

Khadas.com



KHADAS

Khadas Brand

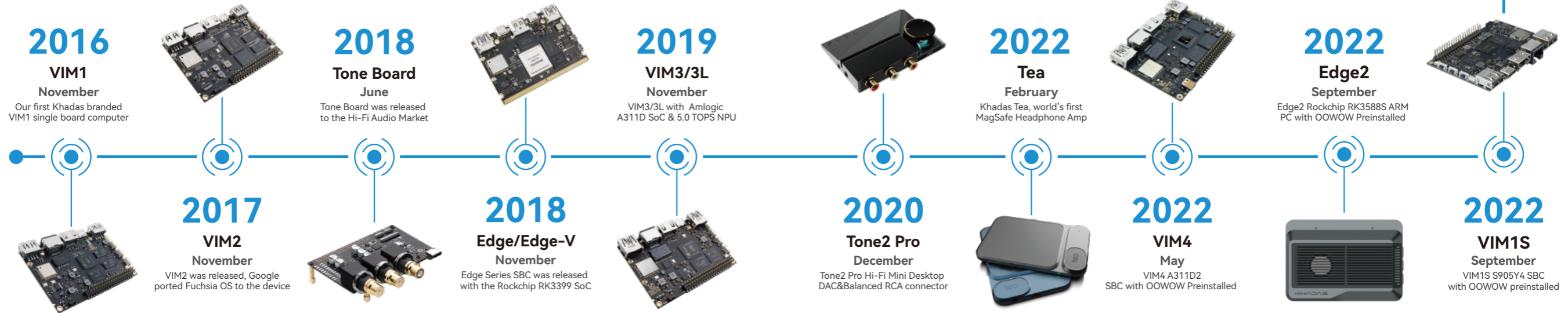
Khadas brand is owned by Khadas Technology Co., Ltd and caters to the global market for high-tech trendy products. Our products are sold worldwide to both individuals and businesses.

Our brand covers single board computers, high-end audio products, consumer computing equipment, and specialised solutions for industry and big business. More products will be added soon.

Khadas products have even been used by industry titans. For example, the Khadas VIM3 has been used by the Google Fuchsia team to develop products for the artificial intelligence market.

Khadas always aims to revolutionise the industry. Our latest product the Khadas Tone2+BT Magic uses a new patented technology called Balanced RCA, redefining the RCA connector to a 3-pin standard.

This year, Khadas is launching the “Mind”, a next-gen modular PC designed to adapt and flow with your lifestyle and workflow. Use it as a mini desktop, a 2-in-1 touchscreen tablet, graphics workstation and more! The possibilities are endless!



2024

Mind Pro

Mind Pro, a more powerful version of Mind will be released for professionals



Future

Developments

Khadas will continue to release more exciting and innovative products



2023

Mind

September

The next-gen modular PC, “Mind” is launched with a plethora of peripherals such as Mind Dock, Mind Graphics and Mind xPlay

