



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	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	22.96	18.41	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.17	18.62	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.04	18.49	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.13	18.58	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.11	18.56	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.24	18.69	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.27	17.72	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.06	18.51	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.00	18.45	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.08	18.53	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	23.09	18.54	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	23.12	18.57	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	23.08	18.53	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.07	17.52	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.15	18.60	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.11	18.56	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.14	18.59	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	23.02	18.47	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#1	23.37	18.82	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.29	18.74	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.19	17.64	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	21.65	17.10	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.25	17.70	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	21.69	17.14	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.27	17.72	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	22.28	17.73	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	22.45	17.90	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.13	16.58	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	21.71	17.16	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.35	17.80	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	21.60	17.05	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	22.30	17.75	38.45	PASS



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Band5	1.4MHz	16QAM	20525	3RB#1	22.24	17.69	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	22.25	17.70	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.20	16.65	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	21.84	17.29	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	21.89	17.34	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	21.89	17.34	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	22.11	17.56	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	22.42	17.87	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	22.30	17.75	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.52	16.97	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.00	18.45	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.16	18.61	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.06	18.51	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.23	17.68	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.15	17.60	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.25	17.70	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.29	17.74	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.21	18.66	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	22.94	18.39	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.08	18.53	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#0	22.34	17.79	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#4	22.06	17.51	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.16	17.61	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.22	17.67	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.23	18.68	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.17	18.62	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.02	18.47	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#0	22.13	17.58	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#4	22.27	17.72	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#7	22.30	17.75	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.23	17.68	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	21.42	16.87	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	21.68	17.13	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	21.53	16.98	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.22	16.67	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.04	16.49	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.41	16.86	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.21	16.66	38.45	PASS



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Band5	3MHz	16QAM	20525	1RB#0	21.66	17.11	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	21.63	17.08	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	21.76	17.21	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#0	21.01	16.46	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#4	21.01	16.46	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.02	16.47	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.23	16.68	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	21.61	17.06	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	21.67	17.12	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	21.76	17.21	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#0	21.06	16.51	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#4	21.20	16.65	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#7	21.05	16.50	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.23	16.68	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.02	18.47	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.14	18.59	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	22.66	18.11	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.10	17.55	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.20	17.65	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#13	22.06	17.51	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.12	17.57	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.07	18.52	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	22.83	18.28	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.19	18.64	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#0	22.20	17.65	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#6	22.03	17.48	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#13	22.06	17.51	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.19	17.64	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	22.93	18.38	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.30	18.75	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.07	18.52	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#0	21.99	17.44	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#6	22.35	17.80	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#13	22.19	17.64	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.22	17.67	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.06	17.51	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	21.84	17.29	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	21.46	16.91	38.45	PASS



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Band5	5MHz	16QAM	20425	12RB#0	21.11	16.56	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.25	16.70	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#13	21.00	16.45	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.24	16.69	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	21.45	16.90	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.29	17.74	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	21.47	16.92	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#0	21.17	16.62	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#6	21.23	16.68	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#13	20.91	16.36	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.21	16.66	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	21.53	16.98	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.17	17.62	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	21.52	16.97	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#0	21.27	16.72	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#6	21.05	16.50	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#13	21.23	16.68	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.33	16.78	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.04	18.49	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.63	19.08	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	22.60	18.05	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.30	17.75	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.34	17.79	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#25	22.09	17.54	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.22	17.67	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	22.89	18.34	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.42	18.87	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	22.47	17.92	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#0	22.52	17.97	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#12	22.29	17.74	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#25	21.95	17.40	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.28	17.73	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	22.94	18.39	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.39	18.84	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.10	18.55	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.07	17.52	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.45	17.90	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#25	22.20	17.65	38.45	PASS



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Band5	10MHz	QPSK	20600	50RB#0	22.26	17.71	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	21.73	17.18	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	21.78	17.23	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	21.34	16.79	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#0	21.46	16.91	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#12	21.24	16.69	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#25	21.25	16.70	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.25	16.70	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	21.59	17.04	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	21.65	17.10	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	21.77	17.22	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#0	21.19	16.64	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#12	21.21	16.66	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#25	21.27	16.72	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.19	16.64	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	21.77	17.22	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.15	17.60	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	21.65	17.10	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#0	21.37	16.82	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#12	21.12	16.57	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#25	21.29	16.74	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.29	16.74	38.45	PASS

Remark:

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

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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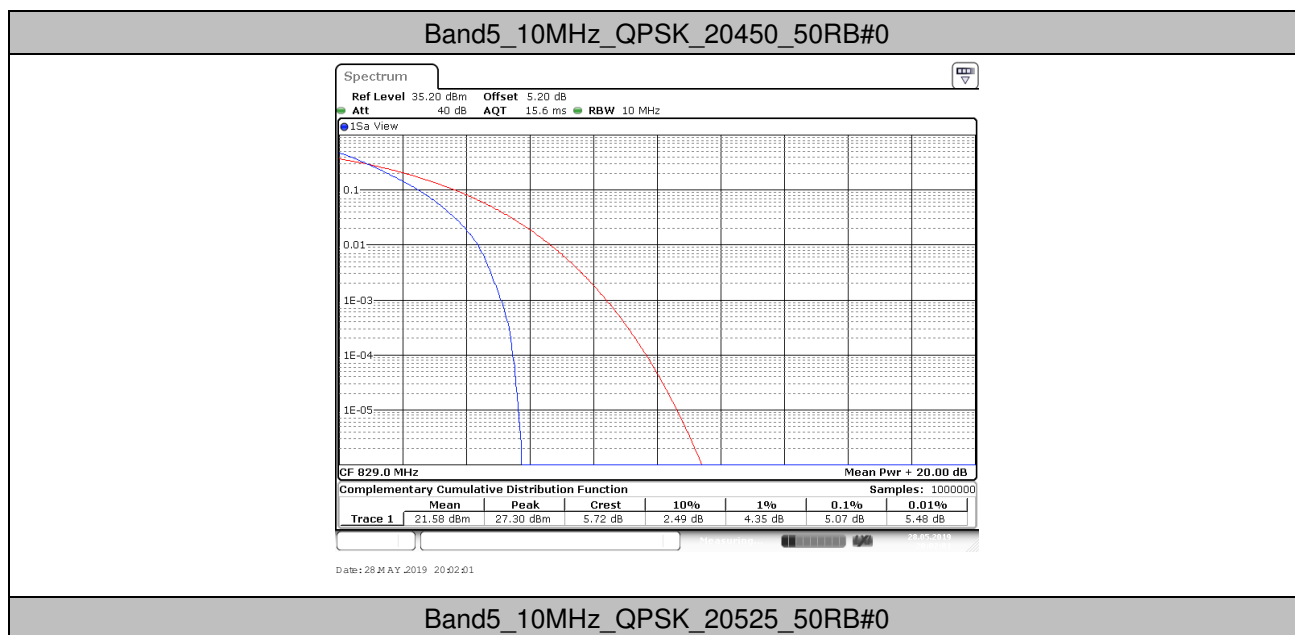
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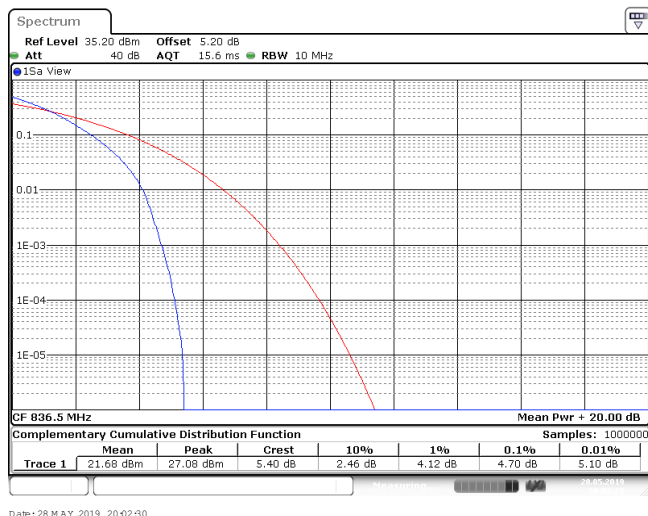
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

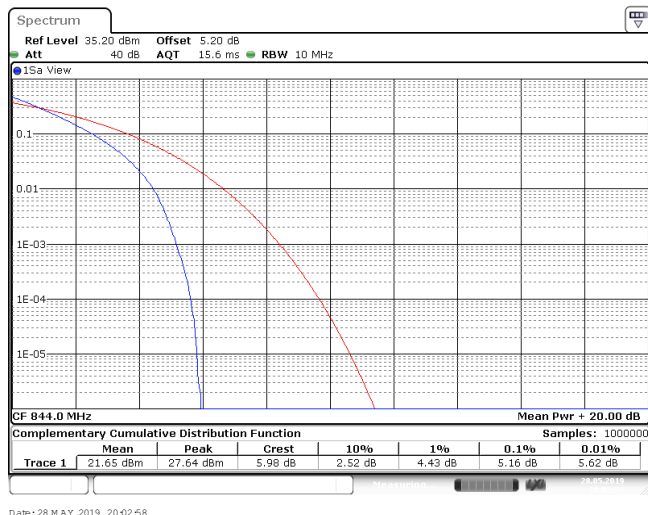
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.07	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	4.70	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.16	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	6.00	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	5.74	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	6.09	13	PASS

