ENC28J60 Ethernet LAN Network Module for Arduino



ENC28J60 Ethernet Module utilizes the new Microchip ENC28J60 Stand-Alone Ethernet Controller IC featuring a host of features to handle most of the network protocol requirements. The board connects directly to most microcontrollers with a standard SPI interface with a transfer speed of up to 20MHz.

This Ethernet Breakout-Module is simplest way to add LAN connectivity to your microcontroller based products and projects.

- Use this module to enable Ethernet interface for your product. It works with any microcontroller operating at 3.3V or 5V.
- This module works at 3.3V and is compatible with 5V interface lines.
- Use SPI process to interface with it.
- Host web server, ping the module or add it to home automation via internet.
- Heart of this module is ENC28J60 Ethernet controller from Microchip.
- Use of RJ45 with Integrated magnetic has made it possible to reduce the size of board.

Important Note for Use

- VCC power to the module has to be 3.3V regulated. Do not give 5V to power else it will damage the module.
- I/O are 5V tolerant, you can check datasheet,
- Your interfacing micro can run at either 3.3V or 5V, it does not matter. Your micro is SPI Master(5V or 3.3V) and ENC28J60 is a SPI Slave(3.3V)
- If your micro is at 5V, then it will get 3.3V level output from SO(Serial Output) pin and other output pins, which is a valid high for 5V micro. The output pins need not be 5V tolerant, since 5V tolerant only applied to input pins of the ethernet IC.
- The IC will become a little warm, that is normal. Ideally the current consumed of module will be around 120-150mA.
- While testing, make sure to have a good Ethernet port to PC, Many cheap USB-Ethernet adapters are not good quality and will not give a reliable link even though LED shows up ok.

Features

- ENC28J60 Ethernet chips, SOP28 package
- SPI Interface
- 1x10 connector, can be easily mounted with the MCU
- Built-in isolation transformer RJ45 connectors HR911105A
- Power LED
- Single Supply: +3.3 V
- 25Mhz Crystal
- PCB size: 48x18 mm

It is a module by which you can put your control board online. And of course you can use it on the Arduino platform. Its function is the same as Ethernet Shield V1.0 for Arduino, so with it you can realize all the functions that you did on the Ethernet Shield V1.0 for Arduino. It is tiny and convenient, you need to connect it with your Arduino board with 10 wires, then you can use it like the Ethernet Shield V1.0 for Arduino.

Board Schematic

