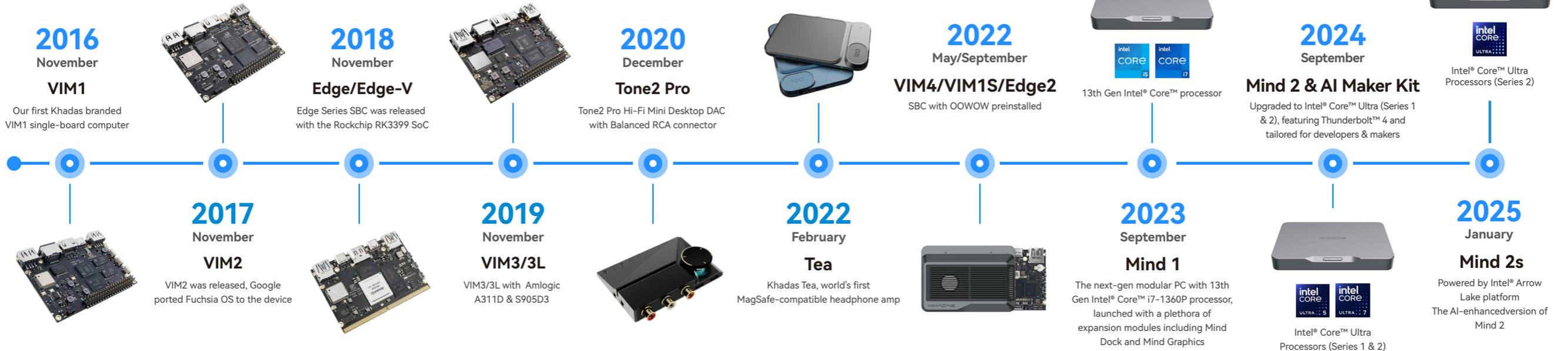khadas.com

KHADAS

Let Mind Flow.

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.

Future

Developments

Khadas will continue to release more exciting and innovative products

Intel® Core™ Ultra (Series 3) processor

2026
January
Mind xPlay/Graphics 2

Mind xPlay — 13-inch 2.8K HD Portable Display
Mind Graphics 2 — eGPU Module with NVIDIA® GeForce RTX™ 5060 Ti

2026
January
Mind Pro

Powered by 3rd-Gen Intel® Panther Lake platform
A leap in performance and efficiency

2025
August
Tea Pro

Ultra-Slim Magnetic DAC & Headphone Amplifier

2016
November
VIM1

Our first Khadas branded VIM1 single-board computer

2017
November
VIM2

VIM2 was released, Google ported Fuchsia OS to the device

2018
November
Edge/Edge-V

Edge Series SBC was released with the Rockchip RK3399 SoC

2019
November
VIM3/3L

VIM3/3L with Amlogic A311D & S905D3

2020
December
Tone2 Pro

Tone2 Pro Hi-Fi Mini Desktop DAC with Balanced RCA connector

2022
February
Tea

Khadas Tea, world's first MagSafe-compatible headphone amp

2022
May/September
VIM4/VIM1S/Edge2

SBC with OOWOW preinstalled

2023
September
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

13th Gen Intel® Core™ processor

2024
September
Mind 2 & AI Maker Kit

Upgraded to Intel® Core™ Ultra (Series 1 & 2), featuring Thunderbolt™ 4 and tailored for developers & makers

Intel® Core™ Ultra Processors (Series 1 & 2)

2025
January
Mind 2s

Powered by Intel® Arrow Lake platform
The AI-enhanced version of Mind 2

Intel® Core™ Ultra Processors (Series 2)

Mind Family

Keep Your Creative Flow Uninterrupted

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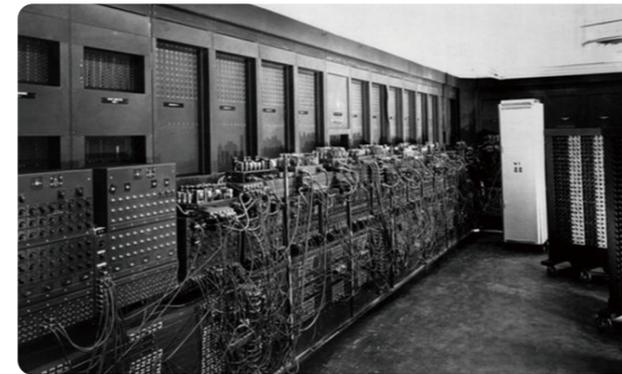
Throughout the years, computing evolved into various forms, from desktops and mini PCs to laptops and tablets, each meticulously tailored to specific use cases for optimal user experience.

