Khadas VIM2 Max Open Source SBC/TV Box 3GB+64GB Wi-Fi Gigabit LAN with WOL Multi-System-Compatibility 4K

SKU 102110198

Description

Professional | Powerful | Ultimate | Superior | Awesome user experience
Khadas VIM2 is the first and only Amlogic S912 based hobbyist development board on the market, which makes it interesting by itself, but Khadas also added some interesting features such as an SPI flash for network boot, Wake-on-LAN support, and more.
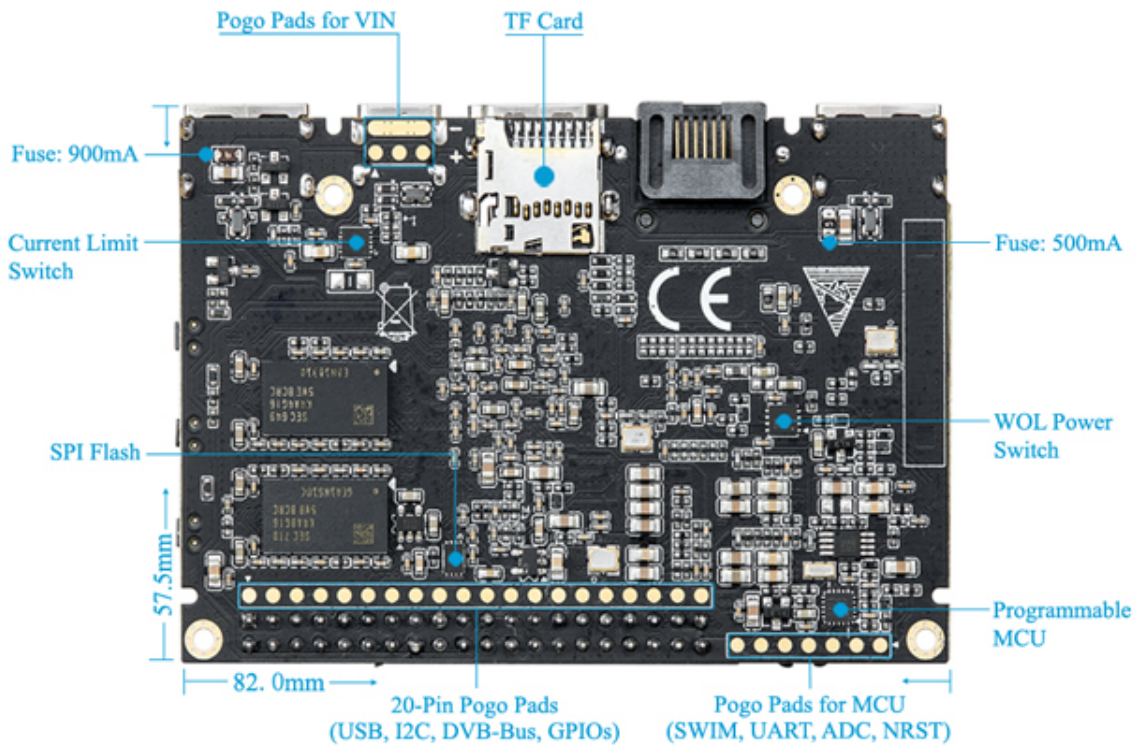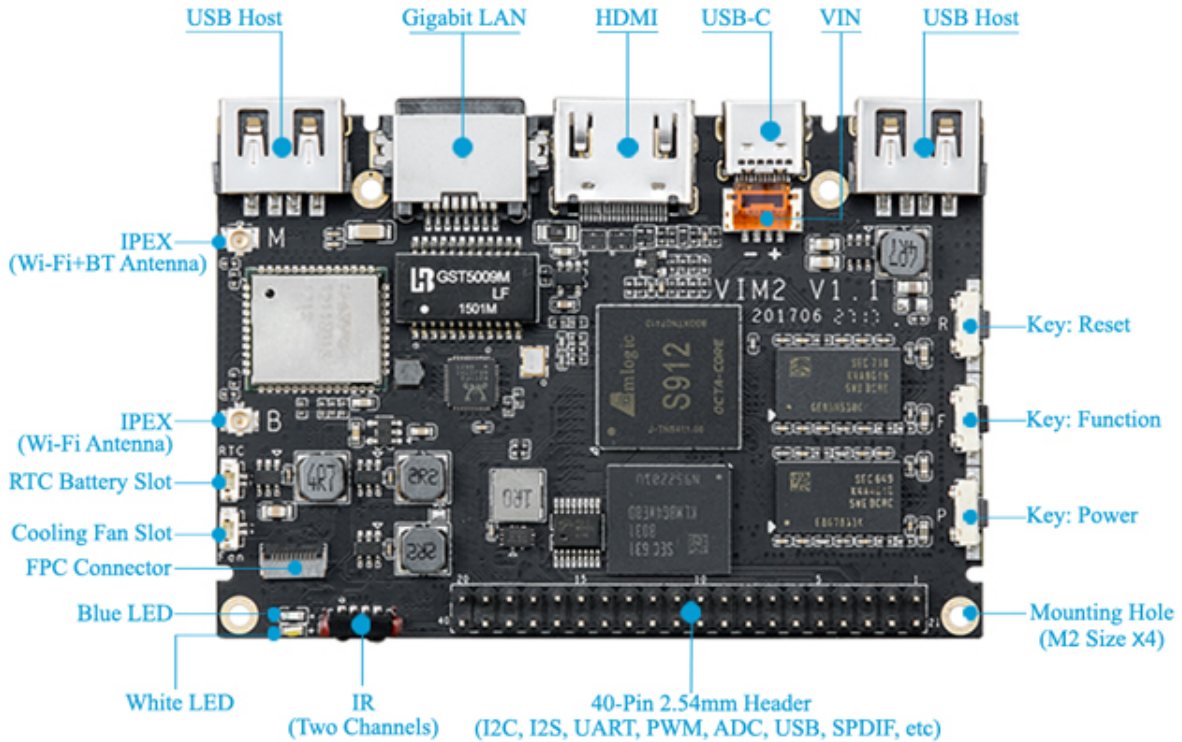
Features

