

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 30k_SISO_10MHz_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	21.71	/	/	19.51	/	/	<=23.98	Pass
		Edge_1RB_Right	21.51	/	/	19.31	/	/	<=23.98	Pass
		Outer_Full	21.50	/	/	19.30	/	/	<=23.98	Pass
		Inner_Full	21.25	/	/	19.05	/	/	<=23.98	Pass
		Inner_1RB_Left	21.36	/	/	19.16	/	/	<=23.98	Pass
		Inner_1RB_Right	21.55	/	/	19.35	/	/	<=23.98	Pass
DFT-s-OFDM QPSK	2310	Edge_1RB_Left	21.54	/	/	19.34	/	/	<=23.98	Pass
		Edge_1RB_Right	21.49	/	/	19.29	/	/	<=23.98	Pass
		Outer_Full	21.49	/	/	19.29	/	/	<=23.98	Pass
		Inner_Full	21.21	/	/	19.01	/	/	<=23.98	Pass
		Inner_1RB_Left	21.32	/	/	19.12	/	/	<=23.98	Pass
		Inner_1RB_Right	21.52	/	/	19.32	/	/	<=23.98	Pass
DFT-s-OFDM 16 QAM	2310	Edge_1RB_Left	19.72	/	/	17.52	/	/	<=23.98	Pass
		Edge_1RB_Right	19.68	/	/	17.48	/	/	<=23.98	Pass
		Outer_Full	19.69	/	/	17.49	/	/	<=23.98	Pass
		Inner_Full	20.07	/	/	17.87	/	/	<=23.98	Pass
		Inner_1RB_Left	19.94	/	/	17.74	/	/	<=23.98	Pass
		Inner_1RB_Right	20.18	/	/	17.98	/	/	<=23.98	Pass
DFT-s-OFDM 64 QAM	2310	Edge_1RB_Left	19.25	/	/	17.05	/	/	<=23.98	Pass
		Edge_1RB_Right	19.18	/	/	16.98	/	/	<=23.98	Pass
		Outer_Full	18.89	/	/	16.69	/	/	<=23.98	Pass
		Inner_Full	18.87	/	/	16.67	/	/	<=23.98	Pass
		Inner_1RB_Left	19.05	/	/	16.85	/	/	<=23.98	Pass
		Inner_1RB_Right	19.28	/	/	17.08	/	/	<=23.98	Pass
DFT-s-OFDM 256 QAM	2310	Edge_1RB_Left	17.63	/	/	15.43	/	/	<=23.98	Pass
		Edge_1RB_Right	17.54	/	/	15.34	/	/	<=23.98	Pass
		Outer_Full	17.62	/	/	15.42	/	/	<=23.98	Pass
		Inner_Full	17.41	/	/	15.21	/	/	<=23.98	Pass
		Inner_1RB_Left	17.41	/	/	15.21	/	/	<=23.98	Pass
		Inner_1RB_Right	17.61	/	/	15.41	/	/	<=23.98	Pass
CP-OFDM QPSK	2310	Edge_1RB_Left	21.19	/	/	18.99	/	/	<=23.98	Pass
		Edge_1RB_Right	21.31	/	/	19.11	/	/	<=23.98	Pass
		Outer_Full	21.23	/	/	19.03	/	/	<=23.98	Pass
		Inner_Full	21.08	/	/	18.88	/	/	<=23.98	Pass
		Inner_1RB_Left	21.13	/	/	18.93	/	/	<=23.98	Pass
		Inner_1RB_Right	21.33	/	/	19.13	/	/	<=23.98	Pass
CP-OFDM 16 QAM	2310	Edge_1RB_Left	18.35	/	/	16.15	/	/	<=23.98	Pass
		Edge_1RB_Right	18.31	/	/	16.11	/	/	<=23.98	Pass
		Outer_Full	18.42	/	/	16.22	/	/	<=23.98	Pass
		Inner_Full	18.82	/	/	16.62	/	/	<=23.98	Pass
		Inner_1RB_Left	18.70	/	/	16.50	/	/	<=23.98	Pass
		Inner_1RB_Right	18.92	/	/	16.72	/	/	<=23.98	Pass
CP-OFDM 64 QAM	2310	Edge_1RB_Left	18.23	/	/	16.03	/	/	<=23.98	Pass
		Edge_1RB_Right	18.21	/	/	16.01	/	/	<=23.98	Pass
		Outer_Full	17.90	/	/	15.70	/	/	<=23.98	Pass
		Inner_Full	18.80	/	/	16.60	/	/	<=23.98	Pass
		Inner_1RB_Left	19.08	/	/	16.88	/	/	<=23.98	Pass
		Inner_1RB_Right	19.31	/	/	17.11	/	/	<=23.98	Pass
CP-OFDM 256 QAM	2310	Edge_1RB_Left	15.72	/	/	13.52	/	/	<=23.98	Pass

		Edge 1RB Right	15.66	/	/	13.46	/	/	<=23.98	Pass
		Outer_Full	15.49	/	/	13.29	/	/	<=23.98	Pass
		Inner_Full	15.40	/	/	13.20	/	/	<=23.98	Pass
		Inner_1RB_Left	15.53	/	/	13.33	/	/	<=23.98	Pass
		Inner_1RB_Right	15.77	/	/	13.57	/	/	<=23.98	Pass
Note1: Antenna Gain: Ant1: -2.20dBi; Note2: EIRP=Conducted Power+Antenna Gain										

2. Frequency Stability

2.1 Test Result

2.1.1 30k_SISO_10MHz

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	-15.30	-0.0066	>=-2.5 & <=2.5	Pass
				HV	-17.30	-0.0075	>=-2.5 & <=2.5	Pass
			-30	NV	-16.50	-0.0071	>=-2.5 & <=2.5	Pass
			-20	NV	-19.60	-0.0085	>=-2.5 & <=2.5	Pass
			-10	NV	-15.60	-0.0068	>=-2.5 & <=2.5	Pass
			0	NV	-17.70	-0.0077	>=-2.5 & <=2.5	Pass
			10	NV	-16.10	-0.0070	>=-2.5 & <=2.5	Pass
			20	NV	-17.90	-0.0077	>=-2.5 & <=2.5	Pass
			30	NV	-19.10	-0.0083	>=-2.5 & <=2.5	Pass
			40	NV	-21.70	-0.0094	>=-2.5 & <=2.5	Pass
DFT-s-OFDM QPSK	2310	Outer_Full	20	LV	-19.50	-0.0084	>=-2.5 & <=2.5	Pass
				HV	-16.50	-0.0071	>=-2.5 & <=2.5	Pass
			-30	NV	-21.50	-0.0093	>=-2.5 & <=2.5	Pass
			-20	NV	-16.40	-0.0071	>=-2.5 & <=2.5	Pass
			-10	NV	-17.70	-0.0077	>=-2.5 & <=2.5	Pass
			0	NV	-17.00	-0.0074	>=-2.5 & <=2.5	Pass
			10	NV	-10.90	-0.0047	>=-2.5 & <=2.5	Pass
			20	NV	-19.20	-0.0083	>=-2.5 & <=2.5	Pass
			30	NV	-21.20	-0.0092	>=-2.5 & <=2.5	Pass
			40	NV	-4.00	-0.0017	>=-2.5 & <=2.5	Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	20	LV	-12.60	-0.0055	>=-2.5 & <=2.5	Pass
				HV	-12.20	-0.0053	>=-2.5 & <=2.5	Pass
			-30	NV	-12.20	-0.0053	>=-2.5 & <=2.5	Pass
			-20	NV	-20.60	-0.0089	>=-2.5 & <=2.5	Pass
			-10	NV	-10.50	-0.0045	>=-2.5 & <=2.5	Pass
			0	NV	-16.30	-0.0071	>=-2.5 & <=2.5	Pass
			10	NV	-22.60	-0.0098	>=-2.5 & <=2.5	Pass
			20	NV	-14.40	-0.0062	>=-2.5 & <=2.5	Pass
			30	NV	-13.50	-0.0058	>=-2.5 & <=2.5	Pass
			40	NV	-11.20	-0.0048	>=-2.5 & <=2.5	Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	20	LV	-15.40	-0.0067	>=-2.5 & <=2.5	Pass
				HV	-9.60	-0.0042	>=-2.5 & <=2.5	Pass
			-30	NV	-11.10	-0.0048	>=-2.5 & <=2.5	Pass
			-20	NV	-9.50	-0.0041	>=-2.5 & <=2.5	Pass
			-10	NV	-7.70	-0.0033	>=-2.5 & <=2.5	Pass
			0	NV	-17.10	-0.0074	>=-2.5 & <=2.5	Pass

