khadas.com



# **Khadas Brand**

Founded in 2016, Khadas' journey began with a deep-seated passion for nurturing creativity. We take pride in our global reputation for delivering space-saving, easy-to-use, modular, and expandable products. We aim to allow our users to create bespoke digital experiences. enabling each of them to achieve their own unique dreams.

Our initial foray into the single-board computer (SBC) market proved to be just the beginning. Our offerings now range from high-end audio solutions to cutting-edge modular PCs.

#### Our portfolio includes:

- · Mind Series: Ultra-compact modular PCs that can be customized with a full array of expansion modules, including but not limited to an eGPU and portable display.
- · Maker Series: High-caliber SBCs recognized in the Maker community for delivering creativity-inspiring and cost-effective solutions across a range of industries and markets.
- · Music Series: High-fidelity DACs and headphone amplifiers, known for their superior quality, sleek design, and revolutionary technology like Balanced RCA.

In addition to our thoughtfully designed hardware, Khadas enhances our user experience by providing continuous software updates and support for all our products.

2018

November

### 2025 January **Future** Mind 2s **Developments** Intel® Core™ Ultra Powered by Intel® Processors (Series 2) Khadas will continue to release more Arrow Lake platform exciting and innovative products The Al-enhanced version of Mind 2 2025 2024 September August Tea Pro Mind 2 Al Maker Kit Ultra-Slim Magnetic A creativity platform tailor-made DAC & Headphone for Developers and Makers Amplifier powered by Intel® Lunar Lake platform Intel® Core™ Ultra Processors (Series 2)



ported Fuchsia OS to the device



VIM3/3L

VIM3/3L with Amlogic

A311D & S905D3



**February** 

Tea

Khadas Tea, world's first

MagSafe-compatible headphone amp

2020

December

**Tone2 Pro** 





Mind 1 The next-gen modular PC with 13th Gen Intel® Core™ i7-1360P processor. launched with a plethora of expansion modules including Mind Dock and Mind Graphics

2023 September







Intel® Core™ Ultra Processors (Series 1)



2024

September

Mind 2

A more powerful version of Mind with Intel® Core™ Ultra 7 155H processor and Thunderbolt 4 interface



2022 September

Edge2 Rockchip RK3588S ARM PC with OOWOW preinstalled





13th Gen Intel® Core™ processor

# Mind Family

Keep Your Creative Flow Uninterrupted



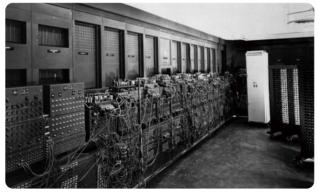


\* The iF Design Award acknowledges Mind Family Products (including Mind, Mind Dock, Mind Graphics).

# Why Mind?

Consider the historical milestones that shaped modern computing. On a frosty February 14th in 1946, ENIAC, the world's inaugural computer, came into being in Pennsylvania, USA. A massive machine weighing over 30 tons, it marked a pivotal moment in the digital revolution.

Fast-forward to a warm August 12th in 1981, IBM introduced the IBM 5150, the first personal computer, heralding a new era of personalized computing.





Throughout the years, computing evolved into various forms, from desktops and mini PCs to laptops and tablets, each meticulously tailored to specific use cases for optimal user experience.

However, the challenge lies in the transition between these computing scenarios. The need to effortlessly switch between a desktop setup in the office, a portable solution on the move, and a seamless transition to conference rooms remains unmet.

This is where Khadas stands apart as the trailblazer.

<sup>\*</sup> To learn about the story of Mind, please visit https://www.khadas.com/post/why-khadas-mind.

# **Mind Link**



The patented Mind Link interface designed by Khadas, allows Mind to adapt to a range of computing scenarios by combining with various expansion modules. With Mind as the foundation, Khadas continues to expand the Mind Family by designing new expansion modules based on user needs. Thanks to the magnetically-aligned Mind Link interface, you can seamlessly switch between expansion modules without saving your work or shutting down your device. It's easy to carry and offers one-click docking.

**Mind Graphics** 



**Mind Dock** 



Mind xPlay



# Mind

### Portable Workstation



Mind is equipped with a 5.55Wh built-in battery, undocks and redocks with various modules without needing to shut down or save your files. After reconnecting to power or a new module, the entire software environment retains the previous state. The 5.55Wh built-in battery provides up to 25 hours of standby time, so that your work and inspiration are always available. Different scenarios, same experience.

<sup>\*</sup> To learn more about Mind, please visit https://www.khadas.com/mind.

