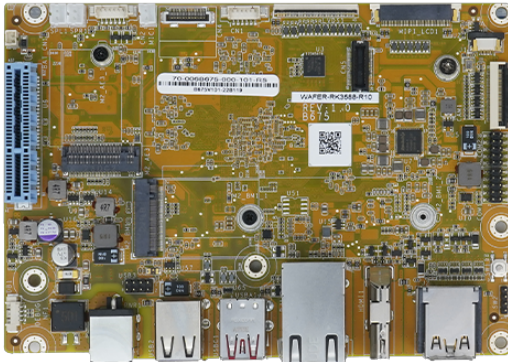


WAFER-RK3588

3.5" SBC supports Rockchip RK3588 Processors with 8GB LPDDR4x memory & 32GB eMMC NAND FLASH on board default, single HDMI™ input and dual HDMI™ out, 2.5GbE LAN, GbE LAN, USB 3.2 GEN 1, USB 2.0, 0°C ~ 60°C and RoHS



Features

- » 3.5" SBC with Quad-core Cortex-A76 and quad-core Cortex-A55, up to 2.4GHz
- » Built-in AI accelerator NPU with processing performance of up to 6.0 TOPS, supports int4/int8/int16/FP16/BF16/TF32
- » Built-in 4 core GPU Mali G610 (4x256KB L2 Cache) supports OpenGL ES 3.2/OpenCL 2.2/Vulkan 1.1
- » Multi-channel input output: 4K HDMI™ input, 8K HDMI™ output, MIPI, LVDS, MIPI_DSI and Camera MIPI_CSI input
- » Rich I/O: 2.5GbE, GbE RJ45, USB 3.2 GEN 1, USB 2.0
- » Expansion slot: PCIe 3.0 x2, M.2 B/M key, M.2 A/E key
- » Optional WiFi5/WiFi6/BLE 5.0
- » OS supports Android13 / Debian 11 (Linux Kernel 5.10)

Specifications

| | |
|--------------------------|--|
| Form Factor | |
| Form Factor | 3.5" SBC |
| System | |
| CPU | » Processor: Rockchip RK3588 (Quad core Cortex A76 + Quad core Cortex A55) » GPU: ARM Mali-G610 MP4 » NPU: 6TOPS supports int4/int8/int16/FP16/BF16/TF32 |
| Memory | On-board 8GB LPDDR4x |
| Supported OS | Android 13, Linux Debian 11 |
| Physical Characteristics | |
| Dimensions (LxWxH) (mm) | 146 x 102 |
| Storage | |
| Storage | 1 x SATA : 3.0 up to 6 Gb/s eMMC : 32GB NAND Flash for OS and IEI's boot loader |
| I/O Interface | |
| Display Output | 2 x HDMI™ - 1 x HDMI-output up to 8K@60Hz 1 x HDMI-output up to 4K@60Hz 1 x LVDS 1 x MIPI DSI |
| Ethernet | 2 x LAN - 1 x GHz LAN 1 x 2.5 GHz LAN |
| Audio | Description: Pin header to Mic-in / line-out jack 2 x Speaker (2pin header) |
| I/O Interface | 2 x External USB 2.0 (Type A) 3 x Video - 1 X HDMI-input up to 4K@60FPS 1 x HDMI-output up to 8K@60Hz 1 x HDMI-output up to 4K@60Hz |

| | |
|-----------------------|---|
| | 2 x External USB 3.2 Gen1x2 - 1 x USB 3.2 GEN 1 Type C with DP (OS update) 1 x USB 3.2 GEN 1 Type A |
| | UART (2x9pin header) |
| Expansion | 2 x M.2(NGFF) - |
| | 1 x M.2 2230/2280 B/M key (PCIe 3.0 x2) |
| | 1 x M.2 2230 A/E key (PCIe 2.0 x1) |
| | 1 x PCIe (PCIe 3.0 x2) |
| Wireless | |
| Wi-Fi | Support Wi-Fi 5/6 (board to board IEI module optional) |
| Bluetooth | Bluetooth V5.0 optional |
| Other Features | |
| Camera | Support MIPI CSI |
| Power | |
| Input | 12V DC |
| Environment | |
| Operating Temperature | 0°C ~ 60°C with air flow |
| Storage Temperature | -20°C ~ 60°C |
| Humidity | 5% ~ 95% relative humidity, non-condensing |
| Certifications | |
| Safety & EMC | EMC Class B |

Ordering Information

| | |
|-----------------------|---|
| WAFER-RK3588-D/CE-R10 | 3.5" SBC supports Rockchip RK3588 Processors with 8GB LPDDR4 memory & 32GB eMMC NAND Flash, Debian platform |
|-----------------------|---|

Packing List

| | |
|--|---------|
| 1 x WAFER-RK3588 single board computer | 1 x QIG |
|--|---------|