

Appendix B

E-UTRA Band 5





CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER	4
1.1.	TEST RESULT	4
2.	PEAK-TO-AVERAGE RATIO (CCDF)	8
2.1.	TEST RESULT	8
2.2.	TEST PLOTS.....	8
3.	MODULATION CHARACTERISTICS	12
3.1.	TEST MODE = LTE /TM1 10MHZ.....	12
3.1.1.	TEST CHANNEL = MCH.....	12
3.2.	TEST MODE = LTE /TM2 10MHZ.....	13
3.2.1.	TEST CHANNEL = MCH.....	13
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	14
4.1.	TEST RESULT	14
4.2.	TEST PLOTS.....	15
5.	BAND EDGE COMPLIANCE	27
5.1.	TEST PLOTS.....	27
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	43
6.1.	TEST PLOTS.....	43
7.	FIELD STRENGTH OF SPURIOUS RADIATION	49
7.1.	TEST MODE =LTE/TM1 (MAIN ANT)	49
7.1.1.	TEST CHANNEL = LCH	49
7.1.2.	TEST CHANNEL = MCH.....	49
7.1.3.	TEST CHANNEL = HCH.....	50
7.2.	TEST MODE =LTE/TM1 (SECOND ANT)	50
7.2.1.	TEST CHANNEL = LCH	50
7.2.2.	TEST CHANNEL = MCH.....	51
7.2.3.	TEST CHANNEL = HCH.....	51
8.	FREQUENCY STABILITY.....	53
8.1.	FREQUENCY VS VOLTAGE	53



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8.2.	FREQUENCY VS TEMPERATURE	53
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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	23.15	21.50	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.28	21.63	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.14	21.49	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.26	21.61	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.31	21.66	38.45	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.27	21.62	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.28	20.63	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.16	21.51	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.17	21.52	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.30	21.65	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	23.27	21.62	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	23.34	21.69	38.45	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	23.27	21.62	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.27	20.62	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.12	21.47	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.11	21.46	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.26	21.61	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	23.24	21.59	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#1	23.29	21.64	38.45	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.23	21.58	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.24	20.59	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.27	20.62	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.46	20.81	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.41	20.76	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	22.40	20.75	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.23	20.58	38.45	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	22.32	20.67	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.38	19.73	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.39	20.74	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.54	20.89	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.37	20.72	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	22.36	20.71	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	22.42	20.77	38.45	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	22.37	20.72	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.33	19.68	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.51	20.86	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.30	20.65	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.38	20.73	38.45	PASS



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Band5	1.4MHz	16QAM	20643	3RB#0	22.36	20.71	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	22.39	20.74	38.45	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	22.26	20.61	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.30	19.65	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.19	21.54	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.21	21.56	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.21	21.56	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.23	20.58	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.27	20.62	38.45	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.23	20.58	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.24	20.59	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.22	21.57	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.19	21.54	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.23	21.58	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.24	20.59	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#0	22.25	20.60	38.45	PASS
Band5	3MHz	QPSK	20525	8RB#4	22.28	20.63	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.24	20.59	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.17	21.52	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.18	21.53	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.16	21.51	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#0	22.22	20.57	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#7	22.20	20.55	38.45	PASS
Band5	3MHz	QPSK	20635	8RB#4	22.23	20.58	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.21	20.56	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.47	20.82	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.43	20.78	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.34	20.69	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.33	19.68	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.34	19.69	38.45	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.32	19.67	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.23	19.58	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.50	20.85	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.51	20.86	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.40	20.75	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.28	19.63	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#0	21.32	19.67	38.45	PASS
Band5	3MHz	16QAM	20525	8RB#4	21.33	19.68	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.21	19.56	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.46	20.81	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.41	20.76	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.40	20.75	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#0	21.24	19.59	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#4	21.29	19.64	38.45	PASS
Band5	3MHz	16QAM	20635	8RB#7	21.25	19.60	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.22	19.57	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.10	21.45	38.45	PASS



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Band5	5MHz	QPSK	20425	1RB#12	23.39	21.74	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.12	21.47	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.22	20.57	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.32	20.67	38.45	PASS
Band5	5MHz	QPSK	20425	12RB#13	22.31	20.66	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.28	20.63	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.12	21.47	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.08	21.43	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.40	21.75	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#0	22.27	20.62	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#6	22.31	20.66	38.45	PASS
Band5	5MHz	QPSK	20525	12RB#13	22.23	20.58	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.25	20.60	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.05	21.40	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.07	21.42	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.38	21.73	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#0	22.23	20.58	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#6	22.29	20.64	38.45	PASS
Band5	5MHz	QPSK	20625	12RB#13	22.16	20.51	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.22	20.57	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.37	20.72	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.53	20.88	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.40	20.75	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.31	19.66	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#0	21.27	19.62	38.45	PASS
Band5	5MHz	16QAM	20425	12RB#13	21.30	19.65	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.26	19.61	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.39	20.74	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.55	20.90	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.29	20.64	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#13	23.22	21.57	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#0	21.29	19.64	38.45	PASS
Band5	5MHz	16QAM	20525	12RB#6	21.31	19.66	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.25	19.60	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.60	20.95	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.27	20.62	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.38	20.73	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#0	21.24	19.59	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#6	21.29	19.64	38.45	PASS
Band5	5MHz	16QAM	20625	12RB#13	21.17	19.52	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.19	19.54	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.23	21.58	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.34	21.69	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.21	21.56	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.32	20.67	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.35	20.70	38.45	PASS
Band5	10MHz	QPSK	20450	25RB#25	22.33	20.68	38.45	PASS



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Band5	10MHz	QPSK	20450	50RB#0	22.36	20.71	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.24	21.59	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.18	21.53	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.36	21.71	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#25	22.33	20.68	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#0	22.34	20.69	38.45	PASS
Band5	10MHz	QPSK	20525	25RB#12	22.31	20.66	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.34	20.69	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.28	21.63	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.21	21.56	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.15	21.50	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.32	20.67	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#25	22.26	20.61	38.45	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.31	20.66	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.30	20.65	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.41	20.76	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.42	20.77	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.50	20.85	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#25	21.32	19.67	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#12	21.33	19.68	38.45	PASS
Band5	10MHz	16QAM	20450	25RB#0	21.32	19.67	38.45	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.35	19.70	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.45	20.80	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.52	20.87	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.64	20.99	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#25	21.32	19.67	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#0	21.31	19.66	38.45	PASS
Band5	10MHz	16QAM	20525	25RB#12	21.32	19.67	38.45	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.34	19.69	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.44	20.79	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.40	20.75	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.38	20.73	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#0	21.32	19.67	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#12	21.28	19.63	38.45	PASS
Band5	10MHz	16QAM	20600	25RB#25	21.26	19.61	38.45	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.30	19.65	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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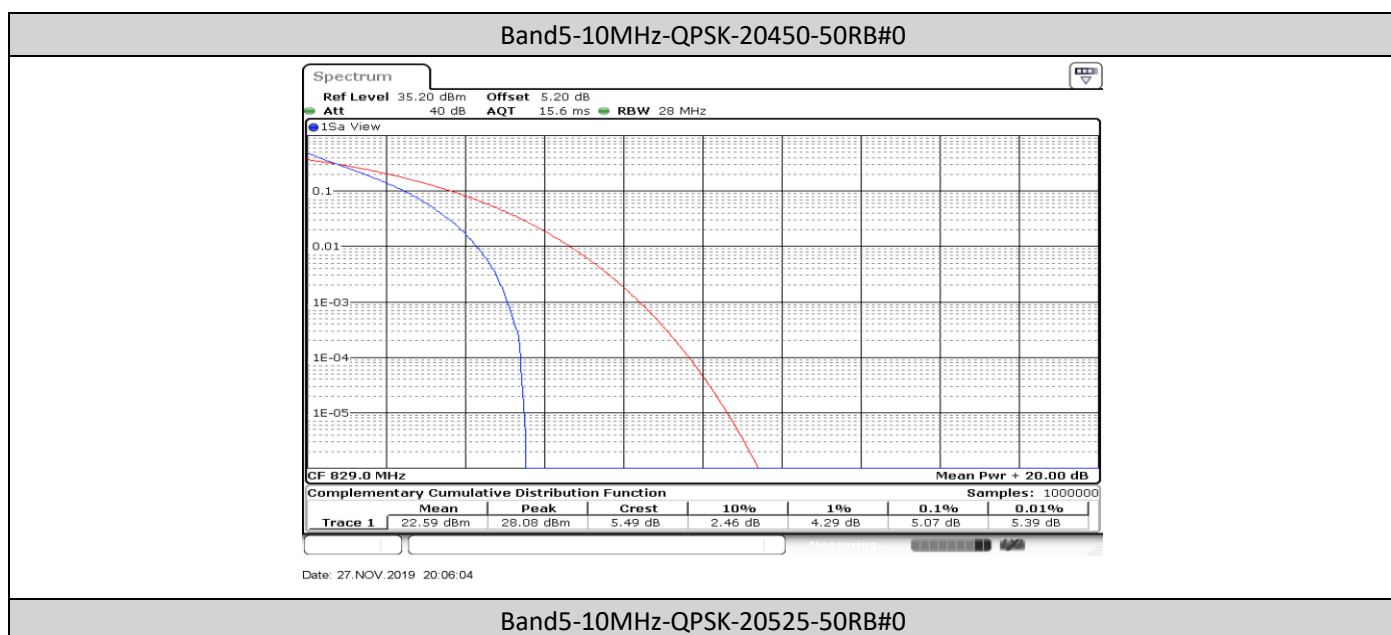


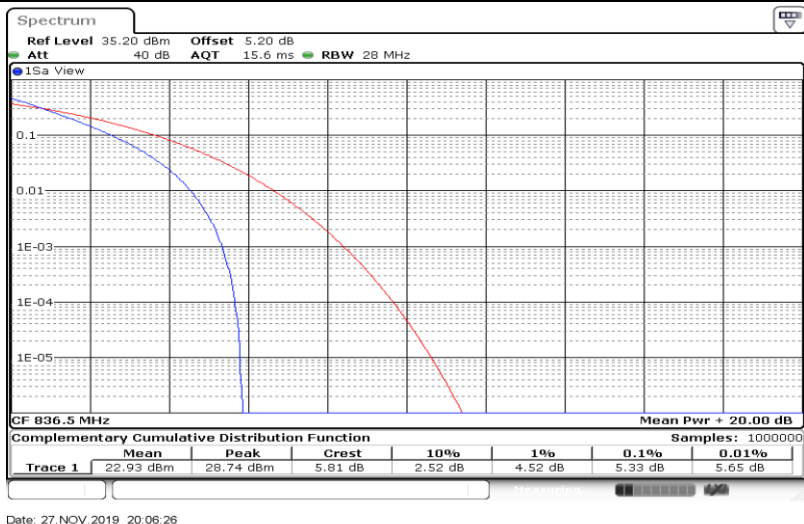
2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

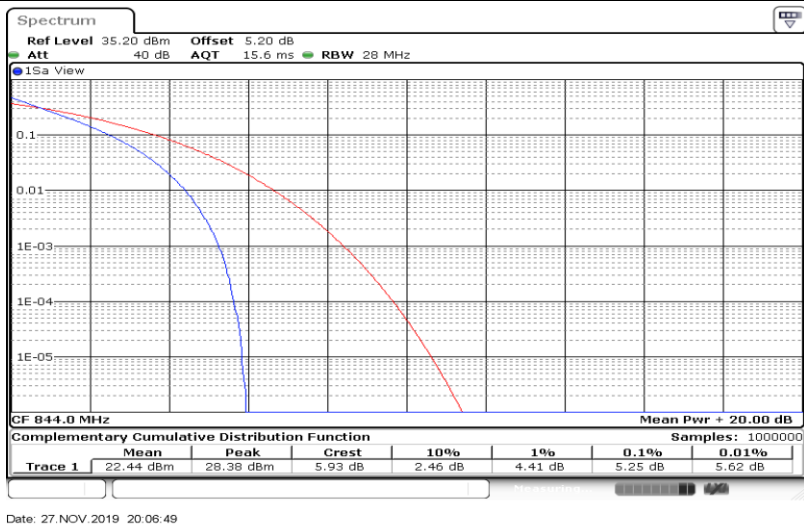
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.07	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.33	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.25	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	5.88	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	6.20	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	5.97	13	PASS

2.2. Test Plots





Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-16QAM-20450-50RB#0

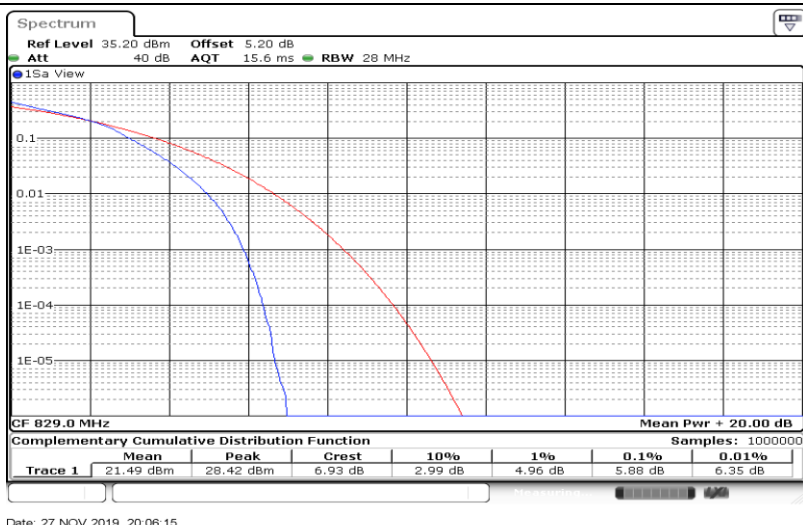


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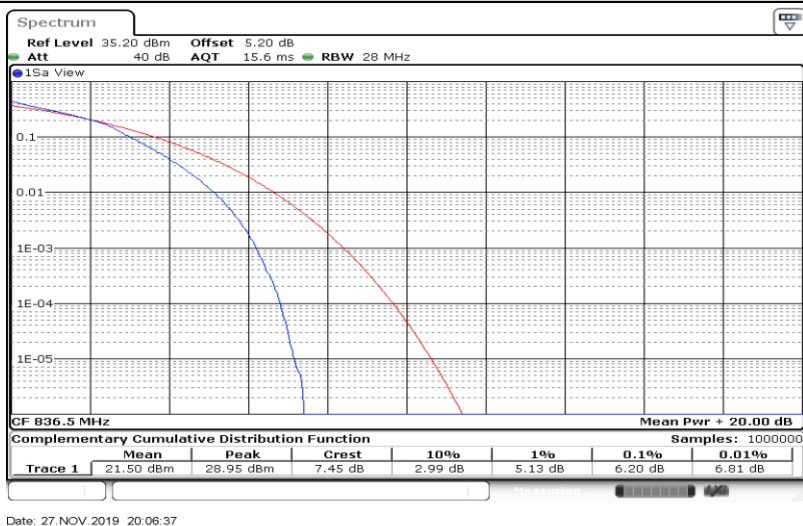
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中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

