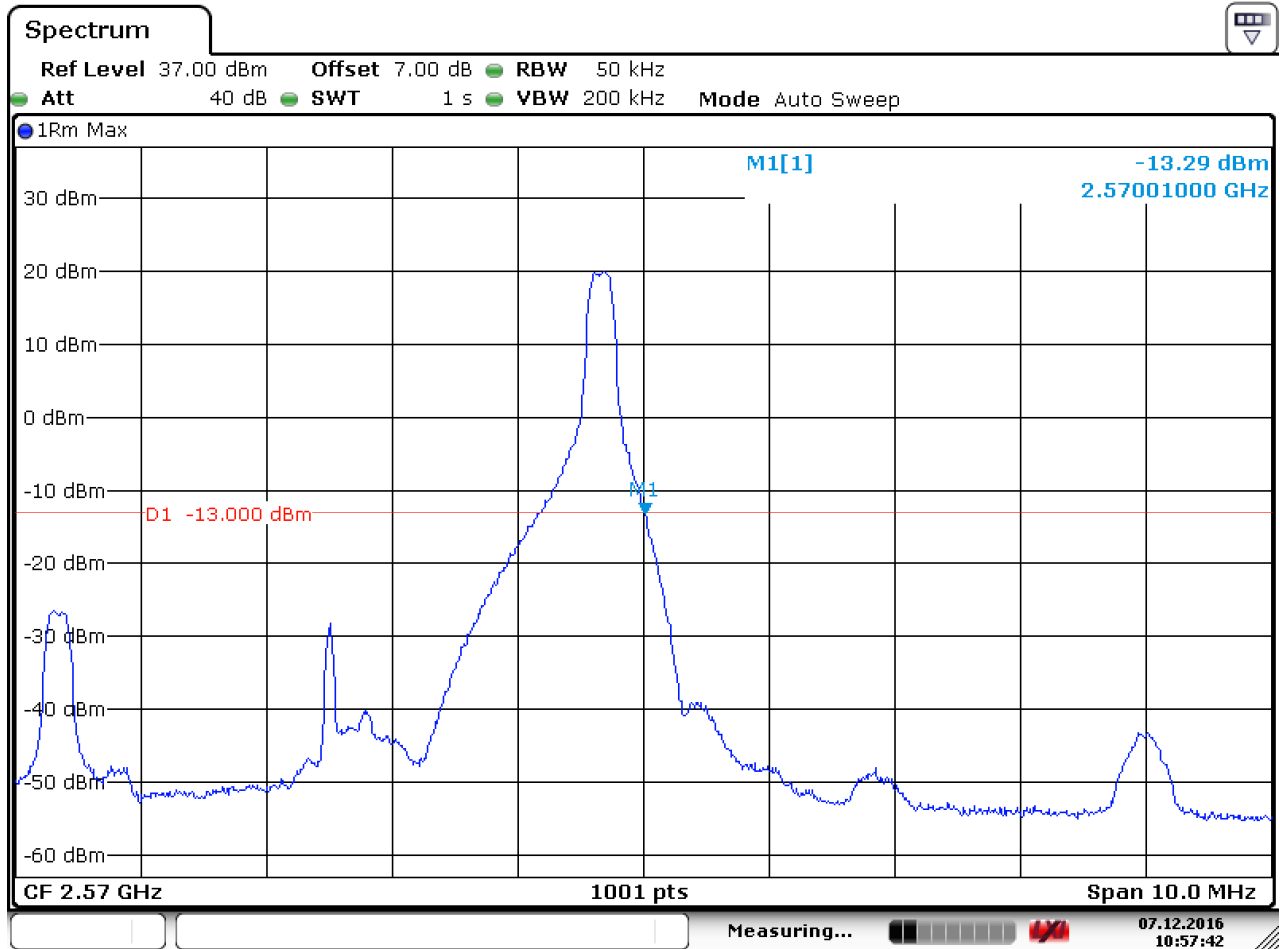


Date: 7.DEC.2016 10:55:02

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5.1.1.1.2 Test Channel = HCH

