

Specifications

Customer's Part Number:

MOONS' Part Number:

4696355000XXX

Model:

GPT4GHP83

P/N:

A8625-02

CUSTOMER'S APPROVAL STAMP

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Please sign back after your approval. The specifications will come into force when we receive purchase order.

DWG.	CHK.	STANDARD	APPD.

Subject to change without notice

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History Version

Rev.	Date	Contents	ECO No.	DWG.	CHK.	APPR.
A0	2024-09-09	The first version		Jiabin.gu	Wanghui.yan	Yiping.lai

Subject to change without notice

1 DESCRIPTIONS

This wireless gateway connects the CMS (Central Management System) and node controllers, to enable versatile lighting control functionality includes on/off, dimming, scenes, scheduling, cloud-based and monitoring capabilities.

Flexible Communication Options: Supports cellular network, Ethernet and Wi-Fi connections for communication.

With Sub-GHz wireless communication, it ensures stable and reliable operation.

Display screen: a display screen allows seamless control of all lights with pre-set dimming levels for convenience and watch the configurations and status of gateway.

RGB support: support RGB scenes as well as dynamic scenes. Preloaded default scenes allow plug-and-play functionality without configuration.

Weather-Resistant Design: Built to withstand outdoor environments, ensuring reliability in all conditions.

In conjunction with an intuitive APP on Android or IOS can easily configure and trigger scenes for node controllers.



1.1 FEATURES

- Input voltage: 7~30VDC.
- Operating temperature:-20 to +60°C.
- Power consumption <20W.
- Transfer data between control center and nodes.
- An Ethernet interface for uplink data.
- A cellular RF module for data uplink.
- Built-in WIFI module for data uplink.
- An accord IEEE802.15.4-915 MHz standard wireless module for data downlink.
- Built-in Bluetooth module for configuration.
- Embedded communication encryption mechanism.
- Protection class: IP66.
- Certified by FCC and UL.
- Built-in mini-SIM (2FF) slot
- Support carrier bands around the world
- Warranty: 5 years standard.

2 CHARACTERISTICS

2.1 ELECTRICAL CHARACTERISTICS

At 20 °C, 50% RH, 100Kpa conditions.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
DC input voltage		7	24	30	VDC
DC input current	RMS	100	/	1000	mA
Power Dissipation	24V	0.5	3	20	W

2.2 OPERATING CONDITIONS

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating temperature		-20	/	+60	°C
Storage temperature	Indoor dry, well-ventilated place	-20	/	+70	°C
Relative humidity	No frost	10	/	95	%
Vibration		/	/	1	G
Packaging Impact	Drop	/	1	/	M
Ingress protection	Not Installed	/	IP66	/	
Warranty		/	5	/	Years

2.3 EMC

TYPE	Standard	Test level
Electrostatic discharge immunity	IEC61000-4-2	Level 2
RFEMS	IEC61000-4-3	Level 2
Electrical fast transient burst immunity	IEC61000-4-4	Level 3
Surge Immunity	IEC61000-4-5	Level 2
Conducted disturbances induced by RF field immunity	IEC61000-4-6	Level 2
Electromagnetic disturbance characteristics	EN62368, EN62311, EN301489, EN300220	

