



# **Appendix B**

## **E-UTRA Band 2**

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## 1 Effective (Isotropic) Radiated Power Output Data

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

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	1.4M	LCH	RB1#0	20.83	22.03	33.00	PASS
				RB1#2	20.85	22.05	33.00	PASS
				RB1#5	20.77	21.97	33.00	PASS
				RB3#0	20.77	21.97	33.00	PASS
				RB3#2	20.83	22.03	33.00	PASS
				RB3#3	20.99	22.19	33.00	PASS
				RB6#0	19.73	20.93	33.00	PASS
			MCH	RB1#0	20.8	22	33.00	PASS
				RB1#2	20.85	22.05	33.00	PASS
				RB1#5	20.8	22	33.00	PASS
				RB3#0	20.91	22.11	33.00	PASS
				RB3#2	20.9	22.1	33.00	PASS
				RB3#3	20.95	22.15	33.00	PASS
				RB6#0	19.88	21.08	33.00	PASS
			HCH	RB1#0	20.76	21.96	33.00	PASS
				RB1#2	20.79	21.99	33.00	PASS
				RB1#5	20.84	22.04	33.00	PASS
				RB3#0	21.03	22.23	33.00	PASS
				RB3#2	20.96	22.16	33.00	PASS
				RB3#3	20.84	22.04	33.00	PASS
				RB6#0	20.01	21.21	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM2	1.4M	LCH	RB1#0	19.1	20.3	33.00	PASS
				RB1#2	19.96	21.16	33.00	PASS
				RB1#5	19.5	20.7	33.00	PASS
				RB3#0	19.55	20.75	33.00	PASS
				RB3#2	19.67	20.87	33.00	PASS
				RB3#3	19.6	20.8	33.00	PASS
				RB6#0	18.52	19.72	33.00	PASS
			MCH	RB1#0	19.98	21.18	33.00	PASS
				RB1#2	19.84	21.04	33.00	PASS
				RB1#5	19.35	20.55	33.00	PASS
				RB3#0	19.8	21	33.00	PASS
				RB3#2	19.83	21.03	33.00	PASS
				RB3#3	19.58	20.78	33.00	PASS
				RB6#0	18.76	19.96	33.00	PASS
			HCH	RB1#0	20.2	21.4	33.00	PASS
				RB1#2	19.7	20.9	33.00	PASS
				RB1#5	19.7	20.9	33.00	PASS
				RB3#0	19.78	20.98	33.00	PASS
				RB3#2	19.76	20.96	33.00	PASS
				RB3#3	19.64	20.84	33.00	PASS
				RB6#0	18.89	20.09	33.00	PASS



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BAND2	LTE/TM1	3M	LCH	RB1#0	20.62	21.82	33.00	PASS
				RB1#7	20.67	21.87	33.00	PASS
				RB1#14	20.63	21.83	33.00	PASS
				RB8#0	19.79	20.99	33.00	PASS
				RB8#4	19.8	21	33.00	PASS
				RB8#7	19.72	20.92	33.00	PASS
				RB15#0	19.73	20.93	33.00	PASS
			MCH	RB1#0	20.78	21.98	33.00	PASS
				RB1#7	20.99	22.19	33.00	PASS
				RB1#14	20.78	21.98	33.00	PASS
				RB8#0	19.92	21.12	33.00	PASS
				RB8#4	19.93	21.13	33.00	PASS
				RB8#7	19.87	21.07	33.00	PASS
				RB15#0	19.88	21.08	33.00	PASS
			HCH	RB1#0	20.77	21.97	33.00	PASS
				RB1#7	20.74	21.94	33.00	PASS
				RB1#14	20.66	21.86	33.00	PASS
				RB8#0	19.87	21.07	33.00	PASS
				RB8#4	20.01	21.21	33.00	PASS
				RB8#7	19.93	21.13	33.00	PASS
				RB15#0	19.93	21.13	33.00	PASS



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BAND2	LTE/TM2	3M	LCH	RB1#0	19.65	20.85	33.00	PASS
				RB1#7	19.87	21.07	33.00	PASS
				RB1#14	19.23	20.43	33.00	PASS
				RB8#0	18.74	19.94	33.00	PASS
				RB8#4	18.81	20.01	33.00	PASS
				RB8#7	18.77	19.97	33.00	PASS
				RB15#0	18.69	19.89	33.00	PASS
			MCH	RB1#0	19.49	20.69	33.00	PASS
				RB1#7	19.71	20.91	33.00	PASS
				RB1#14	19.07	20.27	33.00	PASS
				RB8#0	18.8	20	33.00	PASS
				RB8#4	18.85	20.05	33.00	PASS
				RB8#7	18.87	20.07	33.00	PASS
				RB15#0	18.53	19.73	33.00	PASS
			HCH	RB1#0	19.78	20.98	33.00	PASS
				RB1#7	20.05	21.25	33.00	PASS
				RB1#14	20.08	21.28	33.00	PASS
				RB8#0	18.95	20.15	33.00	PASS
				RB8#4	18.97	20.17	33.00	PASS
				RB8#7	19.02	20.22	33.00	PASS
				RB15#0	19	20.2	33.00	PASS



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BAND2	LTE/TM1	5M	LCH	RB1#0	20.74	21.94	33.00	PASS
				RB1#13	20.88	22.08	33.00	PASS
				RB1#24	20.69	21.89	33.00	PASS
				RB12#0	19.74	20.94	33.00	PASS
				RB12#6	19.71	20.91	33.00	PASS
				RB12#13	19.7	20.9	33.00	PASS
				RB25#0	19.83	21.03	33.00	PASS
			MCH	RB1#0	20.73	21.93	33.00	PASS
				RB1#13	20.91	22.11	33.00	PASS
				RB1#24	20.95	22.15	33.00	PASS
				RB12#0	19.96	21.16	33.00	PASS
				RB12#6	19.97	21.17	33.00	PASS
				RB12#13	19.97	21.17	33.00	PASS
				RB25#0	19.91	21.11	33.00	PASS
			HCH	RB1#0	20.91	22.11	33.00	PASS
				RB1#13	20.92	22.12	33.00	PASS
				RB1#24	20.76	21.96	33.00	PASS
				RB12#0	19.95	21.15	33.00	PASS
				RB12#6	19.94	21.14	33.00	PASS
				RB12#13	19.89	21.09	33.00	PASS
				RB25#0	19.95	21.15	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
BAND2	LTE/TM2	5M	LCH	RB1#0	19.63	20.83	33.00	PASS
				RB1#13	20.19	21.39	33.00	PASS
				RB1#24	19.57	20.77	33.00	PASS
				RB12#0	18.62	19.82	33.00	PASS
				RB12#6	18.59	19.79	33.00	PASS
				RB12#13	18.63	19.83	33.00	PASS
				RB25#0	18.91	20.11	33.00	PASS
			MCH	RB1#0	19.74	20.94	33.00	PASS
				RB1#13	19.88	21.08	33.00	PASS
				RB1#24	19.65	20.85	33.00	PASS
				RB12#0	18.67	19.87	33.00	PASS
				RB12#6	18.63	19.83	33.00	PASS
				RB12#13	19	20.2	33.00	PASS
				RB25#0	18.77	19.97	33.00	PASS
			HCH	RB1#0	20.01	21.21	33.00	PASS
				RB1#13	19.96	21.16	33.00	PASS
				RB1#24	19.82	21.02	33.00	PASS
				RB12#0	19.14	20.34	33.00	PASS
				RB12#6	19.12	20.32	33.00	PASS
				RB12#13	18.95	20.15	33.00	PASS
				RB25#0	18.9	20.1	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	10M	LCH	RB1#0	20.36	21.56	33.00	PASS
				RB1#25	20.97	22.17	33.00	PASS
				RB1#49	20.84	22.04	33.00	PASS
				RB25#0	19.85	21.05	33.00	PASS
				RB25#13	19.91	21.11	33.00	PASS
				RB25#25	19.72	20.92	33.00	PASS
				RB50#0	19.87	21.07	33.00	PASS
			MCH	RB1#0	20.63	21.83	33.00	PASS
				RB1#25	20.98	22.18	33.00	PASS
				RB1#49	20.7	21.9	33.00	PASS
				RB25#0	19.98	21.18	33.00	PASS
				RB25#13	19.95	21.15	33.00	PASS
				RB25#25	19.94	21.14	33.00	PASS
				RB50#0	20.01	21.21	33.00	PASS
			HCH	RB1#0	20.77	21.97	33.00	PASS
				RB1#25	21.16	22.36	33.00	PASS
				RB1#49	20.77	21.97	33.00	PASS
				RB25#0	20.03	21.23	33.00	PASS
				RB25#13	20	21.2	33.00	PASS
				RB25#25	19.95	21.15	33.00	PASS
				RB50#0	20.04	21.24	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM2	10M	LCH	RB1#0	19.29	20.49	33.00	PASS
				RB1#25	19.78	20.98	33.00	PASS
				RB1#49	19.74	20.94	33.00	PASS
				RB25#0	18.79	19.99	33.00	PASS
				RB25#13	18.81	20.01	33.00	PASS
				RB25#25	18.5	19.7	33.00	PASS
				RB50#0	18.81	20.01	33.00	PASS
			MCH	RB1#0	19.85	21.05	33.00	PASS
				RB1#25	20.04	21.24	33.00	PASS
				RB1#49	18.97	20.17	33.00	PASS
				RB25#0	18.83	20.03	33.00	PASS
				RB25#13	18.9	20.1	33.00	PASS
				RB25#25	18.89	20.09	33.00	PASS
				RB50#0	18.91	20.11	33.00	PASS
			HCH	RB1#0	19.26	20.46	33.00	PASS
				RB1#25	19.35	20.55	33.00	PASS
				RB1#49	19.67	20.87	33.00	PASS
				RB25#0	18.93	20.13	33.00	PASS
				RB25#13	18.95	20.15	33.00	PASS
				RB25#25	18.77	19.97	33.00	PASS
				RB50#0	19.06	20.26	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	15M	LCH	RB1#0	20.6	21.8	33.00	PASS
				RB1#38	20.76	21.96	33.00	PASS
				RB1#74	20.81	22.01	33.00	PASS
				RB36#0	19.94	21.14	33.00	PASS
				RB36#18	19.82	21.02	33.00	PASS
				RB36#39	19.79	20.99	33.00	PASS
				RB75#0	19.77	20.97	33.00	PASS
			MCH	RB1#0	20.84	22.04	33.00	PASS
				RB1#38	20.95	22.15	33.00	PASS
				RB1#74	20.81	22.01	33.00	PASS
				RB36#0	19.94	21.14	33.00	PASS
				RB36#18	19.97	21.17	33.00	PASS
				RB36#39	19.97	21.17	33.00	PASS
				RB75#0	19.96	21.16	33.00	PASS
			HCH	RB1#0	20.7	21.9	33.00	PASS
				RB1#38	20.93	22.13	33.00	PASS
				RB1#74	20.63	21.83	33.00	PASS
				RB36#0	20.06	21.26	33.00	PASS
				RB36#18	19.98	21.18	33.00	PASS
				RB36#39	19.95	21.15	33.00	PASS
				RB75#0	19.95	21.15	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
BAND2	LTE/TM2	15M	LCH	RB1#0	19.01	20.21	33.00	PASS
				RB1#38	19.23	20.43	33.00	PASS
				RB1#74	18.97	20.17	33.00	PASS
				RB36#0	18.85	20.05	33.00	PASS
				RB36#18	18.75	19.95	33.00	PASS
				RB36#39	18.64	19.84	33.00	PASS
				RB75#0	18.8	20	33.00	PASS
			MCH	RB1#0	19.64	20.84	33.00	PASS
				RB1#38	20.04	21.24	33.00	PASS
				RB1#74	19.76	20.96	33.00	PASS
				RB36#0	18.84	20.04	33.00	PASS
				RB36#18	18.87	20.07	33.00	PASS
				RB36#39	18.79	19.99	33.00	PASS
				RB75#0	18.86	20.06	33.00	PASS
			HCH	RB1#0	19.95	21.15	33.00	PASS
				RB1#38	20	21.2	33.00	PASS
				RB1#74	19.5	20.7	33.00	PASS
				RB36#0	19	20.2	33.00	PASS
				RB36#18	18.87	20.07	33.00	PASS
				RB36#39	18.77	19.97	33.00	PASS
				RB75#0	19.02	20.22	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM1	20M	LCH	RB1#0	20.7	21.9	33.00	PASS
				RB1#50	20.92	22.12	33.00	PASS
				RB1#99	20.32	21.52	33.00	PASS
				RB50#0	19.8	21	33.00	PASS
				RB50#25	19.8	21	33.00	PASS
				RB50#50	19.76	20.96	33.00	PASS
				RB100#0	19.73	20.93	33.00	PASS
			MCH	RB1#0	20.55	21.75	33.00	PASS
				RB1#50	21.15	22.35	33.00	PASS
				RB1#99	20.53	21.73	33.00	PASS
				RB50#0	20.07	21.27	33.00	PASS
				RB50#25	20.02	21.22	33.00	PASS
				RB50#50	19.86	21.06	33.00	PASS
				RB100#0	19.95	21.15	33.00	PASS
			HCH	RB1#0	20.62	21.82	33.00	PASS
				RB1#50	21.17	22.37	33.00	PASS
				RB1#99	20.68	21.88	33.00	PASS
				RB50#0	20.1	21.3	33.00	PASS
				RB50#25	20.07	21.27	33.00	PASS
				RB50#50	19.87	21.07	33.00	PASS
				RB100#0	20.13	21.33	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND2	LTE/TM2	20M	LCH	RB1#0	19.42	20.62	33.00	PASS
				RB1#50	20.06	21.26	33.00	PASS
				RB1#99	19.63	20.83	33.00	PASS
				RB50#0	18.6	19.8	33.00	PASS
				RB50#25	18.75	19.95	33.00	PASS
				RB50#50	18.67	19.87	33.00	PASS
				RB100#0	18.68	19.88	33.00	PASS
			MCH	RB1#0	19.59	20.79	33.00	PASS
				RB1#50	20.45	21.65	33.00	PASS
				RB1#99	19.69	20.89	33.00	PASS
				RB50#0	18.87	20.07	33.00	PASS
				RB50#25	18.77	19.97	33.00	PASS
				RB50#50	18.78	19.98	33.00	PASS
				RB100#0	18.85	20.05	33.00	PASS
			HCH	RB1#0	19.69	20.89	33.00	PASS
				RB1#50	20.62	21.82	33.00	PASS
				RB1#99	19.71	20.91	33.00	PASS
				RB50#0	18.95	20.15	33.00	PASS
				RB50#25	19	20.2	33.00	PASS
				RB50#50	18.97	20.17	33.00	PASS
				RB100#0	18.97	20.17	33.00	PASS

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level

## 2 Peak-to-Average Ratio

### Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 2	TM1/20M	LCH	4.49	13	PASS
		MCH	4.43	13	PASS
		HCH	4.52	13	PASS
	TM2/20M	LCH	5.62	13	PASS
		MCH	5.57	13	PASS
		HCH	5.62	13	PASS

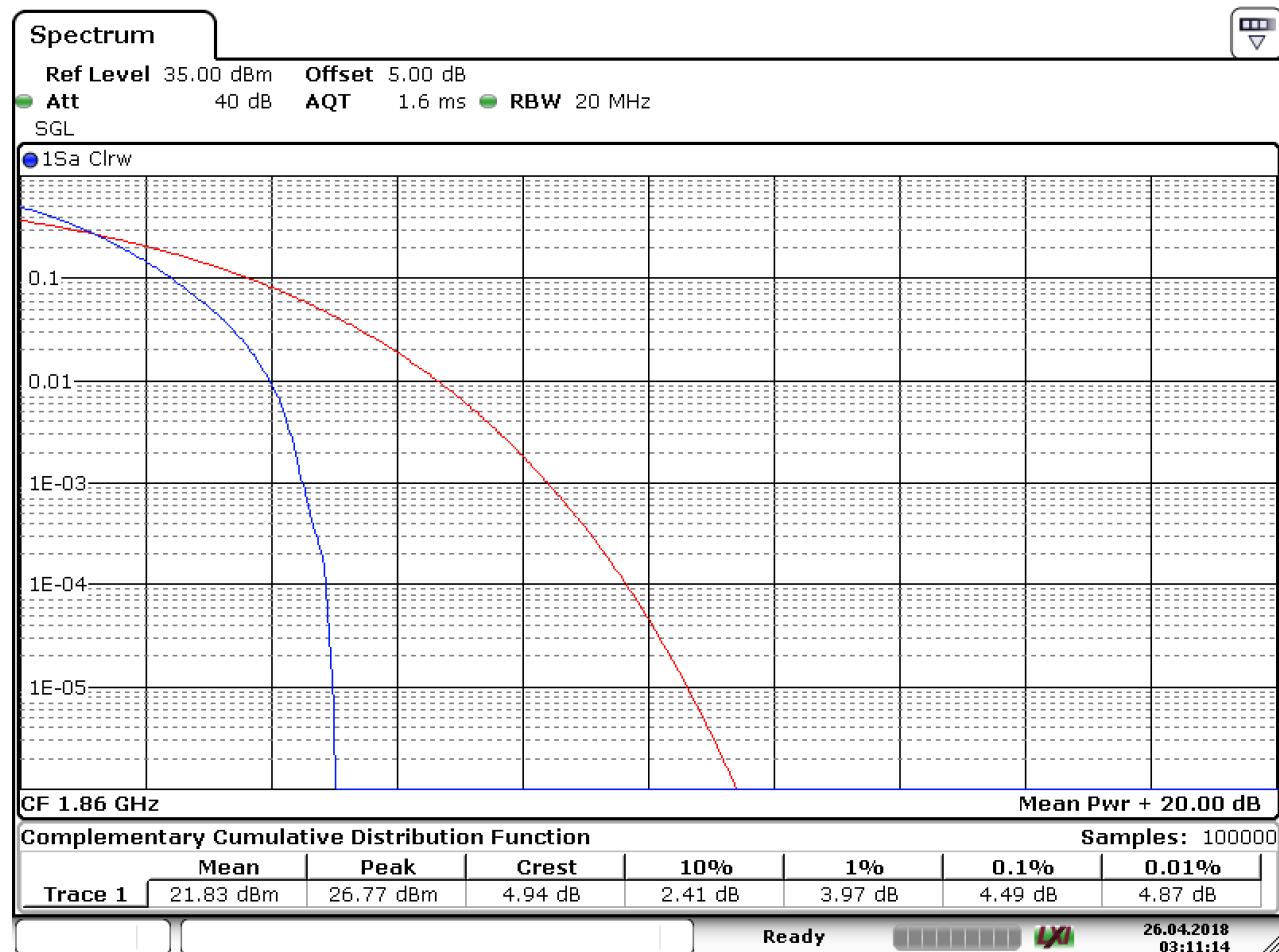
### Part II - Test Plots

#### 2.1 For LTE

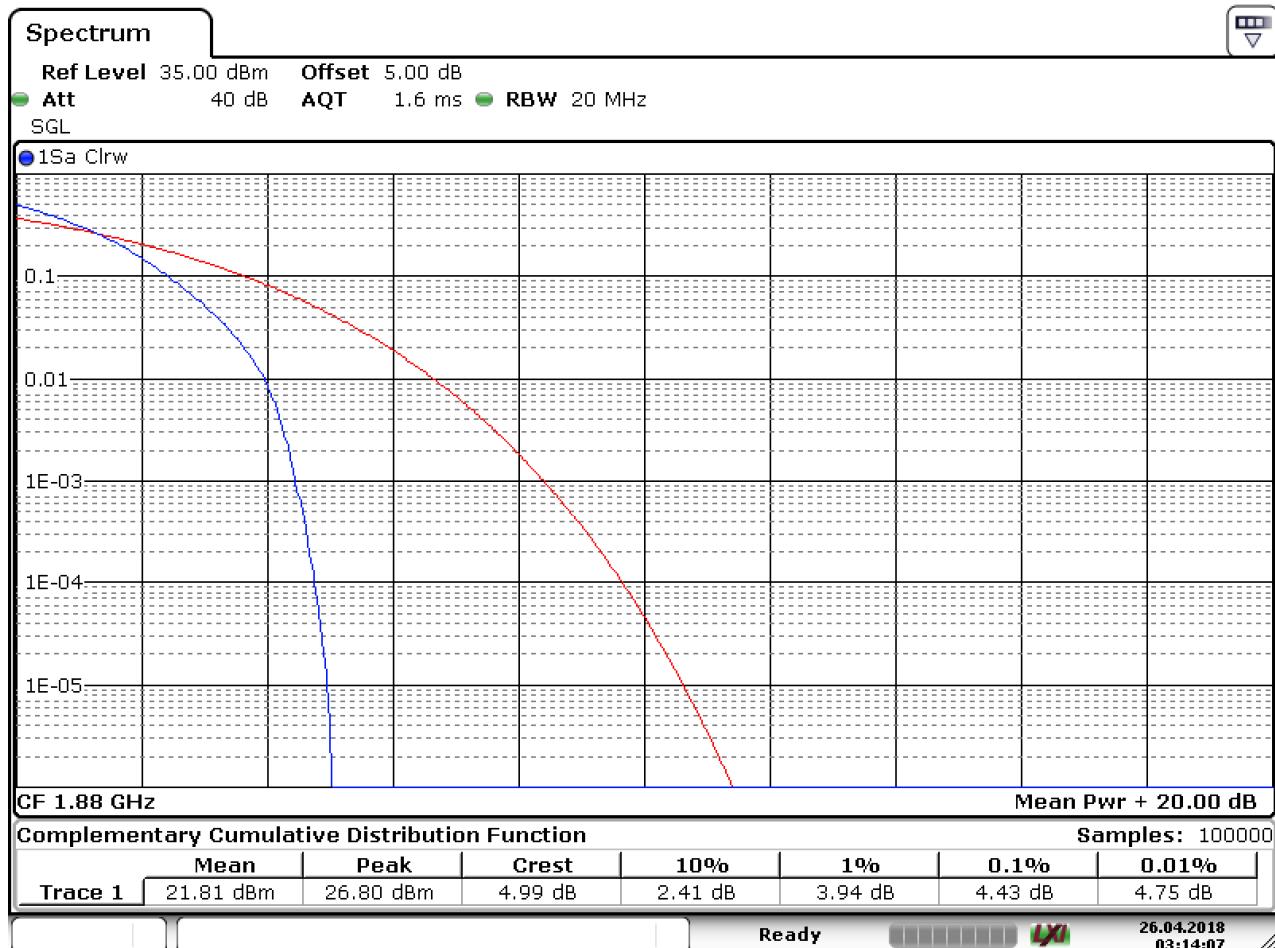
##### 2.1.1 Test Band = LTE band2

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

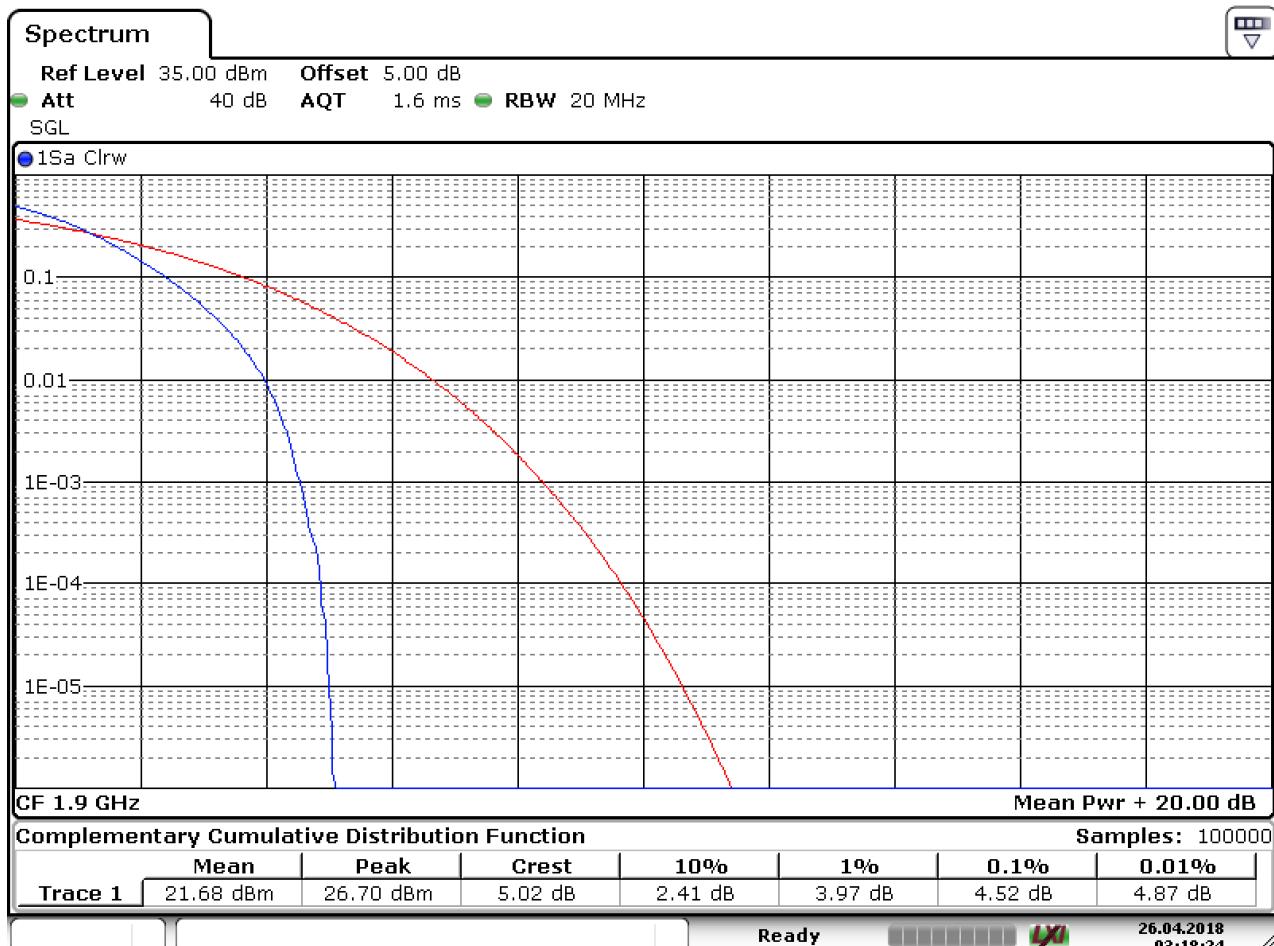
###### 2.1.1.1.1 Test Channel = LCH



Date: 26.APR.2018 03:11:15

**2.1.1.1.2 Test Channel = MCH**

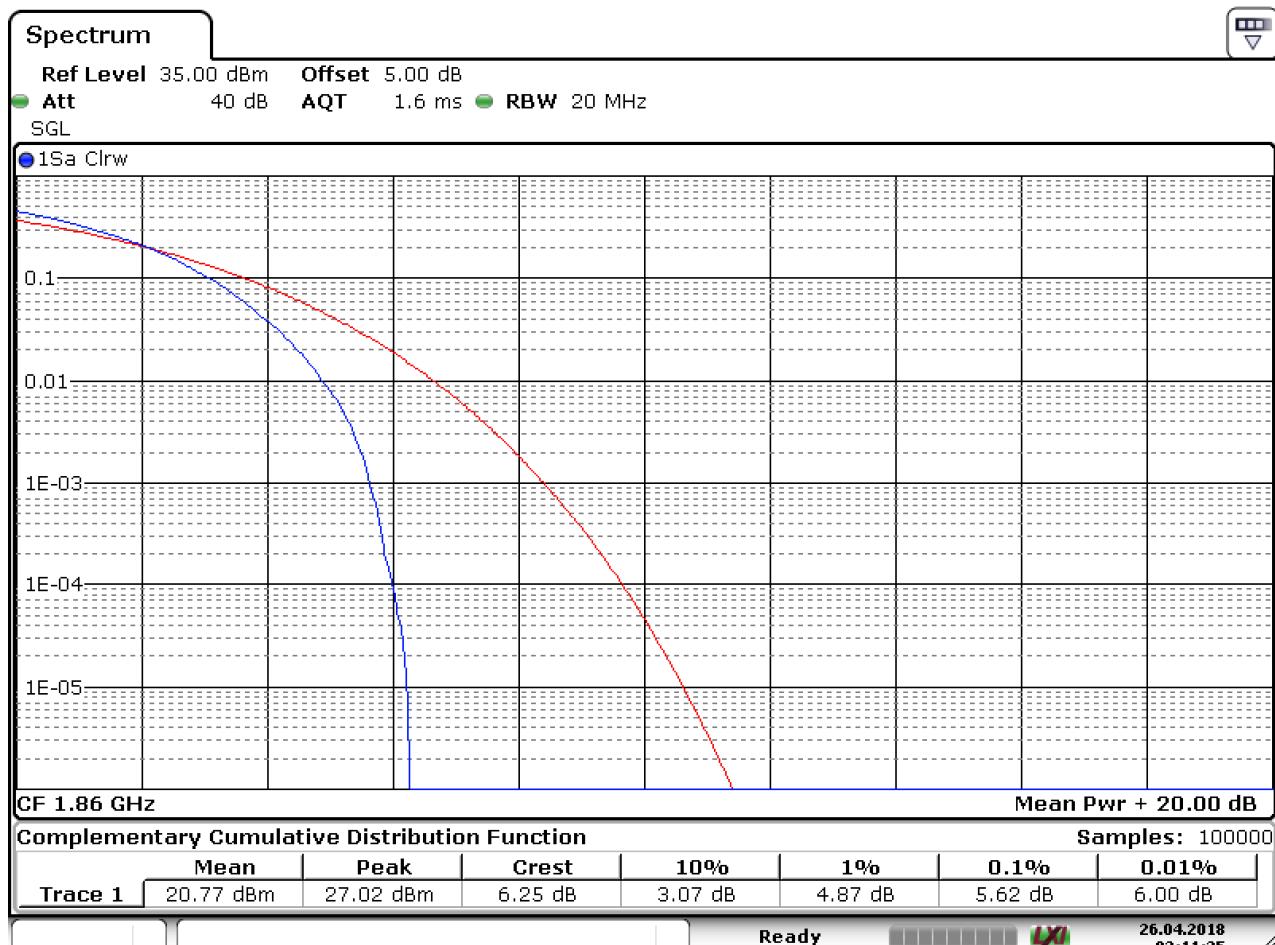
Date: 26.APR.2018 03:14:07

**2.1.1.1.3 Test Channel = HCH**

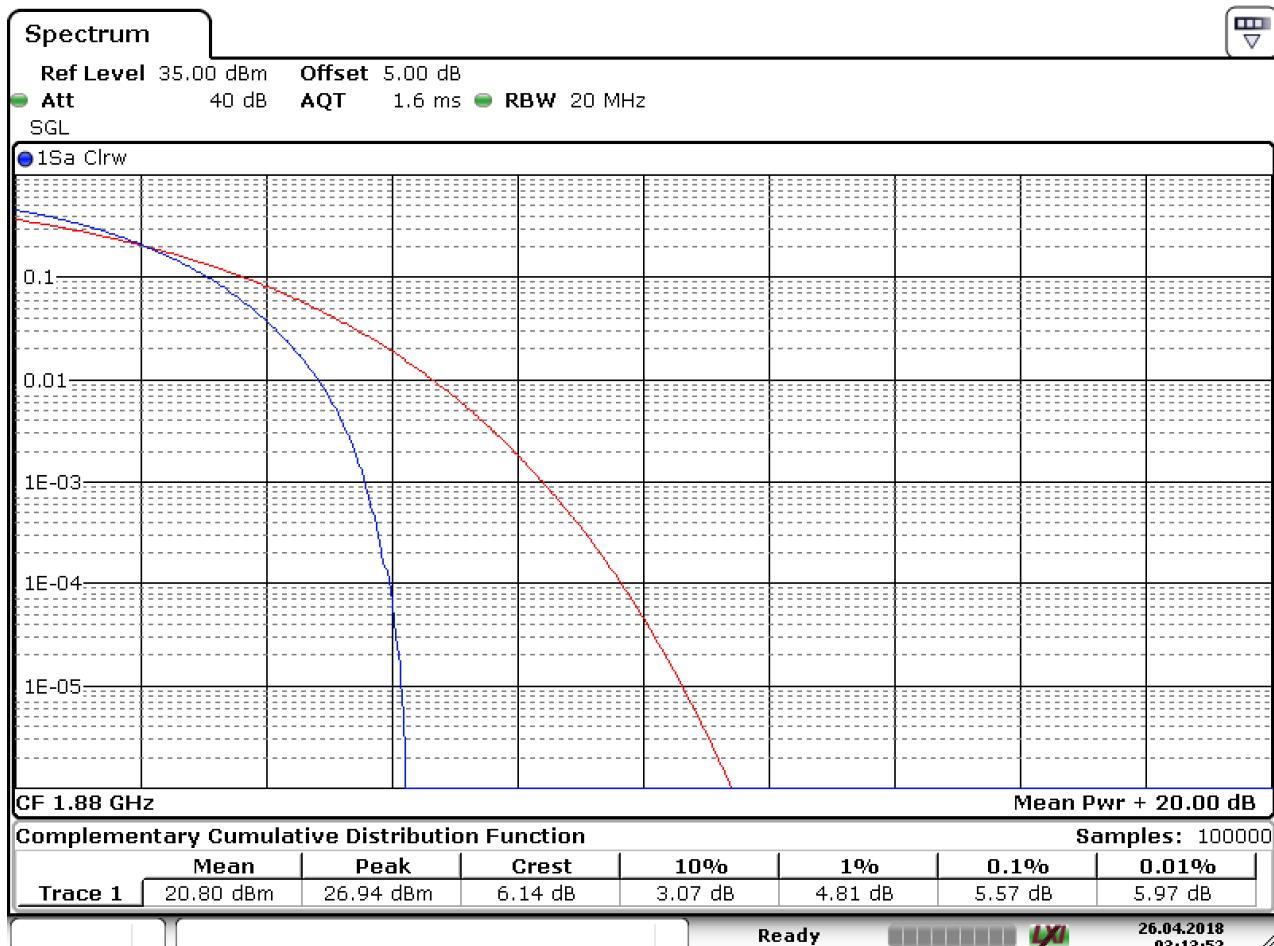
Date: 26.APR.2018 03:18:24

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

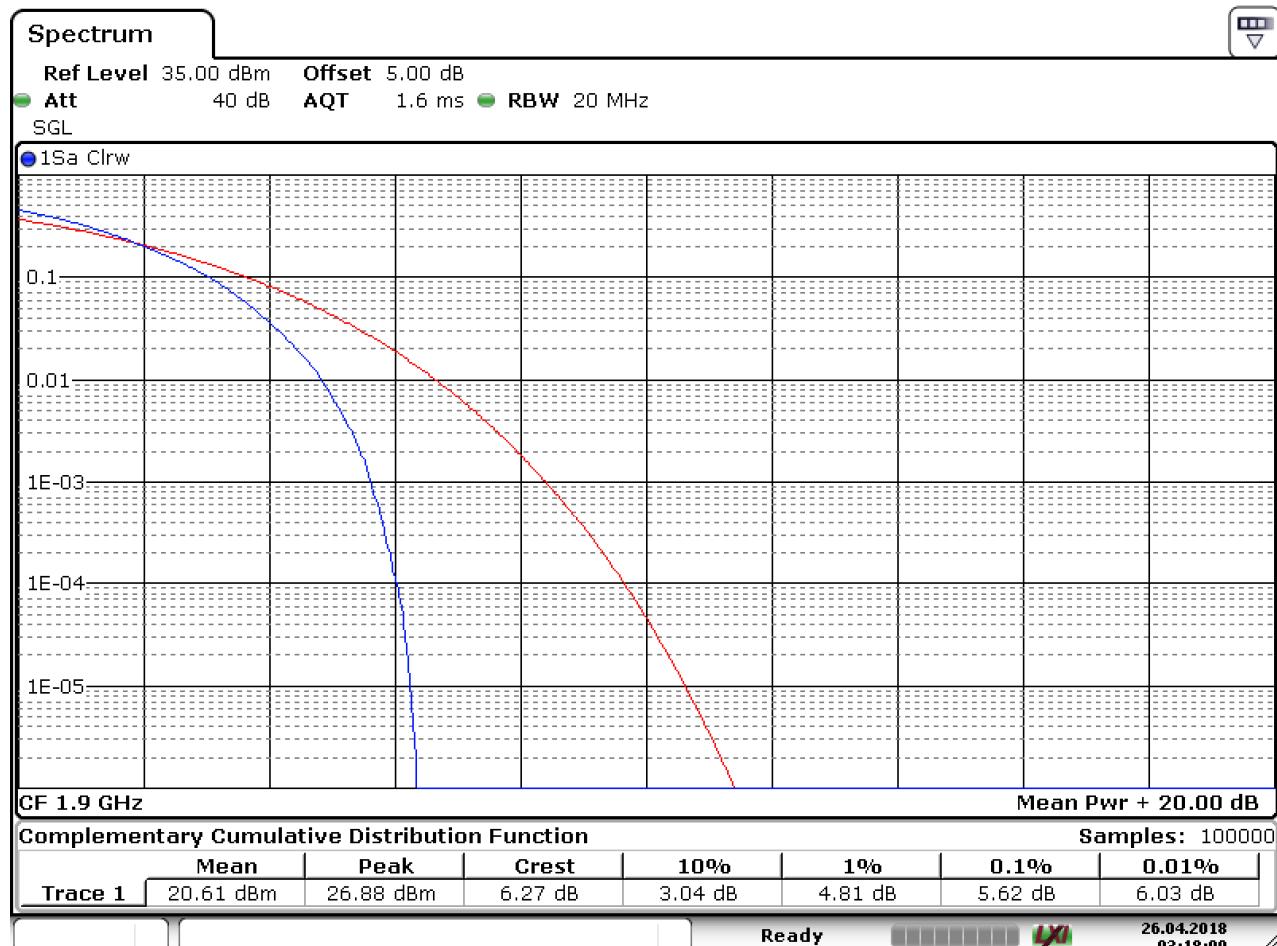
2.1.1.2.1 Test Channel = LCH



Date: 26.APR.2018 03:11:36

**2.1.1.2.2 Test Channel = MCH**

Date: 26.APR.2018 03:13:53

**2.1.1.2.3 Test Channel = HCH**

### 3 Modulation Characteristics

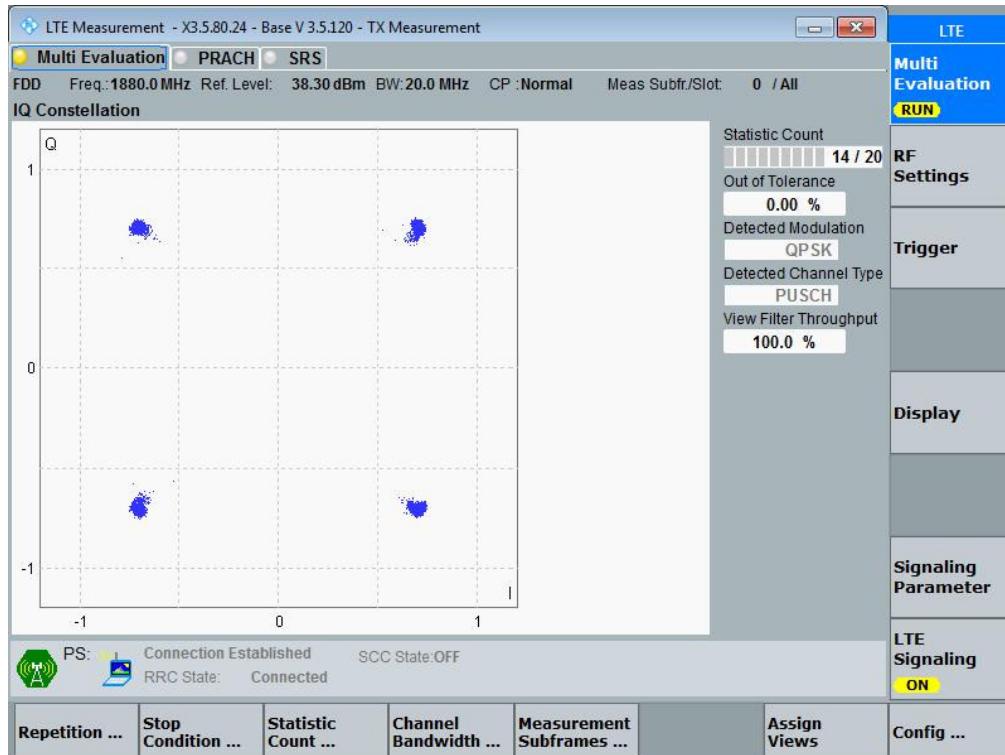
#### Part I - Test Plots

##### 3.1 For LTE

###### 3.1.1 Test Band = LTE band2

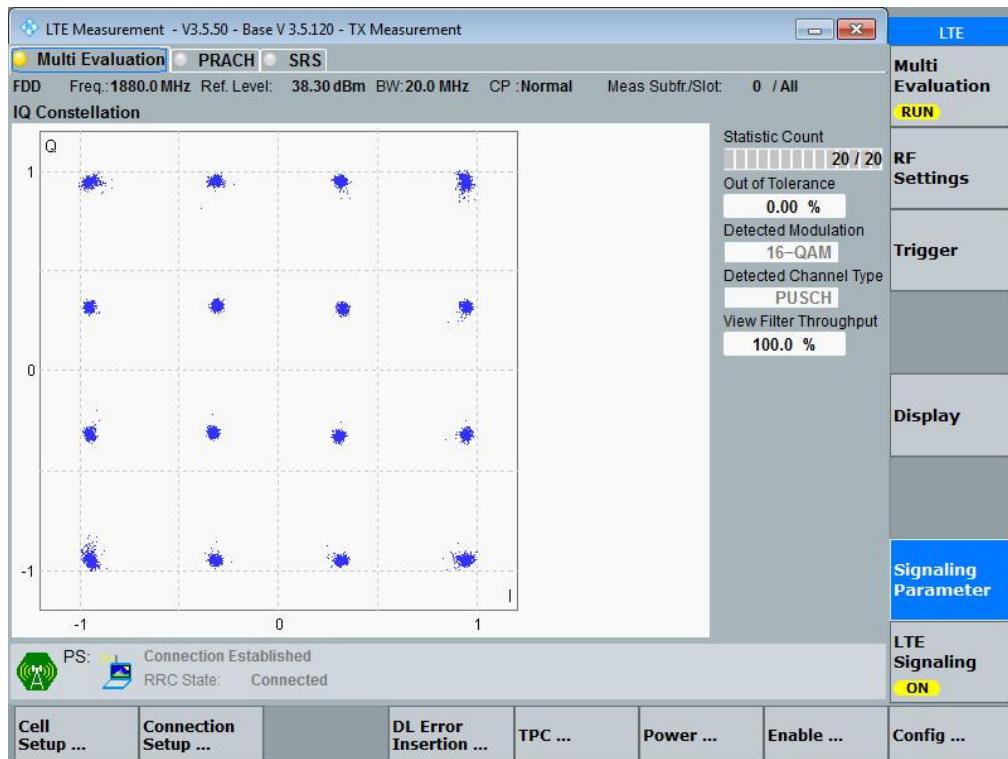
###### 3.1.1.1 Test Mode = LTE /TM1 20MHz

###### 3.1.1.1.1 Test Channel = MCH



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

#### 3.1.1.2.1 Test Channel = MCH



## 4 Bandwidth

### Part I - Test Results

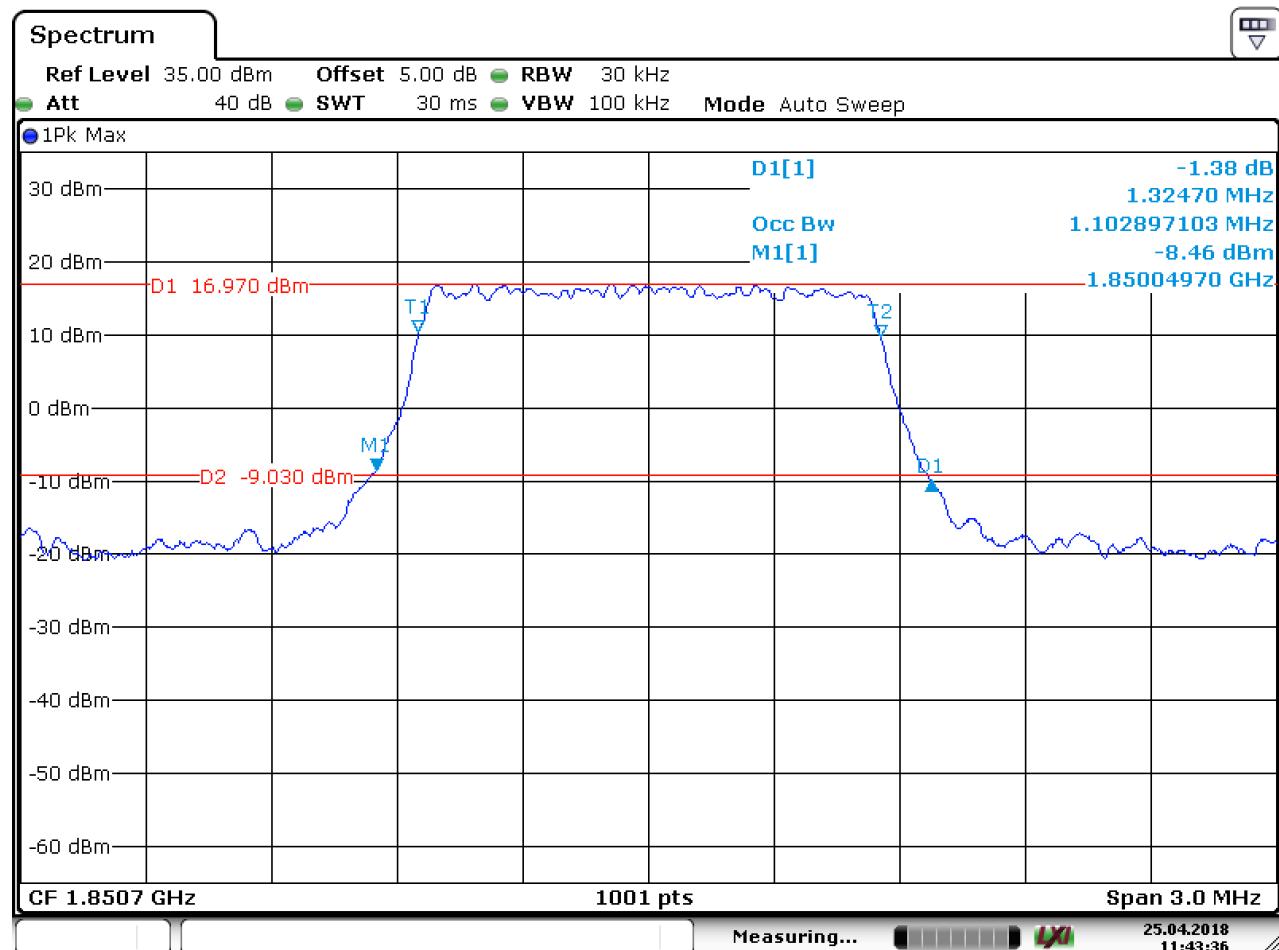
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 2	TM1/1.4MHz	LCH	1.10	1.32	PASS
		MCH	1.10	1.28	PASS
		HCH	1.10	1.34	PASS
	TM2/1.4MHz	LCH	1.09	1.30	PASS
		MCH	1.09	1.29	PASS
		HCH	1.11	1.32	PASS
	TM1/ 3MHz	LCH	2.69	2.94	PASS
		MCH	2.69	2.95	PASS
		HCH	2.69	2.94	PASS
	TM2/3MHz	LCH	2.69	2.94	PASS
		MCH	2.69	2.93	PASS
		HCH	2.69	2.94	PASS
	TM1/ 5MHz	LCH	4.49	4.90	PASS
		MCH	4.49	4.93	PASS
		HCH	4.48	4.94	PASS
	TM2/ 5MHz	LCH	4.48	4.88	PASS
		MCH	4.48	4.95	PASS
		HCH	4.48	4.97	PASS
	TM1/10MHz	LCH	8.93	9.67	PASS
		MCH	8.91	9.65	PASS
		HCH	8.91	9.75	PASS
	TM2/ 10MHz	LCH	8.93	9.73	PASS
		MCH	8.93	9.69	PASS
		HCH	8.91	9.59	PASS
	TM1/ 15MHz	LCH	13.43	14.72	PASS
		MCH	13.47	14.78	PASS
		HCH	13.40	14.69	PASS
	TM2/ 15MHz	LCH	13.46	14.69	PASS
		MCH	13.43	14.66	PASS
		HCH	13.46	14.69	PASS
	TM1/ 20MHz	LCH	17.90	19.50	PASS
		MCH	17.78	19.26	PASS
		HCH	17.90	19.26	PASS
	TM2/ 20MHz	LCH	17.86	19.30	PASS
		MCH	17.82	19.38	PASS
		HCH	17.86	19.38	PASS

