



Appendix B

E-UTRA BAND 5

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1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	23.21	19.11	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.34	19.24	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.24	19.14	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.30	19.20	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.33	19.23	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.29	19.19	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.32	18.22	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.19	19.09	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.34	19.24	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.16	19.06	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	23.28	19.18	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	23.32	19.22	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	23.27	19.17	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.33	18.23	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.20	19.10	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.35	19.25	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.23	19.13	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	23.29	19.19	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#1	23.25	19.15	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.18	19.08	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.08	17.98	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.36	18.26	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.51	18.41	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.44	18.34	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.35	18.25	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	22.38	18.28	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	22.32	18.22	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.41	17.31	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.31	18.21	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.42	18.32	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.30	18.20	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	22.35	18.25	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	22.37	18.27	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	22.28	18.18	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.37	17.27	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.33	18.23	38.45	PASS



Band5	1.4MHz	16QAM	20643	1RB#2	22.54	18.44	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.41	18.31	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	22.33	18.23	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	22.29	18.19	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	22.15	18.05	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.30	17.20	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.32	19.22	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.30	19.20	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.27	19.17	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.32	18.22	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.36	18.26	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.34	18.24	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.31	18.21	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.28	19.18	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.27	19.17	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.22	19.12	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#0	22.30	18.20	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#4	22.32	18.22	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.29	18.19	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.31	18.21	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.26	19.16	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.27	19.17	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.27	19.17	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#0	22.23	18.13	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#4	22.37	18.27	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#7	22.31	18.21	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.33	18.23	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.44	18.34	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.52	18.42	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.39	18.29	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.36	17.26	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.42	17.32	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.38	17.28	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.32	17.22	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.32	18.22	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.43	18.33	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.34	18.24	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#0	21.35	17.25	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#4	21.36	17.26	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.34	17.24	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.29	17.19	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.47	18.37	38.45	PASS



Band5	3MHz	16QAM	20635	1RB#8	22.35	18.25	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.40	18.30	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#0	21.39	17.29	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#4	21.39	17.29	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#7	21.38	17.28	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.34	17.24	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.15	19.05	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.46	19.36	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.12	19.02	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.23	18.13	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.35	18.25	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#13	22.32	18.22	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.34	18.24	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.19	19.09	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.42	19.32	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.11	19.01	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#0	22.28	18.18	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#6	22.32	18.22	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#13	22.23	18.13	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.33	18.23	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.16	19.06	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.41	19.31	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.15	19.05	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#0	22.29	18.19	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#6	22.33	18.23	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#13	22.30	18.20	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.34	18.24	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.26	18.16	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.63	18.53	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.29	18.19	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#0	21.32	17.22	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.43	17.33	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#13	21.39	17.29	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.37	17.27	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.34	18.24	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.58	18.48	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.18	18.08	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#0	21.37	17.27	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#6	21.38	17.28	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#13	21.30	17.20	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.31	17.21	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.32	18.22	38.45	PASS



Band5	5MHz	16QAM	20625	1RB#12	22.59	18.49	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.35	18.25	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#0	21.37	17.27	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#6	21.42	17.32	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#13	21.34	17.24	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.32	17.22	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.30	19.20	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.38	19.28	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.19	19.09	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.31	18.21	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.35	18.25	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#25	22.41	18.31	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.37	18.27	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.26	19.16	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.35	19.25	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.20	19.10	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#0	22.37	18.27	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#12	22.37	18.27	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#25	22.32	18.22	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.36	18.26	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.26	19.16	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.35	19.25	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.26	19.16	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.43	18.33	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.41	18.31	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#25	22.35	18.25	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.40	18.30	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.55	18.45	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.52	18.42	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.37	18.27	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#0	21.31	17.21	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#12	21.36	17.26	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#25	21.41	17.31	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.37	17.27	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.46	18.36	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.45	18.35	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.35	18.25	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#0	21.37	17.27	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#12	21.38	17.28	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#25	21.32	17.22	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.37	17.27	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.32	18.22	38.45	PASS

Band5	10MHz	16QAM	20600	1RB#24	22.44	18.34	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.44	18.34	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#0	21.41	17.31	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#12	21.40	17.30	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#25	21.33	17.23	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.40	17.30	38.45	PASS

Remark:

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

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

$$EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBi]$$

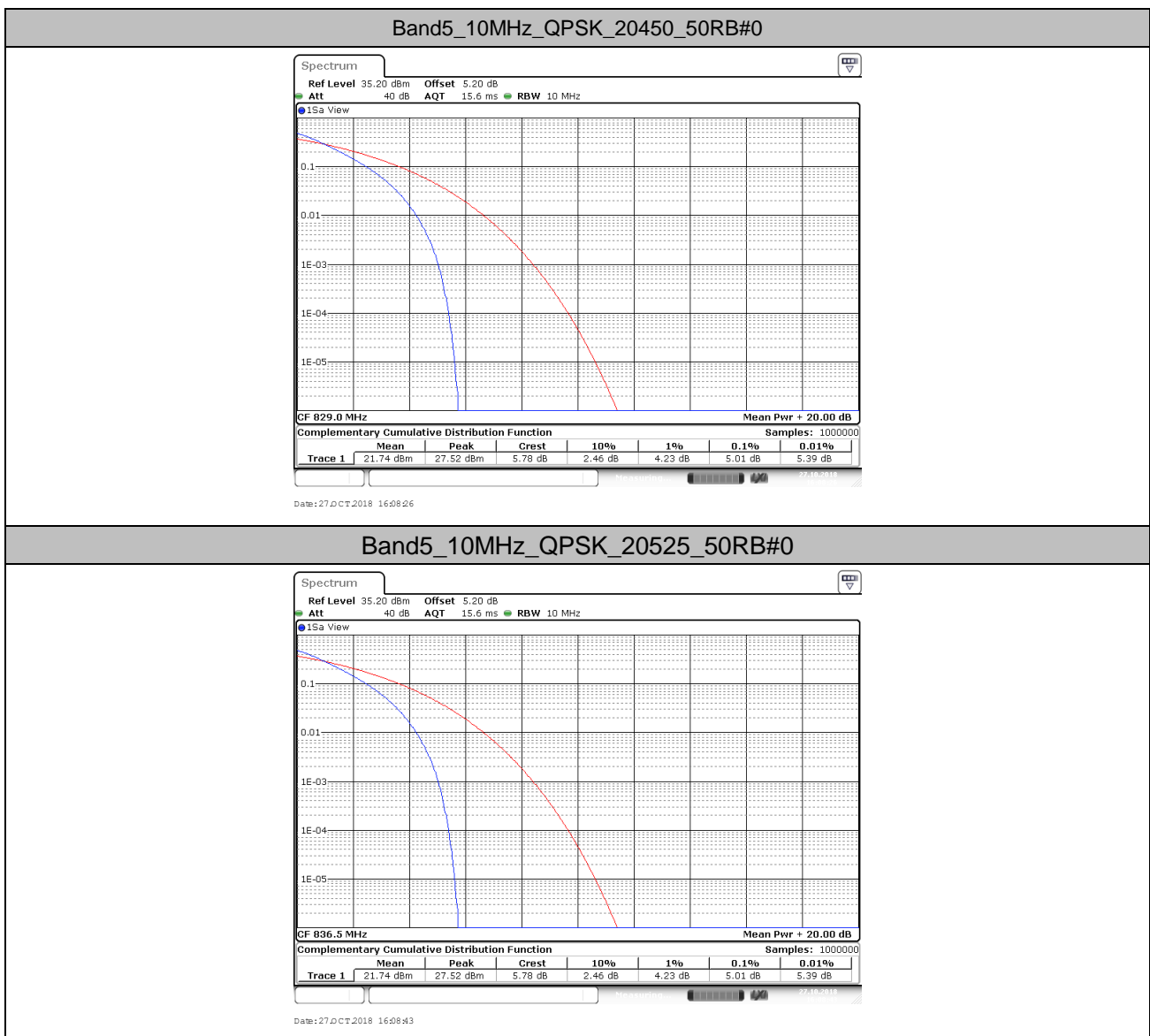
b: SGP=Signal Generator Level

2. Peak-to-Average Ratio(CCDF)

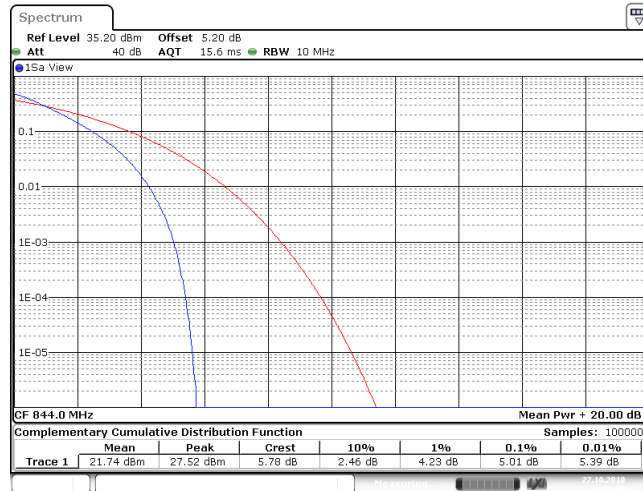
2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.01	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.01	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.01	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	5.01	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	5.01	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	5.01	13	PASS

