



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	22.31	20.16	38.45	PASS
BAND5	1.4MHz	QPSK	20407	1RB#2	22.44	20.29	38.45	PASS
BAND5	1.4MHz	QPSK	20407	1RB#5	22.30	20.15	38.45	PASS
BAND5	1.4MHz	QPSK	20407	3RB#0	22.39	20.24	38.45	PASS
BAND5	1.4MHz	QPSK	20407	3RB#1	22.45	20.30	38.45	PASS
BAND5	1.4MHz	QPSK	20407	3RB#3	22.39	20.24	38.45	PASS
BAND5	1.4MHz	QPSK	20407	6RB#0	21.39	19.24	38.45	PASS
BAND5	1.4MHz	QPSK	20525	1RB#0	22.30	20.15	38.45	PASS
BAND5	1.4MHz	QPSK	20525	1RB#2	22.40	20.25	38.45	PASS
BAND5	1.4MHz	QPSK	20525	1RB#5	22.29	20.14	38.45	PASS
BAND5	1.4MHz	QPSK	20525	3RB#0	22.38	20.23	38.45	PASS
BAND5	1.4MHz	QPSK	20525	3RB#1	22.44	20.29	38.45	PASS
BAND5	1.4MHz	QPSK	20525	3RB#3	22.37	20.22	38.45	PASS
BAND5	1.4MHz	QPSK	20525	6RB#0	21.41	19.26	38.45	PASS
BAND5	1.4MHz	QPSK	20643	1RB#0	22.27	20.12	38.45	PASS
BAND5	1.4MHz	QPSK	20643	1RB#2	22.44	20.29	38.45	PASS
BAND5	1.4MHz	QPSK	20643	1RB#5	22.33	20.18	38.45	PASS
BAND5	1.4MHz	QPSK	20643	3RB#0	22.39	20.24	38.45	PASS
BAND5	1.4MHz	QPSK	20643	3RB#1	22.43	20.28	38.45	PASS
BAND5	1.4MHz	QPSK	20643	3RB#3	22.38	20.23	38.45	PASS
BAND5	1.4MHz	QPSK	20643	6RB#0	21.41	19.26	38.45	PASS
BAND5	1.4MHz	16QAM	20407	1RB#0	21.50	19.35	38.45	PASS
BAND5	1.4MHz	16QAM	20407	1RB#2	21.70	19.55	38.45	PASS
BAND5	1.4MHz	16QAM	20407	1RB#5	21.43	19.28	38.45	PASS
BAND5	1.4MHz	16QAM	20407	3RB#0	21.45	19.30	38.45	PASS
BAND5	1.4MHz	16QAM	20407	3RB#1	21.51	19.36	38.45	PASS
BAND5	1.4MHz	16QAM	20407	3RB#3	21.48	19.33	38.45	PASS
BAND5	1.4MHz	16QAM	20407	6RB#0	20.40	18.25	38.45	PASS
BAND5	1.4MHz	16QAM	20525	1RB#0	21.50	19.35	38.45	PASS
BAND5	1.4MHz	16QAM	20525	1RB#2	21.76	19.61	38.45	PASS
BAND5	1.4MHz	16QAM	20525	1RB#5	21.46	19.31	38.45	PASS
BAND5	1.4MHz	16QAM	20525	3RB#0	21.46	19.31	38.45	PASS
BAND5	1.4MHz	16QAM	20525	3RB#1	21.59	19.44	38.45	PASS
BAND5	1.4MHz	16QAM	20525	3RB#3	21.48	19.33	38.45	PASS



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BAND5	1.4MHz	16QAM	20525	6RB#0	20.44	18.29	38.45	PASS
BAND5	1.4MHz	16QAM	20643	1RB#0	21.42	19.27	38.45	PASS
BAND5	1.4MHz	16QAM	20643	1RB#2	21.64	19.49	38.45	PASS
BAND5	1.4MHz	16QAM	20643	1RB#5	21.46	19.31	38.45	PASS
BAND5	1.4MHz	16QAM	20643	3RB#0	21.50	19.35	38.45	PASS
BAND5	1.4MHz	16QAM	20643	3RB#1	21.51	19.36	38.45	PASS
BAND5	1.4MHz	16QAM	20643	3RB#3	21.47	19.32	38.45	PASS
BAND5	1.4MHz	16QAM	20643	6RB#0	20.41	18.26	38.45	PASS
BAND5	3MHz	QPSK	20415	1RB#0	22.40	20.25	38.45	PASS
BAND5	3MHz	QPSK	20415	1RB#8	22.37	20.22	38.45	PASS
BAND5	3MHz	QPSK	20415	1RB#14	22.38	20.23	38.45	PASS
BAND5	3MHz	QPSK	20415	8RB#0	21.39	19.24	38.45	PASS
BAND5	3MHz	QPSK	20415	8RB#4	21.41	19.26	38.45	PASS
BAND5	3MHz	QPSK	20415	8RB#7	21.34	19.19	38.45	PASS
BAND5	3MHz	QPSK	20415	15RB#0	21.36	19.21	38.45	PASS
BAND5	3MHz	QPSK	20525	1RB#0	22.34	20.19	38.45	PASS
BAND5	3MHz	QPSK	20525	1RB#8	22.35	20.20	38.45	PASS
BAND5	3MHz	QPSK	20525	1RB#14	22.33	20.18	38.45	PASS
BAND5	3MHz	QPSK	20525	8RB#0	21.39	19.24	38.45	PASS
BAND5	3MHz	QPSK	20525	8RB#4	21.42	19.27	38.45	PASS
BAND5	3MHz	QPSK	20525	8RB#7	21.38	19.23	38.45	PASS
BAND5	3MHz	QPSK	20525	15RB#0	21.38	19.23	38.45	PASS
BAND5	3MHz	QPSK	20635	1RB#0	22.35	20.20	38.45	PASS
BAND5	3MHz	QPSK	20635	1RB#8	22.32	20.17	38.45	PASS
BAND5	3MHz	QPSK	20635	1RB#14	22.35	20.20	38.45	PASS
BAND5	3MHz	QPSK	20635	8RB#0	21.41	19.26	38.45	PASS
BAND5	3MHz	QPSK	20635	8RB#4	21.44	19.29	38.45	PASS
BAND5	3MHz	QPSK	20635	8RB#7	21.41	19.26	38.45	PASS
BAND5	3MHz	QPSK	20635	15RB#0	21.41	19.26	38.45	PASS
BAND5	3MHz	16QAM	20415	1RB#0	21.58	19.43	38.45	PASS
BAND5	3MHz	16QAM	20415	1RB#8	21.51	19.36	38.45	PASS
BAND5	3MHz	16QAM	20415	1RB#14	21.48	19.33	38.45	PASS
BAND5	3MHz	16QAM	20415	8RB#0	20.35	18.20	38.45	PASS
BAND5	3MHz	16QAM	20415	8RB#4	20.37	18.22	38.45	PASS
BAND5	3MHz	16QAM	20415	8RB#7	20.34	18.19	38.45	PASS
BAND5	3MHz	16QAM	20415	15RB#0	20.29	18.14	38.45	PASS
BAND5	3MHz	16QAM	20525	1RB#0	21.65	19.50	38.45	PASS
BAND5	3MHz	16QAM	20525	1RB#8	21.55	19.40	38.45	PASS
BAND5	3MHz	16QAM	20525	1RB#14	21.60	19.45	38.45	PASS
BAND5	3MHz	16QAM	20525	8RB#0	20.39	18.24	38.45	PASS
BAND5	3MHz	16QAM	20525	8RB#4	20.40	18.25	38.45	PASS

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BAND5	3MHz	16QAM	20525	8RB#7	20.38	18.23	38.45	PASS
BAND5	3MHz	16QAM	20525	15RB#0	20.32	18.17	38.45	PASS
BAND5	3MHz	16QAM	20635	1RB#0	21.53	19.38	38.45	PASS
BAND5	3MHz	16QAM	20635	1RB#8	21.49	19.34	38.45	PASS
BAND5	3MHz	16QAM	20635	1RB#14	21.60	19.45	38.45	PASS
BAND5	3MHz	16QAM	20635	8RB#0	20.36	18.21	38.45	PASS
BAND5	3MHz	16QAM	20635	8RB#4	20.40	18.25	38.45	PASS
BAND5	3MHz	16QAM	20635	8RB#7	20.33	18.18	38.45	PASS
BAND5	3MHz	16QAM	20635	15RB#0	20.32	18.17	38.45	PASS
BAND5	5MHz	QPSK	20425	1RB#0	22.27	20.12	38.45	PASS
BAND5	5MHz	QPSK	20425	1RB#12	22.49	20.34	38.45	PASS
BAND5	5MHz	QPSK	20425	1RB#24	22.24	20.09	38.45	PASS
BAND5	5MHz	QPSK	20425	12RB#0	21.36	19.21	38.45	PASS
BAND5	5MHz	QPSK	20425	12RB#6	21.38	19.23	38.45	PASS
BAND5	5MHz	QPSK	20425	12RB#13	21.29	19.14	38.45	PASS
BAND5	5MHz	QPSK	20425	25RB#0	21.35	19.20	38.45	PASS
BAND5	5MHz	QPSK	20525	1RB#0	22.28	20.13	38.45	PASS
BAND5	5MHz	QPSK	20525	1RB#12	22.54	20.39	38.45	PASS
BAND5	5MHz	QPSK	20525	1RB#24	22.22	20.07	38.45	PASS
BAND5	5MHz	QPSK	20525	12RB#0	21.37	19.22	38.45	PASS
BAND5	5MHz	QPSK	20525	12RB#6	21.41	19.26	38.45	PASS
BAND5	5MHz	QPSK	20525	12RB#13	21.37	19.22	38.45	PASS
BAND5	5MHz	QPSK	20525	25RB#0	21.39	19.24	38.45	PASS
BAND5	5MHz	QPSK	20625	1RB#0	22.25	20.10	38.45	PASS
BAND5	5MHz	QPSK	20625	1RB#12	22.48	20.33	38.45	PASS
BAND5	5MHz	QPSK	20625	1RB#24	22.23	20.08	38.45	PASS
BAND5	5MHz	QPSK	20625	12RB#0	21.43	19.28	38.45	PASS
BAND5	5MHz	QPSK	20625	12RB#6	21.41	19.26	38.45	PASS
BAND5	5MHz	QPSK	20625	12RB#13	21.34	19.19	38.45	PASS
BAND5	5MHz	QPSK	20625	25RB#0	21.38	19.23	38.45	PASS
BAND5	5MHz	16QAM	20425	1RB#0	21.41	19.26	38.45	PASS
BAND5	5MHz	16QAM	20425	1RB#12	21.69	19.54	38.45	PASS
BAND5	5MHz	16QAM	20425	1RB#24	21.44	19.29	38.45	PASS
BAND5	5MHz	16QAM	20425	12RB#0	20.36	18.21	38.45	PASS
BAND5	5MHz	16QAM	20425	12RB#6	20.37	18.22	38.45	PASS
BAND5	5MHz	16QAM	20425	12RB#13	20.31	18.16	38.45	PASS
BAND5	5MHz	16QAM	20425	25RB#0	20.29	18.14	38.45	PASS
BAND5	5MHz	16QAM	20525	1RB#0	21.43	19.28	38.45	PASS
BAND5	5MHz	16QAM	20525	1RB#12	21.67	19.52	38.45	PASS
BAND5	5MHz	16QAM	20525	1RB#24	21.39	19.24	38.45	PASS
BAND5	5MHz	16QAM	20525	12RB#0	20.37	18.22	38.45	PASS

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BAND5	5MHz	16QAM	20525	12RB#6	20.39	18.24	38.45	PASS
BAND5	5MHz	16QAM	20525	12RB#13	20.36	18.21	38.45	PASS
BAND5	5MHz	16QAM	20525	25RB#0	20.33	18.18	38.45	PASS
BAND5	5MHz	16QAM	20625	1RB#0	21.47	19.32	38.45	PASS
BAND5	5MHz	16QAM	20625	1RB#12	21.67	19.52	38.45	PASS
BAND5	5MHz	16QAM	20625	1RB#24	21.36	19.21	38.45	PASS
BAND5	5MHz	16QAM	20625	12RB#0	20.42	18.27	38.45	PASS
BAND5	5MHz	16QAM	20625	12RB#6	20.38	18.23	38.45	PASS
BAND5	5MHz	16QAM	20625	12RB#13	20.30	18.15	38.45	PASS
BAND5	5MHz	16QAM	20625	25RB#0	20.32	18.17	38.45	PASS
BAND5	10MHz	QPSK	20450	1RB#0	22.41	20.26	38.45	PASS
BAND5	10MHz	QPSK	20450	1RB#24	22.44	20.29	38.45	PASS
BAND5	10MHz	QPSK	20450	1RB#49	22.34	20.19	38.45	PASS
BAND5	10MHz	QPSK	20450	25RB#0	21.50	19.35	38.45	PASS
BAND5	10MHz	QPSK	20450	25RB#12	21.43	19.28	38.45	PASS
BAND5	10MHz	QPSK	20450	25RB#25	21.36	19.21	38.45	PASS
BAND5	10MHz	QPSK	20450	50RB#0	21.44	19.29	38.45	PASS
BAND5	10MHz	QPSK	20525	1RB#0	22.38	20.23	38.45	PASS
BAND5	10MHz	QPSK	20525	1RB#24	22.44	20.29	38.45	PASS
BAND5	10MHz	QPSK	20525	1RB#49	22.33	20.18	38.45	PASS
BAND5	10MHz	QPSK	20525	25RB#0	21.47	19.32	38.45	PASS
BAND5	10MHz	QPSK	20525	25RB#12	21.44	19.29	38.45	PASS
BAND5	10MHz	QPSK	20525	25RB#25	21.49	19.34	38.45	PASS
BAND5	10MHz	QPSK	20525	50RB#0	21.51	19.36	38.45	PASS
BAND5	10MHz	QPSK	20600	1RB#0	22.35	20.20	38.45	PASS
BAND5	10MHz	QPSK	20600	1RB#24	22.43	20.28	38.45	PASS
BAND5	10MHz	QPSK	20600	1RB#49	22.36	20.21	38.45	PASS
BAND5	10MHz	QPSK	20600	25RB#0	21.41	19.26	38.45	PASS
BAND5	10MHz	QPSK	20600	25RB#12	21.47	19.32	38.45	PASS
BAND5	10MHz	QPSK	20600	25RB#25	21.36	19.21	38.45	PASS
BAND5	10MHz	QPSK	20600	50RB#0	21.39	19.24	38.45	PASS
BAND5	10MHz	16QAM	20450	1RB#0	21.62	19.47	38.45	PASS
BAND5	10MHz	16QAM	20450	1RB#24	21.69	19.54	38.45	PASS
BAND5	10MHz	16QAM	20450	1RB#49	21.53	19.38	38.45	PASS
BAND5	10MHz	16QAM	20450	25RB#0	20.44	18.29	38.45	PASS
BAND5	10MHz	16QAM	20450	25RB#12	20.36	18.21	38.45	PASS
BAND5	10MHz	16QAM	20450	25RB#25	20.28	18.13	38.45	PASS
BAND5	10MHz	16QAM	20450	50RB#0	20.37	18.22	38.45	PASS
BAND5	10MHz	16QAM	20525	1RB#0	21.65	19.50	38.45	PASS
BAND5	10MHz	16QAM	20525	1RB#24	21.65	19.50	38.45	PASS
BAND5	10MHz	16QAM	20525	1RB#49	21.58	19.43	38.45	PASS

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BAND5	10MHz	16QAM	20525	25RB#0	20.39	18.24	38.45	PASS
BAND5	10MHz	16QAM	20525	25RB#12	20.40	18.25	38.45	PASS
BAND5	10MHz	16QAM	20525	25RB#25	20.43	18.28	38.45	PASS
BAND5	10MHz	16QAM	20525	50RB#0	20.42	18.27	38.45	PASS
BAND5	10MHz	16QAM	20600	1RB#0	21.57	19.42	38.45	PASS
BAND5	10MHz	16QAM	20600	1RB#24	21.55	19.40	38.45	PASS
BAND5	10MHz	16QAM	20600	1RB#49	21.65	19.50	38.45	PASS
BAND5	10MHz	16QAM	20600	25RB#0	20.34	18.19	38.45	PASS
BAND5	10MHz	16QAM	20600	25RB#12	20.41	18.26	38.45	PASS
BAND5	10MHz	16QAM	20600	25RB#25	20.27	18.12	38.45	PASS
BAND5	10MHz	16QAM	20600	50RB#0	20.31	18.16	38.45	PASS

Note:

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

$$ERP [dBm] = SGP [dBm] - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$EIRP [dBm] = SGP [dBm] - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level

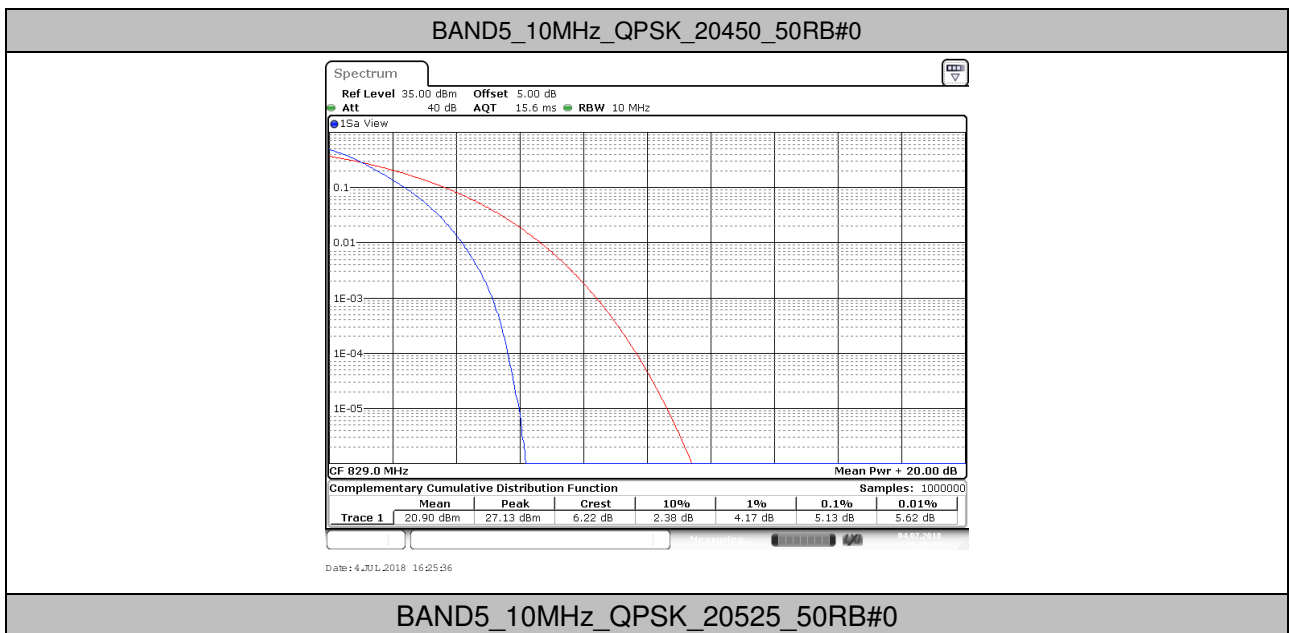


2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

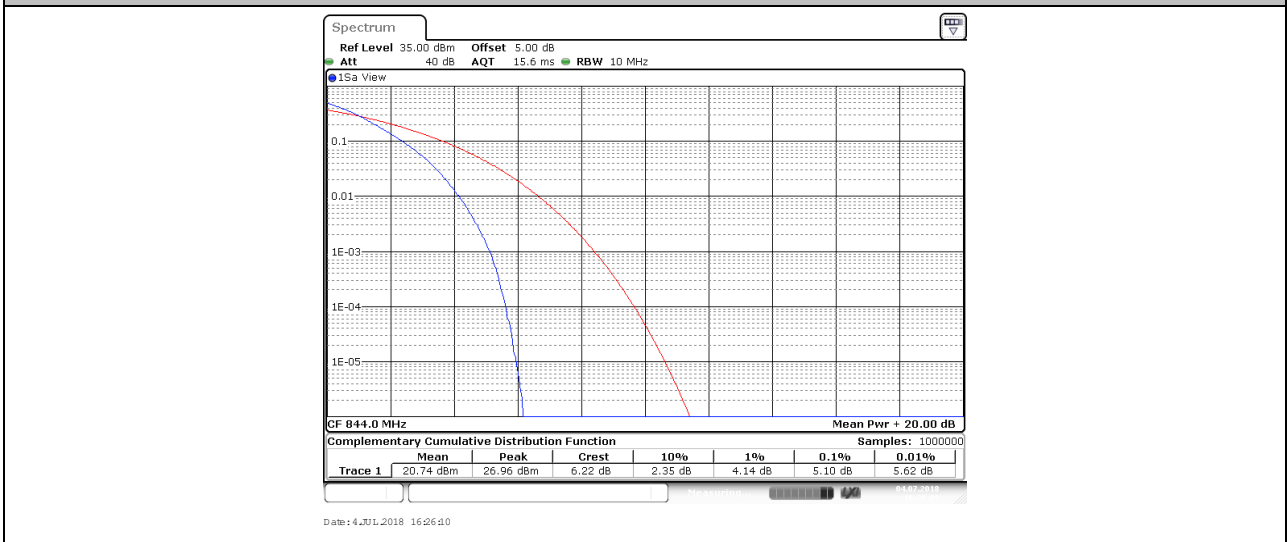
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
BAND5	10MHz	QPSK	20450	50RB#0	5.13	13	PASS
BAND5	10MHz	QPSK	20525	50RB#0	5.48	13	PASS
BAND5	10MHz	QPSK	20600	50RB#0	5.10	13	PASS
BAND5	10MHz	16QAM	20450	50RB#0	5.86	13	PASS
BAND5	10MHz	16QAM	20525	50RB#0	6.14	13	PASS
BAND5	10MHz	16QAM	20600	50RB#0	5.86	13	PASS

2.2. Test Plots





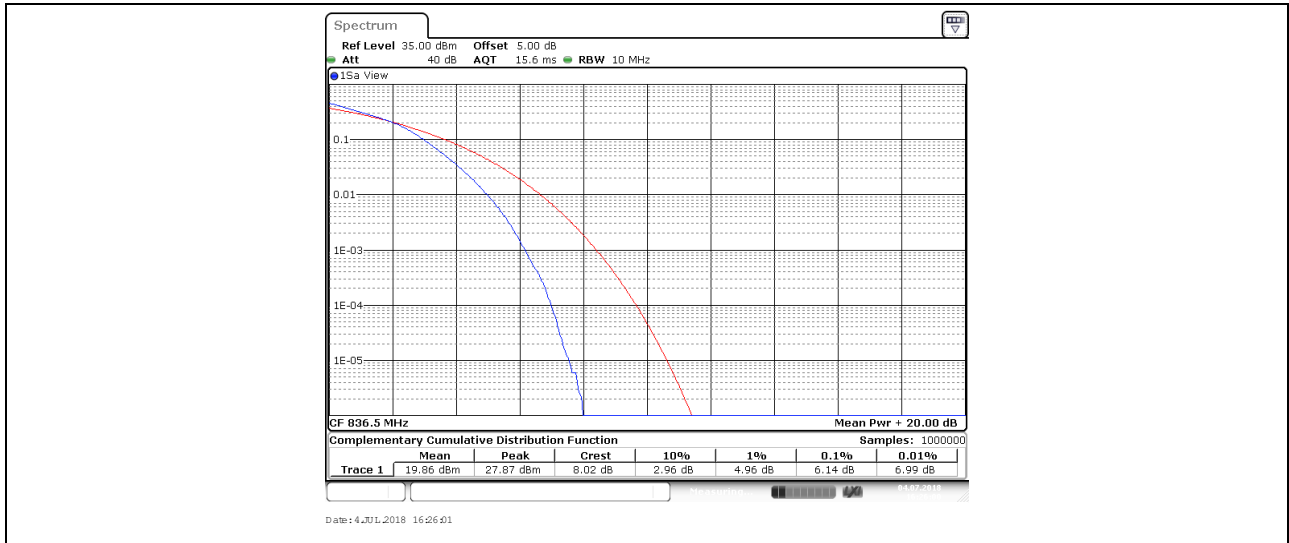
BAND5_10MHz_QPSK_20600_50RB#0



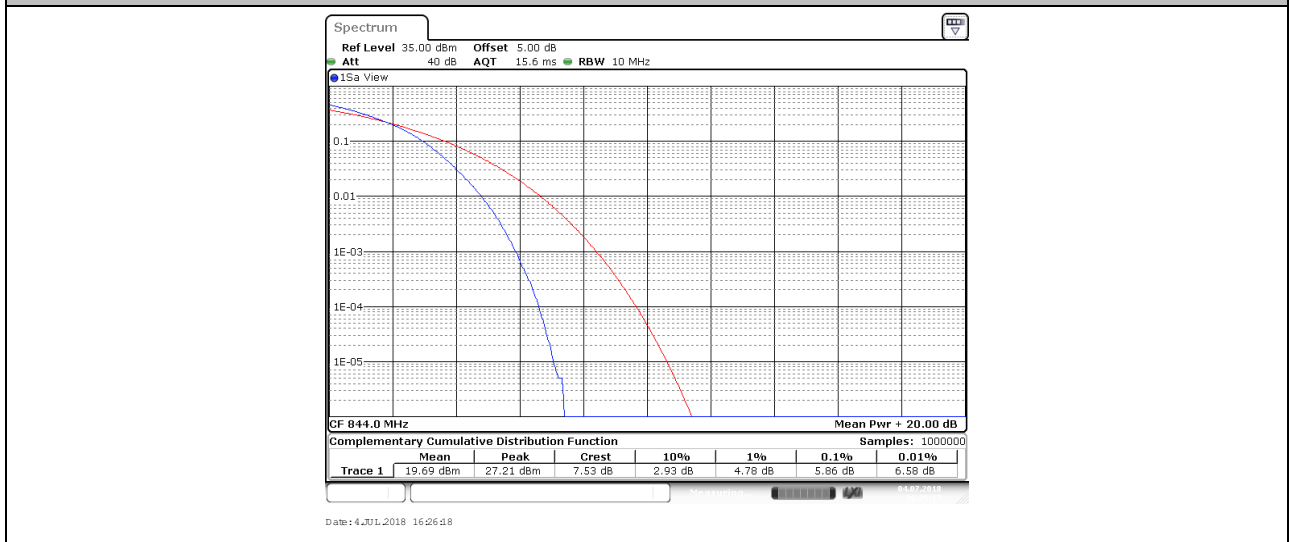
BAND5_10MHz_16QAM_20450_50RB#0



BAND5_10MHz_16QAM_20525_50RB#0



BAND5_10MHz_16QAM_20600_50RB#0

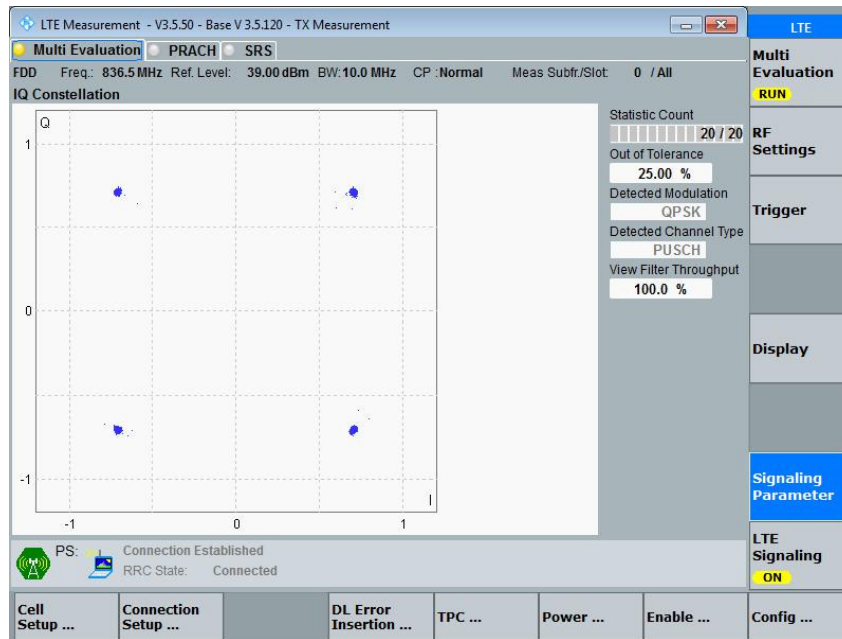


3. Modulation Characteristics

3.1. Test BAND = LTE BAND5

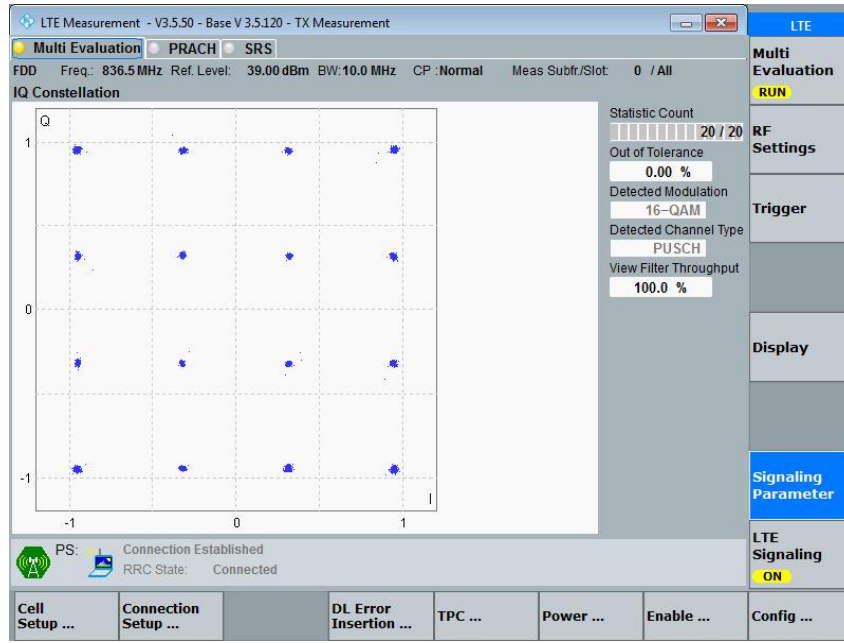
3.1.1. Test Mode = LTE /TM1 10MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 10MHz

