



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	21.47	20.67	33.00	PASS
				RB1#13	21.45	20.65	33.00	PASS
				RB1#24	21.53	20.73	33.00	PASS
				RB12#0	20.52	19.72	33.00	PASS
				RB12#6	20.43	19.63	33.00	PASS
				RB12#13	20.50	19.70	33.00	PASS
				RB25#0	20.41	19.61	33.00	PASS
			MCH	RB1#0	21.57	20.77	33.00	PASS
				RB1#13	21.55	20.75	33.00	PASS
				RB1#24	21.59	20.79	33.00	PASS
				RB12#0	20.56	19.76	33.00	PASS
				RB12#6	20.51	19.71	33.00	PASS
				RB12#13	20.50	19.70	33.00	PASS
				RB25#0	20.54	19.74	33.00	PASS
			HCH	RB1#0	21.47	20.67	33.00	PASS
				RB1#13	21.53	20.73	33.00	PASS
				RB1#24	21.58	20.78	33.00	PASS
				RB12#0	20.45	19.65	33.00	PASS
				RB12#6	20.47	19.67	33.00	PASS
				RB12#13	20.50	19.70	33.00	PASS
				RB25#0	20.47	19.67	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	20.30	19.50	33.00	PASS
				RB1#13	20.26	19.46	33.00	PASS
				RB1#24	20.34	19.54	33.00	PASS
				RB12#0	19.34	18.54	33.00	PASS
				RB12#6	19.26	18.46	33.00	PASS
				RB12#13	19.27	18.47	33.00	PASS
				RB25#0	19.25	18.45	33.00	PASS
			MCH	RB1#0	20.40	19.60	33.00	PASS
				RB1#13	20.36	19.56	33.00	PASS
				RB1#24	20.36	19.56	33.00	PASS
				RB12#0	19.36	18.56	33.00	PASS
				RB12#6	19.33	18.53	33.00	PASS
				RB12#13	19.31	18.51	33.00	PASS
				RB25#0	19.32	18.52	33.00	PASS
			HCH	RB1#0	20.28	19.48	33.00	PASS
				RB1#13	20.37	19.57	33.00	PASS
				RB1#24	20.43	19.63	33.00	PASS
				RB12#0	19.26	18.46	33.00	PASS
				RB12#6	19.30	18.50	33.00	PASS
				RB12#13	19.33	18.53	33.00	PASS
				RB25#0	19.35	18.55	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	21.48	20.68	33.00	PASS
				RB1#25	21.52	20.72	33.00	PASS
				RB1#49	21.61	20.81	33.00	PASS
				RB25#0	20.46	19.66	33.00	PASS
				RB25#13	20.53	19.73	33.00	PASS
				RB25#25	20.56	19.76	33.00	PASS
				RB50#0	20.55	19.75	33.00	PASS
			MCH	RB1#0	21.68	20.88	33.00	PASS
				RB1#25	21.60	20.80	33.00	PASS
				RB1#49	21.69	20.89	33.00	PASS
				RB25#0	20.57	19.77	33.00	PASS
				RB25#13	20.56	19.76	33.00	PASS
				RB25#25	20.52	19.72	33.00	PASS
				RB50#0	20.60	19.80	33.00	PASS
			HCH	RB1#0	21.52	20.72	33.00	PASS
				RB1#25	21.53	20.73	33.00	PASS
				RB1#49	21.57	20.77	33.00	PASS
				RB25#0	20.39	19.59	33.00	PASS
				RB25#13	20.50	19.70	33.00	PASS
				RB25#25	20.51	19.71	33.00	PASS
				RB50#0	20.45	19.65	33.00	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
BAND7	LTE/TM2	10M	LCH	RB1#0	20.35	19.55	33.00	PASS
				RB1#25	20.41	19.61	33.00	PASS
				RB1#49	20.47	19.67	33.00	PASS
				RB25#0	19.27	18.47	33.00	PASS
				RB25#13	19.35	18.55	33.00	PASS
				RB25#25	19.45	18.65	33.00	PASS
				RB50#0	19.34	18.54	33.00	PASS
			MCH	RB1#0	20.51	19.71	33.00	PASS
				RB1#25	20.44	19.64	33.00	PASS
				RB1#49	20.54	19.74	33.00	PASS
				RB25#0	19.42	18.62	33.00	PASS
				RB25#13	19.35	18.55	33.00	PASS
				RB25#25	19.38	18.58	33.00	PASS
				RB50#0	19.33	18.53	33.00	PASS
			HCH	RB1#0	20.36	19.56	33.00	PASS
				RB1#25	20.38	19.58	33.00	PASS
				RB1#49	20.51	19.71	33.00	PASS
				RB25#0	19.26	18.46	33.00	PASS
				RB25#13	19.27	18.47	33.00	PASS
				RB25#25	19.37	18.57	33.00	PASS
				RB50#0	19.26	18.46	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	21.47	20.67	33.00	PASS
				RB1#38	21.56	20.76	33.00	PASS
				RB1#74	21.61	20.81	33.00	PASS
				RB36#0	20.44	19.64	33.00	PASS
				RB36#18	20.57	19.77	33.00	PASS
				RB36#39	20.58	19.78	33.00	PASS
				RB75#0	20.46	19.66	33.00	PASS
			MCH	RB1#0	21.56	20.76	33.00	PASS
				RB1#38	21.61	20.81	33.00	PASS
				RB1#74	21.67	20.87	33.00	PASS
				RB36#0	20.54	19.74	33.00	PASS
				RB36#18	20.56	19.76	33.00	PASS
				RB36#39	20.44	19.64	33.00	PASS
				RB75#0	20.55	19.75	33.00	PASS
			HCH	RB1#0	21.46	20.66	33.00	PASS
				RB1#38	21.56	20.76	33.00	PASS
				RB1#74	21.65	20.85	33.00	PASS
				RB36#0	20.50	19.70	33.00	PASS
				RB36#18	20.54	19.74	33.00	PASS
				RB36#39	20.53	19.73	33.00	PASS
				RB75#0	20.44	19.64	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	20.34	19.54	33.00	PASS
				RB1#38	20.36	19.56	33.00	PASS
				RB1#74	20.37	19.57	33.00	PASS
				RB36#0	19.27	18.47	33.00	PASS
				RB36#18	19.40	18.60	33.00	PASS
				RB36#39	19.34	18.54	33.00	PASS
				RB75#0	19.27	18.47	33.00	PASS
			MCH	RB1#0	20.33	19.53	33.00	PASS
				RB1#38	20.42	19.62	33.00	PASS
				RB1#74	20.49	19.69	33.00	PASS
				RB36#0	19.30	18.50	33.00	PASS
				RB36#18	19.33	18.53	33.00	PASS
				RB36#39	19.28	18.48	33.00	PASS
				RB75#0	19.32	18.52	33.00	PASS
			HCH	RB1#0	20.33	19.53	33.00	PASS
				RB1#38	20.42	19.62	33.00	PASS
				RB1#74	20.53	19.73	33.00	PASS
				RB36#0	19.27	18.47	33.00	PASS
				RB36#18	19.32	18.52	33.00	PASS
				RB36#39	19.26	18.46	33.00	PASS
				RB75#0	19.24	18.44	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	21.43	20.63	33.00	PASS
				RB1#50	21.56	20.76	33.00	PASS
				RB1#99	21.65	20.85	33.00	PASS
				RB50#0	20.44	19.64	33.00	PASS
				RB50#25	20.54	19.74	33.00	PASS
				RB50#50	20.49	19.69	33.00	PASS
				RB100#0	20.48	19.68	33.00	PASS
			MCH	RB1#0	21.57	20.77	33.00	PASS
				RB1#50	21.58	20.78	33.00	PASS
				RB1#99	21.62	20.82	33.00	PASS
				RB50#0	20.53	19.73	33.00	PASS
				RB50#25	20.47	19.67	33.00	PASS
				RB50#50	20.44	19.64	33.00	PASS
				RB100#0	20.50	19.70	33.00	PASS
			HCH	RB1#0	21.54	20.74	33.00	PASS
				RB1#50	21.50	20.70	33.00	PASS
				RB1#99	21.58	20.78	33.00	PASS
				RB50#0	20.41	19.61	33.00	PASS
				RB50#25	20.48	19.68	33.00	PASS
				RB50#50	20.50	19.70	33.00	PASS
				RB100#0	20.51	19.71	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	20.34	19.54	33.00	PASS
				RB1#50	20.40	19.60	33.00	PASS
				RB1#99	20.40	19.60	33.00	PASS
				RB50#0	19.30	18.50	33.00	PASS
				RB50#25	19.28	18.48	33.00	PASS
				RB50#50	19.26	18.46	33.00	PASS
				RB100#0	19.26	18.46	33.00	PASS
			MCH	RB1#0	20.37	19.57	33.00	PASS
				RB1#50	20.44	19.64	33.00	PASS
				RB1#99	20.35	19.55	33.00	PASS
				RB50#0	19.32	18.52	33.00	PASS
				RB50#25	19.33	18.53	33.00	PASS
				RB50#50	19.30	18.50	33.00	PASS
				RB100#0	19.30	18.50	33.00	PASS
			HCH	RB1#0	20.34	19.54	33.00	PASS
				RB1#50	20.40	19.60	33.00	PASS
				RB1#99	20.45	19.65	33.00	PASS
				RB50#0	19.24	18.44	33.00	PASS
				RB50#25	19.24	18.44	33.00	PASS
				RB50#50	19.21	18.41	33.00	PASS
				RB100#0	19.25	18.45	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	5.57	13	PASS
		MCH	5.07	13	PASS
		HCH	4.72	13	PASS
	TM2/20M	LCH	6.12	13	PASS
		MCH	5.94	13	PASS
		HCH	5.77	13	PASS



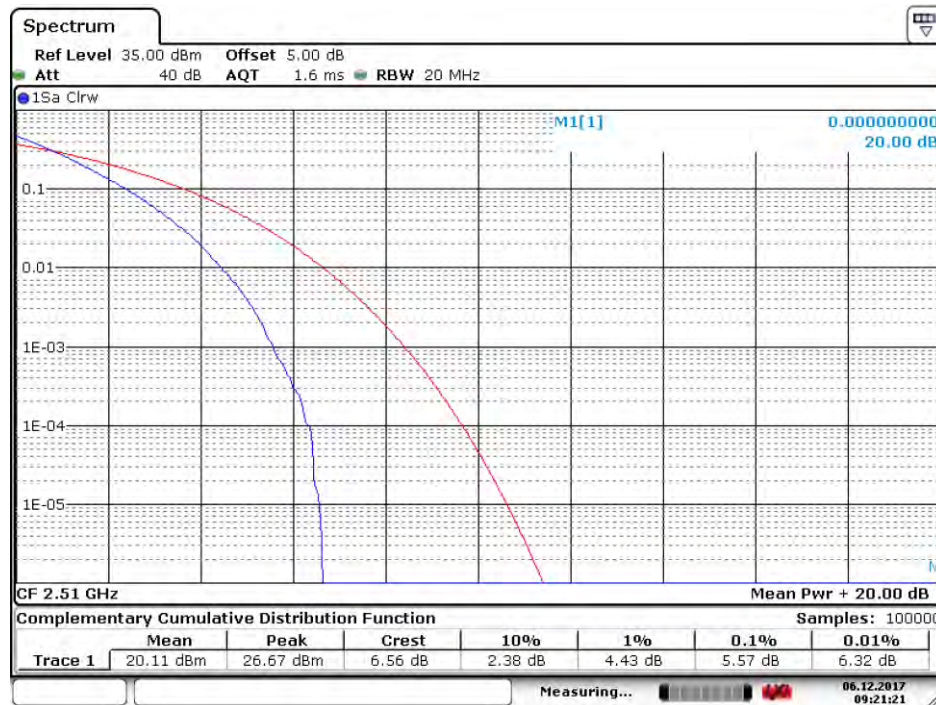
Part II - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE band7

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

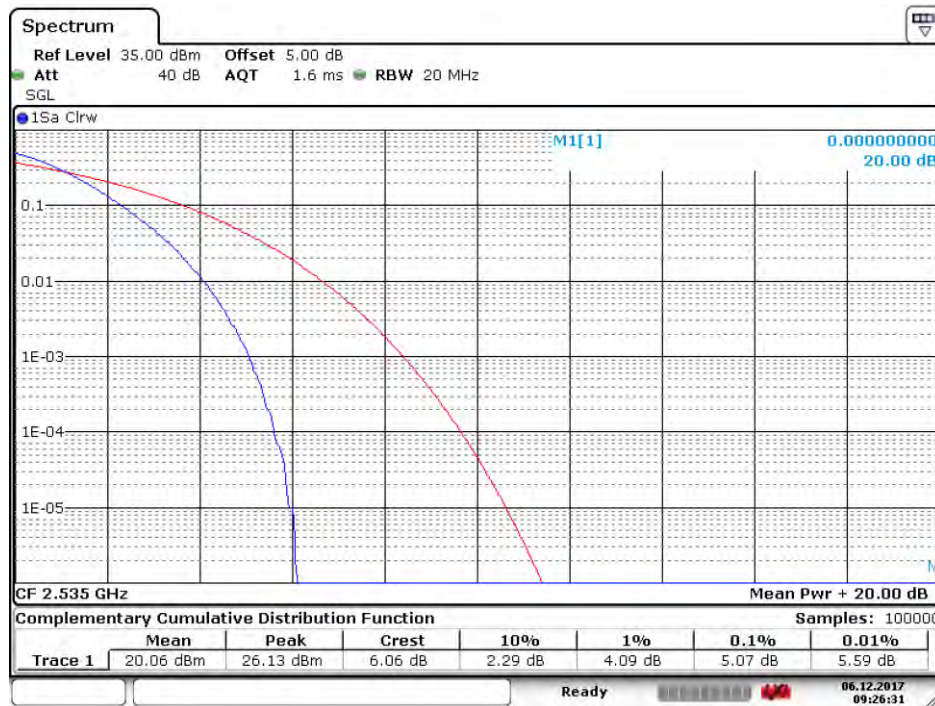
2.1.1.1.1 Test Channel = LCH



Date: 6.DEC.2017 09:21:21

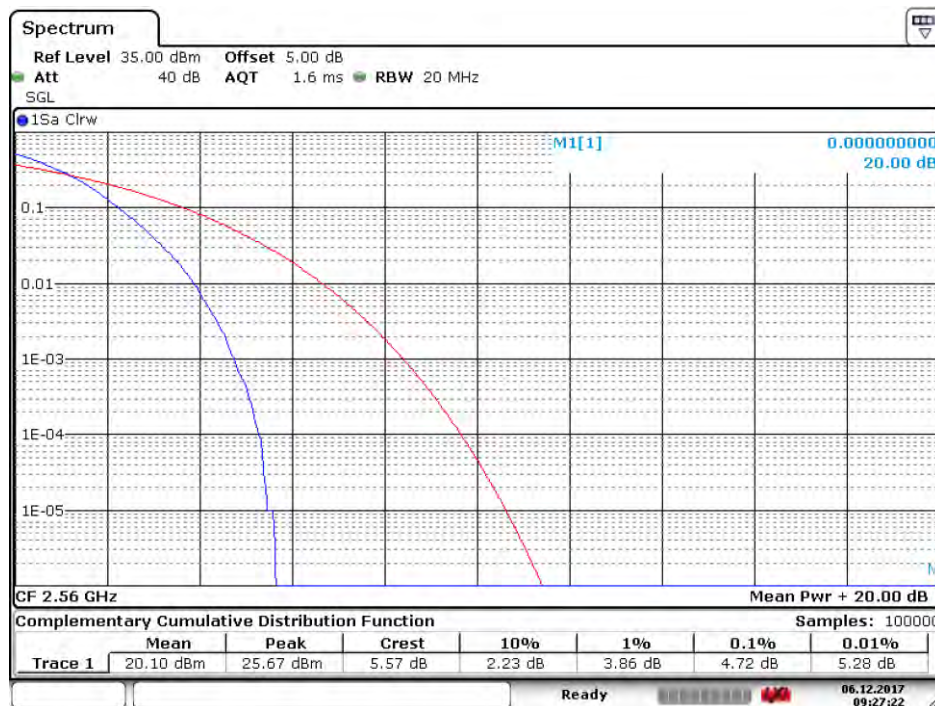


2.1.1.1.2 Test Channel = MCH



Date: 6.DEC.2017 09:26:31

2.1.1.1.3 Test Channel = HCH

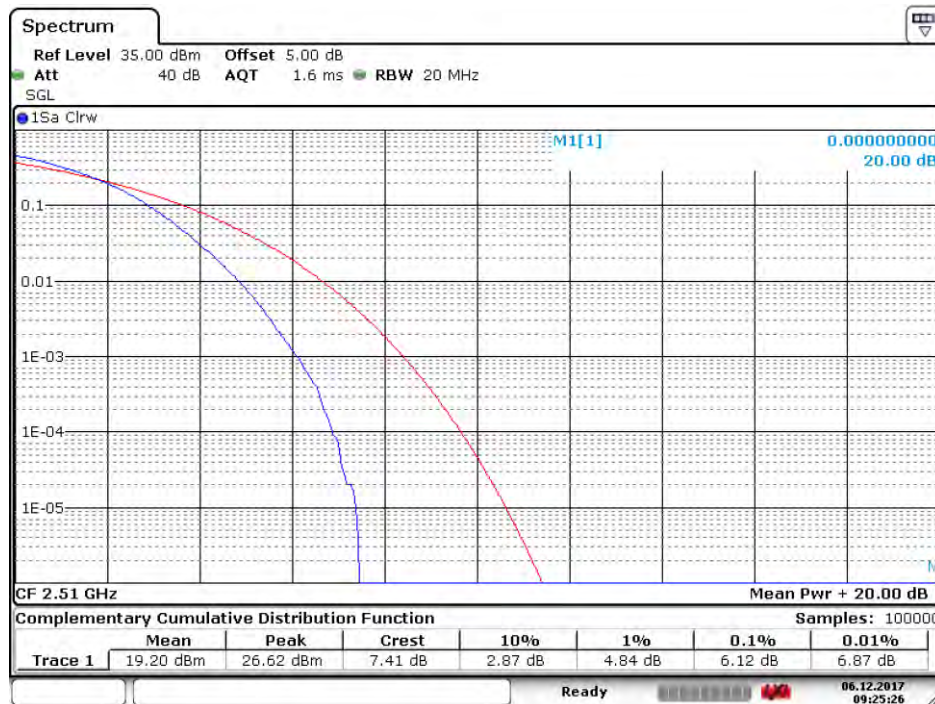


Date: 6.DEC.2017 09:27:23



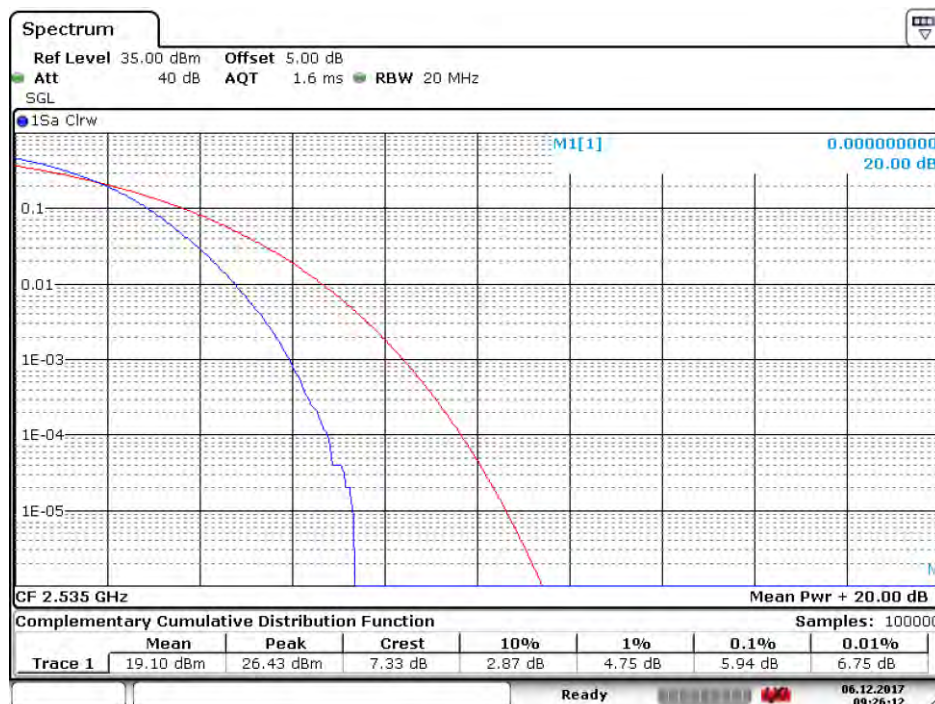
2.1.1.2 Test Mode = LTE/TM2.Bandwidth=20MHz

