

Amlogic A311D SoC Android 9 TV Box with 4GB RAM, Dual WiFi, HDMI output

Specifications

Model No.	Amlogic A311D TV Box
CPU	Amlogic A311D Quad Core ARM Cortex A73 and Dual Core ARM Cortex A53 1.98Ghz
GPU	ARM Mali-G52 MP4 (6EE) OpenGL ES 3.2, Vulkan 1.1 and OpenCL 2.0
RAM	DDR4 2GB/4GB
ROM	16GB eMMC (Expandable up to 128GB)
OS	Android 9.0

Video&Audio CODEC

Decoding resolution	Support 4K H265 10Bit, H.264, AVS, MPEG-2 and many other formats
Multimedia Support	Support MPEG1, MPEG2, MPEG4, H.264, WMV, MKV, TS, flv and other video formats; Support MP3 and other audio formats; support JPG, JPEG, BMP, PNG, GIF and other photo formats

Port

Video output	1 channel LVDS 40-pin 2.0mm double-pin, can support 8bit, 10bit screen; 1 channel HDMI output; 1 channel AV output
Video input	x1, MIPI CSI
Audio output	4-pin 2.5mm socket 25W@2 amplifier and 3W@2 speaker
Network interface	x1, 10M/100M Ethernet WiFi+BT, 2.4G single band or 2.4G/5G dual band for options PCIe slot (4G) x1 or M.2 slot (4G) x1 for options
USB2.0 interface	USB OTG x1 (available for HOST) USB HOST x7
Backlight interface	x2, 6-pin 2.0mm socket
Infrared interface	x1, 7-pin 2.0mm socket, supports both red and green LED indicators
Function expansion port	Serial ports x4
TF card slot	x1
SIM card slot	x1
RTC	Supports time synchronization

Power

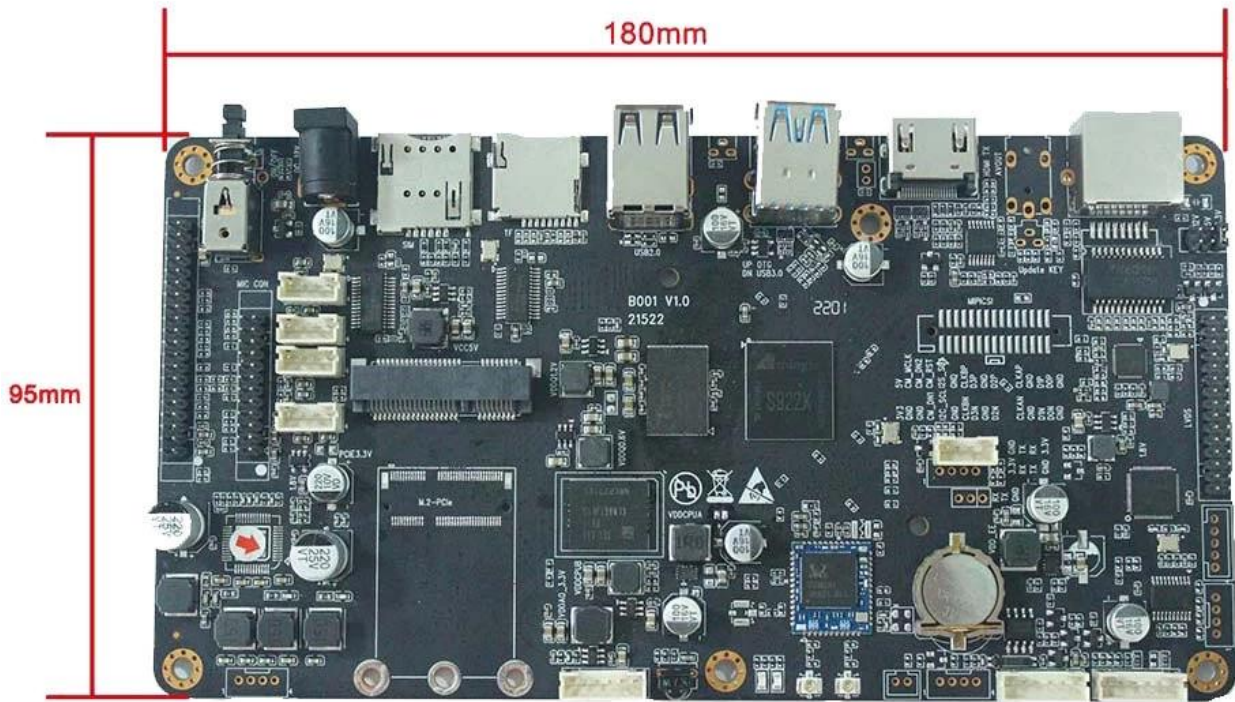
Power Supply	12V, 2.5DC Connector
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S922X