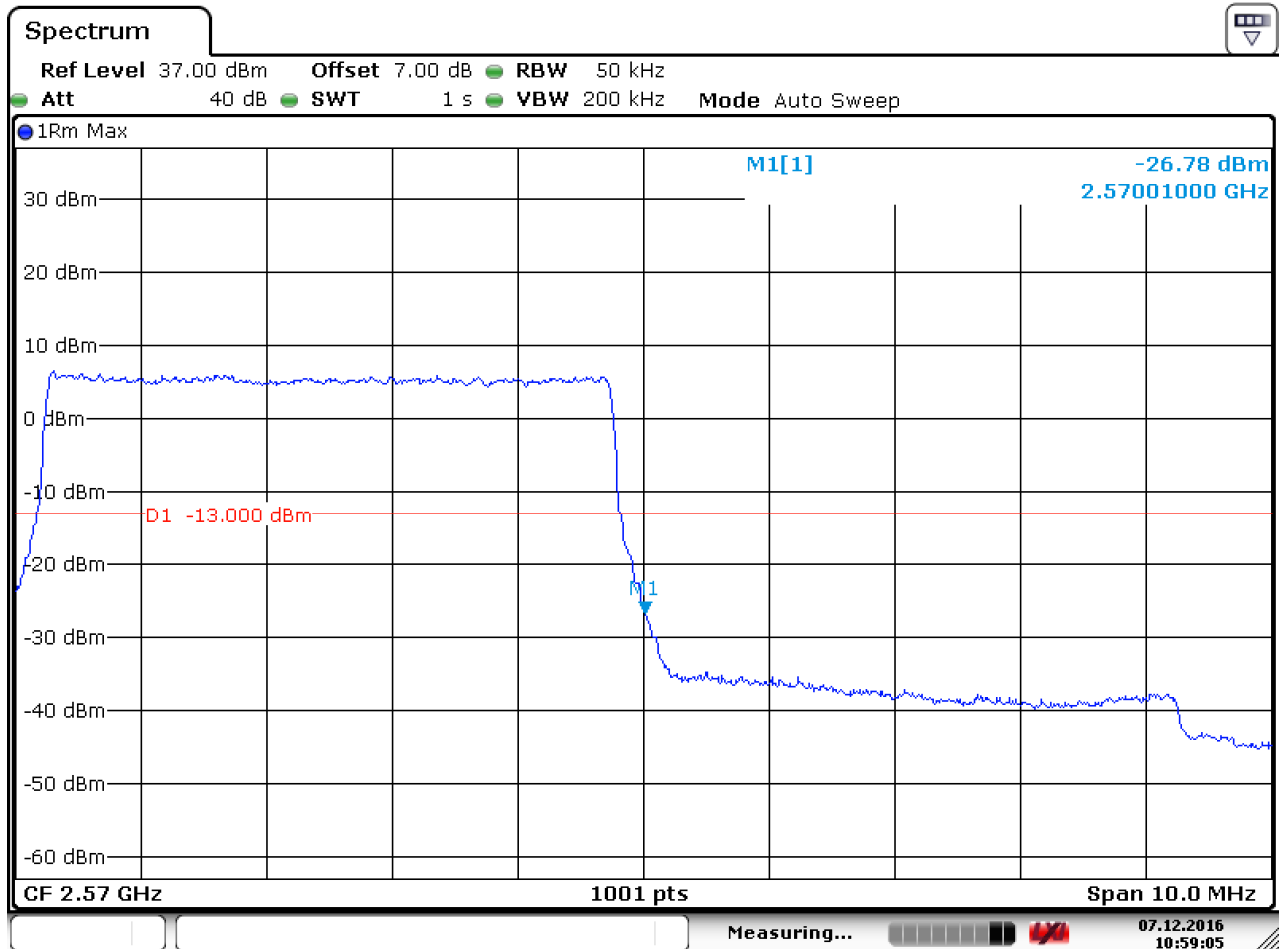
5.1.1.1.2.1 Test RB=1RB



Date: 7.DEC.2016 10:57:43



5.1.1.1.2.2 Test RB=25RB



Date: 7.DEC.2016 10:59:05

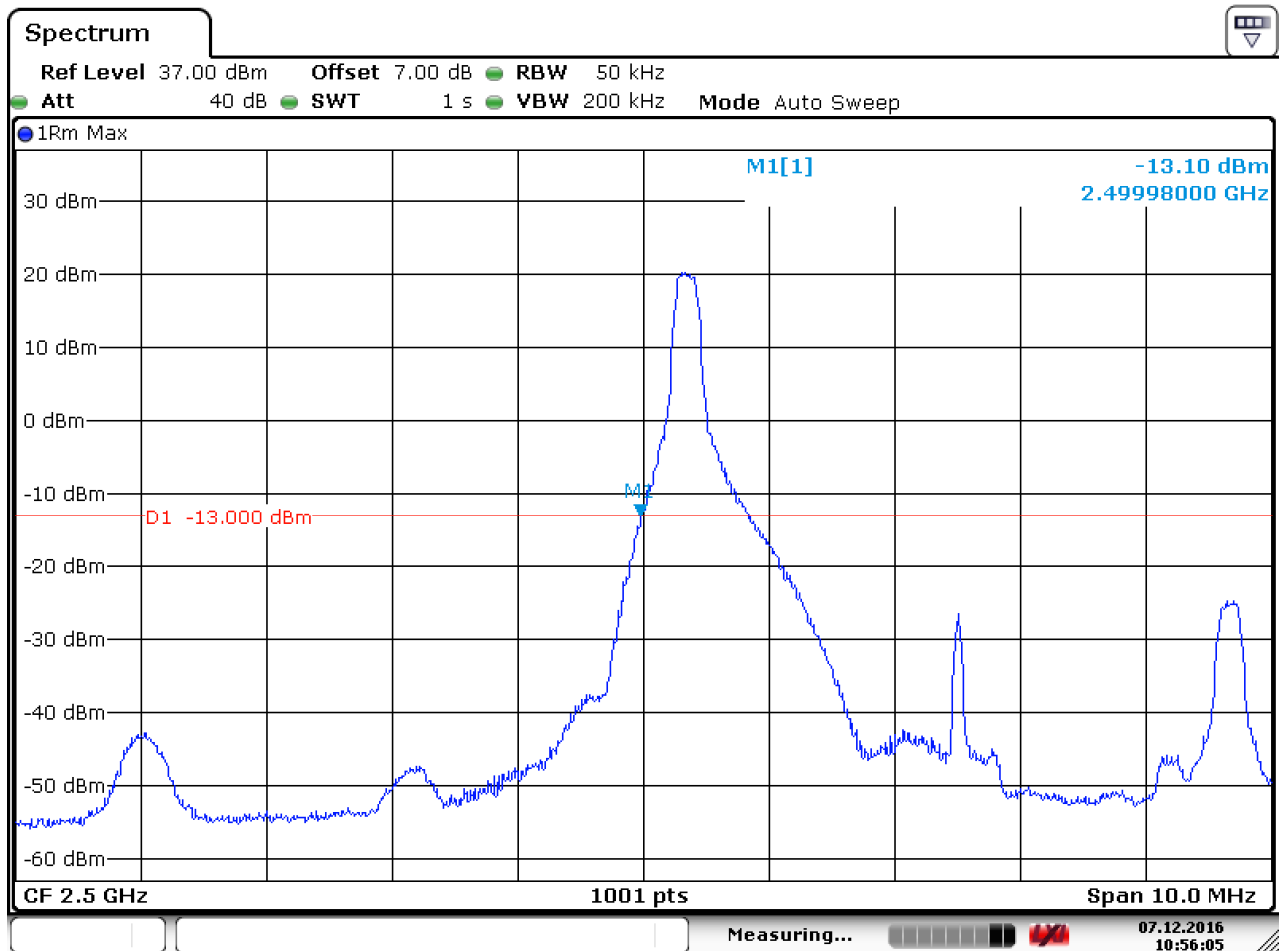
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5.1.1.2 Test Mode = LTE/TM2 5MHz

