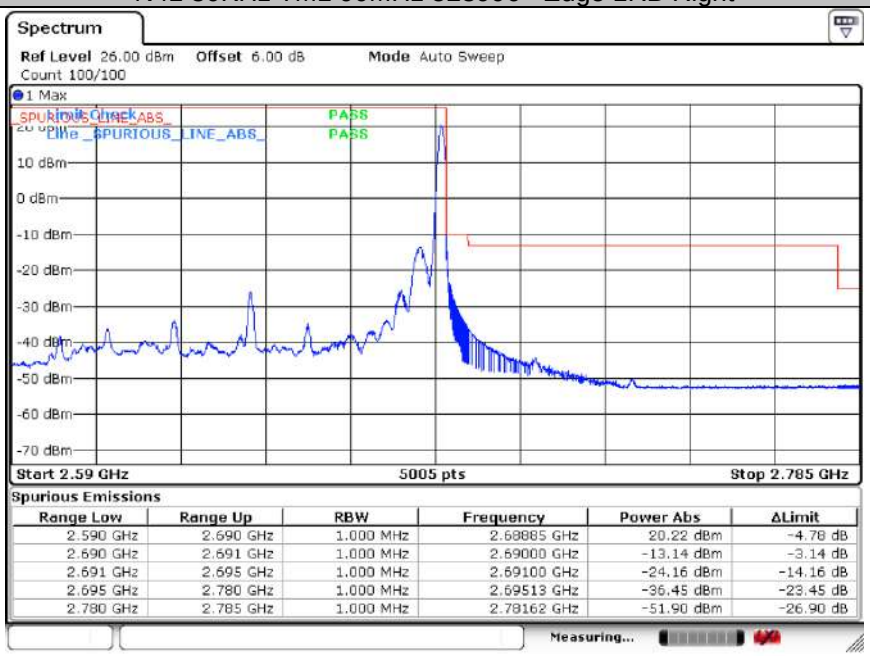
N41 30KHz TM1 90MHz 528996 Edge 1RB Right



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.590 GHz	2.690 GHz	1.000 MHz	2.68885 GHz	20.22 dBm	-4.78 dB
2.690 GHz	2.691 GHz	1.000 MHz	2.69000 GHz	-13.14 dBm	-3.14 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69100 GHz	-24.16 dBm	-14.16 dB
2.695 GHz	2.780 GHz	1.000 MHz	2.69513 GHz	-36.45 dBm	-23.45 dB
2.780 GHz	2.785 GHz	1.000 MHz	2.78162 GHz	-51.90 dBm	-26.90 dB

Date: 3.OCT.2020 15:18:52

N41 30KHz TM1 90MHz 528996 Outer Full

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.590 GHz	2.690 GHz	1.000 MHz	2.65099 GHz	3.09 dBm	-21.91 dB
2.690 GHz	2.691 GHz	1.000 MHz	2.69007 GHz	-33.53 dBm	-23.53 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69285 GHz	-33.68 dBm	-23.68 dB
2.695 GHz	2.780 GHz	1.000 MHz	2.69954 GHz	-35.29 dBm	-22.29 dB
2.780 GHz	2.785 GHz	1.000 MHz	2.78096 GHz	-52.00 dBm	-27.00 dB

