Appendix C

E-UTRA Band 5_CA

CONTENT

Page

1 Effective (Isotropic) Radiated Power Output Data

Effective Radiated Power of Transmitter (ERP) for LTE BAND 5

Test Band(LTE)	Test Bandwidth	Test channel	Test Mode	PCC RB	SCC RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	5+10M	LCH	LTE/TM1	P_1@0	S_0@0	24.09	21.69	38.45	PASS
				P_8@0	S_0@0	24.08	21.68	38.45	PASS
				P_25@0	S_0@0	23.05	20.65	38.45	PASS
				P_25@0	S_50@0	22.02	19.62	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.37	20.97	38.45	PASS
				P_8@0	S_0@0	23.12	20.72	38.45	PASS
				P_25@0	S_0@0	21.12	18.72	38.45	PASS
				P_25@0	S_50@0	19.92	17.52	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.23	19.83	38.45	PASS
				P_8@0	S_0@0	22.14	19.74	38.45	PASS
				P_25@0	S_0@0	21.09	18.69	38.45	PASS
				P_25@0	S_50@0	20.98	18.58	38.45	PASS
		MCH	LTE/TM1	P_1@0	S_0@0	24.03	21.63	38.45	PASS
				P_8@0	S_0@0	24.05	21.65	38.45	PASS
				P_25@0	S_0@0	23.03	20.63	38.45	PASS
				P_25@0	S_50@0	21.93	19.53	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23	20.6	38.45	PASS
				P_8@0	S_0@0	24.02	21.62	38.45	PASS
				P_25@0	S_0@0	24.01	21.61	38.45	PASS
				P_25@0	S_50@0	19.89	17.49	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.18	19.78	38.45	PASS
				P_8@0	S_0@0	22.01	19.61	38.45	PASS
				P_25@0	S_0@0	20.95	18.55	38.45	PASS
				P_25@0	S_50@0	20.88	18.48	38.45	PASS

BAND5	5+10M	HCH	LTE/TM1	P_1@0	S_0@0	24.15	21.75	38.45	PASS
				P_8@0	S_0@0	23.9	21.5	38.45	PASS
				P_25@0	S_0@0	22.81	20.41	38.45	PASS
				P_25@0	S_50@0	21.8	19.4	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	24.46	22.06	38.45	PASS
				P_8@0	S_0@0	23.91	21.51	38.45	PASS
				P_25@0	S_0@0	20.81	18.41	38.45	PASS
				P_25@0	S_50@0	19.76	17.36	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	23.83	21.43	38.45	PASS
				P_8@0	S_0@0	23.97	21.57	38.45	PASS
				P_25@0	S_0@0	20.81	18.41	38.45	PASS
				P_25@0	S_50@0	20.77	18.37	38.45	PASS

Test Band(LTE)	Test Bandwidth	Test channel	Test Mode	PCC RB	SCC RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	10+5M	LCH	LTE/TM1	P_1@0	S_0@0	24.22	21.82	38.45	PASS
				P_12@0	S_0@0	24.27	21.87	38.45	PASS
				P_50@0	S_0@0	22.05	19.65	38.45	PASS
				P_50@0	S_25@0	21.95	19.55	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.28	20.88	38.45	PASS
				P_12@0	S_0@0	21.18	18.78	38.45	PASS
				P_50@0	S_0@0	19.99	17.59	38.45	PASS
				P_50@0	S_25@0	19.88	17.48	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.47	20.07	38.45	PASS
				P_12@0	S_0@0	21.19	18.79	38.45	PASS
				P_50@0	S_0@0	21.15	18.75	38.45	PASS
				P_50@0	S_25@0	20.91	18.51	38.45	PASS
		MCH	LTE/TM1	P_1@0	S_0@0	24.21	21.81	38.45	PASS
				P_12@0	S_0@0	23.13	20.73	38.45	PASS
				P_50@0	S_0@0	21.91	19.51	38.45	PASS
				P_50@0	S_25@0	21.84	19.44	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.05	20.65	38.45	PASS
				P_12@0	S_0@0	21.25	18.85	38.45	PASS
				P_50@0	S_0@0	19.86	17.46	38.45	PASS
				P_50@0	S_25@0	19.82	17.42	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.38	19.98	38.45	PASS
				P_12@0	S_0@0	21.13	18.73	38.45	PASS
				P_50@0	S_0@0	20.89	18.49	38.45	PASS
				P_50@0	S_25@0	20.83	18.43	38.45	PASS

BAND5	10+5M	HCH	LTE/TM1	P_1@0	S_0@0	24.04	21.64	38.45	PASS
				P_12@0	S_0@0	23.02	20.62	38.45	PASS
				P_50@0	S_0@0	21.91	19.51	38.45	PASS
				P_50@0	S_25@0	21.84	19.44	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.26	20.86	38.45	PASS
				P_12@0	S_0@0	20.99	18.59	38.45	PASS
				P_50@0	S_0@0	19.83	17.43	38.45	PASS
				P_50@0	S_25@0	19.78	17.38	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.02	19.62	38.45	PASS
				P_12@0	S_0@0	21.06	18.66	38.45	PASS
				P_50@0	S_0@0	20.91	18.51	38.45	PASS
				P_50@0	S_25@0	20.87	18.47	38.45	PASS

Test Band(LTE)	Test Bandwidth	Test channel	Test Mode	PCC RB	SCC RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
BAND5	10+10M	LCH	LTE/TM1	P_1@0	S_0@0	24.12	21.72	38.45	PASS
				P_12@0	S_0@0	24.22	21.82	38.45	PASS
				P_50@0	S_0@0	23.11	20.71	38.45	PASS
				P_50@0	S_50@0	21.91	19.51	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.59	21.19	38.45	PASS
				P_12@0	S_0@0	23.24	20.84	38.45	PASS
				P_50@0	S_0@0	20.96	18.56	38.45	PASS
				P_50@0	S_50@0	19.84	17.44	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.33	19.93	38.45	PASS
				P_12@0	S_0@0	22.29	19.89	38.45	PASS
				P_50@0	S_0@0	21.03	18.63	38.45	PASS
				P_50@0	S_50@0	20.91	18.51	38.45	PASS
		MCH	LTE/TM1	P_1@0	S_0@0	24.31	21.91	38.45	PASS
				P_12@0	S_0@0	24.17	21.77	38.45	PASS
				P_50@0	S_0@0	23.02	20.62	38.45	PASS
				P_50@0	S_50@0	21.89	19.49	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.18	20.78	38.45	PASS
				P_12@0	S_0@0	23.18	20.78	38.45	PASS
				P_50@0	S_0@0	20.97	18.57	38.45	PASS
				P_50@0	S_50@0	19.86	17.46	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.39	19.99	38.45	PASS
				P_12@0	S_0@0	22.26	19.86	38.45	PASS
				P_50@0	S_0@0	21.01	18.61	38.45	PASS
				P_50@0	S_50@0	20.82	18.42	38.45	PASS

BAND5	10+10M	HCH	LTE/TM1	P_1@0	S_0@0	24.11	21.71	38.45	PASS
				P_12@0	S_0@0	24.18	21.78	38.45	PASS
				P_50@0	S_0@0	23.04	20.64	38.45	PASS
				P_50@0	S_50@0	21.84	19.44	38.45	PASS
			LTE/TM2	P_1@0	S_0@0	23.58	21.18	38.45	PASS
				P_12@0	S_0@0	23.17	20.77	38.45	PASS
				P_50@0	S_0@0	20.92	18.52	38.45	PASS
				P_50@0	S_50@0	19.84	17.44	38.45	PASS
			LTE/TM3	P_1@0	S_0@0	22.15	19.75	38.45	PASS
				P_12@0	S_0@0	22.16	19.76	38.45	PASS
				P_50@0	S_0@0	21.04	18.64	38.45	PASS
				P_50@0	S_50@0	20.91	18.51	38.45	PASS

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

ERP [dBm] = SGP [dBm] – Cable Loss [dB] + Gain [dBd]

b: SGP=Signal Generator Level
c: RBW > emission bandwidth, VBW > 3 x RBW.
Detector: RMS

2 Peak-to-Average Ratio

Part Ⅰ - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
Band 5	TM1/5+10M	MCH	6.03	13	PASS
	TM2/5+10M	MCH	6.64	13	PASS
	TM3/5+10M	MCH	6.61	13	PASS
	TM1/10+5M	MCH	6.00	13	PASS
	TM2/10+5M	MCH	6.52	13	PASS
	TM3/10+5M	MCH	6.46	13	PASS
	TM1/10+10M	MCH	6.29	13	PASS
	TM2/10+10M	MCH	6.87	13	PASS
	TM3/10+10M	MCH	6.78	13	PASS

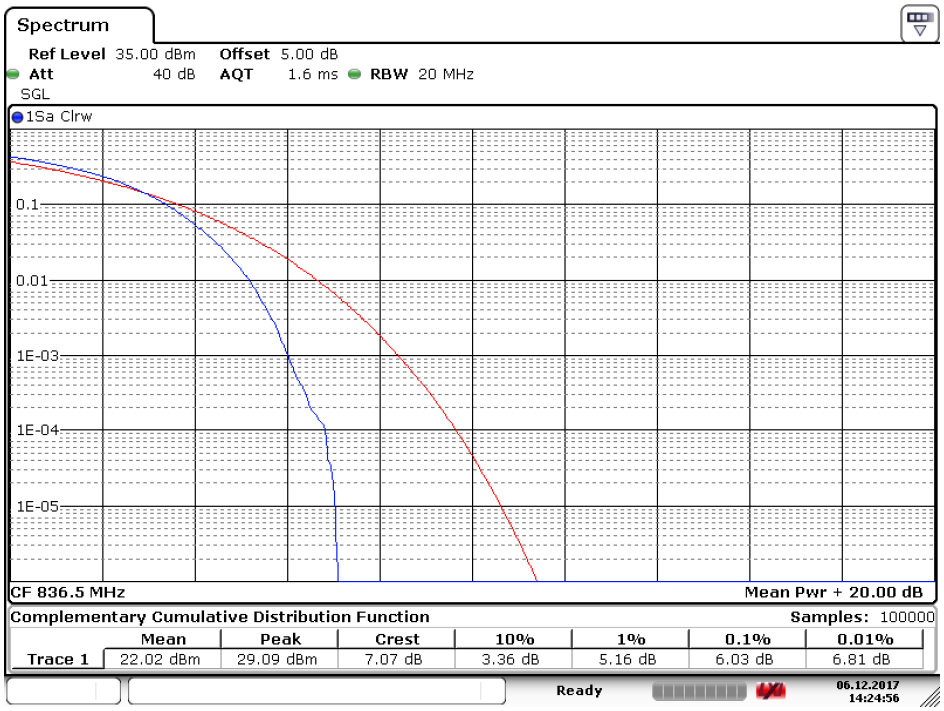
Part Ⅱ - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE band5

2.1.1.1 Test Mode = LTE/TM1.Bandwidth=5+10MHz

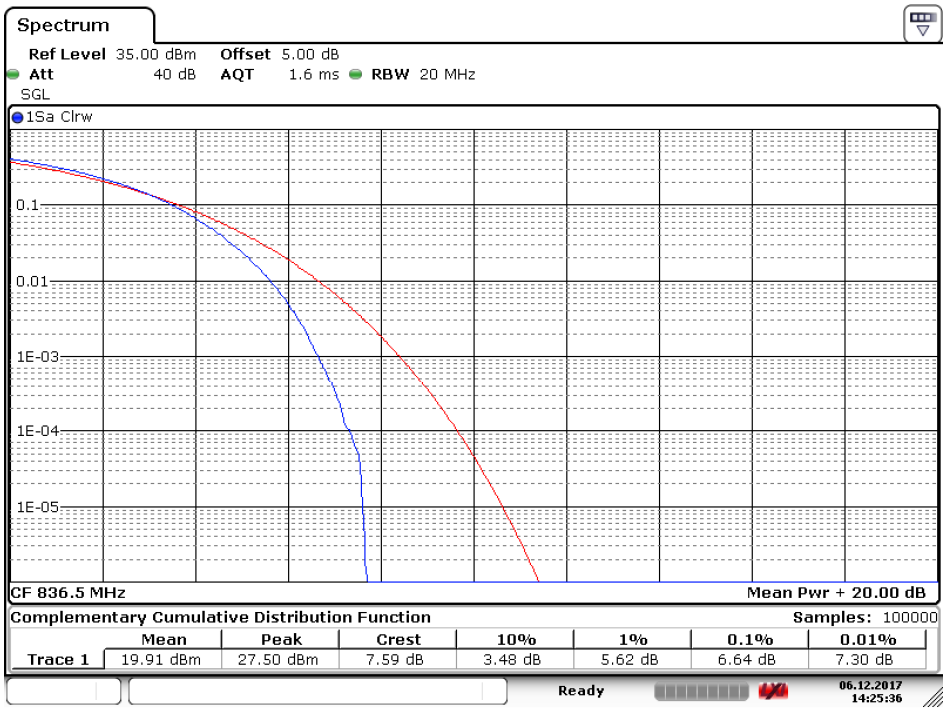
2.1.1.1.1 Test Channel = MCH



Date: 6.DEC.2017 14:24:56

2.1.1.2 Test Mode = LTE/TM2.Bandwidth=5+10MHz

2.1.1.2.1 Test Channel = MCH



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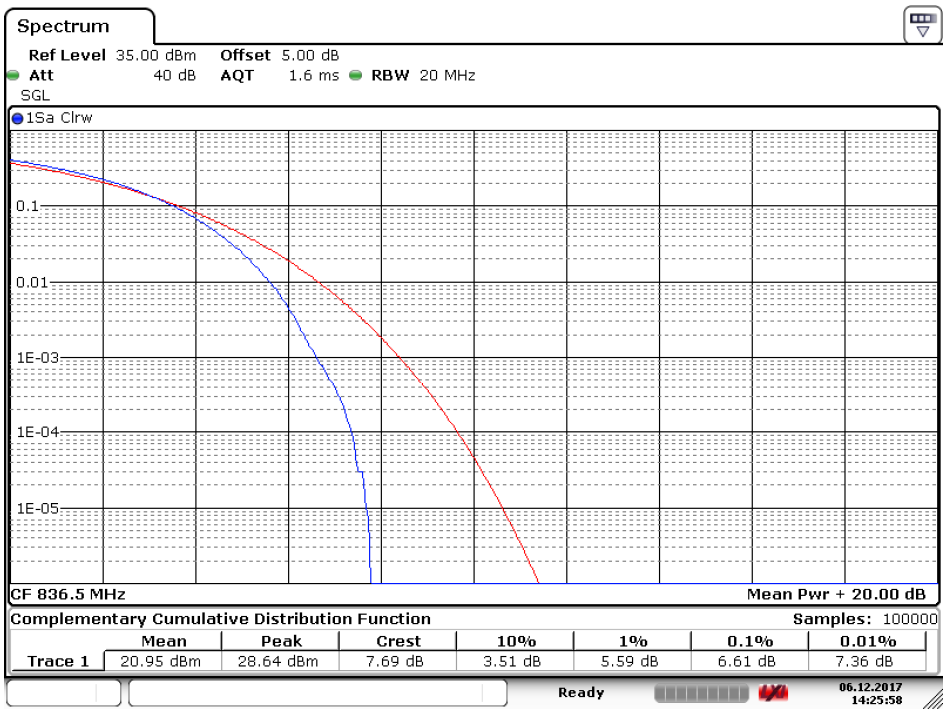
2.1.1.3 Test Mode = LTE/TM3.Bandwidth=5+10MHz

2.1.1.3.1 Test Channel = MCH



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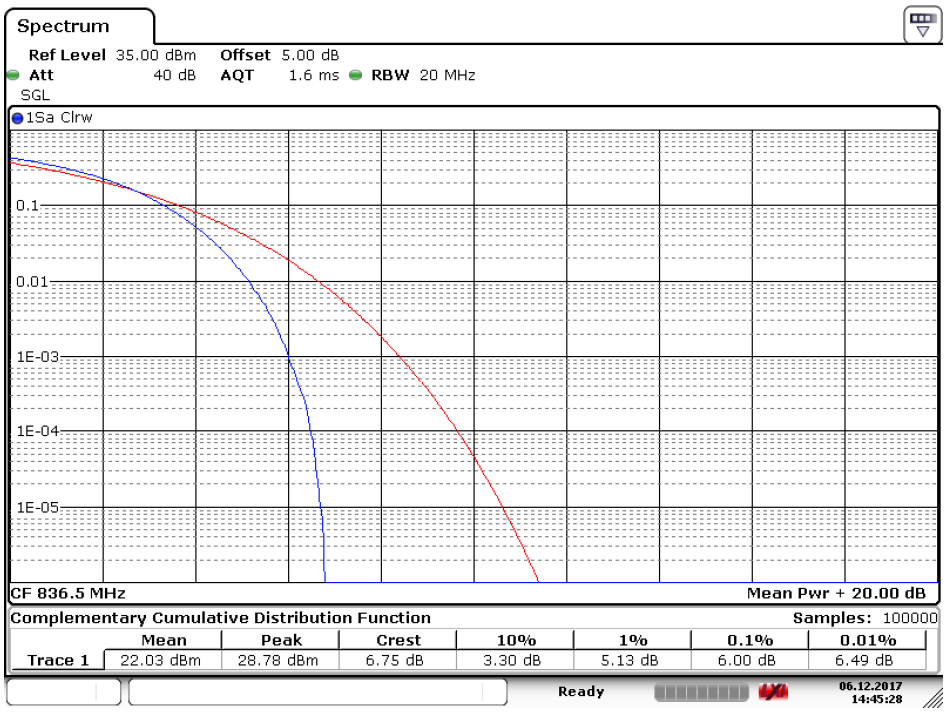
2.1.1.4 Test Mode = LTE/TM1.Bandwidth=10+5MHz

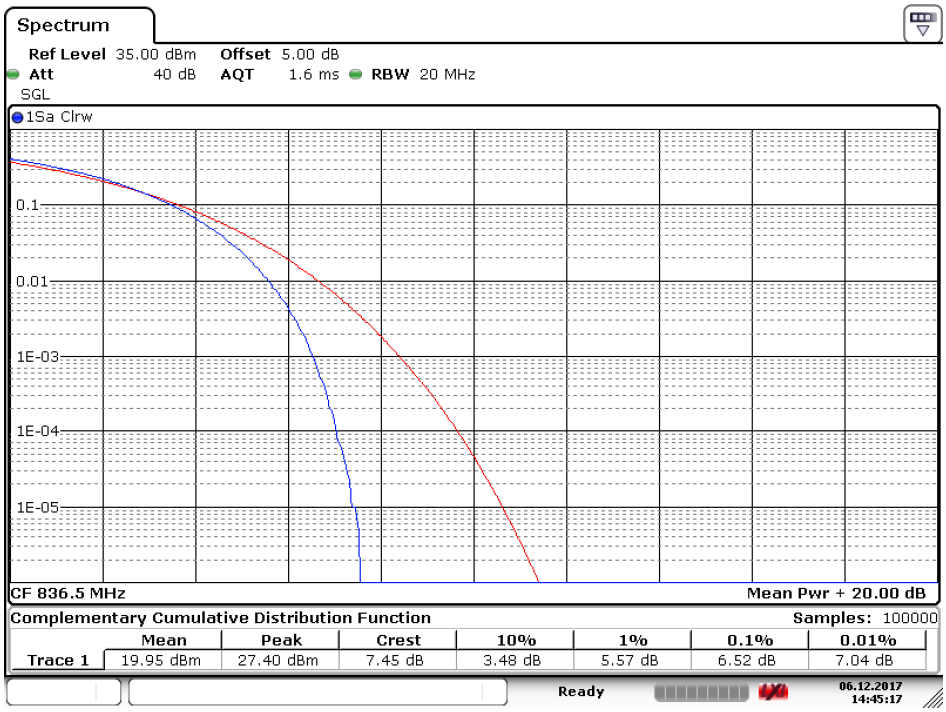
2.1.1.4.1 Test Channel = MCH



Date: 6.DEC.2017 14:45:29

2.1.1.5 Test Mode = LTE/TM2.Bandwidth=10+5MHz

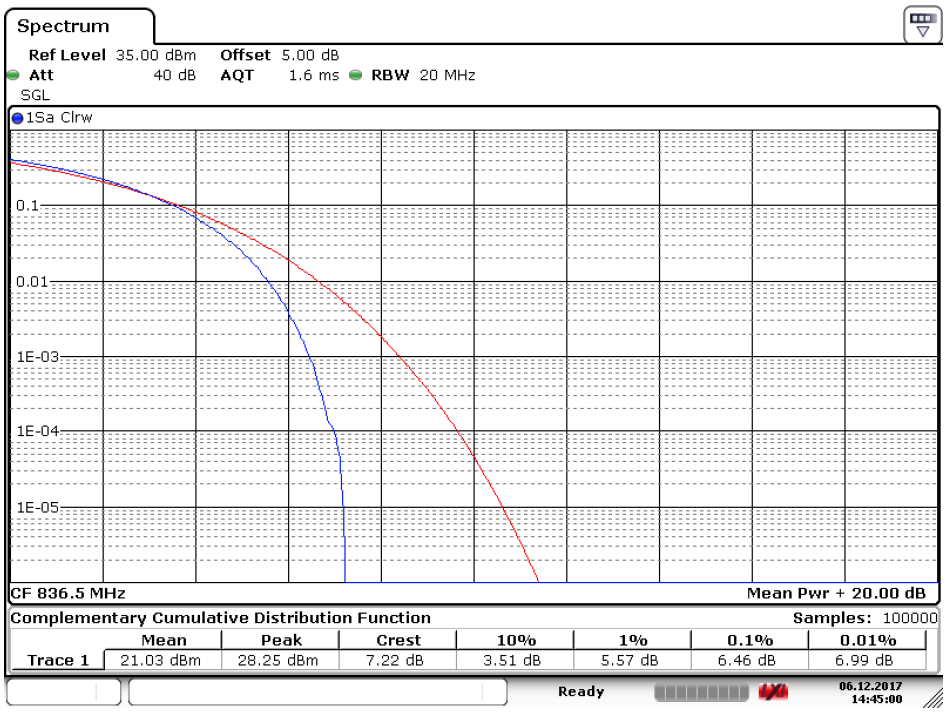
2.1.1.5.1 Test Channel = MCH



Date: 6.DEC.2017 14:45:17

2.1.1.6 Test Mode = LTE/TM3.Bandwidth=10+5MHz

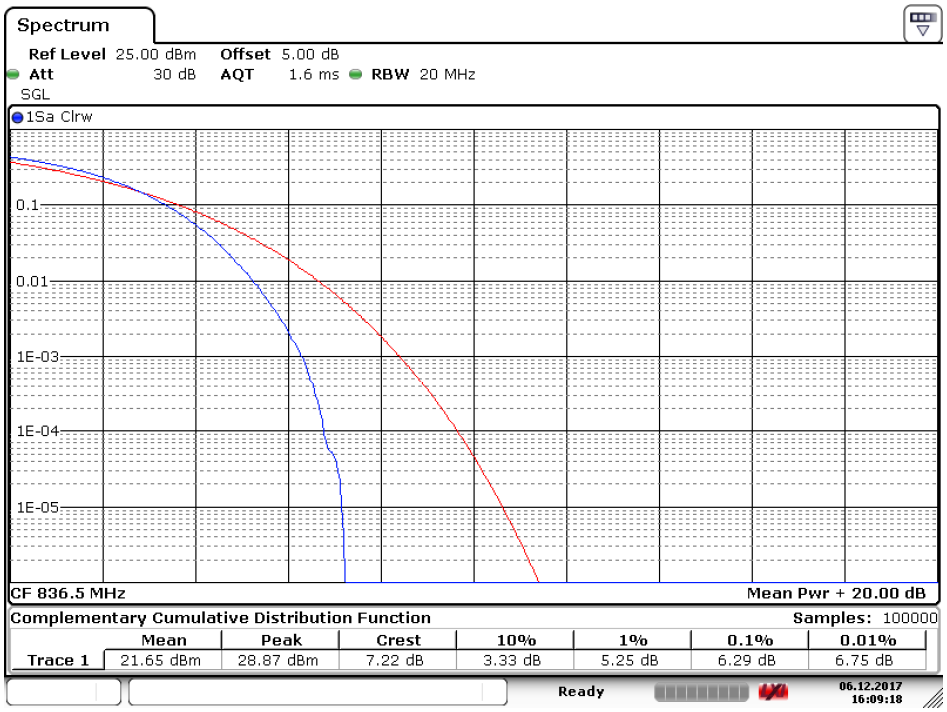
2.1.1.6.1 Test Channel = MCH



Date: 6.DEC.2017 14:45:00

2.1.1.7 Test Mode = LTE/TM1.Bandwidth=10+10MHz

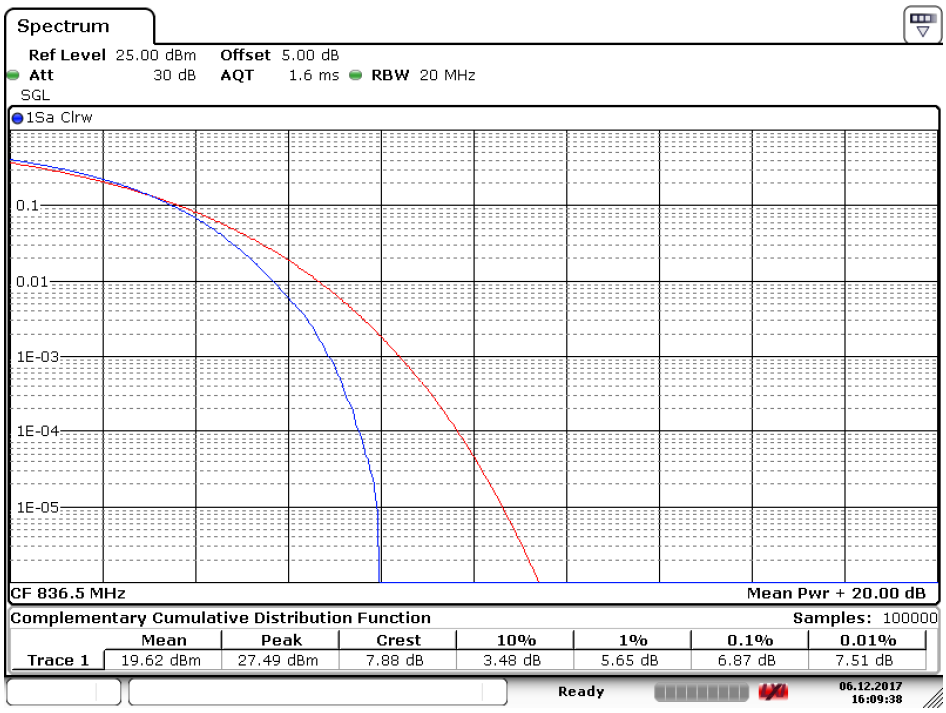
2.1.1.7.1 Test Channel = MCH



Date: 6.DEC.2017 16:09:18

2.1.1.8 Test Mode = LTE/TM2.Bandwidth=10+10MHz

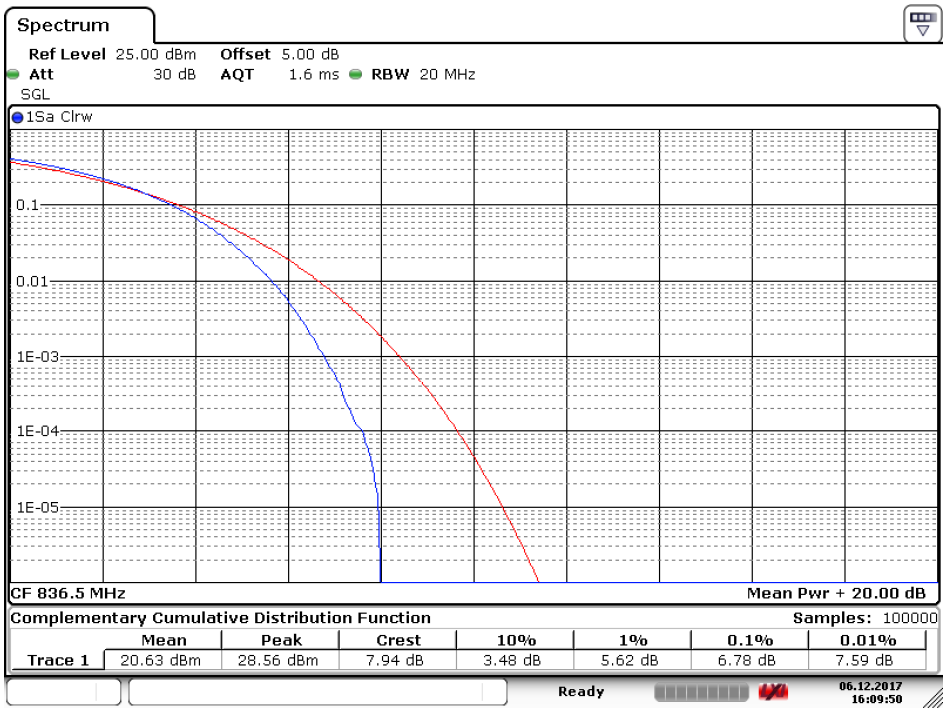
2.1.1.8.1 Test Channel = MCH



Date: 6.DEC.2017 16:09:39

2.1.1.9 Test Mode = LTE/TM3.Bandwidth=10+10MHz

2.1.1.9.1 Test Channel = MCH



Date: 6.DEC.2017 16:09:51

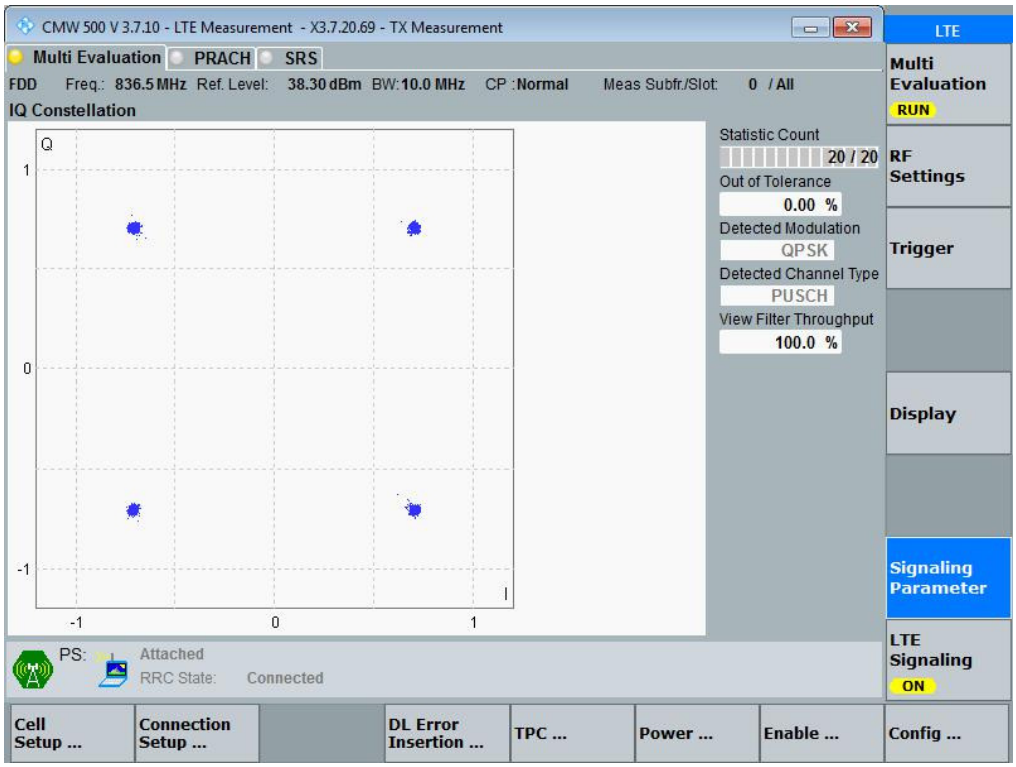
3 Modulation Characteristics

3.1 For LTE

3.1.1 Test Band = LTE band5

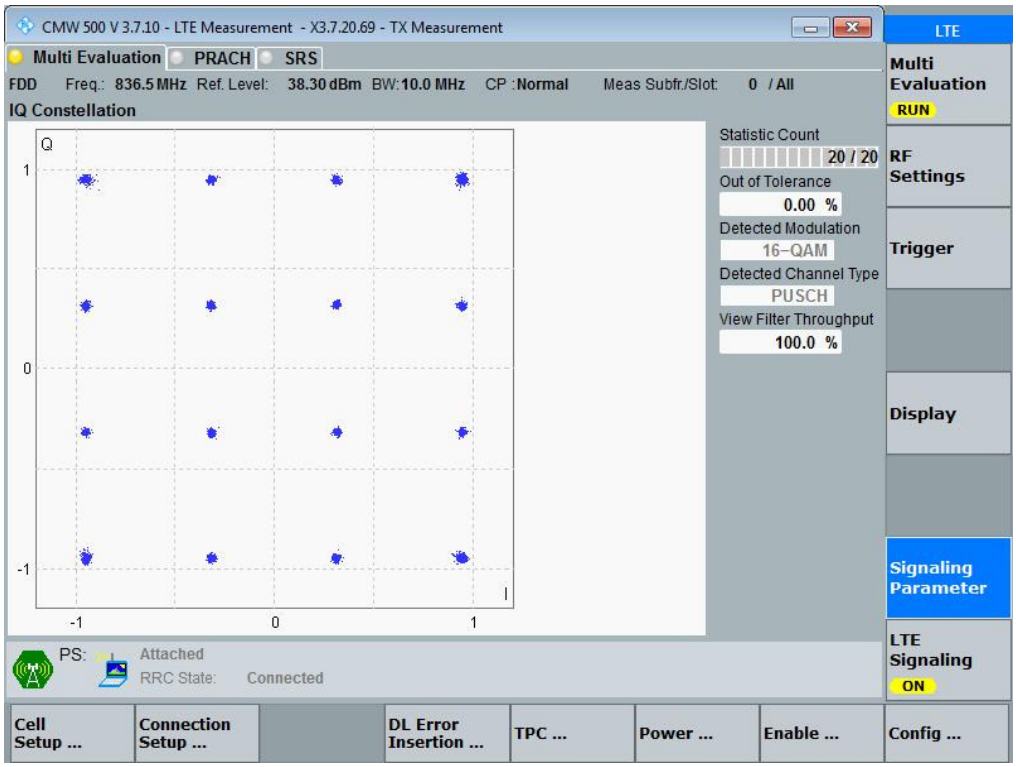
3.1.1.1 Test Mode = LTE /TM1 10MHz + 10MHz

