

Edge 2 Kit

IoT Edge Computer

MIXTILE

High Performance Edge Computing Single Board Computer

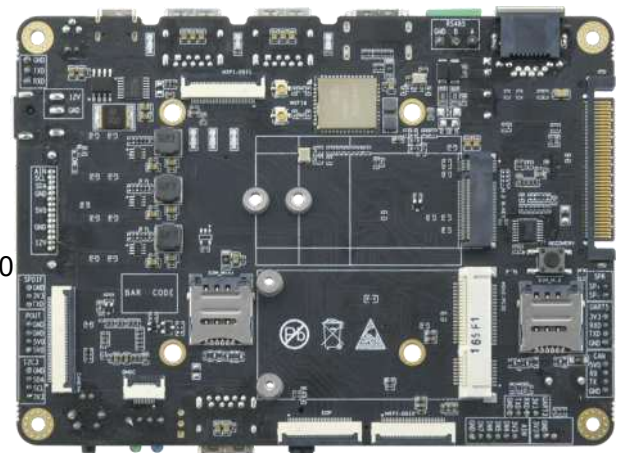
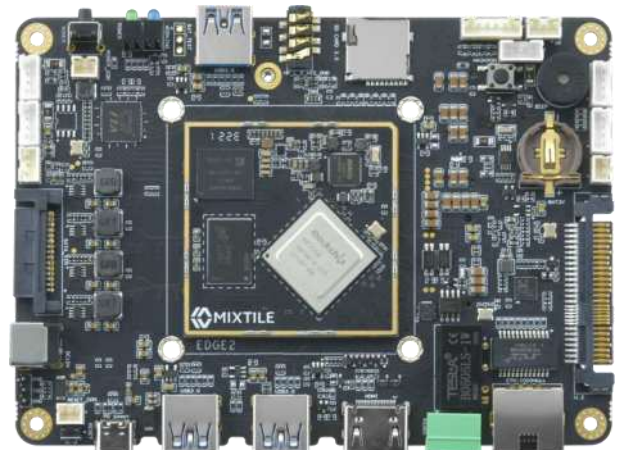
Edge 2 is a MIXTILE designed high-performance single-board computer targeted for a wide range of IoT networking & computing applications. The single board computer features the Rockchip Quad-core Cortex-A55 SoC Processor up to 2.0GHz, LPDDR4 SDRAM, and eMMC Flash Memory provided by MIXTILE System-on-Module Core 3568. The high-power M.2 and Mini-PCIe expansion sockets support a combination of 5G/4G cellular modules, LoRa, Zigbee, and other wireless technologies modules.

Edge 2 Kit is based on Edge 2, just adds one customizable enclosure and two external Wi-Fi antennas.



