VLSI TECHNOLOGY, INC.

VL82C100

PC/AT-COMPATIBLE PERIPHERAL CONTROLLER

FEATURES

- Fully compatible with IBM PC/AT-type designs
- Replaces 19 logic devices
- Supports 12 MHz processor clock
- Device is available as "cores" for user-specific designs
- Seven DMA channels
- 14 external interrupt requests
- Three timer/counter channels
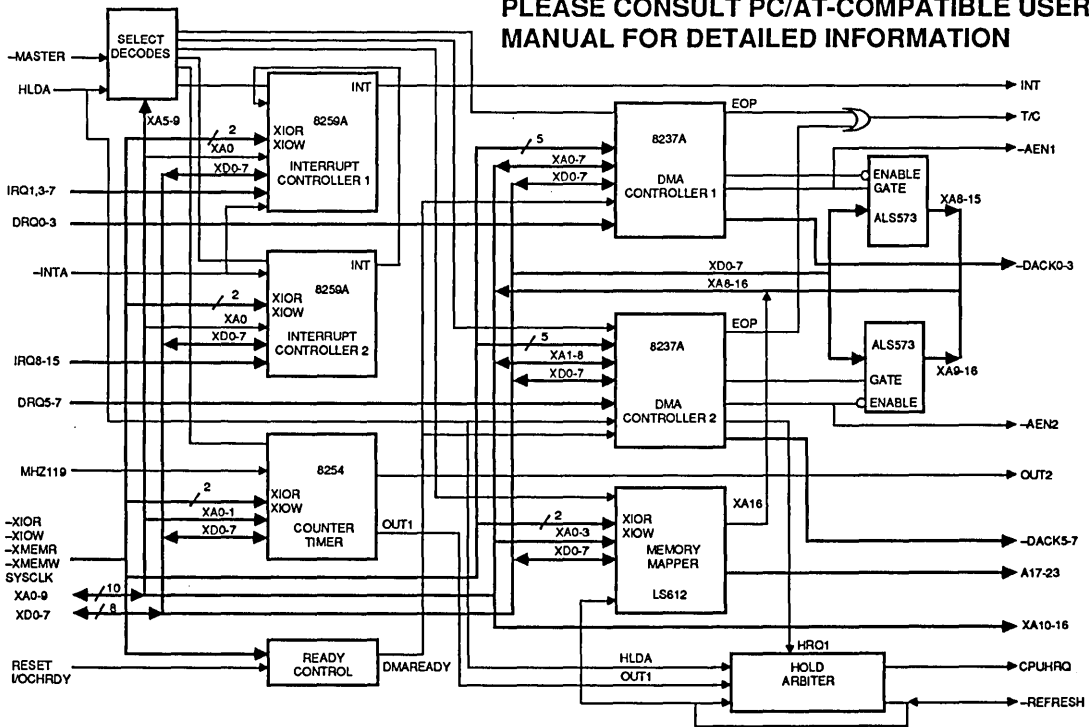- Designed in CMOS for low power consumption

DESCRIPTION

The VL82C100 PC/AT-Compatible Peripheral Controller replaces two 82C37A Direct Memory Access Controllers, two 82C59A Interrupt Controllers, an 82C54 Programmable Counter, a 74LS612 AT Memory Mapper, two 74ALS573 Octal Three-State Latches, a 74ALS138 3-to-8 Decoder, and five other less-complex integrated circuits. Using this internal functionality, the VL82C100 provides all 24 address bits for 16M bits of DMA address space. It also interfaces directly to the CPU to handle all interrupts. Timing for refresh cycles, and arbitration, between refresh and DMA hold requests, are also controlled by the VL82C100.

The device is manufactured with VLSI's advanced high-performance CMOS process and is available in JEDEC-standard 84-pin plastic leaded chip carrier (PLCC) package. The VL82C100 is individually available, or may be purchased as part of the complete five-device IBM PC/AT-compatible kit.

BLOCK DIAGRAM

PLEASE CONSULT PC/AT-COMPATIBLE USERS MANUAL FOR DETAILED INFORMATION

ORDER INFORMATION

Part Number	Package
VL82C100-QC	Plastic Leaded Chip Carrier (PLCC)
Note: Operating temperature range is 0°C to +70°C	