			10	NV	-15.00	-0.0065	$>=-2.5 \ \& \ <=2.5$	Pass
			20	NV	-11.40	-0.0049	$>=-2.5 \ \& \ <=2.5$	Pass
			30	NV	-13.10	-0.0057	$>=-2.5 \ \& \ <=2.5$	Pass
			40	NV	-8.60	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
			50	NV	-15.70	-0.0068	$>=-2.5 \ \& \ <=2.5$	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	20	LV	-9.80	-0.0042	$>=-2.5 \ \& \ <=2.5$	Pass
				HV	-11.70	-0.0051	$>=-2.5 \ \& \ <=2.5$	Pass
			-30	NV	-15.90	-0.0069	$>=-2.5 \ \& \ <=2.5$	Pass
			-20	NV	-8.80	-0.0038	$>=-2.5 \ \& \ <=2.5$	Pass
			-10	NV	-13.00	-0.0056	$>=-2.5 \ \& \ <=2.5$	Pass
			0	NV	-7.50	-0.0032	$>=-2.5 \ \& \ <=2.5$	Pass
			10	NV	-12.80	-0.0055	$>=-2.5 \ \& \ <=2.5$	Pass
			20	NV	-20.20	-0.0087	$>=-2.5 \ \& \ <=2.5$	Pass
			30	NV	-13.60	-0.0059	$>=-2.5 \ \& \ <=2.5$	Pass
			40	NV	-15.50	-0.0067	$>=-2.5 \ \& \ <=2.5$	Pass
			50	NV	-12.50	-0.0054	$>=-2.5 \ \& \ <=2.5$	Pass
CP-OFDM QPSK	2310	Outer_Full	20	LV	-8.60	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
				HV	-10.10	-0.0044	$>=-2.5 \ \& \ <=2.5$	Pass
			-30	NV	-9.20	-0.0040	$>=-2.5 \ \& \ <=2.5$	Pass
			-20	NV	-7.10	-0.0031	$>=-2.5 \ \& \ <=2.5$	Pass
			-10	NV	-11.70	-0.0051	$>=-2.5 \ \& \ <=2.5$	Pass
			0	NV	-8.20	-0.0035	$>=-2.5 \ \& \ <=2.5$	Pass
			10	NV	-8.70	-0.0038	$>=-2.5 \ \& \ <=2.5$	Pass
			20	NV	-8.50	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
			30	NV	-7.30	-0.0032	$>=-2.5 \ \& \ <=2.5$	Pass
			40	NV	-7.60	-0.0033	$>=-2.5 \ \& \ <=2.5$	Pass
			50	NV	-8.40	-0.0036	$>=-2.5 \ \& \ <=2.5$	Pass
CP-OFDM 16 QAM	2310	Outer_Full	20	LV	-9.30	-0.0040	$>=-2.5 \ \& \ <=2.5$	Pass
				HV	-8.50	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
			-30	NV	-4.10	-0.0018	$>=-2.5 \ \& \ <=2.5$	Pass
			-20	NV	-7.50	-0.0032	$>=-2.5 \ \& \ <=2.5$	Pass
			-10	NV	-4.00	-0.0017	$>=-2.5 \ \& \ <=2.5$	Pass
			0	NV	-8.00	-0.0035	$>=-2.5 \ \& \ <=2.5$	Pass
			10	NV	-7.60	-0.0033	$>=-2.5 \ \& \ <=2.5$	Pass
			20	NV	-6.30	-0.0027	$>=-2.5 \ \& \ <=2.5$	Pass
			30	NV	-6.60	-0.0029	$>=-2.5 \ \& \ <=2.5$	Pass
			40	NV	-6.20	-0.0027	$>=-2.5 \ \& \ <=2.5$	Pass
			50	NV	-7.50	-0.0032	$>=-2.5 \ \& \ <=2.5$	Pass
CP-OFDM 64 QAM	2310	Outer_Full	20	LV	-8.60	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
				HV	-8.40	-0.0036	$>=-2.5 \ \& \ <=2.5$	Pass
			-30	NV	-7.70	-0.0033	$>=-2.5 \ \& \ <=2.5$	Pass
			-20	NV	-7.70	-0.0033	$>=-2.5 \ \& \ <=2.5$	Pass
			-10	NV	-9.10	-0.0039	$>=-2.5 \ \& \ <=2.5$	Pass
			0	NV	-7.70	-0.0033	$>=-2.5 \ \& \ <=2.5$	Pass
			10	NV	-8.30	-0.0036	$>=-2.5 \ \& \ <=2.5$	Pass
			20	NV	-8.50	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
			30	NV	-10.20	-0.0044	$>=-2.5 \ \& \ <=2.5$	Pass
			40	NV	-8.50	-0.0037	$>=-2.5 \ \& \ <=2.5$	Pass
			50	NV	-7.30	-0.0032	$>=-2.5 \ \& \ <=2.5$	Pass
CP-OFDM 256 QAM	2310	Outer_Full	20	LV	-7.90	-0.0034	$>=-2.5 \ \& \ <=2.5$	Pass
				HV	-6.40	-0.0028	$>=-2.5 \ \& \ <=2.5$	Pass
			-30	NV	-9.10	-0.0039	$>=-2.5 \ \& \ <=2.5$	Pass
			-20	NV	-4.30	-0.0019	$>=-2.5 \ \& \ <=2.5$	Pass
			-10	NV	-4.50	-0.0019	$>=-2.5 \ \& \ <=2.5$	Pass
			0	NV	-8.00	-0.0035	$>=-2.5 \ \& \ <=2.5$	Pass
			10	NV	-6.60	-0.0029	$>=-2.5 \ \& \ <=2.5$	Pass
			20	NV	-6.90	-0.0030	$>=-2.5 \ \& \ <=2.5$	Pass
			30	NV	-7.80	-0.0034	$>=-2.5 \ \& \ <=2.5$	Pass
			40	NV	-7.90	-0.0034	$>=-2.5 \ \& \ <=2.5$	Pass

			50	NV	-6.50	-0.0028	≥ -2.5 & ≤ 2.5	Pass
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3. Modulation Characteristics

3.1 Test Result

3.1.1 30k_SISO_10MHz_NTNV

5G NR n40a SCS=30kHz SISO 10MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Modulation Characteristics				Verdict
			Ant1	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Outer_Full	Refer To Test Graph				Pass
DFT-s-OFDM QPSK	2310	Outer_Full	Refer To Test Graph				Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	Refer To Test Graph				Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	Refer To Test Graph				Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	Refer To Test Graph				Pass
CP-OFDM QPSK	2310	Outer_Full	Refer To Test Graph				Pass
CP-OFDM 16 QAM	2310	Outer_Full	Refer To Test Graph				Pass
CP-OFDM 64 QAM	2310	Outer_Full	Refer To Test Graph				Pass
CP-OFDM 256 QAM	2310	Outer_Full	Refer To Test Graph				Pass

3.2 Test Graph

3.2.1 30k_SISO_10MHz_NTNV



n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 16 QAM 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.9483 Q 0.2961

Meas. Count : 3/ 3

Q

	Avg.	Max.	Min.
EVM	1.64	1.65	1.62 %(rms)
Peak Vector Error	15.35	16.06	14.77 %
Carrier Leakage	-39.94	-39.40	-40.51 dBc
IQ Imbalance	100.05	100.06	100.02 %(I/Q)

n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 64 QAM 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.4610 Q 0.7720

Meas. Count : 3/ 3

Q

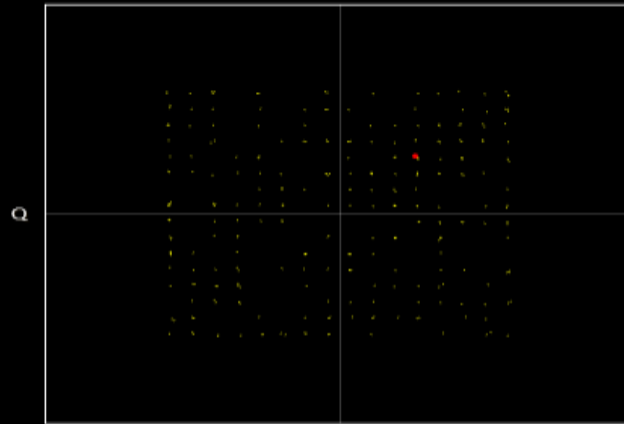
	Avg.	Max.	Min.
EVM	1.50	1.52	1.47 %(rms)
Peak Vector Error	7.85	8.33	6.91 %
Carrier Leakage	-41.28	-40.70	-41.82 dBc
IQ Imbalance	100.03	100.04	100.00 %(I/Q)

n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 256 QAM 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.5228 Q 0.5489

Meas. Count : 3/ 3



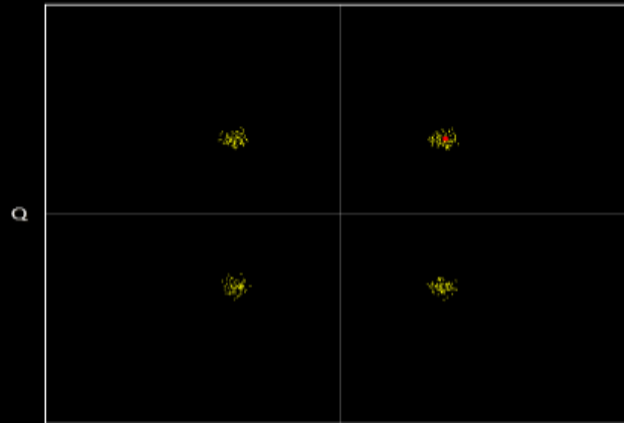
	Avg.	Max.	Min.
EVM	1.38	1.39	1.37 %(rms)
Peak Vector Error	6.64	8.30	5.75 %
Carrier Leakage	-51.09	-50.36	-51.53 dBc
IQ Imbalance	100.04	100.05	100.03 %(I/Q)

n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.7233 Q 0.7158

Meas. Count : 3/ 3



	Avg.	Max.	Min.
EVM	5.30	5.32	5.29 %(rms)
Peak Vector Error	15.70	15.97	15.16 %
Carrier Leakage	-43.93	-39.46	-54.63 dBc
IQ Imbalance	100.28	100.31	100.22 %(I/Q)

n40a 30kHz SISO NTN 10MHz CP-OFDM 16 QAM 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.9441 Q 0.3304

Meas. Count : 3/ 3

Q

	Avg.	Max.	Min.
EVM	1.86	1.88	1.83 %(rms)
Peak Vector Error	5.26	5.31	5.22 %
Carrier Leakage	-51.63	-50.15	-55.76 dBc
IQ Imbalance	100.10	100.16	100.04 %(I/Q)

n40a 30kHz SISO NTN 10MHz CP-OFDM 64 QAM 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.4725 Q 0.7706

Meas. Count : 3/ 3

Q

	Avg.	Max.	Min.
EVM	2.34	2.34	2.33 %(rms)
Peak Vector Error	9.13	9.52	8.92 %
Carrier Leakage	-45.76	-44.29	-46.85 dBc
IQ Imbalance	100.01	100.10	99.93 %(I/Q)

n40a 30kHz SISO NTN 10MHz CP-OFDM 256 QAM 2310MHz Outer Full Ant1

Fundamental > Constellation

0 subcarrier
I 0.5381 Q 0.5472

Meas. Count : 3/ 3

Q

I

	Avg.	Max.	Min.
EVM	1.55	1.60	1.51 %(rms)
Peak Vector Error	5.14	5.60	4.82 %
Carrier Leakage	-47.42	-43.84	-52.90 dBc
IQ Imbalance	100.04	100.07	100.00 %(I/Q)