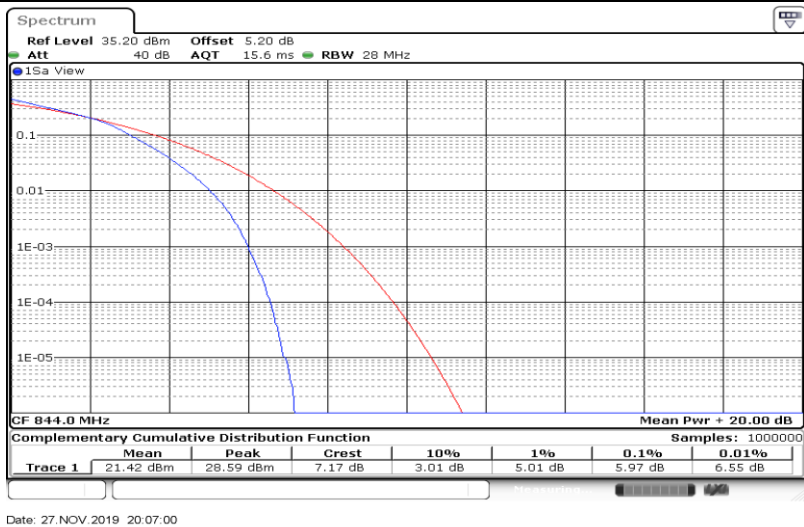


Band5-10MHz-16QAM-20525-50RB#0



Band5-10MHz-16QAM-20600-50RB#0





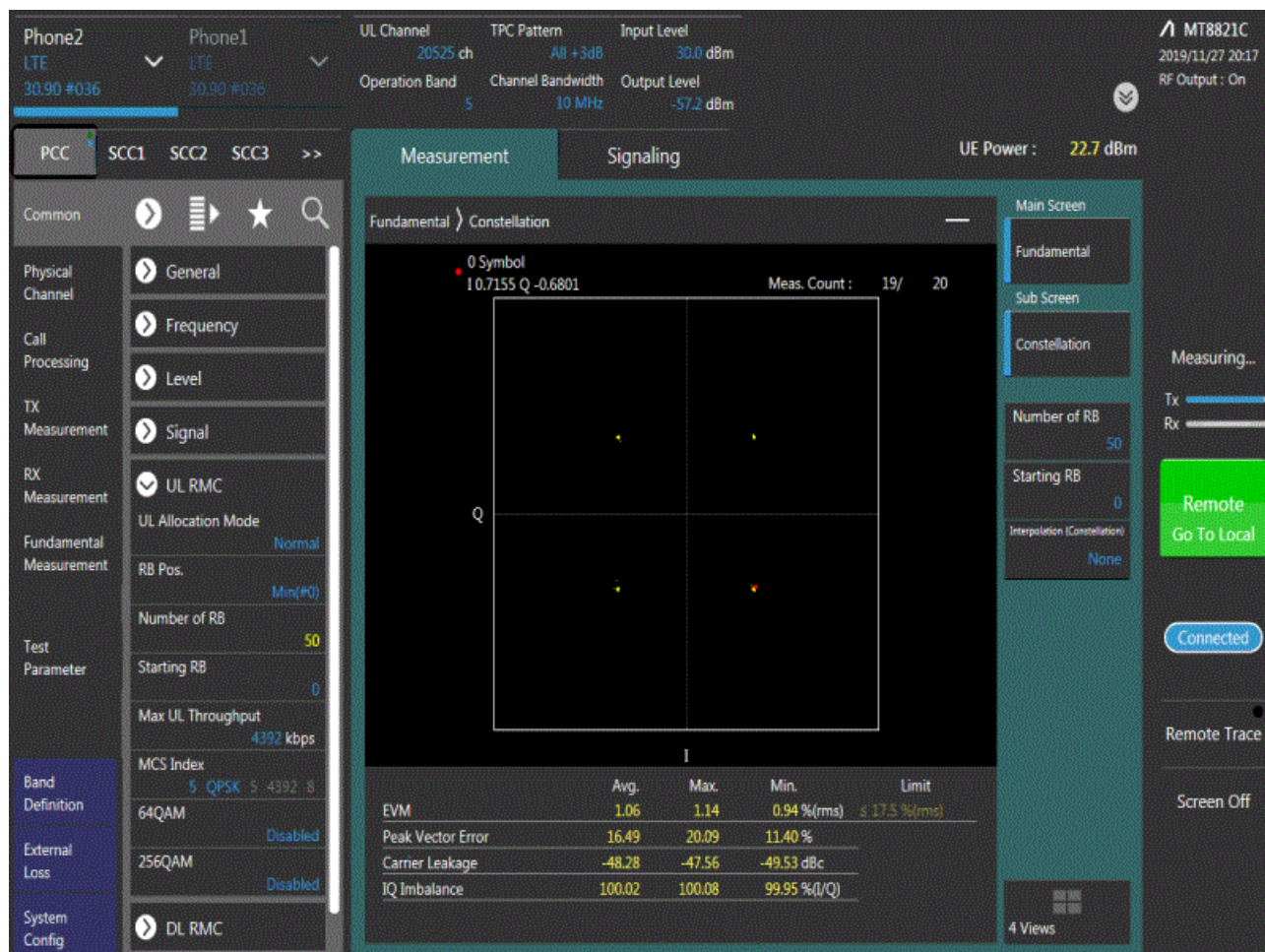
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3. Modulation Characteristics

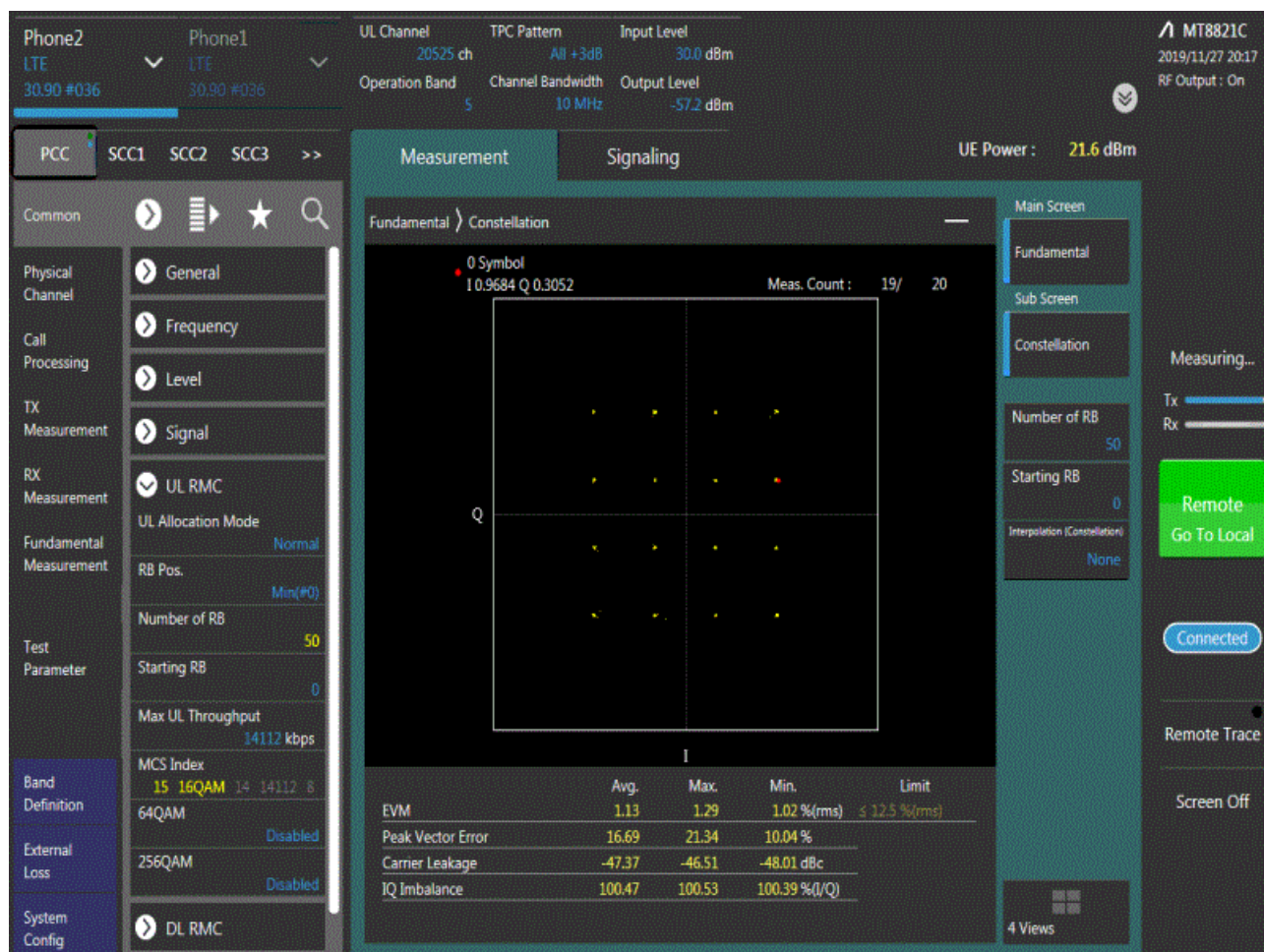
3.1. Test Mode = LTE /TM1 10MHz

3.1.1. Test Channel = MCH



3.2. Test Mode = LTE /TM2 10MHz

3.2.1. 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	1.094	1.290	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.088	1.281	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.091	1.287	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.091	1.284	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.091	1.290	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.091	1.281	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.685	2.898	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.685	2.892	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.685	2.886	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.673	2.868	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.685	2.880	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.667	2.880	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.486	5.030	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.476	4.840	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.486	4.950	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.505	4.970	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.496	4.890	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.486	4.910	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.991	9.640	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.971	9.660	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.971	9.560	PASS
Band5	10MHz	16QAM	20450	50RB#0	9.011	9.640	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.991	9.560	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.951	9.560	PASS

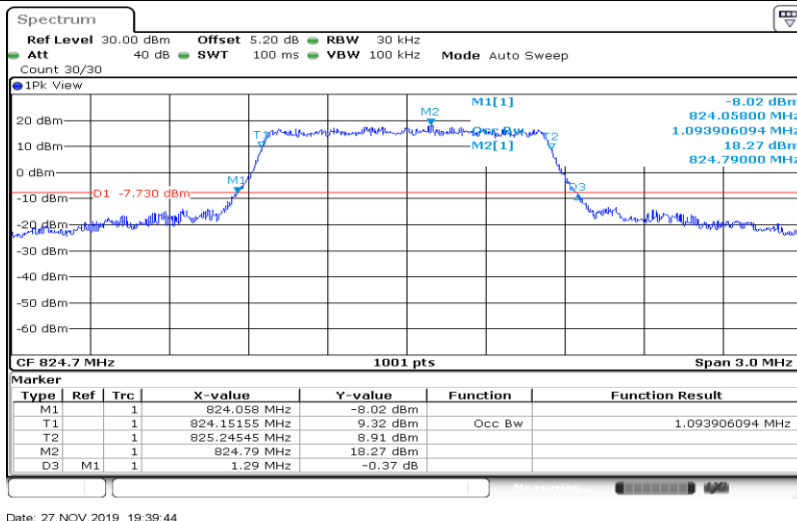


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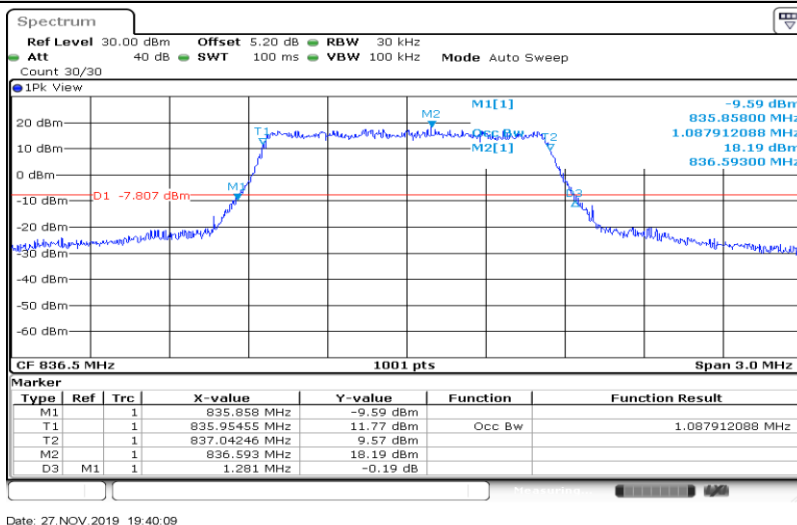
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4.2. Test Plots

