



Appendix B

E-UTRA Band CA_7C



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CONTENT

Page

1 EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	3
1.1 TEST RESULT FOR LTE BAND CA_7C (DOWN ANT).....	3
1.2 TEST RESULT FOR LTE BAND CA_7C (UP ANT)	4
2 PEAK-TO-AVERAGE RATIO	5
2.1 FOR LTE.....	5
2.1.1 Test Band = LTE Band CA_7C	5
3 MODULATION CHARACTERISTICS	10
3.1 FOR LTE.....	10
3.1.1 Test Band = LTE Band CA_7C	10
4 26DB BANDWIDTH AND OCCUPIED BANDWIDTH	13
4.1 FOR LTE.....	14
4.1.1 Test Band = LTE Band CA_7C	14
5 BAND EDGES COMPLIANCE	23
5.1 FOR LTE.....	23
5.1.1 Test Band = LTE Band CA_7C	23
6 SPURIOUS EMISSION AT ANTENNA TERMINAL	36
6.1 FOR LTE.....	36
6.1.1 Test Band = LTE Band CA_7C	36
7 FIELD STRENGTH OF SPURIOUS RADIATION	48
7.1 FOR LTE UL CA	48
7.1.1 Test Band = LTE Band CA_7C (Down Ant)	48
7.1.2 Test Band = LTE Band CA_7C (Up Ant).....	49
8 FREQUENCY STABILITY	51
8.1 FREQUENCY ERROR VS. VOLTAGE	51
8.2 FREQUENCY ERROR VS. TEMPERATURE	51



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1 Effective (Isotropic) Radiated Power Output Data

1.1 Test Result for LTE Band CA_7C (Down Ant)

BAND	Test Mode PCC/SCC	Channel PCC/SCC	RB Configuration		Modulation PCC&SCC	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
			PCC	SCC					
CA_7C	75RB+75RB	20825+20975	1RB#0	0RB#0	QPSK	22.82	22.15	33.00	PASS
CA_7C	75RB+75RB	20825+20975	16RB#0	0RB#0	QPSK	22.79	22.12	33.00	PASS
CA_7C	75RB+75RB	21025+21175	1RB#0	0RB#0	QPSK	22.62	21.95	33.00	PASS
CA_7C	75RB+75RB	21025+21175	16RB#0	0RB#0	QPSK	22.55	21.88	33.00	PASS
CA_7C	75RB+75RB	21225+21375	1RB#0	0RB#0	QPSK	22.66	21.99	33.00	PASS
CA_7C	75RB+75RB	21225+21375	16RB#0	0RB#0	QPSK	22.56	21.89	33.00	PASS
CA_7C	100RB+100RB	20850+21048	1RB#0	0RB#0	QPSK	22.56	21.89	33.00	PASS
CA_7C	100RB+100RB	20850+21048	18RB#0	0RB#0	QPSK	22.66	21.99	33.00	PASS
CA_7C	100RB+100RB	21001+21199	1RB#0	0RB#0	QPSK	22.64	21.97	33.00	PASS
CA_7C	100RB+100RB	21001+21199	18RB#0	0RB#0	QPSK	22.70	22.03	33.00	PASS
CA_7C	100RB+100RB	21152+21350	1RB#0	0RB#0	QPSK	22.54	21.87	33.00	PASS
CA_7C	100RB+100RB	21152+21350	18RB#0	0RB#0	QPSK	22.67	22.00	33.00	PASS
CA_7C	75RB+75RB	20825+20975	1RB#0	0RB#0	16QAM	22.00	21.33	33.00	PASS
CA_7C	75RB+75RB	20825+20975	16RB#0	0RB#0	16QAM	22.06	21.39	33.00	PASS
CA_7C	75RB+75RB	21025+21175	1RB#0	0RB#0	16QAM	21.84	21.17	33.00	PASS
CA_7C	75RB+75RB	21025+21175	16RB#0	0RB#0	16QAM	21.84	21.17	33.00	PASS
CA_7C	75RB+75RB	21225+21375	1RB#0	0RB#0	16QAM	21.94	21.27	33.00	PASS
CA_7C	75RB+75RB	21225+21375	16RB#0	0RB#0	16QAM	21.74	21.07	33.00	PASS
CA_7C	100RB+100RB	20850+21048	1RB#0	0RB#0	16QAM	21.85	21.18	33.00	PASS
CA_7C	100RB+100RB	20850+21048	18RB#0	0RB#0	16QAM	21.89	21.22	33.00	PASS
CA_7C	100RB+100RB	21001+21199	1RB#0	0RB#0	16QAM	21.83	21.16	33.00	PASS
CA_7C	100RB+100RB	21001+21199	18RB#0	0RB#0	16QAM	21.94	21.27	33.00	PASS
CA_7C	100RB+100RB	21152+21350	1RB#0	0RB#0	16QAM	21.79	21.12	33.00	PASS
CA_7C	100RB+100RB	21152+21350	18RB#0	0RB#0	16QAM	21.86	21.19	33.00	PASS
CA_7C	75RB+75RB	20825+20975	1RB#0	0RB#0	64QAM	21.29	20.62	33.00	PASS
CA_7C	75RB+75RB	20825+20975	16RB#0	0RB#0	64QAM	21.30	20.63	33.00	PASS
CA_7C	75RB+75RB	21025+21175	1RB#0	0RB#0	64QAM	21.10	20.43	33.00	PASS
CA_7C	75RB+75RB	21025+21175	16RB#0	0RB#0	64QAM	21.08	20.41	33.00	PASS
CA_7C	75RB+75RB	21225+21375	1RB#0	0RB#0	64QAM	21.22	20.55	33.00	PASS
CA_7C	75RB+75RB	21225+21375	16RB#0	0RB#0	64QAM	20.98	20.31	33.00	PASS
CA_7C	100RB+100RB	20850+21048	1RB#0	0RB#0	64QAM	21.08	20.41	33.00	PASS
CA_7C	100RB+100RB	20850+21048	18RB#0	0RB#0	64QAM	21.12	20.45	33.00	PASS
CA_7C	100RB+100RB	21001+21199	1RB#0	0RB#0	64QAM	21.09	20.42	33.00	PASS
CA_7C	100RB+100RB	21001+21199	18RB#0	0RB#0	64QAM	21.21	20.54	33.00	PASS
CA_7C	100RB+100RB	21152+21350	1RB#0	0RB#0	64QAM	21.03	20.36	33.00	PASS
CA_7C	100RB+100RB	21152+21350	18RB#0	0RB#0	64QAM	21.10	20.43	33.00	PASS



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1.2 Test Result for LTE Band CA_7C (Up Ant)

BAND	Test Mode PCC/SCC	Channel PCC/SCC	RB Configuration		Modulation PCC&SCC	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
			PCC	SCC					
CA_7C	75RB+75RB	20825+20975	1RB#0	0RB#0	QPSK	20.01	19.03	33.00	PASS
CA_7C	75RB+75RB	20825+20975	16RB#0	0RB#0	QPSK	19.99	19.01	33.00	PASS
CA_7C	75RB+75RB	21025+21175	1RB#0	0RB#0	QPSK	19.81	18.83	33.00	PASS
CA_7C	75RB+75RB	21025+21175	16RB#0	0RB#0	QPSK	19.79	18.81	33.00	PASS
CA_7C	75RB+75RB	21225+21375	1RB#0	0RB#0	QPSK	19.90	18.92	33.00	PASS
CA_7C	75RB+75RB	21225+21375	16RB#0	0RB#0	QPSK	19.88	18.90	33.00	PASS
CA_7C	100RB+100RB	20850+21048	1RB#0	0RB#0	QPSK	19.83	18.85	33.00	PASS
CA_7C	100RB+100RB	20850+21048	18RB#0	0RB#0	QPSK	19.89	18.91	33.00	PASS
CA_7C	100RB+100RB	21001+21199	1RB#0	0RB#0	QPSK	19.87	18.89	33.00	PASS
CA_7C	100RB+100RB	21001+21199	18RB#0	0RB#0	QPSK	19.89	18.91	33.00	PASS
CA_7C	100RB+100RB	21152+21350	1RB#0	0RB#0	QPSK	19.81	18.83	33.00	PASS
CA_7C	100RB+100RB	21152+21350	18RB#0	0RB#0	QPSK	19.72	18.74	33.00	PASS
CA_7C	75RB+75RB	20825+20975	1RB#0	0RB#0	16QAM	19.28	18.30	33.00	PASS
CA_7C	75RB+75RB	20825+20975	16RB#0	0RB#0	16QAM	19.18	18.20	33.00	PASS
CA_7C	75RB+75RB	21025+21175	1RB#0	0RB#0	16QAM	19.05	18.07	33.00	PASS
CA_7C	75RB+75RB	21025+21175	16RB#0	0RB#0	16QAM	18.97	17.99	33.00	PASS
CA_7C	75RB+75RB	21225+21375	1RB#0	0RB#0	16QAM	19.17	18.19	33.00	PASS
CA_7C	75RB+75RB	21225+21375	16RB#0	0RB#0	16QAM	19.10	18.12	33.00	PASS
CA_7C	100RB+100RB	20850+21048	1RB#0	0RB#0	16QAM	19.09	18.11	33.00	PASS
CA_7C	100RB+100RB	20850+21048	18RB#0	0RB#0	16QAM	19.14	18.16	33.00	PASS
CA_7C	100RB+100RB	21001+21199	1RB#0	0RB#0	16QAM	19.16	18.18	33.00	PASS
CA_7C	100RB+100RB	21001+21199	18RB#0	0RB#0	16QAM	19.18	18.20	33.00	PASS
CA_7C	100RB+100RB	21152+21350	1RB#0	0RB#0	16QAM	19.01	18.03	33.00	PASS
CA_7C	100RB+100RB	21152+21350	18RB#0	0RB#0	16QAM	18.92	17.94	33.00	PASS
CA_7C	75RB+75RB	20825+20975	1RB#0	0RB#0	64QAM	18.57	17.59	33.00	PASS
CA_7C	75RB+75RB	20825+20975	16RB#0	0RB#0	64QAM	18.45	17.47	33.00	PASS
CA_7C	75RB+75RB	21025+21175	1RB#0	0RB#0	64QAM	18.28	17.30	33.00	PASS
CA_7C	75RB+75RB	21025+21175	16RB#0	0RB#0	64QAM	18.26	17.28	33.00	PASS
CA_7C	75RB+75RB	21225+21375	1RB#0	0RB#0	64QAM	18.35	17.37	33.00	PASS
CA_7C	75RB+75RB	21225+21375	16RB#0	0RB#0	64QAM	18.39	17.41	33.00	PASS
CA_7C	100RB+100RB	20850+21048	1RB#0	0RB#0	64QAM	18.34	17.36	33.00	PASS
CA_7C	100RB+100RB	20850+21048	18RB#0	0RB#0	64QAM	18.43	17.45	33.00	PASS
CA_7C	100RB+100RB	21001+21199	1RB#0	0RB#0	64QAM	18.39	17.41	33.00	PASS
CA_7C	100RB+100RB	21001+21199	18RB#0	0RB#0	64QAM	18.44	17.46	33.00	PASS
CA_7C	100RB+100RB	21152+21350	1RB#0	0RB#0	64QAM	18.28	17.30	33.00	PASS
CA_7C	100RB+100RB	21152+21350	18RB#0	0RB#0	64QAM	18.11	17.13	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 [dBi]

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



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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_7C	QPSK	100RB+100RB	20850+21048	100RB#0	100RB#0	5.04	13.00	PASS
CA_7C	QPSK	100RB+100RB	21001+21199	100RB#0	100RB#0	5.13	13.00	PASS
CA_7C	QPSK	100RB+100RB	21152+21350	100RB#0	100RB#0	5.42	13.00	PASS
CA_7C	16QAM	100RB+100RB	20850+21048	100RB#0	100RB#0	5.77	13.00	PASS
CA_7C	16QAM	100RB+100RB	21001+21199	100RB#0	100RB#0	5.88	13.00	PASS
CA_7C	16QAM	100RB+100RB	21152+21350	100RB#0	100RB#0	6.09	13.00	PASS
CA_7C	64QAM	100RB+100RB	20850+21048	100RB#0	100RB#0	5.97	13.00	PASS
CA_7C	64QAM	100RB+100RB	21001+21199	100RB#0	100RB#0	6.17	13.00	PASS
CA_7C	64QAM	100RB+100RB	21152+21350	100RB#0	100RB#0	6.14	13.00	PASS

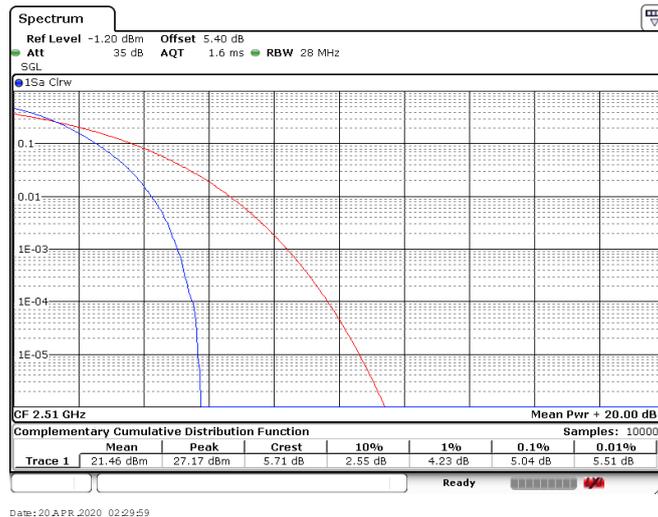
Part II - Test Plots

2.1 For LTE

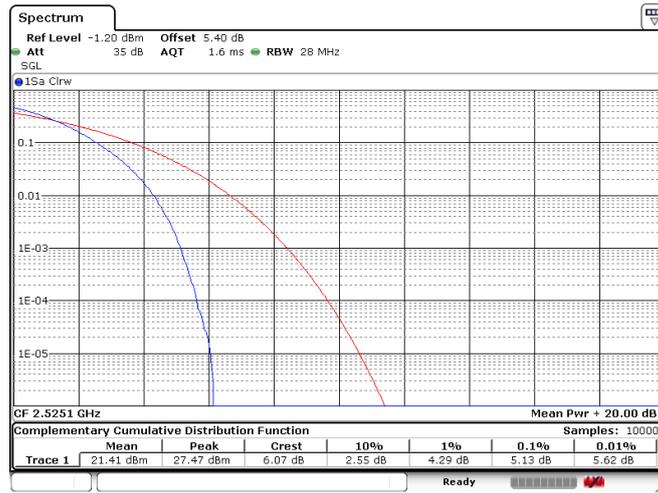
2.1.1 Test Band = LTE Band CA_7C

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

2.1.1.1.1 Test Channel = 20850+21048

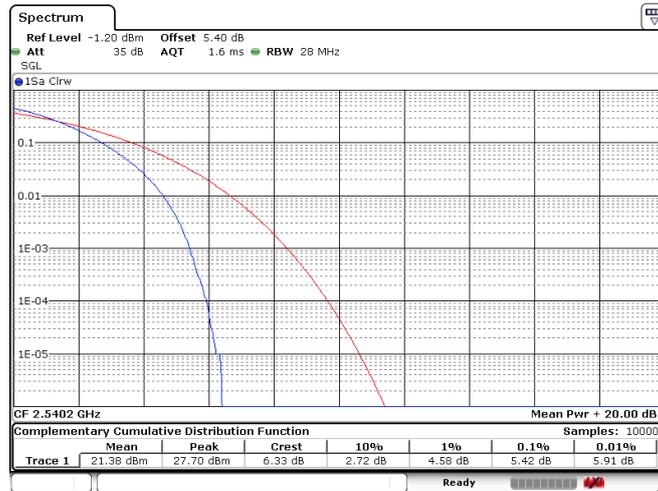


2.1.1.1.2 Test Channel = 21001+21199



Date: 20.APR.2020 02:32:20

2.1.1.1.3 Test Channel = 21152+21350



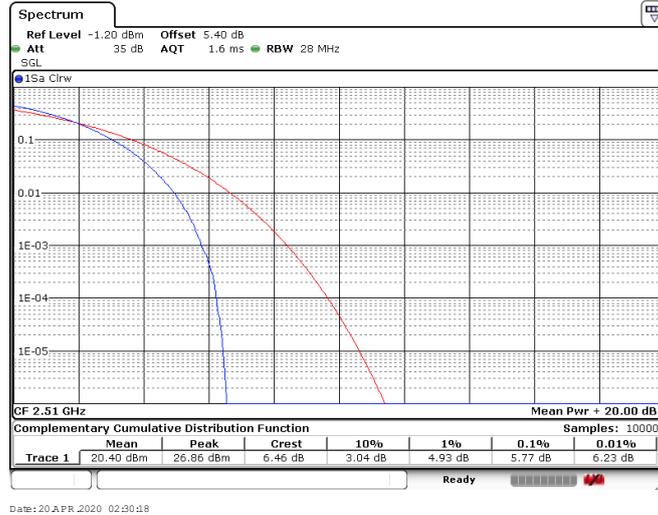
Date: 20.APR.2020 02:33:56



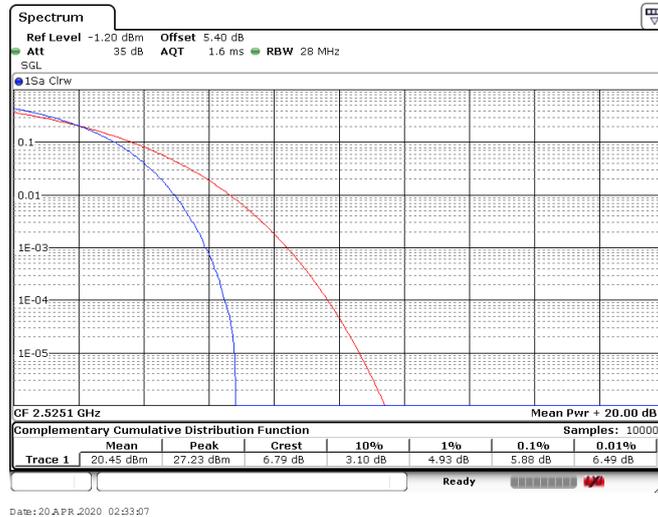
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2.1.1.2 Test Mode = LTE /16QAM 100RB+100RB

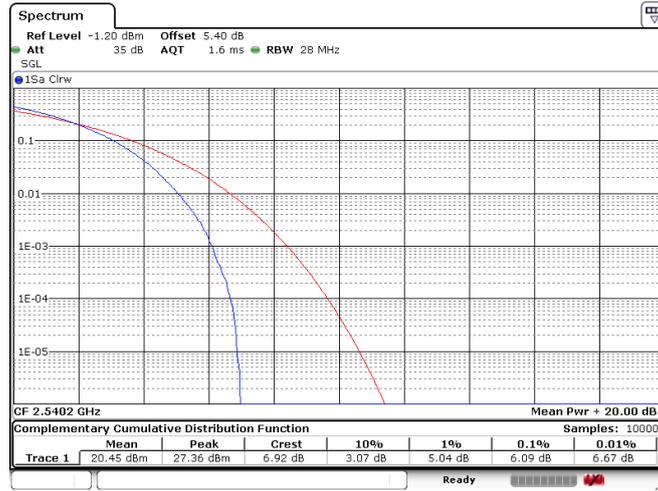
2.1.1.2.1 Test Channel = 20850+21048



2.1.1.2.2 Test Channel = 21001+21199



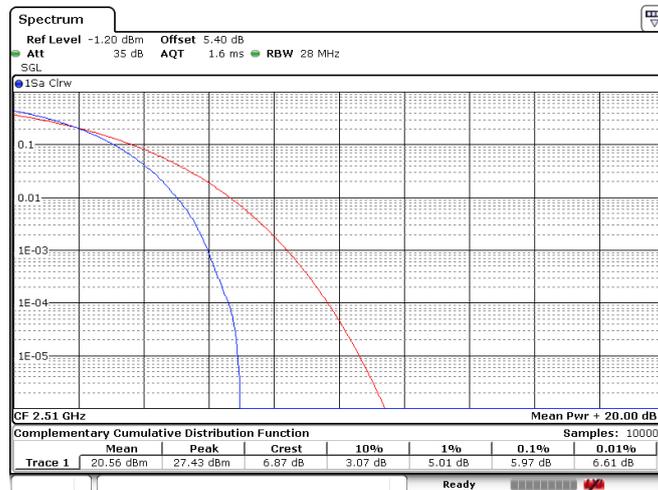
2.1.1.2.3 Test Channel = 21152+21350



Date: 20.APR.2020 02:34:19

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

2.1.1.3.1 Test Channel = 20850+21048



Date: 20.APR.2020 02:30:31

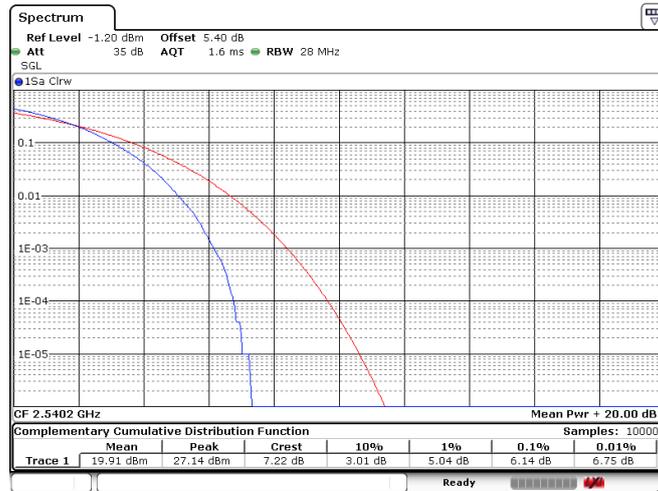


2.1.1.3.2 Test Channel = 21001+21199



Date: 20.APR.2020 02:33:21

2.1.1.3.3 Test Channel = 21152+21350



Date: 20.APR.2020 02:34:34



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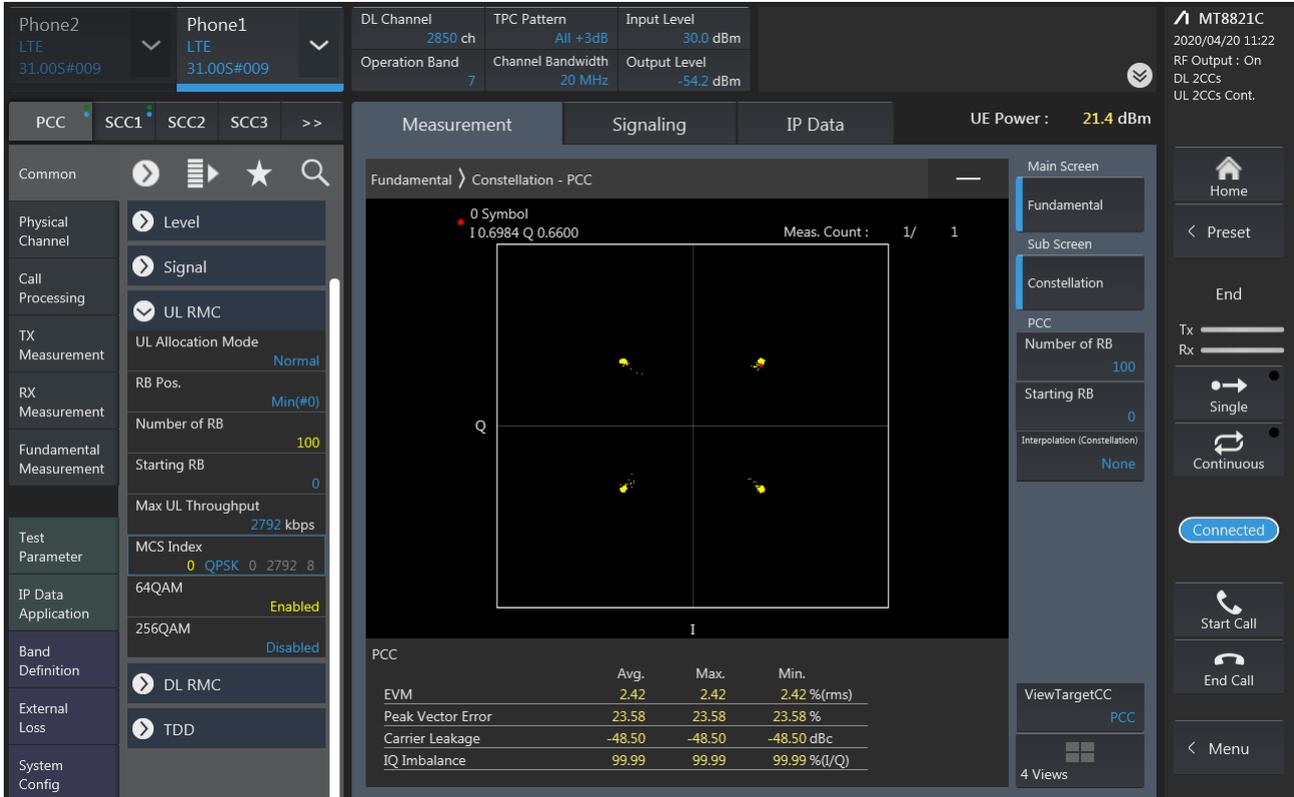
3 Modulation Characteristics