3.1.1.1.1 Test Channel = MCH



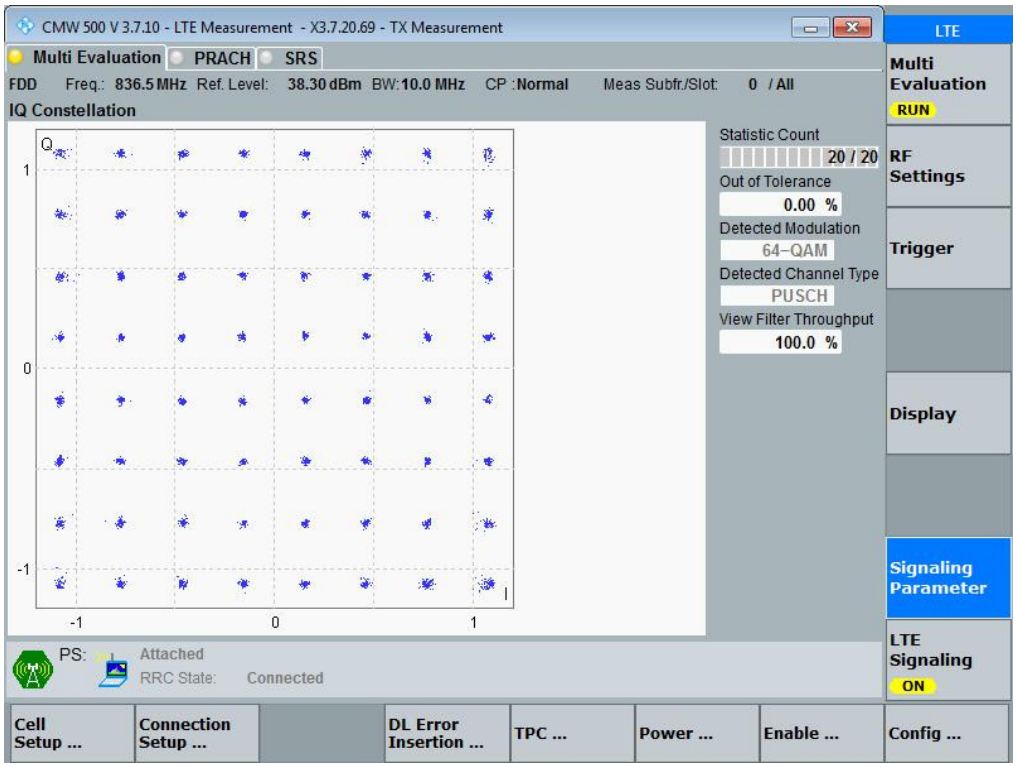
3.1.1.2 Test Mode = LTE /TM2 10MHz + 10MHz

3.1.1.2.1 Test Channel = MCH



3.1.1.3 Test Mode = LTE /TM3 10MHz + 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 5	TM1/5+10MHz	MCH	13.88	14.81	PASS
	TM2/5+10MHz	MCH	13.85	14.75	PASS
	TM3/5+10MHz	MCH	13.85	14.81	PASS
	TM1/10+5MHz	MCH	13.85	14.78	PASS
	TM2/10+5MHz	MCH	13.85	14.75	PASS
	TM3/10+5MHz	MCH	13.85	14.81	PASS
	TM1/10+10MHz	MCH	18.74	19.94	PASS
	TM2/10+10MHz	MCH	18.74	19.90	PASS
	TM3/10+10MHz	MCH	18.70	19.82	PASS

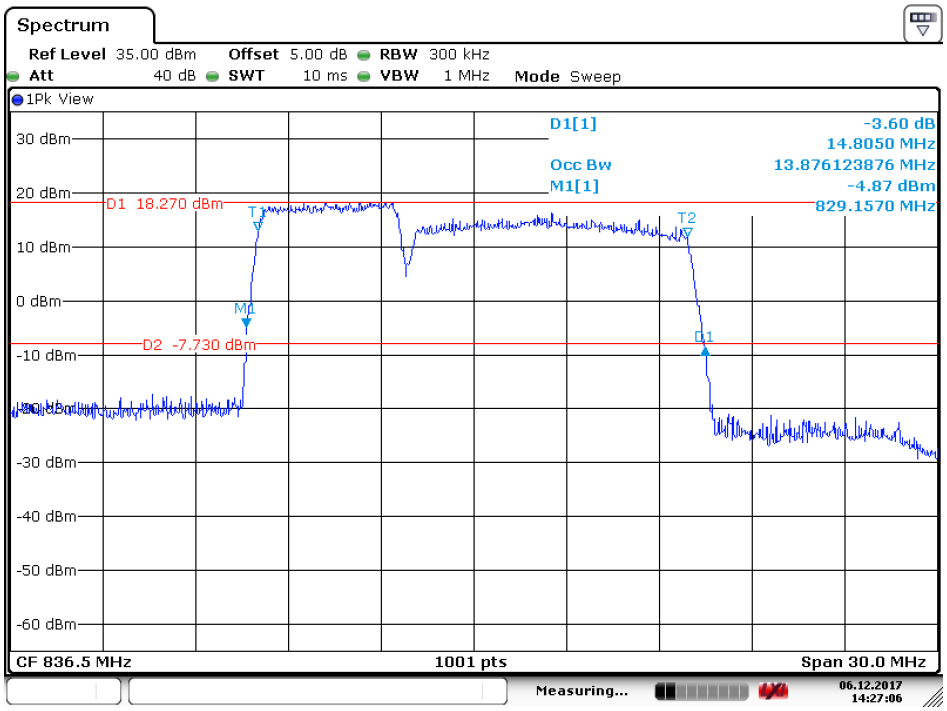
Part Ⅱ –Test Plots

4.1 For LTE

4.1.1 Test Band = LTE band5

4.1.1.1 Test Mode = LTE/TM1 5+10MHz

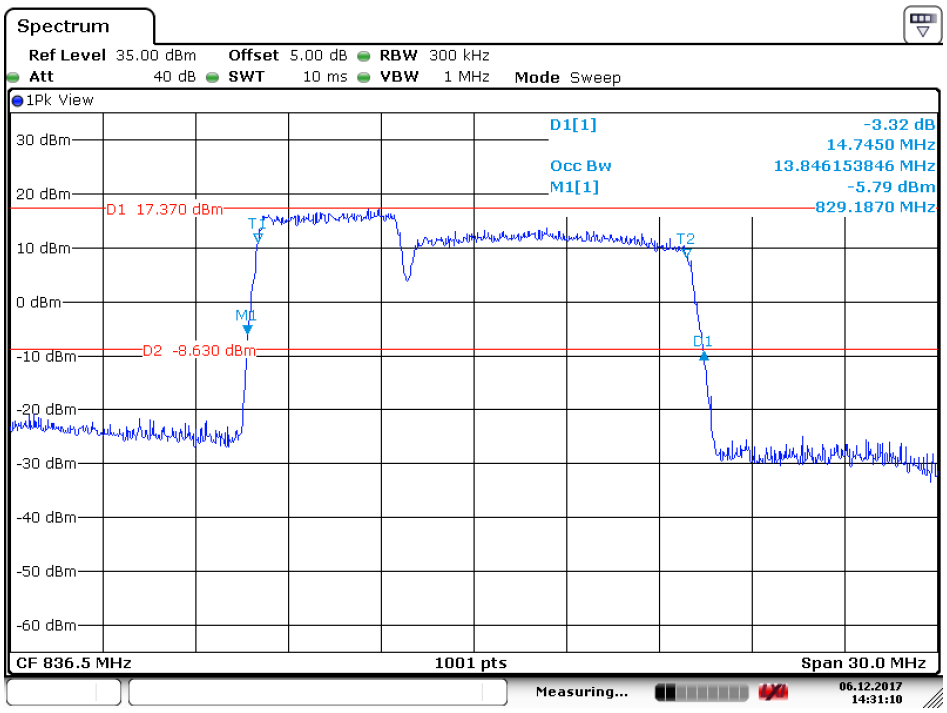
4.1.1.1.1 Test Channel = MCH



Date: 6.DEC.2017 14:27:07

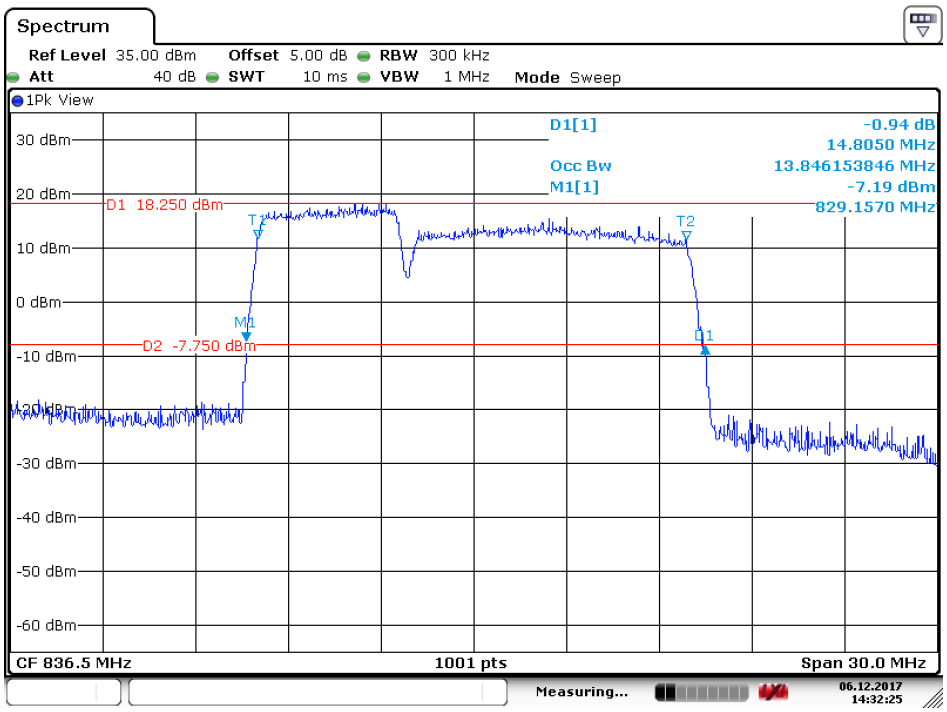
4.1.1.2 Test Mode = LTE/TM2 5+10MHz

4.1.1.2.1 Test Channel = MCH



Date: 6.DEC.2017 14:31:10

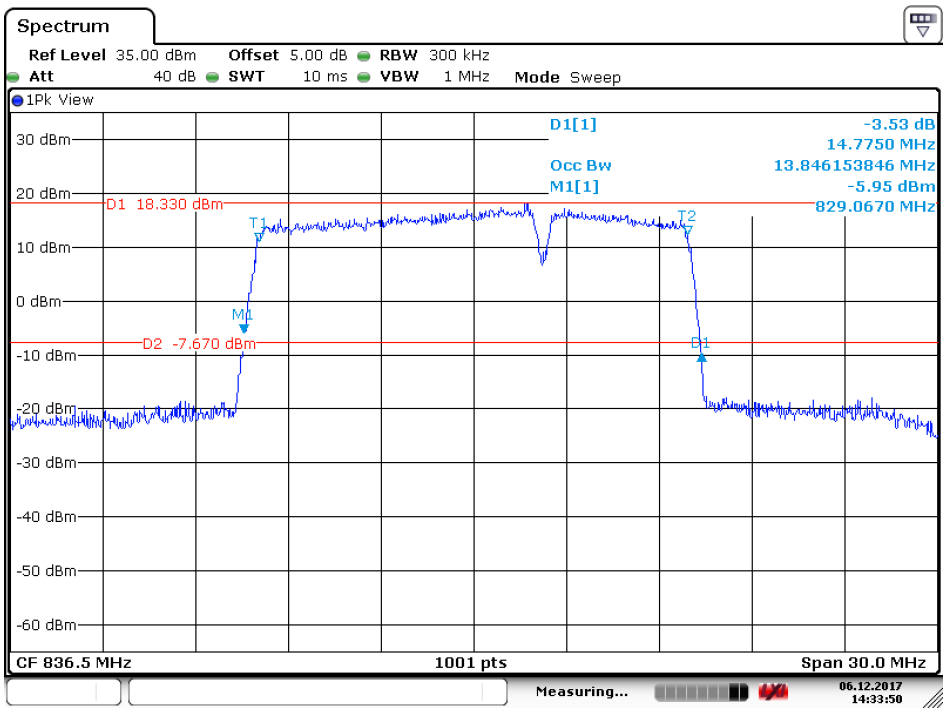
4.1.1.3 Test Mode = LTE/TM3 5+10MHz



Date: 6.DEC.2017 14:32:26

4.1.1.4 Test Mode = LTE/TM1 10+5MHz

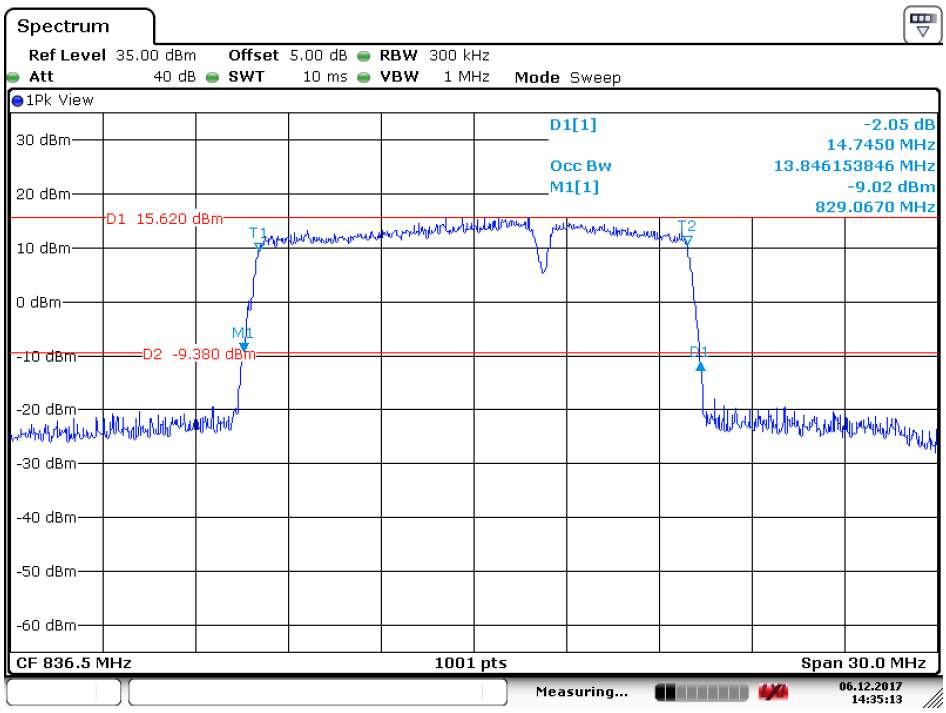
4.1.1.4.1 Test Channel = MCH



Date: 6.DEC.2017 14:33:50

4.1.1.5 Test Mode = LTE/TM2 10+5MHz

4.1.1.5.1 Test Channel = MCH



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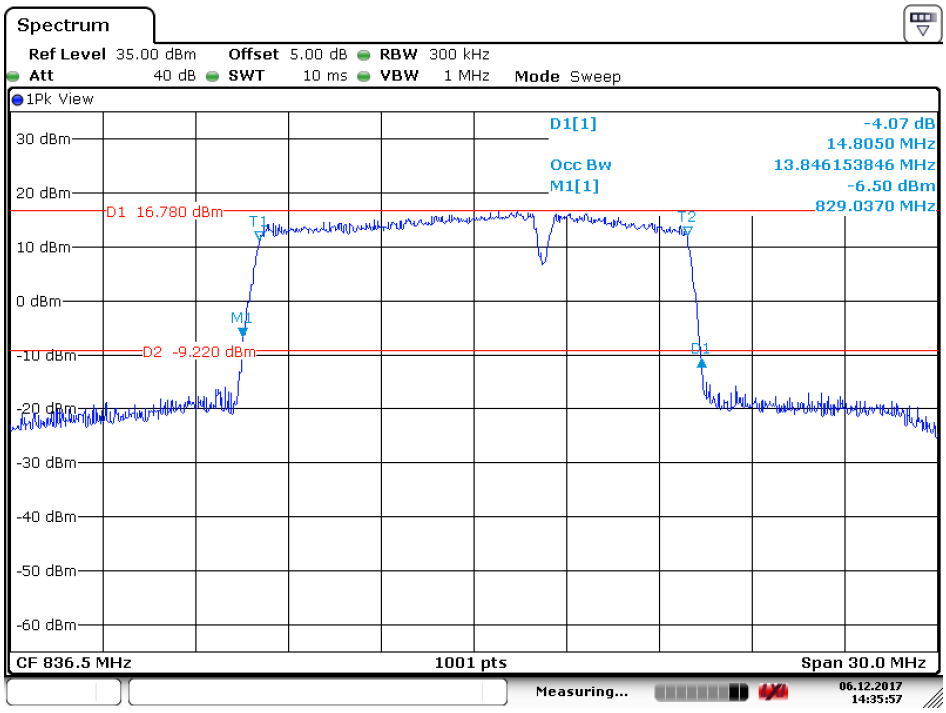
4.1.1.6 Test Mode = LTE/TM3 10+5MHz



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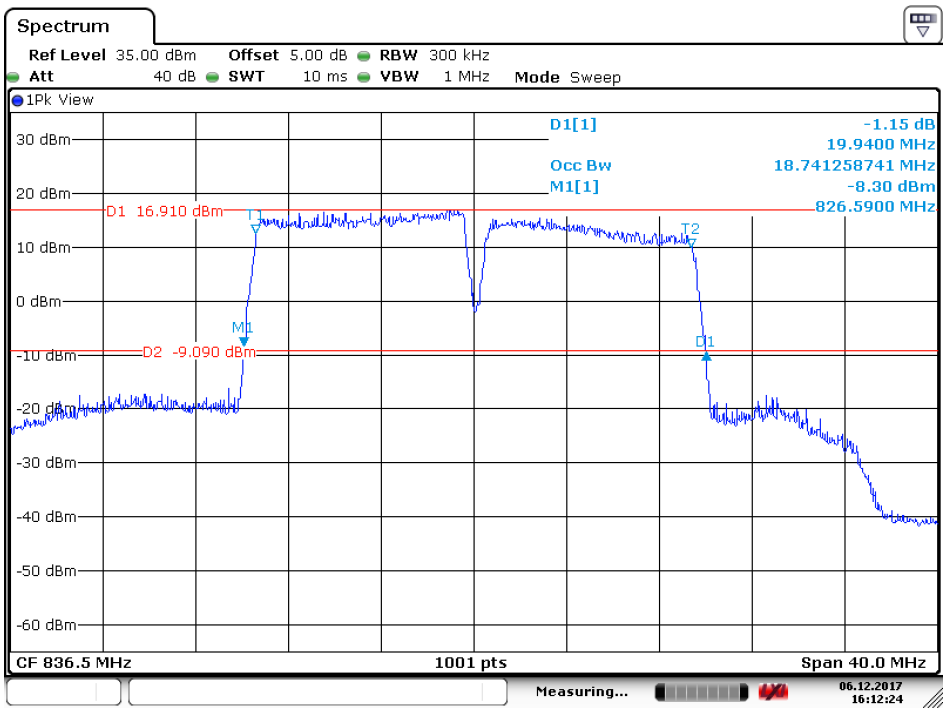
4.1.1.7 Test Mode = LTE/TM1 10+10MHz

4.1.1.7.1 Test Channel = MCH



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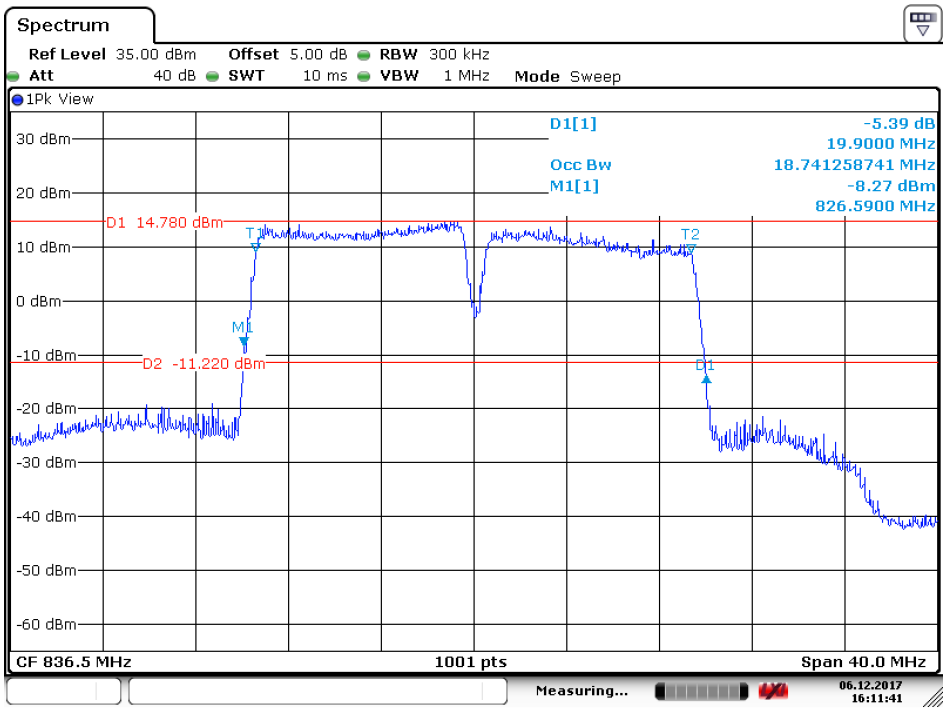
4.1.1.8 Test Mode = LTE/TM2 10+10MHz

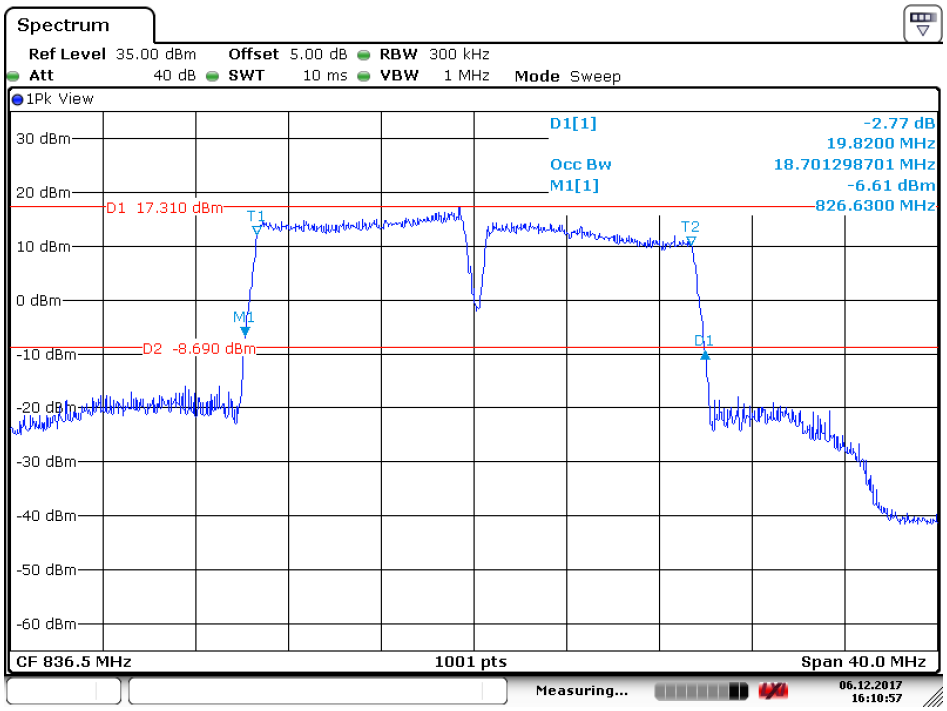
4.1.1.8.1 Test Channel = MCH



Date: 6.DEC.2017 16:11:41

4.1.1.9 Test Mode = LTE/TM3 10+10MHz

4.1.1.9.1 Test Channel = MCH



Date: 6.DEC.2017 16:10:57

5 Band Edges Compliance

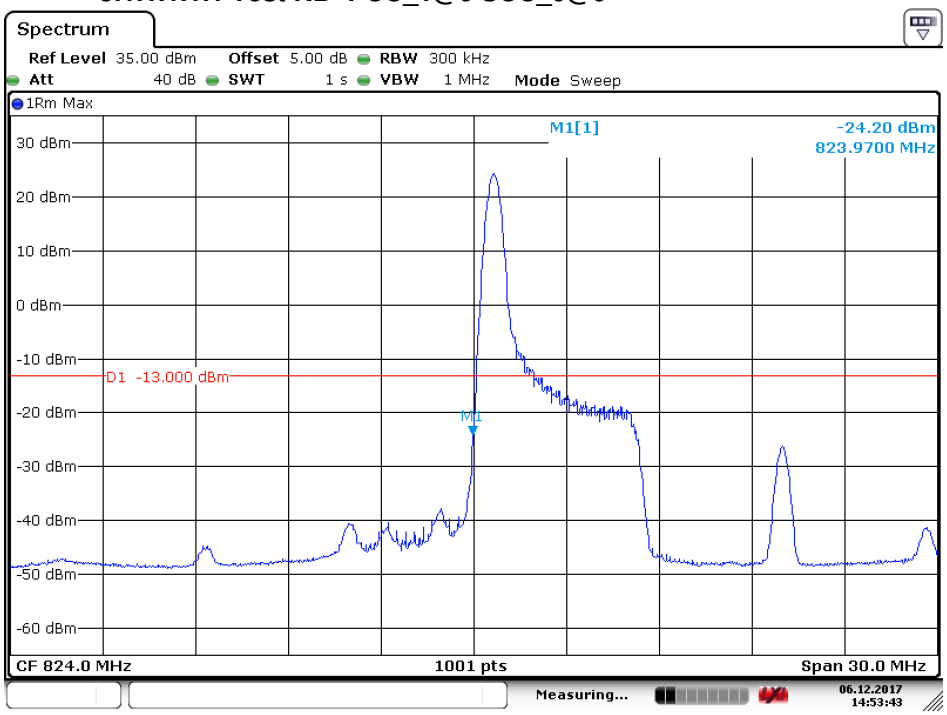
5.1 For LTE

5.1.1 Test Band = LTE band5

5.1.1.1 Test Mode = LTE/TM1 5+10MHz

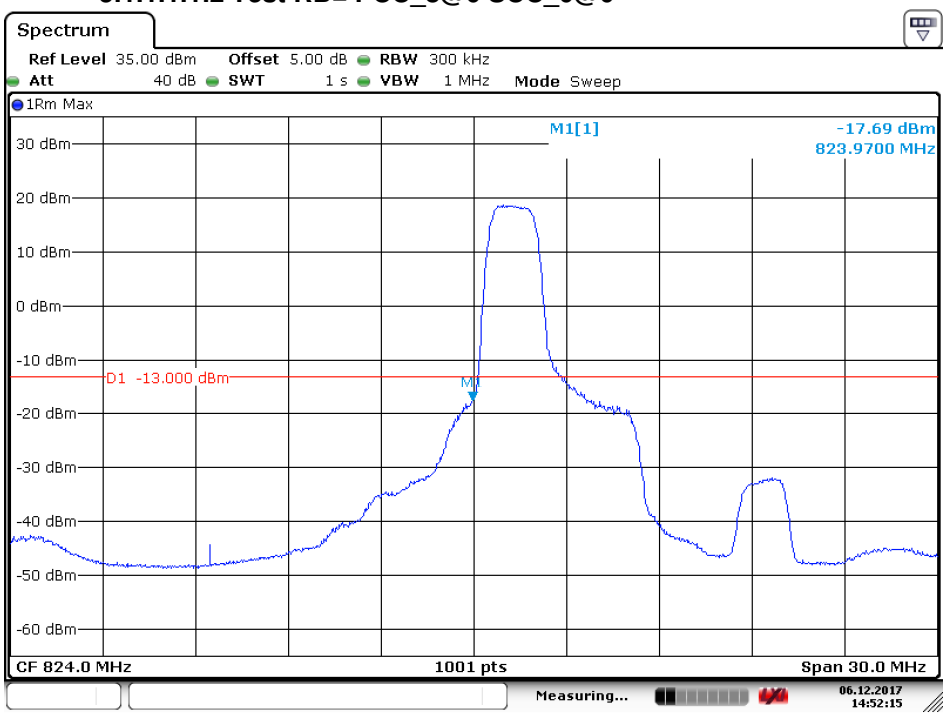
5.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1 Test RB=PCC_1@0 SCC_0@0



