

TINKER BOARD 2S

Arm SBC, Rockchip RK3399 Hexa-core, LPDDR4 RAM, eMMC, HDMI, MIPI-DSI, MIPI-CSI, 12-19V DC in

Features

- Arm® big.LITTLE™ A72+A53 Hexa-core SoC
- Multiple MIPI-CSI & DSI / HDMI / Type-C (DP)
- USB 3.0 / Wi-Fi 802.11ac / BT 5.0 / GPIO
- 12V~19V DC-in offers stable power delivery
- Linux & Android supported

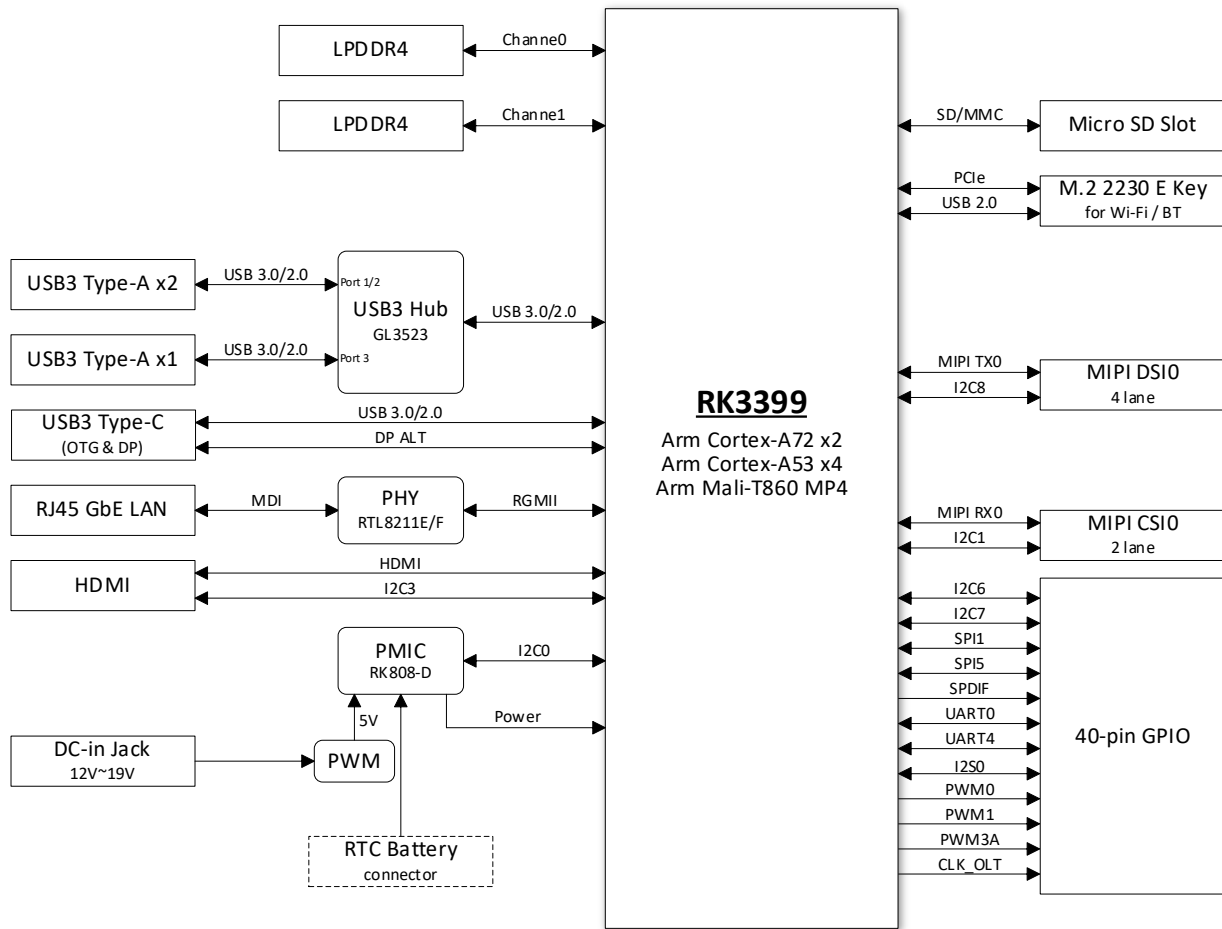


Specifications

Processor	SoC	Rockchip RK3399
	CPU	2 x Arm® Cortex®-A72 @ 2.0 GHz + 4 x Arm® Cortex®-A53 @ 1.5 GHz
	GPU	Arm® Mali™-T860 MP4 GPU @ 800 MHz
Memory	Technology	Dual-CH LPDDR4 On-board
	Size	2/4GB*
Storage	eMMC	16GB* On-board
	Memory Card	1 x Micro SD (TF) card slot (push & pull)
Ethernet	Speed	10/100/1000Mbps
	Controller	1 x Realtek RTL8211E/F
Wireless	Speed	802.11 a/b/g/n/ac & Bluetooth 5.0
	Module	1 x Realtek RTL8822CE (M.2 Socket 1 with E key, type 2230)
	Antenna Connector	2 x I-PEX MHF® 4 (extendable, 2T2R)
Display	HDMI	1, Supports up to 4096 x 2160 @ 60 Hz
	Type-C (DP)	1, Supports DP 1.2 up to 4096 x 2160 @ 60 Hz
	MIPI DSI	1, Supports 4 lane up to 6 Gbps, 1920 x1080 @ 60 Hz (22-pin)
	Multi Display	HDMI+Type-C, HDMI+MIPI DSI, Type-C+MIPI DSI
Camera	MIPI CSI-2	1, Supports 2 lane up to 3 Gbps (15-pin)
Audio	HDMI Audio	1
	I2S	1, in 40-pin header
	S/PDIF	1, in 40-pin header
Rear I/O	USB 3.2 Gen1 Type-A	3
	USB 3.2 Gen1 Type-C OTG	1