- Excellent performance
  1.5GHz 64-bit Octa-Core CPU, T820MP3 GPU, and up to 3GB DDR4 & 64GB eMMC.
- Unlimited connectivity
  2X2 MIMO 802.11ac Wi-Fi, 4.x Bluetooth, Gbit Lan and a USB-C(2.0) port.
- Advanced Specs
  WOL(Wake on Lan) and RSDB Wi-Fi will improve the user experience steps forward.
- Maker friendly
  Equipped with 40-pin GPIO header, cooling fan slot and a programmable MCU.
- Multimedia experts
  HDMI2.0a and a powerful VPU with 10-bit 4K H.265/VP9@60fps playback support.
- Tiny form factor
  Thin and light with a dimensions of credit card.

Highlights

- Android 7.1 + Ubuntu + Buildroot + Docker Multi-OS
  Pre-installed with Android, you can also install Ubuntu, Buidroot, Docker OS, it will bring you a surprise of using experience.
- Amlogic S912 Octa-core CPU
  Rapid and stable performance can give you a high-speed feedback and smooth response.
- DDR4 3GB RAM, eMMC 64GB ROM
  It is configured with DDR4 3GB RAM, and eMMC 64GB ROM, thus it can provide enough room and freedom to install Apps without worrying about running out of space.
- Bluetooth 4.2 Connectivity
  Easy pairing with most Bluetooth-enabled devices.
- Gigabit LAN
  Gigabit LAN can improve the internet speed and the performance to a great extent.
- Multiple Use Case
  You can turn Khadas VIM2 Max Development Board into SBC, Clusters, Digital Signage, Robotics, IoT, TV Box.