Date: 3.OCT.2020 15:16:27

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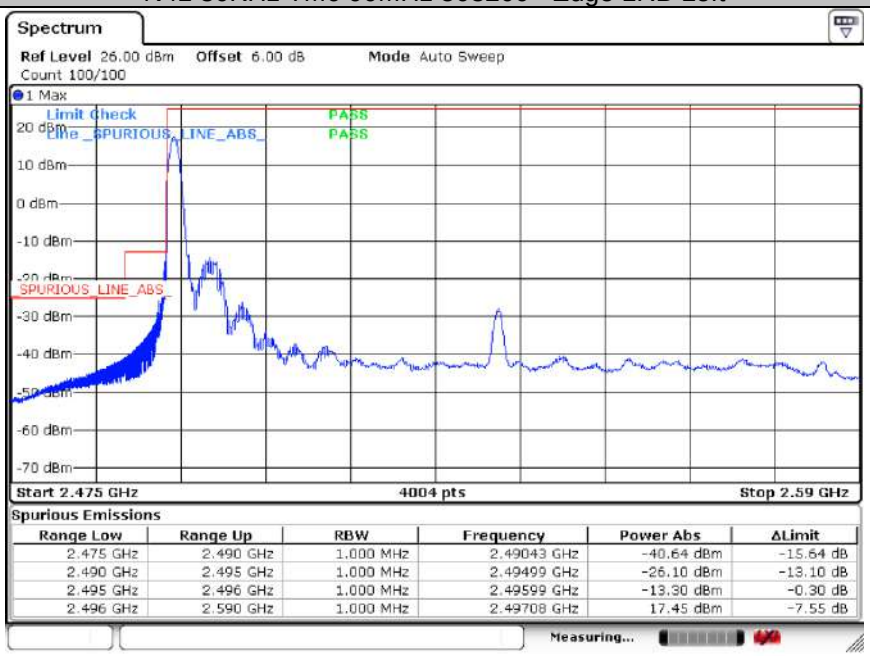
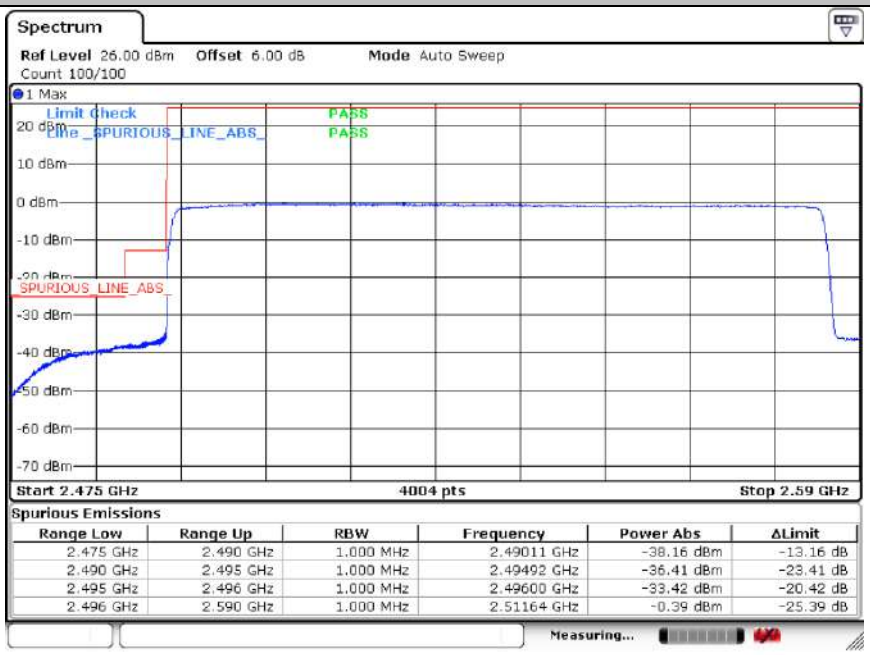
N41 30KHz TM6 90MHz 508200 Edge 1RB Left



