



AI Revolution of Edge Computing



ORANGE PI
IS NOW AVAILABLE in
PAKISTAN

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TECHNICAL & SALES QUERIES:

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SALES & DISTRIBUTION (PAKISTAN):
(PAKISTAN): 

Al Khair Traders  Phone: **0333-6387847**

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7
Boards

352
TOPS AI

2026
Est.

3
Tiers



OPEN HARDWARE REAL POWER.

COMPANY OVERVIEW

Since 2014, Orange Pi has delivered over 30 open-source single-board computers — from the palm-sized Zero to AI-ready flagships with 352 TOPS. Every board ships with open schematics and supports Ubuntu, Debian, and Android.

30+

Boards

45

TOPS AI

2014

Est.

5

Tiers

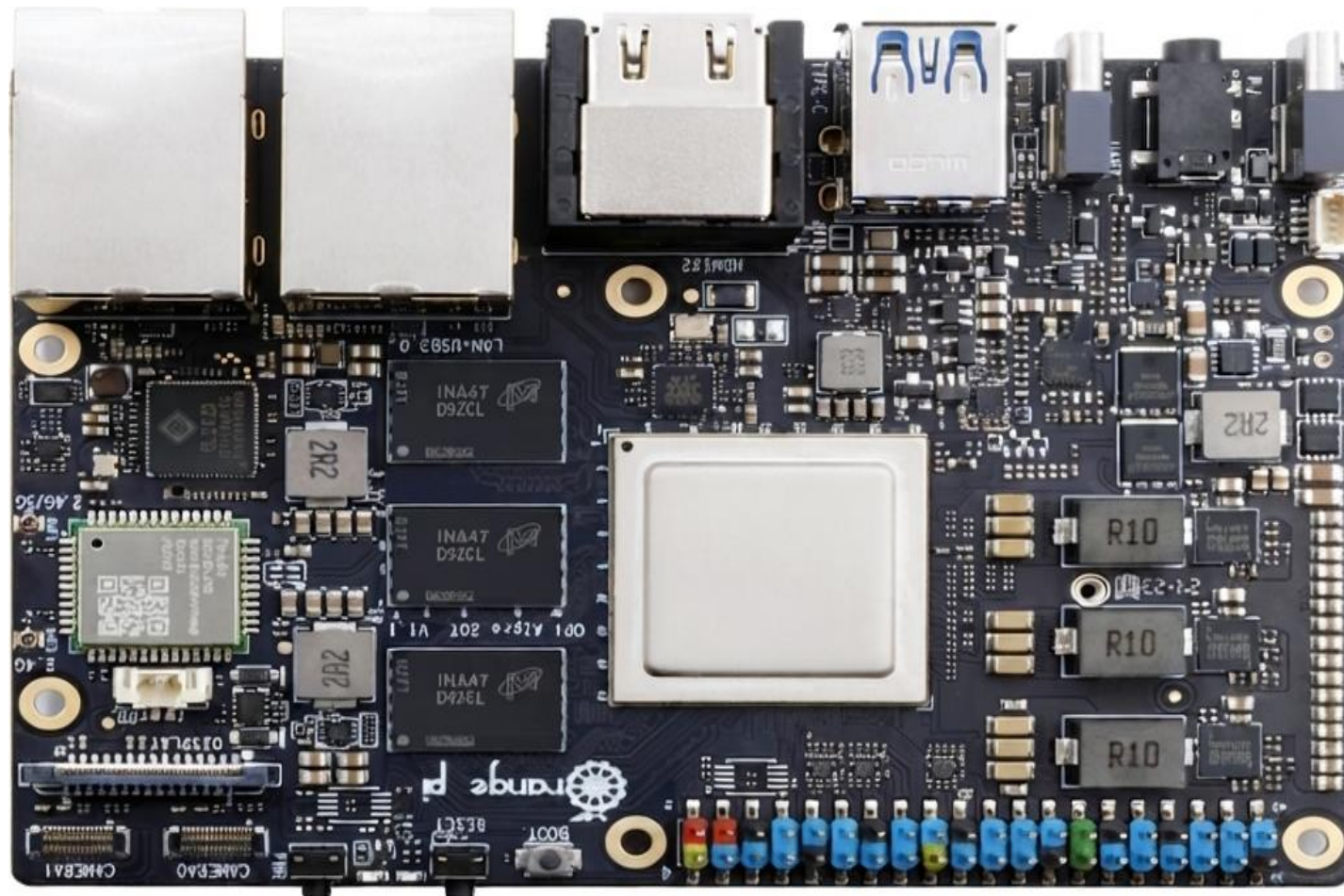


ORANGE PI

Alpro 20T

20 TOPS AI Development Board

Powered by Huawei Ascend AI processor with 4-core 64-bit ARM CPU and integrated AI accelerator. Up to 24GB LPDDR4X RAM. Built for AI inference, edge computing, and development.



20 TOPS

INT8 AI Power

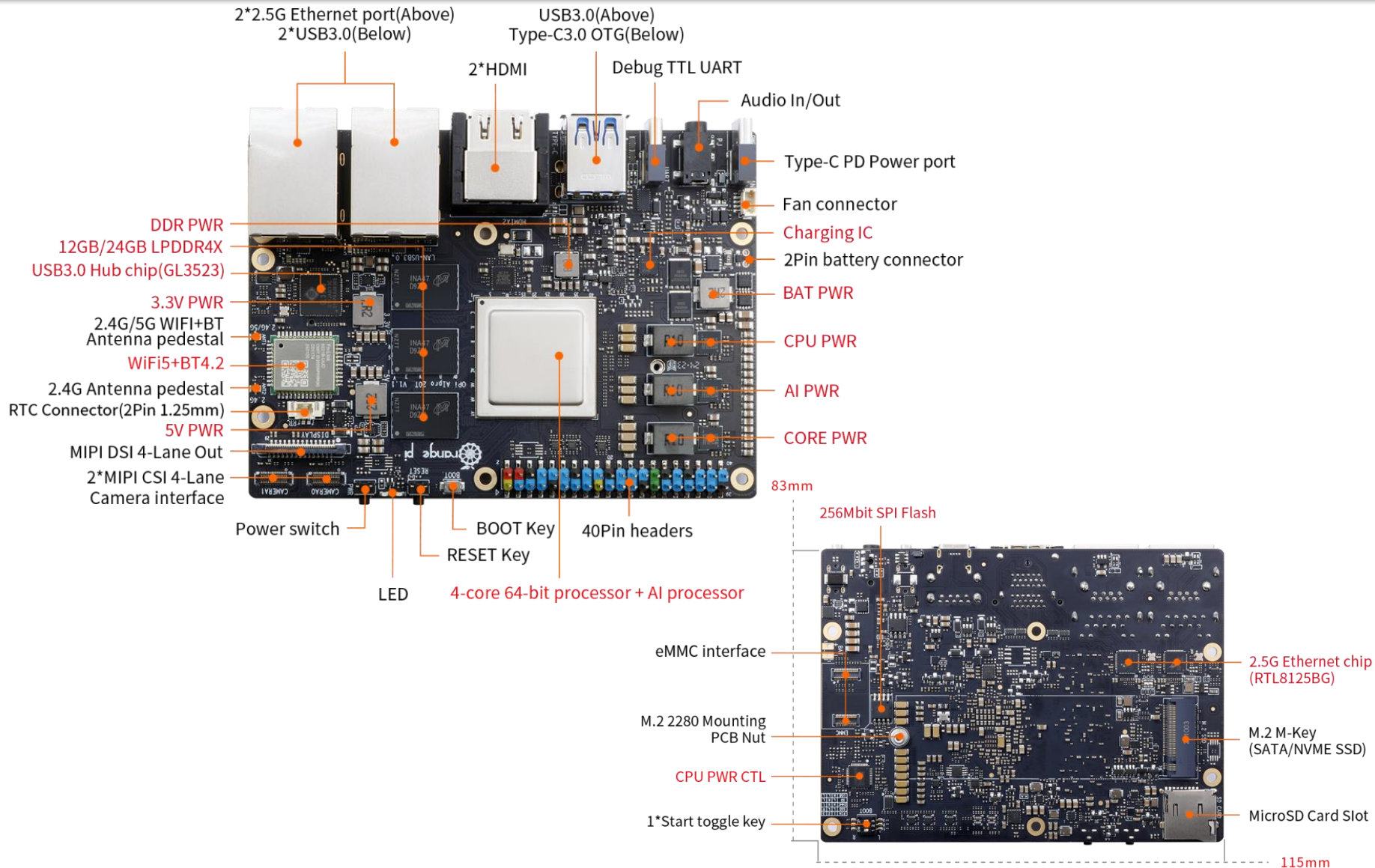
24 GB

LPDDR4X RAM

2x 2.5G

Ethernet

INTERFACES & CONNECTIVITY



USB & POWER

- 3x USB 3.0 Host
- 1x USB-C 3.0 OTG
- USB-C PD Power (65W)

DISPLAY & CAMERA

- 2x HDMI Output
- 1x MIPI DSI (4-lane)
- 2x MIPI CSI (4-lane)

NETWORKING

- 2x 2.5G Ethernet (RTL8125BG)
- Wi-Fi 2.4G / 5G
- Bluetooth 4.2

STORAGE

- M.2 M-Key (NVMe/SATA 2280)
- MicroSD Card Slot
- eMMC Module Socket
- 32MB SPI Flash

EXPANSION

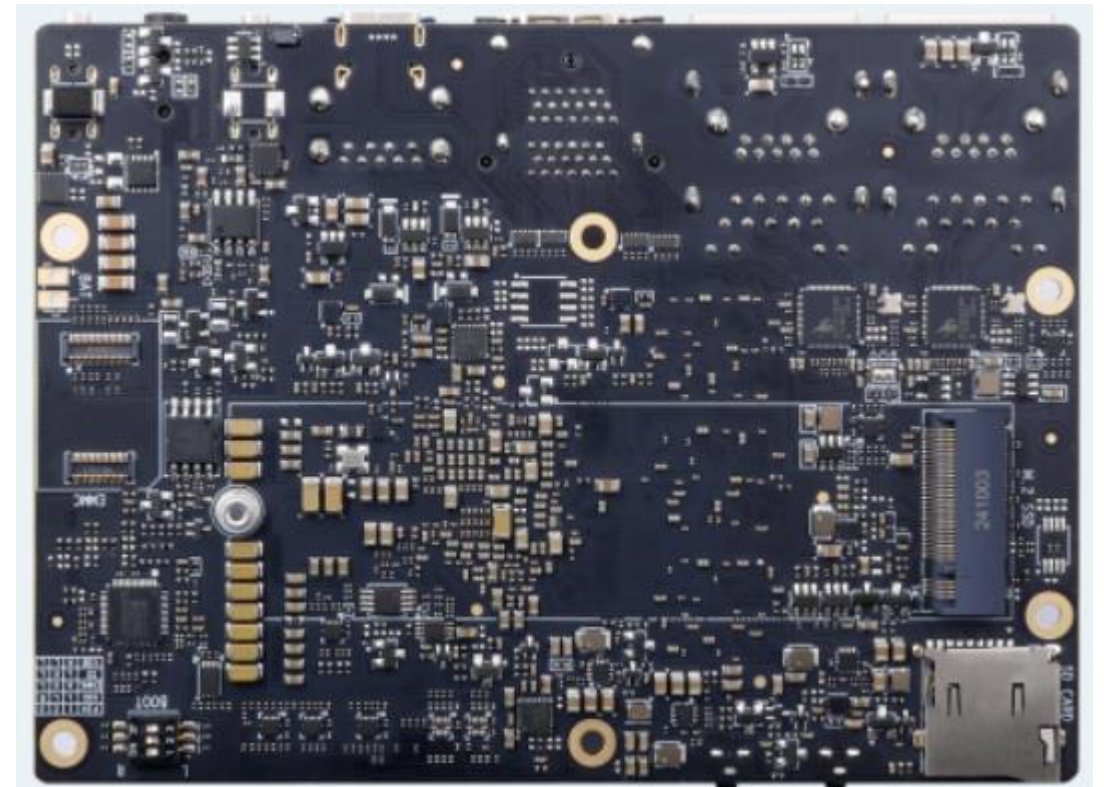
- 40-pin GPIO Header (UART, I2C, SPI, PWM)
- 3.5mm Audio Jack

