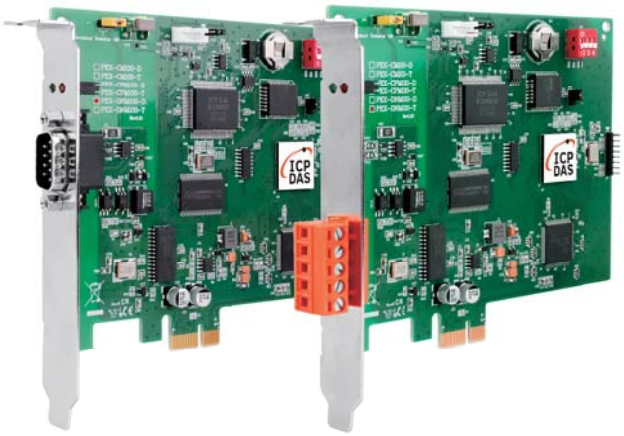


PEX-DNM100-D PEX-DNM100-T

1 Port Intelligent DeviceNet Master PCI Express Board

Features

- DeviceNet Version: Volume I & II, Release 2.0
- Programmable Master MAC ID and Baud Rate
- Baud Rate: 125 kbps, 250 kbps, 500 kbps
- Support Group 2 and UCMM connection
- I/O Operating Modes: Poll, Bit-Strobe, Change of State / Cyclic
- I/O Length: 512 Bytes max (Input/Output) per slave
- Slave Node : 63 nodes max
- Support Auto-Search slave device function
- Support on-line adding and removing devices
- Support Auto-detect Group 2 and UCMM device
- Auto-Reconnect when the connection is broken

Introduction

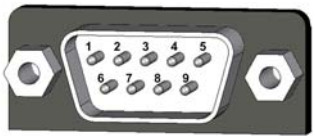
DeviceNet is a simple low cost open industrial networking system. It provides the communication service needed by various types of applications such as sensor, switches, bar-code scanner, AC/DC drives etc. DeviceNet supports the Master/Slave connection model. The PEX-DNM100 module acts the DeviceNet master device and communicates with the remote slave devices. There is a complete DeviceNet protocol firmware within the PEX-DNM100. The users can easily access those slave devices via PEX-DNM100 by using DLL library functions and need not to deal with the complex DeviceNet protocol. The uses can use as easy as "Read/Write" functions to access slave I/O data.

Specifications

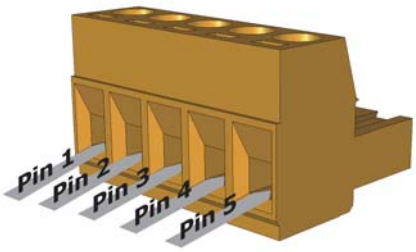
Model Name	PEX-DNM100-D	PEX-DNM100-T
Bus Interface		
Type	PCI Express bus	
Board No.	By DIP switch	
CAN Interface		
Controller	NXP SJA1000T built-in microprocessor	
Channel number	1	
Connector	9-pin male D-Sub (CAN_GND, CAN_L, CAN_SHLD, CAN_H, N/A for others)	5-pin screwed terminal block (CAN_L, CAN_SHLD, CAN_H, N/A for others)
Baud Rate (bps)	125 k, 250 k, 500 k	
Transmission Distance (m)	Depend on baud rate (for example, max. 1000 m at 50 kbps)	
Isolation	3000 VDC for DC-to-DC, 2500 Vrms for photo-couple	
Terminator Resistor	Jumper for 120 Ω terminator resistor	
Specification	ISO-11898-2, CAN 2.0A and CAN 2.0B	
Protocol	DeviceNet Volumn I ver2.0, Volumn II ver2.0	
LED		
Round LED	Green LED, Red LED	
Software		
Driver	Windows 7/8/10/11(32-bit/64-bit OS)	
Library	VB 6.0, VC++ 6.0, BCB 6.0, Visual Studio .NET	
Power		
Power Consumption	300 mA @ 5 V	
Mechanism		
Dimensions	131mm x 22mm x 98mm (W x L x H)	

Environment	
Operating Temp.	0 ~ +60 °C
Storage Temp.	-20 ~70 °C
Humidity	5 ~ 95% RH, non-condensing