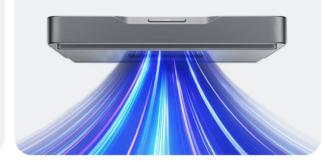
# **Ultra-Thin & Ultra-Light**

Weighs 435 grams, as thin as 2 cm Palm-sized, easily fits in your pocket CNC anodized aluminum casing Compact power adapter



# One Device for Everything

Exclusive Mind Link interface
Extensive Mind Family expansion modules
Supports a wide range of applications and scenarios
Build your dream modular PC



# **Superior Performance**

Up to Intel® Core™ Ultra 7 processor

Tri-engine architecture: CPU + GPU + NPU

Intel Arc™ integrated graphics

Engineered for the AI era\*



\* These specs apply to Mind 2/2s. Mind 1 specs may vary.

# **Uninterrupted Mobility**

Built-in 5.55Wh battery
Automatic sleep upon power disconnection
25-hour standby
2-second wake-up, instantly ready



# Mind Interfaces

Mind is equipped with six interfaces on its compact body, meeting basic input and output needs. The HDMI interface supports 4K (60 Hz) display, while the Thunderbolt 4 and USB4 interfaces support 8K (60Hz) as well as 4K (240Hz) display, and additional interfaces can be added through Mind Link.



<sup>\*</sup> These are the specs for Mind 2 (Intel® Core ™ Ultra). The USB-C interfaces differ for Mind 1.

# **Compact Body**

Using an ingenious design, Mind integrates all essential components such as the motherboard, CPU, memory, built-in standby battery, SSD and heatsink into a compact unibody aluminum alloy case that is no larger than a quarter of an A4 sheet of paper. Weighing only 435 grams, and just  $146 \times 105 \times 20$  mm in size, it is only 1/48th the volume of traditional PCs. This means you can easily place Khadas Mind into a bag or large pocket, allowing for unprecedented mobility and freedom.



# Mind 2s

World's First Mini PC Powered by Intel Arrow Lake H Processor







<sup>\*</sup> In the actual product, the heatsink will be black in color due to the coating and curing process.

# Mind 2s Specs



### Mind 2s

### Ultra 7, 255H

#### Processor

Intel® Core™ Ultra 7 255H 5.1GHz turbo frequency 16 cores, 16 threads 24MB cache

### Memory

64GB LPDDR5X memory Maximum frequency: 8400 MHz

#### Storage

2TB PCle 4.0 M.2 2230 SSD Expandable: PCle 4.0 M.2 2230 SSD × 1

#### I/O Ports

Thunderbolt 4 × 1 USB4 × 1 HDMI 2.1 TMDS (18Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2

### Graphics

Intel Arc™ GPU 2.25GHz dynamic frequency

### **Display Output**

HDMI 2.1 TMDS: up to 4K (60Hz) Thunderbolt 4 or USB4: up to 8K (60Hz), 5K (72Hz) or 4K (240Hz)

### Mind Link

PCle 5.0 x8 bandwidth, Max speed of 256 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power

### Size & Weight

146 × 105 × 20 mm 435 g

# **Mind 2 Specs**



### Mind 2

## Ultra 7, 64GB / 32GB Version

#### Processor

Intel® Core™ Ultra 7 155H processor 4.8GHz turbo frequency 16 cores, 22 threads 24MB cache

### Memory

64GB LPDDR5X or 32GB LPDDR5 memory Maximum frequency: 7467MHz or 6400MHz

### Storage

2TB or 1TB PCIe 4.0 M.2 2230 SSD Expandable: PCIe 4.0 M.2 2230 SSD × 1

#### I/O Ports

Thunderbolt 4 × 1 USB4 × 1 HDMI 2.1 TMDS (18Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2

### Graphics

Intel Arc™ GPU 2.25GHz dynamic frequency

### **Display Output**

HDMI 2.1 TMDS: up to 4K (60Hz) Thunderbolt 4 or USB4: up to 8K (60Hz), 5K (72Hz) or 4K (240Hz)

### Mind Link

PCle 5.0 x8 bandwidth, Max speed of 256 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power

### Size & Weight

146 × 105 × 20 mm 435 g

### Ultra 5, 16GB Version

#### **Processor**

Intel® Core™ Ultra 5 125H processor 4.5GHz turbo frequency 14 cores, 18 threads 18MB cache

#### Memory

16GB LPDDR5 memory Maximum frequency: 6400MHz

#### Storage

512GB PCle 4.0 M.2 2230 SSD Expandable: PCle 4.0 M.2 2230 SSD × 1

#### I/O Ports

Thunderbolt 4 × 1 USB4 × 1 HDMI 2.1 TMDS (18Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2

#### Graphics

Intel Arc™ GPU 2.2GHz dynamic frequency

### **Display Output**

HDMI 2.1 TMDS: up to 4K (60Hz) Thunderbolt 4 or USB4: up to 8K (60Hz), 5K (72Hz) or 4K (240Hz)

