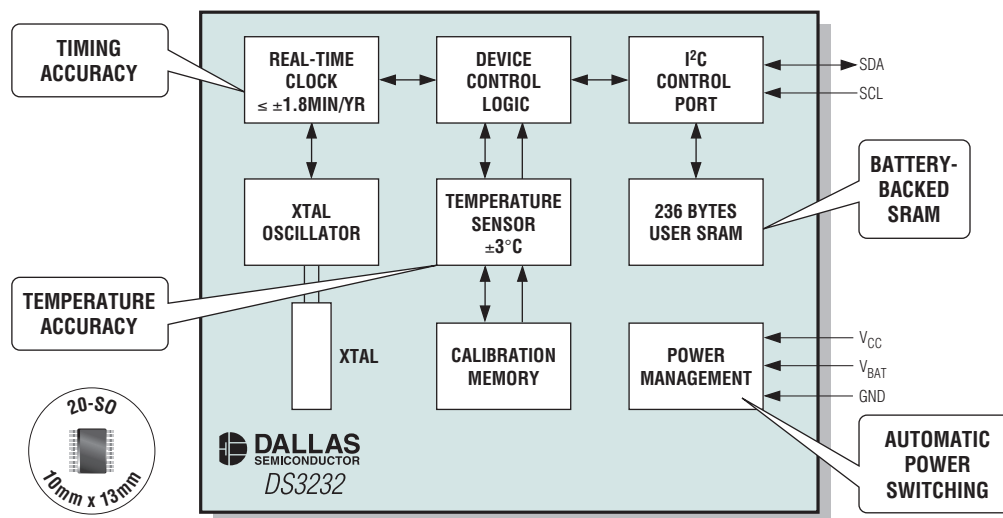


# WORLD'S MOST ACCURATE RTC INTEGRATES MEMORY, TEMP SENSOR, CRYSTAL, AND POWER MANAGEMENT AT LOW COST

## ±1Min/Year Accuracy plus 236 Bytes of User SRAM

The DS3232 is a highly stable TCXO combined with a real-time clock that provides extremely accurate timekeeping in a low-cost 20-pin SO package. **No user calibration is required** to achieve accuracies of better than ±1.8 min/year (< ±3.5ppm) over the entire industrial temperature range (-40°C to +85°C), and better than ±1 min/year (< ±2.0ppm) over the 0°C to +40°C temperature range. The DS3232 is designed for low-power applications, and provides automatic switching to secondary supplies such as low-voltage batteries. Access to time, temperature, and memory is accomplished through a standard I<sup>2</sup>C<sup>‡</sup> control interface.



- ◆ ±1.8Min/Year Accuracy (-40°C to +85°C)
- ◆ +2.3V to +5.5V Power Supply
- ◆ ≤ 3µA Low Battery-Backed Current
- ◆ I<sup>2</sup>C Serial-Control Interface
- ◆ Automatic Power-Fail Detect and Switch Circuitry

- ◆ ±1Min/Year Accuracy (0°C to +40°C)
- ◆ Real-Time Clock Counts Seconds, Minutes, Hours, Day, Date, Month, and Year, with Leap-Year Compensation Valid Through 2099
- ◆ Digital Temperature-Sensor Output
- ◆ Priced at \$2.70<sup>†</sup>

<sup>†</sup>1000-up recommended resale B-grade, FOB USA. 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.

<sup>‡</sup>Purchase of I<sup>2</sup>C components from Maxim Integrated Products, Inc., or one of its sublicensed Associated Companies, conveys a license under the Philips I<sup>2</sup>C Patent Rights to use these components in an I<sup>2</sup>C system, provided that the system conforms to the I<sup>2</sup>C Standard Specification defined by Philips.



[www.maxim-ic.com/DS3232RTC](http://www.maxim-ic.com/DS3232RTC)

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