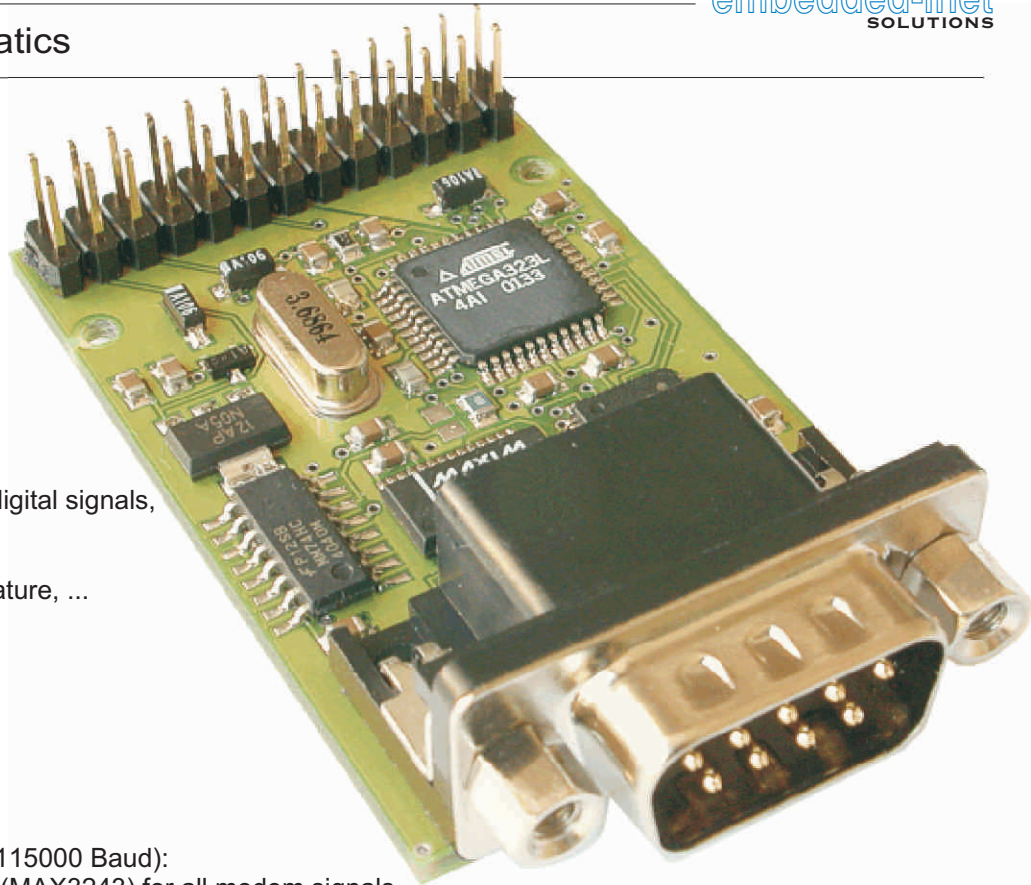


i-easy pro - PPP-TCP/IP Module

Technical Data and Schematics



Typical applications:

monitoring of remote analogue & digital signals, e.g.

- reading remote meters
- monitoring mains power, temperature, ...
- alarm / service reporting
- security applications