Band5-1.4MHz-QPSK-20407-6RB#0-1.094

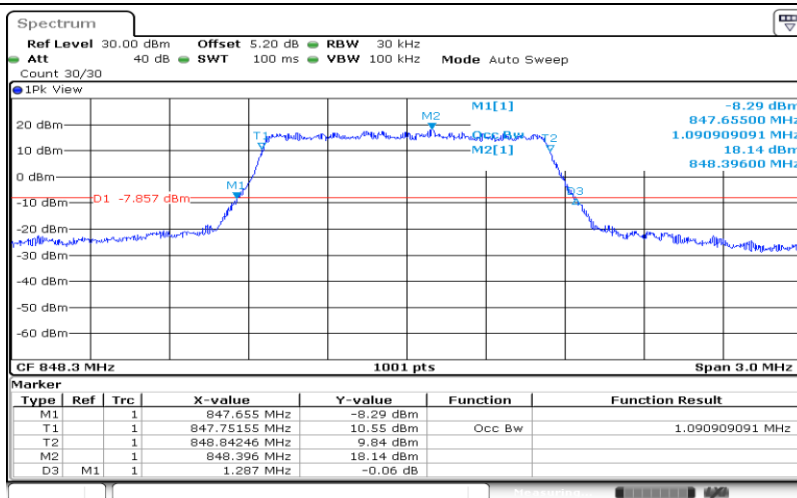


Band5-1.4MHz-QPSK-20525-6RB#0-1.088



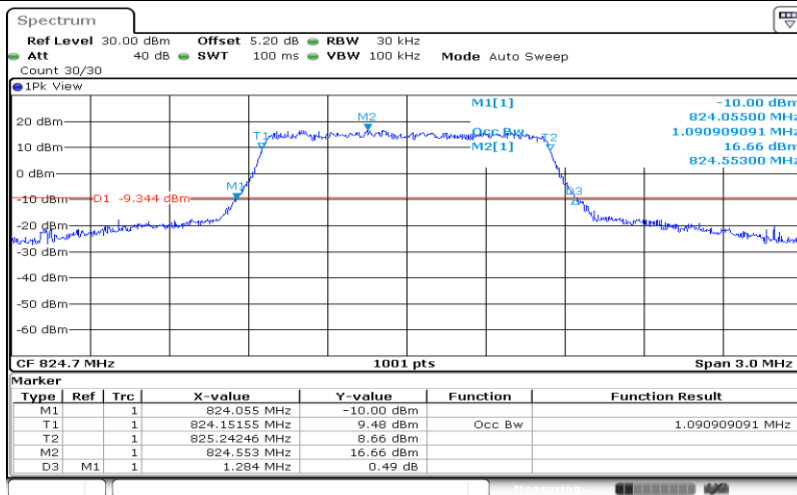
Band5-1.4MHz-QPSK-20643-6RB#0-1.091





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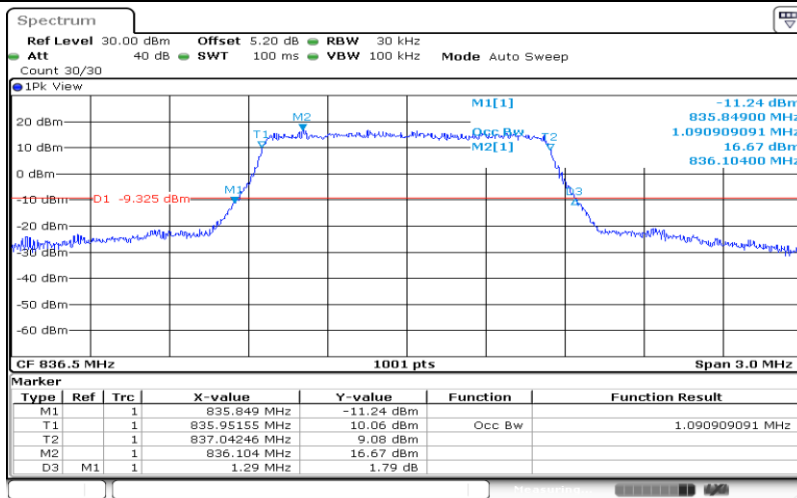
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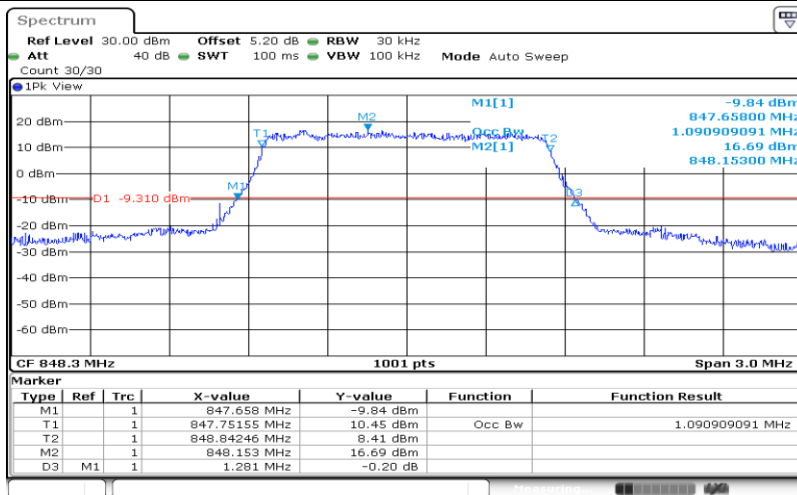
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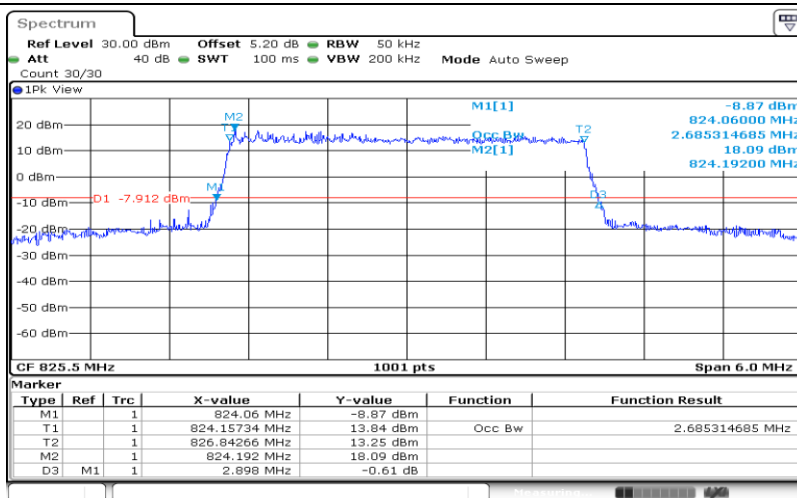
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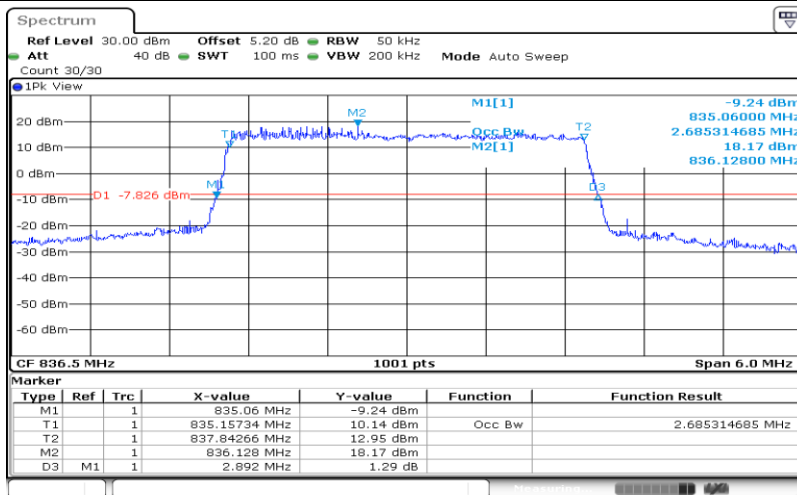
Band5-3MHz-QPSK-20415-15RB#0-2.685





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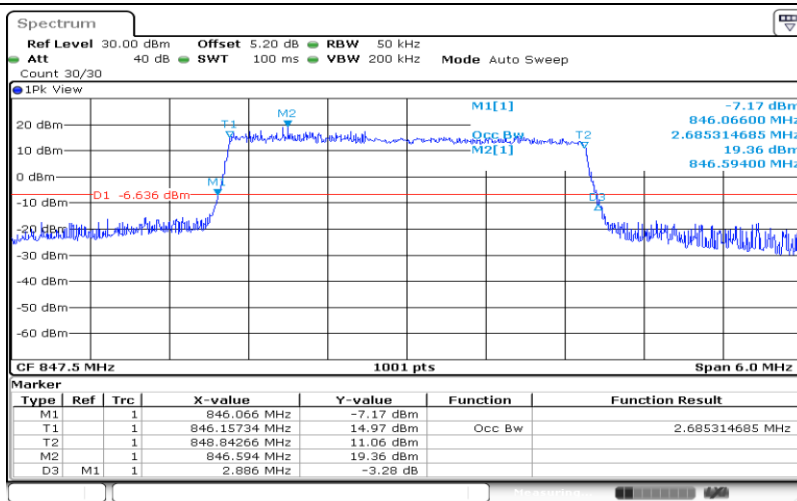
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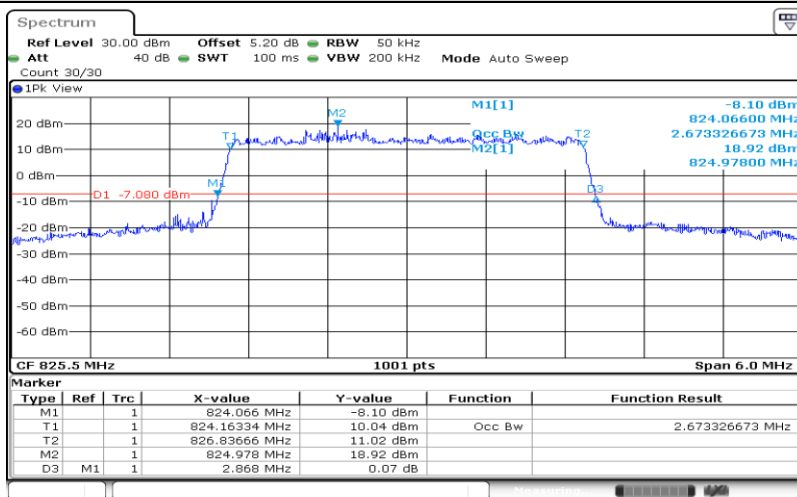
Band5-3MHz-QPSK-20635-15RB#0-2.685





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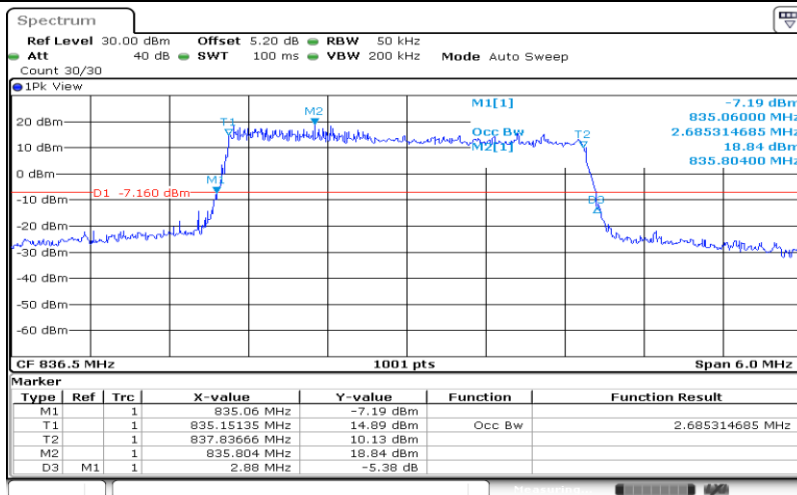
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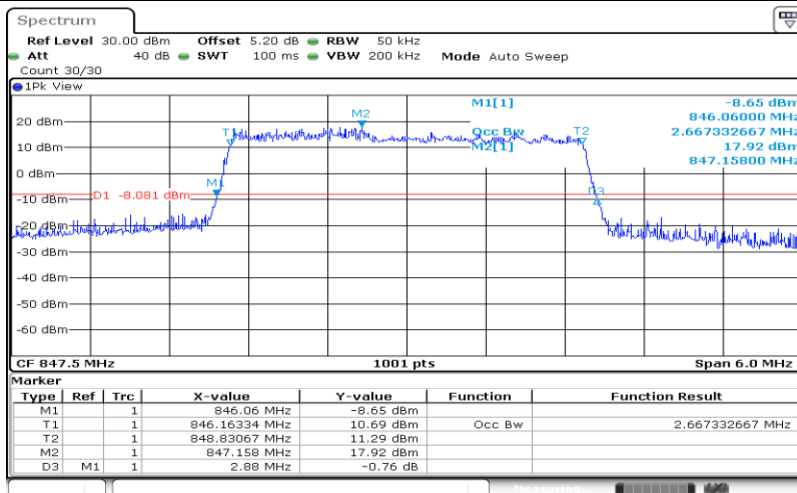
Band5-3MHz-16QAM-20525-15RB#0-2.685





Date: 27.NOV.2019 19:41:43

Band5-3MHz-16QAM-20635-15RB#0-2.667



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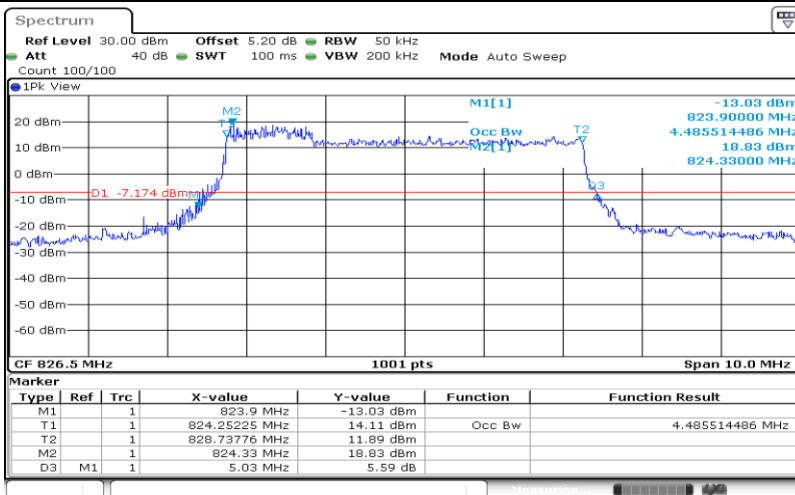
Band5-5MHz-QPSK-20425-25RB#0-4.486



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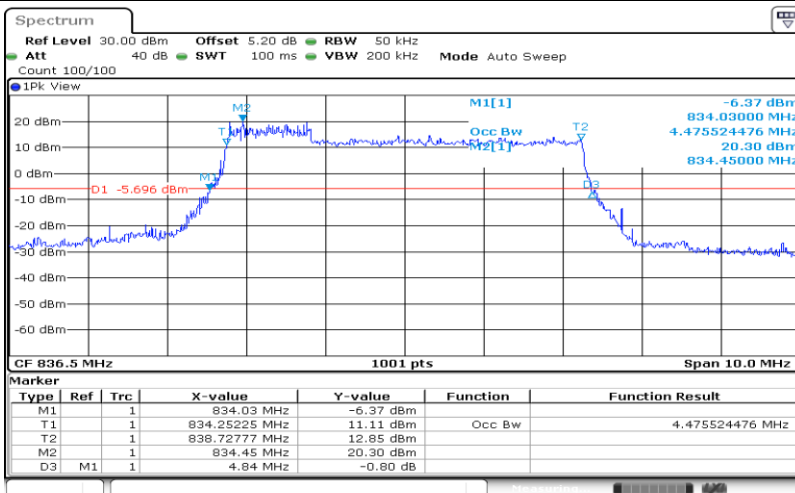
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Date: 27.NOV.2019 19:42:33

