

Appendix B NR Band n40a

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 30_S_10M_NTNV_EIRP

5G NR n40a SCS=30kHz SISO 10MHz NTN										
Modulation	Frequency (MHz)	RB Allocation	Conducted Power(dBm)			EIRP(dBm)				Verdict
			Ant1	Ant2	Sum	Ant1	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Edge_1RB_Left	23.87	/	/	21.17	/	/	<=23.98	Pass
		Edge_1RB_Right	24.04	/	/	21.34	/	/	<=23.98	Pass
		Outer_Full	24.07	/	/	21.37	/	/	<=23.98	Pass
		Inner_Full	24.05	/	/	21.35	/	/	<=23.98	Pass
		Inner_1RB_Left	24.18	/	/	21.48	/	/	<=23.98	Pass
DFT-s-OFDM QPSK	2310	Inner_1RB_Right	24.15	/	/	21.45	/	/	<=23.98	Pass
		Edge_1RB_Left	23.94	/	/	21.24	/	/	<=23.98	Pass
		Edge_1RB_Right	24.03	/	/	21.33	/	/	<=23.98	Pass
		Outer_Full	24.07	/	/	21.37	/	/	<=23.98	Pass
		Inner_Full	23.95	/	/	21.25	/	/	<=23.98	Pass
DFT-s-OFDM 16 QAM	2310	Inner_1RB_Left	24.10	/	/	21.40	/	/	<=23.98	Pass
		Inner_1RB_Right	24.13	/	/	21.43	/	/	<=23.98	Pass
		Edge_1RB_Left	22.81	/	/	20.11	/	/	<=23.98	Pass
		Edge_1RB_Right	23.03	/	/	20.33	/	/	<=23.98	Pass
		Outer_Full	22.94	/	/	20.24	/	/	<=23.98	Pass
DFT-s-OFDM 64 QAM	2310	Inner_Full	23.85	/	/	21.15	/	/	<=23.98	Pass
		Inner_1RB_Left	24.00	/	/	21.30	/	/	<=23.98	Pass
		Inner_1RB_Right	24.00	/	/	21.30	/	/	<=23.98	Pass
		Edge_1RB_Left	22.40	/	/	19.70	/	/	<=23.98	Pass
		Edge_1RB_Right	22.59	/	/	19.89	/	/	<=23.98	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	22.36	/	/	19.66	/	/	<=23.98	Pass
		Inner_Full	22.34	/	/	19.64	/	/	<=23.98	Pass
		Inner_1RB_Left	22.44	/	/	19.74	/	/	<=23.98	Pass
		Inner_1RB_Right	22.50	/	/	19.80	/	/	<=23.98	Pass
		Edge_1RB_Left	20.23	/	/	17.53	/	/	<=23.98	Pass
CP-OFDM QPSK	2310	Edge_1RB_Right	20.40	/	/	17.70	/	/	<=23.98	Pass
		Outer_Full	20.36	/	/	17.67	/	/	<=23.98	Pass
		Inner_Full	20.32	/	/	17.62	/	/	<=23.98	Pass
		Inner_1RB_Left	20.28	/	/	17.58	/	/	<=23.98	Pass
		Inner_1RB_Right	20.42	/	/	17.72	/	/	<=23.98	Pass
CP-OFDM 16 QAM	2310	Edge_1RB_Left	21.94	/	/	19.24	/	/	<=23.98	Pass
		Edge_1RB_Right	22.14	/	/	19.44	/	/	<=23.98	Pass
		Outer_Full	21.95	/	/	19.25	/	/	<=23.98	Pass
		Inner_Full	23.37	/	/	20.67	/	/	<=23.98	Pass
		Inner_1RB_Left	23.56	/	/	20.86	/	/	<=23.98	Pass
CP-OFDM 64 QAM	2310	Inner_1RB_Right	23.69	/	/	20.99	/	/	<=23.98	Pass
		Edge_1RB_Left	22.16	/	/	19.46	/	/	<=23.98	Pass
		Edge_1RB_Right	22.27	/	/	19.57	/	/	<=23.98	Pass
		Outer_Full	22.00	/	/	19.30	/	/	<=23.98	Pass
		Inner_Full	22.64	/	/	19.94	/	/	<=23.98	Pass
CP-OFDM 256 QAM	2310	Inner_1RB_Left	23.08	/	/	20.38	/	/	<=23.98	Pass
		Inner_1RB_Right	23.28	/	/	20.58	/	/	<=23.98	Pass
		Edge_1RB_Left	21.40	/	/	18.70	/	/	<=23.98	Pass
		Edge_1RB_Right	21.61	/	/	18.91	/	/	<=23.98	Pass
		Outer_Full	21.42	/	/	18.72	/	/	<=23.98	Pass
CP-OFDM 1024 QAM	2310	Inner_Full	21.40	/	/	18.70	/	/	<=23.98	Pass

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		Inner_1RB_Left	21.57	/	/	18.87	/	/	<=23.98	Pass
		Inner_1RB_Right	21.63	/	/	18.93	/	/	<=23.98	Pass
CP-OFDM 256 QAM	2310	Edge_1RB_Left	18.21	/	/	15.51	/	/	<=23.98	Pass
		Edge_1RB_Right	18.36	/	/	15.66	/	/	<=23.98	Pass
		Outer_Full	18.41	/	/	15.72	/	/	<=23.98	Pass
		Inner_Full	18.46	/	/	15.76	/	/	<=23.98	Pass
		Inner_1RB_Left	18.28	/	/	15.58	/	/	<=23.98	Pass
		Inner_1RB_Right	18.41	/	/	15.71	/	/	<=23.98	Pass
		Note1: Antenna Gain: Ant1: -2.70dBi; Note2: EIRP=Conducted Power+Antenna Gain								

2. Frequency Stability

2.1 Test Result

2.1.1 30_S_10M

5G NR n40a SCS=30kHz SISO 10MHz								
Modulation	Frequency (MHz)	RB Allocation	Temp. (°C)	Volt.	Freq. Error (Hz)	Freq. vs. rated (ppm)		Verdict
						Result	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Outer_Full	20	LV	-13.12	-0.0057	>=-2.5 & <=2.5	Pass
				HV	-23.09	-0.0100	>=-2.5 & <=2.5	Pass
			-30	NV	-14.49	-0.0063	>=-2.5 & <=2.5	Pass
			-20	NV	1.54	0.0007	>=-2.5 & <=2.5	Pass
			-10	NV	-8.44	-0.0037	>=-2.5 & <=2.5	Pass
			0	NV	-15.29	-0.0066	>=-2.5 & <=2.5	Pass
			10	NV	-20.85	-0.0090	>=-2.5 & <=2.5	Pass
			20	NV	-18.88	-0.0082	>=-2.5 & <=2.5	Pass
			30	NV	-7.68	-0.0033	>=-2.5 & <=2.5	Pass
			40	NV	-14.68	-0.0064	>=-2.5 & <=2.5	Pass
DFT-s-OFDM QPSK	2310	Outer_Full	20	LV	-21.78	-0.0094	>=-2.5 & <=2.5	Pass
				HV	-15.00	-0.0065	>=-2.5 & <=2.5	Pass
			-30	NV	-5.14	-0.0022	>=-2.5 & <=2.5	Pass
			-20	NV	-15.66	-0.0068	>=-2.5 & <=2.5	Pass
			-10	NV	-12.18	-0.0053	>=-2.5 & <=2.5	Pass
			0	NV	-11.06	-0.0048	>=-2.5 & <=2.5	Pass
			10	NV	-5.04	-0.0022	>=-2.5 & <=2.5	Pass
			20	NV	-8.96	-0.0039	>=-2.5 & <=2.5	Pass
			30	NV	-12.74	-0.0055	>=-2.5 & <=2.5	Pass
			40	NV	-3.15	-0.0014	>=-2.5 & <=2.5	Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	20	LV	-10.46	-0.0045	>=-2.5 & <=2.5	Pass
				HV	-9.40	-0.0041	>=-2.5 & <=2.5	Pass
			-30	NV	-11.83	-0.0051	>=-2.5 & <=2.5	Pass
			-20	NV	-18.43	-0.0080	>=-2.5 & <=2.5	Pass
			-10	NV	-13.07	-0.0057	>=-2.5 & <=2.5	Pass
			0	NV	-10.49	-0.0045	>=-2.5 & <=2.5	Pass
			10	NV	-1.11	-0.0005	>=-2.5 & <=2.5	Pass
			20	NV	-6.87	-0.0030	>=-2.5 & <=2.5	Pass
			30	NV	-3.50	-0.0015	>=-2.5 & <=2.5	Pass
			40	NV	-3.48	-0.0015	>=-2.5 & <=2.5	Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	20	LV	-2.76	-0.0012	>=-2.5 & <=2.5	Pass
				HV	-6.98	-0.0030	>=-2.5 & <=2.5	Pass
			-30	NV	-18.89	-0.0082	>=-2.5 & <=2.5	Pass
			-20	NV	-10.91	-0.0047	>=-2.5 & <=2.5	Pass
			-10	NV	-10.58	-0.0046	>=-2.5 & <=2.5	Pass
			0	NV	-4.25	-0.0018	>=-2.5 & <=2.5	Pass
			10	NV	-11.06	-0.0048	>=-2.5 & <=2.5	Pass
			20	NV	0.96	0.0004	>=-2.5 & <=2.5	Pass



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			30	NV	-10.18	-0.0044	>=-2.5 & <=2.5	Pass
			40	NV	-5.21	-0.0023	>=-2.5 & <=2.5	Pass
			50	NV	-12.41	-0.0054	>=-2.5 & <=2.5	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	20	LV	-11.95	-0.0052	>=-2.5 & <=2.5	Pass
				HV	-4.52	-0.0020	>=-2.5 & <=2.5	Pass
			-30	NV	-2.13	-0.0009	>=-2.5 & <=2.5	Pass
			-20	NV	-7.55	-0.0033	>=-2.5 & <=2.5	Pass
			-10	NV	-10.90	-0.0047	>=-2.5 & <=2.5	Pass
			0	NV	-16.56	-0.0072	>=-2.5 & <=2.5	Pass
			10	NV	-14.21	-0.0062	>=-2.5 & <=2.5	Pass
			20	NV	-4.94	-0.0021	>=-2.5 & <=2.5	Pass
			30	NV	-4.04	-0.0017	>=-2.5 & <=2.5	Pass
			40	NV	-9.69	-0.0042	>=-2.5 & <=2.5	Pass
			50	NV	2.18	0.0009	>=-2.5 & <=2.5	Pass
CP-OFDM QPSK	2310	Outer_Full	20	LV	-5.62	-0.0024	>=-2.5 & <=2.5	Pass
				HV	2.00	0.0009	>=-2.5 & <=2.5	Pass
			-30	NV	-11.48	-0.0050	>=-2.5 & <=2.5	Pass
			-20	NV	-12.88	-0.0056	>=-2.5 & <=2.5	Pass
			-10	NV	-11.59	-0.0050	>=-2.5 & <=2.5	Pass
			0	NV	-15.05	-0.0065	>=-2.5 & <=2.5	Pass
			10	NV	-14.34	-0.0062	>=-2.5 & <=2.5	Pass
			20	NV	-7.99	-0.0035	>=-2.5 & <=2.5	Pass
			30	NV	-7.27	-0.0031	>=-2.5 & <=2.5	Pass
			40	NV	1.14	0.0005	>=-2.5 & <=2.5	Pass
			50	NV	-2.79	-0.0012	>=-2.5 & <=2.5	Pass
CP-OFDM 16 QAM	2310	Outer_Full	20	LV	-3.30	-0.0014	>=-2.5 & <=2.5	Pass
				HV	-5.56	-0.0024	>=-2.5 & <=2.5	Pass
			-30	NV	-5.04	-0.0022	>=-2.5 & <=2.5	Pass
			-20	NV	-5.14	-0.0022	>=-2.5 & <=2.5	Pass
			-10	NV	-1.30	-0.0006	>=-2.5 & <=2.5	Pass
			0	NV	-13.44	-0.0058	>=-2.5 & <=2.5	Pass
			10	NV	-8.68	-0.0038	>=-2.5 & <=2.5	Pass
			20	NV	-14.25	-0.0062	>=-2.5 & <=2.5	Pass
			30	NV	-2.75	-0.0012	>=-2.5 & <=2.5	Pass
			40	NV	-7.20	-0.0031	>=-2.5 & <=2.5	Pass
			50	NV	-10.57	-0.0046	>=-2.5 & <=2.5	Pass
CP-OFDM 64 QAM	2310	Outer_Full	20	LV	-5.21	-0.0023	>=-2.5 & <=2.5	Pass
				HV	-17.18	-0.0074	>=-2.5 & <=2.5	Pass
			-30	NV	-11.41	-0.0049	>=-2.5 & <=2.5	Pass
			-20	NV	-7.72	-0.0033	>=-2.5 & <=2.5	Pass
			-10	NV	-5.98	-0.0026	>=-2.5 & <=2.5	Pass
			0	NV	-6.87	-0.0030	>=-2.5 & <=2.5	Pass
			10	NV	-4.57	-0.0020	>=-2.5 & <=2.5	Pass
			20	NV	-7.67	-0.0033	>=-2.5 & <=2.5	Pass
			30	NV	-2.52	-0.0011	>=-2.5 & <=2.5	Pass
			40	NV	-13.39	-0.0058	>=-2.5 & <=2.5	Pass
			50	NV	-20.06	-0.0087	>=-2.5 & <=2.5	Pass
CP-OFDM 256 QAM	2310	Outer_Full	20	LV	-5.49	-0.0024	>=-2.5 & <=2.5	Pass
				HV	-8.26	-0.0036	>=-2.5 & <=2.5	Pass
			-30	NV	-11.59	-0.0050	>=-2.5 & <=2.5	Pass
			-20	NV	-5.53	-0.0024	>=-2.5 & <=2.5	Pass
			-10	NV	-9.07	-0.0039	>=-2.5 & <=2.5	Pass
			0	NV	0.73	0.0003	>=-2.5 & <=2.5	Pass
			10	NV	-13.17	-0.0057	>=-2.5 & <=2.5	Pass
			20	NV	-11.56	-0.0050	>=-2.5 & <=2.5	Pass
			30	NV	-7.91	-0.0034	>=-2.5 & <=2.5	Pass
			40	NV	-4.36	-0.0019	>=-2.5 & <=2.5	Pass
			50	NV	-21.19	-0.0092	>=-2.5 & <=2.5	Pass



