CAN/CAN Gateway CG-ARM7/GTI

Special Features

- Connection of CAN subnetworks with differing data rates
- Galvanic separation between the CAN channels
- Galvanic separation of the CAN channels to the power supply
- Filtering and buffering of data traffic
- Support of 11-bit and 29-bit identifiers
- Microcontroller NXP LPC2119 with two internal CAN controllers
- Version HS/LS with one transceiver PCA82C251 and one transceiver TJA1054
- Version LS/LS with two transceiver TJA1054
- Rail mountable

Description

The CAN/CAN gateway CG-ARM7/GTI transmits CAN signals between subsystems. CG-ARM7/GTI allows a flexible design of the wiring topology. Star and tree structures as well as extensive line structures can be realized. The galvanic separation between the CAN channels allows the use with diverging ground potentials.

Among the available functions are data rate adaption, message filtering as well as identifier conversion between the coupled busses. The restriction of the maximum data rate depending on cable length for single CAN segments can be abolished for the over-all system by use of CG-ARM7/GTI.

The configuration of the device functions can take place either through CAN or through the built-in RS232 interface. Download software for the configuration is available for Windows PCs as well as Linux PCs and is within the scope of delivery.

CG-ARM7/GTI is available in versions HS/LS and LS/LS allowing the conversion of high speed to low speed and low speed to low speed CAN.

For special tasks, like modification of the data content of the CAN messages, we offer a development kit to write custom specific firmware for CG-ARM7/GTI.

Technical Data

Layout and Connection

Both CAN busses are connected by a D-Sub9 male connector. Also the power supply and the RS232 interface have D-Sub9 male connectors.

The CAN terminals are connected according the following table:

Pin	Name	Function
2	CAN_L	CAN data line (dominant low)
3	CAN_GND	Ground
7	CAN_H	CAN data line (dominant high)

Connection table power supply:

Pin	Name	Function
3	GND	Ground
9	Vcc	Supply voltage

Limiting Values

Parameter	Minimal	Maximal	Unit
Storage temperature	-20	+80	°C
Operating temperature	0	+60	°C
Supply voltage	-40	+30	V
Voltage on bus connectors	-30	+30	V
Admissible power consumption (at 60 °C)	-	2000	mW

Any (also temporary) stress in excess of the limiting values may cause permanent damage on CG-ARM7/GTI 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 (running idle)	-	40	-	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

• CAN/CAN gateway CG-ARM7/GTI
• User manual
• Configuration software