2.1.1.2.1 Test Channel = LCH



Date: 6.DEC.2017 09:25:26

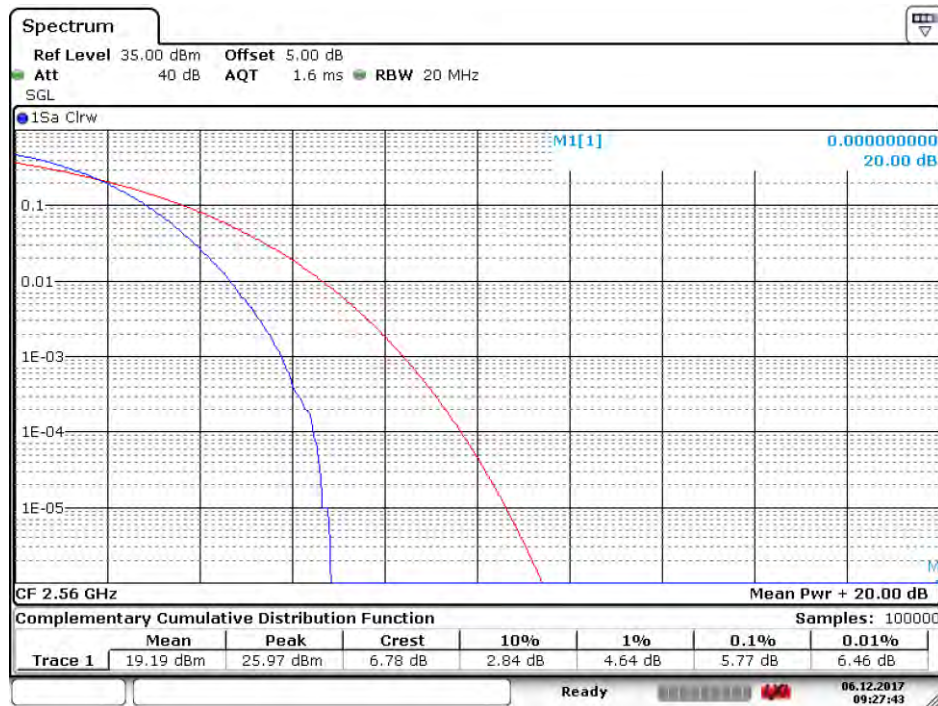
2.1.1.2.2 Test Channel = MCH



Date: 6.DEC.2017 09:26:13



2.1.1.2.3 Test Channel = HCH



Date: 6.DEC.2017 09:27:42



3 Modulation Characteristics

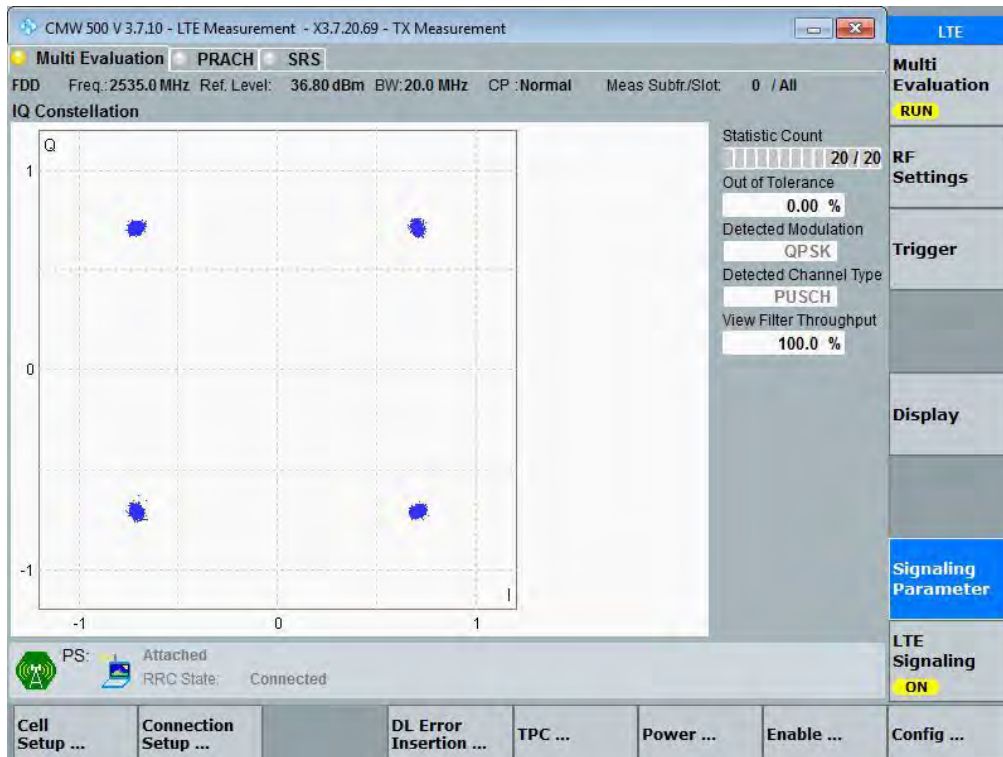
Part I - Test Plots

3.1 For LTE

3.1.1 Test Band = LTE band7

3.1.1.1 Test Mode = LTE /TM1 20MHz

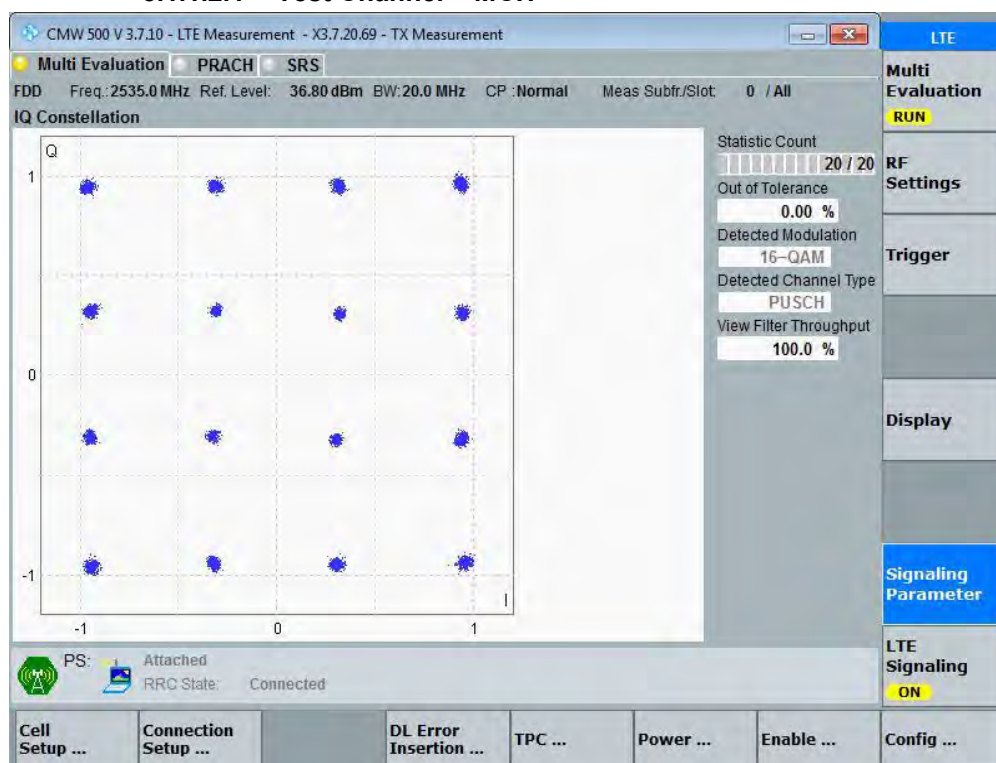
3.1.1.1.1 Test Channel = MCH





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	4.48	4.94	PASS
		MCH	4.48	4.88	PASS
		HCH	4.48	4.89	PASS
	TM2/ 5MHz	LCH	4.48	4.84	PASS
		MCH	4.47	4.89	PASS
		HCH	4.48	4.92	PASS
	TM1/10MHz	LCH	8.93	9.63	PASS
		MCH	8.93	9.75	PASS
		HCH	8.91	9.61	PASS
	TM2/ 10MHz	LCH	8.95	9.67	PASS
		MCH	8.93	9.759	PASS
		HCH	8.93	9.71	PASS
	TM1/ 15MHz	LCH	13.40	14.36	PASS
		MCH	13.40	14.30	PASS
		HCH	13.37	14.24	PASS
	TM2/ 15MHz	LCH	13.37	14.24	PASS
		MCH	13.40	14.24	PASS
		HCH	13.37	14.27	PASS
	TM1/ 20MHz	LCH	17.90	19.50	PASS
		MCH	17.90	19.18	PASS
		HCH	17.82	19.14	PASS
	TM2/ 20MHz	LCH	17.90	19.26	PASS
		MCH	17.86	19.26	PASS
		HCH	17.82	19.22	PASS