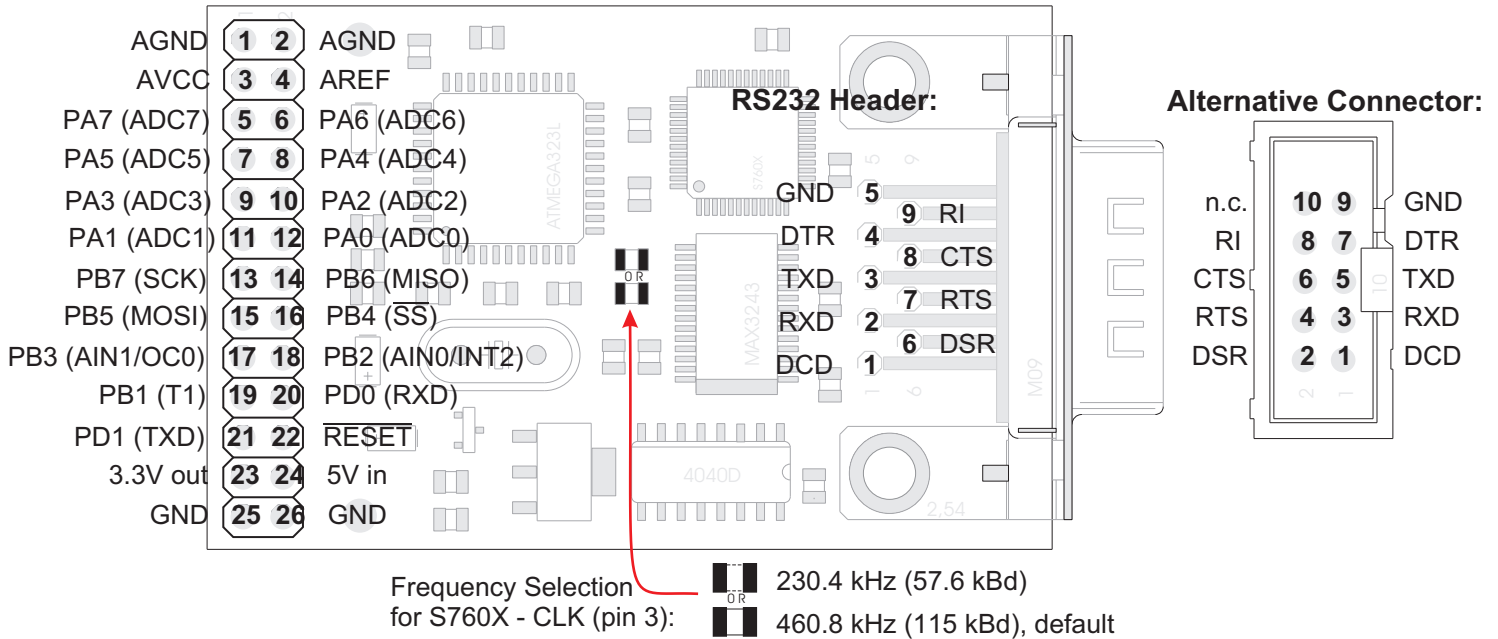
Product features:

- 2 x RS232 serial UARTs (150 to 115000 Baud):
 - 1 UART with 8x level conversion (MAX3243) for all modem signals
 - 1 TTL-level UART on the microcontroller side
- supports AT-command set for common modems, GSM modules or ISDN modems
- implemented hardware PPP client
- 8-bit I/O (e.g. send e-mail on event)
- RS232 application port (free for your application)
- 2 full useable iNet sockets (Seiko iChip **S-7601A**)
(2 connections at a time possible: 1 server and 1 client, 2 servers or 2 clients)
- Multi-Processor 8-bit RISC Design - one for PPP-TCP/IP, one for your application
- 32kB Flash AVR microcontroller (ATmega323L) with approx. 28kB free for your Code
(A typical application for sending e-mail and ftp file upload needs about 6-7 kB.)
- ISP port with Flash-readout protection
- low power 3.3V design (incl. voltage regulator)
- typical current consumption @ 5V (depending on application setup) :
full transmission: 10.9 mA ; idle: 7.7 mA ; standby / power down: 5 mA
- Temperature range: - 40°C ... + 85°C.
- Supply voltage range: 4.75V <= V_in <= 10V
- Capability of V_out: 3.3V (3.235 to 3.365 V), 0 <= I_out <= 500mA
- Weight: 19.5 g
- Dimensions: 53.7 (61) x 35 x 16.5 mm (incl. D-Sub9 connector at 90°)

i-easy pro - PPP-TCP/IP Module

Technical Data and Schematics

Pin Configuration (upper side view):



