Wireless Intelligent Gateway (MSKT1100-ZIG)

Intelligent Control System

General Description

MOONS' LED wireless public lighting intelligent monitoring System is suitable for all kinds of urban road landscape, parking lots, tunnels, tunnels, such as the application of occasions. System is mainly composed of wireless LED intelligent Control table, single light controller, LED outdoor wireless public lighting intelligent monitoring and control system software.

LED street lamp lighting agreement and some sensors. Each wireless LED intelligent gateway can manage up to 200 wireless Node controllers. In order to adapt to road use environment, use tree wireless network topology, it can support up to 20 hops.

LED street lamp lighting protocol is divided into two parts: the central controller to a gateway of the protocol, named LED intelligent lighting control system application layer communication protocol; Agreement between the gateway to node controller, named the LCP - SH agreement. LED street lamp lighting protocol support online upgrade of the firmware. To reduce the difficulty of the breakdown maintenance.

LED intelligent lighting control system application layer communication protocol is fully consider the actual demand for public lighting. LCP - SH protocol is a has nothing to do with the specific physical layer, it can run on the PLC or 2.4 G wireless.

Features

- Uplink support Ethernet (RJ45)/3G/GPRS, follow the TCP/IP protocol.
- Downlink support 2.4 GHz wireless Communication protocol in accordance with IEEE802.15.4. The maximum communication distance is 1000 m (visual range), the communication rate is 250 kbps.
- An additional RS485 bus channel.
- Communicating With monitoring center follows the LCP-SH-UP protocol, and communicating with node controller follows the LCP-SH-DOWN protocol.
- Support loop circuit switching control for 4 channels.
- Support 2 channels (0-10V, 4~20mA) analog input.
- Support tri-phase electrical energy measurement.
- Three-phase four-wire, 200 ~ 420VAC; 50 / 60Hz.
- Omniseal flame retardant protective enclosure.
- Failure mechanism, the gateway communicates with the monitoring center to lose after 5 minutes, automatically enter the time control mode, according to the records of fault control method for single lamp controller to control the day before, until the communication recovery and the monitoring center.
- Support the communication mode of unicast, multicast, broadcast, and scene dimming: The Control mode includes remote control, local control and time control dimming.

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Indicator Lamps

2.4G POWER Lamp	RED On: Power on RED Off: Power off
2.4G NET Lamp	GREEN Flash: Networking GREEN On: Networking success GREEN Off: Module fault
3G MODULE POWER Lamp	RED On: Power on 3G Module RED Off: Power off 3G Module
3G MODULE NET Lamp	RED On: 3G Module networking success RED Off: 3G Module networking unsuccess
3G MODULE T/R Lamp	RED Flash: 3G Module is receiving data GREEN Flash: 3G Module is sending data
ETHERNET LINK Lamp	GREEN On: Ethernet is connected GREEN Off: Ethernet isn't connected
ETHERNET DATA Lamp	RED On: Ethernet data transmission is normal

Bottons

Upward button	Broadcast transmission, 10% dimming level increases
Down button	Broadcast transmission, 10% dimming level reduces
Reset	Press the botton CANCEL+OK+UPWARD at the same time, keep over 2 seconds
Default	Press the botton CANCEL+OK+LEFT at the same time, keep over 2 seconds

Attention:
Please keep the antenna is not shielded by metal
Please keep the gateway is well grounded.