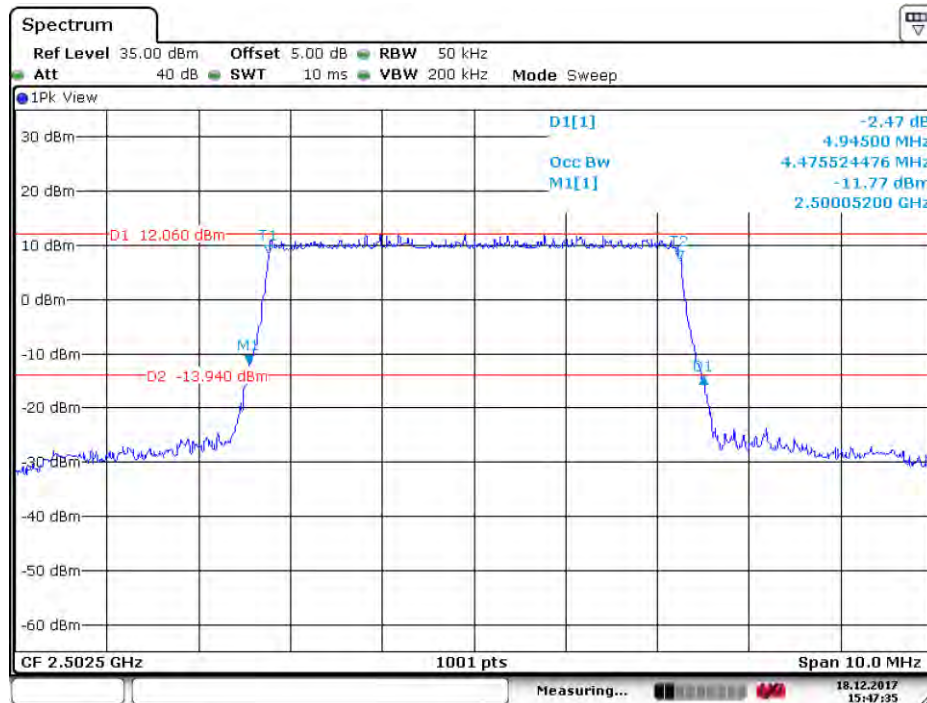


4.1 For LTE

4.1.1 Test Band = LTE band7

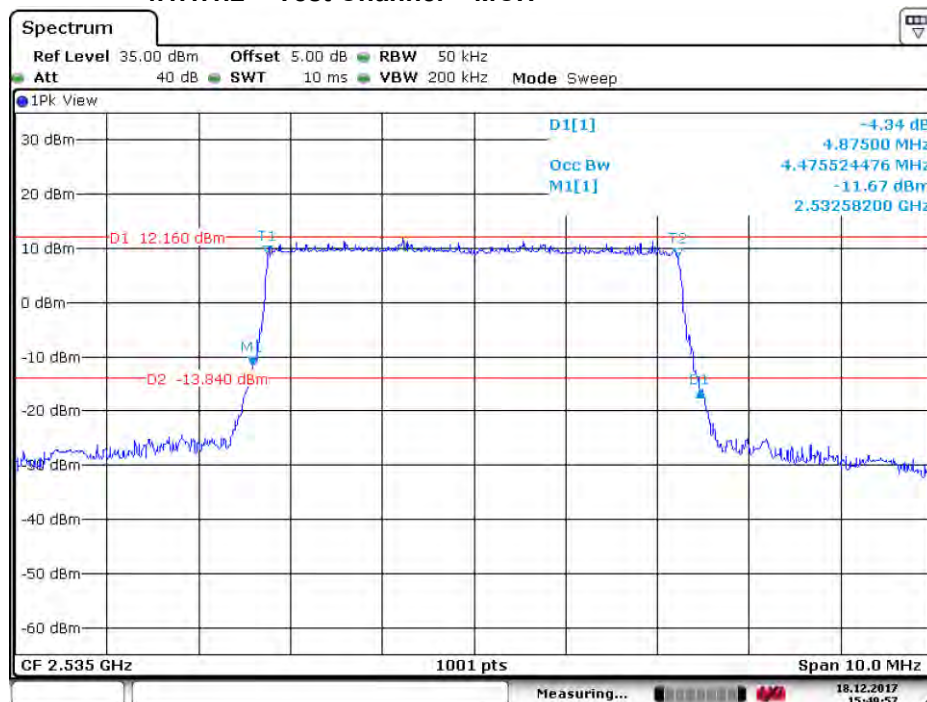
4.1.1.1 Test Mode = LTE/TM1 5MHz

4.1.1.1.1 Test Channel = LCH



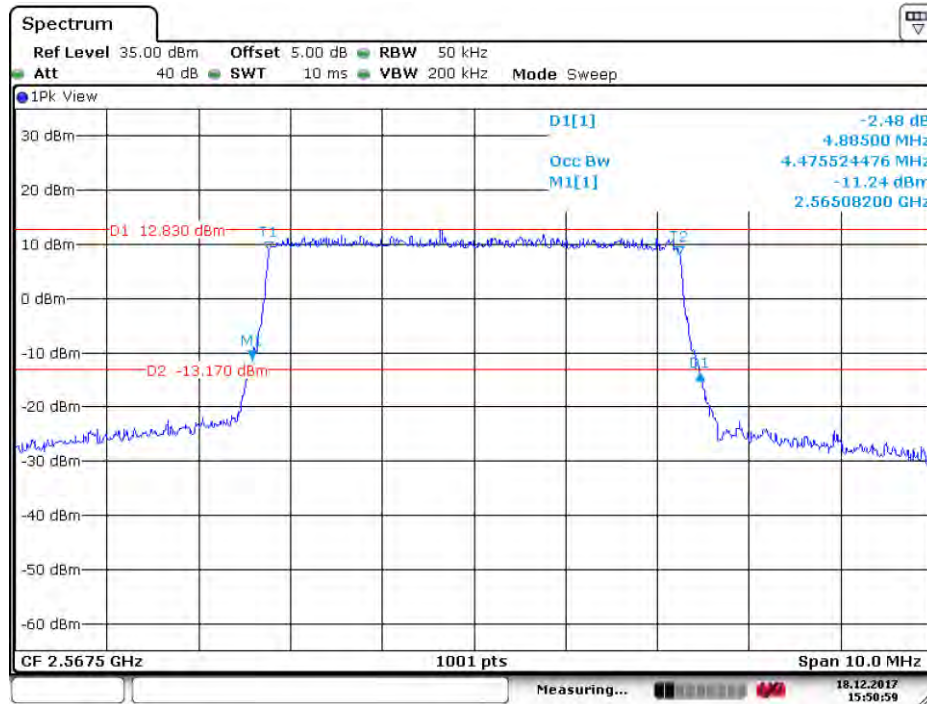
Date: 18.DEC.2017 15:47:36

4.1.1.1.2 Test Channel = MCH



Date: 18.DEC.2017 15:49:57

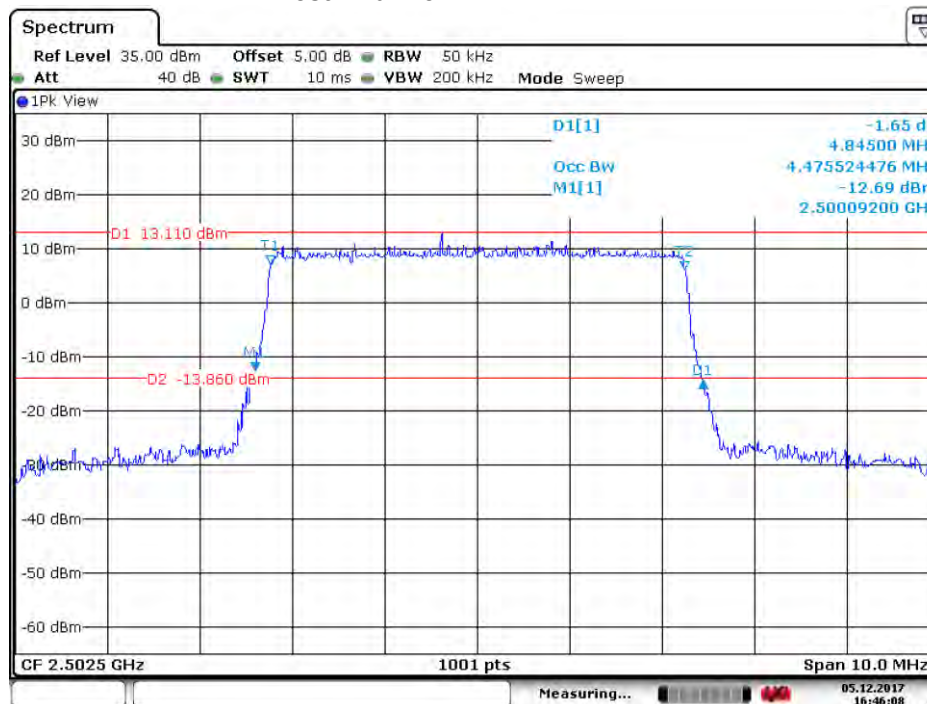
4.1.1.1.3 Test Channel = HCH



Date: 18.DEC.2017 15:50:59

4.1.1.2 Test Mode = LTE/TM2 5MHz

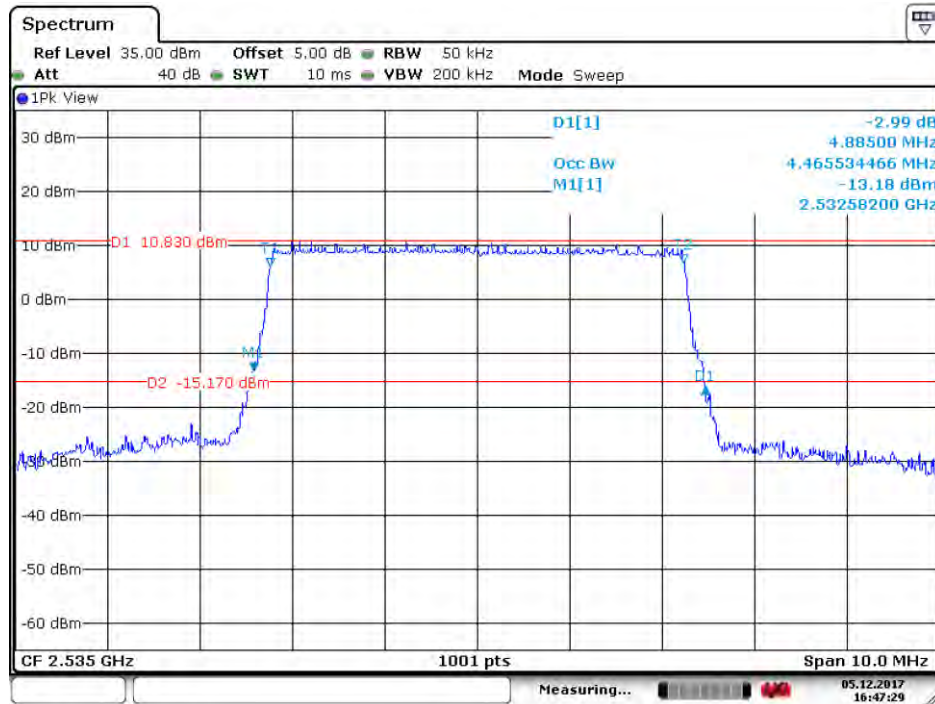
4.1.1.2.1 Test Channel = LCH



Date: 5.DEC.2017 16:46:08

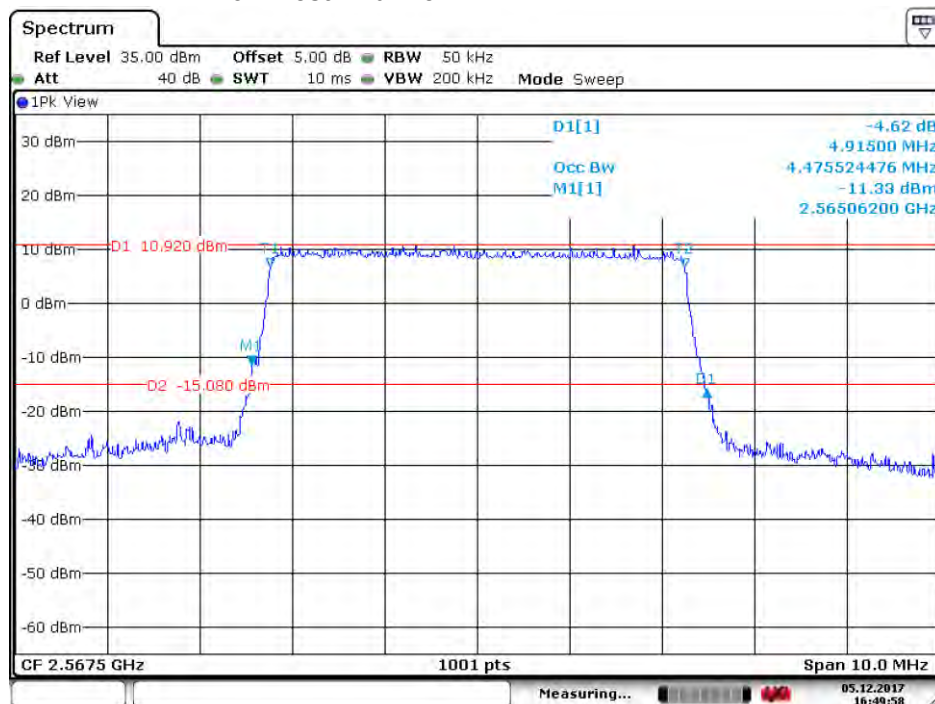


4.1.1.2.2 Test Channel = MCH



Date: 5.DEC.2017 16:47:29

4.1.1.2.3 Test Channel = HCH

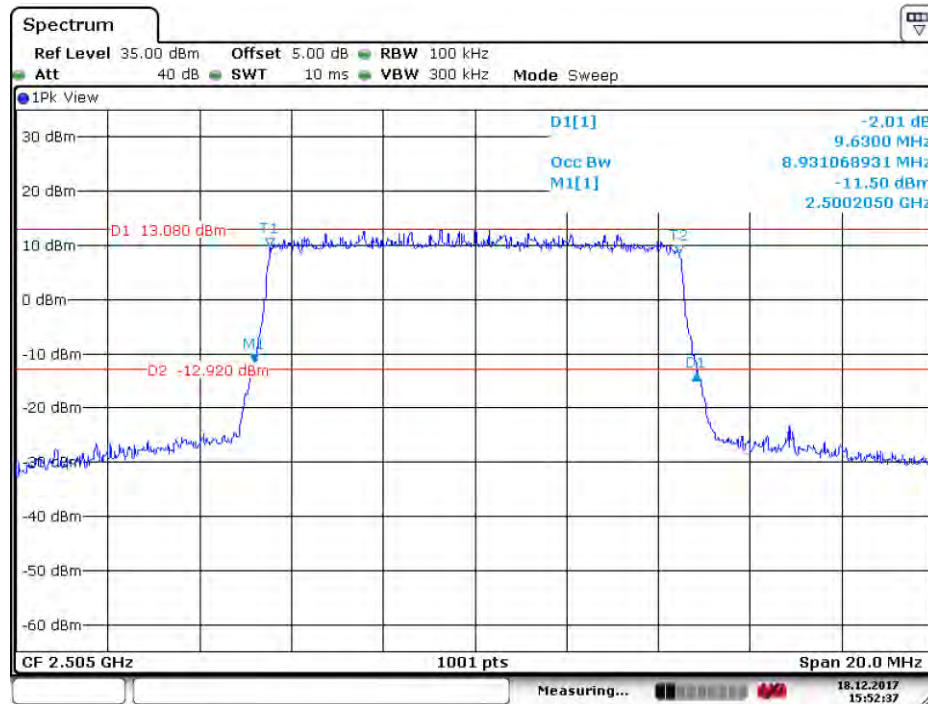


Date: 5.DEC.2017 16:49:59



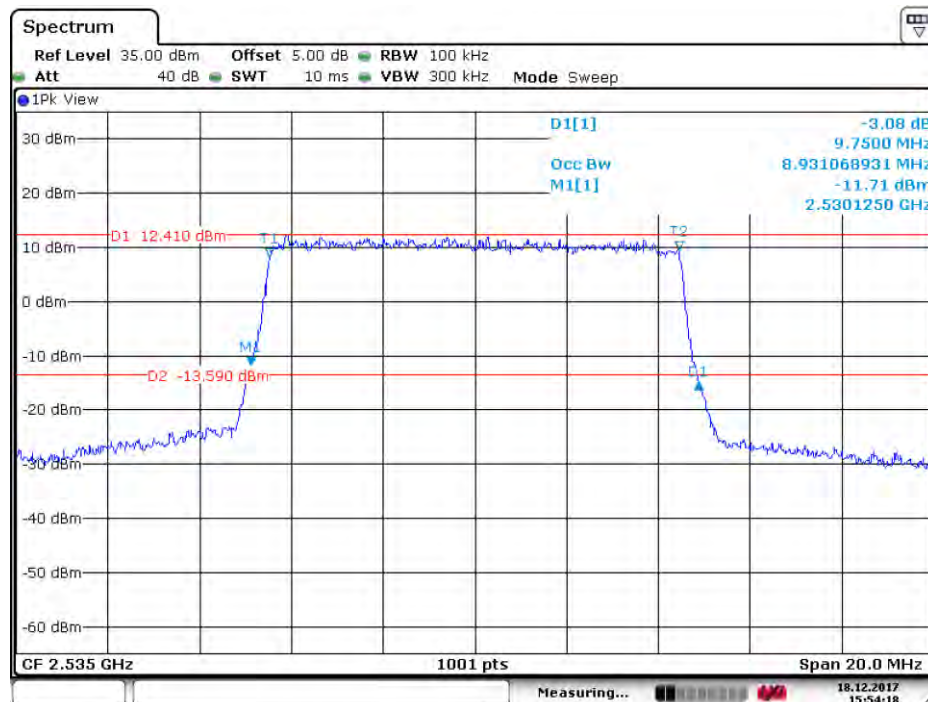
4.1.1.3 Test Mode = LTE/TM1 10MHz

4.1.1.3.1 Test Channel = LCH



Date: 18 DEC. 2017 15:52:37

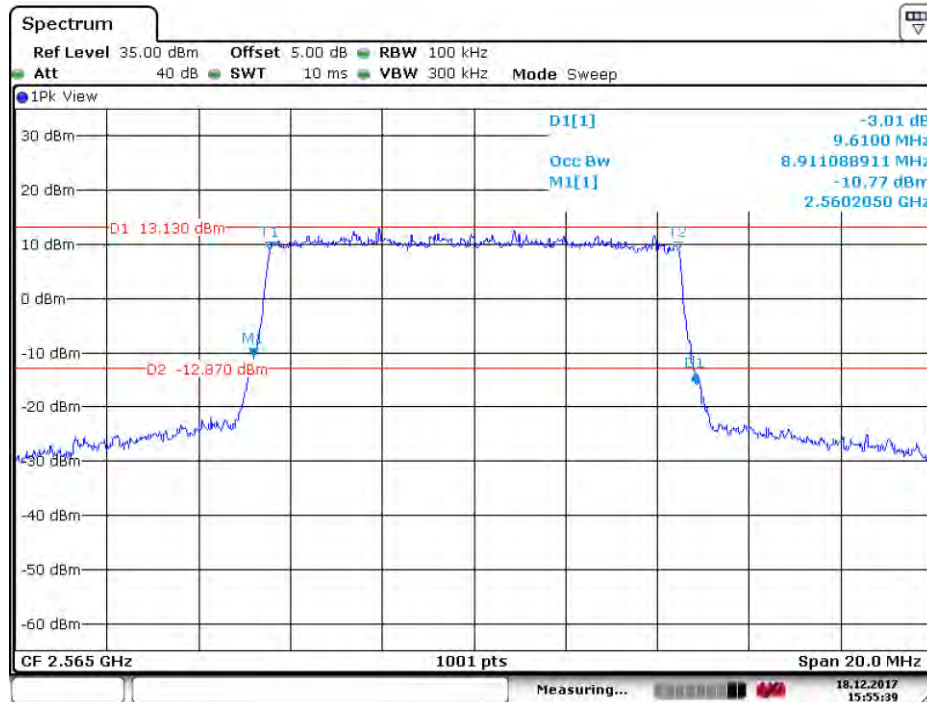
4.1.1.3.2 Test Channel = MCH



Date: 18 DEC. 2017 15:54:18



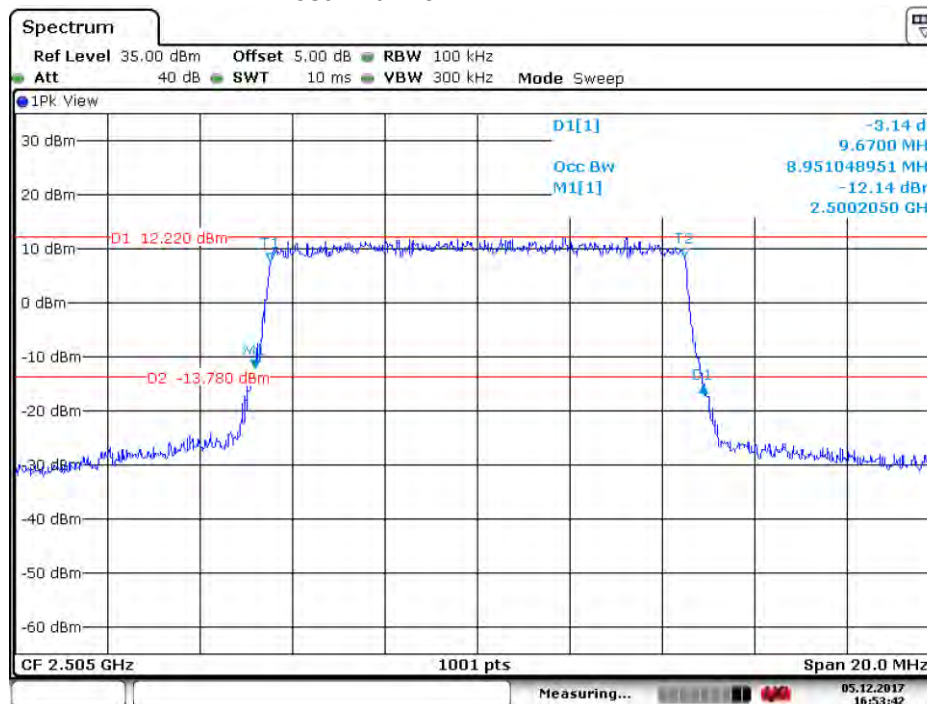
4.1.1.3.3 Test Channel = HCH



Date: 18 DEC.2017 15:55:39

4.1.1.4 Test Mode = LTE/TM2 10MHz

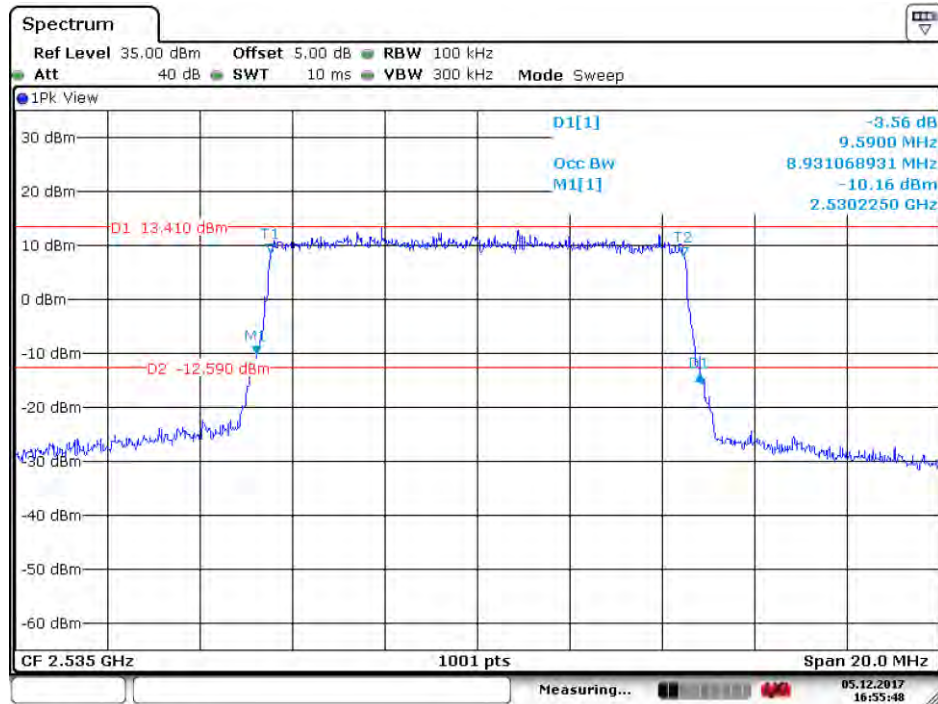
4.1.1.4.1 Test Channel = LCH



Date: 5 DEC.2017 16:53:43

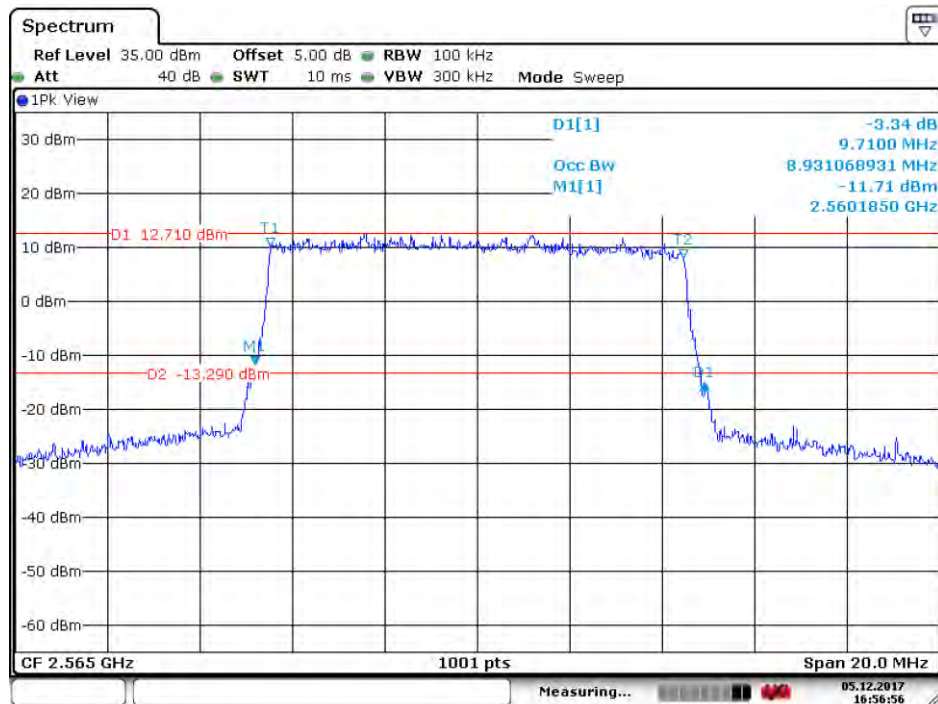


4.1.1.4.2 Test Channel = MCH



Date: 5.DEC.2017 16:55:48

4.1.1.4.3 Test Channel = HCH

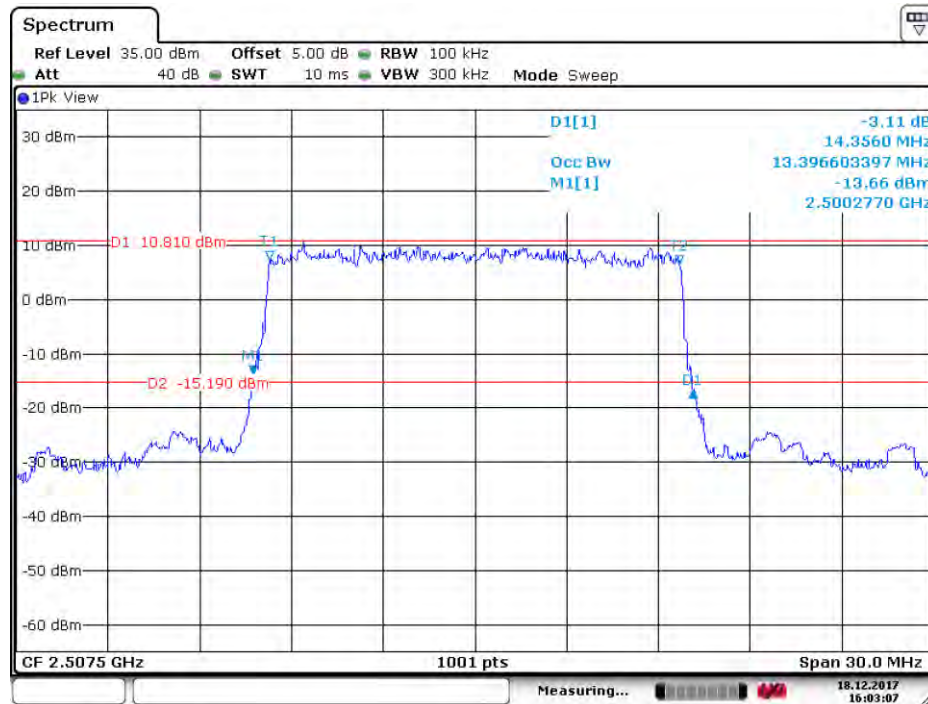


Date: 5.DEC.2017 16:56:56



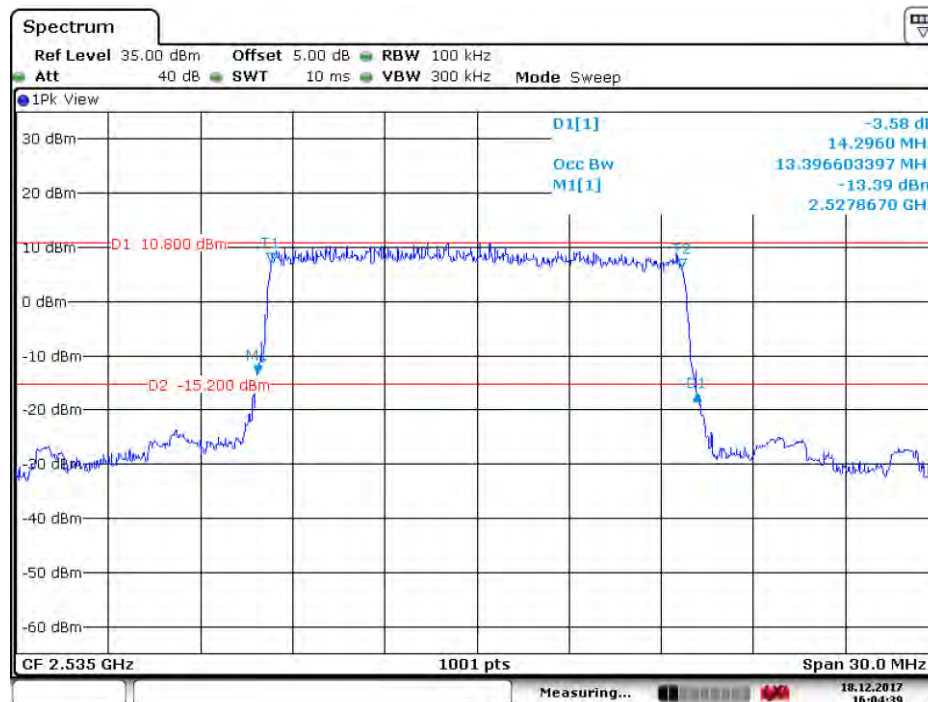
4.1.1.5 Test Mode = LTE/TM1 15MHz

4.1.1.5.1 Test Channel = LCH



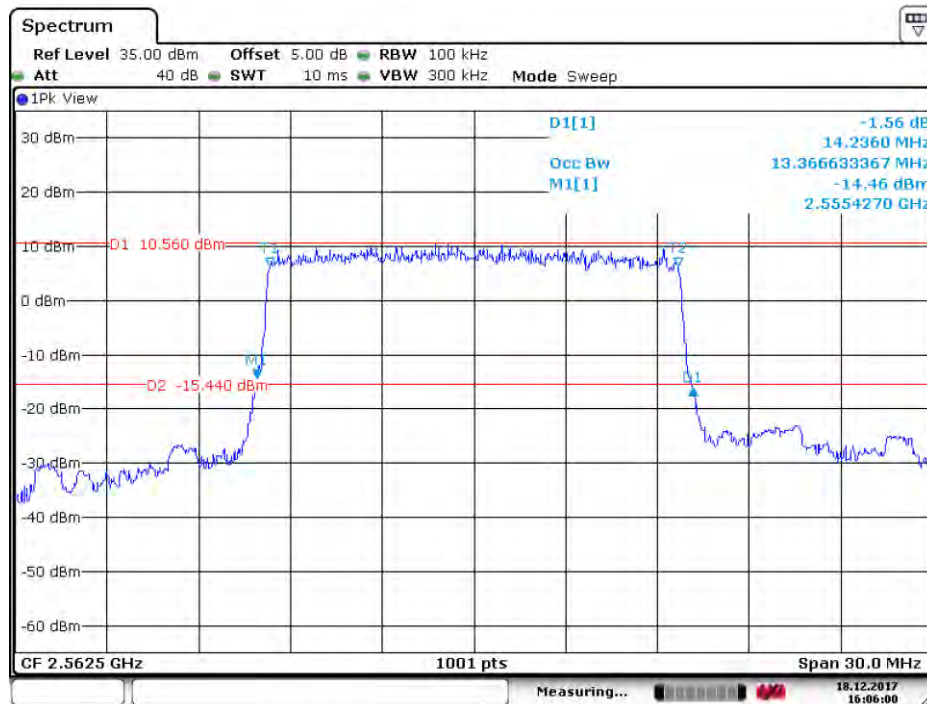
Date: 18 DEC. 2017 16:03:08

4.1.1.5.2 Test Channel = MCH



Date: 18 DEC. 2017 16:04:38

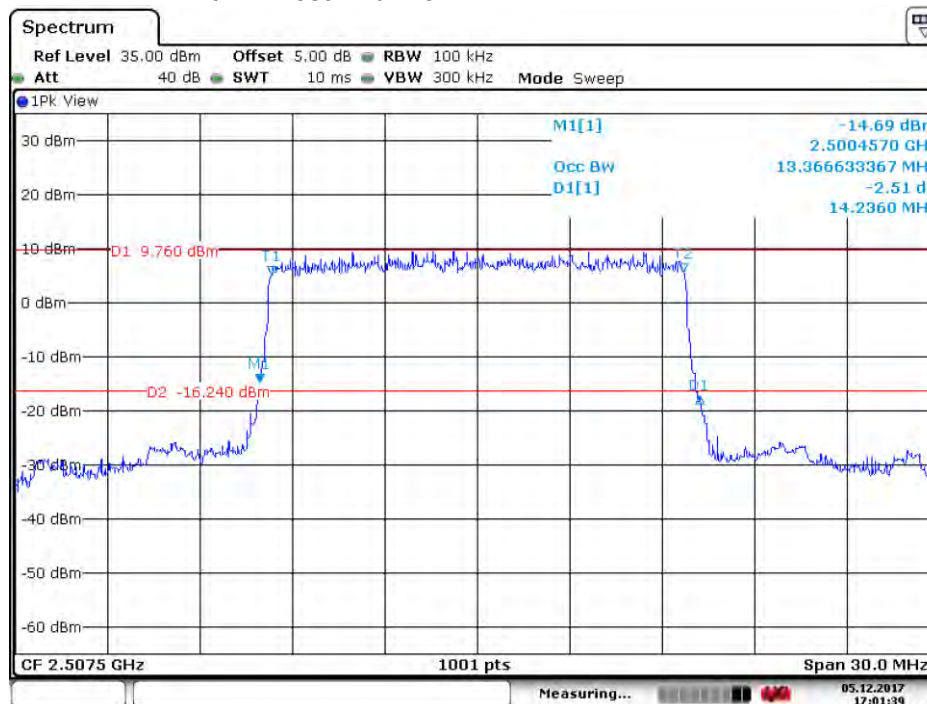
4.1.1.5.3 Test Channel = HCH



Date: 18.DEC.2017 16:06:00

4.1.1.6 Test Mode = LTE/TM2 15MHz

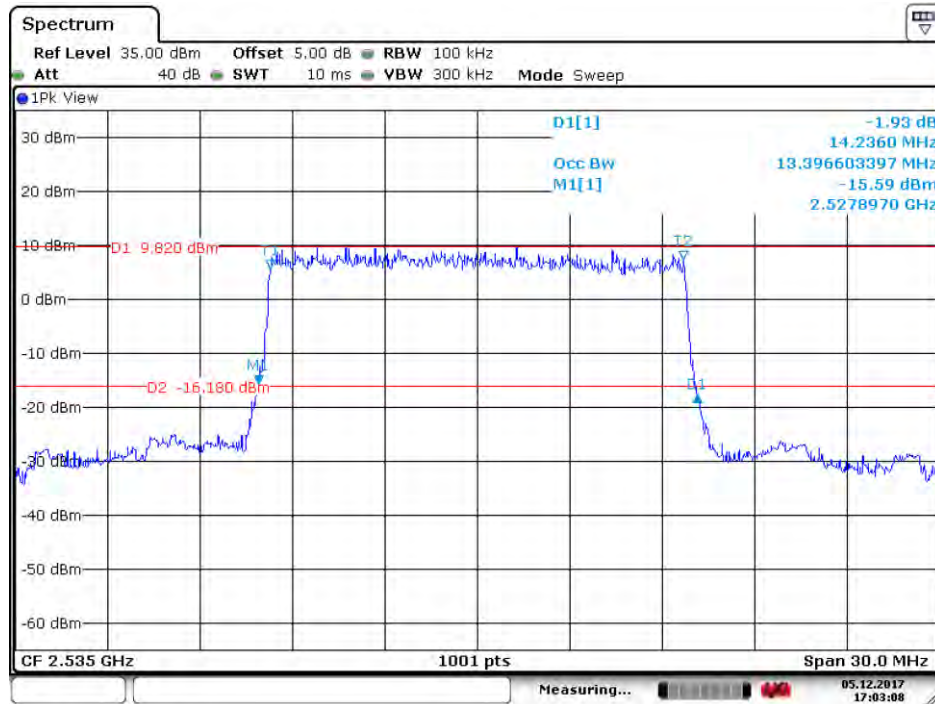
4.1.1.6.1 Test Channel = LCH



Date: 5.DEC.2017 17:01:39

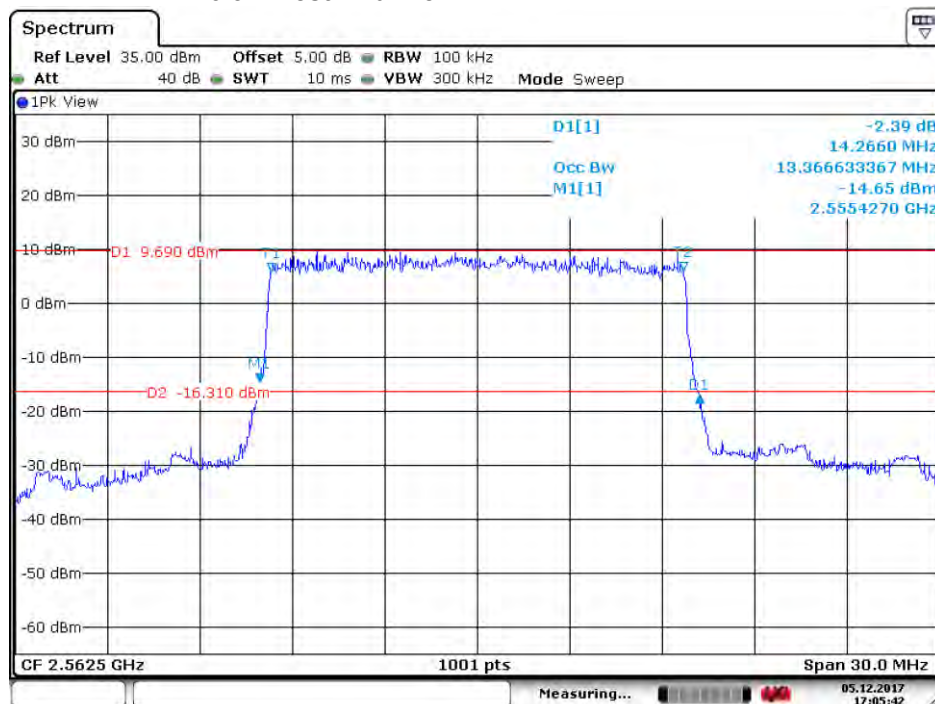


4.1.1.6.2 Test Channel = MCH



Date: 5.DEC.2017 17:03:08

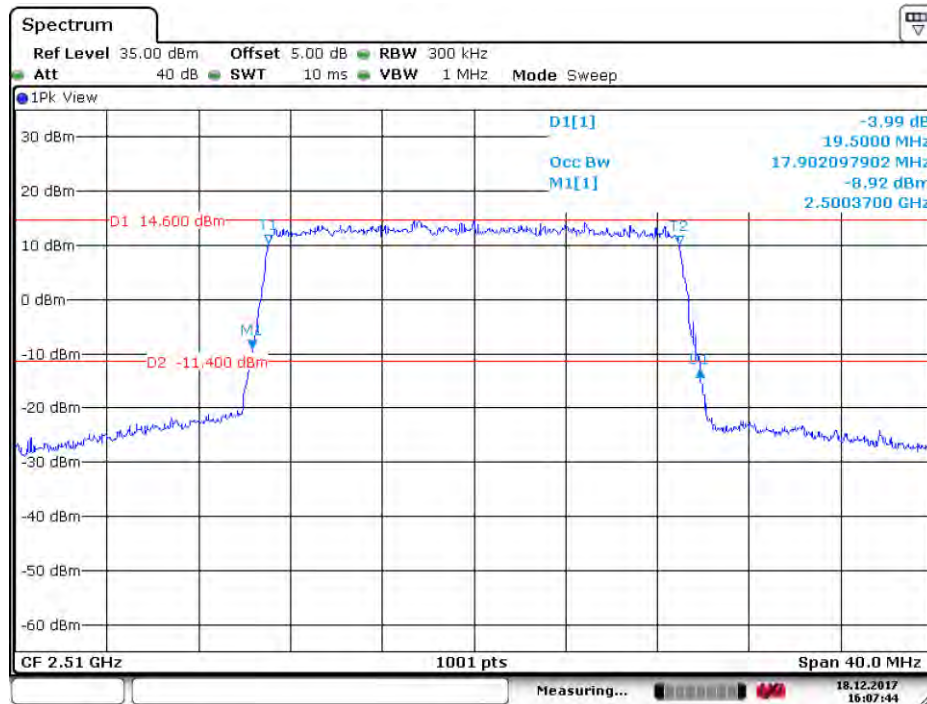
4.1.1.6.3 Test Channel = HCH



Date: 5.DEC.2017 17:05:42

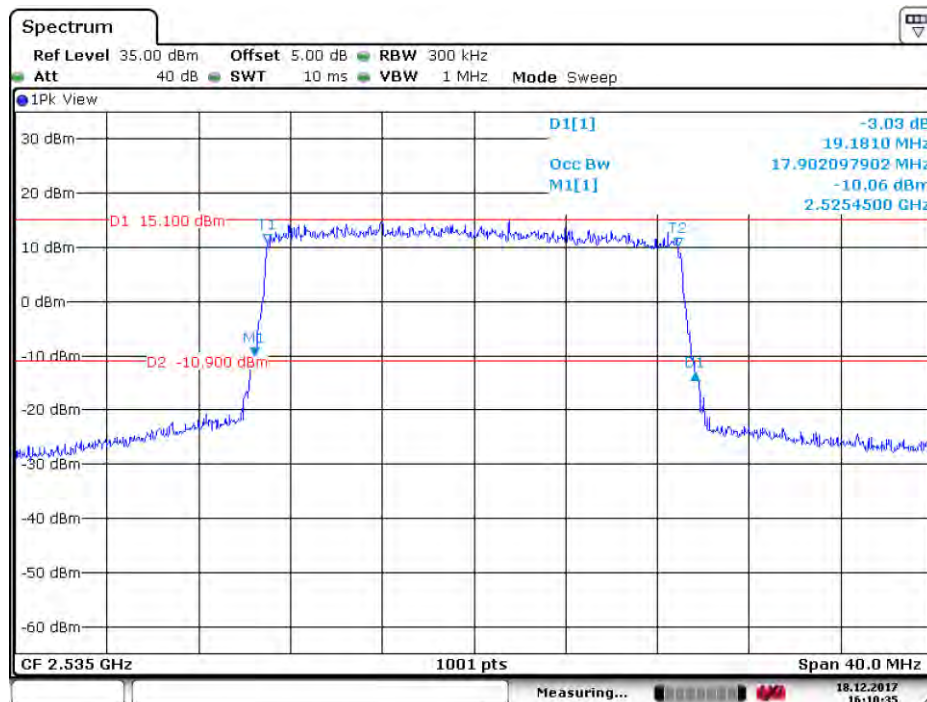
4.1.1.7 Test Mode = LTE/TM1 20MHz

4.1.1.7.1 Test Channel = LCH



Date: 18.DEC.2017 16:07:45

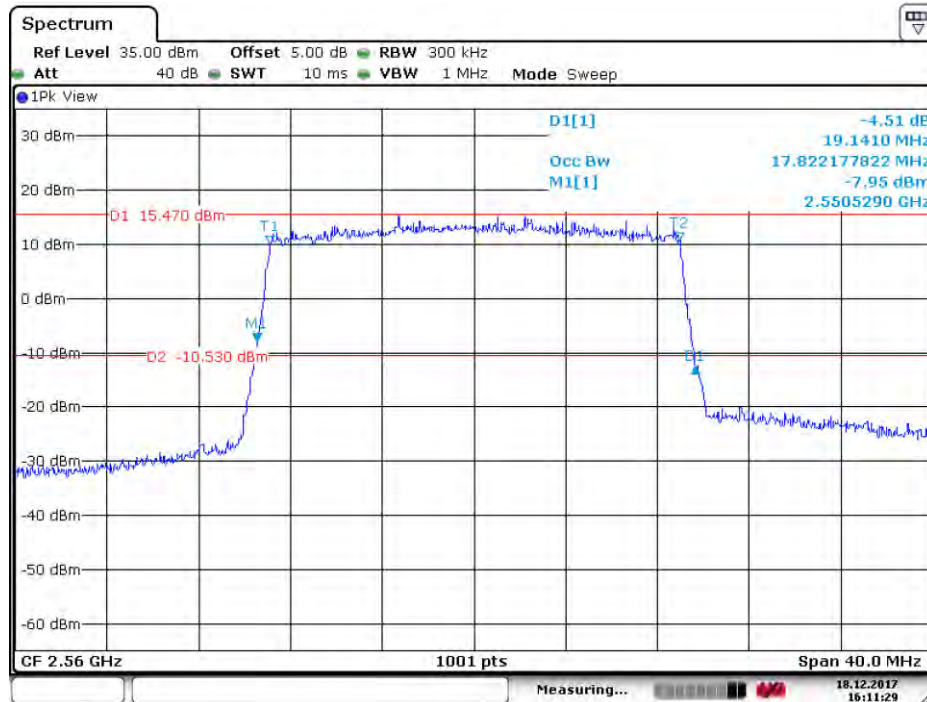
4.1.1.7.2 Test Channel = MCH



Date: 18.DEC.2017 16:10:36



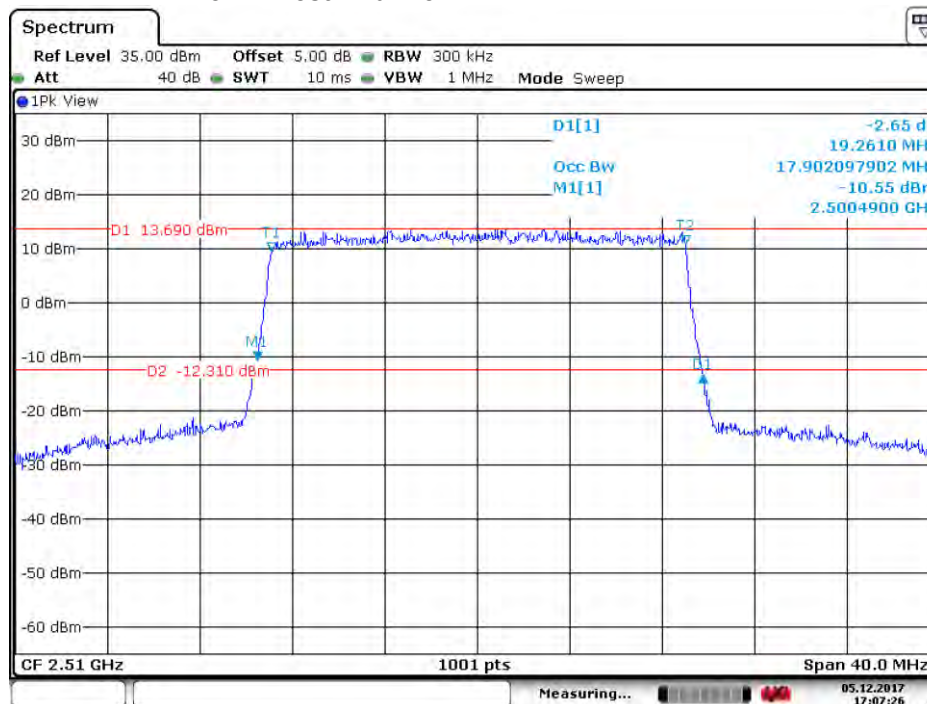
4.1.1.7.3 Test Channel = HCH



Date: 18.DEC.2017 16:11:30

4.1.1.8 Test Mode = LTE/TM2 20MHz

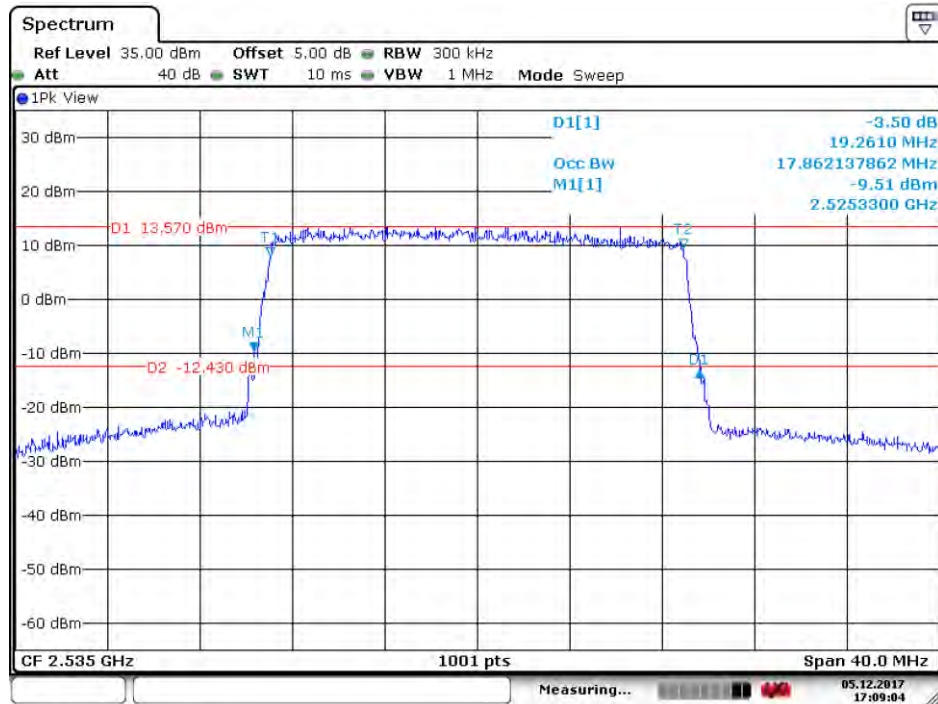
4.1.1.8.1 Test Channel = LCH



Date: 5.DEC.2017 17:07:27

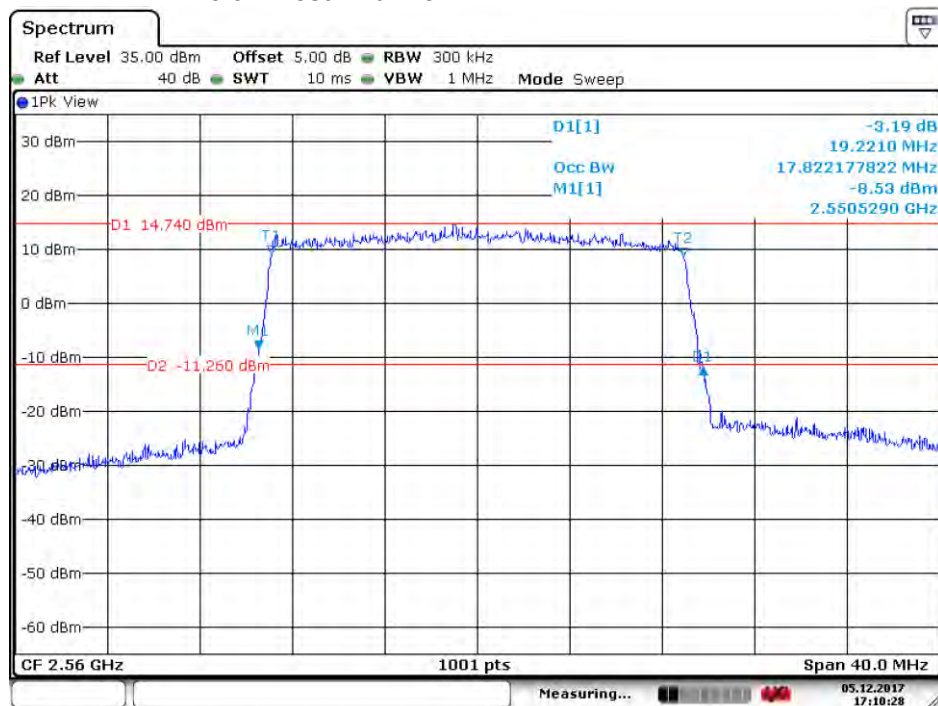


4.1.1.8.2 Test Channel = MCH



Date: 5.DEC.2017 17:09:04

4.1.1.8.3 Test Channel = HCH



Date: 5.DEC.2017 17:10:28



5 Band Edges Compliance

Part I –

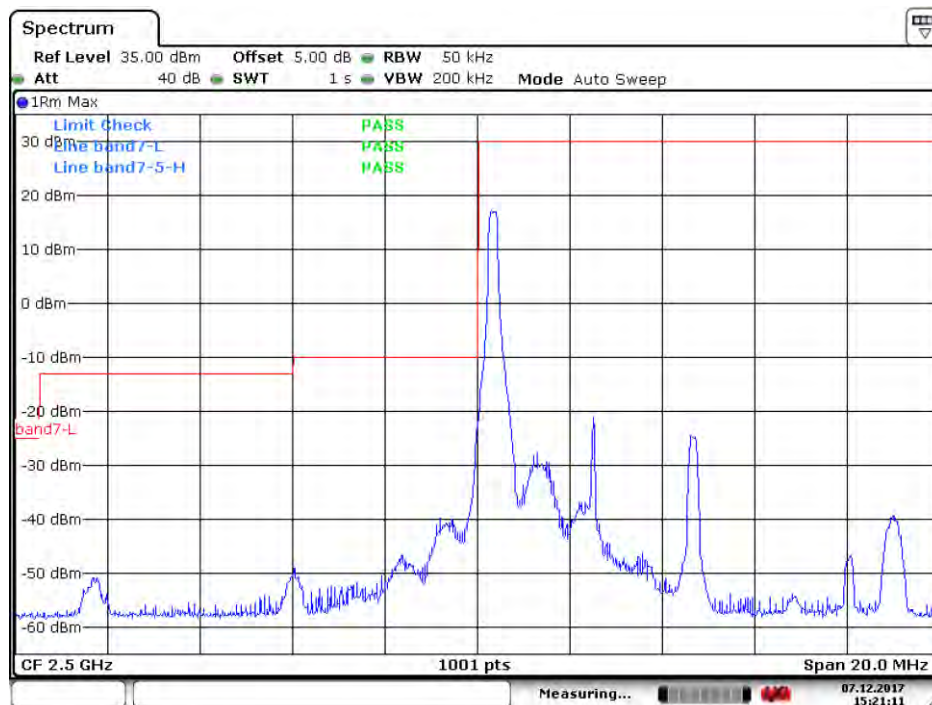
5.1 For LTE

5.1.1 Test Band = LTE band7

5.1.1.1 Test Mode = LTE/TM1 5MHz

5.1.1.1.1 Test Channel = LCH