Mind Family



Mind

Portable Workstation



Ultra-Compact Design

Aluminium Alloy Exterior



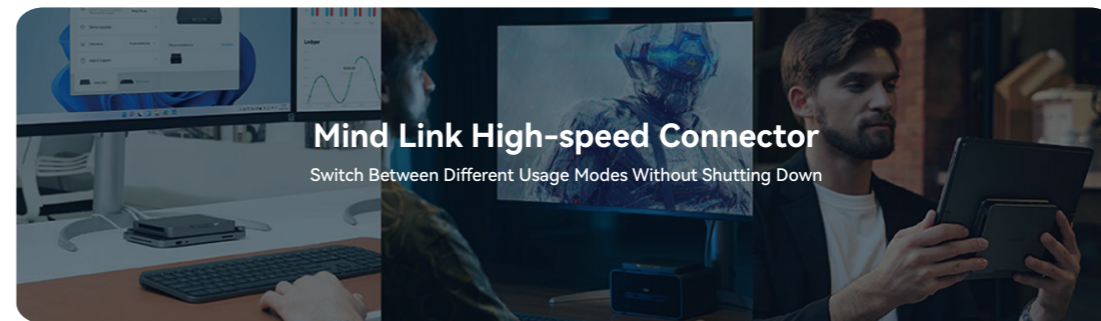
Exceptional Performance

13th Gen Intel® Core™ i7 1360P Processor



Mind Link High-speed Connector

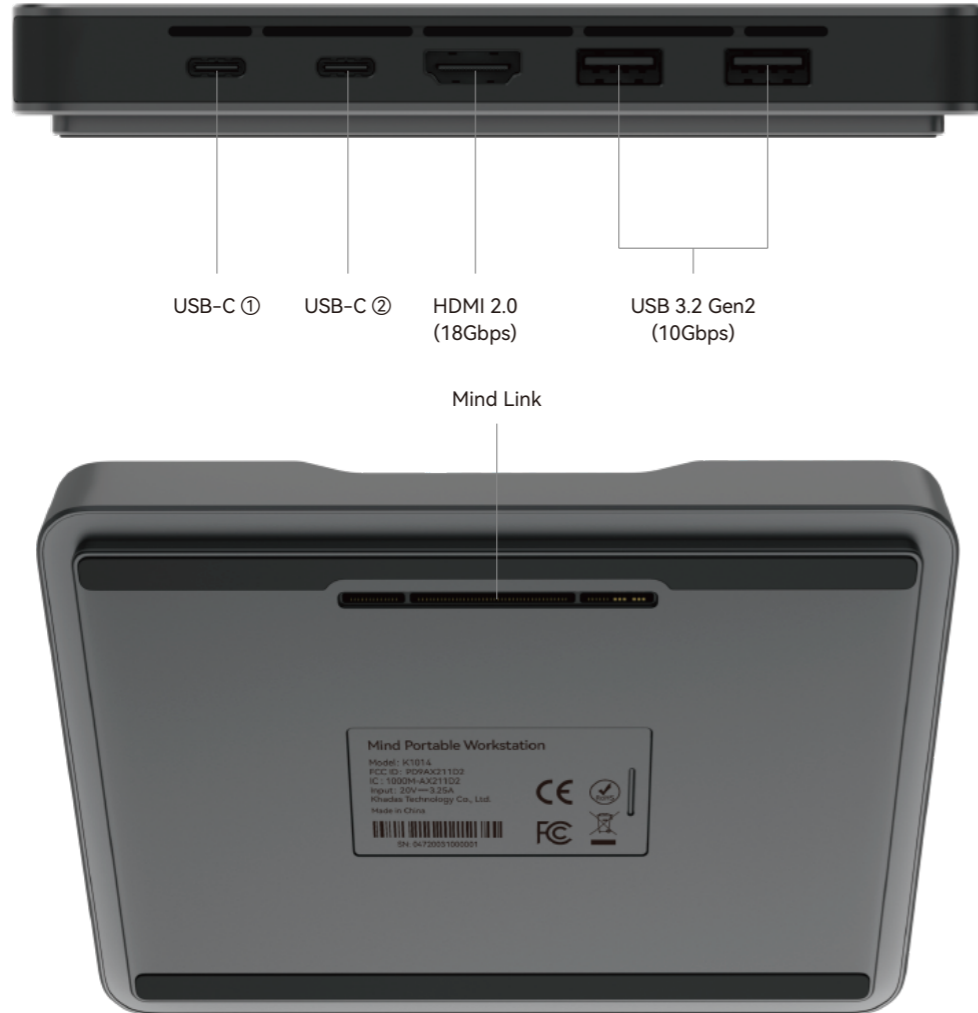
Switch Between Different Usage Modes Without Shutting Down



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

Mind Interfaces

Mind is equipped with six interfaces on its compact body, meeting basic input and output needs. The HDMI interface supports 4K/240Hz display, the full-featured USB-C interfaces support 8K/60Hz as well as 4K/240Hz display, and additional interfaces can be added through Mind Link.



Mind Tech Specs



Mind Standard

Intel® Core™ i5-1340P

12-core CPU with 4 performance cores and 8 efficiency cores
16 threads, max turbo frequency 4.6GHz, 12MB cache

Graphics

Intel® Iris® Xe Graphics eligible
graphics max dynamic frequency 1.45GHz

Memory

LPDDR5 16GB 5200MT/S

Storage

Internal: 512GB M.2 NVMe PCIe 4.0 2230 SSD
Expansion: Empty (M.2 2230 PCIe 3.0)

Battery and Power

Built-in 5.55-watt-hour lithium-polymer battery
65W USB-C Power Adapter

Communications

Wi-Fi 6E (802.11ax)
Bluetooth 5.3

Size and Weight

Size:146x105x20mm
Weight:450g

Operating System

Windows 11 Home



Mind Premium

Intel® Core™ i7-1360P

12-core CPU with 4 performance cores and 8 efficiency cores
16 threads, max turbo frequency 5.0GHz, 18MB cache

Graphics

Intel® Iris® Xe Graphics eligible
graphics max dynamic frequency 1.5GHz

Memory

LPDDR5 32GB 5200MT/S

Storage

Internal: 1TB M.2 NVMe PCIe 4.0 2230 SSD
Expansion: Empty (M.2 2230 PCIe 3.0)

Battery and Power

Built-in 5.55-watt-hour lithium-polymer battery
65W USB-C Power Adapter

Communications

Wi-Fi 6E (802.11ax)
Bluetooth 5.3

Size and Weight

Size:146x105x20mm
Weight:450g

Operating System

Windows 11 Home

Compact Body

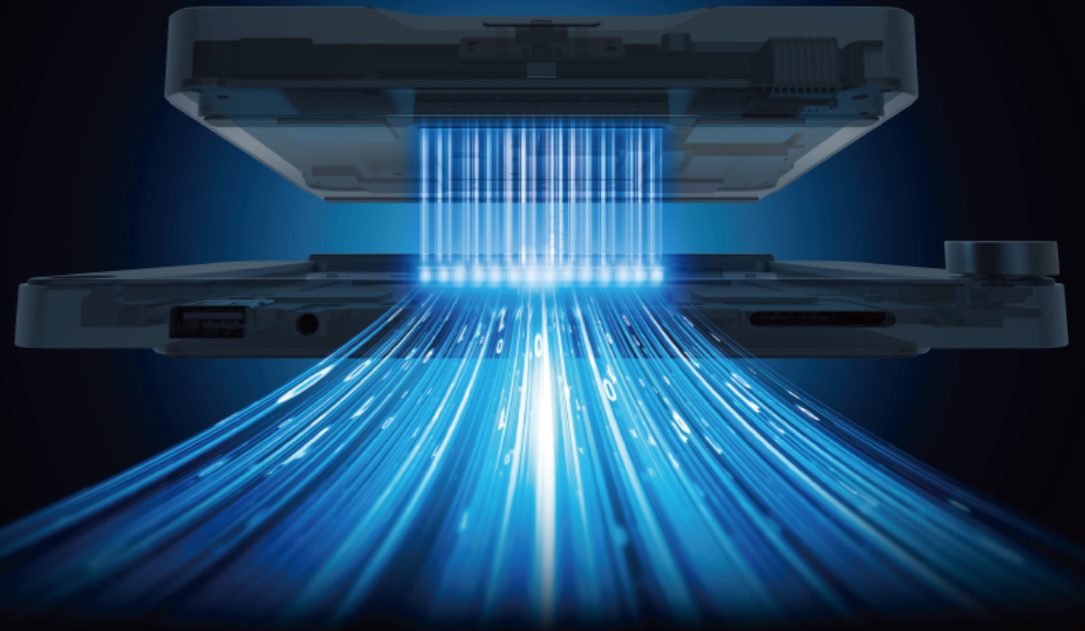
Using an ingenious design, Mind integrates all essential components such as the motherboard, CPU memory, built-in standby battery, SSD and heatsink into a compact unibody aluminum alloy case that is no larger than a quarter of an A4 sheet of paper. Weighing only 450g, and just 146x105x20mm in size, it 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.



