MNT RCORE RK3588 Processor Module

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 an M.2 SSD and/or M.2 Wi-Fi card, install them in their respective slots. Replace the Molex antenna with the included one, and attach the new antenna to the back plate in the location shown on the picture. If your back plate is black on the inside instead of semi-transparent (as shown in the photo), we 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.

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
- 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.

Should you want to start again with a fresh System Image, you can download the **pocket-reform-system-rk3588** image from the following URL, unpack and image it to a MicroSD card, which RCORE can boot automatically:
https://mnt.re/system-image

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.
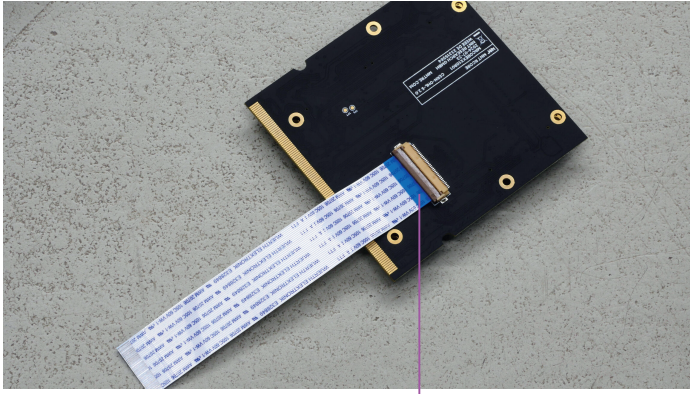
Safety Instructions ⚠

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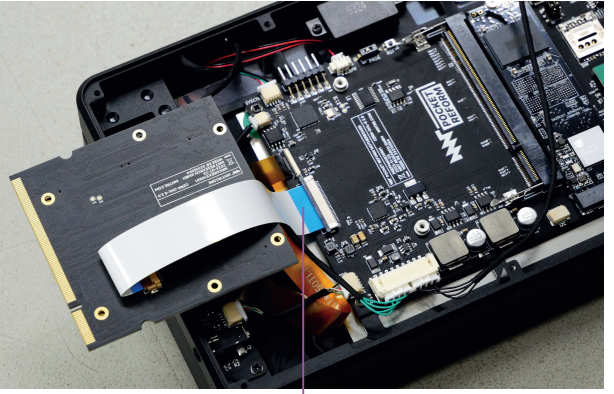
Get updates and source code at: **mntre.com/reform**

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

Join our IRC channel **#mnt-reform** on: **irc.libera.chat**
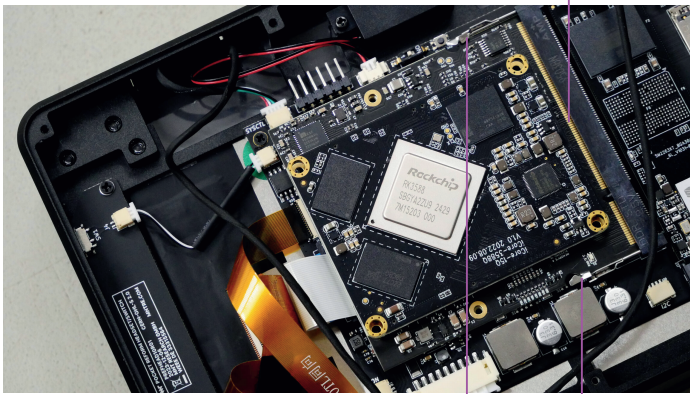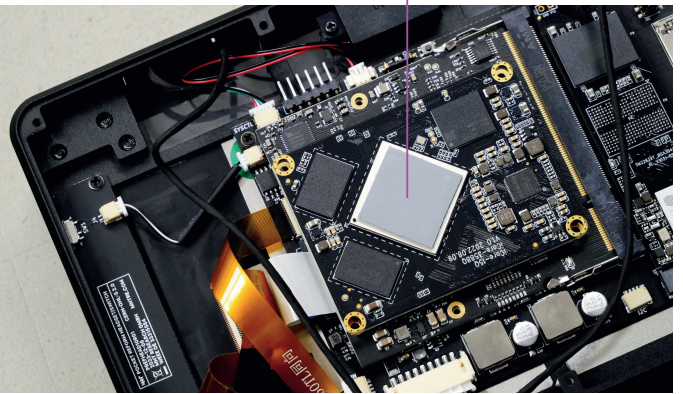
Blue end on top

Blue end on top
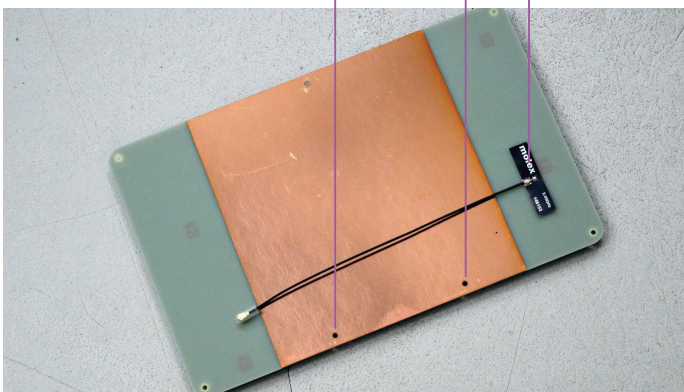
Insert at 45° angle and push down

Apply thermal pad

These make a clicking sound

Place antenna here

Note two holes for correct orientation

Connect Wi-Fi antenna