

W3150A+ Hardwired TCP/IP Controller



The W3150A+ not only integrates the second (MAC) layer of the Ethernet protocol into the hardware, but also the third and fourth. It supports TCP, IPv4, UDP, ICMP, ARP, PPPoE and Multicast. Thus the W3150A+ offers TCP/IP+MAC on a single chip for embedded Ethernet applications. The W3150A+ can establish a TCP/IP-connections on it's own and execute handshakes, hence the system controller is released from all protocol tasks. Even 8bit-constroller like the 8051, AVR or PIC can quickly and easily be connected.

The 8bit address-/data bus or SPI support data rates up to 25Mbits/s on application level.

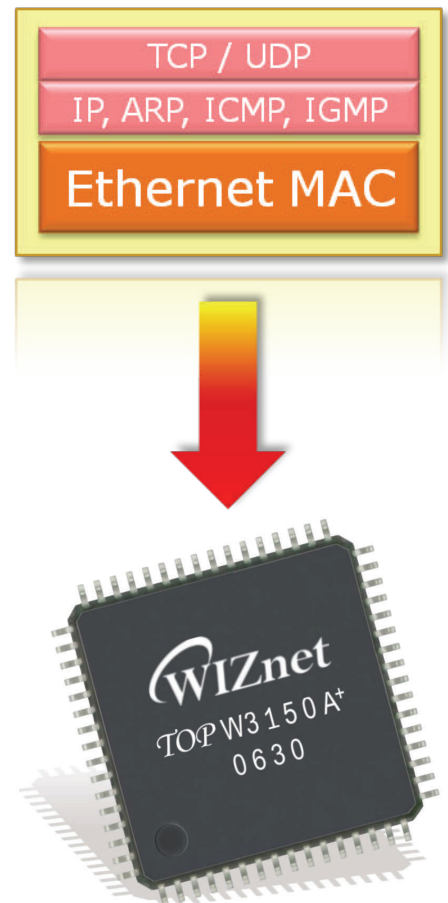
As TX/RX-buffer a free configurable 16kByte dual-port SRAM is available.

The W3150A+ is IEEE 802.3 (10Base-T) and 802.3u (100Base-TX) compliant and qualified for industrial temperature standards.

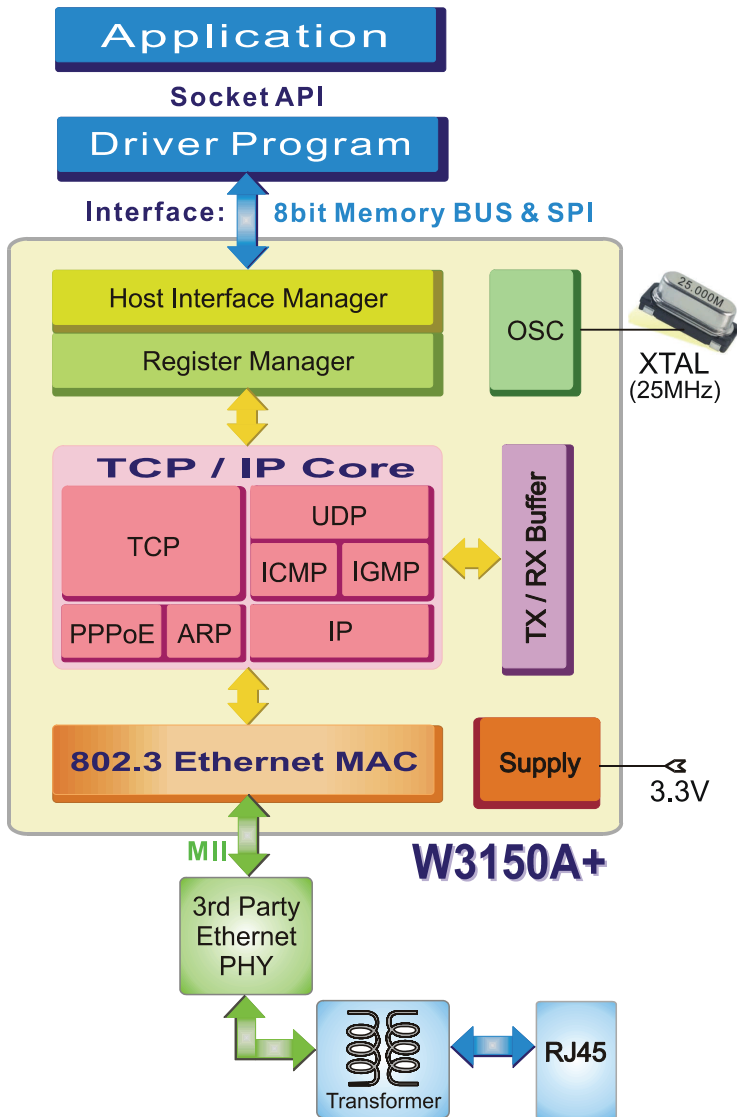
Open source drivers and examples for different μ C-platforms are available without extra charge. No operating system is needed even for WEB-, FTP- or DHCP-client or server.