BOARD VIEWS | 115mm x 83mm

TOP VIEW



BOTTOM VIEW



SUPPORTED OPERATING SYSTEMS

Ubuntu

Full desktop and server Linux experience. Wide package ecosystem for AI, development, and general use. Tested OS by OPi Pakistan: 22.04

openEuler

Enterprise-grade Linux distribution from Huawei. Optimized for Ascend AI hardware with native CANN support.

Orange Pi OS (OH)

Custom OS based on OpenHarmony. Lightweight, optimized for Orange Pi hardware with integrated tools.

AI FRAMEWORKS

Ascend CANN

Compute Architecture for Neural Networks. Pre-configured development environment.

MindSpore

End-to-end AI framework for training and inference. Native Ascend hardware acceleration.

HARDWARE SPECIFICATION | Alpro 20T

CPU	4-core 64-bit processor + AI processor 1 DaVinci V300 AI core @ 1.224 GHz 4 TAISHAN V200M processor cores @ 1.6 GHz
GPU	Integrated graphics processor
AI Computing Power	20 TOPS (INT8) 10 TFLOPS (FP16)
RAM	LPDDR4X: 12GB / 24GB (optional) Rate: 4266 Mbps
Storage	eMMC module: 32GB / 64GB / 256GB SATA/NVMe SSD (M.2 M-Key 2280) SPI Flash: 32MB MicroSD card slot
Wi-Fi + Bluetooth	Wi-Fi 5 dual-band (2.4G / 5G) + BT 4.2, BLE
Ethernet	Dual 2.5G Ethernet (RTL8125BG)
Display	2x HDMI TX 2.0 — up to 4K @ 60 FPS 1x MIPI DSI 4-lane output

HARDWARE SPECIFICATION | Alpro 20T

Camera	2x MIPI CSI 4-lane camera interface
USB	3x USB 3.0 HOST 1x USB Type-C 3.0 HOST/Device (USB 2.0 compatible) 1x Type-C serial port printing function
Audio	3.5mm headphone jack — audio in/out
Buttons	1x Power 1x Reset 1x Start toggle 1x BOOT
40-pin Header	GPIO, UART, I2C, SPI, I2S, PWM Full function expansion interface
Fan	1x Fan connector
Reserved Ports	2-pin battery connector
Power Supply	Type-C PD 20V IN Standard 65W adapter recommended
Supported OS	Ubuntu openEuler
Dimensions	115.23mm x 83.26mm x 1.6mm
Weight	120.5g

ORANGE PI

Alpro 8T

8 TOPS AI Development Board

Highly integrated CPU, AI computing, ISP and graphics output. 8 TOPS AI computing power for target recognition, image classification and AI acceleration applications.

8 TOPS

AI Power

16 GB

Max RAM

M.2 SSD

Storage



RAM VARIANTS | Alpro 8T

8 GB

LPDDR4X

Ideal for standard AI inference, edge computing, and development workloads. Efficient for single-model deployments and lightweight applications.

16 GB

LPDDR4X

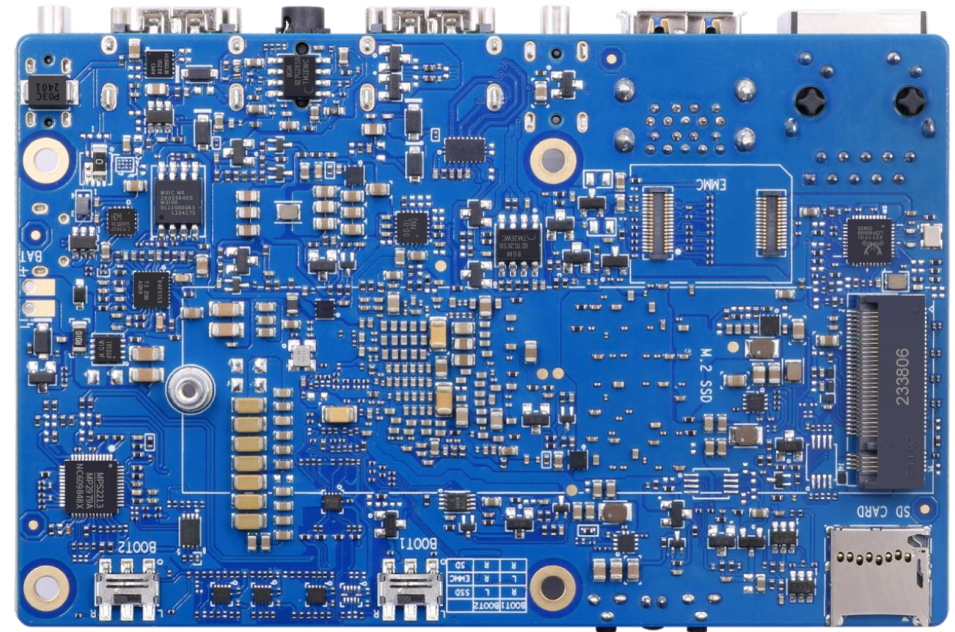
For complex AI applications, multi-model inference, and large memory product scenarios. Run demanding workloads smoothly without compromise.

BOARD VIEWS | Alpro 8T

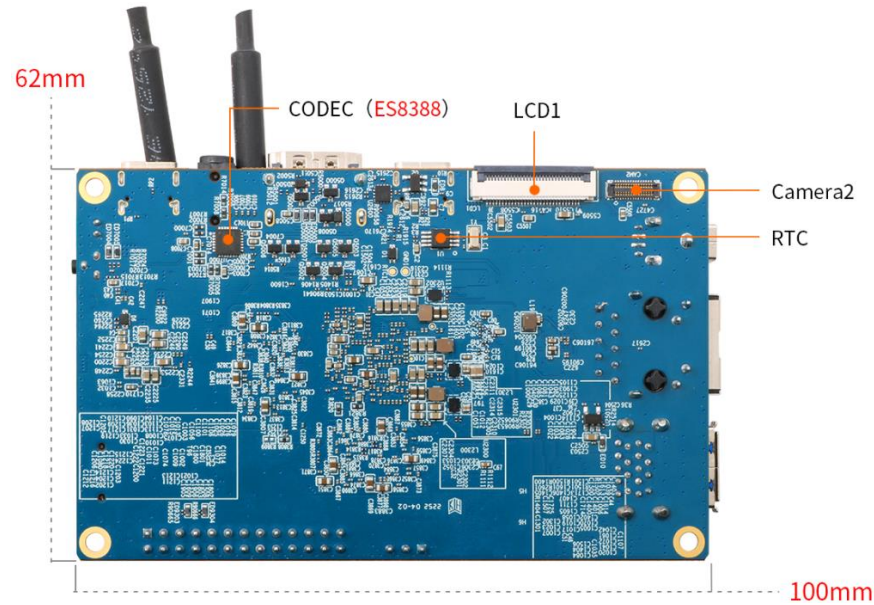
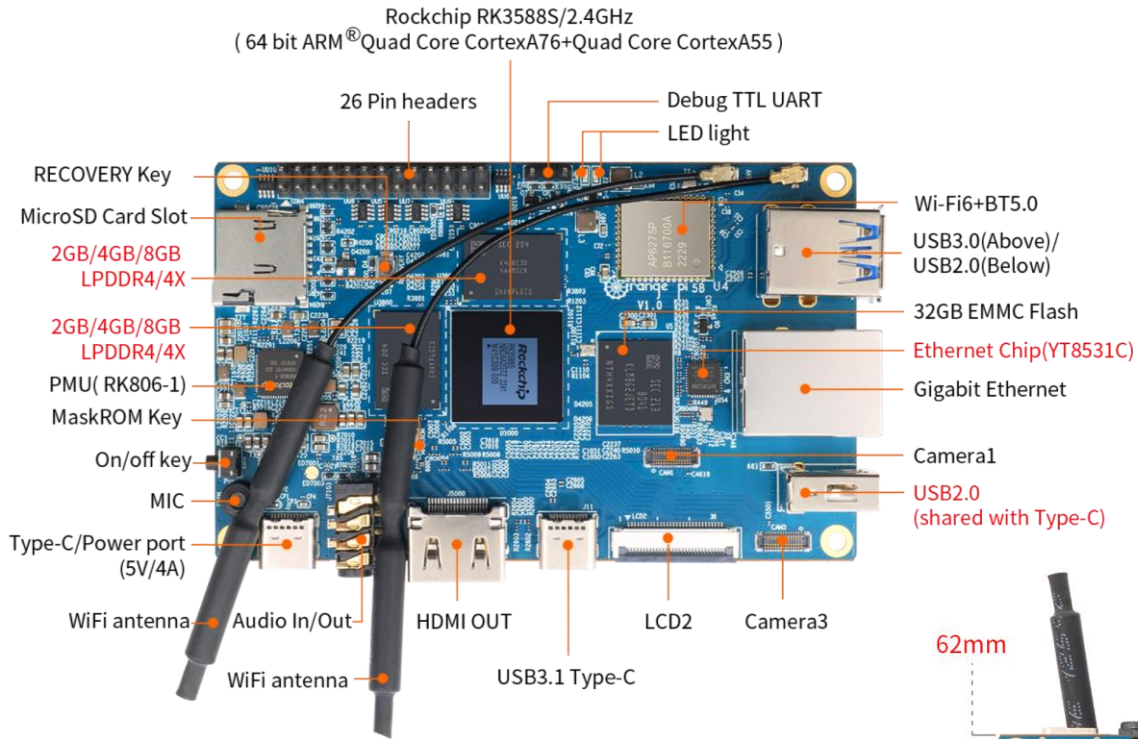
TOP VIEW



BOTTOM VIEW



INTERFACES & CONNECTIVITY | Alpro 8T



USB & POWER

- 2x USB 3.0 HOST
- 1x USB Type-C 3.0 HOST
- 1x Micro USB (serial print)
- Type-C PD Power (65W)

