



Appendix B

E-UTRA BAND 12



CONTENT

	Page
1 EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	3
2 PEAK-TO-AVERAGE RATIO.....	15
2.1 FOR LTE	16
2.1.1 <i>Test Band = LTE BAND 12</i>	16
3 MODULATION CHARACTERISTICS.....	24
3.1 FOR LTE	24
3.1.1 <i>Test Band = LTE BAND 12</i>	24
4 BANDWIDTH	27
4.1 FOR LTE	29
4.1.1 <i>Test Band = LTE BAND 12</i>	29
5 BAND EDGES COMPLIANCE	57
5.1 FOR LTE	57
5.1.1 <i>Test Band = LTE BAND 12</i>	57
6 SPURIOUS EMISSION AT ANTENNA TERMINAL.....	100
6.1 FOR LTE	100
6.1.1 <i>Test Band = LTE BAND 12</i>	100
7 FIELD STRENGTH OF SPURIOUS RADIATION	104
7.1 FOR LTE	104
7.1.1 <i>Test Band = LTE BAND 12</i>	104
8 FREQUENCY STABILITY	106
8.1 FREQUENCY ERROR VS. VOLTAGE.....	106
8.2 FREQUENCY ERROR VS. TEMPERATURE.....	107



1 Effective (Isotropic) Radiated Power Output Data

Effective Radiated Power of Transmitter (ERP) for LTE BAND 12

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM1	1.4M	LCH	RB1#0	23.4	24.25	34.77	PASS
				RB1#2	23.26	24.11	34.77	PASS
				RB1#5	23.22	24.07	34.77	PASS
				RB3#0	23.26	24.11	34.77	PASS
				RB3#2	23.18	24.03	34.77	PASS
				RB3#3	23.29	24.14	34.77	PASS
				RB6#0	22.47	23.32	34.77	PASS
			MCH	RB1#0	23.29	24.14	34.77	PASS
				RB1#2	23.31	24.16	34.77	PASS
				RB1#5	23.22	24.07	34.77	PASS
				RB3#0	23.33	24.18	34.77	PASS
				RB3#2	23.5	24.35	34.77	PASS
				RB3#3	23.42	24.27	34.77	PASS
				RB6#0	22.44	23.29	34.77	PASS
			HCH	RB1#0	22.9	23.75	34.77	PASS
				RB1#2	23.25	24.1	34.77	PASS
				RB1#5	23.02	23.87	34.77	PASS
				RB3#0	23.22	24.07	34.77	PASS
				RB3#2	23.36	24.21	34.77	PASS
				RB3#3	23.35	24.2	34.77	PASS
				RB6#0	22.35	23.2	34.77	PASS



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Shenzhen Branch**

Report No.: SZEM180500453501

Page: 4 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM2	1.4M	LCH	RB1#0	22.34	23.19	34.77	PASS
				RB1#2	22.09	22.94	34.77	PASS
				RB1#5	22.48	23.33	34.77	PASS
				RB3#0	22.15	23	34.77	PASS
				RB3#2	22.15	23	34.77	PASS
				RB3#3	22.29	23.14	34.77	PASS
				RB6#0	21.49	22.34	34.77	PASS
			MCH	RB1#0	22.24	23.09	34.77	PASS
				RB1#2	22.46	23.31	34.77	PASS
				RB1#5	22.6	23.45	34.77	PASS
				RB3#0	22.53	23.38	34.77	PASS
				RB3#2	22.47	23.32	34.77	PASS
				RB3#3	22.39	23.24	34.77	PASS
				RB6#0	21.49	22.34	34.77	PASS
			HCH	RB1#0	22.46	23.31	34.77	PASS
				RB1#2	22.42	23.27	34.77	PASS
				RB1#5	22.04	22.89	34.77	PASS
				RB3#0	21.86	22.71	34.77	PASS
				RB3#2	22.19	23.04	34.77	PASS
				RB3#3	22.14	22.99	34.77	PASS
				RB6#0	21.38	22.23	34.77	PASS



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Report No.: SZEM180500453501
Page: 5 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM3	1.4M	LCH	RB1#0	21.93	22.78	34.77	PASS
				RB1#2	22.24	23.09	34.77	PASS
				RB1#5	21.71	22.56	34.77	PASS
				RB3#0	21.98	22.83	34.77	PASS
				RB3#2	22.04	22.89	34.77	PASS
				RB3#3	22.08	22.93	34.77	PASS
				RB6#0	20.98	21.83	34.77	PASS
			MCH	RB1#0	21.96	22.81	34.77	PASS
				RB1#2	22.11	22.96	34.77	PASS
				RB1#5	21.90	22.75	34.77	PASS
				RB3#0	22.01	22.86	34.77	PASS
				RB3#2	22.00	22.85	34.77	PASS
				RB3#3	21.99	22.84	34.77	PASS
				RB6#0	21.07	21.92	34.77	PASS
			HCH	RB1#0	21.85	22.70	34.77	PASS
				RB1#2	22.19	23.04	34.77	PASS
				RB1#5	22.06	22.91	34.77	PASS
				RB3#0	22.10	22.95	34.77	PASS
				RB3#2	22.25	23.10	34.77	PASS
				RB3#3	22.09	22.94	34.77	PASS
				RB6#0	21.06	21.91	34.77	PASS



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Shenzhen Branch**

Report No.: SZEM180500453501

Page: 6 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM1	3M	LCH	RB1#0	23.19	24.04	34.77	PASS
				RB1#7	23.49	24.34	34.77	PASS
				RB1#14	23.25	24.1	34.77	PASS
				RB8#0	22.31	23.16	34.77	PASS
				RB8#4	22.42	23.27	34.77	PASS
				RB8#7	22.32	23.17	34.77	PASS
				RB15#0	22.27	23.12	34.77	PASS
			MCH	RB1#0	23.26	24.11	34.77	PASS
				RB1#7	23.33	24.18	34.77	PASS
				RB1#14	23.23	24.08	34.77	PASS
				RB8#0	22.4	23.25	34.77	PASS
				RB8#4	22.41	23.26	34.77	PASS
				RB8#7	22.38	23.23	34.77	PASS
				RB15#0	22.38	23.23	34.77	PASS
			HCH	RB1#0	23.49	24.34	34.77	PASS
				RB1#7	23.44	24.29	34.77	PASS
				RB1#14	23.09	23.94	34.77	PASS
				RB8#0	22.33	23.18	34.77	PASS
				RB8#4	22.41	23.26	34.77	PASS
				RB8#7	22.42	23.27	34.77	PASS
				RB15#0	22.42	23.27	34.77	PASS



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Report No.: SZEM180500453501

Page: 7 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM2	3M	LCH	RB1#0	22.8	23.65	34.77	PASS
				RB1#7	22.41	23.26	34.77	PASS
				RB1#14	21.95	22.8	34.77	PASS
				RB8#0	21.64	22.49	34.77	PASS
				RB8#4	21.55	22.4	34.77	PASS
				RB8#7	21.63	22.48	34.77	PASS
				RB15#0	21.44	22.29	34.77	PASS
			MCH	RB1#0	22.39	23.24	34.77	PASS
				RB1#7	22.39	23.24	34.77	PASS
				RB1#14	22.39	23.24	34.77	PASS
				RB8#0	21.62	22.47	34.77	PASS
				RB8#4	21.64	22.49	34.77	PASS
				RB8#7	21.74	22.59	34.77	PASS
				RB15#0	21.5	22.35	34.77	PASS
			HCH	RB1#0	22.74	23.59	34.77	PASS
				RB1#7	22.48	23.33	34.77	PASS
				RB1#14	22.2	23.05	34.77	PASS
				RB8#0	21.66	22.51	34.77	PASS
				RB8#4	21.61	22.46	34.77	PASS
				RB8#7	21.71	22.56	34.77	PASS
				RB15#0	21.33	22.18	34.77	PASS



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Report No.: SZEM180500453501
Page: 8 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM3	3M	LCH	RB1#0	22.29	23.14	34.77	PASS
				RB1#2	22.17	23.02	34.77	PASS
				RB1#5	22.21	23.06	34.77	PASS
				RB3#0	21.39	22.24	34.77	PASS
				RB3#2	21.28	22.13	34.77	PASS
				RB3#3	21.31	22.16	34.77	PASS
				RB6#0	21.19	22.04	34.77	PASS
			MCH	RB1#0	22.26	23.11	34.77	PASS
				RB1#2	22.16	23.01	34.77	PASS
				RB1#5	22.17	23.02	34.77	PASS
				RB3#0	21.38	22.23	34.77	PASS
				RB3#2	21.28	22.13	34.77	PASS
				RB3#3	21.23	22.08	34.77	PASS
				RB6#0	21.17	22.02	34.77	PASS
			HCH	RB1#0	22.34	23.19	34.77	PASS
				RB1#2	22.12	22.97	34.77	PASS
				RB1#5	22.30	23.15	34.77	PASS
				RB3#0	21.33	22.18	34.77	PASS
				RB3#2	21.32	22.17	34.77	PASS
				RB3#3	21.29	22.14	34.77	PASS
				RB6#0	21.16	22.01	34.77	PASS



**SGS-CSTC Standards Technical Services Co., Ltd.
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Report No.: SZEM180500453501

Page: 9 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM1	5M	LCH	RB1#0	23.19	24.04	34.77	PASS
				RB1#13	23.19	24.04	34.77	PASS
				RB1#24	23.27	24.12	34.77	PASS
				RB12#0	22.26	23.11	34.77	PASS
				RB12#6	22.35	23.2	34.77	PASS
				RB12#13	22.41	23.26	34.77	PASS
				RB25#0	22.29	23.14	34.77	PASS
			MCH	RB1#0	23.35	24.2	34.77	PASS
				RB1#13	23.33	24.18	34.77	PASS
				RB1#24	23.33	24.18	34.77	PASS
				RB12#0	22.41	23.26	34.77	PASS
				RB12#6	22.47	23.32	34.77	PASS
				RB12#13	22.38	23.23	34.77	PASS
				RB25#0	22.38	23.23	34.77	PASS
			HCH	RB1#0	23.35	24.2	34.77	PASS
				RB1#13	23.34	24.19	34.77	PASS
				RB1#24	23.15	24	34.77	PASS
				RB12#0	22.39	23.24	34.77	PASS
				RB12#6	22.37	23.22	34.77	PASS
				RB12#13	22.2	23.05	34.77	PASS
				RB25#0	22.44	23.29	34.77	PASS



**SGS-CSTC Standards Technical Services Co., Ltd.
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Report No.: SZEM180500453501

Page: 10 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM2	5M	LCH	RB1#0	22.49	23.34	34.77	PASS
				RB1#13	22.72	23.57	34.77	PASS
				RB1#24	22.5	23.35	34.77	PASS
				RB12#0	21.51	22.36	34.77	PASS
				RB12#6	21.44	22.29	34.77	PASS
				RB12#13	21.43	22.28	34.77	PASS
				RB25#0	21.34	22.19	34.77	PASS
			MCH	RB1#0	22.49	23.34	34.77	PASS
				RB1#13	22.46	23.31	34.77	PASS
				RB1#24	22.86	23.71	34.77	PASS
				RB12#0	21.51	22.36	34.77	PASS
				RB12#6	21.56	22.41	34.77	PASS
				RB12#13	21.39	22.24	34.77	PASS
				RB25#0	21.49	22.34	34.77	PASS
			HCH	RB1#0	22.72	23.57	34.77	PASS
				RB1#13	22.56	23.41	34.77	PASS
				RB1#24	22.53	23.38	34.77	PASS
				RB12#0	21.41	22.26	34.77	PASS
				RB12#6	21.33	22.18	34.77	PASS
				RB12#13	21.42	22.27	34.77	PASS
				RB25#0	21.64	22.49	34.77	PASS



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Report No.: SZEM180500453501
Page: 11 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM3	5M	LCH	RB1#0	22.40	23.25	34.77	PASS
				RB1#2	22.14	22.99	34.77	PASS
				RB1#5	22.21	23.06	34.77	PASS
				RB3#0	21.26	22.11	34.77	PASS
				RB3#2	21.13	21.98	34.77	PASS
				RB3#3	21.24	22.09	34.77	PASS
				RB6#0	21.32	22.17	34.77	PASS
			MCH	RB1#0	22.37	23.22	34.77	PASS
				RB1#2	22.34	23.19	34.77	PASS
				RB1#5	22.26	23.11	34.77	PASS
				RB3#0	21.29	22.14	34.77	PASS
				RB3#2	21.26	22.11	34.77	PASS
				RB3#3	21.24	22.09	34.77	PASS
				RB6#0	21.29	22.14	34.77	PASS
			HCH	RB1#0	22.30	23.15	34.77	PASS
				RB1#2	22.31	23.16	34.77	PASS
				RB1#5	22.22	23.07	34.77	PASS
				RB3#0	21.29	22.14	34.77	PASS
				RB3#2	21.27	22.12	34.77	PASS
				RB3#3	21.16	22.01	34.77	PASS
				RB6#0	21.30	22.15	34.77	PASS



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

Report No.: SZEM180500453501

Page: 12 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM1	10M	LCH	RB1#0	23.26	24.11	34.77	PASS
				RB1#25	23.28	24.13	34.77	PASS
				RB1#49	23	23.85	34.77	PASS
				RB25#0	22.35	23.2	34.77	PASS
				RB25#13	22.49	23.34	34.77	PASS
				RB25#25	22.43	23.28	34.77	PASS
				RB50#0	22.31	23.16	34.77	PASS
			MCH	RB1#0	23.16	24.01	34.77	PASS
				RB1#25	23.19	24.04	34.77	PASS
				RB1#49	23.22	24.07	34.77	PASS
				RB25#0	22.51	23.36	34.77	PASS
				RB25#13	22.44	23.29	34.77	PASS
				RB25#25	22.4	23.25	34.77	PASS
				RB50#0	22.41	23.26	34.77	PASS
			HCH	RB1#0	23.3	24.15	34.77	PASS
				RB1#25	23.34	24.19	34.77	PASS
				RB1#49	23.02	23.87	34.77	PASS
				RB25#0	22.48	23.33	34.77	PASS
				RB25#13	22.53	23.38	34.77	PASS
				RB25#25	22.52	23.37	34.77	PASS
				RB50#0	22.53	23.38	34.77	PASS



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Report No.: SZEM180500453501

Page: 13 of 109

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND 12	LTE/TM2	10M	LCH	RB1#0	22.57	23.42	34.77	PASS
				RB1#25	22.26	23.11	34.77	PASS
				RB1#49	22.35	23.2	34.77	PASS
				RB25#0	21.32	22.17	34.77	PASS
				RB25#13	21.54	22.39	34.77	PASS
				RB25#25	21.45	22.3	34.77	PASS
				RB50#0	21.33	22.18	34.77	PASS
			MCH	RB1#0	22.55	23.4	34.77	PASS
				RB1#25	22.32	23.17	34.77	PASS
				RB1#49	22.35	23.2	34.77	PASS
				RB25#0	21.52	22.37	34.77	PASS
				RB25#13	21.58	22.43	34.77	PASS
				RB25#25	21.44	22.29	34.77	PASS
				RB50#0	21.43	22.28	34.77	PASS
			HCH	RB1#0	22.23	23.08	34.77	PASS
				RB1#25	22.99	23.84	34.77	PASS
				RB1#49	22.34	23.19	34.77	PASS
				RB25#0	21.47	22.32	34.77	PASS
				RB25#13	21.64	22.49	34.77	PASS
				RB25#25	21.62	22.47	34.77	PASS
				RB50#0	21.48	22.33	34.77	PASS



2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 12	TM1/10M	LCH	3.91	13	PASS
		MCH	4.46	13	PASS
		HCH	4.26	13	PASS
	TM2/10M	LCH	4.75	13	PASS
		MCH	5.54	13	PASS
		HCH	5.36	13	PASS
	TM3/10M	LCH	5.48	13	PASS
		MCH	5.74	13	PASS
		HCH	5.51	13	PASS



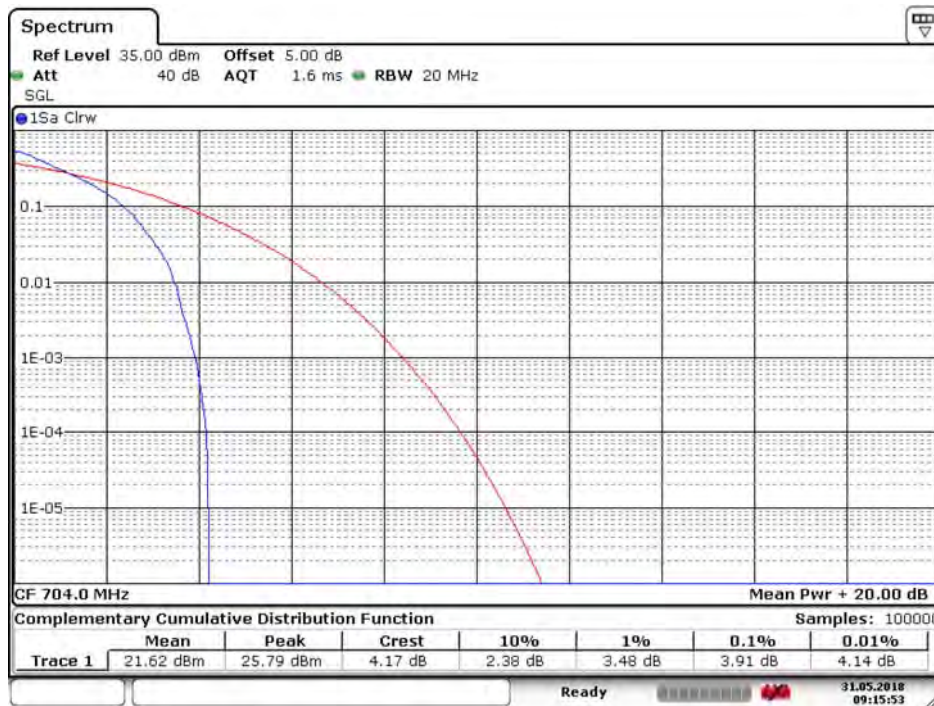
Part II - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE BAND 12

