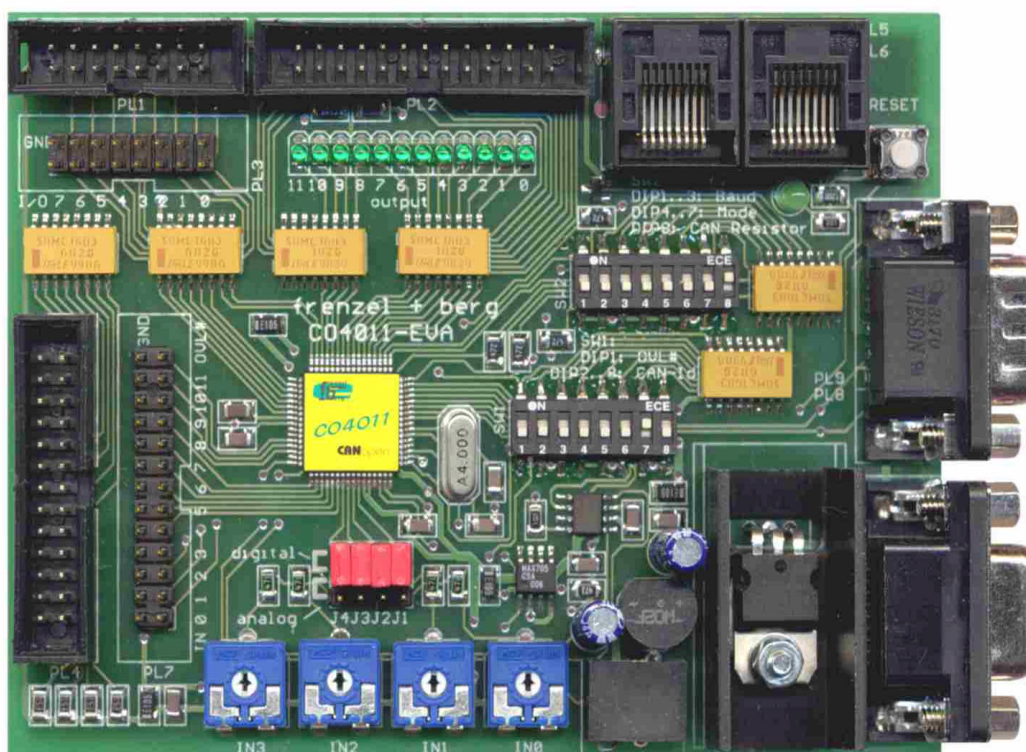


### General Description

The CO4011EVA is an evaluation board for the low cost, high performance Single Chip Controller for CANopen I/O modules CO4011A. It was designed to enable easy startup with this chip.

All I/O signals of the CO4011 are wired to plugs. This enables direct connection to other hardware boards. Additionally the outputs of the CO4011 are indicated by LEDs. The input port pins have two connectors. The first is implemented for direct connection to other hardware using simple flat cable connections. The second may be used to activate the input lines by placing a jumper.

