

**PC/AT-COMPATIBLE SYSTEM CONTROLLER**
**FEATURES**

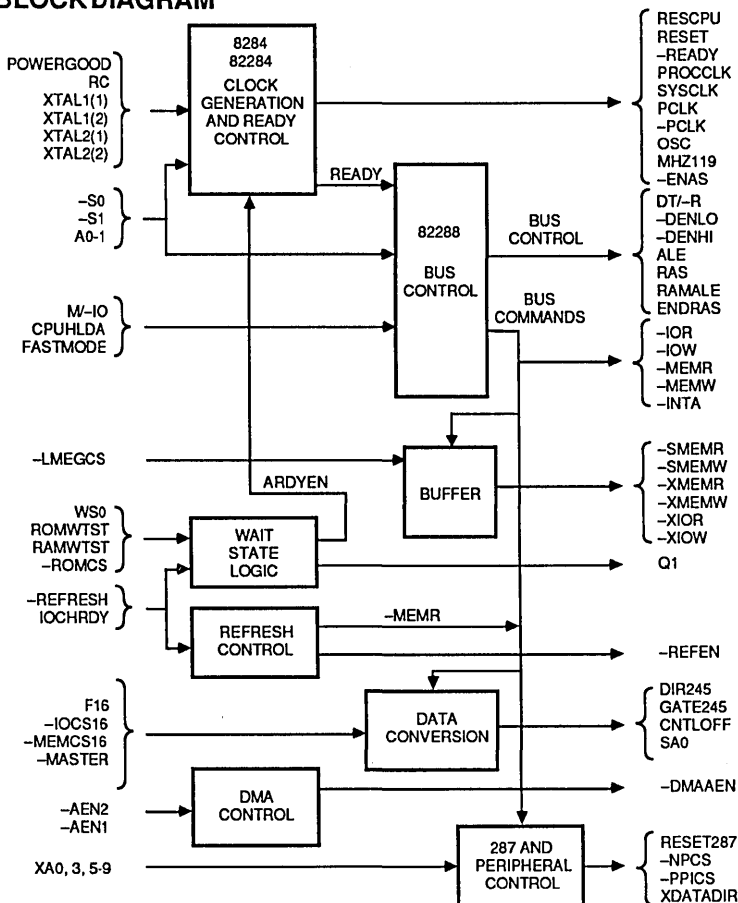
- Fully compatible with IBM PC/AT-type designs
- Replaces 36 integrated circuits on the PC/AT-type board
- Supports 12 MHz processor clock
- Device is available as "cores" for user-specific designs
- Sink 20 mA on slot driver outputs
- Designed in CMOS for low power consumption

**DESCRIPTION**

The VL82C101A PC/AT-Compatible System Controller replaces an 82C284 Clock Controller and 82C288 Bus Controller (both are used in '286-based systems), an 82C84A Clock Generator and Driver, two PAL16L8 devices (used for memory decode), and approximately ten other less complex integrated circuits used as Wait State logic. When used in 12 MHz systems utilizing 80 ns DRAMs, the device provides the required one wait state for a "write" operation, and zero wait states for a "read" operation. A 12 MHz system using 120 ns DRAMs will be provided with one wait state for "write" and one

wait state for "read". The device accepts both the 24 MHz crystal to control the system clock as well as the 14.318 MHz crystal to control the video clock. It also supplies reset and clock signals to the I/O slots.

The device is manufactured with VLSI's advanced high-performance CMOS process and is available in a JEDEC-standard 84-pin plastic leaded chip carrier (PLCC) package. The VL82C101A is individually available, or may be purchased as part of the complete five-device IBM PC/AT-compatible kit.

**BLOCK DIAGRAM**

**ORDER INFORMATION**

Part Number	Package
VL82C101A-QC	Plastic Leaded Chip Carrier (PLCC)

Note: Operating temperature is 0°C to +70°C

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