

Serial Ethernet **PROTO**[™]

Manual

All Mikroelektronika's development systems feature a large number of peripheral modules expanding microcontroller's range of application and making the process of program testing easier. In addition to these modules, it is also possible to use numerous additional modules linked to the development system through the I/O port connectors. Some of these additional modules can operate as stand-alone devices without being connected to the microcontroller.

Additional Board

 **MikroElektronika**

SOFTWARE AND HARDWARE SOLUTIONS FOR EMBEDDED WORLD ...making it simple

Serial Ethernet PROTO Additional Board

The *Serial Ethernet PROTO* additional board is used to connect a microcontroller to the Ethernet network. It features an on-board Ethernet controller ENC28J60 that exchanges data with microcontrollers via a standard Serial Peripheral Interface (SPI) at a data rate of up to 10 Mbit/s.

The board also features a single-line 10-pin connector whose pins are connected to the ENC28J60's SPI communication lines. This connector enables the additional board to be connected to the microcontroller's I/O port intended for SPI communication.

Pins provided on the ENC28J60 circuit are connected to three LEDs and have the following functions:

POWER: indicates that the additional board is turned on;

LED A: indicates that Ethernet cable is connected; and

LED B: indicates Ethernet network activity. It will be illuminated on every data package receive/transmits.

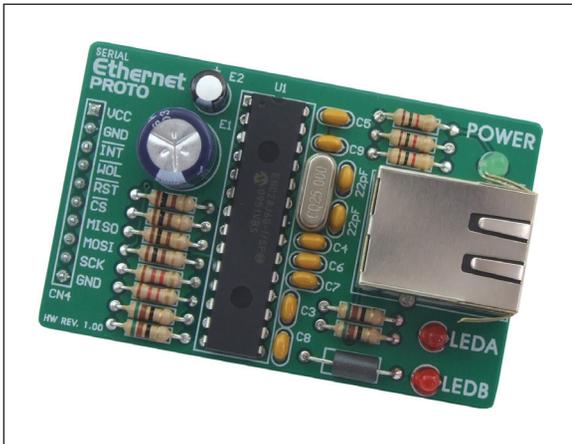


Figure 1: Serial Ethernet PROTO additional board

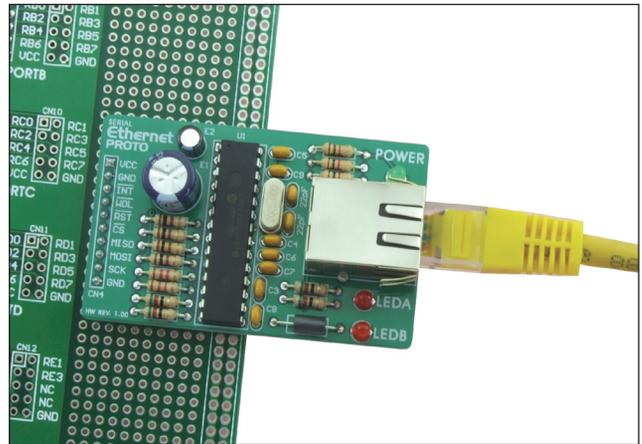


Figure 2: Serial Ethernet PROTO connected to a development system

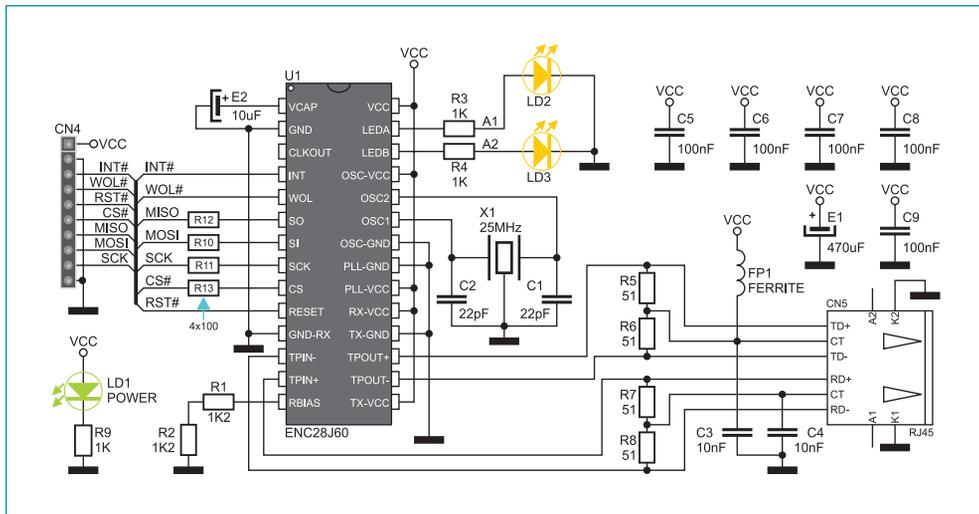


Figure 3: Serial Ethernet PROTO board connection schematic