# Ultra HD 4K IP TV Box with Amlogic A311D2 Quad Core

### **Specifications**

Model No. Amlogic A311d2 Ultra HD 4K IP TV Box

CPU Amlogic A311D2 Quad Core Cortex-A73 + Quad Core Cortex-A53

GPU ARM Mali-G52 MP8

RAM 4GB (max to 8GB/32GB for options) ROM 32GB (64GB/128GB/256GB options)

OS Android 11.0

Wi-Fi / BT Built-in Wi-Fi (standard single band 2.4G supported; Dual band 2.4G/5G for

options); BT4.2 or BT5.0 (M.2 port for option)

I/O Port

Serial ports

HDMI input 3\*HDMI input HDMI output 1\*HDMI output

LVDS output 1 single/dual, can directly drive 50/60Hz LCD

V-By-One output 2\*8-lane V-by-One, up to 4Kp60; support 4K\*2K@60Hz output

Screen backlight interface 5V/12V power, Local Dimming or PWM dimming

USB port 1\*USB 3.0 A port

USB 2.0 A port (for burning firmware) or (mini USB OTG for option)

2\*serial ports (2\*RS232 or 2\*TTL ports; If need TF card slot, then only 1\*

serial port available.)

Camera CSI 2\*CSI input

MIC PDM Some of the function pins are multiplexed with Camera CSI, need to

confirm before use

Spk BOARD Support I2S output

Ethernet 1\*RJ45 port, 100M/1000M

SPDIF or COAX output for option

Line in AUDIO\_Line in Line out AUDIO Line out

RTC Support timer switch on/off

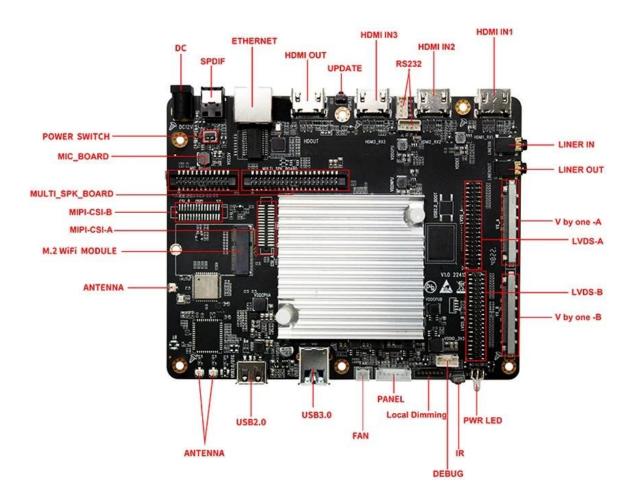
IR IR receiver (on-board IR receiver for option)

Power LED On-board or matching function board for option

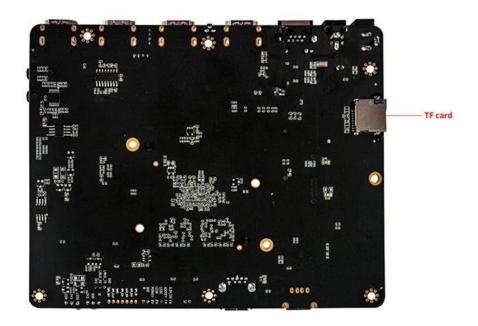
Upgrade Support local upgrade by TF & USB or OTA upgrade

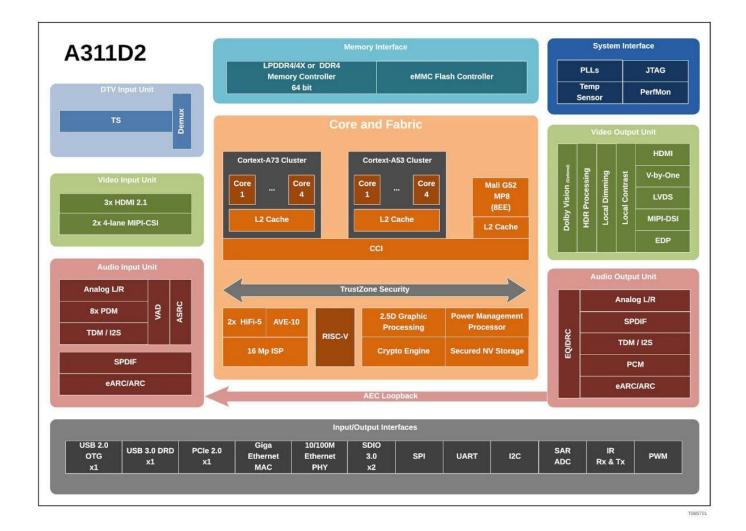
Power Supply 5V/12V Power

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Amlogic A311D2 Android Smart Integrated Board

## **Applicable Scope**

Amlogic A311D2 Android Smart Integrated Board motherboard integrates multimedia network playback, LCD driver and Android intelligence, mainly for supporting LVDS and V-by-one screens of various sizes and resolutions. It is suitable for smart shelf, door advertising, commercial display, etc. It can also be applied to intelligent display terminal products, video terminal products, industrial automation terminal products, commercial display, self-service products, intelligent education, new retail and many other display fields. Such as: multimedia advertising machine, intelligent self-service terminal, intelligent retail terminal, etc.