### Mind Link

PCIe 5.0 x8 bandwidth, Max speed of 256 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power

### Size & Weight

146 × 105 × 20 mm 435 g

# **Mind 1 Specs**



### Mind 1

### i7, 32GB Version

#### Processor

13th Gen Intel® Core™ i7-1360P processor 5.0GHz turbo frequency 12 cores, 16 threads 18MB cache

### Memory

32GB LPDDR5 memory Maximum frequency: 5200MHz

### Storage

1TB PCle 4.0 M.2 2230 SSD Expandable: PCle 3.0 M.2 2230 SSD × 1

#### I/O Ports

Full-featured USB-C × 2 HDMI 2.0 (18Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2

### Graphics

Intel Iris® Xe Graphics
1.5GHz dynamic frequency

### **Display Output**

HDMI 2.0: up to 4K (60Hz)
Full-featured USB-C: up to 8K (60Hz),
5K (72Hz) or 4K (240Hz)

#### Mind Link

PCle 4.0 x4 bandwidth, Max speed of 64 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power

### Size & Weight

146 × 105 × 20 mm 435 g

### i5. 16GB Version

#### Processor

13th Gen Intel® Core™ i5-1340P processor 4.6GHz turbo frequency 12 cores, 16 threads 12MB cache

### Memory

16GB LPDDR5 memory Maximum frequency: 5200MHz

#### Storage

512GB PCle 4.0 M.2 2230 SSD Expandable: PCle 3.0 M.2 2230 SSD × 1

#### I/O Ports

Full-featured USB-C × 2 HDMI 2.0 (18Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2

### Graphics

Intel Iris® Xe Graphics 1.45GHz dynamic frequency

### **Display Output**

HDMI 2.0: up to 4K (60Hz)
Full-featured USB-C: up to 8K (60Hz),
5K (72Hz) or 4K (240Hz)

#### Mind Link

PCle 4.0 x4 bandwidth, Max speed of 64 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power

### Size & Weight

146 × 105 × 20 mm 435 q

# **Mind Graphics**

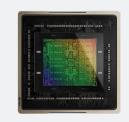
eGPU Module with I/O Expansion & Speakers





# Unleash Your GPU's Potential

Mind Link: 128 GT/s transmission speed Four times the bandwidth of Thunderbolt 4 to fully realize the potential of your GPU



### **Cutting-Edge Architecture**

NVIDIA® GeForce RTX™ 4060 Ti desktop GPU Ada Lovelace architecture 16GB / 8GB GDDR6 VRAM

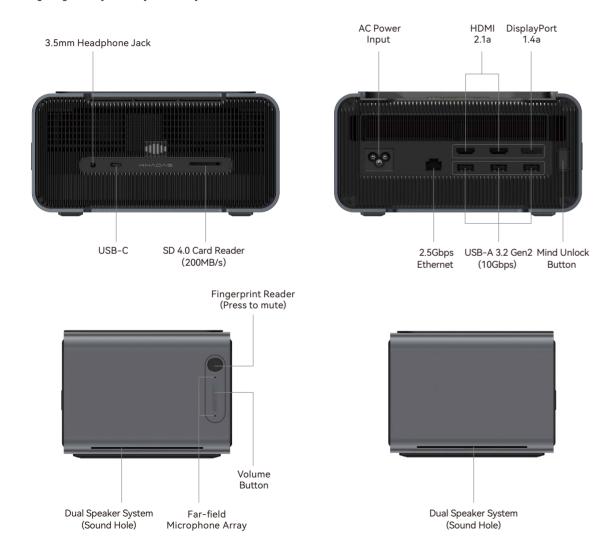


### **Multi-Device Compatibility**

Universal USB-C interface, supporting Thunderbolt 4/3

# **Mind Graphics Interfaces**

Housing the NVIDIA GeForce RTX 4060 Ti desktop-class dedicated graphics card, Mind Graphics seamlessly accelerates your 3D rendering and gaming tasks. Moreover, it can provide GPU acceleration to other laptops via USB-C connectivity. Mind Graphics also includes an array of built-in expansion interfaces, thus comprehensively meeting all your I/O needs. The built-in high-quality speakers bring delightful rhythms to your life beyond work.



# **Mind Graphics Specs**





### **GPU**

NVIDIA GeForce® RTX™ 4060 Ti (Desktop GPU) Architecture: Ada Lovelace GPU Max Power: 160W / 165W

#### VRAM

8GB / 16GB GDDR6

### Power

PSU Max Power: 300W PSU Type: Integrated GaN

### **Audio & Buttons**

Far-field Microphone Array Dual Speaker System Fingerprint Reader (Press to mute) Volume Button

### I/O Interfaces

USB-C × 1

\* When not connected to Mind, it supports Thunderbolt 4/3 graphics acceleration and PD charging.