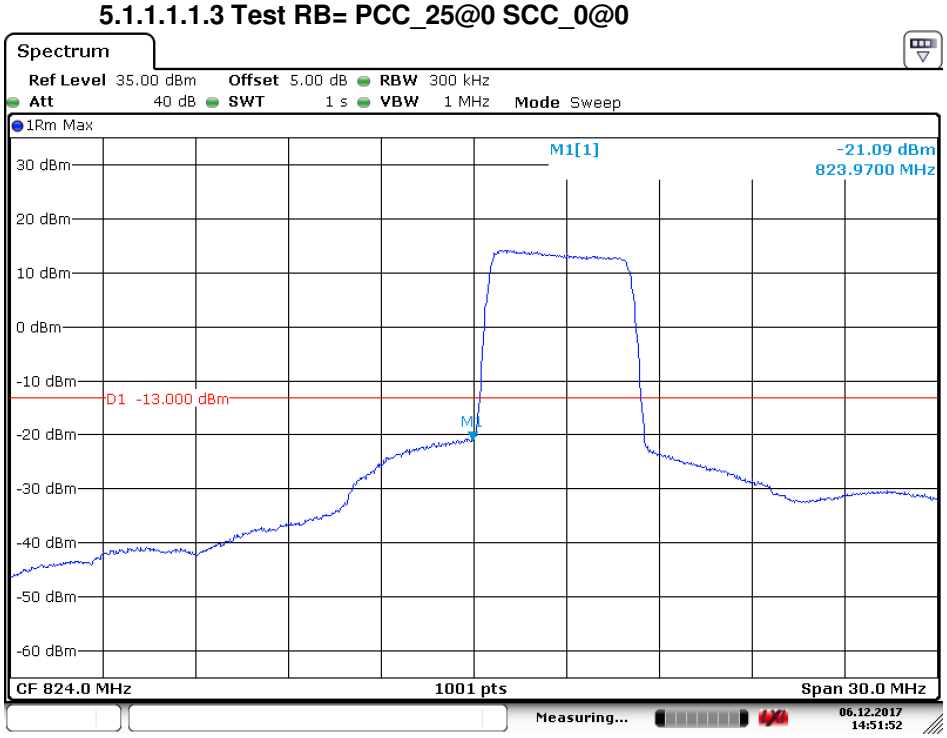
Date: 6.DEC.2017 14:53:44

5.1.1.1.1.2 Test RB= PCC_8@0 SCC_0@0



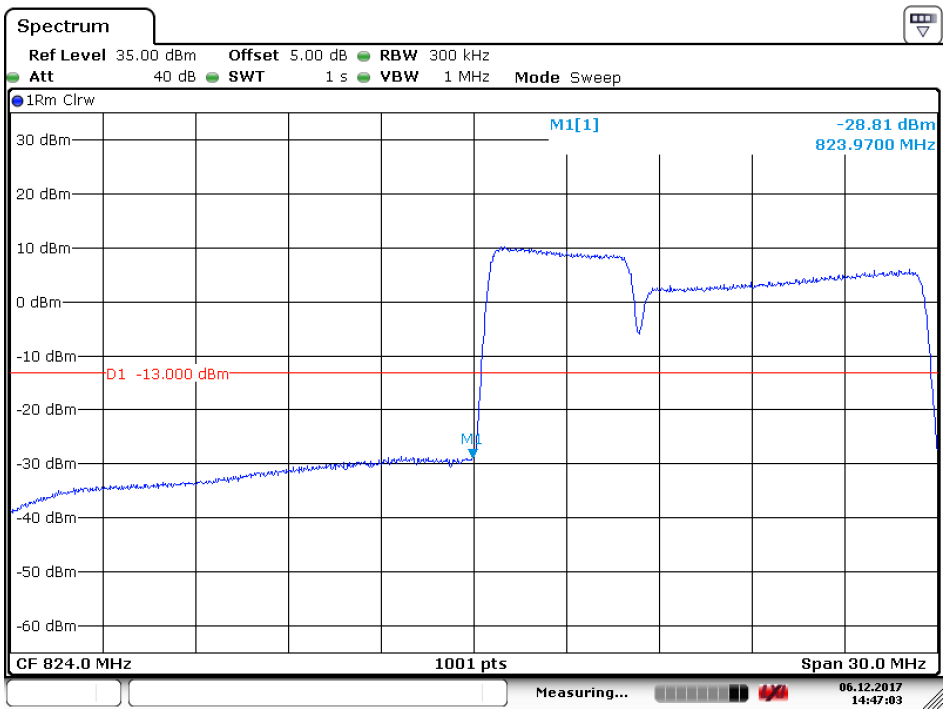
Date: 6.DEC.2017 14:52:15

5.1.1.1.1.3 Test RB= PCC_25@0 SCC_0@0



Date: 6.DEC.2017 14:51:52

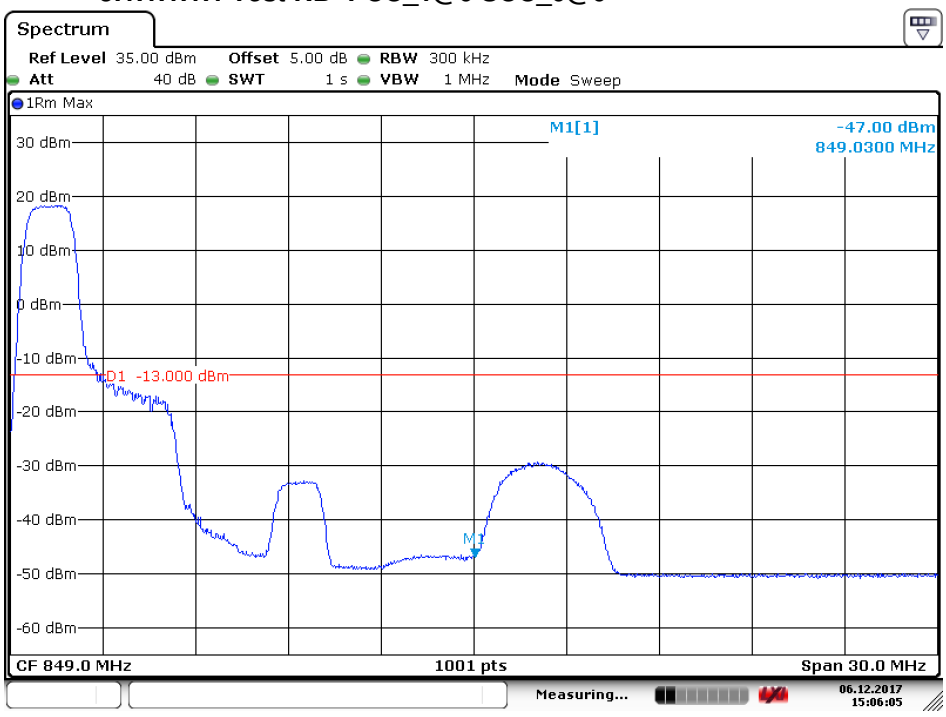
5.1.1.1.1.4 Test RB= PCC_25@0 SCC_50@0



Date: 6.DEC.2017 14:47:03

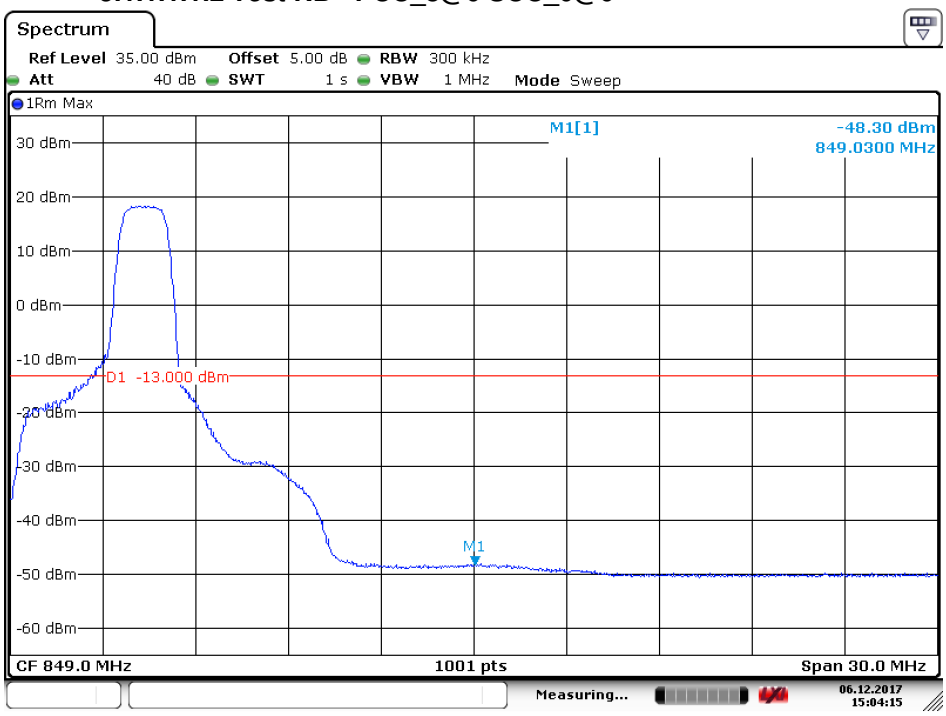
5.1.1.1.1 Test Channel = HCH

5.1.1.1.1.1 Test RB=PCC_1@0 SCC_0@0



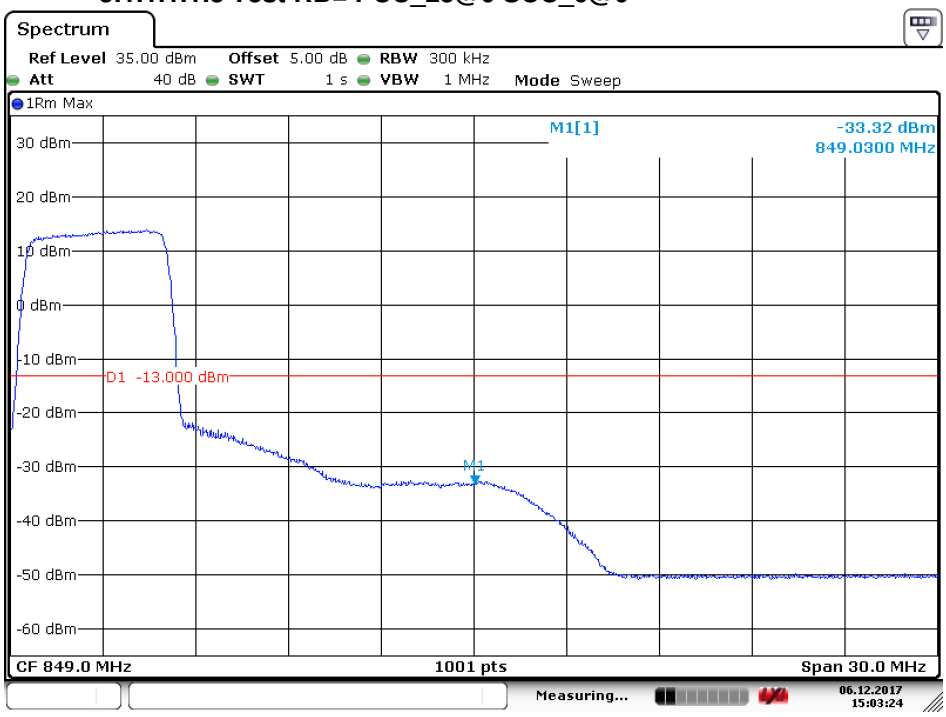
Date: 6.DEC.2017 15:06:06

5.1.1.1.1.2 Test RB= PCC_8@0 SCC_0@0



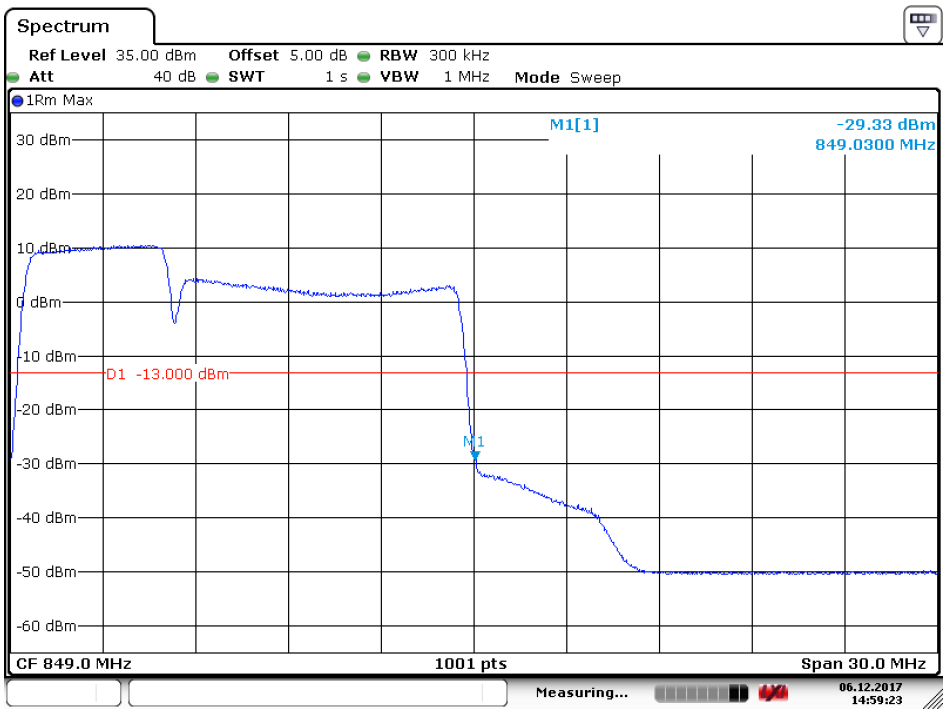
Date: 6.DEC.2017 15:04:15

5.1.1.1.1.3 Test RB= PCC_25@0 SCC_0@0



Date: 6.DEC.2017 15:03:24

5.1.1.1.1.4 Test RB= PCC_25@0 SCC_50@0

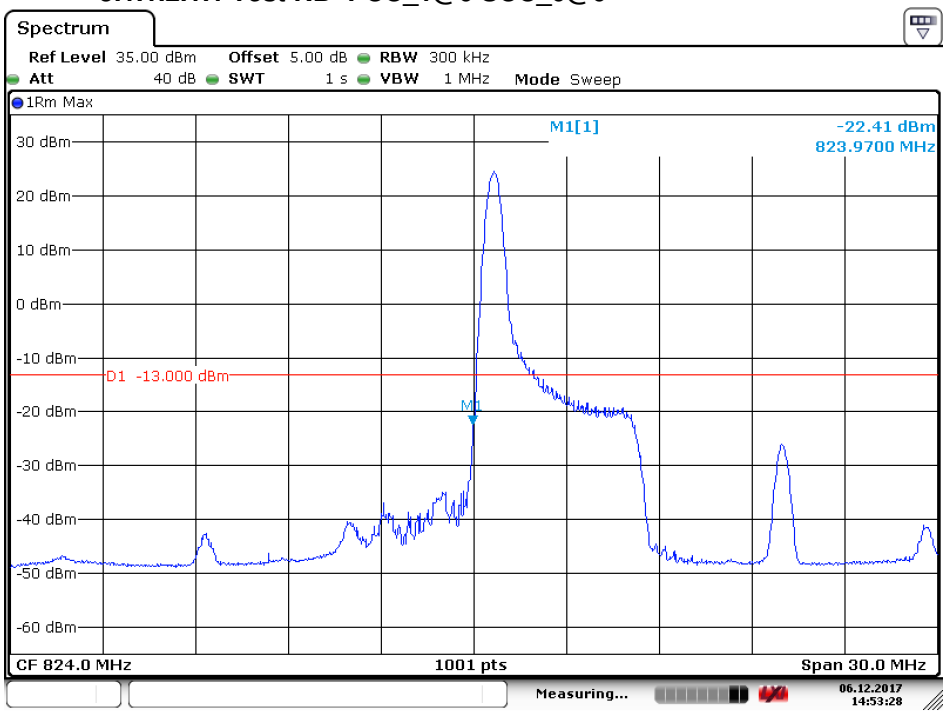


Date: 6.DEC.2017 14:59:24

5.1.1.2 Test Mode = LTE/TM2 5+10MHz

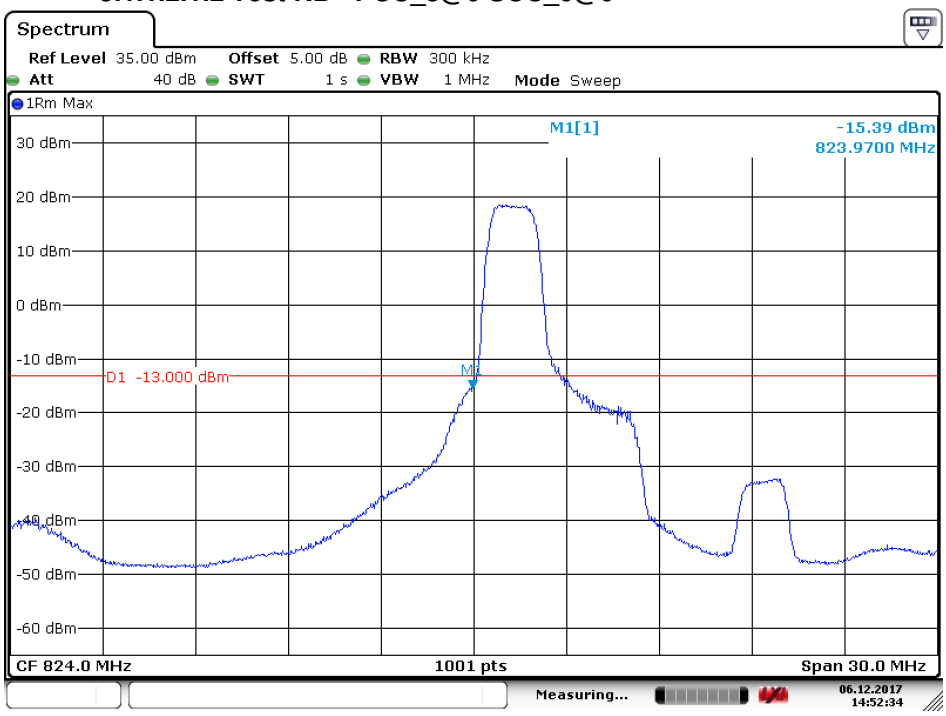
5.1.1.2.1 Test Channel = LCH

5.1.1.2.1.1 Test RB=PCC_1@0 SCC_0@0



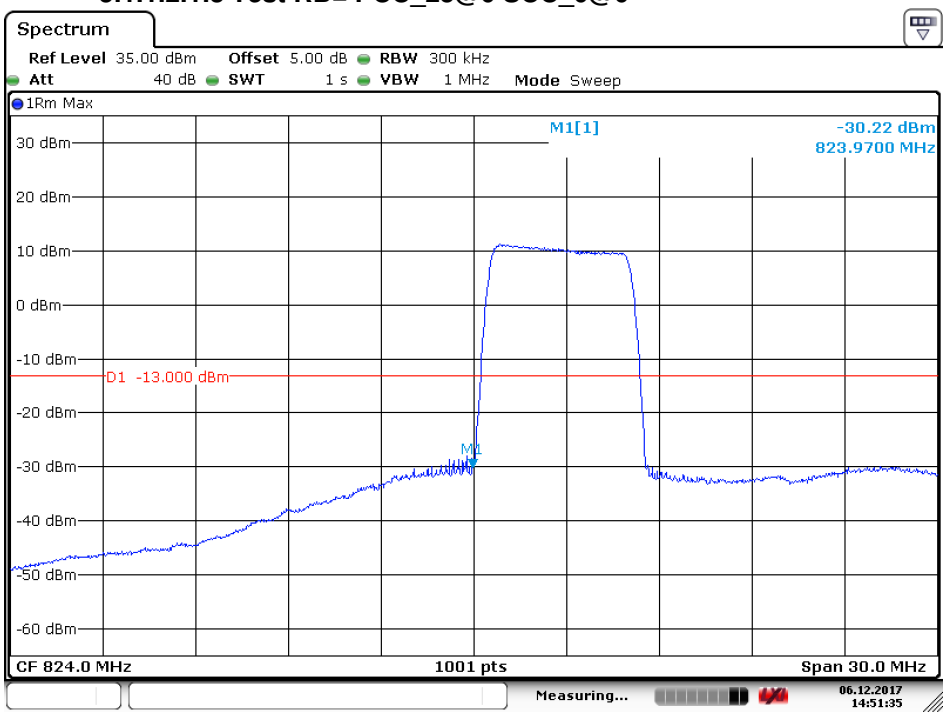
Date: 6.DEC.2017 14:53:28

5.1.1.2.1.2 Test RB= PCC_8@0 SCC_0@0



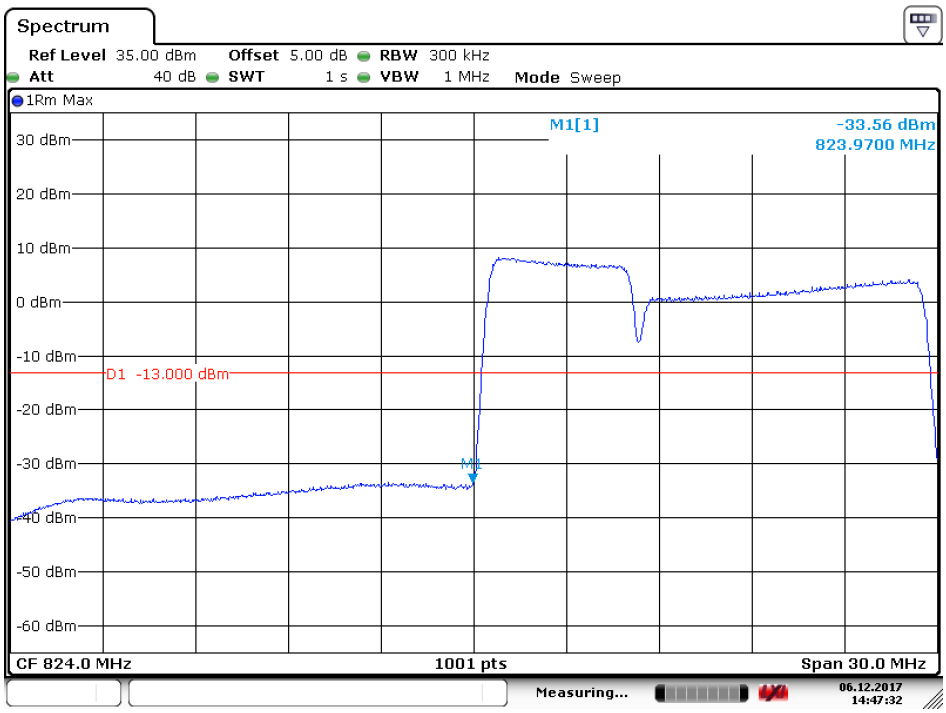
Date: 6.DEC.2017 14:52:35

5.1.1.2.1.3 Test RB= PCC_25@0 SCC_0@0



Date: 6.DEC.2017 14:51:36

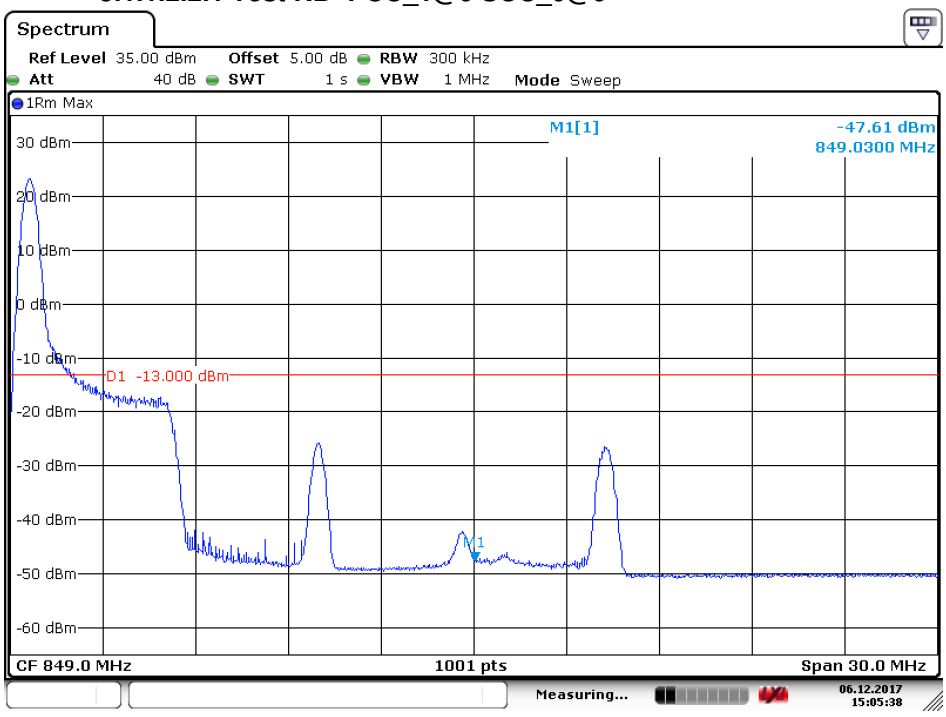
5.1.1.2.1.4 Test RB= PCC_25@0 SCC_50@0



Date: 6.DEC.2017 14:47:32

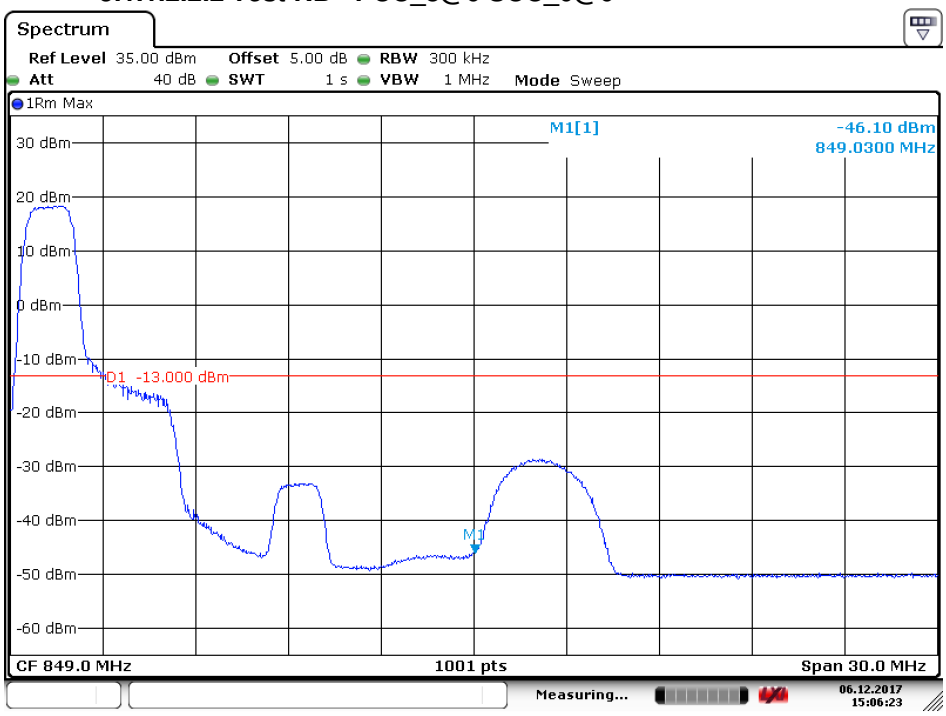
5.1.1.2.2 Test Channel = HCH

5.1.1.2.2.1 Test RB=PCC_1@0 SCC_0@0



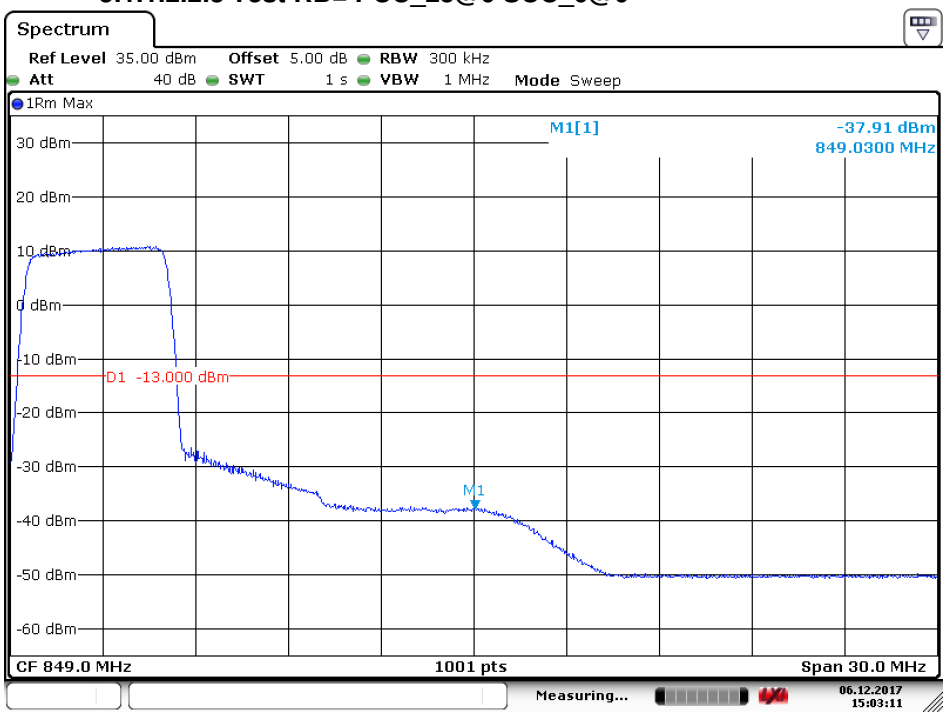
Date: 6.DEC.2017 15:05:38

5.1.1.2.2.2 Test RB= PCC_8@0 SCC_0@0



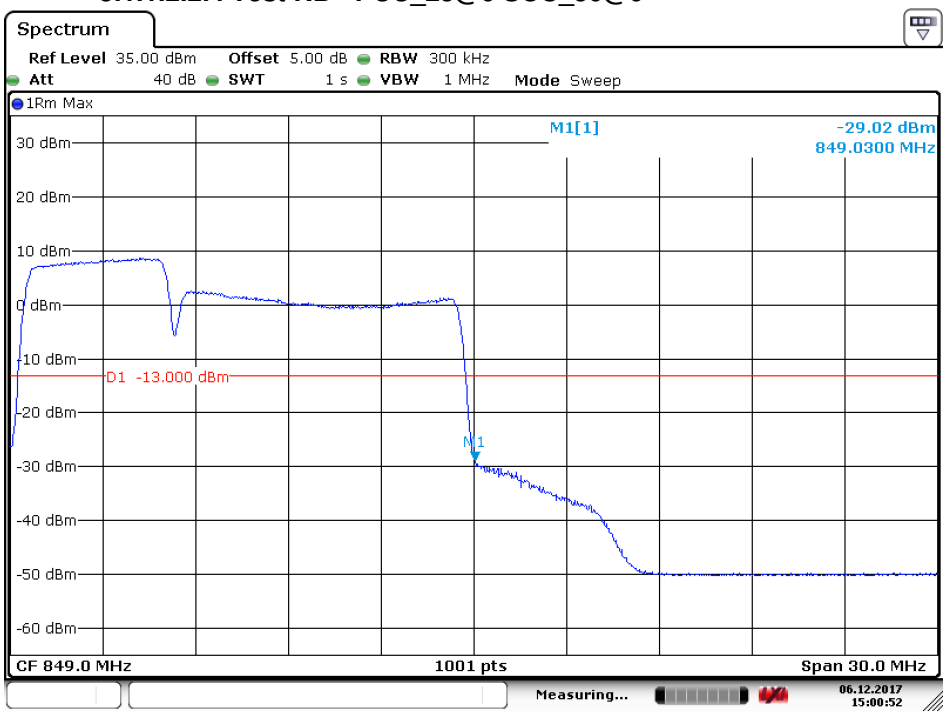
Date: 6.DEC.2017 15:06:23

5.1.1.2.2.3 Test RB= PCC_25@0 SCC_0@0



Date: 6.DEC.2017 15:03:11

5.1.1.2.2.4 Test RB= PCC_25@0 SCC_50@0

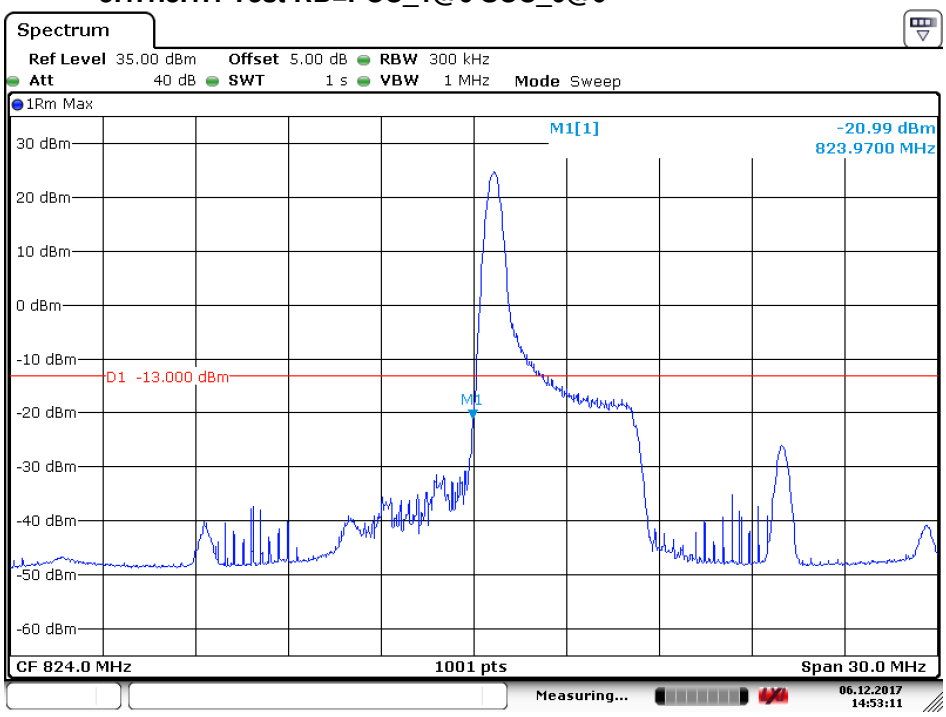


Date: 6.DEC.2017 15:00:52

5.1.1.3 Test Mode = LTE/TM3 5+10MHz

