CO40XX-BD-EVA

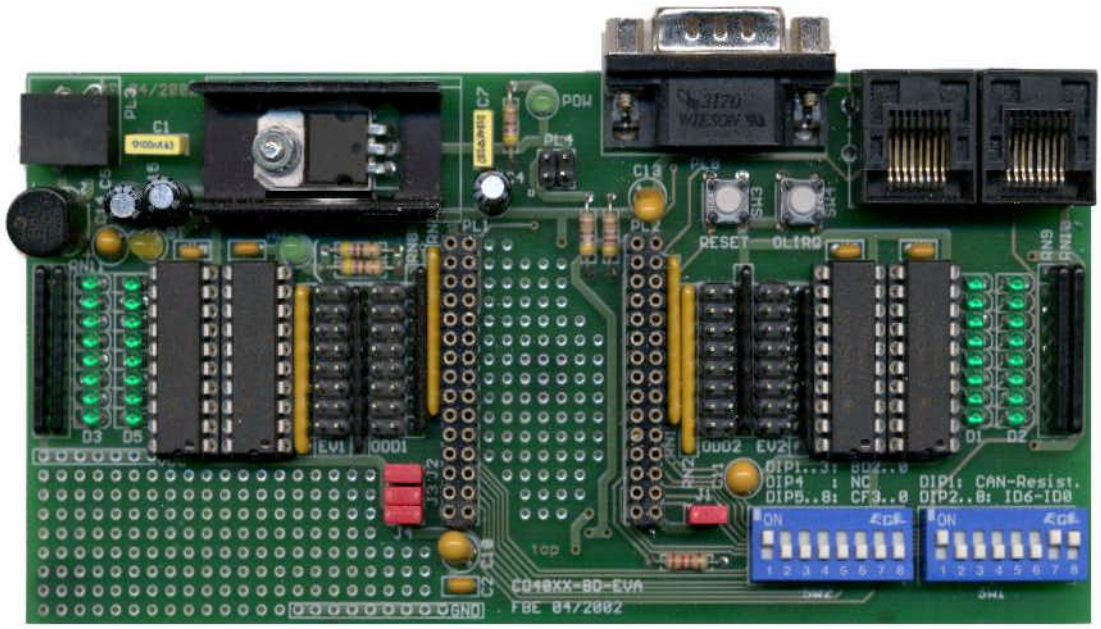
Evaluation Board for CANopen remote I/O modules CO40XX

frenzel + berg electronic

General Description

The CO40XX-BD-EVA is an evaluation board for the CANopen remote I/O module CO4012A-BD and future CANopen remote I/O modules. It was designed to enable easy startup with CANopen remote I/O modules.

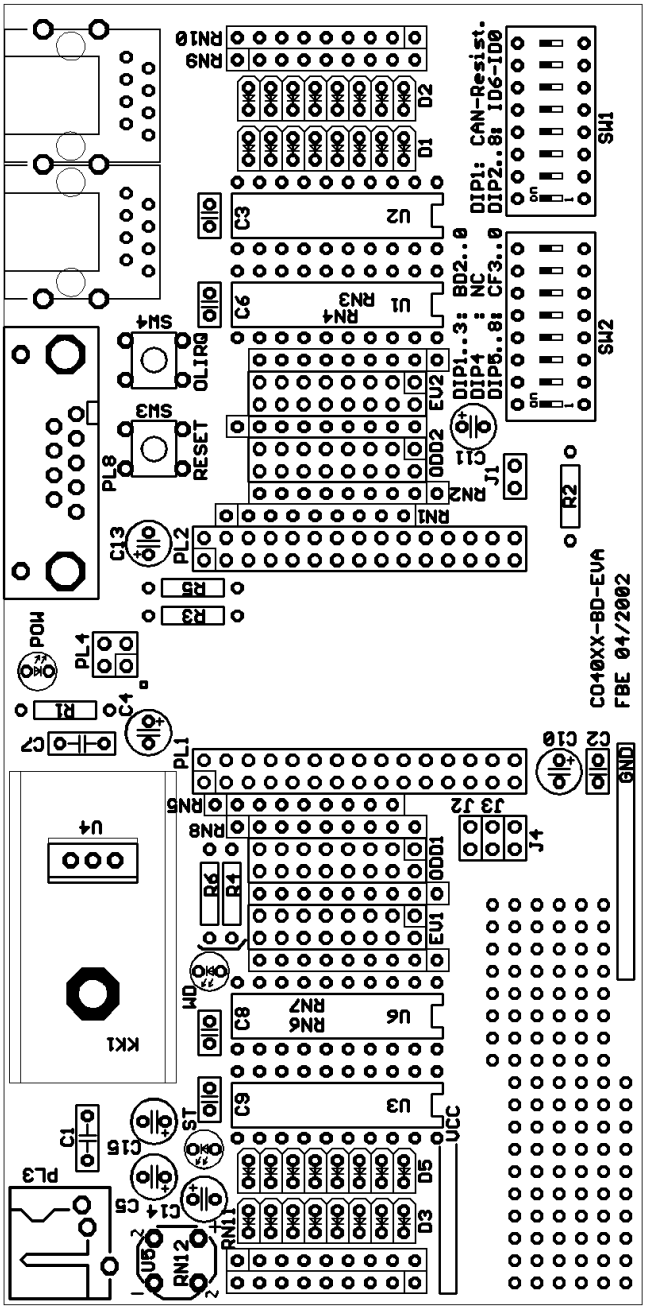
All I/O signals of the CO4012A-BD-Board are wired to plugs. This enables direct connection to other hardware boards. Additionally all I/O's of the CO4012A-BD are indicated by LEDs. The input lines can be easily activated by placing jumpers and all configuration pins are wired to DIP Switches.



Features

- ***Evaluation Board for CANopen remote I/O module CO4012A-BD***
- ***CAN Transceiver 80C251***
- ***Connectors for all input and output port lines***
- ***Additional LEDs for all input and output port lines***
- ***Connectors for CANopen: 1 x SUB-D9 male, 2 x RJ45***
- ***DIP switches for all adjustments: operation mode, baud rate and identifier***
- ***Dimensions (149mm x 82mm x 18mm)***

Place plan


CO40XX-BD-EVA
FBE 04/2002
DIP1: CAN-Resist.
DIP2..8: ID6-ID0
DIP1..3: BD2..0
DIP4 : NC
DIP5..8: CF3..0
SW1
SW2
SW3
SW4
RESET
OLIRQ
U1
U2
U3
U4
U5
U6
J1
J2
J3
J4
R2
R3
R4
R5
R6
R1
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C13
C14
C15
D1
D2
D3
D5
PL1
PL2
PL3
PL4
PL8
POW
ST
VCC
GND

Configuration

The configuration of the CO4012A-BD-Board will be set with the DIP Switches SW1 and SW2

DIP Switch SW1								
Switch Nr. and CO401 Pin								Function
1 CAN- Terminator	2 ID6	3 ID5	4 ID4	5 ID3	6 ID2	7 ID1	8 ID0	
ON								CAN-Terminator-Resistor On
OFF								CAN-Terminator-Resistor OFF
	X	X	X	X	X	X	X	Node ID
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Node ID = Programmable ID
	OFF	OFF	OFF	OFF	OFF	OFF	ON	Node ID = 1
	OFF	OFF	OFF	OFF	OFF	ON	OFF	Node ID = 2
	OFF	OFF	OFF	OFF	OFF	ON	ON	Node ID = 3
	..	..	..	..	..	..	..	
	ON	ON	ON	ON	ON	ON	OFF	Node ID = 126
	ON	ON	ON	ON	ON	ON	ON	Node ID = 127

DIP Switch SW2								
Switch Nr. and CO401 Pin								Function
1	2	3	4	5	6	7	8	
BD2	BD1	BD0	NC	CF3	CF2	CF1	CF0	
X	X	X						Baud rate selection
OFF	OFF	OFF						1 Mbit / sec
OFF	OFF	ON						800 kbit / sec
OFF	ON	OFF						500 kbit / sec
OFF	ON	ON						250 kbit / sec
ON	OFF	OFF						125 kbit / sec
ON	OFF	ON						50 kbit / sec
ON	ON	OFF						20 kbit / sec
ON	ON	ON						10 kbit / sec
				OFF	OFF	OFF	OFF	16 Digital Inputs and 16 Digital Outputs
				OFF	OFF	OFF	ON	32 Digital Inputs
				OFF	OFF	ON	OFF	32 Digital Outputs
				OFF	OFF	ON	ON	8 Analog Inputs

