Errata

RA6M5 Group

Evaluation Kit for RA6M5 Microcontroller Group
EK-RA6M5 v1
Errata

Renesas RA Family
RA6 Series

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Rev.1.01 Aug 2024

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(Rev.5.0-1 October 2020)

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
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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-RA6M5 v1

Contents

Figures

1. Introduction

This Errata describes the known issues and exceptions to the functional specifications for the EK-RA6M5 v1, Evaluation Kit for the RA6M5 MCU Group. For additional information on the kit, see the EK-RA6M5 v1 user's manual.

2. Known Issues and Exceptions

2.1 Breakout Pin Headers J1, J2, J3, J4 for RA6M5 MCU

2.1.1 Description

The breakout pin headers J1, J2, J3, and J4 on the EK-RA6M5 board should align to a 0.1" grid to enable the easy placement of any compatible piggyback board (general purpose prototyping board).

With reference to the dimensional drawing it can be seen that J1 and J3 are not aligned to the grid along one axis.

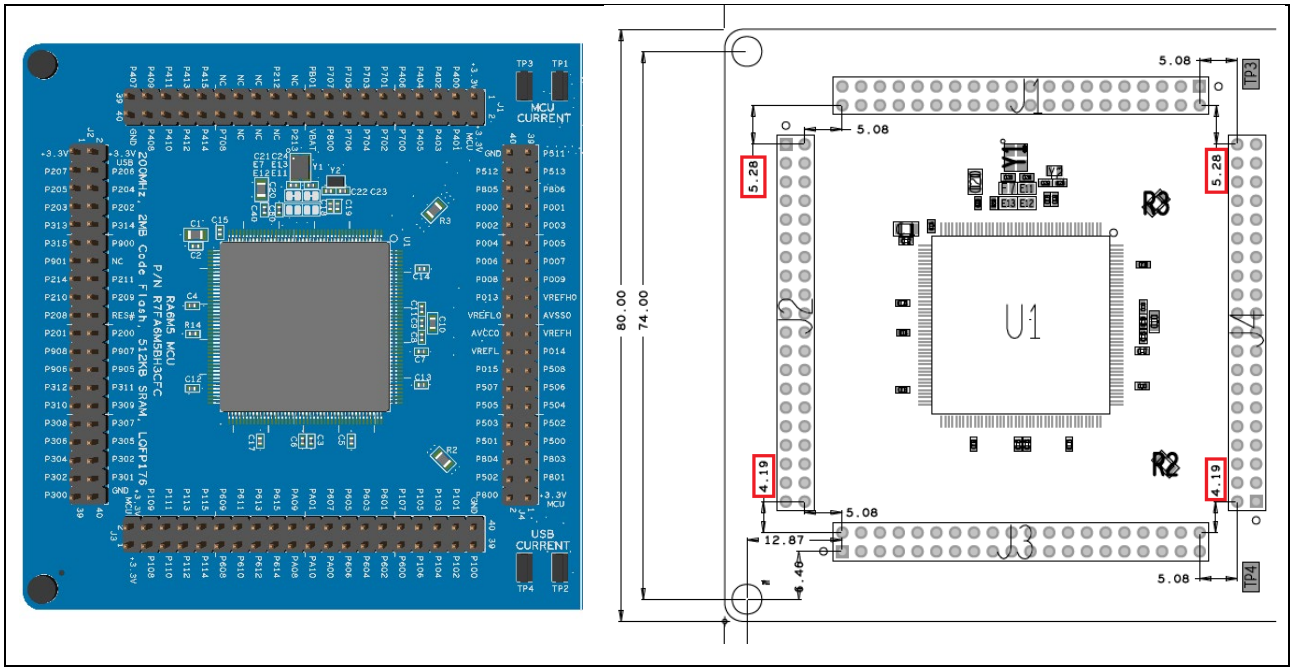

Figure 1. Breakout Pin Headers J1, J2, J3, J4

2.1.2 Corrective Action

None. The breakout pin headers have been moved to align with the 0.1" grid on later builds of the board.

2.1.3 Kits Affected

Version : 1
Serial number : 215178 to 215267, 217783 to 218096

2.2 MCU Unique ID

2.2.1 Description

The Flash memory register UIDRn is a read-only register that stores a 16-byte ID code (Unique ID, UID) for identifying the individual MCU.

In certain cases the Quick Start Software programmed into the board may incorrectly display the device UID.

The UID is displayed in 'Kit Information' as a series of 4byte values *bbbb-bbbb-bbbb-bbbb* as can be seen in the example below. If any single byte is of the form '0000nnnn' i.e. has a leading zero, it will not be displayed.

Figure 2. MCU UID Leading Zero Not Displayed

2.2.2 Corrective Action

None. The Quick Start Software programmed into later boards has been updated to show the correct device UID.