* In the actual product, the heatsink will be black in color due to the coating and curing process

Mind Link

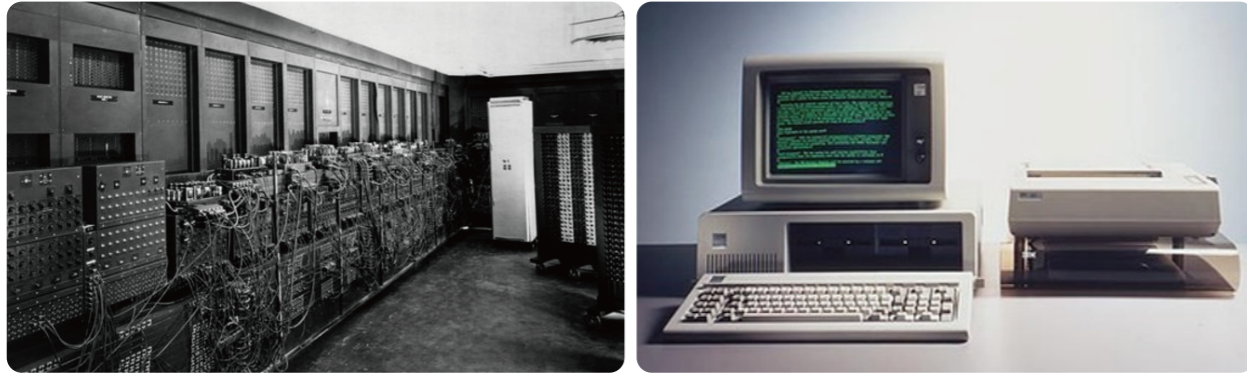
The Khadas Mind Link ecosystem is an open collaborative platform for developing Mind-compatible peripherals for consumer computing applications. Developers can leverage the capabilities and solutions of the Mind Link interface to rapidly build expansion modules and peripherals for Khadas Mind. This meets users' diverse needs and enriches their user experience. Khadas welcomes all developers to join in building a thriving ecosystem of Mind Link products.



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.

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

Mind Dock

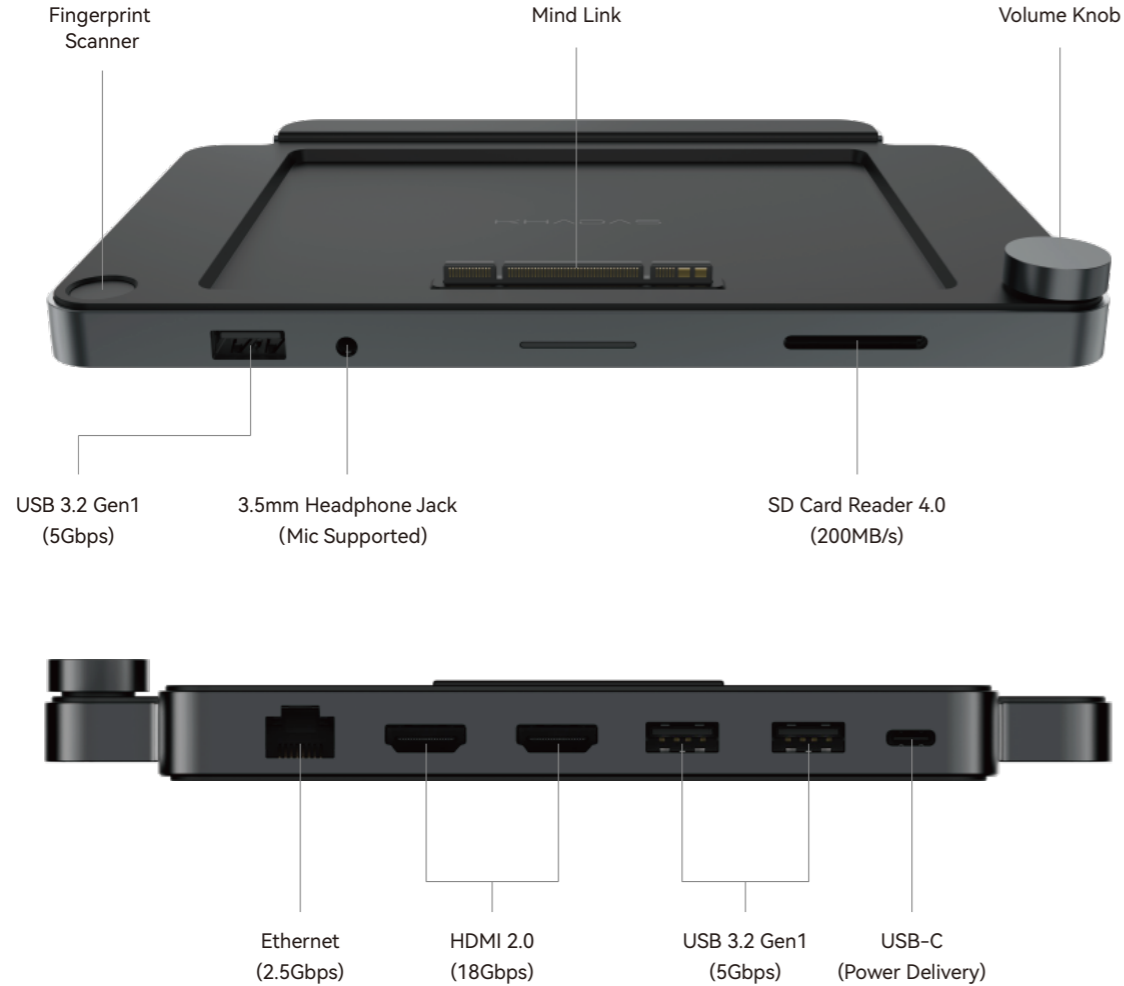
Multi-functional Station



* To learn more about Mind Dock, please visit <https://www.khadas.com/mind-family>

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 scanner supports fingerprint recognition across all Mind workstations, ensuring comprehensive privacy and security protection.