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 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 Series

Modular Mini PC

Mind Pro is the newest addition to the Mind family. It is equipped with a 7.98Wh 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 7.98Wh built-in battery provides up to 48+ hours of standby time, so that your work and inspiration are always available. Different scenarios, same experience.

* To learn more about Mind Series, please visit http://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

Adapts to Every Scenario
That's Real Freedom

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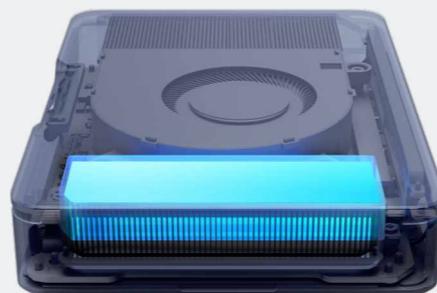Build your dream modular PC

Redefining What
Compact Power Can Do

Up to Intel® Core™ Ultra X9 processor
Tri-engine architecture: CPU + GPU + NPU
Intel Arc™ integrated graphics Engineered for the AI era

Uninterrupted Mobility

Built-in 7.98Wh battery
Automatic sleep upon power disconnection
48+ hour standby
2-second wake-up, instantly ready

Mind Pro Interfaces

Mind Pro is equipped with five interfaces on its compact body, meeting basic input and output needs. The HDMI interface supports 8K (60 Hz) or 4K (240 Hz) display, while the Thunderbolt 4 and USB4 interfaces support 8K (60Hz) as well as 4K (240Hz) display, and additional USB-A 3.2 interfaces allow 10 Gbps high-speed connectivity for everyday peripherals.

Thunderbolt™ 4

Compatible with USB4 / DP 2.1
Supports up to 8K (60Hz) or
4K (240Hz) display output.

HDMI 2.1 FRL

Up to 8K (60Hz) or
4K (240Hz) output.

USB-A 3.2 Gen2

10 Gbps high-speed
connectivity for everyday peripherals.

Compact Body

Using an ingenious design, Mind Pro 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 562 grams, and just 146 × 105 × 28 mm in size, it is only 1/48th the volume of traditional PCs. This means you can easily place Khadas Mind Pro into a bag or large pocket, allowing for unprecedented mobility and freedom.

Mind Pro

World's First Powerful Modular Mini PC Powered by 3rd-Gen Intel® Core™ Ultra Processor

3rd-Gen Intel® Core™ Ultra, a leap in performance and efficiency.

Powered by the Intel® Core™ Ultra X9 388H processor
96GB memory, 2TB storage

Local AI, Powered by Triple Engines

16-core CPU, Arc™ B390 GPU, and the new NPU 5 into a coordinated three-engine acceleration platform, delivering up to 180 TOPS of local AI performance.
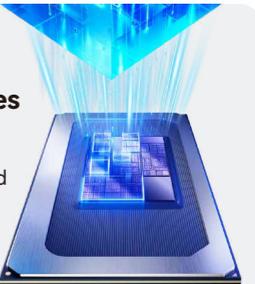
* These specs apply to Mind Pro X9 388H. Mind Pro X7 358H specs may vary.

Mind Pro Specs

Mind Pro (Intel® Core™ Ultra)