5.1.1.2.1 Test Channel = LCH

5.1.1.2.1.1 Test RB=1RB

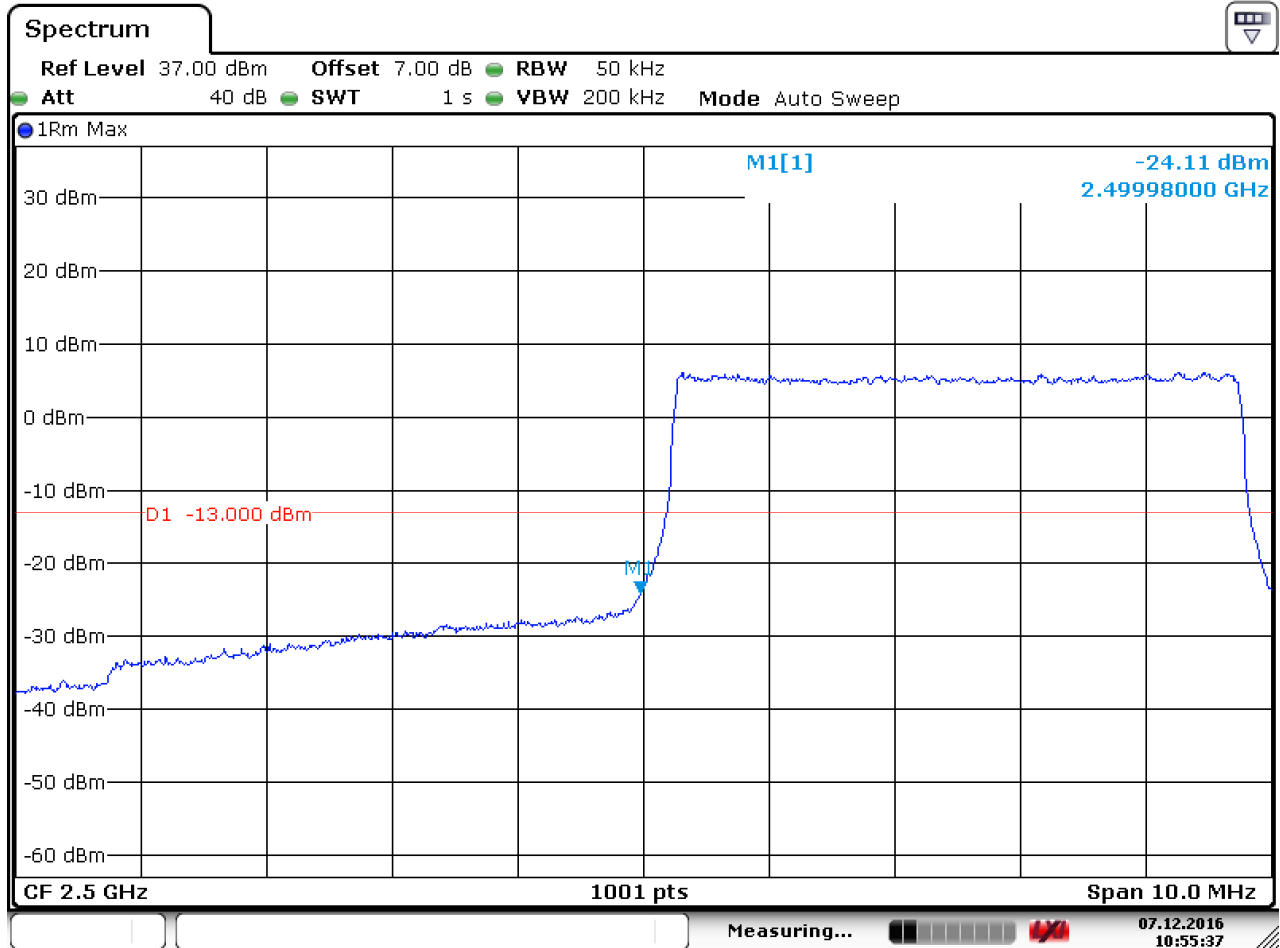


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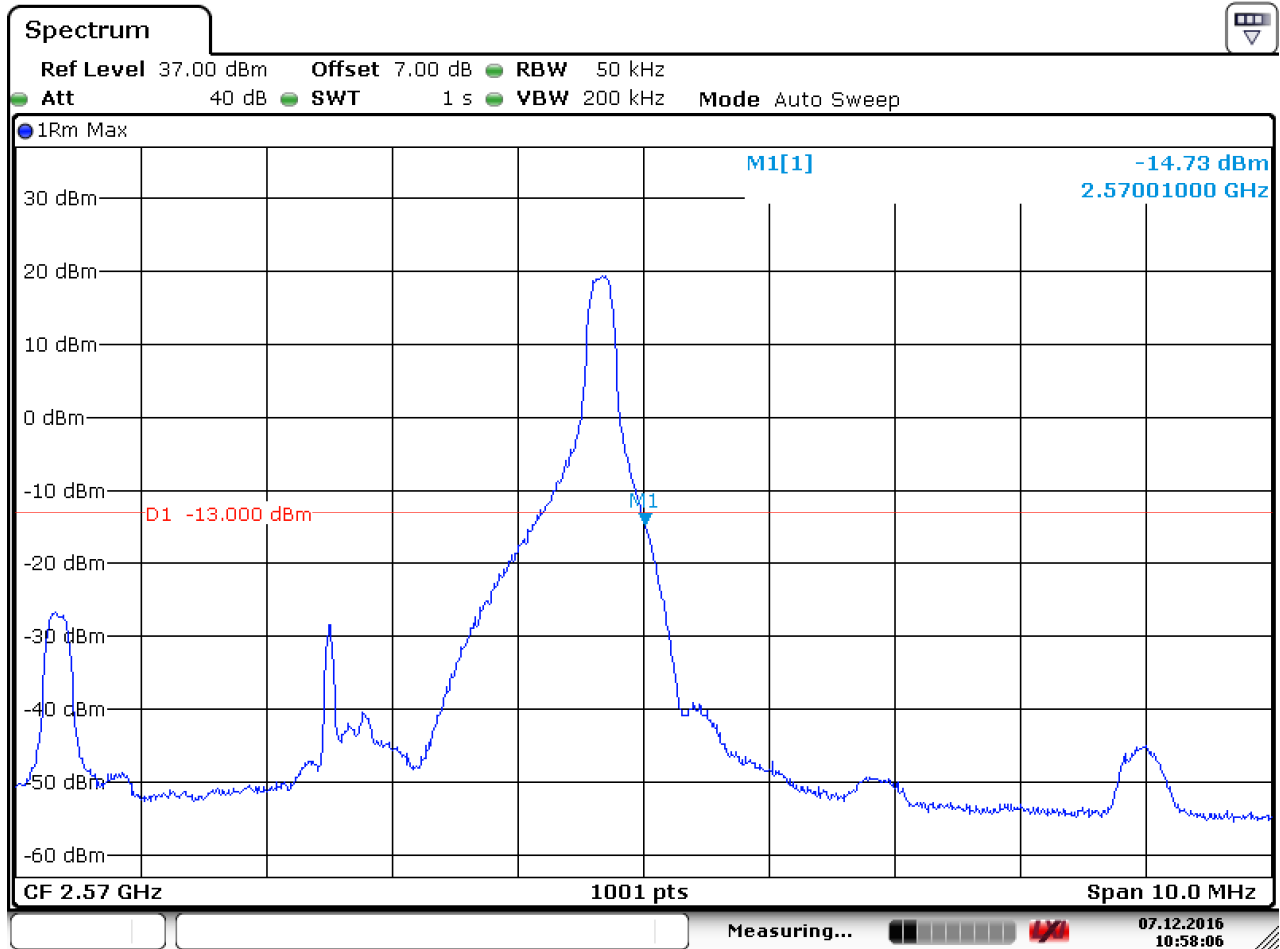
5.1.1.2.1.2 Test RB=25RB



