



Appendix B

E-UTRA Band 7



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8.2. FREQUENCY VS TEMPERATURE55



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1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	37775	1RB#0	23.70	18.20	33.00	PASS
Band7	5MHz	QPSK	37775	1RB#13	23.51	18.01	33.00	PASS
Band7	5MHz	QPSK	37775	1RB#24	23.33	17.83	33.00	PASS
Band7	5MHz	QPSK	37775	12RB#0	22.74	17.24	33.00	PASS
Band7	5MHz	QPSK	37775	12RB#6	22.81	17.31	33.00	PASS
Band7	5MHz	QPSK	37775	12RB#13	22.69	17.19	33.00	PASS
Band7	5MHz	QPSK	37775	25RB#0	22.79	17.29	33.00	PASS
Band7	5MHz	QPSK	38000	1RB#0	23.57	18.07	33.00	PASS
Band7	5MHz	QPSK	38000	1RB#13	23.84	18.34	33.00	PASS
Band7	5MHz	QPSK	38000	1RB#24	23.75	18.25	33.00	PASS
Band7	5MHz	QPSK	38000	12RB#0	22.96	17.46	33.00	PASS
Band7	5MHz	QPSK	38000	12RB#6	23.00	17.50	33.00	PASS
Band7	5MHz	QPSK	38000	12RB#13	22.85	17.35	33.00	PASS
Band7	5MHz	QPSK	38000	25RB#0	23.00	17.50	33.00	PASS
Band7	5MHz	QPSK	38225	1RB#0	23.82	18.32	33.00	PASS
Band7	5MHz	QPSK	38225	1RB#13	23.72	18.22	33.00	PASS
Band7	5MHz	QPSK	38225	1RB#24	23.38	17.88	33.00	PASS
Band7	5MHz	QPSK	38225	12RB#0	23.19	17.69	33.00	PASS
Band7	5MHz	QPSK	38225	12RB#6	22.97	17.47	33.00	PASS
Band7	5MHz	QPSK	38225	12RB#13	23.13	17.63	33.00	PASS
Band7	5MHz	QPSK	38225	25RB#0	22.97	17.47	33.00	PASS
Band7	5MHz	16QAM	37775	1RB#0	22.55	17.05	33.00	PASS
Band7	5MHz	16QAM	37775	1RB#13	22.77	17.27	33.00	PASS
Band7	5MHz	16QAM	37775	1RB#24	22.41	16.91	33.00	PASS
Band7	5MHz	16QAM	37775	12RB#0	21.98	16.48	33.00	PASS
Band7	5MHz	16QAM	37775	12RB#6	22.01	16.51	33.00	PASS



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Band7	5MHz	16QAM	37775	12RB#13	21.65	16.15	33.00	PASS
Band7	5MHz	16QAM	37775	25RB#0	21.68	16.18	33.00	PASS
Band7	5MHz	16QAM	38000	1RB#0	23.16	17.66	33.00	PASS
Band7	5MHz	16QAM	38000	1RB#13	23.36	17.86	33.00	PASS
Band7	5MHz	16QAM	38000	1RB#24	22.77	17.27	33.00	PASS
Band7	5MHz	16QAM	38000	12RB#0	22.06	16.56	33.00	PASS
Band7	5MHz	16QAM	38000	12RB#6	21.94	16.44	33.00	PASS
Band7	5MHz	16QAM	38000	12RB#13	22.07	16.57	33.00	PASS
Band7	5MHz	16QAM	38000	25RB#0	21.94	16.44	33.00	PASS
Band7	5MHz	16QAM	38225	1RB#0	23.31	17.81	33.00	PASS
Band7	5MHz	16QAM	38225	1RB#13	23.16	17.66	33.00	PASS
Band7	5MHz	16QAM	38225	1RB#24	22.37	16.87	33.00	PASS
Band7	5MHz	16QAM	38225	12RB#0	22.36	16.86	33.00	PASS
Band7	5MHz	16QAM	38225	12RB#6	22.08	16.58	33.00	PASS
Band7	5MHz	16QAM	38225	12RB#13	21.89	16.39	33.00	PASS
Band7	5MHz	16QAM	38225	25RB#0	22.03	16.53	33.00	PASS
Band7	10MHz	QPSK	37800	1RB#0	23.72	18.22	33.00	PASS
Band7	10MHz	QPSK	37800	1RB#25	23.43	17.93	33.00	PASS
Band7	10MHz	QPSK	37800	1RB#49	23.80	18.30	33.00	PASS
Band7	10MHz	QPSK	37800	25RB#0	22.88	17.38	33.00	PASS
Band7	10MHz	QPSK	37800	25RB#13	22.78	17.28	33.00	PASS
Band7	10MHz	QPSK	37800	25RB#25	22.81	17.31	33.00	PASS
Band7	10MHz	QPSK	37800	50RB#0	22.79	17.29	33.00	PASS
Band7	10MHz	QPSK	38000	1RB#0	23.84	18.34	33.00	PASS
Band7	10MHz	QPSK	38000	1RB#25	23.72	18.22	33.00	PASS
Band7	10MHz	QPSK	38000	1RB#49	23.84	18.34	33.00	PASS
Band7	10MHz	QPSK	38000	25RB#0	23.05	17.55	33.00	PASS
Band7	10MHz	QPSK	38000	25RB#13	23.03	17.53	33.00	PASS
Band7	10MHz	QPSK	38000	25RB#25	22.94	17.44	33.00	PASS
Band7	10MHz	QPSK	38000	50RB#0	23.02	17.52	33.00	PASS
Band7	10MHz	QPSK	38200	1RB#0	23.72	18.22	33.00	PASS
Band7	10MHz	QPSK	38200	1RB#25	23.87	18.37	33.00	PASS
Band7	10MHz	QPSK	38200	1RB#49	22.83	17.33	33.00	PASS



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Band7	10MHz	QPSK	38200	25RB#0	23.27	17.77	33.00	PASS
Band7	10MHz	QPSK	38200	25RB#13	23.01	17.51	33.00	PASS
Band7	10MHz	QPSK	38200	25RB#25	23.12	17.62	33.00	PASS
Band7	10MHz	QPSK	38200	50RB#0	23.09	17.59	33.00	PASS
Band7	10MHz	16QAM	37800	1RB#0	22.63	17.13	33.00	PASS
Band7	10MHz	16QAM	37800	1RB#25	22.46	16.96	33.00	PASS
Band7	10MHz	16QAM	37800	1RB#49	22.62	17.12	33.00	PASS
Band7	10MHz	16QAM	37800	25RB#0	21.97	16.47	33.00	PASS
Band7	10MHz	16QAM	37800	25RB#13	21.97	16.47	33.00	PASS
Band7	10MHz	16QAM	37800	25RB#25	21.79	16.29	33.00	PASS
Band7	10MHz	16QAM	37800	27RB#0	21.70	16.20	33.00	PASS
Band7	10MHz	16QAM	38000	1RB#0	22.80	17.30	33.00	PASS
Band7	10MHz	16QAM	38000	1RB#25	23.18	17.68	33.00	PASS
Band7	10MHz	16QAM	38000	1RB#49	23.04	17.54	33.00	PASS
Band7	10MHz	16QAM	38000	25RB#0	21.96	16.46	33.00	PASS
Band7	10MHz	16QAM	38000	25RB#13	22.02	16.52	33.00	PASS
Band7	10MHz	16QAM	38000	25RB#25	21.87	16.37	33.00	PASS
Band7	10MHz	16QAM	38000	27RB#0	21.96	16.46	33.00	PASS
Band7	10MHz	16QAM	38200	1RB#0	23.10	17.60	33.00	PASS
Band7	10MHz	16QAM	38200	1RB#25	23.19	17.69	33.00	PASS
Band7	10MHz	16QAM	38200	1RB#49	21.92	16.42	33.00	PASS
Band7	10MHz	16QAM	38200	25RB#0	22.30	16.80	33.00	PASS
Band7	10MHz	16QAM	38200	25RB#13	22.13	16.63	33.00	PASS
Band7	10MHz	16QAM	38200	25RB#25	22.16	16.66	33.00	PASS
Band7	10MHz	16QAM	38200	27RB#0	22.04	16.54	33.00	PASS
Band7	15MHz	QPSK	37825	1RB#0	23.87	18.37	33.00	PASS
Band7	15MHz	QPSK	37825	1RB#38	23.84	18.34	33.00	PASS
Band7	15MHz	QPSK	37825	1RB#74	23.81	18.31	33.00	PASS
Band7	15MHz	QPSK	37825	36RB#0	22.82	17.32	33.00	PASS
Band7	15MHz	QPSK	37825	36RB#18	22.78	17.28	33.00	PASS
Band7	15MHz	QPSK	37825	36RB#39	22.92	17.42	33.00	PASS
Band7	15MHz	QPSK	37825	75RB#0	22.77	17.27	33.00	PASS
Band7	15MHz	QPSK	38000	1RB#0	23.45	17.95	33.00	PASS



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Band7	15MHz	QPSK	38000	1RB#38	23.72	18.22	33.00	PASS
Band7	15MHz	QPSK	38000	1RB#74	23.69	18.19	33.00	PASS
Band7	15MHz	QPSK	38000	36RB#18	22.93	17.43	33.00	PASS
Band7	15MHz	QPSK	38000	36RB#39	22.97	17.47	33.00	PASS
Band7	15MHz	QPSK	38000	36RB#0	22.89	17.39	33.00	PASS
Band7	15MHz	QPSK	38000	75RB#0	22.99	17.49	33.00	PASS
Band7	15MHz	QPSK	38175	1RB#0	23.75	18.25	33.00	PASS
Band7	15MHz	QPSK	38175	1RB#38	23.84	18.34	33.00	PASS
Band7	15MHz	QPSK	38175	1RB#74	23.23	17.73	33.00	PASS
Band7	15MHz	QPSK	38175	36RB#0	22.96	17.46	33.00	PASS
Band7	15MHz	QPSK	38175	36RB#18	23.12	17.62	33.00	PASS
Band7	15MHz	QPSK	38175	36RB#39	23.03	17.53	33.00	PASS
Band7	15MHz	QPSK	38175	75RB#0	23.06	17.56	33.00	PASS
Band7	15MHz	16QAM	37825	1RB#0	22.62	17.12	33.00	PASS
Band7	15MHz	16QAM	37825	1RB#38	22.45	16.95	33.00	PASS
Band7	15MHz	16QAM	37825	1RB#74	22.60	17.10	33.00	PASS
Band7	15MHz	16QAM	37825	25RB#0	21.95	16.45	33.00	PASS
Band7	15MHz	16QAM	37825	25RB#13	21.93	16.43	33.00	PASS
Band7	15MHz	16QAM	37825	25RB#25	21.76	16.26	33.00	PASS
Band7	15MHz	16QAM	37825	27RB#0	21.73	16.23	33.00	PASS
Band7	15MHz	16QAM	38000	1RB#0	22.77	17.27	33.00	PASS
Band7	15MHz	16QAM	38000	1RB#38	23.17	17.67	33.00	PASS
Band7	15MHz	16QAM	38000	1RB#74	23.00	17.50	33.00	PASS
Band7	15MHz	16QAM	38000	25RB#0	21.93	16.43	33.00	PASS
Band7	15MHz	16QAM	38000	25RB#13	21.98	16.48	33.00	PASS
Band7	15MHz	16QAM	38000	25RB#25	21.84	16.34	33.00	PASS
Band7	15MHz	16QAM	38000	27RB#0	21.83	16.33	33.00	PASS
Band7	15MHz	16QAM	38175	1RB#0	23.06	17.56	33.00	PASS
Band7	15MHz	16QAM	38175	1RB#38	23.16	17.66	33.00	PASS
Band7	15MHz	16QAM	38175	1RB#74	21.90	16.40	33.00	PASS
Band7	15MHz	16QAM	38175	25RB#0	22.28	16.78	33.00	PASS
Band7	15MHz	16QAM	38175	25RB#13	22.11	16.61	33.00	PASS
Band7	15MHz	16QAM	38175	25RB#25	22.15	16.65	33.00	PASS



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Band7	15MHz	16QAM	38175	27RB#0	22.11	16.61	33.00	PASS
Band7	20MHz	QPSK	37850	1RB#0	23.65	18.15	33.00	PASS
Band7	20MHz	QPSK	37850	1RB#50	23.69	18.19	33.00	PASS
Band7	20MHz	QPSK	37850	1RB#99	23.55	18.05	33.00	PASS
Band7	20MHz	QPSK	37850	50RB#0	22.82	17.32	33.00	PASS
Band7	20MHz	QPSK	37850	50RB#25	22.85	17.35	33.00	PASS
Band7	20MHz	QPSK	37850	50RB#50	22.75	17.25	33.00	PASS
Band7	20MHz	QPSK	37850	100RB#0	22.81	17.31	33.00	PASS
Band7	20MHz	QPSK	38000	1RB#0	23.43	17.93	33.00	PASS
Band7	20MHz	QPSK	38000	1RB#50	23.90	18.40	33.00	PASS
Band7	20MHz	QPSK	38000	1RB#99	23.65	18.15	33.00	PASS
Band7	20MHz	QPSK	38000	50RB#0	22.94	17.44	33.00	PASS
Band7	20MHz	QPSK	38000	50RB#25	22.97	17.47	33.00	PASS
Band7	20MHz	QPSK	38000	50RB#50	22.90	17.40	33.00	PASS
Band7	20MHz	QPSK	38000	100RB#0	23.02	17.52	33.00	PASS
Band7	20MHz	QPSK	38150	1RB#0	23.48	17.98	33.00	PASS
Band7	20MHz	QPSK	38150	1RB#50	23.84	18.34	33.00	PASS
Band7	20MHz	QPSK	38150	1RB#99	23.04	17.54	33.00	PASS
Band7	20MHz	QPSK	38150	50RB#0	23.32	17.82	33.00	PASS
Band7	20MHz	QPSK	38150	50RB#25	22.79	17.29	33.00	PASS
Band7	20MHz	QPSK	38150	50RB#50	22.99	17.49	33.00	PASS
Band7	20MHz	QPSK	38150	100RB#0	23.09	17.59	33.00	PASS
Band7	20MHz	16QAM	37850	1RB#0	22.63	17.13	33.00	PASS
Band7	20MHz	16QAM	37850	1RB#50	22.46	16.96	33.00	PASS
Band7	20MHz	16QAM	37850	1RB#99	22.61	17.11	33.00	PASS
Band7	20MHz	16QAM	37850	25RB#0	21.99	16.49	33.00	PASS
Band7	20MHz	16QAM	37850	25RB#13	21.97	16.47	33.00	PASS
Band7	20MHz	16QAM	37850	25RB#25	21.79	16.29	33.00	PASS
Band7	20MHz	16QAM	37850	27RB#0	21.74	16.24	33.00	PASS
Band7	20MHz	16QAM	38000	1RB#0	22.80	17.30	33.00	PASS
Band7	20MHz	16QAM	38000	1RB#50	23.21	17.71	33.00	PASS
Band7	20MHz	16QAM	38000	1RB#99	23.04	17.54	33.00	PASS
Band7	20MHz	16QAM	38000	25RB#0	21.95	16.45	33.00	PASS



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Band7	20MHz	16QAM	38000	25RB#13	22.01	16.51	33.00	PASS
Band7	20MHz	16QAM	38000	25RB#25	21.86	16.36	33.00	PASS
Band7	20MHz	16QAM	38000	27RB#0	21.84	16.34	33.00	PASS
Band7	20MHz	16QAM	38150	1RB#0	23.10	17.60	33.00	PASS
Band7	20MHz	16QAM	38150	1RB#50	23.18	17.68	33.00	PASS
Band7	20MHz	16QAM	38150	1RB#99	21.93	16.43	33.00	PASS
Band7	20MHz	16QAM	38150	25RB#0	22.31	16.81	33.00	PASS
Band7	20MHz	16QAM	38150	25RB#13	22.15	16.65	33.00	PASS
Band7	20MHz	16QAM	38150	25RB#25	22.19	16.69	33.00	PASS
Band7	20MHz	16QAM	38150	27RB#0	22.14	16.64	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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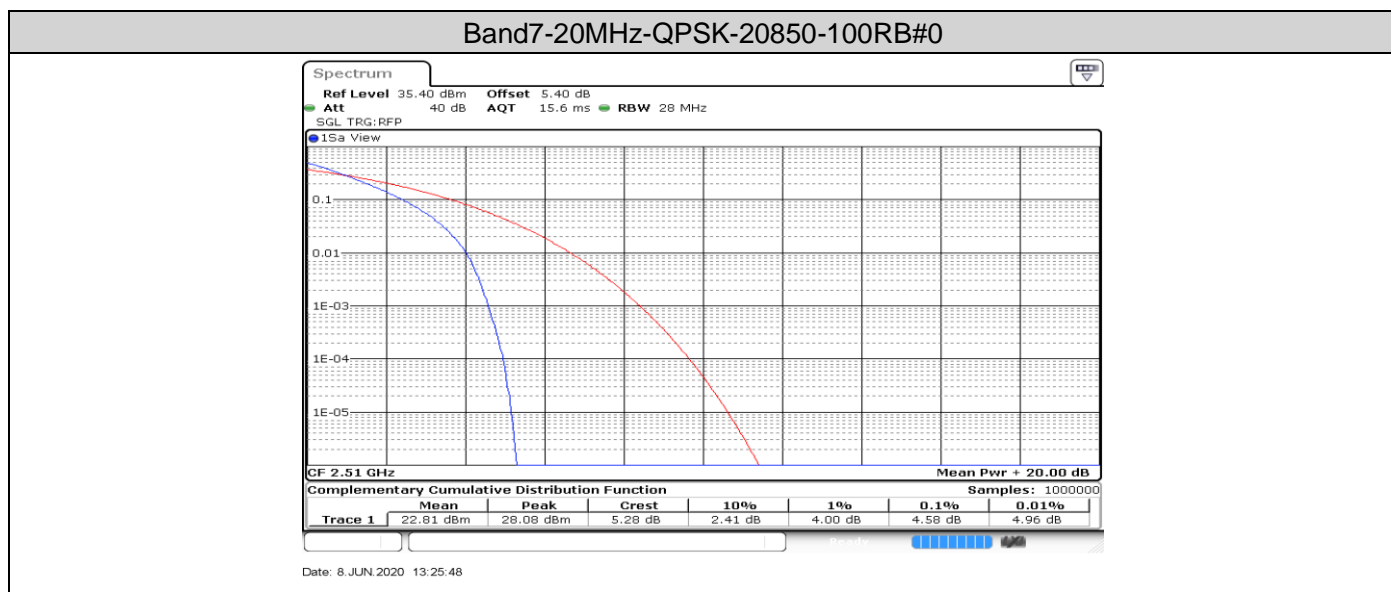