2.2.3 Kits Affected

Version : 1
Serial number : 213857 to 213946, 216622 to 216942

2.3 USB High Speed port detection issues

Both data pins of the USB high speed port (J31) are connected to the MCU via 33 Ω resistors (R83 and R84). This has caused issues with connection to USB 3.0 ports. Replacing these resistors with 0 Ω resistors fixes this issue.

2.3.1 Description

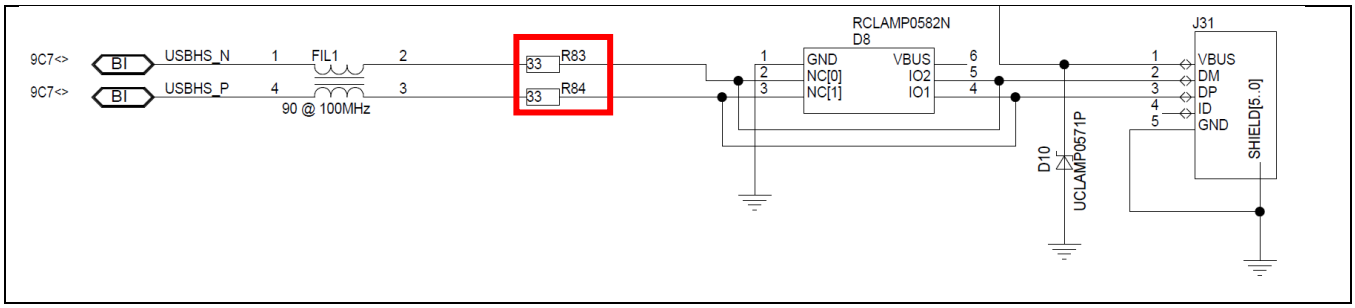

Figure 3. USB High Speed series 33 Ω resistors (R83 and R84)

2.3.2 Corrective Action

[Affected Kits]

Please either use functional USB ports for USB High Speed (J31) or short resistors R83 and R84.

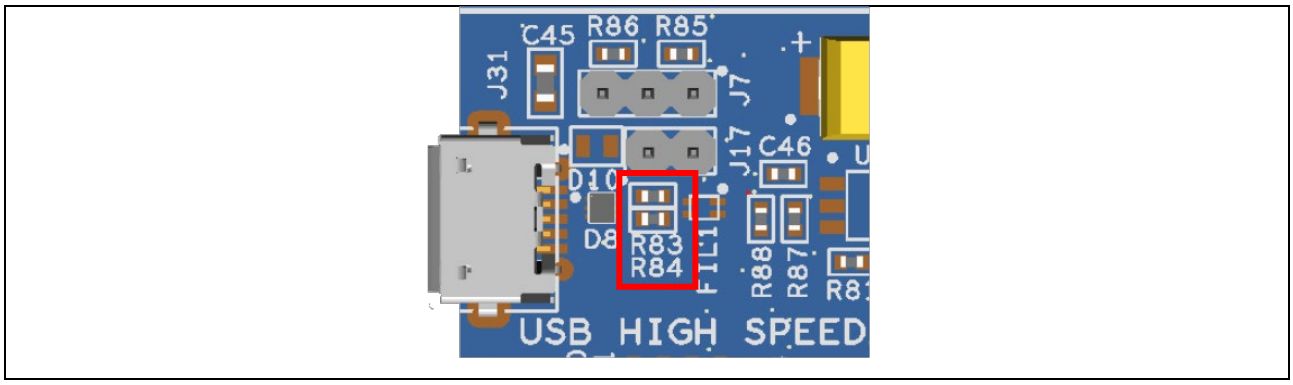

Figure 4. USB High Speed R83 and R84

[Future Kits]

For all new versions, R83 and R84 33 Ω resistors have been replaced with 0 Ω resistors.

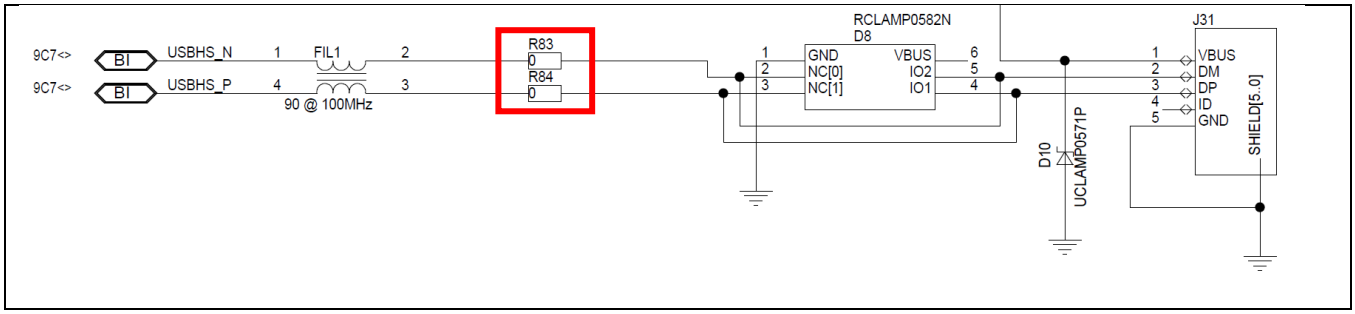

Figure 5. USB High Speed series 0 Ω resistors (R83 and R84)

