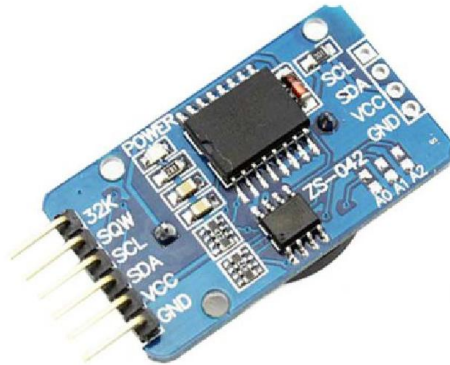# DS3231 RTC High Precision Real-Time Clock Module with AT24C32 EEPROM

The DS3231 RTC High Precision Real-Time Clock Module is a low-cost, extremely accurate I2C real-time clock (RTC), it is more accurate than the ds1307 as this module is integrated with 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 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 active-low AM/PM indicator.

The AT24C32 provides 32,768 bits of serial electrically erasable and programmable read only memory (EEPROM) organized as 4096 words of 8 bits each.

Features

- Size: 38mm x 22mm x 14mm
- Weight: 8 grams
- Operating voltage :3.3 – 5 .5 V

VCC

RP1
8P4R-0603

SQW
32K
SCL
SDA

VCC   R5   D2   BAT
      200R   4148

J1
1 32K
2 SQW
3 SCL
4 SDA
5 VCC
6 GND
CON6

U1
32kHZ 1   16 SCL
VCC   2 SCL   15 SDA
SQW   3 SDA VBAT 14 BAT
       4 RST GND 13
       5 INT NC   12
       6 NC   NC   11
       7 NC   NC   10
       8 NC   NC   9
DS3231

J3
电池

VCC
C1   C2
104   105

VCC   R1
           1K

           D1
           LED

J2
1 SCL
2 SDA
3 VCC
4 GND
CON4

cascade port

VCC
RP2
8P4R-0603

R2
SHORT
R3
SHORT
R4
SHORT

U2
A0 1   8 VCC
A1 2   WP 7
A2 3   SCL 6 SCL
GND 4   SDA 5 SDA
AT24C02

VCC

Title
Size Number   Revision
A4
Date: 31-May-2013   Sheet of
File: D:\应用\DS3231\DS3231.ddb   Drawn By: