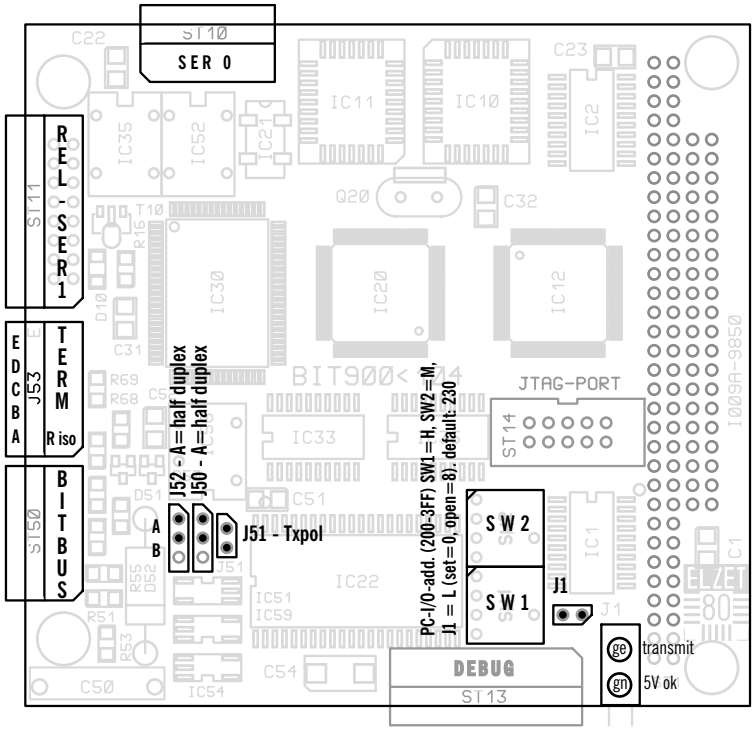
ELZET 80 - Theaterplatz 9 - 52062 Aachen phone: +49-241-48410, fax: -48480 www.elzet80.com

Installing the

IPC-BIT900<104

BITBUS-Master Board PC/104



For the use as standard-BITBUS-master these settings have to be checked, everything else is set by default:

Switches J53: (Termination) RS485:

The termination resistors can be switched to the RS485 line with the switches 1-4 at J53 (E-B). This has to be done at the physical ends of the line and must not be done anywhere else. Termination is active when the switches are in the ON position. All four switches always have to be in the same position.

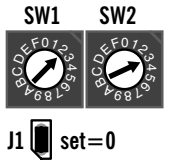
Signal ground direct/via 100 ohms:

Switch 5 at J53 sets whether the isolated signal ground of the RS485-line is directly connected to the isolated ground of the BIT900 (switch ON) or through a 100 ohms resistor (switch OFF). Even experts are not sure about what is the better - in normal applications there is no noticeable difference. Default: OFF.

In non-standard-applications please use the settings below:

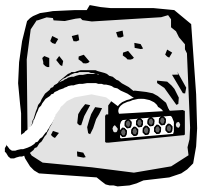
PC-E/A-address at SW1, SW2 and J1:
Since the board uses 8 addresses J1 can only be set to an address between 1 and 8.
Addresses above 3FF hex are not valid.
BITBUS address is 230h.

For example address 230 Hex:

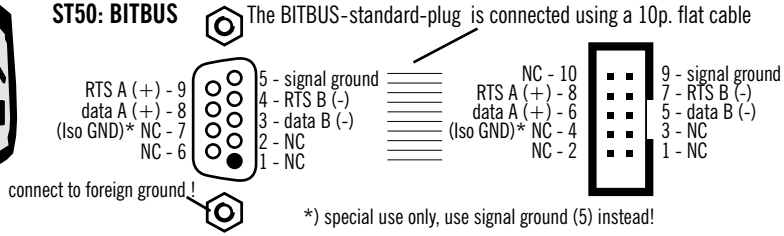


invert RTS-level: open J51

full/half duplex at J50 and J52:
A sets half duplex (e.g. BITBUS), B sets full duplex. Half duplex means receiving and transmitting at the same wire pair, the signal RTS (sending controller) is signaled through the free wire pair. External amplifiers (BITBUS-repeater) require this for switching. At full duplex all slave-receivers are connected to the transmitters of the master.



ST50: BITBUS

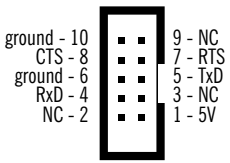


In full duplex mode data becomes transmitting data and RTS becomes receiving data

For non-standard-extensions please find the pinouts of the serial ports below:

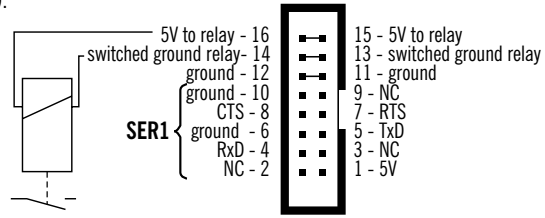
ST10: SER 0

Access to the programming port of the TLCS900. TTL-Pegel. Mating line driver modules with plug for RS232/422/...can be ordered at ELEKTRONIKLADEN (www.elektronikladen.de).



ST11: SER 1 and relay driver

SER1 des TLCS900 (unused). TTL-level, pinout P1..10 mates line driver modules (like SER0). Link-drivers for external emergency-off-relay 5V (normally on).



The board is deliverd with the **mCAT2 realtime core** (with BITBUS-driver) in the Flash-Eprom. For use as a BITBUS-master board the software SFT-BITDLL for Windows 9x, the NT-driver for Windows-NT or the TSR-program BIT-I/O for DOS has to be purchased. All of these programs expect adefault device address 230h for the first board, which is, like the other settings for BITBUS, the setting with which the board is shipped.

The device offers the possibility to execute realtime tasks parallel to the BITBUS-master function independently from the PC, which could be for instance BITBUS-related tasks or tasks using the serial ports. In order to use this feature, the mCAT2 developers pack with C-compiler has to be purchased. A large part of the 1M Flash-EPROM noticeable and the 128K RAMs are free for user specific tasks.