

15. 8-bit Timer/Counter2 with PWM and Asynchronous Operation

15.1 Features

- Single Channel Counter
- Clear Timer on Compare Match (Auto Reload)
- Glitch-free, Phase Correct Pulse Width Modulator (PWM)
- Frequency Generator
- 10-bit Clock Prescaler
- Overflow and Compare Match Interrupt Sources (TOV2, OCF2A and OCF2B)
- Allows Clocking from External 32 kHz Watch Crystal Independent of the I/O Clock

15.2 Overview

Timer/Counter2 is a general purpose, single channel, 8-bit Timer/Counter module. A simplified block diagram of the 8-bit Timer/Counter is shown in [Figure 15-1](#). For the actual placement of I/O pins, refer to ["Pinout ATmega48P/88P/168P/328P" on page 2](#). CPU accessible I/O Registers, including I/O bits and I/O pins, are shown in bold. The device-specific I/O Register and bit locations are listed in the ["Register Description" on page 158](#).

The PRTIM2 bit in ["Minimizing Power Consumption" on page 42](#) must be written to zero to enable Timer/Counter2 module.

Figure 15-1. 8-bit Timer/Counter Block Diagram

