

Model Information



■ Features

- Connects a PC to isolated CAN bus via USB
- 2.5kV isolation on CAN
- USB and CAN port ESD protected
- Supports CAN 2.0A and CAN 2.0B
- CAN High Speed up to 1 MBit/s
- 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, powered by USB
- Driver emulates serial port for easy access
- Library (DLL) for standard access
- ASCII conversion protocol via serial port
- Supports [Bosch Busmaster](#) Debugging
- Metal case

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VScom USB-CAN Plus ISO

(Vscom USB-CAN ISO)

Quick Link: | [Features](#) | [More Pictures](#) | [Overview](#) | [Application](#) | [CAN](#) | [USB](#) | [Driver and Software](#) | [Power and Environment](#) | [Standards](#) | [Ordering Information](#) | [Options](#) | [Packaging](#) |

■ More Pictures



Click on the thumbnails for the large picture ...

[>Back to top](#)

■ Overview

The VScom USB-CAN Plus ISO is an adapter from USB 2.0 to CAN bus, with galvanically isolation. It connects a PC via the USB interface to the CAN bus, while protecting the PC from high voltage problems on CAN bus signals. The CAN port is isolated for 2.5kV. The CAN port and USB are ESD protected, compliant to IEC 61000-4-2 (8kV contact/16kV air discharges).

Since current computers all have several USB ports, the installation is simple. Even the previous standard of USB 1.1 with 12 Mbit/s max. speed is sufficient to connect the VScom USB-CAN⁺ ISO to a computer.

CAN bus is widely used in industrial applications as well as in automotive monitoring and control. The VScom USB-CAN⁺ ISO can be used to monitor the data traffic in such installations, as well as sending control information. The performance of VScom USB-CAN⁺ ISO 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⁺ ISO 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⁺ ISO adapter as a replacement. So existing software will use the USB-CAN⁺ ISO without replacing the application or modifying it.

The USB-CAN Plus ISO succeeds the VScom USB-CAN ISO adapter.

■ 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 (isolated from PC port 2.5kV)
Protection	Compliant with IEC 61000-4-2 ESD 8kV contact / 16kV air discharge
Controller	SJA1000 (Philips)
Transceiver	SN65HVD233 (Texas Instruments)
LED	CAN Activity (Data) CAN Error
Connector	DB9 male

[>Back to top](#)

■ USB

USB-Input	USB 2.0 Full Speed, USB 1.1 compliant
Connector	USB type B
Protection	Compliant with IEC 61000-4-2 ESD 8kV contact / 16kV air discharge
Power	USB bus powered, max. 90 mA
Driver	Emulated serial port, 3 Mbit/s
Operating Systems	<ul style="list-style-type: none">• 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

[>Back to top](#)

■ Driver and Software

Library	<ul style="list-style-type: none">• 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	<p>Standard Mode Normal operation on CAN bus</p> <p>Listen Mode Passive receive of CAN Frames, neither ACK bits nor Error Frames are sent</p> <p>Self Reception (Echo Mode) For testing: Transmitted Frames are also received by the adapter</p>
Monitoring Tools	<ul style="list-style-type: none"> • VScom USB-CAN PLUS ISO is supported by Bosch BUSMASTER • VScom USB-CAN PLUS ISO is supported by CANHacker

[>Back to top](#)

■ Power and Environment

Power	max. 450mW
Power supply	max. 90mA via USB port
Dimension	50×72×22 mm ³ (W×L×H) Case 72×72×22 mm ³ (W×L×H) with mounting wings
Operating Temp	–25°C - 75°C
Storage Temp	–30°C – 85°C
Case	SECC sheet metal (1mm)
Weight	150 g
Mounting	<ul style="list-style-type: none"> • DIN-Rail (optional) • Wall mount

[>Back to top](#)

■ Standards

Declarations	CE, FCC
EMI	<ul style="list-style-type: none"> • EN 55022 Class B • 47 CFR FCC Part 15 Subpart B
EMS (EN 55024)	<ul style="list-style-type: none"> • 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	<p>EN 61000-4-2 4kV contact 8kV air for</p> <ul style="list-style-type: none"> • CAN Bus Port • USB

[>Back to top](#)

■ Ordering Information

430	VScom USB-CAN PLUS ISO
427	VScom USB-CAN PLUS

[>Back to top](#)

■ Options

<u>662</u>	DK 35A DIN-Rail mounting adapters
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[>Back to top](#)

■ Packaging

Packing list

- VScom USB-CAN PLUS ISO
- High-Speed USB cable
- English Documentation

[>Back to top](#)

VScom USB-CAN Plus ISO

[>Back](#)



USB-COM Plus Configurator for USB-CAN Plus

[>Back](#)

VScom USB-COM Plus Configurator

File Help

Present COM-Ports Show disconnected devices

COM3
COM4
COM6

Port Settings

Min. Read Timeout (ms): Serial Enumerator

Min. Write Timeout (ms): Serial Printer

Polling Period: Cancel If Power Off

Latency Timer: Event On Surprise Removal

Set RTS On Close

Disable Modem Ctrl At Startup

Default Settings

Optimize for USB-COM

Optimize for USB-CAN

Baud Rate Mappings

Buffered Writes

Rename COM Port

Global Settings

Ignore Hardware Serial Number

Reload Driver

Refresh OK Cancel Apply

Close All Ports

VScom USB-COM 232, SN: DN6NP3AA, ID: 4036015, LocalID: 31; Open COM Ports: 0