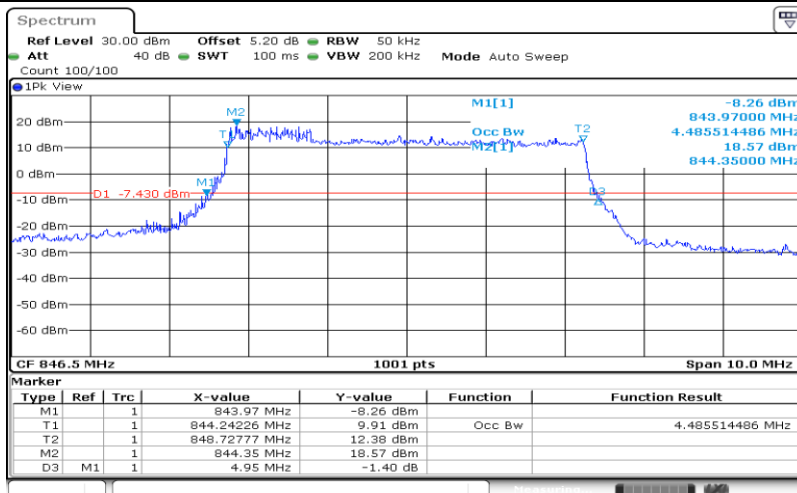
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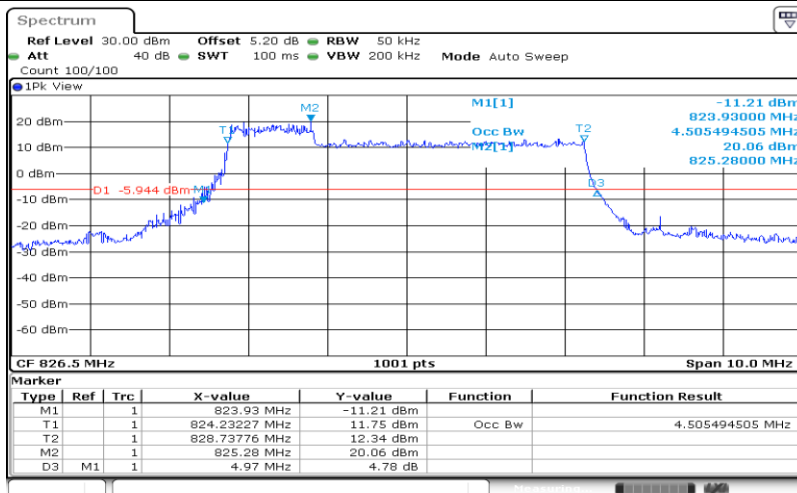
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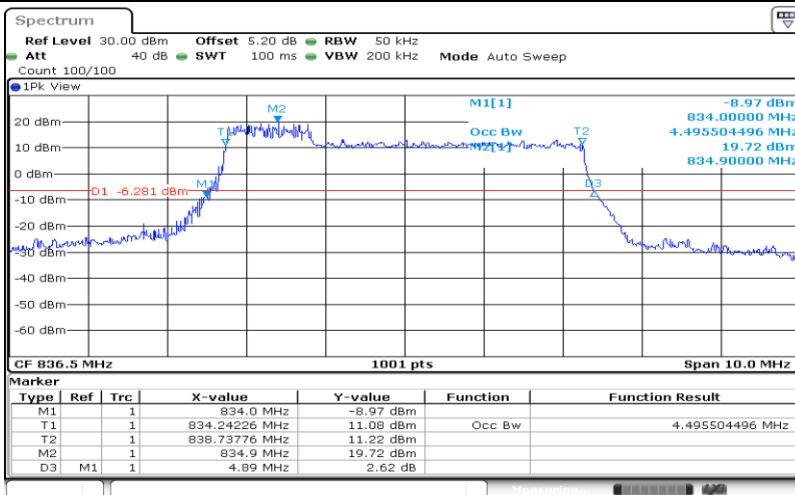
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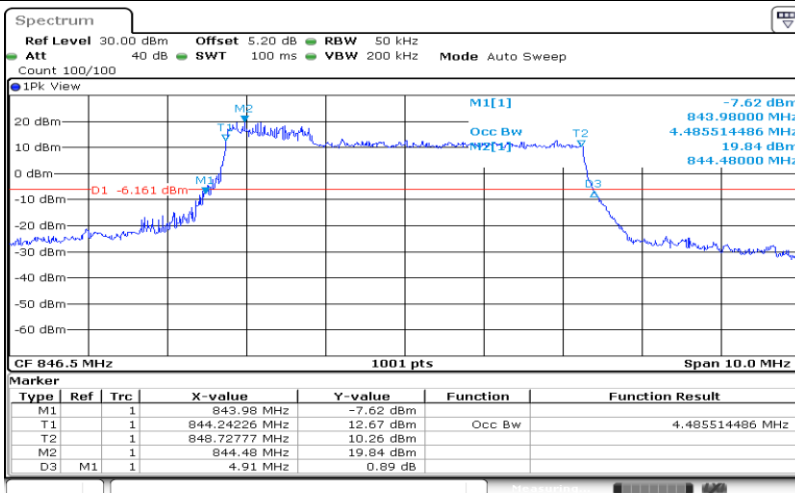
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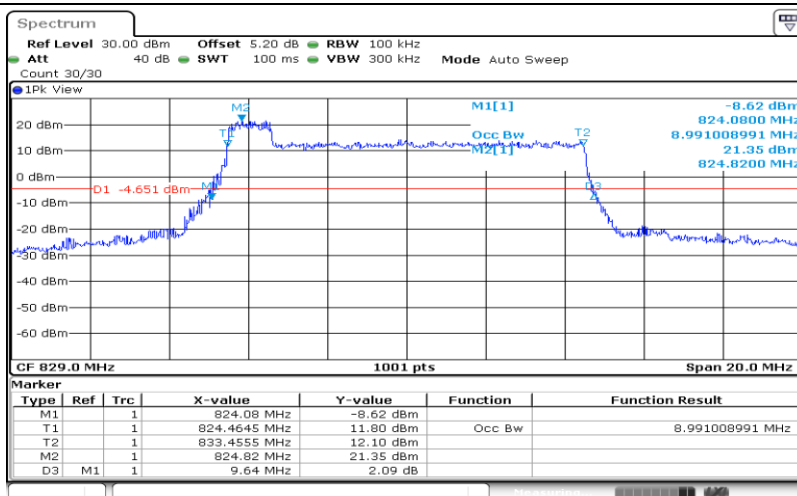
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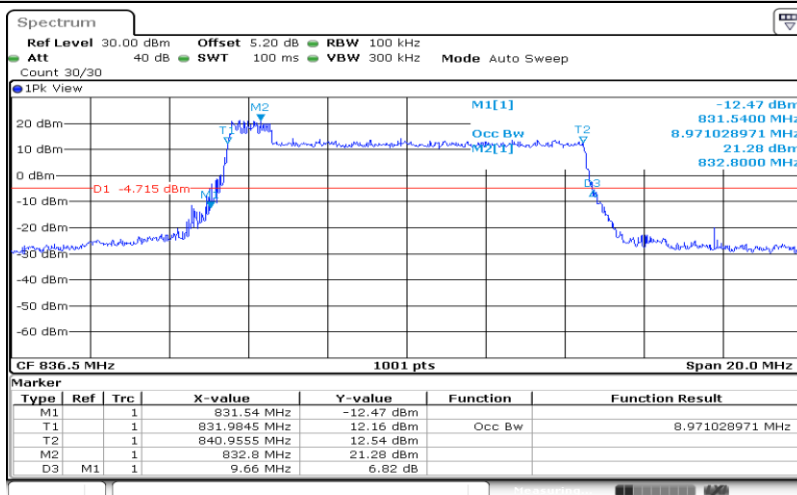
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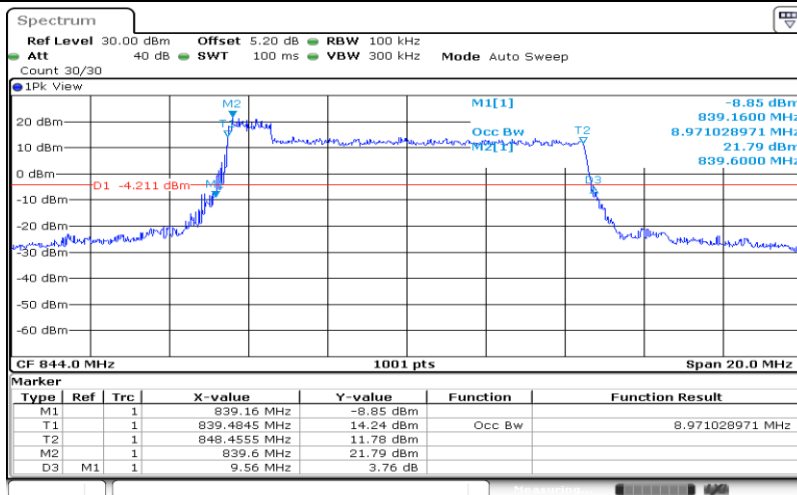
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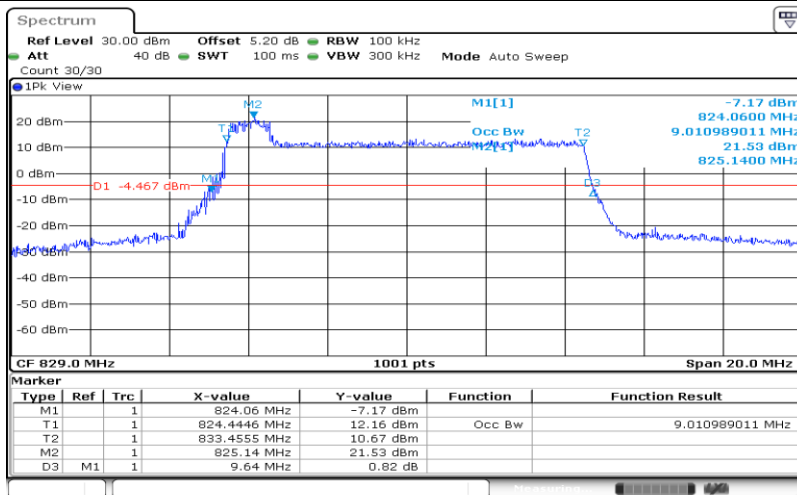
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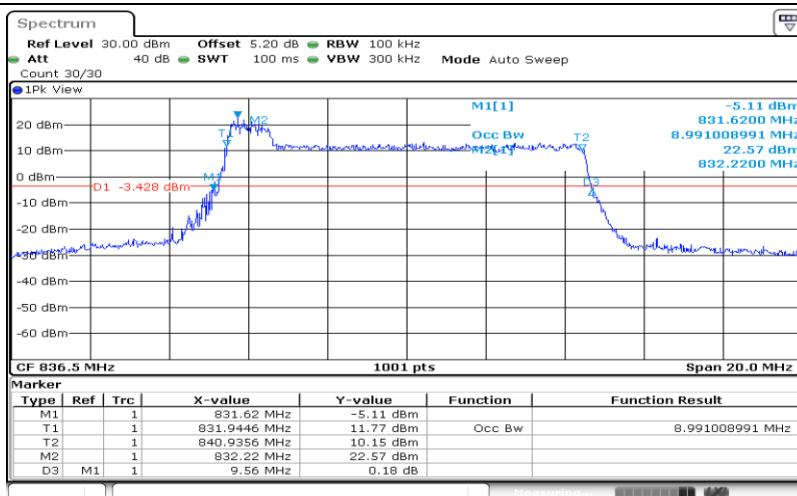
Band5-10MHz-16QAM-20450-50RB#0-9.011



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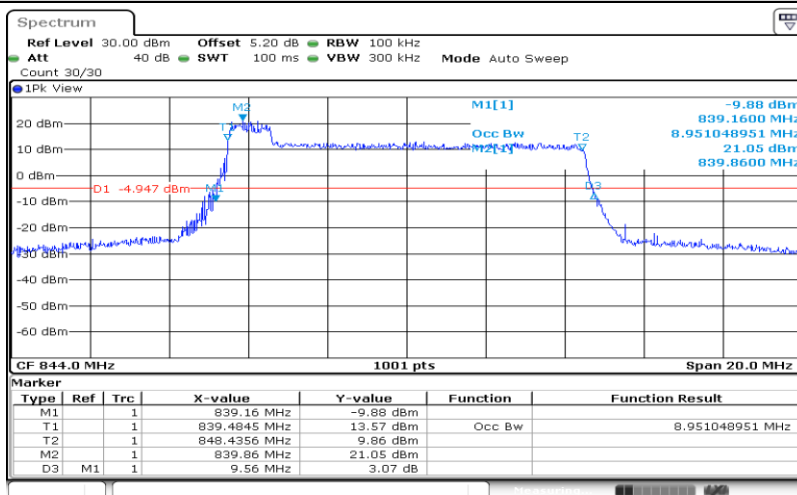
Band5-10MHz-16QAM-20525-50RB#0-8.991





