NET/82 & NET/86 S-100 BUS APPLICATION PROCESSORS (SLAVES)

From InterContinental Micro

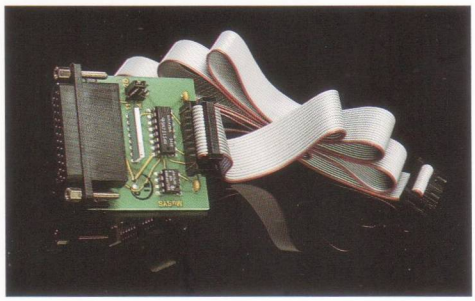
The NET/82 (8-Bit) and NET/86 (16-Bit) Application Processors (Slaves) were first introduced by MuSYS Corporation and have been successfully installed in S-100 BUS systems for several years. InterContinental Micro purchased the manufacturing rights to all of the MuSYS products in the second quarter of 1985 and added these products to our already outstanding line of S-100 BUS products. ICM has since successfully integrated the NET and CPS Application Processors together to offer the most reliable and sophisticated S-100 BUS product line on the market today. Our superior service and support is now available to both NET and CPS users.

The NET/82 and NET/86 Single Board Computers are designed for use with TurboDOS,™ or other distributed processing applications built around the S-100 BUS. Each board contains all the elements needed for a network application processor.

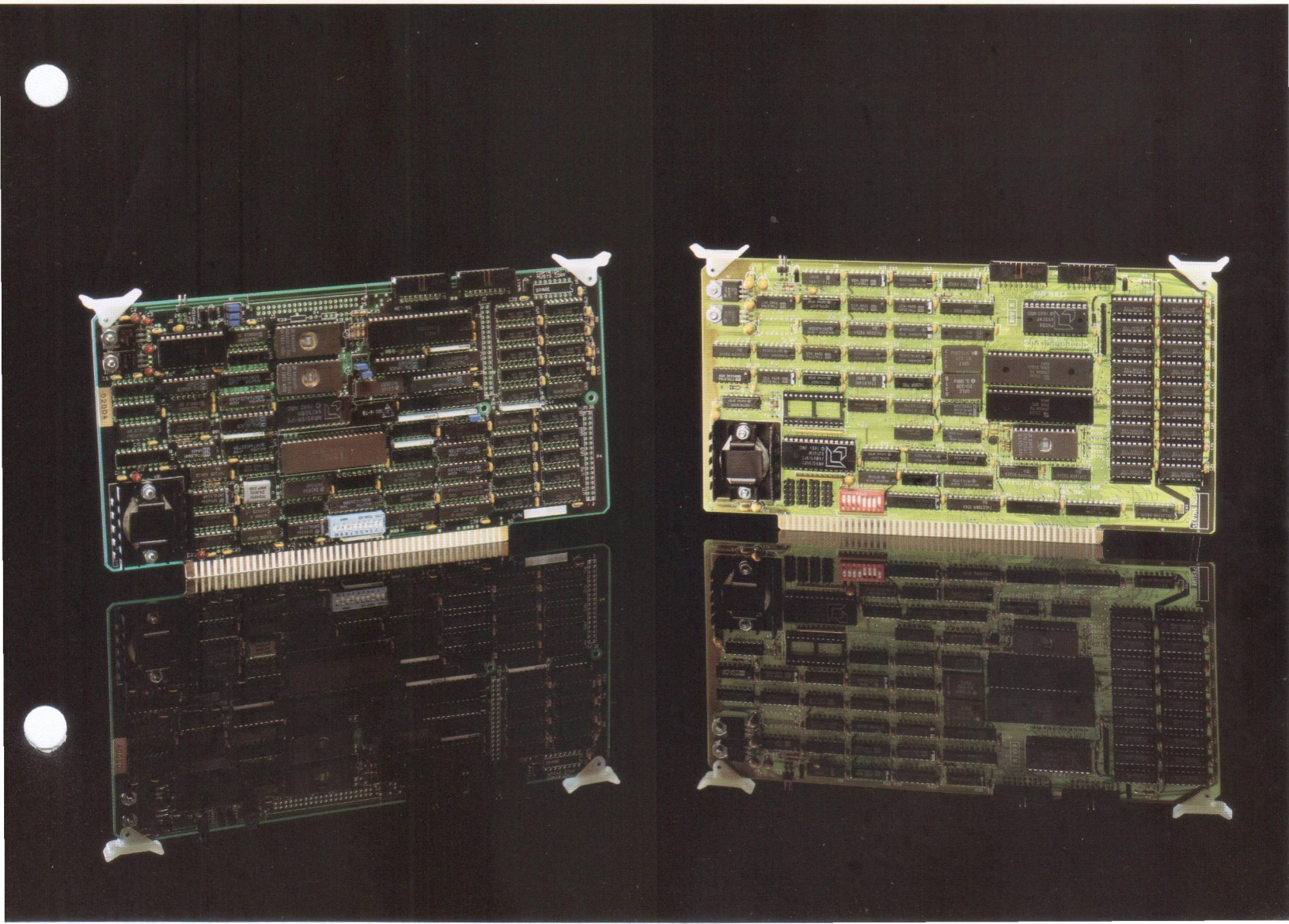
The NET/82 runs on the Z80A CPU, with 64K or 128K Bytes of RAM. The NET/86 runs on the 8086 CPU, with 128K or 512K Bytes of RAM. Both boards have two RS-232 serial ports for a local console, modem, and/or local printer. In addition, these Application Processors feature priority interrupt controllers, memory parity checking, and support for optional floating point processors. Each Application Processor communicates with a master processor/fileserver as an I/O mapped peripheral over the S-100 BUS.

