



Appendix B

E-UTRA Band CA_38C



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CONTENT

Page

1	EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	2
2	PEAK-TO-AVERAGE RATIO.....	6
2.1	FOR LTE.....	7
2.1.1	Test Band = LTE Band CA_38C.....	7
3	MODULATION CHARACTERISTICS.....	12
3.1	FOR LTE.....	12
3.1.1	Test Band = LTE Band CA_38C.....	12
4	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	15
4.1	FOR LTE.....	16
4.1.1	Test Band = LTE Band CA_38C.....	16
5	BAND EDGES COMPLIANCE.....	26
5.1	FOR LTE.....	26
5.1.1	Test Band = LTE Band CA_38C.....	26
6	SPURIOUS EMISSION AT ANTENNA TERMINAL.....	39
6.1	FOR LTE.....	39
6.1.1	Test Band = LTE Band CA_38C.....	39
7	FIELD STRENGTH OF SPURIOUS RADIATION	53
7.1	FOR LTE UL CA.....	53
7.1.1	Test Band = LTE Band CA_38C (Down Ant).....	53
7.1.2	Test Band = LTE Band CA_38C (Up Ant).....	59
8	FREQUENCY STABILITY	66
8.1	FREQUENCY ERROR VS. VOLTAGE	66
8.2	FREQUENCY ERROR VS. TEMPERATURE	68

1 Effective (Isotropic) Radiated Power Output Data

Ant1:



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BAND	Test Mode PCC/SCC	Channel PCC/SCC	RB Configuration		Modulation PCC&SCC	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
			PCC	SCC					
CA_38 C	75RB+75RB	37825+37975	1RB#0	0RB#0	QPSK	24.01	23.41	33.00	PASS
CA_38 C	75RB+75RB	37825+37975	16RB#0	0RB#0	QPSK	23.89	23.29	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	1RB#0	0RB#0	QPSK	23.91	23.31	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	16RB#0	0RB#0	QPSK	23.88	23.28	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	1RB#0	0RB#0	QPSK	23.96	23.36	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	16RB#0	0RB#0	QPSK	23.63	23.03	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	1RB#0	0RB#0	QPSK	24.02	23.42	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	18RB#0	0RB#0	QPSK	23.71	23.11	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	1RB#0	0RB#0	QPSK	23.77	23.17	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	18RB#0	0RB#0	QPSK	23.62	23.02	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	1RB#0	0RB#0	QPSK	23.89	23.29	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	18RB#0	0RB#0	QPSK	23.80	23.20	33.00	PASS
CA_38 C	75RB+75RB	37825+37975	1RB#0	0RB#0	16QAM	22.86	22.26	33.00	PASS
CA_38 C	75RB+75RB	37825+37975	16RB#0	0RB#0	16QAM	22.46	21.86	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	1RB#0	0RB#0	16QAM	23.05	22.45	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	16RB#0	0RB#0	16QAM	22.62	22.02	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	1RB#0	0RB#0	16QAM	22.86	22.26	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	16RB#0	0RB#0	16QAM	22.57	21.97	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	1RB#0	0RB#0	16QAM	22.94	22.34	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	18RB#0	0RB#0	16QAM	22.79	22.19	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	1RB#0	0RB#0	16QAM	22.87	22.27	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	18RB#0	0RB#0	16QAM	22.56	21.96	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	1RB#0	0RB#0	16QAM	23.08	22.48	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	18RB#0	0RB#0	16QAM	22.79	22.19	33.00	PASS
CA_38 C	75RB+75RB	37825+37975	1RB#0	0RB#0	64QAM	21.94	21.34	33.00	PASS



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CA_38 C	75RB+75RB	37825+37975	16RB#0	0RB#0	64QAM	21.44	20.84	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	1RB#0	0RB#0	64QAM	21.85	21.25	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	16RB#0	0RB#0	64QAM	21.56	20.96	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	1RB#0	0RB#0	64QAM	21.86	21.26	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	16RB#0	0RB#0	64QAM	21.45	20.85	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	1RB#0	0RB#0	64QAM	22.01	21.41	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	18RB#0	0RB#0	64QAM	21.58	20.98	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	1RB#0	0RB#0	64QAM	21.72	21.12	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	18RB#0	0RB#0	64QAM	21.41	20.81	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	1RB#0	0RB#0	64QAM	22.05	21.45	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	18RB#0	0RB#0	64QAM	21.60	21.00	33.00	PASS

Ant5:

BAND	Test Mode PCC/SCC	Channel PCC/SCC	RB Configuration		Modulation PCC&SCC	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
			PCC	SCC					
CA_38 C	75RB+75RB	37825+37975	1RB#0	0RB#0	QPSK	23.49	21.99	33.00	PASS
CA_38 C	75RB+75RB	37825+37975	16RB#0	0RB#0	QPSK	23.4	21.90	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	1RB#0	0RB#0	QPSK	23.31	21.81	33.00	PASS
CA_38 C	75RB+75RB	37925+38075	16RB#0	0RB#0	QPSK	23.19	21.69	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	1RB#0	0RB#0	QPSK	23.04	21.54	33.00	PASS
CA_38 C	75RB+75RB	38025+38175	16RB#0	0RB#0	QPSK	22.71	21.21	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	1RB#0	0RB#0	QPSK	23.10	21.60	33.00	PASS
CA_38 C	100RB+100R B	37850+38048	18RB#0	0RB#0	QPSK	22.79	21.29	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	1RB#0	0RB#0	QPSK	22.85	21.35	33.00	PASS
CA_38 C	100RB+100R B	37901+38099	18RB#0	0RB#0	QPSK	22.70	21.20	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	1RB#0	0RB#0	QPSK	22.97	21.47	33.00	PASS
CA_38 C	100RB+100R B	37952+38150	18RB#0	0RB#0	QPSK	22.88	21.38	33.00	PASS



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CA _C 38	75RB+75RB	37825+37975	1RB#0	0RB#0	16QAM	21.94	20.44	33.00	PASS
CA _C 38	75RB+75RB	37825+37975	16RB#0	0RB#0	16QAM	21.54	20.04	33.00	PASS
CA _C 38	75RB+75RB	37925+38075	1RB#0	0RB#0	16QAM	22.13	20.63	33.00	PASS
CA _C 38	75RB+75RB	37925+38075	16RB#0	0RB#0	16QAM	21.70	20.20	33.00	PASS
CA _C 38	75RB+75RB	38025+38175	1RB#0	0RB#0	16QAM	21.94	20.44	33.00	PASS
CA _C 38	75RB+75RB	38025+38175	16RB#0	0RB#0	16QAM	21.65	20.15	33.00	PASS
CA _C 38	100RB+100RB	37850+38048	1RB#0	0RB#0	16QAM	22.02	20.52	33.00	PASS
CA _C 38	100RB+100RB	37850+38048	18RB#0	0RB#0	16QAM	21.87	20.37	33.00	PASS
CA _C 38	100RB+100RB	37901+38099	1RB#0	0RB#0	16QAM	21.95	20.45	33.00	PASS
CA _C 38	100RB+100RB	37901+38099	18RB#0	0RB#0	16QAM	21.64	20.14	33.00	PASS
CA _C 38	100RB+100RB	37952+38150	1RB#0	0RB#0	16QAM	22.16	20.66	33.00	PASS
CA _C 38	100RB+100RB	37952+38150	18RB#0	0RB#0	16QAM	21.87	20.37	33.00	PASS
CA _C 38	75RB+75RB	37825+37975	1RB#0	0RB#0	64QAM	21.02	19.52	33.00	PASS
CA _C 38	75RB+75RB	37825+37975	16RB#0	0RB#0	64QAM	20.52	19.02	33.00	PASS
CA _C 38	75RB+75RB	37925+38075	1RB#0	0RB#0	64QAM	20.93	19.43	33.00	PASS
CA _C 38	75RB+75RB	37925+38075	16RB#0	0RB#0	64QAM	20.64	19.14	33.00	PASS
CA _C 38	75RB+75RB	38025+38175	1RB#0	0RB#0	64QAM	20.94	19.44	33.00	PASS
CA _C 38	75RB+75RB	38025+38175	16RB#0	0RB#0	64QAM	20.53	19.03	33.00	PASS
CA _C 38	100RB+100RB	37850+38048	1RB#0	0RB#0	64QAM	21.09	19.59	33.00	PASS
CA _C 38	100RB+100RB	37850+38048	18RB#0	0RB#0	64QAM	20.66	19.16	33.00	PASS
CA _C 38	100RB+100RB	37901+38099	1RB#0	0RB#0	64QAM	20.80	19.30	33.00	PASS
CA _C 38	100RB+100RB	37901+38099	18RB#0	0RB#0	64QAM	20.49	18.99	33.00	PASS
CA _C 38	100RB+100RB	37952+38150	1RB#0	0RB#0	64QAM	21.13	19.63	33.00	PASS
CA _C 38	100RB+100RB	37952+38150	18RB#0	0RB#0	64QAM	20.68	19.18	33.00	PASS

Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,
 $ERP [dBm] = \text{Conducted Power} [dBm] + \text{Gain} [dBd]$



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EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]

2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Modulation	Test Mode	Test Channel	PCC RB Config	SCC RB Config	Measured [dB]	Limit [dB]	Verdict
CA_38C	QPSK	100RB+100RB	37850+38048	100RB#0	100RB#0	6.87	13.00	PASS
CA_38C	QPSK	100RB+100RB	37901+38099	100RB#0	100RB#0	7.74	13.00	PASS
CA_38C	QPSK	100RB+100RB	37952+38150	100RB#0	100RB#0	9.62	13.00	PASS
CA_38C	16QAM	100RB+100RB	37850+38048	100RB#0	100RB#0	7.77	13.00	PASS
CA_38C	16QAM	100RB+100RB	37901+38099	100RB#0	100RB#0	8.49	13.00	PASS
CA_38C	16QAM	100RB+100RB	37952+38150	100RB#0	100RB#0	6.99	13.00	PASS
CA_38C	64QAM	100RB+100RB	37850+38048	100RB#0	100RB#0	9.65	13.00	PASS
CA_38C	64QAM	100RB+100RB	37901+38099	100RB#0	100RB#0	9.83	13.00	PASS
CA_38C	64QAM	100RB+100RB	37952+38150	100RB#0	100RB#0	6.84	13.00	PASS



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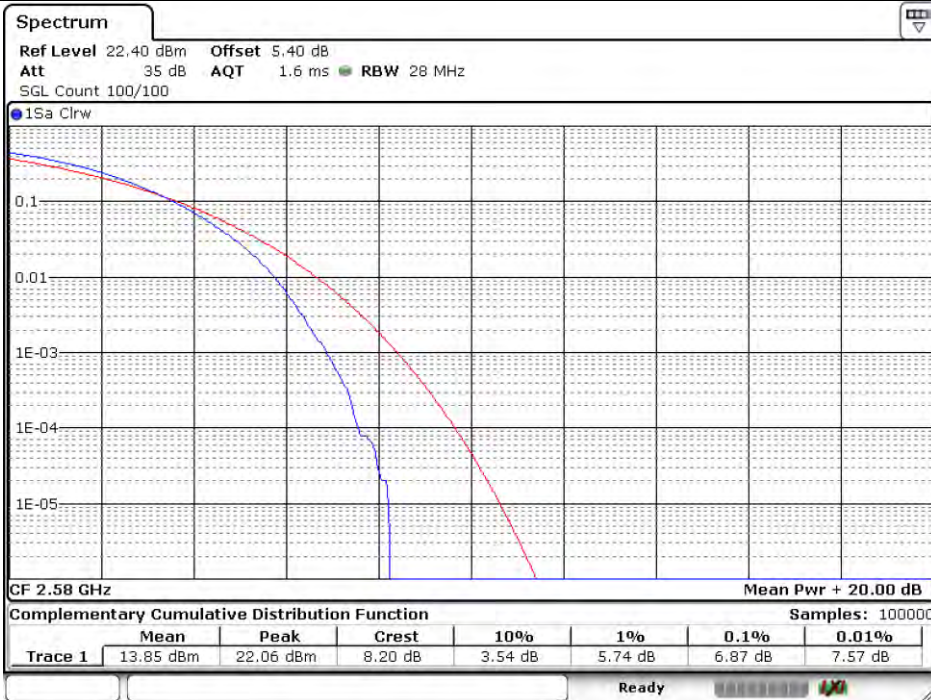
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2.1 For LTE

2.1.1 Test Band = LTE Band CA_38C

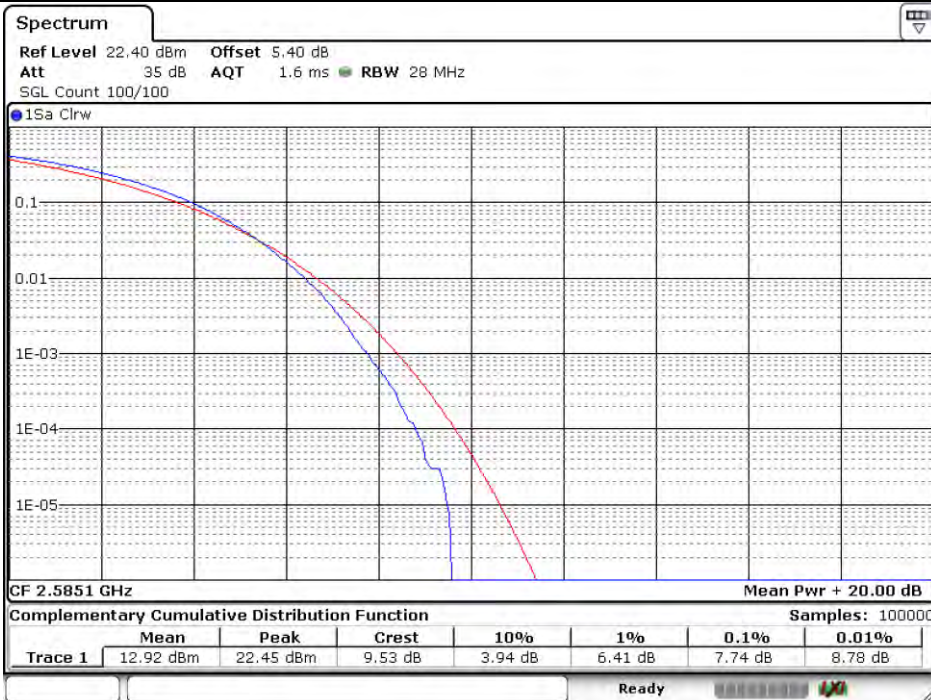
CA_38C_100RB+100RB_QPSK_37850+38048_100RB#0+100RB#0



Date: 24.AUG.2020 11:03:56



CA_38C_100RB+100RB_QPSK_37901+38099_100RB#0+100RB#0



Date: 24.AUG.2020 11:05:42

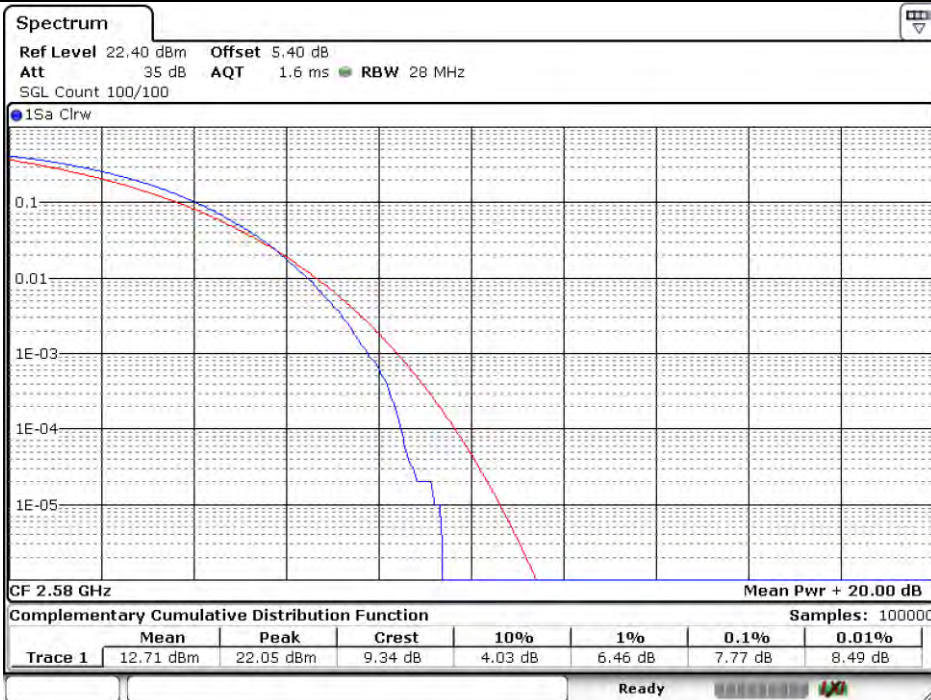
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Date: 24.AUG.2020 11:07:13

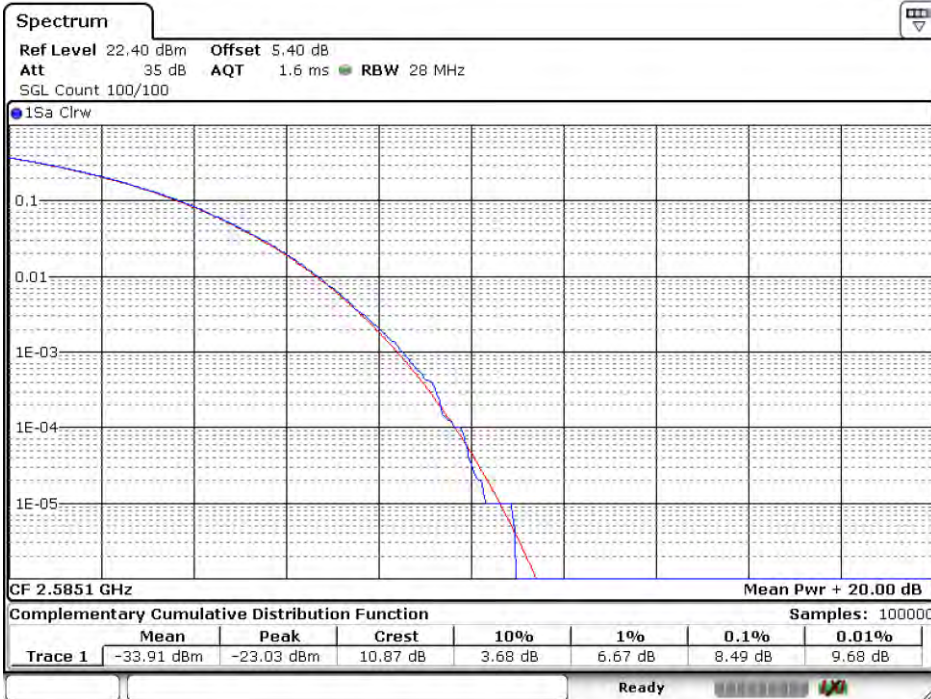


CA_38C_100RB+100RB_16QAM_37850+38048_100RB#0+100RB#0



Date: 24.AUG.2020 11:04:40

CA_38C_100RB+100RB_16QAM_37901+38099_100RB#0+100RB#0



Date: 24.AUG.2020 11:06:11



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CA 38C 100RB+100RB 16QAM 37952+38150 100RB#0+100RB#0



Date: 24.AUG.2020 11:07:53

CA 38C 100RB+100RB 64QAM 37850+38048 100RB#0+100RB#0



Date: 24.AUG.2020 11:04:54



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CA_38C_100RB+100RB_64QAM_37901+38099_100RB#0+100RB#0



Date: 24.AUG.2020 11:06:30

CA_38C_100RB+100RB_64QAM_37952+38150_100RB#0+100RB#0



Date: 24.AUG.2020 11:08:08



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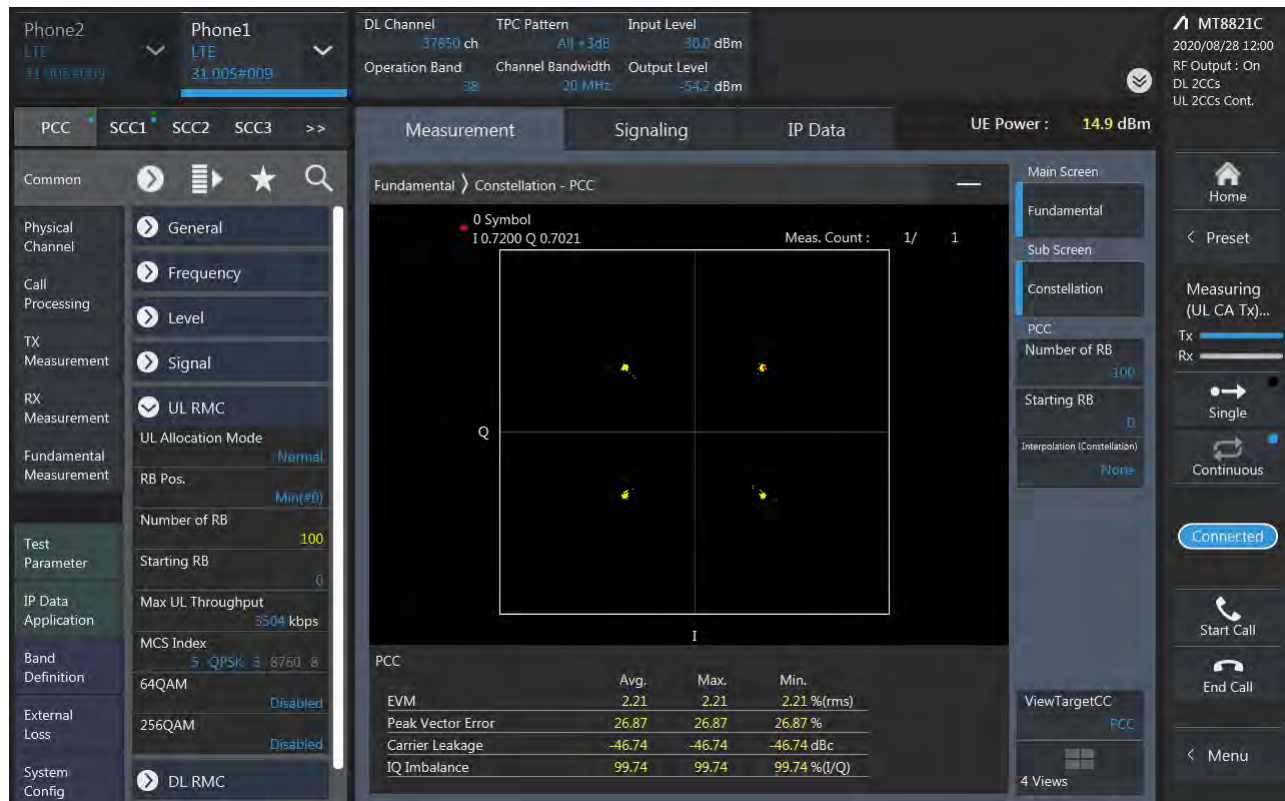
3 Modulation Characteristics

3.1 For LTE

3.1.1 Test Band = LTE Band CA_38C

3.1.1.1 Test Mode = LTE /QPSK 100RB+100RB

3.1.1.1.1 Test Channel = 37850+38048



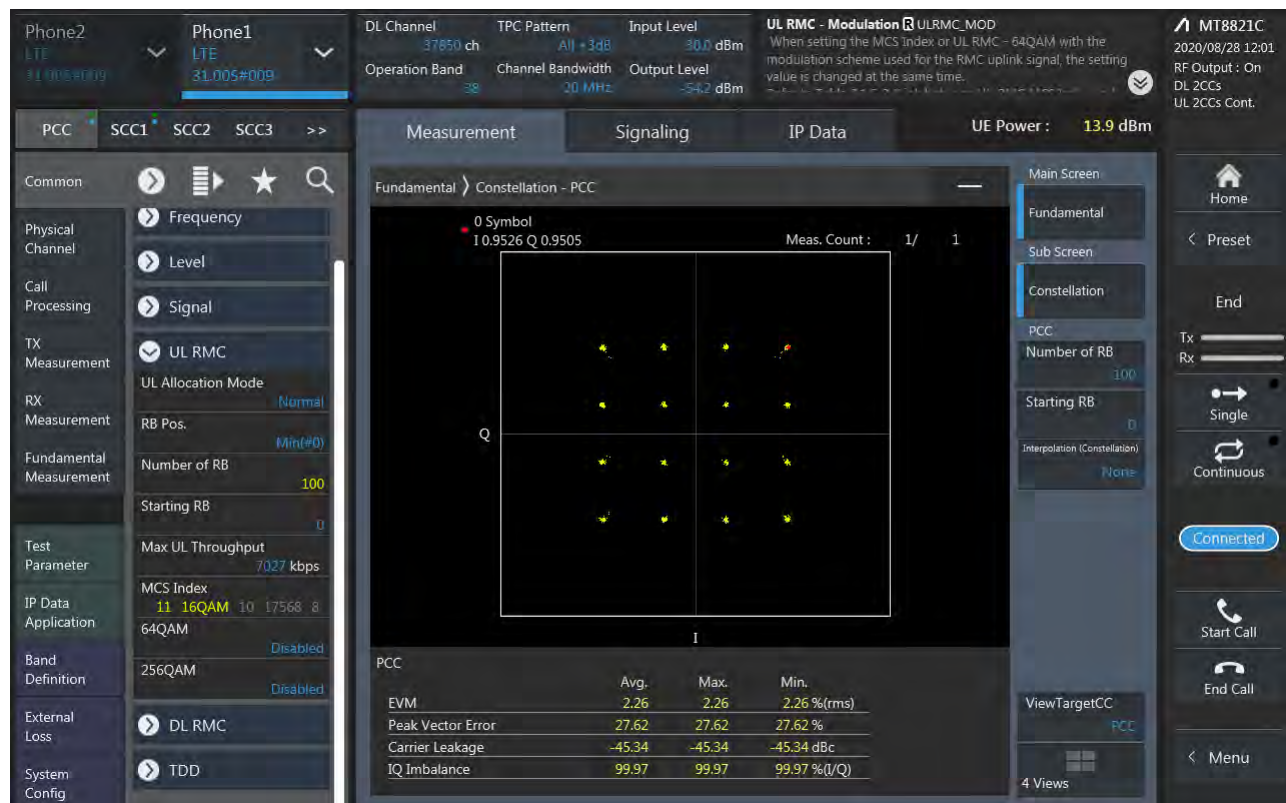
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3.1.1.2 Test Mode = LTE /16QAM 100RB+100RB

