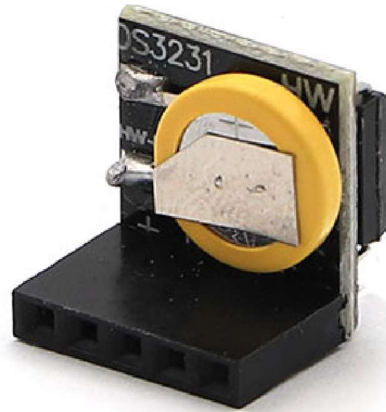


RASPBERRY Pi RTC Model:DS3231



Description:

The DS3231 is a low-cost, extremely accurate I2C real-time clock RTC with an integrated temperature-compensated crystal oscillator TCXO and crystal.

The device incorporates a battery input, and maintains accurate timekeeping when main power to the device is interrupted.

The integration of the crystal resonator enhances the long-term accuracy of the device as well as reduces the piece-part count in a manufacturing line. The DS3231 is available in commercial and industrial temperature ranges, and is offered in a 16-pin, 300-mil SO package. The RTC maintains seconds, minutes, hours, day, date, month, and year information.

The date at the end of the month is automatically adjusted for months with fewer than 31 days, including corrections for leap year.

The clock operates in either the 24-hour or 12-hour format with an AM/PM indicator. Two programmable time-of-day alarms and a programmable square-wave output are provided.

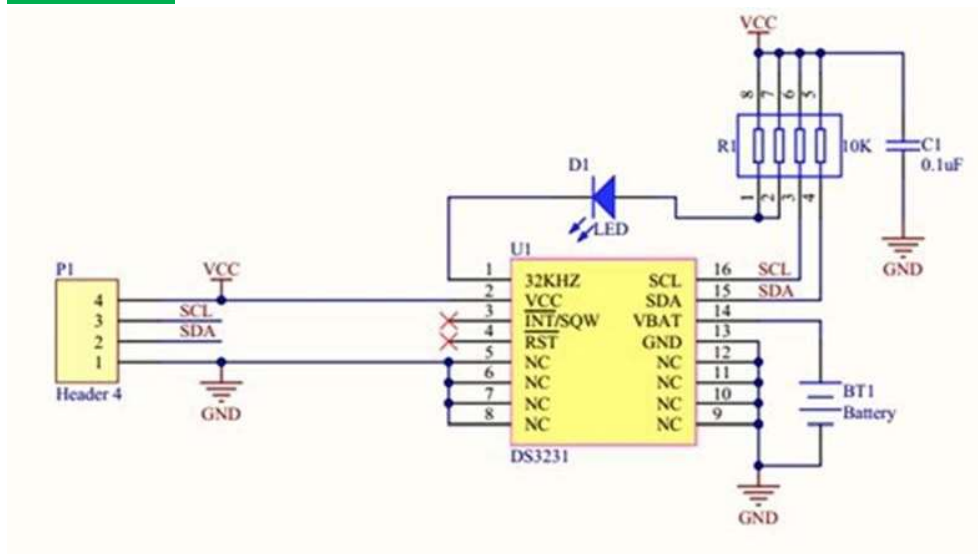
Address and data are transferred serially through an I2C bidirectional bus.

Specifications:

- Accuracy 2ppm from 0°C to 40°C
- Accuracy 3.5ppm from -40°C to 85°C
- Battery Backup Input for Continuous Timekeeping
- Operating Temperature Ranges - Commercial: 0°C to 70°C, Industrial: -40°C to 85°C □
Low-Power Consumption

- Real-Time Clock Counts Seconds, Minutes, Hours, Day, Date, Month, and Year with Leap Year Compensation Valid Up to 2100
- Two Time-of-Day Alarms
- Programmable Square-Wave Output
- Fast 400kHz I2C Interface
- 3.3V Operation
- Digital Temperature Sensor Output: $\pm 3^{\circ}\text{C}$ Accuracy
- Register for Aging Trim
- RST Output/ Pushbutton Reset Debounce Input Underwriters Laboratories UL Recognized

Schematic:



Made in china