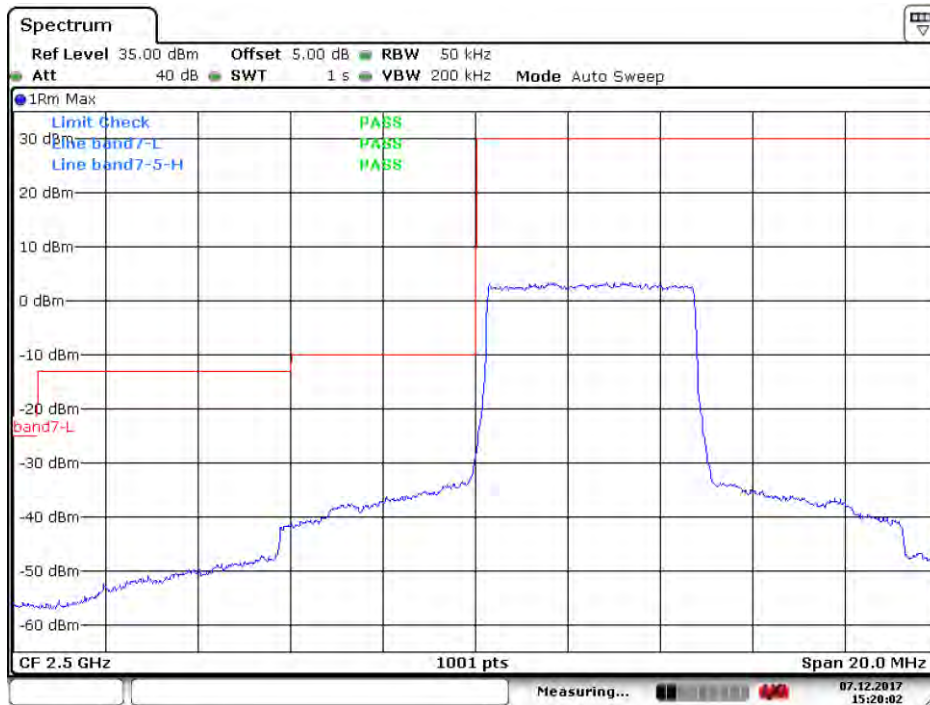
5.1.1.1.1.1 Test RB=1RB



Date: 7.DEC.2017 15:21:11



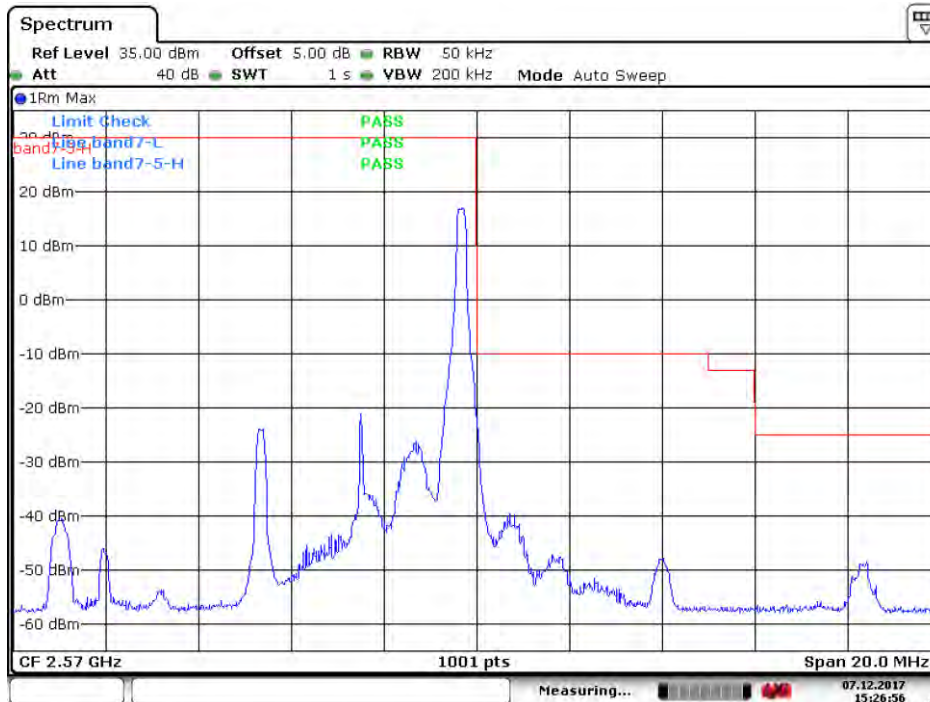
5.1.1.1.2 Test RB=25RB



Date: 7.DEC.2017 15:20:02

5.1.1.1.2 Test Channel = HCH

5.1.1.1.2.1 Test RB=1RB



Date: 7.DEC.2017 15:26:56



5.1.1.1.2.2 Test RB=25RB

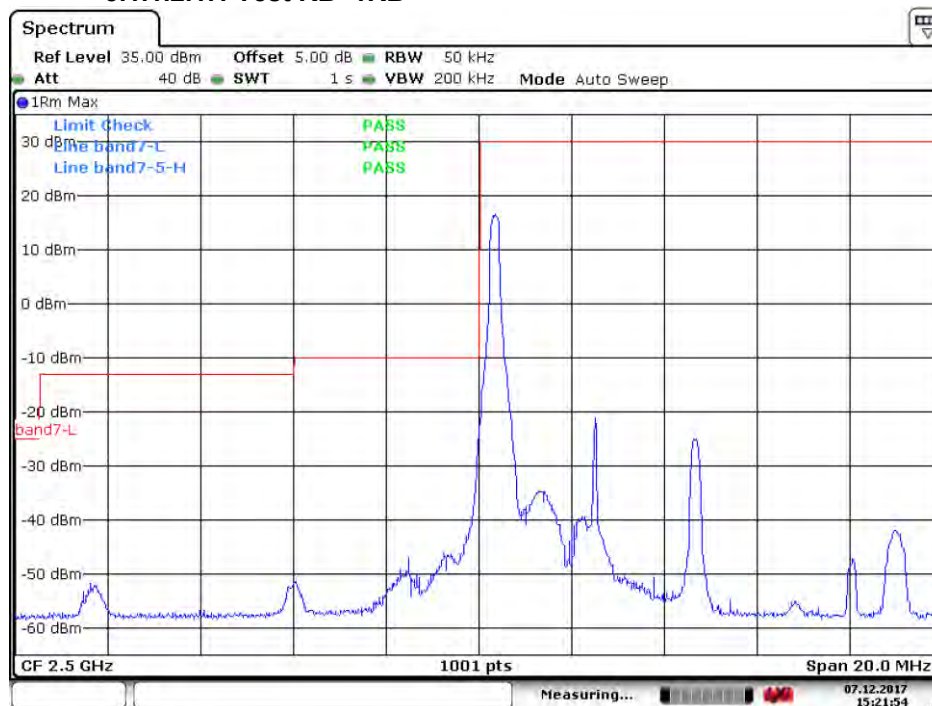


Date: 7.DEC.2017 15:25:55

5.1.1.2 Test Mode = LTE/TM2 5MHz

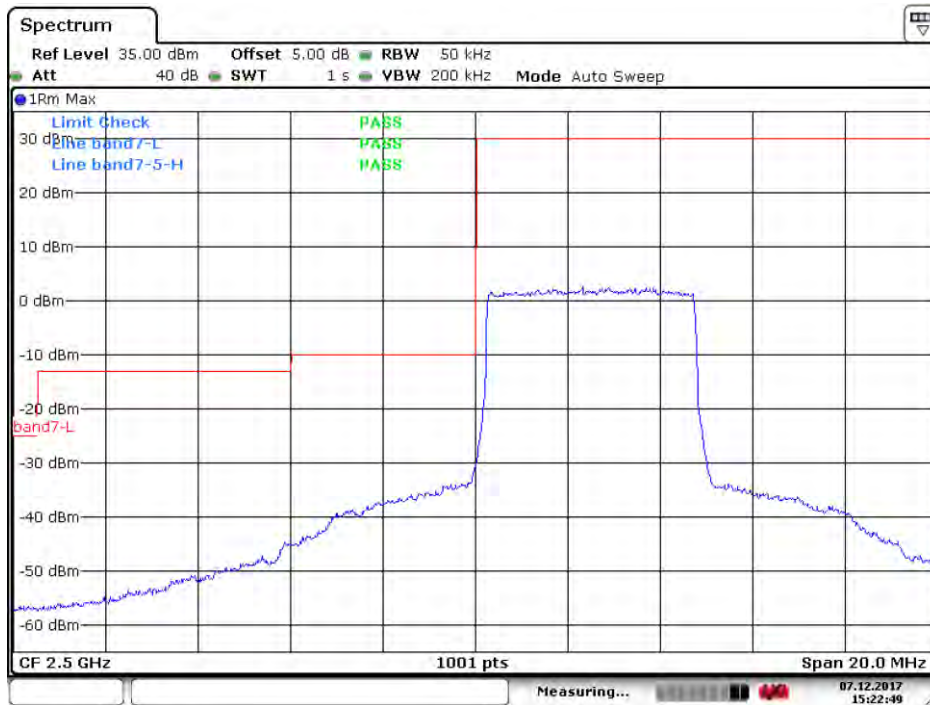
5.1.1.2.1 Test Channel = LCH

5.1.1.2.1.1 Test RB=1RB



Date: 7.DEC.2017 15:21:55

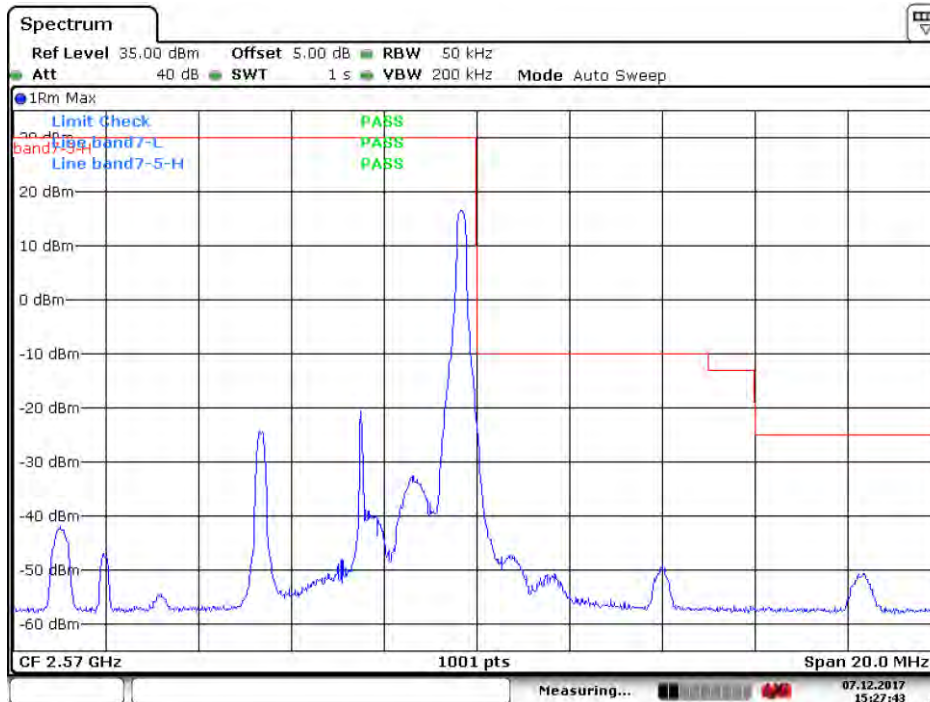
5.1.1.2.1.2 Test RB=25RB



Date: 7.DEC.2017 15:22:49

5.1.1.2.2 Test Channel = HCH

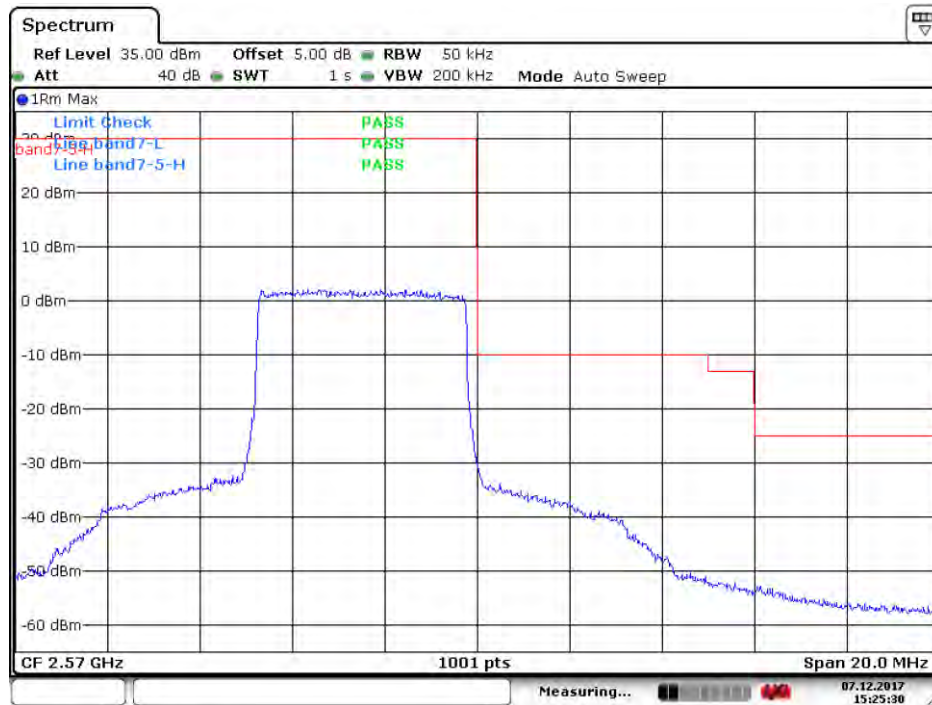
5.1.1.2.2.1 Test RB=1RB



Date: 7.DEC.2017 15:27:44



5.1.1.2.2 Test RB=25RB

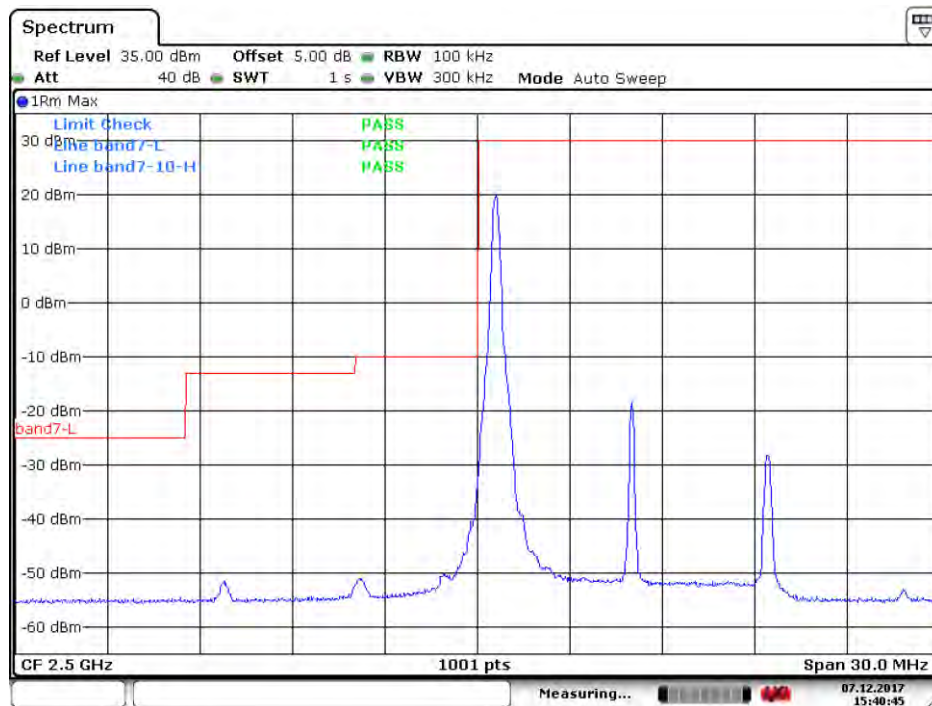


Date: 7.DEC.2017 15:25:31

5.1.1.3 Test Mode = LTE/TM1 10MHz

5.1.1.3.1 Test Channel = LCH

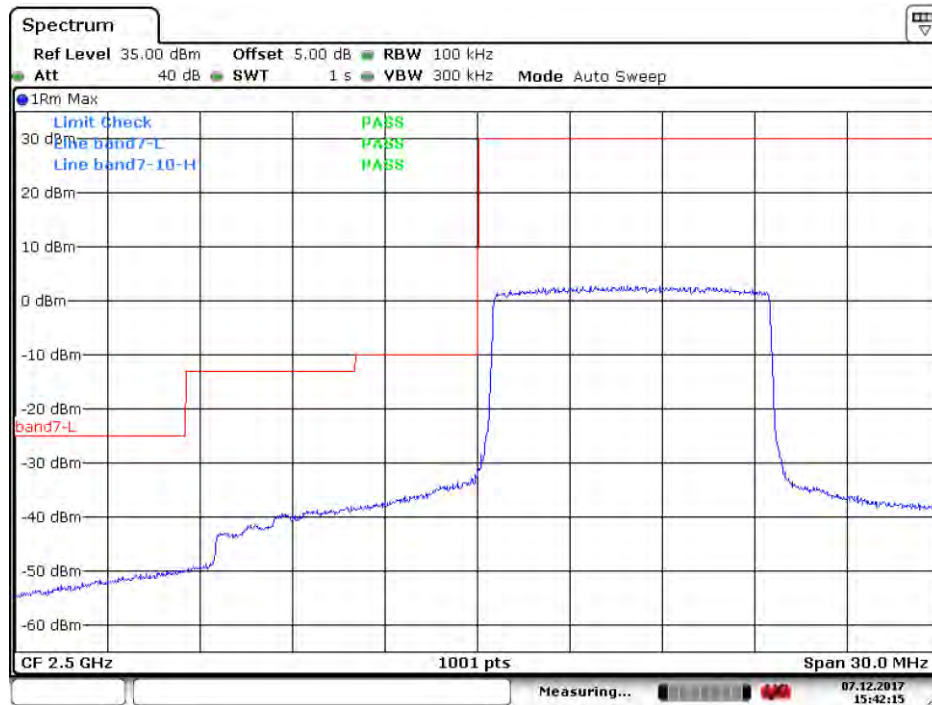
5.1.1.3.1.1 Test RB=1RB



Date: 7.DEC.2017 15:40:45



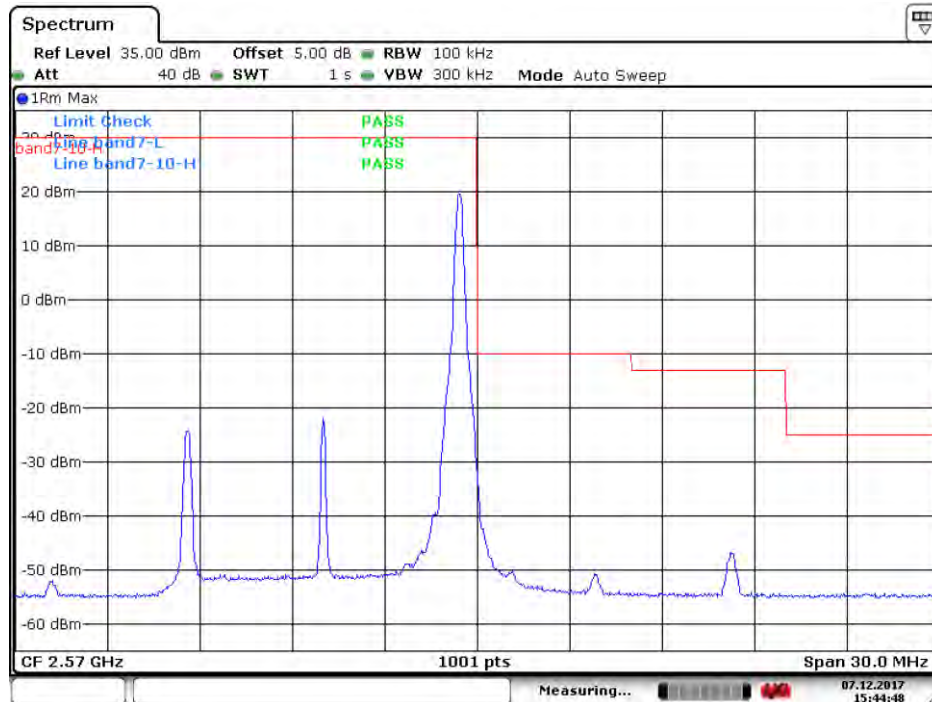
5.1.1.3.1.2 Test RB=50RB



Date: 7.DEC.2017 15:42:15

5.1.1.3.2 Test Channel = HCH

5.1.1.3.2.1 Test RB=1RB



Date: 7.DEC.2017 15:44:48

5.1.1.3.2.2 Test RB=50RB

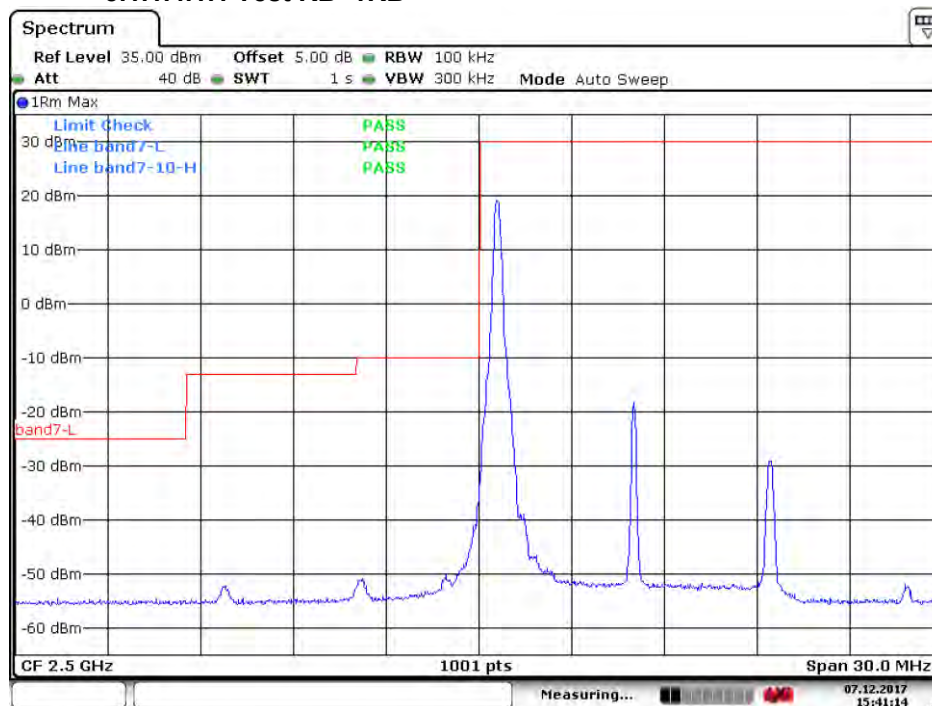


Date: 7.DEC.2017 15:43:31

5.1.1.4 Test Mode = LTE/TM2 10MHz

5.1.1.4.1 Test Channel = LCH

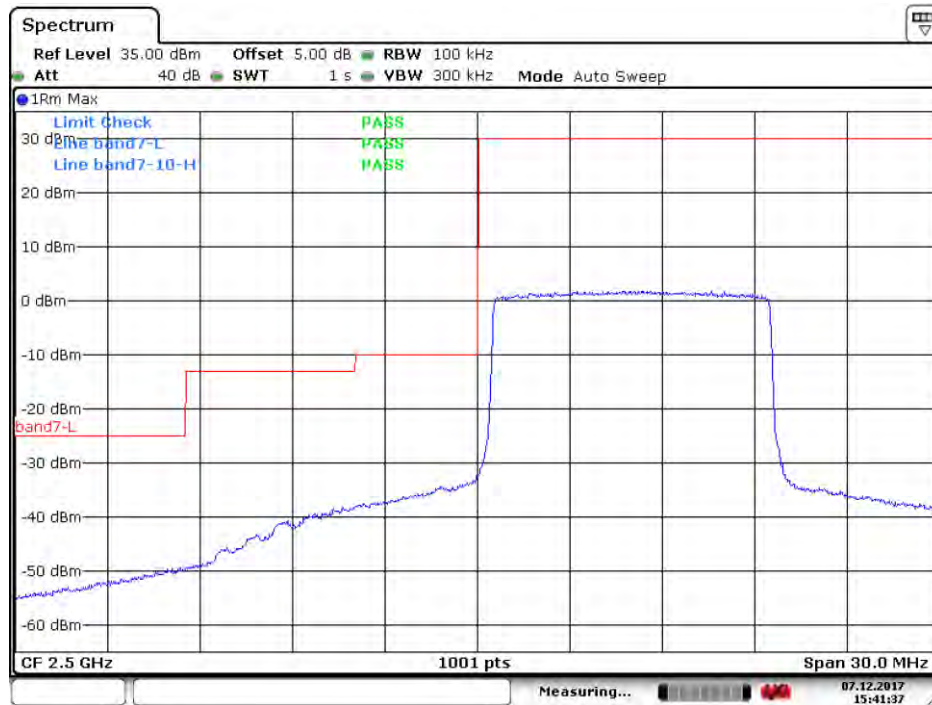
5.1.1.4.1.1 Test RB=1RB



Date: 7.DEC.2017 15:41:14