2.3.3 Kits Affected

Version : 1
Serial number : All < 288900

3. Appendix – Kit Identification

3.1 Kit Version

The kit version can be found on the EK-RA6M5 kit packaging and EK-RA6M5 board as described in this section. The kit version is the last digit in the orderable part number as shown in the second box in Figure 6. In the example below, the kit version number is “1” as shown in both Figure 6 and Figure 7.

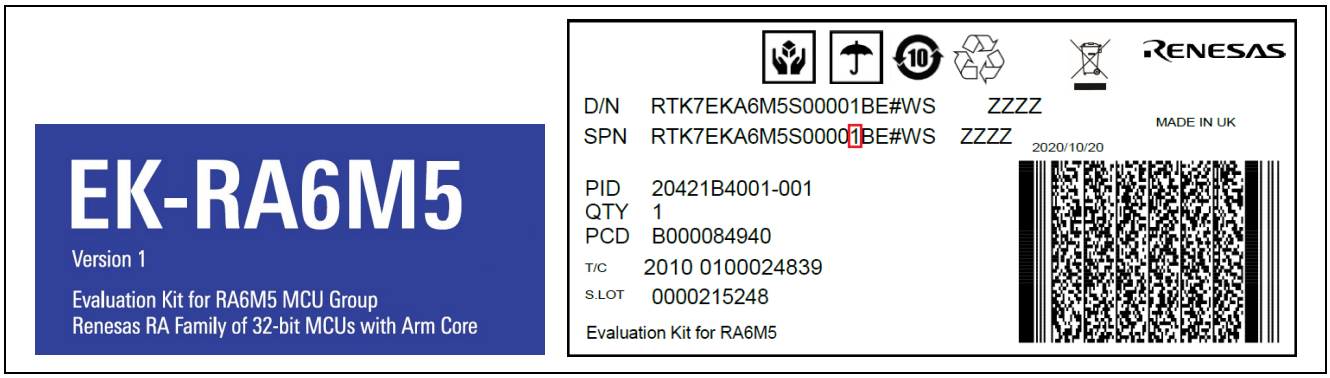

Figure 6. Identification of the Kit Version Number on the EK-RA6M5 Kit Packaging

Figure 7. Identification of the Kit Version Number on the EK-RA6M5 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 packaging label identified as S.LOT and on the bar code sticker on the back/bottom side of EK-RA6M5 board. In the example in Figure 9 and Figure 8, the serial number is “217926.”

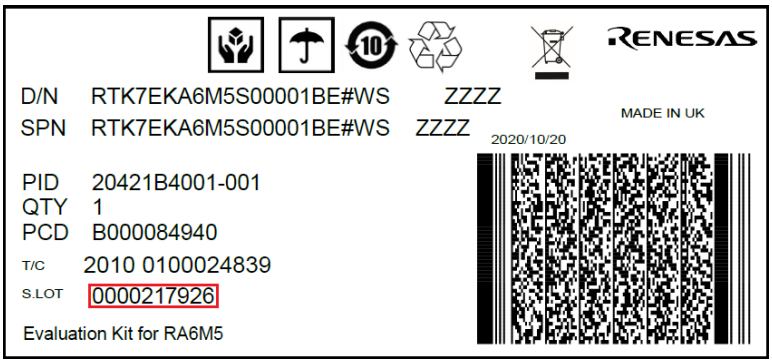

Figure 8. Identification of the Serial Number on the EK-RA6M5 Kit Packaging

Figure 9. Identification of the Serial Number on the EK-RA6M5 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-RA6M5 Resources	renesas.com/ek-ra6m5
RA Product Information	renesas.com/ra
RA Product Support Forum	renesas.com/ra/forum
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Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Dec.09.20	—	Initial release
1.01	Aug.29.24	6	Added 2.3 USB High Speed port detection issues

EK-RA6M5 v1 – Errata

Publication Date: Aug.29.24

Published by: Renesas Electronics Corporation

EK-RA6M5 v1 – Errata

Renesas Electronics Corporation

R20ZZ0222EG0101