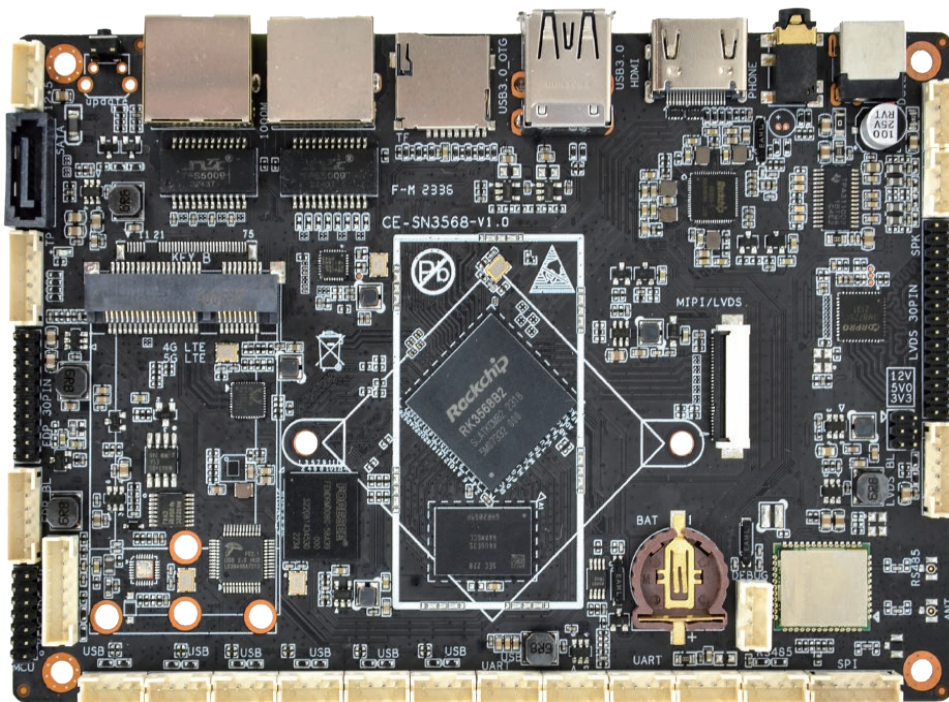


R3568-01



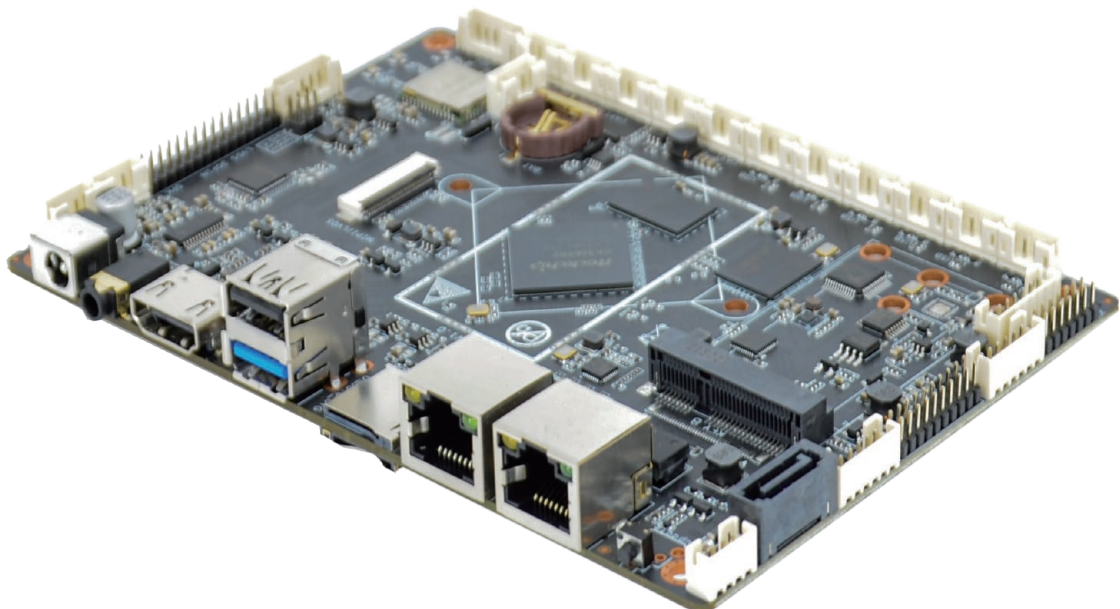
R3568-01 Single Board Computer

Overview:

R3568-01 is a single board computer based on Rockchip RK3568B2 quad-core Cortex-A55 processor, can be widely used in industrial control, energy and electricity, intelligent medical devices, instruments and apparatus, and security monitoring, etc.