## 4.1 For LTE

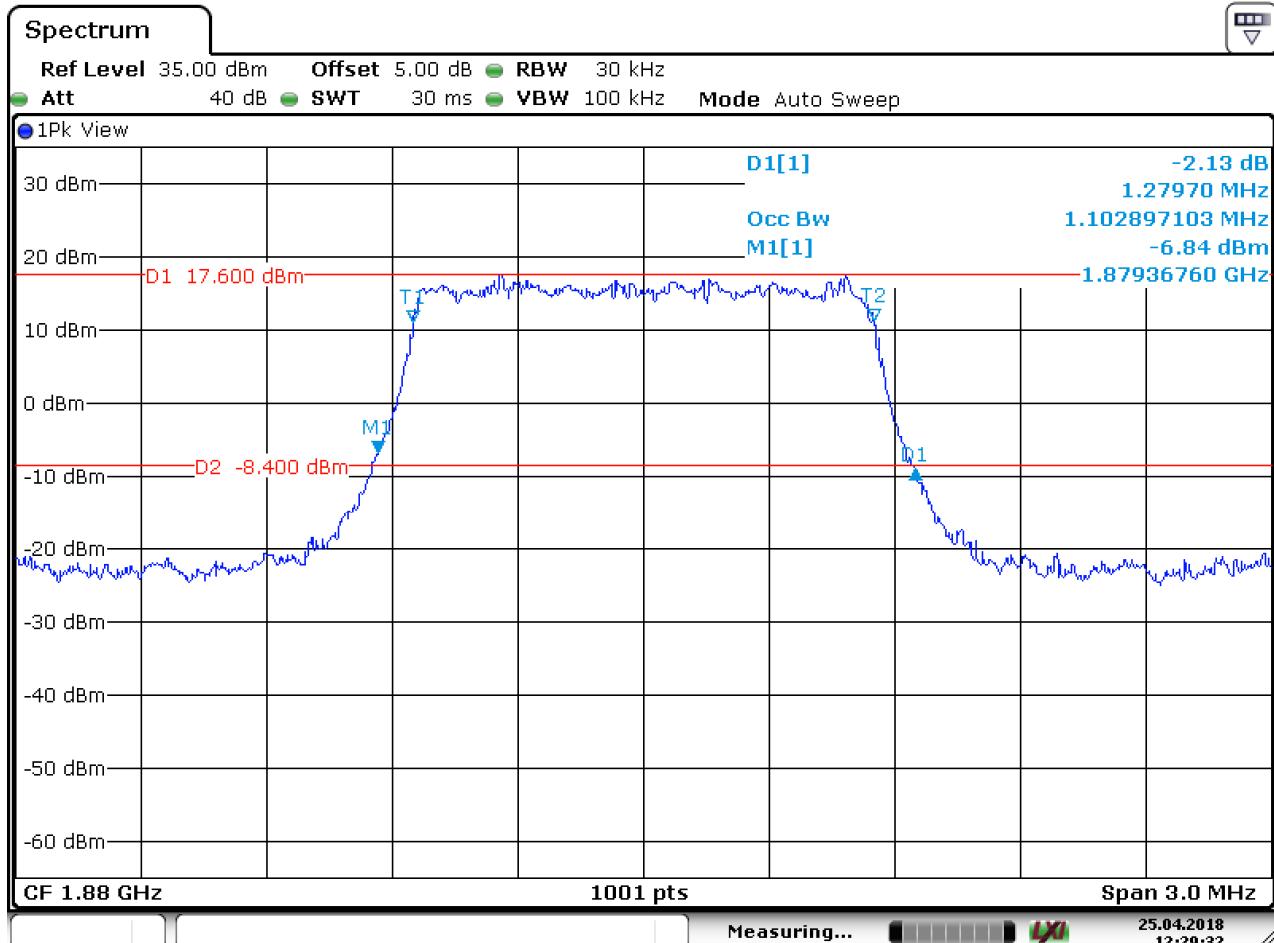
### 4.1.1 Test Band = LTE band2

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

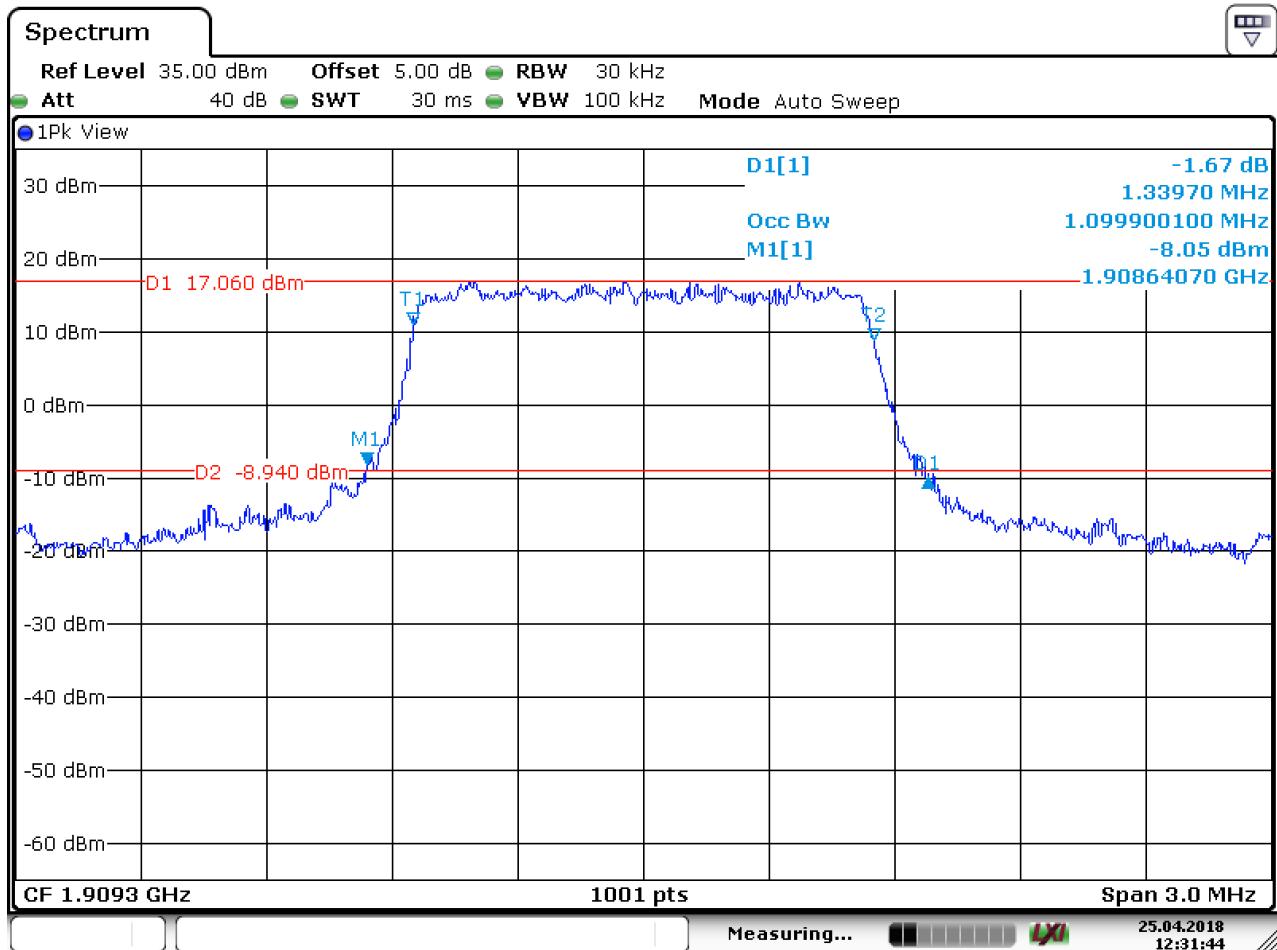
##### 4.1.1.1.1 Test Channel = LCH



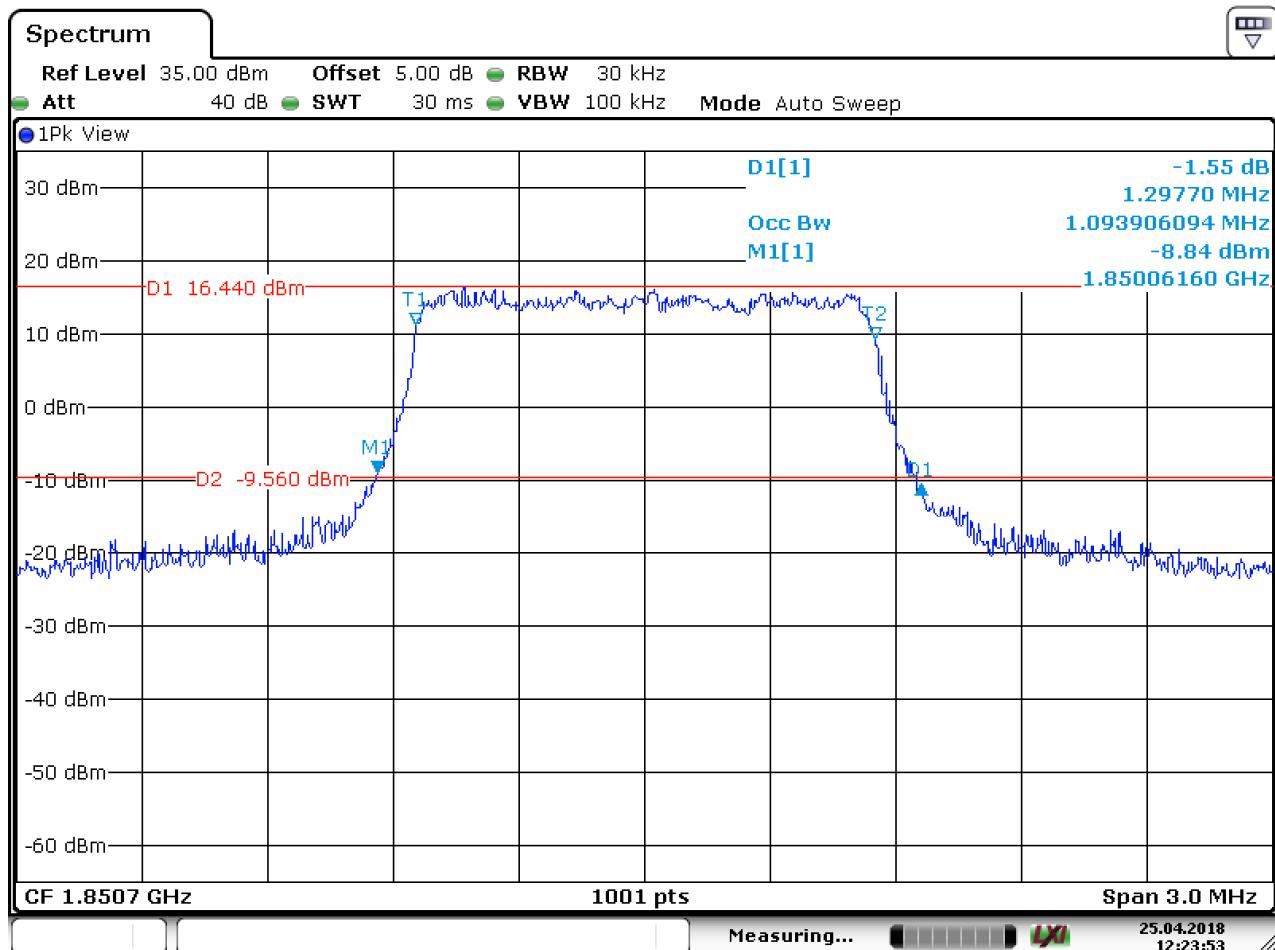
Date: 25.APR.2018 11:43:36

**4.1.1.1.2 Test Channel = MCH**

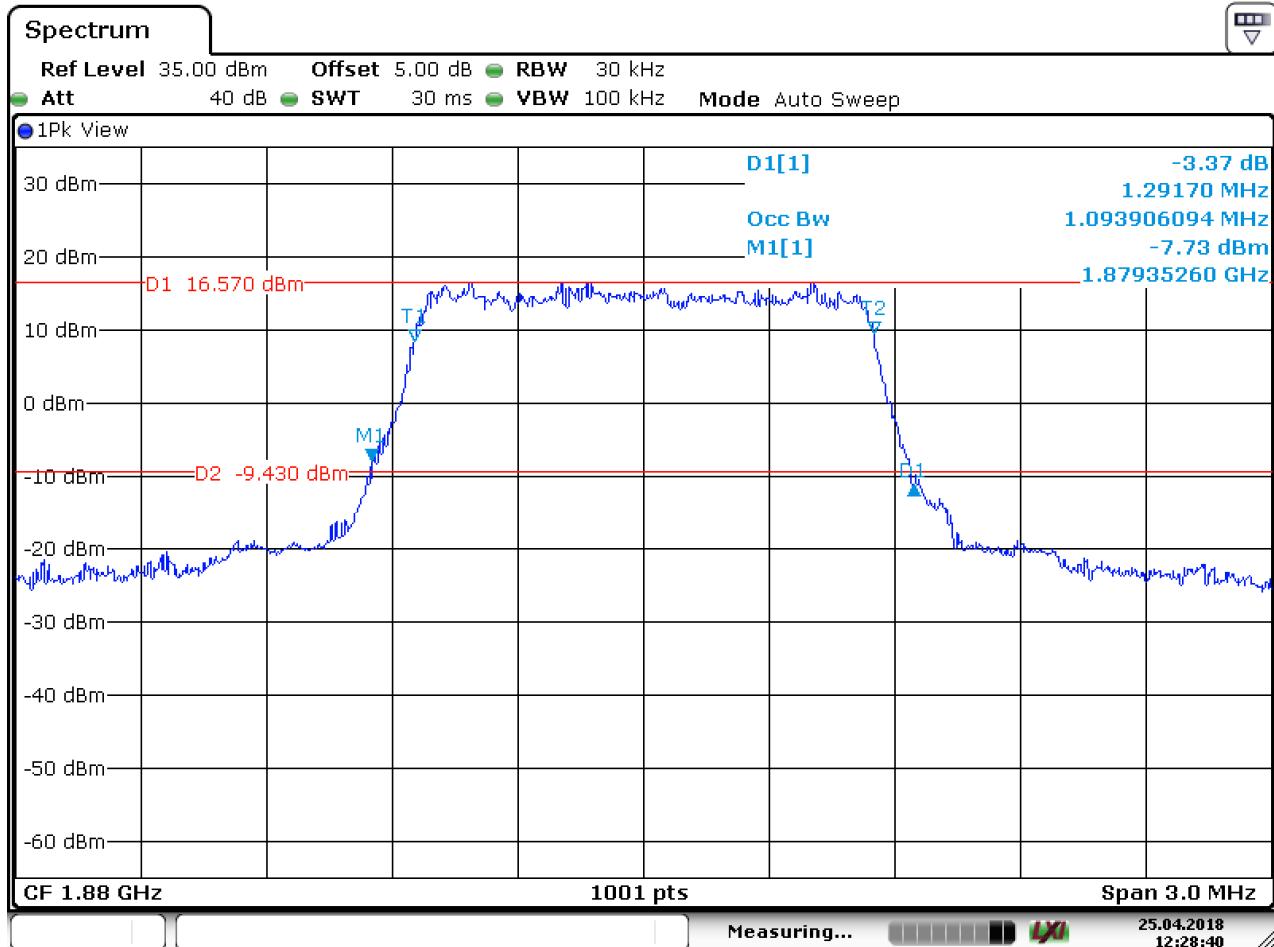
Date: 25.APR.2018 12:29:32

**4.1.1.1.3 Test Channel = HCH**

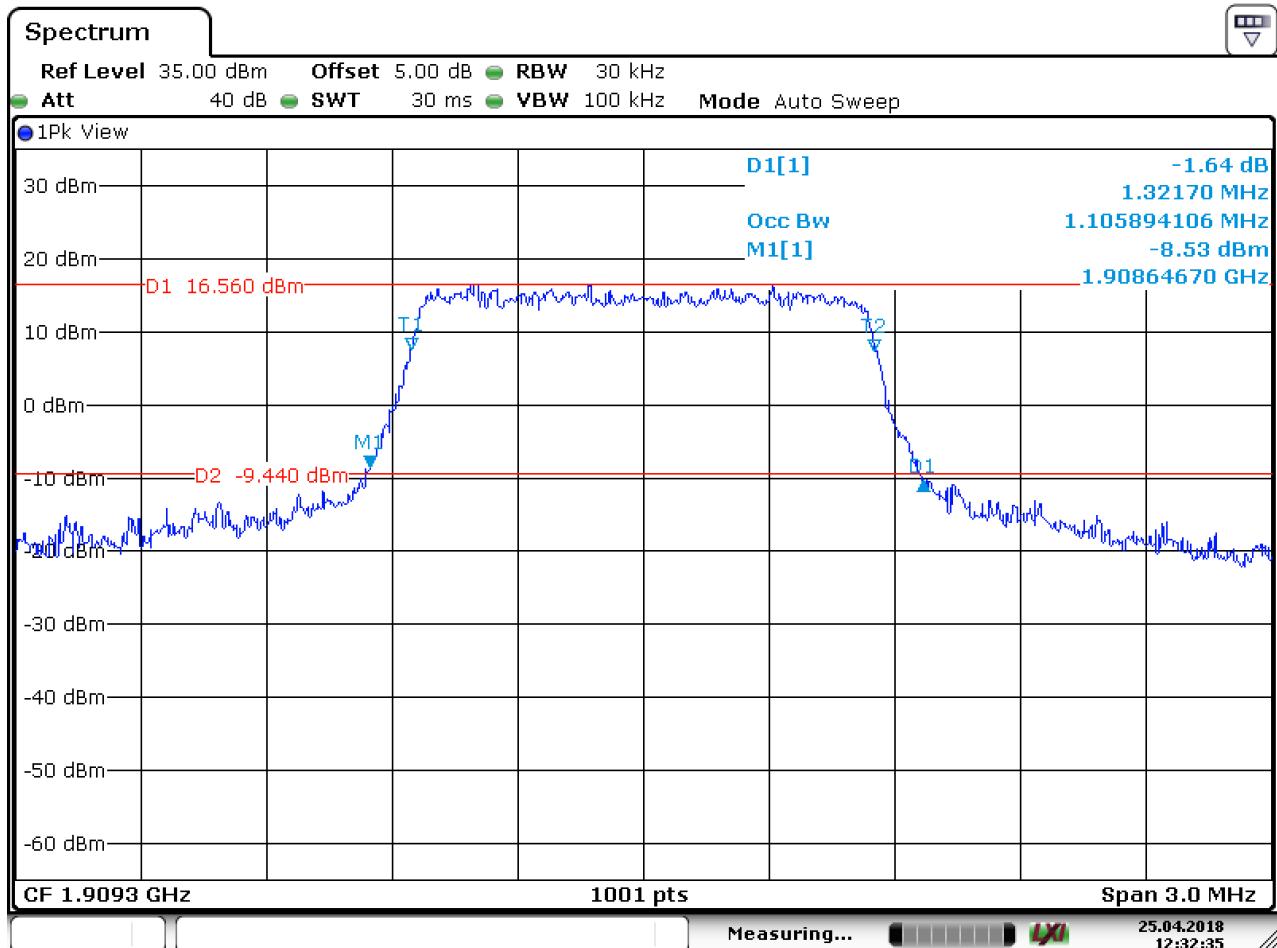
Date: 25.APR.2018 12:31:45

**4.1.1.2 Test Mode = LTE/TM2 1.4MHz****4.1.1.2.1 Test Channel = LCH**

Date: 25.APR.2018 12:23:53

**4.1.1.2.2 Test Channel = MCH**

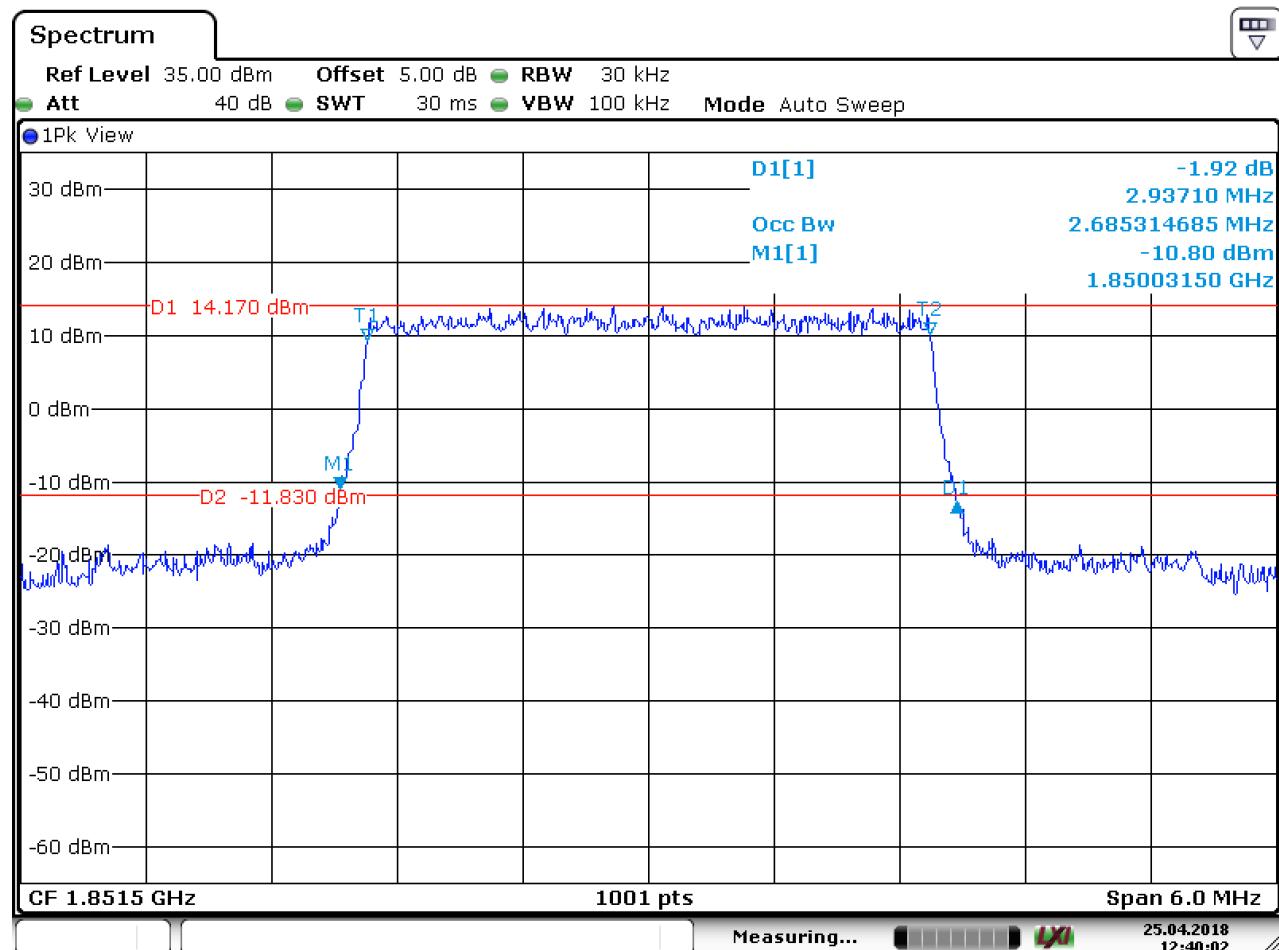
Date: 25.APR.2018 12:28:40

**4.1.1.2.3 Test Channel = HCH**

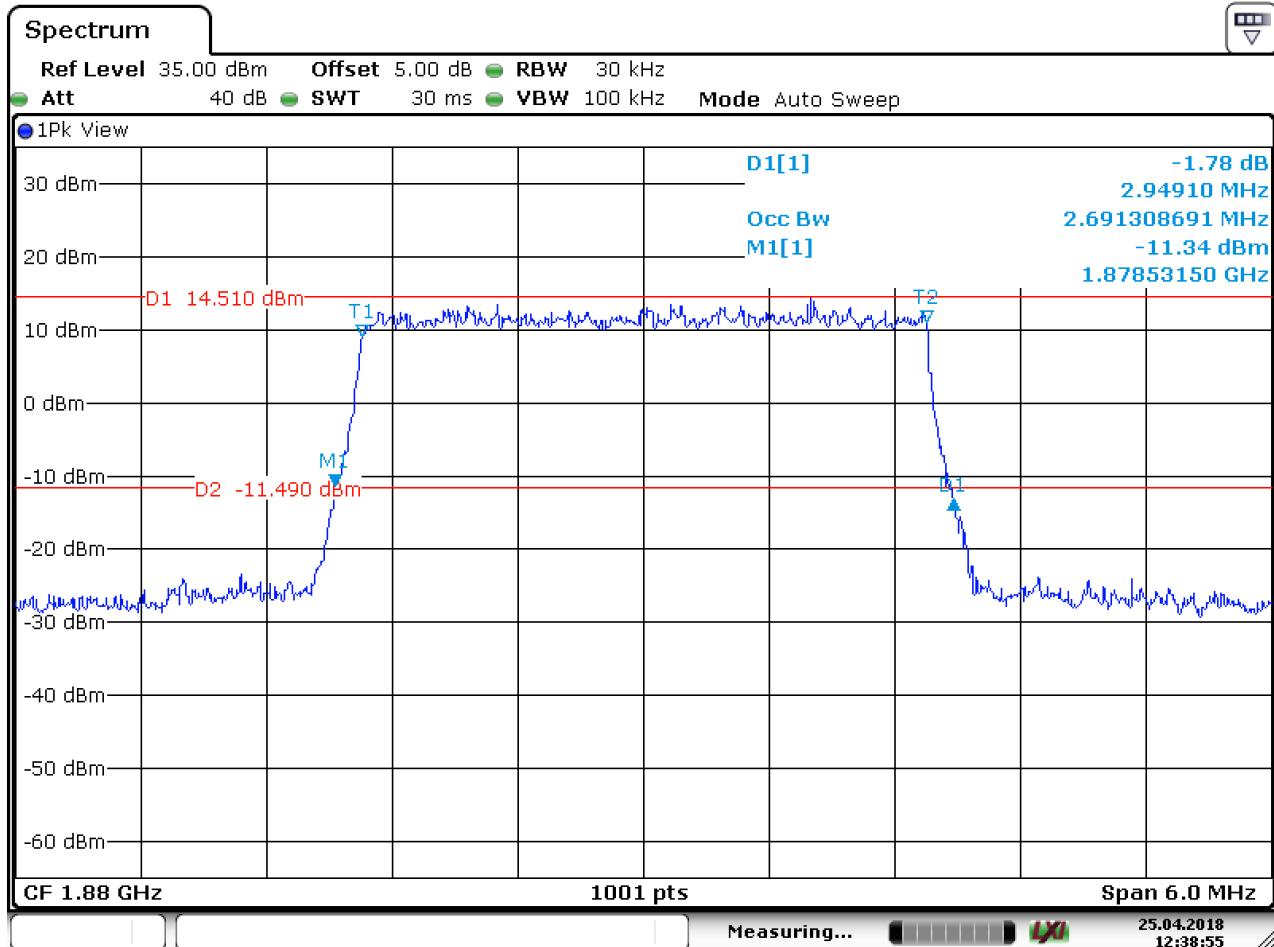
Date: 25.APR.2018 12:32:35

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

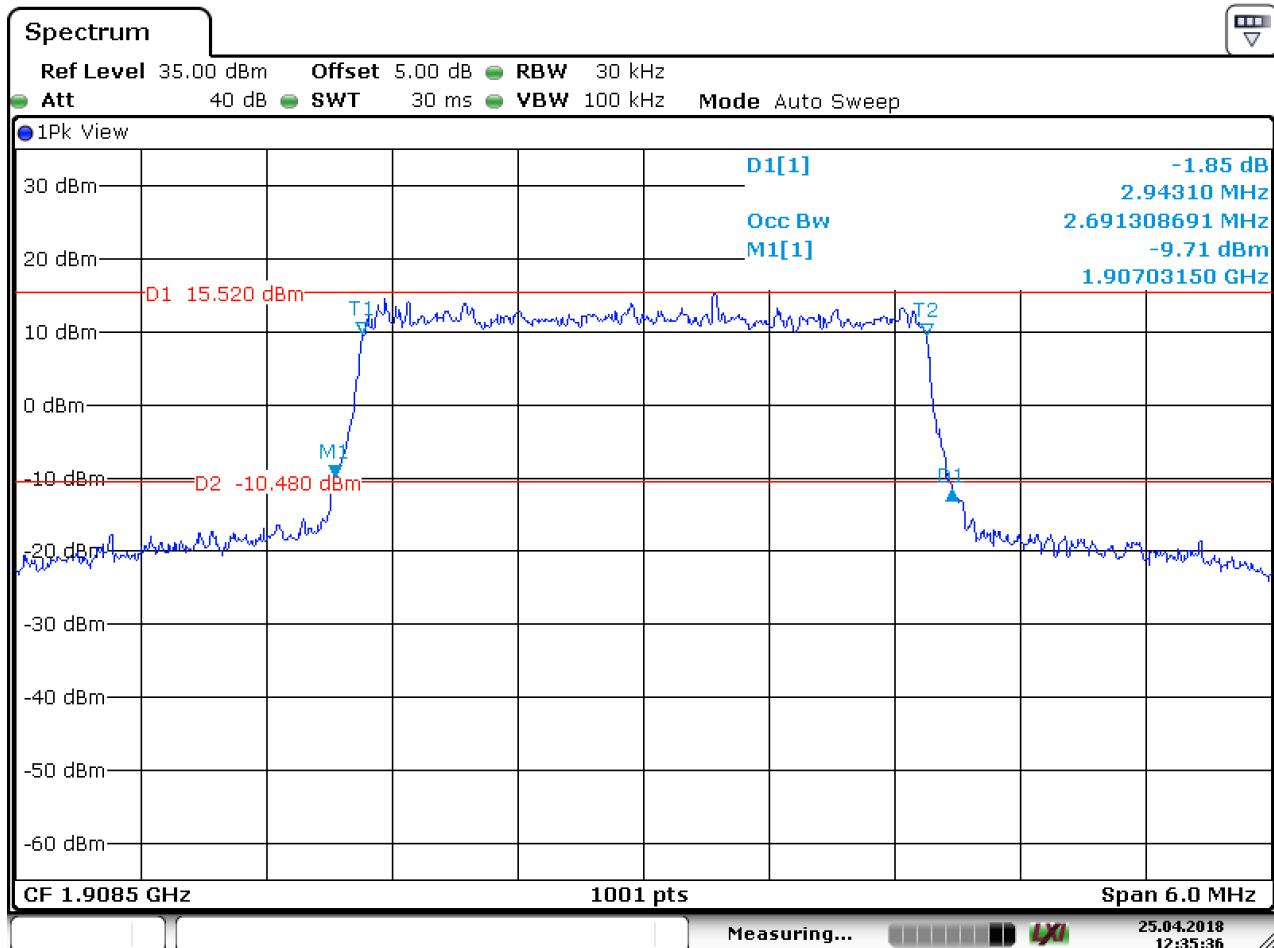
##### 4.1.1.3.1 Test Channel = LCH



Date: 25.APR.2018 12:40:02

**4.1.1.3.2 Test Channel = MCH**

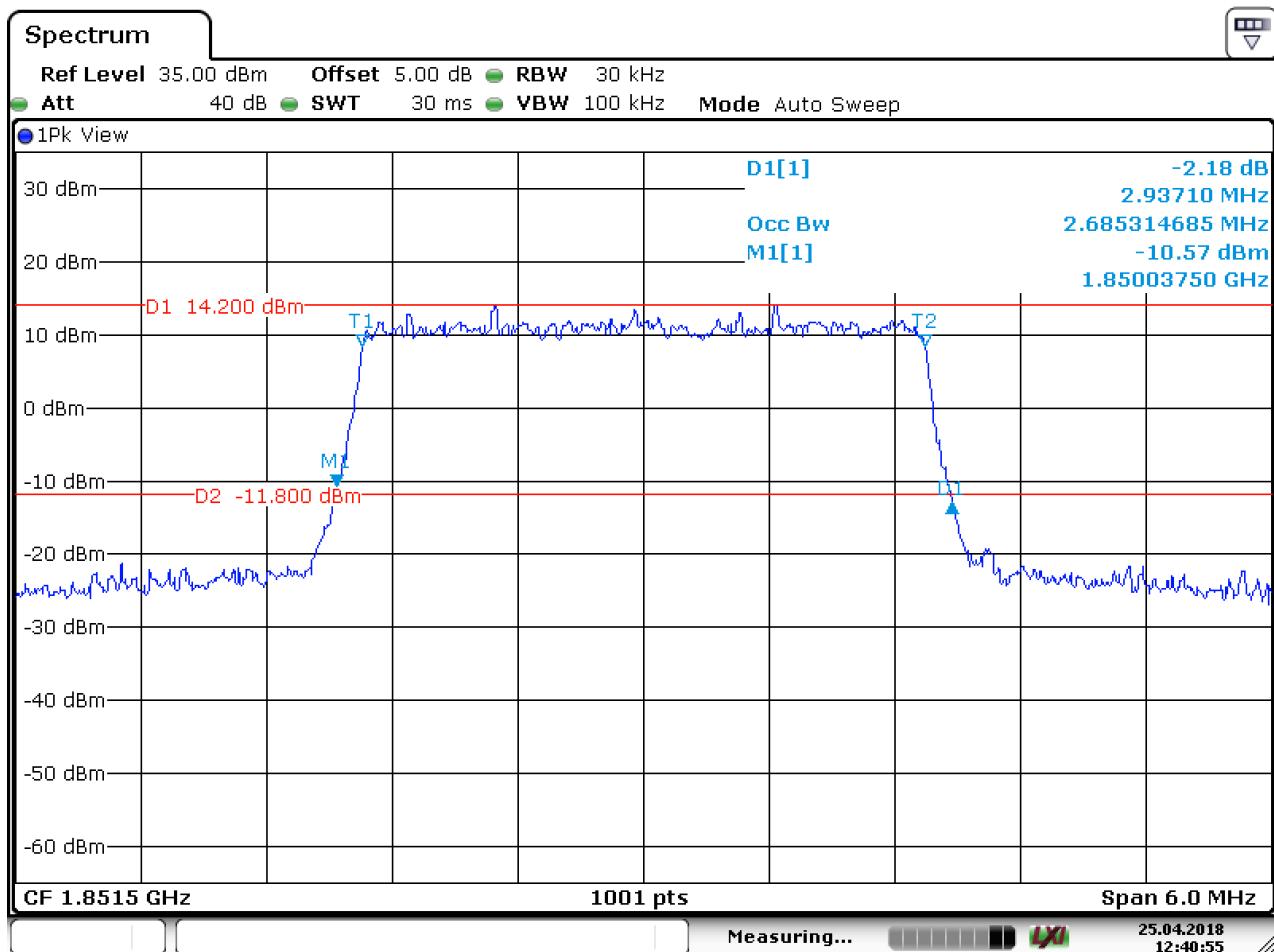
Date: 25.APR.2018 12:38:56

**4.1.1.3.3 Test Channel = HCH**

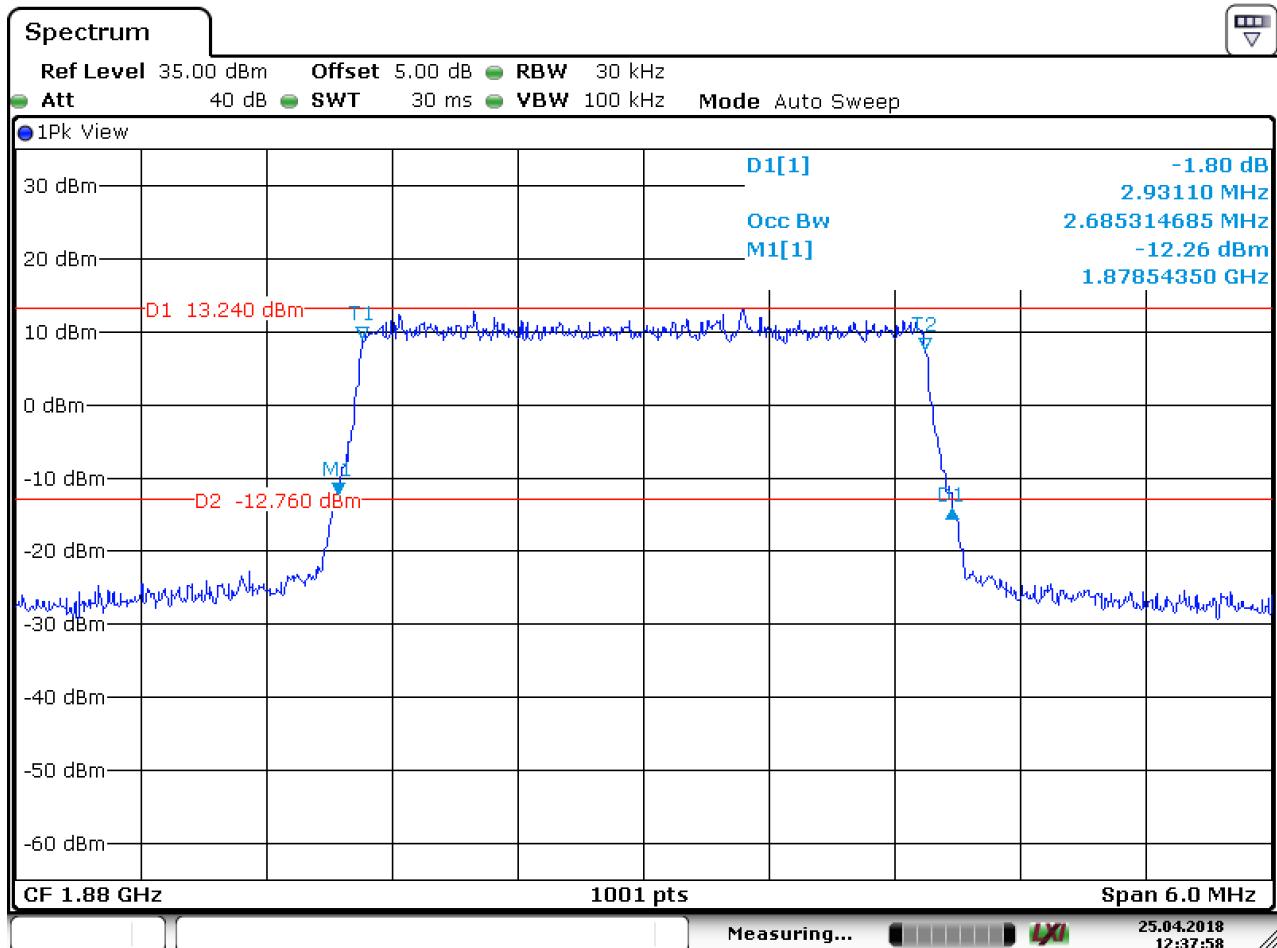
Date: 25.APR.2018 12:35:36

## 4.1.1.4 Test Mode = LTE/TM2 3MHz

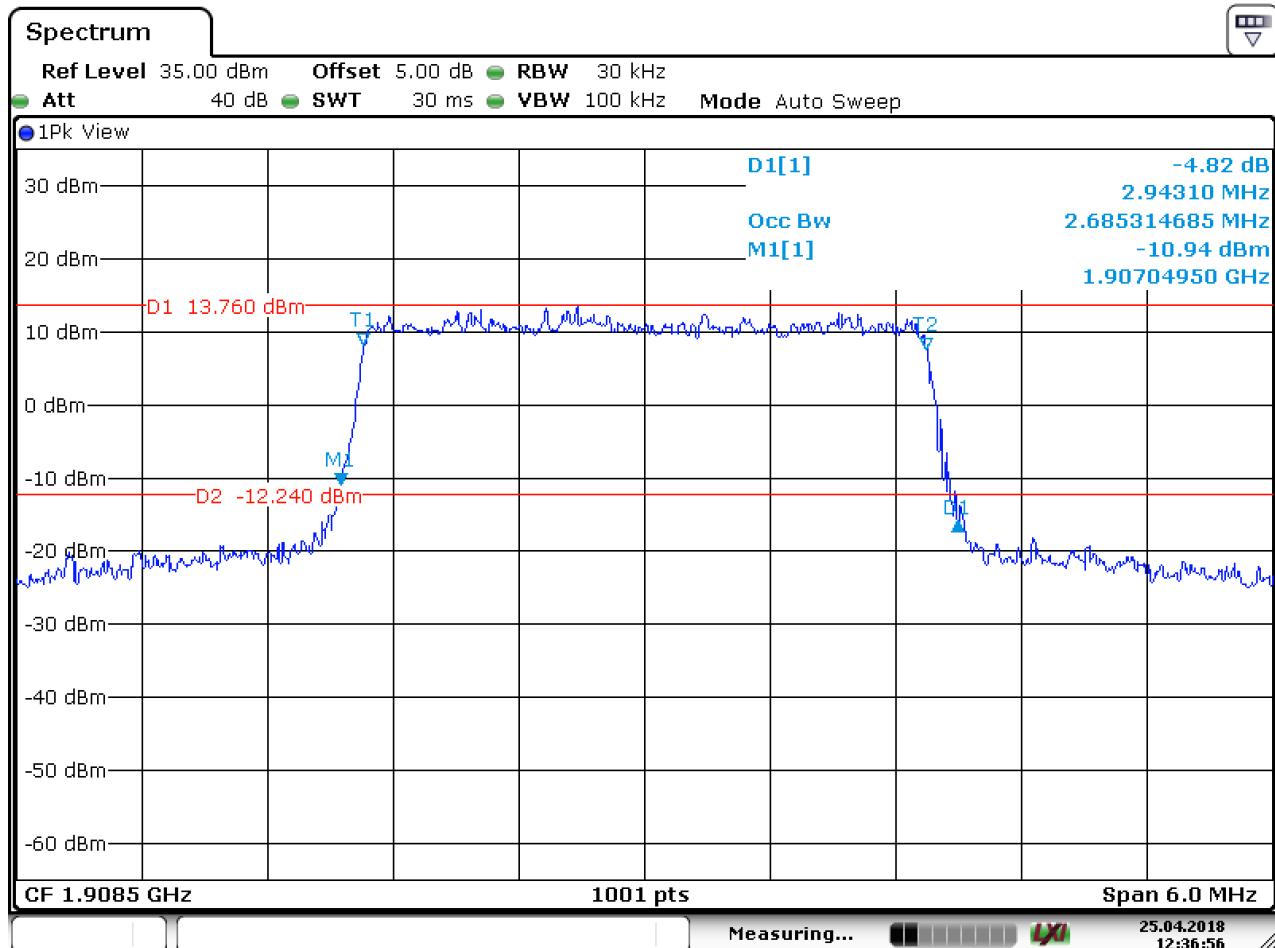
## 4.1.1.4.1 Test Channel = LCH



Date: 25.APR.2018 12:40:55

**4.1.1.4.2 Test Channel = MCH**

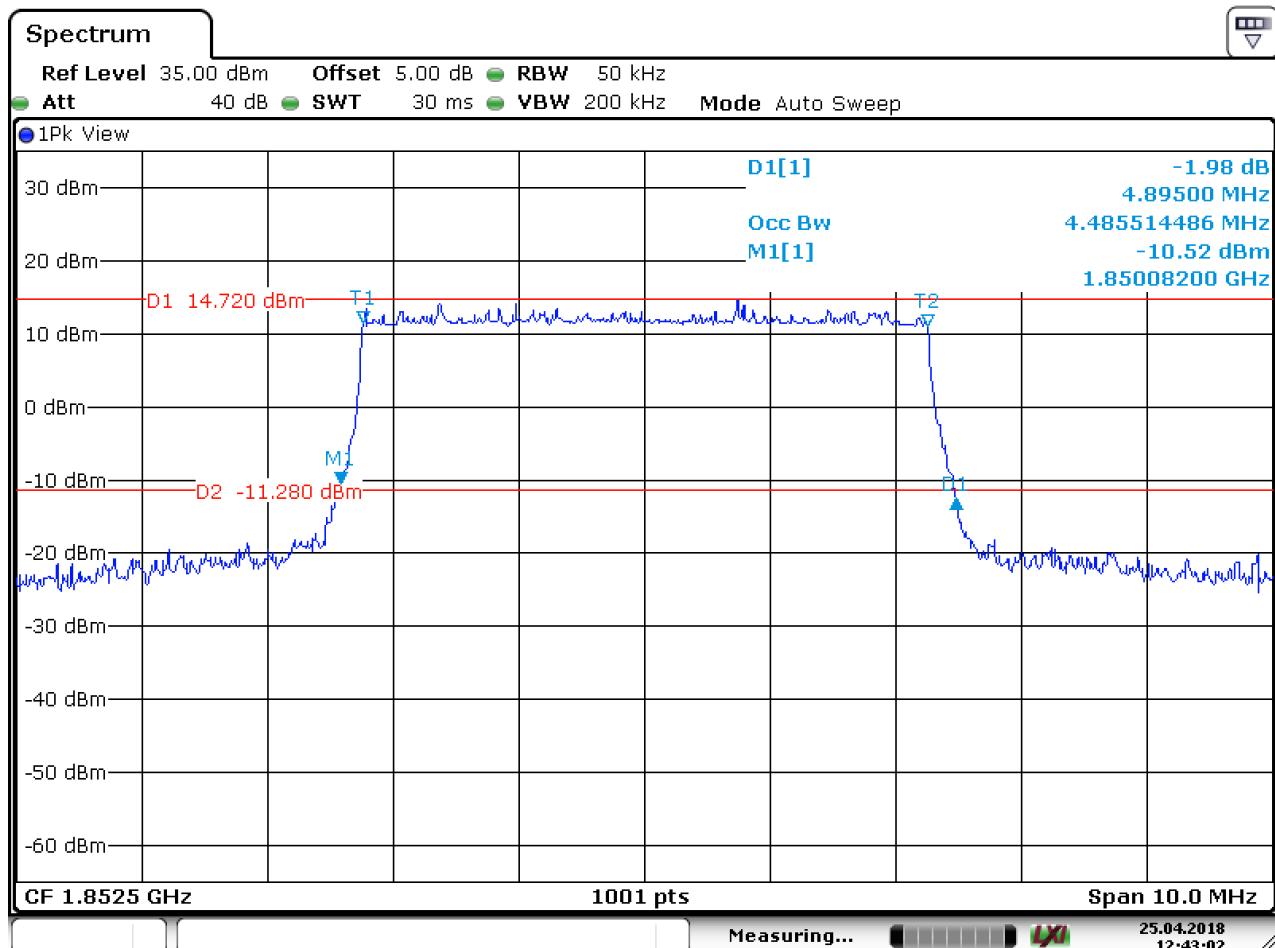
## 4.1.1.4.3 Test Channel = HCH



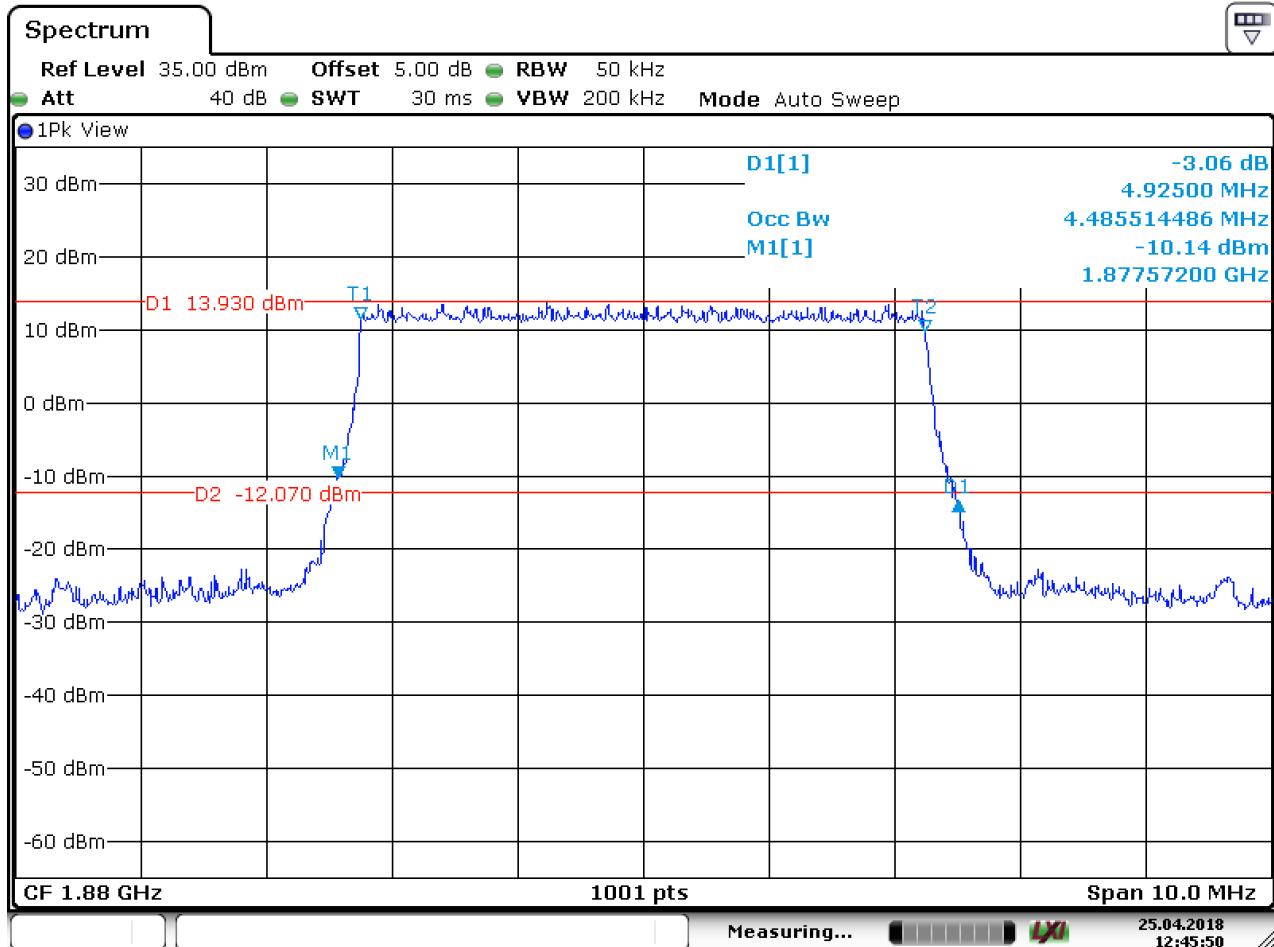
Date: 25.APR.2018 12:36:56

## 4.1.1.5 Test Mode = LTE/TM1 5MHz

## 4.1.1.5.1 Test Channel = LCH

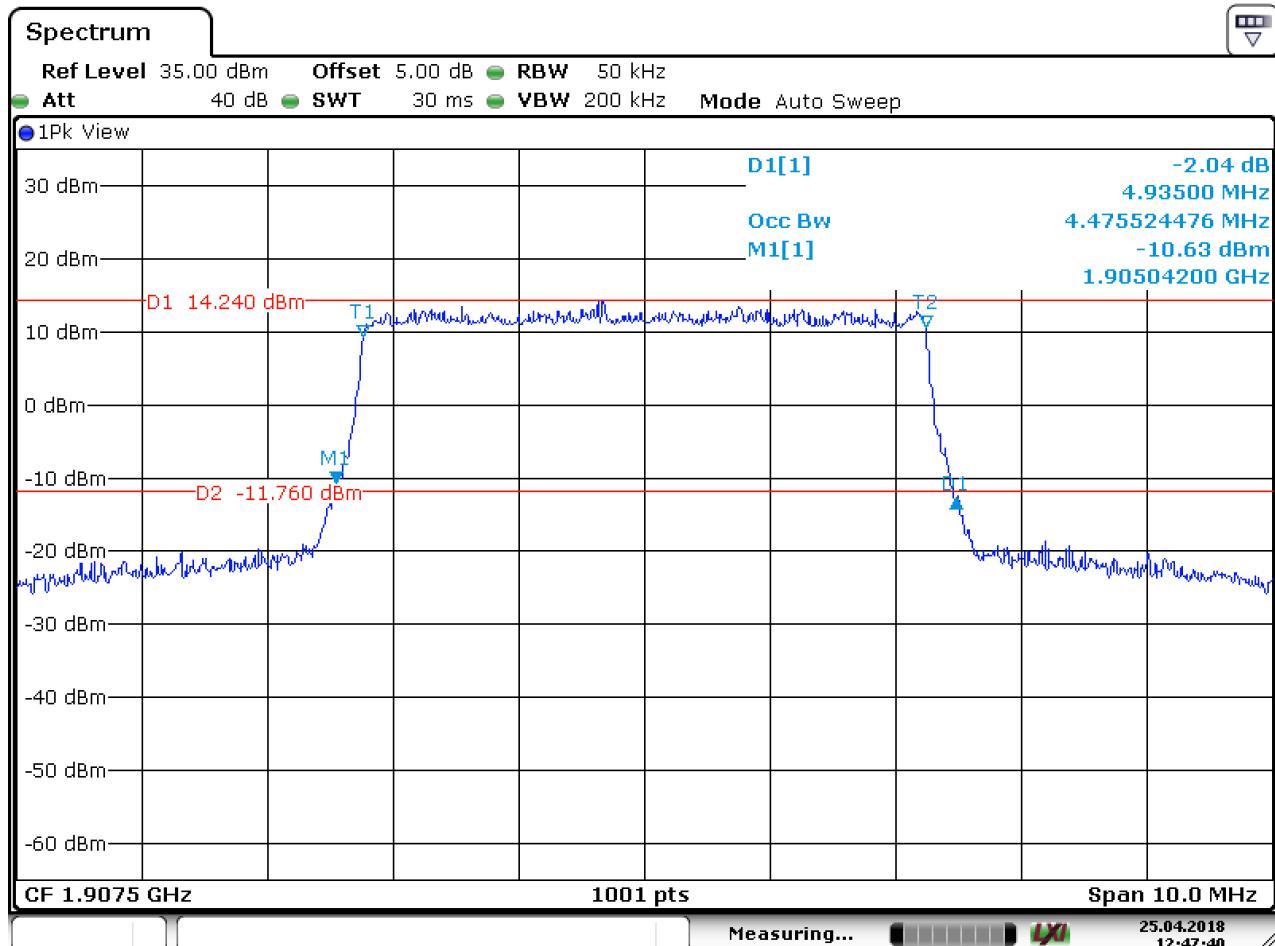


Date: 25.APR.2018 12:43:03

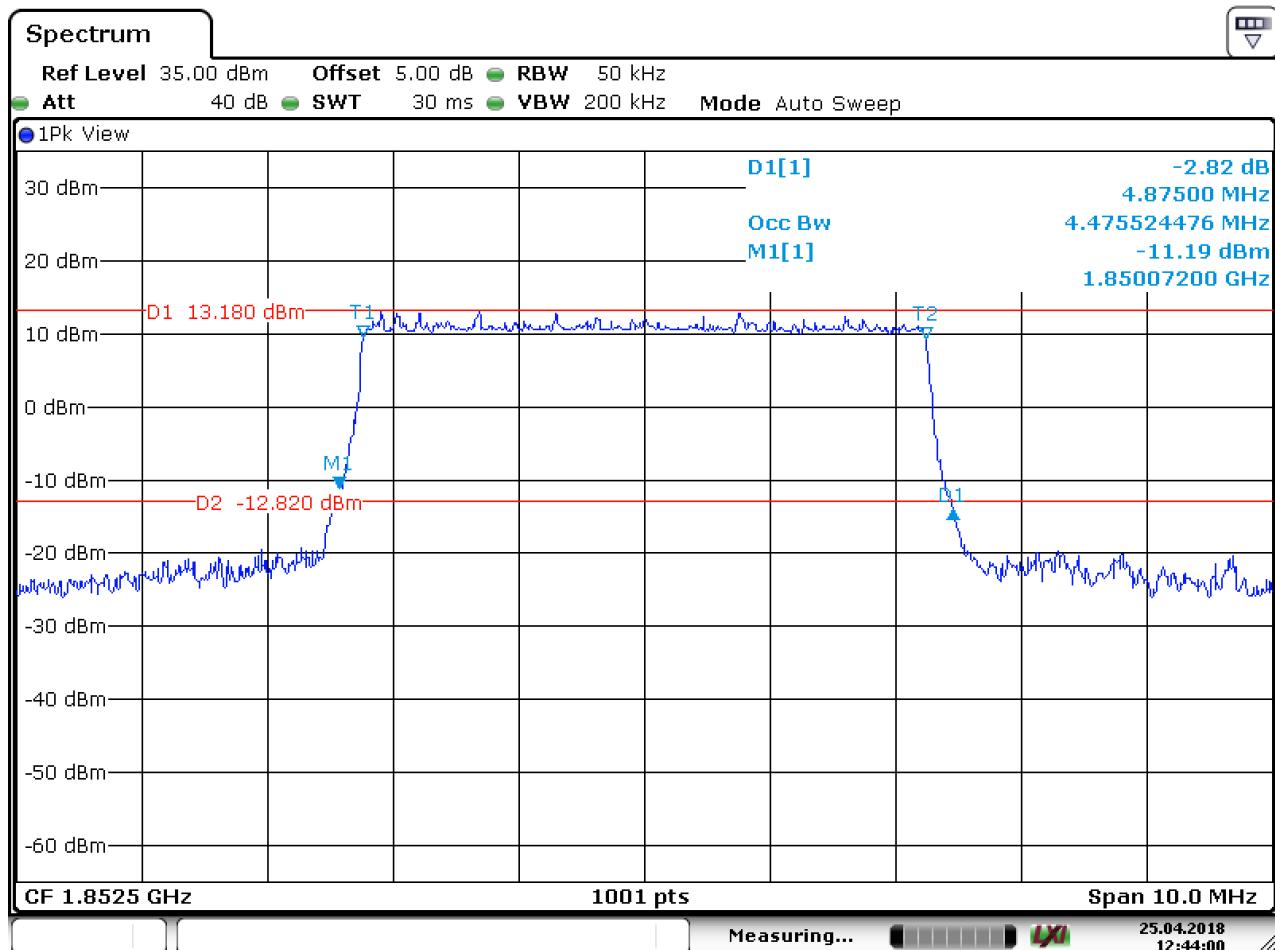