Ultra X9, 96GB Version[1]	Ultra X7, 64GB or 32GB Version[1]
Processor Intel® Core™ Ultra X9 388H processor 5.1GHz turbo frequency 16 cores, 16 threads 18MB cache	**Processor** Intel® Core™ Ultra X7 358H processor 4.8GHz turbo frequency 16 cores, 16 threads 18MB cache
Memory 96GB LPDDR5X memory Maximum frequency: 9600 MT/s	**Memory** 64GB LPDDR5X or 32GB LPDDR5X memory Maximum frequency: 8533 MT/s
Storage 2TB PCIe 4.0 M.2 2230 SSD Expandable: PCIe 4.0 M.2 2230 SSD × 1	**Storage** 2TB or 1 TB PCIe 4.0 M.2 2230 SSD Expandable: PCIe 4.0 M.2 2230 SSD × 1
I/O Ports Thunderbolt 4 (40Gbps) × 2 HDMI 2.1 FRL (48Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2	**I/O Ports** Thunderbolt 4 (40Gbps) × 2 HDMI 2.1 FRL (48Gbps) × 1 USB-A 3.2 Gen2 (10Gbps) × 2
Graphics Intel Arc™ B390 GPU 2.5GHz dynamic frequency	**Graphics** Intel Arc™ B390 GPU 2.5GHz dynamic frequency
Display Output[2] HDMI 2.1 FRL: up to 4K (240Hz) or 8K (60Hz) Thunderbolt 4: up to 4K (240Hz) or 8K (60Hz)	**Display Output[2]** HDMI 2.1 FRL: up to 4K (240Hz) or 8K (60Hz) Thunderbolt 4: up to 4K (240Hz) or 8K (60Hz)
Mind Link PCIe 5.0 x4 bandwidth Max speed of 128 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input pow	**Mind Link** PCIe 5.0 x4 bandwidth Max speed of 128 GT/s Supports USB 3.2 Gen2, HDMI 2.1, 10A input power
Size & Weight 146 × 105 × 28 mm 562 g	**Size & Weight** 146 × 105 × 28 mm 562 g

1. Availability of the Mind Pro Core Ultra X9 96GB and Core Ultra X7 32GB configurations depends on CPU and memory supply.
2. To achieve the maximum resolution, connected monitors must support DSC.

Mind 2s

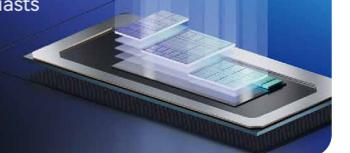## World's First Mini PC Powered by Intel Arrow Lake H Processor

Intel Arrow Lake H

Intel Core Ultra 7 255H CPU
(code-named Arrow Lake H)
64GB memory, 2TB storage

AI On-The-Go

CPU + GPU + NPU: 96 TOPS total computing power
GPU: Up to 74 TOPS AI performance
Built for AI Enthusiasts

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 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
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 2 Specs

Mind 2

| Ultra 7, 64GB / 32GB Version	Ultra 5, 16GB Version
Processor Intel® Core™ Ultra 7 155H processor 4.8GHz turbo frequency 16 cores, 22 threads 24MB cache	**Processor** Intel® Core™ Ultra 5 125H processor 4.5GHz turbo frequency 14 cores, 18 threads 18MB cache
Memory 64GB LPDDR5X or 32GB LPDDR5 memory Maximum frequency: 7467MHz or 6400MHz	**Memory** 16GB LPDDR5 memory Maximum frequency: 6400MHz
Storage 2TB or 1TB PCIe 4.0 M.2 2230 SSD Expandable: PCIe 4.0 M.2 2230 SSD × 1	**Storage** 512GB 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	**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	**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)	**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	**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	**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 PCIe 4.0 M.2 2230 SSD
Expandable: PCIe 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
PCIe 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 PCIe 4.0 M.2 2230 SSD
Expandable: PCIe 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
PCIe 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

