

MINI-MAX/51-E

Internet-ready 8051 Microcontroller board with 10 Mbit Ethernet

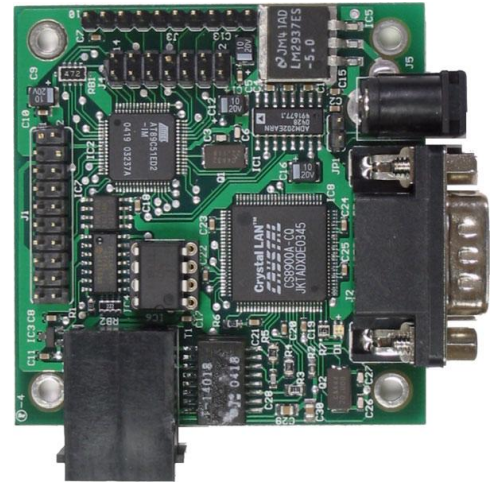
The 8051 micro-controller, first Introduced by Intel, is the most popular micro-controller in use today with applications ranging from industrial, medical, home automation to automotive.

MINI-MAX/51-E is a powerful, yet easy-to-use microcomputer system based on the latest generation of flash-based 8051 micro-controllers from ATMEL.

MINI-MAX/51-E is fully assembled and ready to use out of the box. MINI-MAX/51-E has 64K of flash memory that can store thousands of lines of BASIC, C or 8051 Assembly language programs. Program execution speeds reach over 1 million instructions per second.

Built-in ethernet opens the doors for creation of powerful web-based applications. At a fraction of the cost, size and power consumption, MINI-MAX/51-E replaces PC's for a wide range of projects that require internet-connectivity.

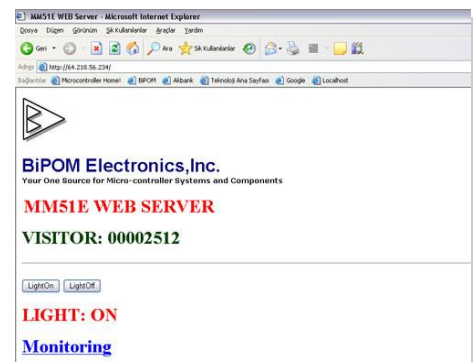
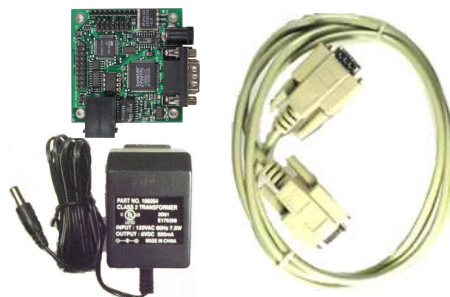
Programs are downloaded into the MINI-MAX/51 with a personal computer through the RS232 serial (COM) port. Downloads typically take only few seconds. MINI-MAX/51-E is fully backed by warranty, technical support and application assistance from BiPOM Electronics. Wide range of peripheral boards and accessories are available.



- ATMEL AT89C51ED2 Microcontroller, 64K Flash, 2K RAM, 2K EEPROM
- CS8900 built-in Ethernet controller
- MINI-MAX/51-E Board includes all the Ethernet components (transformer, RJ-45 jack, etc.) and it can be used on any 10-Mbit twisted-pair Ethernet network
- Full open source TCP/IP stack. It includes all layers: CS8900/ARP/IP/ICMP/TCP
- IPX layer. Users can use this layer on a local network. Also, a Visual C++ example is provided on how to use IPX protocol
- MINI-MAX/51-E Board is compatible with MINI-MAX/51-C2. Users can replace MINI-MAX/51-C2 with MINI-MAX/51-E, without making any changes to other connected equipment.
- Many project examples with full source code, including web server, IPX server, tel-net server.

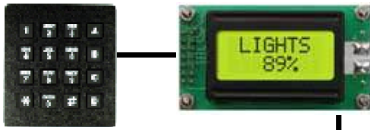
Peripheral Boards

- DIO-1** I/O Expander Board
- TB-1** Training Board
- LED-1** LED Display Board
- PROTO-1** Prototyping Board
- RTC-1** Real-Time Clock Board
- MMC/RTC-1** Flash Multimedia Card Board
- DAQ-2543** 12-bit Analog input board
- DAC-1** 8 Bit analog output board
- TERMINAL-1** Terminal Block Board
- LCD242** Liquid Crystal Display
- VFD202** Vacuum Fluorescent Display
- KP1-4X4** and **KP1-3X4** Matrix Keypads
- X10-1** X10 Interface Module
- MOTOR-1** Unipolar stepper motor driver
- RELAY-1** Relay board
- RELAY-4REED** Reed relay board

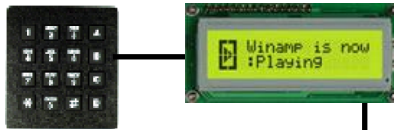


10 MBit ETHERNET NETWORKING WITH MINI-MAX/51-E

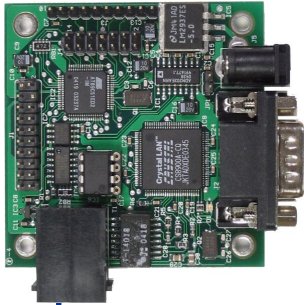
Operator Terminal Station 1



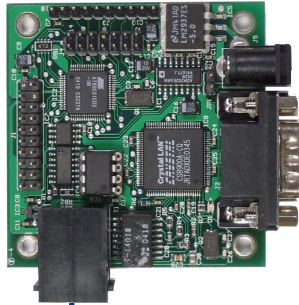
Operator Terminal Station 2



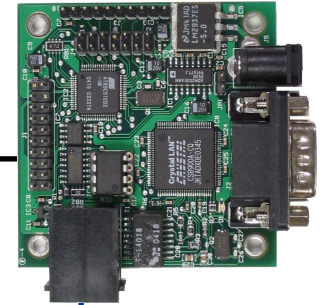
Product Monitoring Station 3



MINI-MAX/51-E
IP: 192.168.0.100



MINI-MAX/51-E
IP: 192.168.0.101



MINI-MAX/51-E
IP: 192.168.0.102

10 Mbit Ethernet



Supervisory Control and Data Acquisition PC
IP: 192.168.0.2

Connecting MINI-MAX/51-E to wireless networks

MINI-MAX/51-E is a low-cost yet powerful Ethernet-enabled microcontroller system for remote monitoring, data acquisition and control over the Internet, Local Area Networks and special networks.

MINI-MAX/51-E has full support for TCP/IP and IPX protocols. It can operate as part of a 10 Mbit wired Ethernet as well as a 802.11 Wireless network.

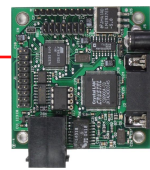
Many wireless access points support wireless client mode of operation that allows the access point to operate as if it was a wireless PC card. After the access point is configured as a wireless client and the Ethernet port on the MINI-MAX/51-E connected the wireless access point, MINI-MAX/1-E exists on the wireless network as if the MINI-MAX/51-E was a full-blown computer.



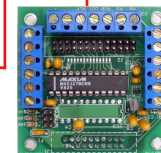
Wireless Supervisory Control and Data Acquisition computer



Wireless Access Point



MINI-MAX/51-E



Analog/Digital Converter Peripheral Board

Temperature Sensor

Pressure Sensor

Light Sensor

Force Sensor