3. 99% & 26dB Bandwidth

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3.1 Test Result

3.1.1 30_S_10M_NTNV

5G NR n40a SCS=30kHz SISO 10MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	2310	Outer_Full	8.60	9.86	/	Pass
DFT-s-OFDM QPSK	2310	Outer_Full	8.62	9.54	/	Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	8.63	9.69	/	Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	8.59	9.77	/	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	8.61	9.57	/	Pass
CP-OFDM QPSK	2310	Outer_Full	8.60	9.84	/	Pass
CP-OFDM 16 QAM	2310	Outer_Full	8.62	9.70	/	Pass
CP-OFDM 64 QAM	2310	Outer_Full	8.59	9.73	/	Pass
CP-OFDM 256 QAM	2310	Outer_Full	8.60	9.74	/	Pass

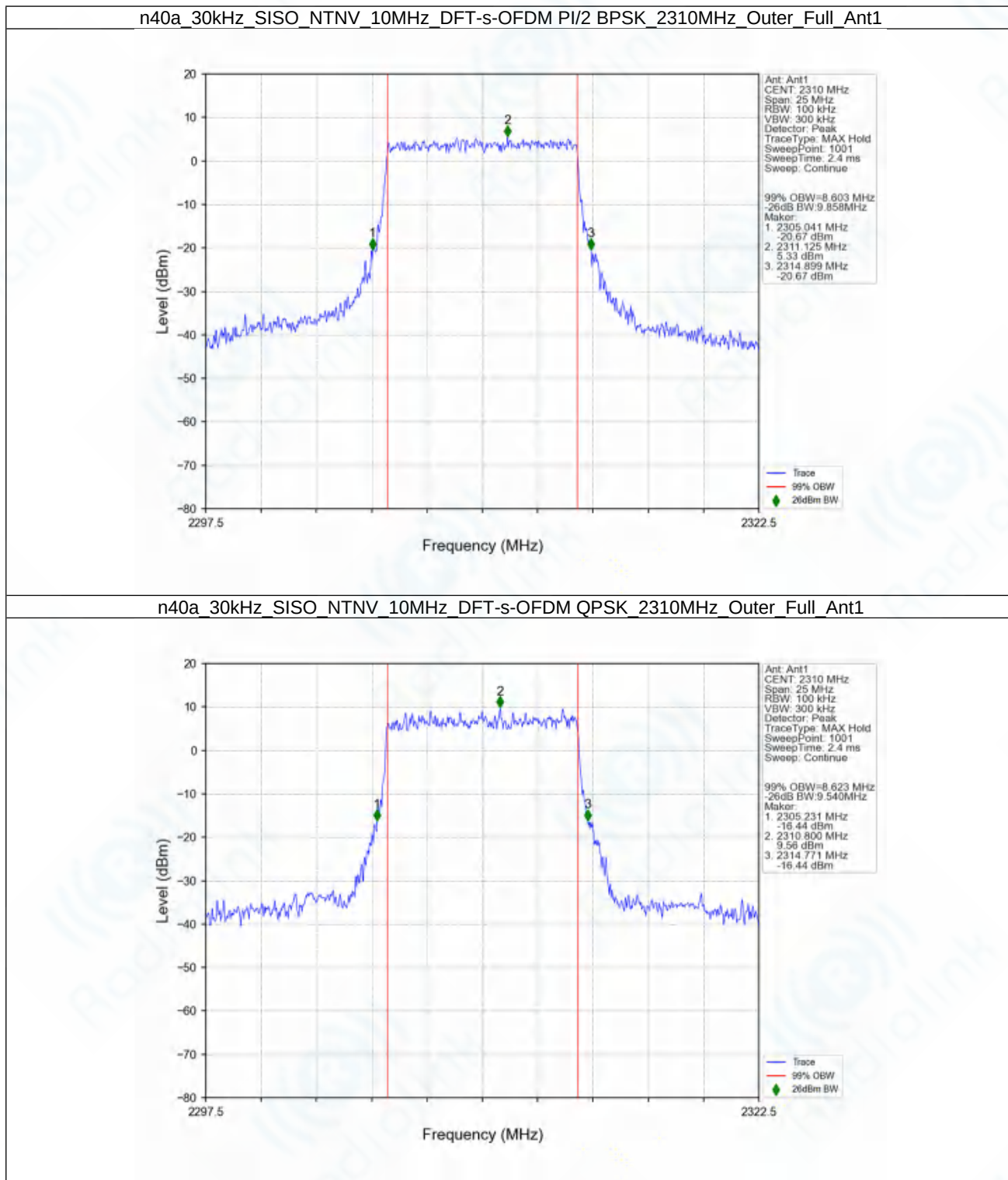


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3.2 Test Graph

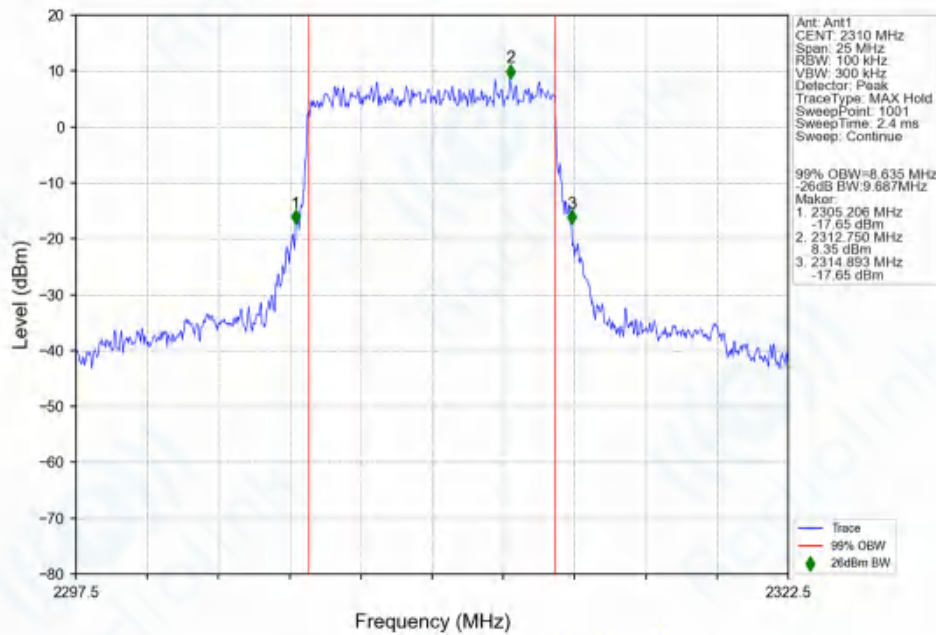
3.2.1 30_S_10M_NTNV



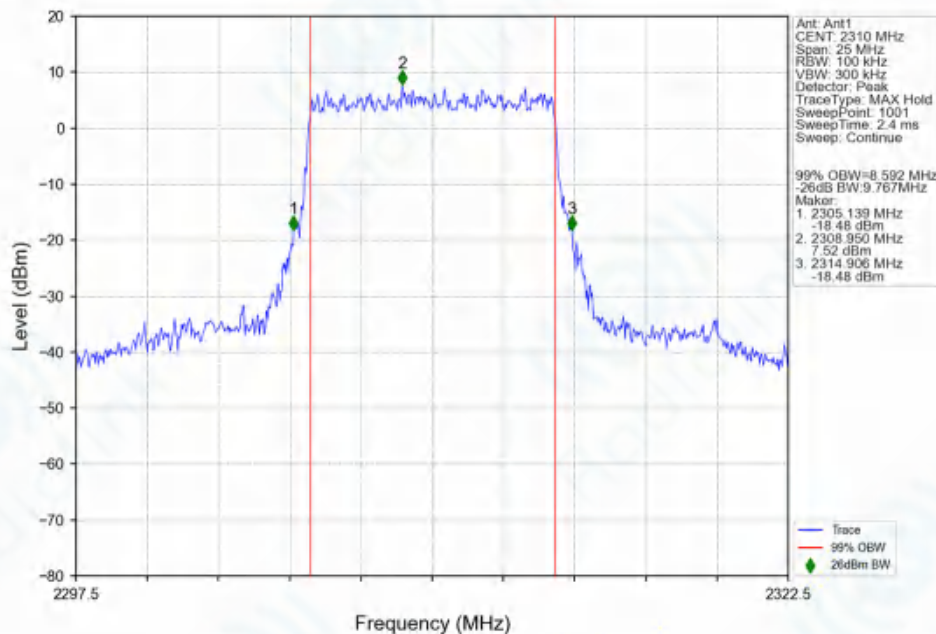
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_2310MHz_Outer_Full_Ant1



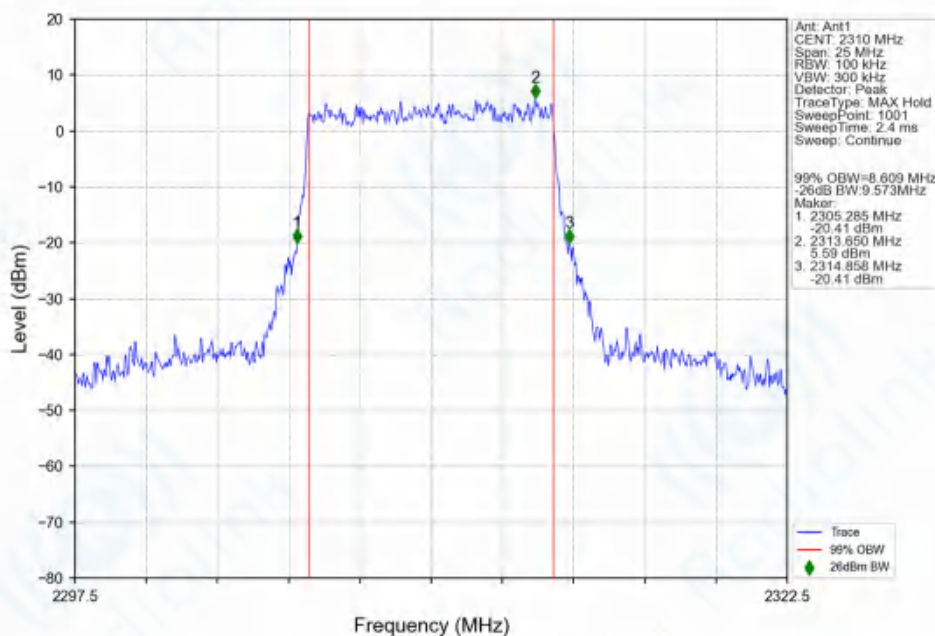
n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_64_QAM_2310MHz_Outer_Full_Ant1



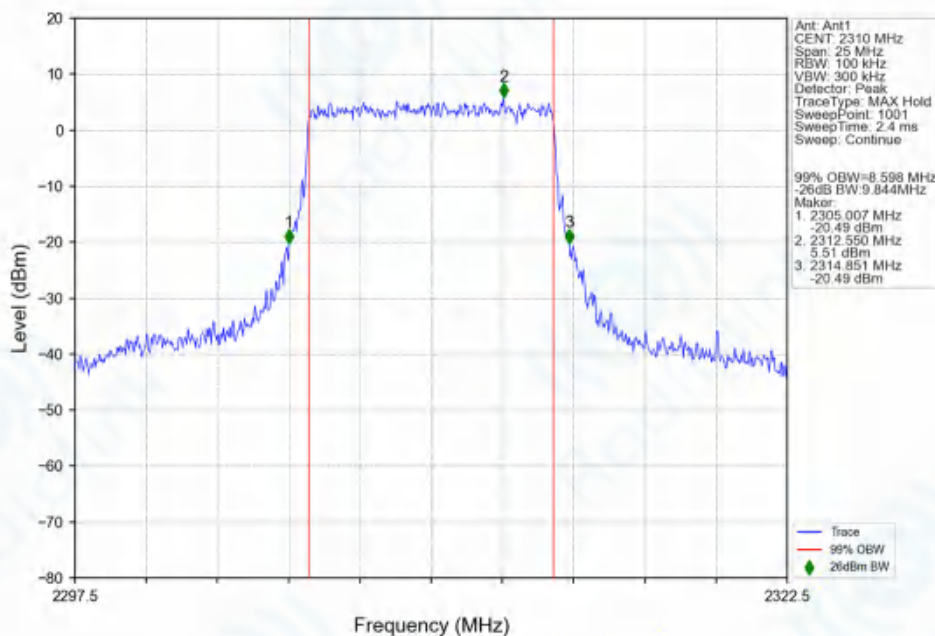
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Outer_Full_Ant1

