



Appendix B

E-UTRA Band 7



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1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	21.61	15.61	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#12	21.77	15.77	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#24	21.55	15.55	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#0	20.84	14.84	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#6	20.83	14.83	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#13	20.71	14.71	33.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	20.83	14.83	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#0	21.57	15.57	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#12	22.04	16.04	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#24	21.59	15.59	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#0	20.8	14.8	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#6	20.74	14.74	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#13	20.76	14.76	33.00	PASS
Band7	5MHz	QPSK	21100	25RB#0	20.73	14.73	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#0	21.51	15.51	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#12	21.91	15.91	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#24	21.69	15.69	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	20.91	14.91	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#6	20.92	14.92	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#13	20.97	14.97	33.00	PASS
Band7	5MHz	QPSK	21425	25RB#0	20.98	14.98	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#0	20.65	14.65	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#12	20.94	14.94	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#24	20.53	14.53	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#0	19.9	13.9	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#6	19.96	13.96	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#13	19.85	13.85	33.00	PASS
Band7	5MHz	16QAM	20775	25RB#0	20.05	14.05	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#0	20.71	14.71	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#12	20.55	14.55	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#24	20.34	14.34	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#0	19.7	13.7	33.00	PASS



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Band7	5MHz	16QAM	21100	12RB#6	19.71	13.71	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#13	19.7	13.7	33.00	PASS
Band7	5MHz	16QAM	21100	25RB#0	19.78	13.78	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#0	21.06	15.06	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#12	20.78	14.78	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#24	20.74	14.74	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#0	19.52	13.52	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#6	20.03	14.03	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#13	19.97	13.97	33.00	PASS
Band7	5MHz	16QAM	21425	25RB#0	20.15	14.15	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#0	21.79	15.79	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#24	21.93	15.93	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#49	21.69	15.69	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#0	20.91	14.91	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#12	20.77	14.77	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#25	20.83	14.83	33.00	PASS
Band7	10MHz	QPSK	20800	50RB#0	20.88	14.88	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#0	21.78	15.78	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#24	21.98	15.98	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#49	21.53	15.53	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#0	20.78	14.78	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#12	20.82	14.82	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#25	20.85	14.85	33.00	PASS
Band7	10MHz	QPSK	21100	50RB#0	20.82	14.82	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#0	21.86	15.86	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#24	22.02	16.02	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#49	21.9	15.9	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#0	21	15	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#12	20.9	14.9	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#25	20.94	14.94	33.00	PASS
Band7	10MHz	QPSK	21400	50RB#0	21.04	15.04	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#0	20.75	14.75	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#24	20.85	14.85	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#49	20.87	14.87	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#0	19.91	13.91	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#12	19.79	13.79	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#25	19.89	13.89	33.00	PASS
Band7	10MHz	16QAM	20800	50RB#0	19.91	13.91	33.00	PASS



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Band7	10MHz	16QAM	21100	1RB#0	20.75	14.75	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#24	21.15	15.15	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#49	21.03	15.03	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#0	20.07	14.07	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#12	19.61	13.61	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#25	20.11	14.11	33.00	PASS
Band7	10MHz	16QAM	21100	50RB#0	19.82	13.82	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#0	21.16	15.16	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#24	21	15	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#49	20.89	14.89	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#0	20.12	14.12	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#12	19.9	13.9	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#25	20.2	14.2	33.00	PASS
Band7	10MHz	16QAM	21400	50RB#0	19.98	13.98	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#0	21.87	15.87	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#38	21.94	15.94	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#74	21.78	15.78	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#0	20.88	14.88	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#18	20.91	14.91	33.00	PASS
Band7	15MHz	QPSK	20825	38RB#37	20.95	14.95	33.00	PASS
Band7	15MHz	QPSK	20825	75RB#0	20.88	14.88	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#0	21.81	15.81	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#38	21.74	15.74	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#74	21.89	15.89	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#0	20.68	14.68	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#18	20.76	14.76	33.00	PASS
Band7	15MHz	QPSK	21100	38RB#37	20.78	14.78	33.00	PASS
Band7	15MHz	QPSK	21100	75RB#0	20.74	14.74	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#0	21.84	15.84	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#38	21.79	15.79	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#74	21.93	15.93	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#0	20.91	14.91	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#18	21.01	15.01	33.00	PASS
Band7	15MHz	QPSK	21375	38RB#37	20.92	14.92	33.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	21.03	15.03	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	20.72	14.72	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#38	20.79	14.79	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#74	20.76	14.76	33.00	PASS



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Band7	15MHz	16QAM	20825	38RB#0	19.87	13.87	33.00	PASS
Band7	15MHz	16QAM	20825	38RB#18	19.89	13.89	33.00	PASS
Band7	15MHz	16QAM	20825	38RB#37	19.93	13.93	33.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	20	14	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#0	20.37	14.37	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#38	20.74	14.74	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#74	20.91	14.91	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#0	19.6	13.6	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#18	19.72	13.72	33.00	PASS
Band7	15MHz	16QAM	21100	38RB#37	19.71	13.71	33.00	PASS
Band7	15MHz	16QAM	21100	75RB#0	19.83	13.83	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#0	20.85	14.85	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#38	21.12	15.12	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	21.2	15.2	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#0	19.94	13.94	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#18	19.98	13.98	33.00	PASS
Band7	15MHz	16QAM	21375	38RB#37	19.91	13.91	33.00	PASS
Band7	15MHz	16QAM	21375	75RB#0	20.08	14.08	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#0	21.66	15.66	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#49	22.02	16.02	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#99	21.85	15.85	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#0	20.94	14.94	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	20.91	14.91	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#50	20.87	14.87	33.00	PASS
Band7	20MHz	QPSK	20850	100RB#0	20.79	14.79	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#0	21.43	15.43	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#49	21.9	15.9	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#99	21.84	15.84	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#0	20.72	14.72	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	20.78	14.78	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#50	20.77	14.77	33.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	20.73	14.73	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#0	22.13	16.13	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#49	22.22	16.22	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#99	22.16	16.16	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#0	20.83	14.83	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#25	20.96	14.96	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#50	20.99	14.99	33.00	PASS



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Band7	20MHz	QPSK	21350	100RB#0	20.91	14.91	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#0	20.62	14.62	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#49	20.83	14.83	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	20.65	14.65	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#0	19.95	13.95	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#25	19.77	13.77	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#50	19.71	13.71	33.00	PASS
Band7	20MHz	16QAM	20850	100RB#0	19.75	13.75	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#0	20.8	14.8	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#49	20.73	14.73	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#99	20.86	14.86	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#0	19.77	13.77	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#25	19.82	13.82	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#50	19.79	13.79	33.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	19.86	13.86	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#0	20.96	14.96	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#49	21.19	15.19	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#99	21.28	15.28	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#0	19.93	13.93	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#25	20.01	14.01	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#50	20.06	14.06	33.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	19.88	13.88	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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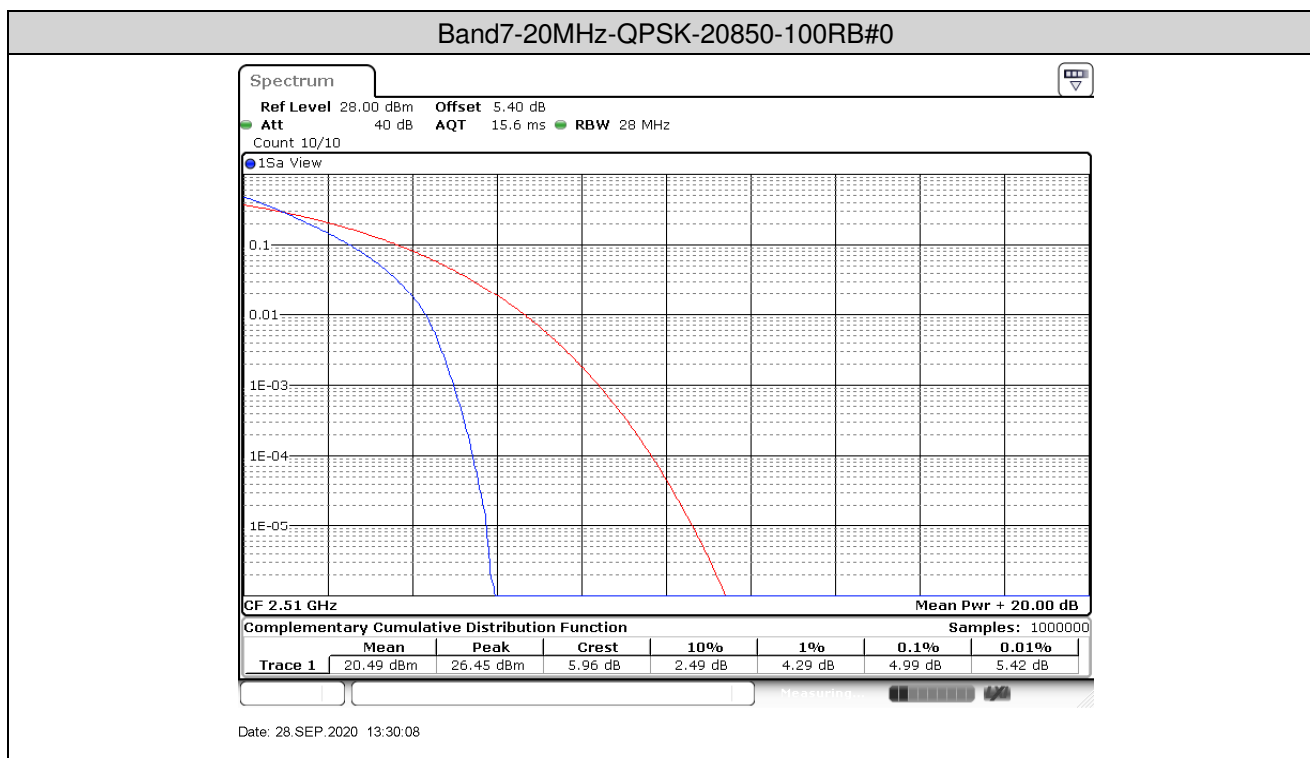
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2. Peak-to-Average Ratio (CCDF)

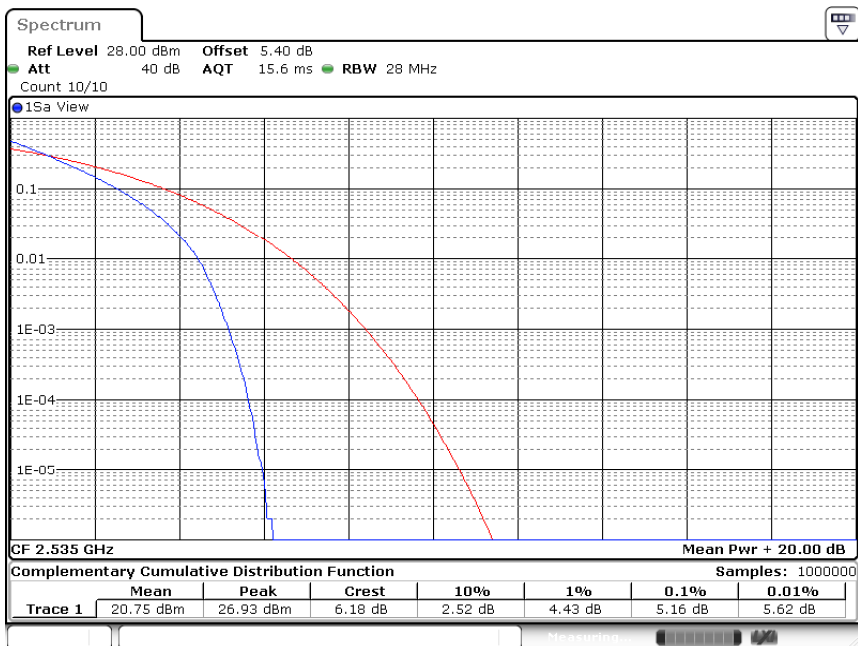
2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	4.99	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.16	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.84	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.88	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.06	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.74	13	PASS

2.2. Test Plots

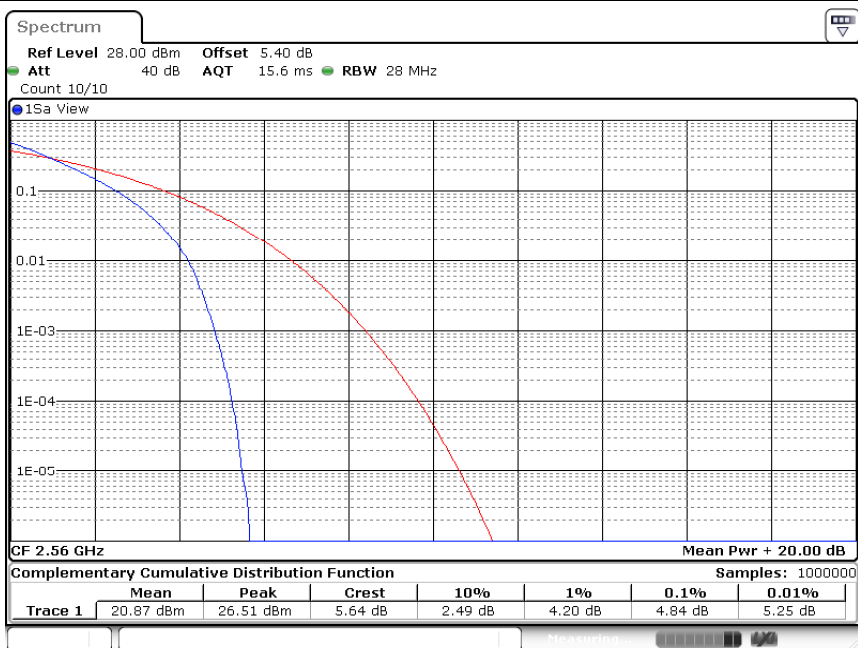


Band7-20MHz-QPSK-21100-100RB#0



Date: 28.SEP.2020 13:30:36

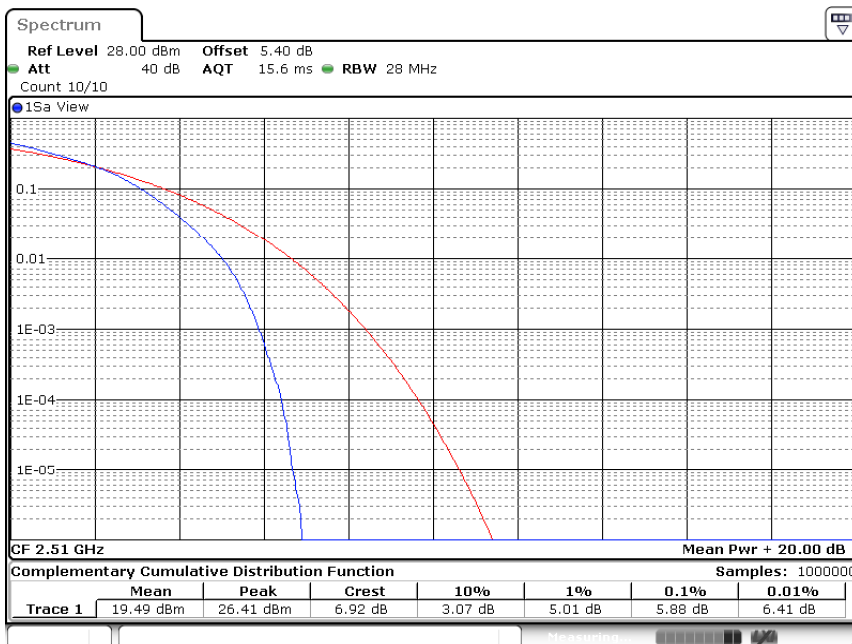
Band7-20MHz-QPSK-21350-100RB#0



Date: 28.SEP.2020 13:31:05

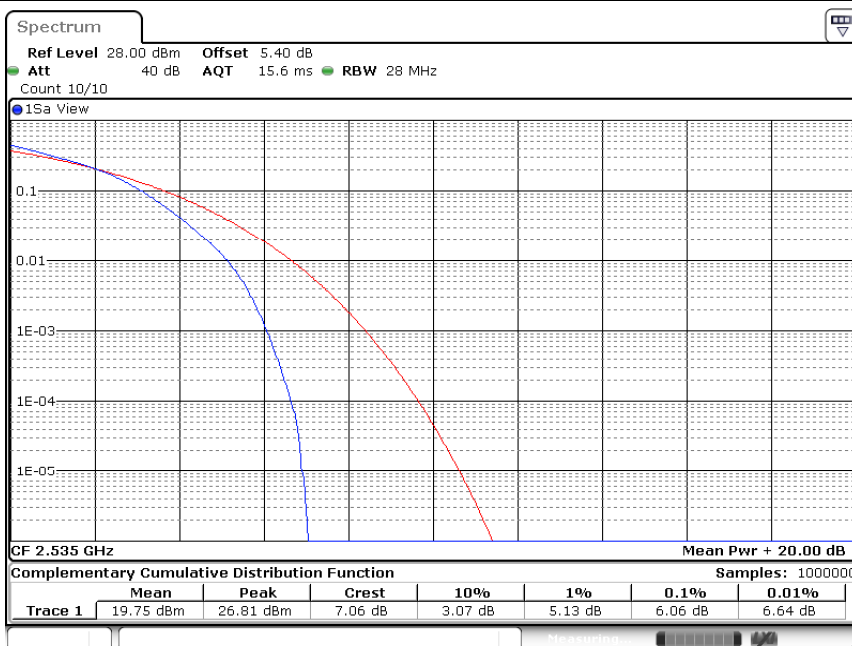


Band7-20MHz-16QAM-20850-100RB#0



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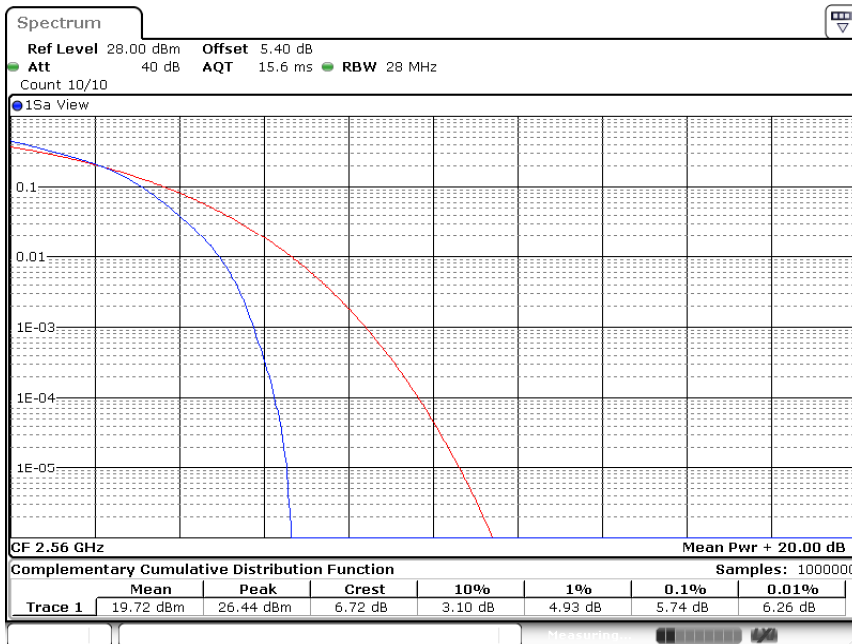
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Date: 28.SEP.2020 13:30:50