USB 3.2 Gen2 (10 Gbps) × 3

HDMI 2.1a × 2

DisplayPort 1.4a × 1

2.5 Gbps Ethernet × 1

SD 4.0 Card Reader (200 MB/s) × 1

3.5mm Headphone Jack × 1

### **Supports 3rd Party Devices**

Supports Thunderbolt 4/3 connection Compatible with laptops and desktops Enjoy accelerated graphics & Recharge your device

### Size & Weight

199 mm × 133 mm × 100 mm 2.7 ka

# **Mind Dock**

All-in-one Expansion Dock





**Fingerprint Recognition**Unlock in milliseconds, private and convenient



**Stereo Speakers**Rotate-push volume knob
Endorsed by music enthusiasts

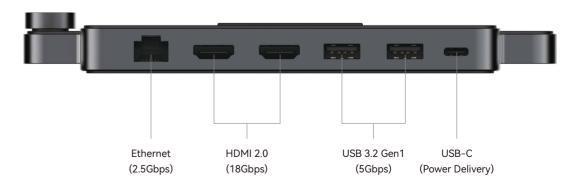


Rich I/O Expansion
Up to 9 interfaces for expansion needs
4K × 4 Display
2.5 Gbps Ethernet

# **Mind Dock Interfaces**

Mind Dock features up to 9 additional I/O interfaces, making multi-display setups and SD card reading convenient. With built-in stereo speakers, it caters to your audio entertainment needs. The millisecond-speed fingerprint reader supports fingerprint recognition across all Mind devices, ensuring comprehensive privacy and security protection.





# **Mind Dock Specs**





### Audio

3.5mm Headphone Jack (Mic supported) Stereo Speakers

### **Lights & Button**

Indicator Light × 1 (Breathing for disconnection)
Volume Knob × 1
Fingerprint Reader × 1

## Size & Weight

Size: 188 × 126 × 21.3 mm Weight: 465 g

### I/O Interfaces

USB-C (100W Max Charging) × 1 USB-A 3.2 Gen1 (5Gbps) × 3 HDMI 2.0 (18Gbps) × 2 Ethernet (2.5Gbps) × 1 SD 4.0 Card Reader (200MB/s) × 1

# Mind xPlay

Portable Display



<sup>\*</sup> Mind xPlay and more Mind Family expansion modules are currently in development. Please stay tuned.

# 13-inch 2.8K HD Portable Display

Make switching continue. Khadas Mind xPlay is a one-snap workflow relay for professionals. Built on Efficiency × Creation × Life Balance, it keeps momentum as you move. Snap on and continue—no reshuffle, no reboot. Carry less and start faster. Bag and desk stay tidy. The magnetic click feels good, the refined materials look right, and the adjustable stand keeps you comfortable at a desk, in a café, or on your lap.





### Form Factor

13" portable all-in-one display (built-in battery, speakers/mics, camera) with magnetic Mind Link and Pogo keyboard connector.

### Display

2880 × 1920 (~2.8K), 100% sRGB, HDR support, 500 nits 60 Hz.

### **Angles & Stand**

0-150° adjustable hinge for desk, tray table, or lap use.

### Size & Weight

290.5 × 199.95 × 9.5 mm, ~820 g (display) + ~340 g (keyboard).

### **Audio & Camera**

 $2 \times 2W$  side-firing speakers, dual microphones (clear pickup ~2 m), 2 MP camera.

#### **Power**

Built-in 4500 mAh; with Mind, supports 3h+ reverse power for short mobile sessions.

### I/O & Expansion

USB-C In (DP-in/charging), USB-C Out (DP-out/USB devices), Mind Link magnetic interface for Mind and Pogo connector for keyboard.

### Keyboard

79-key layout, Mode key customization, one-tap Copilot wake.

#### Materials

Anodized aluminum chassis, leather-covered keyboard, strong magnetic alignment.

# **Mind Maker Kit**

**Develop Our AI Future Together** 



Powered by the cutting-edge Intel® Lunar Lake platform, the Mind Maker Kit is an indispensable tool for Creatives, AI Developers, and Makers alike. Boasting an impressive 115 TOPS of computing power, it delivers the performance needed to tackle complex AI and development tasks with ease. When paired with the Mind Graphics eGPU, it offers seamless high-performance GPU support for demanding workflows and AI model optimization. With the innovative Mind Link—Khadas' open-source expansion interface—the possibilities for enhancing the capabilities of your Mind Maker Kit with external modules and accessories are limitless.



Khadas is proud to be Intel's official AI PC development partner.