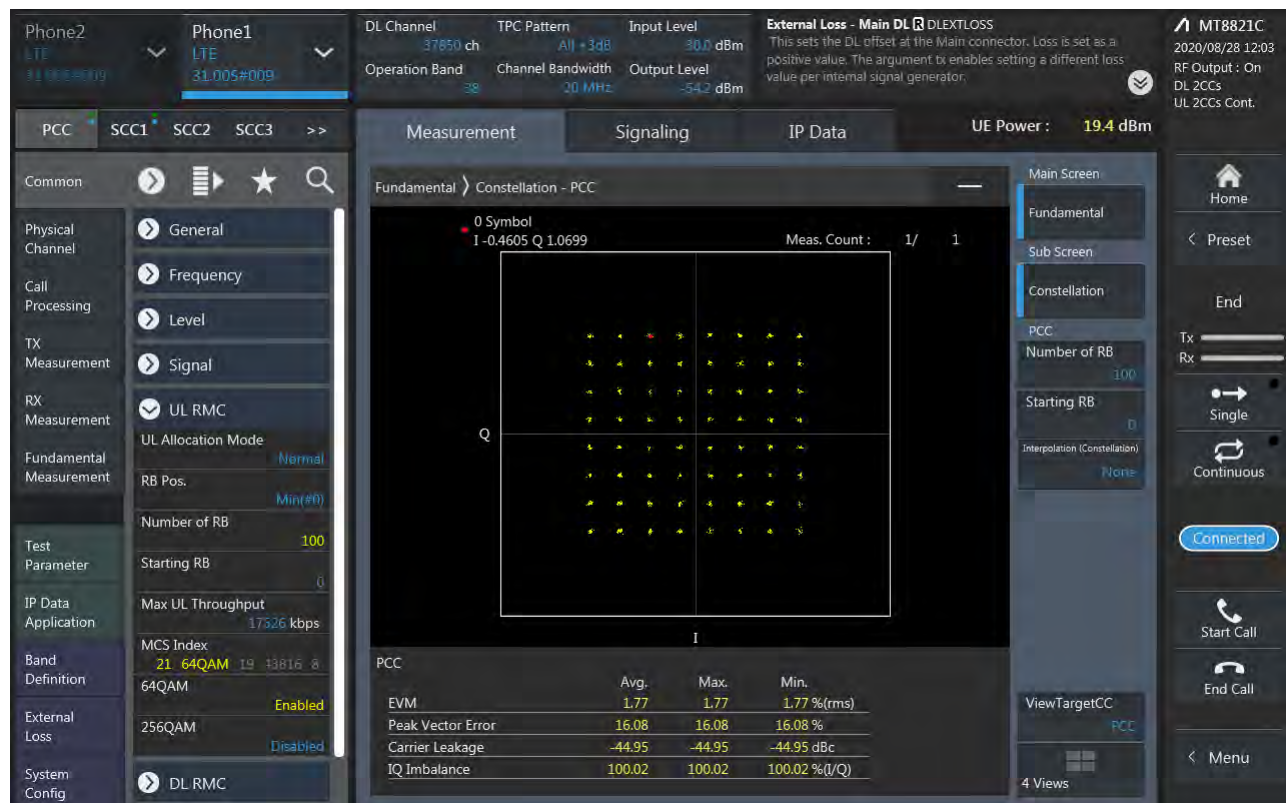
3.1.1.2.1 Test Channel =37850+38048





3.1.1.3 Test Mode = LTE /64QAM 100RB+100RB

3.1.1.3.1 Test Channel = 37850+38048





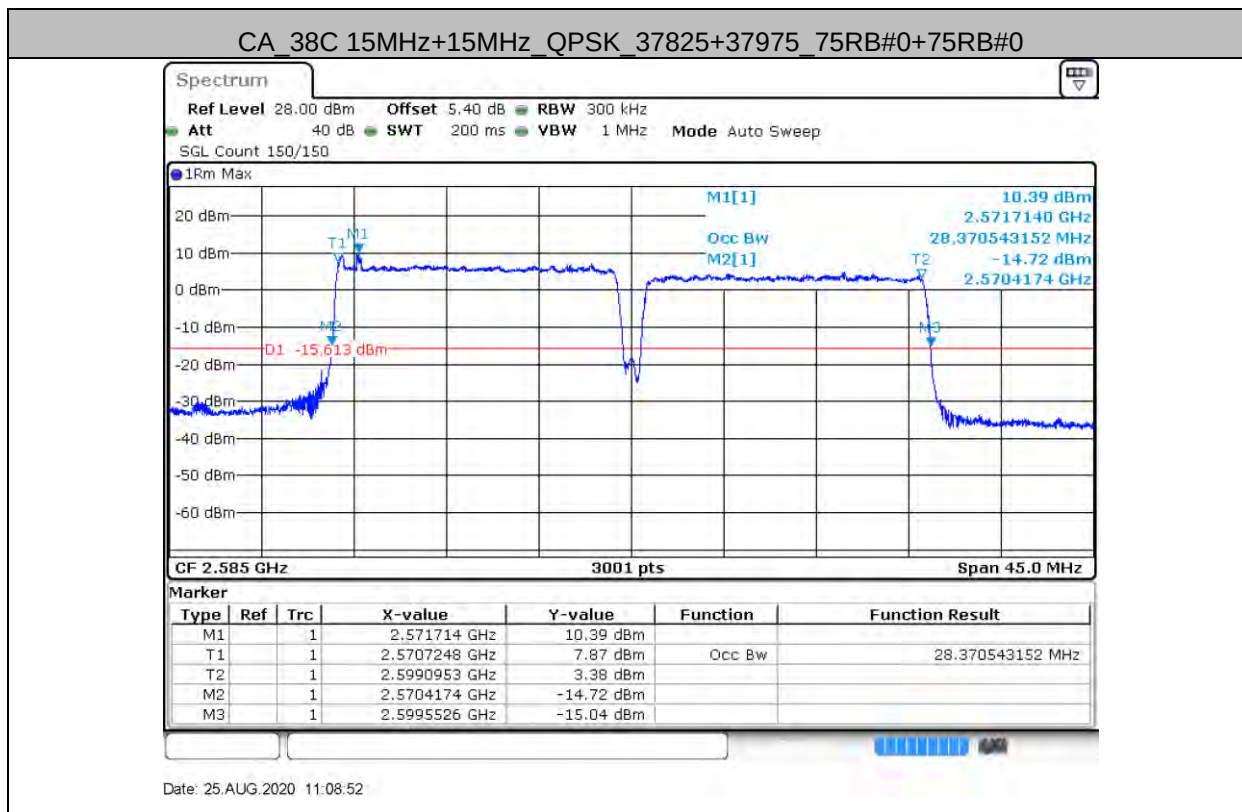
4 26dB Bandwidth and Occupied Bandwidth

Test Band	Modulation PCC&SCC	Test Mode PCC/SCC	Test Channel PCC/SCC	PCC RB	SCC RB	OBW [MHz]	EBW [MHz]	Verdict
CA_38C	QPSK	75RB+75RB	37825+37975	75RB#0	75RB#0	28.37	29.14	PASS
CA_38C	16QAM	75RB+75RB	37825+37975	75RB#0	75RB#0	28.25	29.26	PASS
CA_38C	64QAM	75RB+75RB	37825+37975	75RB#0	75RB#0	28.25	29.27	PASS
CA_38C	QPSK	75RB+75RB	37925+38075	75RB#0	75RB#0	28.28	29.21	PASS
CA_38C	16QAM	75RB+75RB	37925+38075	75RB#0	75RB#0	28.27	29.26	PASS
CA_38C	64QAM	75RB+75RB	37925+38075	75RB#0	75RB#0	28.25	29.27	PASS
CA_38C	QPSK	75RB+75RB	38025+38175	75RB#0	75RB#0	28.28	29.27	PASS
CA_38C	16QAM	75RB+75RB	38025+38175	75RB#0	75RB#0	28.28	29.27	PASS
CA_38C	64QAM	75RB+75RB	38025+38175	75RB#0	75RB#0	28.28	29.26	PASS
CA_38C	QPSK	100RB+100RB	37850+38048	100RB#0	100RB#0	37.69	39.05	PASS
CA_38C	16QAM	100RB+100RB	37850+38048	100RB#0	100RB#0	37.51	38.95	PASS
CA_38C	64QAM	100RB+100RB	37850+38048	100RB#0	100RB#0	37.51	38.93	PASS
CA_38C	QPSK	100RB+100RB	37901+38099	100RB#0	100RB#0	37.55	38.95	PASS
CA_38C	16QAM	100RB+100RB	37901+38099	100RB#0	100RB#0	37.53	38.95	PASS
CA_38C	64QAM	100RB+100RB	37901+38099	100RB#0	100RB#0	37.53	38.97	PASS
CA_38C	QPSK	100RB+100RB	37952+38150	100RB#0	100RB#0	37.51	39.01	PASS
CA_38C	16QAM	100RB+100RB	37952+38150	100RB#0	100RB#0	37.53	38.97	PASS
CA_38C	64QAM	100RB+100RB	37952+38150	100RB#0	100RB#0	37.53	38.95	PASS

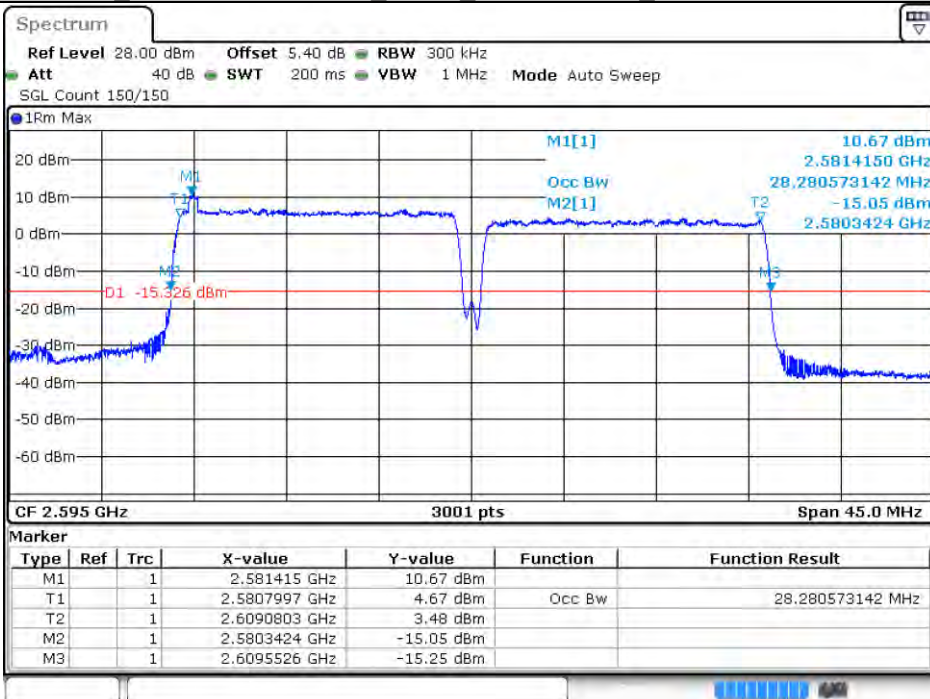


4.1 For LTE

4.1.1 Test Band = LTE Band CA_38C

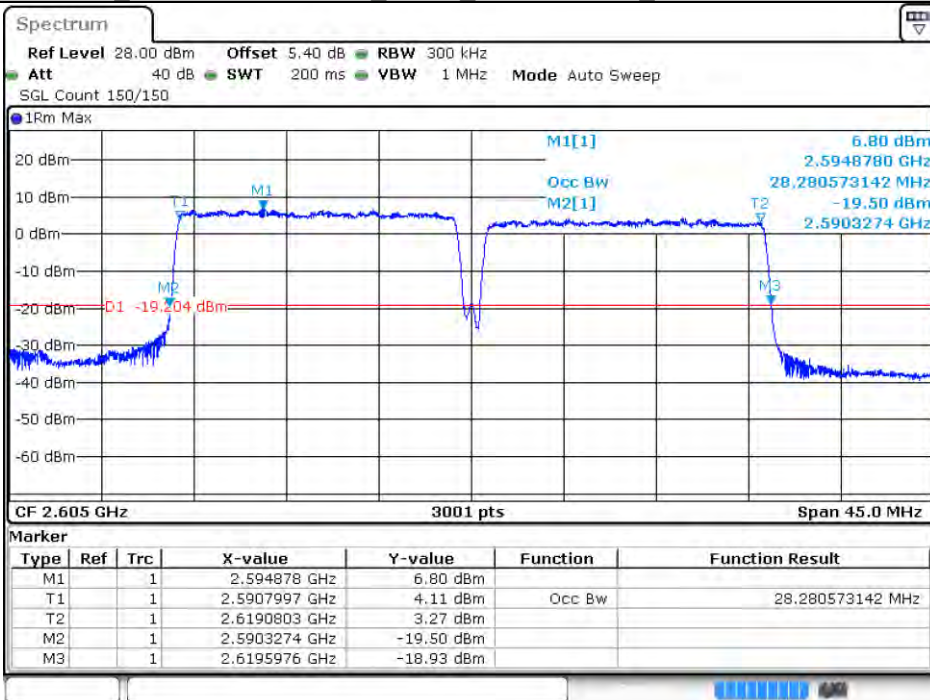


CA_38C 15MHz+15MHz_QPSK_37925+38075_75RB#0+75RB#0



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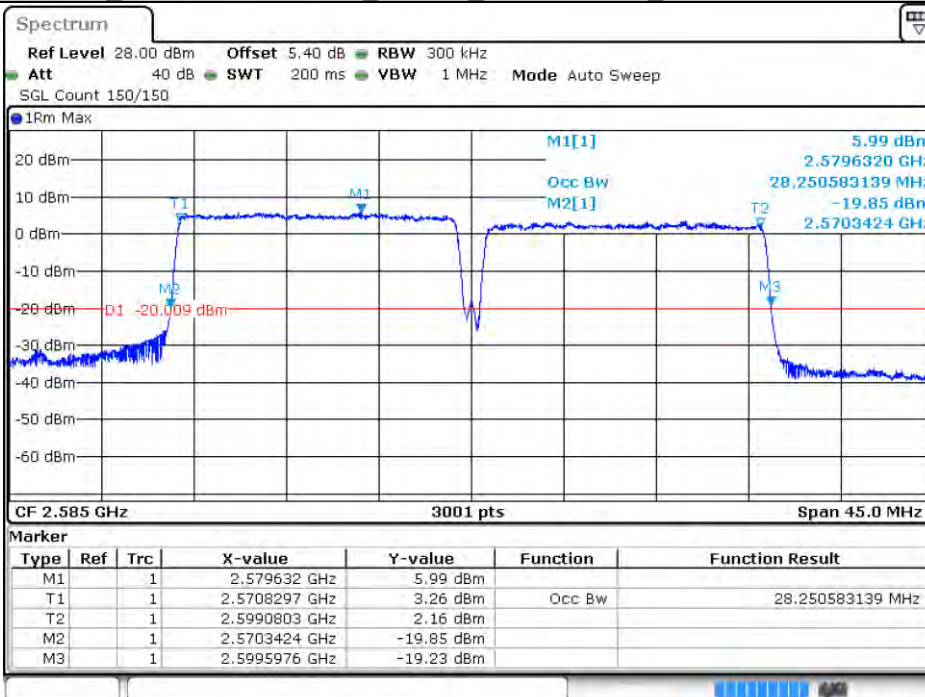
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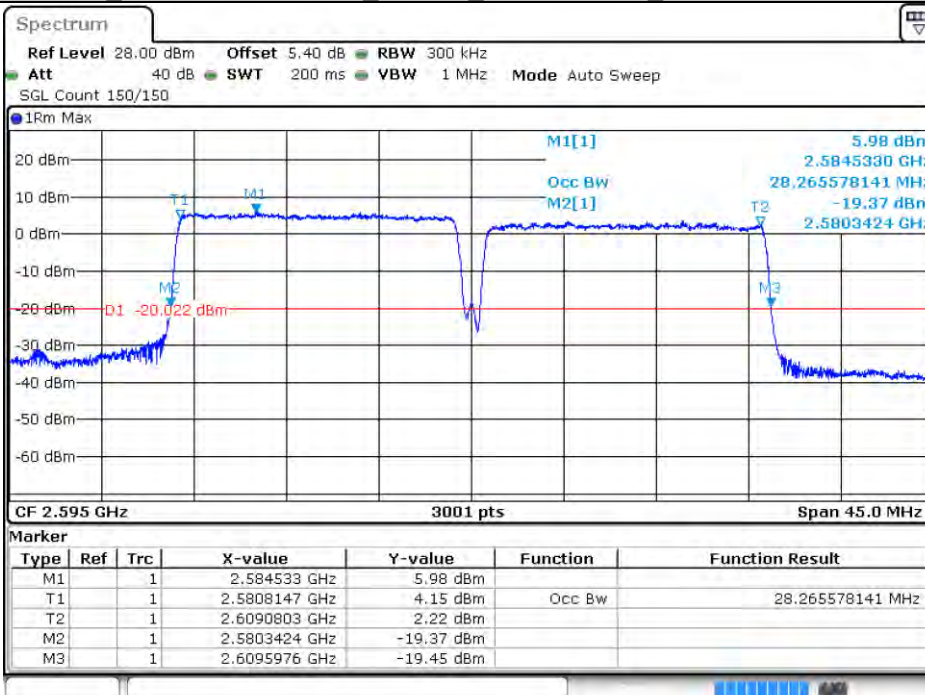


CA 38C 15MHz+15MHz 16QAM 37825+37975 75RB#0+75RB#0



Date: 25.AUG.2020 11:09:29

CA 38C 15MHz+15MHz 16QAM 37925+38075 75RB#0+75RB#0



Date: 25.AUG.2020 11:11:26

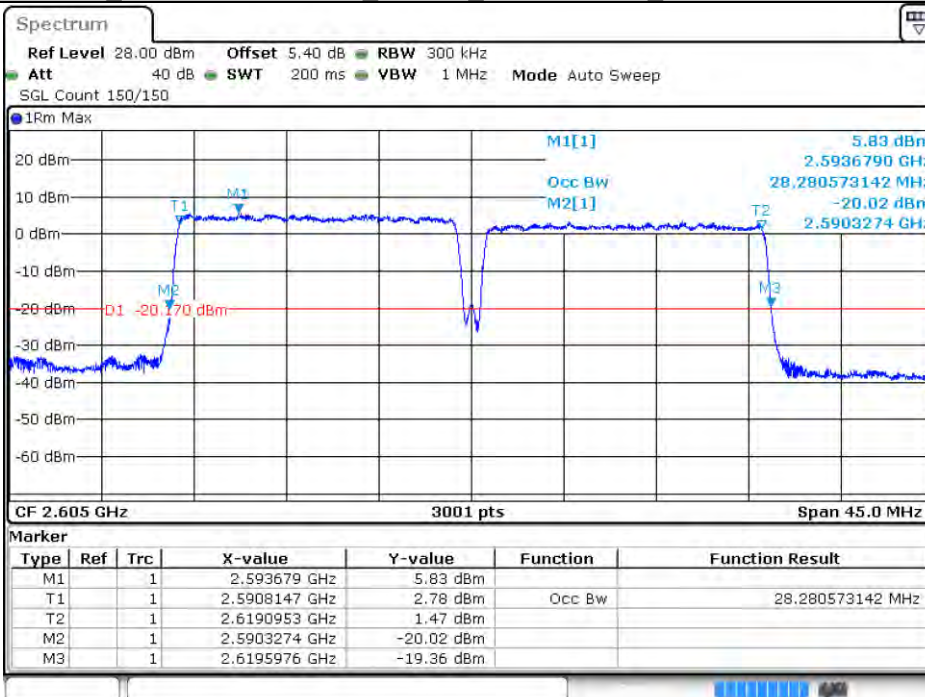


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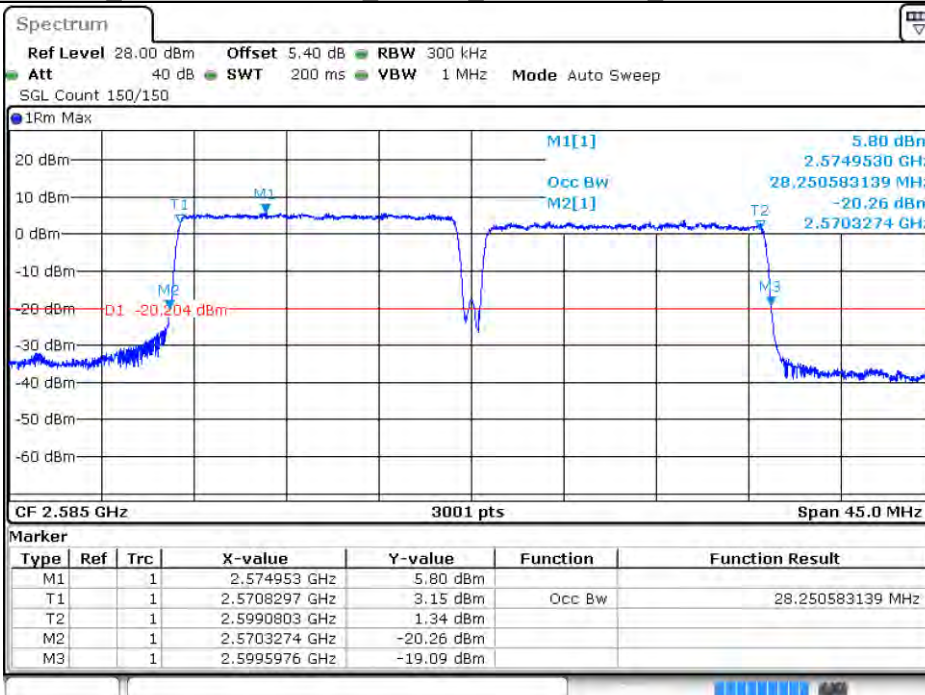
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CA 38C 15MHz+15MHz 16QAM 38025+38175 75RB#0+75RB#0



Date: 25.AUG.2020 11:13:49

CA 38C 15MHz+15MHz 64QAM 37825+37975 75RB#0+75RB#0



Date: 25.AUG.2020 11:10:08

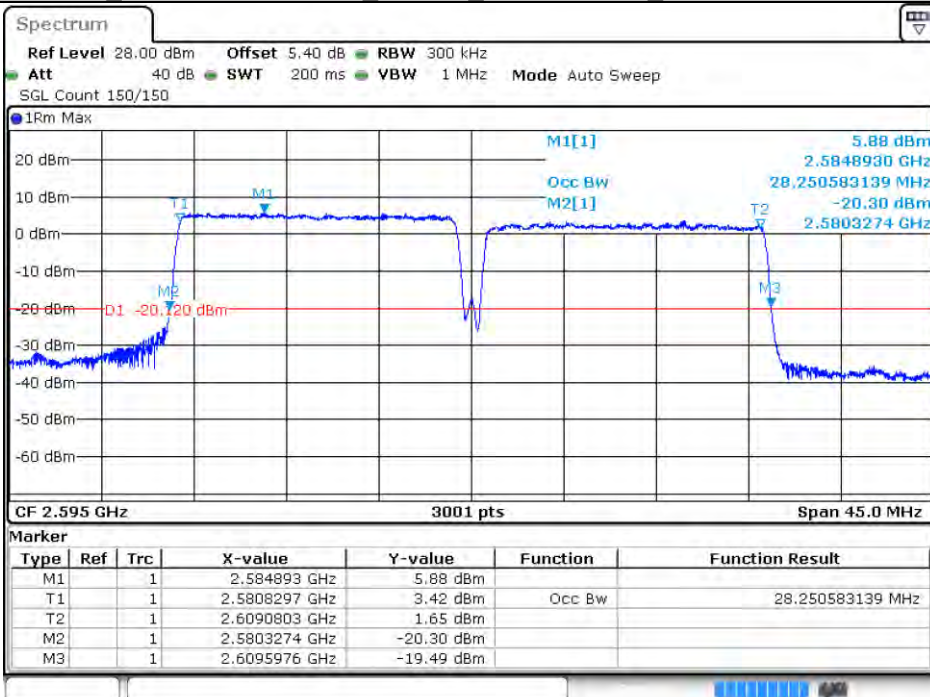


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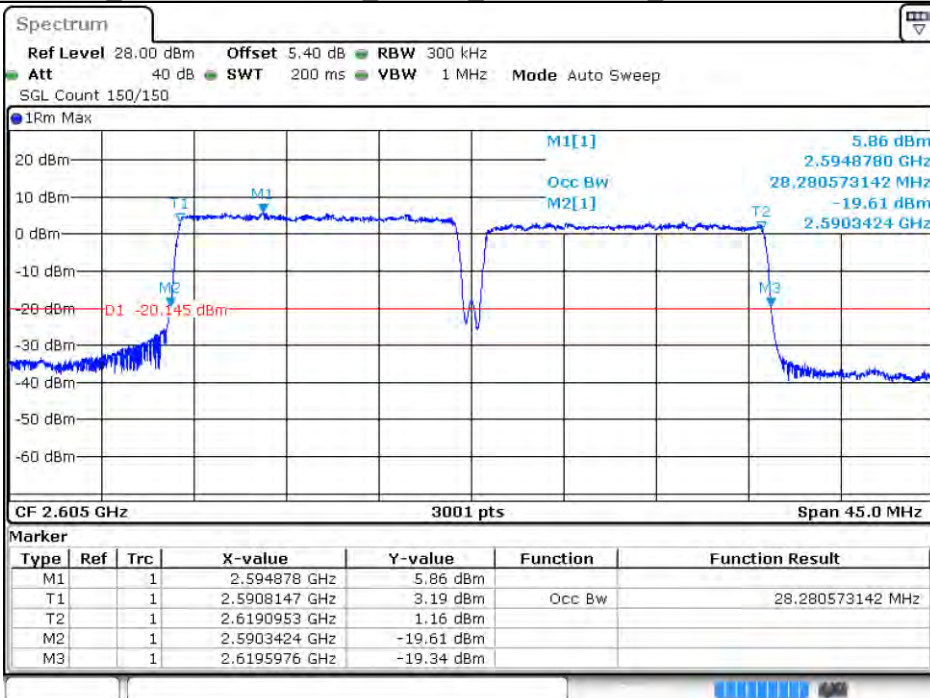
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CA 38C 15MHz+15MHz 64QAM 37925+38075 75RB#0+75RB#0



Date: 25.AUG.2020 11:12:04

CA 38C 15MHz+15MHz 64QAM 38025+38175 75RB#0+75RB#0



Date: 25.AUG.2020 11:14:26



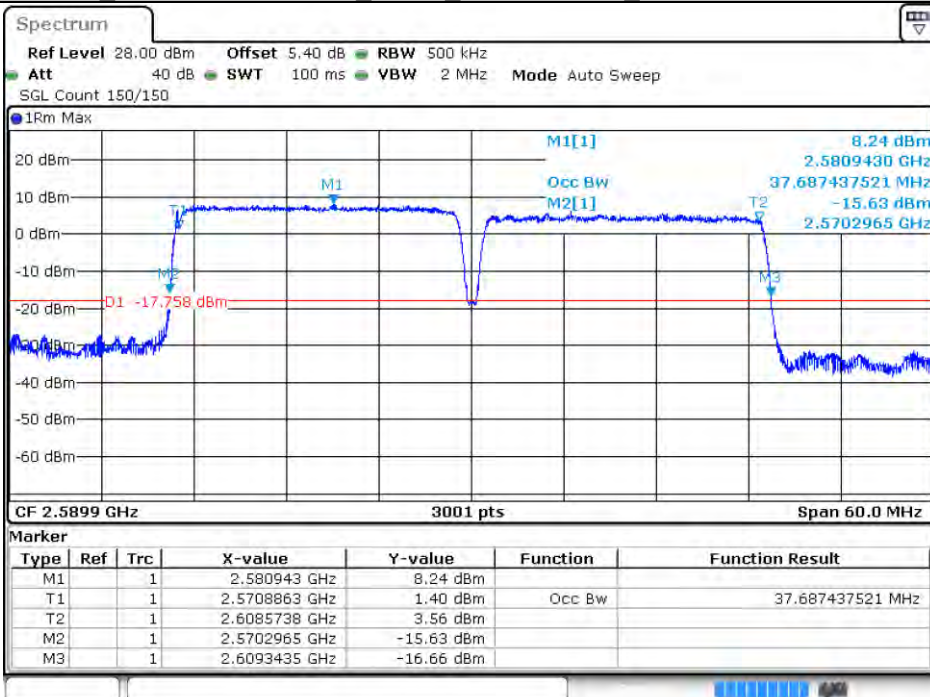
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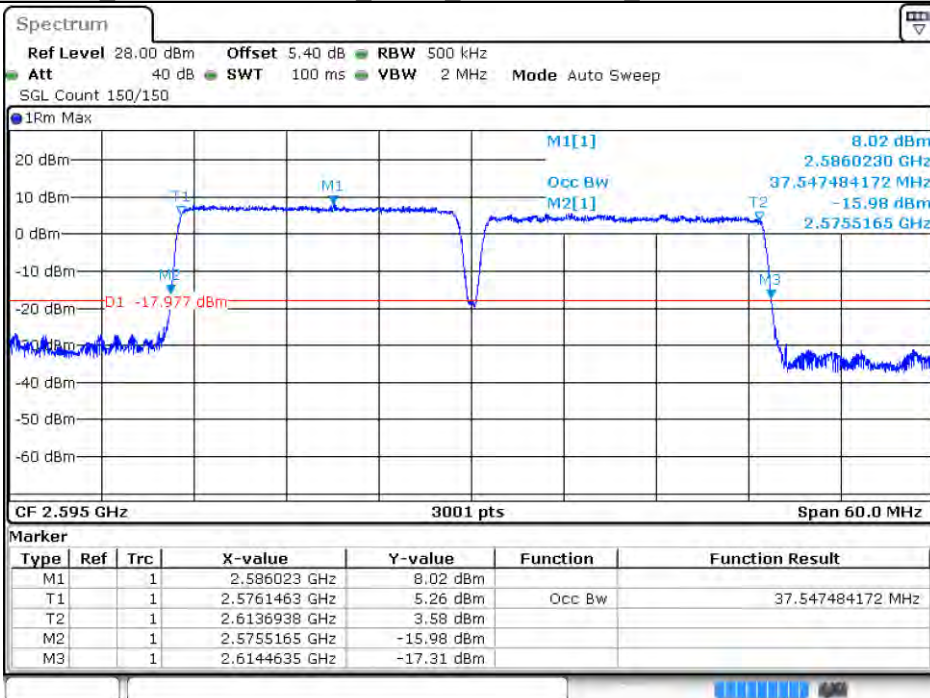
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CA_38C 20MHz+20MHz_QPSK_37850+38048_100RB#0+100RB#0