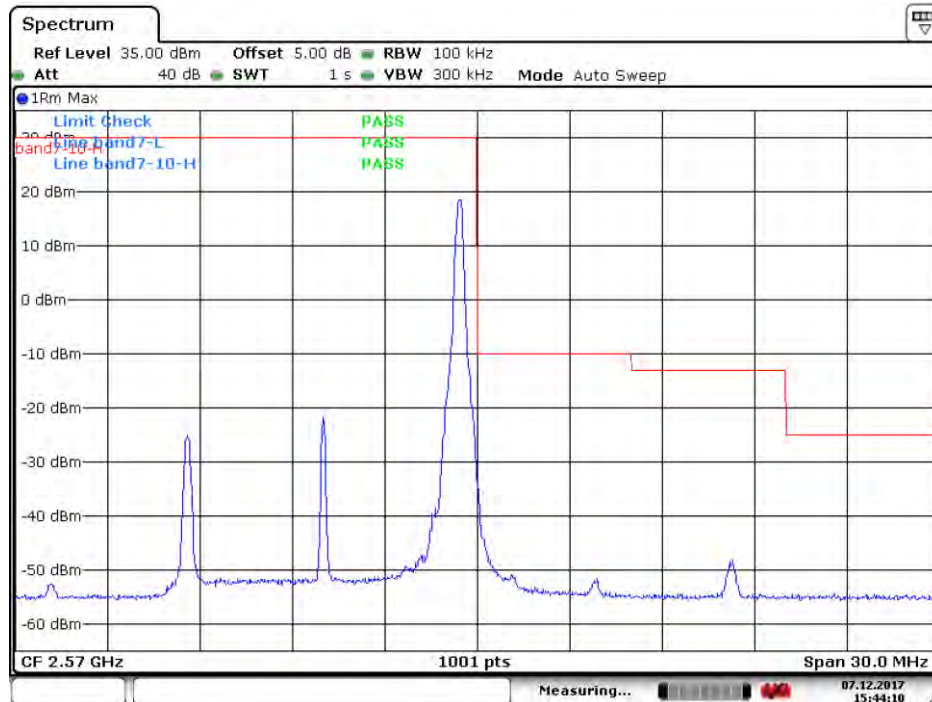
5.1.1.4.1.2 Test RB=50RB



Date: 7.DEC.2017 15:41:38

5.1.1.4.2 Test Channel = HCH

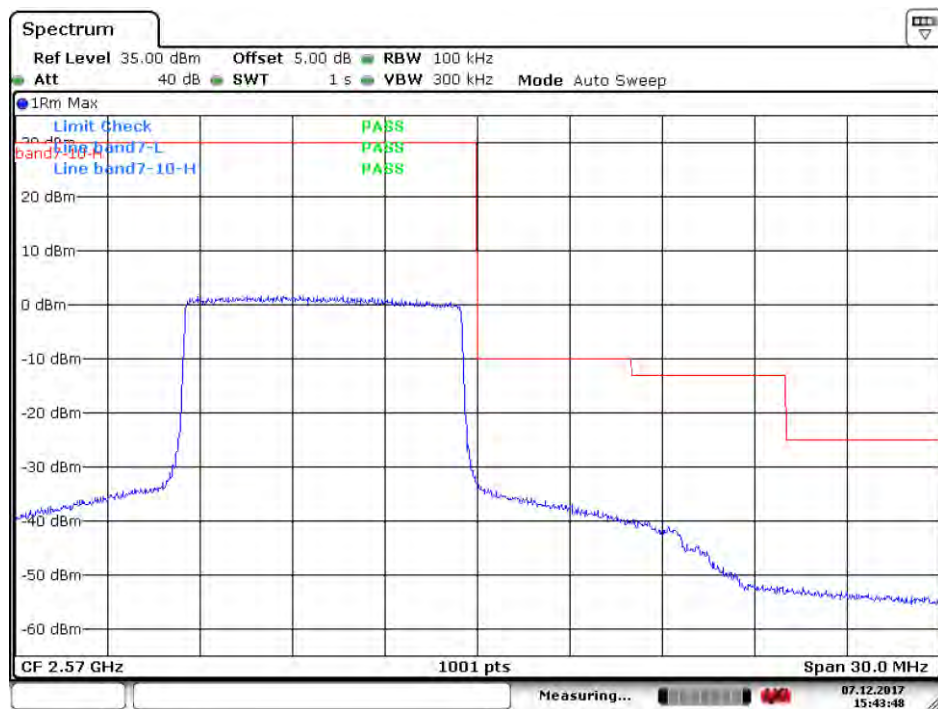
5.1.1.4.2.1 Test RB=1RB



Date: 7.DEC.2017 15:44:10



5.1.1.4.2.2 Test RB=50RB

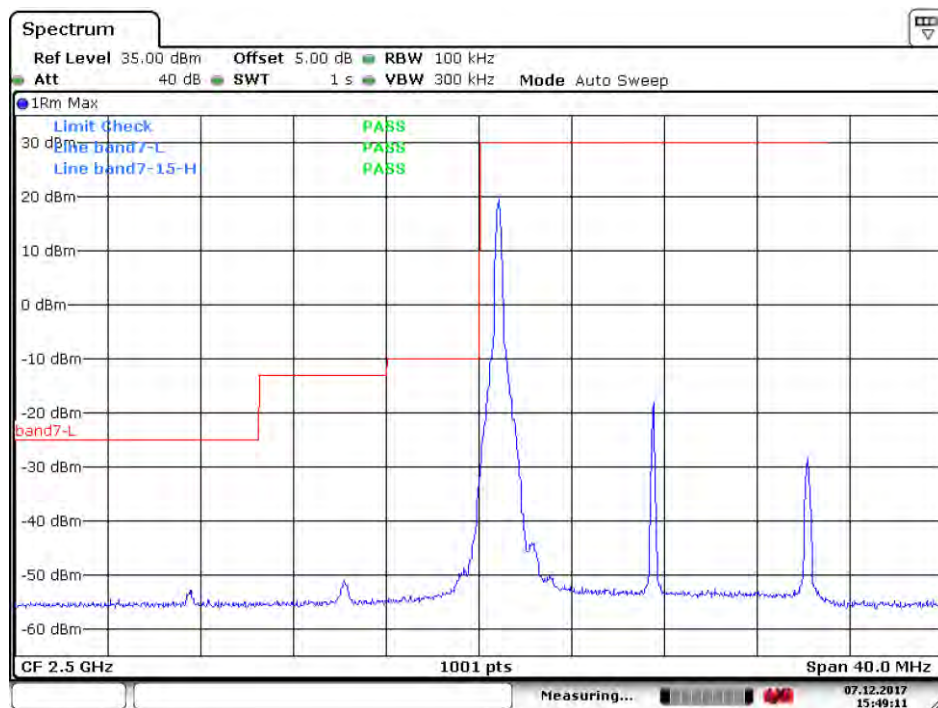


Date: 7.DEC.2017 15:43:48

5.1.1.5 Test Mode = LTE/TM1 15MHz

5.1.1.5.1 Test Channel = LCH

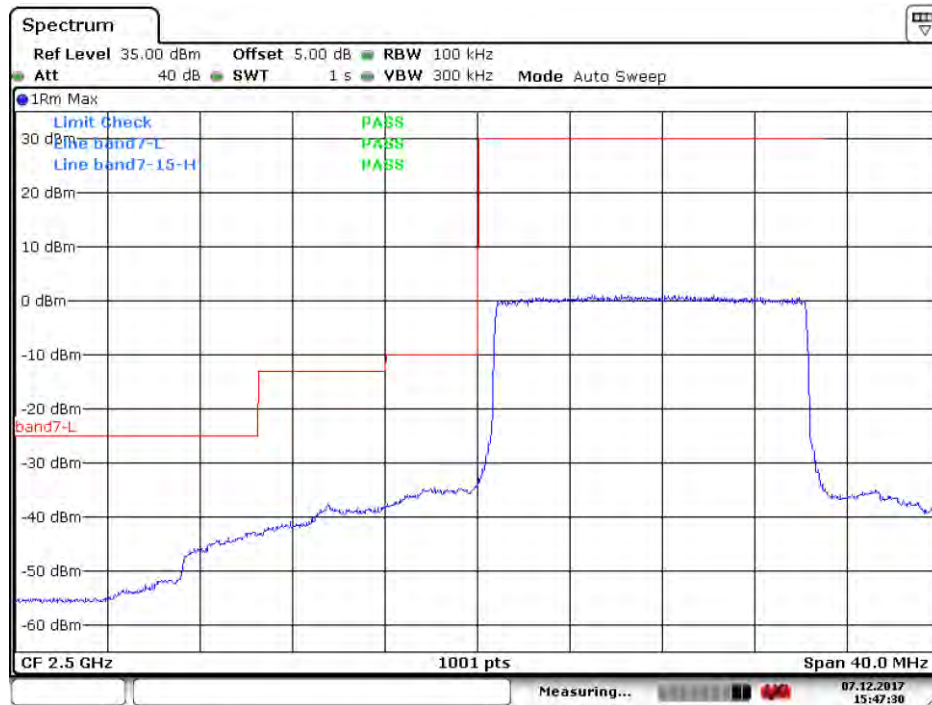
5.1.1.5.1.1 Test RB=1RB



Date: 7.DEC.2017 15:49:11



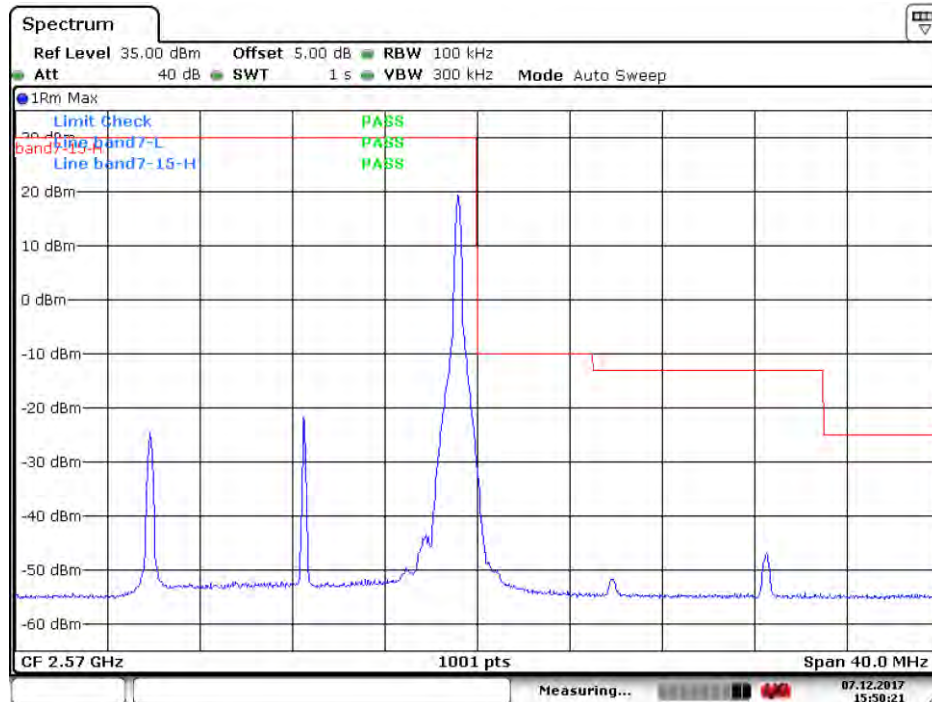
5.1.1.5.1.2 Test RB=75RB



Date: 7.DEC.2017 15:47:31

5.1.1.5.2 Test Channel = HCH

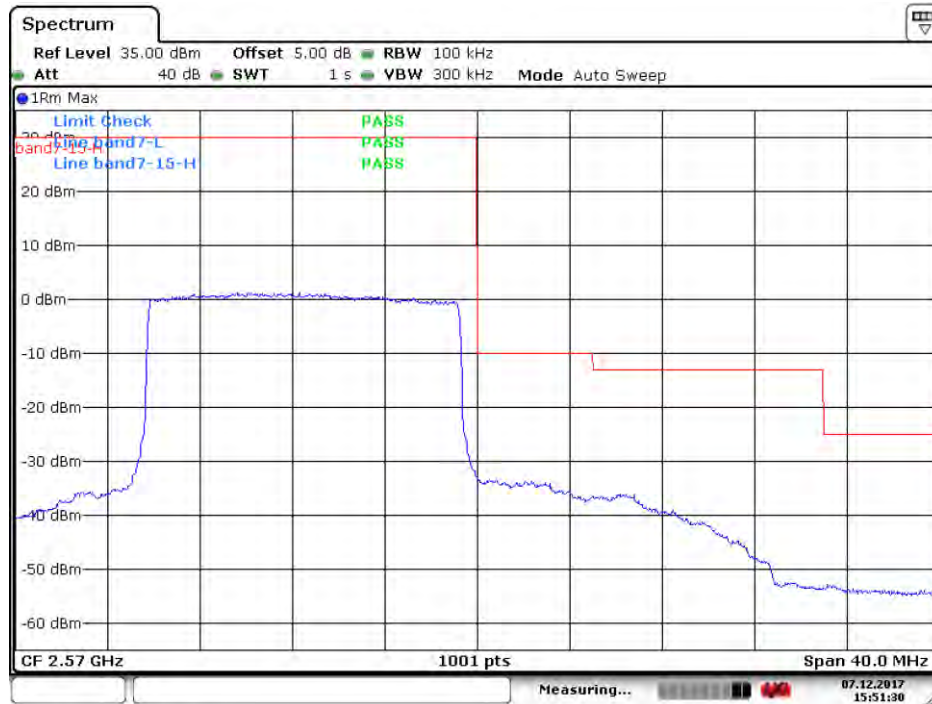
5.1.1.5.2.1 Test RB=1RB



Date: 7.DEC.2017 15:50:21



5.1.1.5.2.2 Test RB=75RB

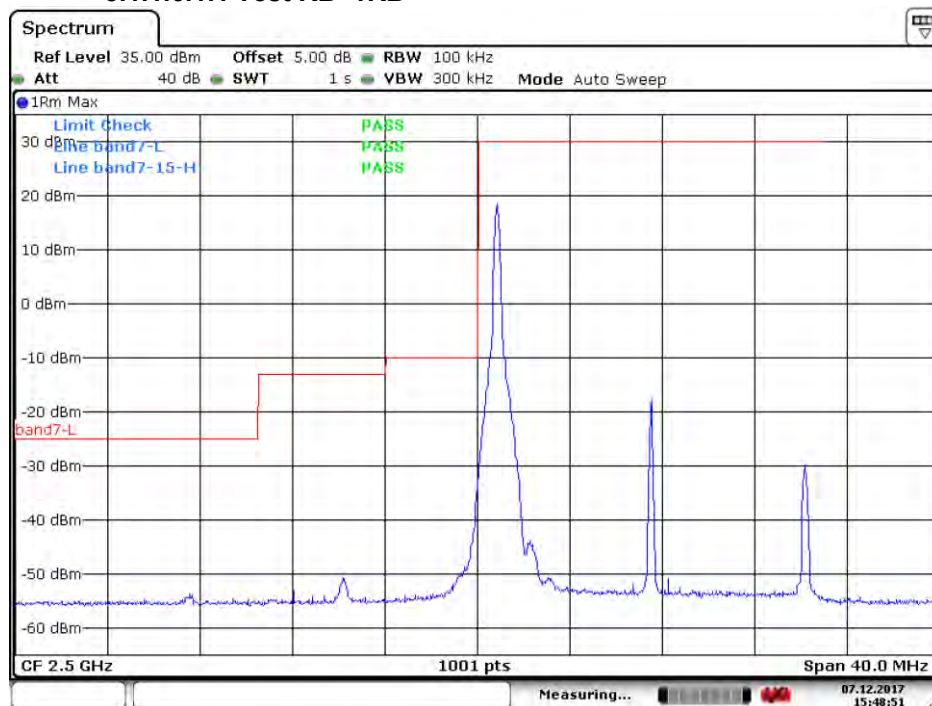


Date: 7.DEC.2017 15:51:30

5.1.1.6 Test Mode = LTE/TM2 15MHz

5.1.1.6.1 Test Channel = LCH

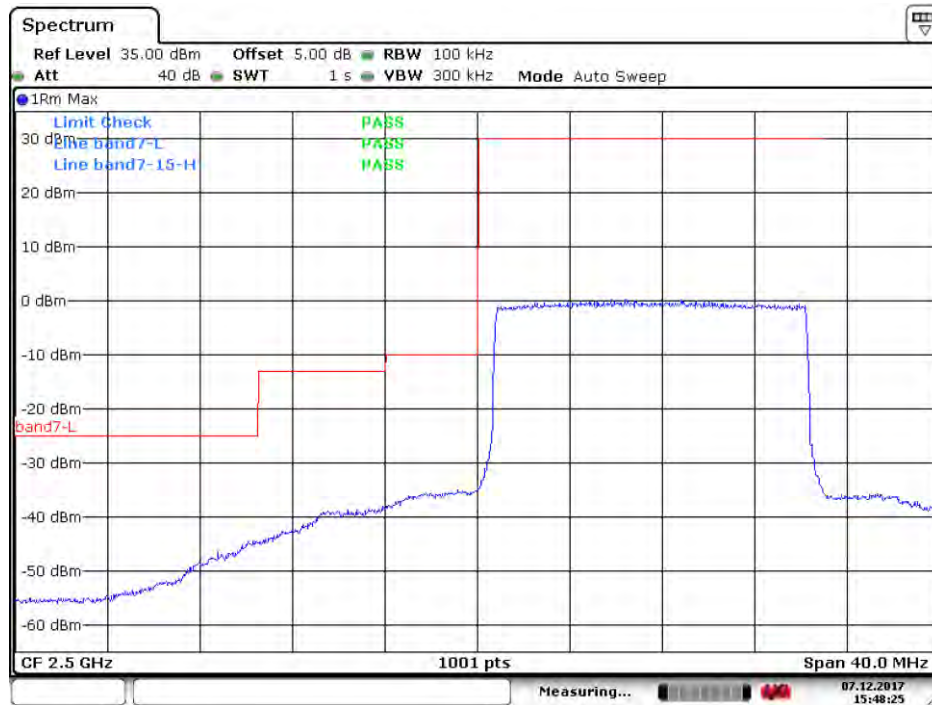
5.1.1.6.1.1 Test RB=1RB



Date: 7.DEC.2017 15:48:52



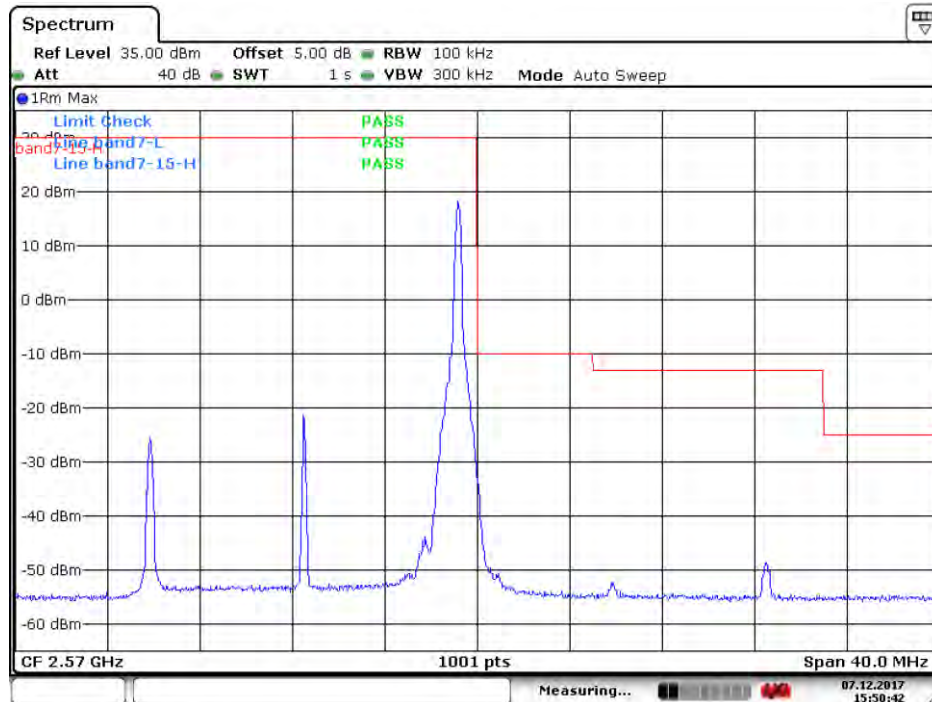
5.1.1.6.1.2 Test RB=75RB



Date: 7.DEC.2017 15:48:26

5.1.1.6.2 Test Channel = HCH

5.1.1.6.2.1 Test RB=1RB



Date: 7.DEC.2017 15:50:43



5.1.1.6.2.2 Test RB=75RB

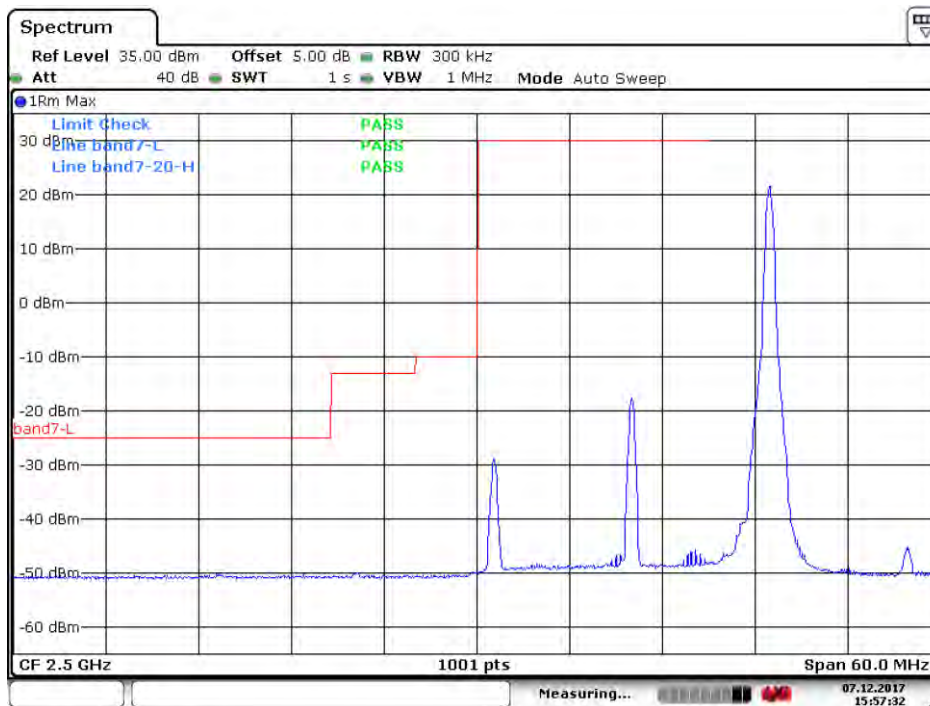


Date: 7.DEC.2017 15:51:03

5.1.1.7 Test Mode = LTE/TM1 20MHz

5.1.1.7.1 Test Channel = LCH

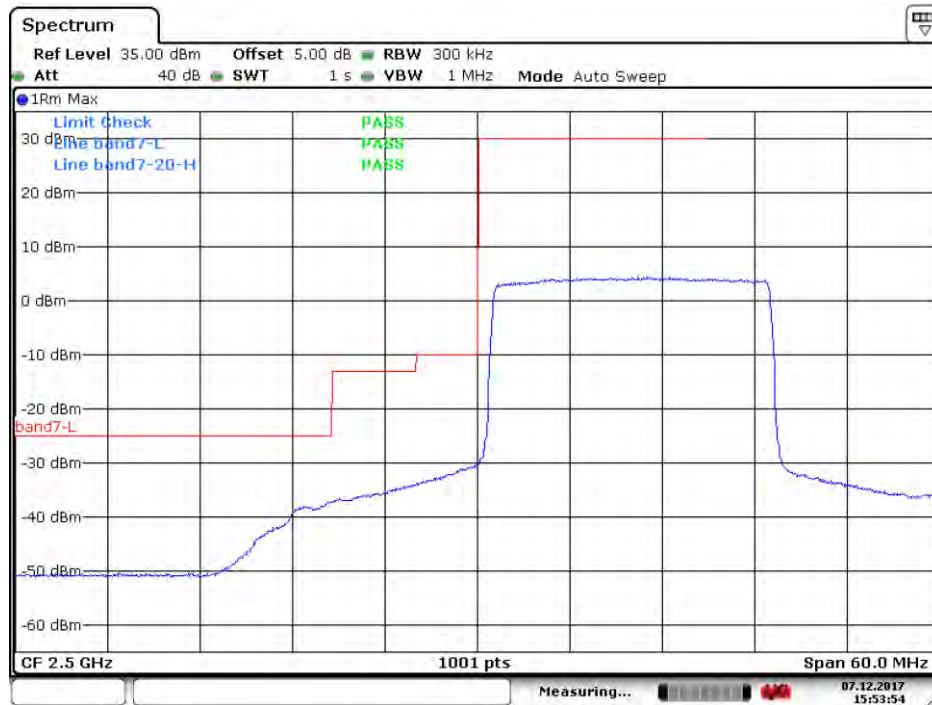
5.1.1.7.1.1 Test RB=1RB



Date: 7.DEC.2017 15:57:32



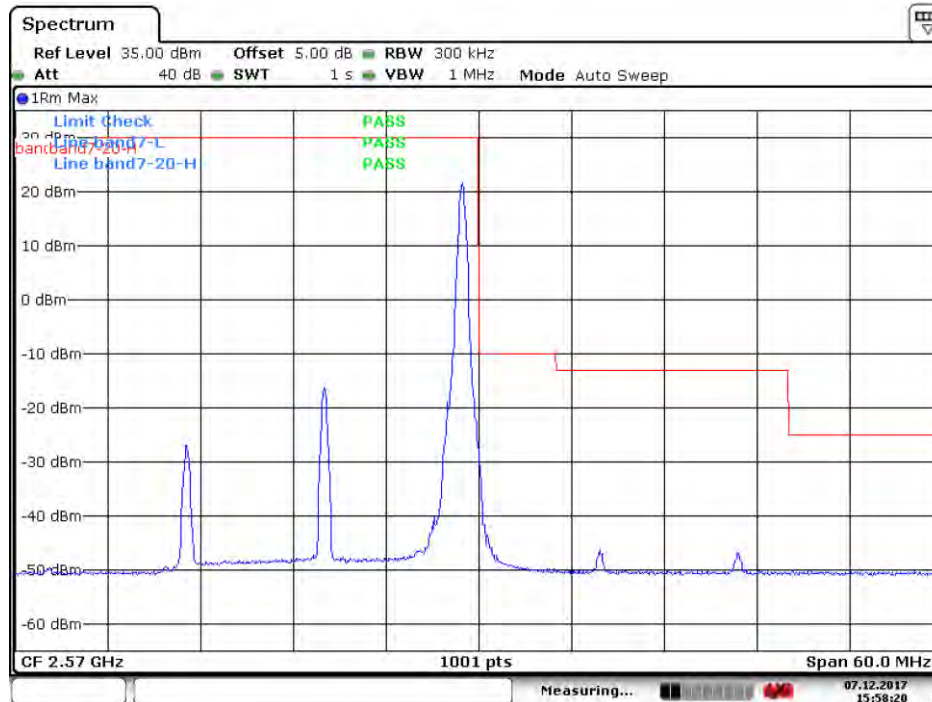
5.1.1.7.1.2 Test RB=100RB