The Mind Maker Kit comes pre-installed with the Intel AI PC

Development Kit\*, enabling developers to quickly and effortlessly install OpenVINO™ and other essential toolkits with just one click.

<sup>\*</sup> For more information about the Intel AI PC Development Kit, please visit https://www.intel.com/content/www/com/en/developer/topic-technology/ai-pc/dev-kit.html.



### Intel Lunar Lake Platform

Intel® Core™ Ultra 7 258V CPU (code-named Lunar Lake), delivering a combined computing power of 115 TOPS (CPU + GPU + NPU). Effortlessly handle real-time Al inference, large models, and complex tasks like object detection, NLP, and computer vision—all while meeting the demands of mobility, edge computing, and rapid prototyping.



## **Customizability & Expandability**

Utilize Mind Graphics through the Mind Link interface for RTX 4060 Ti GPU (16GB) support. To make the most out of the Mind Link open-source interface, you can even build your own external modules and accessories.

# Copilot + PC

Your everyday AI companion







Recall Live Captions Cocreator

# Mind 2 Al Maker Kit Specs



### Mind 2 Al Maker Kit

### Ultra 7, 258V

### **Processor**

Intel® Core™ Ultra 7 258V 4.8GHz turbo frequency 8 cores, 8 threads 12MB cache

### **Al Performance**

Total computing power: 115 TOPS
Supported Al software frameworks: OpenVINO™,
WindowsML, DirectML, ONNX RT, WebGPU, etc.

### **GPU**

Intel Arc™ GPU, 140V 1.95GHz dynamic frequency

### NPU

Intel® AI Boost Up to 47 TOPS with sparsity support Optimized for Windows Studio Effects

### Memory

32GB LPDDR5X memory Maximum frequency: 8533 MHz

### Storage

1TB PCIe 4.0 M.2 2230 SSD Maximum read speed: 5150 MB/s Maximum write speed: 4900MB/s

### I/O Ports

USB4 (40Gbps) × 2 HDMI 2.1 (48Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2

### **Display Output**

HDMI 2.1: up to 8K (60Hz) or 4K (240Hz) USB4: up to 8K (60Hz) or 4K (240Hz)

### Mind Link

PCIe 5.0 x8 bandwidth, Max speed of 256 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power

### Size & Weight

146 × 105 × 20 mm 435 g

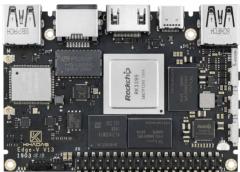
# **Maker Series**

SBCs Designed for Developers



# **Edge Series**







# Edge2

### Rockchip RK3588S

- CPU: 2.25GHz Quad Core ARM Cortex-A76 + 1.8GHz Quad Core Cortex-A55
- GPU: ARM Mali-G610 MP4 GPU up to 1GHz
- NPU: Build-in 6 TOPS Performance NPU
- Decoder & Encoder: 4K@60fps AV1, 8K@60fps H.265 Decoding 8K@30fps H.264/H.265 Encoding HDR, HDR10, HLG Video Processing
- Memory: 8GB/16GB LPDDR4X, 32GB/64GB eMMC
- Wireless: 802.11a/b/g/n/ac/ax 2T2R MIMO Wi-Fi 6, Bluetooth 5.0
- Full-featured Type-C Port, MIPI-CSI x3, up to 48MP, MIPI-DSI x2, up to 4K@60Hz https://www.khadas.com/edge2



# Edge-V

### Rockchip RK3399

- CPU: Dual Core Cortex A72 up to 1.8GHz + Quad Core Cortex A53 up to 1.5GHz
- GPU: Mali T864 GPU
- Decoder & Encoder: 4K VP9 and 4K 10bits H265/H264 Video Decoders, up to 60fps 1080P H.264 and VP8 Video Encoders
- Memory: 2GB/4GB LPDDR4, 16GB/32GB/128GB eMMC
- Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5, Bluetooth 5.0
- MIPI CSI × 2, Full RK3399 I/O, Gyroscope, up to 3 Independent Displays, Li-Po Battery https://www.khadas.com/edge-v

# Edge

### Rockchip RK3399

- CPU: Dual Core Cortex A72 up to 1.8GHz + Quad Core Cortex A53 up to 1.5GHz
- GPU: Mali T864 GPU
- Decoder & Encoder: 4K VP9 and 4K 10bits H265/H264 Video Decoders, up to 60fps 1080P H.264 and VP8 Video Encoders
- Memory: up to 4GB LPDDR4, up to 128GB eMMC
- Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5, Bluetooth 5.0
- The Bare-Board Edge is Extremely Thin, Measuring at Just 5.7mm, Li-Po Battery https://www.khadas.com/edge1

