



Appendix B

E-UTRA BAND 7





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1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	22.80	25.80	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.05	26.05	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#24	22.57	25.57	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#0	22.05	25.05	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#6	22.10	25.10	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#13	21.89	24.89	33.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.04	25.04	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#0	22.89	25.89	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#12	23.05	26.05	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#24	22.73	25.73	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#0	22.05	25.05	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#6	22.03	25.03	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#13	21.93	24.93	33.00	PASS
Band7	5MHz	QPSK	21100	25RB#0	21.96	24.96	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#0	22.89	25.89	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#12	22.99	25.99	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#24	22.75	25.75	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	22.28	25.28	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#6	22.11	25.11	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#13	21.97	24.97	33.00	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.20	25.20	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#0	21.62	24.62	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#12	21.91	24.91	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#24	21.60	24.60	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#0	21.04	24.04	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#6	21.09	24.09	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#13	20.77	23.77	33.00	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.08	24.08	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#0	21.71	24.71	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.04	25.04	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#24	21.66	24.66	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#0	20.93	23.93	33.00	PASS



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Band7	5MHz	16QAM	21100	12RB#6	21.01	24.01	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#13	20.99	23.99	33.00	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.00	24.00	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#0	21.60	24.60	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#12	22.00	25.00	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#24	21.78	24.78	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#0	21.05	24.05	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#6	21.10	24.10	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#13	20.91	23.91	33.00	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.17	24.17	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#0	22.91	25.91	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#24	23.45	26.45	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#49	22.64	25.64	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#0	22.24	25.24	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#12	22.18	25.18	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#25	21.97	24.97	33.00	PASS
Band7	10MHz	QPSK	20800	50RB#0	22.17	25.17	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#0	23.07	26.07	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#24	23.71	26.71	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#49	22.64	25.64	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#0	22.34	25.34	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#12	22.20	25.20	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#25	21.94	24.94	33.00	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.06	25.06	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#0	23.04	26.04	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#24	23.38	26.38	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#49	22.38	25.38	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#0	22.42	25.42	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#12	22.36	25.36	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#25	22.10	25.10	33.00	PASS
Band7	10MHz	QPSK	21400	50RB#0	22.20	25.20	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#0	21.62	24.62	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#24	21.88	24.88	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#49	21.76	24.76	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#0	20.97	23.97	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#12	21.11	24.11	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#25	21.09	24.09	33.00	PASS
Band7	10MHz	16QAM	20800	50RB#0	21.20	24.20	33.00	PASS



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Band7	10MHz	16QAM	21100	1RB#0	21.86	24.86	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#24	21.93	24.93	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#49	21.82	24.82	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#0	21.13	24.13	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#12	21.01	24.01	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#25	21.05	24.05	33.00	PASS
Band7	10MHz	16QAM	21100	50RB#0	21.10	24.10	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#0	21.77	24.77	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#24	21.77	24.77	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#49	21.87	24.87	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#0	21.20	24.20	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#12	21.08	24.08	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#25	21.22	24.22	33.00	PASS
Band7	10MHz	16QAM	21400	50RB#0	21.06	24.06	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#0	23.02	26.02	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#38	23.39	26.39	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#74	22.72	25.72	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#0	22.25	25.25	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#18	22.17	25.17	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#39	21.96	24.96	33.00	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.18	25.18	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#0	23.04	26.04	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#38	23.39	26.39	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#74	22.63	25.63	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#0	22.37	25.37	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#18	22.33	25.33	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#39	21.96	24.96	33.00	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.22	25.22	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#0	23.05	26.05	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#38	23.39	26.39	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#74	22.66	25.66	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#0	22.38	25.38	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#18	22.26	25.26	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#39	22.00	25.00	33.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	22.26	25.26	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	21.77	24.77	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#38	21.81	24.81	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#74	21.44	24.44	33.00	PASS



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Band7	15MHz	16QAM	20825	36RB#0	21.09	24.09	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#18	21.08	24.08	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#39	21.10	24.10	33.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	21.30	24.30	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#0	21.72	24.72	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#38	21.87	24.87	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#74	21.83	24.83	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#0	21.21	24.21	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#18	21.14	24.14	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#39	21.18	24.18	33.00	PASS
Band7	15MHz	16QAM	21100	75RB#0	21.16	24.16	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#0	21.90	24.90	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#38	21.95	24.95	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	21.97	24.97	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#0	21.16	24.16	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#18	21.21	24.21	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#39	21.14	24.14	33.00	PASS
Band7	15MHz	16QAM	21375	75RB#0	21.20	24.20	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#0	22.88	25.88	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#49	23.55	26.55	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#99	22.75	25.75	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#0	22.27	25.27	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	22.39	25.39	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#50	22.09	25.09	33.00	PASS
Band7	20MHz	QPSK	20850	100RB#0	22.10	25.10	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#0	23.05	26.05	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#49	23.73	26.73	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#99	22.62	25.62	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#0	22.37	25.37	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	22.34	25.34	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#50	21.96	24.96	33.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.21	25.21	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#0	23.02	26.02	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#49	23.87	26.87	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#99	22.47	25.47	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#0	22.42	25.42	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#25	22.38	25.38	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#50	22.03	25.03	33.00	PASS



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Band7	20MHz	QPSK	21350	100RB#0	22.24	25.24	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#0	21.73	24.73	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#49	22.02	25.02	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	21.79	24.79	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#0	21.30	24.30	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#25	21.21	24.21	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#50	21.04	24.04	33.00	PASS
Band7	20MHz	16QAM	20850	100RB#0	21.13	24.13	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#0	21.87	24.87	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#49	22.02	25.02	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#99	21.64	24.64	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#0	21.33	24.33	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#25	21.20	24.20	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#50	21.16	24.16	33.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	21.25	24.25	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#0	21.85	24.85	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#49	21.93	24.93	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#99	21.77	24.77	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#0	21.27	24.27	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#25	21.24	24.24	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#50	21.18	24.18	33.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	21.18	24.18	33.00	PASS

Remark:

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

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

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

b: SGP=Signal Generator Level



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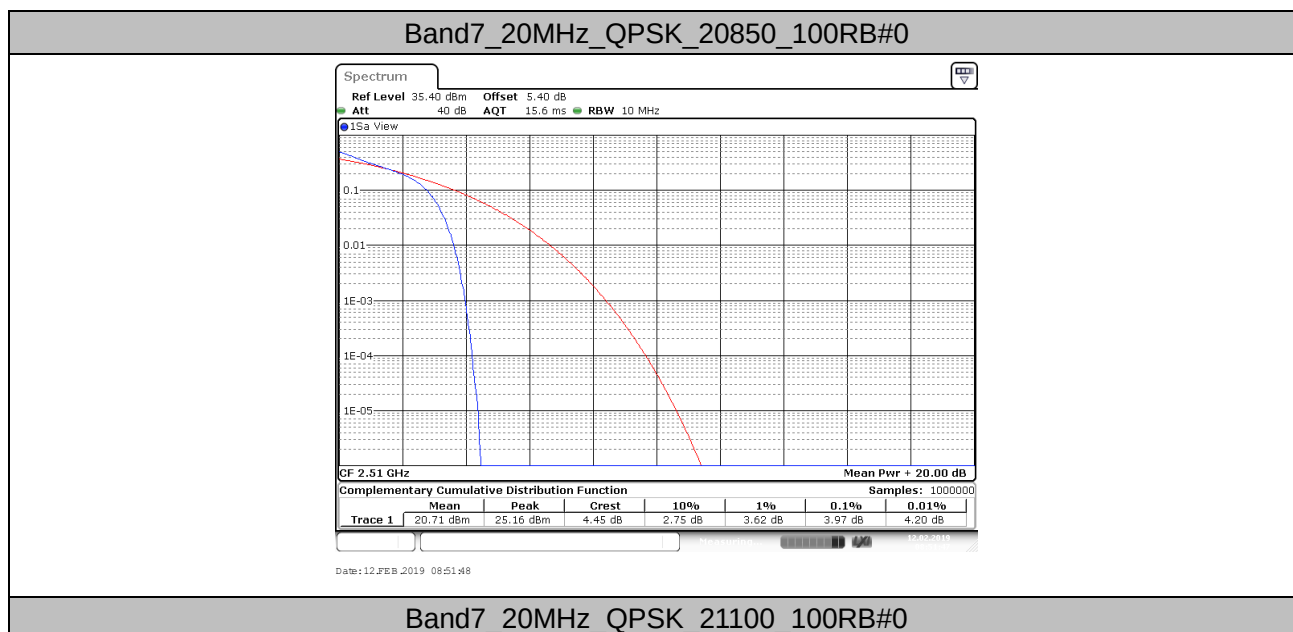


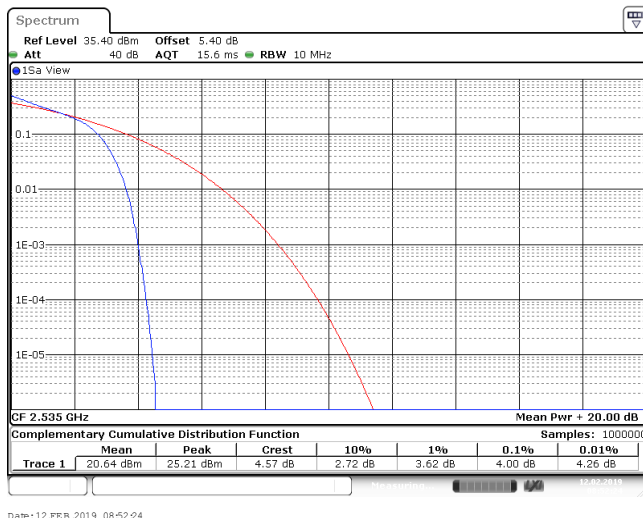
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

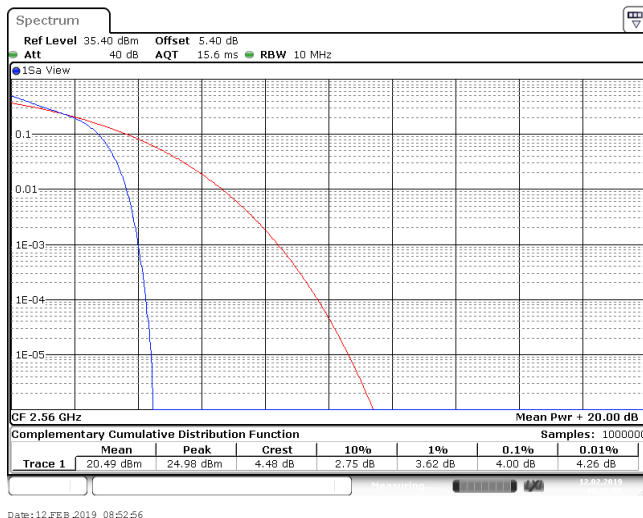
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	3.97	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	4.00	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.00	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	3.97	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	5.77	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.77	13	PASS