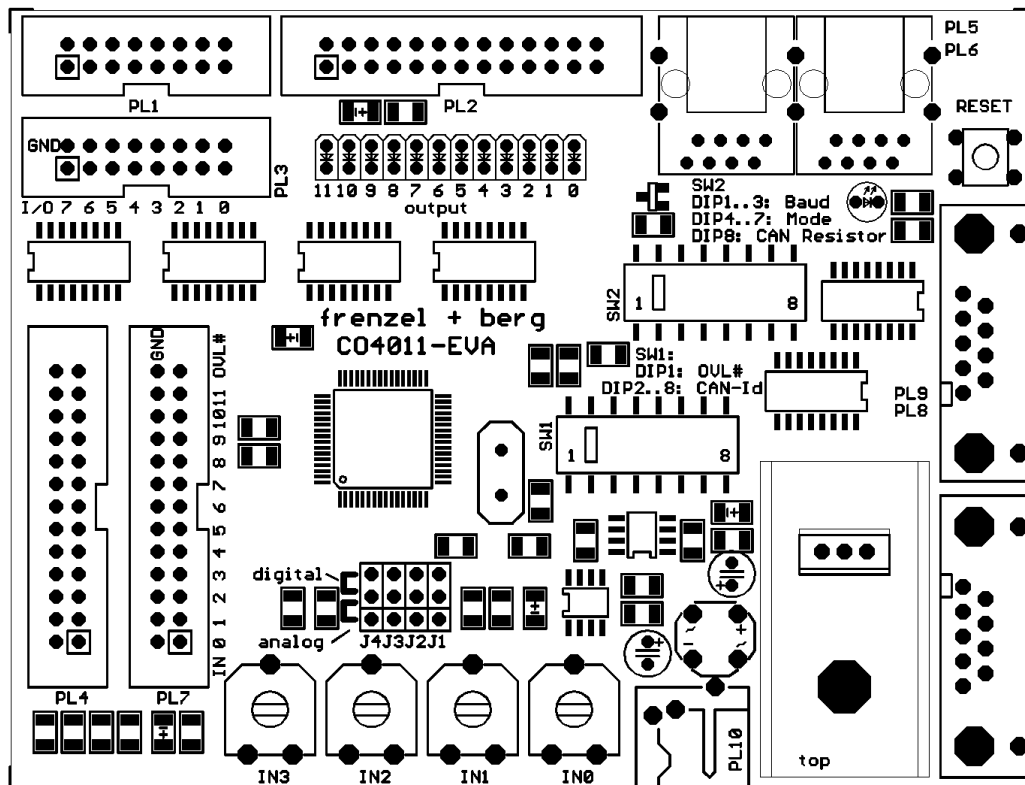
All configuration pins are wired to dipswitches.



### Features

- Evaluation Board for Single Chip CANopen Controller CO4011
- CAN Transceiver 80C251
- According to CiA Draft Standards DS301 Version 4.0 and DS401 Version 2.0
- Baud rate up to 1MBit
- Connectors for all input output port lines, additional LEDs for output port lines
- Potentiometer for 4 analog input ports.
- Connectors for CANopen: 1 x SUB-D9 male, 1 x SUB-D9 female
- Connectors for CAN-EASY: 2 x RJ45
- DIP switches for: operation mode, baud rate, CAN bus termination, output overload interrupt input.
- 128 x 87 mm size
- AC/DC Adaptor for wall socket

### Place plan



PL1, PL2 and PL4 are implemented, to connected the input/output port bits to an application hardware using simple flat cable. PL3 and PL7 may be used to place any jumpers for activation of input bits. Note that jumpers must not be set at connector PL3 if I/O lines IO0 to IO7 are configured as output bits.

