PISO-CAN400U-FD-D/ PISO-CAN400U-FD-T

4-Port CAN FD Universal PCI Card

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 10 Mbps
- CAN bit rates from 10 kbps to 1000 kbps
- Support CAN Bus message filter configuration
- Board number selectable via DIP switch
- Built-in jumper to select 120 ohm terminal resister for CAN Bus
- Drivers provided for Windows 7/8.1/10
- Demos and libraries provided for C#.Net, VB.Net and VC++ .Net

Introduction

CAN FD (CAN with Flexible Data-Rate) is a newer extension version of the CAN 2.0 protocol. It was developed by Bosch and was released in 2012. It has been significantly improved during the standardization process and is nowadays in ISO 11898-1:2015. The CAN FD speeds up the data transmission and packs more data into each message.

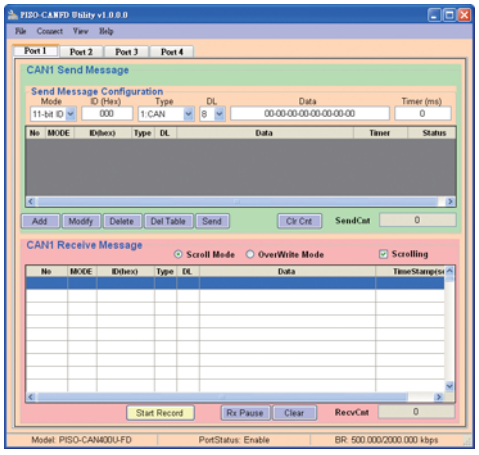
PISO-CAN400U-FD series board is a very powerful and economic solution for an active CAN board, containing four CAN channels that cover a wide range of CAN applications. It uses Microchip CAN FD controllers and TI TCAN1042HG series transceivers, which provide bus arbitration and error detection features, combined with auto-correction and re-transmission functionality. As the PISO-CANFD series board is state-of-the-art, it can be installed in either a Universal PCI bus.

Specifications

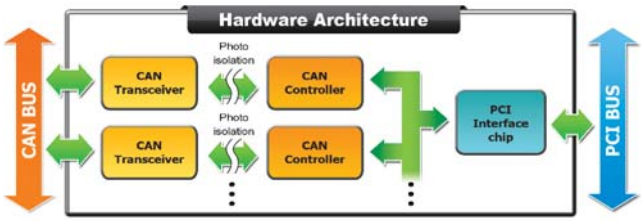
Model	PISO-CAN400U-FD-D	PISO-CAN400U-FD-T
PC Bus		
Type	Universal PCI, 3.3 V and 5 V, 33 MHz, 32-bit, plug and play	
Board No.	By DIP switch	
CAN Interface		
Controller	Microchip MCP2518FD	
Transceiver	TI TCAN1042HG	
Ports	4	
Connector	9-pin Male D-Sub	5-pin screw terminal block
Baud Rate	CAN bit rates: 10 ~ 1000 kbps, CAN FD bit rates for data field: 100 ~ 10000 kbps	
Isolation	3000 VDC for DC-to-DC, 3000 Vrms for photo-couple	
Terminal Resistor	Jumper for 120 Ω terminator resistor	
Power		
Power Consumption	200 mA @ 5 V	
Software		
Drivers	Windows 7/8.1/10 (32-bit/64-bit)	
Library/ Demo Languages	C#.Net, VB.Net, VC++.Net	
Mechanical		
Dimensions (mm)	121.7 x 21.6 x 92.7 (W x L x H)	
Environmental		
Operating Temperature	0 to 60 °C	
Storage Temperature	-20 to 70 °C	
Humidity	5 to 85% RH, Non-condensing	

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.

