

# Amlogic S905D3 Digital Signage Board Comes with HDMI, LVDS, V-by-One

**Multifunctional intelligent industrial control board**  
Amlogic S922X / S905D3 / T972






V-By-One; Direct 4K Dot Screen; Android 9.0 Or Above  
www.sztomato.com

## Specifications

Model No.	Amlogic S905D3 Digital Signage
CPU	Amlogic S905D3 Quad Core 64 Bit ARM Cortex-A55
GPU	ARM G31 MP2
RAM	2GB/LPDDR3, can be expanded to 4GB/LPDDR3
Internal Storage	16GB EMMC; 32GB/64GB optional
OS	Android 9.0

## Video&Audio CODEC

Video and Picture Decoding	Amlogic Video Engine (AVE) with dedicated hardware decoders and encoders Support multi-video decoder up to 4x1080P@60fps Supports multiple "secured" video decoding sessions and simultaneous decoding and encoding Video/Picture Decoding – VP9 Profile-2 up to 4Kx2K@60fps – H.265 HEVC MP-10@L5.1 up to 4Kx2K@60fps – AVS2-P2 Profile up to 4Kx2K@60fps – H.264 AVC HP@L5.1 up to 4Kx2K@30fps – MPEG-4 ASP@L5 up to 1080P@60fps (ISO-14496) – WMV/VC-1SP/MP/AP upto 1080P@60fps – AVS-P16(AVS+)/AVS-P2jiZhunProfile upto 1080P@60fps – MPEG-2MP/HL upto 1080P@60fps [ISO-13818) – MPEG-1MP/HL upto 1080P@60fps (ISO-11172) – RealVideo8/9/10 upto 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, *.rmand *.jpg file formats
Video coding	– Independent JPEG and H.264 encoder with configurable performance/bit-rate – JPEG image encoding – H.265/H.264 video encoding up to 1080P@60fps with low latency
Decoder Format	HD MPEG1/2/4, H.265/HEVC, HD AVC/VC-1, RM/RMVB, Xvid/DivX3/4/5/6, RealVideo8/9/10
Media Format	Avi/Rm/Rmvb/Ts/Vob/Mkv/Mov/ISO/wmv/asf/flv/dat/mpg/mpeg
Music Format	MP3/WMA/AAC/WAV/OGG/DDP/TrueHD/HD/FLAC/APE
Photo Format	HD JPEG/BMP/GIF/PNG/TIFF

## Port

USB host	USB2.0, Max480Mbps/USB3.0, Max5.1Gbps
SIM	MICRO SIM
Video output	HDMI 2.1/1ch Lvds/1ch EDP (schedule V by one interface)
RJ45	RJ45 wire Ethernet connection 100/1000M Ethernet support
Wi-Fi/ Bluetooth	AP6398S(Wi-Fi+BT)2.4G+5.8G Dual Frequency
4G	PCIE Port
TF	Micro SD(Max 128G)
HDD	Support SATA Max2TB(Not included)

## Power

Amlogic S905D3 is the main board of network Android system, applicable to intelligent display terminal equipment, industrial automation terminal, computer vision, master control of shared products, intelligent access control, such as: advertising machine (double screen display), new retail terminal, vending machine, interactive printing, face painting payment, intelligent access control and other products, applied to advertising, security, transportation, public transport and other industries.

This product adopts the Amlogic ultra-low S905D3 chip optimized in 2019, and the operating system is Android 9.0. Its main system CPU is four core arm cortex-a55, which has a unified L3 cache. In addition, cortex-a55 CPU also includes neon SIMD coprocessor to improve the software media processing capacity. It supports high dynamic range processing of H.264 HDR10 and HLG, 10 bits of H.265/VP9, AVS, AVS+, AVS2 real video, MJPEG stream, and JPEG pictures without size limitation; independent encoder can encode to 1080P at the speed of 60 frames/second with JPEG or H.265/H.264; it supports output of 4Kx2K @60fps (3840 \*2160) of HDMI 2.1 interface. The product comes with 2x2 WiFi (supporting 2.4G and 5G dual frequency) + Bluetooth 4.1 wireless network module, and supports Ethernet Gigabit Ethernet interface, infrared remote control, keyboard and mouse.