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



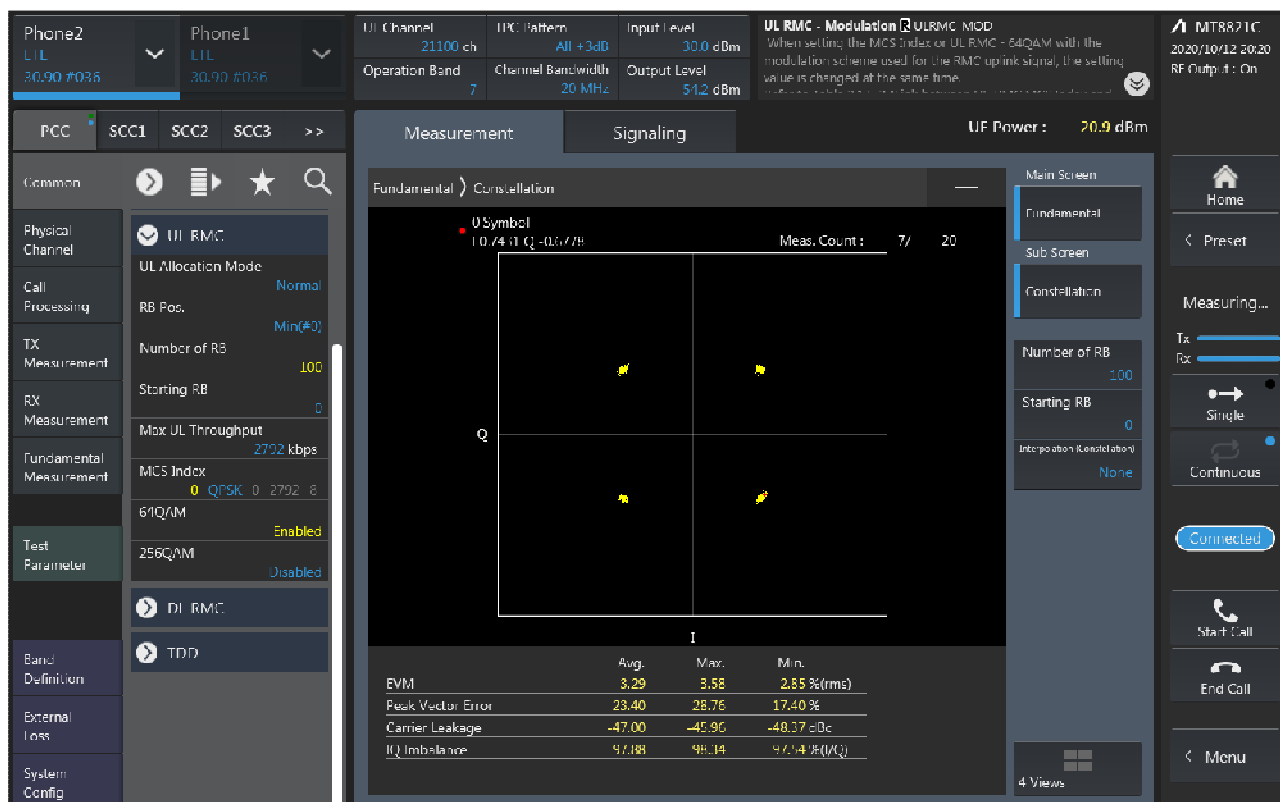
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3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 20MHz

3.1.1.Test Channel = MCH



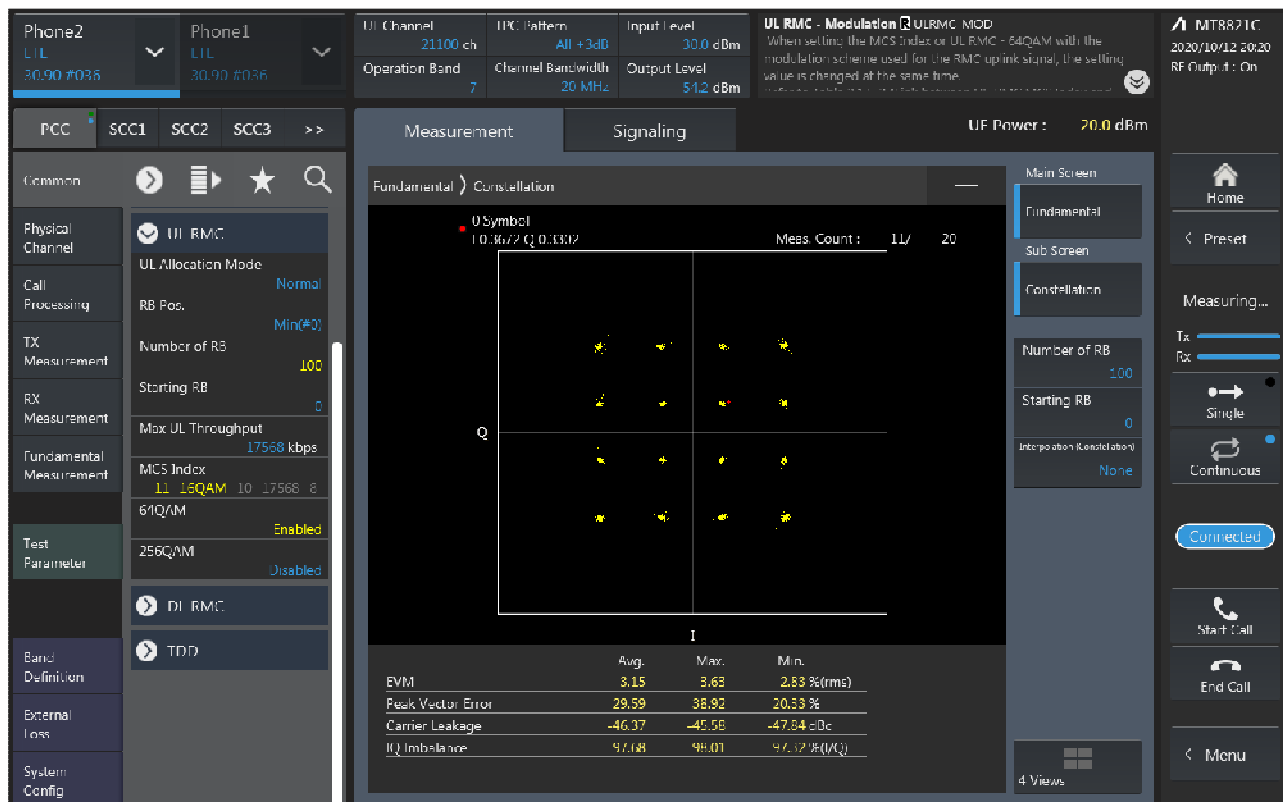
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3.2. Test Mode = LTE /TM2 20MHz

3.2.1. Test Channel = MCH



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4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth h	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	4.466	4.880	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	4.930	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.486	4.930	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.931	9.680	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.911	9.720	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.911	9.680	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.911	9.740	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.911	9.740	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.911	9.740	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.397	14.730	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.457	14.760	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.427	14.790	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.397	14.670	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.427	14.730	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.427	14.730	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.862	19.200	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.822	19.400	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.822	19.400	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.902	19.280	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.862	19.480	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.862	19.400	PASS



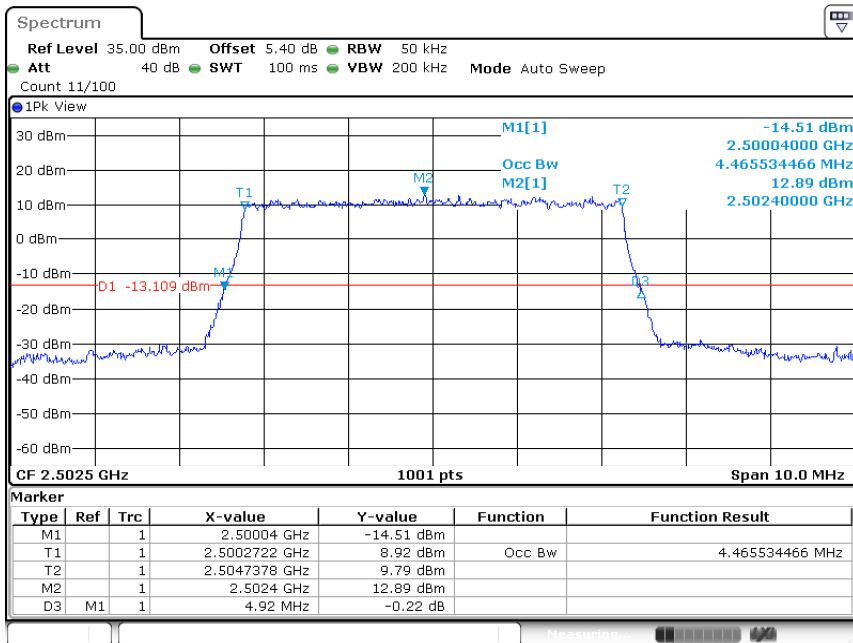
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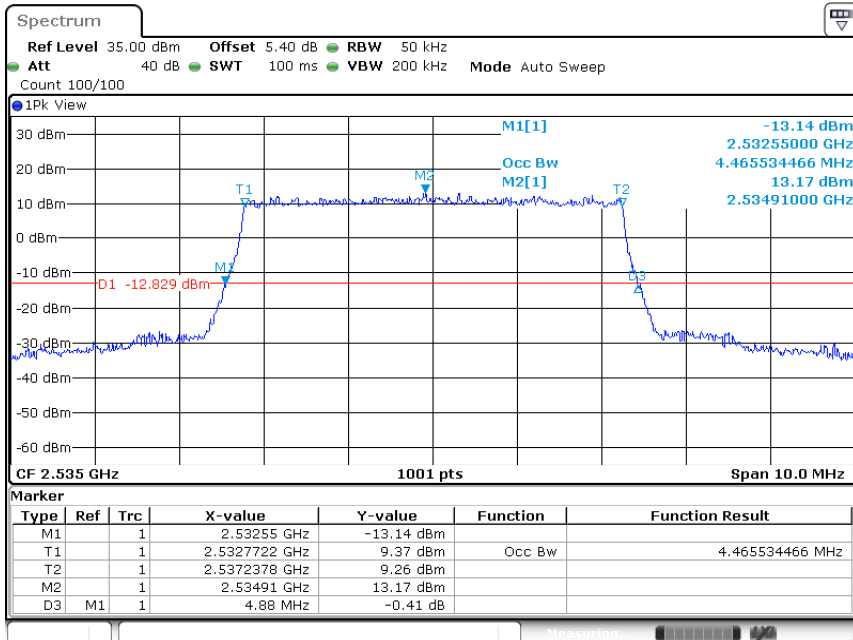
4.2. Test Plots

Band7-5MHz-QPSK-20775-25RB#0-4.466



Date: 28 SEP.2020 13:08:05

Band7-5MHz-QPSK-21100-25RB#0-4.466



Date: 28 SEP.2020 13:08:51

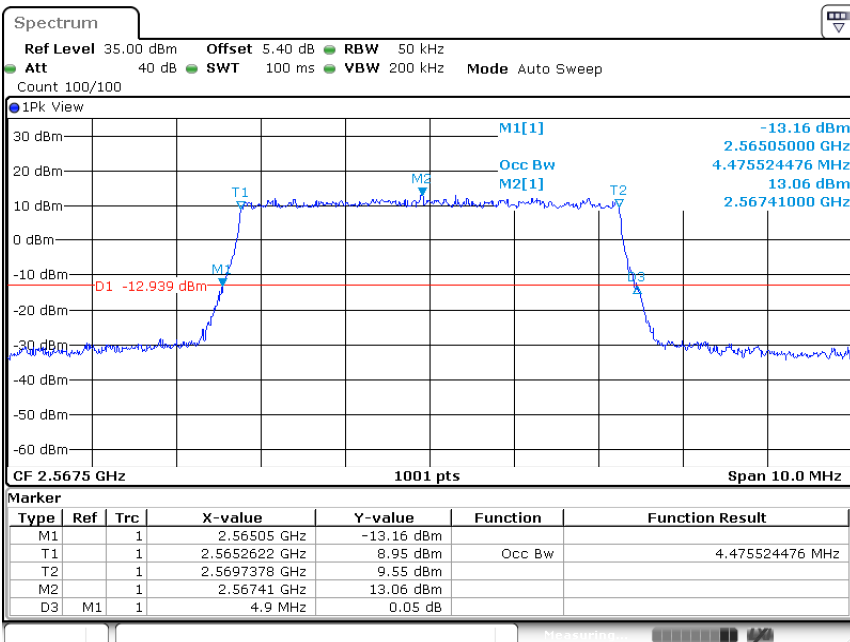


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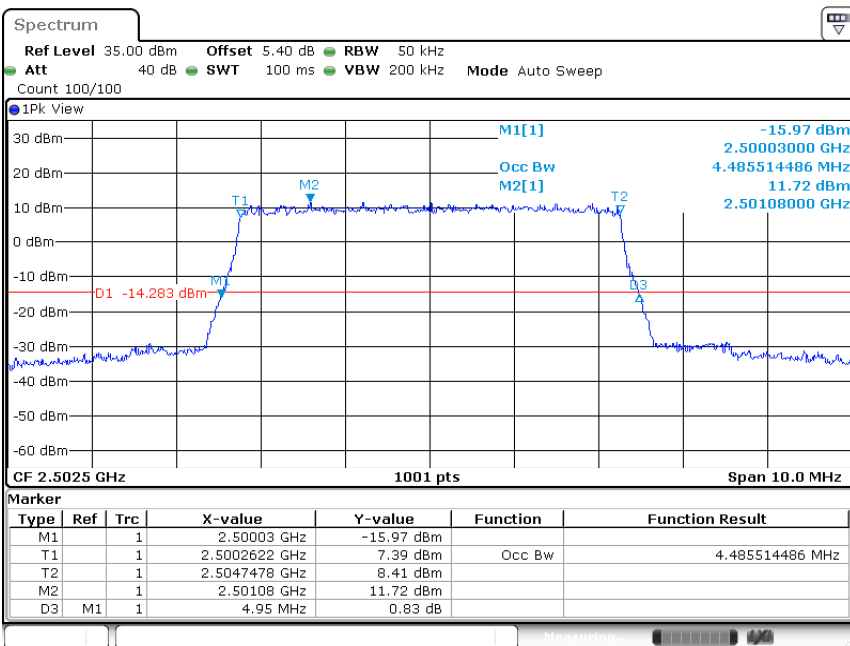
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Band7-5MHz-QPSK-21425-25RB#0-4.476



Date: 28.SEP.2020 13:09:37

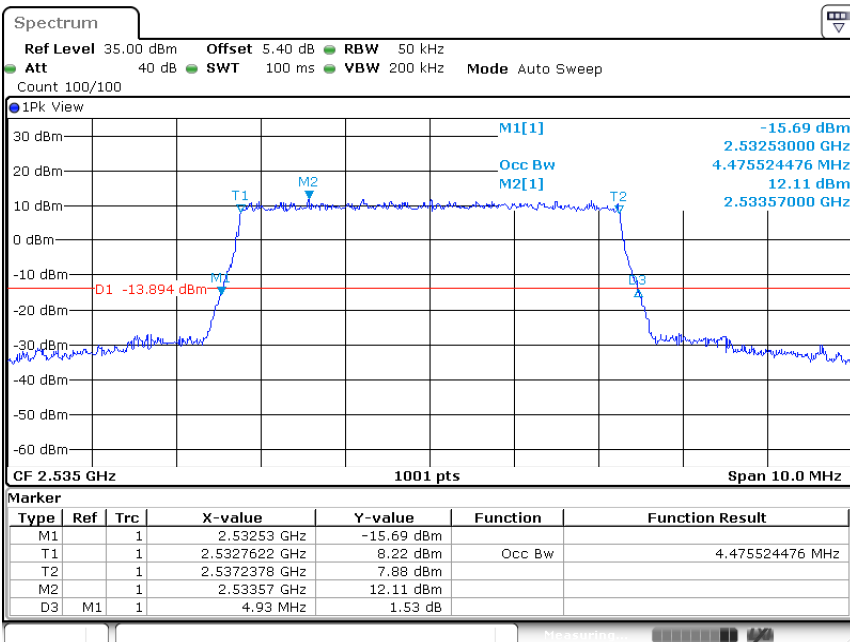
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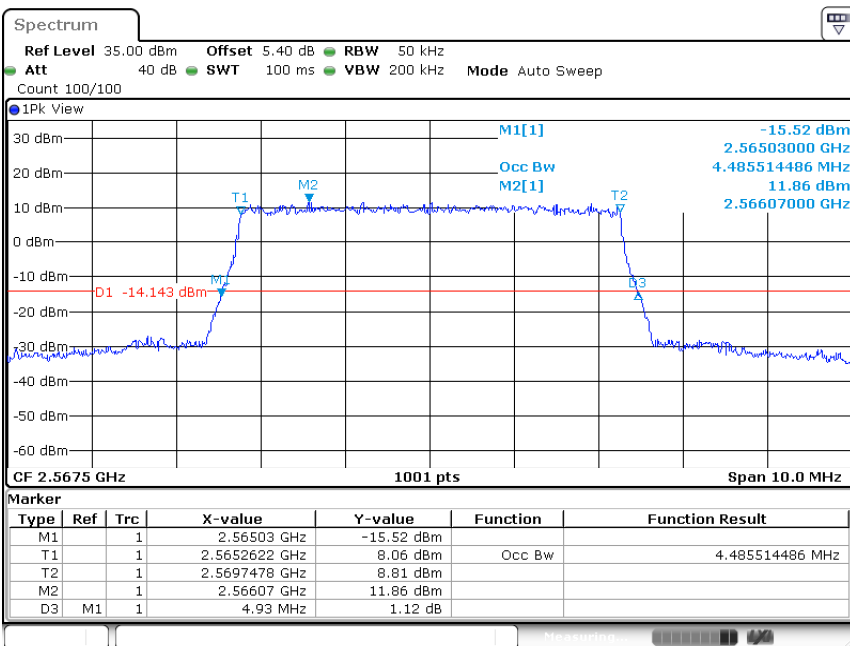


Band7-5MHz-16QAM-21100-25RB#0-4.476



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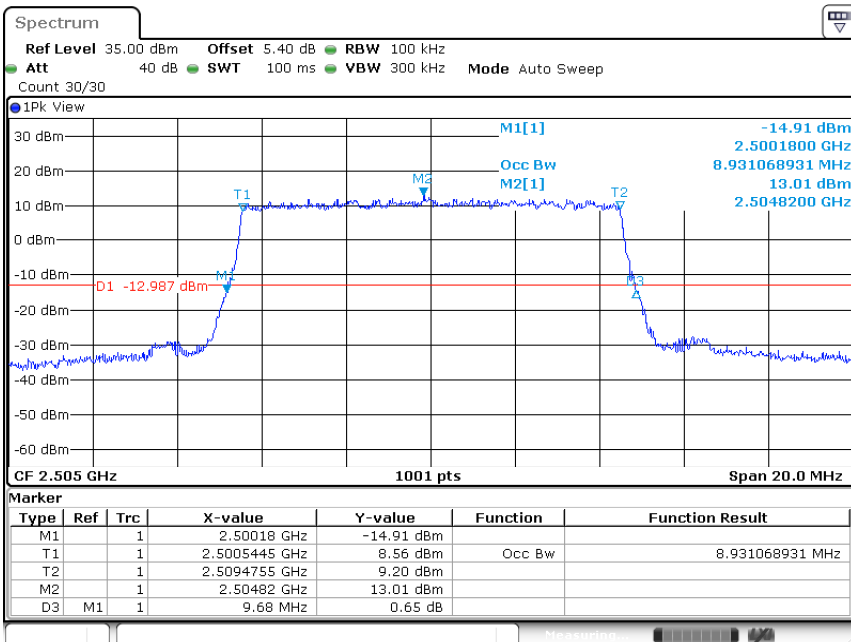
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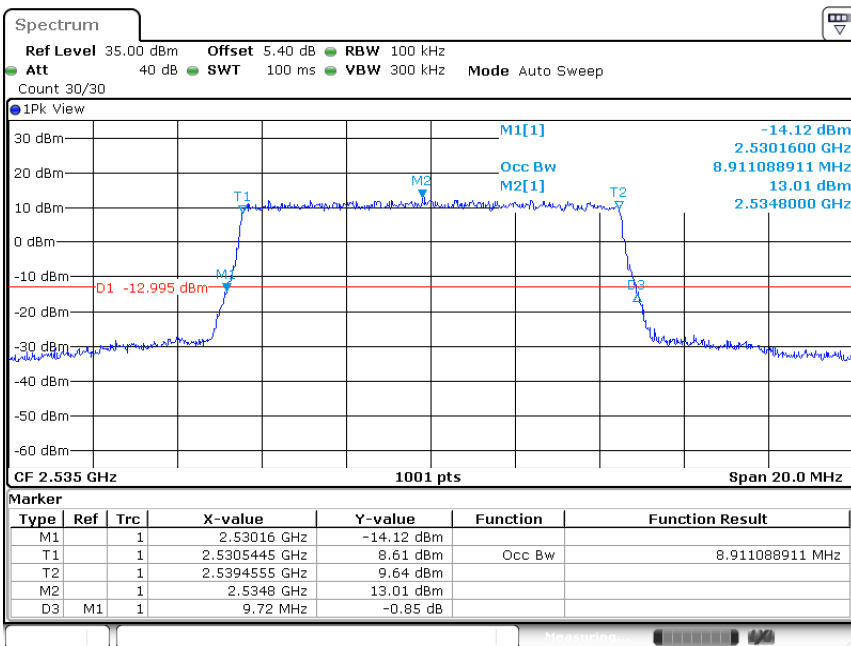


