

# TINKER BOARD 3

## SPECIFICATION

Arm SBC, Rockchip RK3568 Quad-core, LPDDR4X RAM, eMMC, HDMI, LVDS, eDP, Dual Lan, POE, COM 232/422/485, CAN Bus

## Features

- Quad-core ARM Cortex-A55 SoC
- Multiple displays support HDMI / LVDS / eDP
- **COM RS-232/422/485, CAN Bus 2.0**
- Wide range 12V~24V DC power in offers stable delivery
- Wide operating temperature up to -40~85°C
- Linux Debain 11, Yocto, Android 12 supported

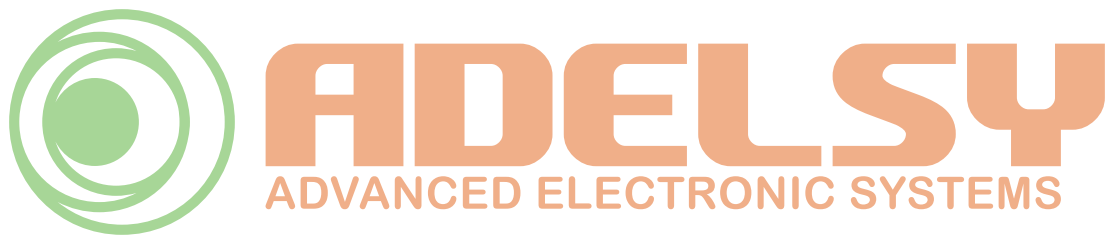


\*Spec by SKU

## Specifications

<b>Processor</b>	SoC	Rockchip RK3568	
	CPU	Quad-core Arm® Cortex®-A55	
	GPU	Arm® Mali™-G52 GPU	
<b>Memory</b>	Technology	Dual-CH LPDDR4X On-board	
	Size*	2GB / 4GB / 8GB	
<b>Storage</b>	Memory Card	1 x Micro SD (TF) card slot (push & pull)	
	eMMC*	none / 32GB / 64GB	
	SPI Flash*	16MB	n/a
<b>Ethernet</b>	Speed	10/100/1000 Mbps	
	Controller*	2 x Realtek RTL8211F/FI (one support POE module, 802.3at 25W)	1 x Realtek RTL8211F
<b>Expansion</b>	M.2 E key 2230	1 x for Wi-Fi 5/Wi-Fi 6/BT (PCIe x USB 2.0)	
	M.2 B key 3042/3052* with nano-SIM slot*	1 x for 4G/5G (PCIe x USB 3.0 x USB 2.0)	n/a
<b>Display</b>	HDMI	1 x Supports up to 4096 x 2160 @ 60 Hz	
	LVDS	1 x Supports up to 1920 x 1080 @ 60 Hz (Dual-link)	
	eDP	1 x Supports up to 2560 x 1600 @ 60 Hz	
	Multi Display	HDMI + LVDS or HDMI + eDP	
<b>Audio</b>	Audio Out	1 x 3.5 Phone Jack with Mic in	
	Speaker Out	1 x 4-pin stereo, 4ohm, 2x3W	
	S/PDIF	1 x 1-pin in GPIO header	
<b>Rear I/O</b>	USB 3.2 Gen1	2 x Type-A 1 x Type-C OTG	
	Ethernet	2 x RJ45 LAN	
	HDMI	1 x Type-A	
<b>Internal I/O &amp; Header</b>	USB 2.0	1 x 9-pin (2 ports)	
	COM 232 with flow control*	2 x 5-Pin (2 ports)	1 x 5-Pin
	COM 232/422/485*	1 x 5-Pin	n/a
	CAN Bus 2.0B FD*	1 x 3-Pin	n/a
	12-pin GPIO	up to 4 x PWM up to 2 x UART up to 1 x SPI bus (2 select) up to 1 x S/PDIF 2 x ACD (8 bit) 1 x I2C bus 1 x GND	
	Debug UART	1 x 3-pin	
	Power-on and Reset	1 x 4-pin	
	Recovery	1 x 2-pin	
	DC Fan Connector	1 x 4-pin	
	RTC Battery	1 x 2-pin	
	Maskrom switch	1 x 2-pin	
	IR Receiver	1 x 3-pin	
LED side view	3 x Power, Disk, Reserve		
<b>Power</b>	Power Input (12 ~ 24V)	1 x DC Barrel Power Input Jack (5.5/2.5 mm) 1 x 4-Pin Power In Header (also for POE module)	
	Operating Temperature*	0 ~ 60°C / -40 ~ 85°C	
<b>Environment</b>	Storage Temperature	-40 ~ 85°C	
	Relative Humidity	10 ~ 85% (non-condensing)	
	Operating System	Linux Debian 11, Yocto, Android 12	
<b>Others</b>	Dimensions	4" x 4" (100 x 100 mm)	

## Block Diagram



## Ordering Information

PN	Model Name	Description
90ME01N0*	Tinker Board 2/2G	Arm SBC x Rockchip RK3399 Hexa-core x 2GB LPDDR4 x HDMI x MIPI-DSI x MIPI-CSI x 12~19V DC in

## Packing List

Item#	Description
1.	
2.	
3.	

## Optional Accessories

Item#	Description
	Power Adapter 45W
	Power Adapter 65W
	Fanless Case
	PoE Board
	MIPI Convert Board

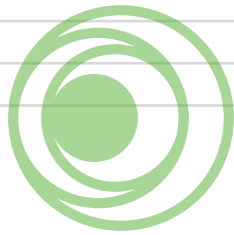
\*Accessories will be shipped separately

# Power Adapter 45W

DC 19V/2.37A or 19.5V/3.33A (5.5/2.5mm)

## Ordering Information

PN	Model Name	Description
		United States
		Brazil
		China
		European Union
		United Kingdom
		Switzerland
		South Africa
		Israel
		India
		Japan
		Argentina
		Taiwan
		Hong Kong
		Australia
		Korea



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