

I-2533CS I-2533CS-60

CAN to Single Mode Fiber Bridge

Features

- Fiber Type: SC type ; Single mode ; 100 Base-FX
- Maximum transmission distance up to 30 km (60km for I-2533CS-60) at any CAN baud rate
- TJA1042T CAN transceiver
- 2500 Vrms isolation on the CAN side
- Support both CAN 2.0A and CAN 2.0B specification
- Fully compatible with the ISO 11898-2 standard
- Built-in switch for 120 Ω terminal resistor
- Removable terminal block
- Mount easily on DIN-Rail
- Rotary switch for CAN baud rate configuration
- Allow user-defined baud rate
- Fiber broken line detection
- Utility tool for message filter configuration

Introduction

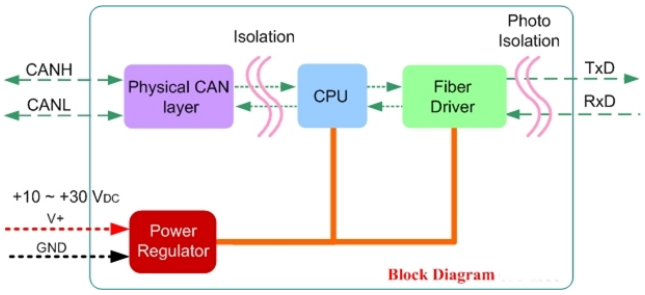
The I-2533CS is a local CAN bridge used to establish a connection between two CAN bus systems via single mode fiber optic. It can unleash the transmission distance limitation of the fiber optic due to the higher CAN baud rate. That is to say that the total network distance can be extended. When applying the I-2533CS in the two CAN sub-network, the bus error on one CAN network don't affect the operation of another CAN network, and the two CAN network can communicate with each other by using different CAN baud rate for highly flexibility. These features help users' applications more powerful and flexible.

Hardware Specifications

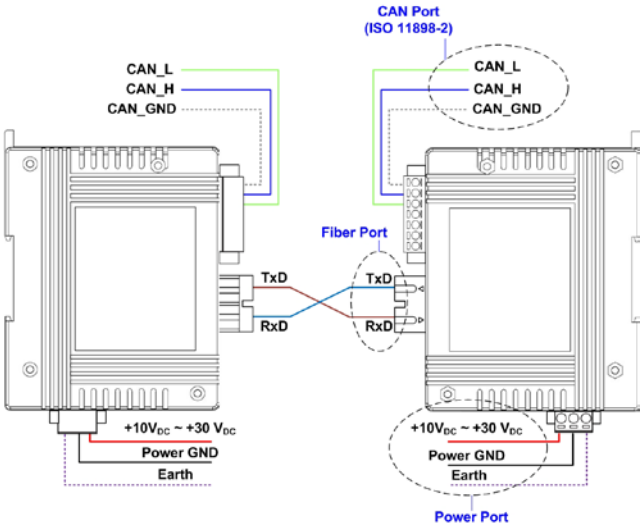
Module Name	I-2533CS	I-2533CS-60
CAN Interface		
Connector	Screwed terminal block (CAN_GND, CAN_L, CAN_H)	
Baud Rate (kbps)	10, 20, 50, 80, 100, 125, 250, 500, 800, 1000 and User-defined baud rate	
Terminal Resistor	Switch for 120Ω terminal resistor	
Isolation	3000 V_{DC} for DC-to-DC, 2500 Vrms for photo-couple	
Specification	ISO-11898-2, CAN 2.0A and CAN 2.0B	
Fiber Interface		
Type	SC type ; Single mode ; 100 Base-FX	
Wave Length (nm)	1310	
Fiber Cable (μm)	8.3/125, 8.7/125, 9/125 or 10/125	
Transmission Distance (km)	30 (indicative only)	60 (indicative only)
Min. TX Output (dBm)	-15	-5
Max. TX Output (dBm)	-8	0
Max. RX Sensitivity (dBm)	-34	-35
Max. RX Overload (dBm)	-5	
Budget (dBm)	19	30
LED		
Round LED	PWR, FB_Ack, FB_Err, CAN_Err, CAN_Tx and CAN_Rx LEDs	
Power		
Power supply	Unregulated +10 ~ +30 V_{DC}	
Protection	Power reverse polarity protection, Over-voltage brown-out protection	
Power Consumption	3 W	
Mechanism		
Installation	DIN-Rail	
Dimensions	33.0 mm x 126 mm x 101 mm (W x L x H)	
Environment		
Operating Temp.	-25 ~ 75 ℃	
Storage Temp.	-30 ~ 80 ℃	
Humidity	10 ~ 90% RH, non-condensing	

