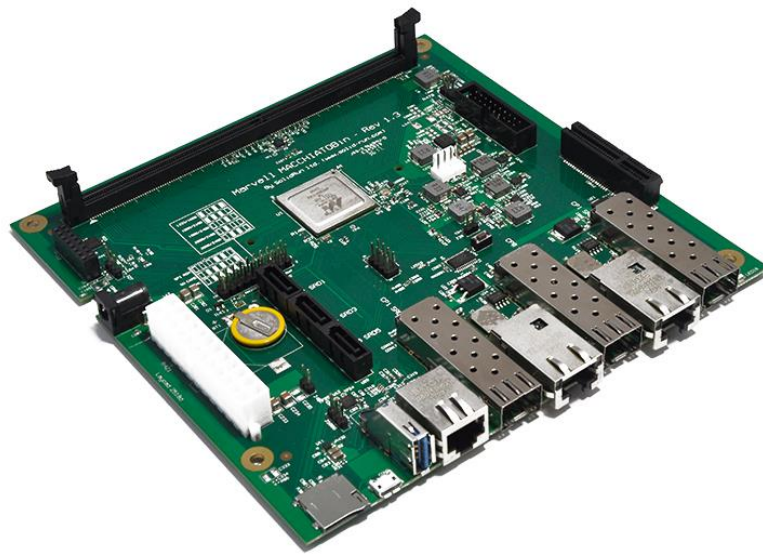![SolidRun — SIMPLE. ROBUST. EMBEDDED COMPUTING]

Product Change Notification
PCN# 000120171205

- PCN for MACCHIATObin which will be transitioning from: Revision 1.2 to Revision 1.3

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Simple. Robust. ComputingSolutions

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Background

SolidRun will be transitioning the MACCHIATObin from Revision 1.2 to Revision 1.3 offering several bugs fixing and enhancements.   The new version will be available starting the 10.12.2017 on our online store.

https://www.solid-run.com/marvell-armada-family/armada-8040-community-board/

Effected products:
SRM8040S00D00GE008D00CH - Marvell MACCHIATObin Double Shot|R1.2

This notification period is per Solidrun Ltd. standard process.

Affected SKUs

The impacted SKUs are all of the SKUs for Intel Braswell family. Please see an example information below on the changes of the SKUs. Different RAM/DDR configurations also apply.

EOL Product		Replacement Product	
SKU	Description	SKU	Description
SRM8040S00D00GE008D00CH	Marvell MacchiatoBIN Double Shot|R1.2	SRM8040S00D00GE008D01CH	Marvell MacchiatoBIN Double Shot|R1.3

Motives

The motives for this product revision are minor bug fixes and improvements.

Changes in schematics electrical design

The following changes were done in the electrical design:

Bug fixes:
1. PCIe reset pull down. For PCIe compliance, reset signal must be low until clocks are stable.
2. Fix 5v and 3.3v VBYP on Richtek RT7251 and RT7250 DC-DC
3. eMMC signals power domain is fixed 3.3v (VDDO_H).

Enhancements:
1. Replace fixed LED with one GPIO controlled. Change Fixed to become "facing up" and place inside board
2. Remove CPU domain shunts in order to remove IR drop.
3. Remove DDR domain shunts and power gating transistor in order to remove IR drop.
4. Moved USB type C (Mochi) to be unassembled by default
5. Both single and double shot versions will support heatsink + fan. Heatsink with fan chosen - a 6.7 CFM with 12v very quiet without PWM controlled
6. Replaced DIP switches with 2x10 100mil pin header. This provides the ability to expose the bus on a front panel.
7. Add three pin UART header to the console UART (in parallel with FTDI).

New features:
1. Added feature - SFP+ pass through for single shot SKU
2. Added feature - Added pull up/down to identify single shot vs. double shot SKUs.

Changes in layout

The following changes were done in the layout:

1. Enhancement - Moved micro USB to component side since it conflicts with some micro ATX chassis.
2. Enhancement - Moved reset button away from the processor heatsink to make it more accessible.
3. Enhancement - Moved JTAG connector away from beneath the PCIe connector to make it possible to connect a x8 and x16 PCIe cards on the x4 connector without conflicting with the JTAG connector.
4. Enhancement - Modified x4 PCIe connector to be open slot. With this change a x8 and x16 can be inserted.
5. Enhancement - Improved DDR GND vias under 8040 in order to remove IR drop from the supply to the processor balls.
6. Enhancement - Document connectors on component side silk screen.
7. Enhancement - Document 2x10 100mil header on component side silk screen (in order to choose frequencies and boot device).
8. Enhancement - Moved SFP+ back to be aligned with 1Gbps RJ45 and the rest of the connectors. Notice that the dual 10Gbps RJ45 connectors available in the double shot are 3mm outside that line.
9. Enhancement - Add NPTL mechanical holes to mount heatsink and fan assembly
10. Enhancement - Enlarged rectangle drawing of Armada 8k processor on component side silk screen.
11. Enhancement - Moved SD Card slot towards the inner of the PCB in order to avoid conflict with some micro ATX chassis.
12. Enhancement - Rearrange SATA connectors placement in order to support right angle SATA cables.

Embedded Software

Double shot software is backward compatible with rev 1.2 and older of the MCBin.
Single shot will have modifications to accommodate the fact that 10G SERDES are directly connected to the SFP+ connectors.

Contact

Please contact SolidRun if you have any questions.

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For technical questions please email: support@solid-run.com