Mind Graphics 2
eGPU Module

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
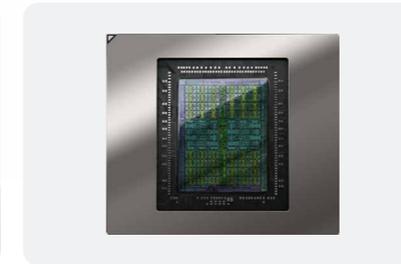
Cutting-Edge Architecture
NVIDIA® GeForce RTX™ 5060 Ti
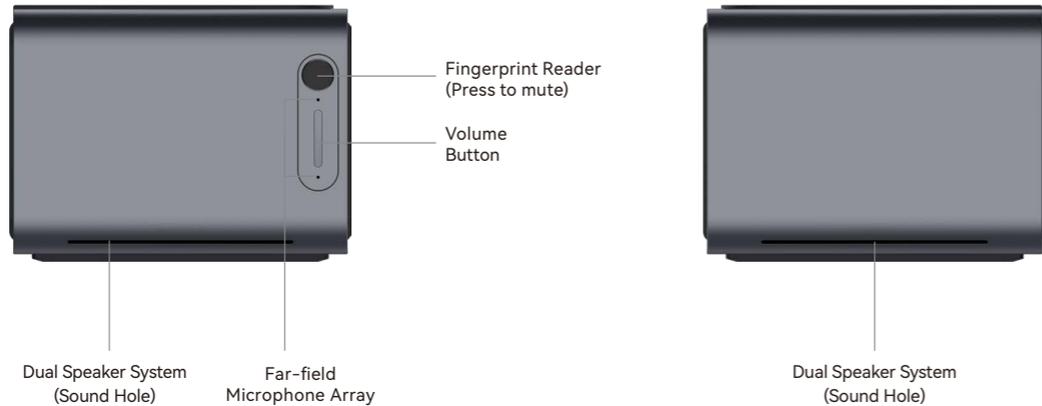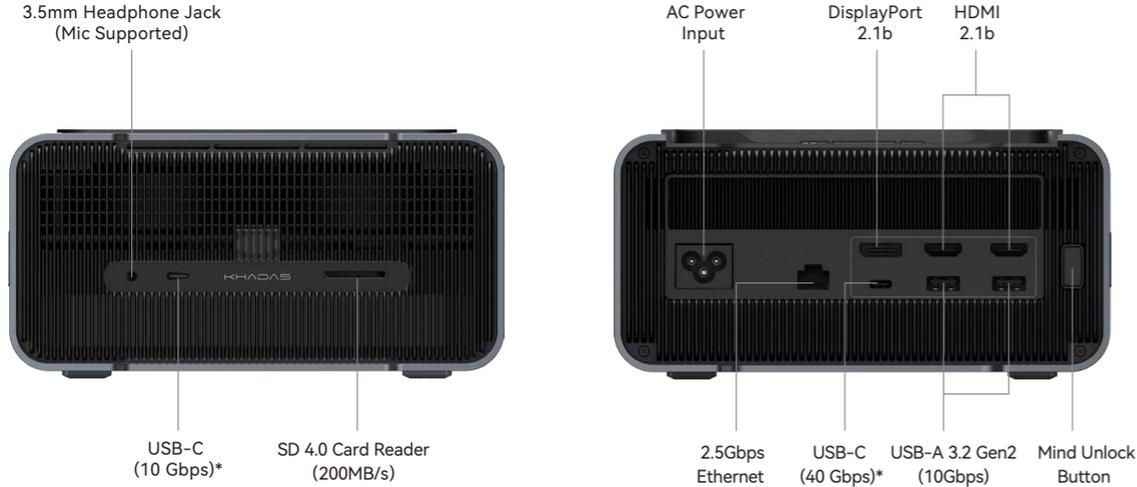NVIDIA Blackwell architecture
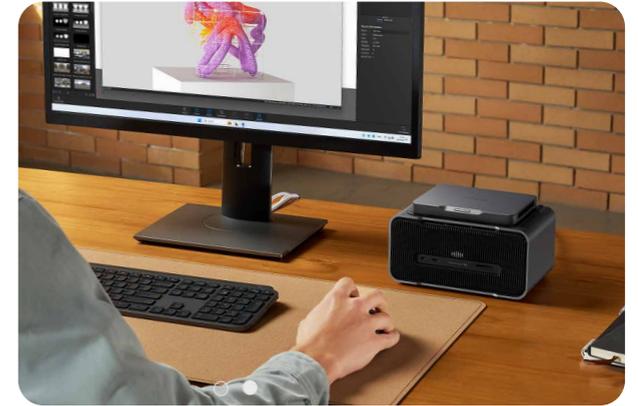16GB GDDR7 VRAM

Multi-Device Compatibility
Universal USB-C interface, supporting GPU acceleration via Thunderbolt 4/3

Mind Graphics 2 Interfaces

Housing the NVIDIA GeForce RTX 5060 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.

