## **NET-CAN 110** 1-port Ethernet to CAN Bus Adapter



CAN	
CAN	
Speed	CAN High Speed (20kbit/s up to 1Mbit/s) for transmit/receive
Signals Controller	CAN_H, CAN_L, CAN_GND, CAN_V+, GND SJA1000 Philips
Transceiver	TJA1050 (Philips)
LED	CAN activity (Data), CAN Error
Connector	DB9 male
Network	
Ethernet interface Protocols	Auto-detecting 10BaseT/100BaseTx TCP/IP, Telnet, DHCP, ICMP, HTTP, SNMP v1/2c/3, DNS
Connector	RJ45
Hardware	
Processor	ARM 9, 166MHz
Memory	16MB SDRAM, 2MB Flash
LED	Power
Operating Modes	
Driver Mode	VScom Driver for : Windows NT 4.0, 2000, XP up to Win7, Windows Server 2000 up to 2008 R2
	Driver Mode creates a virtual Com port.
TCP Raw Server	Raw Data transfer over TCP/IP. Accepts multiple incoming connections
CAN Bridge	CAN networks are connected via TCP/IP (Ethernet). A client connects to a Server, CAN frames received on one network are repeated on the other network
Special Features	
Installation	Configuration utility automatically finds NET-CAN devices in the network
Operating Mode	Automatic Mode switching between Driver and TCP Raw Server Mode
Configuration	Over Driver Panels, NetCOM Manager, WEB Browser, serial Console, Telnet, SNMP
SNMP	Special VScom MIB included
DNS	Domain Name Server support
Firewall Firmware	Special precautions for Firewall environments Firmware update over WEB Browser, Telnet
	Timiware upuale over WEB Browser, Temet
Security	
Password access	Every capabilities of configuration use the same password including SNMP V3
Secure communication	OpenVPN tunnel provides security on Ethernet. The tunnel protects the configuration as well as all serial data. It is also usable across the Internet. Strong encryption by AES up to 256 bit keys
Driver and Software	
Library	Unified 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
Compatibility	Mapper DLLs can simulate software interfaces of CAN adapters from other manufacturers. At the
Companying	moment some adapters made by PEAK-System are emulated.
CANFestival	CANopen examples showing 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	VScom NET-CAN 110 is supported by Bosch BUSMASTER
	VScom NET-CAN 110 is supported by CANHacker
Power and Environment	
Power Requirements	9 -30V DC, 500mA, 12V
Power Supply Adapter	12V DC, 1A connected by terminal Block
Operating Temp.	0°C - 60°C
Storage Temp.	- 20°C - 85°C
Case	SECC sheet metal 1mm
Dimension	$73 \times 115 \times 27 \text{ mm}^3$ (W×L×H); $101 \times 121 \times 27 \text{ mm}^3$ (DB9 connector and DIN-Rail mounting kit )
Weight	200 g

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Approvals EMC Environment	FCC Class A, CE Class A RoHS
Ordering Information Art. No. Product Name Packing list	<ul> <li>422</li> <li>VScom NET-CAN 110</li> <li>VScom NET-CAN 110 Adapter</li> <li>Power supply adapter 12V, 1000mA</li> <li>CD-ROM with Driver and configuration software</li> <li>Printed Quick Installation Guide</li> </ul>

## **Overview**

The VScom NET-CAN 110 provides CAN-BUS communication over Ethernet. It provides completely secured communication for both data transfer and configuration to the attached CAN devices.

CAN BUS is widely used in industrial applications as well as in automotive monitoring and control. The VScom NET-CAN can be used to monitor the data traffic as well as sending control information.

NET-CAN supports two operating modes: Driver Mode and TCP Raw Server. The Driver Mode basically requires the installation of a virtual com-port driver, which makes the network fully transparent for the application. The TCP Raw Server Mode doesn't require the virtual com-port driver installation, so the communication will be handled directly via IP address and port number. NET-CAN provides different software tools to interface the user application:

- The ASCII conversion protocol is useful in developing and testing any CAN-BUS configuration. Users just open the serial port via a Terminal Program or connect directly via Telnet, and have a simple way to talk to the CAN controller. It can also be used to manually transmit and receive CAN frames.
- Applications programmed by users should use the VScan API library (DLL), which transparently handles the ASCII conversion for the CAN frames. Programmers have to handle only the CAN frames and status information, they do not have to care more about the ASCII conversion in their applications. This API is supported in C/C + +, C#, VB.NET, Delphi and LabVIEW.
- The NET-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 NET-CAN 110 adapter as a replacement. So existing software will use the NET-CAN 110 without replacing the application or modifying it.

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