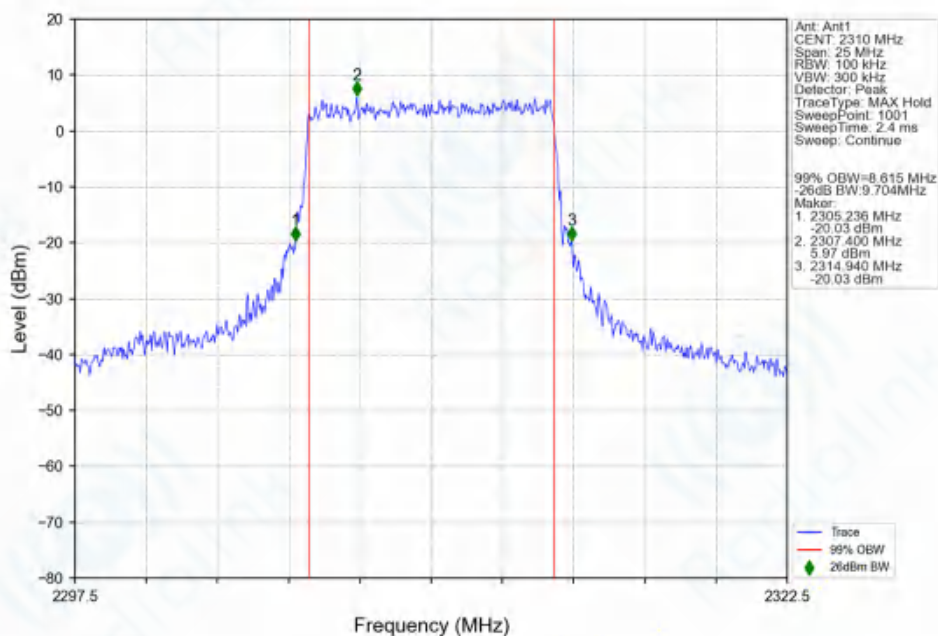


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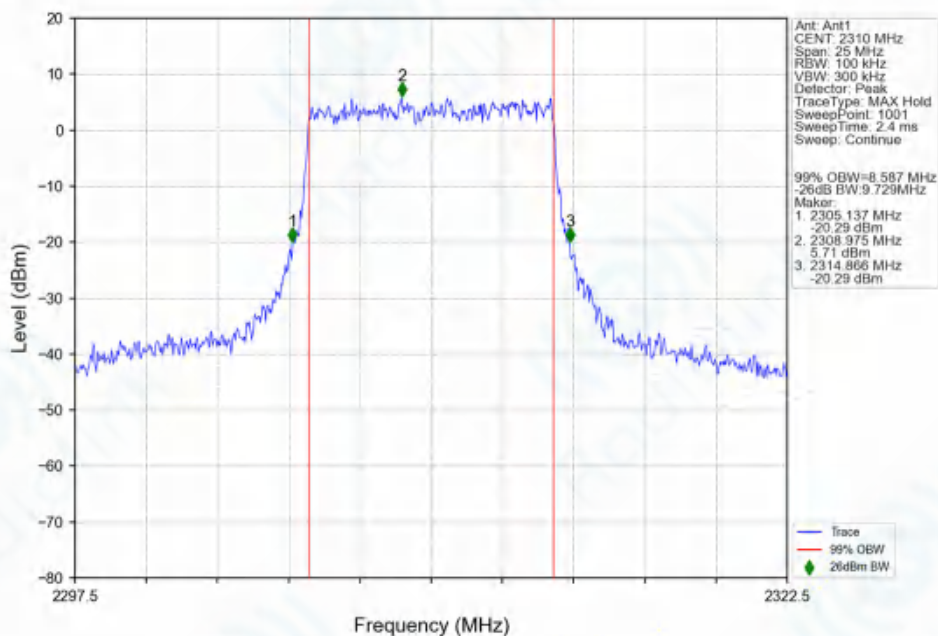
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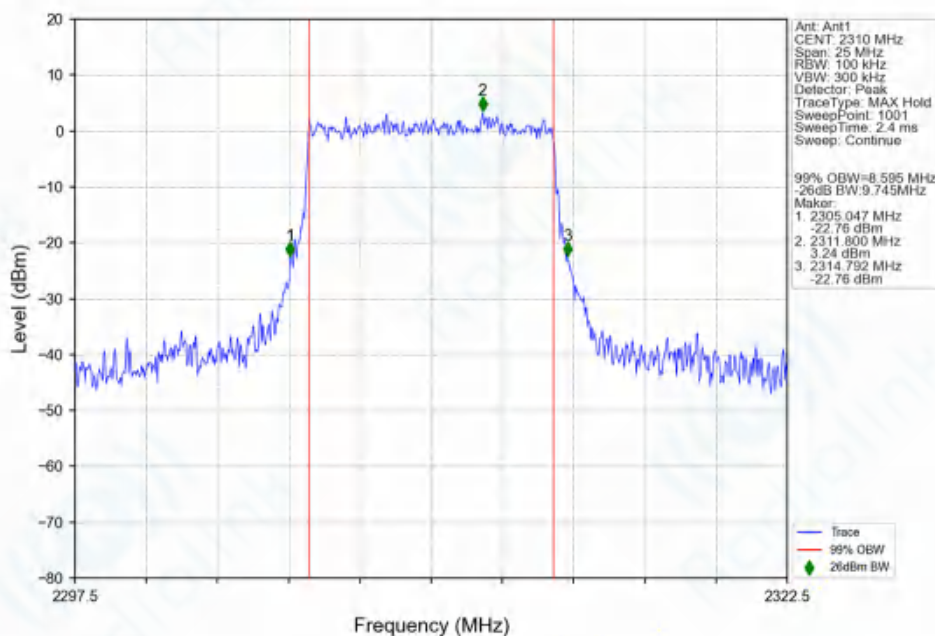
n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM 2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM 2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_256_QAM_2310MHz_Outer_Full_Ant1


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4. Peak-Average Ratio

4.1 Test Result

4.1.1 30_S_10M_NTNV

5G NR n40a SCS=30kHz SISO 10MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Peak-Average Ratio (dB)				Verdict
			Ant1	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Outer_Full	10.97	/	/	<=13	Pass
DFT-s-OFDM QPSK	2310	Outer_Full	10.98	/	/	<=13	Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	11.99	/	/	<=13	Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	12.45	/	/	<=13	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	12.46	/	/	<=13	Pass
CP-OFDM QPSK	2310	Outer_Full	12.96	/	/	<=13	Pass
CP-OFDM 16 QAM	2310	Outer_Full	12.72	/	/	<=13	Pass
CP-OFDM 64 QAM	2310	Outer_Full	12.74	/	/	<=13	Pass
CP-OFDM 256 QAM	2310	Outer_Full	12.60	/	/	<=13	Pass

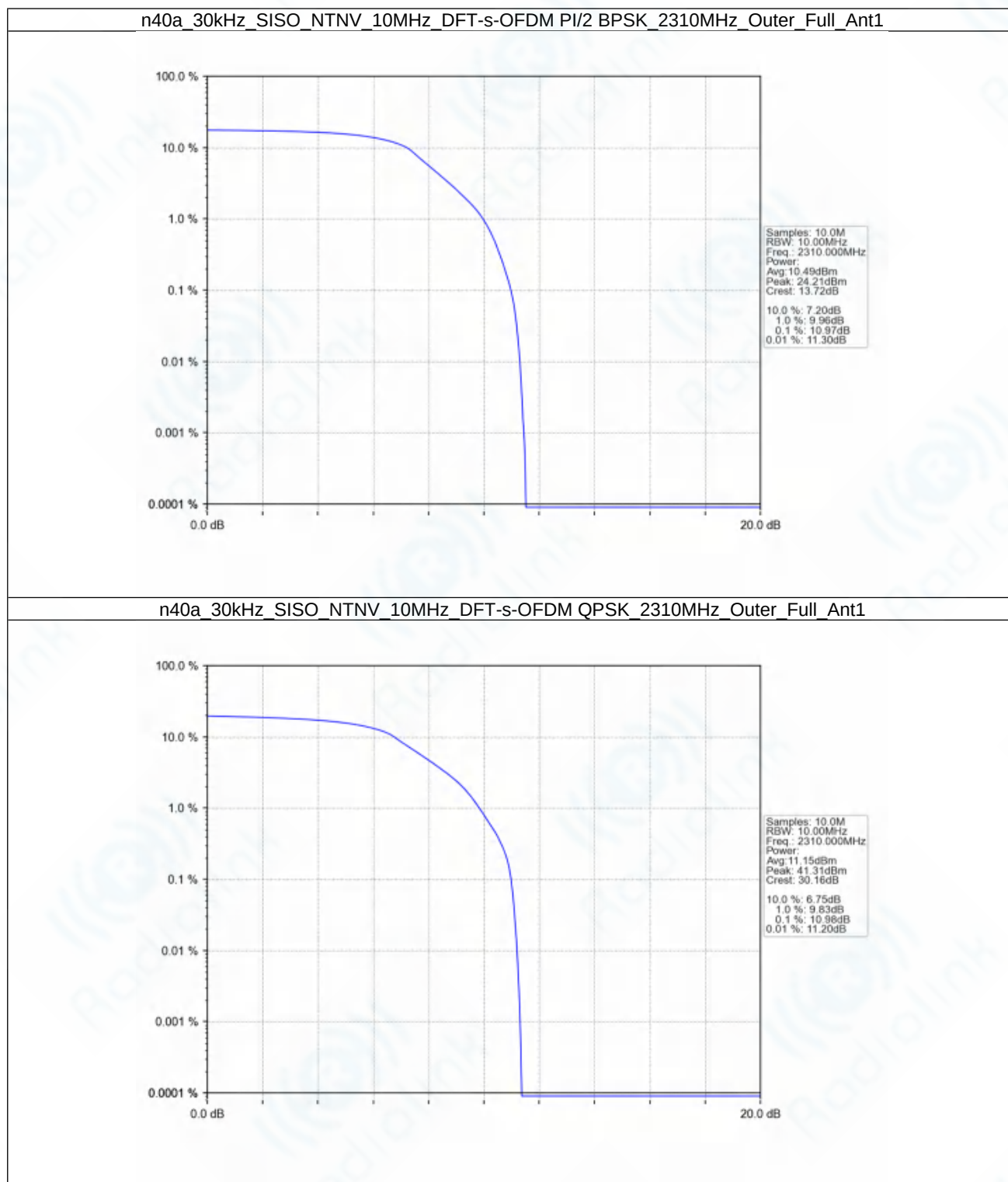


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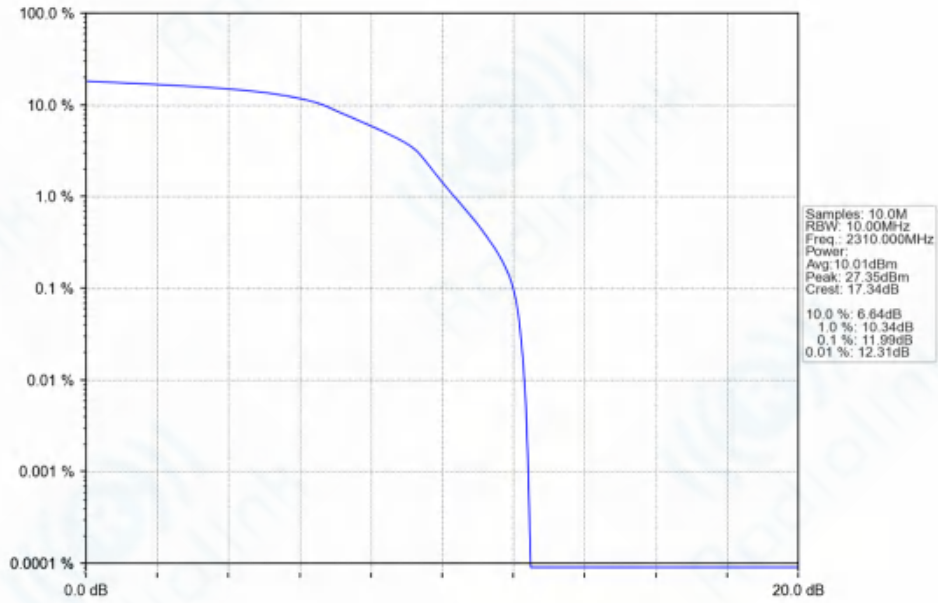
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4.2 Test Graph

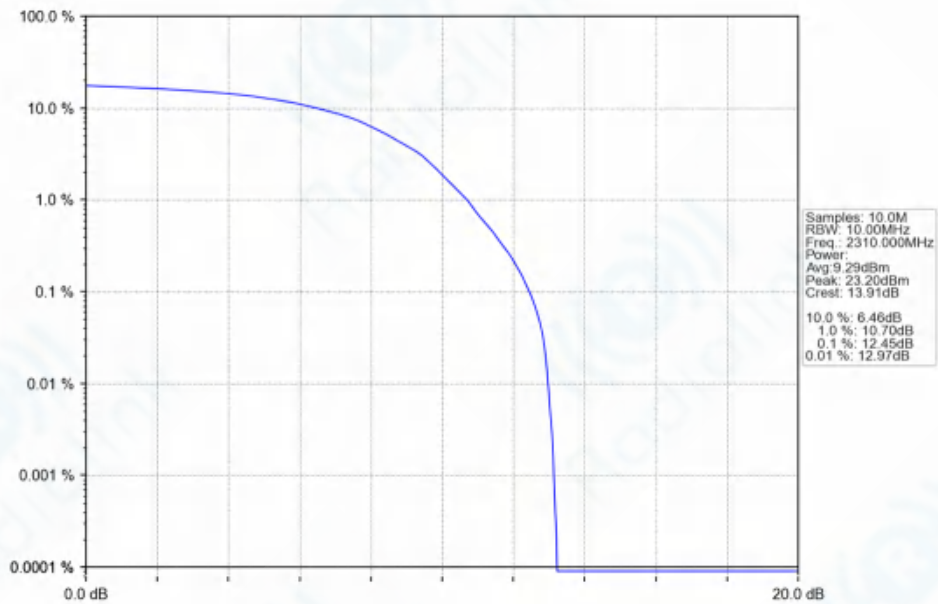
4.2.1 30_S_10M_NTNV



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_16_QAM_2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_64_QAM_2310MHz_Outer_Full_Ant1

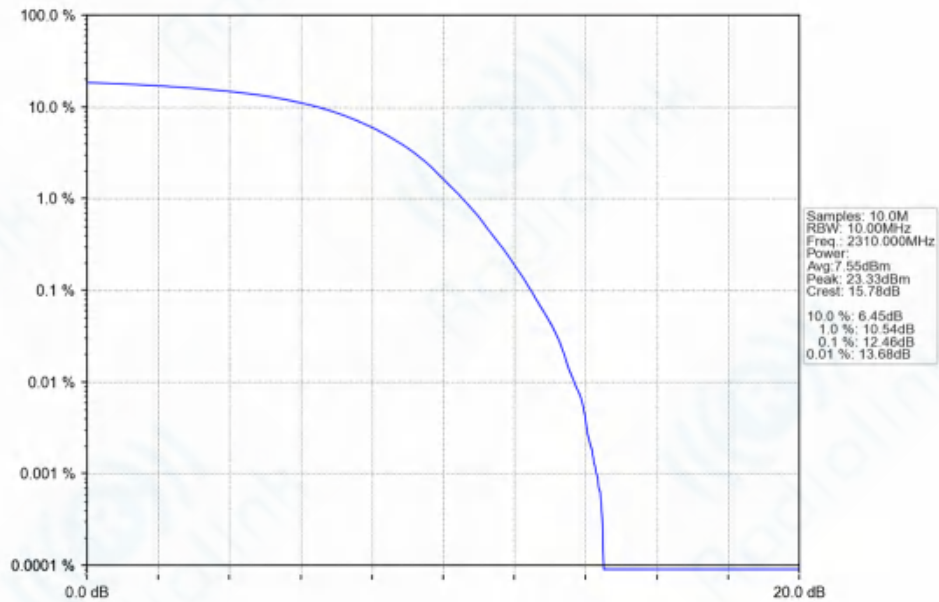


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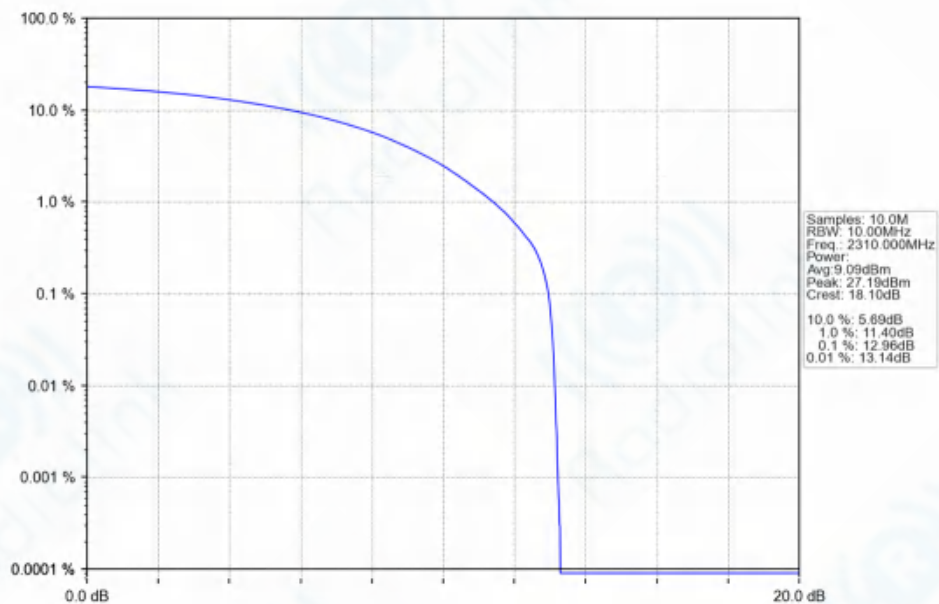
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_256_QAM_2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Outer_Full_Ant1