## Product Features

- (1) RAM and ROM can be customized according to customer needs; 2GB/LPDDR3 can be enhanced to 4GB/LPDDR3
- (2) DC voltage input: DC+12V/3A, normal working power consumption <5W, standby power consumption <0.5W
- (3) Dual-screen different display, support remote OTA upgrade, local USB, SD card upgrade.
- (4) USB 4G network card can be expanded through PCI-e hardware interface;
- (5) Support Android system customization service, can provide special APP customization service;
- (6) Provide system API interface code to perfectly support customers' upper APP
- (7) Support USB playback, hot swap, convenient and fast content update
- (8) Picture playback: rotation, zoom, pan, slide show, background music playback
- (9) Play mode: single repeat play, folder loop play, full disk loop play
- (10) Audio mode: left and right channels, stereo; maximum support 2\*15W audio output
- (11) OSD multi-language: support Chinese, English, French, German, etc.
- (12) Support all kinds of peripheral expansion: the chip comes with USB2.0 and USB3.0 interfaces to realize the docking of various network terminal devices

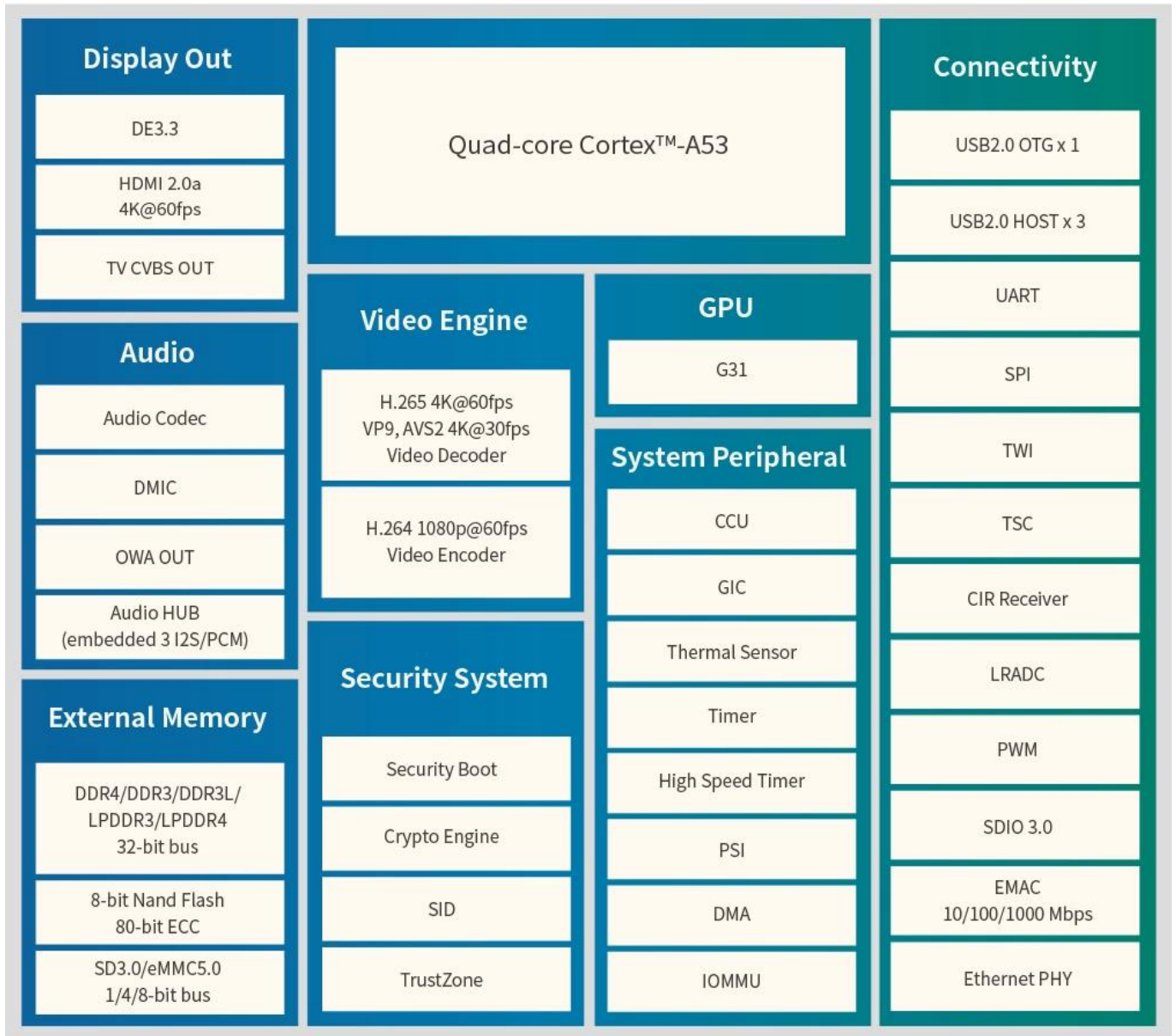
## Precautions for assembly

In the process of assembly and use, please pay attention to the following (and not limited to) problem points.

- (□). Short circuit between bare board and peripherals.
- (□). During the installation and fixing process, avoid the deformation of the bare board due to the fixing reasons.
- (□). When installing the EDP/MIPI/LVDS screen, pay attention to whether the screen voltage and current are in compliance. Pay attention to the direction of pin 1 of the screen holder.
- (□). When installing the EDP/Mini/LVDS screen, pay attention to the backlight voltage and current of the screen. If the power of the screen backlight is above 20W, whether to use other power boards for power supply.
- (□). When installing peripherals (USB, IO), pay attention to the peripheral IO level and current output issues.
- (□). When installing the serial port, pay attention to whether 232,485 devices are directly connected. Whether the connection of TX and RX is correct.
- (□). Whether the input power is connected to the power input interface. According to the evaluation of the total peripherals, whether the input power voltage and current meet the requirements. Don't connect the power supply input power from the backlight socket for the convenience of operation.

## Tips

1. Before using the product, be sure to read the product specifications carefully.
2. For boards that are not ready for installation, they should be stored in anti-static protective bags.