2.1.1.1 Test Mode = LTE/TM1.Bandwidth=10MHz

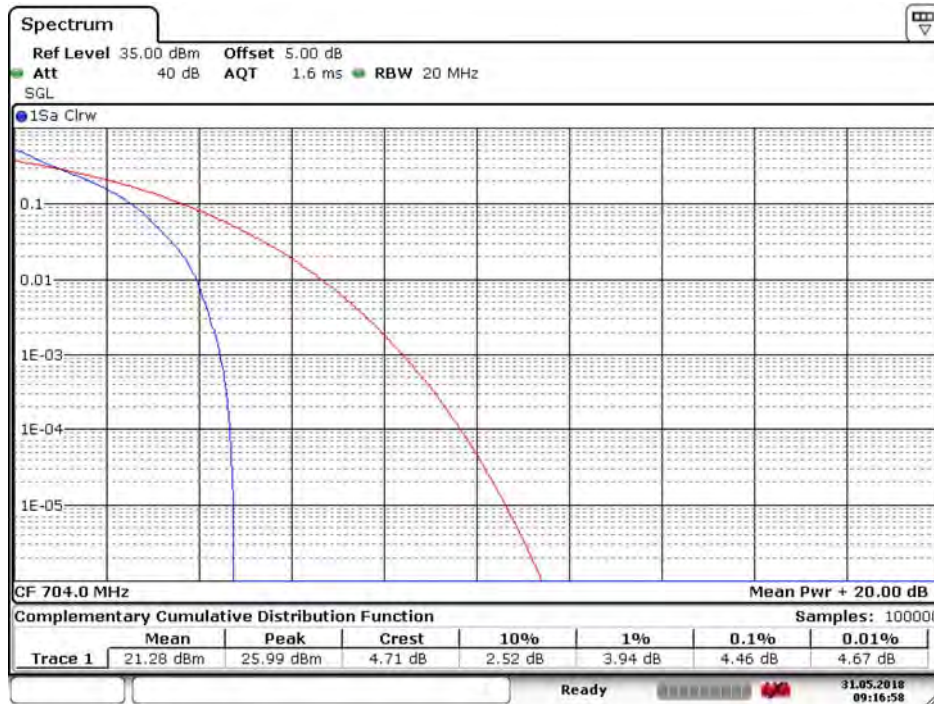
2.1.1.1.1 Test Channel = LCH



Date: 31.MAY.2018 09:15:53



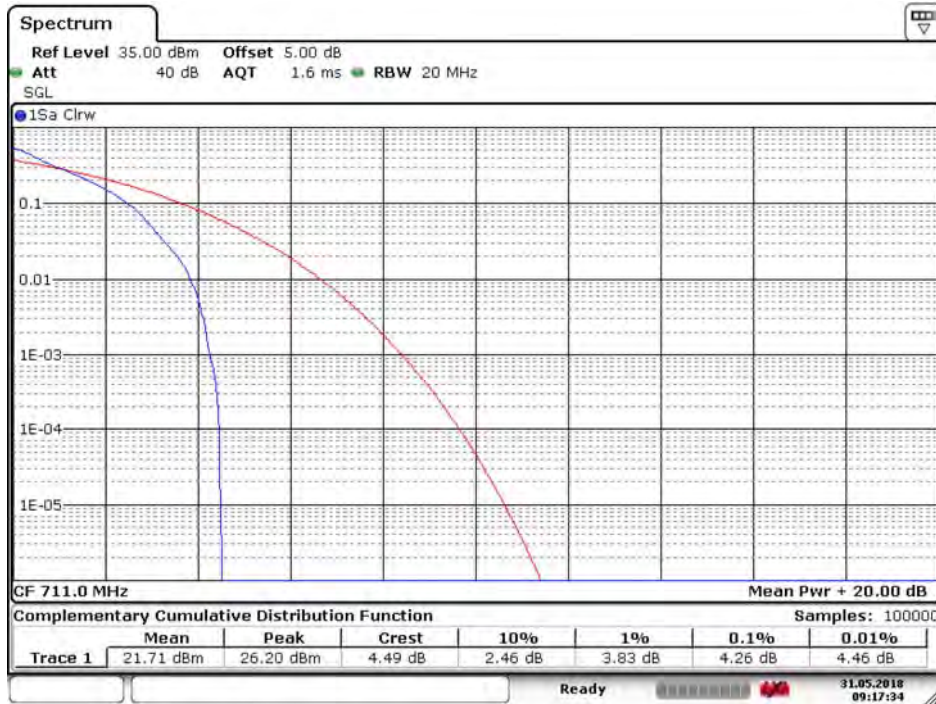
2.1.1.1.2 Test Channel = MCH



Date: 31.MAY.2018 09:16:58



2.1.1.1.3 Test Channel = HCH

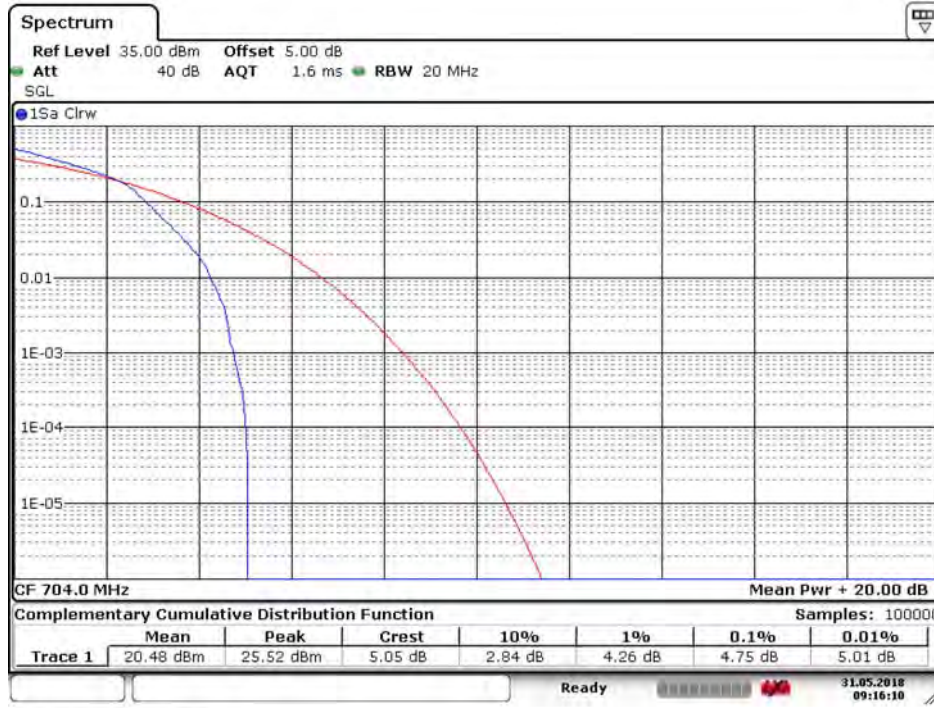


Date: 31.MAY.2018 09:17:35



2.1.1.2 Test Mode = LTE/TM2.Bandwidth=10MHz

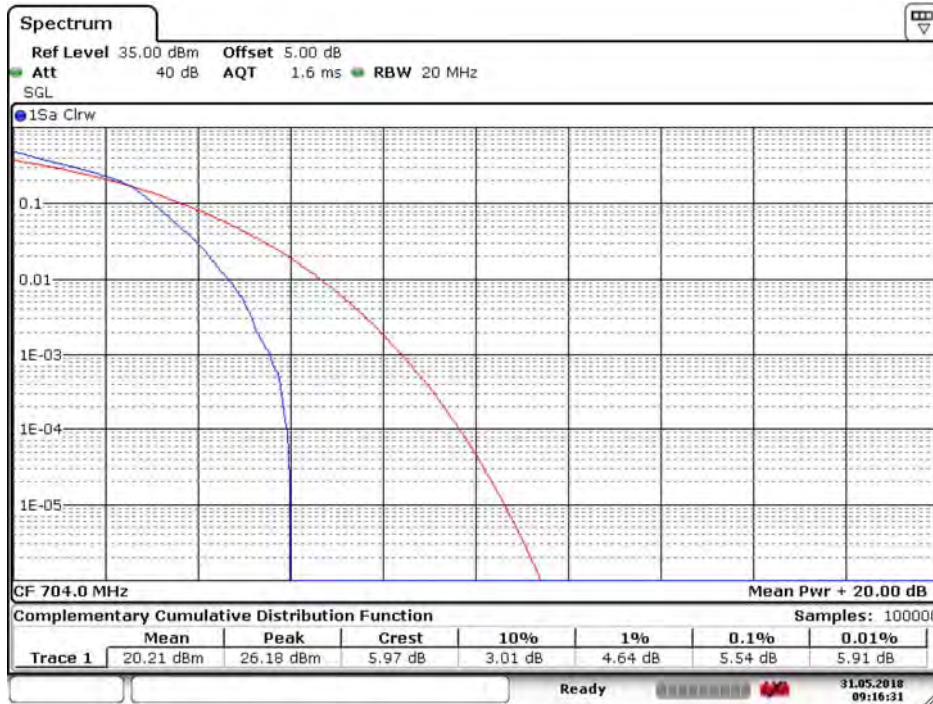
2.1.1.2.1 Test Channel = LCH



Date: 31.MAY.2018 09:16:10



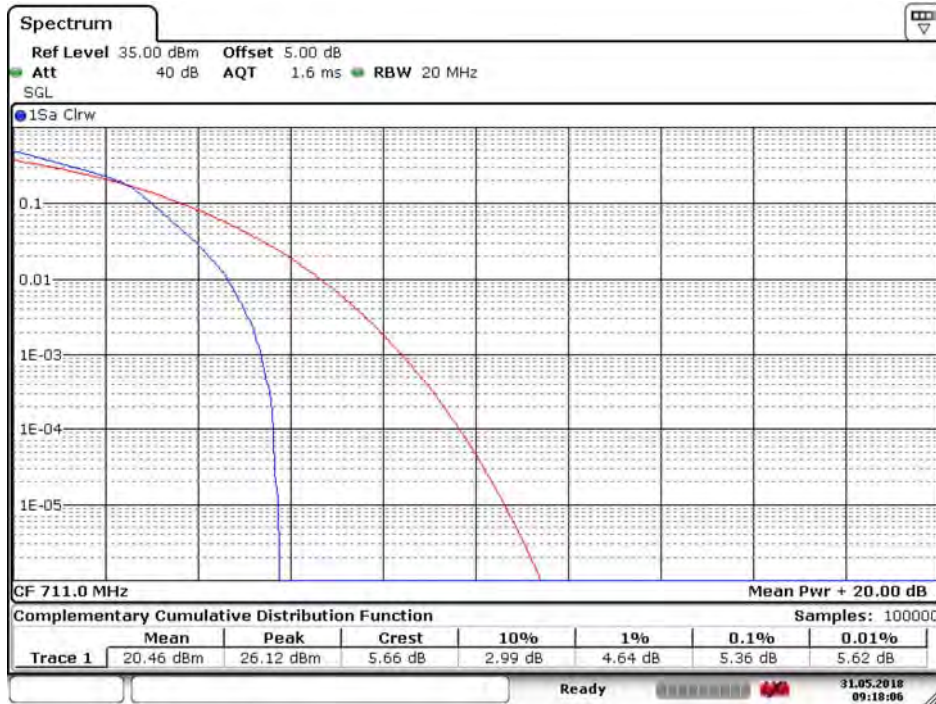
2.1.1.2.2 Test Channel = MCH



Date: 31.MAY.2018 09:16:32



2.1.1.2.3 Test Channel = HCH

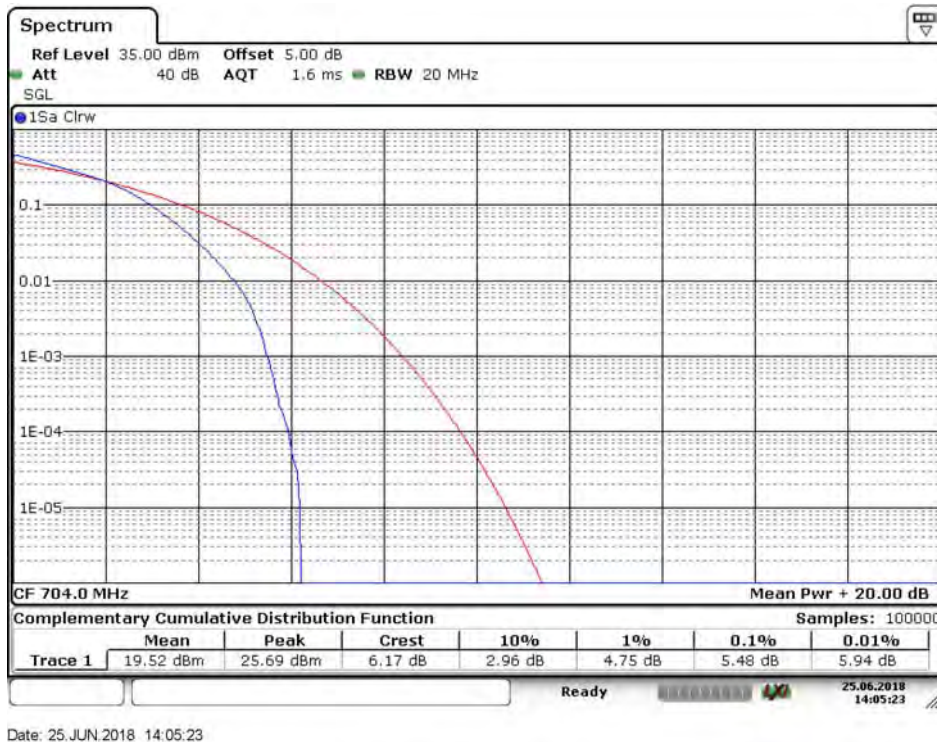


Date: 31.MAY.2018 09:18:05



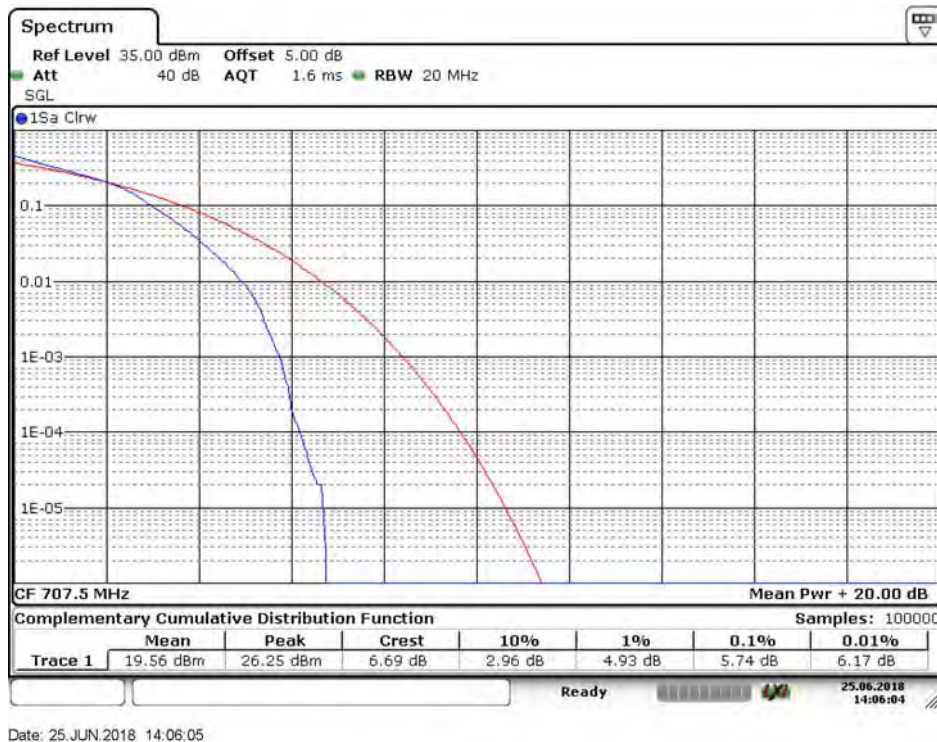
2.1.1.3 Test Mode = LTE/TM3.Bandwidth=10MHz

2.1.1.3.1 Test Channel = LCH



Date: 25 JUN 2018 14:05:23

2.1.1.3.2 Test Channel = MCH



Date: 25 JUN 2018 14:06:05



2.1.1.3.3 Test Channel = HCH



Date: 25.JUN.2018 14:06:28



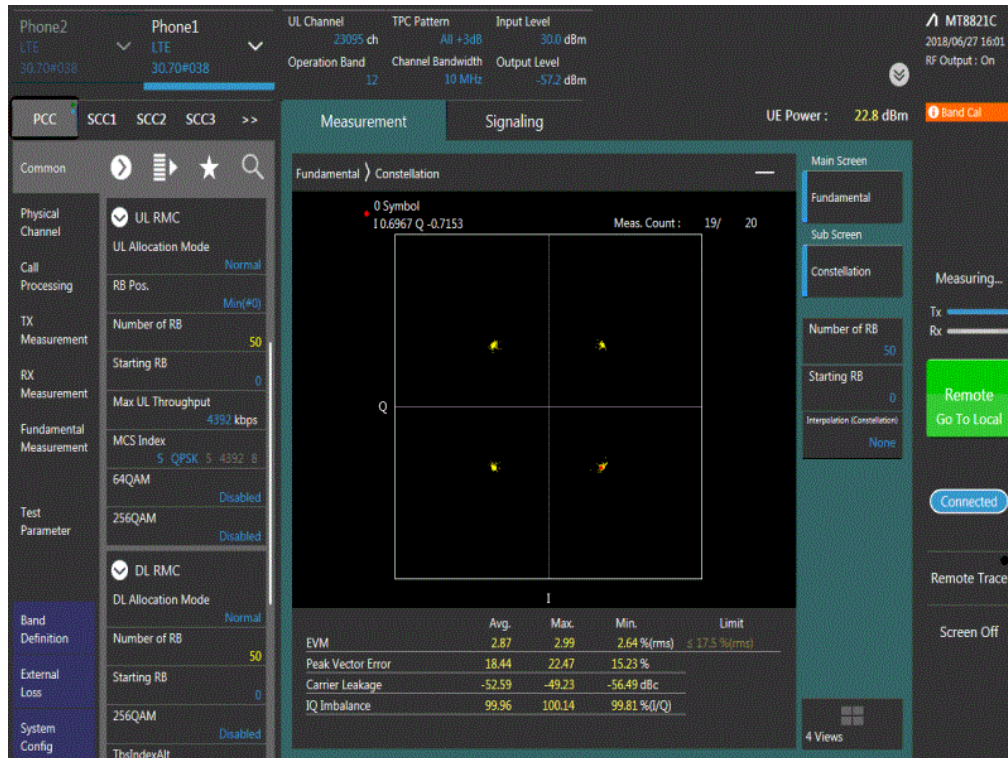
3 Modulation Characteristics

3.1 For LTE

3.1.1 Test Band = LTE BAND 12

3.1.1.1 Test Mode = LTE /TM1 10MHz

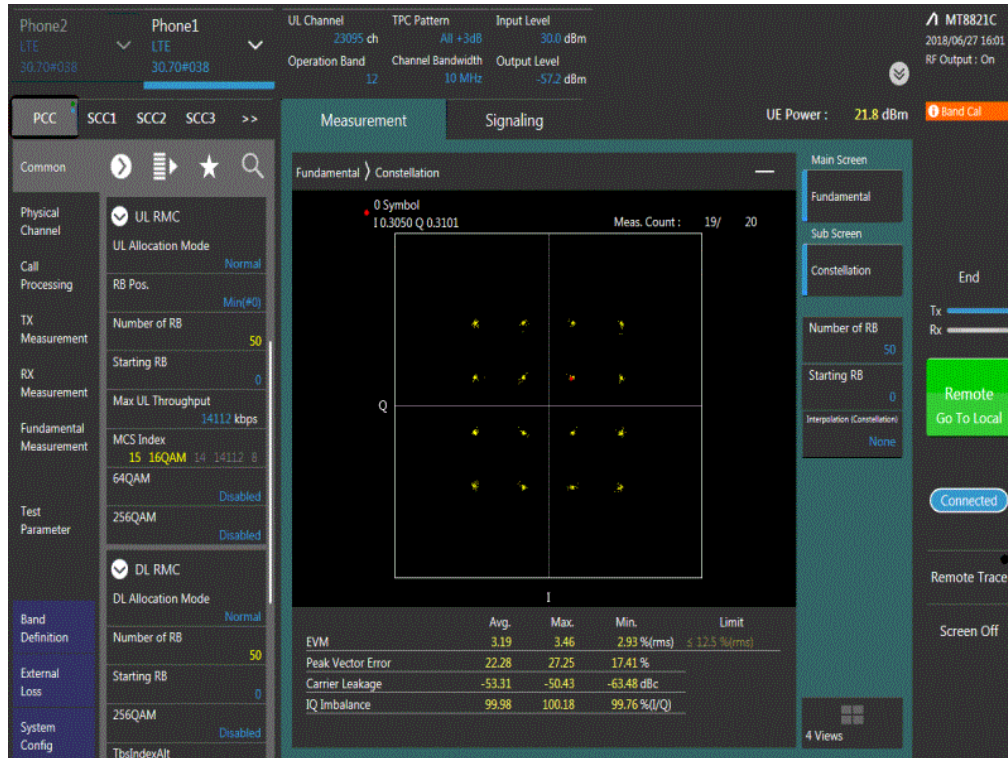
3.1.1.1.1 Test Channel = MCH





3.1.1.2 Test Mode = LTE /TM2 10MHz

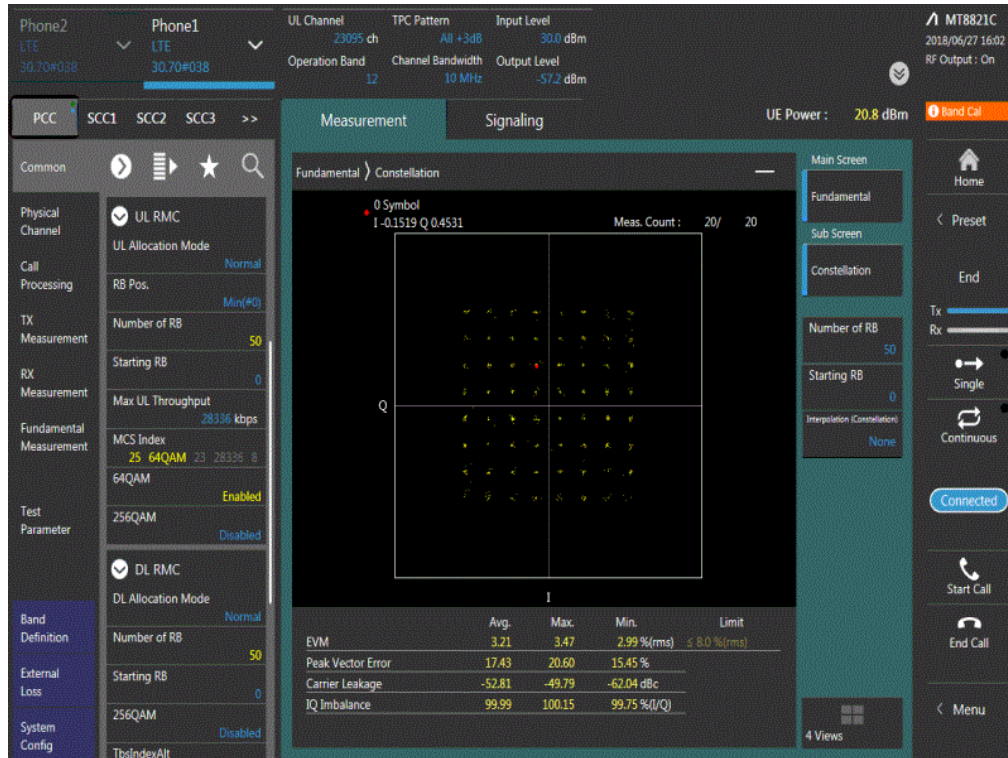
3.1.1.2.1 Test Channel = MCH





3.1.1.3 Test Mode = LTE /TM3 10MHz

3.1.1.3.1 Test Channel = MCH





4 Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
Band 12	TM1/1.4MHz	LCH	1.10	1.25	PASS
		MCH	1.10	1.23	PASS
		HCH	1.09	1.35	PASS
	TM2/1.4MHz	LCH	1.09	1.23	PASS
		MCH	1.09	1.24	PASS
		HCH	1.10	1.29	PASS
	TM3/ 1.4MHz	LCH	1.09	1.24	PASS
		MCH	1.08	1.23	PASS
		HCH	1.08	1.24	PASS
	TM1/ 3MHz	LCH	2.69	2.93	PASS
		MCH	2.69	2.94	PASS
		HCH	2.69	2.99	PASS
	TM2/ 3MHz	LCH	2.69	2.94	PASS
		MCH	2.69	2.96	PASS
		HCH	2.69	2.96	PASS
	TM3/ 3MHz	LCH	2.68	2.93	PASS
		MCH	2.69	2.93	PASS
		HCH	2.68	2.93	PASS
	TM1/ 5MHz	LCH	4.47	4.89	PASS
		MCH	4.49	4.92	PASS
		HCH	4.48	4.91	PASS
	TM2/ 5MHz	LCH	4.47	4.90	PASS
		MCH	4.47	4.88	PASS
		HCH	4.48	4.89	PASS
TM3/ 5MHz	LCH	4.45	4.82	PASS	
	MCH	4.47	4.89	PASS	
	HCH	4.45	4.86	PASS	
TM1/10MHz	LCH	8.93	9.64	PASS	
	MCH	8.97	9.85	PASS	
	HCH	8.91	9.59	PASS	
TM2/ 10MHz	LCH	8.93	9.64	PASS	
	MCH	8.95	9.65	PASS	
	HCH	8.93	9.55	PASS	



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

Report No.: SZEM180500453501

Page: 28 of 109

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
	TM3/ 10MHz	LCH	8.91	9.69	PASS
		MCH	8.95	9.71	PASS
		HCH	8.91	9.63	PASS



