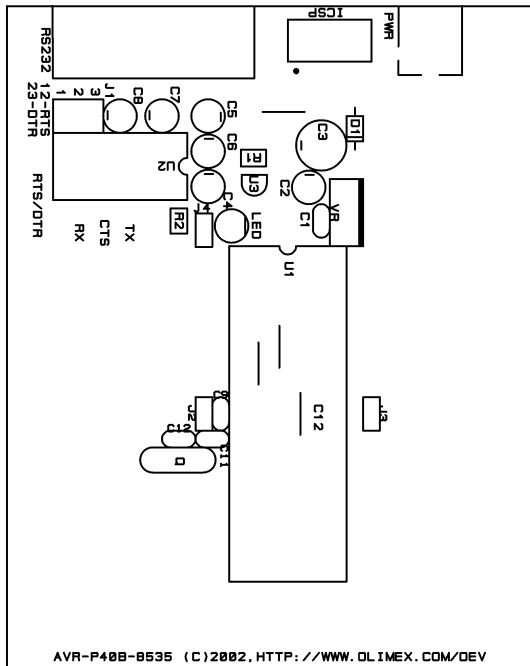


## AVR-P40B-8535 PROTOTYPE BOARD WITH 10 PIN ICSP CONNECTOR FOR AT90S8535 AVR MICROCONTROLLERS

### **Features:**

AVR-P40B-8535 is prototype board for AT90S8535 AVR microcontrollers with following features:

- RS232 Tx, Rx interface with MAX232 IC
- ICSP 10 pin connector (STK compatible)
- RESET IC ZM33064C
- Status LED connected to PB0 via removable jumper
- 4MHz, 8MHz quartz oscillator
- extension slot on each microcontroller pin
- DIL40 microcontroller socket
- AGND-GND and AVCC-VCC jumpers
- power supply plug in jack connector
- +5V power supply voltage regulator
- 0.1" (2.54 mm) grid
- dimensions: 100x80 mm
- four mounting holes



### **Programming:**

To program AVR-P40B-8535 you need serial port or parallel port AVR-ICSP programmer dongle (Olimex part # AVR-PG1B or AVR-PG2B).

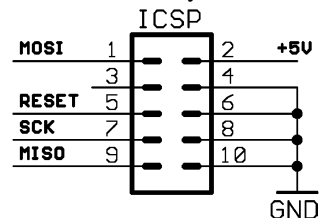
The serial port ICSP programmer (AVR-PG1B) works with PonyProg software by from Claudio

Lanconelli and the latest release may be download for free from <http://www.lancos.com> The parallel port ICSP programmer (AVR-PG2B) works with AVR ISP from Atmel and may be download for free from Atmel's web site.

### **ICSP interface:**

The ICSP connector is 2x5 pin with 0,1" step and Atmel STKxxx compatible layout. The PIN.1 is marked with square pad on bottom and arrow on top. ICSP signals are: 1- MOSI, 2- VCC, 3- NC, 4- GND, 5- RST, 6- GND, 7- SCK, 8- GND, 9- MISO, 10- GND

TOP view PCB board layout:



### **RS232 interface:**

J1 removable jumper selects where RTS/DTR line to be connected. In position 12 the line is connected to RTS, in position 23 is connected to DTR.

### **Status LED:**

Connected to PB0 via removable jumper.

### **Oscillator circuit:**

Crystal resonator connected to XTAL1 and XTAL2.

### **Analog VCC and GND:**

J2 connects AVCC to VCC.

J3 connects AGND to GND.

