## TOSUV

# GW2112

# 2 CAN FD gateways/routers



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#### **Classic Application:**

- · Connect CAN bus devices to CAN FD networks
- Connect CAN FD bus devices to CAN networks
- Connect two segments of CAN/CAN FD networks with different baud rates
- Serve as a device isolating two network segments, achieving data filtering and conversion
- Act as a repeater to increase node load and extend communication distances

## **Feature Overview**

GW2112 is a CAN/CAN FD relay and message forwarding device, boosting bus load capacity and extending communication distance. It supports different baud rates of CAN/CAN FD networks and facilitates conversion between them.

With two configurable CAN/CAN FD interfaces, it supports both ISO standard CAN FD and non-ISO CAN FD standards. Users can freely configure the behavior and data routing between its two CAN FD channels.

GW2112 enables configuring basic information for the two CAN ports, The Pro version prioritizing security features like message and configuration encryption for user information security. Users can set conversion rules via TSMaster software and download them to the device via USB. GW2112 stores configured rules persistently, ensuring retention even after power loss.

Each interface is equipped with independent 2500VDC electrical isolation protection circuits, enhancing system reliability in harsh environments.





## **Characteristics**

- · CAN/CAN FD channels, configurable as CAN or CAN FD
- Support for CAN 2.0A, B protocols, compliant with ISO11898-1 specifications. CAN channel baud rate ranging from 125Kbps to 1Mbps
- Support for both ISO standard CAN FD and non-ISO CAN FD standards, with CAN FD baud rates ranging from 125k to 8Mbps
- Configuration of message forwarding relationships, including ID conversion and various mappings of data within messages, through software
- The Pro version of the device supports signal mapping, mathematical operations, and various advanced functions such as configurable encryption algorithms
- The Pro version also supports custom functions like configurable encryption
- · Two LEDs for displaying status information
- DC 2500V isolation for CAN channels

#### **Specification**

| Channel                      | 2 x CAN FD  |  |
|------------------------------|---|--|
| PC                           | USB   |  |
| CAN                          | Supports CAN2.0A and B protocols, conforms to the ISO11898-1 specification, |  |
|                              | and has a baud rate of 125Kbps-1Mbps  |  |
| CAN FD                       | Support ISO and non-ISO standard CAN FD, baud rate 125Kbps-8Mbps            |  |
| Terminal Resistance          | Built-in 120 Ohm terminal resistor is configurable by software              |  |
| Packet forwarding capability | 11,000 frames/sec (per channel)   |  |
| Forwarding Delay             | <0.5ms  |  |
| Isolation                    | CAN channel DC2500V isolation   |  |
| Power Supply                 | DC 8-36V  |  |
| Size                         | 100x70x36mm   |  |
| Enclosure Material           | Aluminum  |  |
| Operating Temperature        | -40°C∼80°C  |  |

## **Ordering Information**

| Product name   | Model      | Feature description  |
|----------------|------------|--|
| Network Device | GW2112     | 2 Channel CAN/CAN FD Router  |
| Network Device | GW2112 Pro | 2 Channel CAN/CAN FD Router, supporting advanced features such as encryption |



## **Version Comparisonon**

| Function   | GW2112 | GW2112 Pro |
|--|--------|------------|
| Channel (Basic Routing)  | ✓      | √          |
| Filtering  | ✓      | ✓          |
| Routing (Mapping, Message-level Splitting/Merging, Group Forwarding) | √      | √          |
| Routing (Splitting Signal Options)                                   | ×      | √          |
| Routing (Merging Signal Options)                                     | ×      | √          |
| Custom Functions (Including Various Encryption Algorithms, etc)      | ×      | ✓          |

## **Shipping list**

- · GW2112 device
- · USB Cable
- Phoenix Terminal Power Cable (optional, customizable according to requirements)

#### **Pin definition**

• CAN FD 1 / 2

| PIN  | Definition    |
|------|---------------|
| PIN1 | CAN FD 2_Low  |
| PIN2 | C_GND 2       |
| PIN3 | CAV FD 2_High |
| PIN4 | CAN FD 1_Low  |
| PIN5 | C_GND1        |
| PIN6 | CAV FD 1_High |