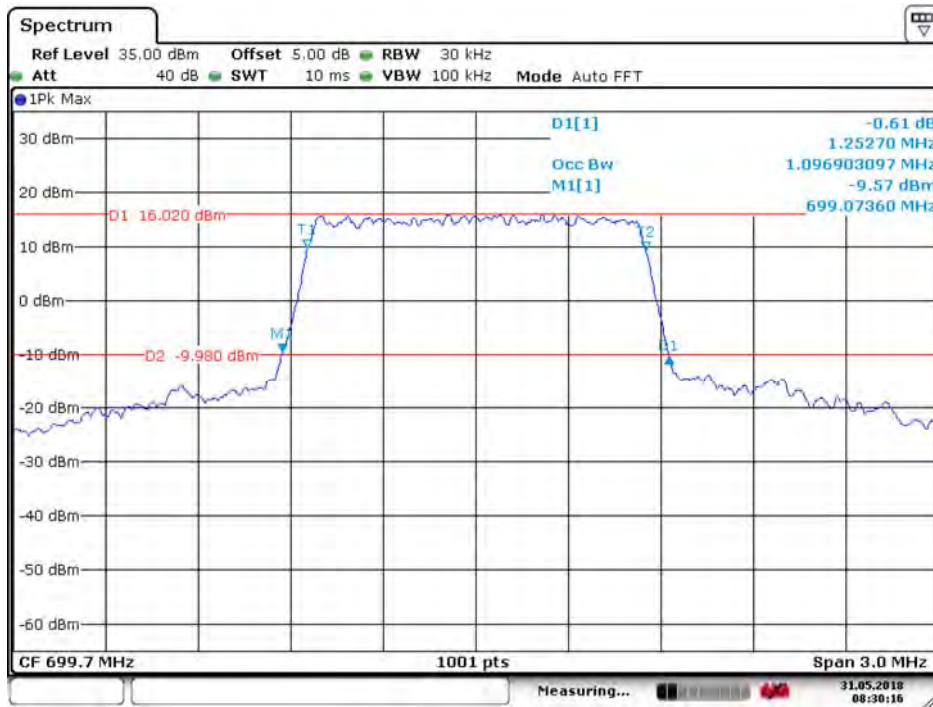
Part II –Test Plots

4.1 For LTE

4.1.1 Test Band = LTE BAND 12

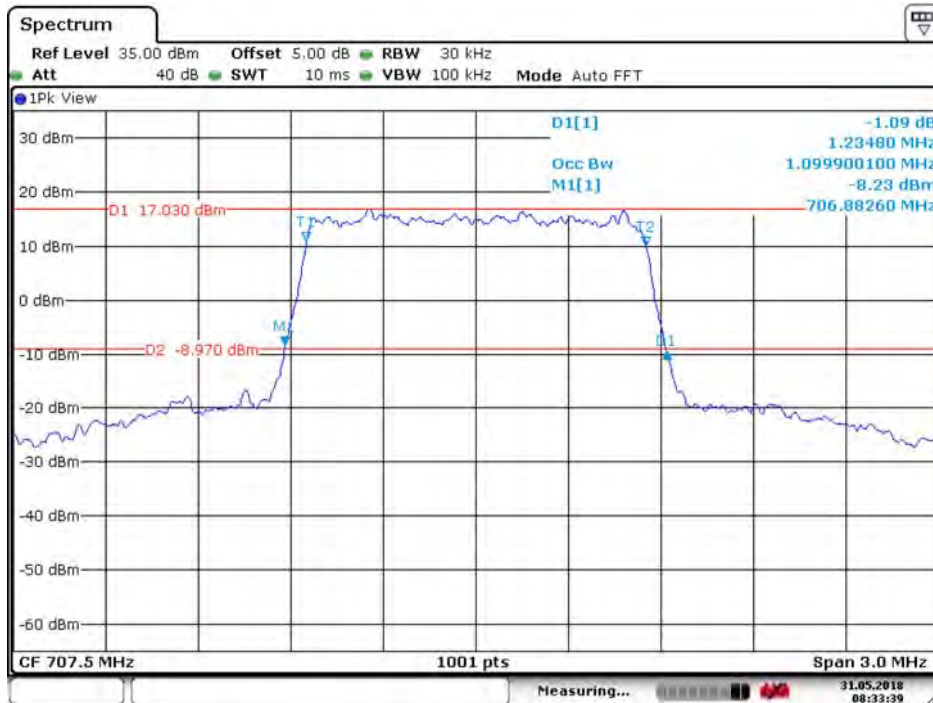
4.1.1.1 Test Mode = LTE/TM1 1.4MHz

4.1.1.1.1 Test Channel = LCH



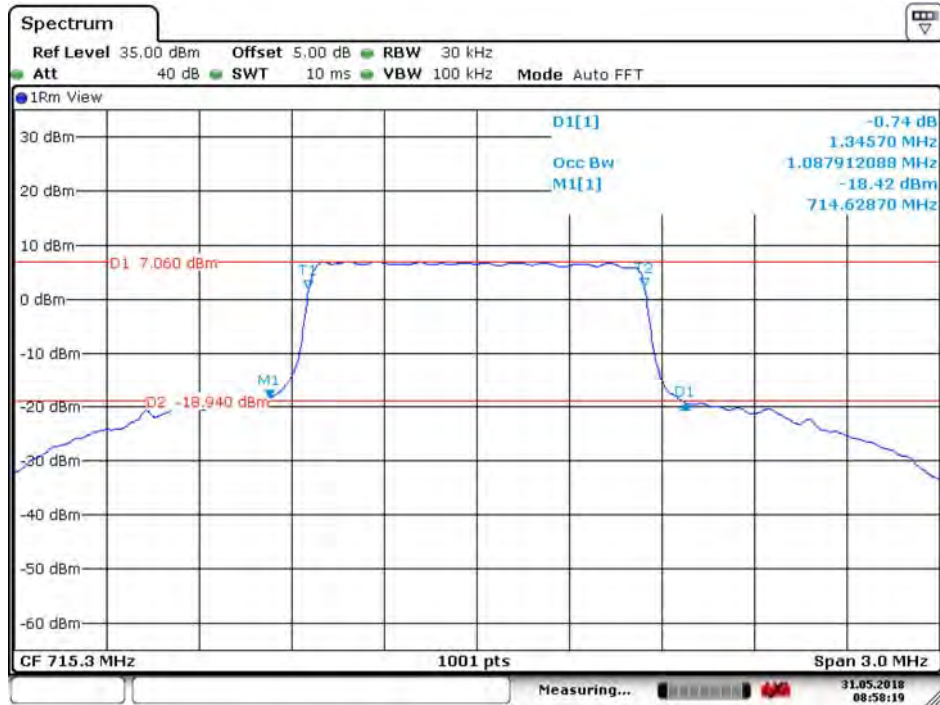
Date: 31.MAY.2018 08:30:16

4.1.1.1.2 Test Channel = MCH



Date: 31.MAY.2018 08:33:39

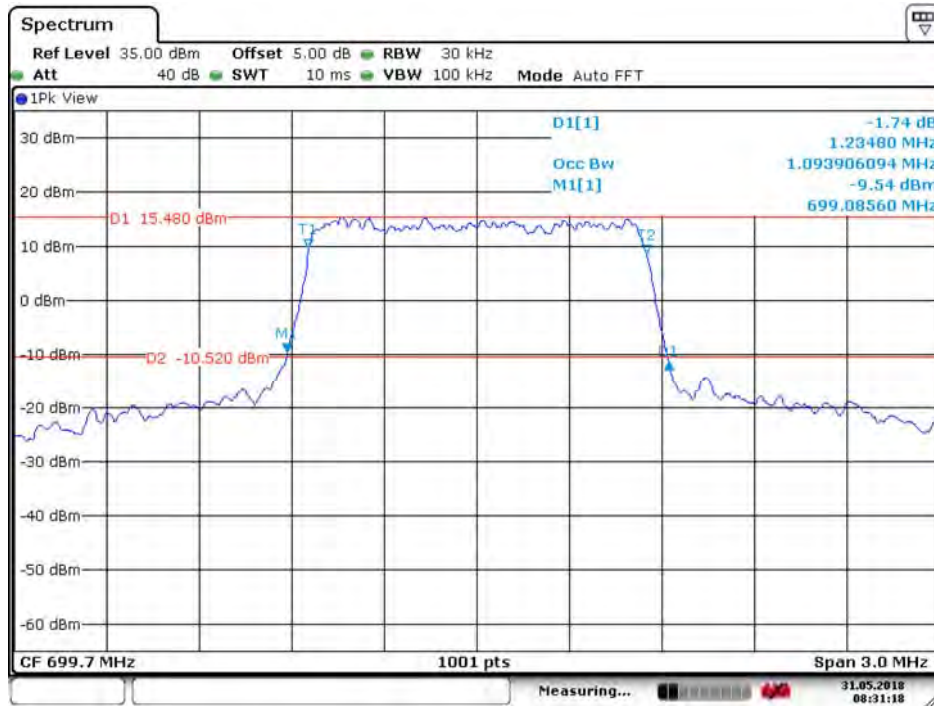
4.1.1.1.3 Test Channel = HCH



Date: 31.MAY.2018 08:58:19

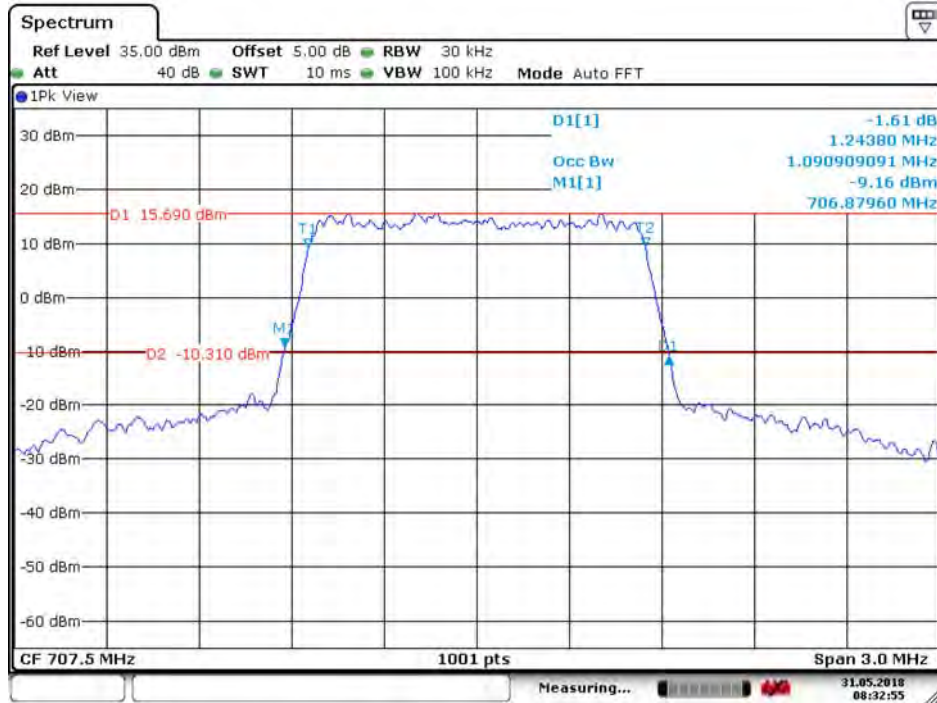
4.1.1.2 Test Mode = LTE/TM2 1.4MHz

4.1.1.2.1 Test Channel = LCH



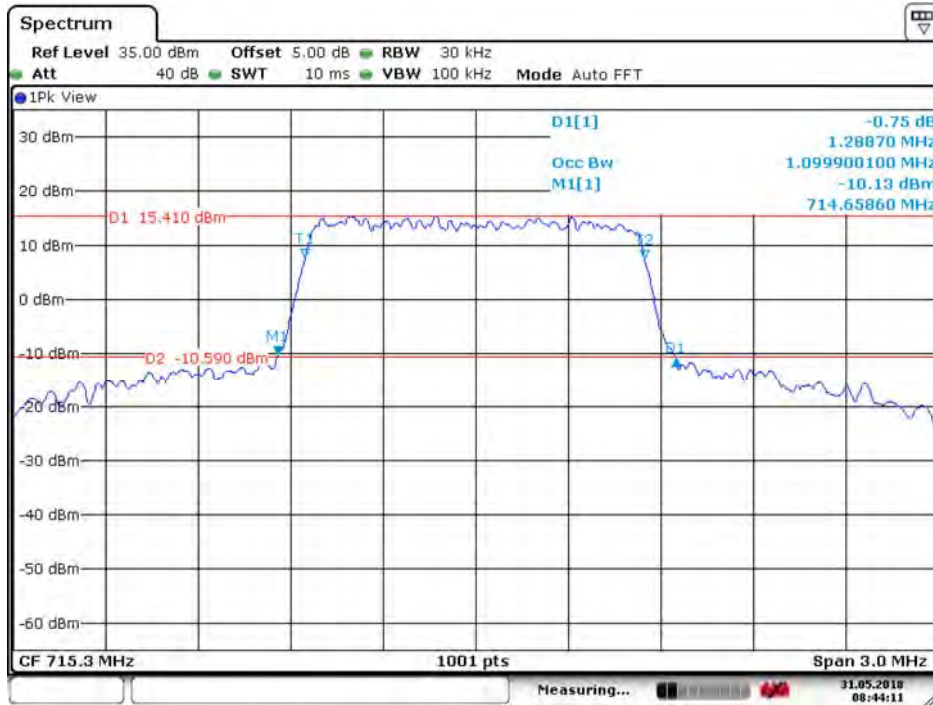
Date: 31.MAY.2018 08:31:18

4.1.1.2.2 Test Channel = MCH



Date: 31.MAY.2018 08:32:56

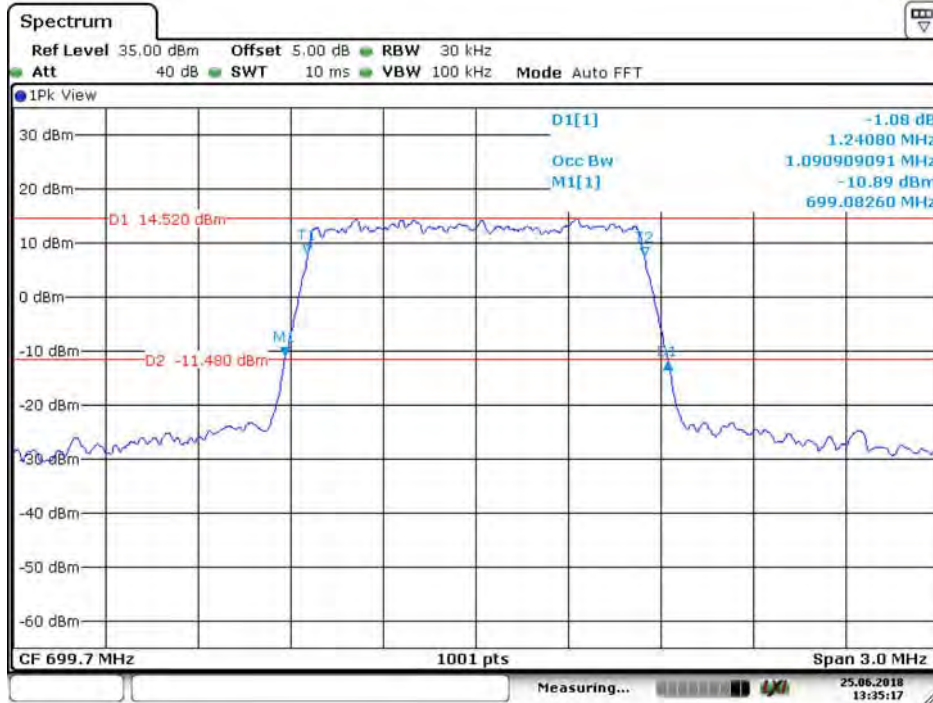
4.1.1.2.3 Test Channel = HCH



Date: 31.MAY.2018 08:44:10

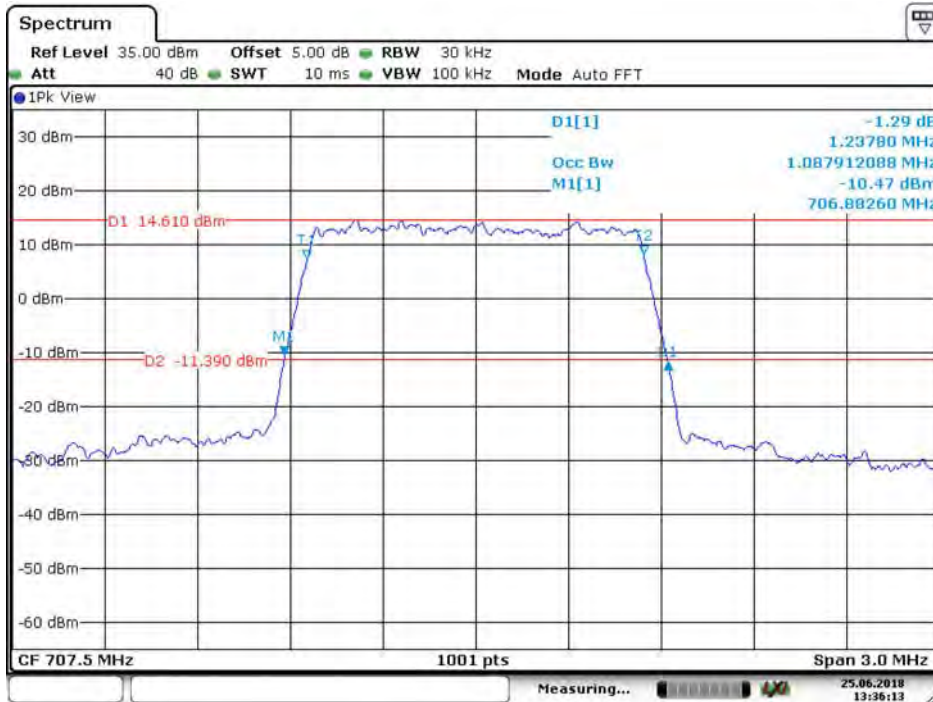
4.1.1.3 Test Mode = LTE/TM3 1.4MHz

4.1.1.3.1 Test Channel = LCH



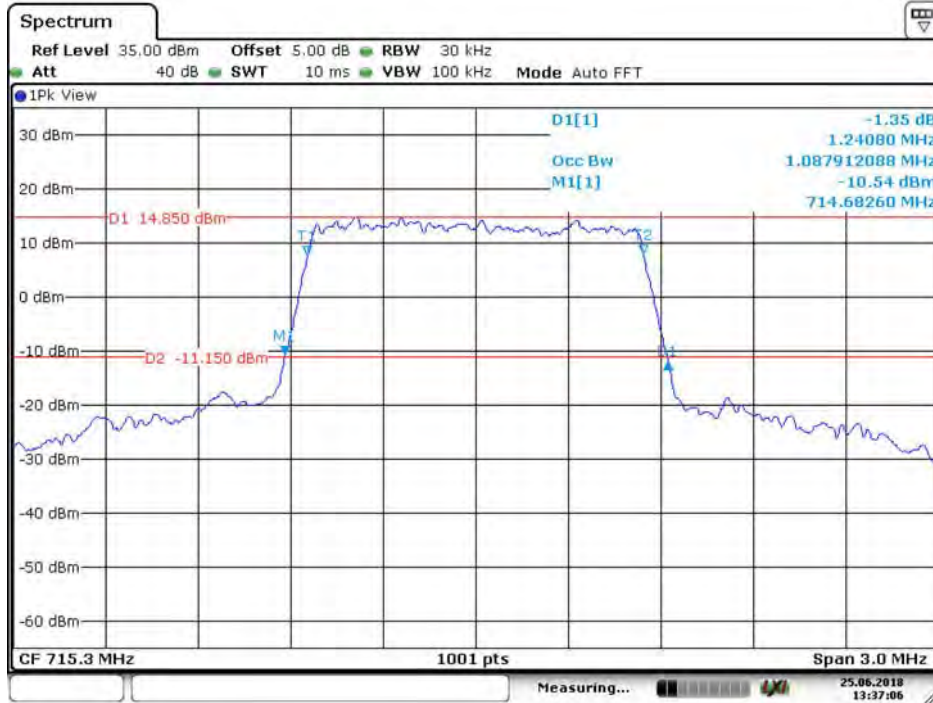
Date: 25 JUN 2018 13:35:17

4.1.1.3.2 Test Channel = MCH



Date: 25 JUN 2018 13:36:13

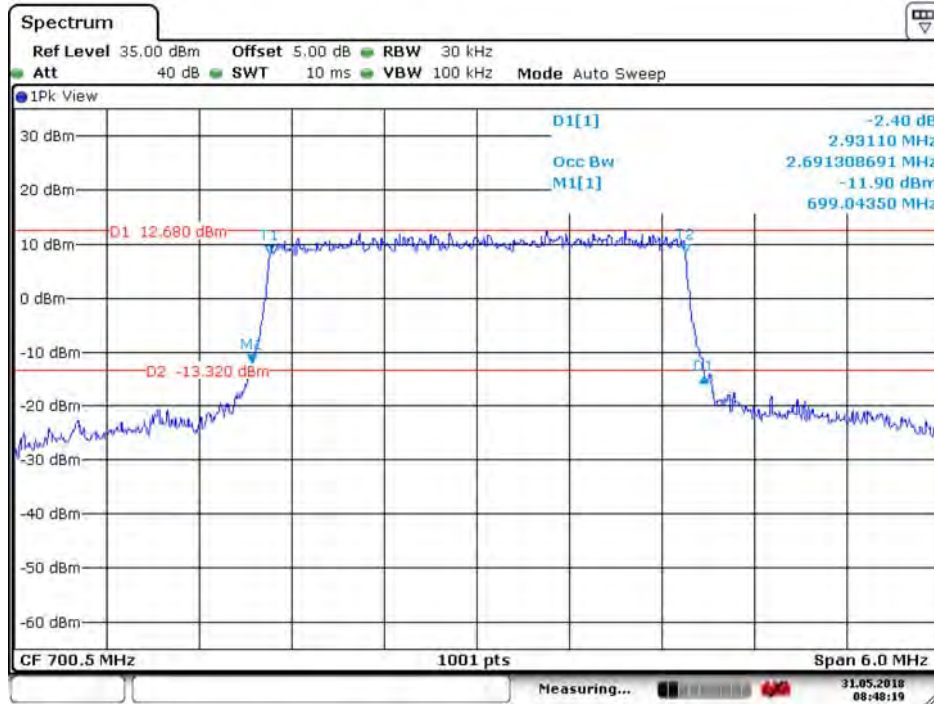
4.1.1.3.3 Test Channel = HCH



Date: 25 JUN 2018 13:37:07

4.1.1.4 Test Mode = LTE/TM1 3MHz

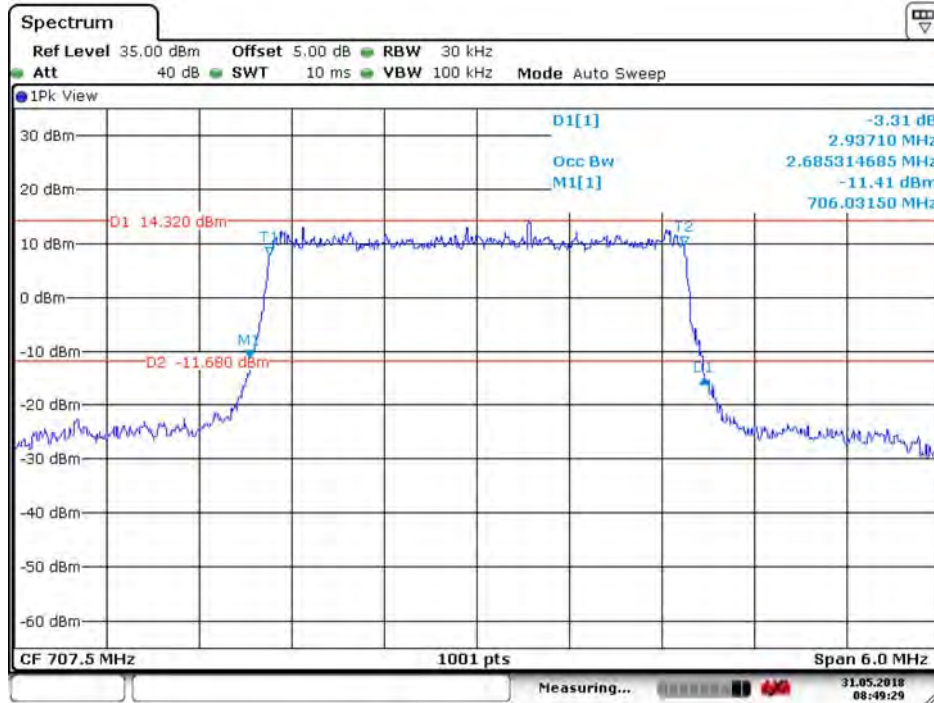
4.1.1.4.1 Test Channel = LCH



Date: 31.MAY.2018 08:48:19



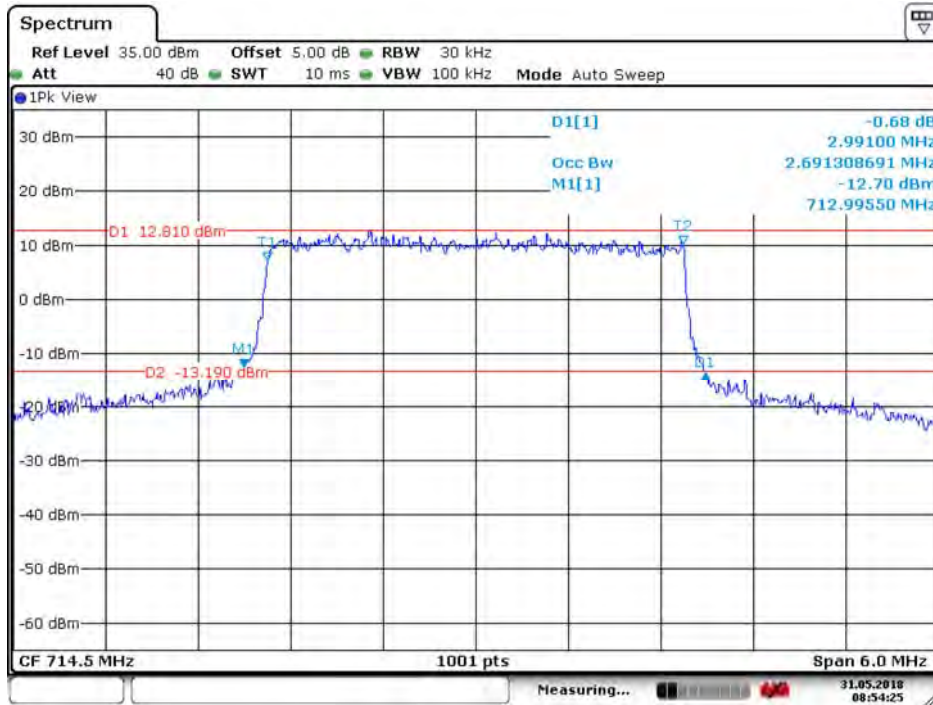
4.1.1.4.2 Test Channel = MCH



Date: 31.MAY.2018 08:49:29



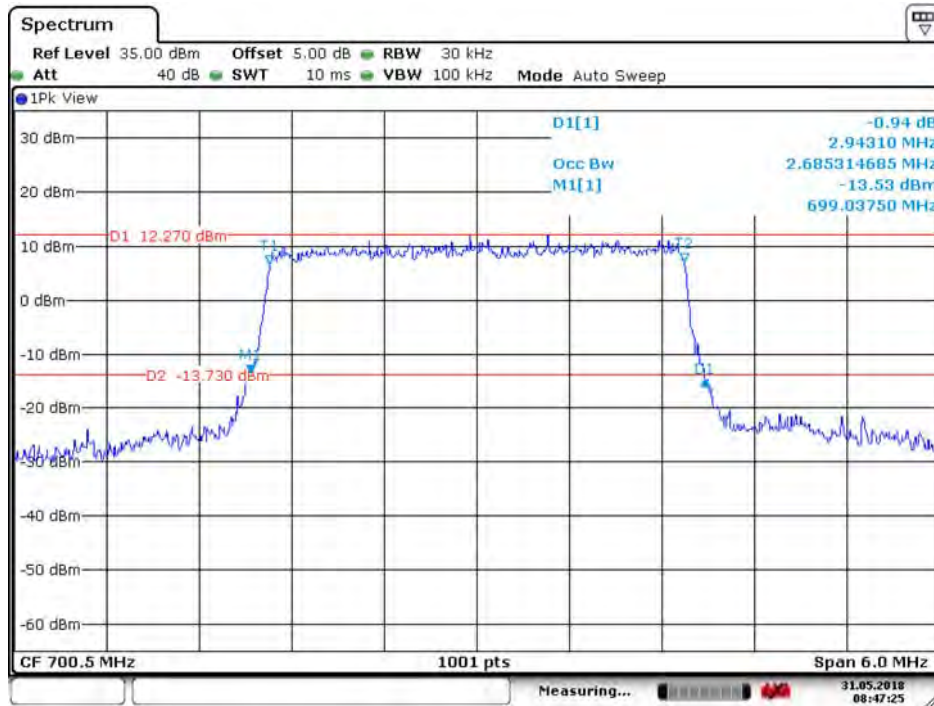