3.5mm Headphone Jack
(Mic Supported)

AC Power
Input

DisplayPort
2.1b

HDMI
2.1b

USB-C
(10 Gbps)*

SD 4.0 Card Reader
(200MB/s)

2.5Gbps
Ethernet

USB-C
(40 Gbps)*

USB-A 3.2 Gen2
(10Gbps)

Mind Unlock
Button

Fingerprint Reader
(Press to mute)

Volume
Button

Dual Speaker System
(Sound Hole)

Far-field
Microphone Array

Dual Speaker System
(Sound Hole)

Mind Graphics 2 Specs

GPU
NVIDIA GeForce® RTX™ 5060 Ti
Architecture: NVIDIA Blackwell
GPU Max Power: 180W

VRAM
16GB GDDR7

Power
PSU Max Power: 350W
PSU Type: Integrated GaN

Audio & Buttons
Dual Microphones
Dual Speakers
Fingerprint Reader (press to mute)
Volume Button

I/O Interfaces
USB-C (40 Gbps) × 1
* When not connected to Mind, this port supports GPU acceleration via Thunderbolt 4/3 or USB4.
USB-C (10 Gbps) × 1
* When connected to a Thunderbolt host through the USB-C (40 Gbps) port, or when connected to Mind via Mind Link, this port supports USB 3.2 Gen 2 (10 Gbps) data transfer and PD power output (up to 5V/3A).
USB-A 3.2 Gen2 (10 Gbps) × 2
HDMI 2.1b × 2
DisplayPort 2.1b × 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
3 kg

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 kg

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.

Fingerprint Reader

Mind Link

Volume Knob

USB 3.2 Gen1
(5Gbps)

3.5mm Headphone Jack
(Mic Supported)

SD Card Reader 4.0
(200MB/s)

Ethernet
(2.5Gbps)

HDMI 2.0
(18Gbps)

USB 3.2 Gen1
(5Gbps)

USB-C
(Power Delivery)

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
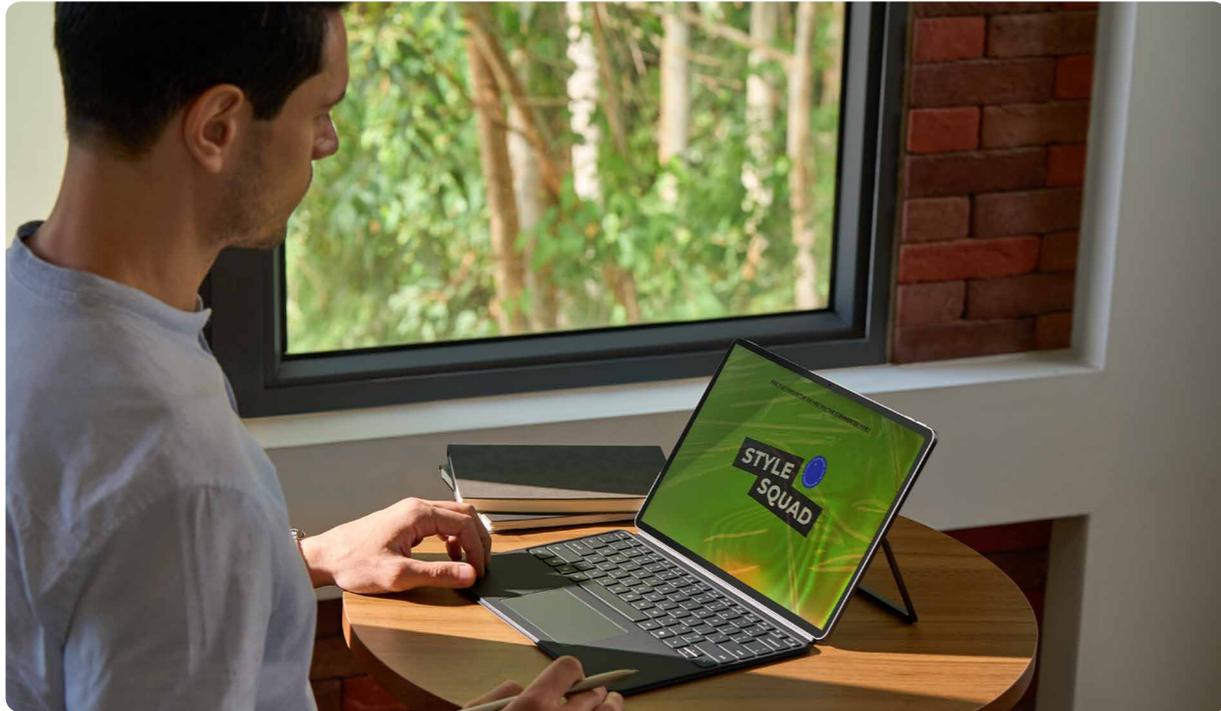
13-inch 2.8K HD Portable Display

