

| PAD | CONNECTION | PAD | CONNECTION |
|-----|---------------------------|-----|---------------------------|
| 1 | Supply (VDD) | 6 | Ground |
| 2 | Frequency output (CLKOUT) | 7 | Interrupt output (/INT) |
| 3 | Chip select (CS) | 8 | Backup supply |
| 4 | Serial clock input (SCL) | 9 | Serial data in (SDI) |
| 5 | Serial data out (SDO) | 10 | CLK output enable (CLKOE) |

Scale 3:1

Specifications

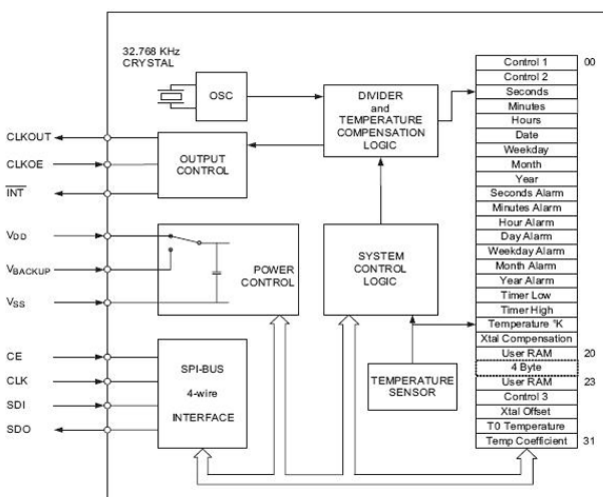
| Parameters | Product | Option Codes |
|--|-------------|-------------------|
| | RV3049C2 | |
| Frequencies (selectable): 32.768kHz, 1024Hz, 32Hz & 1Hz | ■ | |
| Frequency tolerance @ 25°C: ±20ppm max | ■ | |
| Time accuracy (dF/F): ±25ppm max over -40+85°C ±30ppm max over -40+125°C Other | ■ □ □ | B E specify |
| Operating temperature range: -40 to +85°C | ■ | |
| Extended op. temp range: -40 to +125°C | ■ | |
| Storage temperature range: -55 to +125°C | ■ | |
| Supply voltage (V_{DD}): SPI bus active 1.8 ~ 5.5V | ■ | |
| Data holding voltage (V_{DD}): 1.3 ~ 5.5V | ■ | |
| Supply current (V_{DD}=3.0V): 0.85µA typ, 1.0µA max | ■ | |
| Ageing: ±3ppm max first year | ■ | |
| Shock and vibration resistance: ±5ppm, 5,000g, 0.3ms, ½ sine ±5ppm, 20g, 10.0 ~ 2,000Hz | ■ ■ | |
| Soldering condition: Reflow, 260°C, 20 sec max | ■ | |

■ Standard. □ Optional - Please specify required code(s) when ordering

Features

- ▶ **Temperature compensated accuracy**
- ▶ **Low power consumption**
- ▶ **Compliant with 4-wire SPI-Bus**
- ▶ **Backup battery input (internal switchover)**
- ▶ **Programmable alarm, timer and interrupt**

Block Diagram



Ordering Information

Product + option code

eg: **RV3049C2/B** ±25ppm - 40+85°C

Option code X (eg RV3049C2/X) denotes a custom spec.

- ◆ Available on T&R - 1k or 5k pcs per reel.
- ◆ Refer to our website for T&R and soldering details.

Description

The RV3049C2 is a Real-Time-Clock Module with embedded crystal. This RTC has a 4-wire serial Interface (SPI-Bus) and offers temperature compensated time. The STC-Smart Temperature Compensation leads to a very high time-accuracy of ±25ppm from -40C to +85C and ± 30ppm from -40C to +125C.

Beside standard RTC functions, it includes a Backup-Battery Input with internal switchover function, a programmable Trickle-charge circuitry, an integrated Temperature Sensor with digital-output and offers 8 Bytes RAM and 2 Bytes EEPROM for customer's application.

The calendar function tracks year and leap -year flags. The clock tracks second, minute and hour in 24-hour format. Programmable alarm setting and universal timer functions increase flexibility.



- ◆ Manufactured by Micro Crystal
- ◆ Stocked & distributed by Golledge