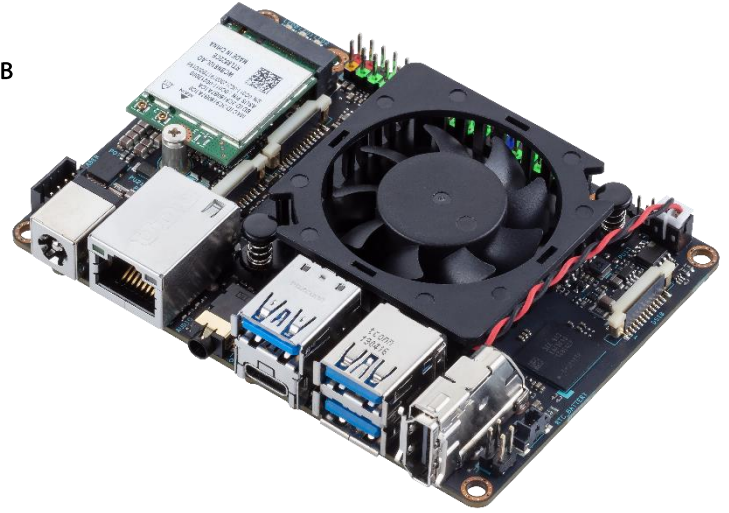


TINKER EDGE R

Pico-ITX SBC, Rockchip RK3399Pro Hexa-core, NPU for AI, 4GB SYS & 2GB NPU RAM, 16GB eMMC, HDMI, MIPI-DSI, MIPI-CSI, 12-19V DC in

Features

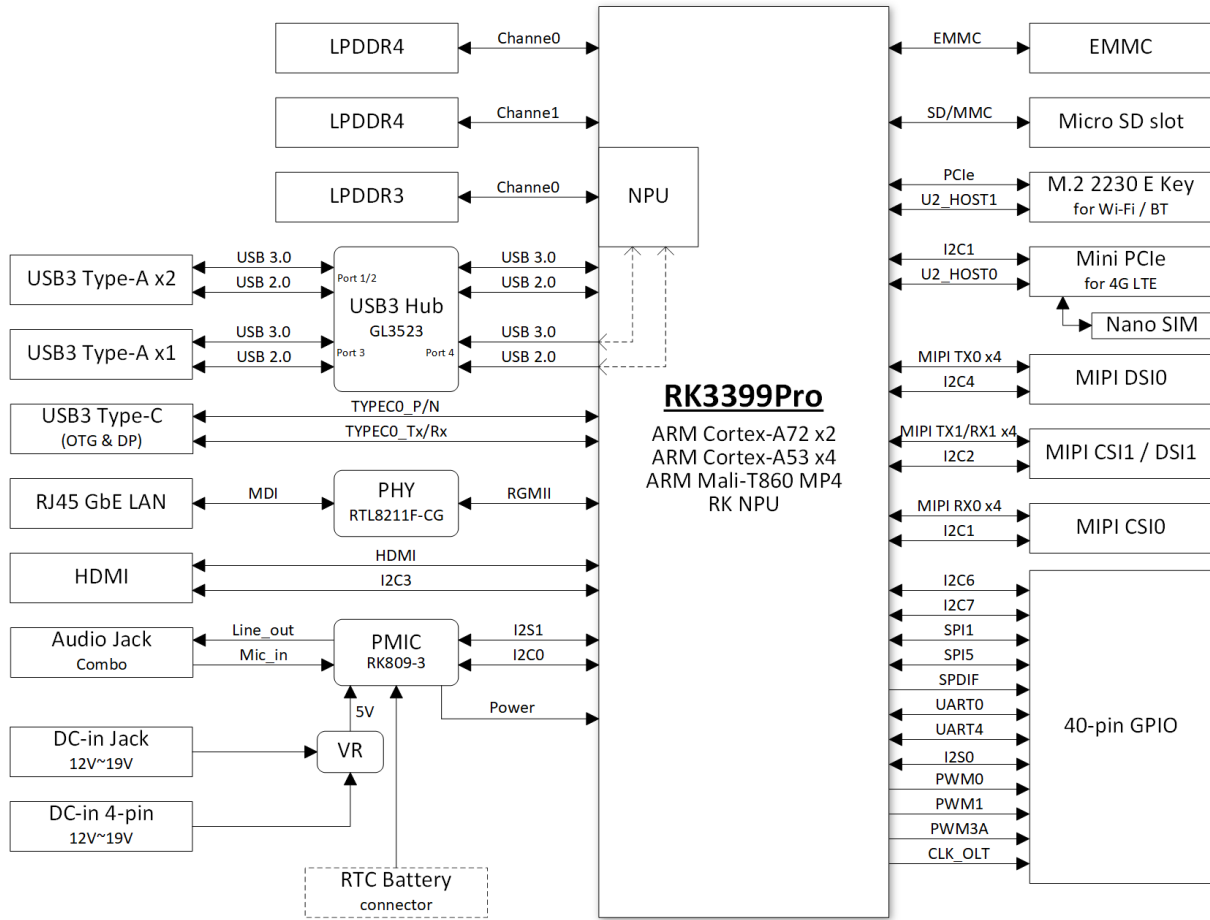
- Arm® big.LITTLE™ A72+A53 Hexa-core SoC
- ML capability with Rockchip NPU
- Multiple MIPI-CSI & DSI / HDMI / Type-C (DP)
- 40-pin GPIOs & mPCIe for multiple expansions
- 12V~19V DC-in offers stable power delivery
- Linux & Android supported