4.1.1.4.3 Test Channel = HCH



Date: 31.MAY.2018 08:54:26

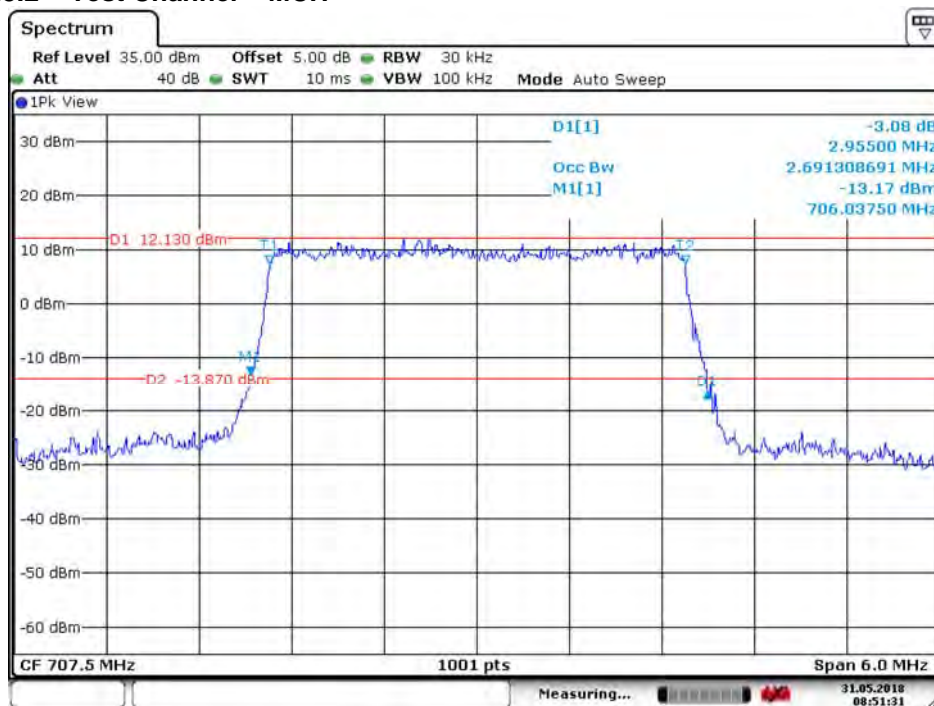
4.1.1.5 Test Mode = LTE/TM2 3MHz

4.1.1.5.1 Test Channel = LCH



Date: 31.MAY.2018 08:47:25

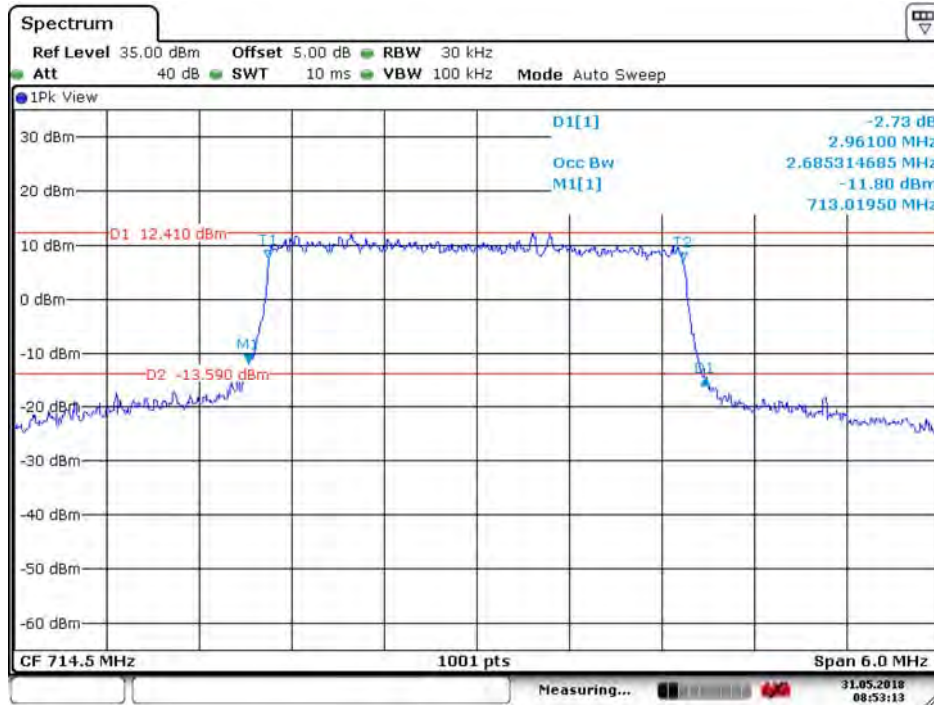
4.1.1.5.2 Test Channel = MCH



Date: 31.MAY.2018 08:51:31



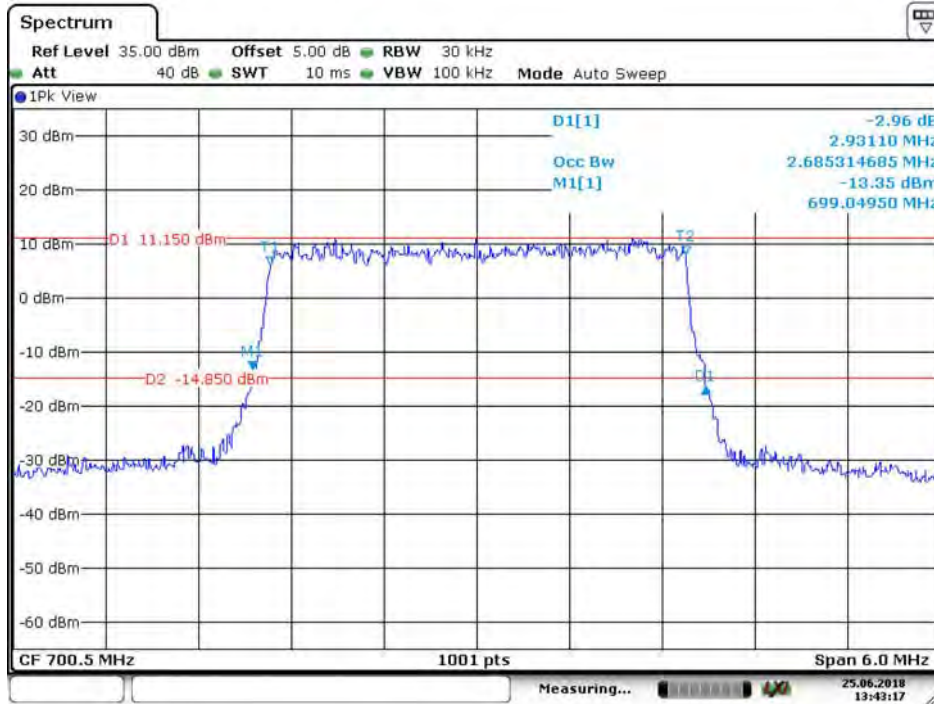
4.1.1.5.3 Test Channel = HCH



Date: 31.MAY.2018 08:53:13

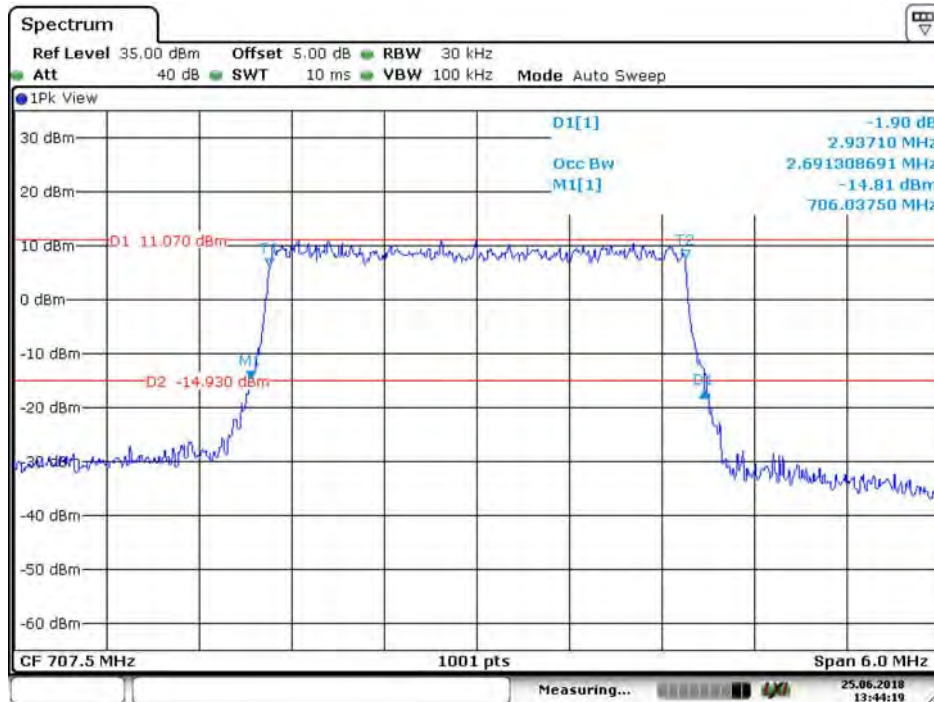
4.1.1.6 Test Mode = LTE/TM3 3MHz

4.1.1.6.1 Test Channel = LCH



Date: 25.JUN.2018 13:43:17

4.1.1.6.2 Test Channel = MCH

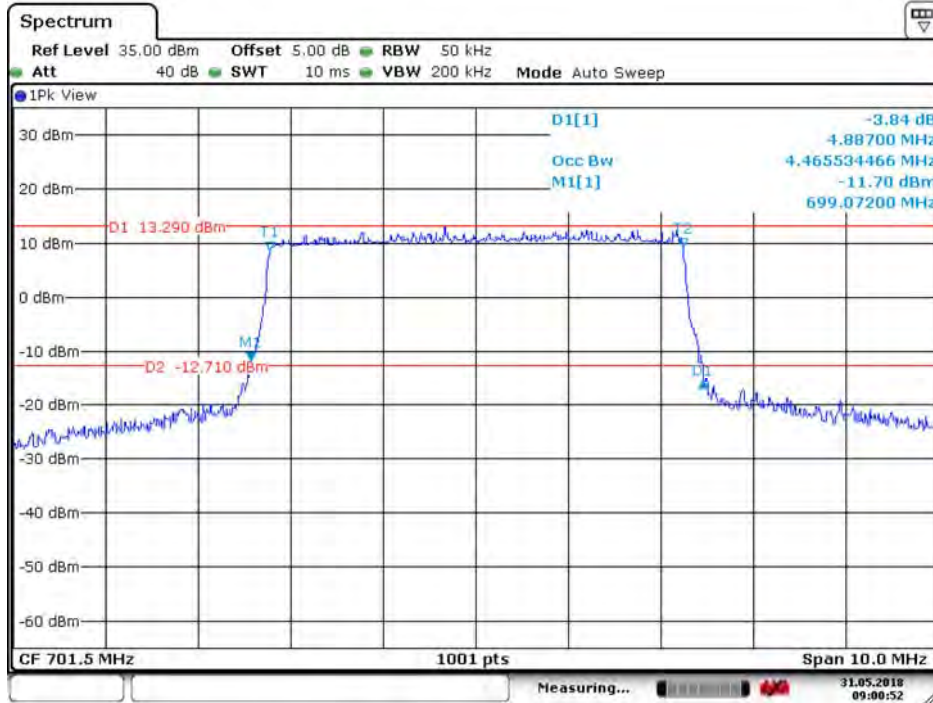


Date: 25.JUN.2018 13:44:19



4.1.1.7 Test Mode = LTE/TM1 5MHz

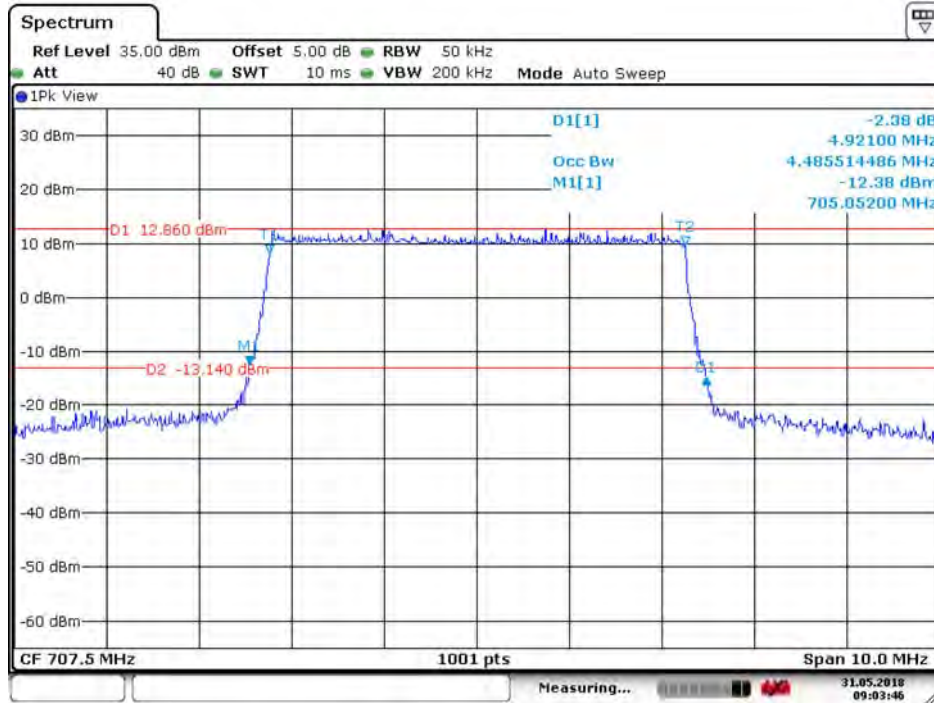
4.1.1.7.1 Test Channel = LCH



Date: 31.MAY.2018 09:00:52



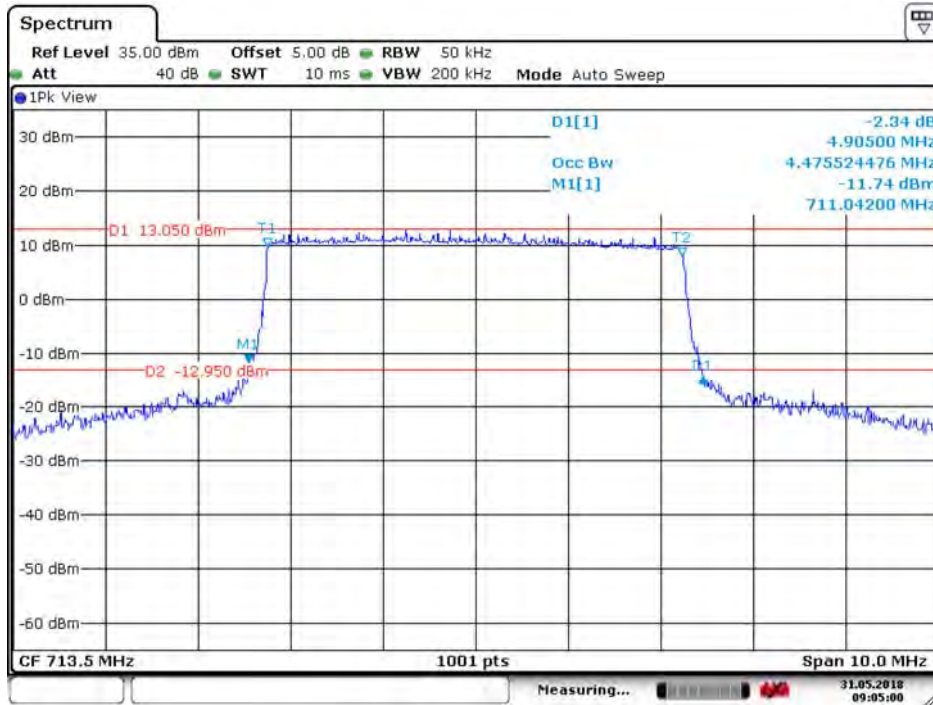
4.1.1.7.2 Test Channel = MCH



Date: 31.MAY.2018 09:03:46



4.1.1.7.3 Test Channel = HCH

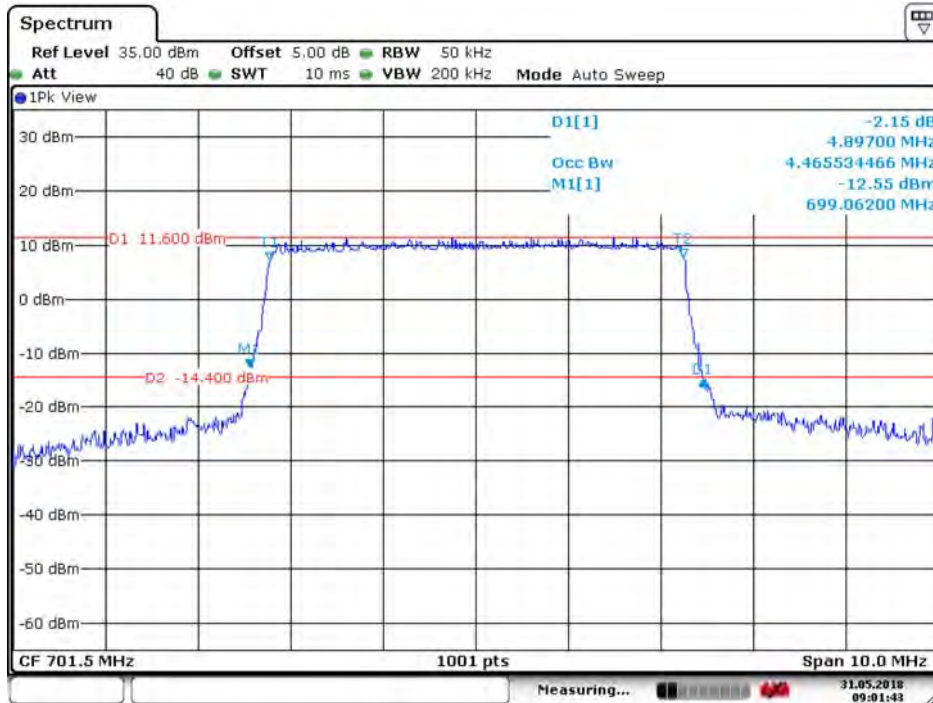


Date: 31.MAY.2018 09:05:00



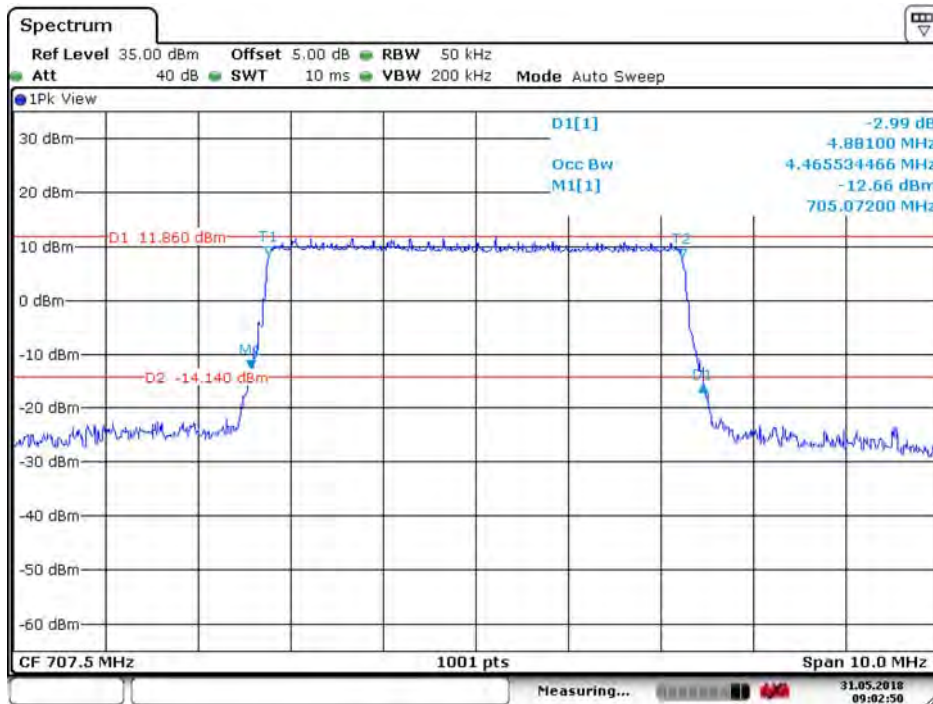
4.1.1.8 Test Mode = LTE/TM2 5MHz

4.1.1.8.1 Test Channel = LCH



Date: 31.MAY.2018 09:01:43

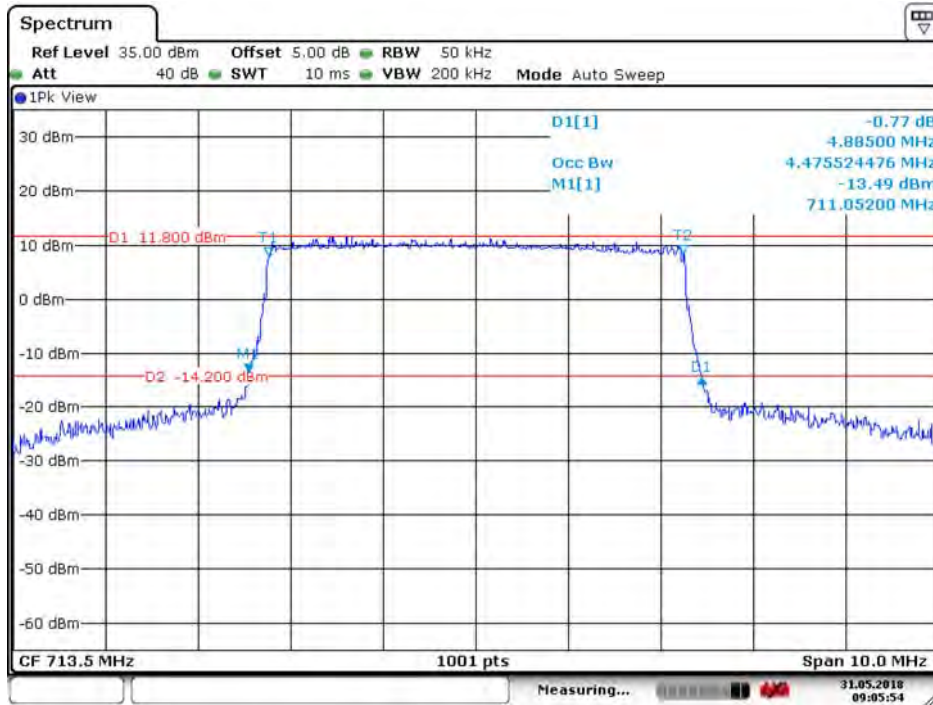
4.1.1.8.2 Test Channel = MCH



Date: 31.MAY.2018 09:02:50



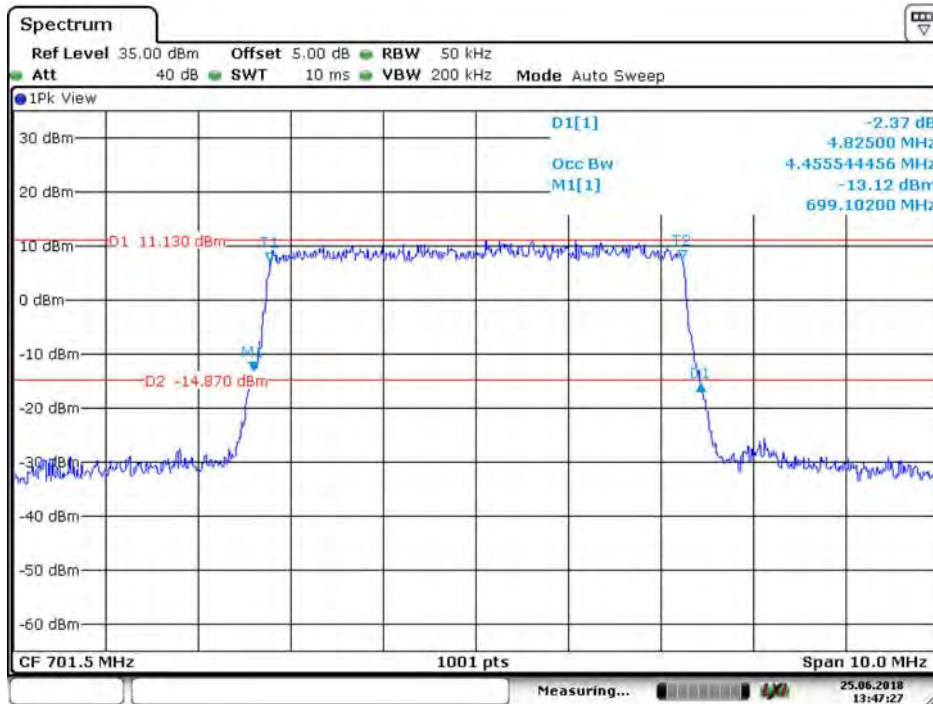
4.1.1.8.3 Test Channel = HCH



Date: 31.MAY.2018 09:05:55

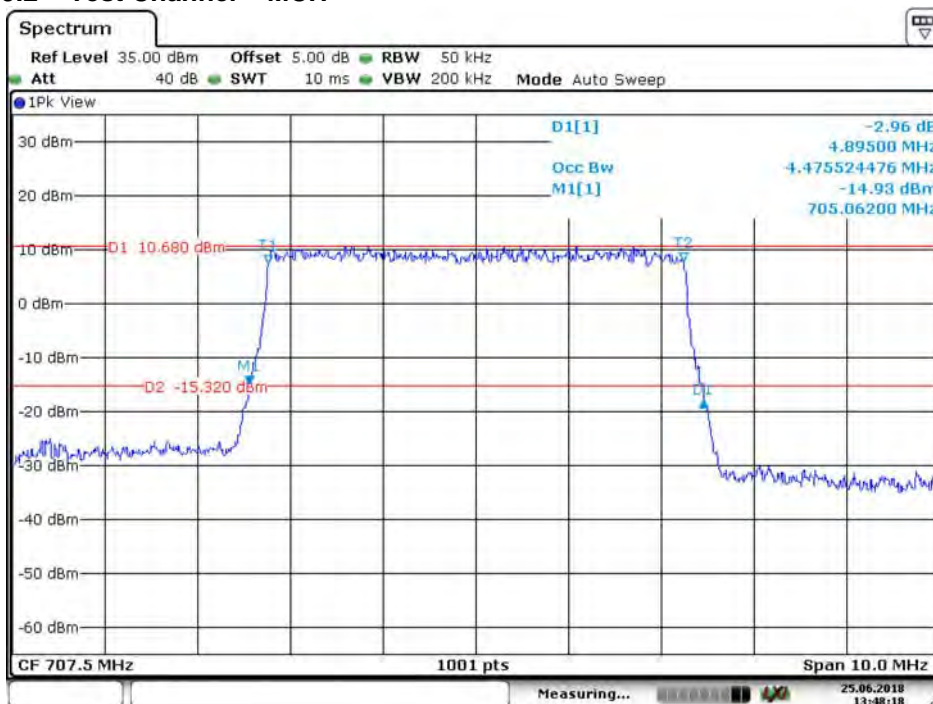
4.1.1.9 Test Mode = LTE/TM3 5MHz