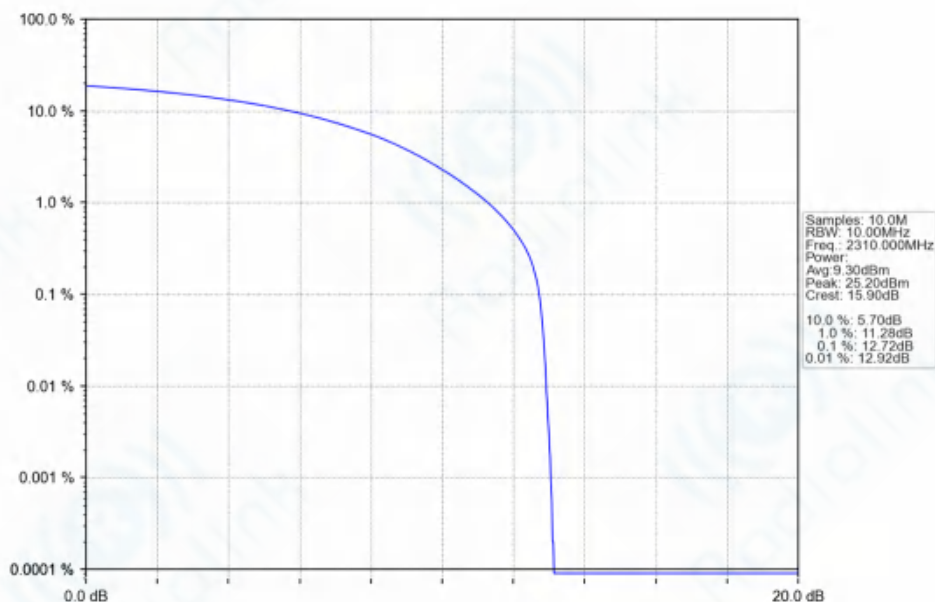


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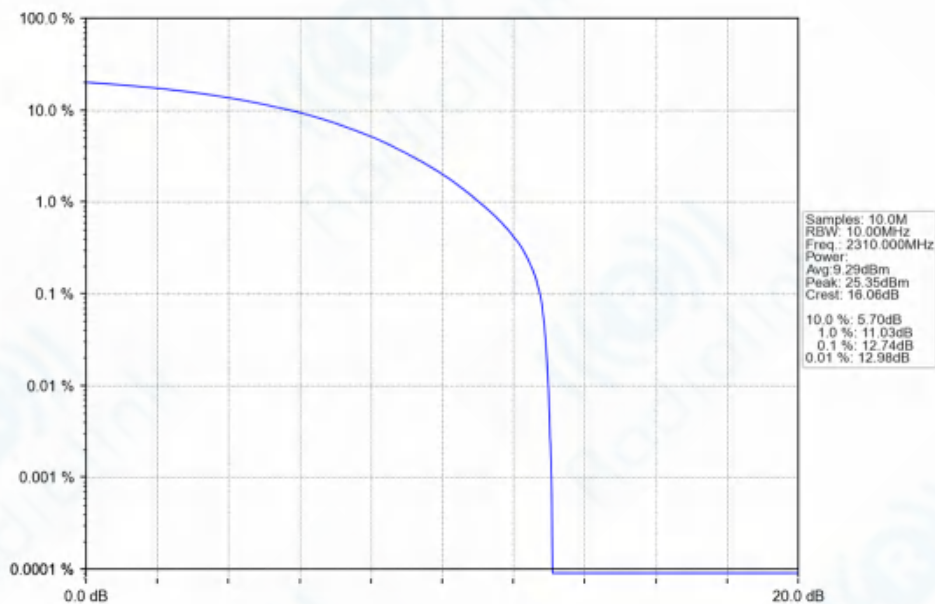
Room 103, Building B, Jinghang Industrial Park, Area 71, Xingdong Community, Xin'an Subdistrict, Bao'an District, Shenzhen, Guangdong Province, China

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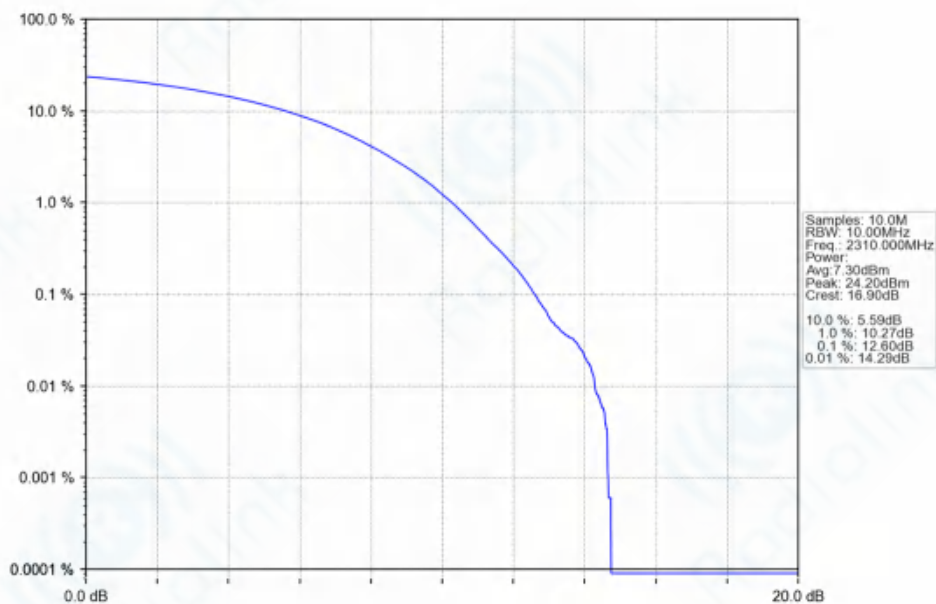
n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM 16 QAM 2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM 64 QAM 2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_256_QAM_2310MHz_Outer_Full_Ant1


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5. Spurious Emission

5.1 Test Result

5.1.1 30_S_10M_NTNV

5G NR n40a SCS=30kHz SISO 10MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Spurious Emission				Verdict
			Ant1	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
		Inner_1RB_Left	Refer To Test Graph				Pass
	2310	Edge_1RB_Right	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
		Inner_1RB_Right	Refer To Test Graph				Pass
DFT-s-OFDM QPSK	2310	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
		Inner_1RB_Left	Refer To Test Graph				Pass
	2310	Edge_1RB_Right	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
		Inner_1RB_Right	Refer To Test Graph				Pass
CP-OFDM QPSK	2310	Edge_1RB_Left	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
		Inner_1RB_Left	Refer To Test Graph				Pass
	2310	Edge_1RB_Right	Refer To Test Graph				Pass
		Outer_Full	Refer To Test Graph				Pass
		Inner_1RB_Right	Refer To Test Graph				Pass

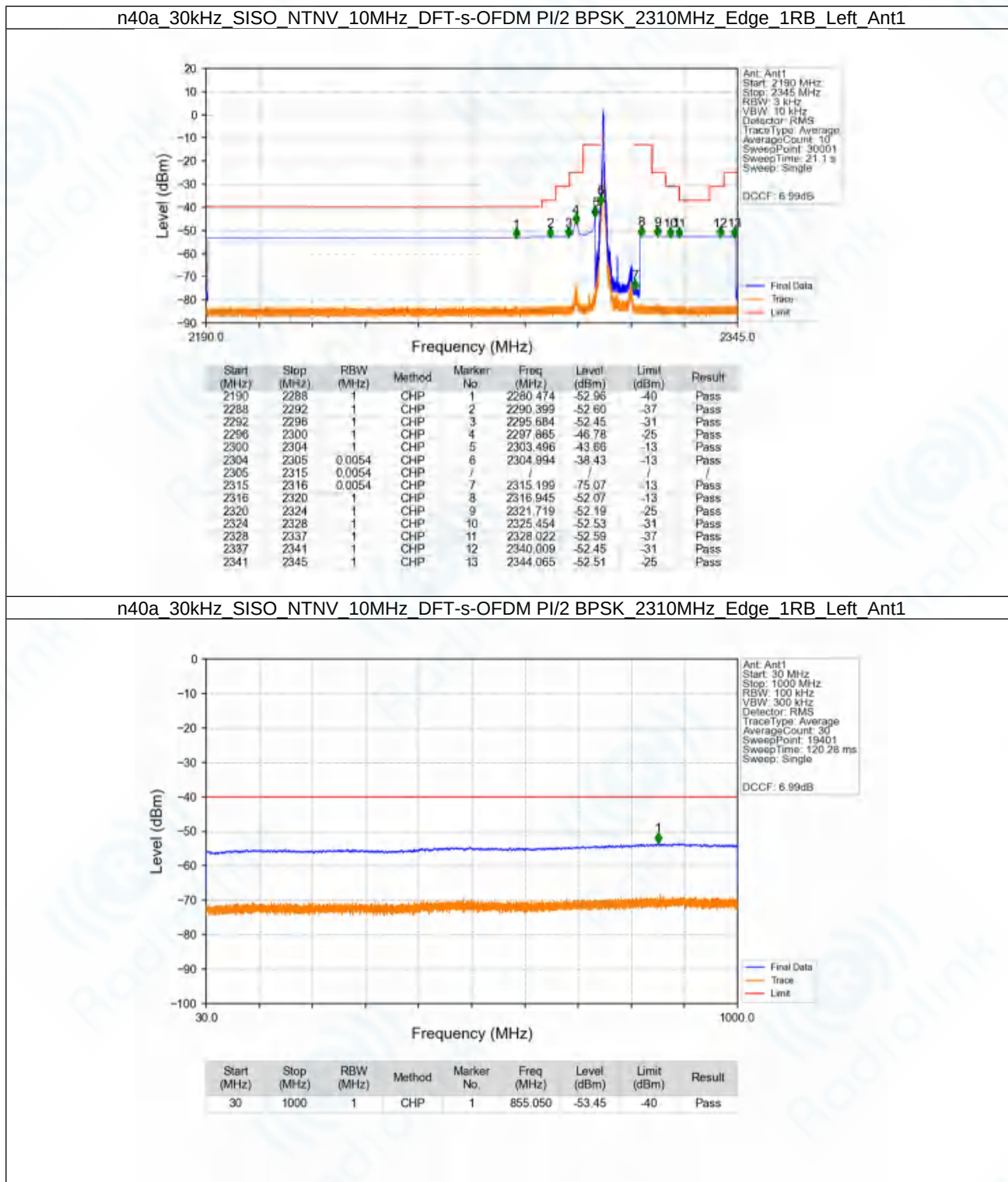


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5.2 Test Graph

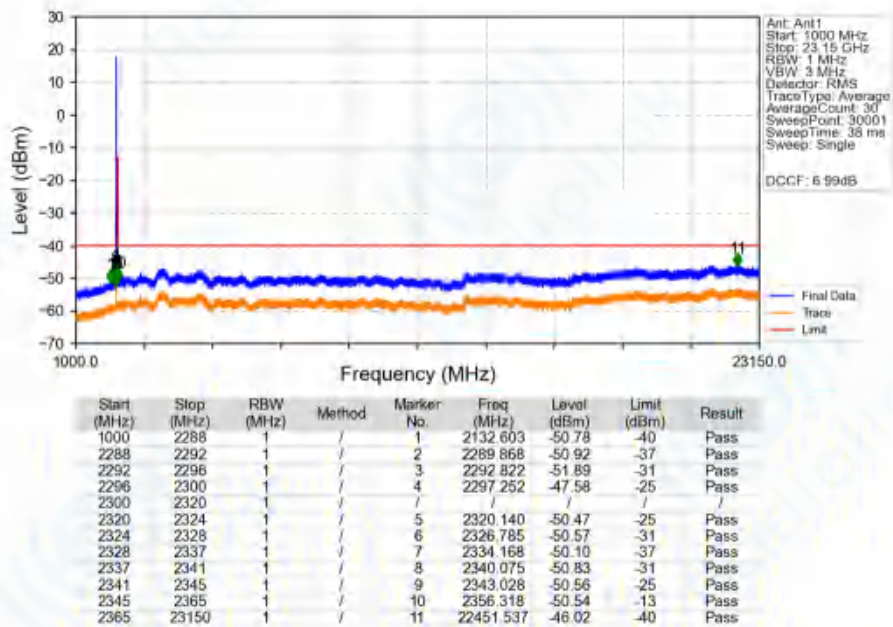
5.2.1 30_S_10M_NTNV



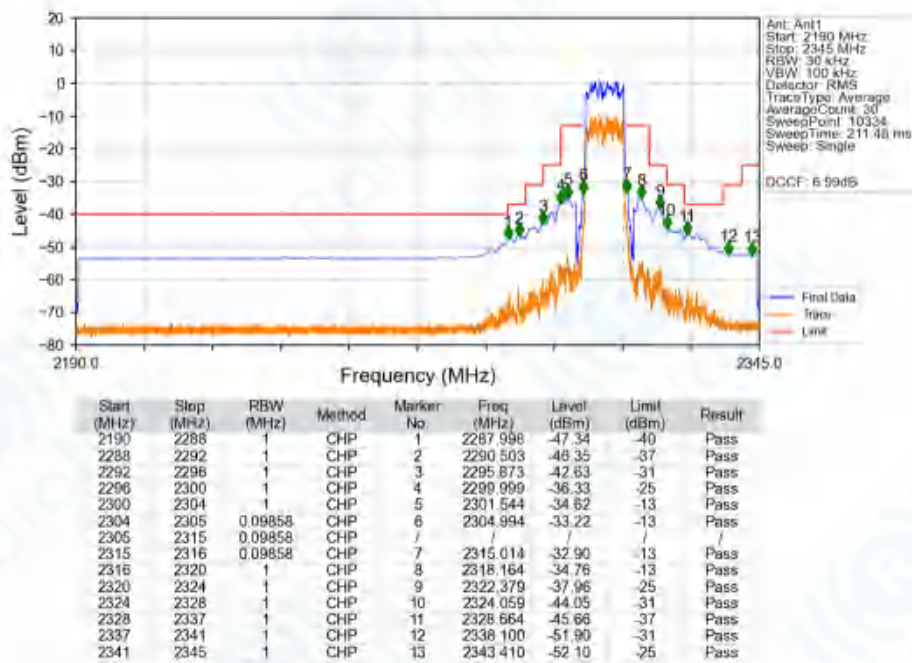
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK 2310MHz_Edge_1RB_Left_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM PI/2 BPSK 2310MHz_Outer_Full_Ant1

