



Ethernet/CAN Interface EtherCAN CI-ARM7

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
- Free of charge development kits for Windows 7/8.x/10/11 and Linux

Description

The Ethernet/CAN Gateway EtherCAN CI-ARM7 transmits data between a CAN network and Ethernet systems. As an universal CAN interface with an Ethernet interface, EtherCAN CI-ARM7 is independent from internal data buses and thus can be used with a variety of different work stations (PC, Mac, UNIX-workstation).

EtherCAN CI-ARM7 includes a Nuvoton NUC740A (ARM7 core) with 80 Mhz clock and a Linux operating system. In addition, the device has 16 MB SDRAM and 2 MB 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-ARM7 is documented and disclosed.

Development kits that allow the development of client applications for the operating systems Windows 7/8.x/10 or Linux are available free of charge.

Technical Data

Layout and Connection

EtherCAN CI-ARM7 includes a CAN segment connected by a male and a female plug of type D-Sub9, the pin assignment complying to CiA DS-102 standard. Besides the CAN signals the connectors also carry the power supply for EtherCAN CI-ARM7. In addition, EtherCAN CI-ARM7 includes an Ethernet connector (RJ45, 10/100 MBit/s) and a serial connector (D-Sub9).

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	Supply voltage +24 V

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-ARM7 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 24 V and an environmental temperature of 20°C.

Scope of Delivery

- Ethernet/CAN interface EtherCAN CI-ARM7
- User manual
- proCANtool CAN-Monitor for operating systems Windows 7/8.x/10/11