



I-7531-FD-G I-7531-FD-UTA-G

Two-channel Isolated CAN / CAN FD Signal Repeater

Features

- Supported CAN specification 2.0A/B and CAN FD
- Fully compatible with the ISO 11898-2 standard
- Detected CAN bus baud rate automatically, maximum support 8000 kbps
- Wide Operating Temperature Range:
  - Standrd Series: -25 ~ +75°C
  - UTA Series: -40 ~ +75°C

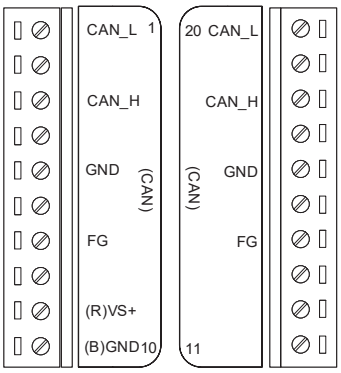
Introduction

The I-7531-FD series are isolated CAN/CAN FD signal repeaters with two CAN ports, that can connect and isolate two CAN signals with the same CAN baud rate. When the CAN signal received by one of the CAN ports is attenuated due to cable length or noise interference, this module can restore the CAN signal to its original shape and output it from the other CAN port. Additionally, the module can automatically adjust its CAN baud rate to match the CAN bus, so users do not need to configure any module parameters. Users only need to connect the module to the CAN bus, supply power, and it will function normally.

However, please note that although the attenuated CAN signal can be restored to its original shape after passing through this module, there will be a slight time delay at the physical layer, and the communication distance of the CAN signal will not be extended.

Pin Assignments

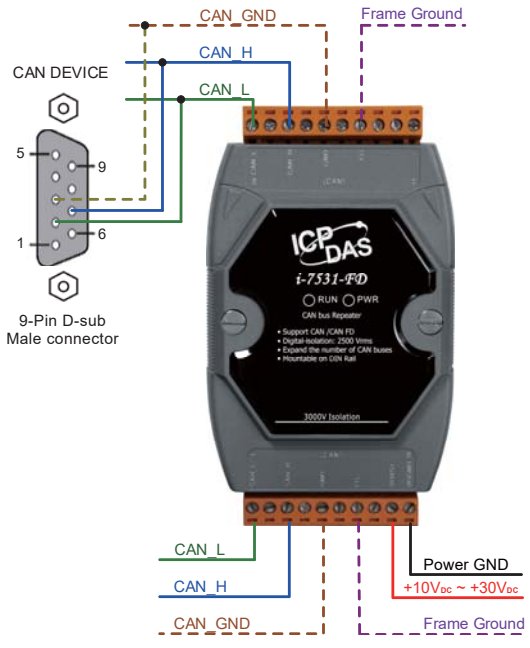
Pin	Name	Description
1	CAN_L	CAN_Low. Signal Line of CAN port 1.
3	CAN_H	CAN_High. Signal Line of CAN port 1.
5	GND	CAN_Ground (or CAN_GND), voltage level of ground of CAN_L and CAN_H in CAN port 1.
7	FG	Frame Groud.
9	(R)VS+	Power input +10VDC ~ +30VDC.
10	(B)GND	
14	FG	Frame Groud.
16	GND	CAN_Ground (or CAN_GND), Voltage level of ground of CAN_L and CAN_H in CAN port 2.
18	CAN_H	CAN_High. Signal Line of CAN port 2.
20	CAN_L	CAN_Low. Signal Line of CAN port 2.



