

A decorative graphic on the right side of the page. It features three blue circles of different sizes, each composed of three concentric rings in varying shades of blue. Two thin blue lines originate from the top left and extend diagonally towards the circles, one passing behind the top circle and the other behind the middle circle.

Generic loconet IO

PEEK locoIO ver 3

Description of generic loconet IO

Per
2009-05-19

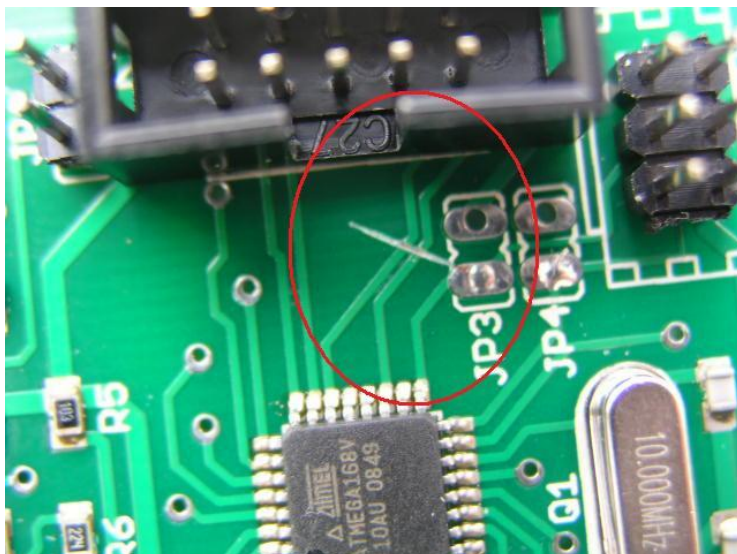
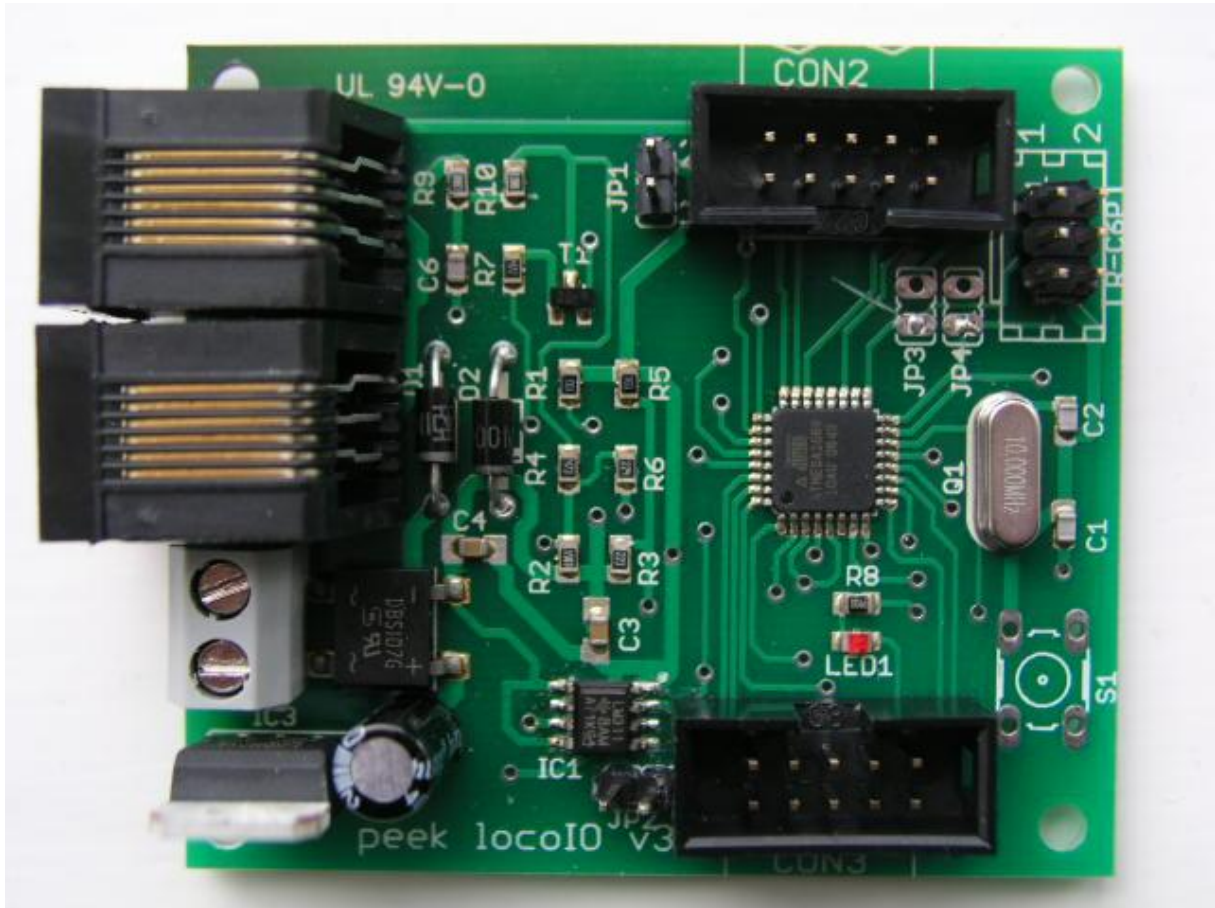
Content