Date: 7.DEC.2016 10:55:37

5.1.1.2.2 Test Channel = HCH

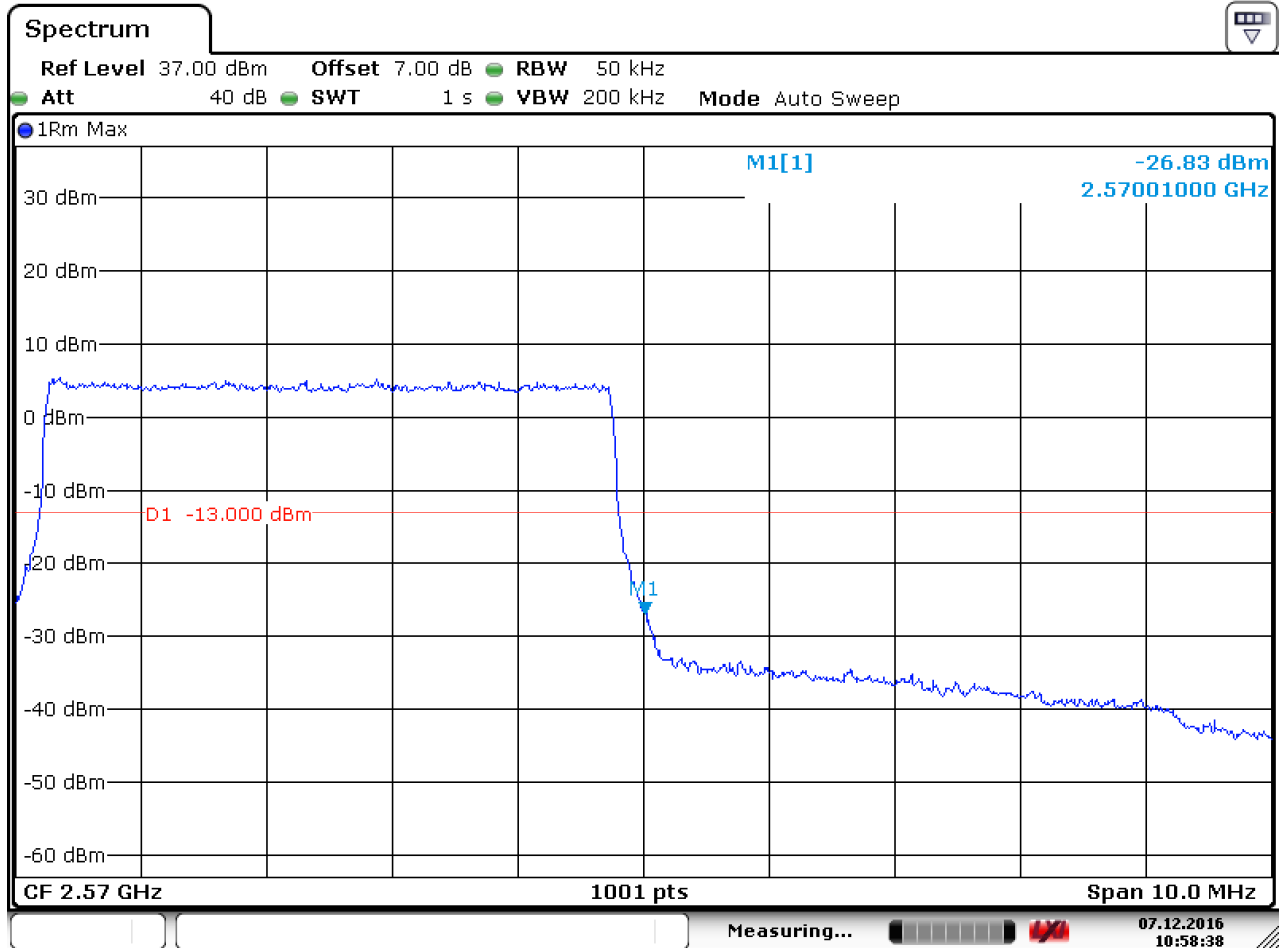
5.1.1.2.2.1 Test RB=1RB



Date: 7.DEC.2016 10:58:06



5.1.1.2.2.2 Test RB=25RB



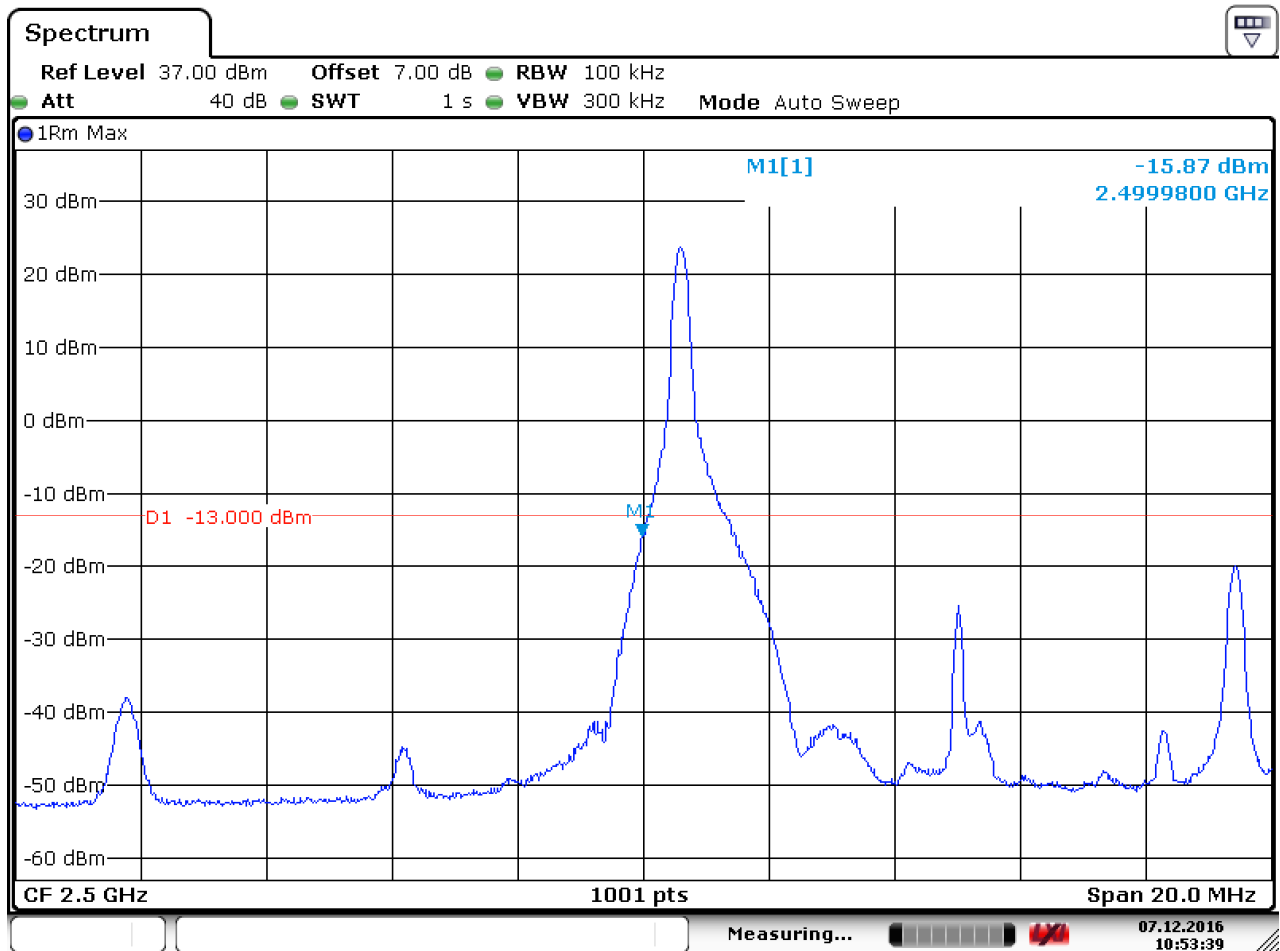
Date: 7.DEC.2016 10:58:39

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**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**

