YN-1208 Isolated RS232/485 to 8-port RS-485 Hub

packing list

Before you begin use and installation, please ensure that the following items are included in the package:

YN-1208 main unit (including guide rail bracket)	one
Panel mounting bracket	one
Instruction manual	one piece
Instruction CD	one piece

If there are any missing or damaged items, please contact your seller immediately.

Specifications

Interface features: Compatible with EIA/TIA RS-232 and RS-485 standards

Electrical interface: pluggable terminal block

Interface protection: 600W lightning surge protection and 200V withstand voltage current limiting protection

Transmission medium: twisted pair or shielded twisted pair

Number of nodes: Maximum 128

Terminating resistors: Eight slave ports have built-in 120-ohm terminating resistors.

Transmission rate: 1200bps to 115.2kbps

Isolation voltage: 1000VDC

Power consumption: 2.5W@DC10~30V

Maximum transmission distance: 1200m (4000ft) @ 19.2Kbps

Status indication: Onboard transceiver indicator lights display in real time.

Operating temperature: -30 °C to +75 °C	Storage temperature: -40°C to +85 °C
Operating humidity: 25%~95% (non-condensing)	Storage humidity: 0%~95% (non-condensing)

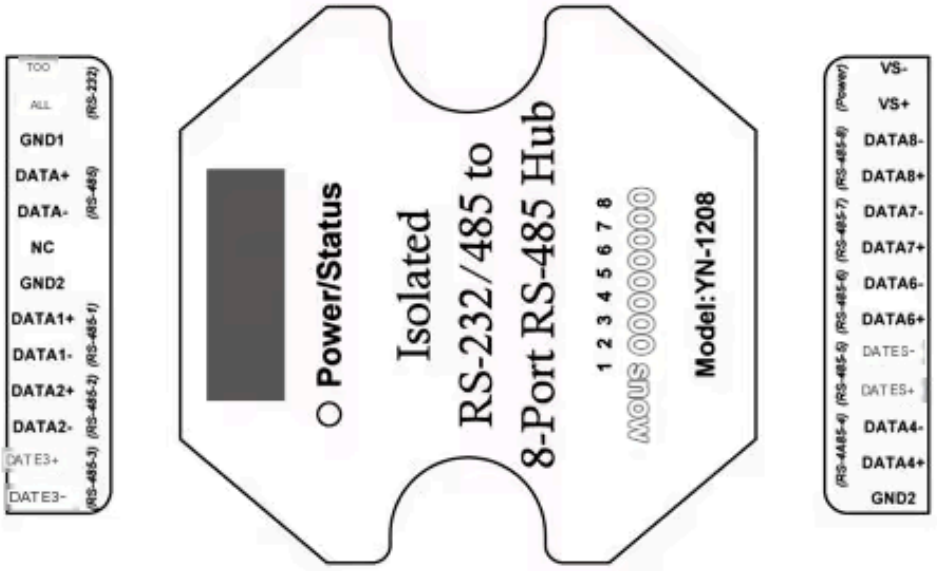
Overview

The YN-1208 is an RS-485 bus splitter hub specifically designed to meet the requirements of large RS-485 systems in complex electromagnetic environments. This product supports transmission rates up to 115.2kbps. To ensure data communication is unaffected by ground loops and common-mode voltage differences, opto-isolation technology is employed, providing a 1000V isolation voltage. To prevent lightning surges from affecting the converter and equipment, each signal line has a built-in 600W surge protection circuit. Power is supplied by an external switching power supply, making it suitable for outdoor engineering applications.

In RS-485 operating mode, the built-in discrimination circuit can automatically sense the data flow direction and automatically control the transceiver to switch between transmit and receive states, solving the problem of RS-485 transmit/receive conversion delay. The RS-485 interface has a transmission distance of more than 1.2km and stable performance. It can be used in systems such as highway toll collection, video surveillance, building intercom, PLC, card access control, power data acquisition, and industrial data acquisition.