2.2. Test Plots

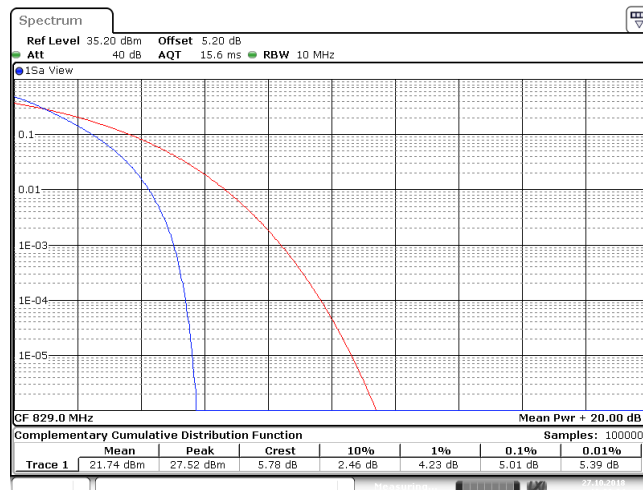


Band5_10MHz_QPSK_20600_50RB#0



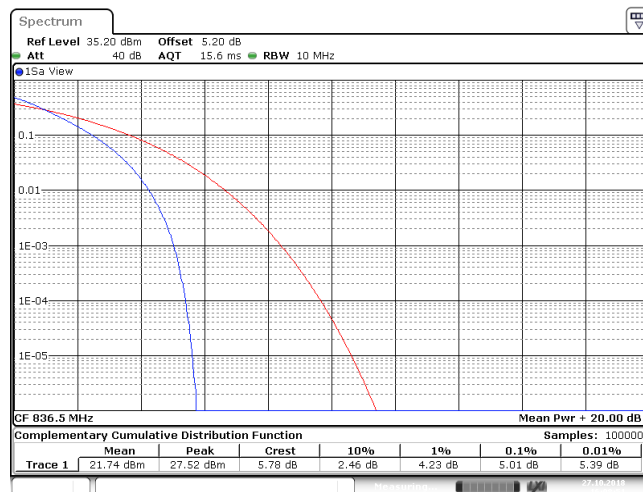
Date: 27.OCT.2018 16:09:01

Band5_10MHz_16QAM_20450_50RB#0



Date: 27.OCT.2018 16:08:34

Band5_10MHz_16QAM_20525_50RB#0



Date: 27.OCT.2018 16:08:52

Band5_10MHz_16QAM_20600_50RB#0

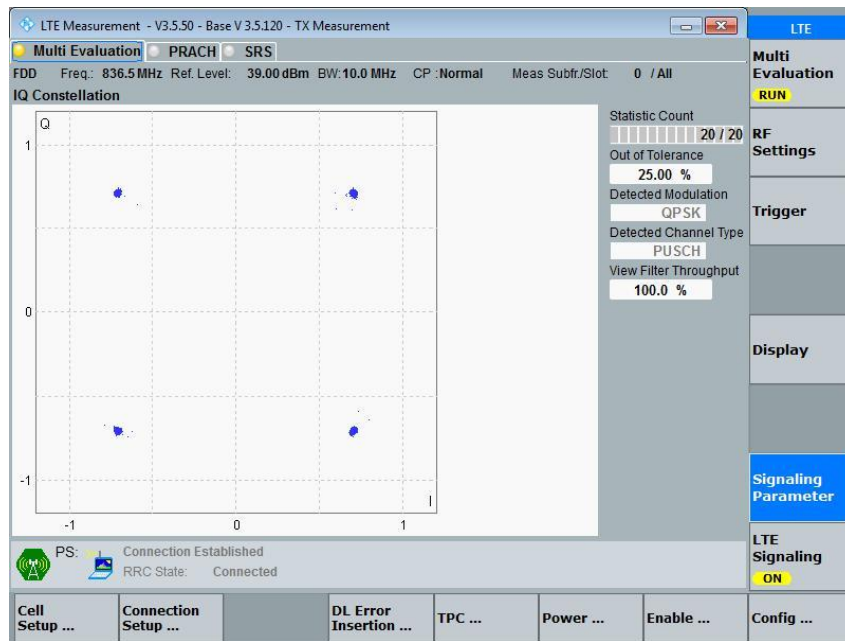


3. Modulation Characteristics

3.1. Test BAND = LTE BAND5

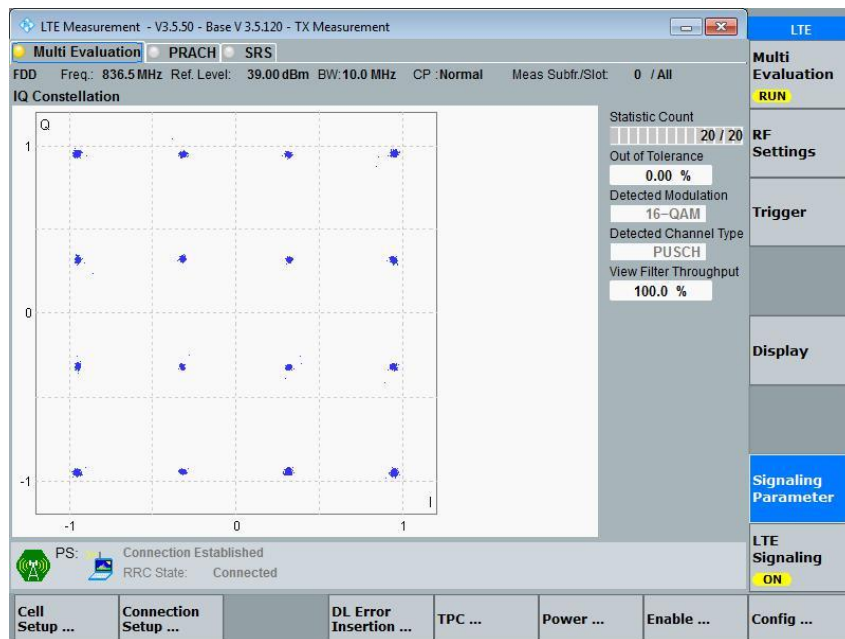
3.1.1. Test Mode = LTE /TM1 10MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 10MHz

3.1.2.1. Test Channel = MCH

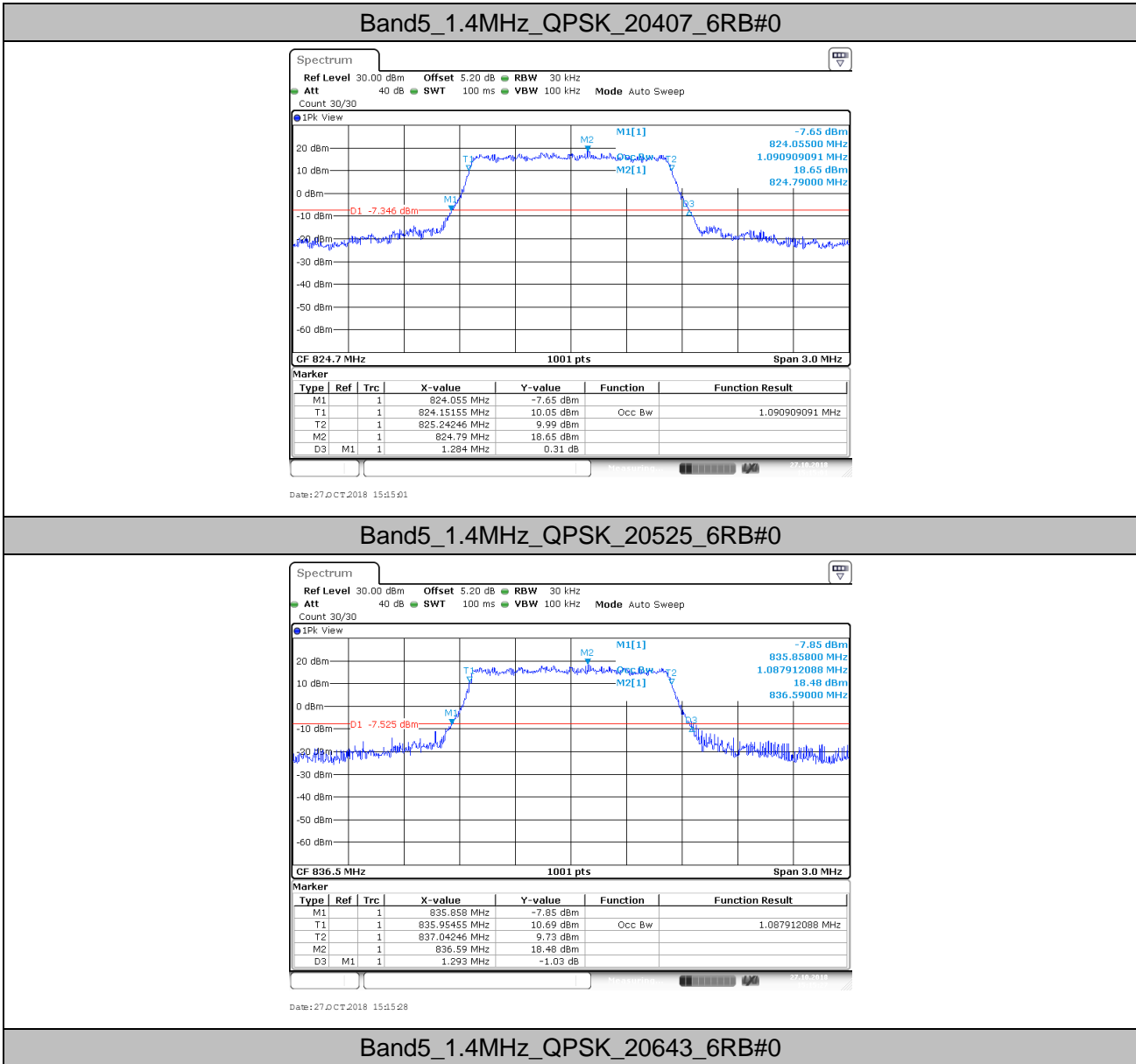


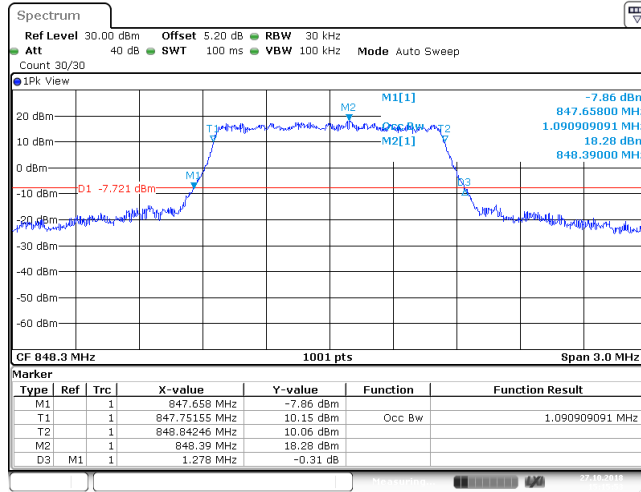
4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

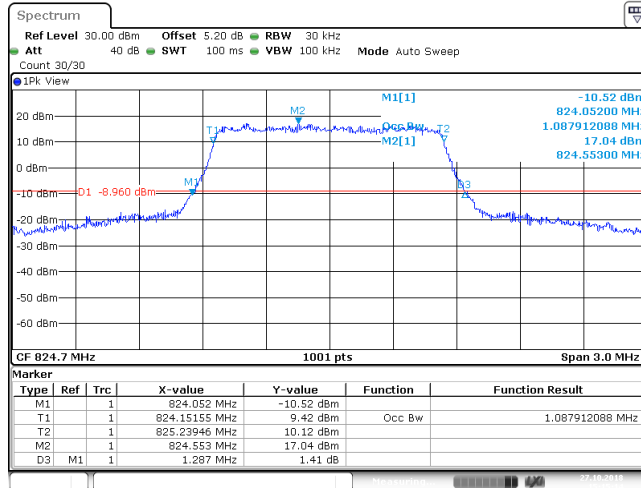
BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.091	1.284	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.088	1.293	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.091	1.278	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.088	1.287	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.091	1.290	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.091	1.284	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.691	2.928	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.685	2.934	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.685	2.904	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.673	2.898	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.679	2.928	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.685	2.904	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.476	5.070	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.486	5.200	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.496	5.180	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.486	5.040	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.496	5.610	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.486	4.980	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.931	9.920	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.951	9.900	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.951	9.880	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.951	10.420	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.951	9.960	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.931	9.800	PASS