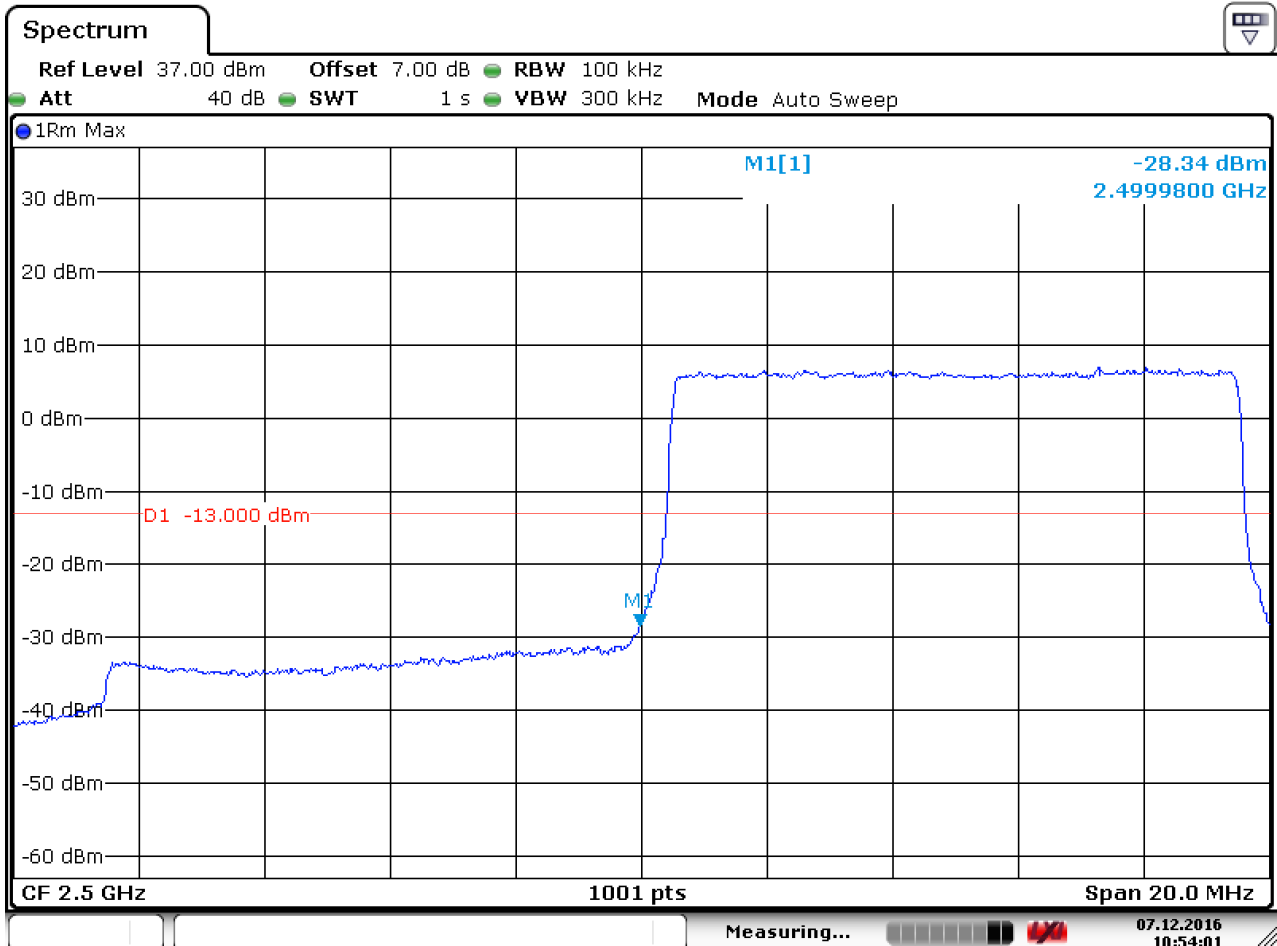


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5.1.1.3.1.2 Test RB=50RB

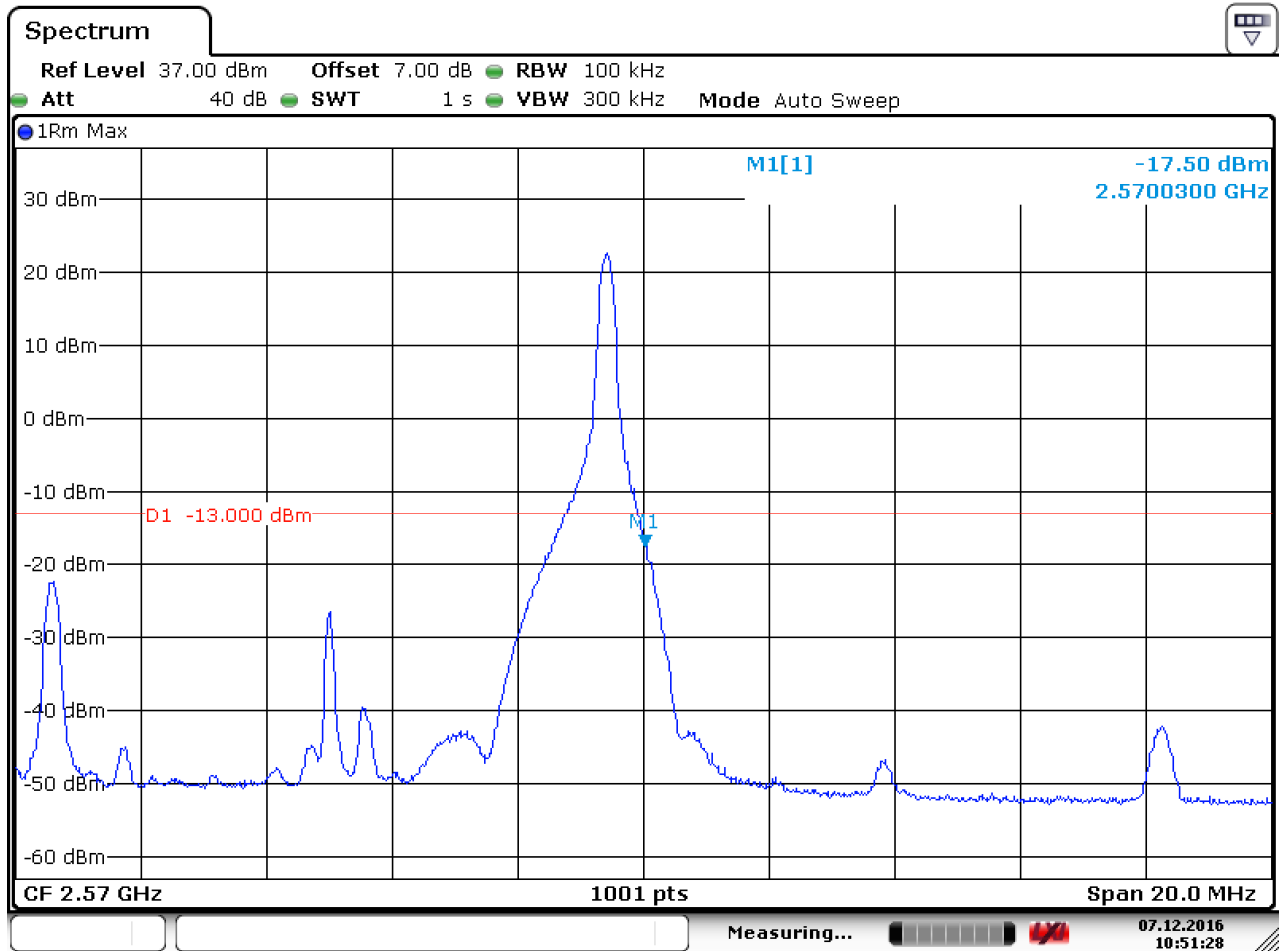


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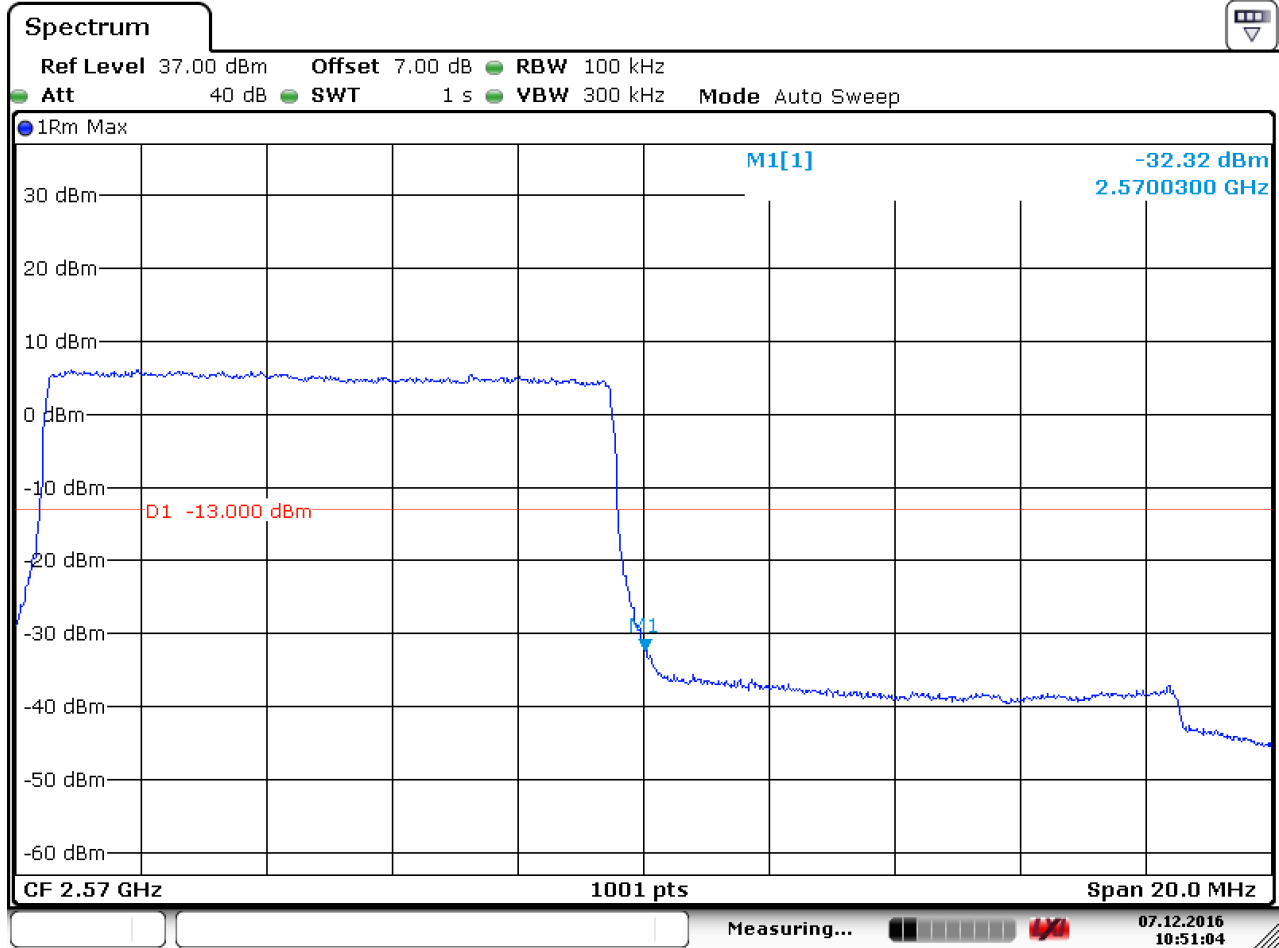
**5.1.1.3.2 Test Channel = HCH**

