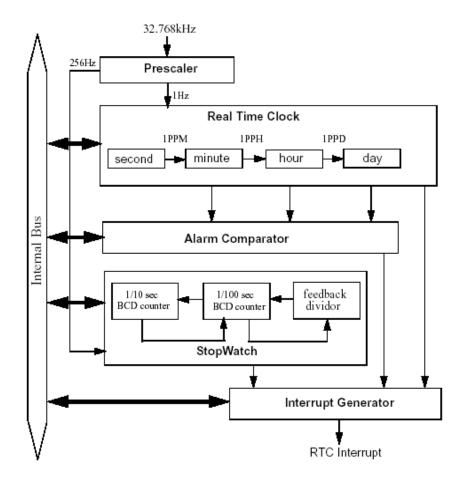
# **RTC**

# **Real-time Clock Module**

## **Summary**

The real-time clock module provides a current time stamp of seconds, minutes, and hours. It operates on the low-frequency 32.768 kHz reference clock crystal. Also, it has a stopwatch function which can generate 3 period interrupts: 1 sec, 1/10 sec, and 1/100 sec.



**RTC Block Diagram** 

#### **Features**

- ➤ A built-in real-time clock
  - Full clock features seconds, minutes, hours, days
  - Programmable daily alarm with interrupt
  - Once-per-second, once-per-minute, once-per-hour, once-per-day interrupts
- ➤ A built-in stopwatch timer
  - Two 4-bit BCD counters (1/100 sec units and 1/10 sec units)
  - 1 sec, 1/10 sec, 1/100 sec period interrupts
- ➤ All the interrupts are mask able
- ➤ 32.768 kHz operation frequency

#### **Performance and Characteristics**

> Frequency (WCS): 100 MHz

➤ Die Size: 0.036 mm2

Process: 0.18μm (WCS, 1.62V, 120°)

## **Application Examples**

- ➤ Realtime System
- Clock
- > Timer
- > Stopwatch

### **Availability**

> Q2, 2003

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