Date: 25.AUG.2020 11:15:07

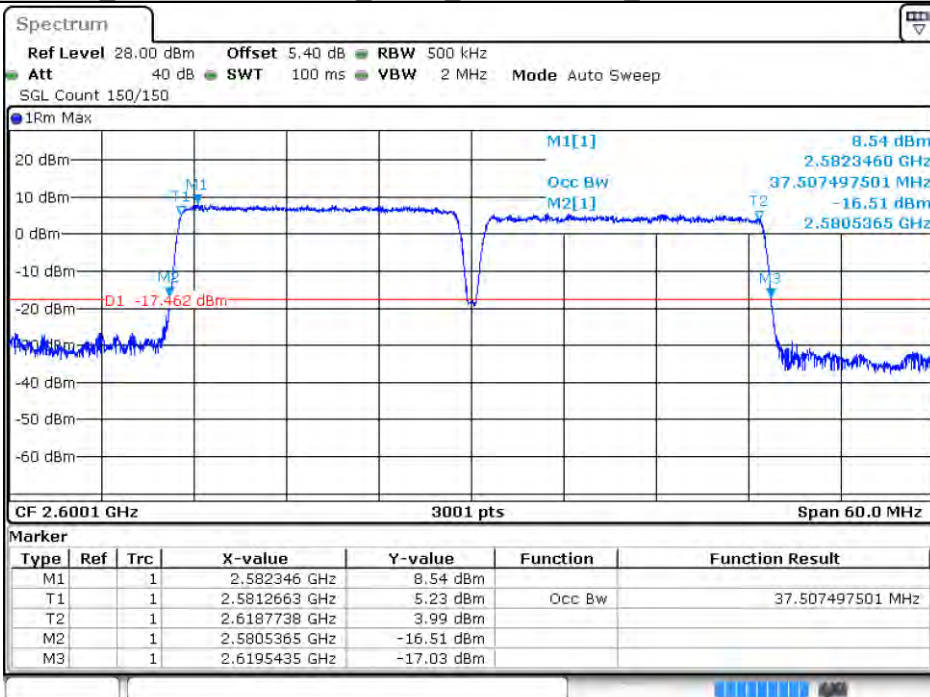
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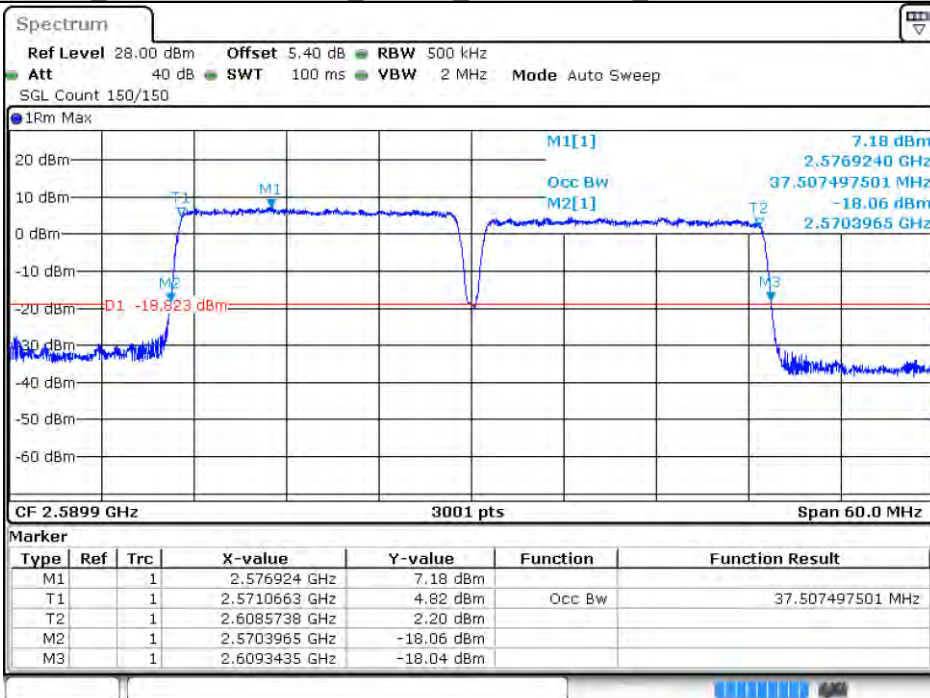


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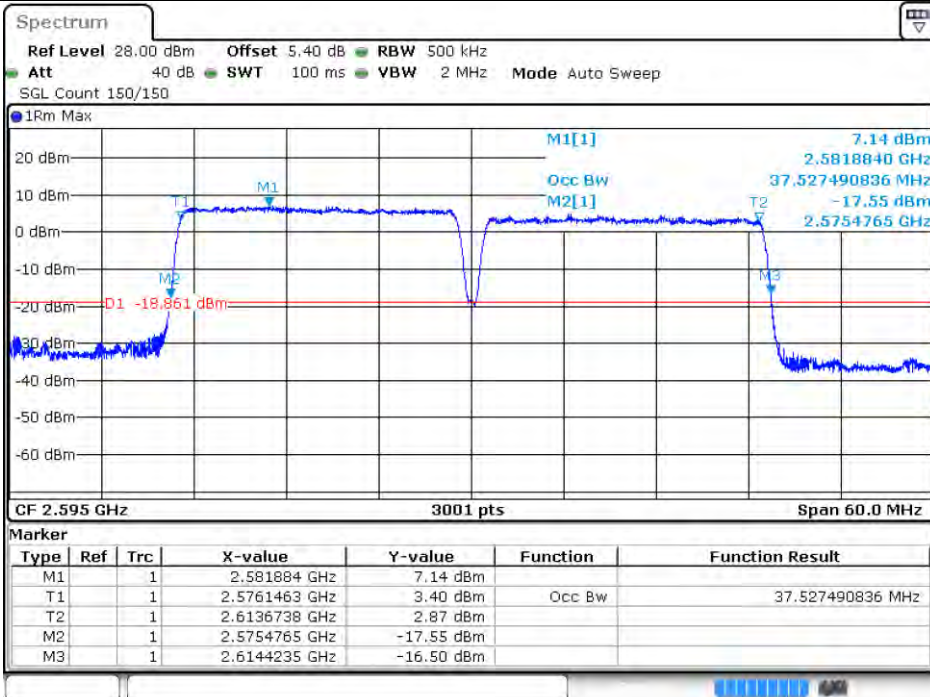
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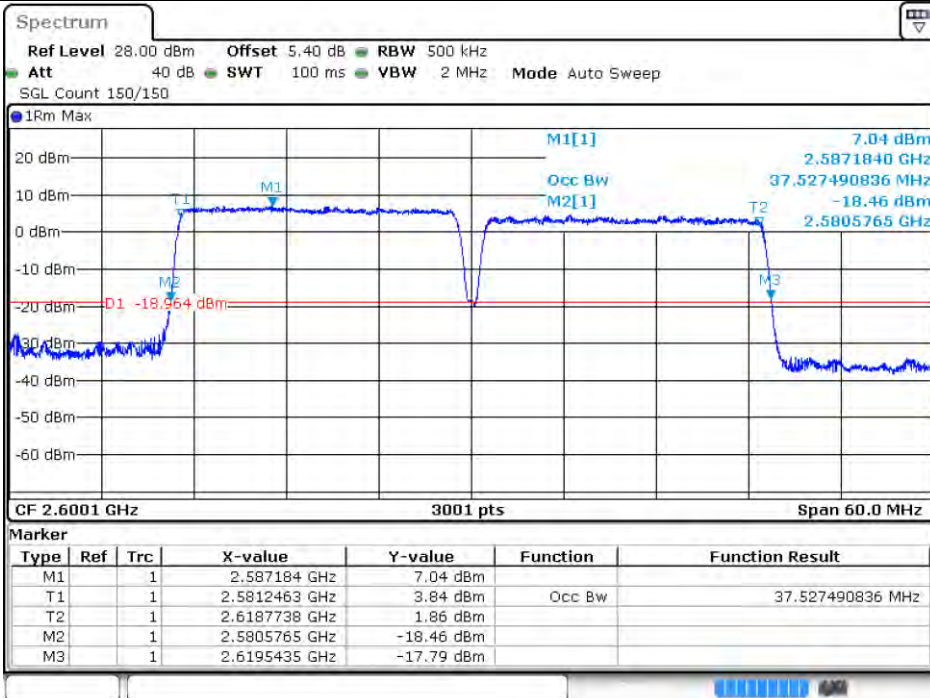


CA 38C 20MHz+20MHz 16QAM 37901+38099 100RB#0+100RB#0



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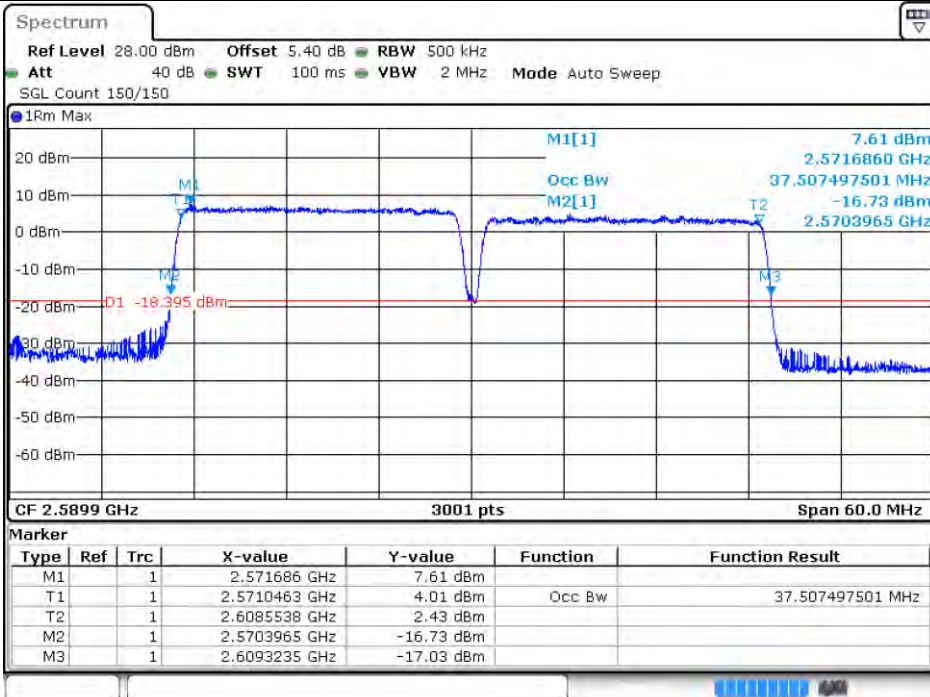
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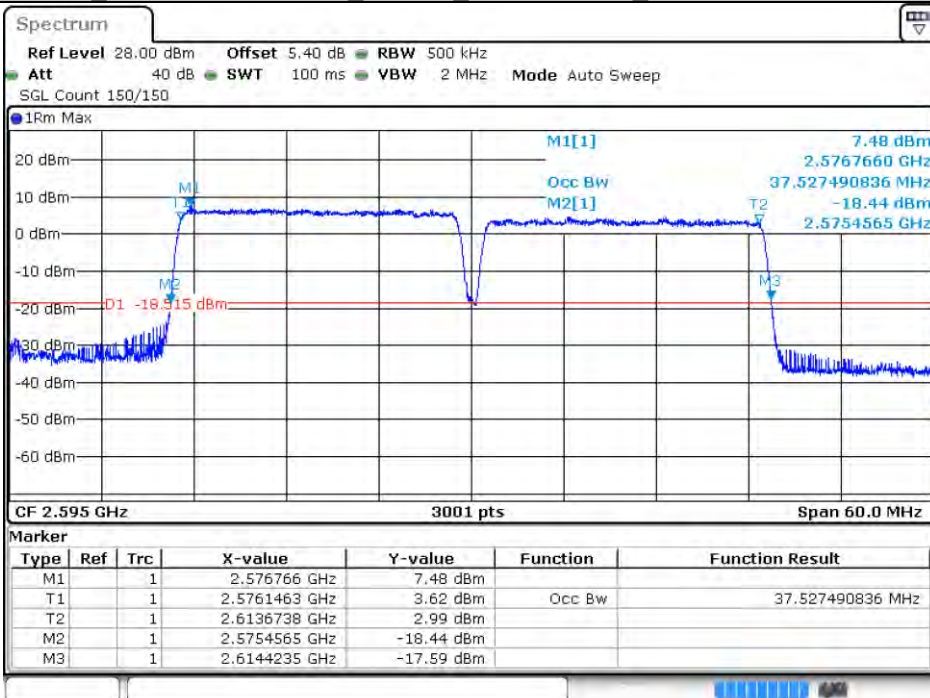


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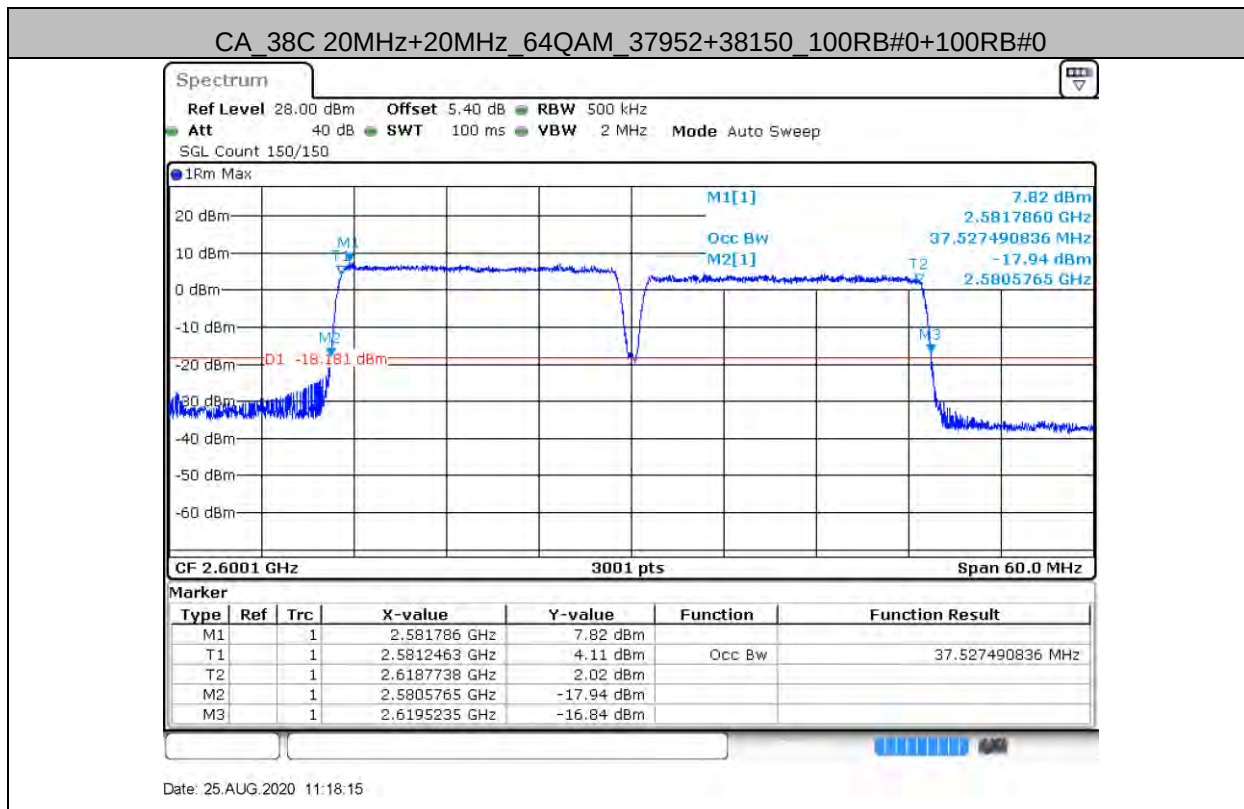
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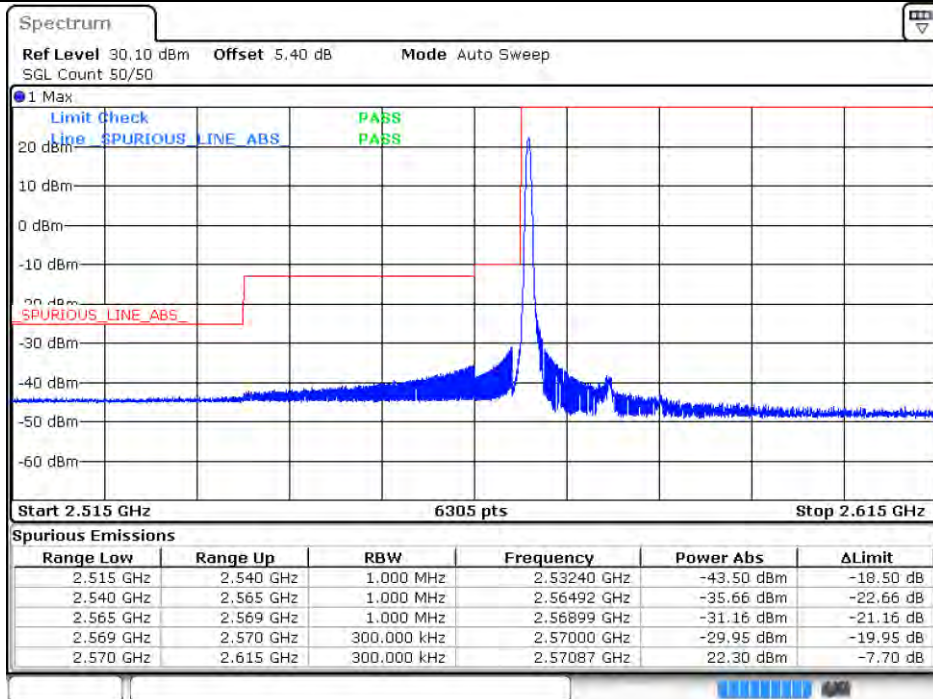


5 Band Edges Compliance

5.1 For LTE

5.1.1 Test Band = LTE Band CA_38C

CA_38C_75RB+75RB_QPSK_37825+37975_1RB#0+0RB#0



Date: 25.AUG.2020 11:19:02



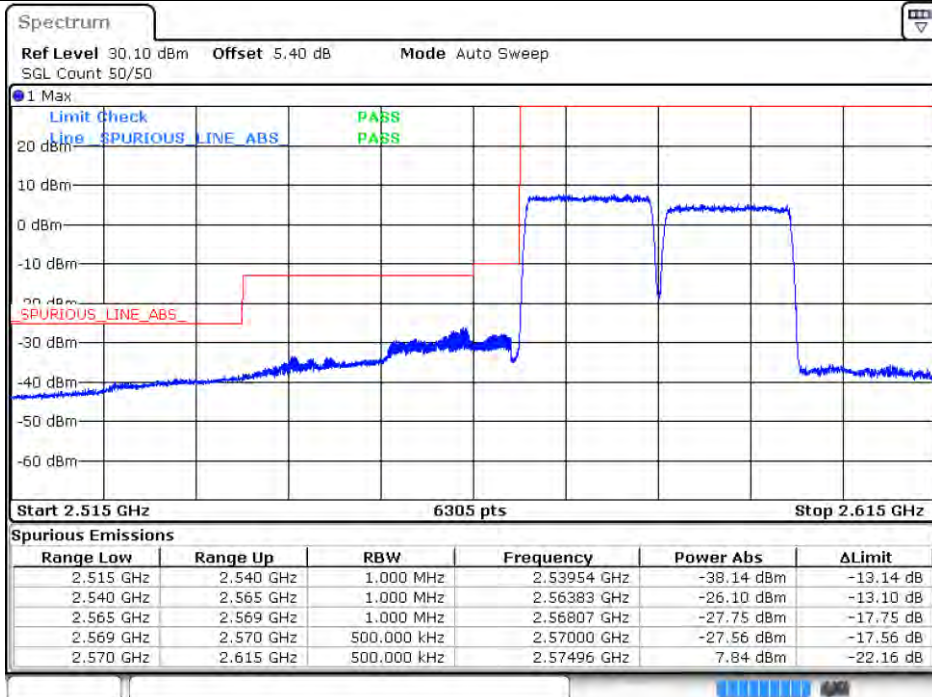
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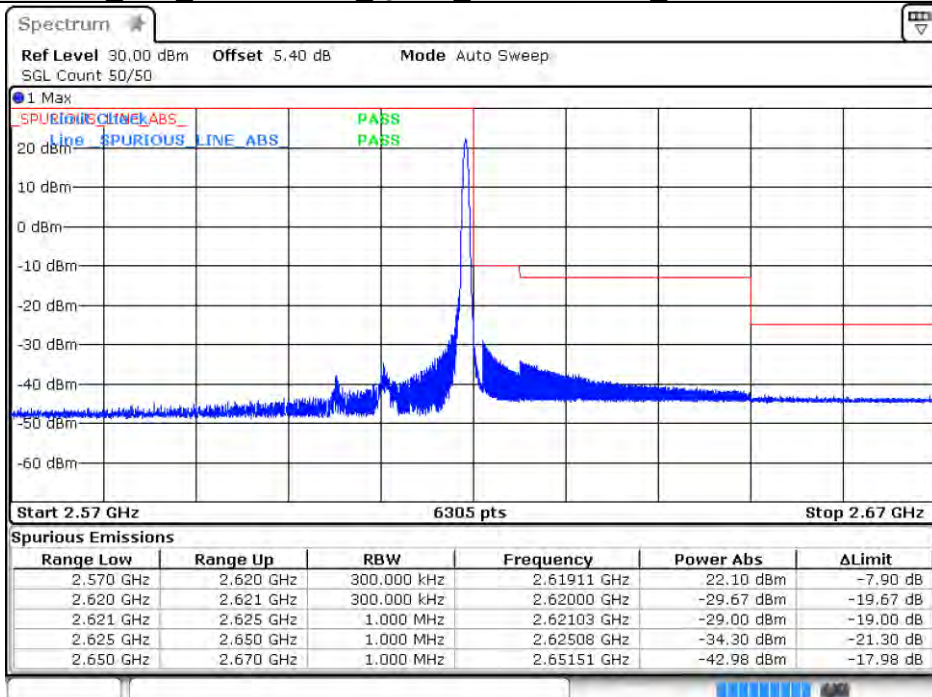
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CA 38C 75RB+75RB QPSK 37825+37975 75RB#0+75RB#0



Date: 25.AUG.2020 11:20:46

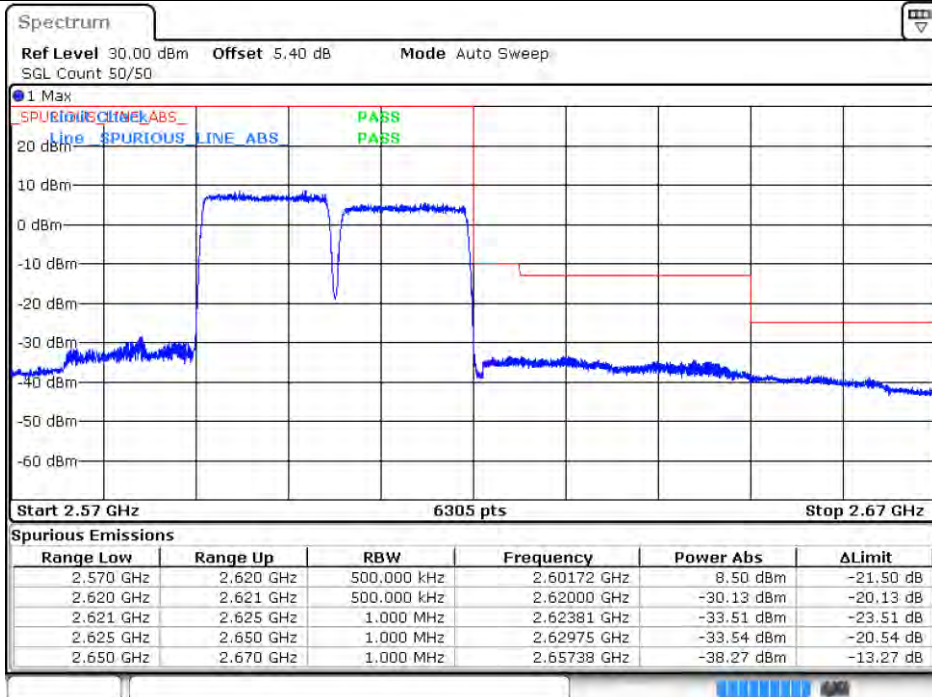
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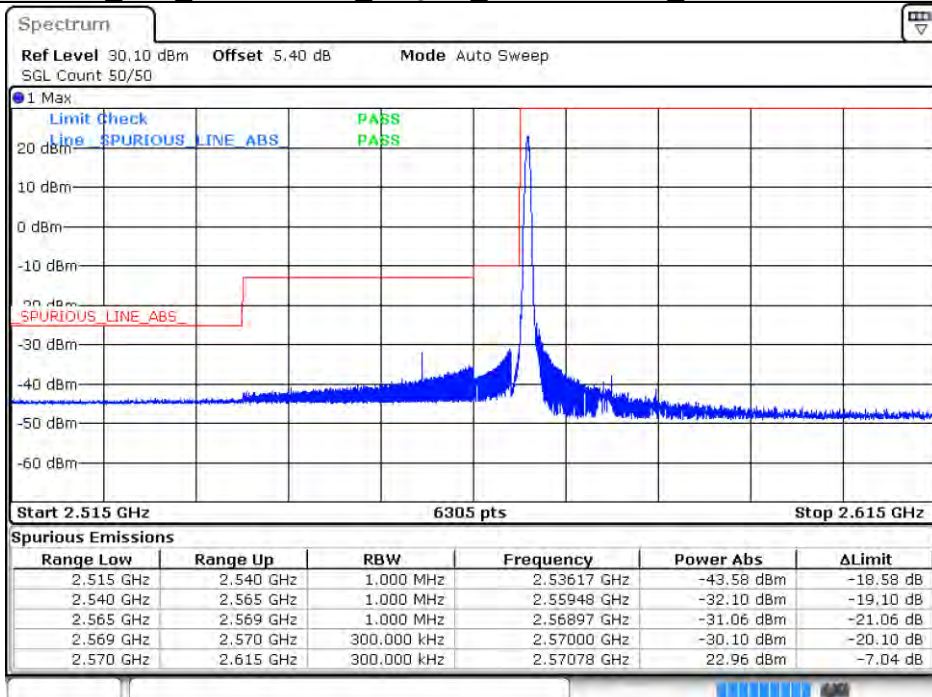