4.2. Test Plots

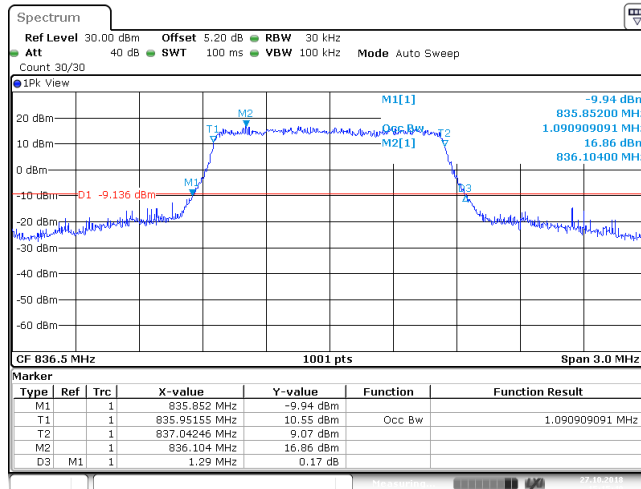




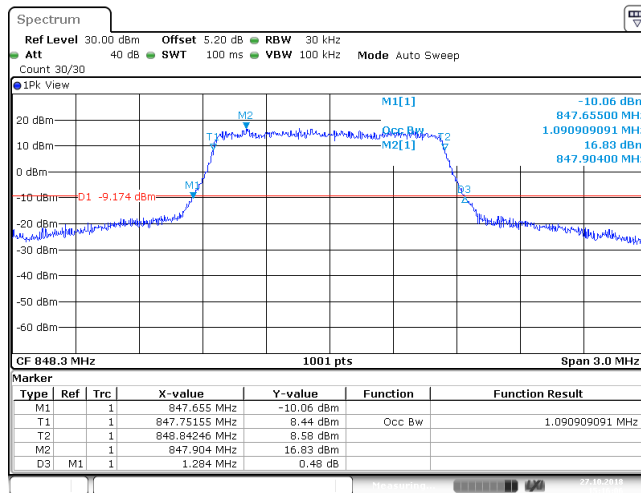
Band5_1.4MHz_16QAM_20407_6RB#0



Band5_1.4MHz_16QAM_20525_6RB#0

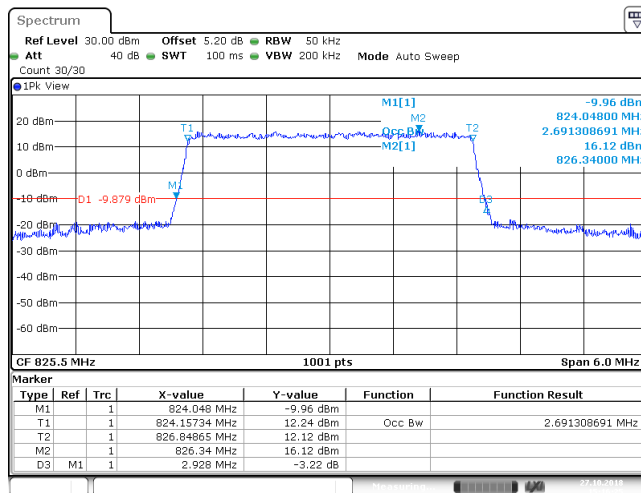


Band5_1.4MHz_16QAM_20643_6RB#0



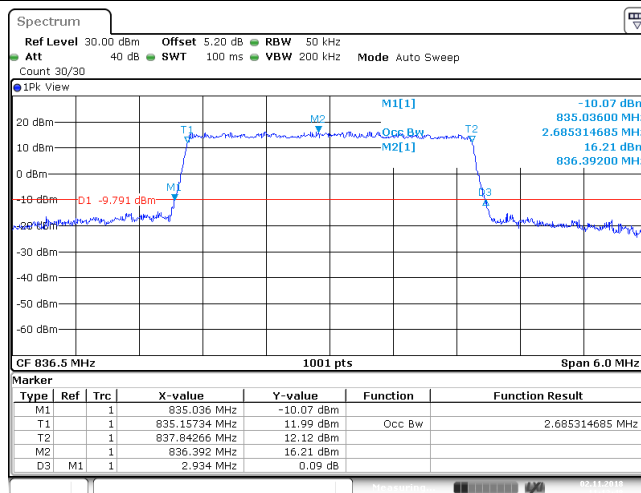
Date: 27.OCT.2018 15:16:07

Band5_3MHz_QPSK_20415_15RB#0



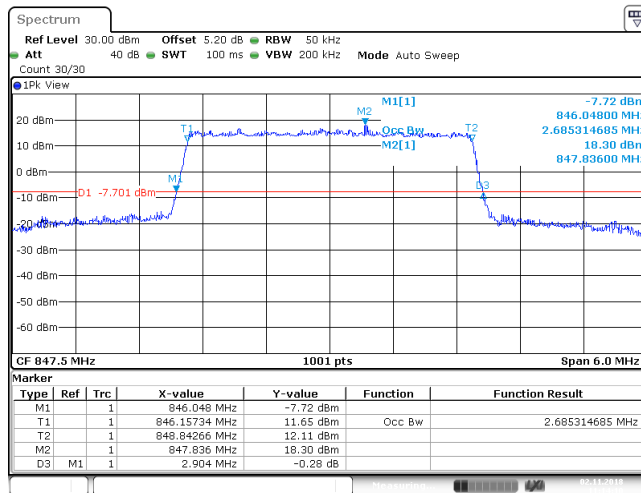
Date: 27.OCT.2018 15:16:25

Band5_3MHz_QPSK_20525_15RB#0



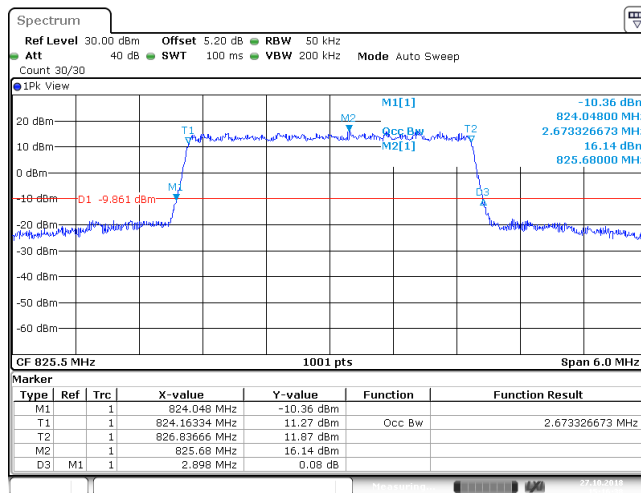
Date: 2.NOV.2018 11:13:48

Band5_3MHz_QPSK_20635_15RB#0



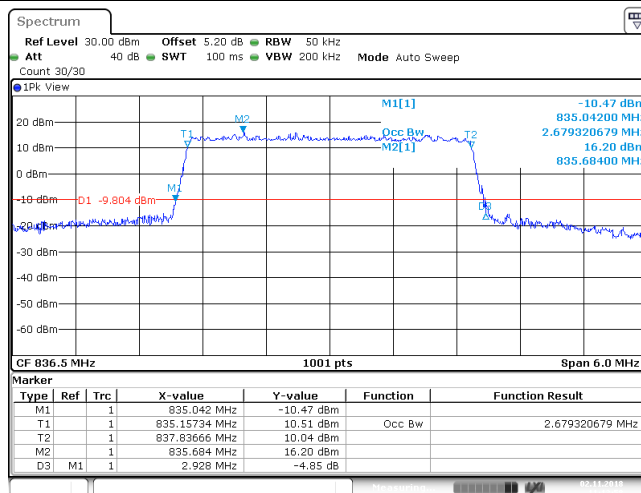
Date: 2 NOV 2018 11:14:11

Band5_3MHz_16QAM_20415_15RB#0



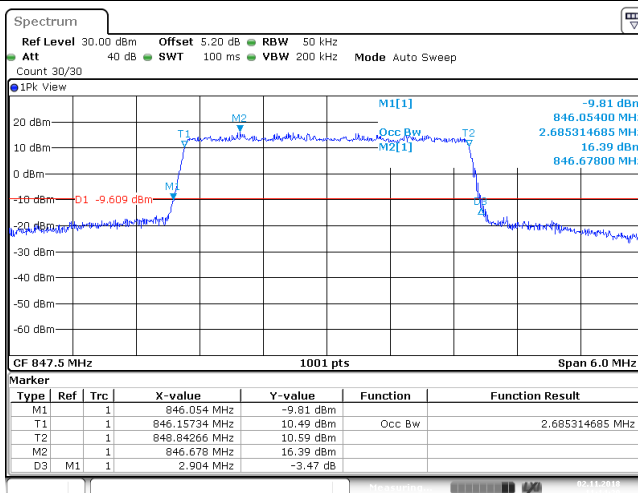
Date: 27 OCT 2018 15:16:38

Band5_3MHz_16QAM_20525_15RB#0



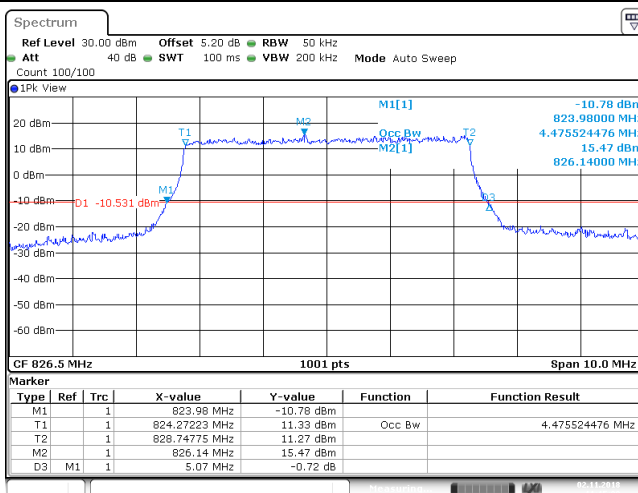
Date: 2 NOV 2018 11:13:58

Band5_3MHz_16QAM_20635_15RB#0



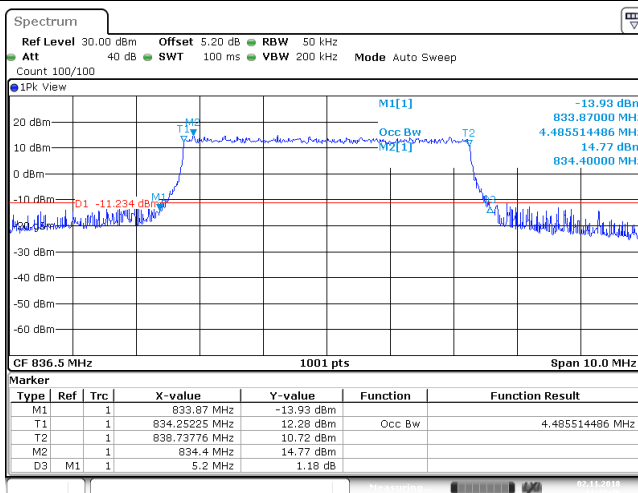
Date: 2 NOV 2018 11:14:21

Band5_5MHz_QPSK_20425_25RB#0



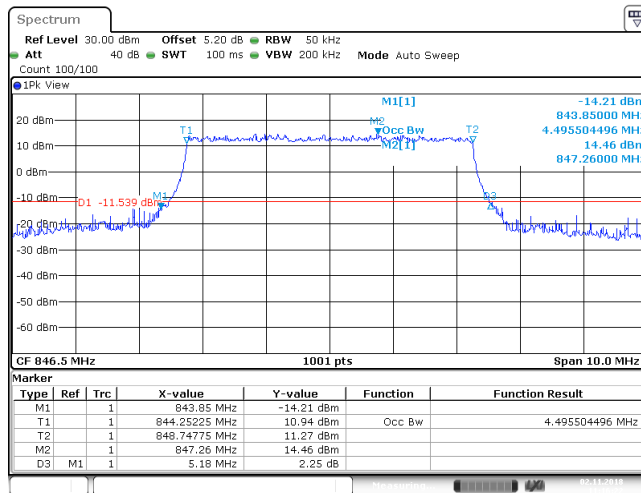
Date: 2 NOV 2018 11:15:09

Band5_5MHz_QPSK_20525_25RB#0



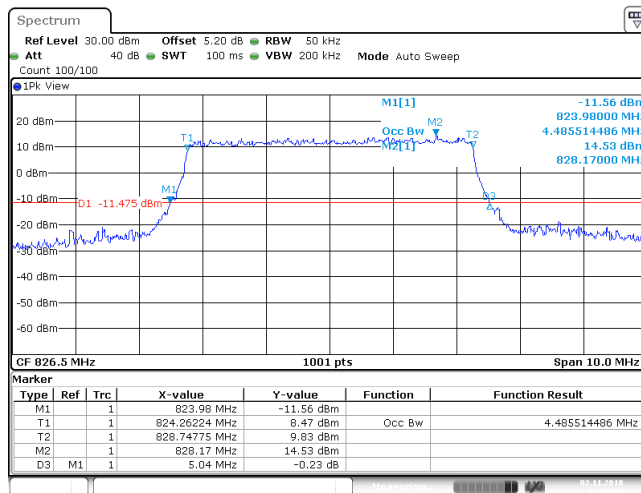
Date: 2 NOV 2018 11:15:46

Band5_5MHz_QPSK_20625_25RB#0



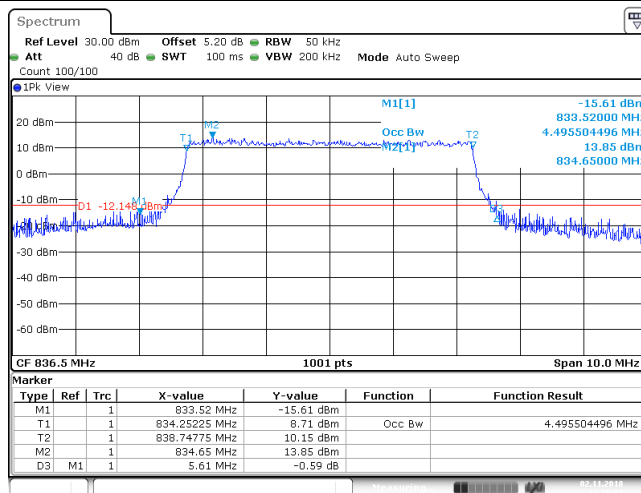
Date: 2 NOV 2018 11:16:23

Band5_5MHz_16QAM_20425_25RB#0



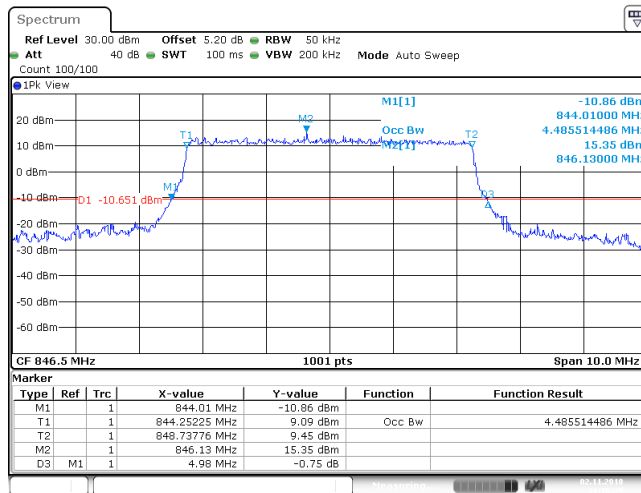
Date: 2 NOV 2018 11:15:26

Band5_5MHz_16QAM_20525_25RB#0



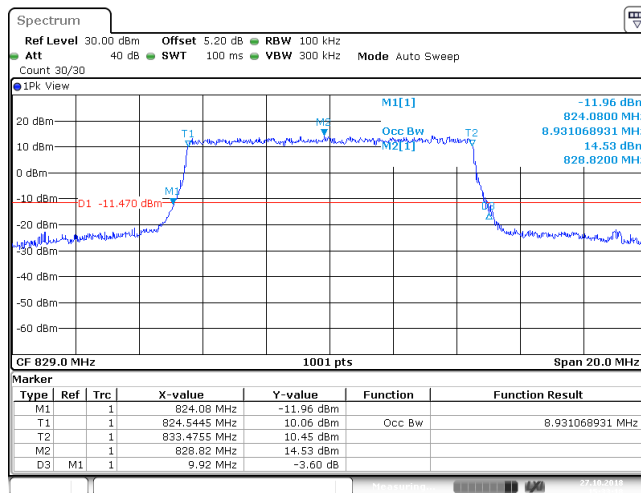
Date: 2 NOV 2018 11:16:03

Band5_5MHz_16QAM_20625_25RB#0



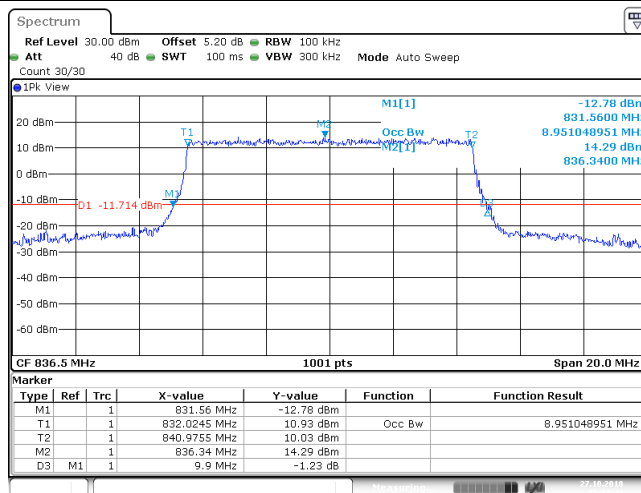
Date: 2 NOV 2018 11:16:30

Band5_10MHz_QPSK_20450_50RB#0



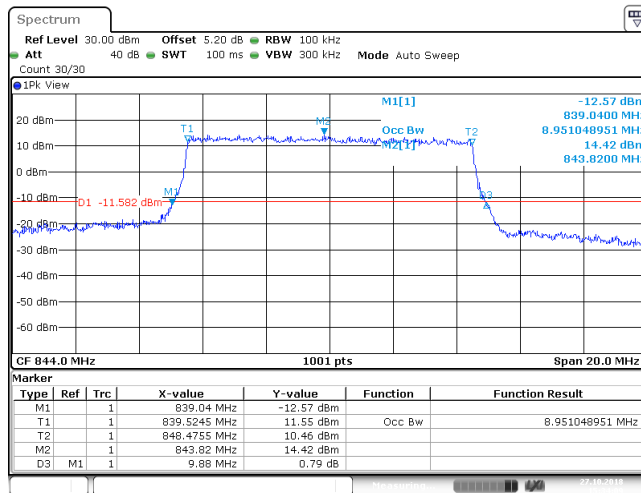
Date: 27 OCT 2018 15:33:18

Band5_10MHz_QPSK_20525_50RB#0



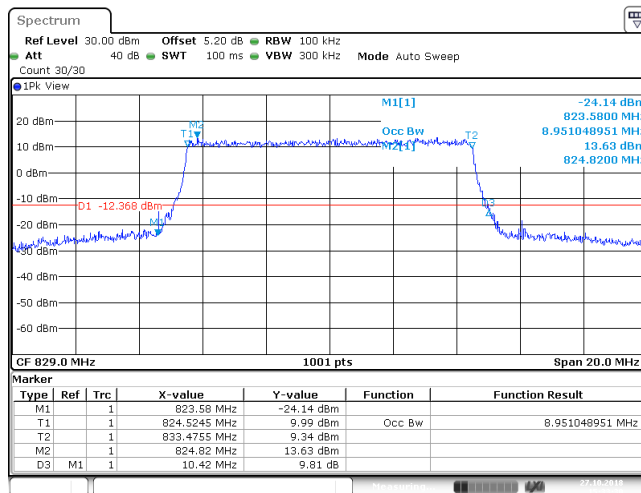
Date: 27 OCT 2018 15:33:43

Band5_10MHz_QPSK_20600_50RB#0



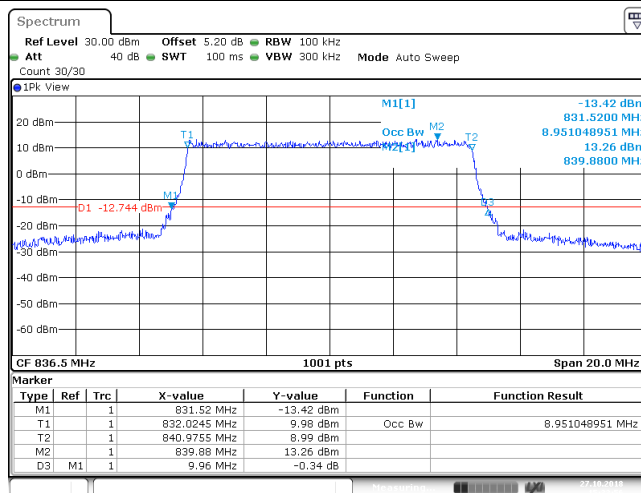
Date: 27.OCT.2018 15:34:09

Band5_10MHz_16QAM_20450_50RB#0



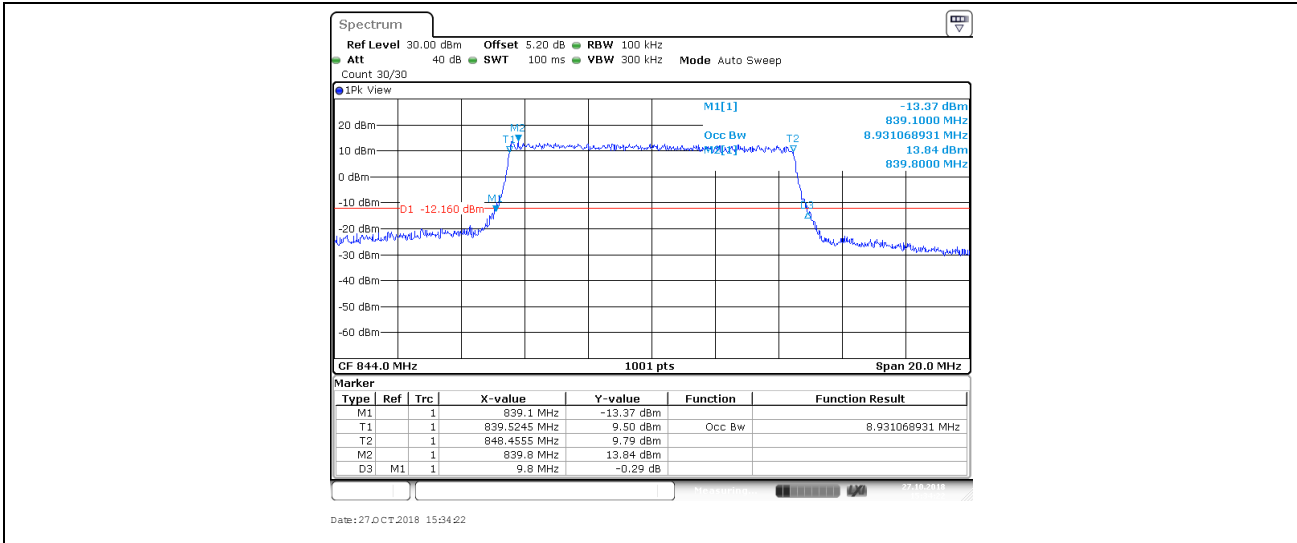
Date: 27.OCT.2018 15:33:30

Band5_10MHz_16QAM_20525_50RB#0



Date: 27.OCT.2018 15:33:56

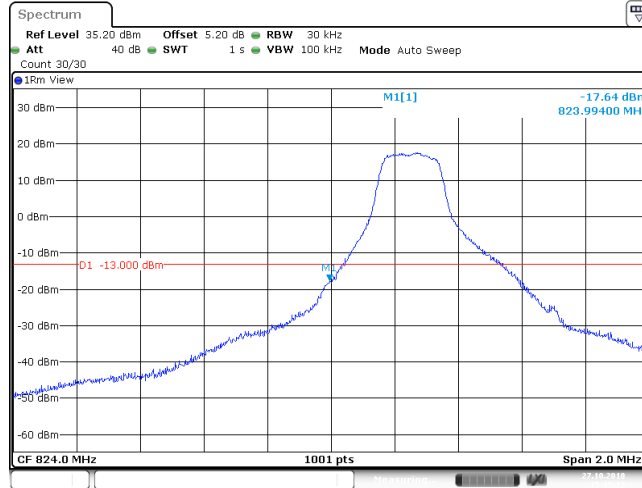
Band5_10MHz_16QAM_20600_50RB#0



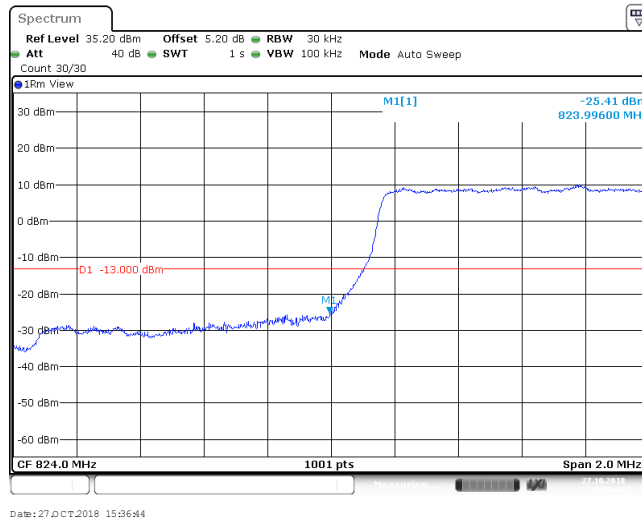
5. Band Edge Compliance

5.1. Test Plots

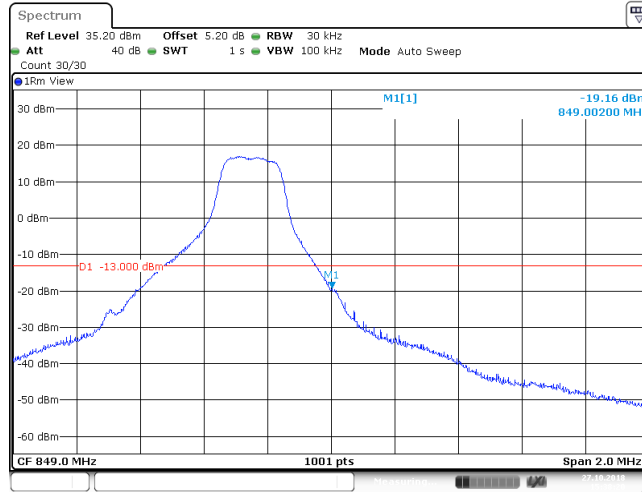