In the meeting room, café, or during your commute, one-click relay ensures your windows and progress continue right where you left off. With less to carry and simple, tidy connections, stay organized and composed across multiple settings.

Mind xPlay Specs

Mind xPlay Portable Display

Screen
Size: 13 inches
Resolution: 2880 × 1920
Aspect Ratio: 3:2
Type: LCD
Refresh Rate: 60Hz
Color Gamut: 100% sRGB
Brightness: 500 nit

I/O Ports
USB-C Input Port × 1
USB-C Output Port × 1
Keyboard Port × 1
Mind Link Interface × 1

Buttons
Power Button
Volume Up Button
Volume Down Button

Battery & Power
Battery Capacity: 4150 mAh
Battery Energy: 47.94Wh
Power Input: 20V/5A (max)

Audio
Dual Microphones (pickup ≈ 2 m)
Dual Speakers (2W × 2)

Size & Weight
290.5 × 199.95 × 9.5 mm
820 g

Camera Resolution
2 MP

Adjustable Stand
0°–120°

Mind xPlay Keyboard

Compatibility
Designed for the Mind xPlay Portable Display

Connection
Magnetic attachment

Keyboard Layout
79 keys

Touchpad
High-precision touchpad (polling rate > 120 Hz)

Key Functions
Copilot Key:
One-press access to the Copilot AI assistant

Custom Key:
Switch work modes
Set tcombinations
Launch files and apps

Camera Resolution
2 MP

Size & Weight
293 × 215 × 6 mm
340 g

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.

* 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 AI 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 AI Maker Kit Specs

Mind 2 AI Maker Kit

Ultra 7, 258V

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

AI Performance
Total computing power: 115 TOPS
Supported AI 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
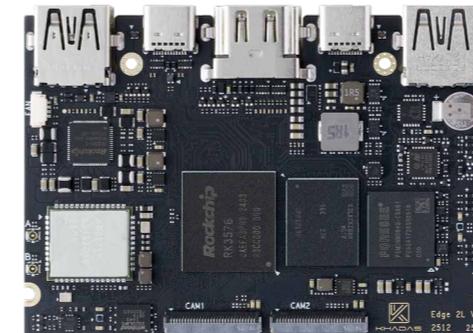
Edge 2L

Rockchip RK3576 ARM PC with 6 Tops NPU & 8K Display

- CPU: 2.22GHz Quad-core Cortex-A72 + Quad-core Cortex-A53
- GPU: ARM Mali-G52 MC3
- NPU: Built-in 6 TOPS Performance NPU
- Decoder & Encoder: 8K@30fps, 4K@120fps for H.265/VP9/AVS2/AV1 and 4K@60fps for H.264 Decoder 4K@60fps for H.265/H.264 Encoder
- Memory: 4GB/8GB/16GB LPDDR5X, 64GB/128GB eMMC 5.1
- Wireless: 802.11ax/ac/n/g/b/a 2T2R Wi-Fi 6, Bluetooth 5.3

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

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
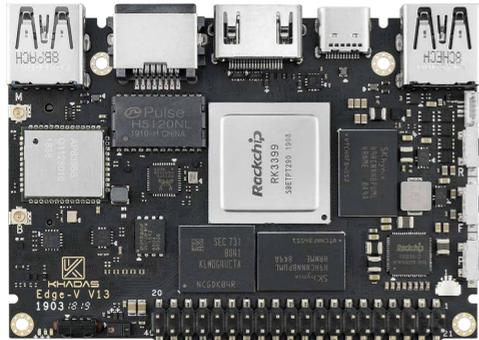
Edge-V