DISPLAY & CAMERA

- 2x HDMI 2.0 (4K@60FPS)
- 1x 2-lane MIPI DSI
- 2x 2-lane MIPI CSI (Raspberry Pi compatible)

NETWORKING

- Gigabit Ethernet (10/100/1000Mbps)
- Wi-Fi 5 Dual Band (2.4G/5G)
- Bluetooth 4.2 / BLE

STORAGE

- M.2 NVMe/SATA SSD (2280)
- MicroSD Slot
- eMMC Slot (Optional up to 256GB)
- 32MB SPI Flash

EXPANSION

- 40-pin GPIO Header
(GPIO, UART, I2C, SPI, PWM)
- 3.5mm Audio In/Out

HARDWARE SPECIFICATION | Alpro 8T

CPU	4-core 64-bit processor + AI processor
GPU	Integrated graphics processor
AI Computing Power	8 TOPS
RAM	LPDDR4X: 8GB / 16GB (optional) Rate: 3200 Mbps
Storage	SPI Flash: 32MB SATA/NVMe SSD (M.2 interface 2280) eMMC slot: 32GB/64GB/128GB/256GB (optional), eMMC5.1 HS400 MicroSD slot
Wi-Fi + Bluetooth	Wi-Fi 5 dual band (2.4G and 5G) + BT4.2 / BLE
Ethernet	10/100/1000Mbps Gigabit Ethernet
Display	2x HDMI 2.0 Type-A TX — up to 4K @ 60 FPS 1x 2-lane MIPI DSI via FPC connector
Camera	2x 2-lane MIPI CSI camera interface (Compatible with Raspberry Pi cameras)

HARDWARE SPECIFICATION | Alpro 8T

USB	2x USB 3.0 HOST 1x USB Type-C 3.0 HOST 1x Micro USB serial print function
Audio	3.5mm headphone jack — audio in/out
Buttons	1x Shutdown key 1x RESET key 2x Startup mode toggle key 1x Burn button
40-pin Header	40-pin function expansion interface Supports GPIO, UART, I2C, SPI, PWM
Fan	1x Fan connector
Reserved Ports	2-pin battery connector
Power Supply	Type-C PD 20V IN Standard 65W adapter recommended
Supported OS	Ubuntu openEuler
Dimensions	107mm x 68mm
Weight	82g

ORANGE PI 5B (8GB)

High-Performance 8-Core SBC

Powered by Rockchip RK3588S. Features an 8-core CPU, integrated Mali-G610 GPU, and 6 TOPS NPU. Includes onboard eMMC and Wi-Fi 6 for robust connectivity.

6 TOPS

AI Power

8 GB

RAM

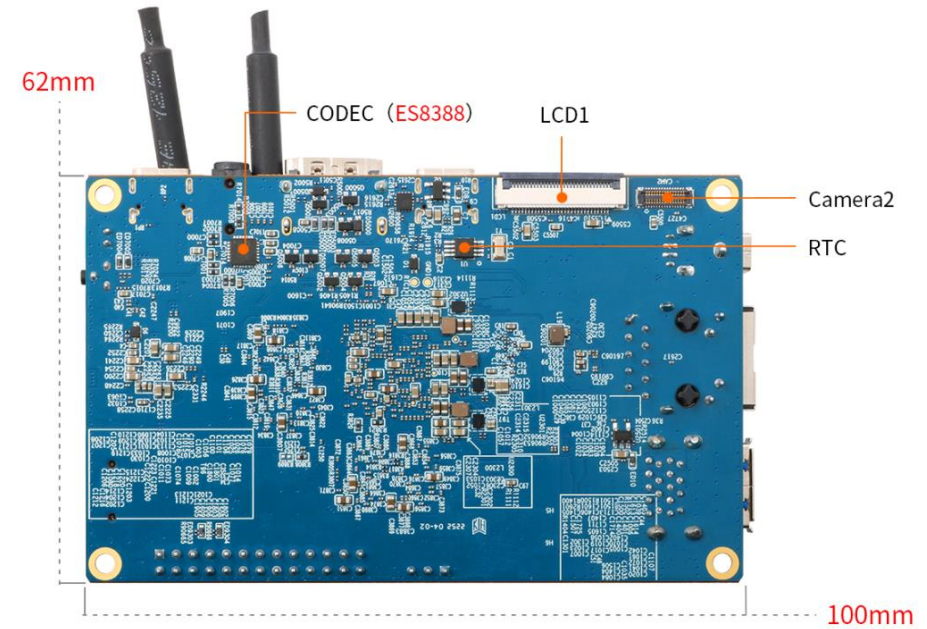


BOARD VIEWS | Orange Pi 5B

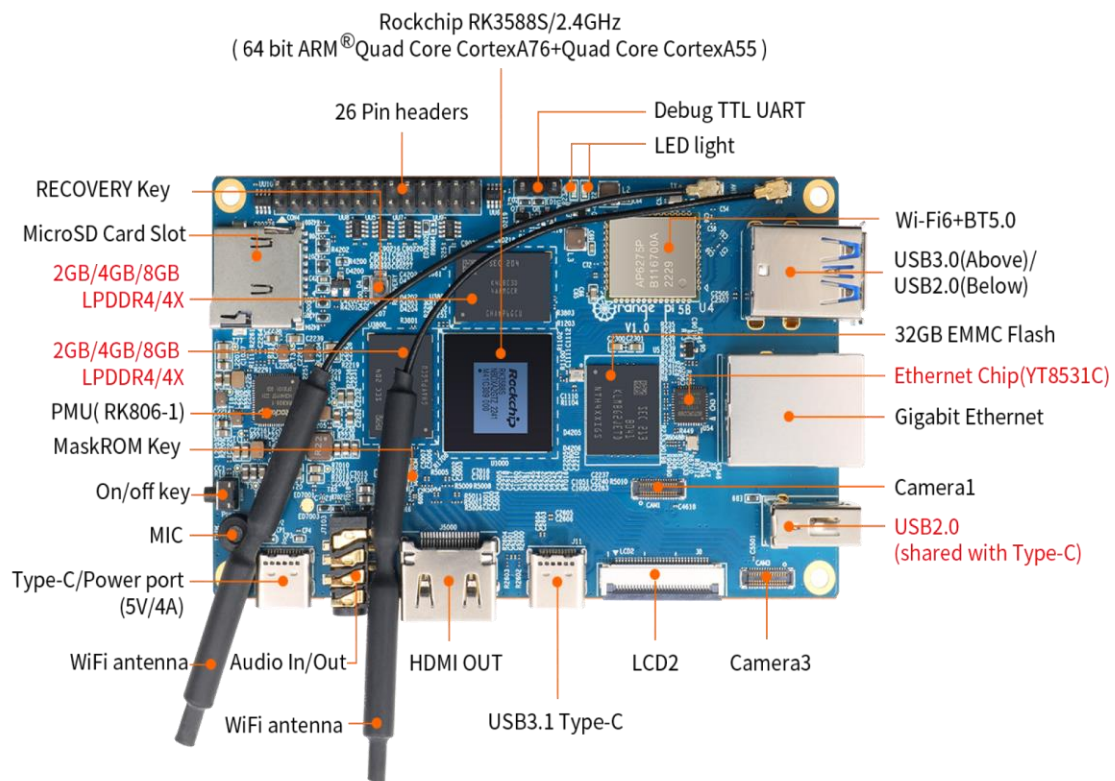
TOP VIEW



BOTTOM VIEW



INTERFACES & CONNECTIVITY | Orange Pi 5B



USB & DISPLAY

1x USB 3.0, 2x USB 2.0
1x USB-C (Power/DP)
HDMI 2.1 (8K@60fps)
MIPI DSI/CSI

NETWORKING

Gigabit Ethernet
Wi-Fi 6 (802.11ax)
Bluetooth 5.0/5.3 (BLE)

STORAGE

8GB LPDDR4/4X
Onboard eMMC
MicroSD Slot
16MB QSPI Flash

EXPANSION

26-pin GPIO Header
Audio In/Out

HARDWARE SPECIFICATION | Orange Pi 5B

CPU	Rockchip RK3588S Octa-core 64-bit (4x Cortex-A76 + 4x Cortex-A55)
GPU & NPU	ARM Mali-G610 MP4 6 TOPS AI Accelerator
RAM	8GB LPDDR4/4X
Storage	Onboard eMMC MicroSD slot 16MB QSPI NOR Flash
Connectivity	Gigabit Ethernet Wi-Fi 6 (802.11ax) Bluetooth 5.0/5.3
Display & Camera	HDMI 2.1 (8K@60fps) USB-C DP 1.4 MIPI DSI MIPI CSI
USB & Audio	1x USB 3.0 2x USB 2.0 1x USB-C 3.5mm Jack
Expansion	26-pin header (GPIO, UART, PWM, I2C, SPI, CAN)

ORANGE PI 6 PLUS

Next-Gen 12-Core Flagship

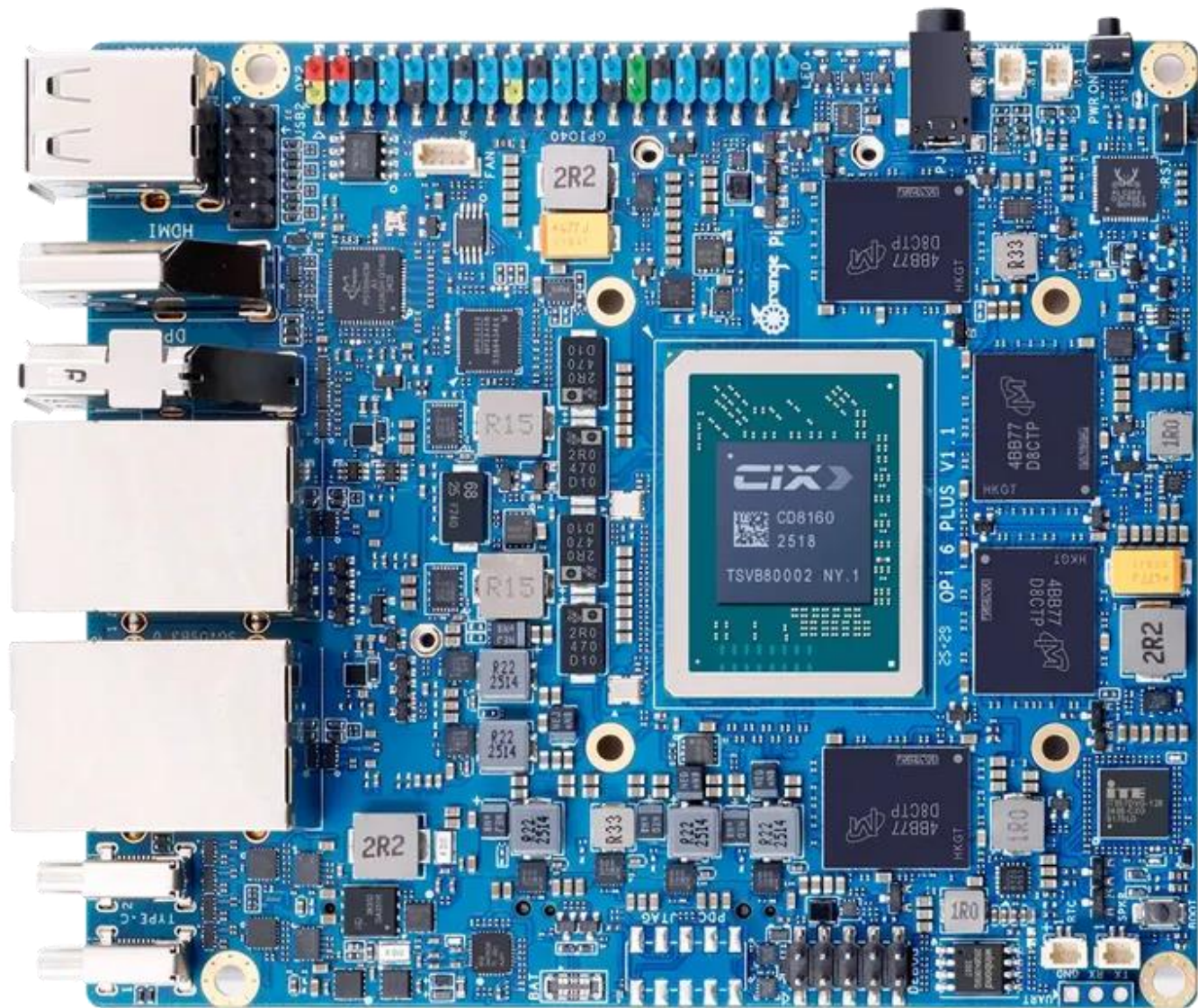
Powered by CIX P1 (12-core ARMv9). Up to 45 TOPS combined AI power. Features Dual 5GbE, 2x M.2 NVMe slots, and hardware ray tracing.

45 TOPS

Total AI Power

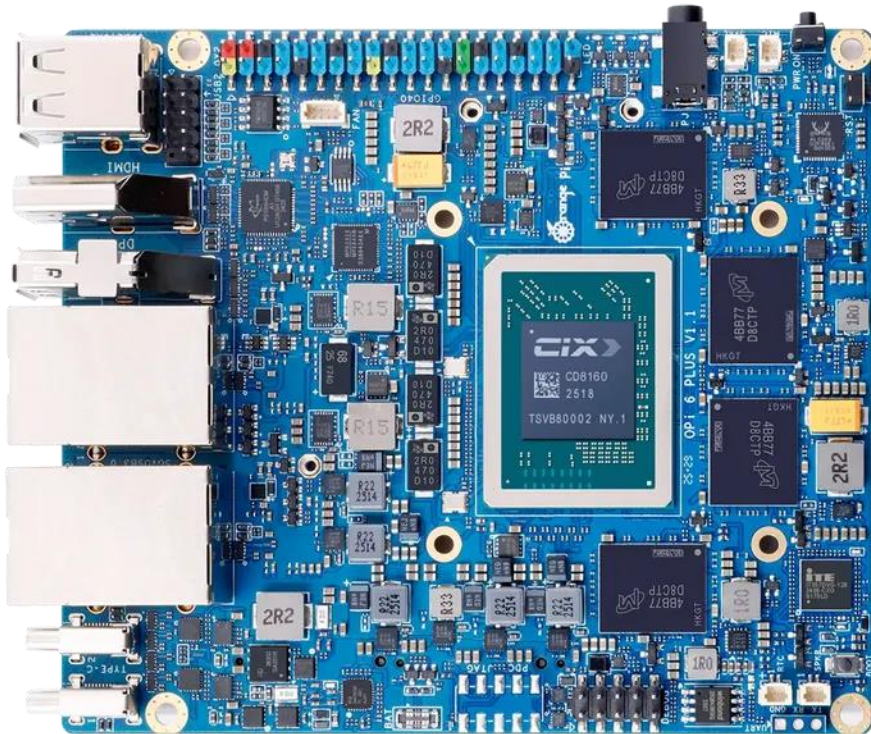
Dual 5GbE

Ethernet

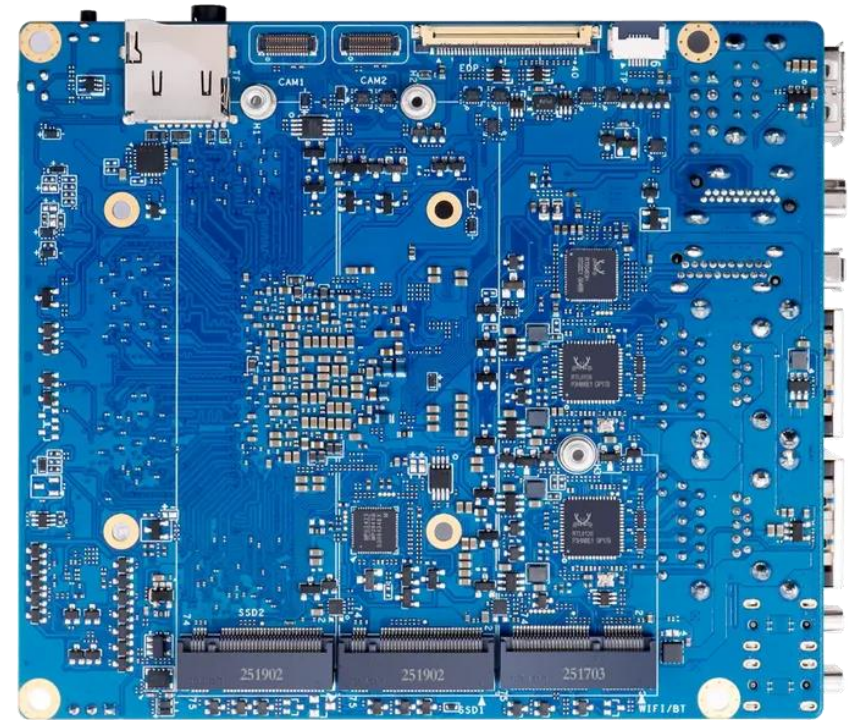


BOARD VIEWS | Orange Pi 6 Plus

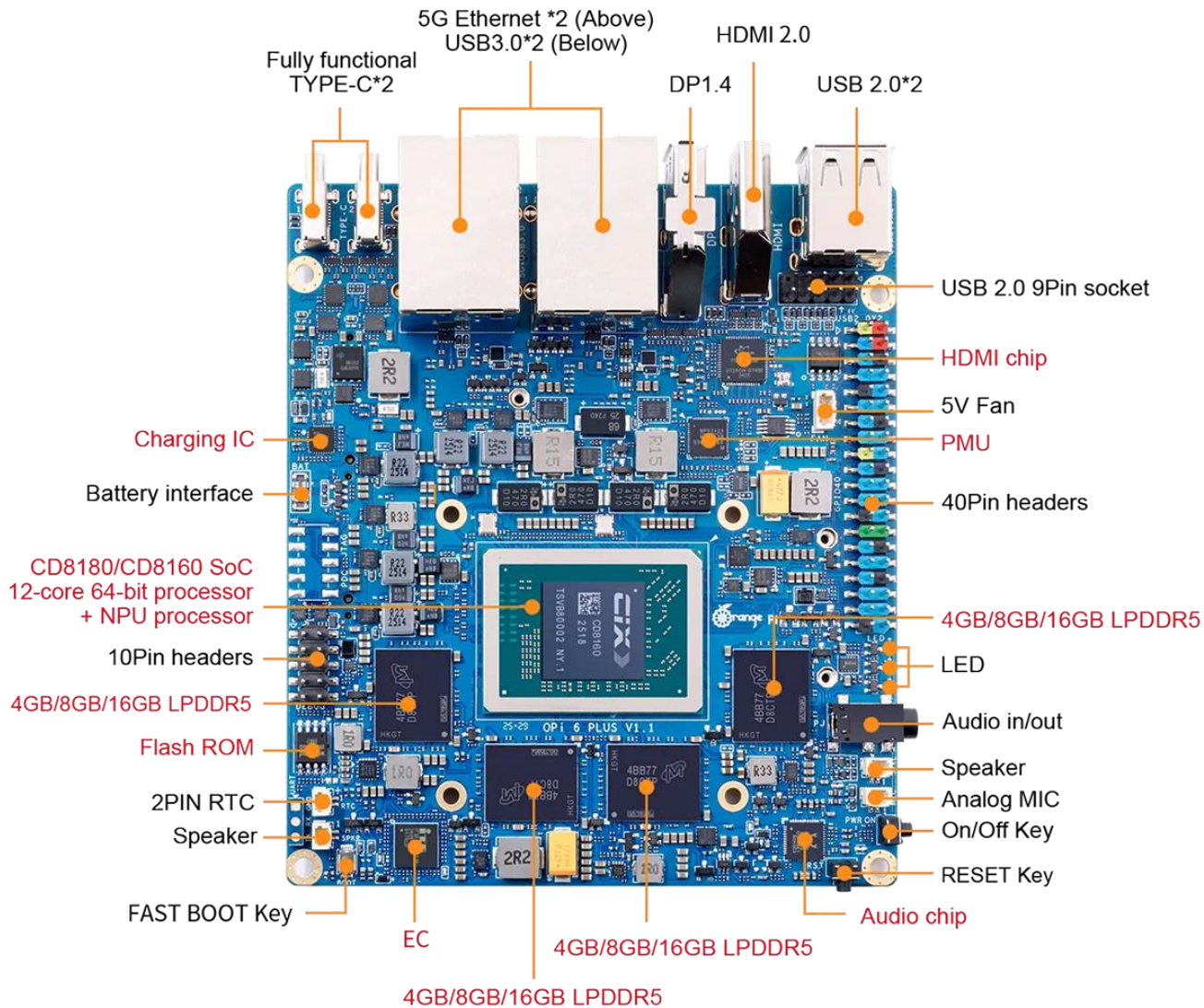
TOP VIEW



BOTTOM VIEW



INTERFACES & CONNECTIVITY | Orange Pi 6 Plus



USB & POWER

2x USB 3.2 Gen2, 2x USB 2.0
2x USB-C (DP Alt Mode + PD 100W)

NETWORKING

Dual 5GbE (RTL8126)
M.2 Key-E for Wi-Fi/BT

STORAGE

2x M.2 Key-M 2280 (PCIe 4.0 NVMe)
MicroSD Slot
64Mbit SPI NAND Flash

DISPLAY & CAMERA

HDMI 2.1 (8K@60Hz), DP 1.4, eDP
2x 4-lane MIPI CSI

EXPANSION

40-pin GPIO Header
Audio Jacks & Speaker Headers

HARDWARE SPECIFICATION | Orange Pi 6 Plus

CPU	CIX P1 (12-core ARMv9: 4x Cortex-A720 + 4x Cortex-A720 + 4x Cortex-A520)
GPU & NPU	ARM Immortalis-G720 MC10 (Ray Tracing) Up to 45 TOPS Total AI
RAM	16GB / 32GB / 64GB 128-bit LPDDR5
Storage	2x M.2 NVMe SSD (PCIe 4.0) MicroSD slot SPI NAND
Connectivity	Dual 5GbE Ethernet M.2 Key-E Wi-Fi/BT slot
Display & Camera	HDMI 2.1 (8K) DP 1.4 eDP USB-C DP 2x MIPI CSI
USB & Power	2x USB 3.2 Gen2 2x USB-C (100W PD) 2x USB 2.0
Dimensions	115mm x 100mm

