Y208-R 8-Port Ethernet DTU Specification



> **Reference:** Technical manual coming soon. **Related:** Serial Gateway Overview

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1. Overview

Y208-R is the highest-density Ethernet DTU in the Yengear portfolio. It integrates eight independent serial channels, offered as eight RS232 or eight RS485 ports by ordering SKU. Dual RJ45 uplinks, `LAN1` and `LAN2`, provide redundant IP paths or network segmentation, while Socket A and B on every port support concurrent TCP, UDP, HTTP, and MQTT sessions. The platform inherits the same firmware stack used by Y202-R and Y204-R, including Modbus RTU to Modbus TCP conversion, JSON upload, heartbeat, and browser-based management.

Item	Description
MCU and Firmware	Dual-core `240 MHz` MCU, RTOS, dual watchdog
Serial Ports	`8 x` RS232 / RS485, grouped as COM1 to COM8
Ethernet	`2 x 10/100Base-T` RJ45 with independent MAC
Power Input	`9 to 36 VDC` terminal plus dual DC barrel input
Mounting	`35 mm` DIN-rail industrial enclosure

Highlights

- Up to `16` Socket contexts, `8 ports x Socket A/B`, for high-density SCADA, MES, or cloud access
- Dual RJ45 uplinks allow LAN1 and LAN2 segmentation, for example SCADA plus enterprise traffic
- Core firmware functions also available on smaller Serial Gateway models, including registration packets, heartbeat, JSON upload, and HTTP OTA
- EMC-hardened power stage with redundant connectors keeps eight serial buses online

2. Ordering Information

2.1 Model Configuration

`Y208-R` is an eight-port serial DTU with an RJ45 Ethernet uplink. The ordering suffix selects eight RS232 ports (`-232`) or eight RS485 ports (`-485`).

For family codes and examples, see Model Groups and Suffixes.

2.2 Typical SKU Options

SKU	Serial Configuration
Y208-R-232	`8 x` RS232
Y208-R-485	`8 x` RS485

3. Key Features

1. **Eight Independent Serial Channels**: High-density access for large control panels and telemetry clusters.
2. **Sixteen Socket Contexts**: Socket A and B on every port for concurrent or redundant services.
3. **Dual Ethernet Uplinks**: LAN1 and LAN2 support path redundancy or network segmentation.
4. **Industrial Protocol Support**: Supports TCP, UDP, HTTP, MQTT, and Modbus RTU to Modbus TCP conversion.
5. **Remote Maintenance Ready**: Supports browser configuration, JSON upload, heartbeat, and HTTP OTA.

4. Technical Specifications

4.1 Electrical and Hardware

Parameter	Specification
Processor	Dual-core `240 MHz` MCU
Power Input	`9 to 36 VDC` terminal plus dual DC barrel
Protection	EMC hardening, dual watchdog
Mounting	`35 mm` DIN-rail enclosure

4.2 Serial and Network

Parameter	Specification
Serial Ports	`8 x` RS232 / RS485
Baud Rate	`9600 bps` (default)
Ethernet	`2 x 10/100Base-T` RJ45
IP Mode	Independent LAN1 and LAN2 addressing, static IP or DHCP
Socket Channels	Socket A and B for each serial port

4.3 Software Functions

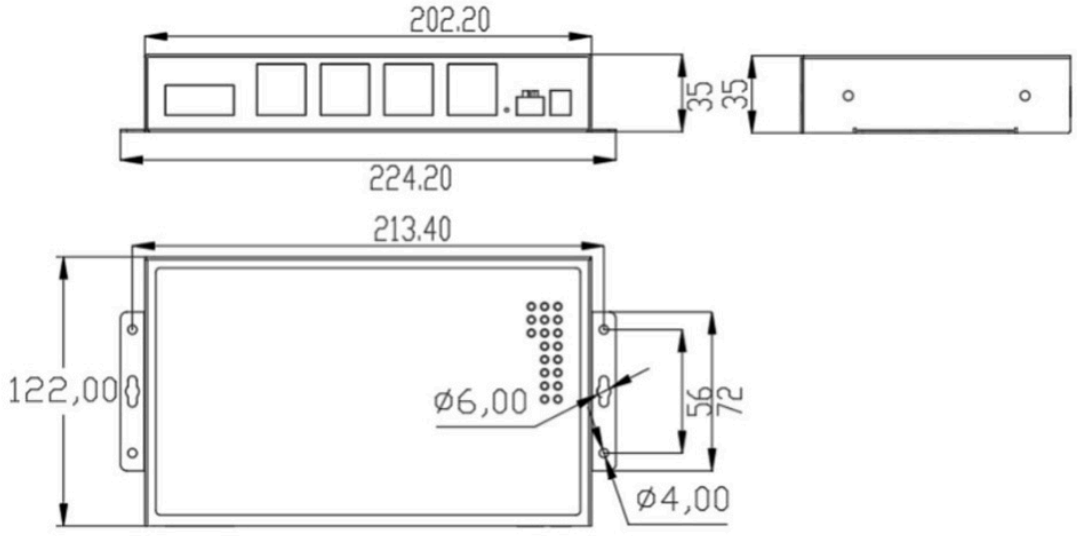
Item	Description
Protocols	TCP / UDP / HTTP / MQTT
Gateway Function	Modbus RTU to Modbus TCP
Value-Added Functions	Registration packet, heartbeat, JSON upload, HTTP OTA
Maintenance	Browser console and remote AT

5. Interfaces and Indicators

Interface / Indicator	Description
COM1 to COM8	Eight serial interfaces for field devices
LAN1 / LAN2	Dual Ethernet uplinks
Power Terminal / Dual Barrel	Redundant power input options
Status LEDs	Power, link, and data activity
Reload Button	Parameter recovery and maintenance

6. Mechanical and Installation

6.1 Dimension Drawing



This drawing can be used for cabinet installation and wiring clearance planning for the Y208-R.

- `35 mm` DIN-rail enclosure for industrial control cabinets

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