2.2. Test Plots



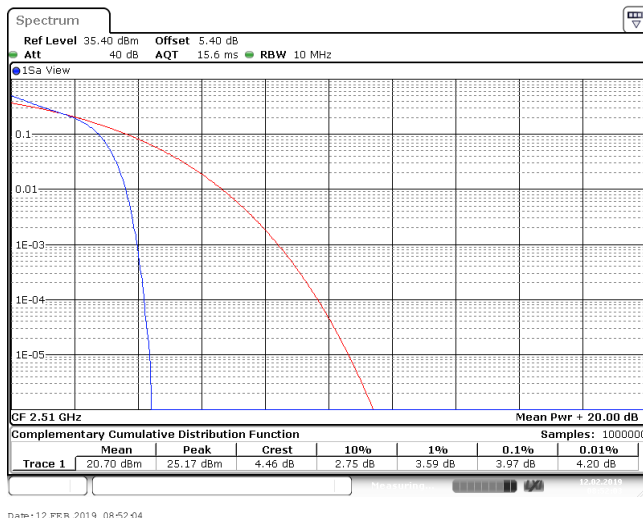


Band7_20MHz_QPSK_21350_100RB#0



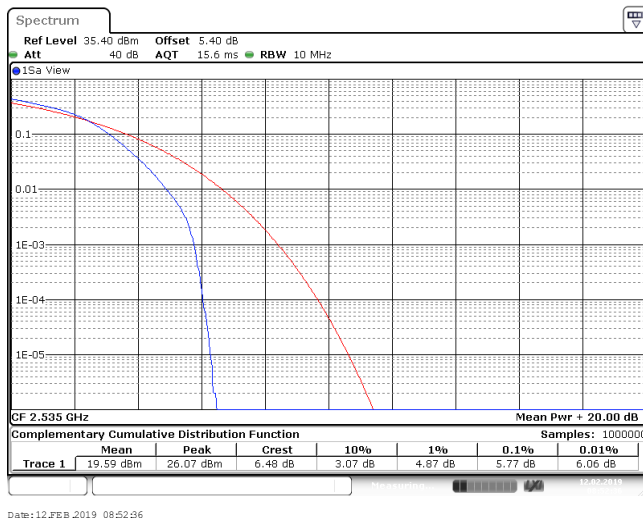
Band7_20MHz_16QAM_20850_100RB#0





Date: 12.FEB.2019 08:52:04

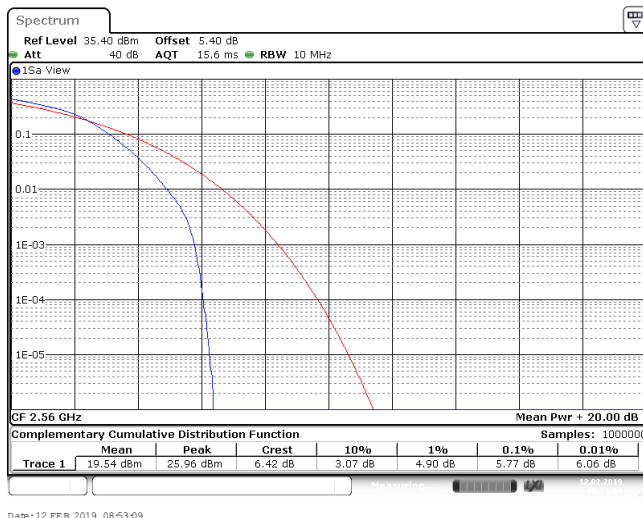
Band7_20MHz_16QAM_21100_100RB#0



Date: 12.FEB.2019 08:52:36

Band7_20MHz_16QAM_21350_100RB#0



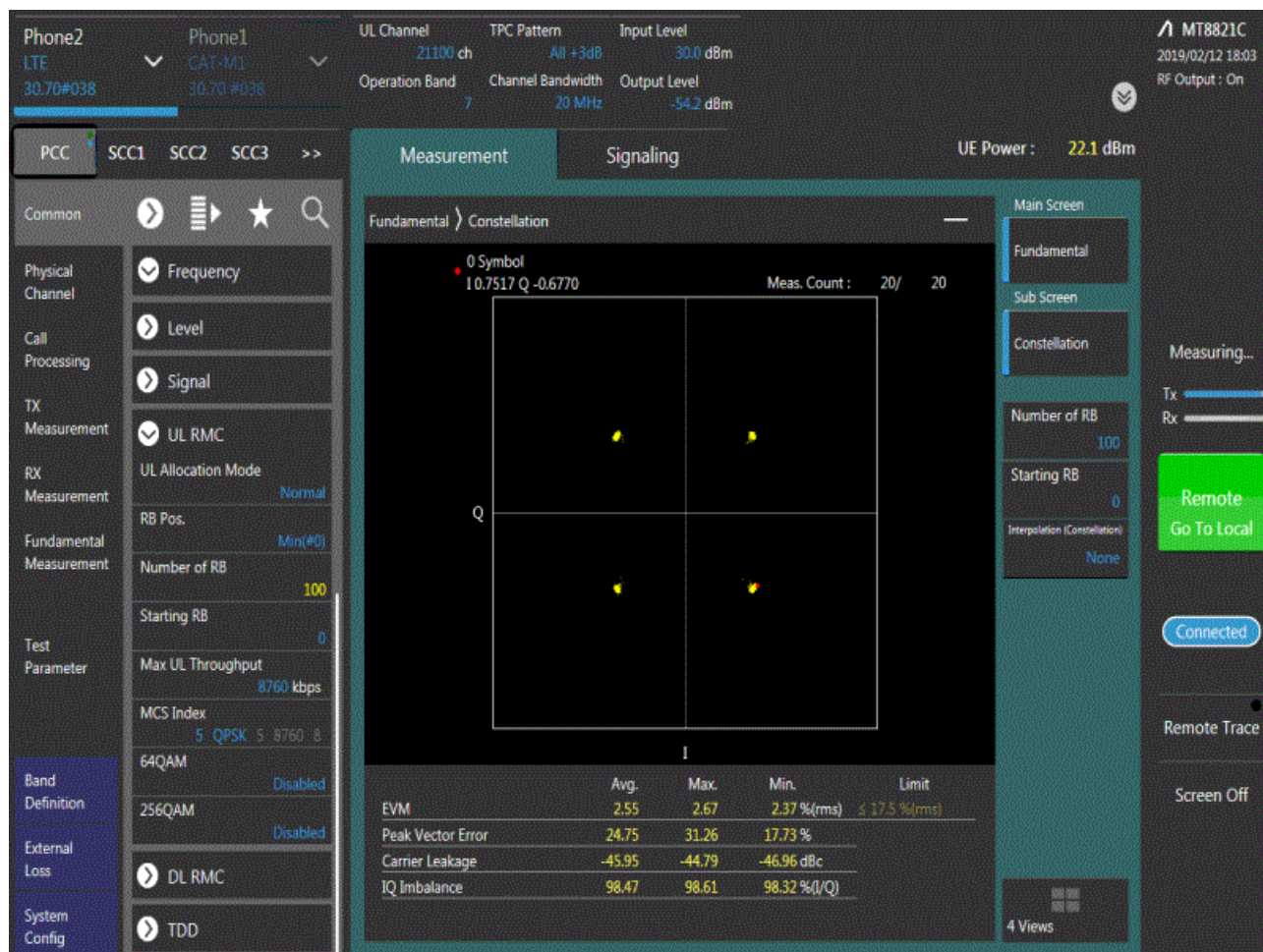


3. Modulation Characteristics

3.1. Test BAND = LTE BAND7

3.1.1. Test Mode = LTE /TM1 20MHz

3.1.1.1. Test Channel = MCH



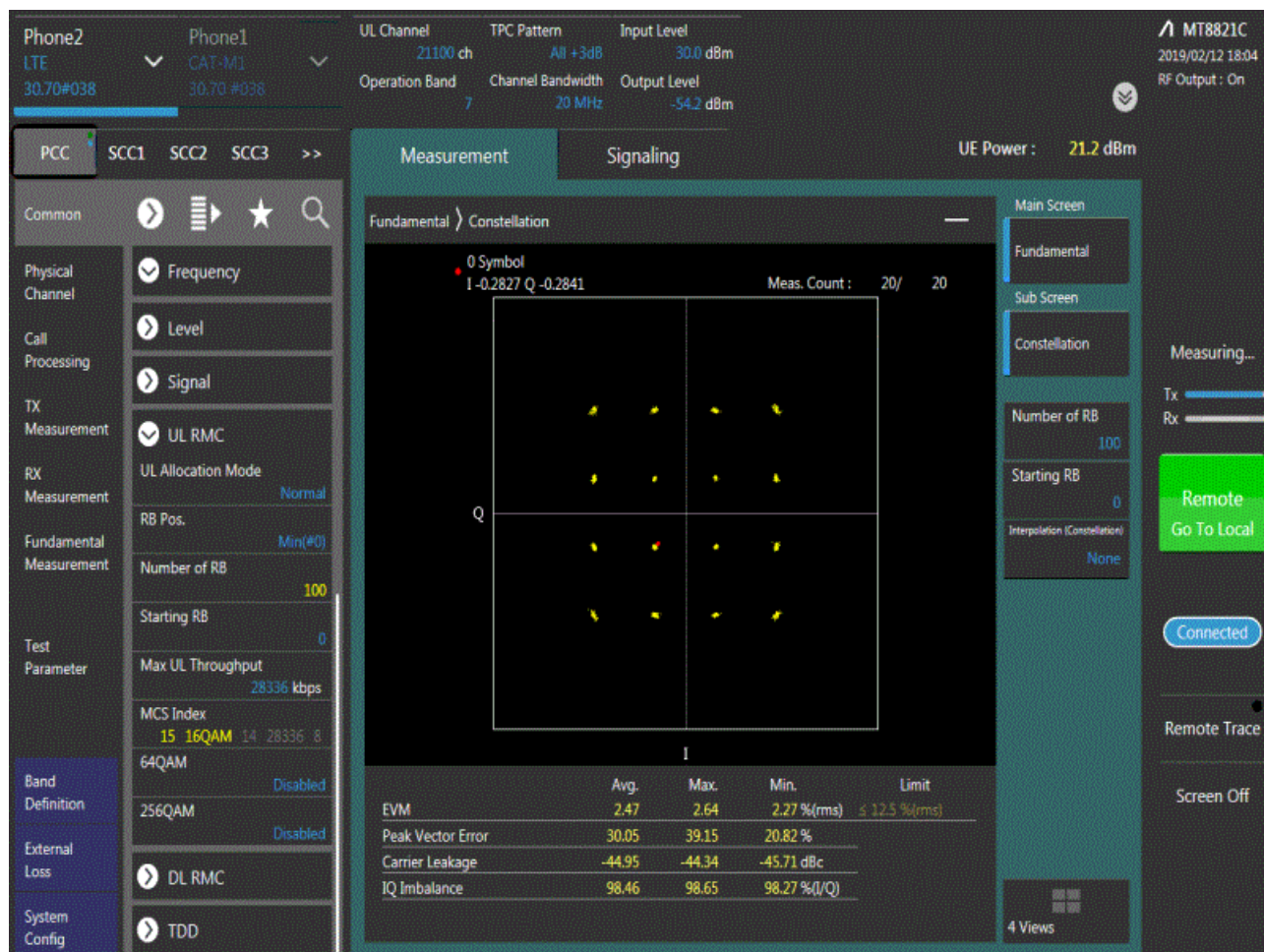
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3.1.2. Test Mode = LTE /TM2 20MHz

3.1.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

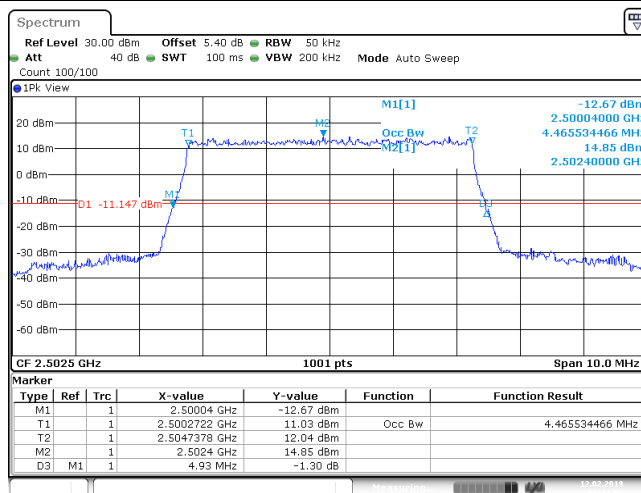
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.466	4.930	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.476	4.920	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.476	4.910	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.486	4.940	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.486	4.950	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.486	4.950	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.931	9.660	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.911	9.700	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.911	9.740	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.911	9.720	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.911	9.780	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.911	9.780	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.457	14.730	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.457	14.790	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.427	14.790	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.427	14.730	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.427	14.790	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.427	14.760	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.862	19.280	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.862	19.440	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.822	19.400	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.782	19.360	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.862	19.400	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.862	19.360	PASS



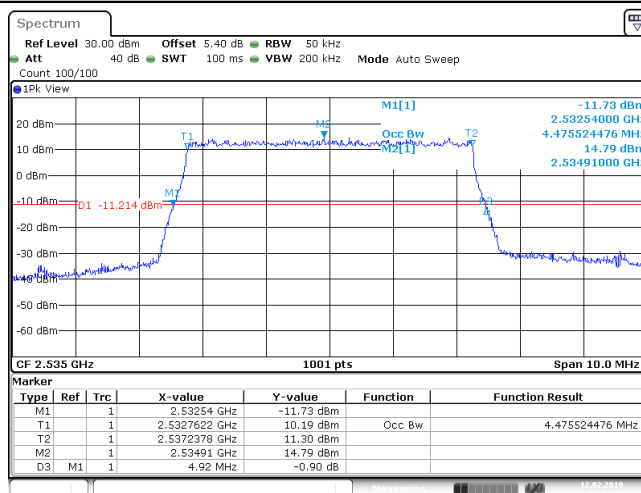
4.2. Test Plots

Band7_5MHz_QPSK_20775_25RB#0



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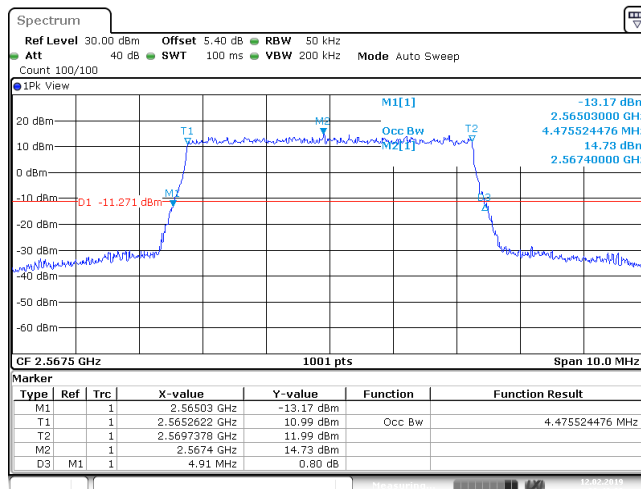
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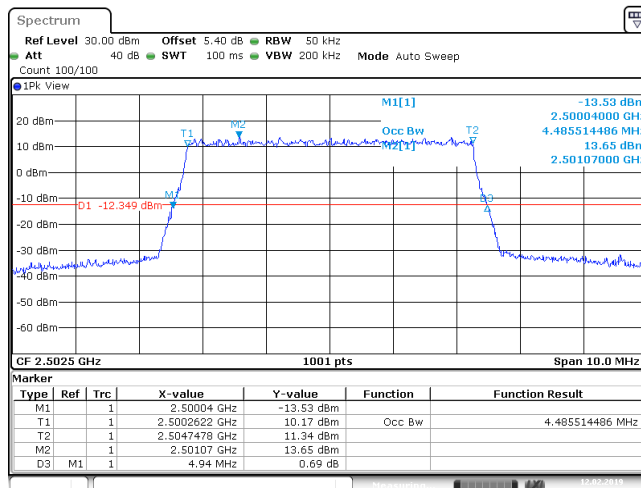
Band7_5MHz_QPSK_21425_25RB#0





