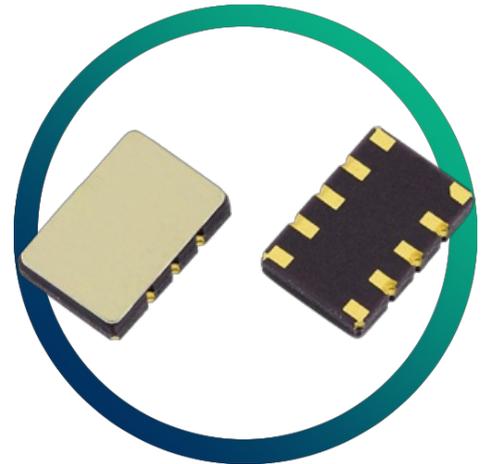


RV-3149-C3

RTC SPI Bus

- Temperature compensated accuracy
- AEC-Q200 compliant option
- Ultra-miniature castellated package
- Compliant with 4-wire SPI bus
- Backup battery input (internal switchover)

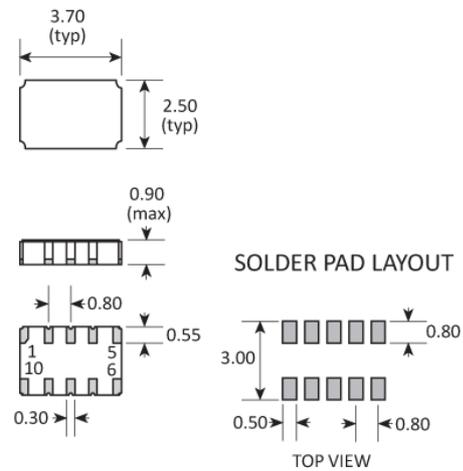


CONFIGURABLE OPTIONS

Parameter	Option Code
Time accuracy	
Any	
Option A (see specifications table)	A
Option B (see specifications table)	B
Operating temperature range	
Any	
-40 to +85 °C	
-40 to +125 °C	
Qualification	
Any	
Commercial	
AEC-Q200 (Automotive)	A

SPECIFICATIONS

Frequencies (selectable)	32.768kHz, 1024Hz, 32Hz & 1Hz
Dimensions	3.7 x 2.5 x 0.9mm
Frequency tolerance @ 25 °C	±10ppm typ, ±20ppm max
Time accuracy (option A)	±3ppm max (0.26s/day), 25 °C ±4ppm max (0.35s/day), -0+50 °C ±5ppm max (0.43s/day), -10+60 °C ±6ppm max (0.52s/day), -40+85 °C ±8ppm max (0.69s/day), -40+125 °C
Time accuracy (option B)	±3ppm max (0.26s/day), 25 °C ±5ppm max (0.43s/day), -0+50 °C ±10ppm max (0.86s/day), -10+60 °C ±25ppm max (2.16s/day), -40+85 °C ±30ppm max (2.59s/day), -40+125 °C
Storage temperature range	-55 to +125 °C
Supply voltage (V _{DD})	Digitally temperature compensated 2.1 ~ 5.5V SPI bus active 1.4 ~ 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

PACKAGE DRAWING


PAD	CONNECTION	PAD	CONNECTION
1	Clock output enable (CLKOE)	6	Ground and lid (VSS)
2	Supply (VDD)	7	Interrupt output ($\overline{\text{INT}}$)
3	Clock output (CLKOUT)	8	Chip enable (CE)
4	Serial clock input (SCL)	9	Backup supply voltage
5	Serial data output (SDO)	10	Serial data input (SDI)

Dimensions in mm

ORDERING INFORMATION

To request a quotation for the RV-3149-C3 please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at sales@golledge.com.

Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

APPLICATIONS

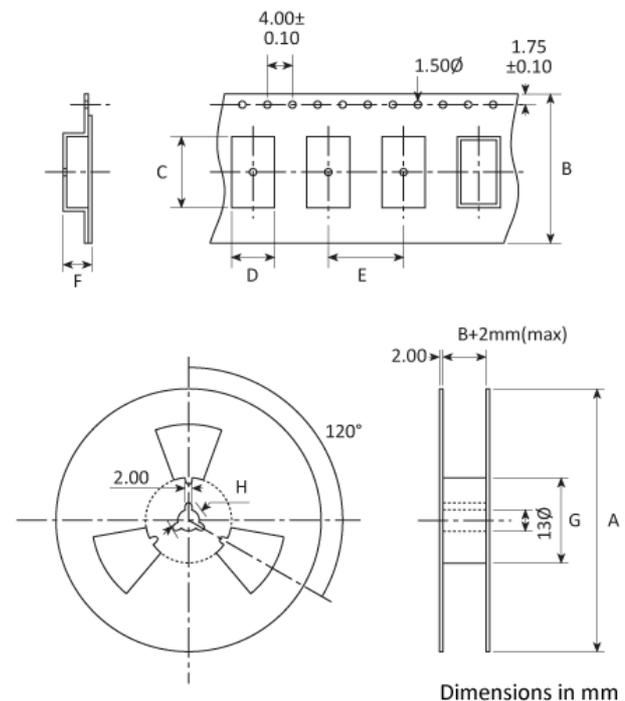
The RV-3149-C3 real time clock is a versatile component suitable for a wide range of applications and uses including:

- Automotive including car radio, GPS and other tracking systems, dashboard devices, tachometers, entertainment systems, and engine control
- Industrial and consumer electronics
- Metering including E-meter and heating counters
- Outdoor including ATM and POS systems, surveillance and safety systems, and ticketing systems
- Portable devices
- White goods

TECHNICAL RESOURCES

[RV-3149-C3_App-Manual.pdf](#)

TAPE & REEL SPECIFICATION



A:178 / B:12 / C:4 / D:2.7 / E:4 / F:1 / G:61.5 / H:21

HANDLING & STORAGE



Human Body Model (HBM) 1A (250V to <500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

COMPLIANCE



Lead-free (< 0.1% by weight)



RoHS compliant with no exemptions. [See our](#)

[declaration](#)



REACH compliant. [See our statement](#)



Free of conflict minerals. [See our declaration](#)



Free of Halogens. [See our declaration](#)



Free of Ozone-depleting substances. [See our](#)

[declaration](#)

CONSTRUCTION

Ceramic package with metal lid

SUPPLY PARTNER



The RV-3149-C3 is manufactured by Micro Crystal and stocked and supplied by Golledge.