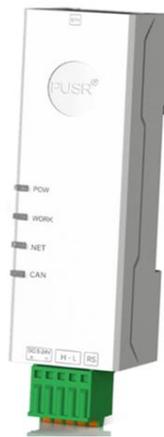# USR-CAN115

Lipstick CAN Protocol

CAN to Ethernet bidirectional transmission

Easy access to CAN-BUS

工业自动化控制

汽车电子

新能源充电桩

Product Introduction

USR-CAN115 is an ultra-small rail-type CAN to Ethernet device independently developed by the Internet of Things. This series of products features high speed, low latency, small size and simple use. TCP server, TCP client, UDP server and UDP client are supported. It supports three data conversion modes: transparent conversion, transparent band ID conversion and standard protocol conversion. It can easily realize the interconnection between CAN equipment and network port equipment.
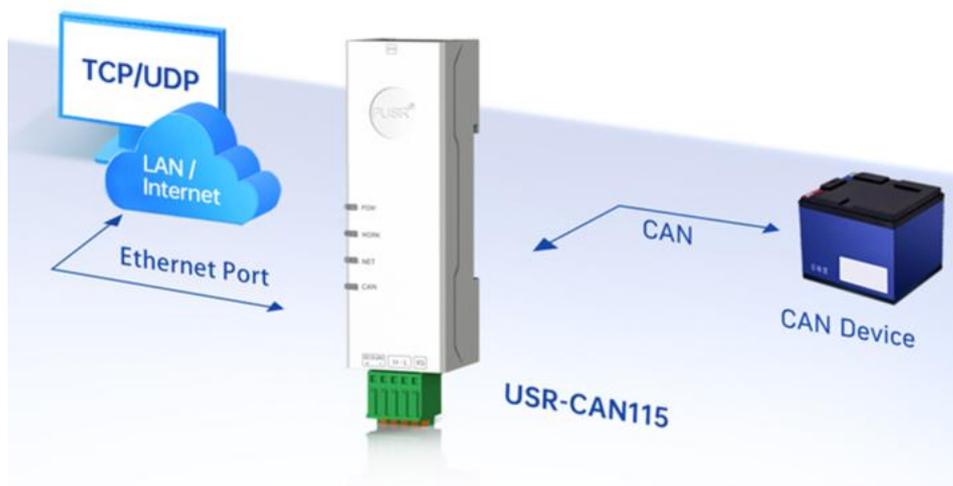
This series of products adopt industrial design standard,-40℃~85℃ stable operation. Support 5~24V wide voltage terminal power supply. Wide baud rate range, CAN baud rate support 5K~1Mbps, support custom baud rate. Support AT commands and PC software configuration parameters, easy to use. The product comes with 120Ω resistor, which can be quickly connected to CAN-bus. The product comes with guide rail (C45 GB) buckle, easy and fast installation.

Product Feature

- CAN and Ethernet bidirectional conversion
- CAN2.0A and CAN2.0B standard protocols
- Support transparent conversion, transparent band ID conversion, standard protocol conversion
- TCP server, TCP client, UDP server, UDP client
- Support extended frame only, standard frame only, custom frame ID reception
- Support 14 sets of custom frame ID filtering to avoid data interference
- Wide baud rate range, CAN baud rate: 5K~1Mbps
- Support custom baud rate
- Heartbeat packet support: network heartbeat packet, CAN port heartbeat packet
- Support registration package: connection sending, data carrying, full registration
- Support normal, listen only, loop three working modes
- Support PC parameter configuration
- Support network AT command configuration
- Support PC firmware upgrade, firmware update is more convenient
- High and low temperature resistance,-40℃~85℃ stable operation
- With 120 ohm termination resistor
- Support 5-24V wide voltage input, with anti-reverse connection protection
- Reliable hardware protection, electrostatic protection, surge, burst protection
- Hardware watchdog function, crash automatic restart, module more stable and reliable