Pin Assignments

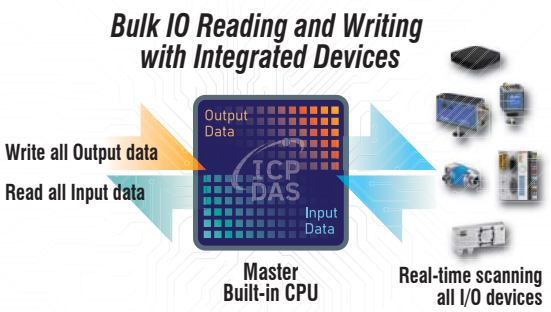


Pin No.	Signal	Description
1	N/A	No use
2	CAN_L	CAN_L bus line
3	CAN_GND	Ground
4	N/A	No use
5	CAN_SHLD	Optional CAN Shield
6	CAN_GND	Ground
7	CAN_H	CAN_H bus line
8	N/A	No use
9	N/A	No use



Pin No.	Signal	Description
1	CAN_GND	Ground
2	CAN_H	CAN_H bus line
3	CAN_SHLD	Optional CAN Shield
4	CAN_L	CAN_L bus line
5	N/A	No use

Internal I/O Structure

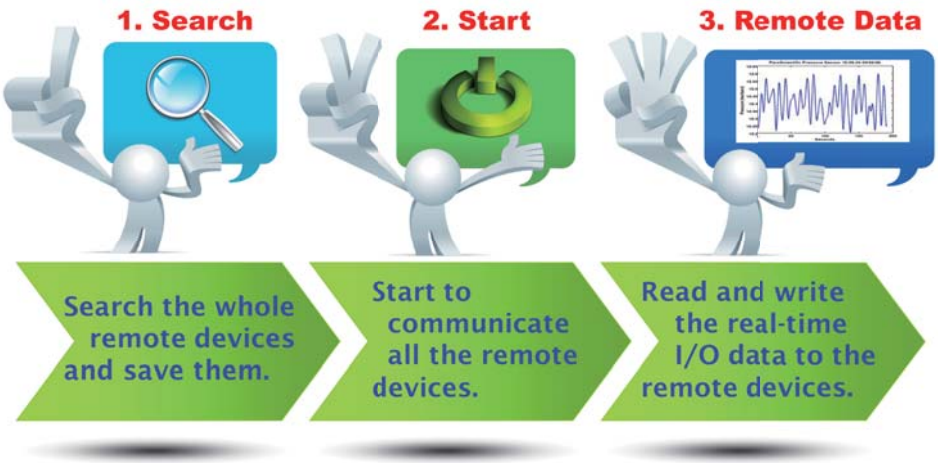


The DeviceNet Master is designed to support the function of bulk I/O read-and-write. It allows users to read and write data of all remote devices at one time, which is very convenient and efficient.

