



# I-7531-FD-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



#### **■** Introduction

The I-7531-FD is a CAN/CAN FD signal repeater, which can connect two or more CAN networks with the same baud rate. Based on the signal repeat function of I-7531-FD, users can use different numbers of I-7531-FD to combine tree-shaped and star-shaped CAN network topology, and when there are too many devices on the CAN network, using I-7531-FD can increase the driving force of the CAN signal to drive more CAN devices. In addition, the CAN side of the I-7531-FD has a digital isolation of 2500 Vrms, and the CAN side and the power side also provide 3000 V DC-DC isolation protection, which can effectively isolate the noise interference between CAN networks ,and achieve protection the purpose of a specific CAN network.

#### Pin Assignments

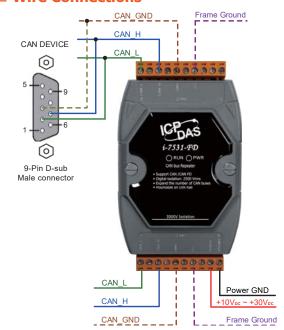
Pin	Name	Description		
1	CAN_L	CAN_Low. Signal Line of CAN port 1.		
3	CAN_H	CAN_High. Signal Line of CAN port 1.		
5	GND	CAN_Ground (or CAN_GND), voltage level of ground of CAN_L and CAN_H in CAN port 1.		
7	FG	Frame Groud.		
9	(R)VS+	Power input +10VDC ~ +30VDC.		
10	(B)GND			
14	FG	Frame Groud.		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

CAN_L 1	20 CAN_L	
CAN_H	CAN_H	
GND Q	(CAN)	
GND (CAN)	ž	
FG	FG	
(R)VS+		
(B)GND <sub>10</sub>	11	

#### Specifications

CAN				
Ports	2			
	CAN bus: 5 k $\sim$ 800 kbps CAN FD: Arbitration rate up to 1000 kbps, data rate up to 8000 kbps			
Baud Rate	(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 $\Omega$ 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			
Storage Temperature	-30 ∼ +80 °C			
Humidity	10 ~ 90% RH, Non-condensing			

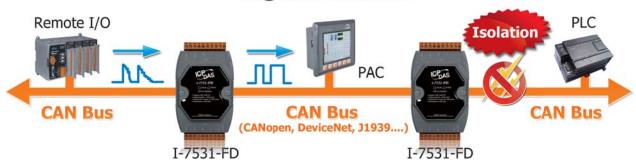
#### **■** Wire Connections



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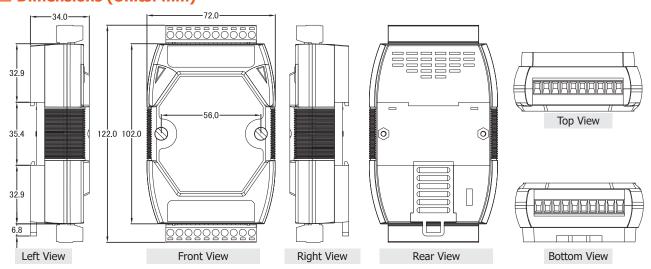
## Applications

## Single CAN Network





## **■** Dimensions (Units: mm)



### **■** Ordering Information

I-7531-FD-G CR Two-channel Isolated CAN / CAN FD Signal Repeater (RoHS)

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