4.1.1.9.1 Test Channel = LCH



Date: 25 JUN 2018 13:47:27

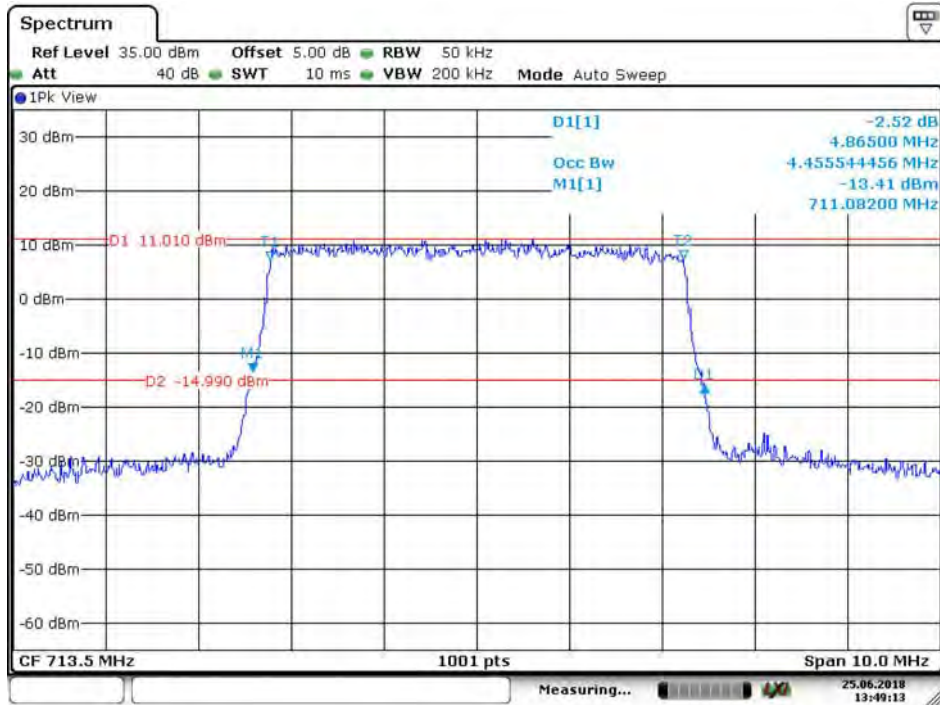
4.1.1.9.2 Test Channel = MCH



Date: 25 JUN 2018 13:48:19



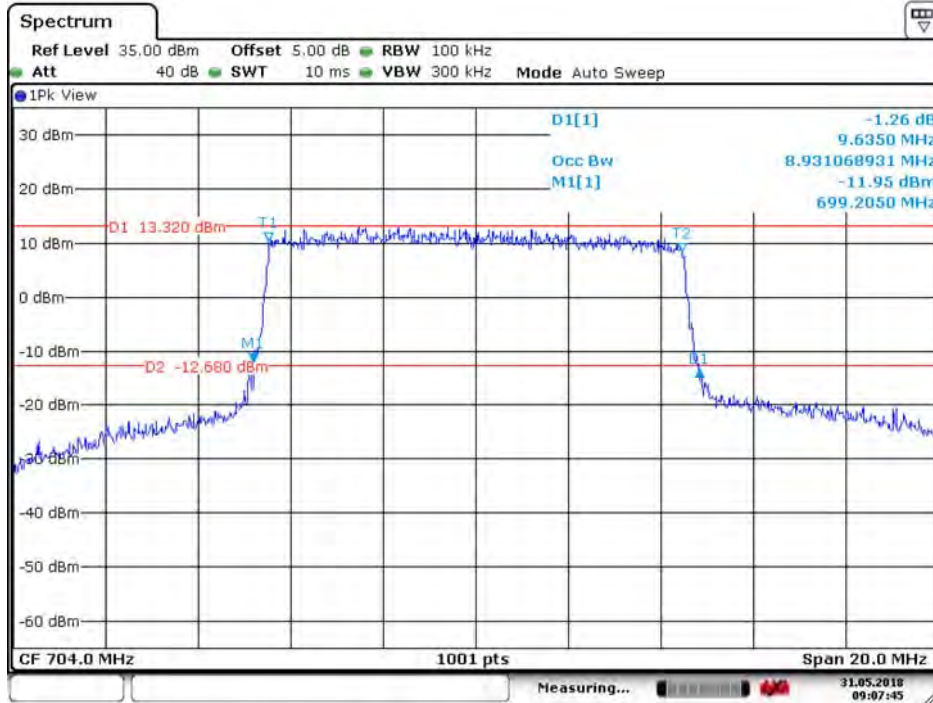
4.1.1.9.3 Test Channel = HCH



Date: 25 JUN 2018 13:49:14

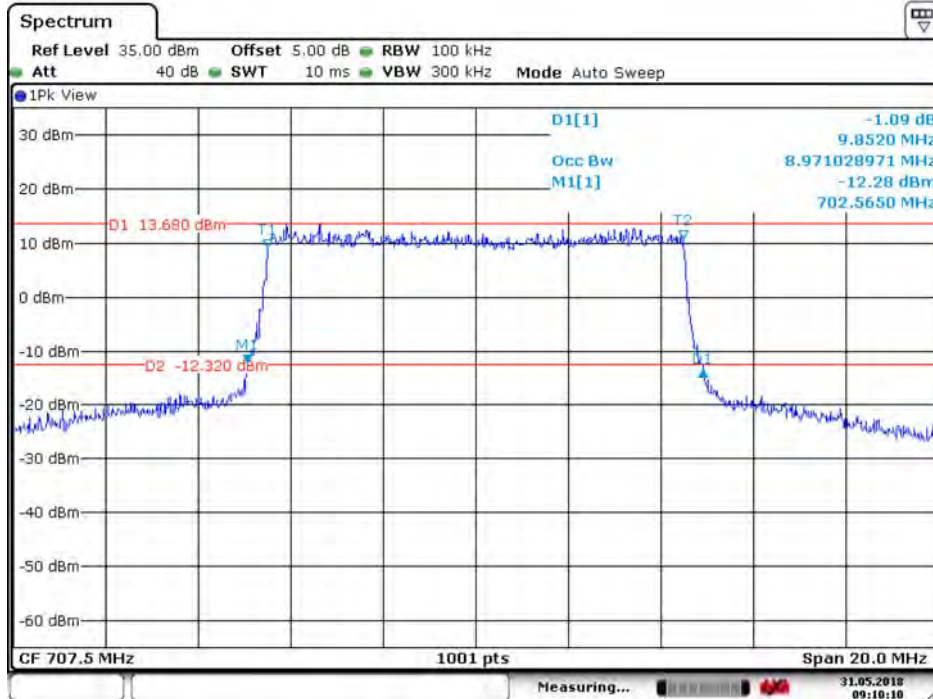
4.1.1.10 Test Mode = LTE/TM1 10MHz

4.1.1.10.1 Test Channel = LCH



Date: 31.MAY.2018 09:07:45

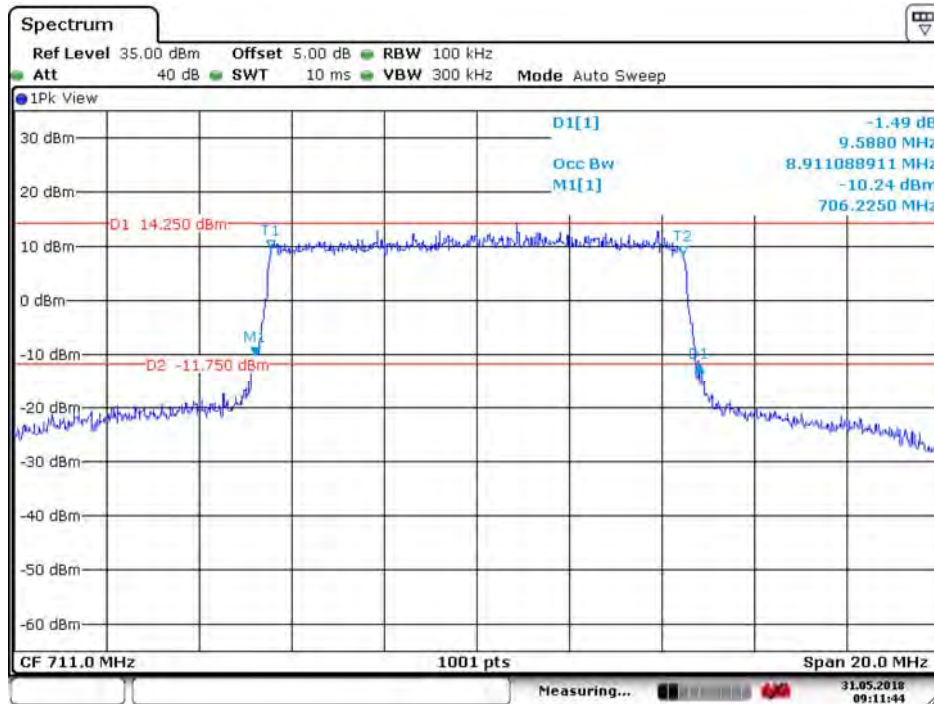
4.1.1.10.2 Test Channel = MCH



Date: 31.MAY.2018 09:10:11



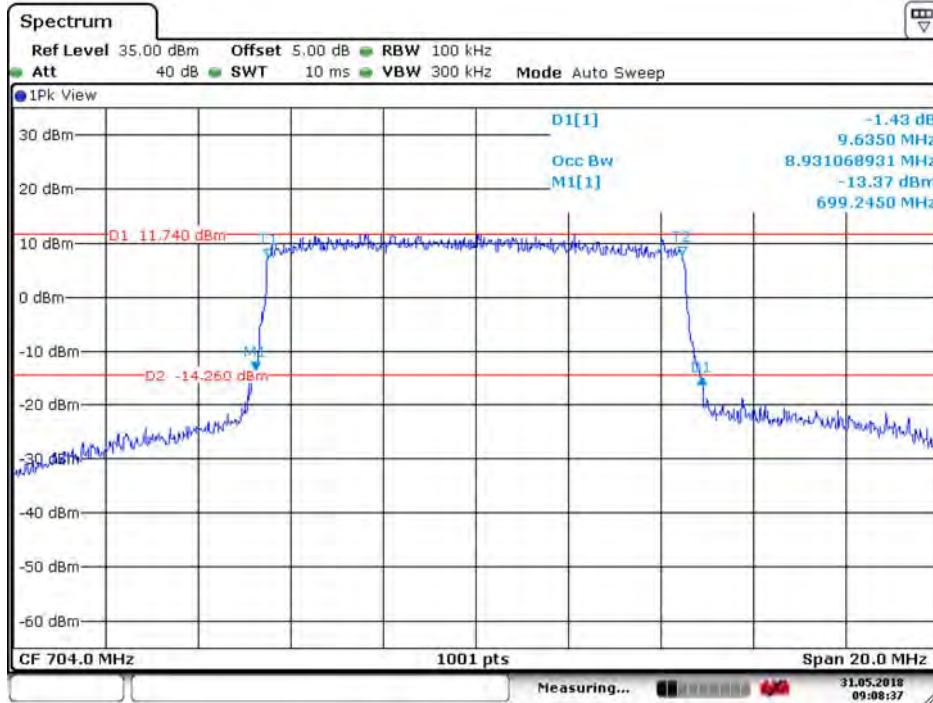
4.1.1.10.3 Test Channel = HCH



Date: 31.MAY.2018 09:11:45

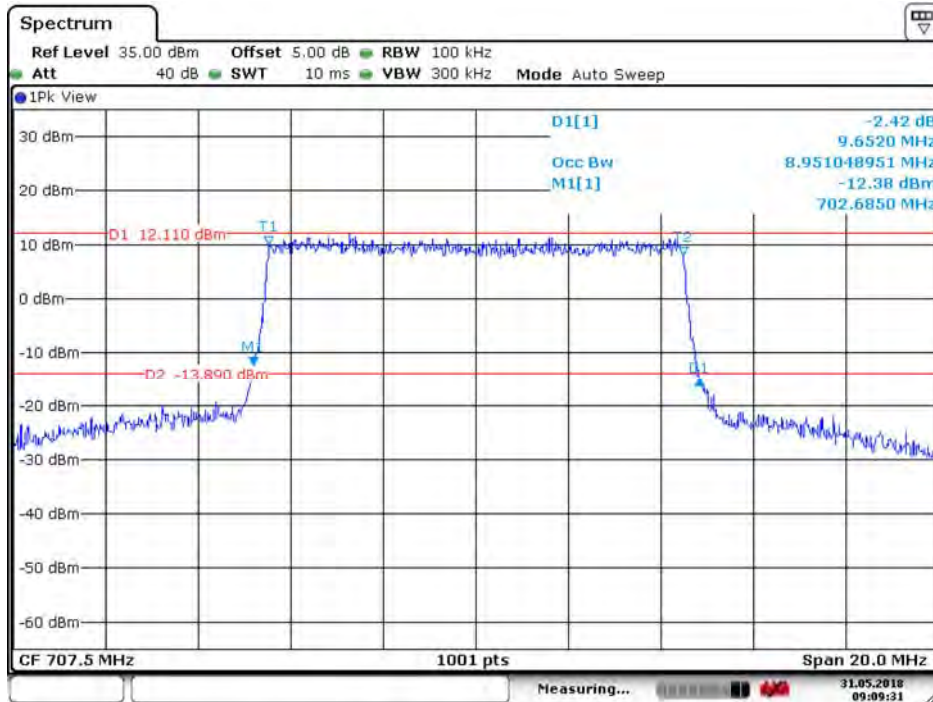
4.1.1.11 Test Mode = LTE/TM2 10MHz

4.1.1.11.1 Test Channel = LCH



Date: 31.MAY.2018 09:08:37

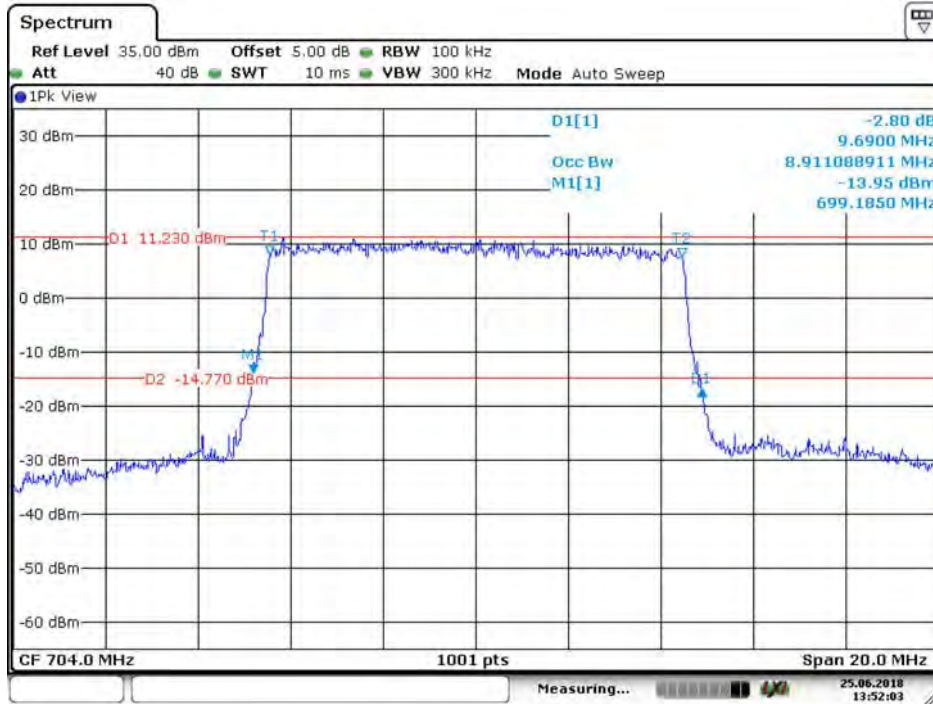
4.1.1.11.2 Test Channel = MCH



Date: 31.MAY.2018 09:09:31

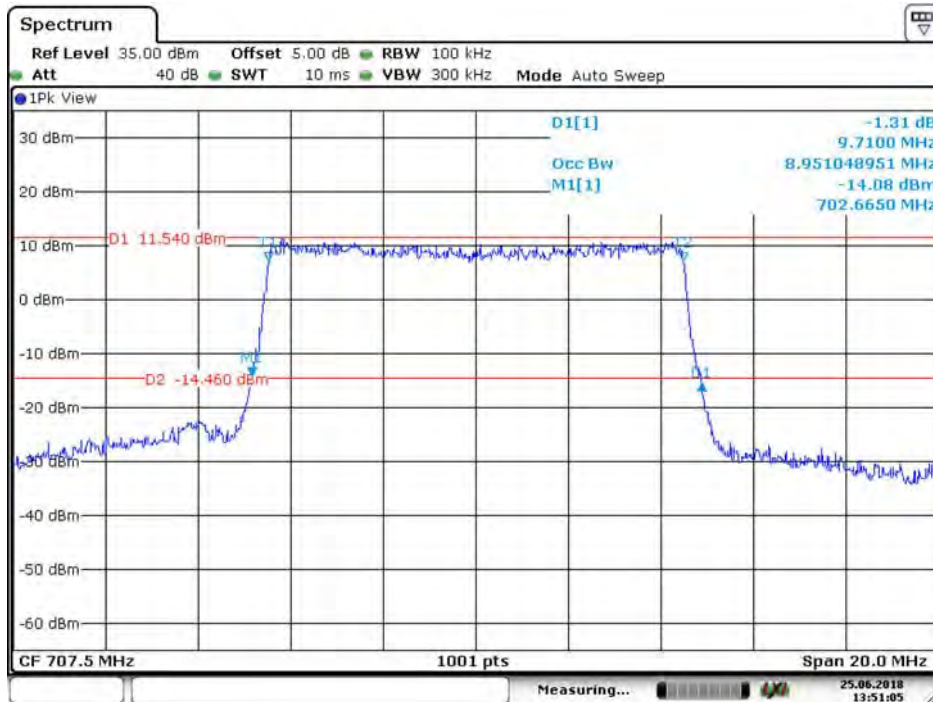
4.1.1.12 Test Mode = LTE/TM3 10MHz

4.1.1.12.1 Test Channel = LCH



Date: 25 JUN 2018 13:52:03

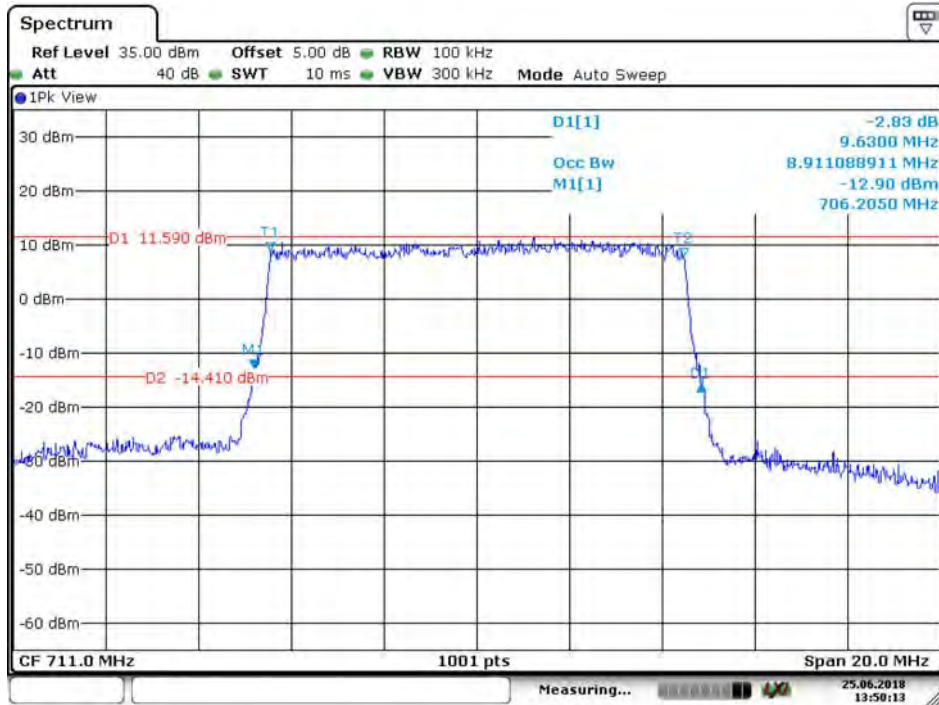
4.1.1.12.2 Test Channel = MCH



Date: 25 JUN 2018 13:51:06



4.1.1.12.3 Test Channel = HCH



Date: 25 JUN 2018 13:50:14

5 Band Edges Compliance

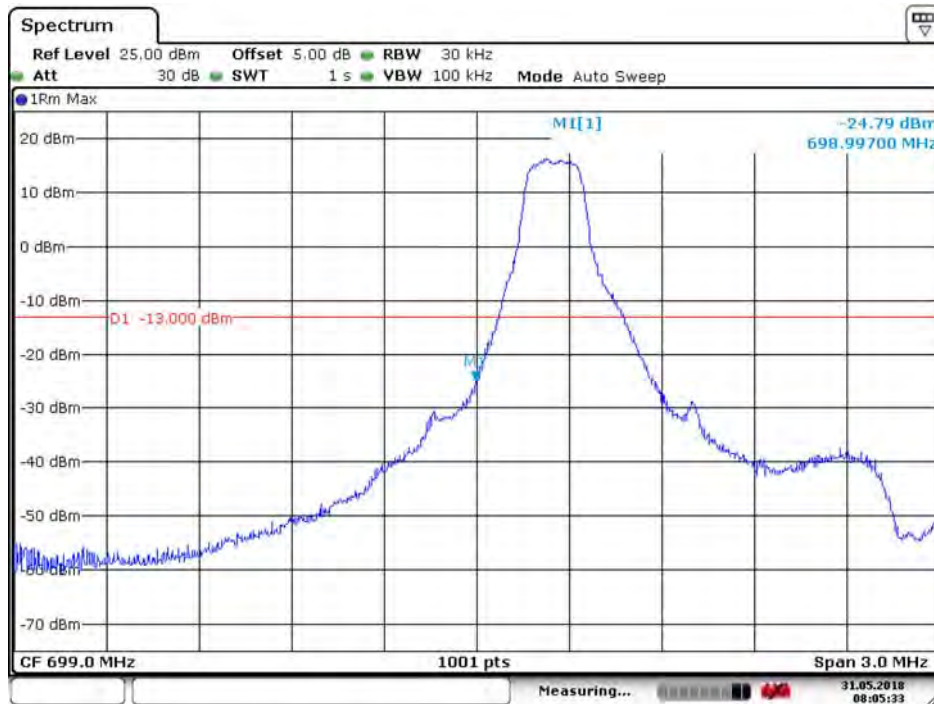
5.1 For LTE

5.1.1 Test Band = LTE BAND 12

5.1.1.1 Test Mode = LTE/TM1 1.4MHz

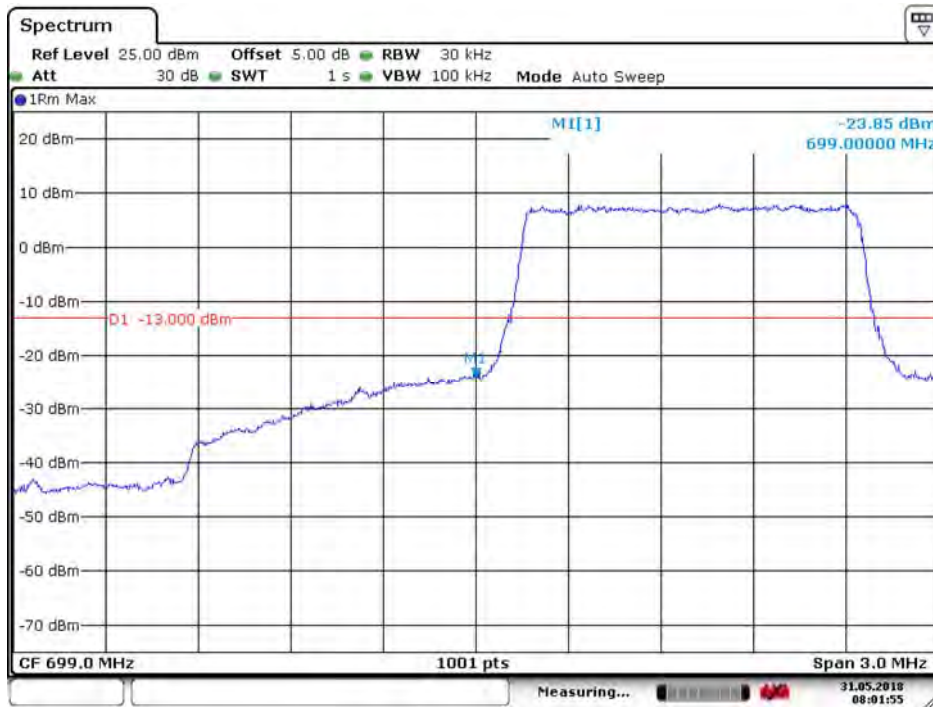
5.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1 Test RB=1RB