Product Application

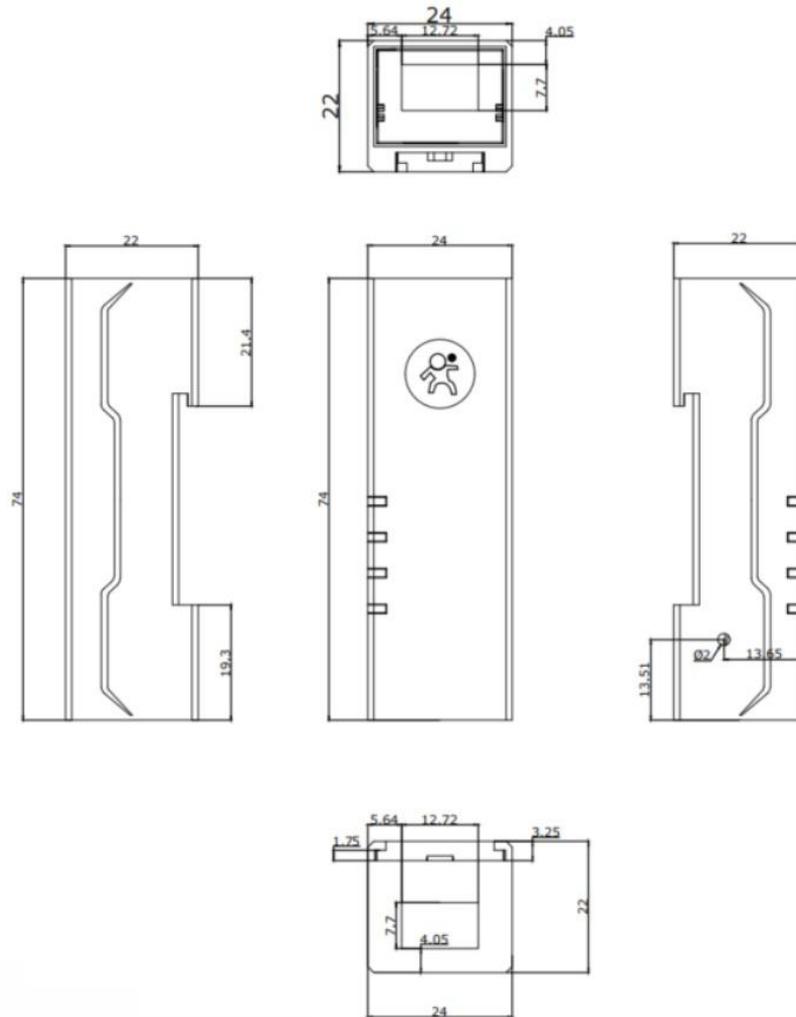CAN to Ethernet bidirectional data transmission

Product Parameters

Power Supply

Service voltage	DC:5~24 V, 12V 1A recommended
Power dissipation	No load--Average power consumption: 31.6mA/12V; maximum power consumption: 34.6mA/12V. Full load--Average power consumption: 32.8mA/12V; maximum power consumption:35.7mA /12V.

Construction

Size	74*24*22mm (L * W * H)
Installation method	Rail mounting
Reload key	Press and hold to restore factory settings

Ethernet port

Specification	RJ45, 10/100Mbps, Cross-Direct Adaptive

CAN port

CAN port Wiring definition	H: CAN_H signal line connection terminal L:CAN_L signal line connection terminal RS: 120Ω termination resistance of CAN （Connect RS to L, and then the 120Ω resistor inside the module will be incorporated into the CAN bus）
Baud rate	5kbps~1000 Kbps, support custom baud rate
Terminal resistance	Built-in CAN bus 120Ω termination resistor

Protection

Static	GB/T 17626.2-2018, Level 3, class B, air discharge 8KV, contact discharge 6KV
Surge	GB/T 17626.5-2019,Level 3, class B, Differential mode 1KV, Common mode 2KV, CAN port common mode 2KV
Burst	GB/T 17626.4-2018, Level 3, class B, Power circuit 2KV, Ethernet port circuit 1KV, CAN circuit 1KV

Indicator light

Power supply	Pow, red indicator light
Work	Work, green indicator light. Flashing: normal operation of equipment,frequency 1s; Strobe: Passive error state of CAN bus; Constant light: CAN bus operation abnormal
Ethernet port	NET, green indicator light. Flashing: indicates that data is being received at the network port
CAN port	CAN, green indicator light. Flashing: indicates that CAN port has data being received

Work environment

Working temperature/ humidity	Temperature: -40℃; Humidity: 5%~95% RH(no condensation)
Storage temperature/humidity	Temperature: -40℃ to 105℃ ; Humidity: 5%~95% RH(no condensation)

Software function

Ethernet protocol	TCP server、TCP client、UDP server、UDP client
Conversion of mode	Transparent conversion, Transparent band ID conversion, Standard conversion
CAN ID	Support standard frame, remote frame
Frame ID filtering	Support standard frames only, remote frames only, custom input frame IDs (up to 14 groups)
Serial packet length	Support custom packet length
Switch direction	Support bi-directional conversion, only network port to CAN, only CAN to network port
Work pattern	Normal, Loop, Hear Only
Firmware upgrade	Support firmware upgrade on PC
Parameter configuration	AT command, PC software configuration

| Heartbeat packet | Support network heartbeat packet, CAN port heartbeat packet |
| Registration packet | Support custom, MAC registration package; optional connection sending, data carrying, full registration |

Product Structure

Purchase & Support

For more information, please visit our websites:

Official website: https://pusr.com

Official shop: https://shop.usriot.com

Technical support: http://h.usriot.com/

Your Trustworthy Smart IOT Partner