

Flex II/386SX-25 25 MHz, 80386SX Based PC/AT All-In-One Motherboard

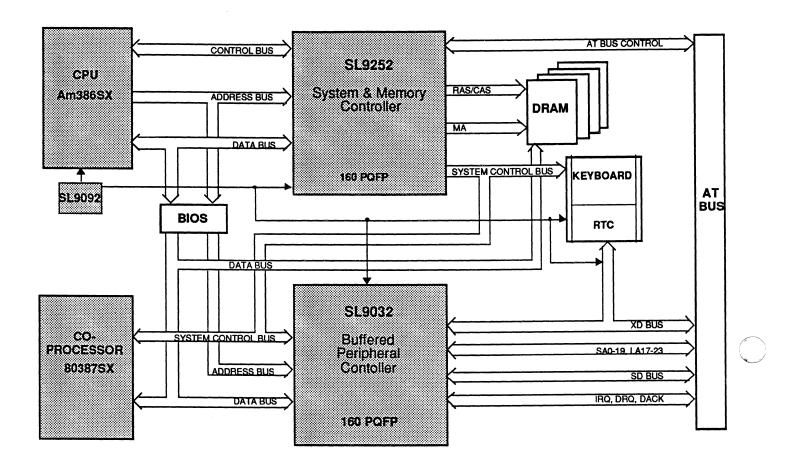
PRELIMINARY

FEATURES

- 100% IBM PC/AT Compatible
- 80386SX Based PC/AT Motherboard Design
- Supports 16, 20 and 25 MHz Operation
- Baby AT Form Factor (8.5 X 13 inches)
- 2 Serial Ports
- 1 Parallel Port
- Floppy Disk Controller
- IDE Hard Disk Interface
- 4 Layer Board
- 7 16-bit I/O Expansion Slots
- Speaker, Reset and Keyboard Connectors
- Turbo, Disk Active and Power-on LED Connectors
- 80387SX Numeric Coprocessor Support
- Single Chip BIOS
- Supports Intermixing of 256k, 1M, and 4M DRAM's
- 1M On-board Memory (Expandable to 16M)
- 4 Banks of Memory
- Supports Page Mode and 2 or 4 Way, Page or Block Interleave Memory Access
- Disable (on-board) Memory to 0K in 128K Resolution
- Programmable Memory Remap
- Programmable BIOS and Video Shadow RAM
- Programmable Hit (0-3) and Miss (1-4) Wait States for DRAM Access



FLEX II / 386SX-25 BLOCK DIAGRAM



SL9252 System and Memory Controller: The SL9252 is a member of VIA's Flex II product line. It efficiently integrates all the PC/AT System control logic along with the Page Mode memory functions specific to the 80386SX PC/AT design. It can support 16M of memory using 256K, 1M or 4M DRAMs. All wait states are programmable for memory and I/O commands. It supports upto 25 MHz performance and offers enhanced features such as remap, staggered RAS, support for EMS LIM 4.0, synchronous or asynchronous system control operation and memory backfill.

SL9032 Buffered Peripheral Controller: The SL9032 replaces two 82C37A Direct Memory Access Controllers, two 82C59A Interrupt Controllers, an 82C54 Programmable Counter, a 74LS612 AT Memory Mapper, two 74ALS373 Octal Three-State Latches, a 74ALS138 3-to-8 Decoder, and 26 other less-complex TTL devices. The SL9032 provides 24 address bits for 16M bytes of DMA address space. It also interfaces directly to the CPU to handle all interrupts. Arbitration between refresh and DMA hold requests are performed by the SL9032. High drive buffers are provided on the SA Bus and SD Bus for direct interface with the AT-Bus.

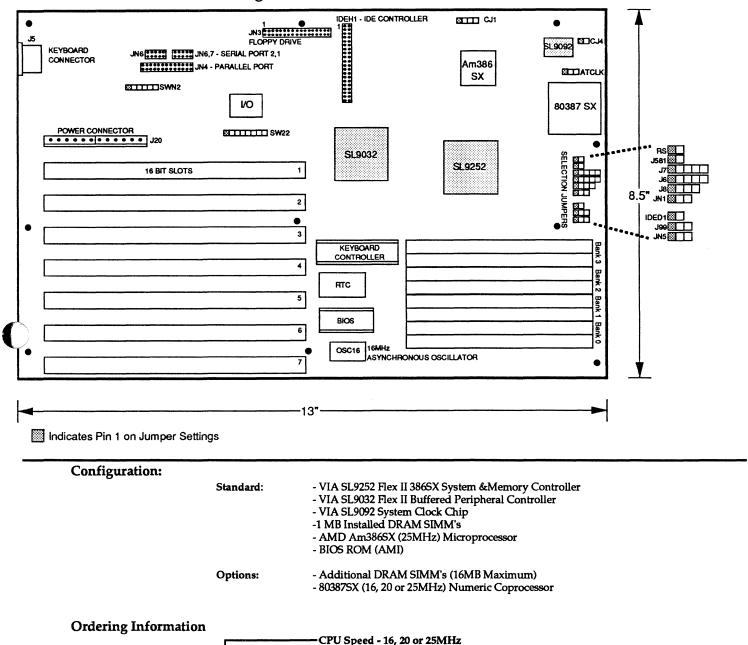
<u>SL9092 System Clock Chip:</u> The SL9092 requires only one 14.318 MHz crystal and a few RC components to generate all essential clock signals that are used in typical PC and Notebook designs. It can support all 80XX and 80XXX microprocessor based designs. The CPUCLK outputs of the SL9092 are selectable via the keyboard or by jumper configuration. Clock options of 66 MHz, 64 MHz, 50 MHz, 48 MHz, 40 MHz, 32 MHz and 24 MHz are available, as well as the frequencies that result by dividing these signals by 2 or 4.



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VIA Technologies 80386SX-25 PC/AT All-In-One Motherboard



On Board Memory Size - 1MB to 16MB

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Flex II AT/386SX-25 / XXXX



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