ORANGE PI 6 PLUS

Next-Gen 12-Core Flagship

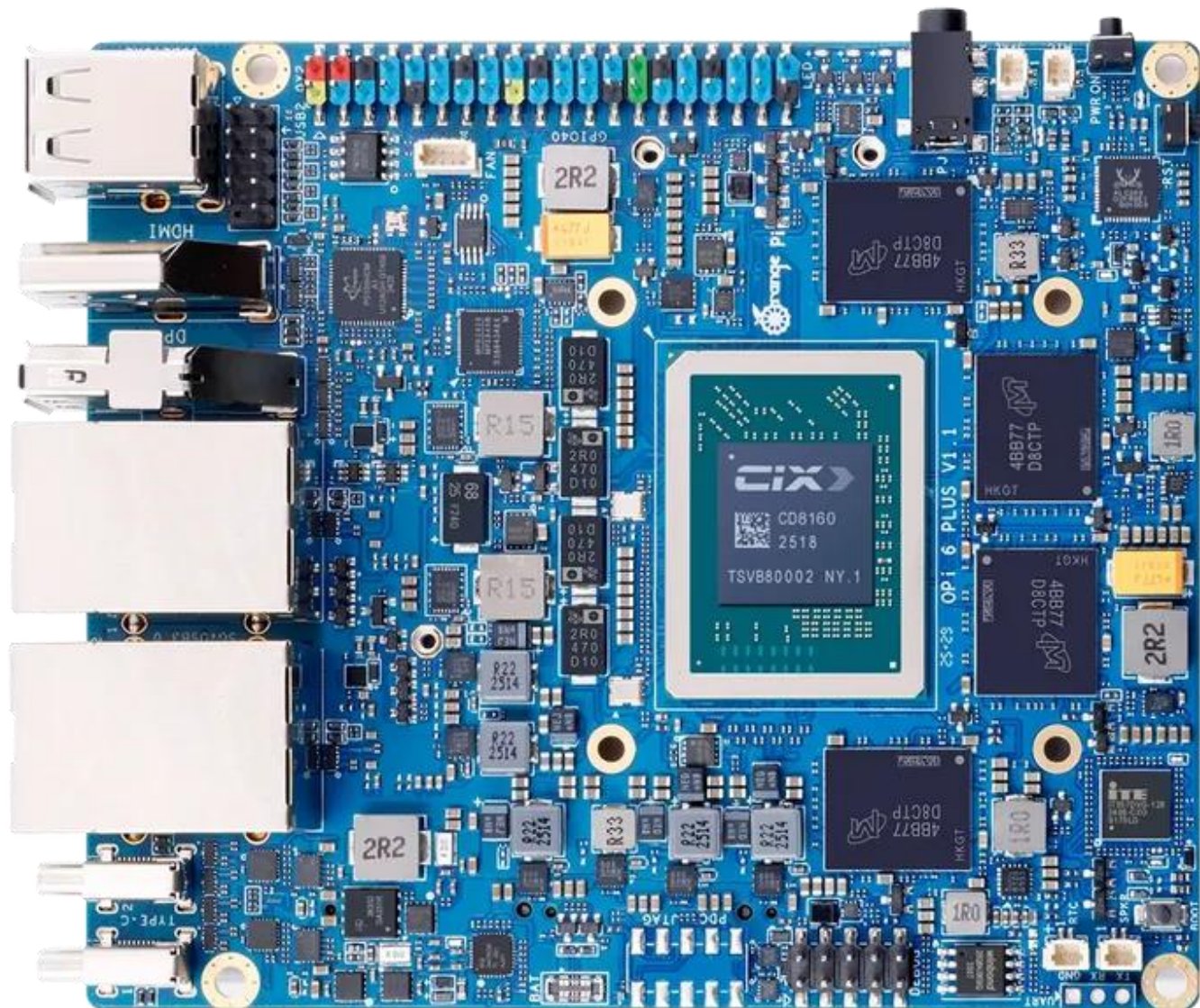
Powered by CIX P1 (12-core ARMv9). Up to 45 TOPS combined AI power. Features Dual 5GbE, 2x M.2 NVMe slots, and hardware ray tracing.

