

Appendix B

E-UTRA Band 7



CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER	3
1.1	TEST RESULT	3
2	PEAK-TO-AVERAGE RATIO (CCDF)	8
2.1	TEST RESULT	8
2.2	TEST PLOTS	8
3	MODULATION CHARACTERISTICS	12
3.1	TEST BAND = LTE BAND 7	12
3.1.1.	TEST MODE = LTE /TM1 20MHZ	12
3.1.1.1.	TEST CHANNEL = MCH	12
3.1.2.	TEST MODE = LTE /TM2 20MHZ	13
3.1.2.1.	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	44
6.1	TEST PLOTS	44
7	FIELD STRENGTH OF SPURIOUS RADIATION.....	51
7.1	TEST BAND = LTE BAND 7	51
7.1.1.	TEST MODE =LTE/TM1 20MHZ.....	51
7.1.1.1.	TEST CHANNEL = LCH	51
7.1.1.2.	TEST CHANNEL = MCH	51
7.1.1.3.	TEST CHANNEL = HCH.....	52
8	FREQUENCY STABILITY	53
8.1	FREQUENCY VS VOLTAGE	53
8.2	FREQUENCY VS TEMPERATURE	54



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1 Effective (Isotropic) Radiated Power

1.1 Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	21.77	13.62	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#12	22.01	13.86	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#24	21.52	13.37	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#0	21.07	12.92	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#6	21.12	12.97	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#13	20.95	12.8	33.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	21.03	12.88	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#0	21.61	13.46	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#12	21.89	13.74	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#24	21.6	13.45	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#0	21.13	12.98	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#6	21.05	12.9	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#13	20.98	12.83	33.00	PASS
Band7	5MHz	QPSK	21100	25RB#0	21.05	12.9	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#0	21.53	13.38	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#12	22.05	13.9	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#24	21.57	13.42	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	21.27	13.12	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#6	21.23	13.08	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#13	21.05	12.9	33.00	PASS
Band7	5MHz	QPSK	21425	25RB#0	21.12	12.97	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#0	21	12.85	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#12	20.67	12.52	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#24	20.61	12.46	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#0	20.02	11.87	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#6	20.18	12.03	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#13	20.02	11.87	33.00	PASS
Band7	5MHz	16QAM	20775	25RB#0	20.14	11.99	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#0	21.03	12.88	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#12	20.95	12.8	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#24	20.95	12.8	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#0	19.94	11.79	33.00	PASS



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Band7	5MHz	16QAM	21100	12RB#6	20.2	12.05	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#13	20.02	11.87	33.00	PASS
Band7	5MHz	16QAM	21100	25RB#0	20.15	12	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#0	21.19	13.04	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#12	21.09	12.94	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#24	21.06	12.91	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#0	20.1	11.95	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#6	20.36	12.21	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#13	20.28	12.13	33.00	PASS
Band7	5MHz	16QAM	21425	25RB#0	20.14	11.99	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#0	21.88	13.73	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#24	22.28	14.13	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#49	21.56	13.41	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#0	21.05	12.9	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#12	20.98	12.83	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#25	20.96	12.81	33.00	PASS
Band7	10MHz	QPSK	20800	50RB#0	21.02	12.87	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#0	21.74	13.59	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#24	22.17	14.02	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#49	21.76	13.61	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#0	20.93	12.78	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#12	21.01	12.86	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#25	21.11	12.96	33.00	PASS
Band7	10MHz	QPSK	21100	50RB#0	21.05	12.9	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#0	21.95	13.8	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#24	22.21	14.06	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#49	21.86	13.71	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#0	21.23	13.08	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#12	21.14	12.99	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#25	21.17	13.02	33.00	PASS
Band7	10MHz	QPSK	21400	50RB#0	21.26	13.11	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#0	21.12	12.97	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#24	21.27	13.12	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#49	20.73	12.58	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#0	20.13	11.98	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#12	20.01	11.86	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#25	20.25	12.1	33.00	PASS
Band7	10MHz	16QAM	20800	50RB#0	20.02	11.87	33.00	PASS



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Band7	10MHz	16QAM	21100	1RB#0	20.37	12.22	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#24	20.82	12.67	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#49	20.9	12.75	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#0	20.11	11.96	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#12	20.04	11.89	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#25	20.2	12.05	33.00	PASS
Band7	10MHz	16QAM	21100	50RB#0	20.07	11.92	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#0	20.89	12.74	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#24	21.36	13.21	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#49	21.39	13.24	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#0	20.31	12.16	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#12	20.21	12.06	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#25	20.27	12.12	33.00	PASS
Band7	10MHz	16QAM	21400	50RB#0	20.4	12.25	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#0	22.04	13.89	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#38	21.89	13.74	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#74	21.87	13.72	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#0	21.01	12.86	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#18	20.91	12.76	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#37	21.02	12.87	33.00	PASS
Band7	15MHz	QPSK	20825	75RB#0	20.96	12.81	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#0	21.97	13.82	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#38	21.97	13.82	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#74	22.18	14.03	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#0	21.01	12.86	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#18	21.02	12.87	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#37	21.11	12.96	33.00	PASS
Band7	15MHz	QPSK	21100	75RB#0	21.02	12.87	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#0	21.81	13.66	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#38	22.04	13.89	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#74	22.07	13.92	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#0	21.2	13.05	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#18	21.14	12.99	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#37	21.36	13.21	33.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	21.12	12.97	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	20.91	12.76	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#38	20.79	12.64	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#74	20.8	12.65	33.00	PASS



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Band7	15MHz	16QAM	20825	38RB#0	20.14	11.99	33.00	PASS
Band7	15MHz	16QAM	20825	38RB#18	20.02	11.87	33.00	PASS
Band7	15MHz	16QAM	20825	38RB#37	20	11.85	33.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	19.99	11.84	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#0	21.02	12.87	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#38	20.87	12.72	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#74	20.94	12.79	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#0	20	11.85	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#18	20.01	11.86	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#37	20.12	11.97	33.00	PASS
Band7	15MHz	16QAM	21100	75RB#0	20.14	11.99	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#0	21.29	13.14	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#38	20.78	12.63	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	20.85	12.7	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#0	20.45	12.3	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#18	20.13	11.98	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#37	20.21	12.06	33.00	PASS
Band7	15MHz	16QAM	21375	75RB#0	20.23	12.08	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#0	21.98	13.83	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#49	22.02	13.87	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#99	21.73	13.58	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#0	20.98	12.83	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	20.85	12.7	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#50	21.05	12.9	33.00	PASS
Band7	20MHz	QPSK	20850	100RB#0	20.93	12.78	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#0	21.71	13.56	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#49	22.03	13.88	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#99	22.01	13.86	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#0	21.07	12.92	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	21	12.85	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#50	21.05	12.9	33.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	21	12.85	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#0	21.71	13.56	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#49	22.07	13.92	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#99	21.98	13.83	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#0	21.25	13.1	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#25	21.1	12.95	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#50	21.23	13.08	33.00	PASS



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Band7	20MHz	QPSK	21350	100RB#0	21.14	12.99	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#0	20.73	12.58	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#49	21.29	13.14	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	20.75	12.6	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#0	20.2	12.05	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#25	20.15	12	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#50	20.09	11.94	33.00	PASS
Band7	20MHz	16QAM	20850	100RB#0	20.02	11.87	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#0	20.77	12.62	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#49	21.39	13.24	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#99	20.86	12.71	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#0	20.18	12.03	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#25	20.16	12.01	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#50	20.25	12.1	33.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	20.06	11.91	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#0	21.26	13.11	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#49	20.76	12.61	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#99	21.13	12.98	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#0	20.32	12.17	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#25	20.14	11.99	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#50	20.31	12.16	33.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	20.31	12.16	33.00	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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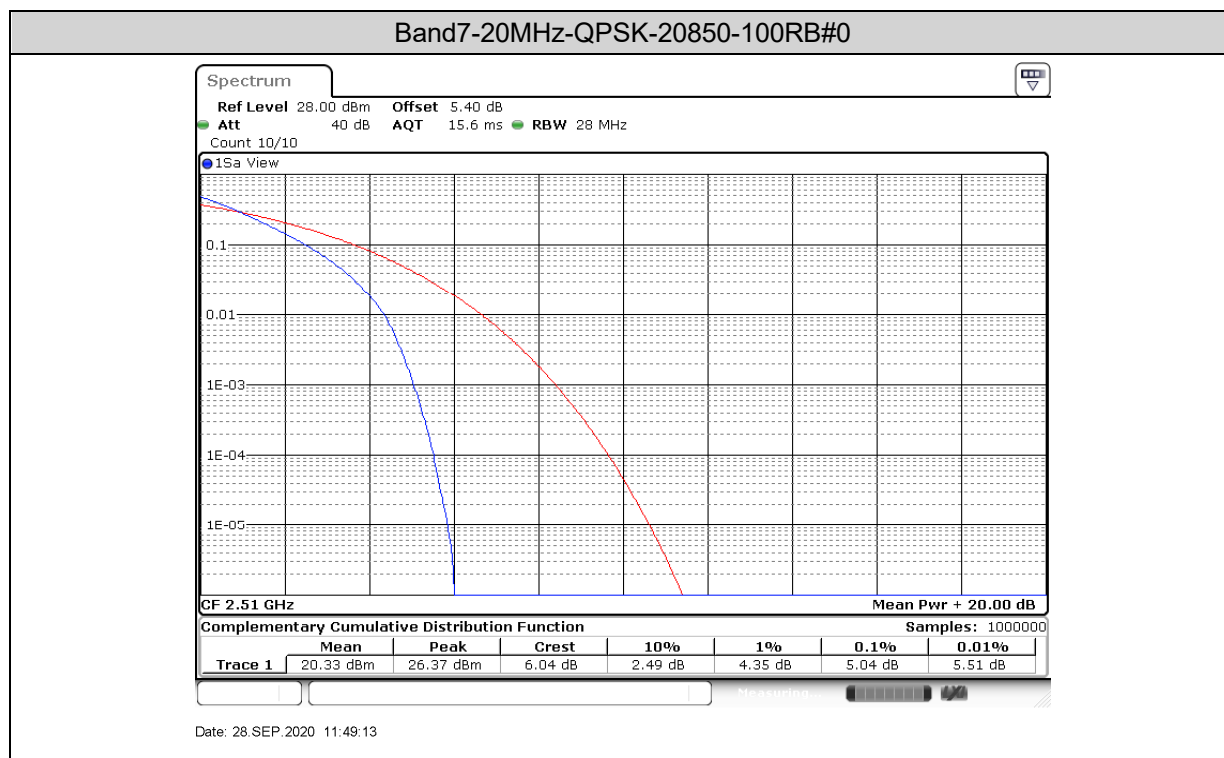
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2 Peak-to-Average Ratio (CCDF)

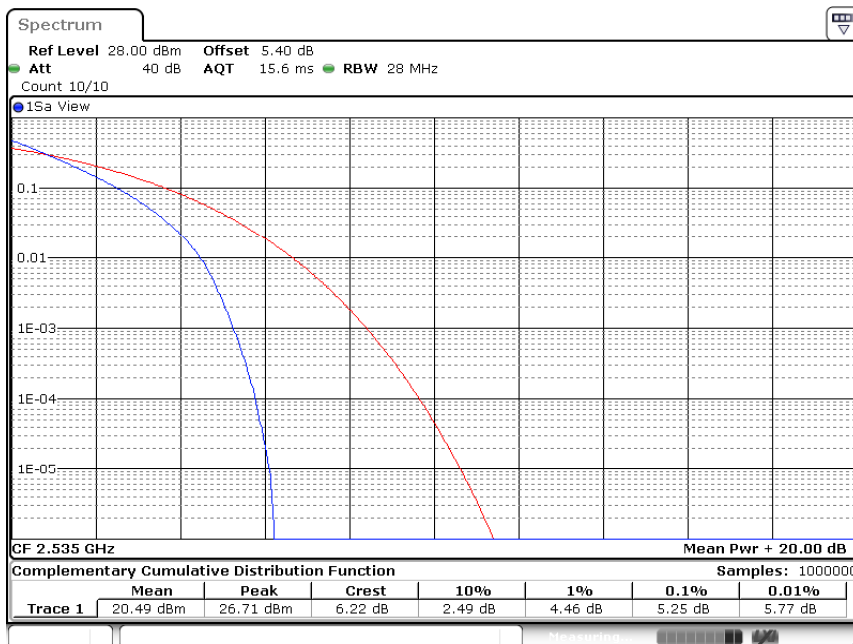
2.1 Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	5.04	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.25	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.10	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.94	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.14	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	6.00	13	PASS

2.2 Test Plots

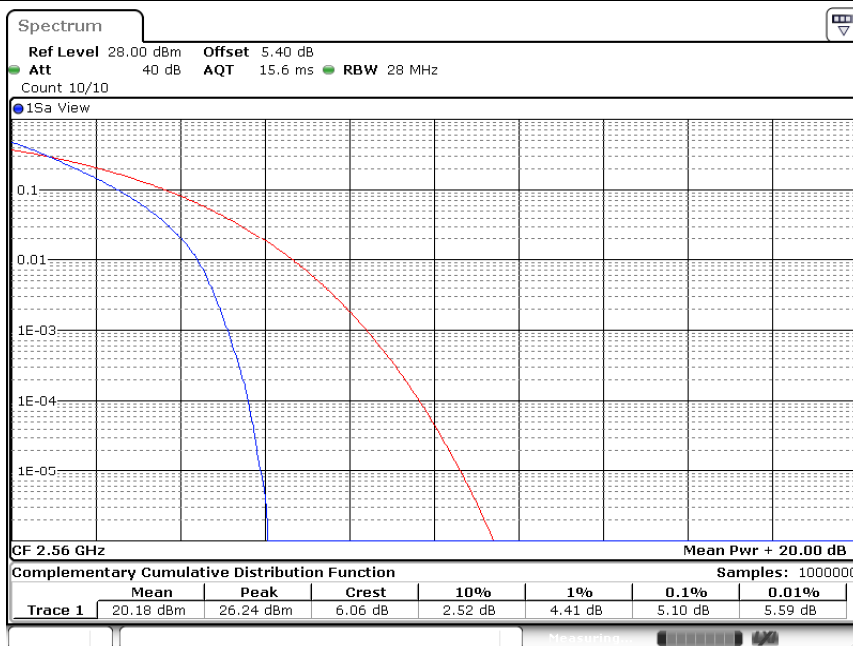


Band7-20MHz-QPSK-21100-100RB#0



Date: 28.SEP.2020 11:49:42

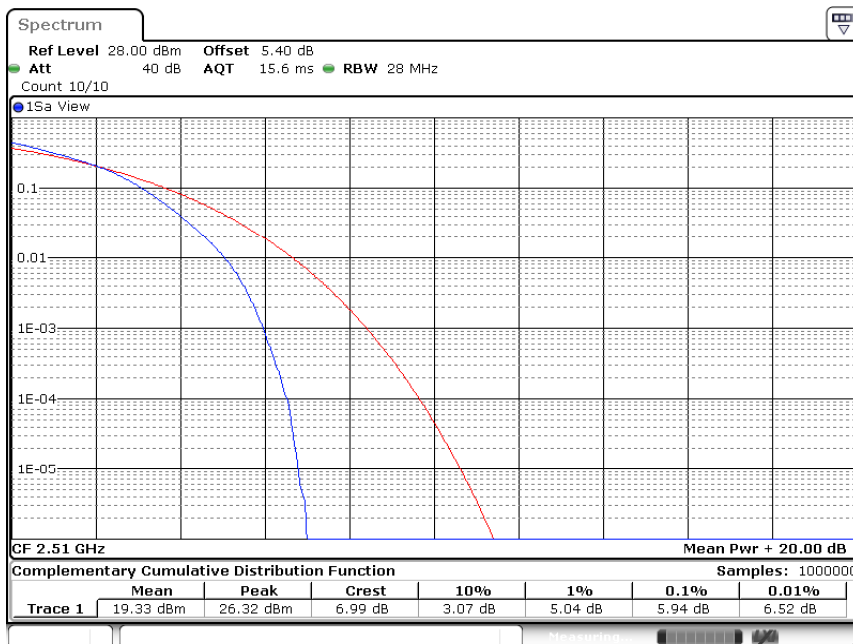
Band7-20MHz-QPSK-21350-100RB#0



Date: 28.SEP.2020 11:50:10

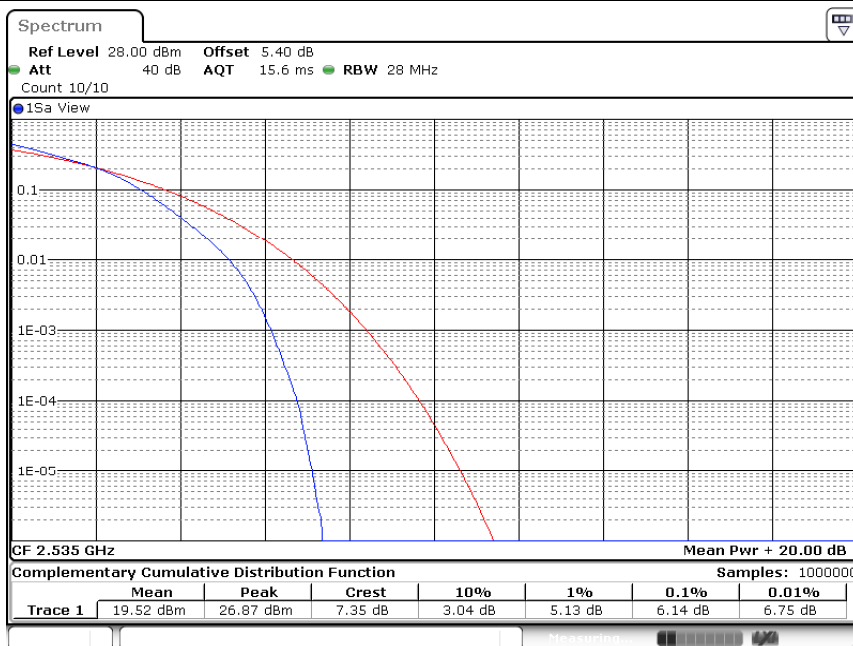


Band7-20MHz-16QAM-20850-100RB#0



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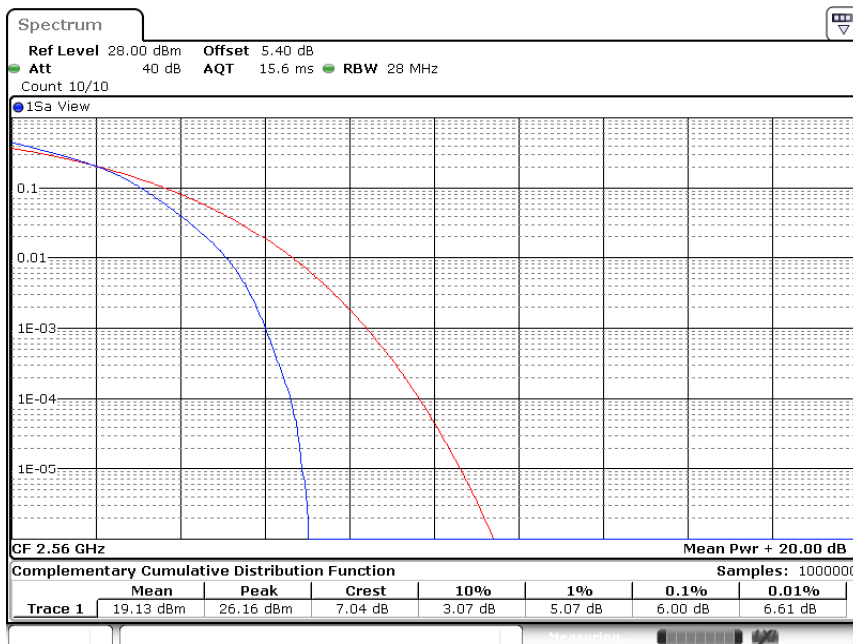
Band7-20MHz-16QAM-21100-100RB#0



