

### DS1302 REAL TIME CLOCK



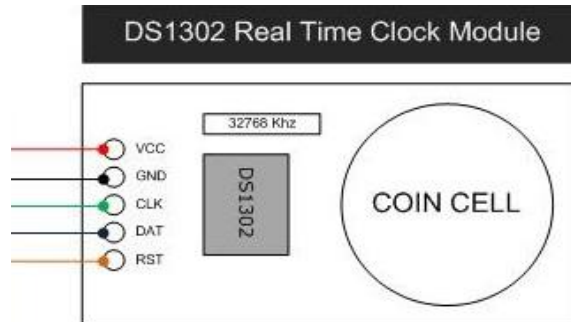
#### **Applications:**

A Real Time Clock Module with battery backup using the easy to use DS1302 chip. The DS1302 chip uses a simple serial interface (see datasheet) and example code is available for Arduino, Raspberry Pi and many others. It contains a real-time clock / calendar and 31 bytes of static RAM, via a simple serial interface to communicate with the microcontroller. Real-time clock / calendar circuit provides seconds, minutes, hours, days, weeks, months, years of information, the number of days per month and leap year automatically adjust the number of days. Clock operation by AM / PM indicator decided to use 24 or 12 hour format. DS1302 between the microcontroller can simply adopt the way synchronous serial communication port only used three lines: (1) RST Reset (2) I / O data lines (3) SCLK Serial Clock. Clock / RAM read / write data in a byte or up to 31 bytes of character set type communication. DS1302 work to maintain low power consumption data and clock information when power is less than 1mW.

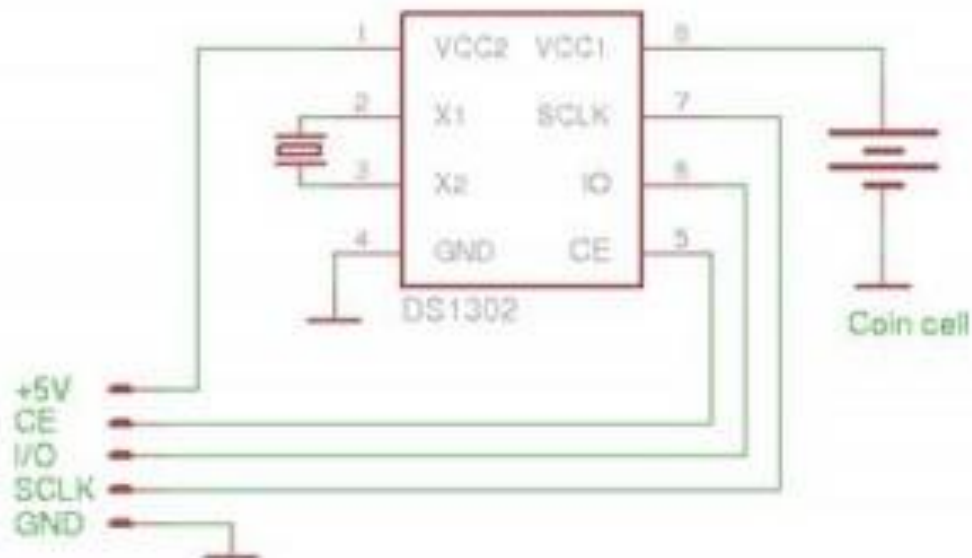
#### **Technical Specifications:**

- Real-Time Clock Counts Seconds, Minutes, Hours, Date of the Month, Month, Day of the Week, and Year with Leap-Year Compensation Valid Up to 2100
- Serial I/O for Minimum Pin Count
- 2.0V to 5.5V Full Operation
- Uses Less than 300nA at 2.0V
- Single-Byte or Multiple-Byte (Burst Mode) Data Transfer for Read or Write of Clock or RAM Data
- Board Size: 44mm x 24mm
- 31 x 8 Battery-Backed General-Purpose RAM
- TTL-Compatible (VCC = 5V)
- Optional Industrial Temperature Range: -40°C to +85°C f

**Pin-outs:**



**Schematic:**



**Important Notes:**

Do not reverse VCC and GND. Else, it will burn the chip.