2.2. Test Plots



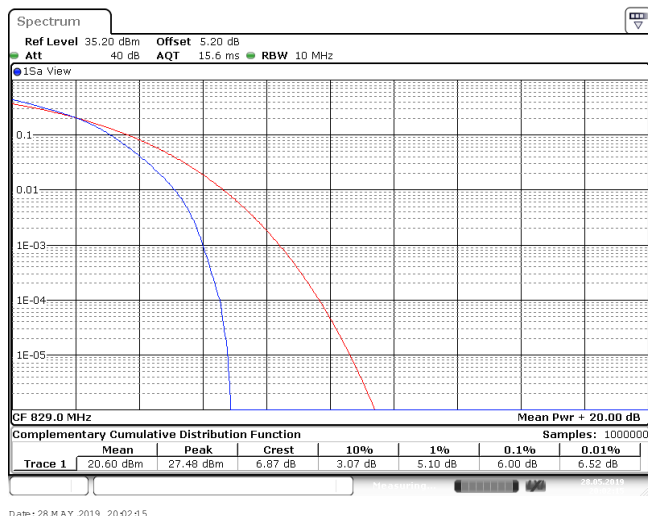


Band5_10MHz_QPSK_20600_50RB#0

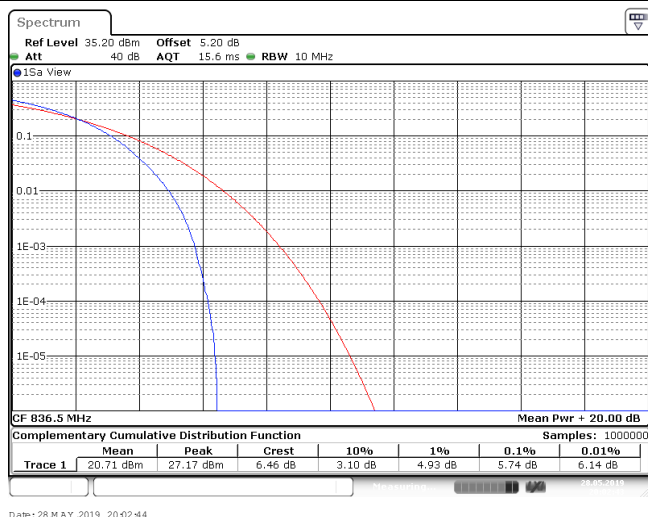


Band5_10MHz_16QAM_20450_50RB#0



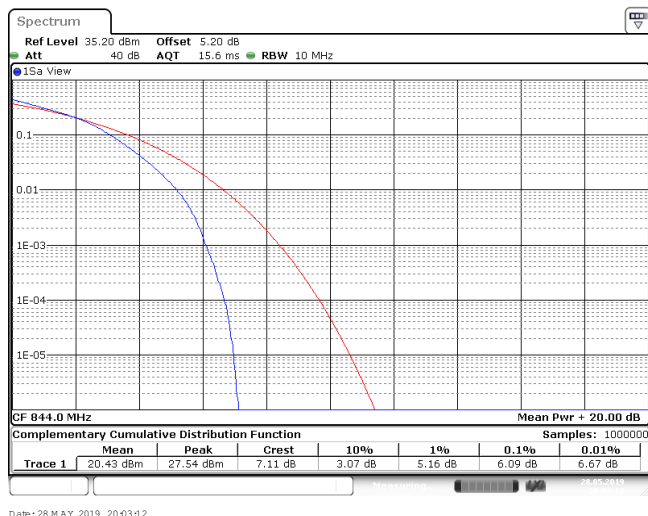


Band5_10MHz_16QAM_20525_50RB#0



Band5_10MHz_16QAM_20600_50RB#0





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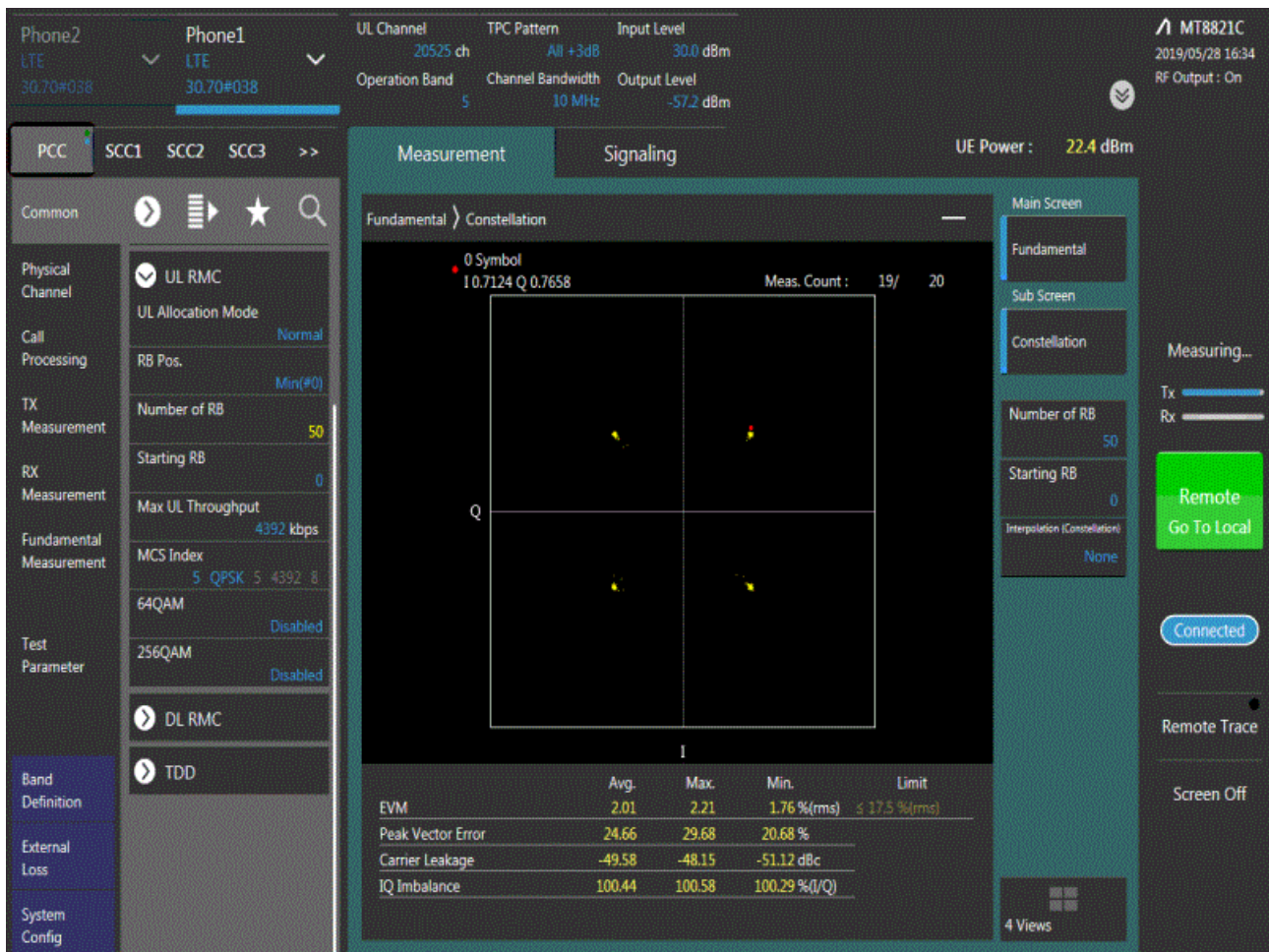
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3. Modulation Characteristics

3.1. Test BAND = LTE Band 5

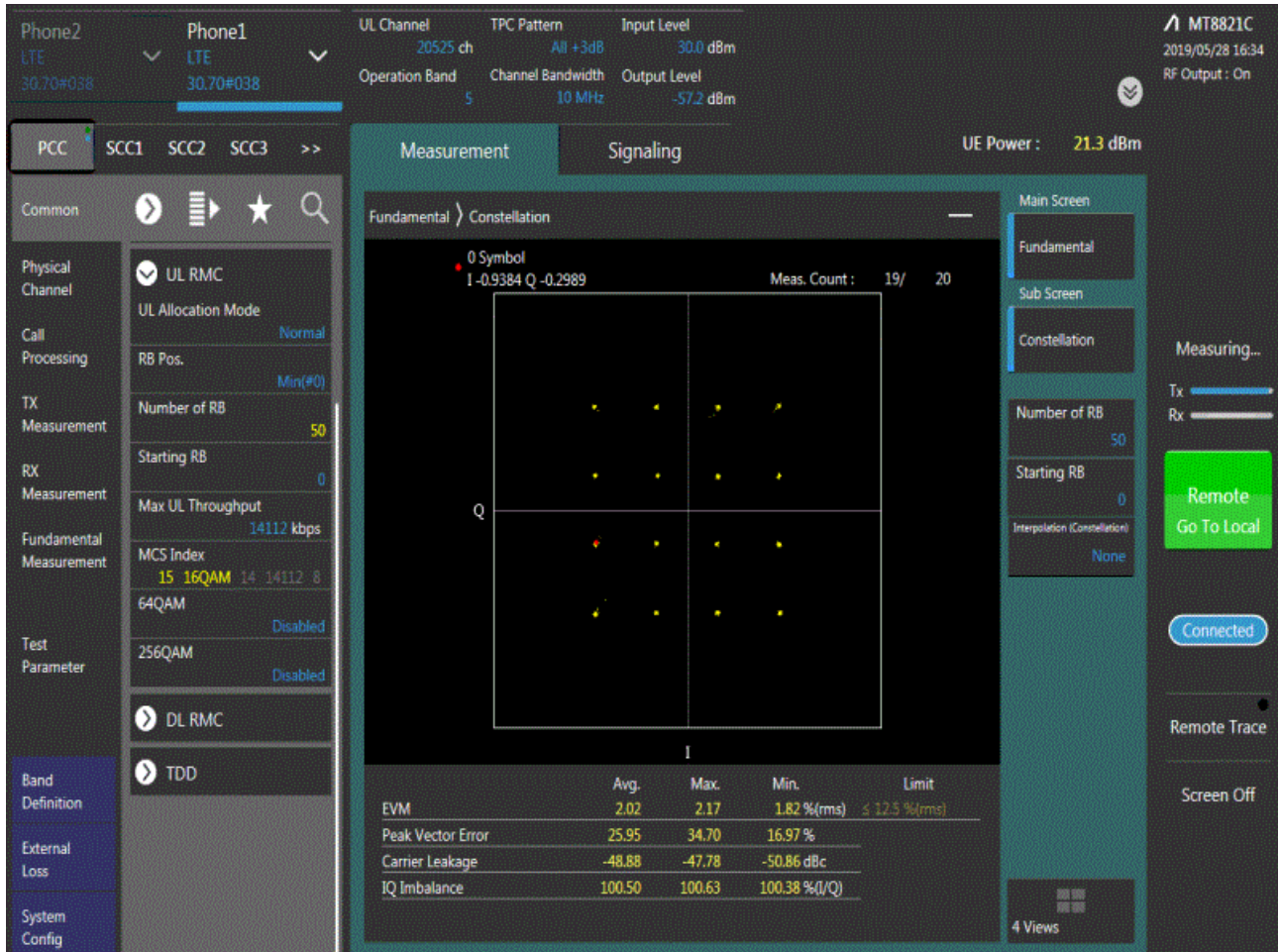
3.2. Test Mode = LTE /TM1 10MHz

3.2.1. Test Channel = MCH



3.3. Test Mode = LTE /TM2 10MHz

3.3.1. Test Channel = MCH



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4. 26dB Bandwidth and Occupied Bandwidth

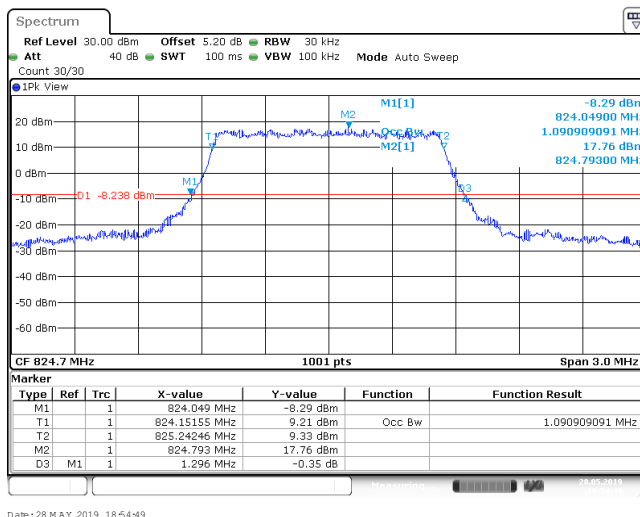
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.091	1.296	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.094	1.299	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.094	1.293	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.091	1.281	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.091	1.284	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.091	1.284	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.691	2.994	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.691	3.006	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.697	2.988	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.685	2.976	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.691	2.958	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.685	2.970	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.476	4.920	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.466	4.930	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.476	4.930	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.496	4.900	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.486	4.920	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.486	4.940	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.931	9.760	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.891	9.660	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.951	9.800	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.931	9.740	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.871	9.680	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.951	9.780	PASS

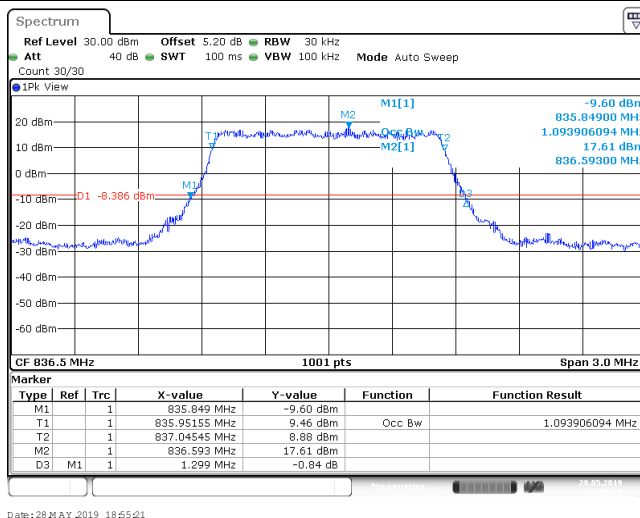


4.2. Test Plots

Band5_1.4MHz_QPSK_20407_6RB#0

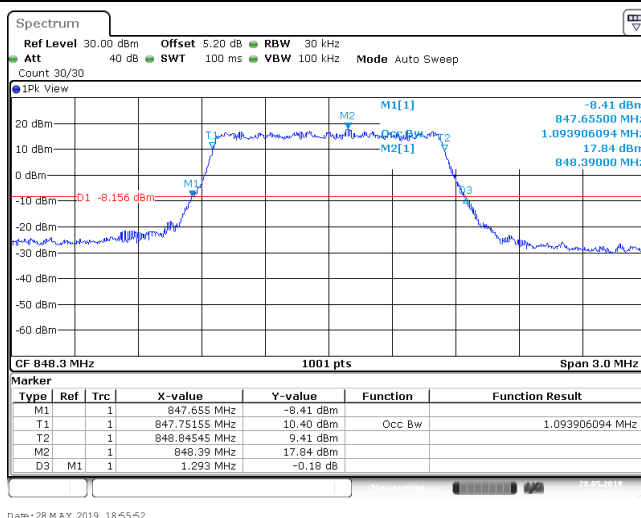


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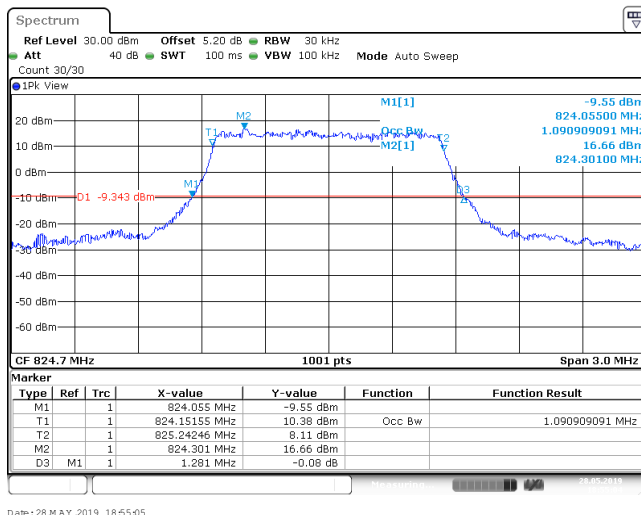


