



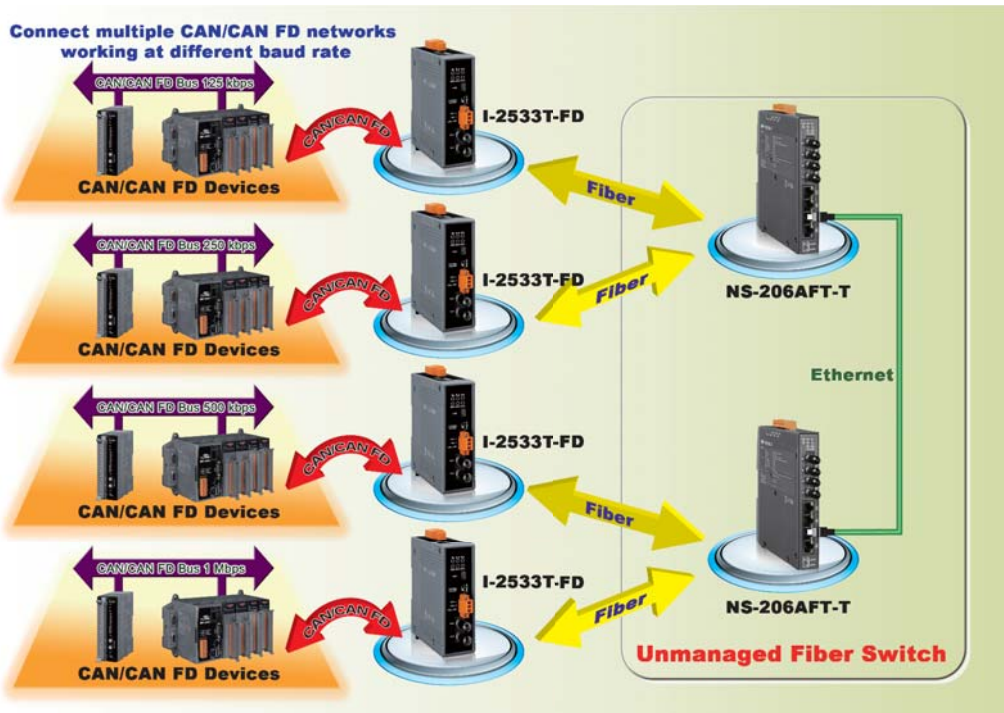
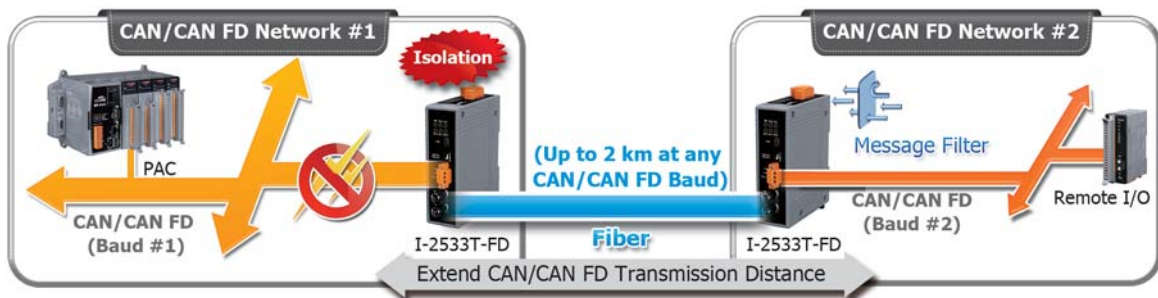
## I-2533T-FD

CAN/CAN FD to Multi-Mode Fiber Bridge

### Introduction

The I-2533T-FD is a local CAN/CAN FD (CAN with Flexible Data-Rate) bridge used to establish a connection between two CAN bus system via multi-mode fiber optic transmission medium. In order to solve the problem between CAN/CAN FD and fiber transmission medium, The I-2533T-FD is specially designed for converting the electrical CAN/CAN FD bus signal to fiber optic cables. Besides, I-2533T-FD has three more important features. First, the transmission distance limitation of the CAN bus system will not be affected due to the different CAN/CAN FD baud rate. It means that the total CAN/CAN FD bus working distance can be extended. Second, the bus error on one CAN/CAN FD network will not affect the operation of another CAN/CAN FD network. Finally, the two CAN/CAN FD network can communicate with each other by using different CAN/CAN FD baud rate for highly flexibility.