Band5_1.4MHz_QPSK_20407_1RB#0



Band5_1.4MHz_QPSK_20407_6RB#0

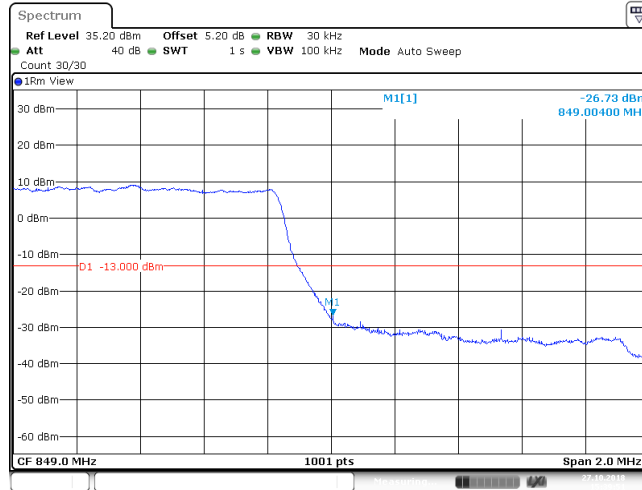


Band5_1.4MHz_QPSK_20643_1RB#5



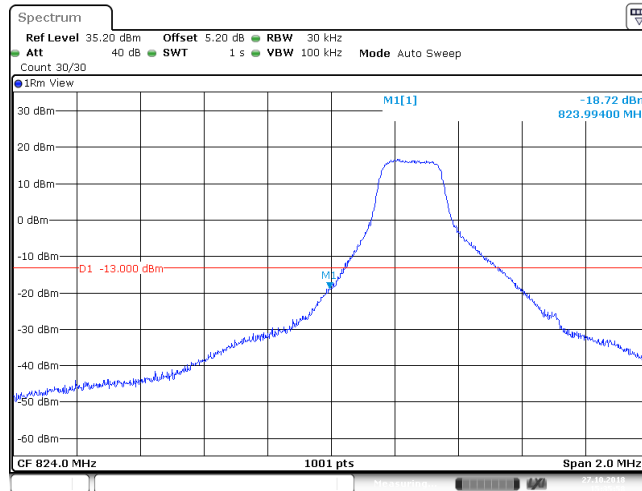
Date: 27 OCT 2018 15:38:20

Band5_1.4MHz_QPSK_20643_6RB#0



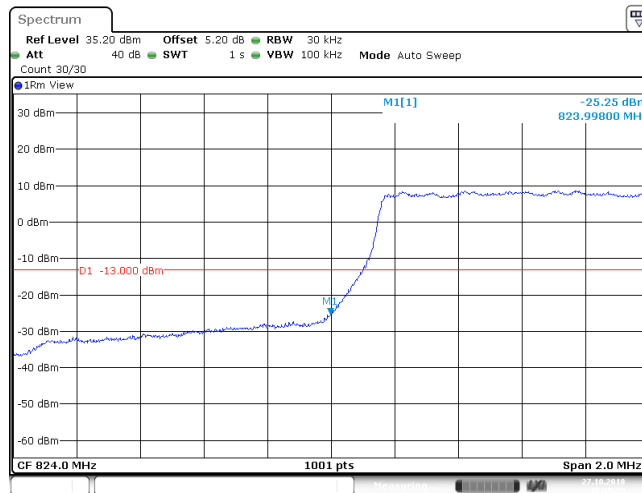
Date: 27 OCT 2018 15:39:51

Band5_1.4MHz_16QAM_20407_1RB#0



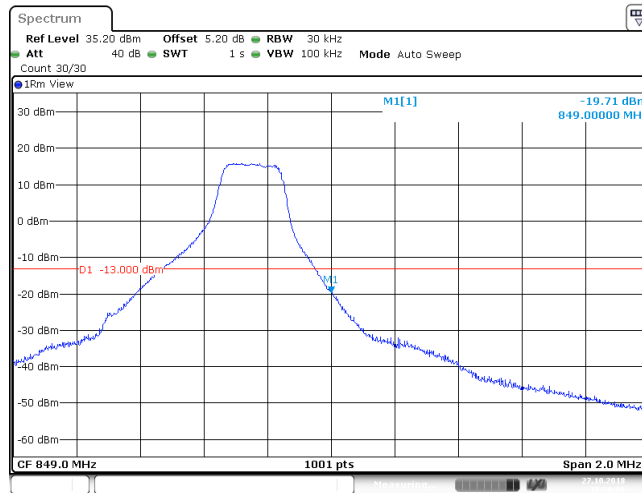
Date: 27 OCT 2018 15:35:58

Band5_1.4MHz_16QAM_20407_6RB#0



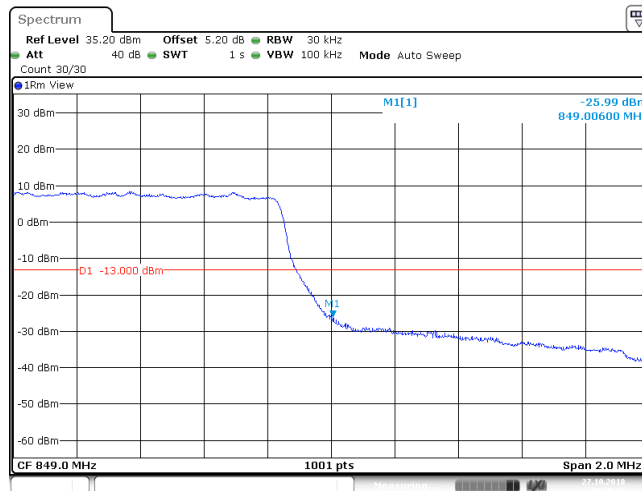
Date: 27 OCT 2018 15:37:30

Band5_1.4MHz_16QAM_20643_1RB#5



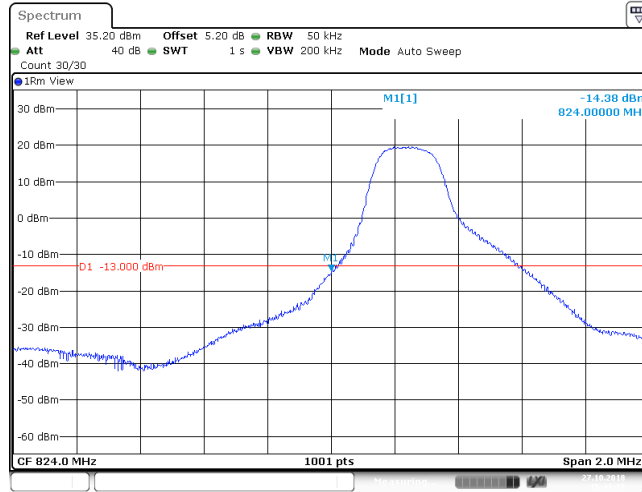
Date: 27 OCT 2018 15:39:06

Band5_1.4MHz_16QAM_20643_6RB#0



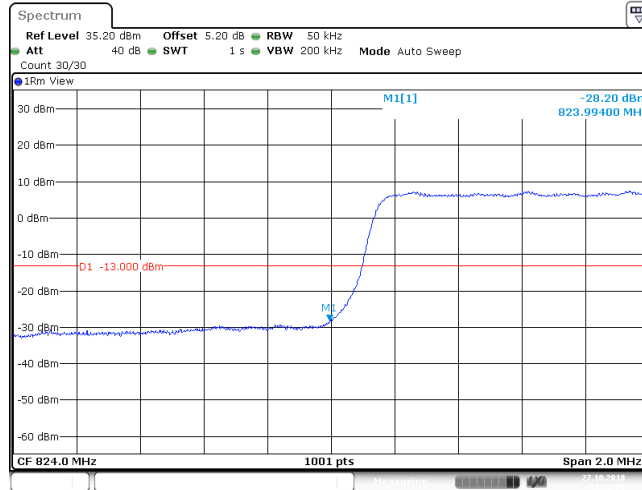
Date: 27 OCT 2018 15:40:37

Band5_3MHz_QPSK_20415_1RB#0



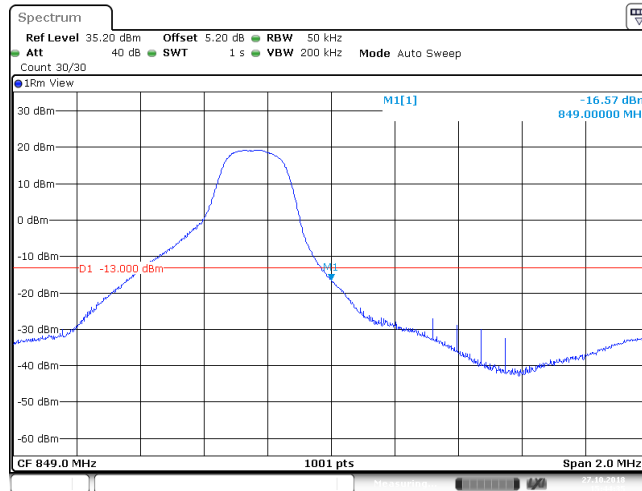
Date: 27 OCT 2018 15:41:28

Band5_3MHz_QPSK_20415_15RB#0



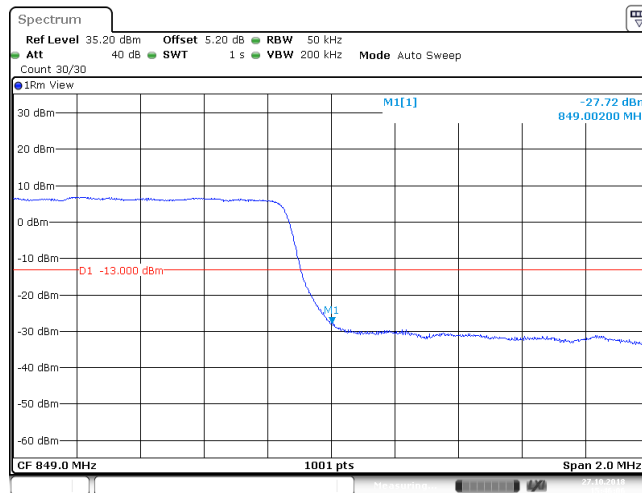
Date: 27 OCT 2018 15:43:00

Band5_3MHz_QPSK_20635_1RB#14



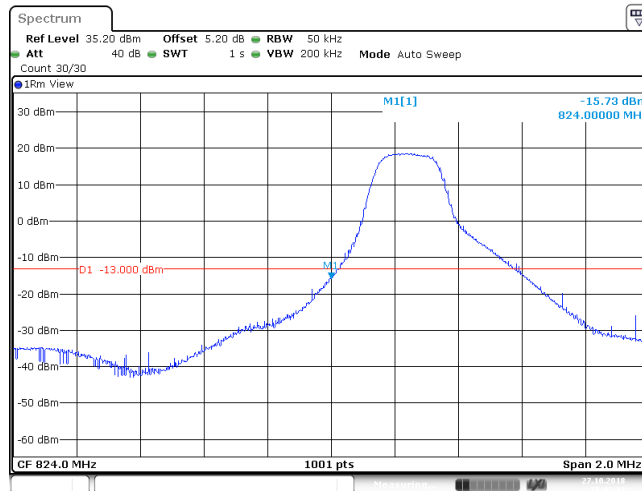
Date: 27 OCT 2018 15:44:35

Band5_3MHz_QPSK_20635_15RB#0



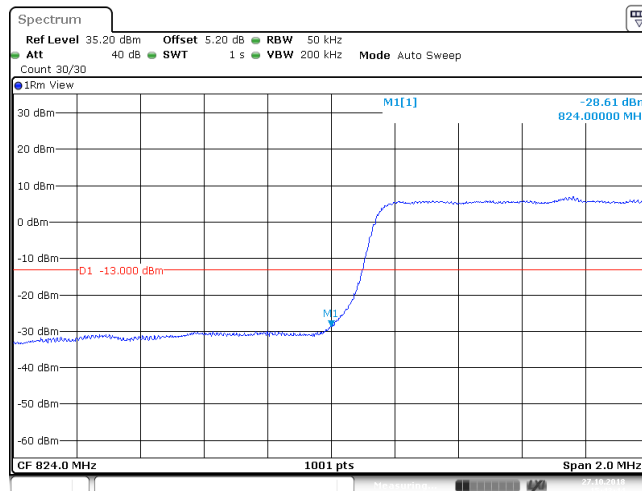
Date: 27 OCT 2018 15:46:07

Band5_3MHz_16QAM_20415_1RB#0



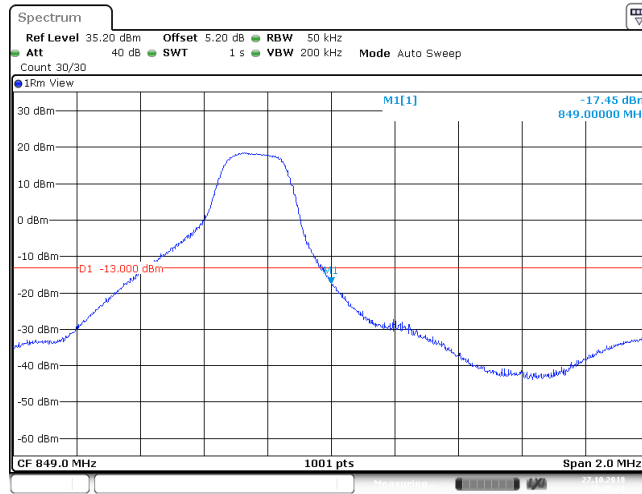
Date: 27 OCT 2018 15:42:14

Band5_3MHz_16QAM_20415_15RB#0



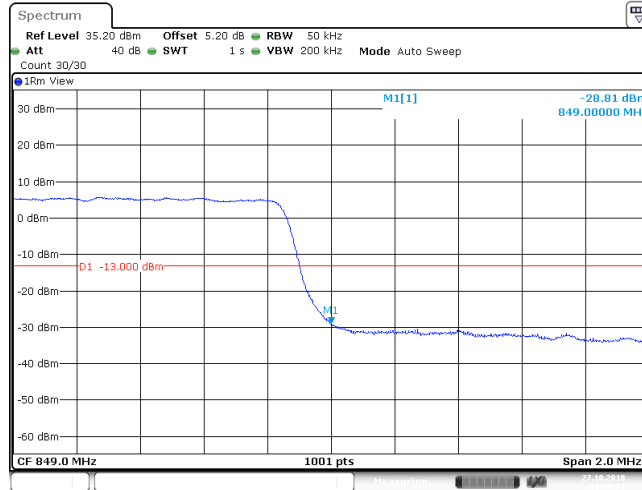
Date: 27 OCT 2018 15:43:45

Band5_3MHz_16QAM_20635_1RB#14



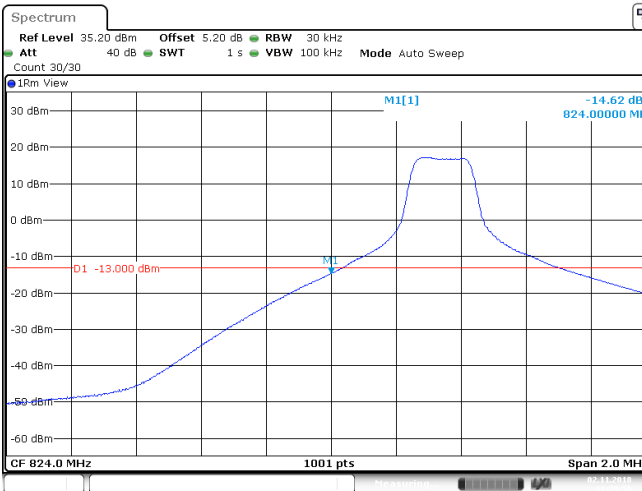
Date: 27 OCT 2018 15:45:21

Band5_3MHz_16QAM_20635_15RB#0



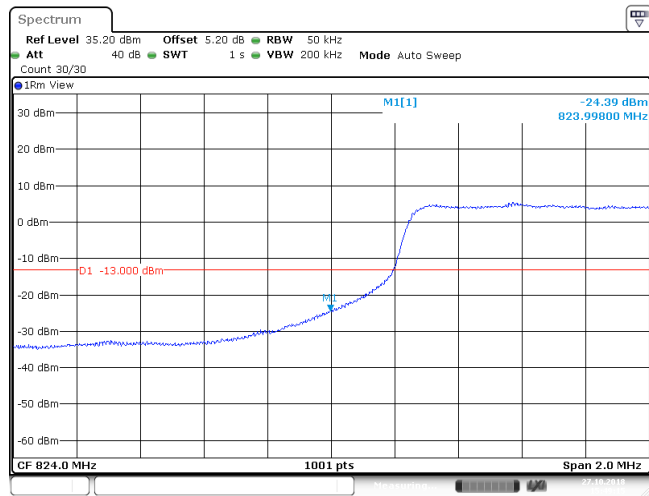
Date: 27 OCT 2018 15:46:53

Band5_5MHz_QPSK_20425_1RB#0



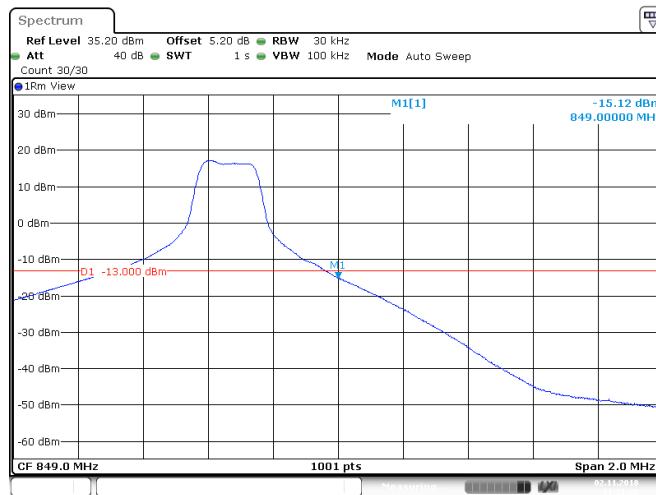
Date: 2 NOV 2018 11:29:57

Band5_5MHz_QPSK_20425_25RB#0



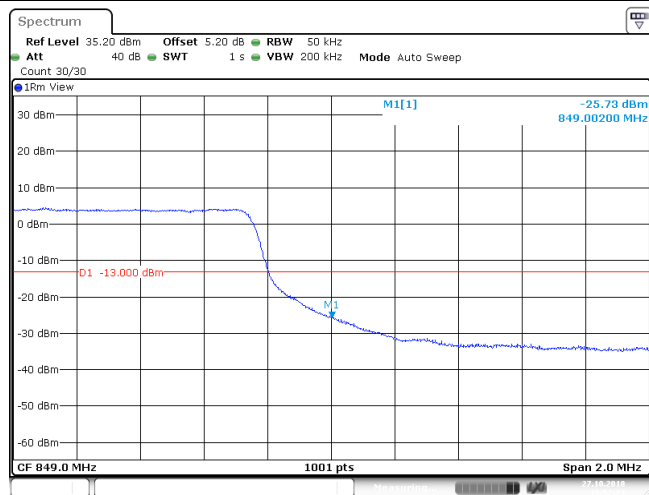
Date: 27 OCT 2018 15:49:16

Band5_5MHz_QPSK_20625_1RB#24



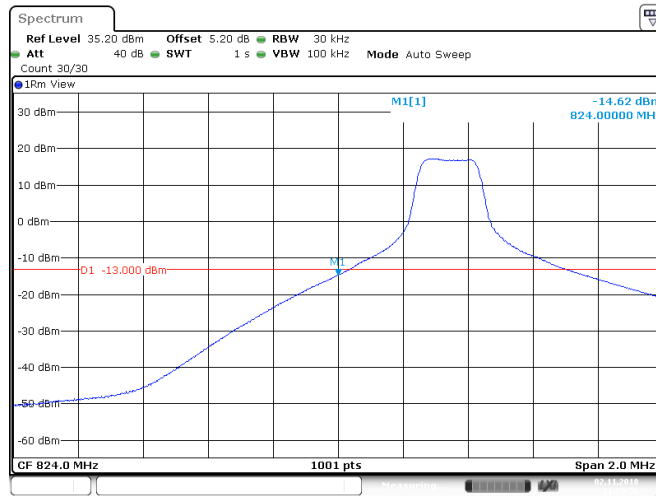
Date: 2 NOV 2018 11:31:29

Band5_5MHz_QPSK_20625_25RB#0



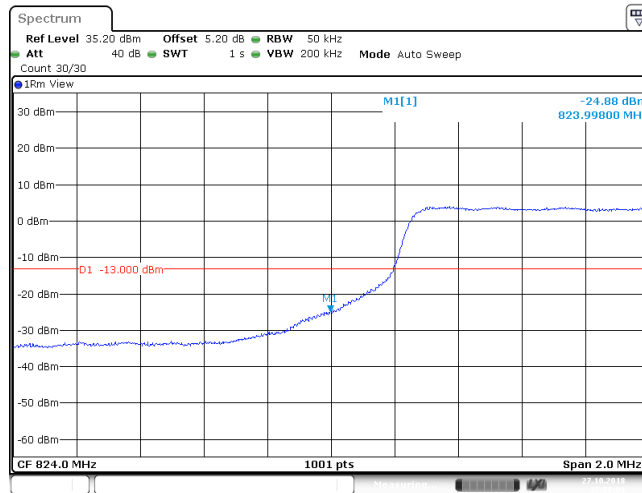
Date: 27 OCT 2018 15:52:23

Band5_5MHz_16QAM_20425_1RB#0



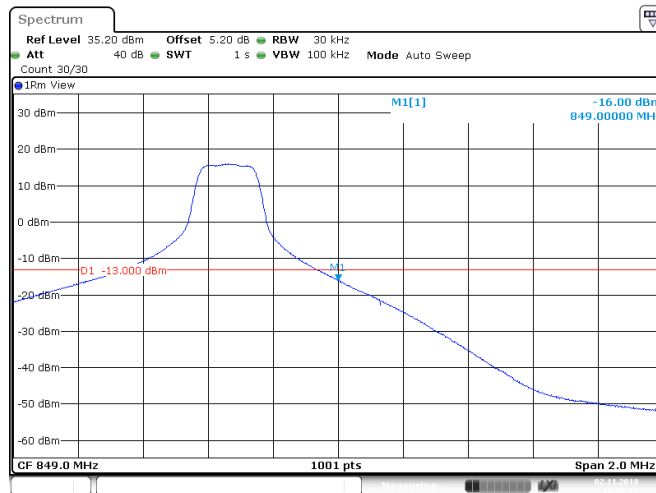
Date: 2 NOV 2018 11:29:57

Band5_5MHz_16QAM_20425_25RB#0



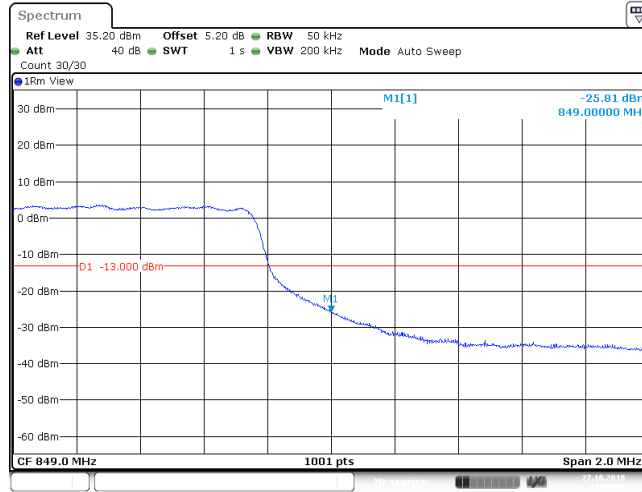
Date: 27 OCT 2018 15:50:01

Band5_5MHz_16QAM_20625_1RB#24



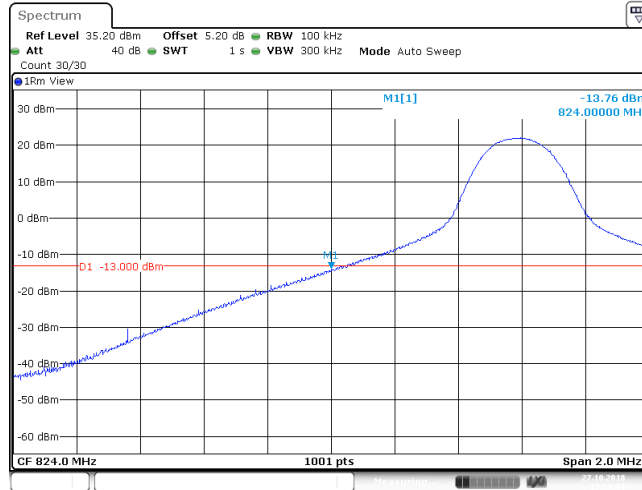