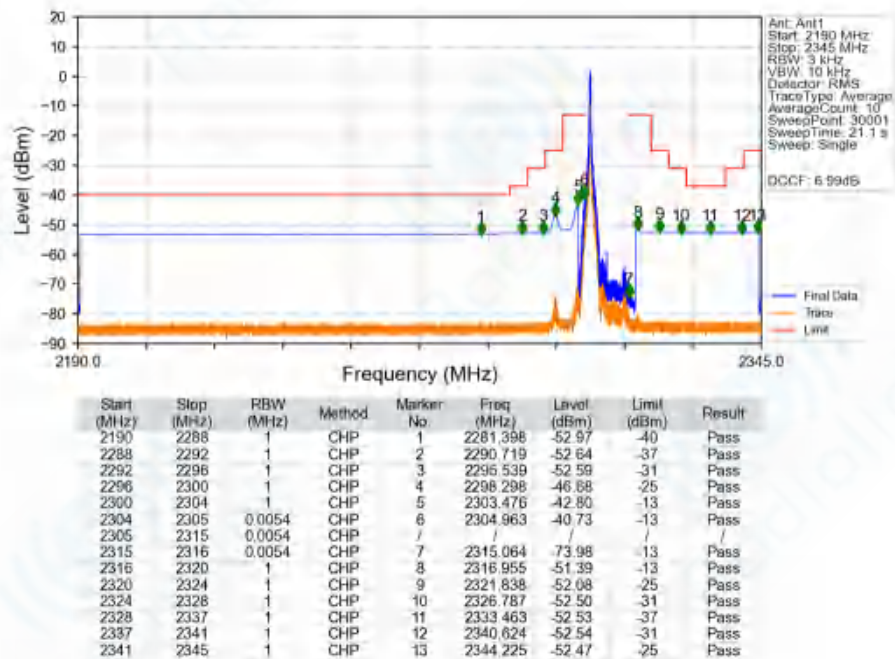


Radiolink Testing (Shenzhen) Co., Ltd.

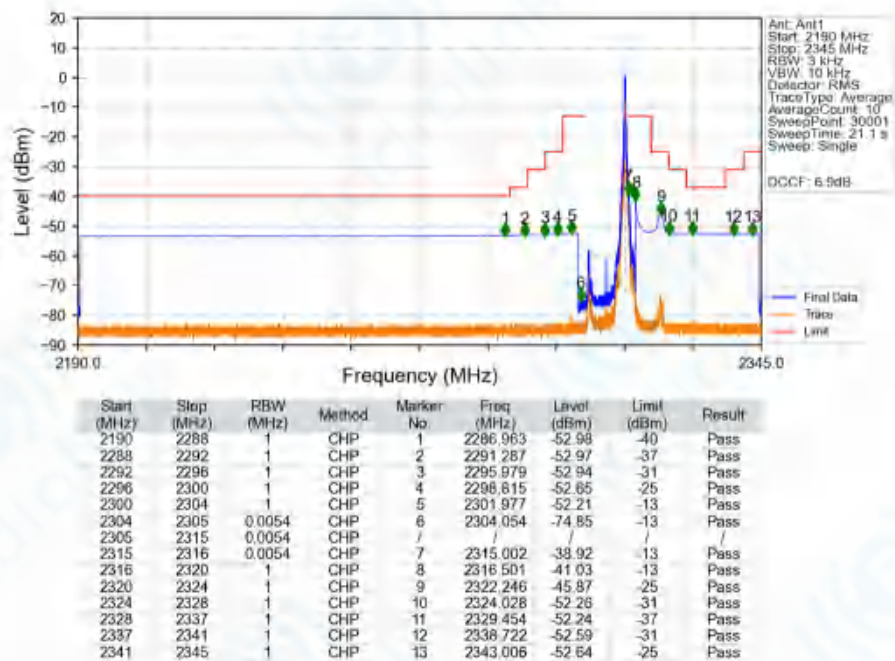
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_2310MHz_Inner_1RB_Left_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_2310MHz_Edge_1RB_Right_Ant1

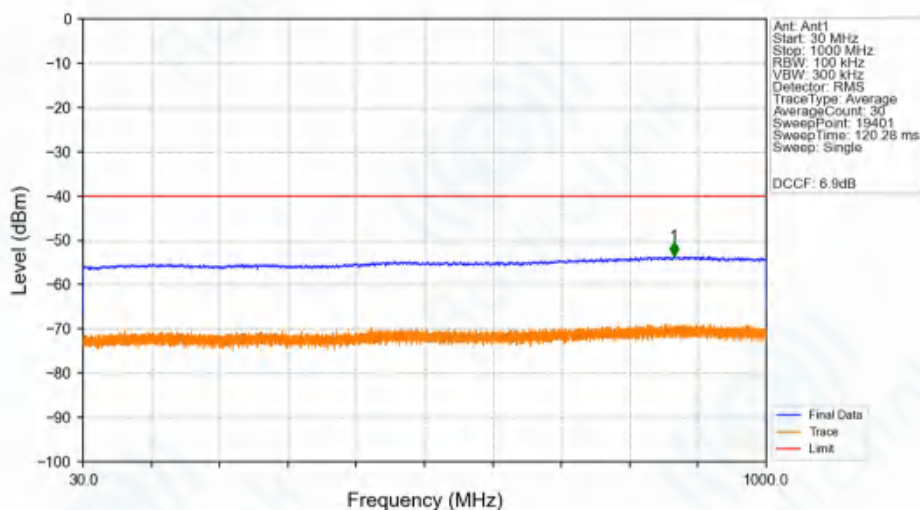


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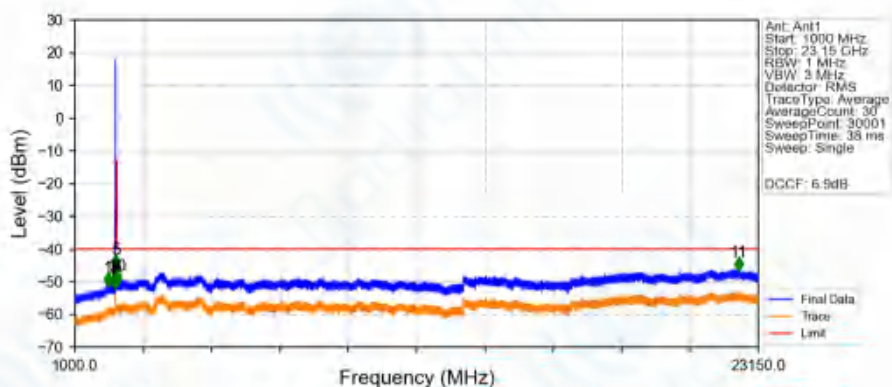
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_2310MHz_Edge_1RB_Right_Ant1



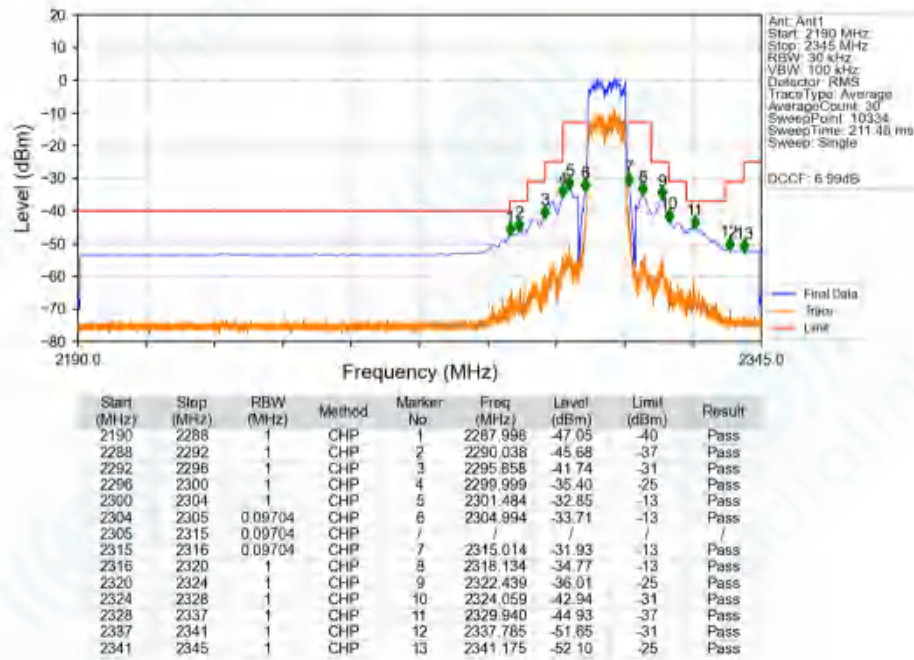
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
30	1000	1	CHP	1	869.100	-53.58	-40	Pass

n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_2310MHz_Edge_1RB_Right_Ant1

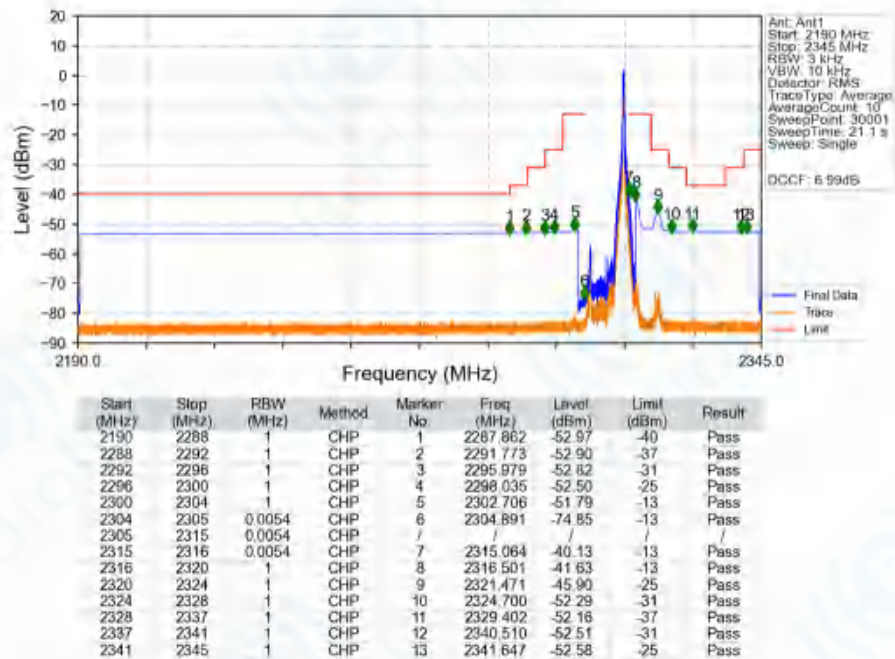


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1000	2288	1	/	1	2067.630	-50.73	-40	Pass
2288	2292	1	/	2	2290.607	-50.86	-37	Pass
2292	2296	1	/	3	2292.083	-51.56	-31	Pass
2296	2300	1	/	4	2297.252	-50.93	-25	Pass
2300	2320	1	/	/	/	/	/	/
2320	2324	1	/	5	2321.617	-45.43	-25	Pass
2324	2328	1	/	6	2327.523	-50.74	-31	Pass
2328	2337	1	/	7	2328.262	-50.91	-37	Pass
2337	2341	1	/	8	2340.813	-51.00	-31	Pass
2341	2345	1	/	9	2343.028	-50.97	-25	Pass
2345	2365	1	/	10	2363.702	-50.20	-13	Pass
2365	23150	1	/	11	22523.893	-46.05	-40	Pass

n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_PI/2_BPSK_2310MHz_Inner_1RB_Right_Ant1