Mind Dock Specs



Audio

3.5mm Headphone Jack (Mic Supported)
Speaker x4

Lights and Button

White indicator x1
Flashing for disconnection
Volume control Button x1
Fingerprint recognition x1

Size and Weight

Size: 188x126x21.3mm
Weight: 465g

I/O Interfaces

USB-C (100W Max Chargeing) x1
USB-A (3.2 Gen 1 5Gbps) x3
HDMI 2.0 (4K/60Hz) x2
Ethernet (2.5Gbps) x1
SD Card 4.0 (200MB/s) x1
Mind Link x1

Electrical and Operating Requirements

Voltage: 110V-240V
Operating temperature: 10°C~35°C
Storage temperature: -10°C~45°C
Relative humidity: 5% to 90% noncondensing

Mind Graphics

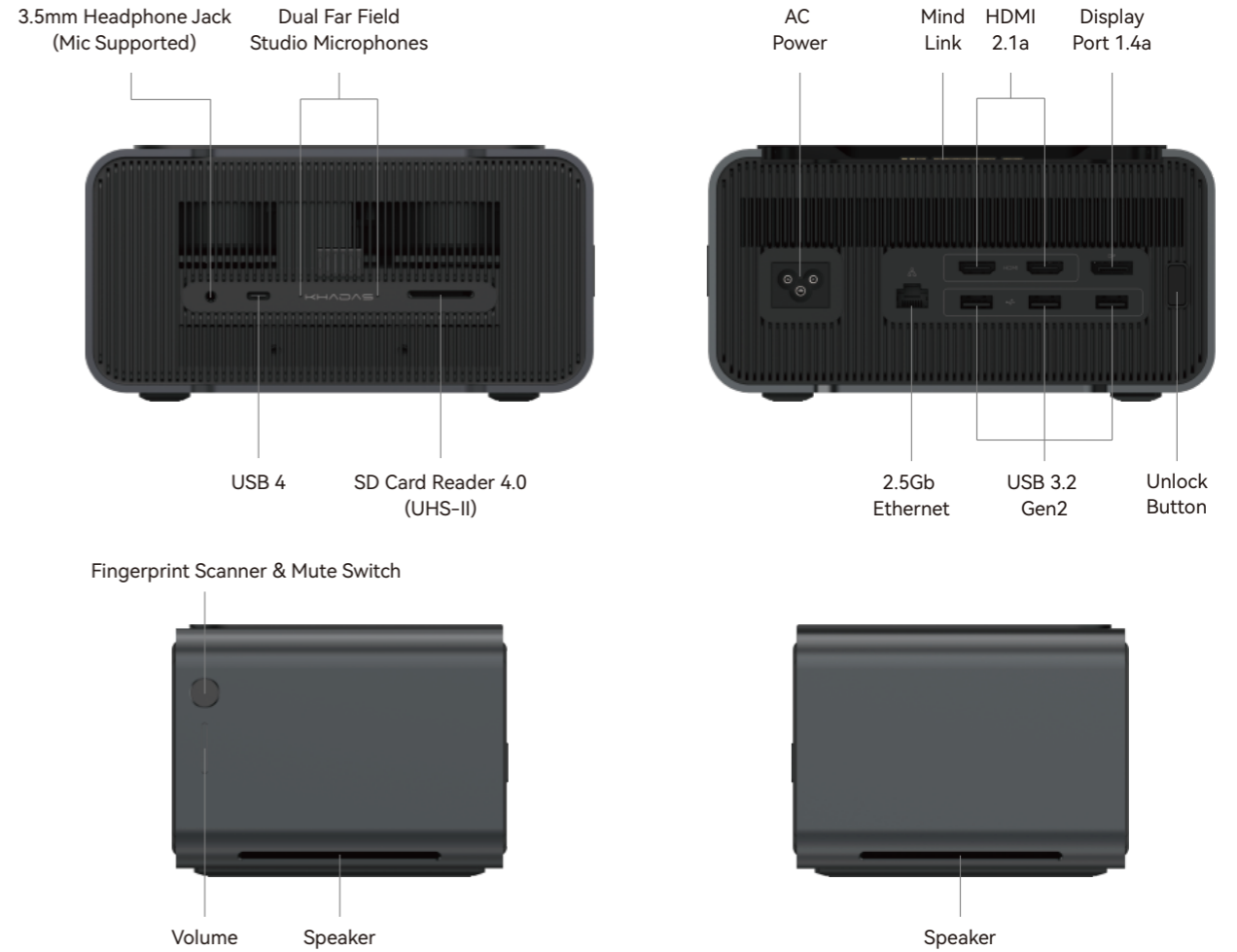
External GPU with I/O Expansion & Speakers



* The product above is only for showcase purposes the final product is subject to changes