Date: 28.SEP.2020 11:49:56



Band7-20MHz-16QAM-21350-100RB#0



Date: 28.SEP.2020 11:50:24

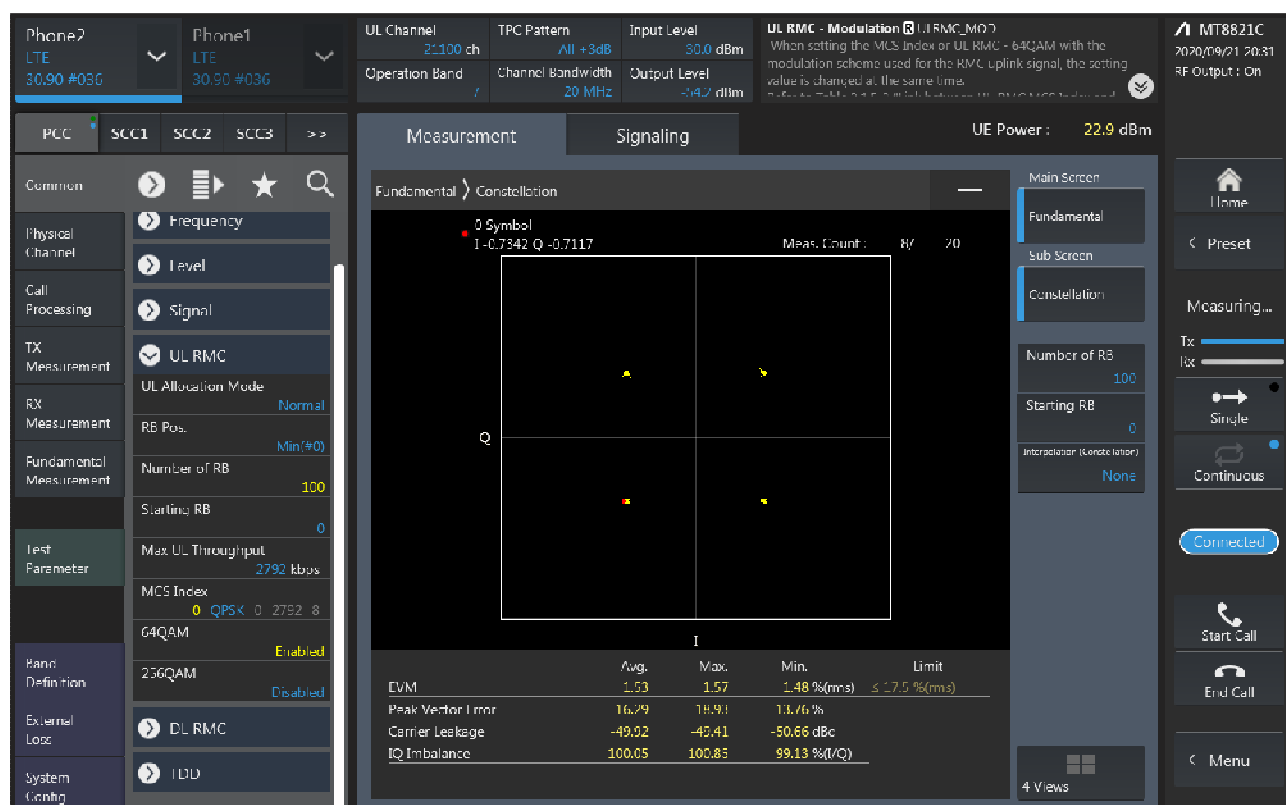


3 Modulation Characteristics

3.1 Test Band = LTE Band 7

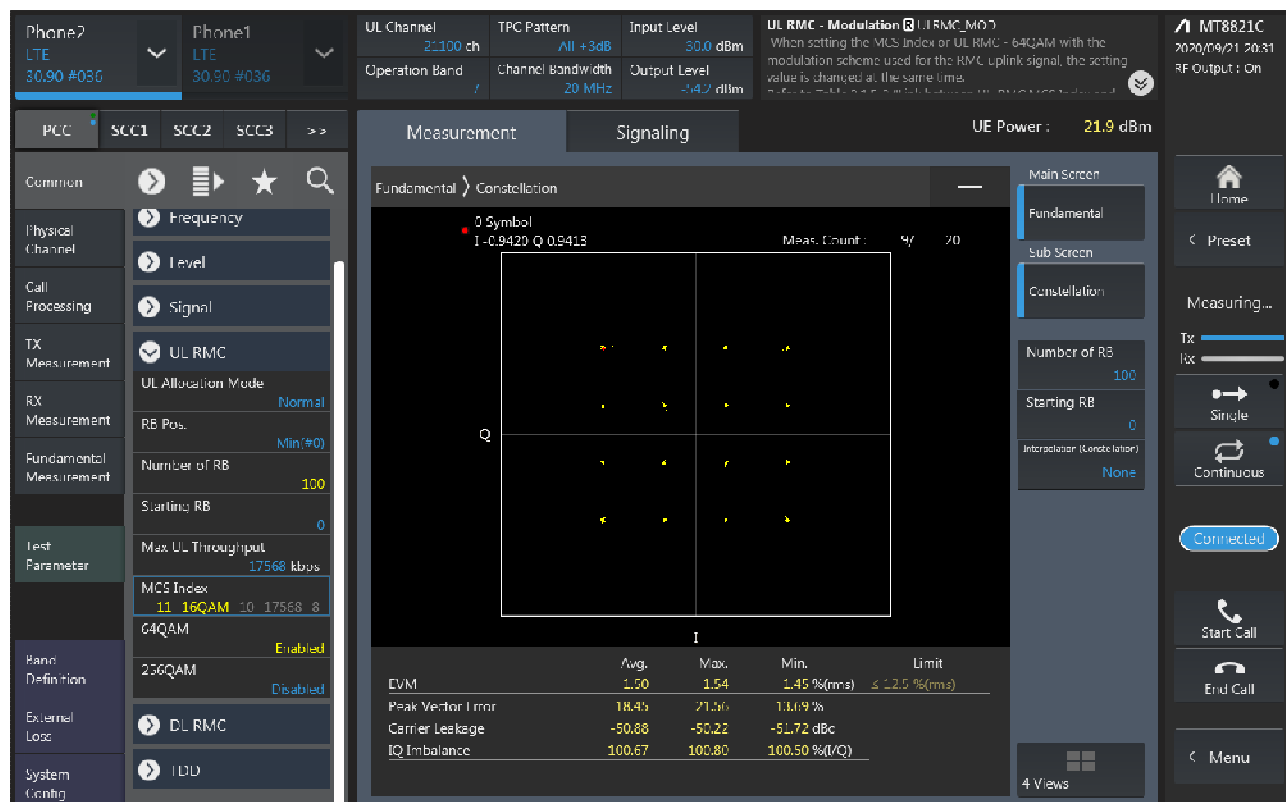
3.1.1. Test Mode = LTE /TM1 20MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 20MHz

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
Band7	5MHz	QPSK	20775	25RB#0	4.466	4.920	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.476	4.940	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.476	4.900	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.486	4.950	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.476	4.960	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.476	4.950	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.911	9.700	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.911	9.700	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.911	9.720	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.911	9.700	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.911	9.740	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.911	9.800	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.427	14.700	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.427	14.670	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.427	14.730	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.397	14.670	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.427	14.640	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.427	14.760	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.822	19.280	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.862	19.400	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.862	19.480	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.862	19.360	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.862	19.440	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.862	19.360	PASS

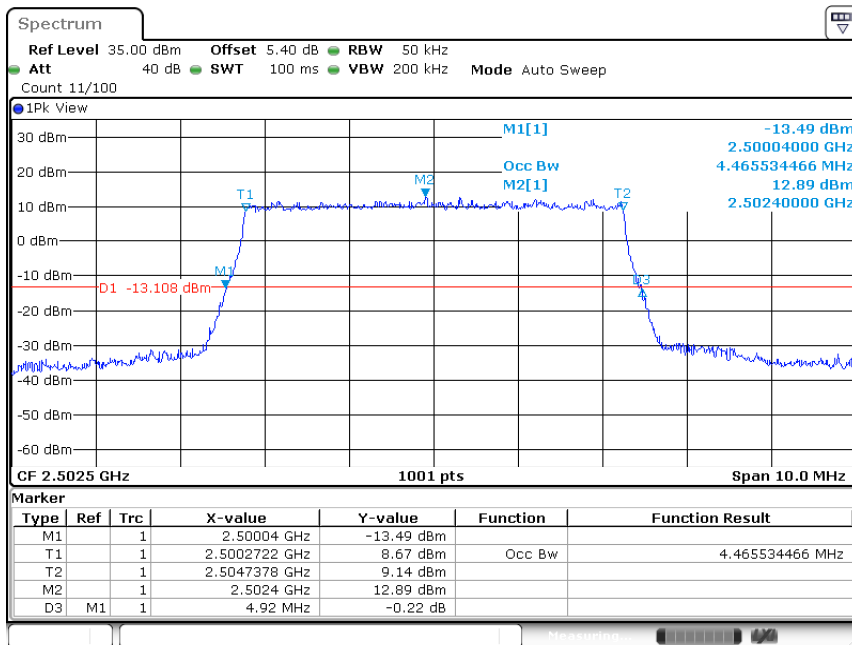


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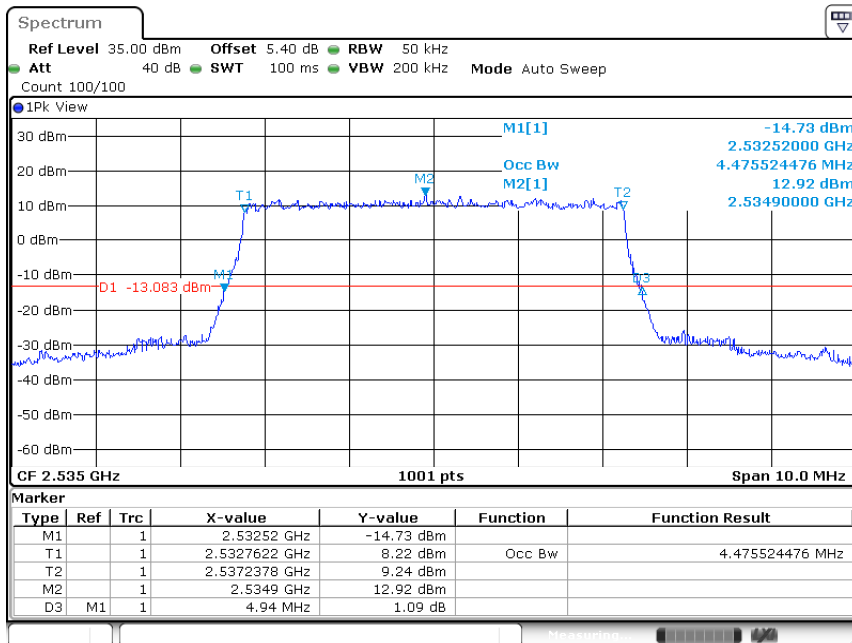
4.2 Test Plots

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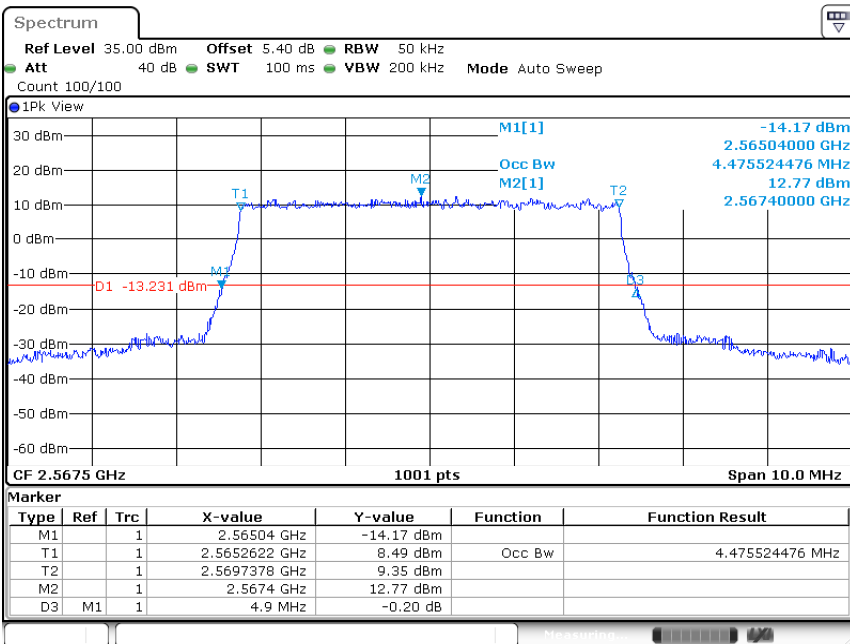
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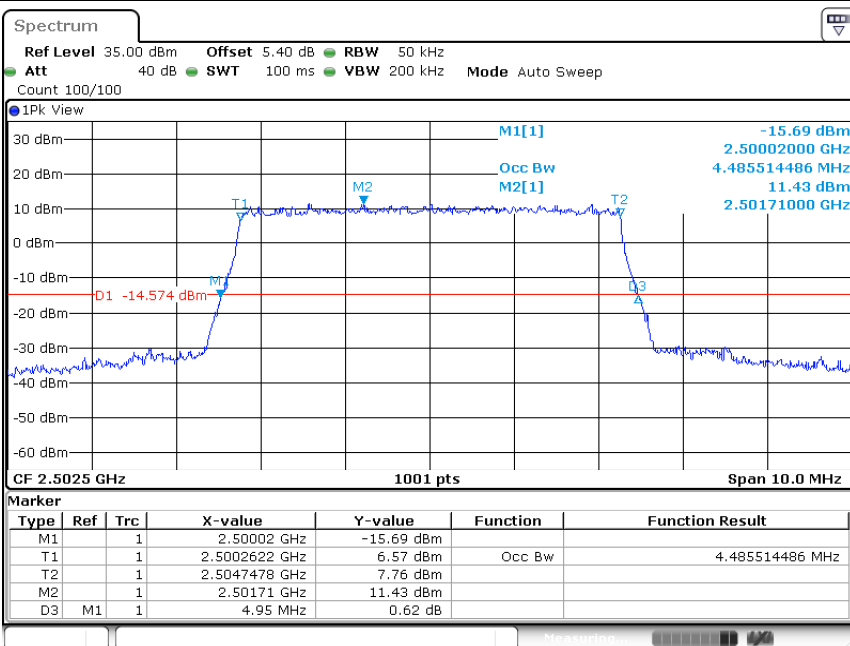


Band7-5MHz-QPSK-21425-25RB#0-4.476



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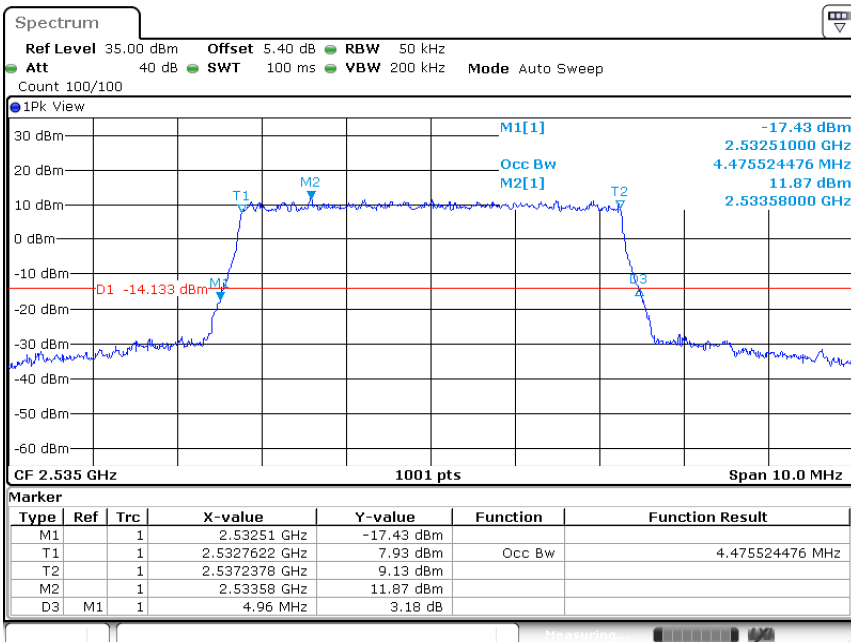
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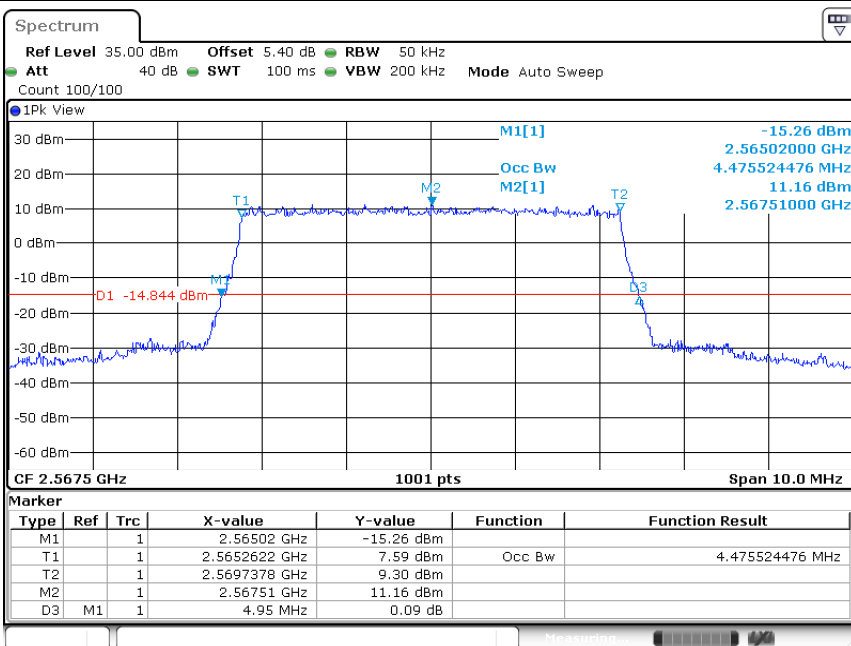


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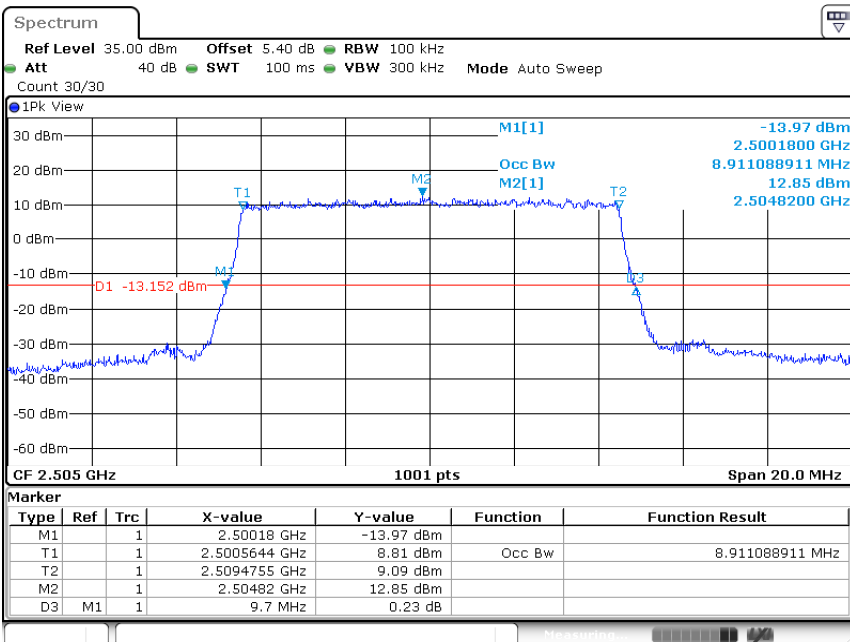
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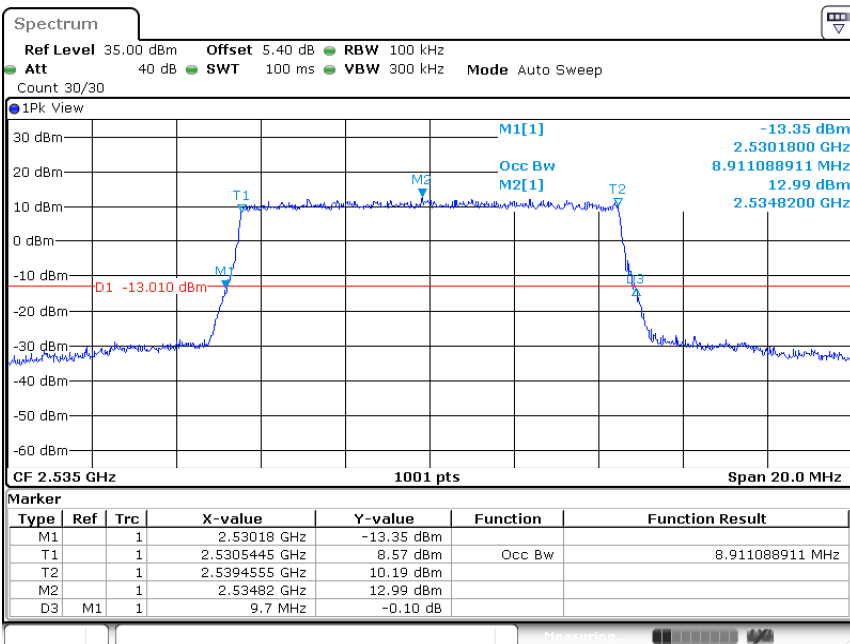