3.1 For LTE

3.1.1 Test Band = LTE Band CA_7C

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

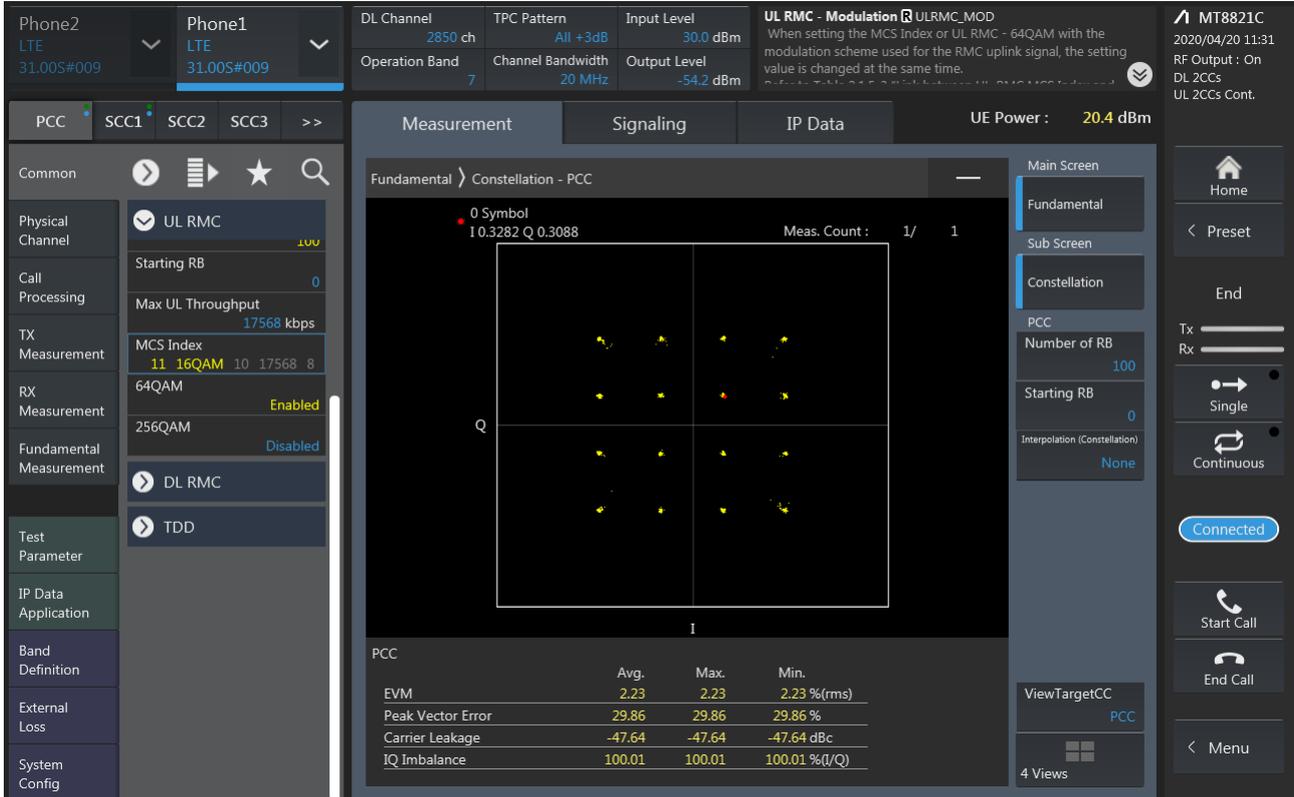
3.1.1.1.1 Test Channel = 21001+21199





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

3.1.1.2.1 Test Channel =21001+21199



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

3.1.1.3.1 Test Channel = 21001+21199

The screenshot displays the following information:

- Phone Info:** Phone2 (LTE, 31.00S#009), Phone1 (LTE, 31.00S#009)
- DL Channel:** 2850 ch, Operation Band 7
- TPC Pattern:** All +3dB
- Channel Bandwidth:** 20 MHz
- Input Level:** 30.0 dBm
- Output Level:** -54.2 dBm
- UL RMC - Modulation:** ULRMC_MOD, 64QAM
- UE Power:** 20.4 dBm
- Constellation - PCC:** Shows a 64QAM constellation diagram with 0 Symbol, I: -0.4421, Q: 1.0635, and Meas. Count: 1/1.
- PCC Metrics Table:**

	Avg.	Max.	Min.
EVM	1.83	1.83	1.83 %(rms)
Peak Vector Error	15.25	15.25	15.25 %
Carrier Leakage	-45.58	-45.58	-45.58 dBc
IQ Imbalance	100.02	100.02	100.02 %(I/Q)
- Test Parameter:** Number of RB: 100, Starting RB: 0
- MCS Index:** 21 64QAM 19 43816 8
- Band Definition:** 64QAM
- External Loss:** 256QAM
- System Config:** DL RMC



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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_7C	QPSK	75RB+75RB	20825+20975	75RB#0	75RB#0	28.07	29.39	PASS
CA_7C	QPSK	75RB+75RB	21025+21175	75RB#0	75RB#0	28.19	29.54	PASS
CA_7C	QPSK	75RB+75RB	21225+21375	75RB#0	75RB#0	28.12	29.44	PASS
CA_7C	16QAM	75RB+75RB	20825+20975	75RB#0	75RB#0	28.06	29.41	PASS
CA_7C	16QAM	75RB+75RB	21025+21175	75RB#0	75RB#0	28.19	29.45	PASS
CA_7C	16QAM	75RB+75RB	21225+21375	75RB#0	75RB#0	28.10	29.48	PASS
CA_7C	64QAM	75RB+75RB	20825+20975	75RB#0	75RB#0	28.14	29.59	PASS
CA_7C	64QAM	75RB+75RB	21025+21175	75RB#0	75RB#0	28.21	29.50	PASS
CA_7C	64QAM	75RB+75RB	21225+21375	75RB#0	75RB#0	28.13	29.56	PASS
CA_7C	QPSK	100RB+100RB	20850+21048	100RB#0	100RB#0	37.28	39.25	PASS
CA_7C	QPSK	100RB+100RB	21001+21199	100RB#0	100RB#0	37.01	39.31	PASS
CA_7C	QPSK	100RB+100RB	21152+21350	100RB#0	100RB#0	36.76	39.09	PASS
CA_7C	16QAM	100RB+100RB	20850+21048	100RB#0	100RB#0	37.22	39.17	PASS
CA_7C	16QAM	100RB+100RB	21001+21199	100RB#0	100RB#0	37.03	39.17	PASS
CA_7C	16QAM	100RB+100RB	21152+21350	100RB#0	100RB#0	36.83	38.93	PASS
CA_7C	64QAM	100RB+100RB	20850+21048	100RB#0	100RB#0	37.19	39.13	PASS
CA_7C	64QAM	100RB+100RB	21001+21199	100RB#0	100RB#0	37.43	39.25	PASS
CA_7C	64QAM	100RB+100RB	21152+21350	100RB#0	100RB#0	37.31	39.09	PASS

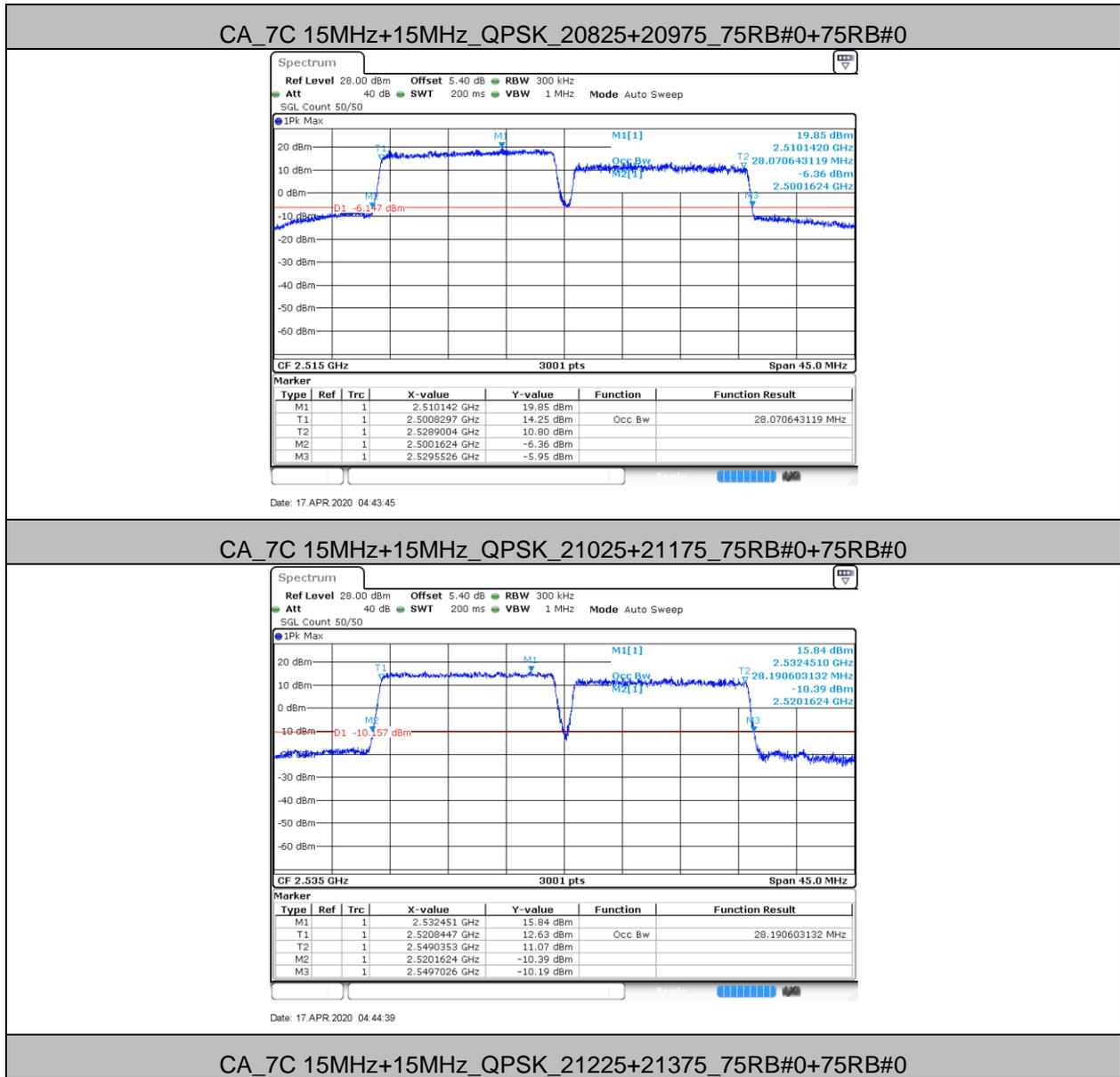


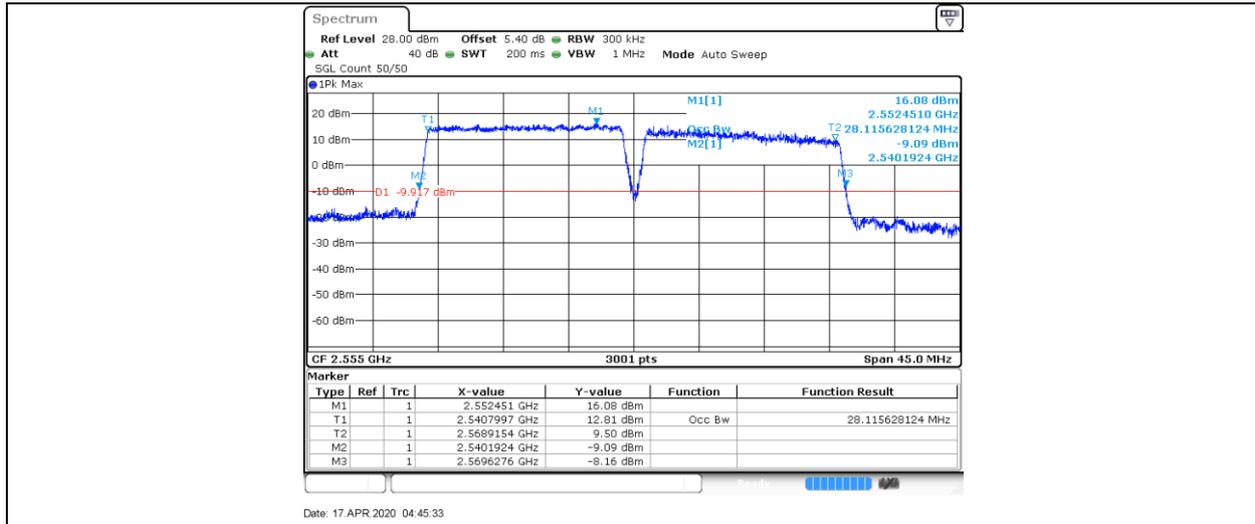
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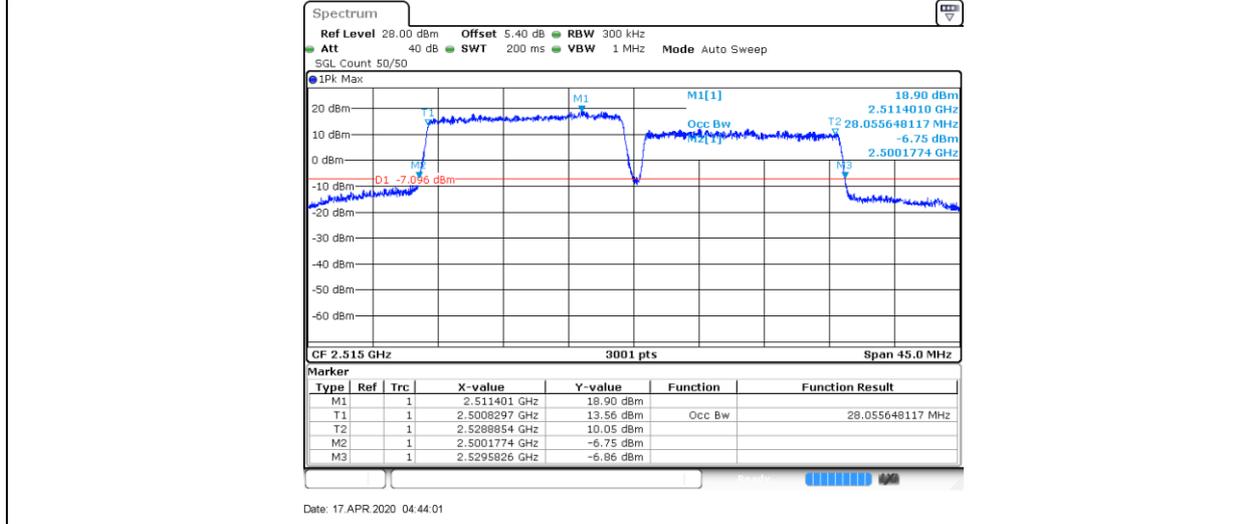
4.1 For LTE

4.1.1 Test Band = LTE Band CA_7C





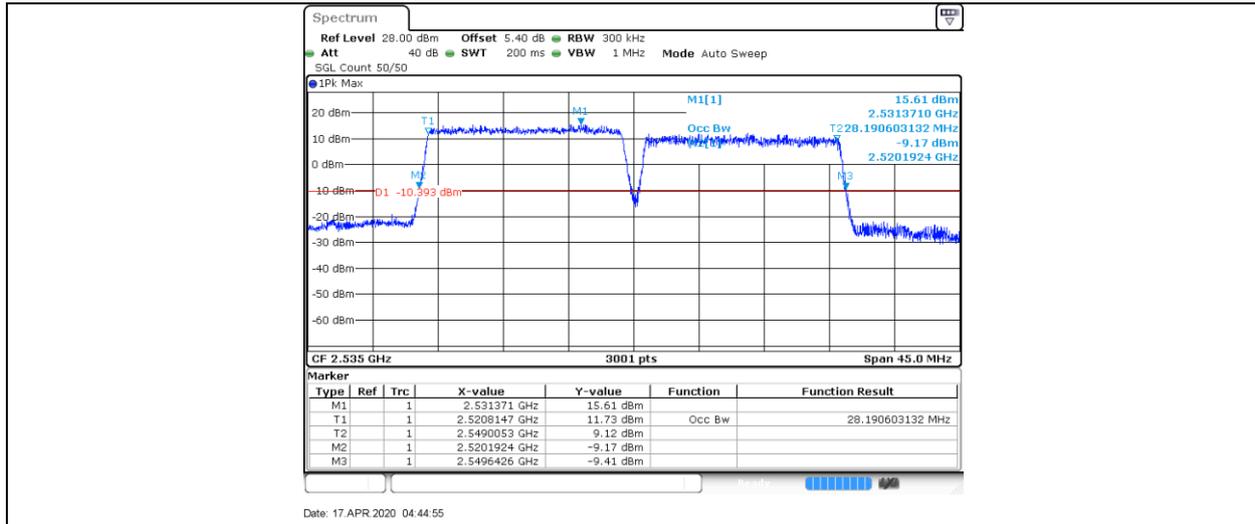
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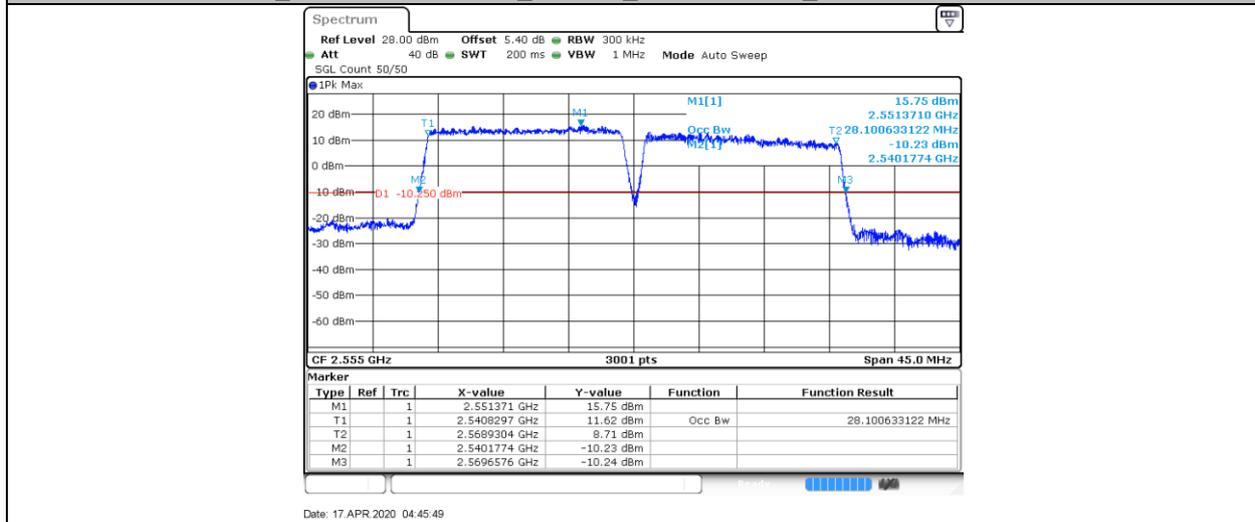
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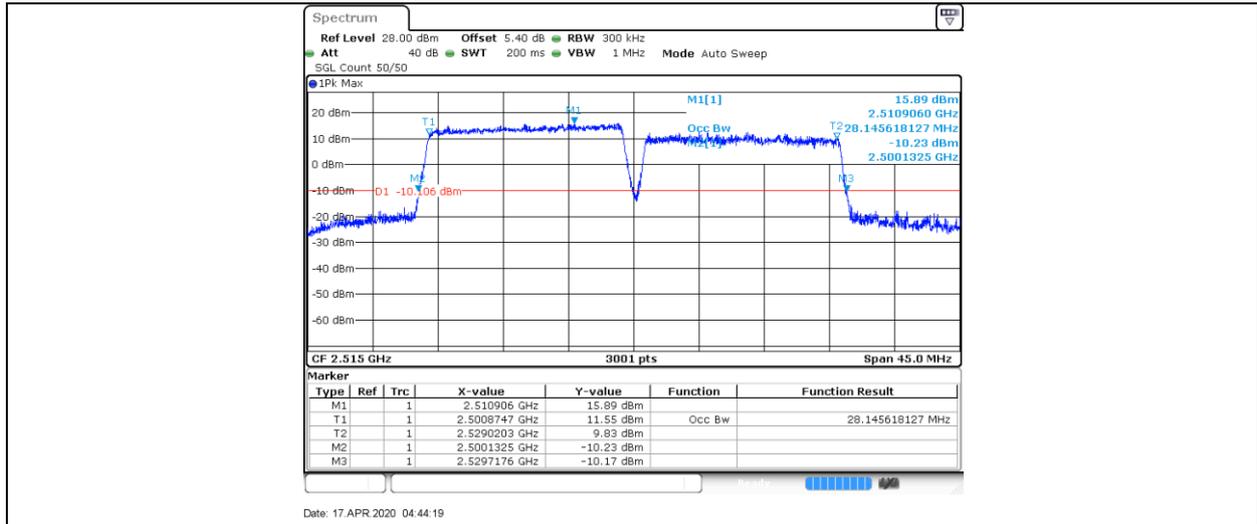


