Amlogic T972 Development Board for 4K Digital Signage Applications

Specifications

Model No. Amlogic T792 Development Board

CPU Amlogic T972 Quad Core ARM Cortex A55 1.98GHZ

GPU Penta Core ARM Mail-450

RAM 2GB

ROM 4GB (16GB/32GB/64GB Optional)

OS Android 9.0

Wi-Fi / BT 2.4Ghz (2.4G/5G Optional);

BT4.2

I/O Port

LVDS Output 1 Single/Dual Channel, Drive 50/60Hz LCD Screen

V-BY-ONE Out 4K*2K@60Hz

Standard Screen

Backlight Control 12V, Enable, PWM Dimmer;

Interface

1*USB OTG,

USB2.0 1*USB2.0 A

3*USB Port

Serial Port 4 Serial Ports (including 1 way 232, 1 way TTL, 1 way 485,

1 way UART)

Area Backlight SPI

HDMI Input 1pc, HDMI 2.1 4K*2K@60Hz Input

Audio/Video Output Left/Right Channel Output, Built-in Dual $4\Omega/15W$ Power

Amplifier

MIC Input

One Analog MIC Input, Reserved 4 Digital MIC Inputs in

PDM Array

Earphone 1 PC

4G Mini PCI-E 4G

TP/touch Screen

Interface

1 way I²C Touch Screen Interface

Other Expansion

Interfaces

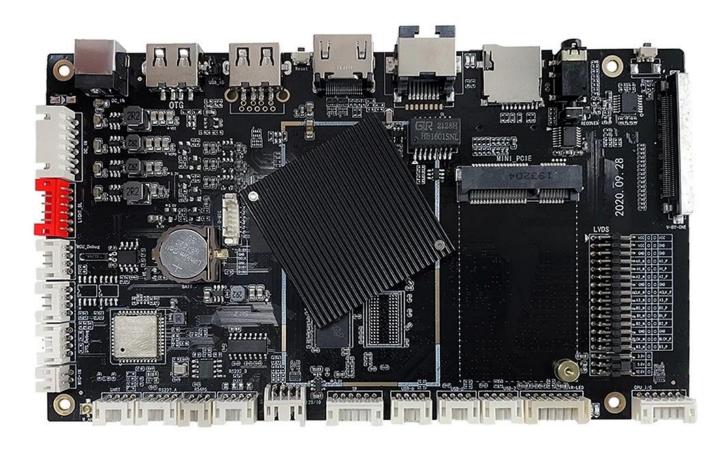
Multipath IO Interface, SPI, ADC and Button Interface

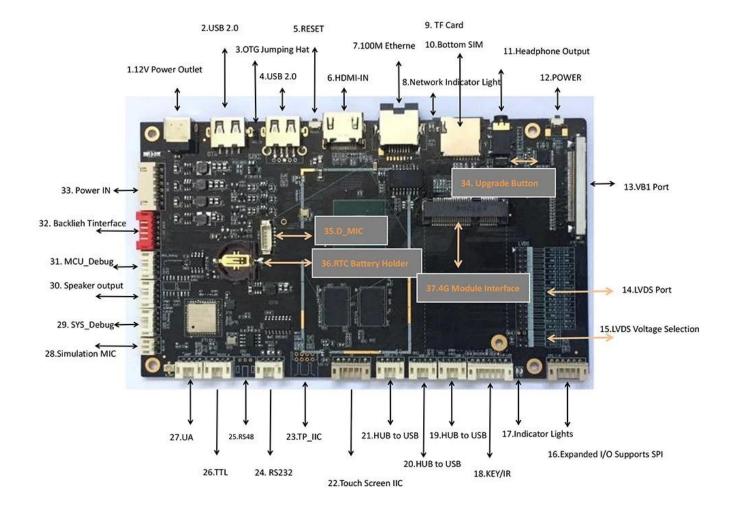
Ethernet 10/100M Fast Ethernet RJ45 Port