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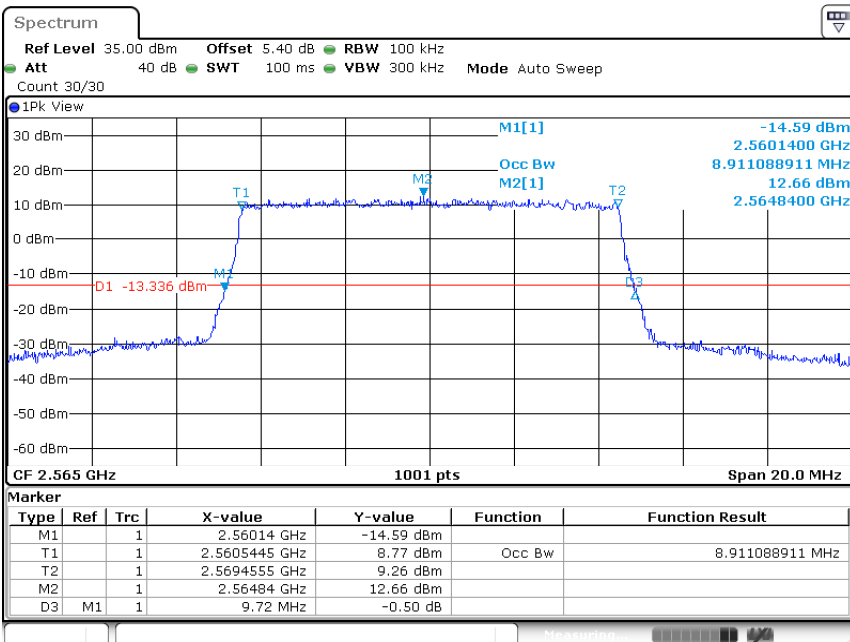
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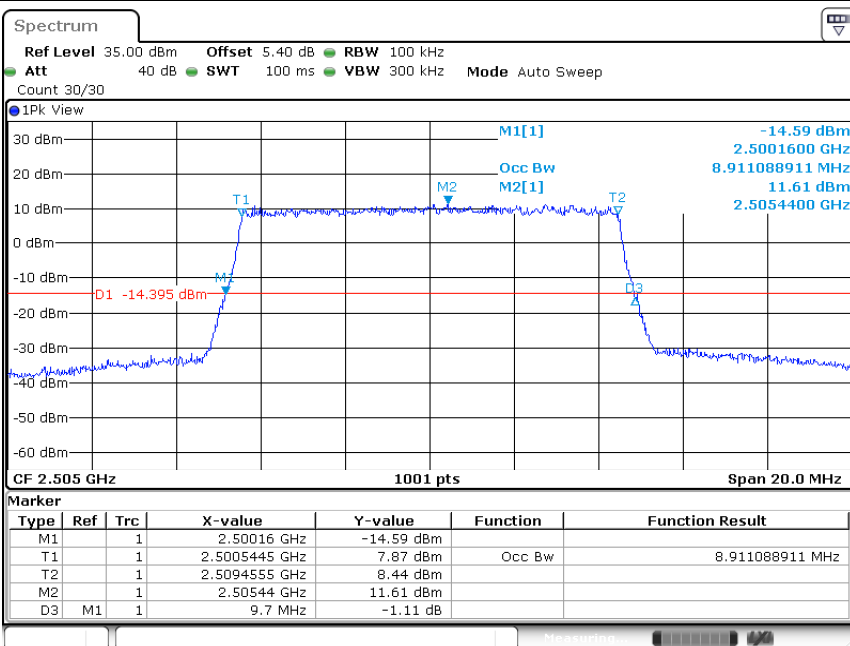


Band7-10MHz-QPSK-21400-50RB#0-8.911



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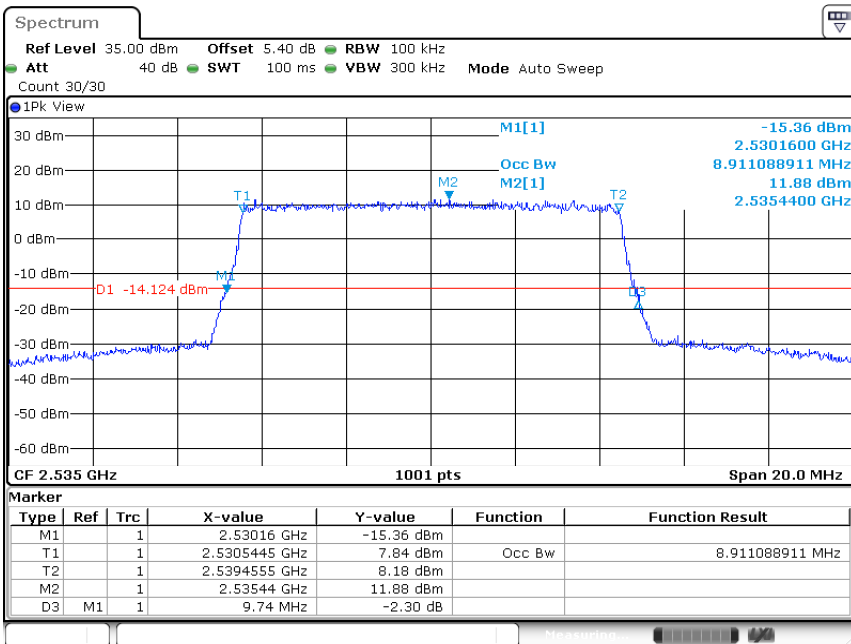
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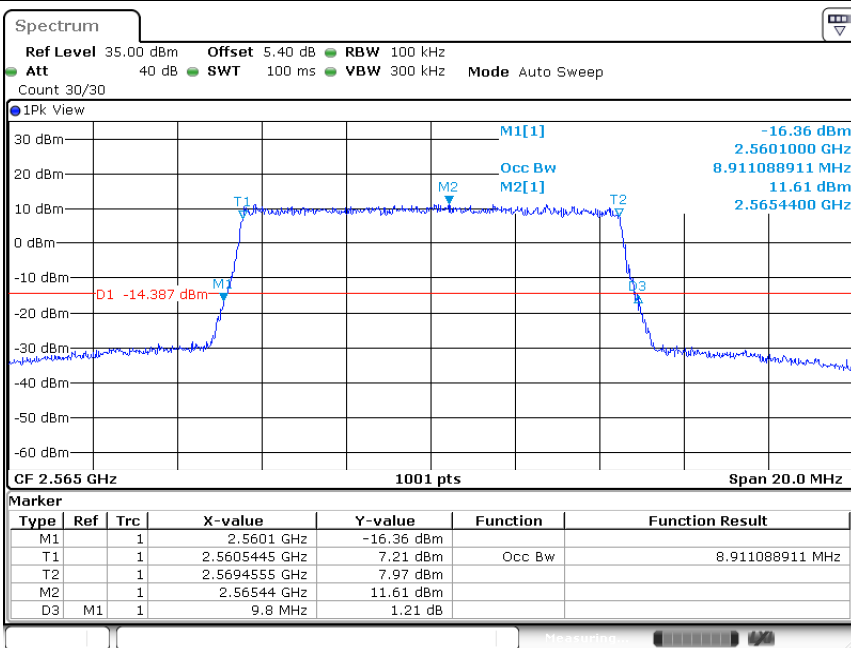


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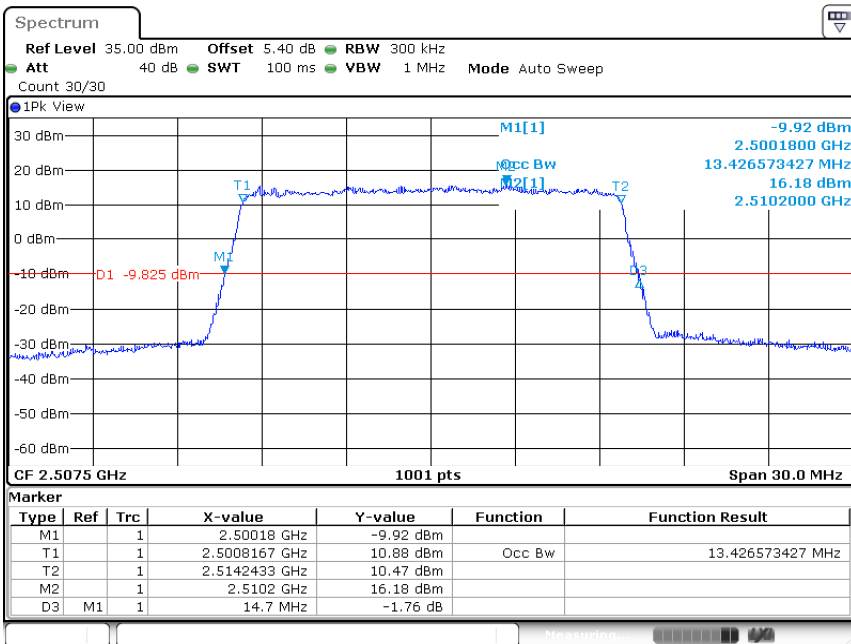
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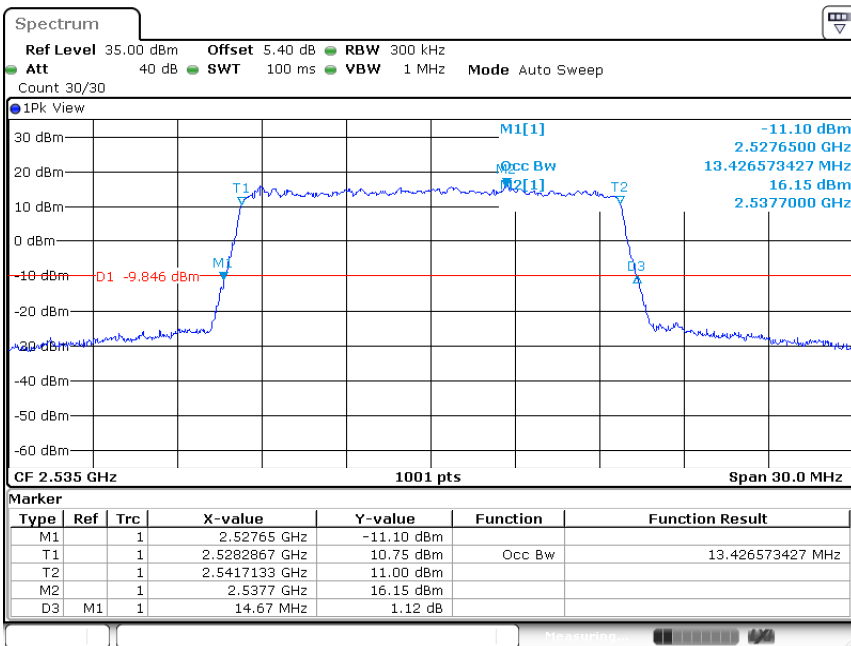


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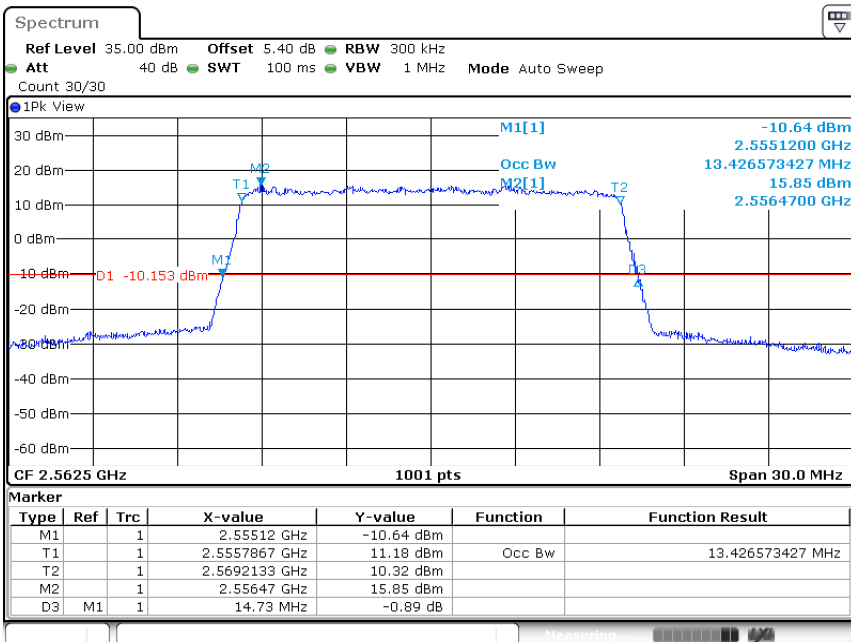
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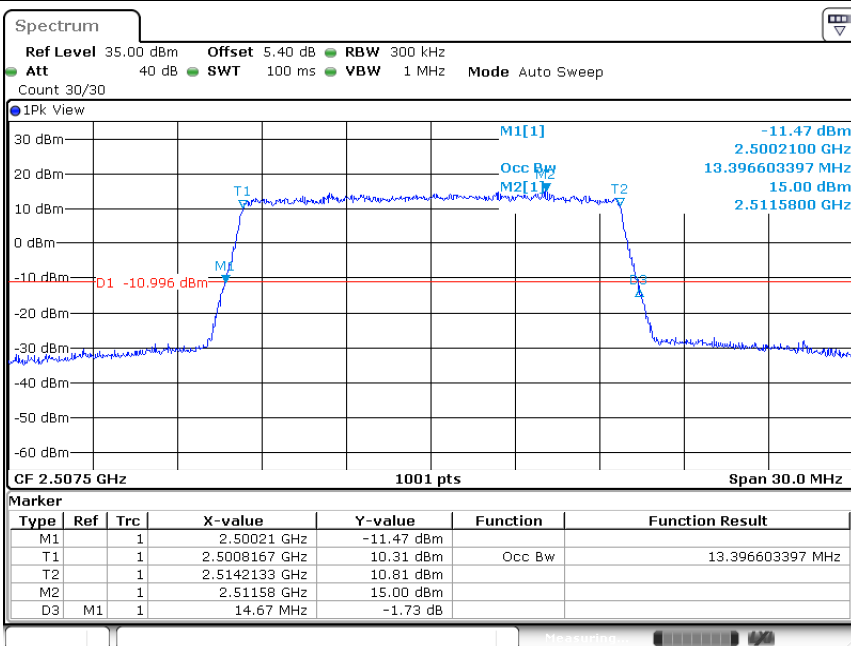


Band7-15MHz-QPSK-21375-75RB#0-13.427



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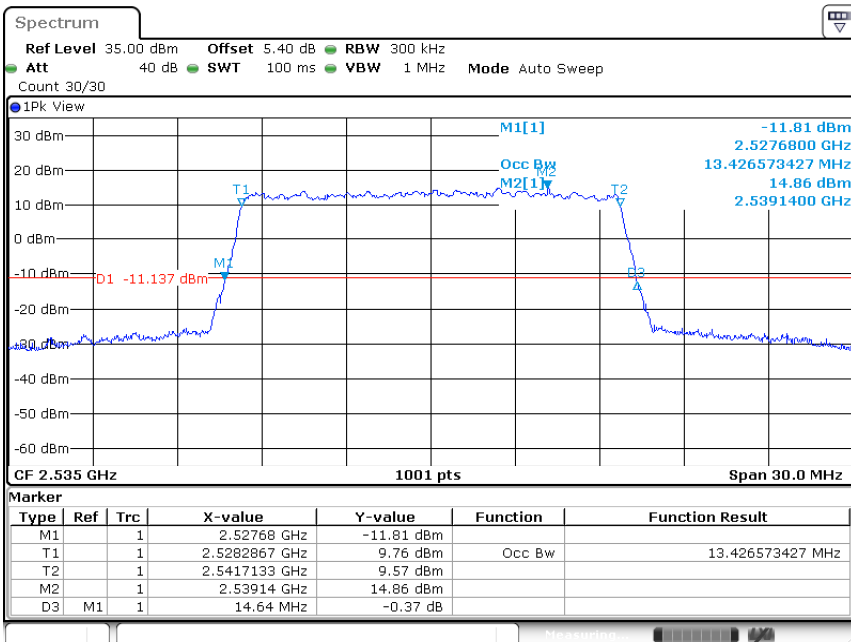
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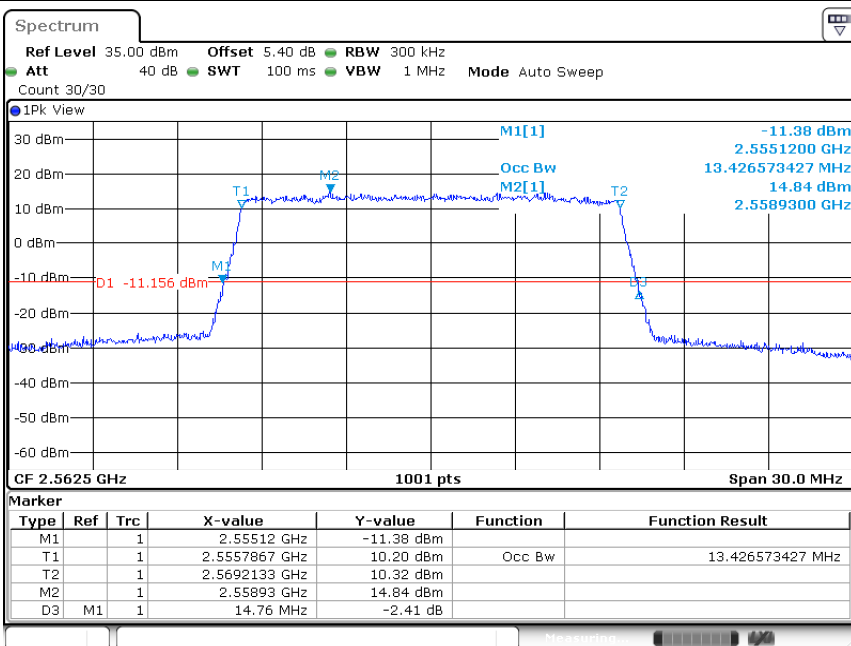