Power Supply, Reset

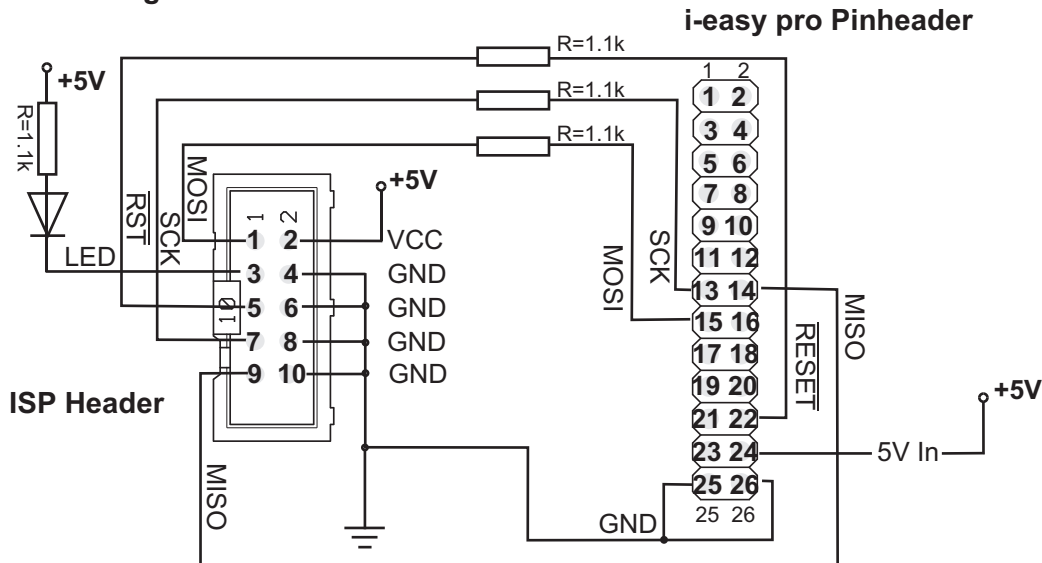
To supply power please connect an **external source of 5V DC**. The internal voltage-regulator will provide **3.3V DC on board** to supply the processor.

This regulated voltage is also available at the pinheader for supplying external components (see pin configuration for details). The **output current** used for connected accessories or application devices may not exceed 500mA.

The typical current consumption of the board is 10.9mA @ 5V (depending on application setup).

The **reset**-line is available at the pinheader. Initiate a reset by a pull-down of this line.

How to adapt an ISP-Programmer



ISP-Programming

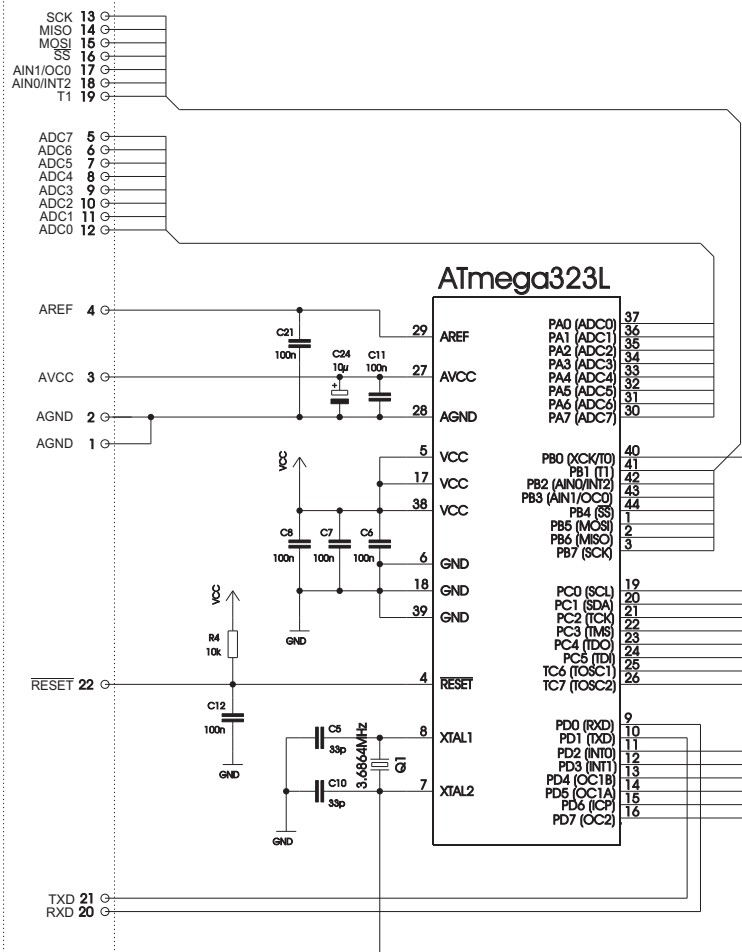
To burn your code using the serial programming mode of the ATmega323 via the letATwork ISP dongle (or an other Atmel compatible ISP burning tool), you need the **ieasy pro debug/programming adapter** (optional).