CA 38C 75RB+75RB QPSK 38025+38175 75RB#0+75RB#0



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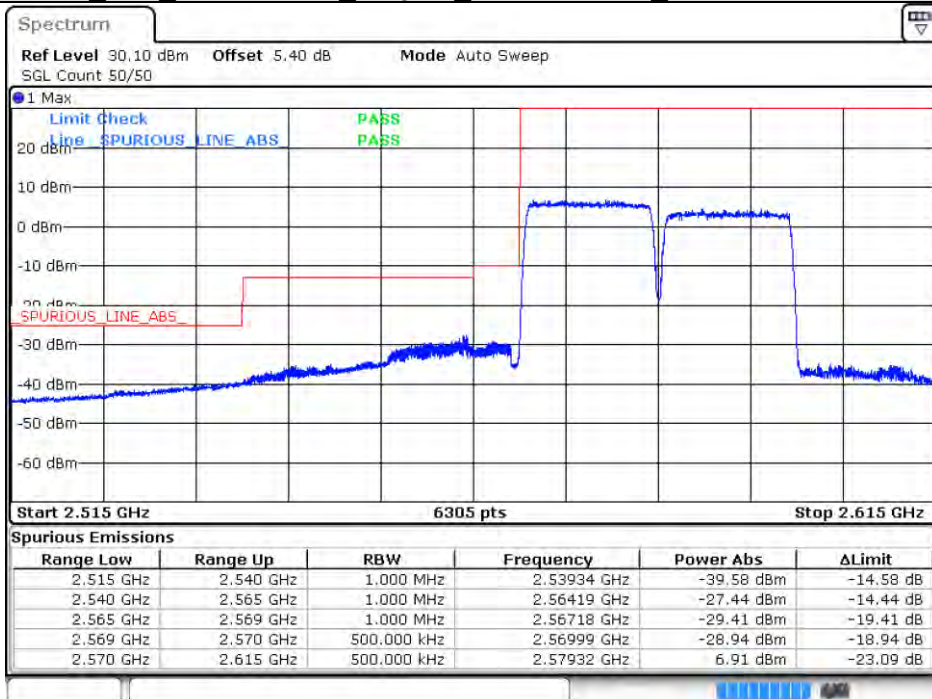
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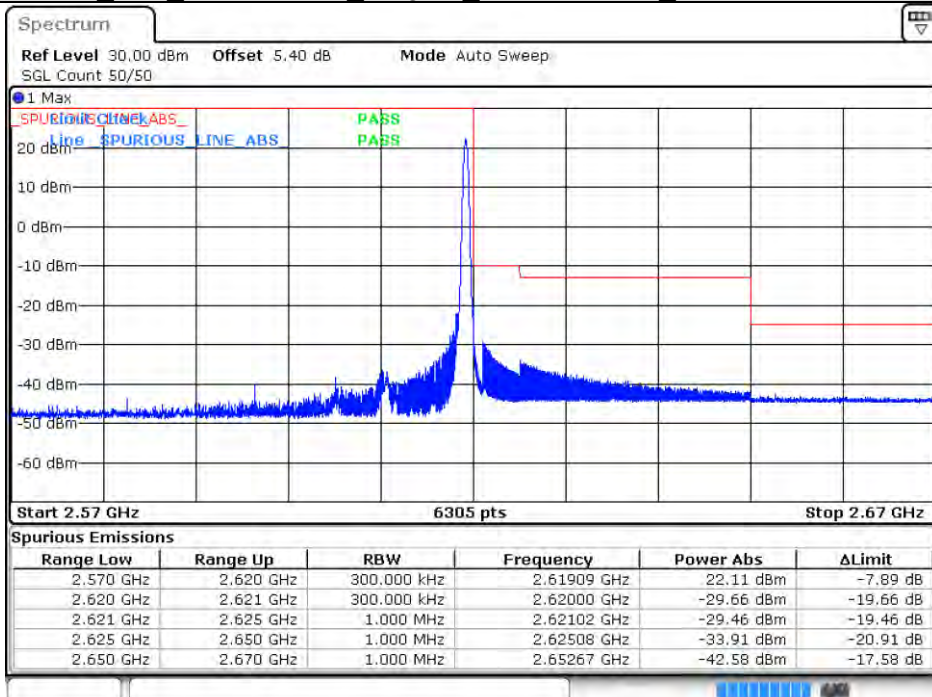


CA 38C 75RB+75RB 16QAM 37825+37975 75RB#0+75RB#0



Date: 25.AUG.2020 11:21:18

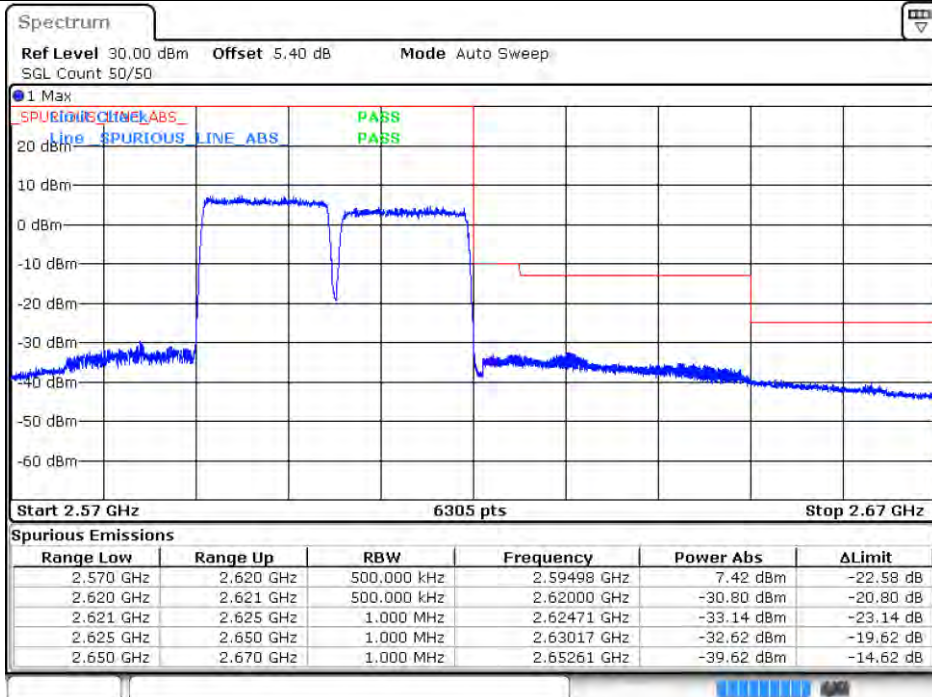
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Date: 25.AUG.2020 11:23:29

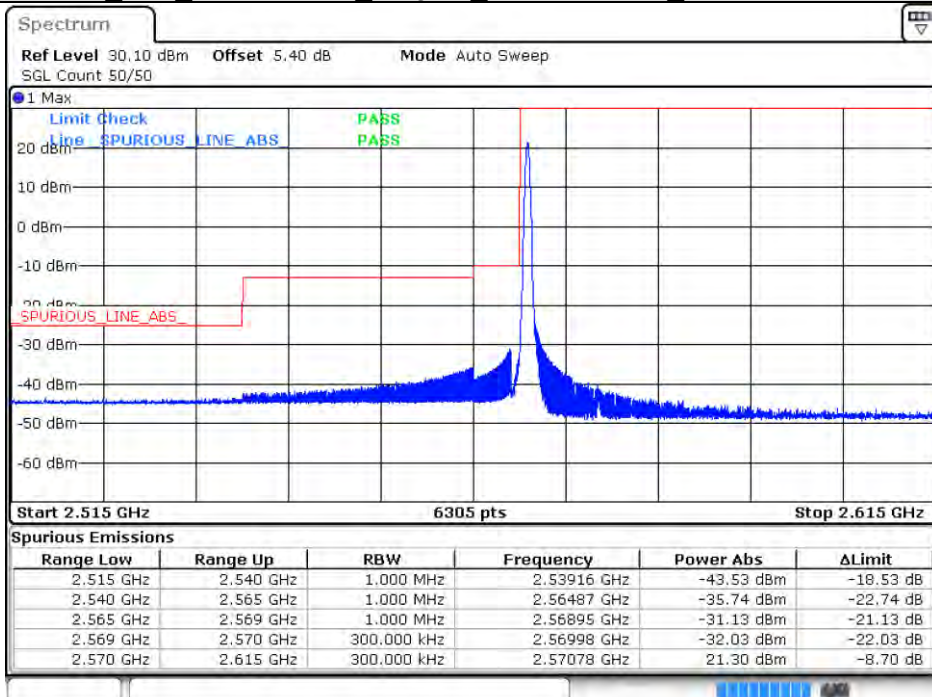


CA 38C 75RB+75RB 16QAM 38025+38175 75RB#0+75RB#0



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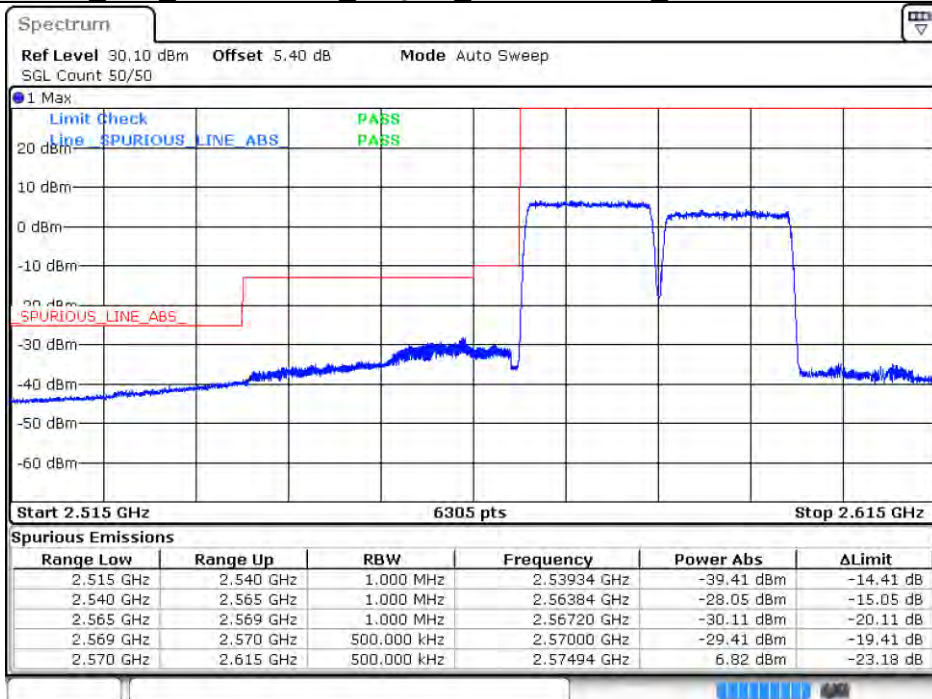
CA 38C 75RB+75RB 64QAM 37825+37975 1RB#0+0RB#0



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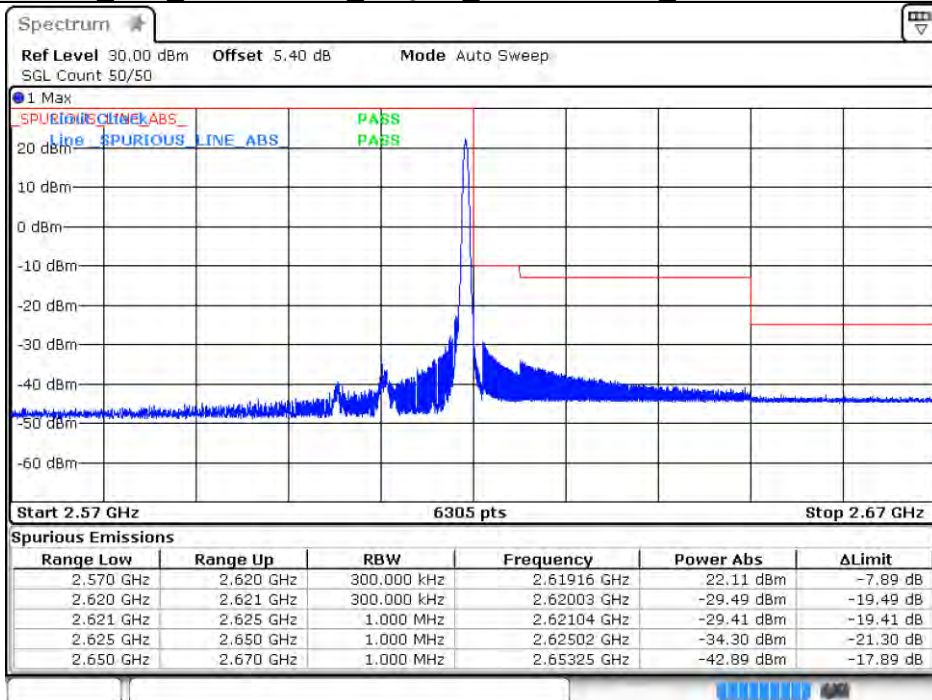


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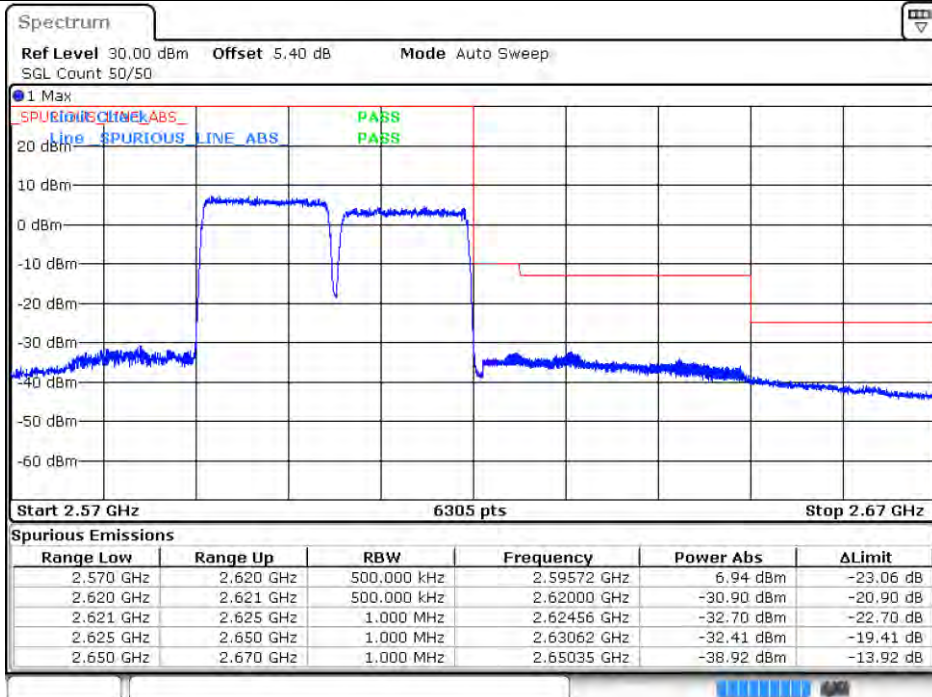
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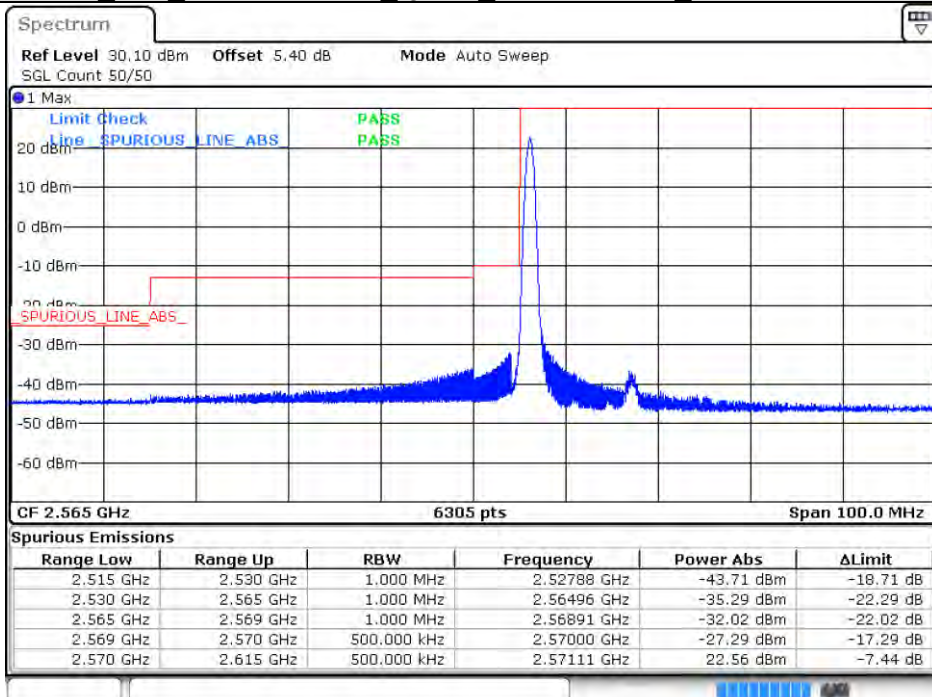


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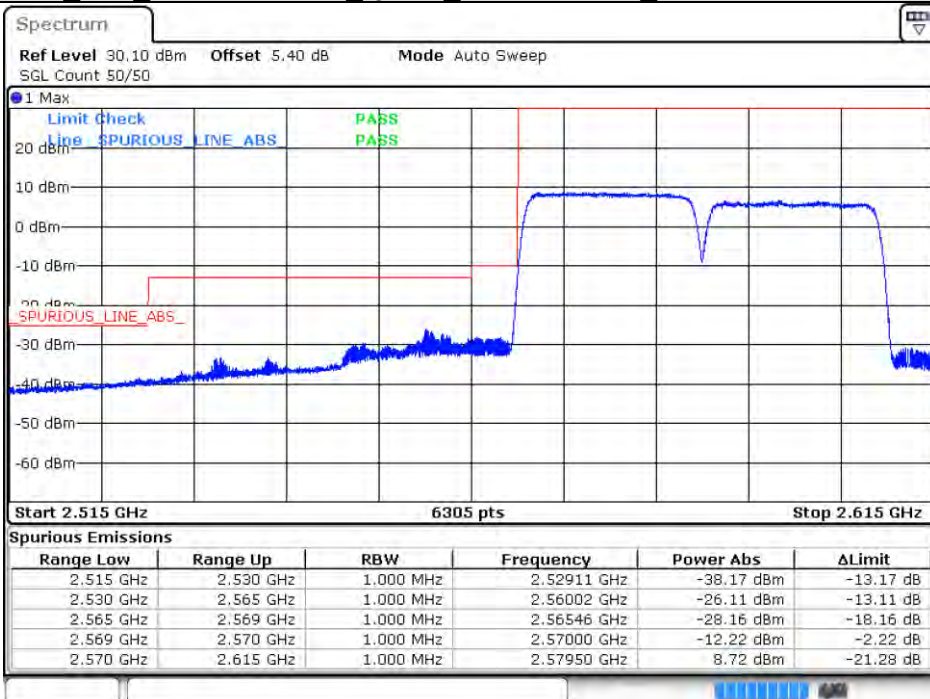
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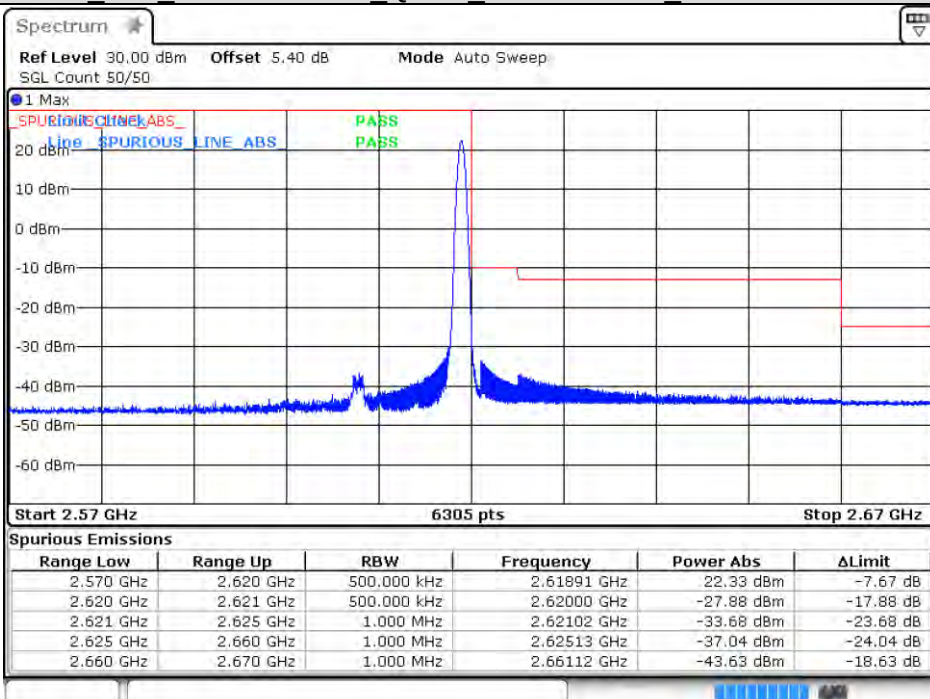


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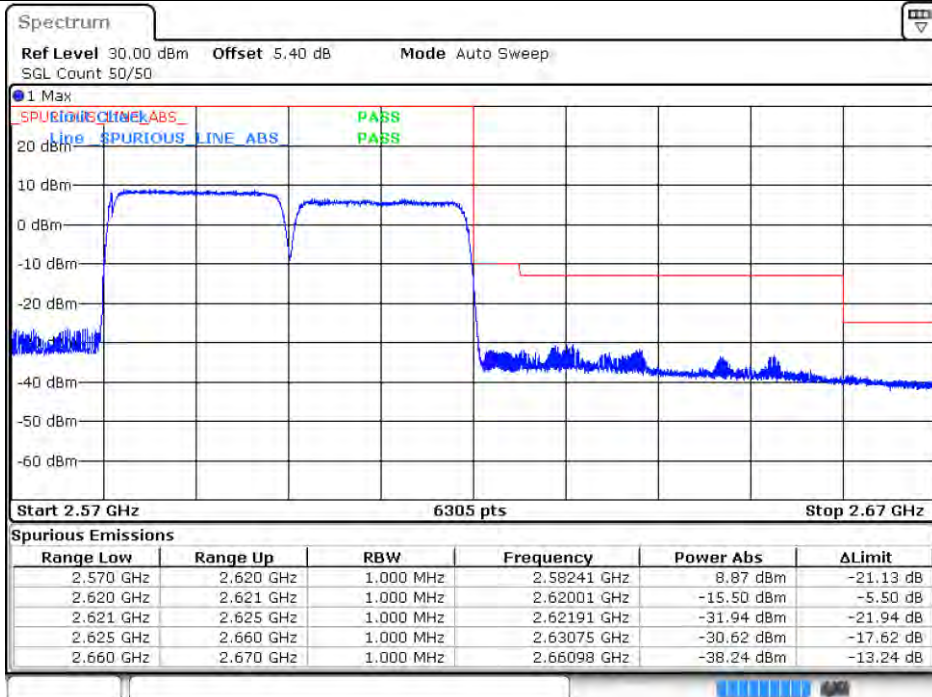


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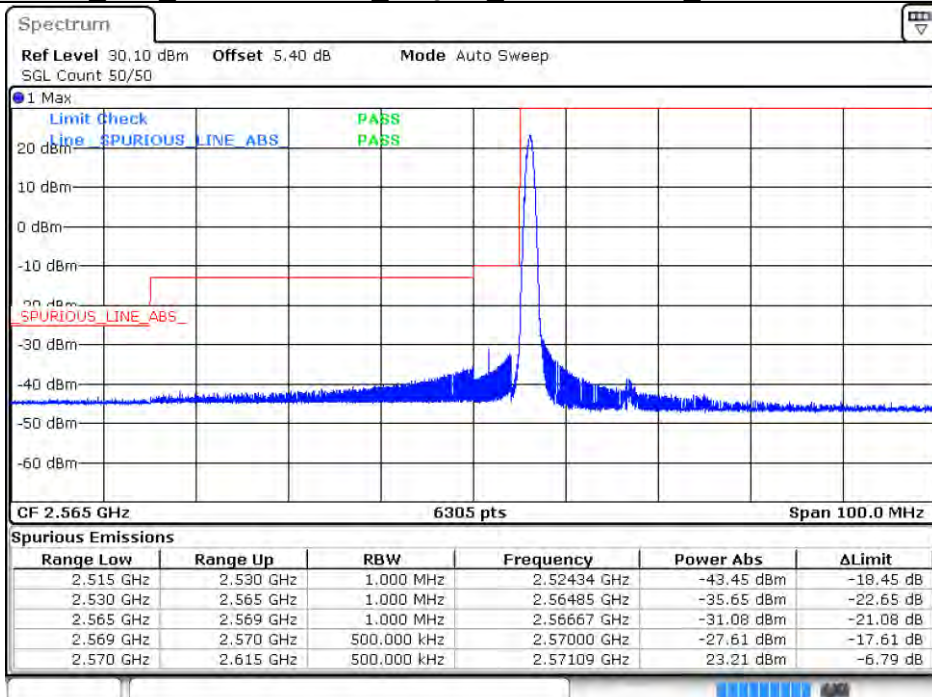
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CA 38C 100RB+100RB QPSK 37952+38150 100RB#0+100RB#0



Date: 25.AUG.2020 11:34:52

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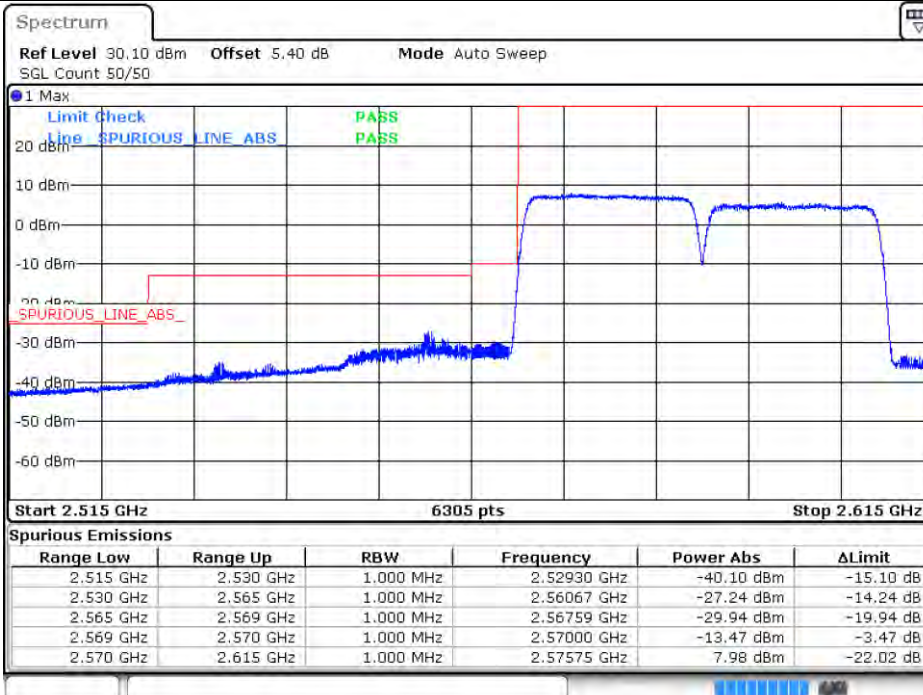
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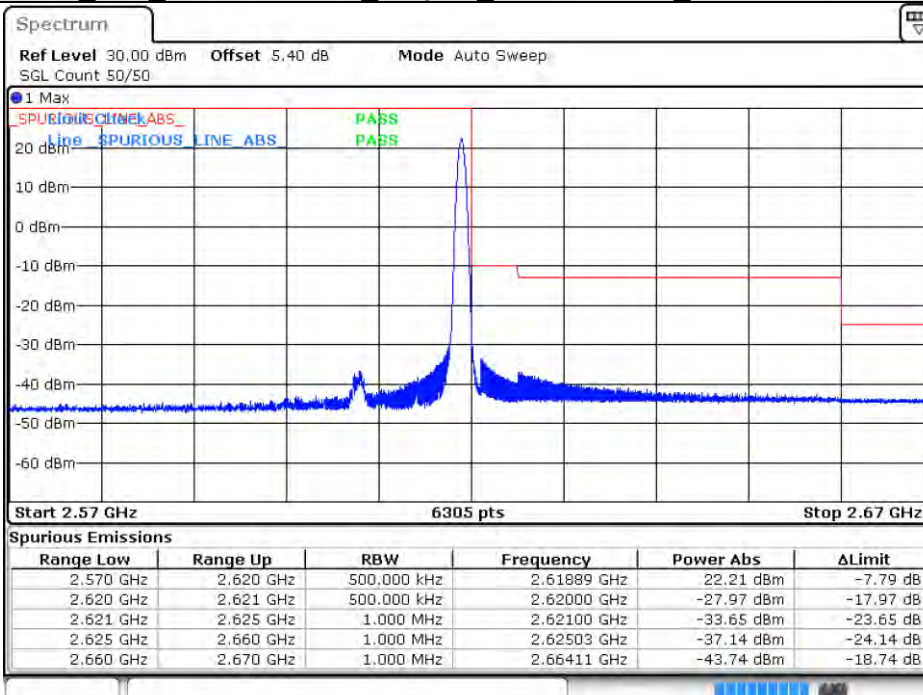
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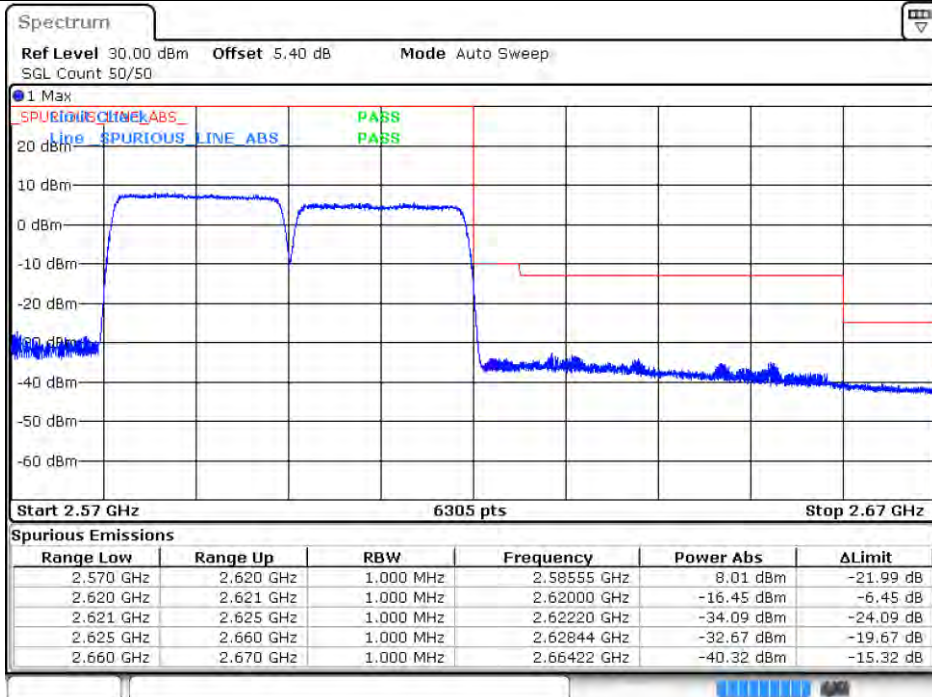
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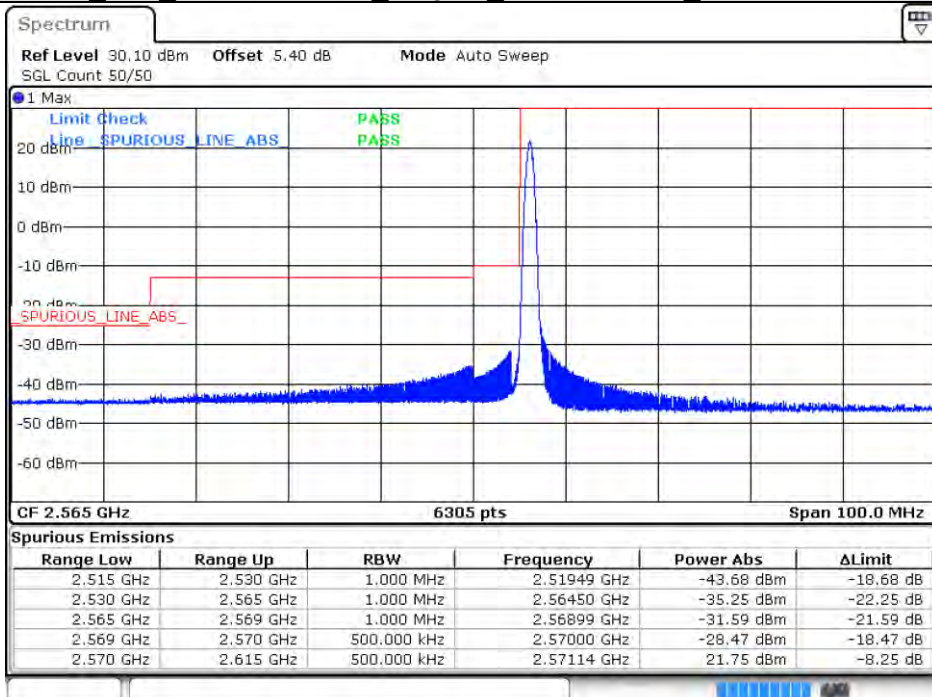


