

Module, SBC, and mini-PC tap Rockchip RK3568

Mixtile's "Core 3568" module runs the hybrid Android/Linux Mixtile OS on a quad -A55 RK3568. The module powers a 3.5-inch "Edge 2" SBC with M.2, mini-PCIe, and PCIe 2.0 plus an optional enclosure (Edge 2 Kit).

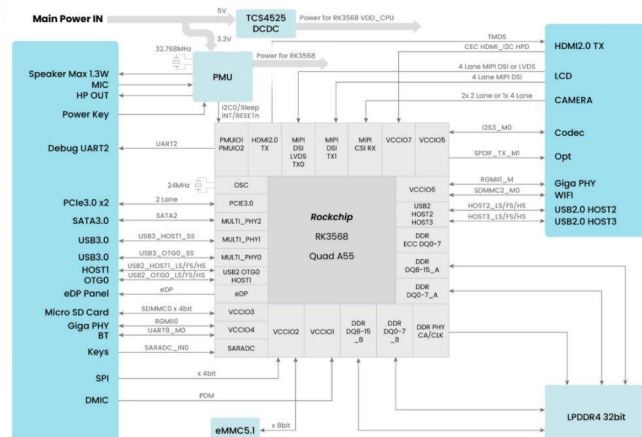
Earlier this month while covering the cluster-oriented, octa-core RK3588 based [Mixtile Blade 3](#) Pico-ITX SBC, we saw that Mixtile had product and shopping pages for a recently introduced Mixtile Edge 2 SBC powered by a Core 3568 with a Rockchip RK3568. There is also a Mixtile Edge 2 Kit mini-PC based on the Edge 2 SBC.

Like the Blade 3, the Core 3568 and Edge 2 products ship with a Mixtile OS BSP, which runs Linux in a container within Android 11.



Mixtile Core 3568 module (left) and Mixtile Edge 2

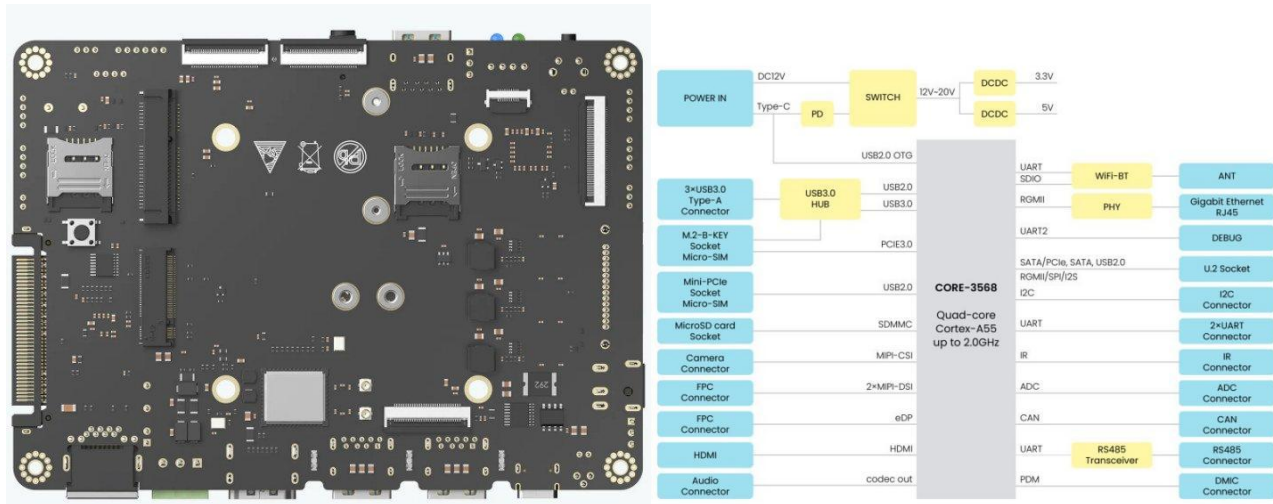
The RK3568 has been announced on a variety of embedded boards including the [Radxa E25](#) SBC and Forlinx [OK3568-C](#) SBC based on a FET3568-C module. The RK3568 has 4x up to 2.0GHz Cortex -A55 cores, an Arm Mali-G52, an 8MP ISP with HDR, and an 1-TOPS NPU for AI acceleration.



Mixtile Core 3568 detail view and block diagram

Mixtile Edge 2 and Edge 2 Kit

The Mixtile Edge 2 is available with the same memory configurations as the Core 3568 module. The SBC has a 140 x 100mm “3.5-inch” form factor.