Mind Graphics Interfaces

The Mind Graphics module is an external GPU card expansion dock. By leaving the GPU outside of Mind's design, we could reduce it's size and footprint significantly. Housing the NVIDIA GeForce RTX 4060Ti desktop-class dedicated graphics card, Mind Graphics seamlessly accelerates your 3D rendering and gaming tasks. Moreover, it can provide GPU acceleration to other laptop devices vis USB 4 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 4060Ti Desktop
Memory 8GB GDDR6

Power Supply

AC Power (300W)
Graphics Power (165W)

Audio

3.5mm Headphone Jack (Mic Supported)
Speaker x2

Lights and Button

White indicator x1
Flashing for disconnection
Volume control Button x1
Mind Link Locking Button x1
Fingerprint recognition x1

I/O Interfaces

USB-C (Support USB4/ThunderBolt4) x1
USB-A (USB-A 3.2 Gen 1) x3
HDMI 2.1a Support 4K/240Hz or 8K/60Hz x2
DisplayPort 1.4a Support 4K/240Hz or 8K/60Hz x1
Ethernet (2.5Gbps) x1
SD 4.0 (200MB/s) x1
Mind Link x1

Electrical and Operating Requirements

Voltage: 110V-240V
Operating temperature: 10°C~35°C
Storage temperature: -10°C~45°C
Relative humidity: 5% to 90% noncondensing

Size and Weight

Size: 198x130x97mm
Weight: 2.0kg

Mind xPlay

2-in-1 Touchscreen Tablet

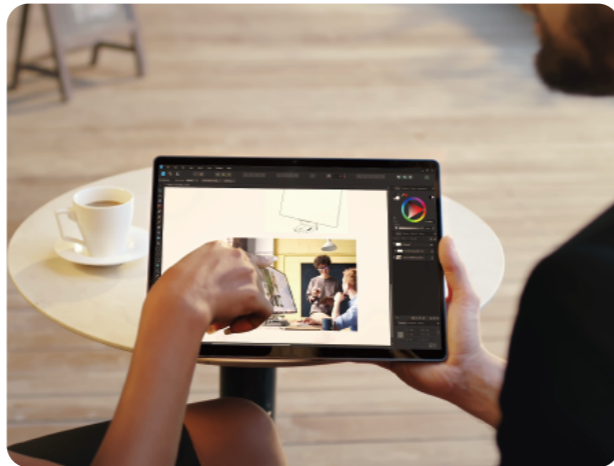


* The Mind Graphics Specs above is only parameters are not final values and may be changed

* The product above is only for showcase purposes the final product is subject to changes

Mind xPlay

The **Mind xPlay** — a portable display with a built-in battery — transforms Khadas Mind into a portable 2-in-1 tablet PC that you can use on the road or at a cafe.



Upcoming Products



The Mind Studio – a huge 32" multi-touch display for creative and graphics professionals. With a built-in silent pneumatic hinge, tilt the display at any angle for graphics editing, painting and drawing!



The Mind Talk – optimized for digital video office meetings, equipped with specialized audio features for crystal-clear communication in conference rooms of any size and any number of participants.

The Mind Ecosystem is more than just a mixture of gadgets, it is about meeting and exceeding your diverse professional and entertainment needs in the best ways possible. Manifest a future wherein one core device, the Khadas Mind, and its ever-expanding range of peripherals adapts to all your computing desires. Follow your highest excitement wherever it leads!

Tone Series

Upgrade Your System
to High-resolution Audio



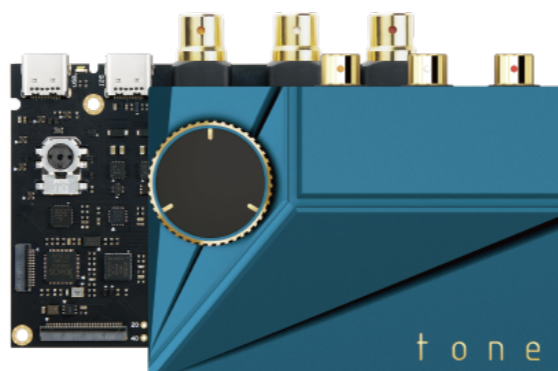
Tone2 Pro

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
- Extreme performance: THD+N ~0.000126% (-118dB)
- Color: **Black / Red / Blue**

* To learn more about Tone2 Pro, please visit <https://www.khadas.com/tone2pro>



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 / Haze Blue**



BT Magic

External Bluetooth Module Wireless in Seconds

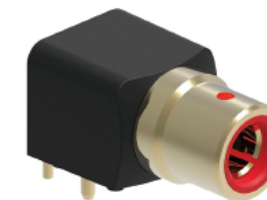
- Qualcomm QCC5125, Bluetooth 5.1
- Support SBC, AAC, aptX/aptX-L/LL/aptX-HD, LDAC Bluetooth audio format
- Hi-Res Bluetooth Audio
- RGB LED lights indicate the use status in different colors
- Stable transmission at a distance of 20 meters (data was obtained from Khadas laboratory tests; actual connection 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: 78.55mm (l) x 37.76mm (w) x 0.80mm (h) / 2.90mm (with components)
- Compatibility: **VIM3/VIM3L/VIM4 to Tone2 Maker Kit**
<https://www.khadas.com/product-page/t2v-extension>



Balanced RCA Connectors

Customised 3-pin Balanced RCA jack

- 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 1.0m Metre 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>