Date: 12 FEB 2019 08:43:29

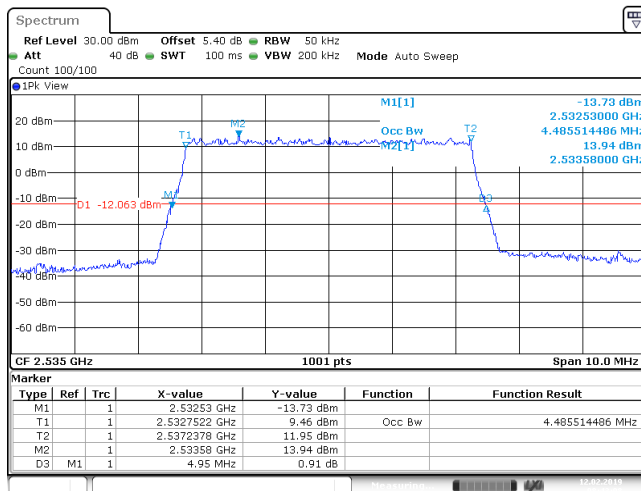
Band7_5MHz_16QAM_20775_25RB#0



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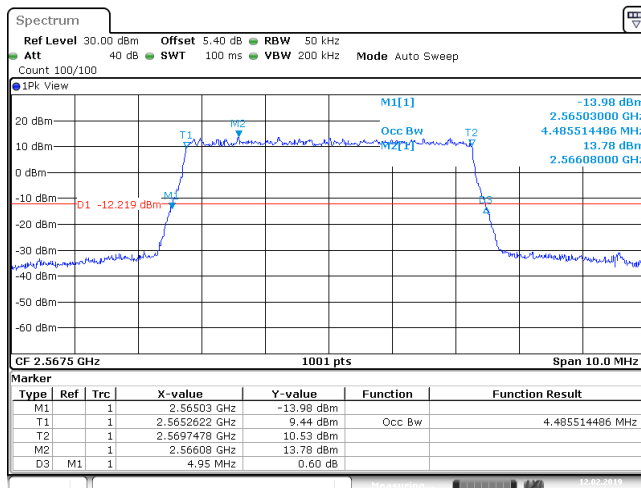
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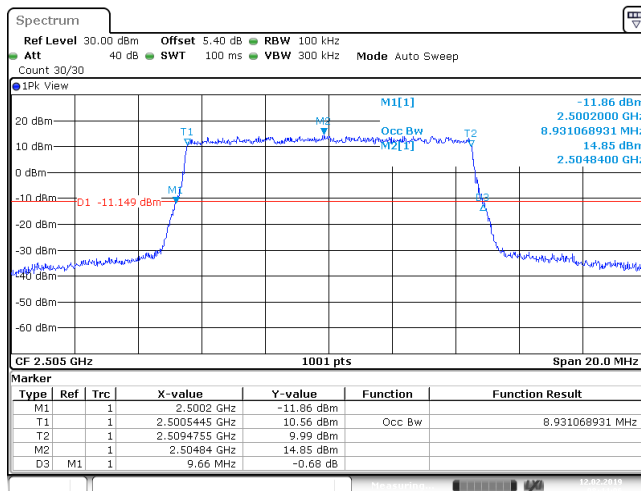
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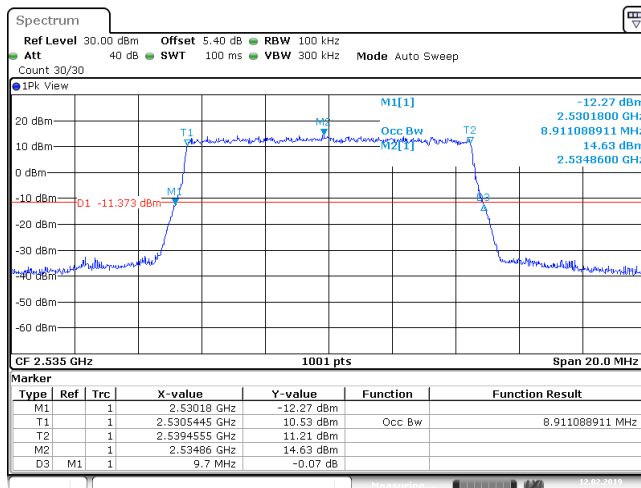
Band7_10MHz_QPSK_20800_50RB#0





Date: 12 FEB 2019 08:44:07

Band7_10MHz_QPSK_21100_50RB#0



Date: 12 FEB 2019 08:44:33

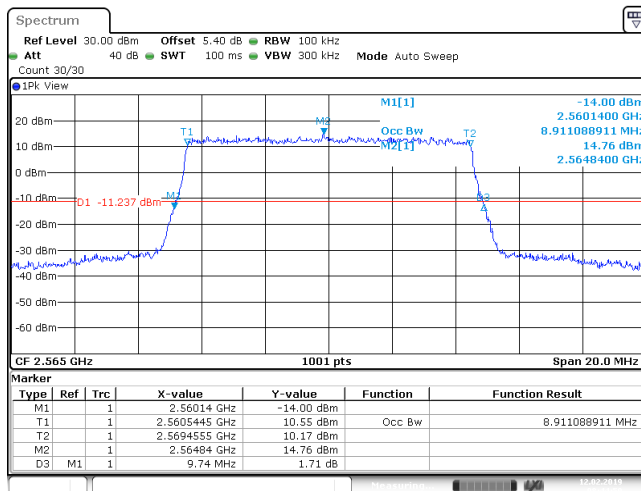
Band7_10MHz_QPSK_21400_50RB#0



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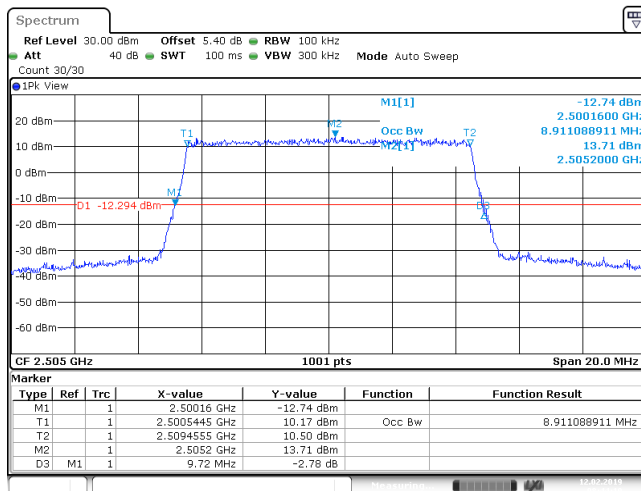
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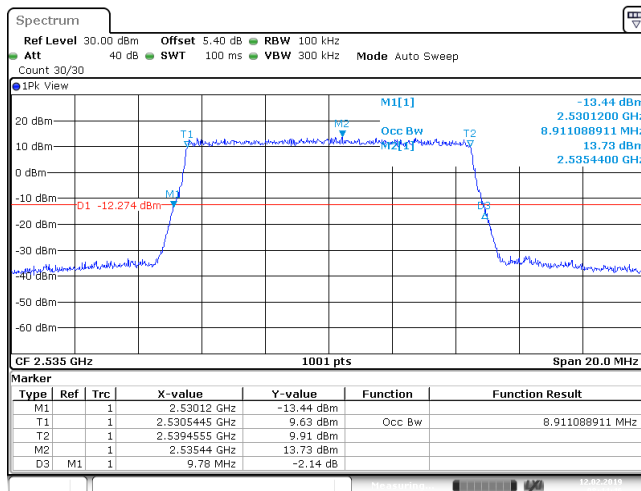
Band7_10MHz_16QAM_20800_50RB#0



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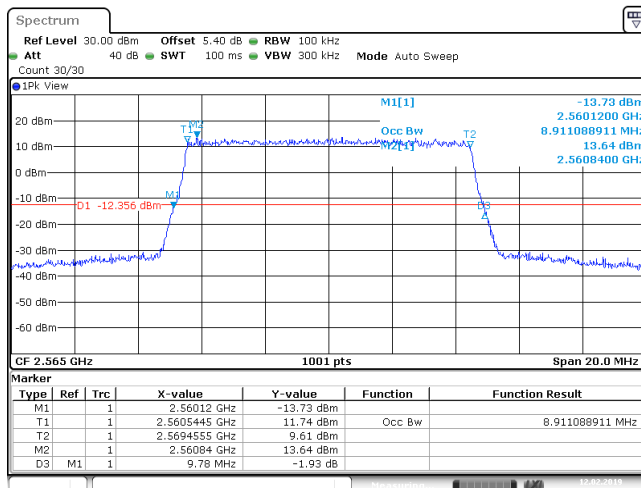
Band7_10MHz_16QAM_21100_50RB#0





Date: 12 FEB 2019 08:44:46

Band7_10MHz_16QAM_21400_50RB#0



Date: 12 FEB 2019 08:45:12

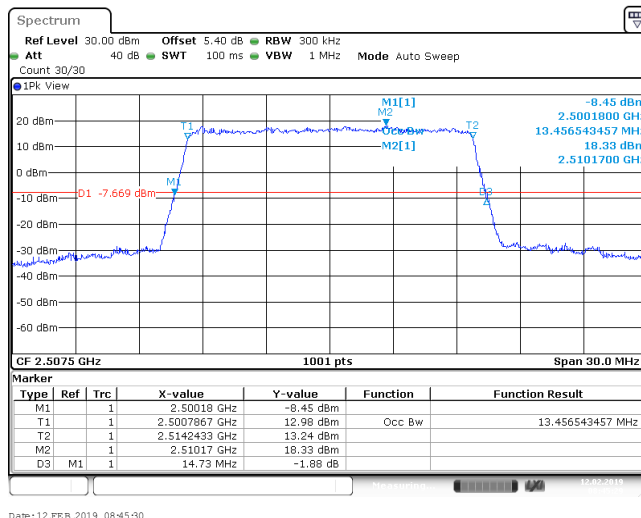
Band7_15MHz_QPSK_20825_75RB#0



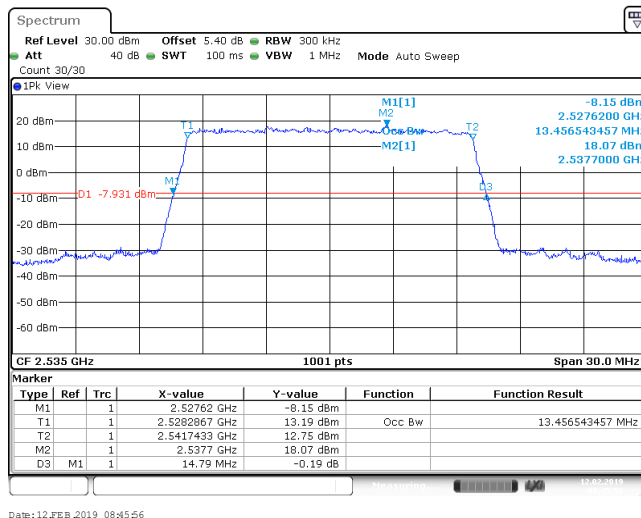
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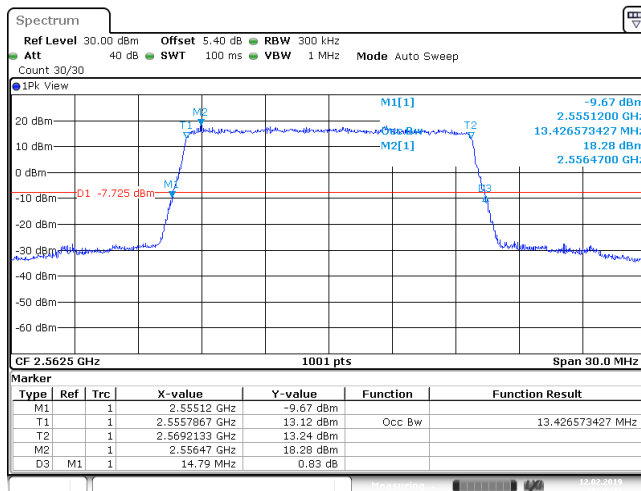