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
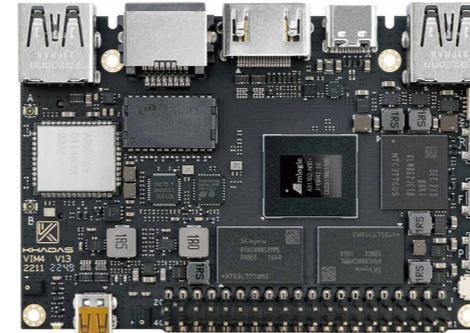
VIM4

### Amlogic A311D2 Supports 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
- 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
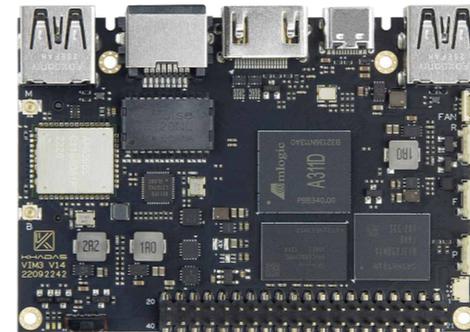
VIM3

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
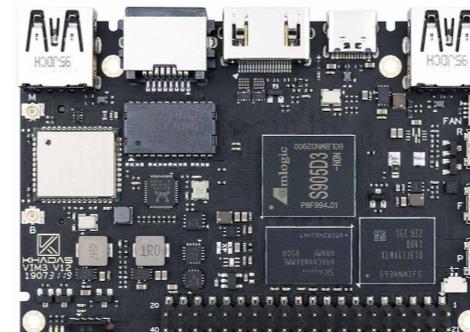
VIM3L

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
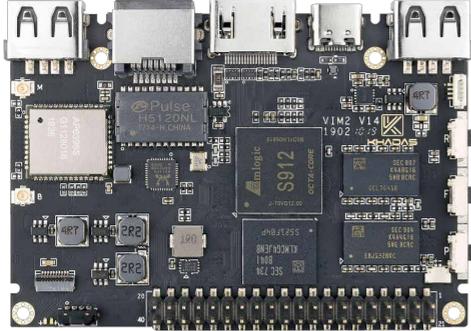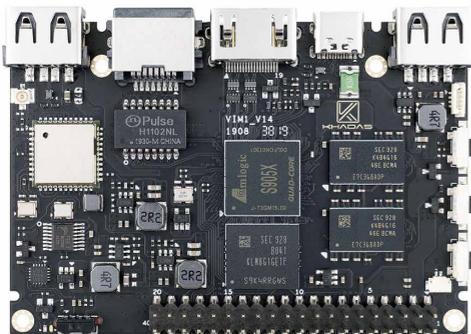
VIM2

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
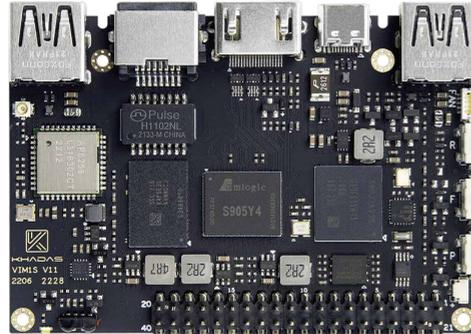
VIM1S

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
- 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
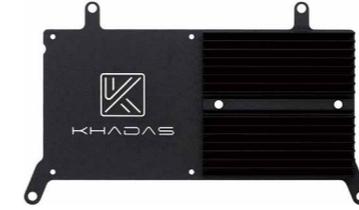
VIM1

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

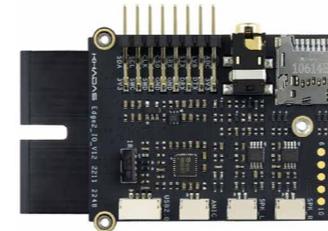**3705 Cooling Fan**
High airflow & Super quiet

5G NR Module
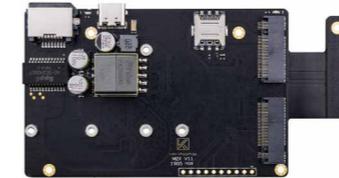Applicable to the M2X WWAN Extension board

TS050 Touch Screen
Combined MIPI-DSI + TP FPC Cable

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

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

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

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

XMOS XMOS XU216 | **ESS** ESS ES9038Q2M | **MQA** MQA Full Decode | **RCA BALANCED** Balanced RCA