### Applications



### Features

- Compatible with the ISO 11898-2 standard
- Compatible with CAN specification 2.0 A/B and FD
- CAN FD support for ISO and Non-ISO (Bosch) standards switchable
- CAN FD bit rates for data field from 100 kbps to 10000 kbps
- CAN bit rates from 10 kbps to 1000 kbps
- Fiber broken line detection
- Support CAN Bus message filter configuration
- Support firmware update via USB
- Basic CAN message routing function via Group ID settings
- Built-in switchable 120 ohm terminal resistor for CAN Bus

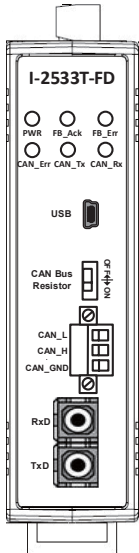


## Specifications

CAN Interface	
Transceiver	TI TCAN1042HG
Channel Number	1
Connector	3-pin terminal-block connector
Transmission Speed	CAN bit rates: 10 ~ 1000 kbps, CAN FD bit rates for data field: 100 ~ 10000 kbps
Terminal Resistor	DIP switch for the 120 Ω terminal resistor
Isolation	3000 VDC for DC-to-DC, 2500 Vrms for photocoupler
Specification	ISO 11898-2, CAN 2.0 A/B and FD
CAN Filter Configuration	Selectable via Utility tool
Receive Buffer	128 data frames
USB Interface	
Connector	1 x USB (Mini-B)
Compatibility	USB 2.0 High Speed (480Mbps)
Software Driver	Built-in Windows 7/8.1/10

Fiber Interface	
Type	ST type ; Multi-mode ; 100 Base-FX
Wave Length (nm)	1310
Fiber Cable (μm)	50/125, 62.5/125 or 100/140
Transmission Distance	2 km (62.5/125 μm recommended)
Min. TX Output (dBm)	-20
Max. TX Output (dBm)	-14
Max. RX Sensitivity (dBm)	-32
Max. RX Overload (dBm)	-8
Budget (dBm)	12
LED Indicators	
System LED Indicator	1 x Power, 2 x Fiber status, 3 x CAN status
Power	
Power Consumption	0.125 A @ 24V
Mechanical	
Installation	DIN-Rail
Casing	Plastic
Dimensions (mm)	33.0 mm x 127 mm x 101 mm (W x L x H)
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

## Pin Assignments

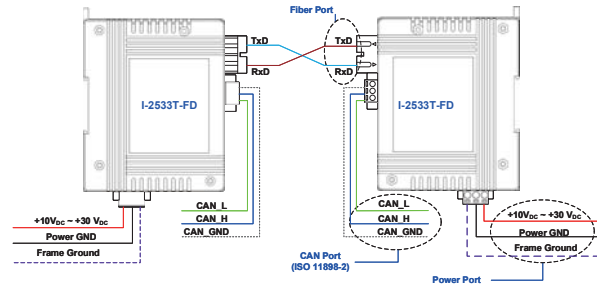


Pin. No.	Meaning
USB	Used for configuration utility
CAN_L	CAN_L pin of CAN bus
CAN_H	CAN_H pin of CAN bus
CAN_GND	CAN_GND pin of CAN bus
RxD	Fiber RxD port
TxD	Fiber TxD port

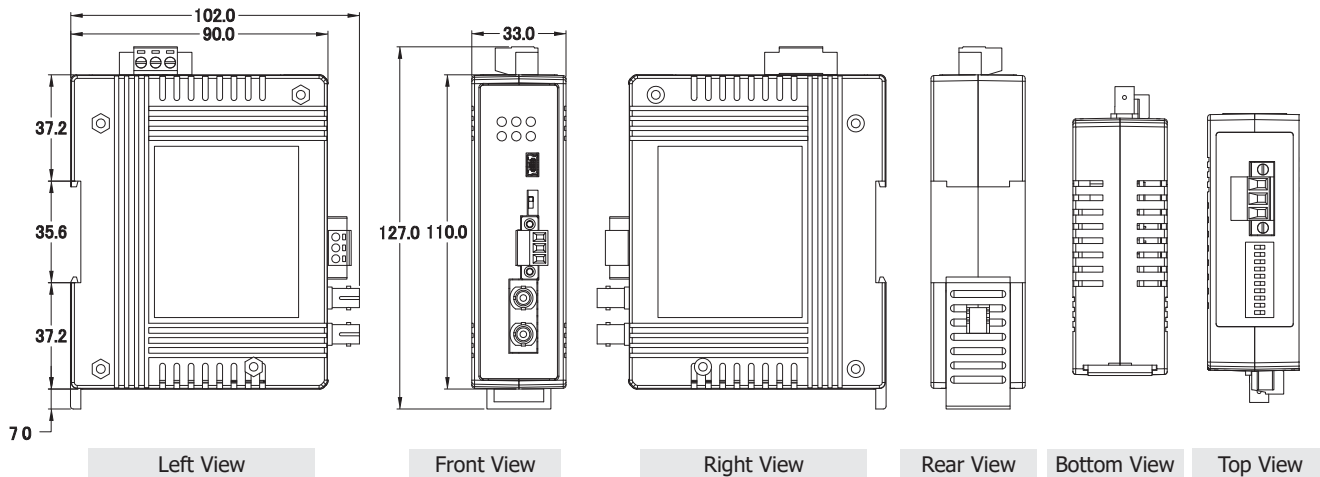
### Attention:

The maximum CAN FD data rate can be exceeded depending on the concrete operating conditions (cable length, network topology, settings,...), but it can also not be reached.

## Wire Connections



## Dimensions (Units: mm)



## Ordering Information

<b>I-2533T-FD</b>	CAN/CAN FD to Multi-Mode Fiber Bridge (RoHS)
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