



Apalis iMX8 Starter Kit Errata Document



Document Revision History

Date	Doc. Rev.	Notes
2018-10-03	Rev. 1.0	Initial Release

Overview

Errata #1: Module reboots due to too low overcurrent protection	3
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Errata #1: Module reboots due to too low overcurrent protection

Affected Version: **Starter Kit with Ixora (delivered before October 8 2018)**
Starter Kit with Apalis Evaluation Board (delivered before October 8 2018)

Fixed in: **Starter Kit with Ixora (delivered after October 8 2018)**
Starter Kit with Apalis Evaluation Board (delivered after October 8 2018)

1.1 Description

Apalis Evaluation Board V1.0 and V1.1, as well as the regular Ixora V1.0 and V1.1, have the 3.3V power supply current limit set to 5A. The peak current consumption of the Apalis iMX8QM can exceed this limit under stress conditions like processor and GPU intensive tasks, this leads to a reboot of the system. For more information regarding this issue, please check the according errata documents of the Apalis Evaluation Board and Ixora carrier board.

On all Carrier Boards in the Apalis iMX8 Starter Kits the current sensing resistors have been replaced by hand with a 0Ω resistor to allow for a higher current limit. Unfortunately, the tolerance of the new 0Ω resistor is too big so it is not exactly 0Ω, which can lead to a too low current limit of around 3A.

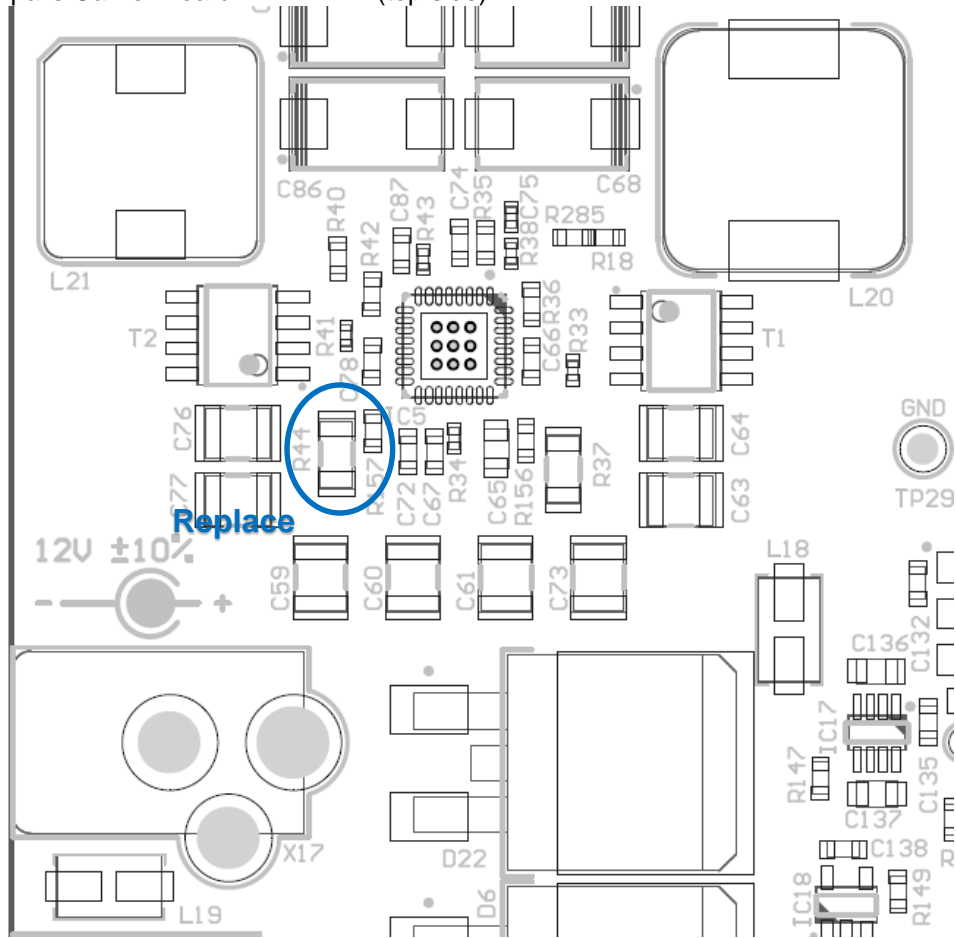
1.2 Workaround

The 0Ω current sense resistor (R44) needs to be replaced with a resistor that has ≤ 10 mΩ resistance. This can be any 1206 sized **shunt** resistor with a resistor value of 10 mΩ or lower or a “true zero ohm” resistor with a low maximum resistance (for example Keystone 5108 https://www.keyelco.com/product.cfm/product_id/14040). Make sure the resistor is properly soldered. Use enough heat and solder.

Alternatively, it is possible to short the current sense resistor. Use thick piece of wire or desoldering braid. The total resistance of the connection needs to be below 10 mΩ

1.2.1 Location of the current sense resistor:

- Apalis Carrier Board V1.1A **R44** (top side)



- Ixora V1.0A **R9** (top side)