Date: 27.NOV.2019 19:45:08

Band5-10MHz-16QAM-20600-50RB#0-8.951



Date: 27.NOV.2019 19:45:33



5. Band Edge Compliance

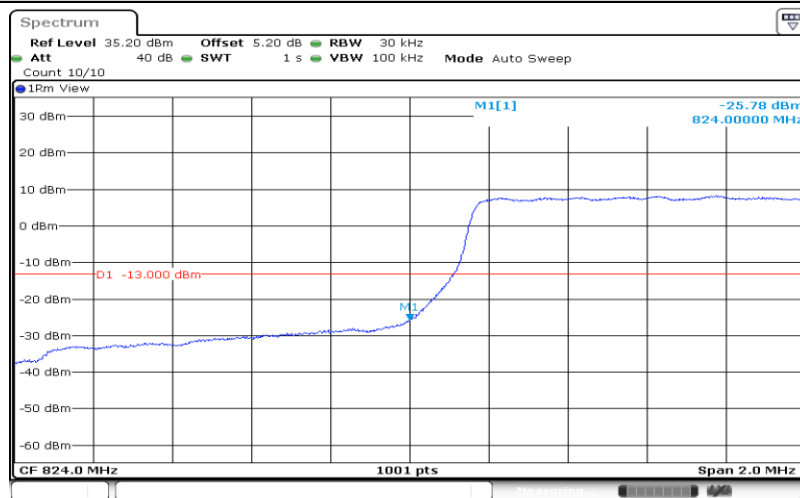
5.1. Test Plots

Band5-1.4MHz-QPSK-20407-1RB#0



Date: 27.NOV.2019 19:45:58

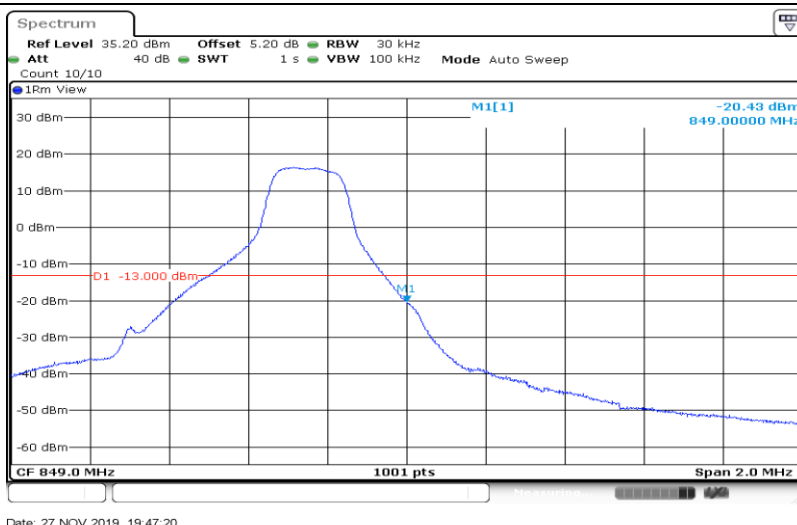
Band5-1.4MHz-QPSK-20407-6RB#0



Date: 27.NOV.2019 19:46:37

Band5-1.4MHz-QPSK-20643-1RB#5



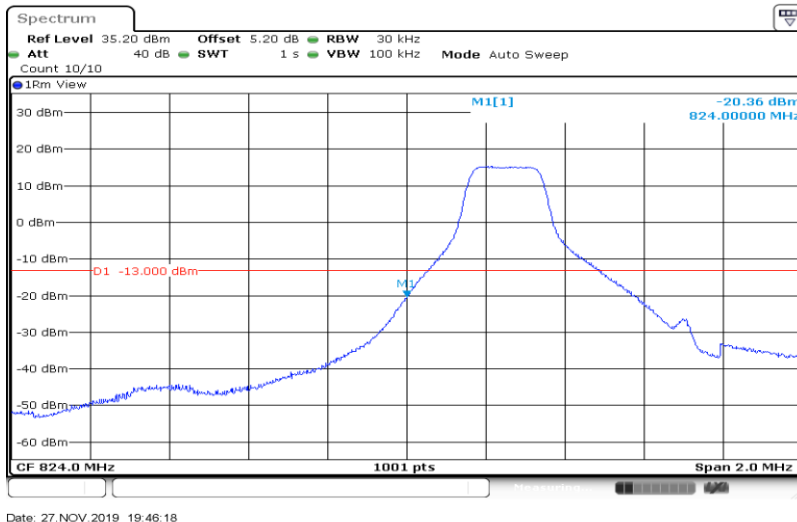


Band5-1.4MHz-QPSK-20643-6RB#0

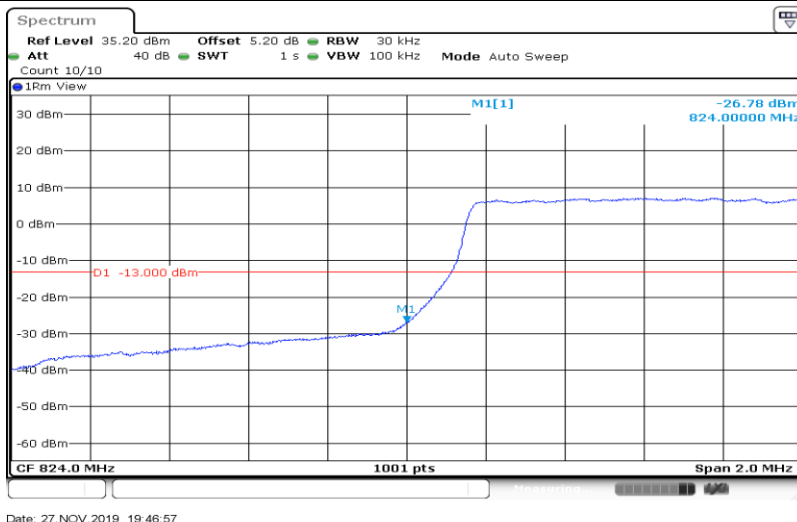


Band5-1.4MHz-16QAM-20407-1RB#0



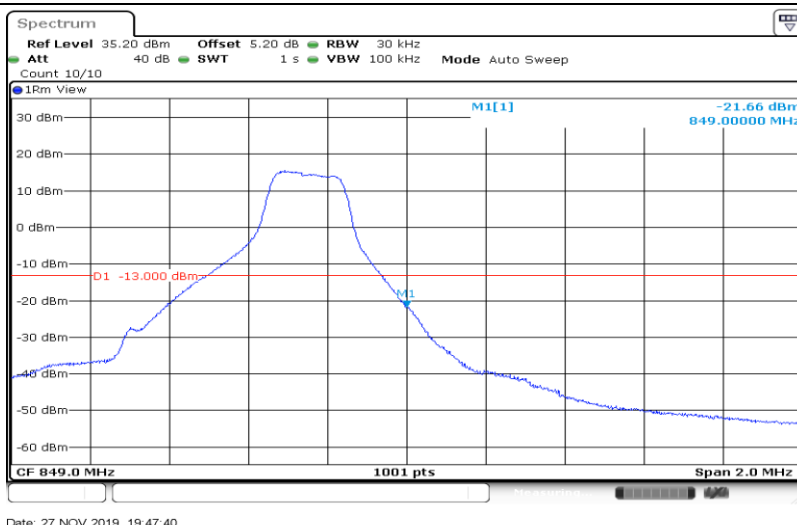


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Band5-1.4MHz-16QAM-20643-1RB#5



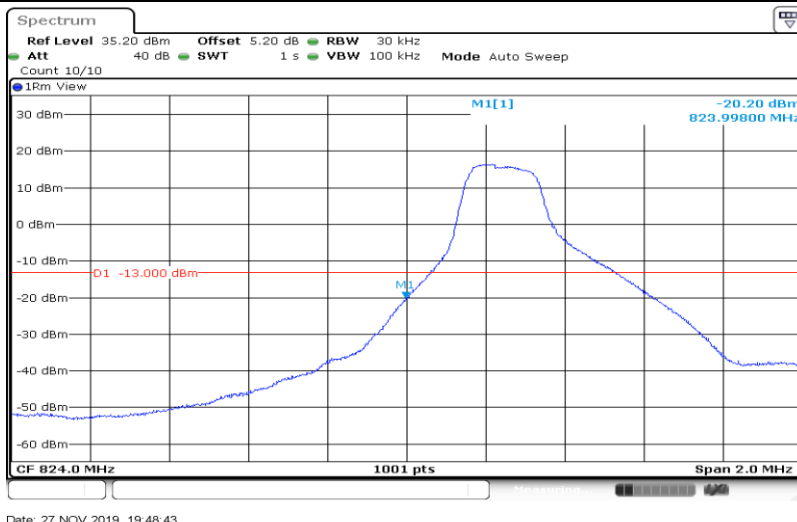


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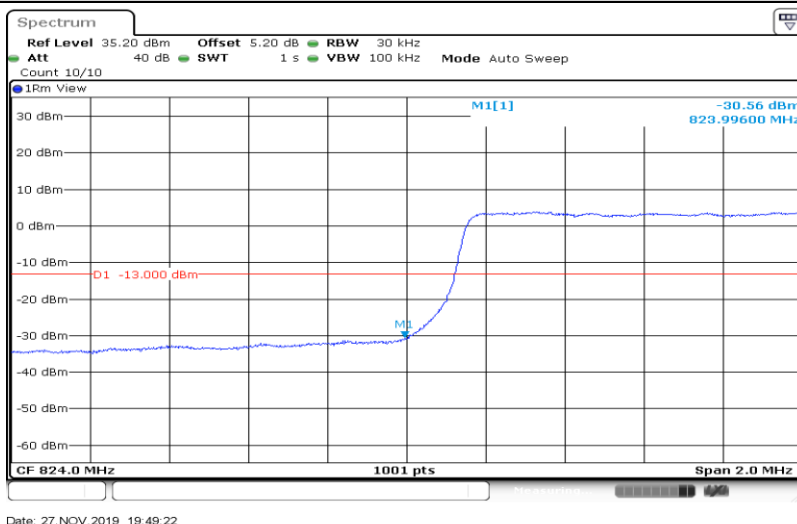


Band5-3MHz-QPSK-20415-1RB#0



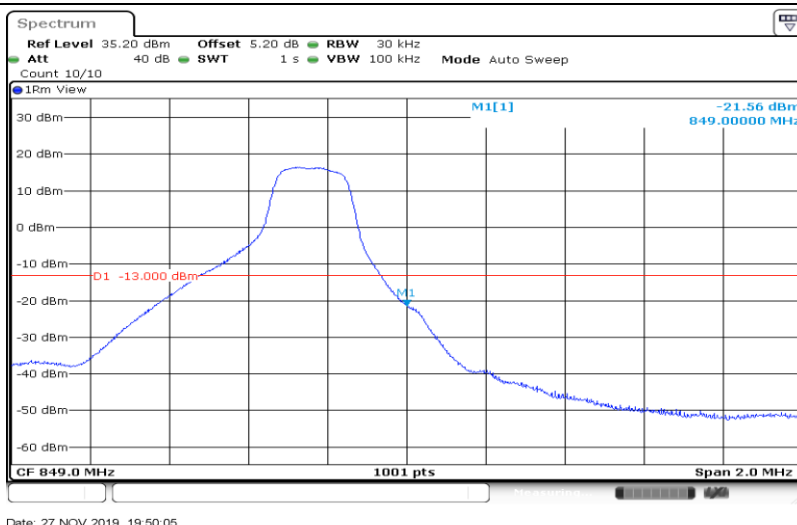


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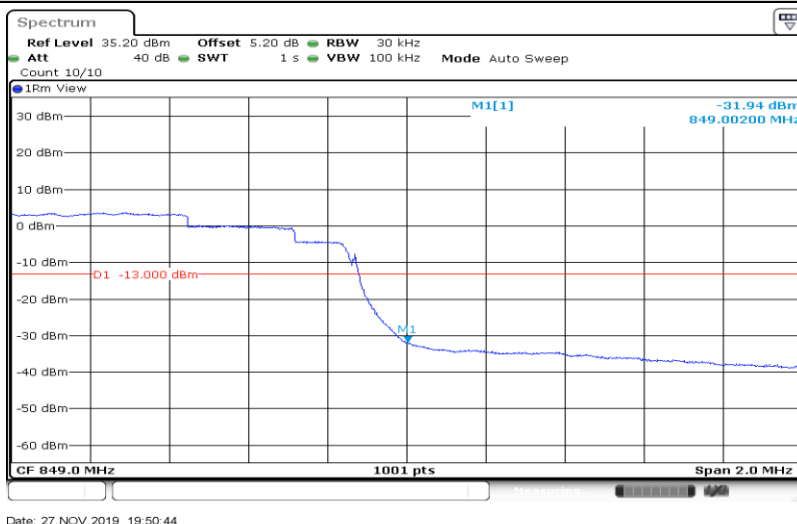


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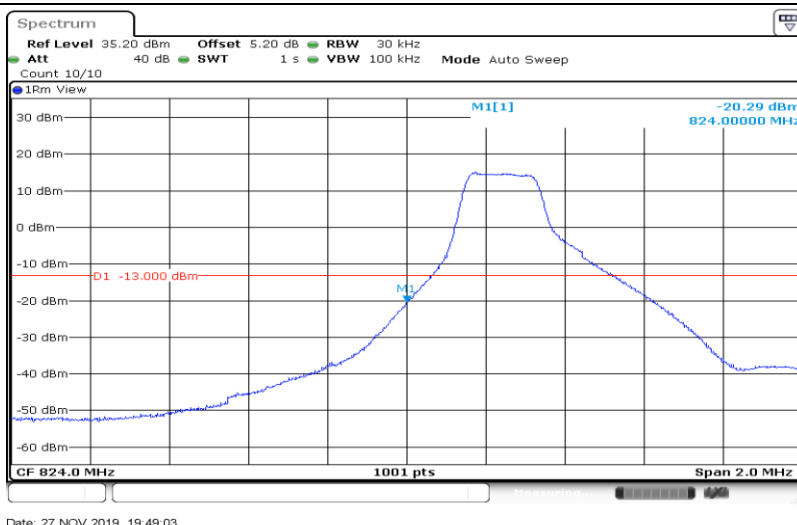


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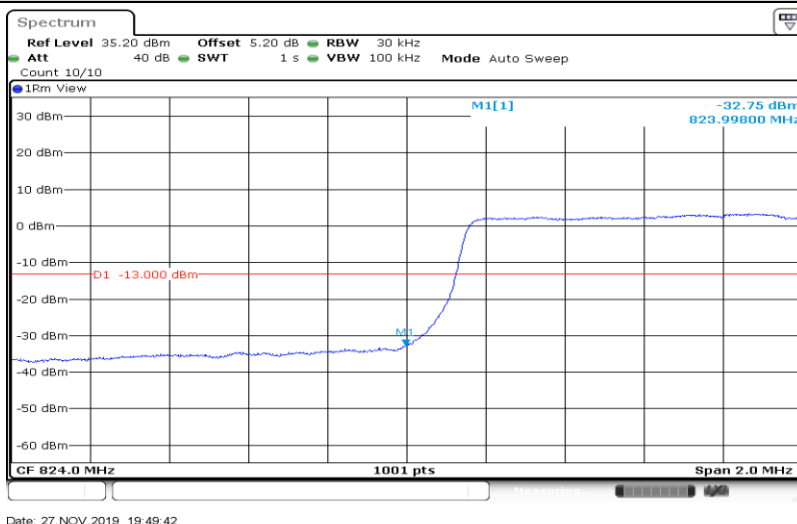


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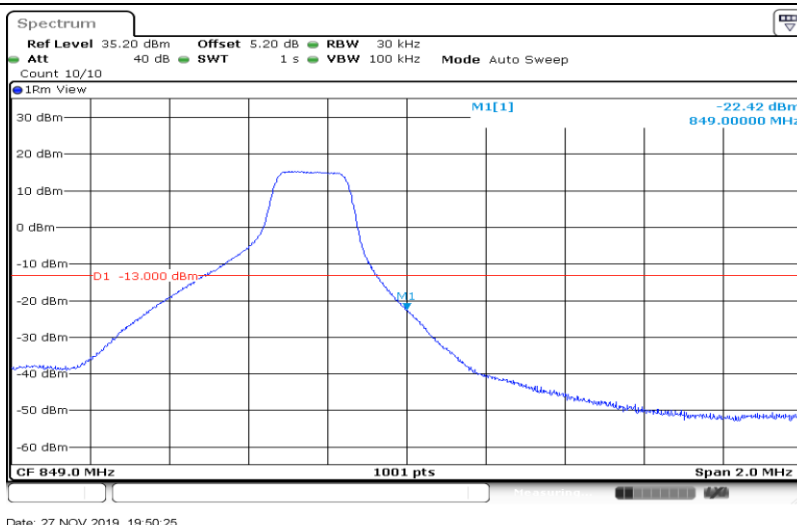


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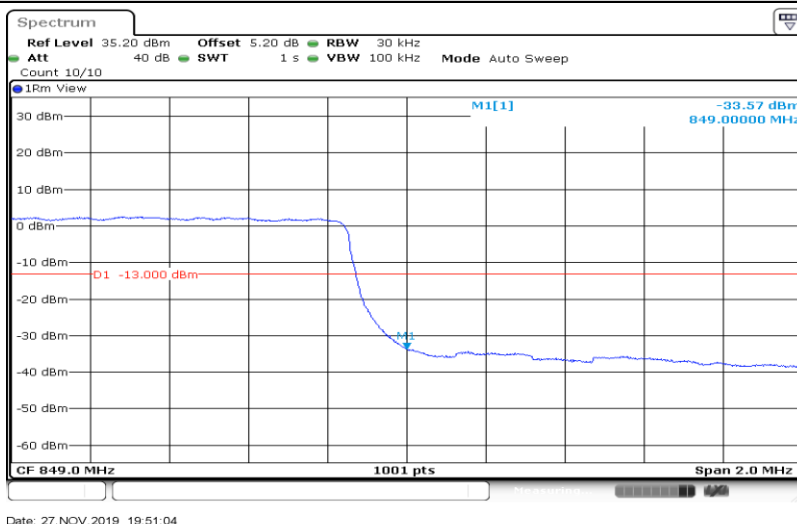