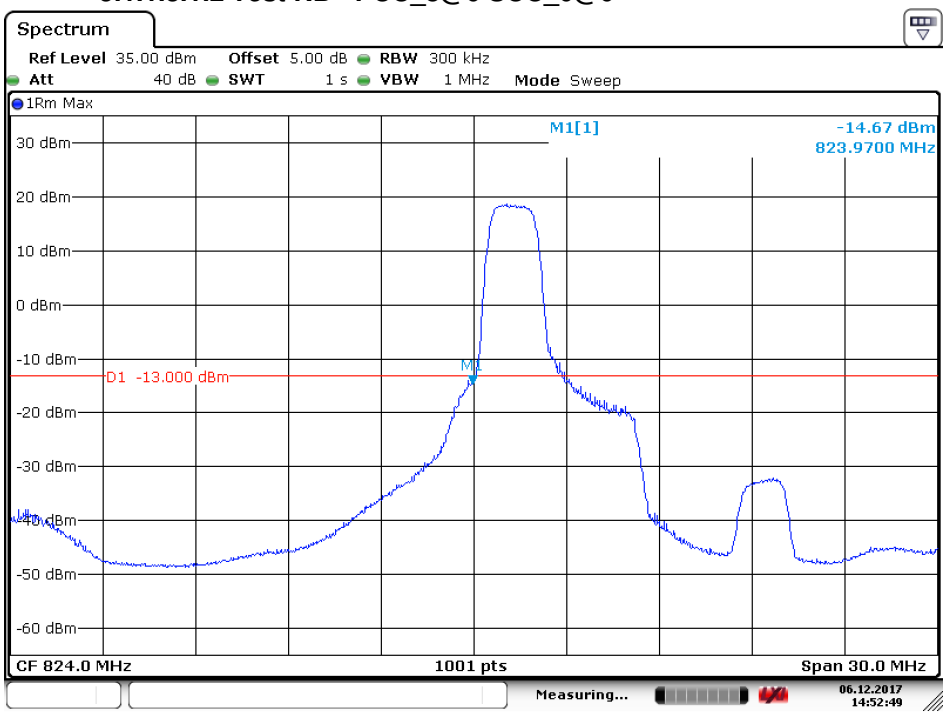
5.1.1.3.1 Test Channel = LCH

5.1.1.3.1.1 Test RB=PCC_1@0 SCC_0@0



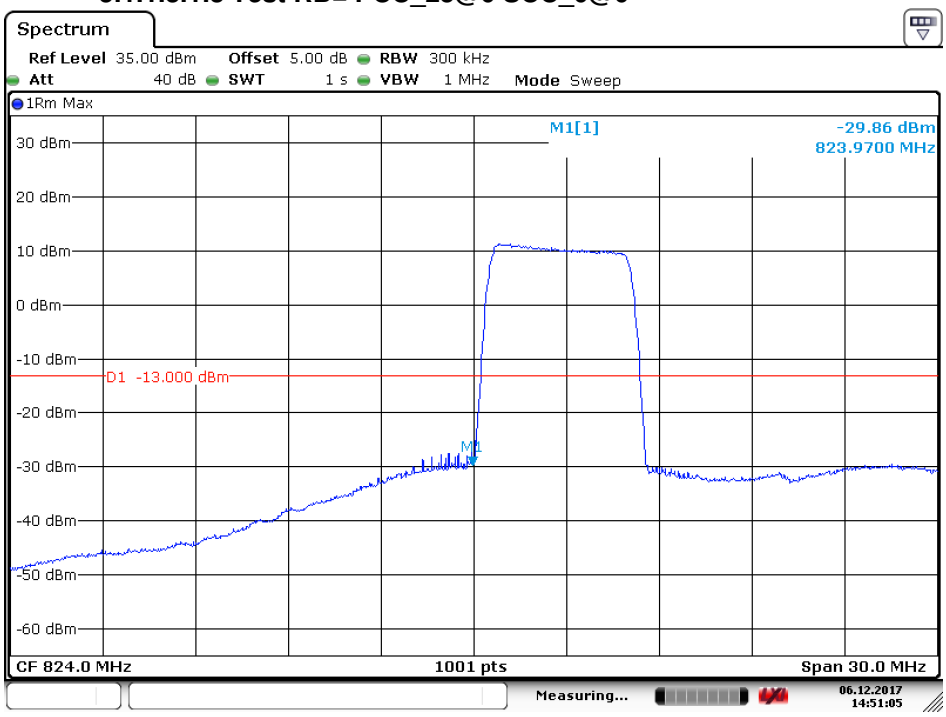
Date: 6.DEC.2017 14:53:11

5.1.1.3.1.2 Test RB= PCC_8@0 SCC_0@0



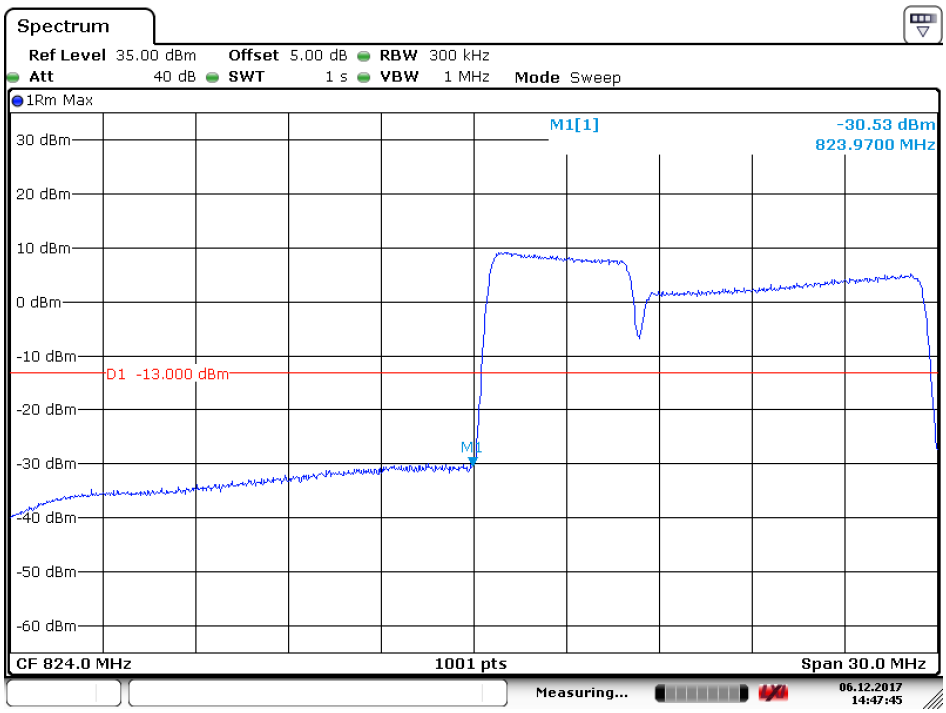
Date: 6.DEC.2017 14:52:50

5.1.1.3.1.3 Test RB= PCC_25@0 SCC_0@0



Date: 6.DEC.2017 14:51:05

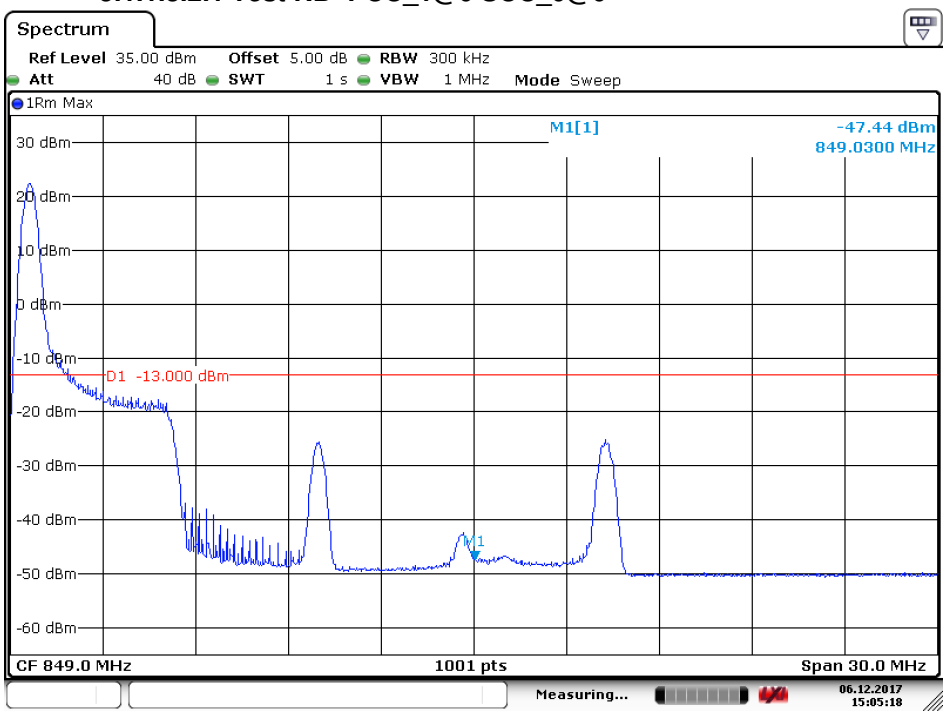
5.1.1.3.1.4 Test RB= PCC_25@0 SCC_50@0



Date: 6.DEC.2017 14:47:46

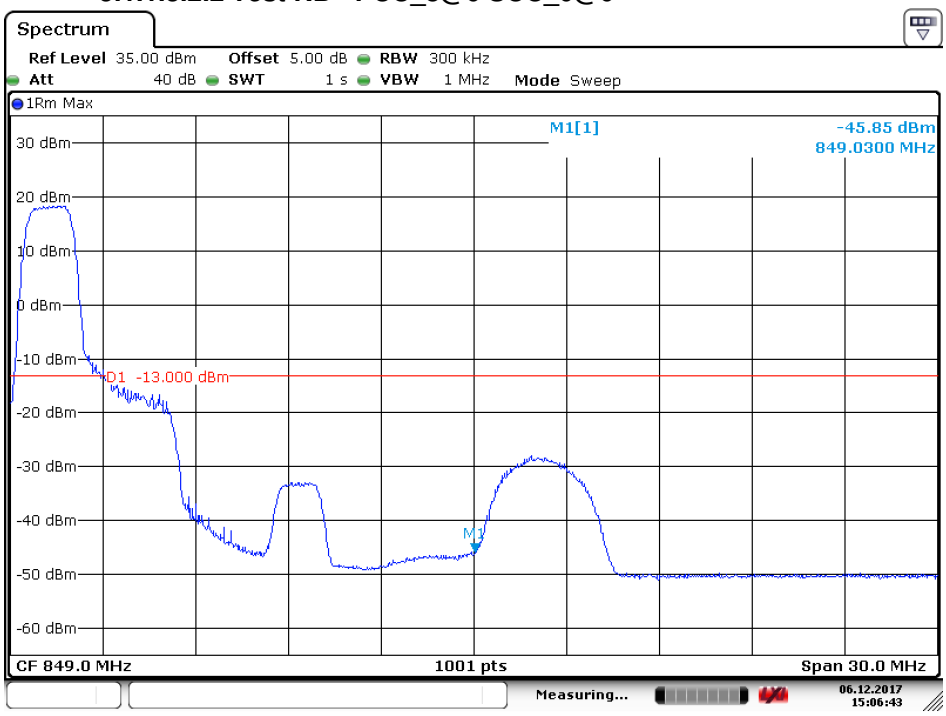
5.1.1.3.2 Test Channel = HCH

5.1.1.3.2.1 Test RB=PCC_1@0 SCC_0@0



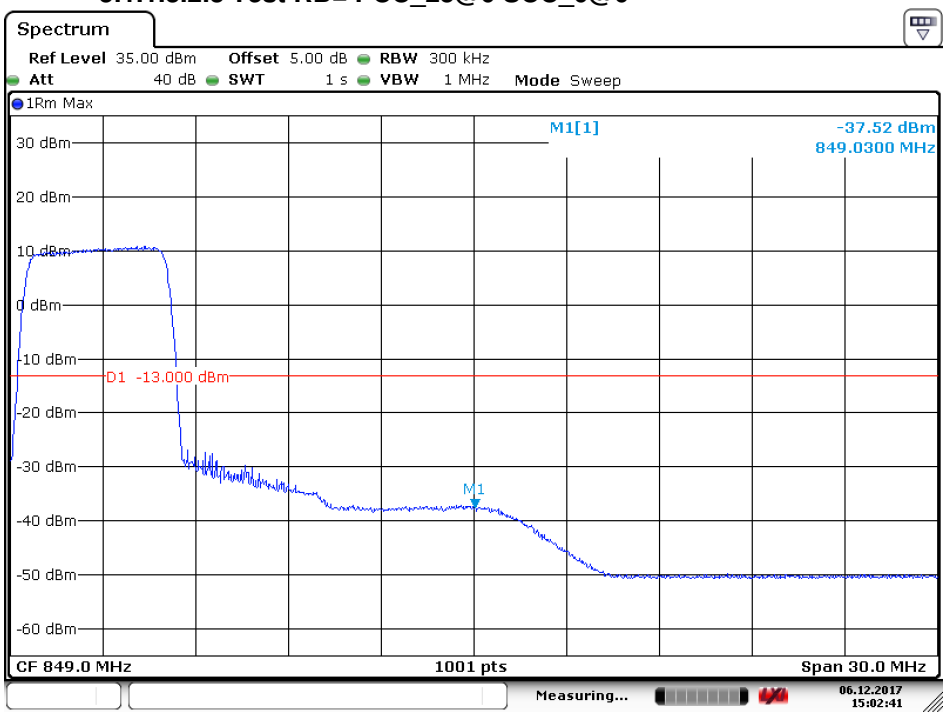
Date: 6.DEC.2017 15:05:18

5.1.1.3.2.2 Test RB= PCC_8@0 SCC_0@0



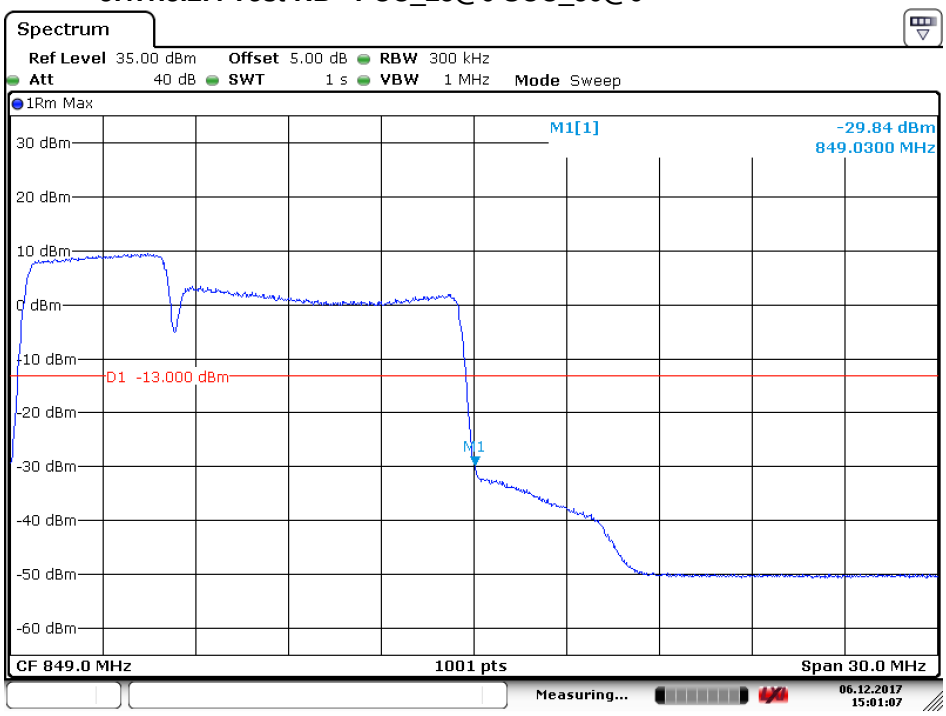
Date: 6.DEC.2017 15:06:43

5.1.1.3.2.3 Test RB= PCC_25@0 SCC_0@0



Date: 6.DEC.2017 15:02:41

5.1.1.3.2.4 Test RB= PCC_25@0 SCC_50@0

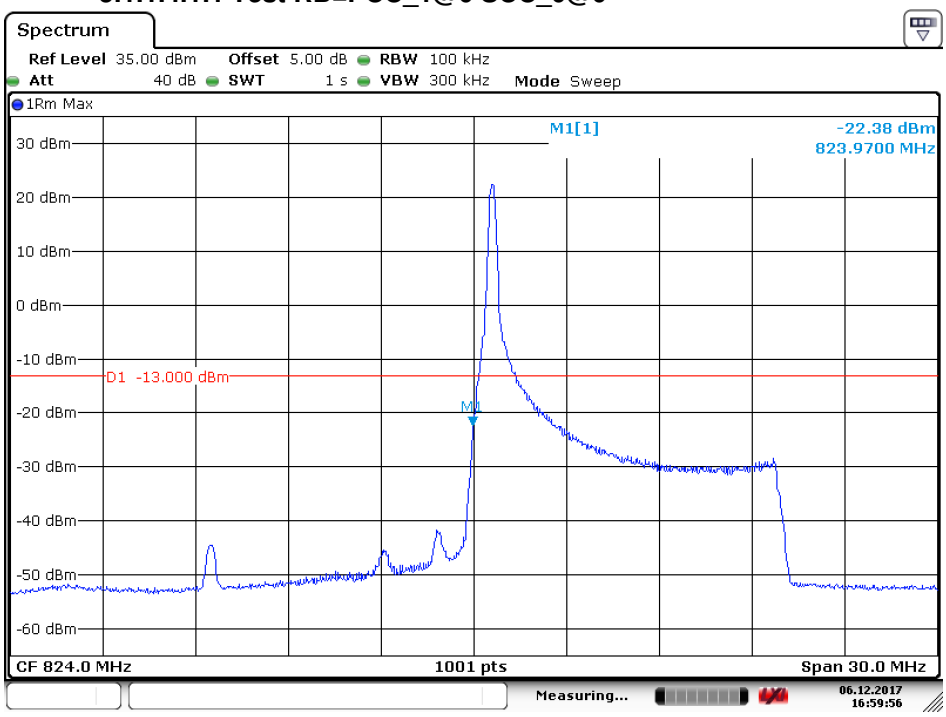


Date: 6.DEC.2017 15:01:08

5.1.1.4 Test Mode = LTE/TM1 10+5MHz

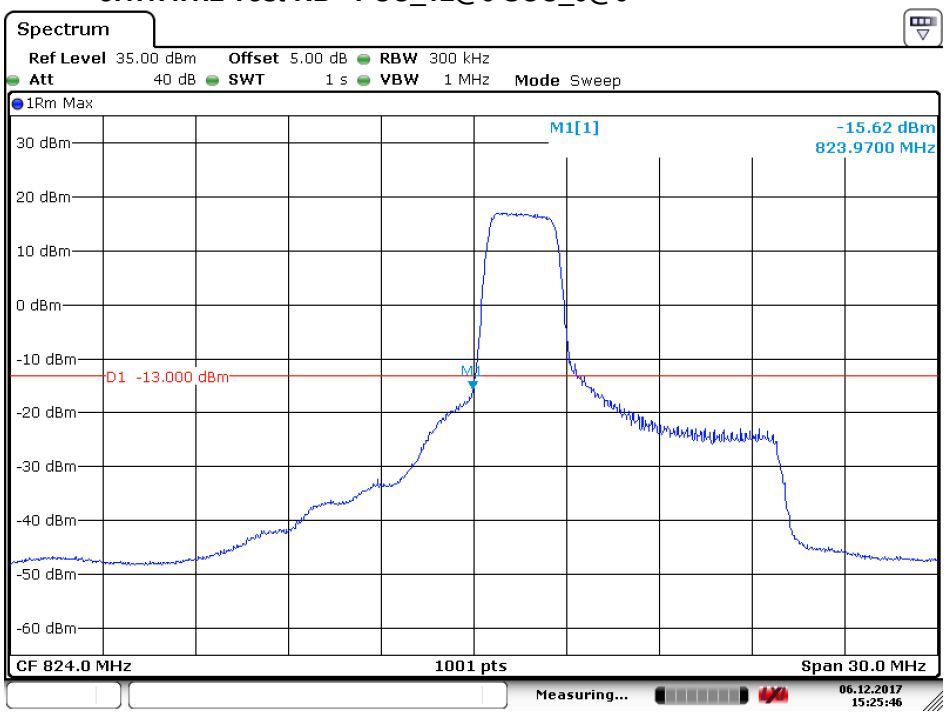
5.1.1.4.1 Test Channel = LCH

5.1.1.4.1.1 Test RB=PCC_1@0 SCC_0@0



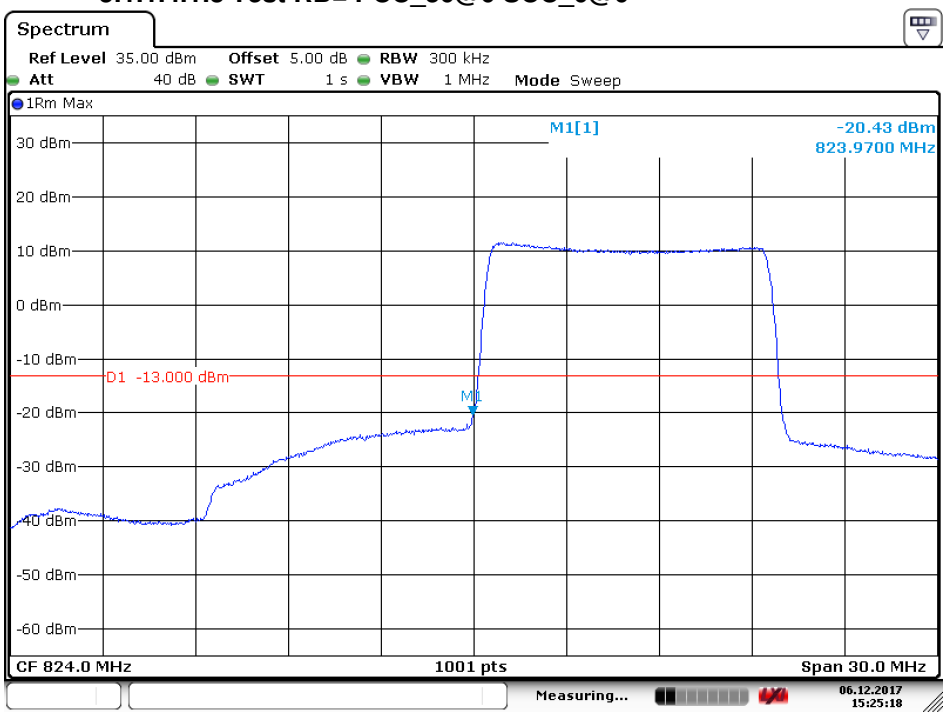
Date: 6.DEC.2017 16:59:57

5.1.1.4.1.2 Test RB= PCC_12@0 SCC_0@0



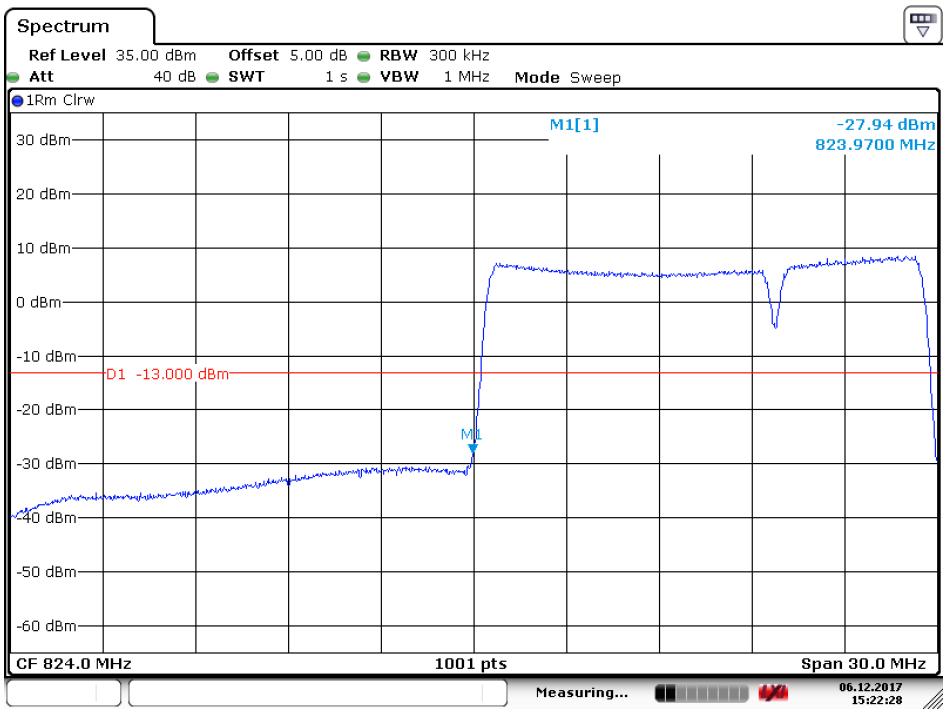
Date: 6.DEC.2017 15:25:46

5.1.1.4.1.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 15:25:19

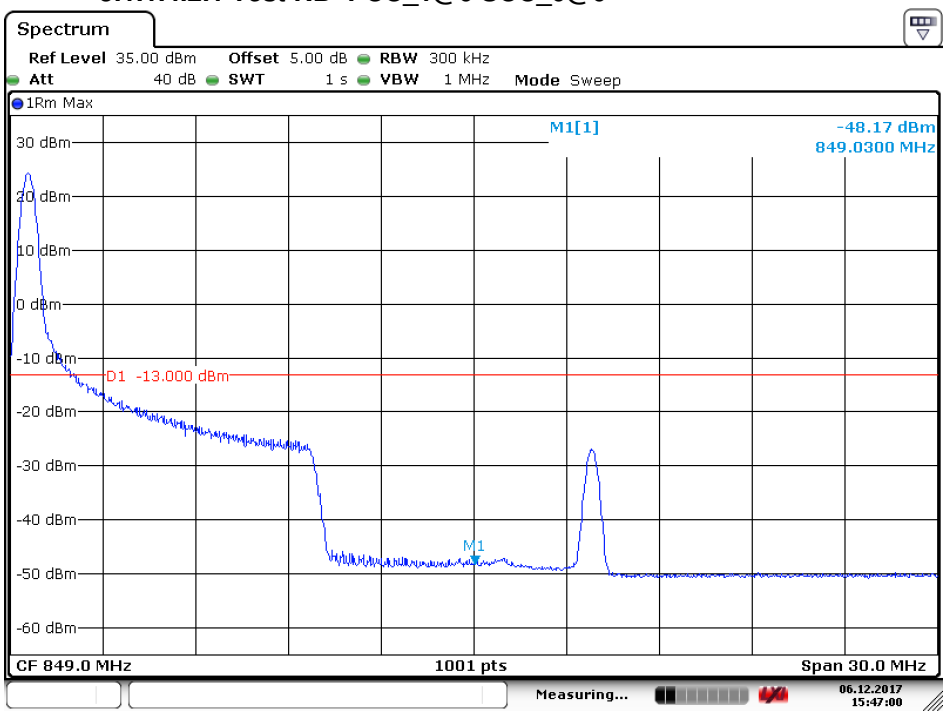
5.1.1.4.1.4 Test RB= PCC_50@0 SCC_25@0



Date: 6.DEC.2017 15:22:29

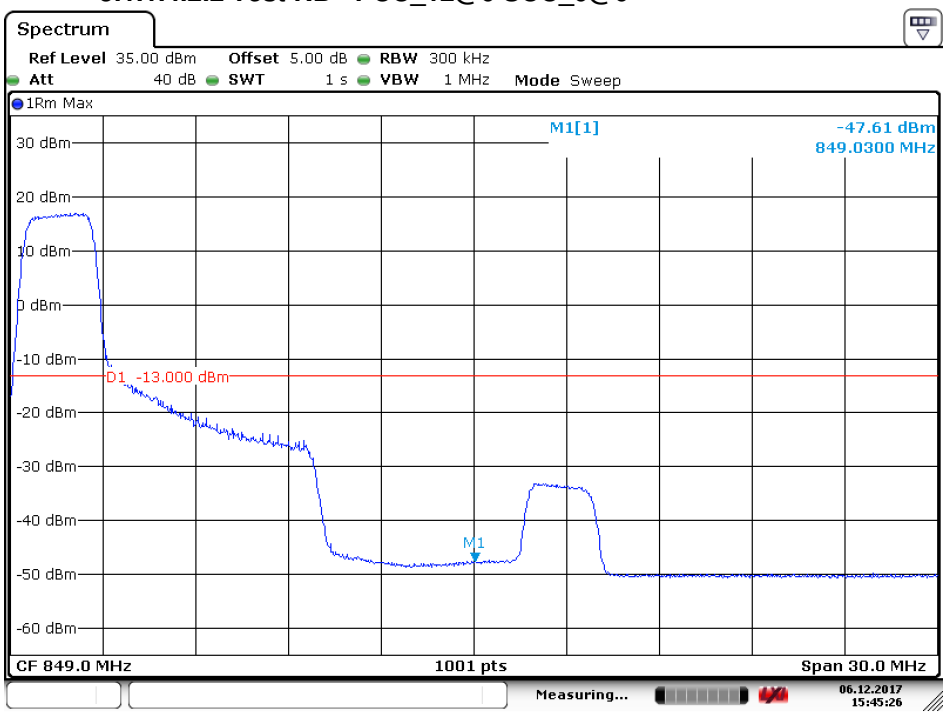
5.1.1.4.2 Test Channel = HCH

5.1.1.4.2.1 Test RB=PCC_1@0 SCC_0@0



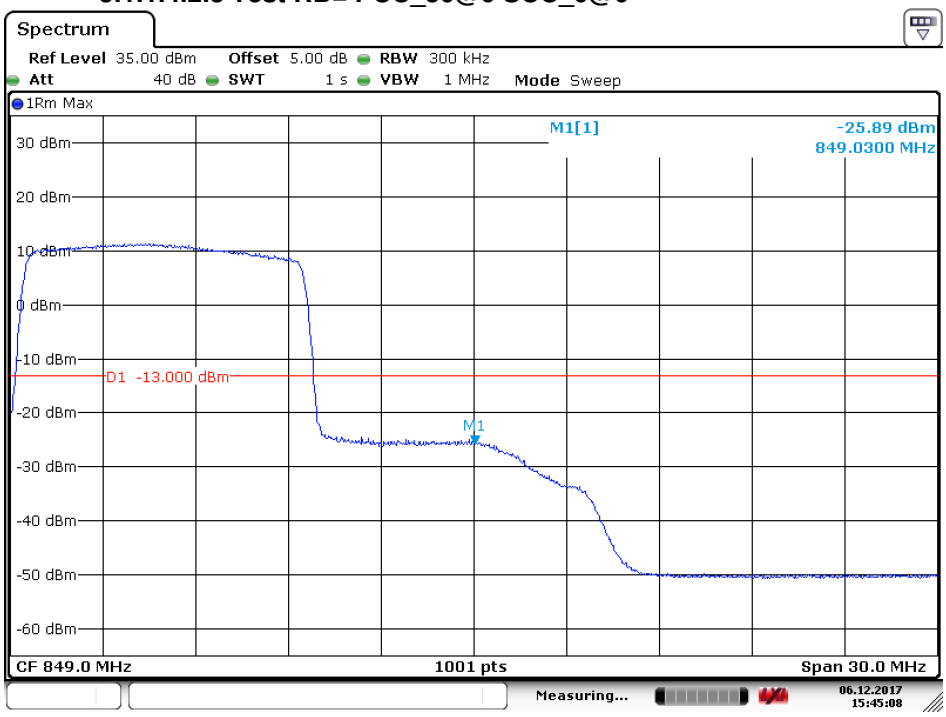
Date: 6.DEC.2017 15:47:01

5.1.1.4.2.2 Test RB= PCC_12@0 SCC_0@0



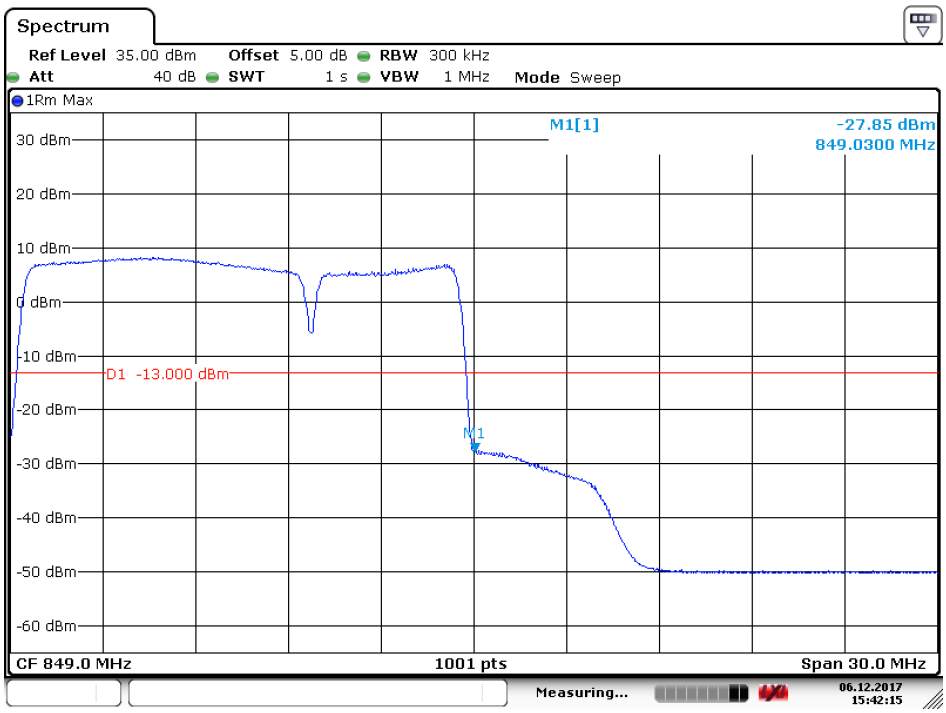
Date: 6.DEC.2017 15:45:27

5.1.1.4.2.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 15:45:08

5.1.1.4.2.4 Test RB= PCC_50@0 SCC_25@0