4. 99% & 26dB Bandwidth

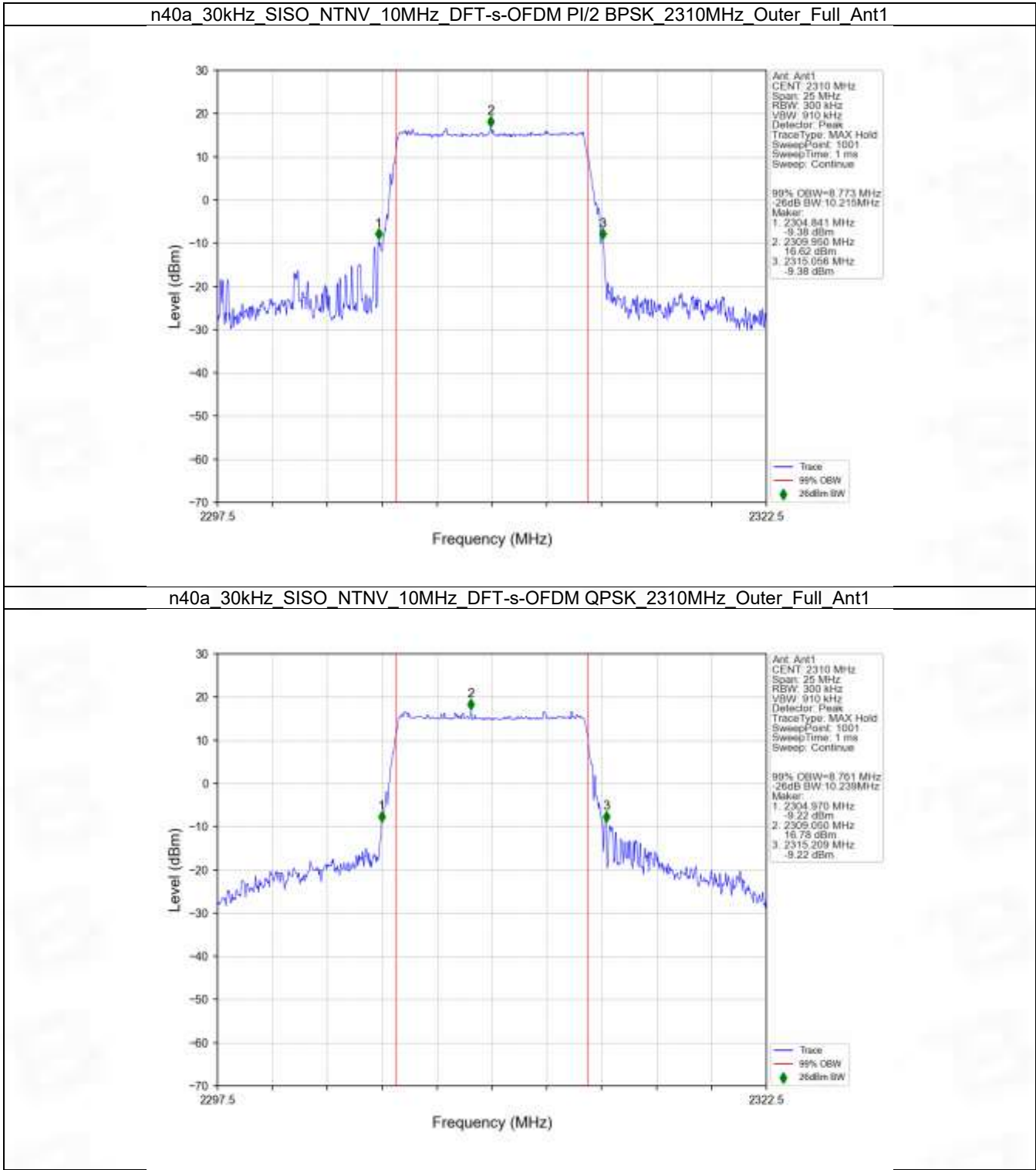
4.1 Test Result

4.1.1 30k_SISO_10MHz_NTNV

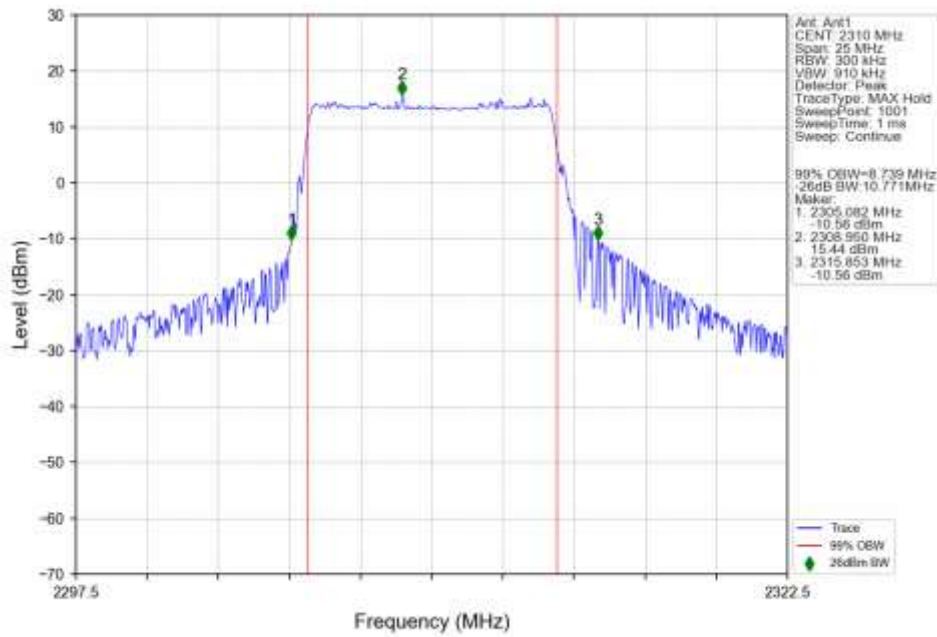
5G NR n40a SCS=30kHz SISO 10MHz NTN						
Modulation	Frequency (MHz)	RB Allocation	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
DFT-s-OFDM PI/2 BPSK	2310	Outer_Full	8.77	10.21	/	Pass
DFT-s-OFDM QPSK	2310	Outer_Full	8.76	10.24	/	Pass
DFT-s-OFDM 16 QAM	2310	Outer_Full	8.74	10.77	/	Pass
DFT-s-OFDM 64 QAM	2310	Outer_Full	8.77	9.95	/	Pass
DFT-s-OFDM 256 QAM	2310	Outer_Full	8.72	9.94	/	Pass
CP-OFDM QPSK	2310	Outer_Full	8.80	16.04	/	Pass
CP-OFDM 16 QAM	2310	Outer_Full	8.75	10.15	/	Pass
CP-OFDM 64 QAM	2310	Outer_Full	8.75	10.03	/	Pass
CP-OFDM 256 QAM	2310	Outer_Full	8.77	10.04	/	Pass

4.2 Test Graph

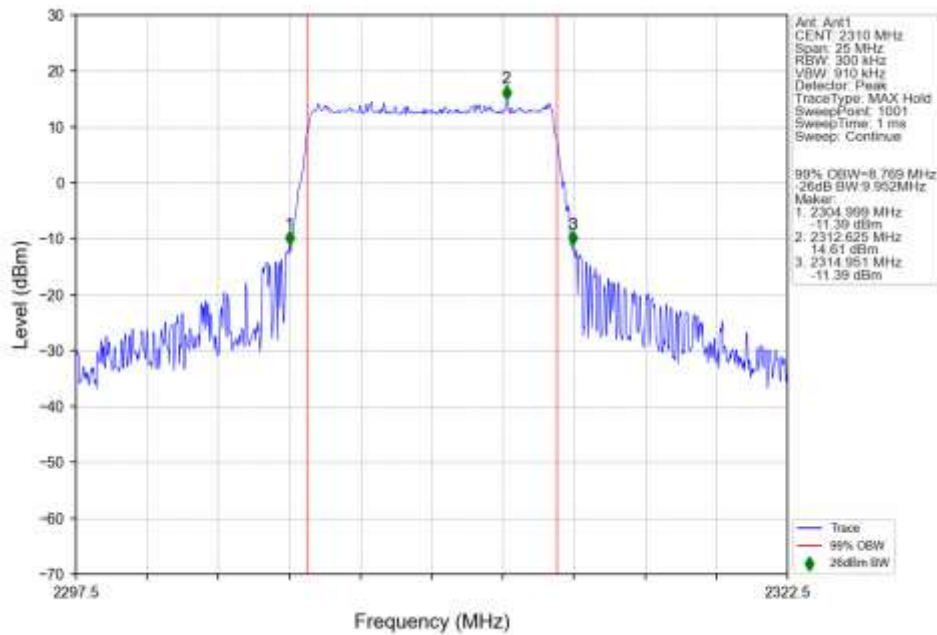
4.2.1 30k_SISO_10MHz_NTNV



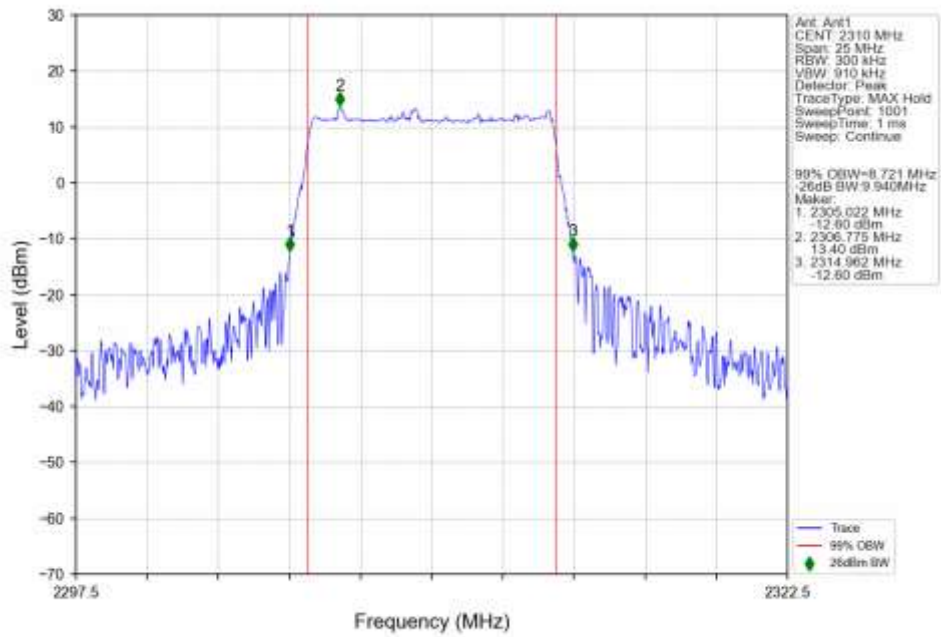
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 16 QAM 2310MHz Outer Full Ant1



