Model Information

Features

- Connects a PC to CAN bus via mPCIe slot
- Supports CAN 2.0A and CAN 2.0B
- CAN High Speed up to 1 MBit/s
- CAN port ESD protected
- Remote Frame support, Listen only mode
- Supports Windows 2000 to Server 2012, CE
- Supports Linux kernel 2.6+
- Supports C/C++, C#, VB.NET, Delphi and LabVIEW
- CANopen supported by CANFestival
- USB 2.0 Full Speed
- Driver emulates serial port for easy access
- Library (DLL) for standard access
- ASCII conversion protocol via serial port
- Supports **Bosch Busmaster** Debugging

Contact Online...

USB-CAN Plus mPCIe

(Vscom PCI-2CAN)

Quick Link: | Features | More Pictures | Overview | Application | CAN | USB | Driver and Software | Power and Environment | Standards | Ordering Information | Packaging |

More Pictures

Click on the thumbnails for the large picture ...

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Overview

The USB-CAN Plus mPCIe is a full-length add-on card for an expansion slot Mini PCI Express. The card is used to add a CAN port to a PC, thus connecting it to a CAN bus. The CAN port is ESD protected, compliant to IEC 61000-4-2 (4kV contact/8kV air discharges).

CAN bus is widely used in industrial applications as well as in automotive monitoring and control. The USB-CAN+ can be used to monitor the data traffic in such installations, as well as sending control information. The performance of USB-CAN+ is among the best available in the market of CAN-on-USB products.

Since hardware-based automatic flow control is implemented at the interface between the CAN controller and the PC, the data reliability is very high.

• The ASCII conversion protocol is useful in developing and testing any configuration. Users just open the serial port via a Terminal Program, and have a simple way to talk to the CAN controller. The same way they can also transmit and receive CAN frames.

• Applications programmed by users load the library (DLL), which transparently handles the ASCII conversion. Programmers handle only the CAN frames and status, they do not have to care about the ASCII conversion in their applications. This API is supported in C/C++, C#, VB.NET, Delphi and LabVIEW.

• In Linux SocketCAN can be used as alternative to vs_can_api library. VScom CAN devices support standard Serial Line CAN (slcan) driver (see this FAQ).

• USB-CAN+ also supports CANFestival, an Open Source CANopen Framework. CANopen is a CAN-based higher layer protocol that is used in various application fields, such as medical equipment, offroad vehicles, maritime electronics, railway applications or building automation. CANopen unburdens the developer from dealing with CAN-specific details such as bit-timing and implementation-specific functions. It provides standardized communication objects for real-time data, configuration data as well as network management data.
• CANHacker, a tool for analyzing and transmitting frames on the CAN BUS, is included in the product package.
• A set of Mapper DLLs simulates CAN hardware from other manufacturers. Users configure their system for those products or the USB-CAN+ adapter as a replacement. So existing software will use the USB-CAN+ without replacing the application or modifying it.

Application

- Industrial / Factory / Laboratory automation
- SCADA system
- Wafer fabrication system
- Automotive test equipment

CAN

Speed	CAN High Speed (up to 1Mbit/s) for transmit/receive
Signals	CAN_H, CAN_L, CAN_GND
Protection	Compliant with IEC 61000-4-2 ESD 4kV contact / 8kV air discharge
Controller	SJA1000 (Philips)
Transceiver	SN65HVD233 (Texas Instruments)
LED	CAN Activity (Data) CAN Error
Connector	DB9 male on case Adapter

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USB

USB-Input	USB 2.0 Full Speed, on Mini PCI Express Slot
Power	Powered by Mini PCI Express slot, max. 120 mA @ 3.3V
Driver	Emulated serial port, 3 Mbit/s
Operating Systems	• Windows 2000 up to Windows 10 • Windows Server 2000 up to 2012 • Linux kernel 2.6+ • Mac OS X support available
LED	CAN Data, CAN Error

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Driver and Software

Library	• Unified VSCAN API for simple access on all Vscom CAN products. • Supports Windows, CE, Linux (x86, x86-64, ARM) targets. • Supports C/C++, C#, VB.NET, Delphi and LabVIEW.
Linux system	Supports SocketCAN (slcan driver) since kernel 2.6.38+ Also see this FAQ
Compatibility	Mapper DLLs can simulate software interfaces of CAN adapters from other manufacturers.
CANopen	The library CANFestival implements the CANopen functions. Provided examples show Master/Slave communication
Speed	CAN Speed selectable up to 1 Mbit/s
Transfer	ASCII coding mode

CAN Modes	Standard Mode Normal operation on CAN bus Listen Mode Passive receive of CAN Frames, neither ACK bits nor Error Frames are sent Self Reception (Echo Mode) For testing: Transmitted Frames are also received by the adapter
Monitoring Tools	• USB-CAN PLUS mPCIe is supported by Bosch BUSMASTER • USB-CAN PLUS mPCIe is supported by CANHacker