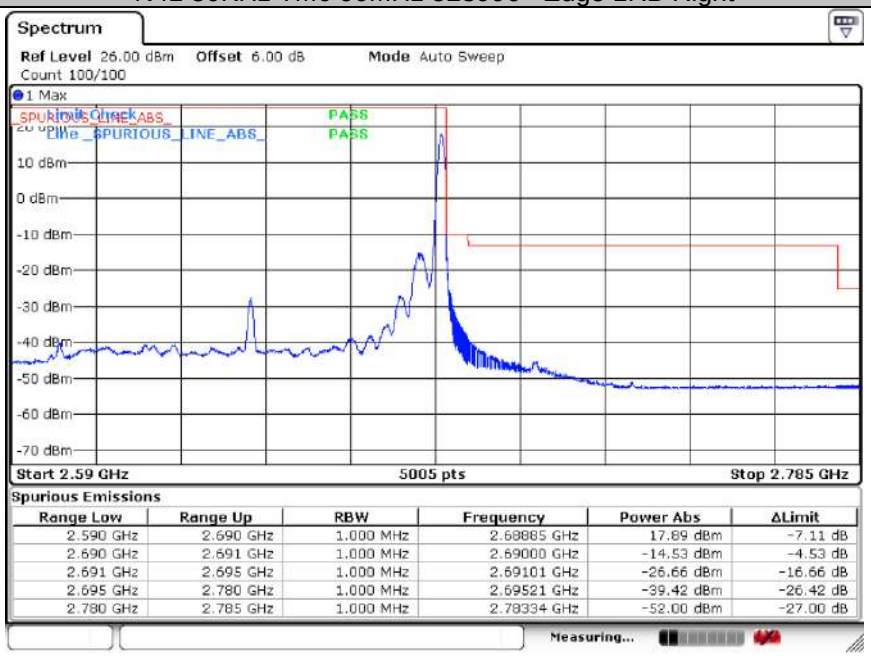
Date: 4.OCT.2020 11:08:30

N41 30KHz TM6 90MHz 508200 Outer Full



Date: 4.OCT.2020 11:07:32

N41 30KHz TM6 90MHz 528996 Edge 1RB Right



N41 30KHz TM6 90MHz 528996 Outer Full

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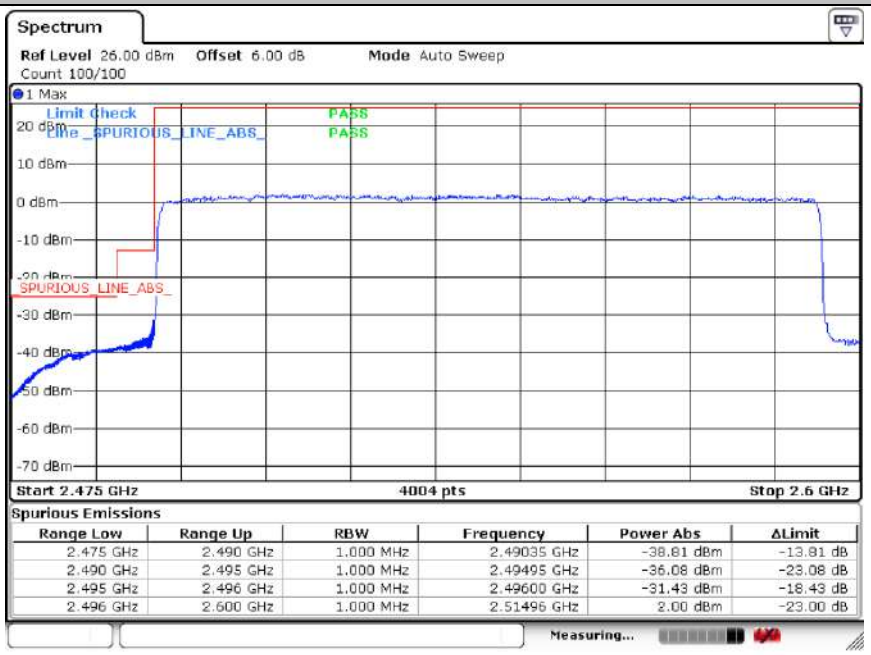
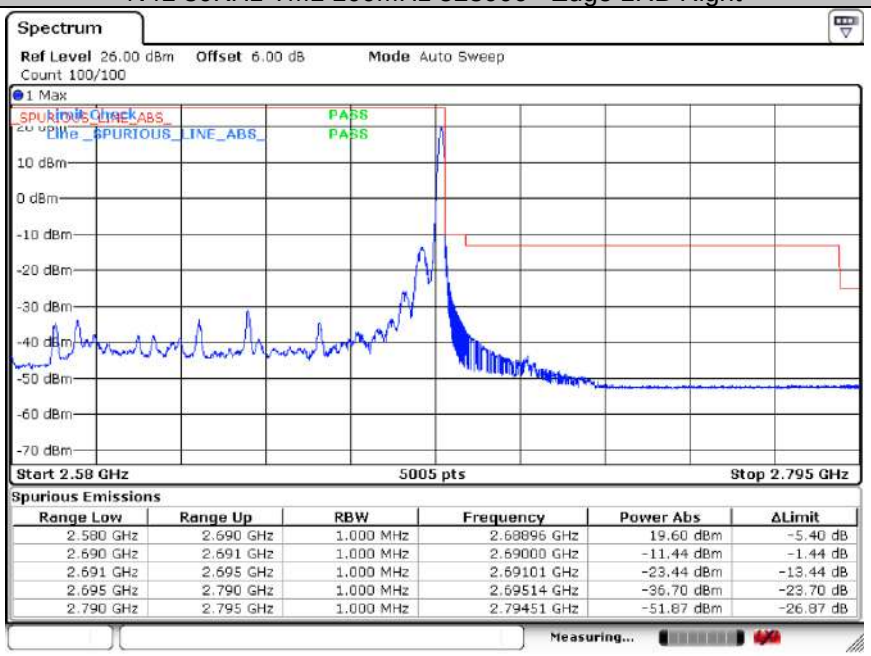
N41 30KHz TM1 100MHz 509202 Edge 1RB Left