- 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**

Tone2
Hi-Fi Mini Desktop DAC

XMOS XMOS XU208 | **MQA** MQA Full Decode | **DSD** DSD 512 (Native) | **Bluetooth Extension**

- 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**

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

BT Magic

External Bluetooth Module Wireless in Seconds

- Qualcomm QCC5125, 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 (l) × 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

XMOS XMOS XU316-1024　**ESS** ES9039Q2M　**Qualcomm** QCC5181 Bluetooth chip　**DSD** Direct Stream Digital 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

MFi Licensed Accessories Search

Search for accessories that have completed MFi certification.
Once an accessory has completed MFi certification requirements and has either been opted in by the accessory manufacturer or reported to Apple as sold/distributed, it will be searchable on our MFi Licensed Accessories page.

Accessories that use any of the following technologies or components will be searchable here: AirPlay audio, DockKit, Find My network, HomeKit, iPhone/iPad/iPod Accessory Protocol (iAP2), Lightning connector, MFi charging component, and MFi headset component.

Search parameter	Search value
Brand	khadas

4 results for khadas

Brand	Accessory Name	Model	Technology	Category	UPC/EAN
KHADAS	Tea Pro	KTEA-P-002	iPhone/iPad/iPod Accessory Protocol (iAP)	Other	6975392775503
KHADAS	cable	A1032	Lightning connector	Other	6975392775503
KHADAS	Tea Pro	K1017	iPhone/iPad/iPod Accessory Protocol (iAP), Lightning connector	Other	6975392775503

MFi Certification

Made for iPhone | iPad

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.

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

Tea

Portable Magnetic DAC & Headphone Amplifier

MQA Renderer · ES9281AC Pro · Qualcomm QCC5125 Bluetooth chip · Apple Lossless Audio

- 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.

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
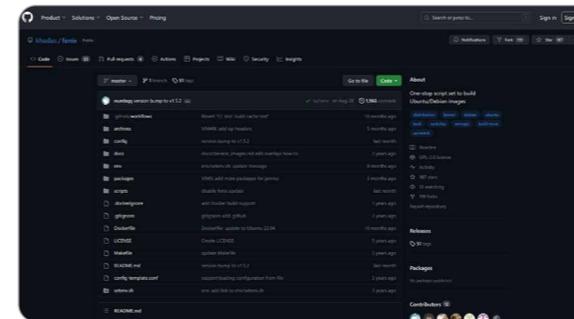
Khadas Software

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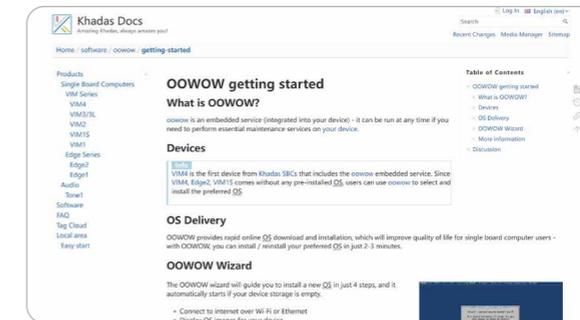
* To learn more about OOWOW, please visit https://docs.khadas.com/software/oowow/start.

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.

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.

* To learn more about Fenix, please visit https://github.com/khadas/fenix.
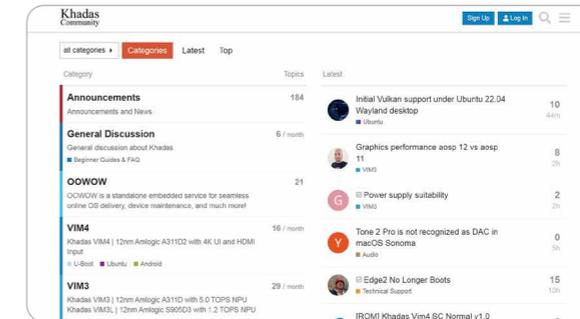
Mind Reviews

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.

Fuchsia | android | OpenCV | intel

USB UNIVERSAL SERIAL BUS | HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE | Baylibre | 美团 美团

armbian | Rockchip 瑞芯微电子 | @mlogic | Made for iPhone | iPad

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!