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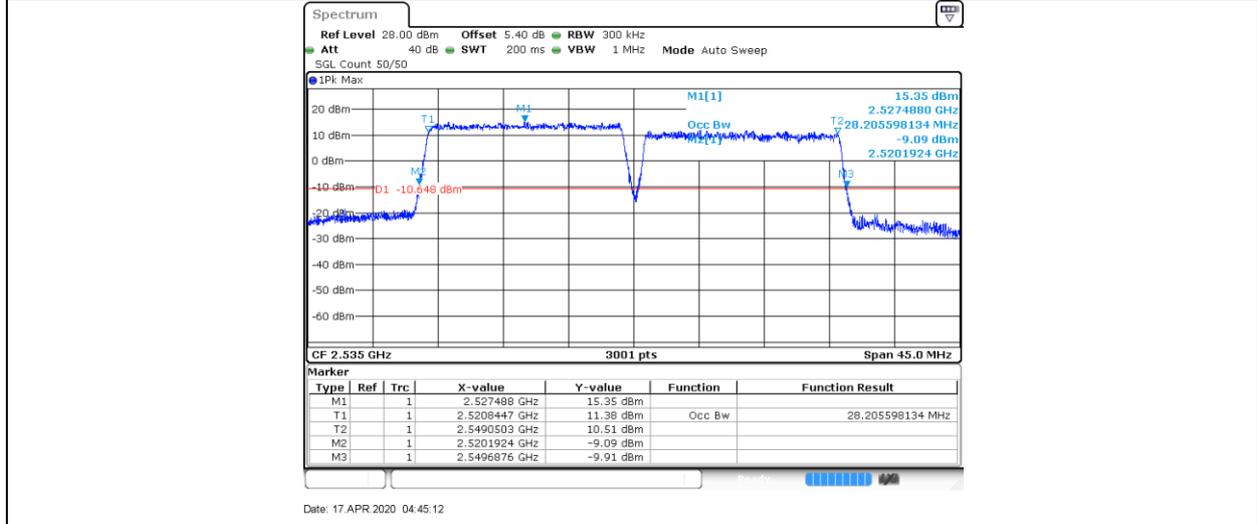


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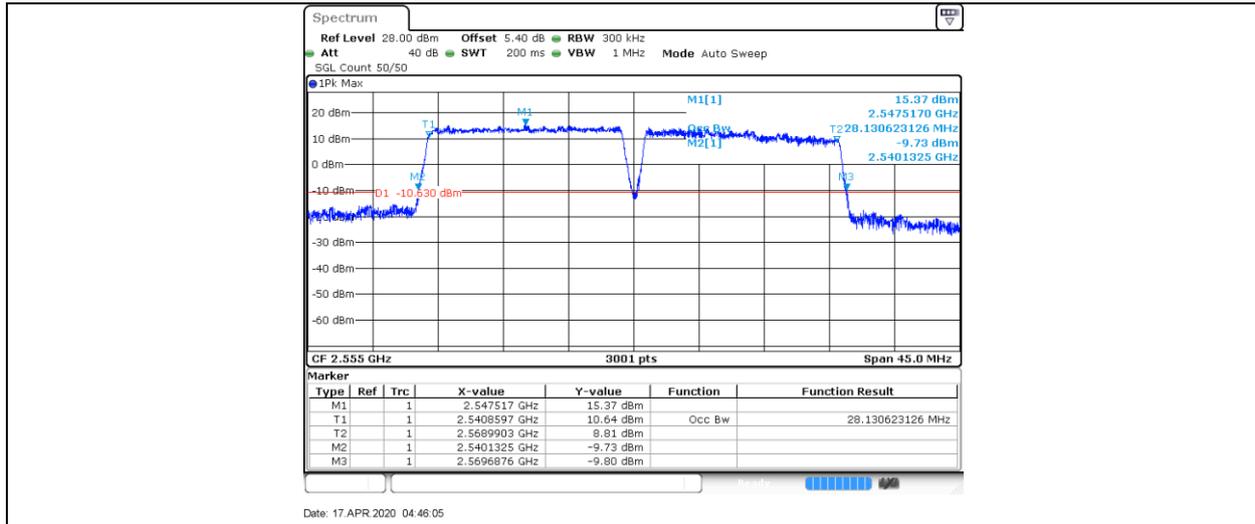


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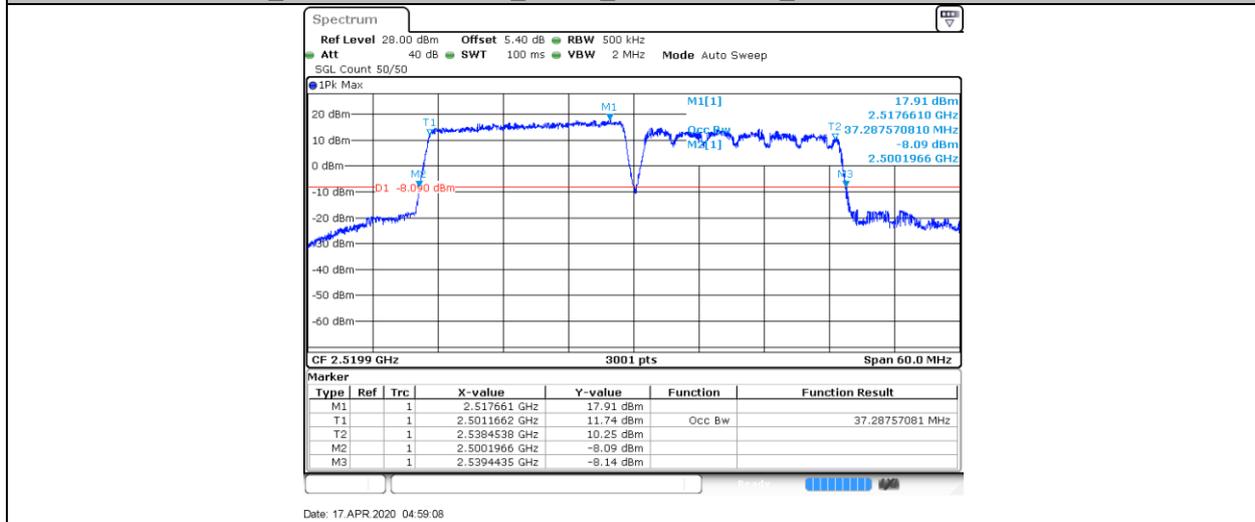


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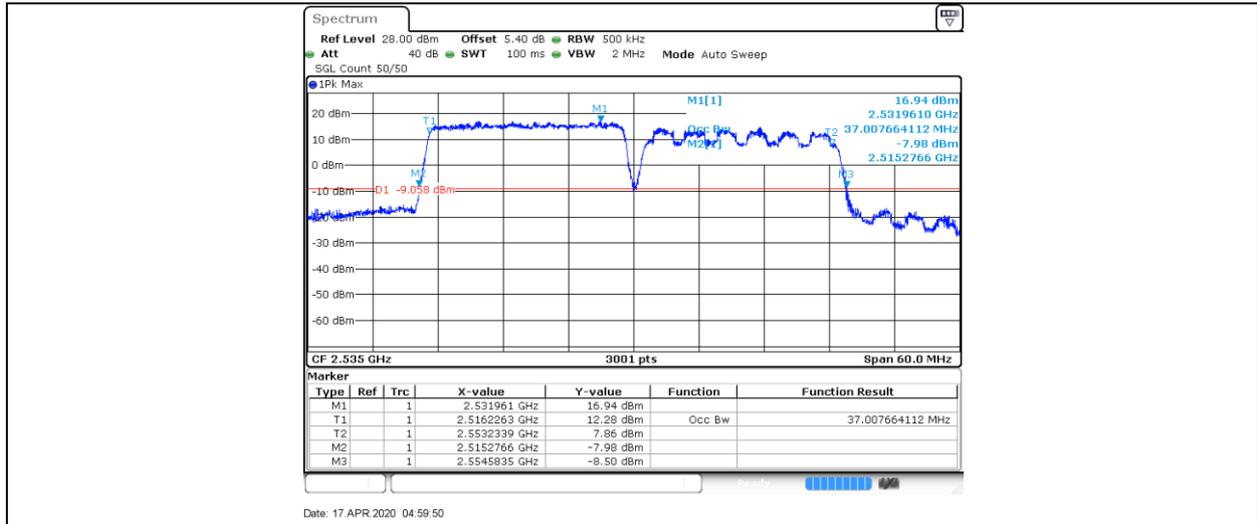


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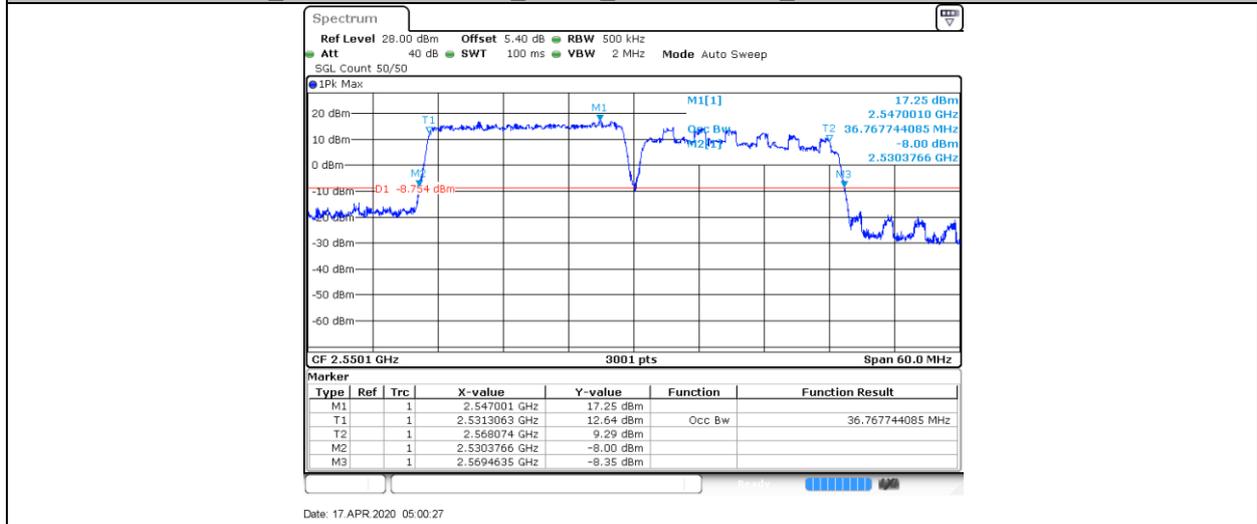


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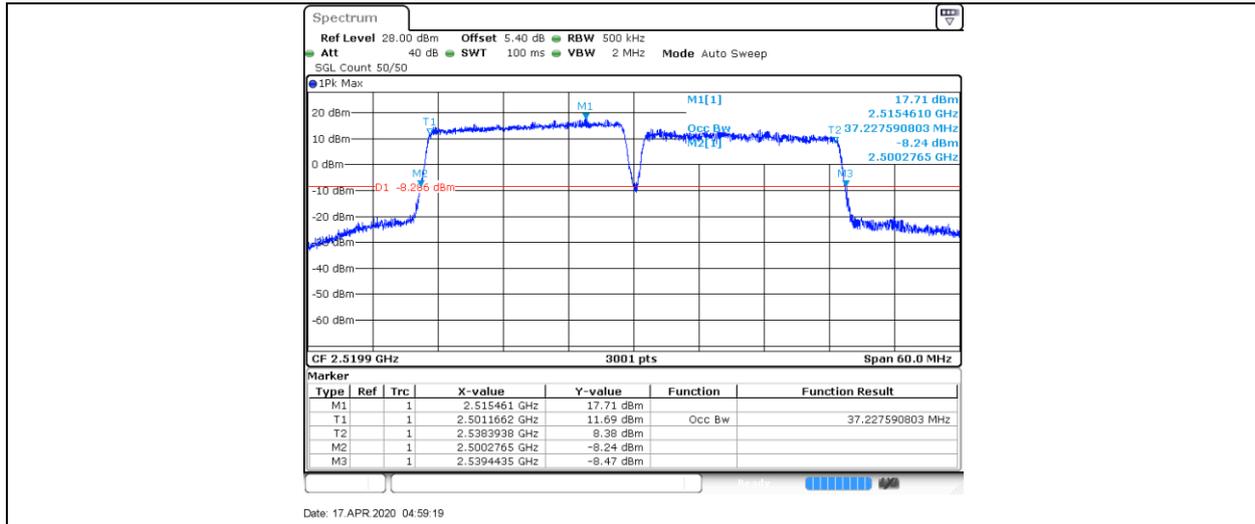


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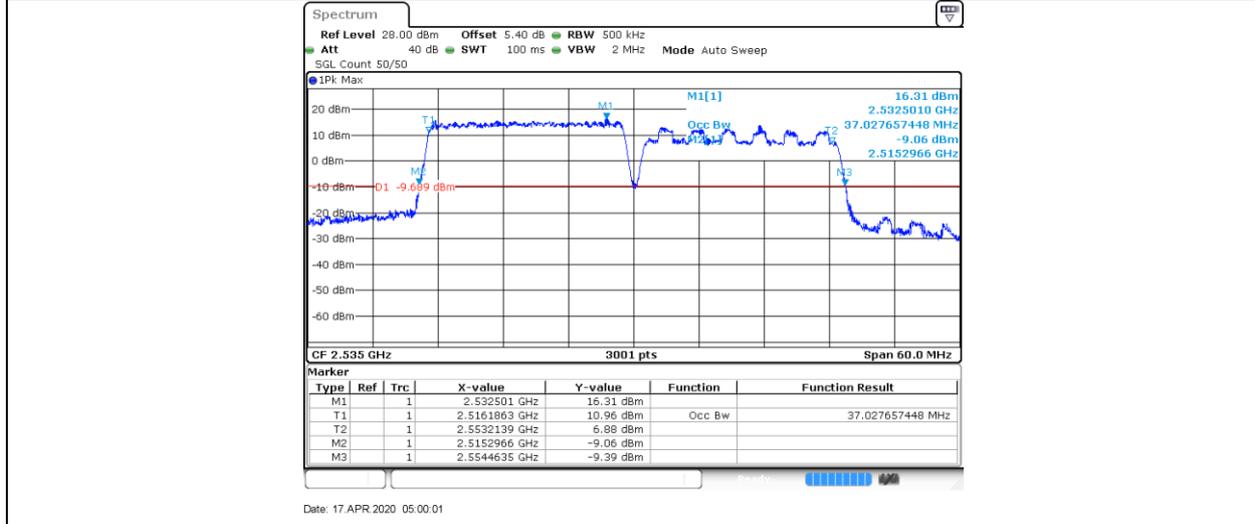


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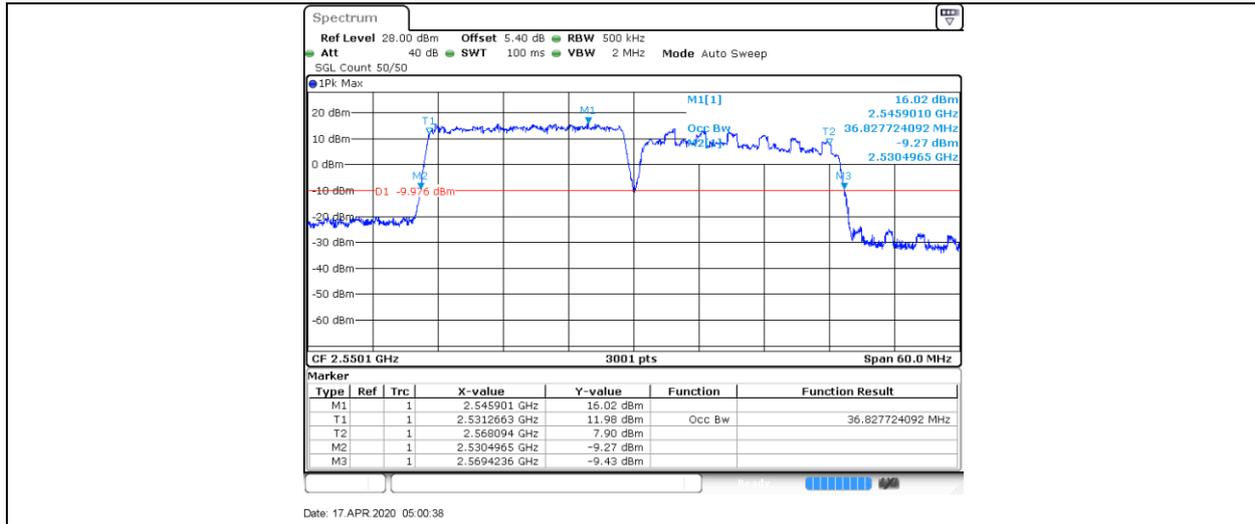


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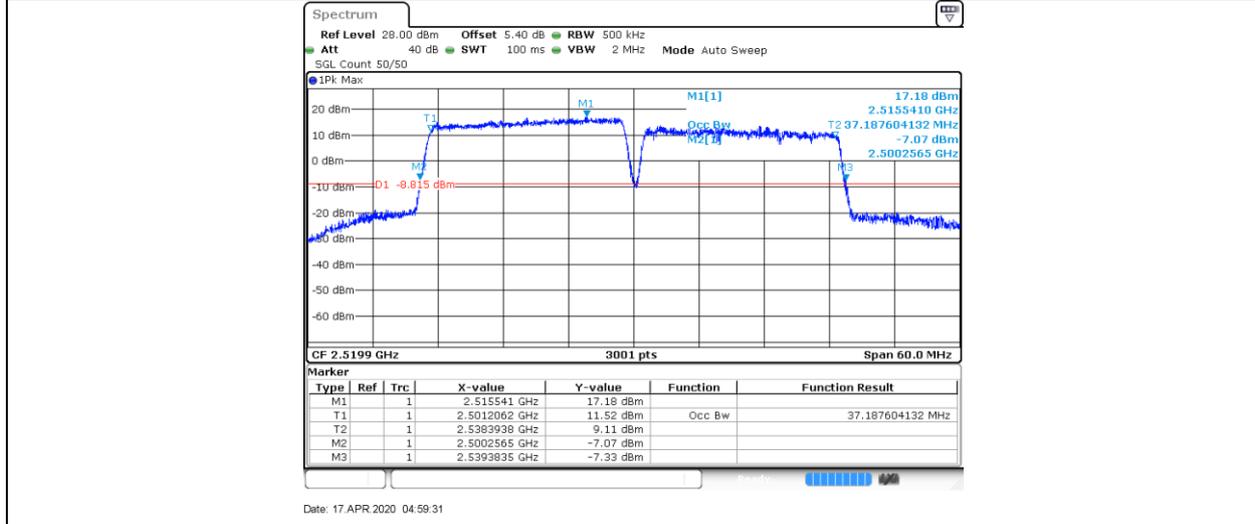


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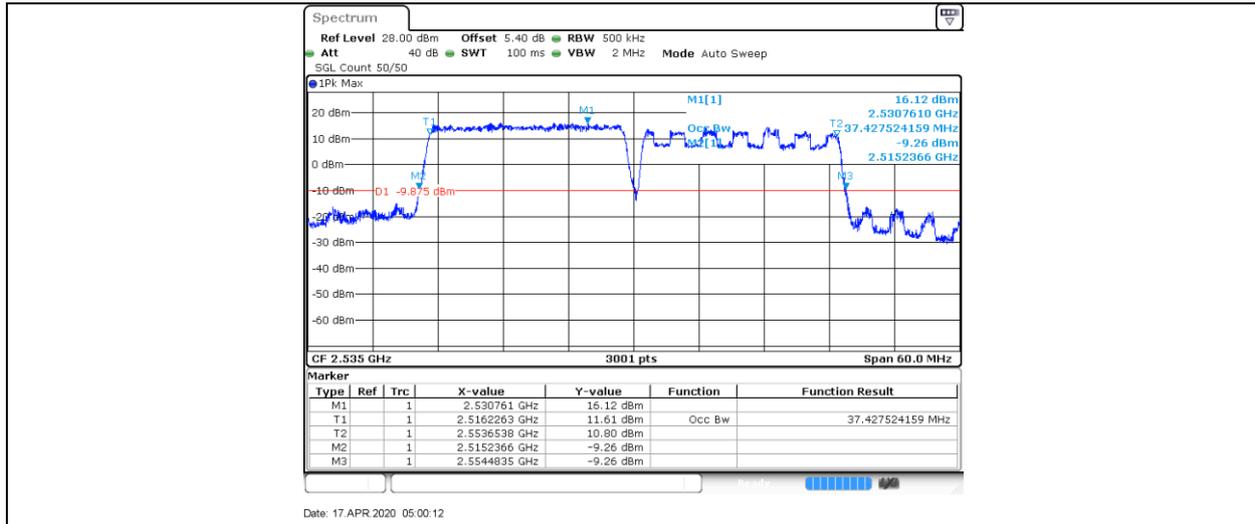