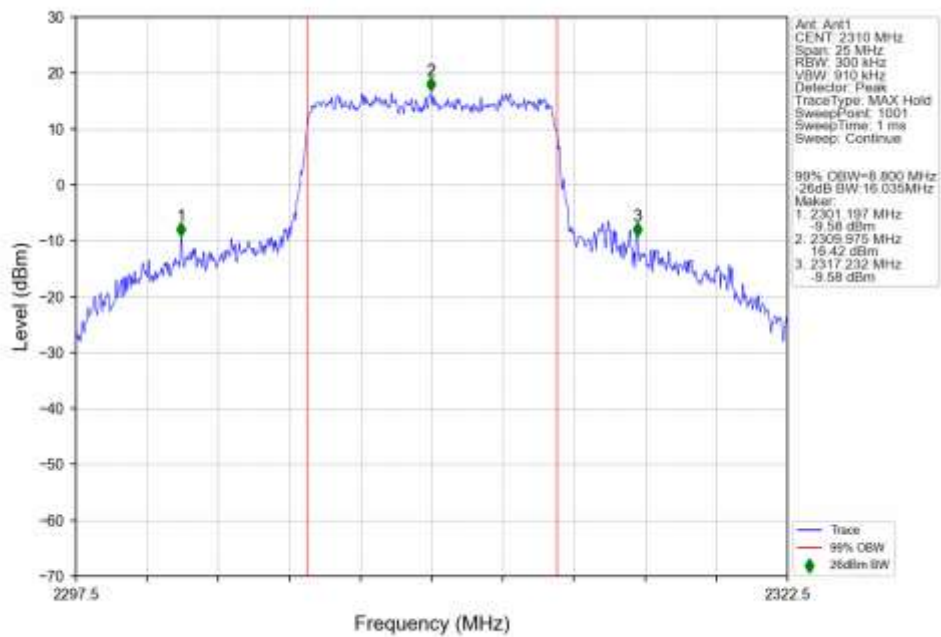
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 64 QAM 2310MHz Outer Full Ant1



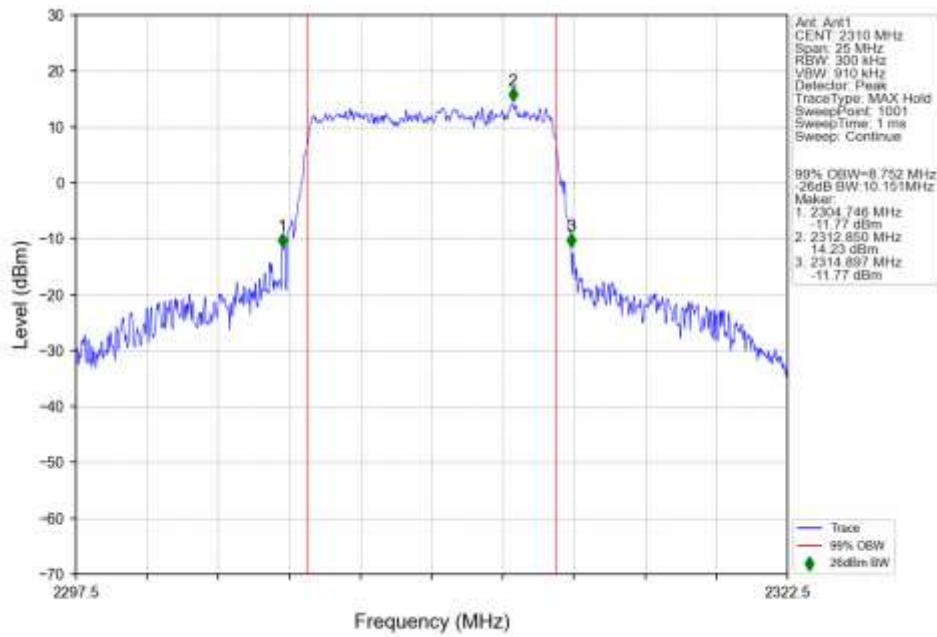
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 256 QAM 2310MHz Outer Full Ant1



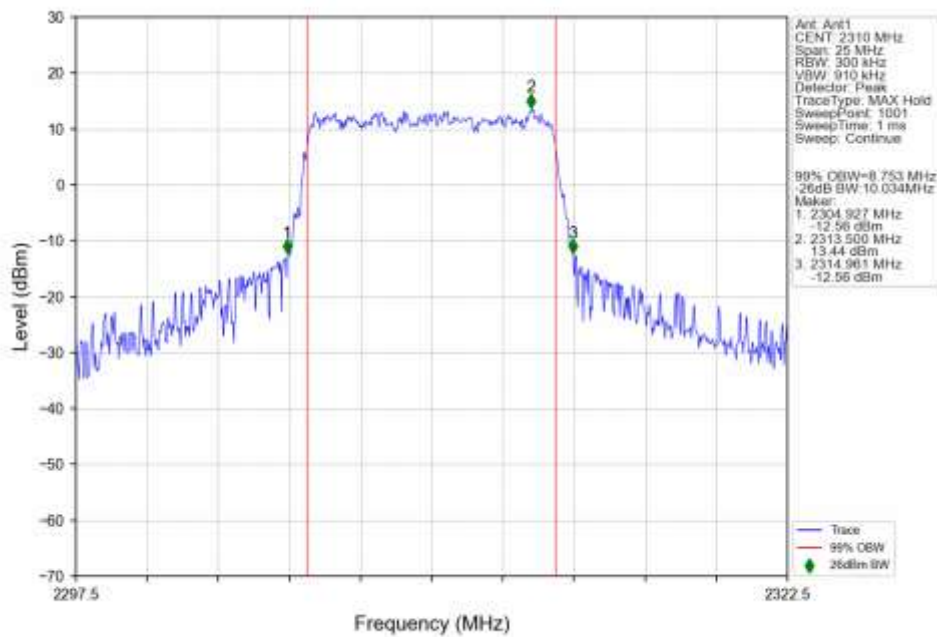
n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Outer Full Ant1



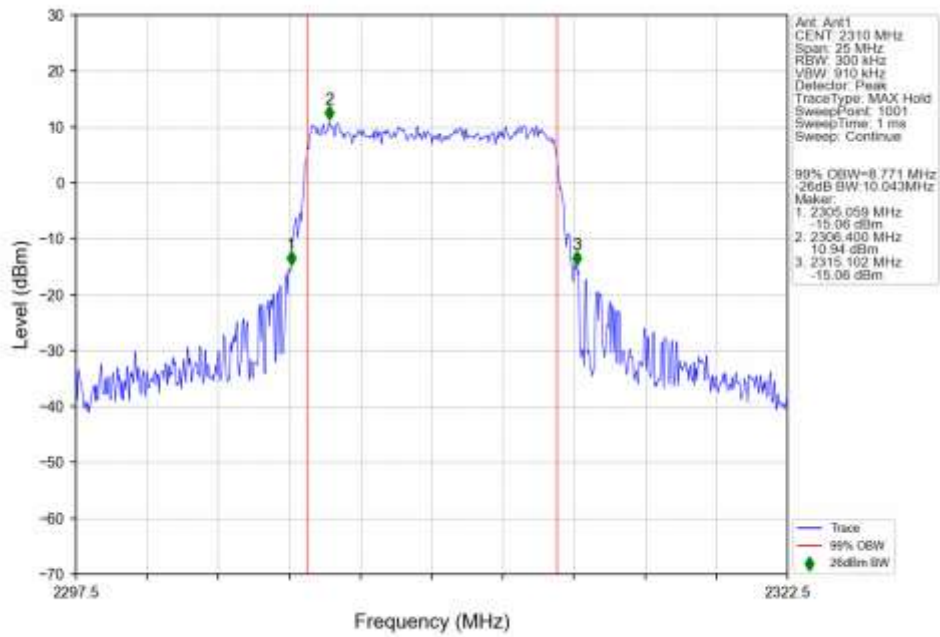
n40a 30kHz SISO NTN 10MHz CP-OFDM 16 QAM 2310MHz Outer Full Ant1



