Embedded 486/586 PC
with Built-in UDP/IP Stack
Netsock/435

Features

- ✓ Ready-to-run embedded PC
- ✓ 10Base-T Ethernet port with onboard Embedded Netsock™ UDP/IP stack
- ✓ Small PC104 format
- ✓ 486/586 CPU, 133MHz
- ✓ DiskOnChip®
- ✓ COM1, COM2, KBD, mouse, speaker
- ✓ PC/104 expansion
- ✓ -40°C to +85°C operation available

Netsock/435 provides a turnkey, network-oriented platform on which to build embedded systems. Based on the Micro/sys SBC1491 embedded PC and its built-in 10BASE-T Ethernet port, Netsock/435 is a powerful 486/586 computer that offers high performance, and that can significantly reduce development time.

In addition to the SBC1491's 486/586 CPU, large memory capacity, VGA output, and pre-loaded operating system, Netsock/435 also includes the innovative embedded Netsock UDP/IP stack. Upon power-up, a subset of the popular Winsock functions is immediately available for powerful networking operations.

With networking software pre-integrated, bringing up multi-station embedded systems is much easier than in the past. And there are no royalties for any of the included software when production volumes begin.

Netsock/435 is completely turnkey. It displays a sign-on message when 5V is applied. Clip in a standard network cable, and it communicates with a network. Cables, documentation, and example programs are all supplied with the free development kit.
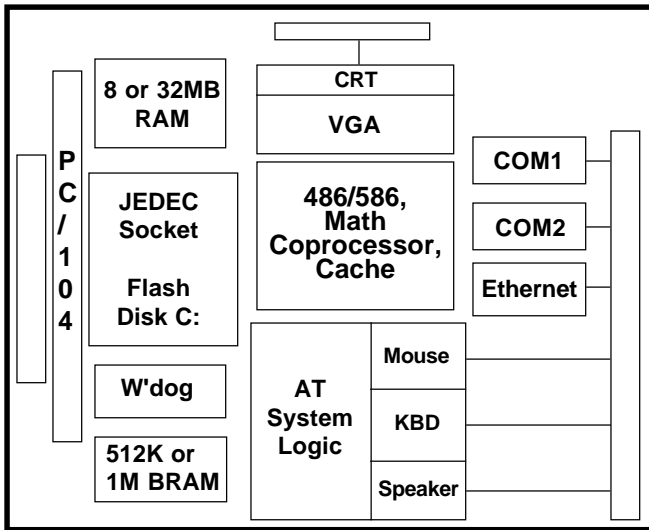
Software Support

*DOS emulation, MSDOS 6.22, Linux, VxWorks®, 32-bit RTOS, Windows 98/NT/CE, TurboDebugger™ Comm library, CommBLOK™ PID loop library, PidBLOK™, C, compilers
  [items above in Section 6]*

Compatible Hardware

*PC/104 expansion cards
  [items above in Section 4]
RS232/RS485 devices
Custom*

Mounting/Packaging

*Standoffs, STDOFF01
  [Items above in Section 5]
ENC104-2
ENC104-4
  [Items above in Section 3]
Custom*

Micro/sys 3730 Park Place, Montrose, CA 91020 (818)244-4600 Fax (818)244-4246
email: info@embeddedsys.com

Block Diagram

```
PC/104    | 8 or 32MB RAM          | CRT
          |                        | VGA
          | JEDEC Socket           | 486/586,        | COM1
          | Flash Disk C:          | Math            | COM2
          |                        | Coprocessor,    | Ethernet
          |                        | Cache
          | W'dog                  | AT System Logic | Mouse
          | 512K or 1M BRAM        |                 | KBD
          |                        |                 | Speaker
```

Winsock API Subset

socket ( )
closesocket ( )
setsockopt ( )
getsockopt ( )
recvfrom ( )
sendto ( )
bind ( )
ioctlsocket ( )
inet_addr ( )
inet_ntoa ( )
WSAStartup ( )
WSACleanup ( )
WSAGetLastError ( )

Specifications:

Embedded PC Features:
- ❑ PC/104 format
- ❑ 486/586 CPU at 133MHz
- ❑ 64MB RAM
- ❑ DiskOnChip® support
- ❑ VGA, COM1, COM2, KBD, mouse
- ❑ See SBC1491 data sheet for complete details

Free On-board Network Software:
- ❑ Flash SetUp™ configuration utility
- ❑ UDP/IP driver stack preloaded into flash
- ❑ Implements subset of Winsock functions [see chart above]
- ❑ IP, UDP, ARP, DHCP, ICMP protocols
- ❑ Dynamically linked with application program Version available without UDP/IP stack. Call factory for information.

Ordering Information:
Single Board Computer:

Netsock/435	SBC1491, Ethernet & Embedded Netsock™
Netsock/435-ET	Extended Temperature Version
DK435N	No charge development kit with first order
1491OPT3	512KB battery-backed RAM
1491OPT4	1MB battery-backed RAM
1491OPT20	10BASE-T Ethernet
1491OPT25	MSDOS in bootable flash ROMdisk A:
1491OPT50	Linux startup kernel installed in flash
Netsock/430-ATL	Call factory for ordering information on Netsock/430-ATL. Drop-in replacement for Netsock/430
DC32 through DC1G	32MB through 1GB DiskOnChip®
ENC104-2	Subfloor
ENC104-4	Enclosure

Add -ET to option for extended temp operation

RUN.EXE, Flash Setup, Embedded Netsock trademark Micro/sys, Inc.
CommBLOK, PidBLOK, OptoBLOK trademark Drumlin
Turbo Debugger trademark Borland International
VxWorks trademark Wind River