45 TOPS

Total AI Power

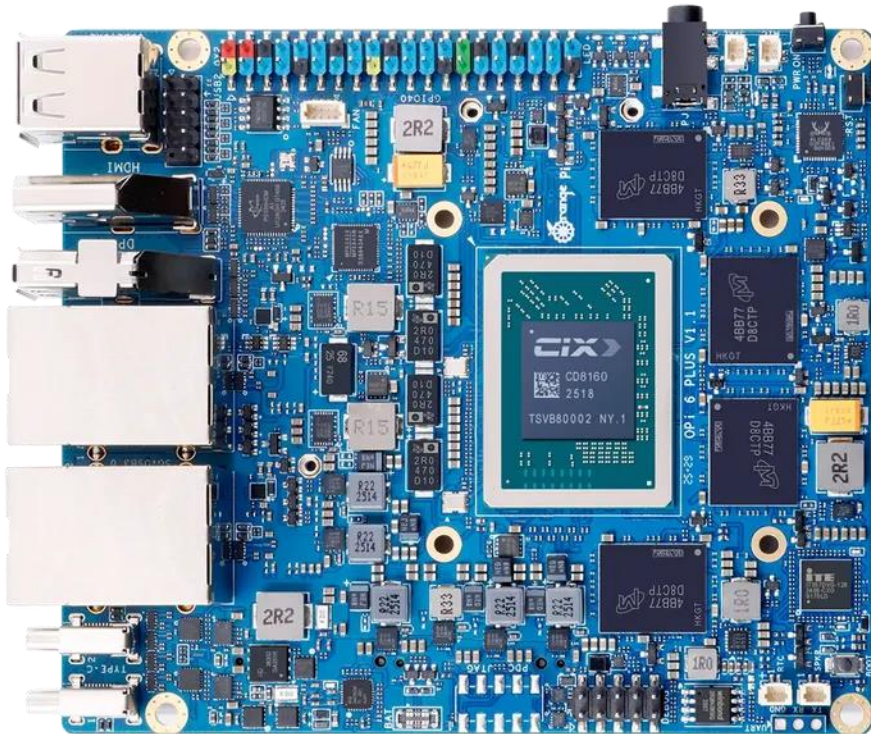
Dual 5GbE

Ethernet

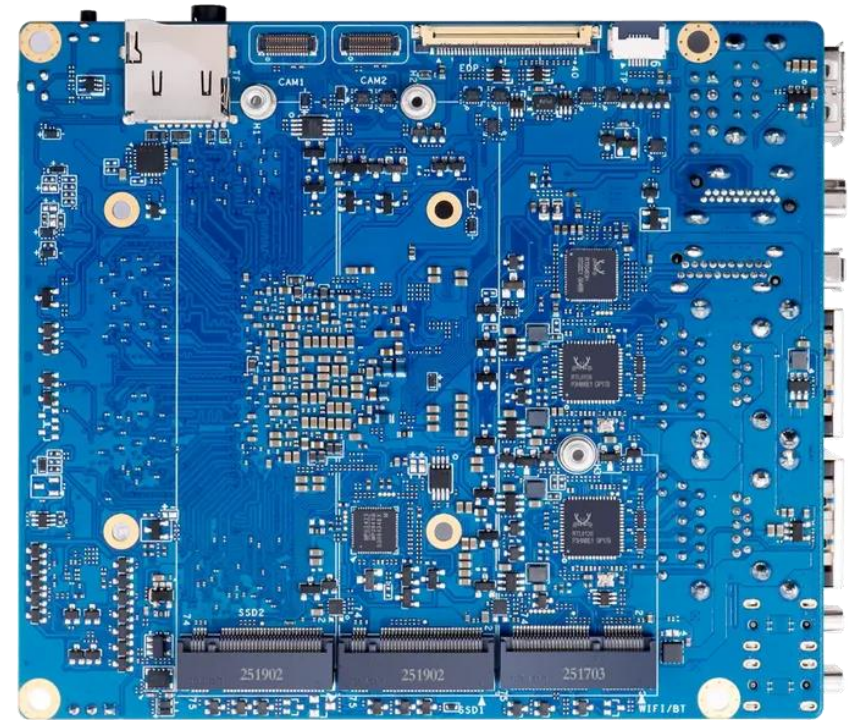


BOARD VIEWS | Orange Pi 6 Plus

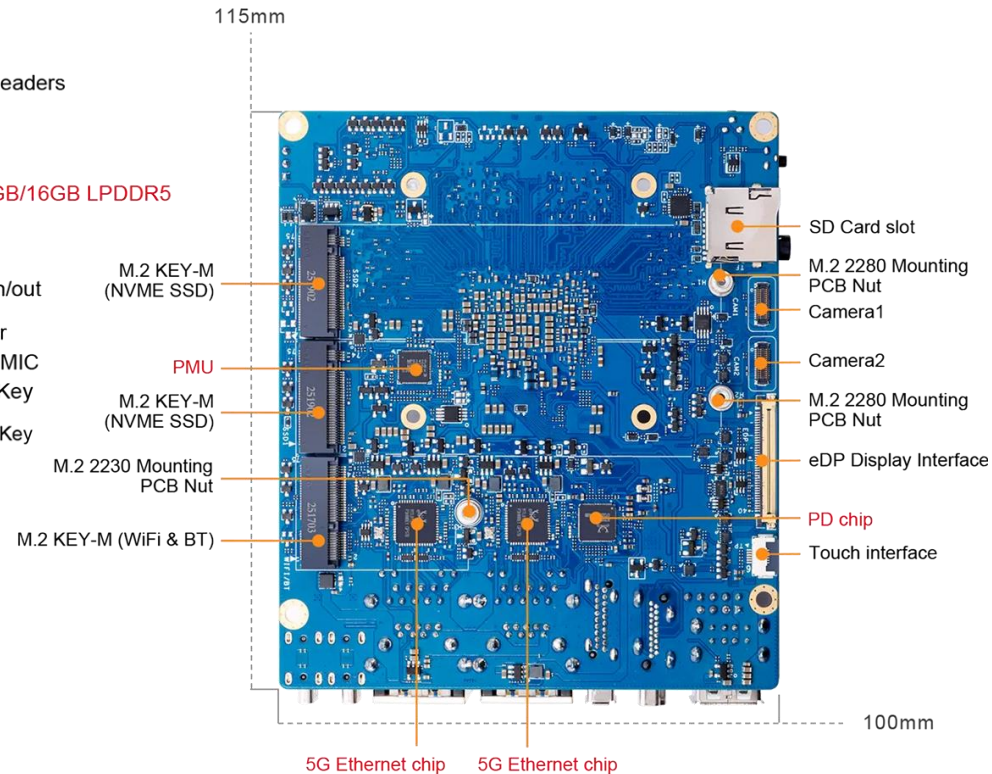
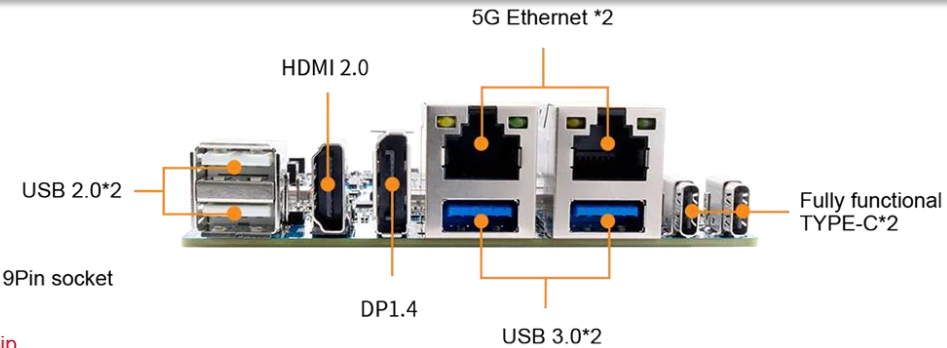
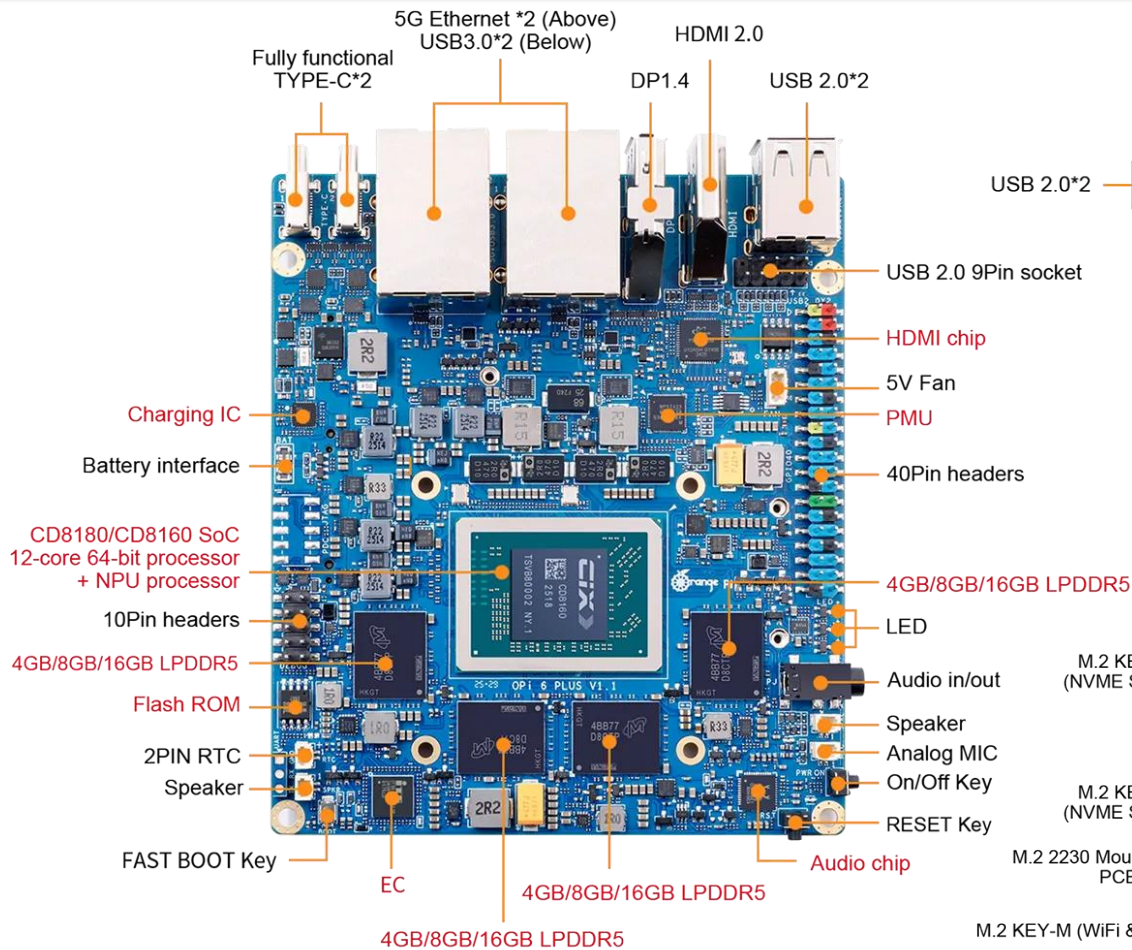
TOP VIEW



BOTTOM VIEW



INTERFACES & CONNECTIVITY | Orange Pi 6 Plus



USB & POWER

- 2x USB 3.2 Gen2, 2x USB 2.0
- 2x USB-C (DP Alt Mode + PD 100W)

NETWORKING

- Dual 5GbE (RTL8126)
- M.2 Key-E for Wi-Fi/BT

STORAGE

- 2x M.2 Key-M 2280 (PCIe 4.0 NVMe)
- MicroSD Slot
- 64Mbit SPI NAND Flash

DISPLAY & CAMERA

- HDMI 2.1 (8K@60Hz), DP 1.4, eDP
- 2x 4-lane MIPI CSI

EXPANSION

- 40-pin GPIO Header
- Audio Jacks & Speaker Headers

HARDWARE SPECIFICATION | Orange Pi 6 Plus

CPU	CIX P1 (12-core ARMv9: 4x Cortex-A720 + 4x Cortex-A720 + 4x Cortex-A520)
GPU & NPU	ARM Immortalis-G720 MC10 (Ray Tracing) Up to 45 TOPS Total AI
RAM	16GB / 32GB / 64GB 128-bit LPDDR5
Storage	2x M.2 NVMe SSD (PCIe 4.0) MicroSD slot SPI NAND
Connectivity	Dual 5GbE Ethernet M.2 Key-E Wi-Fi/BT slot
Display & Camera	HDMI 2.1 (8K) DP 1.4 eDP USB-C DP 2x MIPI CSI
USB & Power	2x USB 3.2 Gen2 2x USB-C (100W PD) 2x USB 2.0
Dimensions	115mm x 100mm

ORANGE PI

AI Studio Pro

Inference-Focused Workstation

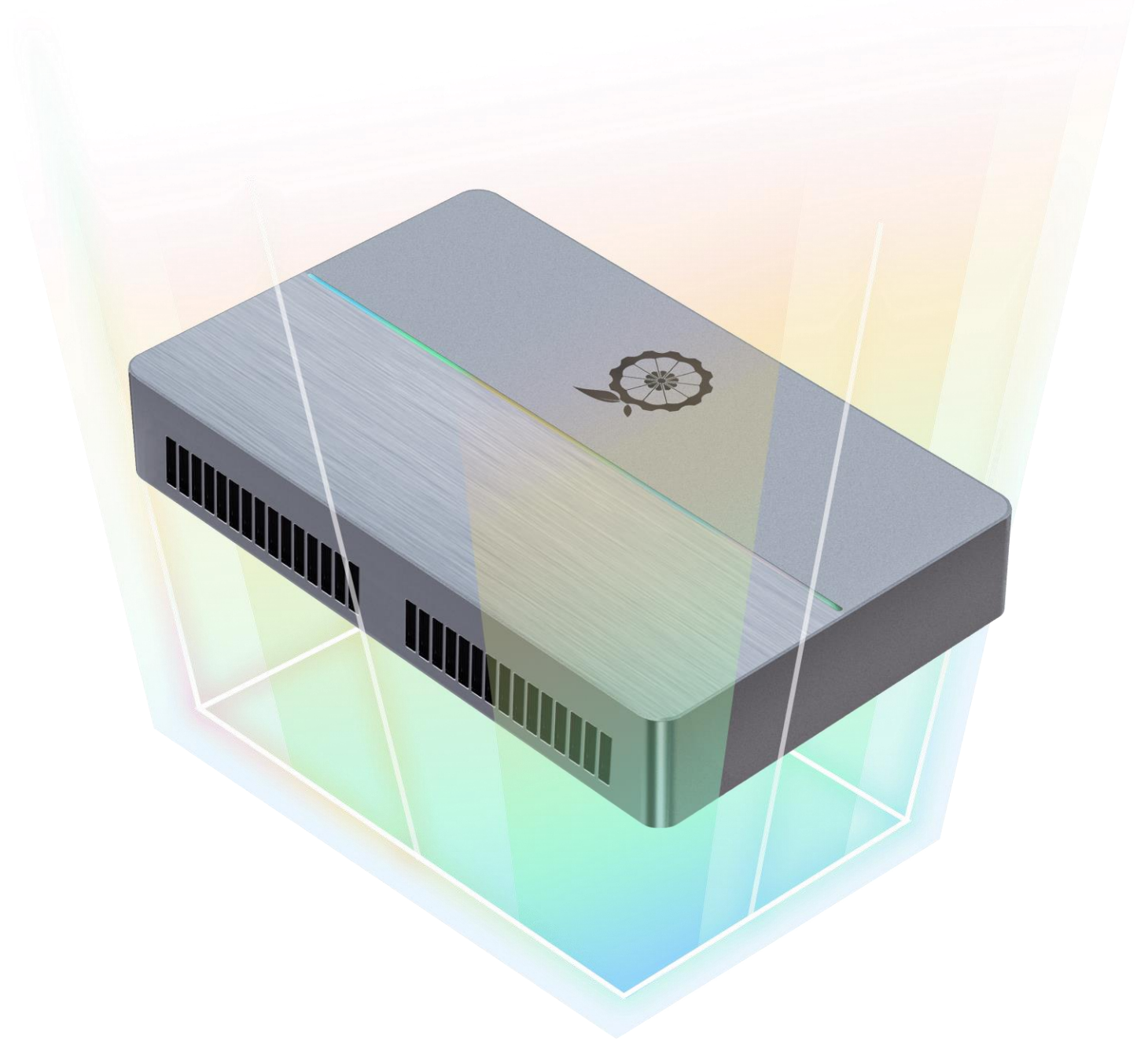
A modular, stacked AI Mini-PC built for LLMs and deep learning. Featuring dual Ascend 310 processors, up to 192GB LPDDR4X, and 352 TOPS of immense computing power via a single USB 4.0 interface.