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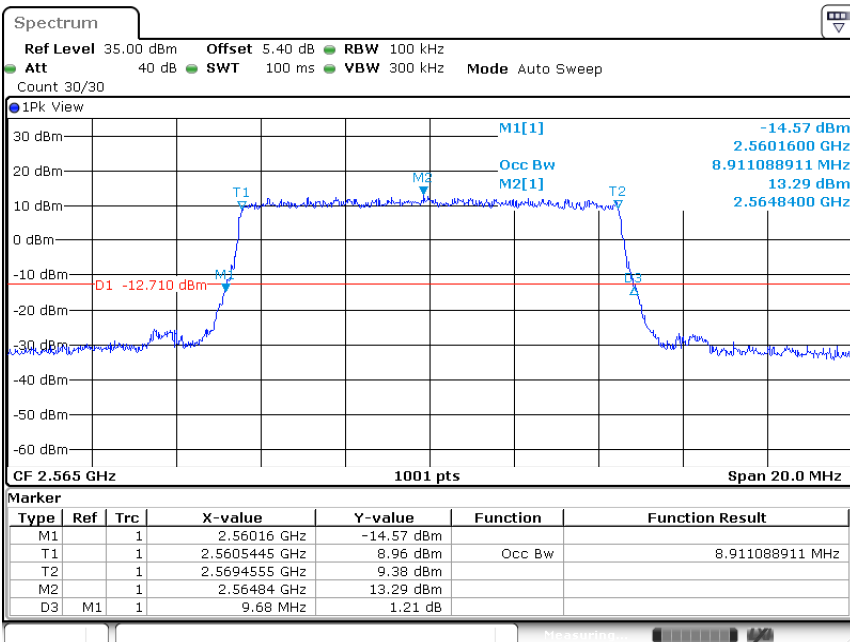
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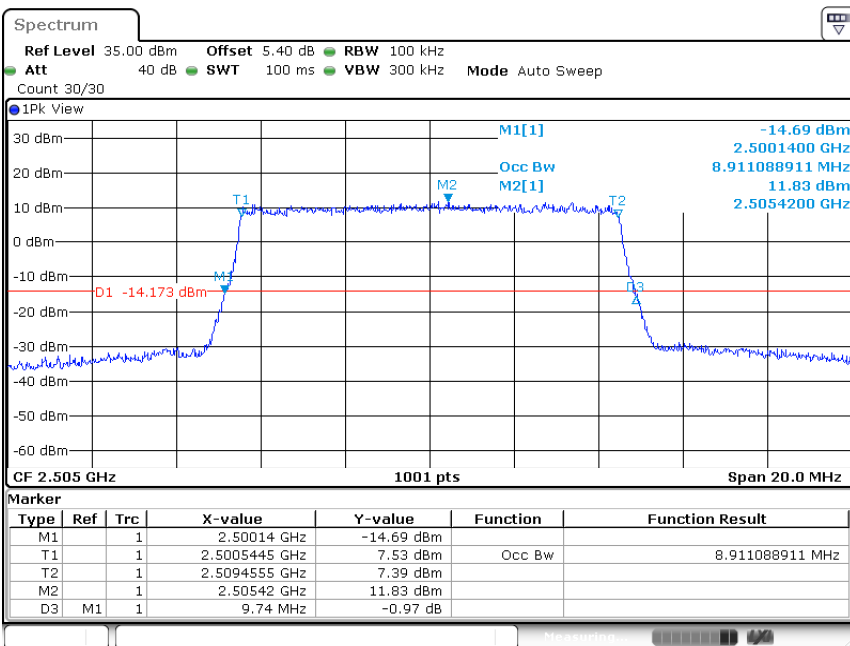


Band7-10MHz-QPSK-21400-50RB#0-8.911



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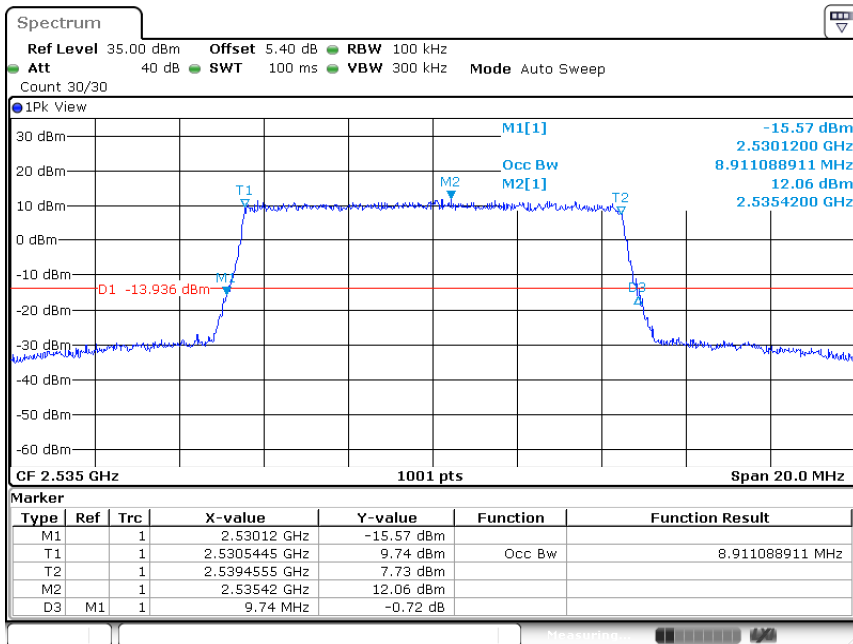
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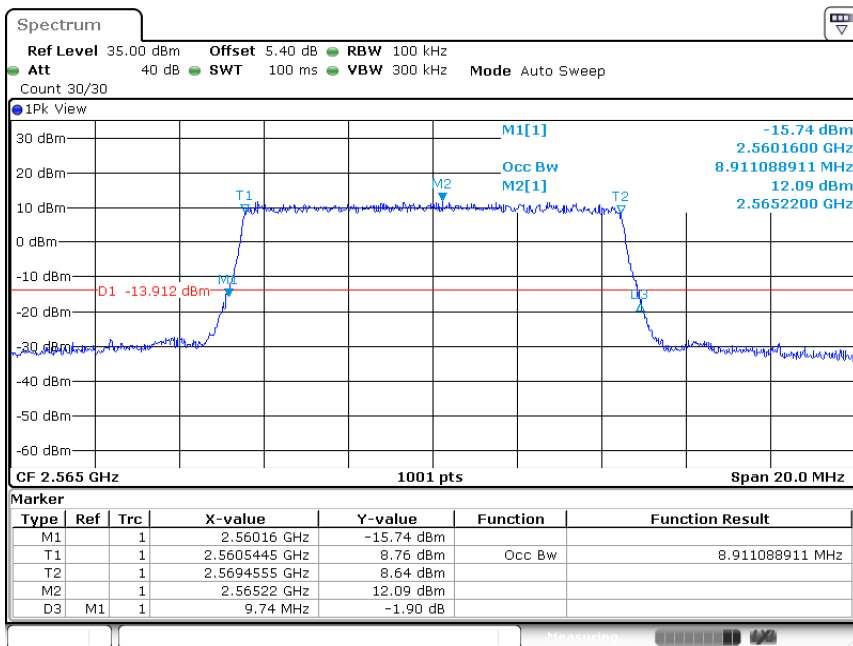


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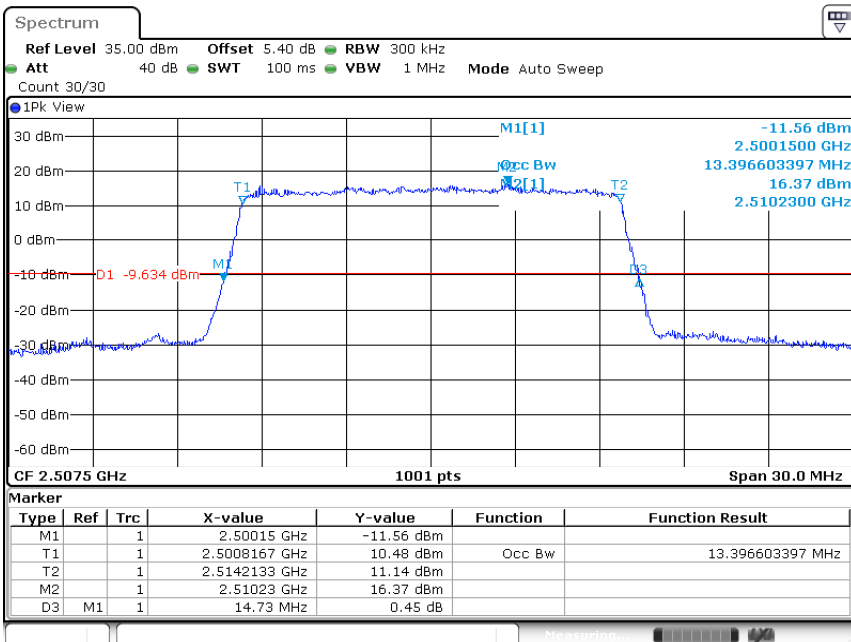
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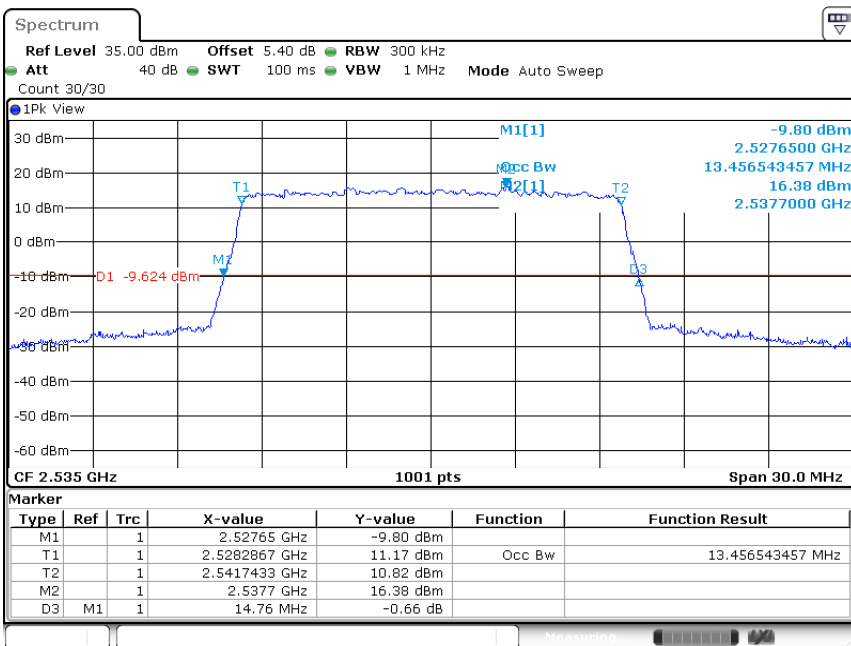


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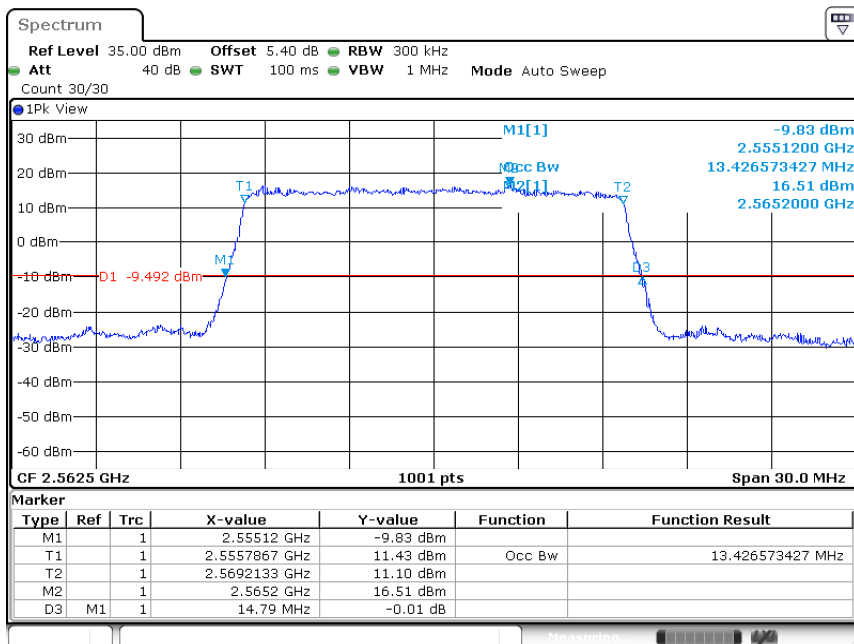
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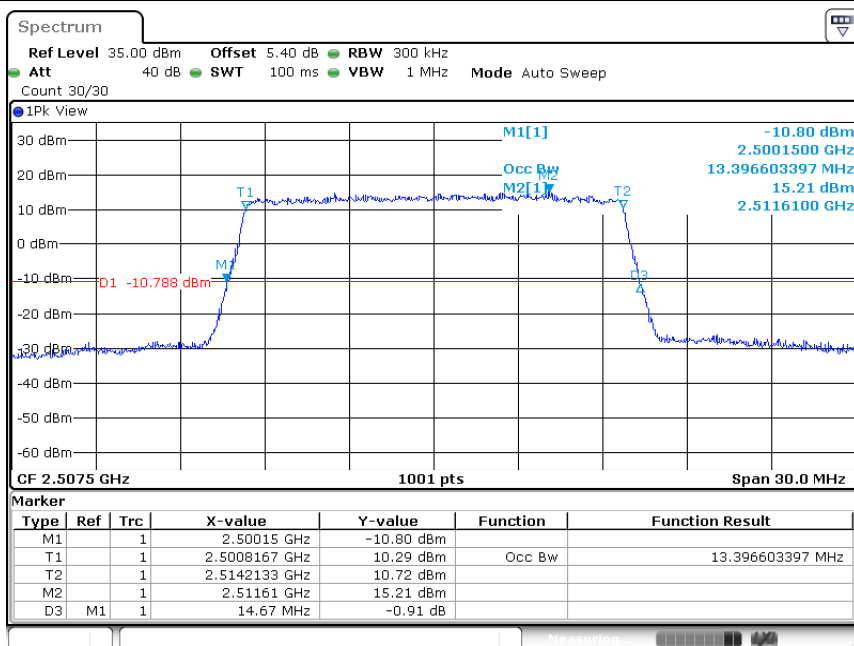


Band7-15MHz-QPSK-21375-75RB#0-13.427



Date: 28.SEP.2020 13:13:05

Band7-15MHz-16QAM-20825-75RB#0-13.397



Date: 28.SEP.2020 13:12:17



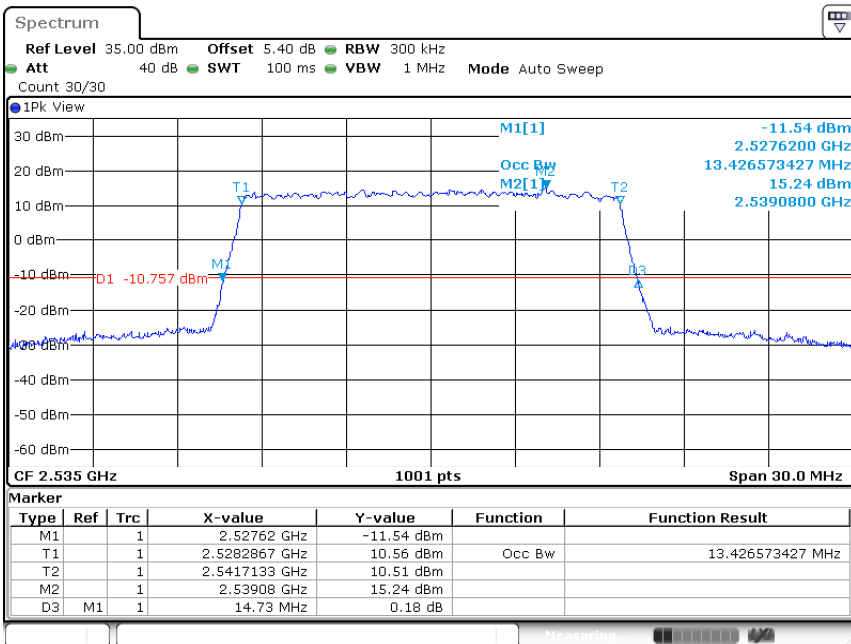
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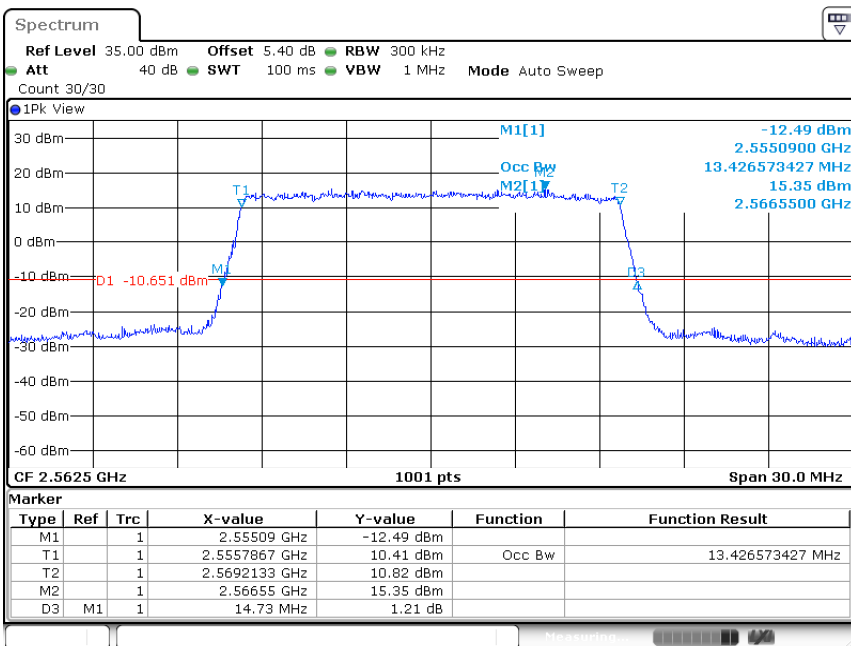
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Band7-15MHz-16QAM-21100-75RB#0-13.427



