IoT Controller UC300 Series
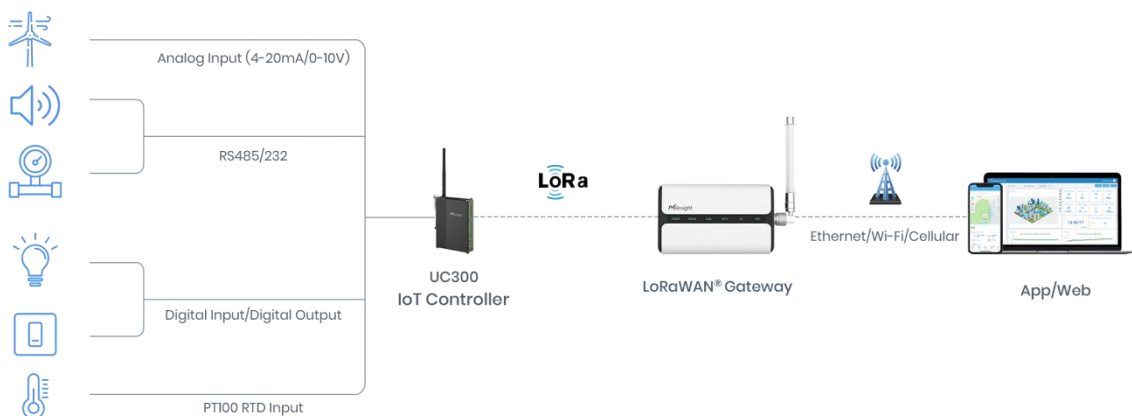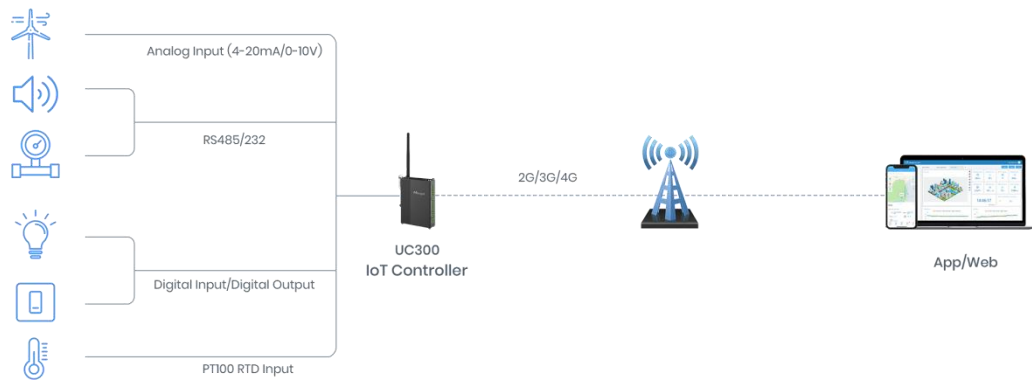
Milesight

UC300 series is an IoT controller used for remote control and data acquisition from diverse devices. It contains multiple I/O interfaces including analog input, digital input, relay output, serial port, PT100 RTD input, which support remote device data transmission via LoRaWAN® or 3/4G networks. Besides, UC300 series supports multiple trigger conditions and actions which can work autonomously even when the network dropped. Combining with Milesight IoT Cloud solution, it can monitor and control remote devices via web server or mobile App easily.

Adopting industrial design and IP30 metal case, UC300 is widely used in indoor applications like smart factory, building automation, etc.

◆ Application Example

Analog Input (4-20mA/0-10V)

RS485/232

Digital Input/Digital Output

PT100 RTD Input

LoRa

UC300 IoT Controller

LoRaWAN® Gateway

Ethernet/Wi-Fi/Cellular

App/Web

◆ Features

➢ Easy to connect with diverse wired devices through DIO/AI/RS232/RS485/PT100 RTD input interfaces

➢ Support reading 32 Modbus registers, can connect up to 32 Modbus devices

➢ Support LoRaWAN® or 3/4G wireless communication

➢ Multiple triggering conditions and actions

➢ Embedded watchdog for device working stability

➢ Industrial metal case design with wide operating temperature range

➢ Compliant with standard LoRaWAN® gateways and network servers

➢ Quick and easy management with Milesight IoT Cloud solution

◆ Specifications

Model	UC300-470M/868M/915M	UC300-L0xx
Data Interfaces		
Interface Type	3.5mm Terminal Block	
Digital I/O		
Ports	4 × DI + 2 × DO	
Digital Input	Opto-isolated Digital Inputs, 3-24VDC Work Mode: Digital Input, Pulse Counter Input Frequency: ≤ 4000 Hz	
Digital Output	SPDT Relay Contact Rating: Max 3A@DC 30 V or AC 250 V	
Serial Port		
Ports	1 × RS232 + 1 × RS485	
Baud Rate	1200~115200 bps	
Protocol	RS232: Transparent	

	RS485: Transparent, Modbus RTU

Analog Input

Ports	2 × 4~20 mA + 2 × 0~10 V
Resolution	12 bit
Accuracy	4~20 mA: ±5% 0~10 V: ±1%

Analog Input (RTD)

Ports	2 × PT100 RTD Input
Input Connections	2, 3-wire
Resolution	12 bit
Range	-200°C ~ 800°C

Wireless Transmission

LoRaWAN®

Protocol	LoRaWAN®, Milesight D2D	
Frequency	CN470/IN865/EU868/RU864/US 915/AU915/KR920/AS923-1&2& 3&4	---
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)	
Tx Power	16 dBm (868 MHz)/20 dBm (915 MHz)/19 dBm (470 MHz)	
Sensitivity	-137 dBm @300bps	
Mode	OTAA/ABP Class C	

Cellular Transmission

Network		4G LTE (CAT 1)/WCDMA/GSM (Differ as Regions)
Antenna Connector	---	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
SIM Slot		1 (Micro SIM-3FF), 1.8V/3V
Application Mode		TCP/UDP/MQTT/AWS/Milesight IoT Cloud/SMS

Others

Configuration Port	1 × USB Type-C for Power Supply, Configuration and Console
Button	1 × Reset Button (Internal)
LED Indicators	1 × System, 1 × ACT

Power Connector	1 × 3.5mm 2-pin Terminal Block, with Surge-Protection and Reverse Polarity Protection	
Software		
Configuration	USB Type-C or Downlink	
Advanced Feature	Threshold Alarm, Data Storage, Data Retrievability, Data Retransmission, Milesight D2D Controller, Milesight D2D Agent, IF-THEN Command	Threshold Alarm, IF-THEN Command
Physical Characteristics		
Power Supply	1. 5-24VDC by Terminal Block 2. 5V by Type-C USB	
Operating Temperature	-20°C ~ 60°C (-4°F to +140°F)	
Relative Humidity	0 ~ 95% (Non-condensing)	
Color & Material	Black, Metal	
Weight	142.3g	186g
Dimension	93 × 70 × 22 mm (3.66 × 2.76 × 0.87 in) (Antenna Connector Excluded)	
Installation	Desktop, Wall Mounting, DIN Rail Mounting	

◆ Dimensions (mm)