

IoT Controller

Featuring LoRaWAN®

UC100

Milesight



UC100 is an IoT controller used for remote control and data acquisition from Modbus RS485 devices via LoRaWAN® networks. It can read up to 16 Modbus RTU devices and support Modbus transparent transmission between server and RS485 devices as a Modbus to LoRaWAN® converter. Besides, UC100 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 assets via web server or mobile App easily.

UC100 is widely used in indoor applications like smart metering, smart cities, building automation, etc.

◆ Application Example



◆ Features

- Support reading 16 Modbus registers, can connect up to 16 Modbus devices
- Ultra-wide-distance transmission up to line of sight of 15 km
- Multiple triggering conditions and actions
- Embedded watchdog for device working stability
- Support Mulesight LoRa D2D protocol to enable ultra-low latency and directly control without LoRaWAN[®] gateway
- Compliant with standard LoRaWAN[®] gateways and network servers
- Quick and easy management with Mulesight IoT Cloud solution

◆ Specifications

Wireless Transmission	
Technology	LoRaWAN [®] , LoRa D2D
Antenna	Internal Antenna
Frequency	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16dBm (868 MHz)/22dBm (915 MHz)/19dBm (470 MHz)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class C
Advanced Feature	LoRa D2D Controller, LoRa D2D Agent
Data Interface	
Port	1 × RS485
Connector	3.5 mm Terminal Block
Terminal Resistor	1 × 120 Ω Resister Switch
Baud Rate	1200~115200 bps
Protocol	Modbus RTU, support reading 16 register values
Others	
Configuration Port	1 × Type-C
Reset Button	1 × Reset Button (Internal)
LED Indicator	1 × System
Physical Characteristics	
Power Connector	3.5 mm Terminal Block
Power Supply	1. 5-24 VDC by Terminal Block 2. 5 VDC by Type-C Port
Power Consumption	< 0.5 W

Material & Color	PC+ABS, White
Ingress Protection	IP30
Operating Temperature	-20°C ~ 60°C (-4°F to +140°F)
Relative Humidity	0% ~ 95% (non-condensing)
Dimensions	70 × 45 × 13 mm (2.75 × 1.77 × 0.51 in)
Installation	Desktop, Wall Mounting