

MNT RCORE RK3588 Processor Upgrade for MNT Pocket Reform, Version 2

Dear MNT Customer,

thank you for purchasing the MNT RCORE with RK3588. This processor module for your MNT Pocket Reform offers significant CPU, GPU and I/O performance increases as well as up to 32GB of RAM. 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. Turn off Pocket Reform's standby power switch. Remove the back cover of the top half of Pocket Reform. Remove your previous CPU module, including the MIPI DSI flat cable. To remove the flat cable, first loosen (pull) the black part of the connector a bit.
2. Push the RCORE module into the CPU slot of your Pocket Reform motherboard at a 45 degree angle and then press it down until it clicks into place.
3. Flip RCORE over and connect the included flat cable to the single connector on RCORE's back (blue part visible). Plug the other end of the cable (blue part visible) into the DSI connector on Pocket Reform's motherboard and secure it by pushing in the black part of the connector. Take your time and make sure the cable is straight and all the way in.
4. If your bundle includes the Wi-Fi expansion with Intel Wi-Fi/BT card, replace the original headphone board with it (see last picture on the back of this manual). Also discard the existing antenna, and attach the new antenna to the back plate in the location shown on the fifth picture. If your back plate is black on the inside instead of semi-transparent (as shown in the photo), we strongly recommend to upgrade to the new back plate (available in the MNT Shop) for better Wi-Fi reception.
5. Attach the included thermal pad on the RK3588 processor as pictured. Remove protective films from the thermal pad before attaching it. Carefully close up your Pocket Reform while making sure not to squeeze any cables.



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)



Specifications

- Includes Firefly iCore-3588Q (Rockchip RK3588, 16GB or 32GB RAM, 256GB eMMC)
- 4×2.4GHz Cortex-A76 + 4×1.8GHz Cortex-A55 CPUs
- ARM Mali G610 MP4 GPU (OpenGL ES 3.1, Vulkan)
- Card edge connector: 200 pin SO-DIMM card edge (mates with TE 1717254-1 or TE 1473005-1)
- FPC Connectors for: 1x internal HDMI, 1x MIPI-DSI (on back side), 1x optional Wi-Fi/BT expansion
- Dual PCIe controllers
- Dual display capable
- Gigabit Ethernet controller

Contents

- RCORE with iCore-3588Q and DSI display cable
- Option: Wi-Fi/BT expansion board with M.2 key E slot
- Thermal pad

Software and Sources

The RCORE module comes with the MNT Reform System Image (for MNT Pocket Reform) preinstalled on the 256GB eMMC flash, so you're ready to go.

Refer to the following page for important firmware and software updates:

<https://source.mnt.re/reform/pocket-reform/-/releases>

Hardware sources, schematics and software instructions are published at:

<https://source.mnt.re/reform/mnt-reform-rk3588-som>

Warranty

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

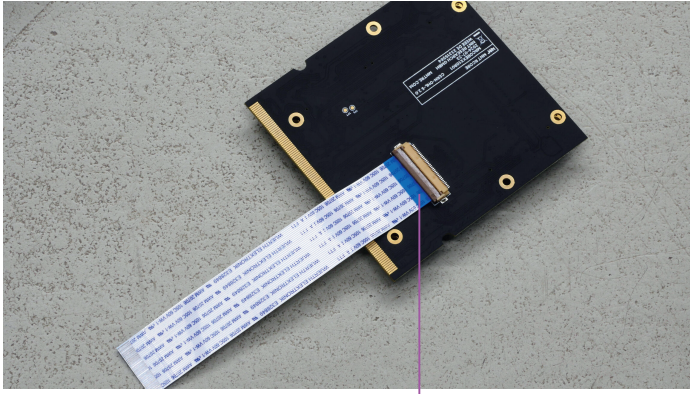
Safety Instructions ▲

- Electronic parts can be damaged by static electricity. Ground yourself before touching.
- Before installation, consult the safety instructions of MNT Reform and remove all power sources from the system.