# **VIM Series**



# VIM3

VIM4

## Amlogic A311D

- CPU: 2.2GHz Quad core ARM Cortex-A73 and 1.8GHz Quad Core Cortex-A53
- GPU: ARM G52 MP4 GPU up to 800MHz
- NPU: Built-in 5 TOPS Performance NPU
- Decoder & Encoder: HW UHD 4K H.265 75fps 10-bit Video Decoder & Low Latency 1080p H.265/H.264 60fps Encoder, Support Multi-Video Decoder
- Memory: 2G/4GB LPDDR4/X RAM, 16/32GB eMMC
- Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5. Bluetooth 5.0

Amlogic A311D2 Supports 4K UI and HDMI-in

• Wireless: 802.11a/b/g/n/ac/ax 2T2R MIMO Wi-Fi 6 Bluetooth 5.1

• Gigabit Ethernet with WoL Support, Infrared, Quad Display Interface

GPU: ARM Mali-G52 MP8(8EE) GPU up to 800MHz

Encoder Support, Multi-Video Decoder Support

· Memory: 8GB LPDDR4/X RAM, 32GB eMMC

· NPU: Build-in 3.2 TOPS Performance

https://www.khadas.com/vim4

CPU: 2.2GHz Ouad core ARM Cortex-A73 and 2.0GHz Ouad Core Cortex-A53 CPU

• Decoder & Encoder: 8K 24fps Decoder & Low Latency 4K H.264/H.265 50fps

• Gigabit Ethernet with WoL support, Dual Camera Dual Display Support https://www.khadas.com/vim3



### Amlogic S905D3

- CPU: 1.9GHz Quad Core ARM Cortex-A55
- GPU: ARM G31 MP2 GPU up to 800MHz
- · NPU: Built-in 1.2 TOPS Performance
- Decoder & Encoder: HW UHD 4K H.265 75fps 10-bit Video Decoder & Low Latency 1080p H.265/H.264 60fps Encoder, Support Multi-Video Decoder
- · Memory: 2GB LPDDR4/X RAM, 16GB eMMC
- Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5, Bluetooth 5.0
- · Gigabit Ethernet with WoL support, Infrared, OS Freedom https://www.khadas.com/vim3l



- CPU: 2.0GHz Quad Core Cortex-A35
- · GPU: ARM Mali-G31 MP2 GPU up to 850MHz

CPU: 1.5 GHz 64Bit Octa Core ARM Cortex-A53

• Memory: 2GB/3GB DDR4 RAM, 16GB/32GB/64GB eMMC

• Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5, Bluetooth 5.0

• GPU: ARM Mali-T820MP3 GPU up to 750MHz

1080p@60fps H.265/VP9 Encoder

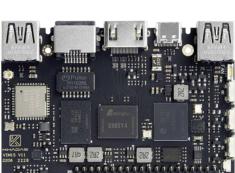
https://www.khadas.com/vim2

• Decoder: 4K@60fps AV1, VP9, H.265 Decoding Support Multi-video Decoder

• Decoder & Encoder: HW UHD H.265/VP9 60fps 10bit Video Decoder Low Latency

• USB Type-C for power, USB 2.0 OTG Support, HDMI 2.0a, Gigabit Ethernet with WoL

- · Memory: 2GB LPDDR4 RAM, 16GB eMMC
- Wireless: 802.11 a/b/g/ac, Bluetooth 5.0
- · Megabit Ethernet, Infrared, Secondary Power Input https://www.khadas.com/vim1s





# VIM1

VIM2

Amlogic S912

VIM1S

Amlogic S905Y4

### Amlogic S905X

- CPU: 1.5GHz 64Bit Quad Core ARM Cortex-A53
- GPU: ARM Mali-450 GPU up to 750MHz
- Decoder & Encoder: HW UHD H.265/VP9 60fps 10bit Video Decoder, Low Latency 1080p@60fps H.265/VP9 Encoder
- · Memory: 2GB DDR3 RAM, 8GB/16GB eMMC
- Wireless: 802.11a/b/g or 802.11b/g/n/ac Wi-Fi, Bluetooth 4.2
- USB Type-C for Power, USB 2.0 OTG Support, HDMI 2.0b, Megabit Ethernet, Infrared https://www.khadas.com/vim1









