Outdoor IP67 LoRa Node Controller

Highlights

- Easy to connect with multiple wired sensors through GPIO/AI/ RS232/RS485/SDI-12 interfaces
- Long transmission distance up to 11km with line of sight
- Waterproof design including IP67 case and M12 connectors
- Solar powered and built-in battery (optional)
- Quick wireless configuration via NFC
- Compliant with standard LoRaWAN gateways and network servers

Feature-rich Sensor Hub for Connecting Sensors

PLANET LN501 is an outdoor LoRa node controller used for data acquisition from multiple sensors. It contains different I/O interfaces such as analog inputs, digital inputs, digital outputs, serial ports and so on to simplify the deployment and replacement of LoRaWAN networks. The LN501 can be easily and quickly configured by NFC or wired USB port. For outdoor applications, it provides solar or built-in battery power supply and is equipped with IP67-rated enclosure and M12 connectors to protect itself from water and dust in harsh environments.

LoRaWAN-based Controller with Rich Industrial Interfaces

The LN501 is LoRaWAN compatible and is with built-in multiple industrial interfaces to connect to all types of sensors, meters and other appliances. It also bridges Modbus data between serial and Ethernet network via LoRaWAN. The LN501 supports LoRaWAN class A and C protocol to be in full compatibility with standard LoRaWAN gateways including PLANET LCG-300 series.

- RS232
- RS485
- GPIO
- Analog Input
- SDI-12

The LN501 is ideal for large-scale IoT application deployments, such as projects for building automation, smart metering, HVAC system, etc. With multiple interfaces, PLANET LN501 can perfectly help retrofit legacy assets into IoT enablement.

Specifications

Product	LN501
Wireless Transmission	
Technology	LoRaWAN
Antenna	Internal Antenna
Frequency	LN501-868M: IN865, EU868, RU864 LN501-915M: US915, AU915, KR920, AS923
Tx Power	16dBm(868)/20dBm(915)
Sensitivity	-137dBm @300bps
Work Mode	OTAA/ABP Class A, Class C
Data Interfaces	
Interface Type	M12 A-Coded Male

IO	Ports	2 × GPIO
	Logical Level	Low: 0~0.9V, High: 2.5~3.3V
	Maximum Current	20 mA
	Work Mode	Digital input, digital output, pulse counter
Serial Port	Ports	1 × RS232 or RS485 (Switchable)
	Baud Rate	1200~115200 bps
	Protocol	Transparent (RS232), Modbus RTU (RS485)
Analog Input	Ports	2 × Analog input
	Resolution	12 bit
	Input Range	4~20mA or 0~10V (Switchable)
SDI-12	Ports	1 × SDI-12
	Protocol	SDI-12 V1.4
Power Output	Ports	2 × 3.3 V, 2 × 5/9/12 V (Switchable)
	Power Time Before Data Collection	0~10 minutes
Operation		
Power On & Off	NFC, power button (Internal)	
Configuration	PC software (via USB Type C or NFC)	
Physical Characteristics		
Operating Temperature	-20°C to +60°C	
Ingress Protection	IP67	
Dimensions	116 × 116 × 45.5 mm	
Power Connector	1 × M12 A-Coded Male Interface	
Power Supply	Solar powered + 2 x 2550mAh battery backup + 5-24 VDC	
Installation	Desktop, Wall mounting	
Standards Conformance		
Regulatory Compliance	CE, FCC	

Ordering Information

LN501-868M	Outdoor IP67 LoRa Node Controller (RS232, RS485, GPIO, and Analog Input, EU868 Sub 1G)
LN501-915M	Outdoor IP67 LoRa Node Controller (RS232, RS485, GPIO, and Analog Input, US915 Sub 1G)

Related Products

LCG-300	Industrial LoRaWAN Gateway with 5-Port 10/100/1000T
LCG-300W	Industrial LoRaWAN Wireless Gateway with 5-Port 10/100/1000T
LN1130	Industrial IP30 LoRa Node Controller (Modbus RS232, RS485, EU868/US915 Sub 1G)
LN1140	Industrial IP30 LoRa Node Controller (2 DI, 2 DO, EU868/US915 Sub 1G)

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