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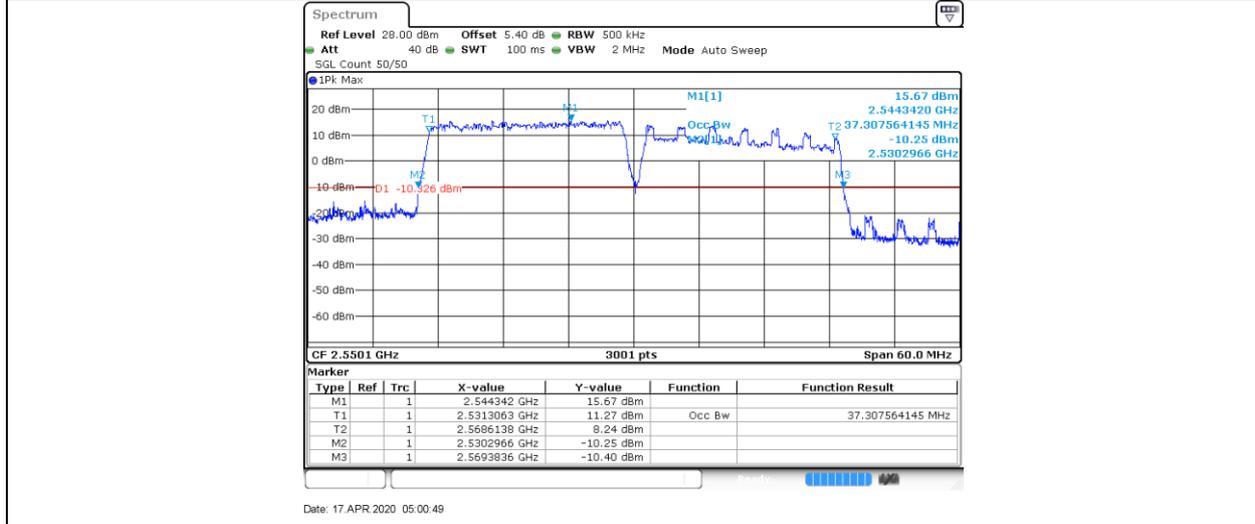


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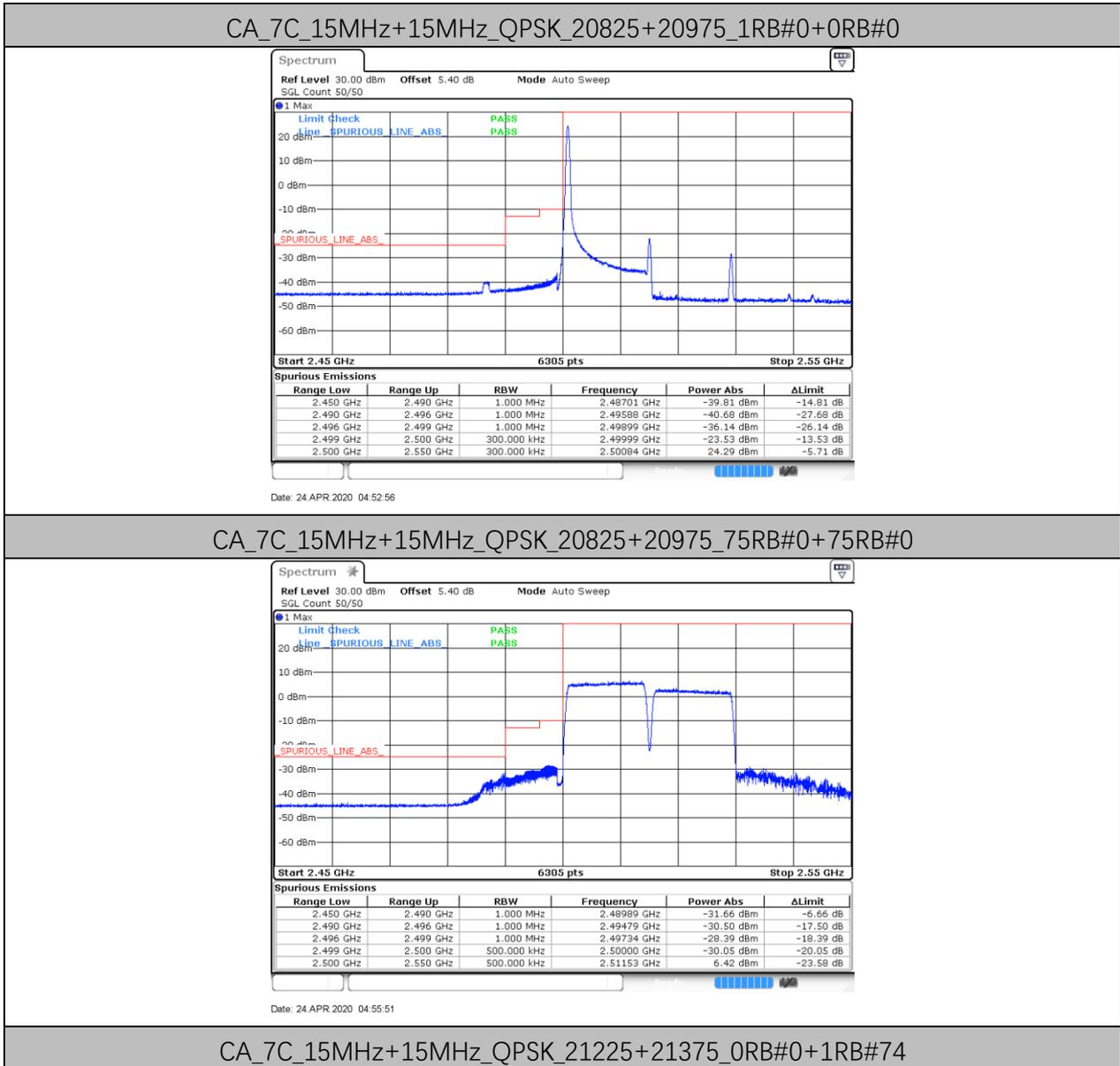
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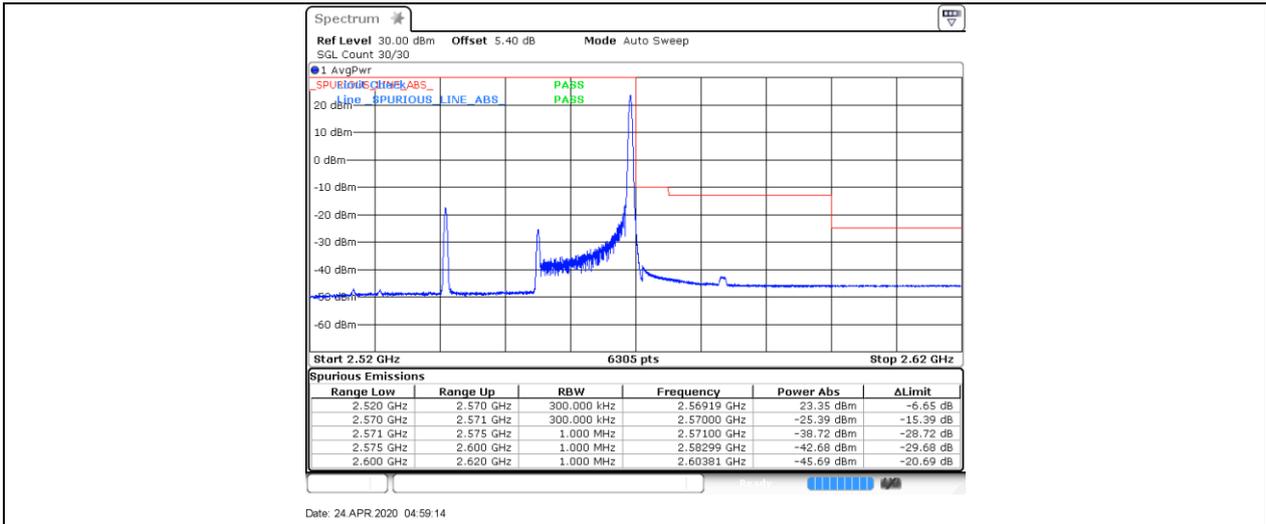
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5 Band Edges Compliance

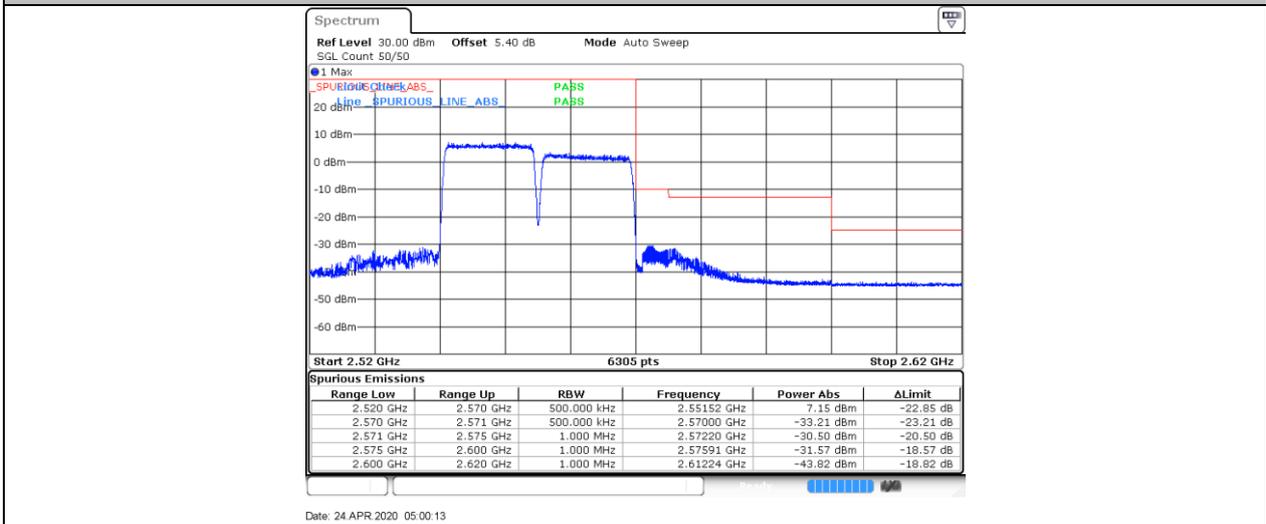
5.1 For LTE

5.1.1 Test Band = LTE Band CA_7C



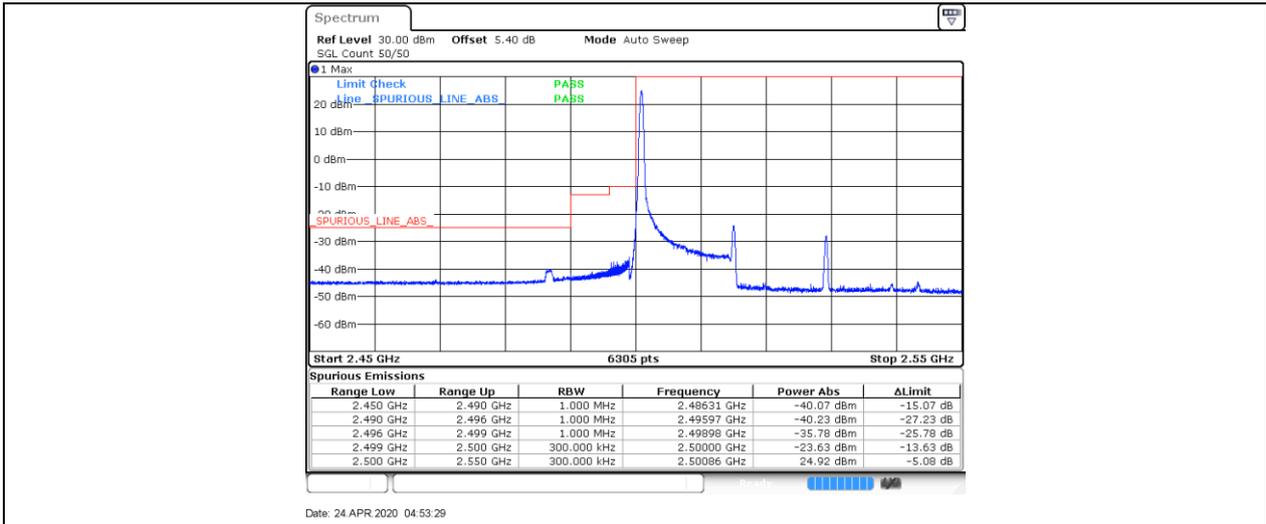


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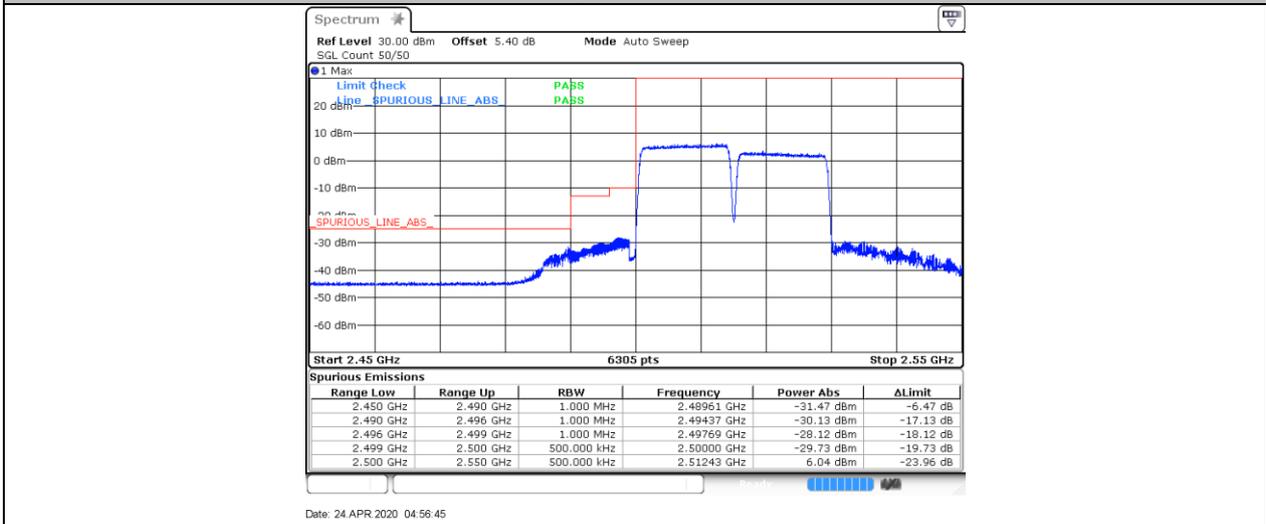


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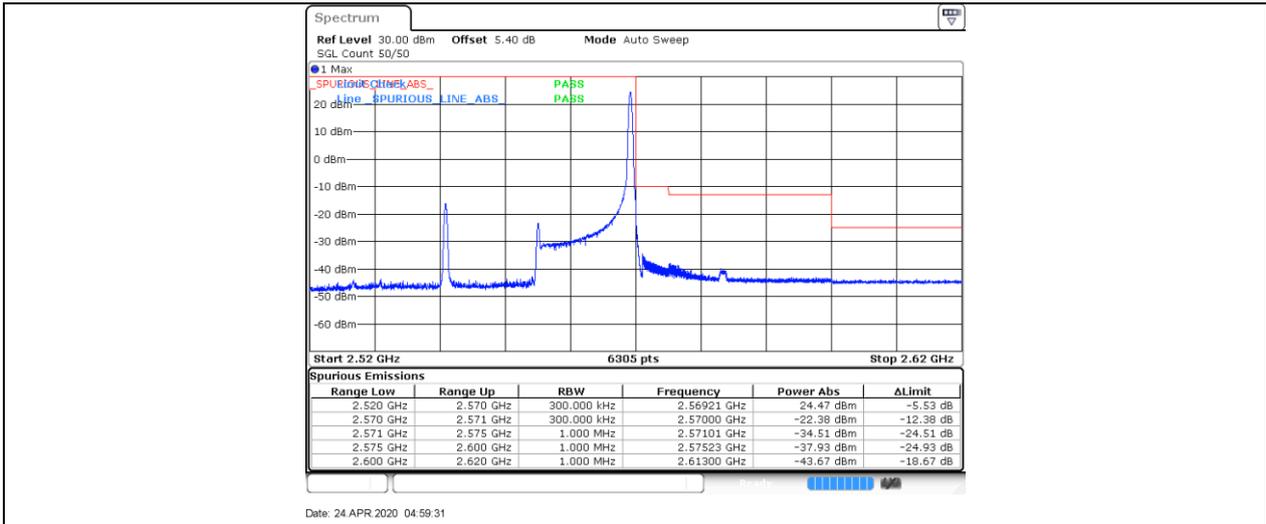


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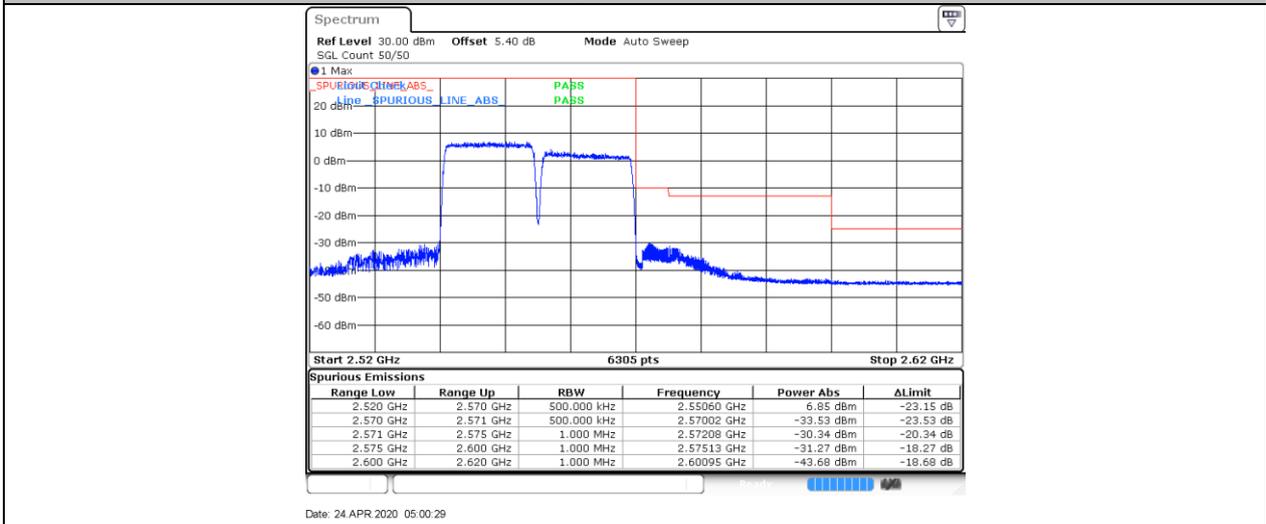


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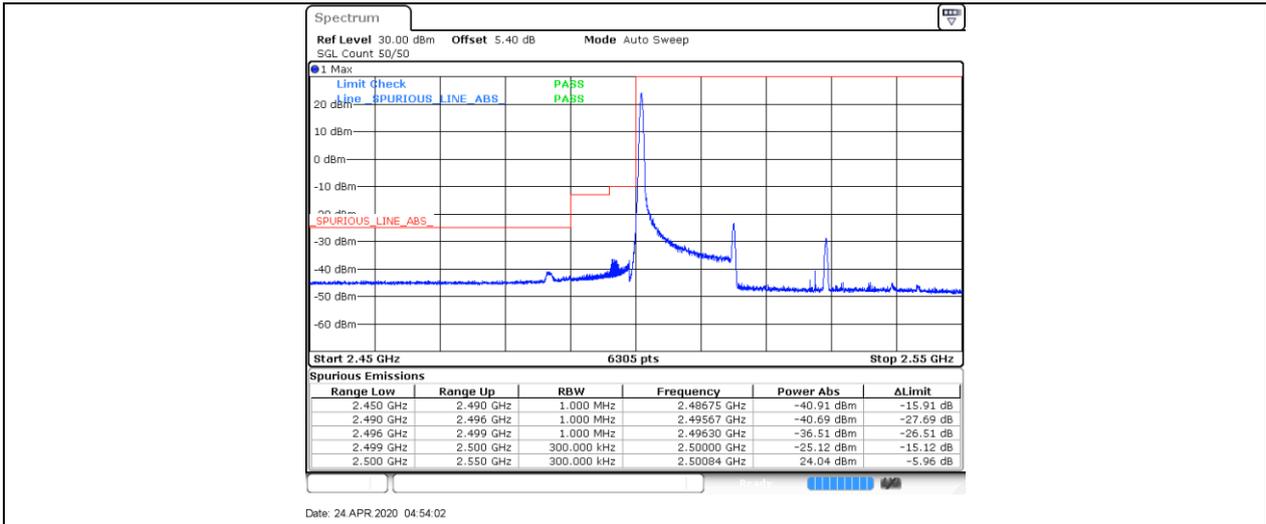


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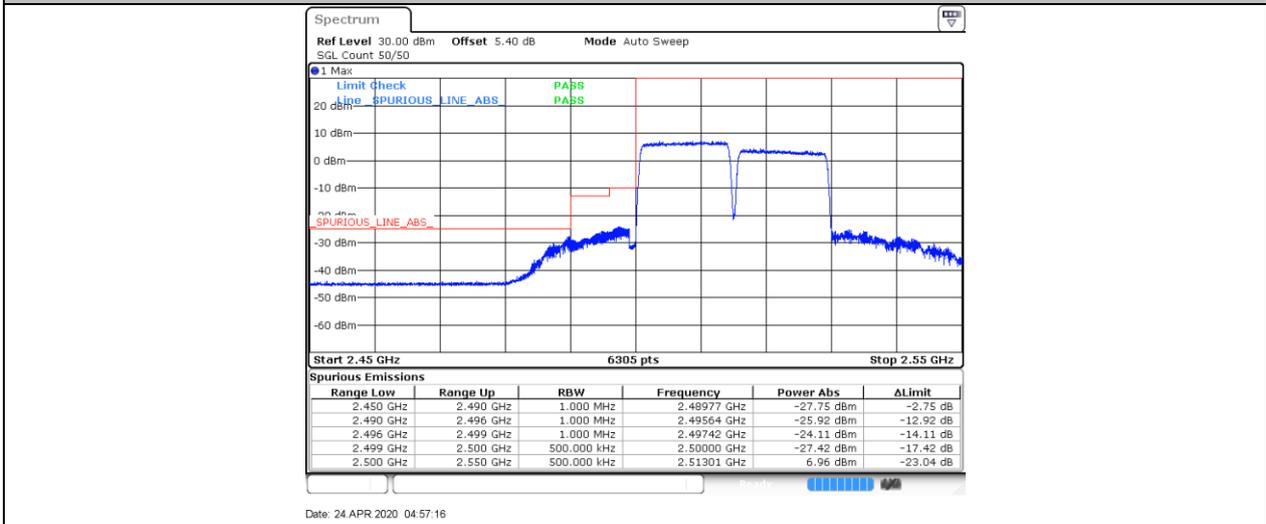