Date: 28.SEP.2020 13:12:49

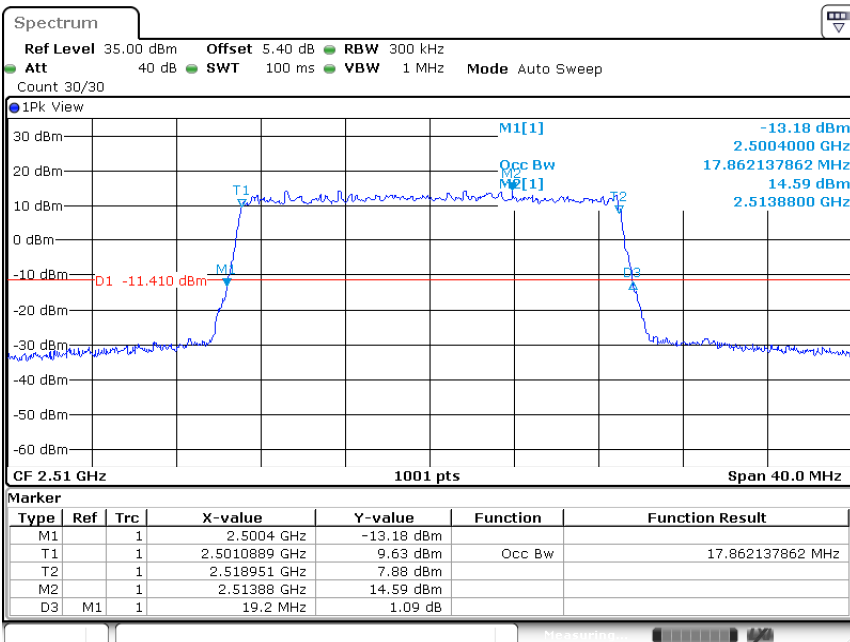
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Date: 28.SEP.2020 13:13:21

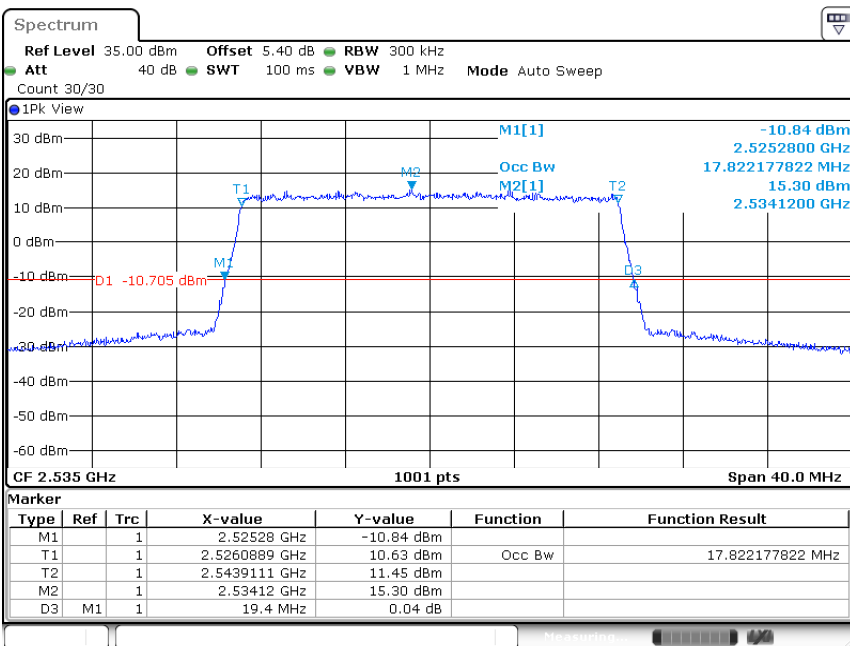


Band7-20MHz-QPSK-20850-100RB#0-17.862



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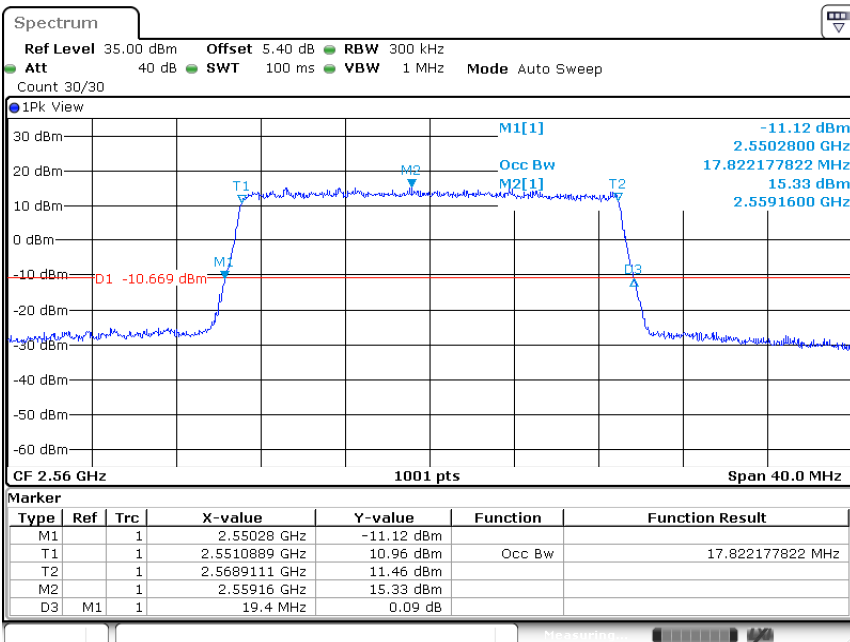
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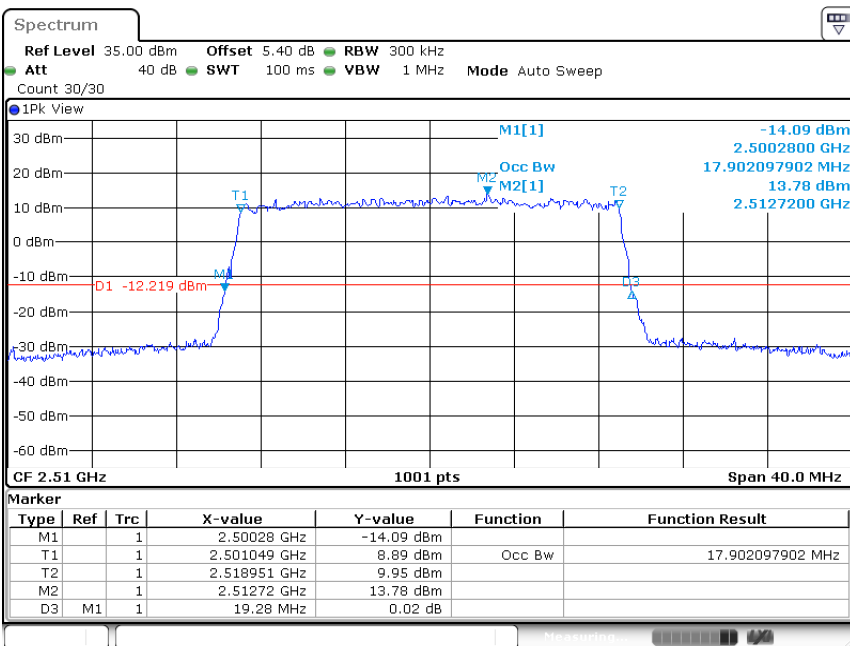


Band7-20MHz-QPSK-21350-100RB#0-17.822



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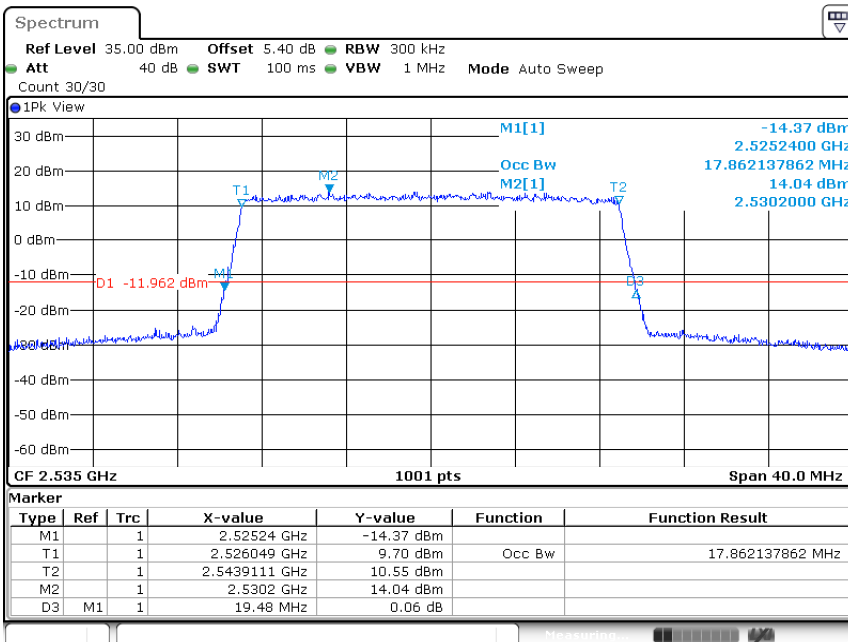
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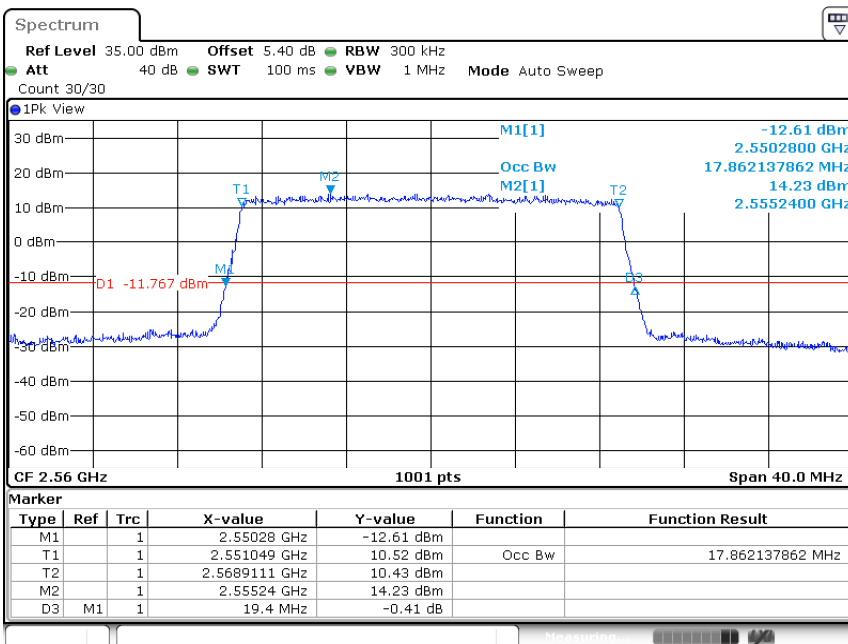


Band7-20MHz-16QAM-21100-100RB#0-17.862



Date: 28.SEP.2020 13:14:29

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

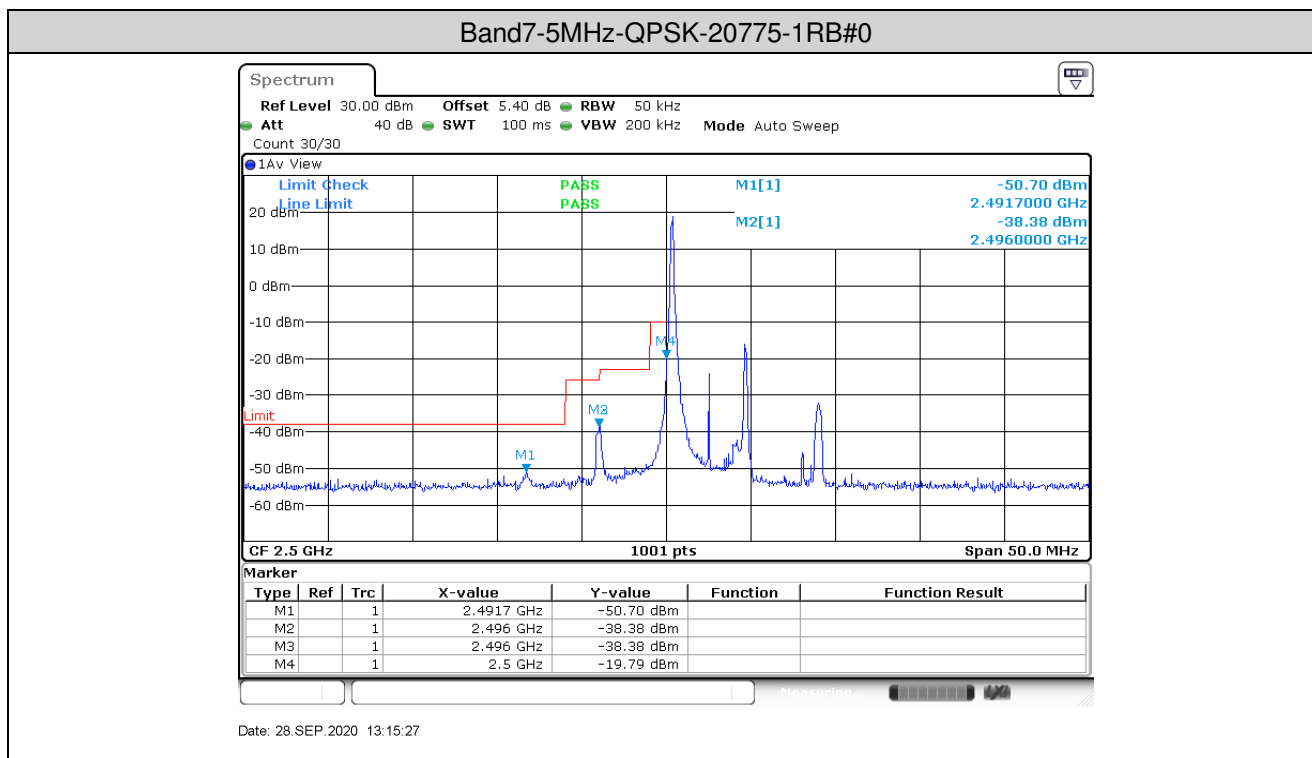


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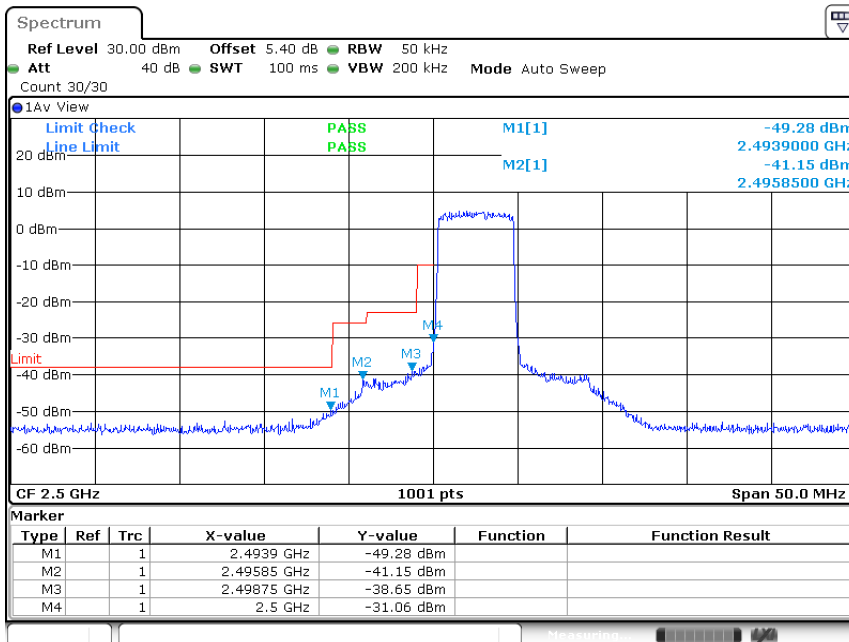


5. Band Edge Compliance

5.1. Test Plots

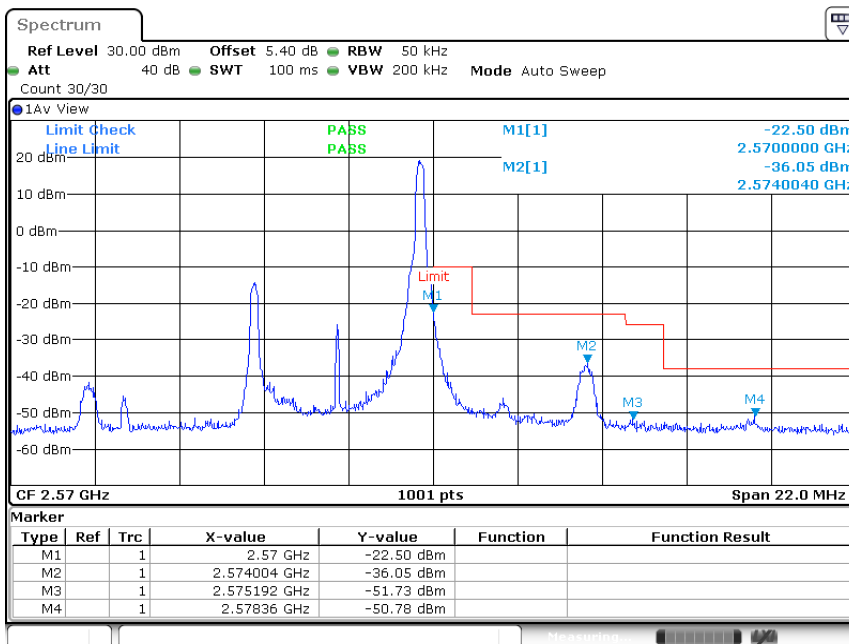


Band7-5MHz-QPSK-20775-25RB#0



Date: 28.SEP.2020 13:16:04

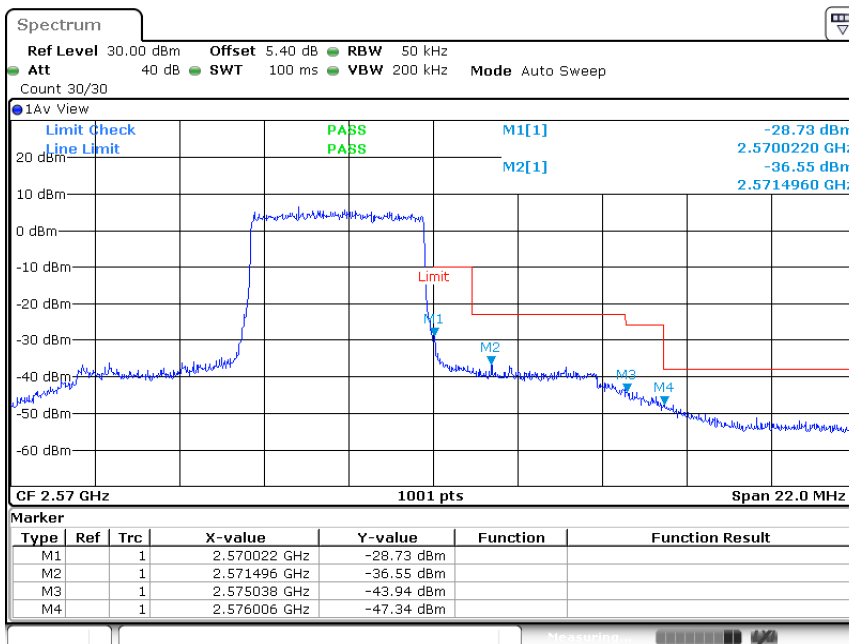
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Date: 28.SEP.2020 13:16:48

