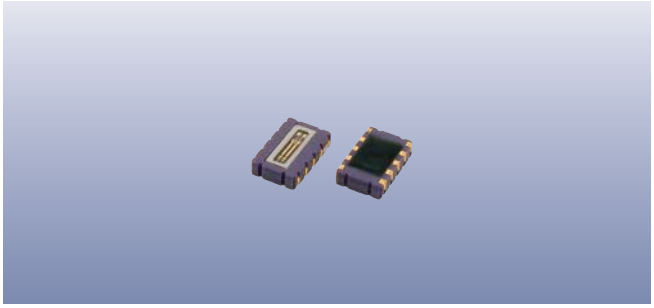
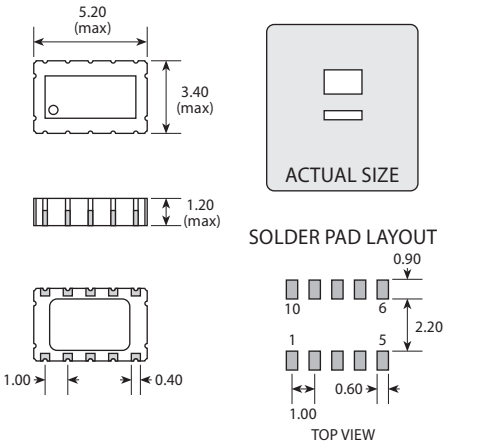
Real Time Clock

RV8564C2





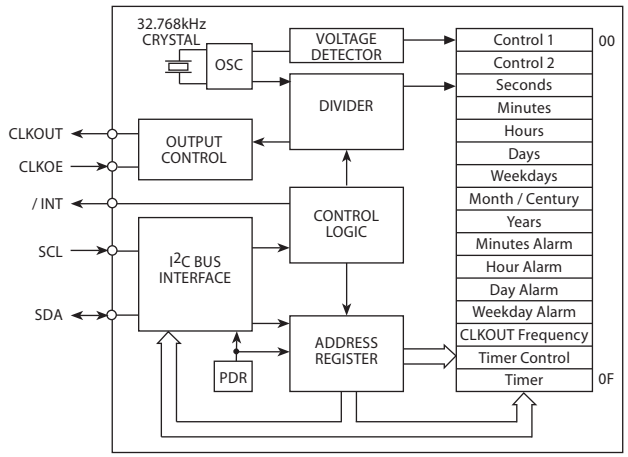
PAD	CONNECTION	PAD	CONNECTION
1	Supply (VDD)	6	Ground
2	Frequency output (CLKOUT)	7	Interrupt output (/INT)
3	Not connected	8	Not connected
4	Serial clock input (SCL)	9	Not connected
5	Data (SDA)	10	FOUT output enable (CLKOE)

Scale 3:1

Features

- **Equivalent to Epson RX-8564CF**
- **Compliant with I²C-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 RV8564C2	Option Codes
Frequencies (selectable): 32.768kHz, 1024Hz, 32Hz & 1Hz	■	
Frequency tolerance: ±10ppm	□	A
±20ppm	■	B
Other	□	specify
Turnover temperature (T_0): +25°C ±5°C	■	
Frequency / temp coefficient: -0.035ppm/°C² ±10%	■	
Operating temperature range: -40 to +85°C	■	
-40 to +125°C	□	E
Storage temperature range: -55 to +125°C	■	
Supply voltage (V_{DD}): I²C bus active 1.8 ~ 5.5V	■	
Data holding voltage (V_{DD}): 1.2 ~ 5.5V	■	
Supply current (during access): 200µA max (fscl=100kHz)	■	
800µA max (fscl=400kHz)	■	
Supply current (backup mode): 275nA typ (fscl=0Hz, V_{DD}=3V)	■	
250nA typ (fscl=0Hz, V_{DD}=2V)	■	
Start up time: 3s 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

Ordering Information

Product + option code
eg: **RV8564C2/B** ±20ppm
Option code X (eg RV8564C2/X) denotes a custom spec.

- Available on T&R - 1k or 5k pcs per reel
- Evaluation / development board & manual available on request
- The I²C-Bus is a trademark of Philips Electronics NV

Description

This very small SMD ceramic package has been specially designed to combine the 32.768kHz crystal unit with the CMOS based oscillator and real-time clock circuit.

The calendar function tracks year, month, date and day of the week with built-in century and leap-year flags. The clock function tracks minutes and seconds in 24-hour format. Programmable alarm setting and universal timer functions increase flexibility.

MICRO CRYSTAL SWITZERLAND

- Manufactured by Micro Crystal
- Stocked & distributed by Golledge