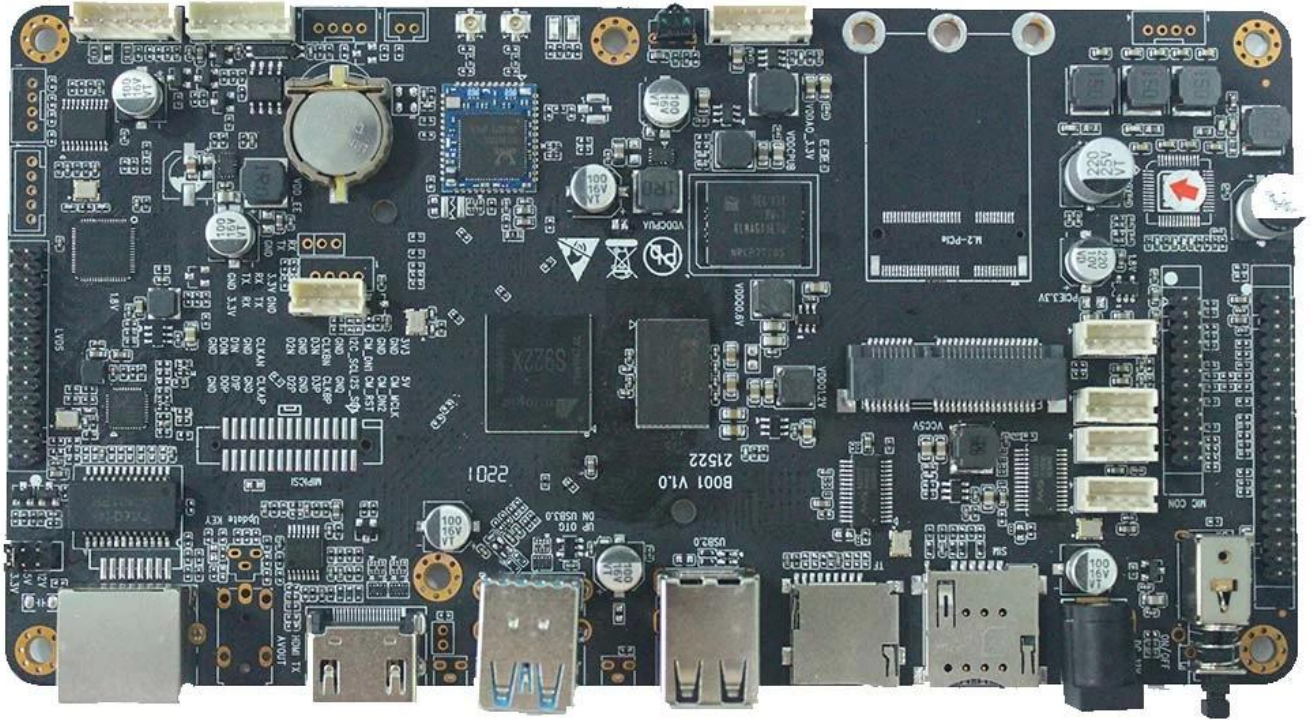


Supported configuration: PCIe2.0 port + USB2.0 Host, or USB3.0 without PCIe

S055T01



180mm*95mm*20mm



Amlogic S922X Android Development Board multimedia network player-LCD driver integrated board adopts Amlogic S922X 12nm high-end chip, which supports UHD 4K@60fps hardware video decoding. It also supports supports H.265 10-bit, H.264 and AVS+ and many other formats. Support HDR10 and HLG high dynamic range processing, with multi-channel UART and USB interfaces. Support Bluetooth, WIFI, 4G and Ethernet functions. Support AV serial use, SD card expansion. Perfectly supports all kinds of touch screens, suitable for high-performance intelligent display terminal equipment, industrial automation terminal, computer vision/algorithm, 3D experience, game/amusement equipment, high-performance face recognition computing/storage, AI intelligence, etc. It can be widely used as a high-end intelligent motherboard for various industries such as finance, advertising, security, transportation, and public transportation.

(1) With various interfaces

- 1 channel LVDS video output (40pins)
- 1 channel HDMI video output
- 5 channels USB2.0
- 4 channels RS232 (can be modified to USB2.0 by patch)
- 1 channel MIPI CSI
- 1 channel AV output
- 1 channel I2C
- I2SC/IS2B
- 1 channel 25W super power amplifier and 3W speaker interface

- (2) Hybrid networking to break through network constraints
 - Support wired, WiFi and 4G access, can realize multi-network hybrid networking
- (3) Easy to operate & fast maintenance
 - Support breakpoint playback
 - Super multi-period timing switch function
 - Support U disk loading or direct playback
 - Support automatic repair, remote upgrade, intelligent domain name resolution

Chip Performance

CPU Sub-system

- (1) Quad Core ARM Cortex-A73 and Dual Core ARM Cortex-A53 CPU
- (2) ARMv8-A architecture with Neon and Crypto extensions
- (3) Unified system L2 cache
- (4) Build-in Cortex-M4 core for always on processing
- (5) Advanced TrustZone security system
- (6) Application based traffic optimization using internal QoS-based switching fabrics

3D Graphics Processing Unit

- (1) ARM Mali-G52 MP4 (4ppc) GPU
- (2) 8-wide warps, 2x dual texture pipe, 6x8-wide execution engines (EE)
- (3) Concurrent multi-core processing
- (4) OpenGL ES3.2, Vulkan 1.0 and OpenCL 2.0 support

