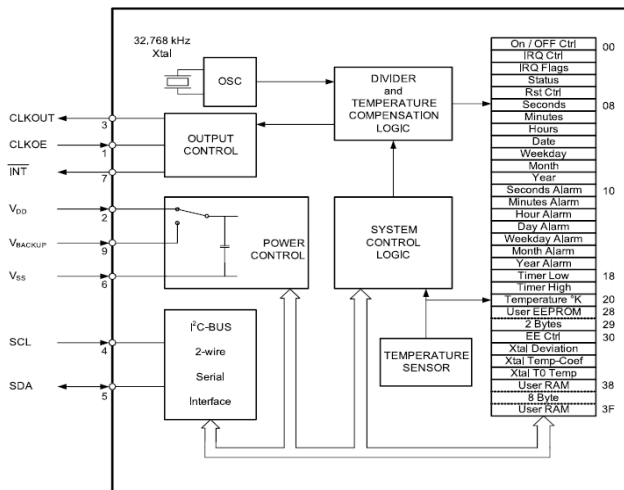


PAD	CONNECTION	PAD	CONNECTION
1	Clock output enable (CLKOE)	6	Ground (VSS)
2	Supply (VDD)	7	Interrupt output (INT)
3	Clock output (CLKOUT)	8	Not connected
4	Serial clock input (SCL)	9	Backup supply voltage
5	Serial data (SDA)	10	Not connected

Features

- ▶ Temperature compensated accuracy
- ▶ AEC-Q200 compliant option
- ▶ Compliant with I²C-Bus interface (400kHz)
- ▶ Backup battery input (internal switchover)
- ▶ Programmable alarm, timer and interrupt

Block Diagram



Specifications

Parameters	Product	Option Codes
	RV3029C3	
Frequencies (selectable): 32.768kHz, 1024Hz, 32Hz & 1Hz	■	
Frequency tolerance @ 25°C: ±10ppm typ, ±20ppm max	■	
Time accuracy: ±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
Operating temperature range: -40 to +85°C -40 to +125°C	■ □	see above
Storage temperature range: -55 to +125°C	■	
Supply voltage (V_{DD}): I ² C bus active 1.8 ~ 5.5V Time-keeping mode 1.3 ~ 5.5V	■ ■	
Supply current (V_{DD}=3.0V): 0.80µA typ, 1.0µA max	■	
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	■	
Qualification: Commercial AEC-Q200 (Automotive)	■ □	A

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

Ordering Information

Product + option code(s)
 eg: **RV3029C3/B** ±25ppm -40+85°C
RV3029C3/DA ±8ppm -40+125°C, AEC-Q200
 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 I²C-Bus is a trademark of Philips Electronics NV

Description

The RV3029C2 is a Real-Time-Clock Module with embedded crystal. This RTC has an I²C 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 D).

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