Date: 31.MAY.2018 08:05:34

5.1.1.1.2 Test RB=6RB

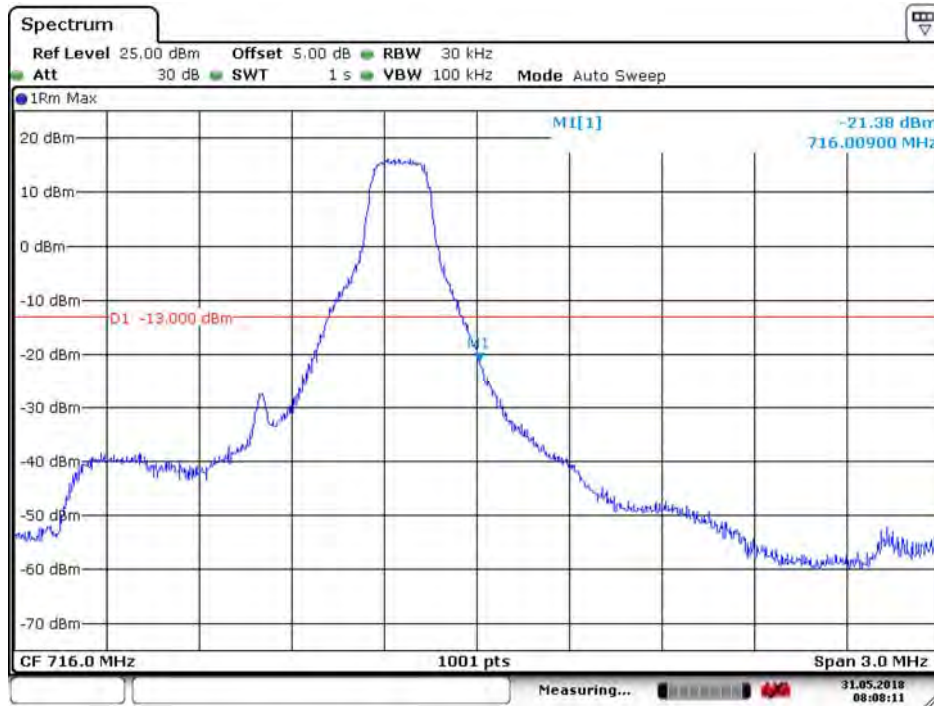


Date: 31.MAY.2018 08:01:56



5.1.1.1.2 Test Channel = HCH

5.1.1.1.2.1 Test RB=1RB



Date: 31.MAY.2018 08:08:11



5.1.1.1.2.2 Test RB=6RB



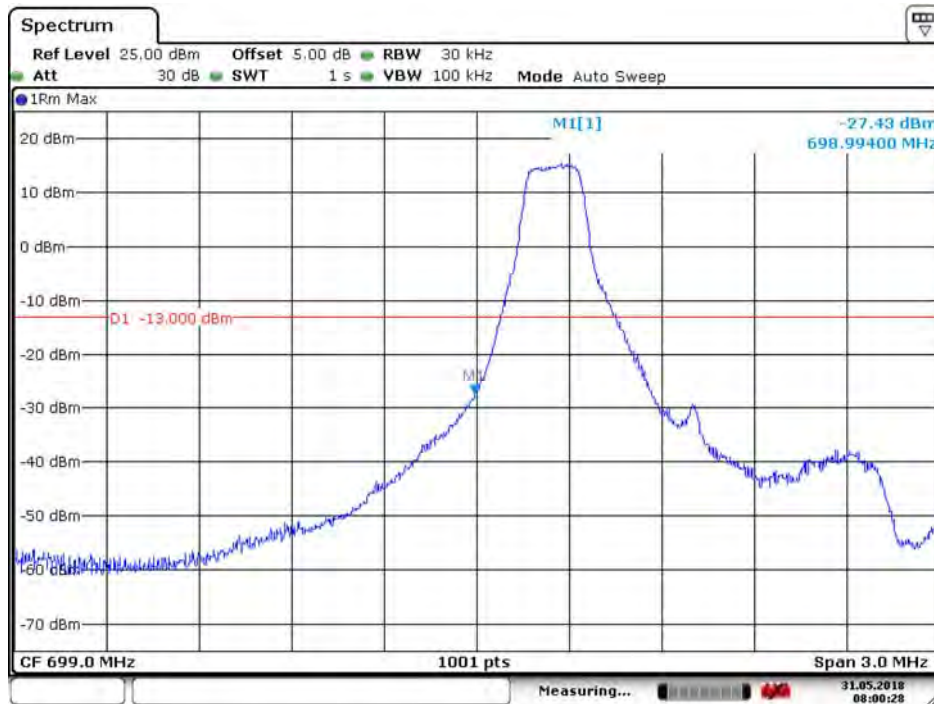
Date: 31.MAY.2018 08:03:13



5.1.1.2 Test Mode = LTE/TM2 1.4MHz

5.1.1.2.1 Test Channel = LCH

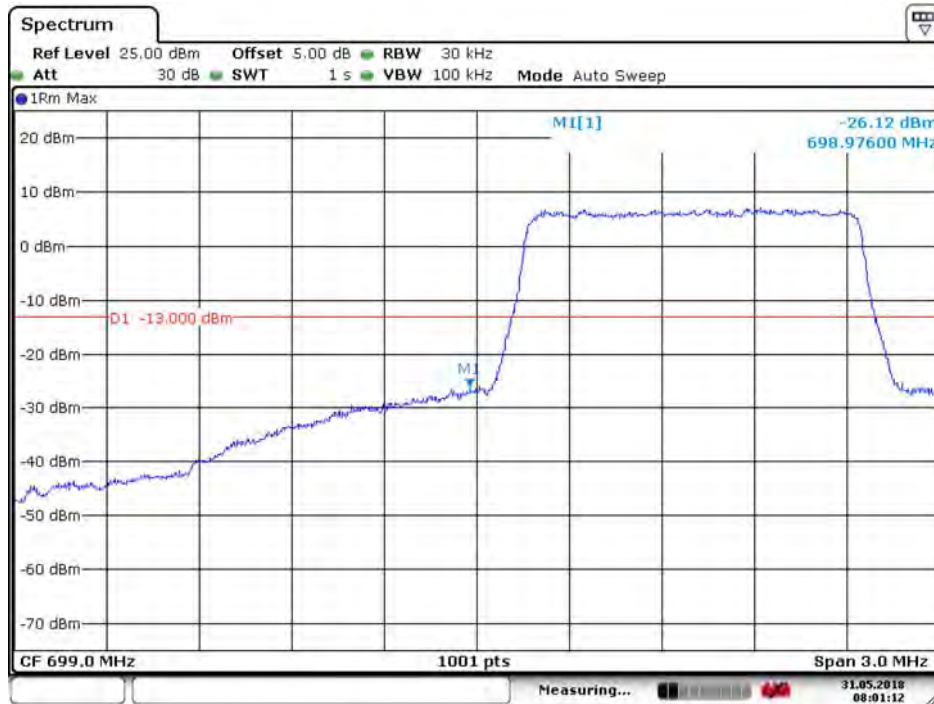
5.1.1.2.1.1 Test RB=1RB



Date: 31.MAY.2018 08:00:29



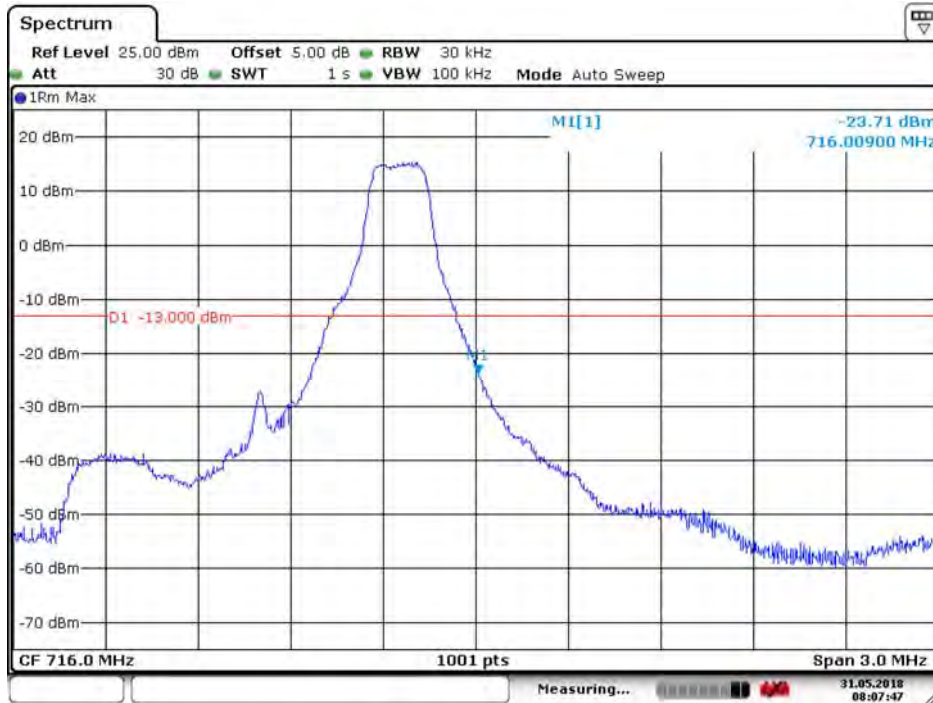
5.1.1.2.1.2 Test RB=6RB



Date: 31.MAY.2018 08:01:12

5.1.1.2.2 Test Channel = HCH

5.1.1.2.2.1 Test RB=1RB

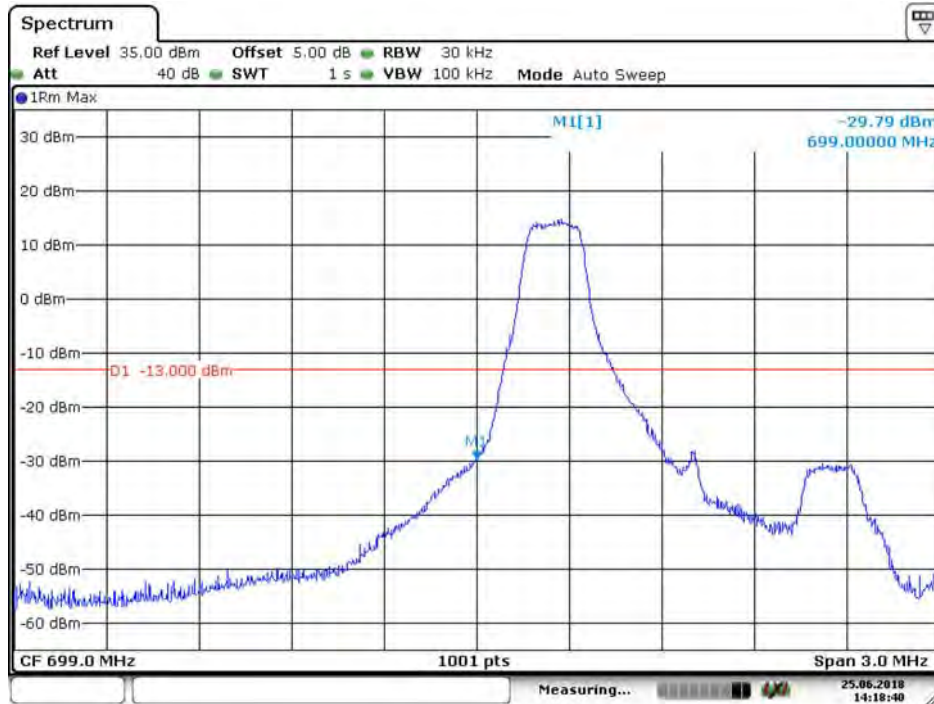


Date: 31.MAY.2018 08:07:48

5.1.1.3 Test Mode = LTE/TM3 1.4MHz

5.1.1.3.1 Test Channel = LCH

5.1.1.3.1.1 Test RB=1RB



Date: 25 JUN.2018 14:18:40

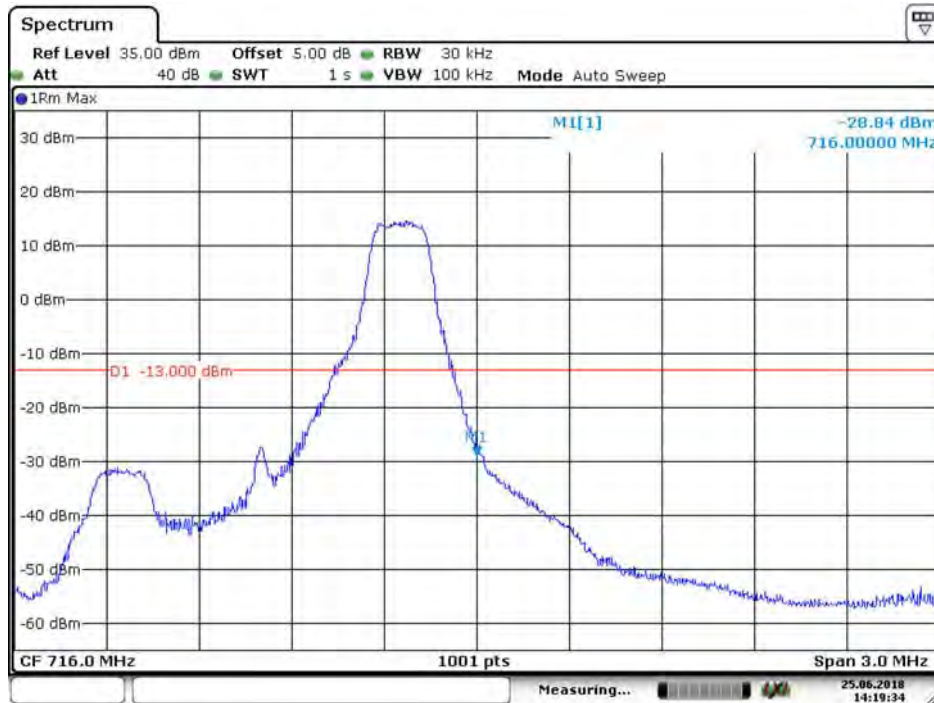
5.1.1.3.1.2 Test RB=6RB



Date: 25 JUN.2018 14:18:20

5.1.1.3.2 Test Channel = HCH

5.1.1.3.2.1 Test RB=1RB



Date: 25 JUN 2018 14:19:35

5.1.1.3.2.2 Test RB=6RB



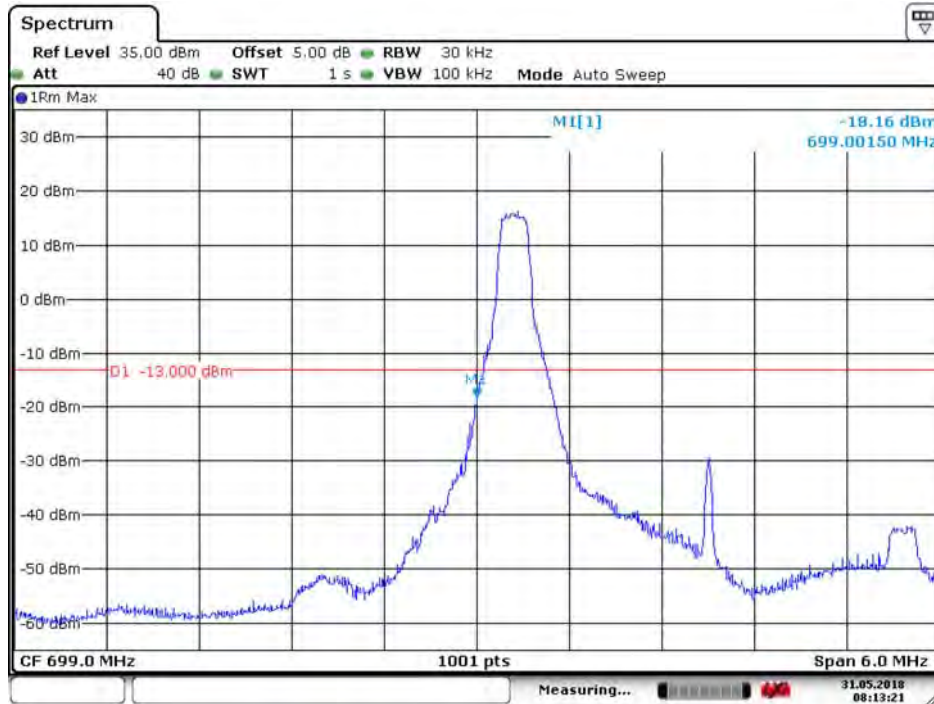
Date: 25 JUN 2018 14:20:01



5.1.1.4 Test Mode = LTE/TM1 3MHz

5.1.1.4.1 Test Channel = LCH

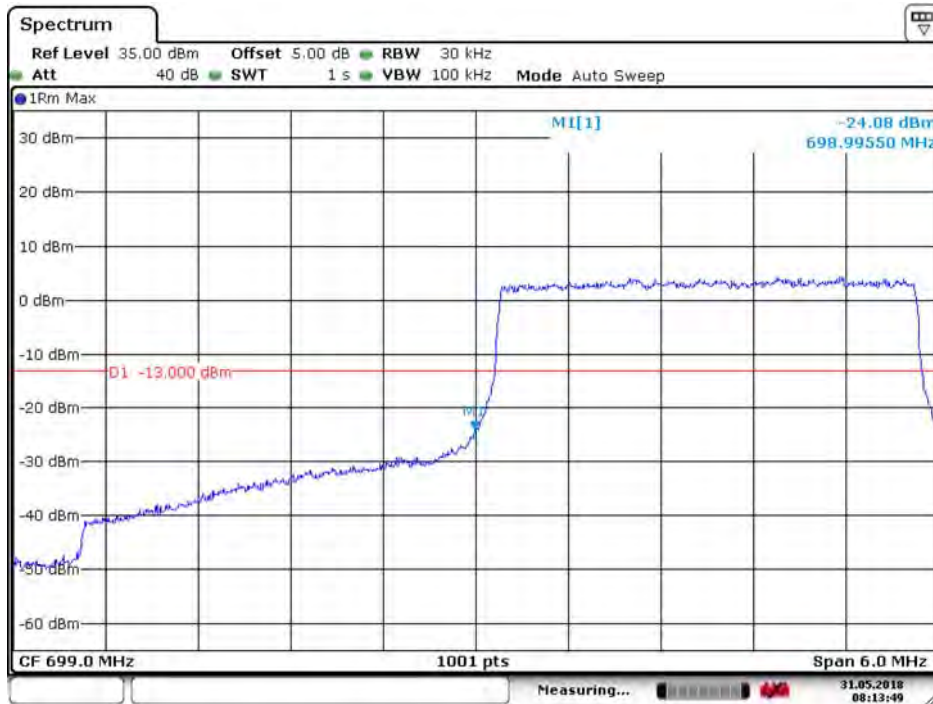
5.1.1.4.1.1 Test RB=1RB



Date: 31.MAY.2018 08:13:21



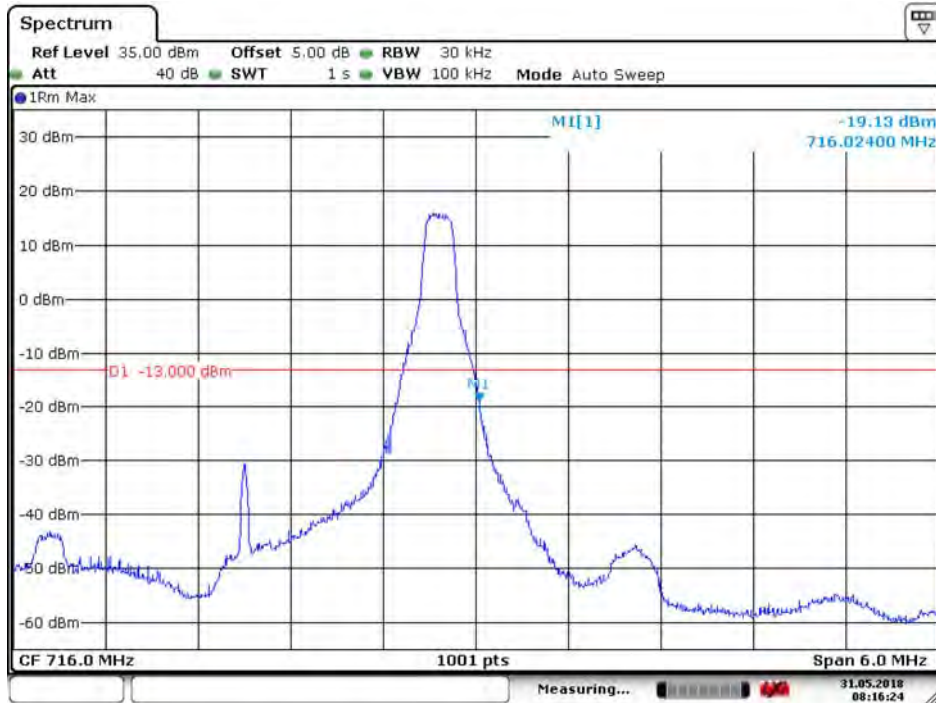
5.1.1.4.1.2 Test RB=15RB



Date: 31.MAY.2018 08:13:49

5.1.1.4.2 Test Channel = HCH

5.1.1.4.2.1 Test RB=1RB



Date: 31.MAY.2018 08:16:25



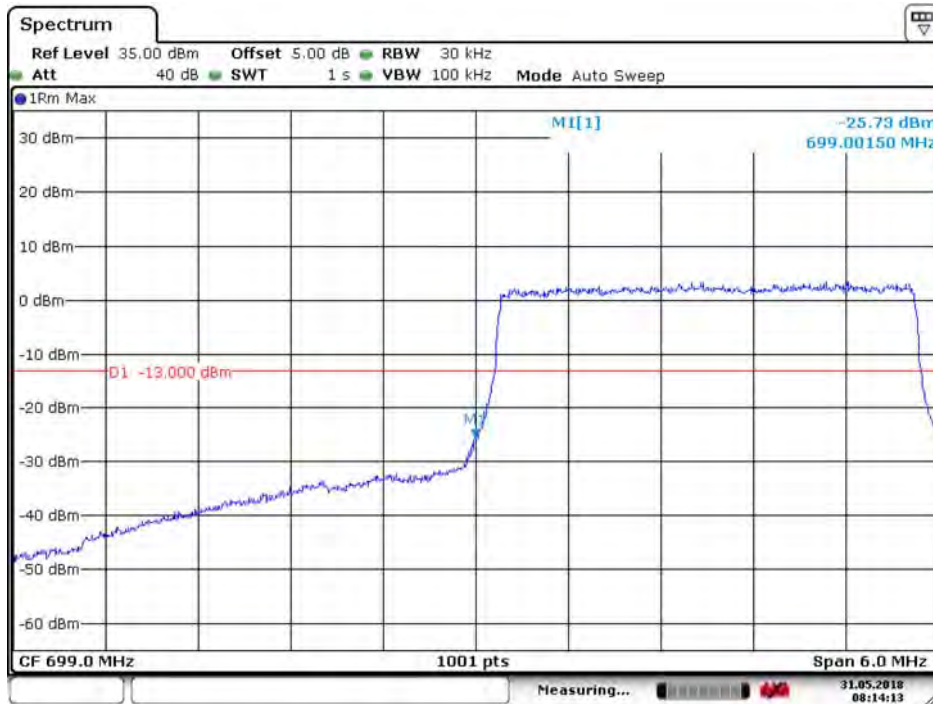
5.1.1.4.2.2 Test RB=15RB



Date: 31.MAY.2018 08:15:45



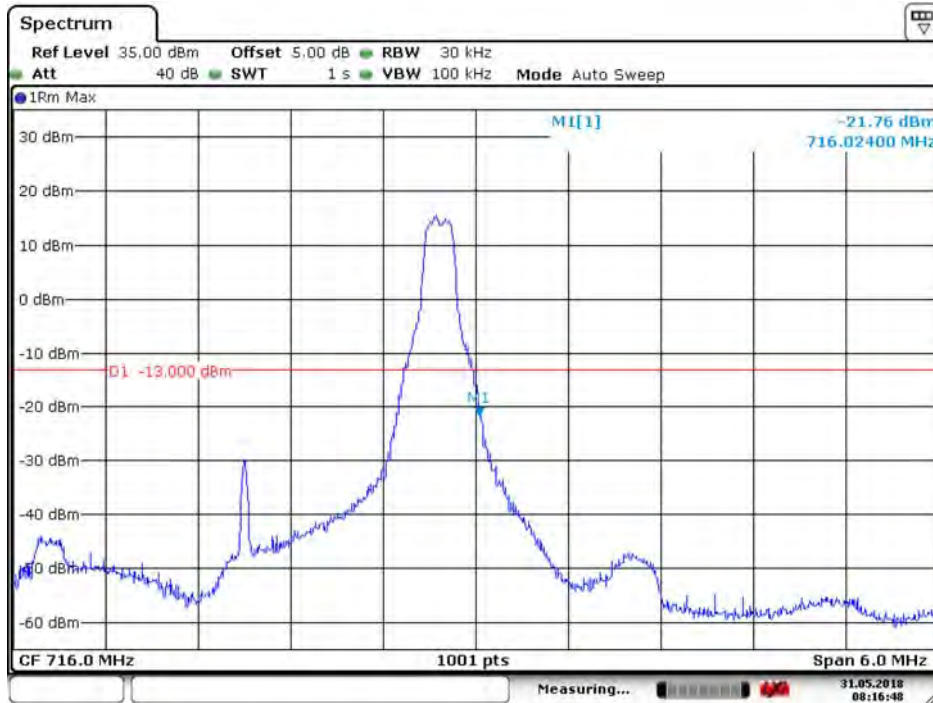
5.1.1.5.1.2 Test RB=15RB



Date: 31.MAY.2018 08:14:13

5.1.1.5.2 Test Channel = HCH

5.1.1.5.2.1 Test RB=1RB



Date: 31.MAY.2018 08:16:49

5.1.1.5.3 Test RB=15RB

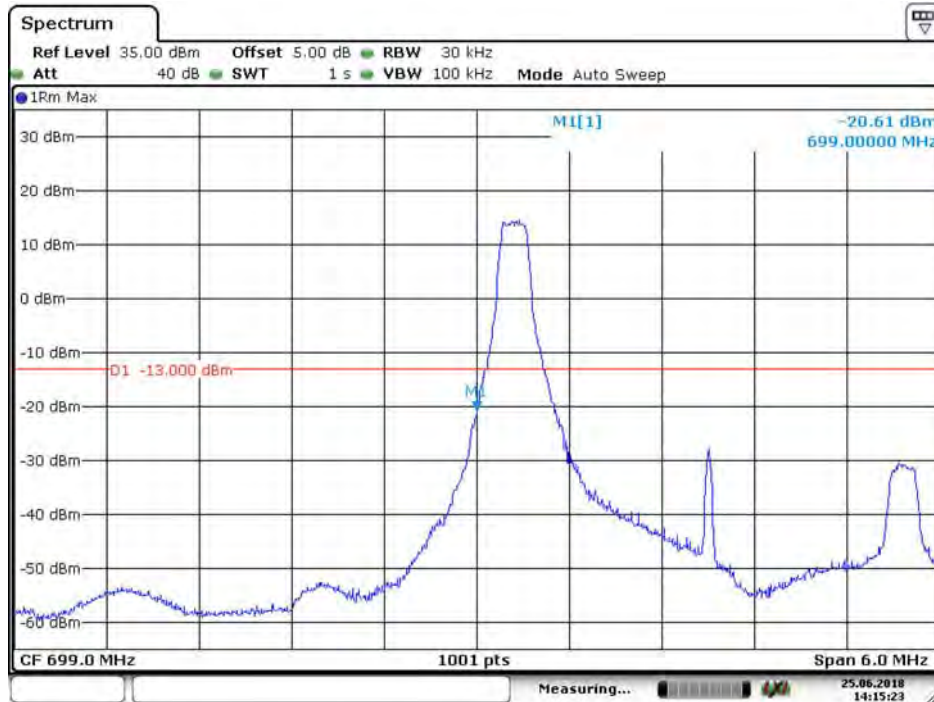


Date: 31.MAY.2018 08:15:18

5.1.1.6 Test Mode = LTE/TM3 3MHz

5.1.1.6.1 Test Channel = LCH

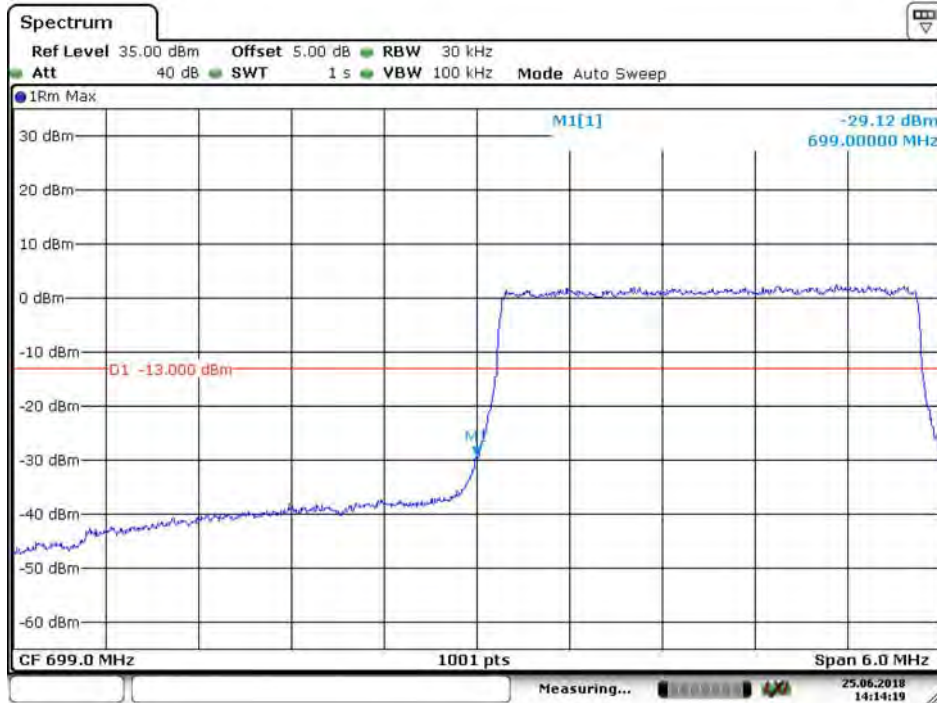
5.1.1.6.1.1 Test RB=1RB



Date: 25 JUN 2018 14:15:23



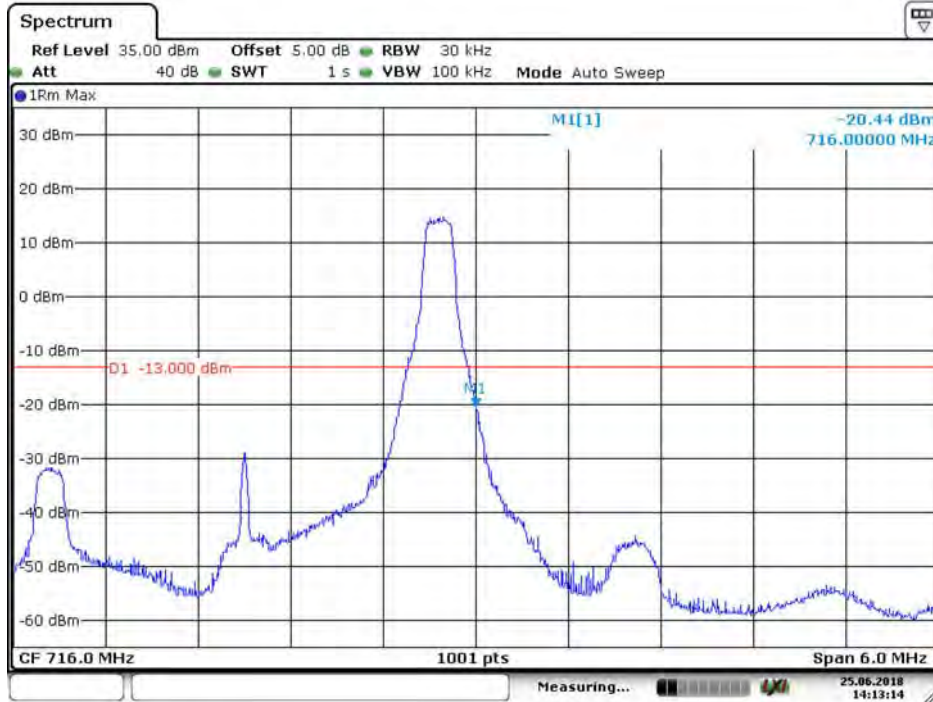
5.1.1.6.1.2 Test RB=15RB



Date: 25 JUN 2018 14:14:19

5.1.1.6.2 Test Channel = HCH

5.1.1.6.2.1 Test RB=1RB



Date: 25 JUN 2018 14:13:14

5.1.1.6.2.2 Test RB=15RB

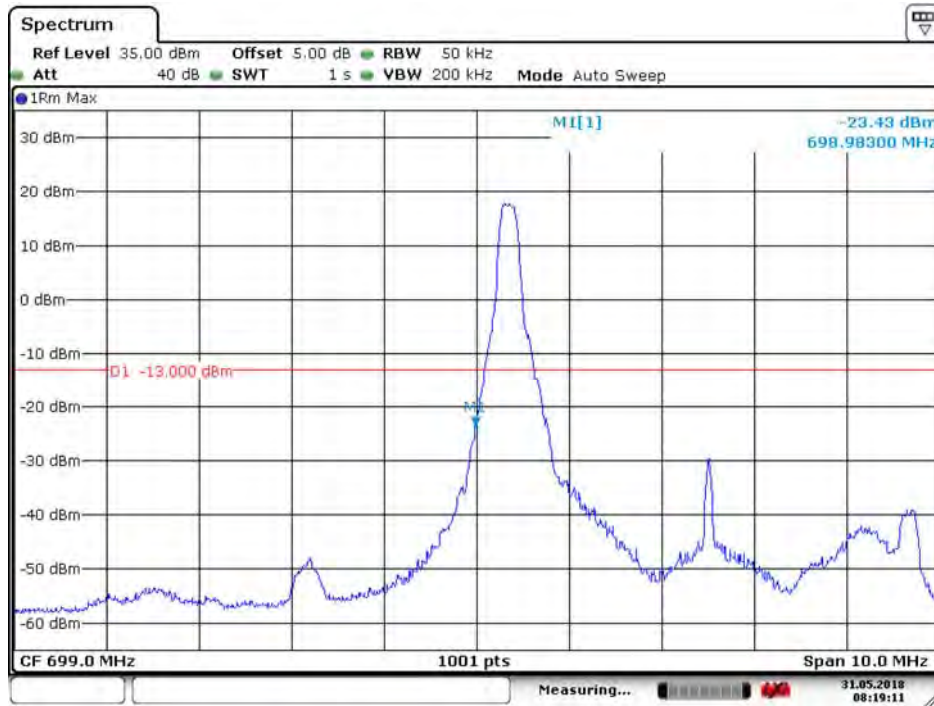


Date: 25 JUN 2018 14:12:49

5.1.1.7 Test Mode = LTE/TM1 5MHz

5.1.1.7.1 Test Channel = LCH

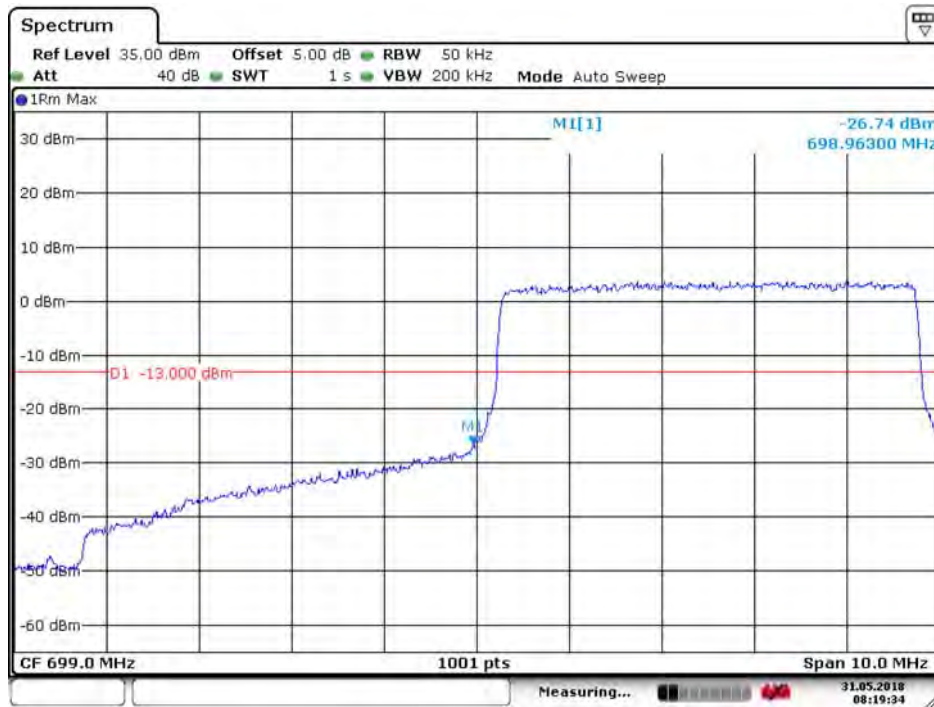
5.1.1.7.1.1 Test RB=1RB



Date: 31.MAY.2018 08:19:11



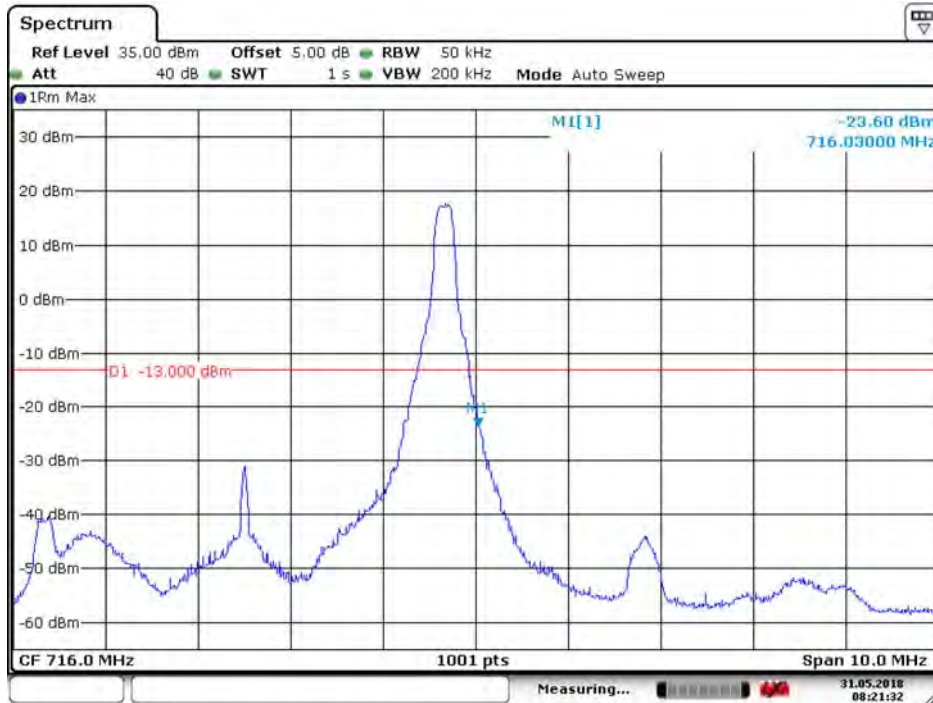
5.1.1.7.1.2 Test RB=25RB



Date: 31.MAY.2018 08:19:34

5.1.1.7.2 Test Channel = HCH

5.1.1.7.2.1 Test RB=1RB



Date: 31.MAY.2018 08:21:32



5.1.1.7.2.2 Test RB=25RB



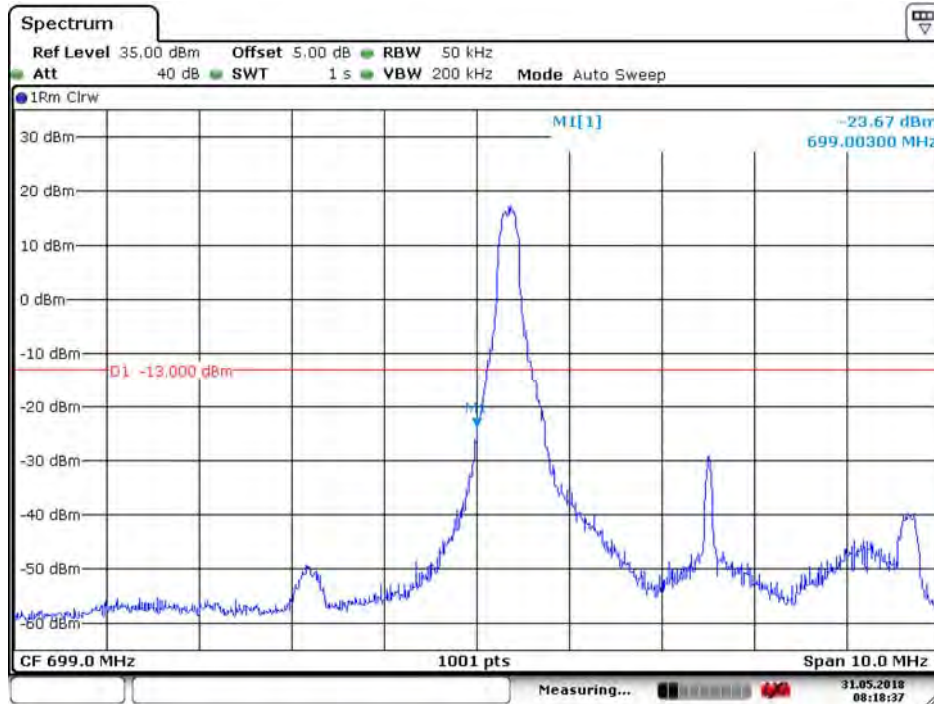
Date: 31.MAY.2018 08:21:10



5.1.1.8 Test Mode = LTE/TM2 5MHz

5.1.1.8.1 Test Channel = LCH

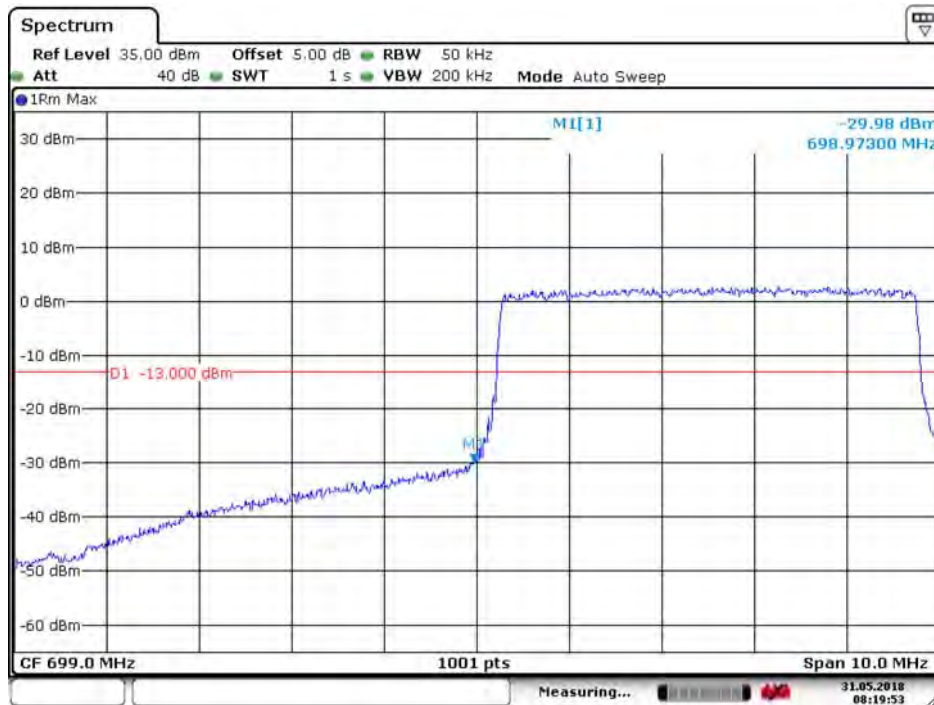
5.1.1.8.1.1 Test RB=1RB



Date: 31.MAY.2018 08:18:37



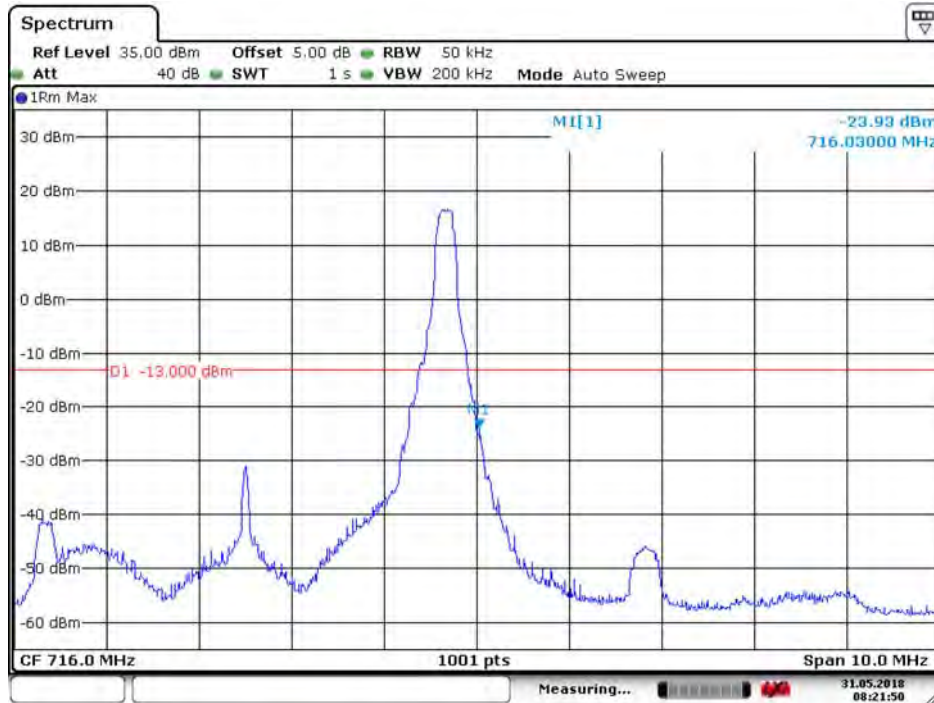
5.1.1.8.1.2 Test RB=25RB



Date: 31.MAY.2018 08:19:54

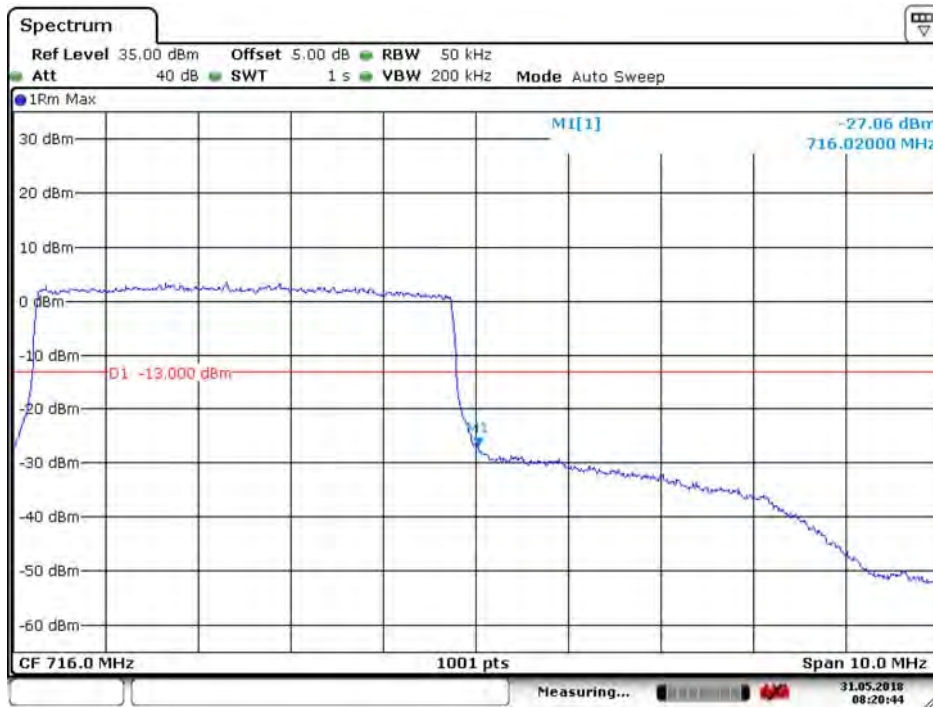
5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=1RB



