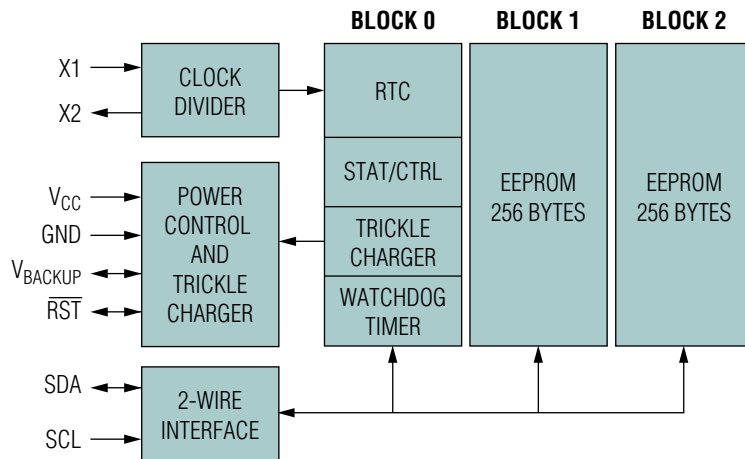


REAL-TIME CLOCK ELIMINATES NEED FOR A SEPARATE EEPROM

I²C Clock and 512 x 8 Bits EEPROM Integrated in a Single Device

The DS1388 real-time clock incorporates 512 x 8 bits of EEPROM memory, allowing nonvolatile storage of critical data such as system configuration. By combining the EEPROM and RTC in a single device, the DS1388 reduces the component count in the end system. In the event of system power loss, the DS1388 will automatically switch to a backup supply and maintain time down to 1.3V. If a capacitor is chosen as the backup supply, an integrated trickle charger can maintain the capacitor's charge and provide circuit isolation. A pulsed RESET output is generated on system power loss by the programmable watchdog timer, or as the result of an input on the RESET pin.



- ◆ Fast (400kHz) I²C* Interface
- ◆ RTC with 1/100 Second Resolution
- ◆ 512 x 8 Bits EEPROM
- ◆ Programmable Watchdog Timer
- ◆ Power-Fail Detect and Switch Circuit
- ◆ Trickle-Charge Capability
- ◆ Timekeeping Down to 1.3V
- ◆ -40°C to +85°C Temperature Range

Part	Clock Format	EEPROM	Trickle Charge	Watchdog Timer	Backup Power Source	Operating Voltage (V)	Package	Price [†] (\$)
DS1388	HH:MM:SS:hh	512 x 8	Yes	Yes	Yes	3.0, 3.3, 5.0	8-SO	1.66

*I²C is a trademark of Philips Corp. Purchase of I²C components of Maxim Integrated Products, Inc., or one of its sublicensed Associated Companies, conveys a license under the Philips I²C Patent Rights to use these components in an I²C system, provided that the system conforms to the I²C Standard Specification defined by Philips.
[†]1000-up recommended resale. Price provided is for design guidance and is FOB USA. International prices will differ due to local duties, taxes, and exchange rates. Not all packages are offered in 1k increments, and some may require minimum order quantities.



www.maxim-ic.com/ds1388rtc

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