390-008

Z80 BPIOPS

Z8420/Z84C20 NMOS/CMOS
Z80 ® PIO
Parallel Input/Output

FEATURES

- Provides a direct interface between Z80 microcomputer systems and peripheral devices.

- Two ports with interrupt-driven handshake for fast response.

- Four programmable operating modes: Output, Input, Bidirectional (Port A only), and Bit Control

- Programmable interrupts on peripheral status conditions. (1.5 mV @ 1.5V)

- NMOS version for cost sensitive performance solutions.

- CMOS version for the designs requiring high speed and low power consumption

- NMOS Z0842004 - 4 MHz, Z0842006 - 6.17 MHz.

- CMOS Z84C2006 - DC to 6.17 MHz, Z84C2008 - DC to 8 MHz

- Standard Z80 Family bus-request and prioritized interrupt-request daisy chains implemented without external logic.

- The eight Port B outputs can drive Darlington transistors (1.5 mA at 1.5V).

- 6 MHz version supports 6.144 MHz CPU clock operation.

GENERAL DESCRIPTION

The Z80 PIO Parallel I/O Circuit (hereinafter referred to as the Z80 PIO or PIO) is a programmable, dual-port device that provides a TTL-compatible interface between peripheral devices and the Z80 CPU (Figures 1 and 2). Note the QFP package is only available in CMOS version. The CPU configures the Z80 PIO to interface with a wide range of

peripheral devices that are compatible with the Z80 PIO include most keyboards, paper tape readers and punches. printers, and PROM programmers.

One characteristic of the Z80 peripheral controllers tha separates them from other interface controllers is that al
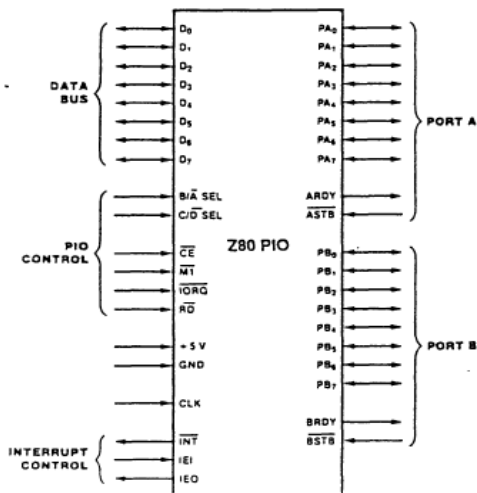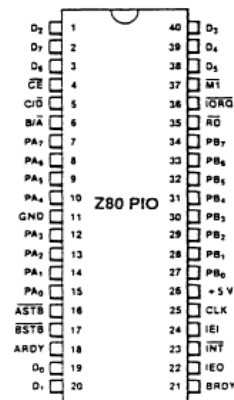

Figure 1. Pin Functions

Figure 2a. 40-pin Dual-In-Line Package (DIP), Pin Assignments