3.1.2.1. Test Channel = MCH



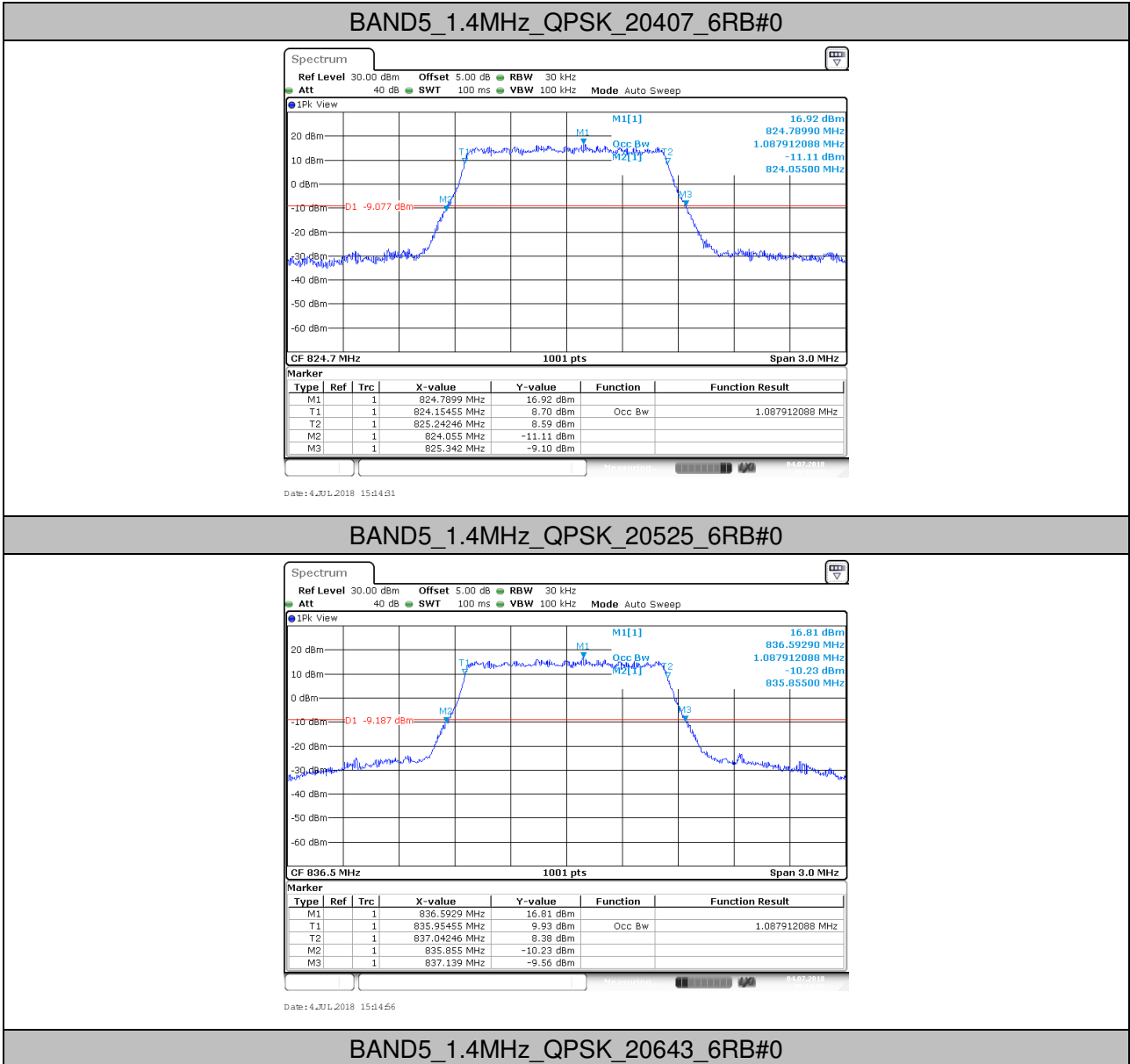


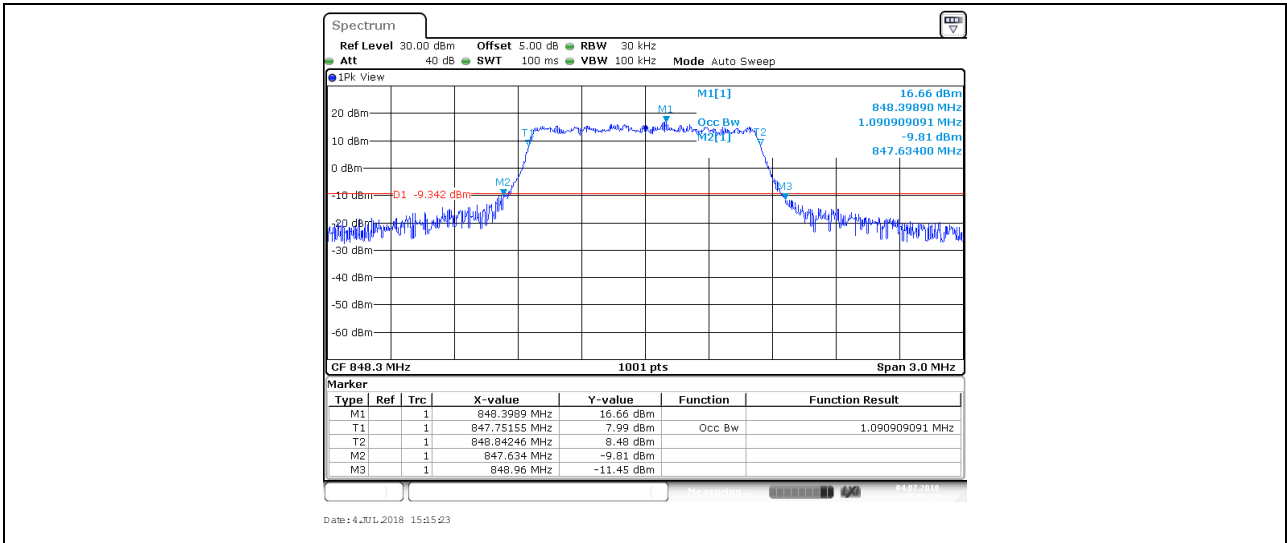
4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

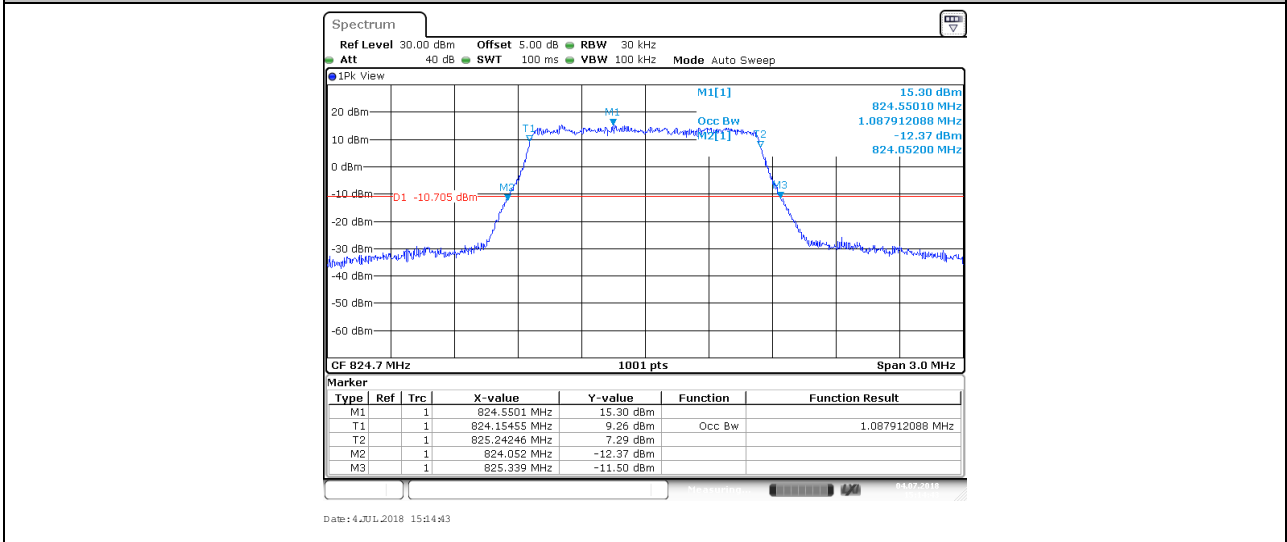
BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
BAND5	1.4MHz	QPSK	20407	6RB#0	1.088	1.287	PASS
BAND5	1.4MHz	QPSK	20525	6RB#0	1.088	1.284	PASS
BAND5	1.4MHz	QPSK	20643	6RB#0	1.091	1.326	PASS
BAND5	1.4MHz	16QAM	20407	6RB#0	1.088	1.287	PASS
BAND5	1.4MHz	16QAM	20525	6RB#0	1.091	1.290	PASS
BAND5	1.4MHz	16QAM	20643	6RB#0	1.088	1.284	PASS
BAND5	3MHz	QPSK	20415	15RB#0	2.685	2.922	PASS
BAND5	3MHz	QPSK	20525	15RB#0	2.691	2.910	PASS
BAND5	3MHz	QPSK	20635	15RB#0	2.691	2.922	PASS
BAND5	3MHz	16QAM	20415	15RB#0	2.673	2.904	PASS
BAND5	3MHz	16QAM	20525	15RB#0	2.679	2.910	PASS
BAND5	3MHz	16QAM	20635	15RB#0	2.679	2.910	PASS
BAND5	5MHz	QPSK	20425	25RB#0	4.476	5.070	PASS
BAND5	5MHz	QPSK	20525	25RB#0	4.486	5.050	PASS
BAND5	5MHz	QPSK	20625	25RB#0	4.486	5.320	PASS
BAND5	5MHz	16QAM	20425	25RB#0	4.496	5.040	PASS
BAND5	5MHz	16QAM	20525	25RB#0	4.486	5.080	PASS
BAND5	5MHz	16QAM	20625	25RB#0	4.496	5.050	PASS
BAND5	10MHz	QPSK	20450	50RB#0	8.931	9.880	PASS
BAND5	10MHz	QPSK	20525	50RB#0	8.951	9.940	PASS
BAND5	10MHz	QPSK	20600	50RB#0	8.931	9.860	PASS
BAND5	10MHz	16QAM	20450	50RB#0	8.931	9.840	PASS
BAND5	10MHz	16QAM	20525	50RB#0	8.971	9.960	PASS
BAND5	10MHz	16QAM	20600	50RB#0	8.931	9.840	PASS

4.2. Test Plots

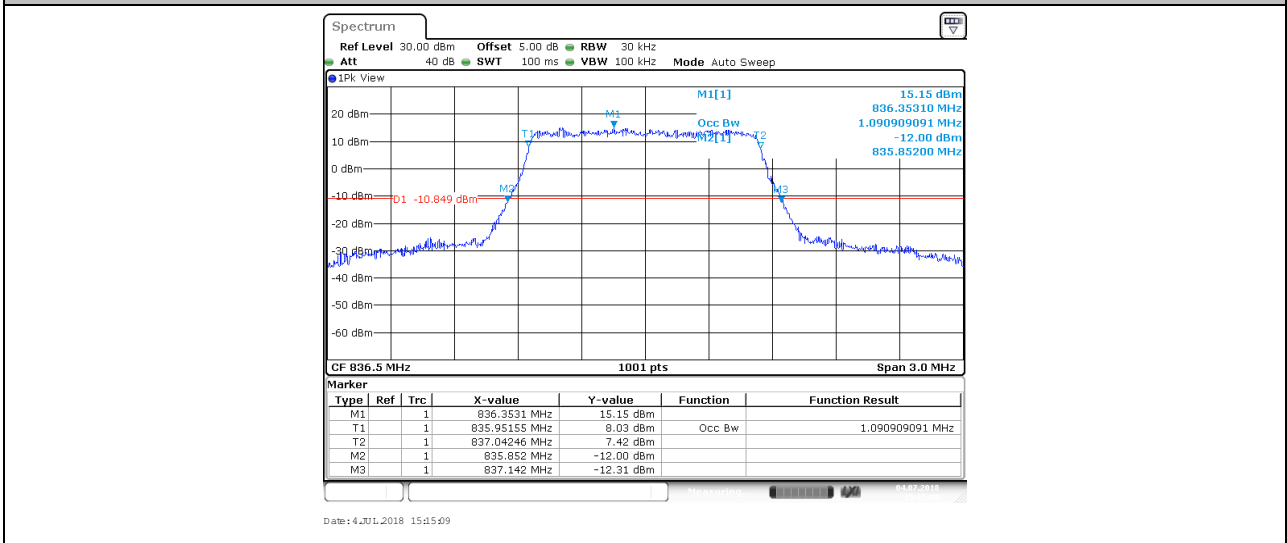




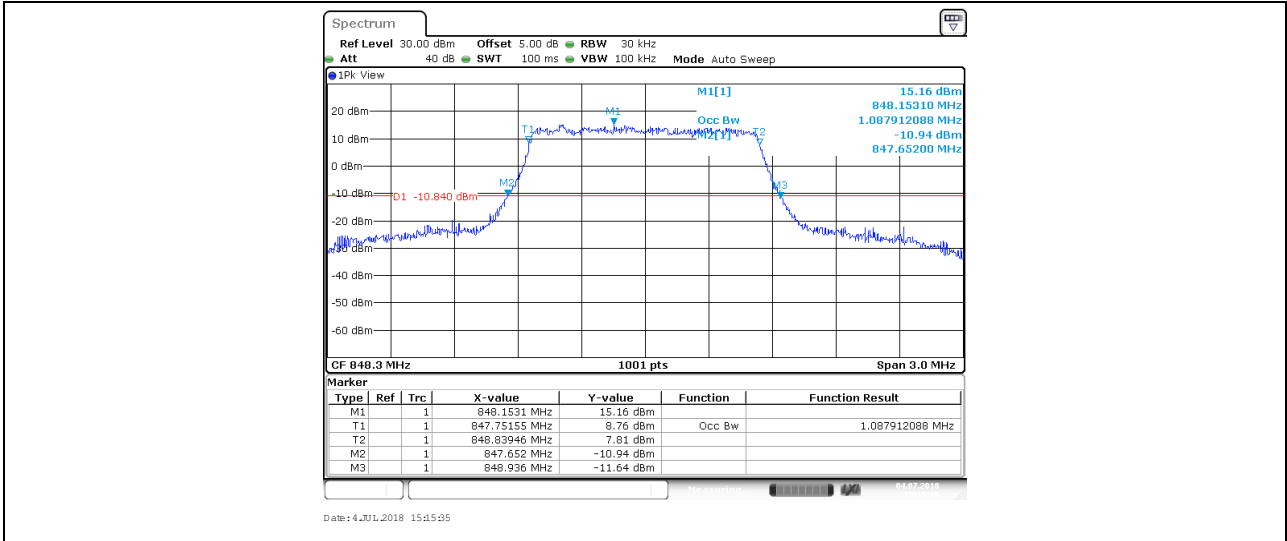
BAND5_1.4MHz_16QAM_20407_6RB#0



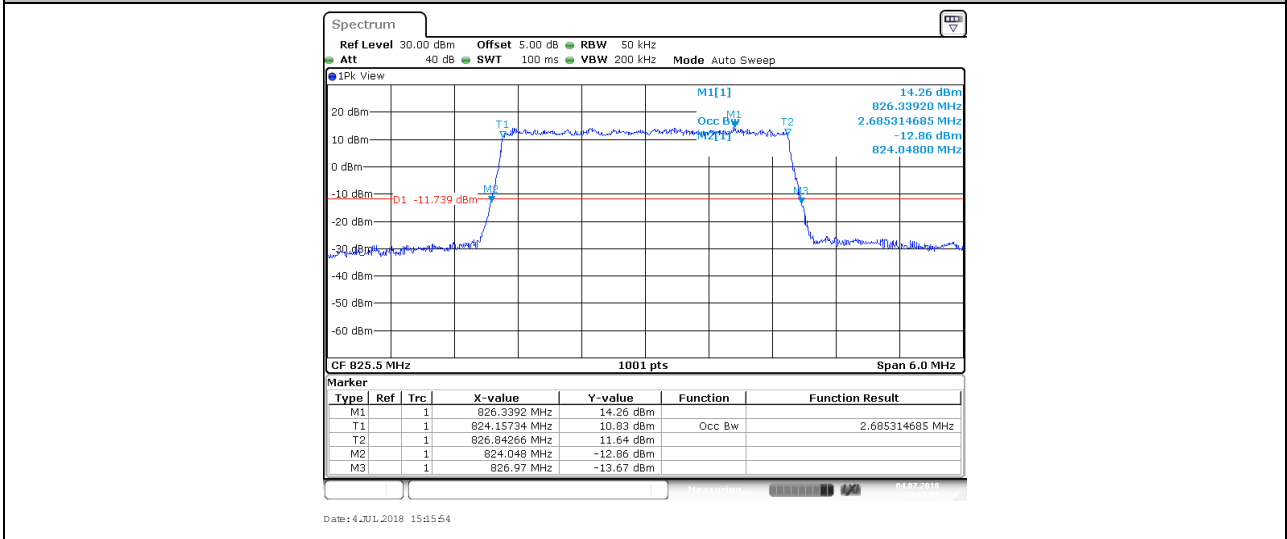
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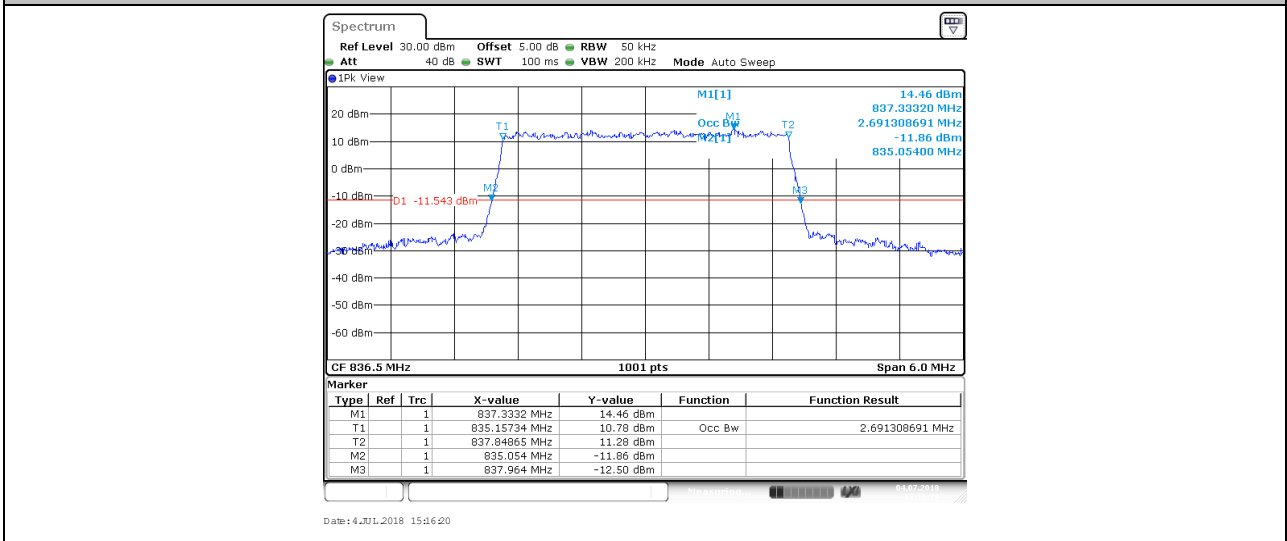
BAND5_1.4MHz_16QAM_20643_6RB#0



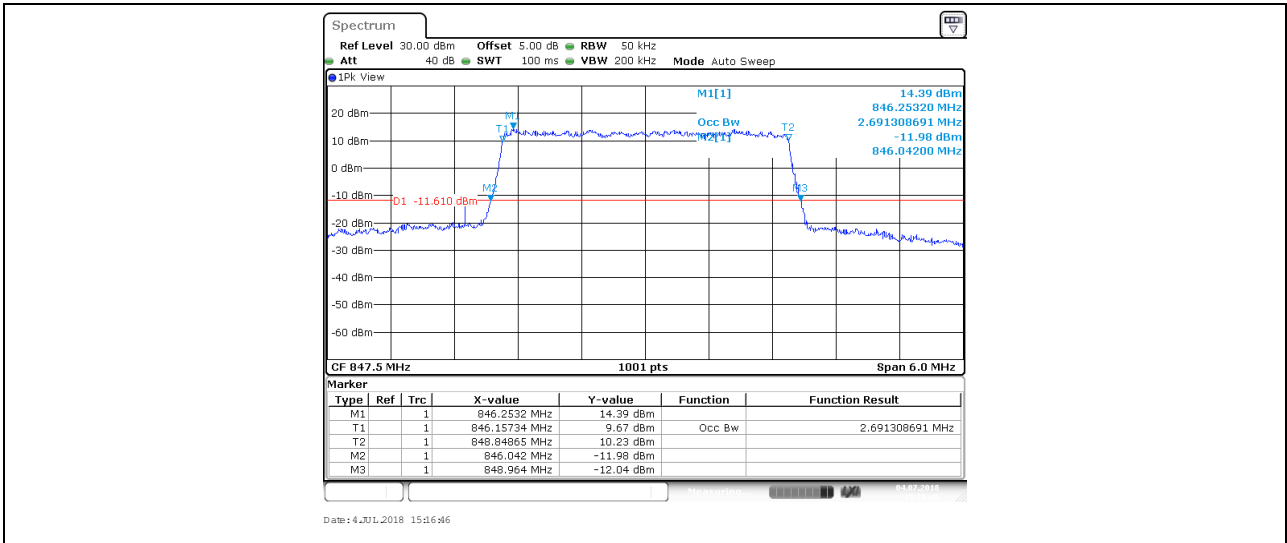
BAND5_3MHz_QPSK_20415_15RB#0



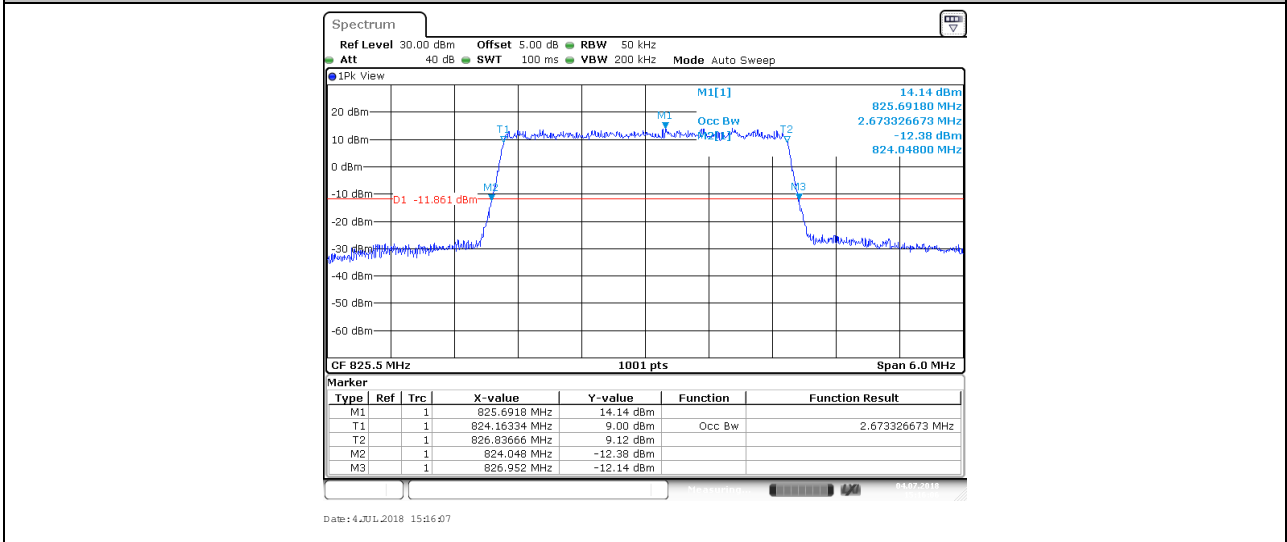
BAND5_3MHz_QPSK_20525_15RB#0



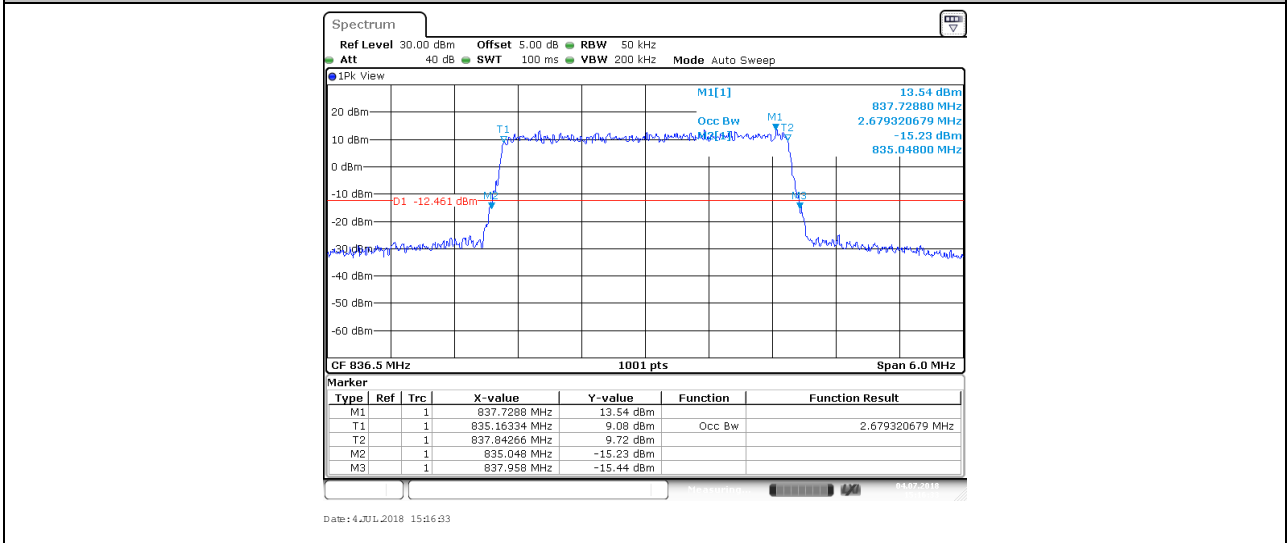
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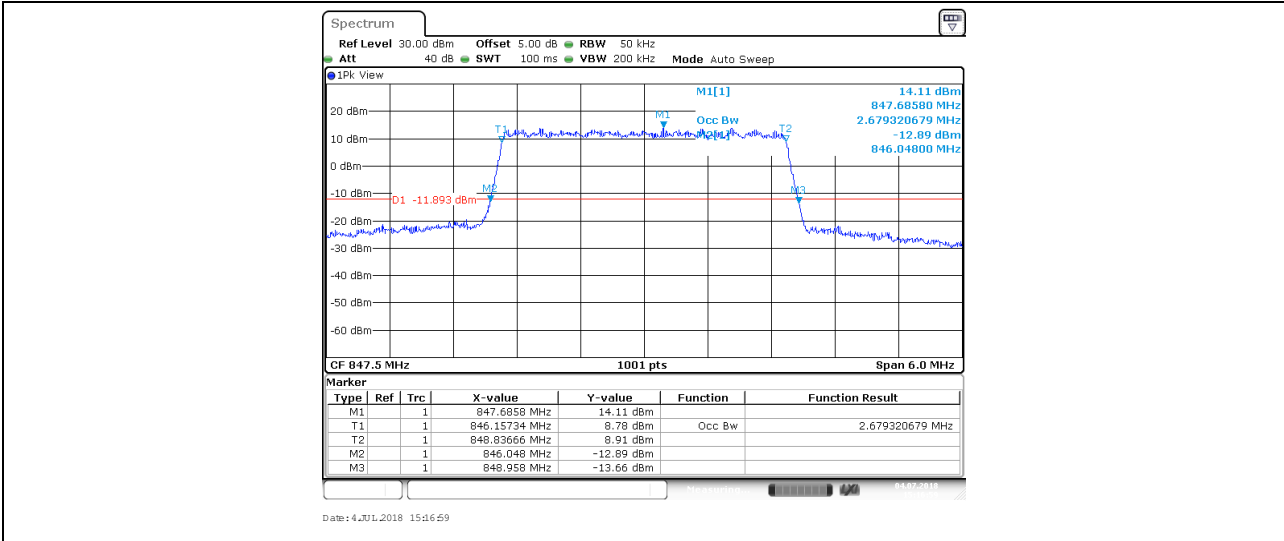
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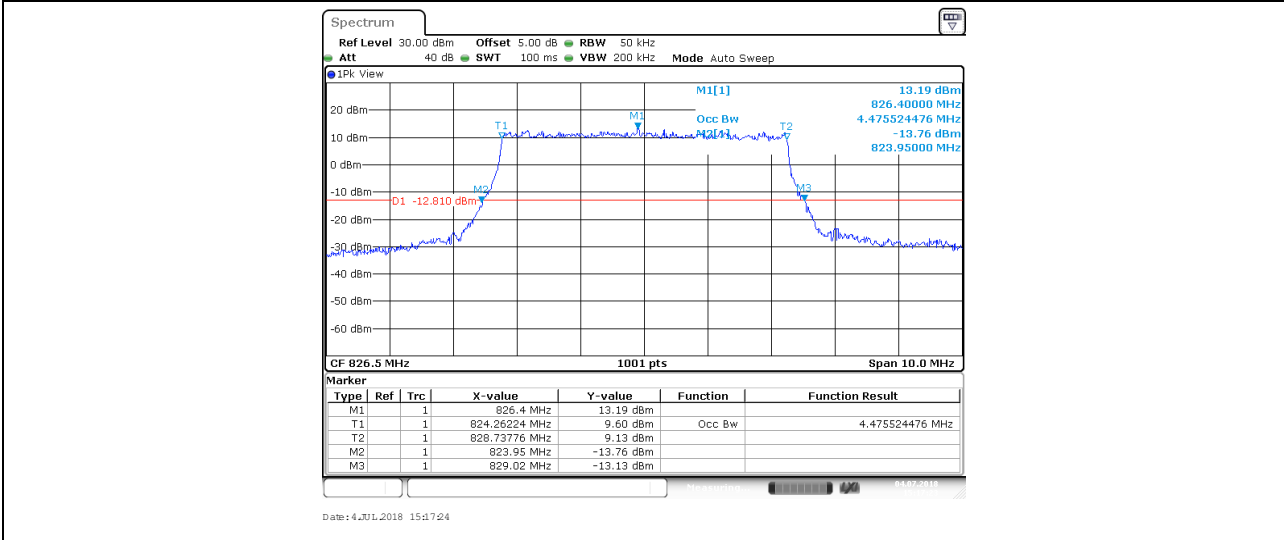
BAND5_3MHz_16QAM_20525_15RB#0



