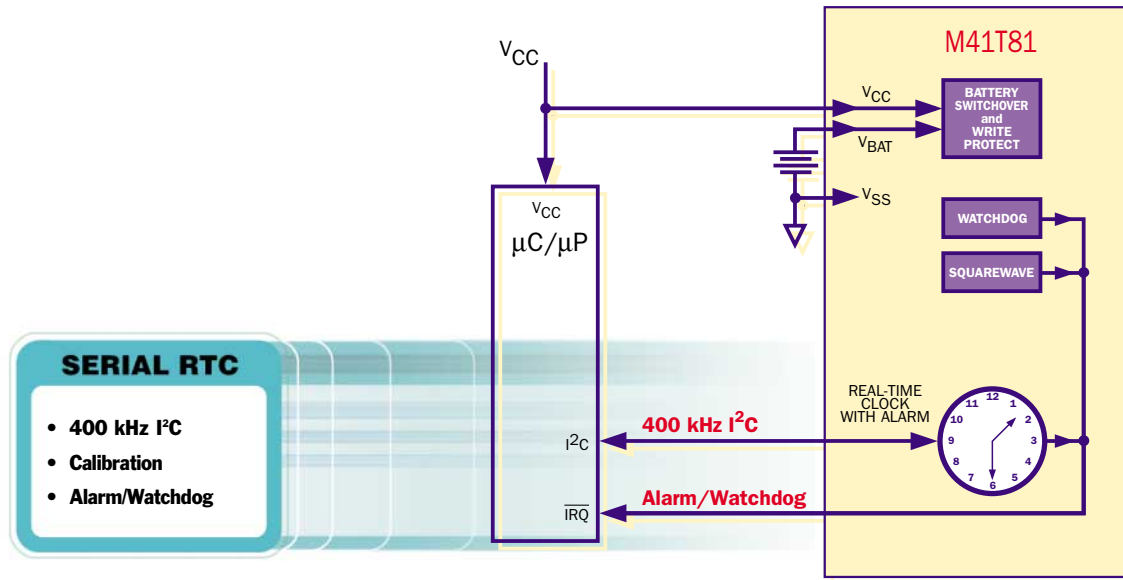


# Serial Real-Time Clock M41T81 with I<sup>2</sup>C Interface and Alarm

www.st.com/nvram



## Low-cost Real-Time Clock with alarm and watchdog

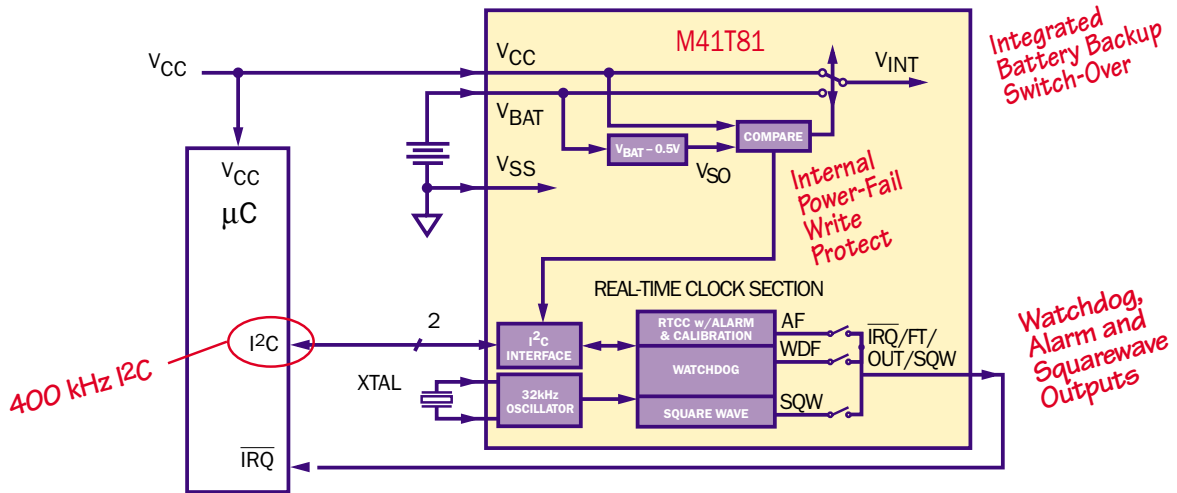
The M41T81 is a small, low-cost, low-power serial Real-Time Clock with a 400kHz I<sup>2</sup>C interface. Key features include programmable alarm, watchdog and square wave as well as a non-volatile time-of-day clock/calendar.

An integrated power-fail detect circuit automatically switches to an external lithium battery supply and write-protects the RTC registers when a power failure occurs.

The M41T81 is particularly well suited for applications requiring low-power consumption with a supply current of 400μA under normal operation and only 1μA in battery-backed mode.

The product operates from 2.0V to 5.5V over the industrial temperature range of -40°C to +85°C and is supplied in an 8-lead 150-mil SOIC package.

# Serial Real-Time Clock M41T81 with I<sup>2</sup>C Interface and Alarm



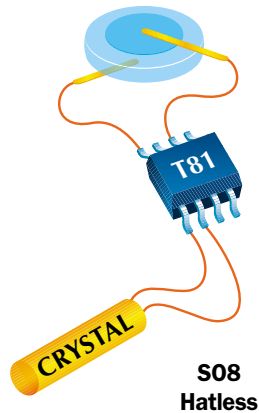
## Main Applications

The M41T81 is particularly well suited for any system containing a microprocessor or a microcontroller and in particular for applications such as:

- Metering
- Medical equipment
- Point-of-sale equipment

## Key Features

- 400kHz I<sup>2</sup>C interface
- Battery-backed programmable alarm with repeat mode
- Programmable square wave generator - 1Hz to 32kHz
- RTC calibration
- Programmable watchdog - 62.5ms to 128s
- Automatic battery switch-over and write-protect
- 2.0 to 5.5V operation
- -40°C to +85°C temperature range
- 8-lead SOIC package



## Product Selector

Part number	Description	Package type
M41T81M6	RTC with 400kHz I <sup>2</sup> C, alarm, square wave, watchdog, industrial temperature range	S08 (1)

(1) Contact ST sales office for availability of the SOH28 SNAPHAT<sup>®</sup> IC package



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Full product information at [www.st.com](http://www.st.com)