# Add-ons



**Edge2's Active Cooling Kit** 

Edge Heatsink + 3705 Cooling Fan



**VIM Heatsink** 

Improved heatsink for all VIM Series and Edge-V SBCs



Passive VIM Heatsink

Designed to work with VIM1/2/3/3L and Edge-V



**DIY Case** 

SBC Makeovers: The coolest DIY Case for coders



DIY Case 2

Armor up your Khadas VIM Series SBCs



**Edge2 Station** 

Expand more rich interfaces



3705 Cooling Fan

High airflow & Super quiet



**5G NR Module** 

Applicable to the M2X WWAN Extension board



**TS050 Touch Screen** 

Combined MIPI-DSI + TP FPC Cable



IMX214 Camera

13 megapixel, with MIPI-CSI flexible FPC cable



**IMX415 Camera** 

8 megapixel, auto focus, HDR support



OS08A10 Camera

8MP HDR Camera, with MIPI-CSI flexible FPC cable



**Edge2 IO Module** 

A GPIO break-out board for the Edge2



**M2X Extension** 

Ultra-thin version of this extension board



**M2X WWAN Extension** 

4G/5G LTE module to your VIM4



65W GaN Quick Adapter

Compact body with USB-C power delivery



### RTC Battery

Energizer CR1220 battery, with 3M adhesive pad



### VIN to VIN Cable

Convey electrical power from M2X Extension Board to VIM3/3L SBCs

# **Tone Series**

**Upgrade Your Audio System** for High-resolution Sound



## **Tone2 Pro**

Mini Desktop DAC & Headphone Amplifier















- ESS ES9038Q2M DAC, DSD512, PCM768 support
- 16-core XMOS XU216, full MQA decoding support
- USB-C x2 ports, one for data, one for linear power supplies
- Balanced RCA line-out backward-compatible with single-end cables
- 3.5mm/4.4mm headphone jacks





# Tone2

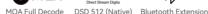
Hi-Fi Mini Desktop DAC

















- ESS ES9038Q2M Chipsets XMOS XU208
- High Performance Up to 32bit 768KHz sampling rate, bit-perfect DSD512, and -118dB THD+N (line-out)
- Balanced RCA Next-generation "balanced RCA line-out" with 3-pin output, sets a new interface standard for the Hi-Fi industry
- · Support Bluetooth wireless expansion, compatible with Khadas BT Magic Bluetooth module
- · Color: Black / Dream Blue



# **BT Magic**

### External Bluetooth Module Wireless in Seconds

- Oualcomm OCC5125. Bluetooth 5.1
- Support SBC, AAC, aptX/aptX-LL/aptX-HD, LDAC Bluetooth audio format
- · Hi-Res Bluetooth Audio
- RGB LED lights indicate the use status in different colors
- Stable transmission at a distance of 20 meters (data was obtained from Khadas laboratory tests; actual connection range depends on your environment)
- · Compatibility: Tone2 Pro/Tone2/Tone2 Maker Kit https://www.khadas.com/product-page/bt-magic



# **T2V Extension**

### Supports USB Data Transmission and Power Delivery

- · USB data transmission
- Power delivery (Rated DC 3.3V)
- Stackable Structure, VIM + T2V + Tone2 Maker Kit
- Dimensions: 78.55 mm (I) × 37.76 mm (w) × 0.80mm (h) /2.90 mm (with components)
- · Compatibility: VIM3/VIM3L/VIM4 to Tone2 Maker Kit https://www.khadas.com/product-page/t2v-extension





### **Balanced RCA Connectors**

Customized 3-pin Balanced RCA Jack & Plug

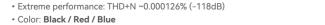
- Backwards-compatible with standard RCA cables and plugs
- Incorporates 3-pins, additional pin for inverse audio signal
- Compact size, allows for integration into mobile form-factors
- Patent Number: CN211265767U
- Color: White/Red/Orange https://www.khadas.com/balanced-rca

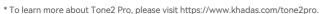


# Bal-RCA to XLR-3 Cable

## Applicable to Tone Series Product

- 0.2 or 1.0 meter in length
- 6N OCC single crystal copper
- · PVC insulation for each conductor
- · Oxygen-Free Copper, Braided
- Neutrik XLR-3 Male (NC3MXX-HE, Gold Contacts)
- Khadas Balanced RCA Plug (KRP-B01)
- · Compatibility: Tone2 Pro/Tone2/Tone2 Maker Kit https://www.khadas.com/balanced-rca





# **Tea Series**

# Portable Magnetic DAC & **Headphone Amplifier**





# Tea Pro

Ultra-Slim Magnetic DAC & Headphone Amplifier

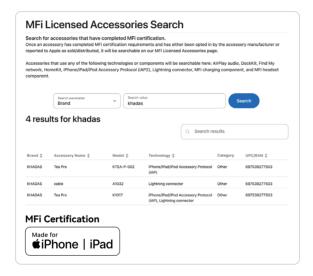




Qualcom

DSD QCC5181 Bluetooth chip DSD 512 (Native)

- Multi-device compatible: iOS, Android, iPadOS, Windows and macOS
- Bit-perfect audio via USB-C wired connection
- High-resolution Bluetooth audio with LDAC, aptX HD and aptX Adaptive
- · Inbuilt microphone for making and receiving calls over Bluetooth
- 2100mAh battery for 11 hours of continuous music over Bluetooth
- 0.95-inch AMOLED display with 4 function buttons, providing clear and user-friendly UI/UX
- DSD 512, PCM 768kHz, and lossless audio from your smartphone
- THD+N (1 kHz, No load): 0.000126% (-118dB)
- \* To learn more about Tea Pro, please visit https://www.khadas.com/tea-pro.