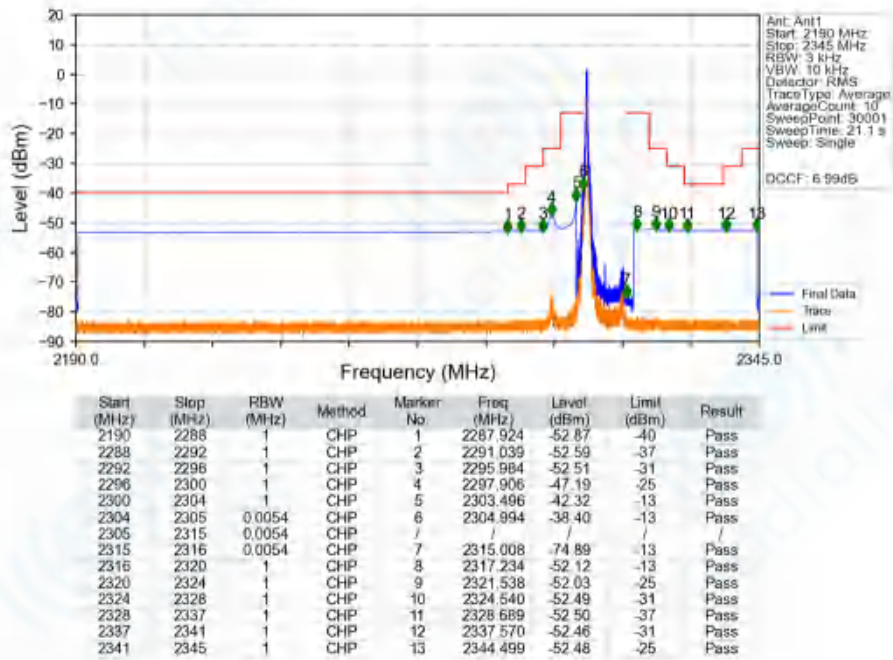


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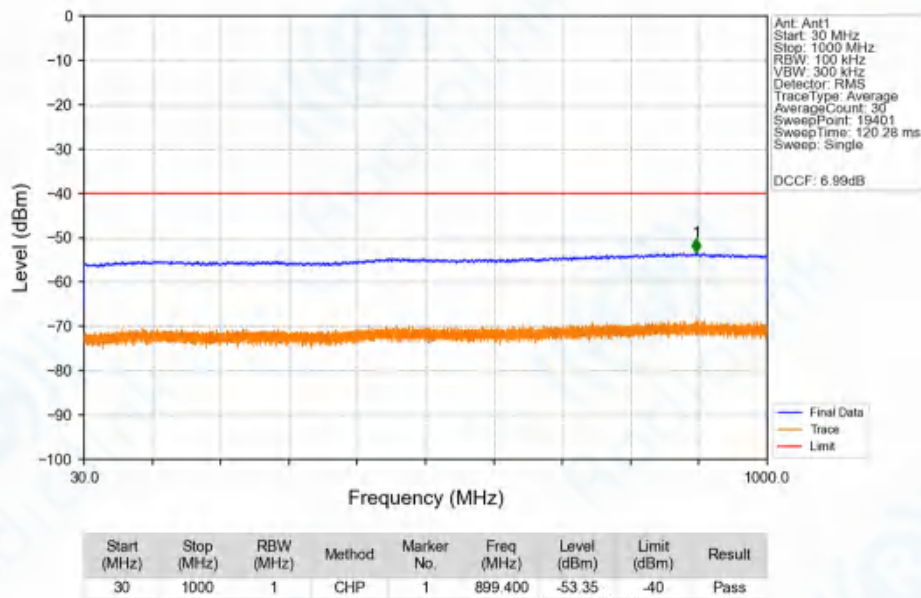
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Edge_1RB_Left_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Edge_1RB_Left_Ant1

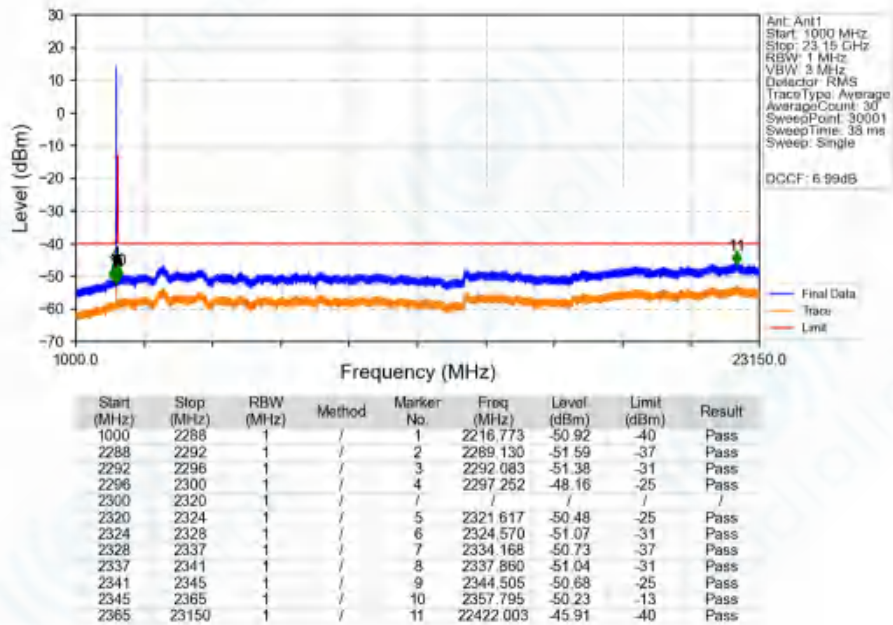


Radiolink Testing (Shenzhen) Co., Ltd.

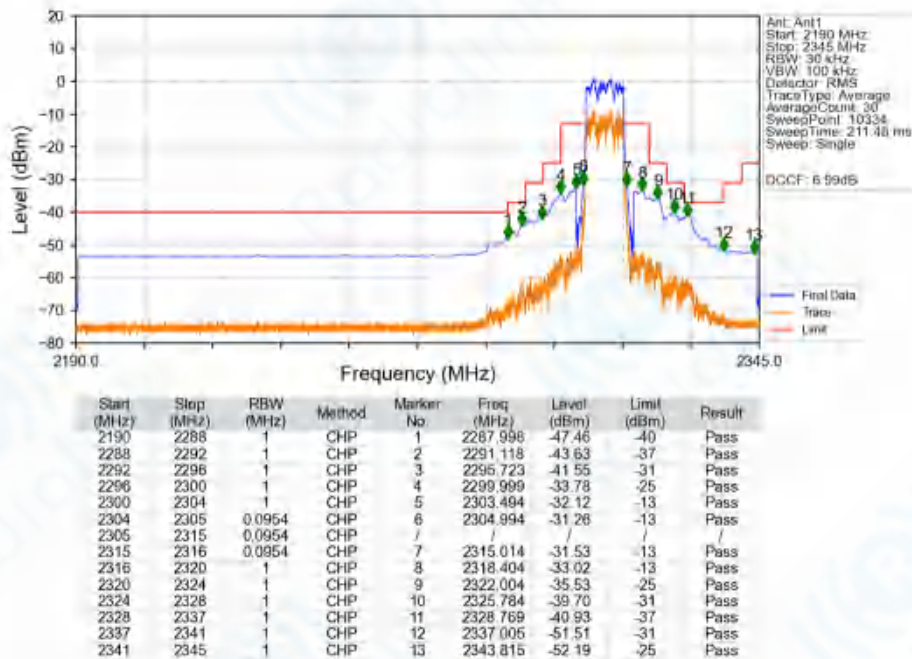
Room 103, Building B, Jinghang Industrial Park, Area 71, Xingdong Community, Xin'an Subdistrict, Bao'an District, Shenzhen, Guangdong Province, China

Tel: +86 0755 23080694

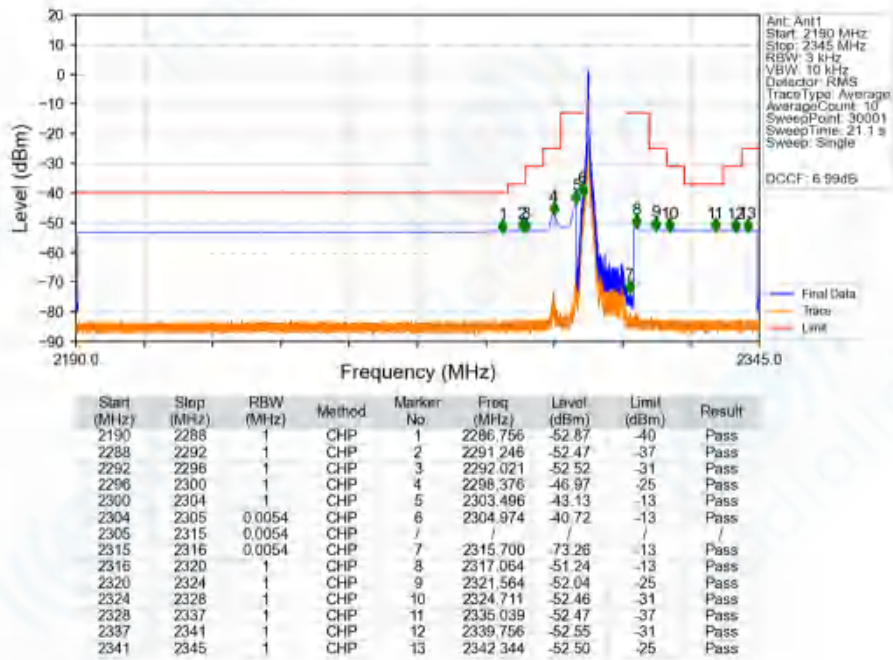
n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Edge_1RB_Left_Ant1



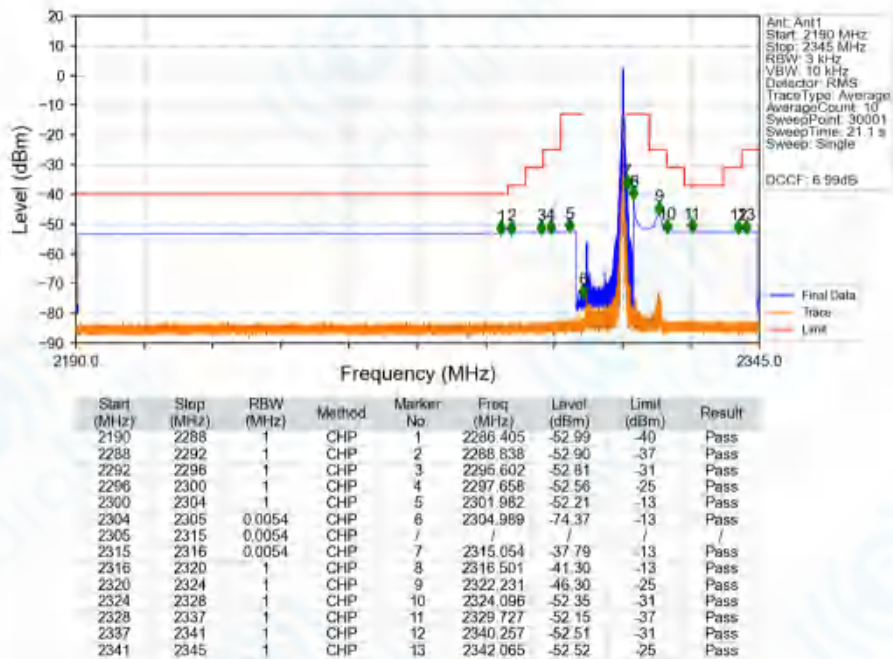
n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Inner_1RB_Left_Ant1



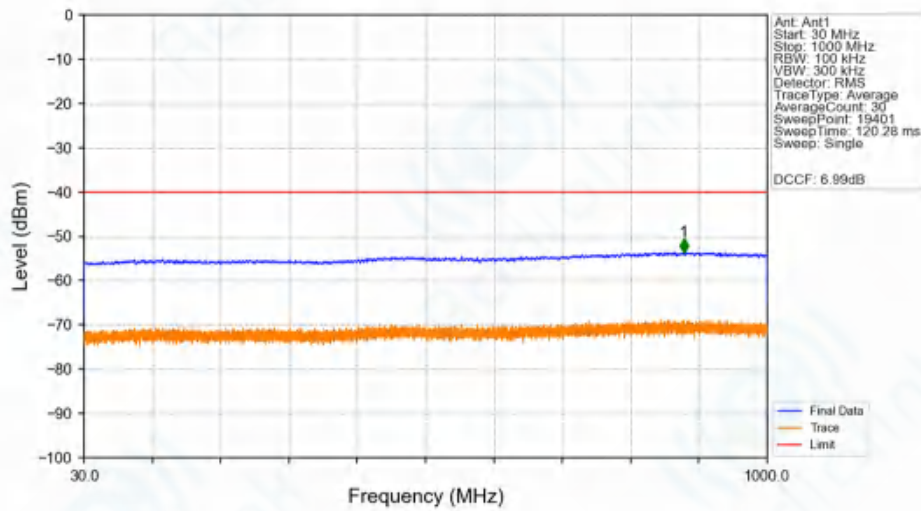
n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Edge_1RB_Right_Ant1



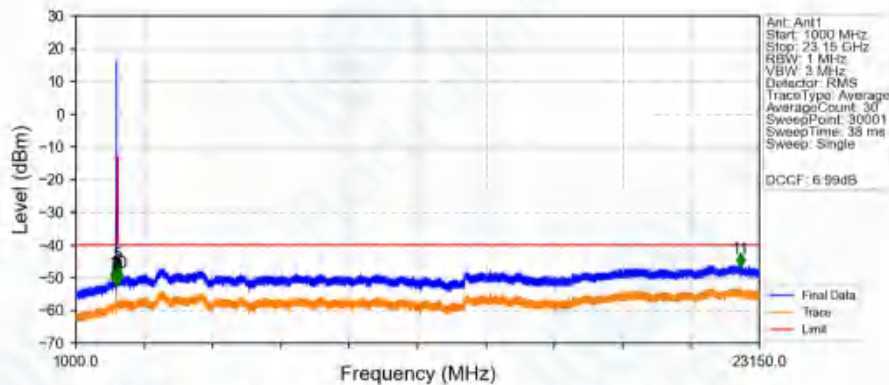
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Edge_1RB_Right_Ant1



n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Edge_1RB_Right_Ant1

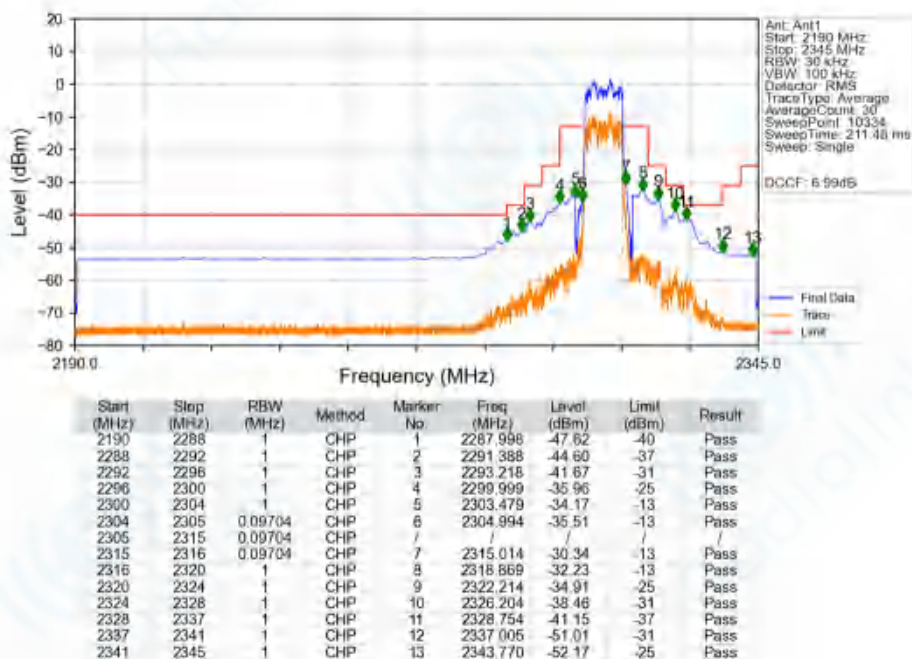


Radiolink Testing (Shenzhen) Co., Ltd.