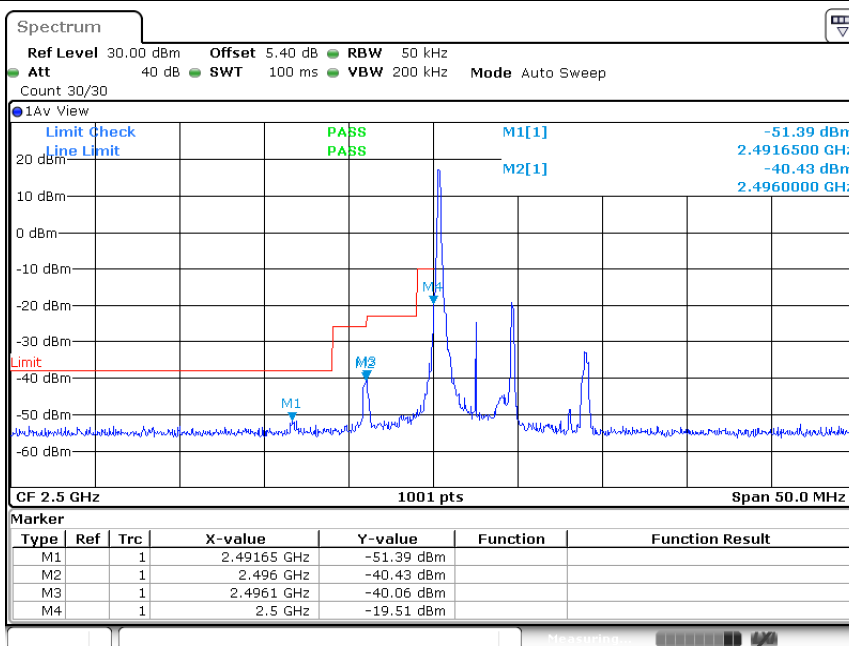


Band7-5MHz-QPSK-21425-25RB#0



Date: 28.SEP.2020 13:17:25

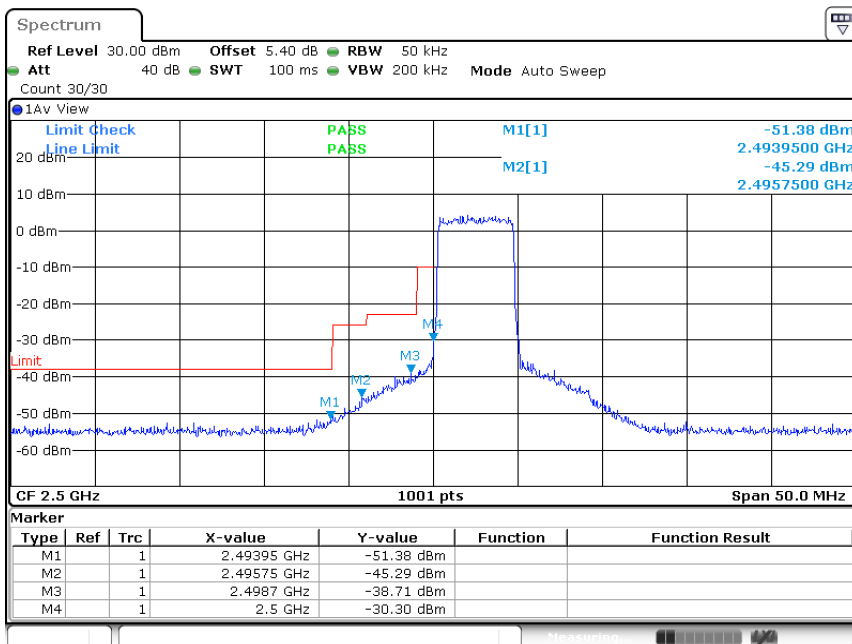
Band7-5MHz-16QAM-20775-1RB#0



Date: 28.SEP.2020 13:15:46

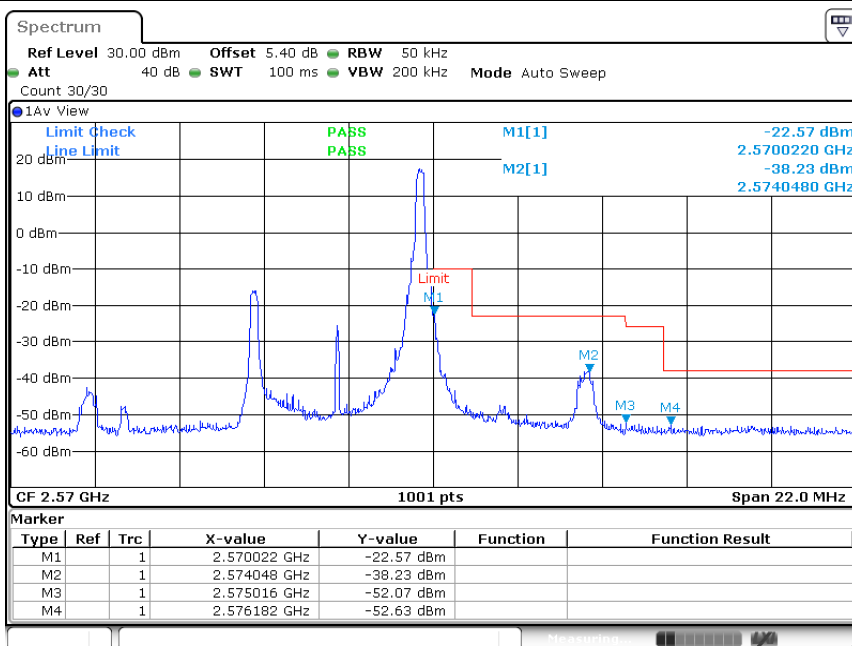


Band7-5MHz-16QAM-20775-25RB#0



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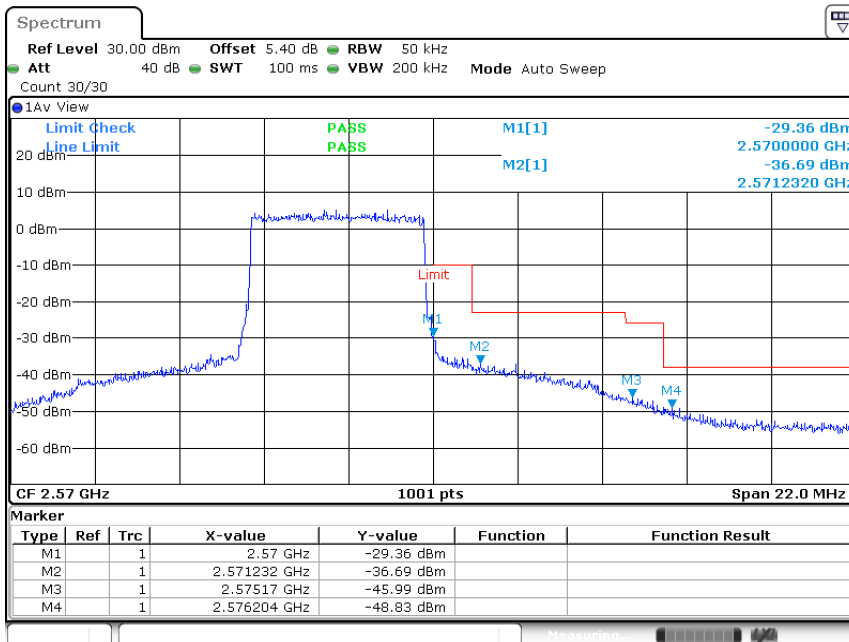
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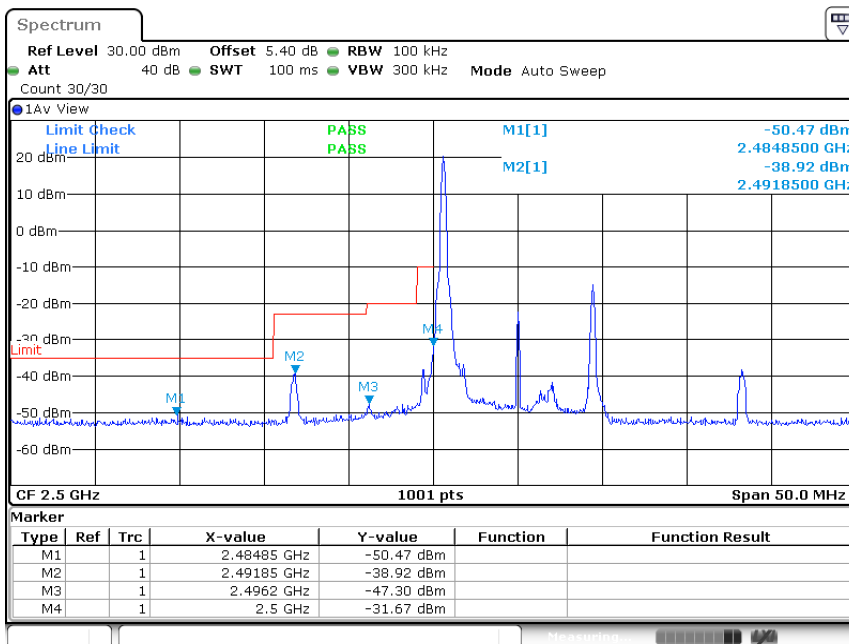


Band7-5MHz-16QAM-21425-25RB#0



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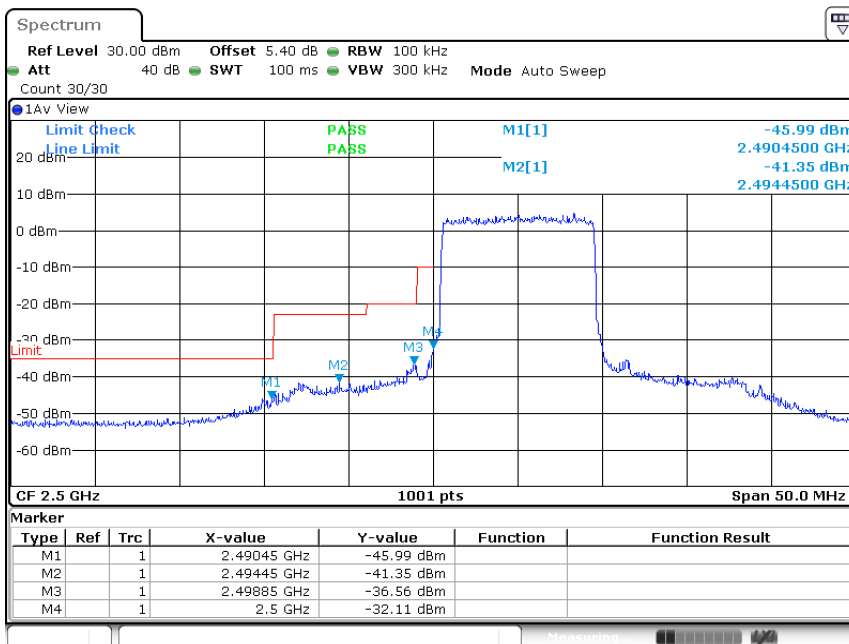
Band7-10MHz-QPSK-20800-1RB#0



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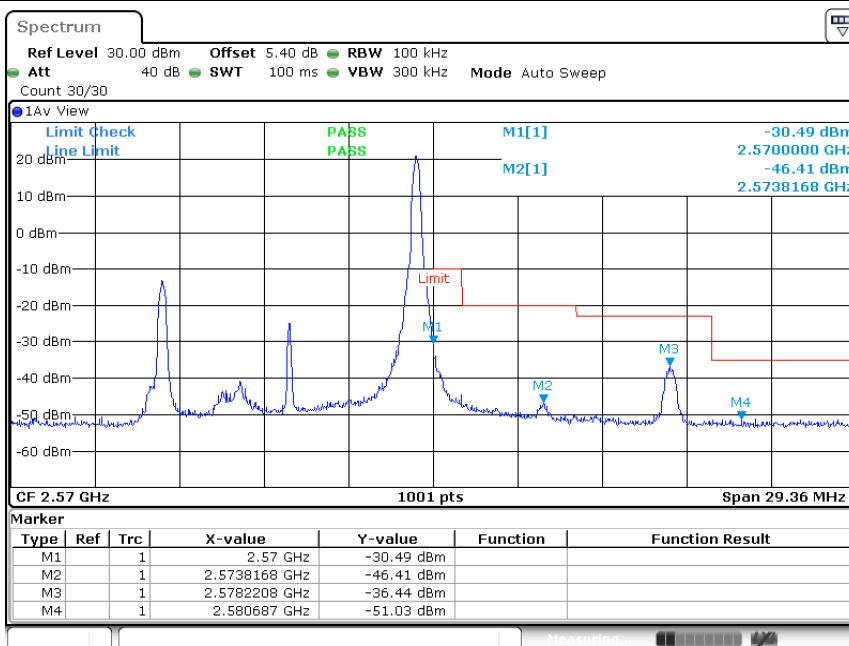


Band7-10MHz-QPSK-20800-50RB#0



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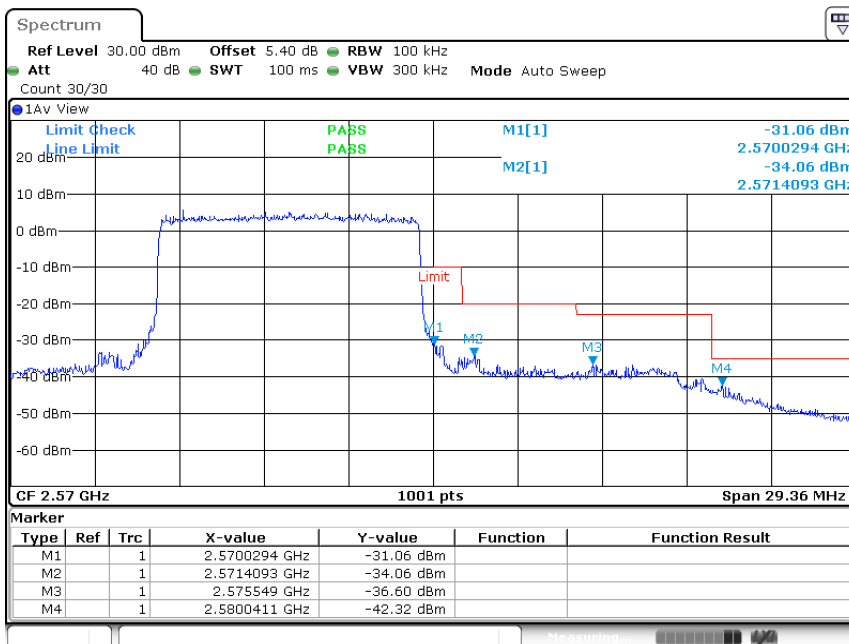
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Date: 28.SEP.2020 13:19:31

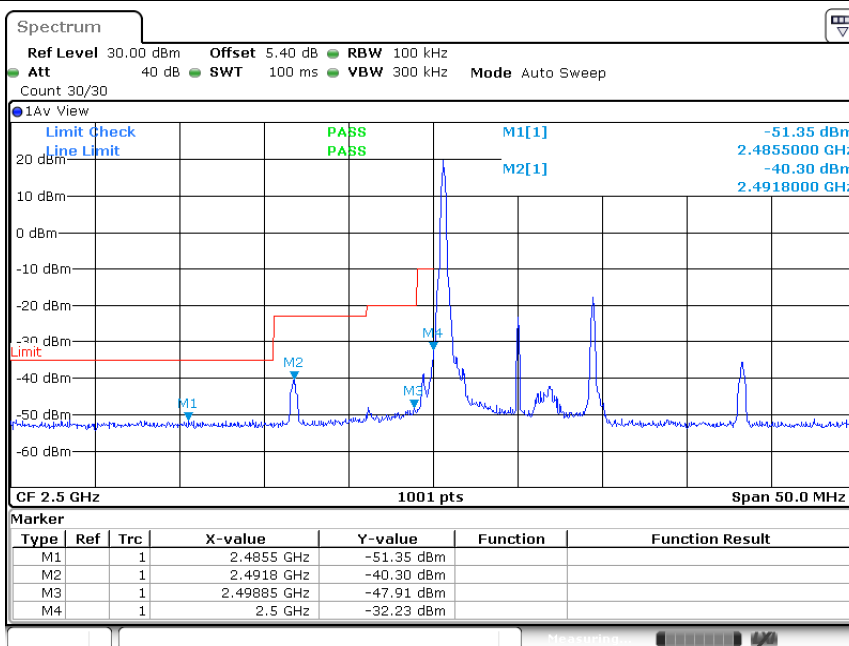


Band7-10MHz-QPSK-21400-50RB#0



Date: 28.SEP.2020 13:20:08

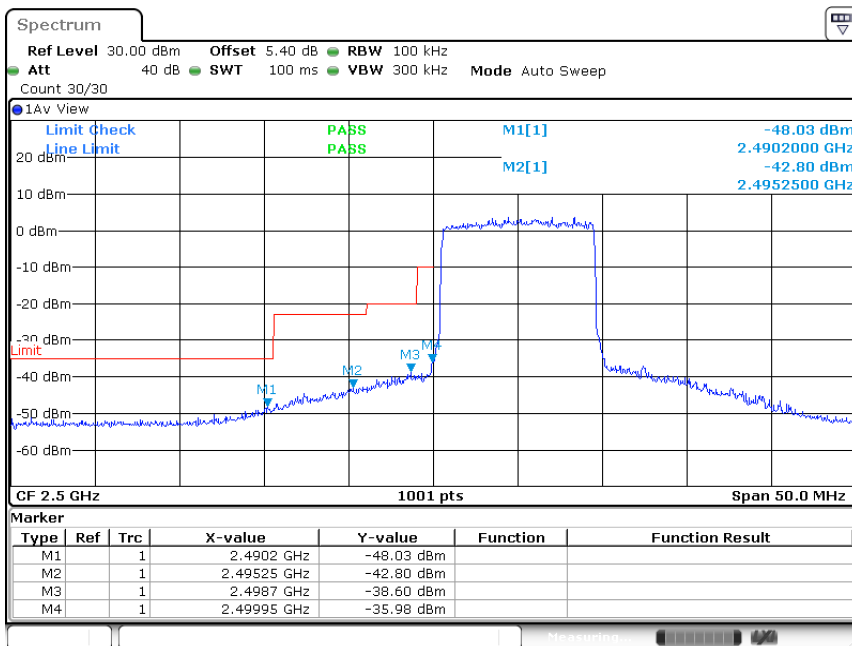
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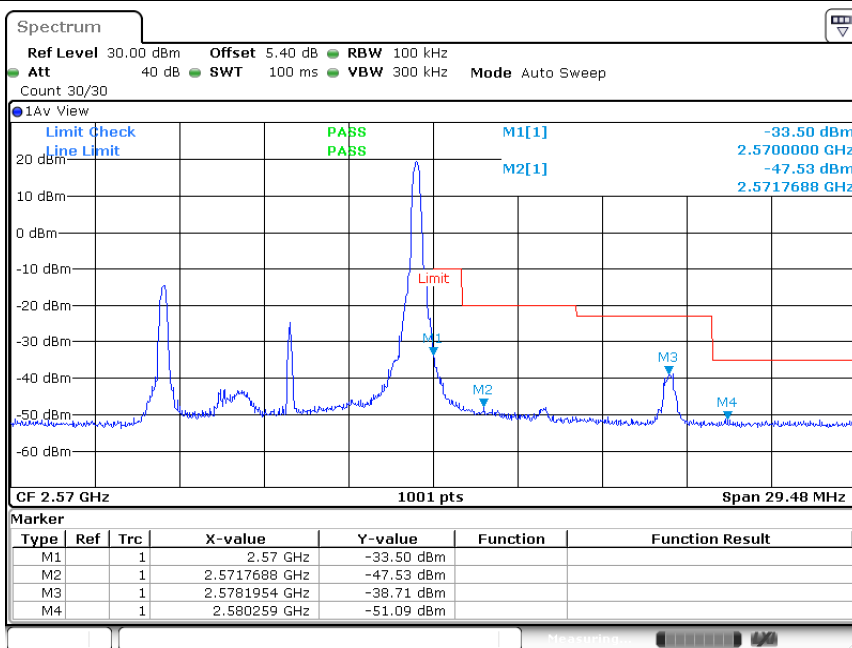