Band7-15MHz-16QAM-21100-75RB#0-13.427



Date: 28.SEP.2020 11:31:53

Band7-15MHz-16QAM-21375-75RB#0-13.427



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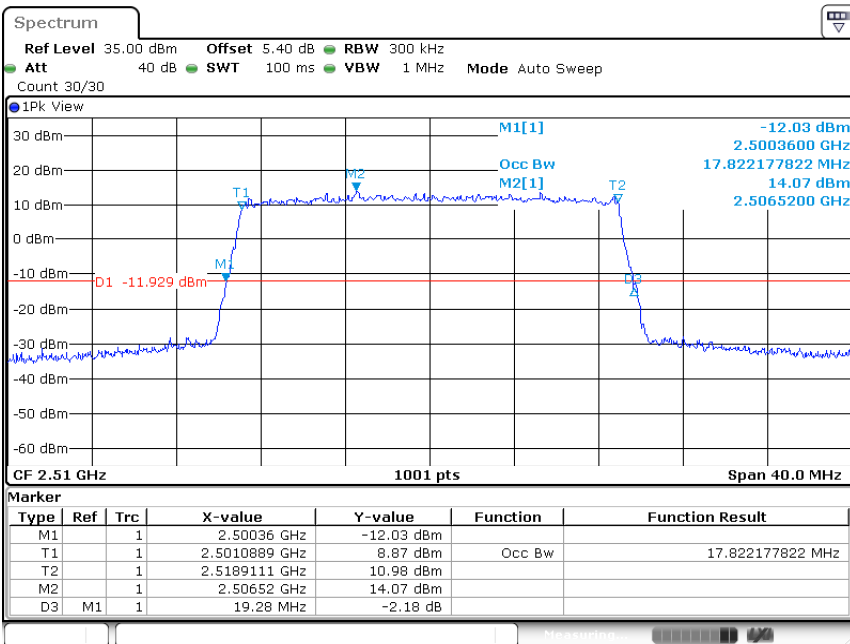
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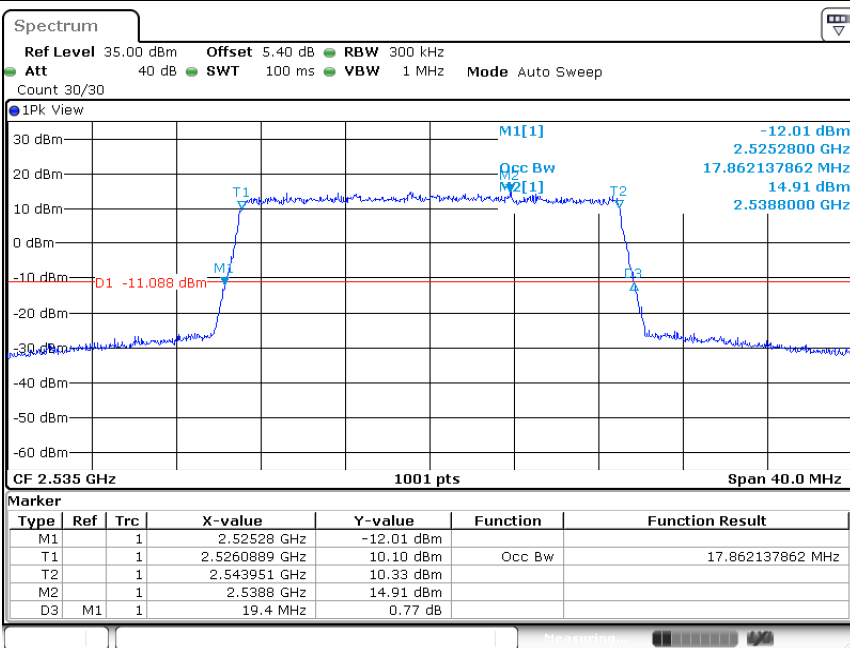
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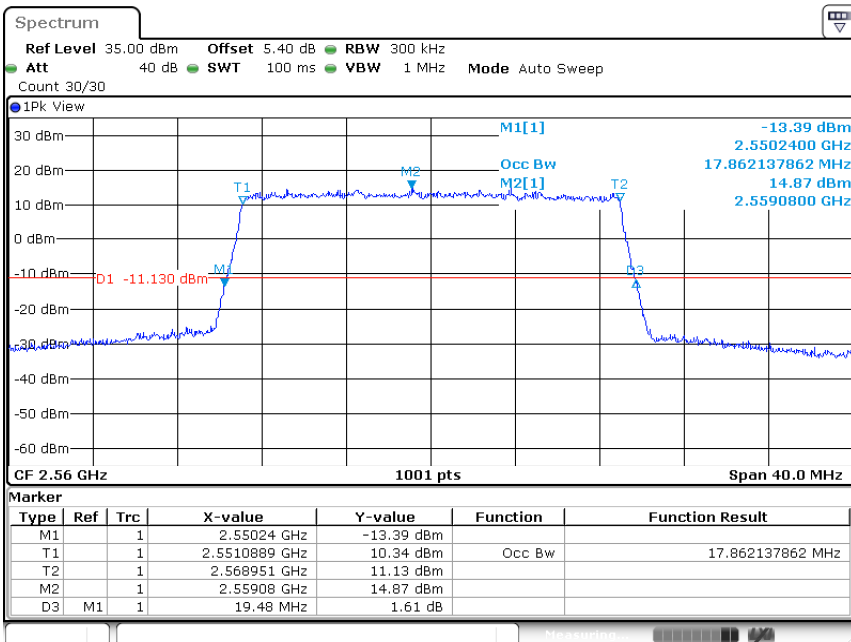
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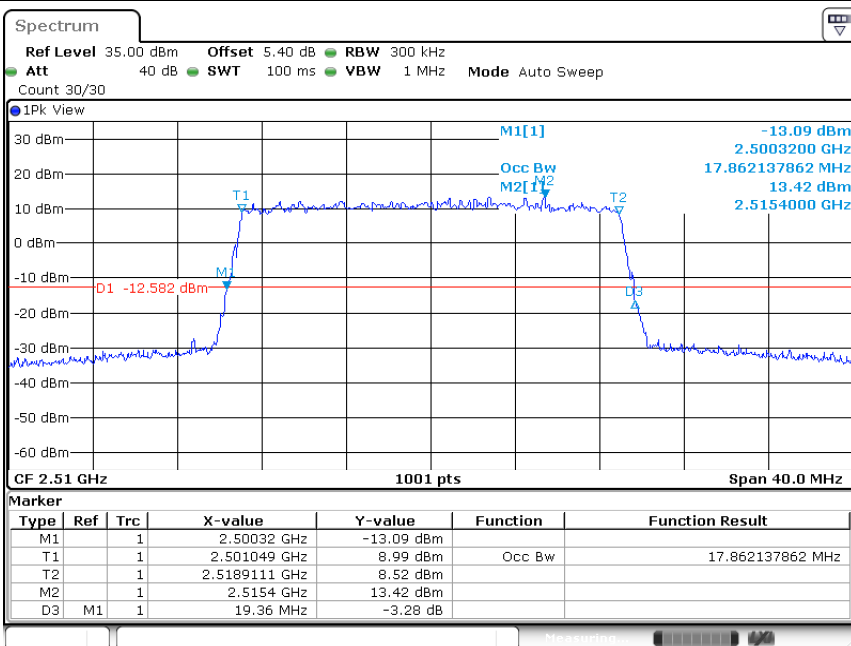


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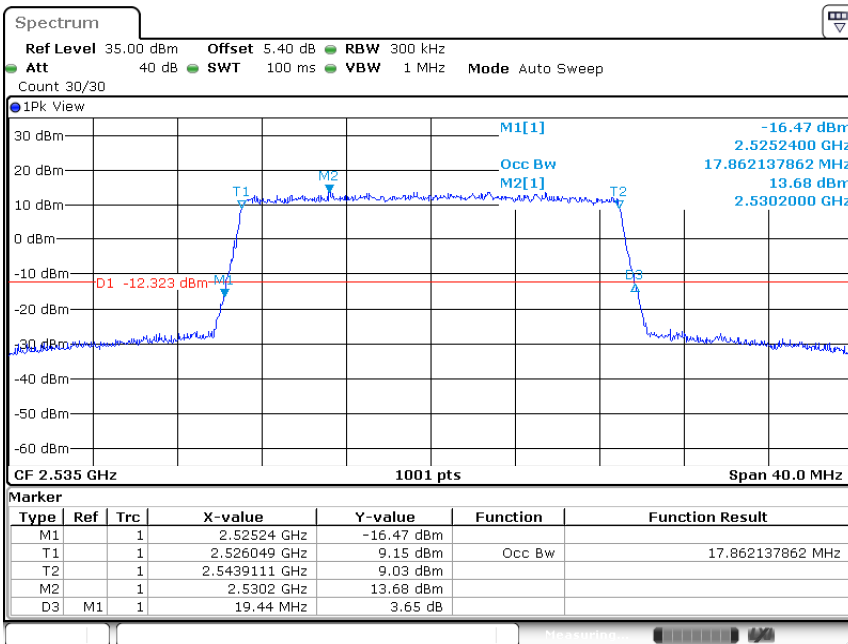
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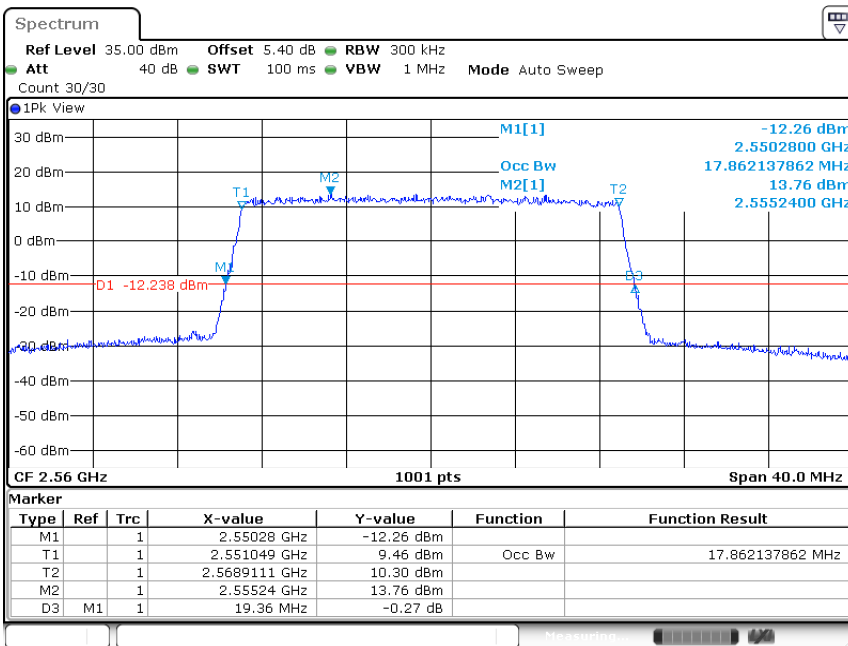


Band7-20MHz-16QAM-21100-100RB#0-17.862



Date: 28.SEP.2020 11:33:34

Band7-20MHz-16QAM-21350-100RB#0-17.862



Date: 28.SEP.2020 11:34:05



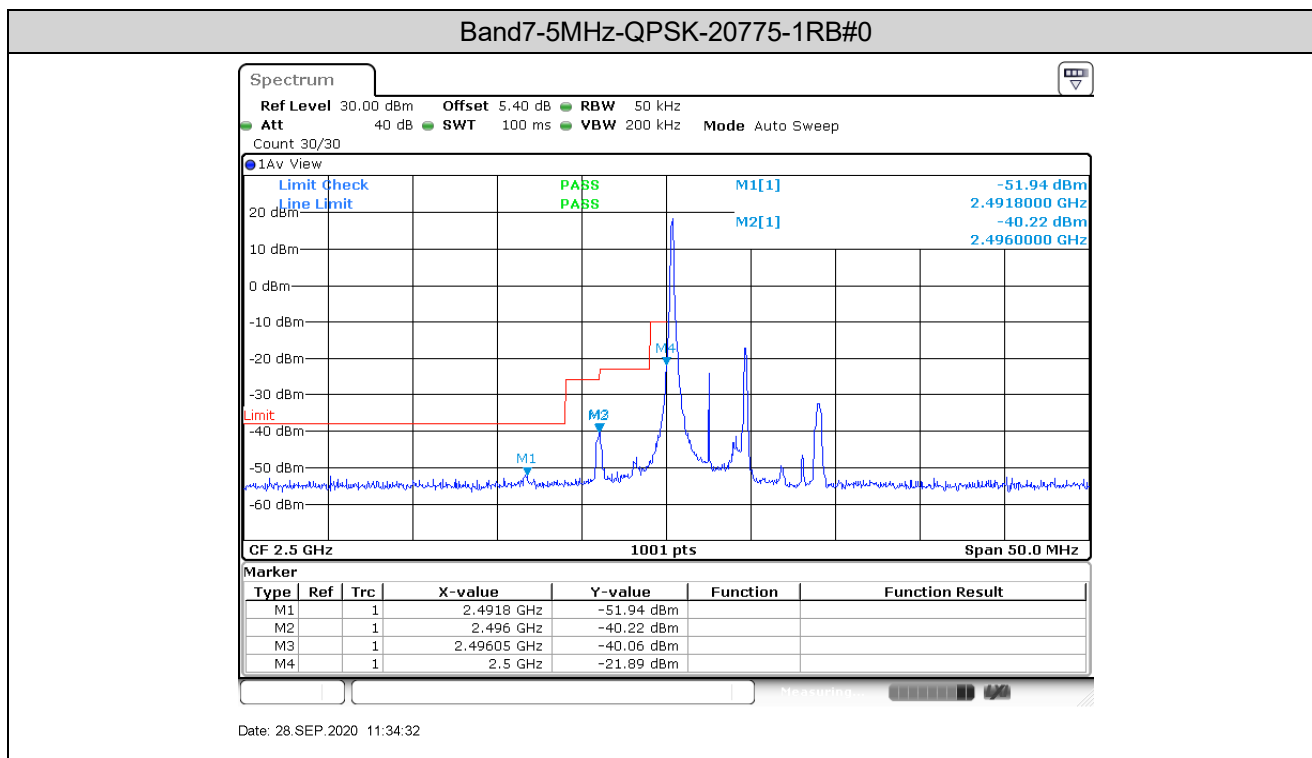
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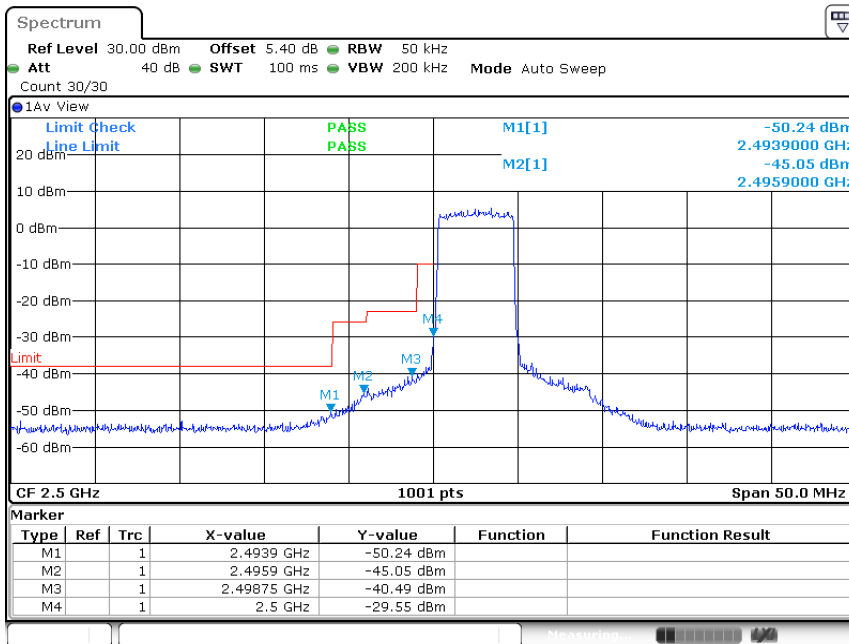
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5 Band Edge Compliance

5.1 Test Plots

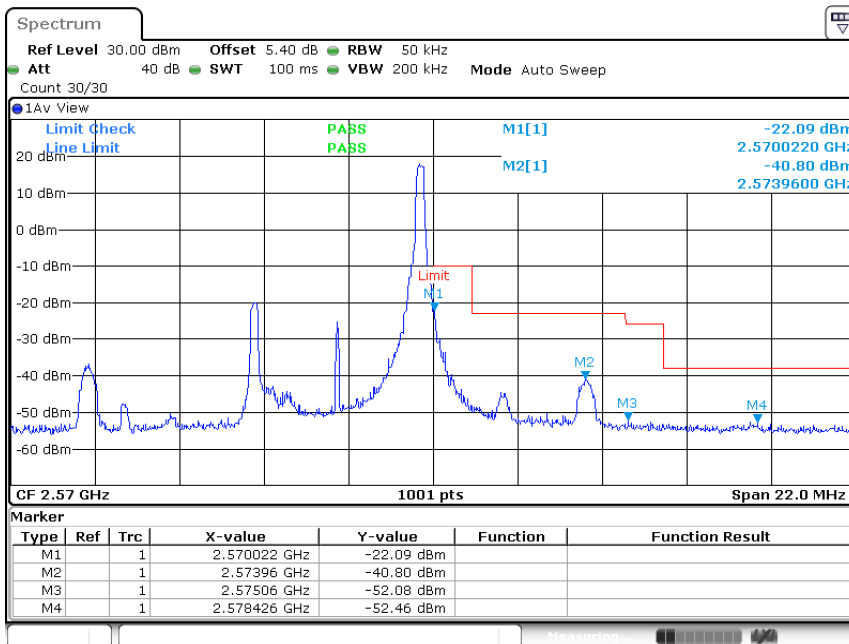


Band7-5MHz-QPSK-20775-25RB#0



Date: 28.SEP.2020 11:35:08

Band7-5MHz-QPSK-21425-1RB#24



Date: 28.SEP.2020 11:35:53

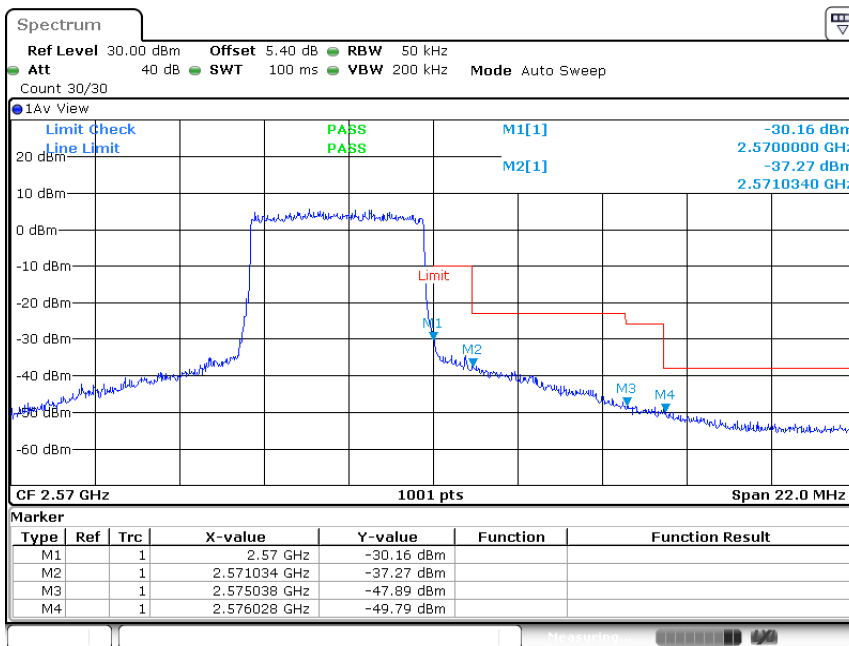


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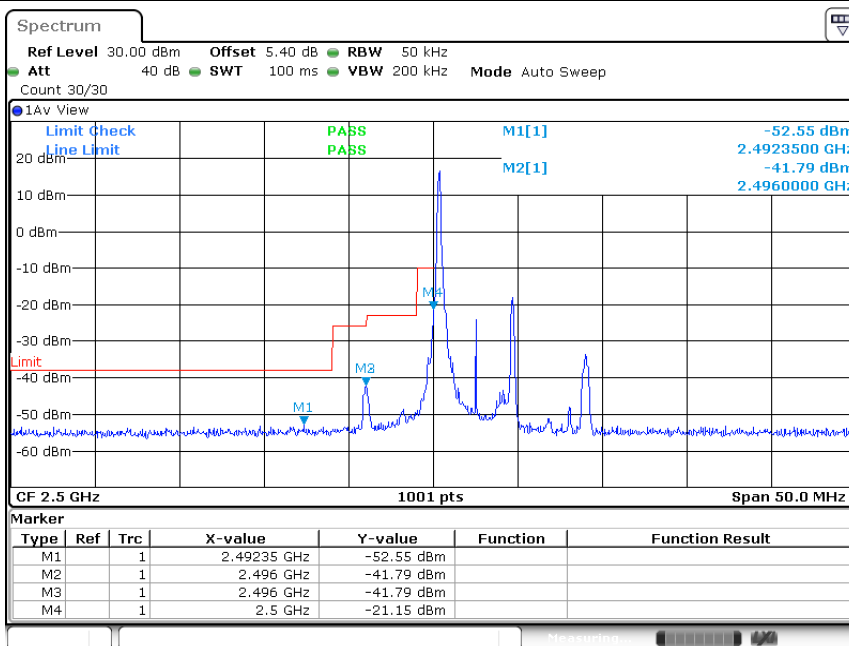
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Band7-5MHz-QPSK-21425-25RB#0