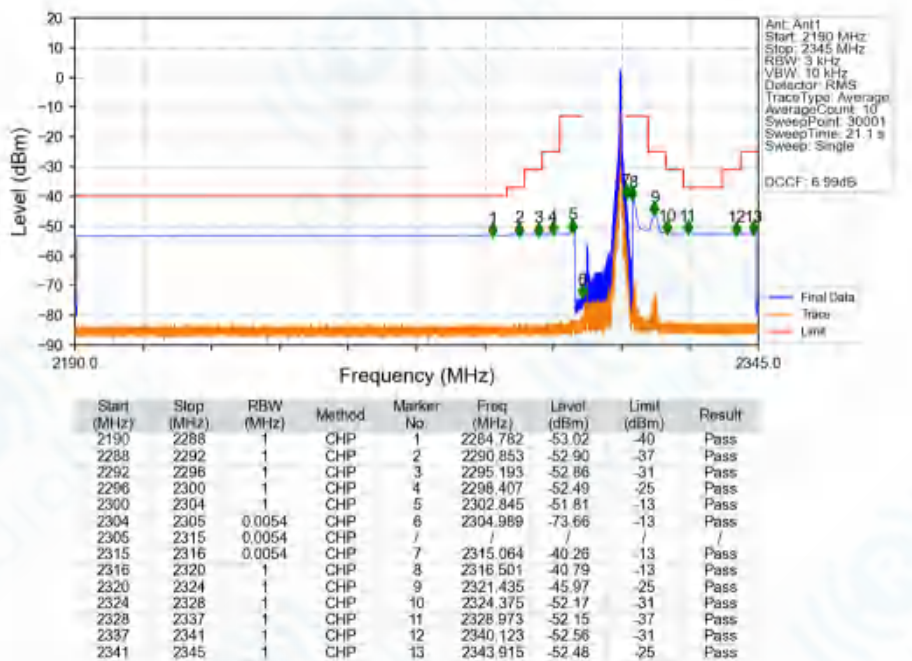
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n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Outer_Full_Ant1



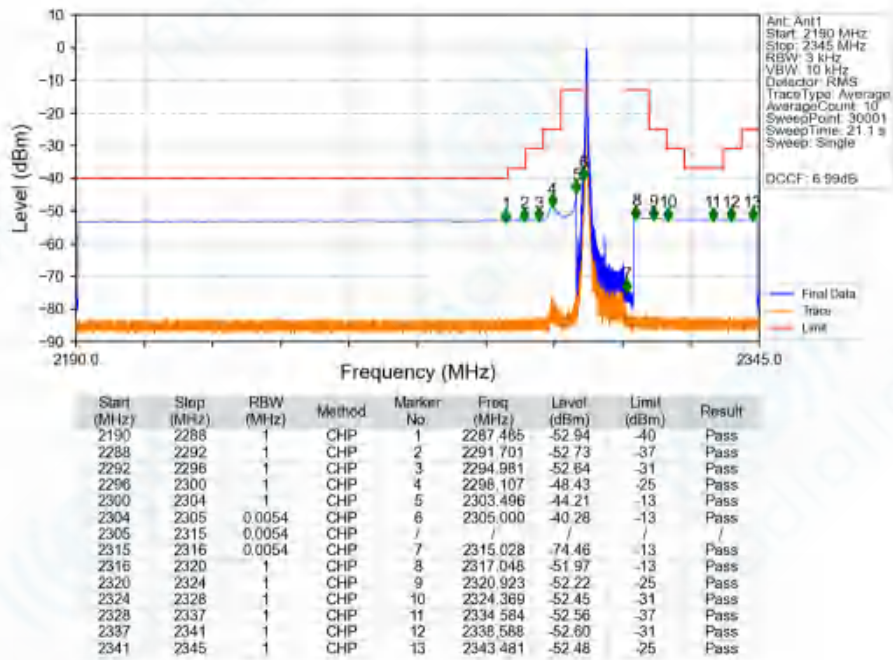
n40a_30kHz_SISO_NTNV_10MHz_DFT-s-OFDM_QPSK_2310MHz_Inner_1RB_Right_Ant1



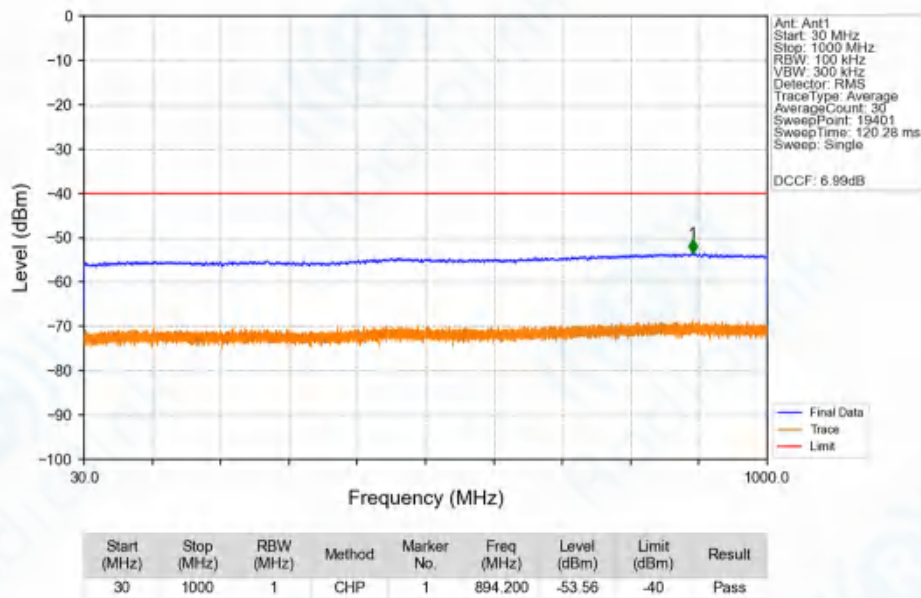
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n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Edge_1RB_Left_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Edge_1RB_Left_Ant1

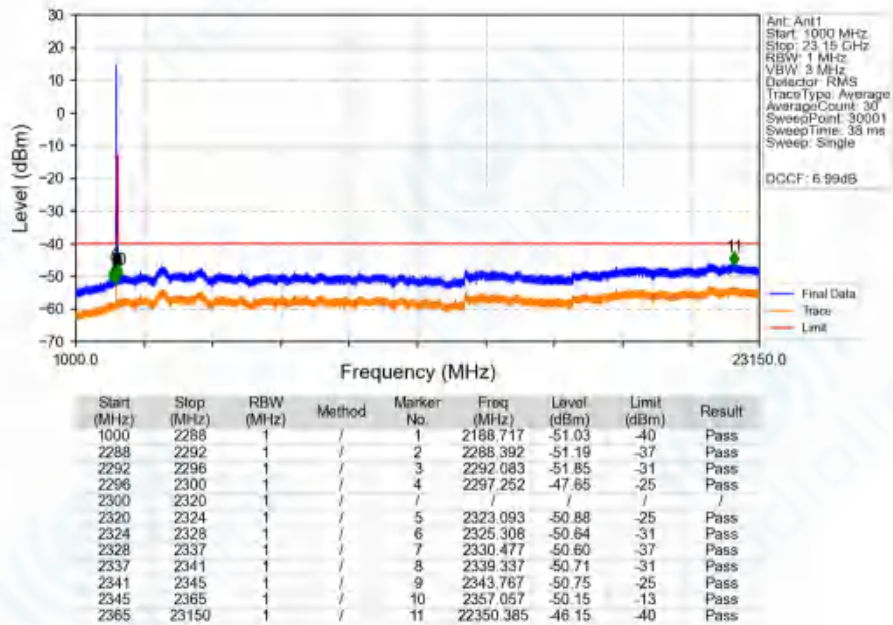


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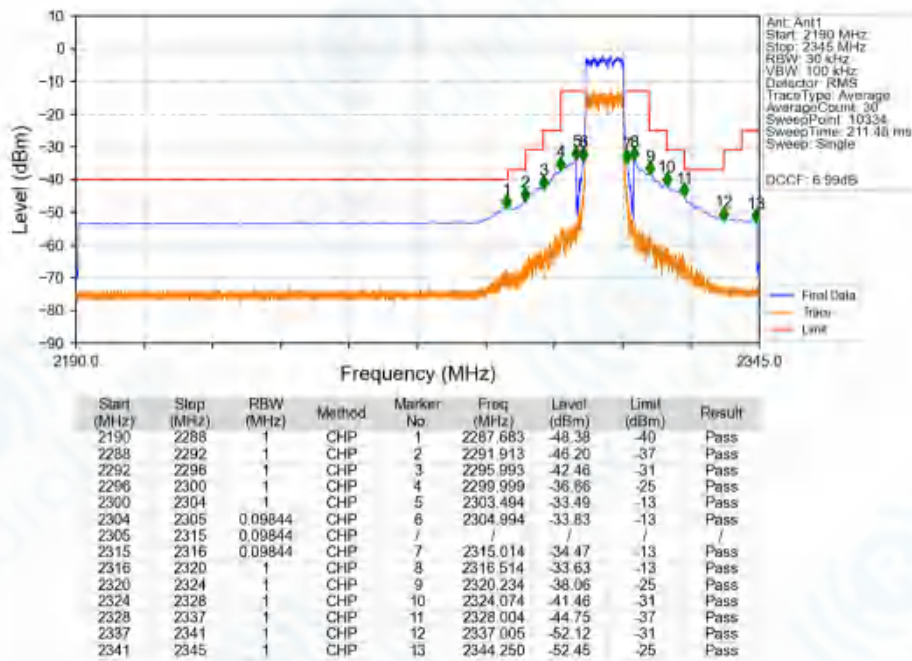
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n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Edge_1RB_Left_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Outer_Full_Ant1

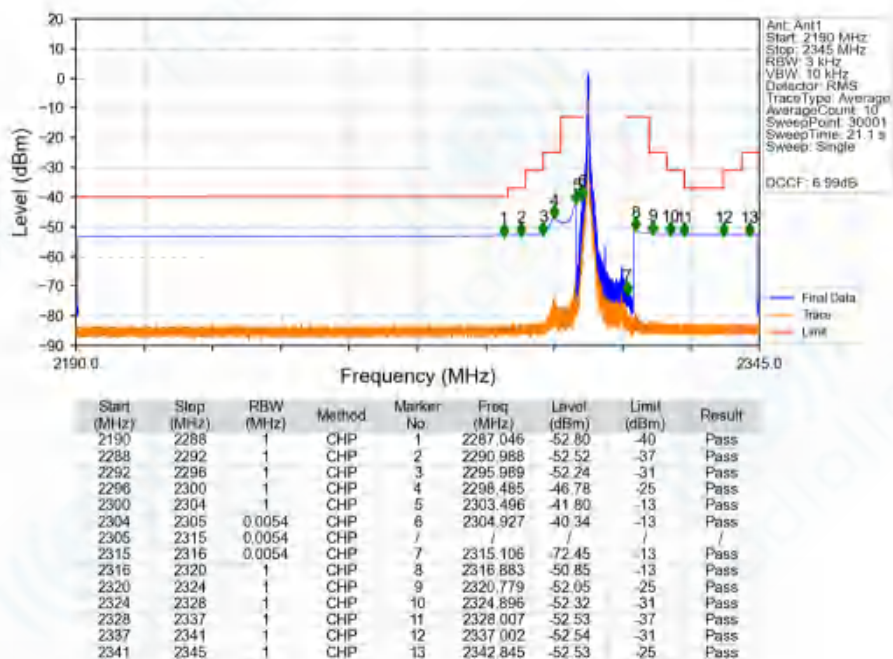


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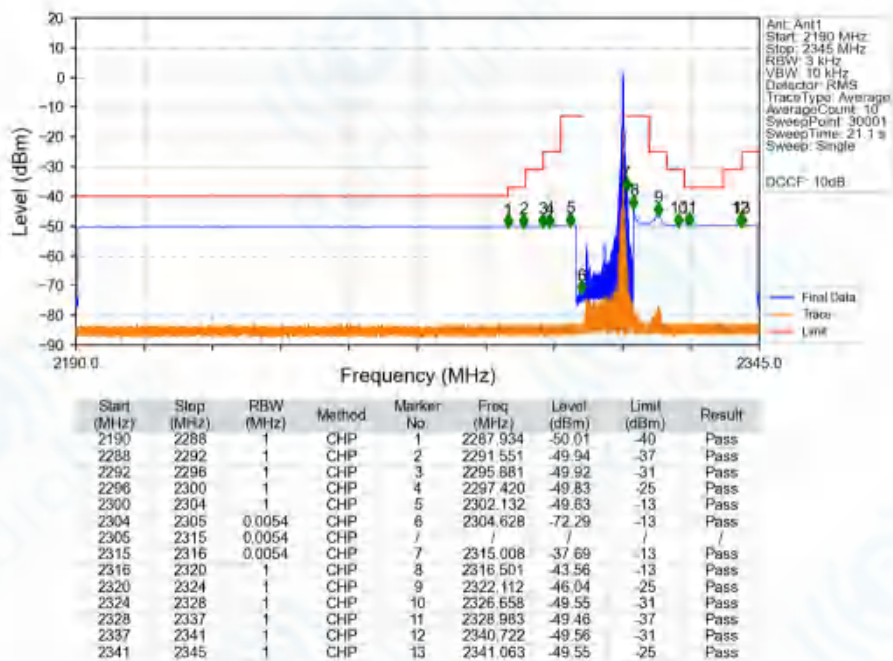
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n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Inner_1RB_Left_Ant1