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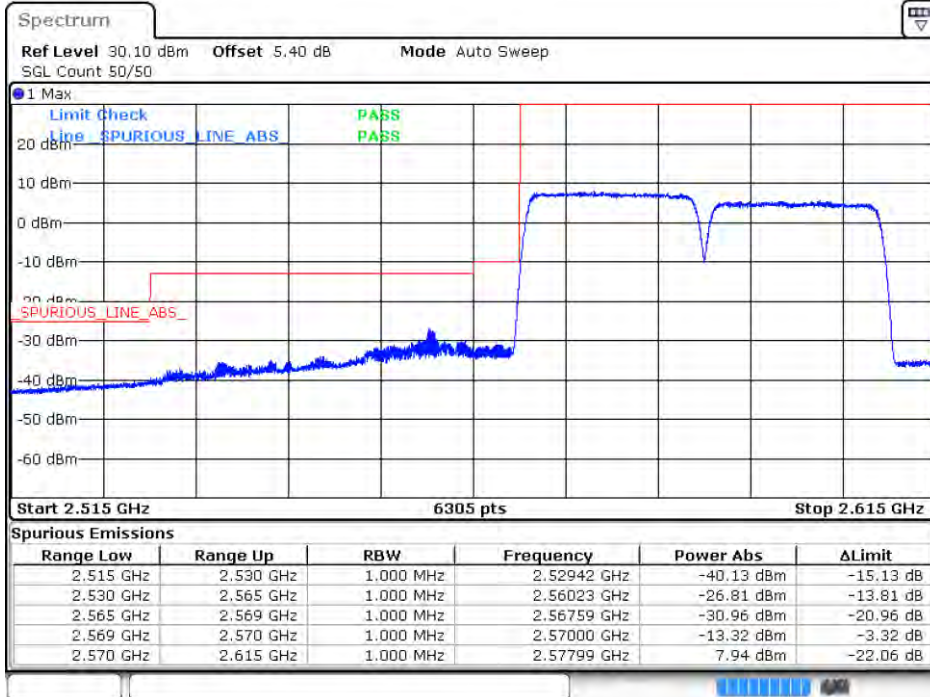
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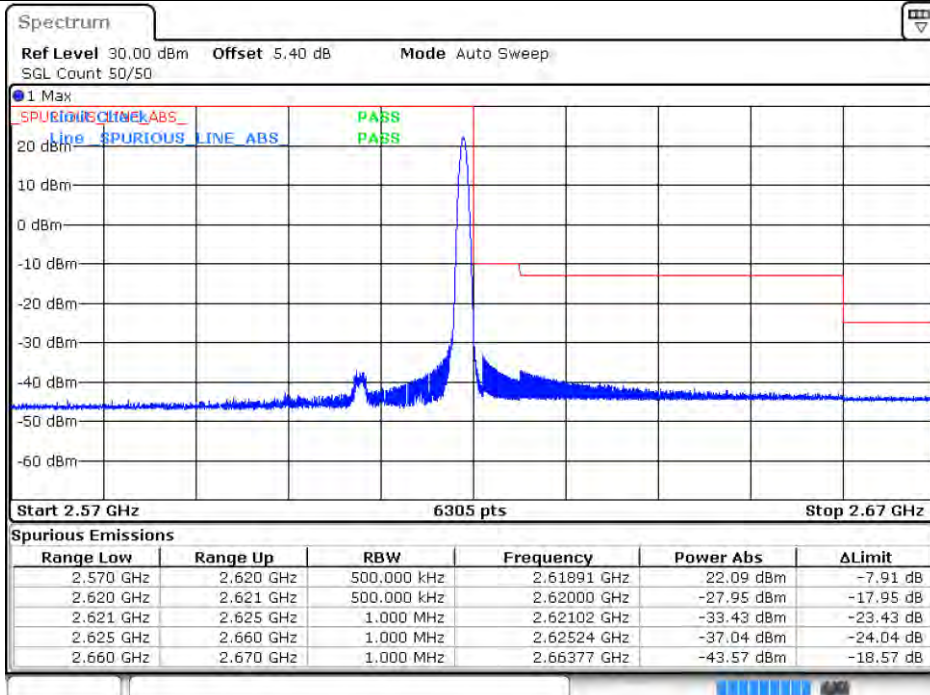


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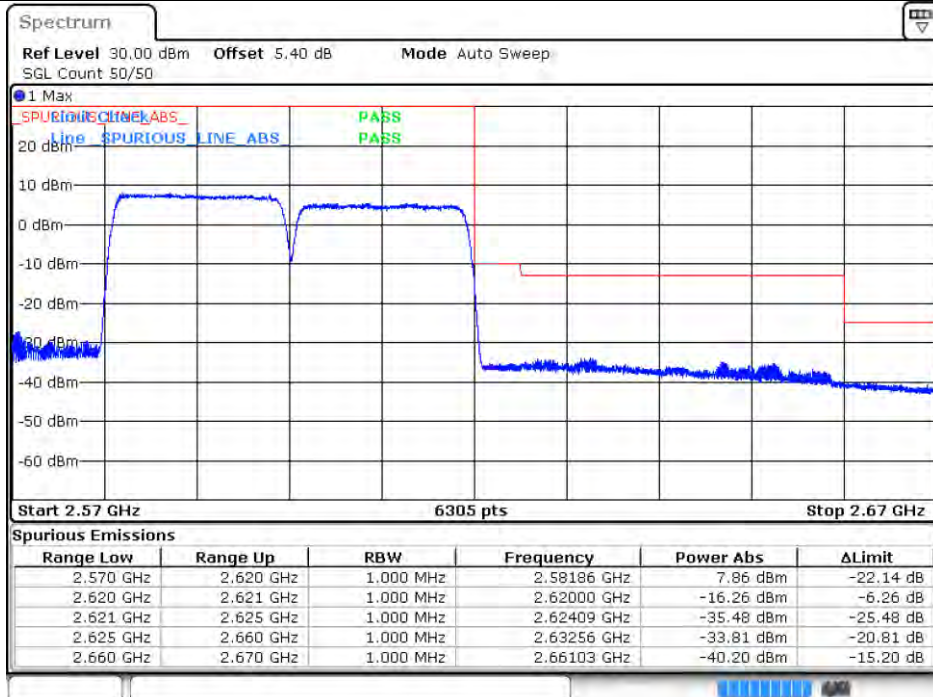
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CA 38C 100RB+100RB 64QAM 37952+38150 100RB#0+100RB#0



Date: 25.AUG.2020 11:35:49



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6 Spurious Emission at Antenna Terminal

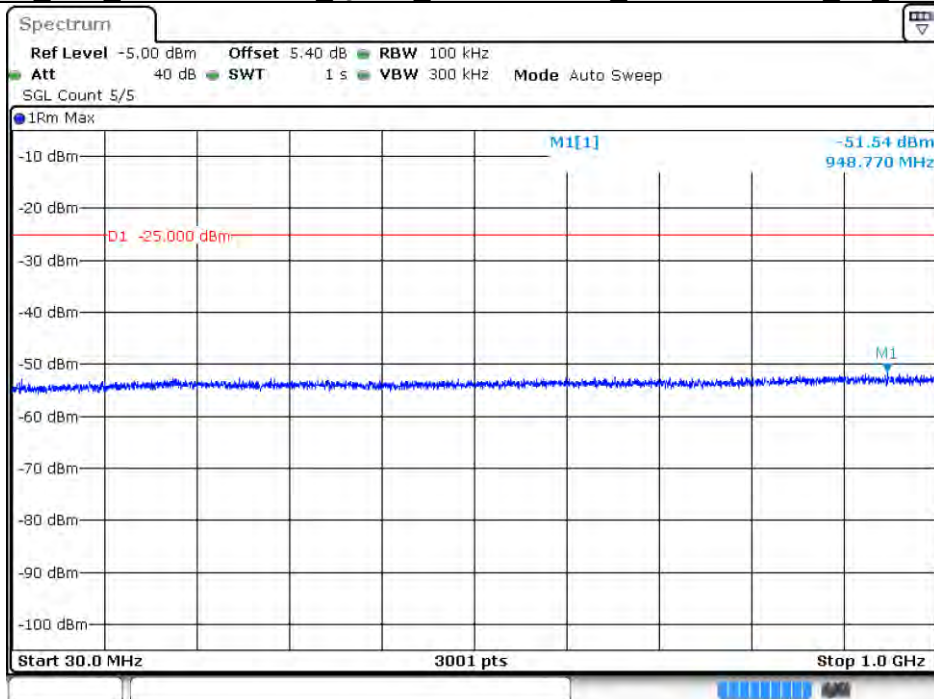
NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Part I - Test Plots

6.1 For LTE

6.1.1 Test Band = LTE Band CA_38C

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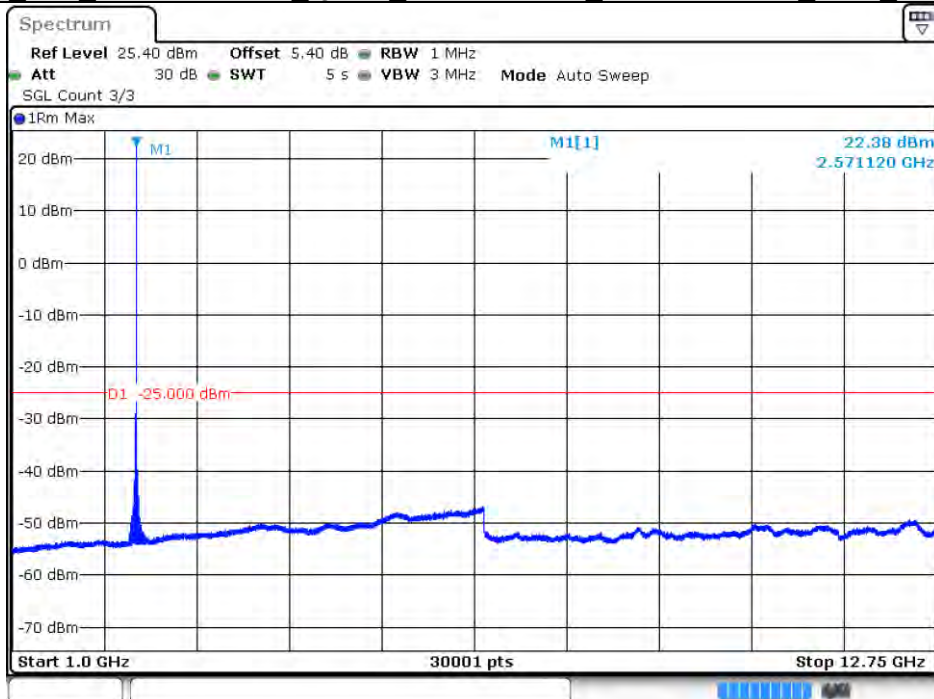


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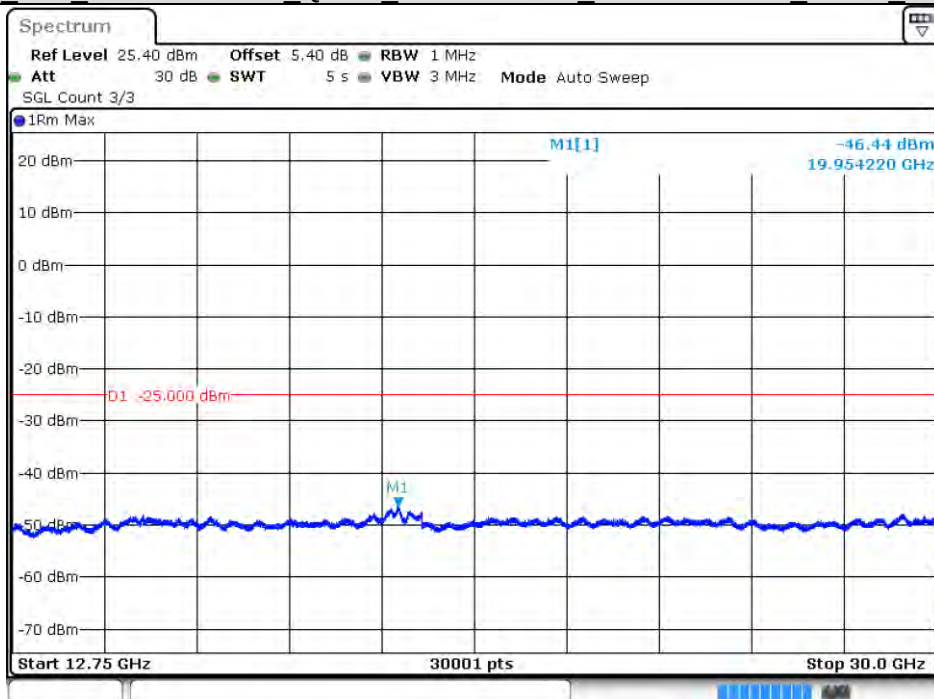
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CA 38C 100RB+100RB QPSK 37850+38048 1RB#0+0RB#0 1000 12750



Date: 25.AUG.2020 11:38:43

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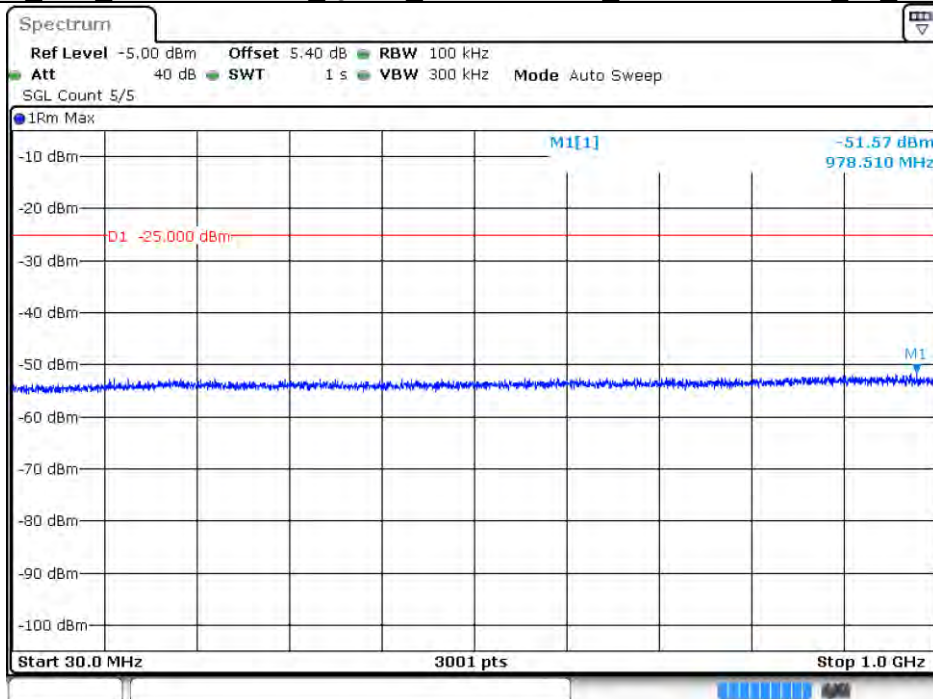


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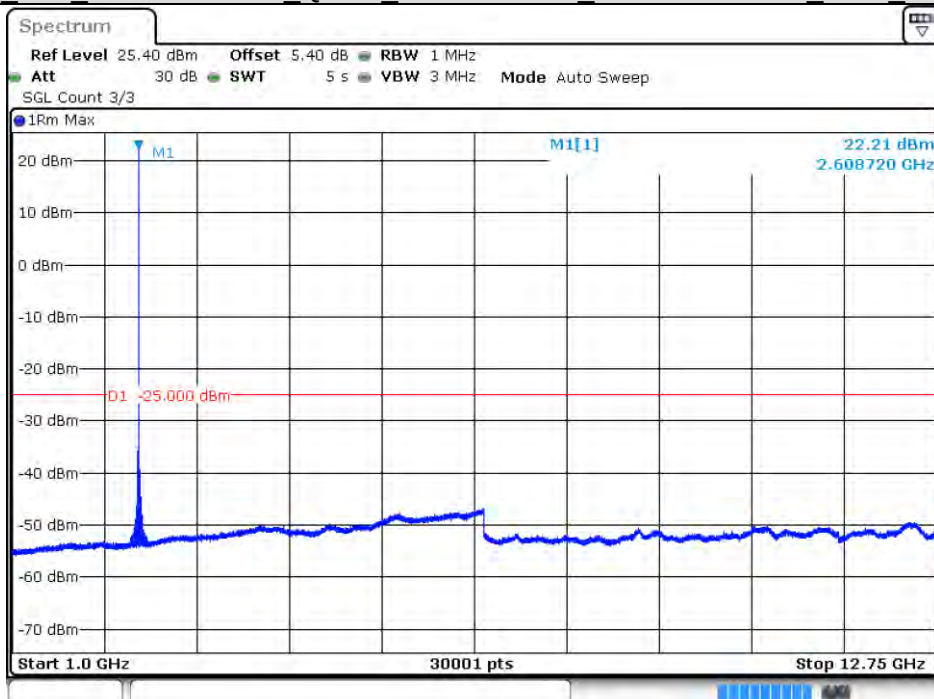
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Date: 25.AUG.2020 11:37:02

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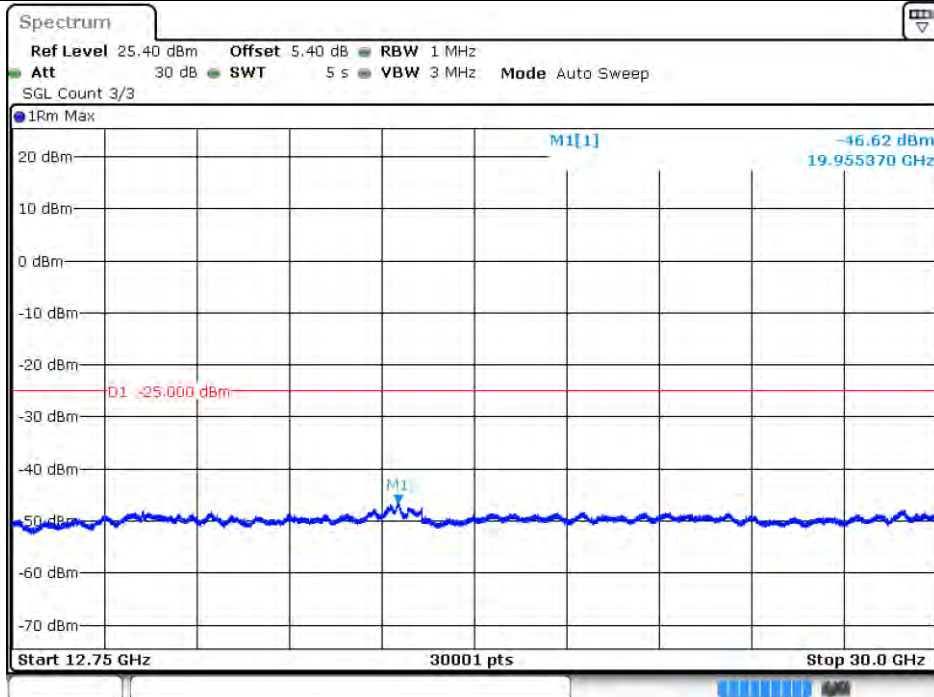
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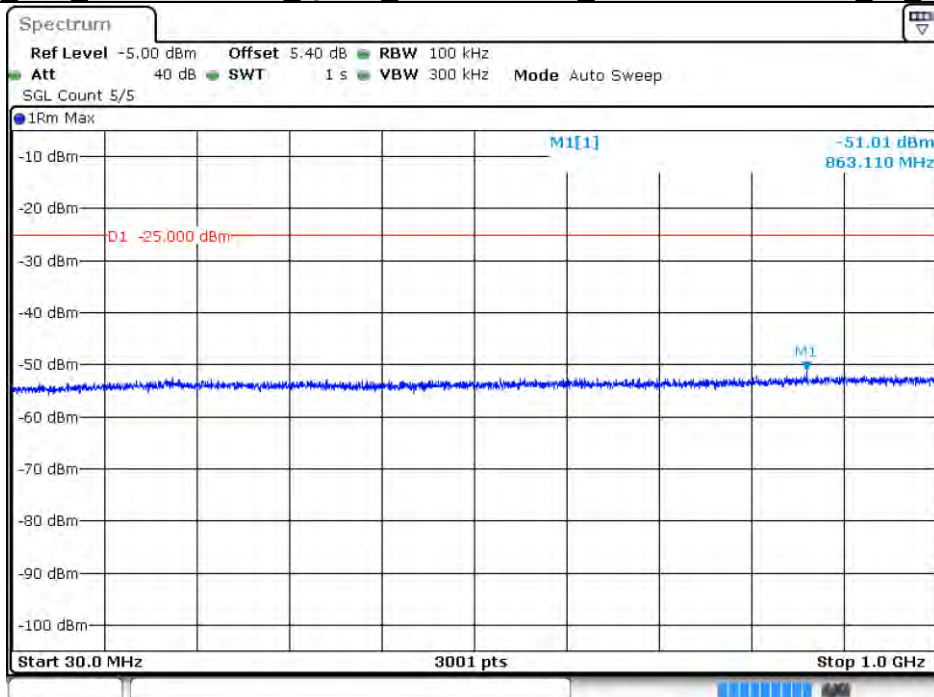
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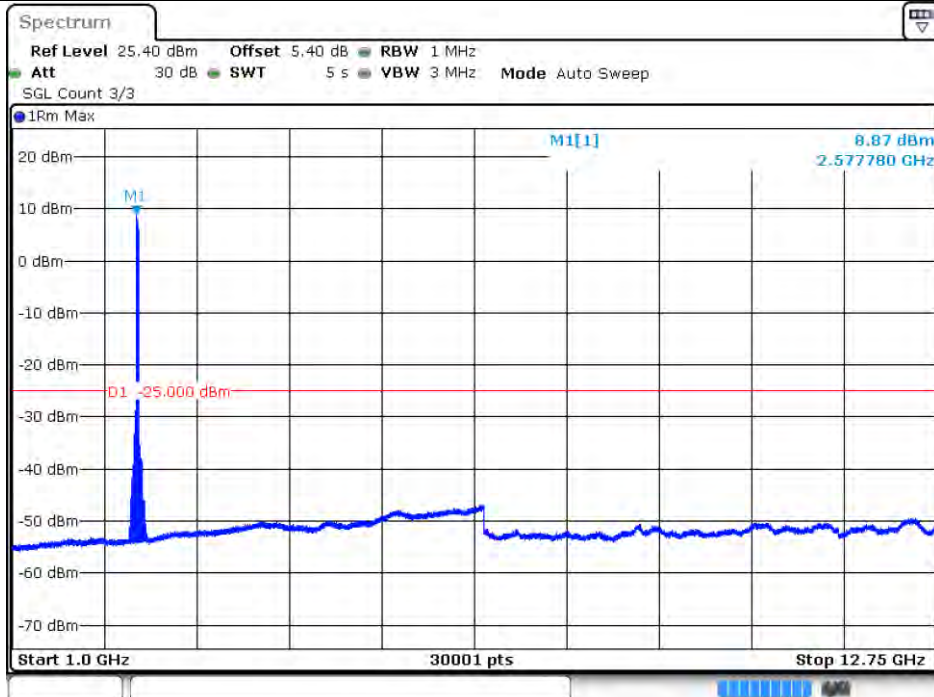
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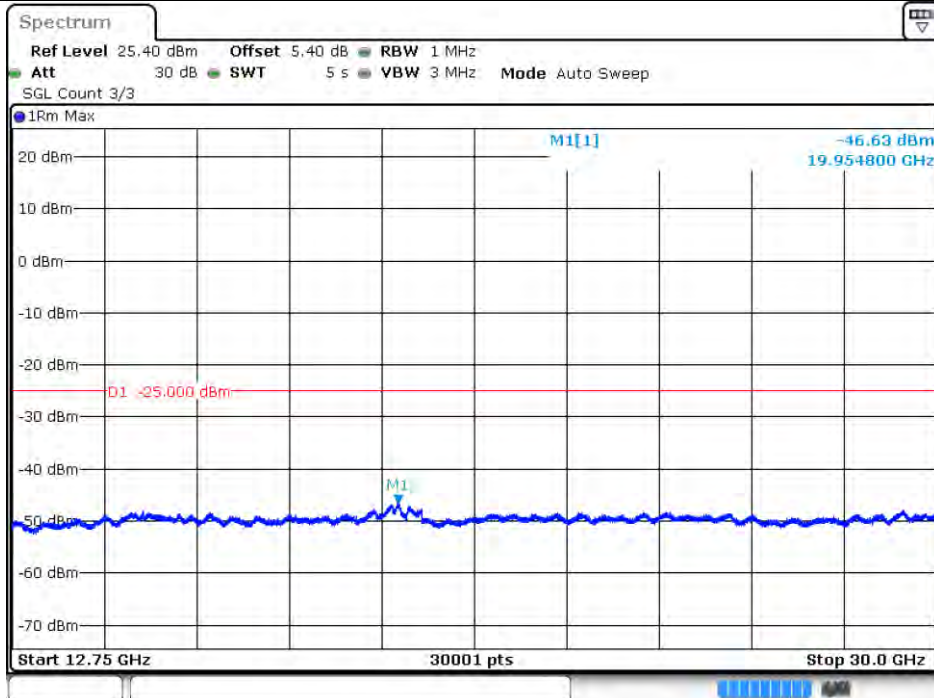