**5.1.1.3.2.1 Test RB=1RB**



Date: 7.DEC.2016 10:51:29

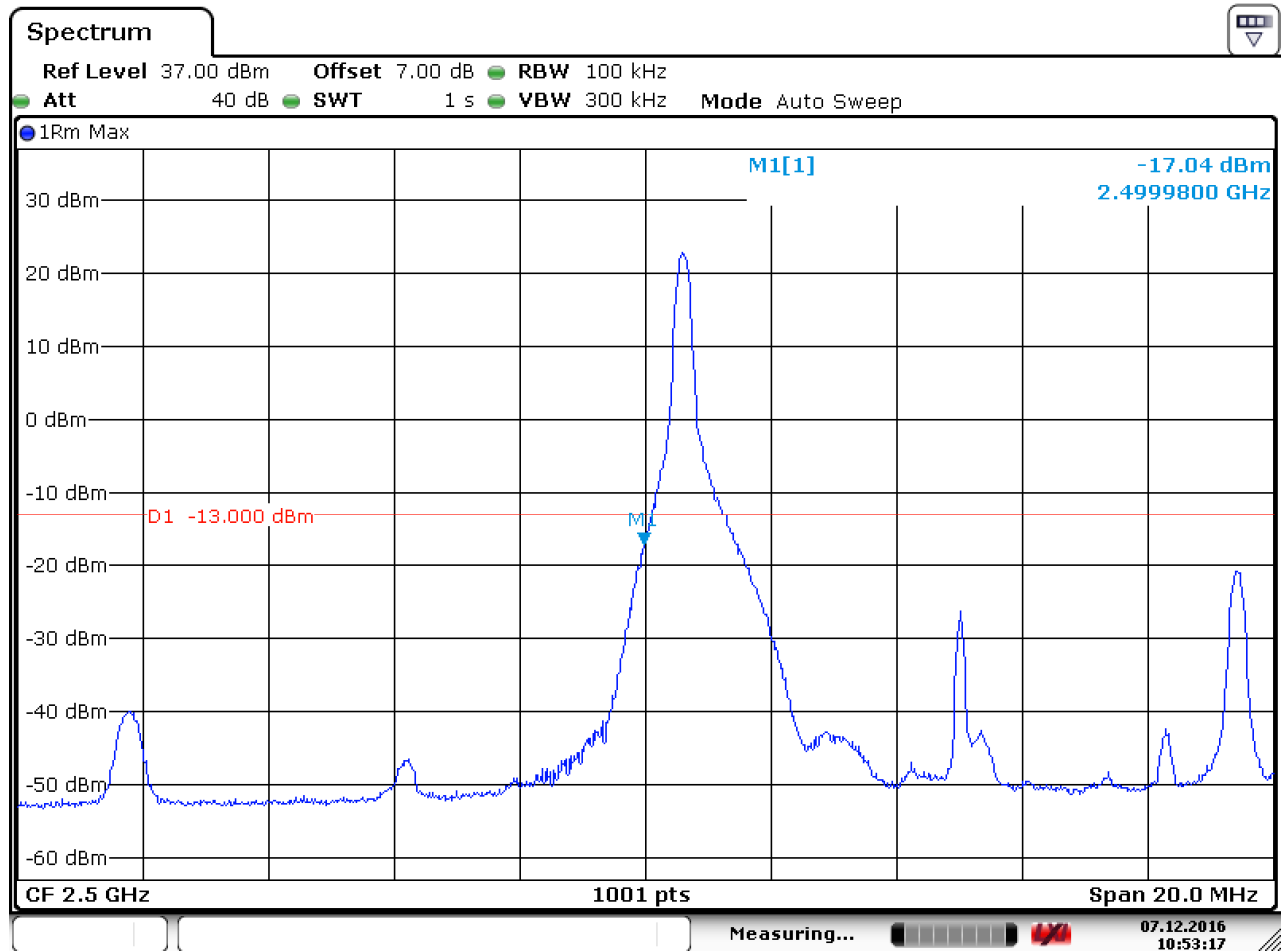
**5.1.1.3.2.2 Test RB=50RB**



Date: 7.DEC.2016 10:51:04

**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**

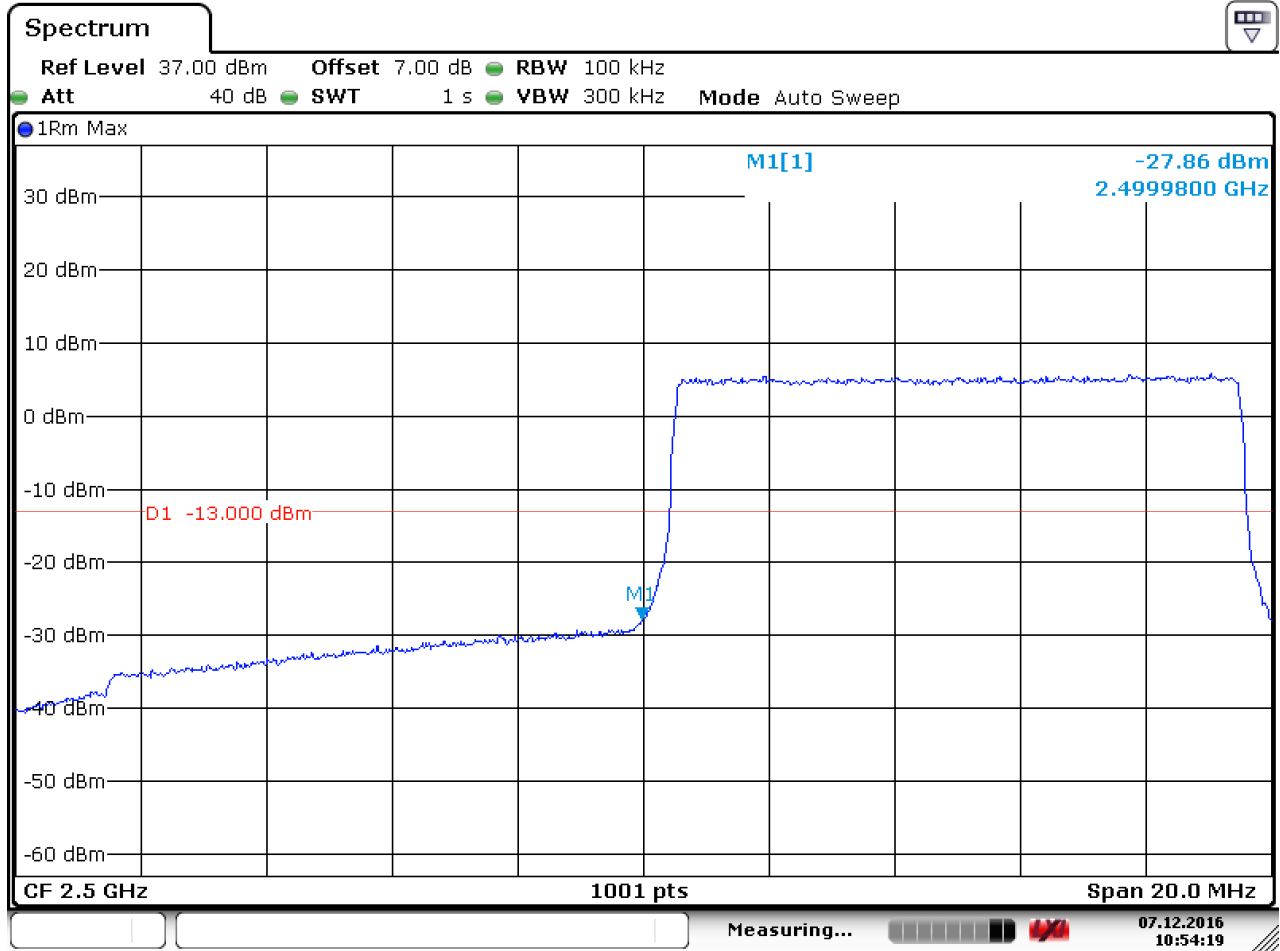


Date: 7.DEC.2016 10:53:18





5.1.1.4.1.2 Test RB=50RB

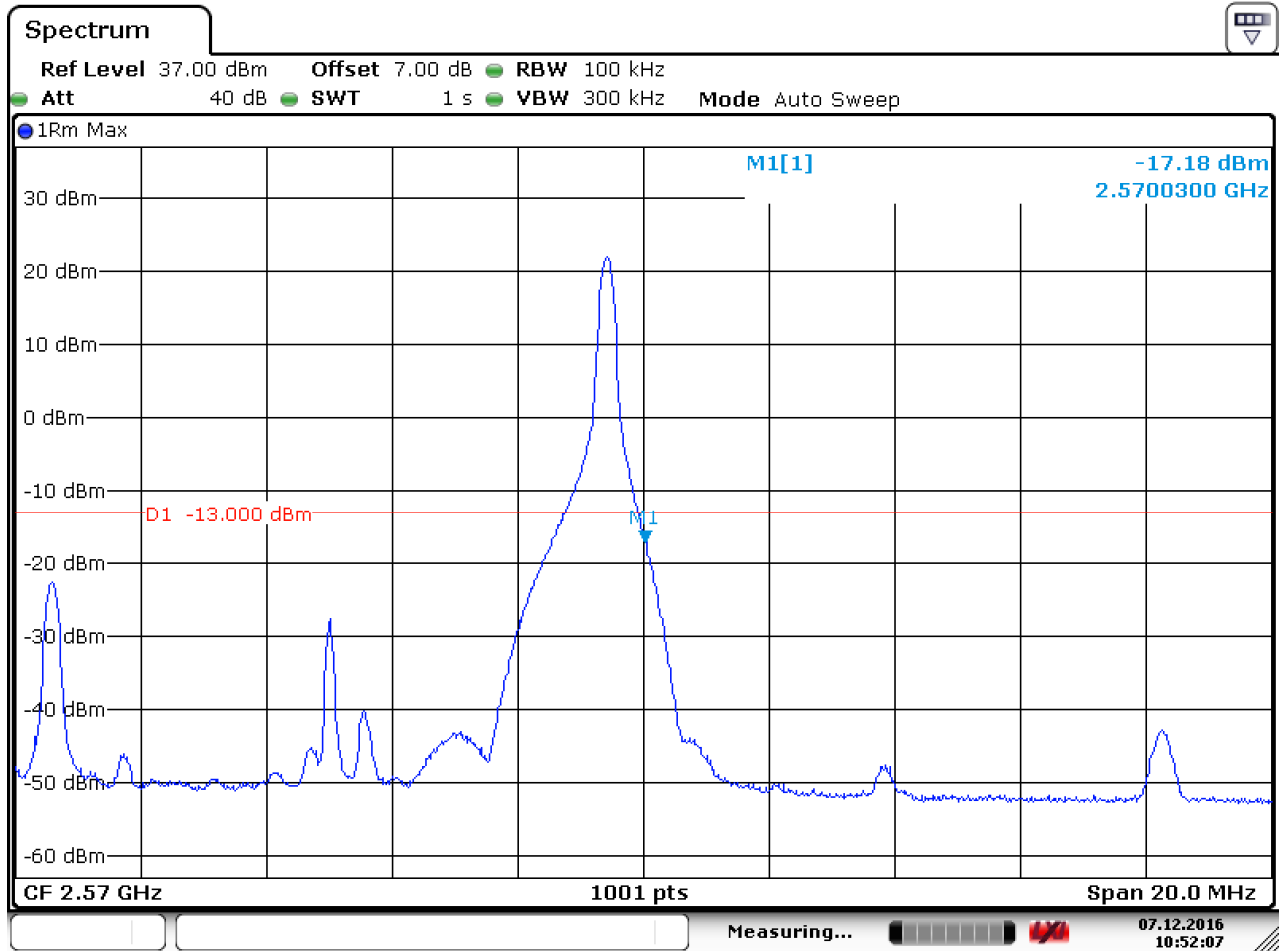


Date: 7.DEC.2016 10:54:19

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5.1.1.4.2 Test Channel = HCH