Running under the TurboDOS Operating System allows mixing of 8-bit Z80 based application processors and 16-bit 8086 or 80186 Application Processors on the same bus. When used with ICM's unique TurboLAN® architecture, up to 4000 Application Processors, IBM-PCs,™ XTs,™ ATs,™ Jrs,™ PC Compatibles, or Zenith Z-100s™ or Z-150s™ can be linked together in the same network.

One IM-1 (shown in the inset photo) is included with each NET/82 and NET/86 purchased. Only the IM-X Series Personality Boards can be used with the NET/82 and NET/86 Application Processors. Using



any other type of Personality Board will cause severe damage to both the Personality and Processor Boards.



TECHNICAL FEATURES

- ☐ NET/82: Z80A 4 MHz
- ☐ NET/86: 8086 8 MHz
- ☐ IEEE 696.1/D2 S-100 BUS Compliance.
- ☐ Compatible with ICM's CPZ-4800X and CPZ-186 Master Processors or any Z80 or 16-Bit based CPU complying with IEEE 696.1/D2 S-100 BUS Specifications.
- ☐ TurboDOS Compatible.
- ☐ 2 Serial I/O Ports—Asynchronous, Synchronous, or SDLC.
- ☐ NET/82: 64K to 128K On-Board RAM
  NET/86: 128K to 512K On-Board RAM
- ☐ EPROM for bootstrap and diagnostics.
- ☐ Software Selectable Baud Rates—Allows very flexible peripheral interfacing. Eliminates complicated hardware jumpering and switching to change baud rates.
- ☐ Memory parity checking.
- ☐ Real Time Clock—Provides 64 Hz and 1 PPS interrupt sources, derived from the baud rate clock.
- ☐ Optional Floating Point Processor Available—NET/82: One of four types of floating point processor chips may be supported. The AMD 9511, AMD 9512, Intel 831, or Intel 823 processors may be supported at either 2 MHz or 4 MHz clock rates. NET/86: 8087 processor supported at either 5, 8, or 10 MHz Clock Rates.

Performance Specifications

MICROPROCESSOR
- CLOCK RATE & CPU
  - NET/82 . . . . . 4 MHz Z80A
  - NET/86 . . . . . 8 MHz 8086

BUS INTERFACE . . . . . IEEE 696.1/D2 S-100

DYNAMIC RAM MEMORY
- CAPACITY
  - NET/82 . . . . . 64K or 128K
  - NET/86 . . . . . 128K or 512K
- WAIT STATES . . . . . NONE

SERIAL I/O CHANNELS (2 PORTS)
- ASYNCHRONOUS OPERATION
  - Baud Rate . . . . . Up to 38.4K BAUD
  - Clock Rate . . . 1, 16, 32, or 64 times Baud Rate
  - Bits/Character . . . . . 5, 6, 7 or 8
  - Stop Bits . . . . . 1, 1½ or 2
  - Parity . . . . . Odd, Even or None
  - Data Transfer . . . Interrupt or Programmed I/O

INTERRUPT CONTROL
- Number of Channels 12
- Priority . . . . . Rotating or Fixed
- Interrupt Mode . . . . . Master Cascade

REAL TIME CLOCK
- Operation . . . . . Software Polled or Interrupt Driven
- Range . . . . . 60 Hz to 3.994 MHz

POWER REQUIREMENTS
- NET/82
  - Voltages . . . . . +8 VDC @ 1.2 (max)
    +16 VDC @ 100 MA (max)
    – 16 VDC @ 100 MA (max)
  - Power . . . . . 12.8 W (max)
- NET/86
  - Voltages . . . . . +8 VDC @ 2.4 (max)
    +16 VDC @ 100 MA (max)
    – 16 VDC @ 100 MA (max)
  - Power . . . . . 22.4 W (max)

OPERATING ENVIRONMENT
- Temperature . . . . . 0 to 50 Degrees Celsius (32 to 122 Degrees Fahrenheit)
- Relative Humidity . . . . . 0 to 95%

CONSTRUCTION
- Circuit Board
  - NET/82 . . . . . Two Layer Glass Epoxy
  - NET/86 . . . . . Four Layer Glass Epoxy
- All IC's in Sockets.
- Connectors . . . . . Shrouded for Protection
- TESTING . . . . Completely tested and 24 hour burn-in
- WARRANTY . . . . . One Year Warranty (Parts and Labor)

DISTRIBUTED BY:

InterContinental Micro

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