

UC500 Series LoRa Controller



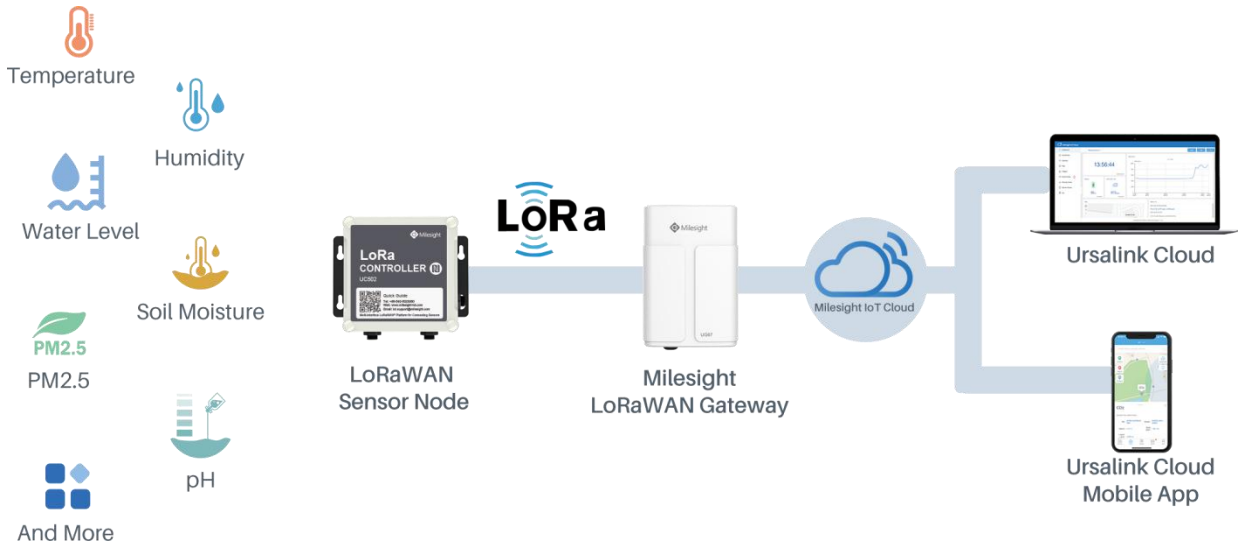
UC500 series is a LoRaWAN[®] controller used for data acquisition from multiple sensors. It contains different I/O interfaces such as analog inputs, digital inputs, digital outputs, serial ports and so on, which simplify the deployment and replacement of LoRaWAN[®] networks.

UC500 series 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.

◆ Features

- Easy to connect with multiple wired sensors through GPIO/AI/RS232/RS485 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
- Quick and easy management with Milesight IoT Cloud solution

◆ Application



◆ Specifications

Wireless Transmission

Technology	LoRaWAN®
Frequency	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP

Data Interfaces

Interface Type	M12 A-Coded Male
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IO

Ports	2 × GPIO
Logical Level	Low: 0~0.9V, High: 2.5~3.3V
Work Mode	Digital input, digital output, pulse counter (only support on GPIO2)

Serial Port

Ports	1 × RS232 or RS485 (Switchable)
Baud Rate	300~230400 bps
Protocol	Transparent (RS232), Modbus RTU (RS485)

Analog Input

Ports	2 × Analog input
Resolution	12 bit
Input Range	4~20mA or 0~10V (Switchable)

Power Output

Ports	2 × 3.3 V, 2 × 5/9/12 V (Switchable)
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Operation

Power On & Off	NFC, power button (Internal)
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Configuration	Mobile APP(via NFC) or PC software(via USB Type-C)
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Physical Characteristics

Operating Temperature	-20°C to +60°C
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Ingress Protection	IP67
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Dimension	120.1 × 120.1 × 55.4 mm (4.73 × 4.73 × 2.18 in)
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Power Connector	M12 A-Coded Male (Only UC501 included)
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Power Supply	<ol style="list-style-type: none"> 1. Solar powered + 2*2550mAh battery backup + 5-24 VDC 2. 19000mAh replaceable Li-SOCL₂ battery
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Installation	Wall or Pole Mounting
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◆ Ordering Information

Model	Power Supply
UC501	Solar powered + 2*2550mAh chargeable battery + 5-24 VDC
UC502	19000mAh replaceable Li-SoCl ₂ battery