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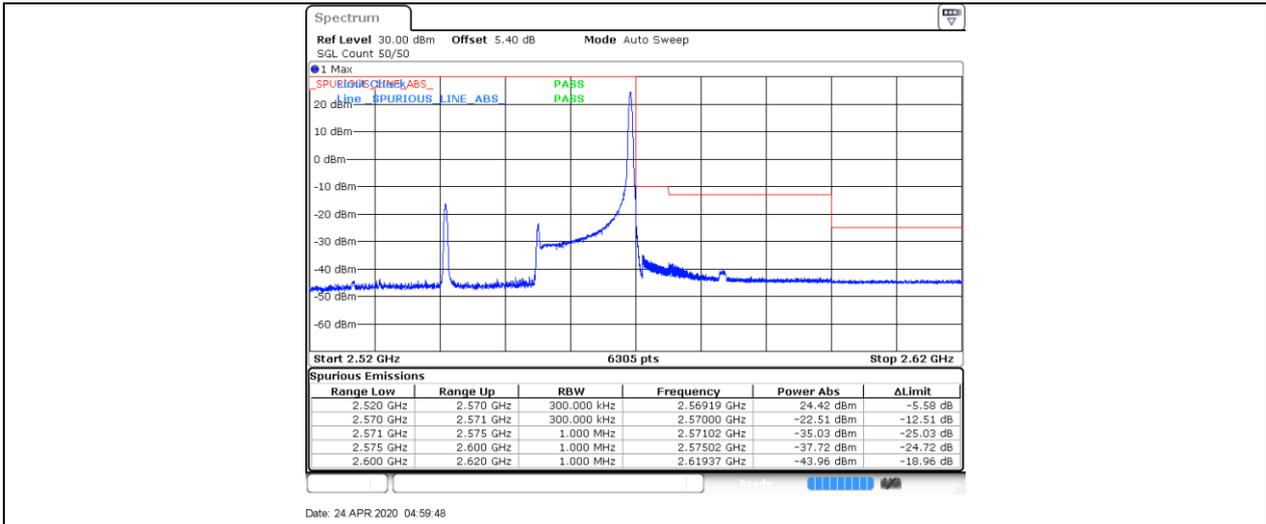


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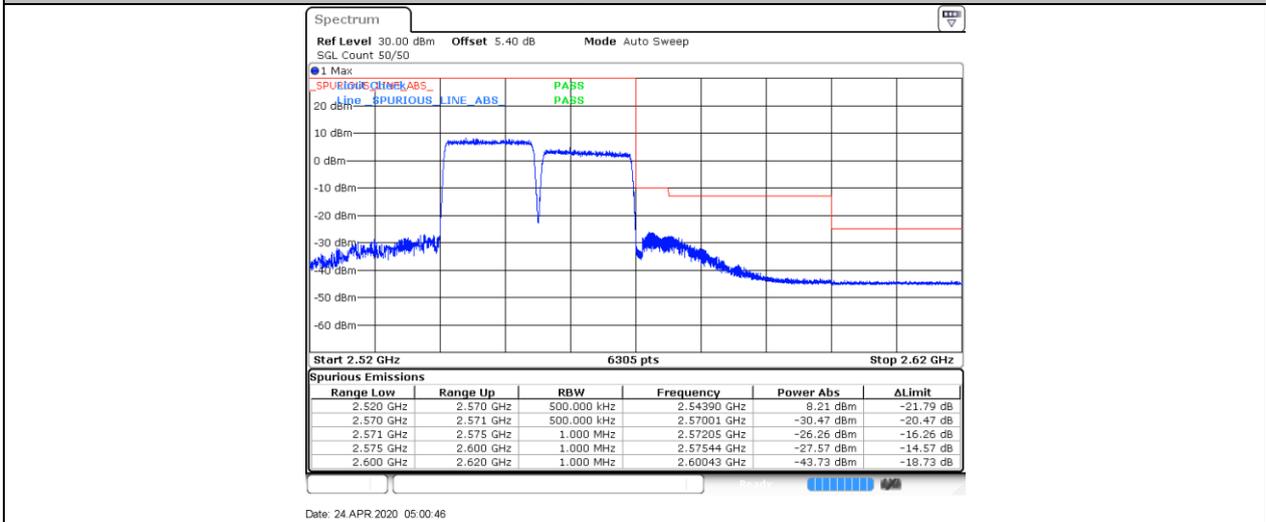


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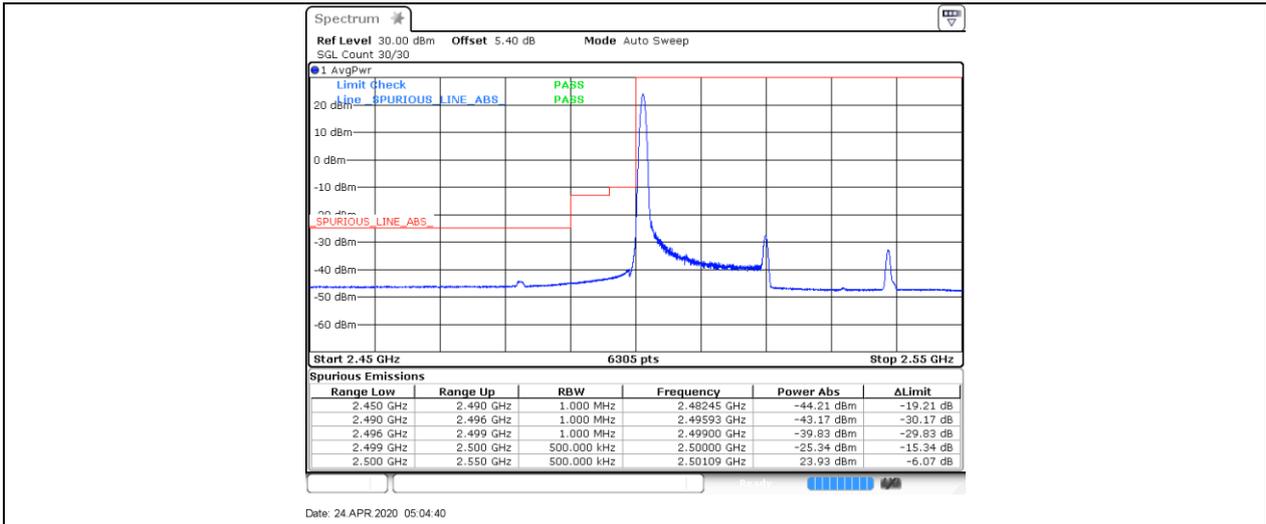


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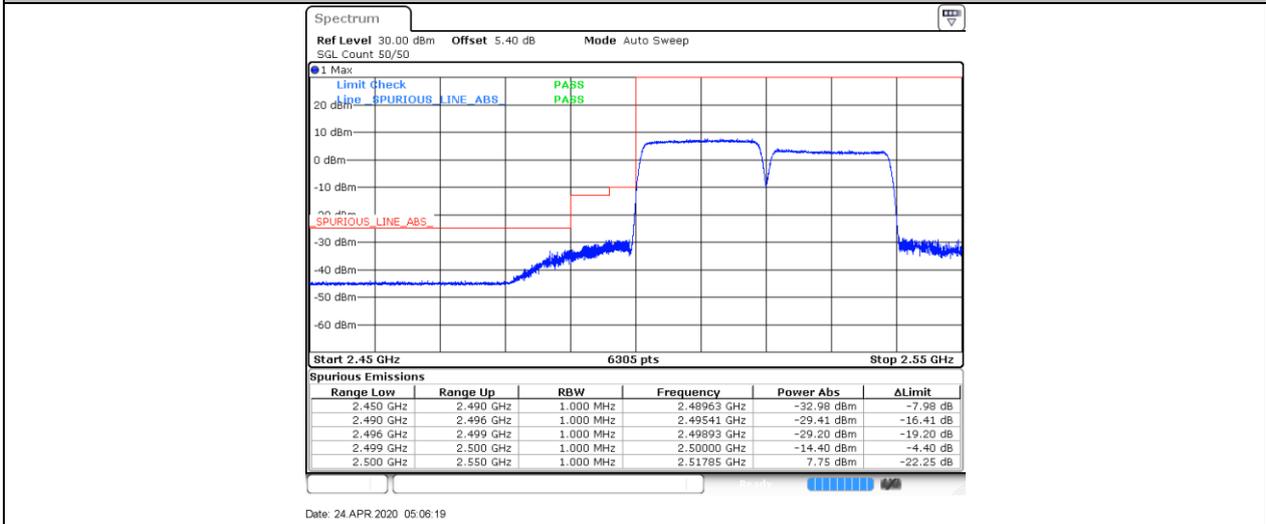


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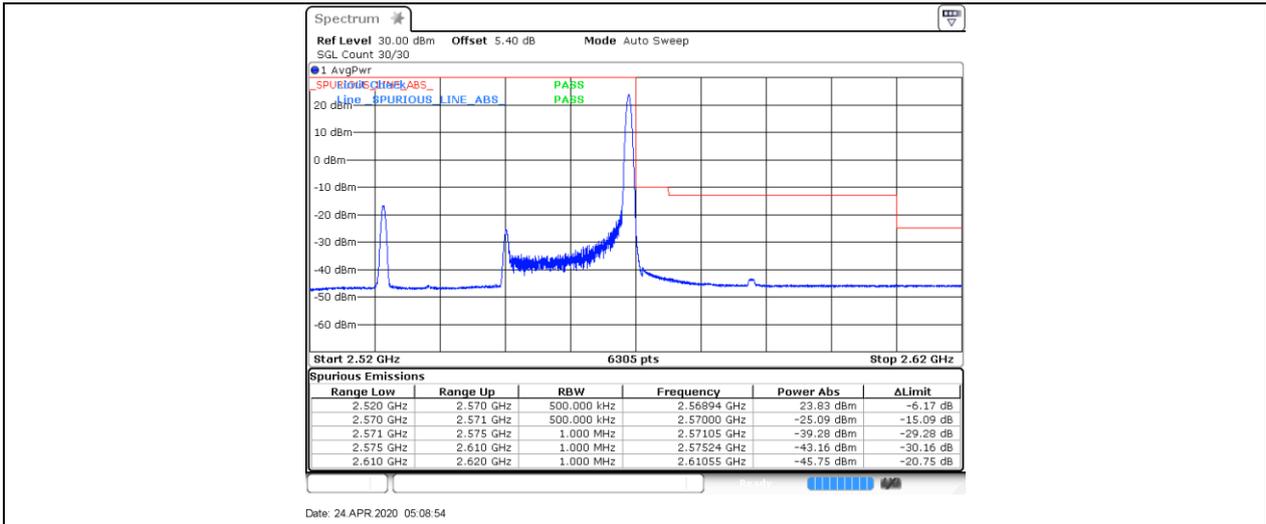


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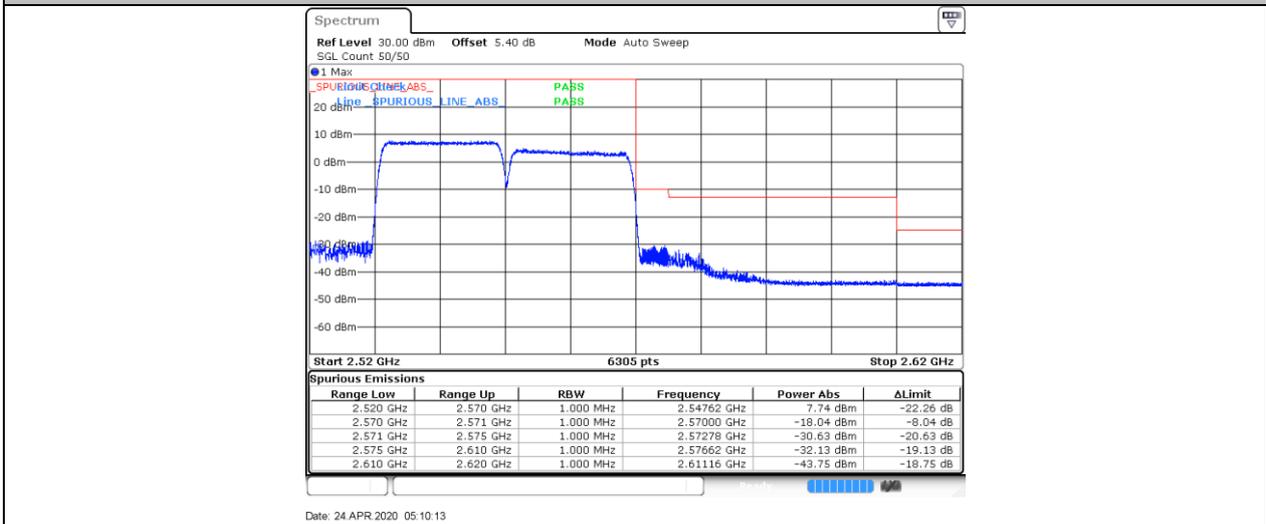


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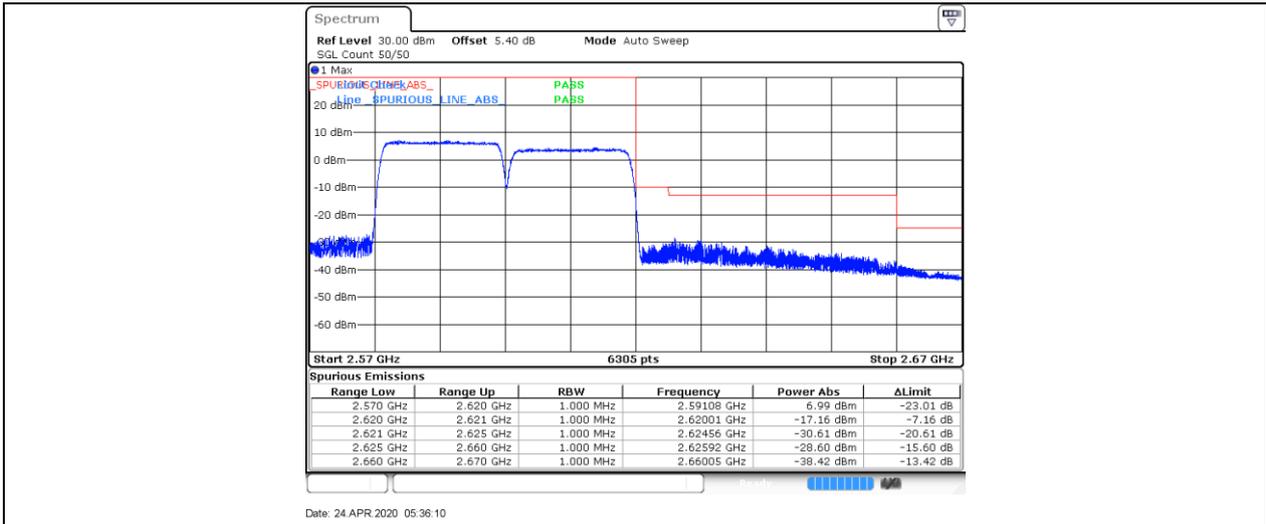


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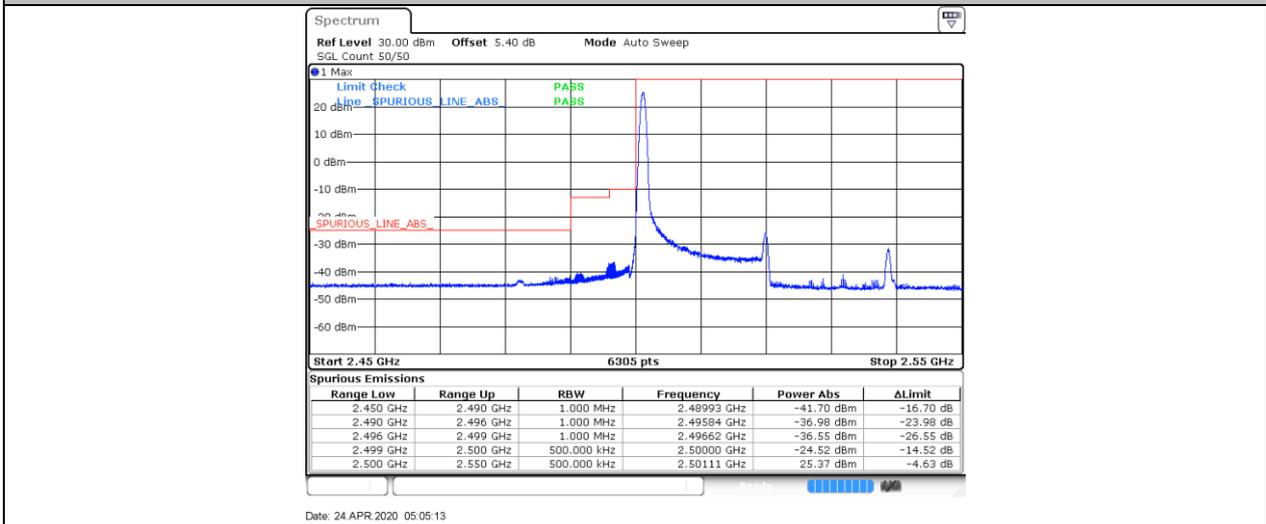


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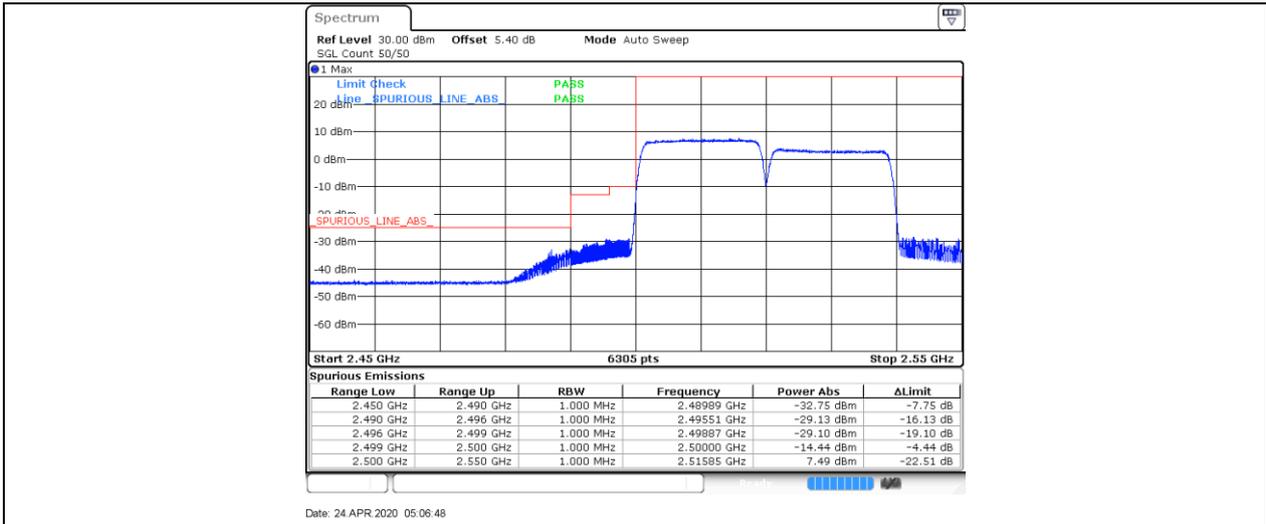


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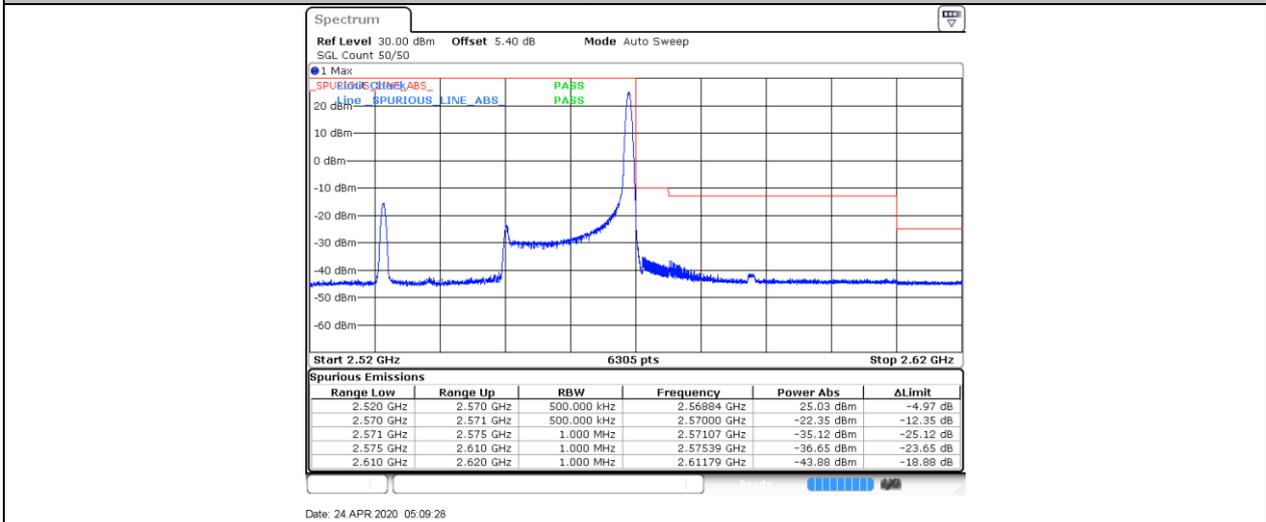


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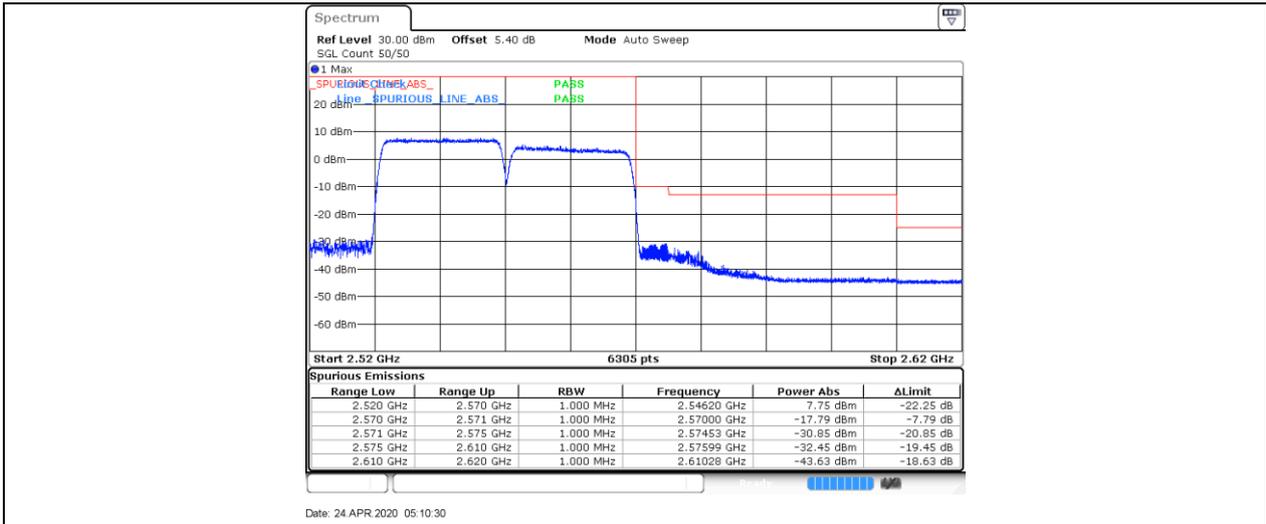