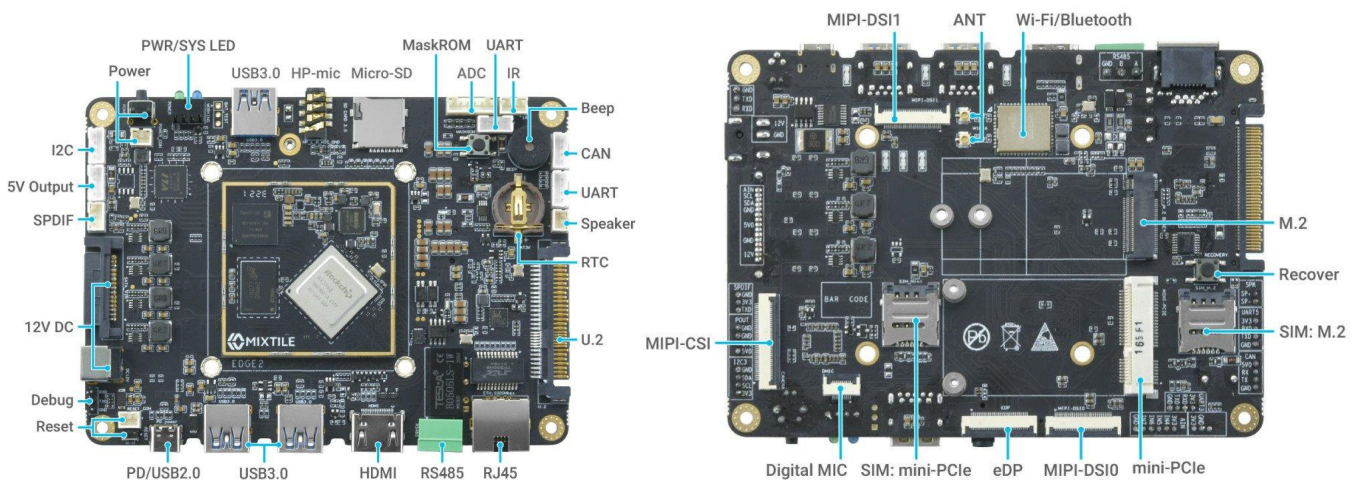


Mixtile Edge 2 back view (left) and block diagram

The 68-pin U.2 edge interface on the Edge 2 differs from that of the Blade 3 beyond its inability to be used for stacking connections. Instead of combining PCIe Gen3 x4 with SATA 3.0 and I2C, it combines SATA 3.0/PCIe 2.0, a standard SATA signal with 5V/3A power, USB 2.0, RGMII for Ethernet, SPI, and I2S.

The Mixtile Edge 2 has an M.2 socket with PCIe 3.0 and USB 3.0, which is accompanied by a SIM card socket. There is also a mini-PCIE slot with USB 2.0 and a SIM socket. Together, the slots support 4G, 5G, LoRa, and Zigbee modules. You also get 802.11ax (WiFi 6) with dual-mode Bluetooth 5.0 and dual WiFi antennas.

The Mixtile Edge 2 is equipped with a microSD slot, as well as GbE, 3x USB 3.0, and USB 3.0 Type-C with 5-20VDC PD power input. Media features include an HDMI 2.0 port and an eDP interface at up to 4Kp60 with H.265/H.264/VP9 video decode. You also get 2x MIPI-DSI, MIPI-CSIm an audio I/O jack, 3x digital microphone, a speaker connector, and SPDIF connections.



Mixtile Edge 2 detail views

The Edge 2 has a terminal plug interface for RS485 along with connectors for I2C, CAN, 2x UART, and 4x ADC. In addition to the wide-range Type-C port, you can draw power via a 12VDC input and output power via a 5VDC connector. Other features include an IR receiver, MaskROM button, recovery key, beeper, 2x LEDs, debug interface, and an RTC with battery backup.



Mixtile Edge 2 Kit

The Mixtile Edge 2 Kit, which adds a metal enclosure to the Edge 2 SBC, available for 2GB/16GB and 4GB/32GB versions. The 204 x 152 x 75mm system provides access to all major ports, including the RS485 terminal plug. We did not see any cutouts for the U.2, MIPI, and other internal connectors, but it appears you can remove the sides of the system for access.

Further information

Pricing for the Mixtile Core 3568, Mixtile Edge 2, and Mixtile Edge 2 Kit is detailed above. More information may be found on Mixtile's [Mixtile Core 3568 shopping page](#) and [Mixtile Core 3568 product pages](#), as well as the [Mixtile Edge 2 shopping](#) and [Mixtile Edge 2 product](#) pages and the [Mixtile Edge 2 Kit shopping](#) and [Mixtile Edge 2 Kit product](#) pages.