Band7_15MHz_QPSK_21100_75RB#0



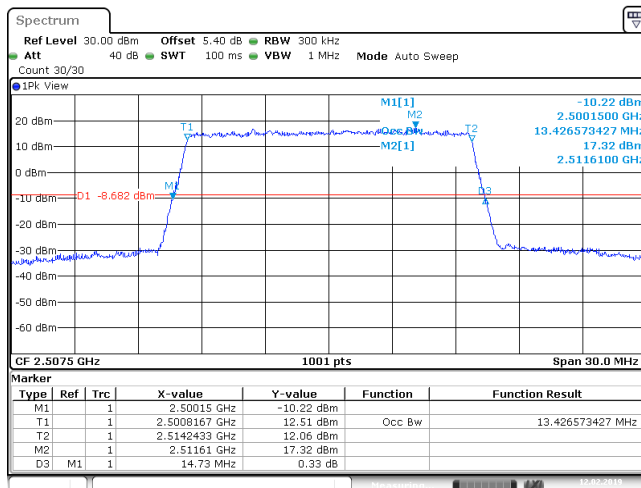
Band7_15MHz_QPSK_21375_75RB#0





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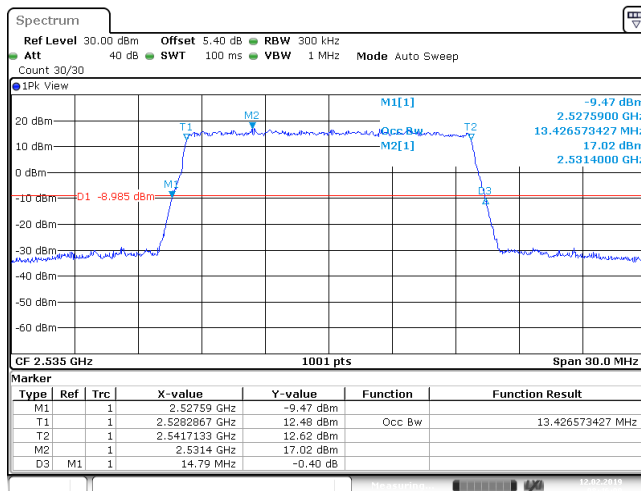
Band7_15MHz_16QAM_20825_75RB#0



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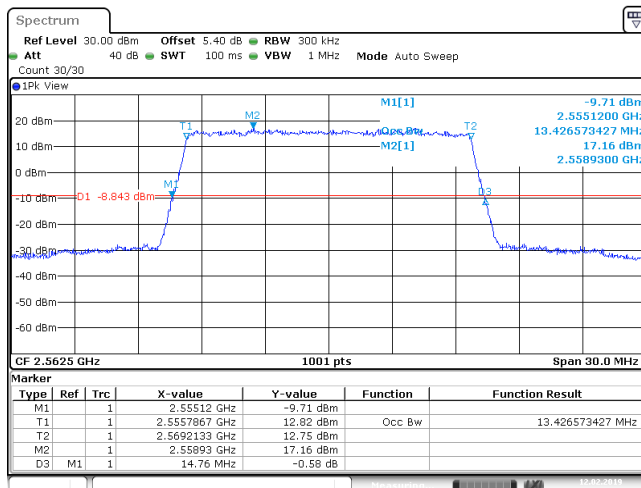
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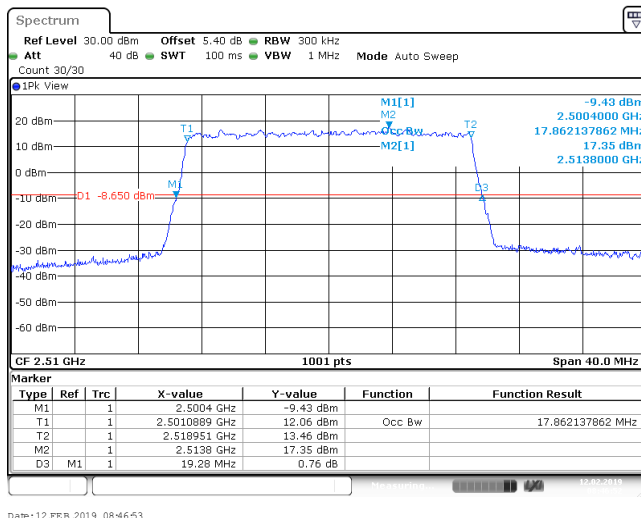
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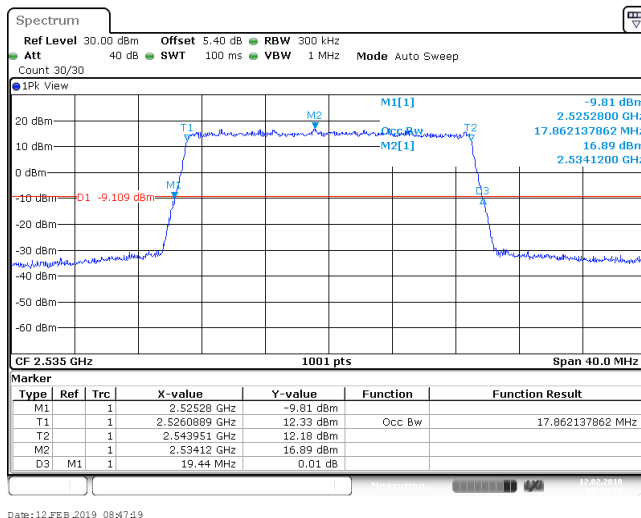
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Band7_20MHz_QPSK_20850_100RB#0



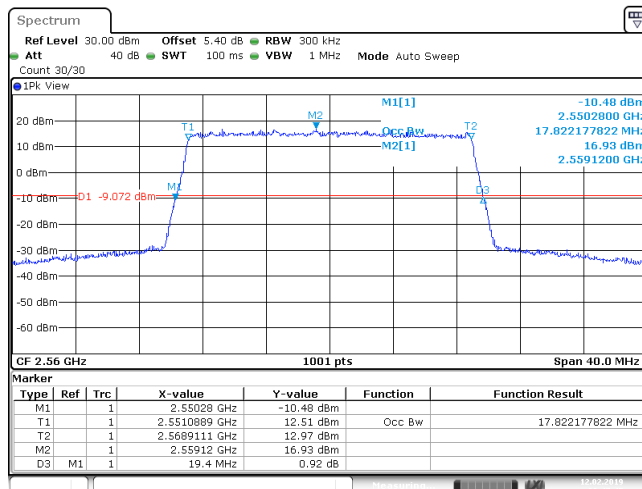


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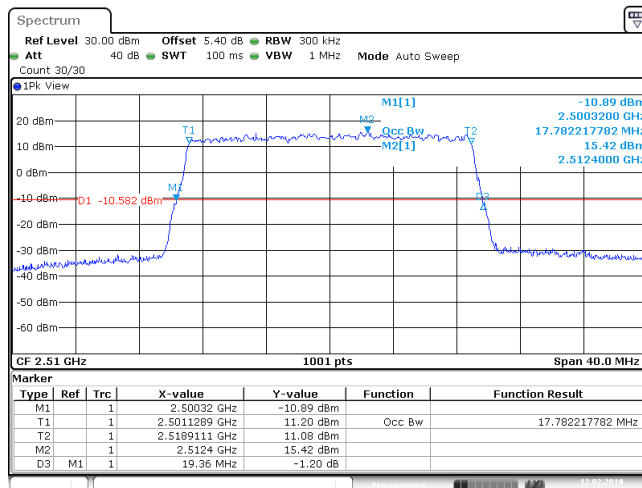
Band7_20MHz_QPSK_21350_100RB#0





Date: 12.FEB.2019 08:47:45

Band7_20MHz_16QAM_20850_100RB#0



Date: 12.FEB.2019 08:47:06

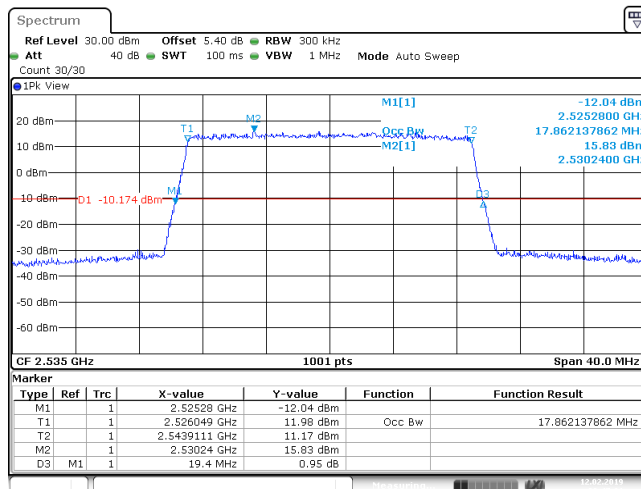
Band7_20MHz_16QAM_21100_100RB#0



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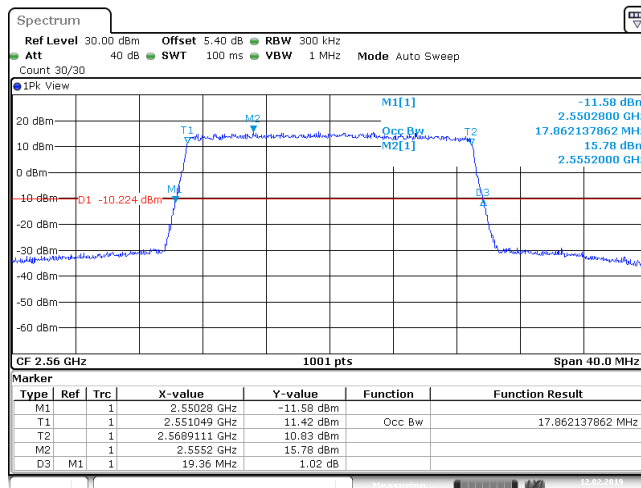
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Date: 12 FEB 2019 08:47:32

Band7_20MHz_16QAM_21350_100RB#0



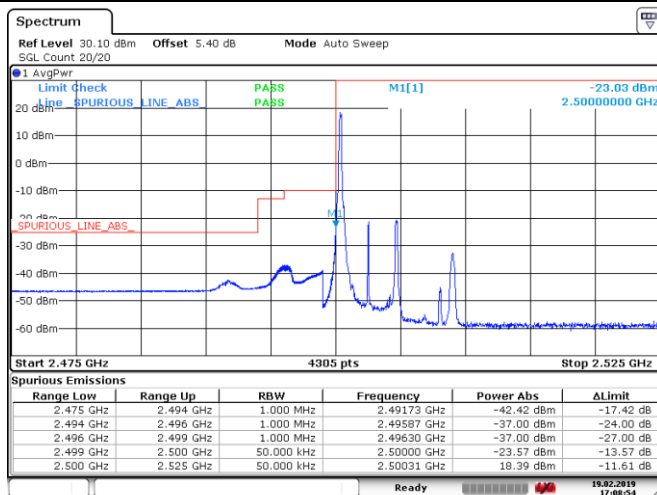
Date: 12 FEB 2019 08:47:58



5. Band Edge Compliance

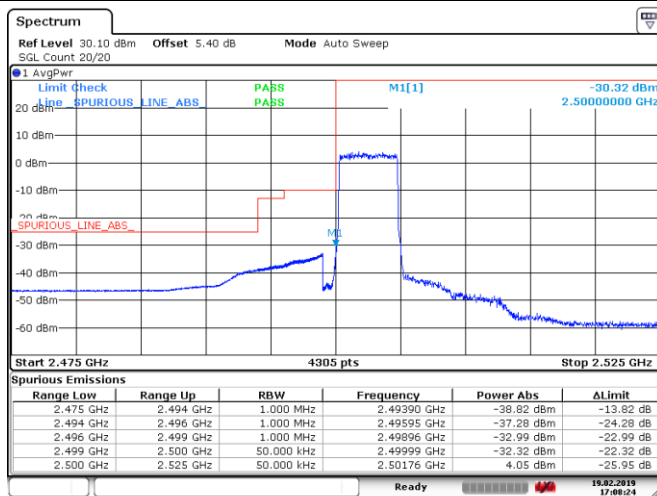
5.1. Test Plots

Band7_5MHz_QPSK_20775_1RB#0



Date: 19 FEB 2019 17:08:54

Band7_5MHz_QPSK_20775_25RB#0



Date: 19 FEB 2019 17:08:23

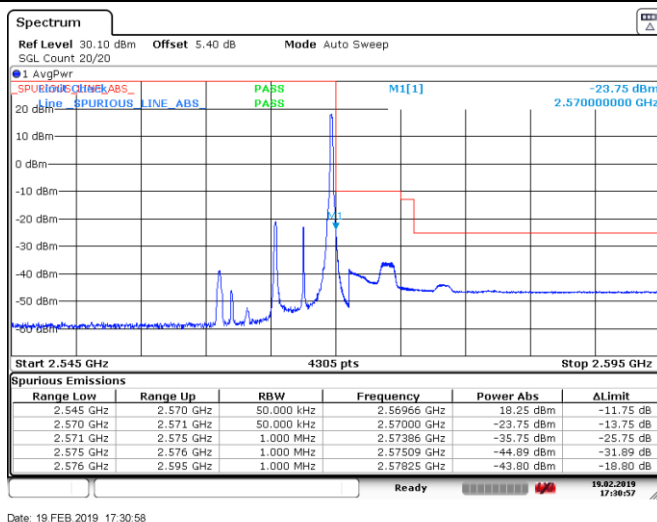
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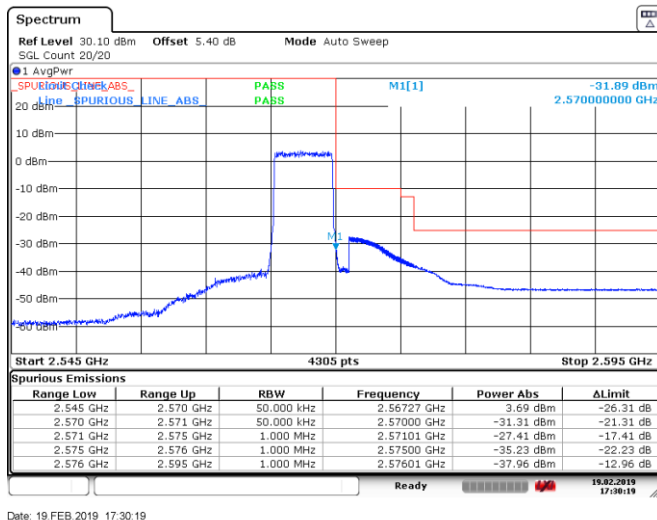
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Date: 19 FEB 2019 17:30:58