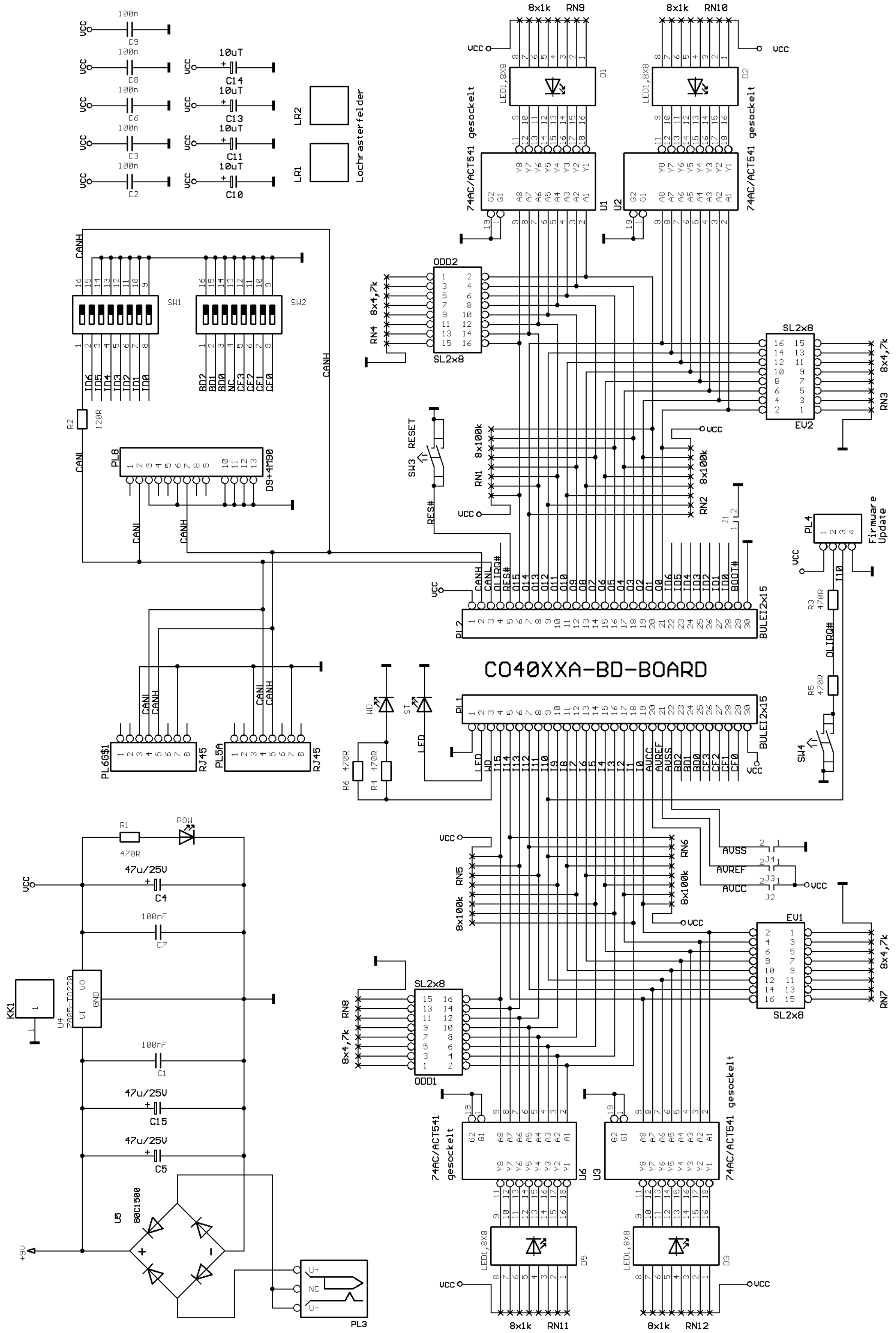
NC = not connected

Jumper-Settings:

With the jumper J2 the supply voltage for the AD-Converter can be connected to VCC.
J3 and J4 are used to connect the reference for the AD-Converter to VCC and VSS.

Jumper J1 and PIN-Header PL4 are used for the firmware update. If the Jumper J1 is set after reset, the firmware update mode is activated. Therefore a special adapter is required.

Schematic


CO40XXA-BD-BOARD
74AC/ACT541 gesockelt
Lochrasterfelder
Firmware Update
RESET