Date: 31.MAY.2018 08:21:51

5.1.1.8.2.2 Test RB=25RB

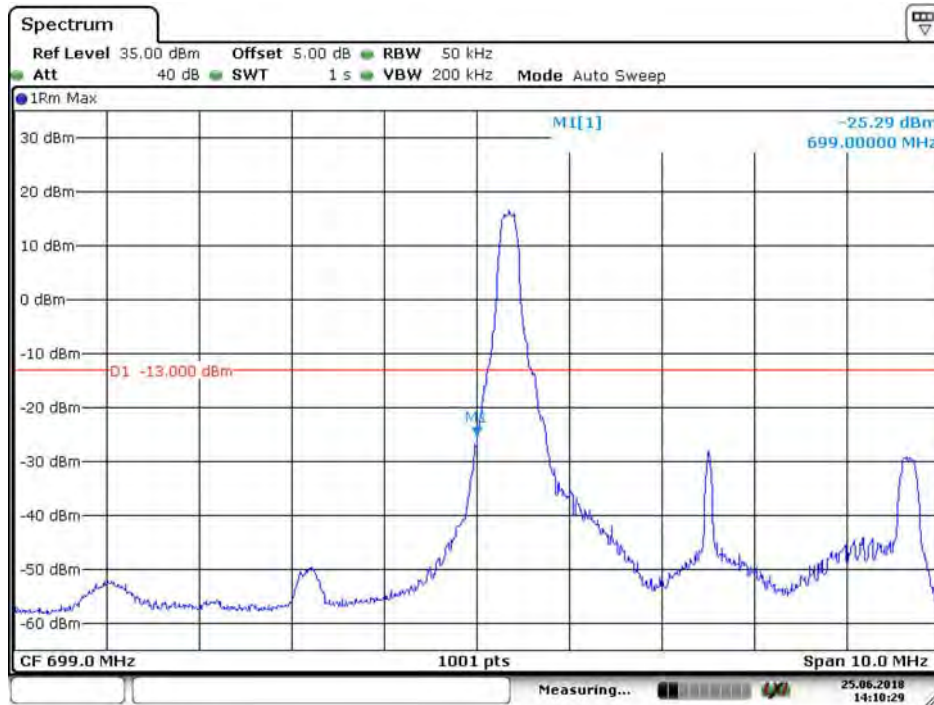


Date: 31.MAY.2018 08:20:45

5.1.1.9 Test Mode = LTE/TM2 5MHz

5.1.1.9.1 Test Channel = LCH

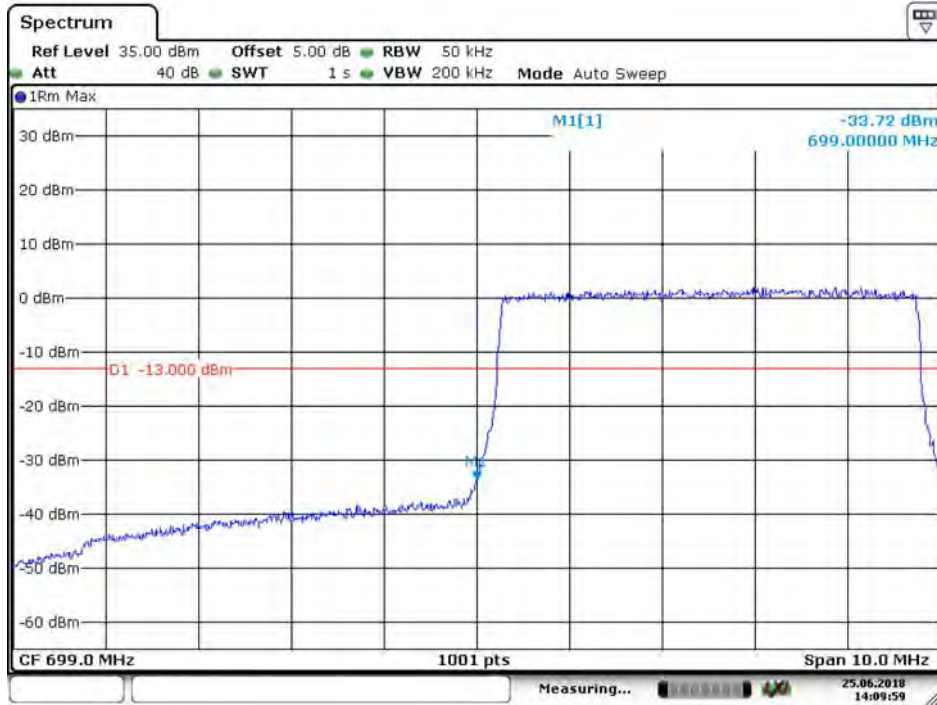
5.1.1.9.1.1 Test RB=1RB



Date: 25 JUN 2018 14:10:29



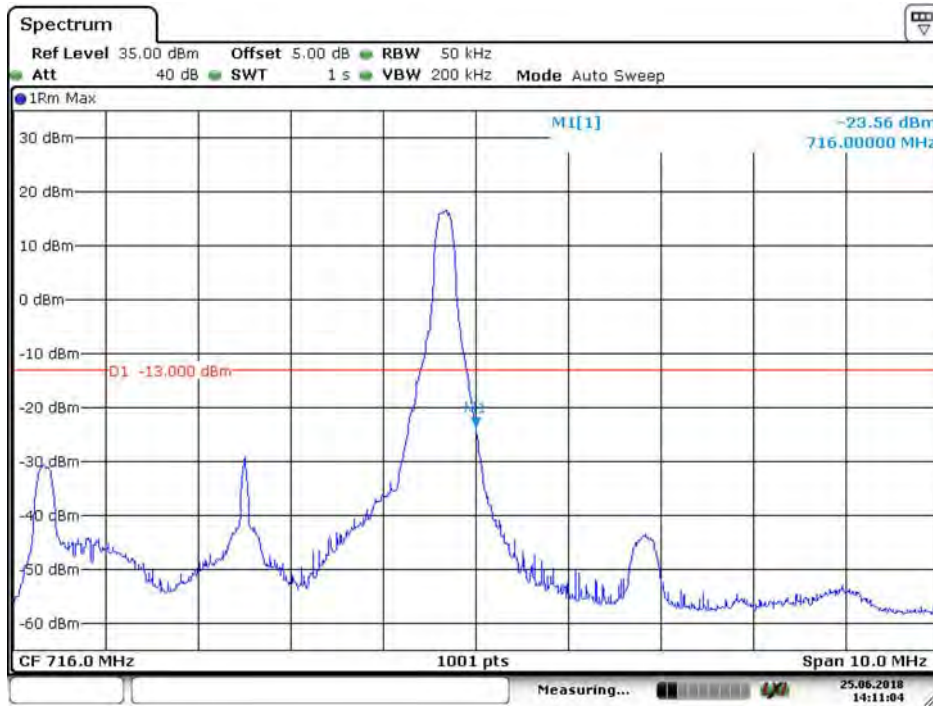
5.1.1.9.1.2 Test RB=25RB



Date: 25 JUN 2018 14:10:00

5.1.1.9.2 Test Channel = HCH

5.1.1.9.2.1 Test RB=1RB



Date: 25 JUN 2018 14:11:05

5.1.1.9.2.2 Test RB=25RB



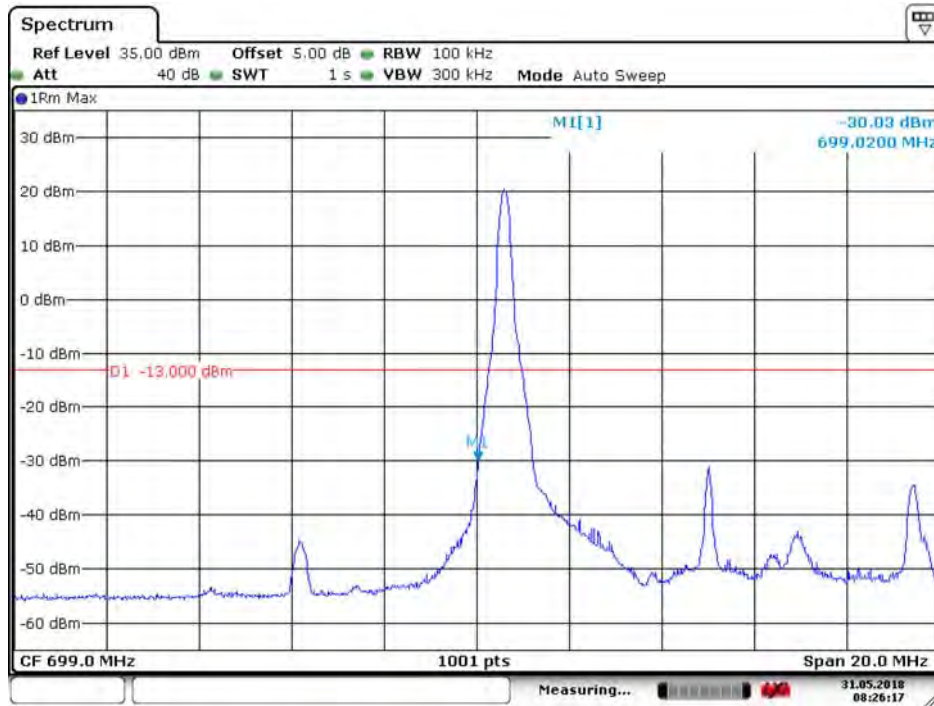
Date: 25 JUN 2018 14:11:30



5.1.1.10 Test Mode = LTE/TM1 10MHz

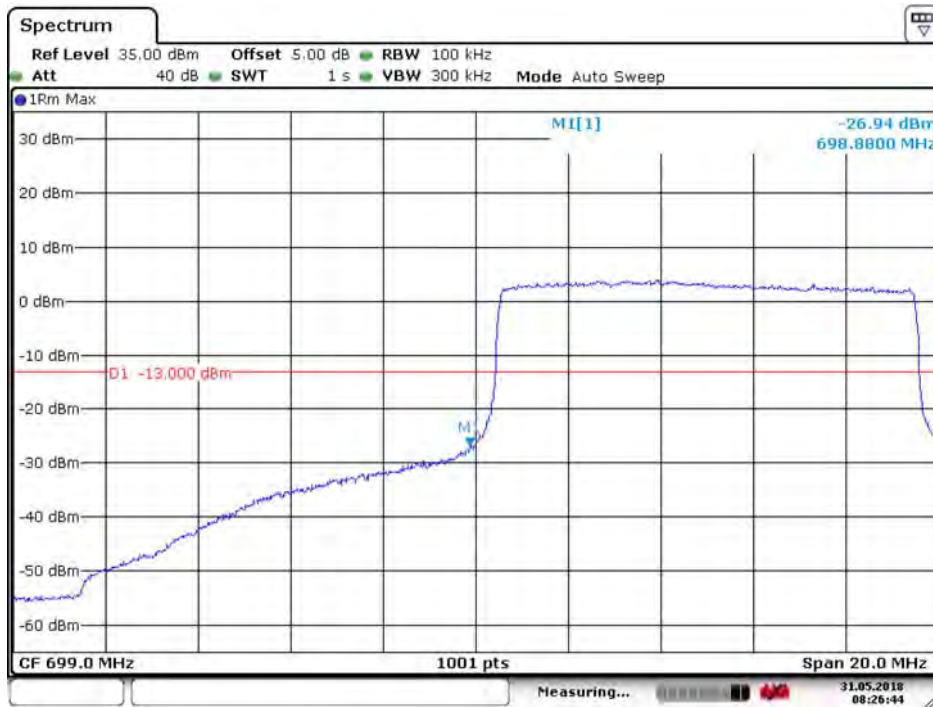
5.1.1.10.1 Test Channel = LCH

5.1.1.10.1.1 Test RB=1RB



Date: 31.MAY.2018 08:26:17

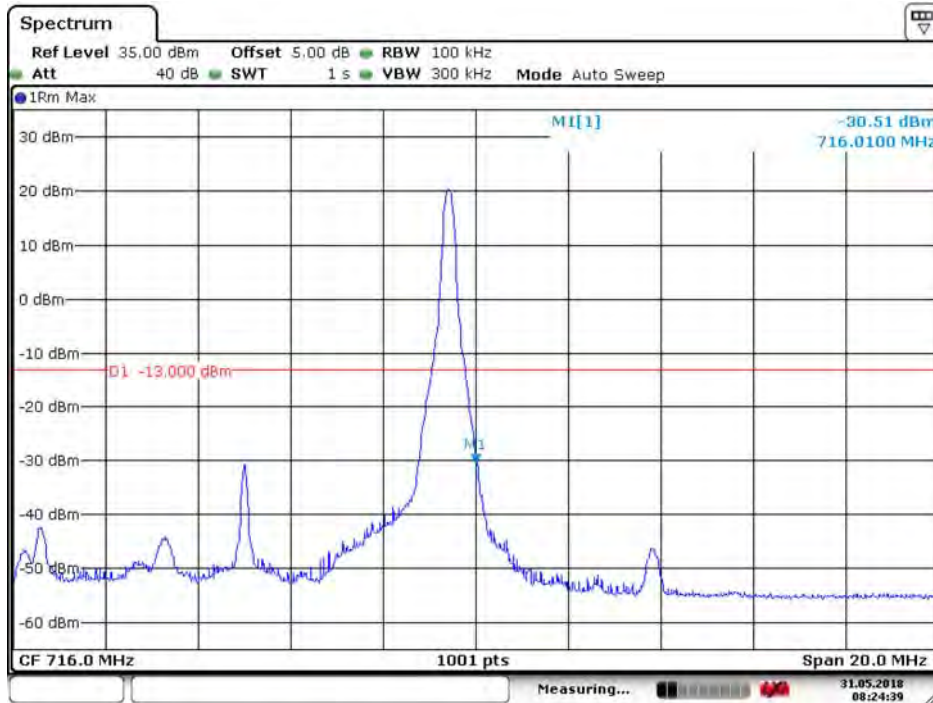
5.1.1.10.1.2 Test RB=50RB



Date: 31.MAY.2018 08:26:44

5.1.1.10.2 Test Channel = HCH

5.1.1.10.2.1 Test RB=1RB



Date: 31.MAY.2018 08:24:40



5.1.1.10.2 Test RB=50RB



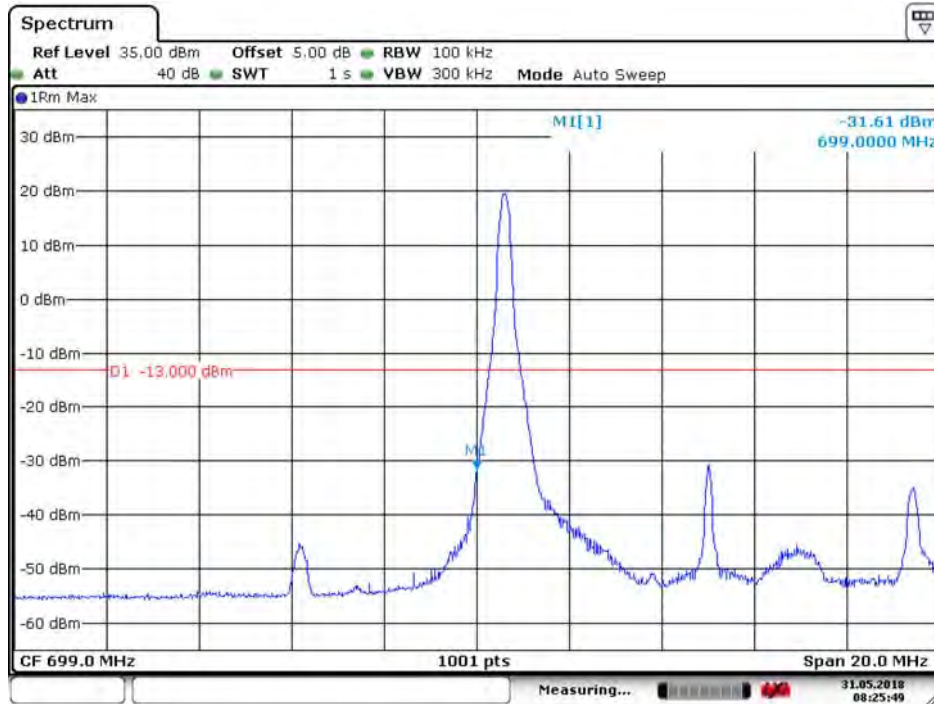
Date: 31.MAY.2018 08:24:11



5.1.1.11 Test Mode = LTE/TM2 10MHz

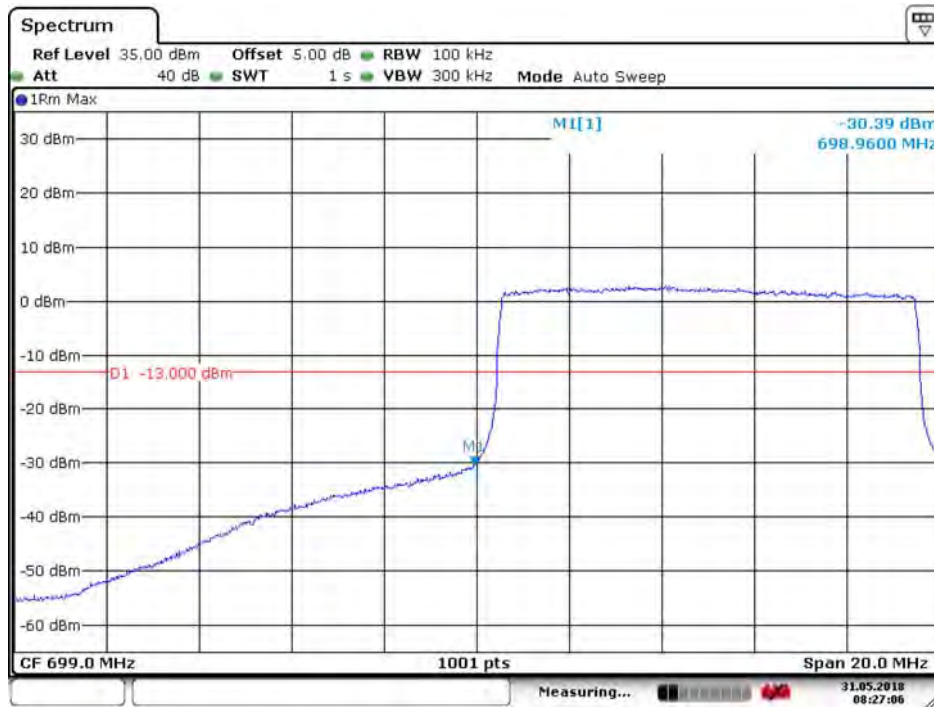
5.1.1.11.1 Test Channel = LCH

5.1.1.11.1.1 Test RB=1RB



Date: 31.MAY.2018 08:25:50

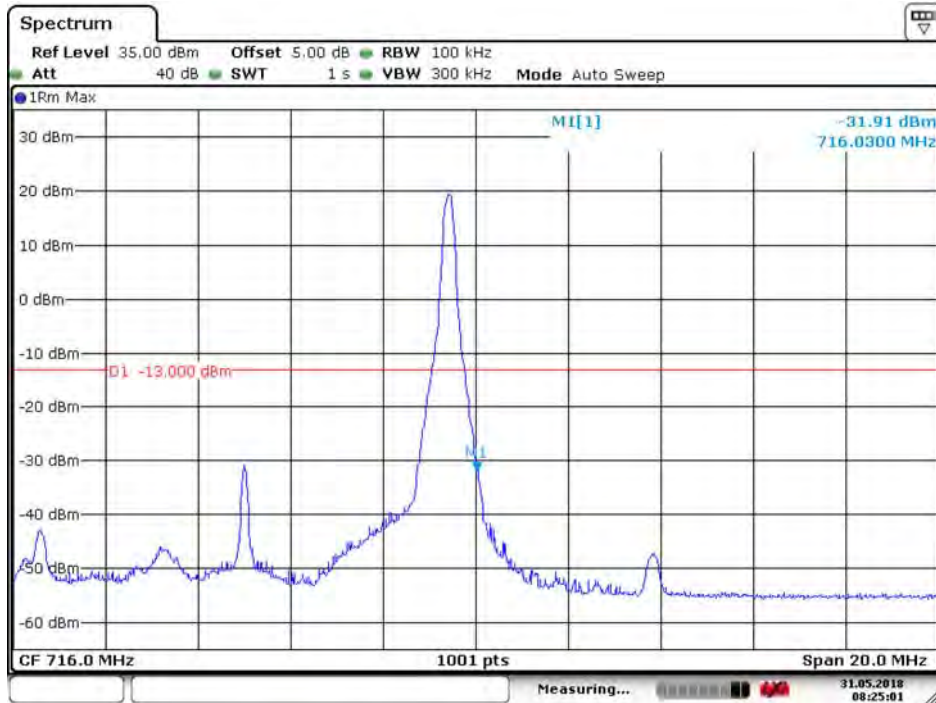
5.1.1.11.1.2 Test RB=50RB



Date: 31.MAY.2018 08:27:06

5.1.1.11.2 Test Channel = HCH

5.1.1.11.2.1 Test RB=1RB



Date: 31.MAY.2018 08:25:01

5.1.1.11.2.2 Test RB=50RB

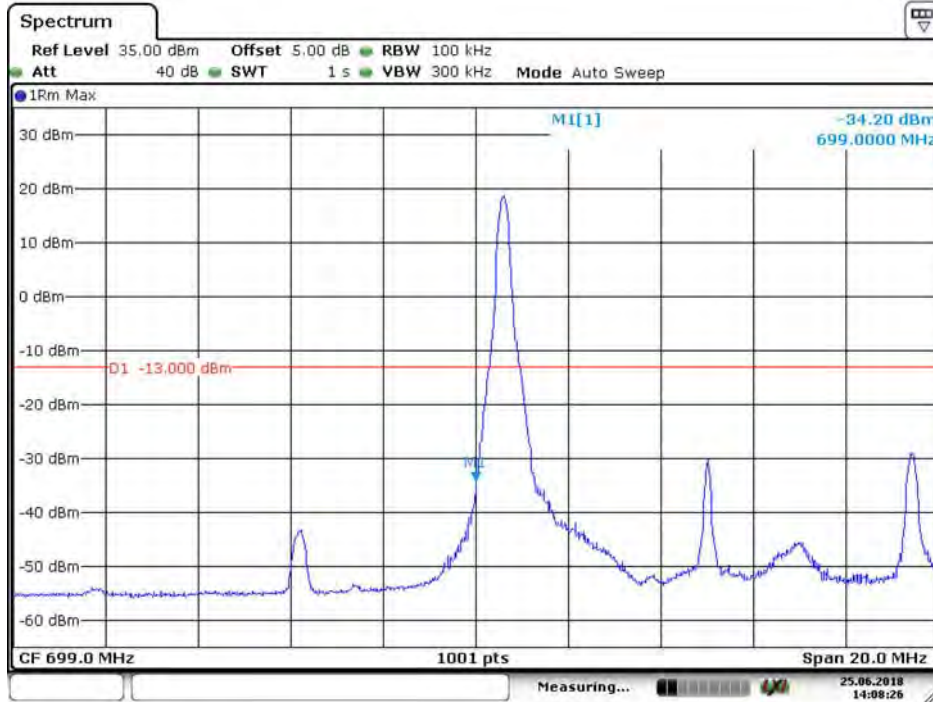


Date: 31.MAY.2018 08:23:36

5.1.1.12 Test Mode = LTE/TM3 10MHz

5.1.1.12.1 Test Channel = LCH

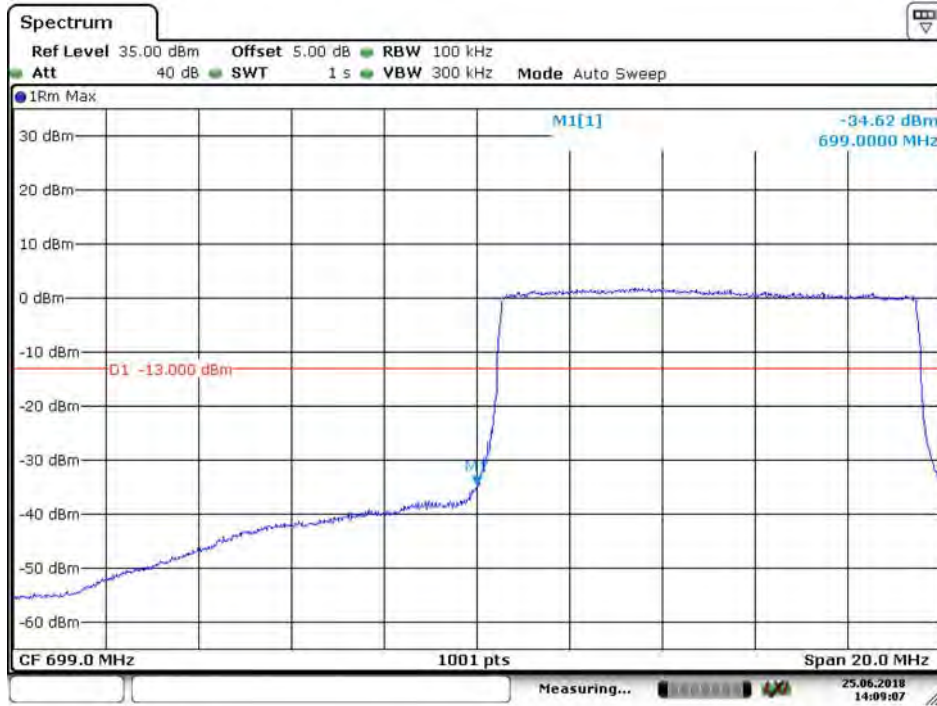
5.1.1.12.1.1 Test RB=1RB



Date: 25 JUN 2018 14:08:27



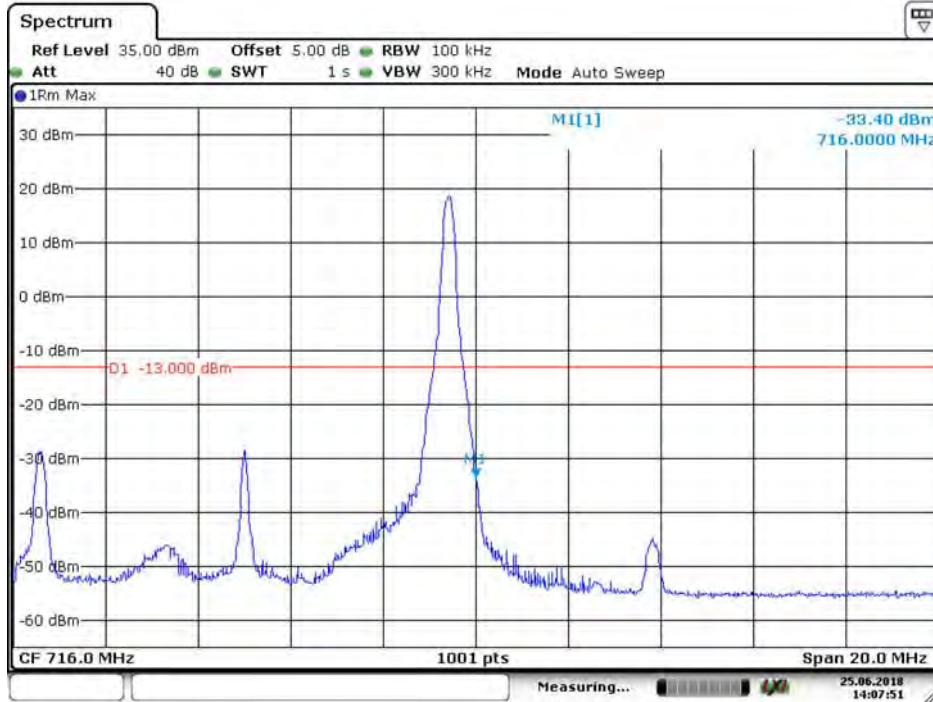
5.1.1.12.1.2 Test RB=50RB



Date: 25 JUN 2018 14:09:07

5.1.1.12.2 Test Channel = HCH

5.1.1.12.2.1 Test RB=1RB



Date: 25.JUN.2018 14:07:51

5.1.1.12.2.2 Test RB=50RB



Date: 25.JUN.2018 14:07:27

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.

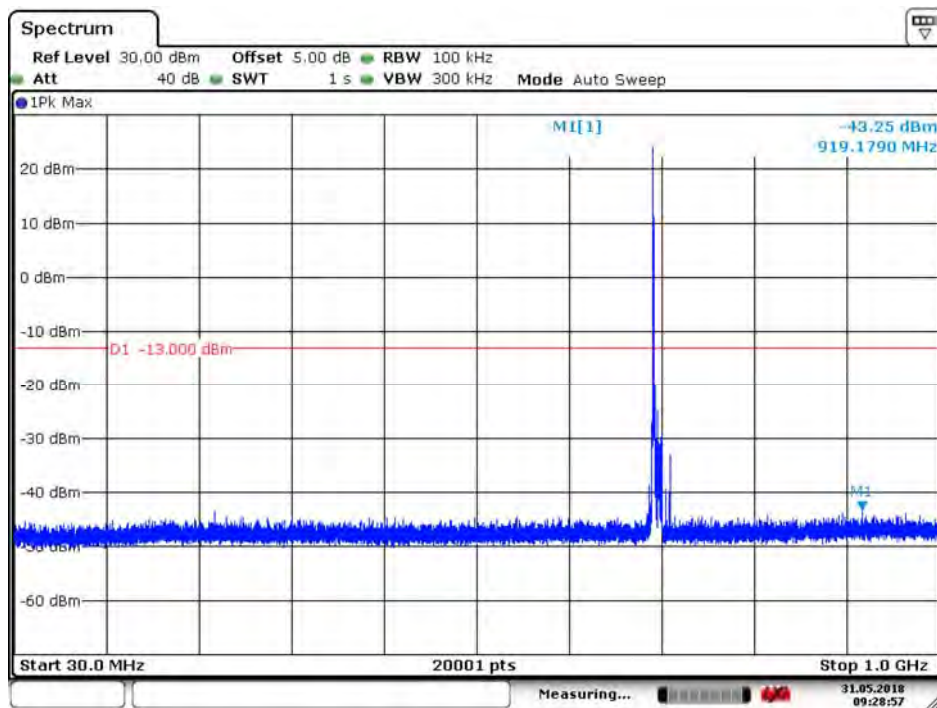
Part I - Test Plots

6.1 For LTE

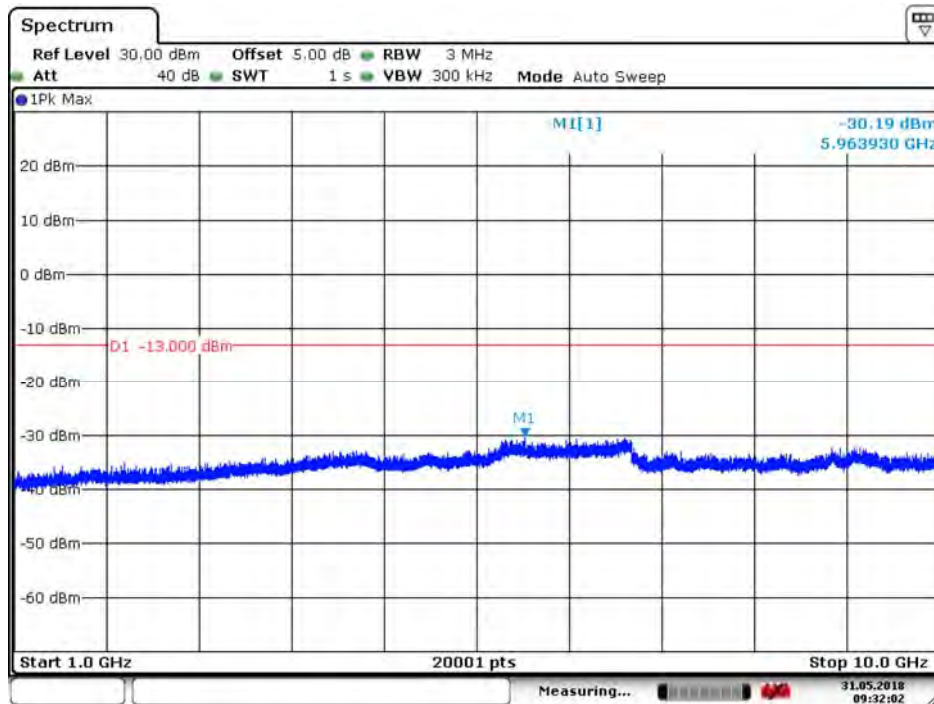
6.1.1 Test Band = LTE BAND 12

6.1.1.1 Test Mode = LTE / TM1 15MHz RB1#0

6.1.1.1.1 Test Channel = LCH



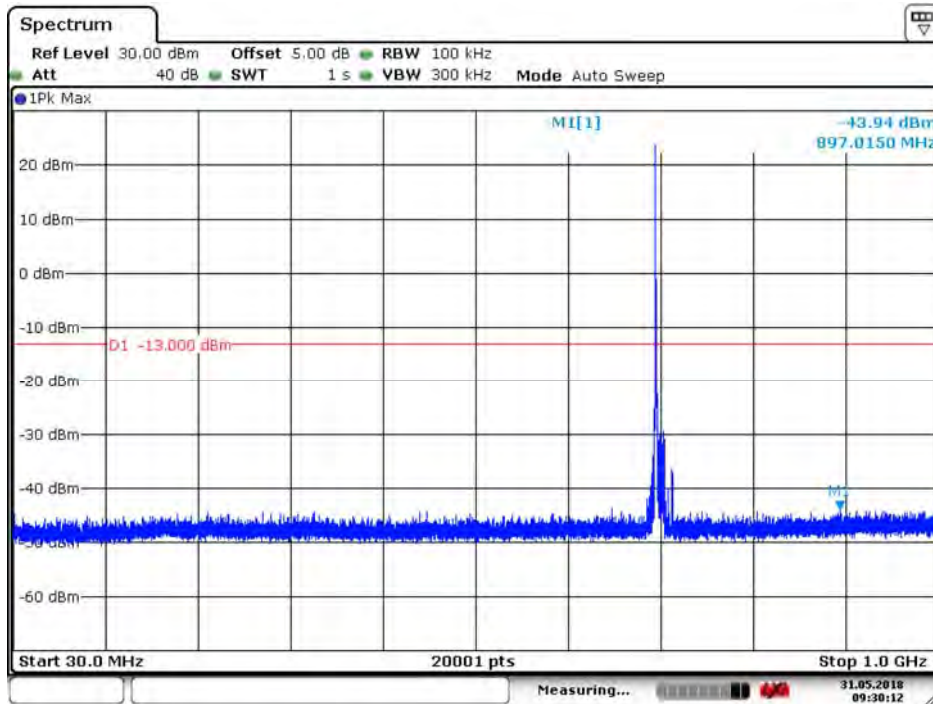
Date: 31.MAY.2018 09:28:57



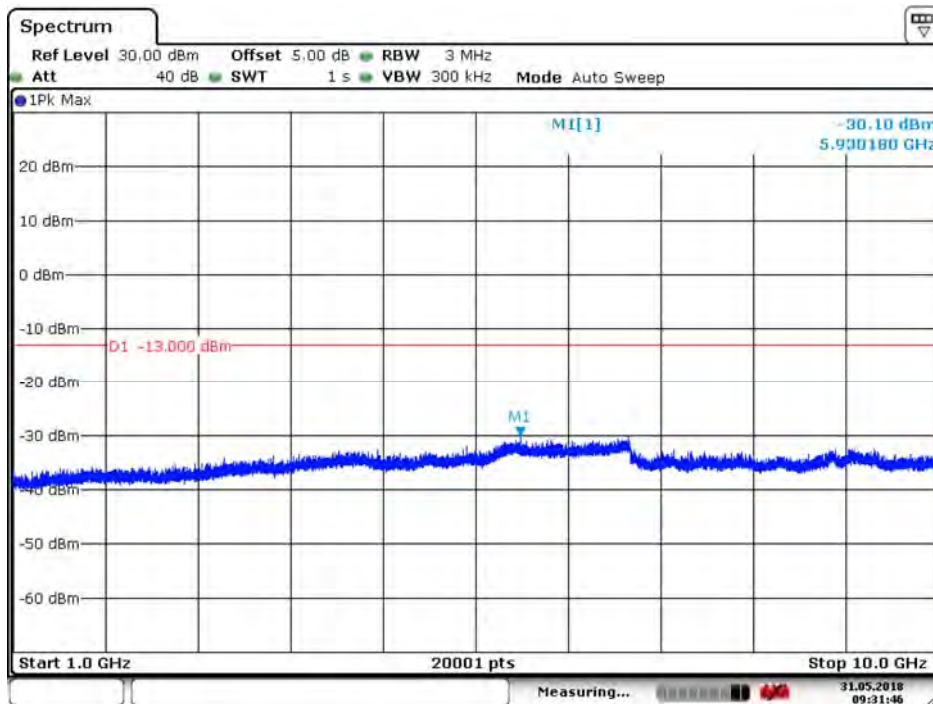
Date: 31.MAY.2018 09:32:02



6.1.1.1.2 Test Channel = MCH

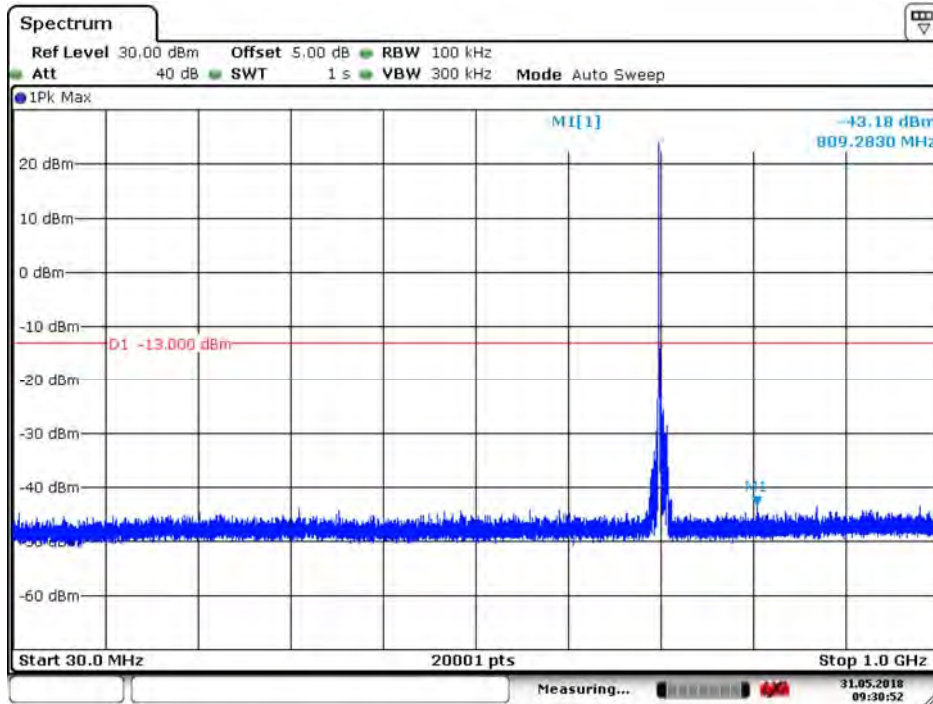


Date: 31.MAY.2018 09:30:12

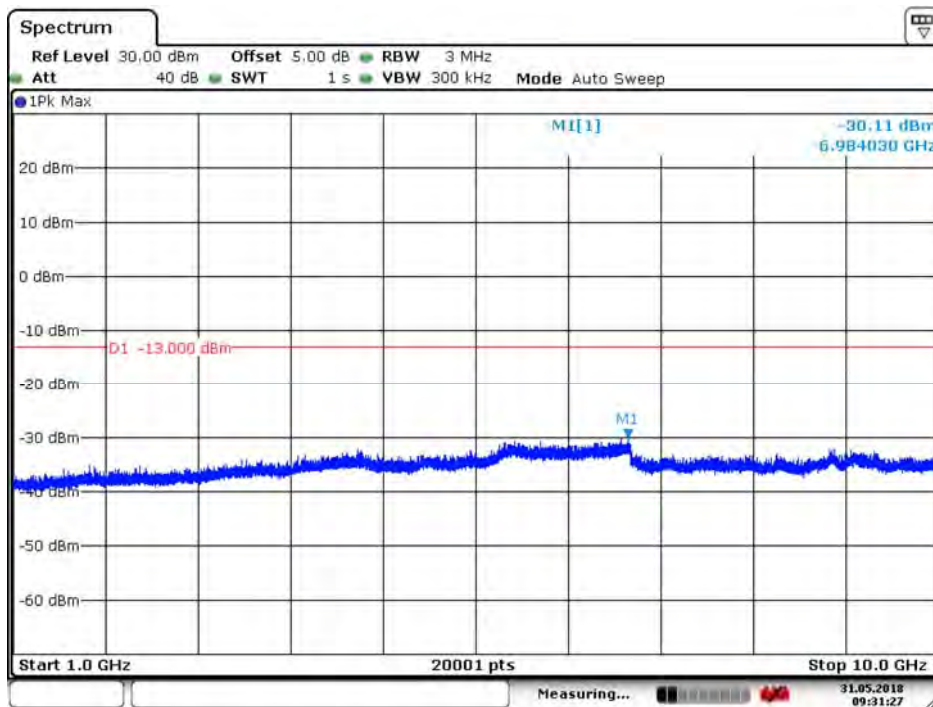


Date: 31.MAY.2018 09:31:46

6.1.1.1.3 Test Channel = HCH



Date: 31.MAY.2018 09:30:53



Date: 31.MAY.2018 09:31:27



7 Field Strength of Spurious Radiation

7.1 For LTE

7.1.1 Test Band = LTE BAND 12

7.1.1.1 Test Mode =LTE/TM1 10MHz RB1#0

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
64.533333	-81.79	-13.00	68.79	Vertical
179.846667	-83.19	-13.00	70.19	Vertical
1399.000000	-67.15	-13.00	54.15	Vertical
2816.000000	-57.05	-13.00	44.05	Vertical
4872.975000	-66.48	-13.00	53.48	Vertical
7951.050000	-63.59	-13.00	50.59	Vertical
62.900000	-77.86	-13.00	64.86	Horizontal
181.760000	-74.07	-13.00	61.07	Horizontal
1399.000000	-66.27	-13.00	53.27	Horizontal
2743.500000	-57.61	-13.00	44.61	Horizontal
6024.450000	-65.15	-13.00	52.15	Horizontal
10631.325000	-63.34	-13.00	50.34	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
62.760000	-77.46	-13.00	64.46	Vertical
182.646667	-80.69	-13.00	67.69	Vertical
1406.000000	-67.17	-13.00	54.17	Vertical
2743.500000	-57.61	-13.00	44.61	Vertical
4298.212500	-66.79	-13.00	53.79	Vertical
6060.037500	-64.94	-13.00	51.94	Vertical
62.806667	-77.41	-13.00	64.41	Horizontal
181.573333	-73.28	-13.00	60.28	Horizontal
1406.000000	-64.55	-13.00	51.55	Horizontal
4298.700000	-66.70	-13.00	53.70	Horizontal
6048.825000	-64.91	-13.00	51.91	Horizontal
9265.837500	-63.60	-13.00	50.60	Horizontal



7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
64.300000	-81.48	-13.00	68.48	Vertical
128.606667	-85.46	-13.00	72.46	Vertical
182.506667	-81.11	-13.00	68.11	Vertical
1413.000000	-66.93	-13.00	53.93	Vertical