**4.1.1.5.2 Test Channel = MCH**

Date: 25.APR.2018 12:45:51

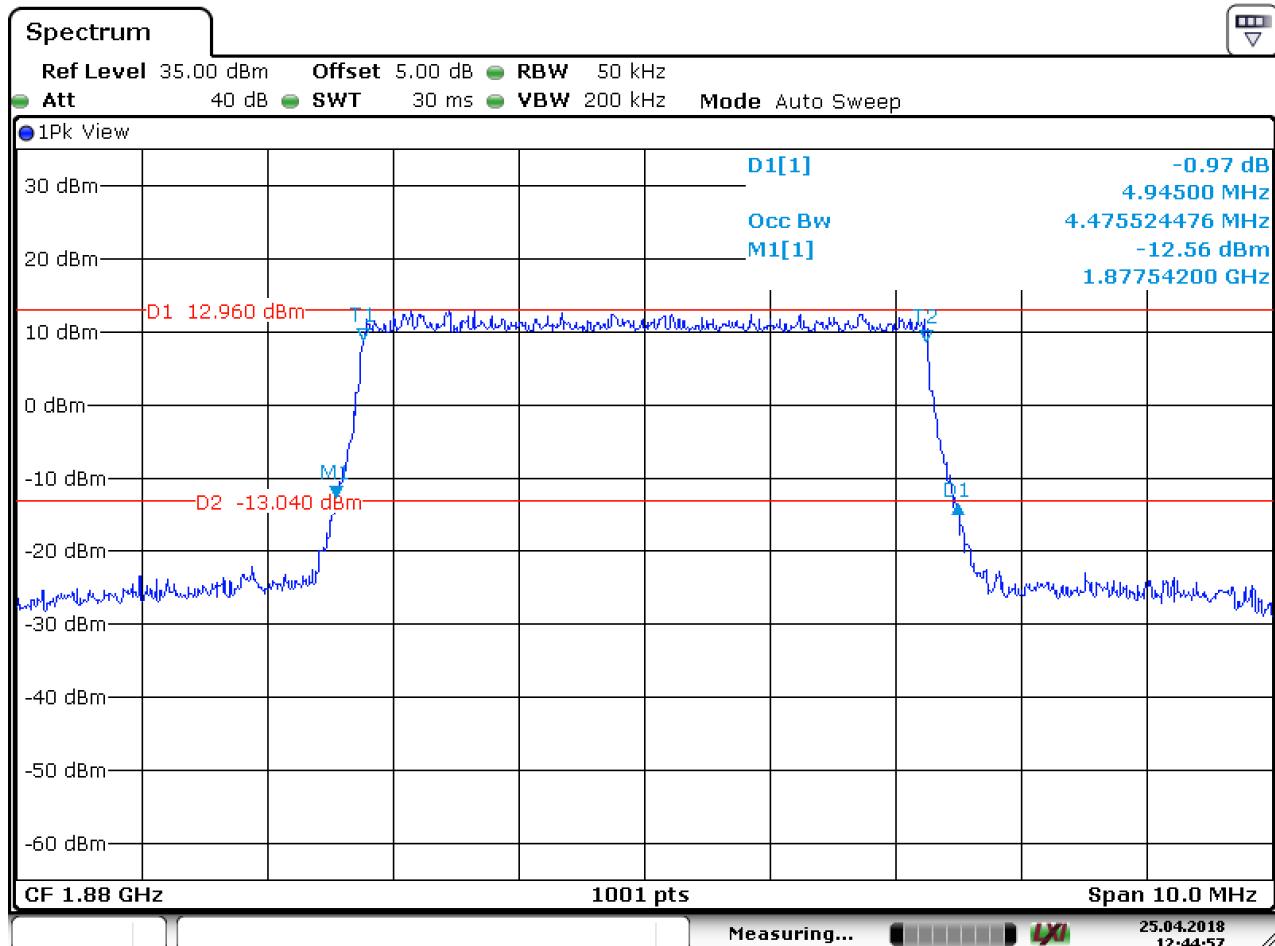
#### 4.1.1.5.3 Test Channel = HCH



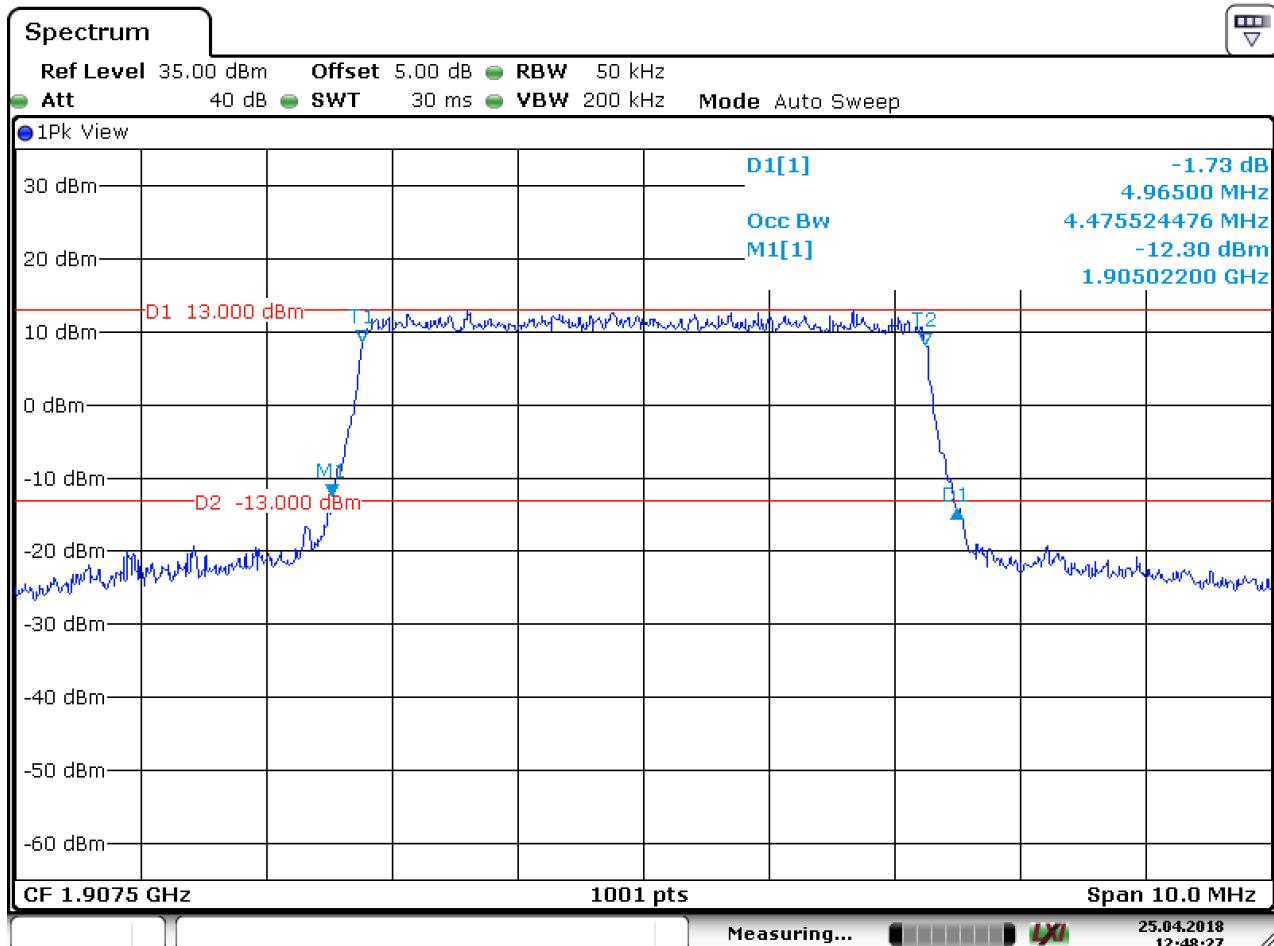
Date: 25.APR.2018 12:47:40

**4.1.1.6 Test Mode = LTE/TM2 5MHz****4.1.1.6.1 Test Channel = LCH**

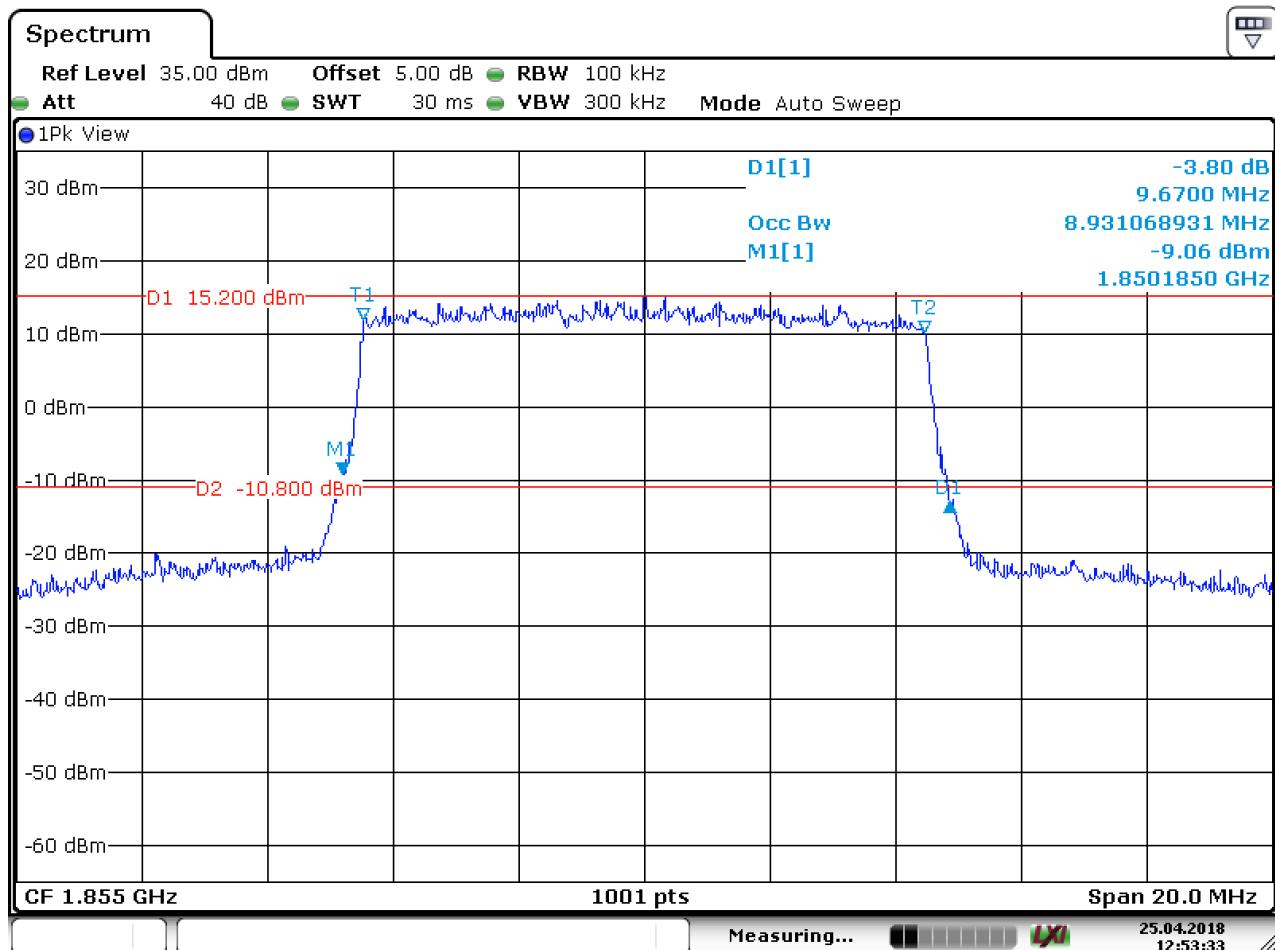
Date: 25.APR.2018 12:44:00

**4.1.1.6.2 Test Channel = MCH**

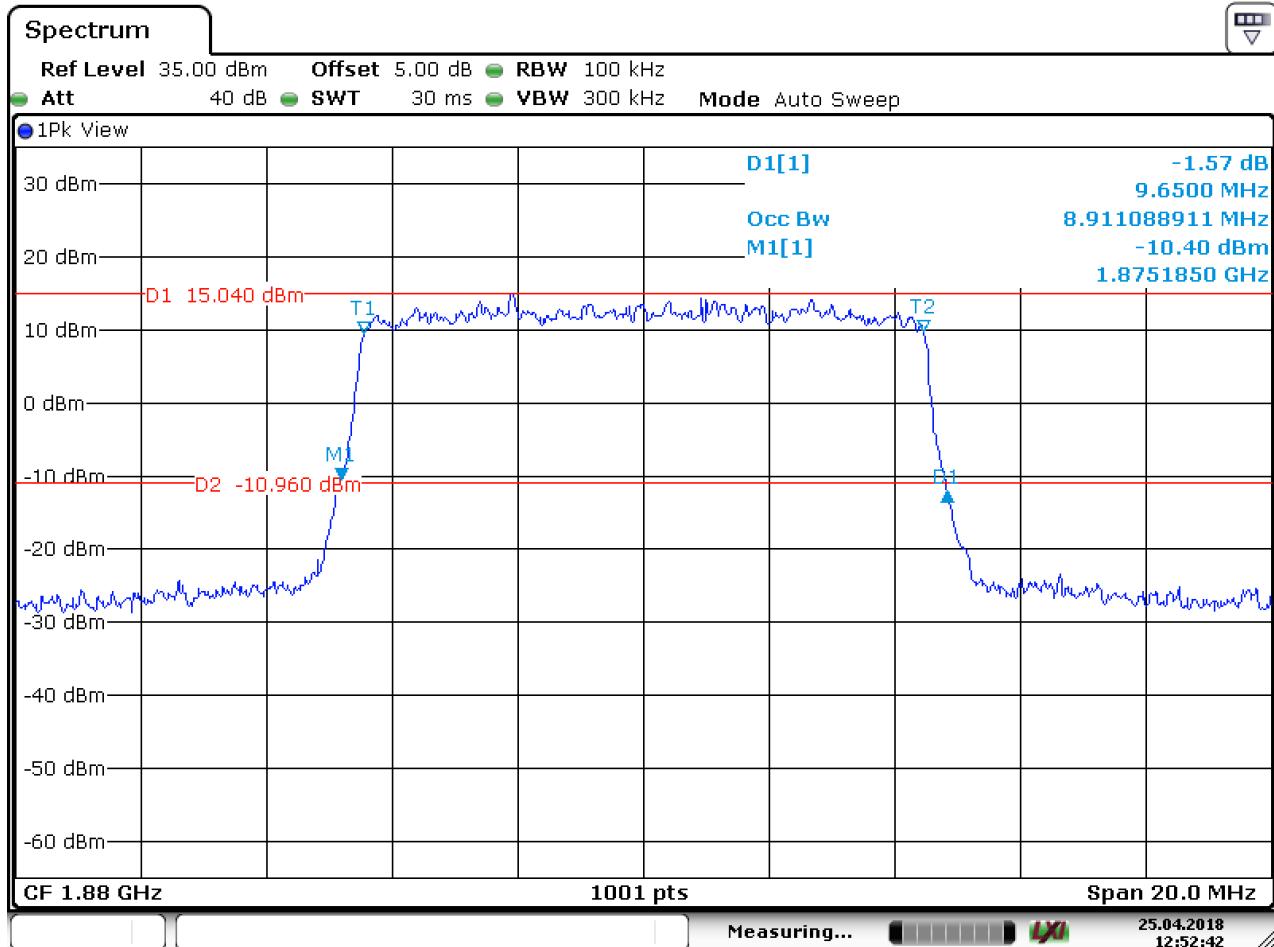
Date: 25.APR.2018 12:44:58

**4.1.1.6.3 Test Channel = HCH**

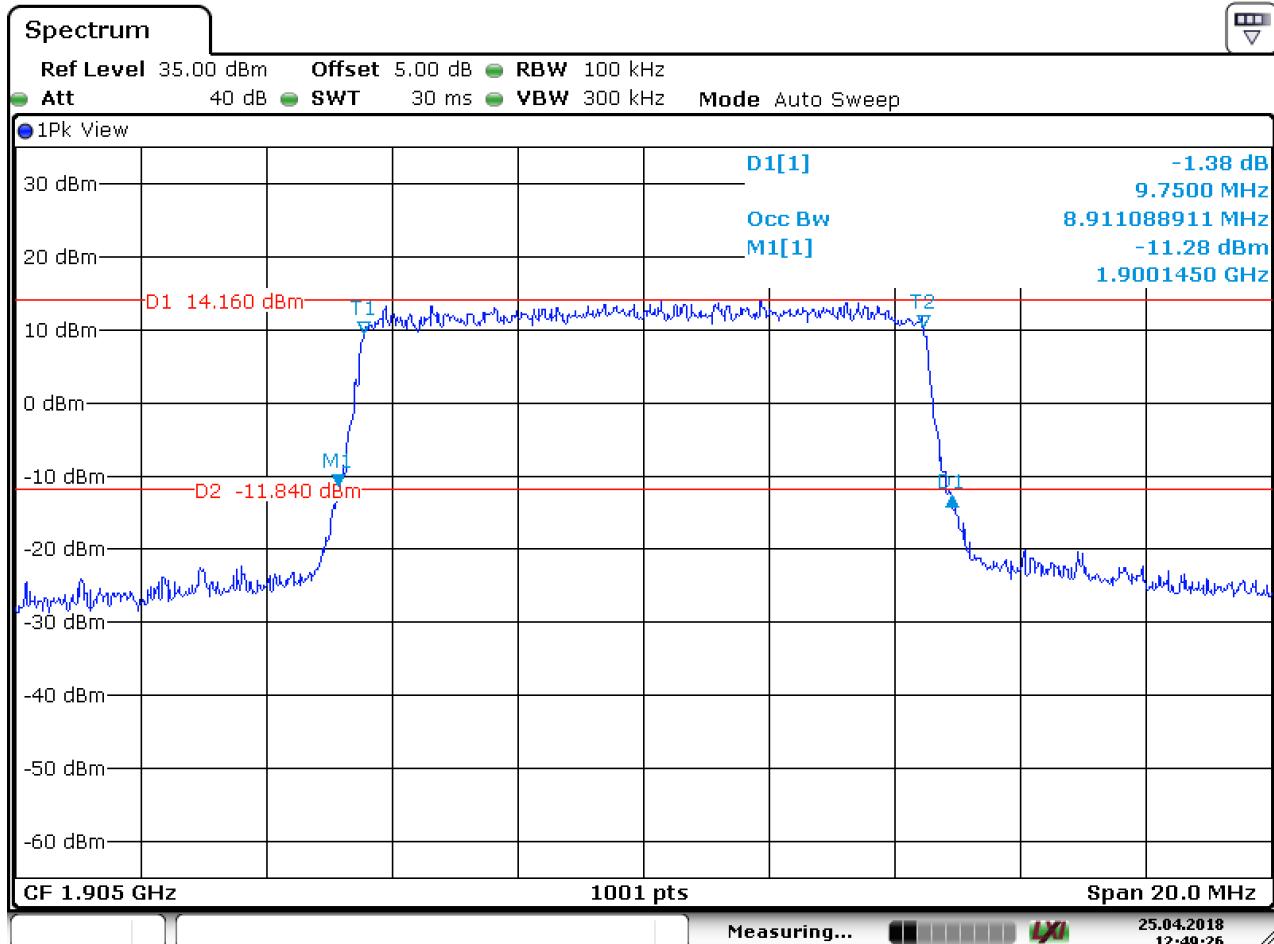
Date: 25.APR.2018 12:48:28

**4.1.1.7 Test Mode = LTE/TM1 10MHz****4.1.1.7.1 Test Channel = LCH**

Date: 25.APR.2018 12:53:33

**4.1.1.7.2 Test Channel = MCH**


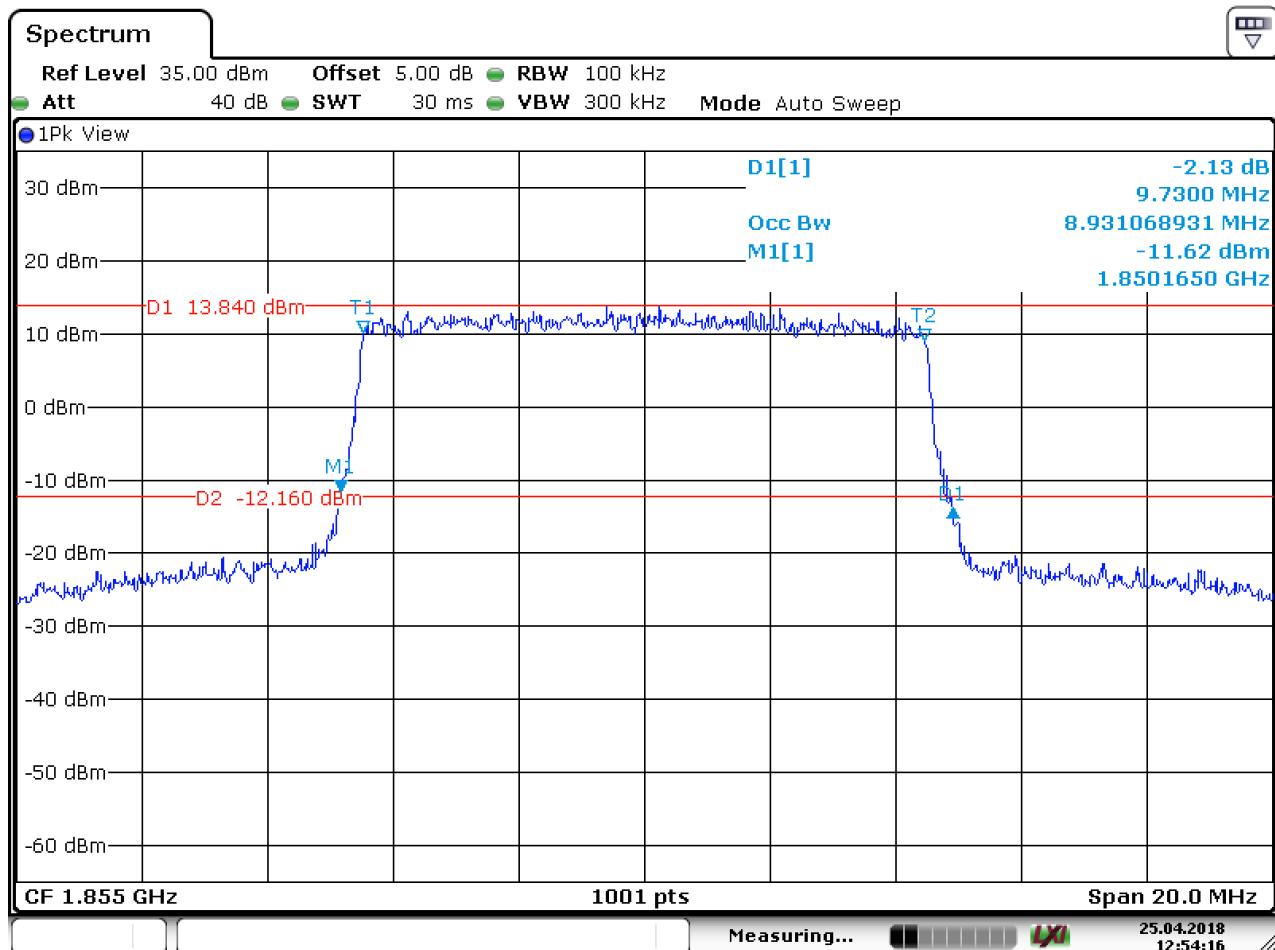
Date: 25.APR.2018 12:52:43

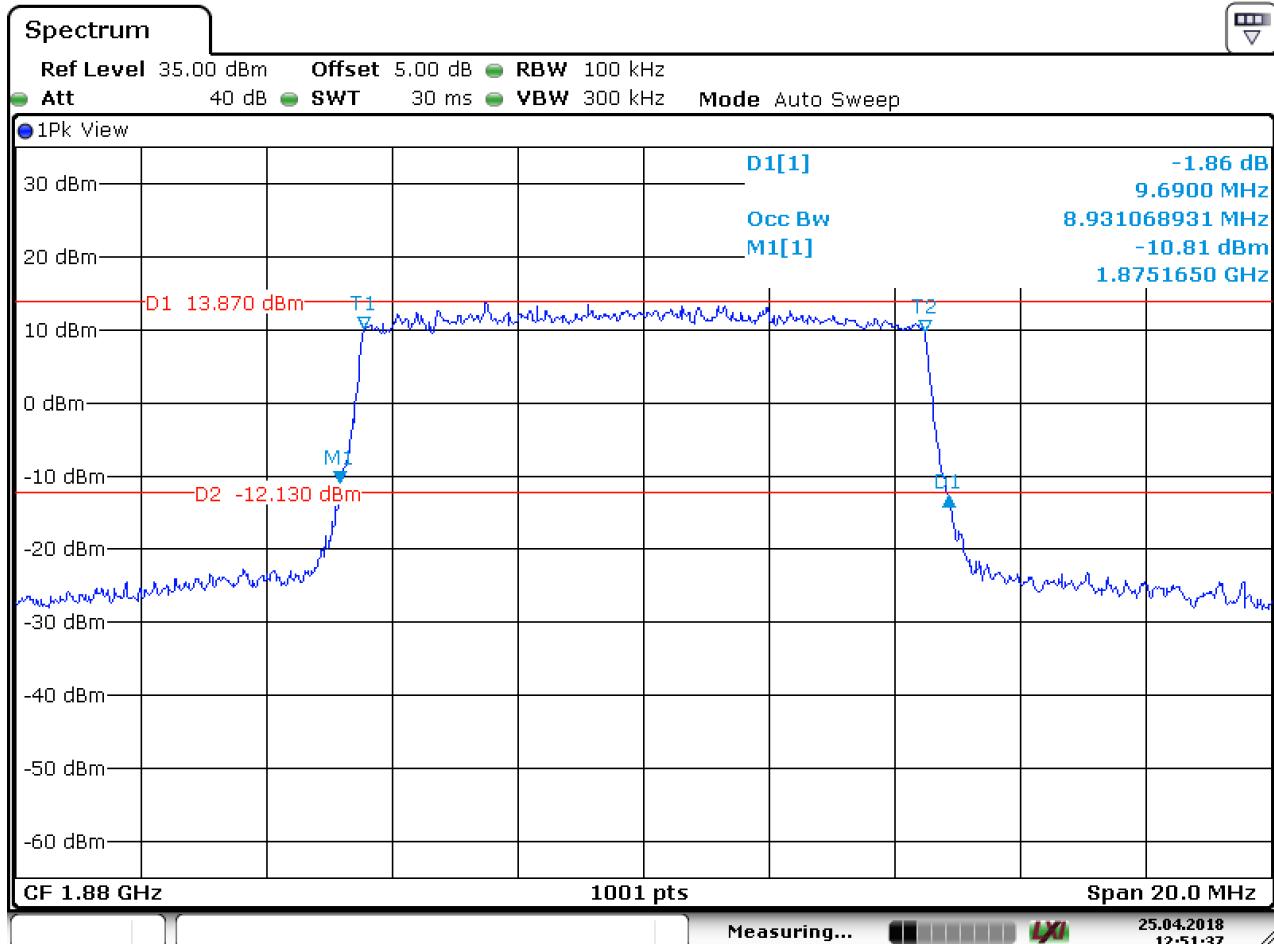
**4.1.1.7.3 Test Channel = HCH**

Date: 25.APR.2018 12:49:26

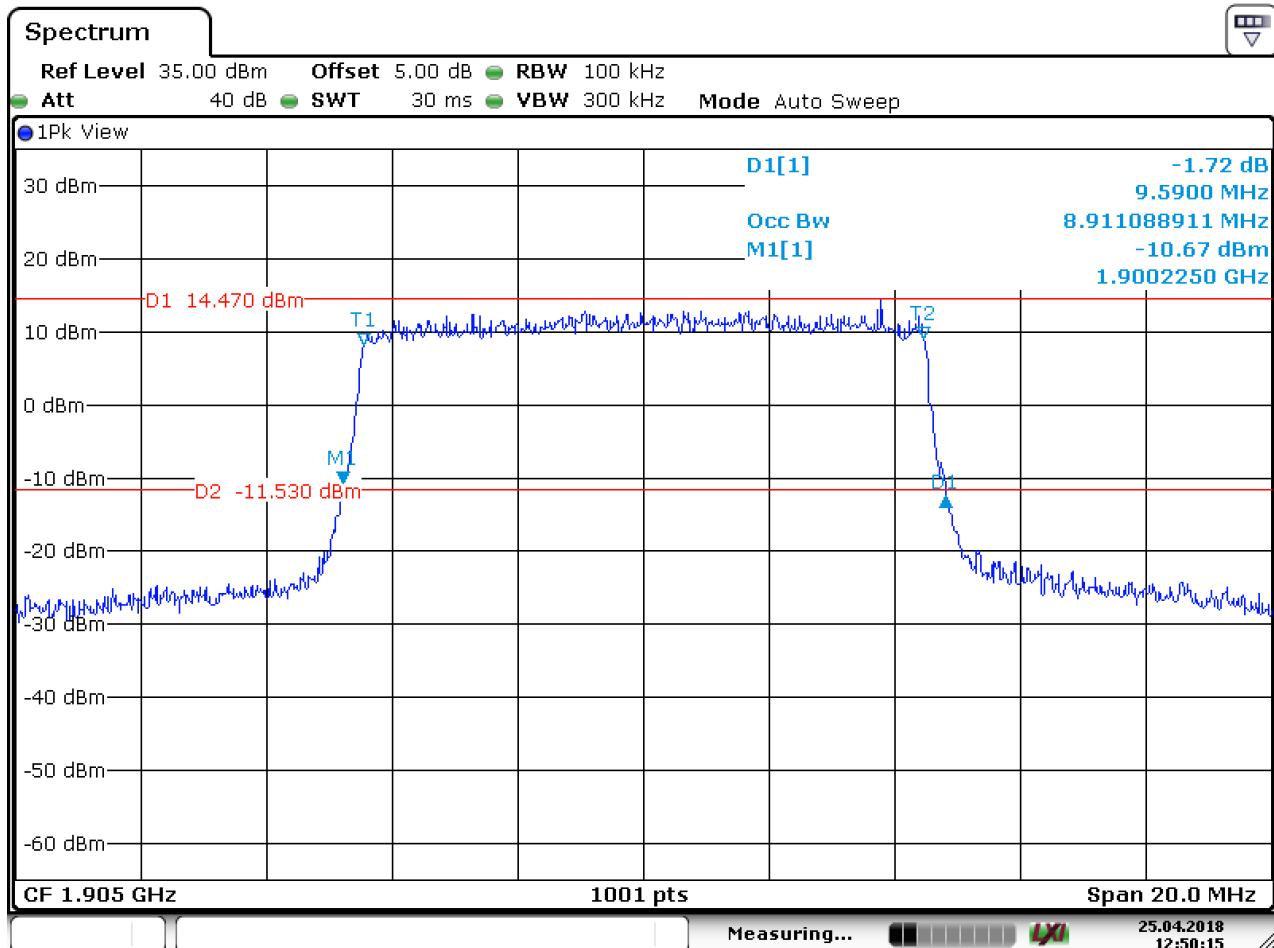
#### 4.1.1.8 Test Mode = LTE/TM2 10MHz

##### 4.1.1.8.1 Test Channel = LCH



**4.1.1.8.2 Test Channel = MCH**

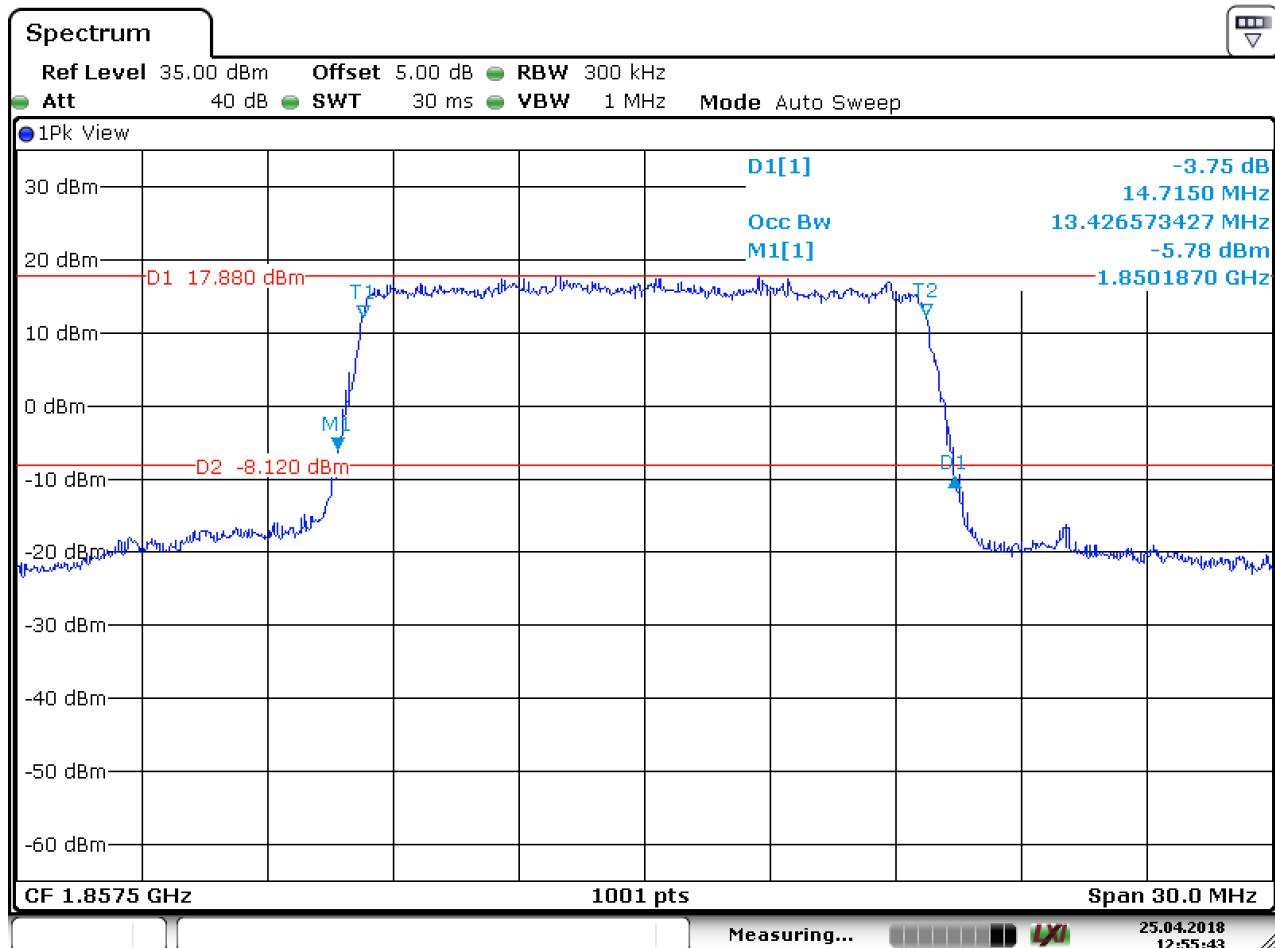
Date: 25.APR.2018 12:51:38

**4.1.1.8.3 Test Channel = HCH**

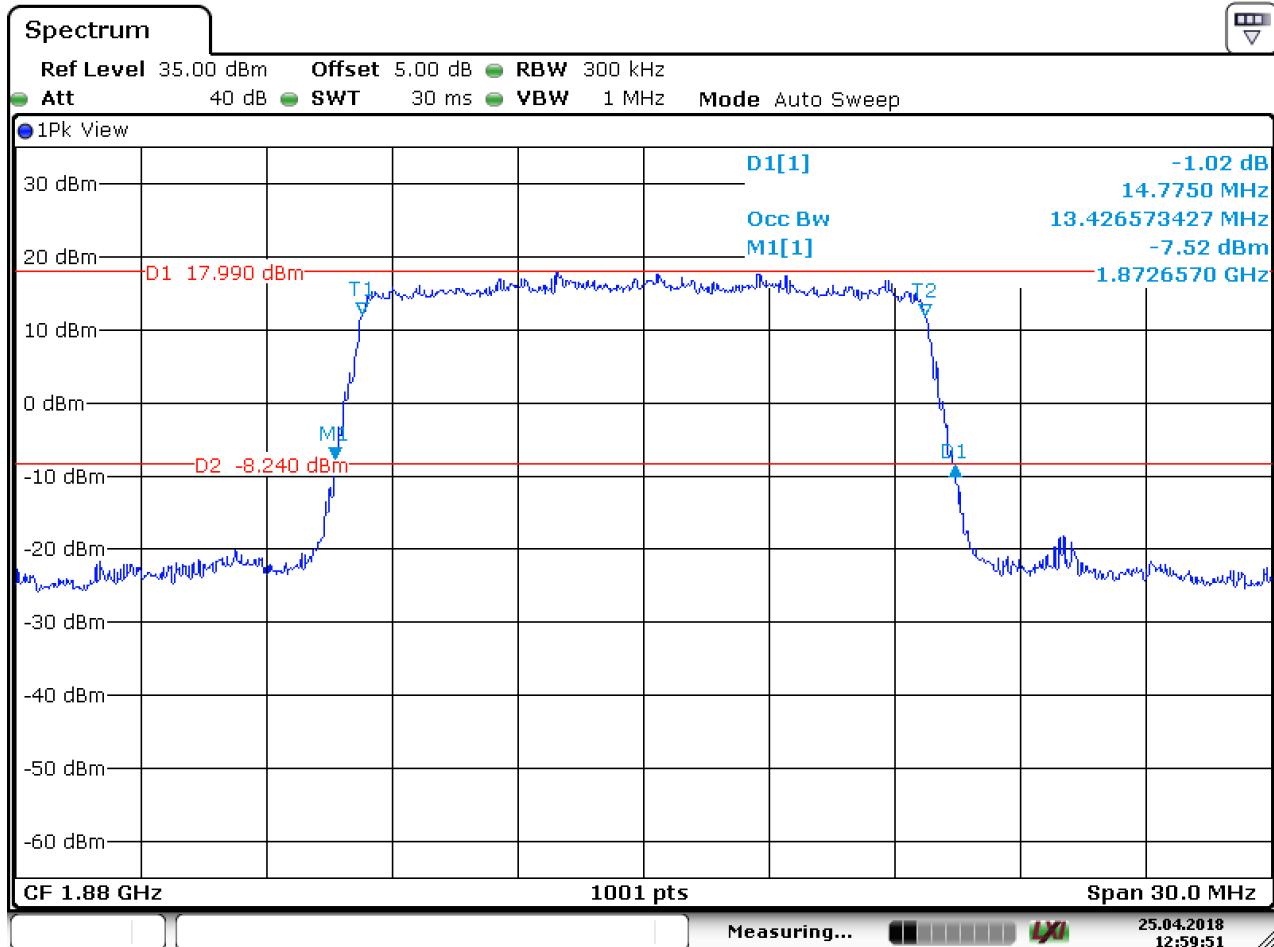
Date: 25.APR.2018 12:50:16

## 4.1.1.9 Test Mode = LTE/TM1 15MHz

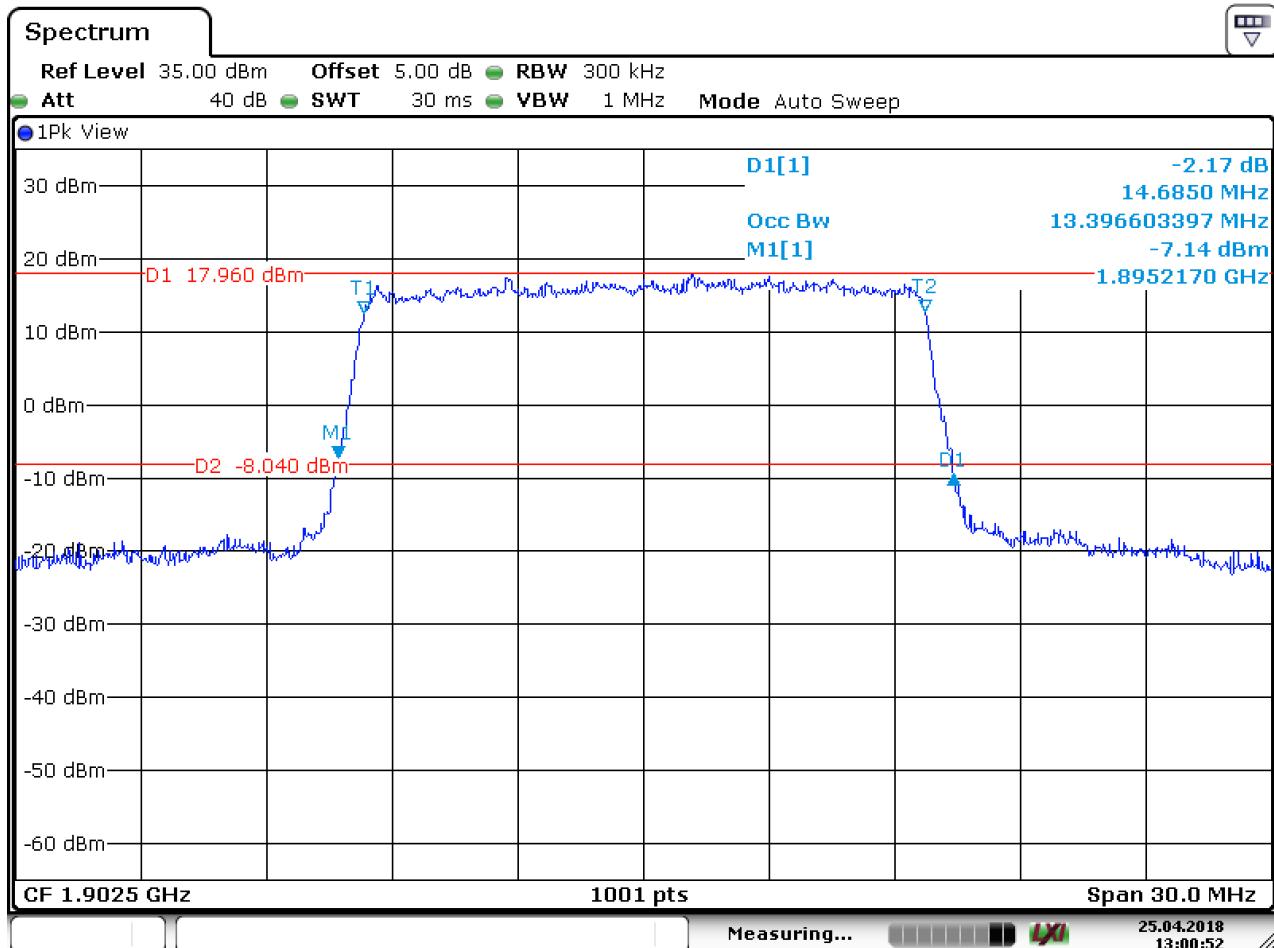
## 4.1.1.9.1 Test Channel = LCH



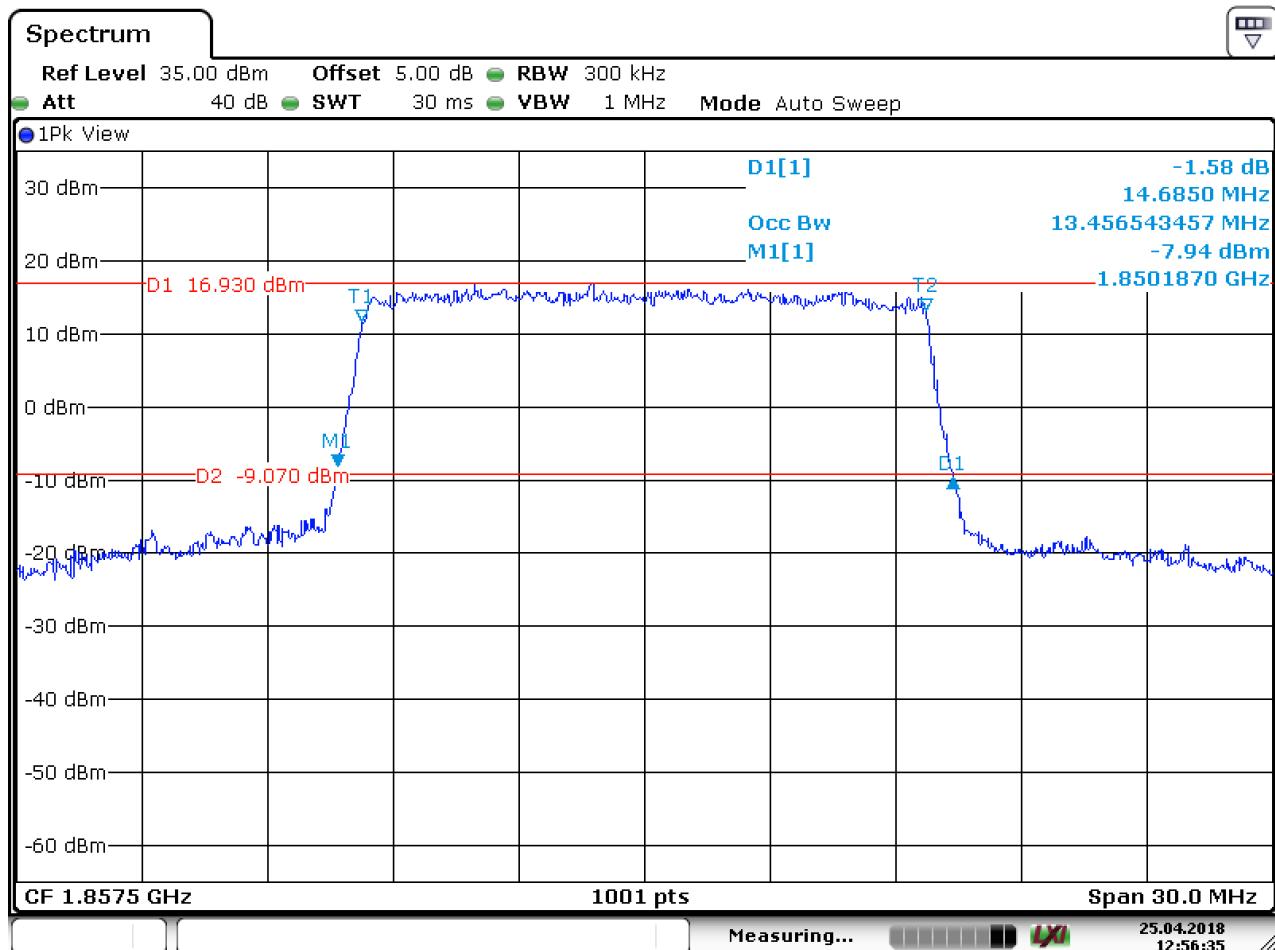
Date: 25.APR.2018 12:55:43

**4.1.1.9.2 Test Channel = MCH**


Date: 25.APR.2018 12:59:51

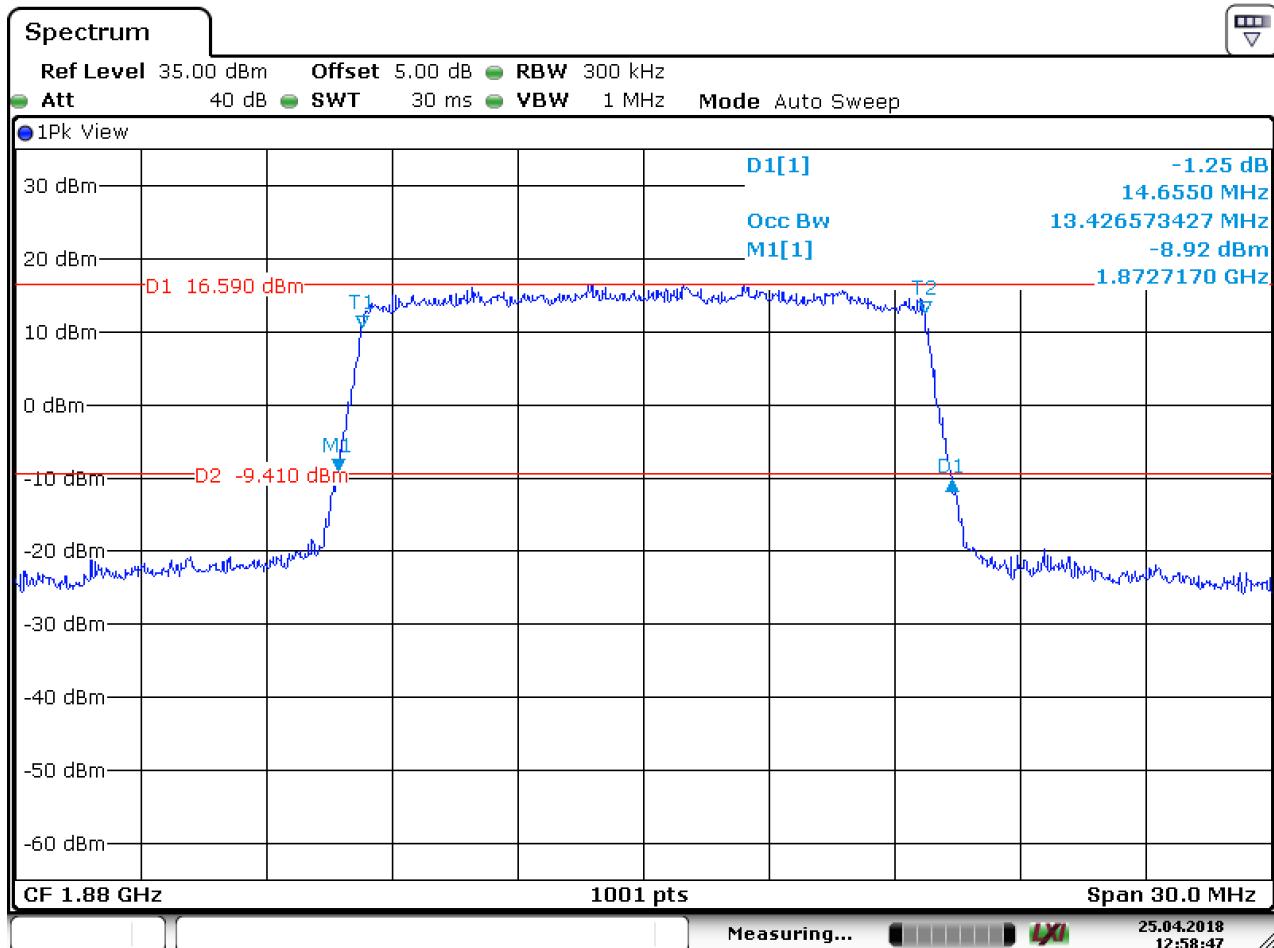
**4.1.1.9.3 Test Channel = HCH**

Date: 25.APR.2018 13:00:52

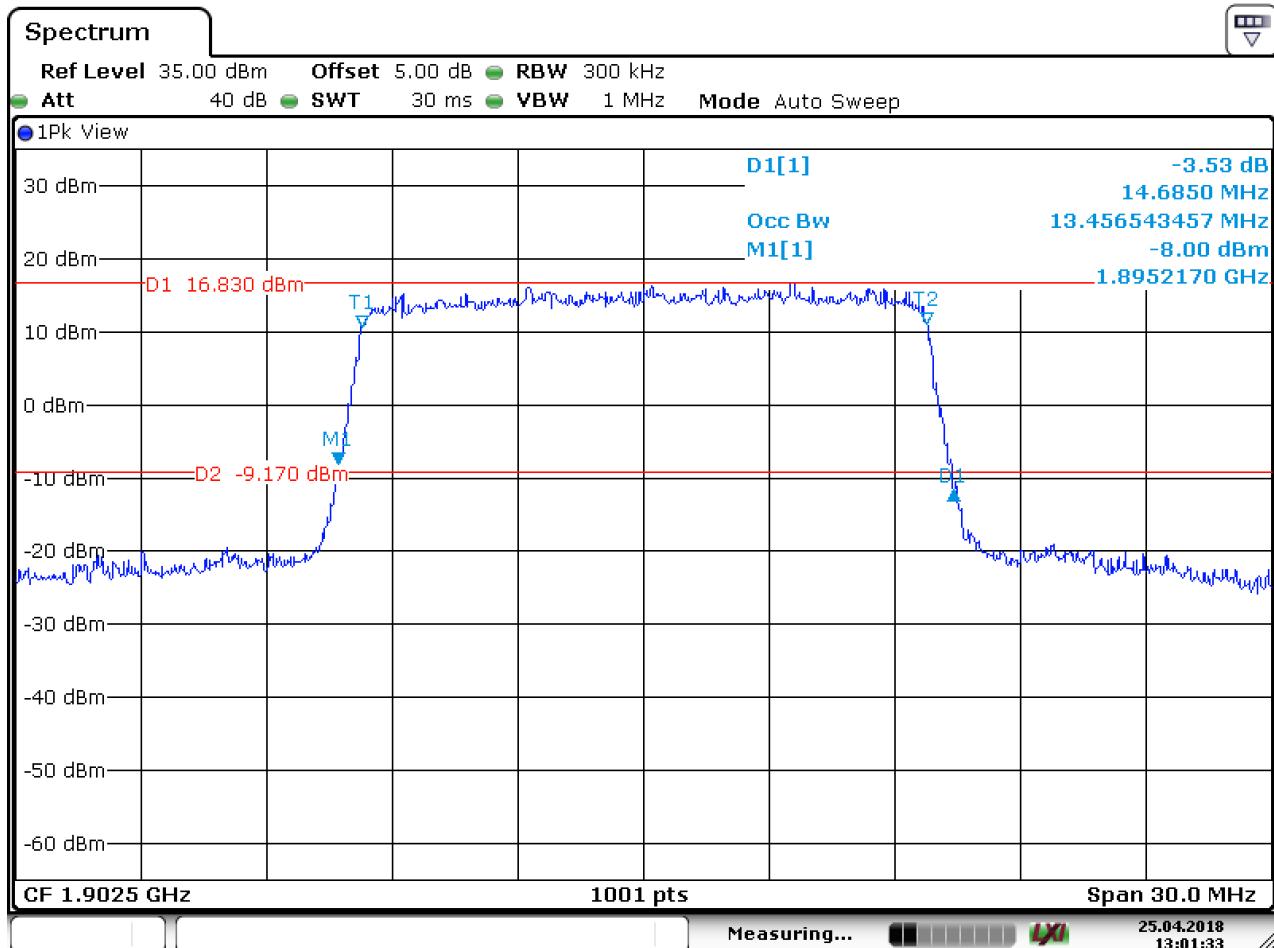
**4.1.1.10 Test Mode = LTE/TM2 15MHz****4.1.1.10.1 Test Channel = LCH**

Date: 25.APR.2018 12:56:36