Otherwise you have to tap the needed pins at the 2x13 pinheader. The necessary ISP header is a 10pin connector with the below given pinout to connect an STK200/300 compatible ISP dongle.

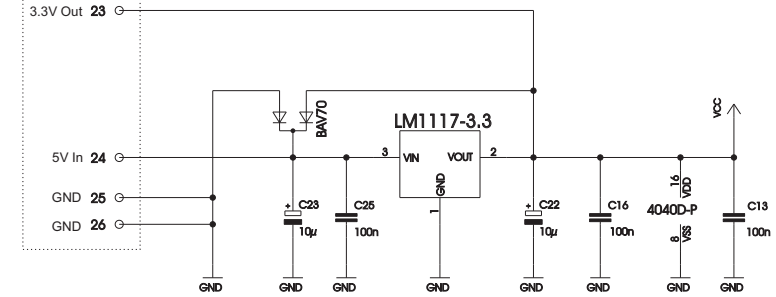
The design of the i-easy pro debug adapter can be found on the following pages.

The i-easy pro starter kit includes the debug adapter, the letATwork ISP dongle and a serial cable to connect the UART interface of the debug adapter to your PC.

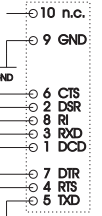
Pinheader



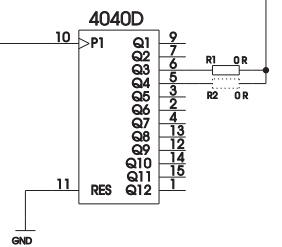
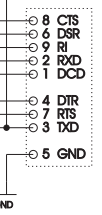
Pinheader (continued)



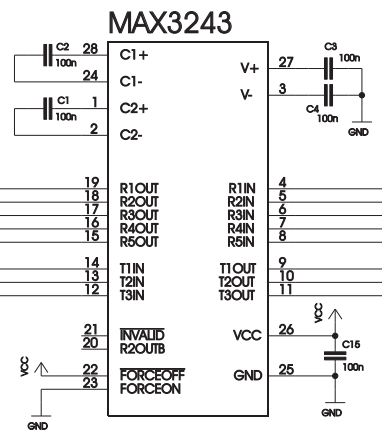
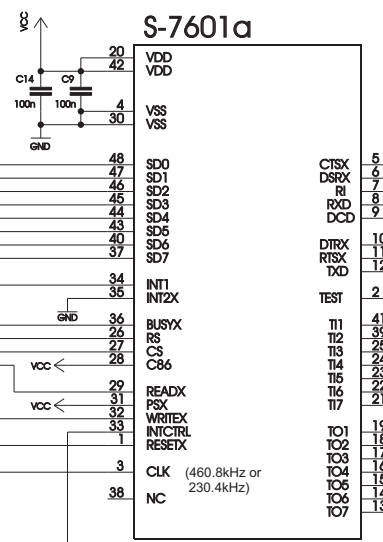
10pin Connector



D-Sub 9



close
R1: S7600, pin 3 = 460.8kHz (115 kBd)
R2: S7600, pin 3 = 230.4kHz (57.6 kBd)



i-easy pro - PPP-TCP/IP Module

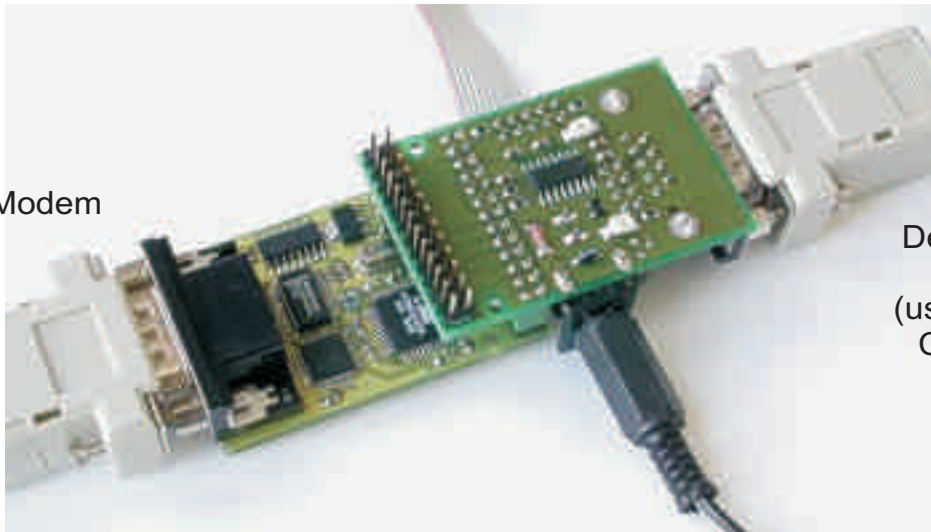
Technical Data and Schematics - Debug Adapter