Features

- ◆ Hardwired TCP/IP:
 - TCP, UDP, ICMP, IGMP, IPv4, ARP
 - Ethernet
- ◆ Embedded Ethernet-MAC:
 - Multicast
 - Connection PPPoE protocol with PAP/CHAP authentication mode for ADSL
- ◆ 4 Independent sockets simultaneously
- ◆ Hybrid Mode for one Socket:
 - Direct access to MAC Layer
- ◆ Internal 16Kbytes dual port SRAM for TX/RX buffer
- ◆ Interface:
 - 8 Bit Address/Data Bus for direct- & indirect-mode
 - Serial Peripheral Interface for SPI-mode 0 and 3
- ◆ Up to 25Mbit/s thrupt at application layer
- ◆ Multi-Function LED outputs:
 - TX, RX, full-/half-duplex, collision, link, speed
- ◆ 3.3V operation with 5V I/O signal tolerance
- ◆ Temperature range: -40°C to 85°C
- ◆ 64 Pin LQFP Package



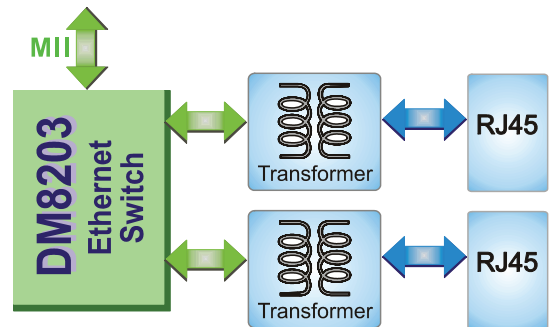
Block Diagram NM7010B+ Module



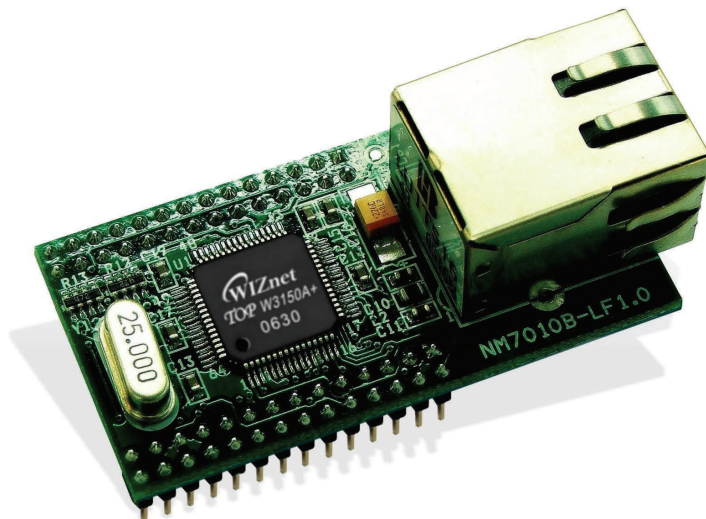
Applications

- ◆ Sensornetze
- ◆ RF, Industriebus Gateways
- ◆ Zugangsterminals
- ◆ Mess- & Medizinische Geräte
- ◆ Heim Automatisierung
- ◆ Smart Metering
- ◆ Data Logging

Dual Port Solution



NM7010B+ Embedded Network Module



- ◆ **Board size:**
52 x 25 x 22mm
- ◆ **Interface Connector:**
two 2x14 pin headers
2.00mm pitch