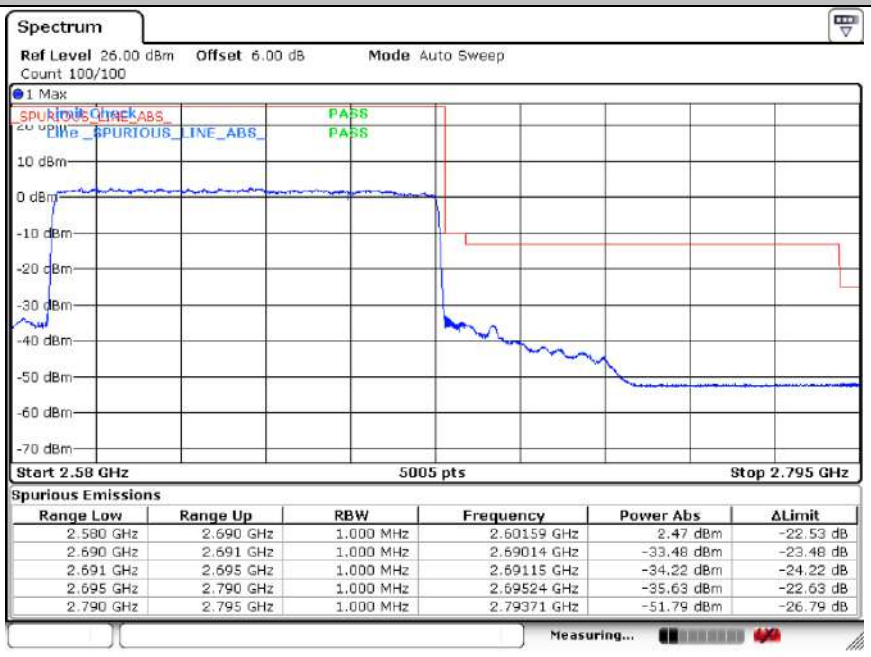
N41 30KHz TM1 100MHz 509202 Outer Full



N41 30KHz TM1 100MHz 528000 Edge 1RB Right



N41 30KHz TM1 100MHz 528000 Outer Full



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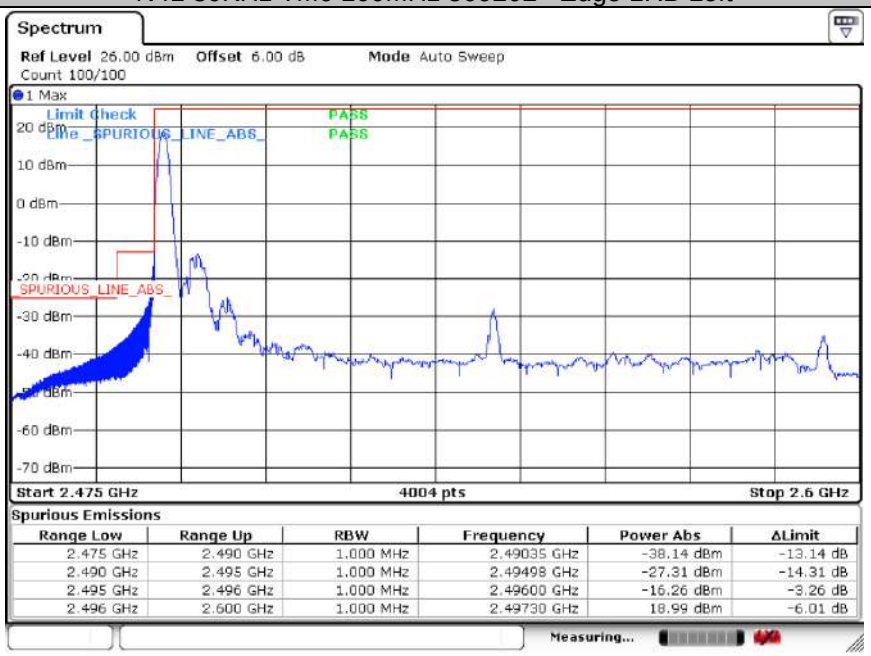
N41 30KHz TM6 100MHz 509202 Edge 1RB Left

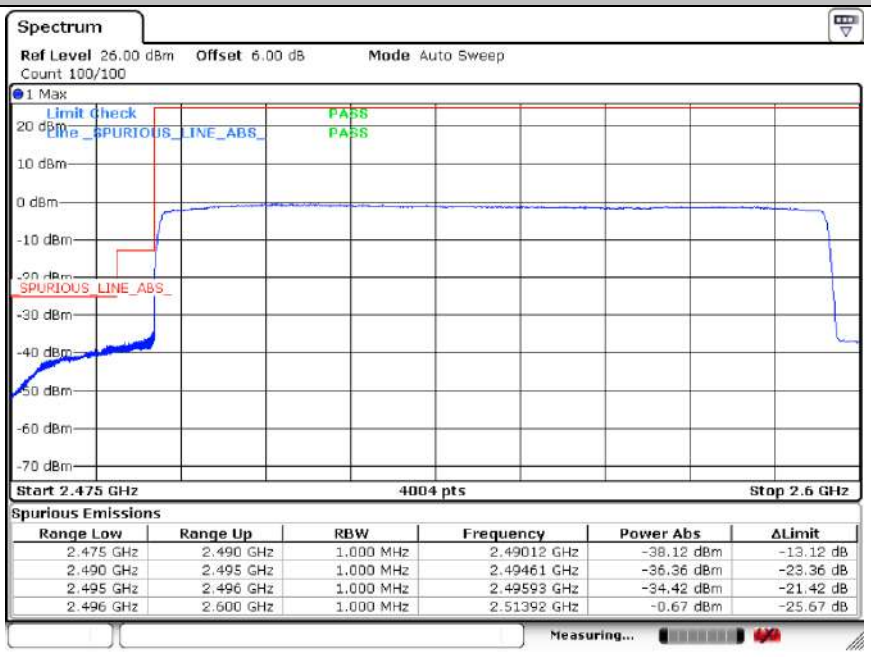


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49035 GHz	-38.14 dBm	-13.14 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49498 GHz	-27.31 dBm	-14.31 dB
2.495 GHz	2.496 GHz	1.000 MHz	2.49600 GHz	-16.26 dBm	-3.26 dB
2.496 GHz	2.600 GHz	1.000 MHz	2.49730 GHz	18.99 dBm	-6.01 dB