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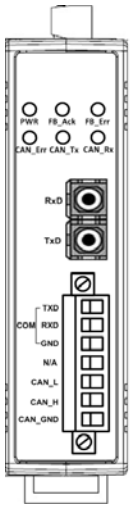
Block Diagram



Wire Connection

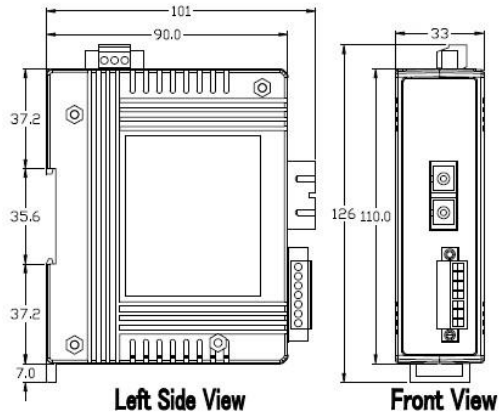


Pin Assignments

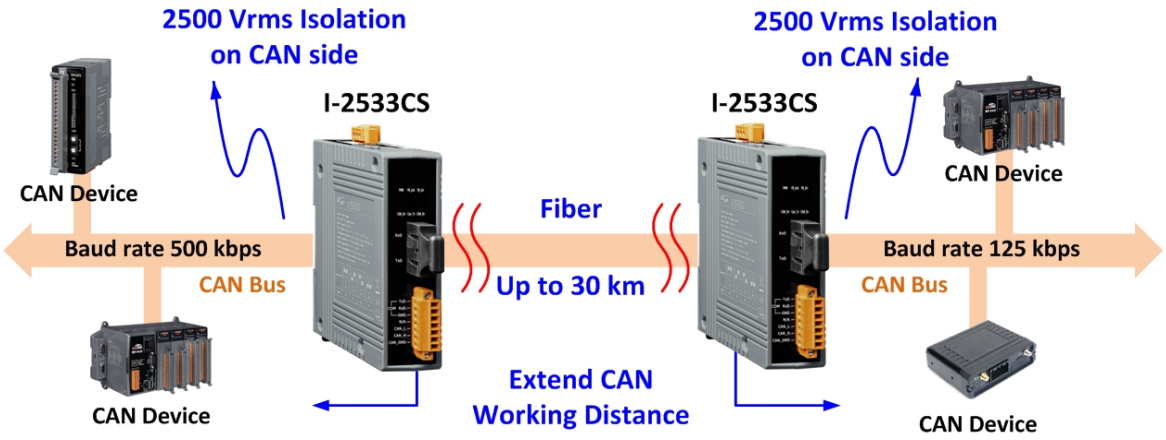


Pin. No.	Meaning
RxD	Fiber RxD port
TxD	Fiber TxD port
COM TXD	TXD pin of RS-232 port for configuration
COM RXD	RXD pin of RS-232 port for configuration
COM GND	GND pin of RS-232 port for configuration
N/A	Non-available
CAN_L	CAN_L pin of CAN bus
CAN_H	CAN_H pin of CAN bus
CAN_GND	CAN_GND pin of CAN bus