2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

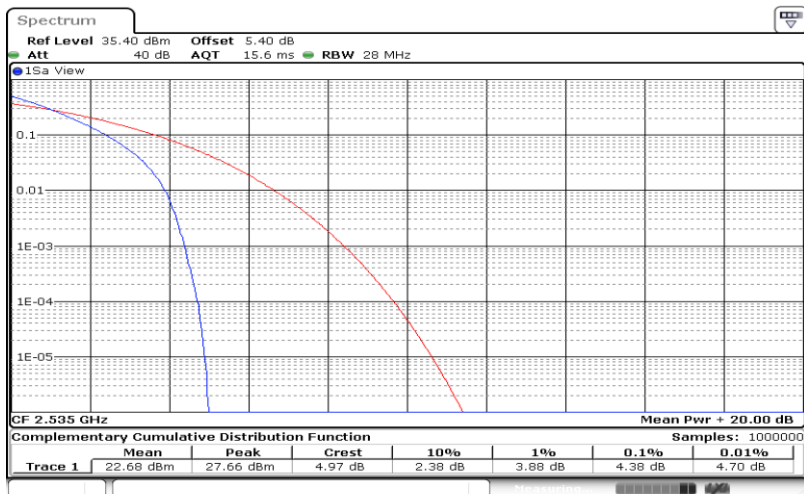
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	4.58	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	4.38	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.32	13	PASS
Band7	20MHz	16QAM	20850	27RB#0	5.10	13	PASS
Band7	20MHz	16QAM	21100	27RB#0	5.33	13	PASS
Band7	20MHz	16QAM	21350	27RB#0	5.42	13	PASS

2.2. Test Plots



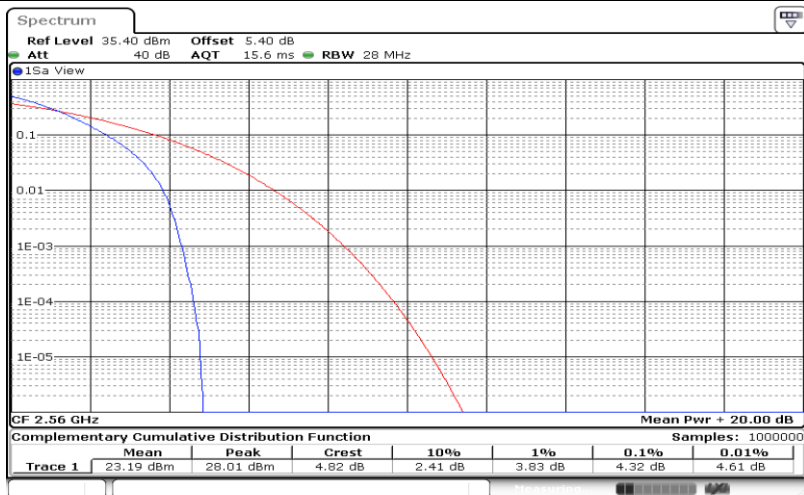


Band7-20MHz-QPSK-21100-100RB#0



Date: 8 JUN 2020 13:26:16

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



Date: 8 JUN 2020 13:26:41



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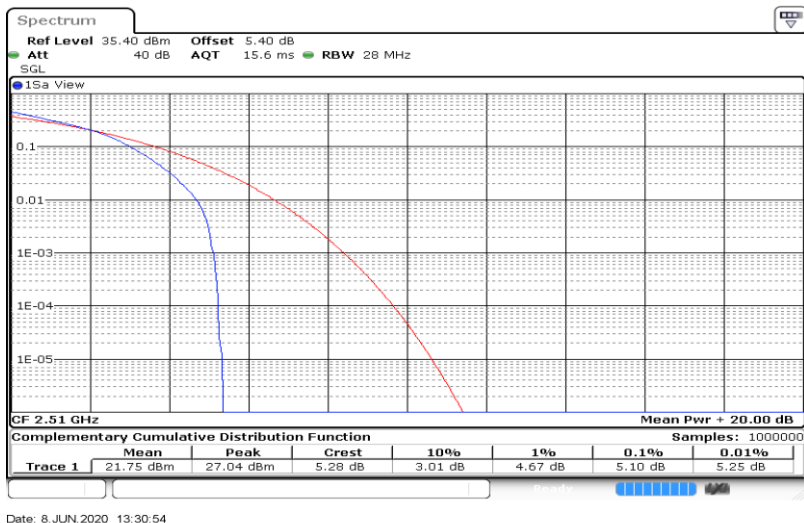
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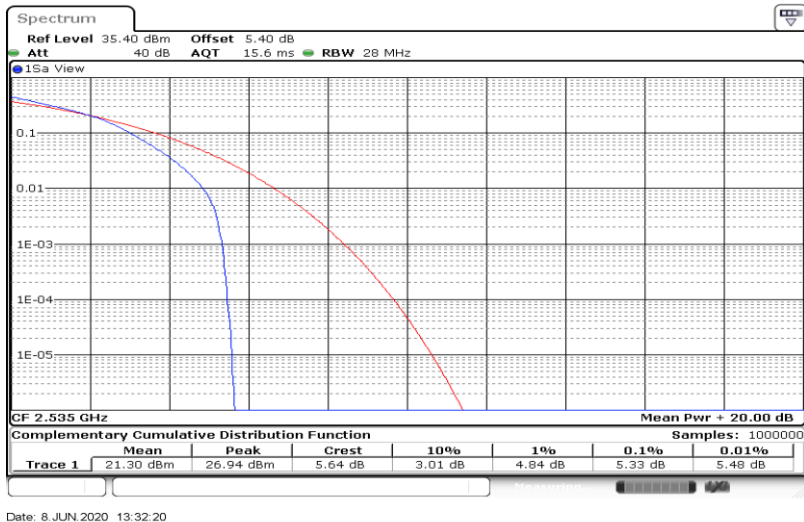
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Band7-20MHz-16QAM-20850-27RB#0

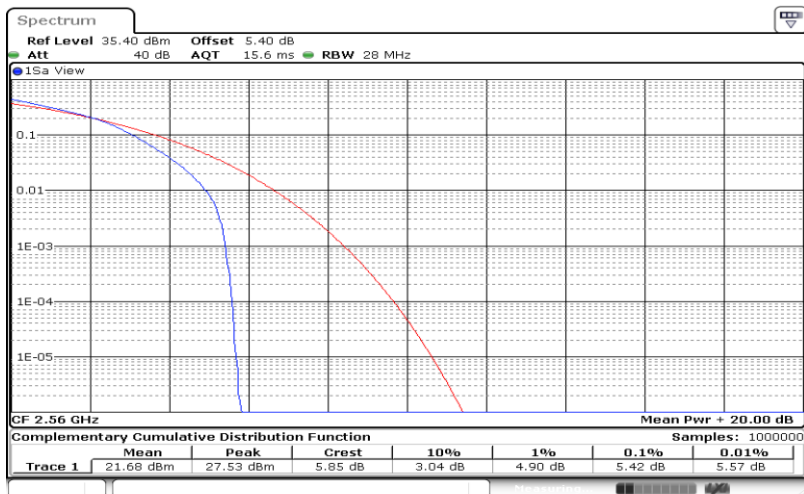


Band7-20MHz-16QAM-21100-27RB#0





Band7-20MHz-16QAM-21350-27RB#0



Date: 8 JUN 2020 13:32:49

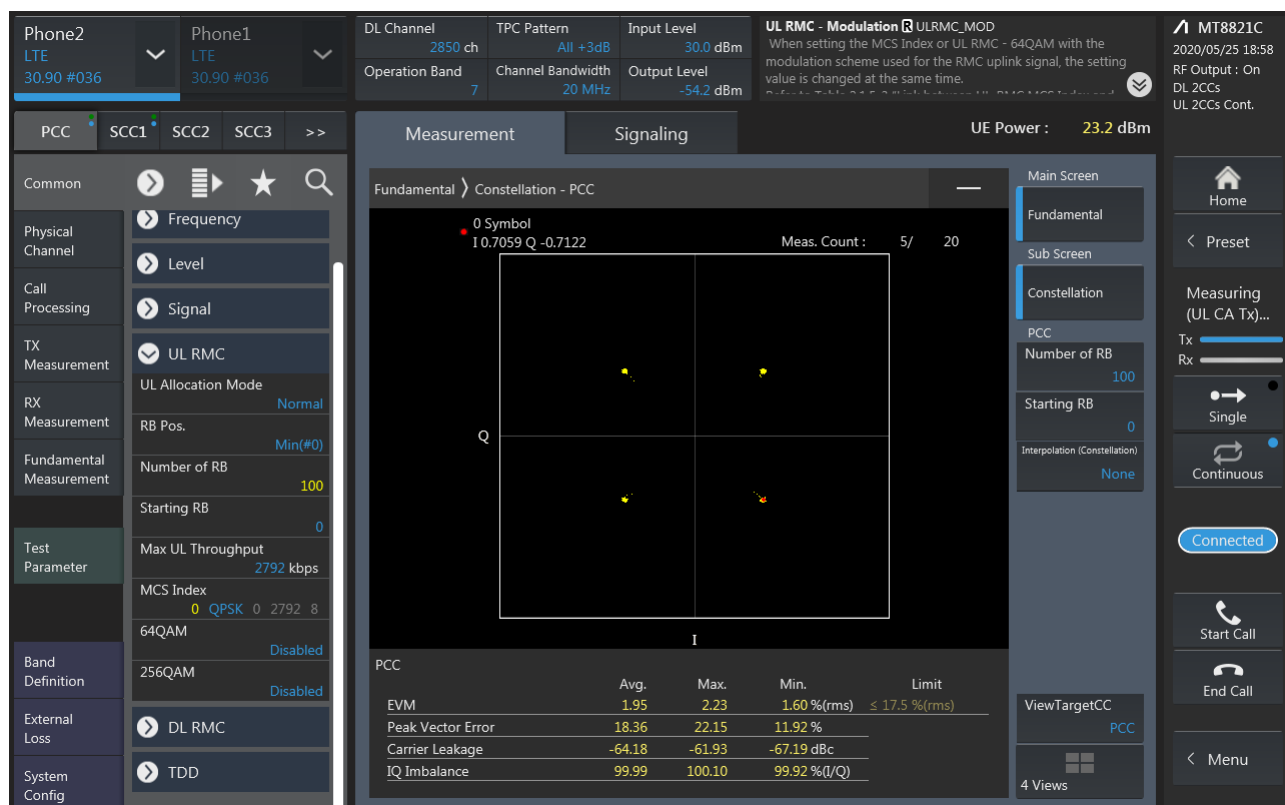


3. Modulation Characteristics

3.1. Test Band = LTE Band 7

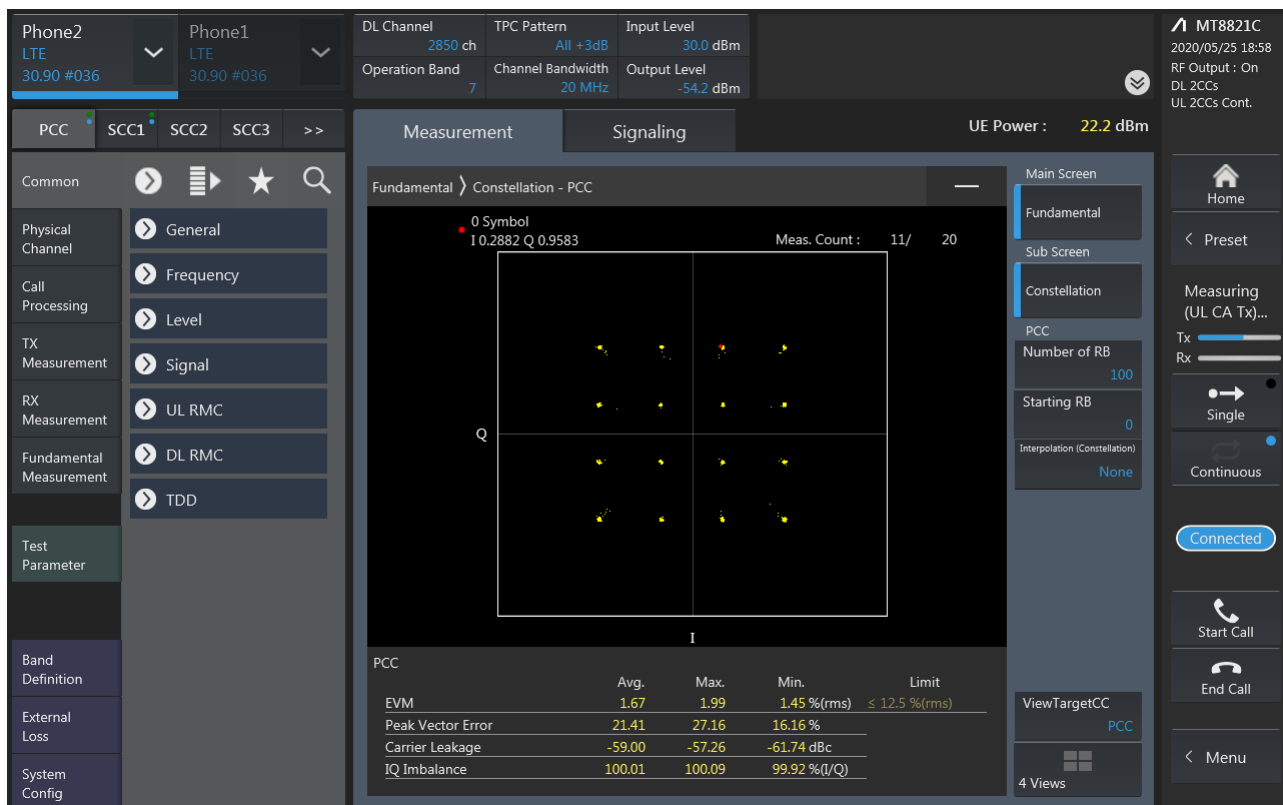
3.1.1. Test Mode = LTE /TM1 20MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 20MHz