n40a 30kHz SISO NTN 10MHz CP-OFDM 64 QAM 2310MHz Outer Full Ant1



n40a 30kHz SISO NTN 10MHz CP-OFDM 256 QAM 2310MHz Outer Full Ant1



5. Peak-Average Ratio

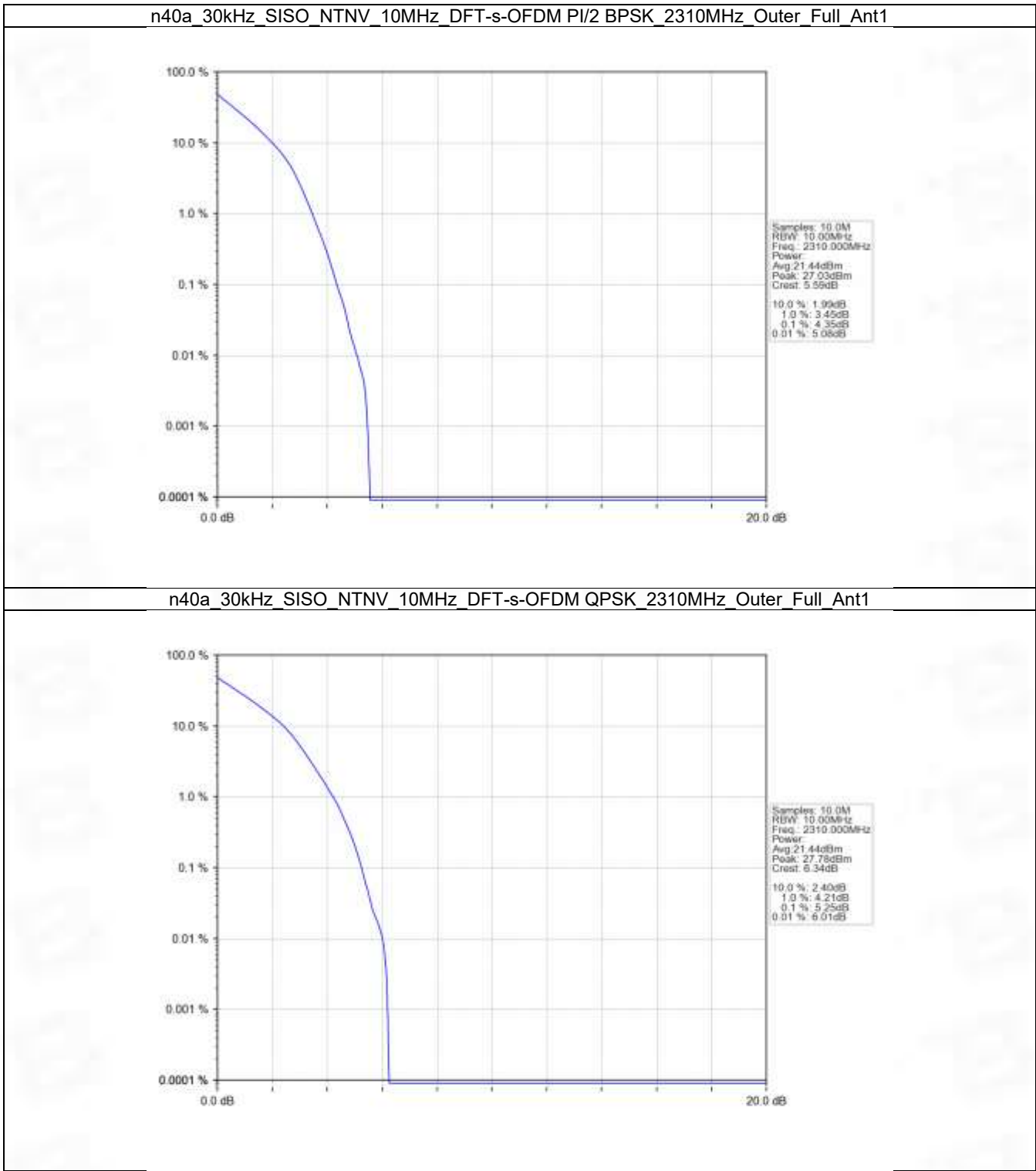
5.1 Test Result

5.1.1 30k_SISO_10MHz_NTNV

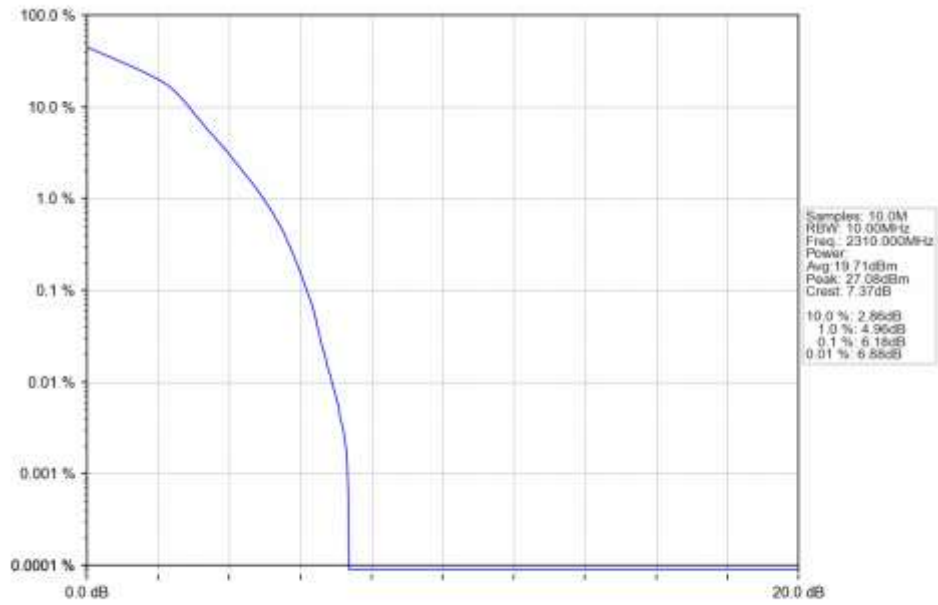
5G NR n40a SCS=30kHz SISO 10MHz NTN							
Modulation	Frequency (MHz)	RB Allocation	Peak-Average Ratio (dB)				Verdict
			Ant1	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Outer Full	4.35	/	/	<=13	Pass
DFT-s-OFDM QPSK	2310	Outer Full	5.25	/	/	<=13	Pass
DFT-s-OFDM 16 QAM	2310	Outer Full	6.18	/	/	<=13	Pass
DFT-s-OFDM 64 QAM	2310	Outer Full	6.51	/	/	<=13	Pass
DFT-s-OFDM 256 QAM	2310	Outer Full	6.73	/	/	<=13	Pass
CP-OFDM QPSK	2310	Outer Full	6.44	/	/	<=13	Pass
CP-OFDM 16 QAM	2310	Outer Full	7.84	/	/	<=13	Pass
CP-OFDM 64 QAM	2310	Outer Full	7.98	/	/	<=13	Pass
CP-OFDM 256 QAM	2310	Outer Full	8.36	/	/	<=13	Pass

5.2 Test Graph

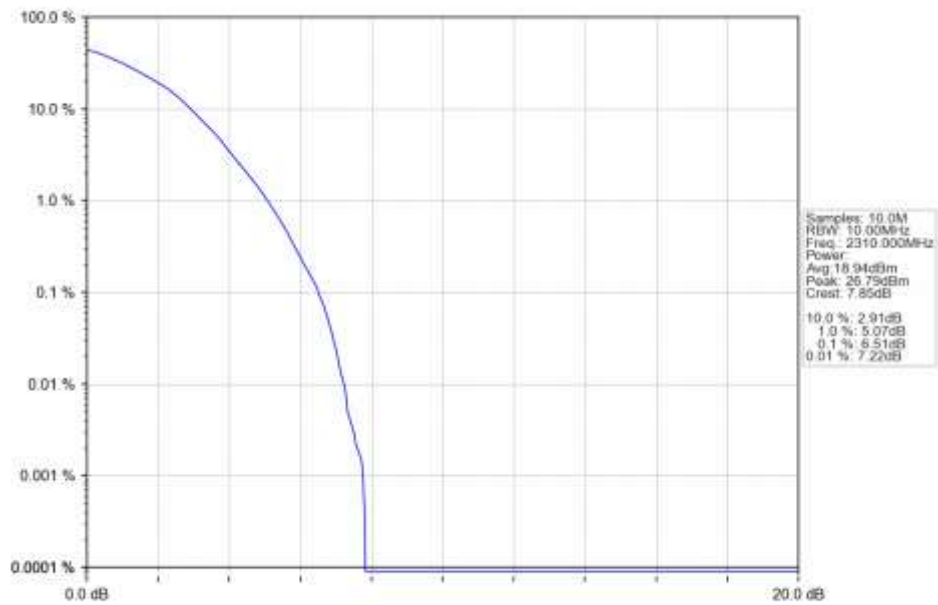
5.2.1 30k_SISO_10MHz_NTNV



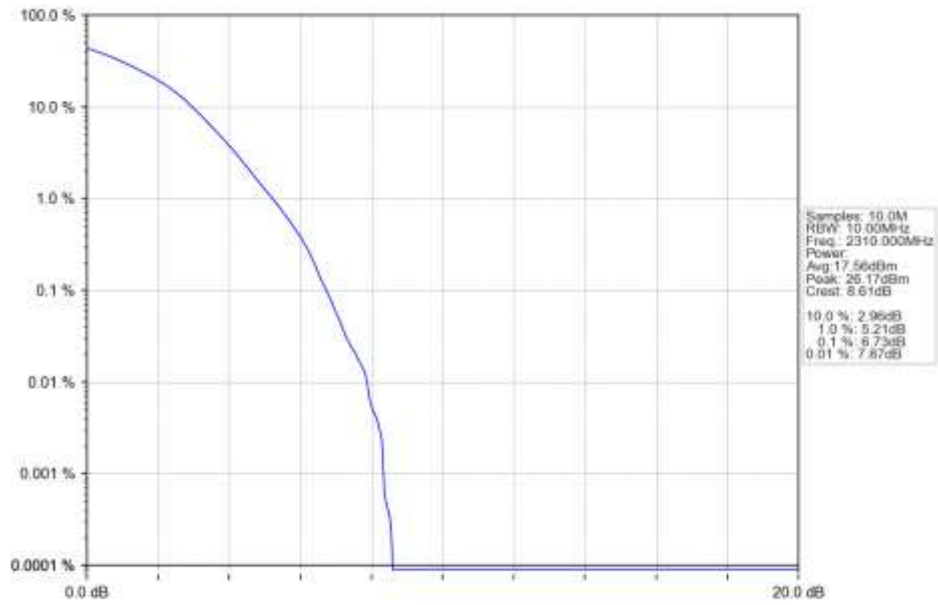
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 16 QAM 2310MHz Outer Full Ant1



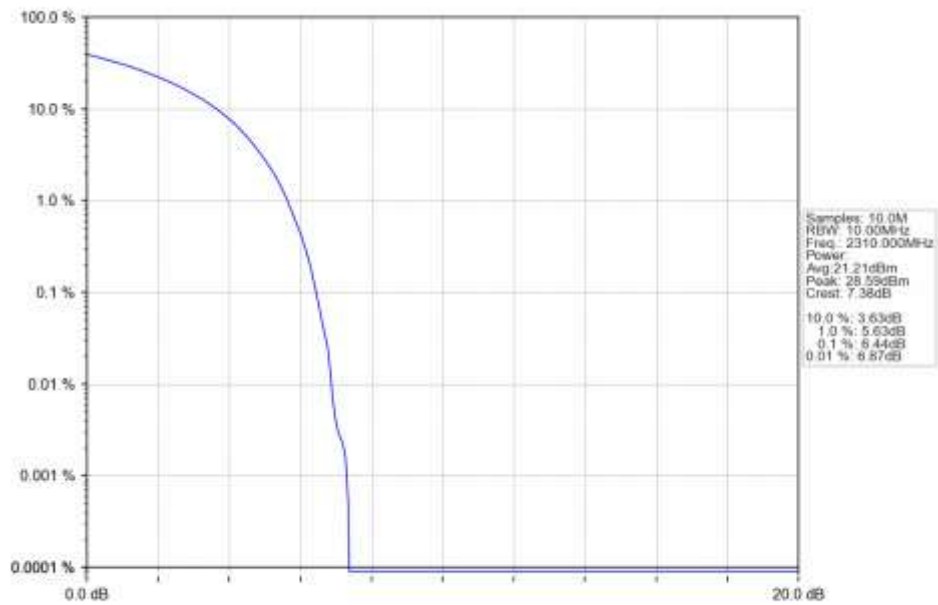
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 64 QAM 2310MHz Outer Full Ant1