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Power and Environment

Power	max. 400mW
Power supply	max. 120mA @ 3.3V via slot Mini PCI Express
Dimension	30×51×10 mm³ (W×L×H), Form-Factor long Mini PCI Express
Operating Temp	−25°C - 75°C
Storage Temp	−30°C – 85°C
Weight	20 g

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Standards

Declarations	CE, FCC
EMI	• EN 55022 Class B • 47 CFR FCC Part 15 Subpart B
EMS (EN 55024)	• EN 61000-4-3: Radiated RFI • EN 61000-4-4: Electrical Fast Transient • EN 61000-4-5: Surge • EN 61000-4-6: Induced RFI • EN 61000-4-8: Power Frequency Magnetic Field • EN 61000-4-11: Power supply dips
ESD	EN 61000-4-2 4kV contact 8kV air for CAN Bus Port

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Ordering Information

432	USB-CAN Plus mPCIe

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Packaging

Packing list	• USB-CAN PLUS mPCIe • Connection cable to Adapter • DB9 Adapter

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USB-CAN Plus mPCIe

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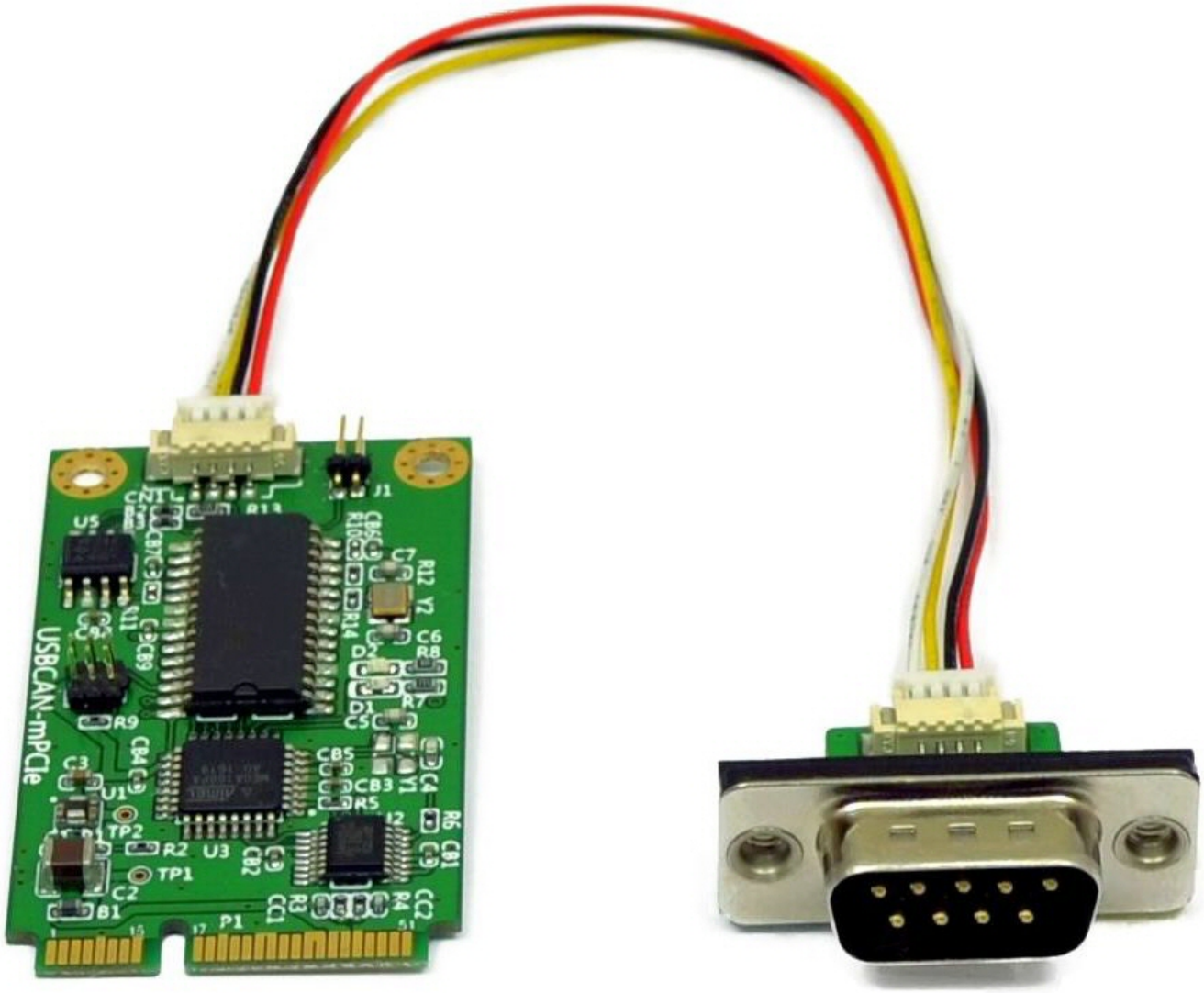

USB-COM Plus Configurator for USB-CAN Plus mPCIe

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