Date: 17.OCT.2020 22:08:07

N41 30KHz TM6 100MHz 509202 Outer Full

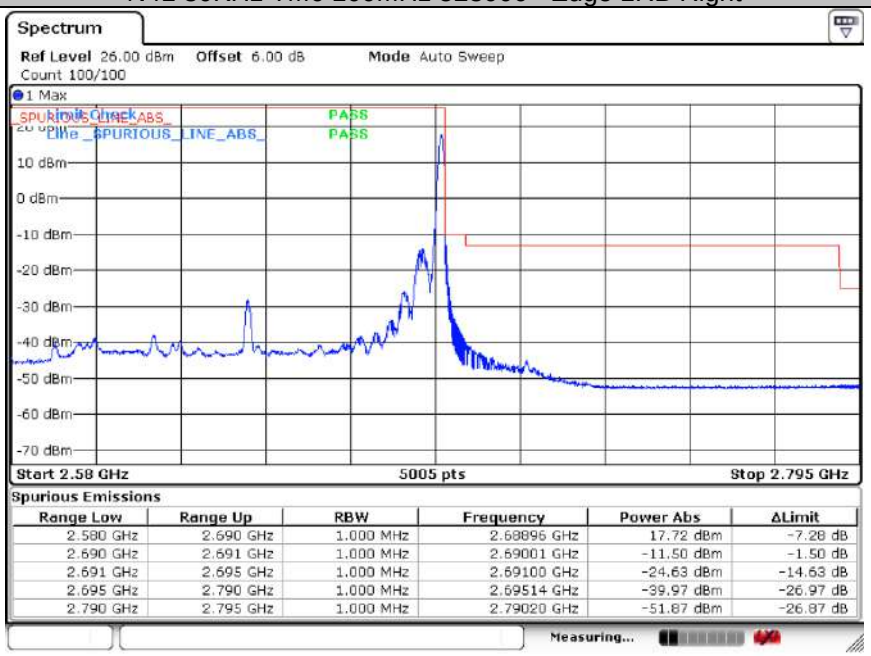


Spurious Emissions

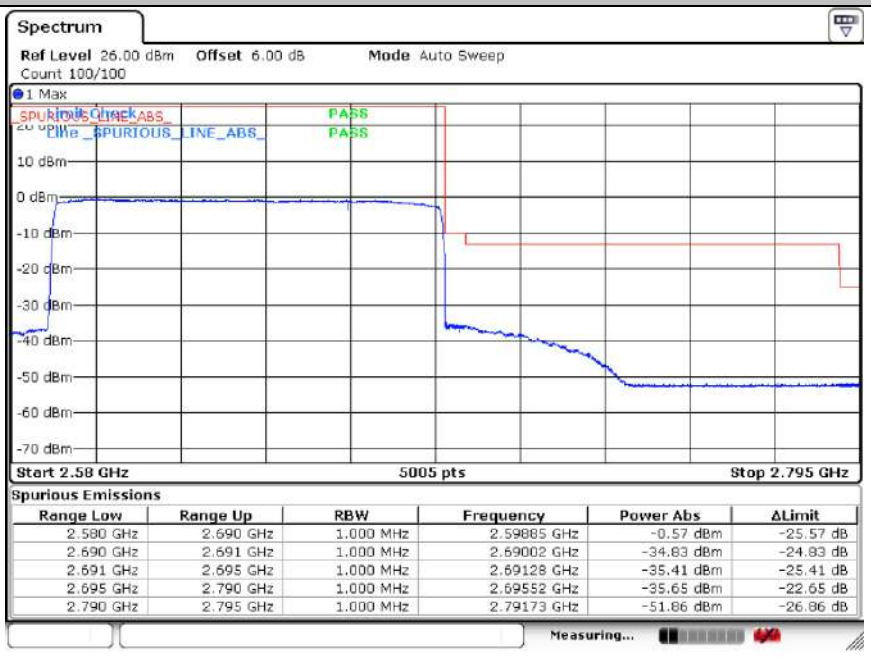
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49012 GHz	-38.12 dBm	-13.12 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49461 GHz	-36.36 dBm	-23.36 dB
2.495 GHz	2.496 GHz	1.000 MHz	2.49593 GHz	-34.42 dBm	-21.42 dB
2.496 GHz	2.600 GHz	1.000 MHz	2.51392 GHz	-0.67 dBm	-25.67 dB