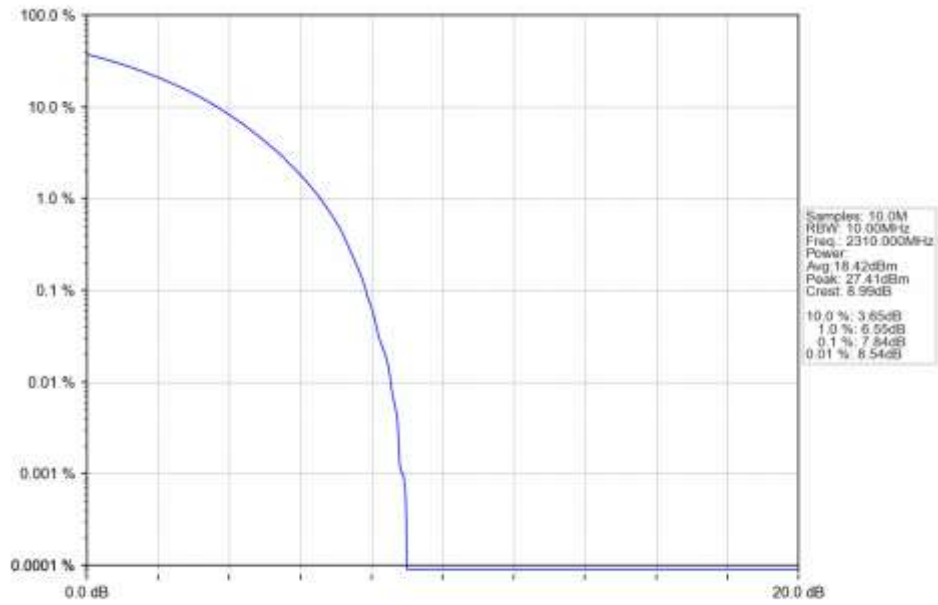
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM 256 QAM 2310MHz Outer Full Ant1



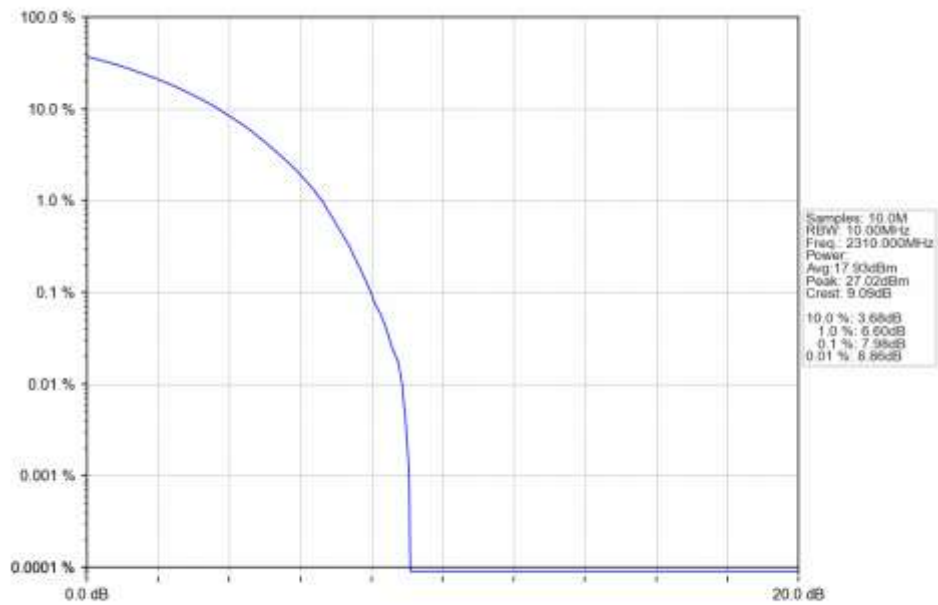
n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Outer Full Ant1



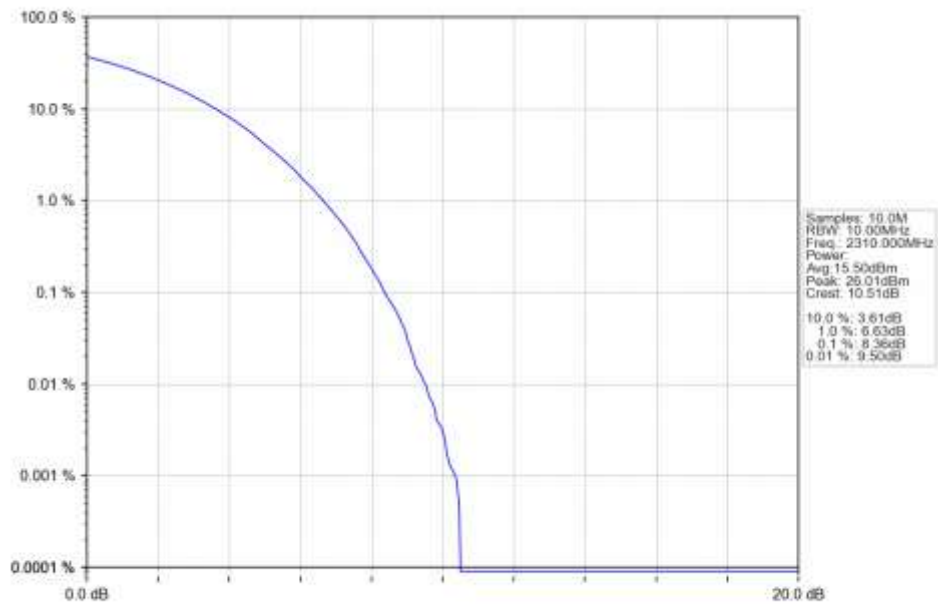
n40a 30kHz SISO NTN 10MHz CP-OFDM 16 QAM 2310MHz Outer Full Ant1



n40a 30kHz SISO NTN 10MHz CP-OFDM 64 QAM 2310MHz Outer Full Ant1



n40a 30kHz SISO NTN 10MHz CP-OFDM 256 QAM 2310MHz Outer Full Ant1



6. Spurious Emission

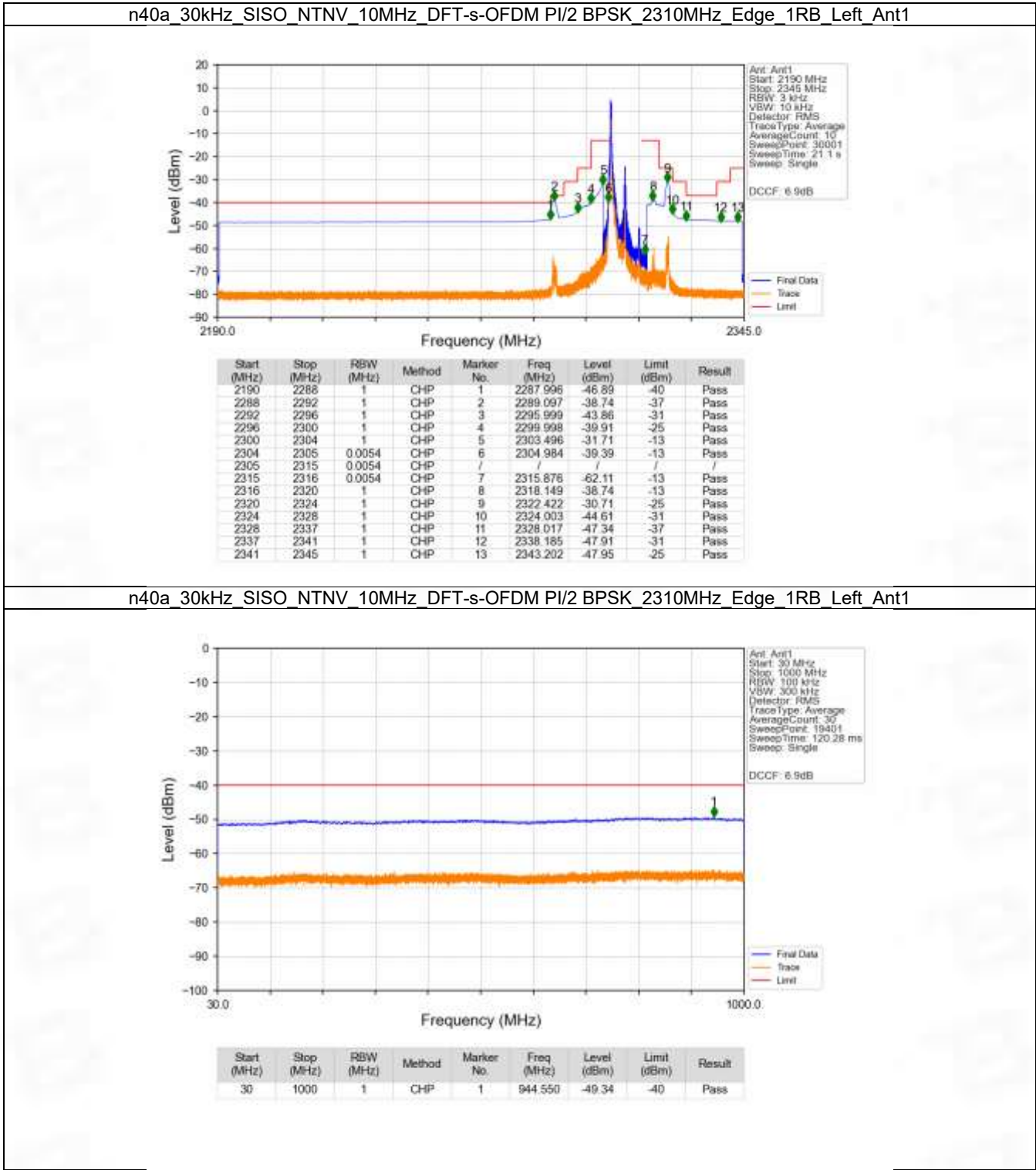
6.1 Test Result

6.1.1 30k_SISO_10MHz_NTNV

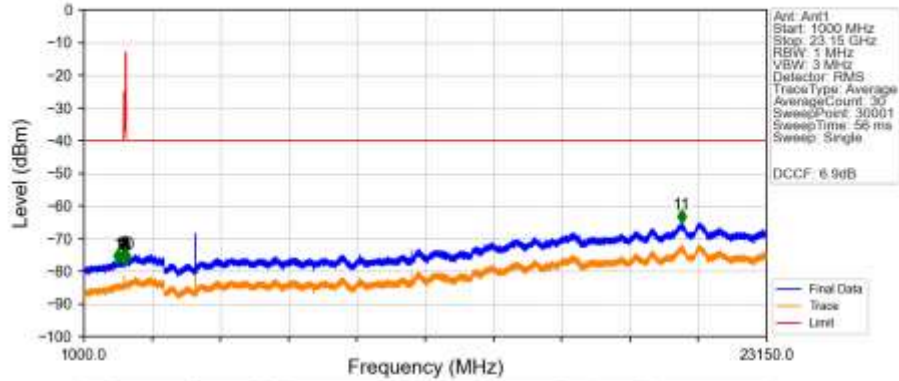
5G NR n40a SCS=30kHz SISO 10MHz NTNv							
Modulation	Frequency (MHz)	RB Allocation	Spurious Emission				Verdict
			Ant1	Ant2	Sum	Limit	
DFT-s-OFDM PI/2 BPSK	2310	Edge 1RB Left	Refer To Test Graph				Pass
		Outer Full	Refer To Test Graph				Pass
		Inner 1RB Left	Refer To Test Graph				Pass
DFT-s-OFDM 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
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