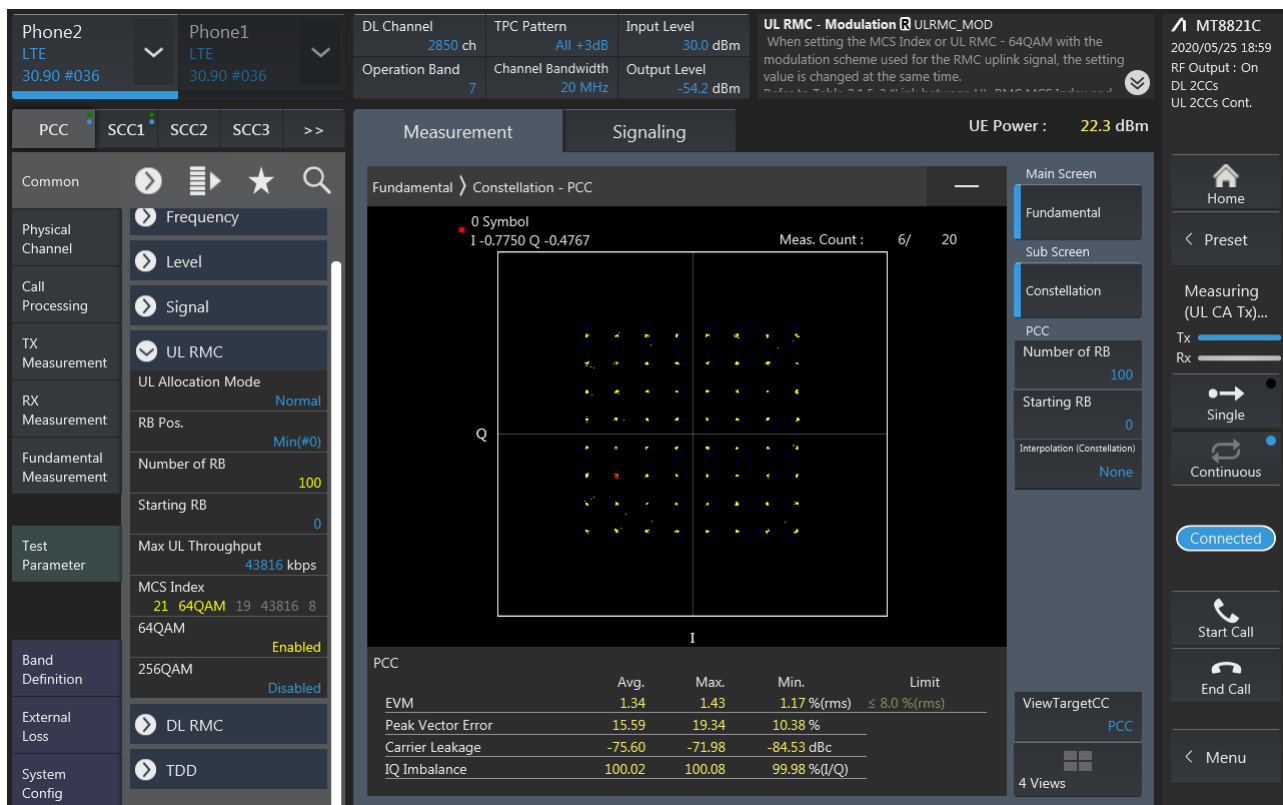
3.1.2.1. Test Channel = MCH





3.1.3. Test Mode = LTE /TM3 20MHz

3.1.3.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

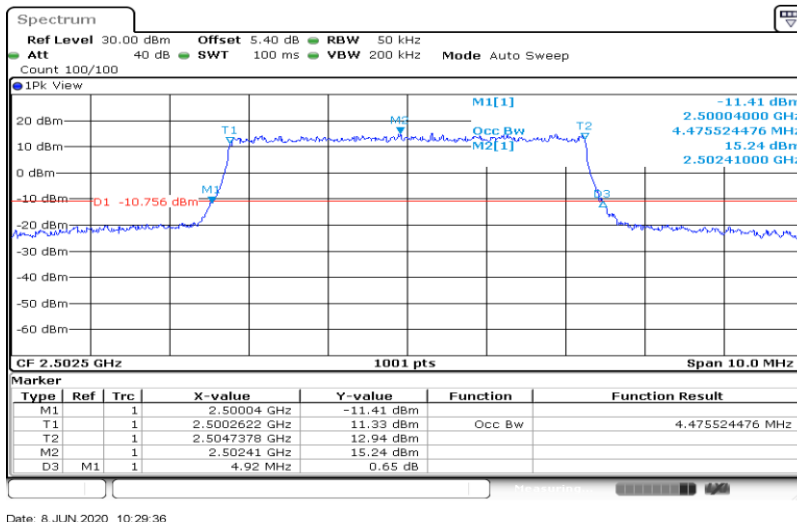
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.476	4.920	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.476	4.930	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.476	4.950	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.476	4.950	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.466	4.950	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.476	4.990	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.931	9.700	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.931	9.720	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.911	9.700	PASS
Band7	10MHz	16QAM	20800	27RB#0	4.875	5.800	PASS
Band7	10MHz	16QAM	21100	27RB#0	4.875	5.780	PASS
Band7	10MHz	16QAM	21400	27RB#0	4.955	6.080	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.457	14.790	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.457	14.700	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.427	14.700	PASS
Band7	15MHz	16QAM	20825	27RB#0	5.125	6.750	PASS
Band7	15MHz	16QAM	21100	27RB#0	5.095	6.090	PASS
Band7	15MHz	16QAM	21375	27RB#0	5.125	6.780	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.942	19.280	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.902	19.520	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.902	19.480	PASS
Band7	20MHz	16QAM	20850	27RB#0	5.155	6.400	PASS
Band7	20MHz	16QAM	21100	27RB#0	5.235	6.720	PASS
Band7	20MHz	16QAM	21350	27RB#0	5.235	6.800	PASS



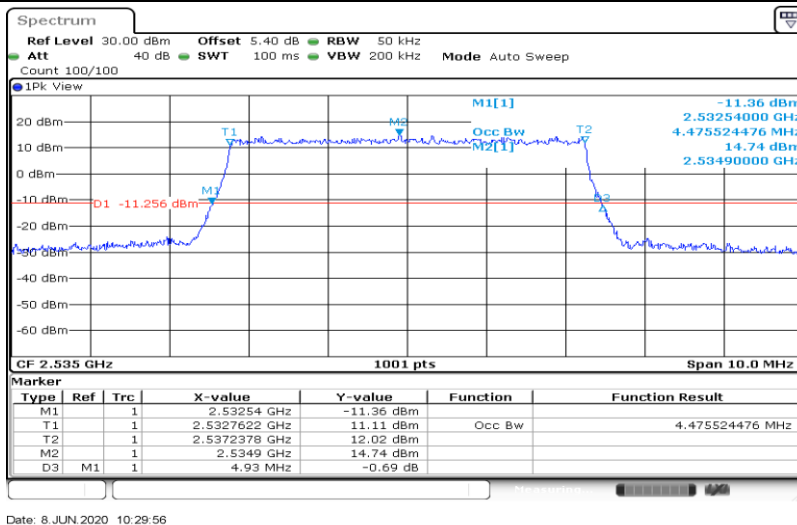


4.2. Test Plots

Band7-5MHz-QPSK-20775-25RB#0-4.476

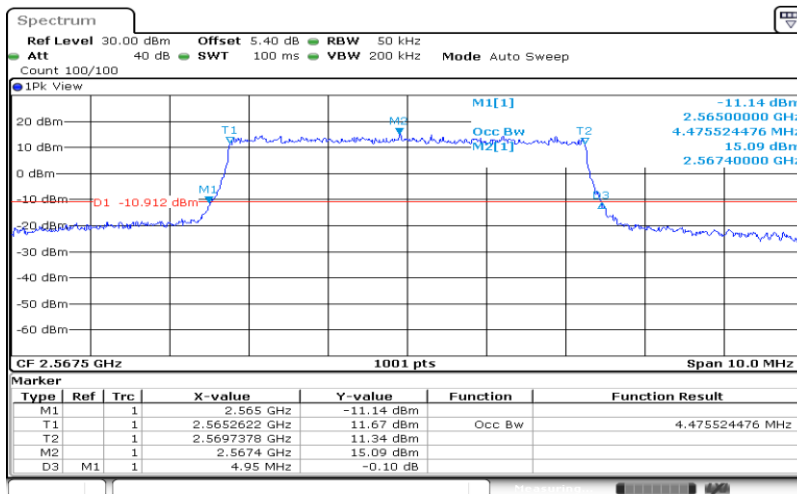


Band7-5MHz-QPSK-21100-25RB#0-4.476



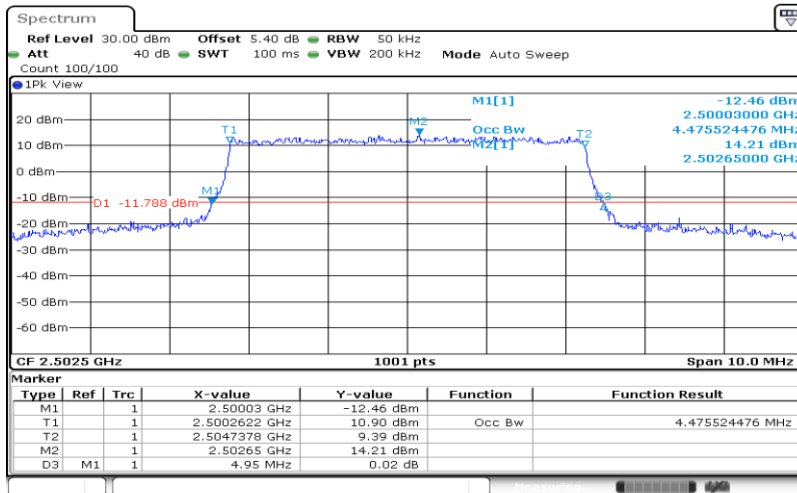


Band7-5MHz-QPSK-21425-25RB#0-4.476



Date: 8 JUN 2020 10:30:16

Band7-5MHz-16QAM-20775-25RB#0-4.476



Date: 8 JUN 2020 10:38:43

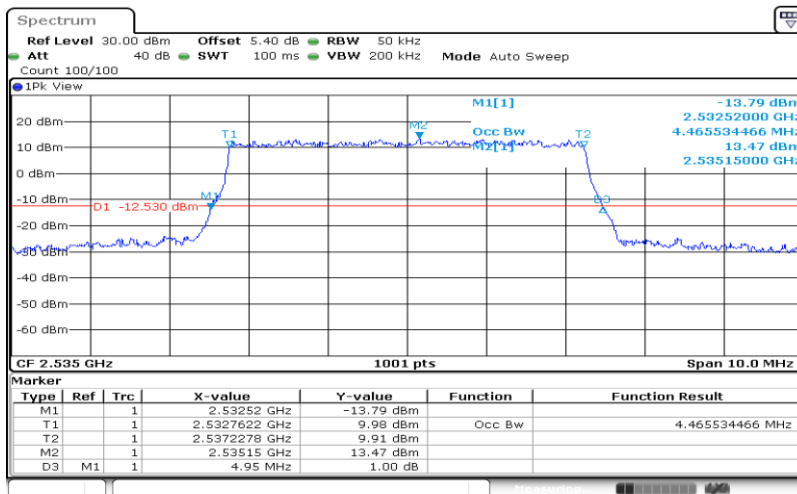


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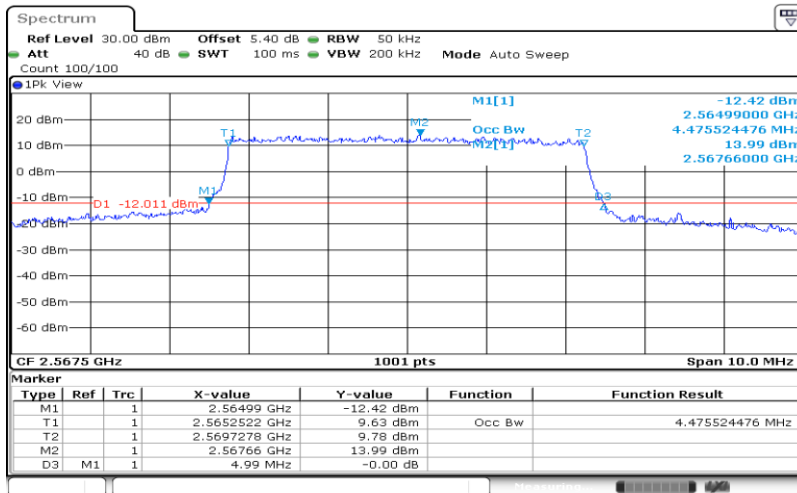


Band7-5MHz-16QAM-21100-25RB#0-4.466



Date: 8 JUN 2020 10:39:19

Band7-5MHz-16QAM-21425-25RB#0-4.476



Date: 8 JUN 2020 10:40:33



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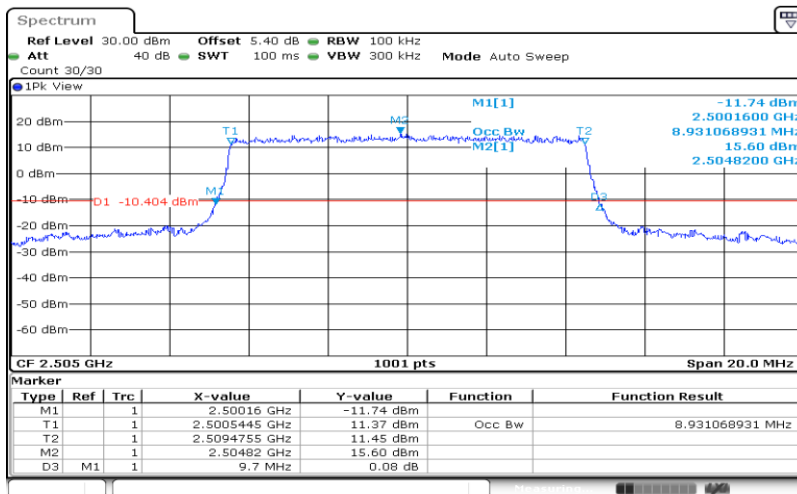
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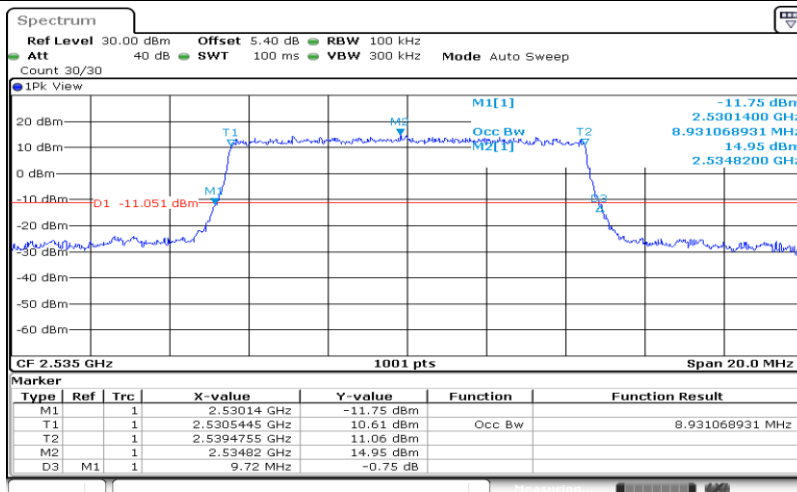


Band7-10MHz-QPSK-20800-50RB#0-8.931



Date: 8 JUN 2020 10:30:34

Band7-10MHz-QPSK-21100-50RB#0-8.931



Date: 8 JUN 2020 10:30:47



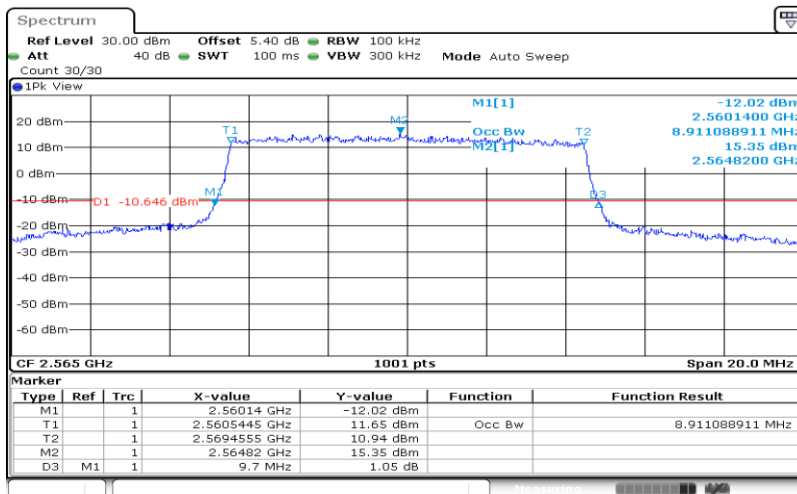
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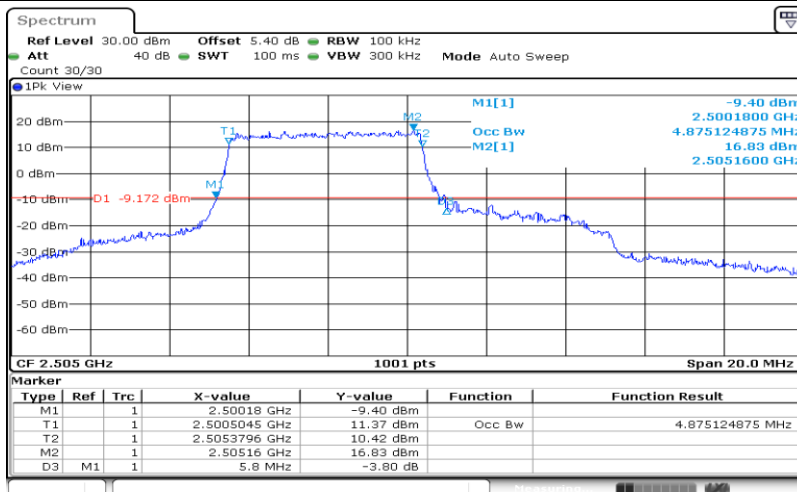