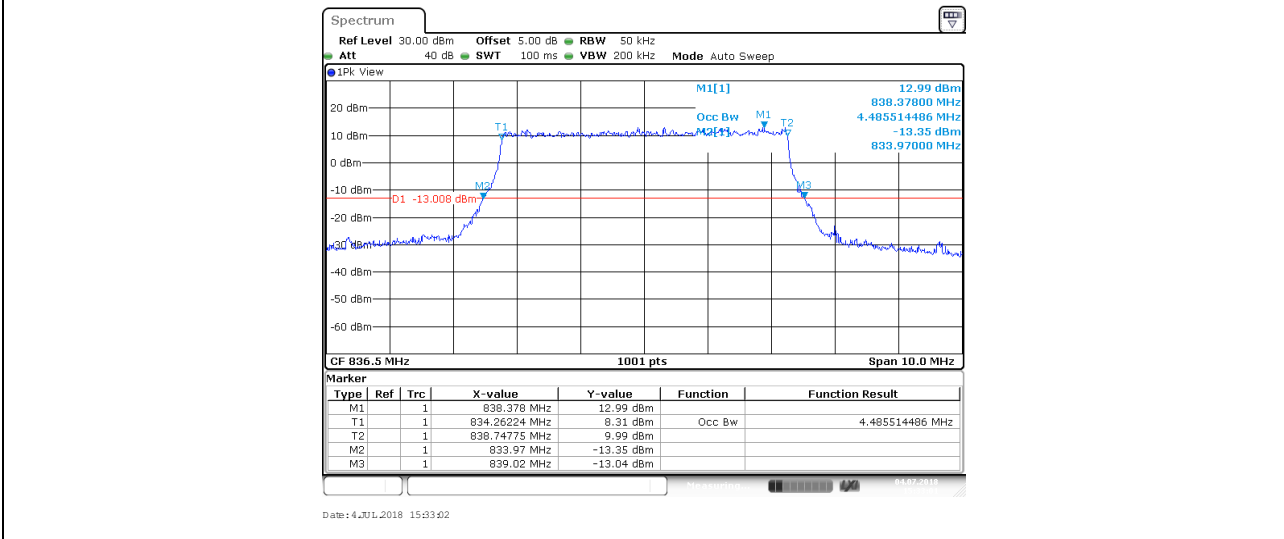
BAND5_3MHz_16QAM_20635_15RB#0



BAND5_5MHz_QPSK_20425_25RB#0

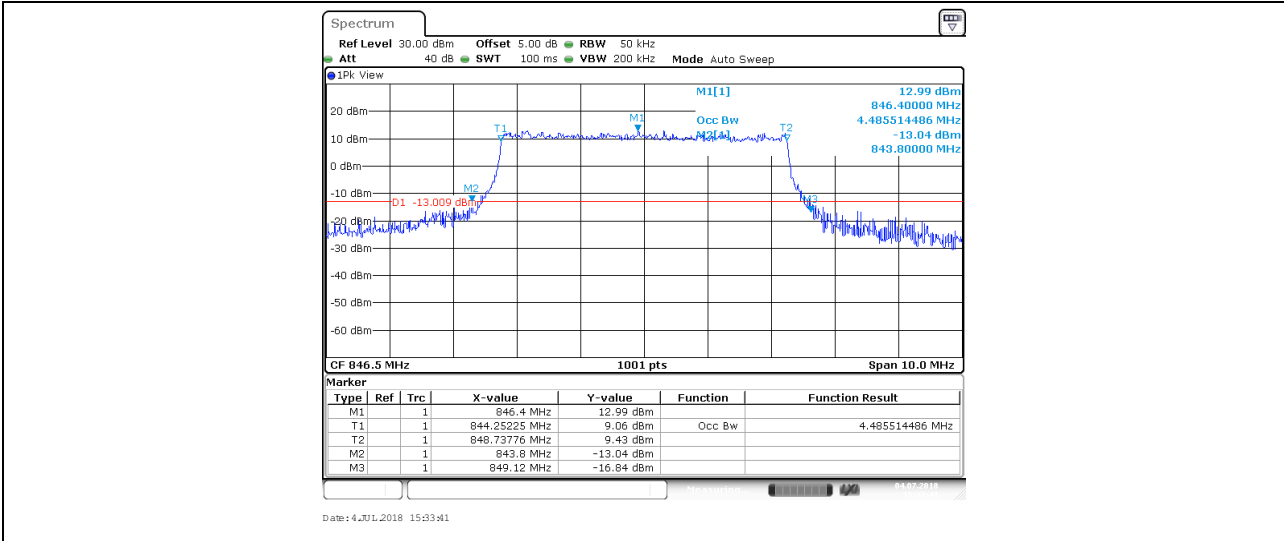


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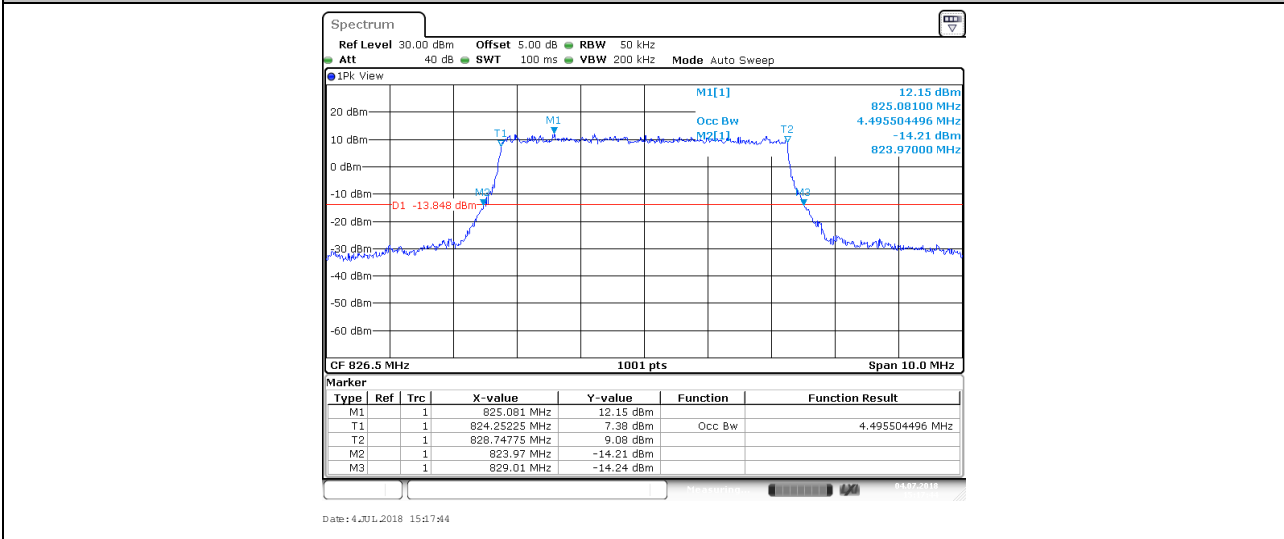


BAND5_5MHz_QPSK_20625_25RB#0

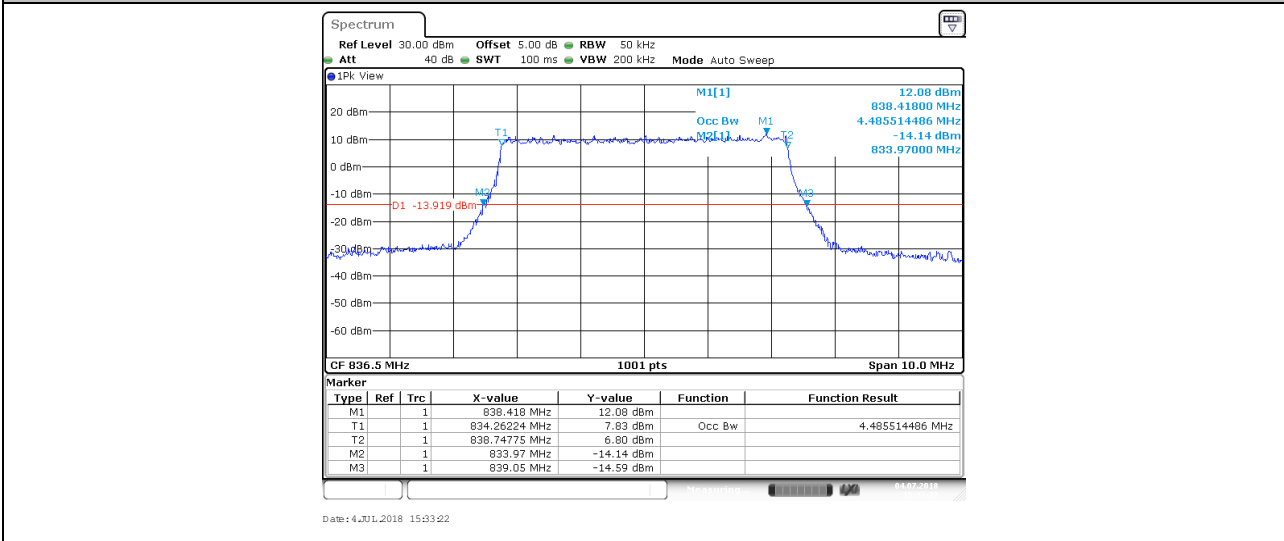
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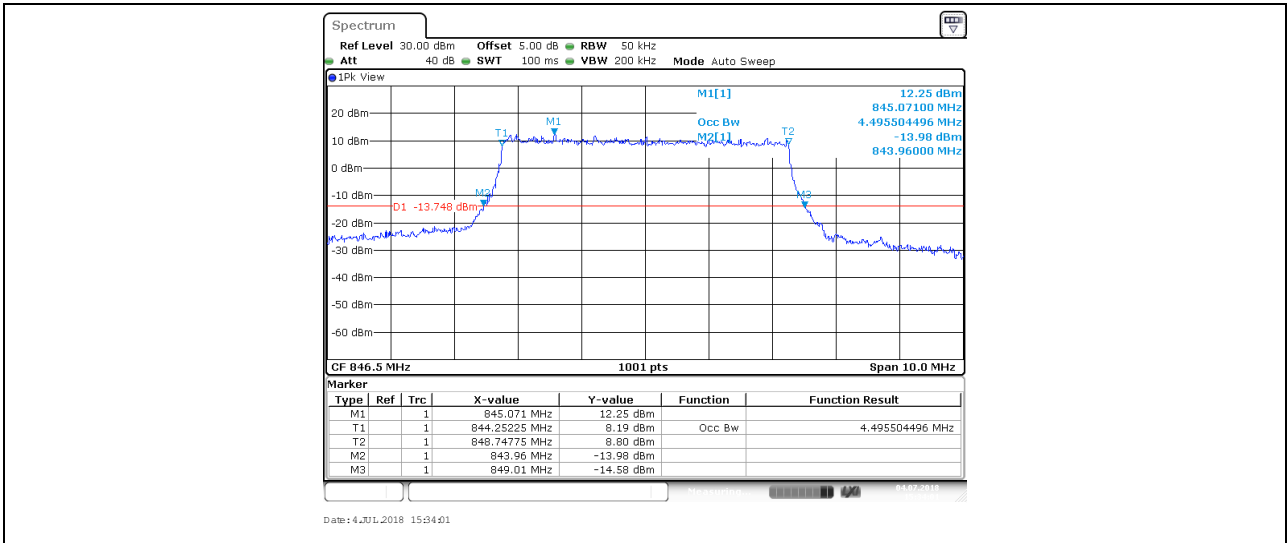
BAND5_5MHz_16QAM_20425_25RB#0



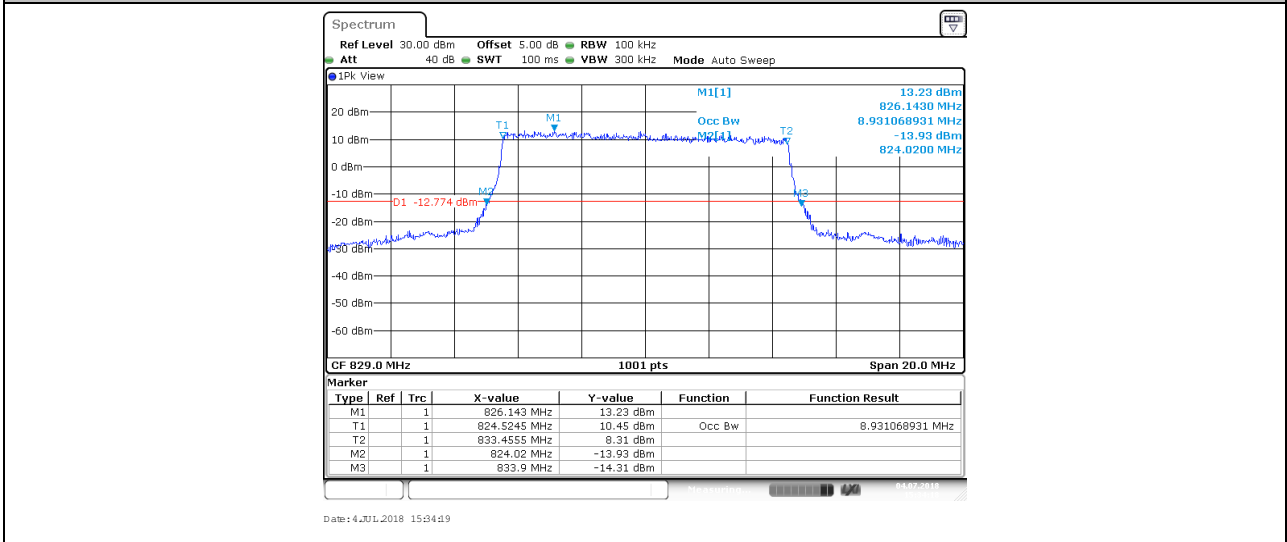
BAND5_5MHz_16QAM_20525_25RB#0



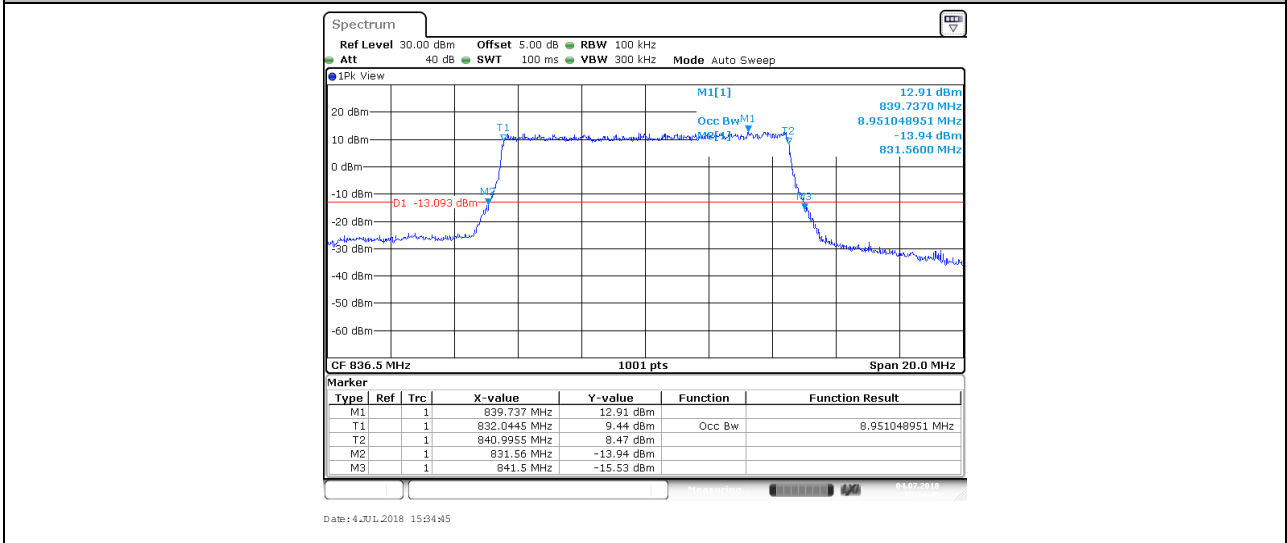
BAND5_5MHz_16QAM_20625_25RB#0



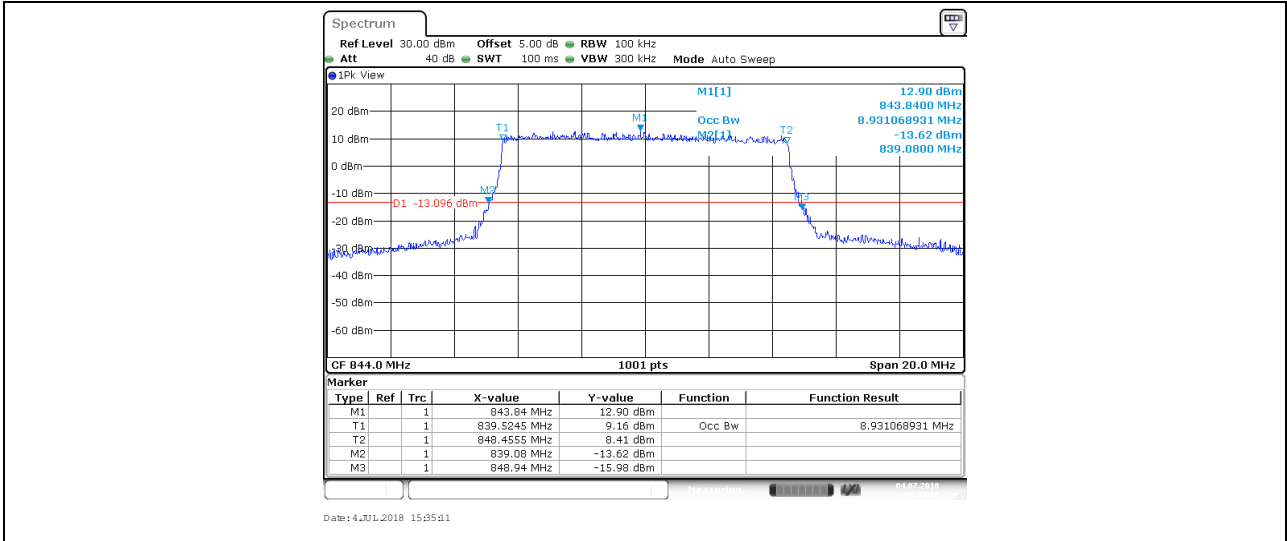
BAND5_10MHz_QPSK_20450_50RB#0



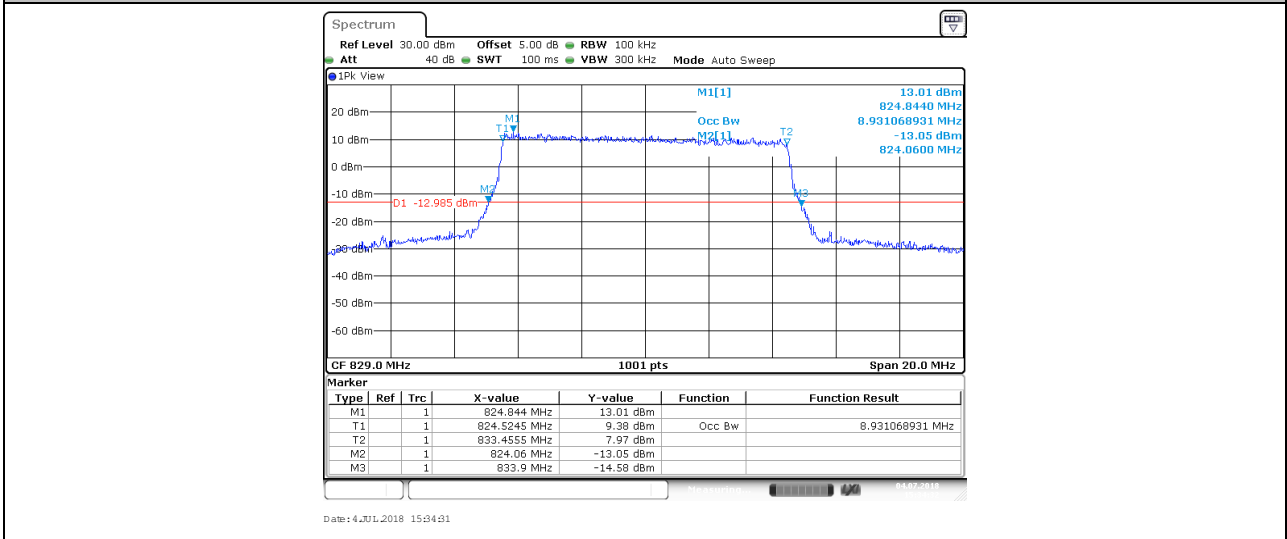
BAND5_10MHz_QPSK_20525_50RB#0



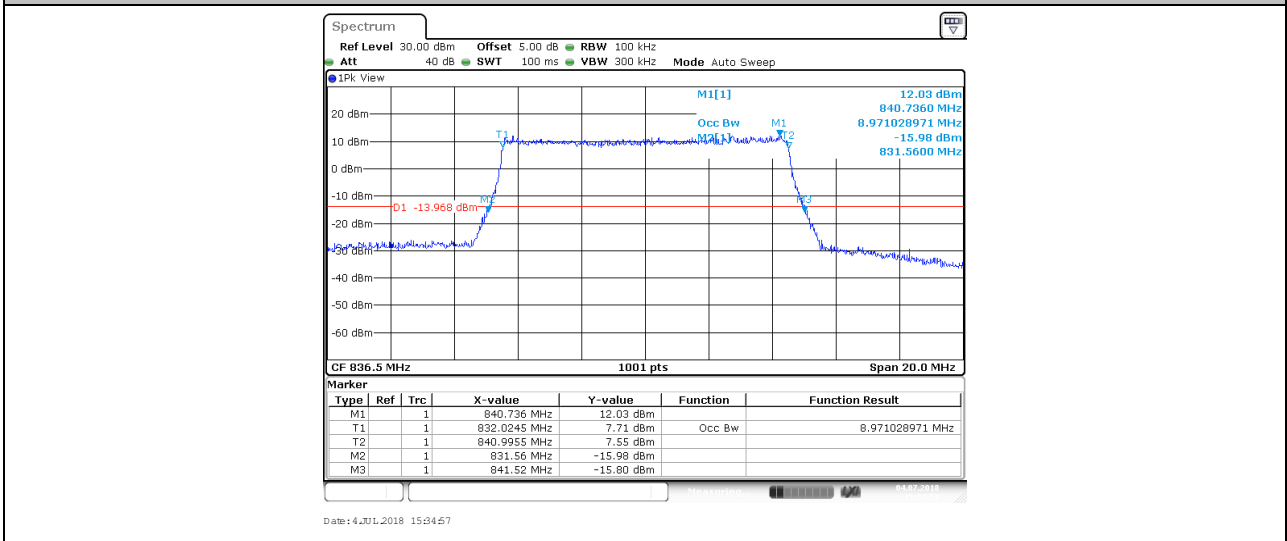
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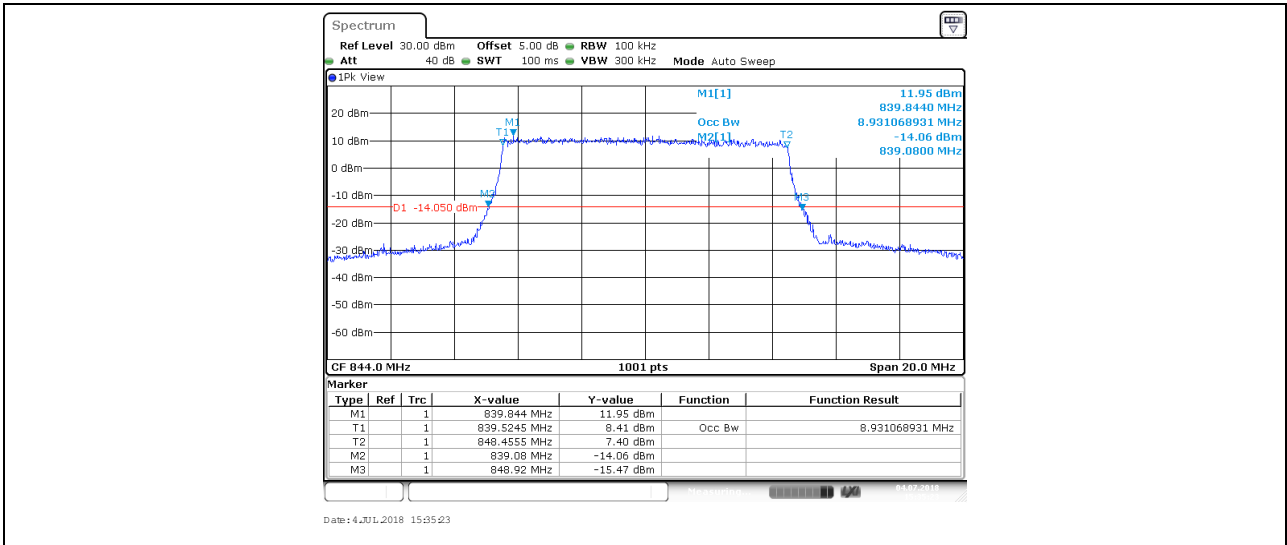
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BAND5_10MHz_16QAM_20525_50RB#0



