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MNT Quasar 8550 Processor Module for MNT Pocket Reform

Thank you for purchasing the MNT Quasar with Qualcomm QCS8550. This open hardware processor module for your MNT Pocket Reform offers significant CPU and GPU performance increases as well as high energy efficiency. We hope you'll enjoy the enhanced productivity and fun it brings.

Installation

During installation, **refer to the pictures on the back of this page for guidance.**

1. **Toggle off the Standby Power Switch ⚠** of Pocket Reform (in doubt, refer to the Operator Handbook).
2. Open the top back plate of Pocket Reform and remove your previous processor module from the mainboard, including any cables.
3. Connect the **33-pin DSI cable with opposite contacts** to the DSI connector on the underside of Quasar. The blue side of the cable faces up (so you can see it). Connect the other end to the matching connector on the Pocket Reform mainboard (blue side must face up on this side, as well).
4. If you have a Wi-Fi/BT headset board, connect the **20-pin Wi-Fi/BT cable with same-side contacts ⚠** to the Wi-Fi/BT connector on the underside of Quasar, and its other end to the connector on the Wi-Fi/BT board. The blue sides on both ends of the cable have to face up.
5. If you have Pocket Mainboard 2.0, connect the **20-pin DP cable with opposite contacts ⚠** to the DP connector on the top of Quasar, and the other end to the DP IN connector on the mainboard (near the ports). Again, blue sides up.
6. Push the module into the CPU slot of your Pocket Reform mainboard at a 45 degree angle and then press it down until it clicks into place.
7. Remove the films on both side of the thermal pad and apply the pad to the center of the processor (metal box) on Quasar, and reattach the lid of Pocket Reform.

Specifications

- Qualcomm Dragonwing QCS8550, 12GB LPDDR5 (PoP), 128GB UFS Storage
- CPU: 1x 3.2 GHz ARM Cortex-X3, 4x 2.8 GHz ARM Cortex-A715, 3x 2.0 GHz ARM Cortex-A510
- GPU: Adreno 740 (OpenGL 4.6, Vulkan 1.4)
- Card edge connector: 200 pin SO-DIMM (MNT Reform pinout)
- FPC connectors for: internal DP, MIPI-DSI, Wi-Fi/BT, 2x MIPI-CSI
- USB3.0/2.0, SD, I²S, I²C, SPI, PWM, GPIO
- Dual PCIe (3.0/4.0) controllers
- Gigabit Ethernet controller

Package Contents

- MNT Quasar 8550
- Thermal pad (2mm thickness)
- 33-pin DSI cable
- 20-pin Wi-Fi/BT cable (same-side contacts)
- 20-pin DP cable (opposite side contacts)

Software and Sources

The MNT Quasar module comes with the Debian GNU/Linux based MNT Reform System Image preinstalled on the integrated 128GB UFS flash, which is ready to go. If you ever need to reinstall, follow the instructions in the Operator Handbook.

System Images can be downloaded at:
https://mnt.re/system-image

Safety Instructions ⚠

- The module is a sensitive electronic part that can be damaged by static electricity. Make sure to ground yourself before touching it.
- Before installation, consult the safety instructions of your MNT computer and remove/disconnect all power sources including batteries from the system.

Warranty

MNT Research covers the warranty to the extent required by law for the unmodified product and following the safety instructions. Warranty doesn't cover any modifications made to the product.

CE

The product complies with the requirements of the European Directives and DIN standards:

- EMC Directive 2014/30/EU (EN 55032:2015/A11:2020, EN 55035:2017/A11:2020)
- Low Voltage Directive 2014/35/EU (EN 62368-1:2014)
- RoHS Directive 2011/65/EU (EN 63000:2018)

