

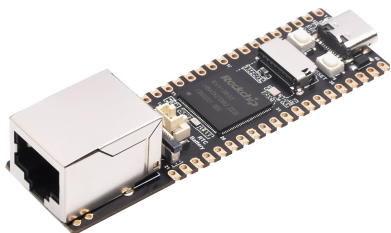
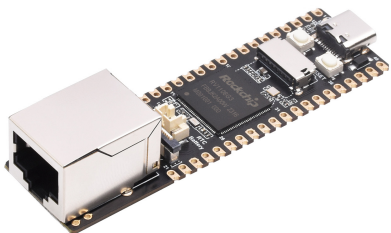


Luckfox Pico RV1106

The **Luckfox Pico RV1106 series** includes **five different board models**, designed to meet the diverse needs of DIY enthusiasts and engineers. These users can take advantage of the rich community resources to gain insights and inspiration for their own projects. The **Luckfox Pico Series User Manual** includes schematics and a **Software Development Kit (SDK)**, enabling users to understand the board's internal workings and integrate it into their own designs.

Luckfox Pico Pro/Max





Overview: Supports **SPI display interfaces** and **MIPI CSI camera input**, with a standard stamp-hole form factor. Ideal for lightweight image capture and display applications.

	Luckfox Pico Pro	Luckfox Pico Max
		
Chip	RV1106G2	RV1106G3
Processor	Cortex A7 1.2GHz	
NPU	0.5TOPS, supports int4、 in8、 int16	1TOPS, supports int4、 in8、 int16
ISP	Max input 5M @30fps	
Memory	128MB DDR3L	256MB DDR3L

Camera Interface	MIPI CSI 2-lane
USB	USB 2.0 Host/Device
GPIO	26 ↑ GPIO pins
Ethernet	10/100M Ethernet controller and embedded PHY
Default Storage Medium	SPI NAND FLASH(256MB)

Luckfox Pico Ultra Series

Overview: Supports **Wi-Fi connectivity**, **audio input/output**, **camera capture**, and **RGB screen driving**, making it suitable for wireless multimedia terminal scenarios.

	Luckfox Pico Ultra	Luckfox Pico Ultra W	Luckfox Pico Ultra B	Luckfox Pico Ultra BW
				
Chip	RV1106G3		RV1106G2	
Processor	Cortex A7 1.2GHz			
NPU	1TOPS, supports int4、in8、int16		0.5TOPS, supports int4、in8、int16	
ISP	Max input 5M @30fps			
Memory	256MB DDR3L		128MB DDR3L	
Wi-Fi+Bluetooth	/	2.4GHz WiFi6 Bluetooth	/	2.4GHz WiFi6 Bluetooth

		5.2/BLE		5.2/BLE
Camera Interface	MIPI CSI 2-lane			
DPI Interface	RGB666			
POE Interface	IEEE 802.3af PoE			
Speaker interface	MX1.25mm			
USB	USB 2.0 Host/Device			
GPIO	330 GPIO pins			
Ethernet	10/100M Ethernet controller and embedded PHY			
Default Storage Medium	eMMC(8GB)			

Core1106 Series

Overview: Designed with a **stamp-hole form factor**, this series integrates **CPU/NPU/GPU computing resources**, and supports various high-speed peripheral interfaces. It serves as a powerful system core for modular expansion and broader applications.

Basic Specifications

	Core11060208	Core11061208	Core11060408	Core11061408
SOC	RV1106G2		RV1106G3	
Processor	Cortex A7 1.2GHz			

NPU	0.5 TOPS, supports int4, int8, int16	1 TOPS, supports int4, int8, int16
VEPU	Supports H264/H265 video encoder	
ISP	Max input 5M @30fps	
Memory	128MB DDR3L	256MB DDR3L
Wi-Fi+Bluetooth	/	2.4GHz WiFi6 Bluetooth 5.2/BLE
Default Storage Medium	eMMC(8GB)	
Core board size	30 mm × 30 mm	
Stamp pin	112 Pin	
Operating Temperature Range	-20~60 °C	

Functional Parameters



Function	Quantity	Parameters
MIPI CSI	≤2	Supports 2 CSI-2 interfaces, each with 2 D-PHY v1.2 data lanes. These 2 interfaces can be combined into a single interface with 4 data lanes.
Display	1	18-bit(RGB666)
USB	1	USB 2.0 Host/Device
Ethernet	1	10/100M Ethernet controller and embedded PHY