Video/Picture CODEC

- (1) Amlogic Video Engine (AVE) with dedicated hardware decoders and encoders
- (2) Support multi-video decoder up to 4Kx2K@60fps+1x1080P@60fps
- (3) Supports multiple "secured" video decoding sessions and simultaneous decoding and encoding
- (4) Video/Picture Decoding

VP9 Profile-2 up to 4Kx2K@60fps

H.265 HEVCMP-10@L5.1 up to 4Kx2K@60fps

AVS2-P2 Profile up to 4Kx2K@60fps

H.264 AVCHP@L5.1 up to 4Kx2K@30fps

H.264 MVC up to 1080P@60fps

MPEG-4 ASP@L5 up to 1080P@60fps (ISO-14496)

WMV/VC-1 SP/MP/AP up to 1080P@60fps

AVS-P16(AVS+) /AVS-P2 JiZhun Profile up to 1080P@60fps

MPEG-2 MP/HL up to 1080P@60fps (ISO-13818)

MPEG-1MP/HL up to 1080P@60fps (ISO-11172)

RealVideo 8/9/10 up to 1080P@60fps

Multiple language and multiple format sub-title video support

MJPEG and JPEG unlimited pixel resolution decoding (ISO/IEC-10918)

Supports JPEG thumbnail, scaling, rotation and transition effects

Supports *.mkv, *.wmv, *.mpg, *.mpeg, *.dat, *.avi, *.mov, *.iso, *.mp4, *.rm and *.jpg file formats

(5) Video/Picture Encoding

Independent JPEG and H.265/H.264 encoder with configurable performance/bit-rate

JPEG image encoding

H.265/H.264 video encoding up to 1080P@60fps with low latency

Video Output

- (1) Built-in HDMI 2.1 transmitter including both controller and PHY with CEC, Dynamic HDR and HDCP 2.2, 4Kx2K@60 max resolution output
- (2) CVBS 480i/576i standard definition output
- (3) Supports all standard SD/HD/FHD video output formats: 480i/p, 576i/p, 720p, 1080i/p and 4Kx2K
- (4) 4-lane MIPI DSI interface, resolution up to 1920*1080 with rotation and panel calibration

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The **Amlogic A311D SoC Android 9 TV Box** is a powerful and feature-rich device designed to elevate your home entertainment experience. Equipped with the advanced Amlogic A311D Quad Core processor, this TV box ensures smooth, lag-free performance for streaming, gaming, and browsing. Whether you're watching your favorite movies in high definition or playing resource-intensive games, the A311D SoC handles it all with ease.

This Android TV box comes with **4GB of RAM**, providing sufficient memory to run multiple apps simultaneously without slowing down. With **64GB of internal storage**, you'll have ample space to store apps, games, movies, and other media. Additionally, the storage can be expanded with an SD card, allowing you to manage more content effortlessly.

One of the standout features of the Amlogic A311D Android 9 TV Box is its **Dual Wi-Fi** support. This feature ensures fast, stable internet connectivity, enabling you to stream 4K Ultra HD videos without buffering. Whether you're streaming content from Netflix, YouTube, or any other streaming platform, the Dual Wi-Fi function provides a smoother experience, especially in homes where multiple devices are connected to the network. The TV box also supports **Bluetooth**, making it easy to connect external devices like wireless keyboards, game controllers, or Bluetooth speakers for a fully immersive experience.

Running on **Android 9 OS**, this TV box offers a familiar and intuitive user interface. With access to the **Google Play Store**, you can download thousands of apps, including popular streaming services, social media platforms, and games. The Android 9 OS is optimized for efficiency, ensuring faster load times, smoother transitions between apps, and better management of system resources.

For users who love high-quality visuals, the Amlogic A311D TV Box features **HDMI output**, which supports **4K Ultra HD resolution**. This means you can enjoy crisp, clear images with rich colors and incredible detail on any modern display. Whether you're watching the latest blockbuster or streaming live sports, the HDMI output ensures that you get the best viewing experience possible.

In addition to its entertainment capabilities, the A311D TV Box can serve as a versatile media hub. With **multiple USB ports**, you can easily connect external storage devices, allowing you to play media files directly from a flash drive or external hard drive. This feature is particularly useful for users who prefer to store their media locally rather than streaming it.

The **compact design** of the Amlogic A311D Android 9 TV Box makes it a perfect addition to any home theater setup. Despite its small size, the device is packed with advanced features that cater to tech-savvy users and casual viewers alike. From high-quality 4K streaming to fast web browsing, this TV box offers a comprehensive solution for all your media needs.

In conclusion, the **Amlogic A311D SoC Android 9 TV Box** is an ideal choice for users who want a high-performance media player with a wide range of features. With its powerful processor, ample RAM and storage, Dual Wi-Fi, HDMI output, and Android 9 OS, this TV box delivers a premium entertainment experience that is both versatile and reliable. Whether you're streaming, gaming, or simply browsing, this device ensures a seamless, enjoyable experience every time.