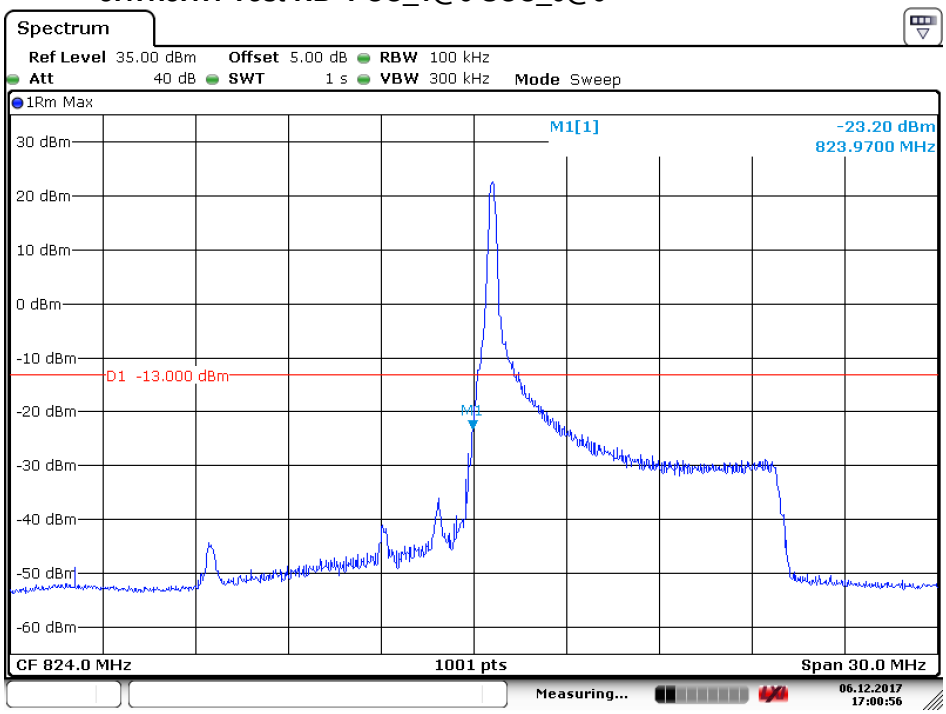


Date: 6.DEC.2017 15:42:16

5.1.1.5 Test Mode = LTE/TM2 10+5MHz

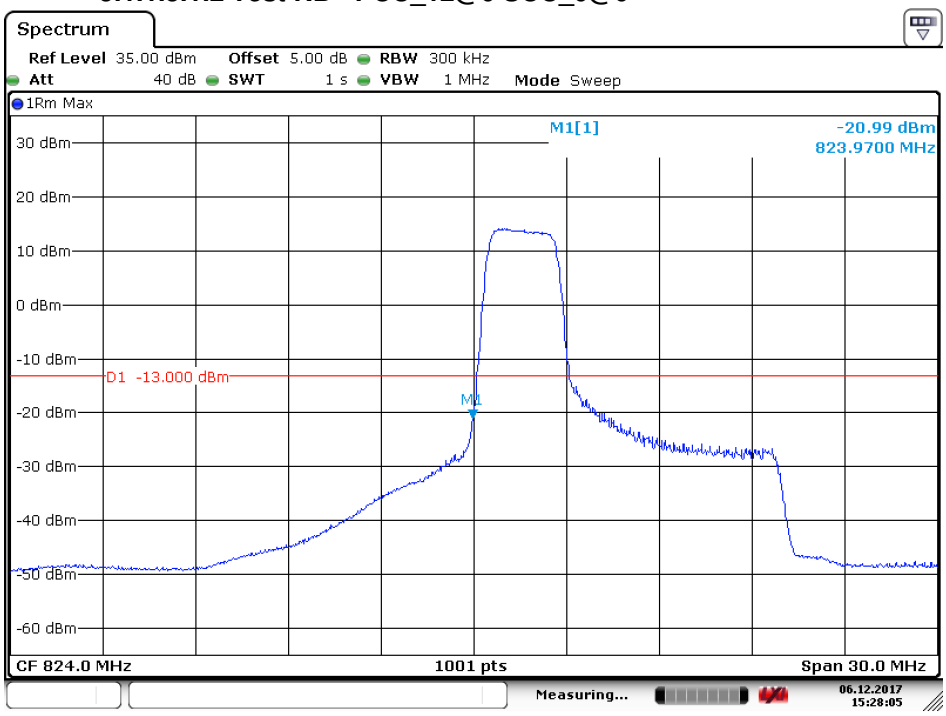
5.1.1.5.1 Test Channel = LCH

5.1.1.5.1.1 Test RB=PCC_1@0 SCC_0@0



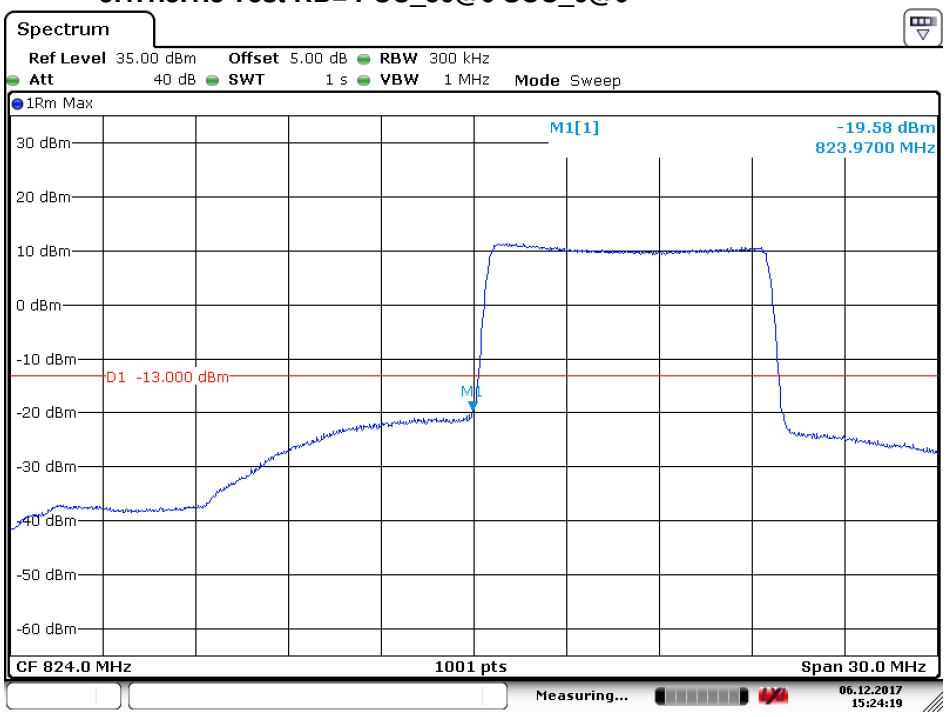
Date: 6.DEC.2017 17:00:57

5.1.1.5.1.2 Test RB= PCC_12@0 SCC_0@0



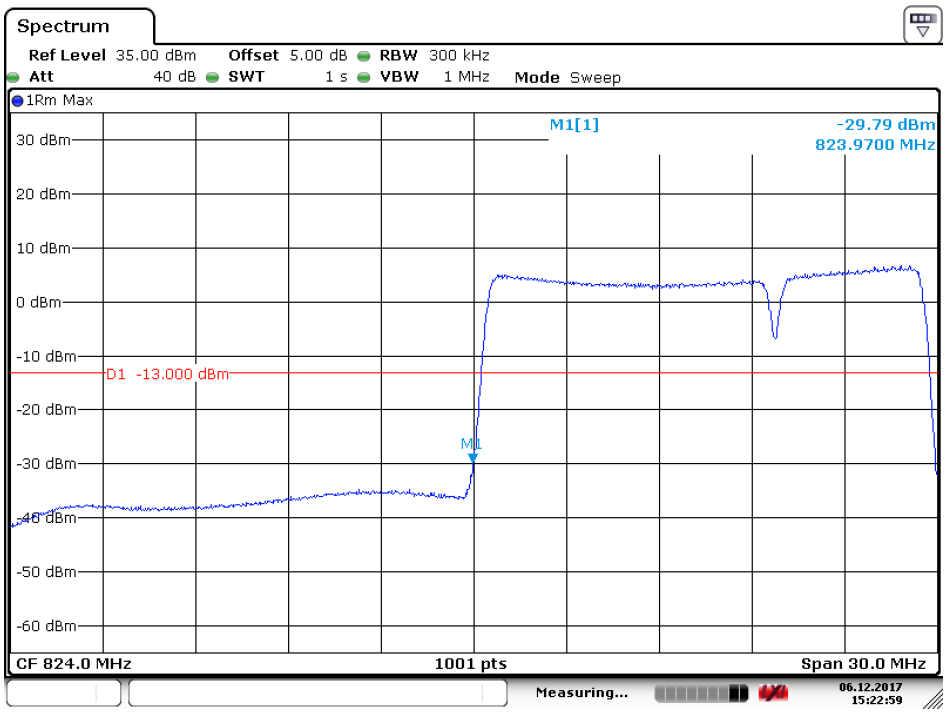
Date: 6.DEC.2017 15:28:05

5.1.1.5.1.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 15:24:20

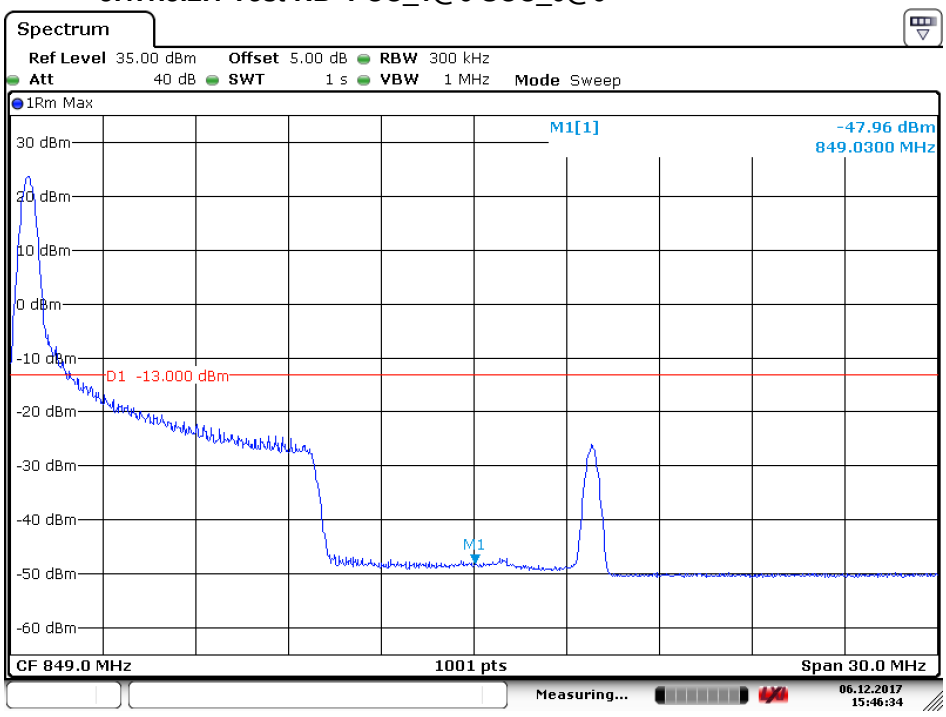
5.1.1.5.1.4 Test RB= PCC_50@0 SCC_25@0



Date: 6.DEC.2017 15:23:00

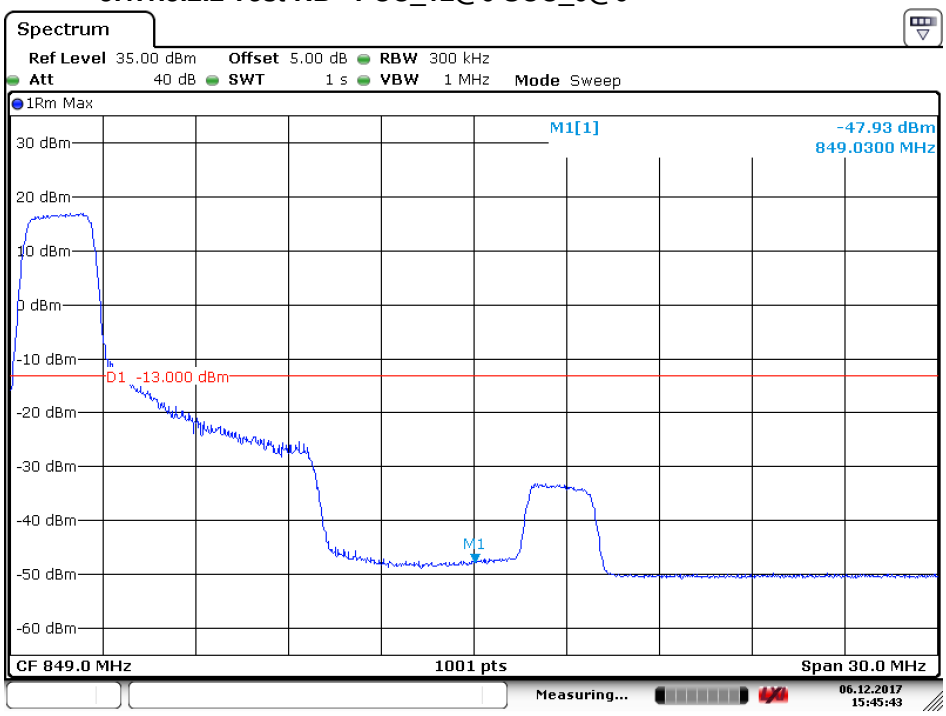
5.1.1.5.2 Test Channel = HCH

5.1.1.5.2.1 Test RB=PCC_1@0 SCC_0@0



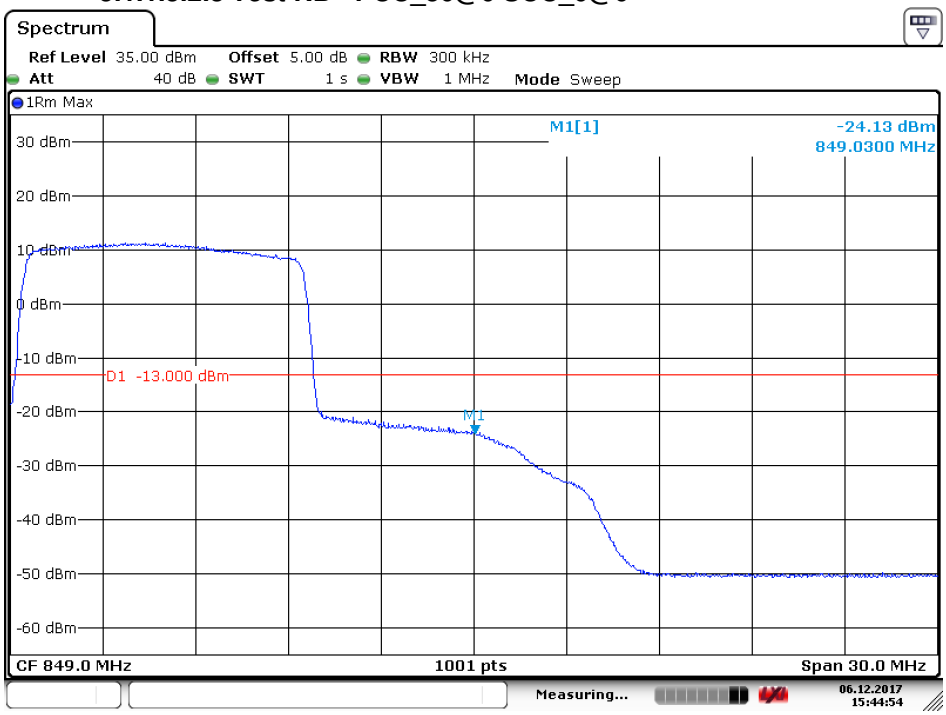
Date: 6.DEC.2017 15:46:35

5.1.1.5.2.2 Test RB= PCC_12@0 SCC_0@0



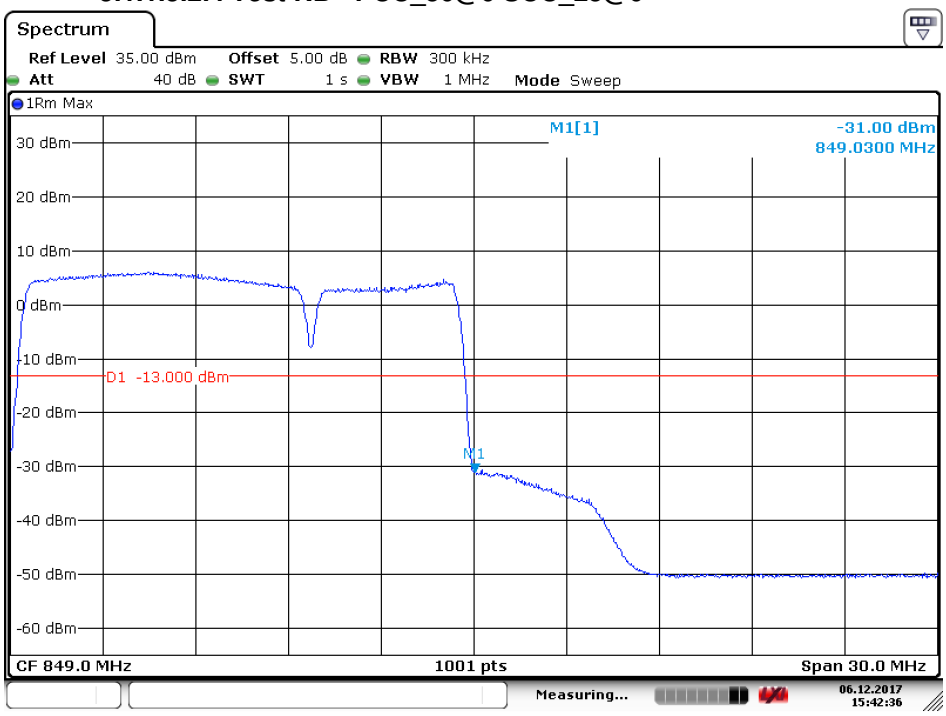
Date: 6.DEC.2017 15:45:43

5.1.1.5.2.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 15:44:54

5.1.1.5.2.4 Test RB= PCC_50@0 SCC_25@0

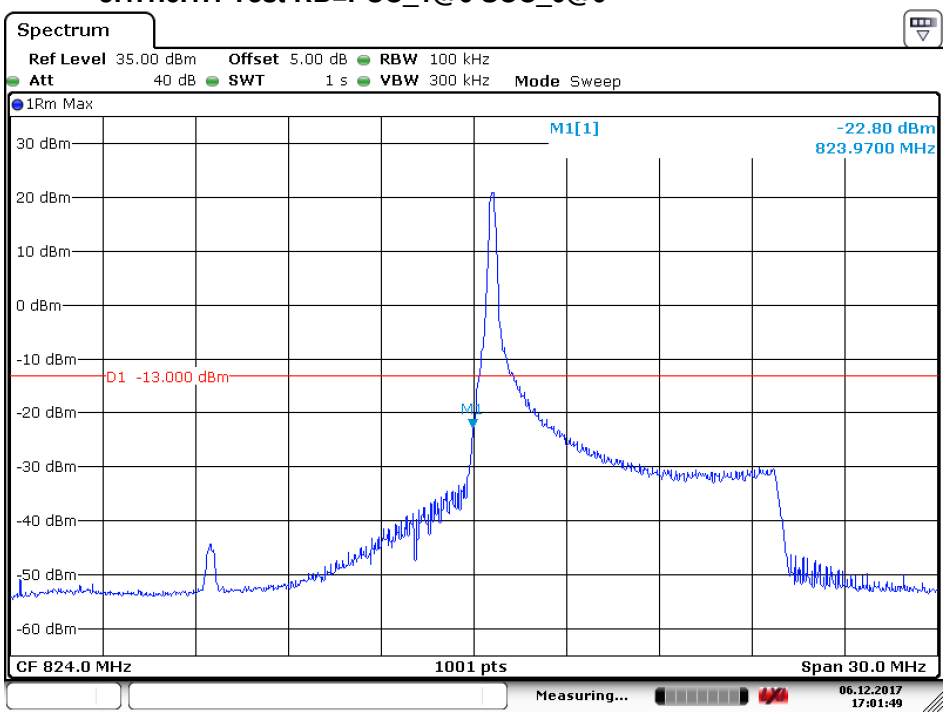


Date: 6.DEC.2017 15:42:36

5.1.1.6 Test Mode = LTE/TM3 10+5MHz

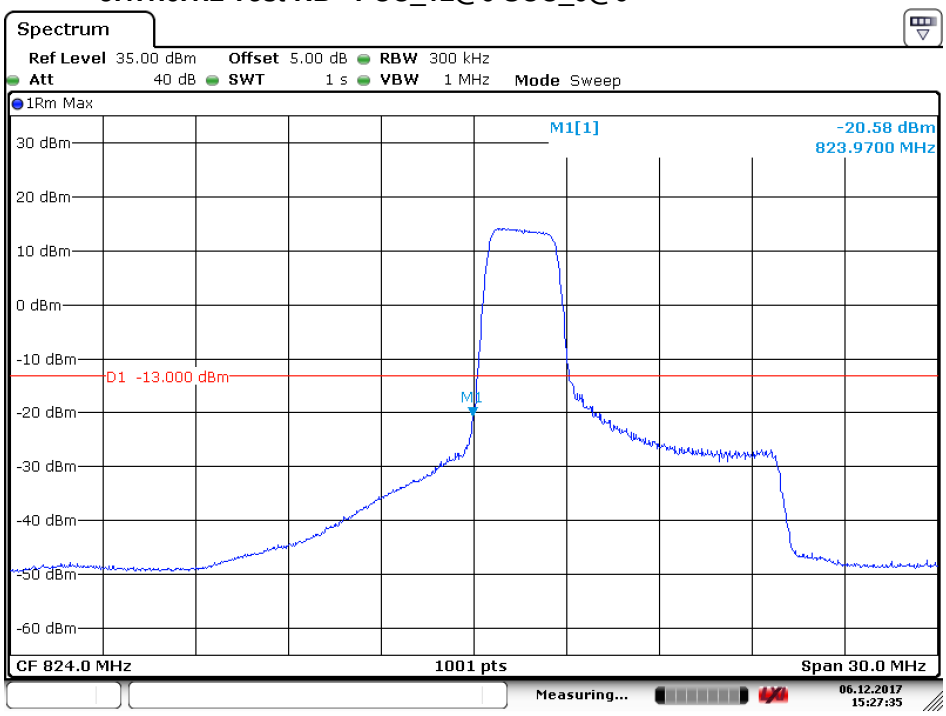
5.1.1.6.1 Test Channel = LCH

5.1.1.6.1.1 Test RB=PCC_1@0 SCC_0@0



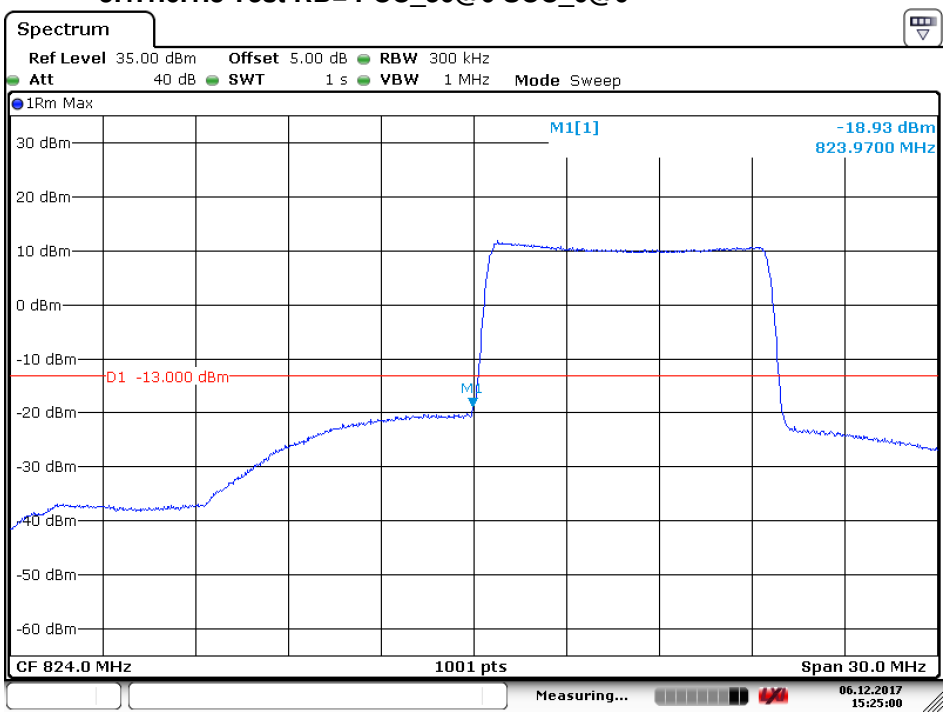
Date: 6.DEC.2017 17:01:49

5.1.1.6.1.2 Test RB= PCC_12@0 SCC_0@0



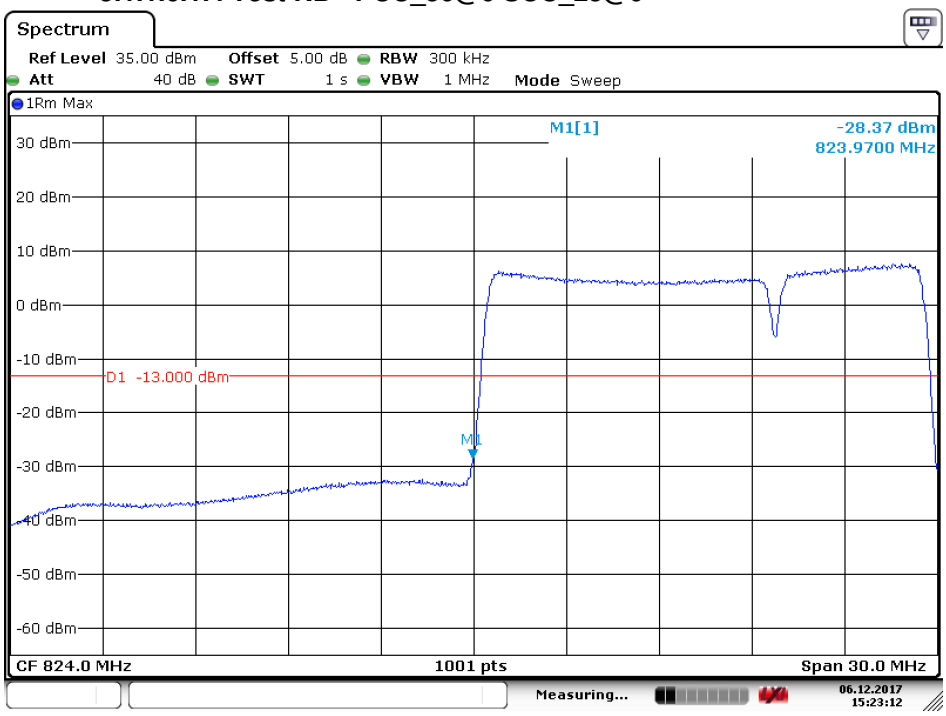
Date: 6.DEC.2017 15:27:35

5.1.1.6.1.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 15:25:01

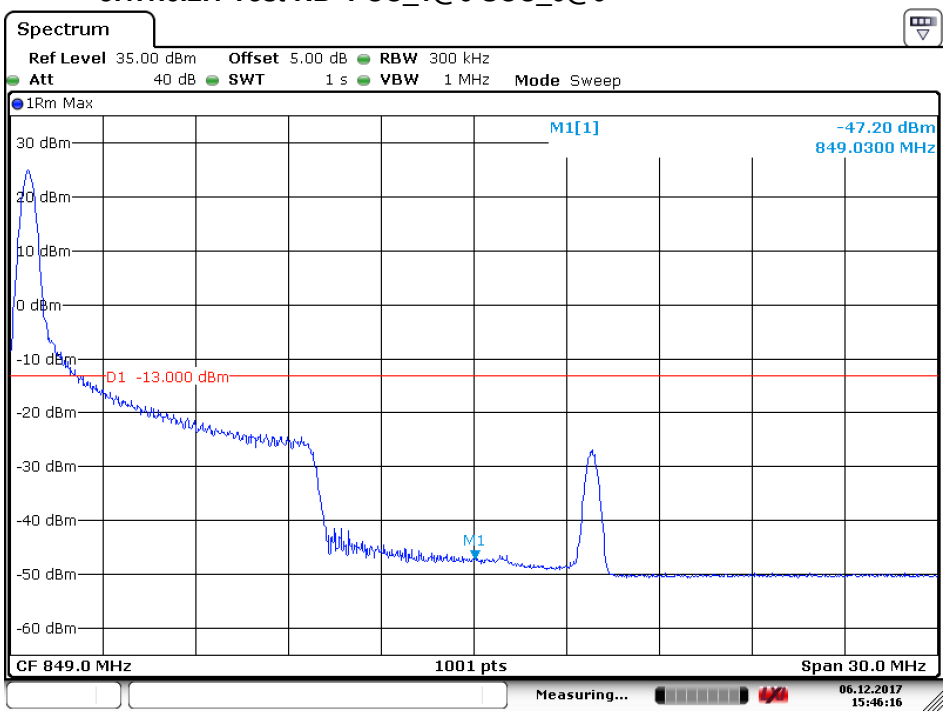
5.1.1.6.1.4 Test RB= PCC_50@0 SCC_25@0



Date: 6.DEC.2017 15:23:12

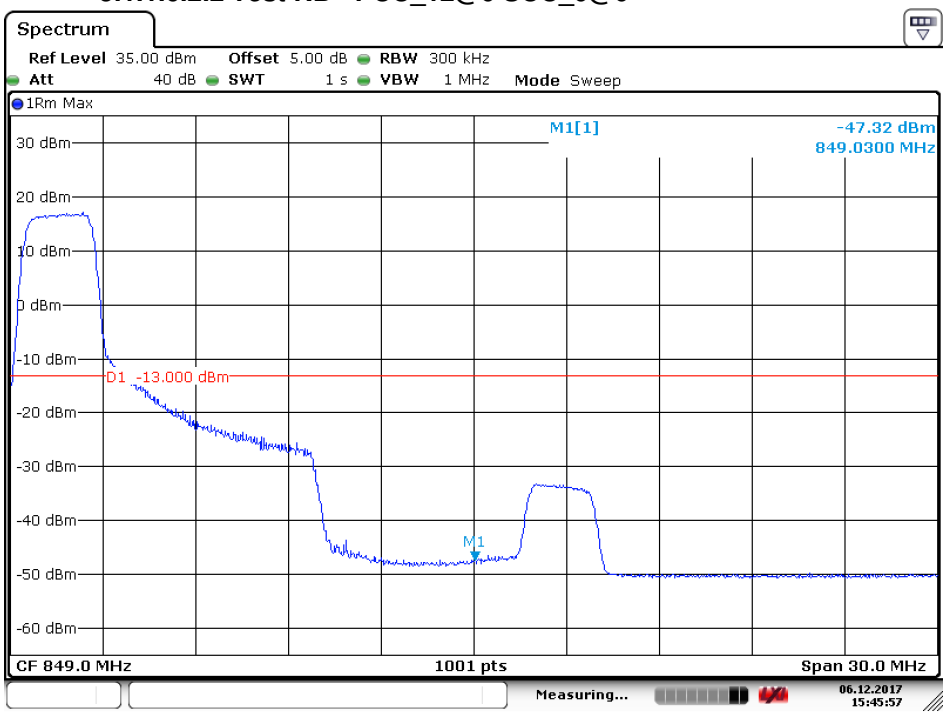
5.1.1.6.2 Test Channel = HCH

5.1.1.6.2.1 Test RB=PCC_1@0 SCC_0@0



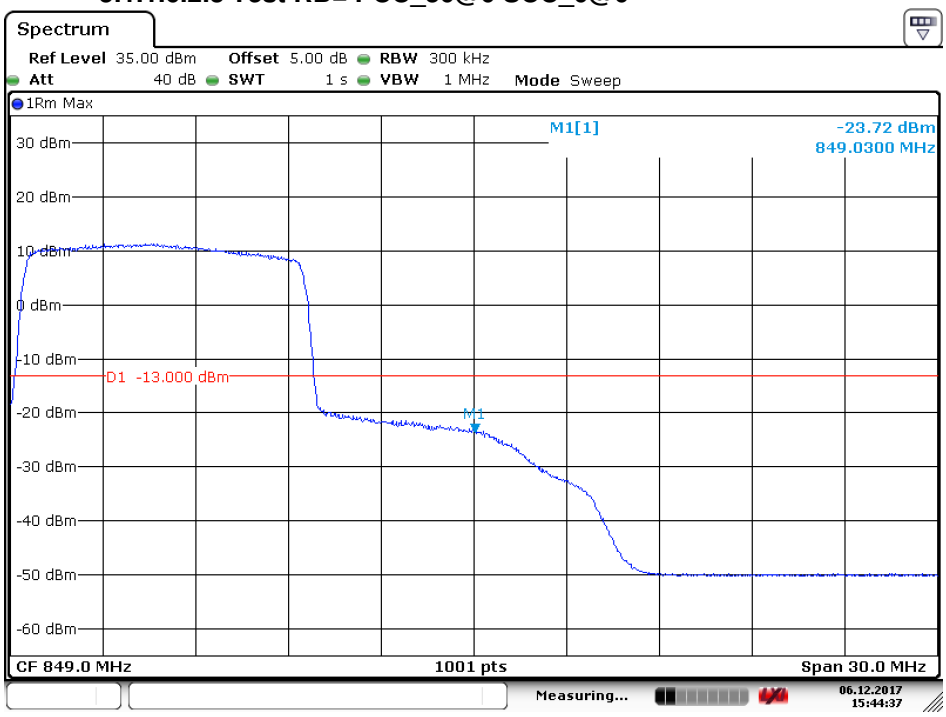
Date: 6.DEC.2017 15:46:16

5.1.1.6.2.2 Test RB= PCC_12@0 SCC_0@0



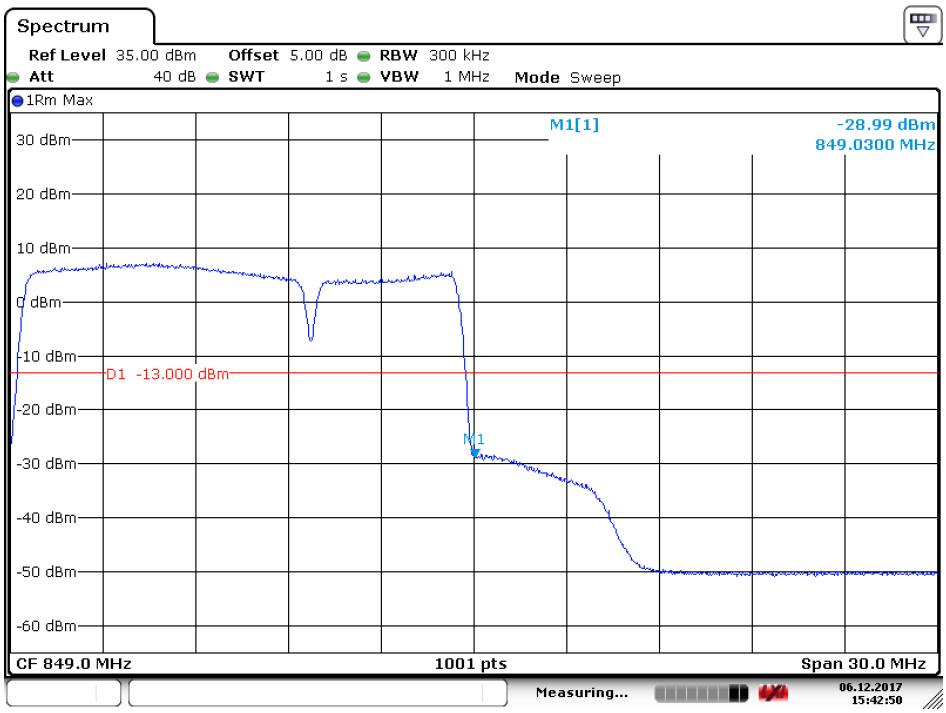
