Errata

# RA8P1 Group

## Evaluation Kit for RA8P1 Microcontroller Group
## EK-RA8P1 v1
## Errata

Renesas RA Family
RA8 Series



Renesas Electronics
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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-RA8P1 v1

Contents



## Figures

# 1. Introduction

This Errata describes the known issues and exceptions to the functional specifications for the EK-RA8P1 v1, Evaluation Kit for the RA8P1 MCU Group. For additional information on the kit, see the EK-RA8P1 v1 User's Manual.

# 2. Known Issues and Exceptions

## 2.1 I3C SCL controlled PU (P013) only supports Low Drive Strength

### 2.1.1 Description

I3C can require the use of an active pull-up. This capability is provided on the current design using P013. This pin, used to pull up the SCL signal, supports Low Drive Strength only as shown in the table extract from the device hardware manual r01uh1064ej.

While this pin will work, it may not have the capability needed for the highest speed I3C communication.

A future revision of the board will move this connection to a pin capable of High drive strength.

**Table 21.7 Register settings for input/output pin function (PORT0)**

| Pin | PSEL[4:0] settings | Function | Pin | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P006 | | | P000 | P001 | P002 | P003 | P004 | P005 | P007 | P008 | P009 | P010 | P011 | P012 | P013 | P014 | P015 |
| Hi-Z | 00000b (value after reset) | Hi-Z/ JTAG/ SWD | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z | Hi-Z |
| AN006/ IVCMP 2 | ASEL bit | | AN000/ IVCMP 2 | AN001/ IVCMP 3 | AN002/ IVCMP 2 | AN003/ IVCMP 3 | AN004/ IVCMP 2 | AN005/ IVCMP 3 | AN007/ IVCMP 3 | AN008/ IVREF0 | AN009/ IVREF1 | AN010 | AN011 | AN012 | AN013 | AN014/ DA0/ IVCMP 0 | AN015/ DA1/ IVCMP 0 |
| IRQ11-DS | ISEL bit | | IRQ6-DS | IRQ7-DS | IRQ8-DS | IRQ29 | IRQ9-DS | IRQ10-DS | IRQ28 | IRQ12-DS | IRQ13-DS | IRQ14 | IRQ16 | IRQ15 | IRQ14 | IRQ27 | IRQ13 |
| ✓ | PCR bit | Pull-up | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | NCODR bit | N-ch Open-drain | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| L | DSCR[1:0] bit | Drive capability control*1 | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L |
| ✓ | 289 pins product | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | 289 pins w/o MIPI product | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | 224 pins product | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | — | — | — | — | ✓ | ✓ |
| ✓ | 224 pins w/o MIPI product | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | — | — | — | — | ✓ | ✓ |

✓: Available
—: Setting prohibited

Note 1. The drive strength of this port cannot be controlled by PmnPFS.DSCR[1:0] bits.

**Figure 1. I/O Register Settings for PORT0**

### 2.1.2 Corrective Action

**[Affected Kits]**

To address this the user can connect a resistor to the SCL line via the connections on Arduino, Mikrobus, Grove1 or QWIIC connectors and the other end of the resistor to a suitable high drive strength capable port pin that is not used for other functions.

We suggest using port P311 as this pin is capable and is otherwise unused. It is accessible on J17 Pin 3

When implementing this configuration ensure that P013 is set to high impedance.

**[Future Kits]**

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

### 2.1.3 Kits Affected

| | |
|---|---|
| Version: | 1 |
| Serial numbers: | 299541 to 299840 |

# 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-RA8P1 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-RA8P1 board. In the example in Figure 3, the serial number is “290943”.

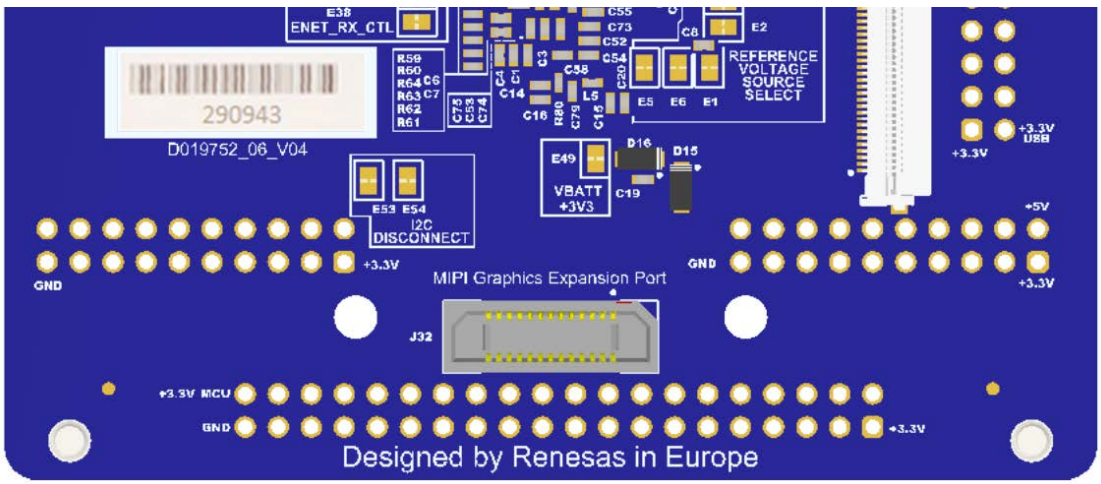


**Figure 3. Identification of the Serial Number on the EK-RA8P1 Board**

## 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-RA8P1 Resources | renesas.com/ek-ra8p1 |
| RA Kit Information | renesas.com/ra/kits |
| RA Product Information | renesas.com/ra |
| RA Product Support Forum | renesas.com/ra/forum |
| RA Videos | renesas.com/ra/videos |
| Renesas Support | renesas.com/support |
| RA Flexible Software Package (FSP) | renesas.com/fsp |

## Revision History

| Rev. | Date | Description | |
|---|---|---|---|
| | | Page | Summary |
| 1.00 | Jun.19.25 | — | Initial release. |
| | | | |
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