3 MECHANICAL DATA

3.1 DIMENSIONS

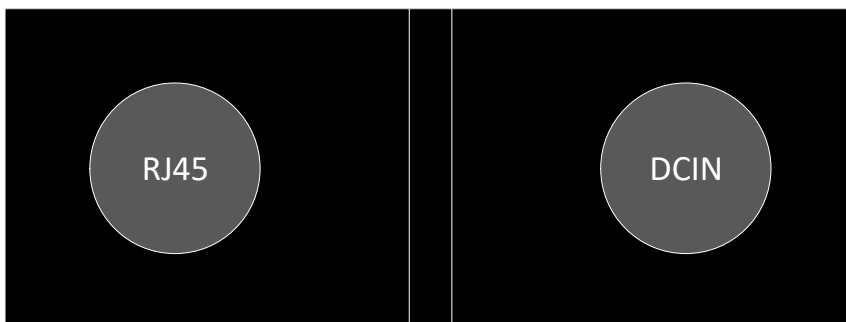
Ext. Dimensions:260 x 143 x 75 mm



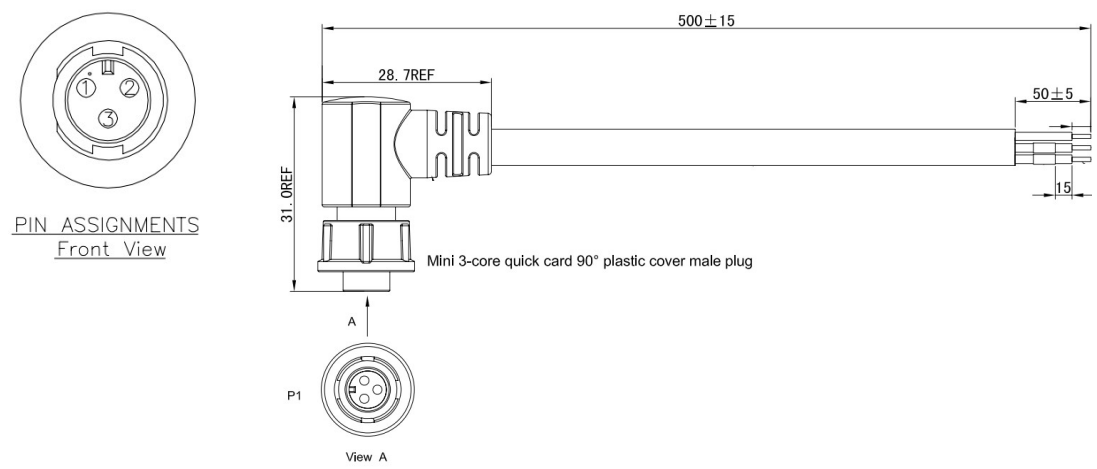
Weight: 446g

Size: 260*143*75mm

3.2 TERMINALS



3.3 DCIN INTERFACE & WIRING



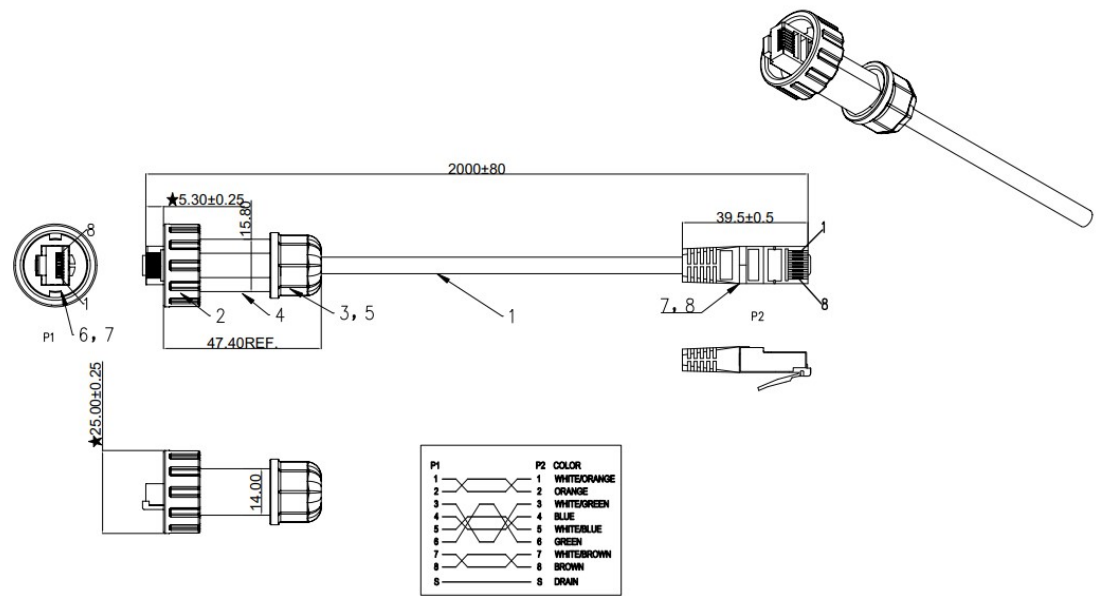
DCIN interfance

Wiring

Wiring Description

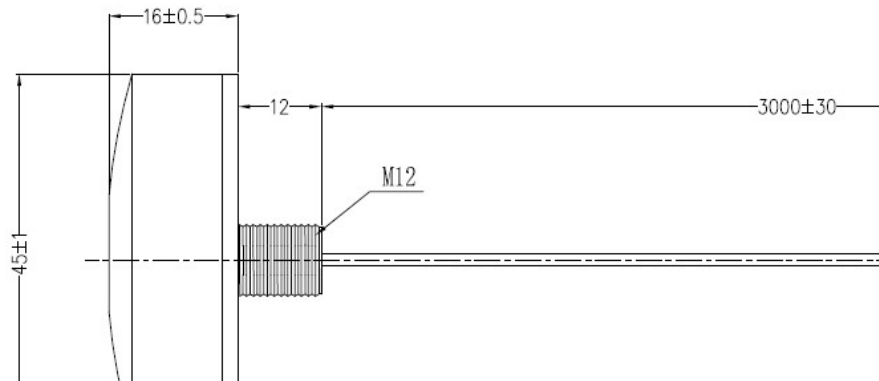
NO.	Color	Description
1	Yellow	NC
2	Purple	DC INPUT V+
