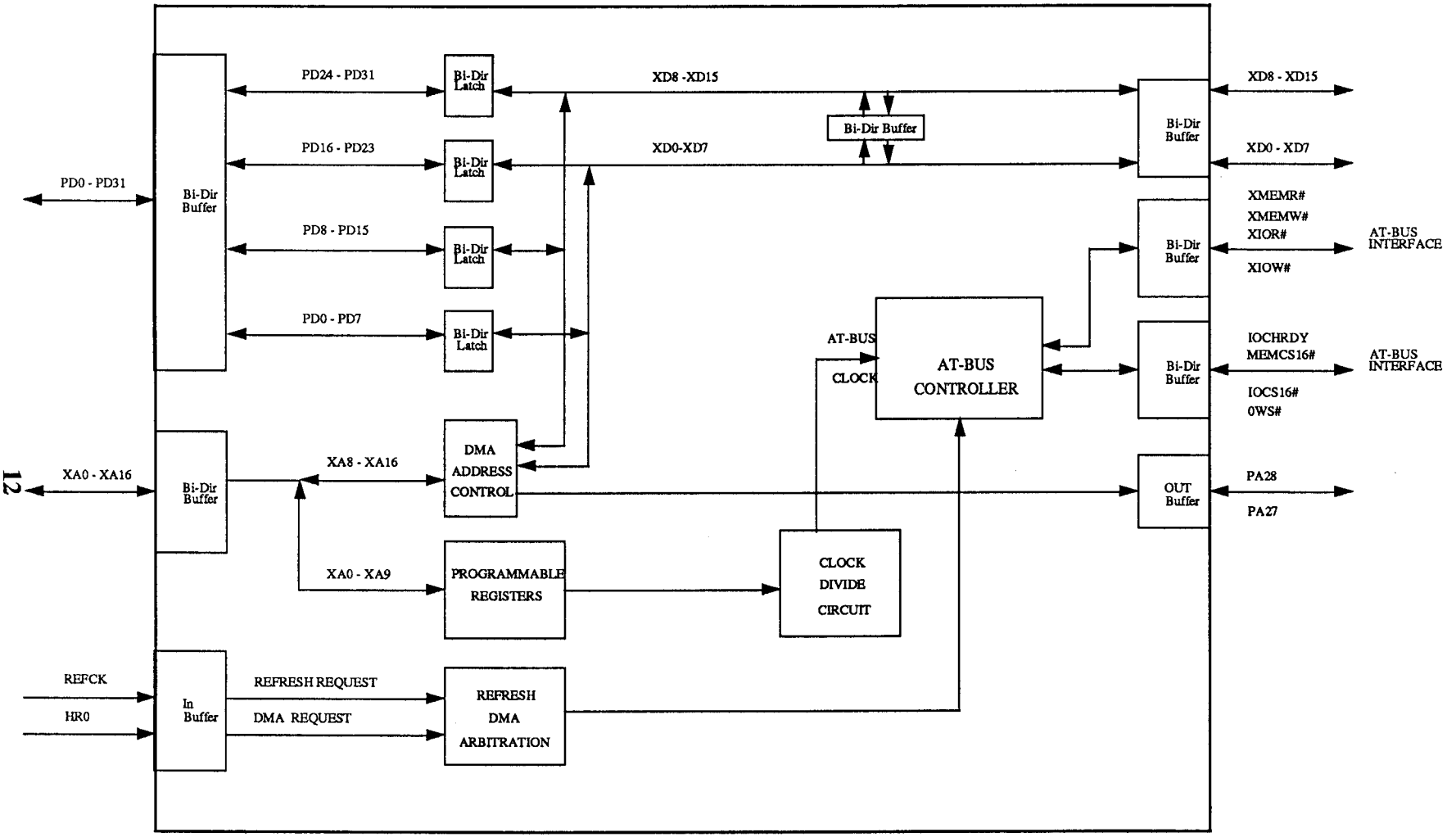
I General Description

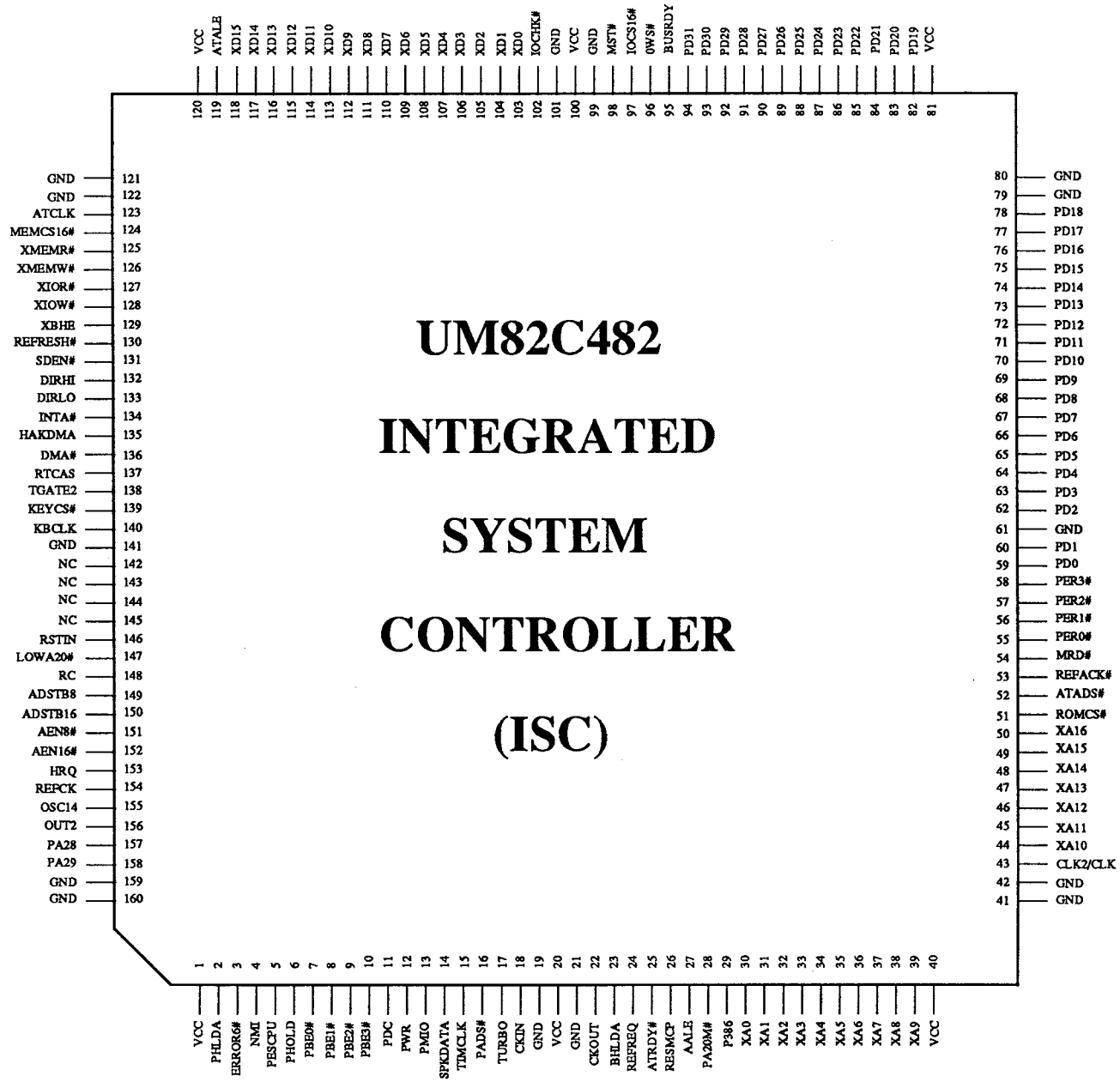
The UM82C482, Integrated System Controller (ISC), is part of UMC's high performance 80386/80486 PC/AT chip set. It contains AT bus control logic, data bus conversion logic, CPU reset logic, clock generation for CPU, keyboard and timer, DMA/refresh logic and peripheral interface logic. Incorporated with UM82C481, Integrated Memory Controller (IMC), and UM82C206, Integraged Peripheral Controller (IPC), ISC provides system control functions for overall PC/AT computer ystem.

II Features

* Interface logic for 80386 and 80486 CPUs
* Feedback CPU clock to reduce clock skew and to increase system stability
* Use 1X clock in 80486 mode to ease system design
* Synchronous AT bus clock with programmable CPU clock (divided by 2, 3, 4, 5, 6)
* Programmable CPU clock (divided by 1, 2, 3, 4)
* Programmable keyboard clock (divided by 1.5, 2)
* Separate DMA and refresh request to perform hidden refresh
* DMA interface logic, refresh address counter and control logic
* Fast CPU reset and GATE A20 to optimize OS/2 operations
* Data bus conversion logic between PD and XD buses
* Parity generation and checking logic
* Support 256KB/512KB/1MB EPROMs with single or double EPROM BIOS configuration
* 1.0μm low-power, high-speed CMOS technology in 160 QFP package



UM82C482 INTERGRATED SYSTEM CONTROLLER BLOCK DIAGRAM



Pin Assignment of UM82C482