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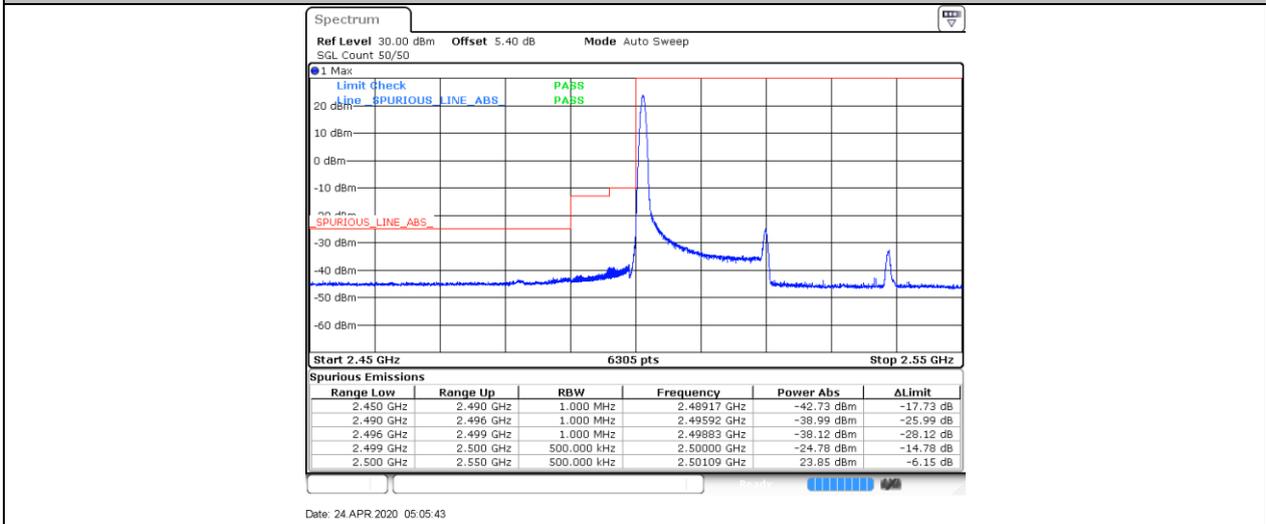


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CA_7C_20MHz+20MHz_64QAM_20850+21048_1RB#0+0RB#0

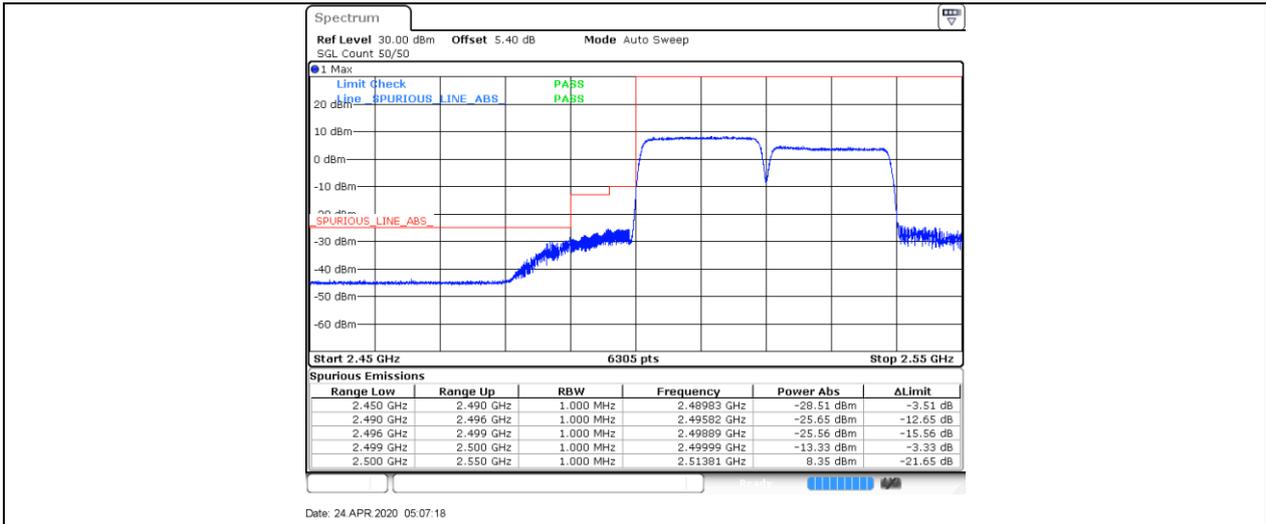


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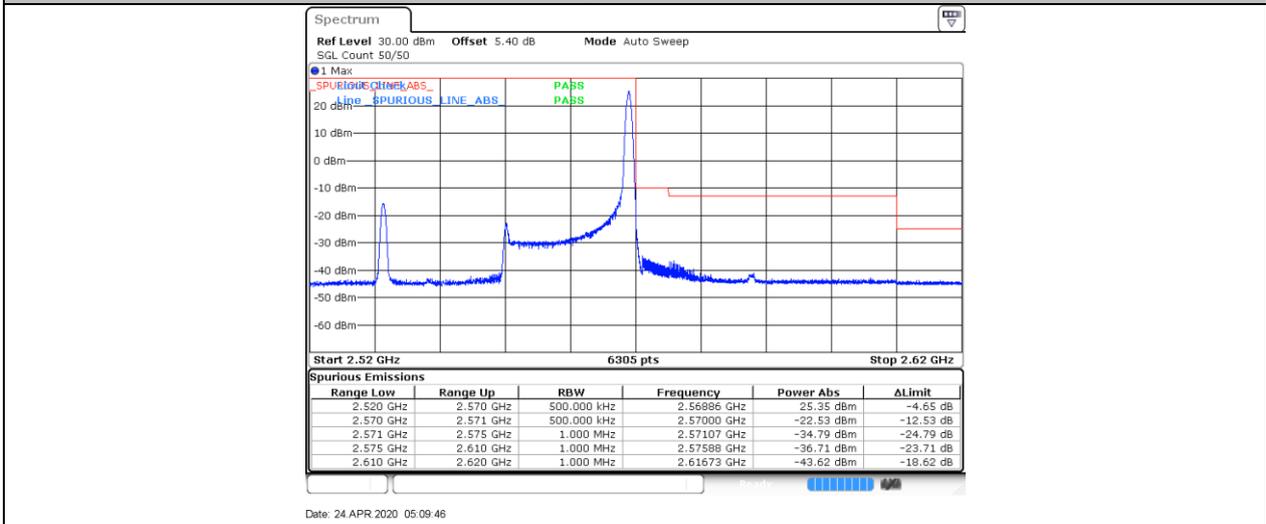


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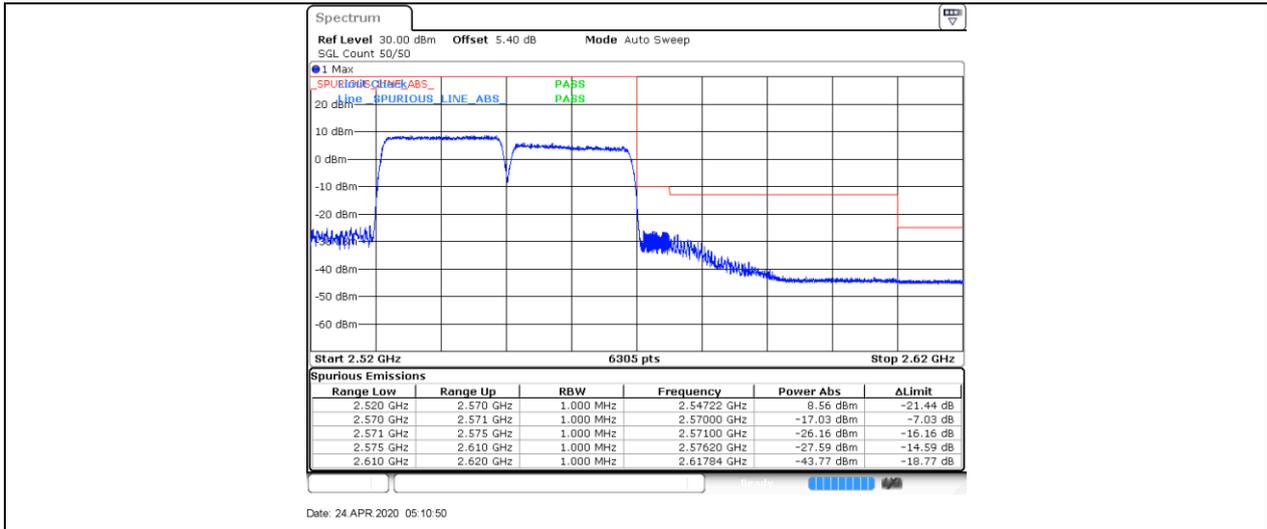


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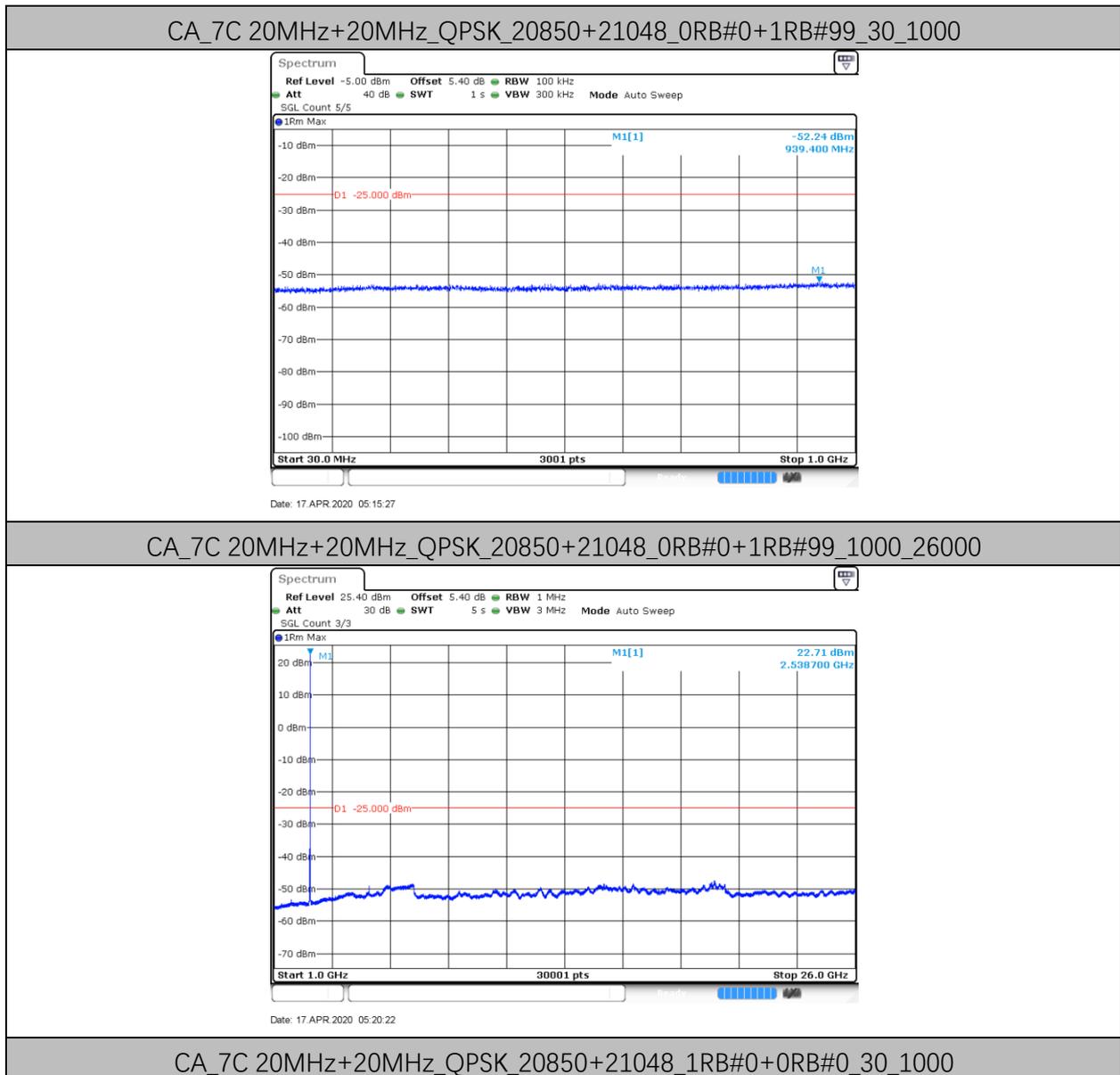
6 Spurious Emission at Antenna Terminal

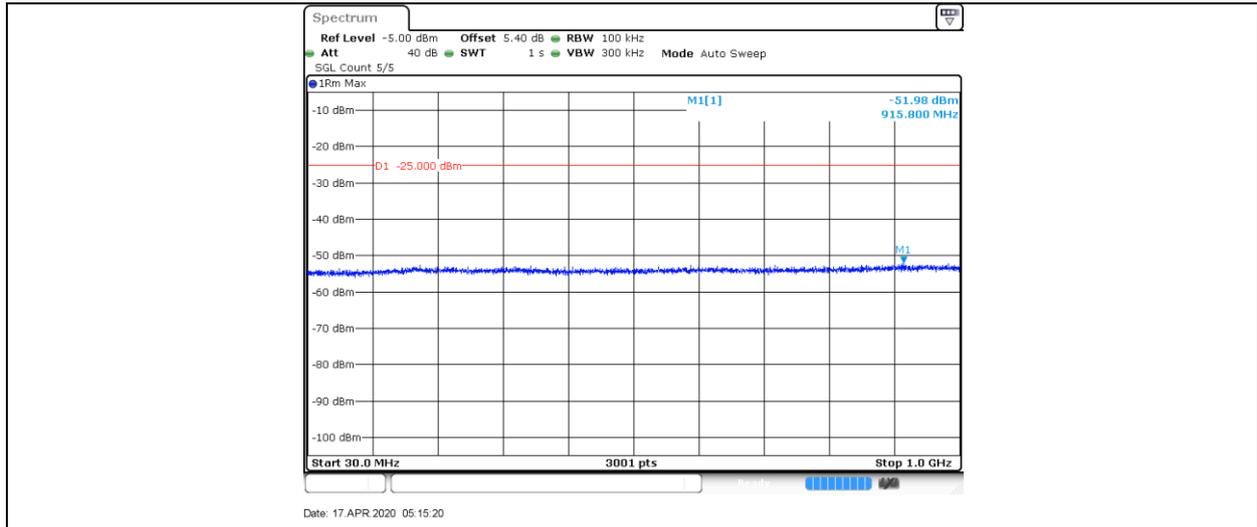
NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k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

Part I - Test Plots

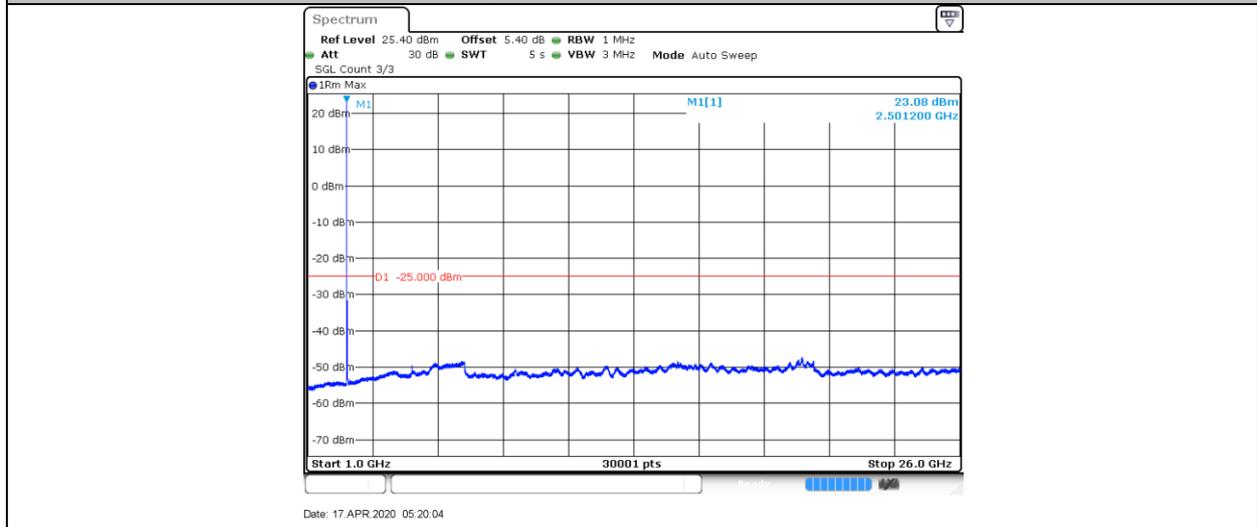
6.1 For LTE

6.1.1 Test Band = LTE Band CA_7C



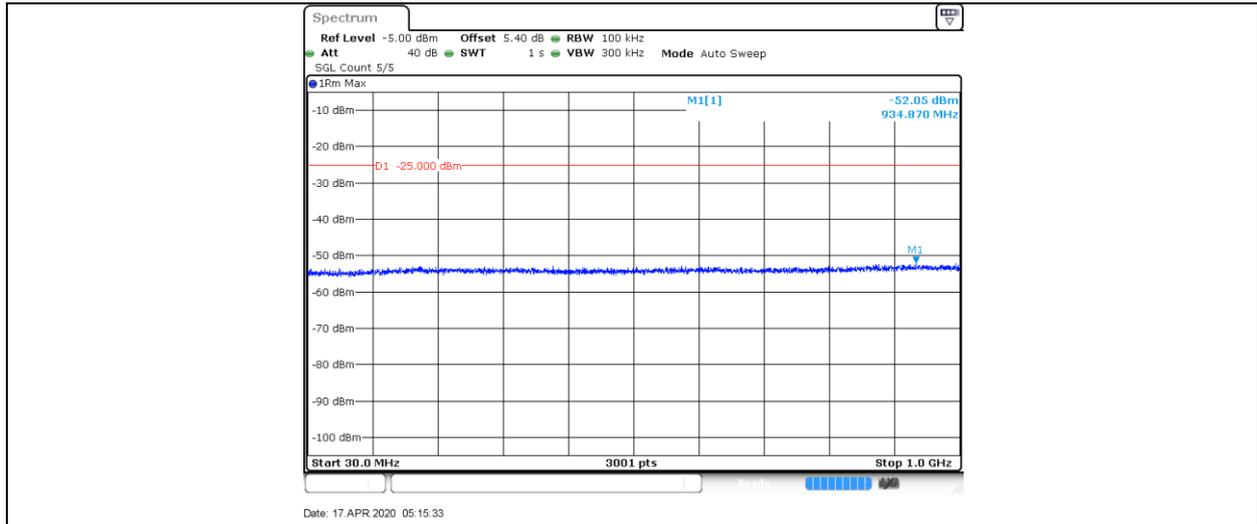


CA_7C 20MHz+20MHz_QPSK_20850+21048_1RB#0+0RB#0_1000_26000

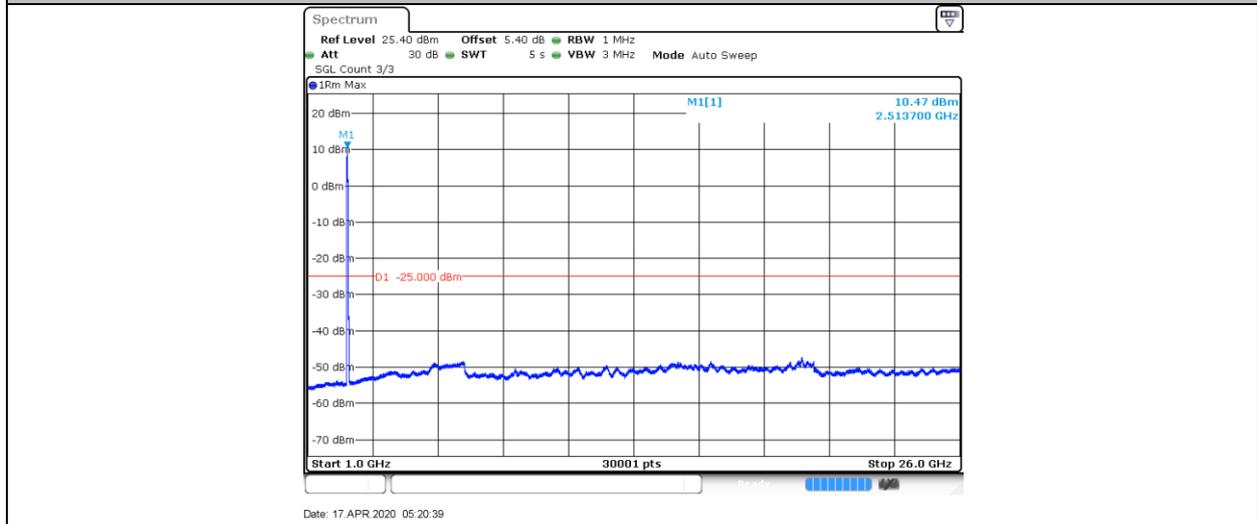


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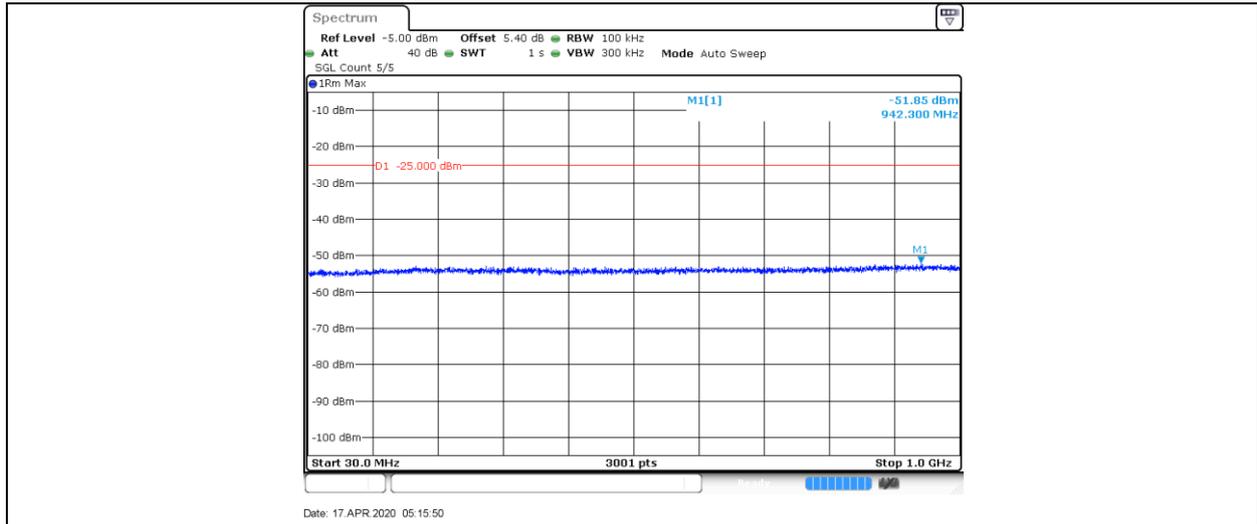