Band7_5MHz_QPSK_21425_25RB#0



Date: 19 FEB 2019 17:30:19

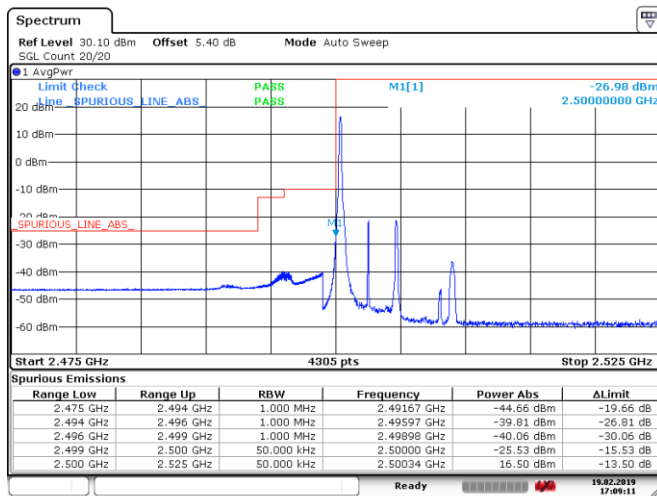
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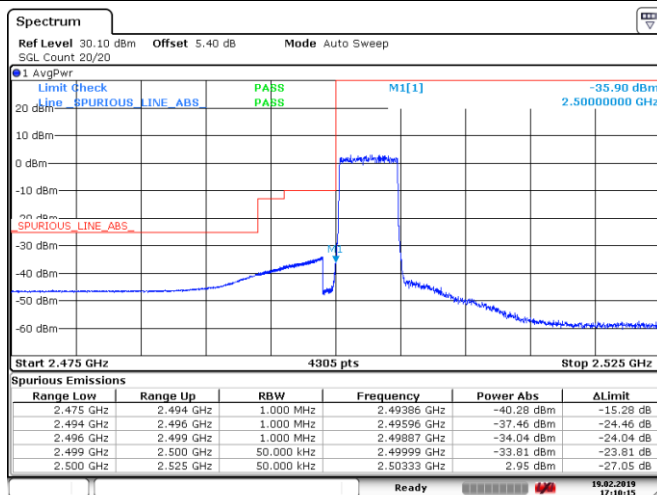
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Date: 19 FEB 2019 17:09:12

Band7_5MHz_16QAM_20775_25RB#0



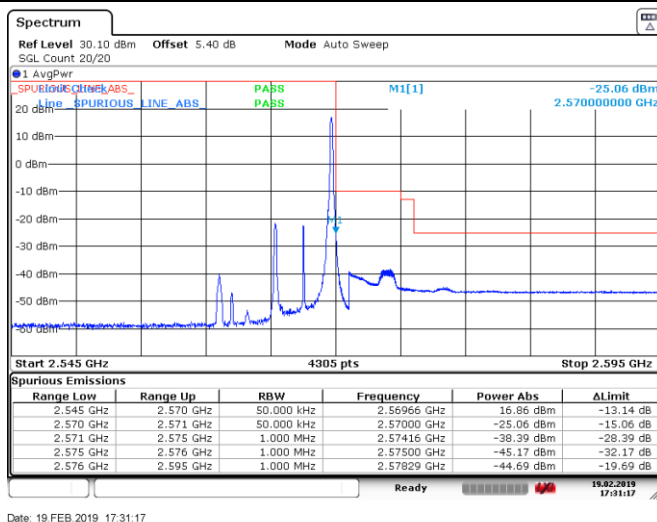
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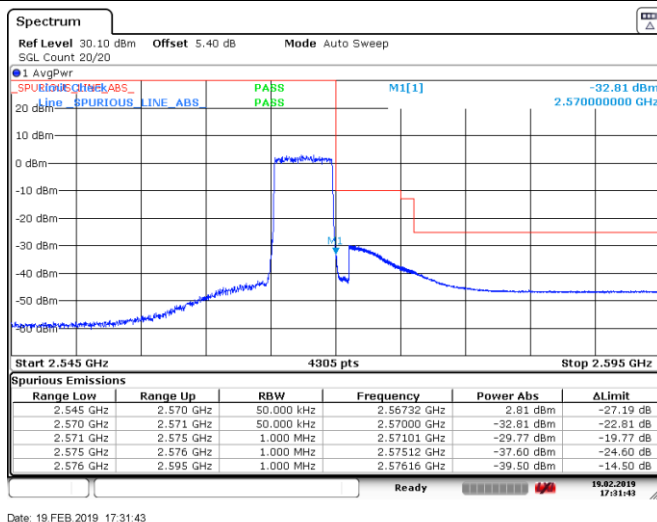


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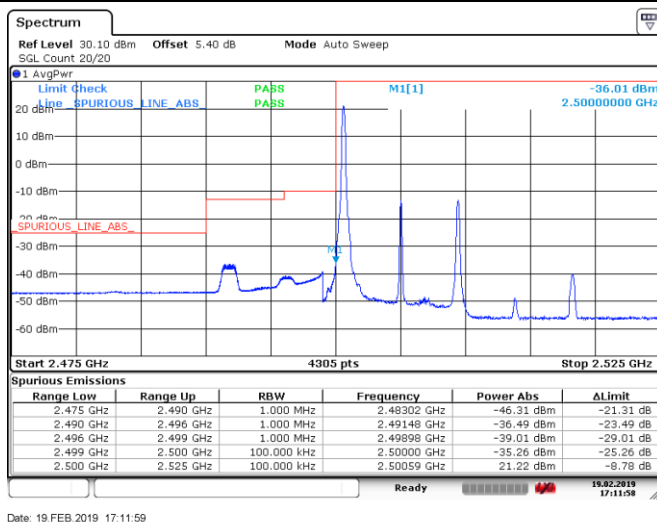


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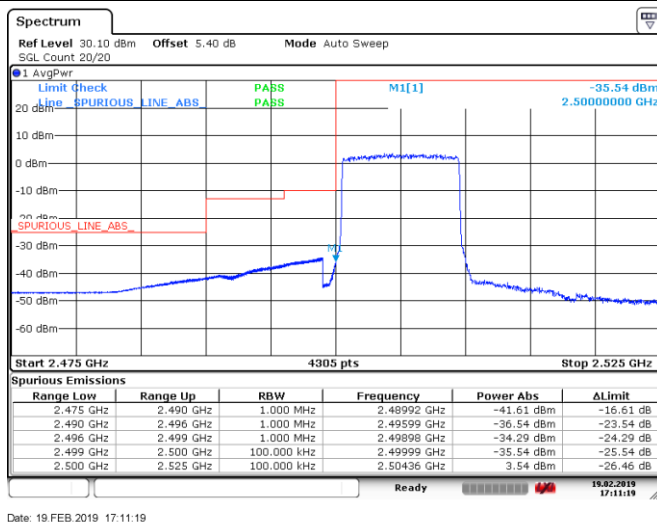


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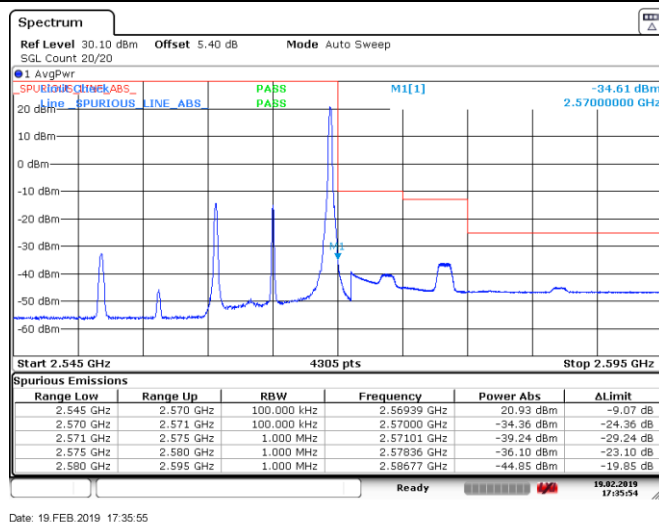


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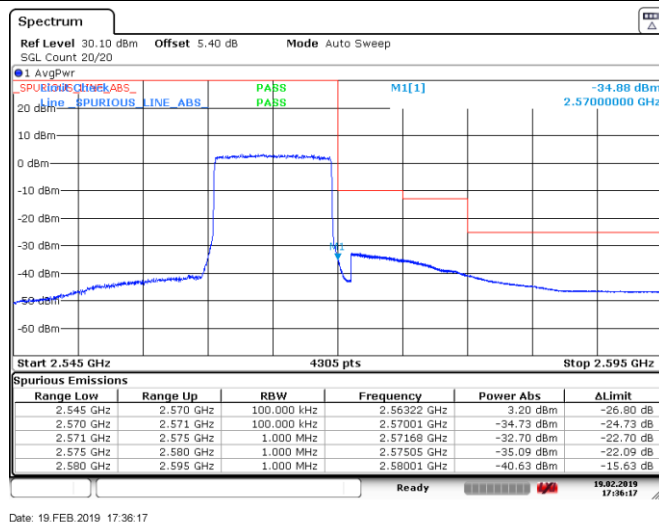


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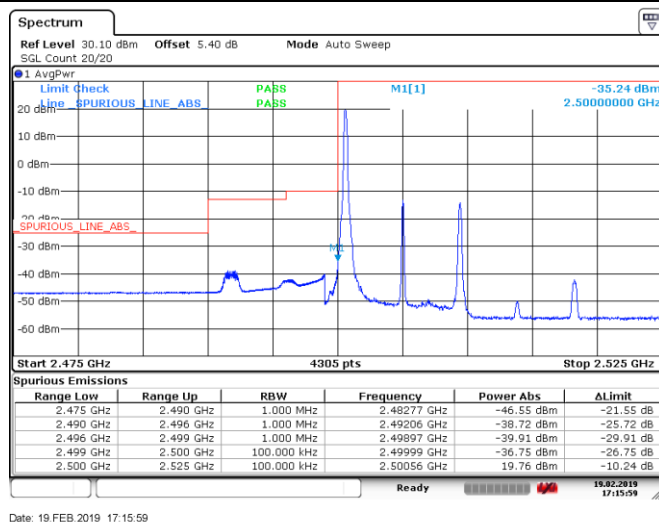


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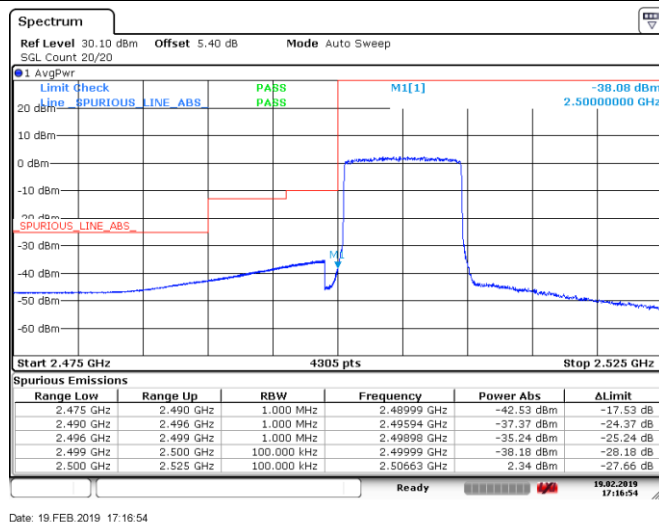