Band5_1.4MHz_QPSK_20643_6RB#0



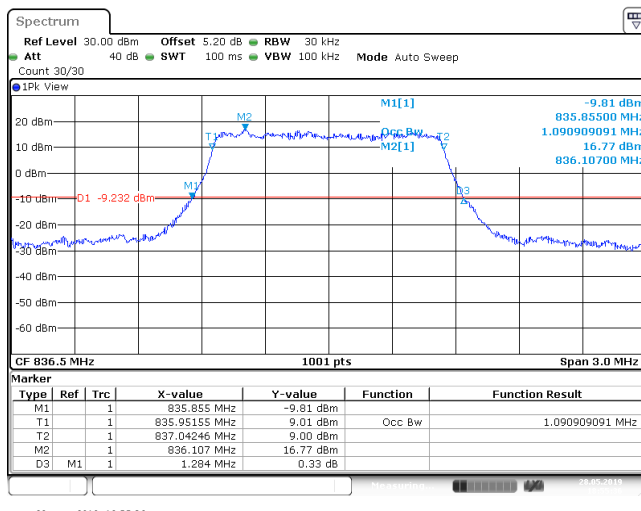


Band5_1.4MHz_16QAM_20407_6RB#0

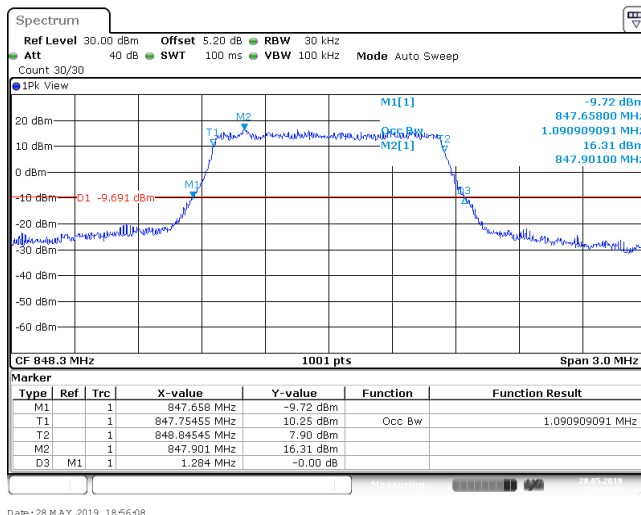


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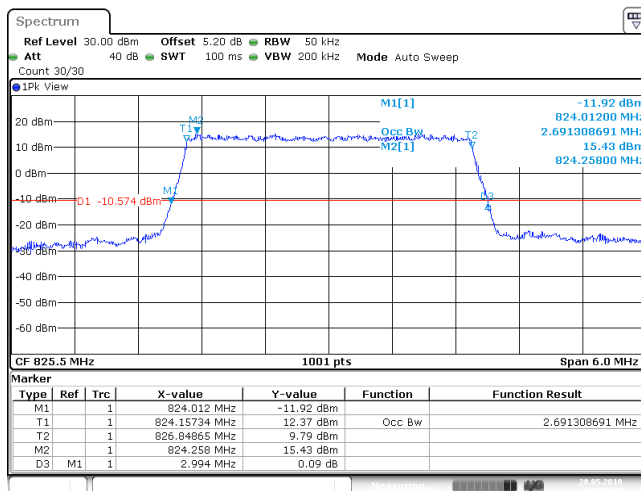


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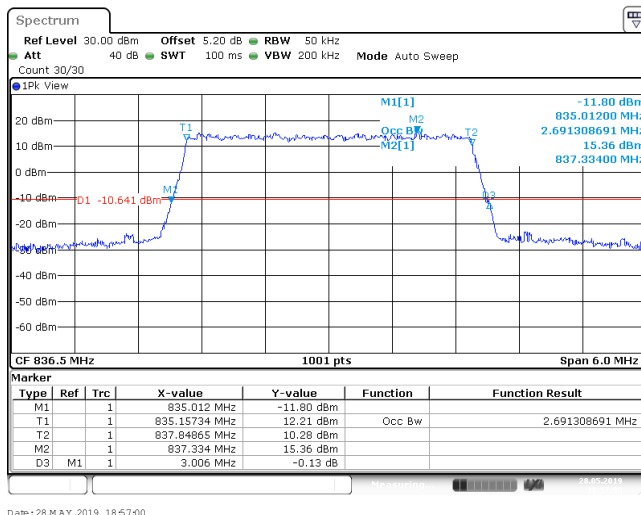


Band5_3MHz_QPSK_20415_15RB#0



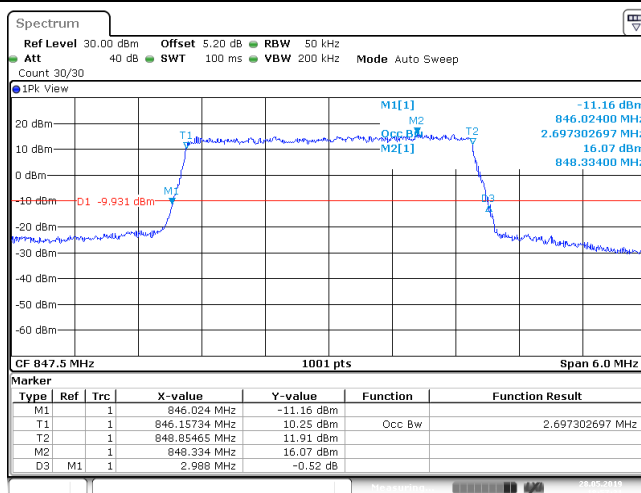


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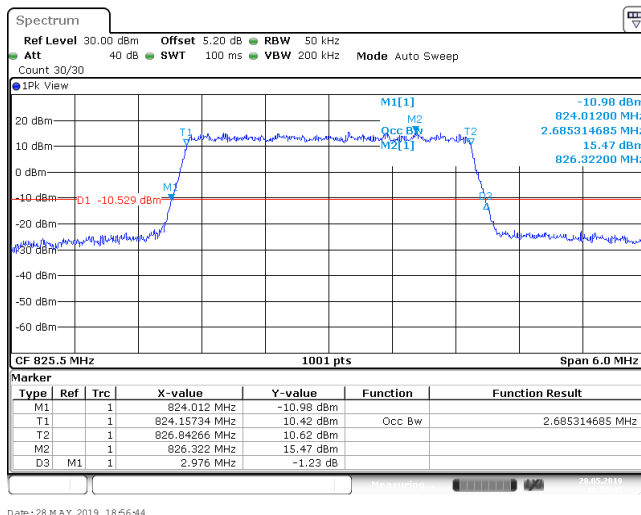


Band5_3MHz_QPSK_20635_15RB#0



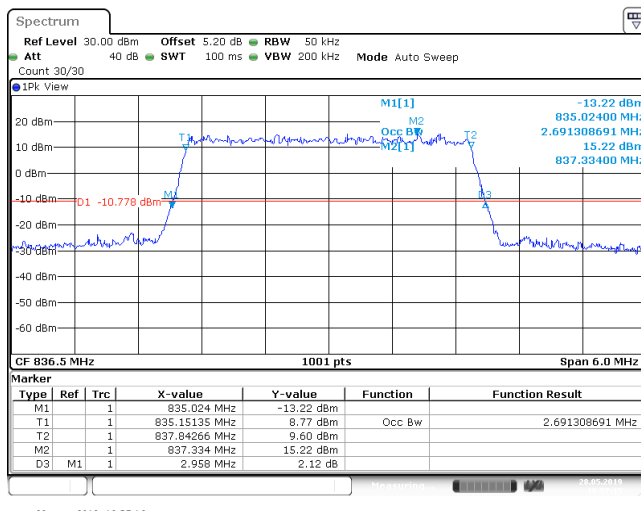


Band5_3MHz_16QAM_20415_15RB#0



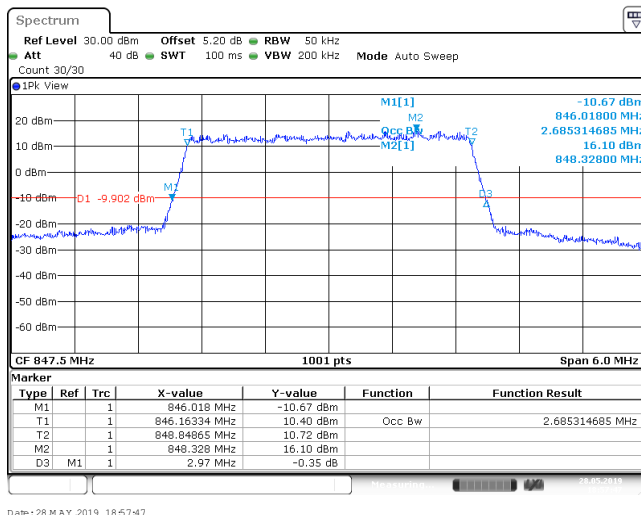
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Date: 28 MAY 2019 18:57:16

Band5_3MHz_16QAM_20635_15RB#0



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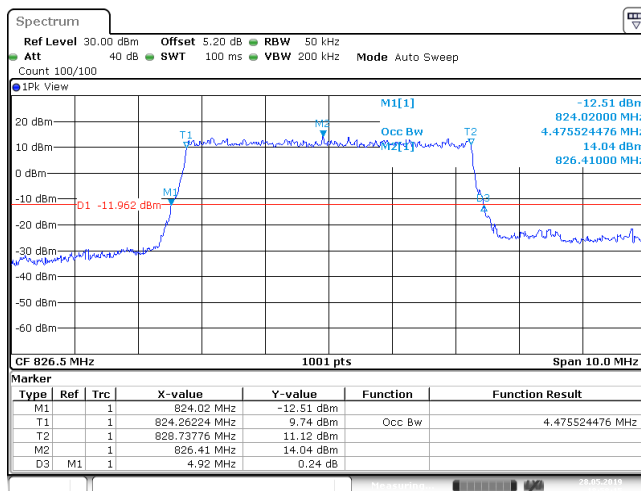
Band5_5MHz_QPSK_20425_25RB#0



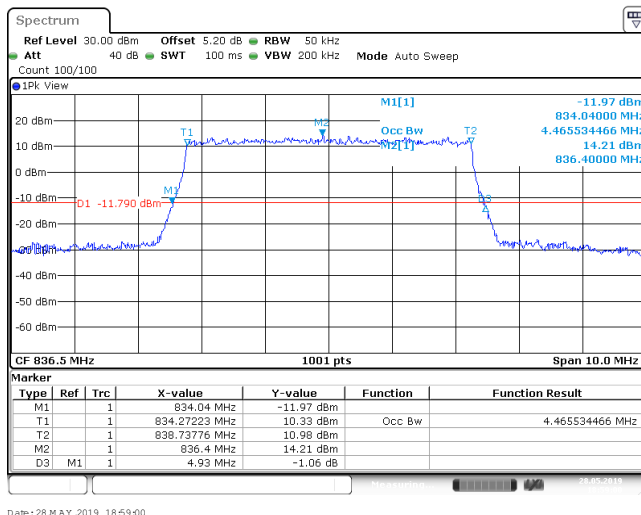
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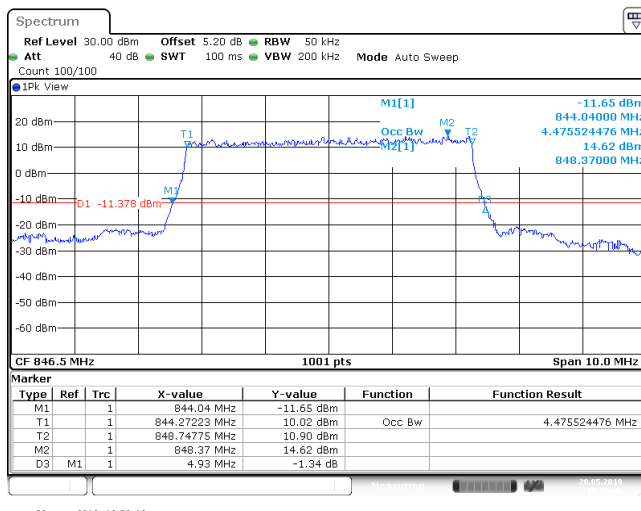


Band5_5MHz_QPSK_20525_25RB#0



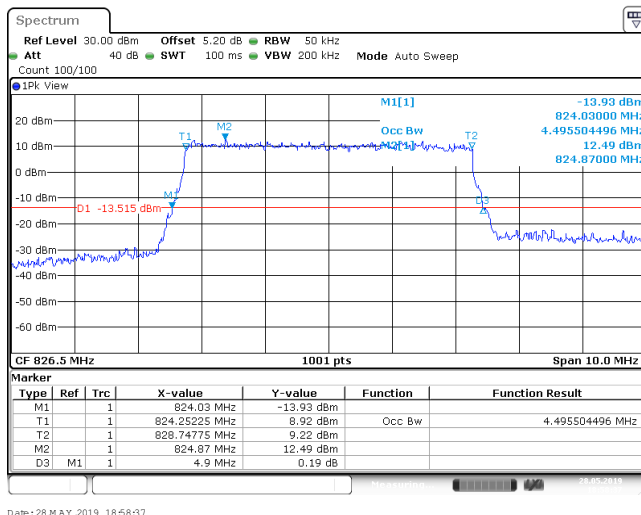
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Band5_5MHz_16QAM_20425_25RB#0



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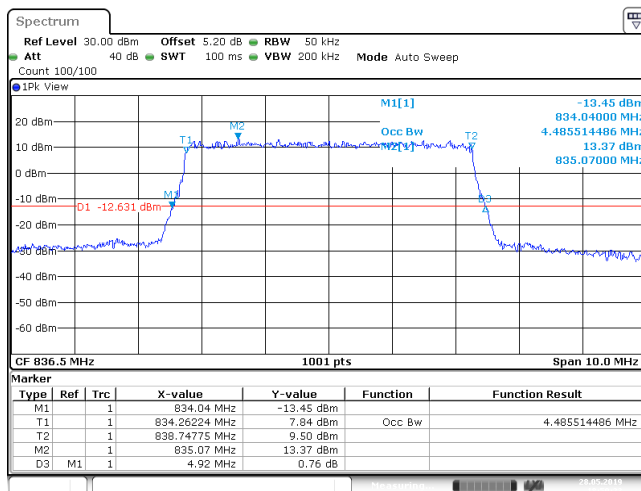
Band5_5MHz_16QAM_20525_25RB#0



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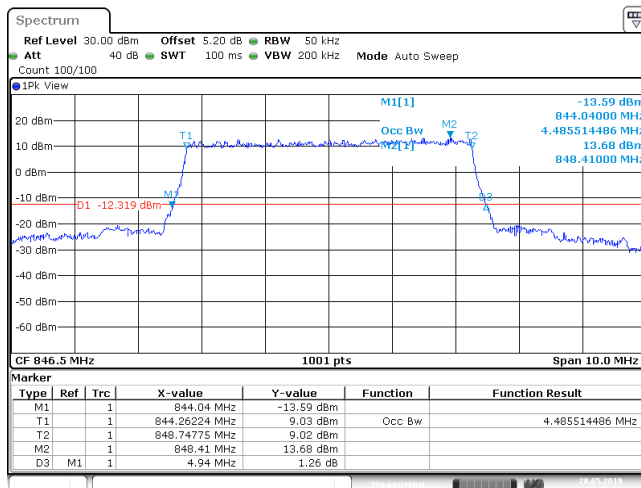
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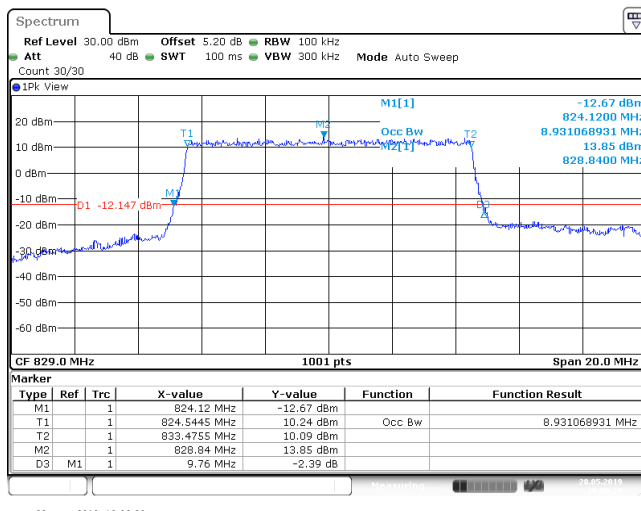
Band5_5MHz_16QAM_20625_25RB#0



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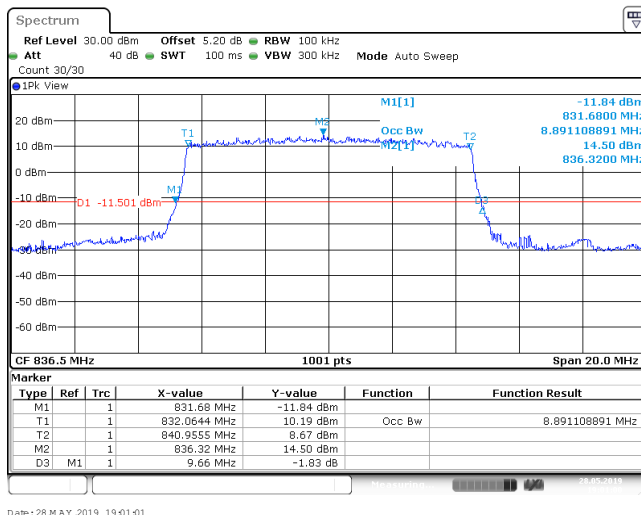
Band5_10MHz_QPSK_20450_50RB#0





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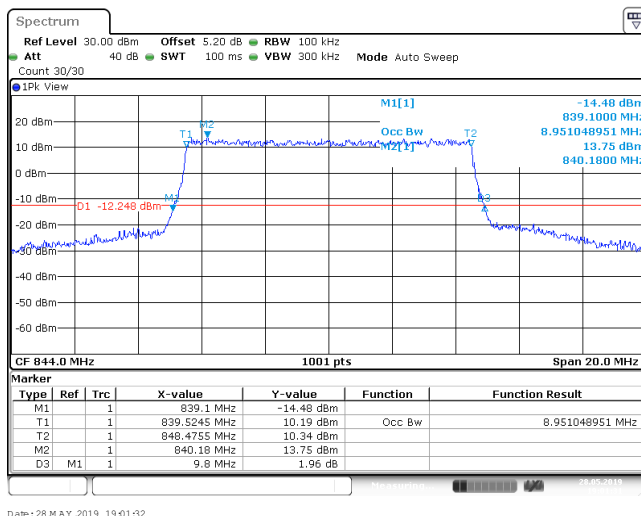
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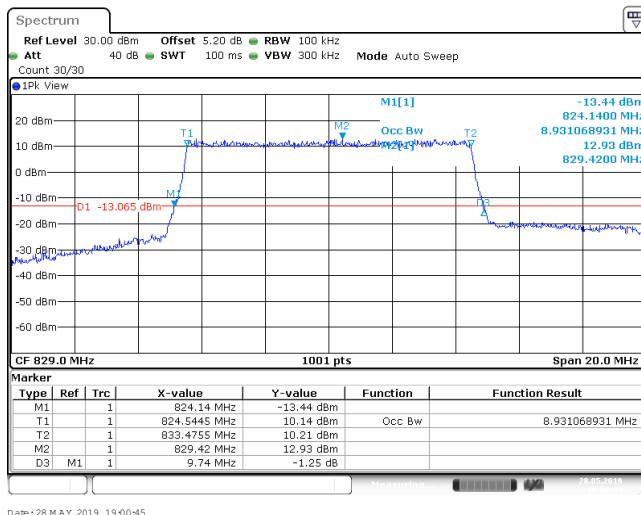
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Band5_10MHz_QPSK_20600_50RB#0



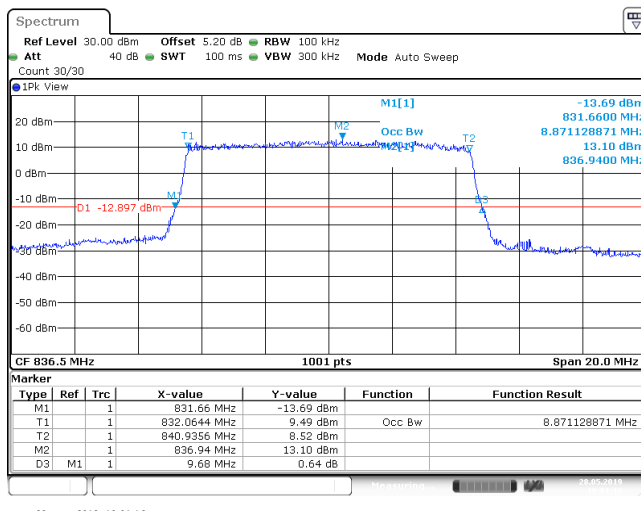


Band5_10MHz_16QAM_20450_50RB#0



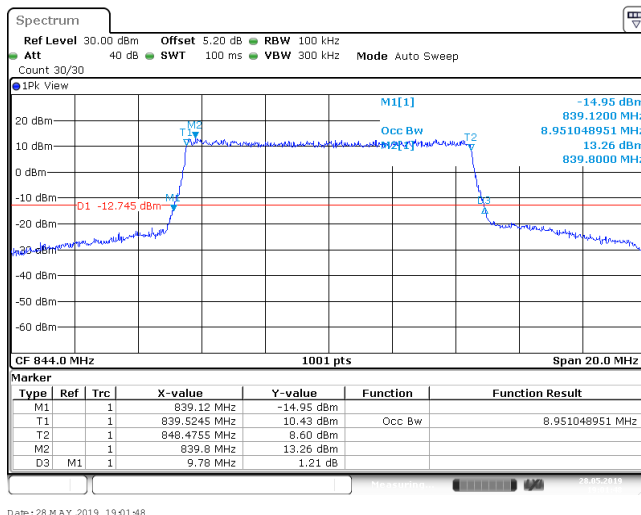
Band5_10MHz_16QAM_20525_50RB#0





Date: 28 MAY 2019 19:01:16

Band5_10MHz_16QAM_20600_50RB#0



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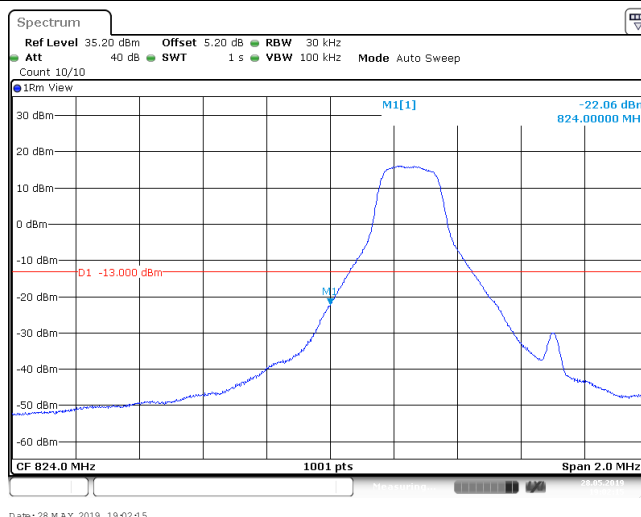
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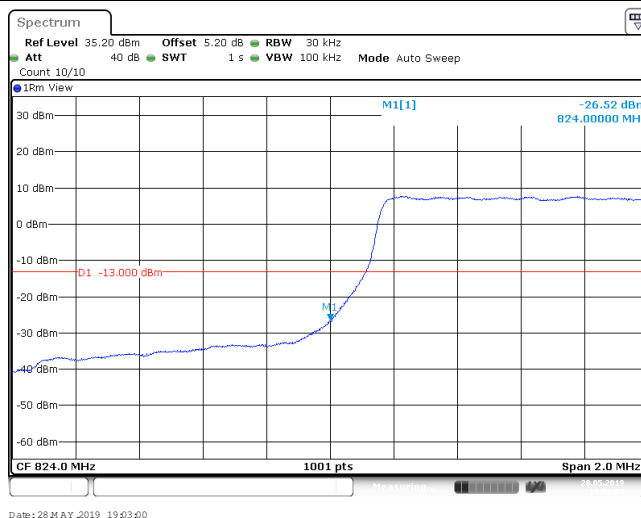
5. Band Edge Compliance

5.1. Test Plots

Band5_1.4MHz_QPSK_20407_1RB#0

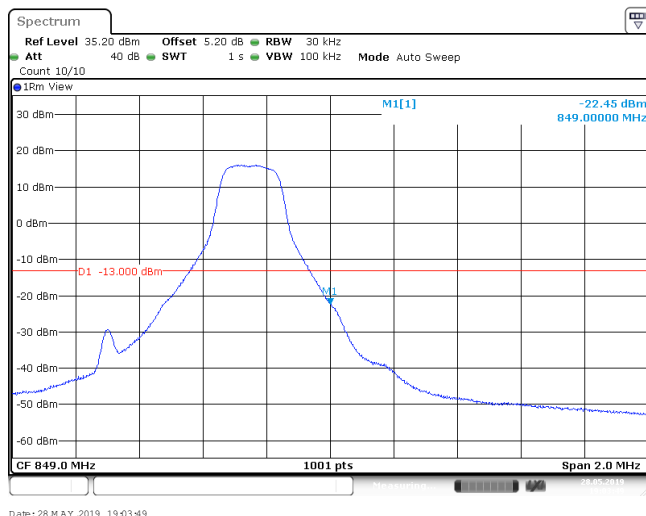


Band5_1.4MHz_QPSK_20407_6RB#0

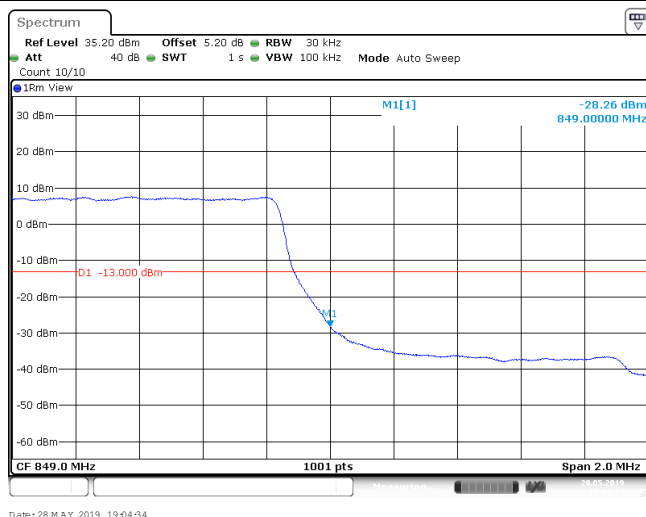


Band5_1.4MHz_QPSK_20643_1RB#5



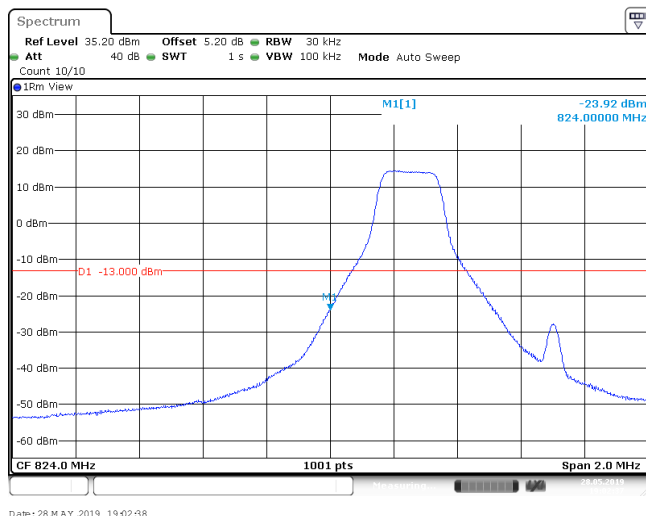


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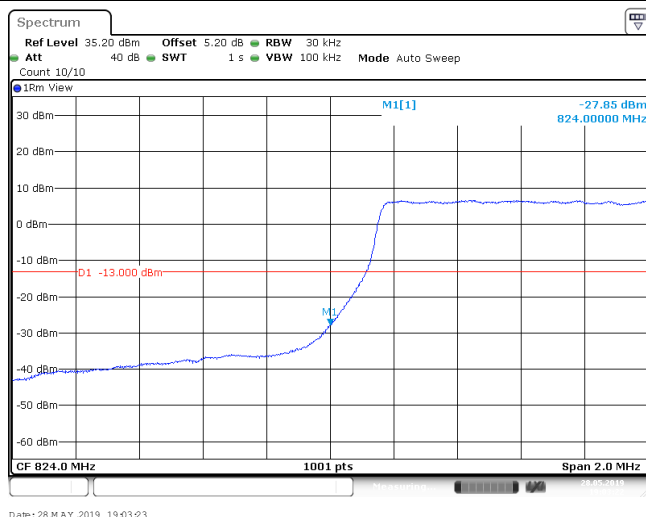


Band5_1.4MHz_16QAM_20407_1RB#0



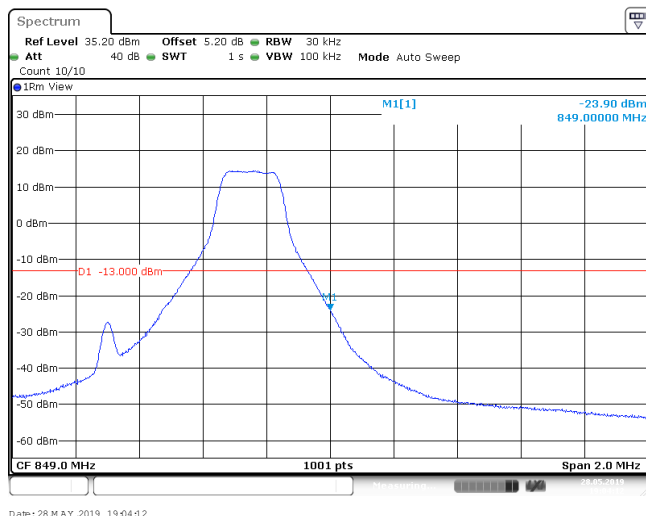


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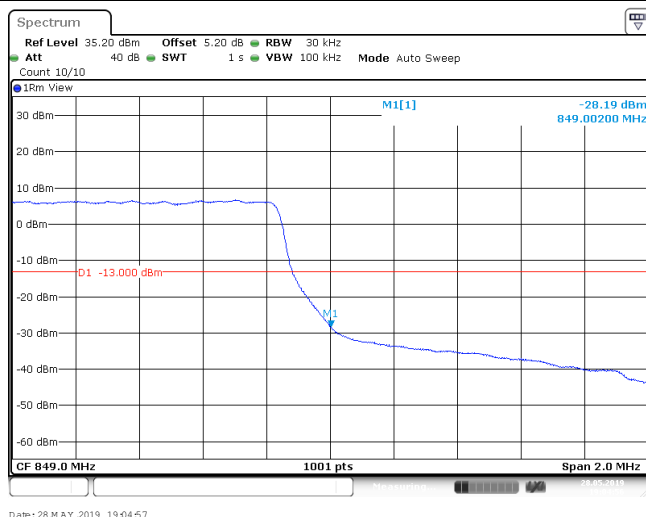


Band5_1.4MHz_16QAM_20643_1RB#5



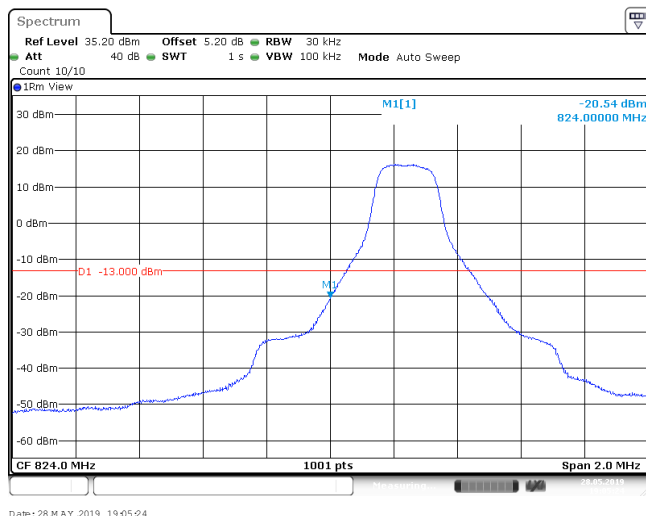


Band5_1.4MHz_16QAM_20643_6RB#0

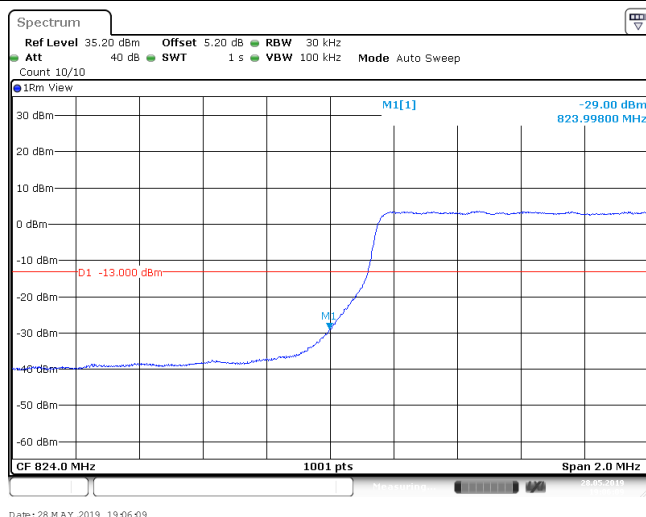


Band5_3MHz_QPSK_20415_1RB#0



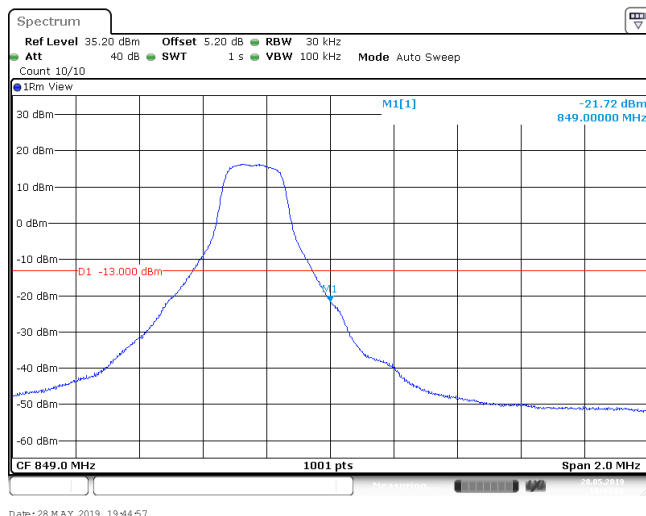


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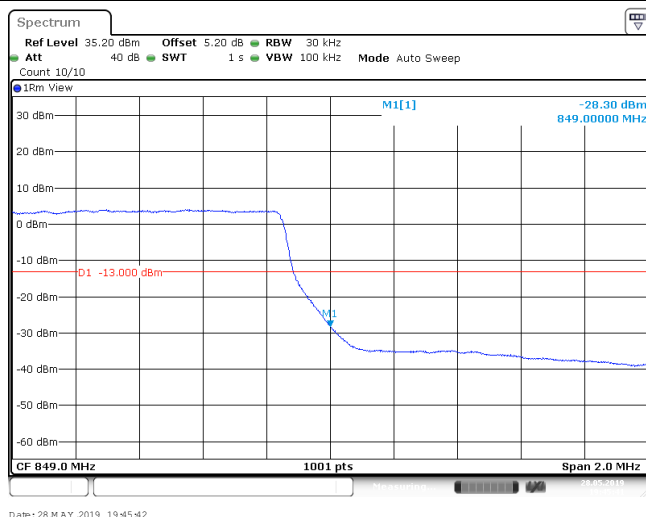


Band5_3MHz_QPSK_20635_1RB#14



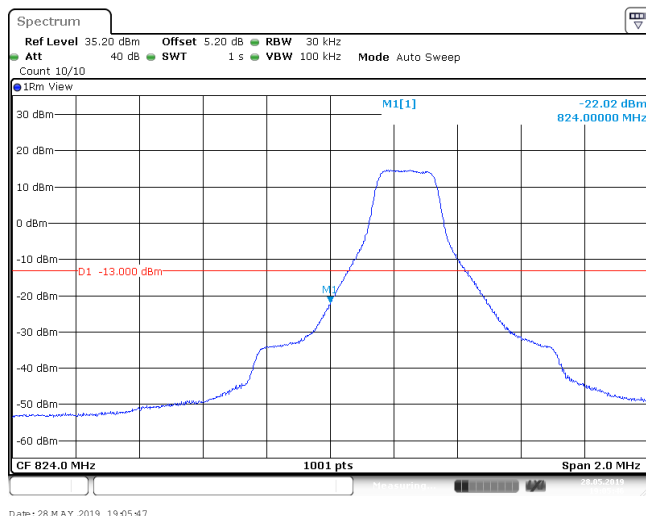


Band5_3MHz_QPSK_20635_15RB#0

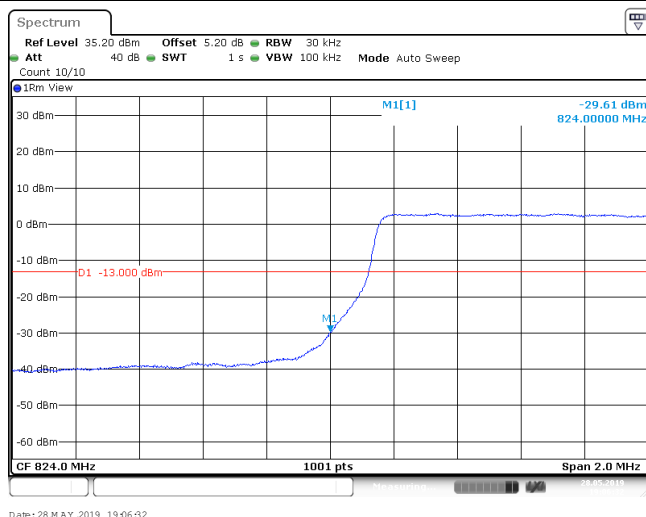


Band5_3MHz_16QAM_20415_1RB#0



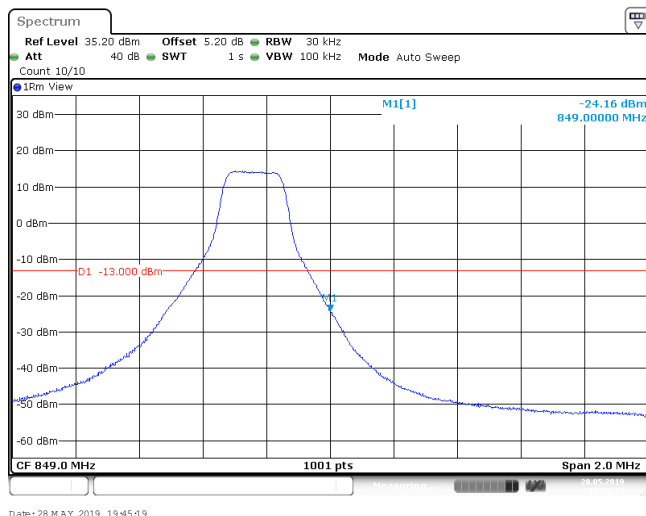


Band5_3MHz_16QAM_20415_15RB#0

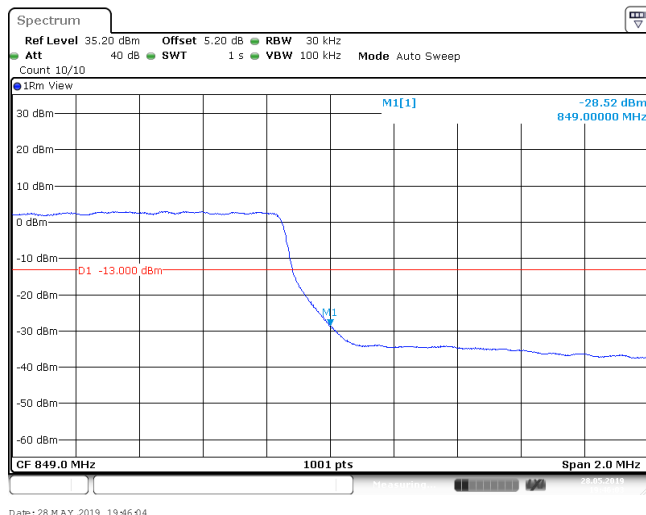


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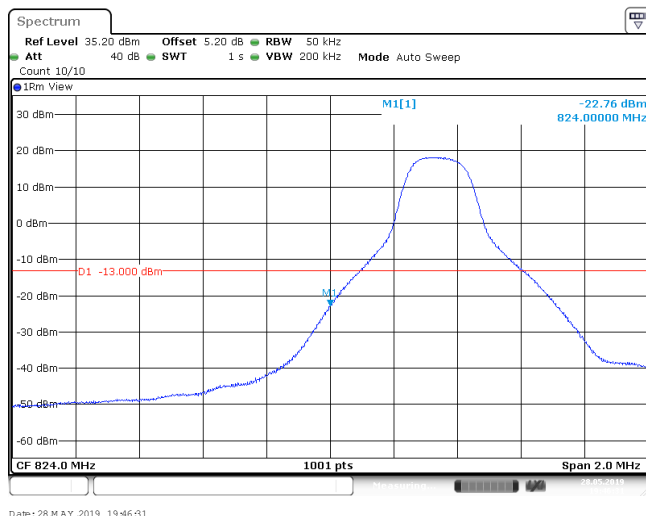


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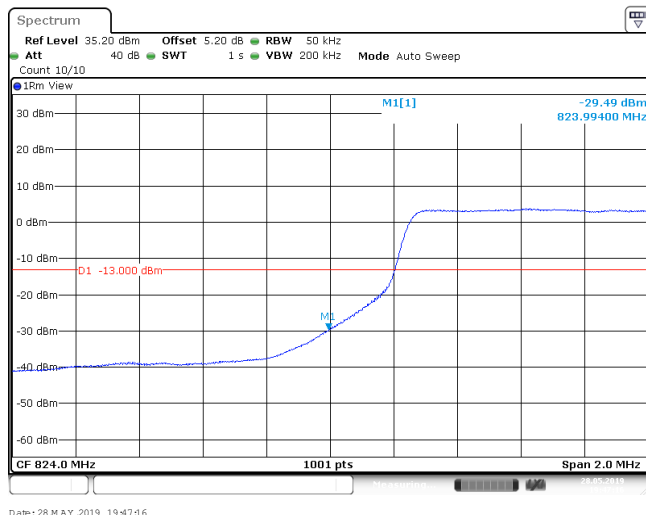


Band5_5MHz_QPSK_20425_1RB#0





Band5_5MHz_QPSK_20425_25RB#0

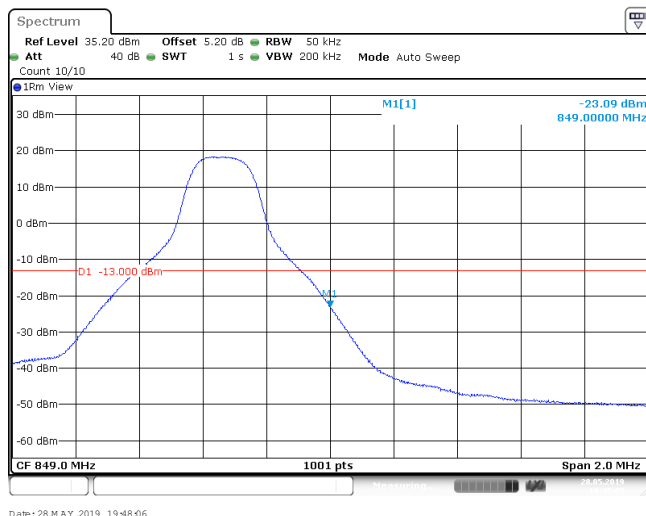


Band5_5MHz_QPSK_20625_1RB#24

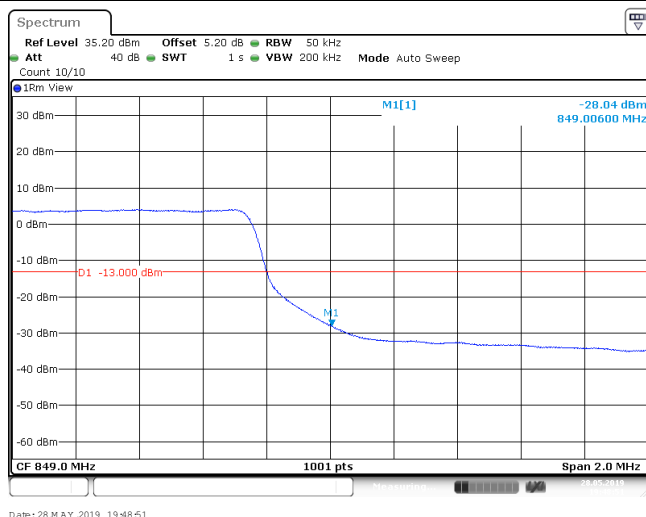


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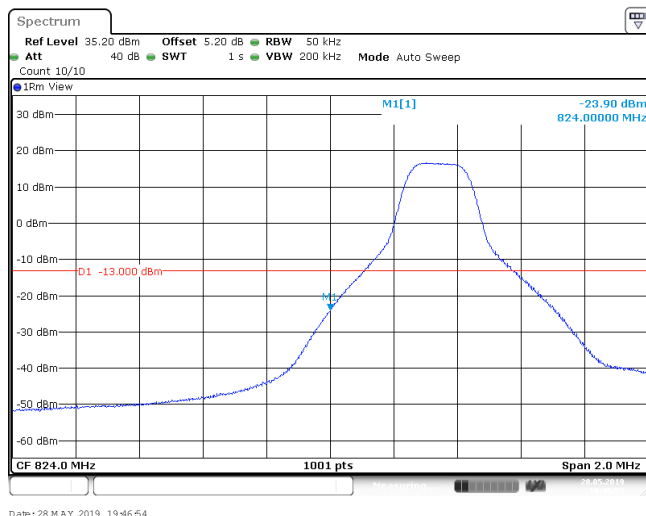


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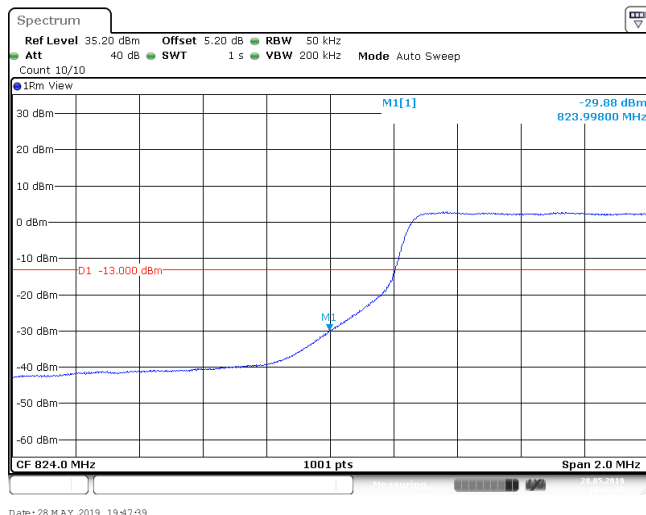


Band5_5MHz_16QAM_20425_1RB#0



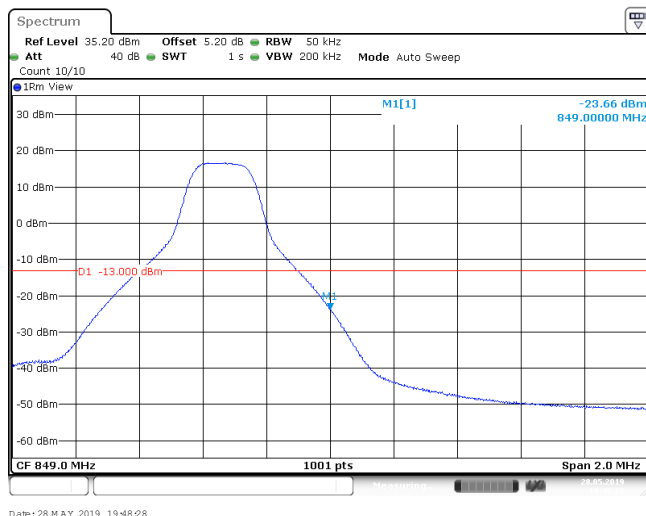


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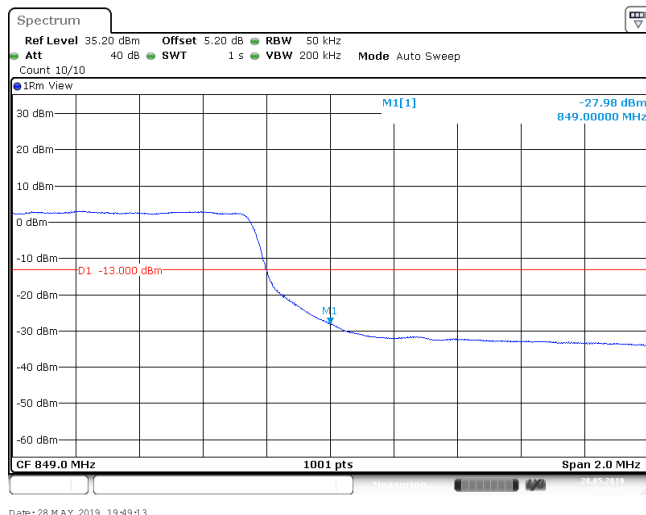


Band5_5MHz_16QAM_20625_1RB#24



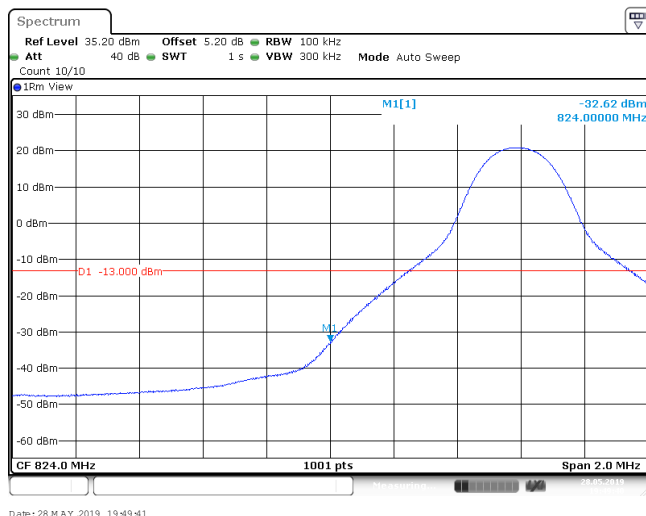


Band5_5MHz_16QAM_20625_25RB#0

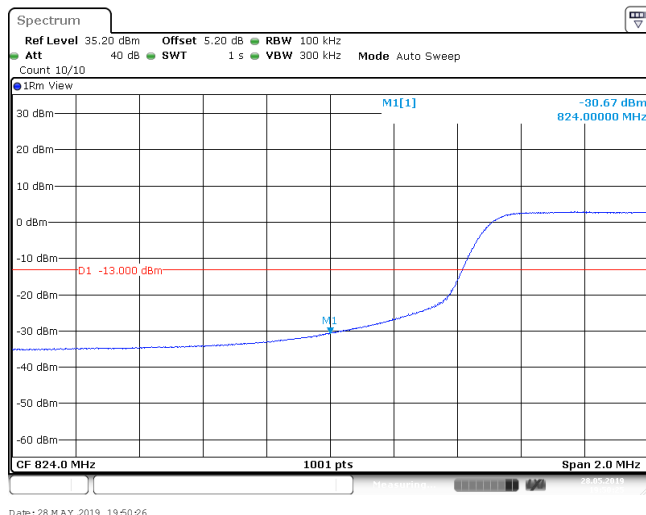


Band5_10MHz_QPSK_20450_1RB#0



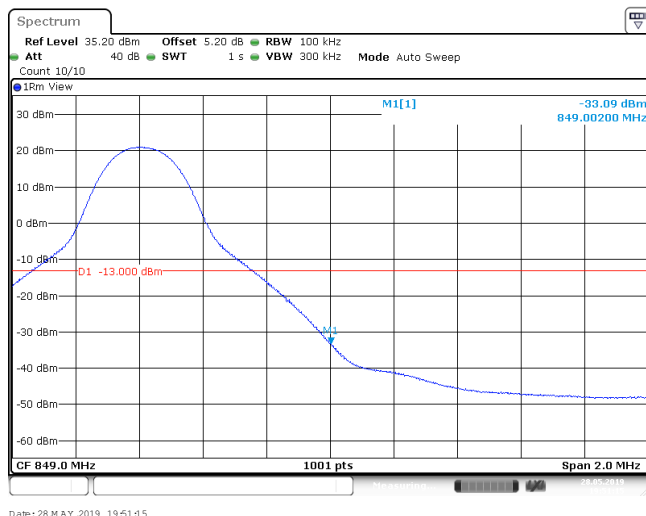


Band5_10MHz_QPSK_20450_50RB#0

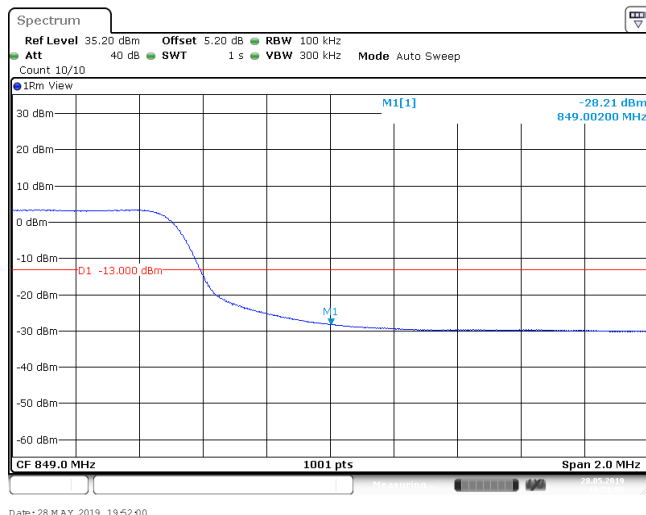


Band5_10MHz_QPSK_20600_1RB#49



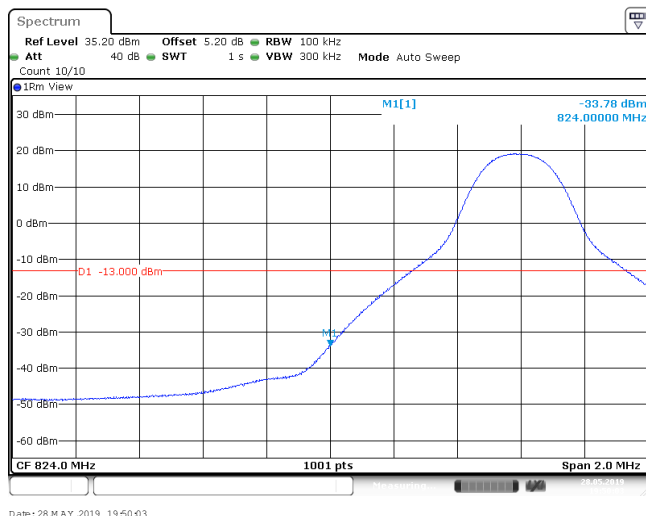


Band5_10MHz_QPSK_20600_50RB#0

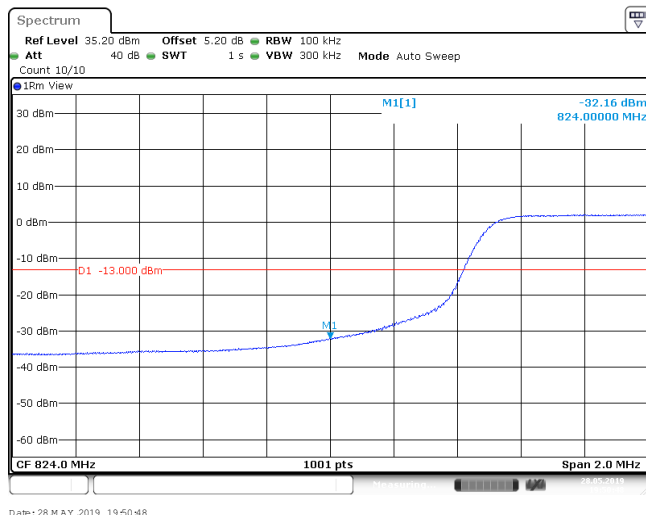


Band5_10MHz_16QAM_20450_1RB#0





Band5_10MHz_16QAM_20450_50RB#0

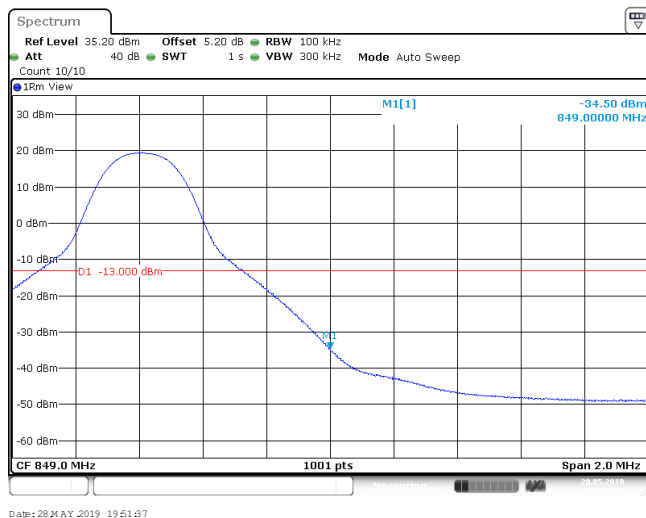


Band5_10MHz_16QAM_20600_1RB#49

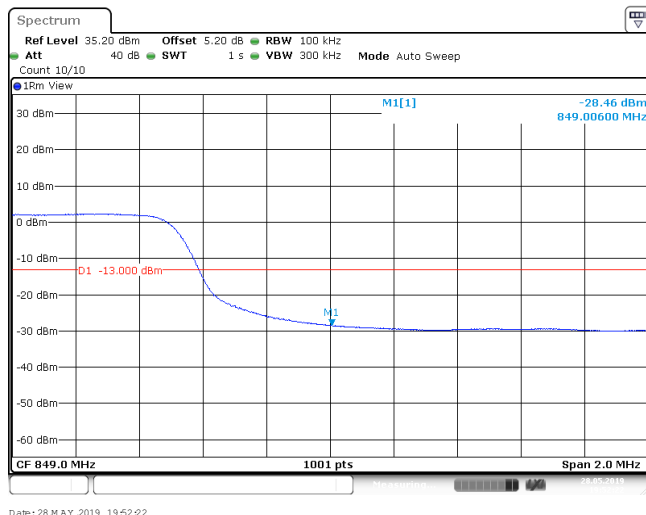


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Band5_10MHz_16QAM_20600_50RB#0



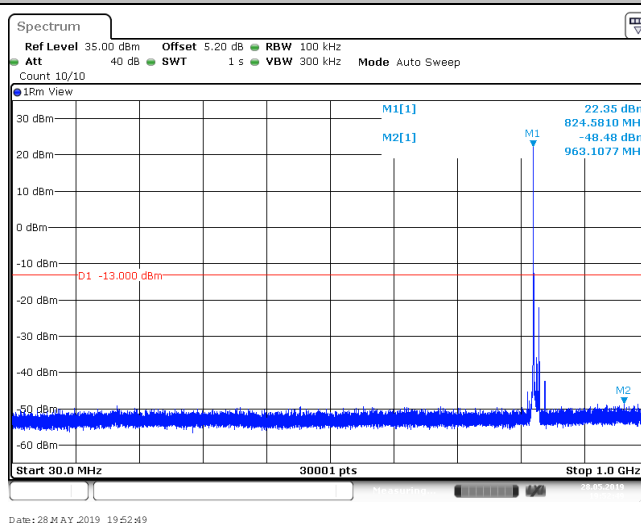
6. Spurious Emission at Antenna Terminal

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 = $k * (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

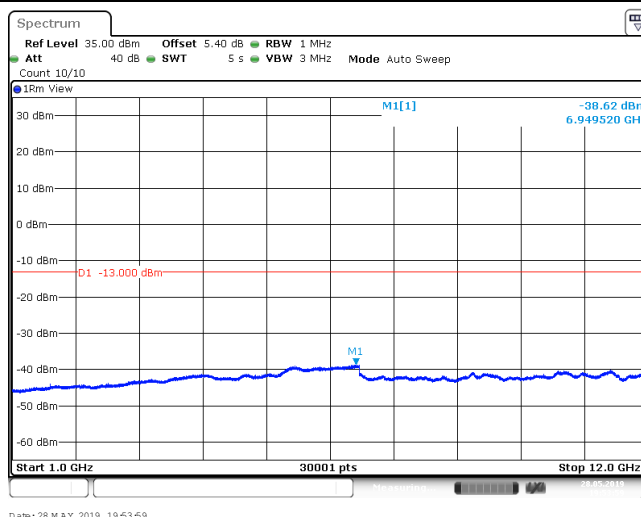
Remark2: only the worst case data displayed in this report.

6.1. Test Plots

Band5_10MHz_QPSK_20450_1RB#0

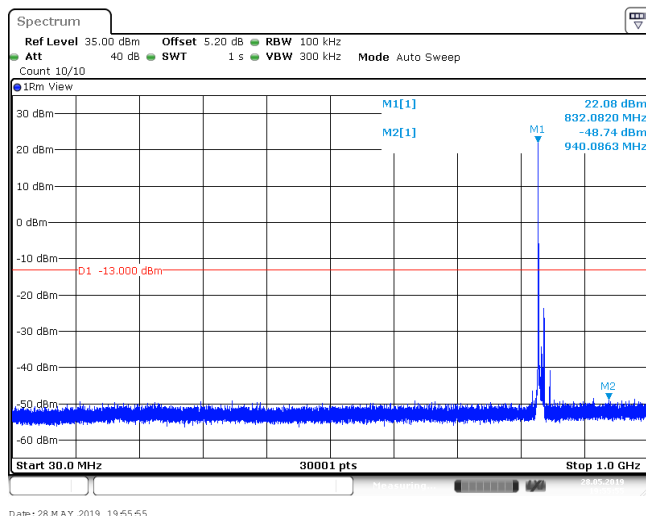


Band5_10MHz_QPSK_20450_1RB#0

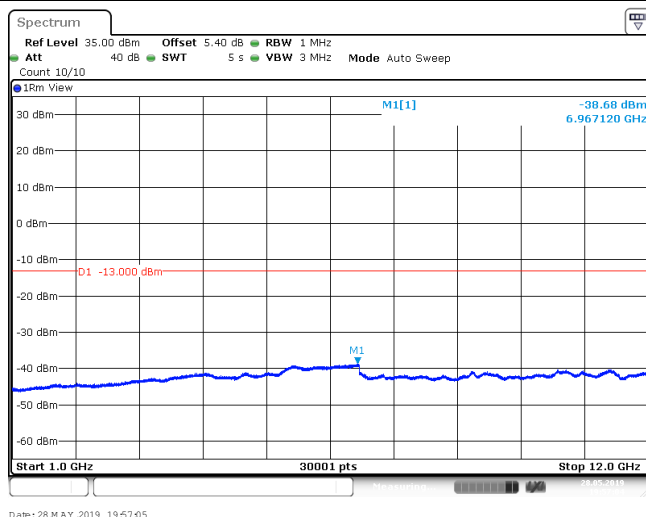


Band5_10MHz_QPSK_20525_1RB#0



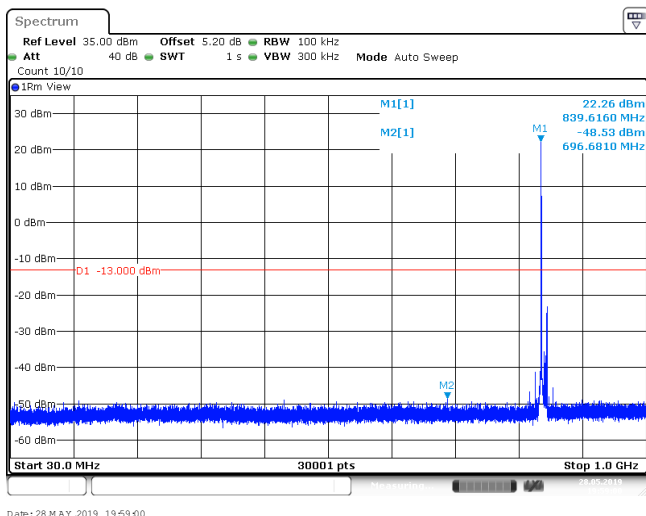


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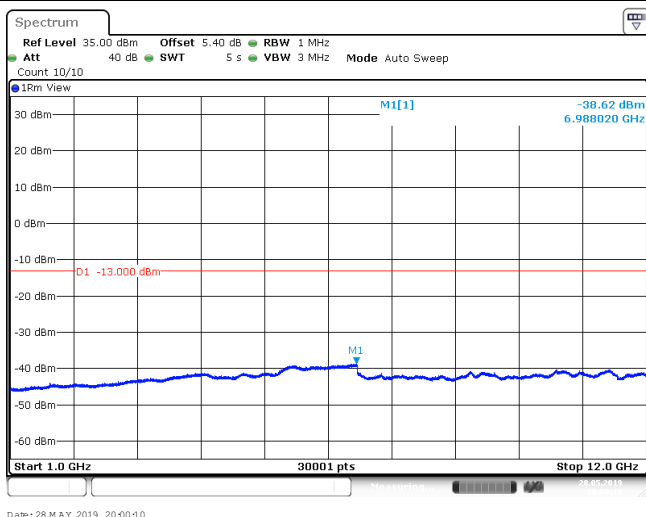