#### 4.1.1.10.2 Test Channel = MCH



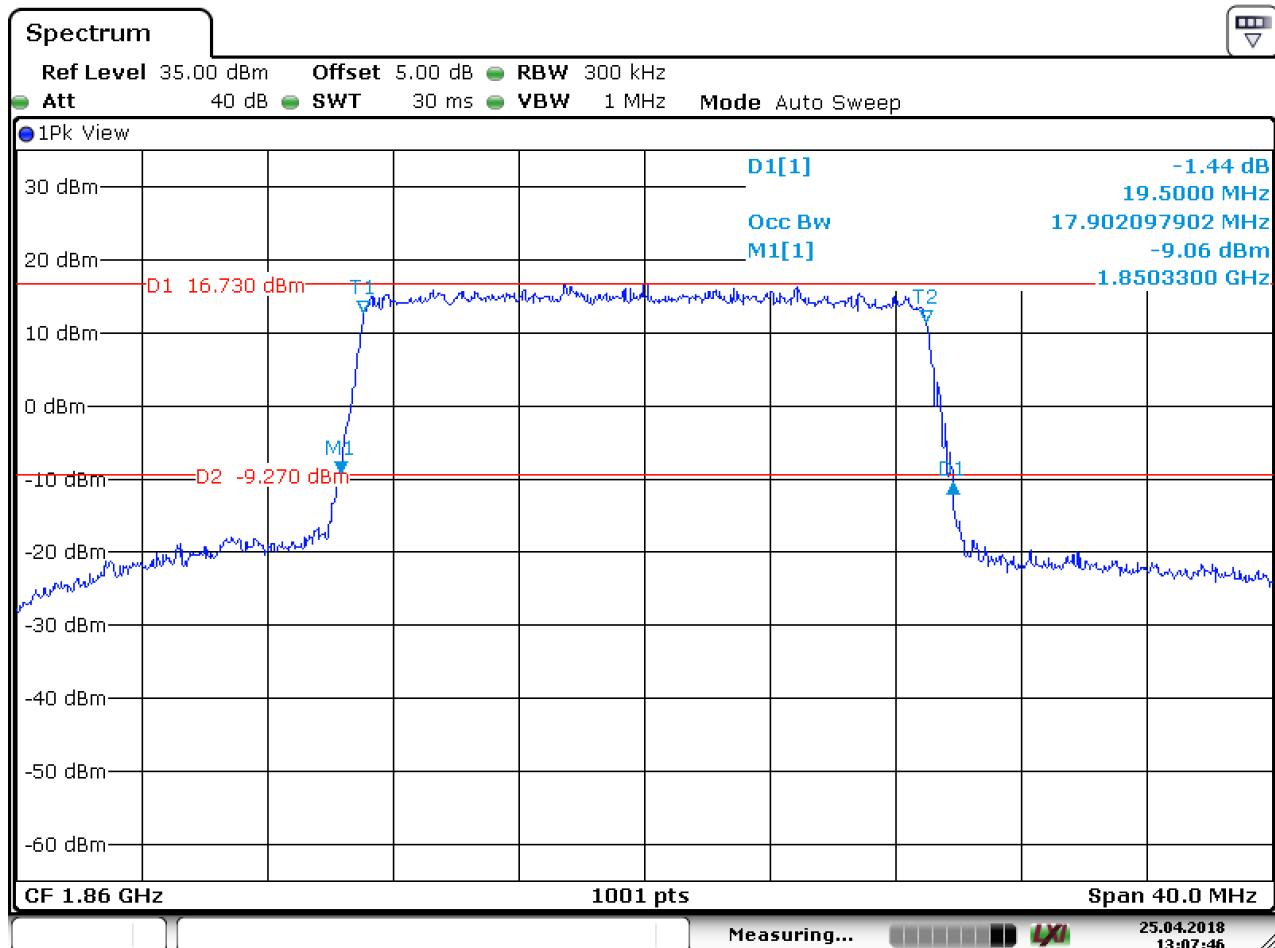
Date: 25.APR.2018 12:58:48

**4.1.1.10.3 Test Channel = HCH**

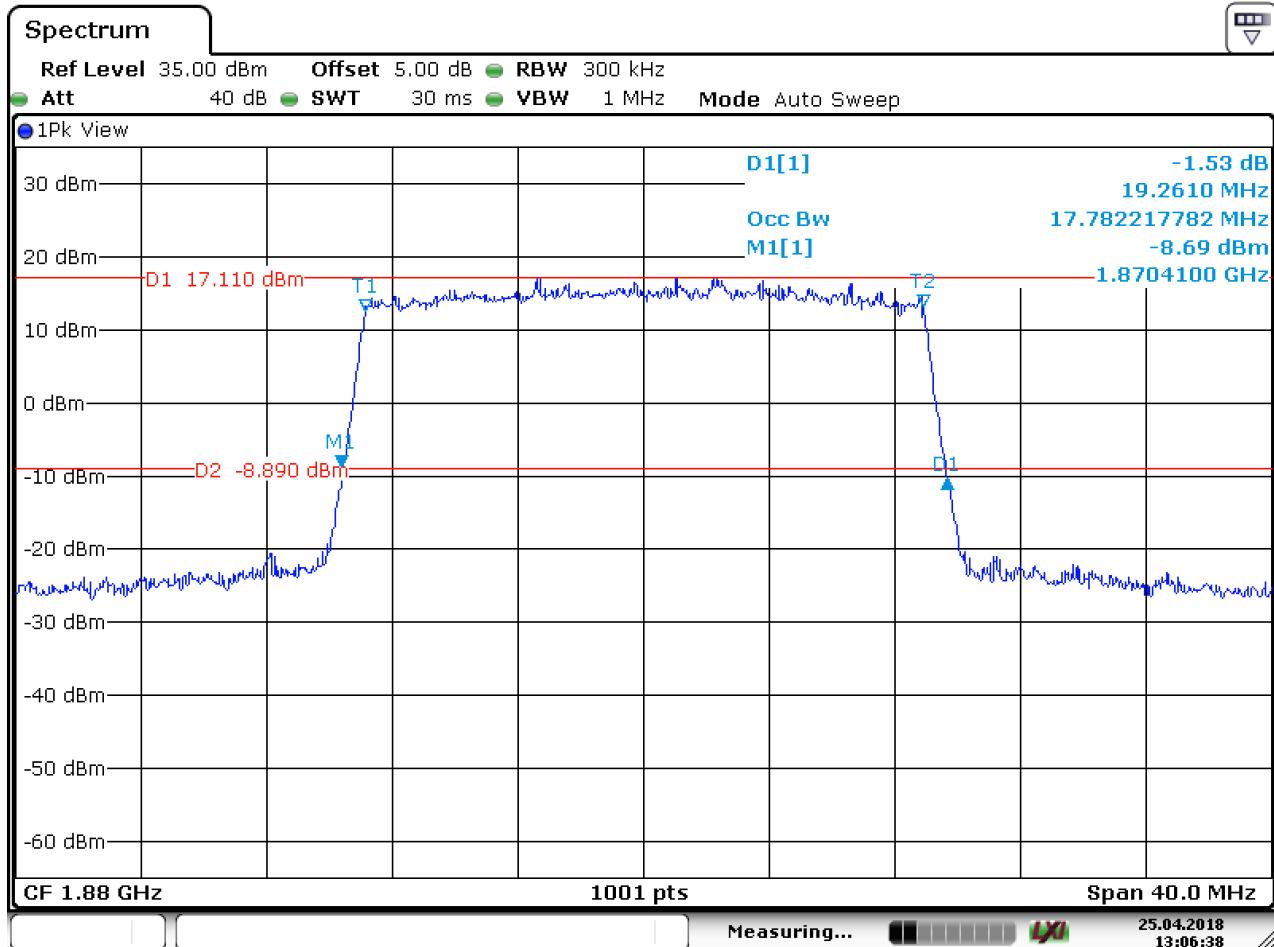
Date: 25.APR.2018 13:01:34

## 4.1.1.11 Test Mode = LTE/TM1 20MHz

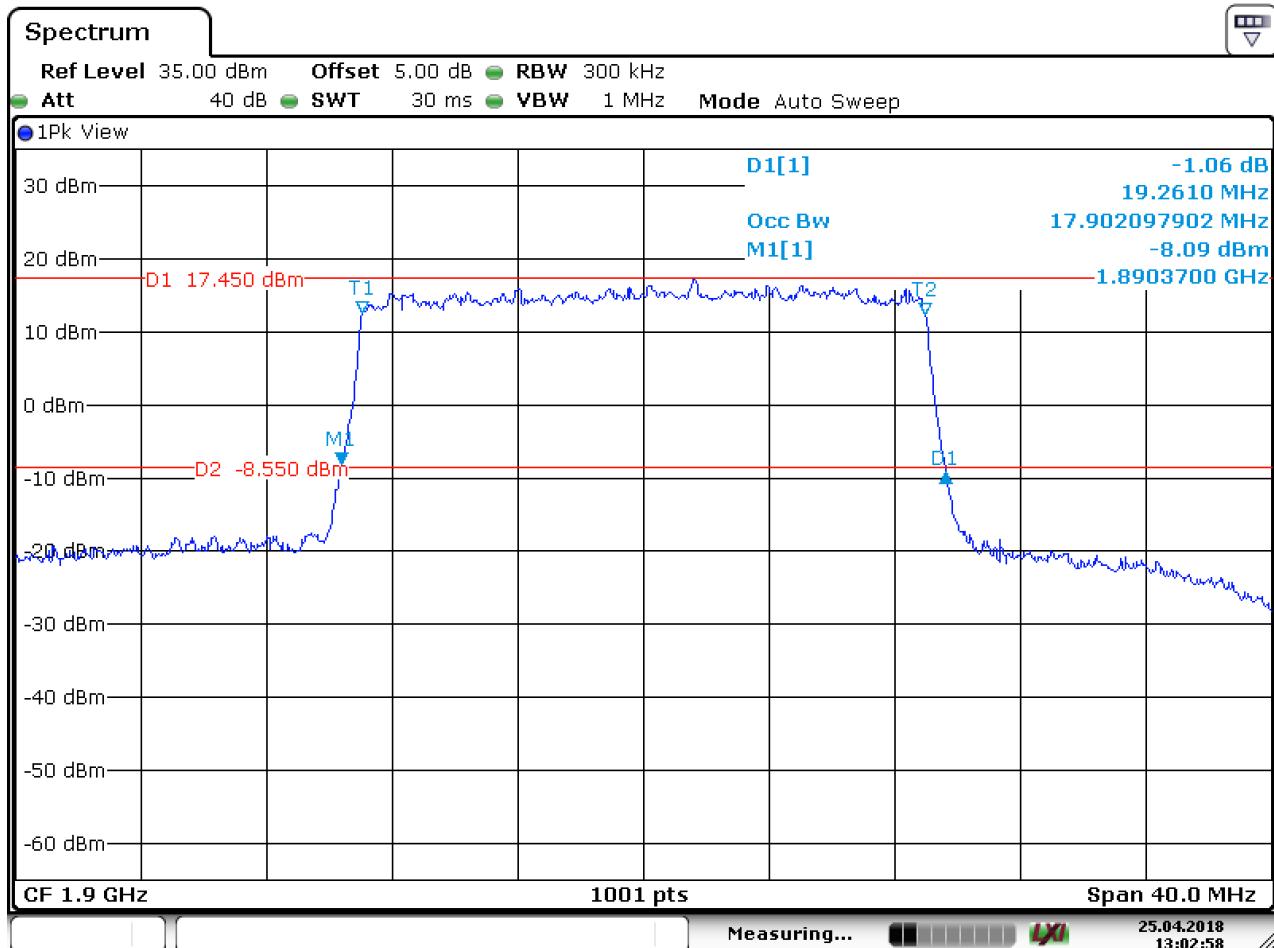
## 4.1.1.11.1 Test Channel = LCH



Date: 25.APR.2018 13:07:47

**4.1.1.11.2 Test Channel = MCH**

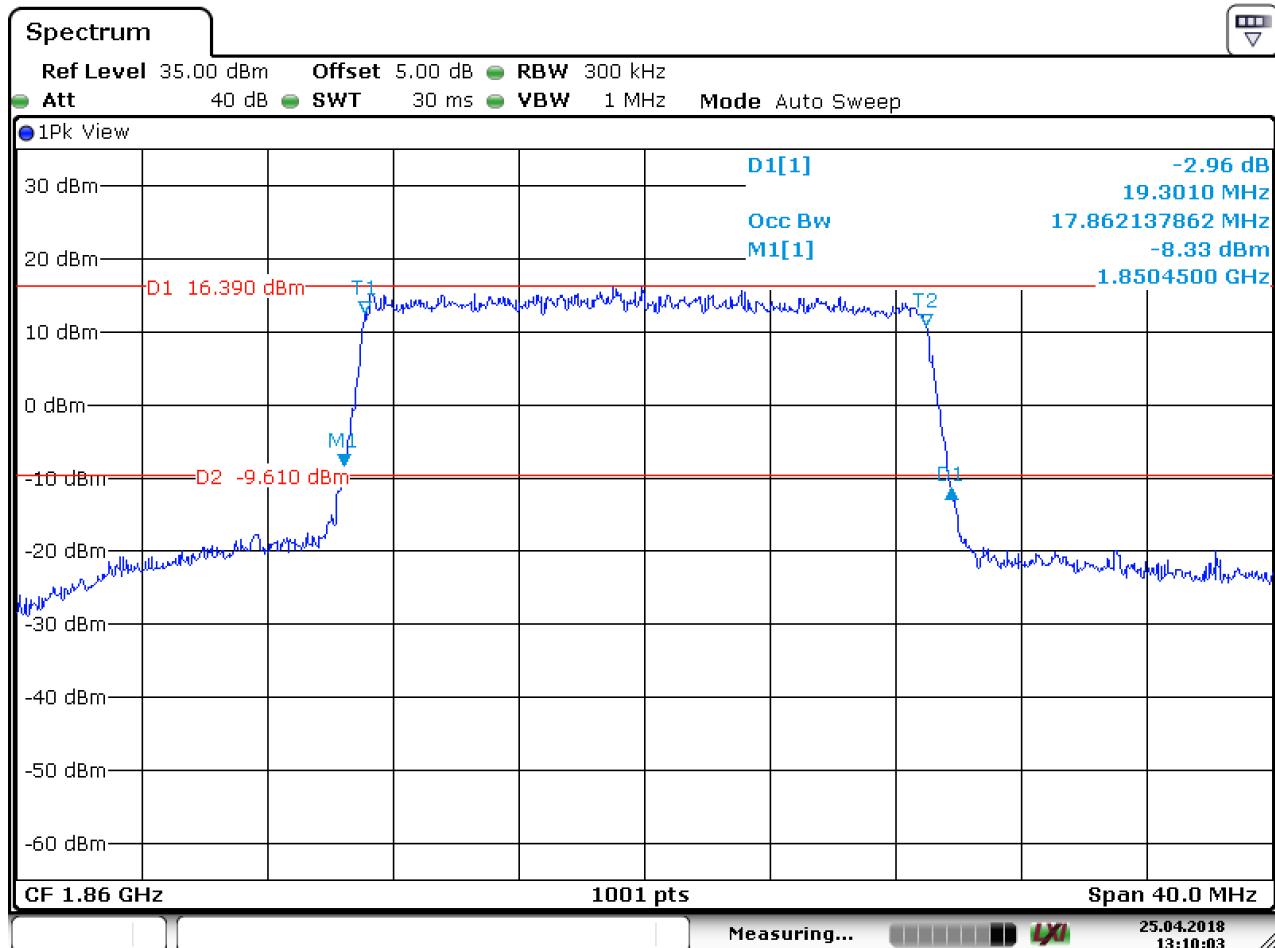
Date: 25.APR.2018 13:06:39

**4.1.1.11.3 Test Channel = HCH**

Date: 25.APR.2018 13:02:59

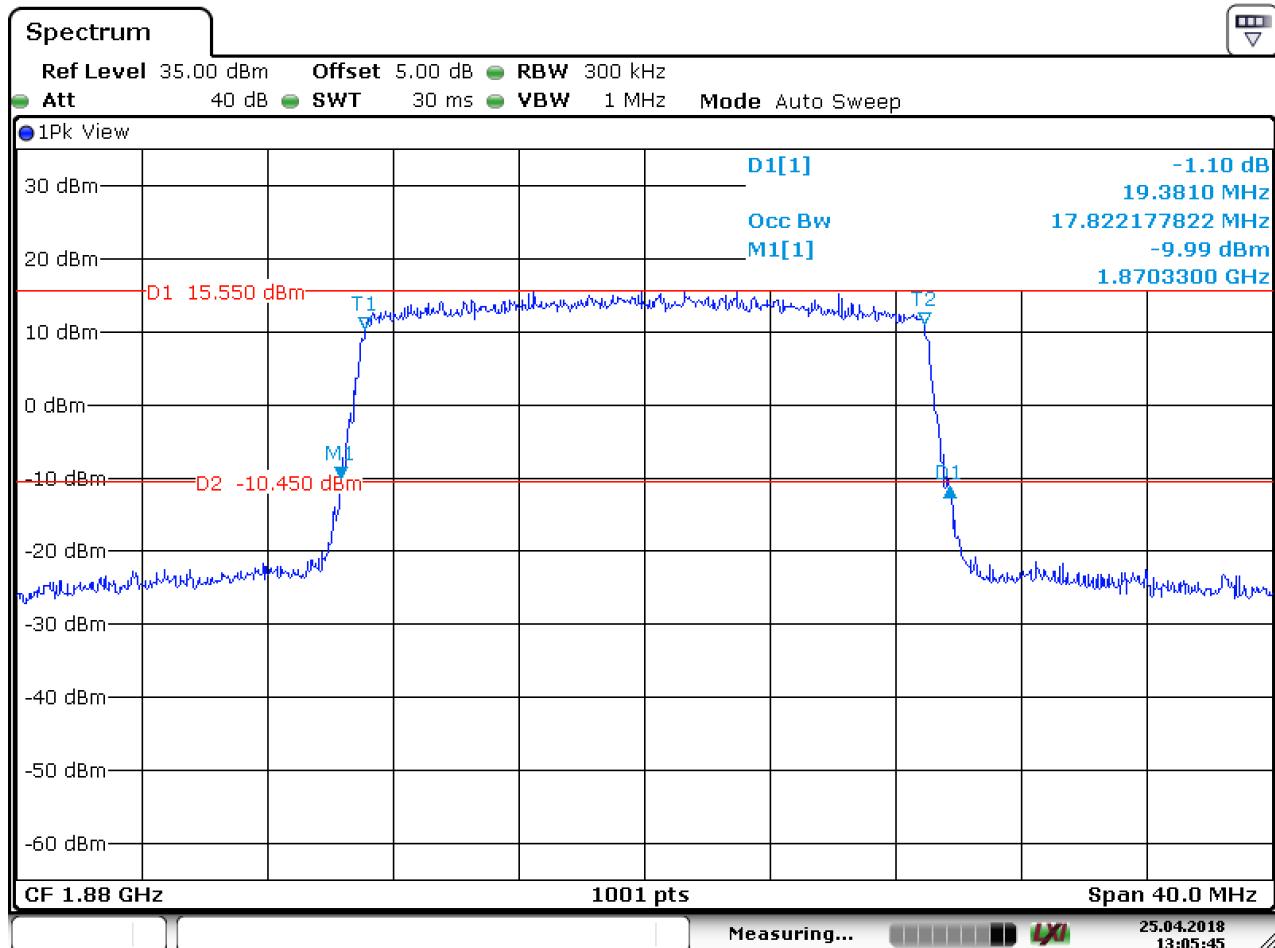
#### 4.1.1.12 Test Mode = LTE/TM2 20MHz

##### 4.1.1.12.1 Test Channel = LCH

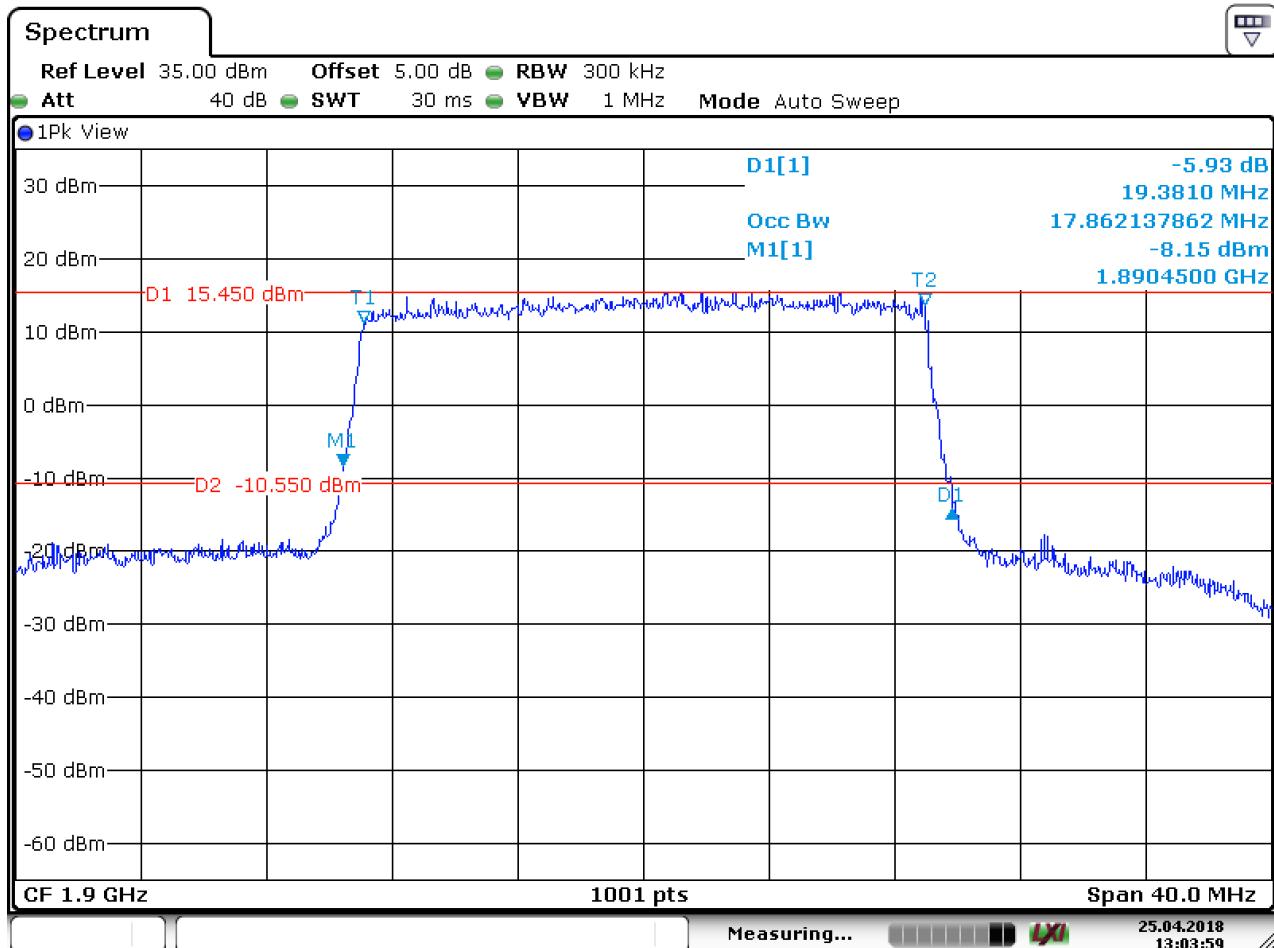


Date: 25.APR.2018 13:10:04

## 4.1.1.12.2 Test Channel = MCH



Date: 25.APR.2018 13:05:45

**4.1.1.12.3 Test Channel = HCH**

Date: 25.APR.2018 13:04:00

## 5 Band Edges Compliance

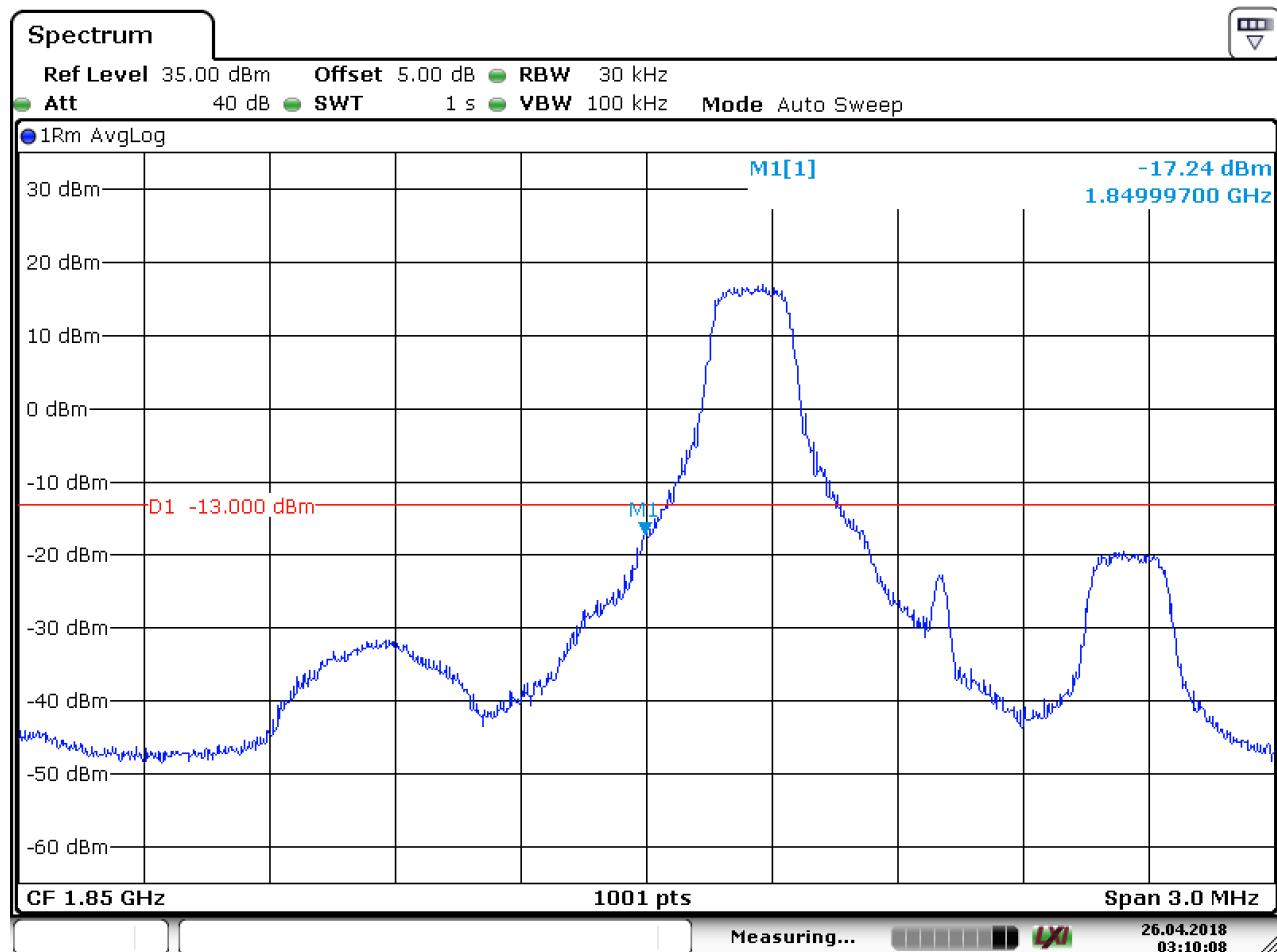
### 5.1 For LTE

#### 5.1.1 Test Band = LTE band2

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

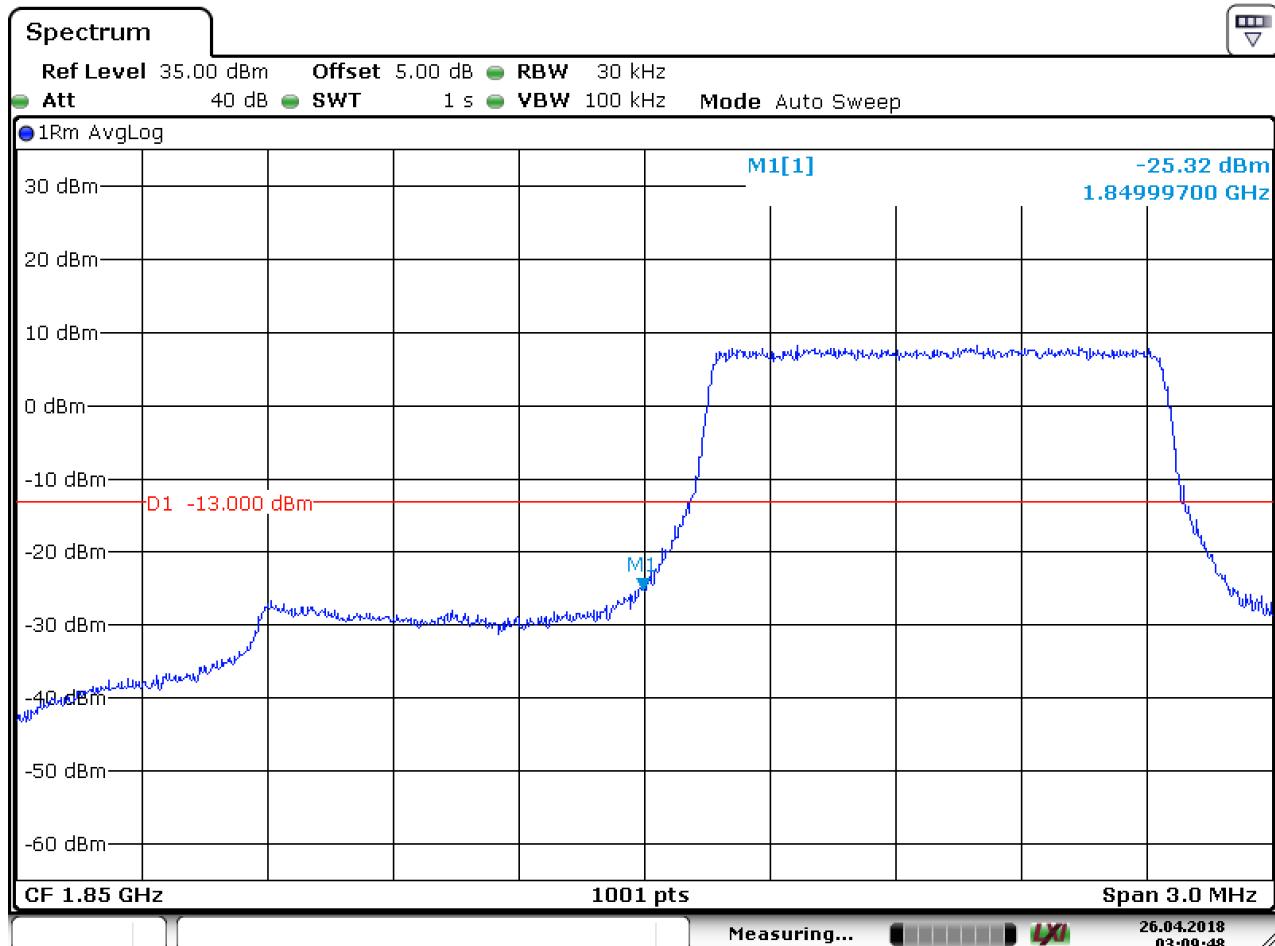
###### 5.1.1.1.1 Test Channel = LCH

###### 5.1.1.1.1.1 Test RB=1RB



Date: 26.APR.2018 03:10:08

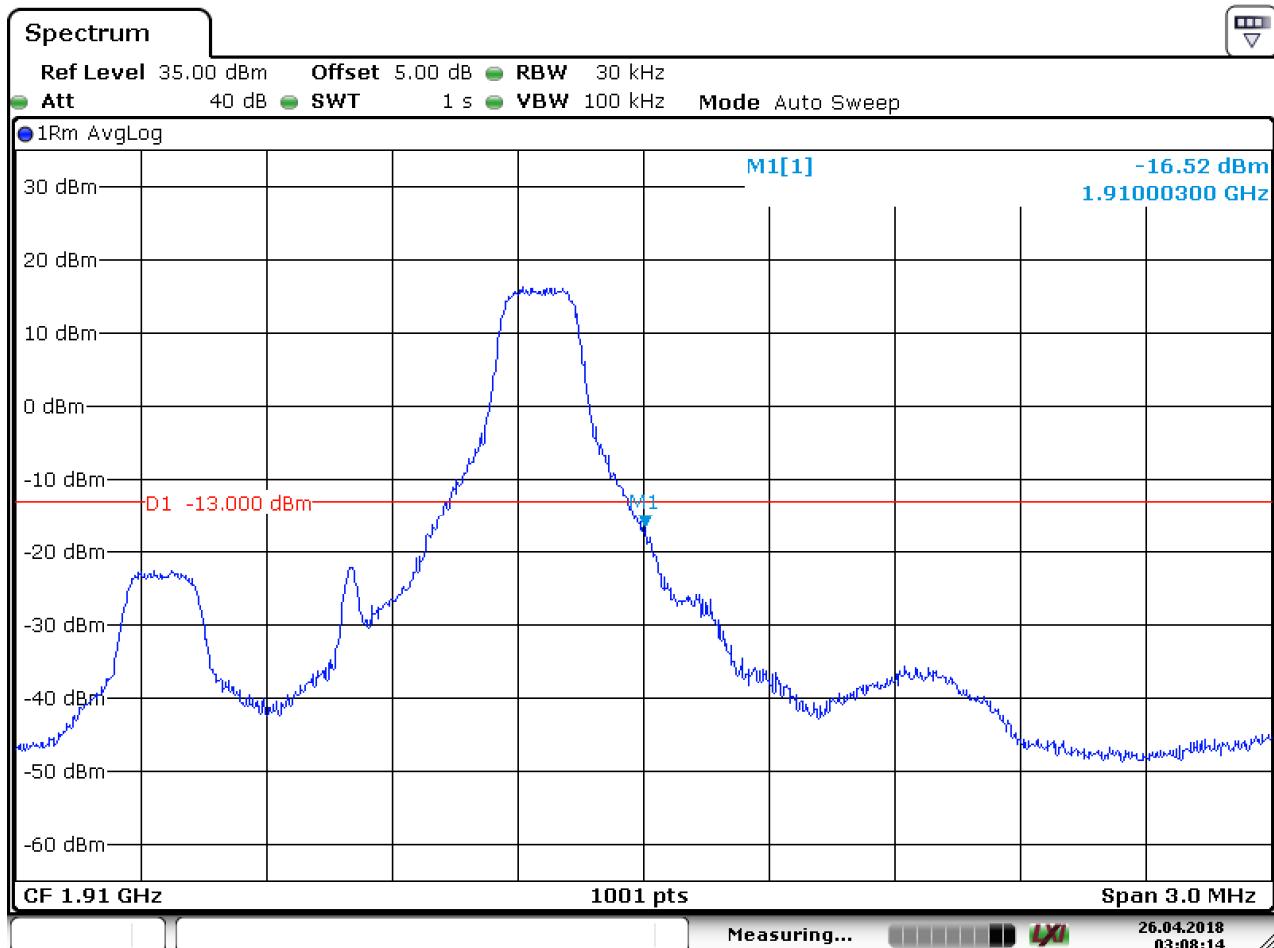
## 5.1.1.1.1.2 Test RB=6RB



Date: 26.APR.2018 03:09:49

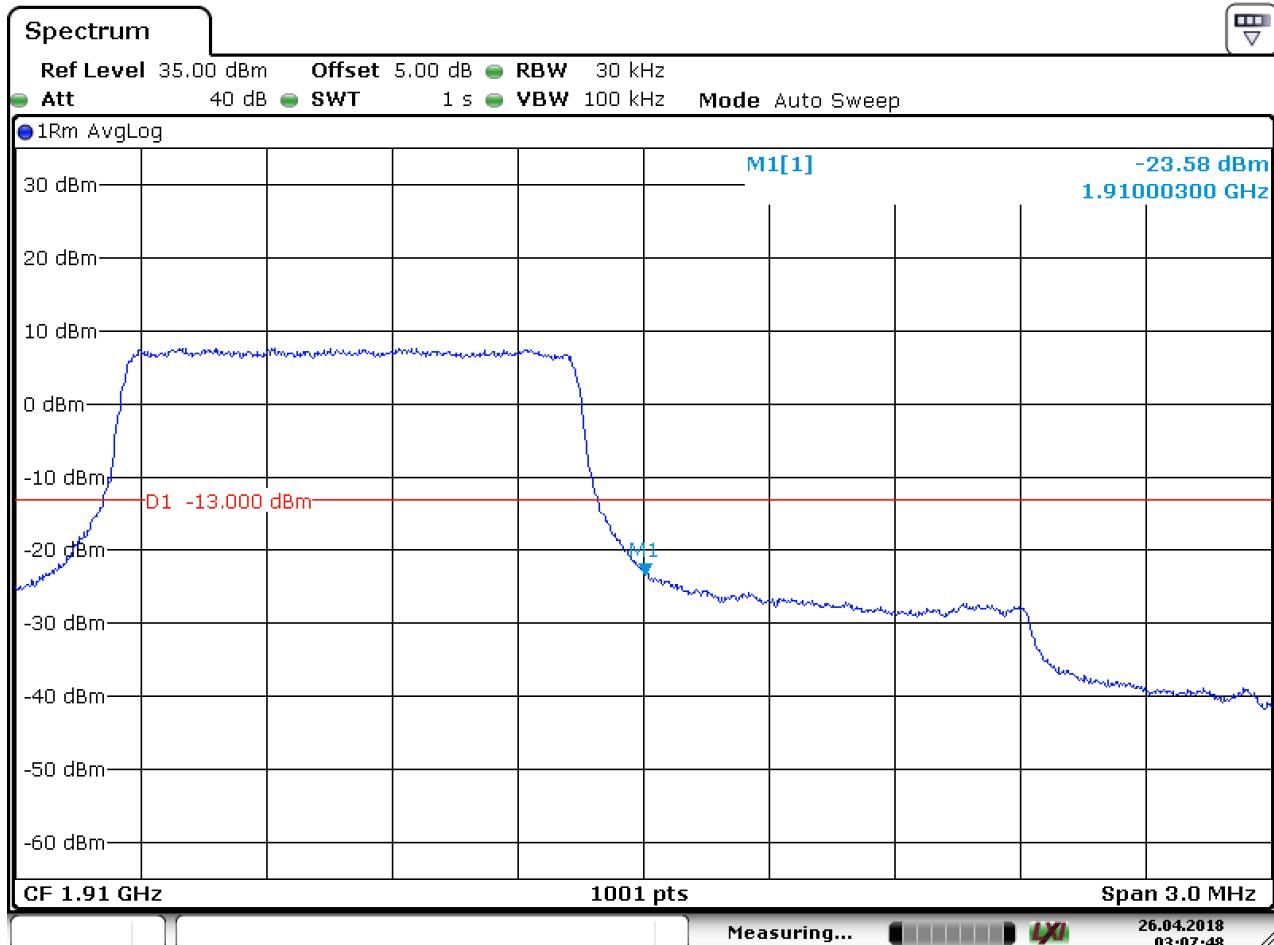
### 5.1.1.1.2 Test Channel = HCH

#### 5.1.1.1.2.1 Test RB=1RB

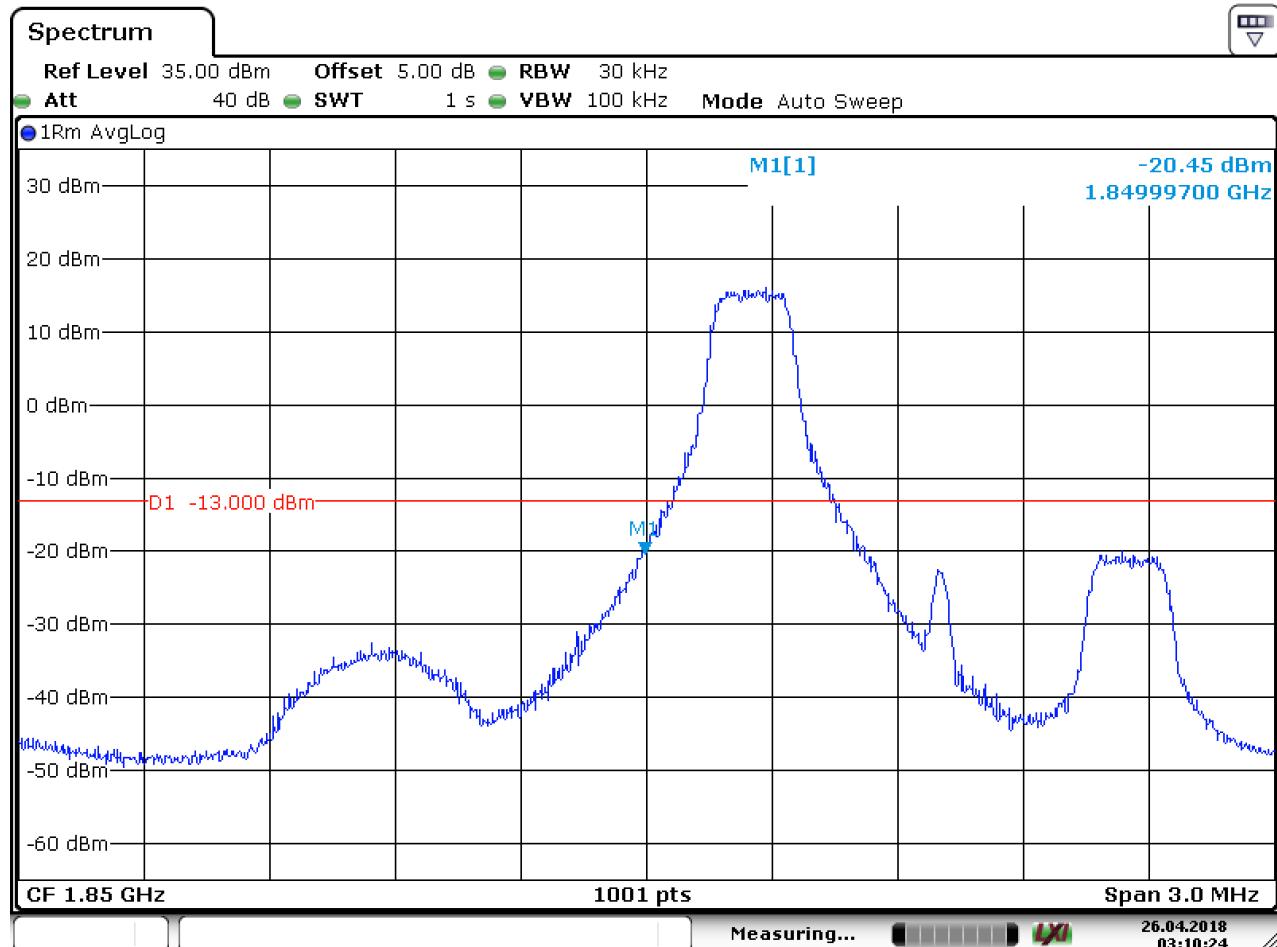


Date: 26.APR.2018 03:08:14

## 5.1.1.1.2.2 Test RB=6RB

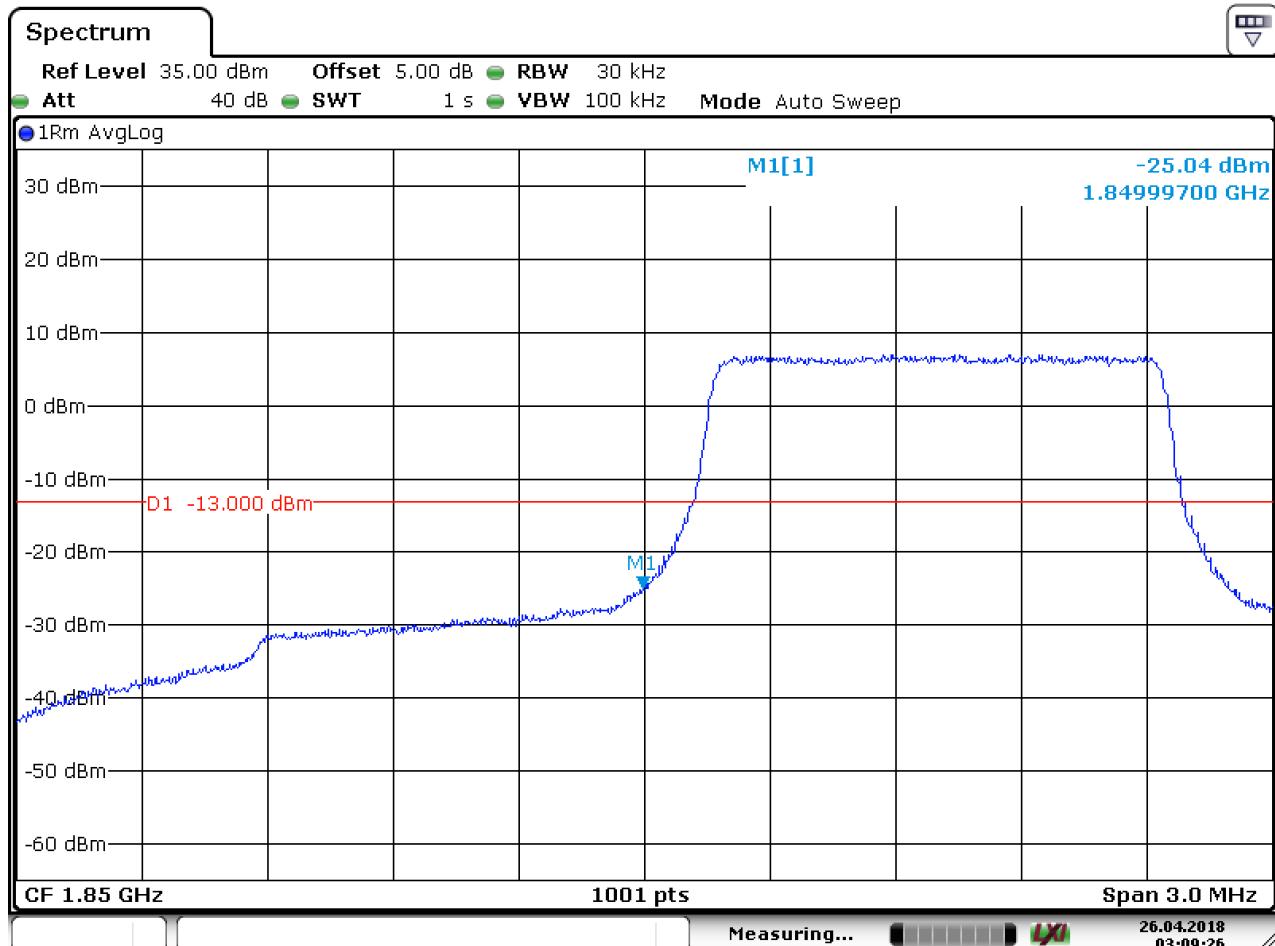


Date: 26.APR.2018 03:07:48

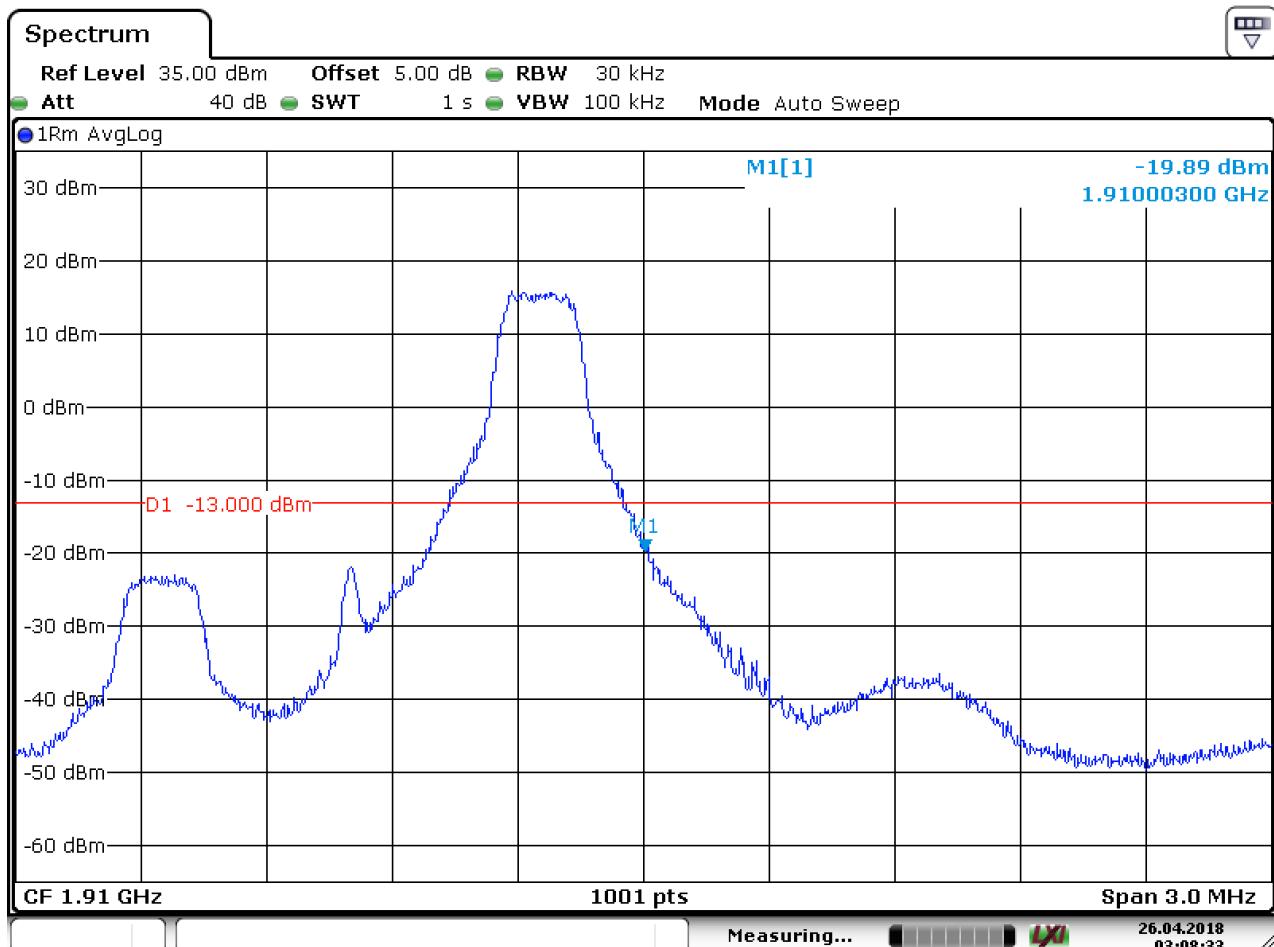
**5.1.1.2 Test Mode = LTE/TM2 1.4MHz****5.1.1.2.1 Test Channel = LCH****5.1.1.2.1.1 Test RB=1RB**