Interface

USB Host | **Gigabit LAN** | **HDMI** | **USB-C** | **VIN** | **USB Host**

IPEX
(Wi-Fi+BT Antenna)

IPEX
(Wi-Fi Antenna)

RTC Battery Slot

Cooling Fan Slot

FPC Connector

Blue LED

White LED

IR
(Two Channels)

40-Pin 2.54mm Header
(I2C, I2S, UART, PWM, ADC, USB, SPDIF, etc)

Key: Reset

Key: Function

Key: Power

Mounting Hole
(M2 Size X4)

Pogo Pads for VIN | **TF Card**

Fuse: 900mA

Current Limit
Switch

SPI Flash

57.5mm

82.0mm

20-Pin Pogo Pads
(USB, I2C, DVB-Bus, GPIOs)

Pogo Pads for MCU
(SWIM, UART, ADC, NRST)

Fuse: 500mA

WOL Power
Switch

Programmable
MCU

Open Source & Community

Open Source
Full open source code, including U-Boot, Mainline Linux and Android.
All source code are hosted on Khadas Github with an active community
of developers contributing to it.

Hardware Documents
All the necessary hardware documents, including schematics,
PCB drawings and PCB 2D files are available for download.
And makers can easily customize or expand according to their needs.

Community
Khadas community is built for users and developers to discuss,
communicate and learn from each other.
This is also a way for us to gather feedback from our users.

Service
If technical problems are encountered during the development process,
we can provide the necessary technical support.

Supported Software

Ubuntu
Ubuntu-16.04 and later version

Docker
A Better Way to Build Apps

Buildroot
Making Embedded Linux Easy

Android
Android 7.1 with Kodi supported

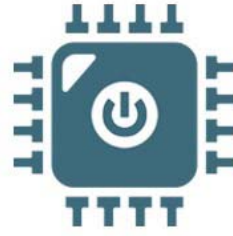## Superior Technical Specs

RSDB

Real Simultaneous Dual Band, VIM2 and other devices can transmit and receive data over two bands at the same time.

WOL

Power on or wake up VIM2 remotely over Lan through Apps or webpage.

MCU

Smart power management, EEPROM for customization, and setup default boot media (SPI Flash or EMMC).

UEFI

UEFI provides a standard environment for booting an operating system and running pre-boot applications.

Technical Details

Dimensions	82mm x 57.50mm x 11.50mm
Weight	G.W 860g N.W 710g
Battery	Exclude
SoC	Amlogic S912; 1.5 GHz 64Bit Octa Core ARM Cortex-A53; 750MHz ARM Mali-T820MP3 GPU; HW UHD H.265/VP9 60fps 10bit video decoder; HDR10 and HLG HDR video processing;
MCU	STM8S003 with Programmable EEPROM
SPI Flash	2MB
DDR4	3GB
EMMC	64GB

Wi-Fi	AP6359SA, 2X2 MIMO with RSDB
Bluetooth	V4.2
LAN	10/100 / 1000M
WOL	Wake up & on Lan
IR Receiver	2 Channels
HDMI 2.0a	Type-A Female, up to 4K@60Hz
HDMI CEC	Yes
TF Card	Molex Slot
USB2.0 HOST	x2 (900mA & 500mA Load)
USB Type-C	USB2.0 OTG & DC IN
Wide Input Voltage	Range from 5V to 9V, Recommend 5.0V
Current Limit Switch	Programmable, 3.0A as default (up to 4.0A)
VIN (Extra Power IN)	4-Pins, 1.25mm Pitch Header
RTC & Battery Header	0.8mm Pitch Header
Cooling Fan Header	3 Levels Speed, with a 0.8mm Pitch Header

40-Pins I/O Header	2.54mm, USB, I2C, I2S, SPDIF, UART, PWM, ADC, ISO7816
FPC Connector	10-Pins, 0.5mm Pitch, with I2C, IOs
Pogo Pads Array	USB, I2C, DVB-Bus, IOs
Pogo Pads MCU	SWIM, UART, ADC, NRST
Pogo Pads for VIN	System Power Input
Buttons	x3 (Power / Func / Reset)
LEDs	Blue LED x1, White LED x1
Mounting Holes	Size M2 x 4
Android	Nougat (7.1)
Ubuntu	Ubuntu 16.04+
UEFI	Developing

Part List

Khadas VIM2 Max Open Source TV Box with case	1
Type-C USB cable	1

ECCN/HTS

ECCN	5A002.a.1