352 TOPS

Total AI Power

192 GB

Max RAM



UNPRECEDENTED INFERENCE PERFORMANCE

**352
TOPS**

Combined AI Computing
Power for Next-Gen LLMs

192 GB

Massive LPDDR4X
Memory for Complex
Multi-Modal Models

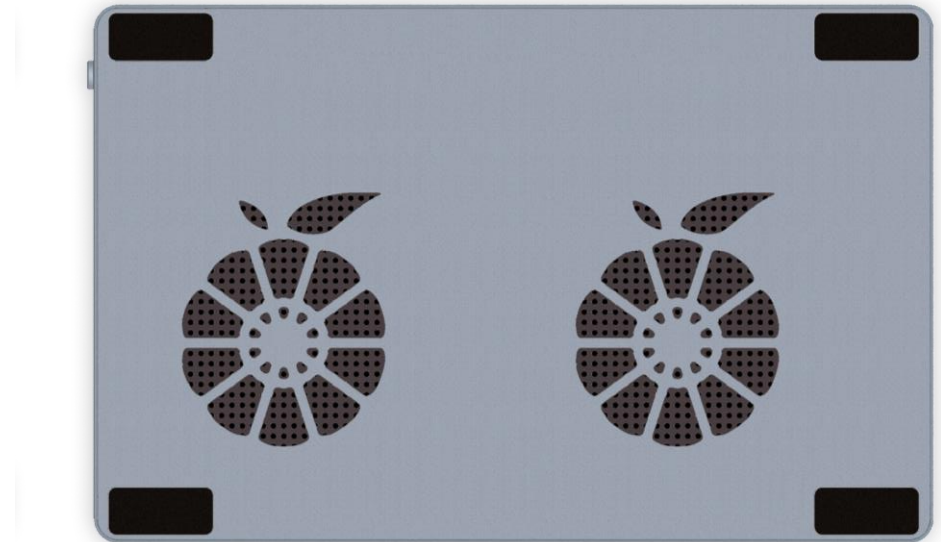


UNIT VIEWS | AI Studio Pro

FRONT VIEW



BACK VIEW (I/O)



MINIMALIST INTERFACE | AI Studio Pro



PRIMARY CONNECTION

1x USB 4.0 Type-C

(Handles all data, networking, and display via external hub/dock)

POWER

12V 10A DC Jack (120W Supply)

Power Button

INDICATORS

RGB Light Strip (Chassis)

Status LED Indicators

INTERNAL DESIGN

Modular Stacked Layout

Dual Cooling Fans

HARDWARE SPECIFICATION | AI Studio Pro

Processor (SoC)	2x Huawei Ascend 310 processors (16 Cores Total) Integrates ARM, AI, Vector, and Image cores
AI Compute Power	Up to 352 TOPS
Memory (RAM)	96GB or 192GB LPDDR4X (Rate: 4266 Mbps)
Storage	2x 32MB SPI Flash *Requires external USB 4.0 storage/dock for OS and data
Main Interface	1x USB 4.0 Type-C (Up to 40Gbps)
Power	12V 10A DC Input (120W)
Supported OS	Ubuntu 22.04.5 (Linux 5.15) Windows (Upcoming)
Target Applications	Large Language Models (LLMs), OCR, Face/Target Recognition, VR, Multimodal AI, Content Moderation, Medical AI, IoT Edge

AI STUDIO PRO AS eGPU / eNPU

USB 4.0 PCI Interlink

Unleash massive AI power by connecting AI Studio Pro as an external eGPU / eNPU.

Unlike conventional USB 3.1 or less, the USB 4.0 interface provides direct PCIe lane access. This eliminates data bottlenecks, enabling high-bandwidth LLM and deep learning workloads instantly on any supported device.

ORANGE PI

Zero 2

Ultra-Compact Quad-Core SBC

Powered by Allwinner H616 with a Quad-core Cortex-A53 processor. Featuring 1GB DDR3, Gigabit Ethernet, dual-band Wi-Fi, and Bluetooth 5.0 in an incredibly small footprint.

1 GB

DDR3 RAM

Wi-Fi + BT

Wireless

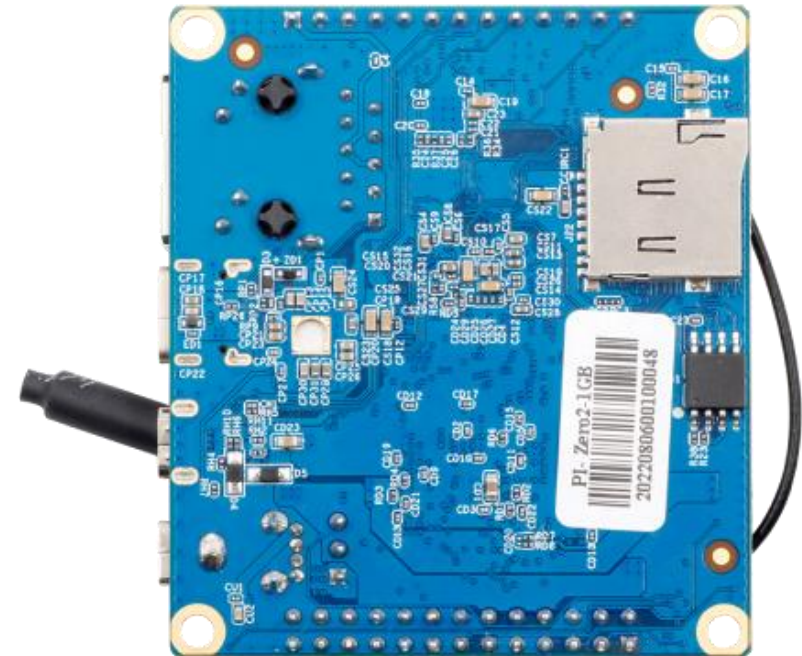


BOARD VIEWS | Orange Pi Zero 2

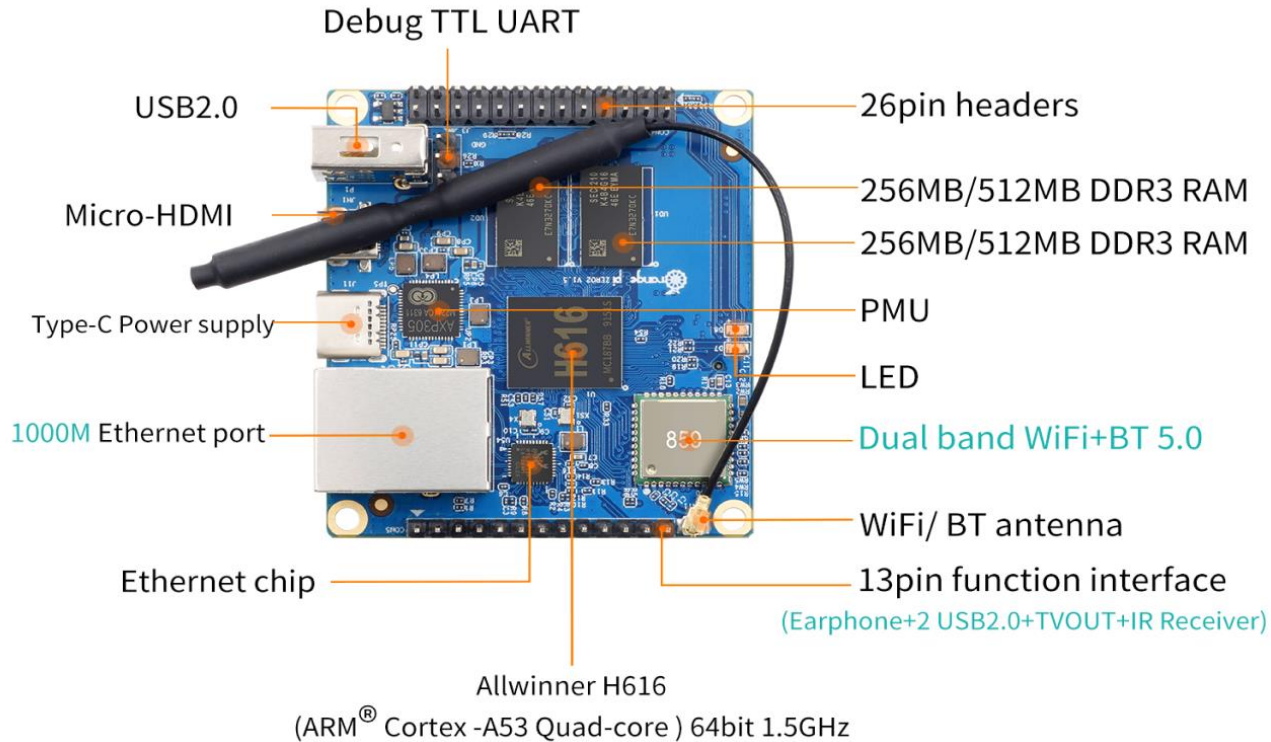
TOP VIEW



BOTTOM VIEW



INTERFACES & CONNECTIVITY | Orange Pi Zero 2



USB & DISPLAY

1x USB 2.0 HOST (Onboard) + 2x via 13-pin
Micro HDMI 2.0a (4K@60fps)
TV CVBS Output (via 13-pin)

NETWORKING

Gigabit Ethernet (1000M)
Wi-Fi (802.11 a/b/g/n/ac) + BT 5.0 (AW859A)

STORAGE

1GB DDR3 RAM
MicroSD (TF) Slot
2MB SPI Flash

EXPANSION

26-pin Header (I2C, SPI, UART, GPIO)
13-pin Header (2x USB, IR, TV, Audio)

HARDWARE SPECIFICATION | Orange Pi Zero

2

CPU	Allwinner H616 64-bit Quad-core Cortex-A53
GPU	Mali G31 MP2 (Supports OpenGL ES 1.0/2.0/3.2, OpenCL 2.0)
RAM	1GB DDR3 (Shared with GPU)
Storage	MicroSD (TF) Card Slot 2MB SPI Flash
Networking	Gigabit Ethernet Wi-Fi 5 (ac) Bluetooth 5.0
Display & Audio	Micro HDMI 2.0a (4K@60fps) TV CVBS & Audio via 13-pin header
USB	1x USB 2.0 HOST 2x USB 2.0 (via 13-pin header)
Expansion	26-pin header 13-pin functional header
Power	USB Type-C (5V/3A)

ORANGE PI 3 LTS

Long-Term Support Edition

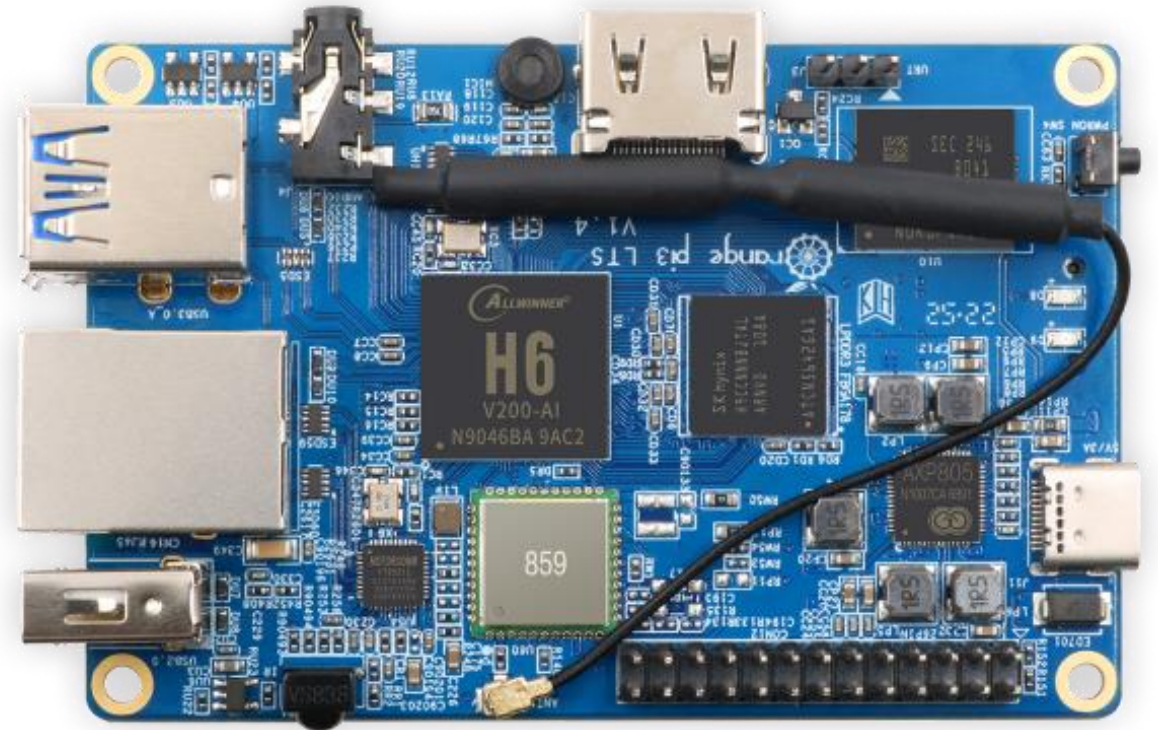
Built for stability and long-term projects. Features an Allwinner H6 Quad-core Cortex-A53 processor, 2GB LPDDR3 RAM, and 8GB onboard eMMC storage.