3	Pink	DC INPUT GND

3.4 ETHERNET WIRING (RJ45)

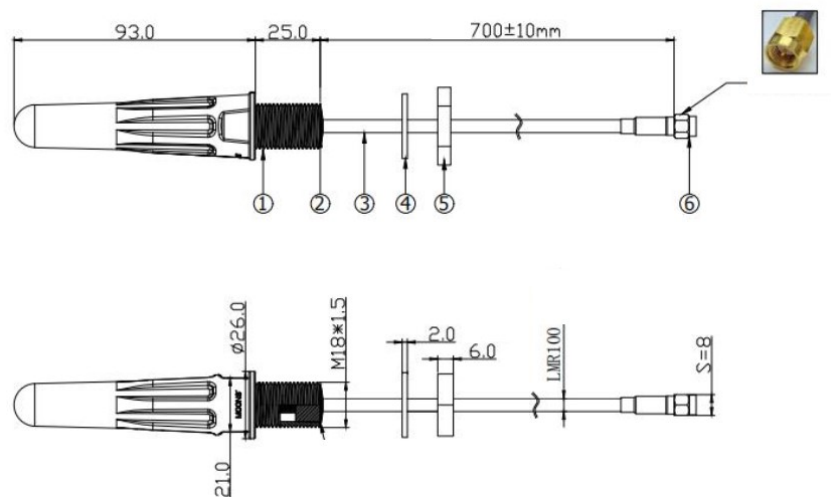


Ethernet RJ45 cable

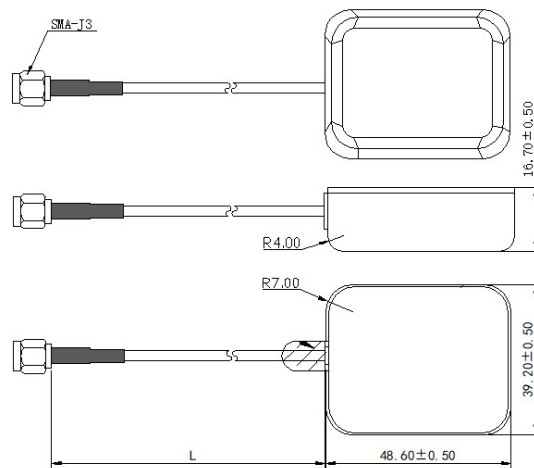
3.5 4G ANTENNA



3.6 WPAN ANTENNA



3.7 GNSS ANTENNA



4 INTERFACE



4.1 POWER SUPPLY

- An external industrial-grade power supply of at least 20W is required
- Wide voltage input: 7-30VDC
- Use IP66 waterproof connector
- Recommended Accessories:
AI30-B24PT



