

RV-3028-C7

Ultra-low Power I²C RTC Module

- Ultra-Low power consumption of 45nA
- Wide operating voltage of 1.1 ~ 5.5V
- Battery switch over
- AEC-Q200 compliant option
- Previously named RV3028C7



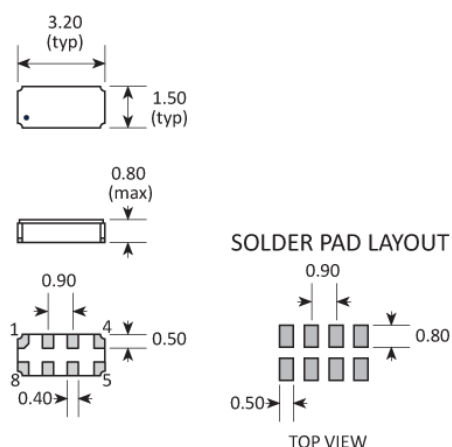
CONFIGURABLE OPTIONS

Parameter	Option Code
Qualification	
Any	
Commercial	
AEC-Q200 (Automotive)	A

SPECIFICATIONS

Frequencies (selectable)	32.768kHz, 8192Hz, 1024Hz, 64Hz, 32Hz, 1Hz
Dimensions	3.2 x 1.5 x 0.8mm
Time accuracy	±1ppm max @ 25°C
Turnover temperature (T ₀)	+25°C ±5°C
Frequency / temp coefficient	-0.035ppm/°C ² ±10%
Operating temperature range	-40 to +85°C
Storage temperature range	-55 to +125°C
Supply voltage	1.2 ~ 5.5V (I ² C bus active) 1.1 ~ 5.5V (timekeeping)
Supply current	45/60nA typ/max, V _{DD} =3V
Ageing	±3ppm max first year @25°C
Shock and vibration resistance	±5ppm, 5,000g, 0.3ms, ½ sine ±5ppm, 20g, 10.0 ~ 2,000Hz
Soldering condition	Reflow, 260°C, 20-40sec

PACKAGE DRAWING



PAD	CONNECTION	PAD	CONNECTION
1	Frequency output (CLKOUT)	5	Ground (VSS)
2	Interrupt output ($\overline{\text{INT}}$)	6	Backup supply voltage (VBK)
3	Serial clock input (SCL)	7	Supply voltage (VDD)
4	Serial data (SDA)	8	Event input (EVI)

Dimensions in mm

ORDERING INFORMATION

To request a quotation for the RV-3028-C7 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

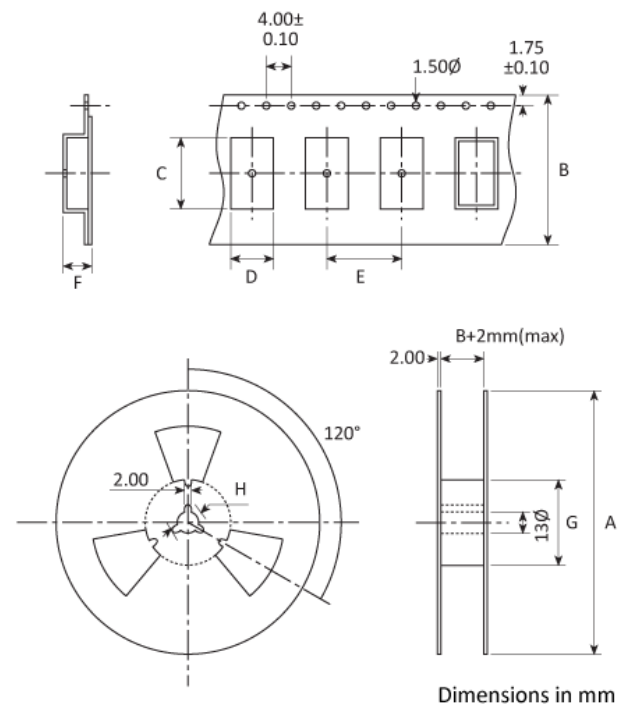
The RV-3028-C7 real time clock is a versatile component suitable for a wide range of applications and uses including:

- Automotive
- Health Care
- IoT
- Industrial
- Metering
- Portable Devices
- Wearables

TECHNICAL RESOURCES

[RV-3028-C7_App-Manual.pdf](#)

TAPE & REEL SPECIFICATION



A:178* / B:12 / C:3.5 / D:1.8 / E:4.0 / F:1.0 / G:61 / H:21

*Larger reel sizes are available

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](#)

OTHER INFORMATION

An evaluation/development board for the RV-3028-C7 is also available on request. Please contact our expert advisers at sales@golledge.com for more information.

CONSTRUCTION

SON 8-pin ceramic package with metal lid

SUPPLY PARTNER



The RV-3028-C7 is manufactured by Micro Crystal and stocked and supplied by Golledge.

BLOCK DIAGRAM

