Ethernet/CAN-Interface EtherCAN CI

Special Features

- Application as Ethernet based interface to the CAN bus
- Filtering and buffering of CAN traffic
- Microcontroller Nuvoton NUC740A with CAN-Controller NXP SJA1000
- Supports the CAN protocols 2.0A and 2.0B
- Serial interface for the configuration of the device
- Rail mountable
- Development kits for Windows 2000/XP/Vista/7 and Linux available

Description

The Ethernet/CAN-Gateway EtherCAN CI transmits data between a CAN network and Ethernet systems. As an universal CAN-Interface with an Ethernet interface, EtherCAN CI is independent from internal data busses and thus can be used with a variety of different work stations (PC, Mac, UNIX-workstation).

EtherCAN CI includes a Nuvoton NUC740A (ARM7 core) with 80Mhz clock and a Linux operating system. In addition, the device has 16MB SDRAM and 2MB Flash. The connection to the CAN bus is done by a CAN controller of type NXP SJA1000 and supports the CAN protocols 2.0A and 2.0B.

The protocol used for the communication between a host and EtherCAN CI is documented and disclosed.

Development kits that allow the development of host applications for the operating systems Windows 2000/XP/Vista/7 or Linux as well as the development of applications for the local implementation of control functions on EtherCAN CI are separately available.

Technical Data

Layout and Connection

EtherCAN CI includes a CAN segment connected by a male and a female plug of type D-Sub 9, the pin assignment complying to CiA DS-102 standard. Besides the CAN signals the connectors also carry the power supply for EtherCAN CI. In addition, EtherCAN CI includes an Ethernet connector (RJ45, 10/100MBit/s) and a serial connector (D-Sub).

The following table shows the assignment of the CAN connectors:

Pin	Name	Function
2	CAN_L	CAN data line (dominant low)
3, 6	GND	Ground
7	CAN_H	CAN data line (dominant high)
9	Vcc	Power supply +24V

Limiting Values

Parameter	Minimal	Maximal	Unit
Storage temperature	-25	+70	°C
Operating temperature	0	+60	°C
Supply voltage	-100	+35	V
Voltage on the bus connections	-30	+30	V

Any (also temporary) stress in excess of the limiting values may cause permanent damage on EtherCAN CI and other connected devices. Exposure to limiting conditions for extended periods may affect the reliability and shorten the life cycle of the device.

Nominal Values

Parameter	Minimal	Typical	Maximal	Unit
Current consumption	-	70	150	mA
Supply voltage	10	24	30	V

All values, unless otherwise specified, refer to a supply voltage of 24V and an environmental temperature of 20°C.

Scope of Delivery

- CAN Interface EtherCAN CI
- User Manual
- proCANtool CAN-Monitor for operating systems Windows 2000/XP/Vista/7