

MPE TEST REPORT

Applicant MOONS' Electric (Taicang) co., Ltd.
FCC ID 2BRS4-GPT4GHP93
Product Wireless Gateway
Brand MOONS'
Model GPT4GHP93
Report No. EFTA25120307-IE-03-M1
Issue Date January 28, 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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Table of Contents

1	Test Laboratory	3
1.1	Notes of the Test Report.....	3
1.2	Test Facility.....	3
1.3	Testing Location.....	3
1.4	Laboratory Environment	3
2	Description of Equipment Under Test	4
3	Maximum Tune up and Antenna Gain	5
4	MPE Limit.....	6
5	RF Exposure Evaluation Result.....	8
	ANNEX A: The EUT Appearance	9

1 Test Laboratory

1.1 Notes of the Test Report

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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	MOONS' Electric (Taicang) co., Ltd.
Applicant address	No.18, Yingang Road, Fuqiao Town, 215400 Taicang, Jiangsu Province, China
Manufacturer	MOONS' Electric (Taicang) co., Ltd.
Manufacturer address	No.18, Yingang Road, Fuqiao Town, 215400 Taicang, Jiangsu Province, China

General Technologies

EUT Description			
Model	GPT4GHP93		
Lab Internal SN	251225-07-001		
Hardware Version	V1		
Software Version	V1		
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 7	2500 ~ 2570	2620 ~ 2690
	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
	Wi-Fi 2.4G	2400 ~ 2483.5	2400 ~ 2483.5
	Bluetooth	2400 ~ 2483.5	2400 ~ 2483.5
	Sub-G	902 ~ 928	902 ~ 928
EUT Accessory			
SWITCHING POWER SUPPLY	Manufacturer: Changzhou Chuanglian Power Supply Technology Corporation Model: DPR-30-24		
Date of Testing	December 28, 2025 ~ January 20, 2026		
Date of Sample Received	December 25, 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	3.36	2.17
LTE Band 4	24.00	251.19	1.86	1.53
LTE Band 5	24.00	251.19	3.06	2.02
LTE Band 7	24.00	251.19	1.88	1.54
LTE Band 12	24.00	251.19	1.97	1.57
LTE Band 13	24.00	251.19	0.29	1.07
LTE Band 25	24.00	251.19	3.36	2.17
LTE Band 26	24.00	251.19	3.06	2.02
Wi-Fi 2.4G	21.00	125.89	3.44	2.21
Bluetooth	21.00	125.89	3.44	2.21
Sub-G	21.00	125.89	3.28	2.13

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 7	1.000
LTE Band 12	0.466
LTE Band 13	0.518
LTE Band 25	1.000
LTE Band 26	0.543
Wi-Fi 2.4G	1.000
Bluetooth	1.000
Sub-G	0.601

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	3.360	27.360	544.503	0.108	1.000	0.108
LTE Band 4	24.000	1.860	25.860	385.478	0.077	1.000	0.077
LTE Band 5	24.000	3.060	27.060	508.159	0.101	0.549	0.184
LTE Band 7	24.000	1.880	25.880	387.258	0.077	1.000	0.077
LTE Band 12	24.000	1.970	25.970	395.367	0.079	0.466	0.169
LTE Band 13	24.000	0.290	24.290	268.534	0.053	0.518	0.103
LTE Band 25	24.000	3.360	27.360	544.503	0.108	1.000	0.108
LTE Band 26	24.000	3.060	27.060	508.159	0.101	0.543	0.186
Wi-Fi 2.4G	21.000	3.440	24.440	277.971	0.055	1.000	0.055
Bluetooth	21.000	3.440	24.440	277.971	0.055	1.000	0.055
Sub-G	21.000	3.280	24.280	267.917	0.053	0.601	0.089
Note: R = 20cm $\pi = 3.1416$ The MPE Ratio = Mac Result÷Limit Value							

This device supports simultaneous transmission as following two combinations:

1. Wi-Fi 2.4GHz and WWAN and Sub-G.
2. Bluetooth and WWAN and Sub-G.

Accordingly, the maximum cumulative ratio of simultaneous transmitting antennas is calculated as follows:

$$\text{TER} = \text{Wi-Fi 2.4GHz Antenna MPE Ratio} + \text{WWAN Antenna MPE Ratio} + \text{Sub-G Antenna MPE Ratio} \\ = 0.055 + 0.184 + 0.089 = 0.328 < 1$$

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 *****