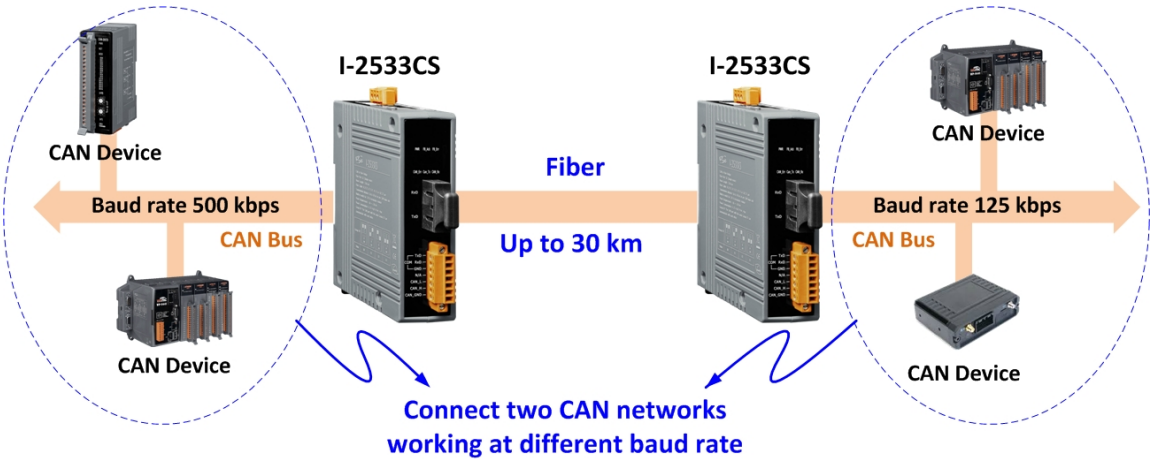
Dimensions (Units: mm)

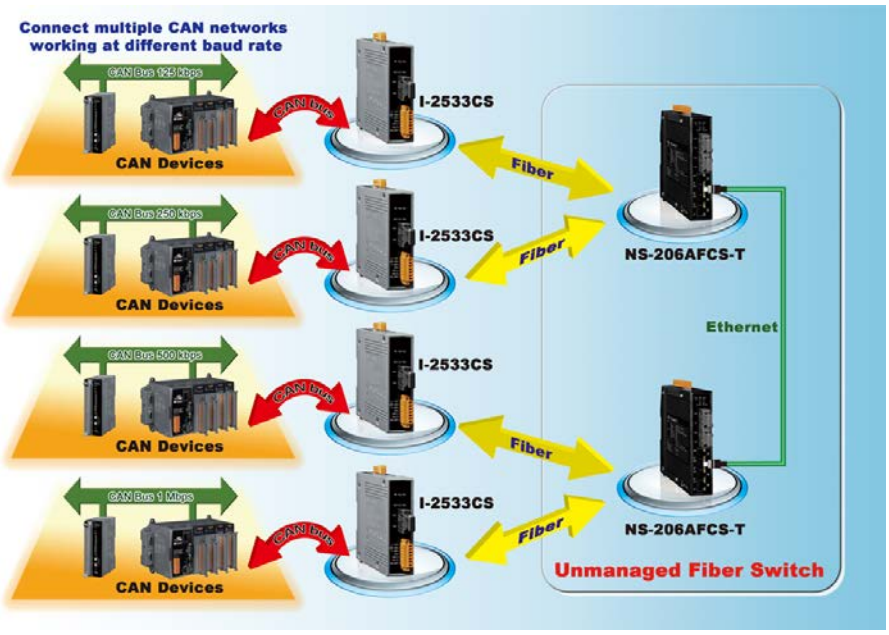


Application



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Ordering Information

I-2533CS CR	CAN to single mode fiber bridge; 1 single mode, SC connector (RoHS)
I-2533CS-60 CR	CAN to single mode fiber bridge; 1 (60 km) single mode, SC connector (RoHS)

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