

# Ethernut Starter Kit



## Description

Ethernut™ is a small (80 x 100 mm) board combining Atmel's ATmega 128 RISC Microcontroller with Realtek's RTL8019AS Ethernet Controller. The board is well suited for a wide range of Internet enabled applications. It is ready to be plugged into a 10BaseT Ethernet network.

## Features

### Hardware

- ATmega 128 RISC Microcontroller.
- Full duplex IEEE 802.3 compliant Ethernet controller with on-board RJ-45 connector for twisted pair networks.
- RS-232 serial port with on-board DB-9 connector for debugging or application usage.
- 128 Kbyte in-system programmable flash ROM, 4 Kbyte in-system programmable EEPROM and 32 Kbyte SRAM.
- 22 programmable digital I/O lines and 8-channel, 10-bit analog/digital converter.
- Watchdog timer and reset controller for enhanced reliability.
- LED indicators for power supply, programming mode and Ethernet activity.
- Single power supply DC 9-15V or AC 7-12V.

### Software

- Nut/OS Real-Time Operating System supports cooperative multithreading, dynamic heap management, event handling, timer management and simple ROM filesystem.
- Nut/Net TCP/IP Protocol Stack provides ICMP, ARP, IP, UDP, TCP, DHCP, DNS and HTTP with basic CGI.

- Expandable device driver supports on-board serial and network I/O. Easy application via stream I/O and TCP/UDP socket interface.
- Several application examples for TCP/IP client/server communication including Telnet and Web Server.

## Contents of the Kit

### Hardware

- Multilayer Ethernut Board, assembled and tested with preloaded software sample.
- In-system programming adapter for the PC parallel printer port.
- DB-9 serial cable for the PC com port.
- Printed hardware manual including quick start guide.

### Software

The included CDROM contains

- Complete C and assembly source code with BSD type licence. Royalty-free for open or closed source commercial or non-commercial application.
- GNU C Compiler Tools for application development.
- Additional manuals including detailed API documentation.

## Prerequisites for Operation

- A standard Linux or Windows PC equipped with a twisted pair Ethernet Adapter Card.
- Unregulated power supply with AC 7-12V or DC 9-15V, 100 mA minimum, on a standard 2.1 mm barrel connector.
- 100/10Base-T or 10Base-T network or a twisted pair cross cable.

## Order

The price of the Starter Kit is 163,10 EUR incl. 16% VAT plus 13,80 EUR incl. VAT for shipping in countries within the EU. Companies providing their VAT REG NO are charged net prices.

For other countries the price is 140,60 EUR plus 20,50 EUR for shipping.

We accept payment by Visa, Mastercard, COD or bank transfer.

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