

# 35808-MP

## RTC Plug In Board

Inexpensive add-on 'Real Time Clock' or RTC board plugs on the Pi's GPIO pins and contains a clock chip and a battery that tell the Raspberry Pi what time it is. The board uses the I2C protocol to communicate with the Raspberry Pi (or other microcontroller). Uses the DS3231 chip.

Clock calendar function includes seconds, minutes, hours, weeks, days, months and years, and provides leap year compensation valid until 2100.

**NOTE:** Requires Programming to enable functionality.

12/24 Format with AM/PM indication

Dual Day Alarm Clocks

Interface: 400KHz I2C serial

Power: 3.3 or 5V

Accuracy:  $\pm 5$ ppm ( $\pm 0.432$  sec/day) from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

On board battery to maintain timing.

Digital temperature sensor with  $\pm 3^{\circ}\text{C}$  accuracy

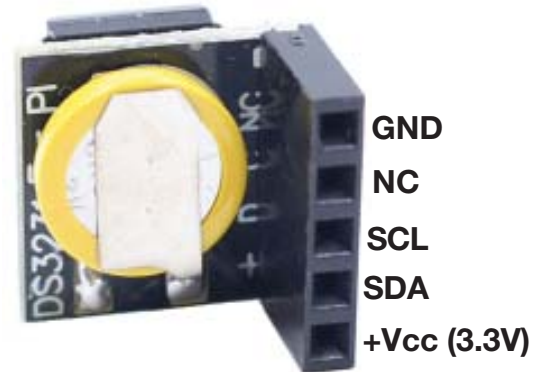
Install on pins 1, 3, 5, 7, 9 of the Pi GPIO

Connection; 5 Pin 0.1 Pitch Header Socket

1Hz and 32.768kHz output

Operating Range:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

**L:**  $\sim 1/2$ " **W:**  $9/16$ " **T:**  $1/2$ " **WT:** .02



### RASPBERRY-PI CONNECTION

**Shut down** the Pi, never plug into the GPIO while system is running or powered.

Plug the board onto your Raspberry Pi GPIO pins on the inside corner with the RTC board pointing inwards, as shown.



### USEFUL LINKS

#### For set up/Programming

<http://www.elecrow.com/download/Arduino%20demo%20code.zip>

<https://www.raspberrypi.org/forums/viewtopic.php?t=161133>

<https://www.raspberrypi.org/forums/viewtopic.php?f=63&t=161133>

<https://thepihut.com/blogs/raspberry-pi-tutorials/17209332-adding-a-real-time-clock-to-your-raspberry-pi>

<https://www.factoryforward.com/adding-rtc-module-raspberry-pi-real-time-clock/>

<https://www.youtube.com/watch?v=MthLLRNAGLs>

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