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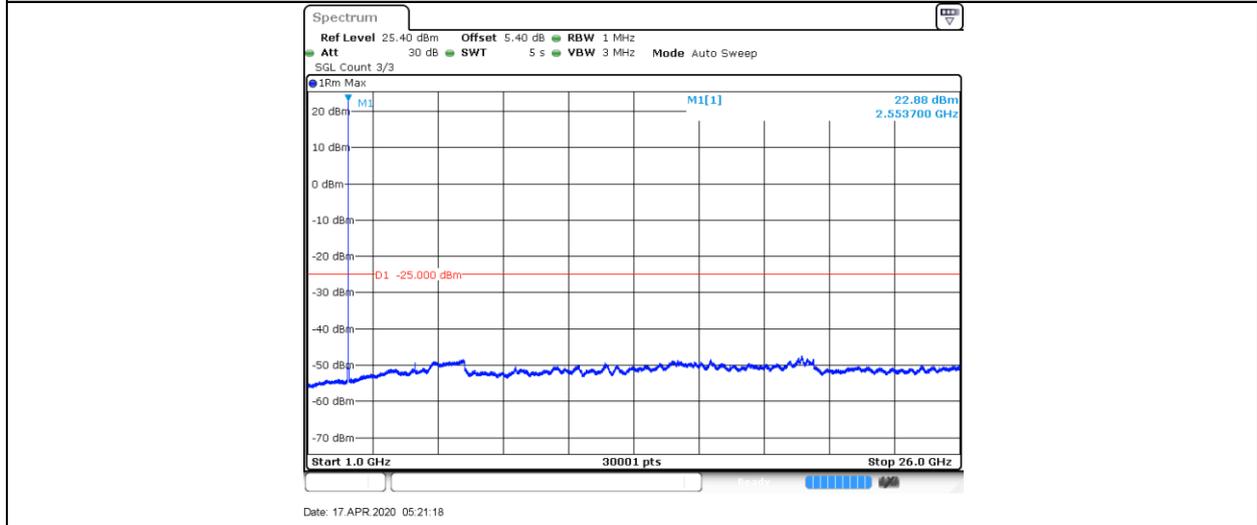


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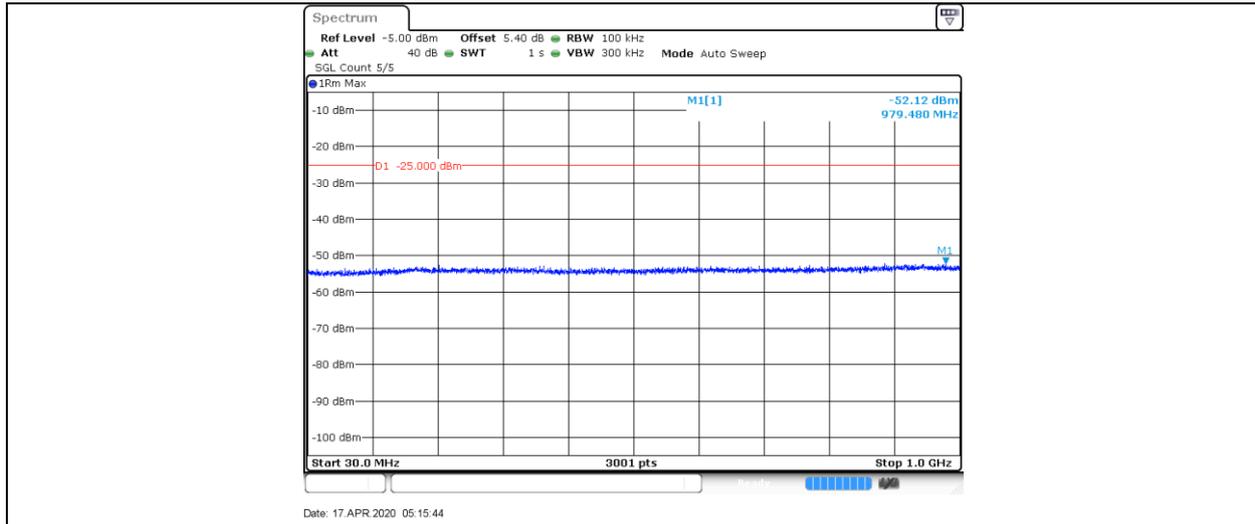


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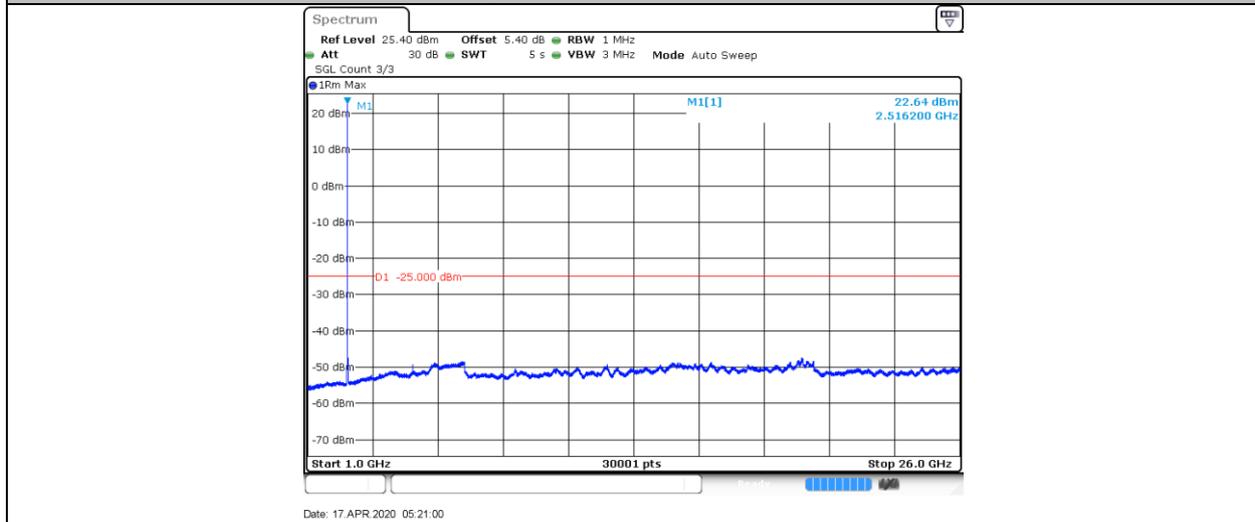


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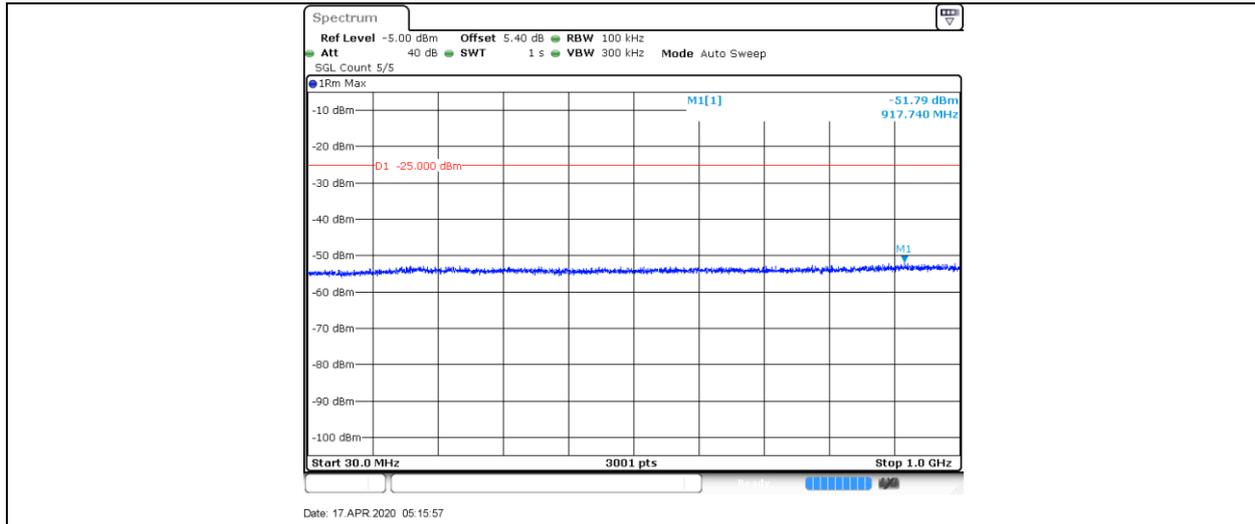


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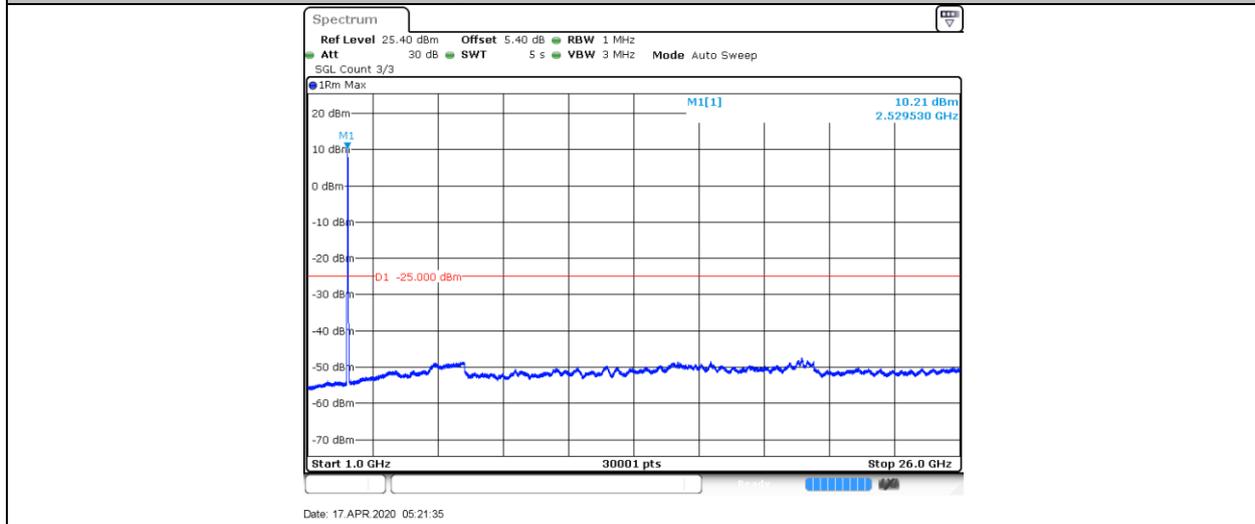


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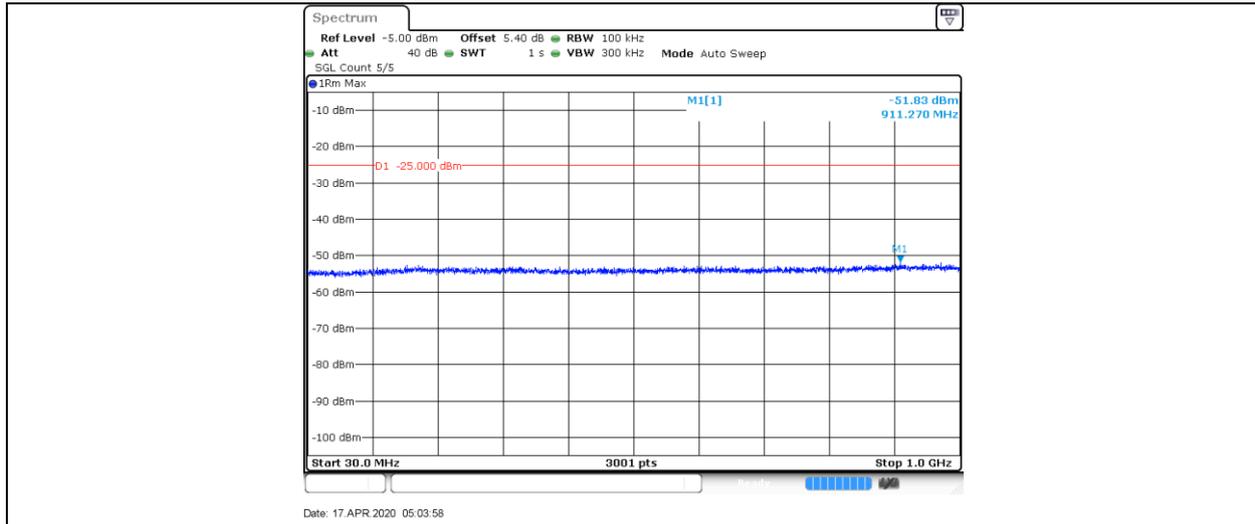


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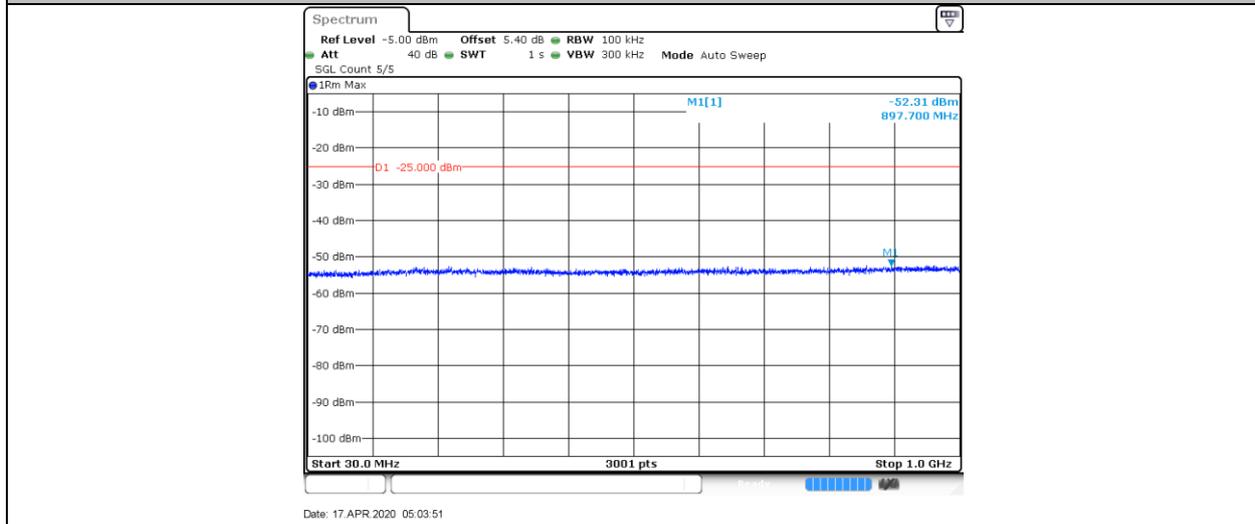


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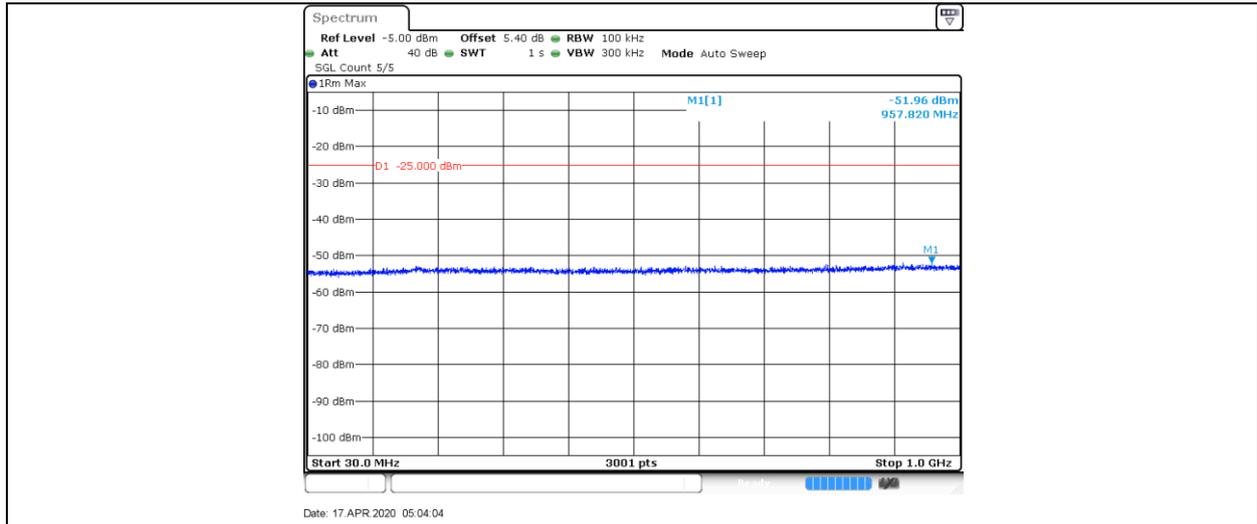


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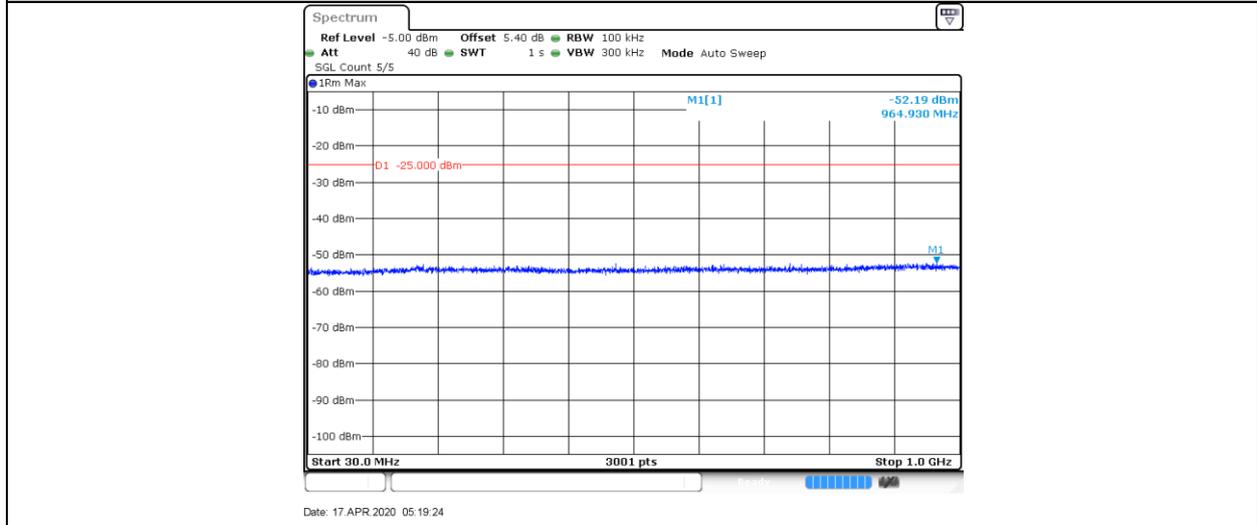


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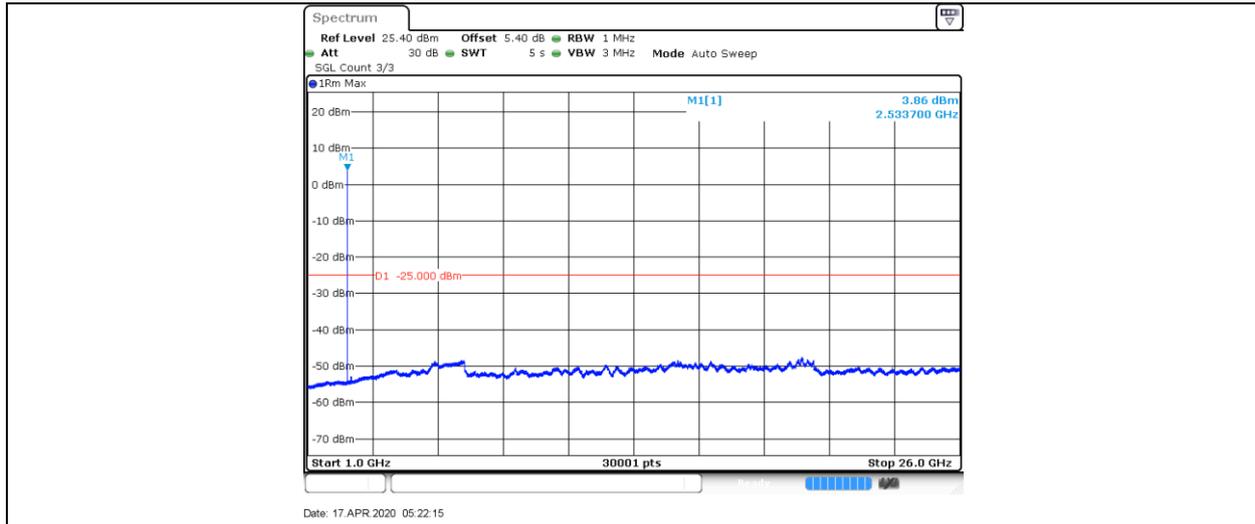