	Ethernet	1
	HDMI	1
Internal I/O	40-pin GPIO Header	- 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 (master/slave) - up to 1 x S/PDIF TX - 2 x 5V Power pins - 2 x 3.3V Power pins - 8 x Ground pins
	Recovery Header	1 (2-pin)
	Power-on Header	1 (2-pin)
	Reset Header	1 (2-pin)
	Debug UART Header	1 (2-pin)
	DC Fan Header	1 (2-pin)
	RTC Battery Header	1 (2-pin)
	Power	Power Input
Environment	Operating Temperature	0 ~ 60°C
	Storage Temperature	-40 ~ 85°C
	Relative Humidity	10 ~ 85% (non-condensing)
Others	Operating System	Linux Debian 10, Android (AOSP) 11
	Dimensions	3.37" x 2.125" (85 x 56 mm)

*Spec by SKU

Block Diagram



Ordering Information

PN	Model Name	Description
90ME01P0-*	Tinker Board 2S/2G/16G	Arm SBC, Rockchip RK3399 Hexa-core, 2G LPDDR4, 16G eMMC, HDMI, MIPI-DSI, MIPI-CSI, 12~19V DC in
90ME01P1-*	Tinker Board 2S/4G/16G	Arm SBC, Rockchip RK3399 Hexa-core, 4G LPDDR4, 16G eMMC, HDMI, MIPI-DSI, MIPI-CSI, 12~19V DC in

Packing List

Item#	Description
1.	2 x Wi-Fi/BT antenna cable
2.	1 x Heatsink
3.	1 x Quick Start Guide

Optional Accessories

Item#	Description
Power Adapter 45W	DC 19V/2.37A or 19.5V/3.33A (5.5/2.5mm)
Power Adapter 65W	DC 19V/3.42A or 19.5V/2.31A (5.5/2.5mm)
Fanless Case	Aluminum Fanless Case
MIPI Convert Board	MIPI to LVDS/eDP converter board

*Accessories will be shipped separately