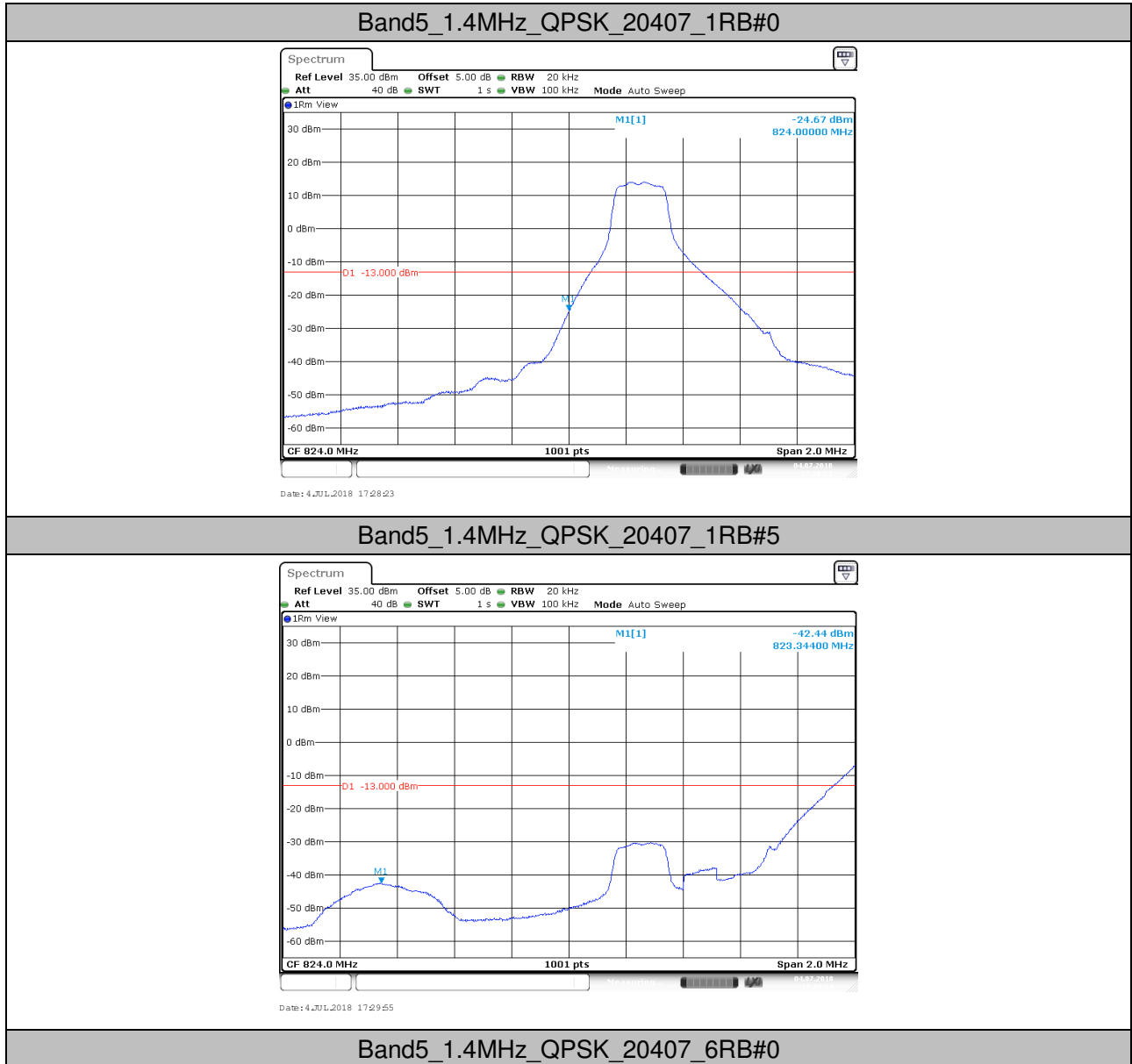
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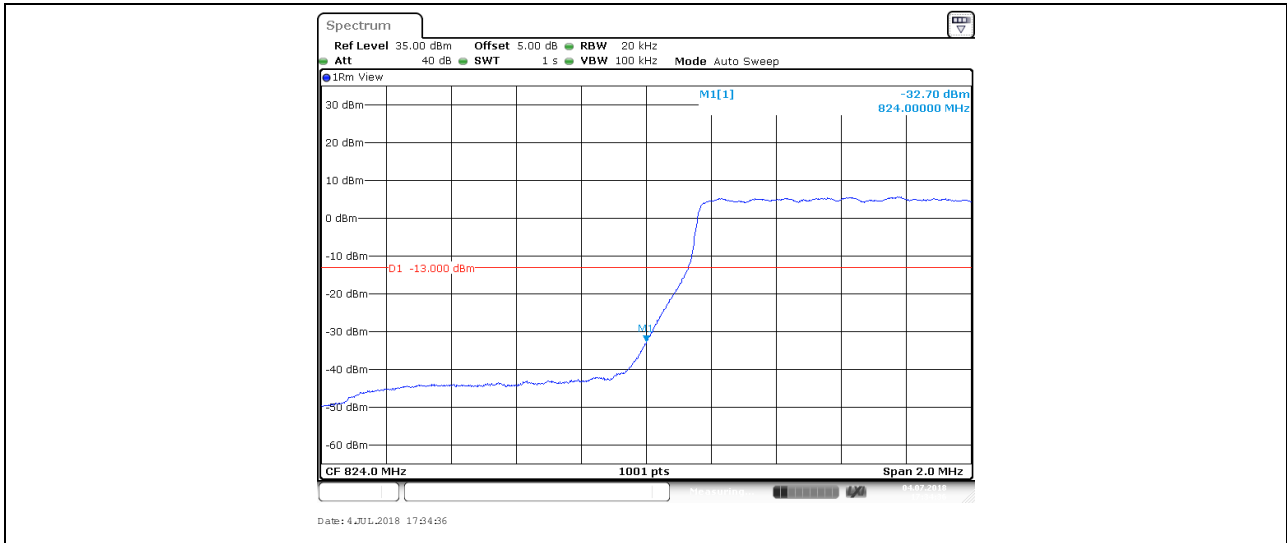




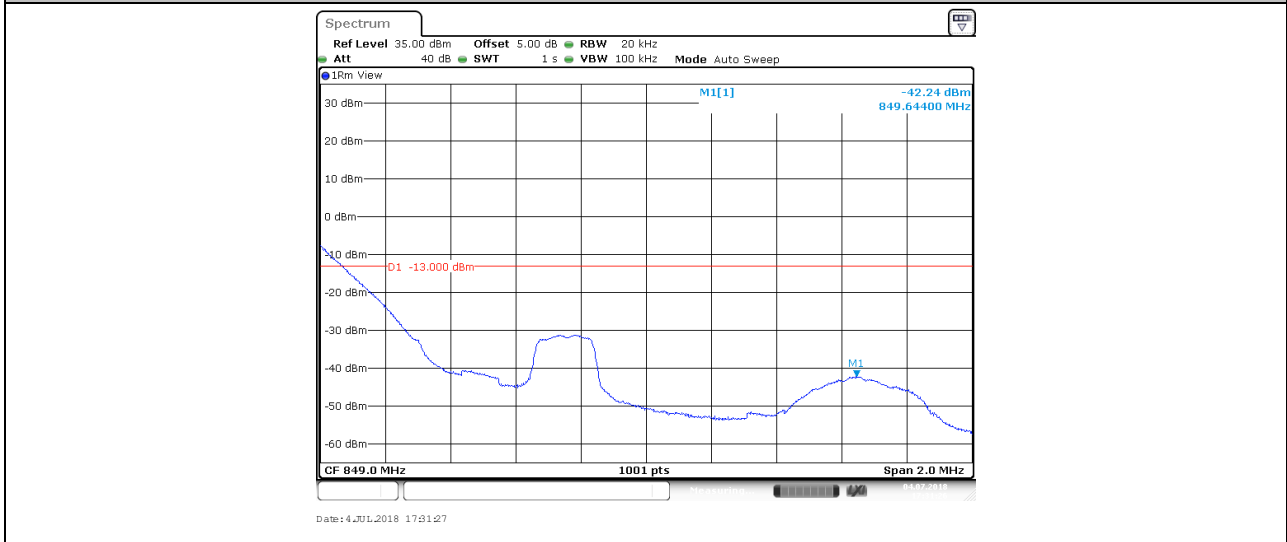
5. Band Edge Compliance

5.1. Test Plots

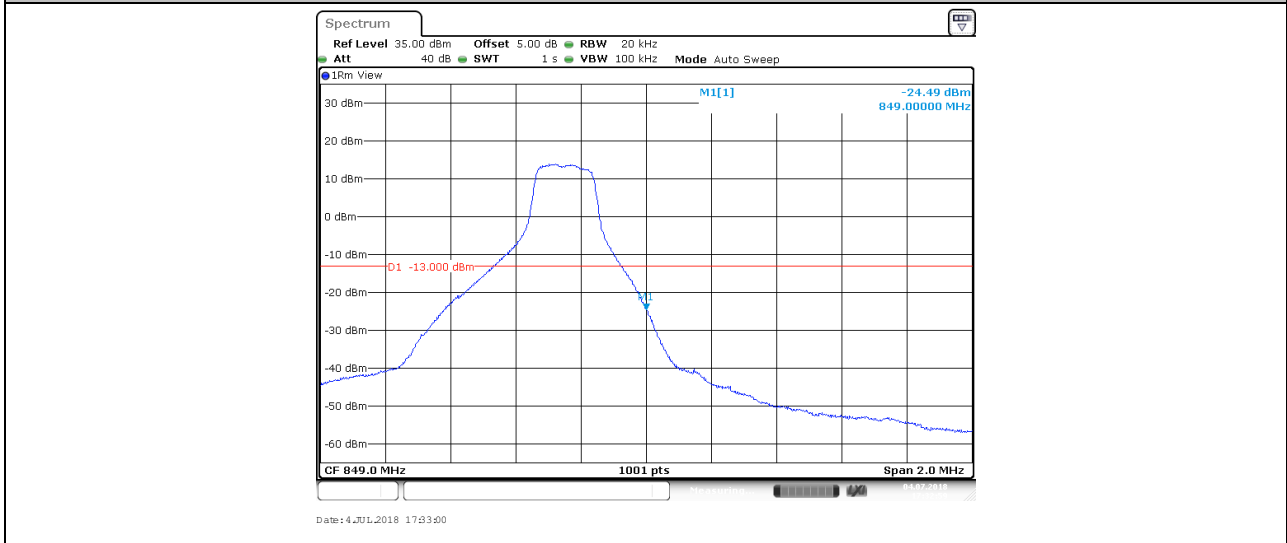




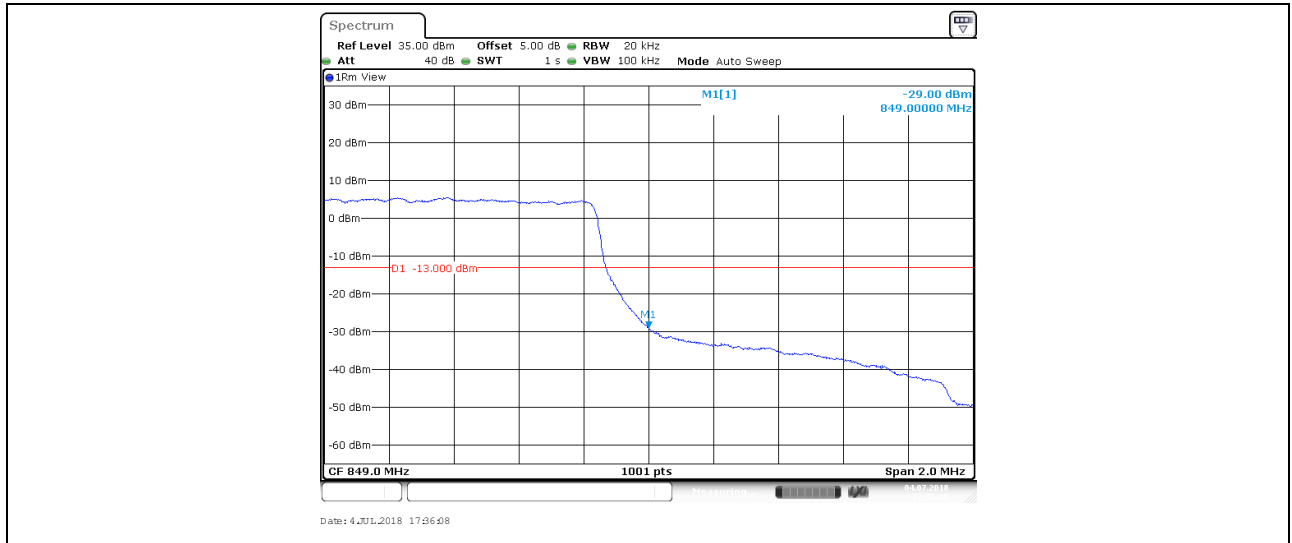
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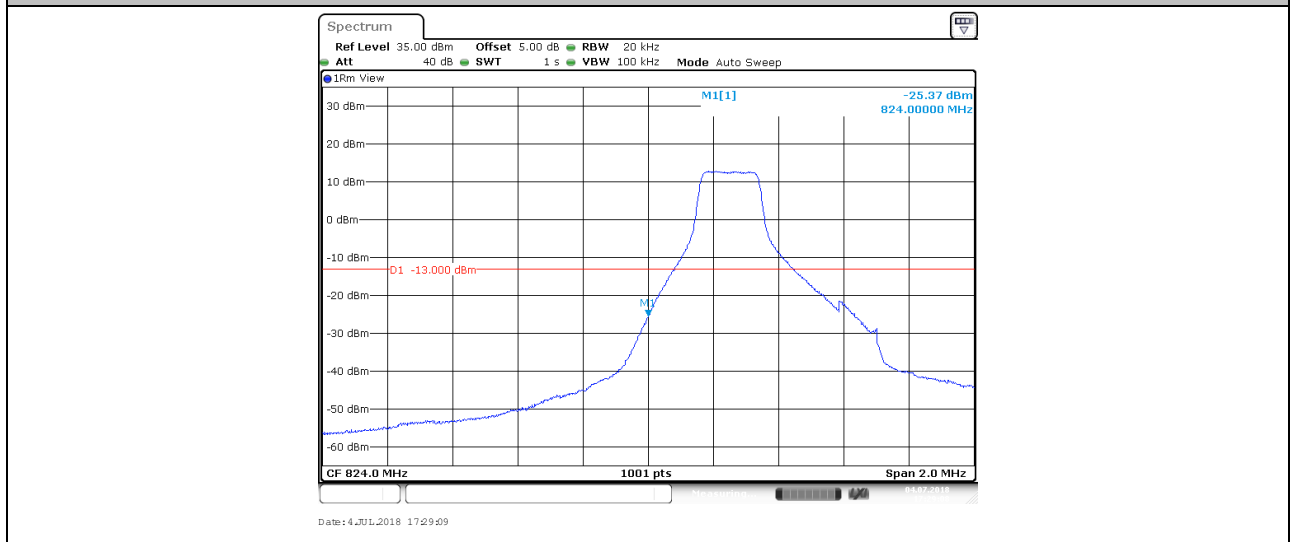
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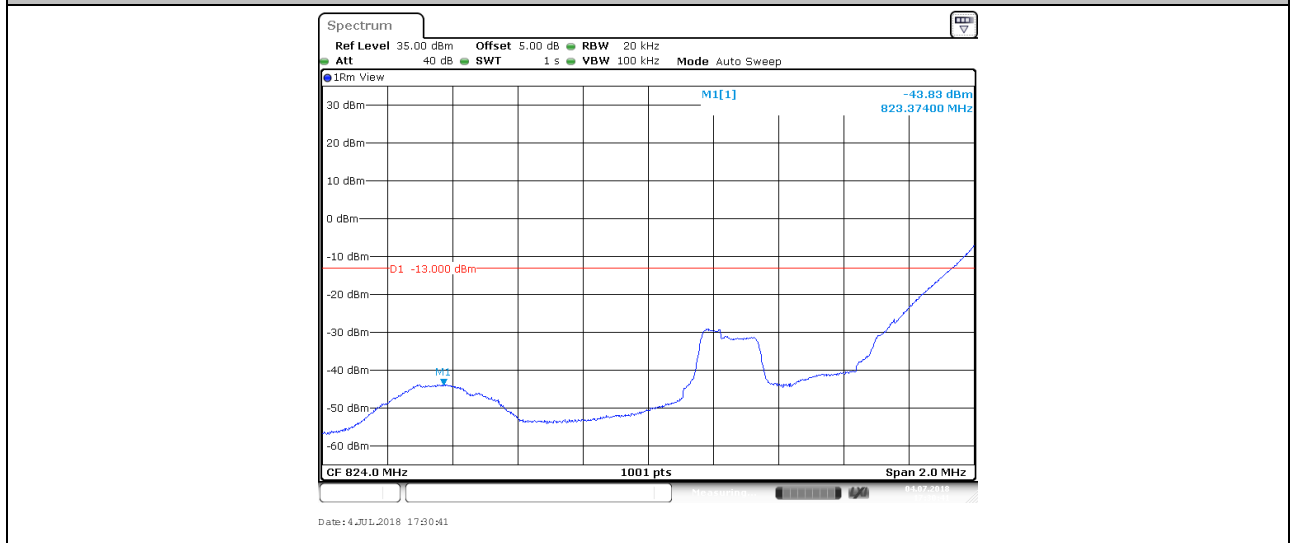
Band5_1.4MHz_QPSK_20643_6RB#0