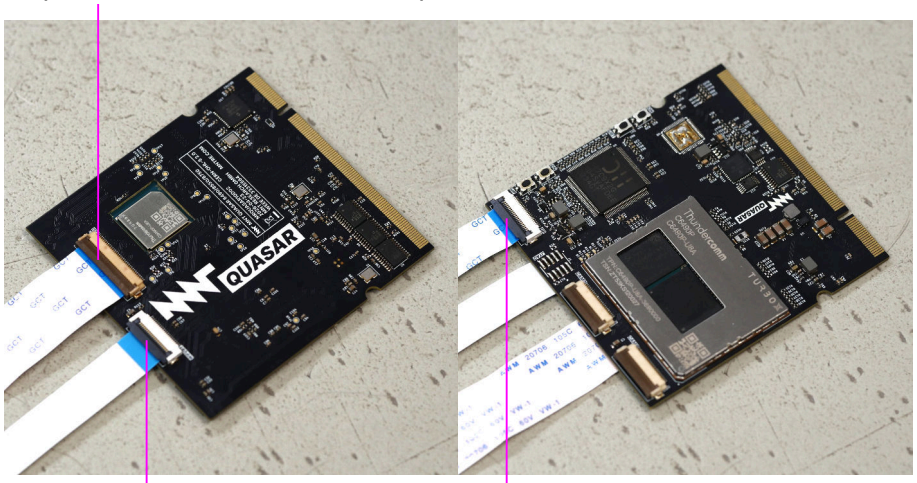
Get updates and source code at: **mntre.com/reform**

Need help? Post on **community.mnt.re** or write us at **support.mnt.re**

Join our IRC channel **#mnt-reform** on **irc.libera.chat**

Connections on Quasar

33 pins DSI cable, blue end on top

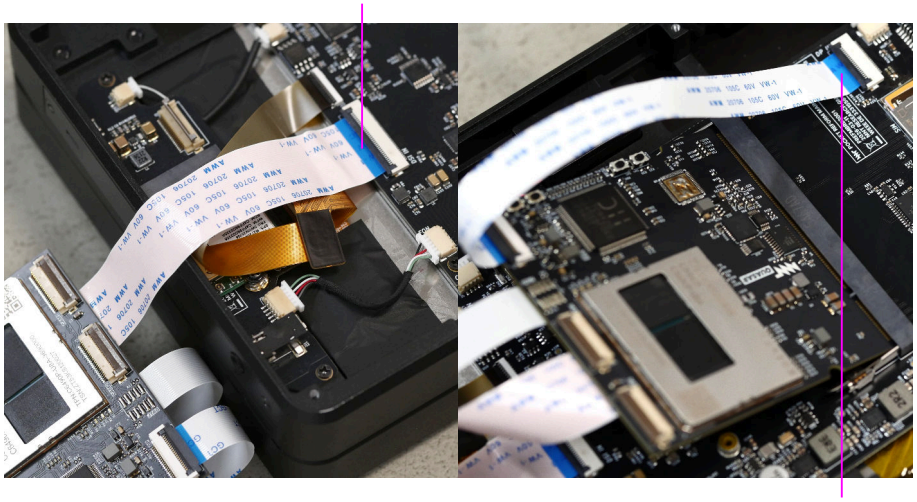


20 pins Wi-Fi/BT cable, **same side** contacts, blue end on top

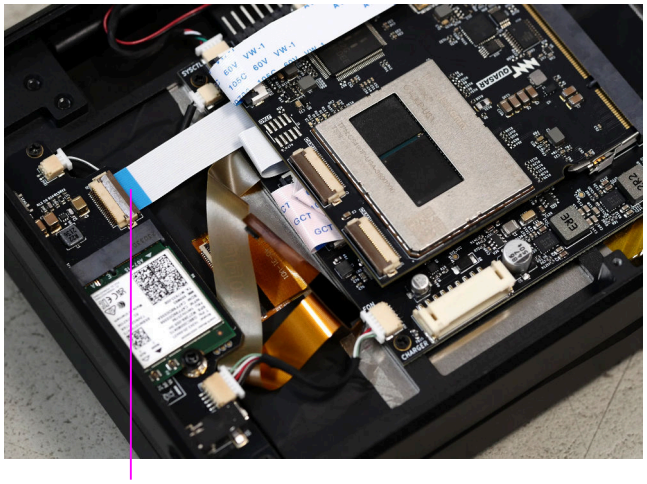
20 pins DP cable, **opposite side** contacts, blue end on top

Connections on Mainboard

33 pins DSI cable, blue end on top



20 pins DP cable, **opposite side** contacts, blue end on top



20 pins Wi-Fi/BT cable, **same side** contacts, blue end on top