Main Features:

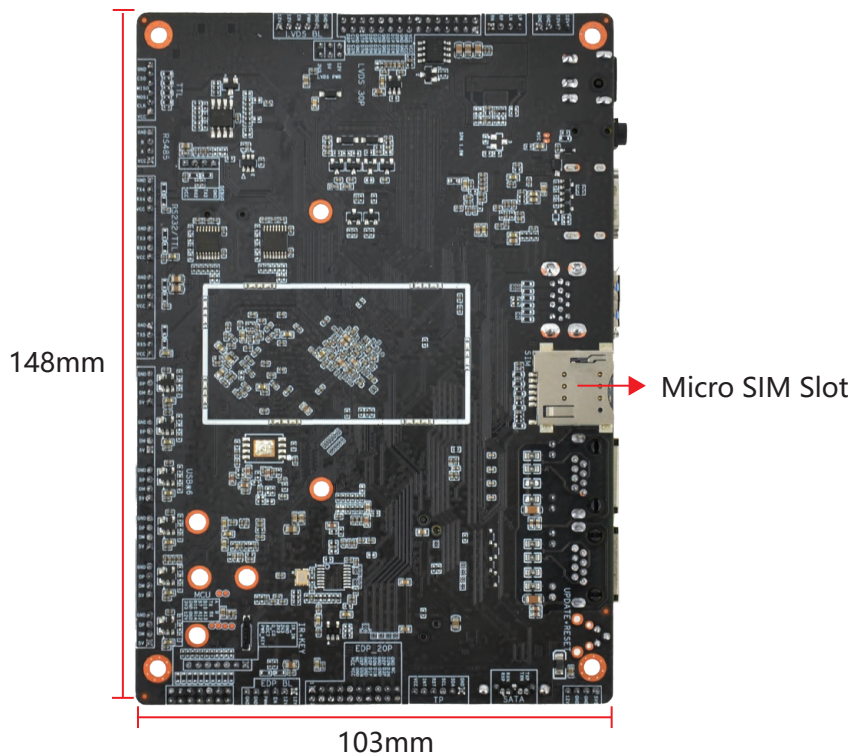
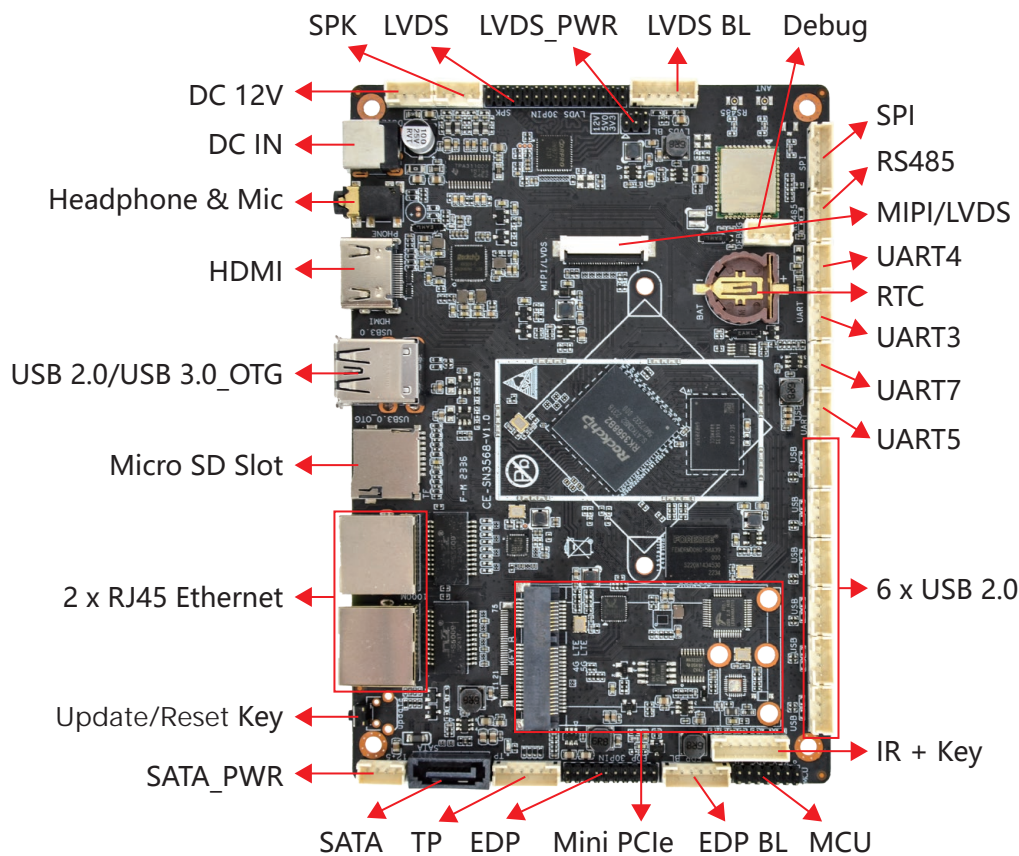
- Quad-core 64bit Cortex-A55 up to 2.0GHz;
- 1 TOPS NPU;
- Mali-G52 GPU with high-performance 2D accelerator, supports OpenGL ES 1.1/ 2.0/ 3.2, OpenCL 2.0 and Vulkan 1.1;
- Multimedia:
 - (1) Supports 4K 60fps H.265/ H.264/ VP9 video decode;
 - (2) Supports 1080P 60fps H.265/ H.264 video encode;
 - (3) Supports 8M ISP, HDR.
- Display:
 - (1) Supports asynchronous display;
 - (2) Multiple video input/output interfaces, including eDP/ HDMI2.0/ MIPI/ LVDS/ 24bit RGB/ EBC.
- Rich interfaces, including USB2.0/ USB3.0/ PCIE3.0/ PCIE2.1/ SATA3.0/ QSGMII.