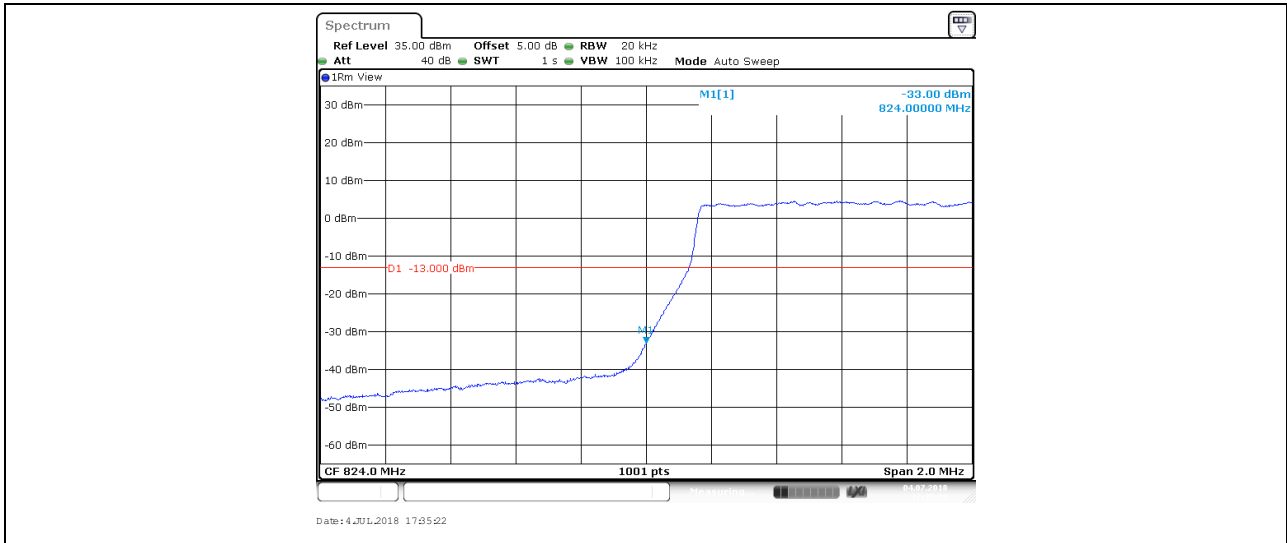
Band5_1.4MHz_16QAM_20407_1RB#0



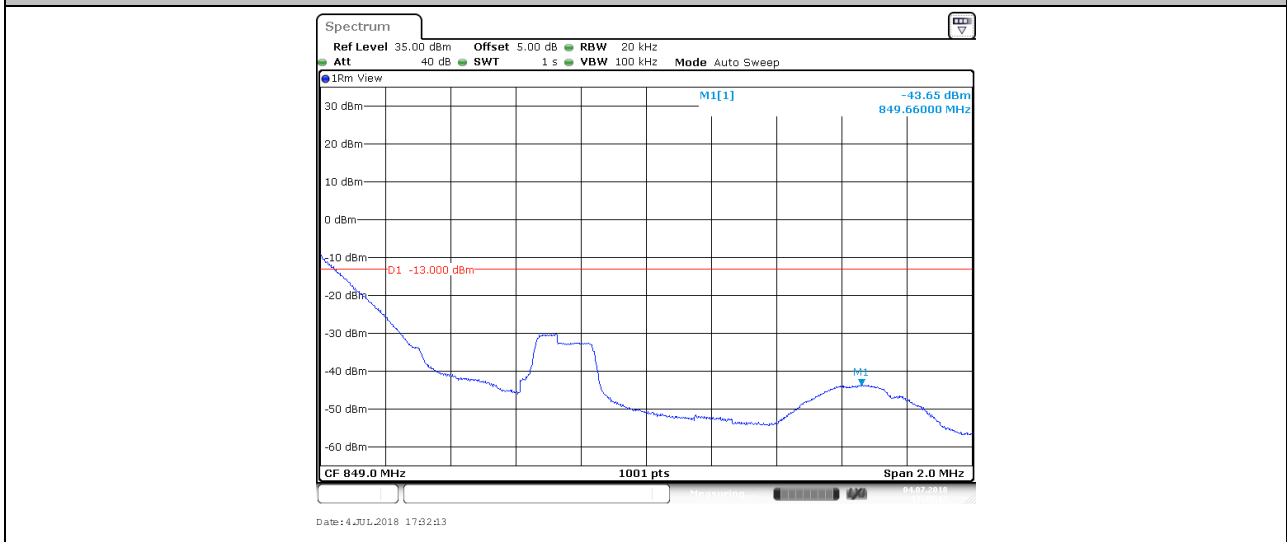
Band5_1.4MHz_16QAM_20407_1RB#5



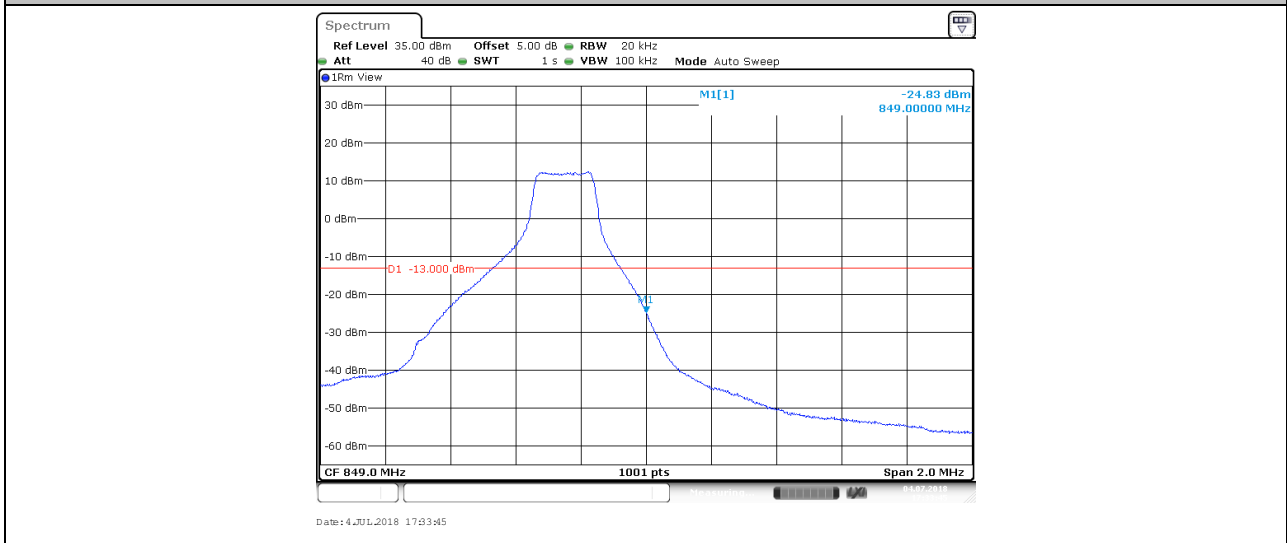
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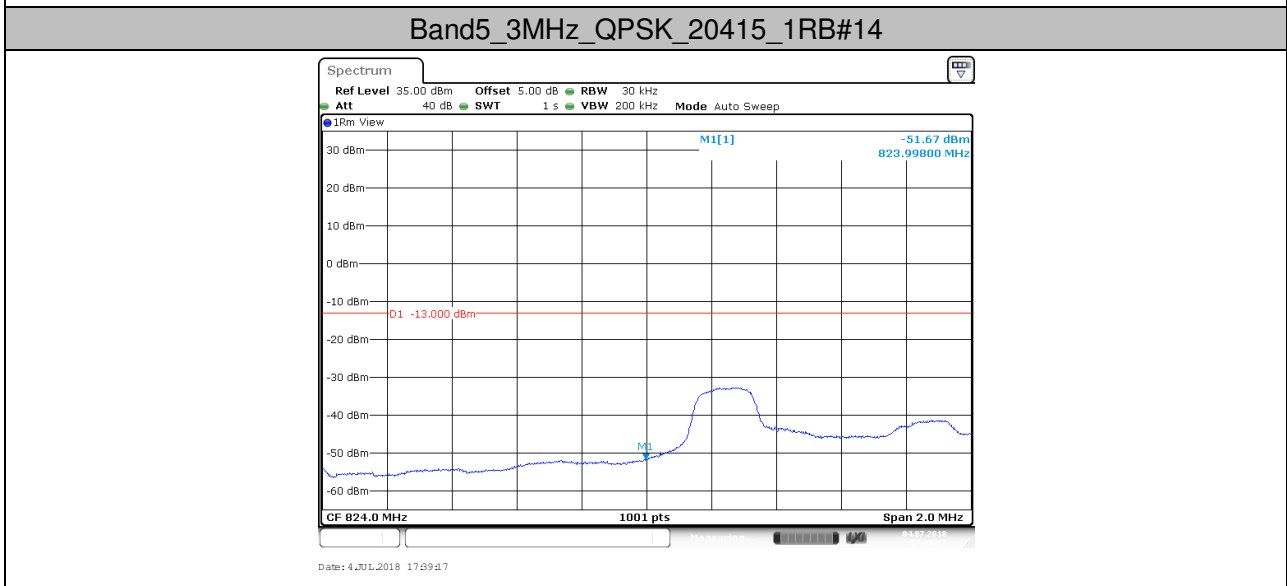
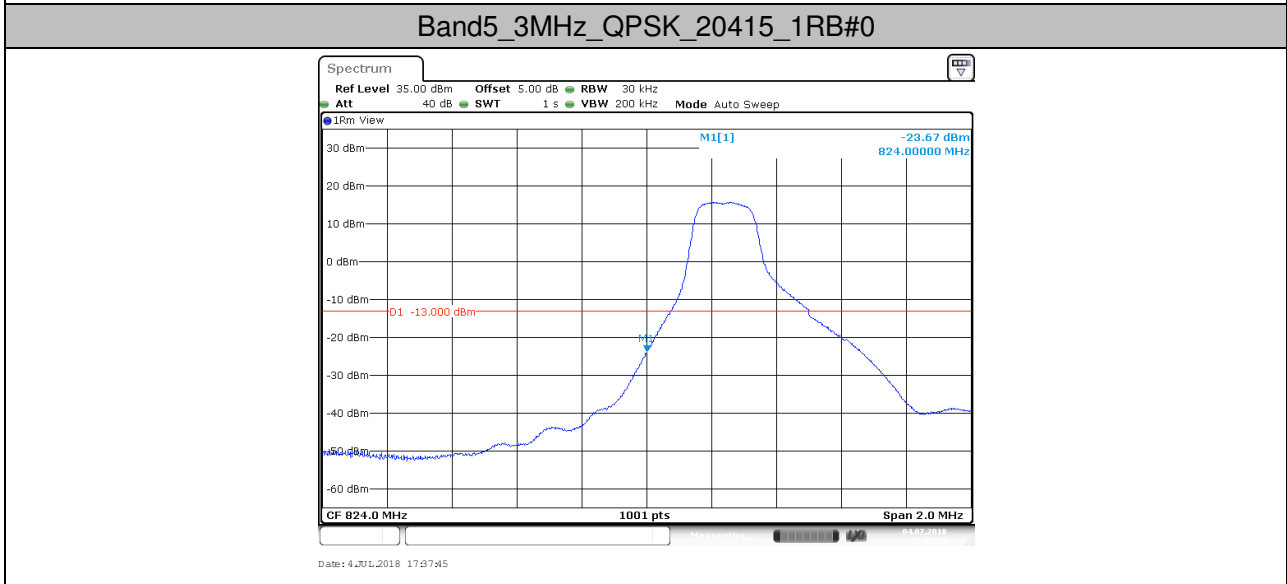
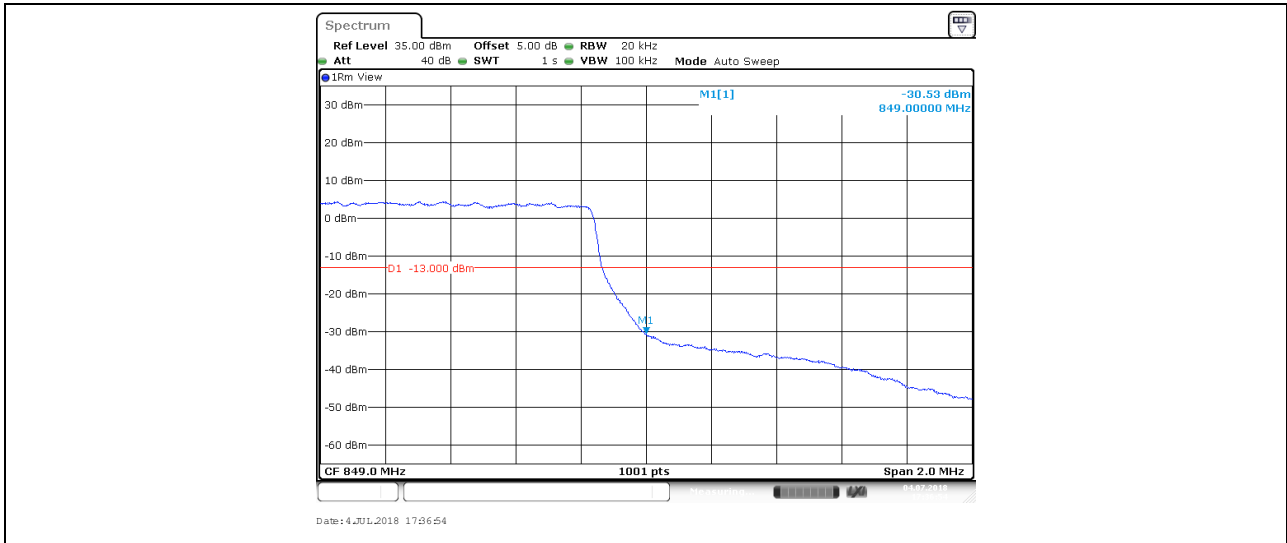
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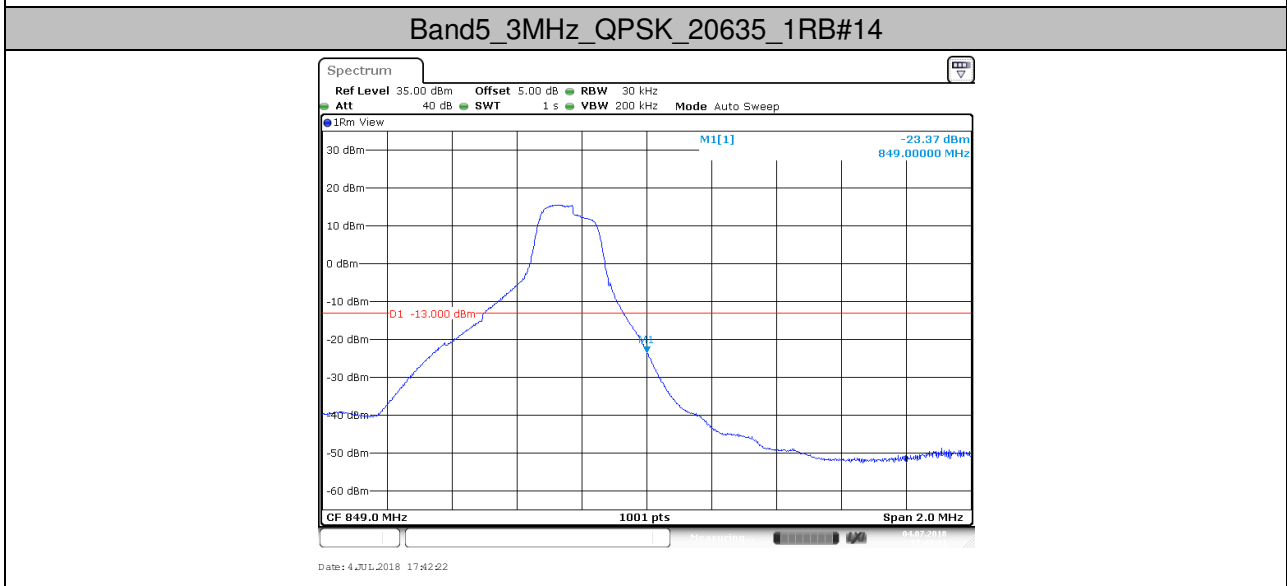
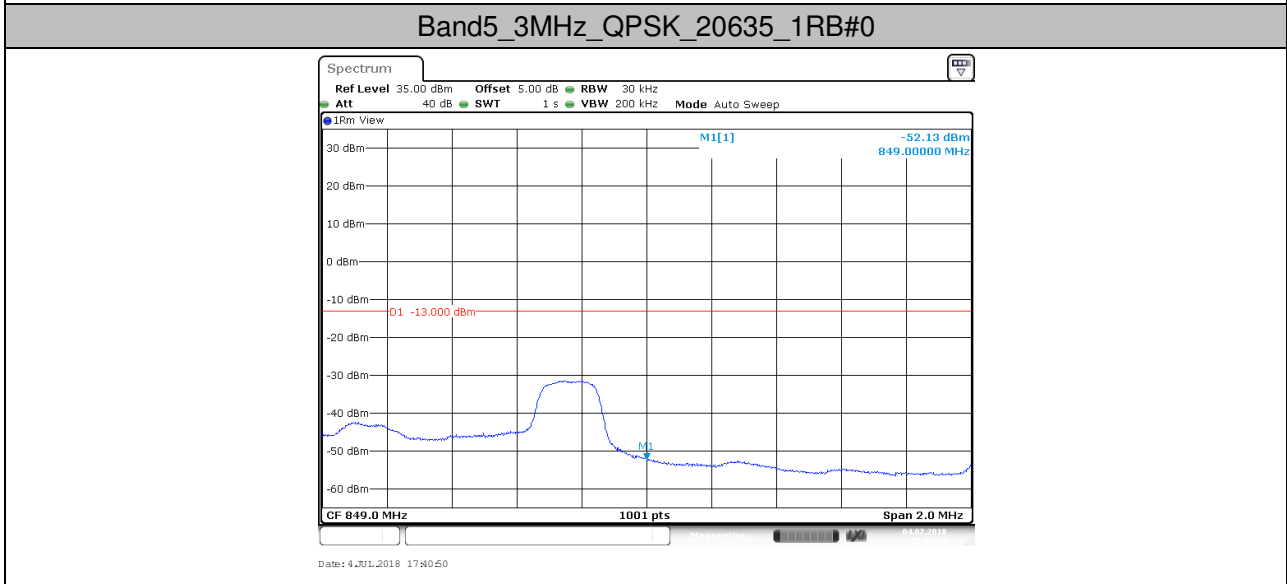
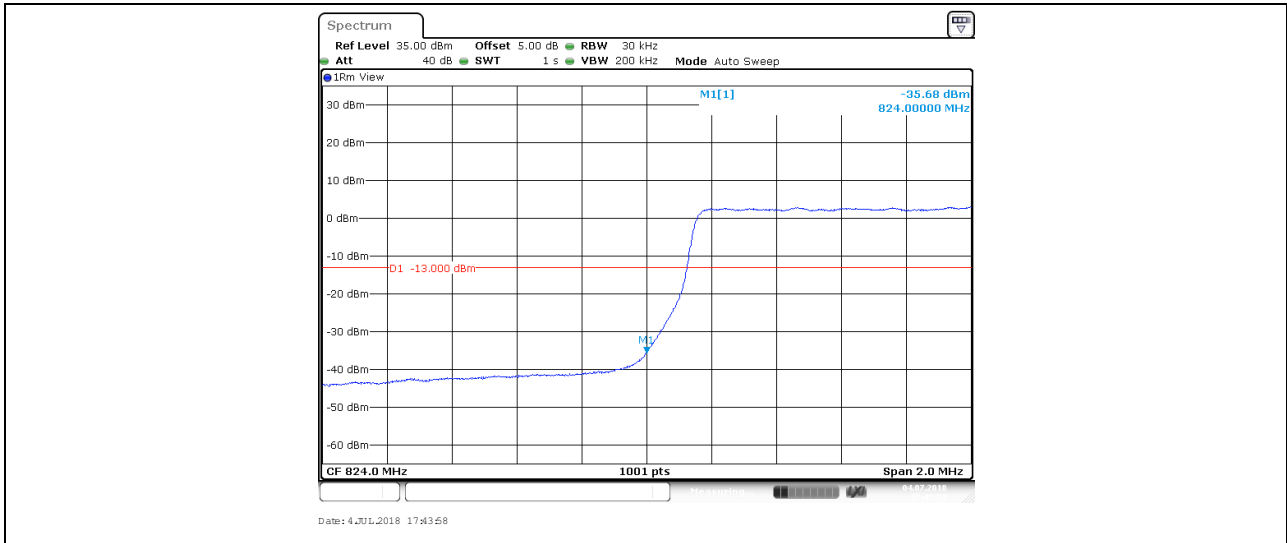
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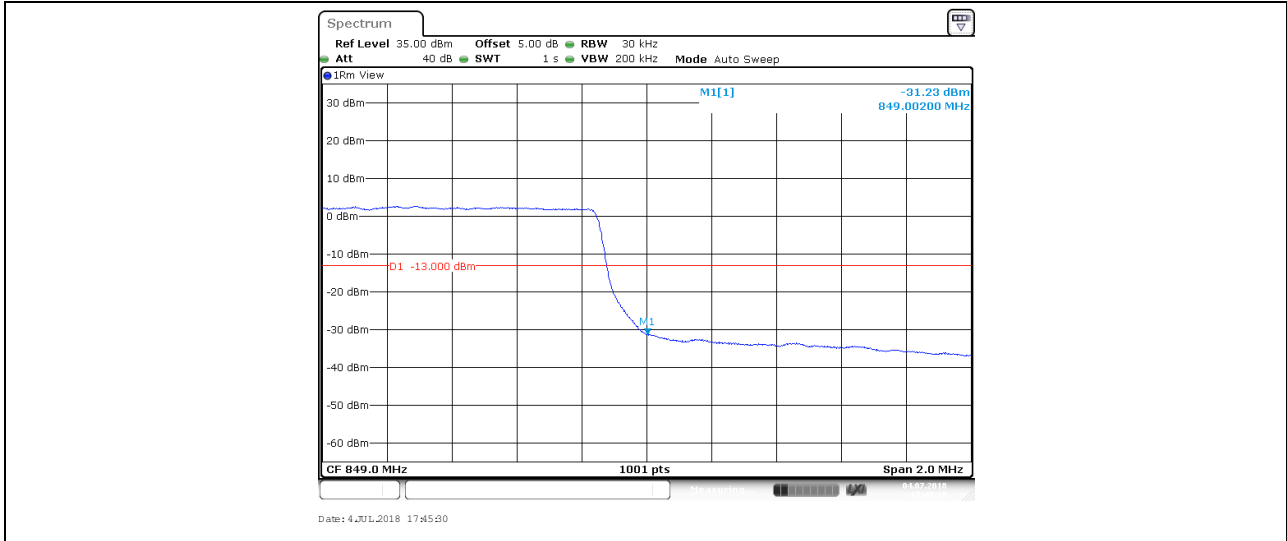
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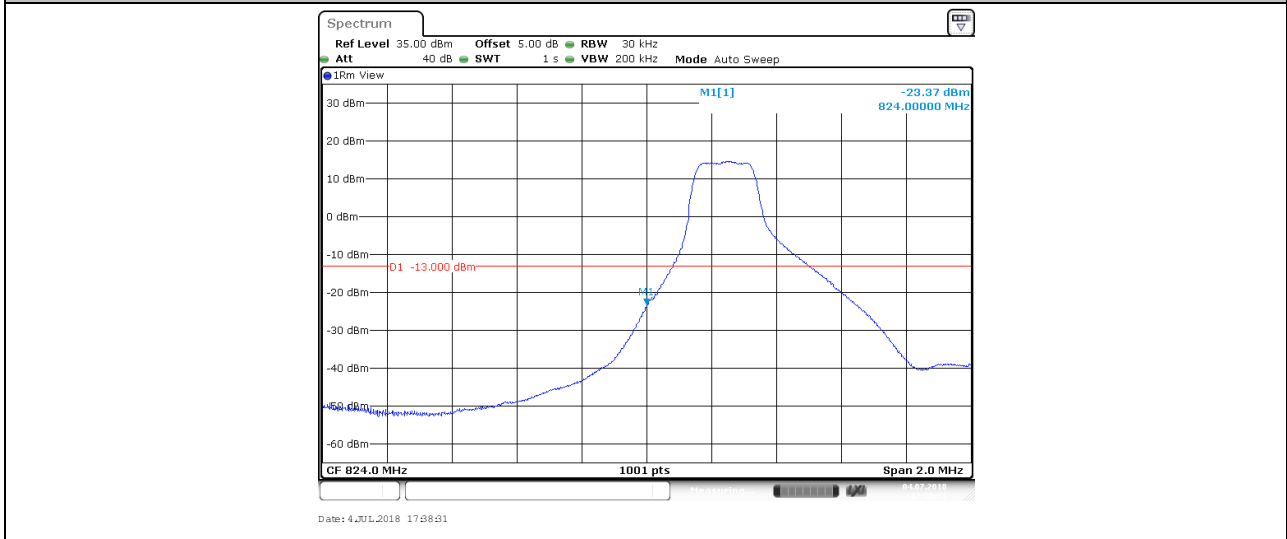
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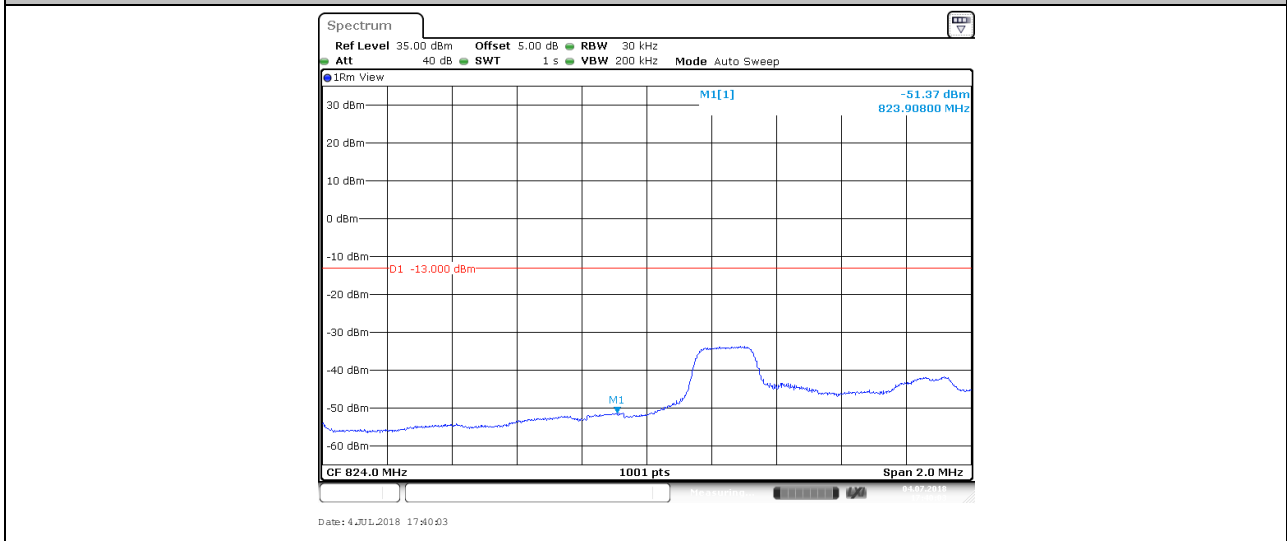
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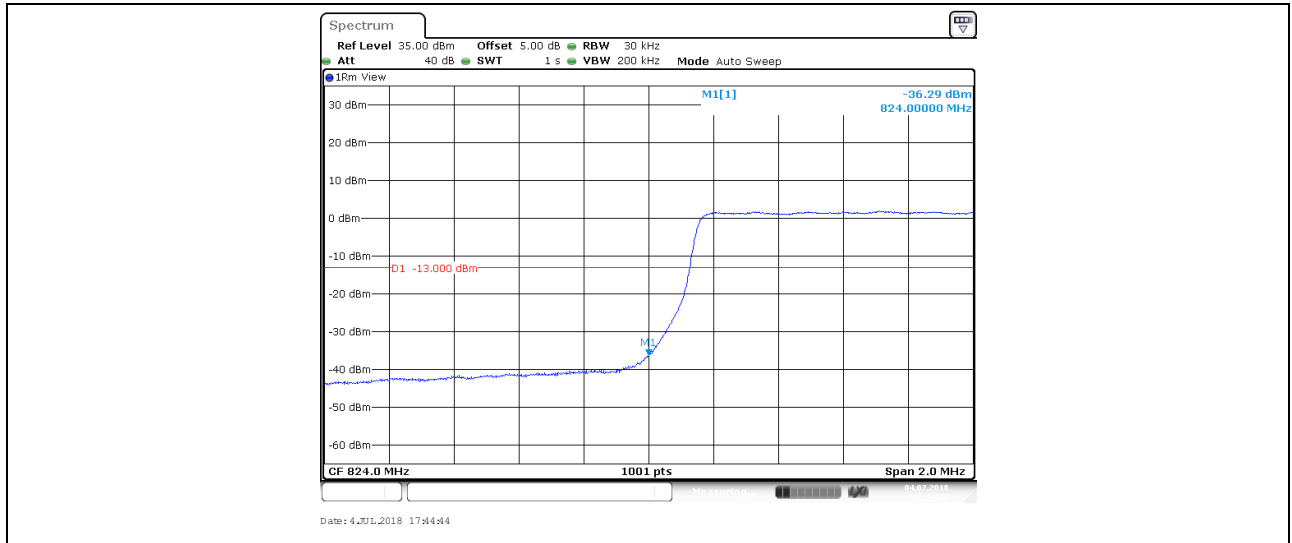
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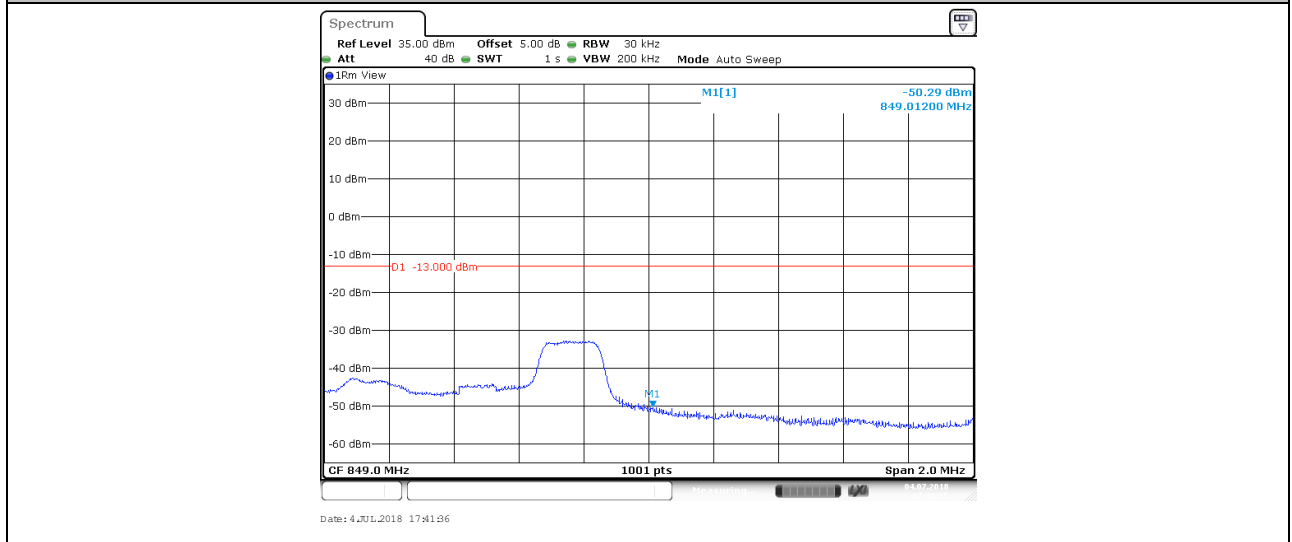
Band5_3MHz_16QAM_20415_1RB#14