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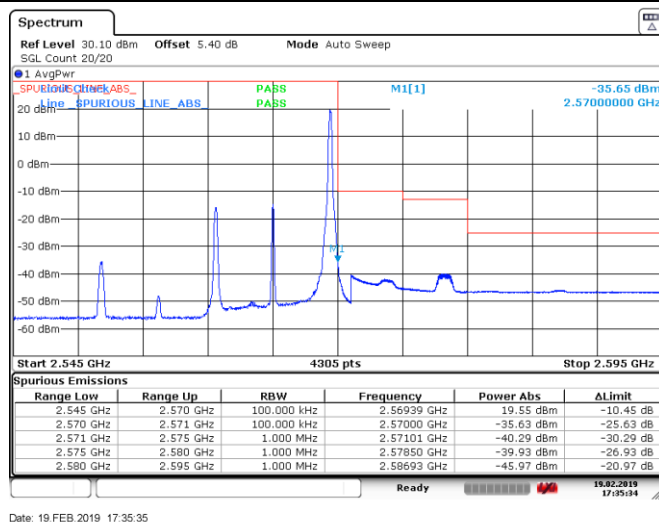


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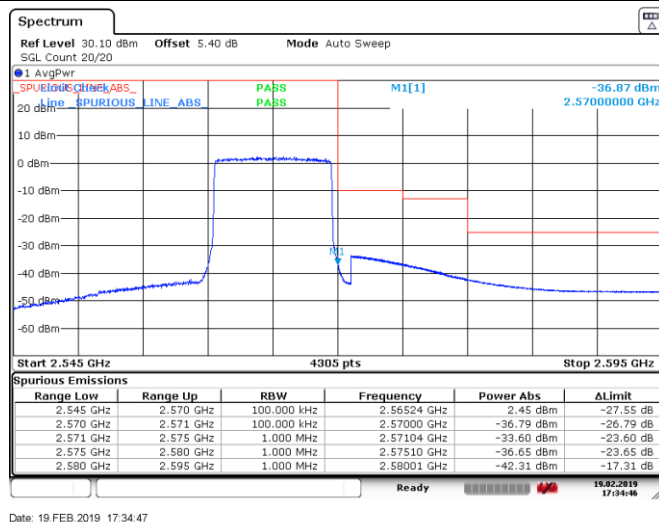


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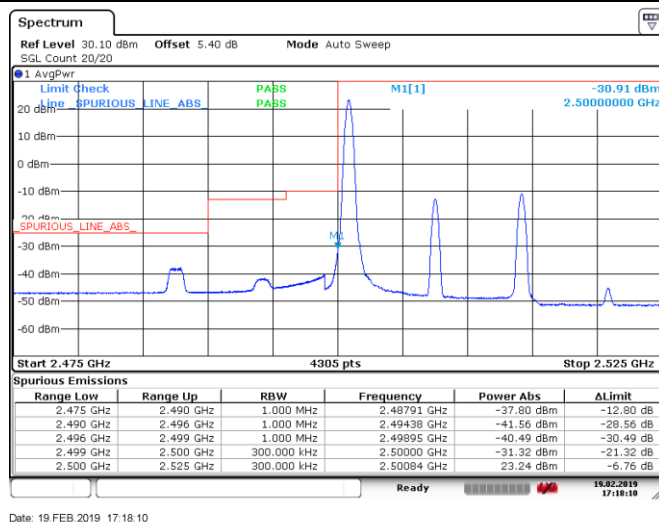


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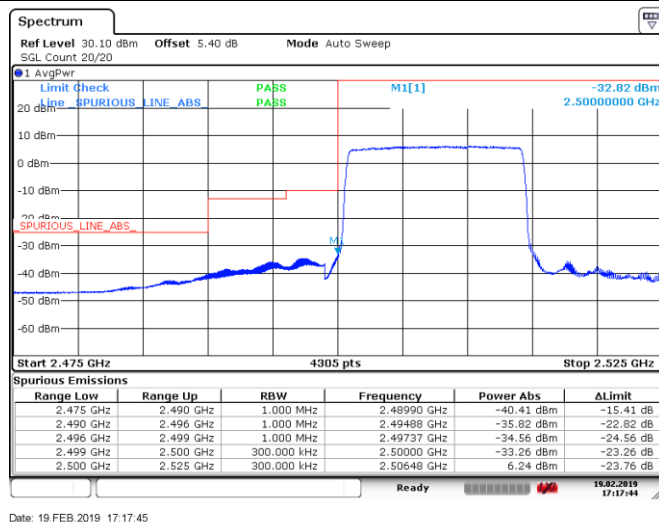


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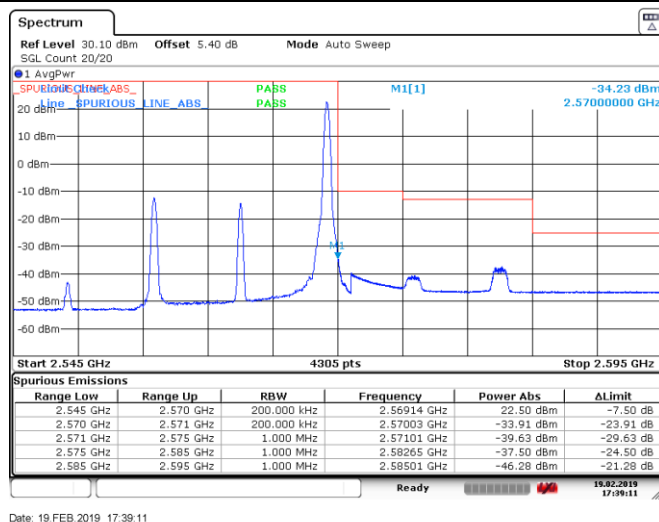


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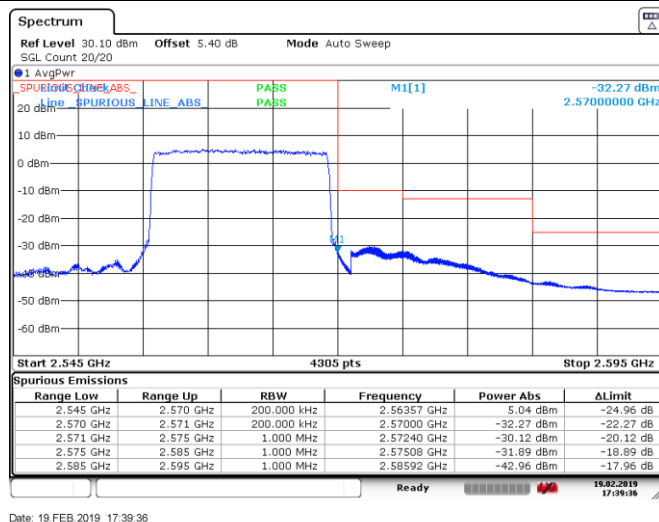


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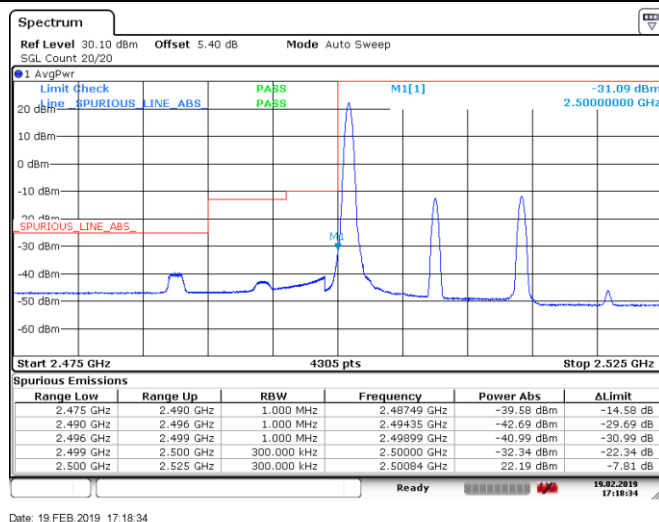


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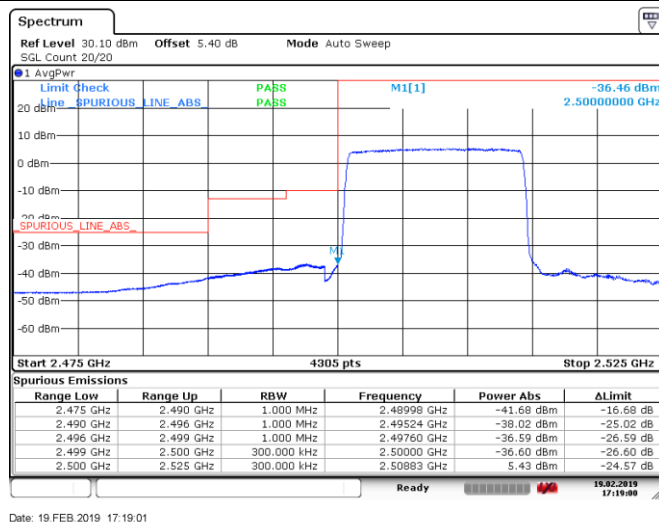
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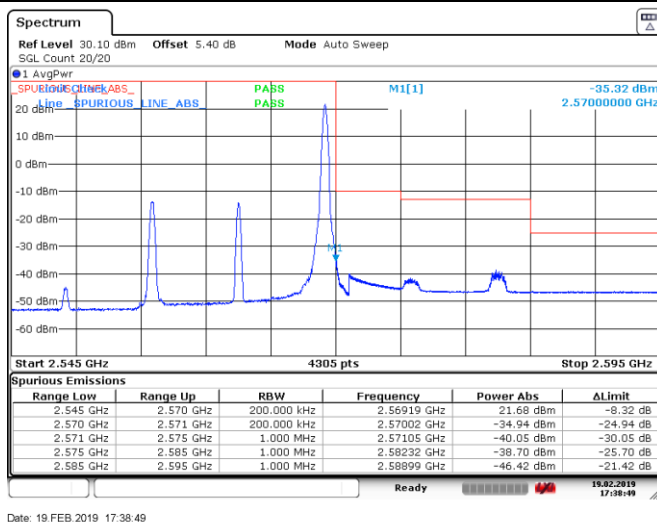
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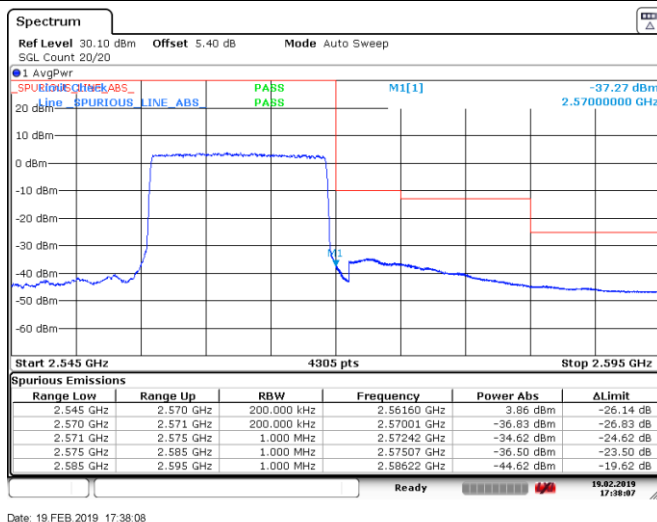
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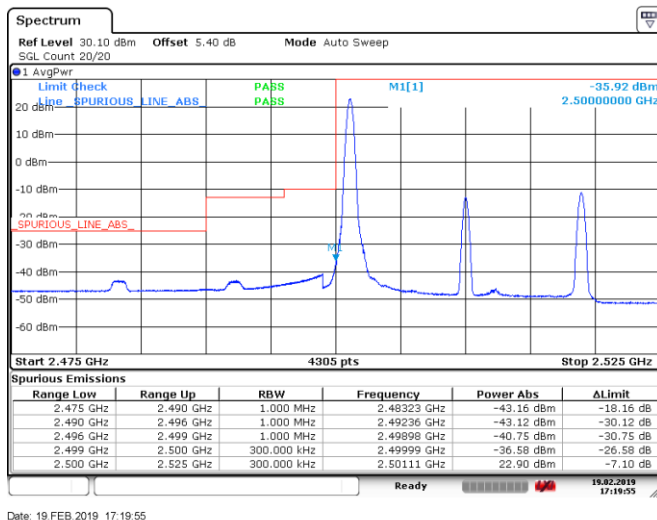


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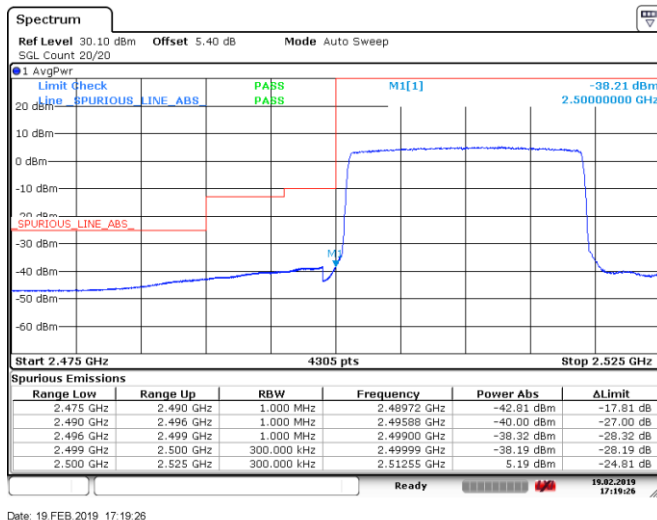


