

# RA8E2 Group

Evaluation Kit for RA8E2 Microcontroller Group  
EK-RA8E2 v1  
Errata

Renesas RA Family  
RA8 Series

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## Precautions

This Evaluation Kit is only intended for use in a laboratory environment under ambient temperature and humidity conditions. A safe separation distance should be used between this and any sensitive equipment. Its use outside the laboratory, classroom, study area, or similar such area invalidates conformity with the protection requirements of the Electromagnetic Compatibility Directive and could lead to prosecution.

The product generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off or on, you are encouraged to try to correct the interference by one or more of the following measures:

- Ensure attached cables do not lie across the equipment.
- Reorient the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
- Power down the equipment when not in use.
- Consult the dealer or an experienced radio/TV technician for help.

Note: It is recommended that wherever possible shielded interface cables are used.

The product is potentially susceptible to certain EMC phenomena. To mitigate against them it is recommended that the following measures be undertaken:

- The user is advised that mobile phones should not be used within 10 m of the product when in use.
- The user is advised to take ESD precautions when handling the equipment.

The Evaluation Kit does not represent an ideal reference design for an end product and does not fulfill the regulatory standards for an end product.

Renesas RA Family

**EK-RA8E2 v1**

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## 1. Introduction

This Errata describes the known issues and exceptions to the functional specifications for the EK-RA8E2 v1, Evaluation Kit for the RA8E2 MCU Group. For additional information on the kit, see the EK-RA8E2 v1 User's Manual.

## 2. Known Issues and Exceptions

### 2.1 Inaccuracy in RTC (Real Time Clock)

#### 2.1.1 Description

Due to incorrectly specified crystal load capacitance and capacitors C22 and C23, the RTC can be inaccurate in the order of 10 seconds every 24 hours. This is because the fitted crystal ABS07-32.768KHZ-9-T requires a 9pF load capacitance  $C_L$ , given by the formula  $C22=C23=2*(C_L-C_{stray})$ , and so the load capacitors C22 and C23 should be significantly lower than the fitted 27pF capacitors.

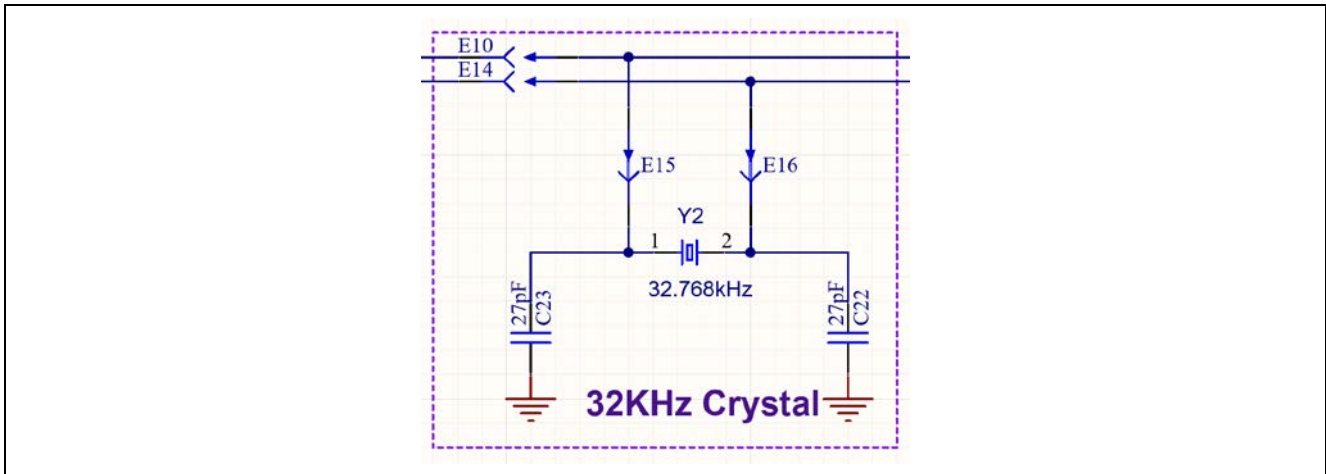


Figure 1. Crystal Oscillator with incorrect load capacitance

#### 2.1.2 Corrective Action

##### [Affected Kits]

To address this the user can replace the load capacitors, C22/C23, with 10pF parts, for example GRT1555C2A100JA02D. This value has been tested and found to be appropriate for the device and board configuration.

##### [Future Kits]

This issue will be corrected in later versions of the kit.

#### 2.1.3 Kits Affected

Version:	1
Serial numbers:	298471 to 298770

### 3. Appendix – Kit Identification

#### 3.1 Kit Version

The kit version is identified on the board above the Renesas RA logo as shown in Figure 2.