Date: 4.OCT.2020 11:02:22

N41 30KHz TM6 100MHz 528000 Edge 1RB Right



N41 30KHz TM6 100MHz 528000 Outer Full



REMARK:

All antenna and all modulation had been tested, but only the worst case data displayed in this report

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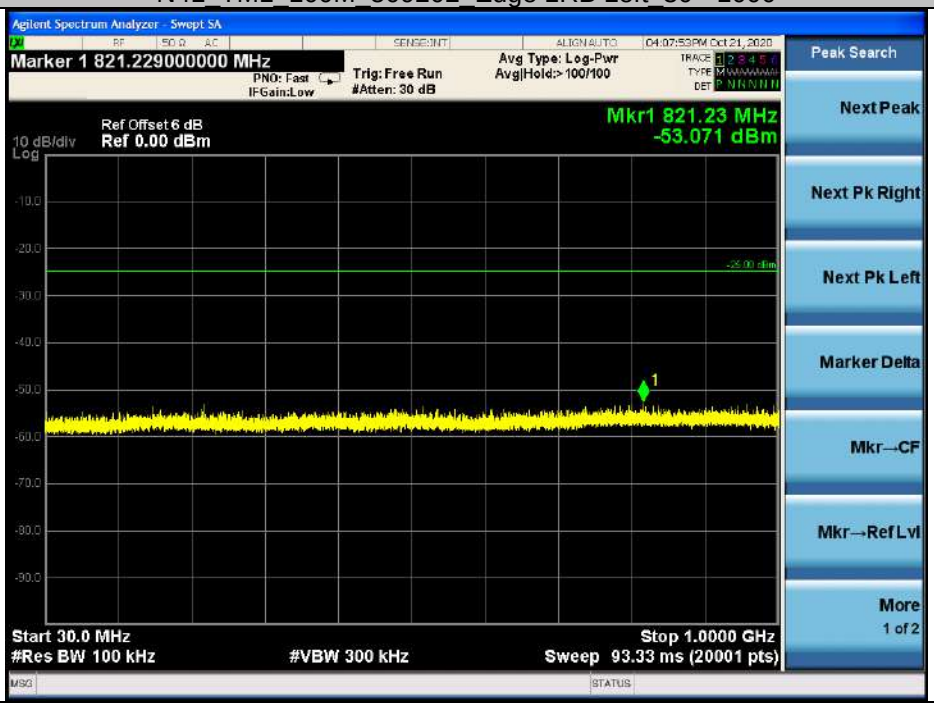
6 Spurious Emission at Antenna Terminal

REMARK: 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 narrow Band 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.