6.2 Test Graph

6.2.1 30k_SISO_10MHz_NTNV

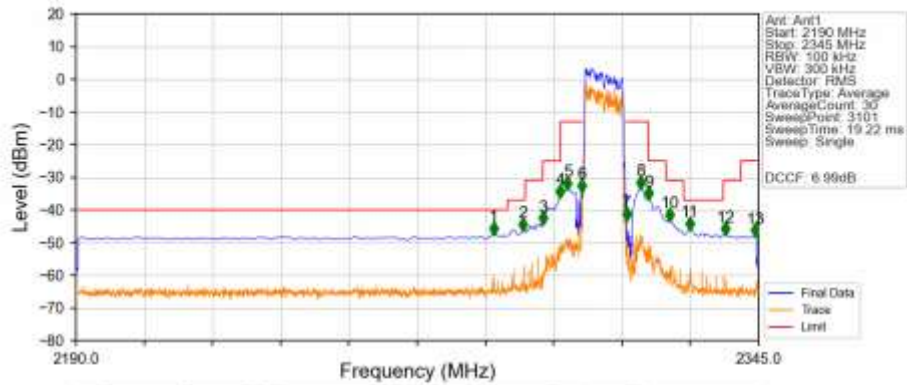


n40a 30kHz SISO NTN 10MHz DFT-s-OFDM PI/2 BPSK 2310MHz Edge 1RB Left Ant1



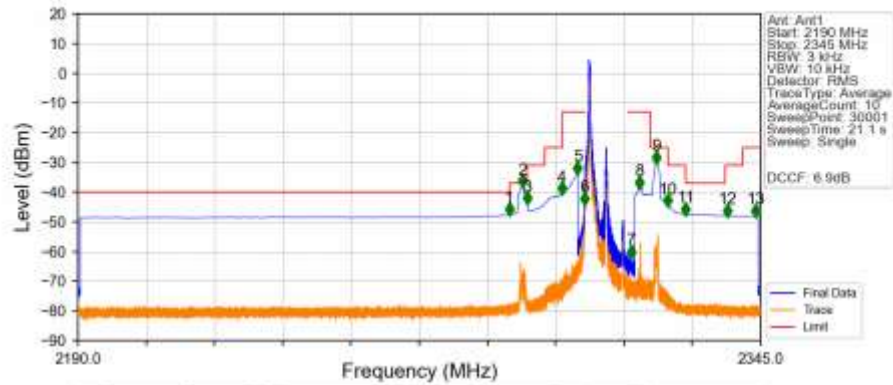
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1000	2288	1	/	1	2111.930	-76.78	-40	Pass
2288	2292	1	/	2	2291.345	-76.92	-37	Pass
2292	2296	1	/	3	2292.822	-76.96	-31	Pass
2296	2300	1	/	4	2299.467	-76.87	-25	Pass
2300	2320	1	/	/	/	/	/	/
2320	2324	1	/	5	2323.093	-77.54	-25	Pass
2324	2328	1	/	6	2324.570	-77.35	-31	Pass
2328	2337	1	/	7	2333.430	-76.55	-37	Pass
2337	2341	1	/	8	2338.598	-77.23	-31	Pass
2341	2345	1	/	9	2343.767	-77.17	-25	Pass
2345	2365	1	/	10	2354.103	-76.88	-13	Pass
2365	23150	1	/	11	20403.400	-64.84	-40	Pass

n40a 30kHz SISO NTN 10MHz DFT-s-OFDM PI/2 BPSK 2310MHz Outer Full Ant1

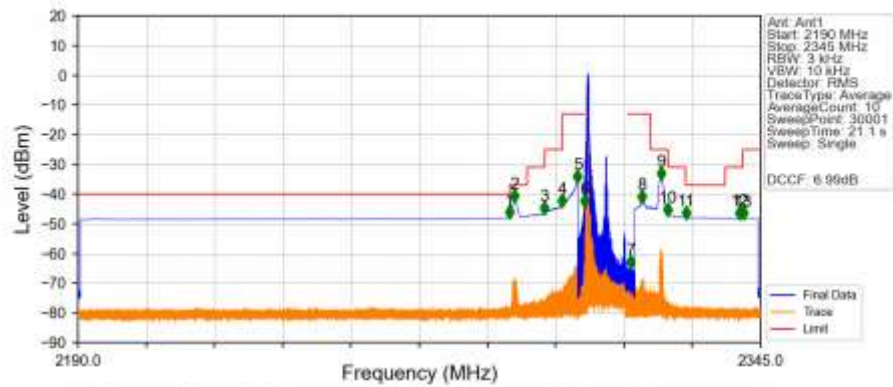


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
2190	2288	1	CHP	1	2284.850	-47.26	-40	Pass
2288	2292	1	CHP	2	2291.500	-46.01	-37	Pass
2292	2296	1	CHP	3	2296.000	-44.16	-31	Pass
2296	2300	1	CHP	4	2299.950	-35.86	-25	Pass
2300	2304	1	CHP	5	2301.650	-33.48	-13	Pass
2304	2305	0.10215	CHP	6	2304.950	-34.22	-13	Pass
2305	2315	0.10215	CHP	/	/	/	/	/
2315	2316	0.10215	CHP	7	2315.050	-42.80	-13	Pass
2316	2320	1	CHP	8	2318.200	-33.08	-13	Pass
2320	2324	1	CHP	9	2320.050	-36.50	-25	Pass
2324	2328	1	CHP	10	2324.900	-43.10	-31	Pass
2328	2337	1	CHP	11	2329.350	-45.70	-37	Pass
2337	2341	1	CHP	12	2337.500	-47.33	-31	Pass
2341	2345	1	CHP	13	2344.300	-47.82	-25	Pass

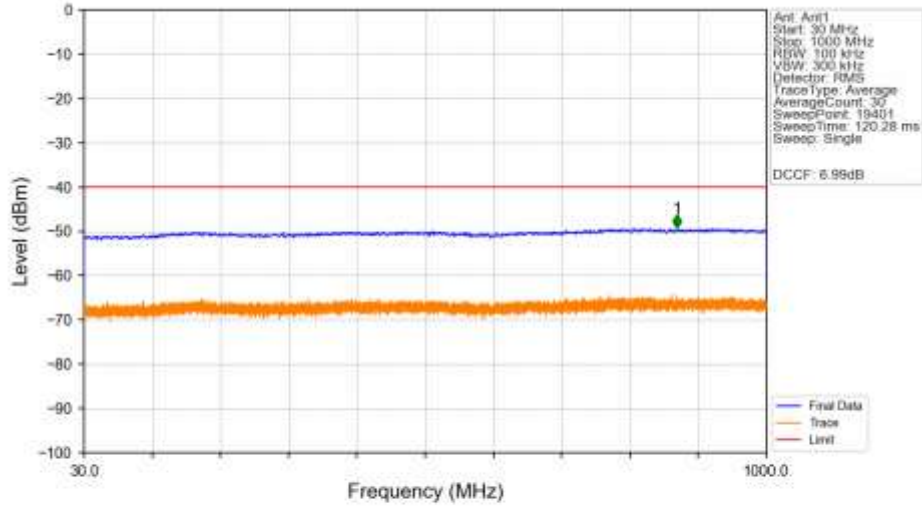
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM PI/2 BPSK 2310MHz Inner 1RB Left Ant1



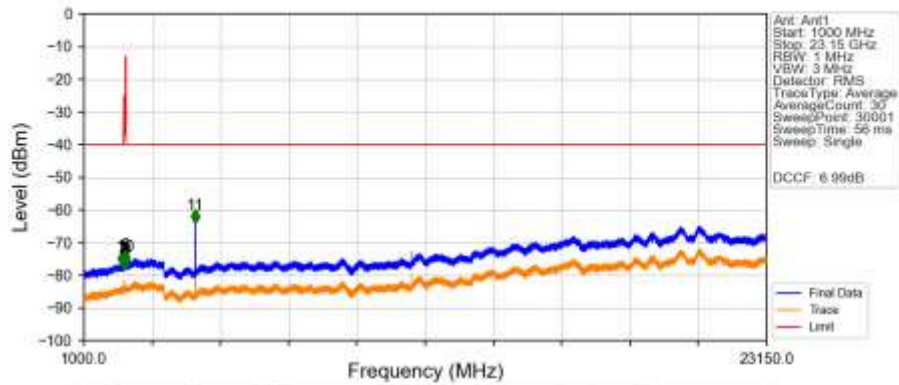
n40a 30kHz SISO NTN 10MHz DFT-s-OFDM QPSK 2310MHz Edge 1RB Left Ant1



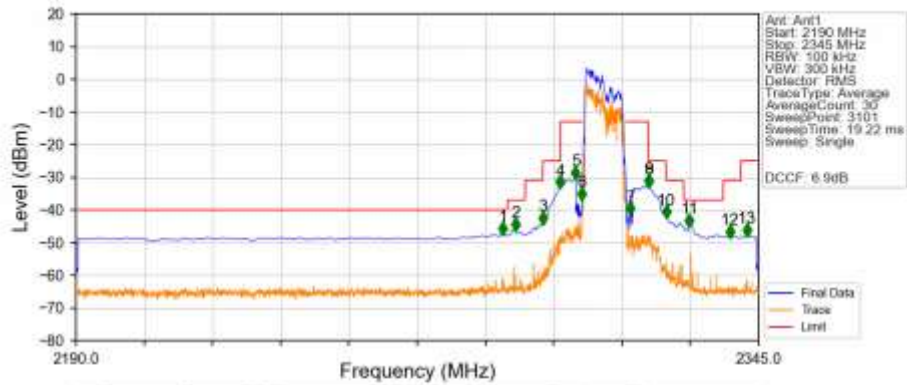
n40a 30kHz SISO NTV 10MHz DFT-s-OFDM QPSK 2310MHz Edge 1RB Left Ant1