Technical Specifications

AC Input	Voltage	200~420VAC, three-phase 50/60Hz
	Frequency	≤10W
	Power	≤5A
	Current	
2.4G Radio Frequency	Transmitting Power	20dBm
	Receiving Sensitivity	-100dBm
	Transmission Speed	250kbps
	Frequency Range	2400~2485MHz
Cellular Network	Standard	TD/WCDMA/EVDO/GPRS
Ethernet	100M Transmission Voltage	-1.05~+1.05V
	10M Transmission Voltage	-2.8V~+2.8V
	Transmission Speed	10/100Mbps
RS485	Voltage	-5.5V~+5.5V
	Transmission Speed	≤115200bps
Relay	Switching Voltage	≤250VAC
	Load Current	≤5A
0~10V	Input Voltage	0~10.5V
	Input Current	≥10μA
4~20 mA	Input Voltage	≤10V
	Input Current	≤20mA
Stability	Working Temperature	-25~55℃
	Storage Temperature	-30~85℃
	Relative Humidity	10~90%,no frost
	Atmospheric Pressure	63~108kPa,Alt.≤4000m
	Mechanical Vibration	1G
	Casing Protection	IP51
	Warranty	3-year
Others	Data Storage	10years
	Dimensions	290*180*98mm
	Weight	2.05kg
Safety	Standard	IEC61347-2-11
	Insulation Resistance	AC Input to others≥100MΩ AC input to DC 2kVac
EMC	Isolation Voltage	GB17626-2 IV; GB17626-3 III;
	Standard	GB17626-4 IV; GB17626-5 IV; GB17626-6 III; GB17626-8 III; GB4824(2.4~2.5GHz).

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Terminal No.	Definition	Classification
1	A current sampling P	AC input
2	A voltage input	AC input
3	A current sampling M	AC input
4	B current sampling P	AC input
5	B voltage input	AC input
6	B current sampling M	AC input
7	C current sampling P	AC input
8	C voltage input	AC input
9	C current sampling M	AC input
10	N (Null line)	AC input
11	Not enabled	
12	PE (Ground)	Ground
13	Loop control output 1a	Loop control
14	Loop control output 1b	Loop control
15	Loop control output 2a	Loop control

Terminal No.	Definition	Classification
16	Loop control output 2b	Loop control
17	Loop control output 3a	Loop control
18	Loop control output 3b	Loop control
19	Loop control output 4a	Loop control
20	Loop control output 4b	Loop control
21	Digital input 1	Digital input
22	Digital input 2	Digital input
23	Digital input GND	Digital input
24	Analog current input +	Analog input
25	Analog current input -	Analog input
26	Analog voltage input +	Analog input
27	Analog voltage input -	Analog input
28	RS485 GND	RS485 communication
29	RS485 A	RS485 communication
30	RS485 B	RS485 communication