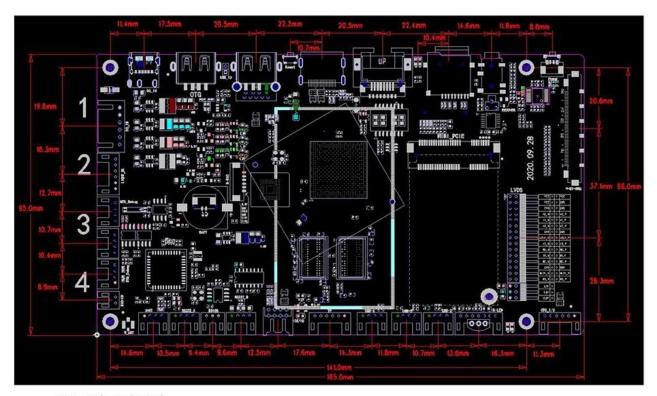
RTC Support

Upgrade Support Local USB And OTA Upgrade

Size 125mm*80mm







PCB: 4-layer board

Size: 165mm*95mm, Thickness 1.2mm Screw hole specifications: Φ3.0mm x 4

Amlogic T792 belongs to the Android smart motherboard, which is generally applicable to smart display terminal products, video terminal products, industrial automation terminal products, such as: advertising machines, digital signage, smart self-service terminals, smart retail terminals, O2O smart devices, industrial control hosts, educational equipment, Robot equipment, etc.

Amlogic T972 chipset, quad-core Cortex-A55 processor, clocked at up to 1.9 GHz; uses Mali-G31 GPU; supports 4K, H.265 hard decoding; equipped with Android 9.0 system; supports multiple video output and input; Abundant peripheral interfaces, support a variety of peripheral expansion; ultra-low power consumption, super performance, is the best choice for commercial display, human-computer interaction, and industrial control projects.

- ♦Designed for self-service terminals, standard ultra-thin board type, suitable for various structures.
- ♦Onboard HDMI IN/V-By-One / LVDS and other input and output interfaces.
- ♦Support LAN, WiFi, 4G access, support a variety of PCI-E 3G/4G modules, support IoT cards or ordinary data cards.
- ♦Rich extended interface. 5 USB ports (3 pins, 2 standard USB 2.0), 3 expandable serial ports (1 RS232 serial port, 1 3.3V TTL serial port, 1 pc 1.8V or 3.3V or 5V optional level 4-wire TTL serial port), multiple GPIO and ADC interfaces can meet the access requirements of various peripherals on the market.
- ♦High definition: Maximum support 8K*4K@24fps decoding and various LVDS/V-By-One interface LCD display screens, crop screens.
- ◆Support Android system customization, provide system call interface API reference code, perfect support for customer upper-level application APP development.
- ◆Perfectly support a variety of mainstream touch screens such as infrared, optical, capacitive, resistive, and touch film.
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- ♦ Easy to operate, simple and convenient operation and maintenance.

The **Amlogic T972 Development Board** is a high-performance platform tailored for modern 4K digital signage applications. Built around the advanced T972 quad-core processor, it offers unmatched processing power and efficiency, ensuring smooth operation for high-definition displays. With its focus on 4K UHD video decoding, the board guarantees vivid visuals, making it an ideal solution for businesses looking to create impactful digital content.

This development board supports **HDMI 2.1**, enabling seamless 4K video output at 60fps for crystal-clear, immersive displays. It also features **USB 3.0** for high-speed data transfer, **Ethernet** for wired connectivity, and **dual-band WiFi 5**, providing flexible options for networking and internet integration. Developers can take advantage of its compatibility with Android OS and Linux for versatile application development, allowing full customization to meet unique project requirements.

Designed with efficiency in mind, the Amlogic T972 Development Board excels in low power consumption, making it perfect for 24/7 operations in commercial environments. The compact form factor allows for easy integration into existing systems, such as interactive kiosks, information boards, and smart signage. Whether in retail stores, airports, schools, or hotels, this board offers the reliability and flexibility required for a variety of professional applications.

The Amlogic T972 also supports advanced technologies such as **HDR10** for enhanced color and contrast, ensuring lifelike image quality. With a range of I/O interfaces, including GPIO and UART, it provides developers with extensive options to expand functionality and integrate peripheral devices. Its robust architecture and comprehensive feature set make it a future-proof solution for the everevolving digital signage market.

For those looking to innovate and deliver captivating 4K content, the Amlogic T972 Development Board is an all-in-one solution. It combines powerful hardware, flexible connectivity, and efficient

performance to meet the demanding needs of modern digital signage applications. From concept to deployment, this board empowers developers to bring their creative visions to life.