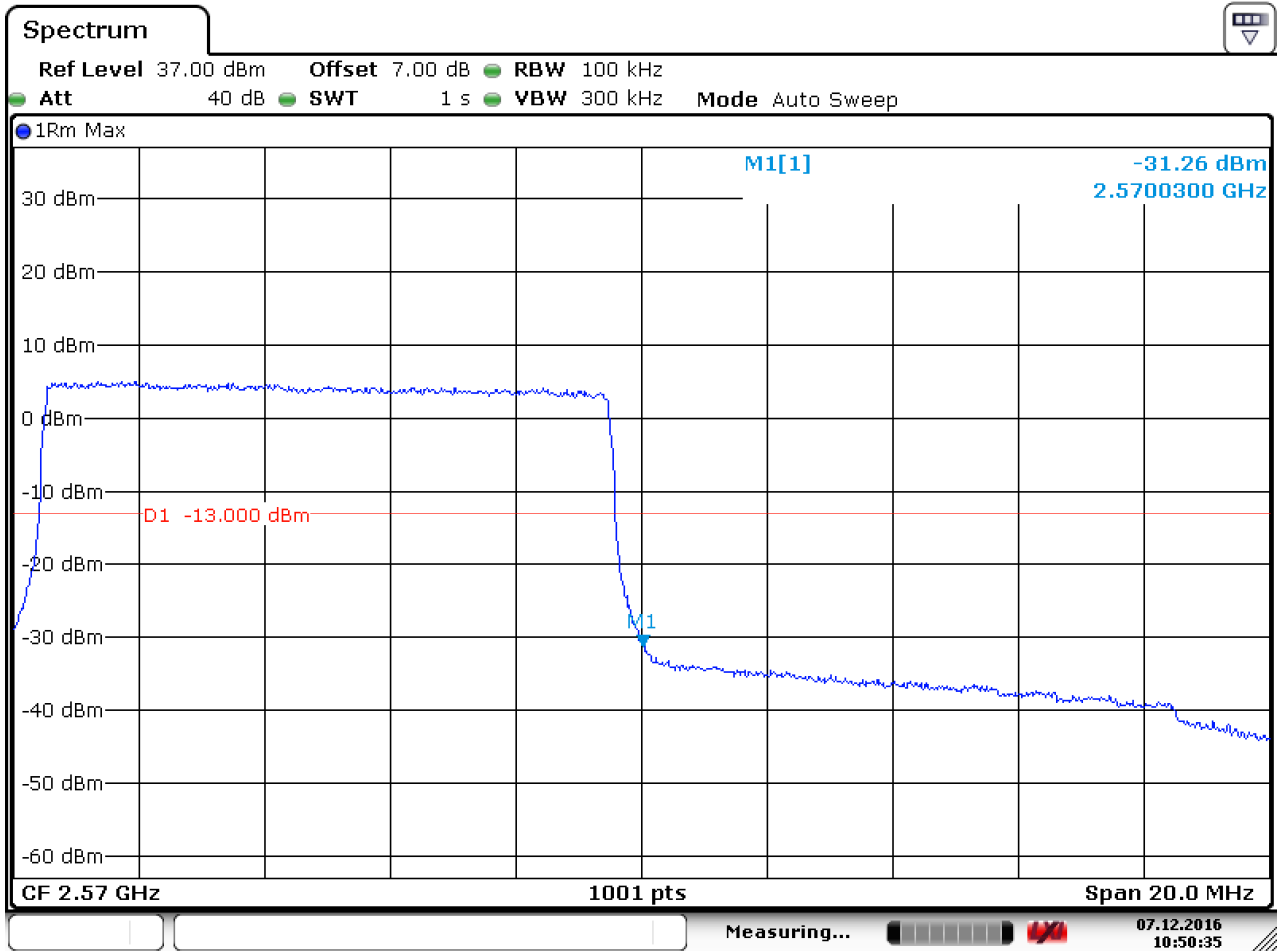
5.1.1.4.2.1 Test RB=1RB



Date: 7.DEC.2016 10:52:07



5.1.1.4.2.2 Test RB=50RB

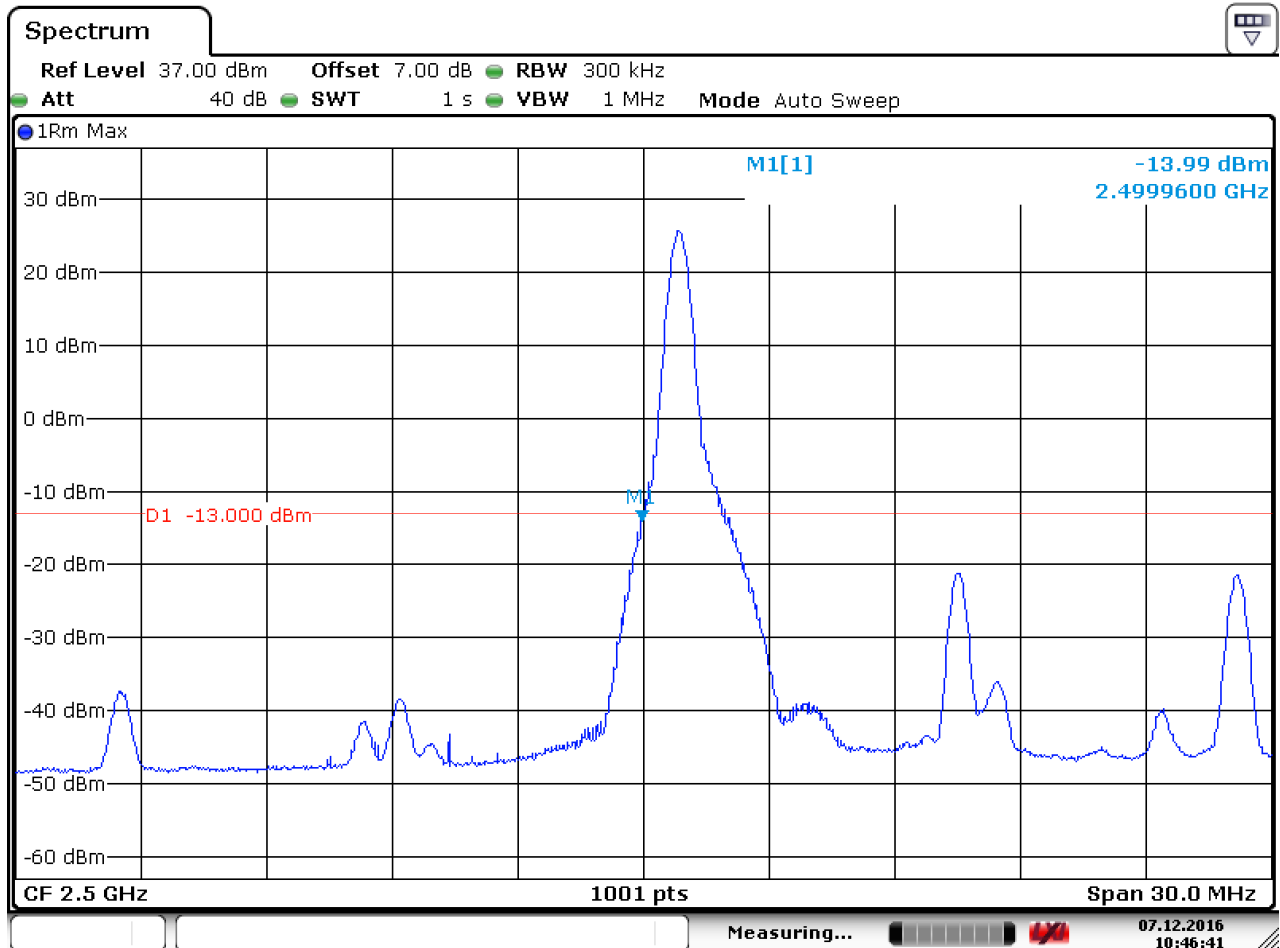


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**5.1.1.5 Test Mode = LTE/TM1 15MHz**  
**5.1.1.5.1 Test Channel = LCH**