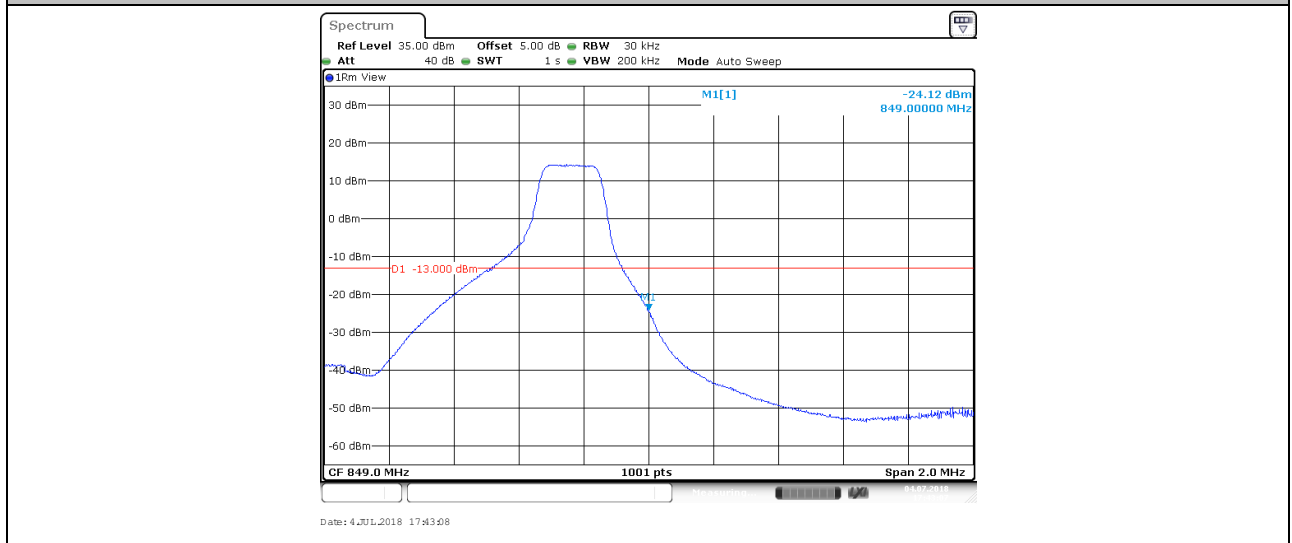
Band5_3MHz_16QAM_20415_15RB#0



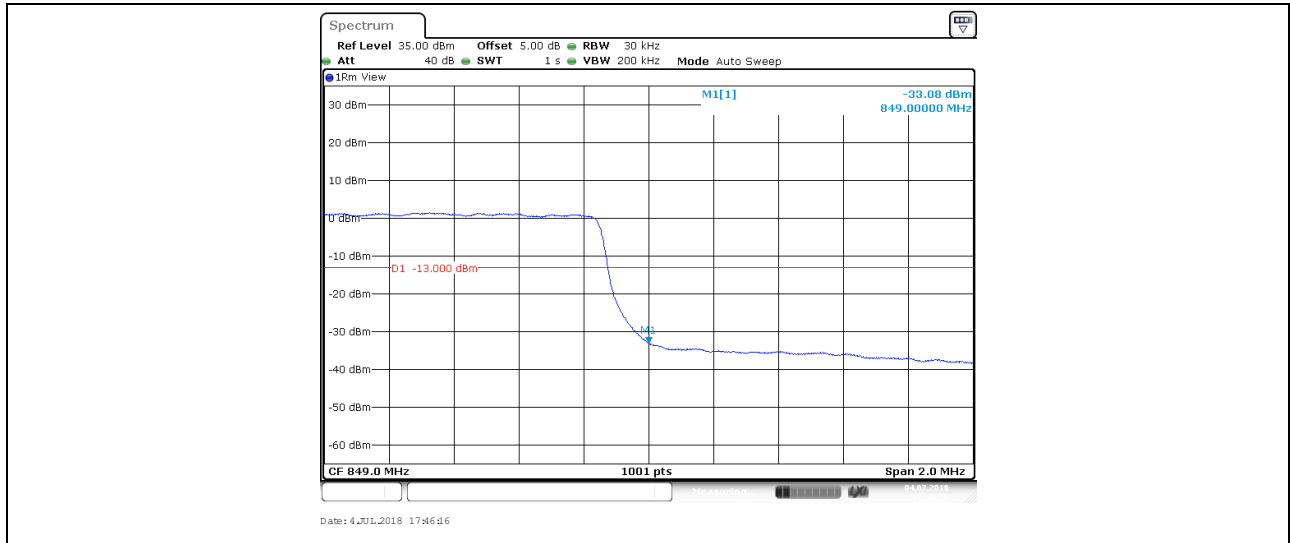
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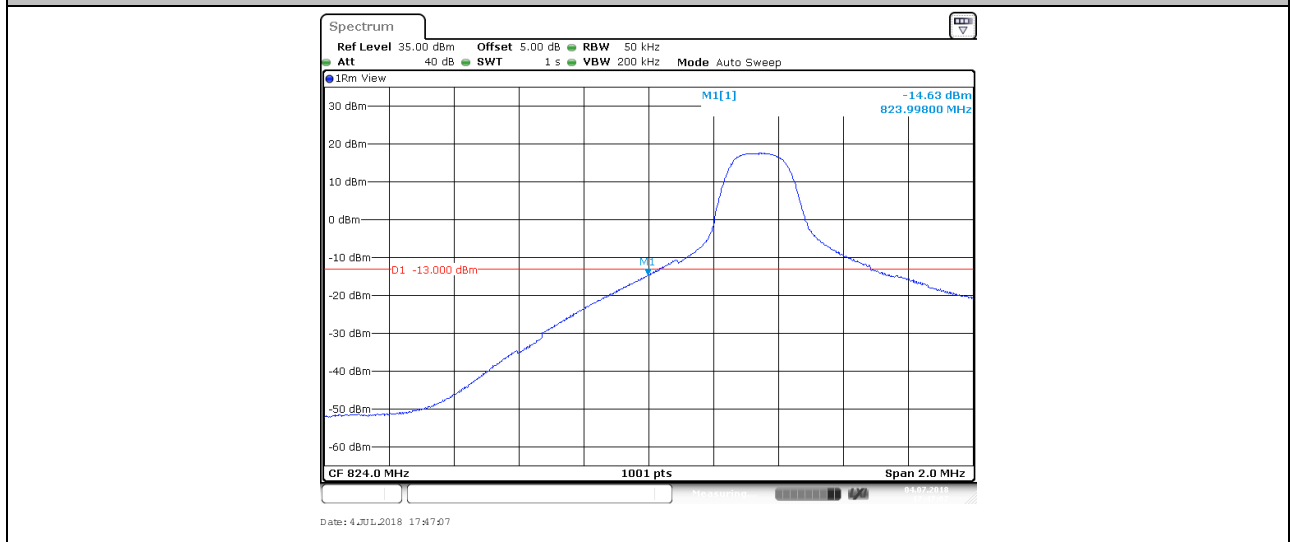
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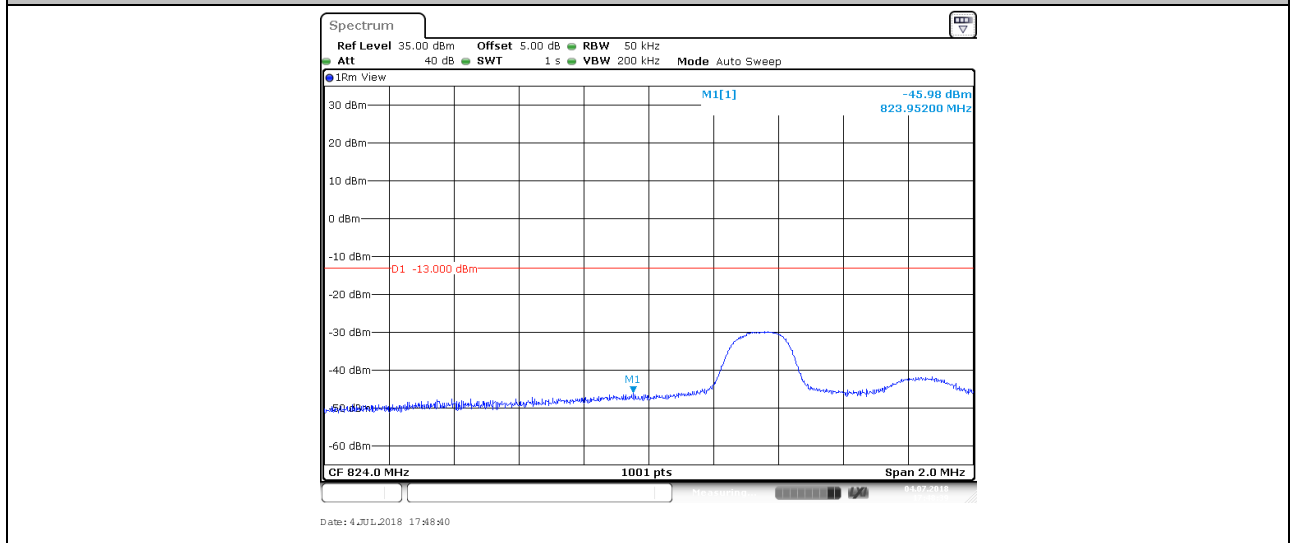
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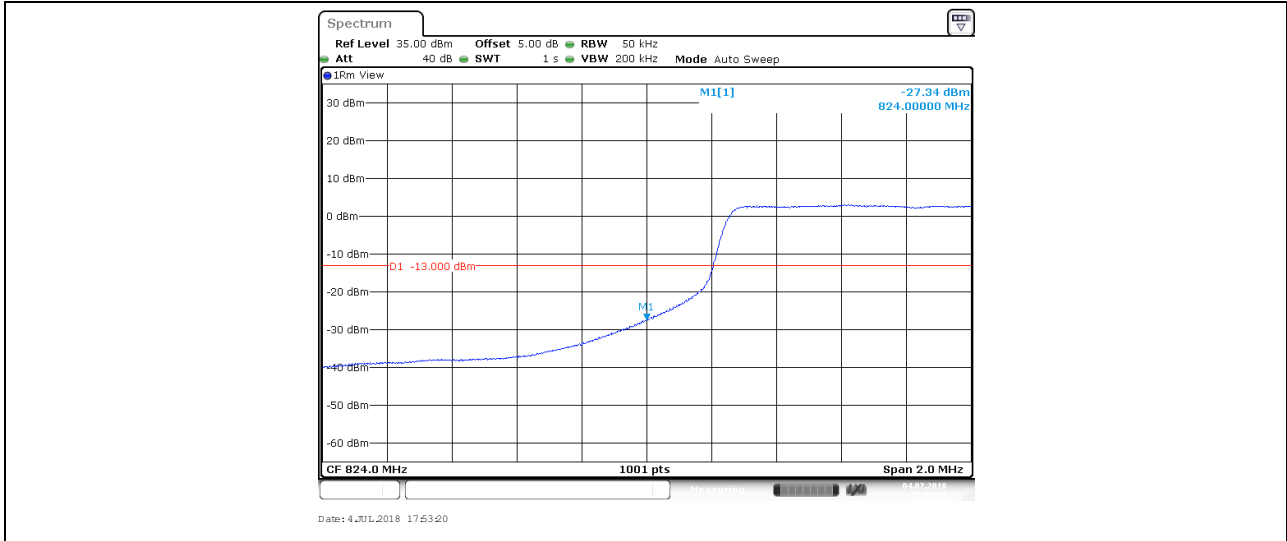
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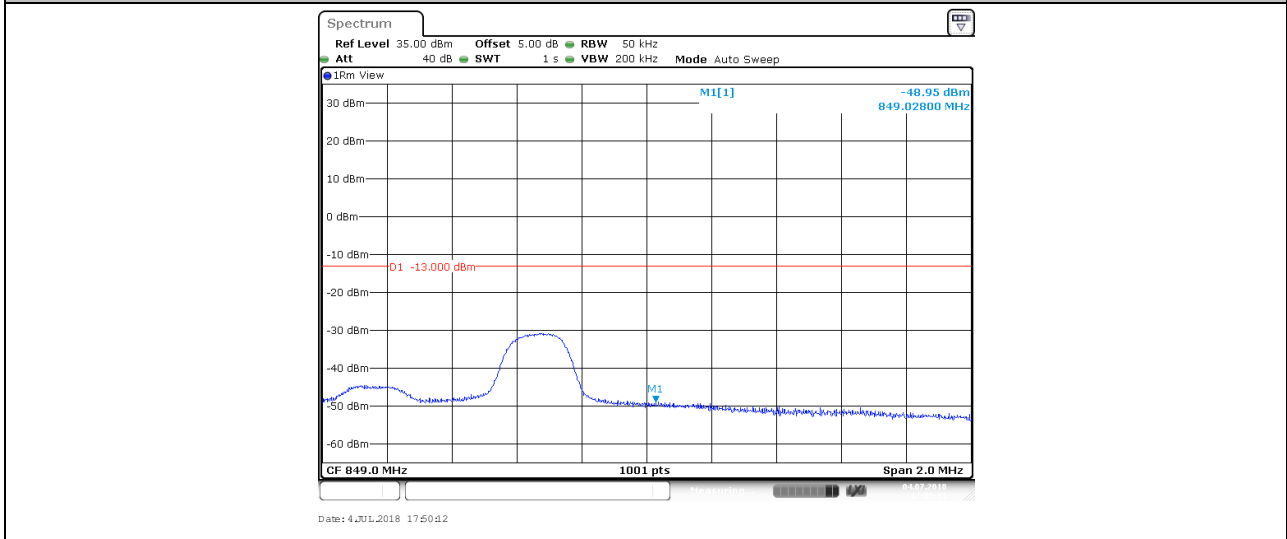
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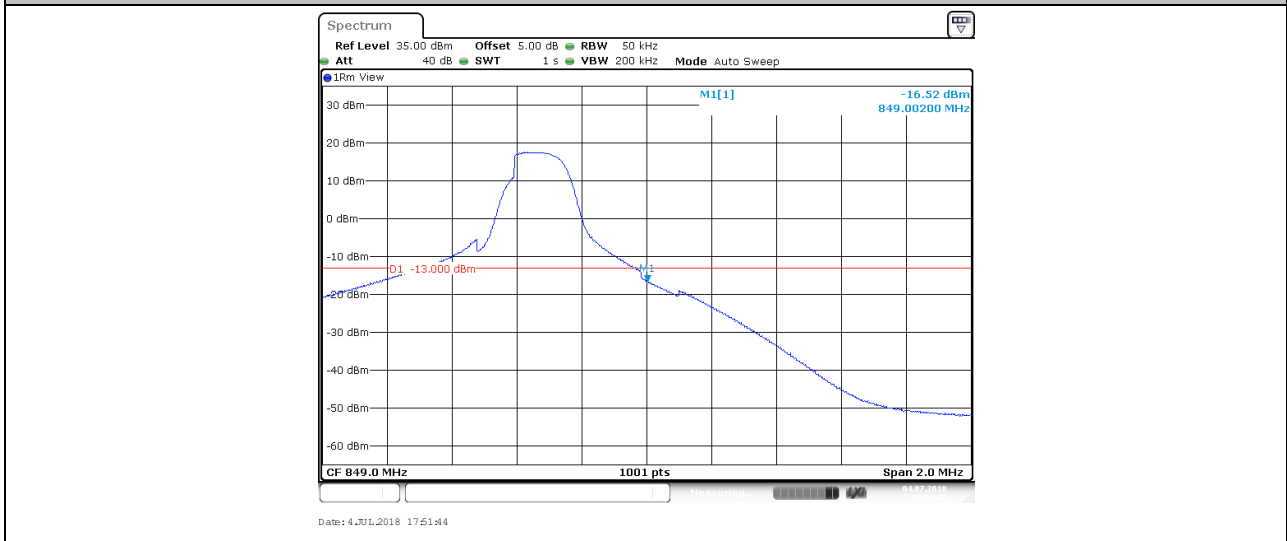
Band5_5MHz_QPSK_20425_25RB#0



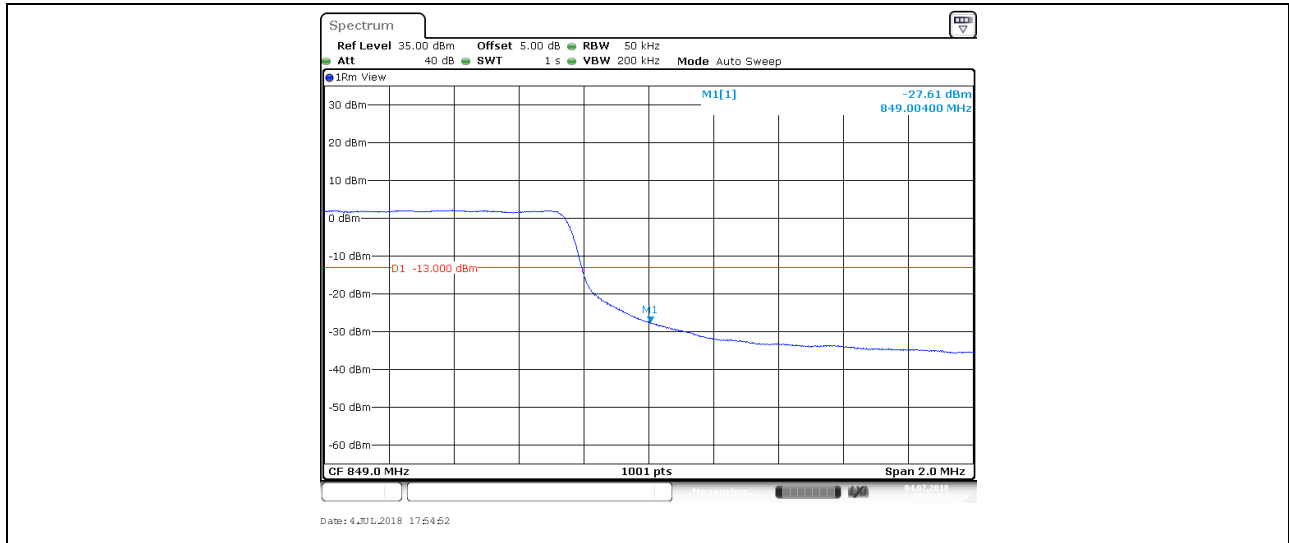
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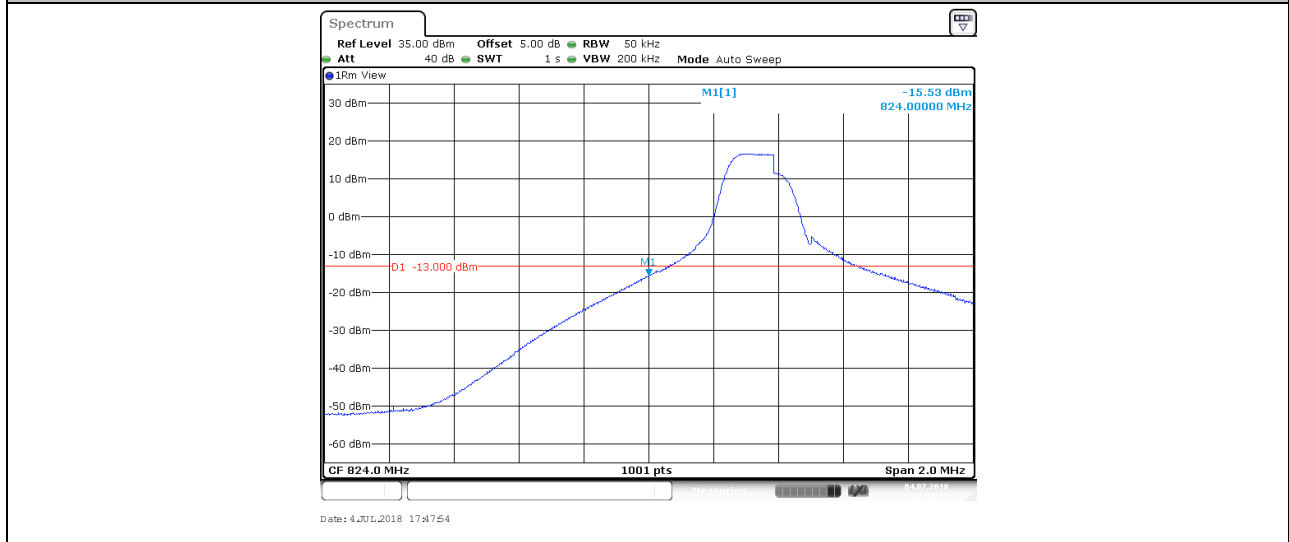
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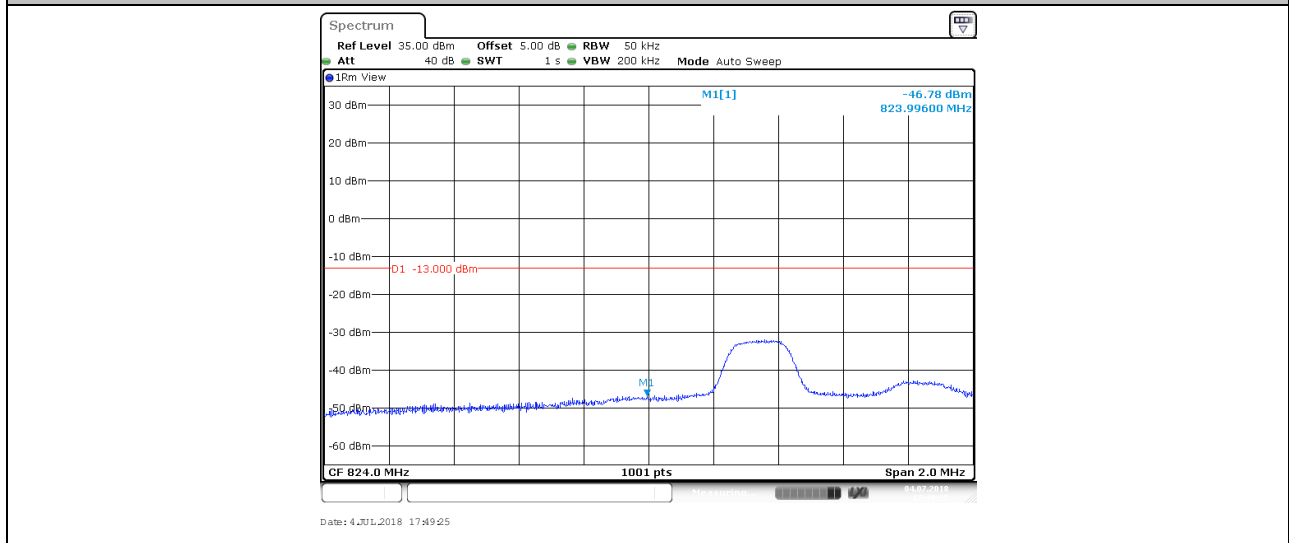
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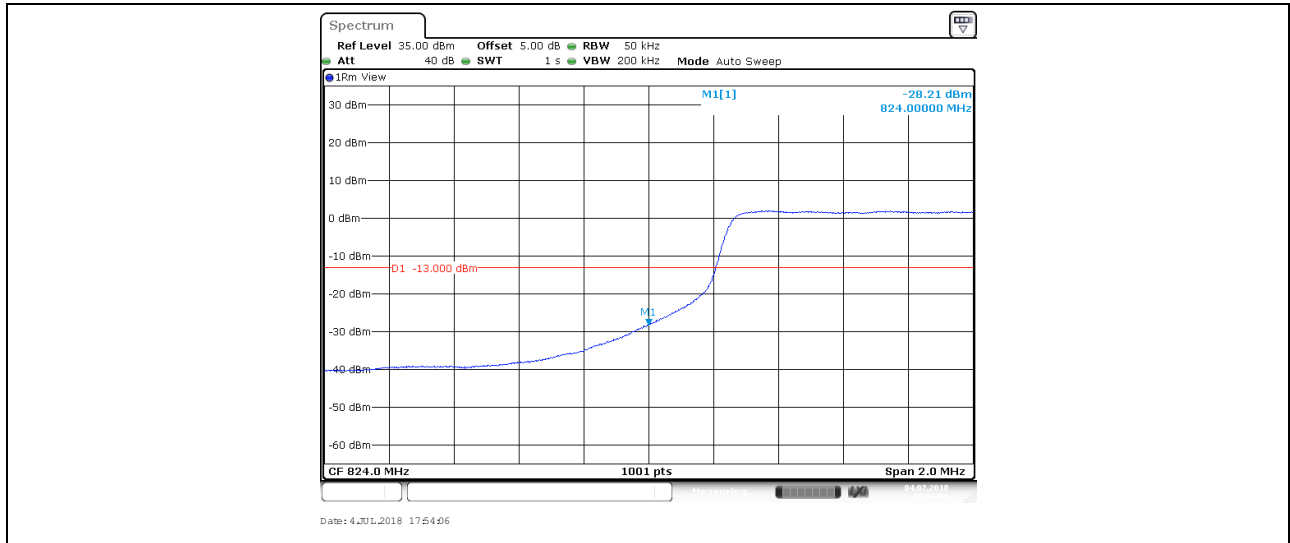
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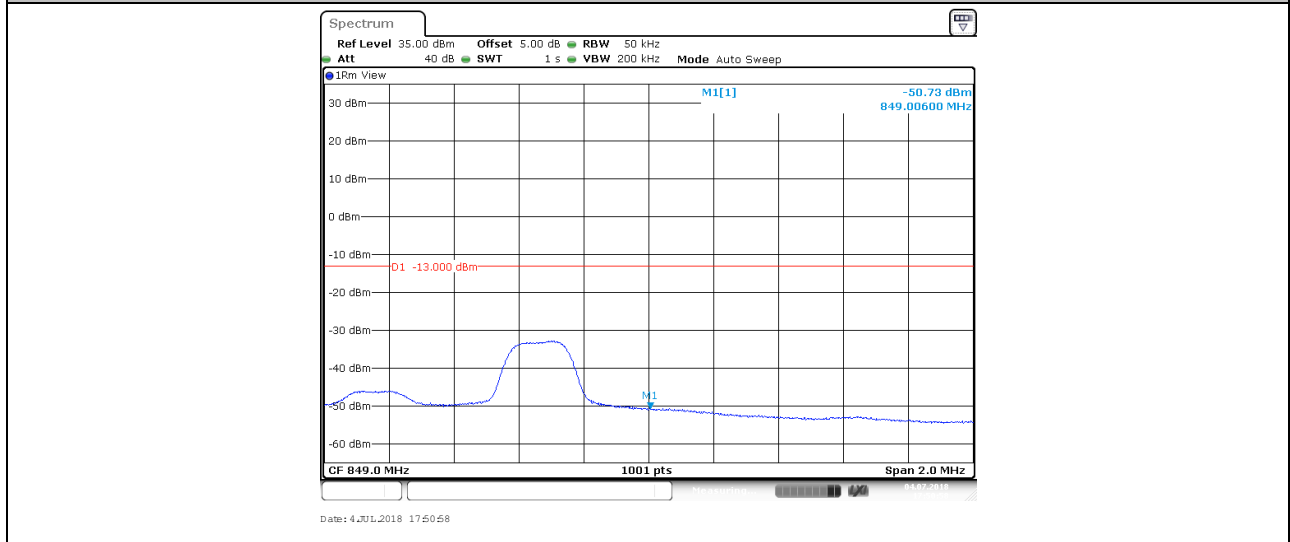
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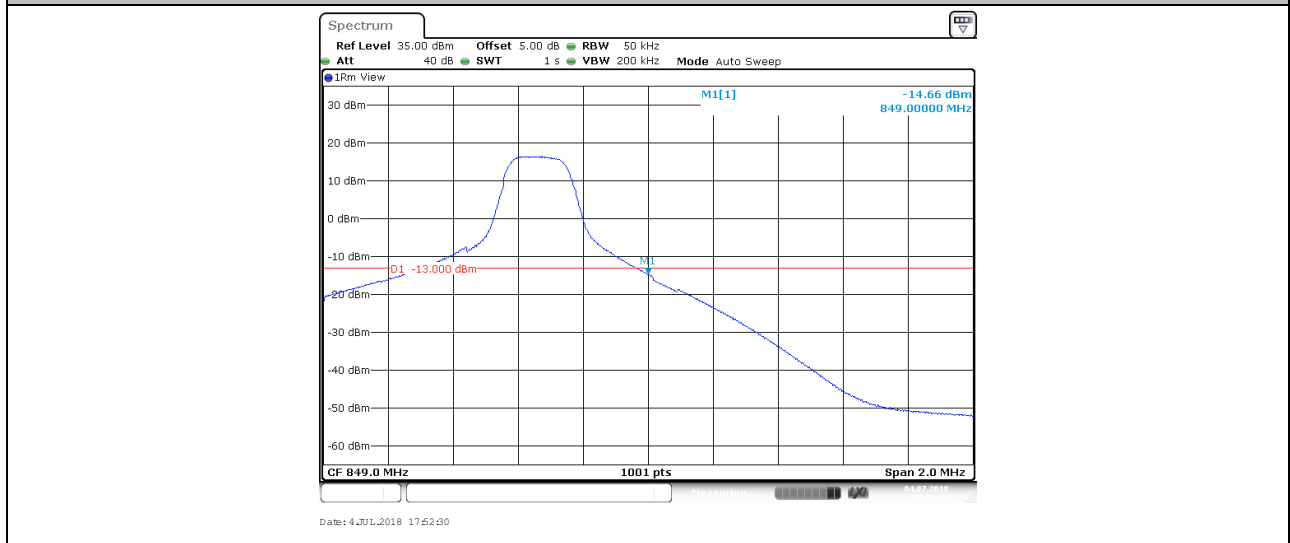
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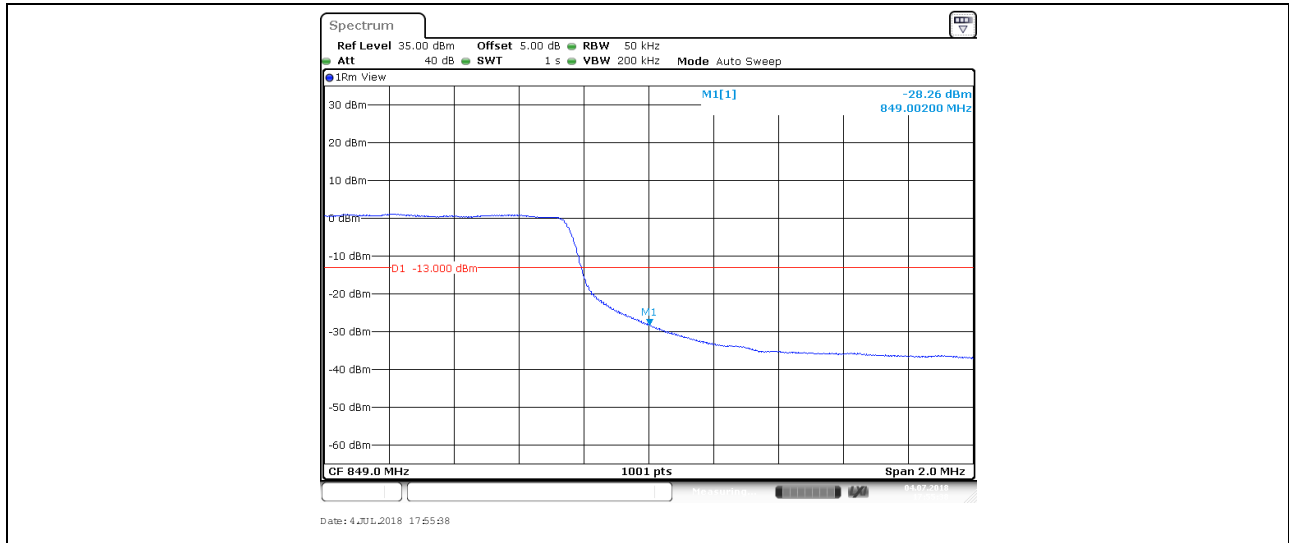
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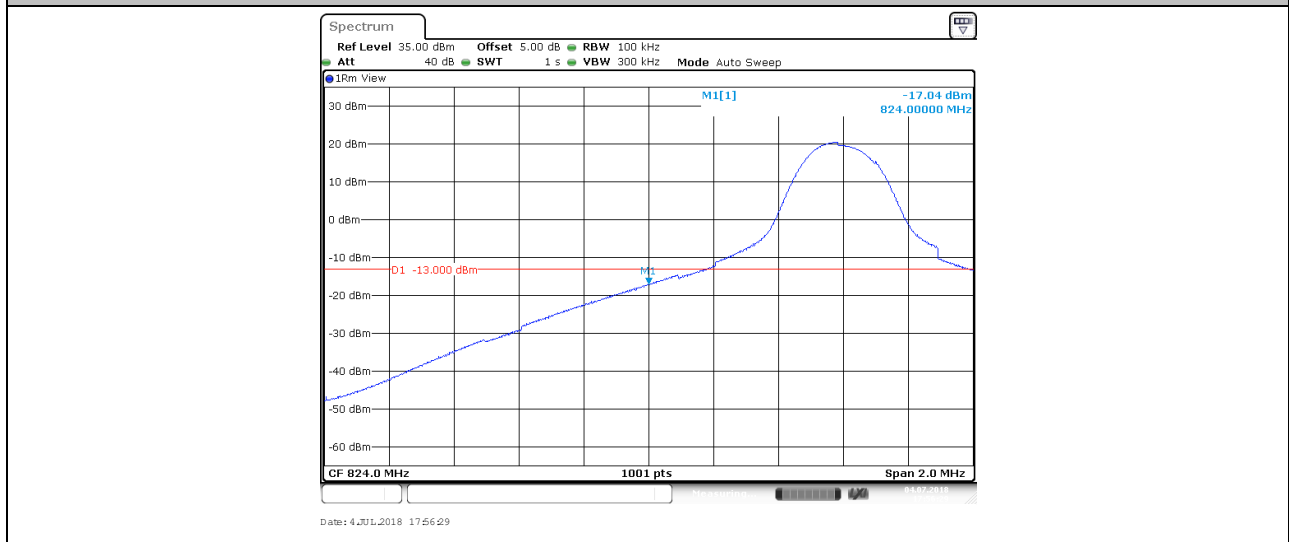
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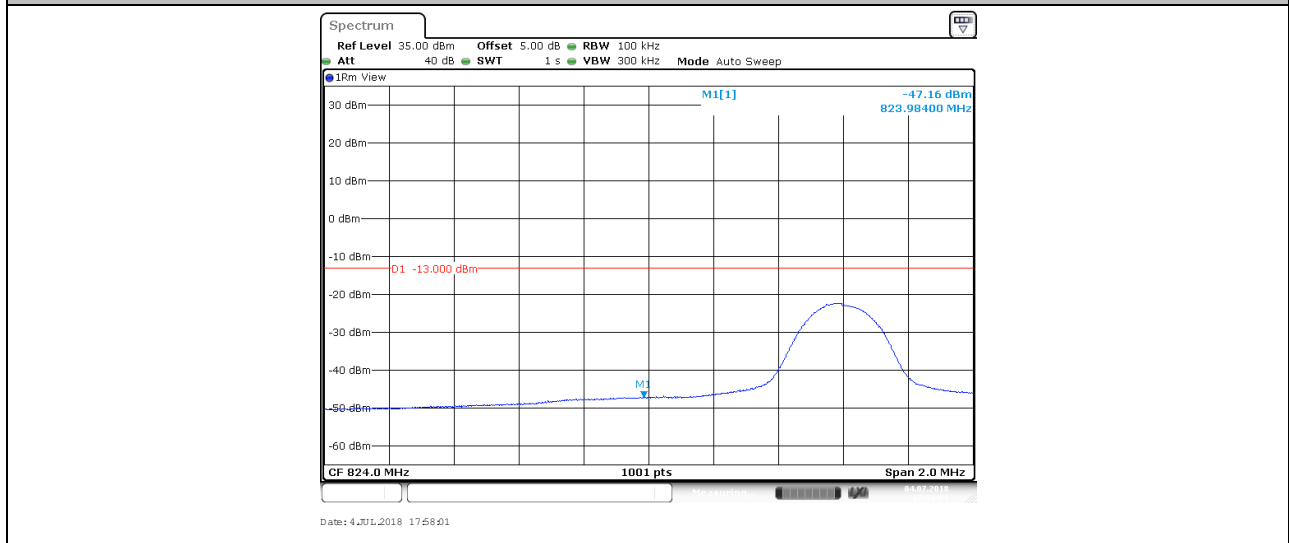
Band5_5MHz_16QAM_20625_25RB#0