Date: 2 NOV 2018 11:32:12

Band5_5MHz_16QAM_20625_25RB#0



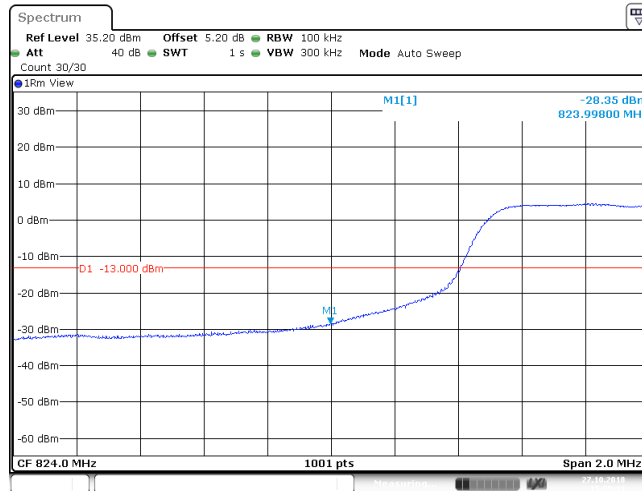
Date: 27 OCT 2018 15:53:09

Band5_10MHz_QPSK_20450_1RB#0



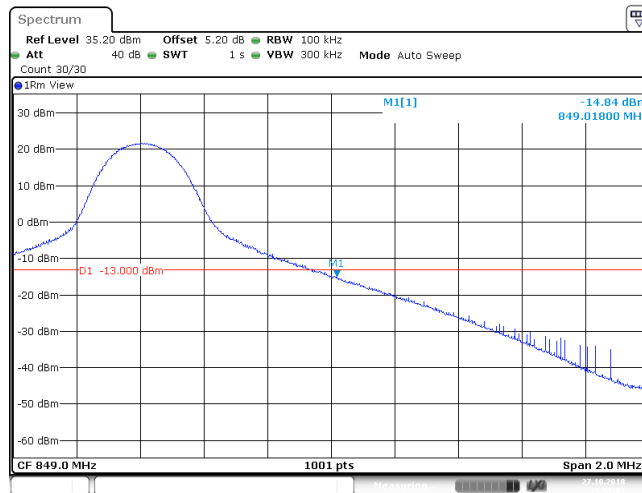
Date: 27 OCT 2018 15:53:59

Band5_10MHz_QPSK_20450_50RB#0



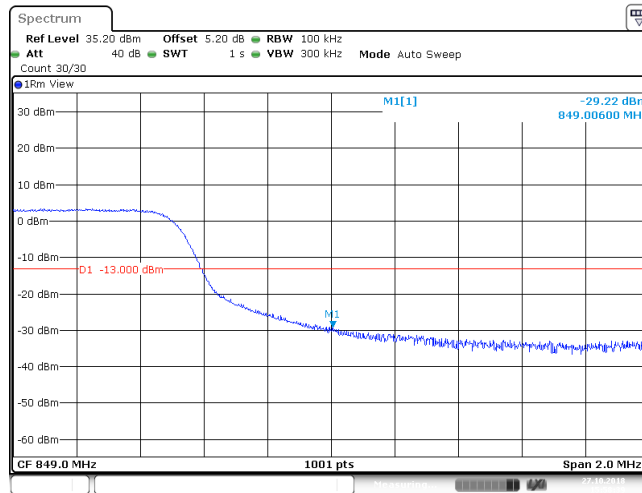
Date: 27 OCT 2018 15:55:31

Band5_10MHz_QPSK_20600_1RB#49



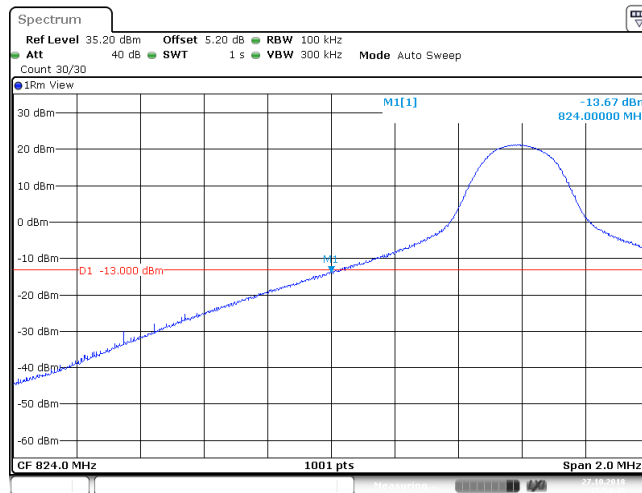
Date: 27 OCT 2018 15:57:07

Band5_10MHz_QPSK_20600_50RB#0



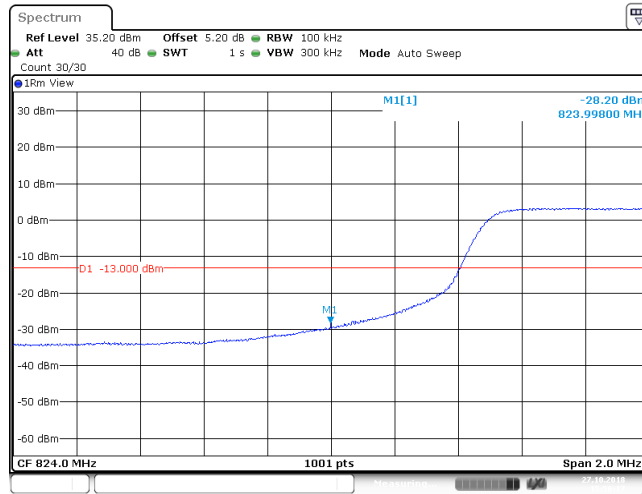
Date: 27 OCT 2018 15:58:39

Band5_10MHz_16QAM_20450_1RB#0



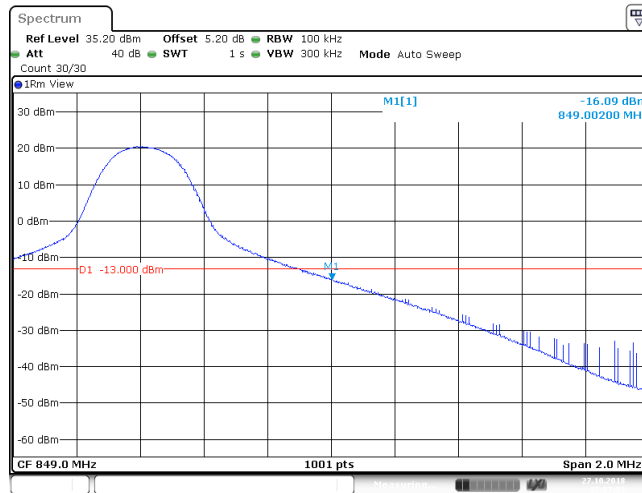
Date: 27 OCT 2018 15:54:45

Band5_10MHz_16QAM_20450_50RB#0



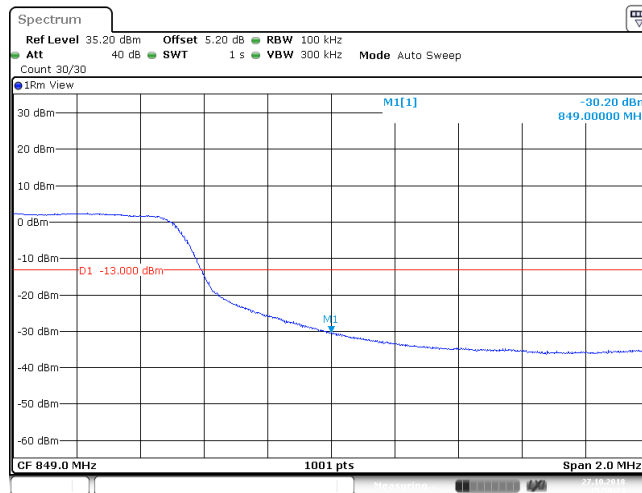
Date: 27 OCT 2018 15:56:17

Band5_10MHz_16QAM_20600_1RB#49



Date: 27 OCT 2018 15:57:53

Band5_10MHz_16QAM_20600_50RB#0



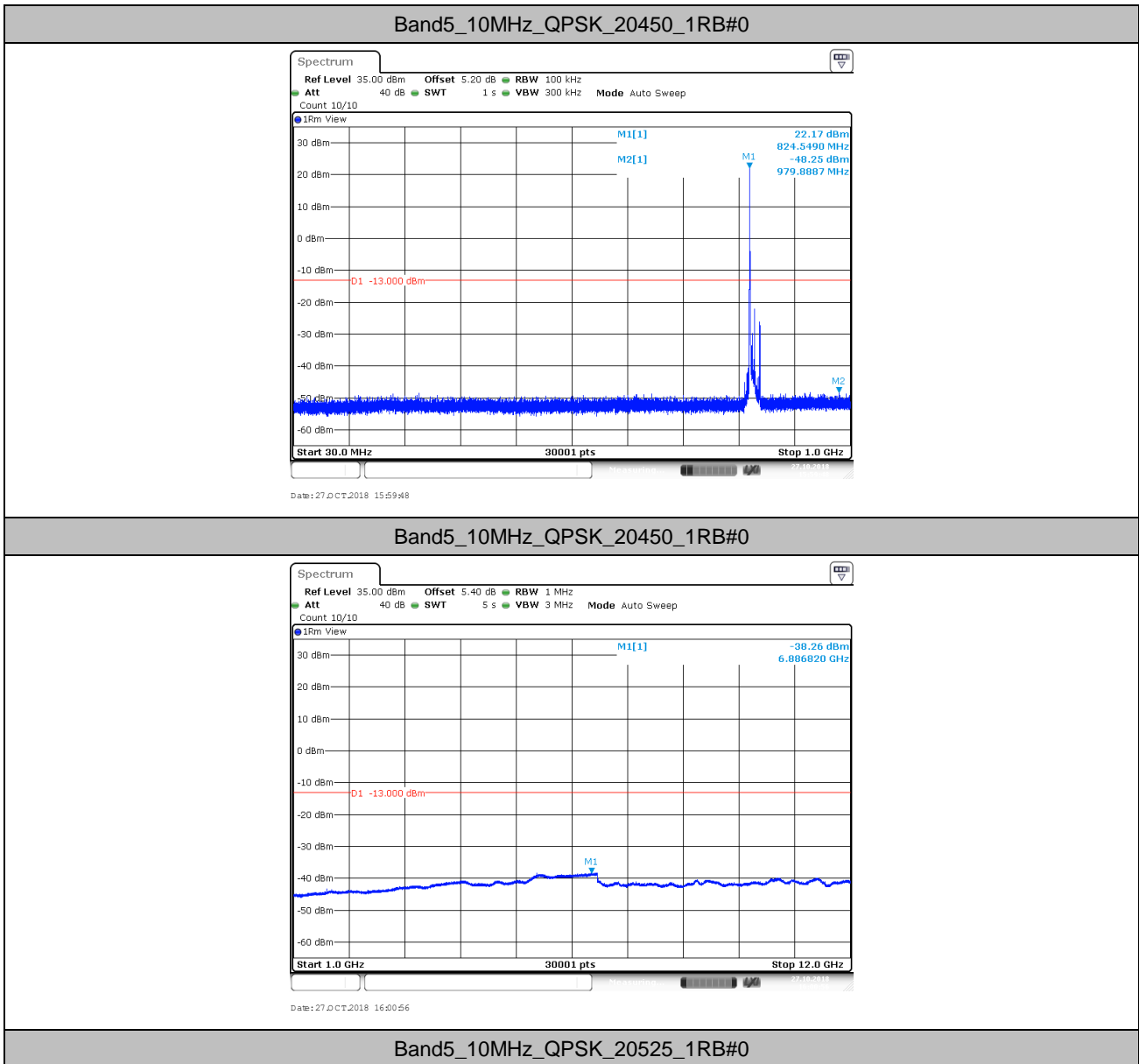
Date: 27 OCT 2018 15:59:25

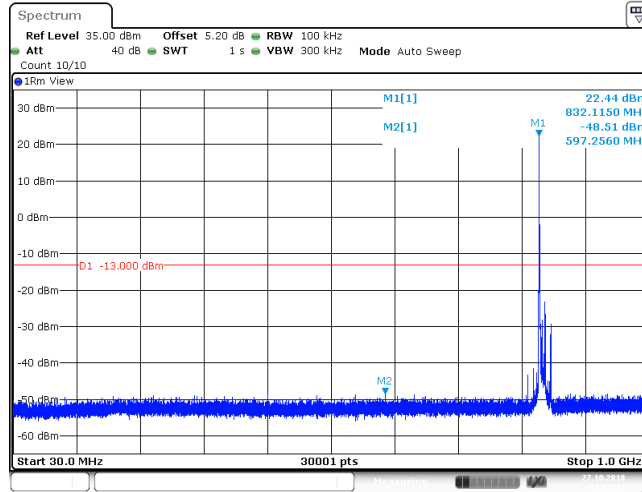
6. Spurious Emission at Antenna Terminal

Remark1: 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.

Remark2: only the worst case data displayed in this report.