**5.1.1.5.1.1 Test RB=1RB**

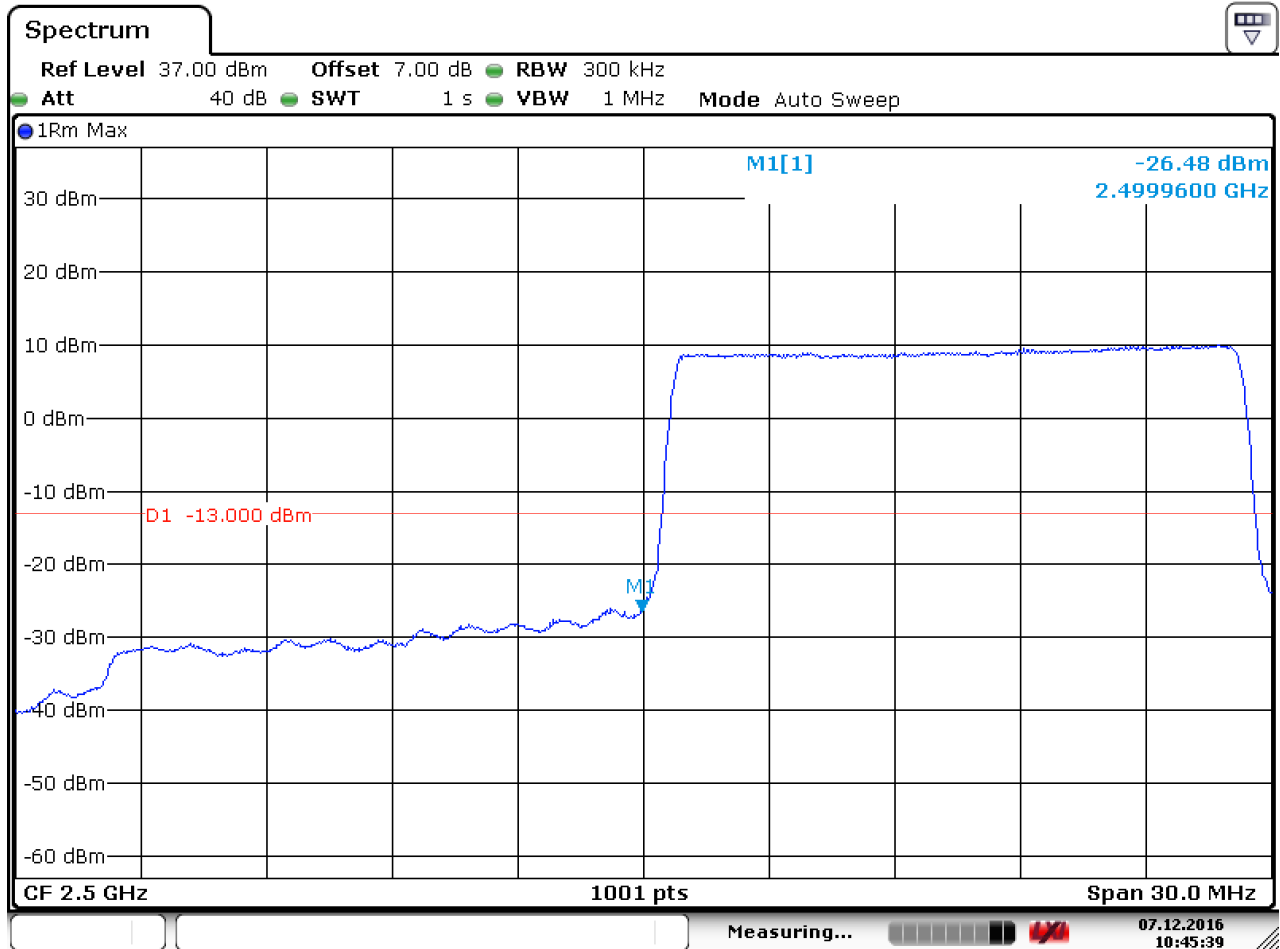


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5.1.1.5.1.2 Test RB=75RB



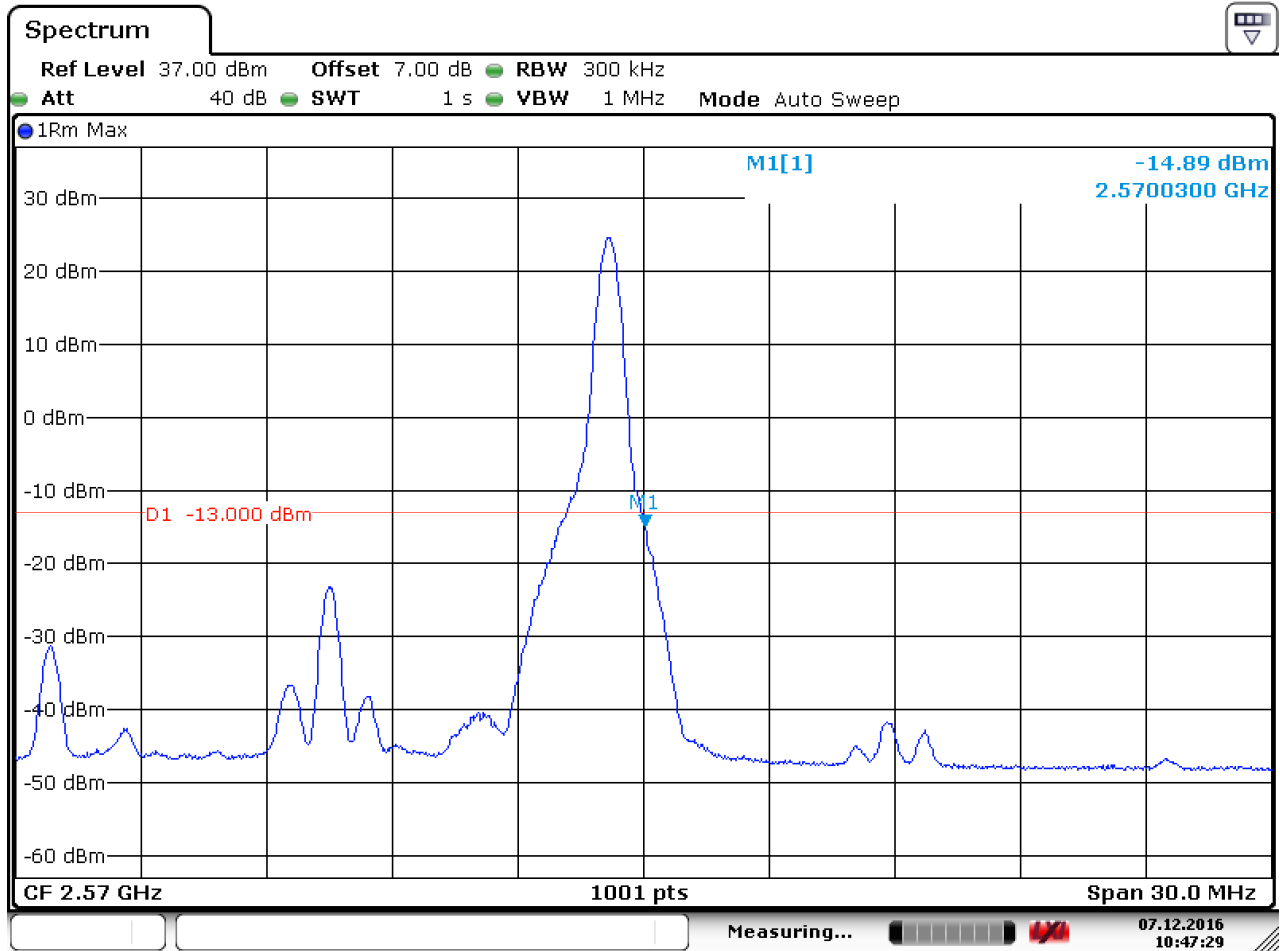
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5.1.1.5.2 Test Channel = HCH

5.1.1.5.2.1 Test RB=1RB



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