3. When holding the board, wear an anti-static wristband or protective gloves, and should be trained to touch only its edges.
4. When the motherboard is connected to the power supply, check the power supply voltage.
5. In order to avoid damage to the product, each time the main board and board are plugged or reconfigured, the power must be turned off or the power cord should be unplugged from the power socket.
6. Before you need to connect or unplug any equipment, make sure that all power cords have been unplugged in advance.
7. In order to avoid unnecessary damage to the product caused by frequent switch-on and switch-off, you should wait at least 30 seconds before switching on.
8. If an abnormal situation occurs during the use of the equipment, please find a professional to deal with it.



Transform your digital signage solutions with our Amlogic S905D3 Digital Signage Board. Engineered with cutting-edge technology and versatile connectivity options, this board delivers unparalleled performance and flexibility for a wide range of applications.

Featuring HDMI, LVDS, and V-by-One support, our Amlogic S905D3 board ensures seamless integration with various display interfaces, allowing you to create captivating signage experiences. Whether you're showcasing dynamic content in retail stores, corporate environments, or public spaces, this board provides the connectivity you need to bring your vision to life.

The Amlogic S905D3 chipset delivers powerful performance, enabling smooth playback of high-definition content and responsive operation of interactive applications. With its quad-core Cortex-A55 CPU and ARM G31 MP2 GPU, this board offers the processing power and graphics capabilities required for demanding signage applications.

In addition to its impressive performance, the Amlogic S905D3 board is designed for reliability and ease of use. Its compact form factor and low-power design make it ideal for integration into space-constrained environments, while its robust construction ensures long-term durability.

Setting up the Amlogic S905D3 board is quick and straightforward, thanks to its plug-and-play functionality and user-friendly interface. Simply connect your display devices via HDMI, LVDS, or V-

by-One, and customize your signage content using the software platform of your choice.

Whether you're creating interactive kiosks, menu boards, wayfinding displays, or advertising screens, the Amlogic S905D3 Digital Signage Board provides the flexibility and performance you need to make a lasting impression. Upgrade your signage solutions today and unlock new possibilities for engaging your audience and enhancing your brand presence.