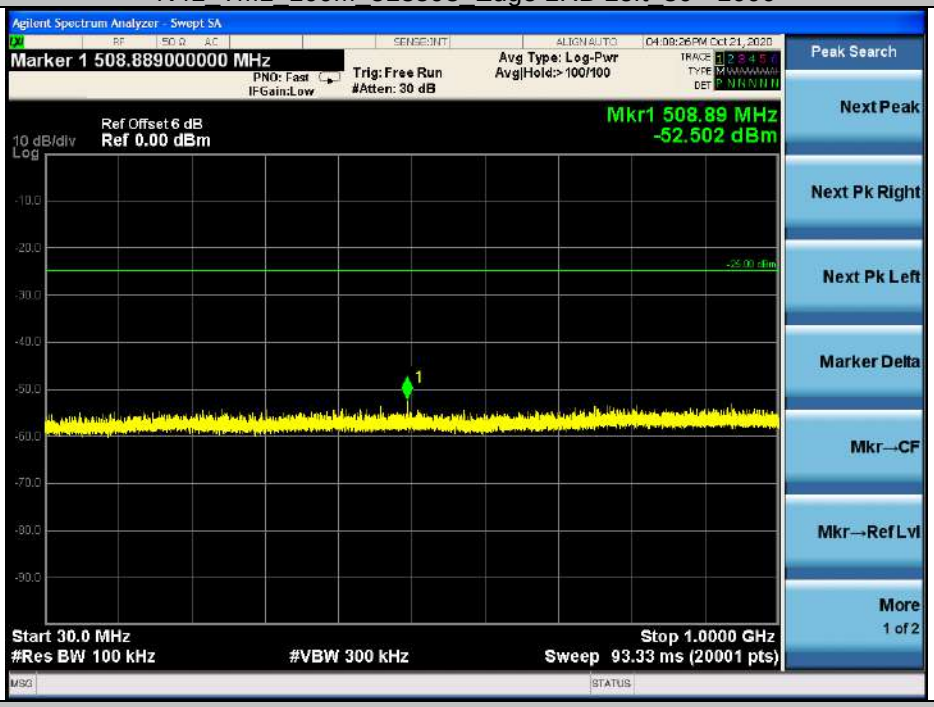
6.1 Test Plots

N41_TM1_100M_509202_Edge 1RB Left_30 - 1000



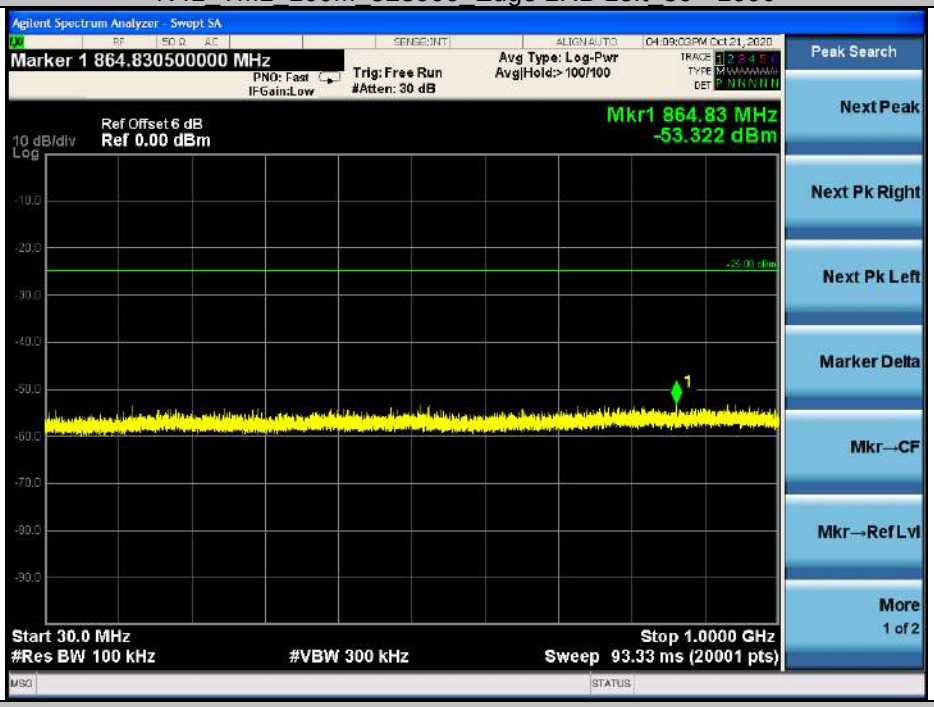
N41_TM1_100M_509202_Edge 1RB Left_10000- 26500


N41_TM1_100M_518598_Edge 1RB Left_30 - 1000



N41_TM1_100M_518598_Edge 1RB Left_1000 - 26500

N41_TM1_100M_528000_Edge 1RB Left_30 - 1000



N41_TM1_100M_528000_Edge 1RB Left_10000 - 26500

REMARK:
All antenna and all modulation had been tested, but only the worst case data displayed in this report

7 Field Strength of Spurious Radiation

7.1 Test Band = N41(ant0）

7.1.1 Test Mode = TM1

7.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
51.0016	-70.91	-25.00	45.91	Vertical
108.6224	-64.92	-25.00	39.92	Vertical
327.5624	-68.79	-25.00	43.79	Vertical
5042.0681	-61.58	-25.00	36.58	Vertical
7366.6456	-55.72	-25.00	30.72	Vertical
17999.0000	-39.78	-25.00	14.78	Vertical
44.4052	-63.87	-25.00	38.87	Horizontal
231.1881	-68.69	-25.00	43.69	Horizontal
609.0705	-63.89	-25.00	38.89	Horizontal
3621.5207	-60.21	-25.00	35.21	Horizontal
7381.6461	-55.99	-25.00	30.99	Horizontal
16398.4466	-43.21	-25.00	18.21	Horizontal

7.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
46.4908	-73.48	-25.00	48.48	Vertical
107.9919	-64.66	-25.00	39.66	Vertical
397.3089	-67.45	-25.00	42.45	Vertical
5148.5716	-61.34	-25.00	36.34	Vertical
7927.6643	-55.49	-25.00	30.49	Vertical
14462.8821	-47.54	-25.00	22.54	Vertical
42.9987	-64.31	-25.00	39.31	Horizontal
110.4655	-74.03	-25.00	49.03	Horizontal
238.5604	-68.44	-25.00	43.44	Horizontal
3925.5309	-61.74	-25.00	36.74	Horizontal
8023.6675	-55.64	-25.00	30.64	Horizontal
16396.4465	-42.79	-25.00	17.79	Horizontal

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7.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
49.0130	-72.81	-25.00	47.81	Vertical
110.7565	-64.05	-25.00	39.05	Vertical
345.4598	-68.29	-25.00	43.29	Vertical
5038.5680	-61.64	-25.00	36.64	Vertical
9318.7106	-52.43	-25.00	27.43	Vertical
17999.5000	-38.39	-25.00	13.39	Vertical
38.1484	-64.52	-25.00	39.52	Horizontal
227.7444	-67.77	-25.00	42.77	Horizontal
596.0233	-64.38	-25.00	39.38	Horizontal
5160.0720	-61.04	-25.00	36.04	Horizontal
7458.1486	-55.81	-25.00	30.81	Horizontal
16395.4465	-43.26	-25.00	18.26	Horizontal