Band7-10MHz-QPSK-21400-50RB#0-8.911



Date: 8 JUN 2020 10:31:00

Band7-10MHz-16QAM-20800-27RB#0-4.875



Date: 8 JUN 2020 10:41:44



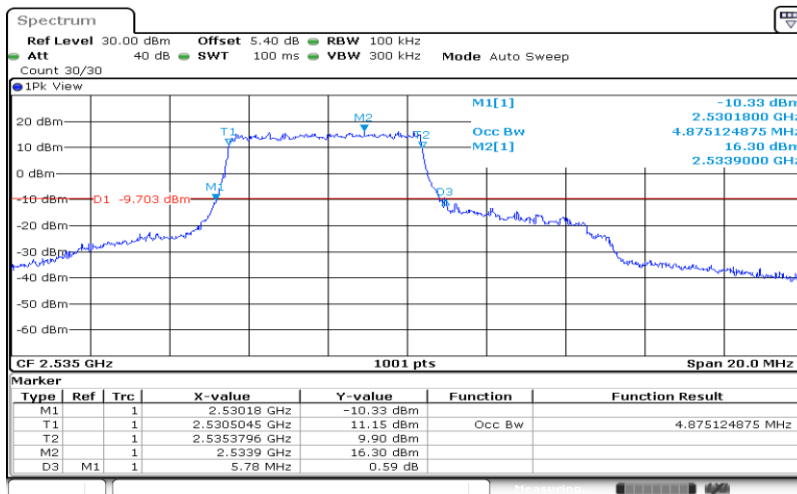
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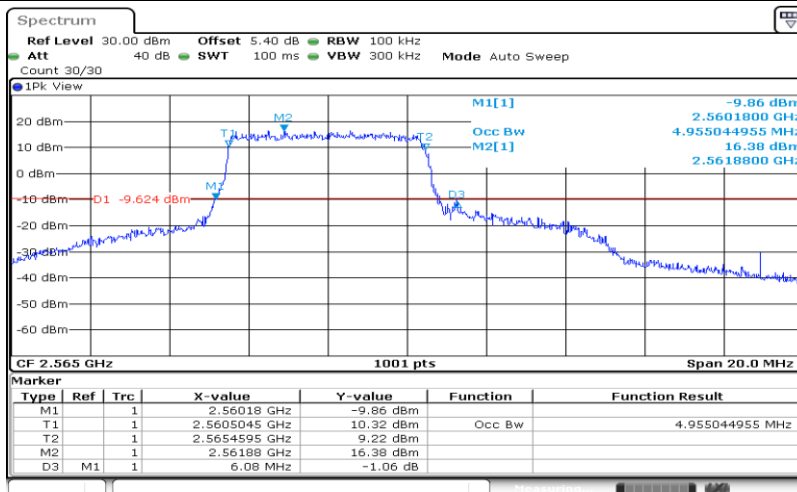


Band7-10MHz-16QAM-21100-27RB#0-4.875



Date: 8 JUN 2020 10:42:25

Band7-10MHz-16QAM-21400-27RB#0-4.955



Date: 8 JUN 2020 10:42:50



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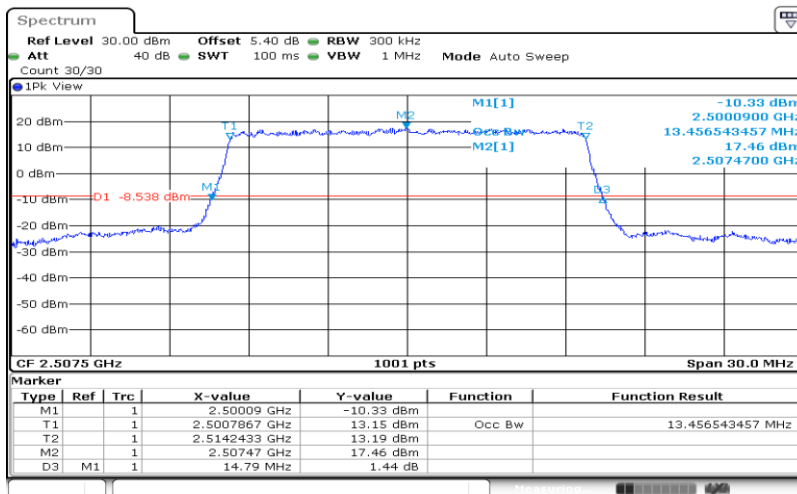
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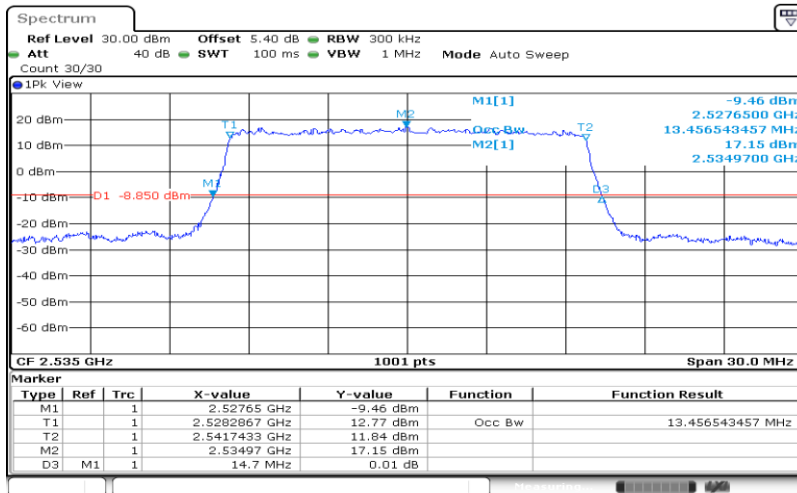


Band7-15MHz-QPSK-20825-75RB#0-13.457



Date: 8 JUN 2020 10:33:57

Band7-15MHz-QPSK-21100-75RB#0-13.457



Date: 8 JUN 2020 10:34:29



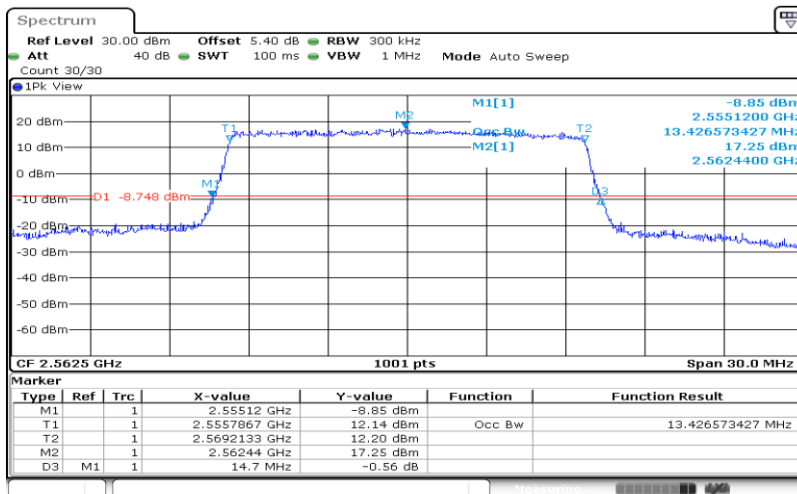
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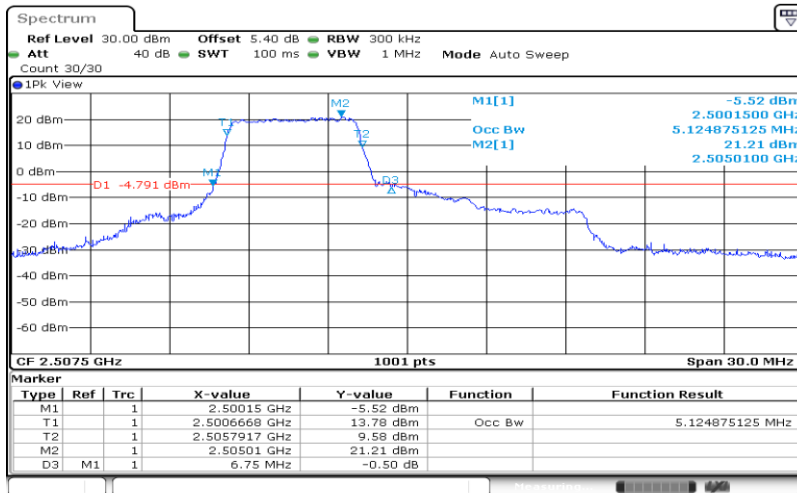


Band7-15MHz-QPSK-21375-75RB#0-13.427



Date: 8 JUN 2020 10:34:58

Band7-15MHz-16QAM-20825-27RB#0-5.125



Date: 8 JUN 2020 10:44:23



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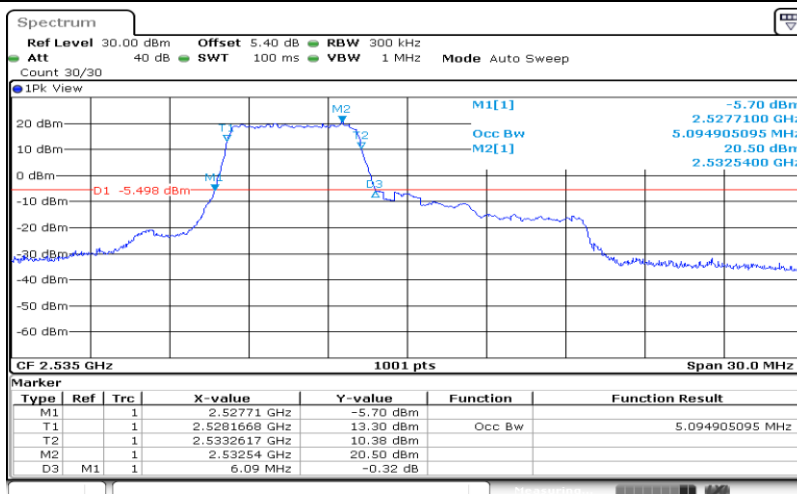
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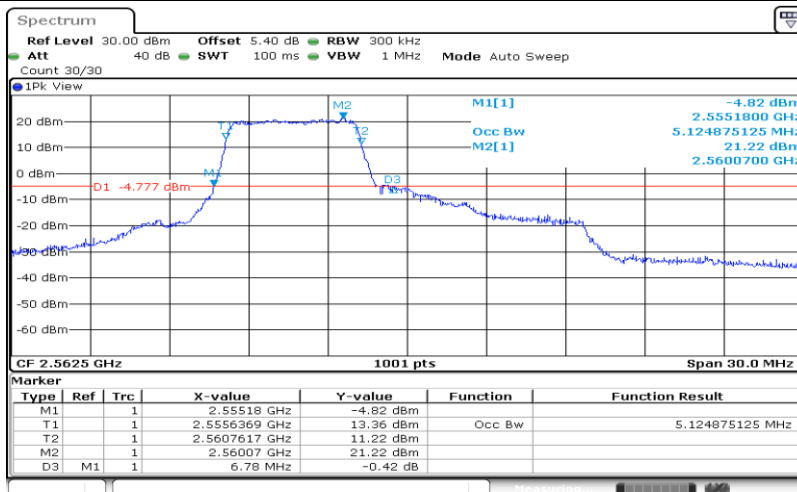


Band7-15MHz-16QAM-21100-27RB#0-5.095



Date: 8 JUN 2020 10:44:55

Band7-15MHz-16QAM-21375-27RB#0-5.125



Date: 8 JUN 2020 10:45:35



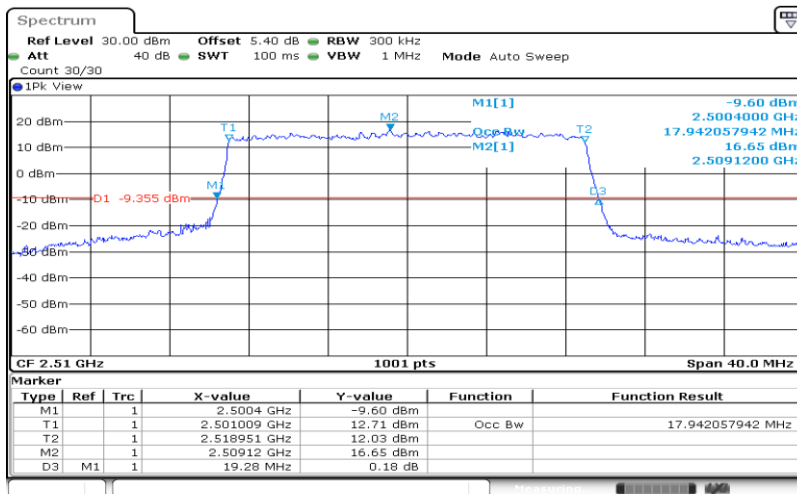
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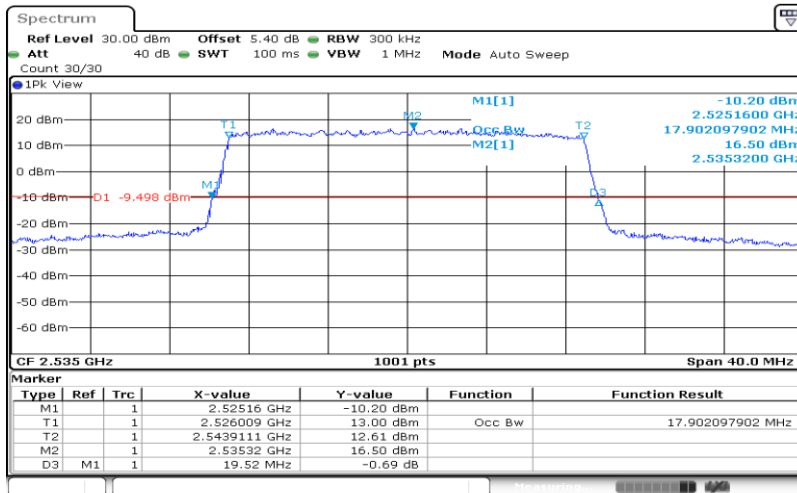


Band7-20MHz-QPSK-20850-100RB#0-17.942



Date: 8 JUN 2020 10:35:36

Band7-20MHz-QPSK-21100-100RB#0-17.902



Date: 8 JUN 2020 10:36:16



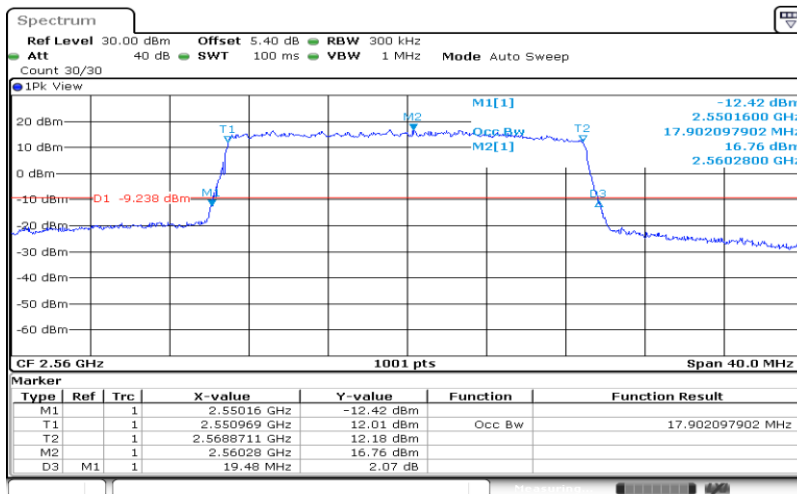
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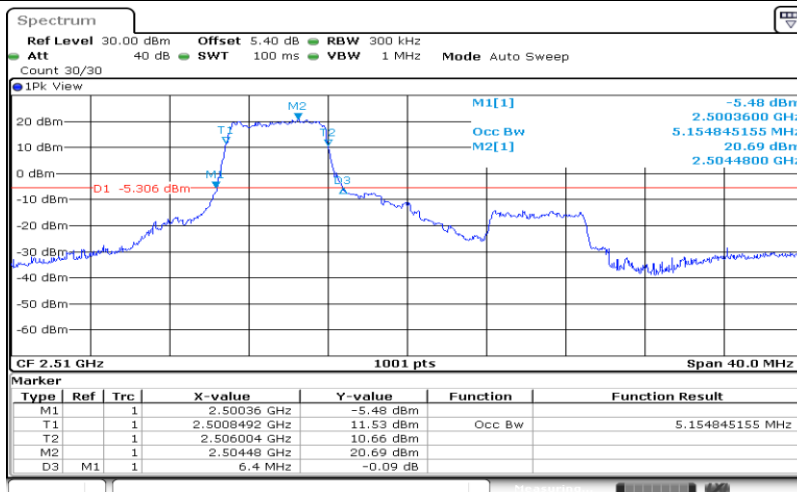