The YN-1208 provides a star-shaped RS-485 bus connection. Each port has short-circuit indication and communication status indication functions. If a slave device fails, it will be isolated without affecting the normal operation of the remaining slave devices, thereby improving communication reliability and effectively shortening network maintenance time.

status indication



The meanings of the front panel status indicator lights on the YN-1208 are as follows:

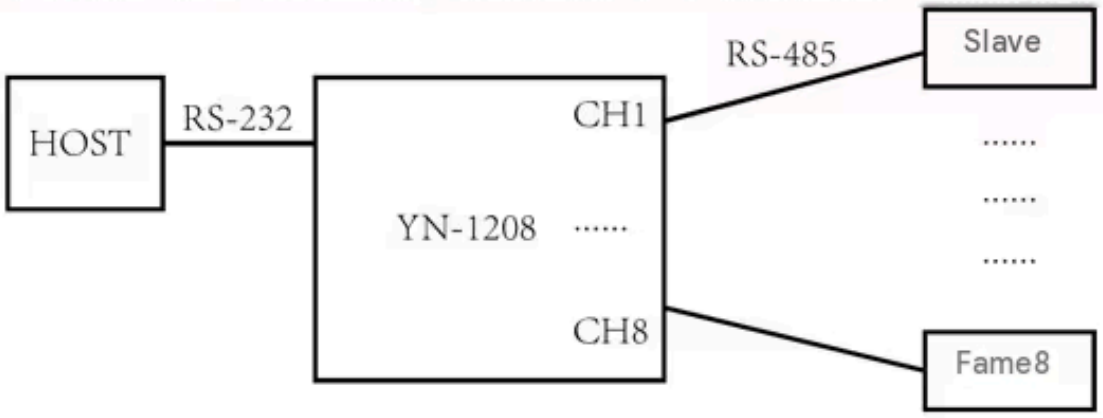
Power/Status bicolor light	Green is the power indicator; it stays on normally and flashes when there is a fault.
	Red indicates a host-side signal input; it flashes when data is present.
Status 1-8 Green Light	Slave terminal RS-485 signal input indication
	The green light flashes when data is available.
	The green light stays on when a port fault is detected.
	1 corresponds to RS485 port 1, and so on.

Interface definition

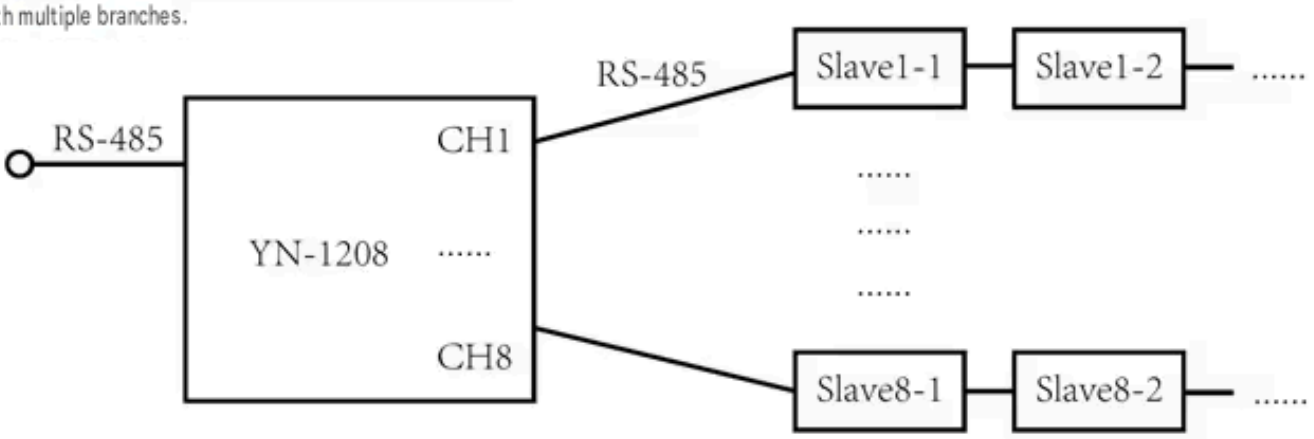
Host interface	TOO	RS-232 signal input on the host side
	ALL	RS-232 signal output from the host unit
	GND1	Host signal ground
	DATA+	RS-485 signal input on the host side is positive
	DATA-	Host-side RS-485 signal input negative
Slave interface	GND2	Slave terminal signal ground
	DATAx+	Slave x-channel RS-485 signal output positive
	DATAx-	Slave x-channel RS-485 signal output negative
Power input interface	VS+	Module power input negative pole
	VS-	Module power input positive terminal (DC10-24V)

Application diagram

1. Application of RS232 to multi-channel RS485 conversion: The host connects eight RS485 slave devices in a star configuration via RS-232



2. The application of RS485 repeaters and hubs extends the working distance of the existing RS485 bus and realizes RS-485 networks with multiple branches.



3. The application of multiple hubs in parallel can expand the RS485 bus to include more branches.