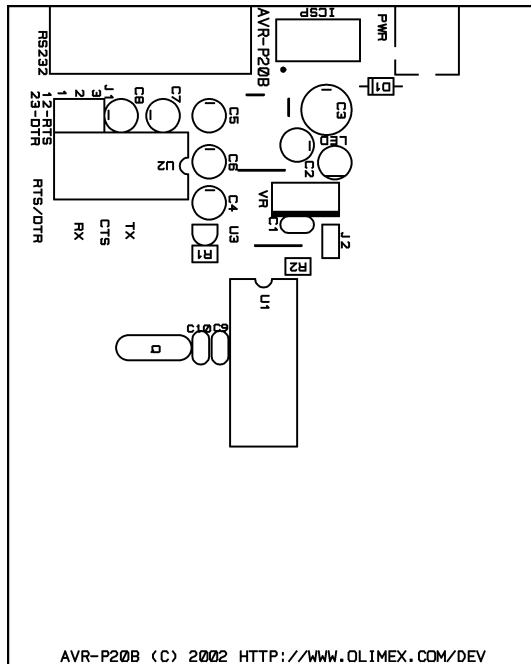


## AVR-P20B PROTOTYPE BOARD WITH 10 PIN ICSP CONNECTOR FOR 20 PIN AVR MICROCONTROLLERS

### **Features:**

AVR-P20B is prototype board for 20 pin 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 PB7 via removable jumper
- 4MHz, 10MHz or 12MHz quartz oscillator
- extension slot on each microcontroller pin
- DIL20 microcontroller socket
- power supply plug in connector
- +5V power supply voltage regulator
- 0.1" (2.54 mm) grid
- dimensions: 100x80 mm
- four mounting holes



### **Programming:**

To program AVR-P20B you need serial port or parallel port AVR-ICSP programmer dongle (Olimex part # AVR-PG1B or AVR-PG2B).

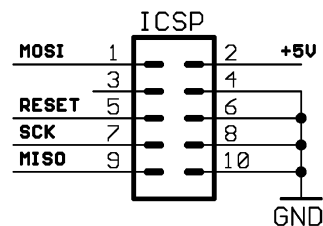
The serial port ICSP programmer (AVR-PG1B) works with PonyProg software by from Claudio Lanconelli and the latest release may be download for free from <http://www.lancos.com>

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 PB7 via removable jumper J2. The jumper should be left open while programming.

### **Oscillator circuit:**

Crystal resonator connected to XTAL1 and XTAL2.

### **RESET supervisor circuit:**

IC ZM33064C with 4.6V threshold.

### **Supported devices:**

AT90S1200 and AT90S2313 microcontrollers.

### **Power supply:**

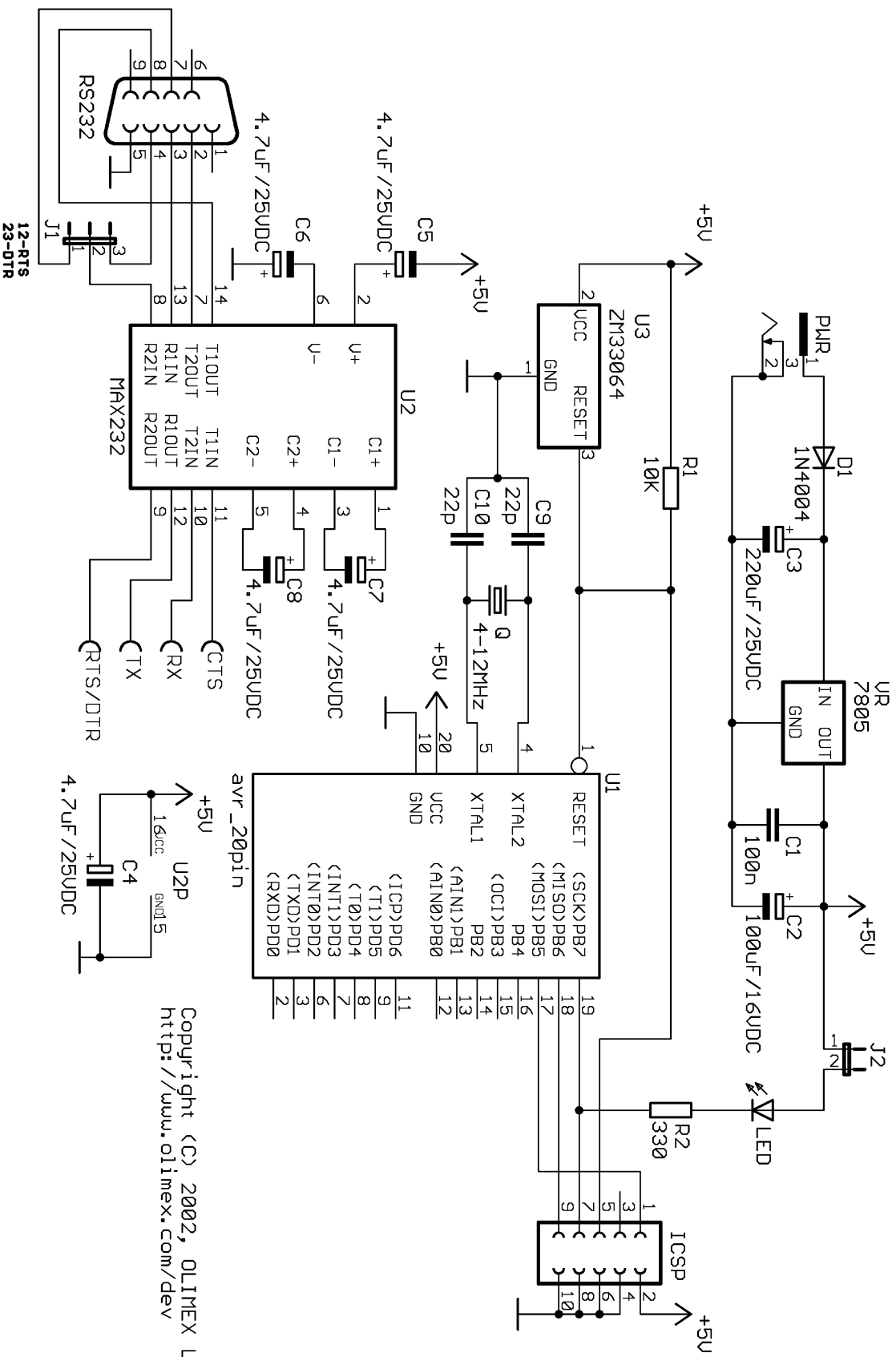
The power supply should be in range +7.5 +18VDC.

### **Ordering codes:**

- |                |                        |
|----------------|------------------------|
| AVR-P20B-4MHz  | - assembled and tested |
| AVR-P20B-10MHz | - assembled and tested |
| AVR-P20B-12MHz | - assembled and tested |
| AVR-P20B/PCB   | - only PCB             |

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