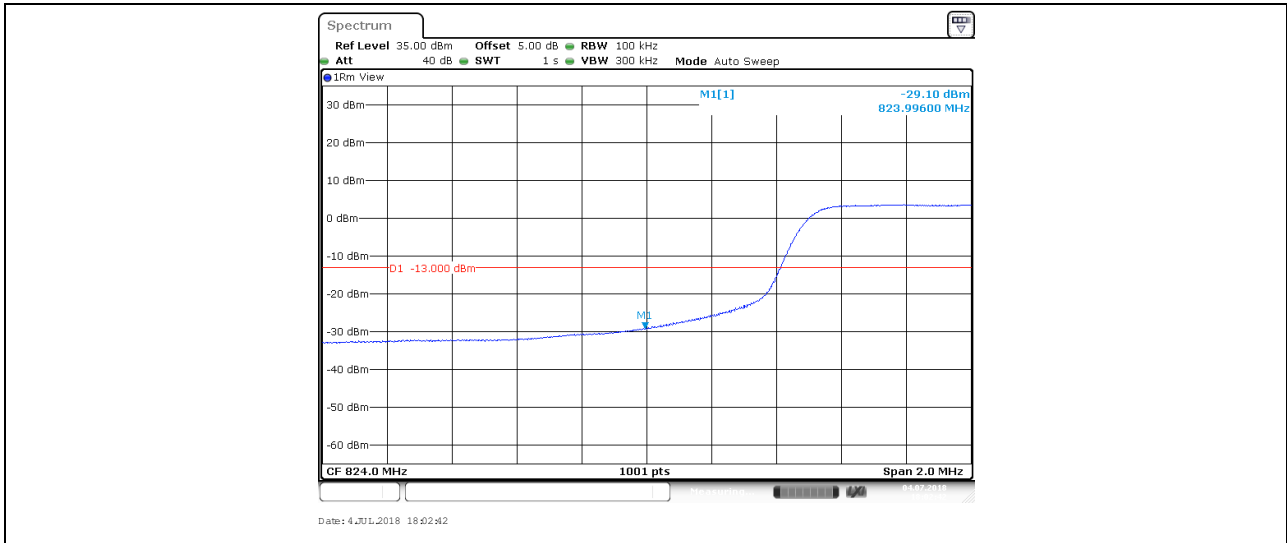
Band5_10MHz_QPSK_20450_1RB#0



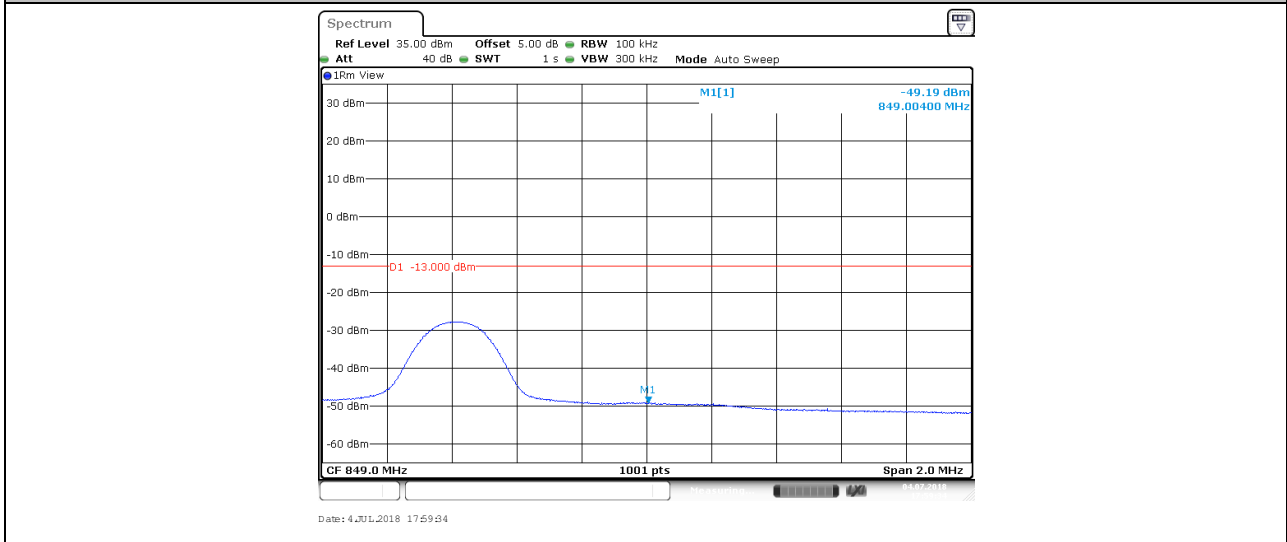
Band5_10MHz_QPSK_20450_1RB#49



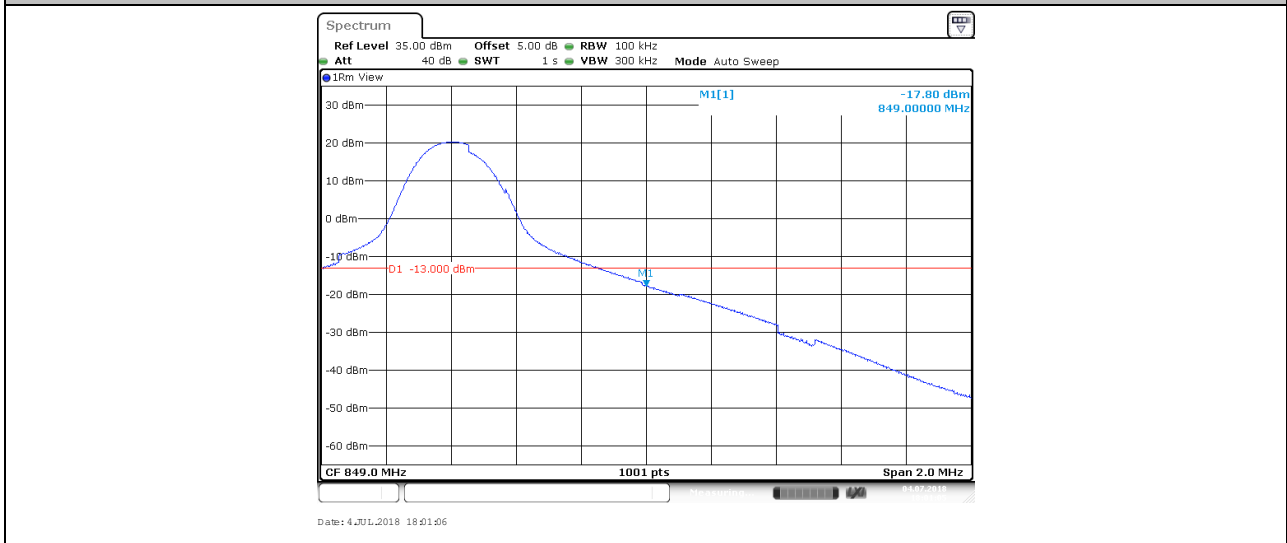
Band5_10MHz_QPSK_20450_50RB#0



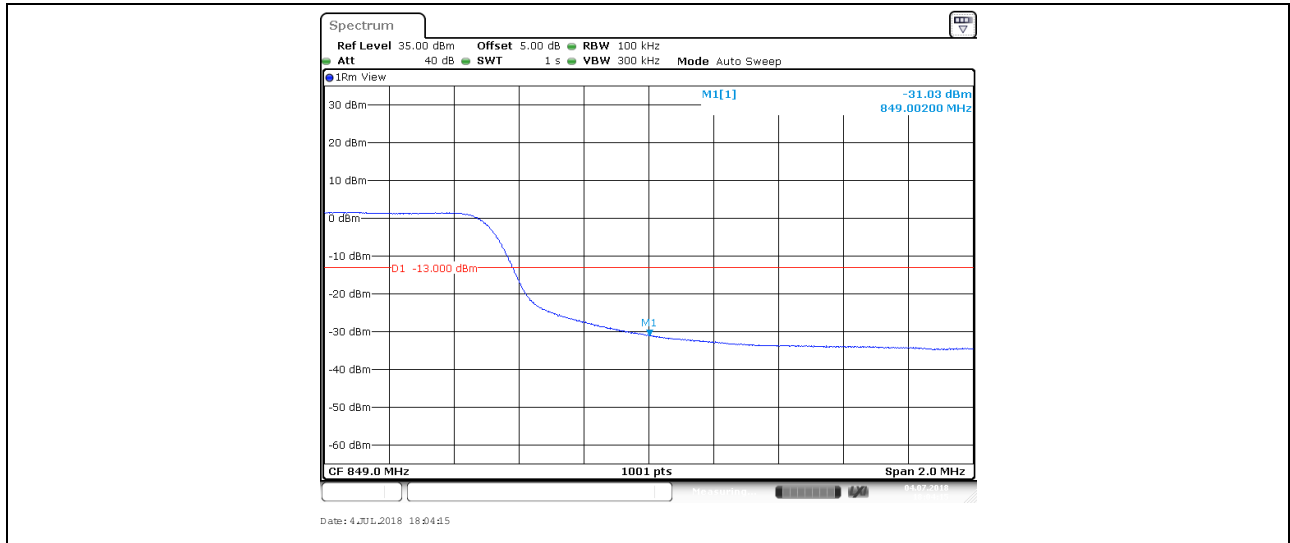
Band5_10MHz_QPSK_20600_1RB#0



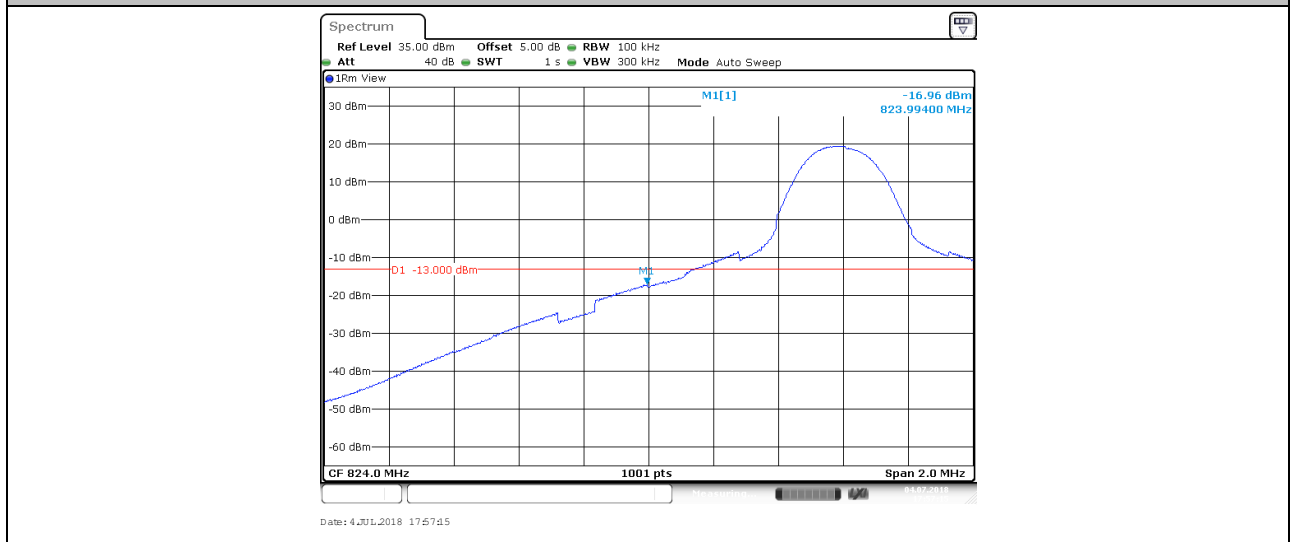
Band5_10MHz_QPSK_20600_1RB#49



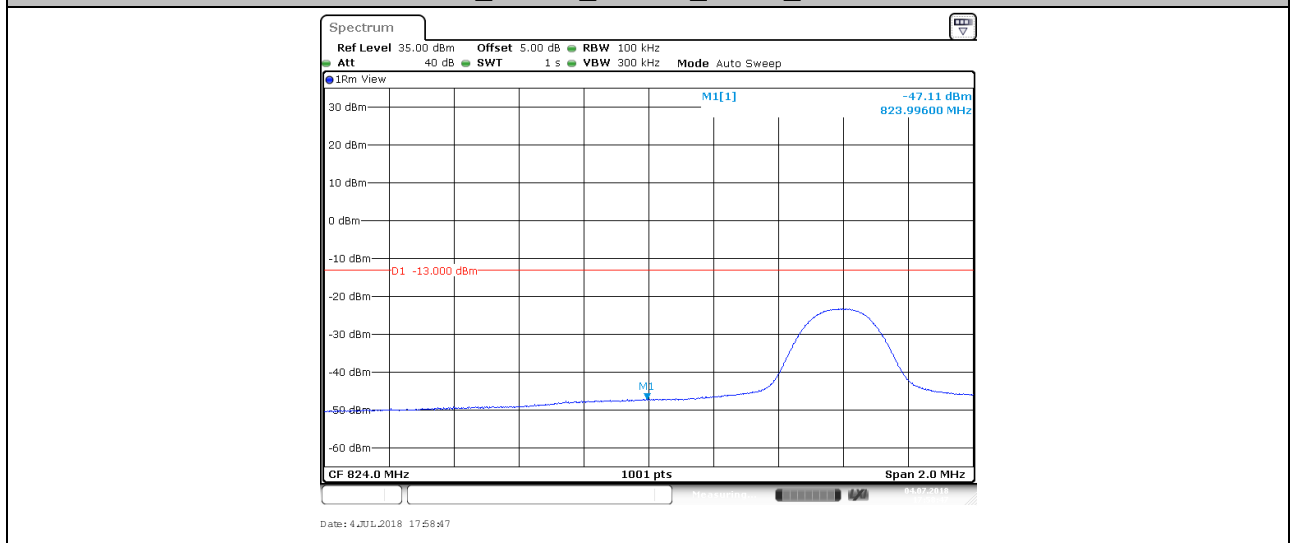
Band5_10MHz_QPSK_20600_50RB#0



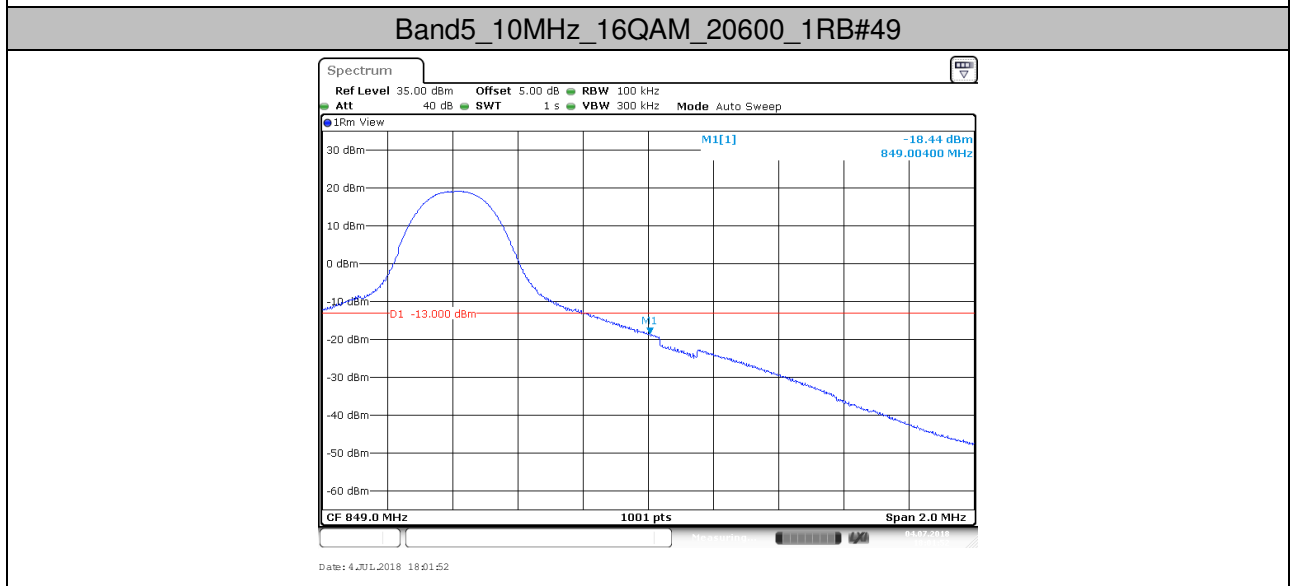
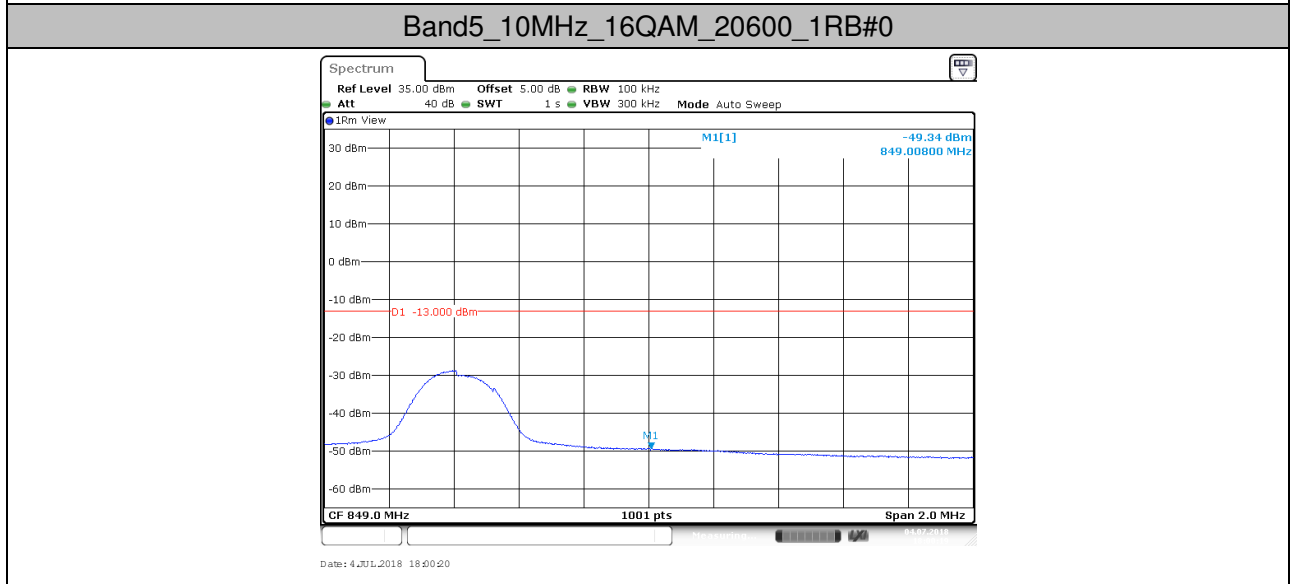
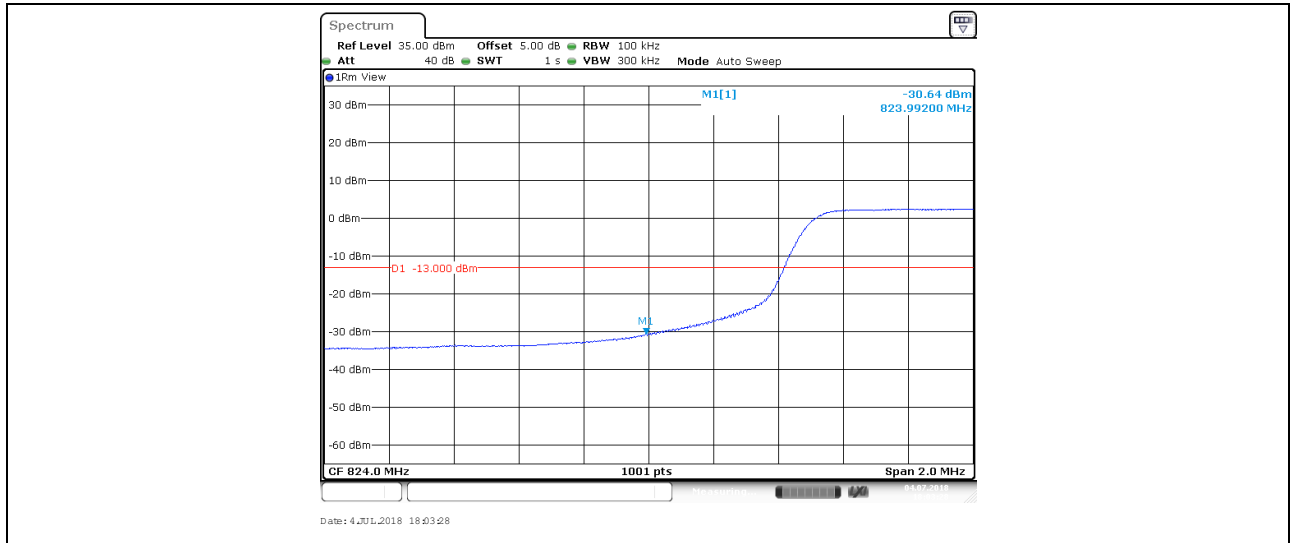
Band5_10MHz_16QAM_20450_1RB#0



