

MPE TEST REPORT

Applicant Gosuncn Technology Group Co., Ltd.
FCC ID 2APNR-GR531NA
Product Router
Brand GOSUNCN
Model GR531-NA
Report No. EFTA25120112-IE-04-M1
Issue Date March 2, 2026

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC 47 CFR Part 1 §1.1310, §2.1091**. The test results show that the equipment tested can demonstrate compliance with the requirements as documented in this report.



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1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

1.3 Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 20%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Description of Equipment Under Test

Client Information

Applicant	Gosuncn Technology Group Co., Ltd.
Applicant address	6F, 2819 KaiChuang Blvd., Science Town, Huangpu District, Guangzhou City, Guangdong, China. 510530
Manufacturer	Gosuncn Technology Group Co., Ltd.
Manufacturer address	6F, 2819 KaiChuang Blvd., Science Town, Huangpu District, Guangzhou City, Guangdong, China. 510530

General Technologies

EUT Description			
Model	GR531-NA		
Lab Internal SN	251209-02-001		
Hardware Version	GR531-MB_N		
Software Version	GRX_1_NA_00_04_00		
Frequency	Band	TX (MHz)	RX (MHz)
	LTE Band 2	1850 ~ 1910	1930 ~ 1990
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 5	824 ~ 849	869 ~ 894
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 13	777 ~ 787	746 ~ 756
	LTE Band 25	1850 ~ 1915	1930 ~ 1995
	LTE Band 26	814 ~ 849	859 ~ 894
	LTE Band 66	1710 ~ 1780	2110 ~ 2180
	Wi-Fi 2.4G	2400 ~ 2483.5	2400 ~ 2483.5
	Wi-Fi 5GHz (U-NII-1)	5150 ~ 5250	5150 ~ 5250
	Wi-Fi 5GHz (U-NII-2A)	5250 ~ 5350	5250 ~ 5350
	Wi-Fi 5GHz (U-NII-2C)	5470 ~ 5725	5470 ~ 5725
	Wi-Fi 5GHz (U-NII-3)	5725~5850	5725~5850
EUT Accessory			
Adapter	Manufacturer: Shenzhen ABP Technology Co.,LTD Model: AD0181-1201500GB		
Date of Testing	December 23, 2025 ~ December 27, 2025		
Date of Sample Received	December 9, 2025		
Note:			

1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.
2. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

3 Maximum Tune up and Antenna Gain

The numeric gain (G) of the antenna with a gain specified in dB is determined by

$$\text{Numeric gain (G)} = 10^{(\text{antenna gain}/10)}$$

Band	Maximum Tune up Tolerance		Antenna Gain (dBi)	Numeric Gain
	(dBm)	(mW)		
LTE Band 2	24.00	251.19	3.65	2.32
LTE Band 4	24.00	251.19	3.63	2.31
LTE Band 5	24.00	251.19	3.34	2.16
LTE Band 12	24.00	251.19	2.01	1.59
LTE Band 13	24.00	251.19	4.60	2.88
LTE Band 25	24.00	251.19	3.65	2.32
LTE Band 26	24.00	251.19	3.34	2.16
LTE Band 66	24.00	251.19	3.63	2.31
Wi-Fi 2.4G	17.00	50.12	3.18	2.08
Wi-Fi 5GHz (U-NII-1)	15.00	31.62	0.71	1.18
Wi-Fi 5GHz (U-NII-2A)	15.00	31.62	0.85	1.22
Wi-Fi 5GHz (U-NII-2C)	15.00	31.62	0.21	1.05
Wi-Fi 5GHz (U-NII-3)	15.00	31.62	1.26	1.34

4 MPE Limit

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) LIMITS FOR OCCUPATIONAL/CONTROLLED EXPOSURE				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

*f = frequency in MHz. * = Plane-wave equivalent power density.*

Note1. Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

Note2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The maximum permissible exposure for 300~1500 MHz is f/1500, for 1500~100,000MHz is 1.0. So

Band	The Maximum Permissible Exposure (mW/cm ²)
LTE Band 2	1.000
LTE Band 4	1.000
LTE Band 5	0.549
LTE Band 12	0.466
LTE Band 13	0.518
LTE Band 25	1.000
LTE Band 26	0.543
LTE Band 66	1.000
Wi-Fi 2.4GHz	1.000
Wi-Fi 5GHz	1.000

5 RF Exposure Evaluation Result

RF exposure evaluation method is based on KDB 447498 D01, this calculation is based on the conducted power, maximum power and antenna gain with provides the minimum separation distance. The formula shown below is from OET Bulletin 65 Edition 97-01 Per KDB 447498 D01:

$$S = PG / 4\pi R^2$$

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = Time-average maximum tune up procedure (in appropriate units, e.g., mW)

G = the numeric gain of the antenna

R = distance to the center of radiation of the antenna (20 cm = limit for MPE)

Band	Maximum Tune up (dBm)	Antenna Gain (dBi)	Maximum EIRP (dBm)	PG (mW)	Result (mW/cm ²)	Limit Value (mW/cm ²)	The MPE Ratio
LTE Band 2	24.000	3.650	27.650	582.103	0.116	1.000	0.116
LTE Band 4	24.000	3.630	27.630	579.429	0.115	1.000	0.115
LTE Band 5	24.000	3.340	27.340	542.001	0.108	0.549	0.196
LTE Band 12	24.000	2.010	26.010	399.025	0.079	0.466	0.170
LTE Band 13	24.000	4.600	28.600	724.436	0.144	0.518	0.278
LTE Band 25	24.000	3.650	27.650	582.103	0.116	1.000	0.116
LTE Band 26	24.000	3.340	27.340	542.001	0.108	0.543	0.199
LTE Band 66	24.000	3.630	27.630	579.429	0.115	1.000	0.115
Wi-Fi 2.4G	17.000	3.180	20.180	104.232	0.021	1.000	0.021
Wi-Fi 5GHz (U-NII-1)	15.000	0.710	15.710	37.239	0.007	1.000	0.007
Wi-Fi 5GHz (U-NII-2A)	15.000	0.850	15.850	38.459	0.008	1.000	0.008
Wi-Fi 5GHz (U-NII-2C)	15.000	0.210	15.210	33.189	0.007	1.000	0.007
Wi-Fi 5GHz (U-NII-3)	15.000	1.260	16.260	42.267	0.008	1.000	0.008

Note: R = 20cm

$\pi = 3.1416$

The MPE Ratio = Mac Result÷Limit Value

This device only supports simultaneous transmission via Wi-Fi 2.4GHz and Wi-Fi 5G and WWAN.

So, the simultaneous transmitting antenna max pairs as below:

TER = Wi-Fi 2.4GHz Antenna MPE Ratio + Wi-Fi 5GHz Antenna MPE Ratio + WWAN Antenna MPE Ratio = 0.021 + 0.008 + 0.278 = 0.307 < 1

So, the limit is kept.

Note: For this device, minimum separation distance is 20cm, even if calculations indicate MPE distance is less.

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

*****END OF REPORT *****