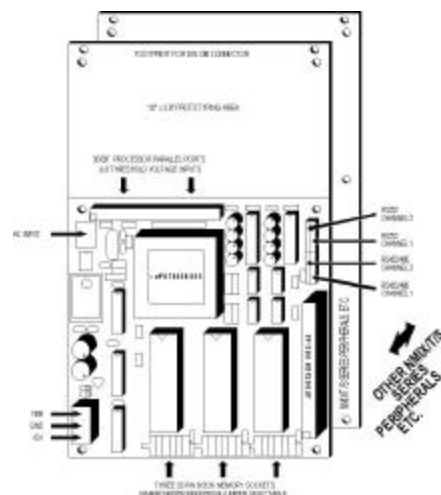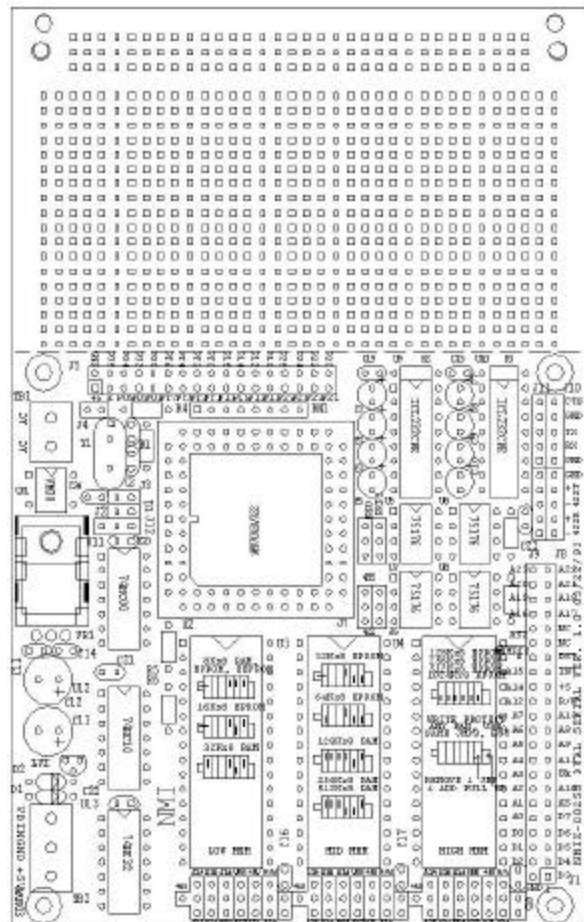# NMIX-0025 NEC V25 CPU CARD

The NMIX-0025 is New Micros'
NEC-V25-based CPU board for the 100
Squared™ series. A valuable feature of the
NMIX-0025 is its code compatibility with the
IBM PC's processor, offered on a Eurocard
board format.

## FEATURES

- V25 CPU with 16-bit internal architecture
- Software compatible with 8086/8088
- Programmable Interrupt Controller
- Two DMA controller channels
- 3 parallel ports
- 2 Asynchronous Serial Channels
- 8-channel Voltage Comparator
- Time Base Counter
- 16-bit Timer
- Programmable Wait State Generator
- 1/4K RAM internal to the processor
- 1M address space
- Three 32-pin JEDEC memory sockets
- Address decoding similar to PC
- Battery backup circuits for memory
- 44-pin JEDSTACK™
  Vertical Stacking Connector (VSC-44)
- Low power (45mA w/2-32K RAMs at 8 MHz)

The NMIX-0025 is a complete system, ready
to run dedicated applications. Only the
addition of the user program is required, in
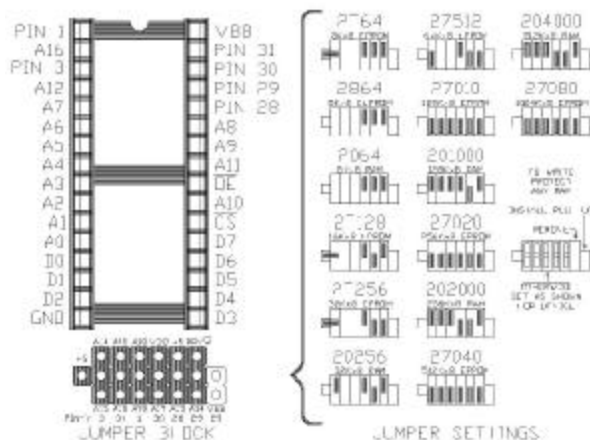battery backed RAM, or in a user-supplied
ROM/EPROM/EEPROM.

The 100 Squared™ series of computer boards
were designed with low power operation and
minimal size in mind. The 100 Squared™ are
the perfect building blocks when designing
systems or stand alone single board
computers. They were named for their size,





Application

Document # X0025DS

JEDEC Memory Sockets



V25 CPU Block Diagram
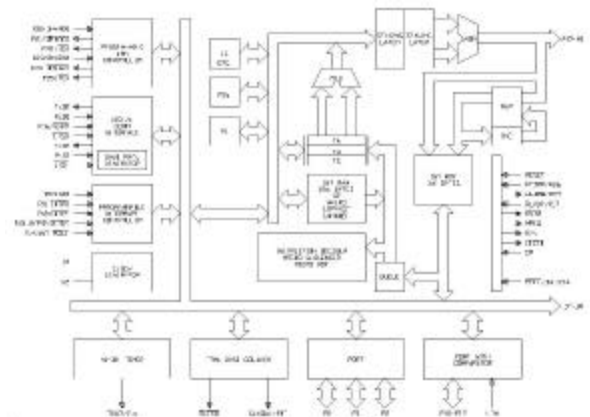
512K in the upper. This allows a full 1M of RAMto be installed on the board. (Only 384K is accessible in upper). The third socket is mapped in the top of 128K of memory for program storage. It overmaps the upper RAM. A full memory configuration will have two psudeo-static 512K RAM's and a 128K Battery Backed RAM, ROM or EPROM in upper memory. This is similar to the PC setup with 1M RAM and 128K ROM.

Many NMIX and NMIS peripherals are available for the NMIX-0025. These include PC compatible Serial and Parallel Ports, as well as more exotic cards, such as Optoislolated Inputs and Outputs, A/D's and D/A's, Stepper and Servo motor Controllers, and LCD-keypad controllers. The VSC-44 provides the interconnection.

On board, both of the NMIX-0025's serial channels are configurable for RS-232, RS-422 or RS-485. The RS-232 channels are conveniet for on-board code development, and the RS-422,485 channel for communications in embedded control environments.

with 100x100mm of active component area, on a 100x160mm Eurocard format. The system is compatible with the New Micros NMIT and NMIS series computer peripherals.

The sockets accepting JEDEC memory devices have flexible pinouts. Refer to the figure at the left. Two sockets cover the 1M address space, with 512K in the lower, and

The NMIX-0025 makes a very cost effective solution as a target system, particularly when small size, CMOS low power and ease of development are required. No other single board computer has these unique features in such a small space, and 8086 code compatibility. High Level Language support from NMI includes a machine-code monitor, Max-FORTH™, and Small C. Full C's, BASIC's and Assemblers, etc., are available from third-party software vendors.