Band7-10MHz-16QAM-20800-50RB#0



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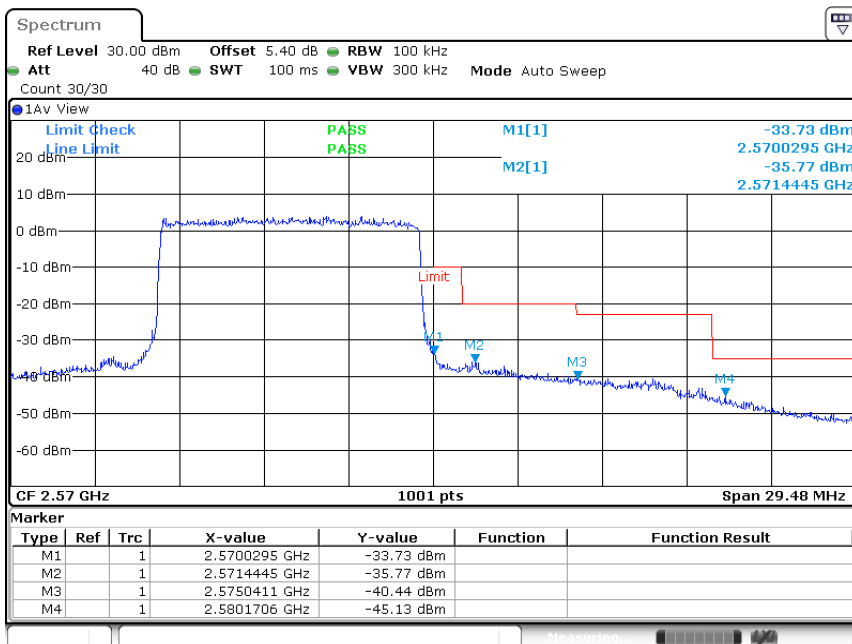
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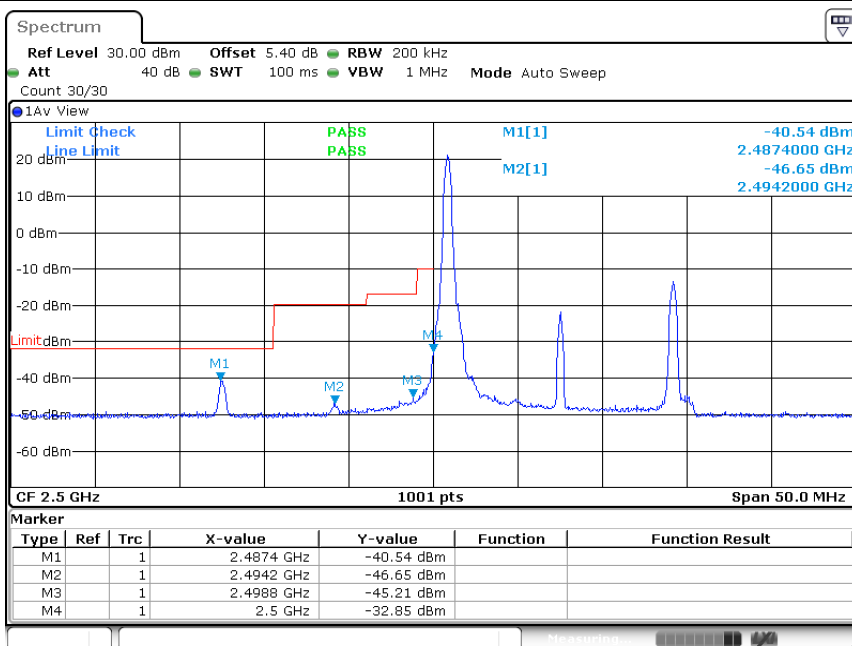


Band7-10MHz-16QAM-21400-50RB#0



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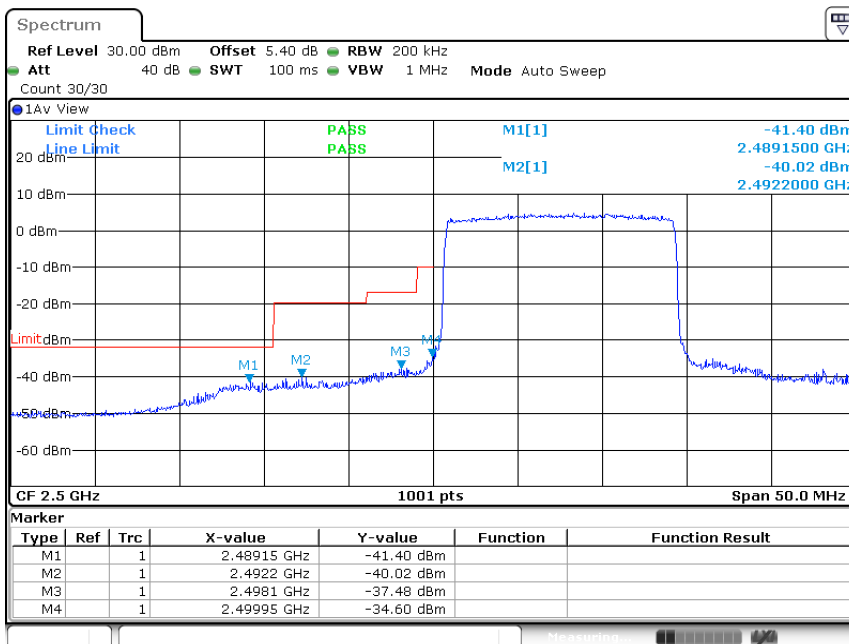
Band7-15MHz-QPSK-20825-1RB#0



Date: 28.SEP.2020 13:20:53

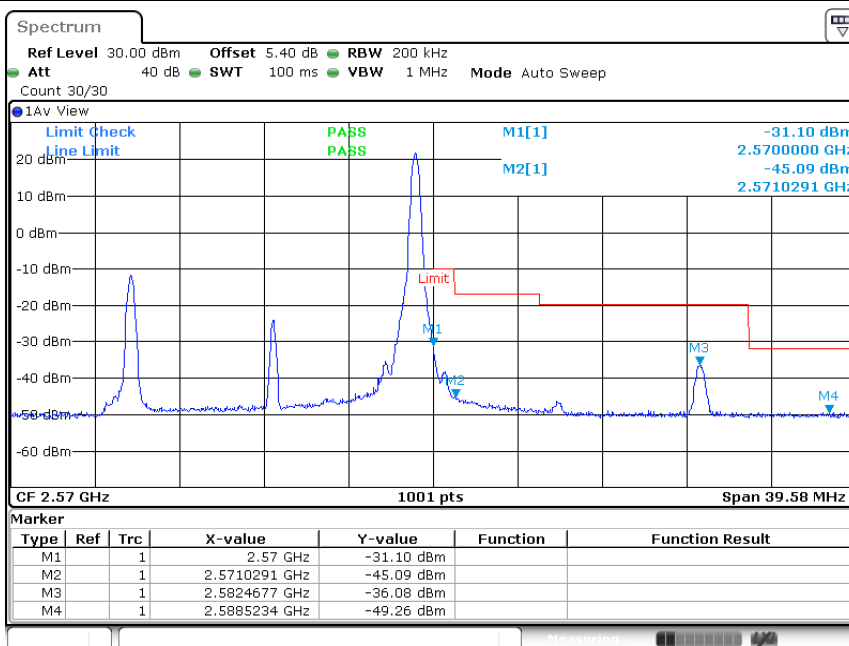


Band7-15MHz-QPSK-20825-75RB#0



Date: 28.SEP.2020 13:21:29

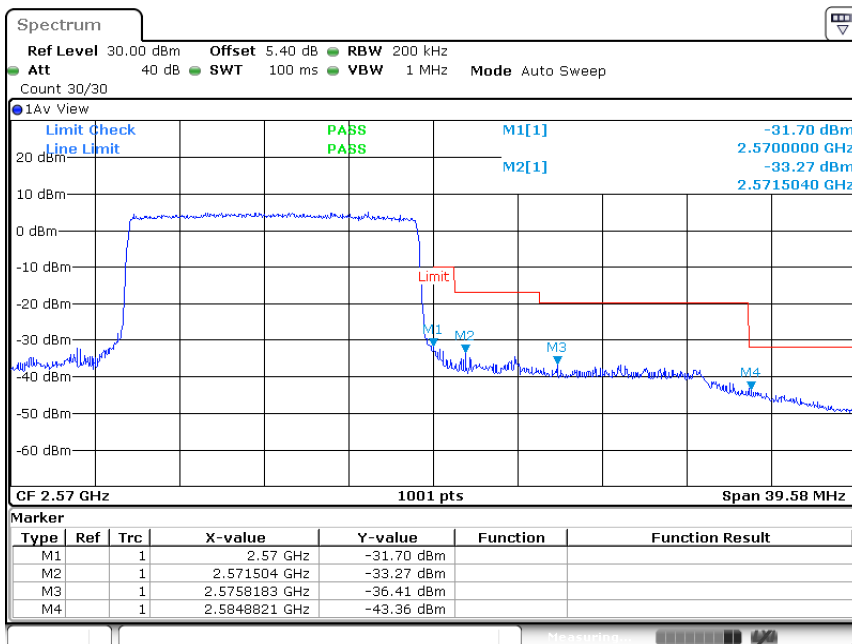
Band7-15MHz-QPSK-21375-1RB#74



Date: 28.SEP.2020 13:22:13

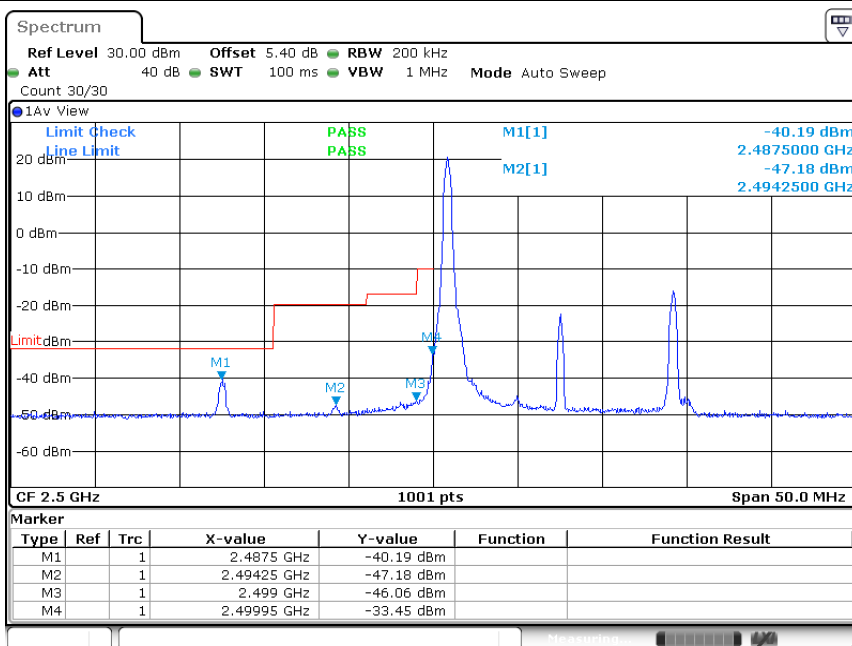


Band7-15MHz-QPSK-21375-75RB#0



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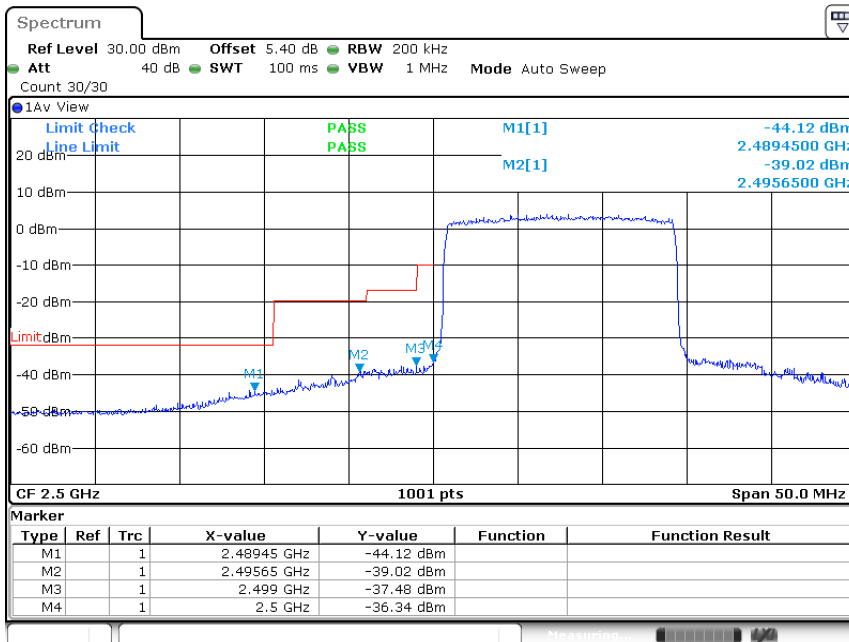
Band7-15MHz-16QAM-20825-1RB#0



Date: 28.SEP.2020 13:21:11

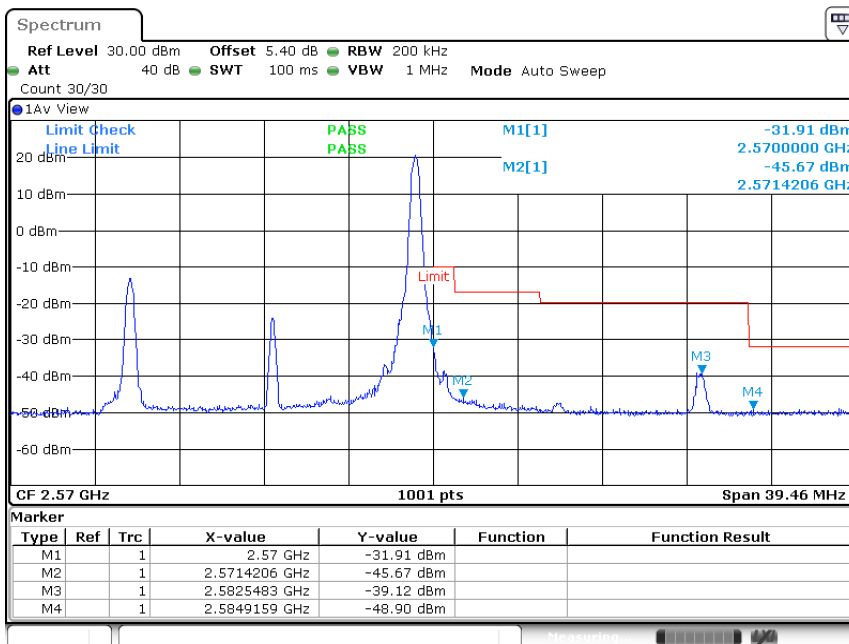


Band7-15MHz-16QAM-20825-75RB#0



Date: 28.SEP.2020 13:21:48

Band7-15MHz-16QAM-21375-1RB#74

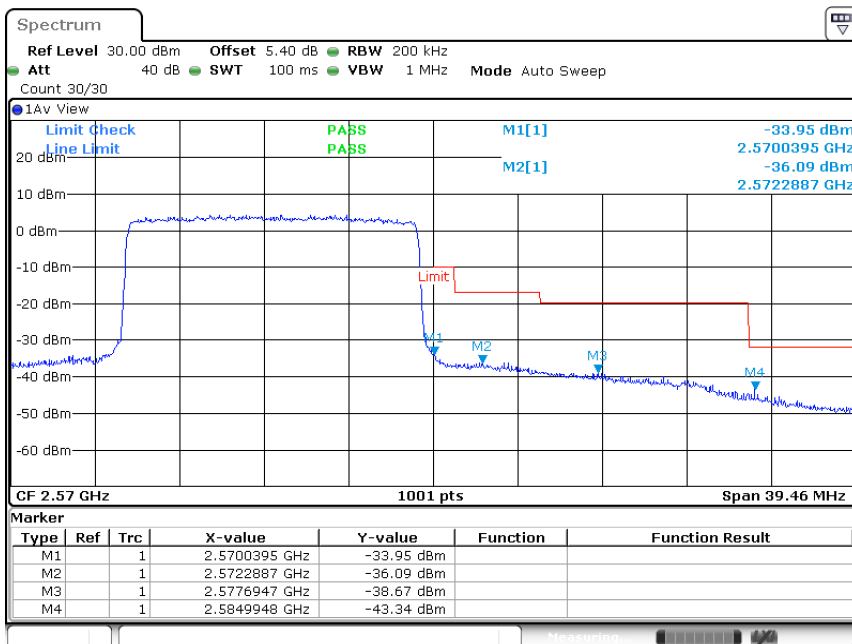


Date: 28.SEP.2020 13:22:32



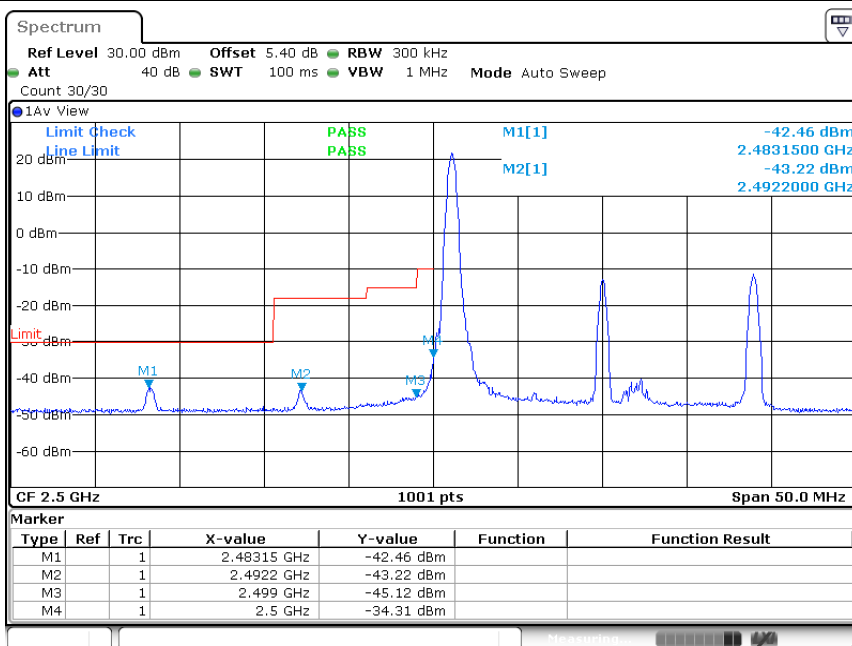
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Band7-15MHz-16QAM-21375-75RB#0