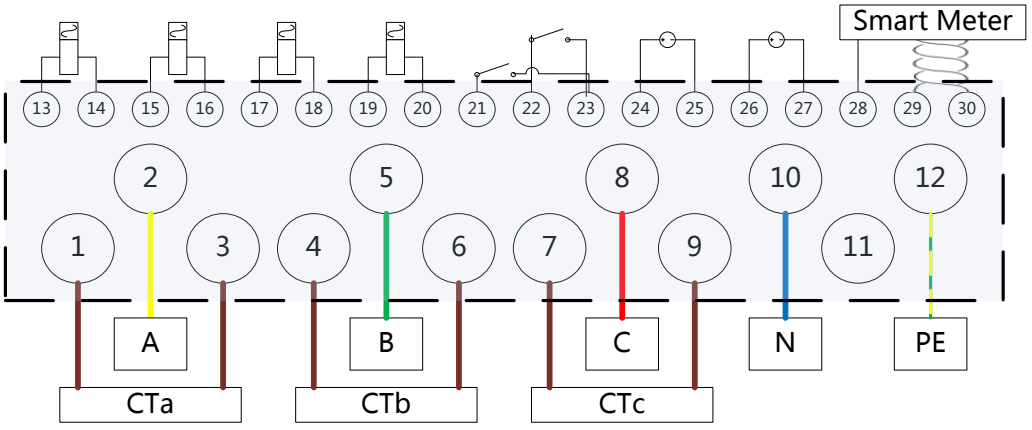
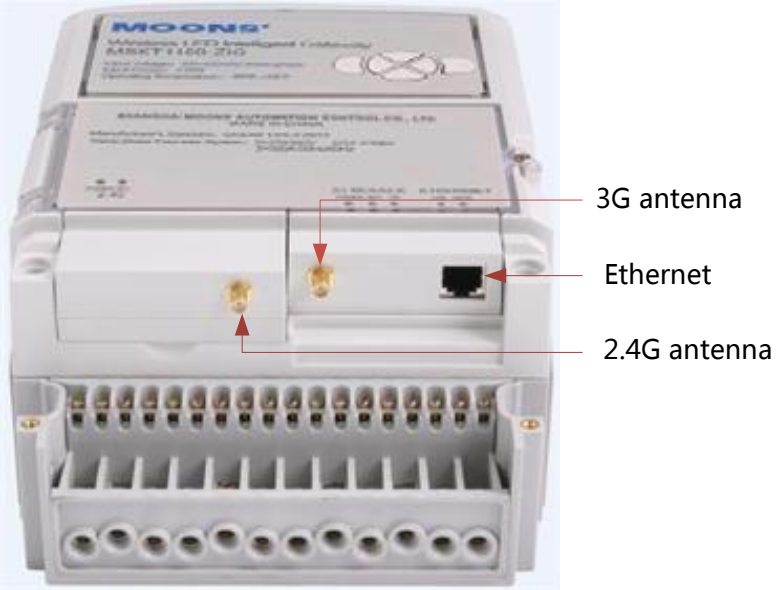
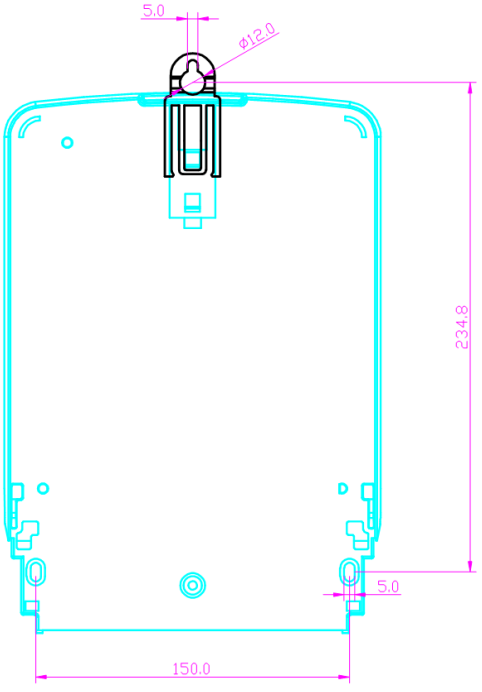


Diagram of Wiring



Installation Dimension



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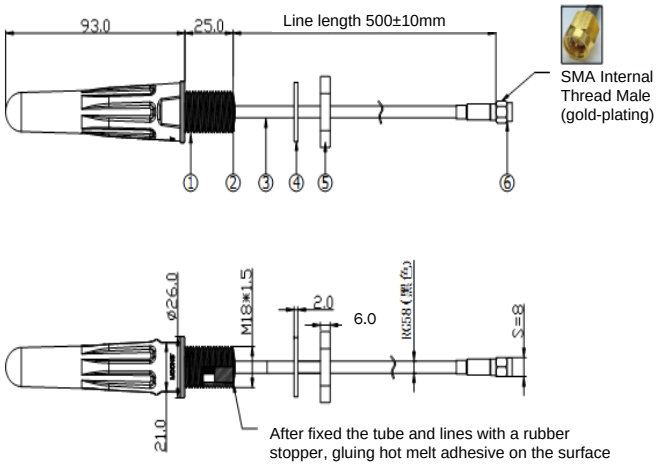
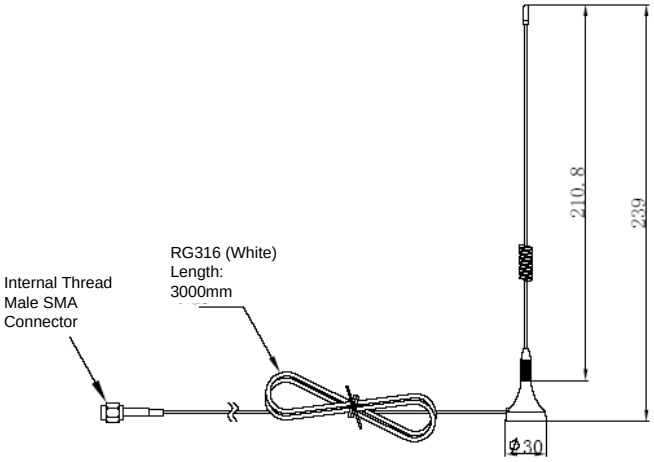
2.4G Antenna Outline