Specification:

System	
CPU	Rockchip RK3568B2, 4 x Cortex-A55 2.0GHz, comes with an integrated neural processing unit (NPU) that delivers up to 1.0 TOPS.
Memory	1) Default: 2GB LPDDR4X (4GB/8GB optional) 2) 2GB/4GB/8GB LPDDR4 optional
Storage	Onboard 8GB eMMC (16GB/32GB/64GB/128GB/256GB optional) Expansion: Micro SD card (8GB/16GB/32GB/64GB/128GB/256GB optional)
OS	Android 13, Yocto-L6.6.23_2.0.0 , Debian 12
Boot	Boot from eMMC
Communication	
Ethernet	2 x 10/100/1000Mbps RJ45 Ethernet ports
Wi-Fi & BT	2.4GHz & 5GHz Wi-Fi, bluetooth 5.0, external Wi-Fi SMA antenna connector
Video & Audio	
HDMI	1 x HDMI output, Type-A
LVDS	(1) 1 x LVDS, 2 x 15Pin header (2) 1 x LVDS backlight control, 6Pin header (3) 1 x LVDS power, 2 x 3Pin header
MIPI DSI/LVDS	1 x MIPI DSI/LVDS, 30Pin/1.25mm FPC jack
EDP	(1) 1 x EDP, 2 x 10Pin header (2) 1 x EDP backlight control, 6Pin header
Audio	(1) 1 x 3.5mm headphone and mic combo (2) 1 x 4Pin SPK
Other I/O Interfaces	
USB	(1) 6 x USB 2.0 Host, 4Pin connector (2) 1 x USB 3.0 OTG & USB 2.0, double-layer Type-A
Debug	1 x Debug, 4Pin connector
UART	4 x UART (RS232/TTL), 4Pin connector
RS485	1 x RS485, 4Pin connector
SPI	1 x SPI, 6Pin connector
TP	1 x TP, 6Pin connector
SATA	(1) 1 x SATA (2) 1 x SATA power 5V/12V, 4Pin connector
Mini PCIe/M.2	1) 1 x Mini PCIe 4G 2) 1 x PCIe, M.2 B-KEY optional (Notice: You can only choose the MiniPCIe slot or the M.2 slot)
Card Slots	(1) 1 x Micro SD slot (2) 1 x Micro SIM slot
MCU	1 x MCU, 2 x 7Pin header
RTC	1 x RTC
Infrared Ray	1 x IR+Key, 7Pin connector
DC Power	(1) 1 x DC power socket for 5.5mm x 2.1mm plug (2) 1 x Internal power, 4Pin/2.54mm connector
Power Supply	
Power Supply	DC 12V/3A power input for default
Mechanical	
Dimensions	148.0mm(L) x 103.0mm(W)
Weight	104g
Operating Temp.	0°C to 70°C, commercial grade

I/O Interfaces:



Safety Instruction and Warnings :

General :

- Avoid exposure to water, moisture, and conductive surfaces while operating.
- Handle with care to avoid mechanical or electrical damage to the circuit board and connectors.
- Only handle the board by the edges when powered on to minimize the risk of electrostatic discharge damage.

Power :

- Use only a 12V/3A DC minimum external power supply that complies with relevant regulations and standards for your country.

Environment:

- Operate in a well-ventilated environment, even if using a case.
- Place on a stable, flat, non-conductive surface and avoid contact with conductive items.

Connections :

- Use peripherals that comply with relevant standards for the country of use and ensure proper insulation and operation.

Additional notes :

- This summary is not exhaustive, please refer to the full User Manual for details.
- If you are unsure about any aspect of safety or operation, consult a qualified professional.

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