IoT Controller

Featuring LoRaWAN®

UC100

◆ Introduction

UC100 is an IoT controller used for remote control and data acquisition from Modbus RS485 devices via LoRaWAN® networks. It can read up to 32 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 Development Platform solution, it can monitor and control remote assets via web server easily.

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



UC100



UC100 (EA)

Application Example



Features

- Support reading 32 Modbus registers, can connect up to 32 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
- Store historical data locally and support retransmission to prevent data loss
- Support Milesight 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 Milesight Development Platform solution
- Support Firmware Update Over the Air (FUOTA) feature

Specifications

Wireless Transmission	
Technology	LoRaWAN®, Milesight D2D
Antenna	Internal Antenna or External Antenna (Hardware Optional) External Antenna Connector: 1 × 50 Ω SMA Connector (Center PIN: SMA Female)
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
Data Interface	
Port	1 × RS485
Connector	2-pin 3.5 mm Terminal Block
Terminal Resistor	1 × 120 Ω Resister Switch

Baud Rate	1200~115200 bps
Protocol	Modbus RTU, Passthrough
Others	
USB	1 × Type-C for Power Supply, Configuration and Console
Reset Button	1 × Reset Button (Internal)
LED Indicator	1 × System
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, Change Alarm, Data Storage (Up to 800 entries), Data Retrievability, Data Retransmission, Milesight D2D Controller, Milesight D2D Agent, IF-THEN Command, FUOTA
Physical Characteristics	
Power Supply	1. DC 5-24 V by Power Connector 2. DC 5V/1A by Type-C Port
Power Consumption	< 0.5 W
Material & Color	PC+ABS, White
Weight	32g
Ingress Protection	IP30
Operating Temperature	-20°C ~ 60°C (-4°F~140°F)
Relative Humidity	0% ~ 95% (non-condensing)
Dimensions	70 × 45 × 13 mm (2.75 × 1.77 × 0.51 in) (Connectors Excluded)
Installation	Desktop, Wall Screw Mounting

◆ Dimensions (mm)