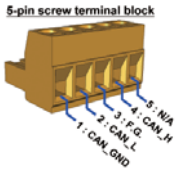
Utility

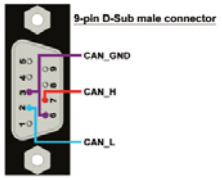


Hardware Architecture



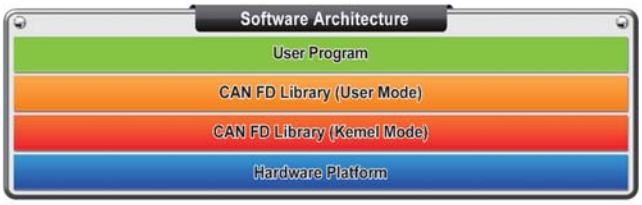
Pin Assignments

Pin Assignments for the 5-pin screw terminal connector			
Pin No.	**Name**	**Description**	
1	CAN_GND	CAN_Gnd, signal line for the CAN port.	
2	CAN_L	CAN_Low, signal line for the CAN port.	
3	F.G.	Frame Ground.	
4	CAN_H	CAN_High, signal line for the CAN port.	
5	N/A	Not used	

Pin Assignments for the 9-pin Male D-Sub connector			
Pin No.	**Name**	**Description**	
1	N/A	Not used	
2	CAN_L	CAN_Low, signal line for the CAN port.	
3	CAN_GND	CAN_Gnd, signal line for the CAN port.	
4	N/A	Not used	
5	N/A	Not used	
6	CAN_GND	CAN_Gnd, signal line for the CAN port.	
7	CAN_H	CAN_High, signal line for the CAN port.	
8	N/A	Not used	
9	N/A	Not used	

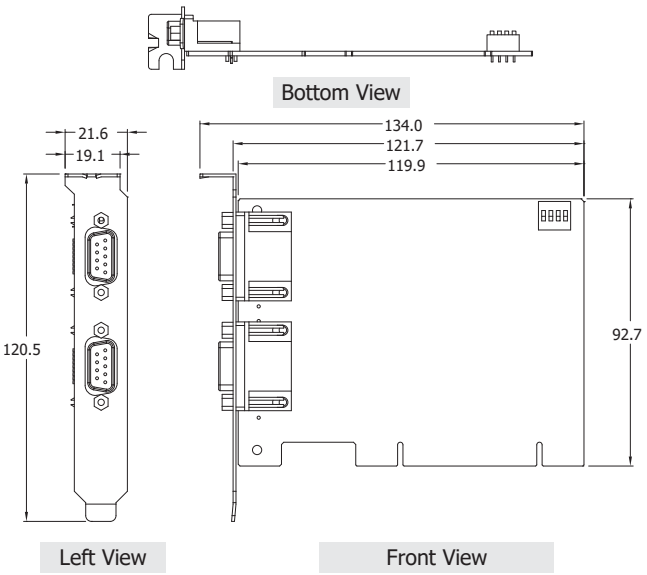
Applications

Software Architecture

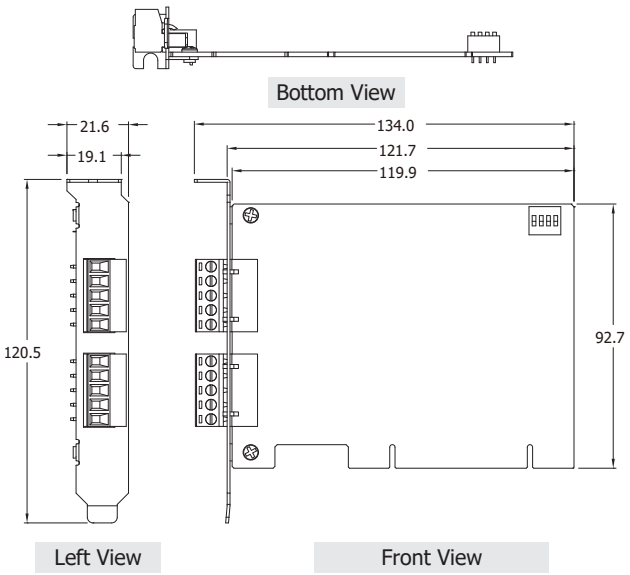


Dimensions (Units: mm)

PISO-CAN400U-FD-D:



PISO-CAN400U-FD-T:



Ordering Information

PISO-CAN400U-FD-D CR	4-port Isolated Protection CAN FD Universal PCI Card with 9-pin D-sub connector (RoHS)
PISO-CAN400U-FD-T CR	4-port Isolated Protection CAN FD Universal PCI Card with 5-pin screw terminal connector (RoHS)