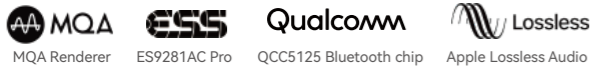
Tea Series

Portable Magnetic DAC & Headphone Amplifier



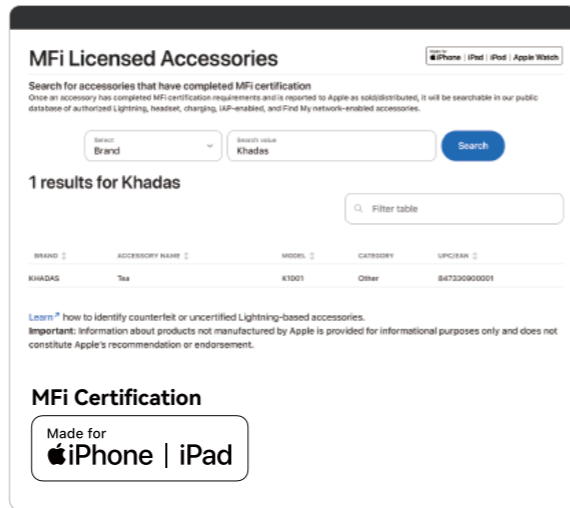
Tea

Portable Magnetic DAC & Headphone Amplifier



- 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 / Gray**

* To learn more about Tea, please visit <https://www.khadas.com/tea>



Search for accessories that have completed MFi certification

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

Apple MFi Certification: <https://mfi.apple.com/account/accessory-search>



USB-C to Lightning Cable

Supporting audio-data transmission

- 1 Metre 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/iPhone, iPads (with Lightning)**
- <https://www.khadas.com/product-page/usb-c-to-lightning-cable>



USB-C to C Cable

Supporting both USB-3.0 data and power delivery

- 1 Metre in Length
 - USB Power Delivery (5-20V)
 - Provides electrical power to Khadas VIM3, Edge-V, Edge SBCs and the Tone Board
 - Conveys data for re-writing (flashing) the eMMC
 - Conveys bit-perfect streaming audio-data to the XMOS chip on the Tone Board
 - Compatibility: **Tone2 Pro/Tone1/Tea**
- <https://www.khadas.com/product-page/usb-c-cable-male-to-male>



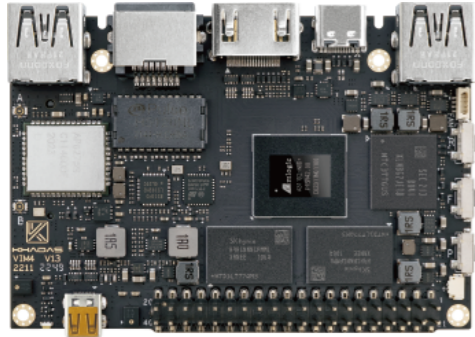
10cm USB-C Cable

Specifically designed for Khadas Tea

- 10cm in length
 - Both cables support bit-perfect streaming of digital audio data
 - N.B.: Only the 10cm USB-C to C cable supports USB-C power delivery, the 10cm USB-C to Lightning audio cable does not.
 - Compatibility: **Tea**
- <https://www.khadas.com/product-page/khadas-tea-10cm-usb-c-audio-cable>



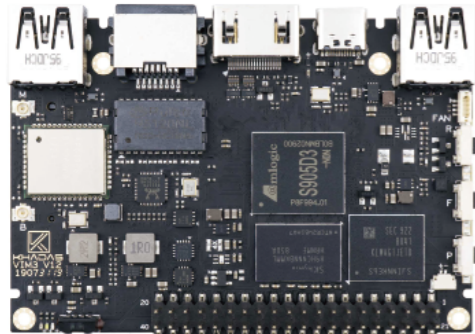
VIM Series



VIM4

Amlogic A311D2 Support 4K UI and HDMI-in

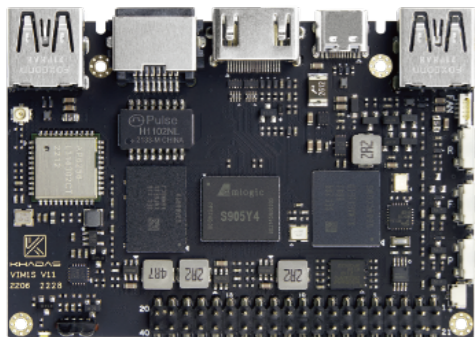
- CPU: 2.2GHz Quad core ARM Cortex-A73 and 2.0GHz Quad Core Cortex-A53 CPU
 - GPU: ARM Mali-G52 MP8(8EE) GPU up to 800MHz
 - NPU: Build-in 3.2 TOPS Performance NPU
 - Decoder & Encoder: 8K 24fps Decoder & Low Latency 4K H.264/H.265 50fps Encoder Support, Multi-Video Decoder Support
 - Memory: 8GB LPDDR4/X RAM, 32GB eMMC
 - 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
- <https://www.khadas.com/vim4>



VIM3L

Amlogic S905D3

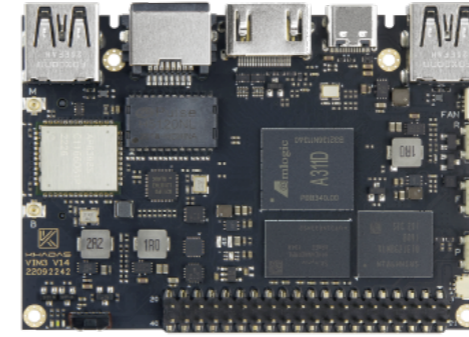
- CPU: 1.9GHz Quad Core ARM Cortex-A55
 - GPU: ARM G31 MP2 GPU up to 800MHz
 - NPU: Built-in 1.2 TOPS Performance
 - Decoder & Encoder: HW UHD 4K H.265 75fps 10-bit Video Decoder & Low Latency 1080p H.265/H.264 60fps Encoder, Support Multi-Video Decoder
 - Memory: 2GB LPDDR4/X RAM, 16GB eMMC
 - Wireless: 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>