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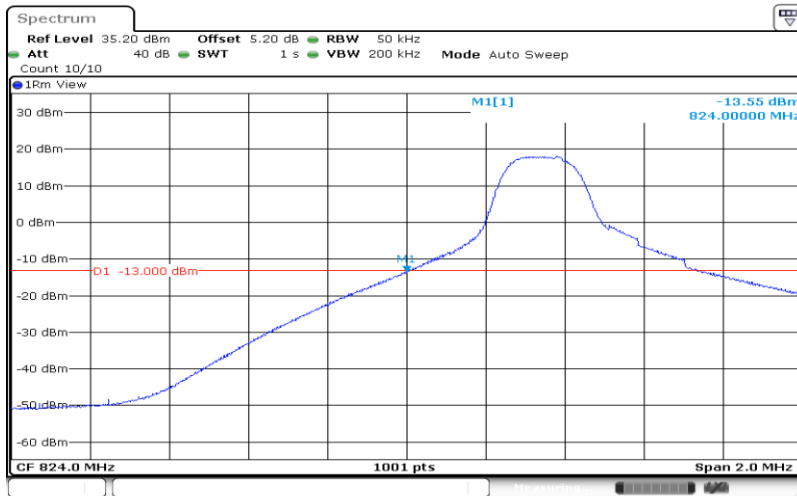


Band5-3MHz-16QAM-20635-15RB#0



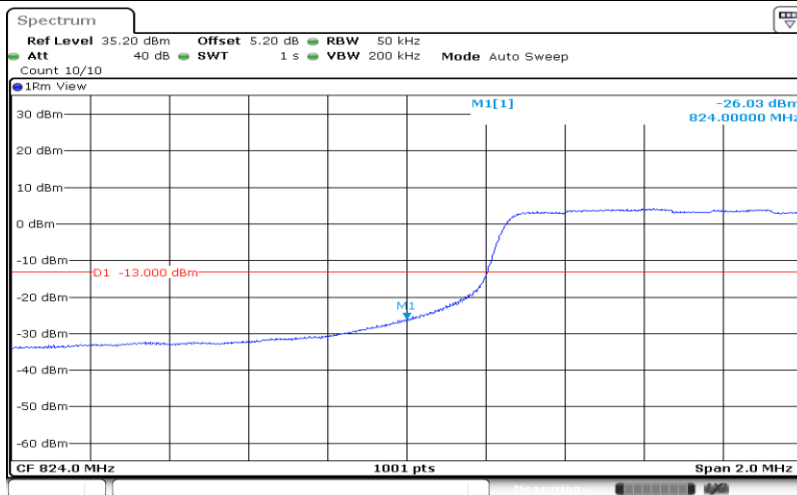
Band5-5MHz-QPSK-20425-1RB#0





Date: 27.NOV.2019 19:51:28

Band5-5MHz-QPSK-20425-25RB#0



Date: 27.NOV.2019 19:52:07

Band5-5MHz-QPSK-20625-1RB#24

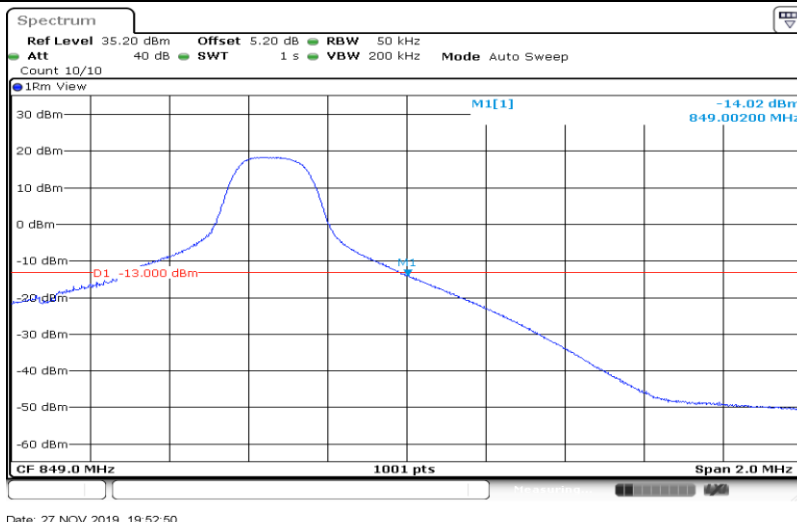


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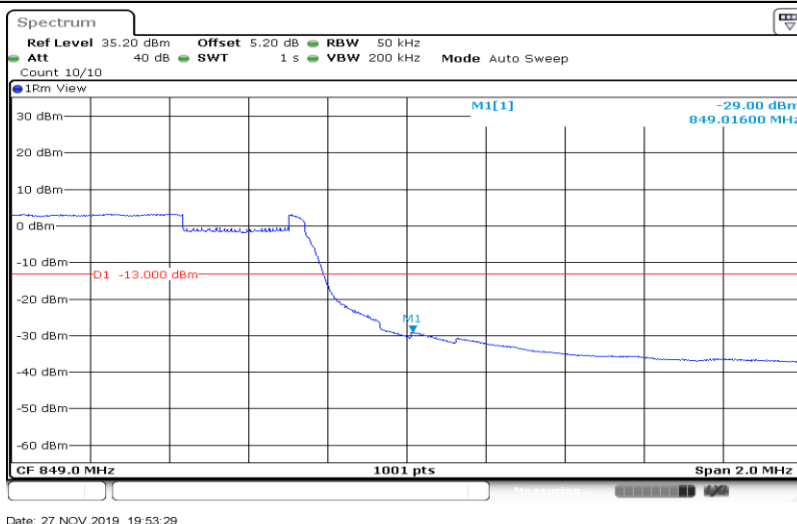
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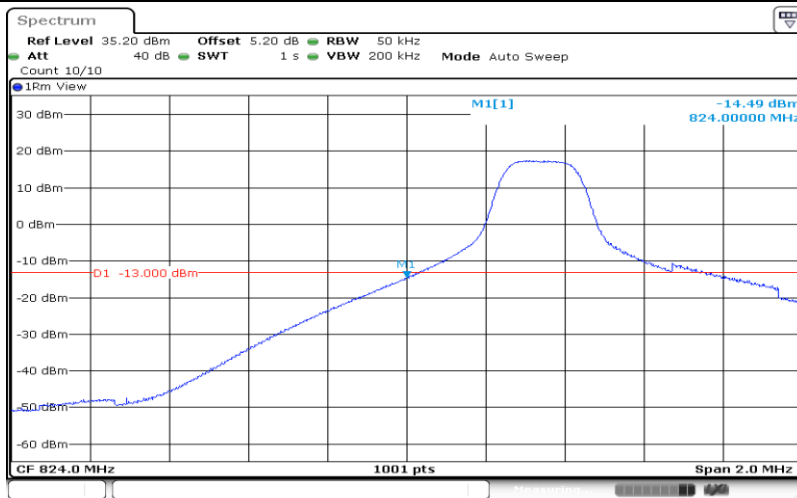


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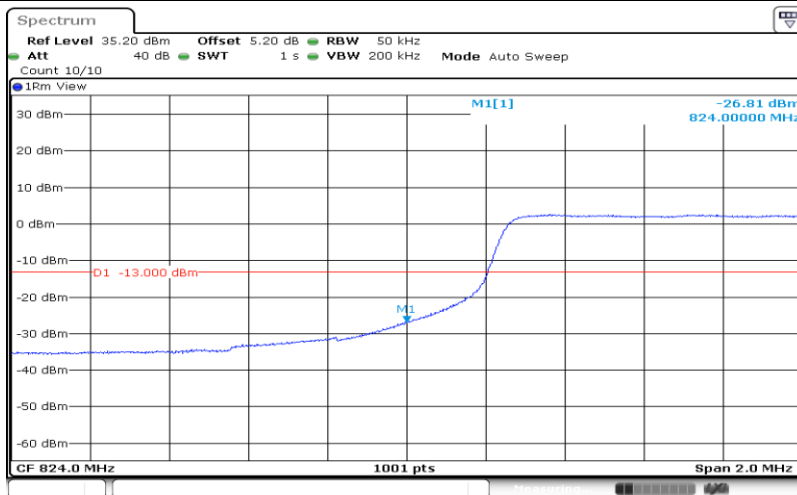
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Date: 27.NOV.2019 19:51:47

Band5-5MHz-16QAM-20425-25RB#0



Date: 27.NOV.2019 19:52:26

Band5-5MHz-16QAM-20625-1RB#24



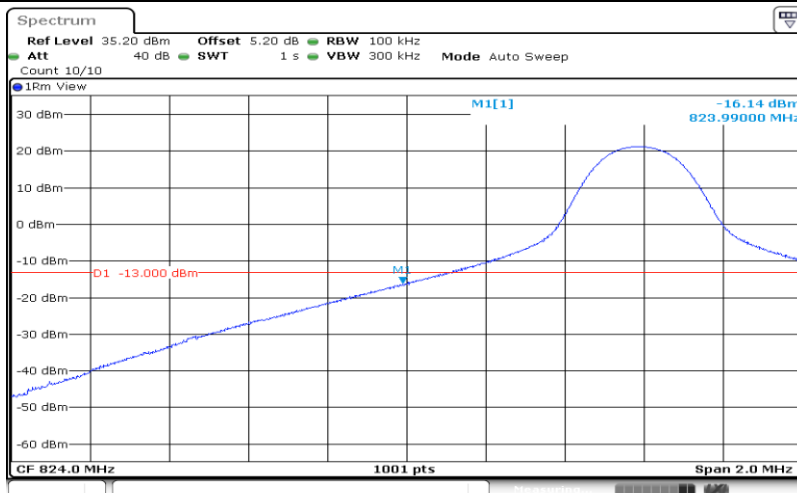


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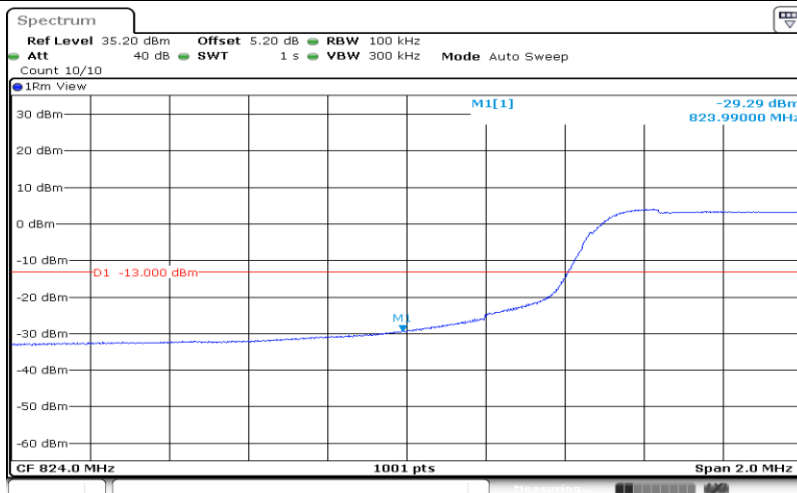
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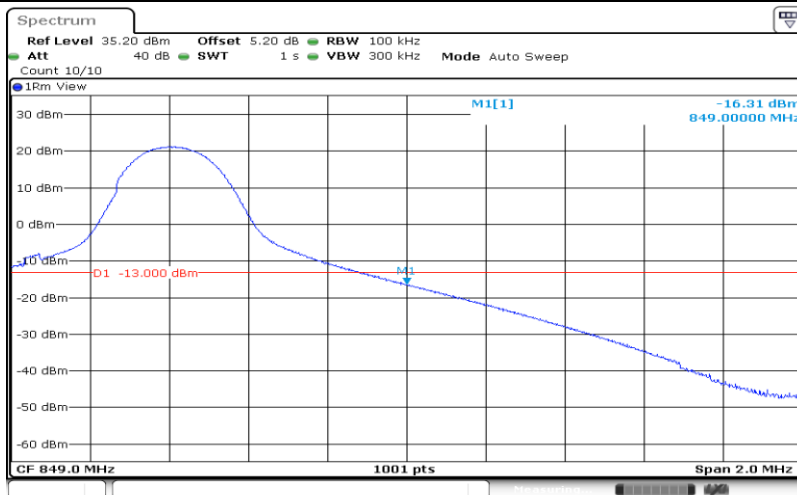
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Date: 27.NOV.2019 19:54:51

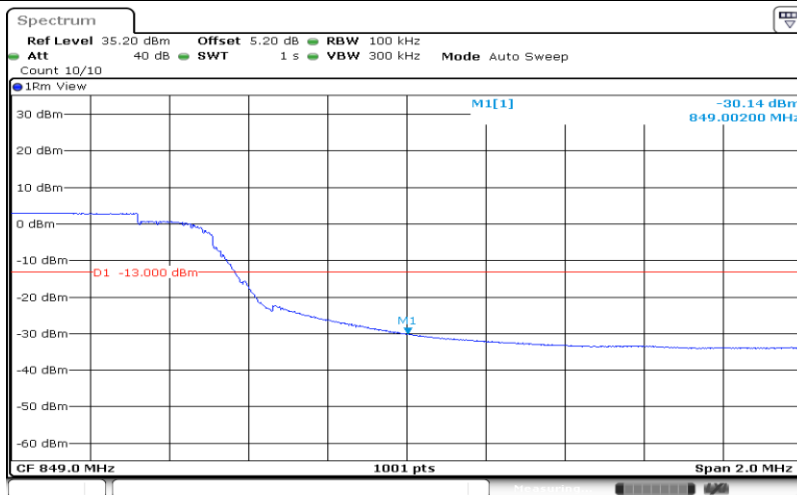
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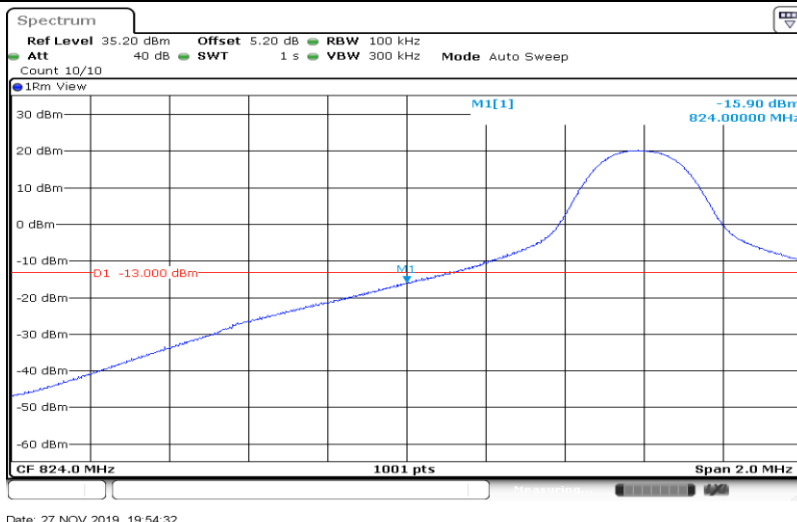
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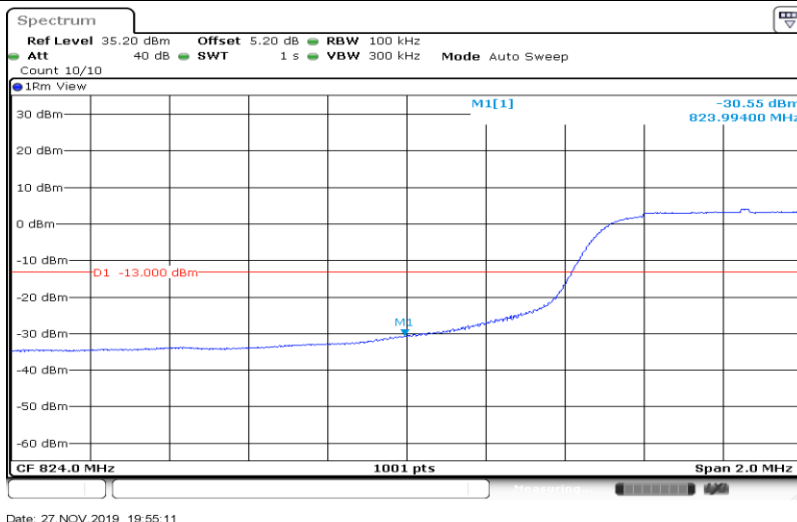
Date: 27.NOV.2019 19:56:13