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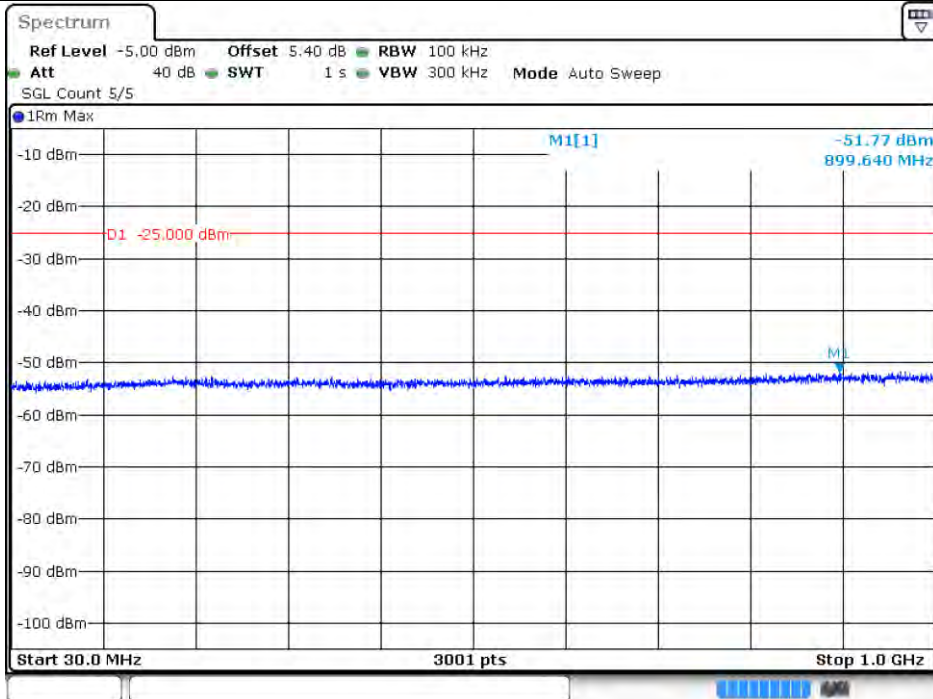


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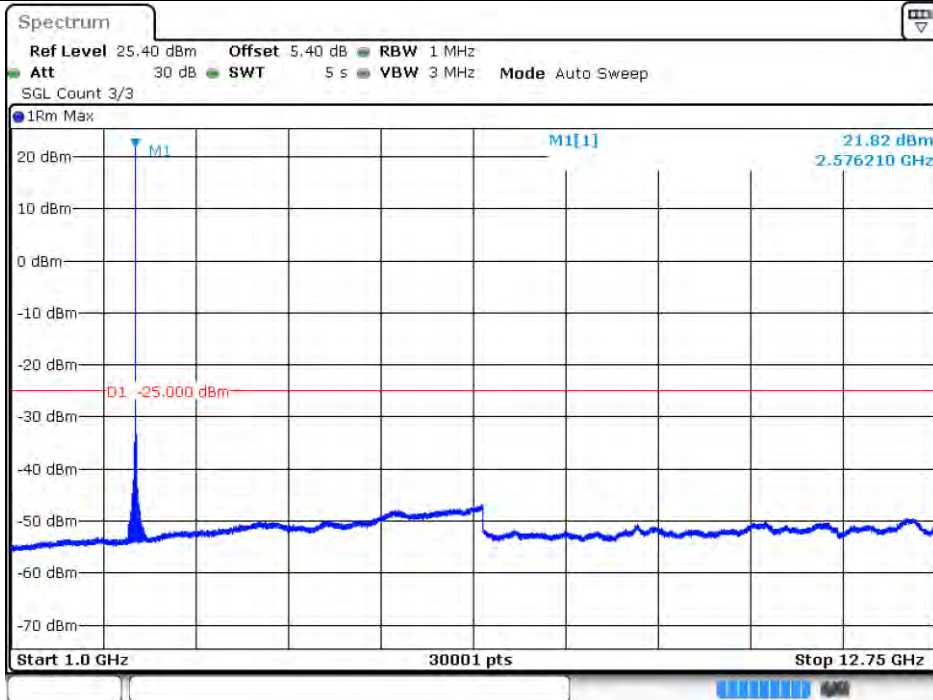
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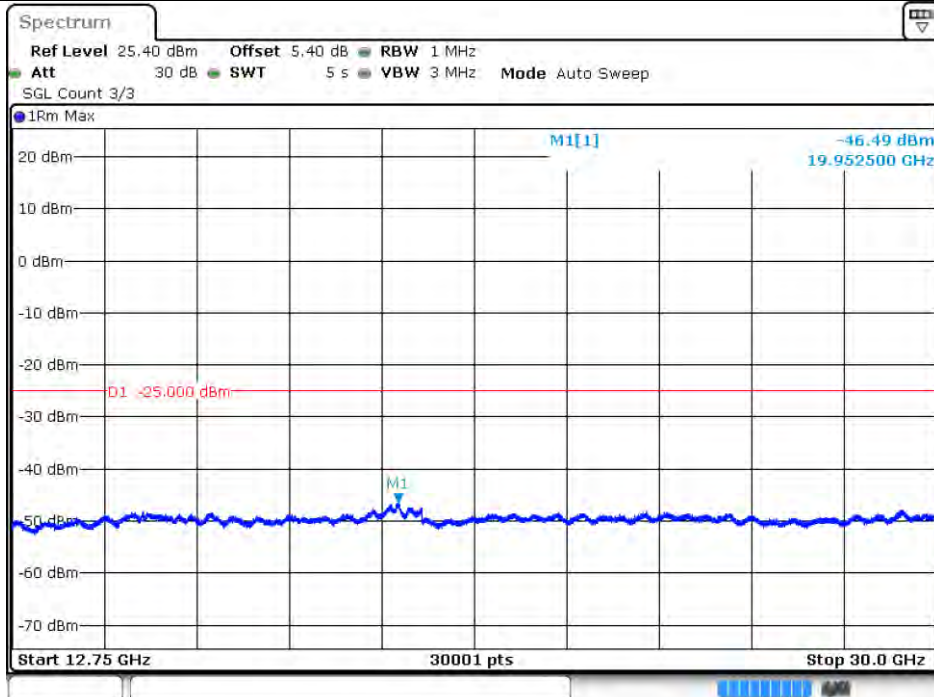


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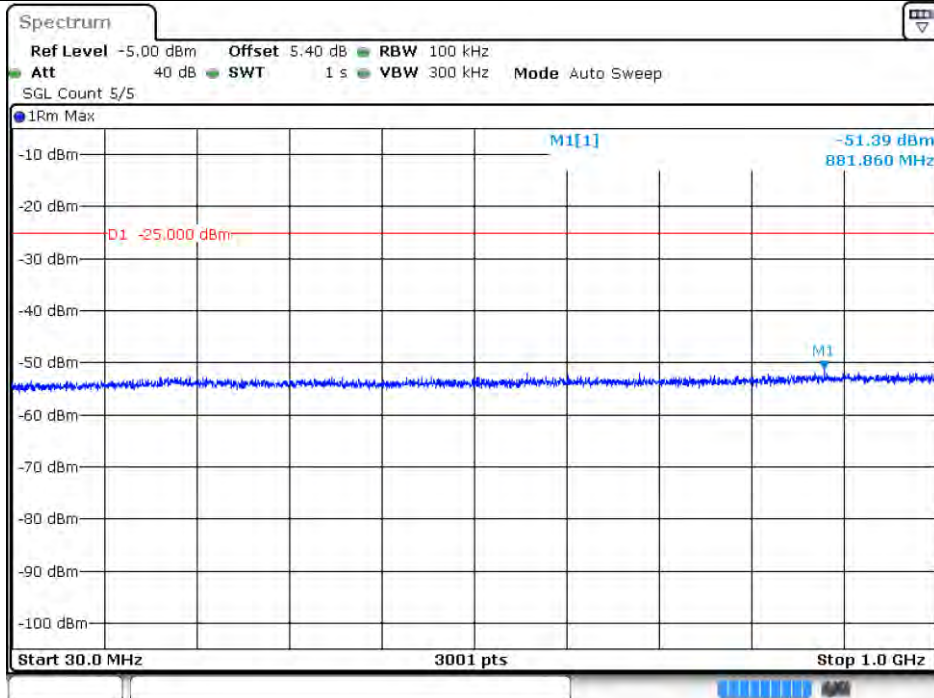
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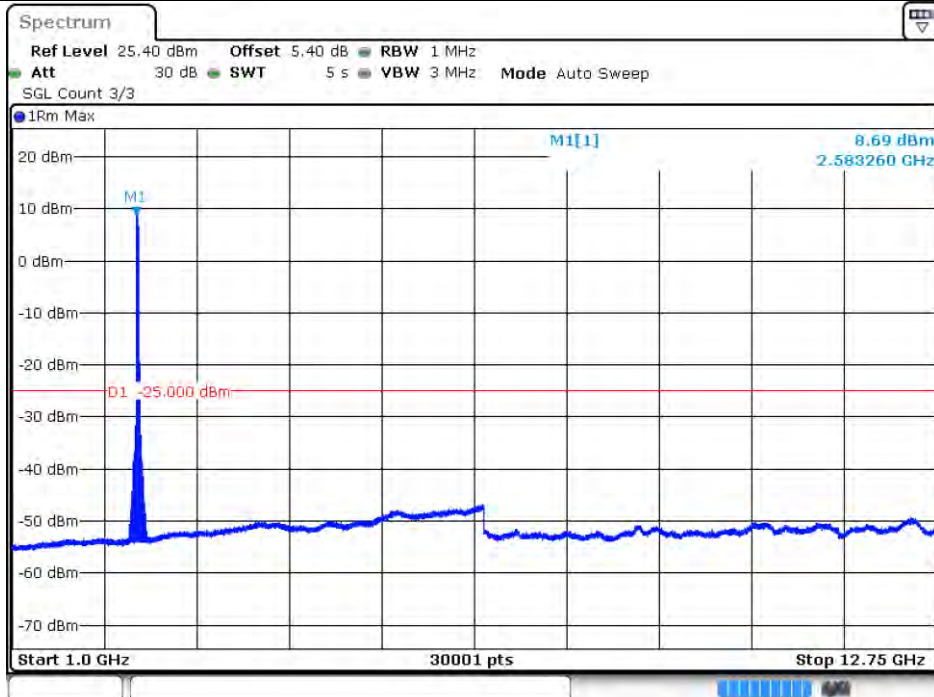


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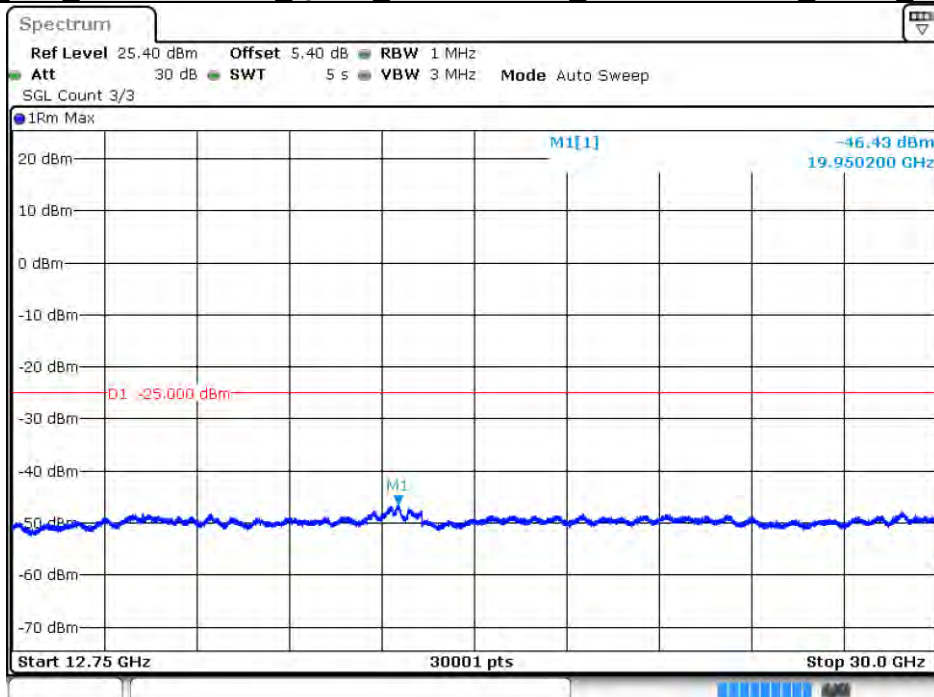
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Date: 25.AUG.2020 11:41:50

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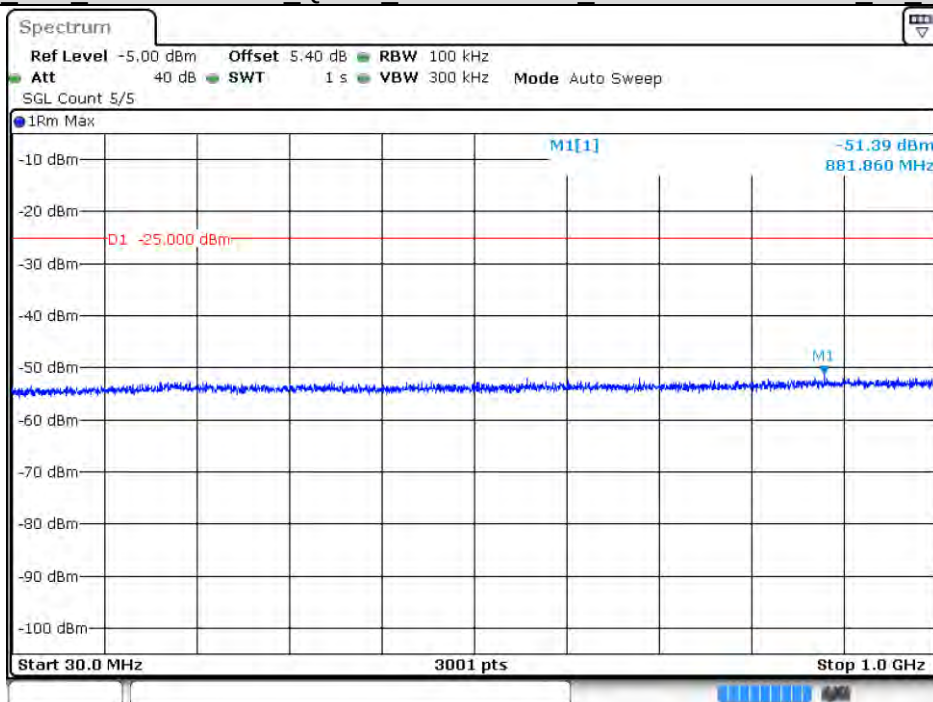


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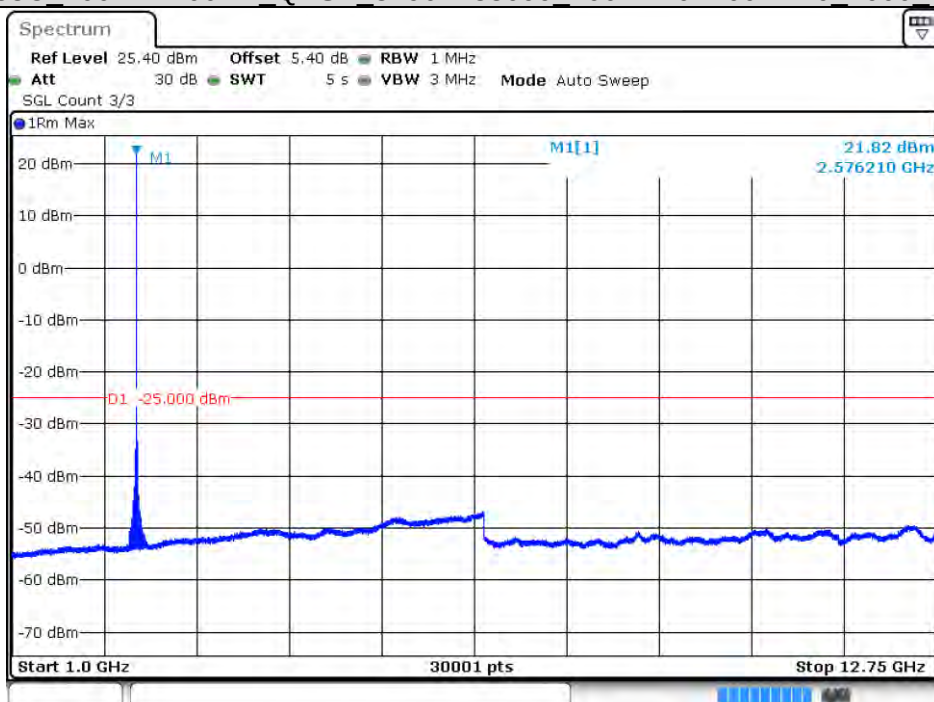
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CA 38C 100RB+100RB QPSK 37901+38099 100RB#0+100RB#0 30 1000



Date: 25.AUG.2020 11:37:32

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Date: 25.AUG.2020 11:54:24



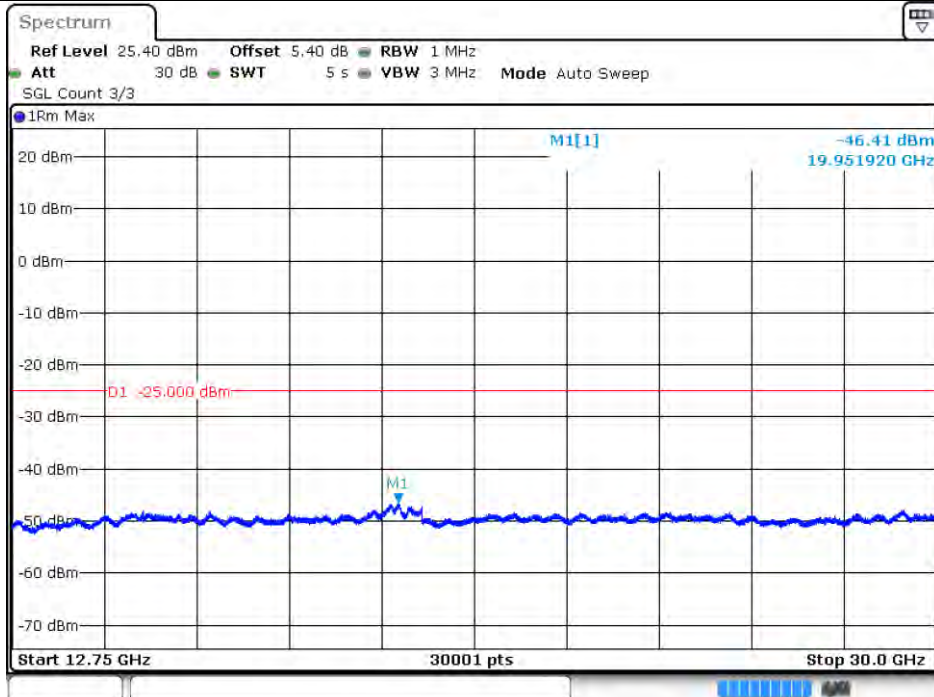
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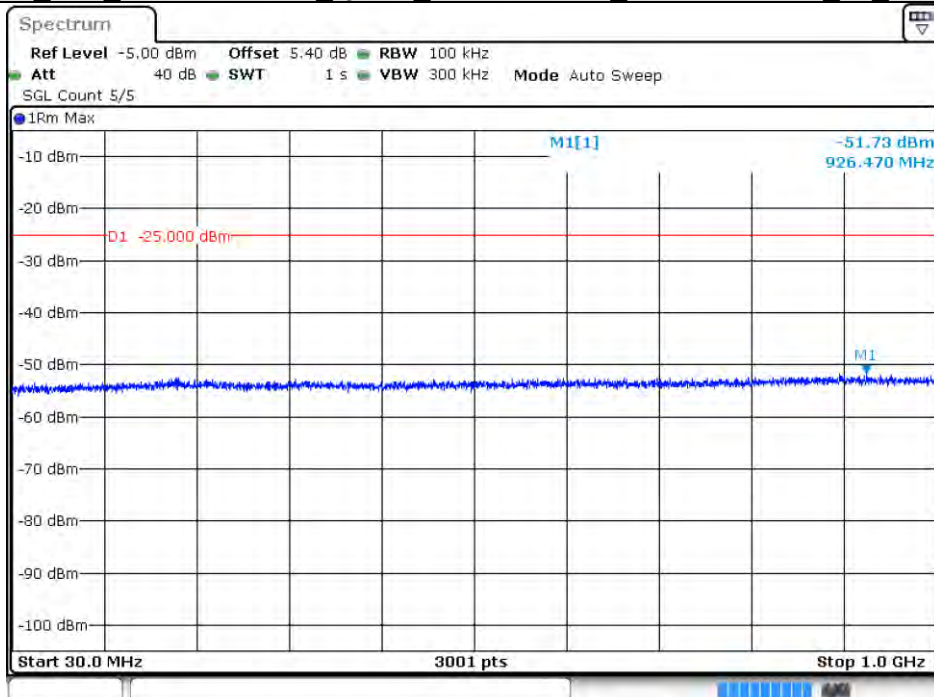
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Date: 25.AUG.2020 11:48:25

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Date: 25.AUG.2020 11:37:43



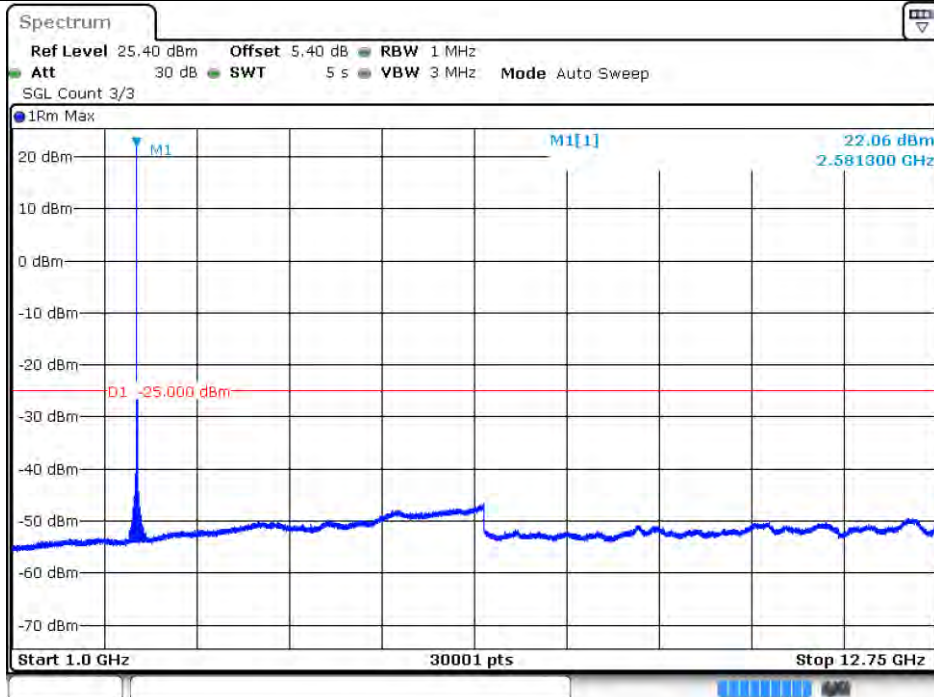
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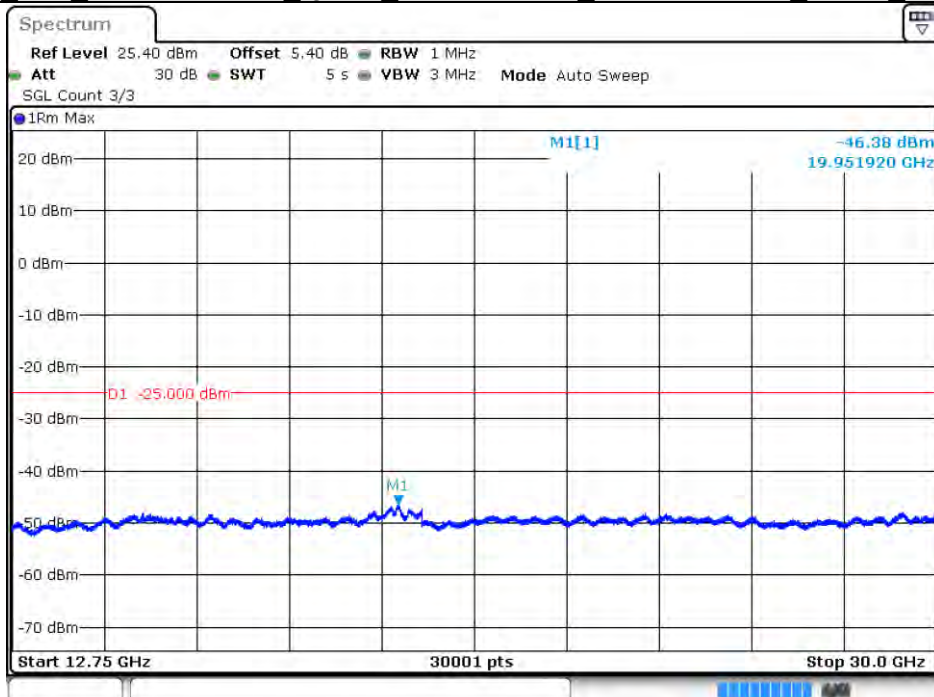
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Date: 25.AUG.2020 11:42:30

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Date: 25.AUG.2020 11:48:59



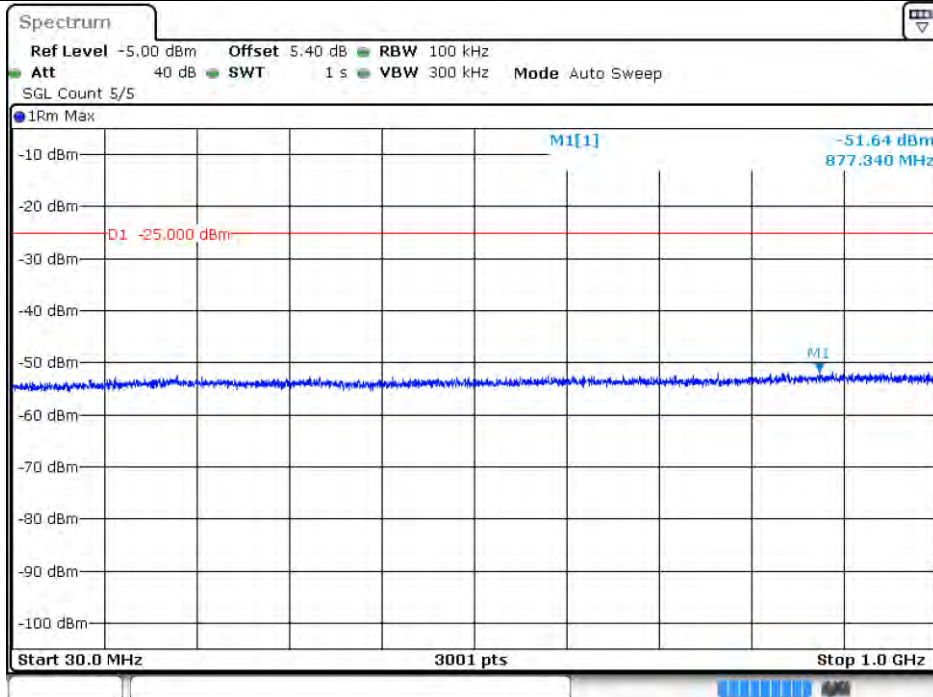
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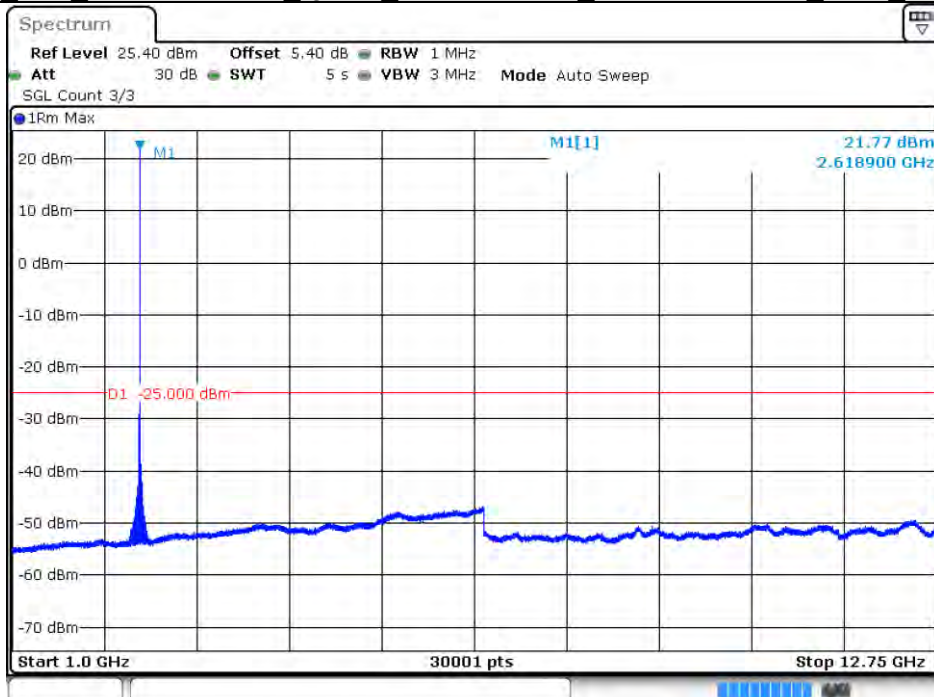
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Date: 25.AUG.2020 11:37:49

