

# TINKER BOARD R2.0

Quad-core Arm processor, 2/4GB onboard memory, HDMI, GbE LAN, Multiple USB

## Features

- Extensive OS Support (Debian 10/Android 11)
- Energy Efficient, Fanless Design
- Name card Sized, Powerful Edge Device



## Specifications

<b>Processor</b>	SoC	Rockchip RK3288-CG.W
	CPU	4 x Arm® Cortex®-A17 @ 1.8 GHz
	GPU	Arm® Mali™-T760 MP4 GPU @ 600 MHz
<b>Memory</b>	Technology	Dual-CH LPDDR3 On-board
	Size	2/4GB
<b>Storage</b>	Memory Card	1 x Micro SD (TF) card slot (push & pull)
<b>Ethernet</b>	Speed	10/100/1000Mbps
	Controller	1 x Realtek RTL8211E-VB-CG (A version) or RTL8211F-CG (B version)
<b>Wireless</b>	Speed	802.11 b/g/n & BT 4.2 + EDR
	Module	1 x Realtek RTL8723DS
	Antenna Connector	1 x I-PEX MHF® 4 (extendable)
<b>Display</b>	HDMI	1, Supports up to 3840x2160 @ 30 Hz
	MIPI DSI	1, Supports 2 lane up to 2 Gbps, 1280 x 720 @ 60 Hz (15-pin)
	Multi Display	HDMI+MIPI DSI
<b>Camera</b>	MIPI CSI-2	1, Supports 2 lane up to 2 Gbps (15-pin)
<b>Audio</b>	3.5 Audio Jack*	1, Realtek ALC4030U Codec *Supports audio jack plug-in detection
	HDMI Audio	1
	I2S	1, in 40-pin header
	S/PDIF	1, contact points
<b>Rear I/O</b>	USB 2.0 Type-A	4
	Ethernet	1
	3.5 Audio Jack	1
	HDMI	1
<b>Internal I/O</b>	40-pin header	- up to 28 x GPIO pins - up to 2 x SPI bus - up to 2 x I2C bus - up to 4 x UART - up to 2 x PWM - up to 1 x PCM/I2S (master/slave) - 2 x 5V power pins - 2 x 3.3V power pins - 8 x ground pins
	2-pin Contact Point	1 x PWM signal 1 x S/PDIF signal
	Power-on Header	1 (2-pin)
	Recovery Header	1 (2-pin)
	<b>Power</b>	Power Input
<b>Environment</b>	Operating Temperature	0~60°C
	Storage Temperature	-40~85°C
	Relative Humidity	0 to 85% (non-condensing)
<b>Others</b>	Operating System	Linux Debian 10, Android (AOSP) 11
	Dimensions	3.37" x 2.125" (85 x 56 mm)

# TINKER BOARD S R2.0

Quad-core Arm processor, 2/4GB onboard memory & 16/32GB eMMC, HDMI, GbE LAN, Multiple USB



## Features

- Fully Embedded Design
- Extensive OS Support (Debian 10/Android 11)
- Energy Efficient, Fanless Design
- Name card Sized, Powerful Edge Device

## Specifications

<b>Processor</b>	SoC	Rockchip RK3288-CG.W
	CPU	4 x Arm® Cortex®-A17 @ 1.8 GHz
	GPU	Arm® Mali™-T760 MP4 GPU @ 600 MHz
<b>Memory</b>	Technology	Dual-CH LPDDR3 On-board
	Size	2/4GB
<b>Storage</b>	eMMC	16/32GB On-board
	Memory Card	1 x Micro SD (TF) card slot (push & pull)
<b>Ethernet</b>	Speed	10/100/1000Mbps
	Controller	1 x Realtek RTL8211E-VB-CG (A version) or RTL8211F-CG (B version)
<b>Wireless</b>	Speed	802.11 b/g/n & BT 4.2 + EDR
	Module	1 x Realtek RTL8723DS
	Antenna Connector	1 x I-PEX MHF® 4 (extendable)
<b>Display</b>	HDMI	1, Supports up to 3840x2160 @ 30 Hz
	MIPI DSI	1, Supports 2 lane up to 2 Gbps, 1280 x 720 @ 60 Hz (15-pin)
	Multi Display	HDMI+MIPI DSI
<b>Camera</b>	MIPI CSI-2	1, Supports 2 lane up to 2 Gbps (15-pin)
<b>Audio</b>	3.5 Audio Jack*	1, Realtek ALC4030U Codec *Supports audio jack plug-in detection
	HDMI Audio	1
	I2S	1, in 40-pin header
	S/PDIF	1, contact points
<b>Rear I/O</b>	USB 2.0 Type-A	4
	Ethernet	1
	3.5 Audio Jack	1
	HDMI	1
<b>Internal I/O</b>	40-pin header	- up to 28 x GPIO pins
		- up to 2 x SPI bus
		- up to 2 x I2C bus
		- up to 4 x UART
		- up to 2 x PWM
- up to 1 x PCM/I2S (master/slave)		
- 2 x 5V power pins		
- 2 x 3.3V power pins		
- 8 x ground pins		
2-pin Contact Point	1 x PWM signal 1 x S/PDIF signal	
Power-on Header	1 (2-pin)	
Recovery Header	1 (2-pin)	
<b>Power</b>	Power Input	5V/3A DC, Micro-USB
<b>Environment</b>	Operating Temperature	0~60°C
	Storage Temperature	-40~85°C
	Relative Humidity	0 to 85% (non-condensing)
<b>Others</b>	Operating System	Linux Debian 10, Android (AOSP) 11
	Dimensions	3.37" x 2.125" (85 x 56 mm)