Specifications

SoC	Rockchip RK3399Pro
CPU	Dual-core Arm® Cortex®-A72 @ 1.8 GHz + Quad-core Arm® Cortex®-A53 @ 1.4 GHz
GPU	Arm® Mali™-T860 MP4 GPU @ 800 MHz
NN Processor	Rockchip NPU
Memory	Dual-CH LPDDR4 4GB (SYSTEM) + LPDDR3 2GB (NPU)
Storage	16GB eMMC 1 x Micro SD (TF) card slot (pull & push)
Display	1 x HDMI with CEC hardware ready 1 x Type-C (DP) 1 x 22-pin MIPI DSI (4 lane)
USB	3 x USB3.2 Gen1 Type-A ports 1 x USB3.2 Gen1 Type-C OTG port
Camera Interface	1 x 22-pin MIPI CSI-2 (4 lane) 1 x 22-pin MIPI CSI-2/DSI (4 lane)
Connectivity	1 x RTL8211F-CG GbE LAN 1 x 802.11 a/b/g/n/ac & Bluetooth 5.0 (2T2R)
Expansions	1 x Mini PCIe slot (Full-Length, nano-SIM socket, for 4G/LTE)
Audio	1 x 3.5mm audio jack (with Mic & plug-in detection)
Internal I/O	1 x 40-pin headers includes: - up to 28 x GPIO pins - up to 2 x SPI bus - up to 2 x I2C bus - up to 2 x UART - up to 3 x PWM - up to 1 x PCM/I2S - up to 1 x S/PDIF TX - 2 x 5V power pins - 2 x 3.3V power pins - 8 x ground pins 1 x 2-pin Recovery header 1 x 2-pin Power-on header 1 x 2-pin Reset header 1 x 2-pin DC Fan header 1 x 2-pin RTC Battery header
Power requirement	12-19V DC input
Operation Temperature	0~60°C
Non-Operation Temperature	-40~85°C
Relative Humidity	0%~85%
Operating System Support	Debian 9 / Android 8.1
Form Factor	Pico-ITX, 3.9" x 2.8" (100 × 72 mm)

Block Diagram



Ordering Information

Model Name	Description
Tinker Edge R	Pico-ITX SBC, Rockchip RK3399Pro Hexa-core, NPU for AI, 4GB SYS & 2GB NPU RAM, 16GB eMMC, HDMI, MIPI-DSI, MIPI-CSI, 12-19V DC in

Packing List

Item#	Description
1.	Screw & Standoff
2.	QuickStart Guide