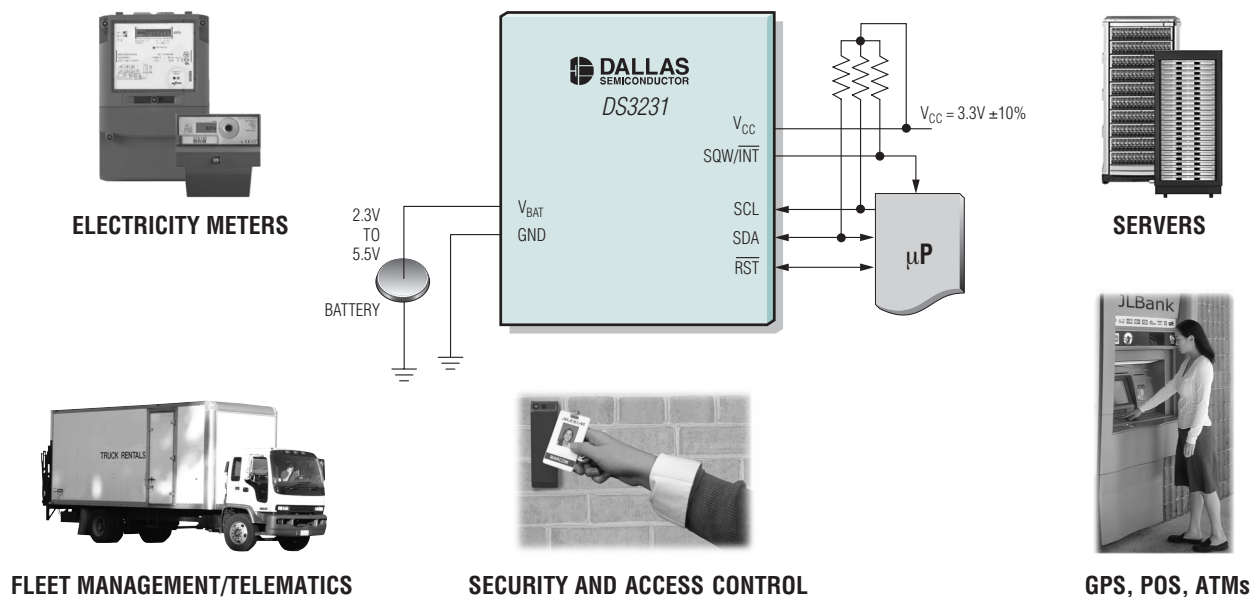


WORLD'S MOST ACCURATE INTEGRATED REAL-TIME CLOCK

±1Min/Year Accuracy Eliminates User Calibration

The DS3231 is the most integrated solution for accurate timekeeping in the electronics industry. The device is a highly stable TCXO plus RTC, packaged in a 16-pin, 300-mil SO with an integrated crystal. The DS3231 requires no user calibration. It provides better than ±2 minutes per year accuracy (<±3.5ppm) over the entire industrial temperature range (-40°C to +85°C), and better than ±1 minute per year (<±2.0ppm) in the 0°C to +40°C temperature range. The DS3231 is designed for low-power applications, supporting supply voltages from +2.3V to +5.5V. It is also ideal for automatic switching to secondary supplies, such as low-voltage batteries. Access to time and temperature is accomplished through an I²C* control interface.



- ◆ ±1Min/Year Accuracy (0°C to +40°C)
- ◆ +2.3V to +5.5V Power Supply
- ◆ Low Battery-Backed Current (<3µA)
- ◆ Programmable Square-Wave Output Signal
- ◆ Automatic Power-Fail Detect and Switch Circuitry

- ◆ RTC Counts Seconds, Minutes, Hours, Day, Date, Month, and Year with Leap Year Compensation Valid Through 2099
- ◆ ±2°C Accurate Digital Temperature Sensor Output
- ◆ 16-Pin SO with Integrated Crystal

*Purchase of I²C components from 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.



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