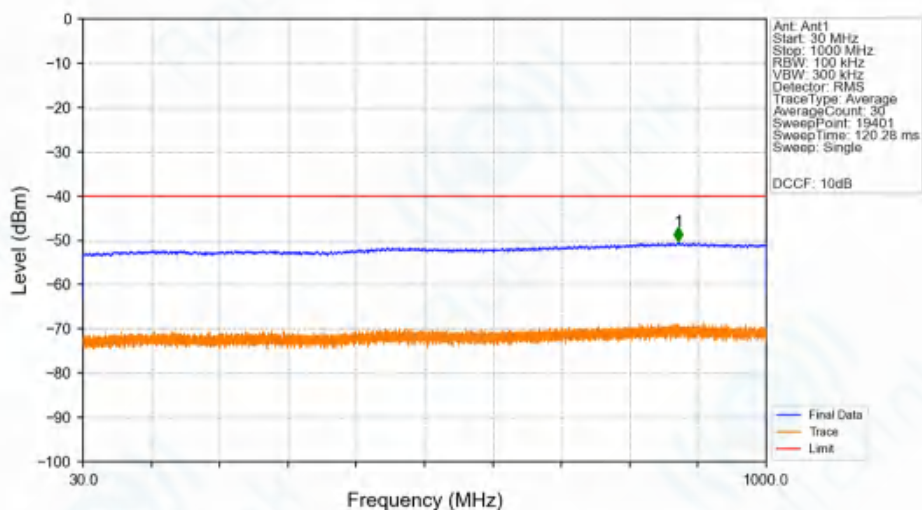
n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Edge_1RB_Right_Ant1



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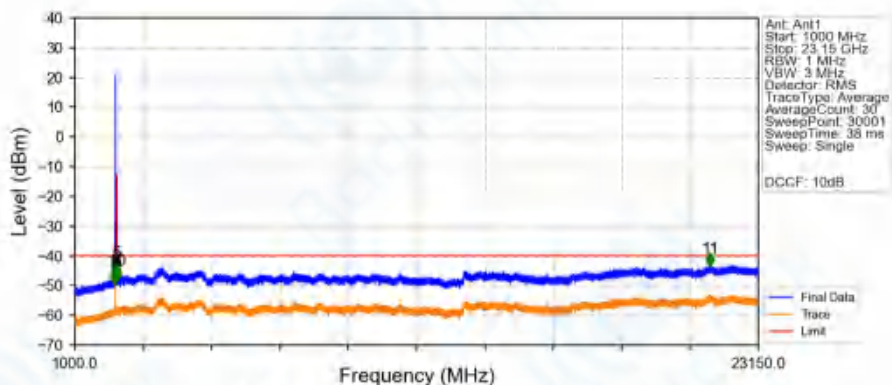
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n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Edge_1RB_Right_Ant1



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
30	1000	1	CHP	1	875.400	-50.26	-40	Pass

n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Edge_1RB_Right_Ant1

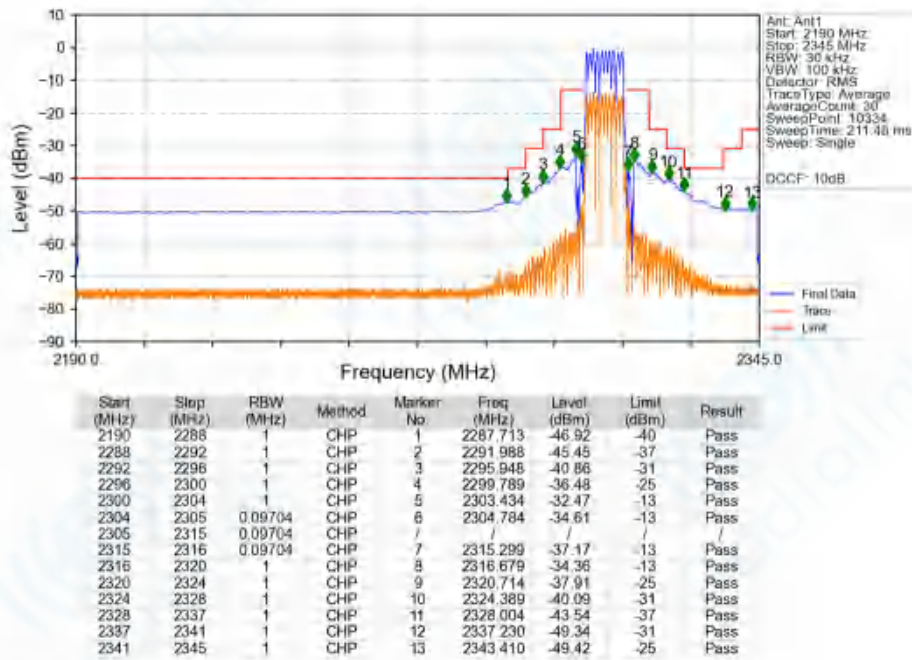


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1000	2288	1	/	1	2282.485	-47.97	-40	Pass
2288	2292	1	/	2	2288.392	-48.81	-37	Pass
2292	2296	1	/	3	2292.822	-48.43	-31	Pass
2296	2300	1	/	4	2298.728	-48.02	-25	Pass
2300	2320	1	/	/	/	/	/	/
2320	2324	1	/	5	2321.617	-44.54	-25	Pass
2324	2328	1	/	6	2326.785	-48.24	-31	Pass
2328	2337	1	/	7	2329.738	-47.30	-37	Pass
2337	2341	1	/	8	2337.122	-47.29	-31	Pass
2341	2345	1	/	9	2343.028	-48.01	-25	Pass
2345	2365	1	/	10	2364.440	-47.10	-13	Pass
2365	23150	1	/	11	21587.687	-43.07	-40	Pass

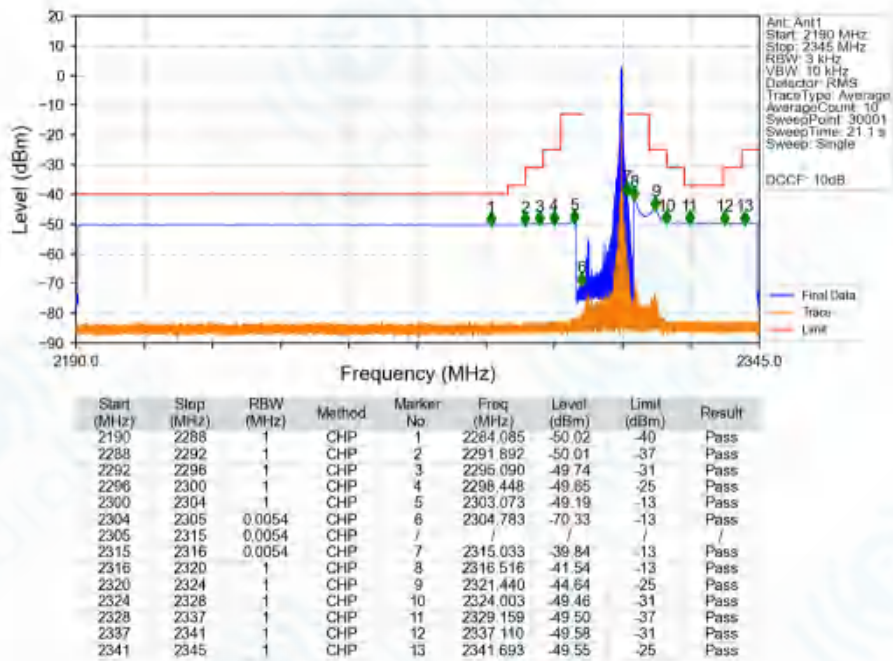
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n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Outer_Full_Ant1



n40a_30kHz_SISO_NTNV_10MHz_CP-OFDM_QPSK_2310MHz_Inner_1RB_Right_Ant1



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6. Frequency Stability (IC)

6.1 Test Result

6.1.1 30_S_10M

5G NR n40a SCS=30kHz SISO 10MHz								
Modulation	Frequency (MHz)	RB Allocation	Temp. (°C)	Volt.	OBW (FL - FH) (MHz)		Limit	Verdict
					FL	FH		
DFT-s-OFDM PI/2 BPSK	2310	Outer_Full	20	LV	2305.637	2314.366	2305 to 2315	Pass
				HV	2305.639	2314.381	2305 to 2315	Pass
			-30	NV	2305.643	2314.354	2305 to 2315	Pass
			-20	NV	2305.662	2314.400	2305 to 2315	Pass
			-10	NV	2305.674	2314.353	2305 to 2315	Pass
			0	NV	2305.631	2314.355	2305 to 2315	Pass
			10	NV	2305.662	2314.345	2305 to 2315	Pass
			20	NV	2305.651	2314.367	2305 to 2315	Pass
			30	NV	2305.643	2314.377	2305 to 2315	Pass
			40	NV	2305.662	2314.375	2305 to 2315	Pass
DFT-s-OFDM QPSK	2310	Outer_Full	20	LV	2305.625	2314.376	2305 to 2315	Pass
				HV	2305.639	2314.373	2305 to 2315	Pass
			-30	NV	2305.655	2314.370	2305 to 2315	Pass
			-20	NV	2305.651	2314.373	2305 to 2315	Pass
			-10	NV	2305.672	2314.398	2305 to 2315	Pass
			0	NV	2305.640	2314.350	2305 to 2315	Pass
			10	NV	2305.638	2314.364	2305 to 2315	Pass
			20	NV	2305.657	2314.349	2305 to 2315	Pass
			30	NV	2305.636	2314.377	2305 to 2315	Pass
			40	NV	2305.656	2314.375	2305 to 2315	Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	20	LV	2305.628	2314.352	2305 to 2315	Pass
				HV	2305.627	2314.352	2305 to 2315	Pass
			-30	NV	2305.620	2314.356	2305 to 2315	Pass
			-20	NV	2305.623	2314.352	2305 to 2315	Pass
			-10	NV	2305.632	2314.352	2305 to 2315	Pass
			0	NV	2305.615	2314.354	2305 to 2315	Pass
			10	NV	2305.646	2314.347	2305 to 2315	Pass
			20	NV	2305.644	2314.348	2305 to 2315	Pass
			30	NV	2305.623	2314.356	2305 to 2315	Pass
			40	NV	2305.626	2314.347	2305 to 2315	Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	20	LV	2305.653	2314.364	2305 to 2315	Pass
				HV	2305.660	2314.378	2305 to 2315	Pass
			-30	NV	2305.654	2314.380	2305 to 2315	Pass
			-20	NV	2305.651	2314.375	2305 to 2315	Pass
			-10	NV	2305.642	2314.363	2305 to 2315	Pass
			0	NV	2305.661	2314.371	2305 to 2315	Pass
			10	NV	2305.652	2314.369	2305 to 2315	Pass
			20	NV	2305.682	2314.364	2305 to 2315	Pass
			30	NV	2305.641	2314.374	2305 to 2315	Pass
			40	NV	2305.658	2314.352	2305 to 2315	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	20	LV	2305.594	2314.407	2305 to 2315	Pass
				HV	2305.602	2314.405	2305 to 2315	Pass
			-30	NV	2305.598	2314.402	2305 to 2315	Pass
			-20	NV	2305.618	2314.416	2305 to 2315	Pass
			-10	NV	2305.600	2314.415	2305 to 2315	Pass
			0	NV	2305.627	2314.420	2305 to 2315	Pass
			10	NV	2305.600	2314.393	2305 to 2315	Pass



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			20	NV	2305.613	2314.403	2305 to 2315	Pass
			30	NV	2305.621	2314.419	2305 to 2315	Pass
			40	NV	2305.659	2314.433	2305 to 2315	Pass
			50	NV	2305.643	2314.408	2305 to 2315	Pass
CP-OFDM QPSK	2310	Outer_Full	20	LV	2305.657	2314.346	2305 to 2315	Pass
				HV	2305.657	2314.330	2305 to 2315	Pass
			-30	NV	2305.645	2314.349	2305 to 2315	Pass
			-20	NV	2305.662	2314.347	2305 to 2315	Pass
			-10	NV	2305.667	2314.364	2305 to 2315	Pass
			0	NV	2305.647	2314.343	2305 to 2315	Pass
			10	NV	2305.661	2314.338	2305 to 2315	Pass
			20	NV	2305.641	2314.342	2305 to 2315	Pass
			30	NV	2305.645	2314.344	2305 to 2315	Pass
			40	NV	2305.650	2314.340	2305 to 2315	Pass
			50	NV	2305.647	2314.358	2305 to 2315	Pass
			20	LV	2305.637	2314.349	2305 to 2315	Pass
				HV	2305.614	2314.350	2305 to 2315	Pass
			-30	NV	2305.634	2314.358	2305 to 2315	Pass
CP-OFDM 16 QAM	2310	Outer_Full	-20	NV	2305.623	2314.345	2305 to 2315	Pass
			-10	NV	2305.644	2314.364	2305 to 2315	Pass
			0	NV	2305.605	2314.365	2305 to 2315	Pass
			10	NV	2305.629	2314.355	2305 to 2315	Pass
			20	NV	2305.635	2314.345	2305 to 2315	Pass
			30	NV	2305.623	2314.341	2305 to 2315	Pass
			40	NV	2305.633	2314.341	2305 to 2315	Pass
			50	NV	2305.611	2314.361	2305 to 2315	Pass
			20	LV	2305.640	2314.365	2305 to 2315	Pass
				HV	2305.640	2314.347	2305 to 2315	Pass
			-30	NV	2305.652	2314.338	2305 to 2315	Pass
			-20	NV	2305.651	2314.346	2305 to 2315	Pass
			-10	NV	2305.641	2314.337	2305 to 2315	Pass
			0	NV	2305.645	2314.331	2305 to 2315	Pass
CP-OFDM 64 QAM	2310	Outer_Full	10	NV	2305.657	2314.356	2305 to 2315	Pass
			20	NV	2305.644	2314.347	2305 to 2315	Pass
			30	NV	2305.644	2314.354	2305 to 2315	Pass
			40	NV	2305.644	2314.348	2305 to 2315	Pass
			50	NV	2305.643	2314.344	2305 to 2315	Pass
			20	LV	2305.656	2314.369	2305 to 2315	Pass
				HV	2305.650	2314.370	2305 to 2315	Pass
			-30	NV	2305.671	2314.377	2305 to 2315	Pass
			-20	NV	2305.648	2314.370	2305 to 2315	Pass
			-10	NV	2305.651	2314.376	2305 to 2315	Pass
			0	NV	2305.655	2314.375	2305 to 2315	Pass
			10	NV	2305.652	2314.347	2305 to 2315	Pass
			20	NV	2305.675	2314.349	2305 to 2315	Pass
			30	NV	2305.663	2314.379	2305 to 2315	Pass
CP-OFDM 256 QAM	2310	Outer_Full	40	NV	2305.657	2314.371	2305 to 2315	Pass
			50	NV	2305.666	2314.370	2305 to 2315	Pass



Radiolink Testing (Shenzhen) Co., Ltd.

Room 103, Building B, Jinghang Industrial Park, Area 71, Xingdong Community, Xin'an Subdistrict, Bao'an District,
Shenzhen, Guangdong Province, China
Tel: +86 0755 23080694