VLSI TECHNOLOGY, INC.

VL82C032/OTI-032

IBM PS/2® MODEL 30-COMPATIBLE I/O CONTROLLER

FEATURES

- Controls Model 30-compatible system keyboard and mouse

- Integrates the following functions on a single device:
  - 8253-compatible timer/counter
  - Dual 8250-compatible serial communications controller
  - Parallel port controller
  - 8259-compatible interrupt controller
  - 58167-compatible real-time clock

- Decodes subsystems for floppy disk, hard disk, and video

- Provides chip select logic for serial/parallel ports, disk controllers, video controllers, and real time clock.

DESCRIPTION

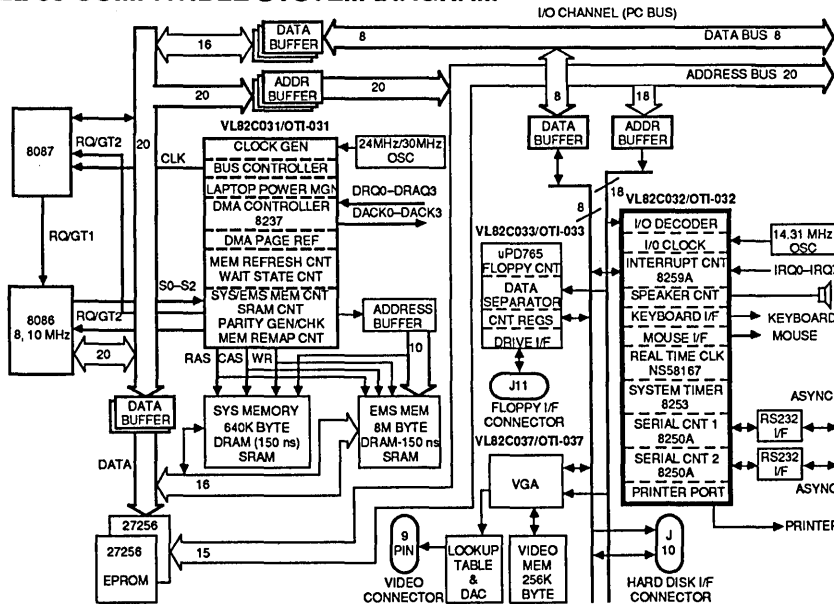The CMOS VL82C032/OTI-032 is the Input/Output Controller device in the three-chip VLSI/OTI PS/2 Model 30-compatible chip set. the other two devices are the VL82C031/OTI-031 System Controller and the VL82C033/OTI-033 Floppy Disk Controller and Data Separator.

The chip set integrates logic and functions on PS/2 Model 30-compatible systems to the point of reducing the printed circuit board device count by half, when memories are excluded. Further, while offering complete compatibility with the PS/2 Model 30-compatible system, the VLSI/OTI chip set improves system performance by allowing 10 MHz operation with no "wait states" (using 150 ns DRAMS), supports an additional 8M-bytes of memory using EMS (Expanded Memory Specification) 4.0, and controls system speed as necessary for optimum performance.

A fourth device, the VL82C037/OTI-037 VGA Video Graphics Controller is also used in the PS/2 Model 30-compatible system and provides high resolution graphics of 800 x 600 elements with 256 colors. Graphic capabilities of this resolution are usually found only on more expensive systems.

The VL82C032/OTI-032 provides the PS/2 Model-30 compatible system with control of both the keyboard and the pointing device ("mouse"), control of two serial communication channels, a real-time clock, as well as controlling both the disk storage and display functions. It also provides the chip select logic for the functions it controls. The VL82C032/OTI-032 is available from both VLSI Technology Inc. and Oak Technology, Inc. in an industry-standard plastic 100 pin flat pack.

PS/2 MODEL 30-COMPATIBLE SYSTEM DIAGRAM

ORDER INFORMATION

Part Number	Package
VL82C032-FC	Plastic Flat Pack

PLEASE CONSULT DATA SHEET FOR DETAILED INFORMATION

Notes: Operating temperature range is 0°C to +70°C.
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