Figure 2. Identification of the Kit Version Number on the EK-RA8E2 Board

#### 3.2 Serial Number

In addition to the kit version number, the kit serial number is used to uniquely identify a kit.

The serial number is located on the bar code sticker on the back/bottom side of EK-RA8E2 board. In the example in Figure 3, the serial number is “299500”.

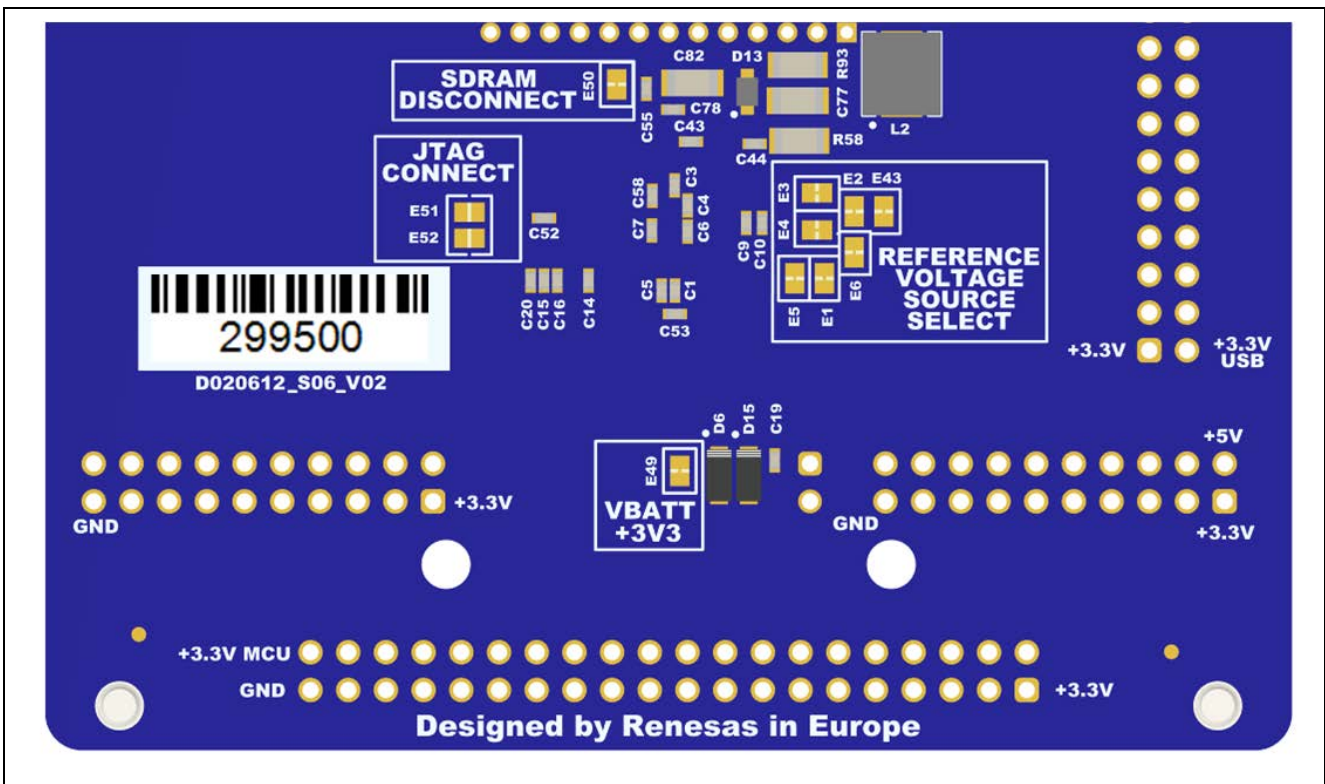


Figure 3. Identification of the Serial Number on the EK-RA8E2 Board

#### 4. Website and Support

Visit the following URLs to learn about the kit and the RA family of microcontrollers, download tools and documentation, and get support.

EK-RA8E2 Resources	<a href="https://renesas.com/ek-ra8e2">renesas.com/ek-ra8e2</a>
RA Kit Information	<a href="https://renesas.com/ra/kits">renesas.com/ra/kits</a>
RA Product Information	<a href="https://renesas.com/ra">renesas.com/ra</a>
RA Product Support Forum	<a href="https://renesas.com/ra/forum">renesas.com/ra/forum</a>
RA Videos	<a href="https://renesas.com/ra/videos">renesas.com/ra/videos</a>
Renesas Support	<a href="https://renesas.com/support">renesas.com/support</a>
RA Flexible Software Package (FSP)	<a href="https://renesas.com/fsp">renesas.com/fsp</a>

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Nov.06.25	—	Initial release.

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