To Our Valued Customers,

This note is related to our iMX RT1176 uCOM boards (product numbers: EAC00377 and EAC00381), revisions PA4, A and PB1. Only a few boards have been released of these initial board versions. At the time of writing, the current board revision is C1 and the issue no longer exists.

The voltage signaling level on the MDC/MDIO signals is 1.8V and this is out-of-spec. We have not experienced any problems during production test but under some circumstances it can be impossible to communicate with the Ethernet-Phy over the MDC/MDIO interface. The solution is simple and only requires a small rework, see below. Remove one resistor on the top side and mount one on the bottom side. The signaling voltage is changed to 2.5V.

Remove the resistor in SJ3 from the top side.

Mount a zero ohm 0201-size resistor, or solder bump, on the bottom side.
Identification
The issue affects boards of revision PA4, A and PB1. These are all produced (in a small total number) before November 2021. All boards from Embedded Artists have a marking: WO-XXXX-YYWW, where XXXX is the WO-number. YY is the year and WW is the week number when the board was produced.
The affected boards will have a WO-number below or including: XXXX < 1099, and have board revisions “PA4”, “A” or “PB1”. See picture below how to identify the board.

Board revision marking on top side, rev PA4 in this case.

Example of the WO-number on the bottom side.

Kind Regards,
Embedded Artists AB
January 20th, 2023