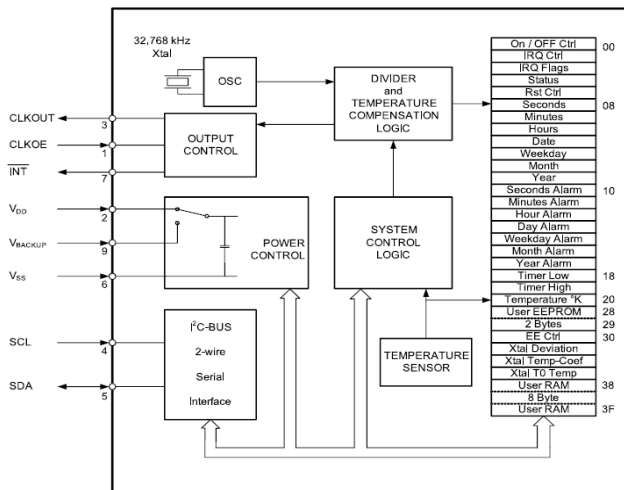


PAD	CONNECTION	PAD	CONNECTION
1	Clock output enable (CLKOE)	6	Ground (VSS)
2	Supply (VDD)	7	Interrupt output (INT)
3	Clock output (CLKOUT)	8	Not connected
4	Serial clock input (SCL)	9	Backup supply voltage
5	Serial data (SDA)	10	Not connected

## Features

- ▣ Temperature compensated accuracy
- ▣ AEC Q200 Rev C compliant
- ▣ Compliant with I<sup>2</sup>C-Bus interface (400kHz)
- ▣ Backup battery input (internal switchover)
- ▣ Programmable alarm, timer and interrupt

## Block Diagram



## Specifications

Parameters	Product	Option Codes
	RV3029C3	
<b>Frequencies (selectable):</b> 32.768kHz, 1024Hz, 32Hz & 1Hz	■	
<b>Frequency tolerance @ 25°C:</b> ±10ppm typ, ±20ppm max	■	
<b>Time accuracy:</b> ±3ppm max (0.26s/day) @ 25°C ±6ppm max (0.52s/day), -40+85°C ±25ppm max (2.17s/day), -40+85°C ±8ppm max (0.70s/day), -40+125°C ±30ppm max (2.60s/day), -40+125°C	■ □ ■ ■ □	A B D E
<b>Operating temperature range:</b> -40 to +85°C	■	
<b>Extended op. temp range:</b> -40 to +125°C	□	see above
<b>Storage temperature range:</b> -55 to +125°C	■	
<b>Supply voltage (V<sub>DD</sub>):</b> I <sup>2</sup> C bus active 1.8 ~ 5.5V Time-keeping mode 1.3 ~ 5.5V	■ ■	
<b>Supply current (V<sub>DD</sub>=3.0V):</b> 0.80µA typ, 1.0µA max	■	
<b>Shock and vibration resistance:</b> ±5ppm, 5,000g, 0.3ms, ½ 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: **RV3029C3/B** ±25ppm -40+85°C  
Option code X (eg RV3029C3/X) denotes a custom spec.

- ◆ Available on T&R - 1k or 3k pcs per reel. See our website for details
- ◆ Evaluation / development board & manual available on request
- ◆ The I<sup>2</sup>C-Bus is a trademark of Philips Electronics NV

## Description

The RV3029C2 is a Real-Time-Clock Module with embedded crystal. This RTC has an I<sup>2</sup>C Bus (2-wire Serial-Interface) and offers temperature compensated time. The STC (Smart Temperature Compensation) can be factory calibrated to achieve a very high time accuracy of ±6ppm from -40°C to +85°C (option A) and ± 8ppm from -40°C to +125°C (option C).

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 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 & supplied by Golledge