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Date: 25.AUG.2020 11:52:59



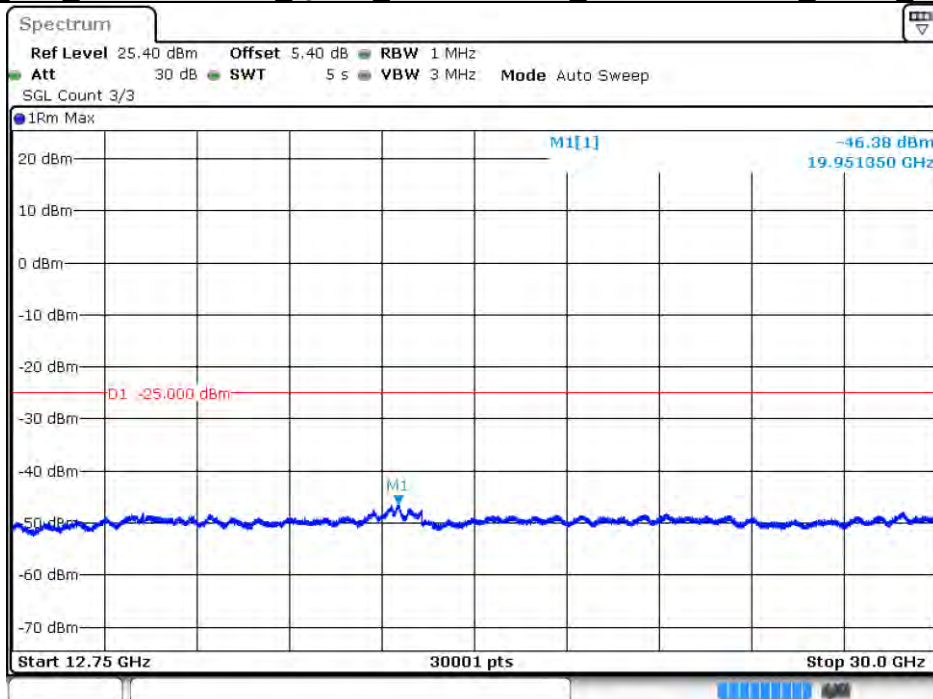
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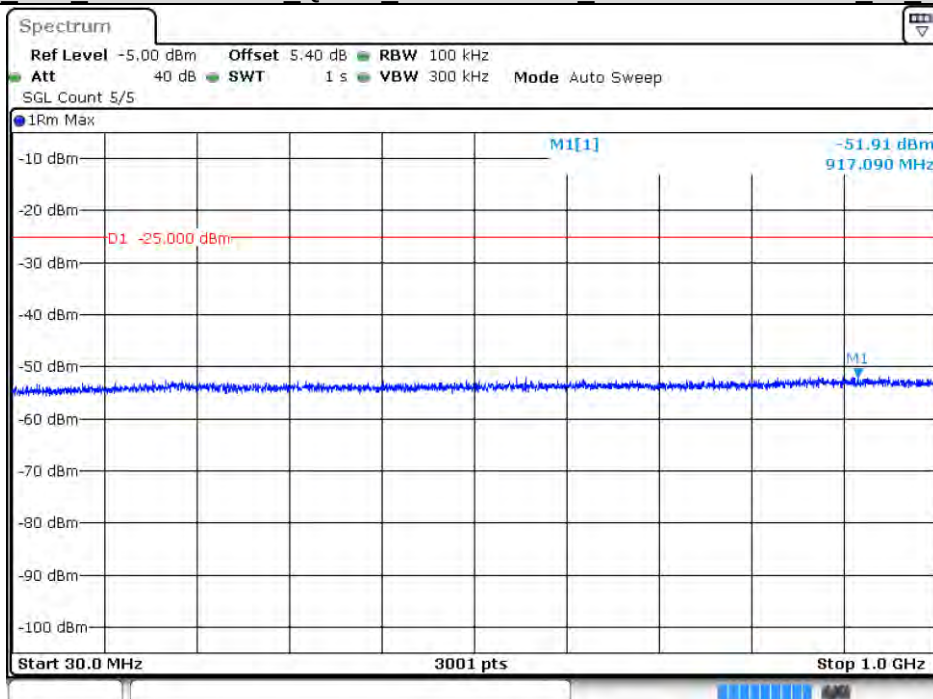
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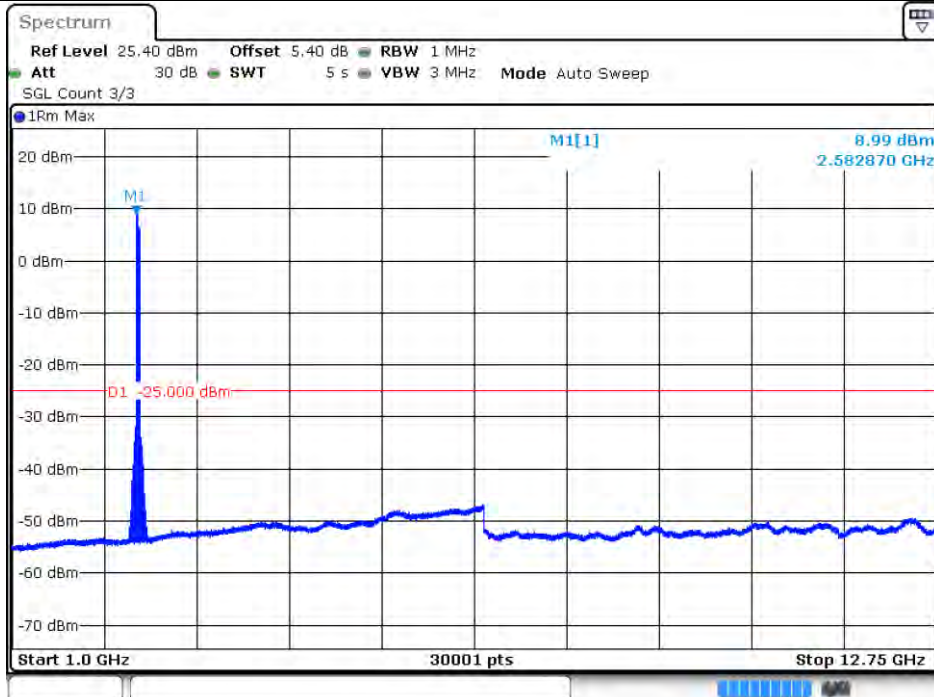
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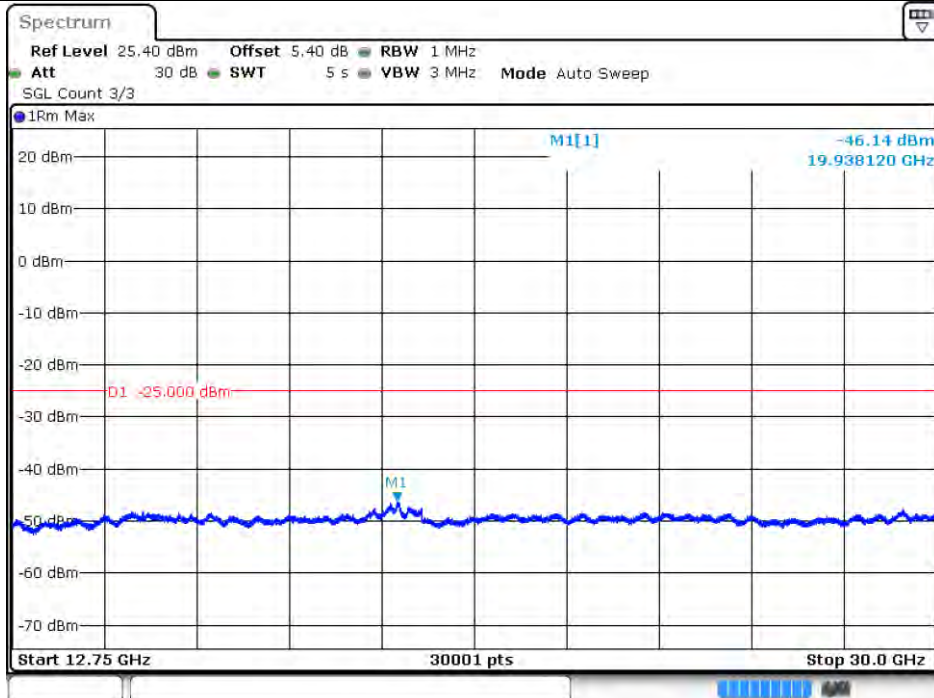
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Date: 25.AUG.2020 11:43:29

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7 Field Strength of Spurious Radiation

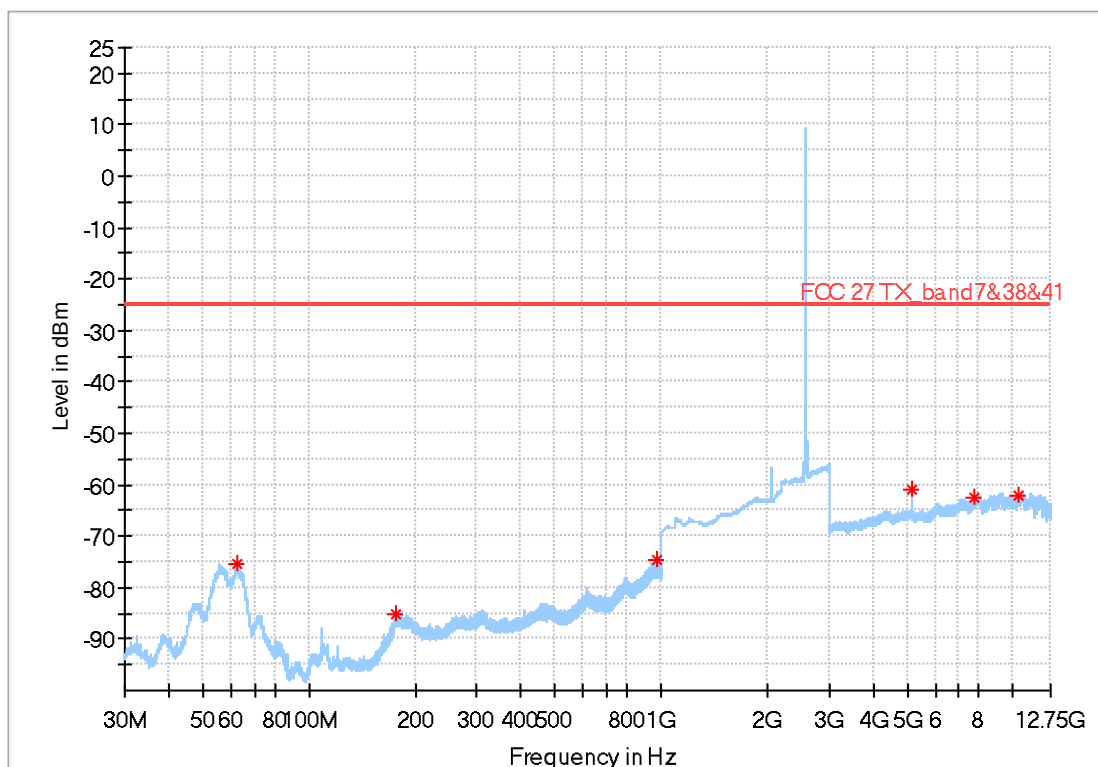
7.1 For LTE UL CA

7.1.1 Test Band = LTE Band CA_38C (Down Ant)

7.1.1.1 Test Mode =LTE/QPSK

7.1.1.1.1 Test Channel = LCH_Horizontal

Full Spectrum



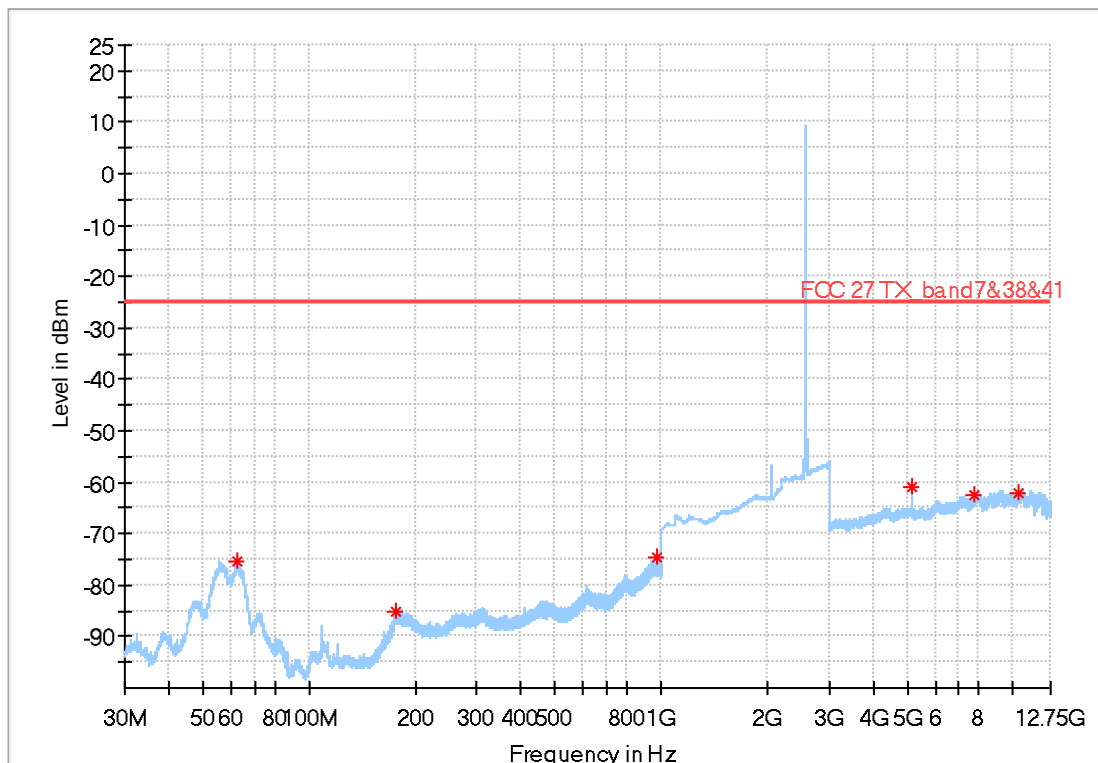
Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.600000	-75.42	-25.00	50.42	---	---	200.0	H	6.0	-95.2
176.000000	-85.15	-25.00	60.15	---	---	200.0	H	0.0	-107.2
966.633333	-74.74	-25.00	49.74	---	---	200.0	H	51.0	-92.0
5142.075000	-60.85	-25.00	35.85	---	---	200.0	H	51.0	-101.8
7712.825000	-62.42	-25.00	37.42	---	---	200.0	H	288.0	-98.4
10296.250000	-62.08	-25.00	37.08	---	---	200.0	H	333.0	-96.8



7.1.1.1.2 Test Channel = LCH_Vertical

Full Spectrum



Critical_Freqs

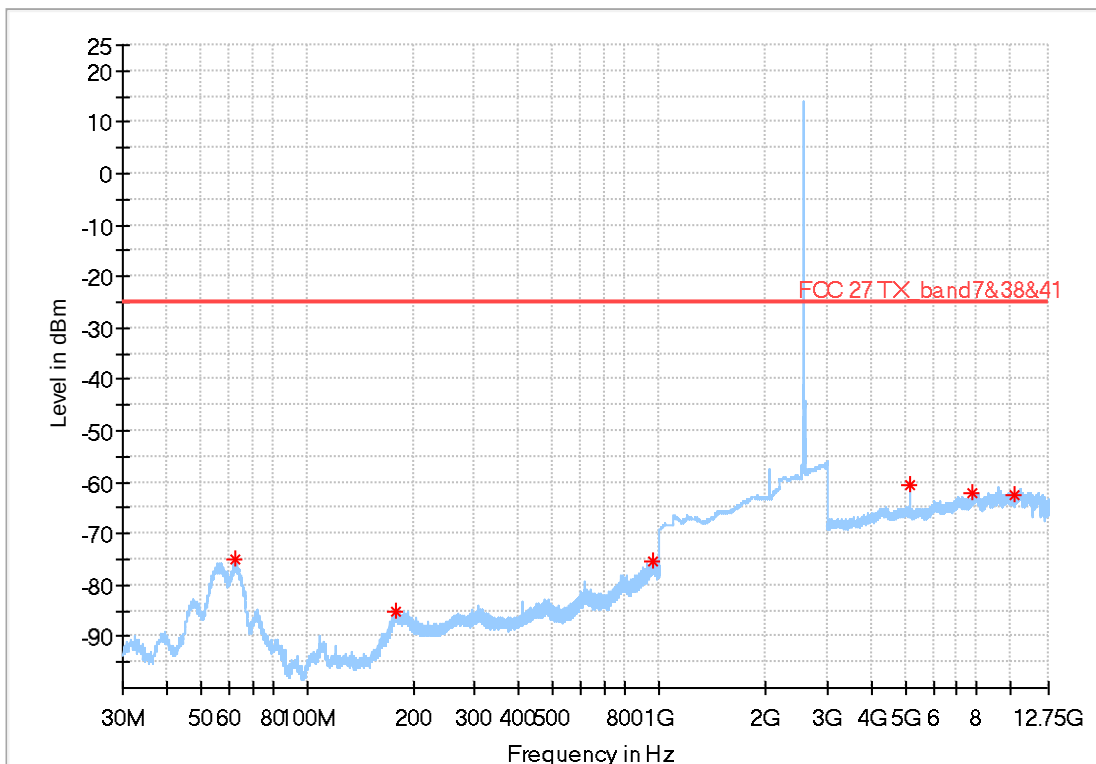
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62.600000	-75.42	-25.00	50.42	---	---	200.0	H	6.0	-95.2
176.000000	-85.15	-25.00	60.15	---	---	200.0	H	0.0	-107.2
966.633333	-74.74	-25.00	49.74	---	---	200.0	H	51.0	-92.0
5142.075000	-60.85	-25.00	35.85	---	---	200.0	H	51.0	-101.8
7712.825000	-62.42	-25.00	37.42	---	---	200.0	H	288.0	-98.4
10296.250000	-62.08	-25.00	37.08	---	---	200.0	H	333.0	-96.8





7.1.1.1.3 Test Channel = MCH_Horizontal

Full Spectrum



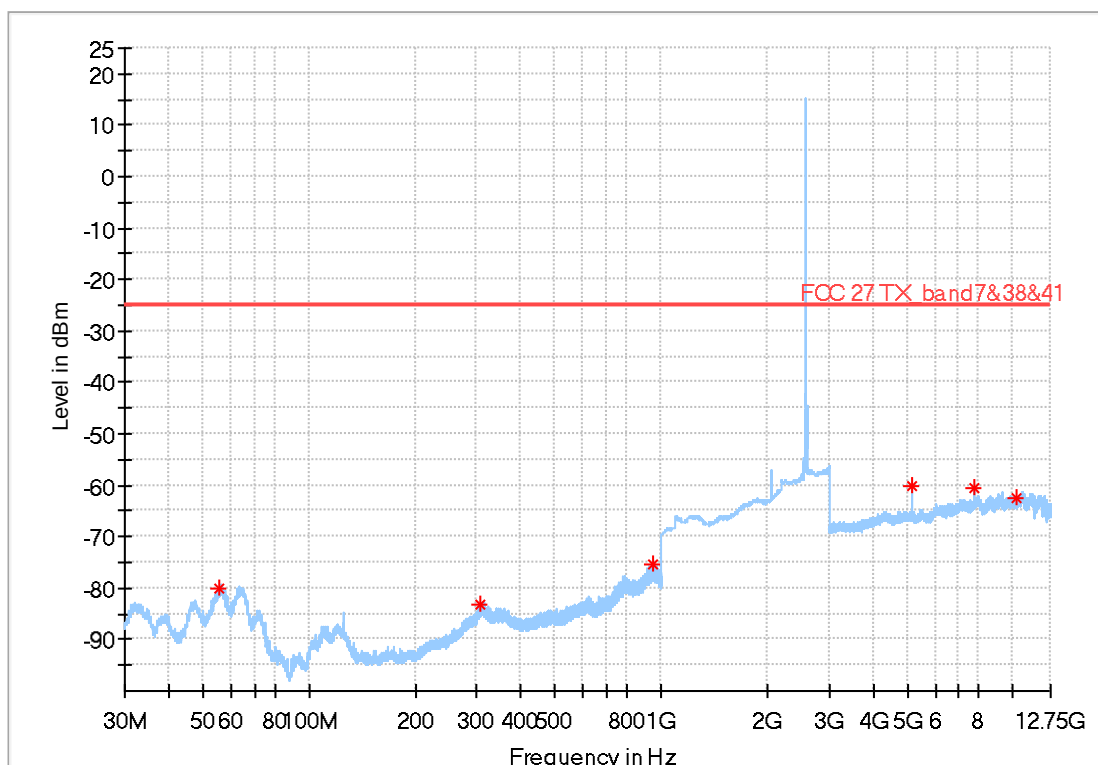
Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.750000	-75.01	-25.00	50.01	---	---	200.0	H	108.0	-95.4
178.400000	-84.98	-25.00	59.98	---	---	200.0	H	338.0	-107.2
957.237500	-75.24	-25.00	50.24	---	---	200.0	H	351.0	-91.8
5152.475000	-60.51	-25.00	35.51	---	---	200.0	H	51.0	-101.8
7728.750000	-62.22	-25.00	37.22	---	---	200.0	H	333.0	-98.2
10244.250000	-62.41	-25.00	37.41	---	---	200.0	H	109.0	-97.0



7.1.1.1.4 Test Channel = MCH_Vertical

Full Spectrum



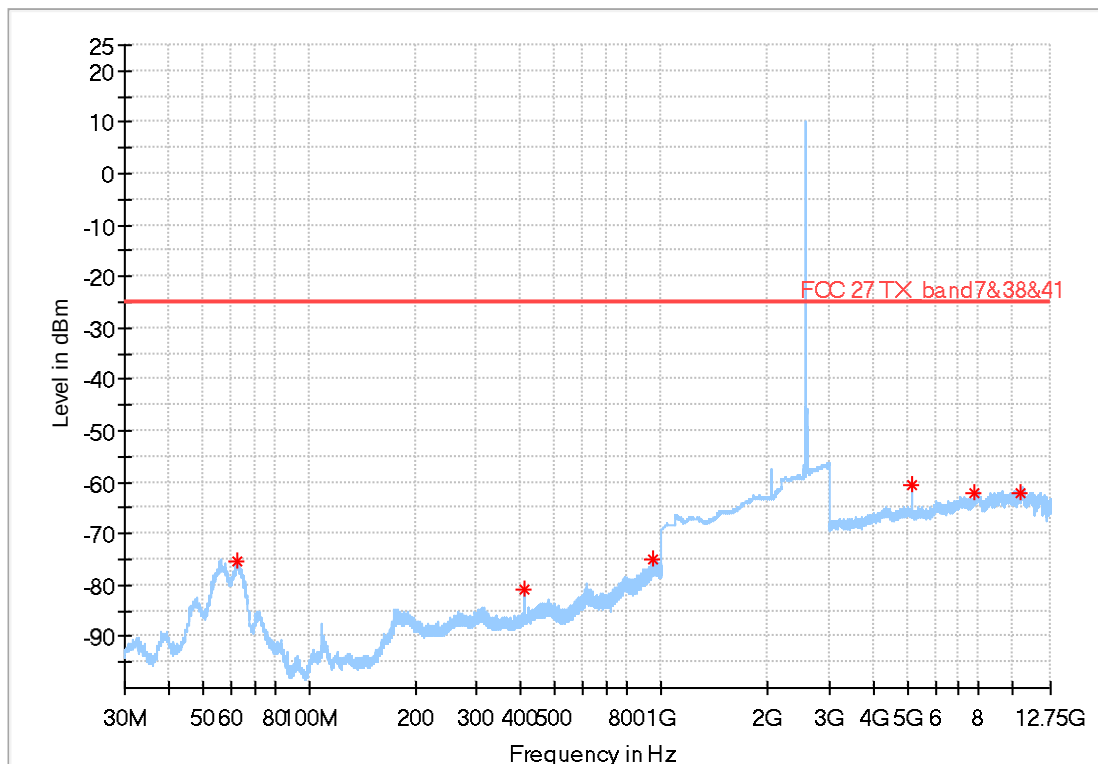
Critical_Freqs

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55.650000	-79.90	-25.00	54.90	---	---	200.0	V	73.0	-101.8
306.300000	-83.01	-25.00	58.01	---	---	200.0	V	291.0	-102.2
951.508333	-75.50	-25.00	50.50	---	---	200.0	V	1.0	-92.3
5152.150000	-60.02	-25.00	35.02	---	---	200.0	V	48.0	-101.8
7728.425000	-60.55	-25.00	35.55	---	---	200.0	V	153.0	-98.3
10209.800000	-62.40	-25.00	37.40	---	---	200.0	V	140.0	-97.2



7.1.1.1.5 Test Channel = HCH_Horizontal

Full Spectrum



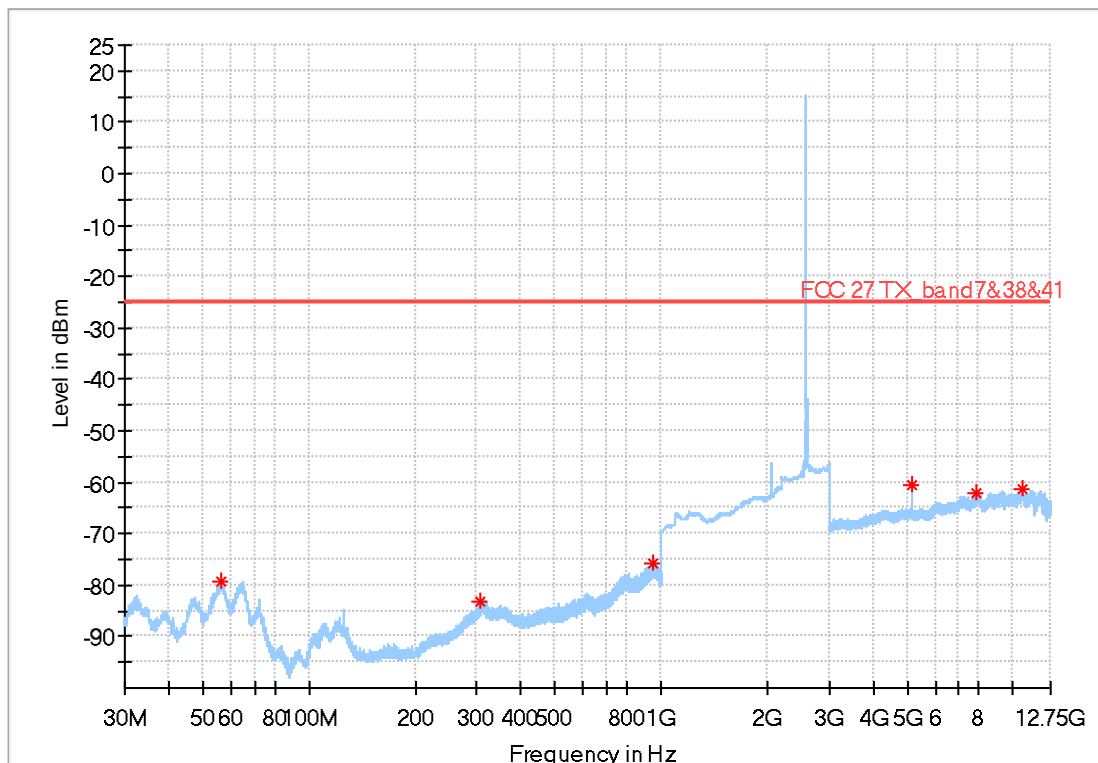
Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.950000	-75.54	-25.00	50.54	---	---	200.0	H	227.0	-95.6
410.000000	-80.93	-25.00	55.93	---	---	200.0	H	330.0	-102.1
947.658333	-75.02	-25.00	50.02	---	---	200.0	H	194.0	-91.9
5162.550000	-60.59	-25.00	35.59	---	---	200.0	H	49.0	-101.8
7743.700000	-62.19	-25.00	37.19	---	---	200.0	H	108.0	-98.1
10490.925000	-62.09	-25.00	37.09	---	---	200.0	H	49.0	-96.7