Date: 28.SEP.2020 13:23:08

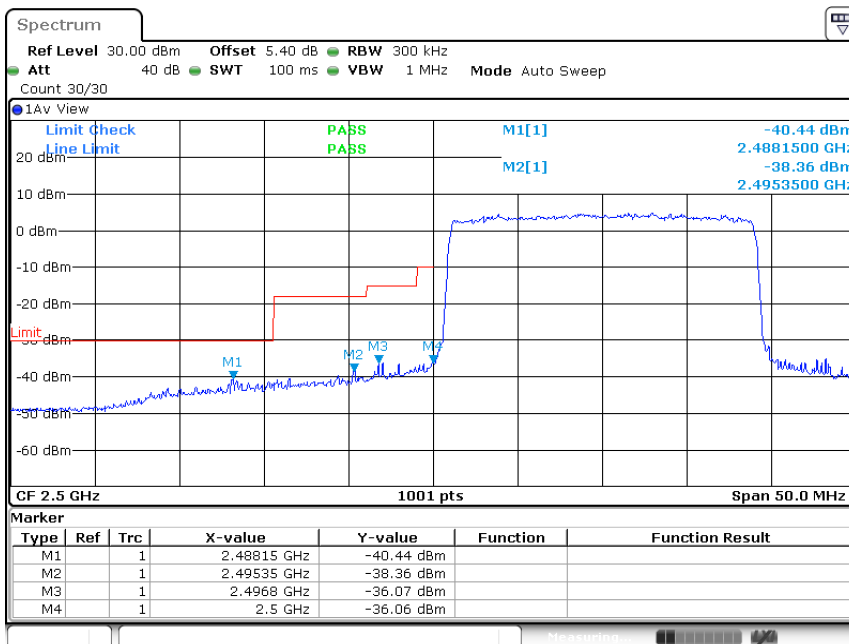
Band7-20MHz-QPSK-20850-1RB#0



Date: 28.SEP.2020 13:23:35

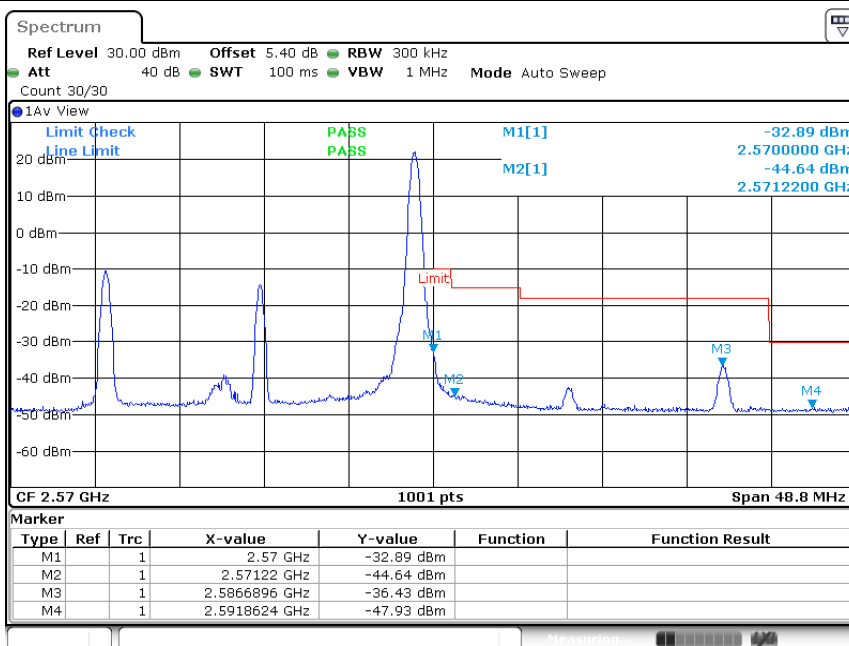


Band7-20MHz-QPSK-20850-100RB#0



Date: 28.SEP.2020 13:24:11

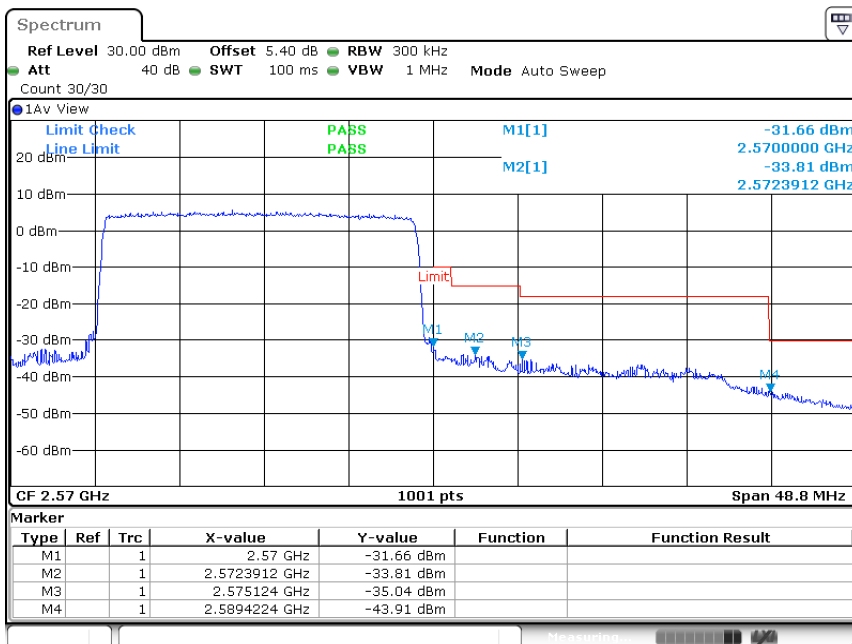
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Date: 28.SEP.2020 13:24:56

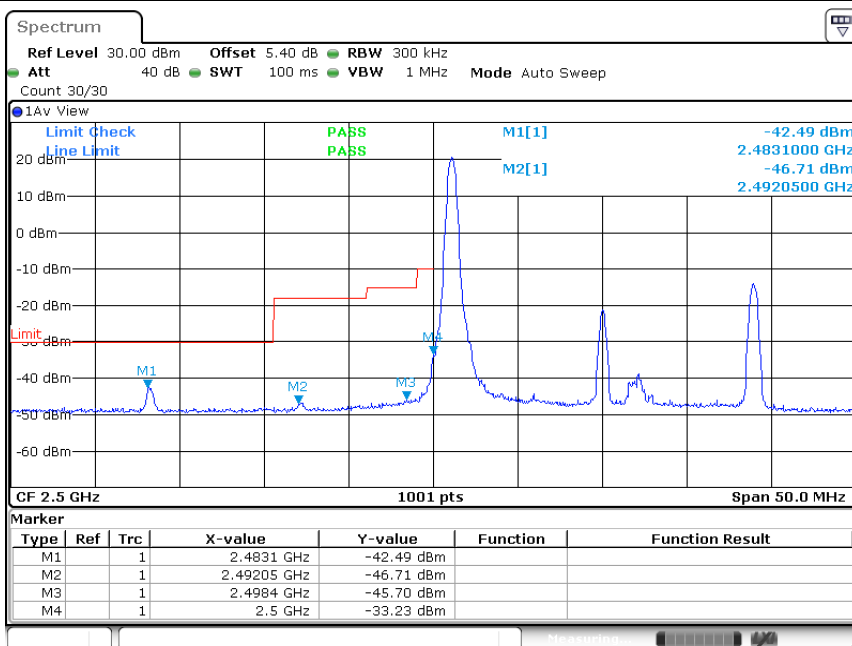


Band7-20MHz-QPSK-21350-100RB#0



Date: 28.SEP.2020 13:25:32

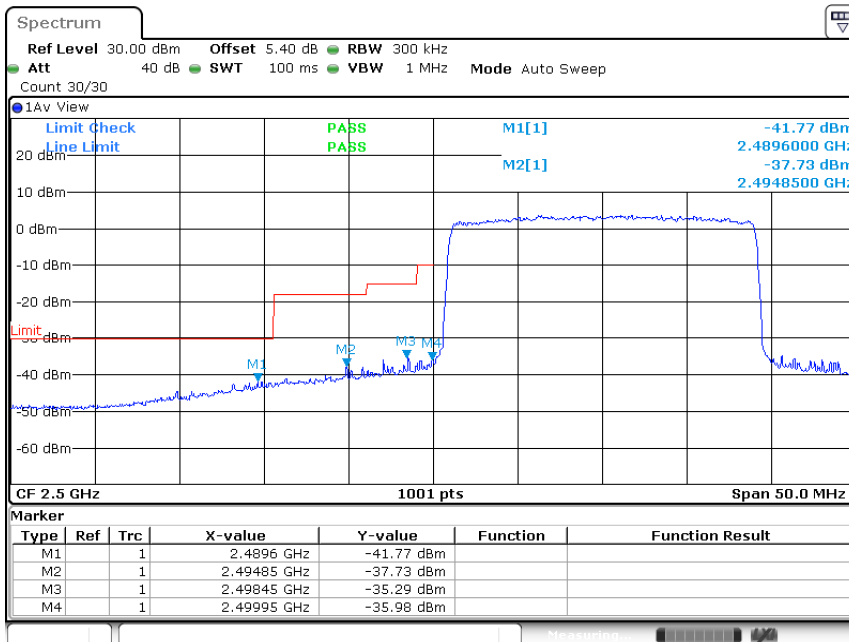
Band7-20MHz-16QAM-20850-1RB#0



Date: 28.SEP.2020 13:23:53

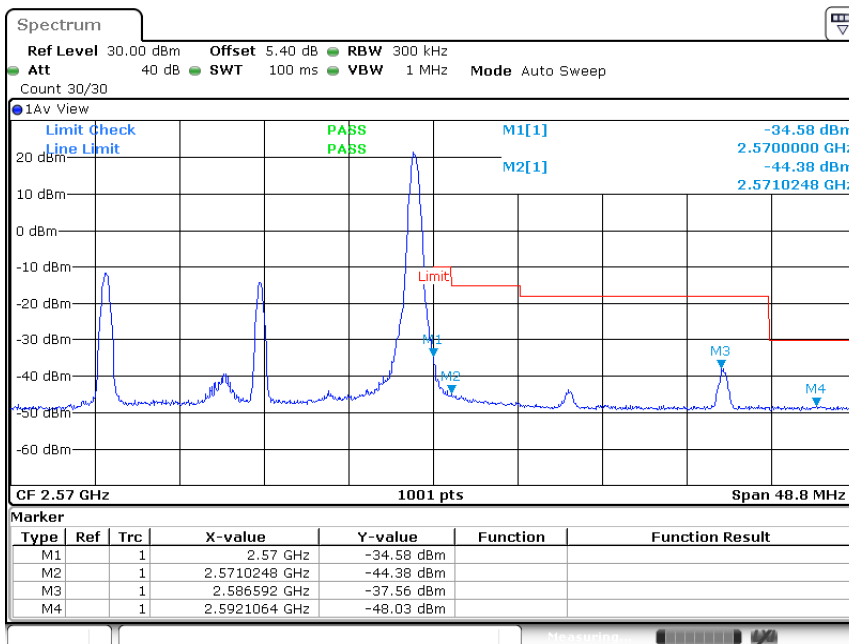


Band7-20MHz-16QAM-20850-100RB#0



Date: 28.SEP.2020 13:24:30

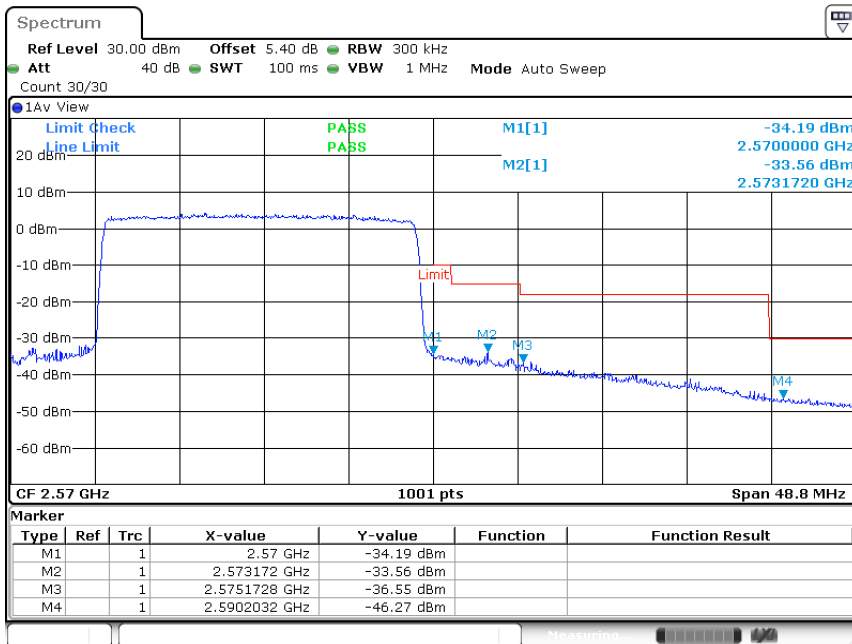
Band7-20MHz-16QAM-21350-1RB#99



Date: 28.SEP.2020 13:25:14



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



Date: 28.SEP.2020 13:25:51



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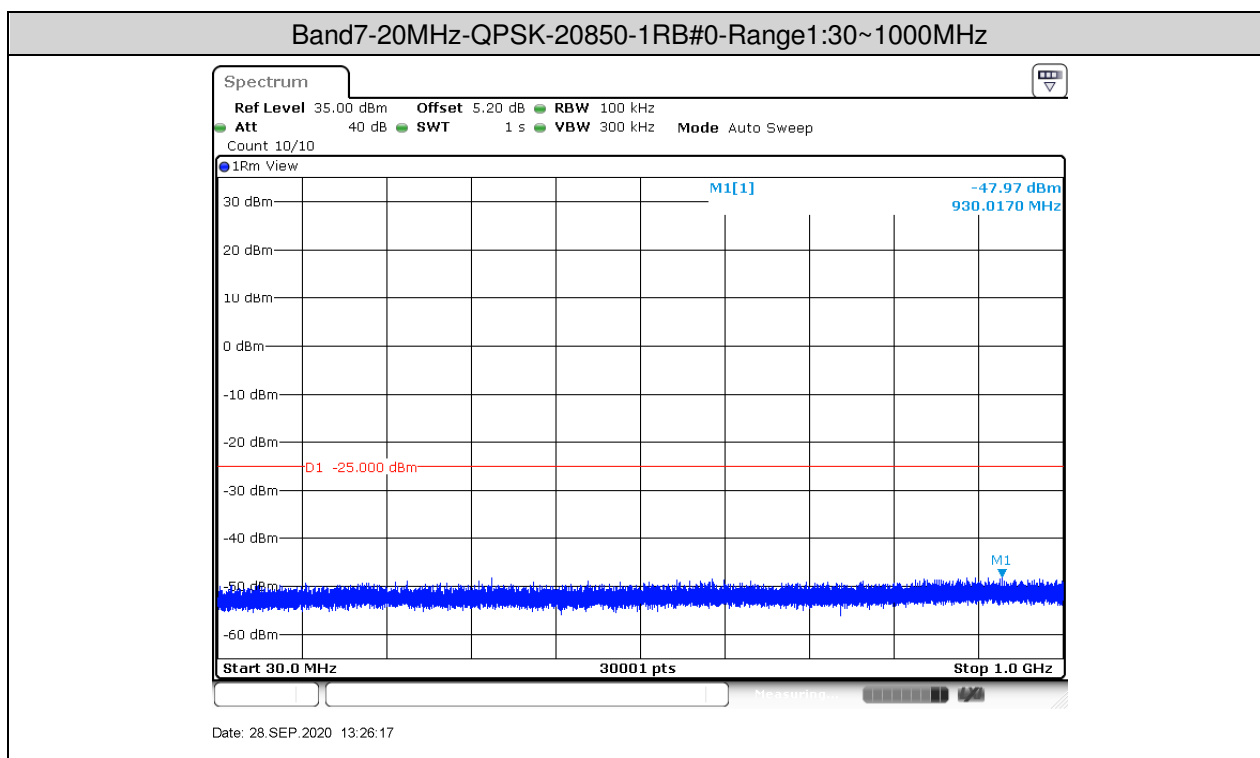
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中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

6. Spurious Emission at Antenna Terminal

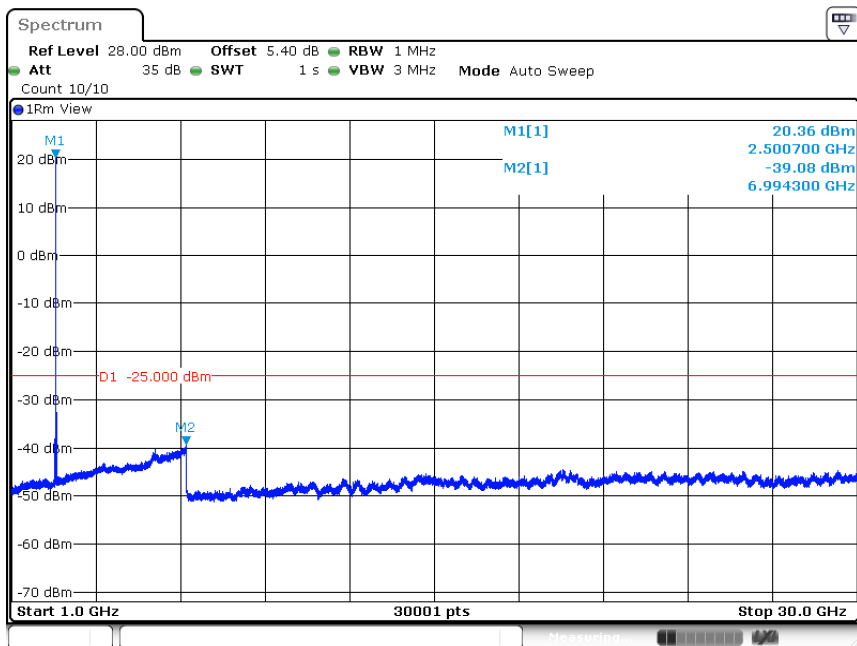
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

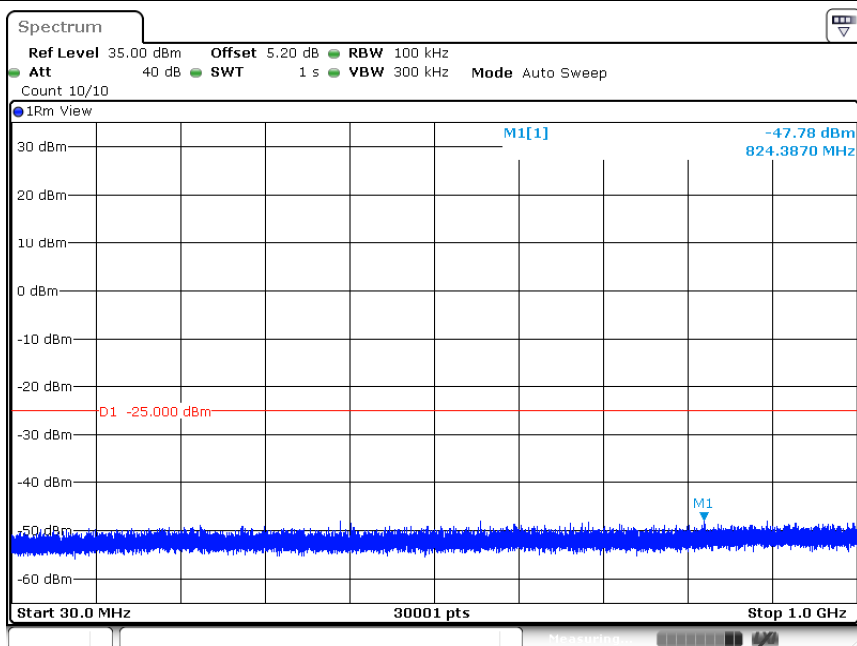


Band7-20MHz-QPSK-20850-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:26:34

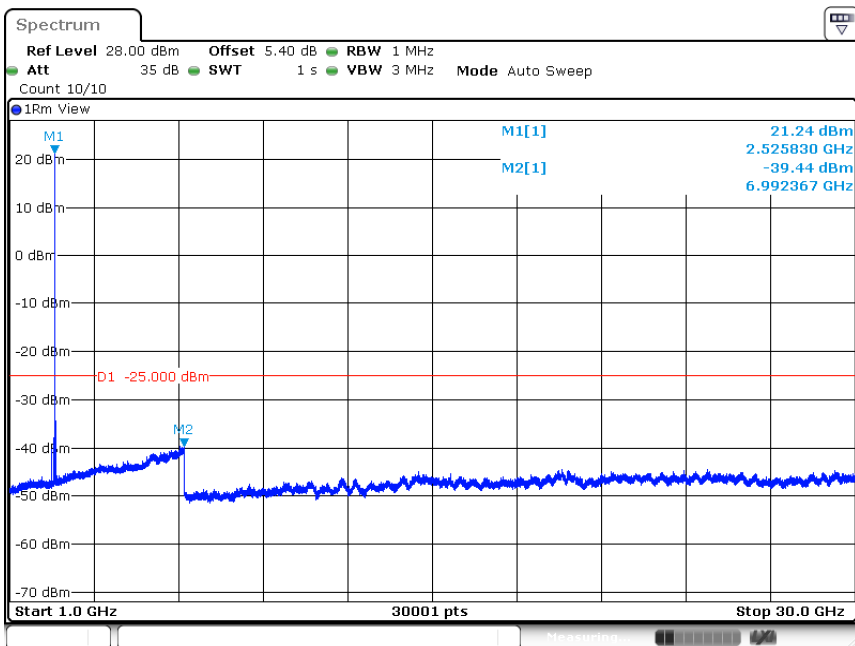
Band7-20MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:27:35