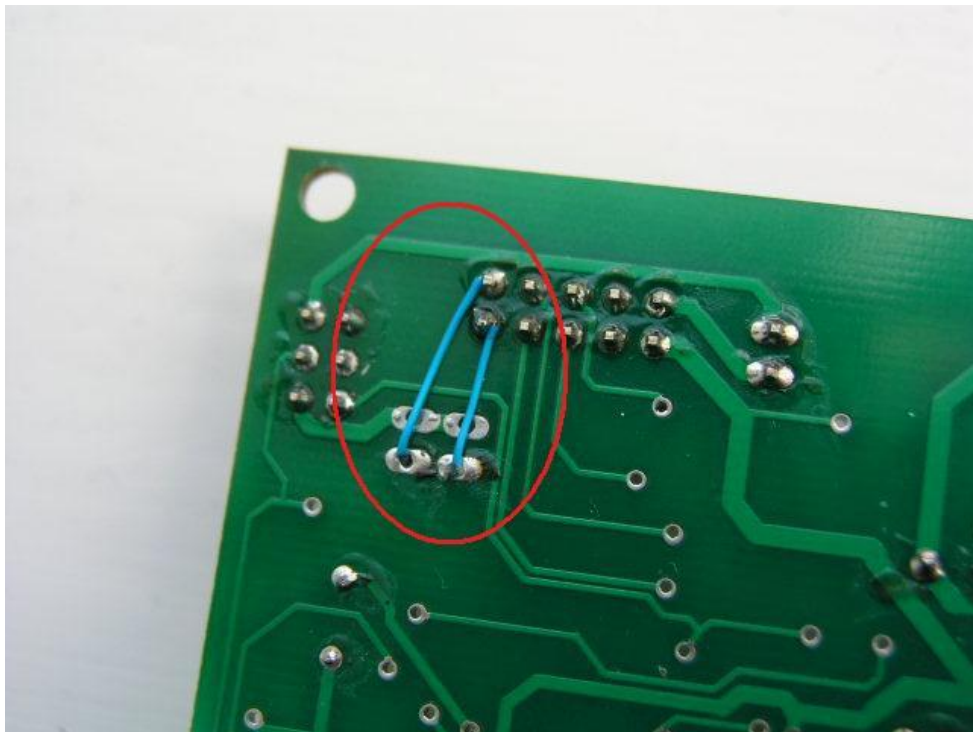
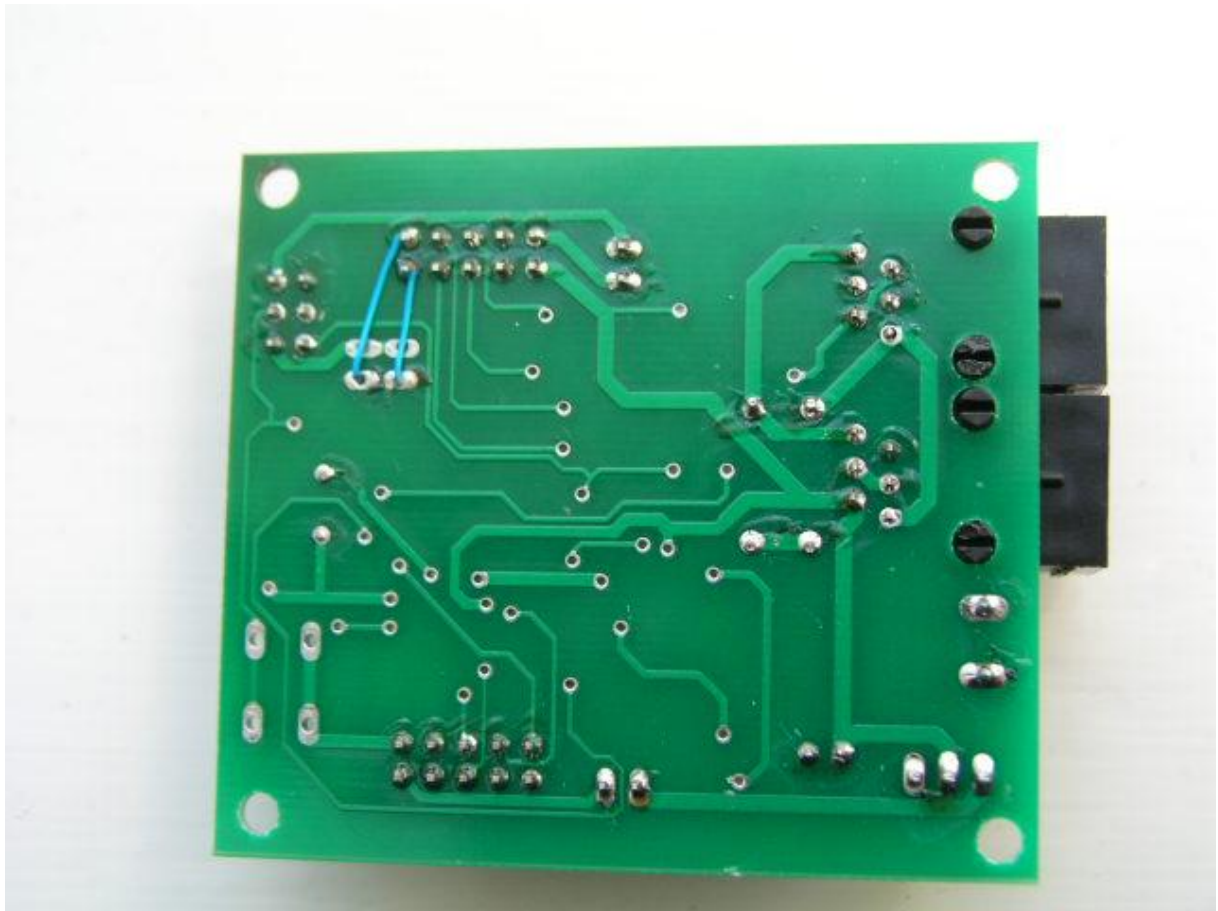
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Description