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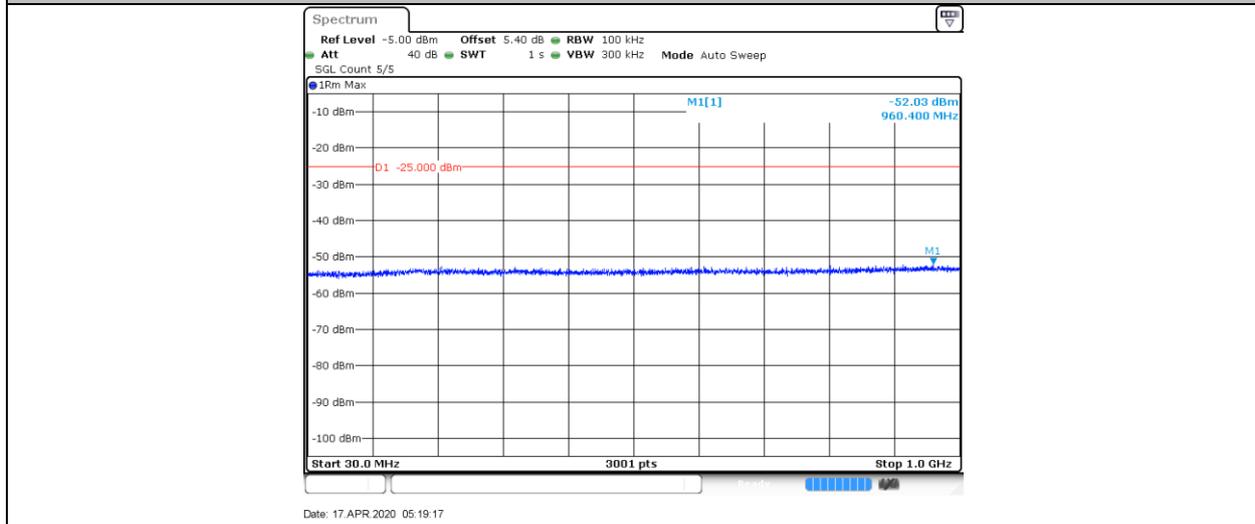


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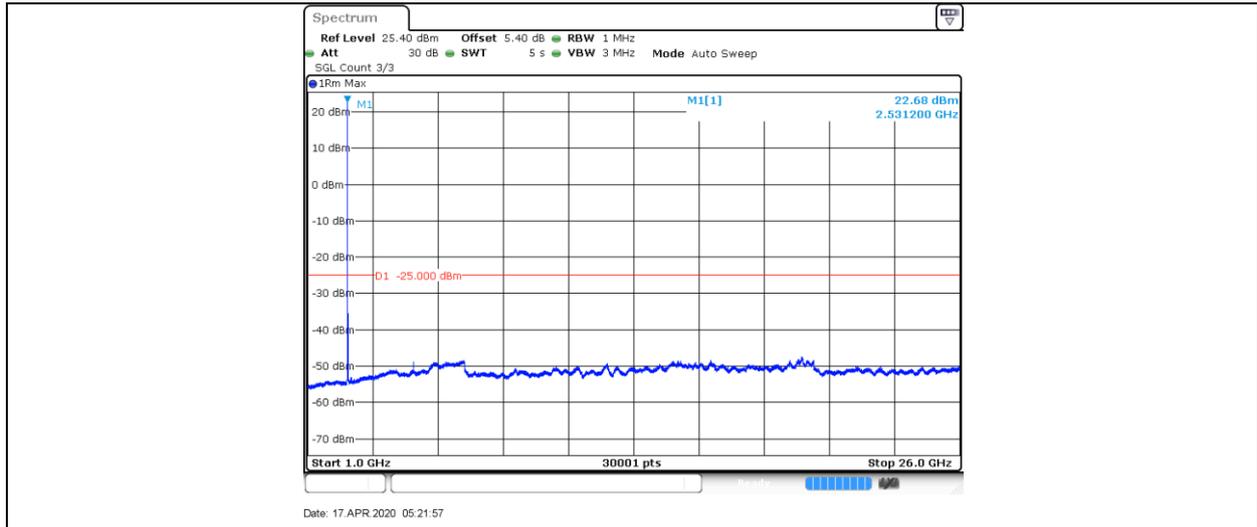


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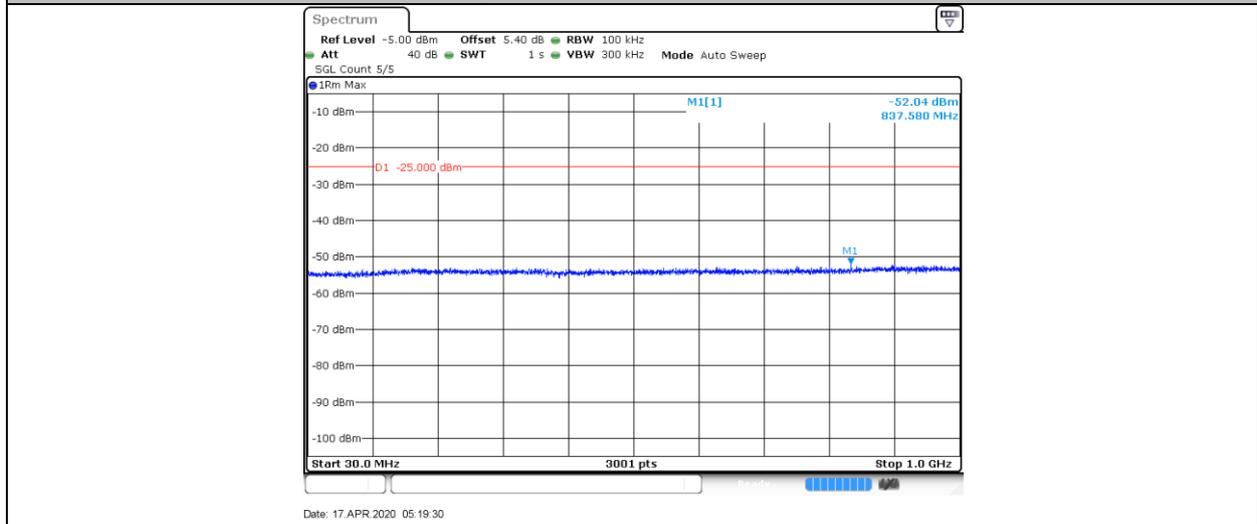


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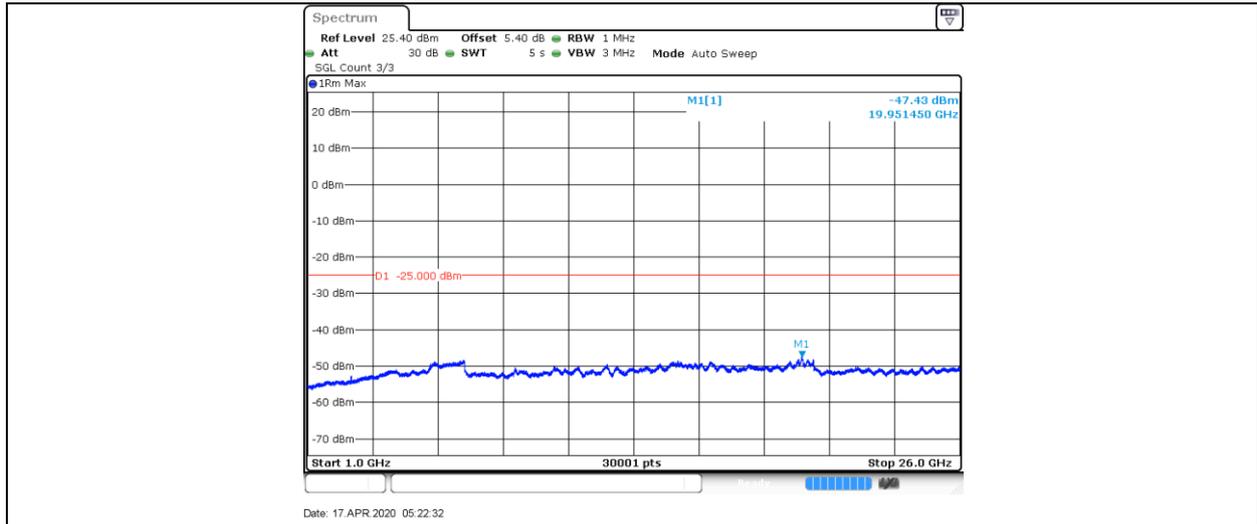


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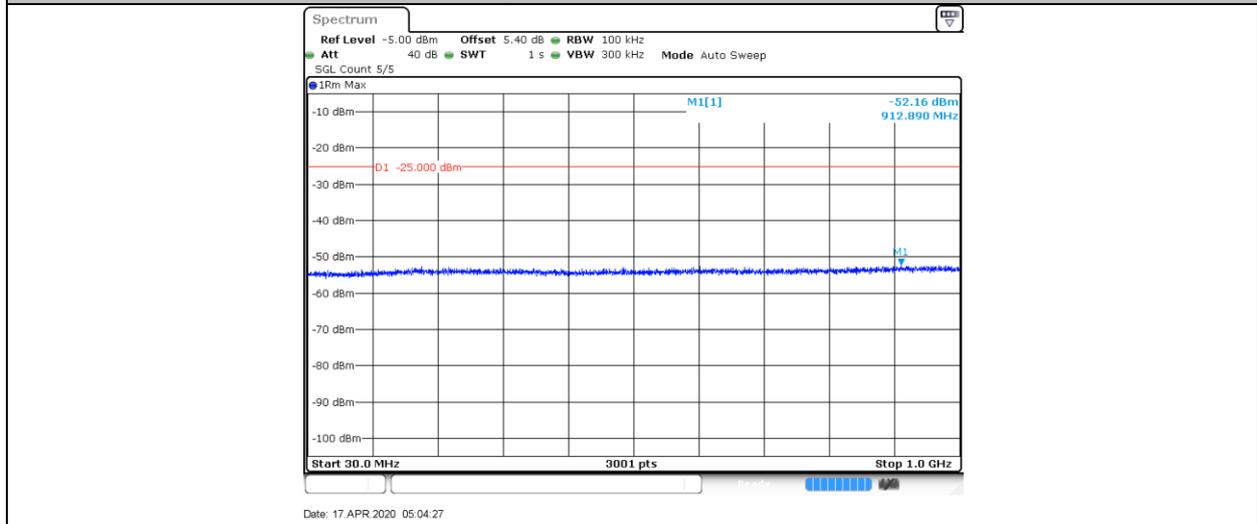


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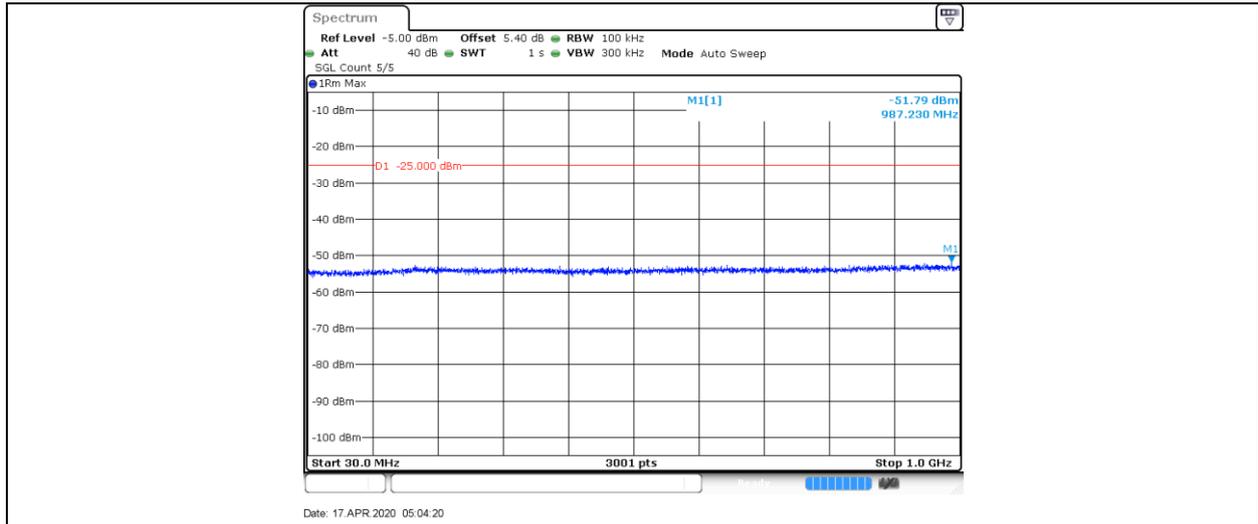


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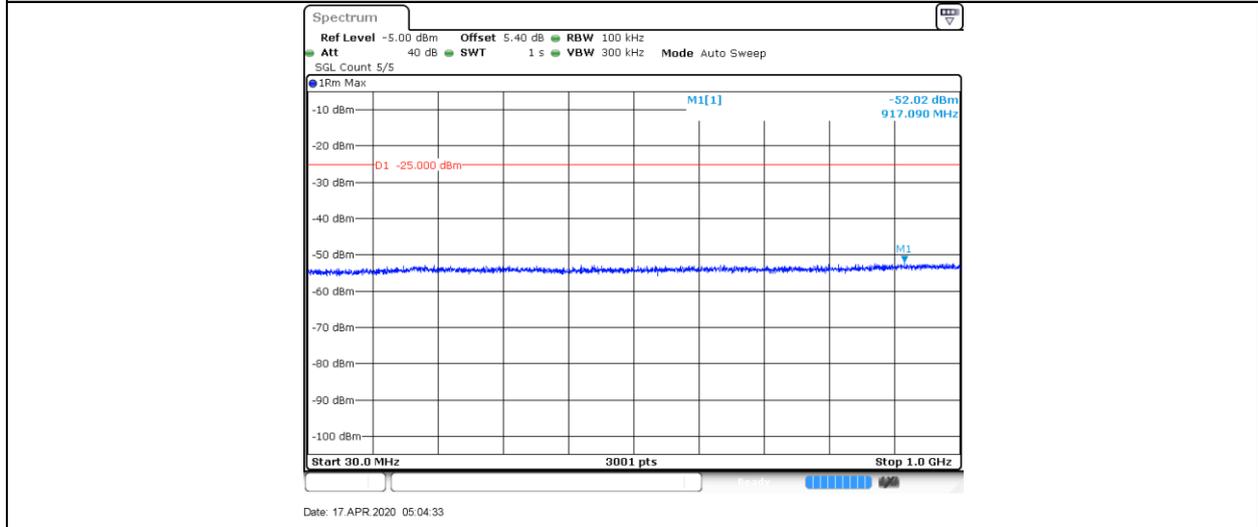


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CA_7C 20MHz+20MHz_QPSK_21199+21001_100RB#0+100RB#0_30_1000



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7 Field Strength of Spurious Radiation

7.1 For LTE UL CA

7.1.1 Test Band = LTE Band CA_7C (Down Ant)

7.1.1.1 Test Mode =LTE/QPSK

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.4066	-65.91	-25.00	40.91	Vertical
768.9798	-63.27	-25.00	38.27	Vertical
2986.7989	-39.39	-25.00	14.39	Vertical
7124.4821	-61.76	-25.00	36.76	Vertical
14462.0991	-53.30	-25.00	28.30	Vertical
17995.3093	-48.71	-25.00	23.71	Vertical
41.6395	-64.46	-25.00	39.46	Horizontal
234.3729	-69.26	-25.00	44.26	Horizontal
754.2526	-62.58	-25.00	37.58	Horizontal
2986.1138	-39.71	-25.00	14.71	Horizontal
7470.3225	-60.52	-25.00	35.52	Horizontal
16358.0906	-55.23	-25.00	30.23	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.1015	-64.70	-25.00	39.70	Vertical
618.9538	-64.12	-25.00	39.12	Vertical
2984.6893	-38.86	-25.00	13.86	Vertical
7380.1671	-59.14	-25.00	34.14	Vertical
14507.2470	-50.96	-25.00	25.96	Vertical
17998.8950	-44.56	-25.00	19.56	Vertical
44.7966	-65.00	-25.00	40.00	Horizontal
232.6148	-68.73	-25.00	43.73	Horizontal
889.7976	-60.88	-25.00	35.88	Horizontal
2996.0734	-39.44	-25.00	14.44	Horizontal
7360.5173	-60.14	-25.00	35.14	Horizontal
16389.7733	-48.58	-25.00	23.58	Horizontal



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7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
113.5585	-64.88	-25.00	39.88	Vertical
625.7590	-64.47	-25.00	39.47	Vertical
2981.6018	-38.85	-25.00	13.85	Vertical
7264.0152	-59.85	-25.00	34.85	Vertical
14488.7912	-50.60	-25.00	25.60	Vertical
17995.0059	-42.83	-25.00	17.83	Vertical
40.6397	-64.42	-25.00	39.42	Horizontal
240.8196	-68.94	-25.00	43.94	Horizontal
908.2698	-60.11	-25.00	35.11	Horizontal
2689.5167	-36.00	-25.00	11.00	Horizontal
7364.7223	-59.33	-25.00	34.33	Horizontal
16384.1188	-46.90	-25.00	21.90	Horizontal

7.1.2 Test Band = LTE Band CA_7C (Up Ant)

7.1.2.1 Test Mode =LTE/QPSK

7.1.2.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.0713	-65.62	-25.00	40.62	Vertical
768.7095	-63.55	-25.00	38.55	Vertical
2986.8813	-38.92	-25.00	13.92	Vertical
7124.5643	-61.42	-25.00	36.42	Vertical
14461.5932	-53.46	-25.00	28.46	Vertical
17996.0250	-48.84	-25.00	23.84	Vertical
41.8204	-63.75	-25.00	38.75	Horizontal
235.7506	-68.80	-25.00	43.80	Horizontal
753.6554	-62.58	-25.00	37.58	Horizontal
2986.9426	-38.98	-25.00	13.98	Horizontal
7469.3118	-60.05	-25.00	35.05	Horizontal
16358.6010	-55.14	-25.00	30.14	Horizontal



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7.1.2.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
111.7955	-64.59	-25.00	39.59	Vertical
617.8689	-64.23	-25.00	39.23	Vertical
2984.5621	-38.45	-25.00	13.45	Vertical
7380.2422	-59.24	-25.00	34.24	Vertical
14506.1233	-50.57	-25.00	25.57	Vertical
17999.5092	-44.42	-25.00	19.42	Vertical
44.5781	-64.69	-25.00	39.69	Horizontal
232.4270	-68.35	-25.00	43.35	Horizontal
890.9305	-60.97	-25.00	35.97	Horizontal
2997.8249	-39.02	-25.00	14.02	Horizontal
7359.9469	-59.48	-25.00	34.48	Horizontal
16390.0848	-48.49	-25.00	23.49	Horizontal

7.1.2.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
114.2180	-64.82	-25.00	39.82	Vertical
626.4142	-64.61	-25.00	39.61	Vertical
2983.3108	-38.88	-25.00	13.88	Vertical
7265.1935	-59.78	-25.00	34.78	Vertical
14489.9629	-50.03	-25.00	25.03	Vertical
17996.4035	-42.52	-25.00	17.52	Vertical
41.0806	-64.15	-25.00	39.15	Horizontal
240.0751	-68.81	-25.00	43.81	Horizontal
908.2981	-59.62	-25.00	34.62	Horizontal
2690.3065	-35.68	-25.00	10.68	Horizontal
7365.7527	-59.38	-25.00	34.38	Horizontal
16383.2193	-46.49	-25.00	21.49	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.





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_7C	QPSK	20850+21048	100RB#0/100RB#0	TN	NV	-0.64	-0.000257	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	TN	NV	9.61	0.003807	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	TN	NV	-4.75	-0.001868	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	TN	NV	-12.15	-0.004842	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	TN	NV	-6.14	-0.002432	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	TN	NV	-15.29	-0.006020	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	TN	NV	-3.66	-0.001457	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	TN	NV	12.08	0.004785	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	TN	NV	-5.89	-0.002321	PASS

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_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	-30	9.57	0.003813	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	-20	-11.88	-0.004733	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	-10	8.43	0.003357	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	0	-15.29	-0.006090	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	10	12.84	0.005117	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	20	6.58	0.002622	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	30	-8.02	-0.003197	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	40	15.35	0.006117	PASS
CA_7C	QPSK	20850+21048	100RB#0/100RB#0	NV	50	13.81	0.005502	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	-30	12.68	0.005022	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	-20	10.63	0.004210	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	-10	5.94	0.002351	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	0	-8.31	-0.003291	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	10	14.38	0.005695	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	20	-15.32	-0.006068	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	30	-1.10	-0.000437	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	40	12.64	0.005004	PASS
CA_7C	QPSK	21001+21199	100RB#0/100RB#0	NV	50	8.45	0.003348	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	-30	-12.26	-0.004827	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	-20	-8.12	-0.003195	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	-10	-10.85	-0.004270	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	0	-6.50	-0.002559	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	10	-7.24	-0.002851	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	20	-7.72	-0.003040	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	30	15.15	0.005963	PASS



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CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	40	8.81	0.003467	PASS
CA_7C	QPSK	21152+21350	100RB#0/100RB#0	NV	50	10.93	0.004305	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	-30	15.21	0.006060	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	-20	10.99	0.004380	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	-10	5.43	0.002164	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	0	0.34	0.000137	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	10	-1.16	-0.000462	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	20	12.59	0.005015	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	30	5.37	0.002139	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	40	-0.33	-0.000132	PASS
CA_7C	16QAM	20850+21048	100RB#0/100RB#0	NV	50	-2.04	-0.000812	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	-30	12.47	0.004939	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	-20	-10.42	-0.004126	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	-10	12.66	0.005015	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	0	-6.04	-0.002391	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	10	8.94	0.003540	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	20	1.17	0.000464	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	30	-5.91	-0.002341	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	40	-1.93	-0.000765	PASS
CA_7C	16QAM	21001+21199	100RB#0/100RB#0	NV	50	-4.62	-0.001832	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	-30	8.10	0.003187	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	-20	11.38	0.004481	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	-10	-3.27	-0.001287	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	0	-4.30	-0.001691	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	10	5.80	0.002283	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	20	-15.90	-0.006259	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	30	-11.45	-0.004509	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	40	-10.80	-0.004250	PASS
CA_7C	16QAM	21152+21350	100RB#0/100RB#0	NV	50	0.80	0.000314	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	-30	-4.70	-0.001872	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	-20	8.31	0.003309	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	-10	8.38	0.003339	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	0	-6.68	-0.002662	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	10	-2.04	-0.000813	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	20	-4.06	-0.001617	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	30	-8.40	-0.003346	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	40	2.17	0.000865	PASS
CA_7C	64QAM	20850+21048	100RB#0/100RB#0	NV	50	-10.52	-0.004193	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	-30	0.17	0.000067	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	-20	-4.29	-0.001700	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	-10	-11.07	-0.004383	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	0	2.60	0.001029	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	10	8.40	0.003328	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	20	-13.35	-0.005288	PASS



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CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	30	-13.55	-0.005367	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	40	-3.91	-0.001548	PASS
CA_7C	64QAM	21001+21199	100RB#0/100RB#0	NV	50	-0.44	-0.000176	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	-30	11.84	0.004662	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	-20	3.29	0.001295	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	-10	10.37	0.004082	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	0	14.40	0.005669	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	10	-12.10	-0.004764	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	20	-0.49	-0.000194	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	30	-6.05	-0.002380	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	40	-11.63	-0.004580	PASS
CA_7C	64QAM	21152+21350	100RB#0/100RB#0	NV	50	11.45	0.004507	PASS

The End



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