### Configuration

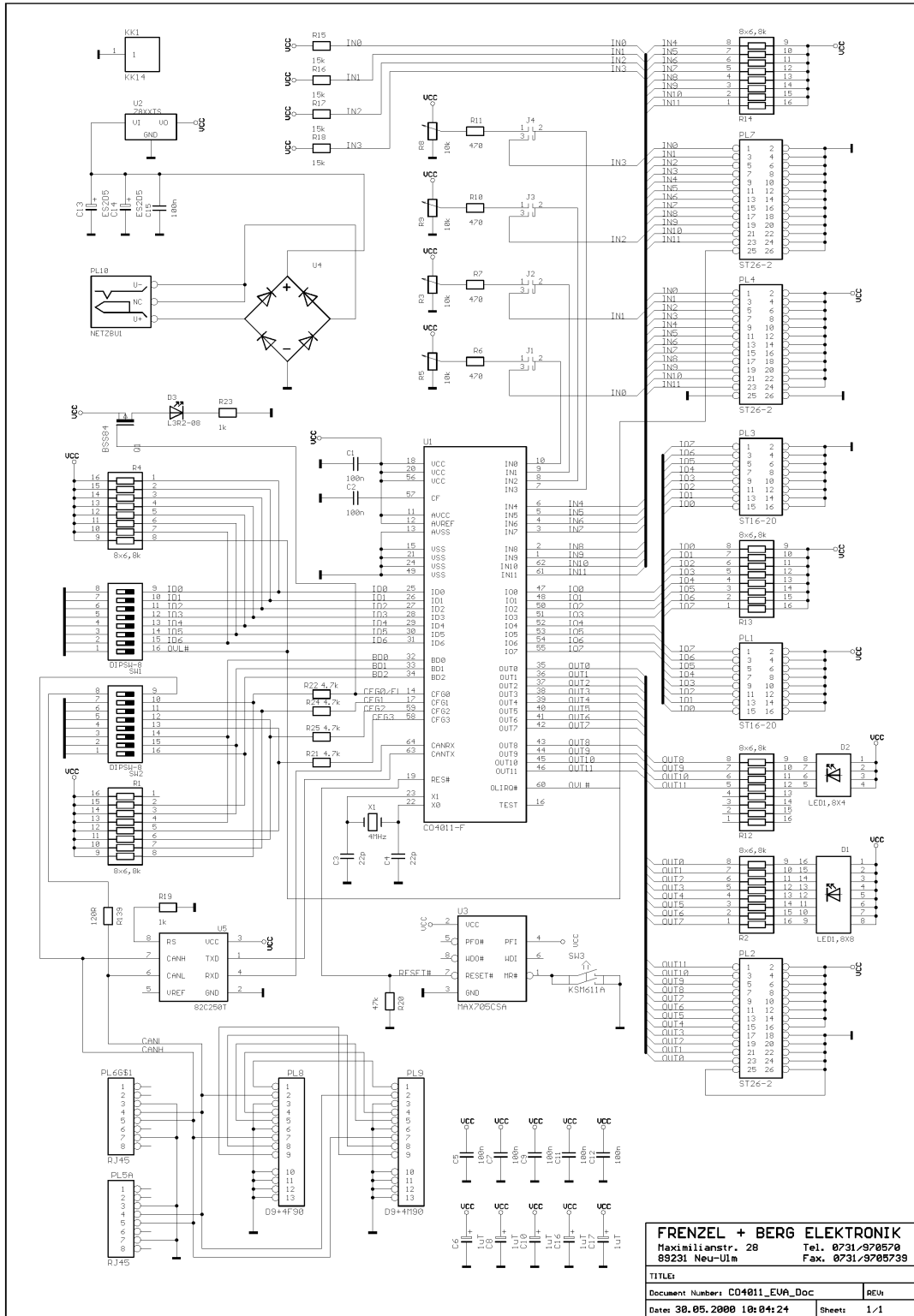
The configuration of the CO4011 will be set with dip switches SW1 and SW2

DIP switch SW1								
Switch Nr and CO4011 Pin							Function	
1	2	3	4	5	6	7	8	
OV#	ID6	ID5	ID4	ID3	ID2	ID1	ID0	
ON								Output Overload interrupt input active
	X	X	X	X	X	X	X	Node ID
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Node ID will be set from CANopen dictionary object 2100
	OFF	OFF	OFF	OFF	OFF	OFF	ON	Node ID = 1
	OFF	OFF	OFF	OFF	OFF	ON	OFF	Node ID = 2
	..	..	..	..	..	..	..	
	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 CO4011 Pin							Function	
1	2	3	4	5	6	7	8	
BD2	BD1	BD0	CFG3 .. CFG0					
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
			X	X	X	X		Operation Mode
			OFF	OFF	OFF	OFF		Mode 0: 20 digital inputs / 12 digital outputs
			OFF	OFF	OFF	ON		Mode 1: 12 digital in / 12 digital out / 8 analog inputs 8 bit
			OFF	OFF	ON	OFF		Mode 2: 16 digital in / 12 digital out / 8 analog inputs 16 bit
			OFF	OFF	ON	ON		Reserved
			OFF	ON	OFF	OFF		Mode 4: 12 digital inputs / 20 digital outputs
			OFF	ON	OFF	ON		Mode 5: 4 digital in / 12 digital out / 8 analog inputs 8 bit
			OFF	ON	ON	OFF		Mode 6: 8 digital in / 12 digital out / 8 analog inputs 16 bit
			OFF	ON	ON	ON		Reserved
			ON	x	x	x		Reserved
							X	Termination of CAN bus line
							OFF	Termination is inactive
							ON	Termination is active 120 Ohms

With jumpers J1 to J4, the input port lines IN0 to IN3 may be connected either to connector PL4 / PL7 or to the potentiometers P1 to P4.

### Schematic



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