Report



Report

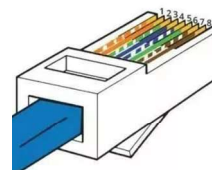
CB



UL62368-1 EN62368-1 BS EN62368-1 IEC62368-1 EN IEC62368-1

4.2 ETHERNET

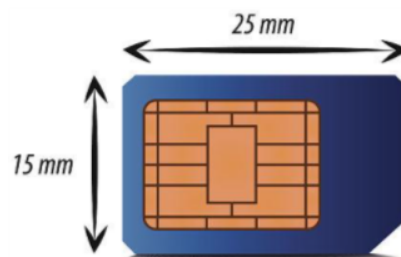
- RJ45 (8pin)
- Meet TCP / IP protocol
- 100M/10M adaptive
- Use IP67 waterproof connector



PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Transmission rate		10	/	100	Mbps
Transmission voltage	100Mbps	-1.05	/	+1.05	V
Transmission voltage	10M	-2.8	/	+2.8	V
Isolation Voltage	PE, DCIN to LAN		1500		VAC

4.3 Cellular Network

- Support LTE 4G FDD Cat.4
- 4G interface : SMA
- Built-in MINI-SIM card slot
- Uplink up to 50 Mbps; Downlink up to 150 Mbps
- FCC (North America)



- Output power: Class 3 (0.2 W, 23 dBm) @ LTE
- LTE FDD bands:
B1,2,3,4,5,7,8,12,13,18,19,20,25,26, 28,
- LTE TDD bands: 38,39,40,41

4.4 GNSS

- Support of GPS, Glonass, Beidou, Galileo.
- Used for product positioning and timing.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Sensitivity	Tracking	-157			dBm
Time To First Fix	Cold reset	35			s
Accuracy	@CEP50			2.5	m
Navigation update rate			1		Hz

4.5 BLUETOOTH

- Bluetooth LE: Bluetooth 5.3.
- Data transfer rate: 1 Mbps, 2 Mbps
- Maximum transmit power: 10dBm
- Minimum receiving sensitivity: -97dBm
- Built-in 2.4GHz Bluetooth antenna.
- Connect the mobile APP through Bluetooth for configuration and on-site debugging.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
RF transmission distance	Within visual distance	/	/	50	m
RF band		2400	/	2483.5	MHz
RF receiver sensitivity		-97	/	/	dBm
RF transmitter power		/	/	10	dBm

4.6 WIFI

- Built-in WIFI module for uplink.
- IEEE Wi-Fi 802.11b/g/n/ax –compliant.
- Center frequency range of operating channel: 2412 ~ 2484 MHz.
- Supports 20 MHz, 40 MHz bandwidth in 2.4 GHz band.
- Maximum transmit power: 16dBm.
- Minimum receiving sensitivity: -98dBm.
- Built-in 2.4GHz WIFI antenna.
- The maximum data transfer rate is 229.4Mbps
- WIFI security supports: WPS/WEP/WPA/WPA2/WPA3.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
RF transmission distance	Within visual distance	/	/	30	m
RF band		2400	/	2483.5	MHz
RF receiver sensitivity		-98	/	/	dBm
RF transmitter power		/	/	16	dBm

4.7 WPAN

- An accord IEEE802.15.4-915 MHz standard wireless module for data downlink;
- Self-building network;
- Self-healing network;
- Embedded communication encryption mechanism.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
RF transmission distance		/	/	300	m
RF band	868MHz	863	/	870	MHz
RF receiver sensitivity		-102	/	/	dBm
RF transmitter power		/	/	19	dBm

5 DATA PROCESSING AND STORAGE

5.1 PROCESSOR

- With ARM cortex-A7 core processor, Clocked at 800MHz.

5.2 MEMORY

- DDR RAM 512MB.
- eMMC 8GB.
- Data saved more than 10 years.

