



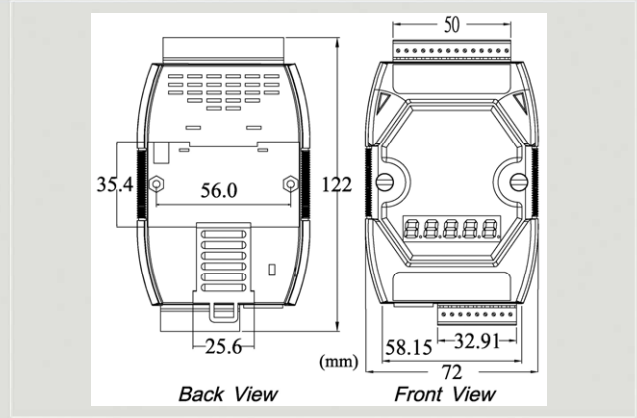
J1939 Series Products



J1939 to Modbus TCP Server / RTU Slave Gateway



GW-7238D

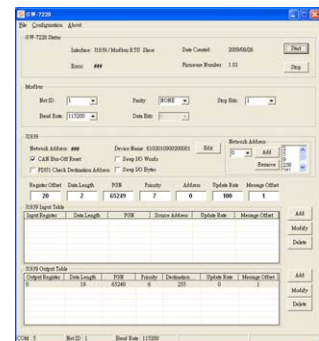


Dimensions

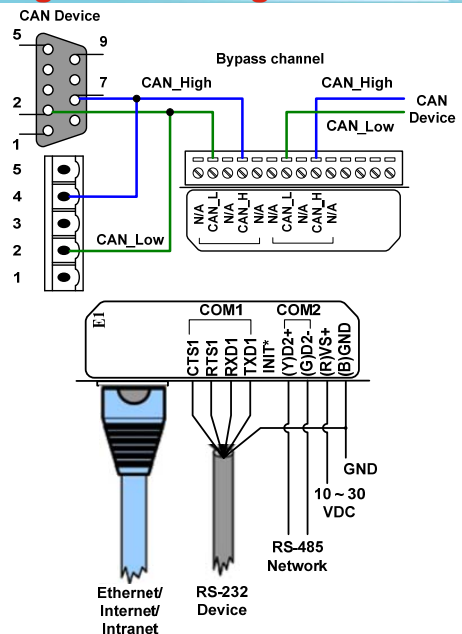
The GW-7238D is a gateway that provides conversion between J1939 and Modbus TCP/RTU protocol. For J1939 network, the GW-7238D supports PDU1, PDU2, broadcast and destination specific type of J1939 messages. For Modbus TCP/RTU network, the GW-7238D is a Modbus TCP server / RTU slave to reply the request from Modbus TCP client / RTU master. Utility software is provided for users to configure J1939 and Modbus TCP/RTU setting in the GW-7238D. The application fields can be Diesel power-train applications, In-Vehicle networks for trucks and buses, etc.

Features

- Provides PWR / J1939 / MODBUS indication LEDs
- Built-in jumper to select 120 ohm terminal resistor
- Watchdog inside
- Transmission and reception of all types of J1939 messages, including PDU1, PDU2, broadcast and destination specific
- J1939 Transport Protocol for transmission and reception of large messages (9 - 1785 bytes)
- Supports BAM of Connection Management Message
- Network addresses management
- Supports RS-232, RS-485 and Ethernet interfaces
- Configurable baud rates of 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
- Supports Modbus TCP server / RTU slave protocol
- Configurable for Modbus Network ID (1~250)
- Allows 5 Modbus/TCP clients' simultaneous accesses
- Supports Function Code 03 / 04 / 06 / 16 of Modbus functions for reading and writing J1939 Messages



Wiring and Pin Assignments



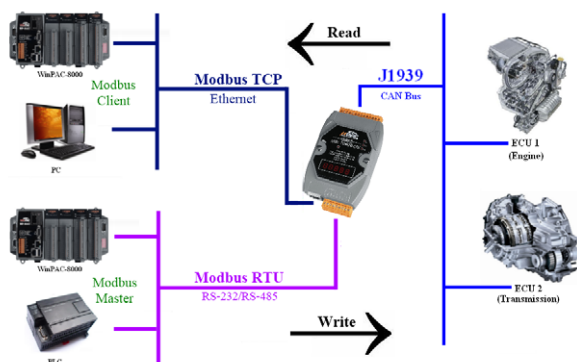
Utility Features

- Provides Modbus network configuration interface
- Provides J1939 network configuration interface – Network Address / Device Name...
- Provides J1939 Input / Output configuration interface

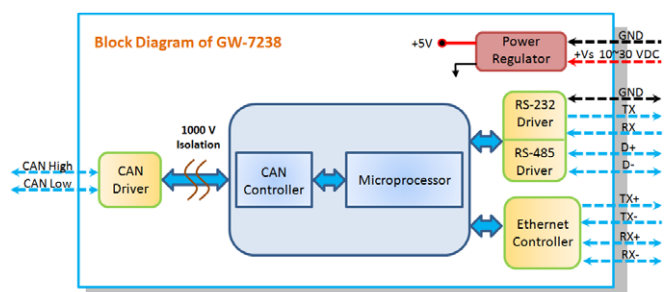
Hardware Specifications

| Hardware | |
|--------------------------|---|
| CPU | 80186, 80 MHz or compatible |
| CAN Interface | |
| Controller / Transceiver | NXP SJA1000T with 16 MHz clock / NXP 82C250 |
| Channel number | 1 |
| Connector | 5-pin screwed terminal block (CAN_L, CAN_H, N/A for others) |
| Baud Rate (bps) | 250 k |
| Isolation | 1000 V _{DC} for DC-to-DC, 2500 V _{rms} for photo-couple |
| Terminal Resistor | Jumper for 120 Ω terminal resistor |
| Specification / Protocol | ISO-11898-2, CAN 2.0A and CAN 2.0B / J1939 |
| UART Interface | |
| COM 1 / Protocol | RS-232 / Modbus RTU |
| COM 1 Connector | 5-pin screwed terminal block (TxD, RxD, RTS, CTS, GND) |
| COM 2 / Protocol | RS-485 (Self-turner inside) / Modbus RTU |
| COM 2 Connector | 2-pin screwed terminal block (DATA+, DATA-) |
| Ethernet Interface | |
| Controller | 10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX) |
| Connector / Protocol | RJ-45 with LED indicator / Modbus TCP |
| LED | |
| Round LED | PWR / J1939 / MODBUS RTU / MODBUS TCP |
| Power | |
| Power supply | Unregulated +10 ~ +30 V _{DC} |
| Protection | Power reverse polarity protection, Over-voltage brown-out protection |
| Power Consumption | 3 W |
| Mechanism | |
| Dimensions | 108mm x 72mm x 35mm (H x W x D) |
| Environment | |
| Operating Temp. | -25 ~ 75 °C |
| Storage Temp. | -30 ~ 80 °C |
| Humidity | 10 ~ 90% RH, non-condensing |

Application



Block Diagram



Ordering Information

GW-7238D CR

J1939 to Modbus TCP server / RTU Slave Gateway (RoHS)