Main Features

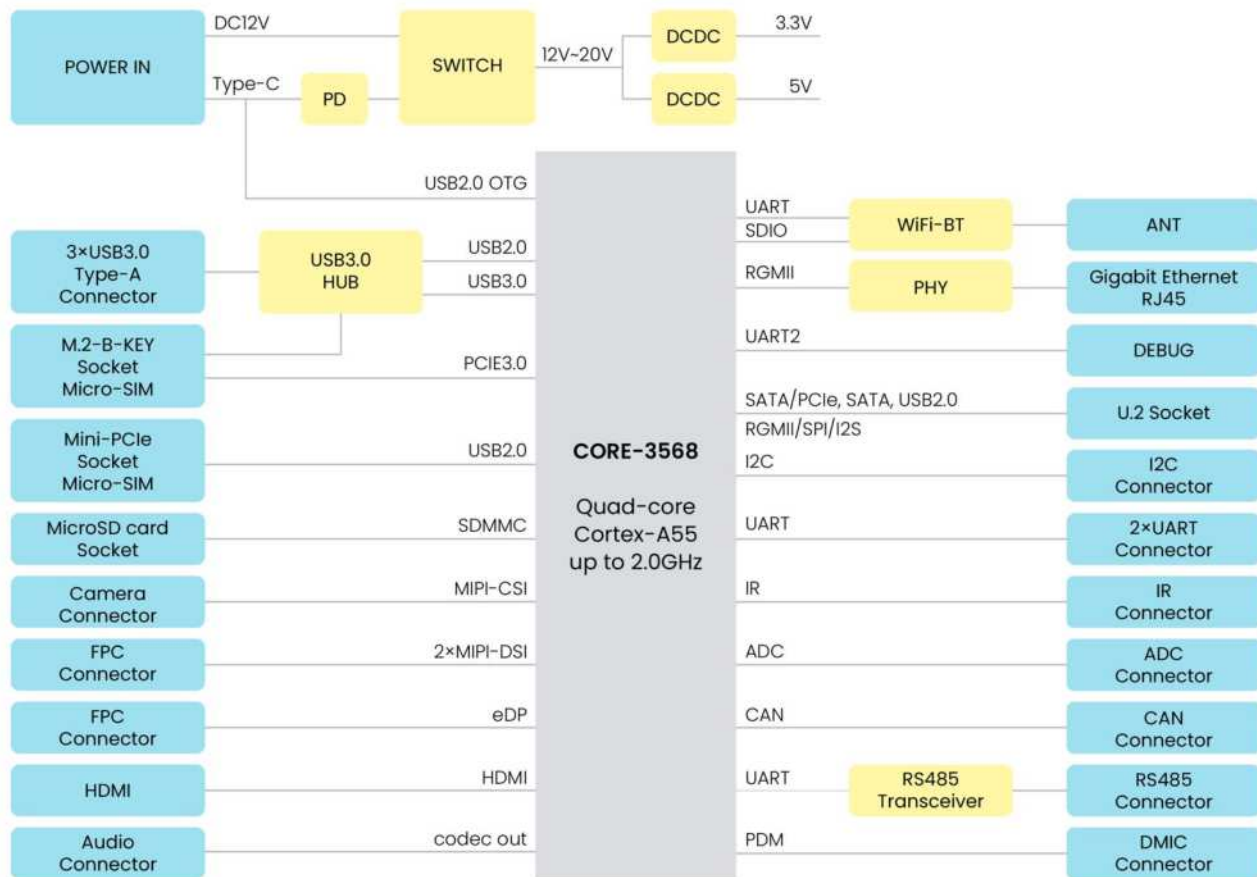
- MIXTILE System-on-Module Core 3568
 - Quad-core Cortex-A55 SoC RK3568 up to 2.0GHz
 - 2/4GBytes LPDDR4 SDRAM Memory
 - 16/32GBytes eMMC Flash Memory
 - 1 Tops NPU
- Wi-Fi 6 802.11ax
- Dual-Mode Bluetooth 5.0
- Support 4G/5G/LoRa/Zigbee module
- 1x Gigabit Ethernet Port
- 1x MicroSD 3.0 Flash Expansion Socket
- 3x USB 2.0/3.0 ports up to 5Gbps
- 1x M.2 Socket: PCIe 3.0, USB 3.0, SIM Socket
- 1x Mini-PCIe Socket: USB2.0, SIM Socket
- 1x HDMI2.0, 1x eDP, 2x MIPI-DSI, and 1x MIPI-CSI
 - 4KP60 H.265/H.264/VP9 video decoder
 - 1080P100 H.264/H.265 video encoder
- 1x RS485, 1x CAN, 1x I2C, and 2x UART
- 3x PDM, 1x SPDIF, 1x Speaker, 1x IR, and 4x ADC
- 1x U.2 Socket: SATA/PCIe, SATA, RGMII/SPI/I2S, USB2.0
- Real Time Clock with Battery Backup
- 2x power supply ports:
 - Type-C PD3.0 Power input (Max 3A @ 20V)
 - 12V DC/SATA Power input (Max 3A)
- Android 11 and Linux Board Support Packages
- 0 to +80°C Operating Temperature



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Edge 2 Block Diagram

Electrical

- Input Voltage:
 - 5 to 20VDC PD Type-C*
 - 12VDC DC jack / SATA power port

*Power charger must support PD2.0/PD3.0 protocol, could only use USB-C to USB-C cable for PD2.0/PD3.0 protocol.

- Output Voltage:
 - 5VDC
- Operating Current:
 - Maximum 3A @ 20VDC

Mechanical

- PCBA Dimensions: 100mm x 140mm
- Enclousure Dimensions: 148mm x 105mm x 32mm

Environmental

- Operating Parameters
 - Temperature: 0 to +80°C

Development kit

- MIXTILE Edge 2
- 1x USB-C Cable
- 2x Wi-Fi 2.4G/5G antennas
- Android 11 and Linux Board Support Packages

Product Customization

The Edge 2 can be customized for different demands.

- System-on-Module Pin to Pin family
- LPDDR4 SDRAM from 2GBytes to 8GBytes
- eMMC Flash from 16GBytes to 256GBytes
- Remove or add optional peripherals