Band7-20MHz-QPSK-21350-100RB#0-17.902



Date: 8 JUN 2020 10:36:48

Band7-20MHz-16QAM-20850-27RB#0-5.155



Date: 8 JUN 2020 10:46:28



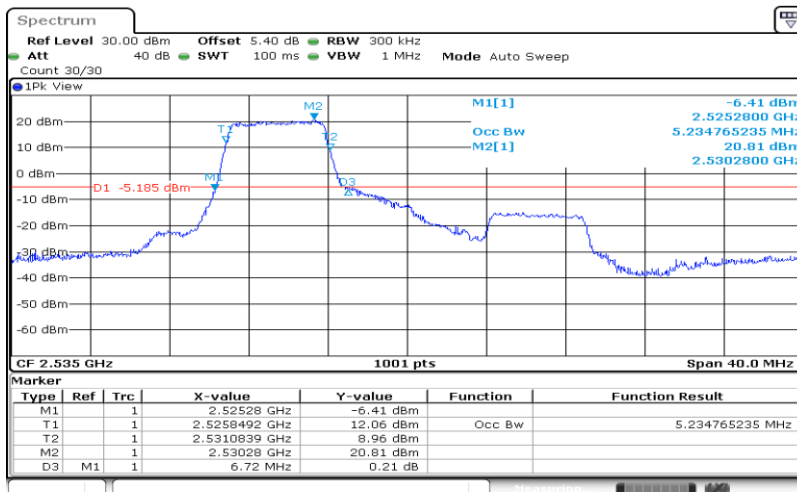
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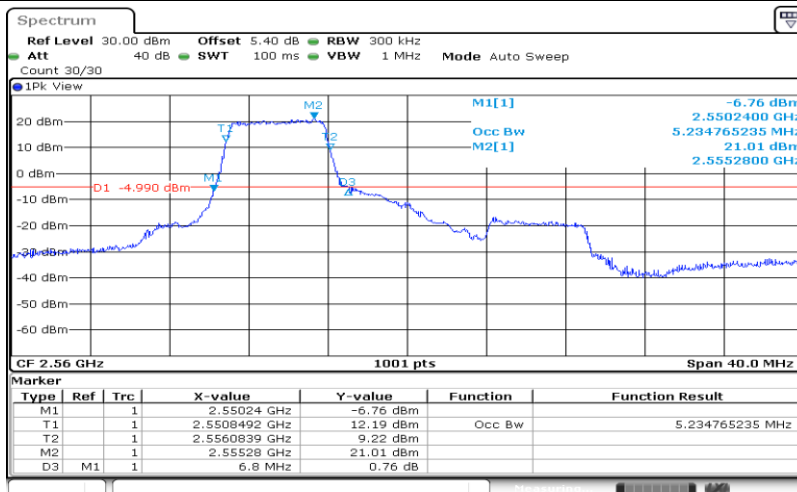


Band7-20MHz-16QAM-21100-27RB#0-5.235



Date: 8 JUN 2020 10:47:07

Band7-20MHz-16QAM-21350-27RB#0-5.235



Date: 8 JUN 2020 10:47:44



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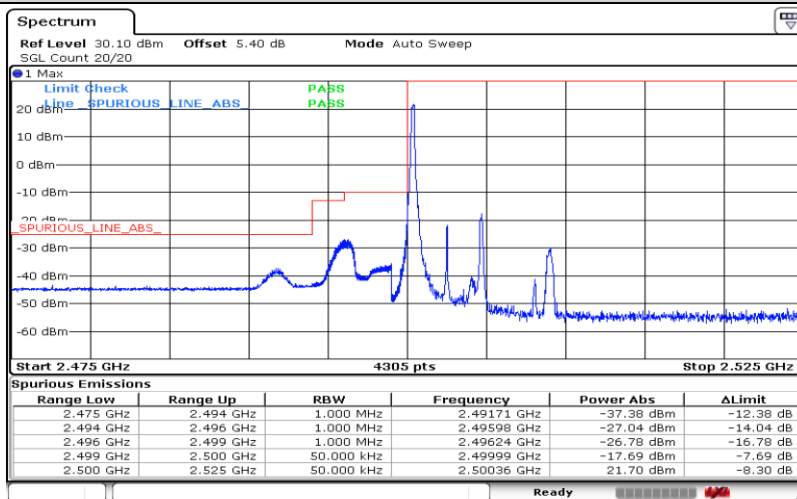
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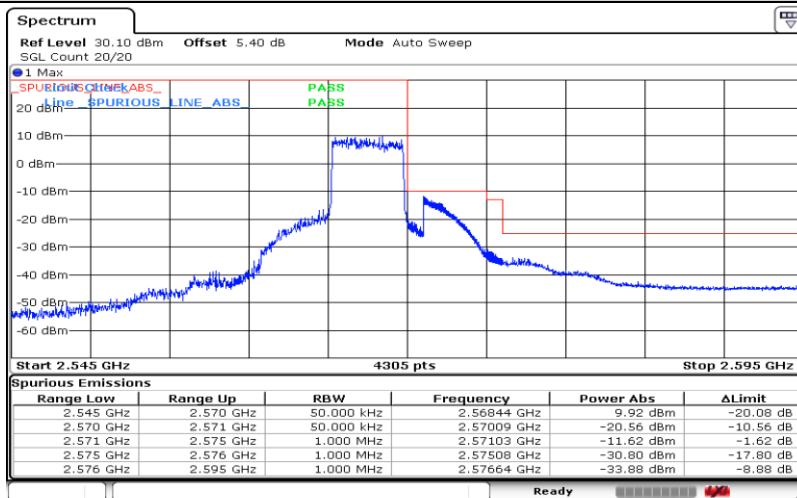
5.1. Test Plots

Band7-5MHz-QPSK-20775-1RB#0



Date: 8 JUN 2020 11:42:45

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



Date: 8 JUN 2020 11:55:56



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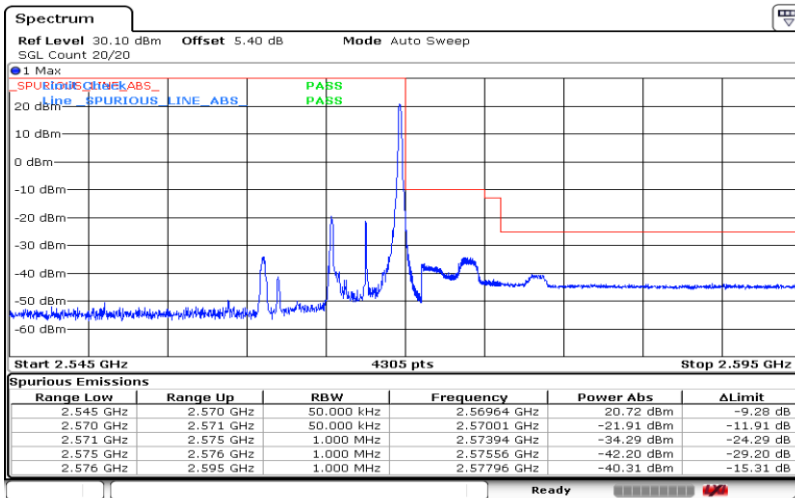
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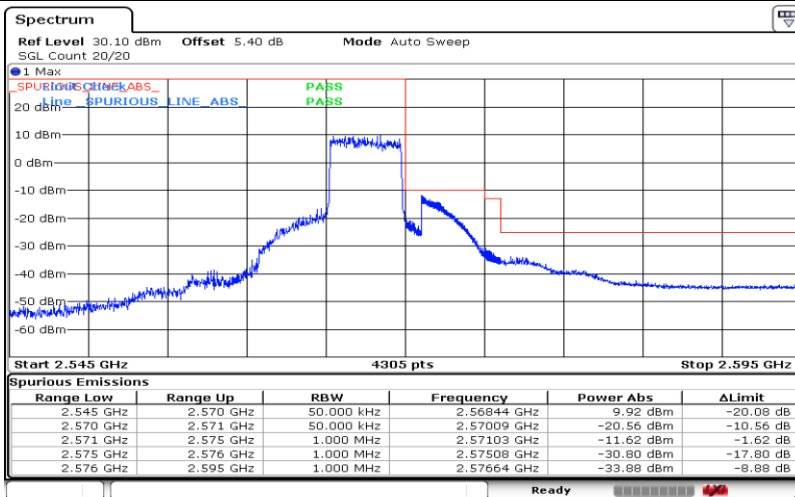


Band7-5MHz-QPSK-21425-1RB#24



Date: 8 JUN. 2020 11:55:34

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



Date: 8 JUN. 2020 11:55:56



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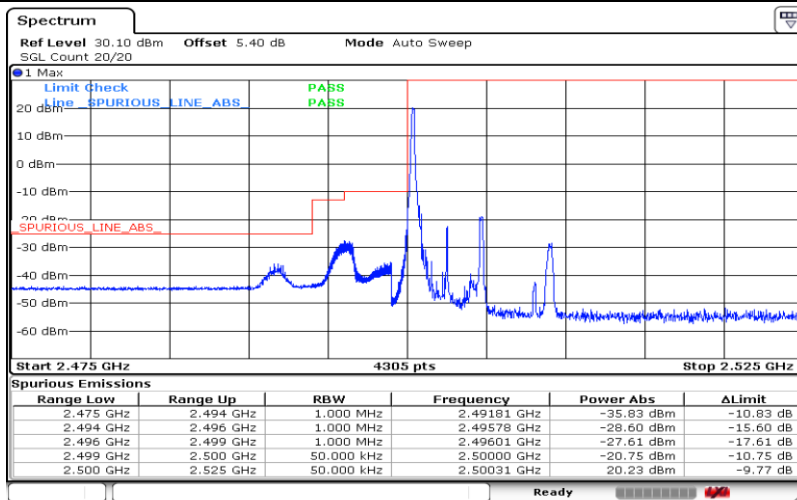
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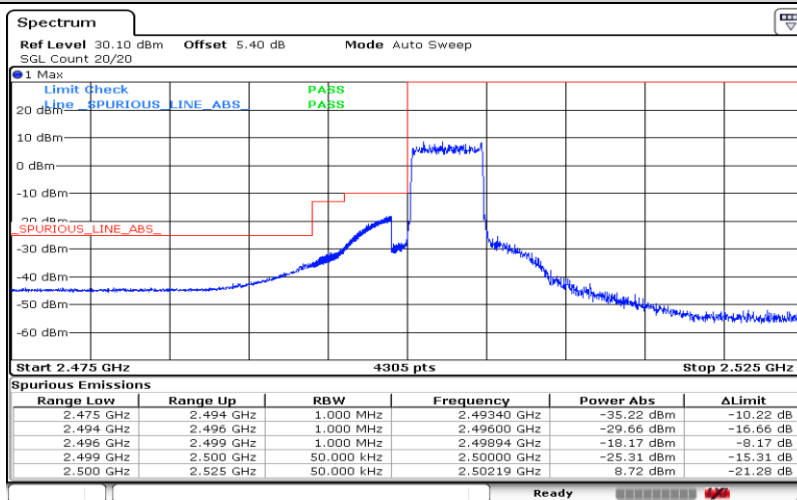


Band7-5MHz-16QAM-20775-1RB#0



Date: 8 JUN.2020 11:47:24

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



Date: 8 JUN.2020 11:47:01



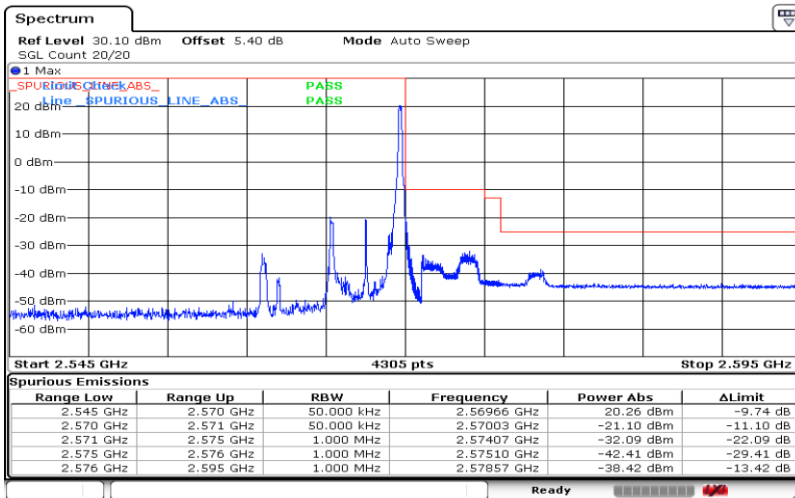
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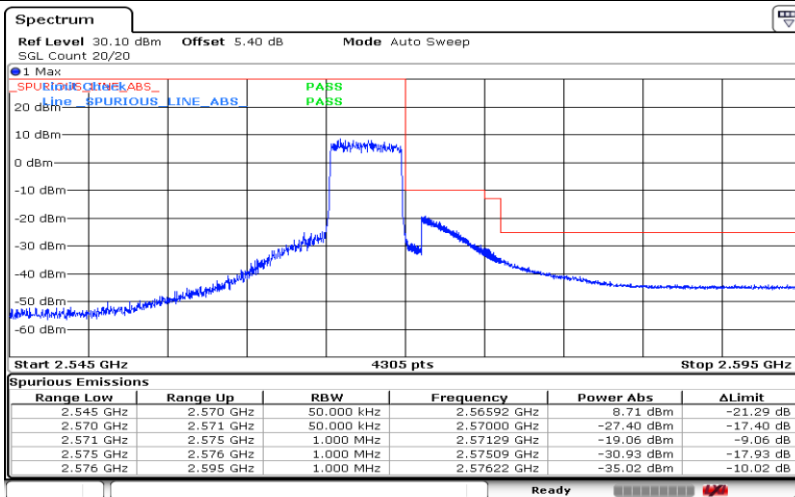


Band7-5MHz-16QAM-21425-1RB#24



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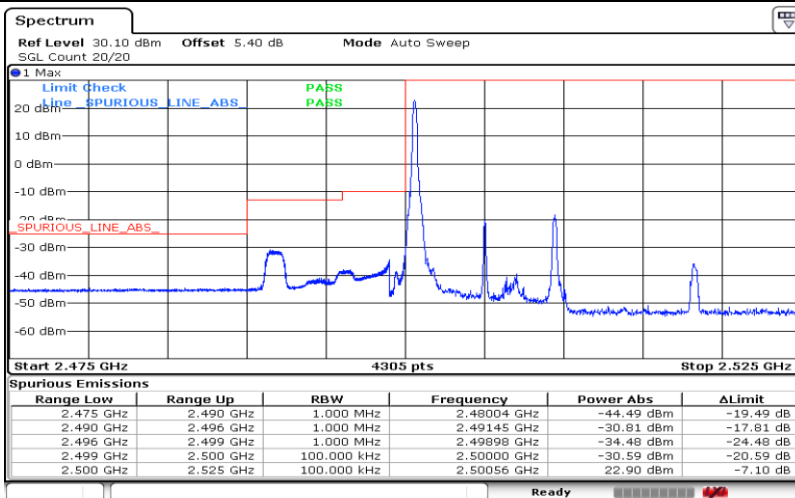
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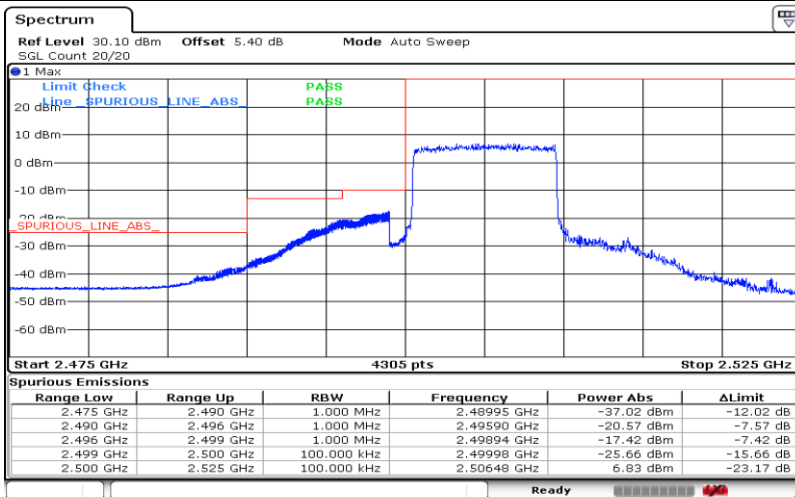