3G Antenna Outline



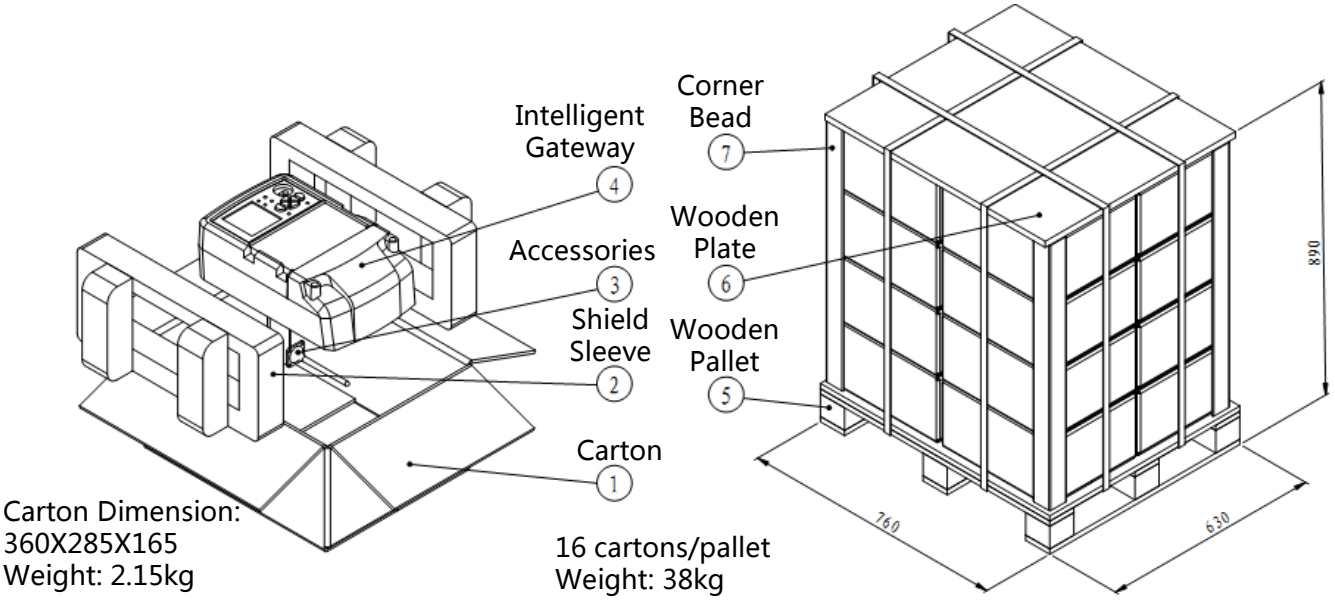
Order Information

MSKT1100-ZIG Wireless Intelligent Gateway	4696350001876
3G Sucker Antenna	4741135000019
2.4G Antenna	4741135000023
0.7M Antenna Feeder	4634140202296
2.4G Antenna with Screws (optional)	4741135000023
2.4G Antenna with Base (optional)	4741135000008

Packing List

MSKT1100-ZIG Wireless Intelligent Gateway	*1
3G Antenna	*1
0.7M Antenna Feeder	*1
2.4G Antenna	*1

Package



Carton Dimension:
360X285X165
Weight: 2.15kg

16 cartons/pallet
Weight: 38kg

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