Product features:

- power supply socket (6..12V DC)
- ISP port for your programming tool
- i-easy pin connector double
- VCC and PROG LED
- RS232 interface for using standard RS232 hardware (e.g. GPS, multimeter, printers,...) or for debugging on a terminal program
- Weight: 27 g
- Dimensions: 53.7 (61) x 35 x 24.4 mm (incl. D-Sub9 connector)

to ISP dongle

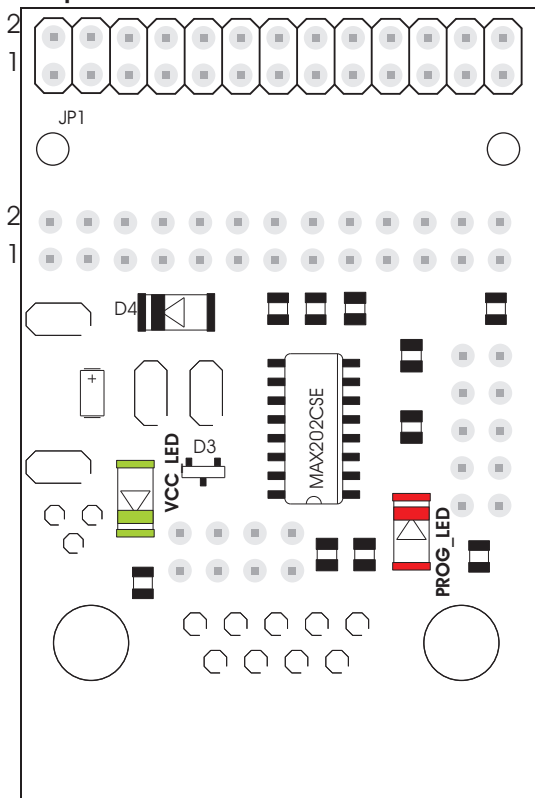
to Modem



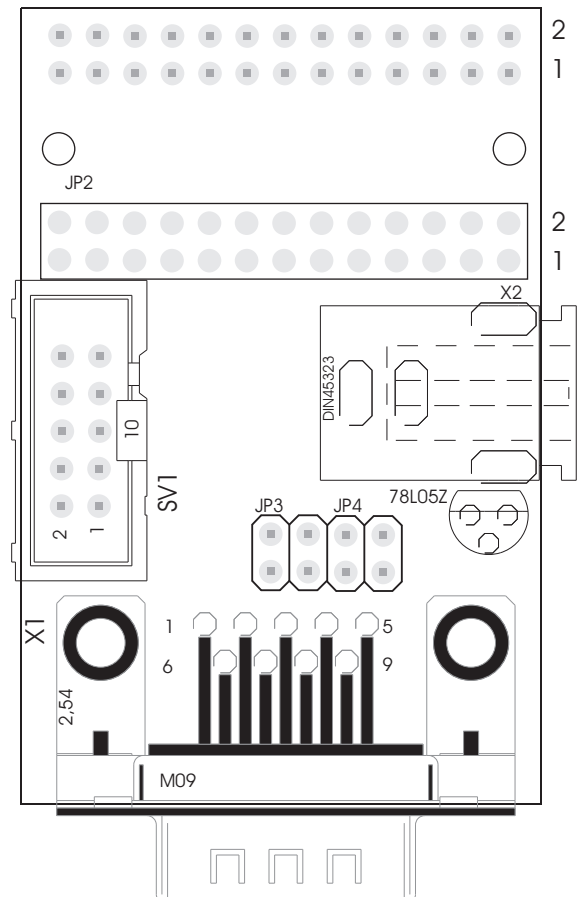
Debug / User Application
RS232
(use null modem cable for
Computer Connection)

6-12 V DC

Top View:



Bottom View:



i-easy pro debug adapter, schematic