7.1.1.1.6 Test Channel = HCH_Vertical

Full Spectrum



Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
56.100000	-79.12	-25.00	54.12	---	---	200.0	V	300.0	-101.5
305.200000	-83.24	-25.00	58.24	---	---	200.0	V	311.0	-102.3
941.929167	-75.86	-25.00	50.86	---	---	200.0	V	51.0	-92.4
5162.225000	-60.55	-25.00	35.55	---	---	200.0	V	50.0	-101.9
7846.075000	-62.29	-25.00	37.30	---	---	200.0	V	309.0	-98.2
10624.175000	-61.16	-25.00	36.16	---	---	200.0	V	61.0	-96.4



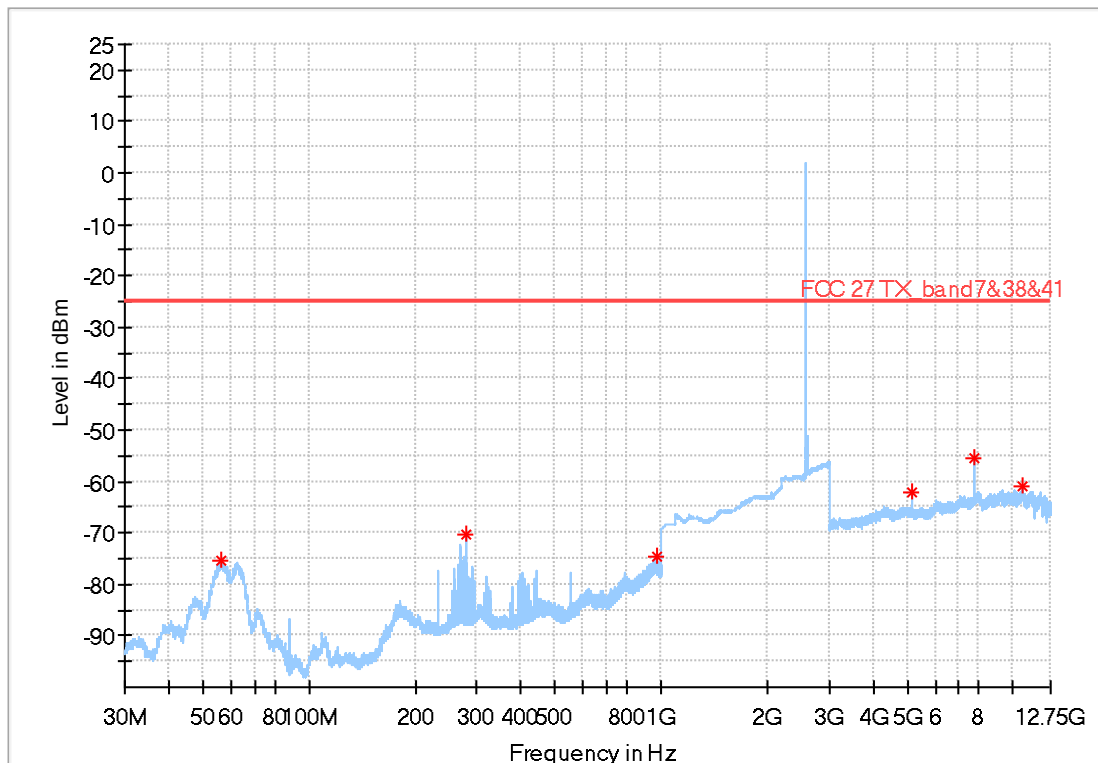


7.1.2 Test Band = LTE Band CA_38C (Up Ant)

7.1.2.1 Test Mode =LTE/QPSK

7.1.2.1.1 Test Channel = LCH_Horizontal

Full Spectrum



Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
56.250000	-75.37	-25.00	50.37	---	---	200.0	H	320.0	-96.9
278.050000	-70.22	-25.00	45.22	---	---	200.0	H	108.0	-102.7
967.733333	-74.79	-25.00	49.79	---	---	200.0	H	31.0	-92.0
5142.075000	-62.21	-25.00	37.21	---	---	200.0	H	50.0	-101.8
7713.475000	-55.32	-25.00	30.32	---	---	200.0	H	26.0	-98.4
10618.650000	-61.00	-25.00	36.00	---	---	200.0	H	84.0	-96.5



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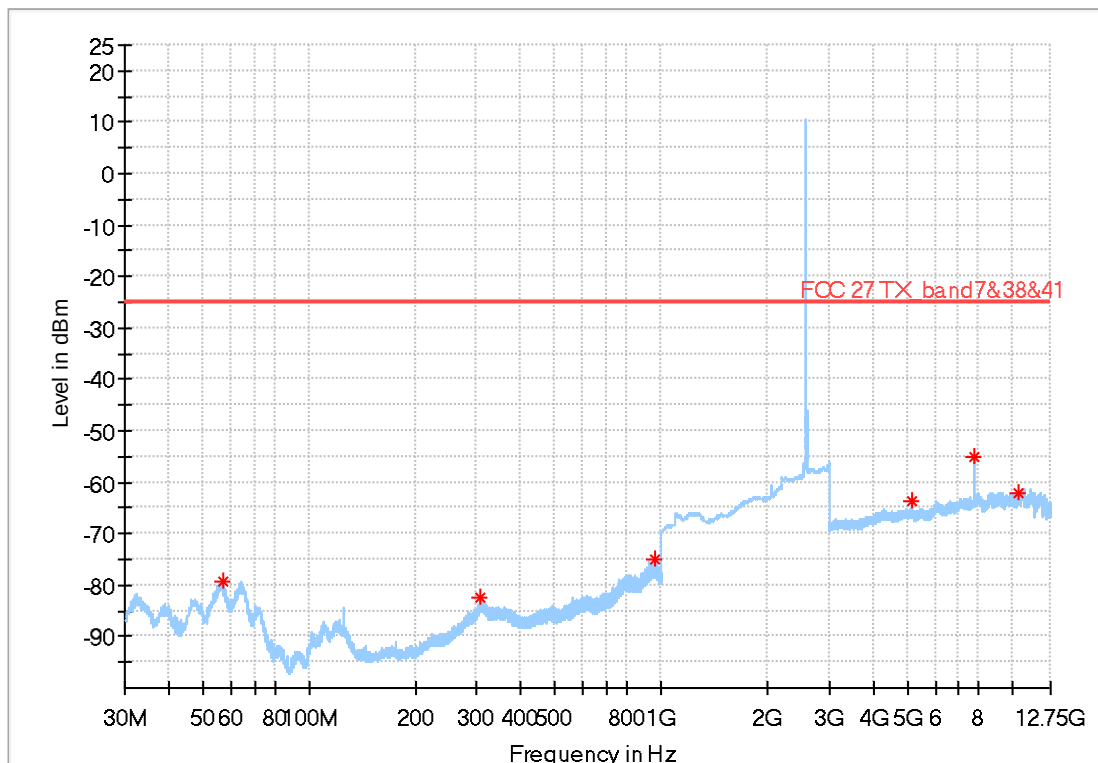
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7.1.2.1.2 Test Channel = LCH_Vertical

Full Spectrum



Critical_Freqs

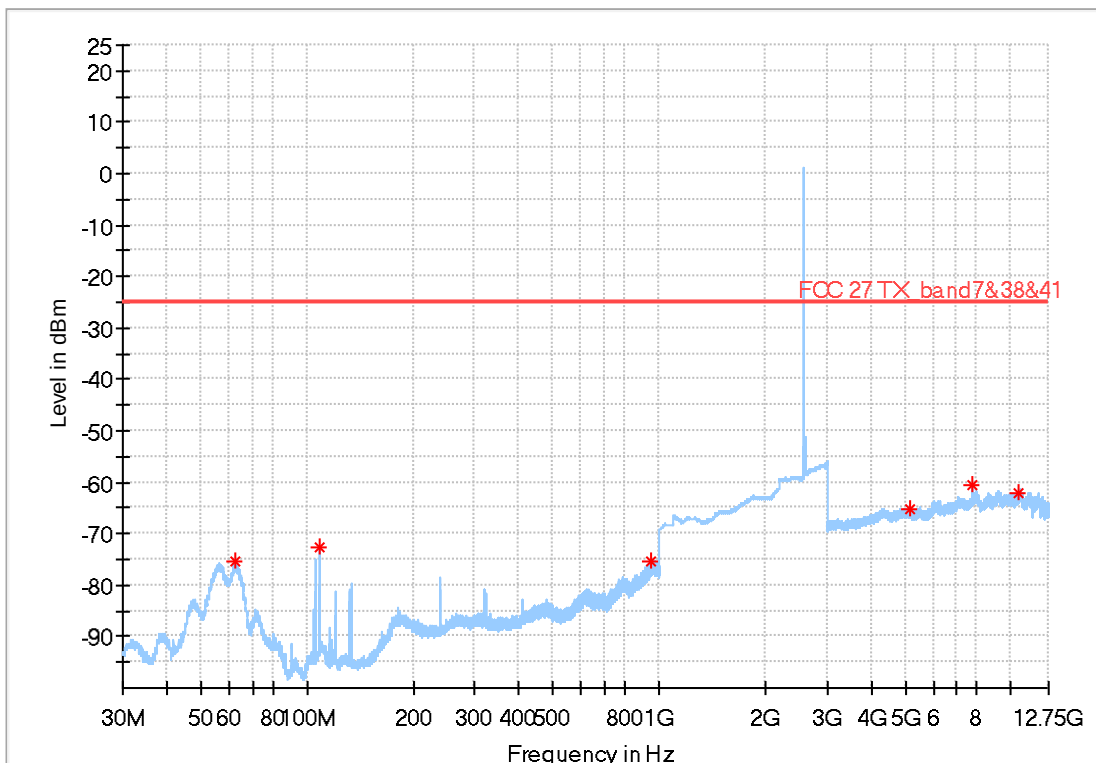
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
57.300000	-79.43	-25.00	54.43	---	---	200.0	V	9.0	-101.3
304.850000	-82.58	-25.00	57.58	---	---	200.0	V	301.0	-102.3
955.541667	-75.04	-25.00	50.04	---	---	200.0	V	20.0	-92.3
5142.400000	-63.79	-25.00	38.79	---	---	200.0	V	84.0	-101.8
7713.150000	-55.09	-25.00	30.09	---	---	200.0	V	129.0	-98.4
10327.775000	-62.30	-25.00	37.30	---	---	200.0	V	106.0	-96.7





7.1.2.1.3 Test Channel = MCH_Horizontal

Full Spectrum



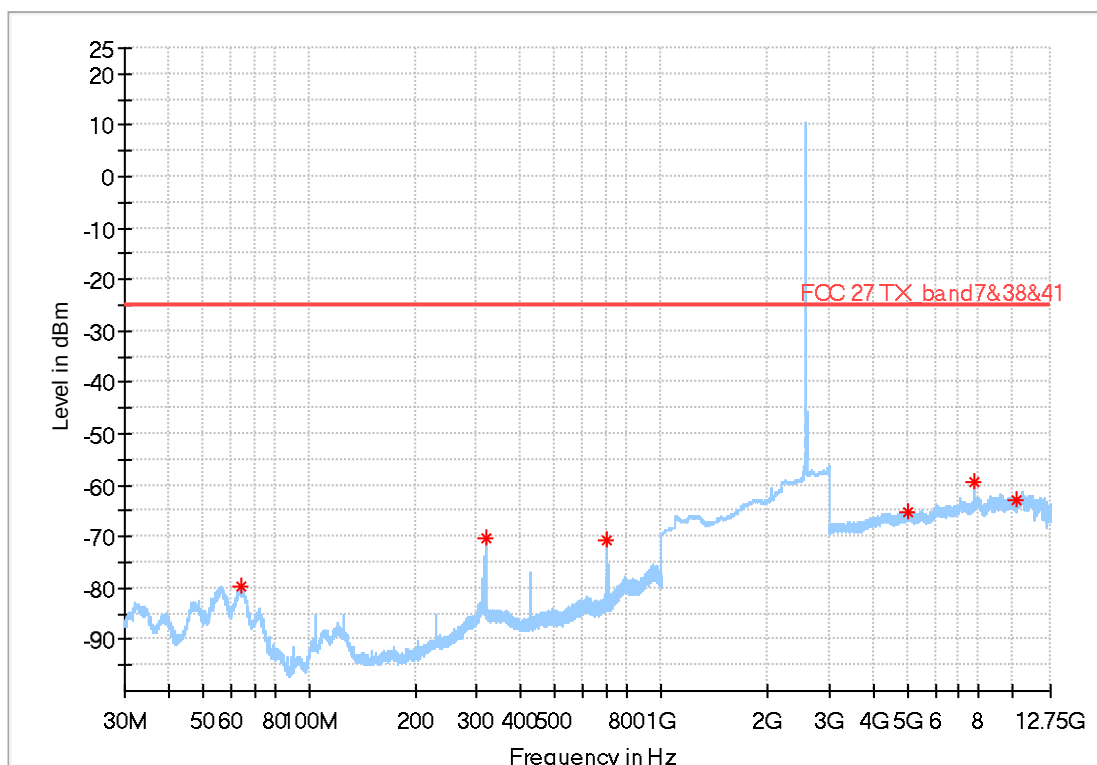
Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.700000	-75.49	-25.00	50.49	---	---	200.0	H	1.0	-95.3
108.400000	-72.81	-25.00	47.81	---	---	200.0	H	100.0	-108.2
945.320833	-75.22	-25.00	50.22	---	---	200.0	H	343.0	-92.1
5123.875000	-65.19	-25.00	40.19	---	---	200.0	H	330.0	-101.8
7728.750000	-60.53	-25.00	35.53	---	---	200.0	H	117.0	-98.2
10528.625000	-62.17	-25.00	37.17	---	---	200.0	H	208.0	-96.6



7.1.2.1.4 Test Channel = MCH_Vertical

Full Spectrum



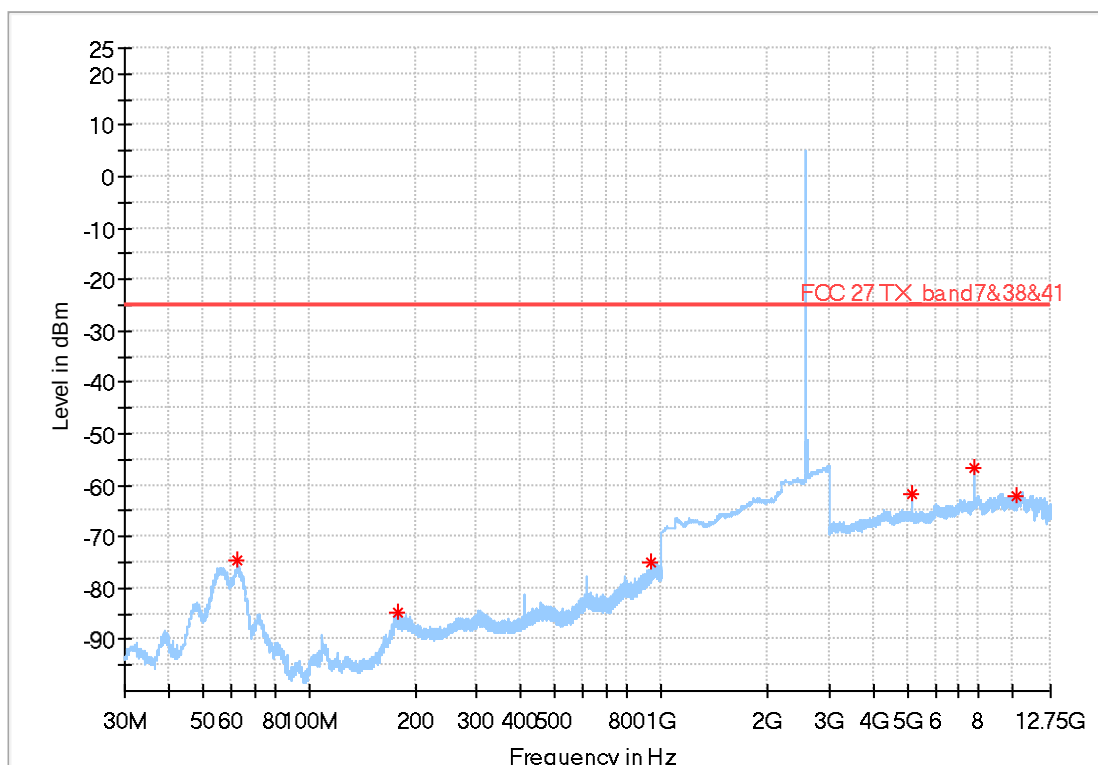
Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
64.450000	-79.68	-25.00	54.68	---	---	200.0	V	348.0	-99.9
319.450000	-70.19	-25.00	45.19	---	---	200.0	V	348.0	-102.0
704.741667	-70.63	-25.00	45.63	---	---	200.0	V	118.0	-98.2
5052.050000	-65.24	-25.00	40.24	---	---	200.0	V	0.0	-101.8
7728.425000	-59.41	-25.00	34.41	---	---	200.0	V	210.0	-98.3
10258.550000	-62.95	-25.00	37.95	---	---	200.0	V	0.0	-96.8



7.1.2.1.5 Test Channel = HCH_Horizontal

Full Spectrum



Critical_Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
62.750000	-74.58	-25.00	49.58	---	---	200.0	H	108.0	-95.4
179.250000	-84.83	-25.00	59.83	---	---	200.0	H	347.0	-107.2
931.204167	-75.16	-25.00	50.16	---	---	200.0	H	108.0	-92.9
5162.225000	-61.56	-25.00	36.56	---	---	200.0	H	51.0	-101.8
7743.700000	-56.77	-25.00	31.77	---	---	200.0	H	26.0	-98.1
10237.100000	-62.28	-25.00	37.28	---	---	200.0	H	131.0	-97.0



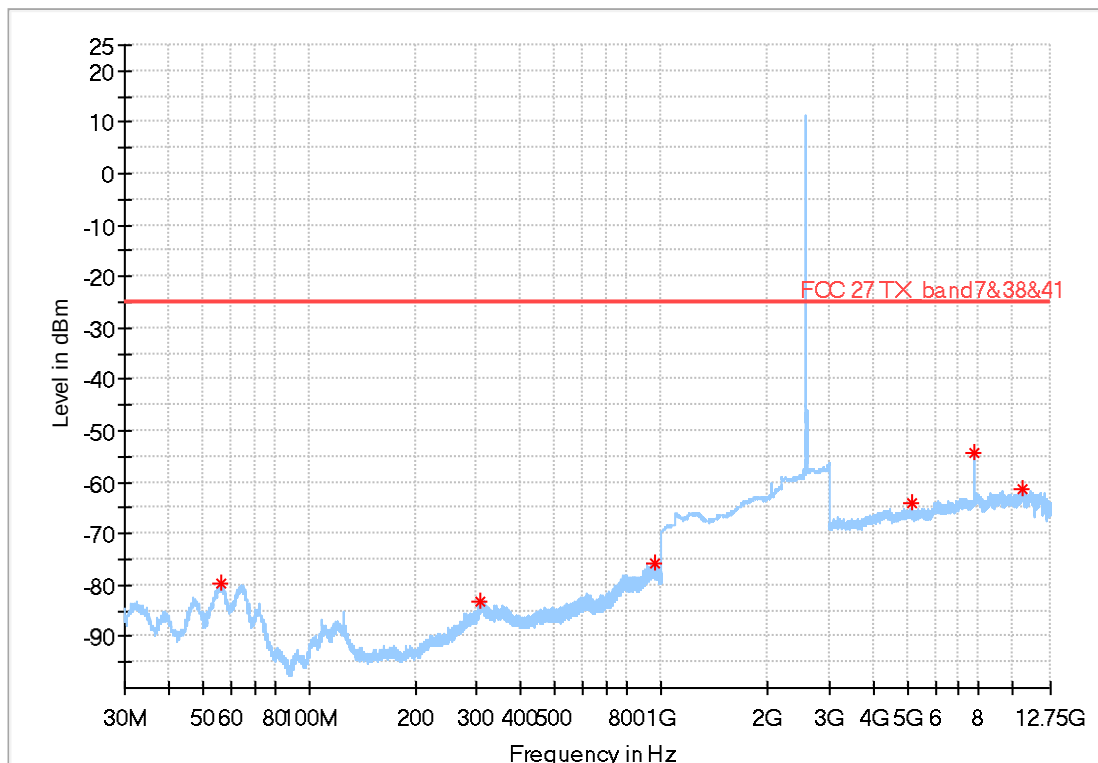
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7.1.2.1.6 Test Channel = HCH_Vertical

Full Spectrum



Critical Freqs

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
56.250000	-79.71	-25.00	54.71	---	---	200.0	V	347.0	-101.4
305.000000	-83.27	-25.00	58.27	---	---	200.0	V	319.0	-102.3
954.716667	-75.82	-25.00	50.82	---	---	200.0	V	52.0	-92.3
5162.225000	-64.10	-25.00	39.10	---	---	200.0	V	151.0	-101.9
7743.700000	-54.29	-25.00	29.29	---	---	200.0	V	241.0	-98.2
10642.700000	-61.35	-25.00	36.35	---	---	200.0	V	0.0	-96.4

Remark:

- 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.
- The disturbance below 30MHz and above 12.75GHz 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.





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8 Frequency Stability

8.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	RB Config	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA _C 38	QPSK	37850+38048	100RB#0/100RB#0	TN	LV	-6.49	-0.002514	PASS
CA _C 38	QPSK	37850+38048	100RB#0/100RB#0	TN	NV	-1.04	-0.000404	PASS
CA _C 38	QPSK	37850+38048	100RB#0/100RB#0	TN	HV	-9.10	-0.003527	PASS
CA _C 38	QPSK	37901+38099	100RB#0/100RB#0	TN	LV	-5.29	-0.002045	PASS
CA _C 38	QPSK	37901+38099	100RB#0/100RB#0	TN	NV	8.81	0.003407	PASS
CA _C 38	QPSK	37901+38099	100RB#0/100RB#0	TN	HV	-8.47	-0.003275	PASS
CA _C 38	QPSK	37952+38150	100RB#0/100RB#0	TN	LV	0.49	0.000188	PASS
CA _C 38	QPSK	37952+38150	100RB#0/100RB#0	TN	NV	-6.70	-0.002587	PASS
CA _C 38	QPSK	37952+38150	100RB#0/100RB#0	TN	HV	-3.92	-0.001514	PASS
CA _C 38	16QAM	37850+38048	100RB#0/100RB#0	TN	LV	0.18	0.000071	PASS
CA _C 38	16QAM	37850+38048	100RB#0/100RB#0	TN	NV	-4.35	-0.001685	PASS
CA _C 38	16QAM	37850+38048	100RB#0/100RB#0	TN	HV	-2.51	-0.000971	PASS
CA _C 38	16QAM	37901+38099	100RB#0/100RB#0	TN	LV	-3.32	-0.001283	PASS
CA _C 38	16QAM	37901+38099	100RB#0/100RB#0	TN	NV	10.84	0.004194	PASS
CA _C 38	16QAM	37901+38099	100RB#0/100RB#0	TN	HV	11.43	0.004422	PASS
CA _C 38	16QAM	37952+38150	100RB#0/100RB#0	TN	LV	7.40	0.002856	PASS
CA _C 38	16QAM	37952+38150	100RB#0/100RB#0	TN	NV	0.47	0.000182	PASS
CA _C 38	16QAM	37952+38150	100RB#0/100RB#0	TN	HV	3.10	0.001198	PASS
CA _C 38	64QAM	37850+38048	100RB#0/100RB#0	TN	LV	2.21	0.000857	PASS
CA _C 38	64QAM	37850+38048	100RB#0/100RB#0	TN	NV	-4.41	-0.001708	PASS
CA _C 38	64QAM	37850+38048	100RB#0/100RB#0	TN	HV	-8.19	-0.003173	PASS
CA _C 38	64QAM	37901+38099	100RB#0/100RB#0	TN	LV	3.65	0.001411	PASS
CA _C 38	64QAM	37901+38099	100RB#0/100RB#0	TN	NV	-6.32	-0.002445	PASS



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CA ₃₈ C	64QAM	37901+38099	100RB#0/100RB#0	TN	HV	-6.59	-0.002551	PASS
CA ₃₈ C	64QAM	37952+38150	100RB#0/100RB#0	TN	LV	-1.49	-0.000575	PASS
CA ₃₈ C	64QAM	37952+38150	100RB#0/100RB#0	TN	NV	-1.15	-0.000444	PASS
CA ₃₈ C	64QAM	37952+38150	100RB#0/100RB#0	TN	HV	-11.53	-0.004453	PASS



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8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	RB Config	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	-30	-10.62	-0.004115	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	-20	4.71	0.001824	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	-10	-9.07	-0.003516	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	0	4.05	0.001570	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	10	-2.60	-0.001007	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	20	9.01	0.003491	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	30	-12.08	-0.004681	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	40	8.27	0.003206	PASS
CA_38C	QPSK	37850+38048	100RB#0/100RB#0	NV	50	4.51	0.001748	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	-30	10.85	0.004196	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	-20	5.02	0.001942	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	-10	1.78	0.000687	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	0	1.56	0.000605	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	10	-1.82	-0.000704	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	20	5.86	0.002266	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	30	-11.63	-0.004501	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	40	-8.74	-0.003379	PASS
CA_38C	QPSK	37901+38099	100RB#0/100RB#0	NV	50	2.91	0.001125	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	-30	-9.80	-0.003784	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	-20	2.06	0.000796	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	-10	-7.36	-0.002842	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	0	-0.28	-0.000106	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	10	4.86	0.001876	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	20	5.29	0.002044	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	30	5.34	0.002062	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	40	-3.89	-0.001500	PASS
CA_38C	QPSK	37952+38150	100RB#0/100RB#0	NV	50	8.15	0.003147	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	-30	-0.89	-0.000343	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	-20	3.97	0.001538	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	-10	-1.93	-0.000747	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	0	8.87	0.003438	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	10	-7.07	-0.002739	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	20	0.10	0.000038	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	30	-12.36	-0.004790	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	40	13.22	0.005123	PASS
CA_38C	16QAM	37850+38048	100RB#0/100RB#0	NV	50	5.60	0.002171	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	-30	-4.66	-0.001803	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	-20	-11.82	-0.004571	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	-10	-7.32	-0.002831	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	0	-6.45	-0.002496	PASS



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CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	10	4.54	0.001756	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	20	7.55	0.002922	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	30	1.98	0.000764	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	40	5.74	0.002219	PASS
CA_38C	16QAM	37901+38099	100RB#0/100RB#0	NV	50	9.40	0.003635	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	-30	-0.23	-0.000090	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	-20	-2.18	-0.000840	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	-10	-1.61	-0.000621	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	0	-10.45	-0.004033	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	10	5.31	0.002049	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	20	-7.52	-0.002904	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	30	8.12	0.003134	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	40	3.13	0.001208	PASS
CA_38C	16QAM	37952+38150	100RB#0/100RB#0	NV	50	-10.76	-0.004152	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	-30	-6.72	-0.002606	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	-20	3.89	0.001507	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	-10	-7.50	-0.002907	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	0	-8.53	-0.003306	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	10	4.87	0.001889	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	20	-0.71	-0.000276	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	30	0.13	0.000049	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	40	8.26	0.003203	PASS
CA_38C	64QAM	37850+38048	100RB#0/100RB#0	NV	50	0.77	0.000298	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	-30	8.22	0.003181	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	-20	6.07	0.002349	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	-10	2.70	0.001046	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	0	0.18	0.000069	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	10	3.42	0.001324	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	20	-4.52	-0.001748	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	30	1.77	0.000685	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	40	3.77	0.001459	PASS
CA_38C	64QAM	37901+38099	100RB#0/100RB#0	NV	50	7.71	0.002984	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	-30	-12.55	-0.004845	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	-20	-6.05	-0.002335	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	-10	-11.90	-0.004594	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	0	-4.40	-0.001700	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	10	10.14	0.003915	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	20	11.48	0.004434	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	30	-0.62	-0.000241	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	40	-12.63	-0.004876	PASS
CA_38C	64QAM	37952+38150	100RB#0/100RB#0	NV	50	5.47	0.002110	PASS

The End



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