5.3 RTC

- RTC can continue to work after a power failure for more than 10 years.

6 HMI

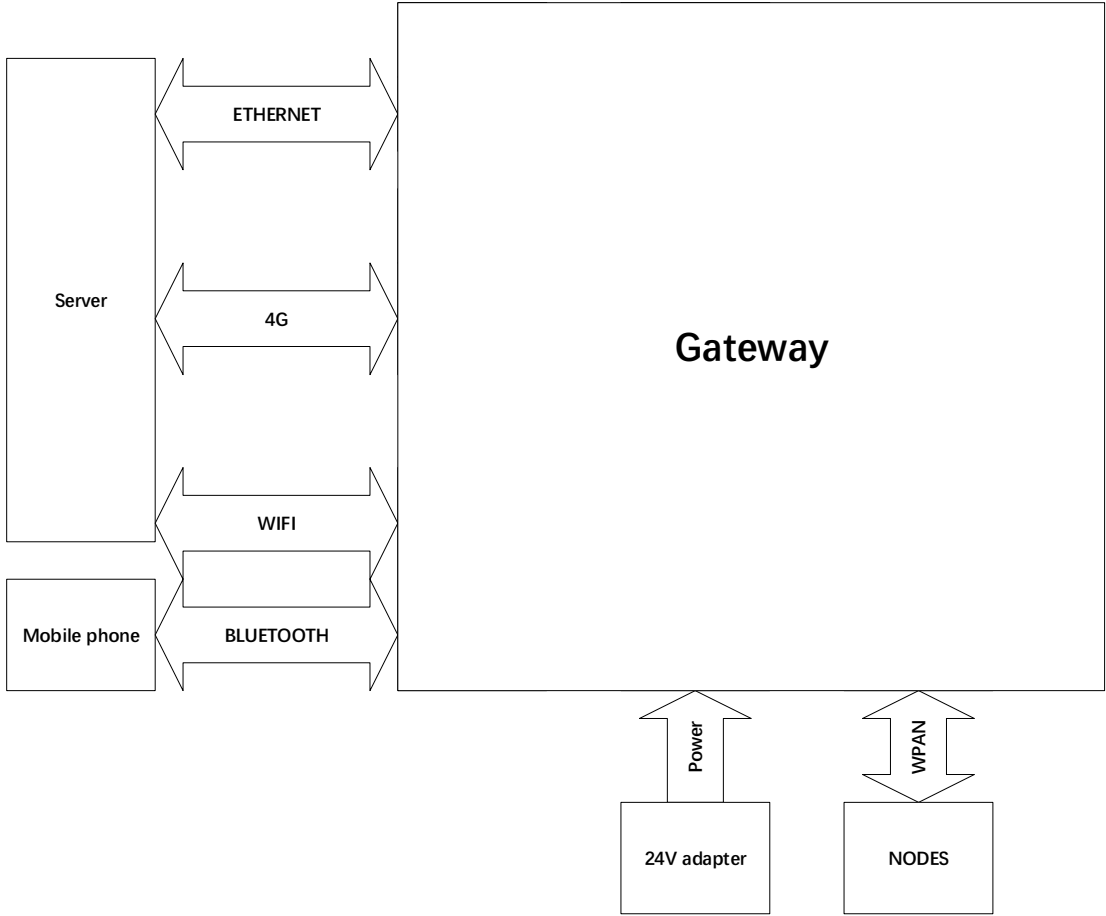
6.1 KEYS

NAME	Action	Feature
↑	Press the button	Move the cursor up/turn the page up.
↓	Press the button	Move the cursor down/turn the page down.
✓	Press the button	Confirm changes.
×	Press the button	Cancel changes/cursor exit.
RESET	Hold ↑ + × for more than 5 seconds	System reset.
DEFAULT	Hold ↓ + × for more than 5 seconds	When pressed, the device will restore factory Settings and reset.

6.2 DISPLAY

It is used to display the basic information of the machine, the network information of the machine and the working status of the machine. Customers can also use the display and keys to debug the Node Controller locally.

7 APPLICATIONS



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