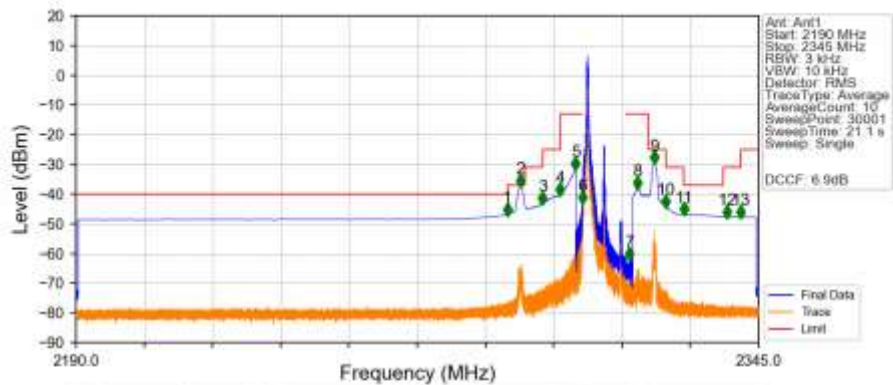
n40a 30kHz SISO NTV 10MHz DFT-s-OFDM QPSK 2310MHz Edge 1RB Left Ant1



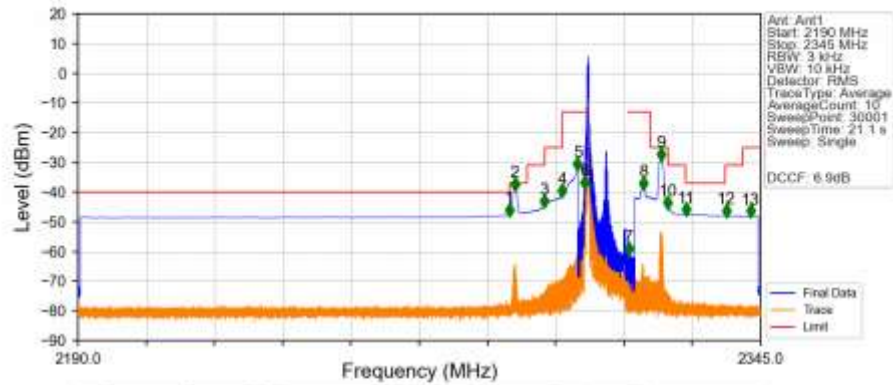
n40a 30kHz SISO NTV 10MHz DFT-s-OFDM QPSK 2310MHz Outer Full Ant1



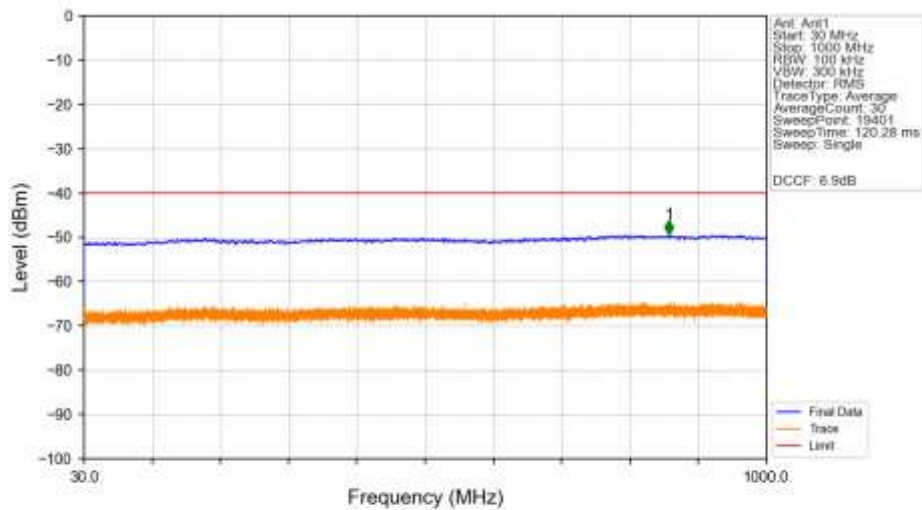
n40a 30kHz SISO NTV 10MHz DFT-s-OFDM QPSK 2310MHz Inner 1RB Left Ant1



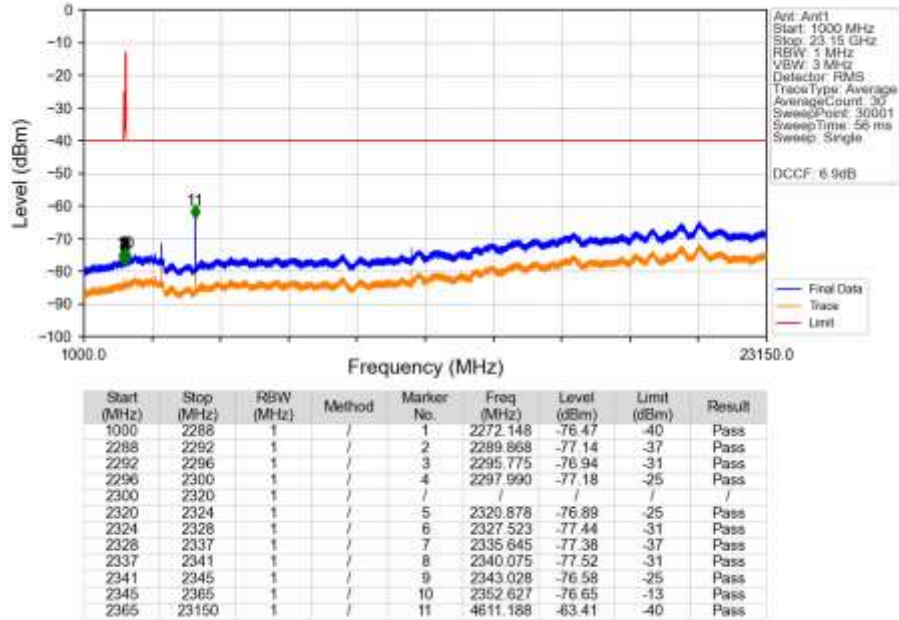
n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Edge 1RB Left Ant1



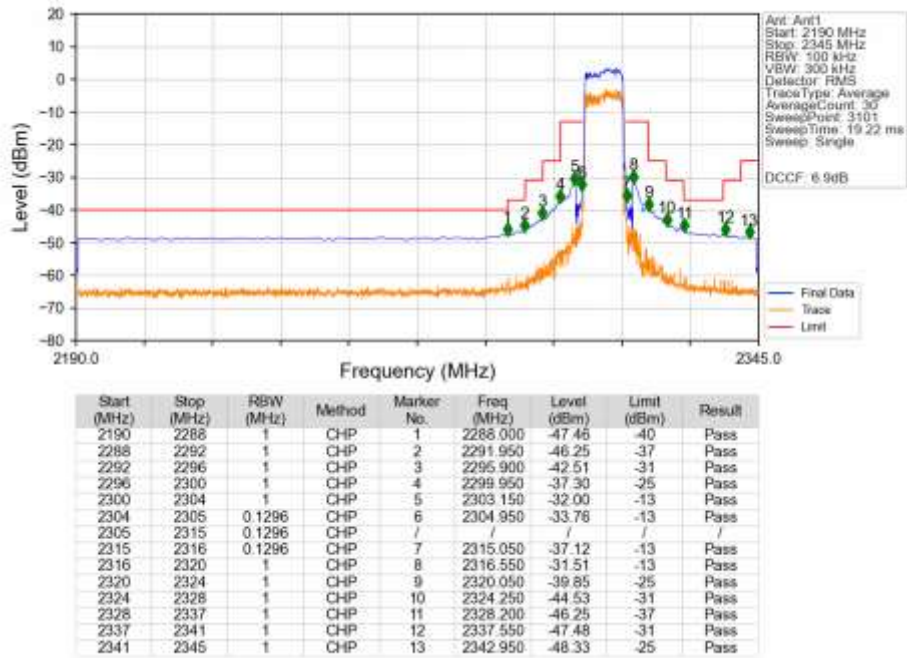
n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Edge 1RB Left Ant1



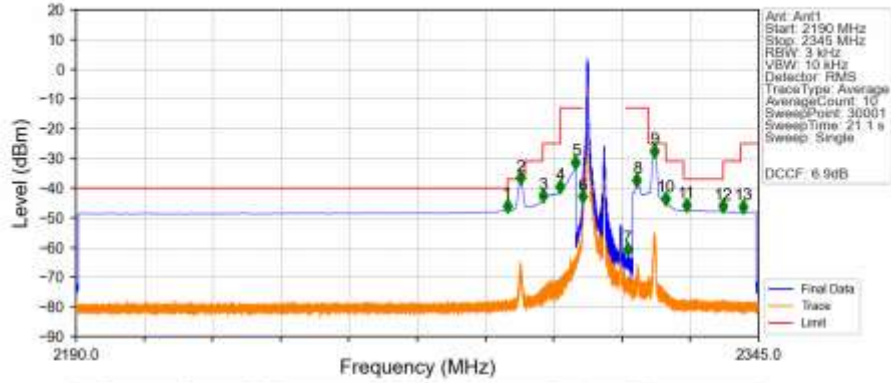
n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Edge 1RB Left Ant1



n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Outer Full Ant1



n40a 30kHz SISO NTN 10MHz CP-OFDM QPSK 2310MHz Inner 1RB Left Ant1



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
2190	2288	1	CHP	1	2287.991	-47.67	-40	Pass
2288	2292	1	CHP	2	2290.972	-38.32	-37	Pass
2292	2296	1	CHP	3	2295.999	-44.33	-31	Pass
2296	2300	1	CHP	4	2299.998	-41.17	-25	Pass
2300	2304	1	CHP	5	2303.496	-33.07	-13	Pass
2304	2305	0.0054	CHP	6	2305.000	-44.61	-13	Pass
2305	2315	0.0054	CHP	/	/	/	/	/
2315	2316	0.0054	CHP	7	2315.333	-62.42	-13	Pass
2316	2320	1	CHP	8	2317.415	-39.09	-13	Pass
2320	2324	1	CHP	9	2321.388	-29.28	-25	Pass
2324	2328	1	CHP	10	2324.003	-45.20	-31	Pass
2328	2337	1	CHP	11	2328.611	-47.46	-37	Pass
2337	2341	1	CHP	12	2337.017	-47.80	-31	Pass
2341	2345	1	CHP	13	2341.585	-48.04	-25	Pass

7. RSP-100

7.1 Test Result

7.1.1 Power

5G NR n40a									
Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
n40a	10	2310	2310	0.1483	-0.0094	ppm	8M80G7D	27D	21.71
				0.1042	-0.0098	ppm	8M77W7D	27D	20.18

7.1.2 EIRP

5G NR n40a									
Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
n40a	10	2310	2310	0.0893	-0.0094	ppm	8M80G7D	27D	19.51
				0.0628	-0.0098	ppm	8M77W7D	27D	17.98