VIM1S

Amlogic S905Y4

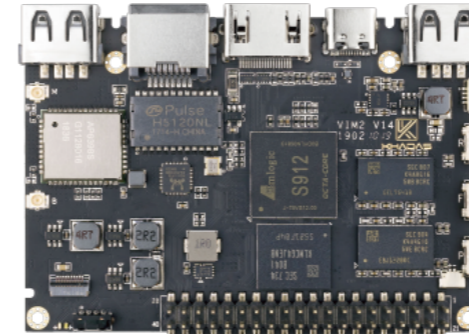
- CPU: 2.0GHz Quad Core Cortex-A35
 - GPU: ARM Mali-G31 MP2 GPU up to 850MHz
 - Decoder: 4K@60fps AV1, VP9, H.265 Decoding Support Multi-video Decoder Support Memory: 2GB LPDDR4 RAM, 16GB eMMC
 - Wireless: 802.11 a/b/g/ac, Bluetooth 5.0
 - Megabit Ethernet, Infrared, Secondary Power Input
- <https://www.khadas.com/vim1s>



VIM3

Amlogic A311D

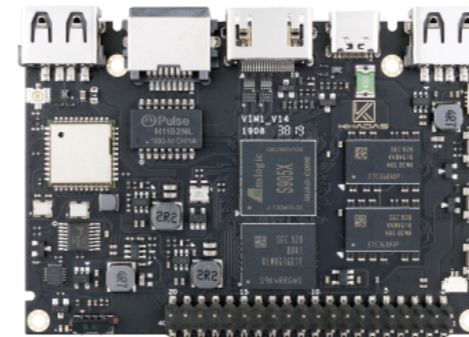
- CPU: 2.2GHz Quad core ARM Cortex-A73 and 1.8GHz Quad Core Cortex-A53
 - GPU: ARM G52 MP4 GPU up to 800MHz
 - NPU: Built-in 5 TOPS Performance NPU
 - Decoder & Encoder: HW UHD 4K H.265 75fps 10-bit Video Decoder & Low Latency 1080p H.265/H.264 60fps Encoder, Support Multi-Video Decoder
 - Memory: 2G/4GB LPDDR4/X RAM, 16/32GB eMMC
 - Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5, Bluetooth 5.0
 - Gigabit Ethernet with WoL support, Dual Camera Dual Display Support
- <https://www.khadas.com/vim3>



VIM2

Amlogic S912

- CPU: 1.5 GHz 64Bit Octa Core ARM Cortex-A53
 - GPU: ARM Mali-T820MP3 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/3GB DDR4 RAM, 16GB/32GB/64GB eMMC
 - Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi 5, Bluetooth 5.0
 - USB Type-C for power, USB 2.0 OTG Support, HDMI 2.0a, Gigabit Ethernet with WoL
- <https://www.khadas.com/vim2>

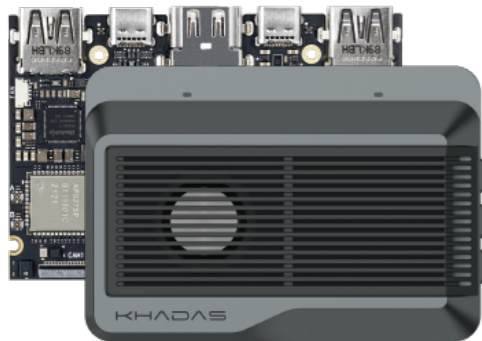


VIM1

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>

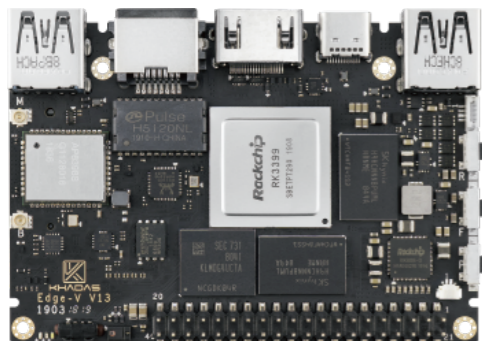
Edge Series



Edge2

Rockchip RK3588S

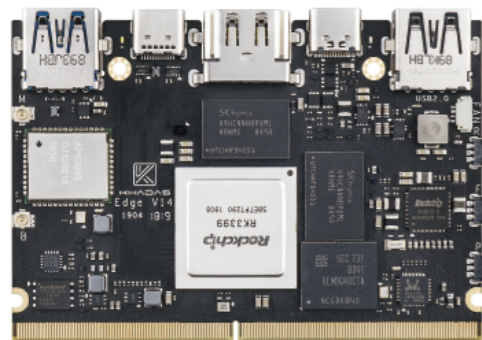
- CPU: 2.25GHz Quad Core ARM Cortex-A76 + 1.8GHz Quad Core Cortex-A55
- GPU: ARM Mali-G610 MP4 GPU up to 1GHz
- NPU: Build-in 6 TOPS Performance NPU
- Decoder & Encoder: 4K@60fps AV1, 8K@60fps H.265 Decoding 8K@30fps H.264/H.265 Encoding HDR, HDR10, HLG Video Processing
- Memory: 8GB/16GB LPDDR4X, 32GB/64GB 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 x 2, Full RK3399 I/O, Gyroscope, up to 3 Independent Displays, Li-Po Battery <https://www.khadas.com/edge-v>



Edge

Rockchip RK3399

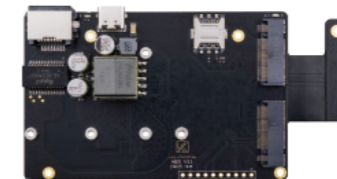
- CPU: Dual Core Cortex A72 up to 1.8GHz + Quad Core Cortex A53 up to 1.5GHz
- GPU: Mali T864 GPU
- Decoder & Encoder: 4K VP9 and 4K 10bits H265/H264 Video Decoders, up to 60fps 1080P H.264 and VP8 Video Encoders
- Memory: up to 4GB LPDDR4, up to 128GB eMMC
- Wireless: 802.11a/b/g/n/ac 2T2R MIMO Wi-Fi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