REMARK:
All antenna and all modulation had been tested, but only the worst case data displayed in this report

8 Frequency Stability

8.1 Frequency Error VS. Voltage

NR Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage [Vdc]	Temperature(℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
N41	30KHz	100MHz	TM1	509202	Outer Full	VL	NT	-10.43	-0.00410	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	NT	-16.55	-0.00650	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VH	NT	22.30	0.00876	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VL	NT	17.22	0.00664	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	NT	-24.66	-0.00951	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VH	NT	-11.90	-0.00459	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VL	NT	-15.39	-0.00583	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	NT	-11.42	-0.00433	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VH	NT	21.83	0.00827	±2.5	PASS
N41	30KHz	100MHz	TM2	509202	Outer Full	VL	NT	-21.37	-0.00839	±2.5	PASS
N41	30KHz	100MHz	TM2	509202	Outer Full	VN	NT	-18.74	-0.00736	±2.5	PASS
N41	30KHz	100MHz	TM2	509202	Outer Full	VH	NT	17.12	0.00672	±2.5	PASS
N41	30KHz	100MHz	TM2	518598	Outer Full	VL	NT	20.42	0.00788	±2.5	PASS
N41	30KHz	100MHz	TM2	518598	Outer Full	VN	NT	-5.65	-0.00218	±2.5	PASS
N41	30KHz	100MHz	TM2	518598	Outer Full	VH	NT	-3.99	-0.00154	±2.5	PASS
N41	30KHz	100MHz	TM2	528000	Outer Full	VL	NT	-2.91	-0.00110	±2.5	PASS
N41	30KHz	100MHz	TM2	528000	Outer Full	VN	NT	-13.26	-0.00502	±2.5	PASS
N41	30KHz	100MHz	TM2	528000	Outer Full	VH	NT	-16.45	-0.00623	±2.5	PASS

8.2 Frequency Error VS. Temperature

NR Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage [Vdc]	Temperature(℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	-30	-20.30	-0.008028	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	-20	-5.07	-0.004741	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	-10	11.23	0.005668	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	0	16.93	0.006367	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	10	15.51	0.006115	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	20	-5.55	-0.004537	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	30	-12.67	-0.009729	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	40	-22.33	-0.008040	±2.5	PASS
N41	30KHz	100MHz	TM1	509202	Outer Full	VN	50	7.09	0.007105	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	-30	12.93	0.004987	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	-20	-13.88	-0.005353	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	-10	4.91	0.002696	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	0	-5.62	-0.002098	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	10	20.21	0.009260	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	20	-13.63	0.004693	±2.5	PASS

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N41	30KHz	100MHz	TM1	518598	Outer Full	VN	30	9.00	0.003567	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	40	-12.86	-0.004794	±2.5	PASS
N41	30KHz	100MHz	TM1	518598	Outer Full	VN	50	6.39	0.002464	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	-30	-14.74	-0.005583	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	-20	-14.61	-0.005174	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	-10	-15.55	0.004201	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	0	12.46	0.004795	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	10	6.27	0.002375	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	20	13.55	0.006981	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	30	-12.53	-0.004746	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	40	-13.16	-0.002712	±2.5	PASS
N41	30KHz	100MHz	TM1	528000	Outer Full	VN	50	17.07	0.006466	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	-30	13.08	0.005137	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	-20	-14.63	-0.005746	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	-10	21.98	0.008633	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	0	-12.59	-0.004945	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	10	-10.34	-0.004061	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	20	7.52	0.002954	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	30	14.22	0.005585	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	40	4.06	0.001595	±2.5	PASS
N41	30KHz	100MHz	TM6	509202	Outer Full	VN	50	-15.70	-0.006167	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	-30	9.83	0.003791	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	-20	-20.22	-0.007798	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	-10	-15.83	-0.006105	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	0	7.66	0.002954	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	10	-12.56	-0.004844	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	20	-9.95	-0.003837	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	30	-7.40	-0.002854	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	40	13.26	0.005114	±2.5	PASS
N41	30KHz	100MHz	TM6	518598	Outer Full	VN	50	-6.70	-0.002584	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	-30	8.62	0.003265	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	-20	4.74	0.001795	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	-10	8.44	0.003197	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	0	-12.75	-0.004830	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	10	-17.55	-0.006648	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	20	23.40	0.008864	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	30	-9.84	-0.003727	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	40	22.22	0.008417	±2.5	PASS
N41	30KHz	100MHz	TM6	528000	Outer Full	VN	50	-7.24	-0.002742	±2.5	PASS

REMARK:

All antenna and all modulation had been tested, but only the worst case data displayed in this report

The End

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