

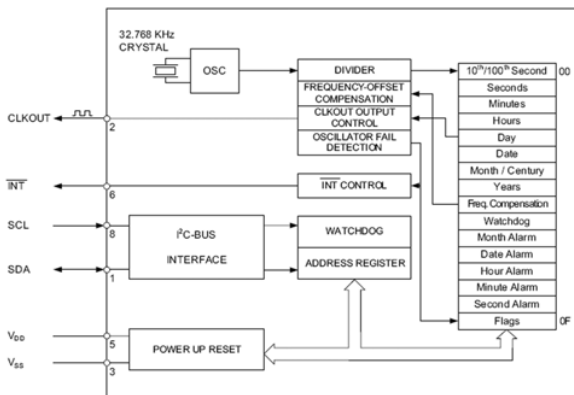
PAD	CONNECTION	PAD	CONNECTION
1	Serial data (SDA)	5	Supply Voltage (VDD)
2	Frequency output (CLKOUT)	6	Interrupt output (/INT)
3	Ground (VSS)	7	Not connected
4	Not connected	8	Serial clock input (SCL)

Scale 3:1

## Features

- ▶ **Ultra-miniature ceramic SMD RTC module**
- ▶ **Compliant with I<sup>2</sup>C-Bus interface (400kHz)**
- ▶ **Built-in crystal for adjustment-free operation**
- ▶ **Programmable alarm, timer and interrupt**
- ▶ **Low power consumption, low ageing**

## Block Diagram



## Specifications

Parameters	Product	Option Codes
	RV4162C7	
<b>Frequencies (selectable):</b> 32.768kHz down to 1Hz	■	
<b>Frequency tolerance:</b> ±10ppm ±20ppm Other	□ ■ □	A B specify
<b>Turnover temperature (T<sub>0</sub>):</b> +25°C ±5°C	■	
<b>Frequency / temp coefficient:</b> -0.035ppm/°C <sup>2</sup> ±10%	■	
<b>Operating temperature range:</b> -40 to +85°C	■	
<b>Storage temperature range:</b> -55 to +125°C	■	
<b>Supply voltage (V<sub>DD</sub>):</b> I <sup>2</sup> C bus active 1.3 ~ 4.4V	■	
<b>Data holding voltage (V<sub>DD</sub>):</b> 1.0 ~ 4.4V	■	
<b>Supply current (during access):</b> 35µA typ (f <sub>scl</sub> =400kHz, V <sub>DD</sub> =3V) 20µA typ (f <sub>scl</sub> =400kHz, V <sub>DD</sub> =2V)	■ ■	
<b>Supply current (backup mode):</b> 350nA typ (f <sub>scl</sub> =0Hz, V <sub>DD</sub> =3V) 270nA typ (f <sub>scl</sub> =0Hz, V <sub>DD</sub> =1V)	■ ■	
<b>Start up time:</b> 3s max	■	
<b>Ageing:</b> ±3ppm max first year	■	
<b>Shock and vibration resistance:</b> ±5ppm, 5,000g, 0.3ms, sine ±5ppm, 20g, 10.0 ~ 2,000Hz	■ ■	
<b>Soldering condition:</b> Reflow, 260°C, 20 sec max	■	

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

## Ordering Information

Product + option code  
eg: **RV4162C7/B** ±20ppm  
Option code X (eg RV4162C7/X) denotes a custom spec.

- ◆ Available on T&R - 1k or 3k pcs per reel.
- ◆ Refer to our website for T&R and soldering details.
- ◆ The I<sup>2</sup>C-Bus is a trademark of Philips Electronics NBV

## Description

This ultra small RTC Module has been specially designed for miniature and cost sensitive high volume applications.

The SMT ceramic package combines the 32.768kHz crystal unit with the CMOS-based oscillator and real-time-clock circuitry. The clock function provides tenths/hundredths of seconds, seconds, minutes and hours. The calendar function tracks date, month, year and century with automatic leap year compensation. Programmable CLKOUT frequencies, alarm settings and watchdog function increase flexibility.



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