Date: 28.SEP.2020 11:36:29

Band7-5MHz-16QAM-20775-1RB#0



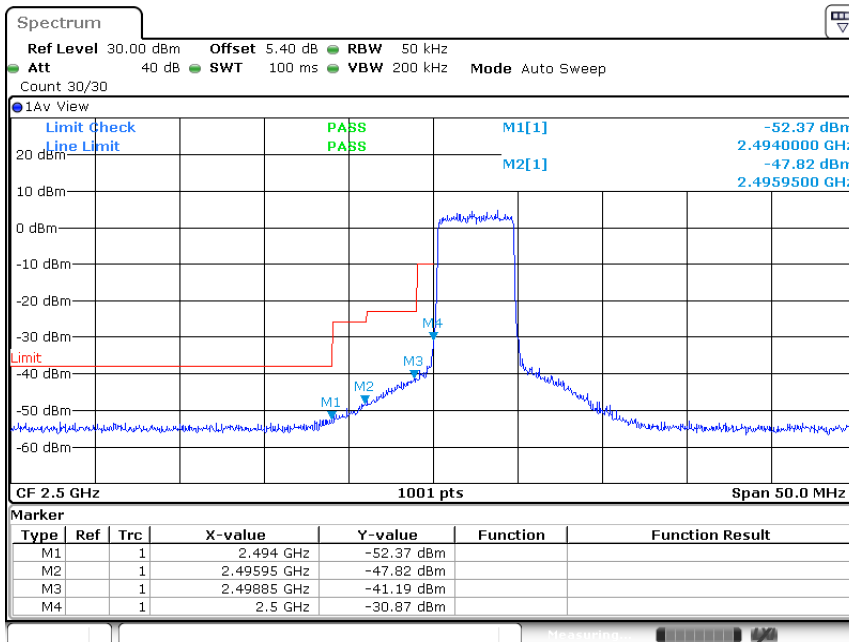
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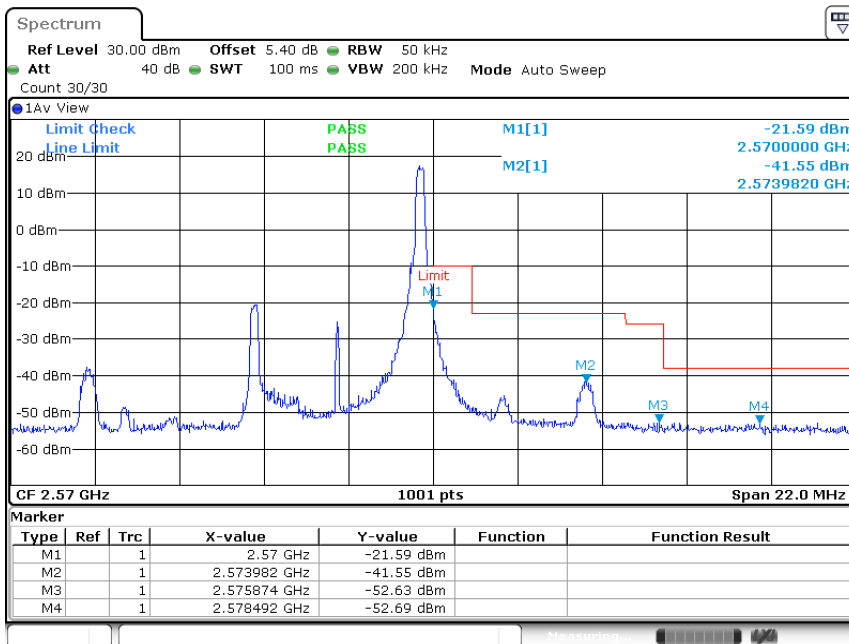
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Band7-5MHz-16QAM-20775-25RB#0



Date: 28.SEP.2020 11:35:27

Band7-5MHz-16QAM-21425-1RB#24



Date: 28.SEP.2020 11:36:11

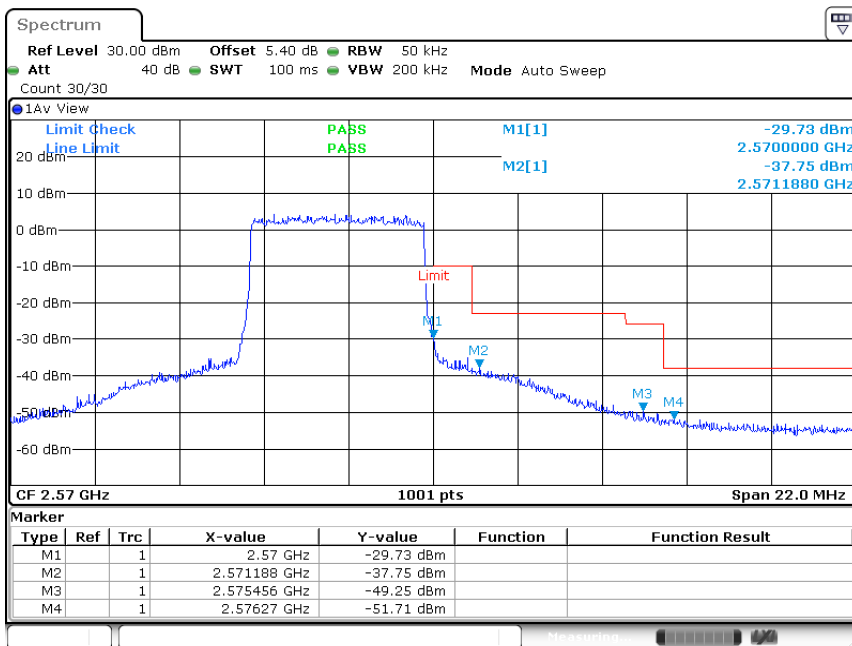


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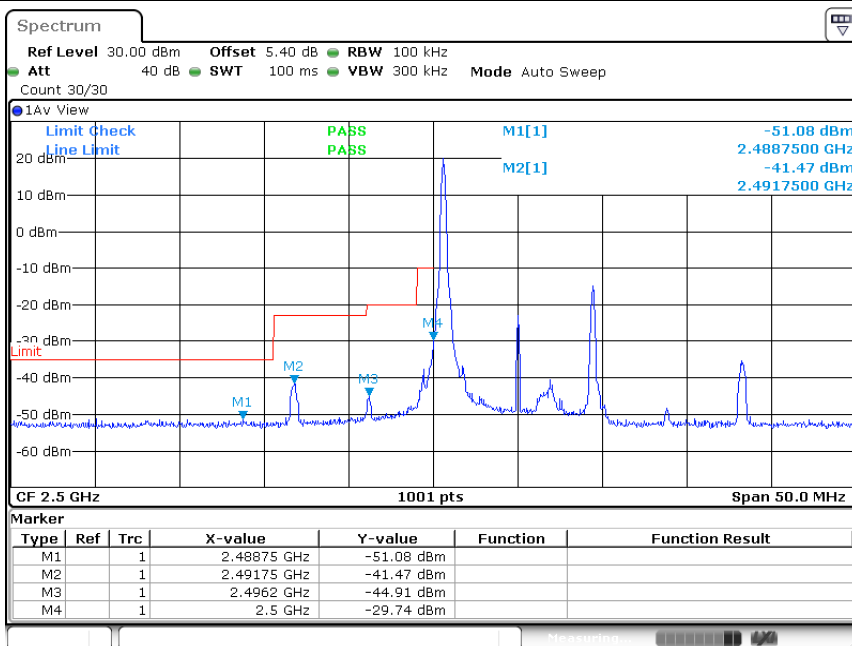
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Band7-5MHz-16QAM-21425-25RB#0



Date: 28.SEP.2020 11:36:48

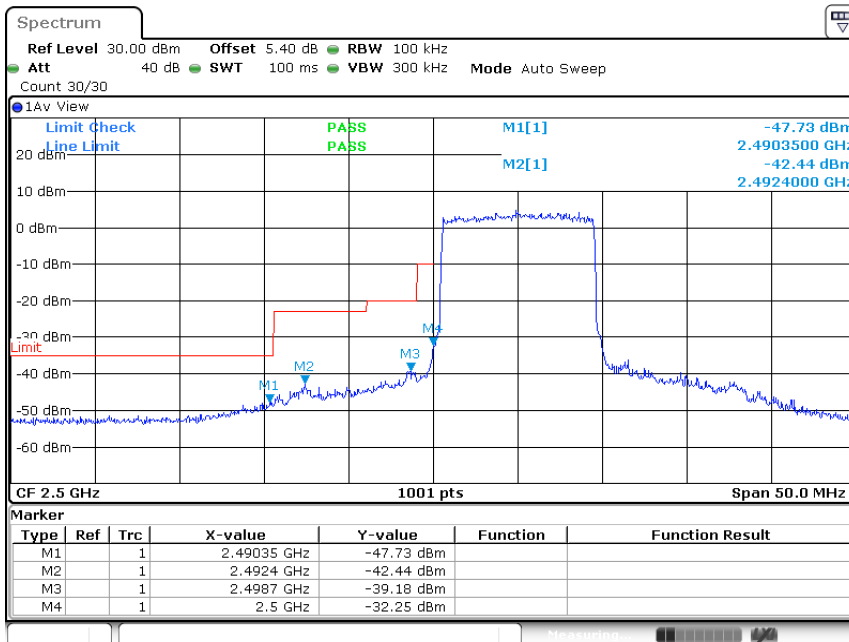
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Date: 28.SEP.2020 11:37:14

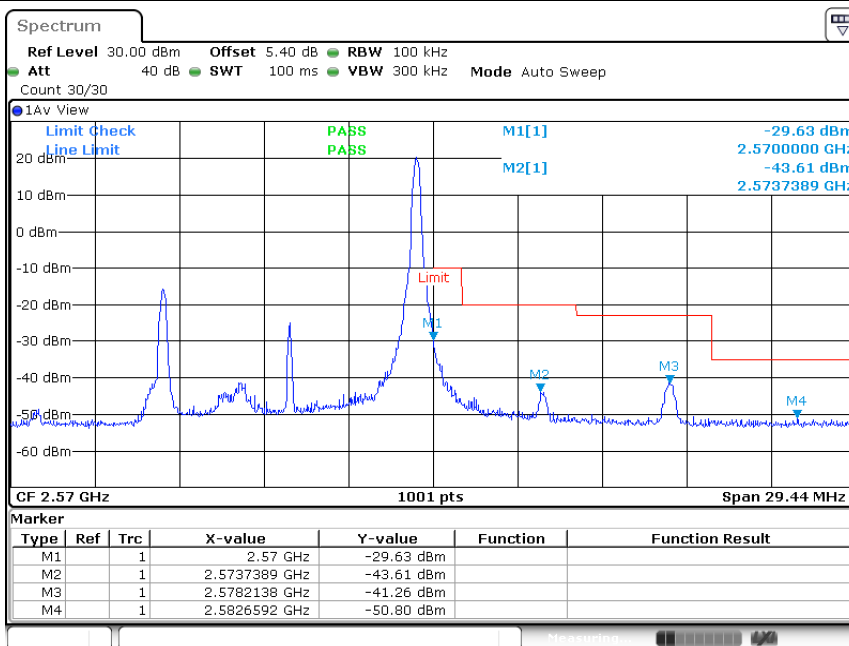


Band7-10MHz-QPSK-20800-50RB#0



Date: 28.SEP.2020 11:37:51

Band7-10MHz-QPSK-21400-1RB#49



Date: 28.SEP.2020 11:38:35

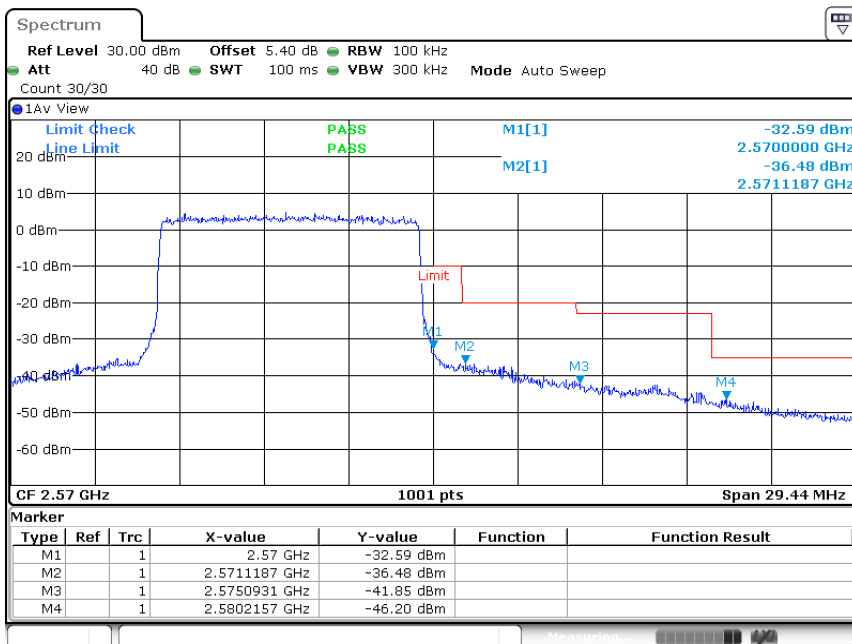


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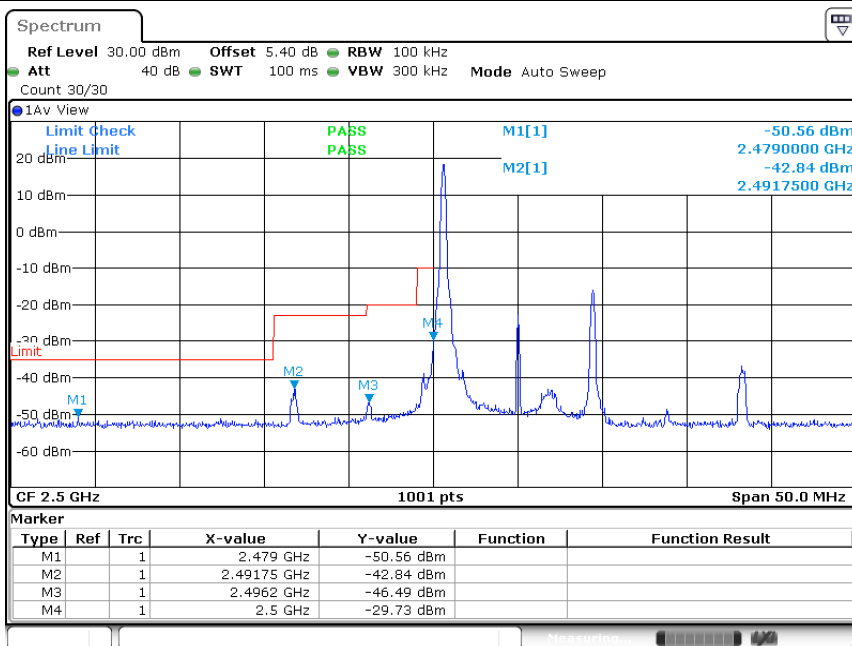
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Band7-10MHz-QPSK-21400-50RB#0



Date: 28.SEP.2020 11:39:12

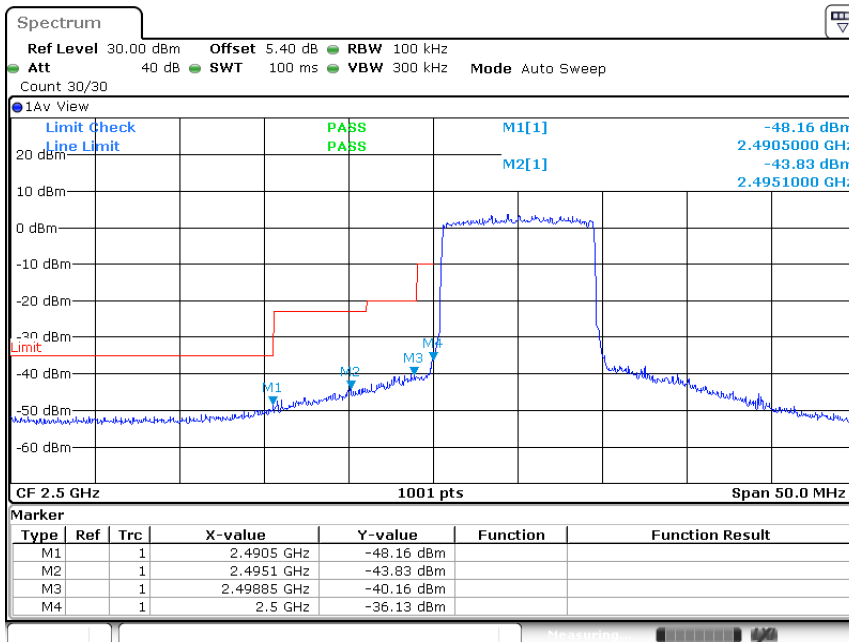
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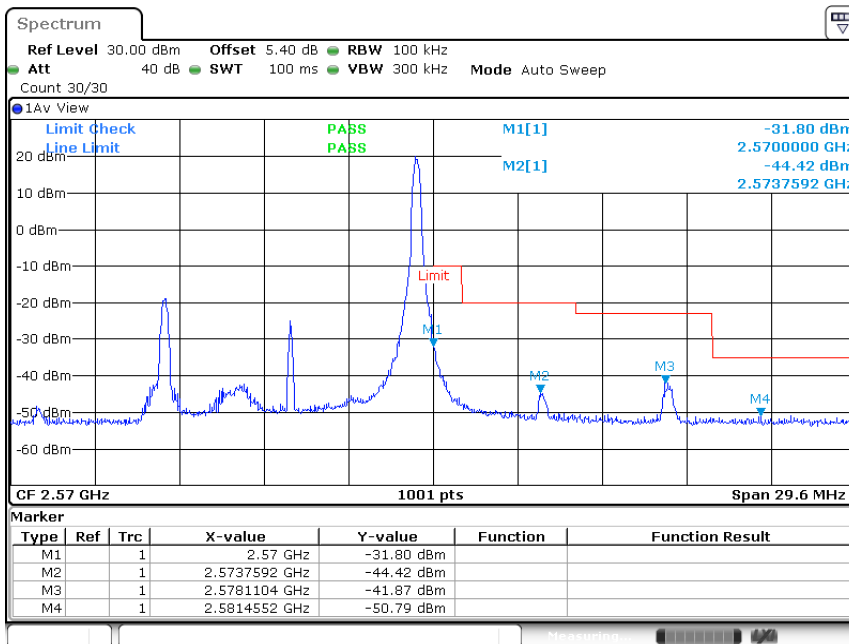