Specifications

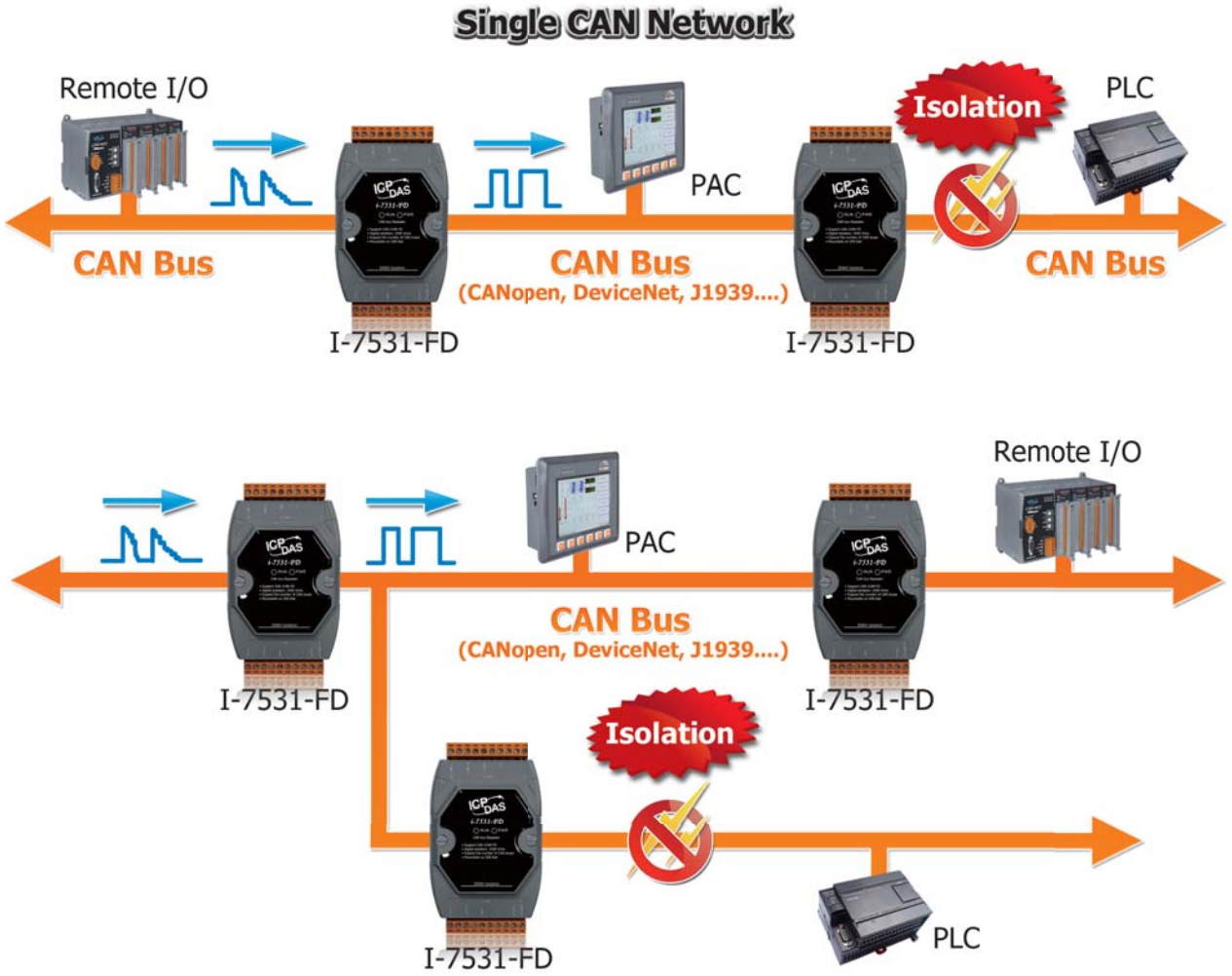
Model Name	I-7531-FD-G	I-7531-FD-UTA-G
CAN		
Ports	2	
Baud Rate	CAN bus: 5 k ~ 800 kbps CAN FD: Arbitration rate up to 1000 kbps, data rate up to 8000 kbps (Note) The data rates are verified by tests, but user-defined baud rates are possible, so the maximum data rate will depend on the concrete operating conditions (cable length, remote stations, etc.).	
Isolation	2500 Vrms for digital isolation, and 3000 V for DC-DC	
Terminal Resistor	Build in 120 Ω terminal resistor and support jumper to select	
Specification	ISO-11898-2, CAN 2.0A/B and CAN FD (CAN FD support ISO and Non-ISO standards)	
Time Delay	Typ. 175ns (corresponds to ~35m CAN bus length)	
Power		
Input Range	+10 VDC ~ +30 VDC	
Consumption	1 W	
Mechanical		
Casing	Plastic	
Dimensions (mm)	72 x 118 x 33 (W x L x H)	
Installation	DIN-Rail	
Environmental		
Operating Temperature	-25 ~ +75 °C	-40 ~ +75 °C
Storage Temperature	-30 ~ +80 °C	-40 ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing	

Wire Connections

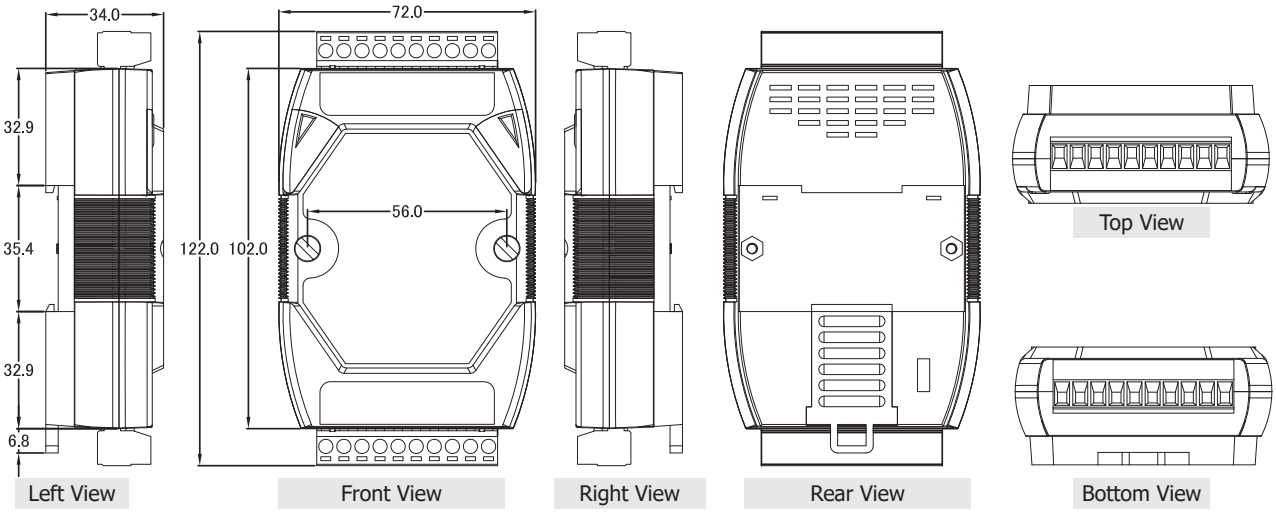


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Applications



Dimensions (Units: mm)



Ordering Information

I-7531-FD-G CR	Two-channel Isolated CAN / CAN FD Signal Repeater (RoHS) (-25 to 75°C Operating Temperature)
I-7531-FD-UTA-G CR	Two-channel Isolated CAN / CAN FD Signal Repeater (RoHS) (-40 to 75°C Operating Temperature)

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