Date: 6.DEC.2017 15:45:58

5.1.1.6.2.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 15:44:38

5.1.1.6.2.4 Test RB= PCC_50@0 SCC_25@0

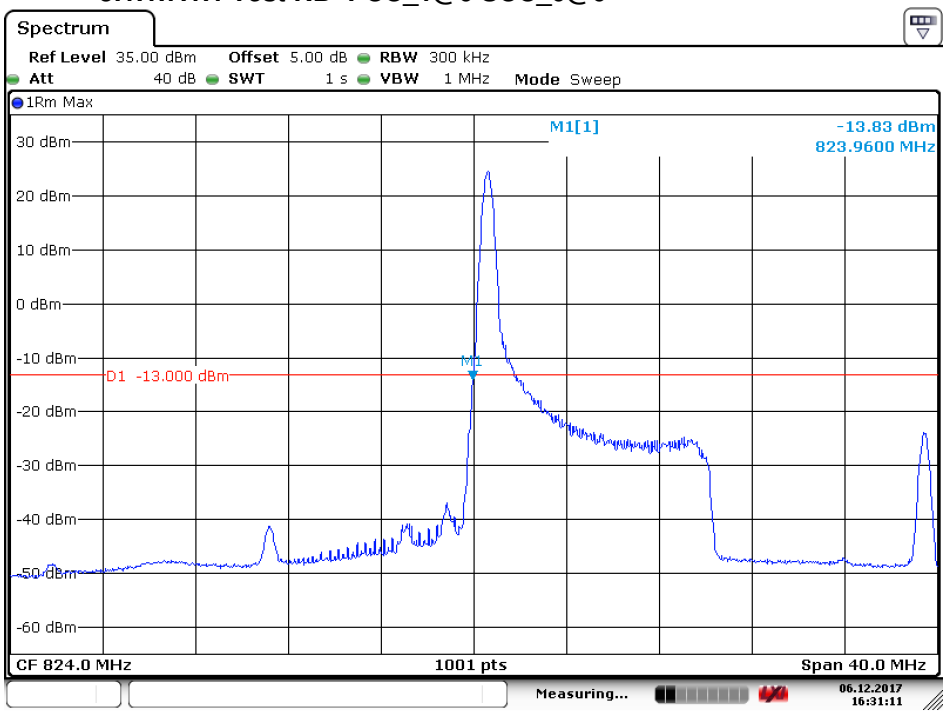


Date: 6.DEC.2017 15:42:50

5.1.1.7 Test Mode = LTE/TM1 10+10MHz

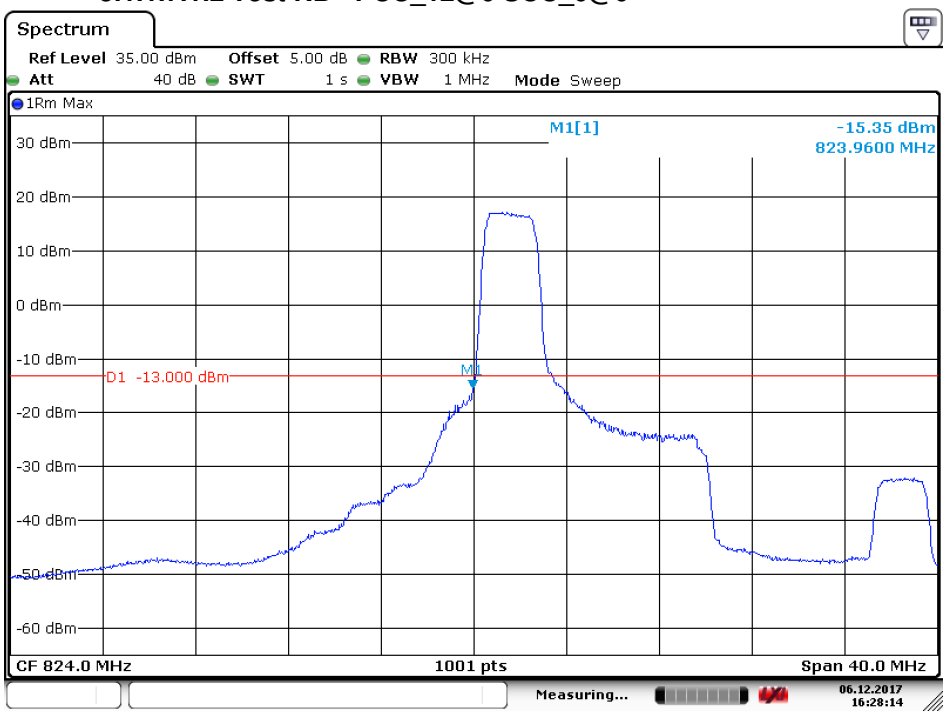
5.1.1.7.1 Test Channel = LCH

5.1.1.7.1.1 Test RB=PCC_1@0 SCC_0@0



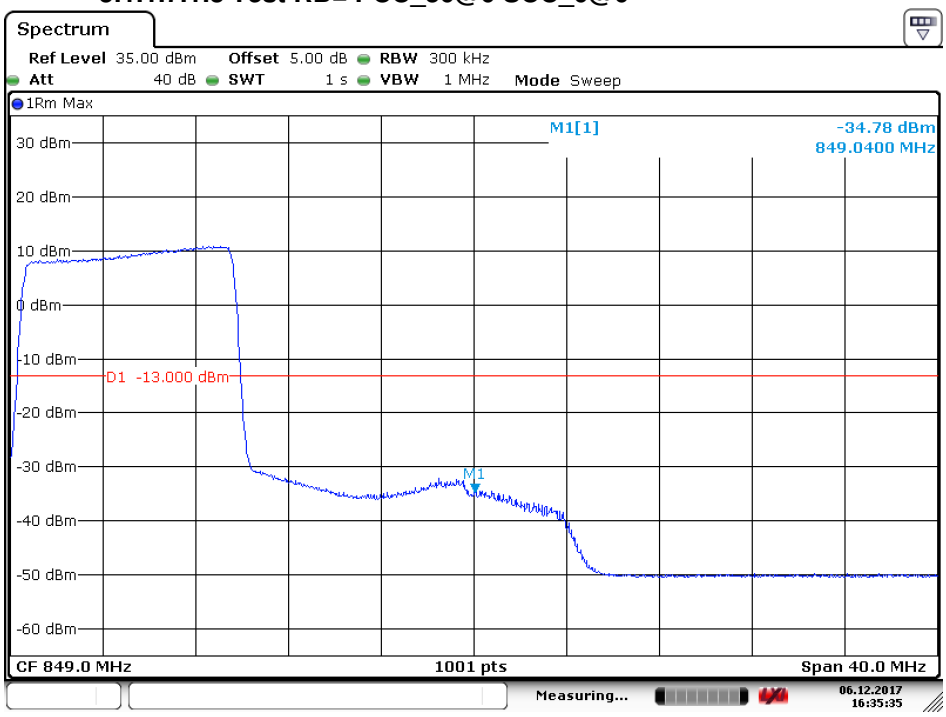
Date: 6.DEC.2017 16:31:11

5.1.1.7.1.2 Test RB= PCC_12@0 SCC_0@0



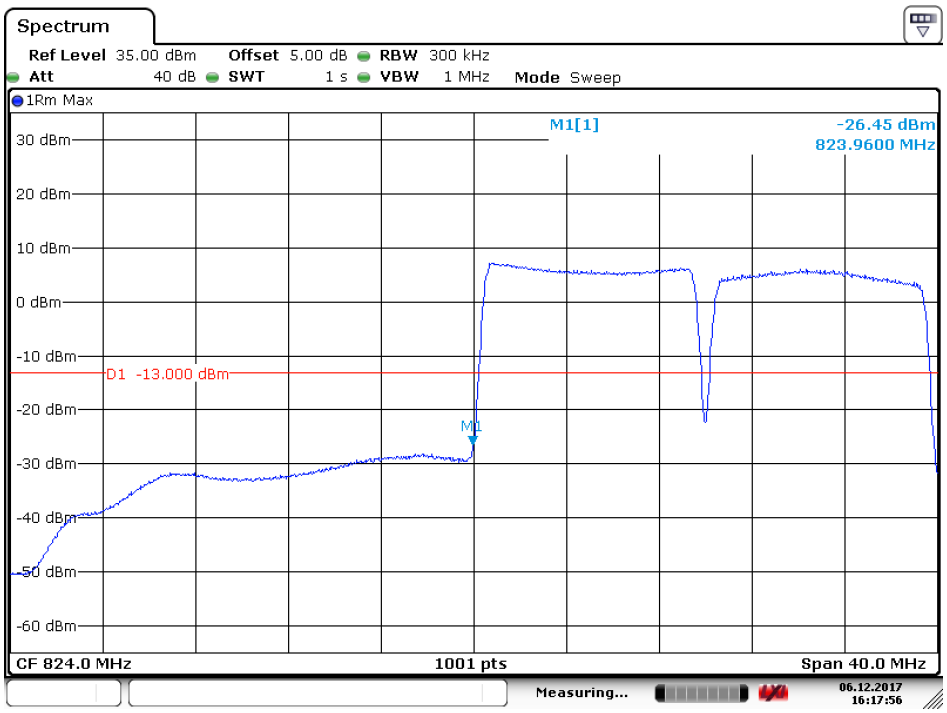
Date: 6.DEC.2017 16:28:14

5.1.1.7.1.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 16:35:36

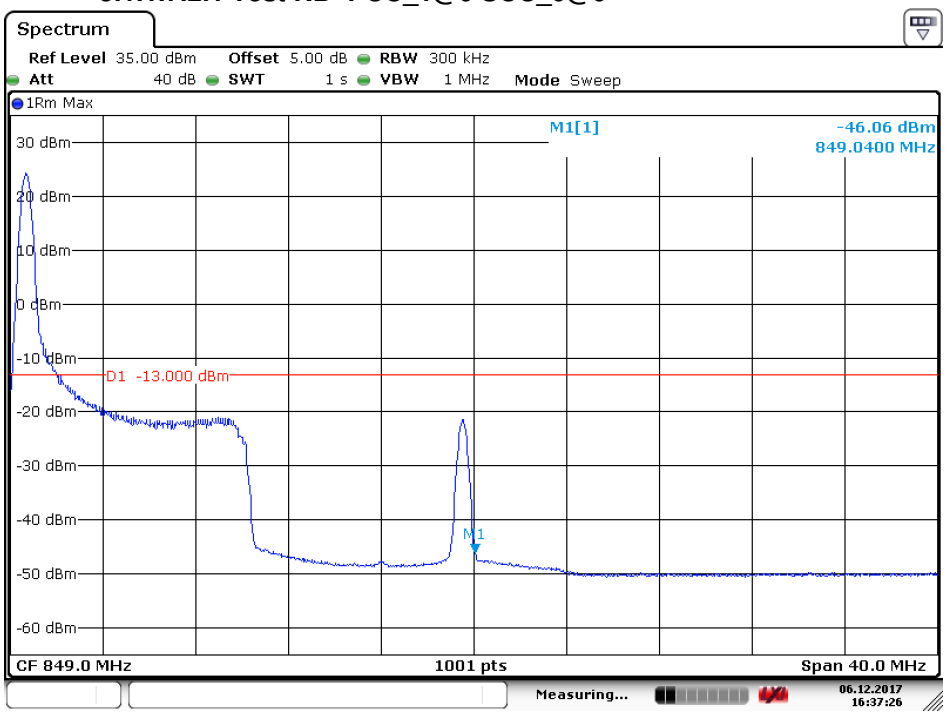
5.1.1.7.1.4 Test RB= PCC_50@0 SCC_50@0



Date: 6.DEC.2017 16:17:57

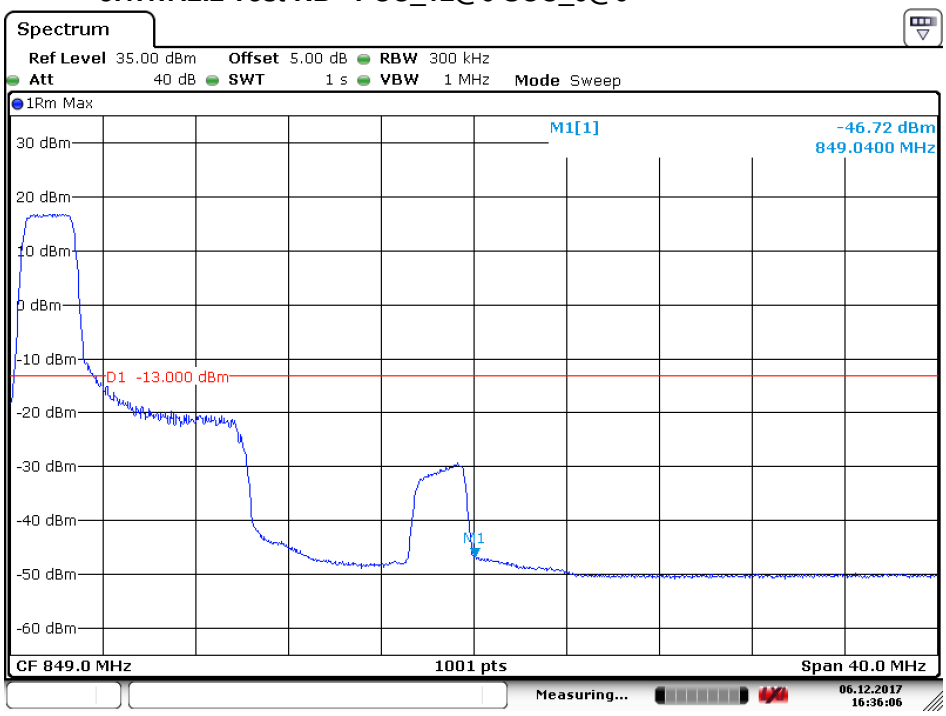
5.1.1.7.2 Test Channel = HCH

5.1.1.7.2.1 Test RB=PCC_1@0 SCC_0@0



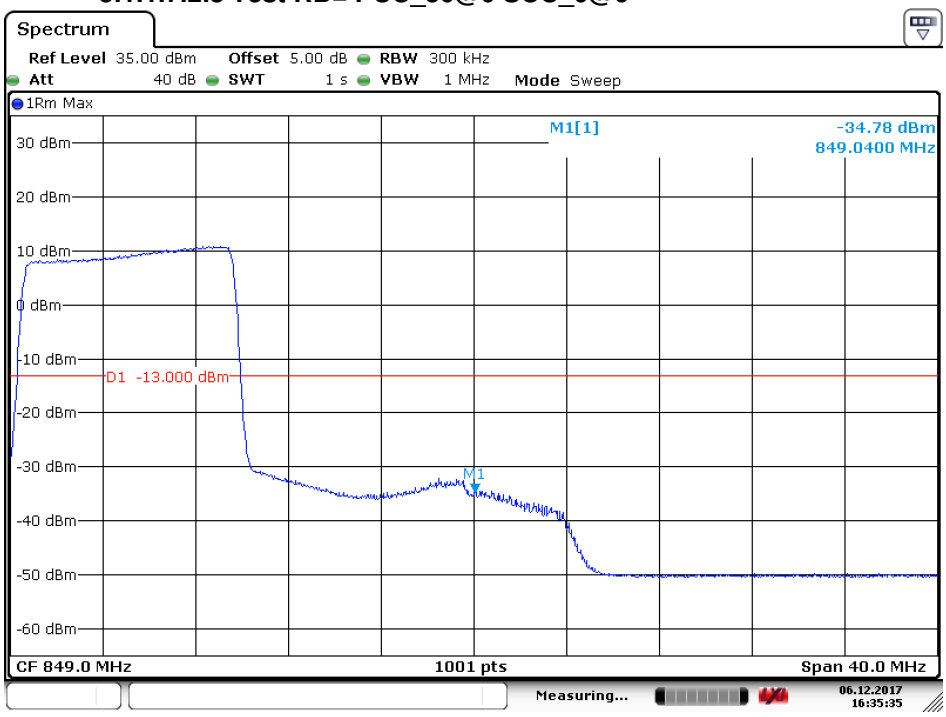
Date: 6.DEC.2017 16:37:26

5.1.1.7.2.2 Test RB= PCC_12@0 SCC_0@0



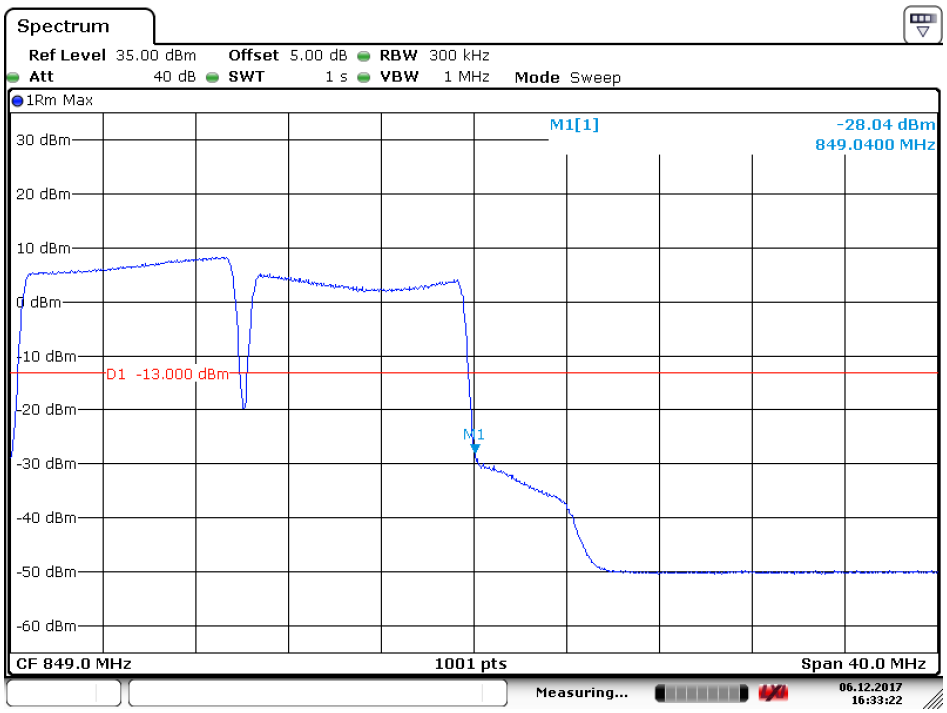
Date: 6.DEC.2017 16:36:06

5.1.1.7.2.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 16:35:36

5.1.1.7.2.4 Test RB= PCC_50@0 SCC_50@0

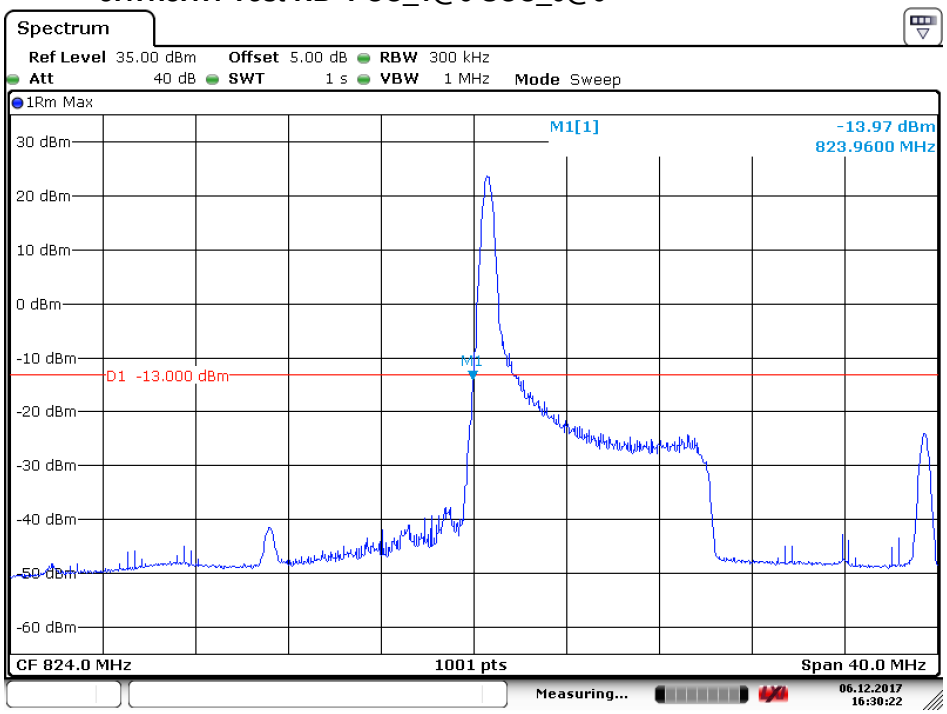


Date: 6.DEC.2017 16:33:22

5.1.1.8 Test Mode = LTE/TM2 10+10MHz

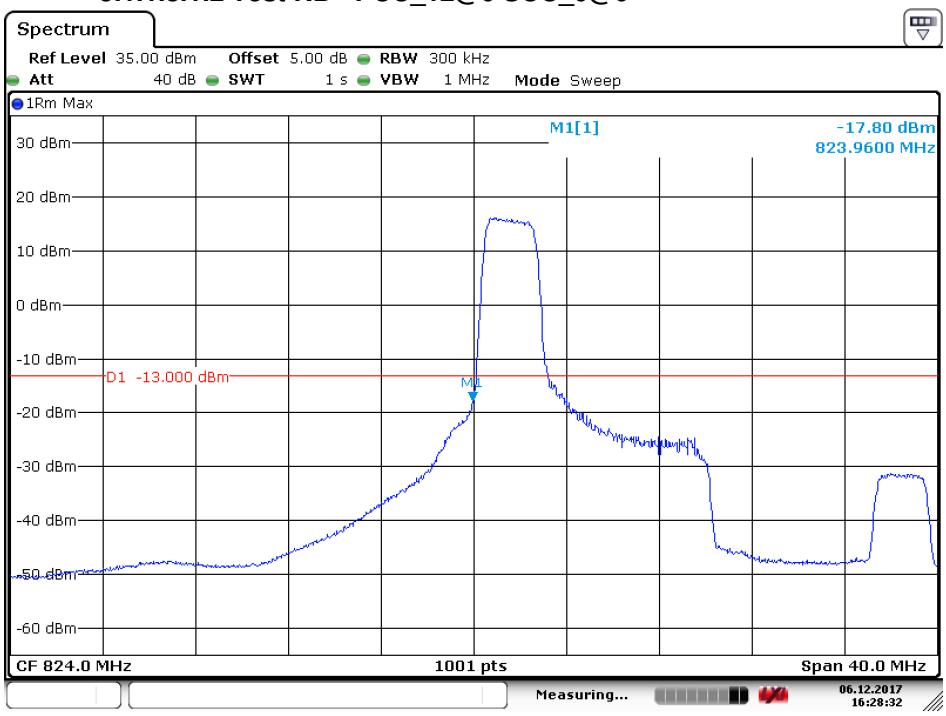
5.1.1.8.1 Test Channel = LCH

5.1.1.8.1.1 Test RB=PCC_1@0 SCC_0@0



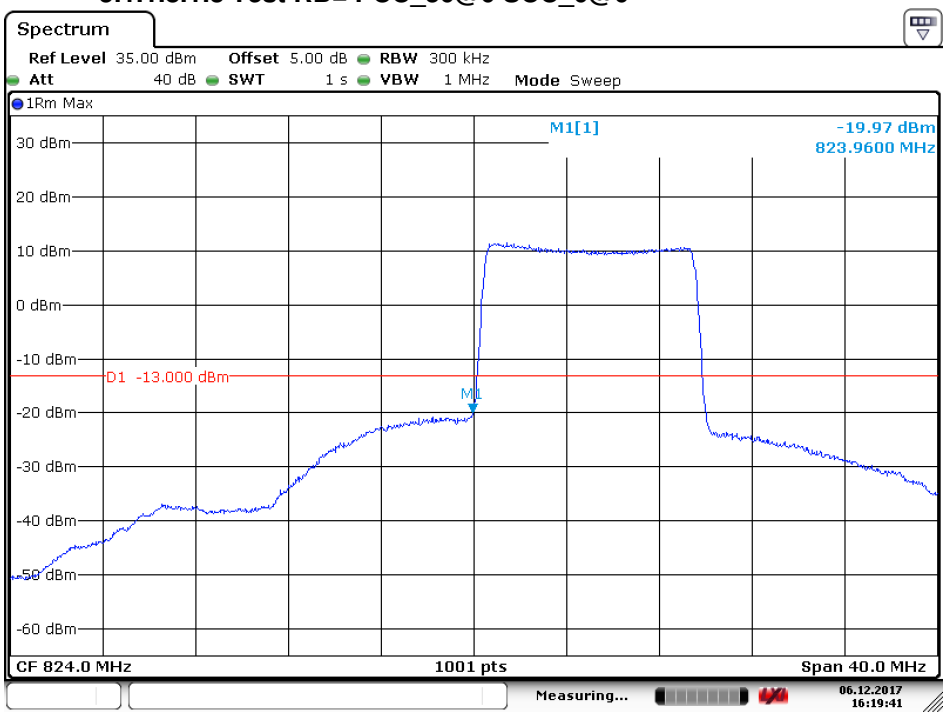
Date: 6.DEC.2017 16:30:22

5.1.1.8.1.2 Test RB= PCC_12@0 SCC_0@0



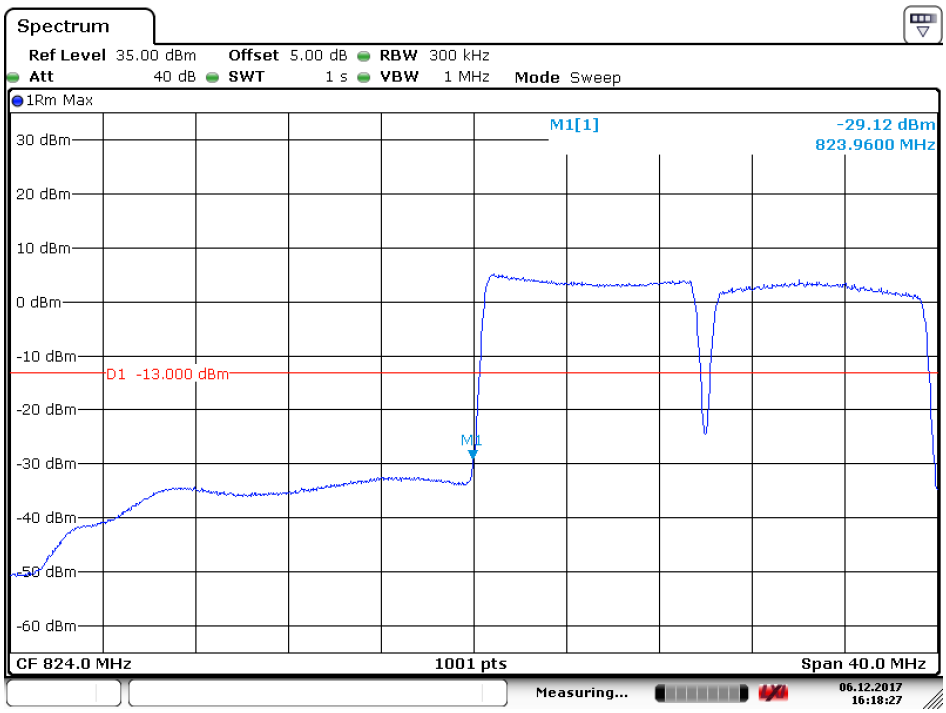
Date: 6.DEC.2017 16:28:32

5.1.1.8.1.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 16:19:42

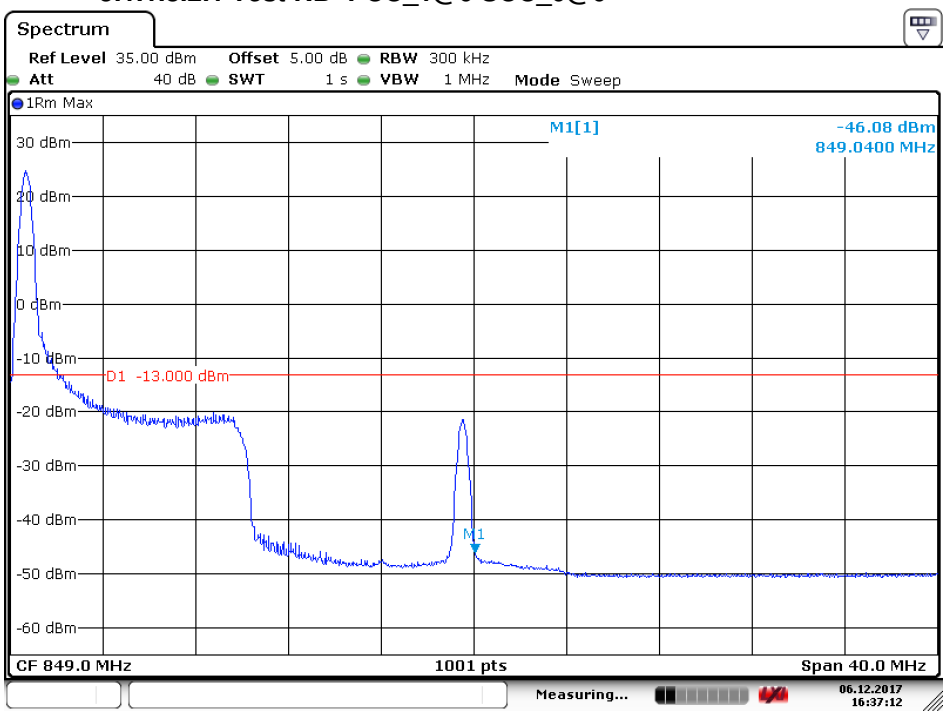
5.1.1.8.1.4 Test RB= PCC_50@0 SCC_50@0



Date: 6.DEC.2017 16:18:28

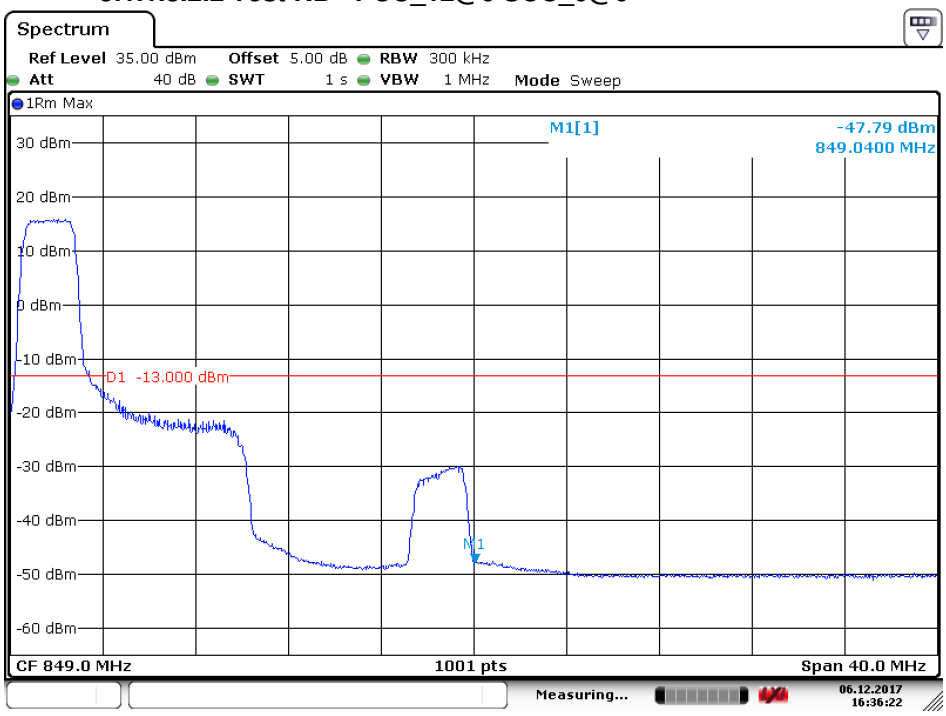
5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=PCC_1@0 SCC_0@0