Date: 7.DEC.2017 15:53:54

5.1.1.7.2 Test Channel = HCH

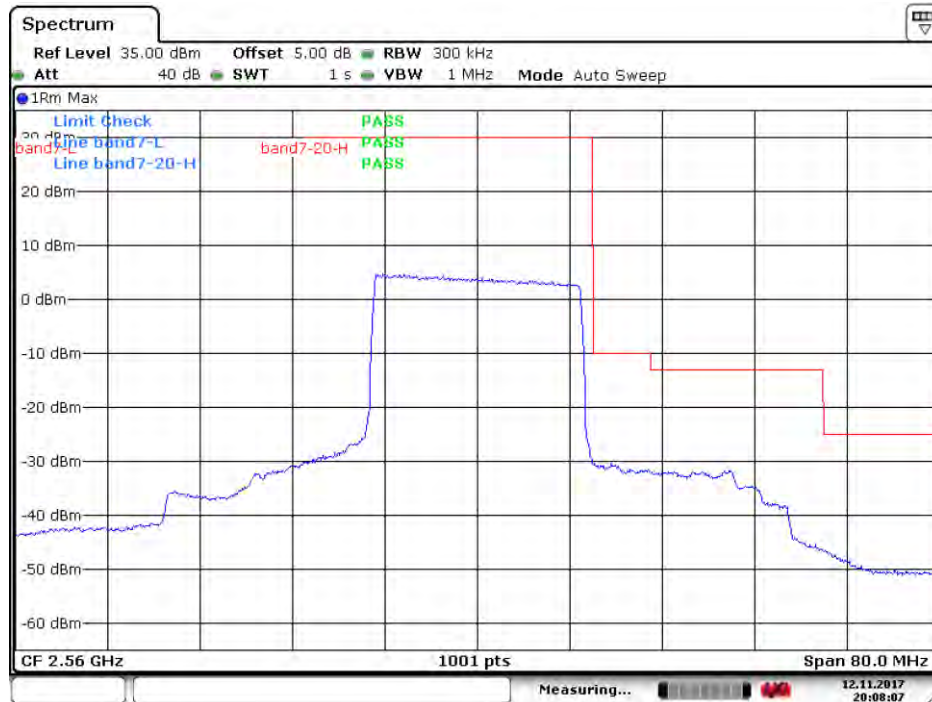
5.1.1.7.2.1 Test RB=1RB



Date: 7.DEC.2017 15:58:20



5.1.1.7.2.2 Test RB=100RB

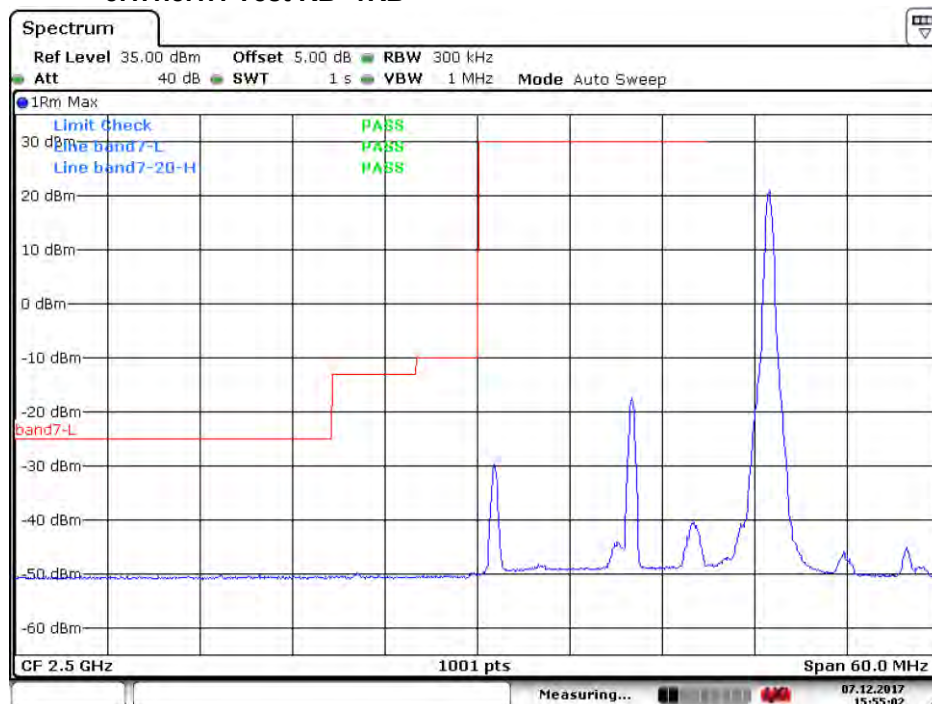


Date: 12.NOV.2017 20:08:07

5.1.1.8 Test Mode = LTE/TM2 20MHz

5.1.1.8.1 Test Channel = LCH

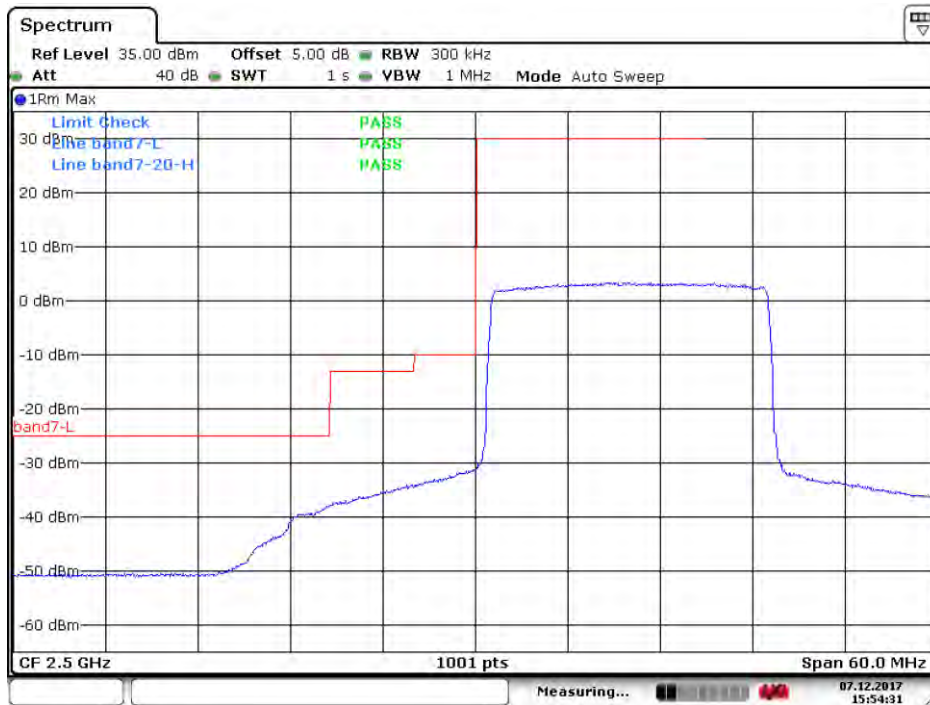
5.1.1.8.1.1 Test RB=1RB



Date: 7.DEC.2017 15:55:01



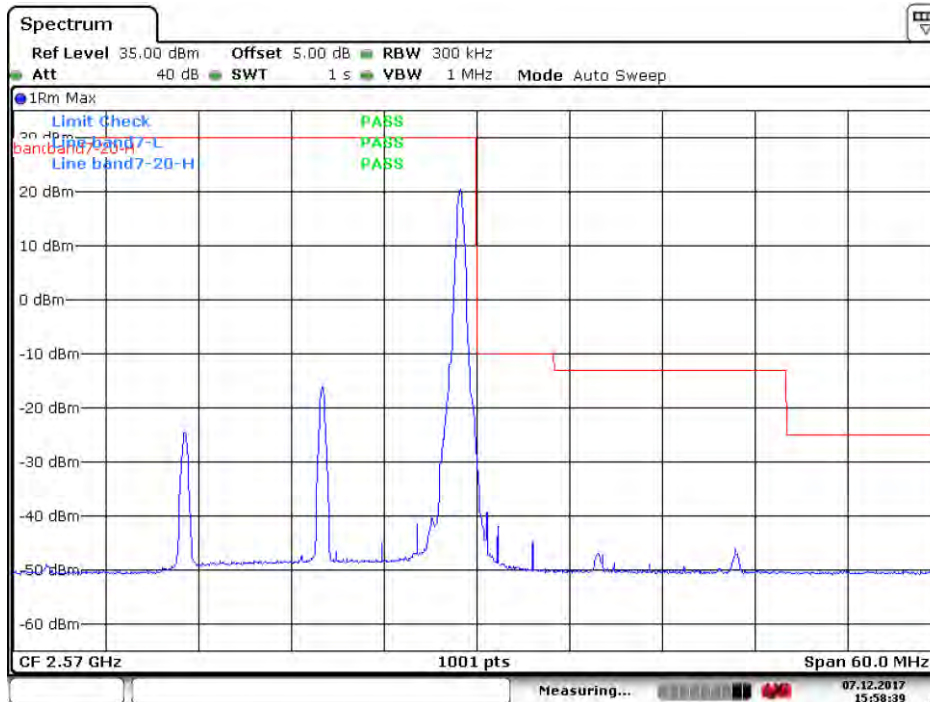
5.1.1.8.1.2 Test RB=100RB



Date: 7.DEC.2017 15:54:32

5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=1RB



Date: 7.DEC.2017 15:58:39

5.1.1.8.2.2 Test RB=100RB

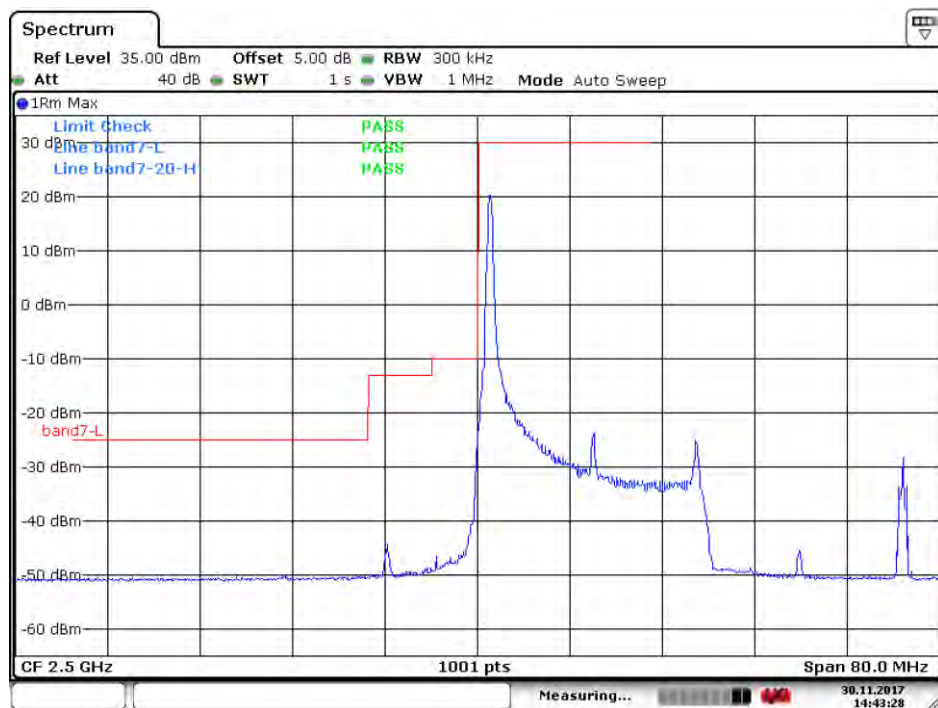


Date: 7.DEC.2017 15:59:00

5.1.1.9 Test Mode = LTE/TM3 20MHz

5.1.1.9.1 Test Channel = LCH

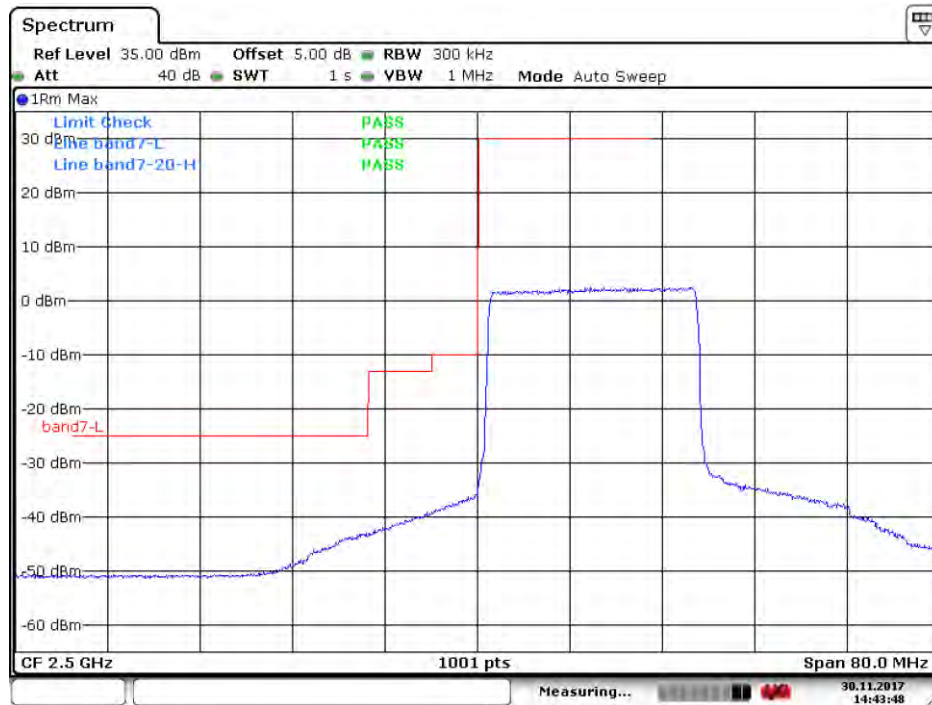
5.1.1.9.1.1 Test RB=1RB



Date: 30.NOV.2017 14:43:28



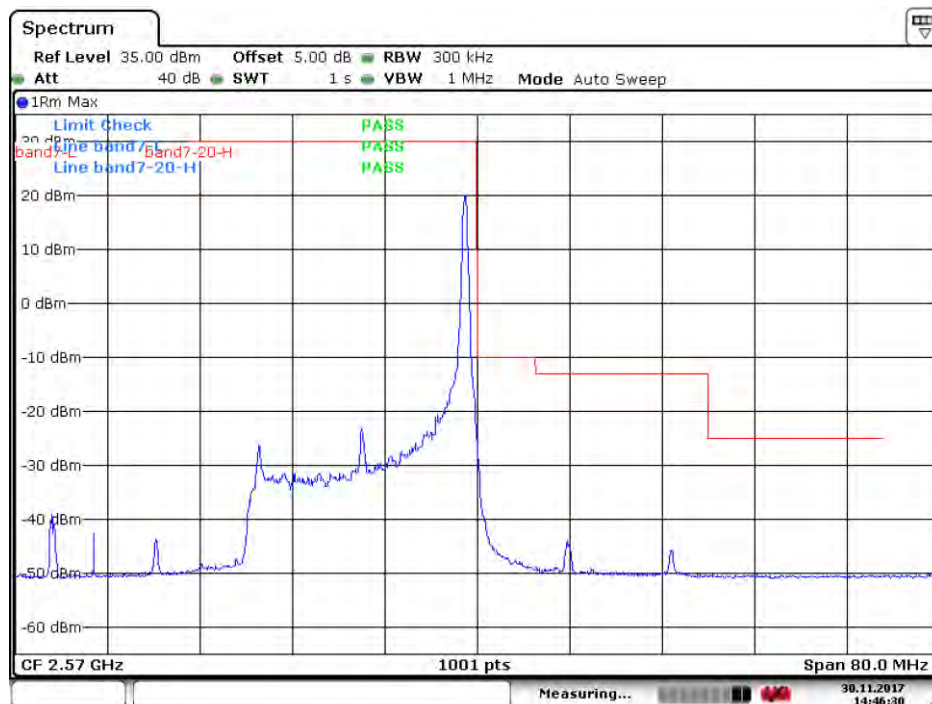
5.1.1.9.1.2 Test RB=100RB



Date: 30.NOV.2017 14:43:49

5.1.1.9.1 Test Channel = HCH

5.1.1.9.1.1 Test RB=1RB



Date: 30.NOV.2017 14:46:30



5.1.1.9.1.2 Test RB=100RB



Date: 7.DEC.2017 15:59:00



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.

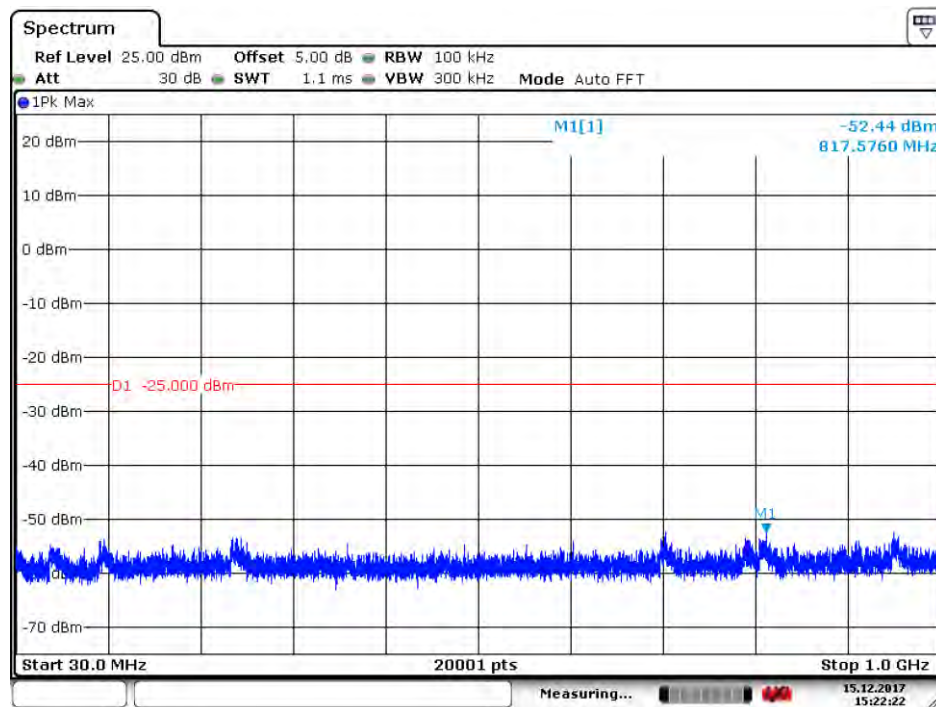
Part I - Test Plots

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



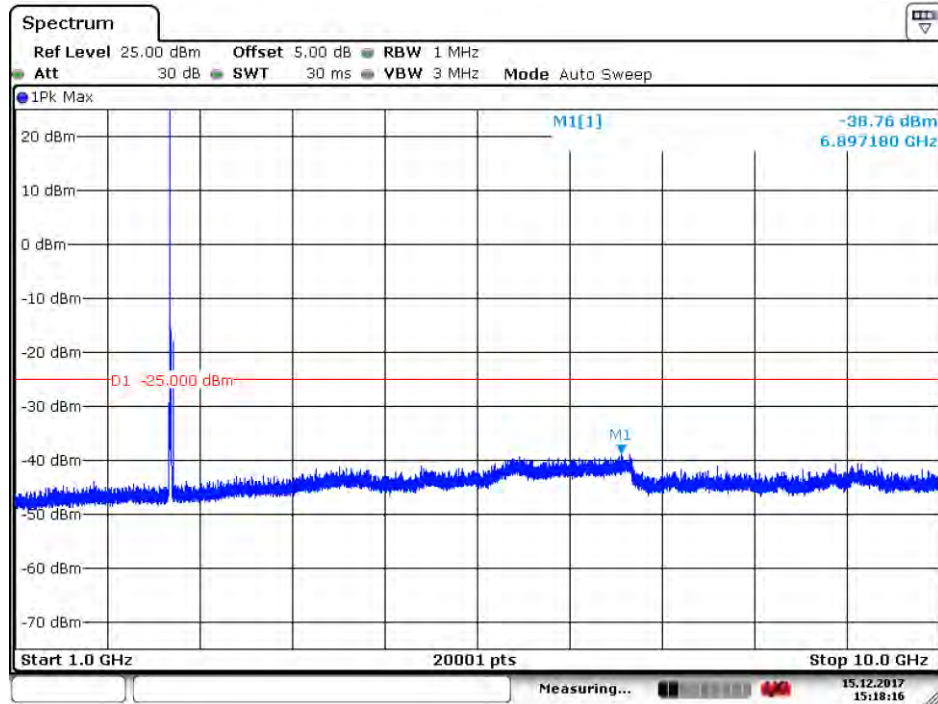
Date: 15.DEC.2017 15:22:23



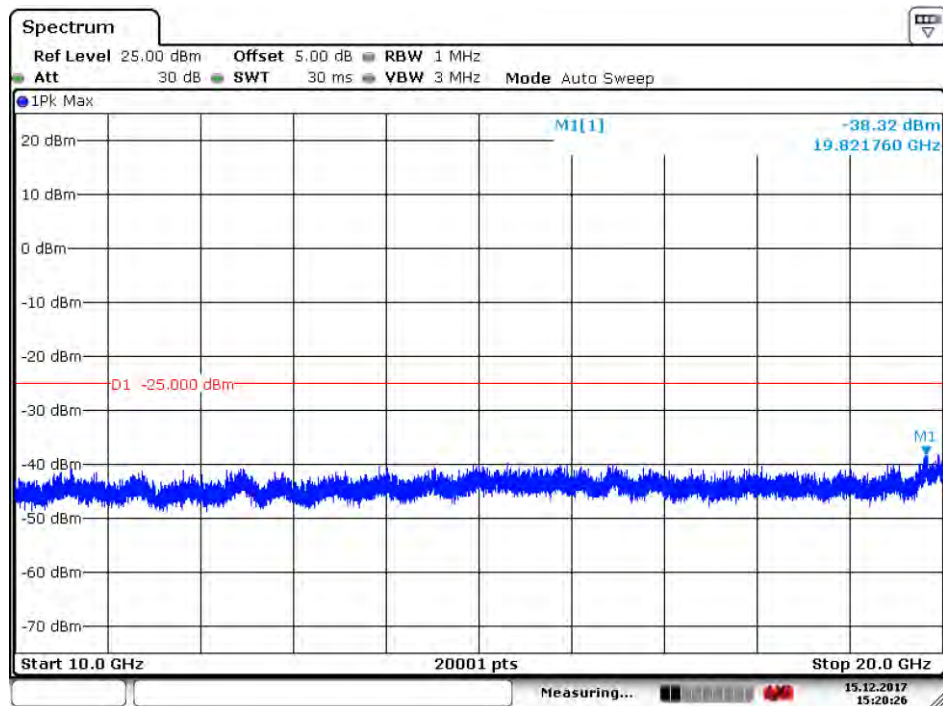
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Date: 15.DEC.2017 15:18:17