Audio	1	LINEOUT
	2	Analog differential MIC interface.
I2S	≤ 3	<p>Supports 8 TX lanes and 8 RX lanes.</p> <p>Supports 3 I2S modes (Standard I2S, Left-Justified, Right-Justified).</p> <p>Supports 4 PCM formats (Early mode, Late1 mode, Late2 mode, Late3 mode).</p> <p>Supports a maximum sampling rate of 192kHz.</p> <p>Supports audio resolution: 16 to 32 bits.</p>
I2C	≤ 5	<p>Supports 7-bit and 10-bit address modes.</p> <p>Standard mode data transfer rate: 100k bits/s, in fast mode: 400k bits/s.</p>
SPI	≤ 2	Supports master and slave modes, with each interface supporting two chip selects.
SDIO	≤ 2	Compatible with SDIO 3.0 protocol, 4-bit mode.
ADC	≤ 2	Supports 2-channel 10-bit single-ended input SAR-ADC with a sampling rate of up to 1MS/s.
UART	≤ 6	<p>Built-in 2-channel 64-bit FIFO, separately used for TX and RX.</p> <p>Supports 5-bit, 6-bit, 7-bit, and 8-bit serial data transmission and reception, with a baud rate of up to 4Mbps.</p>
PWM	≤ 12	<p>Embedded 32-bit timer/counter functionality.</p> <p>Supports capture mode.</p>

Some pin resources have multiplexed functions. For more information, please refer to the RV1106 datasheet.

Luckfox-Pico-86-Panel



Overview: Features an integrated **RGB display interface** and **industrial RS-485 communication**, making it ideal for **HMI (Human-Machine Interface)** and **industrial fieldbus communication** applications.

	Luckfox-Pico-86-Panel-0408	Luckfox-Pico-86-Panel-1408	Luckfox-Pico-86-Panel-0208	Luckfox-Pico-86-Panel-1208
				
Chip	RV1106G3		RV1106G2	
Processor	Cortex A7 1.2GHz			
NPU	1 TOPS, supports INT4/INT8/INT16		0.5 TOPS, supports INT4/INT8/INT16	
VEPU	Supports H264/H265 video encoding			
ISP	Max input 5M @30fps			
Memory	256MB DDR3L		128MB DDR3L	
Wi-Fi + Bluetooth	/	2.4GHz WiFi6 Bluetooth 5.2/BLE	/	2.4GHz WiFi6 Bluetooth 5.2/BLE
Default Storage Medium	eMMC(8GB)			
Ethernet Port	10/100M Ethernet controller and embedded PHY			
Audio Interface	1 x SMT microphone 1 x Microphone expansion interface (MX1.25mm-2P)			

USB	1 x USB Device
RTC	1 x RTC coin cell battery holder
Relay Interface	2 x Common terminal/Normally open terminal
RS485	1 x RS485
Power Interface	DC 6V~30V wide voltage range input

Luckfox Pico Pi Series

Overview: Integrates **4G dial-up connectivity**, **audio codec interface**, and **MIPI camera input**, supporting **remote communication** and **local audio processing** in various application scenarios.

	Luckfox Pico Pi A	Luckfox Pico Pi A W	Luckfox Pico Pi B	Luckfox Pico Pi B W
				
SOC	RV1106G3		RV1106G2	
Processor	Cortex A7 1.2GHz			
NPU	1 TOPS , supports int4、 int8、 int16		0.5 TOPS , supports int4、 int8、 int16	
VEPU	Supports H264/H265 video encoding			
ISP	Maximum 5M @30fps input			

Memory	256MB DDR3L		128MB DDR3L	
Wi-Fi+Bluetooth	/	2.4GHz WiFi6 Bluetooth 5.2/BLE	/	2.4GHz WiFi6 Bluetooth 5.2/BLE
Default Storage	eMMC(8GB)			
POE Port	IEEE 802.3af PoE			
Ethernet	10/100M Ethernet controller and embedded PHY			
Camera Interface	1 x MIPI CSI 2-lane			
Audio	1 x Surface-mount microphone 1 x Microphone expansion port (MX1.25mm-2P) 1 x 3.5mm audio output			
USB	1 x USB Device 4 x USB HOST 2.0 (HUB expansion)			
RTC	1 x RTC Port (SH1.0-2P)			
Storage Expansion	1 x MicroSD slot (storage-only, no system boot support)			
Mobile Connectivity	1 x Nano SIM slot 1 x 4G module M.2 slot (supports SIM7600G-H-M.2 4G module)			
GPIO	Based on Raspberry Pi 40Pinout			