Date: 26.APR.2018 03:10:24

## 5.1.1.2.1.2 Test RB=6RB

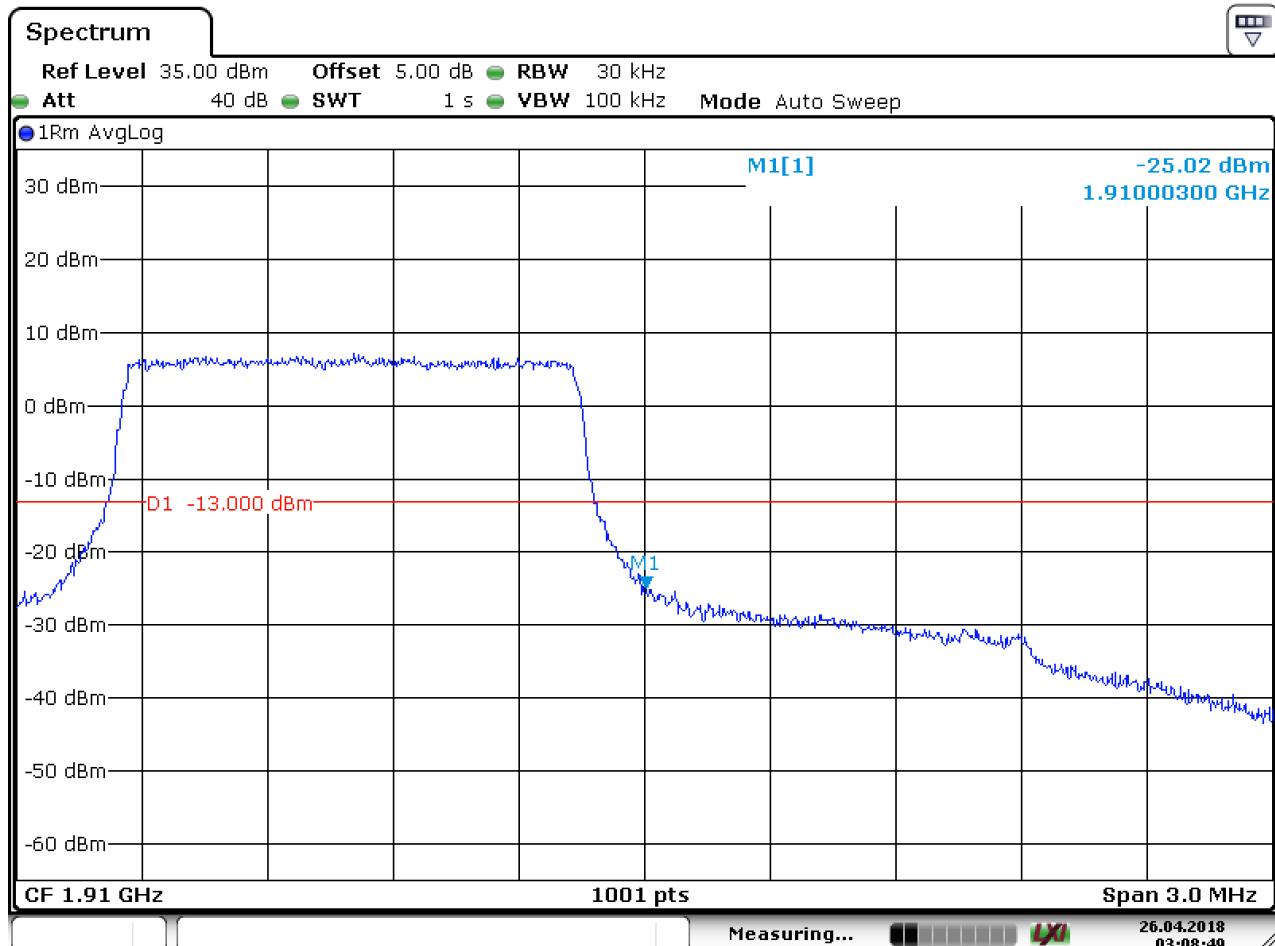


Date: 26.APR.2018 03:09:27

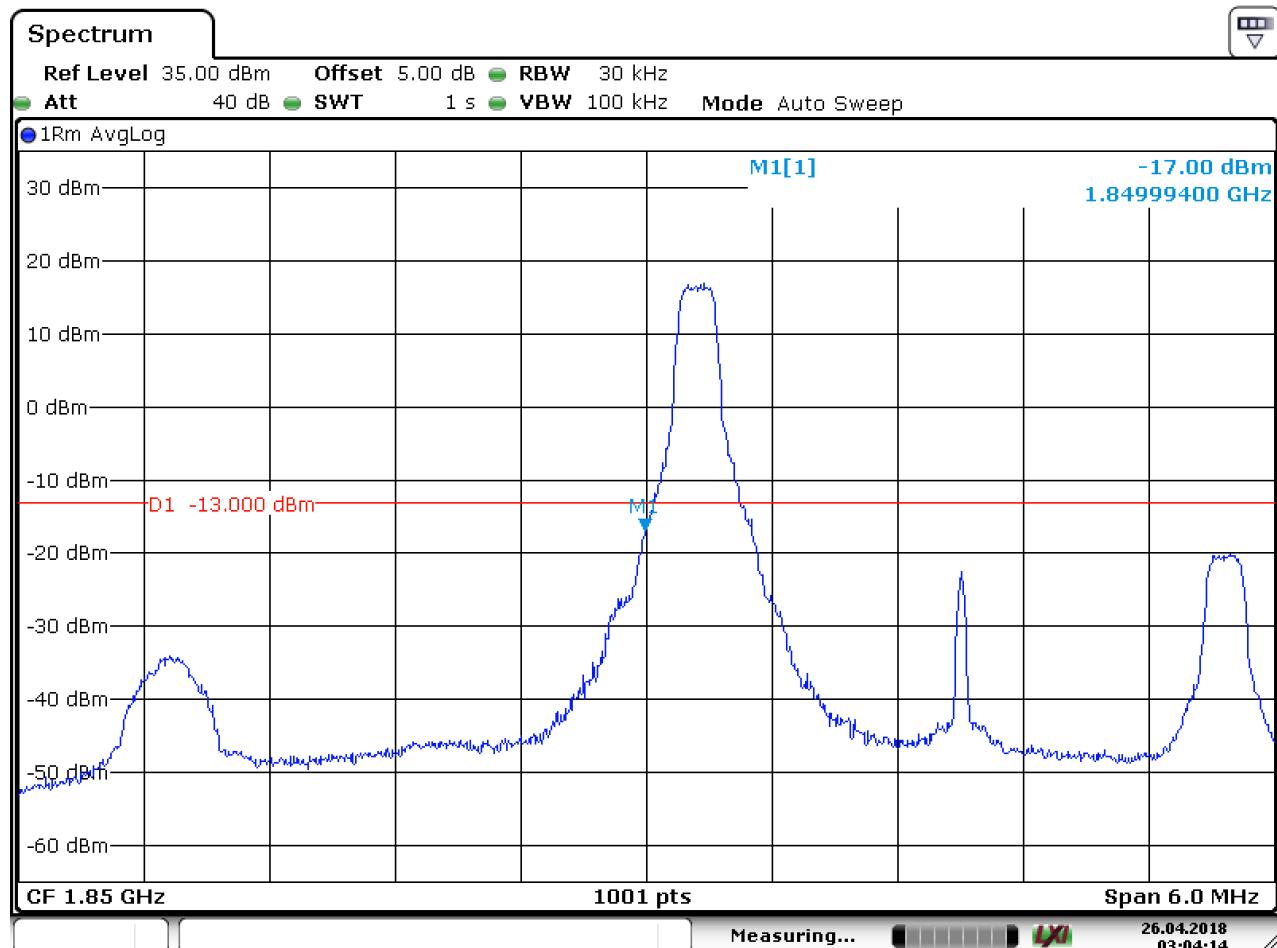
**5.1.1.2.2 Test Channel = HCH****5.1.1.2.2.1 Test RB=1RB**

Date: 26.APR.2018 03:08:34

## 5.1.1.2.2.2 Test RB=6RB

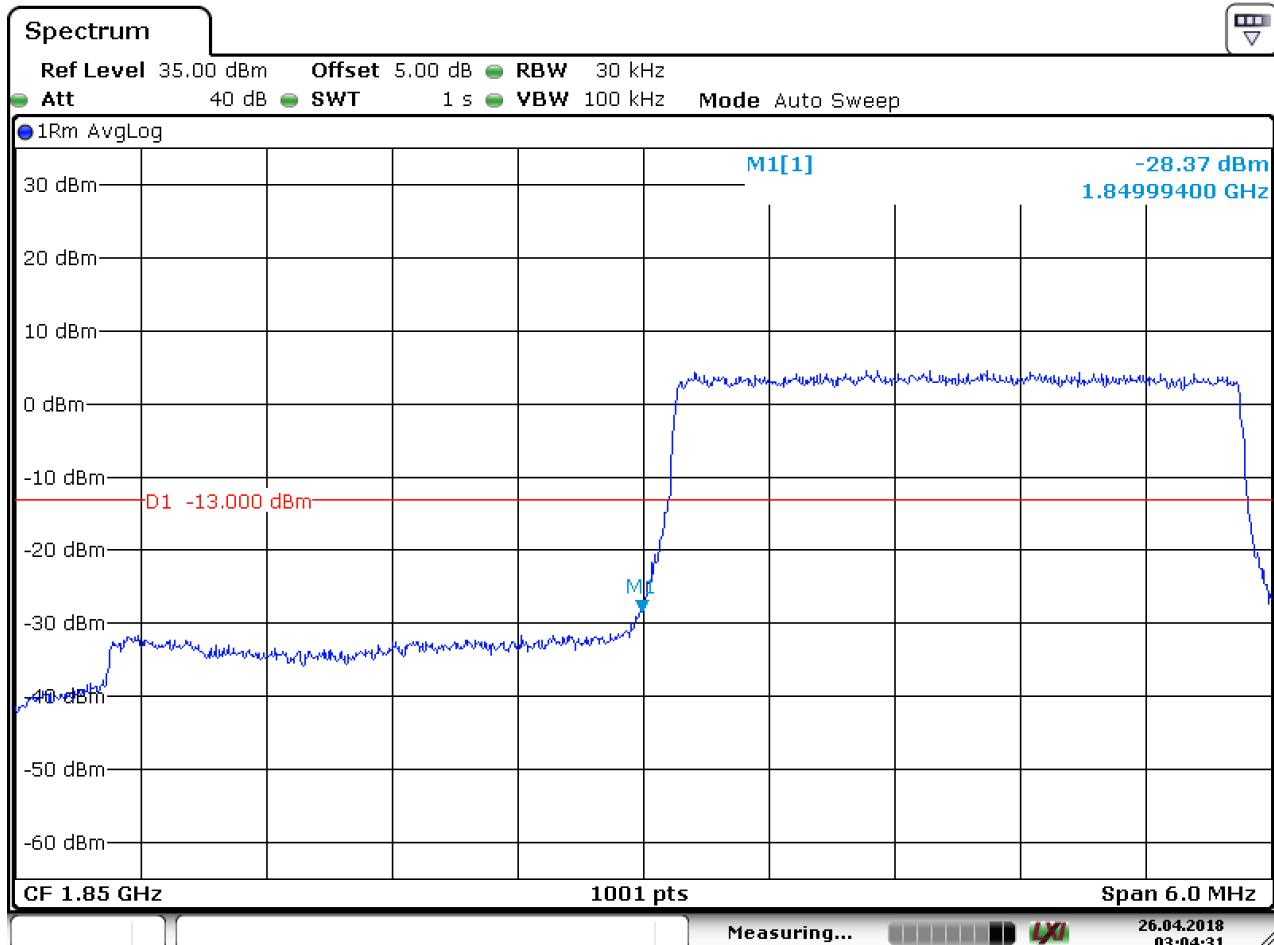


Date: 26.APR.2018 03:08:50

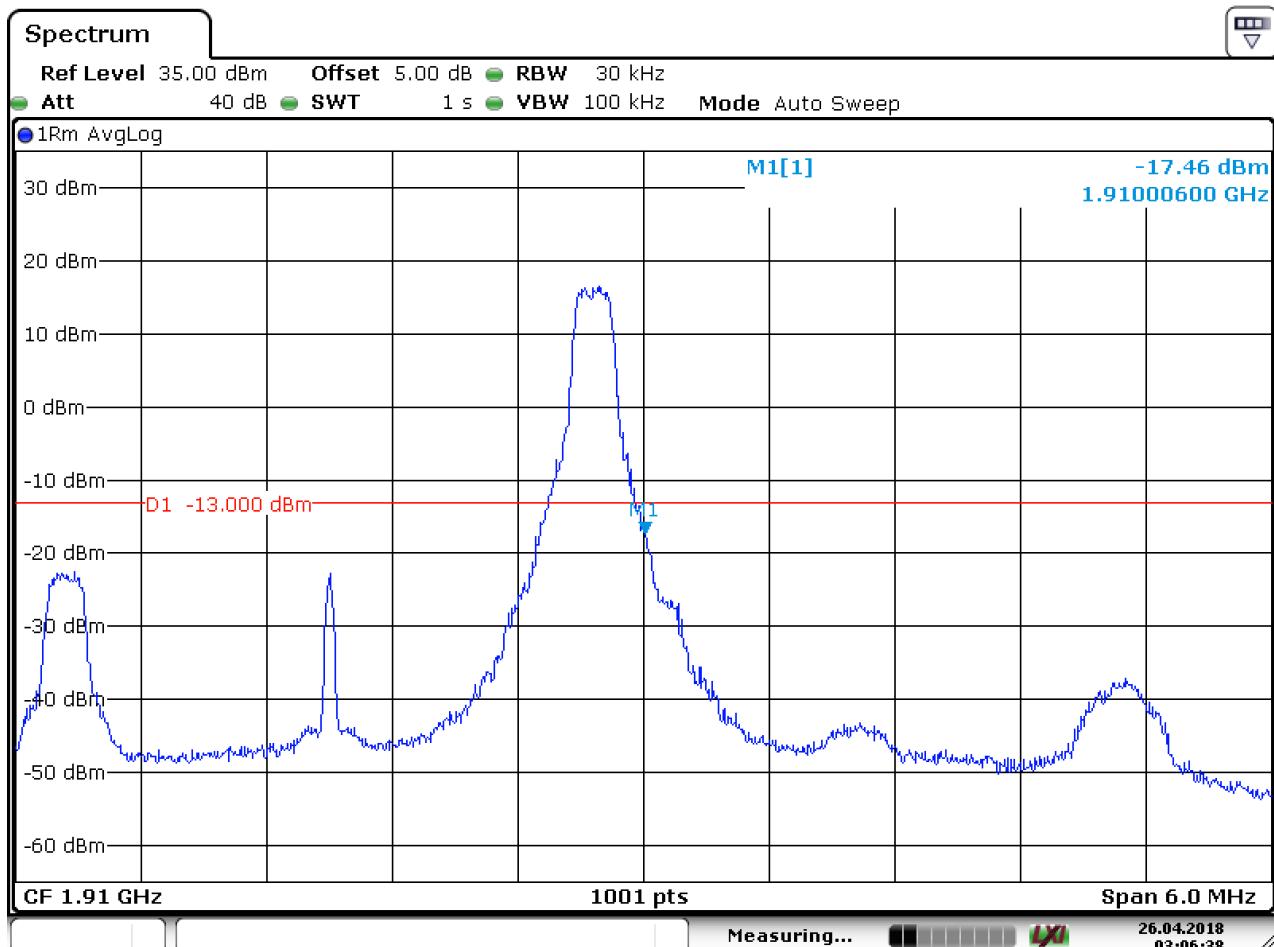
**5.1.1.3 Test Mode = LTE/TM1 3MHz****5.1.1.3.1 Test Channel = LCH****5.1.1.3.1.1 Test RB=1RB**

Date: 26.APR.2018 03:04:14

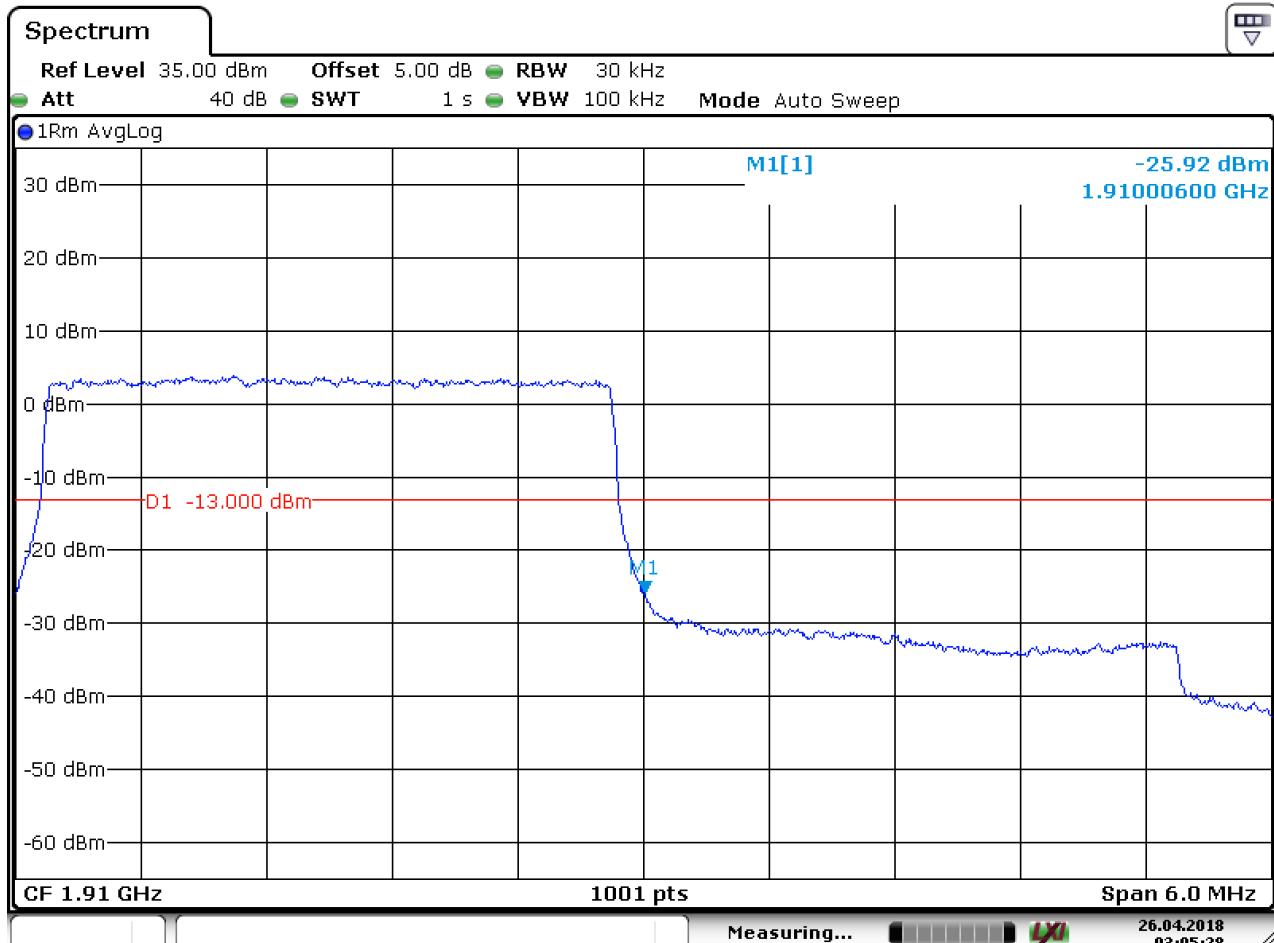
26.04.2018  
03:04:14

**5.1.1.3.1.2 Test RB=15RB**

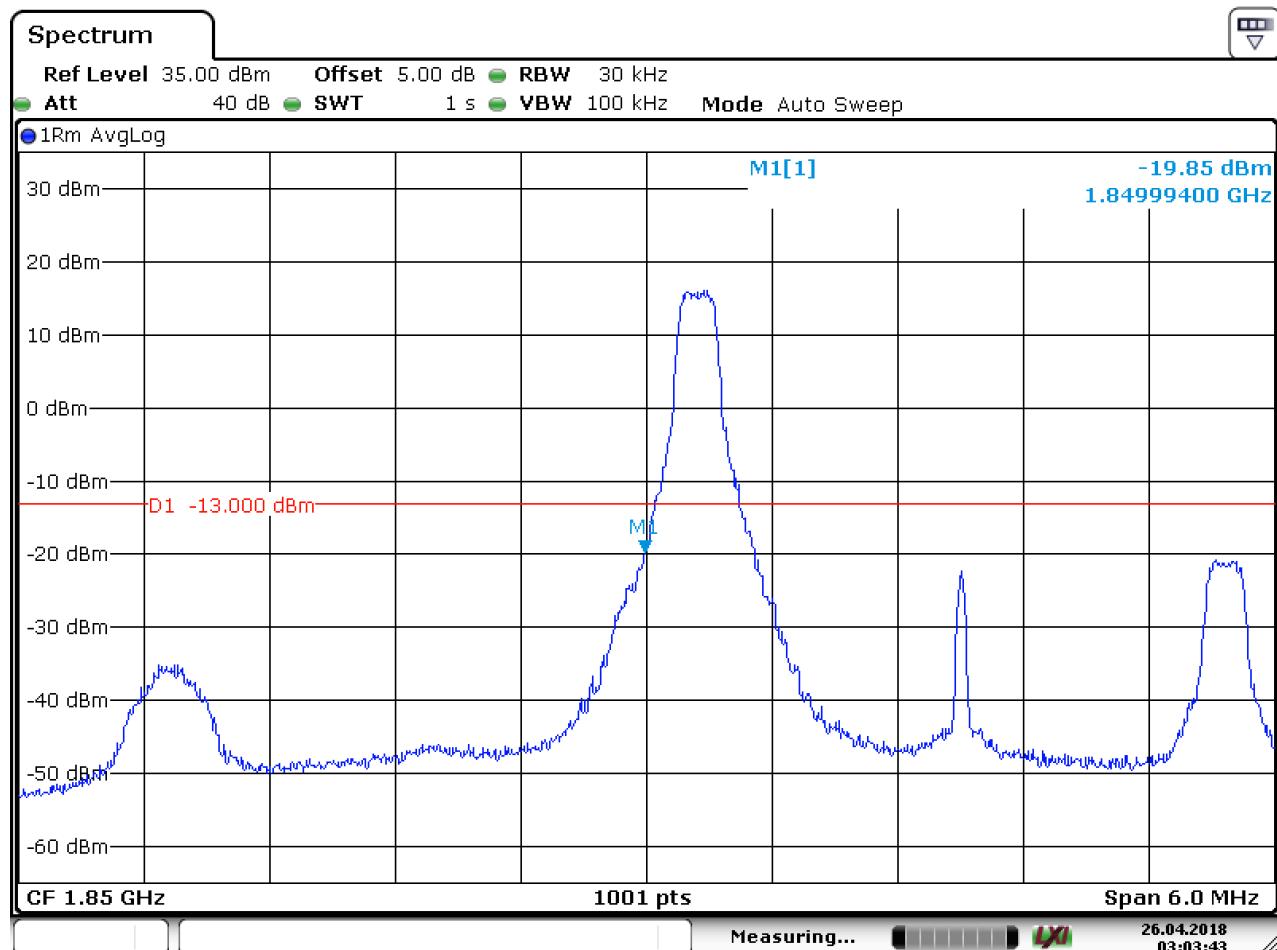
Date: 26.APR.2018 03:04:32

**5.1.1.3.2 Test Channel = HCH****5.1.1.3.2.1 Test RB=1RB**

Date: 26.APR.2018 03:06:38

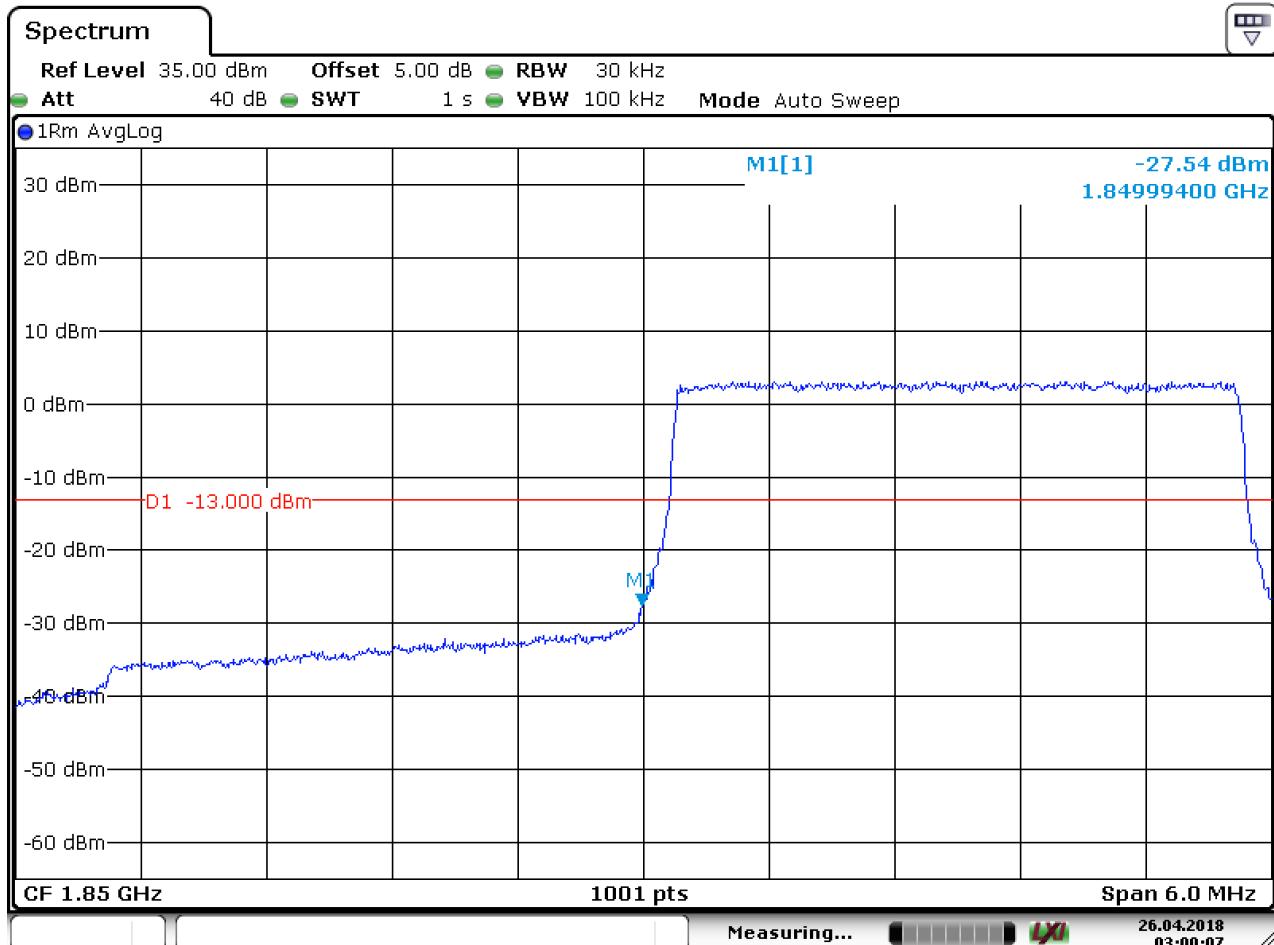
**5.1.1.3.2.2 Test RB=15RB**

Date: 26.APR.2018 03:05:28

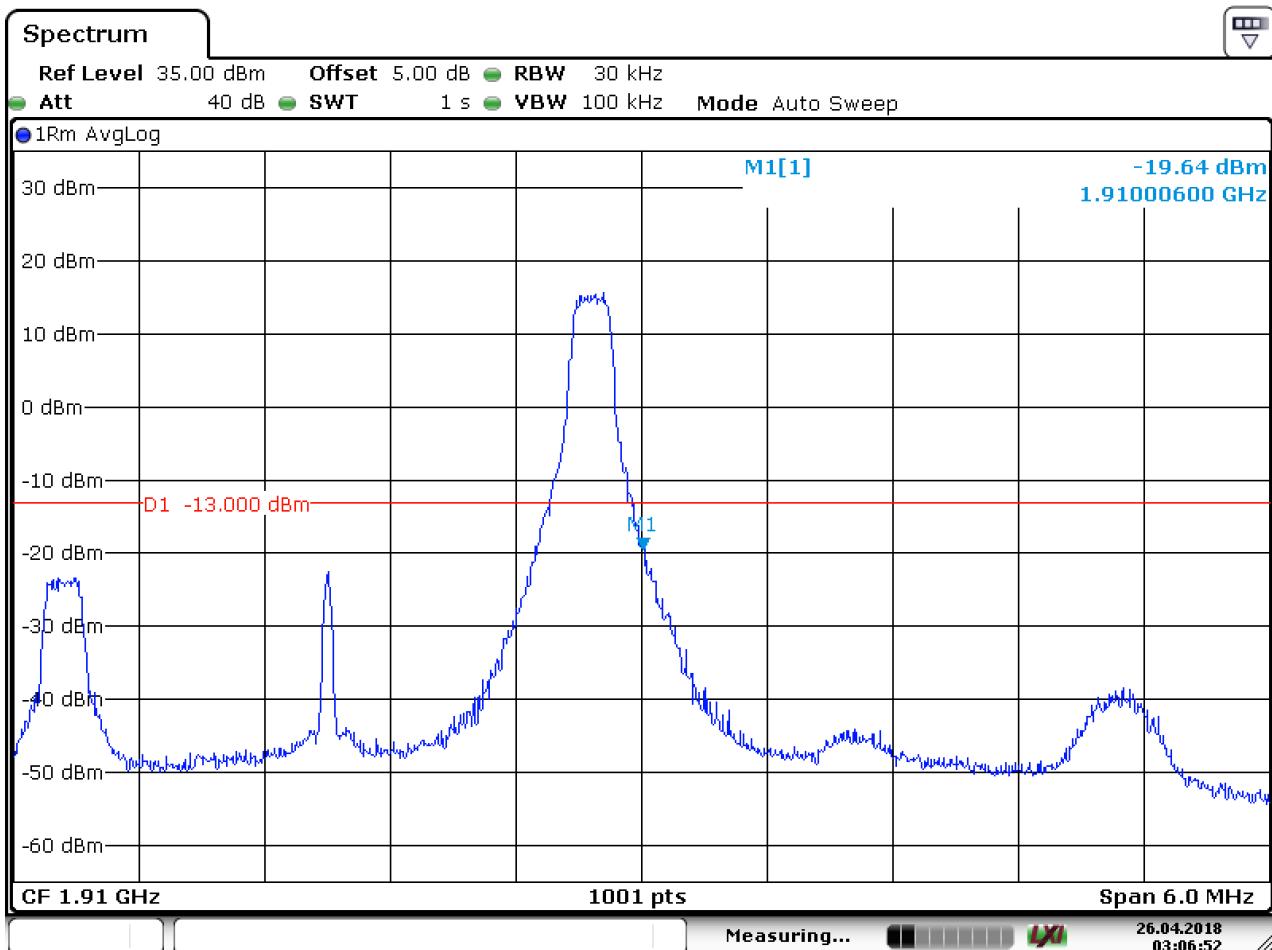
**5.1.1.4 Test Mode = LTE/TM2 3MHz****5.1.1.4.1 Test Channel = LCH****5.1.1.4.1.1 Test RB=1RB**

Date: 26.APR.2018 03:03:44

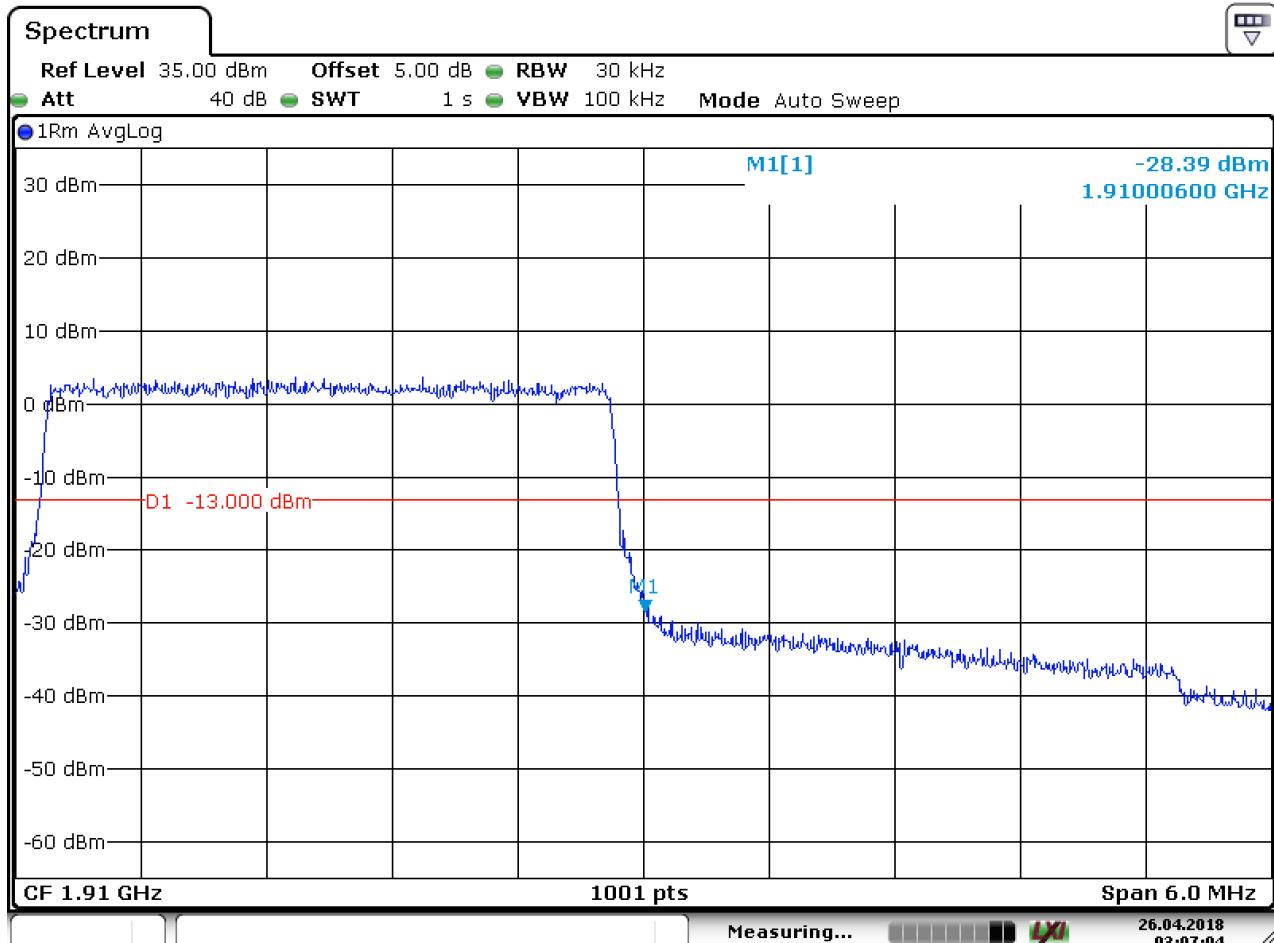
## 5.1.1.4.1.2 Test RB=15RB



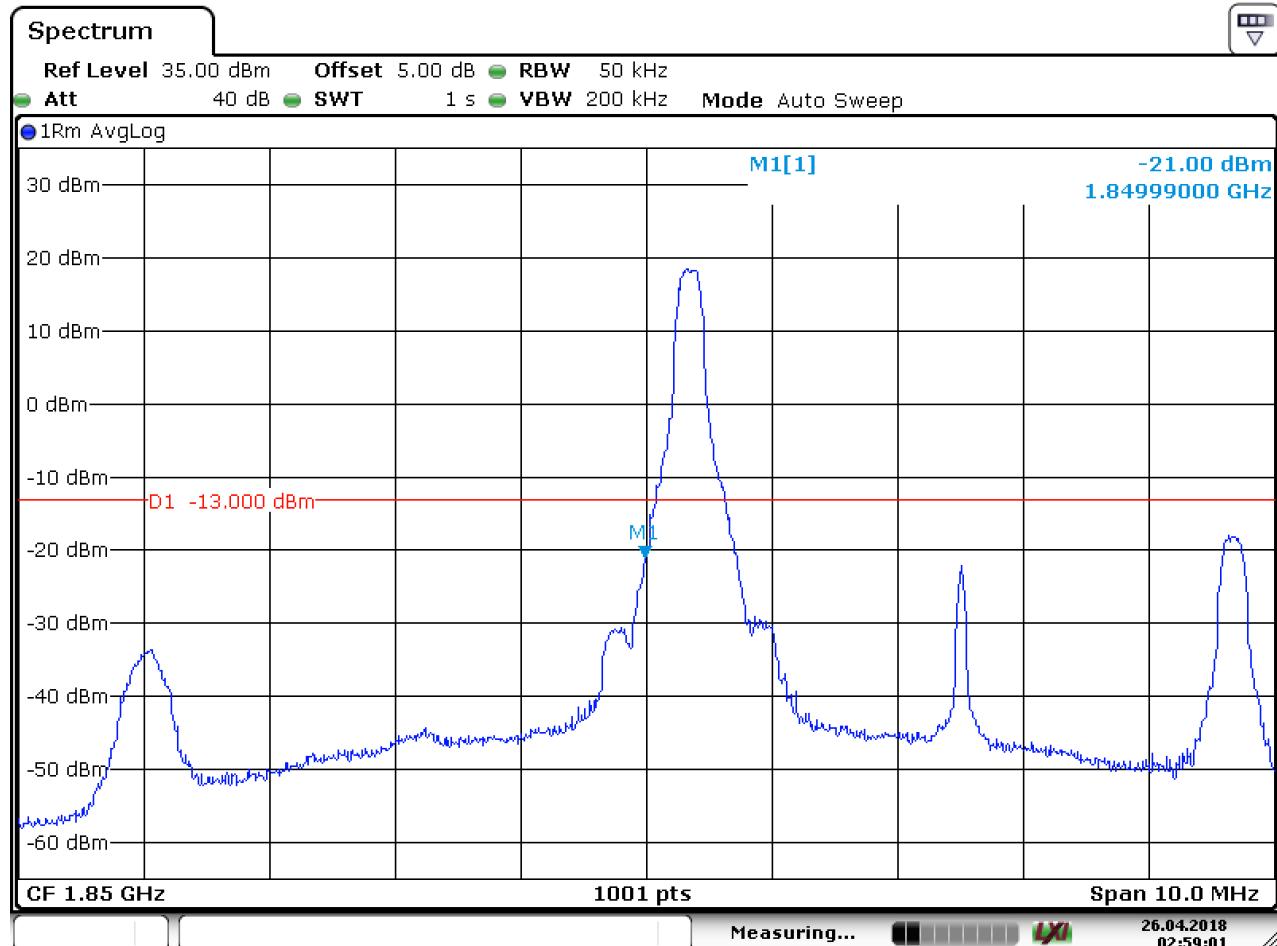
Date: 26.APR.2018 03:00:07

**5.1.1.4.2 Test Channel = HCH****5.1.1.4.2.1 Test RB=1RB**

Date: 26.APR.2018 03:06:52

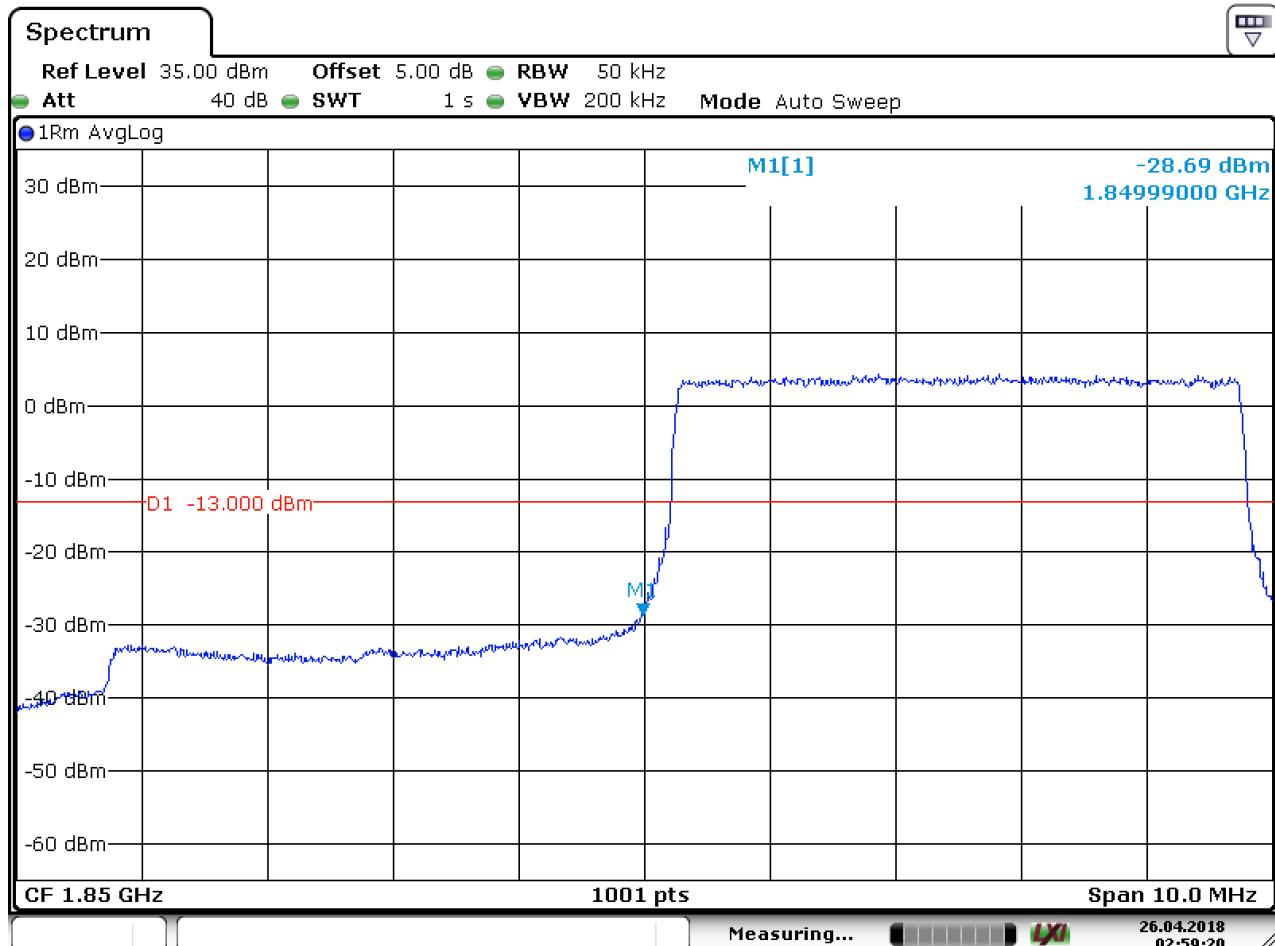
**5.1.1.4.3 Test RB=15RB**

Date: 26.APR.2018 03:07:04

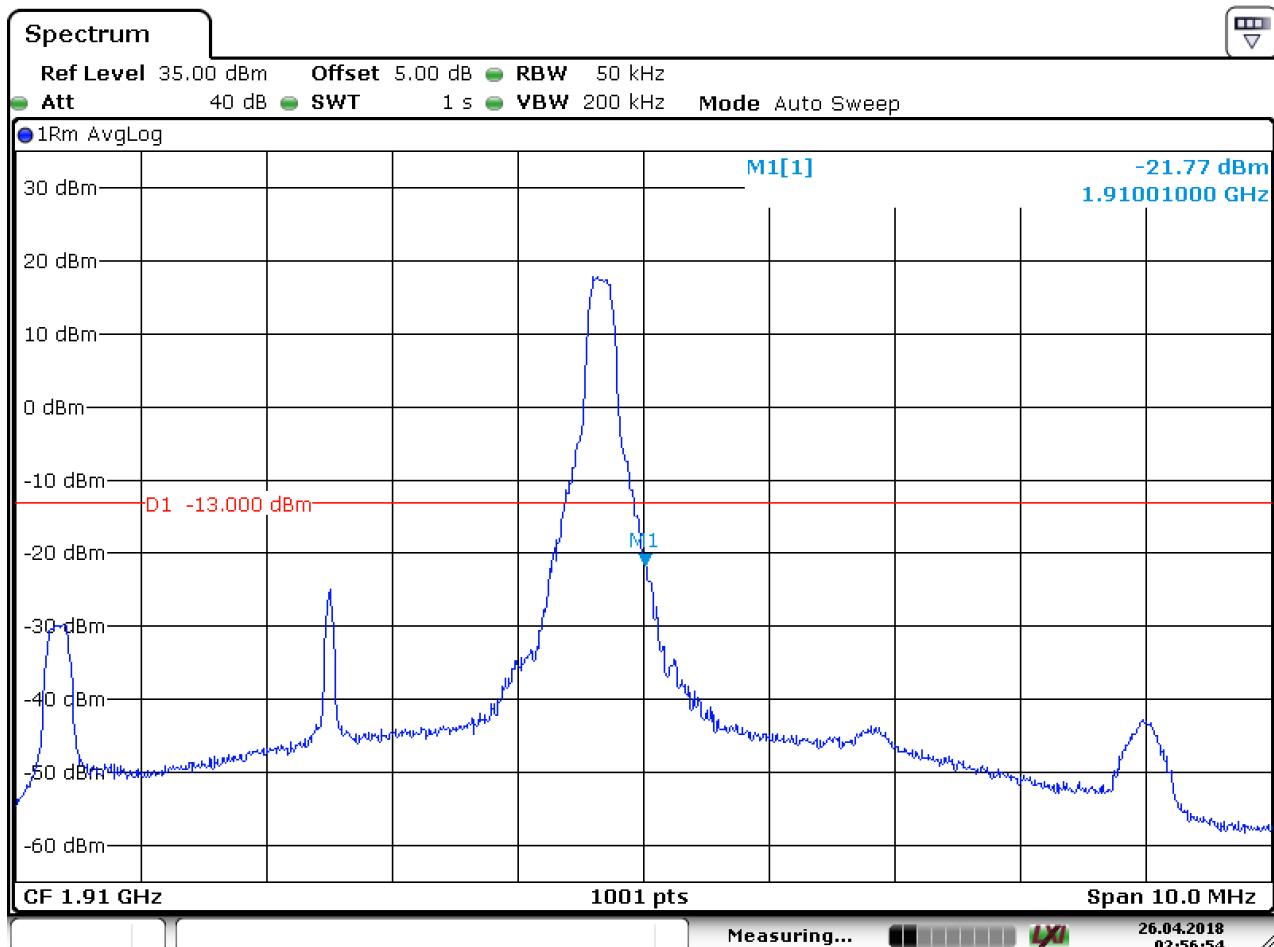
**5.1.1.5 Test Mode = LTE/TM1 5MHz****5.1.1.5.1 Test Channel = LCH****5.1.1.5.1.1 Test RB=1RB**