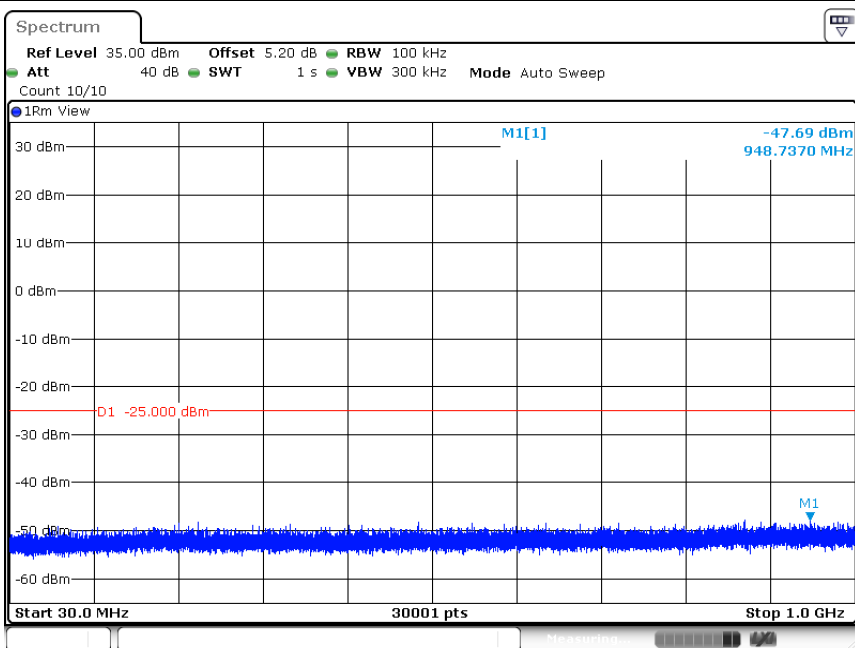


Band7-20MHz-QPSK-21100-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:27:52

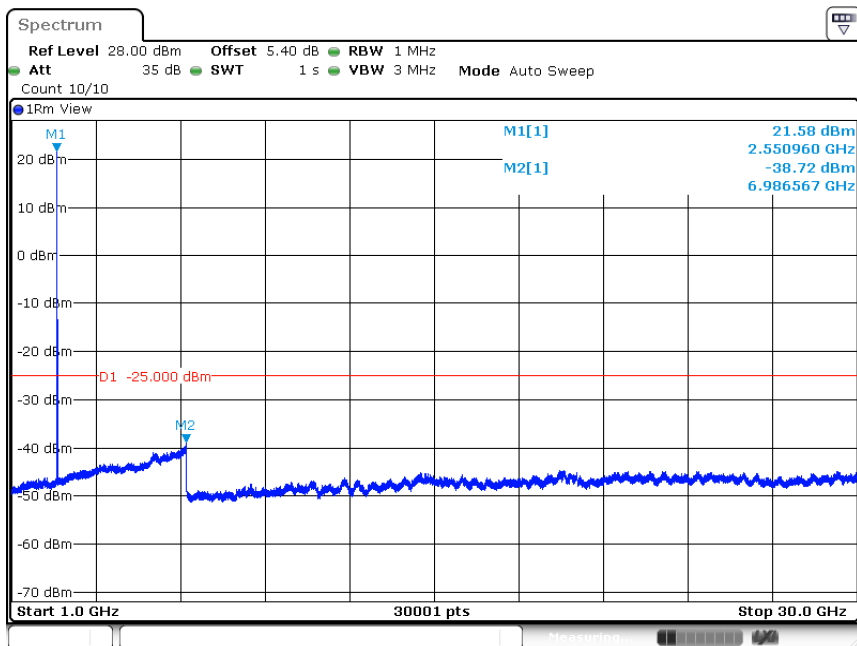
Band7-20MHz-QPSK-21350-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:28:53

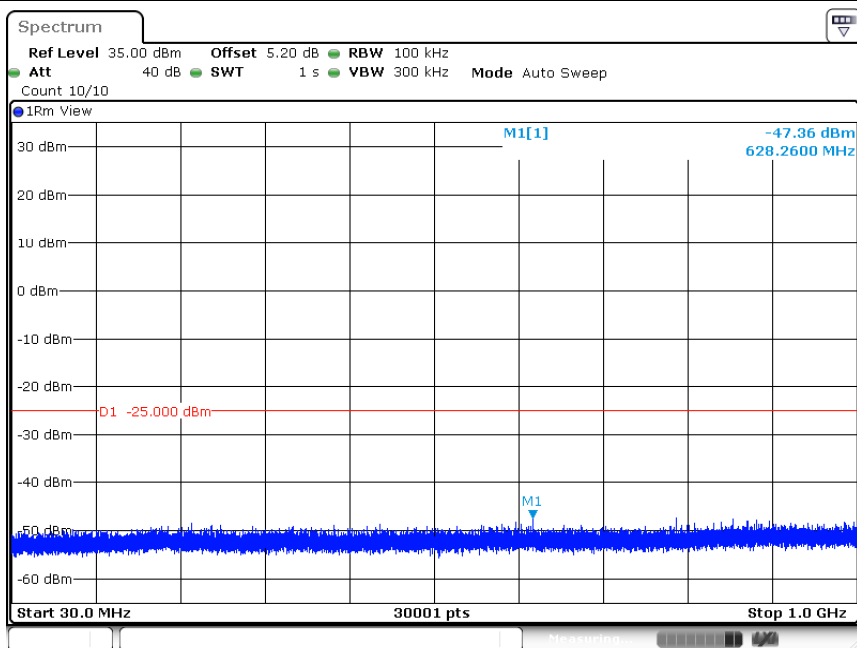


Band7-20MHz-QPSK-21350-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:29:10

Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:26:56

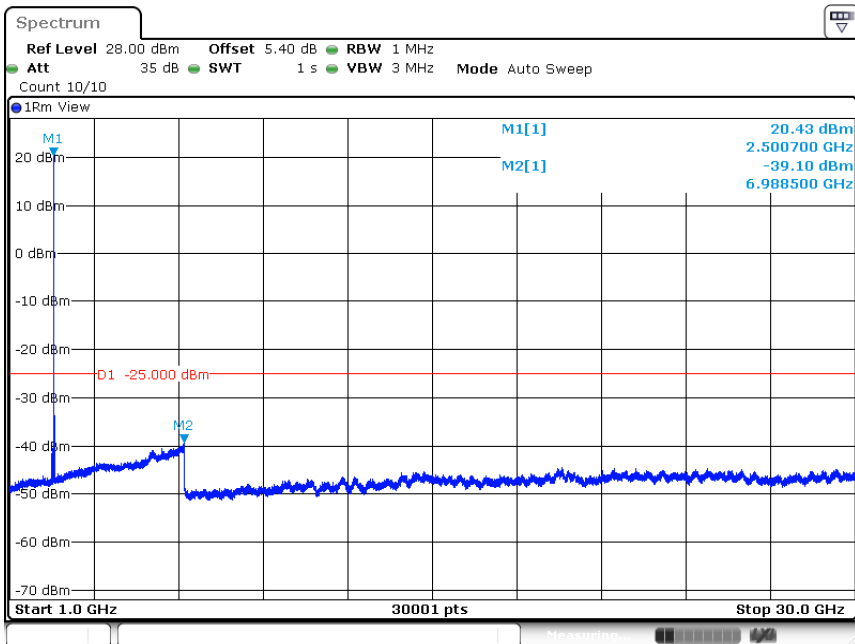


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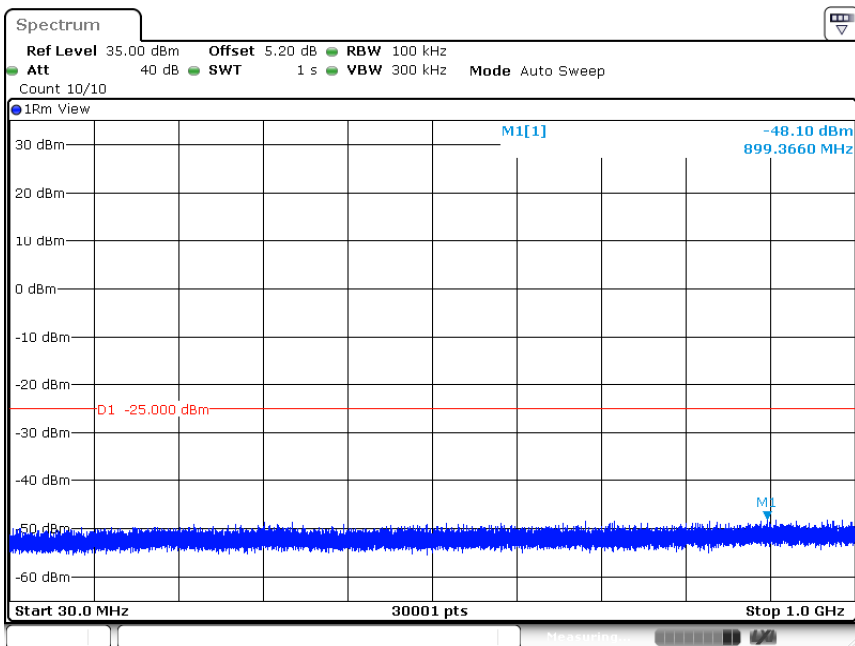
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Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:27:13

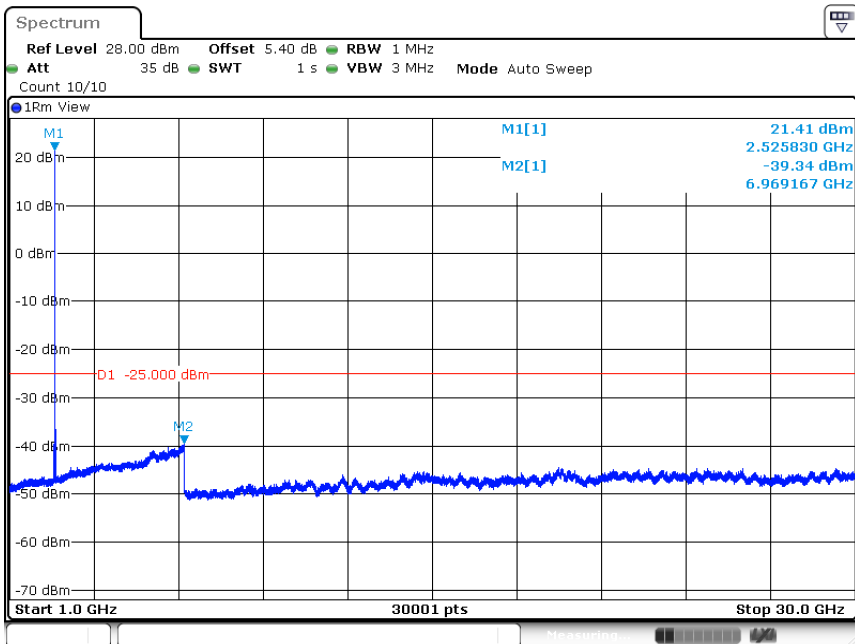
Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:28:14

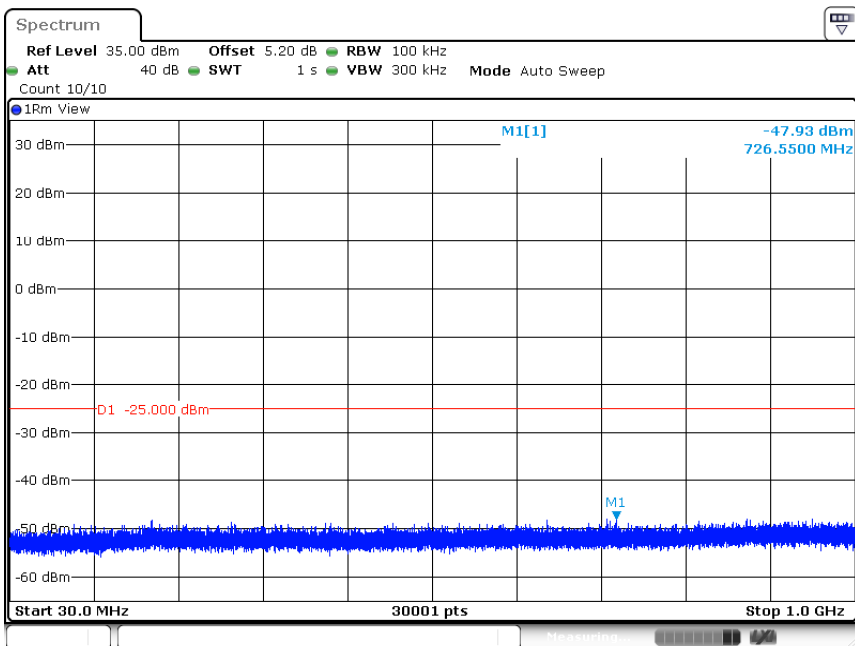


Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~30000MHz



Date: 28.SEP.2020 13:28:31

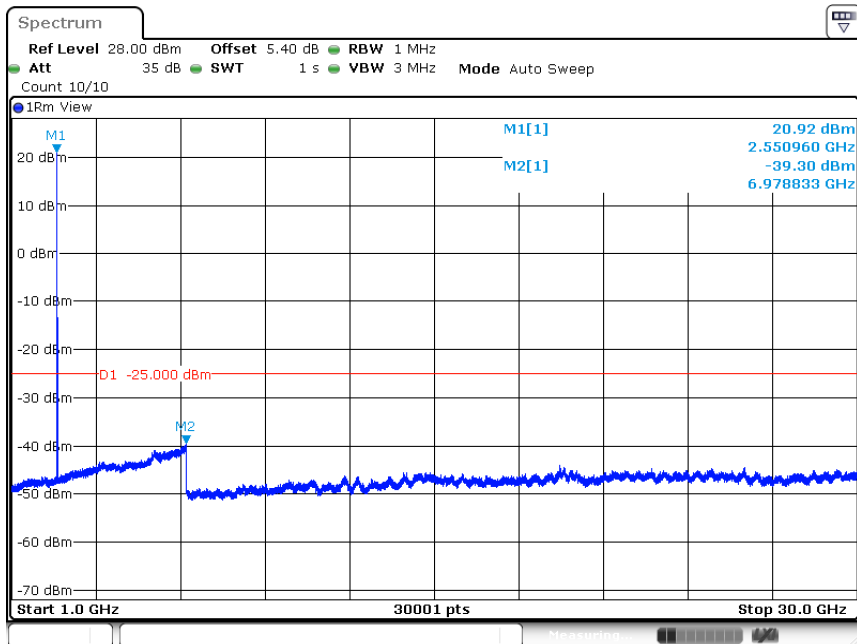
Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz



Date: 28.SEP.2020 13:29:32



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



Date: 28.SEP.2020 13:29:49



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7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1 20MHz

7.1.1.Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.0485	-74.33	-25.00	49.33	Vertical
117.3529	-63.85	-25.00	38.85	Vertical
596.4113	-64.33	-25.00	39.33	Vertical
5062.8825	-64.00	-25.00	39.00	Vertical
10490.0996	-53.88	-25.00	28.88	Vertical
17999.4000	-42.55	-25.00	17.55	Vertical
41.9316	-64.30	-25.00	39.30	Horizontal
108.8164	-76.39	-25.00	51.39	Horizontal
250.3465	-68.99	-25.00	43.99	Horizontal
3634.8254	-63.15	-25.00	38.15	Horizontal
7458.1783	-58.49	-25.00	33.49	Horizontal
16401.5361	-46.02	-25.00	21.02	Horizontal

7.1.2.Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.8730	-74.81	-25.00	49.81	Vertical
113.4242	-65.37	-25.00	40.37	Vertical
404.0992	-69.21	-25.00	44.21	Vertical
7362.7745	-58.24	-25.00	33.24	Vertical
14518.0607	-50.04	-25.00	25.04	Vertical
17995.1998	-42.40	-25.00	17.40	Vertical
45.4723	-65.03	-25.00	40.03	Horizontal
86.4083	-76.13	-25.00	51.13	Horizontal
235.0198	-69.63	-25.00	44.63	Horizontal
3510.0204	-62.96	-25.00	37.96	Horizontal
7364.5746	-58.96	-25.00	33.96	Horizontal
16390.1356	-45.72	-25.00	20.72	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
30.0000	-74.83	-25.00	49.83	Vertical
109.7380	-65.33	-25.00	40.33	Vertical
474.6217	-67.47	-25.00	42.47	Vertical
3595.8238	-64.37	-25.00	39.37	Vertical
7917.7967	-58.27	-25.00	33.27	Vertical
17996.3999	-42.49	-25.00	17.49	Vertical
42.4651	-64.14	-25.00	39.14	Horizontal
84.0317	-75.13	-25.00	50.13	Horizontal
246.0298	-68.73	-25.00	43.73	Horizontal
3505.8202	-63.56	-25.00	38.56	Horizontal
7443.7778	-58.79	-25.00	33.79	Horizontal
16391.9357	-45.92	-25.00	20.92	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

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	3.10	0.001235	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	2.40	0.000956	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-3.20	-0.001262	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-1.90	-0.000750	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	-0.70	-0.000273	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-1.60	-0.000625	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	-1.00	-0.000391	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	2.90	0.001155	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	2.20	0.000876	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-6.00	-0.002367	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	-0.80	-0.000316	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-2.90	-0.001144	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VL	NT	0.90	0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VN	NT	-0.30	-0.000117	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	0.50	0.000195	±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
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	5.10	0.002032	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	3.20	0.001275	±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	0	1.60	0.000637	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	4.80	0.001912	±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	30	3.30	0.001315	±2.5	PASS



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Band7	20MHz	QPSK	20850	100RB#0	NV	40	2.20	0.000876	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	2.30	0.000916	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-0.70	-0.000276	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-2.50	-0.000986	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-10	-2.80	-0.001105	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-1.90	-0.000750	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-0.40	-0.000158	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	0.10	0.000039	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-0.50	-0.000197	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-1.70	-0.000671	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	1.00	0.000394	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	0.50	0.000195	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	2.70	0.001055	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-10	0.90	0.000352	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	3.30	0.001289	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	4.20	0.001641	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	3.70	0.001445	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	30	2.40	0.000938	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	40	1.20	0.000469	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	-2.10	-0.000820	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	1.20	0.000478	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	2.80	0.001116	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-10	4.10	0.001633	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	2.30	0.000916	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	4.70	0.001873	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	4.50	0.001793	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	30	3.70	0.001474	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	40	2.10	0.000837	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	50	3.40	0.001355	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	1.20	0.000473	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-10	0.40	0.000158	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	10	-5.70	-0.002249	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	20	-1.20	-0.000473	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	30	-3.30	-0.001302	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	40	-1.80	-0.000710	±2.5	PASS



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Band7	20MHz	16QAM	21100	100RB#0	NV	50	1.60	0.000631	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	1.60	0.000625	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-10	3.00	0.001172	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	0.10	0.000039	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	20	2.20	0.000859	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	30	1.60	0.000625	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	40	2.00	0.000781	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	50	1.80	0.000703	±2.5	PASS

The End



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