Band5-10MHz-16QAM-20450-1RB#0



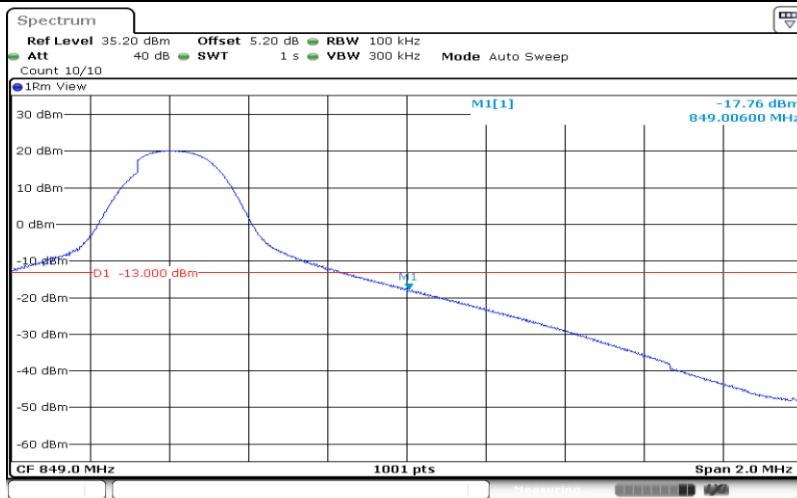


Band5-10MHz-16QAM-20450-50RB#0



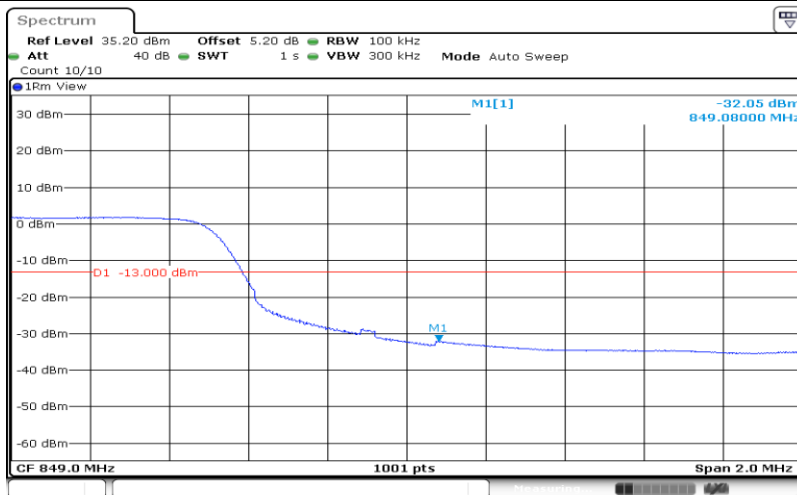
Band5-10MHz-16QAM-20600-1RB#49





Date: 27.NOV.2019 19:55:54

Band5-10MHz-16QAM-20600-50RB#0



Date: 27.NOV.2019 19:56:33



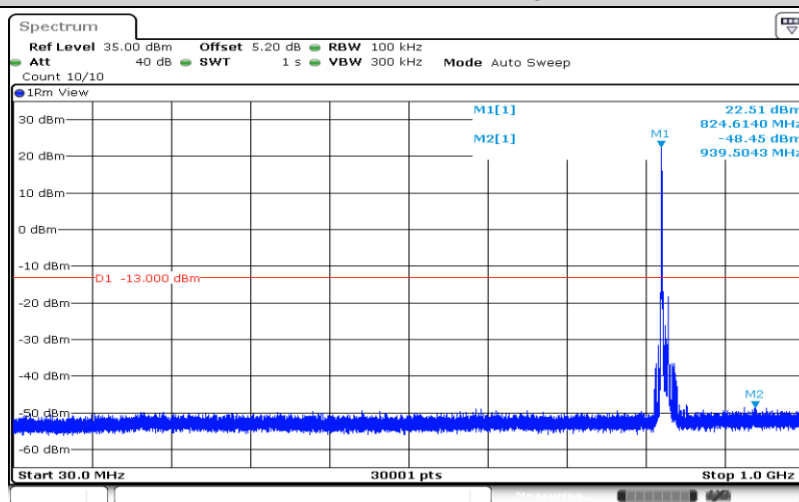
6. Spurious Emission at Antenna Terminal

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.

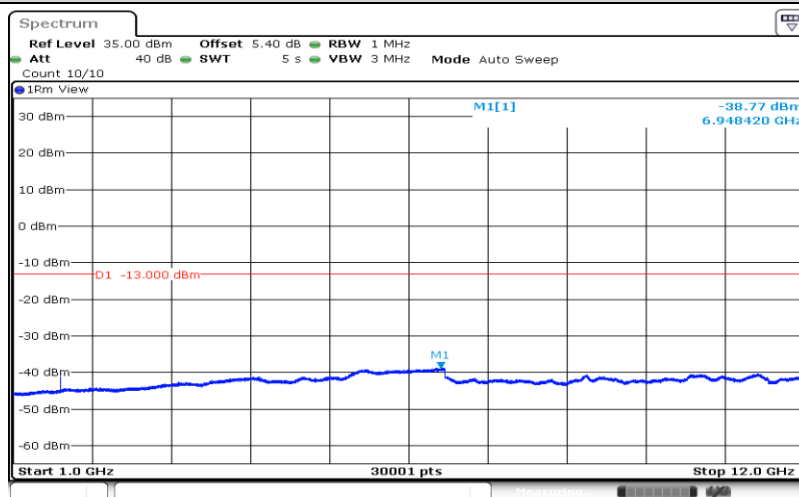
6.1. Test Plots

Band5-10MHz-QPSK-20450-1RB#0-Range1:30~1000MHz



Date: 27.NOV.2019 19:56:57

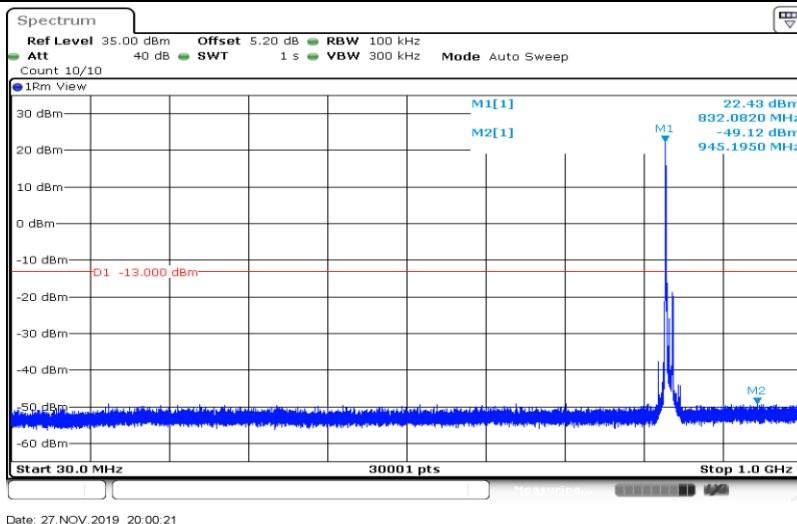
Band5-10MHz-QPSK-20450-1RB#0-Range2:1000~12000MHz