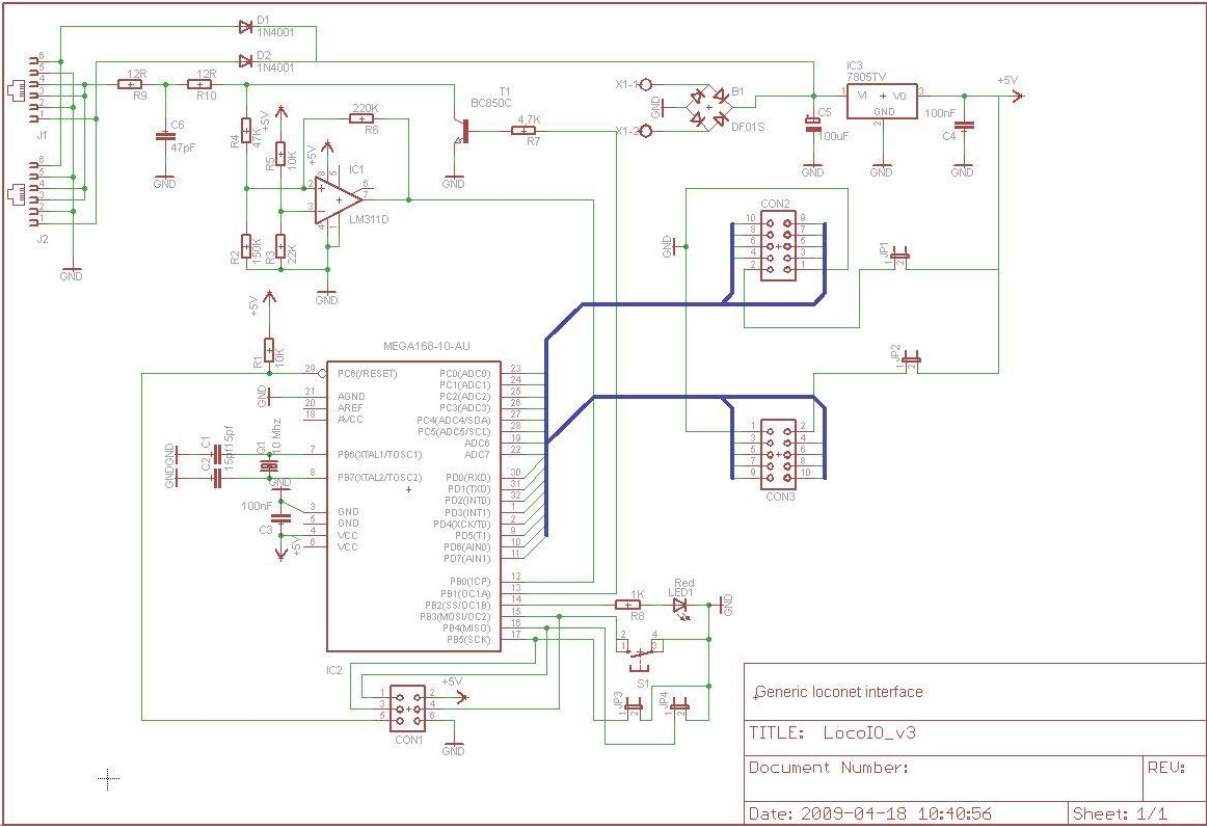
This generic loconet IO board is my first loconet design and also my first SMD design. It is based on Atmega88/168 but it shall also be compatible with Atmega8 (not tested).