Date: 26.APR.2018 02:59:01

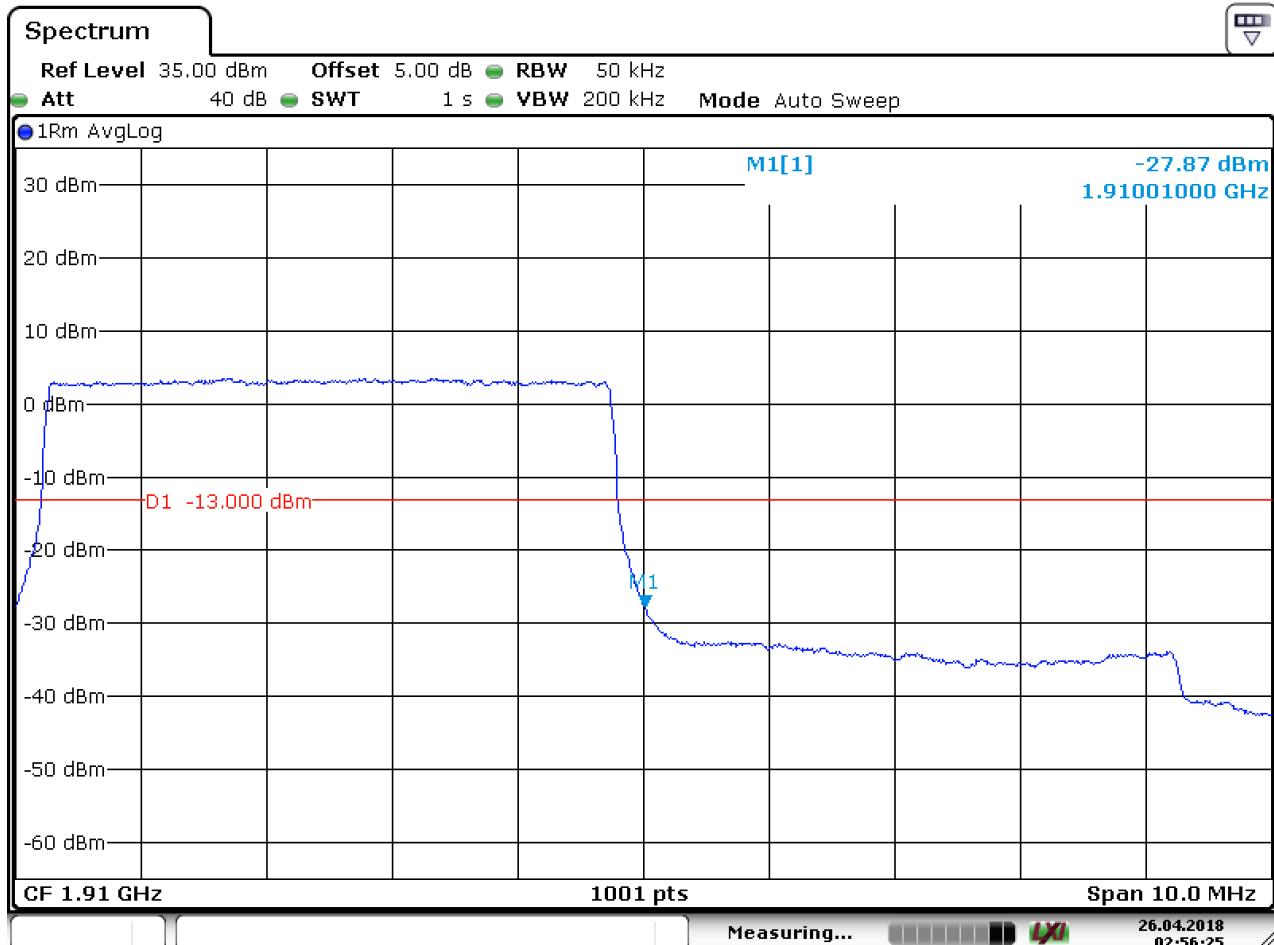
## 5.1.1.5.1.2 Test RB=25RB



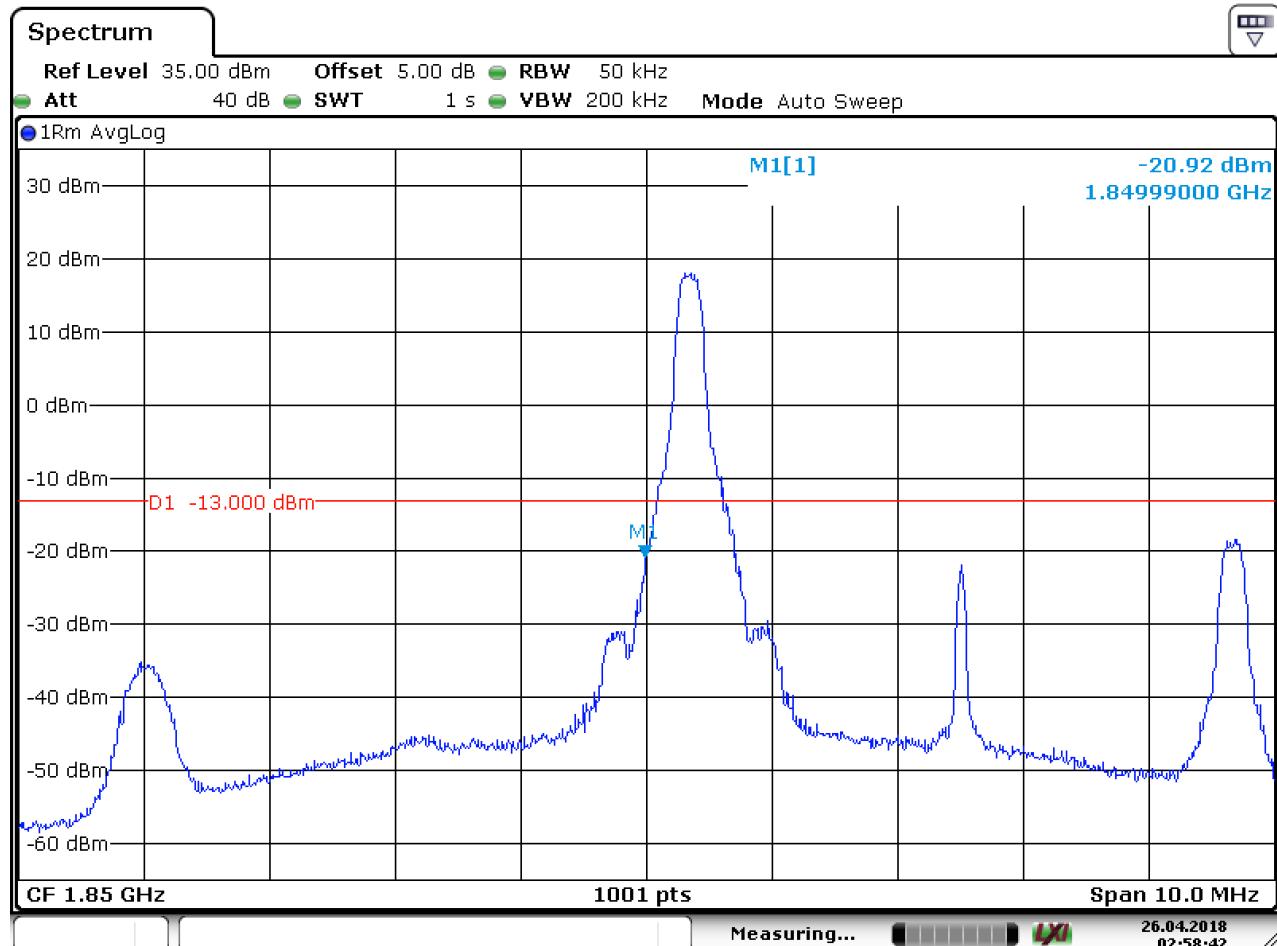
Date: 26.APR.2018 02:59:20

**5.1.1.5.2 Test Channel = HCH****5.1.1.5.2.1 Test RB=1RB**

Date: 26.APR.2018 02:56:54

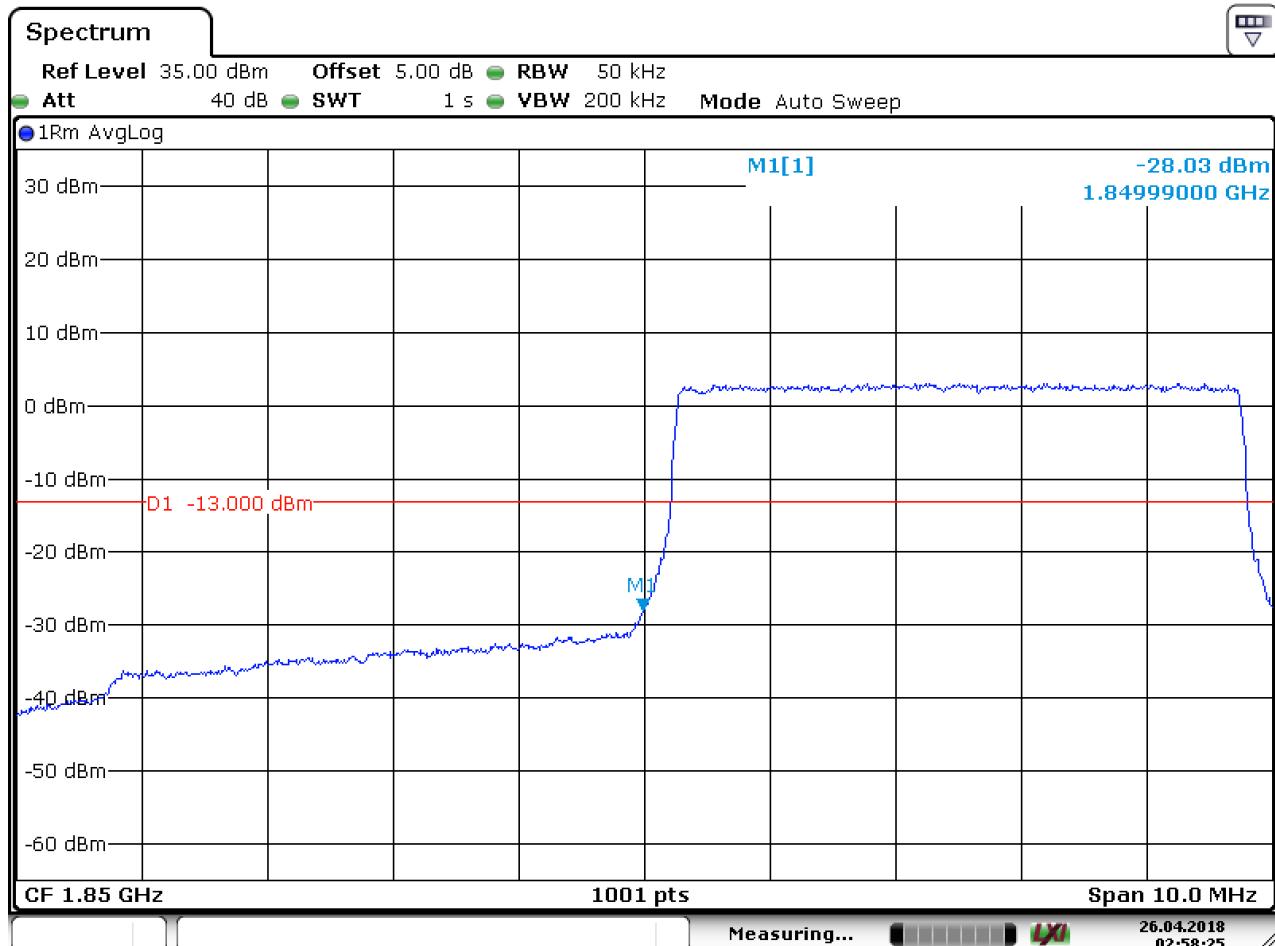
**5.1.1.5.2.2 Test RB=25RB**

Date: 26.APR.2018 02:56:25

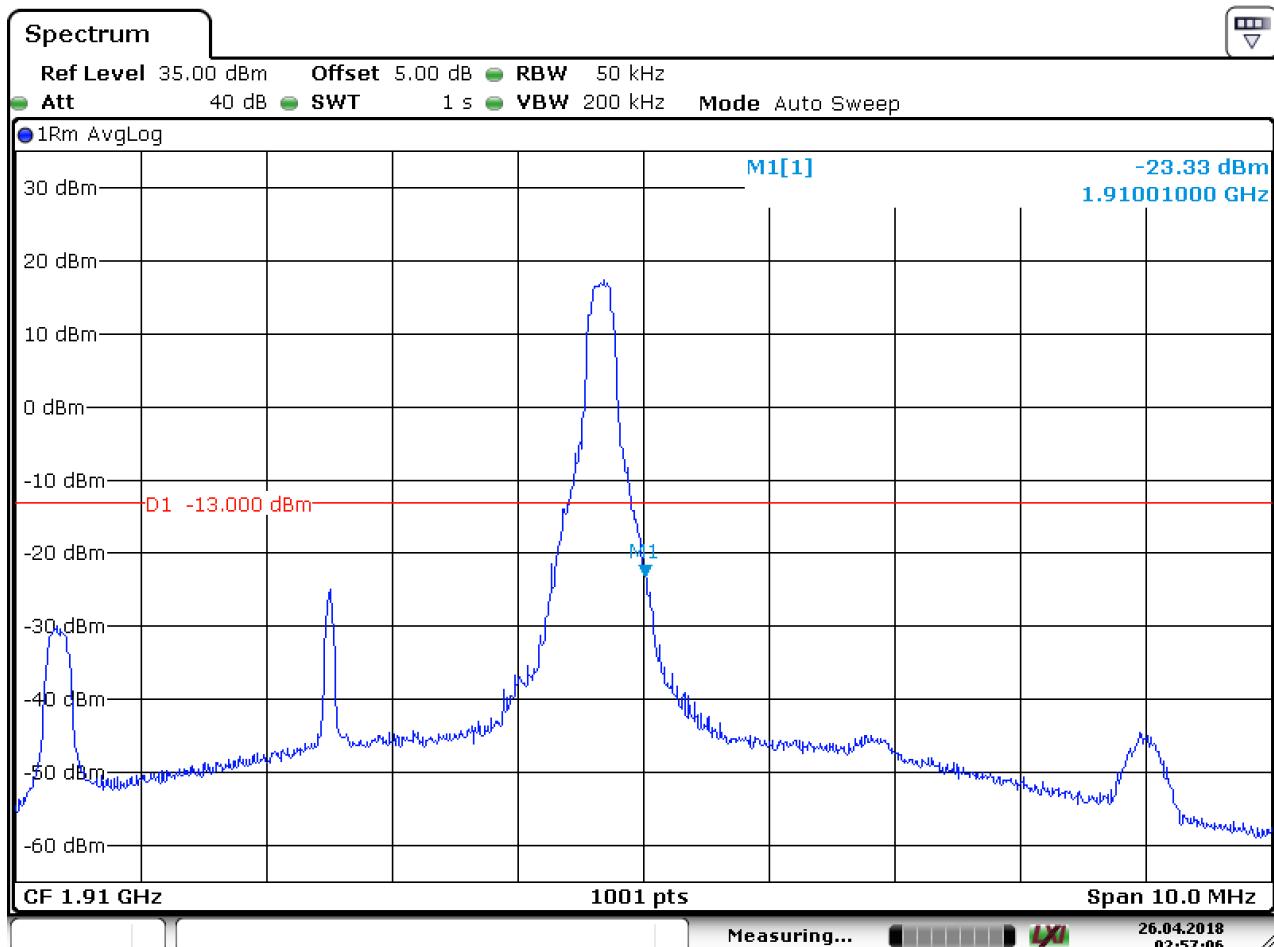
**5.1.1.6 Test Mode = LTE/TM2 5MHz****5.1.1.6.1 Test Channel = LCH****5.1.1.6.1.1 Test RB=1RB**

Date: 26.APR.2018 02:58:42

## 5.1.1.6.1.2 Test RB=25RB

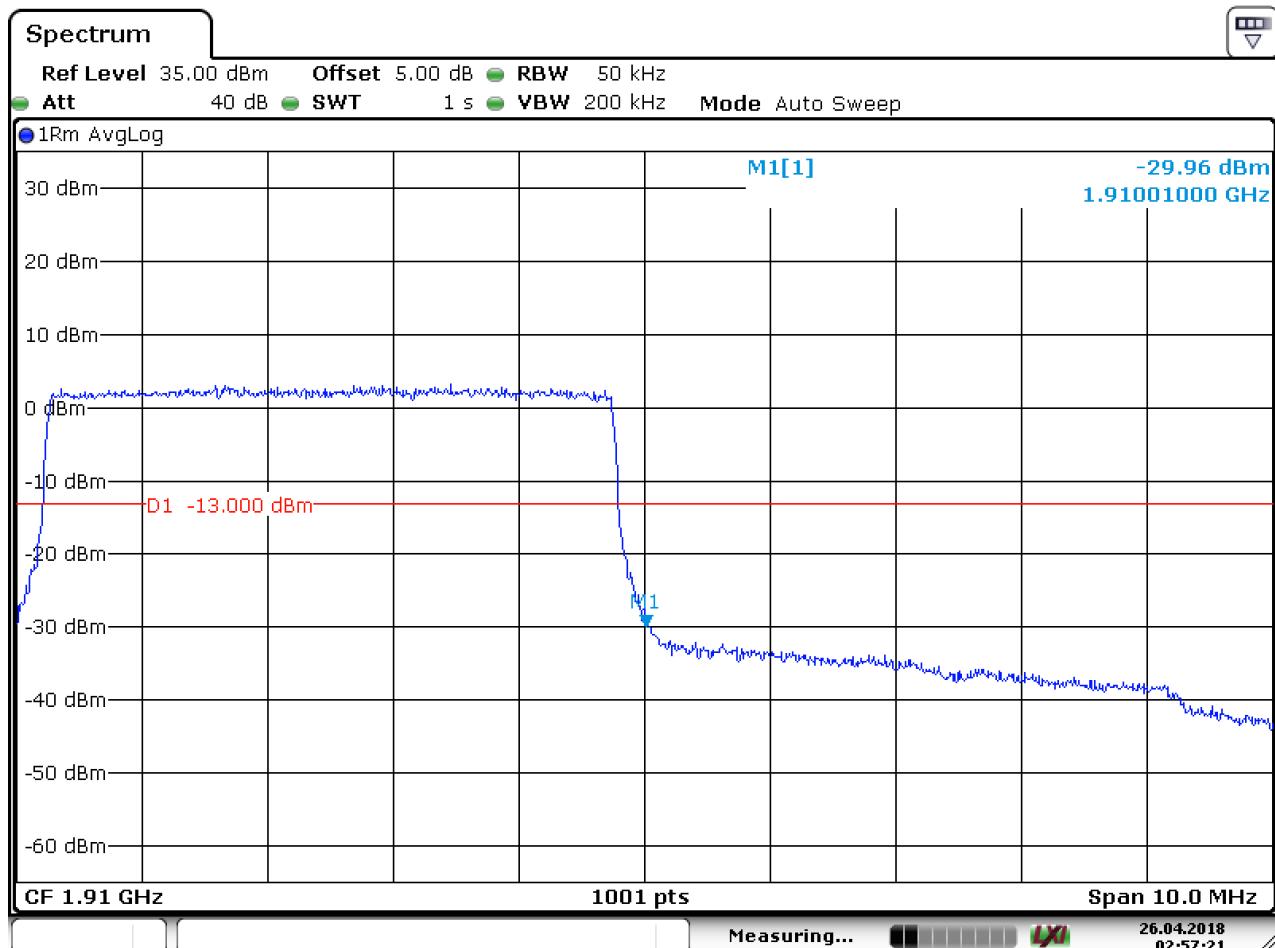


Date: 26.APR.2018 02:58:25

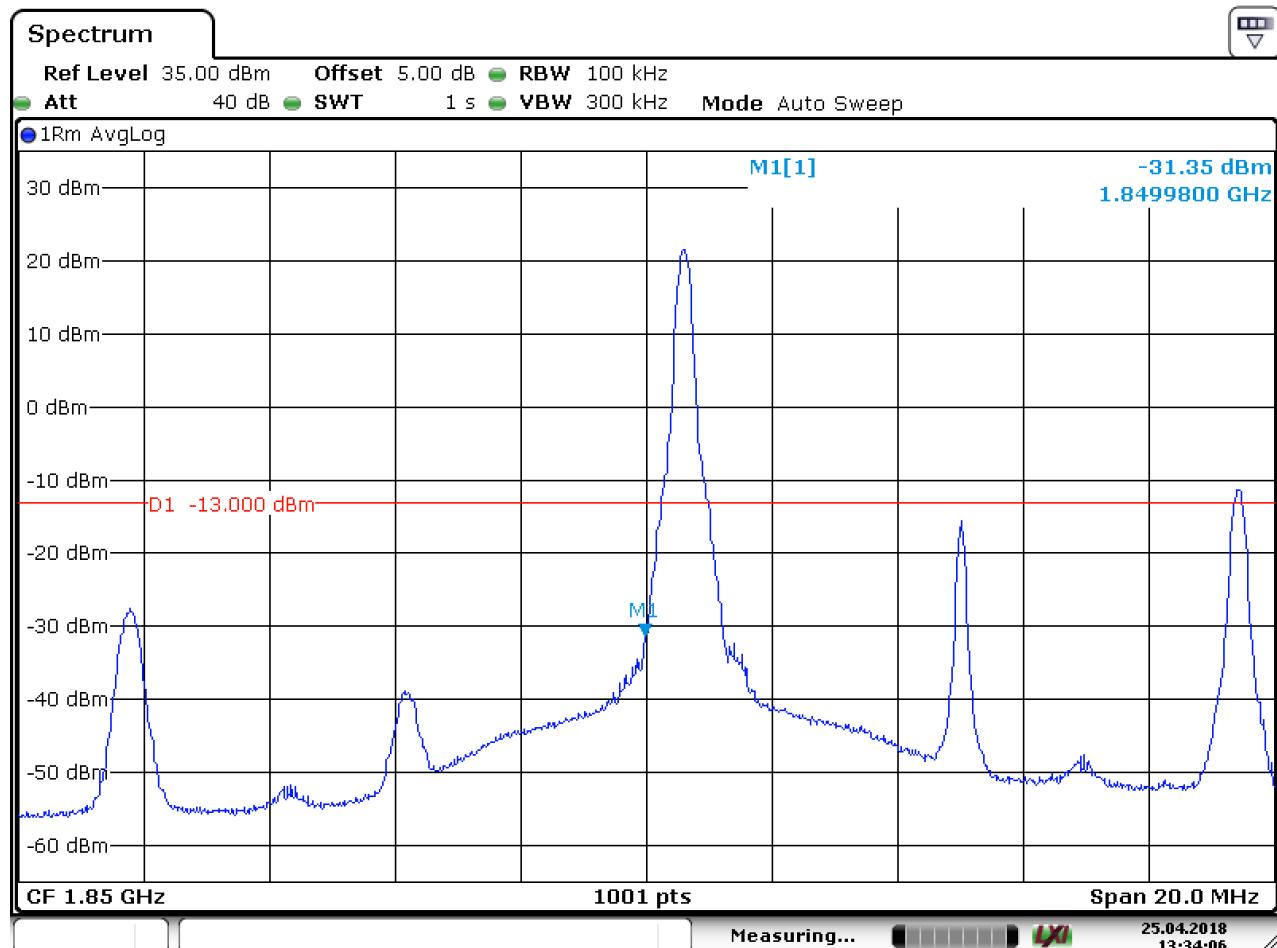
**5.1.1.6.2 Test Channel = HCH****5.1.1.6.2.1 Test RB=1RB**

Date: 26.APR.2018 02:57:06

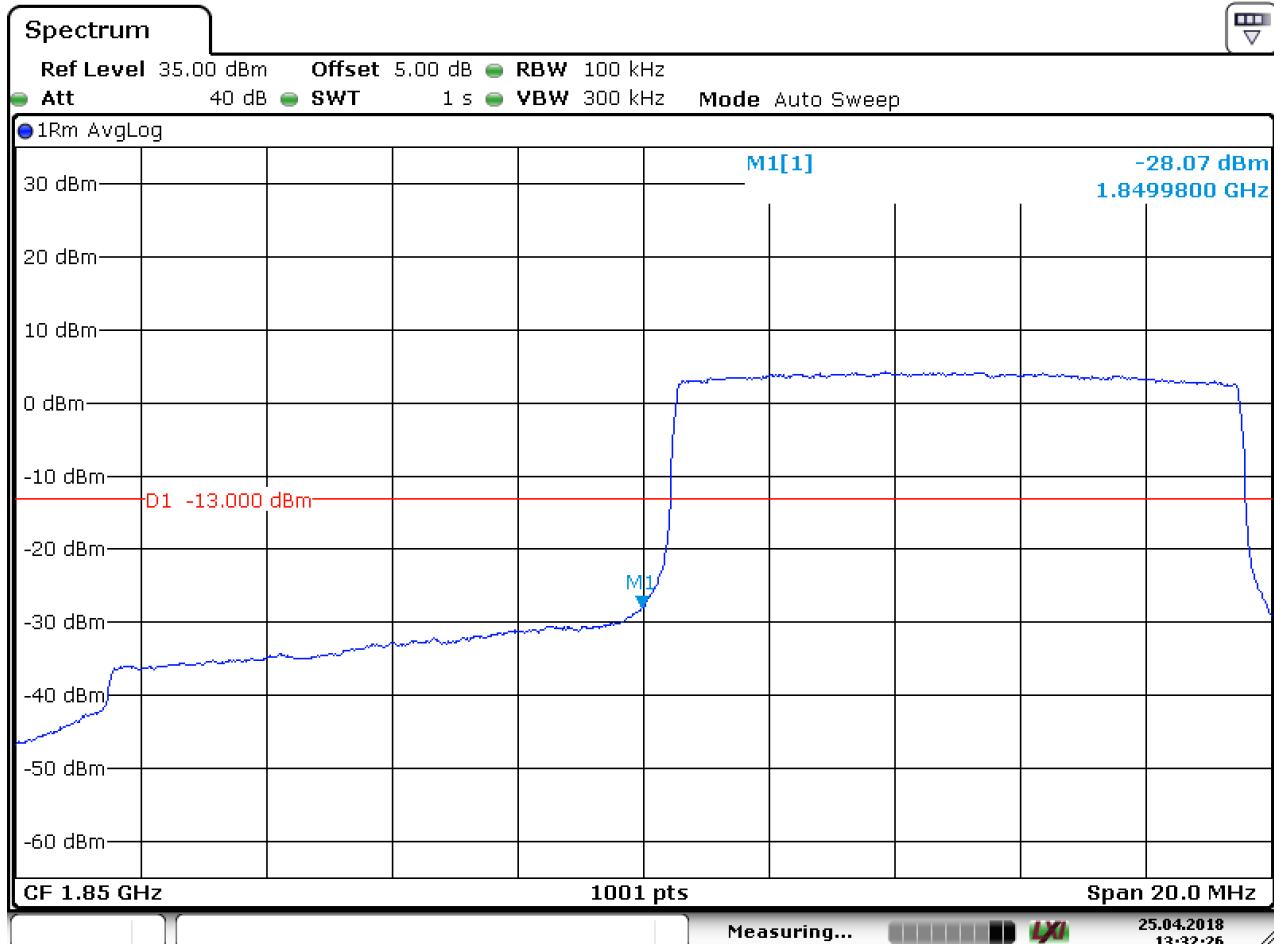
#### 5.1.1.6.2.2 Test RB=25RB



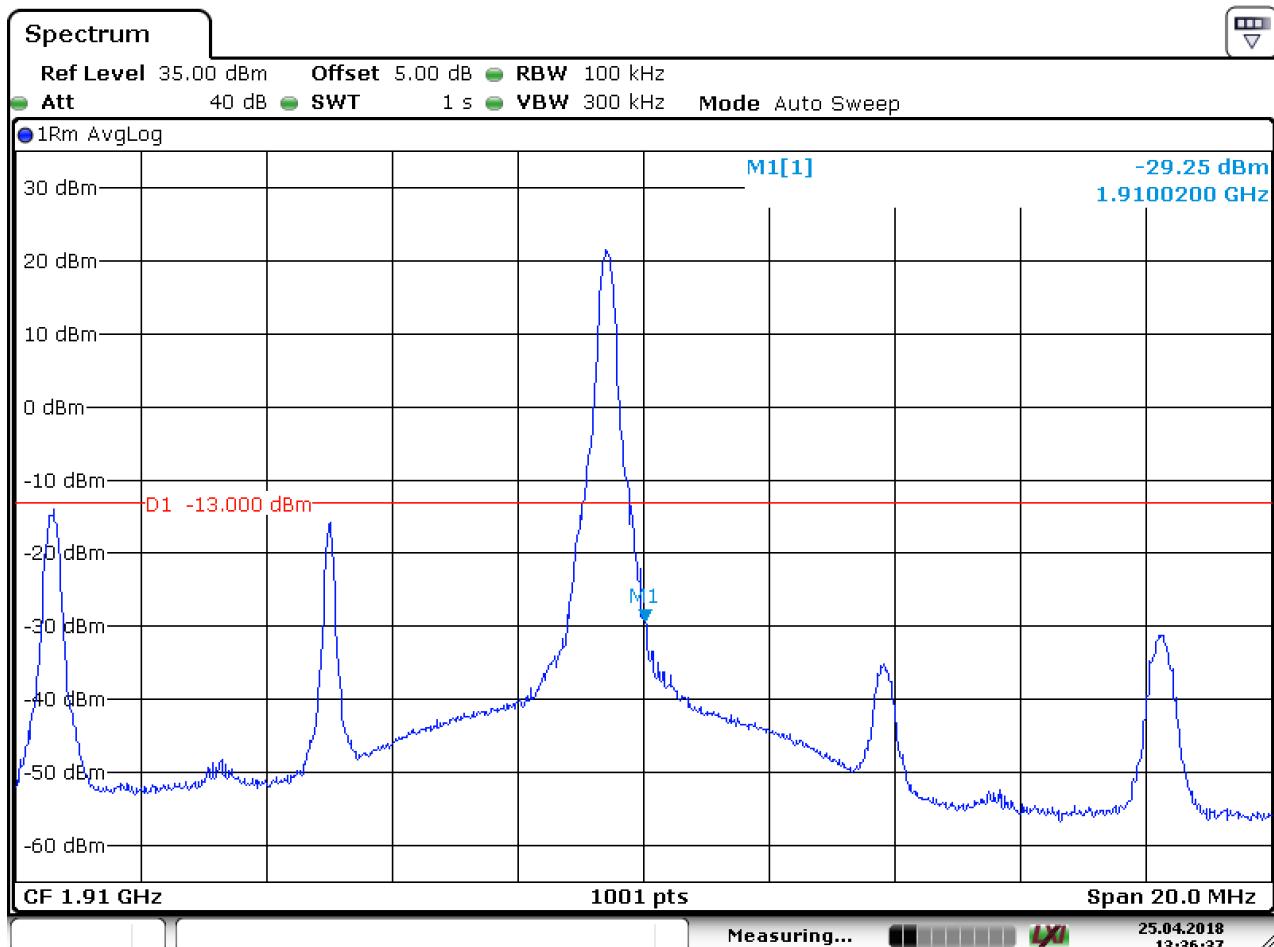
Date: 26.APR.2018 02:57:21

**5.1.1.7 Test Mode = LTE/TM1 10MHz****5.1.1.7.1 Test Channel = LCH****5.1.1.7.1.1 Test RB=1RB**

Date: 25.APR.2018 13:34:07

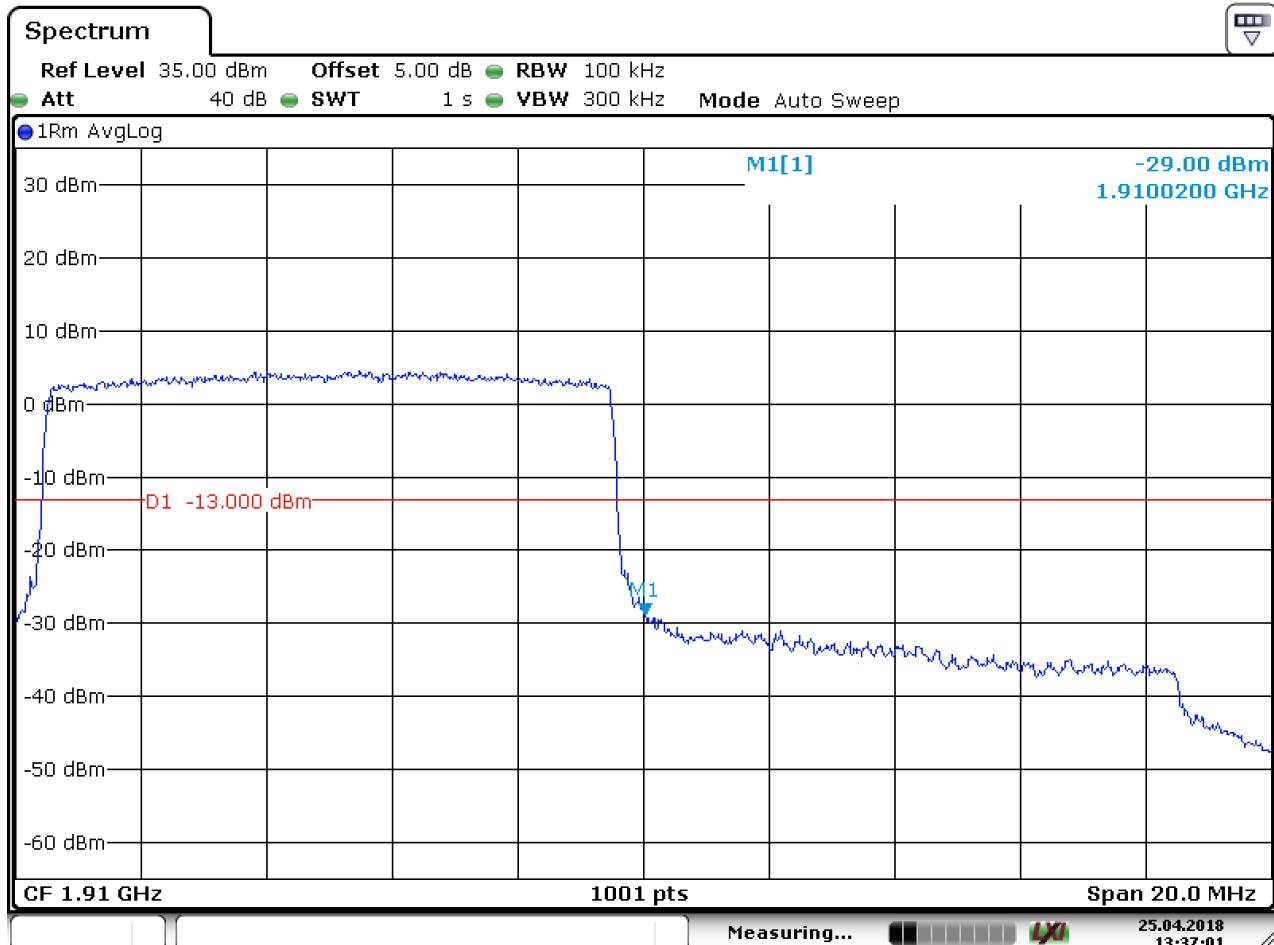
**5.1.1.7.1.2 Test RB=50RB**

Date: 25.APR.2018 13:32:27

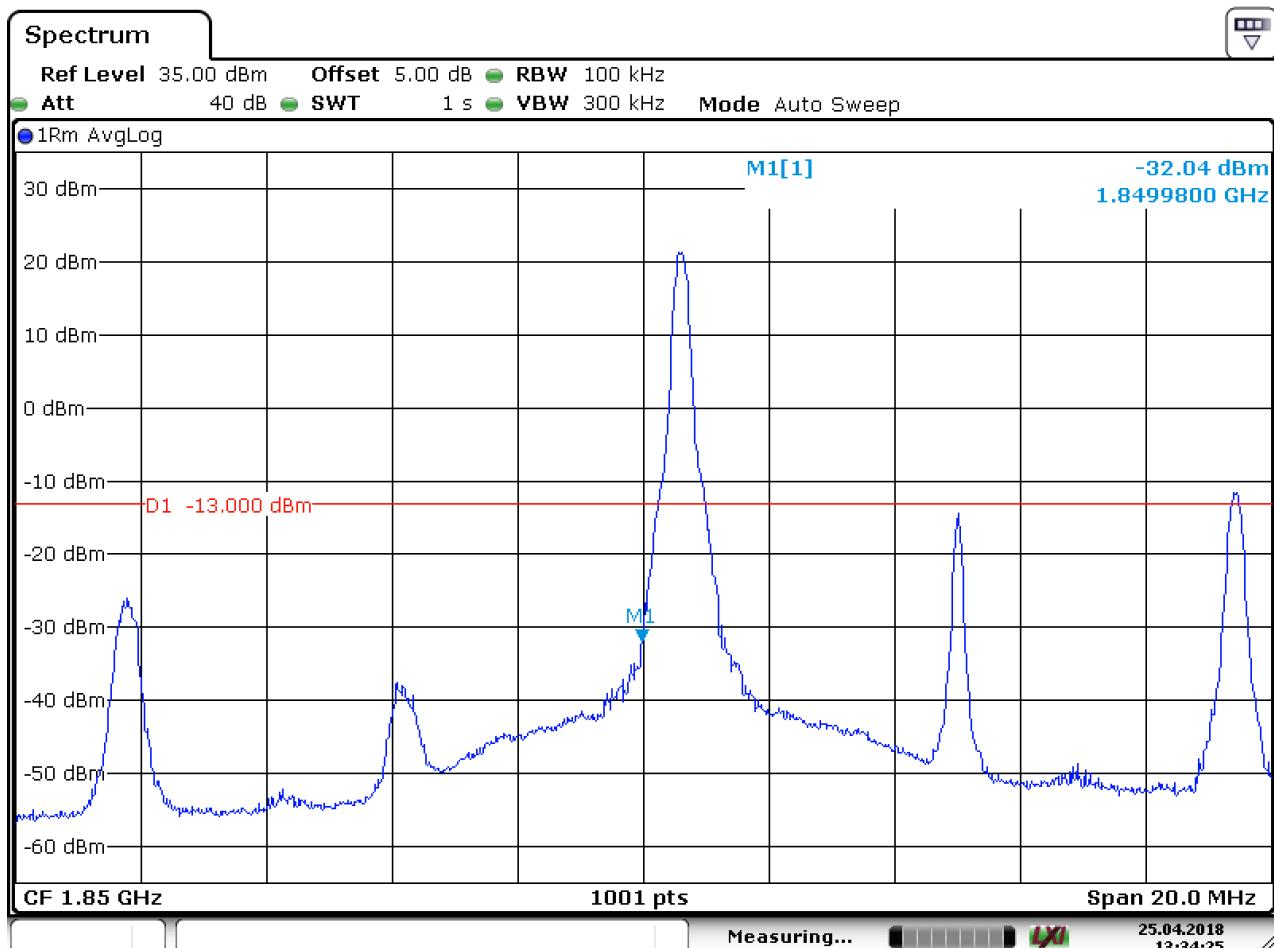
**5.1.1.7.2 Test Channel = HCH****5.1.1.7.2.1 Test RB=1RB**