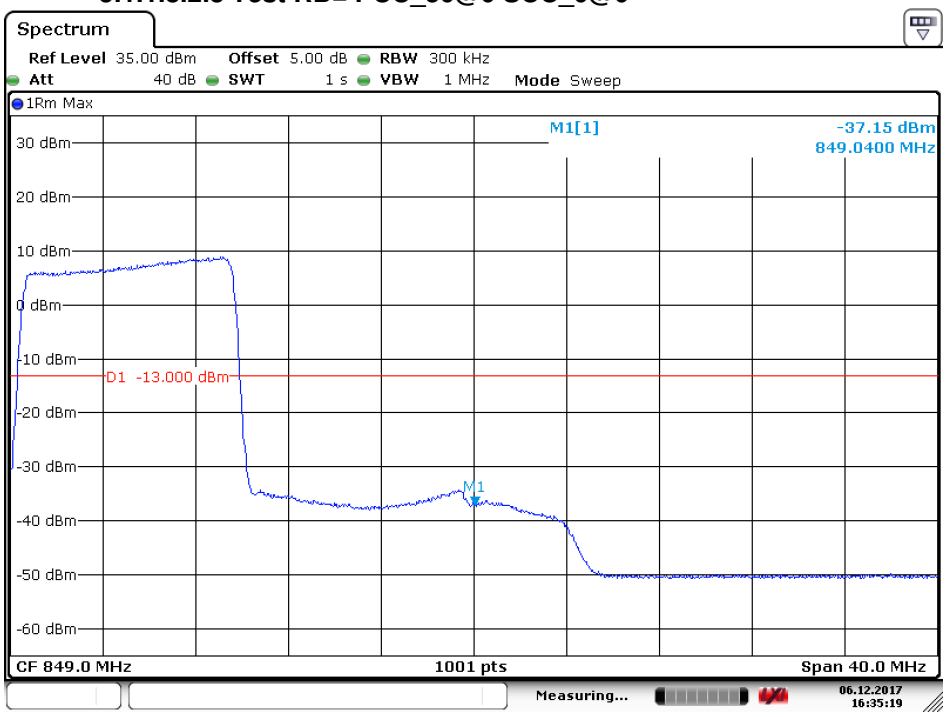
Date: 6.DEC.2017 16:37:12

5.1.1.8.2.2 Test RB= PCC_12@0 SCC_0@0



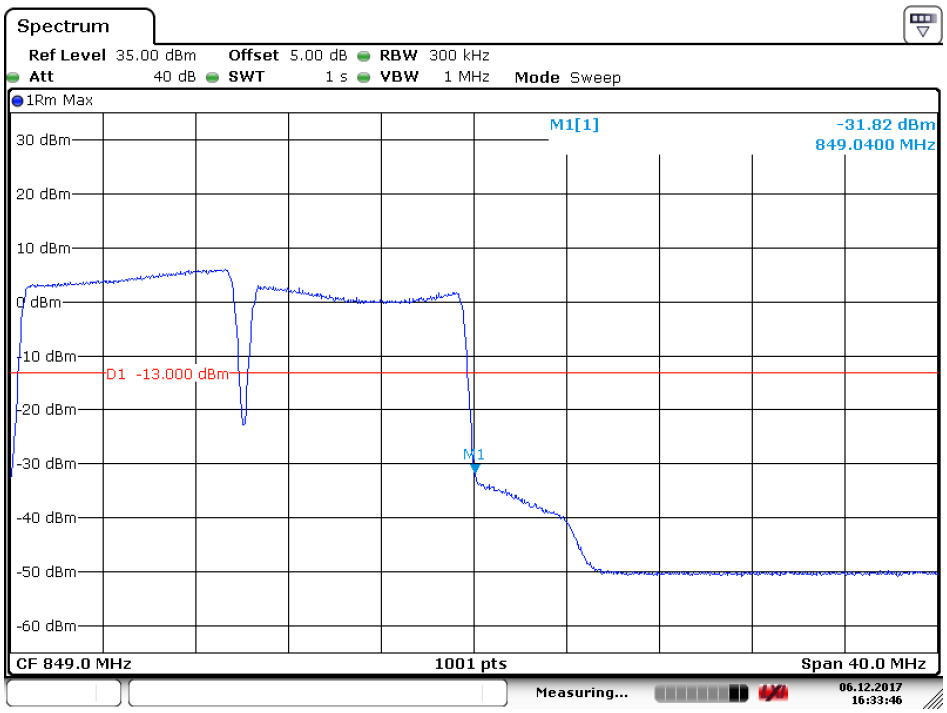
Date: 6.DEC.2017 16:36:23

5.1.1.8.2.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 16:35:19

5.1.1.8.2.4 Test RB= PCC_50@0 SCC_50@0

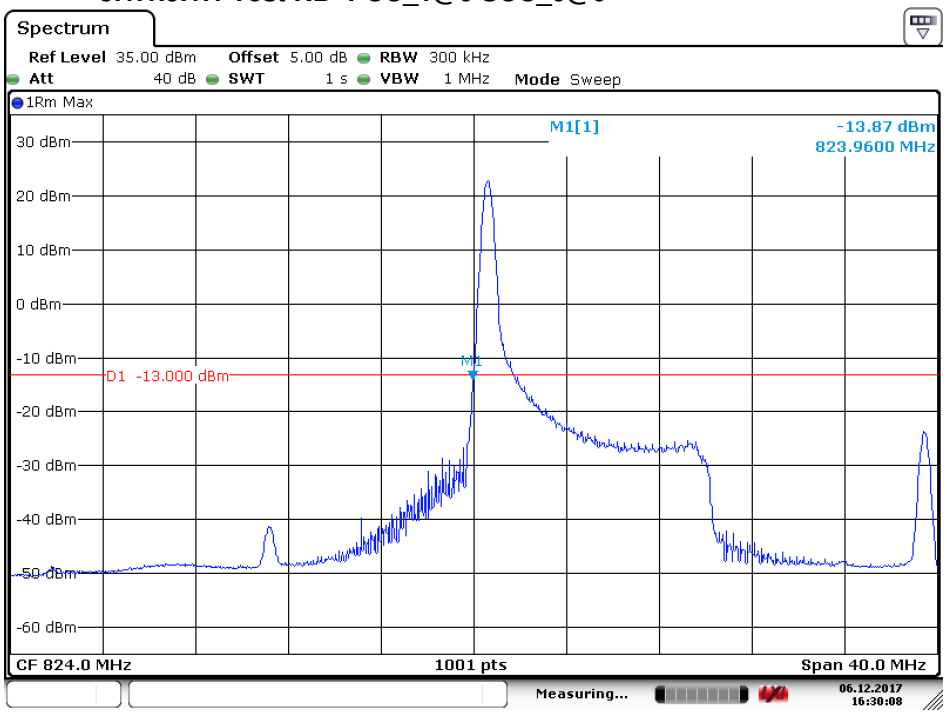


Date: 6.DEC.2017 16:33:46

5.1.1.9 Test Mode = LTE/TM3 10+10MHz

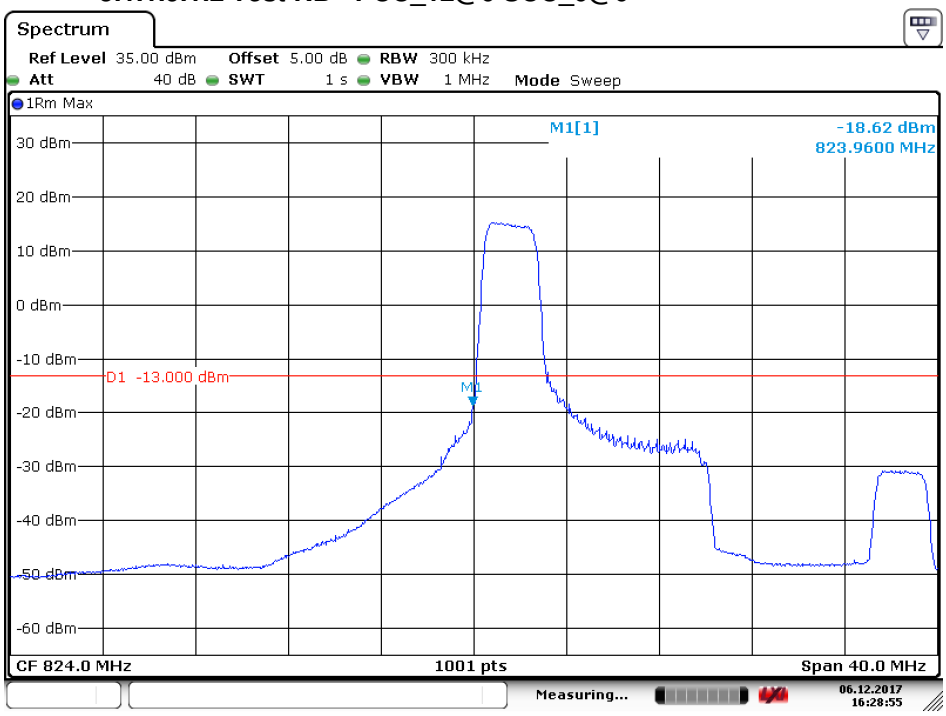
5.1.1.9.1 Test Channel = LCH

5.1.1.9.1.1 Test RB=PCC_1@0 SCC_0@0



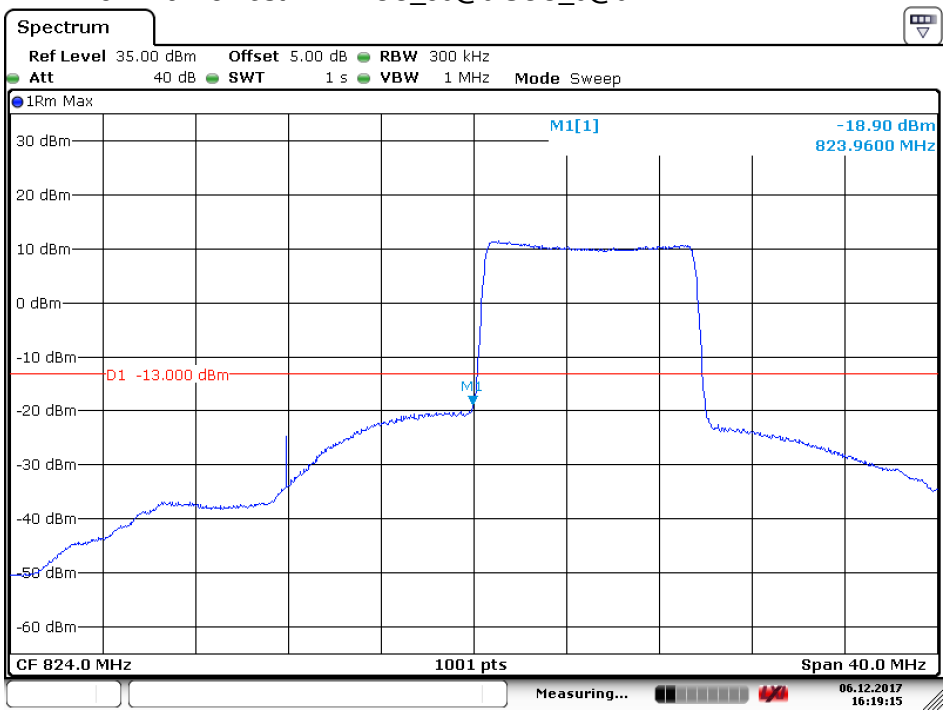
Date: 6.DEC.2017 16:30:08

5.1.1.9.1.2 Test RB= PCC_12@0 SCC_0@0



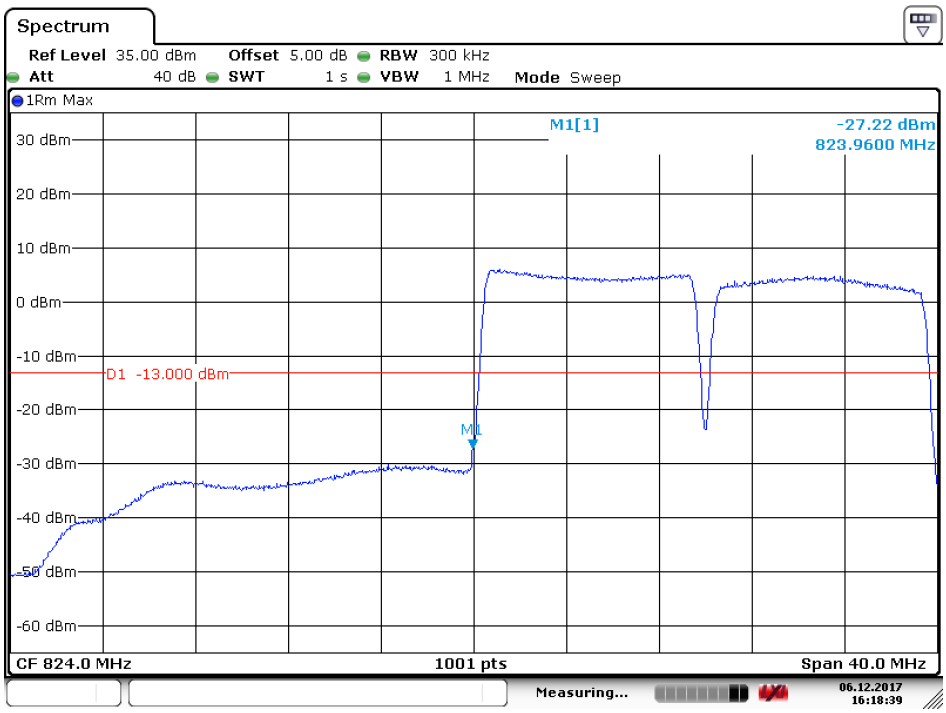
Date: 6.DEC.2017 16:28:55

5.1.1.9.1.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 16:19:15

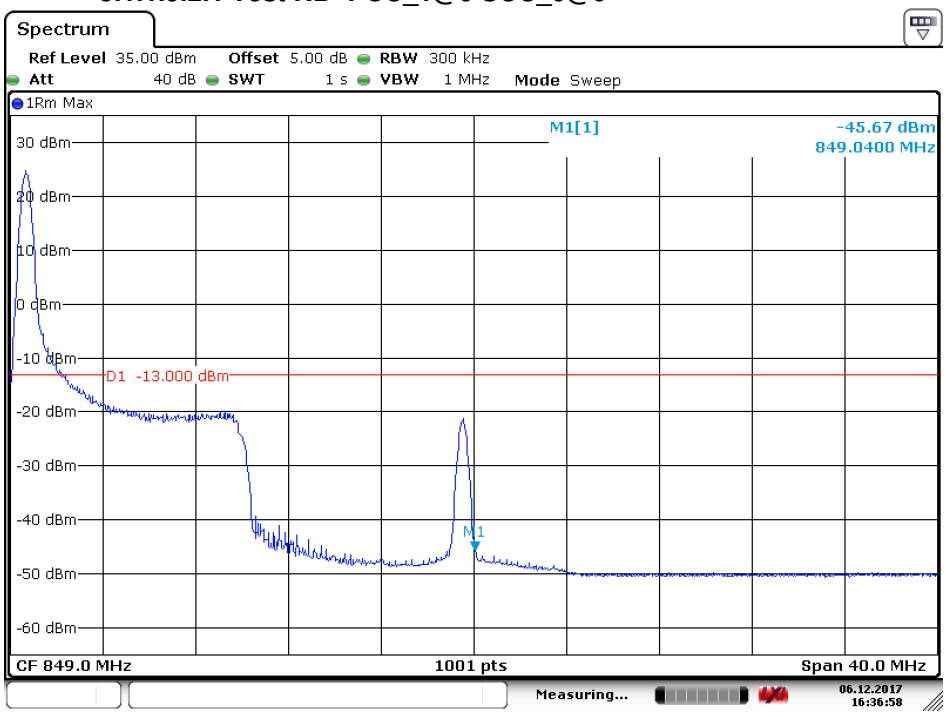
5.1.1.9.1.4 Test RB= PCC_50@0 SCC_50@0



Date: 6.DEC.2017 16:18:40

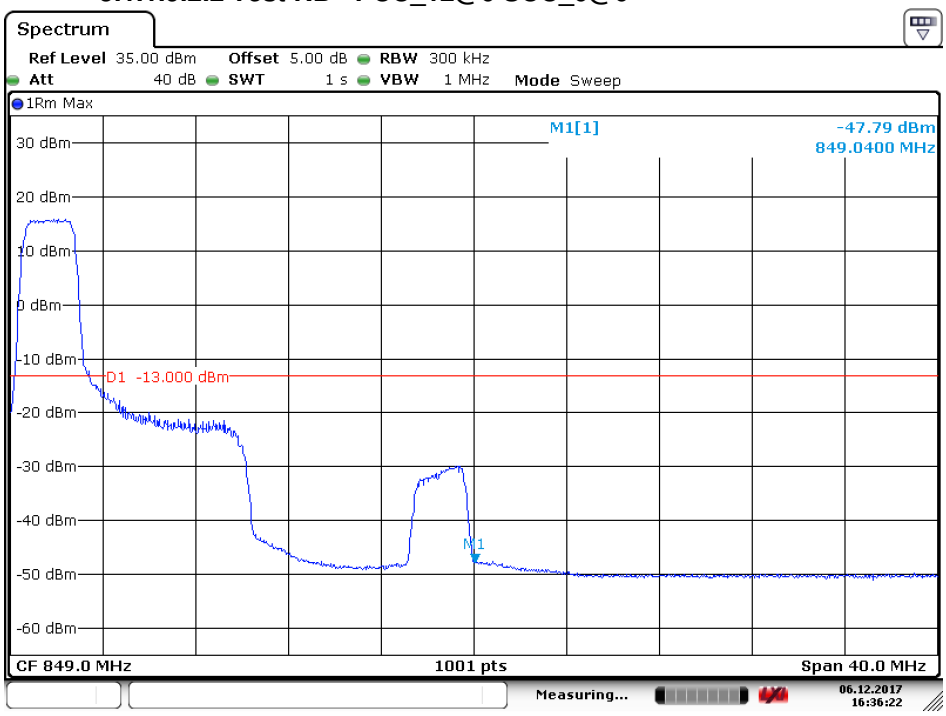
5.1.1.9.2 Test Channel = HCH

5.1.1.9.2.1 Test RB=PCC_1@0 SCC_0@0



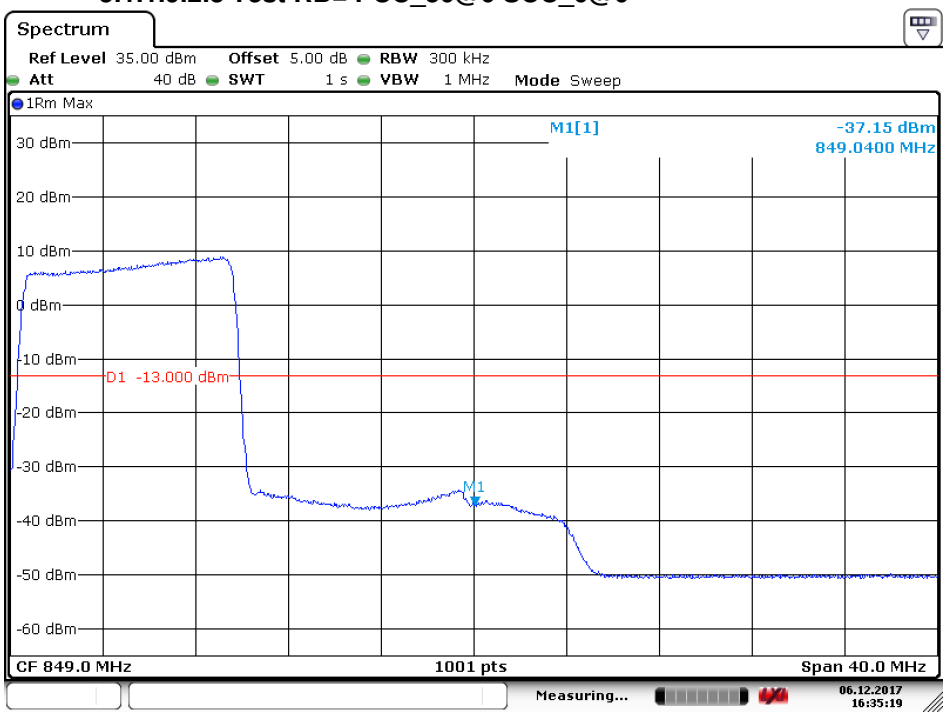
Date: 6.DEC.2017 16:36:58

5.1.1.9.2.2 Test RB= PCC_12@0 SCC_0@0



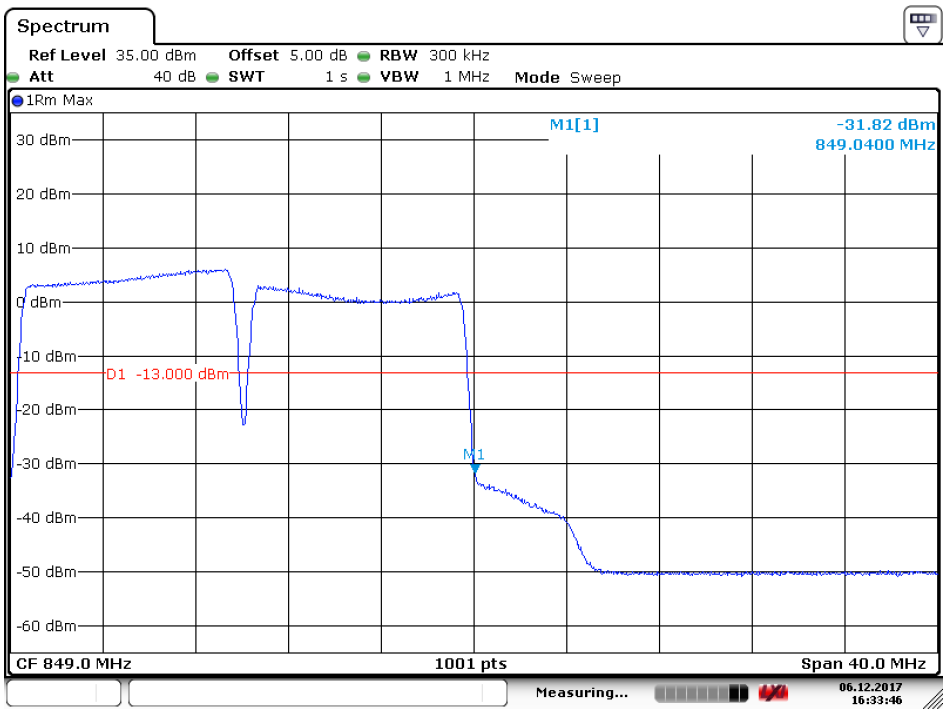
Date: 6.DEC.2017 16:36:23

5.1.1.9.2.3 Test RB= PCC_50@0 SCC_0@0



Date: 6.DEC.2017 16:35:19

5.1.1.9.2.4 Test RB= PCC_50@0 SCC_50@0



Date: 6.DEC.2017 16:33:46

6 Spurious Emission at Antenna Terminal

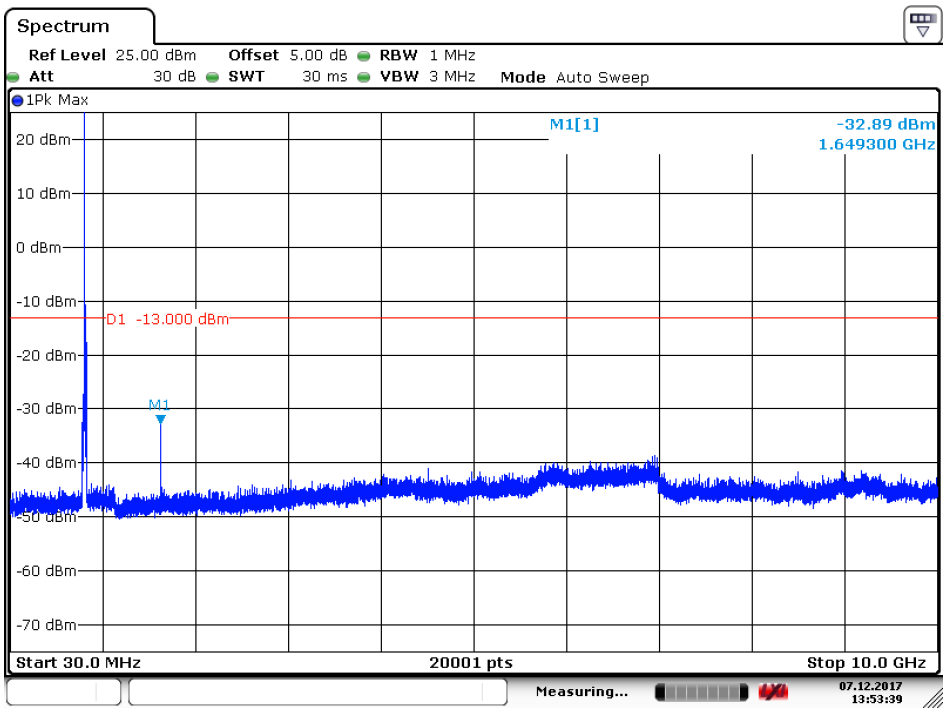
NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k * (Span / 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

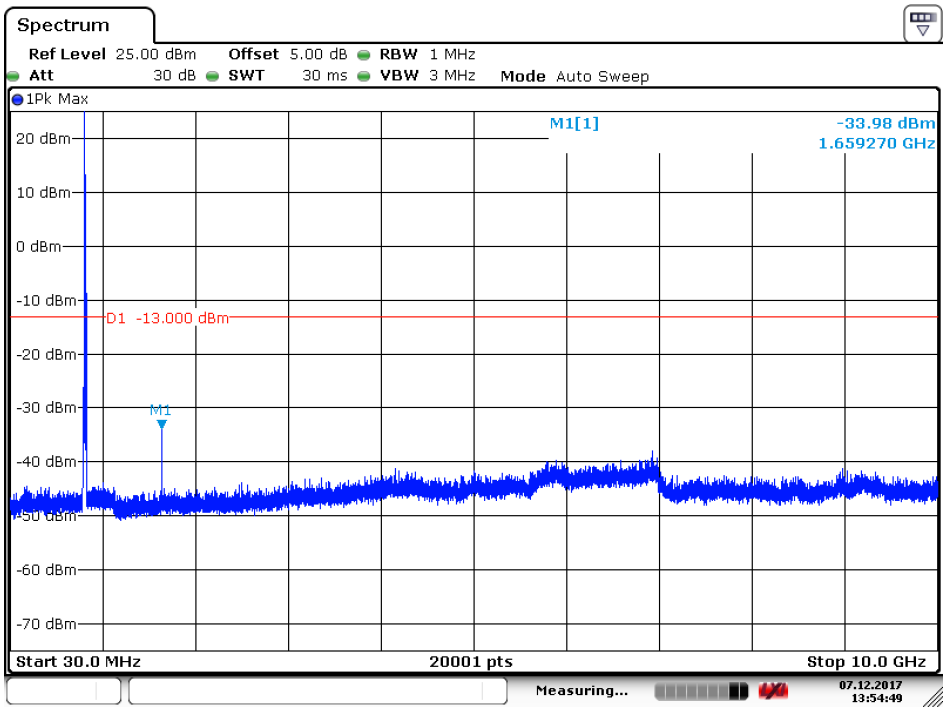
6.1.1.1 Test Mode = LTE / TM1 5+10MHz

6.1.1.1.1 Test Channel = LCH



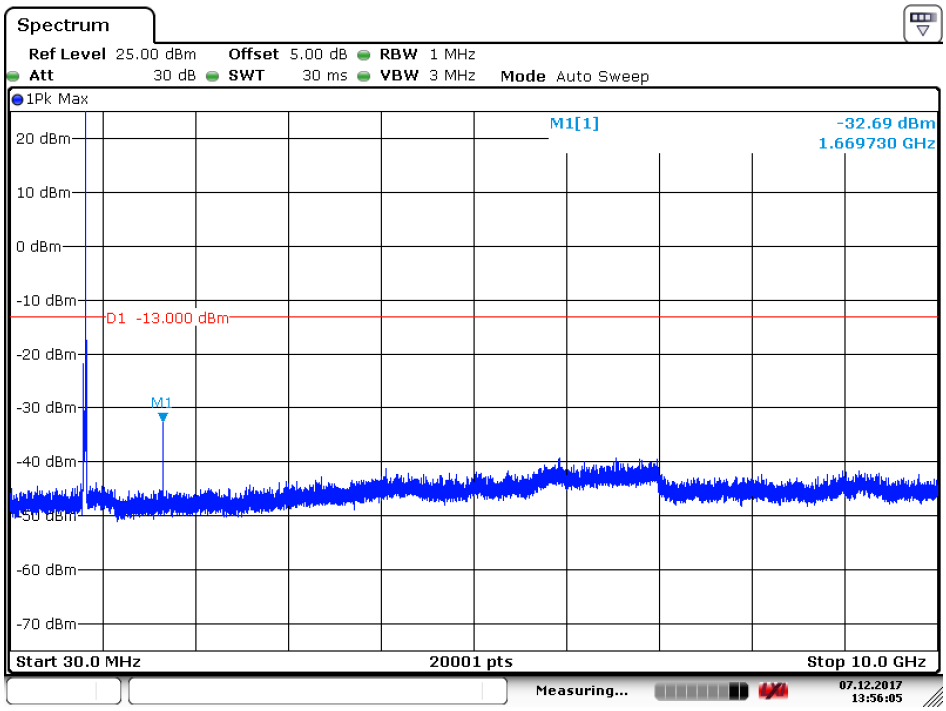
Date: 7.DEC.2017 13:53:40

6.1.1.1.2 Test Channel = MCH



Date: 7.DEC.2017 13:54:50

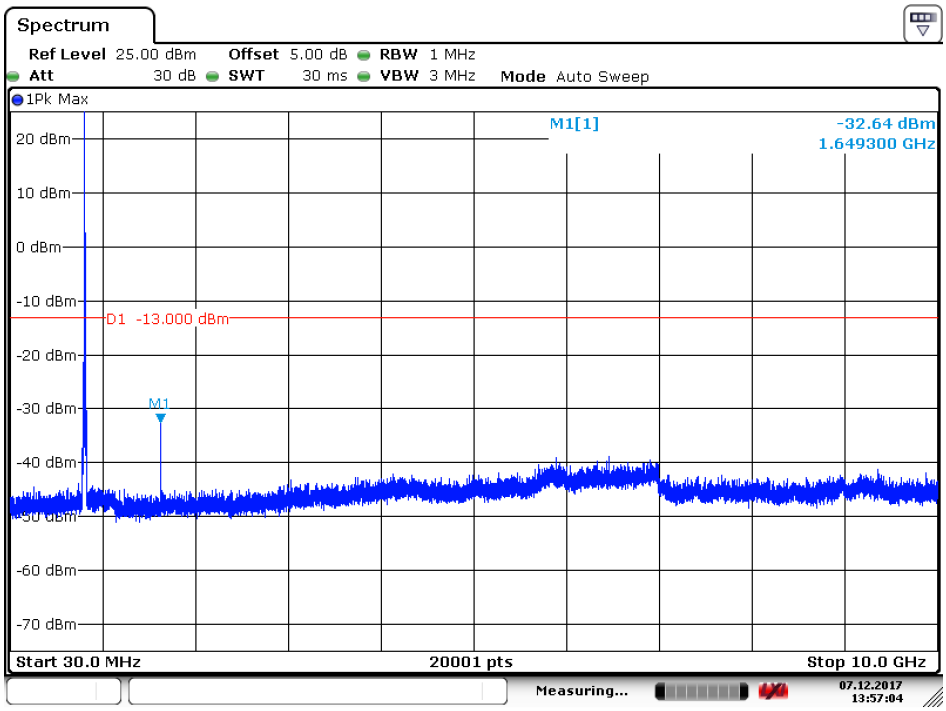
6.1.1.1.3 Test Channel = HCH



Date: 7.DEC.2017 13:56:05

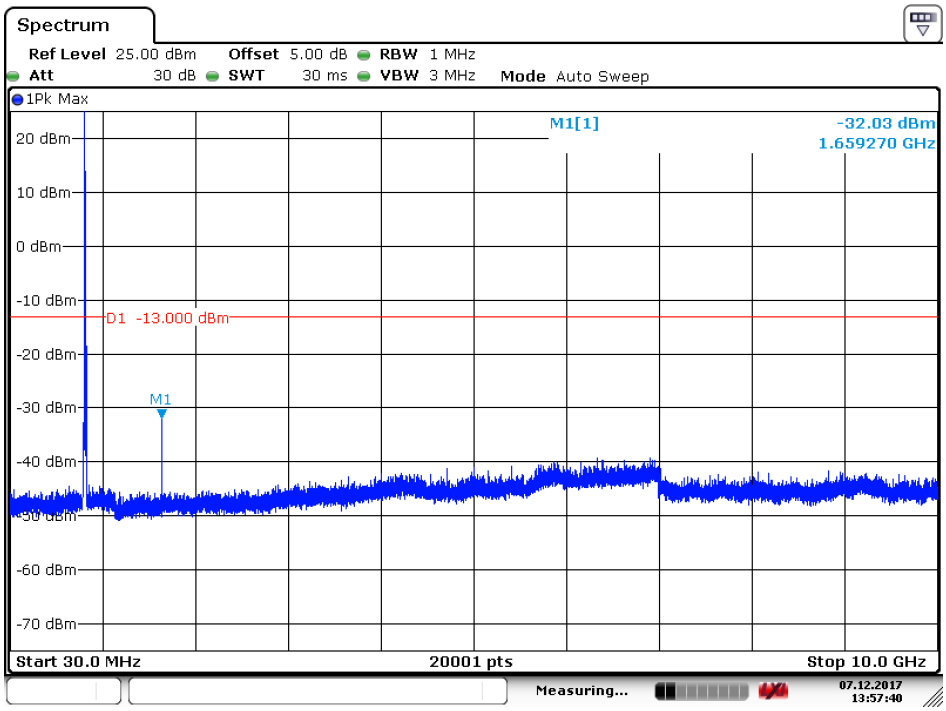
6.1.1.2 Test Mode = LTE / TM1 10+5MHz

6.1.1.2.1 Test Channel = LCH



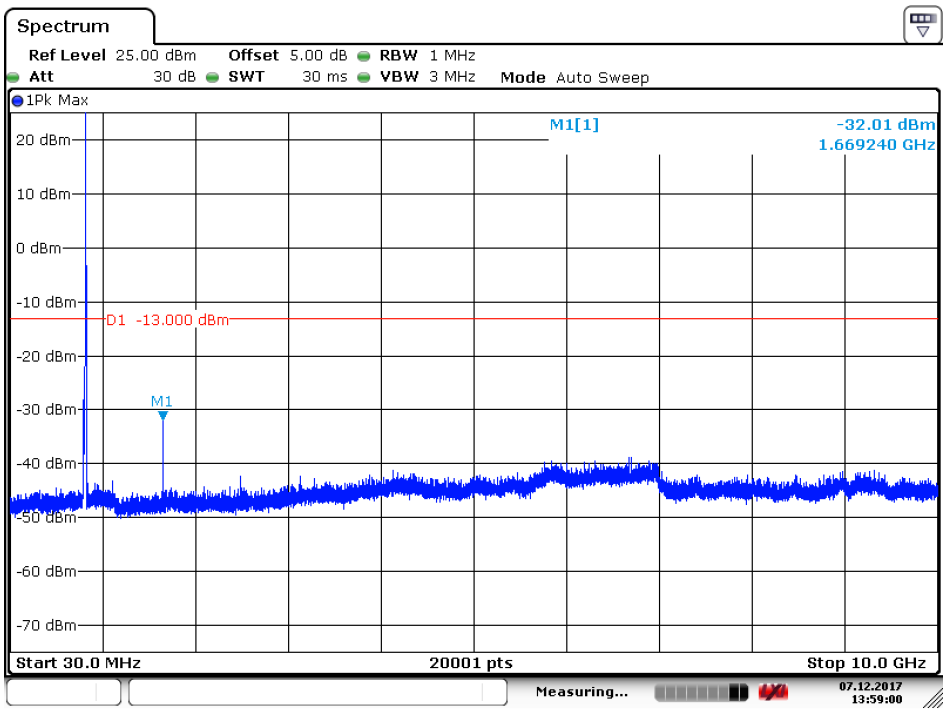
Date: 7.DEC.2017 13:57:04

6.1.1.2.2 Test Channel = MCH



Date: 7.DEC.2017 13:57:40

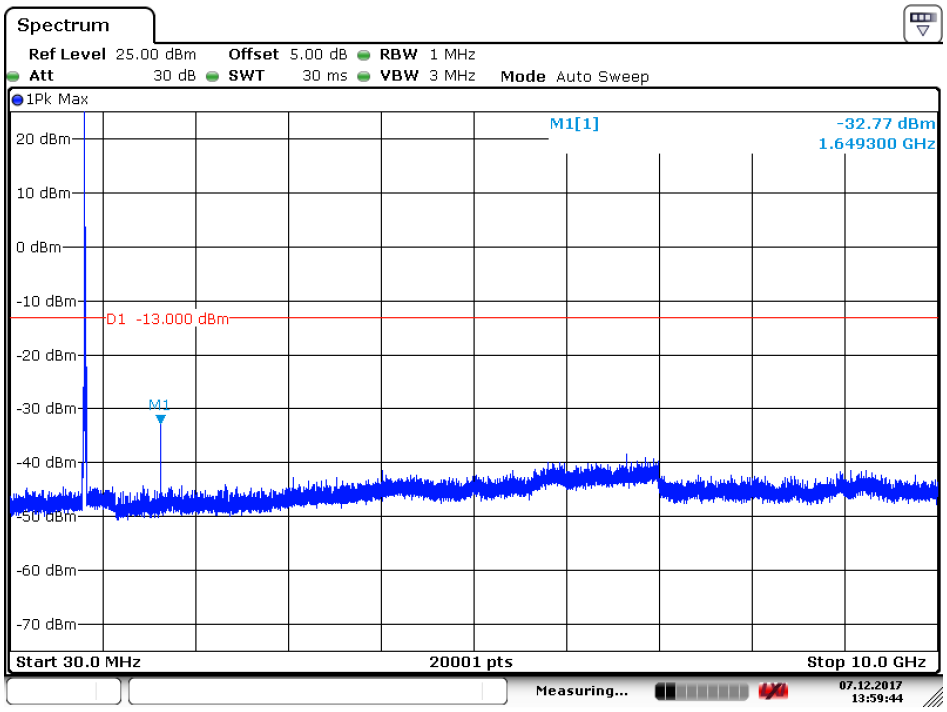
6.1.1.2.3 Test Channel = HCH



Date: 7.DEC.2017 13:59:00

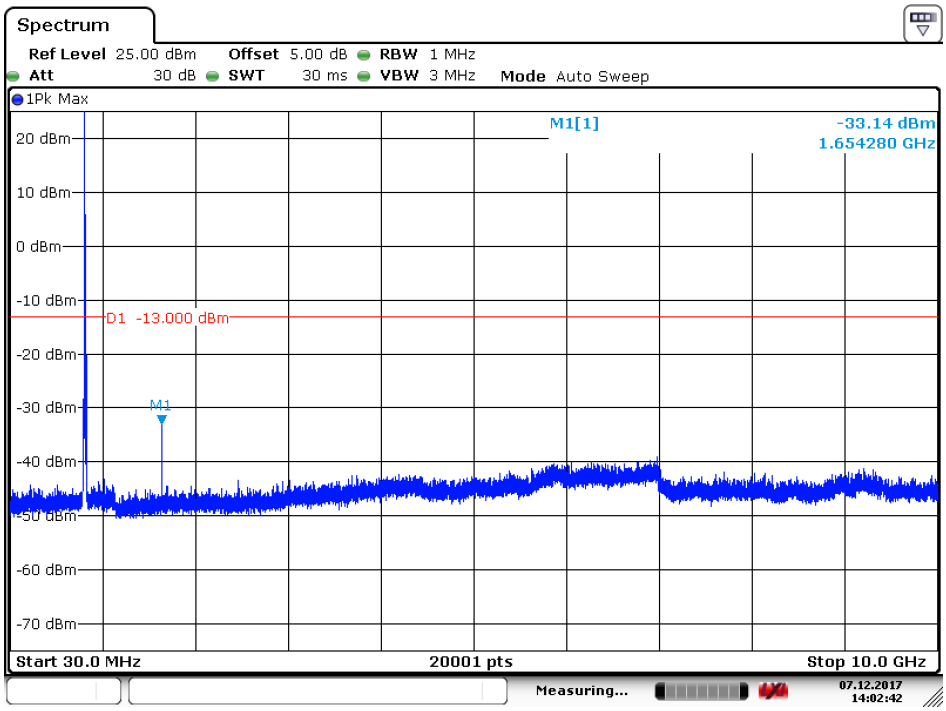
6.1.1.3 Test Mode = LTE / TM1 10+10MHz

6.1.1.3.1 Test Channel = LCH



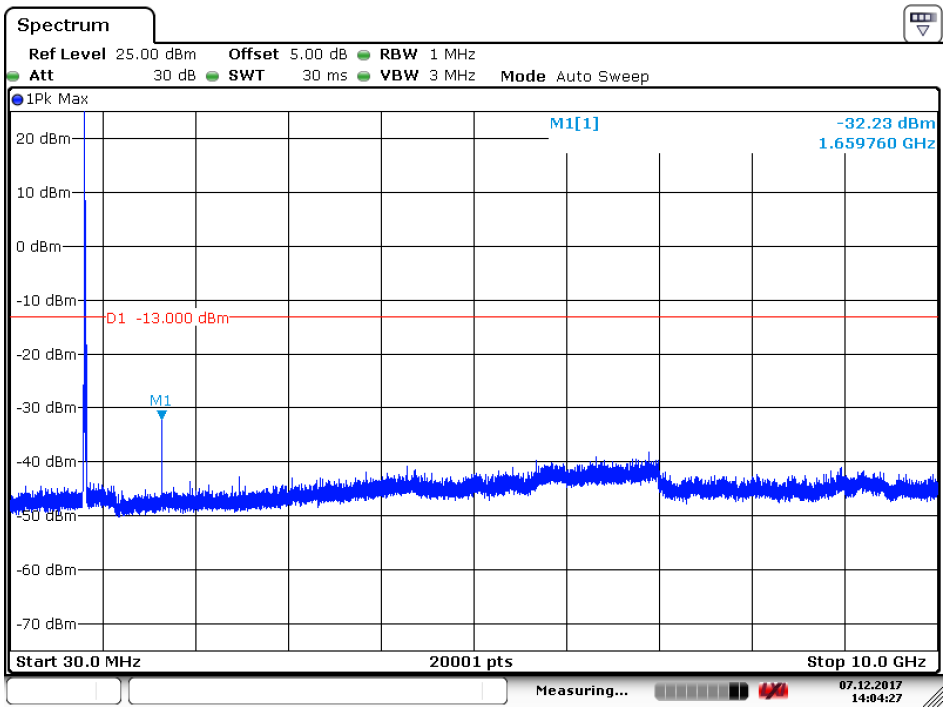
Date: 7.DEC.2017 13:59:45

6.1.1.3.2 Test Channel = MCH



Date: 7.DEC.2017 14:02:42

6.1.1.3.3 Test Channel = HCH



Date: 7.DEC.2017 14:04:28

7 Field Strength of Spurious Radiation

7.1 For LTE

7.1.1 Test Band = LTE band5

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

Diversity antenna

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1656.500	-64.95	-13.00	-51.95	Vertical
2725.000	-57.82	-13.00	-44.82	Vertical
3812.662	-67.87	-13.00	-54.87	Vertical
1684.500	-64.63	-13.00	-51.63	Horizontal
2741.000	-57.44	-13.00	-44.44	Horizontal
4118.325	-67.43	-13.00	-54.43	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1024.500	-63.80	-13.00	-50.80	Vertical
3381.225	-68.98	-13.00	-55.98	Vertical
5620.800	-66.50	-13.00	-53.50	Vertical
1192.500	-67.12	-13.00	-54.12	Horizontal
2780.500	-57.16	-13.00	-44.16	Horizontal
4879.312	-66.42	-13.00	-53.42	Horizontal

7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1065.000	-63.68	-13.00	-50.68	Vertical
2881.000	-57.15	-13.00	-44.15	Vertical
4968.037	-66.49	-13.00	-53.49	Vertical
1103.000	-66.55	-13.00	-53.55	Horizontal
4206.562	-67.08	-13.00	-54.08	Horizontal
6093.675	-65.59	-13.00	-52.59	Horizontal

Main antenna

7.1.1.1.4 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1649.000	-63.34	-13.00	-50.34	Vertical
2782.500	-57.69	-13.00	-44.69	Vertical
4381.087	-67.11	-13.00	-54.11	Vertical
1649.000	-62.03	-13.00	-49.03	Horizontal
2812.000	-56.85	-13.00	-43.85	Horizontal
3817.050	-67.99	-13.00	-54.99	Horizontal

7.1.1.1.5 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1623.500	-65.24	-13.00	-52.24	Vertical