I chose SMD most for fun, but also to learn more about SMD designs. The board is quite straight forward, but I made one mistake. I forgot that the pin ADC6 and ADC7 are not IO pins when I routed this board, so to be able to use all pins on CON2 as IO-pins one must cut two traces on the upper side of the board and solder two patch-cables on the back side of the board.



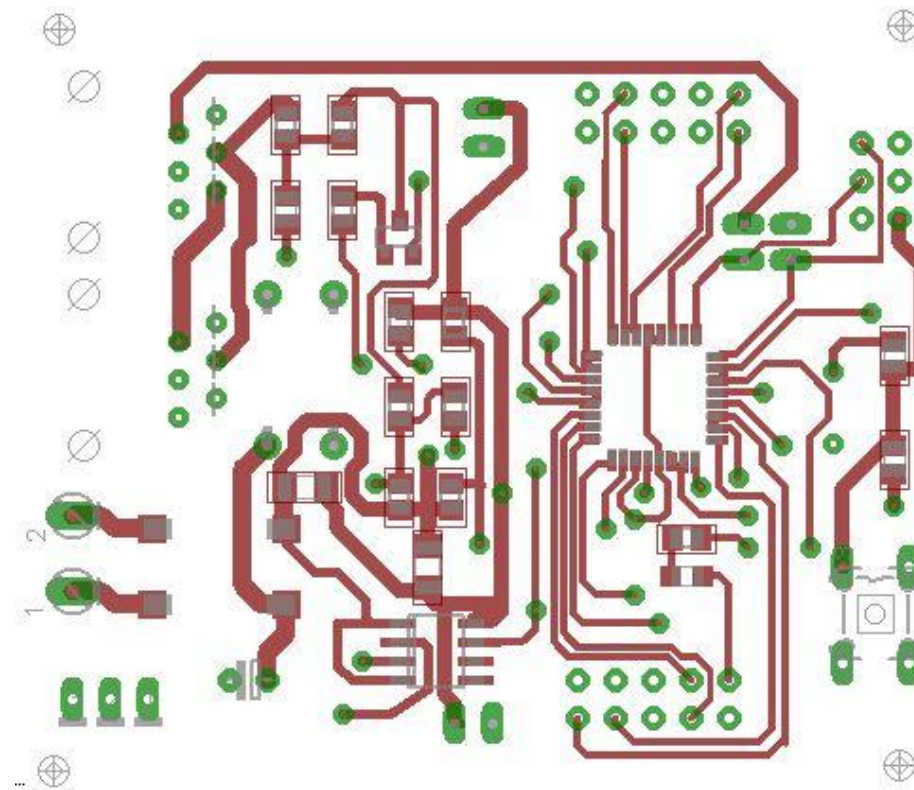


Schema

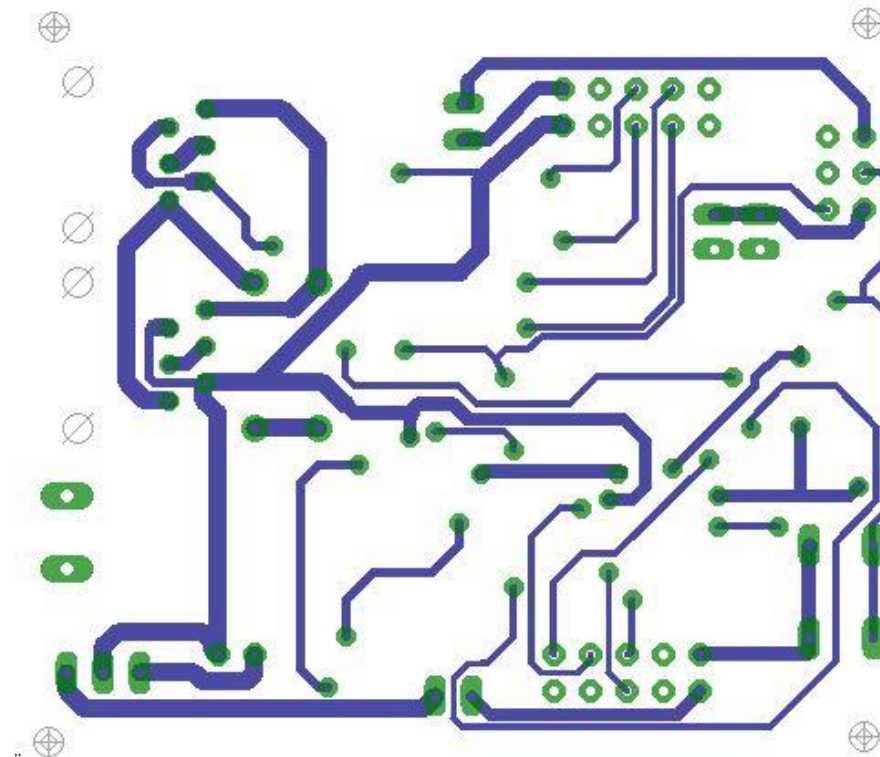


PCB

Top side



Bottom side



IO configuration

CON1 - ISP

Pin	AVR
1	MISO
2	+5V
3	SCK
4	MOSI
5	RESET
6	GND

CON2 - IO

Pin	AVR
1	GND
2	+5V (JP1)
3	PC0
4	PC1
5	PC2
6	PC3
7	PC4
8	PC5
9	ADC6
10	ADC7

CON3 - IO

Pin	AVR
1	GND
2	+5V (JP2)
3	PD0
4	PD1
5	PD2
6	PD3
7	PD4
8	PD5
9	PD6
10	PD7

OTHER

JP3	PB5 - GND
JP4	PB4 - GND
S1	PB3 - GND
LED1	PB2 - GND
LocoNet Receive	PB0
LocoNet Send	PB1