#### **Product Overview**

Amlogic A311D2 Android Smart Integrated Board motherboard is powered by Amlogic A311D2 chip with Android 11.0 OS; with superb audio and video processing capabilities. Octa-core processor designed for smart display applications, quad-core Cortex-A73 & quad-core Cortex-A53, up to 2.2GHz; Mali-G52 MP8 (8EE) GPU; supports up to 4Kp60 with 3\*HDMI 2.1 inputs, one 16MP ISP and 4K video encoding. Support 4K\*2K@60fps, H.265 hard decode and many other formats, rich peripheral interfaces.

#### **Product Features**

\*On-board V-By-One / LVDS output interface, no converter chip required;

- \*Support Ethernet & WiFi (M.2 port option) both and RTC;
- \*Rich expansion interfaces: 1\*OTG USB port, 1\*USB 3.0 A port, 2\*RS232 serial ports, 1\*TTL serial port, 1\*ADC interface; which is adaptable to various peripheral access requirements in the market;
- \*Support HDMI + LVDS or HDMI + V-by-one screen dual screen outputs;
- \*High definition: Supports up to 4K\*2K@60fps decoding and various LCD displays and cutting screens which with LVDS or V-By-One interfaces;
- \*2\*4-lane MIPI-DSI interfaces with resolution up to 1920\*1200;
- \*Support customization for Android system, providing reference code for the system call interfaces API. Perfectly support customer in upper layer application APP development;
- \*Support AV1, MP-10, VP9, AVS2, MPEG2, MPEG4, H.265, wmv, mkv, mov, iso and other mainstream video formats;
- \*Support 4K screenshot and recording;
- \*High memory bandwidth to support 4K user interface;

The **Ultra HD 4K IP TV Box with Amlogic A311D2 Quad Core** is a state-of-the-art streaming device that offers a high-performance solution for home entertainment. Powered by the **Amlogic A311D2 chipset**, this IPTV box delivers the processing power necessary for seamless, high-definition streaming, gaming, and media playback, ensuring an immersive and satisfying user experience.

One of the key features of this IPTV box is its support for **4K Ultra HD** resolution, providing viewers with sharp, detailed, and vibrant visuals. Whether you're watching movies, streaming live TV, or playing games, the 4K resolution ensures a stunning picture quality that enhances the viewing experience. The **Amlogic A311D2 quad-core processor** is optimized for heavy multimedia use, making this TV box perfect for users who demand smooth, uninterrupted streaming even when dealing with bandwidth-intensive content.

In addition to its processing power, the **H.265 hardware decoding** technology integrated into the Amlogic A311D2 allows for efficient compression of video streams without compromising quality. This reduces the amount of bandwidth needed to stream 4K content, ensuring smoother playback even on slower or congested networks. With **4GB of RAM** and **32GB of storage**, the box provides enough memory and space for running multiple applications and storing downloaded media files.

Connectivity is another major strength of this IPTV box. It supports **dual-band WiFi**, allowing users to connect to both 2.4GHz and 5GHz networks for optimal streaming performance. The 5GHz band is particularly useful for high-speed 4K streaming, as it reduces interference and offers faster data transmission speeds. For users who prefer a wired connection, the device is equipped with a **Gigabit Ethernet port**, ensuring stable and fast internet access, which is crucial for high-quality IPTV streaming and online gaming.

The device runs on an **Android operating system**, offering access to a wide range of apps from the **Google Play Store**. From streaming platforms like **Netflix**, **Amazon Prime**, and **YouTube**, to games and productivity tools, the Android platform provides versatility beyond entertainment. You can easily customize your viewing experience by downloading apps suited to your preferences, whether it's live IPTV, on-demand video services, or interactive gaming.

The **plug-and-play** functionality of this TV box ensures that setup is quick and easy. Simply connect the device to your TV using the **HDMI port**, connect to the internet via WiFi or Ethernet, and you're ready to start streaming in 4K. The user-friendly interface, combined with the power of Android, ensures that even novice users can navigate through the box's features with ease.

Furthermore, the **Amlogic A311D2** processor provides excellent support for multitasking, making it easy to switch between apps, browse the internet, or play games without noticeable lag. With its **Bluetooth support**, you can connect wireless peripherals such as keyboards, headphones, and game controllers, adding convenience to your overall experience.

In conclusion, the **Ultra HD 4K IP TV Box with Amlogic A311D2 Quad Core** is the ideal choice for users looking to enhance their home entertainment system with powerful streaming, smooth performance, and stunning 4K visuals. Whether for watching IPTV, streaming movies, or playing games, this TV box delivers a premium experience with reliable connectivity, versatile functionality, and superior processing power.