### **RESET supervisor circuit:**

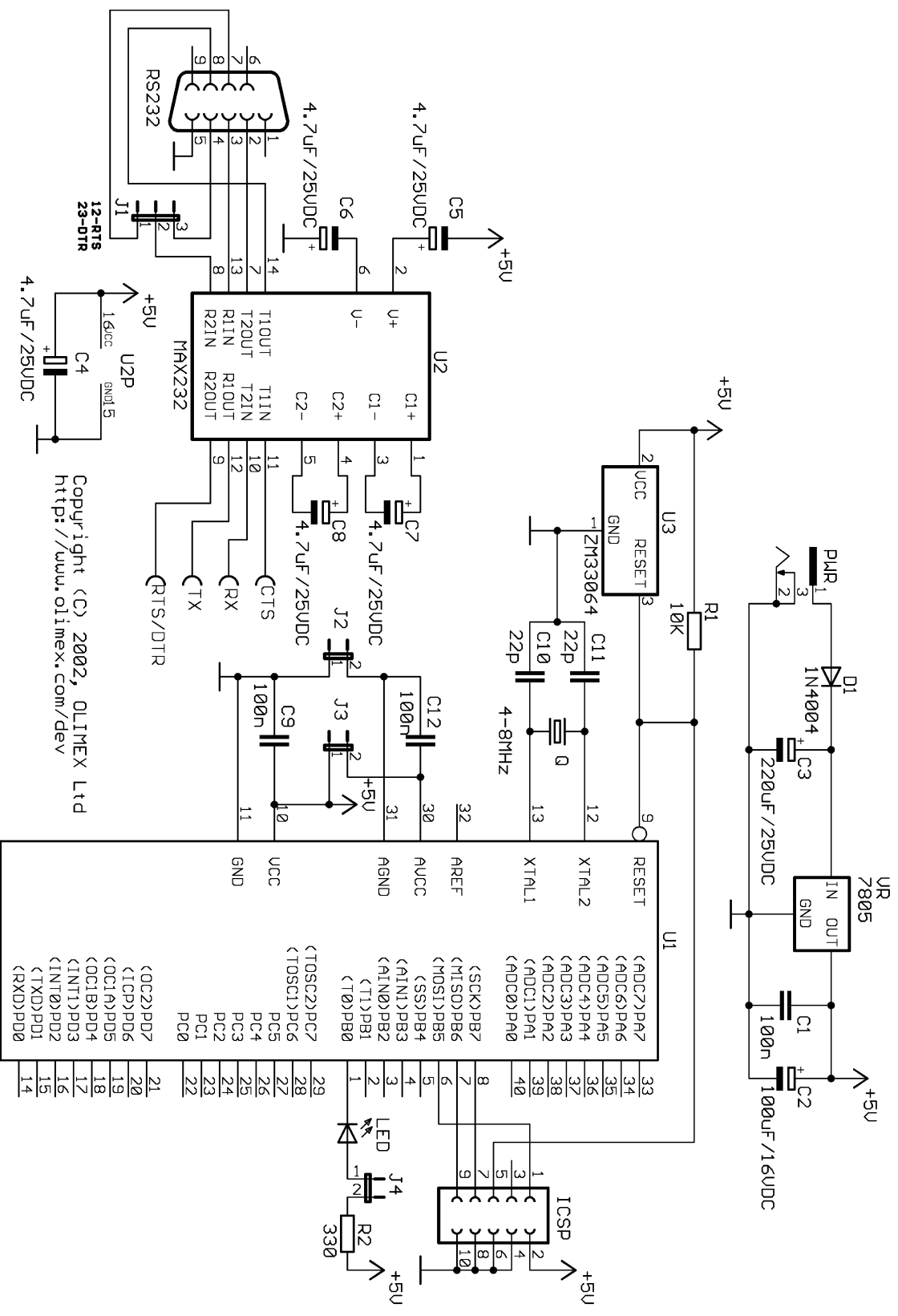
IC ZM33064C with 4.6V threshold.

### **Supported devices:**

AT90S8535 and AT90S4434 microcontrollers.

### **Ordering codes:**

- AVR-P40B-8535-4Mhz - assembled and tested
- AVR-P40B-8535-8MHZ - assembled and tested
- AVR-P40B-8535/PCB - only PCB



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AT90S8535

RESET	33	<ADC7>PA7	34
UCC	34	<ADC6>PA6	35
AGND	35	<ADC5>PA5	36
AREF	36	<ADC4>PA4	32
AVCC	32	<ADC3>PA3	38
AVCC	38	<ADC2>PA2	39
AVCC	39	<ADC1>PA1	40
AVCC	40	<ADC0>PA0	
XTAL2	8	<SCK>PB7	7
XTAL1	7	<MISO>PB6	6
XTAL1	6	<MOSI>PB5	5
XTAL1	5	<SS>PB4	4
XTAL1	4	<AIN1>PB3	3
XTAL1	3	<AIN0>PB2	2
XTAL1	2	<T1>PB1	1
XTAL1	1	<T0>PB0	
UCC	29	<TOSC2>PC7	28
UCC	28	<TOSC1>PC6	27
UCC	27	PC5	26
UCC	26	PC4	25
UCC	25	PC3	24
UCC	24	PC2	23
UCC	23	PC1	22
UCC	22	PC0	
UCC	21	<OC2>PD7	20
UCC	20	<ICP>PD6	19
UCC	19	<OC1A>PD5	18
UCC	18	<OC1B>PD4	17
UCC	17	<INT1>PD3	16
UCC	16	<INT0>PD2	15
UCC	15	<TXD>PD1	14
UCC	14	<RXD>PD0	