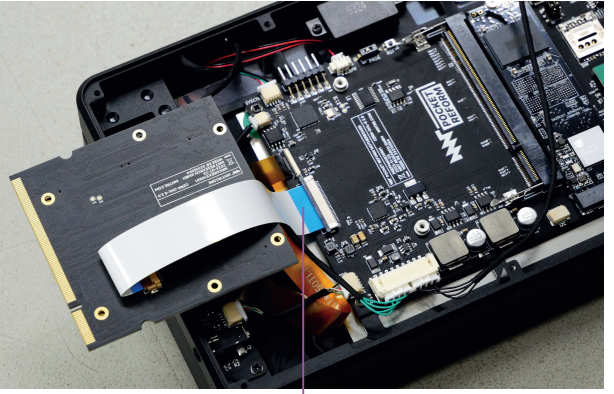
Get updates and source code at: [mntre.com/reform](https://source.mnt.re/reform)

Need help? Join community.mnt.re or write to support@mntre.com

Join our IRC channel [#mnt-reform](https://irc.libera.chat) on: irc.libera.chat

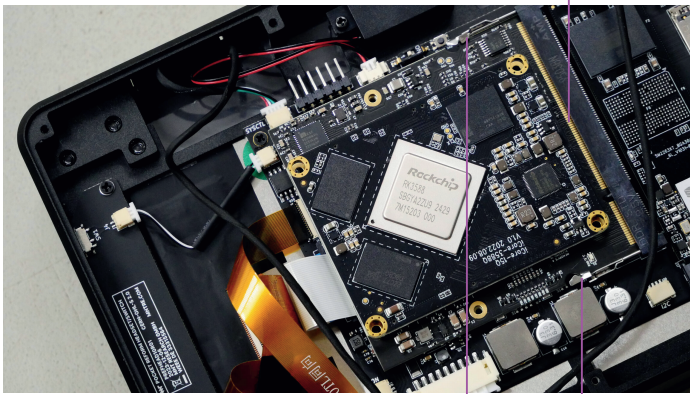


Blue end on top



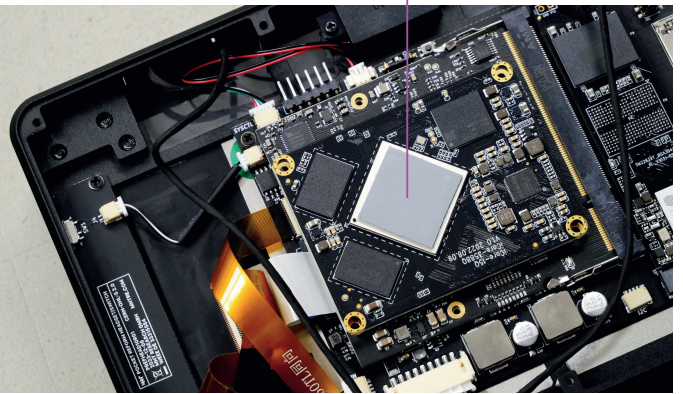
Blue end on top

Insert at 45° angle and push down



These make a clicking sound

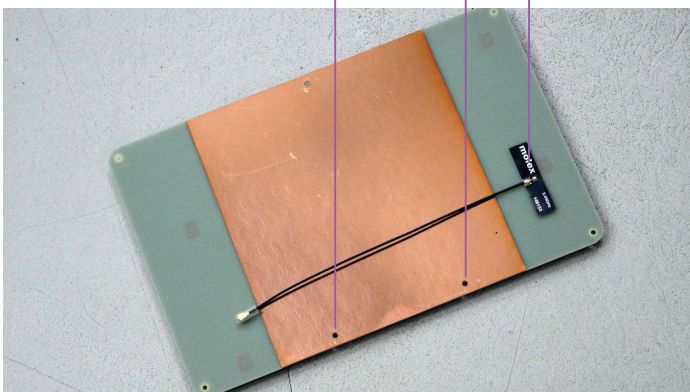
Apply thermal pad



RCORE V2's Wi-Fi expansion board replaces original headphone board

Place antenna here

Note two holes for correct orientation



Connect Wi-Fi antenna

Flex cable to RCORE Wi-Fi/BT port (V2/R3 version only)

