

DS3231 AT24C32 IIC Precision RTC Real Time Clock Memory Module

Product Description

Size: 38mm (length) * 22mm (W) * 14mm (height)

Operating voltage :3.3 – 5 .5 V

clock chip: high-precision clock chip DS3231

Clock Accuracy :0-40 °C range, the accuracy 2ppm, the error was about 1 minute

Calendar alarm clock with two

Programmable square-wave output

Real time clock generator seconds, minutes, hours, day, date, month and year timing and provide valid until the year 2100 leap year compensation

Description:

- 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, disconnect the main power supply and maintains accurate timekeeping.
- Integrated oscillator improve long-term accuracy of the device and reduces the number of components of the production line.
- DS3231 available in commercial and industrial temperature ranges, using a 16-pin 300mil SO package.
- RTC maintains seconds, minutes, hours, day, date, month, and year information. Less than 31 days of the month, the end date will be automatically adjusted, including corrections for leap year.
- Clock operates in either the 24 hours or band / AM / PM indication of the 12-hour format. Provides two configurable alarm clock and a calendar can be set to a square wave output.
- Address and data are transferred serially through an I2C bidirectional bus.
- A precision temperature-compensated voltage reference and comparator circuit monitors the status of VCC to detect power failures, provide a reset output, and if necessary, automatically switch to the backup power supply.
- /RST pin is monitored as generating μ P reset manually.
- Save time and high precision addition, DS3231 also has some other features that extend the system host of additional features and a range of options.
- If the main power failure, the device can continue to provide accurate timing and temperature, performance is not affected.
- When the main power re-power or voltage value returns to within the allowable range, the on-chip reset function can be used to restart the system microprocessor.