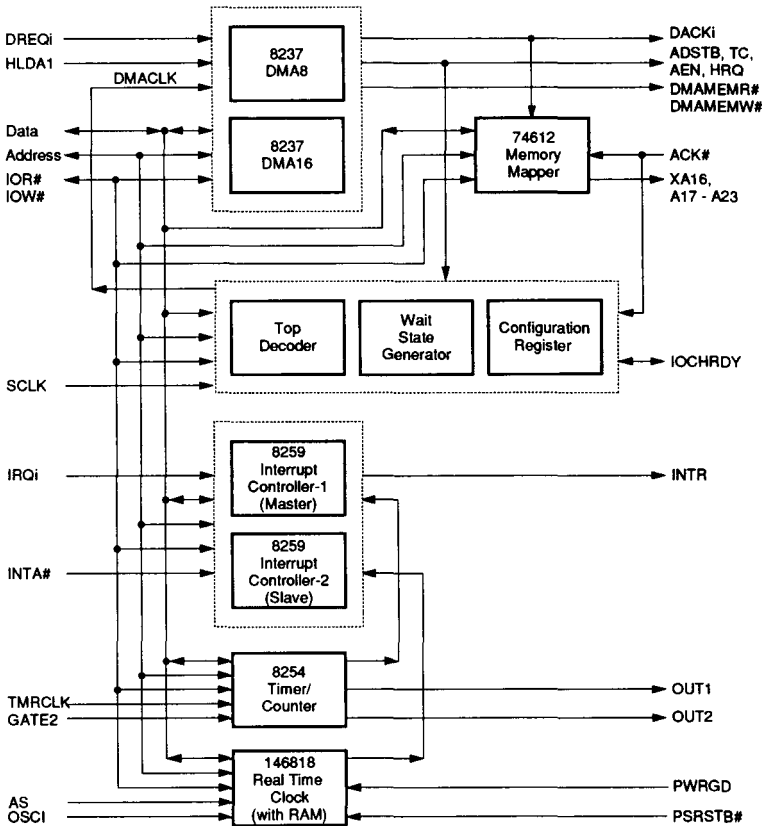


**Features**

- Fully Compatible with PC/AT Architecture
- Fully Compatible with 8237 DMA Controller, 8259 Interrupt Controller, 8254 Timer/Counter, and 146818 Real-Time Clock
- Provides 7 DMA Channels, 13 Interrupt Request Channels, 2 Timer/Counter Channels, and a Real-Time Clock
- Built-In 74LS612 Memory Mapper for DMA Page Address
- Provides 114 Bytes of CMOS RAM Memory
- 8-MHz DMA Clock with Programmable Internal Divider for 4-MHz Operation
- 16-Mbyte DMA Address Space
- Programmable Wait States for the DMA Cycle
- Reduced Recovery Time (120 ns) Between I/O Operations

**PC/AT  
Integrated  
Peripheral  
Controller**

**System Block Diagram**





## Description

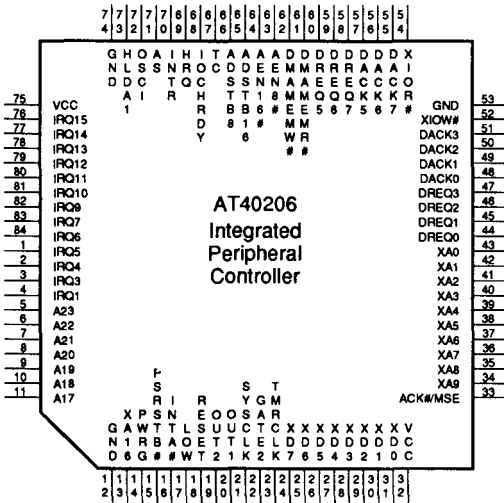
The Atmel AT40206 integrated peripheral controller is a single chip integration of all the main peripherals attached to the XD bus of the PC/AT architecture including two 8237 DMA controllers, two 8259 interrupt controllers, one 8254 timer/counter, one MC146818 compatible real-time clock, an additional 64 bytes of CMOS RAM, one 74LS612 memory mapper, and some top-level decoder/configuration logic circuits.

While providing full PC/AT architecture compatibility, the AT40206 also offers enhanced features and improved speed performance. These enhancements include an additional 64

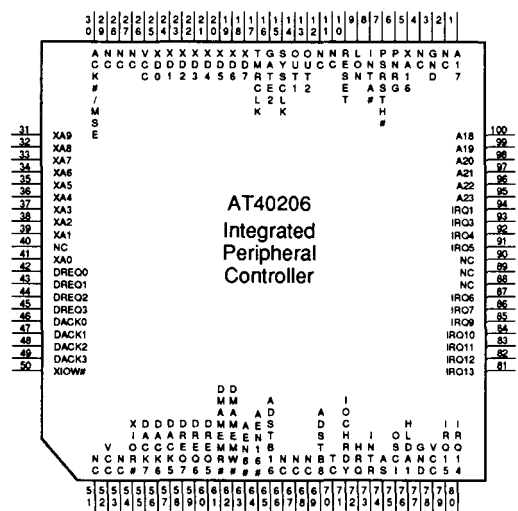
bytes of user definable CMOS RAM and drastically reduced recovery time for the 8237, 8259 and 8254. A programmable wait state option is provided for use by the CPU, DMA or other bus masters when accessing this chip. The AT40206 also provides programmable 8-MHz or 4-MHz DMA clock selection. The AT40206 is implemented using advanced 1.5 micron CMOS technology and is packaged in either a 84-pin PLCC or a 100-pin PQFP.

## Pin Configurations

### 84-Pin PLCC



### 100-Pin PQFP



**Ordering Information**

<b>CPU Clock (MHz)</b>	<b>Power Supply</b>	<b>Ordering Code</b>	<b>Package</b>	<b>Operation Range</b>
8	5V±5%	AT40206-8JC AT40206-8QC	84J 100Q2	Commercial (0° to 70°C)

<b>Package Type</b>	
84J	84 Lead, Plastic J-Leaded Chip Carrier (PLCC)
100Q2	100 Lead, Plastic Gull Wing Quad Flat Package, EIAJ (PQFP)