Date: 25.APR.2018 13:36:37

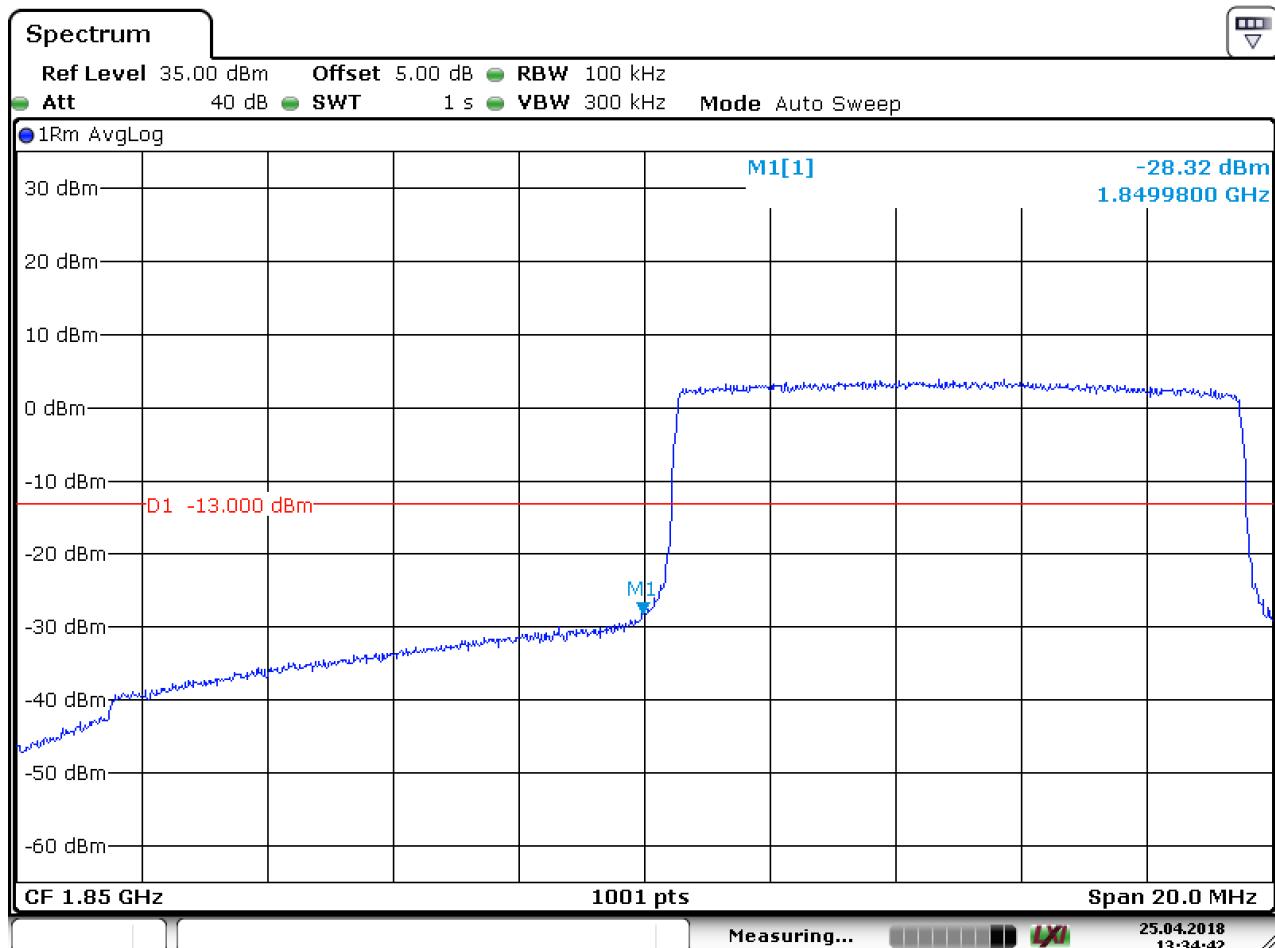
## 5.1.1.7.2.2 Test RB=50RB



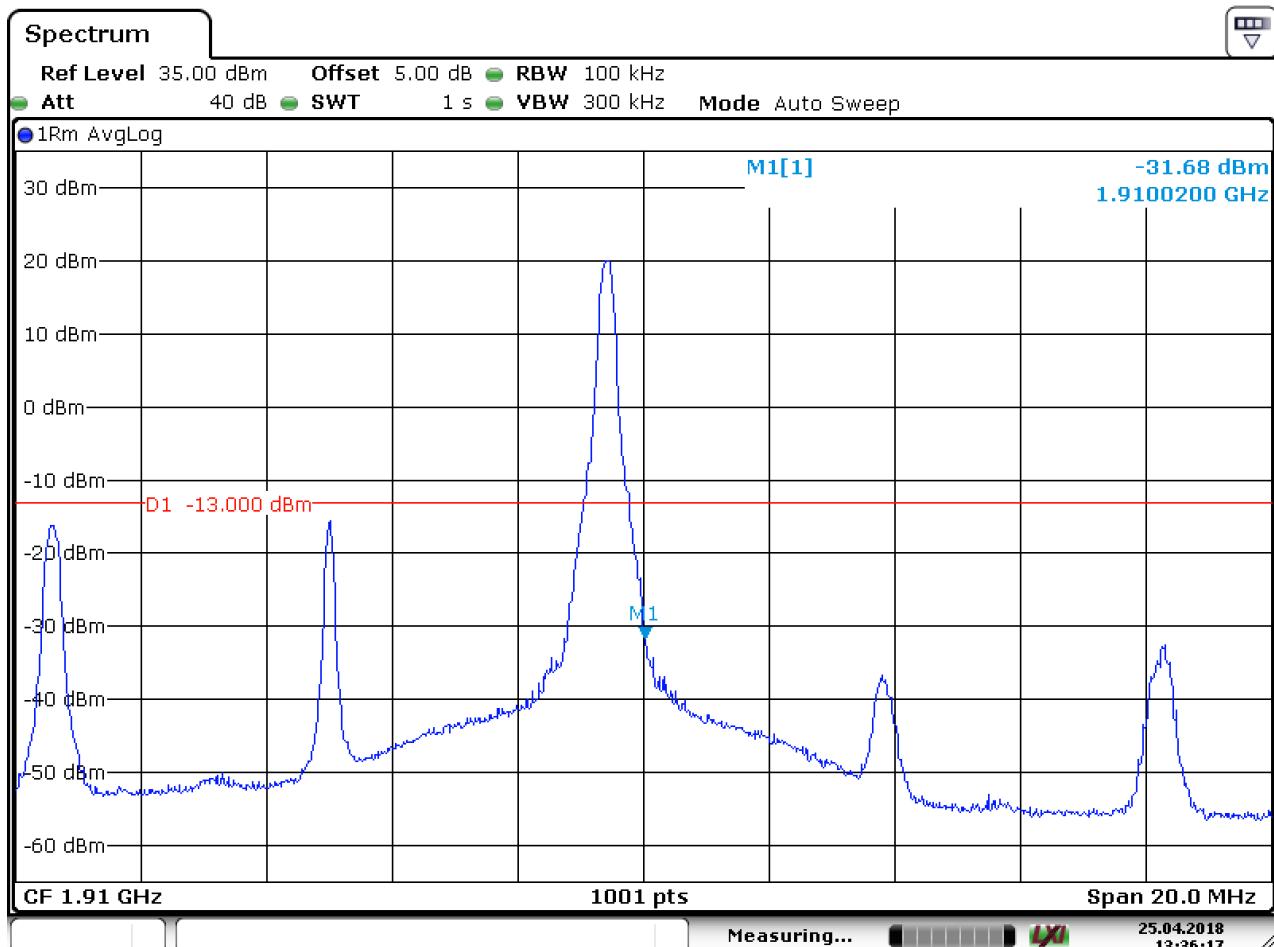
Date: 25.APR.2018 13:37:01

**5.1.1.8 Test Mode = LTE/TM2 10MHz****5.1.1.8.1 Test Channel = LCH****5.1.1.8.1.1 Test RB=1RB**

Date: 25.APR.2018 13:34:26

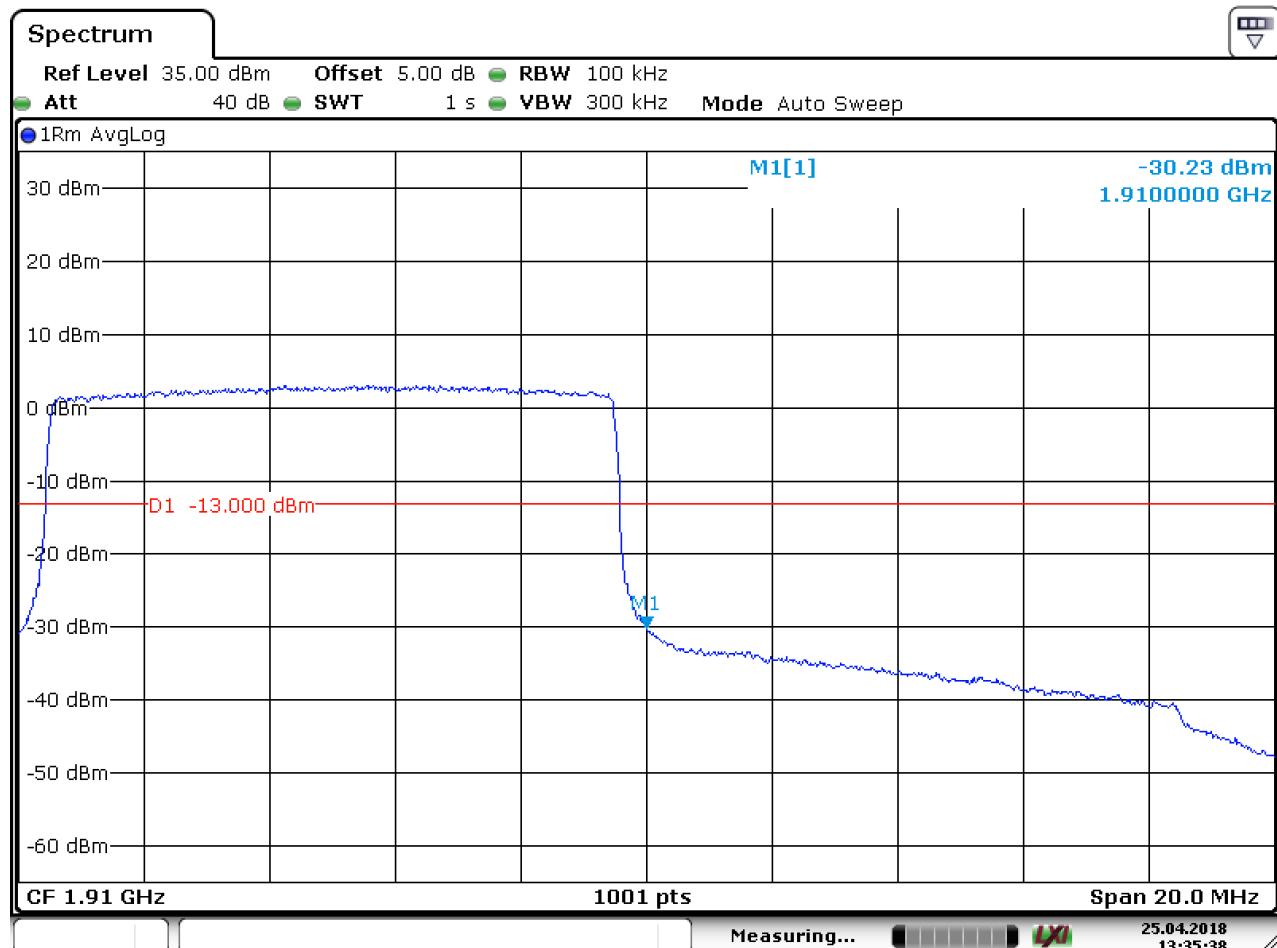
**5.1.1.8.1.2 Test RB=50RB**

Date: 25.APR.2018 13:34:42

**5.1.1.8.2 Test Channel = HCH****5.1.1.8.2.1 Test RB=1RB**

Date: 25.APR.2018 13:36:18

### 5.1.1.8.2.2 Test RB=50RB

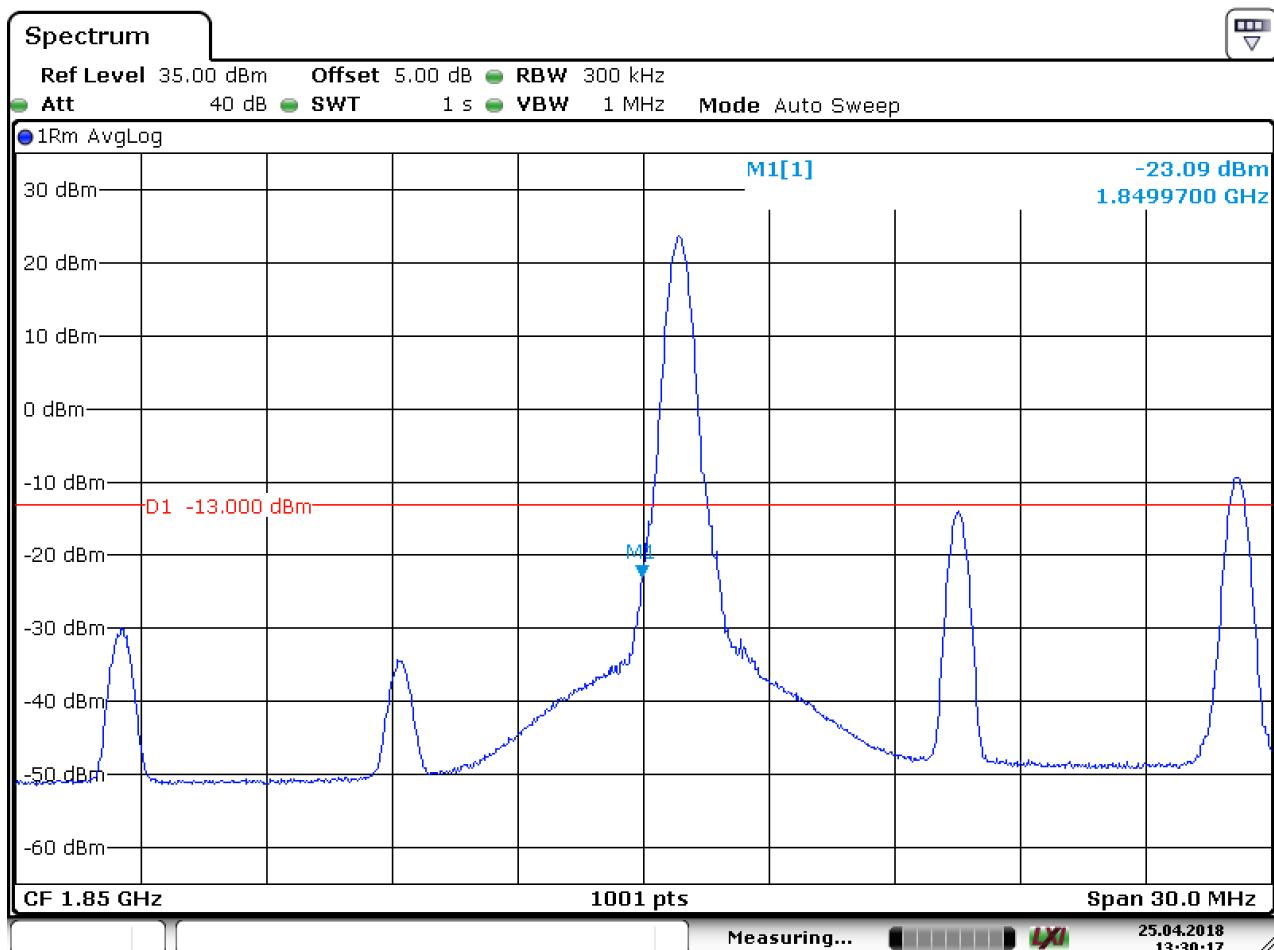


Date: 25.APR.2018 13:35:39

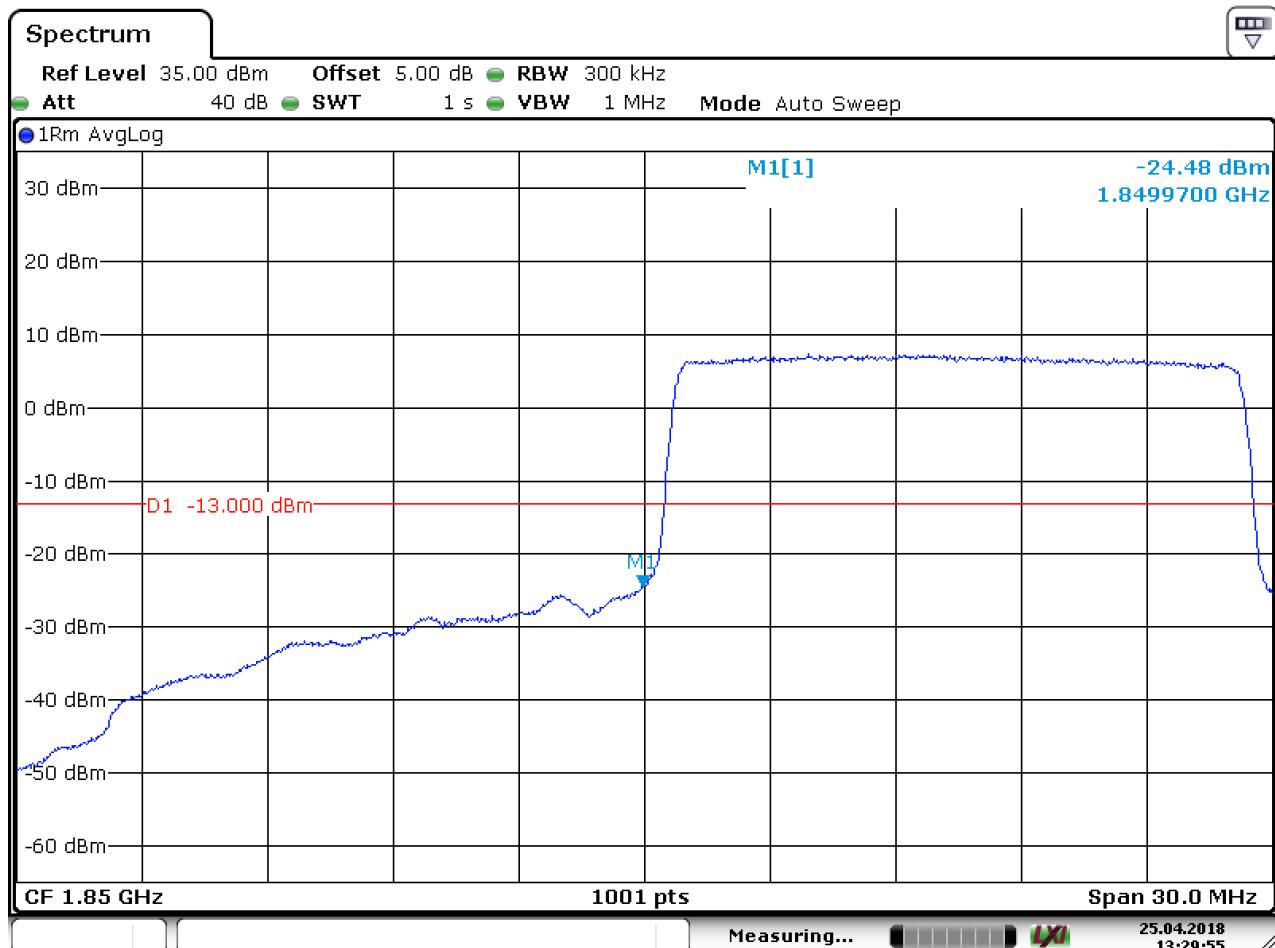
5.1.1.9 Test Mode = LTE/TM1 15MHz

5.1.1.9.1 Test Channel = LCH

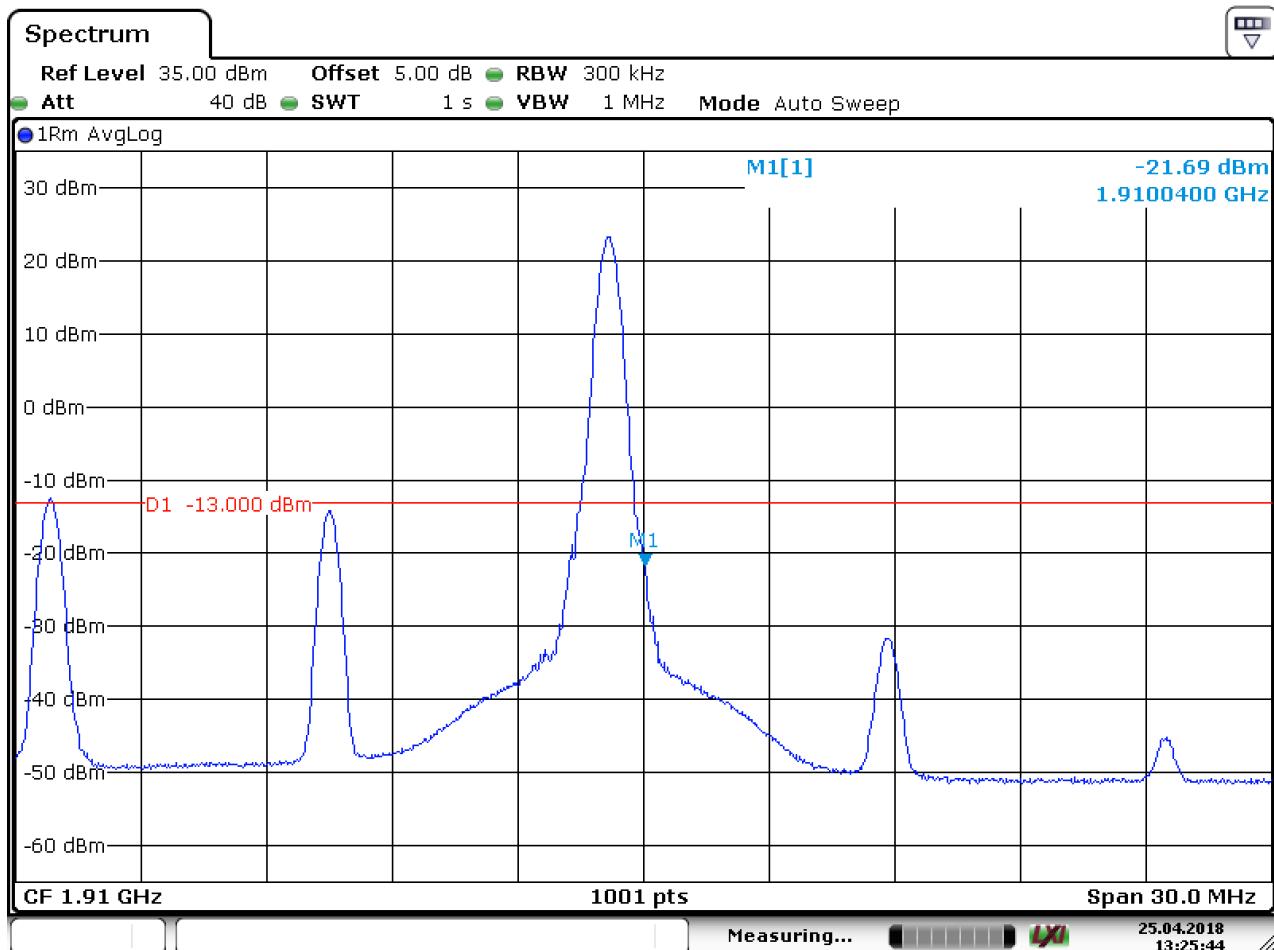
5.1.1.9.1.1 Test RB=1RB



Date: 25.APR.2018 13:30:17

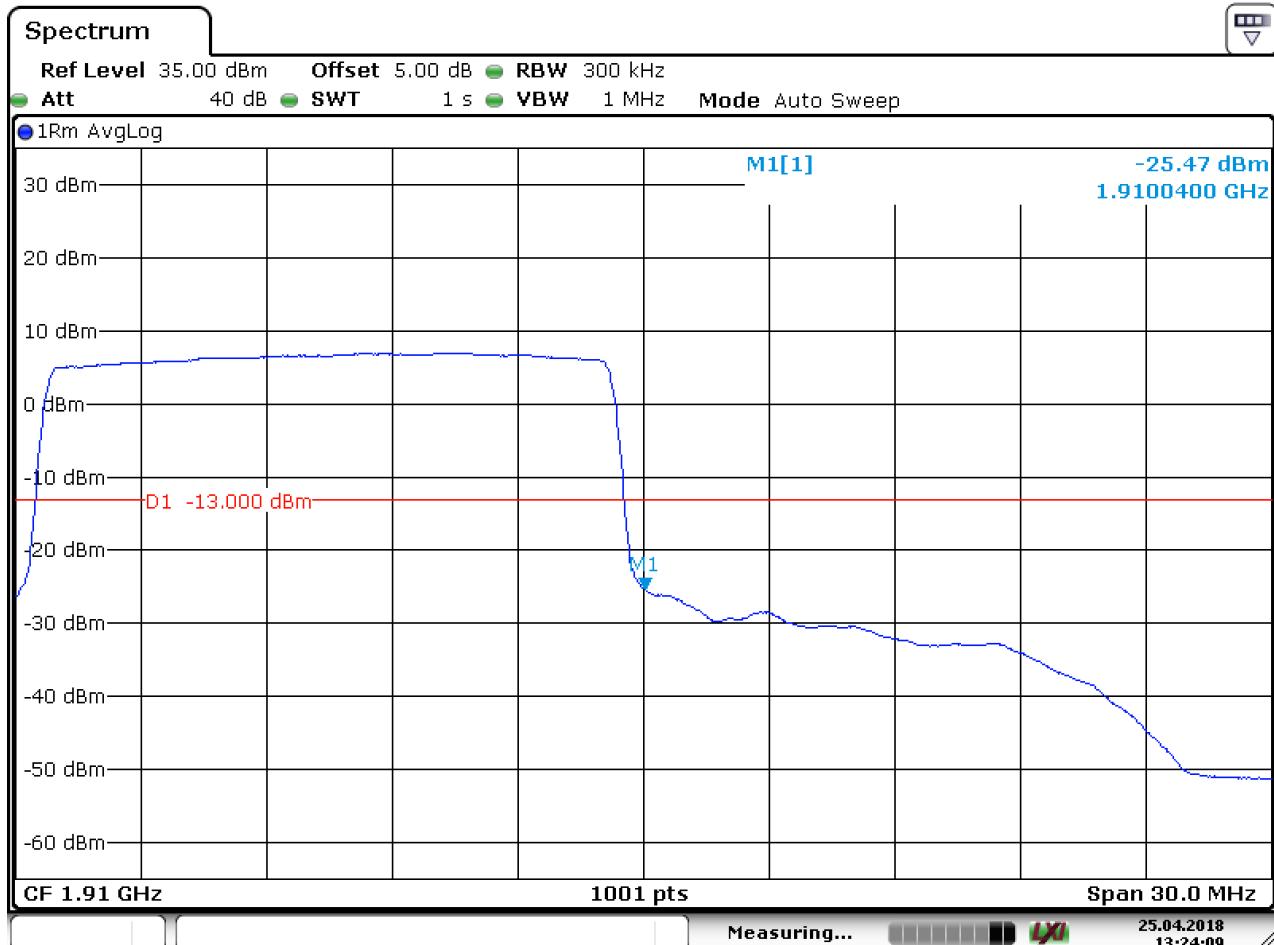
**5.1.1.9.1.2 Test RB=75RB**

Date: 25.APR.2018 13:29:55

**5.1.1.9.2 Test Channel = HCH****5.1.1.9.2.1 Test RB=1RB**

Date: 25.APR.2018 13:25:45

## 5.1.1.9.2.2 Test RB=75RB

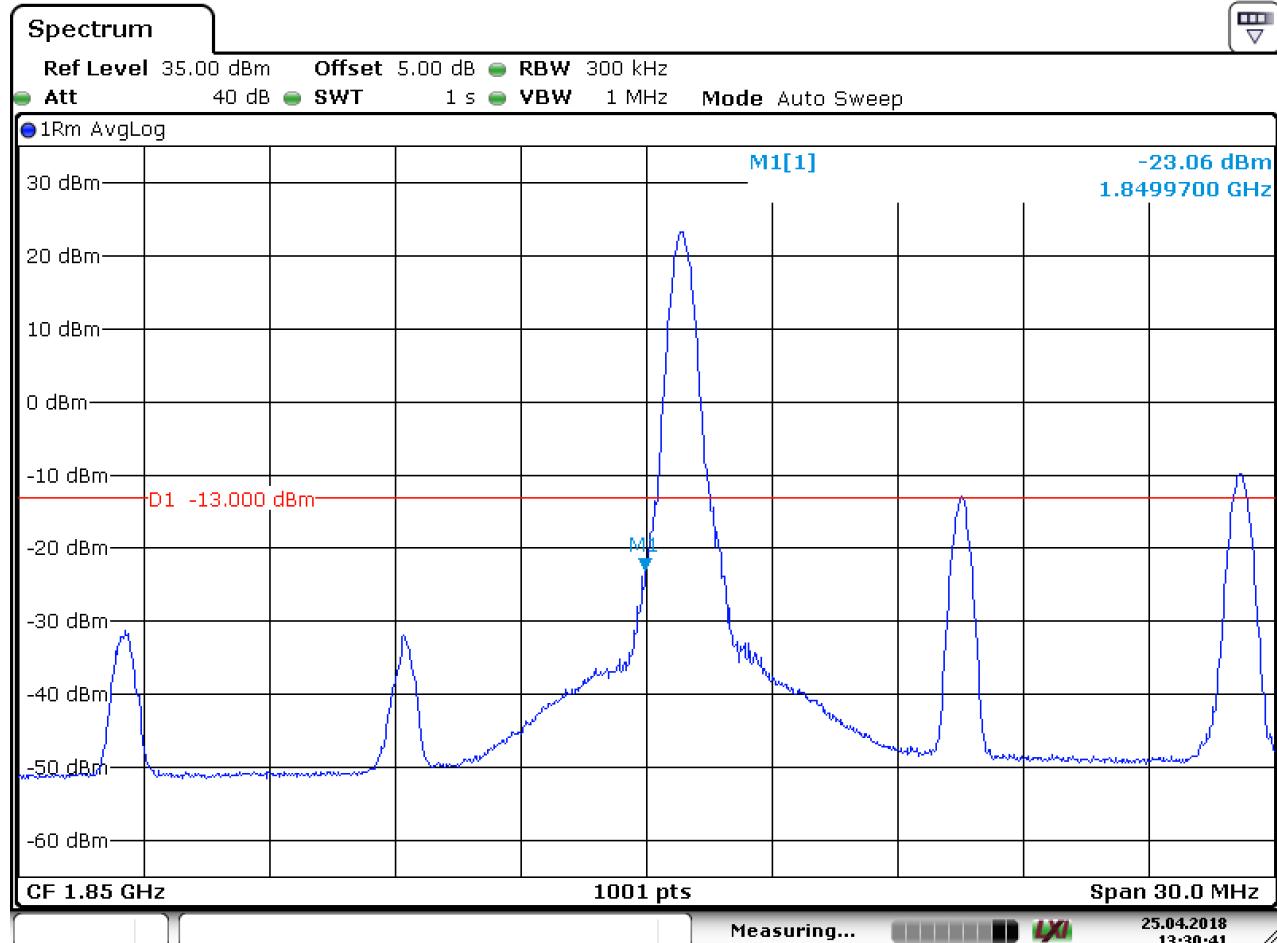


Date: 25.APR.2018 13:24:09

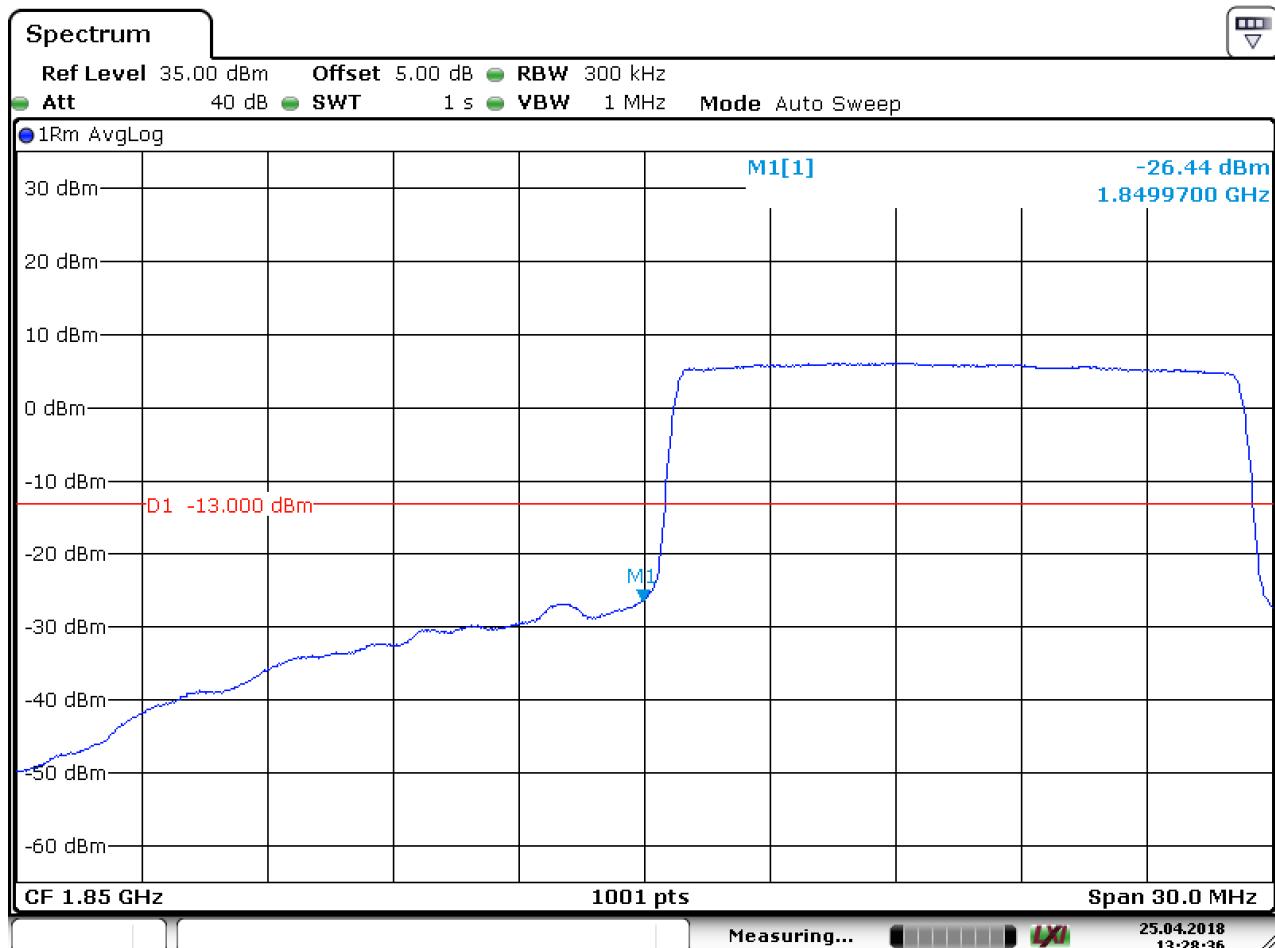
5.1.1.10 Test Mode = LTE/TM2 15MHz

5.1.1.10.1 Test Channel = LCH

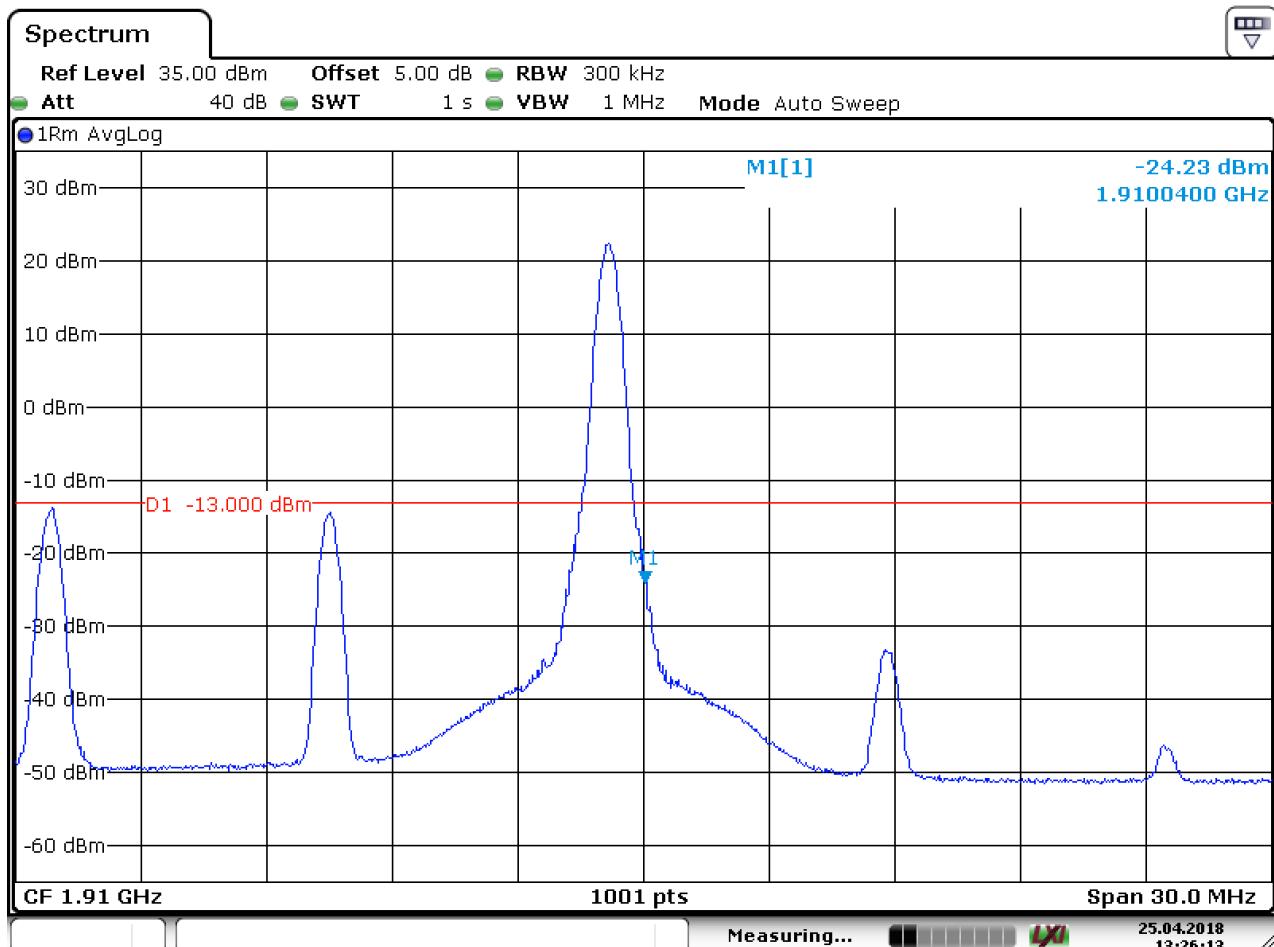
5.1.1.10.1.1 Test RB=1RB



Date: 25.APR.2018 13:30:42

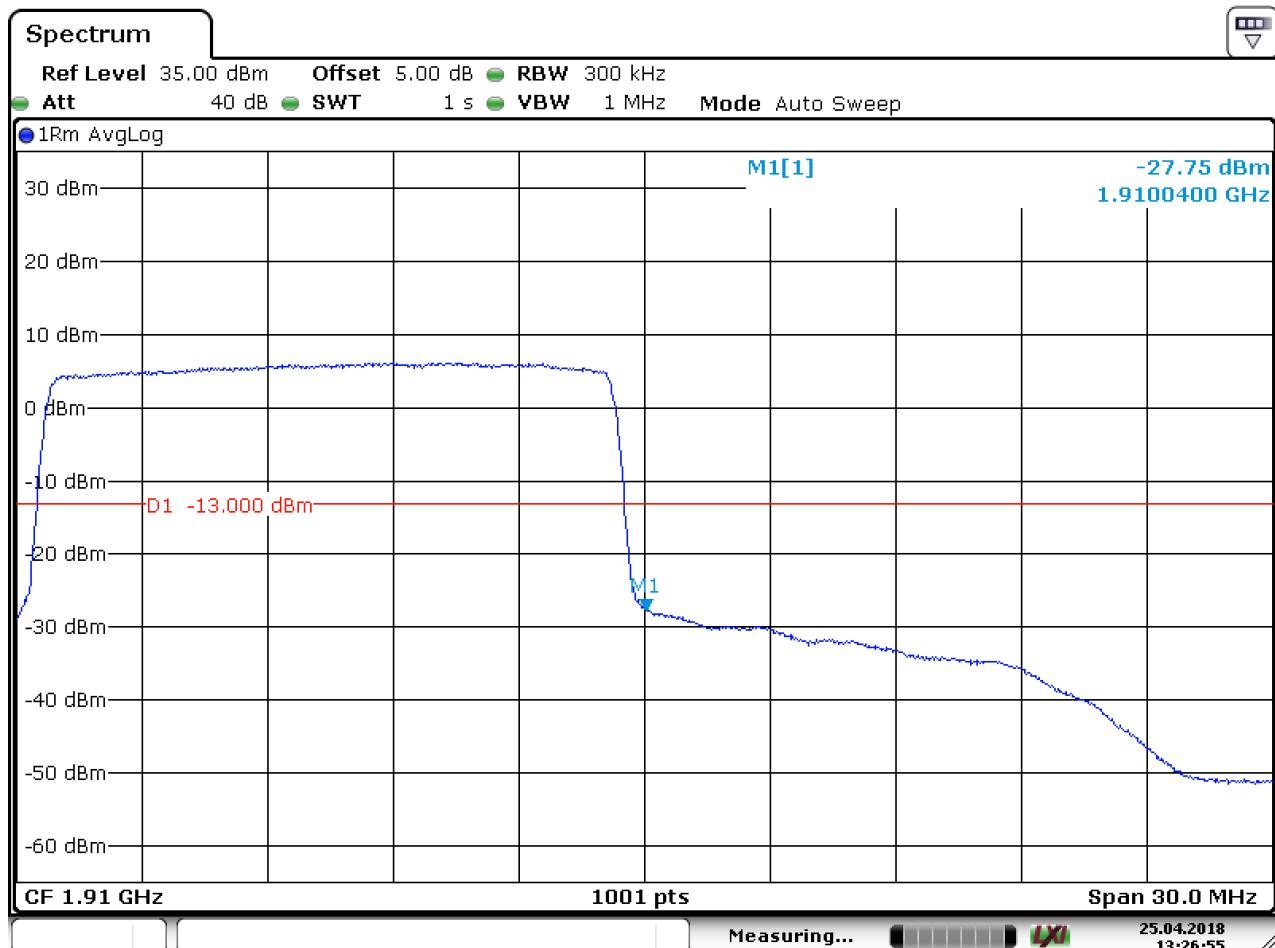
**5.1.1.10.1.2 Test RB=75RB**

Date: 25.APR.2018 13:28:36

**5.1.1.10.2 Test Channel = HCH****5.1.1.10.2.1 Test RB=1RB**

Date: 25.APR.2018 13:26:13

## 5.1.1.10.2.2 Test RB=75RB

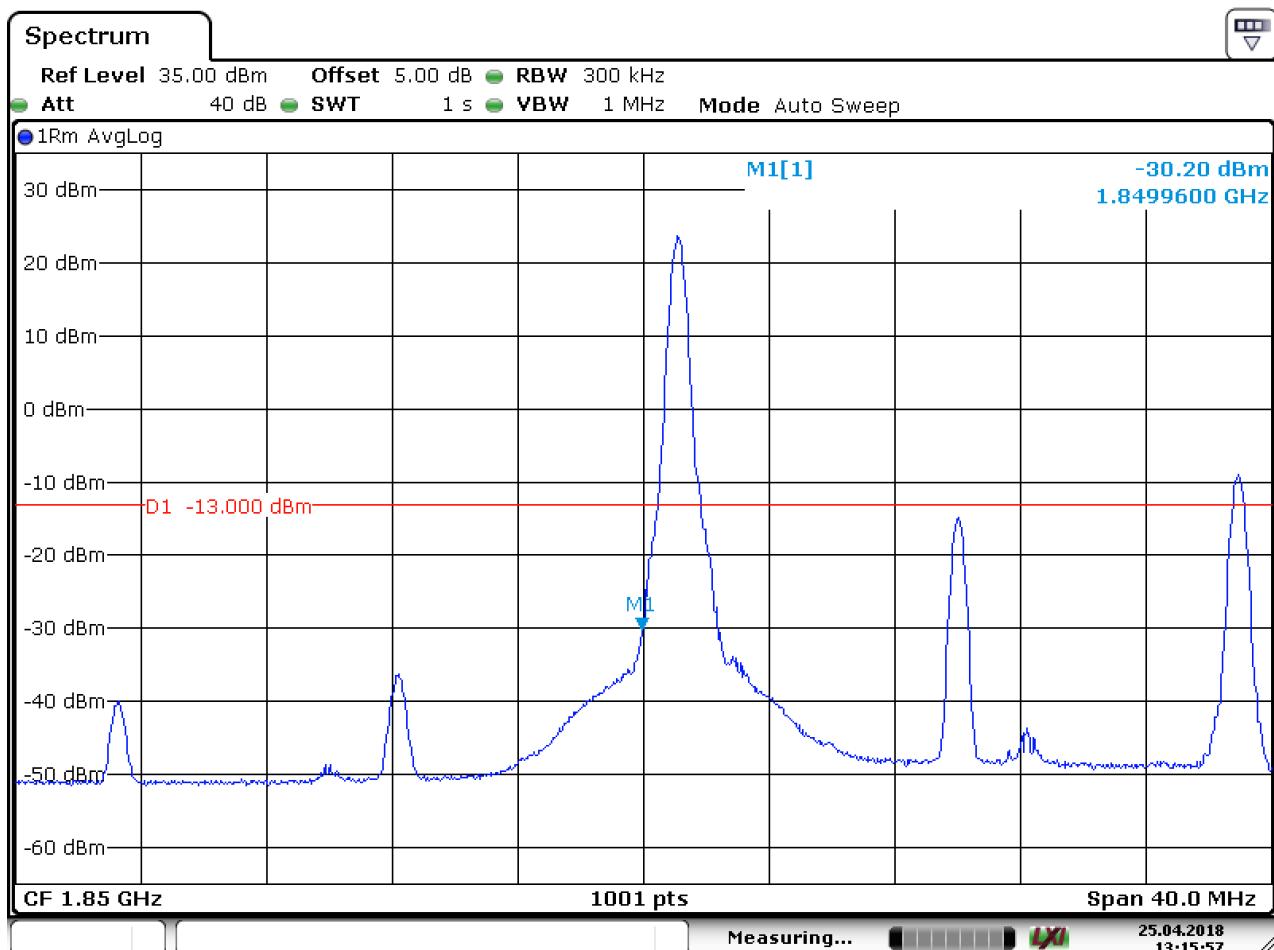


Date: 25.APR.2018 13:26:55

5.1.1.11 Test Mode = LTE/TM1 20MHz

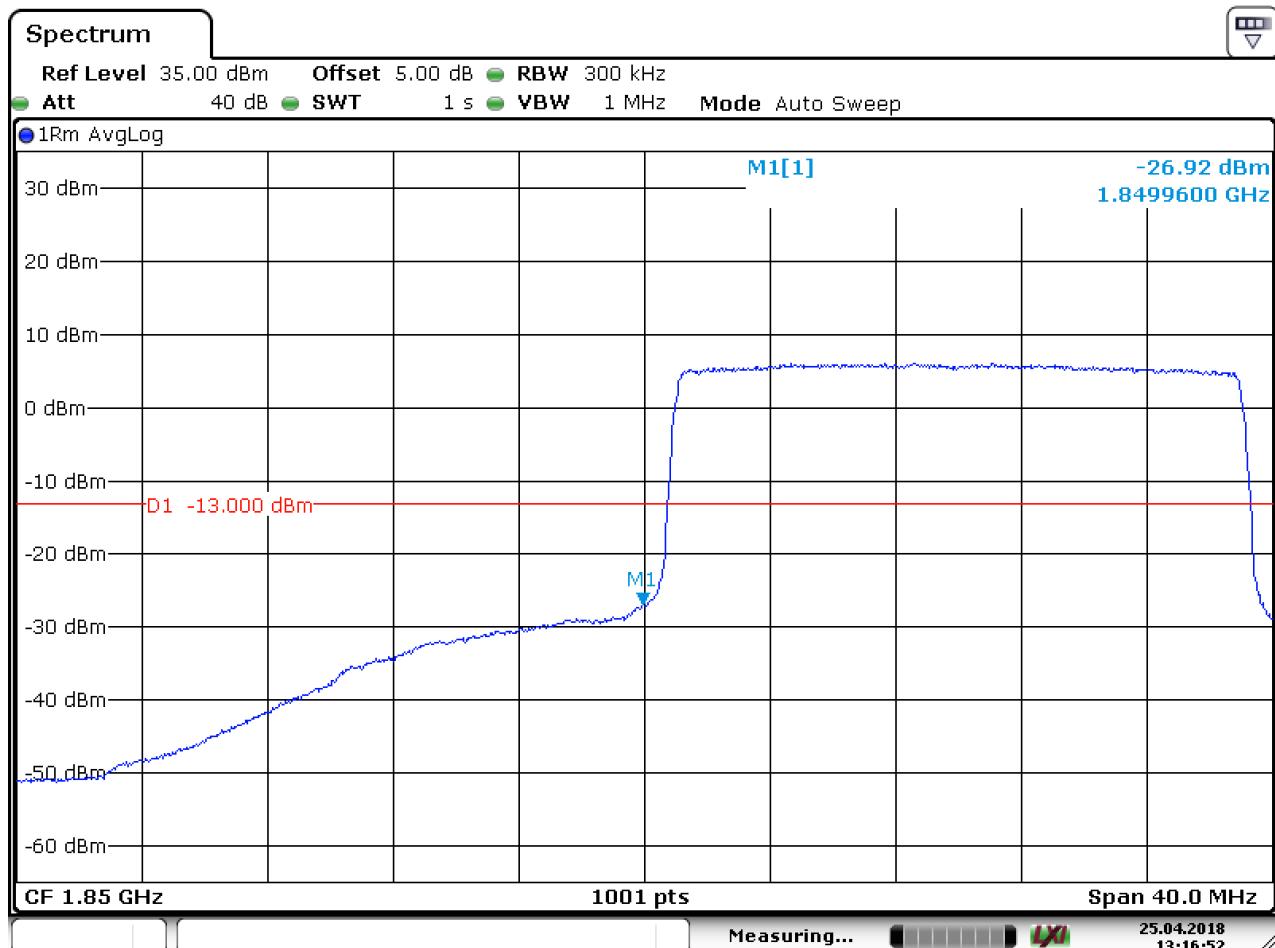
5.1.1.11.1 Test Channel = LCH

5.1.1.11.1.1 Test RB=1RB

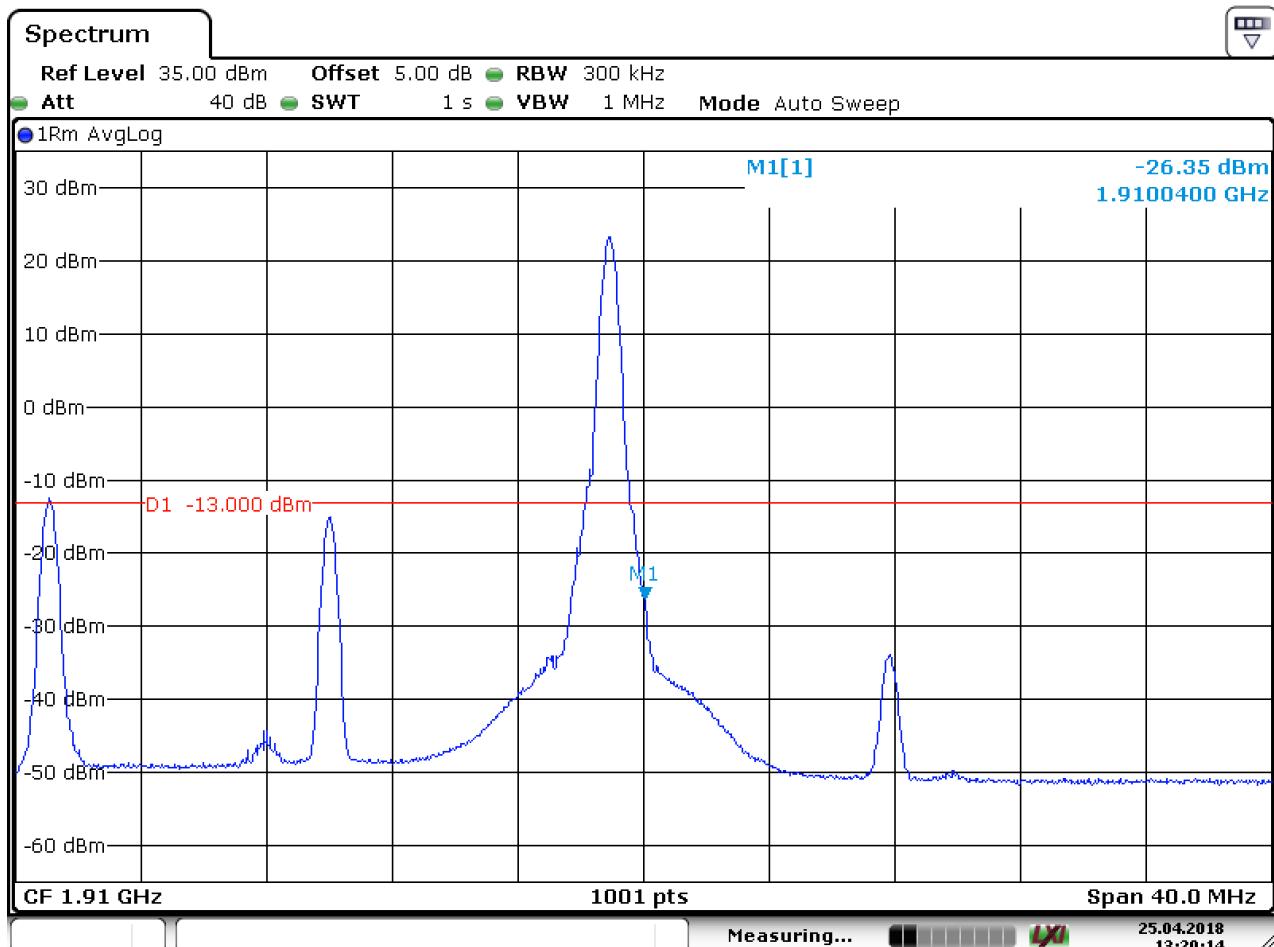


Date: 25.APR.2018 13:15:57

## 5.1.1.11.1.2 Test RB=100RB

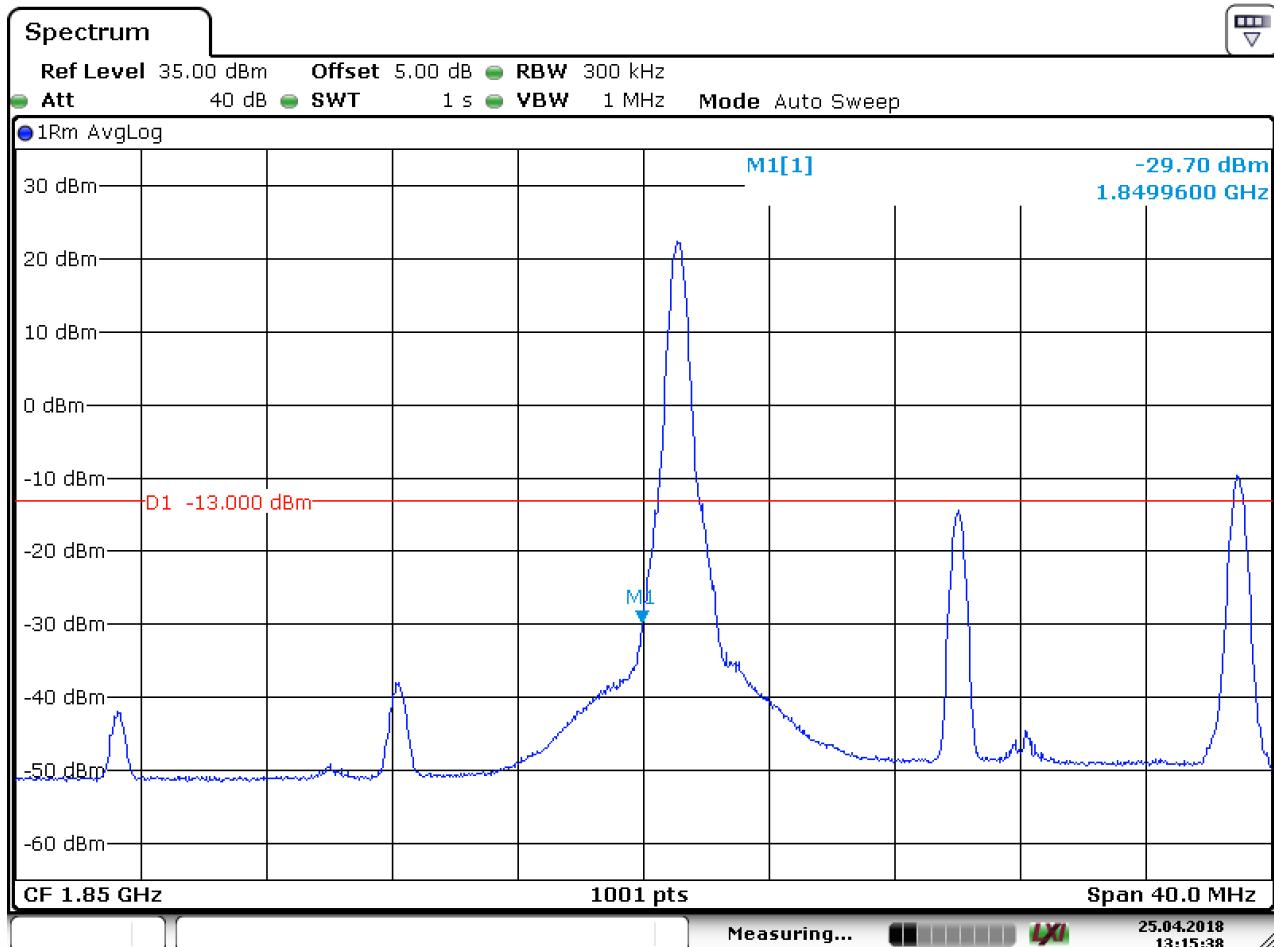


Date: 25.APR.2018 13:16:52

**5.1.1.11.2 Test Channel = HCH****5.1.1.11.2.1 Test RB=1RB**

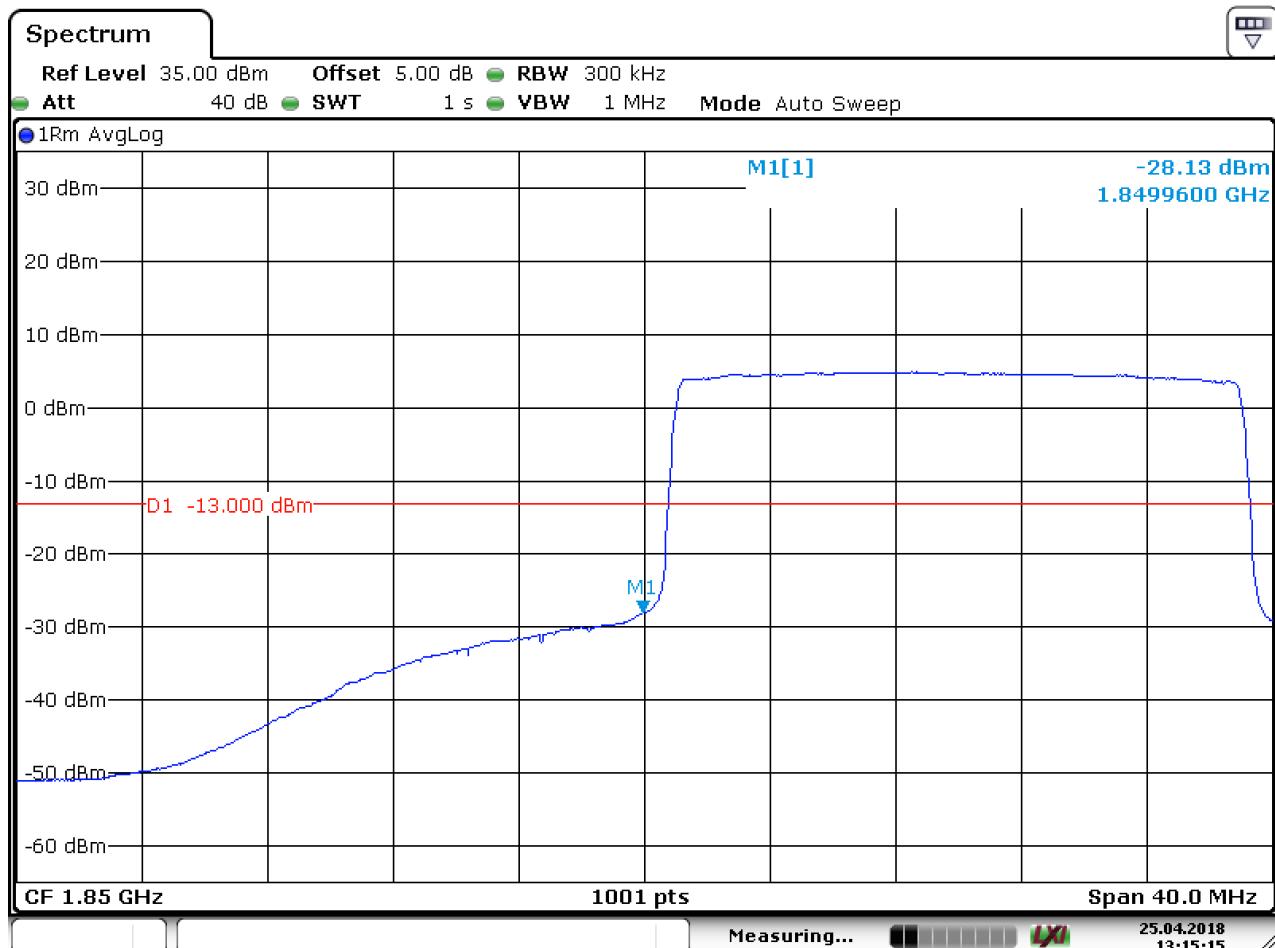
Date: 25.APR.2018 13:20:14

**5.1.1.11.2.2 Test RB=100RB**

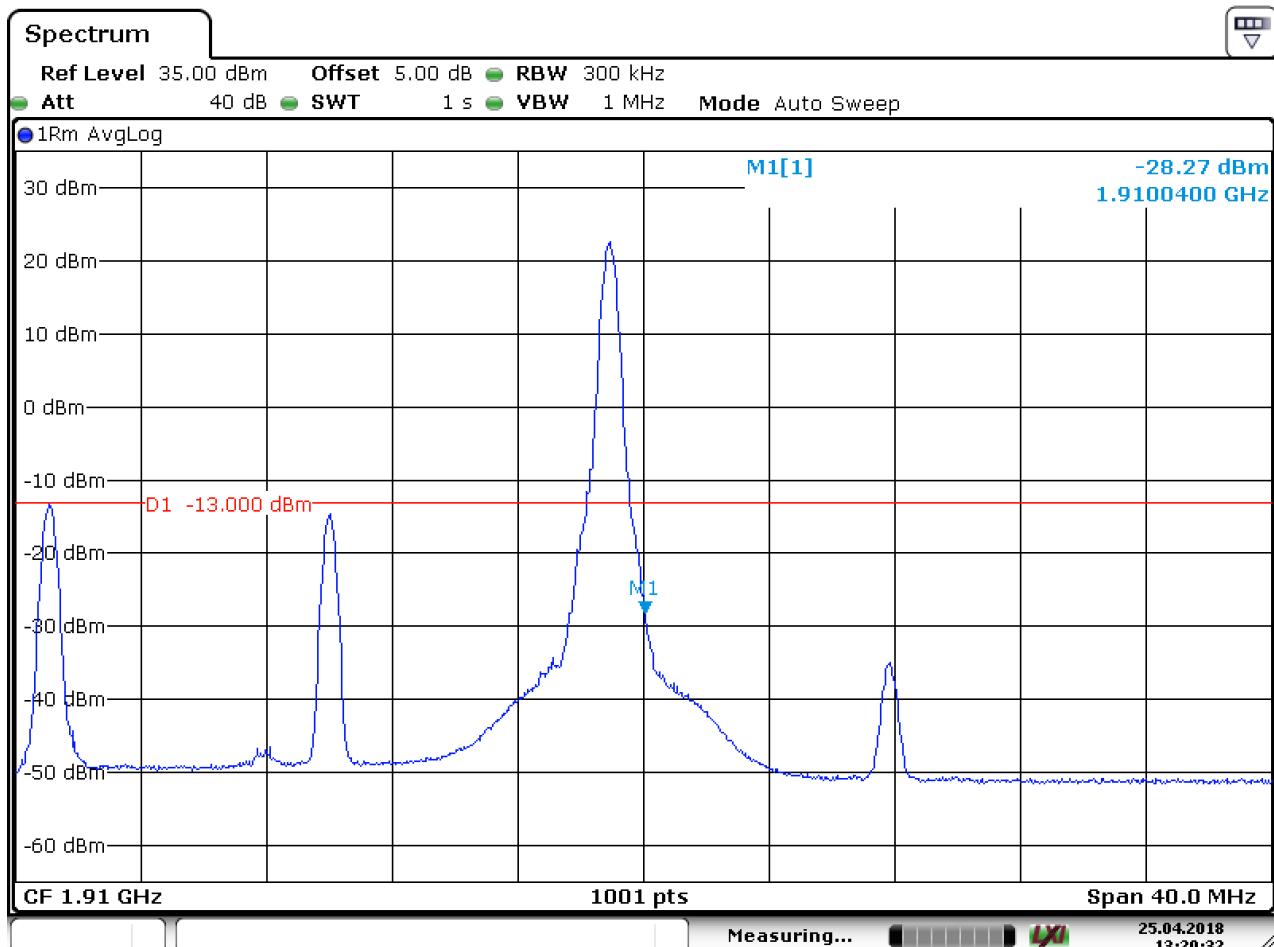
**5.1.1.12 Test Mode = LTE/TM2 20MHz****5.1.1.12.1 Test Channel = LCH****5.1.1.12.1.1 Test RB=1RB**