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Date: 8 JUN.2020 12:12:51

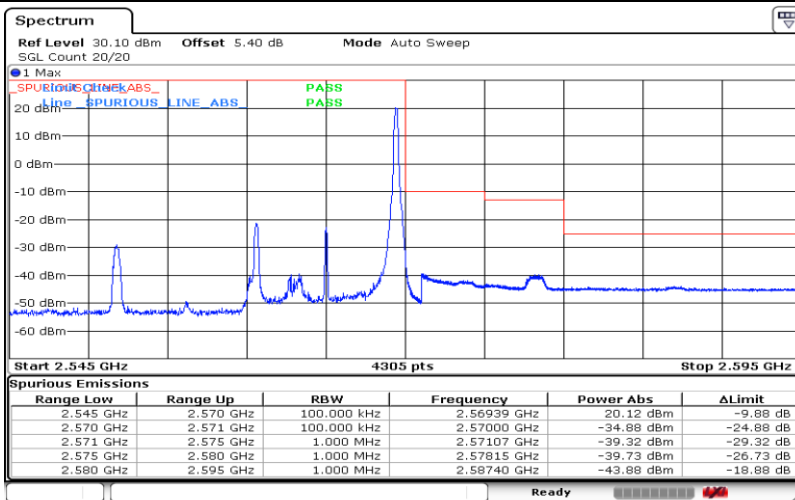
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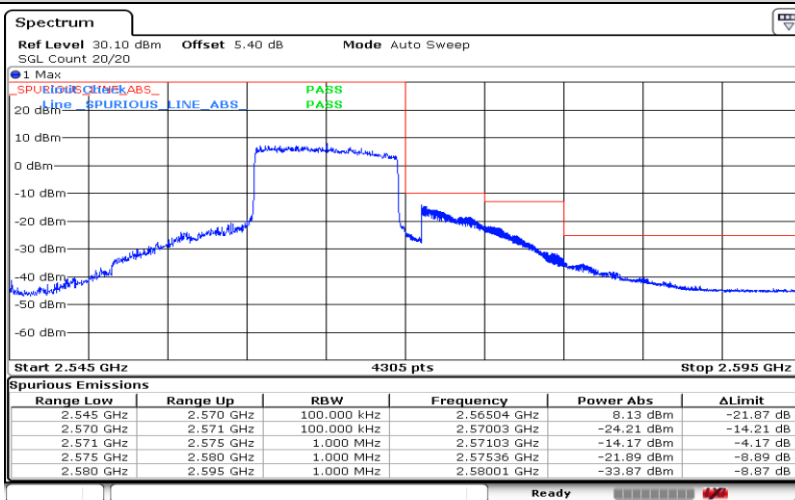


Band7-10MHz-QPSK-21400-1RB#49



Date: 8 JUN 2020 13:00:24

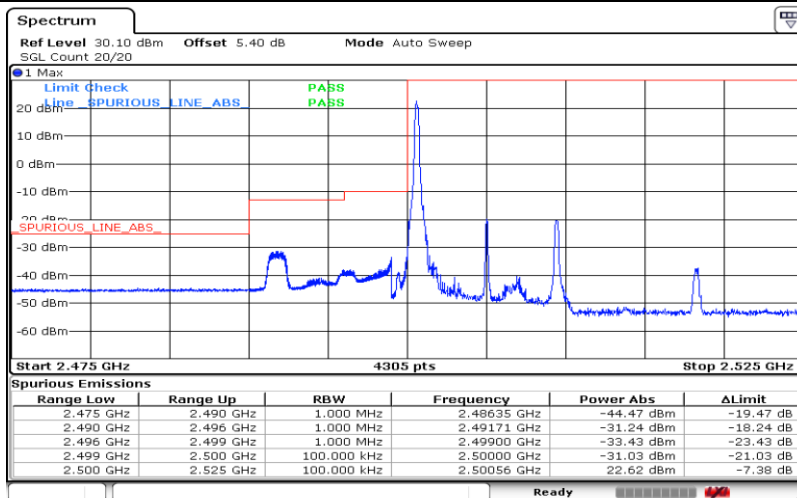
Band7-10MHz-QPSK-21400-50RB#0



Date: 8 JUN 2020 12:59:51

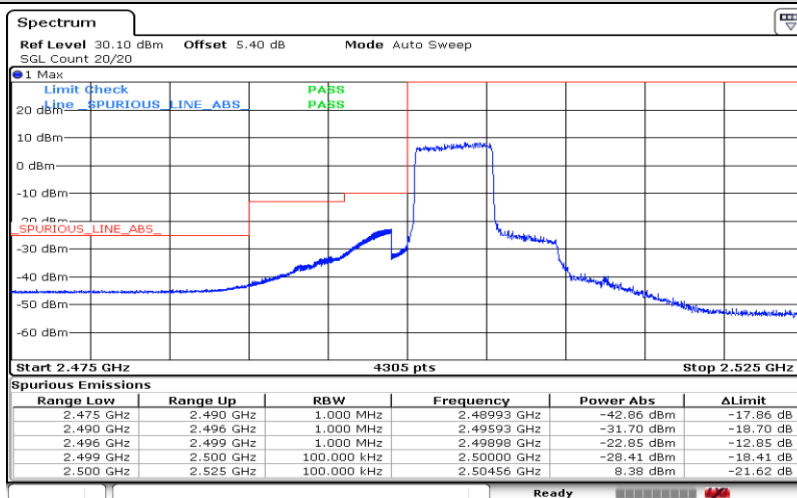


Band7-10MHz-16QAM-20800-1RB#0



Date: 8 JUN. 2020 12:13:42

Band7-10MHz-16QAM-20800-27RB#0

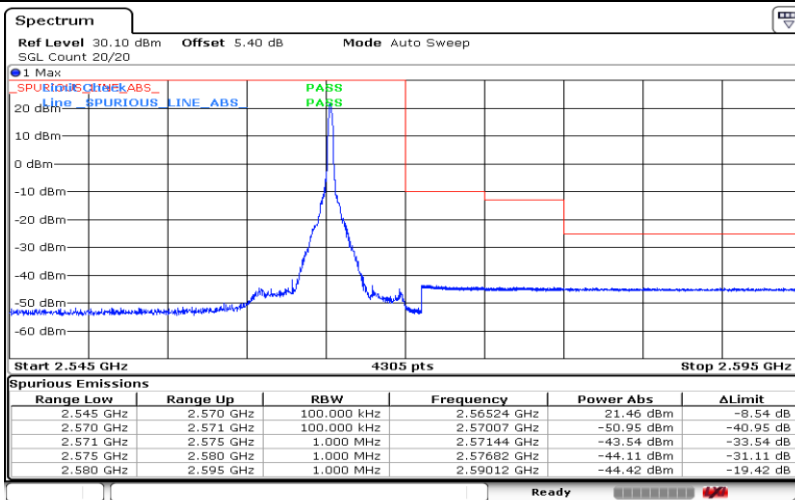


Date: 8 JUN. 2020 12:14:29



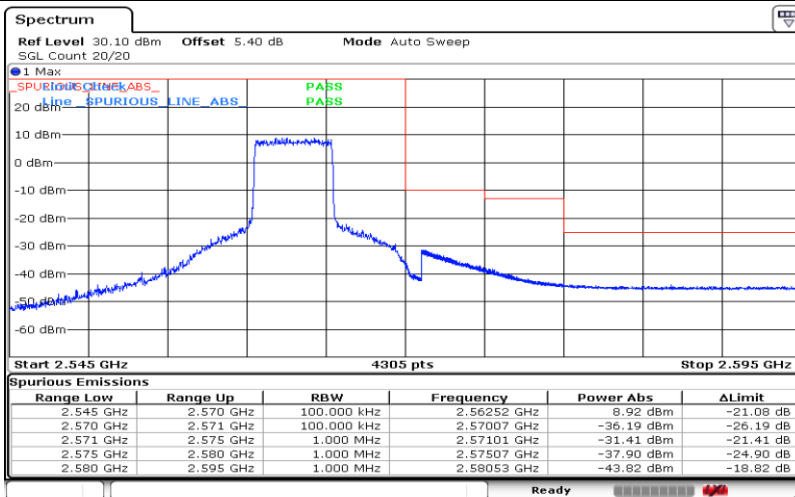


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Date: 8 JUN.2020 12:15:52

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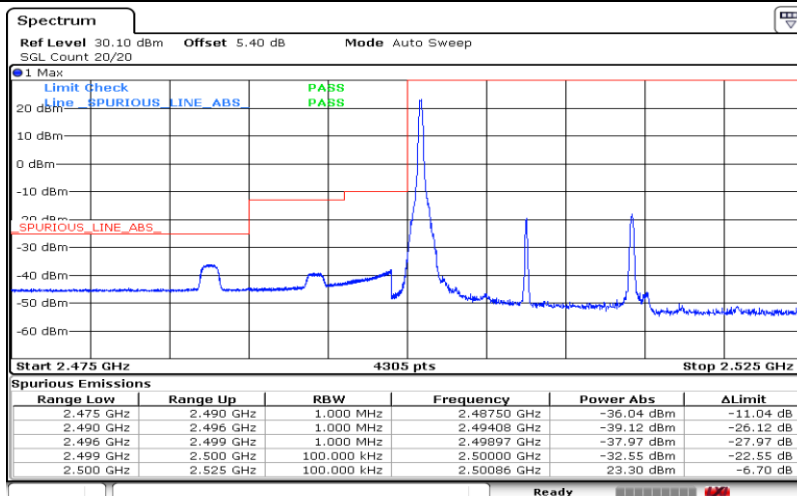
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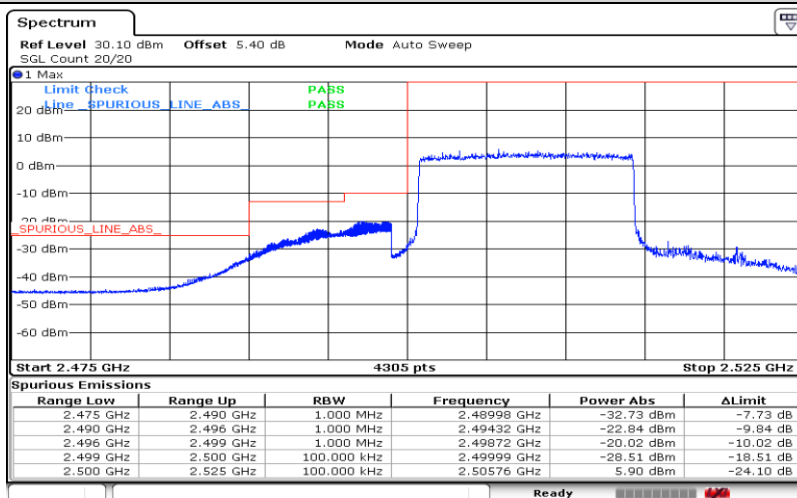
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Band7-15MHz-QPSK-20825-1RB#0



Date: 8 JUN. 2020 12:11:08

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

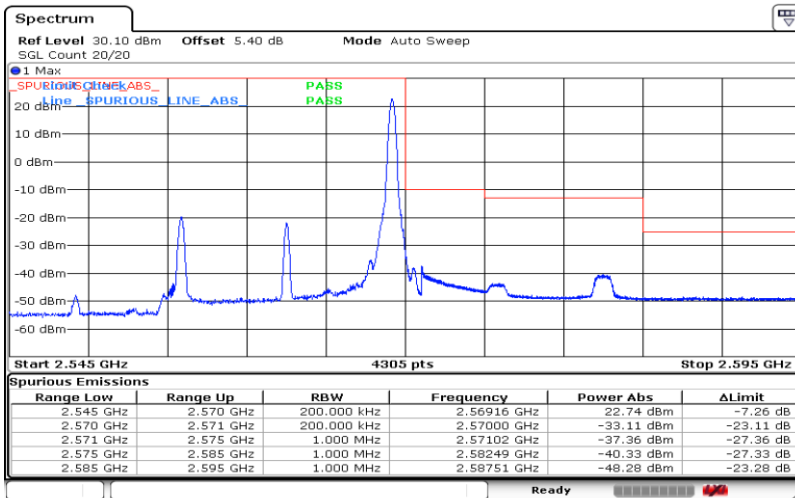


Date: 8 JUN. 2020 13:03:53



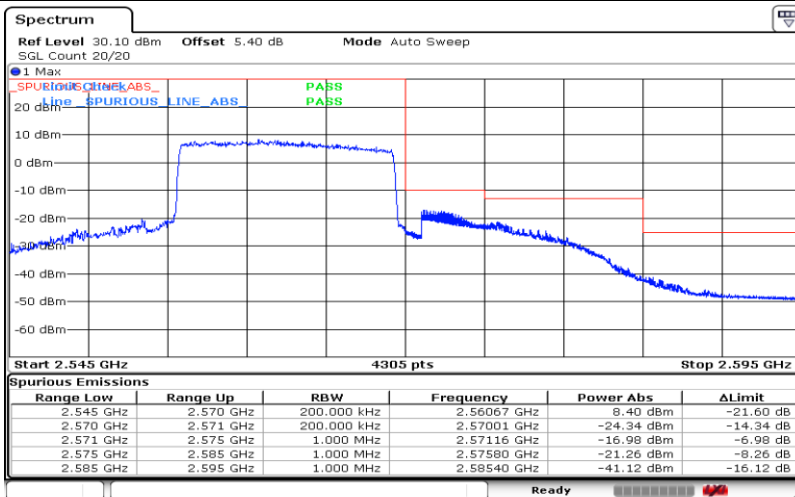


Band7-15MHz-QPSK-21375-1RB#74



Date: 8 JUN 2020 12:58:34

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



Date: 8 JUN 2020 12:33:14



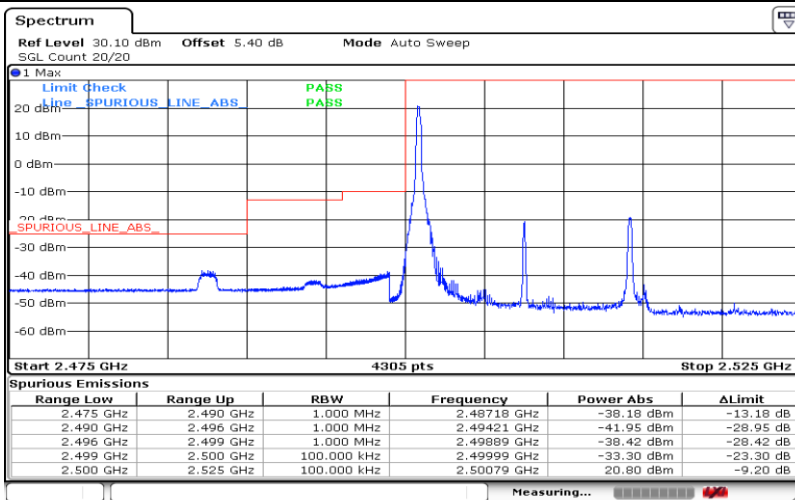
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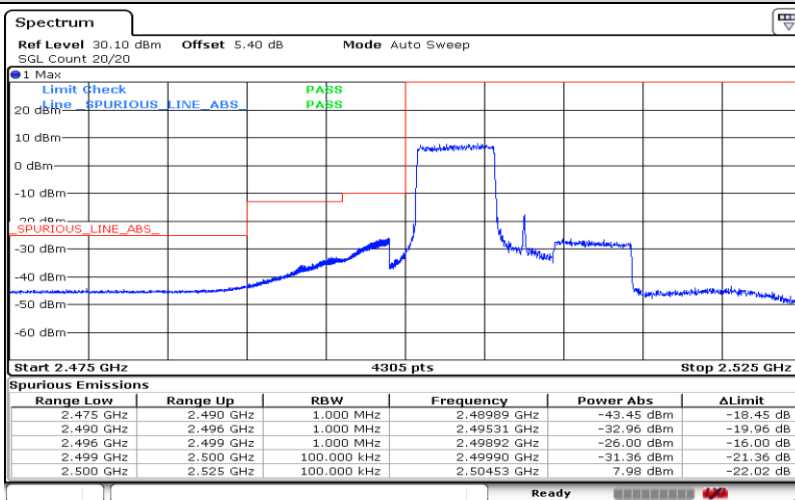
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Band7-15MHz-16QAM-20825-1RB#0