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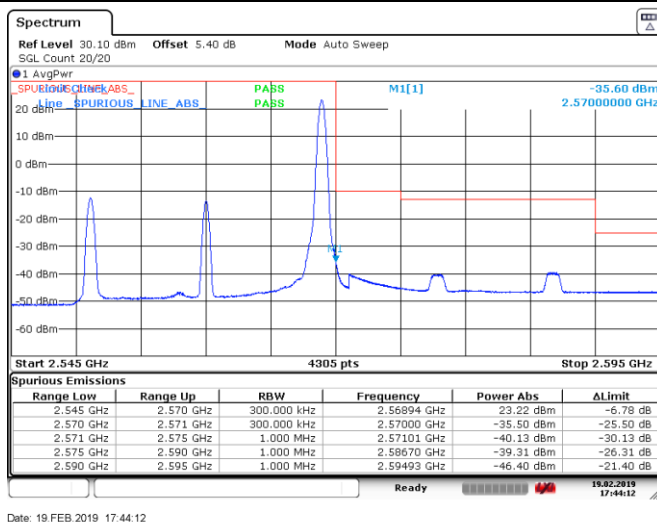


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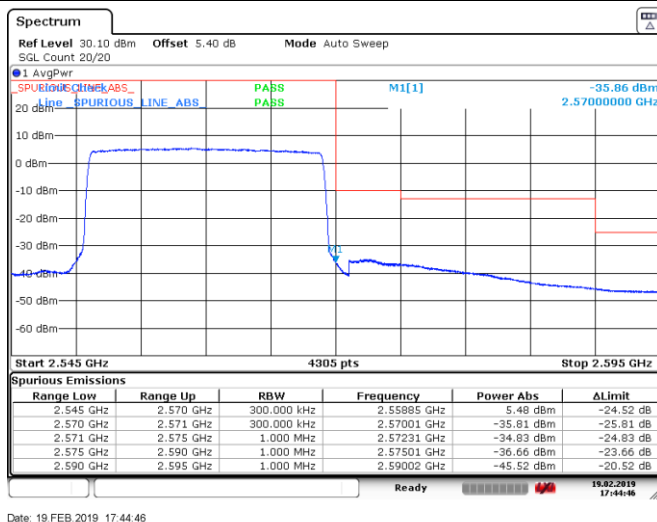


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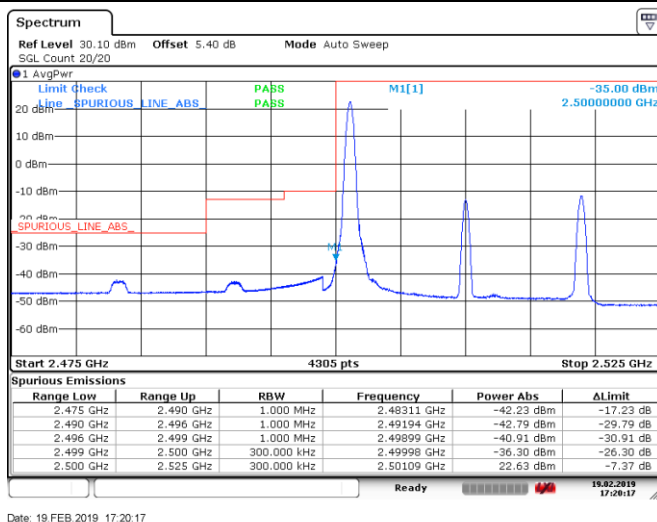


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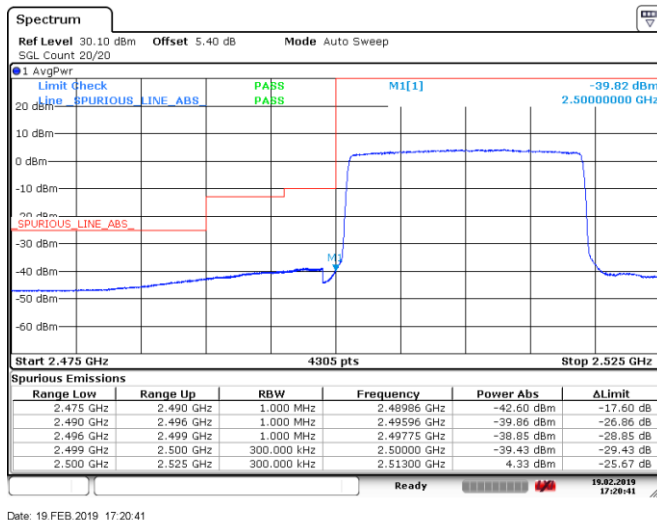


Band7_20MHz_16QAM_20850_1RB#0





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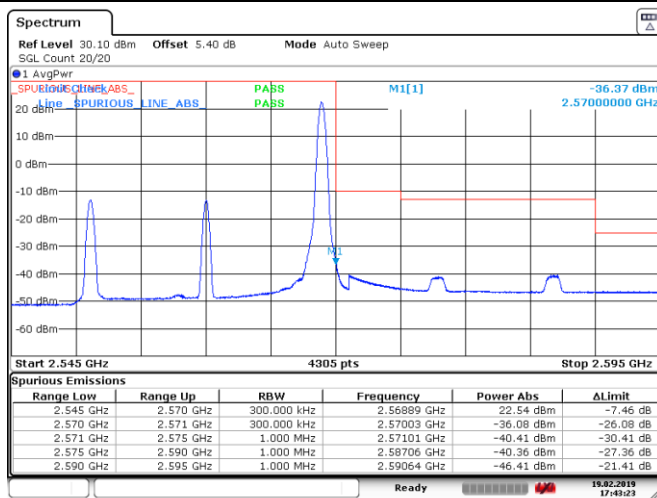


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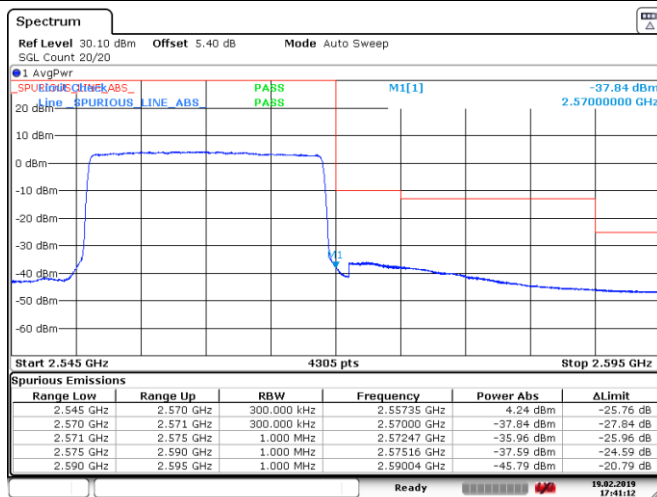
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Date: 19 FEB 2019 17:43:24

Band7_20MHz_16QAM_21350_100RB#0



Date: 19 FEB 2019 17:41:12





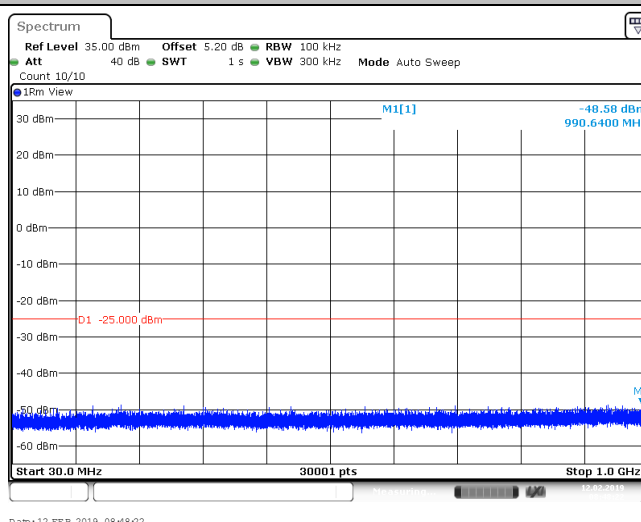
6. Spurious Emission at Antenna Terminal

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.

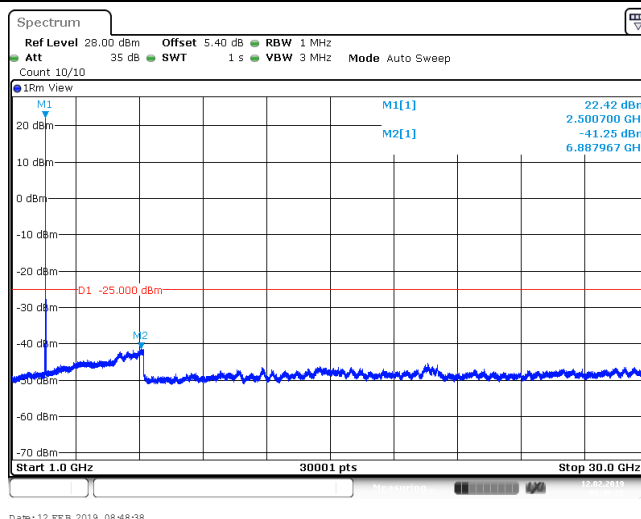
Remark2: only the worst case data displayed in this report.

6.1. Test Plots

Band7_20MHz_QPSK_20850_1RB#0

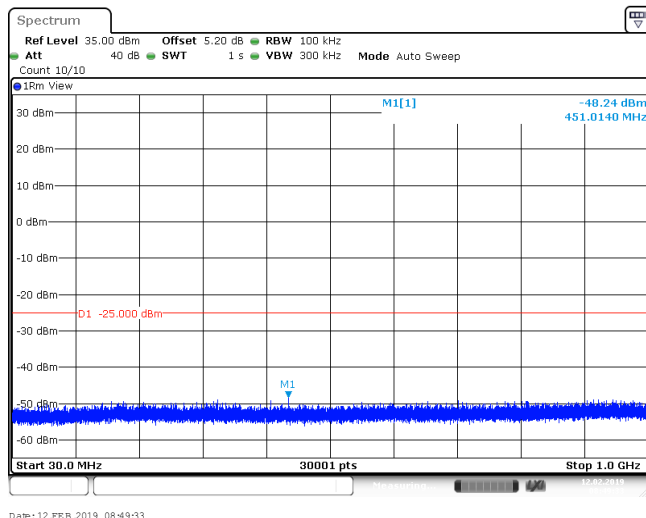


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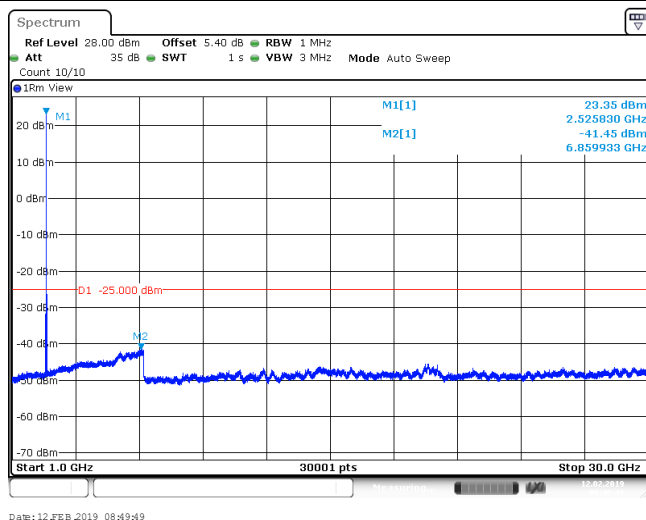


Band7_20MHz_QPSK_21100_1RB#0





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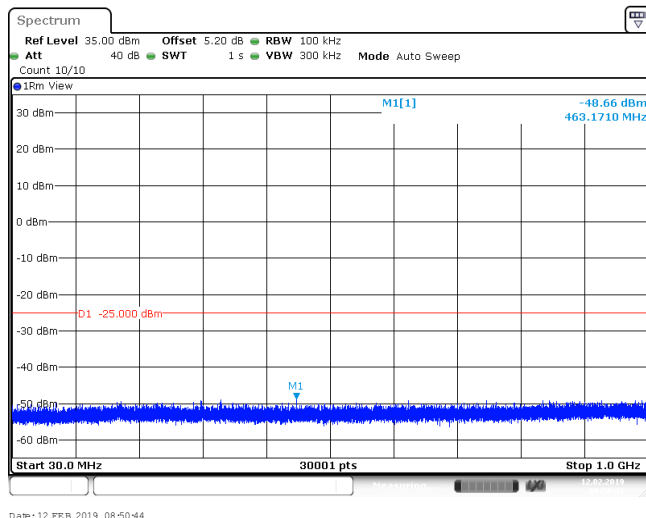