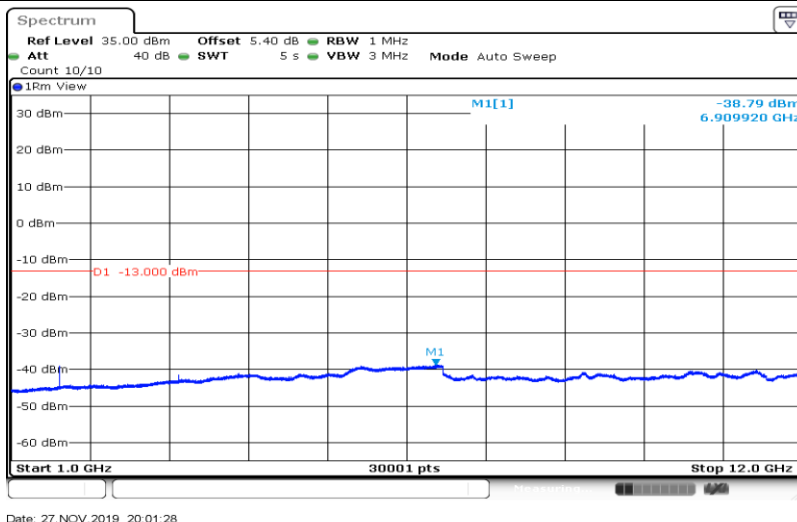
Date: 27.NOV.2019 19:58:04

Band5-10MHz-QPSK-20525-1RB#0-Range1:30~1000MHz



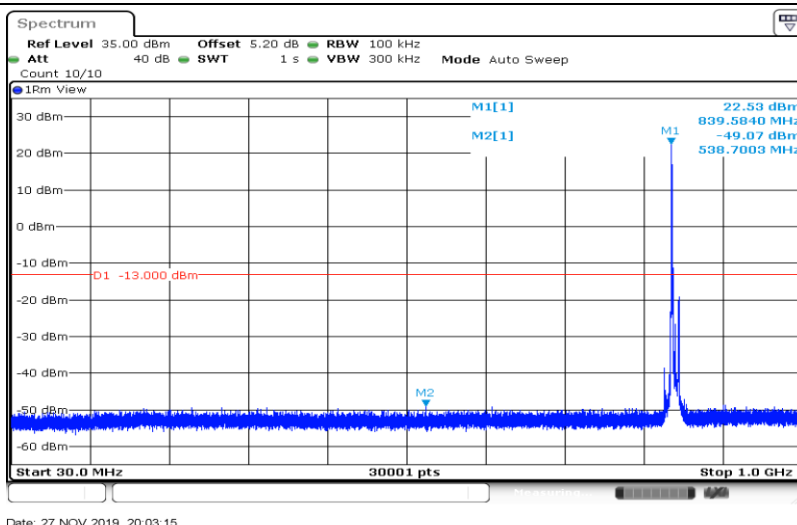


Band5-10MHz-QPSK-20525-1RB#0-Range2:1000~12000MHz

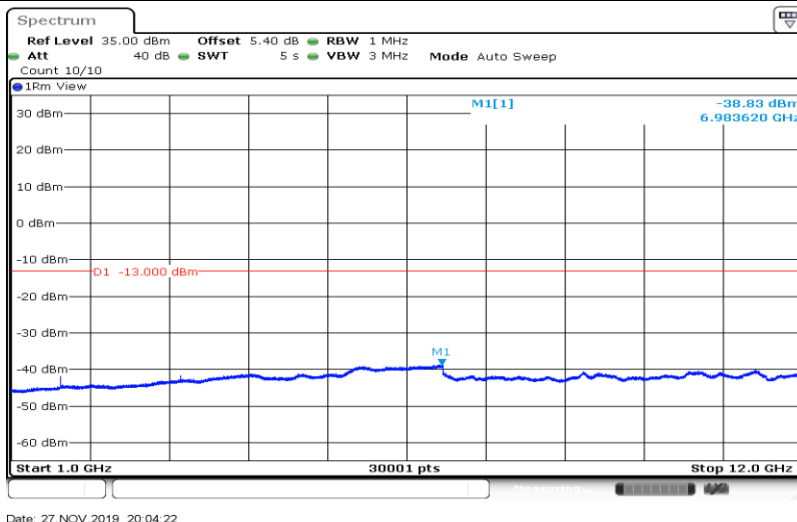


Band5-10MHz-QPSK-20600-1RB#0-Range1:30~1000MHz



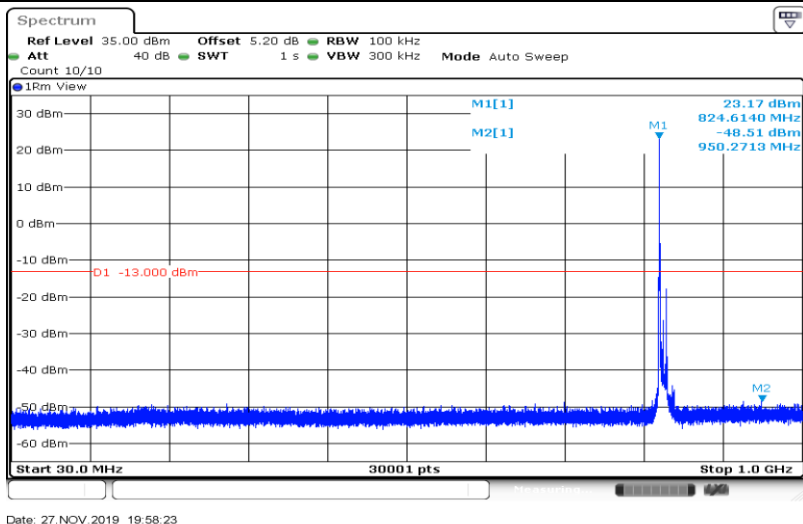


Band5-10MHz-QPSK-20600-1RB#0-Range2:1000~12000MHz

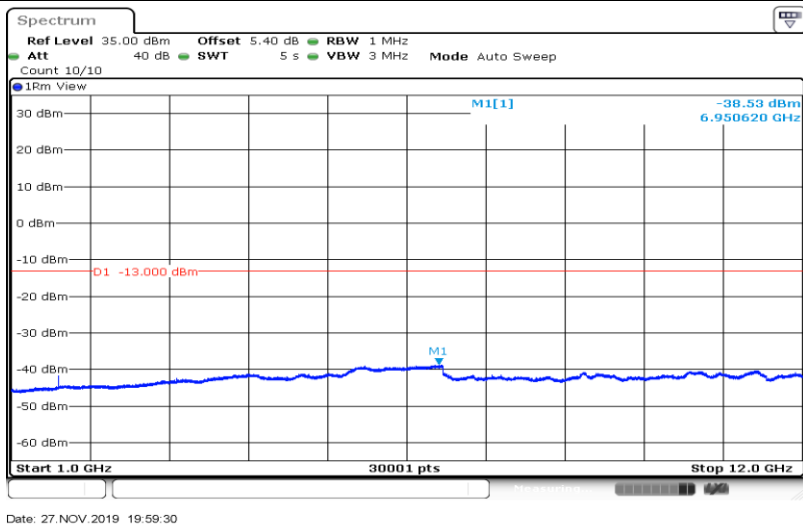


Band5-10MHz-16QAM-20450-1RB#0-Range1:30~1000MHz



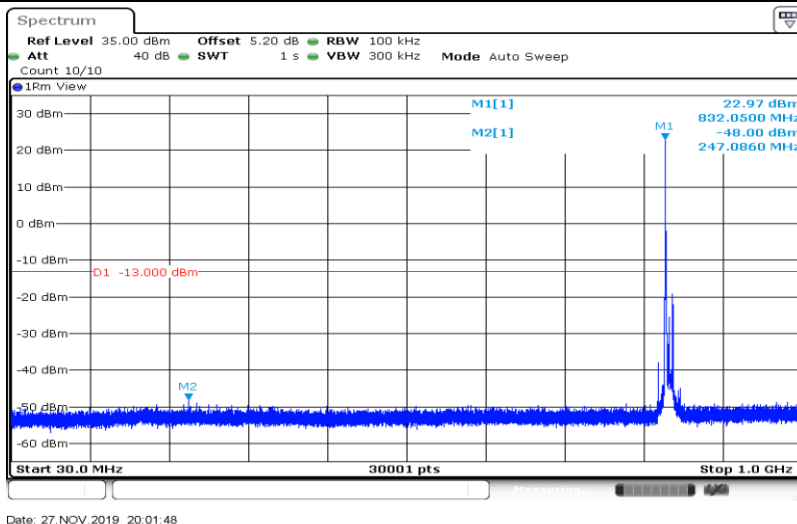


Band5-10MHz-16QAM-20450-1RB#0-Range2:1000~12000MHz



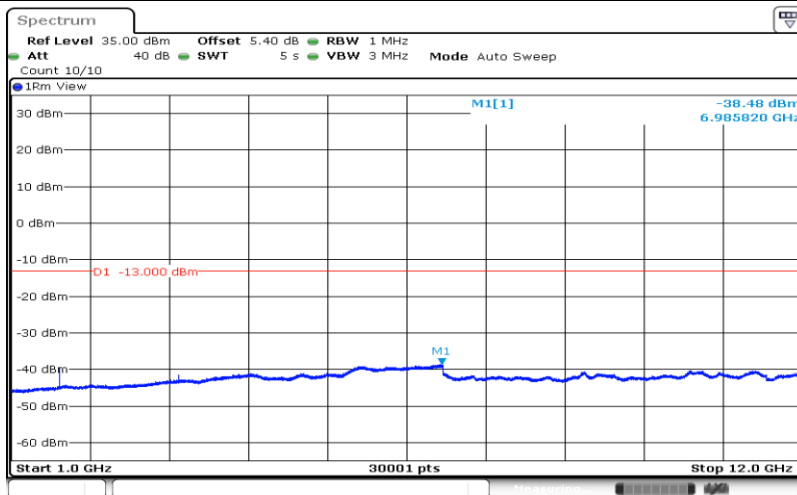
Band5-10MHz-16QAM-20525-1RB#0-Range1:30~1000MHz





Date: 27.NOV.2019 20:01:48

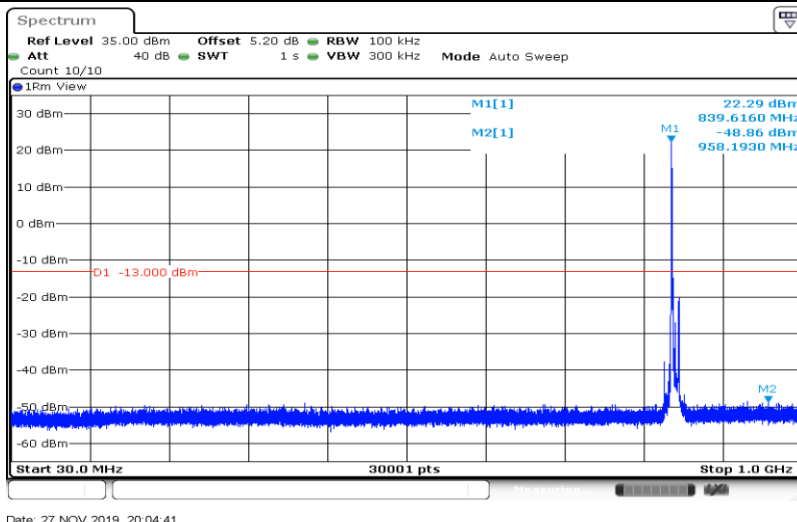
Band5-10MHz-16QAM-20525-1RB#0-Range2:1000~12000MHz



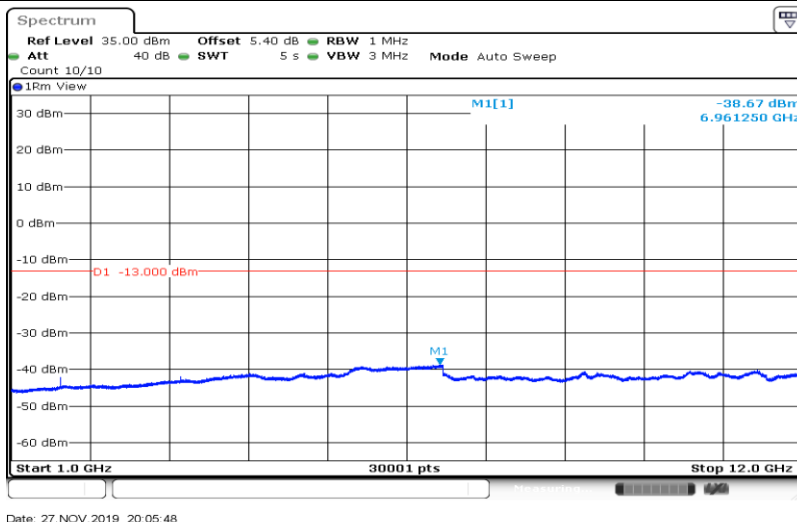
Date: 27.NOV.2019 20:02:55

Band5-10MHz-16QAM-20600-1RB#0-Range1:30~1000MHz





Band5-10MHz-16QAM-20600-1RB#0-Range2:1000~12000MHz





7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1 (Main Ant)

7.1.1.Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height (cm)	Angle (°)	Polarization
109.7380	-61.95	-13.00	48.95	251	130	Vertical
1649.3299	-48.30	-13.00	35.30	154	184	Vertical
1745.7492	-55.23	-13.00	42.23	185	278	Vertical
3298.2099	-53.80	-13.00	40.80	196	98	Vertical
7382.9461	-52.30	-13.00	39.30	231	36	Vertical
8624.5875	-51.45	-13.00	38.45	265	193	Vertical
42.4651	-61.82	-13.00	48.82	251	130	Horizontal
239.1425	-64.97	-13.00	51.97	154	184	Horizontal
1242.4485	-62.39	-13.00	49.39	185	278	Horizontal
1648.9298	-49.59	-13.00	36.59	196	98	Horizontal
2443.0886	-53.35	-13.00	40.35	231	36	Horizontal
8565.1855	-52.40	-13.00	39.40	265	193	Horizontal

7.1.2.Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height (cm)	Angle (°)	Polarization
111.0476	-62.19	-13.00	49.19	251	130	Vertical
1664.1328	-51.80	-13.00	38.80	154	184	Vertical
2480.6961	-34.39	-13.00	21.39	185	278	Vertical
3328.2109	-57.03	-13.00	44.03	196	98	Vertical
7358.9453	-52.36	-13.00	39.36	231	36	Vertical
8859.1953	-50.82	-13.00	37.82	265	193	Vertical
43.0957	-60.91	-13.00	47.91	248	11	Horizontal
1242.0484	-61.48	-13.00	48.48	231	334	Horizontal
1664.1328	-53.24	-13.00	40.24	252	153	Horizontal
2571.9144	-56.28	-13.00	43.28	215	360	Horizontal
7460.1487	-52.85	-13.00	39.85	191	325	Horizontal
8849.1950	-51.66	-13.00	38.66	184	11	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height (cm)	Angle (°)	Polarization
108.1859	-62.46	-13.00	49.46	248	11	Vertical
1242.0484	-61.39	-13.00	48.39	231	334	Vertical
1679.3359	-45.51	-13.00	32.51	252	153	Vertical
2677.9356	-45.19	-13.00	32.19	215	360	Vertical
3358.2119	-51.26	-13.00	38.26	191	325	Vertical
8795.3932	-51.05	-13.00	38.05	184	11	Vertical
39.4580	-62.60	-13.00	49.60	185	39	Horizontal
238.5604	-65.54	-13.00	52.54	196	8	Horizontal
1242.0484	-60.75	-13.00	47.75	231	226	Horizontal
1792.5585	-50.21	-13.00	37.21	252	137	Horizontal
3358.2119	-54.77	-13.00	41.77	161	8	Horizontal
7358.3453	-52.87	-13.00	39.87	184	39	Horizontal

7.2. Test Mode =LTE/TM1 (Second Ant)

7.2.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height (cm)	Angle (°)	Polarization
106.5368	-62.69	-13.00	49.69	185	348	Vertical
1666.9334	-47.08	-13.00	34.08	196	138	Vertical
2500.3001	-56.39	-13.00	43.39	321	109	Vertical
7357.7453	-52.86	-13.00	39.86	252	130	Vertical
8862.3954	-51.36	-13.00	38.36	251	348	Vertical
45.1813	-61.61	-13.00	48.61	258	161	Horizontal
1666.9334	-42.36	-13.00	29.36	196	182	Horizontal
2500.3001	-55.06	-13.00	42.06	213	231	Horizontal
3333.6111	-55.86	-13.00	42.86	256	35	Horizontal
7360.1453	-53.35	-13.00	40.35	248	225	Horizontal
8801.9934	-51.49	-13.00	38.49	184	35	Horizontal





7.2.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height (cm)	Angle (°)	Polarization
111.0476	-63.12	-13.00	50.12	196	192	Vertical
1681.7363	-44.80	-13.00	31.80	213	138	Vertical
2523.1046	-56.73	-13.00	43.73	252	111	Vertical
3363.4121	-57.21	-13.00	44.21	294	254	Vertical
4204.4401	-56.75	-13.00	43.75	184	223	Vertical
8875.9959	-51.81	-13.00	38.81	261	67	Vertical
40.9615	-62.73	-13.00	49.73	185	159	Horizontal
1681.7363	-40.07	-13.00	27.07	296	182	Horizontal
2440.2881	-27.74	-13.00	14.74	226	14	Horizontal
3363.4121	-53.59	-13.00	40.59	325	35	Horizontal
7351.9451	-53.56	-13.00	40.56	251	306	Horizontal
8834.3945	-51.33	-13.00	38.33	184	338	Horizontal

7.2.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height (cm)	Angle (°)	Polarization
112.9391	-62.43	-13.00	49.43	185	290	Vertical
1696.9394	-48.69	-13.00	35.69	196	137	Vertical
2410.6821	-52.75	-13.00	39.75	251	282	Vertical
2582.3165	-43.82	-13.00	30.82	184	52	Vertical
3393.6131	-57.88	-13.00	44.88	196	257	Vertical
8790.3930	-52.06	-13.00	39.06	321	66	Vertical
41.3011	-63.04	-13.00	50.04	185	129	Horizontal
1696.9394	-44.21	-13.00	31.21	196	180	Horizontal
1902.1804	-58.06	-13.00	45.06	321	328	Horizontal
3393.6131	-54.33	-13.00	41.33	262	35	Horizontal
7356.3452	-53.90	-13.00	40.90	254	351	Horizontal
8861.5954	-52.24	-13.00	39.24	184	256	Horizontal

Remark:

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 The disturbance below 30MHz was very low, and the above harmonics were the highest point could be



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found when testing, so only the worst case data displayed in this report.

- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.





8. Frequency Stability

8.1. Frequency Vs 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	-0.10	-0.000121	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	VN	NT	-8.10	-0.009771	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	VH	NT	-10.50	-0.012666	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-2.20	-0.002630	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-10.10	-0.012074	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	0.30	0.000359	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VL	NT	-9.00	-0.010664	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VN	NT	-13.00	-0.015403	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	VH	NT	-2.80	-0.003318	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VL	NT	-4.40	-0.005308	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	VN	NT	-1.40	-0.001689	±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	-14.50	-0.017334	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VN	NT	-4.20	-0.005021	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	VH	NT	-7.30	-0.008727	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VL	NT	-11.20	-0.013270	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VN	NT	-1.00	-0.001185	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	VH	NT	-9.60	-0.011374	±2.5	PASS

8.2. Frequency Vs 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	-9.50	-0.011460	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	-20	-13.20	-0.015923	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	0	-7.70	-0.009288	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	10	0.20	0.000241	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	20	-10.40	-0.012545	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	30	-5.70	-0.006876	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	40	-2.80	-0.003378	±2.5	PASS
Band5	10MHz	QPSK	20450	50RB#0	NV	50	-2.70	-0.003257	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-30	-6.90	-0.008249	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	0.10	0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-10.70	-0.012791	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-6.20	-0.007412	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	2.40	0.002869	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	-10.00	-0.011955	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	-9.30	-0.011118	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	2.60	0.003108	±2.5	PASS



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Band5	10MHz	QPSK	20600	50RB#0	NV	-30	-15.20	-0.018009	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	-20	-6.50	-0.007701	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	0	-7.10	-0.008412	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	10	-9.70	-0.011493	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	20	-2.50	-0.002962	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	30	-1.50	-0.001777	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	40	-13.40	-0.015877	±2.5	PASS
Band5	10MHz	QPSK	20600	50RB#0	NV	50	-9.70	-0.011493	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	-30	-2.30	-0.002774	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	-20	-6.00	-0.007238	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	0	-13.10	-0.015802	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	10	-2.50	-0.003016	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	20	2.30	0.002774	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	30	-10.10	-0.012183	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	40	-2.90	-0.003498	±2.5	PASS
Band5	10MHz	16QAM	20450	50RB#0	NV	50	-10.30	-0.012425	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	-30	-1.20	-0.001435	±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	0	-1.30	-0.001554	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	10	-4.90	-0.005858	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	20	-6.00	-0.007173	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	30	-9.30	-0.011019	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	40	-9.00	-0.010759	±2.5	PASS
Band5	10MHz	16QAM	20525	50RB#0	NV	50	-10.80	-0.012911	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	-30	-9.40	-0.011137	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	-20	-10.90	-0.012915	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	0	-12.20	-0.014455	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	10	-8.50	-0.010071	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	20	-1.30	-0.001540	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	30	-12.60	-0.014929	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	40	-9.30	-0.011019	±2.5	PASS
Band5	10MHz	16QAM	20600	50RB#0	NV	50	-14.10	-0.016706	±2.5	PASS



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