


SECTION 2

OPERATING MODES

The MCU has two modes of operation: Single-Chip Mode and Bootloader Mode. **Table 2-1: Operating Mode Conditions** shows the conditions required to go into each mode.

Table 2-1: Operating Mode Conditions

RESET	\overline{IRQ}/V_{PP}	PB1	MODE
	$V_{SS}-V_{DD}$ V_{PP}	$V_{SS}-V_{DD}$ V_{DD}	Single-chip Bootloader

2.1 SINGLE-CHIP MODE

In Single-Chip Mode, there are two 8-bit I/O ports and one 4-bit I/O port. This mode allows the MCU to function as a self-contained microcontroller, with maximum use of the pins for on-chip peripheral functions. All address and data activity occurs within the MCU. Single-Chip Mode is entered on the rising edge of \overline{RESET} if the \overline{IRQ}/V_{PP} pin is within normal operating range.

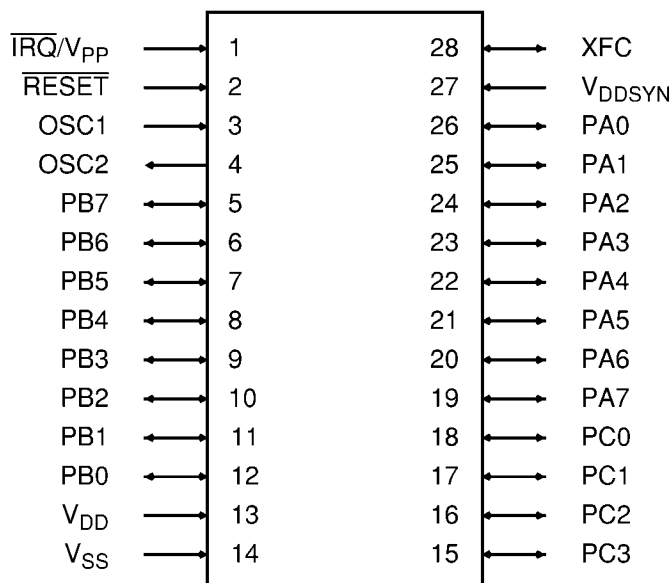


Figure 2-1: Single-Chip Mode Pinout

2.2 BOOTLOADER MODE

Bootloader Mode is entered upon the rising edge of \overline{RESET} if the \overline{IRQ}/V_{PP} pin is at V_{PP} and the PB1 pin is at logic one. The Bootloader code resides where the ROM is from \$1F01 to \$1FEF. This program handles copying of user code from an external EPROM into the on-chip EPROM. The bootload function does not have to be done from an