2799.000	-57.36	-13.00	-44.36	Vertical
5034.337	-66.44	-13.00	-53.44	Vertical
1755.000	-53.67	-13.00	-40.67	Horizontal
2800.000	-56.84	-13.00	-43.84	Horizontal
4273.350	-66.70	-13.00	-53.70	Horizontal

7.1.1.1.6 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1763.500	-54.83	-13.00	-41.83	Vertical
2662.500	-57.43	-13.00	-44.43	Vertical
4977.787	-66.51	-13.00	-53.51	Vertical
1753.000	-53.34	-13.00	-40.34	Horizontal
2684.000	-57.46	-13.00	-44.46	Horizontal
4203.150	-67.12	-13.00	-54.12	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.

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 band5	LTE/TM1 10+10MHz	LCH	TN	VL	-2.36	-0.00285	PASS
				VN	1.76	0.00212	PASS
				VH	-2.73	-0.00329	PASS
		MCH	TN	VL	-4.59	-0.00552	PASS
				VN	-2.80	-0.00337	PASS
				VH	1.87	0.00225	PASS
		HCH	TN	VL	-5.32	-0.00638	PASS
				VN	-4.55	-0.00545	PASS
				VH	-7.83	-0.00939	PASS
	LTE/TM2 10+10MHz	LCH	TN	VL	-2.48	-0.00299	PASS
				VN	-4.32	-0.00521	PASS
				VH	-3.17	-0.00382	PASS
		MCH	TN	VL	1.58	0.00190	PASS
				VN	-3.25	-0.00391	PASS
				VH	3.70	0.00445	PASS
		HCH	TN	VL	-2.37	-0.00284	PASS
				VN	-3.48	-0.00417	PASS
				VH	5.42	0.00650	PASS
	LTE/TM3 10+10MHz	LCH	TN	VL	3.51	0.00423	PASS
				VN	2.93	0.00353	PASS
				VH	4.24	0.00511	PASS
		MCH	TN	VL	5.44	0.00654	PASS
				VN	3.18	0.00382	PASS
				VH	4.50	0.00541	PASS
		HCH	TN	VL	-3.40	-0.00408	PASS
				VN	-6.43	-0.00771	PASS
				VH	-3.68	-0.00441	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 band5	LTE/TM1 10+10MHz	LCH	VN	-30	-5.38	-0.00649	PASS
				-20	-2.32	-0.00280	PASS
				-10	-2.47	-0.00298	PASS
				0	1.27	0.00153	PASS
				10	1.20	0.00145	PASS
				20	0.55	0.00066	PASS
				30	2.68	0.00323	PASS
				40	-2.10	-0.00253	PASS
				50	-4.02	-0.00485	PASS
		MCH	VN	-30	-5.04	-0.00606	PASS
				-20	-3.10	-0.00373	PASS
				-10	-3.30	-0.00397	PASS
				0	-1.25	-0.00150	PASS
				10	-2.07	-0.00249	PASS
				20	-1.66	-0.00200	PASS
				30	-3.99	-0.00480	PASS
				40	-4.83	-0.00581	PASS
				50	-5.92	-0.00712	PASS
		HCH	VN	-30	-6.06	-0.00727	PASS
				-20	-5.24	-0.00628	PASS
				-10	3.69	0.00442	PASS
				0	-2.43	-0.00291	PASS
				10	2.24	0.00269	PASS
				20	-1.39	-0.00167	PASS
				30	-2.42	-0.00290	PASS
				40	-4.39	-0.00526	PASS
				50	-3.84	-0.00460	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE band5	LTE/TM2 10+10MHz	LCH	VN	-30	-4.30	-0.00519	PASS
				-20	-2.42	-0.00292	PASS
				-10	1.22	0.00147	PASS
				0	2.41	0.00291	PASS
				10	2.00	0.00241	PASS
				20	-1.43	-0.00172	PASS
				30	-3.03	-0.00366	PASS
				40	2.27	0.00274	PASS
				50	-4.08	-0.00492	PASS
		MCH	VN	-30	-1.32	-0.00159	PASS
				-20	-2.66	-0.00320	PASS
				-10	-2.14	-0.00257	PASS
				0	-1.83	-0.00220	PASS
				10	-2.92	-0.00351	PASS
				20	1.35	0.00162	PASS
				30	-2.14	-0.00257	PASS
				40	-6.58	-0.00791	PASS
				50	-4.49	-0.00540	PASS
		HCH	VN	-30	-3.50	-0.00420	PASS
				-20	-4.33	-0.00519	PASS
				-10	2.25	0.00270	PASS
				0	-3.40	-0.00408	PASS
				10	2.46	0.00295	PASS
				20	-1.53	-0.00183	PASS
				30	-2.32	-0.00278	PASS
				40	-3.90	-0.00468	PASS
				50	-4.11	-0.00493	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE band5	LTE/TM3 10+10MHz	LCH	VN	-30	-3.57	-0.00431	PASS
				-20	-2.43	-0.00293	PASS
				-10	1.22	0.00147	PASS
				0	2.41	0.00291	PASS
				10	1.76	0.00212	PASS
				20	-0.43	-0.00052	PASS
				30	-3.03	-0.00366	PASS
				40	2.27	0.00274	PASS
				50	-4.85	-0.00585	PASS
		MCH	VN	-30	-3.32	-0.00397	PASS
				-20	-2.66	-0.00318	PASS
				-10	-2.14	-0.00256	PASS
				0	-1.83	-0.00219	PASS
				10	-0.72	-0.00086	PASS
				20	1.33	0.00159	PASS
				30	-2.24	-0.00268	PASS
				40	-6.58	-0.00787	PASS
				50	-5.49	-0.00656	PASS
		HCH	VN	-30	-3.04	-0.00360	PASS
				-20	-4.69	-0.00556	PASS
				-10	2.49	0.00295	PASS
				0	-3.46	-0.00410	PASS
				10	2.46	0.00291	PASS
				20	-1.93	-0.00229	PASS
				30	-3.32	-0.00393	PASS
				40	-5.70	-0.00675	PASS
				50	-4.32	-0.00512	PASS

The End