Date: 25.APR.2018 13:15:38

## 5.1.1.12.1.2 Test RB=100RB

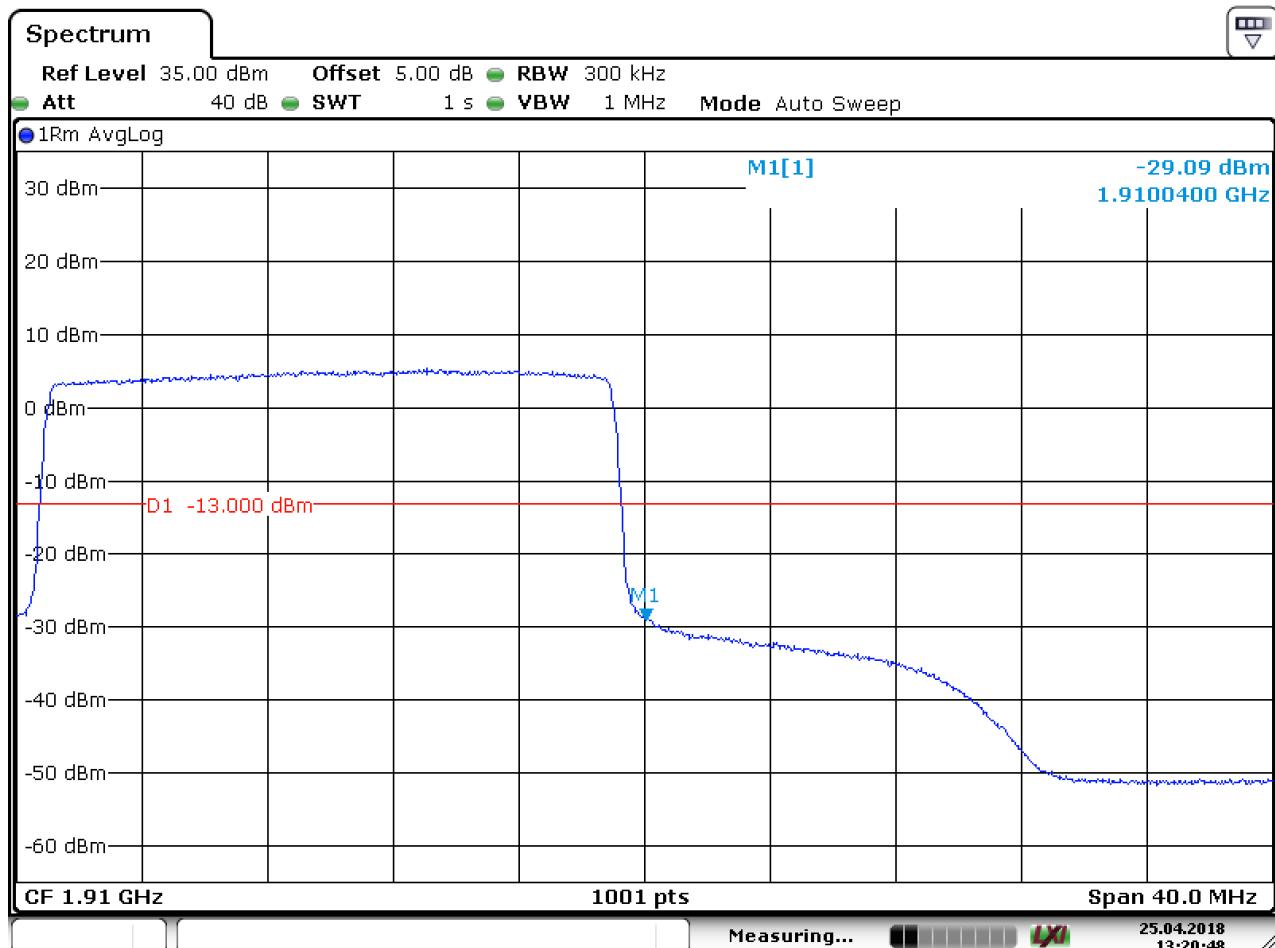


Date: 25.APR.2018 13:15:15

**5.1.1.12.2 Test Channel = HCH****5.1.1.12.2.1 Test RB=1RB**

Date: 25.APR.2018 13:20:32

## 5.1.1.12.2.2 Test RB=100RB



Date: 25.APR.2018 13:20:48

## 6 Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k \* (Span / RBW)" with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

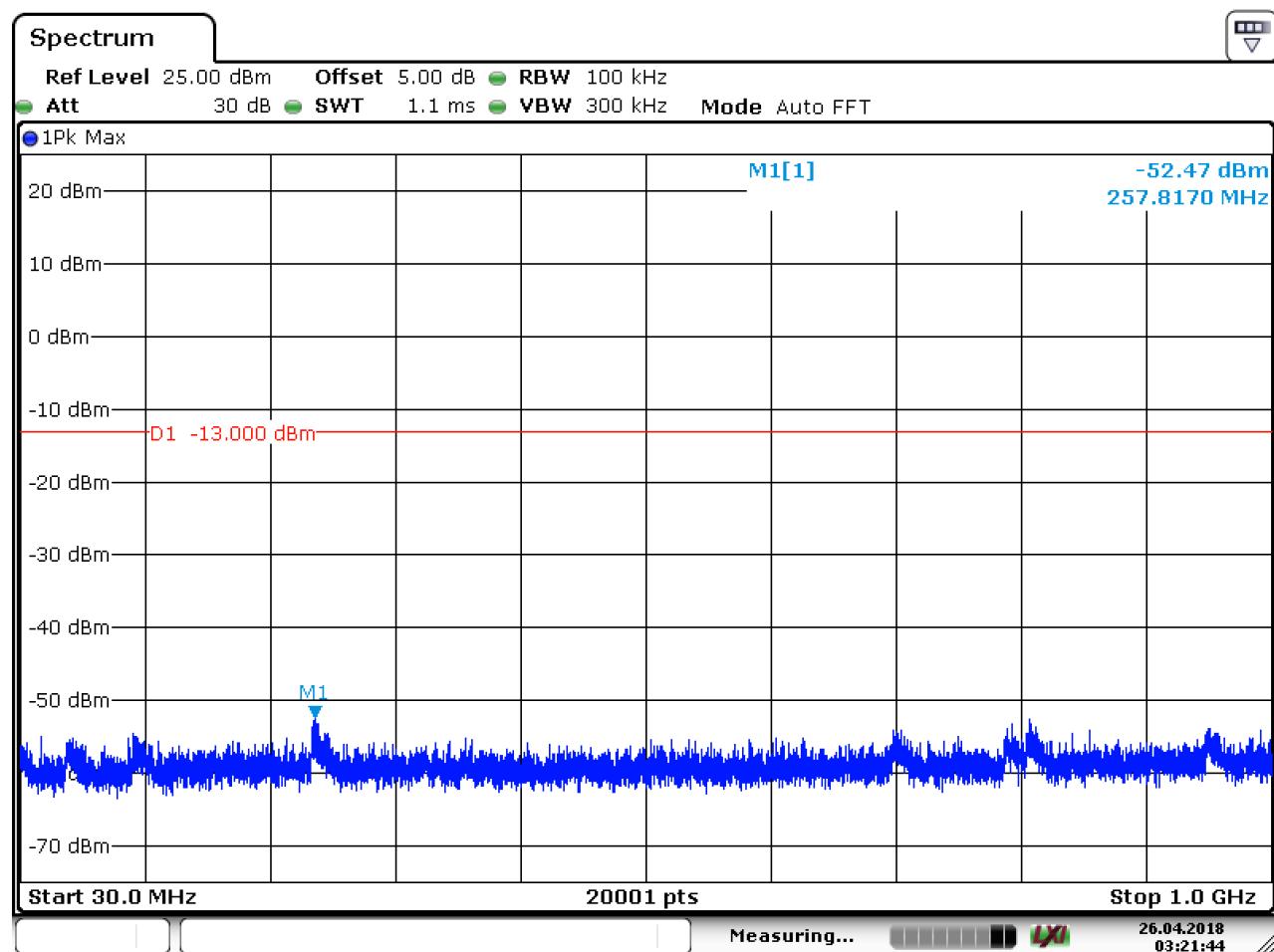
Part I - Test Plots

### 6.1 For LTE

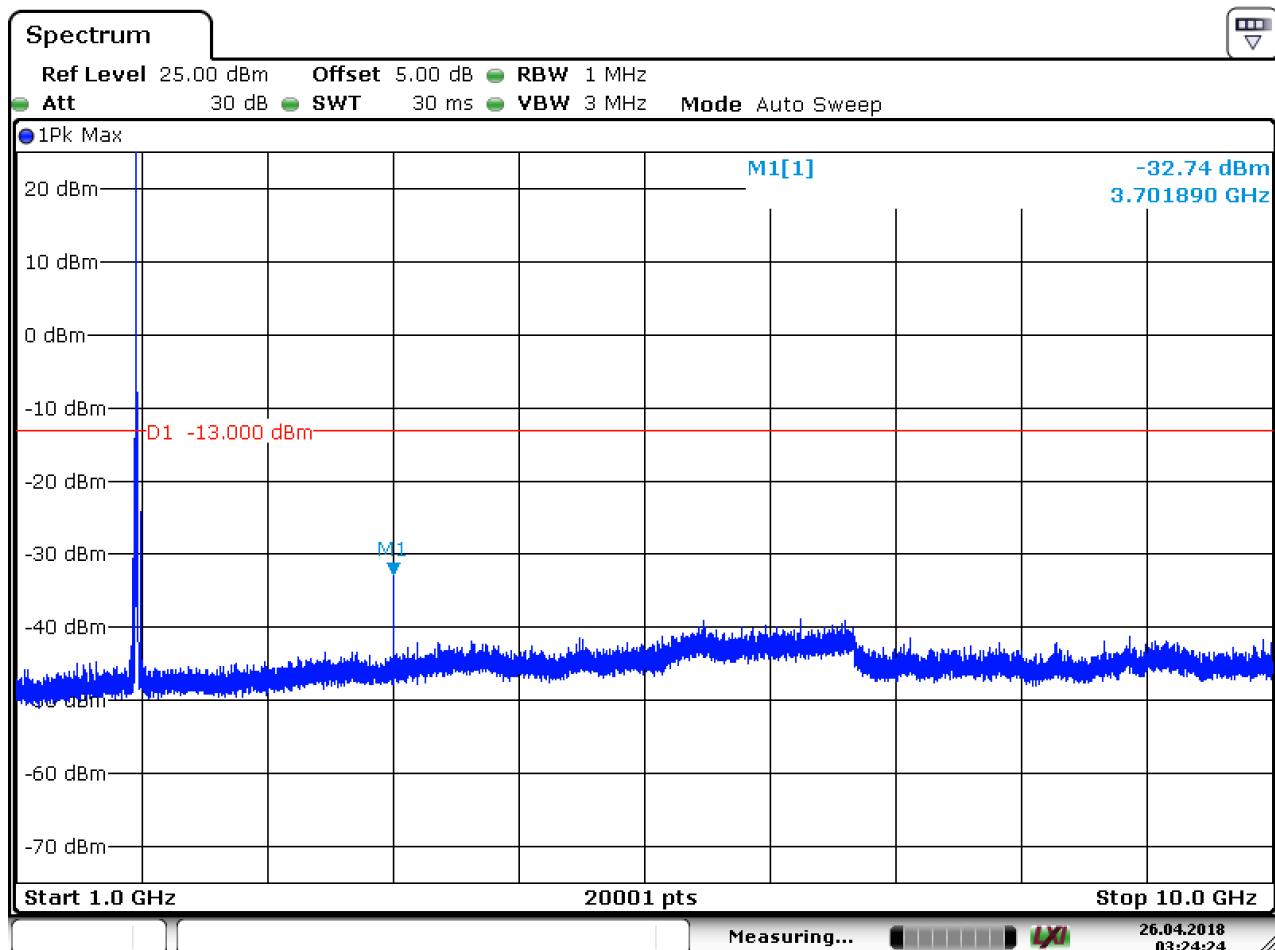
#### 6.1.1 Test Band = LTE band2

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

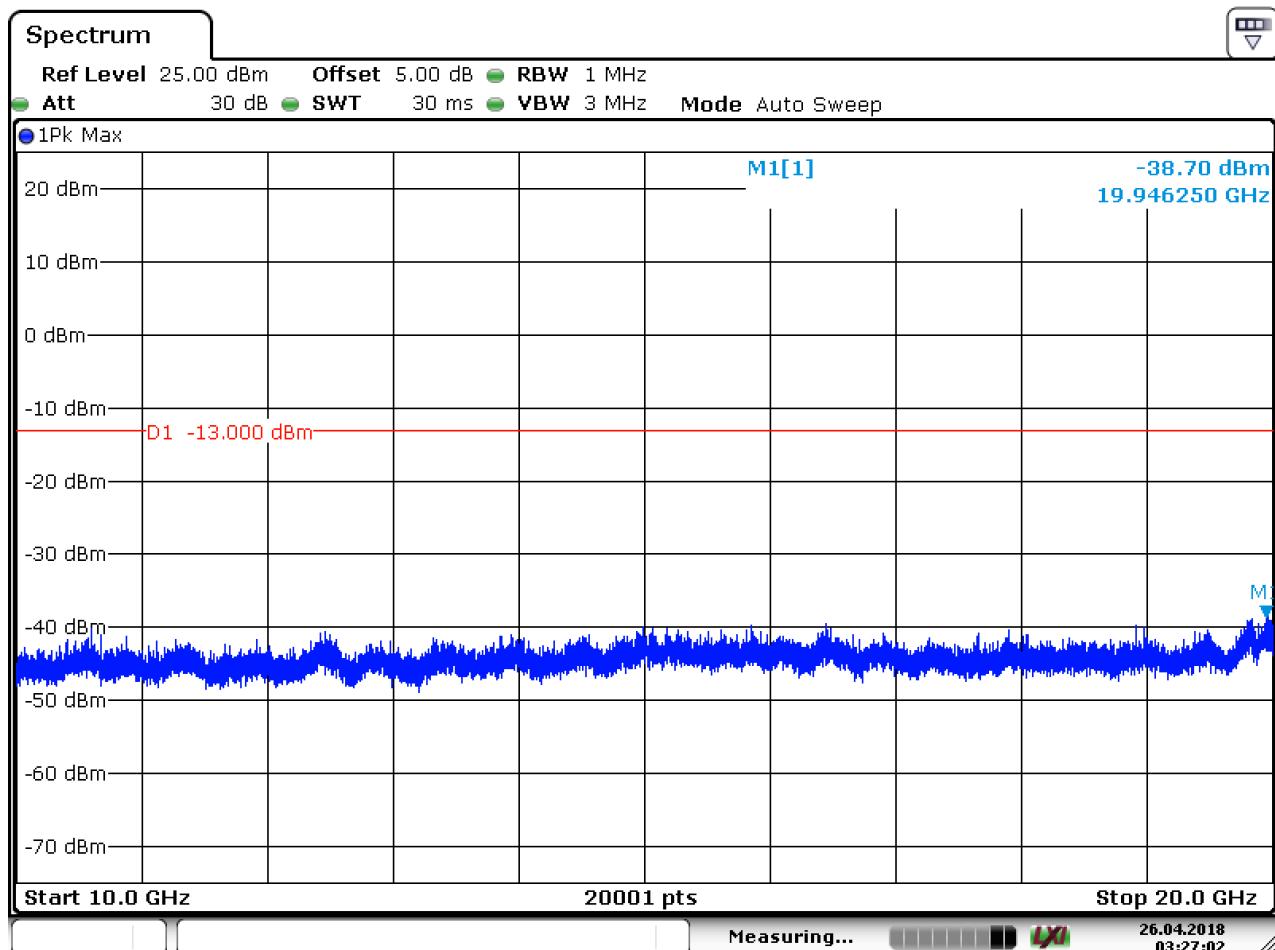
###### 6.1.1.1.1 Test Channel = LCH



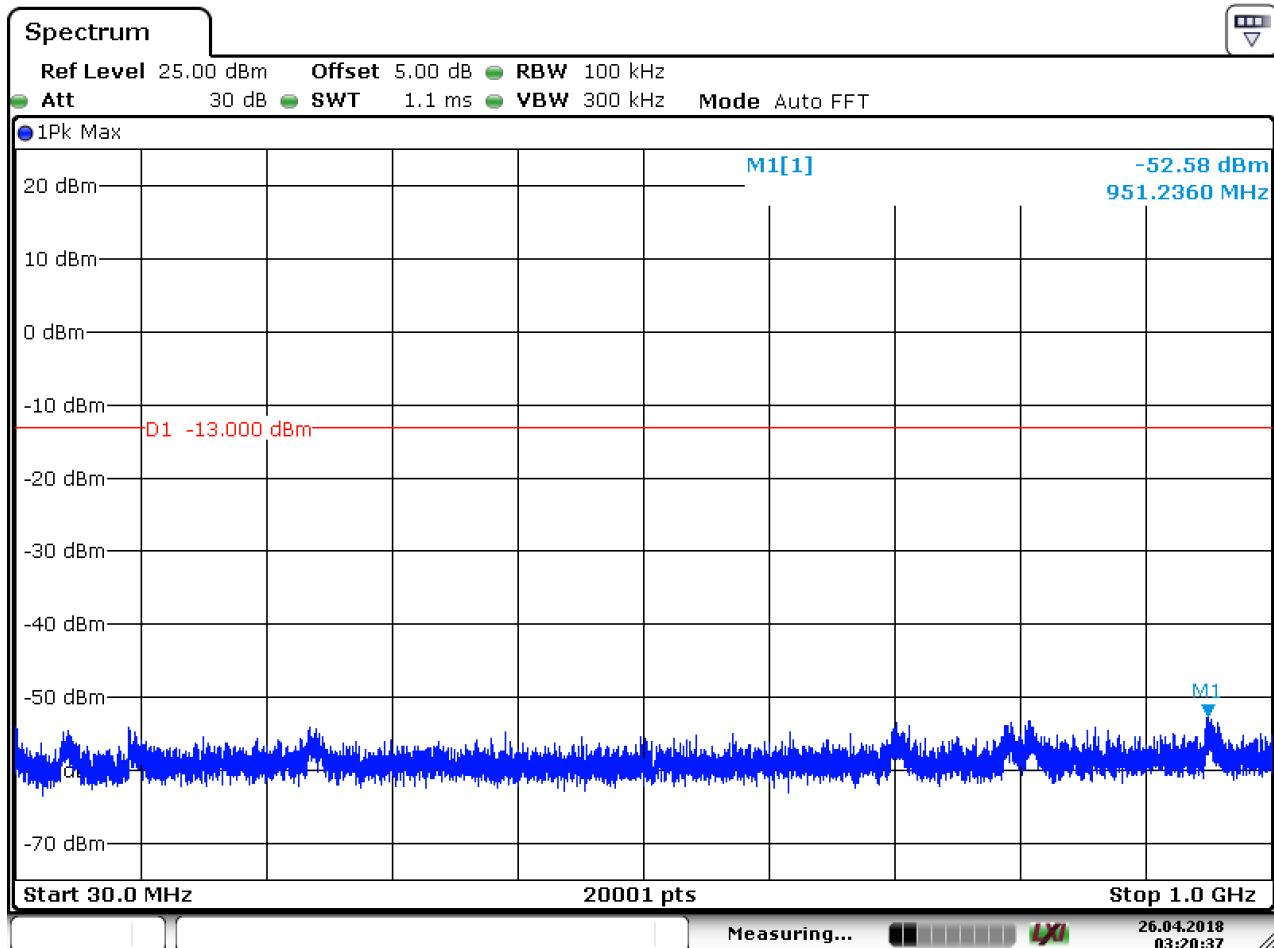
Date: 26.APR.2018 03:21:45



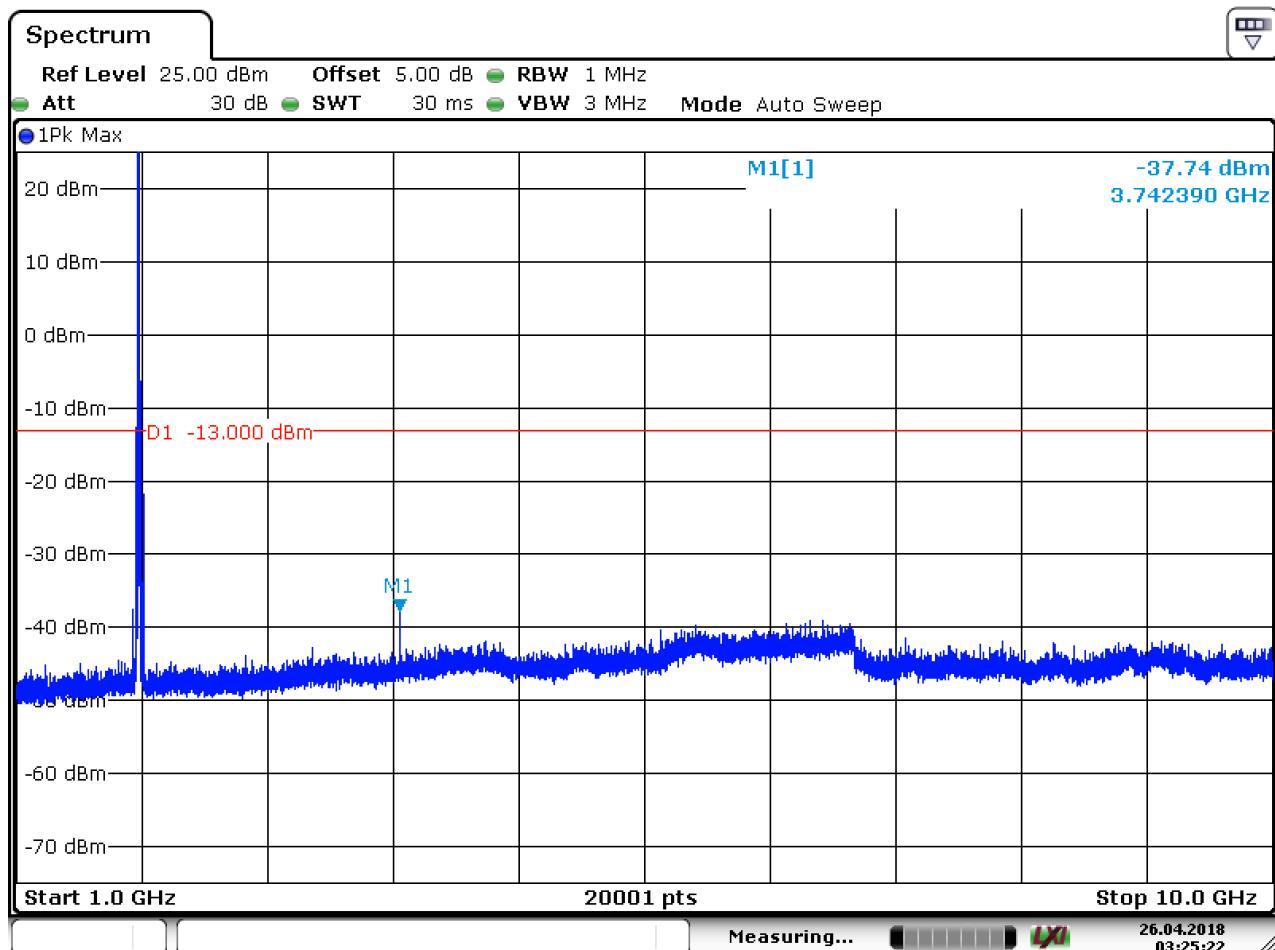
Date: 26.APR.2018 03:24:25



Date: 26.APR.2018 03:27:02

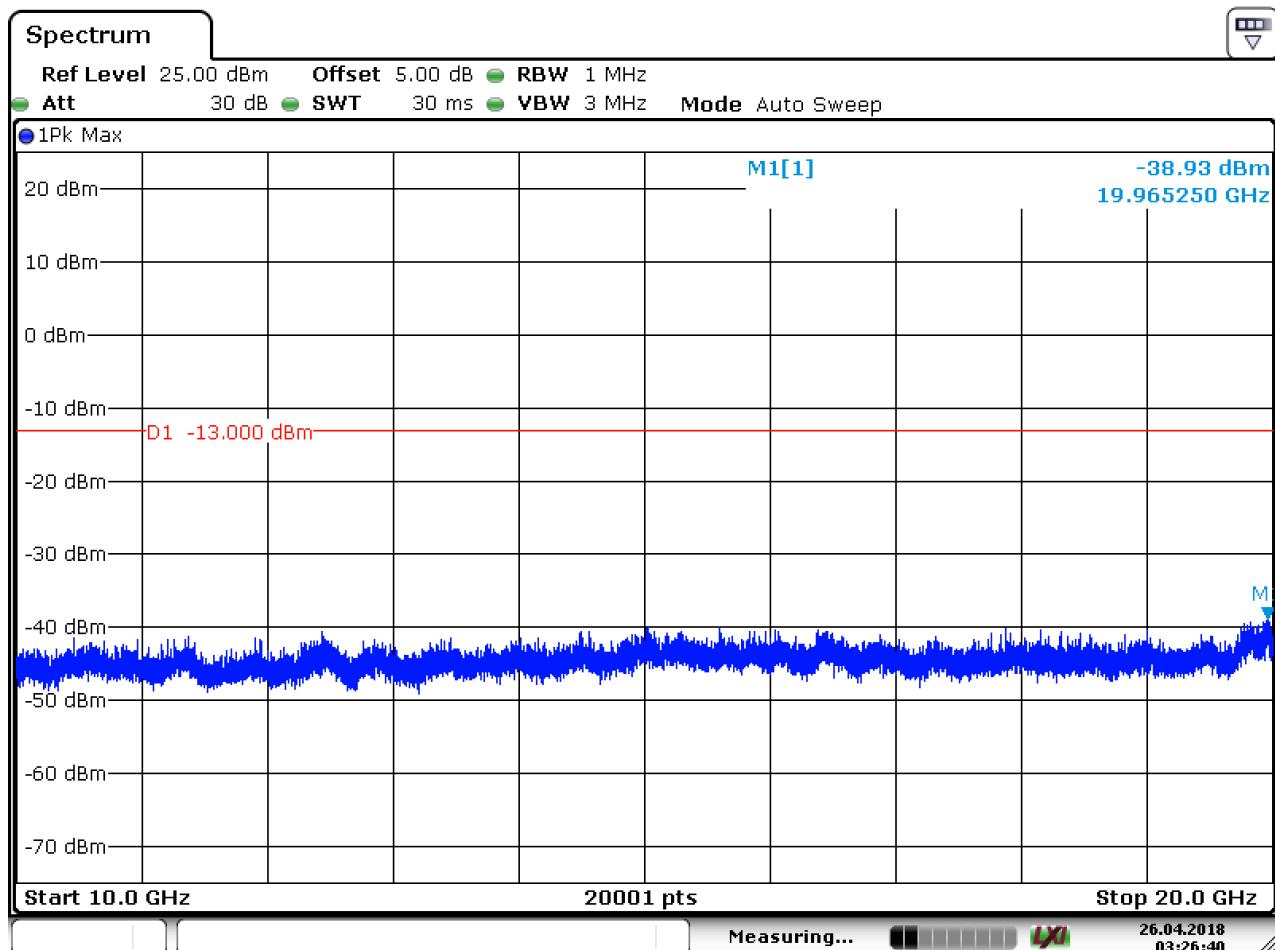
**6.1.1.1.2 Test Channel = MCH**

Date: 26.APR.2018 03:20:37



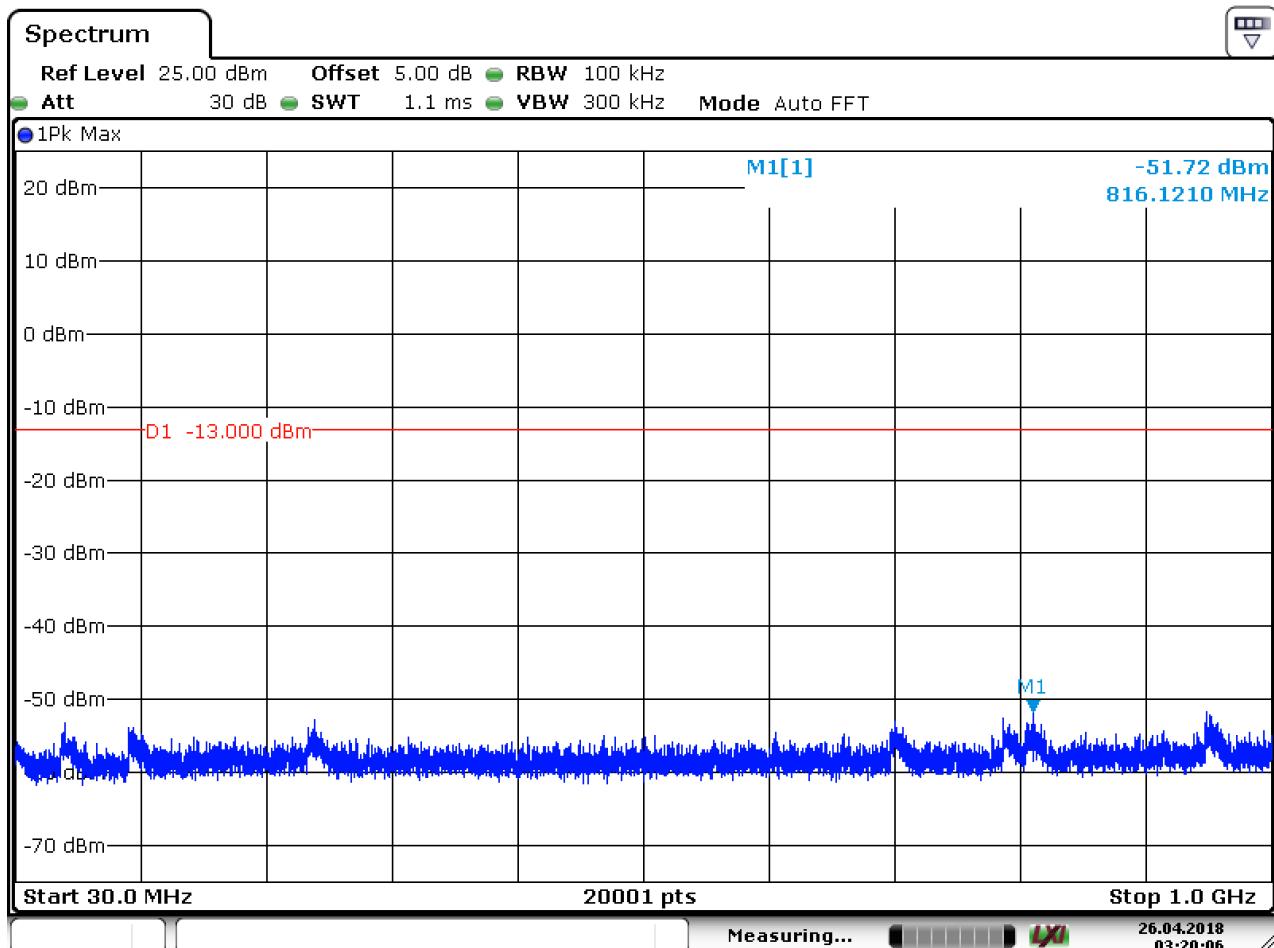
Date: 26.APR.2018 03:25:22

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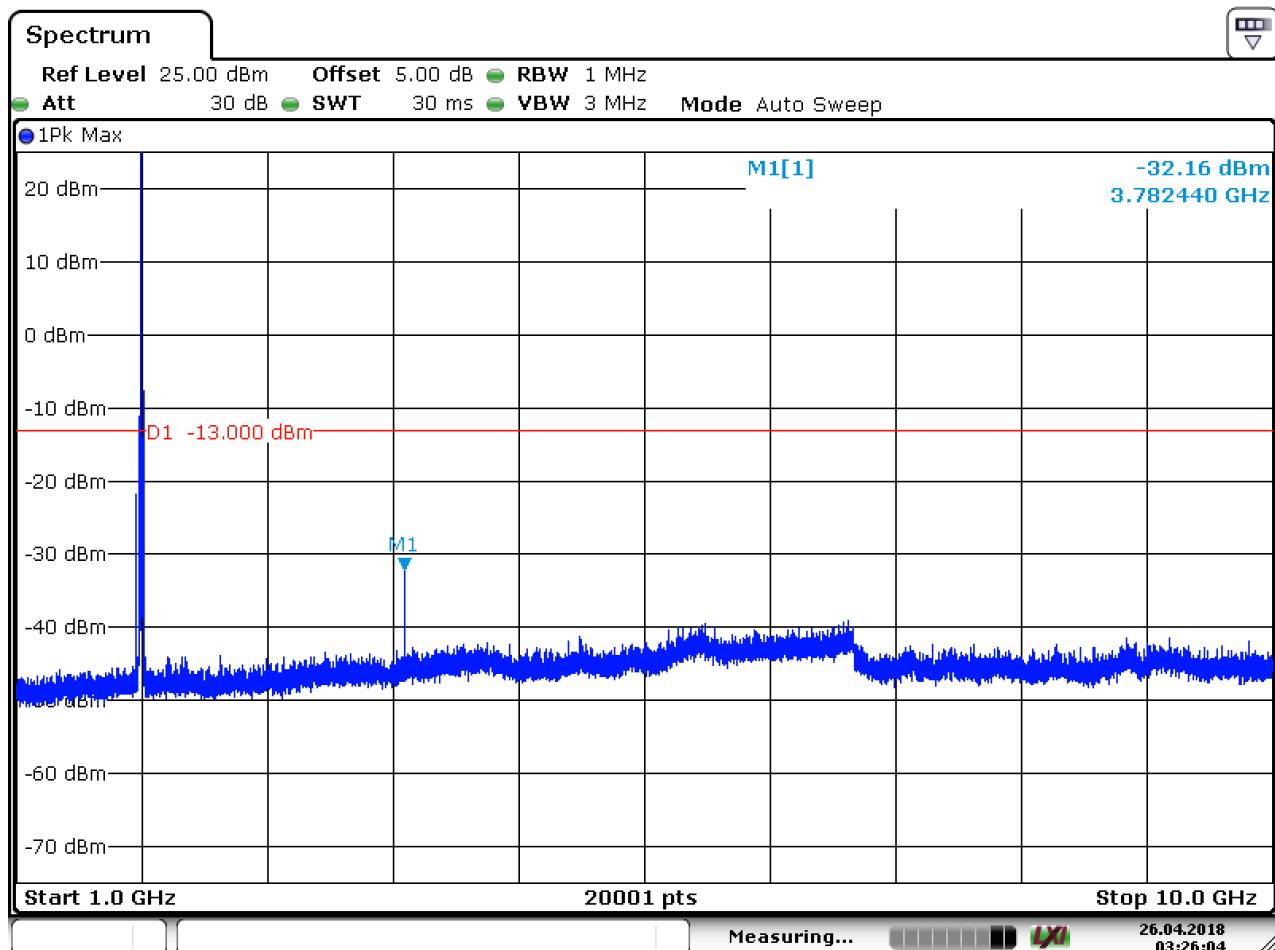


Date: 26.APR.2018 03:26:41

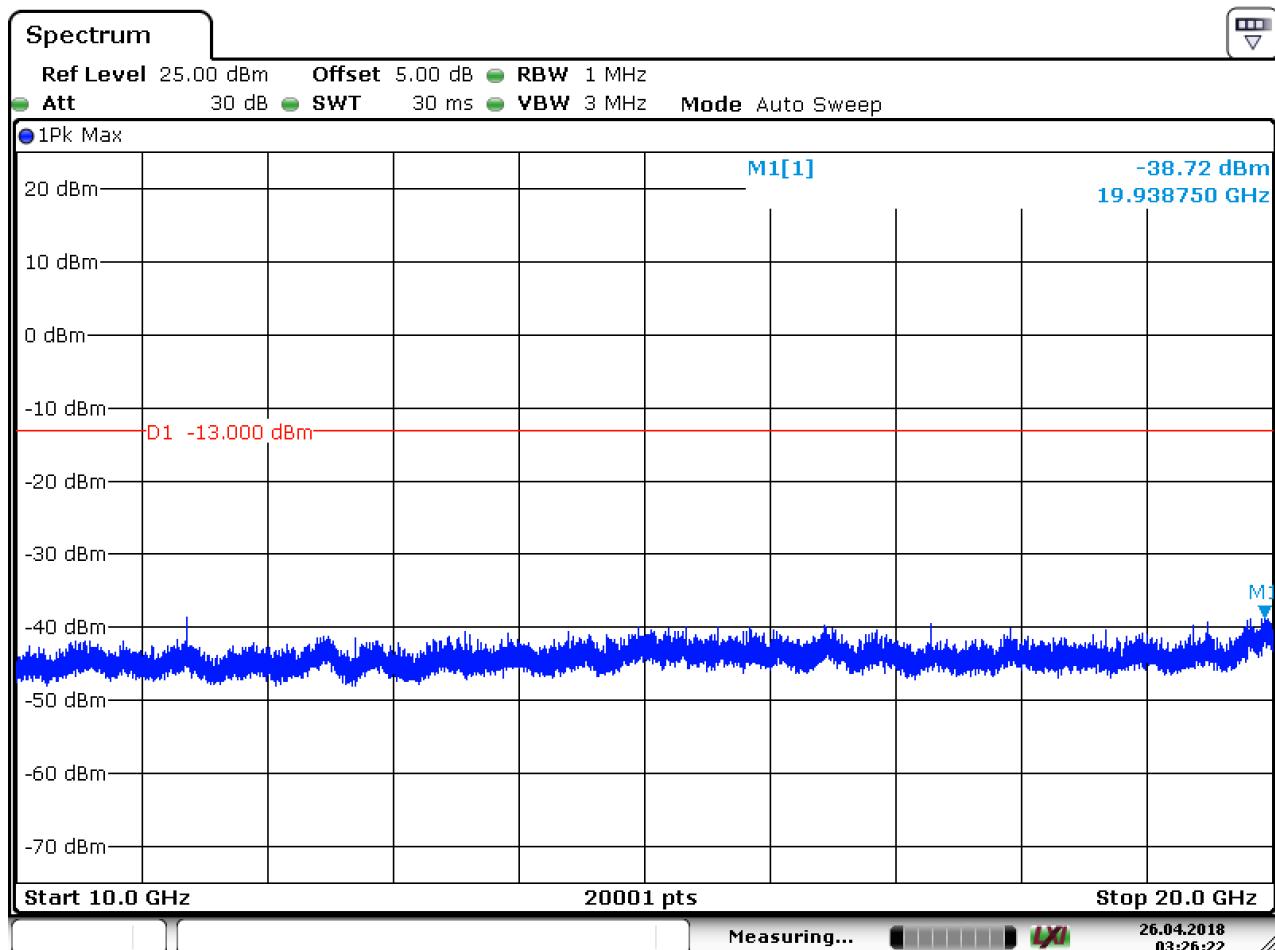
## 6.1.1.1.3 Test Channel = HCH



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Date: 26.APR.2018 03:26:04



## 7 Field Strength of Spurious Radiation

### 7.1 For LTE

#### 7.1.1 Test Band = LTE band2

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

###### 7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
77.050000	-70.27	-13.00	57.27	Vertical
143.950000	-74.80	-13.00	61.80	Vertical
3702.000000	-53.80	-13.00	40.80	Vertical
5553.200000	-66.26	-13.00	53.26	Vertical
7404.400000	-62.95	-13.00	49.95	Vertical
9255.600000	-57.68	-13.00	44.68	Vertical
72.600000	-74.10	-13.00	61.10	Horizontal
144.000000	-77.72	-13.00	64.72	Horizontal
3702.000000	-53.01	-13.00	40.01	Horizontal
5553.200000	-64.84	-13.00	51.84	Horizontal
7404.400000	-55.86	-13.00	42.86	Horizontal
9255.600000	-43.99	-13.00	30.99	Horizontal

###### 7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
72.350000	-77.28	-13.00	64.28	Vertical
154.700000	-83.30	-13.00	70.30	Vertical
3741.975000	-56.04	-13.00	43.04	Vertical
5613.000000	-64.02	-13.00	51.02	Vertical
7484.350000	-59.92	-13.00	46.92	Vertical
9355.375000	-61.60	-13.00	48.60	Vertical
62.450000	-78.15	-13.00	65.15	Horizontal
268.850000	-86.54	-13.00	73.54	Horizontal
3741.975000	-60.33	-13.00	47.33	Horizontal
5613.000000	-65.31	-13.00	52.31	Horizontal
7484.350000	-56.28	-13.00	43.28	Horizontal
9355.375000	-56.74	-13.00	43.74	Horizontal



**7.1.1.1.3 Test Channel = HCH**

<b>Frequency (MHz)</b>	<b>Level (dBm)</b>	<b>Limit Line (dBm)</b>	<b>Over Limit (dB)</b>	<b>Polarization</b>
56.350000	-77.84	-13.00	64.84	Vertical
144.000000	-73.07	-13.00	60.07	Vertical
3781.950000	-61.93	-13.00	48.93	Vertical
5673.125000	-63.26	-13.00	50.26	Vertical
7564.300000	-56.99	-13.00	43.99	Vertical
9455.475000	-55.60	-13.00	42.60	Vertical
72.000000	-76.39	-13.00	63.39	Horizontal
144.000000	-71.49	-13.00	58.49	Horizontal
288.000000	-77.21	-13.00	64.21	Horizontal
3781.950000	-54.82	-13.00	41.82	Horizontal
7564.300000	-59.86	-13.00	46.86	Horizontal
9455.475000	-58.68	-13.00	45.68	Horizontal

**NOTE:**

- 1) The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report

## 8 Frequency Stability

### 8.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband2	LTE/TM1 20MHz	LCH	TN	VL	9.29	0.00500	PASS
				VN	2.55	0.00137	PASS
				VH	3.04	0.00164	PASS
		MCH	TN	VL	2.78	0.00148	PASS
				VN	4.94	0.00263	PASS
				VH	5.78	0.00307	PASS
		HCH	TN	VL	6.89	0.00363	PASS
				VN	-0.95	-0.00050	PASS
				VH	7.73	0.00407	PASS
	LTE/TM2 20MHz	LCH	TN	VL	7.13	0.00383	PASS
				VN	-2.50	-0.00135	PASS
				VH	-5.40	-0.00290	PASS
		MCH	TN	VL	-2.62	-0.00140	PASS
				VN	3.66	0.00194	PASS
				VH	5.75	0.00306	PASS
		HCH	TN	VL	-6.16	-0.00324	PASS
				VN	6.48	0.00341	PASS
				VH	-1.98	-0.00104	PASS

## 8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband2	LTE/TM1 20MHz	LCH	VN	-30	1.44	0.00077	PASS
				-20	4.22	0.00227	PASS
				-10	2.75	0.00148	PASS
				0	-2.83	-0.00152	PASS
				10	5.37	0.00289	PASS
				20	1.74	0.00094	PASS
				30	-6.39	-0.00344	PASS
				40	1.45	0.00078	PASS
				50	3.69	0.00198	PASS
		MCH	VN	-30	1.94	0.00103	PASS
				-20	5.23	0.00278	PASS
				-10	-2.44	-0.00130	PASS
				0	4.28	0.00228	PASS
				10	1.34	0.00071	PASS
				20	-2.37	-0.00126	PASS
				30	-4.45	-0.00237	PASS
				40	-2.43	-0.00129	PASS
				50	2.95	0.00157	PASS
		HCH	VN	-30	7.04	0.00371	PASS
				-20	3.42	0.00180	PASS
				-10	4.38	0.00231	PASS
				0	-3.5	-0.00184	PASS
				10	2.54	0.00134	PASS
				20	5.17	0.00272	PASS
				30	-2.77	-0.00146	PASS
				40	-1.46	-0.00077	PASS
				50	2.83	0.00149	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband2	LTE/TM2 20MHz	LCH	VN	-30	-10.00	-0.00537	PASS
				-20	-5.63	-0.00303	PASS
				-10	5.00	0.00269	PASS
				0	-3.06	-0.00164	PASS
				10	-0.41	-0.00022	PASS
				20	4.84	0.00260	PASS
				30	-5.97	-0.00321	PASS
				40	-6.23	-0.00335	PASS
				50	-5.98	-0.00321	PASS
		MCH	VN	-30	8.19	0.00435	PASS
				-20	9.31	0.00495	PASS
				-10	-7.16	-0.00381	PASS
				0	-6.24	-0.00332	PASS
				10	7.70	0.00409	PASS
				20	-1.09	-0.00058	PASS
				30	2.47	0.00131	PASS
				40	-0.59	-0.00031	PASS
				50	-5.92	-0.00315	PASS
		HCH	VN	-30	-2.45	-0.00129	PASS
				-20	-4.48	-0.00236	PASS
				-10	-2.79	-0.00147	PASS
				0	-2.80	-0.00147	PASS
				10	2.75	0.00145	PASS
				20	-1.67	-0.00088	PASS
				30	2.17	0.00114	PASS
				40	2.75	0.00145	PASS
				50	-4.81	-0.00253	PASS

The End