Search for accessories that have completed MFi certification. Once an accessory has completed MFi certification requirements and is reported to Apple as sold or distributed, it will be searchable in our public database of authorized Lightning, headset, charging, iAP-enabled, and Find My network-enabled accessories.



## Tea

Portable Magnetic DAC & Headphone Amplifier







Mul Lossless







- Compatible with Apple MagSafe (iPhone 12 or newer)
- · Bit-perfect audio via USB-C wired connection
- · High-resolution Bluetooth audio with LDAC and aptX HD
- · Inbuilt microphone for making and receiving calls over Bluetooth
- MQA renderer, DSD256, PCM384, and lossless audio from your smartphone
- 1160mAh lithium polymer battery for 8 hours of continuous music
- THD+N: -109dB Color: Blue / Grav
- \* To learn more about Tea, please visit https://www.khadas.com/tea.



## 10 cm USB-C Cable

Specifically designed for Khadas Music Devices

- 10 cm in length
- · Both cables support bit-perfect streaming of digital audio data
- · Compatibility: Khadas Tea Series (including Tea, Tea Pro),

Khadas Tone Series (including Tone2, Tone2 Pro)

• Note: Only the 10 cm USB-C to C cable supports USB-C power delivery, the 10 cm USB-C to Lightning audio cable does not.

https://www.khadas.com/product-page/khadas-tea-10cm-usb-c-audio-cable



# **USB-C** to Lightning Cable

Supporting audio-data transmission

- 1 meter in length
- · Smooth, white exterior
- Sample rate up to 24bit 96KHz
- Apple MFi authorized C78-USBH lightning connector
- Provides audio-data link between Tone2 Pro and iPhone
- · Compatibility: Tone2 Pro/Tea Pro/Tea/iPhone, iPads (with Lightning)

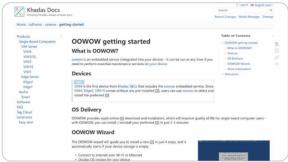
https://www.khadas.com/product-page/usb-c-to-lightning-cable

# **Khadas Software**

## Khadas **©**WOW

OOWOW is an embedded system pre-installed on the KHADAS SBCs. Through OOWOW, users can quickly download and install their favorite OSes online within 2-3 minutes, and perform all maintenance functions directly from the SBC device itself. OOWOW provides SBCs with a universal operating system and device configuration options right out of the box.





<sup>\*</sup> To learn more about OOWOW, please visit https://docs.khadas.com/software/oowow/start.

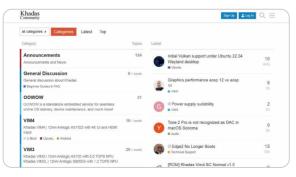
# **Khadas Fenix**

Khadas Fenix is a one-stop script library for building Ubuntu/Debian systems. Users can quickly build their own systems based on Fenix. Through Khadas Fenix, users can customize their OS development environment, and learn how to build their own systems.



# **Khadas Community**

We have a vibrant community, including a forum (forum.khadas.com), social media, GitHub and other platforms. Here, you can exchange experiences, share projects, ask questions, get positive feedback, and collaborate with developers and enthusiasts around the world.



<sup>\*</sup> To learn more about Fenix, please visit https://github.com/khadas/fenix.

# **Mind Reviews**

### **ETA PRIME**



This Next-Gen Modular Mini PC Gets A Major Edge With An RTX GPU Upgrade Module

# **Linus Tech Tips**



Everyone Who Tried This Has FAILED - Khadas Mind Modular PC

# **XDA-Developers**



Khadas Mind review: Redefining the mini PC

# Created by Ella



The Most Interesting Mini PC! | Khadas Mind Modular Computer

# **Our Partners**

Khadas focuses on generating long-term value. We cherish every industry partner and every supplier. To ensure that all our suppliers have reasonable profit margins, we place more attention on our supplier's quality monitoring system and service quality than on price.

























# **Our Team**

Khadas is made up of a diverse team spanning the globe, with members from countries like China, Singapore, Russia, and beyond. What brings us together is our shared vision of crafting extraordinary products. This shared passion unites us, empowering us to overcome challenges and thrive even in the face of adversity. This is the spirit of the Khadas family!