Band7_20MHz_QPSK_21350_1RB#0

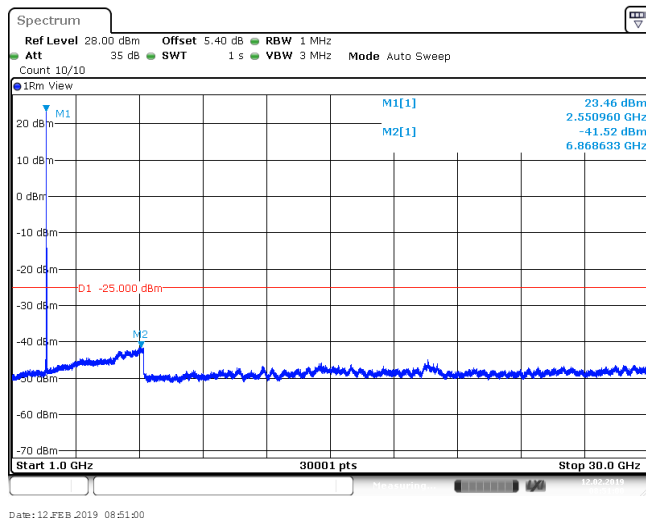


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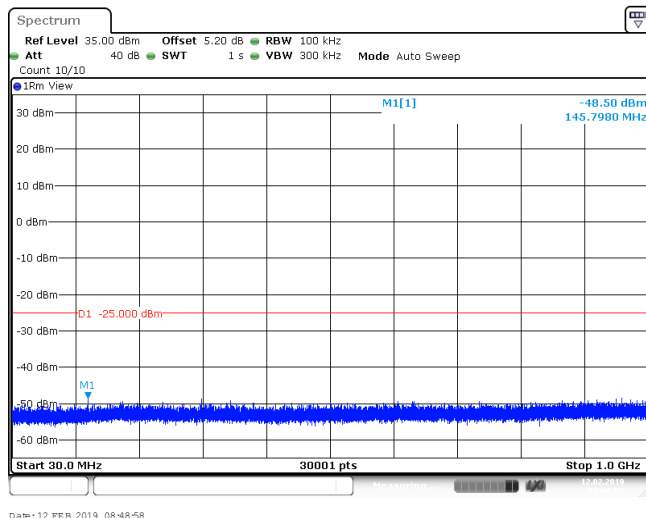


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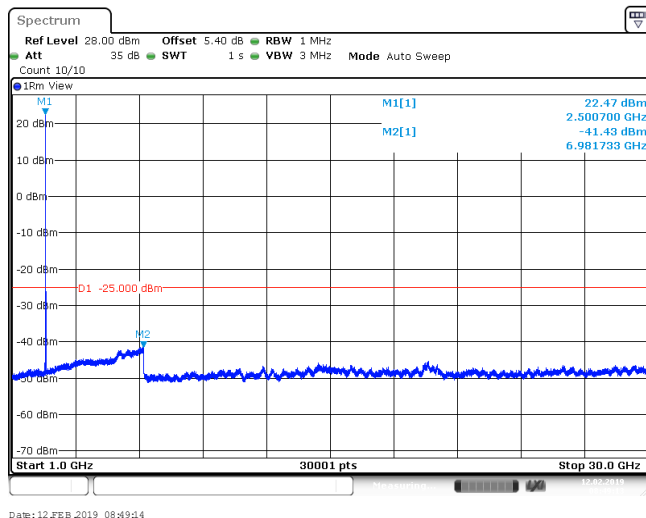


Band7_20MHz_16QAM_20850_1RB#0





Band7_20MHz_16QAM_20850_1RB#0



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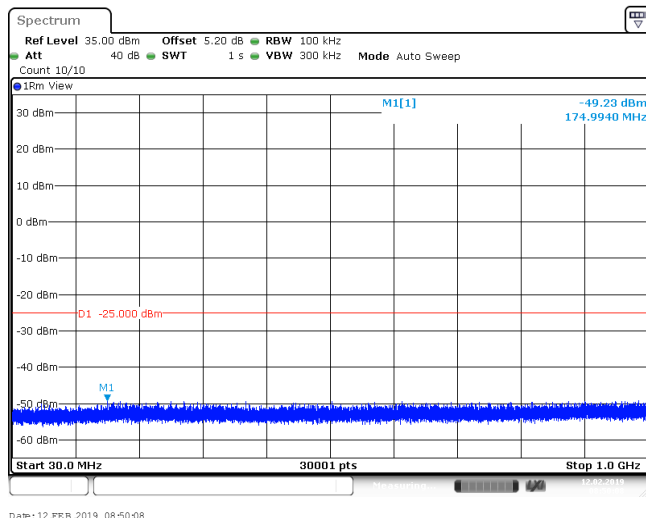


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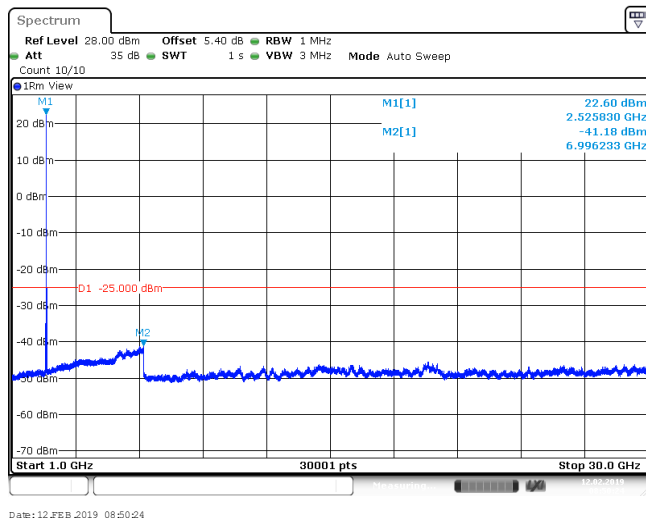
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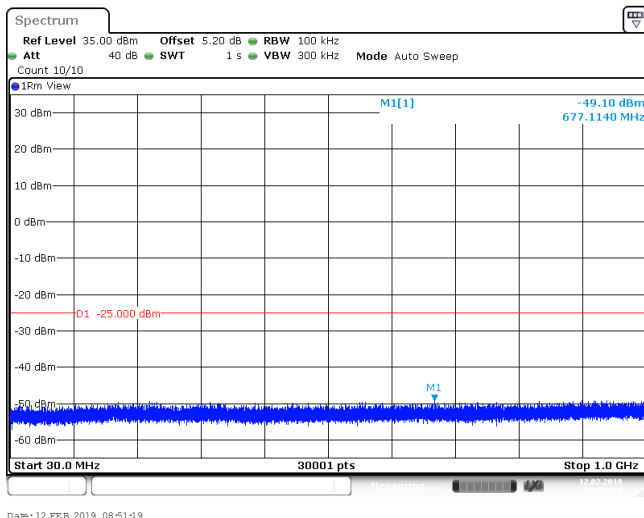


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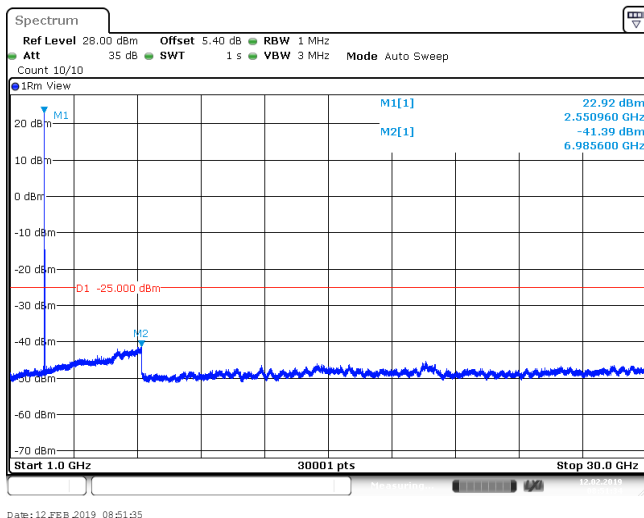


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Band7_20MHz_16QAM_21350_1RB#0



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7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE Band7

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
70.8390	-70.10	-25.00	45.10	Vertical
113.7637	-65.52	-25.00	40.52	Vertical
663.4417	-64.60	-25.00	39.60	Vertical
5002.2801	-38.24	-25.00	13.24	Vertical
10004.6802	-42.71	-25.00	17.71	Vertical
17994.5998	-34.38	-25.00	9.38	Vertical
44.6477	-64.18	-25.00	39.18	Horizontal
152.7111	-68.66	-25.00	43.66	Horizontal
677.1194	-63.79	-25.00	38.79	Horizontal
5002.2801	-47.95	-25.00	22.95	Horizontal
16398.5359	-39.09	-25.00	14.09	Horizontal
17987.9995	-38.85	-25.00	13.85	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
50.1770	-73.56	-25.00	48.56	Vertical
112.7451	-64.81	-25.00	39.81	Vertical
425.0523	-68.23	-25.00	43.23	Vertical
5052.0821	-39.11	-25.00	14.11	Vertical
10104.8842	-42.18	-25.00	17.18	Vertical
17997.5999	-34.27	-25.00	9.27	Vertical
41.3011	-64.59	-25.00	39.59	Horizontal
163.9152	-68.99	-25.00	43.99	Horizontal



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633.5642	-63.69	-25.00	38.69	Horizontal
5052.0821	-49.66	-25.00	24.66	Horizontal
10013.0805	-49.09	-25.00	24.09	Horizontal
16396.7359	-39.61	-25.00	14.61	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
70.9845	-69.64	-25.00	44.64	Vertical
108.7194	-65.65	-25.00	40.65	Vertical
593.6467	-64.04	-25.00	39.04	Vertical
5101.8841	-35.87	-25.00	10.87	Vertical
10204.4882	-41.09	-25.00	16.09	Vertical
17972.3989	-34.22	-25.00	9.22	Vertical
41.9801	-65.41	-25.00	40.41	Horizontal
164.8367	-68.79	-25.00	43.79	Horizontal
608.0519	-63.42	-25.00	38.42	Horizontal
5101.8841	-46.27	-25.00	21.27	Horizontal
10204.4882	-48.69	-25.00	23.69	Horizontal
17998.1999	-39.09	-25.00	14.09	Horizontal

7.1.1.4. Spot Check worse mode

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
66.0373	-68.78	-25.00	43.78	Vertical
116.0918	-64.32	-25.00	39.32	Vertical
434.0252	-67.08	-25.00	42.08	Vertical
5052.0821	-41.14	-25.00	16.14	Vertical
10104.2842	-45.67	-25.00	20.67	Vertical
17991.5997	-33.32	-25.00	8.32	Vertical
40.5250	-63.18	-25.00	38.18	Horizontal
153.3417	-67.89	-25.00	42.89	Horizontal



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515.9458	-65.67	-25.00	40.67	Horizontal
5052.0821	-47.31	-25.00	22.31	Horizontal
10099.4840	-49.43	-25.00	24.43	Horizontal
17993.3997	-38.39	-25.00	13.39	Horizontal

Remark:

- 1) The disturbance above 12.75GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.
- 2) We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.



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8. Appendix F: Frequency Stability

9.1. 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	2.10	0.000837	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	1.80	0.000717	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	2.20	0.000876	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-1.40	-0.000552	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-1.40	-0.000552	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	1.70	0.000664	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-0.20	-0.000078	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	-1.20	-0.000469	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	2.30	0.000916	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	3.80	0.001514	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	2.20	0.000876	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-3.50	-0.001381	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	-2.10	-0.000828	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-2.50	-0.000986	±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	-1.40	-0.000547	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	1.30	0.000508	±2.5	PASS

9.2. 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	-0.30	-0.000120	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	2.30	0.000916	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	1.40	0.000558	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	2.40	0.000956	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	3.30	0.001315	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	3.30	0.001315	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	40	-0.20	-0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	2.20	0.000876	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-1.80	-0.000710	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-4.20	-0.001657	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-2.50	-0.000986	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-0.90	-0.000355	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-4.20	-0.001657	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-1.30	-0.000513	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-4.70	-0.001854	±2.5	PASS



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Band7	20MHz	QPSK	21100	100RB#0	NV	50	-1.70	-0.000671	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	0.80	0.000313	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	-0.30	-0.000117	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	-0.40	-0.000156	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	0.20	0.000078	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	0.40	0.000156	±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	0.10	0.000039	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	-1.40	-0.000547	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	2.40	0.000956	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	2.00	0.000797	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	3.10	0.001235	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	1.60	0.000637	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	0.50	0.000199	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	30	1.70	0.000677	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	40	2.40	0.000956	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	50	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	-3.90	-0.001538	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-2.20	-0.000868	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-4.00	-0.001578	±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	20	-2.90	-0.001144	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	30	-5.00	-0.001972	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	40	-0.80	-0.000316	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	50	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	0.20	0.000078	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	2.30	0.000898	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	0.50	0.000195	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	-1.20	-0.000469	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	20	0.80	0.000313	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	30	0.10	0.000039	±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	-1.40	-0.000547	±2.5	PASS

The End



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