Date: 8 JUN. 2020 12:10:41

Band7-15MHz-16QAM-20825-27RB#0

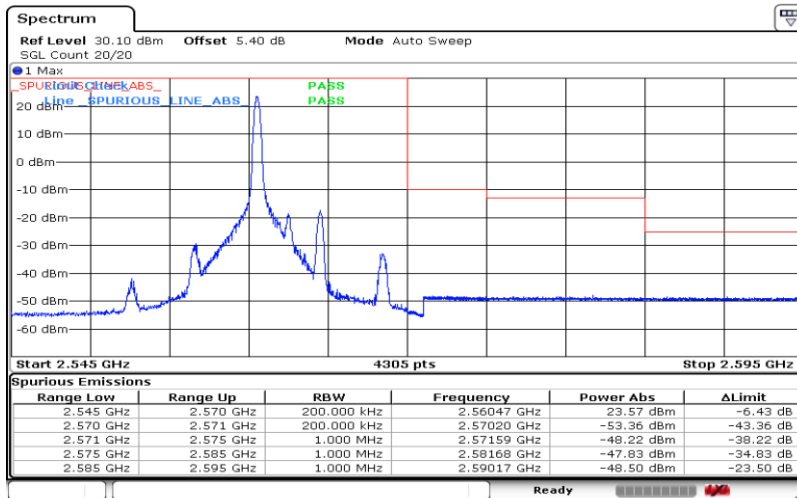


Date: 8 JUN. 2020 12:10:16



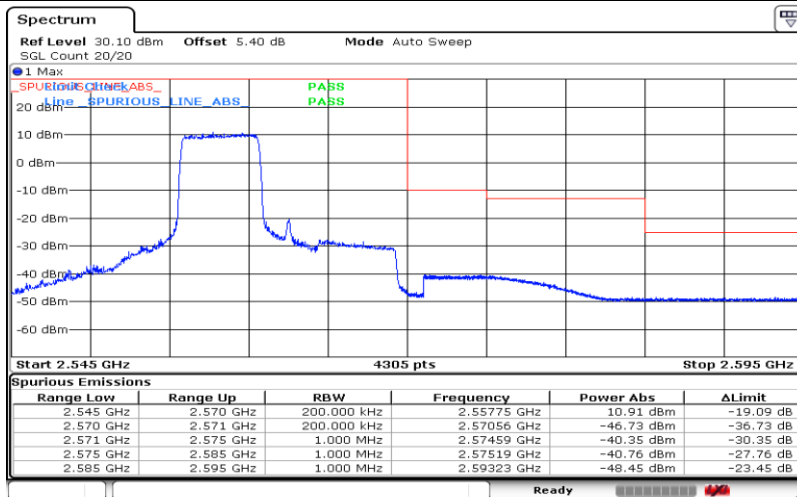


Band7-15MHz-16QAM-21375-1RB#26



Date: 8 JUN. 2020 12:23:58

Band7-15MHz-16QAM-21375-27RB#0



Date: 8 JUN. 2020 12:24:25



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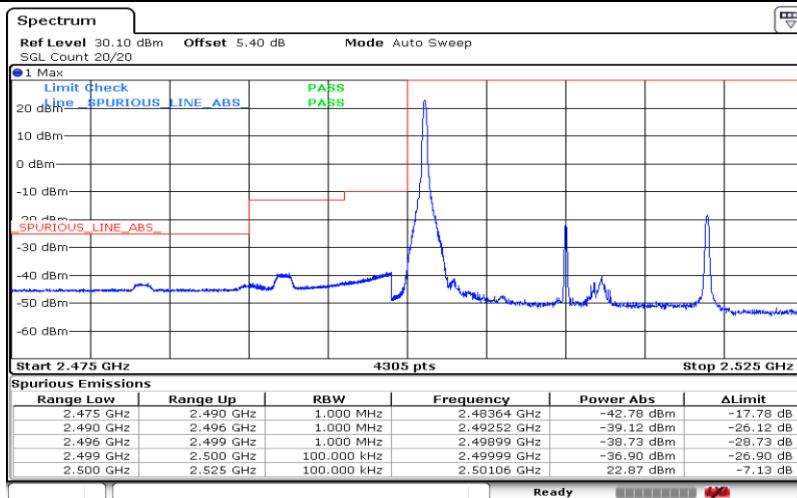
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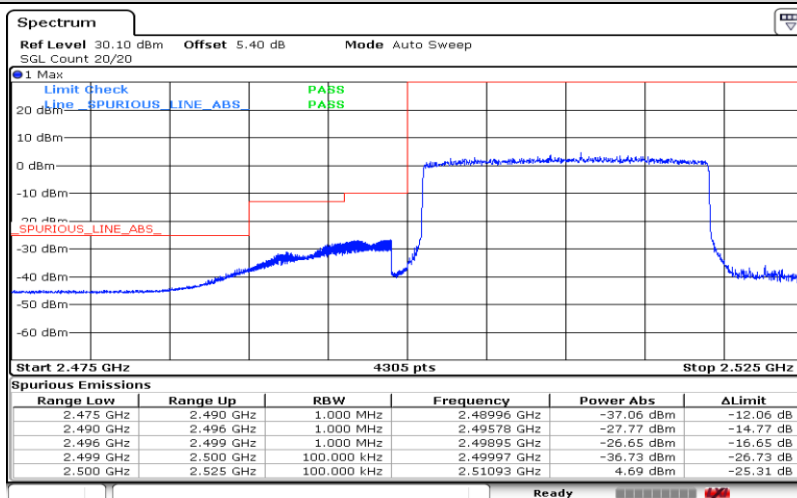
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Band7-20MHz-QPSK-20850-1RB#0



Date: 8 JUN. 2020 12:07:49

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

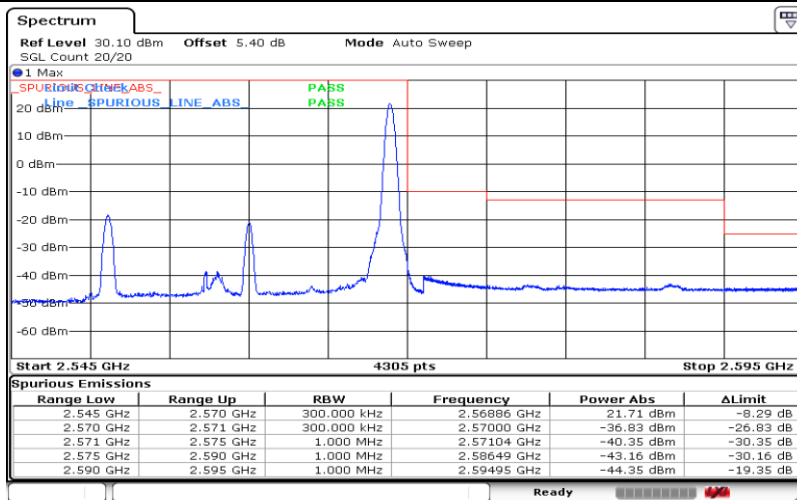


Date: 8 JUN. 2020 13:21:24



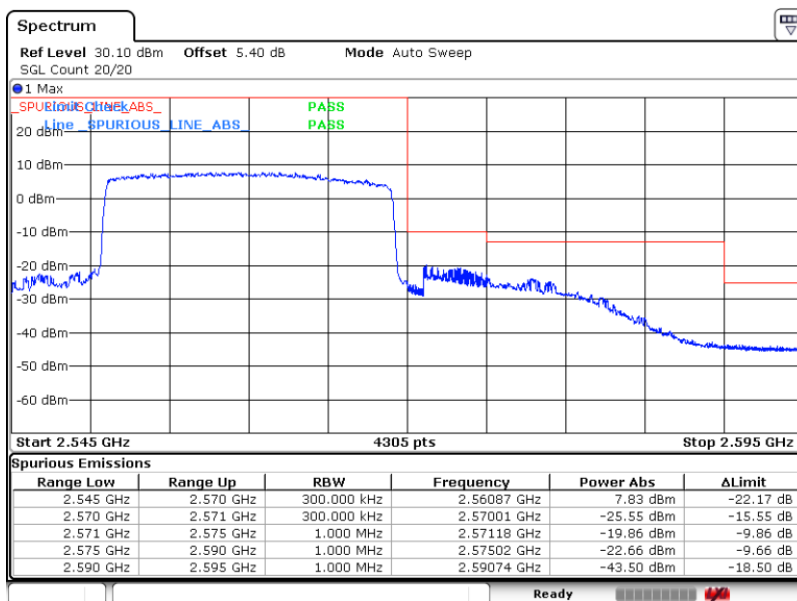


Band7-20MHz-QPSK-21350-1RB#99



Date: 8 JUN 2020 12:28:52

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



Date: 8 JUN 2020 12:29:39



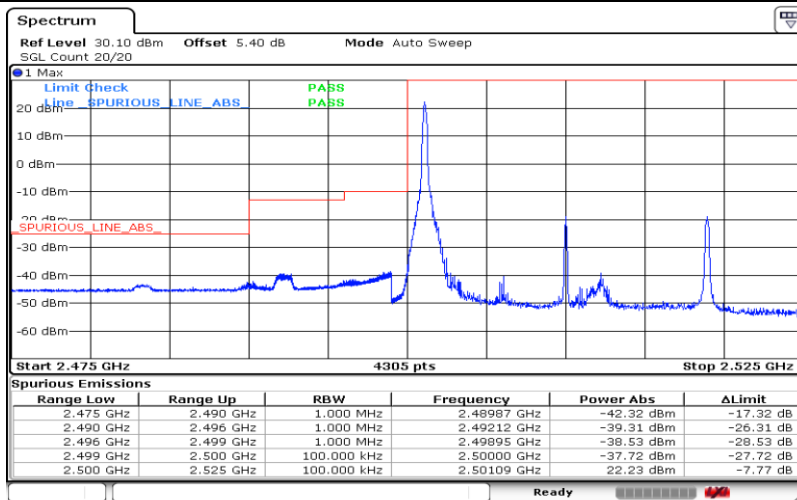
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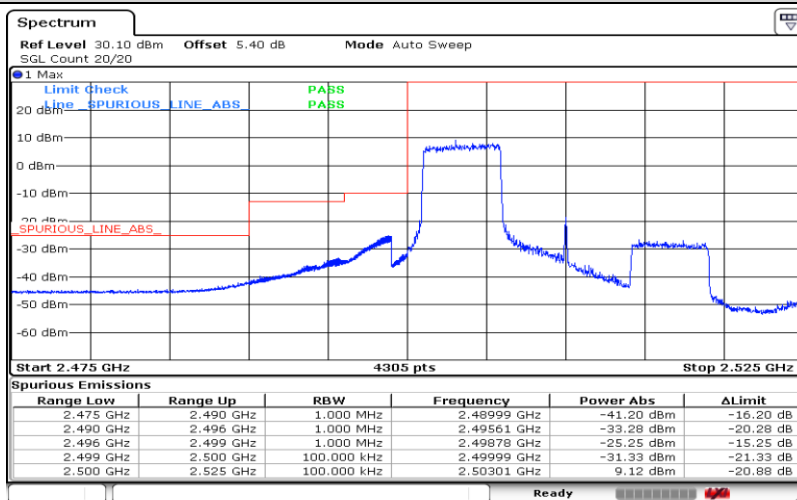
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Band7-20MHz-16QAM-20850-1RB#0



Date: 8 JUN. 2020 12:08:24

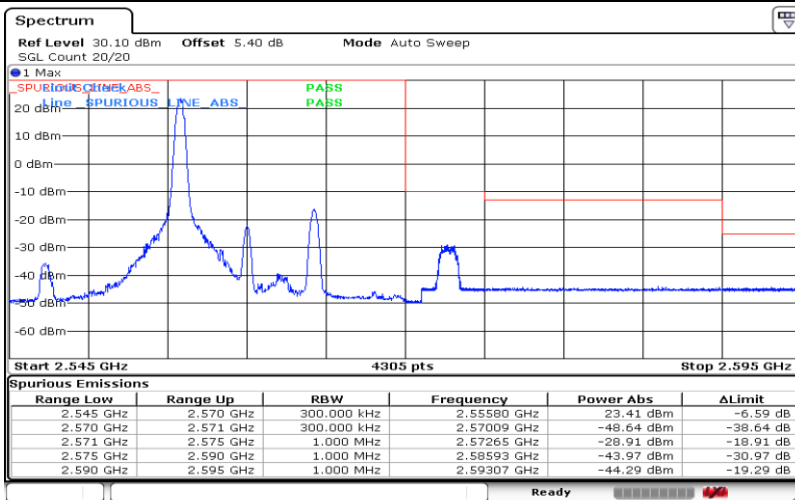
Band7-20MHz-16QAM-20850-27RB#0



Date: 8 JUN. 2020 12:08:53

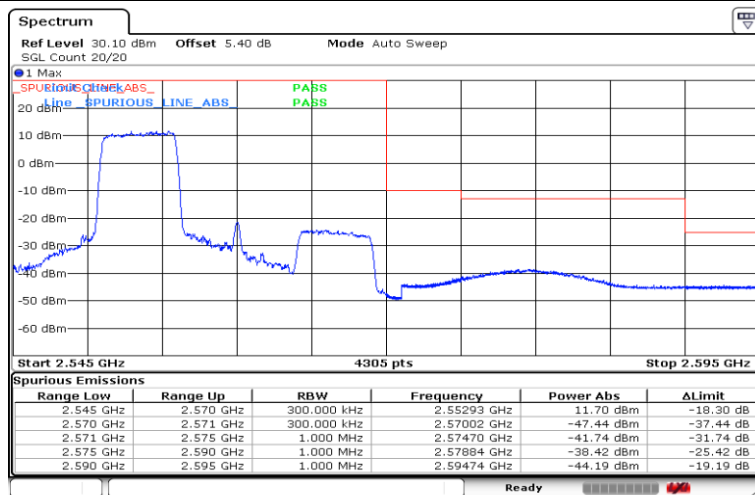


Band7-20MHz-16QAM-21350-1RB#26



Date: 8 JUN 2020 12:28:22

Band7-20MHz-16QAM-21350-27RB#0



Date: 8 JUN 2020 12:27:02



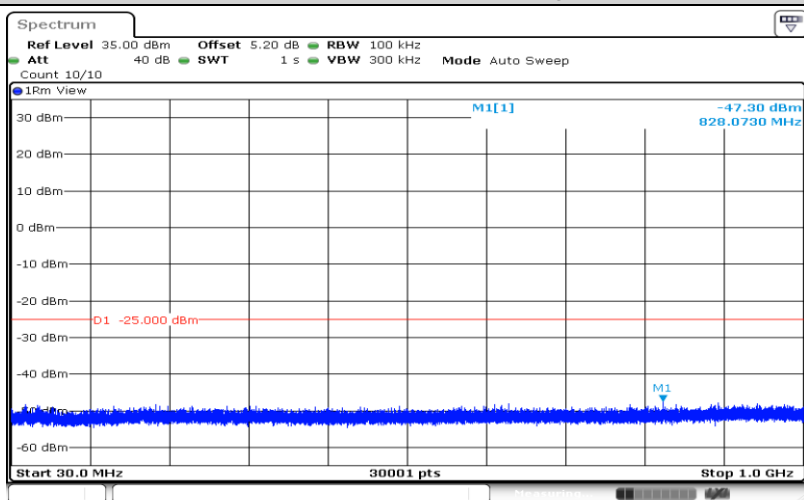
6. Spurious Emission at Antenna Terminal

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.

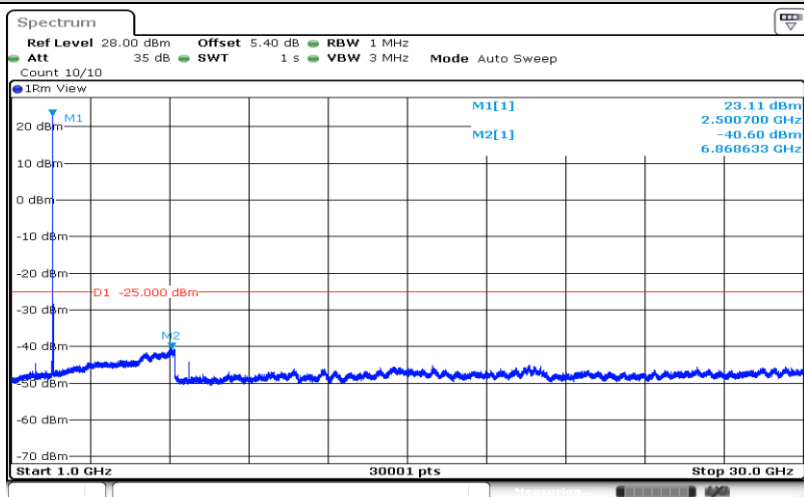
6.1. Test Plots

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



Date: 8 JUN 2020 13:22:42

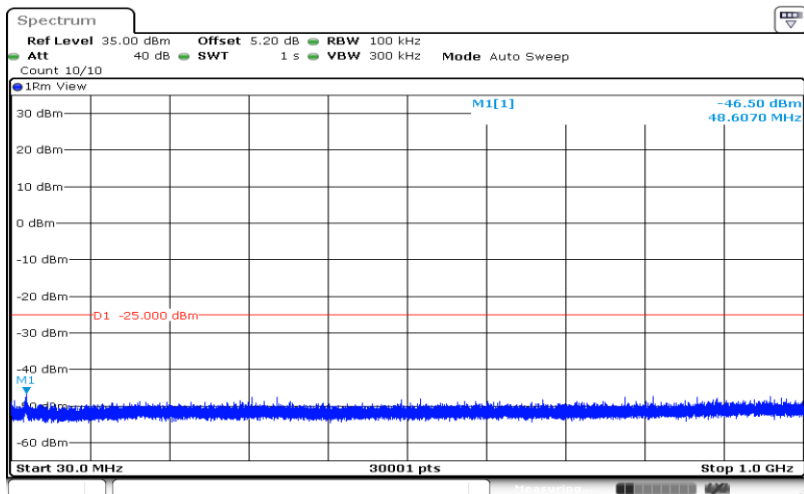
Band7-20MHz-QPSK-20850-1RB#0-Range2:1000~30000MHz