Band7-10MHz-16QAM-20800-50RB#0



Date: 28.SEP.2020 11:38:09

Band7-10MHz-16QAM-21400-1RB#49



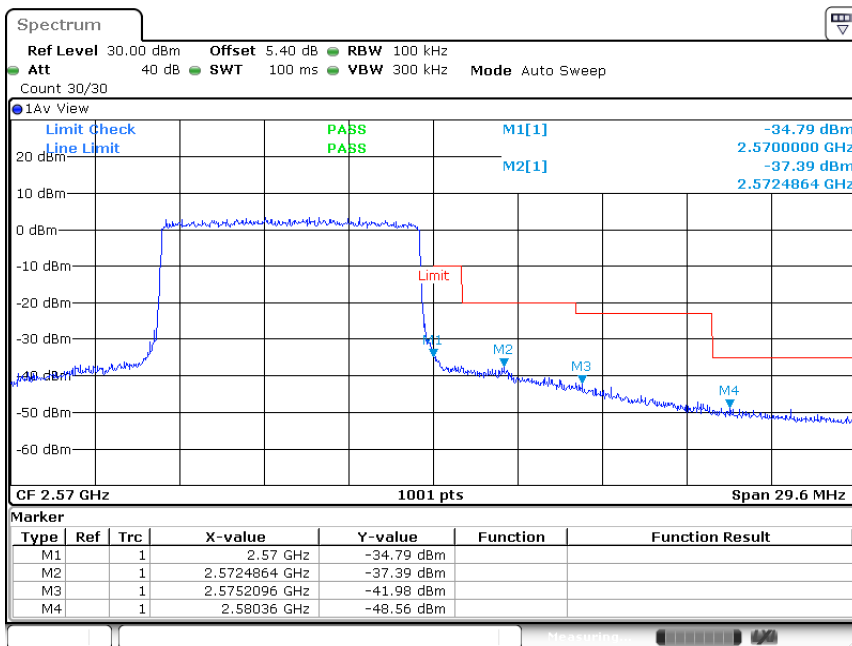
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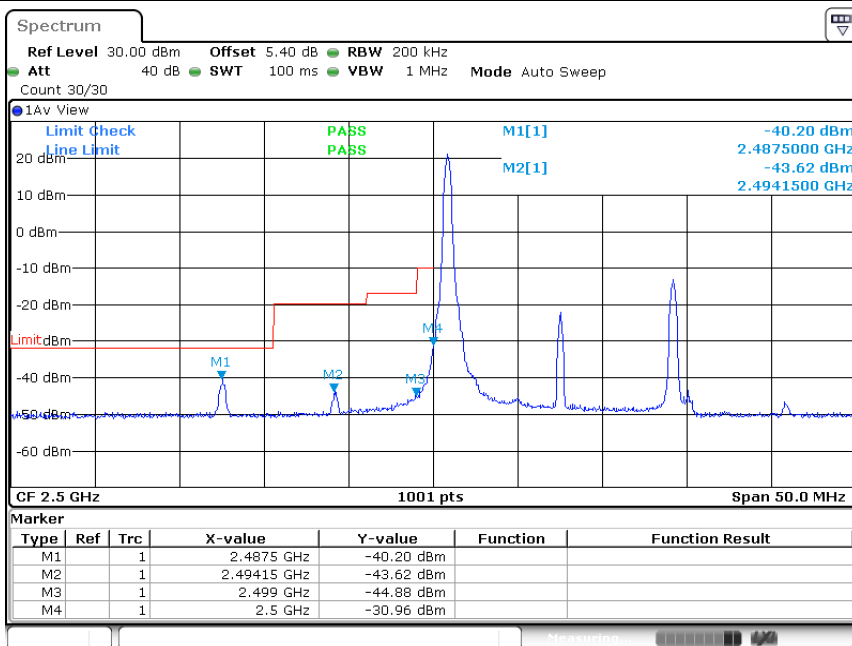
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Band7-10MHz-16QAM-21400-50RB#0



Date: 28.SEP.2020 11:39:30

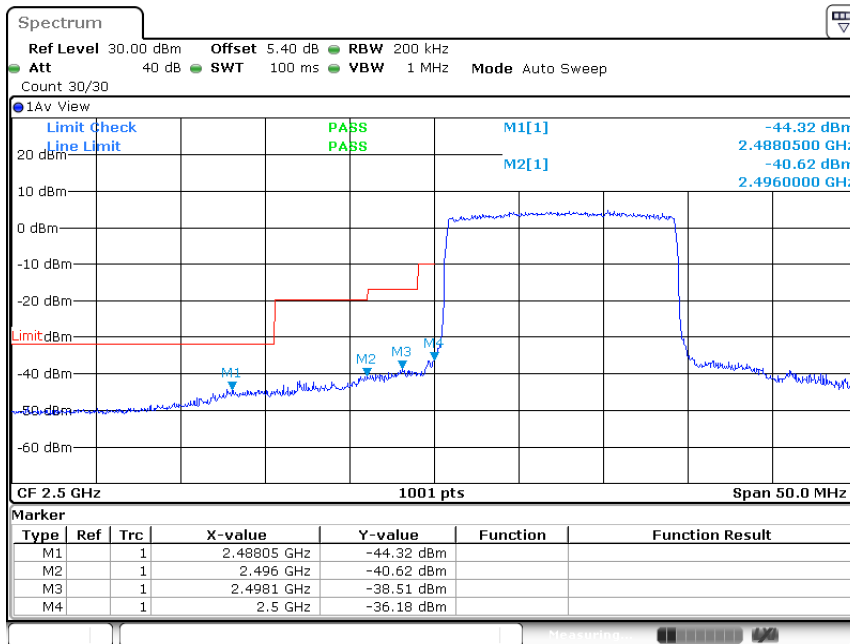
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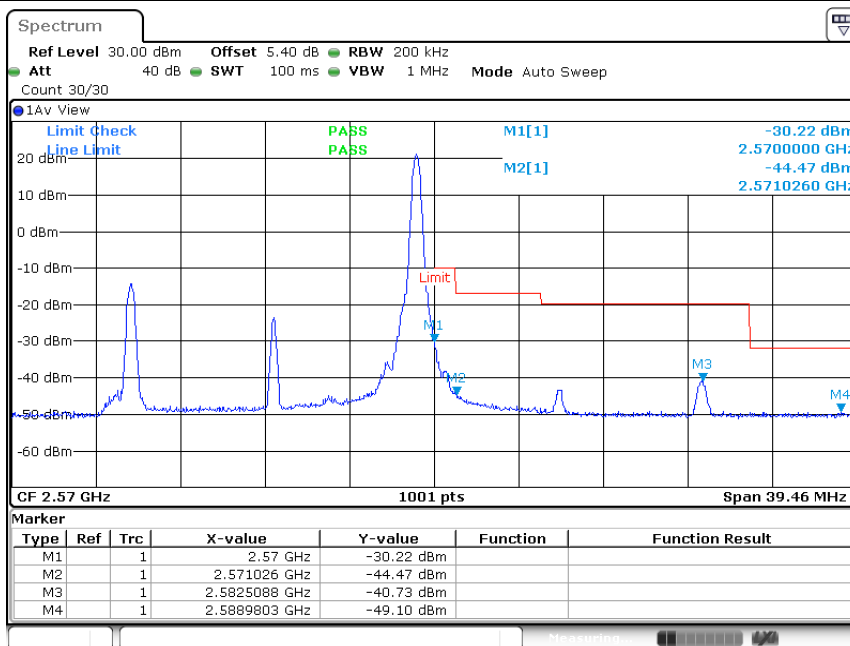


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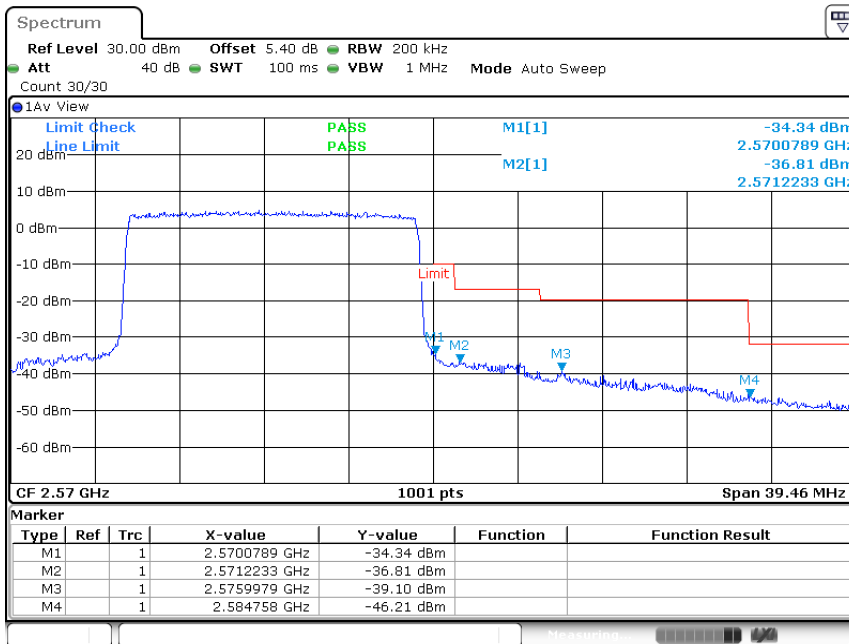
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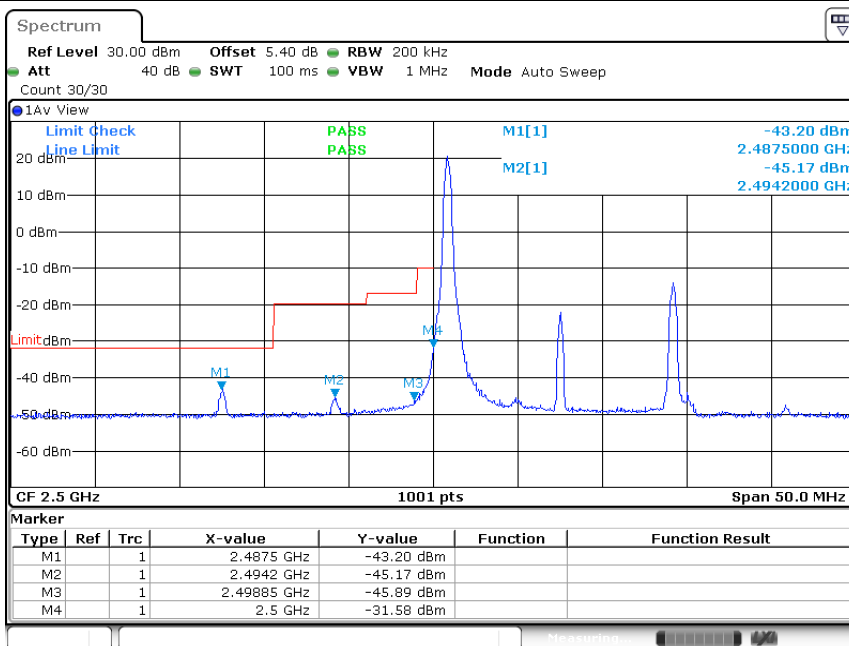


Band7-15MHz-QPSK-21375-75RB#0



Date: 28.SEP.2020 11:41:54

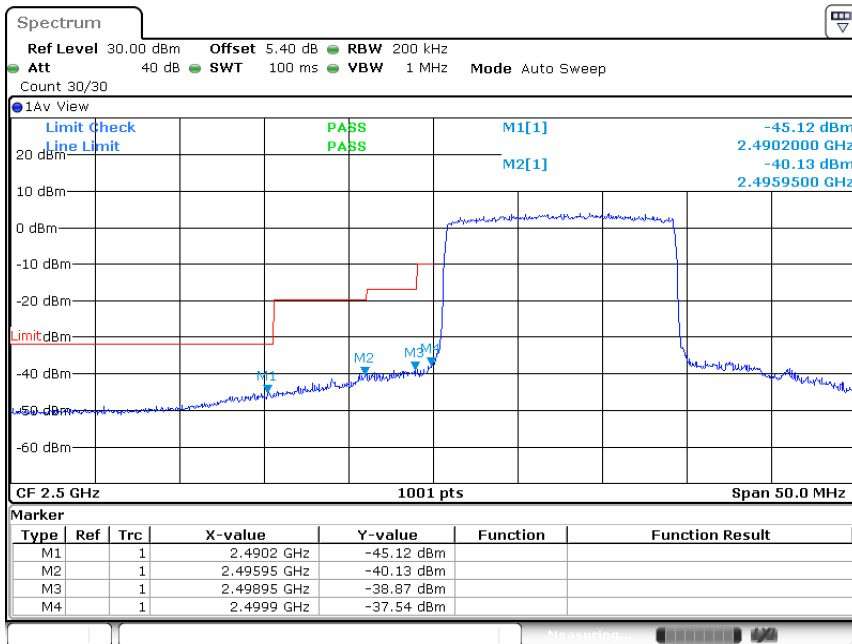
Band7-15MHz-16QAM-20825-1RB#0



Date: 28.SEP.2020 11:40:15

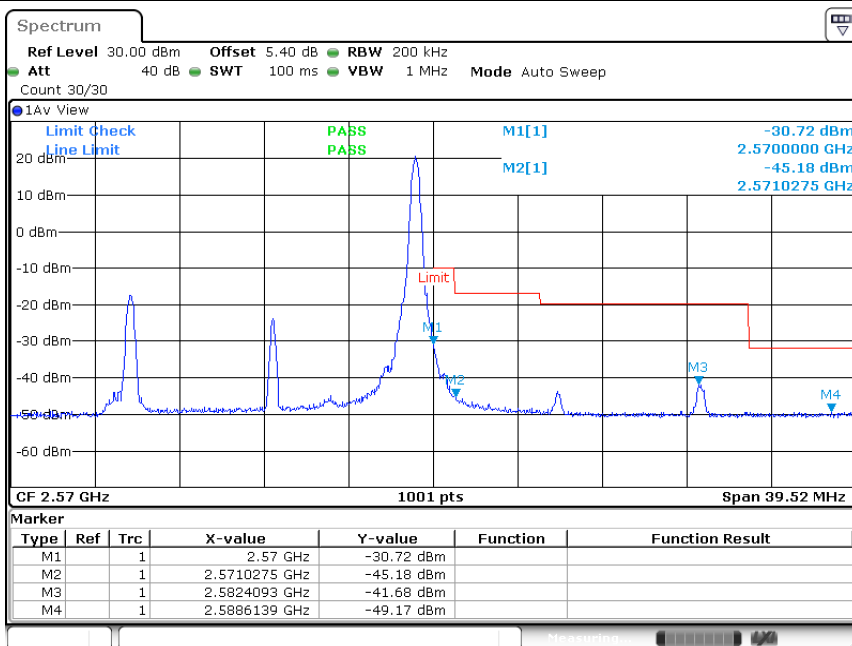


Band7-15MHz-16QAM-20825-75RB#0



Date: 28.SEP.2020 11:40:51

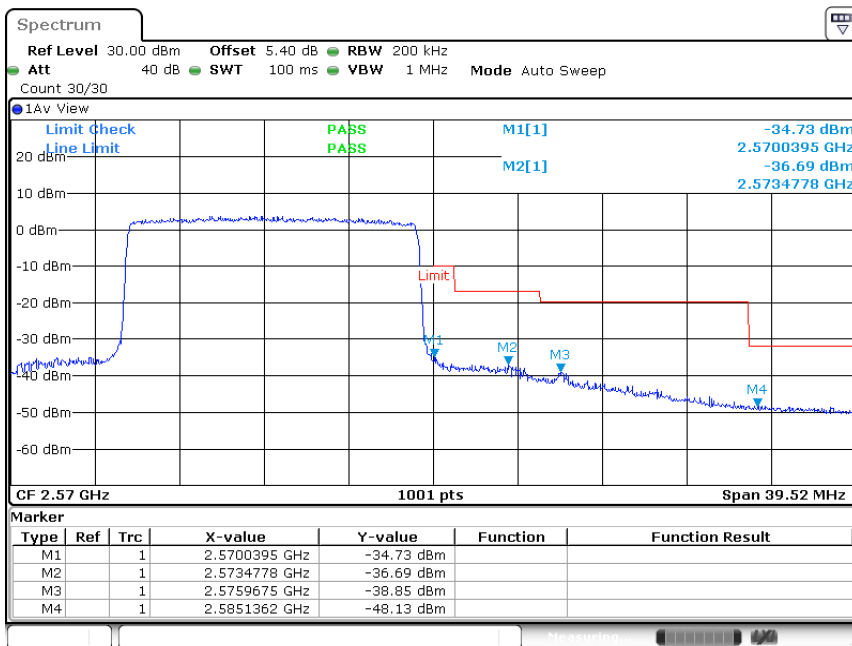
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Date: 28.SEP.2020 11:41:36

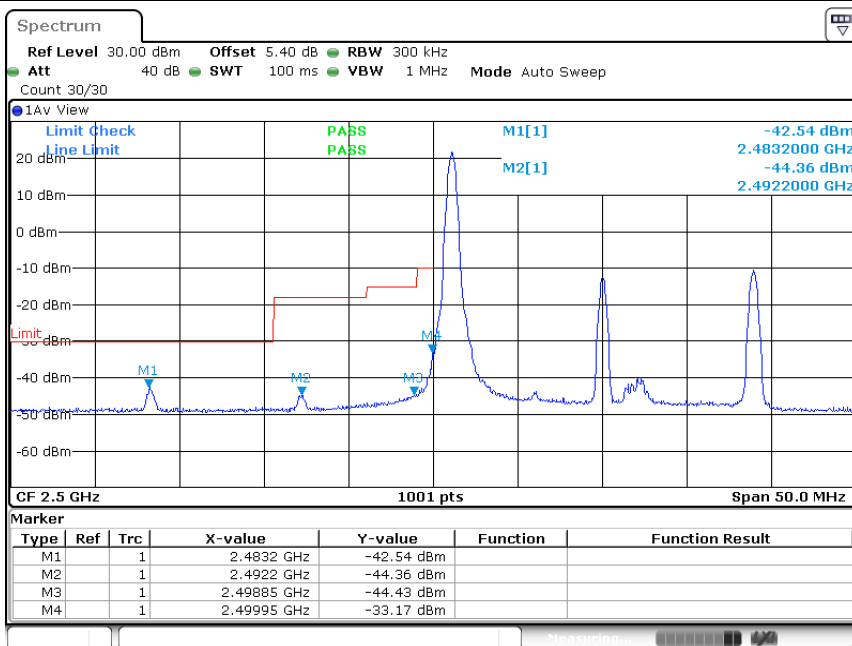


Band7-15MHz-16QAM-21375-75RB#0



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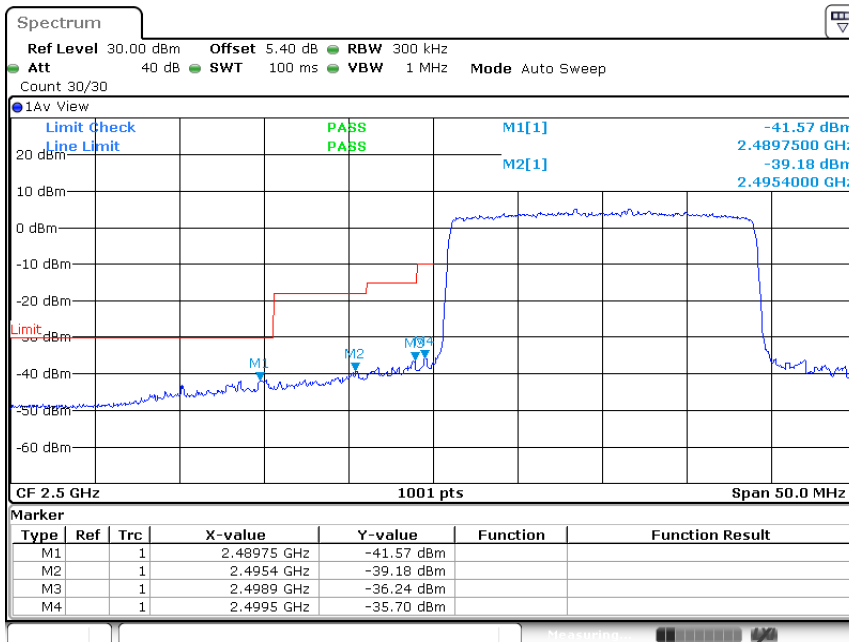
Band7-20MHz-QPSK-20850-1RB#0



Date: 28.SEP.2020 11:42:39

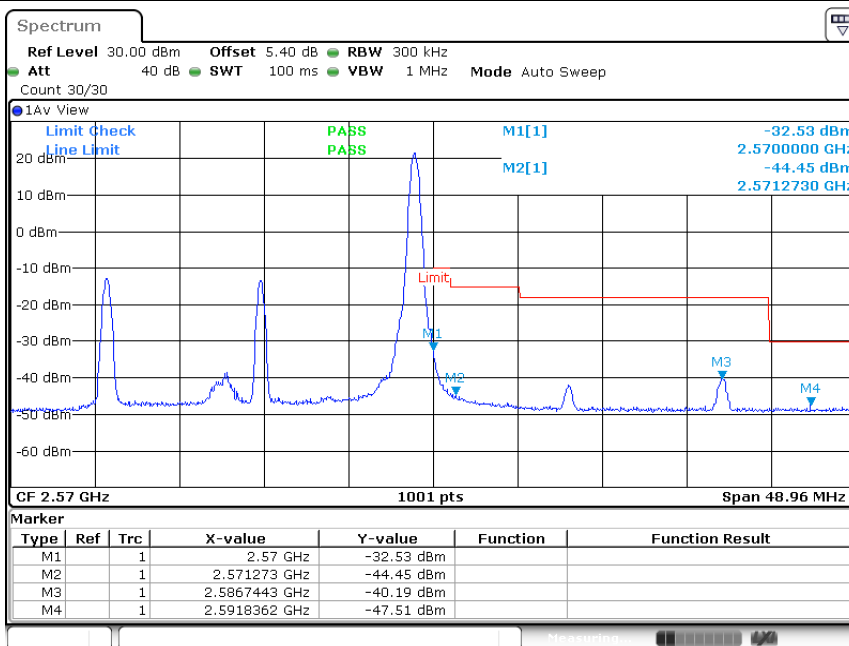


Band7-20MHz-QPSK-20850-100RB#0



Date: 28.SEP.2020 11:43:15

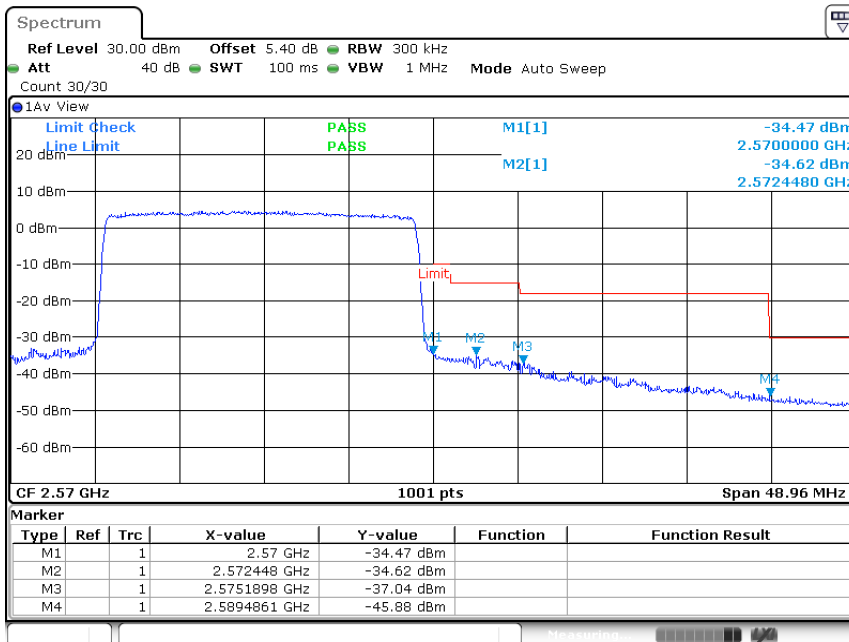
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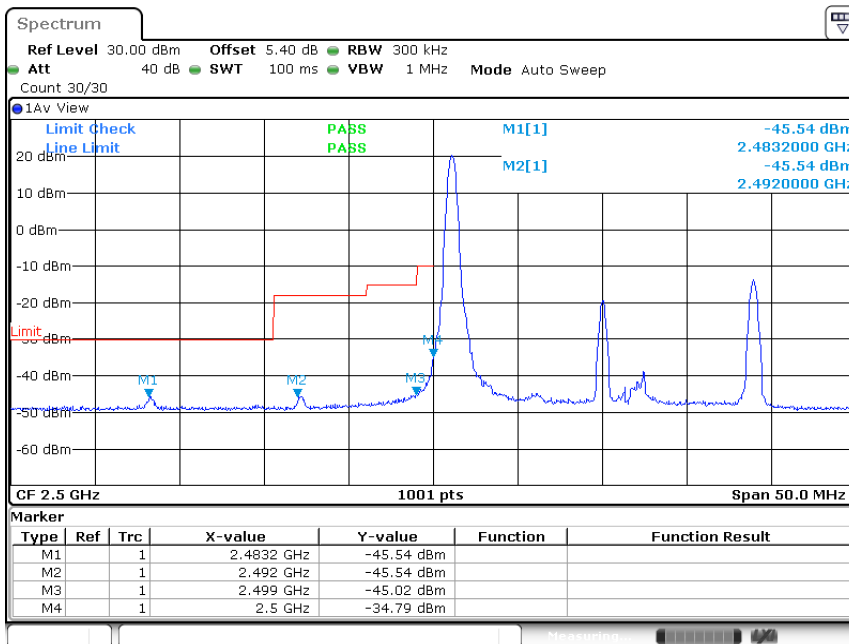


Band7-20MHz-QPSK-21350-100RB#0



Date: 28.SEP.2020 11:44:36

Band7-20MHz-16QAM-20850-1RB#0



Date: 28.SEP.2020 11:42:57



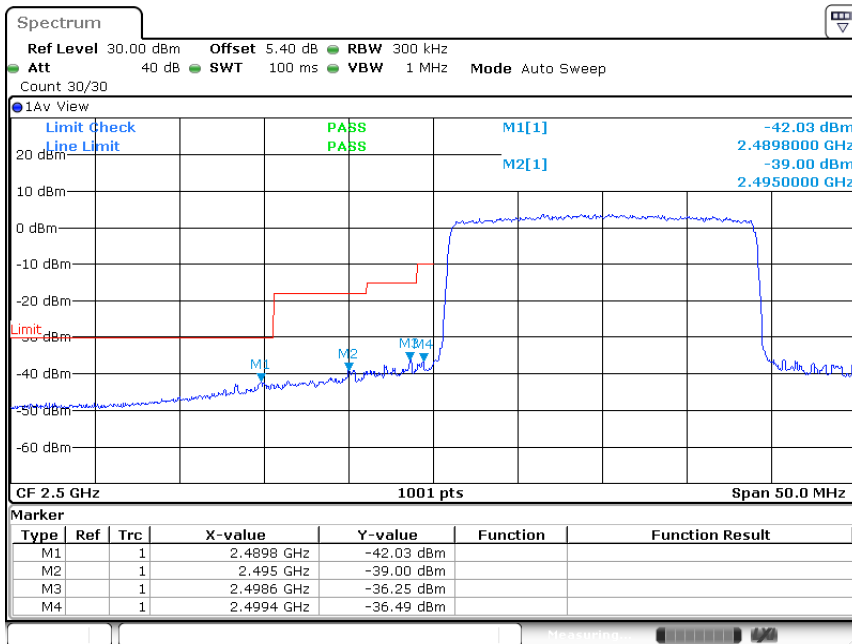
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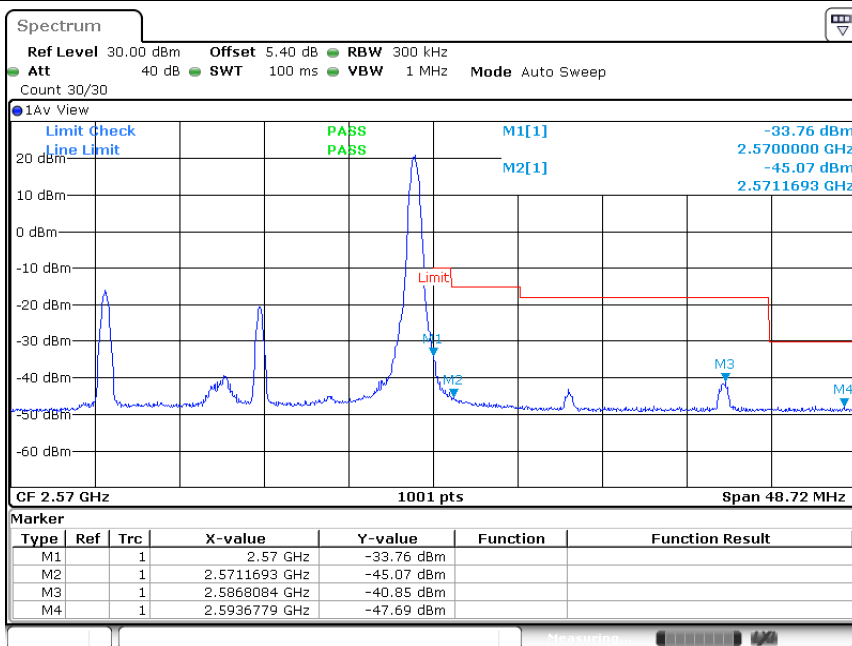
Member of the SGS Group (SGS SA)

Band7-20MHz-16QAM-20850-100RB#0



Date: 28.SEP.2020 11:43:34

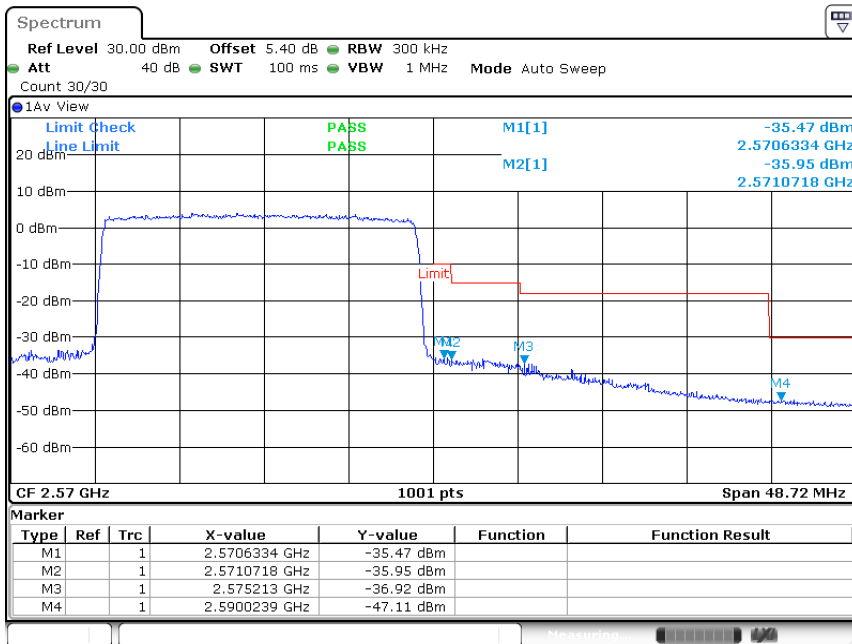
Band7-20MHz-16QAM-21350-1RB#99



Date: 28.SEP.2020 11:44:18



Band7-20MHz-16QAM-21350-100RB#0



Date: 28.SEP.2020 11:44:55

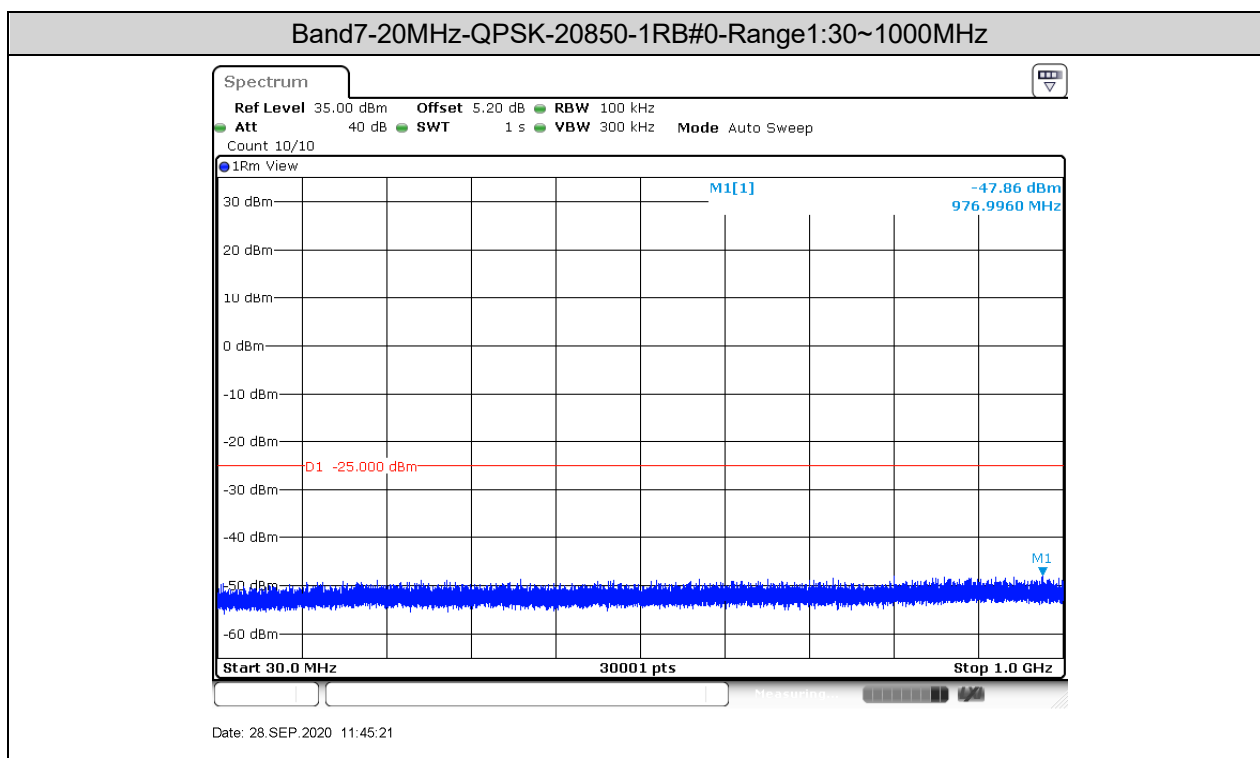


6 Spurious Emission at Antenna Terminal

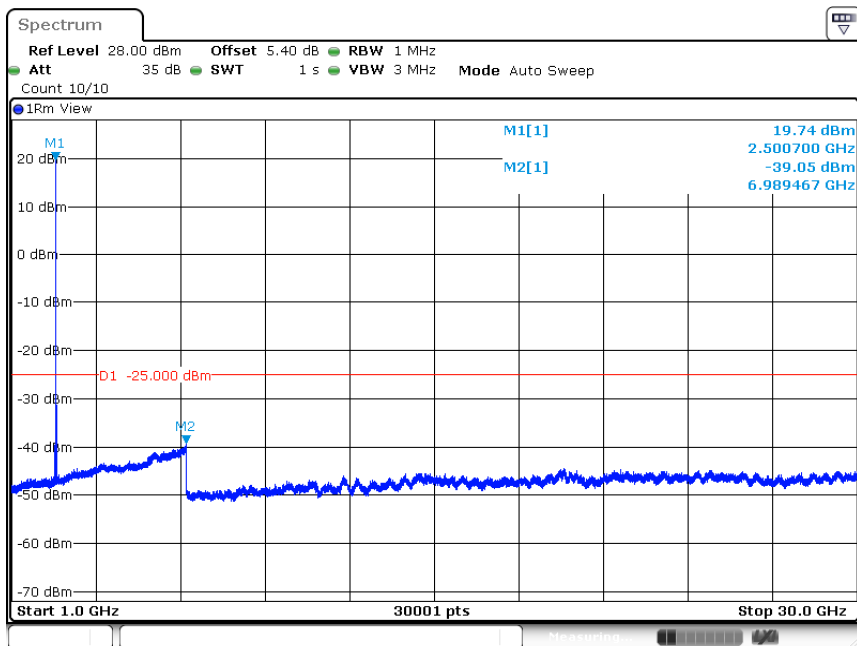
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " 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

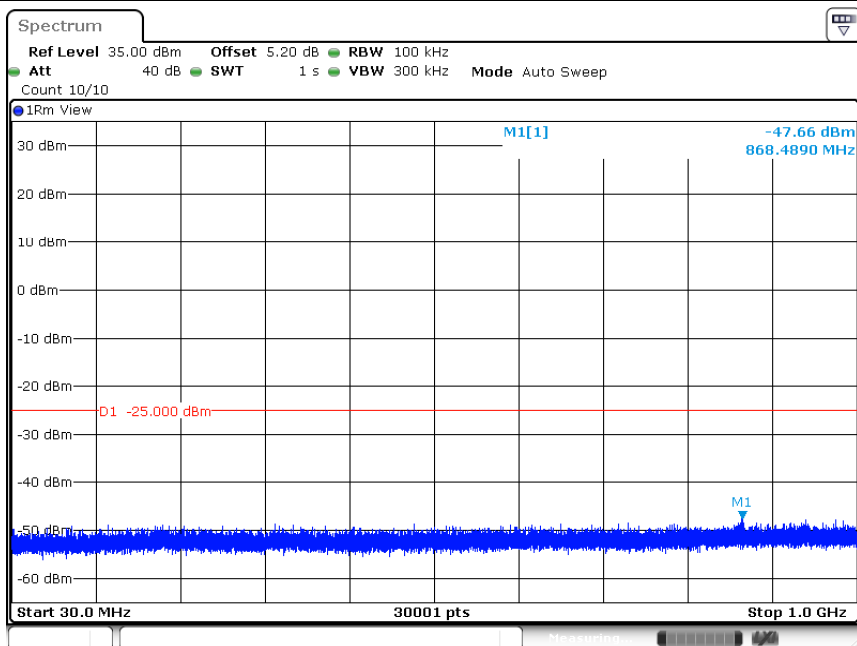


Band7-20MHz-QPSK-20850-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 11:45:38

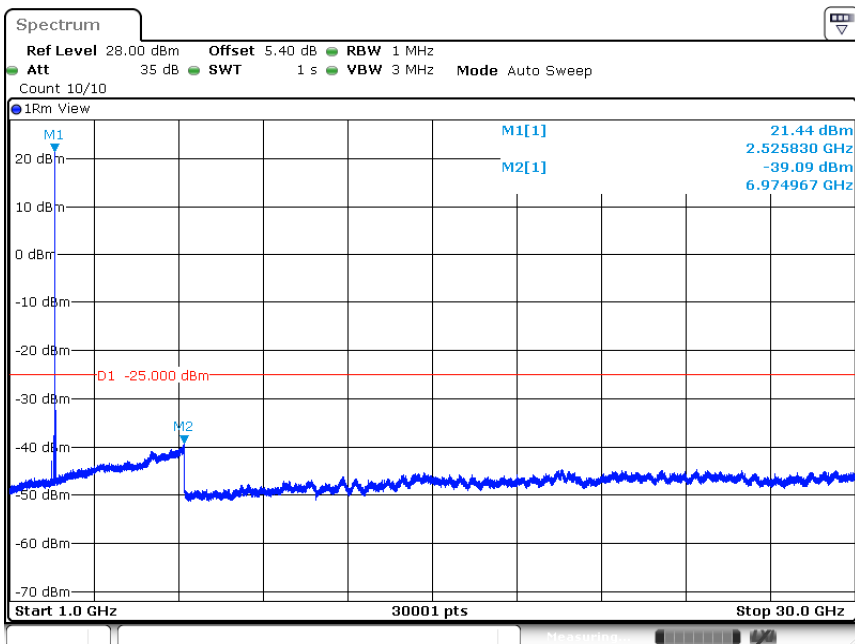
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Date: 28.SEP.2020 11:46:40

