

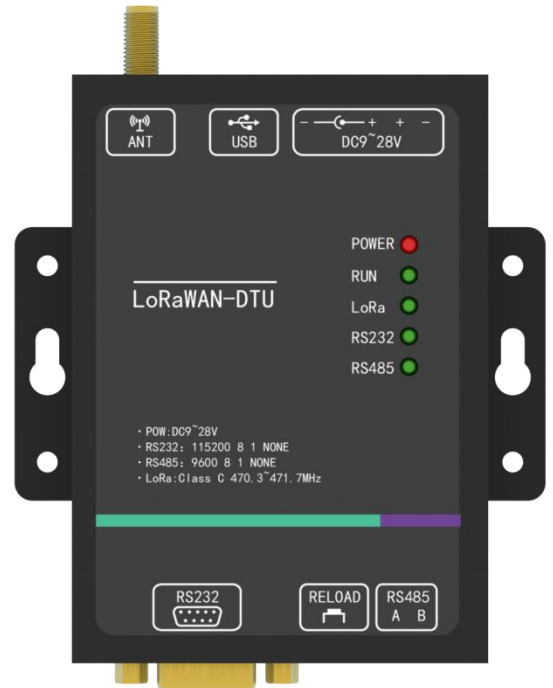
Product Description

This DTU is a universal LoRaWAN DTU product with functions for actively reading slave devices and transparent data transmission. It uses RS485 and RS232 to read data from slave devices periodically or via command instructions (supports Modbus-RTU structured data), and then transmits the data to gateways and platforms via LoRa wireless communication technology. The entire wireless transmission process follows the LoRaWAN standard protocol.

Supports LoRaWAN 1.0.2 standard protocol stack, Class A/C modes, OTAA/ABP network registration, fixed SF and ADR-based SF auto-switching, adjustable transmit power, and configurable channels.

Features script editing, customizable tasks/heartbeats/output ports, serial port configuration, and watchdog functionality for high stability.

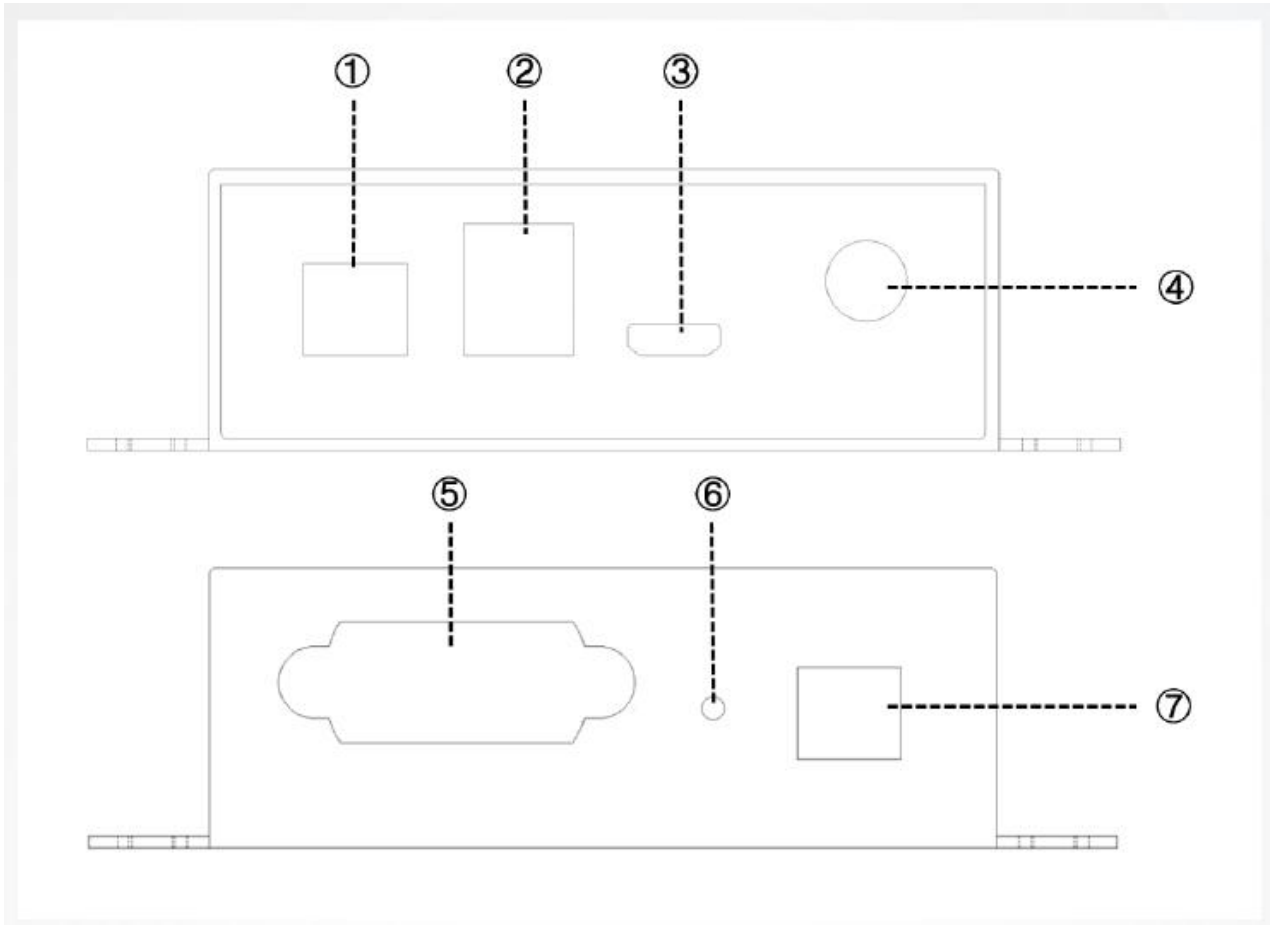
Uses RS485/RS232 for data interaction with slave devices. Configurable via PC software for rapid LoRaWAN network access and wireless data transmission.