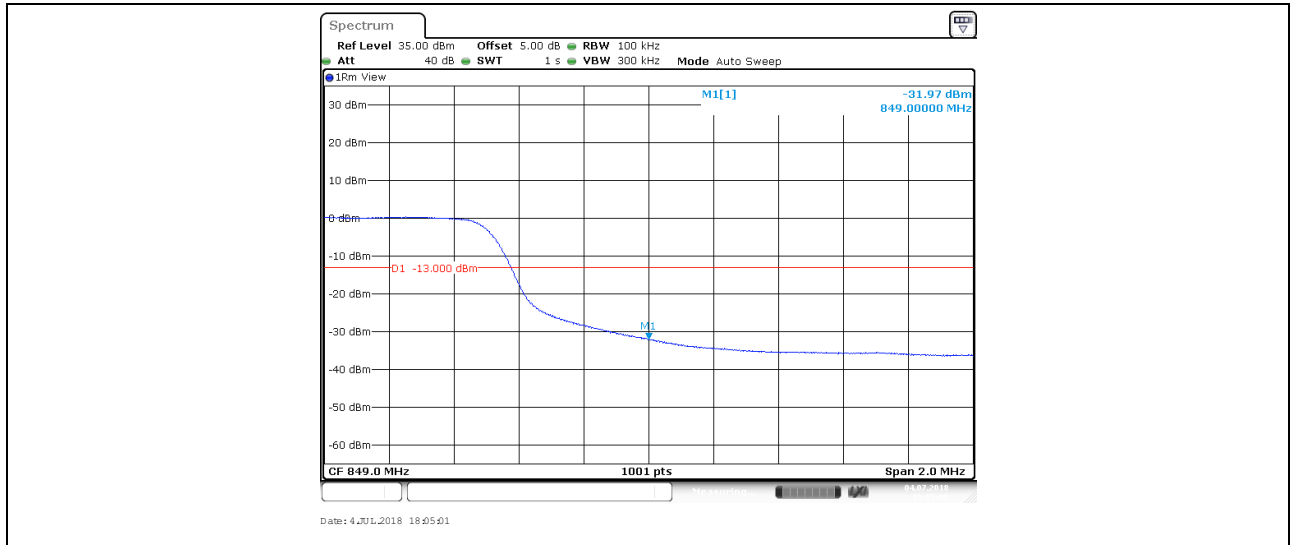
Band5_10MHz_16QAM_20450_1RB#49



Band5_10MHz_16QAM_20450_50RB#0



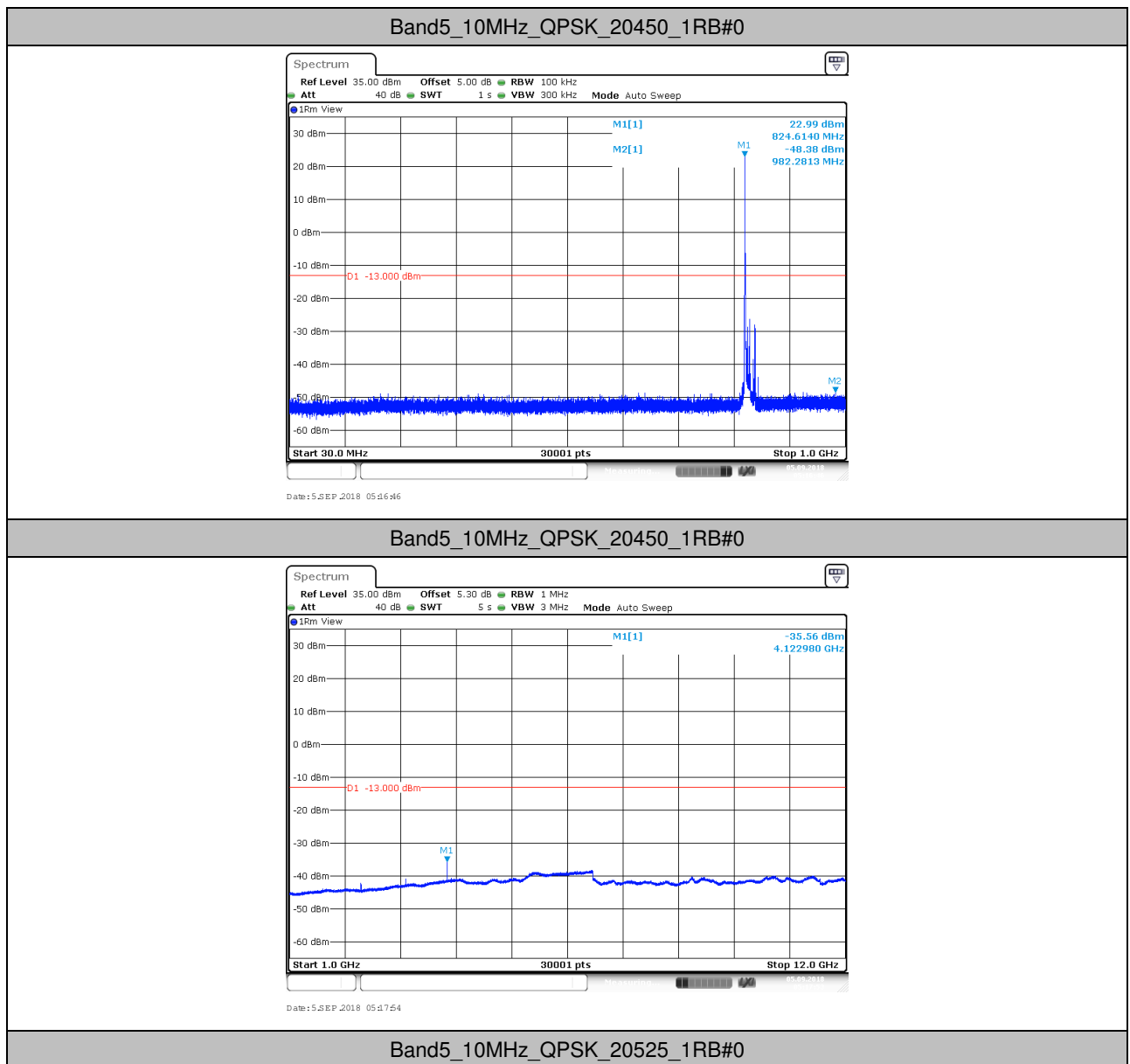
Band5_10MHz_16QAM_20600_50RB#0

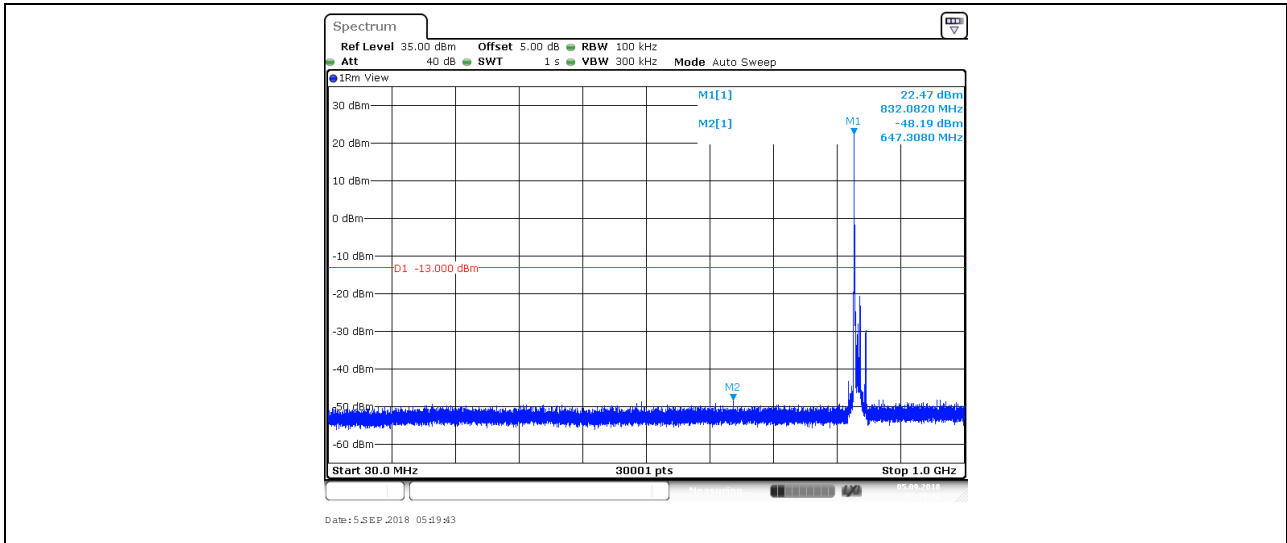


6. Spurious Emission at Antenna Terminal

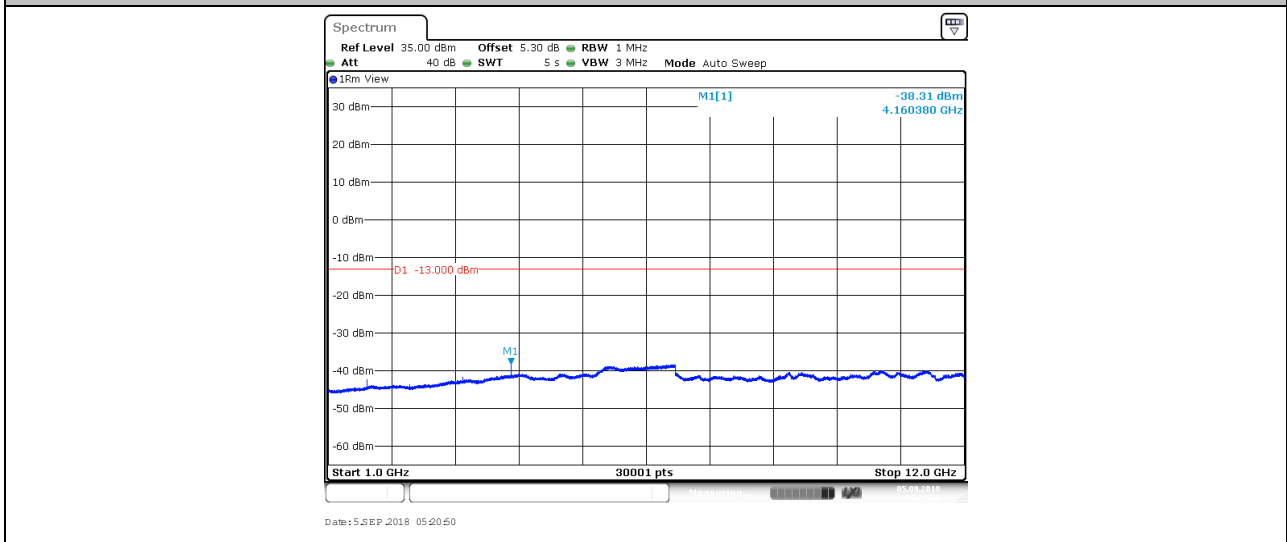
NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowBAND signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

6.1. Test Plots

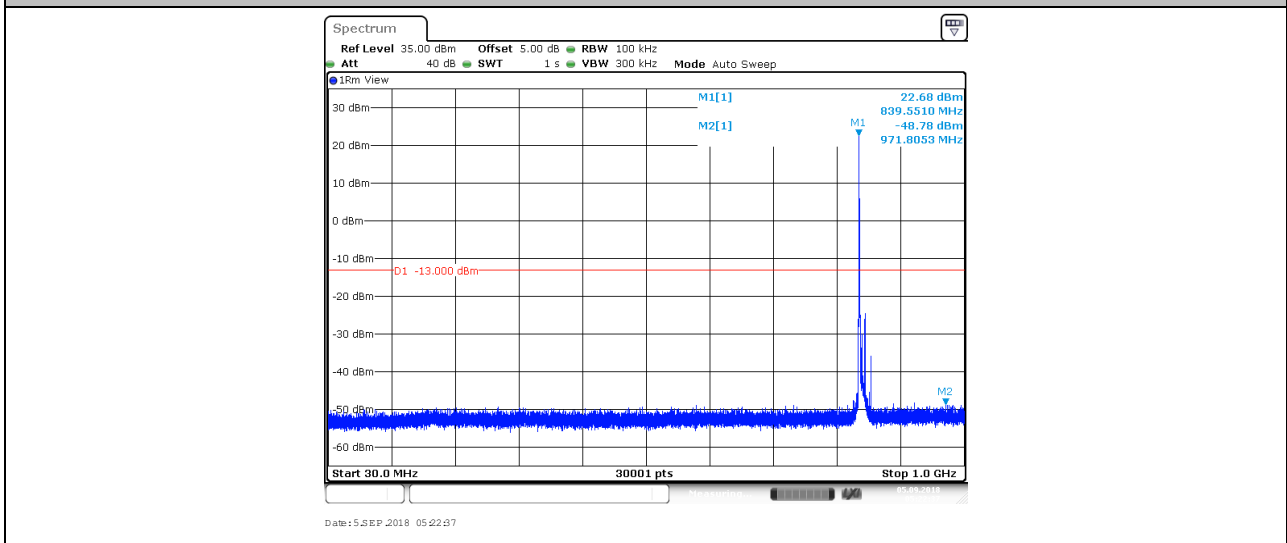




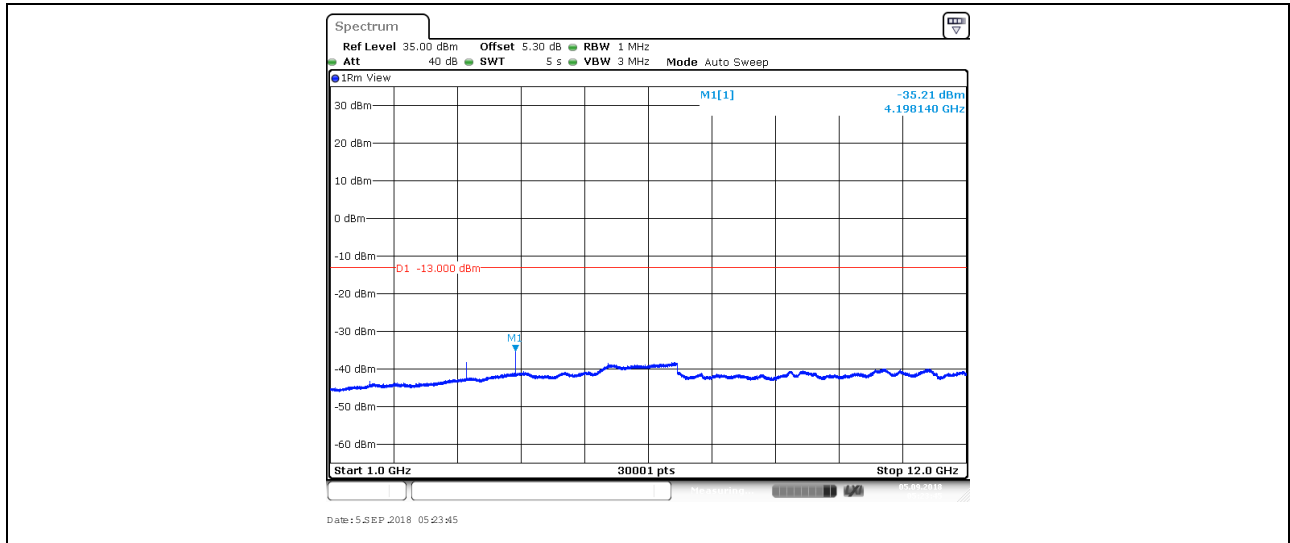
Band5_10MHz_QPSK_20525_1RB#0



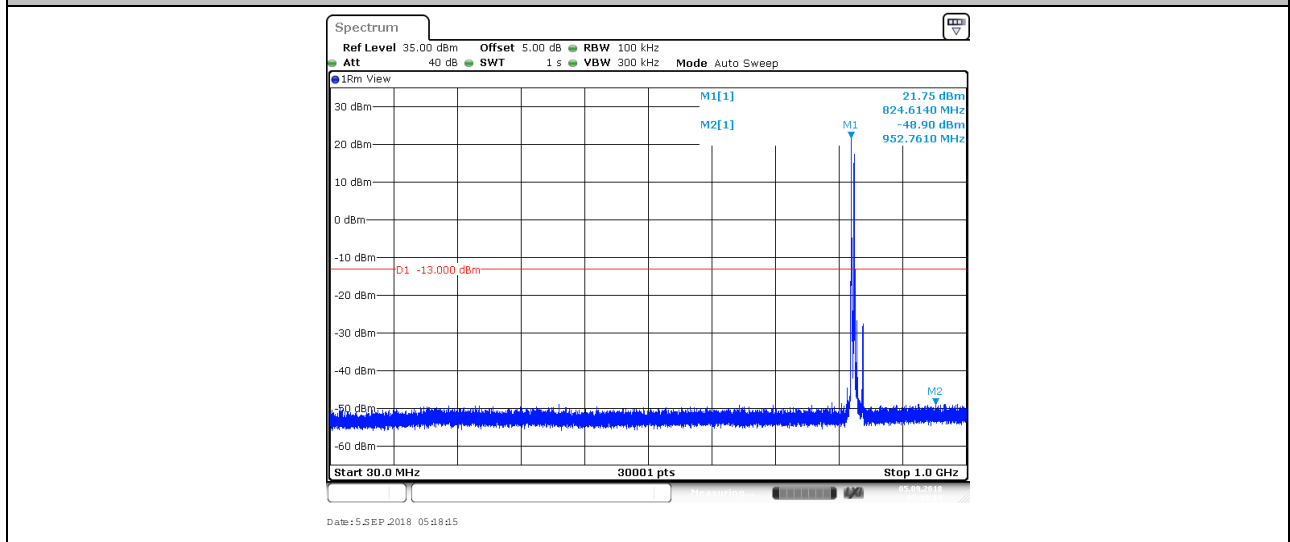
Band5_10MHz_QPSK_20600_1RB#0



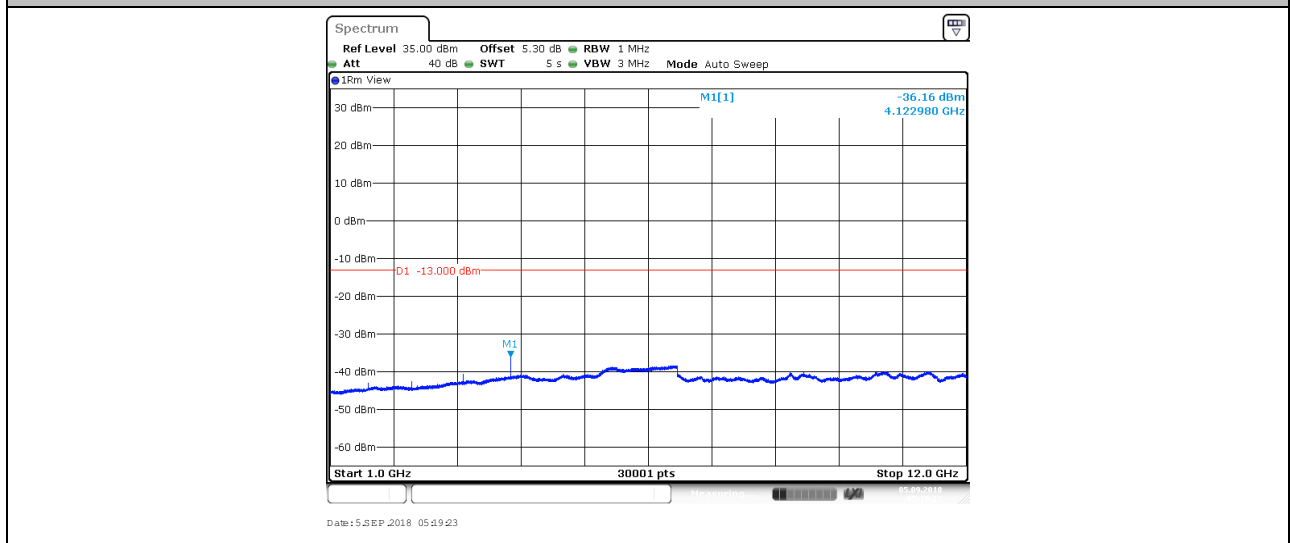
Band5_10MHz_QPSK_20600_1RB#0



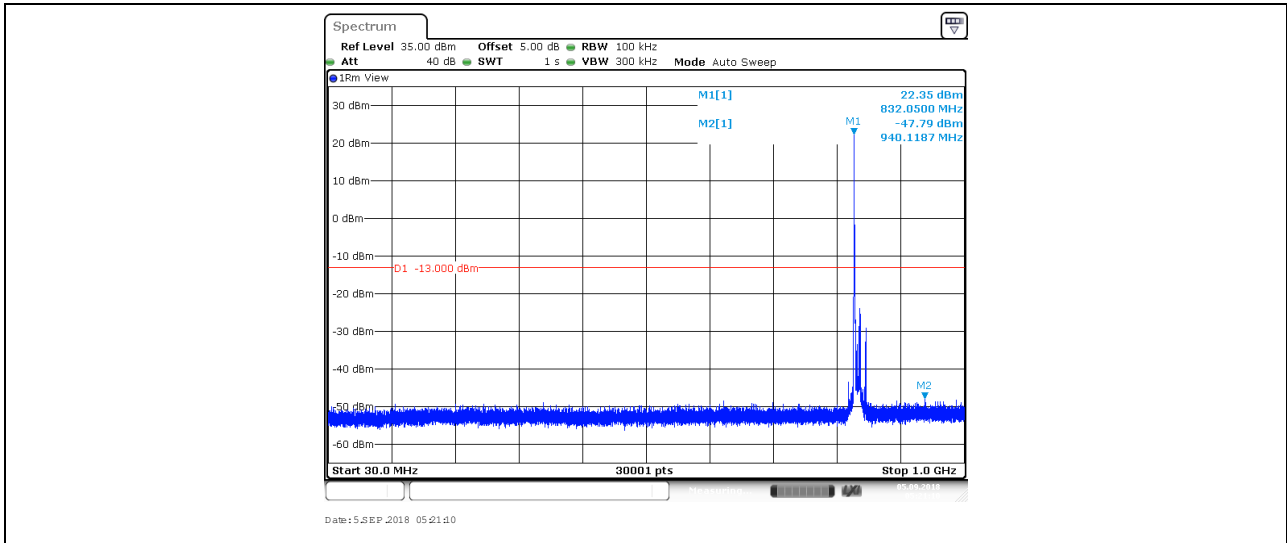
Band5_10MHz_16QAM_20450_1RB#0



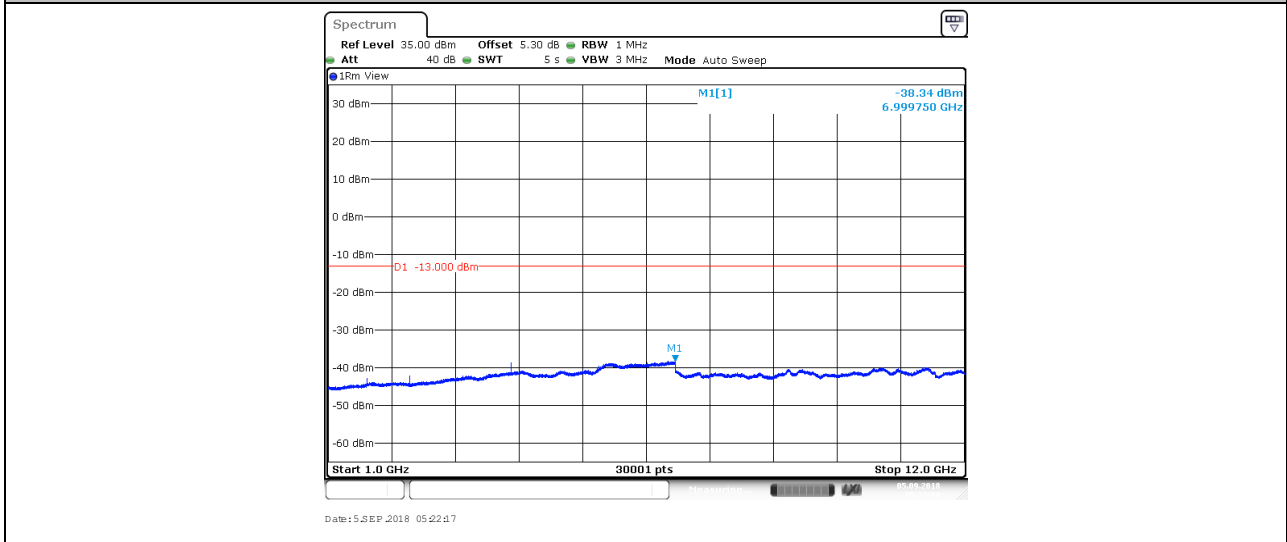
Band5_10MHz_16QAM_20450_1RB#0



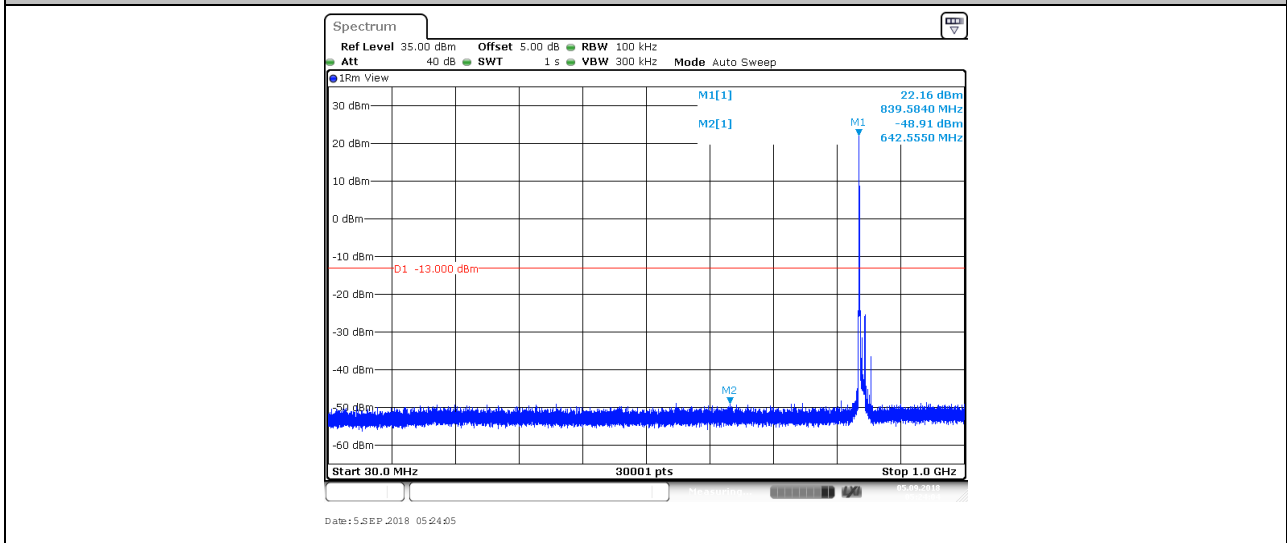
Band5_10MHz_16QAM_20525_1RB#0



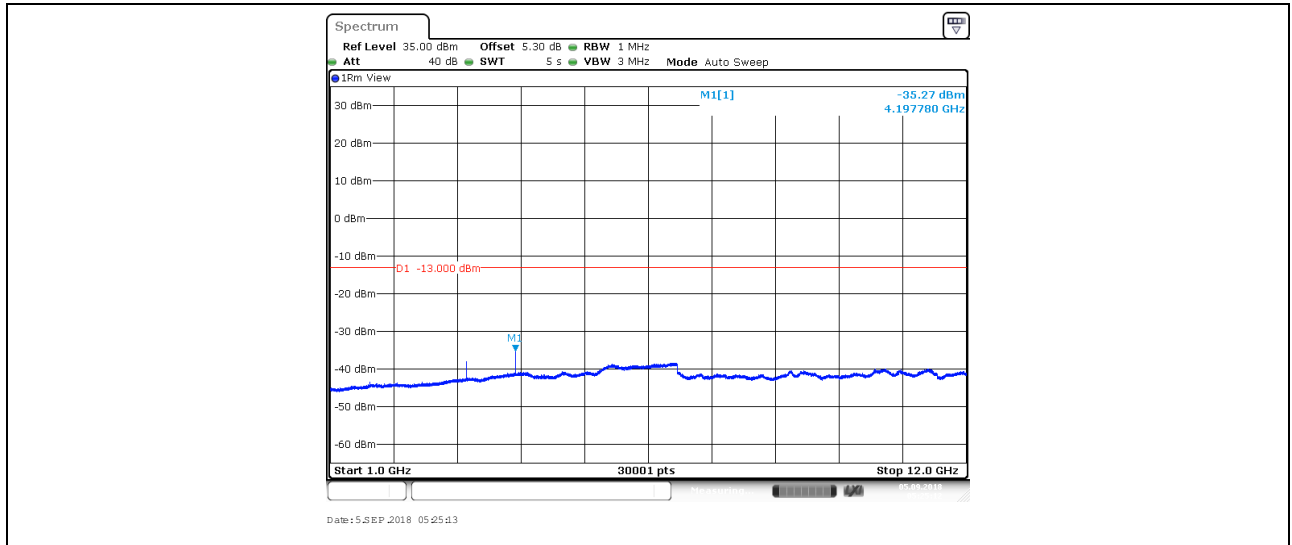
Band5_10MHz_16QAM_20525_1RB#0



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
88.753333	-79.86	-13.00	66.86	Vertical
314.900000	-83.83	-13.00	70.83	Vertical
513.983333	-82.64	-13.00	69.64	Vertical
1649.000000	-63.09	-13.00	50.09	Vertical
3298.200000	-60.97	-13.00	47.97	Vertical
4122.800000	-56.38	-13.00	43.38	Vertical
62.480000	-77.26	-13.00	64.26	Horizontal
155.953333	-89.23	-13.00	76.23	Horizontal
467.600000	-81.98	-13.00	68.98	Horizontal
1649.000000	-62.78	-13.00	49.78	Horizontal
3298.200000	-65.60	-13.00	52.60	Horizontal
4122.800000	-57.92	-13.00	44.92	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
56.693333	-82.66	-13.00	69.66	Vertical
124.966667	-85.67	-13.00	72.67	Vertical
314.526667	-83.88	-13.00	70.88	Vertical
1664.000000	-63.60	-13.00	50.60	Vertical
3328.300000	-62.59	-13.00	49.59	Vertical
4160.250000	-60.74	-13.00	47.74	Vertical
62.620000	-77.48	-13.00	64.48	Horizontal
156.513333	-89.53	-13.00	76.53	Horizontal
450.045833	-81.74	-13.00	68.74	Horizontal
1664.000000	-63.32	-13.00	50.32	Horizontal
3328.300000	-65.85	-13.00	52.85	Horizontal



4160.250000	-60.62	-13.00	47.62	Horizontal
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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
63.460000	-81.40	-13.00	68.40	Vertical
124.966667	-85.84	-13.00	72.84	Vertical
317.280000	-83.48	-13.00	70.48	Vertical
1649.000000	-62.77	-13.00	49.77	Vertical
3298.200000	-60.72	-13.00	47.72	Vertical
4122.800000	-56.50	-13.00	43.50	Vertical
62.806667	-78.14	-13.00	65.14	Horizontal
159.593333	-89.53	-13.00	76.53	Horizontal
481.120833	-81.68	-13.00	68.68	Horizontal
1649.000000	-62.43	-13.00	49.43	Horizontal
3298.200000	-65.62	-13.00	52.62	Horizontal
4122.800000	-57.81	-13.00	44.81	Horizontal

NOTE:

- 1) All modes are tested, but the data presented above is the worst case. the disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



8. Frequency Stability

8.1. Frequency 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	-5.00	-0.006031	±2.5	PASS
BAND5	10MHz	QPSK	20450	50RB#0	VN	NT	-3.50	-0.004222	±2.5	PASS
BAND5	10MHz	QPSK	20450	50RB#0	VH	NT	-7.10	-0.008565	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	VL	NT	-7.20	-0.008607	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	VN	NT	-4.70	-0.005619	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	VH	NT	-9.10	-0.010879	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	VL	NT	-5.70	-0.006754	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	VN	NT	-1.50	-0.001777	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	VH	NT	-4.90	-0.005806	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	VL	NT	-10.00	-0.012063	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	VN	NT	-12.60	-0.015199	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	VH	NT	-4.70	-0.005669	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	VL	NT	-4.40	-0.005260	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	VN	NT	0.10	0.000120	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	VH	NT	-2.60	-0.003108	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	VL	NT	-6.00	-0.007109	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	VN	NT	-1.80	-0.002133	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	VH	NT	-8.70	-0.010308	±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	-10.50	-0.012666	±2.5	PASS
BAND5	10MHz	QPSK	20450	50RB#0	NV	-20	-4.30	-0.005187	±2.5	PASS
BAND5	10MHz	QPSK	20450	50RB#0	NV	0	-8.20	-0.009891	±2.5	PASS
BAND5	10MHz	QPSK	20450	50RB#0	NV	10	-2.00	-0.002413	±2.5	PASS
BAND5	10MHz	QPSK	20450	50RB#0	NV	20	-0.90	-0.001086	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	NV	-30	-5.50	-0.006575	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	NV	-20	-2.90	-0.003467	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	NV	0	-4.70	-0.005619	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	NV	10	-3.90	-0.004662	±2.5	PASS
BAND5	10MHz	QPSK	20525	50RB#0	NV	20	-6.30	-0.007531	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	NV	-30	-6.00	-0.007109	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	NV	-20	-9.00	-0.010664	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	NV	0	-4.00	-0.004739	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	NV	10	-2.80	-0.003318	±2.5	PASS
BAND5	10MHz	QPSK	20600	50RB#0	NV	20	-5.80	-0.006872	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	NV	-30	-5.60	-0.006755	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	NV	-20	-6.80	-0.008203	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	NV	0	-5.80	-0.006996	±2.5	PASS

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BAND5	10MHz	16QAM	20450	50RB#0	NV	10	-6.70	-0.008082	±2.5	PASS
BAND5	10MHz	16QAM	20450	50RB#0	NV	20	-5.40	-0.006514	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	NV	-30	-8.40	-0.010042	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	NV	-20	-4.90	-0.005858	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	NV	0	-4.70	-0.005619	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	NV	10	-3.40	-0.004065	±2.5	PASS
BAND5	10MHz	16QAM	20525	50RB#0	NV	20	-3.70	-0.004423	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	NV	-30	-5.40	-0.006398	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	NV	-20	-7.90	-0.009360	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	NV	0	-7.10	-0.008412	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	NV	10	-7.60	-0.009005	±2.5	PASS
BAND5	10MHz	16QAM	20600	50RB#0	NV	20	-3.50	-0.004147	±2.5	PASS

The End