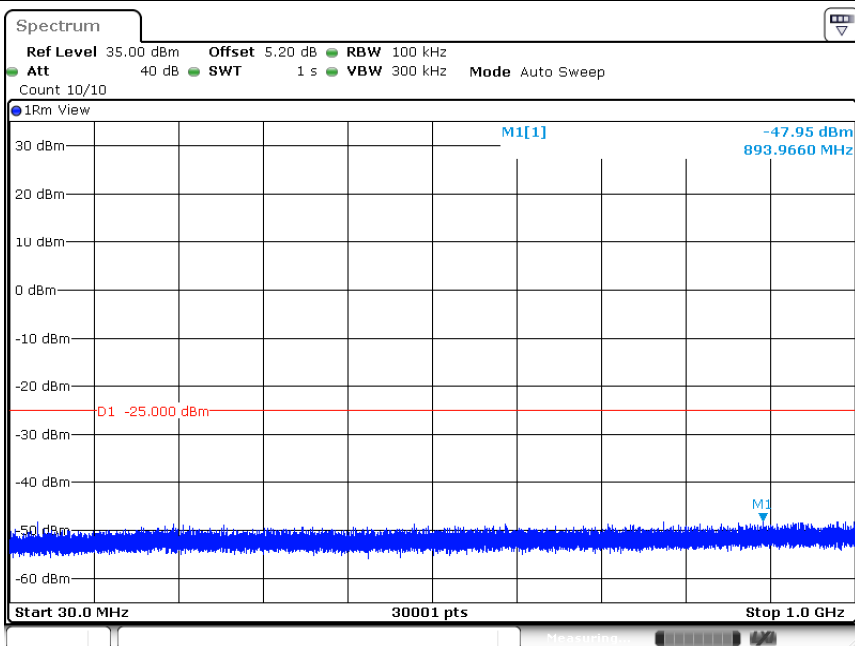


Band7-20MHz-QPSK-21100-1RB#0-Range2:1000~30000MHz



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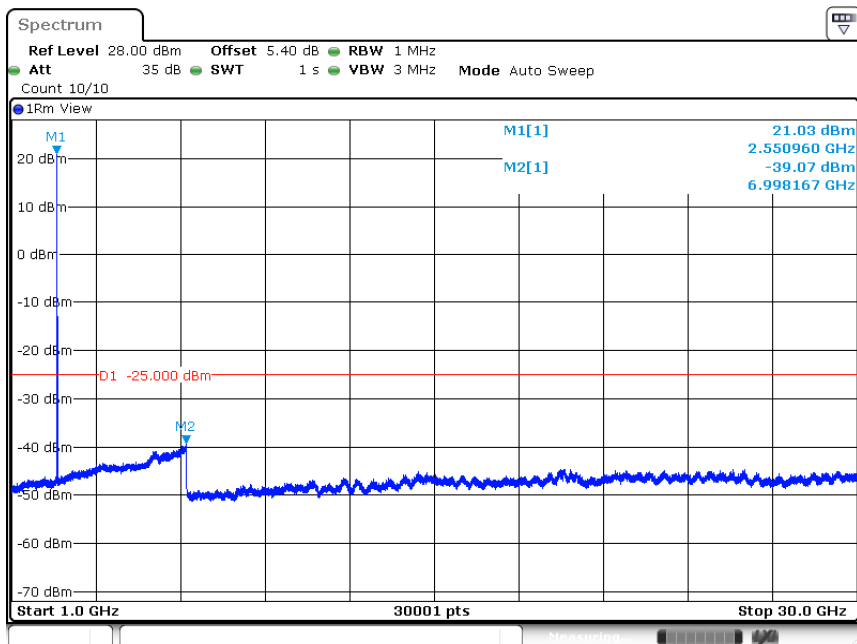
Band7-20MHz-QPSK-21350-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 11:47:58

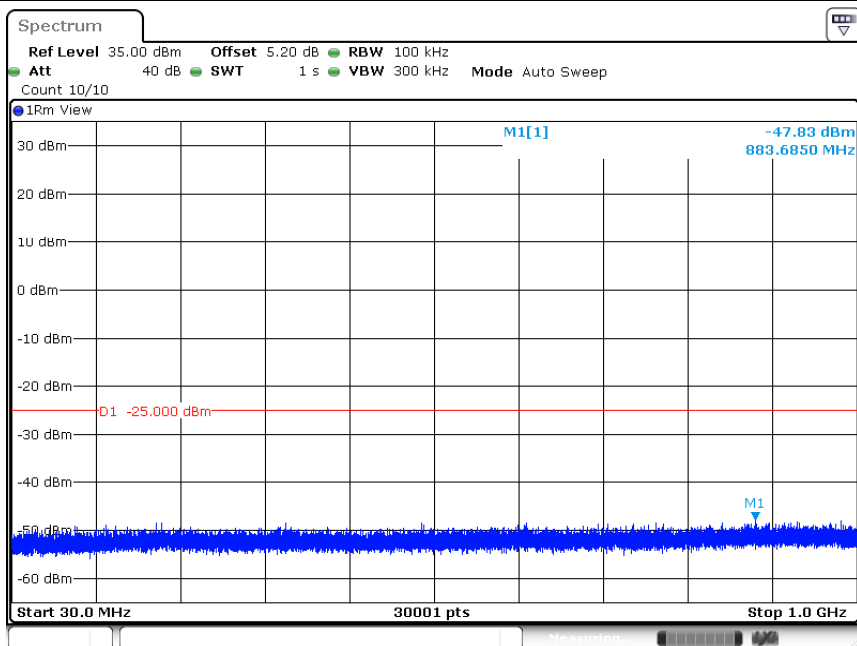


Band7-20MHz-QPSK-21350-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 11:48:15

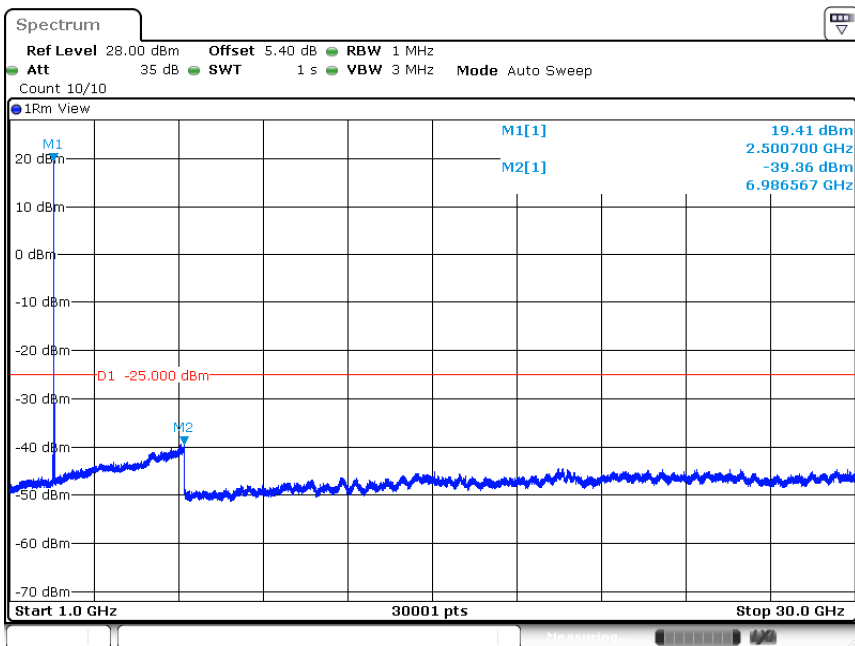
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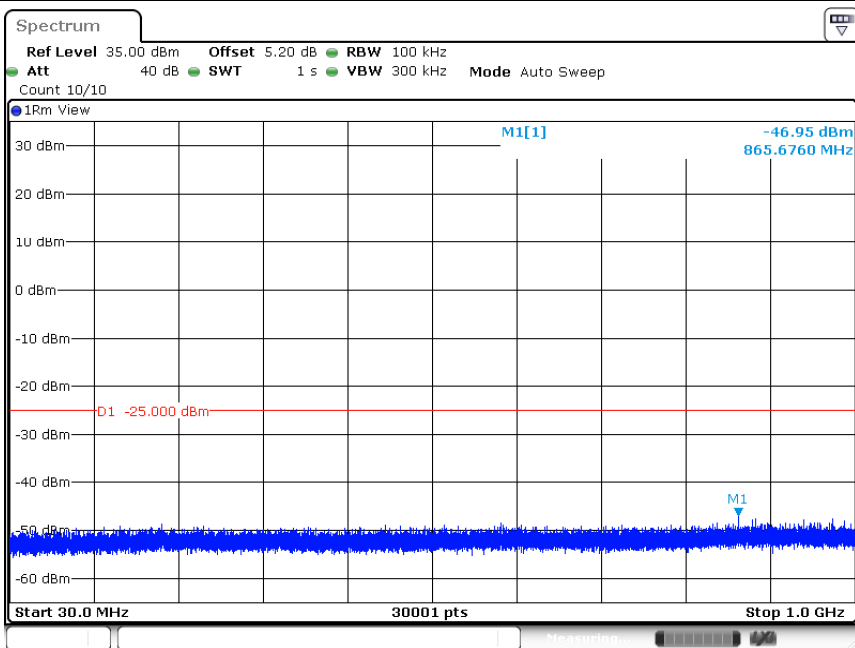


Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 11:46:18

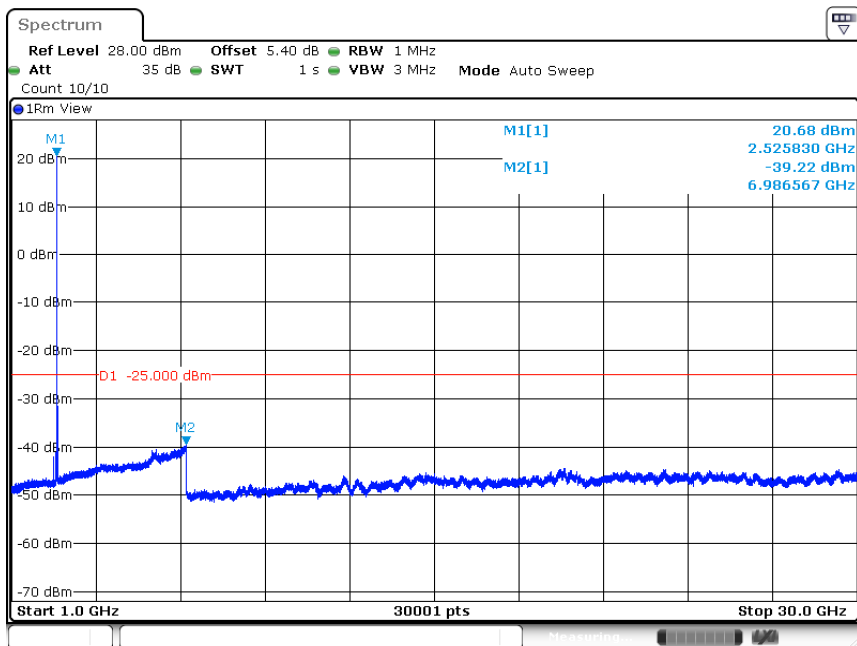
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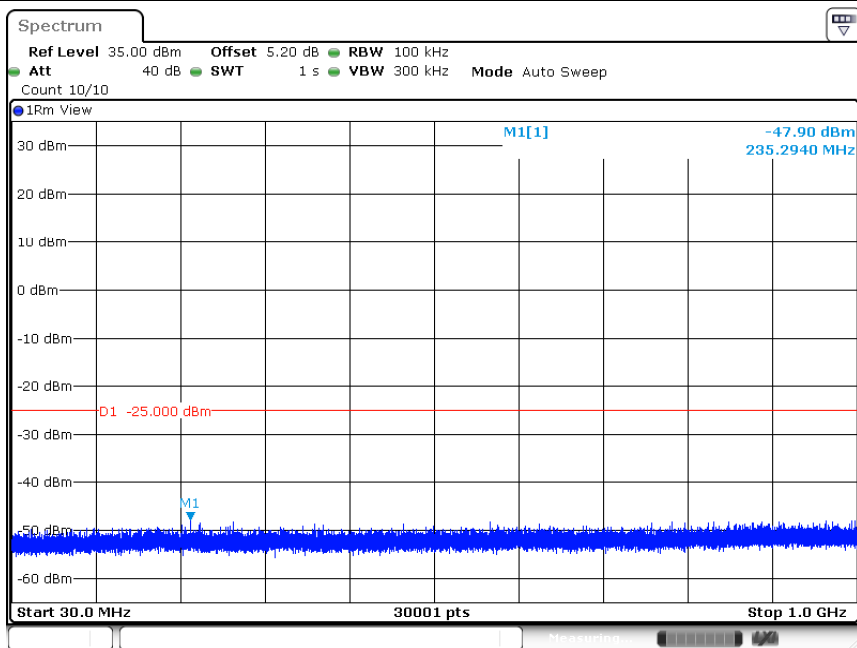


Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 11:47:36

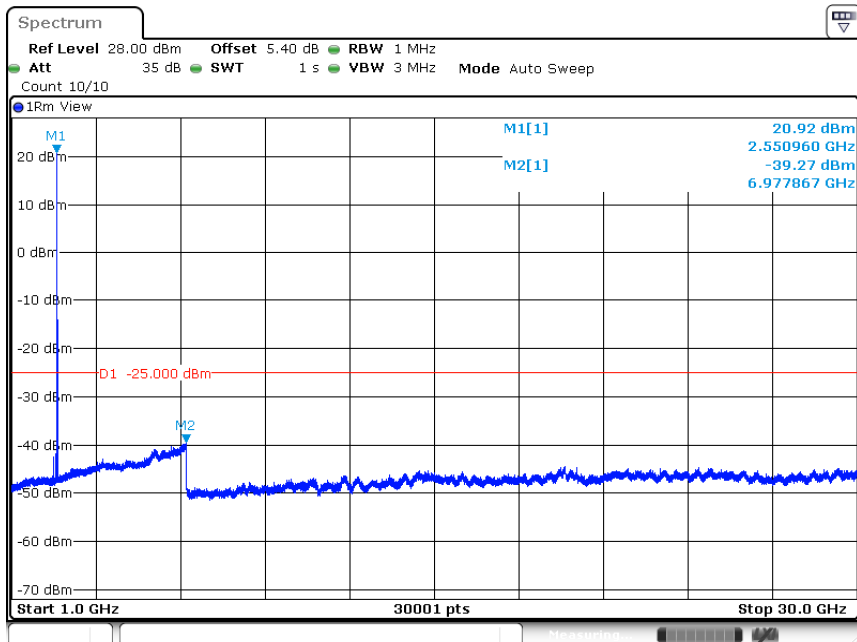
Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 11:48:37



Band7-20MHz-16QAM-21350-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 11:48:54



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7 Field Strength of Spurious Radiation

7.1 Test Band = LTE Band 7

7.1.1. Test Mode = LTE/TM1 20MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
31.3096	-74.19	-25.00	49.19	Vertical
110.9020	-65.37	-25.00	40.37	Vertical
394.3017	-68.83	-25.00	43.83	Vertical
3947.4379	-63.80	-25.00	38.80	Vertical
7435.9774	-58.26	-25.00	33.26	Vertical
17998.1999	-42.53	-25.00	17.53	Vertical
45.8118	-64.82	-25.00	39.82	Horizontal
101.0561	-75.71	-25.00	50.71	Horizontal
233.9527	-68.48	-25.00	43.48	Horizontal
3645.6258	-63.26	-25.00	38.26	Horizontal
7467.1787	-58.62	-25.00	33.62	Horizontal
16396.1358	-45.62	-25.00	20.62	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.7275	-73.89	-25.00	48.89	Vertical
116.4313	-65.41	-25.00	40.41	Vertical
377.4714	-68.50	-25.00	43.50	Vertical
3827.4331	-64.23	-25.00	39.23	Vertical
7384.3754	-57.90	-25.00	32.90	Vertical
17996.3999	-42.52	-25.00	17.52	Vertical
44.1142	-64.97	-25.00	39.97	Horizontal
83.2072	-75.57	-25.00	50.57	Horizontal
233.0797	-69.19	-25.00	44.19	Horizontal
3637.2255	-62.89	-25.00	37.89	Horizontal
7462.3785	-58.76	-25.00	33.76	Horizontal
16397.9359	-45.91	-25.00	20.91	Horizontal



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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.9215	-72.57	-25.00	47.57	Vertical
109.6410	-65.16	-25.00	40.16	Vertical
597.2359	-64.76	-25.00	39.76	Vertical
3657.6263	-64.03	-25.00	39.03	Vertical
7446.7779	-57.99	-25.00	32.99	Vertical
17998.8000	-42.12	-25.00	17.12	Vertical
43.5807	-64.21	-25.00	39.21	Horizontal
107.2159	-76.08	-25.00	51.08	Horizontal
238.6089	-68.43	-25.00	43.43	Horizontal
3634.2254	-63.36	-25.00	38.36	Horizontal
7476.7791	-58.67	-25.00	33.67	Horizontal
16397.3359	-45.96	-25.00	20.96	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 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		Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
					Voltage [Vdc]	Temperature (°C)				
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	3.40	0.001355	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	-1.00	-0.000398	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	3.90	0.001554	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-5.50	-0.002170	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-3.00	-0.001183	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	0.40	0.000156	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-0.60	-0.000234	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	2.90	0.001133	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	1.10	0.000438	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	1.40	0.000558	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	0.30	0.000120	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-3.10	-0.001223	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	-3.20	-0.001262	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VL	NT	2.90	0.001133	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VN	NT	0.40	0.000156	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	-0.10	-0.000039	±2.5	PASS



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8.2 Frequency Vs Temperature

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	4.40	0.001753	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	1.60	0.000637	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-10	2.10	0.000837	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	4.40	0.001753	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	3.50	0.001394	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	1.30	0.000518	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	2.20	0.000876	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	40	2.00	0.000797	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	1.70	0.000677	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-0.20	-0.000079	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-3.70	-0.001460	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	-3.60	-0.001420	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-2.20	-0.000868	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-5.20	-0.002051	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-6.00	-0.002367	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-6.90	-0.002722	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	-1.80	-0.000710	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	-1.10	-0.000430	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	4.20	0.001641	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-10	3.10	0.001211	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	2.00	0.000781	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	1.20	0.000469	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	0.80	0.000313	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	30	0.20	0.000078	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	40	0.20	0.000078	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	3.80	0.001484	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	0.90	0.000359	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	2.20	0.000876	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-10	1.00	0.000398	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	4.80	0.001912	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	3.80	0.001514	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	6.40	0.002550	±2.5	PASS



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Band7	20MHz	16QAM	20850	100RB#0	NV	30	1.10	0.000438	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	40	3.20	0.001275	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	50	5.40	0.002151	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	0.50	0.000197	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-7.60	-0.002998	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-10	-4.00	-0.001578	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-3.00	-0.001183	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	10	-2.70	-0.001065	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	20	-3.20	-0.001262	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	30	-5.90	-0.002327	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	40	-0.50	-0.000197	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	50	1.30	0.000513	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	3.20	0.001250	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	3.30	0.001289	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-10	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	1.60	0.000625	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	2.00	0.000781	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	20	4.00	0.001563	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	30	0.80	0.000313	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	40	1.90	0.000742	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	50	0.70	0.000273	±2.5	PASS

The End