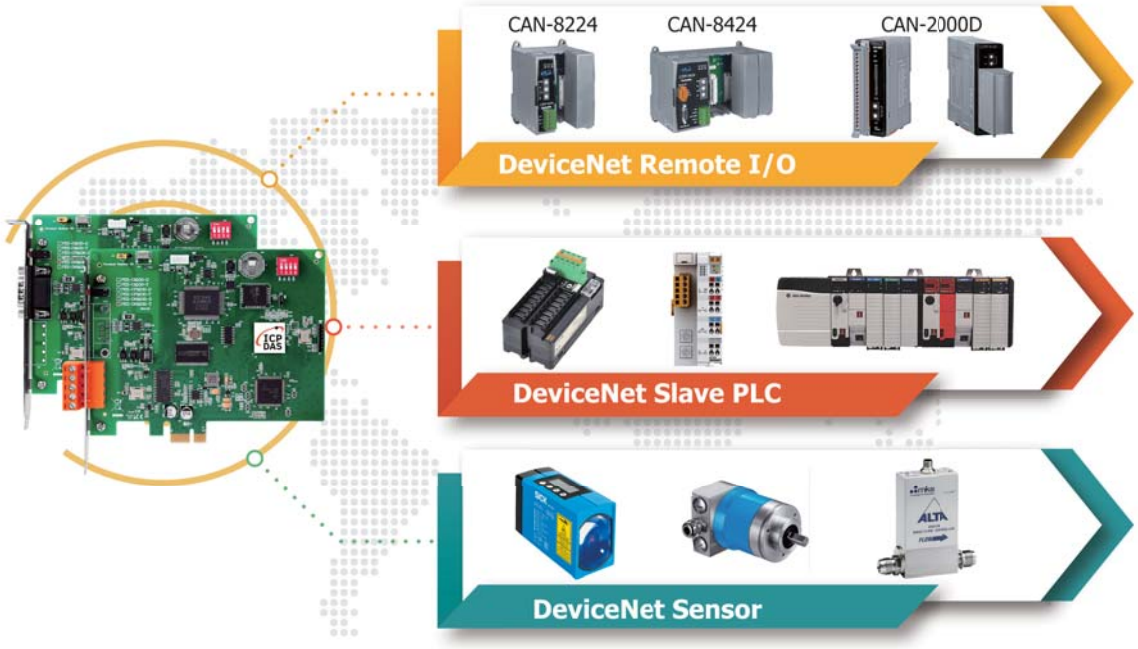
Utility Features

This utility supports to search all devices and specific devices in the network and can configure the I/O connection of the devices by searching devices or manual setting. It can easily to access the I/O data of all the slave devices.

Simple Steps

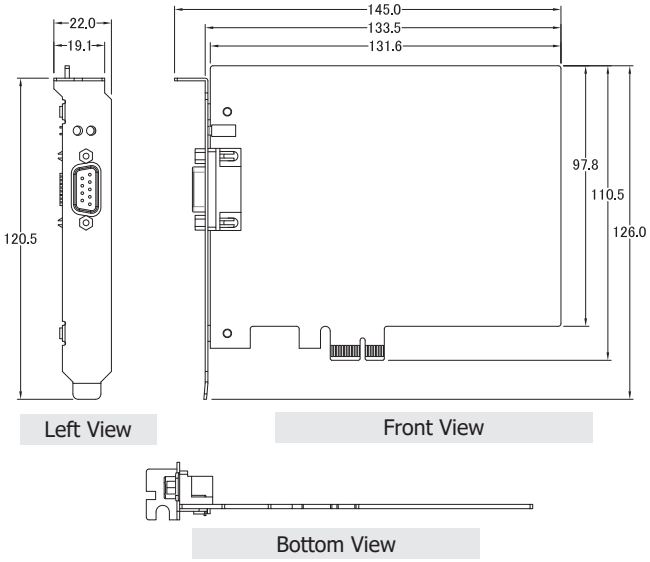


Applications

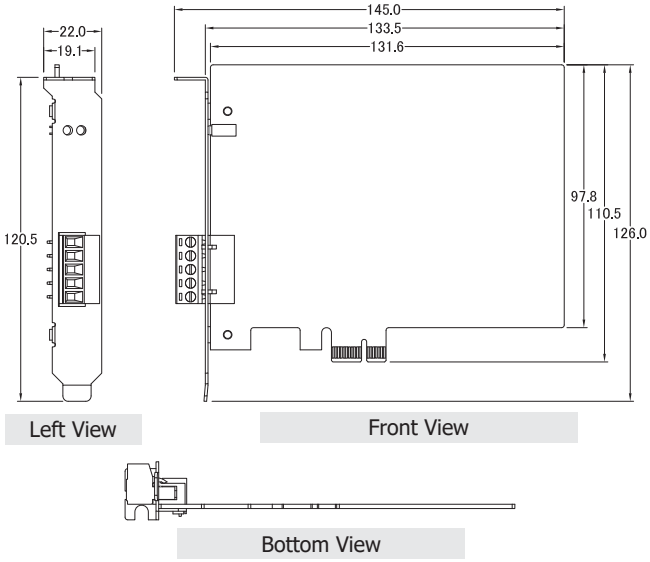


Dimensions (Units: mm)

PEX-DNM100-D



PEX-DNM100-T



Ordering Information

PEX-DNM100-D	1 Port Intelligent DeviceNet Master PCI Express Board (9-pin D-Sub Connector) (RoHS)
PEX-DNM100-D	1 Port Intelligent DeviceNet Master PCI Express Board (5-pin Screw Terminal Connector) (RoHS)