2844.000000	-57.29	-13.00	44.29	Vertical
4839.825000	-66.54	-13.00	53.54	Vertical
62.480000	-77.83	-13.00	64.83	Horizontal
180.686667	-73.03	-13.00	60.03	Horizontal
281.580000	-83.53	-13.00	70.53	Horizontal
1413.000000	-62.08	-13.00	49.08	Horizontal
2367.500000	-59.20	-13.00	46.20	Horizontal
5077.237500	-66.28	-13.00	53.28	Horizontal

NOTE:

- 1) All modes are tested, but the data presented above is the worst case. 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
LTE BAND 12	LTE/TM1 10MHz	LCH	TN	VL	0.31	0.000440	PASS
				VN	9.51	0.013516	PASS
				VH	-2.45	-0.003475	PASS
		MCH	TN	VL	4.52	0.006394	PASS
				VN	4.16	0.005882	PASS
				VH	1.31	0.001855	PASS
		HCH	TN	VL	-3.74	-0.005266	PASS
				VN	-2.16	-0.003034	PASS
				VH	8.28	0.011642	PASS
	LTE/TM2 10MHz	LCH	TN	VL	-8.72	-0.012384	PASS
				VN	-7.23	-0.010276	PASS
				VH	-7.63	-0.010838	PASS
		MCH	TN	VL	8.56	0.012103	PASS
				VN	4.71	0.006660	PASS
				VH	2.80	0.003960	PASS
		HCH	TN	VL	4.99	0.007021	PASS
				VN	-7.22	-0.010157	PASS
				VH	-1.25	-0.001753	PASS
	LTE/TM3 10MHz	LCH	TN	VL	-6.37	-0.009051	PASS
				VN	3.07	0.004360	PASS
				VH	9.57	0.013592	PASS
		MCH	TN	VL	-4.82	-0.006807	PASS
				VN	-0.79	-0.001120	PASS
				VH	5.13	0.007256	PASS
		HCH	TN	VL	-9.06	-0.012741	PASS
				VN	-1.88	-0.002640	PASS
				VH	-7.53	-0.010596	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
LTE BAND 12	LTE/TM1 10MHz	LCH	VN	-30	-3.89	-0.005522	PASS
				-20	9.79	0.013908	PASS
				-10	-1.90	-0.002706	PASS
				0	2.18	0.003099	PASS
				10	-8.66	-0.012302	PASS
				20	-6.83	-0.009700	PASS
				30	5.42	0.007704	PASS
				40	-2.03	-0.002878	PASS
				50	0.50	0.000707	PASS
		MCH	VN	-30	-6.80	-0.009606	PASS
				-20	0.77	0.001087	PASS
				-10	-1.97	-0.002787	PASS
				0	0.22	0.000313	PASS
				10	-3.71	-0.005250	PASS
				20	2.76	0.003905	PASS
				30	2.23	0.003157	PASS
				40	-9.81	-0.013872	PASS
				50	-1.34	-0.001891	PASS
		HCH	VN	-30	7.71	0.010850	PASS
				-20	-4.57	-0.006421	PASS
				-10	-1.32	-0.001853	PASS
				0	7.09	0.009965	PASS
				10	4.11	0.005786	PASS
				20	5.96	0.008376	PASS
				30	1.93	0.002709	PASS
				40	1.76	0.002470	PASS
				50	0.28	0.000399	PASS



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

Report No.: SZEM180500453501
Page: 108 of 109

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE BAND 12	LTE/TM2 10MHz	LCH	VN	-30	6.98	0.009912	PASS
				-20	8.39	0.011922	PASS
				-10	-8.47	-0.012034	PASS
				0	4.78	0.006785	PASS
				10	-0.74	-0.001047	PASS
				20	7.55	0.010718	PASS
				30	-6.36	-0.009028	PASS
				40	-9.83	-0.013964	PASS
				50	-7.24	-0.010287	PASS
		MCH	VN	-30	4.74	0.006699	PASS
				-20	-0.90	-0.001267	PASS
				-10	6.37	0.009002	PASS
				0	3.84	0.005422	PASS
				10	-1.89	-0.002667	PASS
				20	3.27	0.004618	PASS
				30	8.14	0.011500	PASS
				40	-3.69	-0.005216	PASS
				50	-4.52	-0.006395	PASS
		HCH	VN	-30	2.36	0.003323	PASS
				-20	3.08	0.004338	PASS
				-10	4.24	0.005969	PASS
				0	-9.92	-0.013958	PASS
				10	5.98	0.008413	PASS
				20	-1.83	-0.002573	PASS
				30	-0.90	-0.001266	PASS
				40	-8.81	-0.012390	PASS
				50	-9.54	-0.013419	PASS



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

Report No.: SZEM180500453501
Page: 109 of 109

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE BAND 12	LTE/TM3 10MHz	LCH	VN	-30	-9.16	-0.013008	PASS
				-20	1.55	0.002205	PASS
				-10	-1.44	-0.002049	PASS
				0	-2.11	-0.003003	PASS
				10	0.31	0.000446	PASS
				20	6.05	0.008590	PASS
				30	3.46	0.004918	PASS
				40	-6.01	-0.008534	PASS
				50	-2.58	-0.003666	PASS
		MCH	VN	-30	-5.56	-0.007864	PASS
				-20	-5.12	-0.007243	PASS
				-10	0.23	0.000330	PASS
				0	-1.05	-0.001480	PASS
				10	-4.34	-0.006129	PASS
				20	-8.37	-0.011833	PASS
				30	-7.44	-0.010515	PASS
				40	3.45	0.004873	PASS
				50	-5.24	-0.007411	PASS
		HCH	VN	-30	-4.26	-0.005992	PASS
				-20	-8.32	-0.011700	PASS
				-10	9.14	0.012855	PASS
				0	-9.61	-0.013521	PASS
				10	0.60	0.000841	PASS
				20	2.63	0.003692	PASS
30	3.84			0.005397	PASS		
40	5.39			0.007584	PASS		
50	-2.43			-0.003413	PASS		

The End