2 GB

LPDDR3

8 GB

eMMC Storage

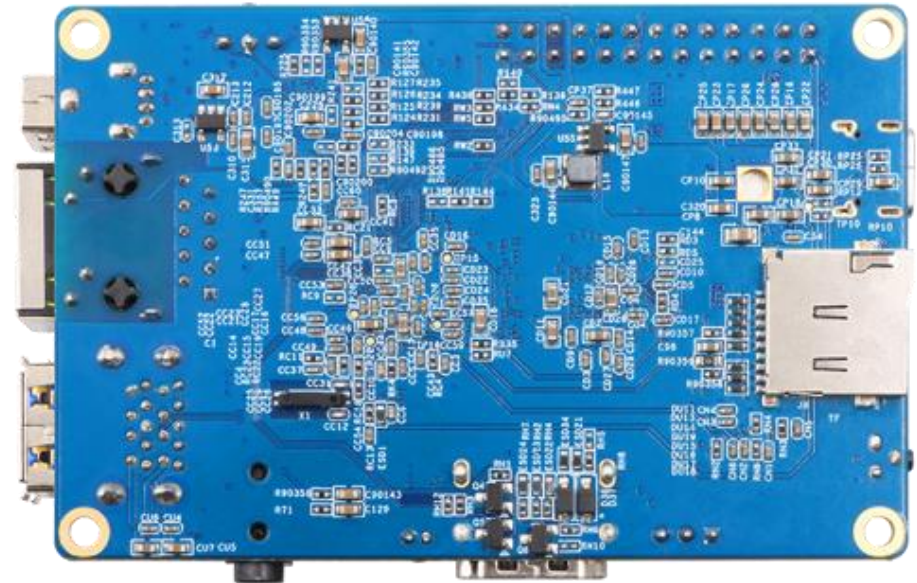


BOARD VIEWS | Orange Pi 3 LTS

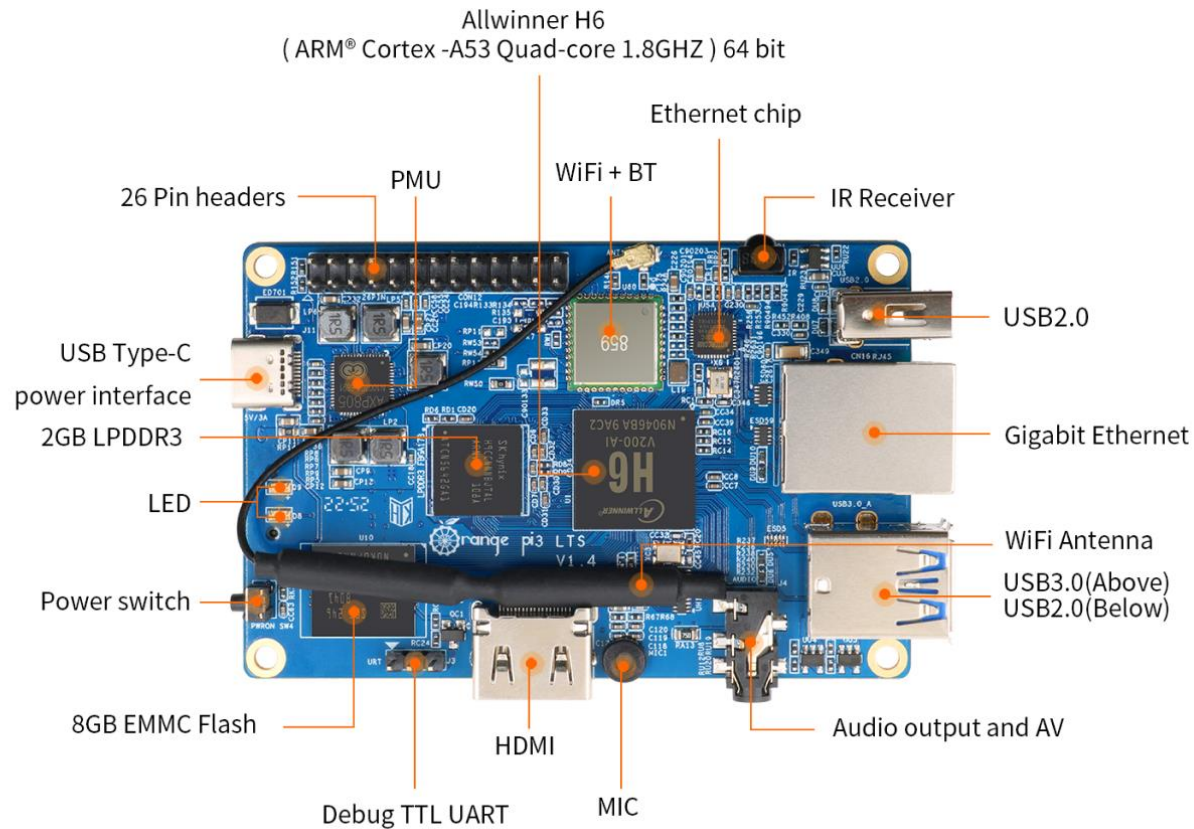
TOP VIEW



BOTTOM VIEW



INTERFACES & CONNECTIVITY | Orange Pi 3 LTS



USB & DISPLAY

1x USB 3.0 HOST
1x USB 2.0 HOST, 1x USB 2.0 OTG
HDMI 2.0a (4K Support)

NETWORKING

Gigabit Ethernet (YT8531C)
Wi-Fi (802.11 a/b/g/n/ac) + BT 5.0 (AW859A)

STORAGE

2GB LPDDR3 RAM
8GB Onboard eMMC Flash
MicroSD (TF) Slot

EXPANSION

26-pin Header (I2C, SPI, UART, GPIO)
3.5mm Audio Port
IR Receiver

HARDWARE SPECIFICATION | Orange Pi 3 LTS

CPU	Allwinner H6 Quad-core 64-bit ARM Cortex-A53 @ 1.8GHz
GPU	Mali T720 (Supports OpenGL ES3.1/3.0/2.0/1.1, DirectX 11)
RAM	2GB LPDDR3 (Shared with GPU)
Storage	8GB eMMC Flash MicroSD (TF) Card Slot
Networking	Gigabit Ethernet (10/100/1000M) Wi-Fi 5 (ac) Bluetooth 5.0
Display	HDMI 2.0a (4K Output) TV CVBS Output
USB	1x USB 3.0 HOST 1x USB 2.0 HOST 1x USB 2.0 OTG
Expansion	26-pin header (I2C, SPI, UART, GPIO)
Power	USB Type-C (5V/3A)



ORANGE PI AI STATION SOLUTIONS: UNLOCKING PAKISTAN'S POTENTIAL

Built for AI Developers • Empowering Infrastructure • Enhancing Lives



ORANGE PI
AI STATION

Core Hardware



ORANGE PI
AI STUDIO



ORANGE PI
AI PRO

- Built for AI Developers
- High Performance
- Rich Interfaces
- Flexible Expansion

DEPLOYMENT IN THE COMMUNITY:
TRAFFIC MANAGEMENT
IN PAKISTAN

SMART
TRAFFIC
OPTIMIZATION



INNOVATION IN ACTION: PAKISTANI LABS



- Built for AI Developers
- High Performance
- Rich Interfaces
- Flexible Expansion

Technical Capabilities

- Stronger AI Performance
- Better Heat Dissipation
- Up to 24GB Unified RAM
- AI computing power of 20 TOPS

DEPLOYMENT IN THE COMMUNITY: TRAFFIC MANAGEMENT
ADVANCED ROBOTICS PLATFORMS



THE AI REVOLUTION IS HERE: ORANGE PI IS NOW AVAILABLE IN PAKISTAN

TECHNICAL & SALES QUERIES:

Contact Dr. Mughees Sarwar Awan Phone: 03435337123

SALES & DISTRIBUTION (PAKISTAN):

AI Khair Traders Phone: 0333-6387847



ULTIMATE KITS GUIDE: THE POWER OF ORANGE PI.

AI STUDIO & AI PRO KITS

Re-imagined Section



ORANGE PI
AI STUDIO

ORANGE PI
AI PRO

AI Chip
(e.g., RK3588)

RAM
RK3588

Interfaces
HDMI, USB-C, etc

RAM
Up to 24GB

Storage
NvMe Unified

Performance
20 TOPS

Storage
Multiple interfaces

Interfaces
HDMI, USB-C, etc.)

Heat Dissipation
Active & Passive

STARTER KITS



OP5

- Affordable Performance
- Quad-Core ARM
- Various RAM options
- Micro HDMI output
- Expansion headers
- Best for Beginners and Learning



Orange Pi 5 and 5 Plus



Power Supply



Ready-to-God SD Card

- Affordable Performance
- Quad-Core ARM
- Various RAM options
- Micro HDMI output
- Expansion headers
- Best for Beginners and

- Full Customization
- NPU included
- Dual Ethernet ports
- PCIe 2.0/3.0 interfaces
- MIPI CSI/DSI connectors
- Targeted at IoT/Edge Solutions

DEVELOPER KITS



- Full Customization
- Dual Ethernet ports
- PCIe 2.0/3.0 Interfaces
- MIPI CSI/DSI connectors
- Targeted at IoT/Edge Solutions

ALL-IN-ONE & SPECIAL KITS



- Pre-Integrated Touchscreen
- Smart Home Hub
- Custom Kiosk ready
- Sensor Array compatible
- Wireless (Wi-Fi 6, BT5.0)

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