



Ethernet/CAN-Gateway for Mobile Applications

Special Features

- Based on 32 Bit microcontroller Samsung S3C4530A
- Integrated power management (power off for all peripherals possible)
- Switchable TCP/IP interface (i.e. wake up for WLAN)
- 6 CAN channels with SJA1000
- 4 high speed transceivers 82C251
- 2 low speed transceivers TJA1054
- Support of CAN protocol 2.0A and 2.0B
- 2 serial interfaces (i.e. connection of GSM modem)
- Custom applications possible

Description

EtherCAN MC is designed for mobile analysis of CAN systems. It is suited for use in systems where more than one CAN has to be tracked (i.e. automotive applications).

Further features of EtherCAN MC are the integrated power management, an ethernet and a serial interface.

The power management allows low power consumption, when all peripherals of the CPU are in sleep mode or are powered down. Nevertheless a wake up CAN message will not be lost.

A WLAN adapter may be connected to the ethernet interface and a GSM modem to the serial interface (RS232). The device has a 32bit microcontroller (ARM7 core), embedded Linux operating system and 6 CAN channels (4 high speed, 2 low speed), all equipped with NXP SJA1000 CAN controller.

An application development kit for creation of custom applications is included.

Technical Data

Layout and Connection

The 6 CAN channels, the I/O pins and the power supply are all on a male DSUB-25 connector. The following table shows the connection schema.

Pin	Name	Function
1, 13, 22	GND	Ground line
2, 14	CAN_L 0, CAN_H 0	CAN Channel 0 (high speed CAN)
3, 15	CAN_L 1, CAN_H 1	CAN Channel 1 (high speed CAN)
4, 16	CAN_L 2, CAN_H 2	CAN Channel 2 (high speed CAN)
5, 17	CAN_L 3, CAN_H 3	CAN Channel 3 (high speed CAN)
6, 7, 18, 19	CAN_L 4, CAN_H 4, RTL_4, RTH_4	CAN Channel 4 (low speed CAN)
8, 9, 20, 21	CAN_L 5, CAN_H 5, RTL_5, RTH_5	CAN Channel 5 (low speed CAN)
10	+5V_EXTERN	Power output +5V/600mA (switchable)
12	WAKE_EXTERN	Input (+12V DC) for external wake up signal
24	DO_HS	Digital output, high side switch

The RS232 male plug is connected as shown in the following table.

Pin	Name	Function
2	RxD	Data line receive
3	TxD	Data line send
5	GND	Ground line

Nominal Values

Parameter	Minimum	Typical	Maximum	Unit
Current consumption (+12V)	–	170	–	mA
Current consumption stand by (+12V)	–	15	–	mA
Supply voltage	8	12	30	V

All values, unless otherwise specified, refer to an environmental temperature of 20°C.

Scope of Delivery

- EtherCAN MC
- Application development kit