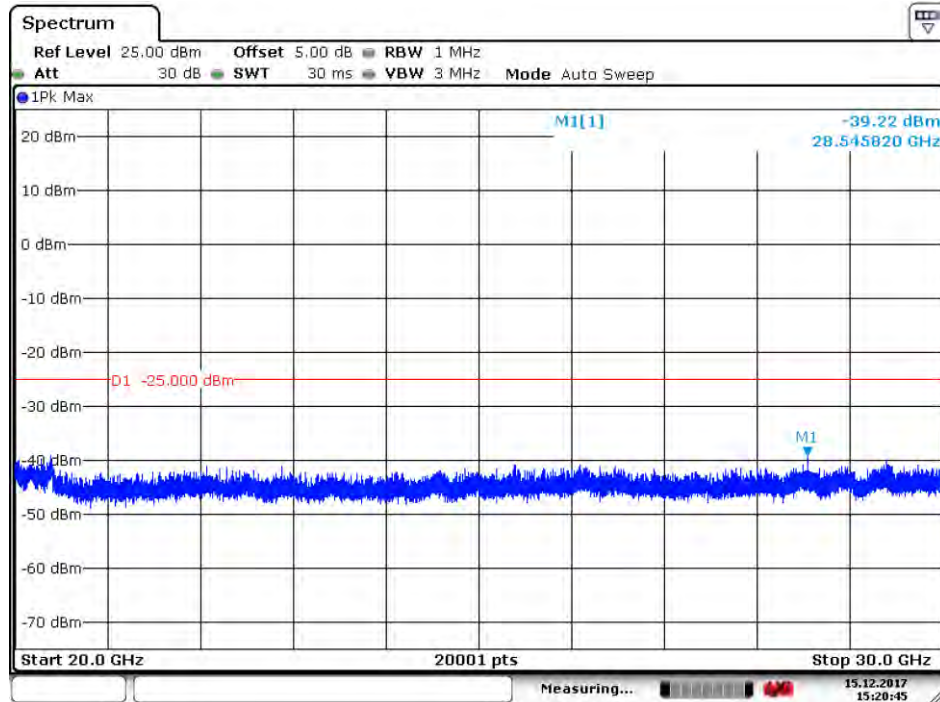
Date: 15.DEC.2017 15:20:26



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

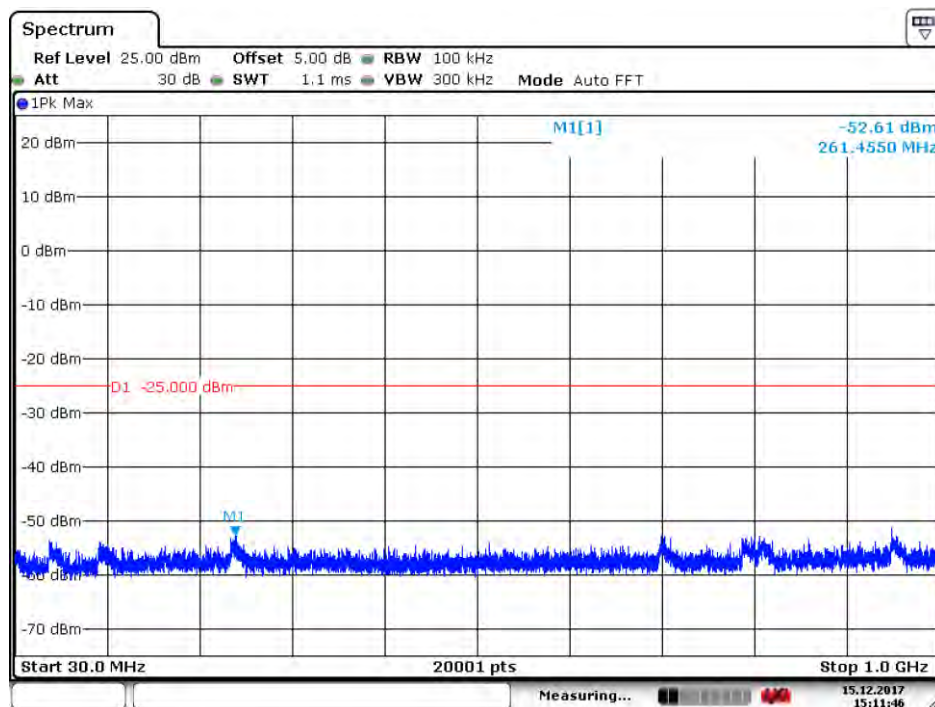
Report No.: SZEM171001110301

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Date: 15.DEC.2017 15:20:45

6.1.1.1.2 Test Channel = MCH



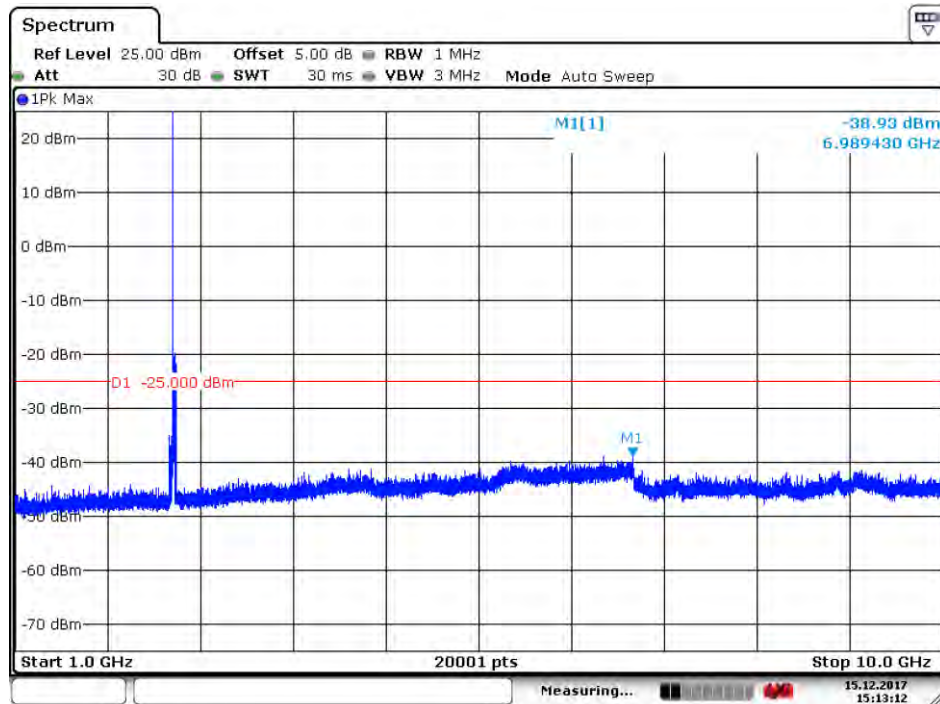
Date: 15.DEC.2017 15:11:46



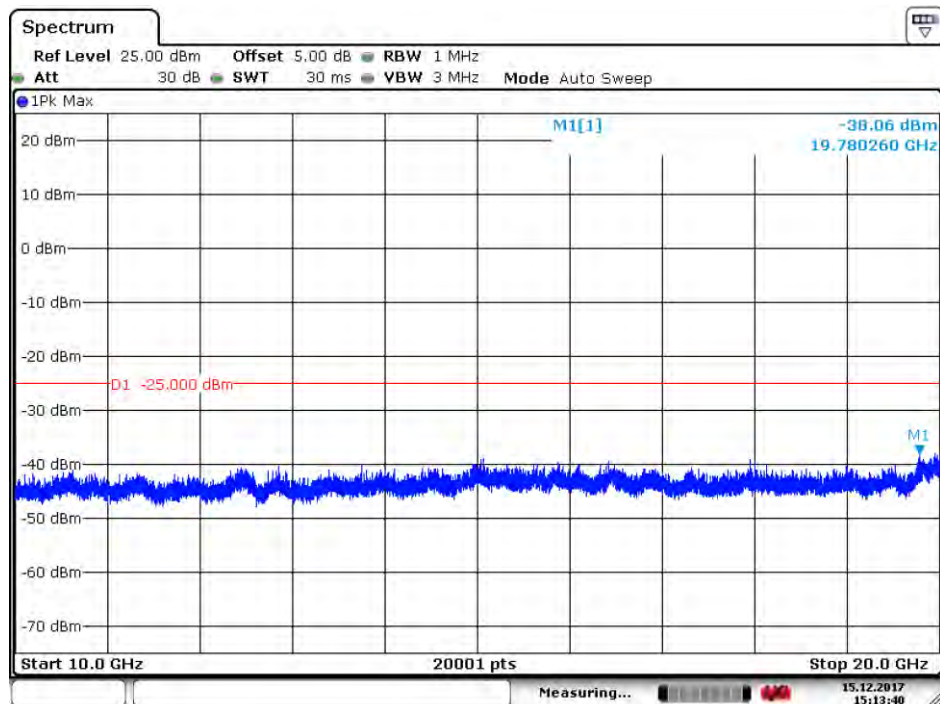
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM171001110301

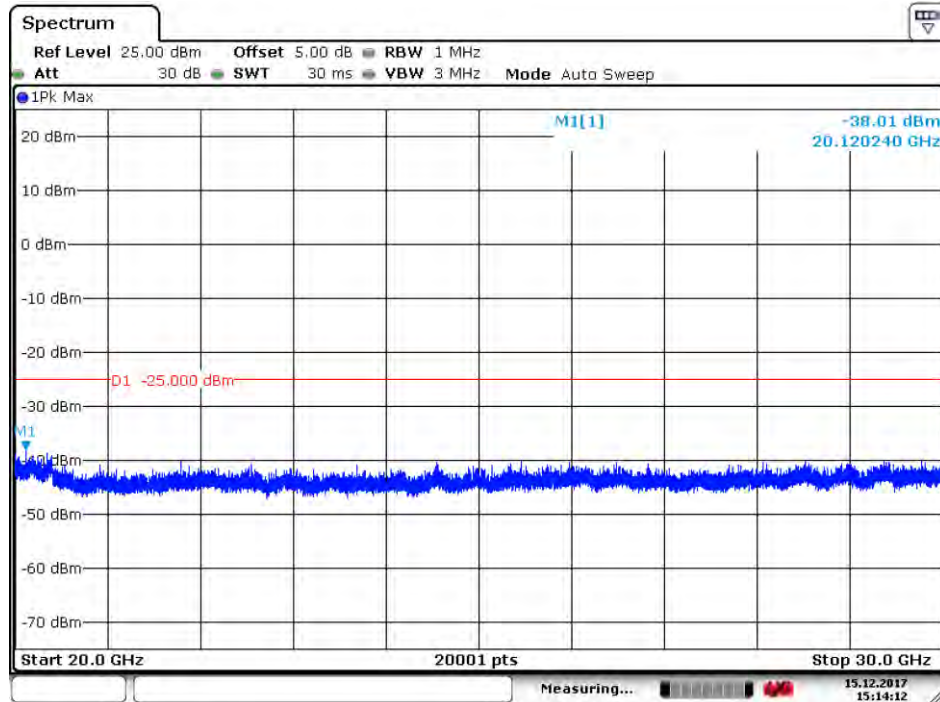
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Date: 15.DEC.2017 15:13:12

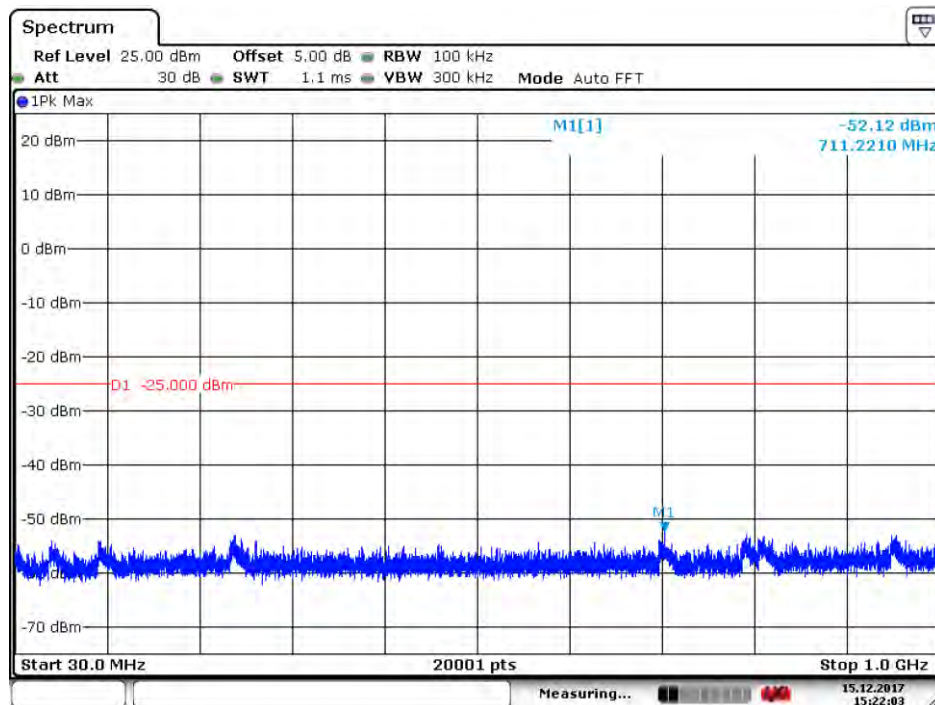


Date: 15.DEC.2017 15:13:40



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

6.1.1.1.3 Test Channel = HCH



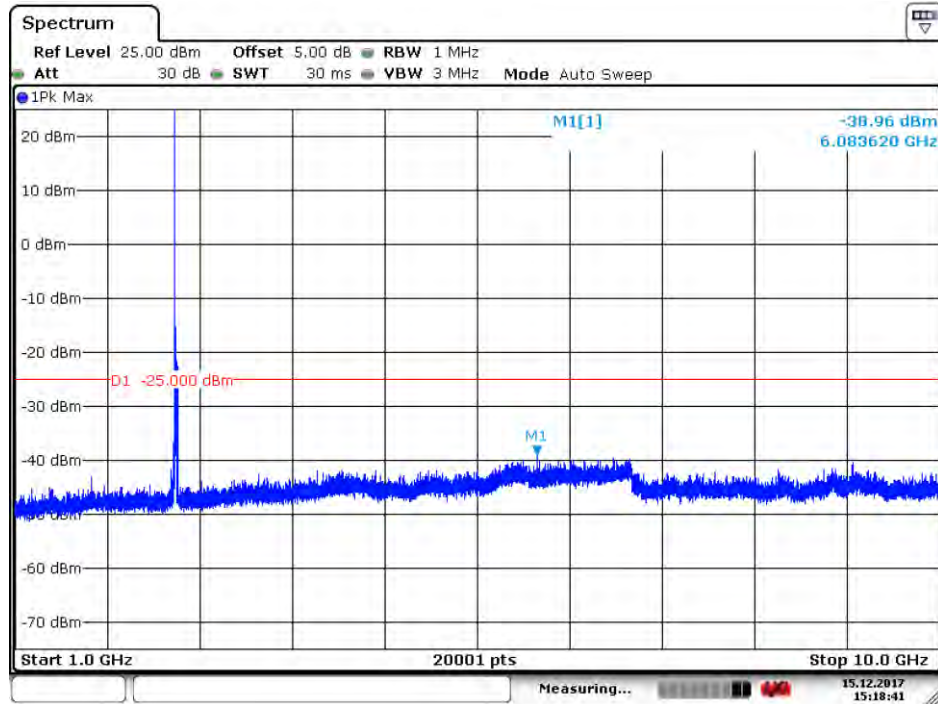
Date: 15.DEC.2017 15:22:03



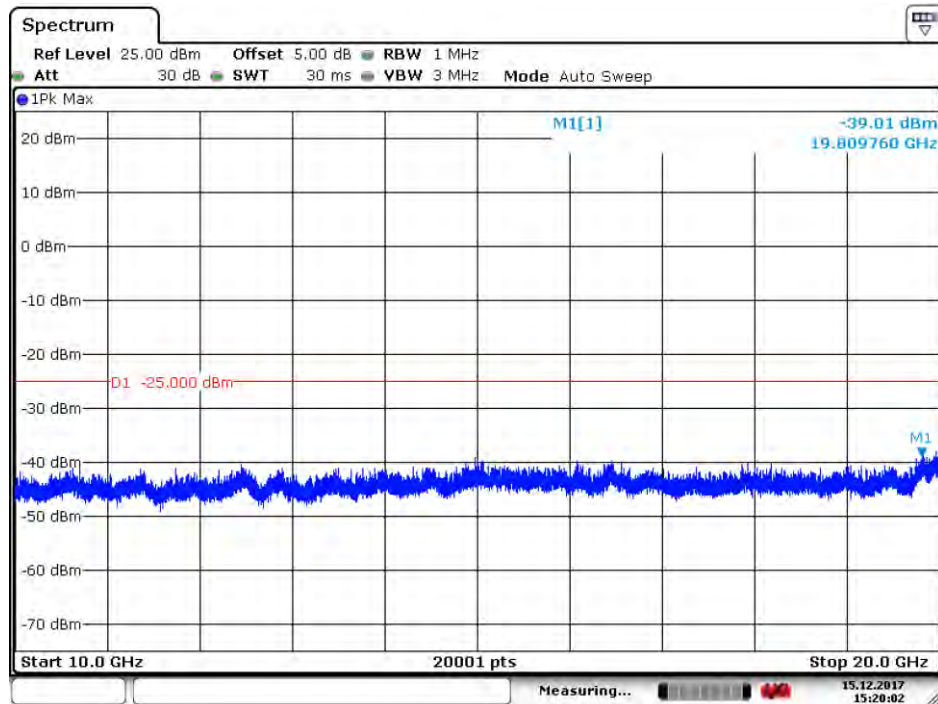
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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Date: 15.DEC.2017 15:18:42



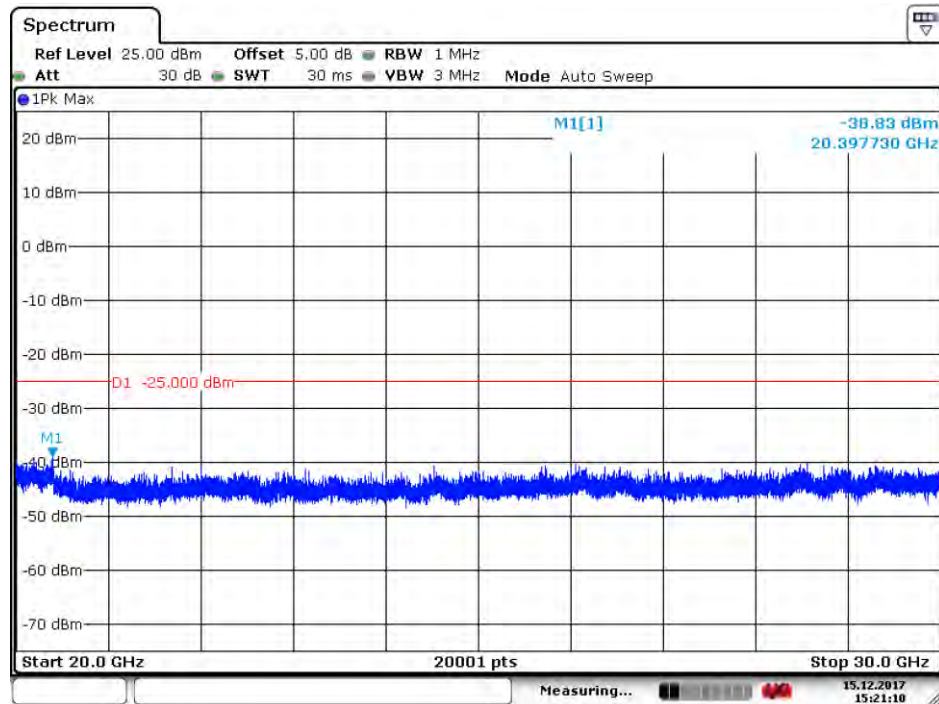
Date: 15.DEC.2017 15:20:03



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Date: 15.DEC.2017 15:21:10



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
74.000000	-71.92	-25.00	46.92	Vertical
131.450000	-71.70	-25.00	46.70	Vertical
166.300000	-71.50	-25.00	46.50	Vertical
1271.000000	-66.28	-25.00	41.28	Vertical
5002.000000	-58.52	-25.00	33.52	Vertical
7503.200000	-62.37	-25.00	37.37	Vertical
63.000000	-76.62	-25.00	51.62	Horizontal
128.150000	-71.77	-25.00	46.77	Horizontal
167.250000	-69.12	-25.00	44.12	Horizontal
1513.000000	-65.94	-25.00	40.94	Horizontal
5002.000000	-52.54	-25.00	27.54	Horizontal
10004.400000	-60.36	-25.00	35.36	Horizontal

7.1.1.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
39.950000	-67.77	-25.00	42.77	Vertical
166.550000	-66.42	-25.00	41.42	Vertical
798.425000	-68.15	-25.00	43.15	Vertical
2362.000000	-59.24	-25.00	34.24	Vertical
5052.050000	-60.16	-25.00	35.16	Vertical
10104.500000	-62.61	-25.00	37.61	Vertical
66.000000	-72.64	-25.00	47.64	Horizontal
125.500000	-68.95	-25.00	43.95	Horizontal
759.100000	-73.05	-25.00	48.05	Horizontal
1203.500000	-66.72	-25.00	41.72	Horizontal
5052.050000	-59.72	-25.00	34.72	Horizontal
10104.500000	-57.75	-25.00	32.75	Horizontal



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7.1.1.1.1 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
39.950000	-65.50	-25.00	40.50	Vertical
169.800000	-67.34	-25.00	42.34	Vertical
302.150000	-67.35	-25.00	42.35	Vertical
1202.000000	-66.03	-25.00	41.03	Vertical
5102.100000	-64.83	-25.00	39.83	Vertical
8648.825000	-63.76	-25.00	38.76	Vertical
62.750000	-76.66	-25.00	51.66	Horizontal
126.450000	-75.47	-25.00	50.47	Horizontal
199.850000	-74.60	-25.00	49.60	Horizontal
1128.000000	-67.09	-25.00	42.09	Horizontal
5102.100000	-61.70	-25.00	36.70	Horizontal
9239.675000	-63.45	-25.00	38.45	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	-4.54	-0.00181	PASS
				VN	3.46	0.00138	PASS
				VH	-5.63	-0.00224	PASS
		MCH	TN	VL	3.43	0.00135	PASS
				VN	-2.20	-0.00087	PASS
				VH	2.74	0.00108	PASS
		HCH	TN	VL	-4.46	-0.00174	PASS
				VN	-2.13	-0.00083	PASS
				VH	-2.79	-0.00109	PASS
	LTE/TM2 20MHz	LCH	TN	VL	-4.45	-0.00177	PASS
				VN	-2.67	-0.00106	PASS
				VH	-0.76	-0.00030	PASS
		MCH	TN	VL	3.58	0.00141	PASS
				VN	-2.26	-0.00089	PASS
				VH	2.54	0.00100	PASS
		HCH	TN	VL	-5.68	-0.00222	PASS
				VN	-8.88	-0.00347	PASS
				VH	3.54	0.00138	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	-0.40	-0.00016	PASS
				-20	-1.34	-0.00053	PASS
				-10	0.32	0.00013	PASS
				0	2.65	0.00106	PASS
				10	1.95	0.00078	PASS
				20	4.19	0.00167	PASS
				30	-2.36	-0.00094	PASS
				40	-0.04	-0.00002	PASS
				50	4.79	0.00191	PASS
		MCH	VN	-30	-3.99	-0.00157	PASS
				-20	-5.35	-0.00211	PASS
				-10	-7.53	-0.00297	PASS
				0	-5.92	-0.00234	PASS
				10	-4.34	-0.00171	PASS
				20	-4.94	-0.00195	PASS
				30	-5.90	-0.00233	PASS
				40	-1.32	-0.00052	PASS
				50	-0.32	-0.00013	PASS
		HCH	VN	-30	2.54	0.00099	PASS
				-20	-0.45	-0.00018	PASS
				-10	4.03	0.00157	PASS
				0	-2.92	-0.00114	PASS
				10	2.39	0.00093	PASS
				20	-0.53	-0.00021	PASS
				30	-6.65	-0.00260	PASS
				40	-2.44	-0.00095	PASS
				50	-8.38	-0.00327	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	-0.59	-0.00024	PASS
				-20	-2.25	-0.00090	PASS
				-10	3.34	0.00133	PASS
				0	2.34	0.00093	PASS
				10	1.67	0.00067	PASS
				20	-2.23	-0.00089	PASS
				30	-3.44	-0.00137	PASS
				40	5.35	0.00213	PASS
				50	3.79	0.00151	PASS
		MCH	VN	-30	-3.88	-0.00153	PASS
				-20	-5.33	-0.00210	PASS
				-10	-2.19	-0.00086	PASS
				0	-4.35	-0.00172	PASS
				10	-0.36	-0.00014	PASS
				20	1.44	0.00057	PASS
				30	-3.69	-0.00146	PASS
				40	-2.63	-0.00104	PASS
				50	-3.95	-0.00156	PASS
		HCH	VN	-30	1.36	0.00053	PASS
				-20	-2.25	-0.00088	PASS
				-10	3.59	0.00140	PASS
				0	-3.77	-0.00147	PASS
				10	2.82	0.00110	PASS
				20	-1.49	-0.00058	PASS
				30	-2.39	-0.00093	PASS
				40	-4.38	-0.00171	PASS
				50	-7.62	-0.00298	PASS

The End