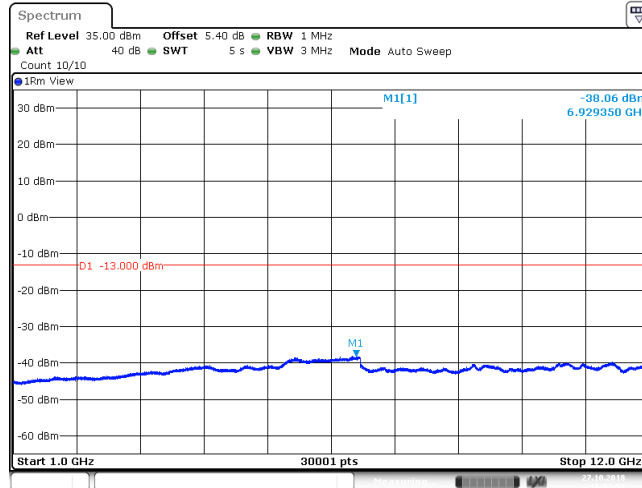
6.1. Test Plots





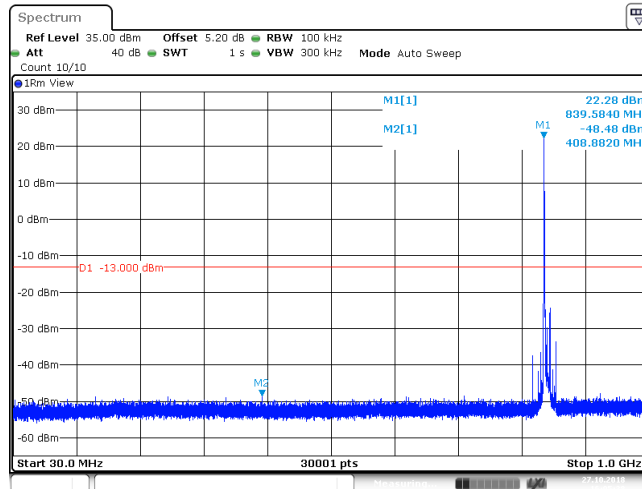
Date: 27 OCT 2018 16:02:43

Band5_10MHz_QPSK_20525_1RB#0



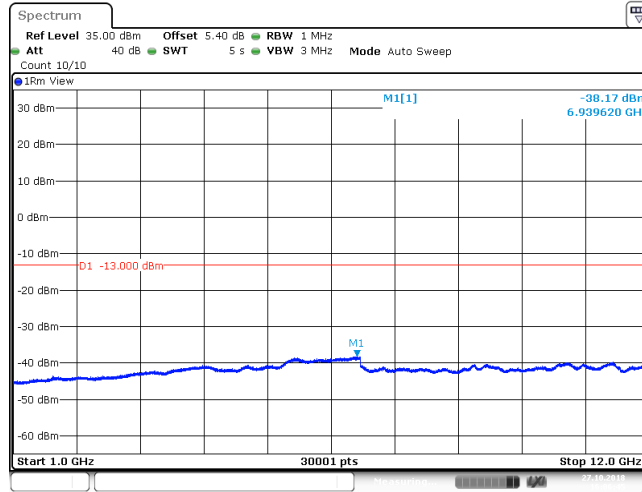
Date: 27 OCT 2018 16:03:51

Band5_10MHz_QPSK_20600_1RB#0



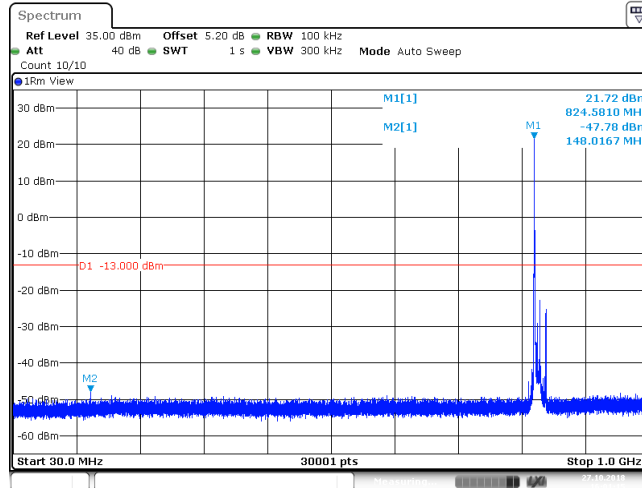
Date: 27 OCT 2018 16:05:38

Band5_10MHz_QPSK_20600_1RB#0



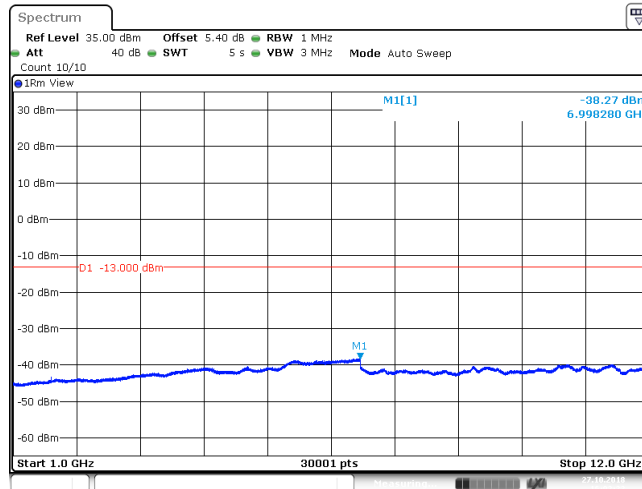
Date: 27 OCT 2018 16:06:46

Band5_10MHz_16QAM_20450_1RB#0



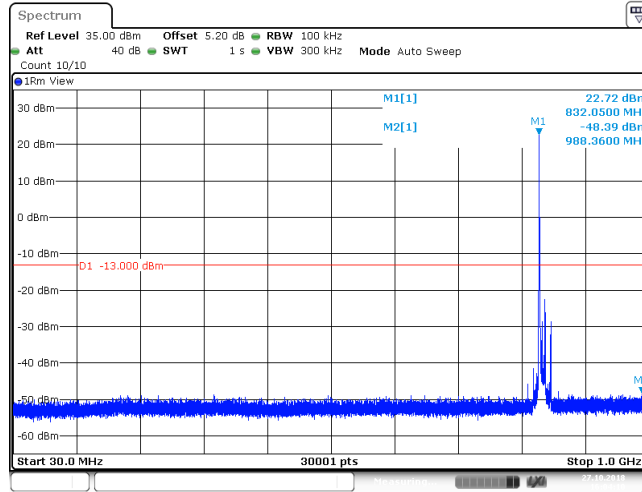
Date: 27 OCT 2018 16:01:16

Band5_10MHz_16QAM_20450_1RB#0



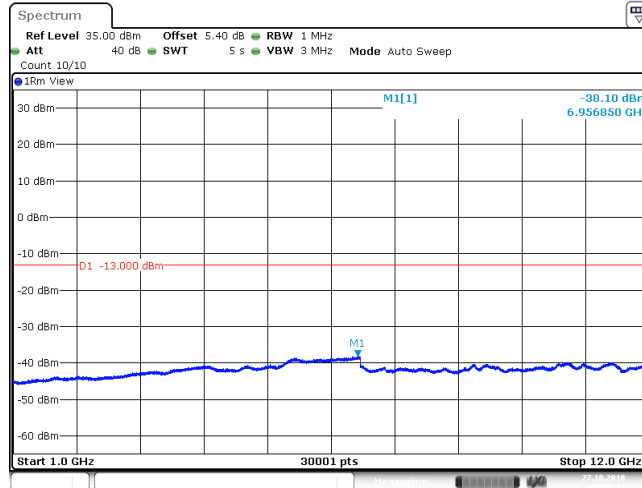
Date: 27 OCT 2018 16:02:23

Band5_10MHz_16QAM_20525_1RB#0



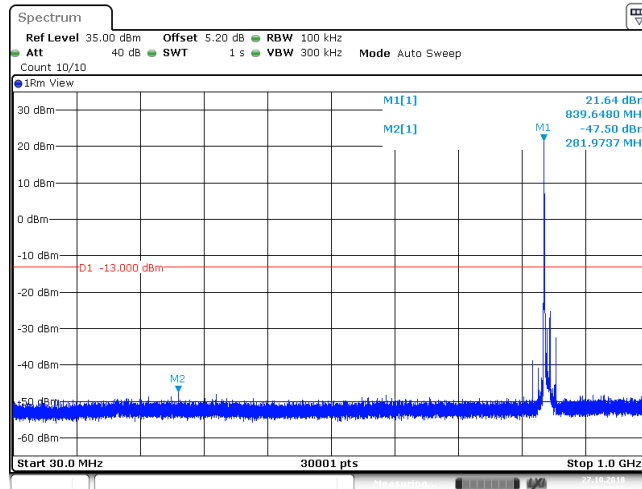
Date: 27 OCT 2018 16:04:11

Band5_10MHz_16QAM_20525_1RB#0



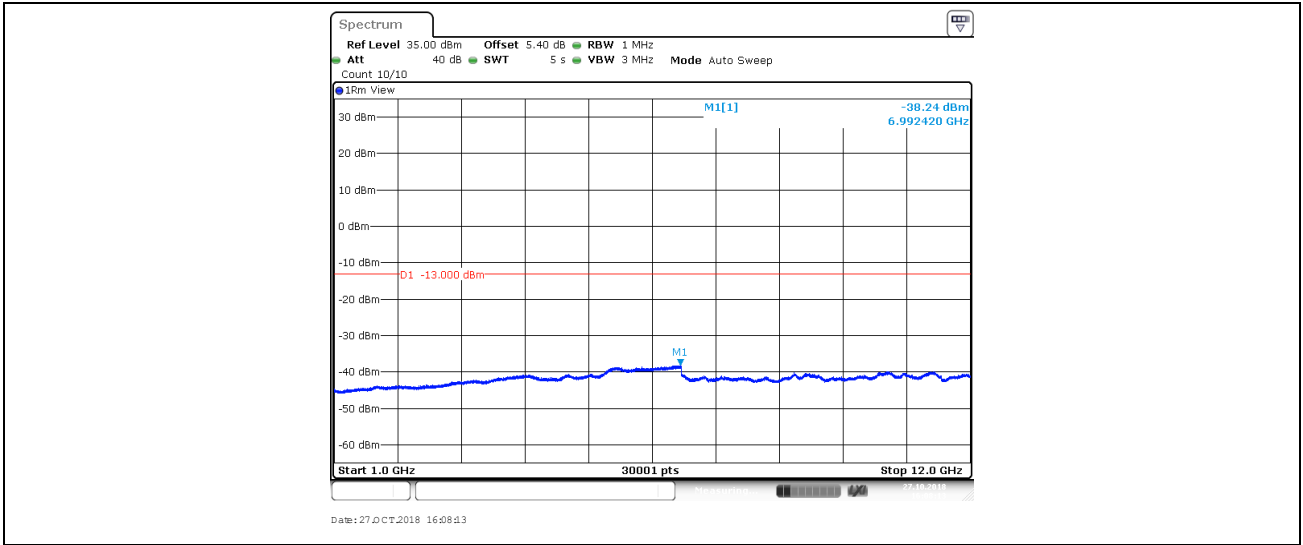
Date: 27 OCT 2018 16:05:19

Band5_10MHz_16QAM_20600_1RB#0



Date: 27 OCT 2018 16:07:06

Band5_10MHz_16QAM_20600_1RB#0



7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE BAND 5

7.1.1. Test Mode = LTE/TM1 10MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.393333	-81.29	-13.00	68.29	Vertical
107.746667	-81.40	-13.00	68.40	Vertical
1649.000000	-61.87	-13.00	48.87	Vertical
2473.500000	-56.12	-13.00	43.12	Vertical
4947.562500	-64.34	-13.00	51.34	Vertical
9084.487500	-63.79	-13.00	50.79	Vertical
55.386667	-77.63	-13.00	64.63	Horizontal
276.166667	-79.12	-13.00	66.12	Horizontal
1649.000000	-62.66	-13.00	49.66	Horizontal
2473.500000	-57.22	-13.00	44.22	Horizontal
4206.075000	-67.44	-13.00	54.44	Horizontal
6704.025000	-65.54	-13.00	52.54	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.906667	-81.69	-13.00	68.69	Vertical
286.806667	-81.51	-13.00	68.51	Vertical
1664.000000	-57.08	-13.00	44.08	Vertical
2496.000000	-57.39	-13.00	44.39	Vertical
4992.412500	-66.08	-13.00	53.08	Vertical
8634.037500	-63.84	-13.00	50.84	Vertical
56.786667	-77.69	-13.00	64.69	Horizontal
273.740000	-79.21	-13.00	66.21	Horizontal
1664.000000	-59.13	-13.00	46.13	Horizontal
2496.000000	-58.66	-13.00	45.66	Horizontal
4306.012500	-66.82	-13.00	53.82	Horizontal
7716.075000	-64.52	-13.00	51.52	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
63.740000	-81.60	-13.00	68.60	Vertical
280.553333	-82.30	-13.00	69.30	Vertical
1679.000000	-59.30	-13.00	46.30	Vertical
2519.000000	-54.93	-13.00	41.93	Vertical
5037.262500	-66.08	-13.00	53.08	Vertical
9248.775000	-63.39	-13.00	50.39	Vertical
56.553333	-77.05	-13.00	64.05	Horizontal
275.793333	-79.51	-13.00	66.51	Horizontal
1679.000000	-62.78	-13.00	49.78	Horizontal
2518.500000	-57.47	-13.00	44.47	Horizontal
4422.037500	-67.10	-13.00	54.10	Horizontal
7990.537500	-63.99	-13.00	50.99	Horizontal

Remark:

- 1) The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data 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 Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	VL	NT	-9.10	-0.010977	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	VN	NT	-7.80	-0.009409	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	VH	NT	-7.00	-0.008444	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-4.60	-0.005499	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-5.10	-0.006097	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-5.30	-0.006336	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VL	NT	-11.70	-0.013863	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VN	NT	-5.70	-0.006754	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VH	NT	-1.60	-0.001896	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VL	NT	-10.20	-0.012304	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VN	NT	-10.00	-0.012063	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VH	NT	-2.40	-0.002895	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VL	NT	-10.80	-0.012911	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VN	NT	-10.50	-0.012552	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VH	NT	-10.50	-0.012552	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VL	NT	-4.20	-0.004976	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VN	NT	-9.80	-0.011611	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VH	NT	-9.10	-0.010782	±2.5	PASS

8.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	NV	-30	-6.70	-0.008082	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	-20	-10.00	-0.012063	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	0	-6.10	-0.007358	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	10	-4.70	-0.005669	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	20	-5.00	-0.006031	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	30	-0.70	-0.000844	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	40	-7.50	-0.009047	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	50	-6.40	-0.007720	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-30	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	-9.20	-0.010998	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-9.50	-0.011357	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-9.50	-0.011357	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	-8.70	-0.010400	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	-4.10	-0.004901	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	-2.80	-0.003347	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	-12.70	-0.015182	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	-30	-6.90	-0.008175	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	-20	-8.00	-0.009479	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	0	-3.00	-0.003555	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	10	-8.60	-0.010190	±2.5	PASS



Band5	10MHz	QPSK	20600	50RB#0	NV	20	-4.80	-0.005687	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	30	-1.70	-0.002014	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	40	-7.30	-0.008649	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	50	-2.70	-0.003199	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	-30	-1.90	-0.002292	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	-20	-2.10	-0.002533	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	0	-8.30	-0.010012	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	10	-6.80	-0.008203	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	20	-10.40	-0.012545	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	30	-5.90	-0.007117	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	40	-4.40	-0.005308	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	50	-5.10	-0.006152	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	-30	-2.80	-0.003347	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	-20	-4.00	-0.004782	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	0	-10.10	-0.012074	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	10	-3.60	-0.004304	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	20	-7.80	-0.009325	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	30	-13.90	-0.016617	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	40	-11.50	-0.013748	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	50	-0.20	-0.000239	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	-30	-1.60	-0.001896	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	-20	-10.80	-0.012796	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	0	-4.10	-0.004858	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	10	-7.70	-0.009123	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	20	-8.00	-0.009479	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	30	-8.50	-0.010071	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	40	-6.80	-0.008057	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	50	0.00	0.000000	±2.5	PASS

The End