Band5_10MHz_QPSK_20600_1RB#0



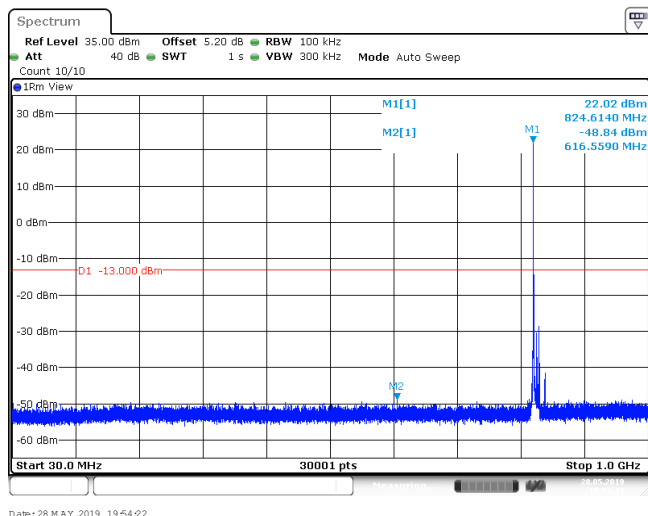


Band5_10MHz_QPSK_20600_1RB#0

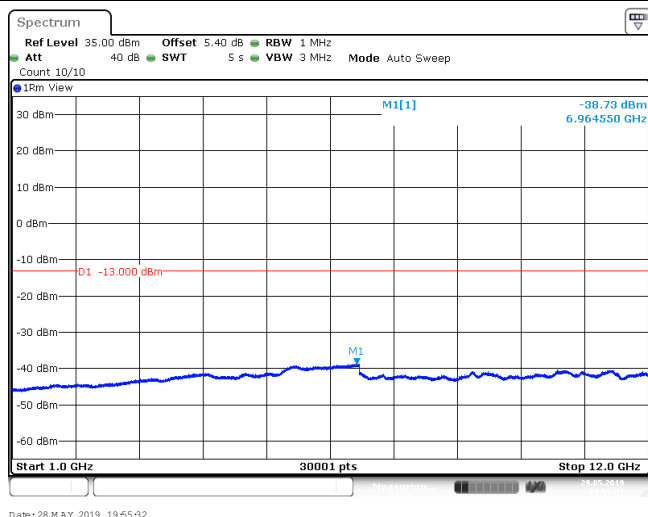


Band5_10MHz_16QAM_20450_1RB#0



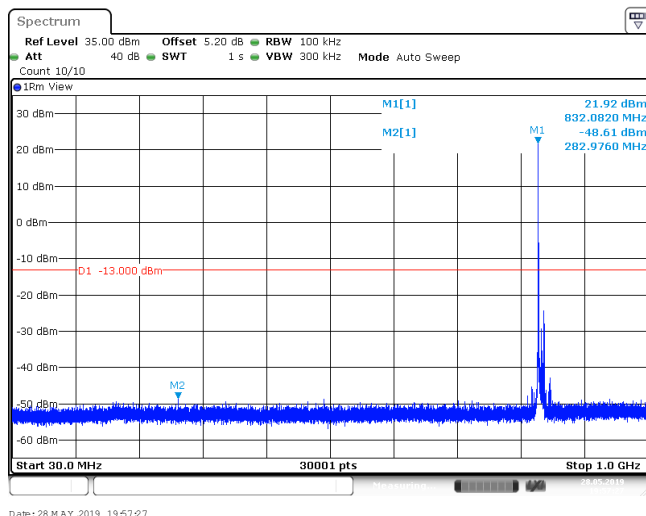


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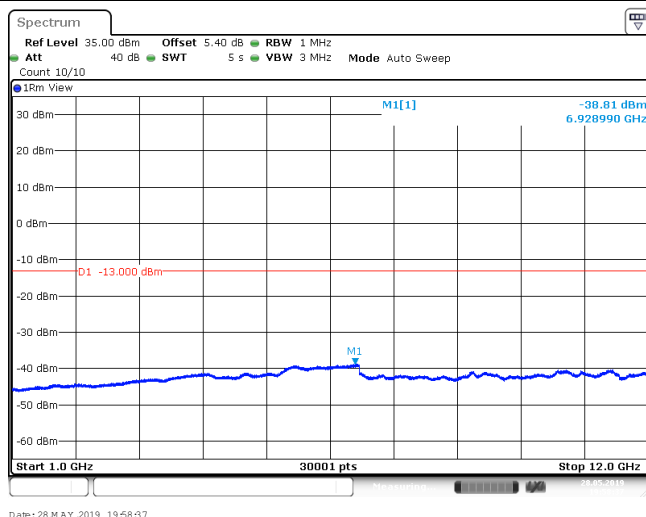


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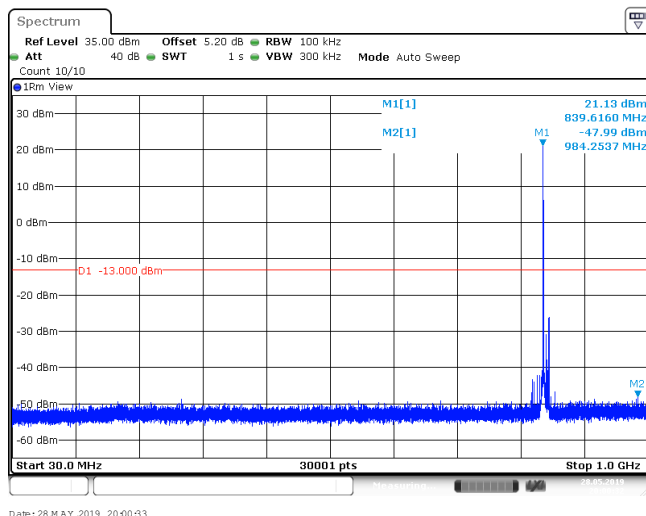


Band5_10MHz_16QAM_20525_1RB#0

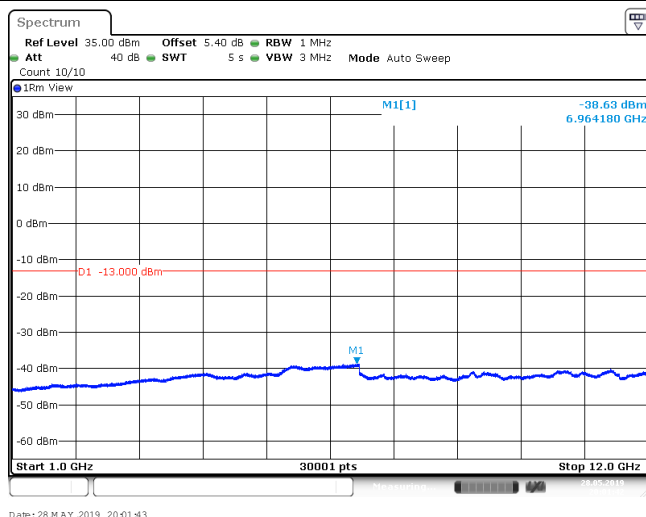


Band5_10MHz_16QAM_20600_1RB#0





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
64.533333	-81.16	-13.00	68.16	Vertical
316.113333	-82.65	-13.00	69.65	Vertical
1649.000000	-63.07	-13.00	50.07	Vertical
2473.500000	-49.91	-13.00	36.91	Vertical
4122.712500	-65.52	-13.00	52.52	Vertical
6596.775000	-61.51	-13.00	48.51	Vertical
62.386667	-77.59	-13.00	64.59	Horizontal
195.106667	-80.27	-13.00	67.27	Horizontal
1649.000000	-64.00	-13.00	51.00	Horizontal
2473.500000	-56.38	-13.00	43.38	Horizontal
3297.862500	-66.86	-13.00	53.86	Horizontal
6596.775000	-58.87	-13.00	45.87	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.766667	-81.85	-13.00	68.85	Vertical
312.706667	-82.53	-13.00	69.53	Vertical
1664.000000	-58.96	-13.00	45.96	Vertical
2496.000000	-54.48	-13.00	41.48	Vertical
4992.412500	-65.42	-13.00	52.42	Vertical
6656.737500	-61.68	-13.00	48.68	Vertical
62.480000	-77.21	-13.00	64.21	Horizontal
194.826667	-80.69	-13.00	67.69	Horizontal
1664.500000	-62.02	-13.00	49.02	Horizontal
2496.000000	-57.86	-13.00	44.86	Horizontal
4160.250000	-65.49	-13.00	52.49	Horizontal
6656.737500	-59.56	-13.00	46.56	Horizontal



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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.813333	-81.48	-13.00	68.48	Vertical
312.660000	-79.84	-13.00	66.84	Vertical
1679.000000	-62.99	-13.00	49.99	Vertical
2518.500000	-52.90	-13.00	39.90	Vertical
4197.787500	-66.56	-13.00	53.56	Vertical
6716.700000	-61.59	-13.00	48.59	Vertical
62.853333	-77.75	-13.00	64.75	Horizontal
193.940000	-81.00	-13.00	68.00	Horizontal
1679.000000	-64.44	-13.00	51.44	Horizontal
2518.500000	-56.34	-13.00	43.34	Horizontal
3357.825000	-66.64	-13.00	53.64	Horizontal
6716.700000	-61.10	-13.00	48.10	Horizontal

Remark:

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.

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	0.70	0.000844	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	VN	NT	-0.40	-0.000483	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	VH	NT	0.30	0.000362	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-0.20	-0.000239	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-0.70	-0.000837	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VL	NT	-1.50	-0.001777	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VN	NT	-1.90	-0.002251	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VH	NT	0.20	0.000237	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VL	NT	-0.40	-0.000483	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VN	NT	0.70	0.000844	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VH	NT	-0.10	-0.000121	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VL	NT	-0.90	-0.001076	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VN	NT	0.60	0.000717	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VH	NT	-0.10	-0.000120	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VL	NT	-0.80	-0.000948	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VN	NT	-1.30	-0.001540	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VH	NT	0.10	0.000118	±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	0.10	0.000121	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	-20	-0.20	-0.000241	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	0	-0.80	-0.000965	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	10	-1.60	-0.001930	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	20	-1.40	-0.001689	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	30	-0.80	-0.000965	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	40	-0.20	-0.000241	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	50	-0.10	-0.000121	±2.5	PASS



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Band5	10MHz	QPSK	20525	50RB#0	NV	-30	-1.60	-0.001913	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	-2.20	-0.002630	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	-0.60	-0.000717	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	-1.10	-0.001315	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	-1.50	-0.001793	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	-1.70	-0.002032	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	-30	-1.30	-0.001540	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	-20	-1.50	-0.001777	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	0	-1.00	-0.001185	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	10	0.20	0.000237	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	20	-0.60	-0.000711	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	30	-0.60	-0.000711	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	40	-1.40	-0.001659	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	50	-1.00	-0.001185	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	-30	0.10	0.000121	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	-20	0.30	0.000362	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	0	-1.50	-0.001809	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	10	-0.60	-0.000724	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	20	-1.40	-0.001689	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	30	-0.20	-0.000241	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	40	-1.40	-0.001689	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	50	-1.00	-0.001206	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	-30	-0.20	-0.000239	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	-20	0.20	0.000239	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	0	-0.60	-0.000717	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	10	-0.60	-0.000717	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	20	-1.70	-0.002032	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	30	-1.40	-0.001674	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	40	-1.90	-0.002271	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	50	-2.30	-0.002750	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	-30	-0.30	-0.000355	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	-20	-0.40	-0.000474	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	0	1.00	0.001185	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	10	-0.40	-0.000474	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	20	-0.80	-0.000948	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	30	-0.70	-0.000829	±2.5	PASS



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Band5	10MHz	16QAM	20600	50RB#0	NV	40	-0.30	-0.000355	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	50	-1.40	-0.001659	±2.5	PASS

The End