Add-ons



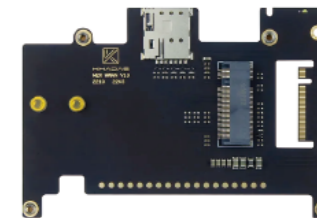
Edge2's Active Cooling Kit

Edge Heatsink + 3705 Cooling Fan



M2X Extension

Ultra-thin version of this extension board



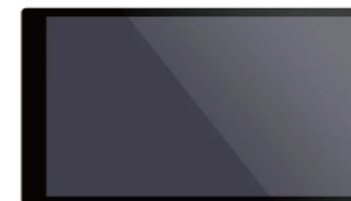
M2X WWAN Extension

4G/5G LTE module to your VIM4



5G NR Module

Applicable to the M2X WWAN Extension board



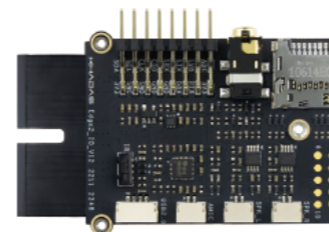
TS050 Touch Screen

Combined MIPI-DSI + TP FPC Cable



OS08A10 Camera

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



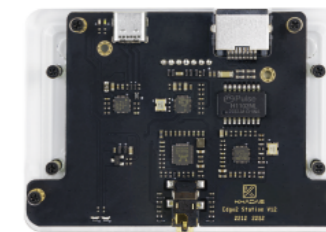
Edge2 IO Module

A GPIO break-out board for the Edge2



IMX415 Camera

8 megapixel, auto focus, HDR support



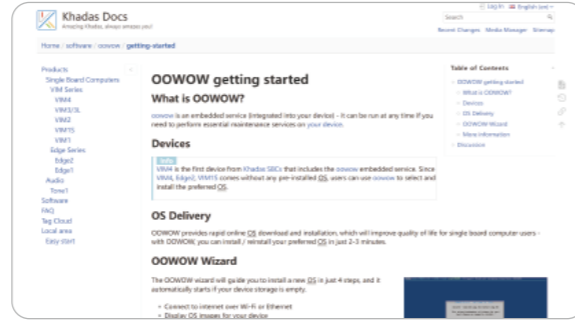
Edge2 Station

Expand more rich interfaces

Khadas Software

Khadas OOWOW

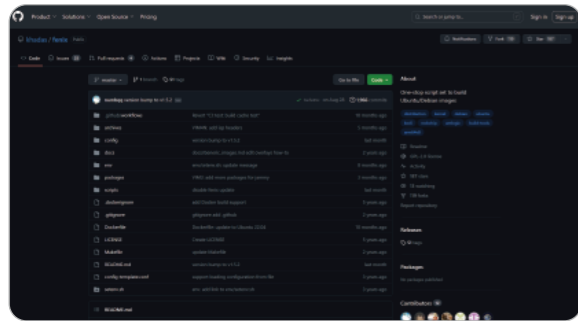
OOWOW is an embedded system pre-installed on the KHADAS SBCs. Through OOWOW, users can quickly download and install their favorite OSes online within 2-3 minutes, and perform all maintenance functions directly from the SBC device itself. OOWOW provides SBCs with a universal operating system and device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



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

Khadas Fenix

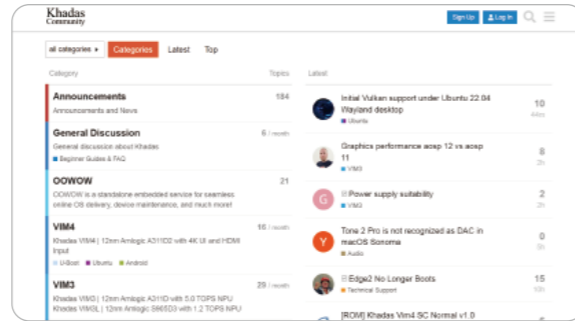
Khadas Fenix is a one-stop script library for building Ubuntu/Debian systems. Users can quickly build their own systems based on Fenix. Through Khadas Fenix, users can customize their OS development environment, and learn how to build their own systems.



* <https://github.com/khadas/fenix>

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.



Mind Reviews

XDA-Developers



www.xda-developers.com/khadas-mind-impressions

Created by Ella



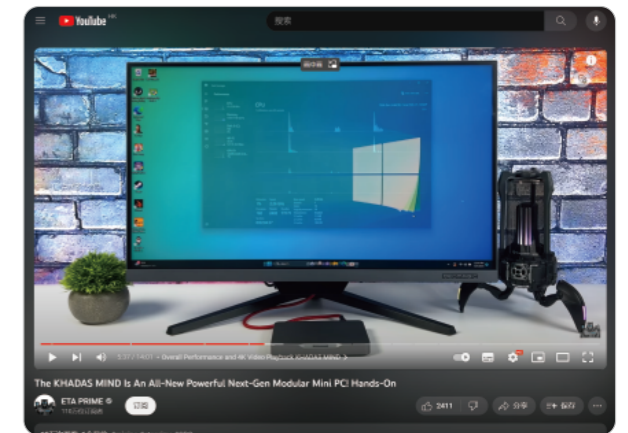
www.youtube.com/watch?v=oYuCojHAq9k

NotebookCheck



www.notebookcheck.net/Khadas-Mind-workstation

ETA PRIME



www.youtube.com/watch?v=yNsoAS6tFfy

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 comprises a global team of people from all over the world such as China, Singapore, Russia, Pakistan and more. It is our grand vision of creating great products that brings us together. It is this passion that holds us together through all kinds of challenges, allowing us to shine like stars in a dark world. This is our Khadas family!