Date: 8 JUN 2020 13:22:58

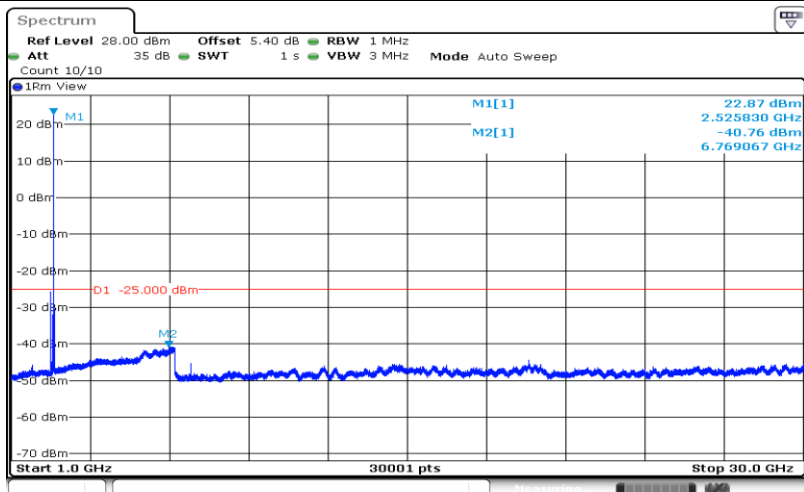


Band7-20MHz-QPSK-21100-1RB#0-Range1:30~1000MHz



Date: 8 JUN 2020 13:23:28

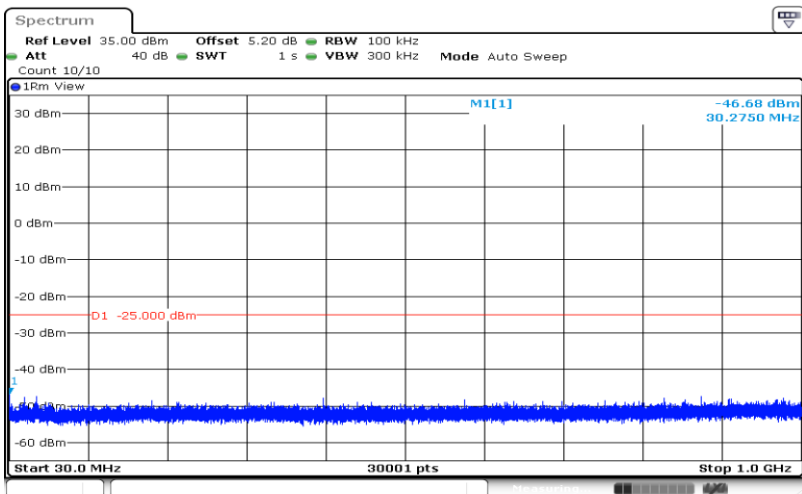
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Date: 8 JUN 2020 13:23:44

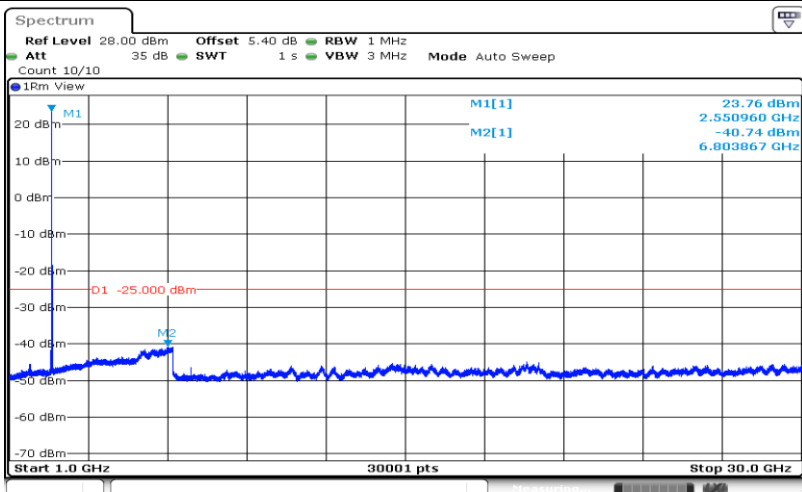


Band7-20MHz-QPSK-21350-1RB#0-Range1:30~1000MHz



Date: 8 JUN 2020 13:24:05

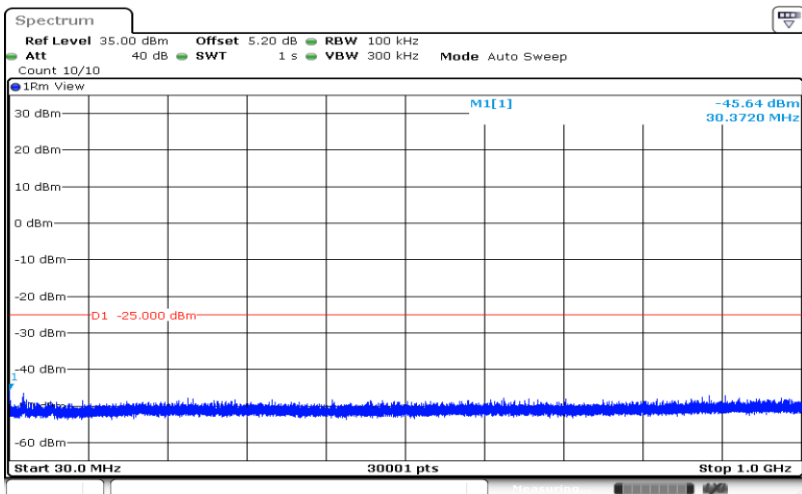
Band7-20MHz-QPSK-21350-1RB#0-Range2:1000~30000MHz



Date: 8 JUN 2020 13:24:21

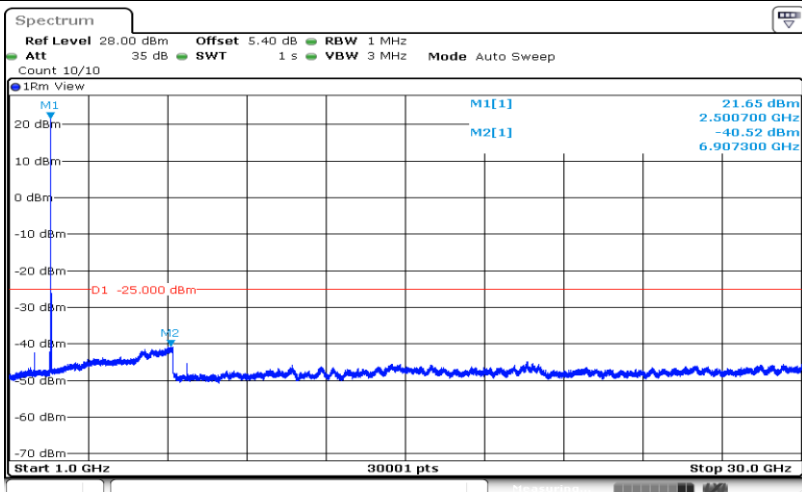


Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz



Date: 8 JUN 2020 13:28:08

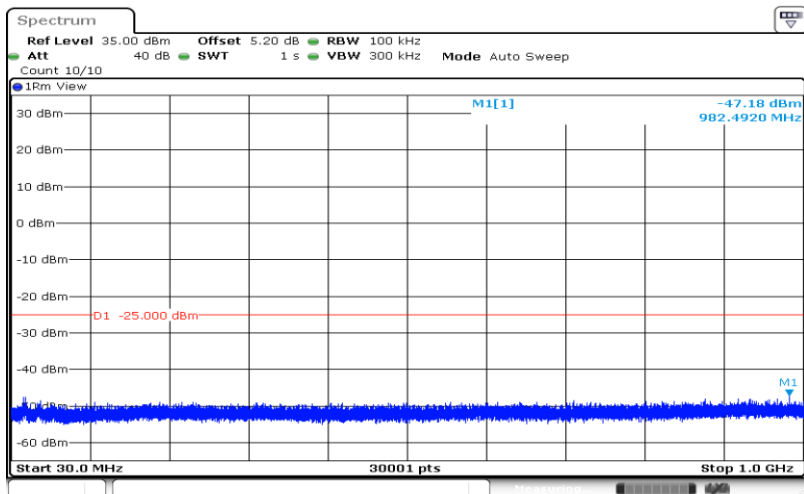
Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~30000MHz



Date: 8 JUN 2020 13:28:24

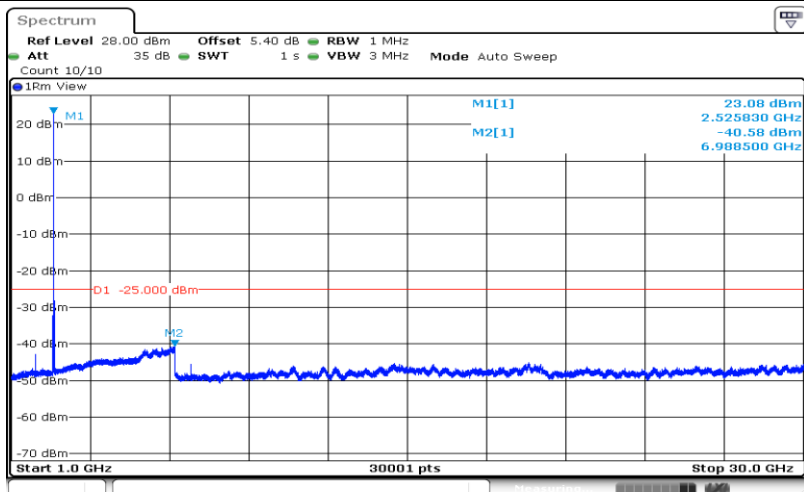


Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz



Date: 8 JUN 2020 13:28:47

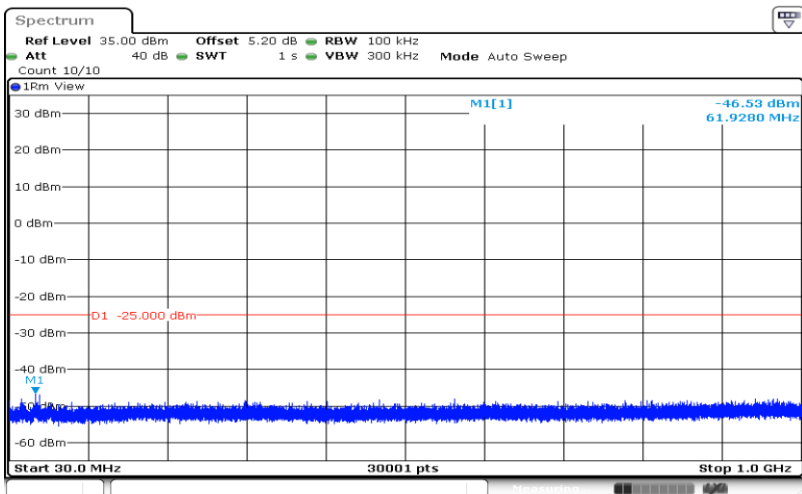
Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~30000MHz



Date: 8 JUN 2020 13:29:04

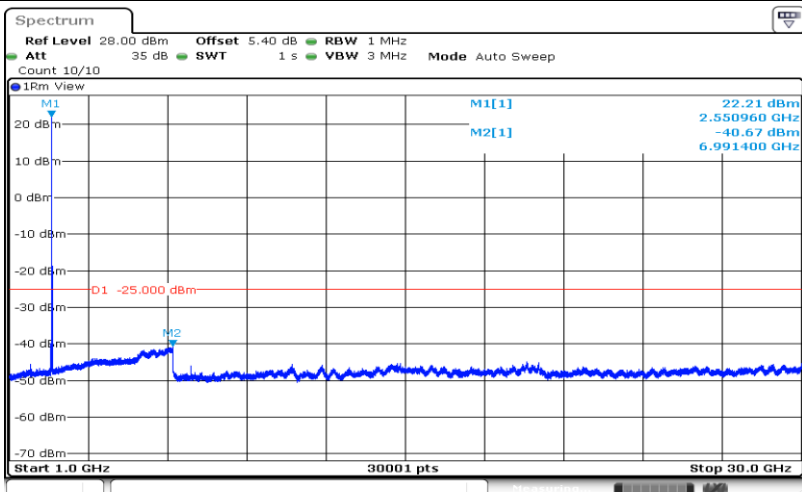


Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz



Date: 8 JUN 2020 13:29:26

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



Date: 8 JUN 2020 13:29:43



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)	Height [cm]	Angle [°]	Polarization
64.450000	-79.92	-13.00	66.92	216	325	Vertical
343.800000	-84.34	-13.00	71.34	224	231	Vertical
957.420833	-75.37	-13.00	62.37	170	76	Vertical
5031.900000	-65.22	-13.00	52.22	101	356	Vertical
7503.525000	-50.22	-13.00	37.22	249	32	Vertical
10028.450000	-62.37	-13.00	49.37	255	325	Vertical
62.850000	-75.26	-13.00	62.26	156	68	Horizontal
626.275000	-81.11	-13.00	68.11	151	145	Horizontal
951.920833	-75.55	-13.00	62.55	289	301	Horizontal
5118.350000	-65.12	-13.00	52.12	245	243	Horizontal
7503.200000	-58.41	-13.00	45.41	115	199	Horizontal
10623.200000	-61.21	-13.00	48.21	187	11	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
63.300000	-80.03	-13.00	67.03	211	232	Vertical
346.350000	-84.22	-13.00	71.22	239	164	Vertical
937.620833	-75.91	-13.00	62.91	210	316	Vertical
5049.450000	-64.99	-13.00	51.99	288	78	Vertical
7578.275000	-48.04	-13.00	35.04	110	337	Vertical
10621.900000	-61.42	-13.00	48.42	214	44	Vertical
62.200000	-75.64	-13.00	62.64	190	325	Horizontal
632.554167	-81.16	-13.00	68.16	173	232	Horizontal
958.475000	-74.32	-13.00	61.32	146	329	Horizontal
5052.050000	-61.97	-13.00	48.97	177	35	Horizontal
7578.275000	-48.40	-13.00	35.40	174	112	Horizontal
10613.450000	-61.60	-13.00	48.60	292	217	Horizontal



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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
65.450000	-80.60	-13.00	67.60	145	7	Vertical
355.050000	-85.00	-13.00	72.00	117	204	Vertical
934.000000	-75.95	-13.00	62.95	279	111	Vertical
5102.100000	-64.35	-13.00	51.35	121	224	Vertical
7653.350000	-56.57	-13.00	43.57	164	223	Vertical
10589.075000	-61.22	-13.00	48.22	167	81	Vertical
62.500000	-76.03	-13.00	63.03	215	342	Horizontal
613.625000	-81.02	-13.00	68.02	176	150	Horizontal
946.191667	-75.27	-13.00	62.27	127	336	Horizontal
5102.100000	-59.89	-13.00	46.89	254	165	Horizontal
7653.350000	-46.18	-13.00	33.18	262	55	Horizontal
10655.700000	-61.53	-13.00	48.53	181	43	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.



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8. Frequency Stability

8.1. Frequency Vs Voltage

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	1.00	0.000398	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	-1.20	-0.000478	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	-0.20	-0.000080	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-6.50	-0.002564	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-4.40	-0.001736	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	-2.30	-0.000898	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	1.50	0.000586	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	1.20	0.000469	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	VL	NT	3.10	0.001235	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	VN	NT	0.10	0.000040	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	VH	NT	-0.70	-0.000279	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	VL	NT	-4.10	-0.001617	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	VN	NT	-4.70	-0.001854	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	VH	NT	-3.10	-0.001223	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	VL	NT	1.70	0.000664	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	VN	NT	0.40	0.000156	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	VH	NT	-0.40	-0.000156	±2.5	PASS



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8.2. Frequency Vs 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	1.80	0.000717	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	2.90	0.001155	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	1.90	0.000757	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	-0.10	-0.000040	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	4.80	0.001912	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	-0.40	-0.000159	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	40	2.70	0.001076	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	-0.50	-0.000199	±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	-1.60	-0.000631	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-0.90	-0.000355	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-1.40	-0.000552	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-6.40	-0.002525	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	-3.90	-0.001538	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	1.00	0.000391	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	1.20	0.000469	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	-1.70	-0.000664	±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	-1.80	-0.000703	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	-30	0.30	0.000120	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	-20	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	0	3.30	0.001315	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	10	-0.30	-0.000120	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	20	1.70	0.000677	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	30	-0.70	-0.000279	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	40	-0.30	-0.000120	±2.5	PASS
Band7	20MHz	16QAM	20850	27RB#0	NV	50	1.80	0.000717	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	-30	-4.80	-0.001893	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	-20	-2.40	-0.000947	±2.5	PASS



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Band7	20MHz	16QAM	21100	27RB#0	NV	0	-2.10	-0.000828	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	10	-3.00	-0.001183	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	20	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	30	-5.40	-0.002130	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	40	-3.90	-0.001538	±2.5	PASS
Band7	20MHz	16QAM	21100	27RB#0	NV	50	-2.60	-0.001026	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	-30	3.20	0.001250	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	-20	-2.60	-0.001016	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	0	-1.50	-0.000586	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	10	-0.40	-0.000156	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	20	-0.80	-0.000313	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	30	-1.50	-0.000586	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	40	1.70	0.000664	±2.5	PASS
Band7	20MHz	16QAM	21350	27RB#0	NV	50	1.50	0.000586	±2.5	PASS