Product Features

- Standard version: 22dBm; High-power version: 27dBm
- 1× RS232-DB9 (TXD, RXD, GND); 1× RS485 (A+, B-)
- Supports LoRaWAN 1.0.2 protocol Class A/Class C
- Supports custom RS232/RS485 data collection tasks and timed
- Supports RS232/RS485 over LoRaWAN transparent
- Supports custom user communication
- Supports custom LoRaWAN heartbeat tasks

Interface Specifications



No.	Name	Description
1	Power Port 1	DC9~28V input, directly connected to Power Port 2
2	Power Port 2	DC5.5x2.1mm, DC9~28V input
3	USB-TTL Port	For debugging or data printing
4	RF Antenna Port	SMA female connector
5	RS232 Port	DB9 male, RS232 3-wire interface (TXD, RXD, GND)
6	Factory Reset Button	Press and hold for 5 seconds to restore defaults
7	RS485 Port	RS485 interface

LED Indicator Functions



No.	Name	Description
1	POWER (Power)	Steady on: Normal power supply; Off: Low voltage or fault
2	RUN (System Status)	Blinking: Normal operation; Off: System fault
3	LoRa (Transmit)	Steady on: LoRa data transmitting; Off: No transmission
4	RS232 (Receive)	Blinking: RS232 data received; Off: No data
5	RS485 (Receive)	Blinking: RS485 data received; Off: No data

Accessories List

No.	Name	Qty.	Description
1	Main Unit	1	DTU host device
2	DC12V 2A Power Adapter	1	3C-certified, Input 100-240V/50-60Hz, Output DC12V 2A
3	LoRa Antenna	1	Blade antenna or suction cup antenna
4	Expansion Screws	5	For wall mounting

Basic Parameters

Parameter	Specifications
Transmit Power	-122dBm (Standard version), -127dBm (High-power version)
Bandwidth	Fixed 125kHz
Spreading Factor	Adjustable SF7~SF12 (5.5, 3.1, 1.8, 1.0, 0.6, 0.3Kbps)
Rx Sensitivity	-135dBm@SF12 BW125kHz
Harmonics	< -40dBm @ 1GHz
Frequency Bands	EU433, CN470, CN779, EU868, AS923, AU915, KR920 (LoRaWAN global frequency plan)
RS232	Isolated circuit, 15KV ESD protection; Configurable baud rate (2400~115200bps)
RS485	Isolated circuit, 15KV ESD protection; Configurable baud rate (2400~115200bps)

Electrical & Mechanical Specifications

Category	Specifications
Power Supply	DC12V 2A
Current	Max 0.5A (D8L), Max 1A (D8P)
Power Consumption	Average $\leq 0.5W$
Dimensions	96.5×89.3×24.3mm
Weight	~0.7kg
Operating Temp.	-20°C70°C (Storage: -40°C85°C)
Humidity	0~95% (Non-condensing)

Mechanical Dimensions

