

Errata DIMM-MX53x

Rev	Date/Signature	Changes
1	09.09.2011/Mt	First Revision
2	06.12.2011/Mt	Added Errata 2
3	13.11.2012/Mt	Added Errata 3

1 Errata 1 – UART1 RTS/CTS

1.1 Product affected

Product affected	Part Number	Rev.
DIMM-MX53x-2 x/x		all R2 revisions

1.2 Description

The signals UART1_RTS# and UART1_CTS# can't be used on all DIMM-MX53x layout revision R1 and R2.

1.3 Projected Impact

It isn't allowed to use the flow control of UART1, because the RTS and CTS signals are switched on the DIMM-MX53x boards. If the flow control is used on UART1, RTS and CTS can be shorted. That could damage the boards.

1.4 Workaround

Use UART1 without a flow control.

1.5 Proposed Solution

This issue will be fixed at DIMM-MX53x boards with layout revision R3.

2 Errata 2 – No Boot without a connected battery on BAT pin

2.1 Product affected

Product affected	Part Number	Rev.
DIMM-MX53x-2 x/x		all R2 revisions
DIMM-MX53x-3 x/x		all R3 revisions

2.2 Description

If no battery or always on voltage is connected to the BAT pin on the baseboard, it could be that the DIMM-MX53x board doesn't start at the first power on sequence. It will always boot at consequent power on cycles, if the time between them is < 1 minute.

This Errata is valid for all DIMM-MX53x boards with layout revision R1, R2 and R3

2.3 Projected Impact

It could be that the DIMM-MX53x boards doesn't always boot, if no battery or always on voltage is connected to the BAT pin on the baseboard.

2.4 Workaround

There are three workaround possibilities. Only one workaround is necessary. Workaround 1 is the most recommended solution.

- 1) Connect a battery or an always on voltage to the BAT pin on the baseboard.
- 2) Set the reset time of the RESI# to 1.5 s on the baseboard.
- 3) Do a second power on sequence if the processor did not boot.

2.5 Proposed Solution

This issue will be fixed at DIMM-MX53x boards with layout revision R4.

3 Errata 3 – Wrong Ethernet Speed LED polarity

3.1 Product affected

Product affected	Part Number	Rev.
DIMM-MX53x-3-x/x		all R3 revisions

3.2 Description

On DIMM-MX53x-3 board the Ethernet SPEED_LED# polarity is inverted. In the DIMM-MX53x HW Manual Speed LED polarity is described as here.

- SPEED_LED# low: 100Mb/s
- SPEED_LED# high: 10Mb/s

But on the DIMM-MX53x-3 boards the polarity is

- SPEED_LED# low: 10Mb/s
- SPEED_LED# high: 100Mb/s

This Errata is valid for all DIMM-MX53x boards with layout revision R3

3.3 Projected Impact

The signal Ethernet SPEED_LED# is inverted on DIMM-MX53x-3 modules.

3.4 Workaround

N/A

3.5 Proposed Solution

This issue will be fixed at DIMM-MX53x boards with layout revision R4.