OTT TV Box with Amlogic S922X Octa Core Android 9

Specifications	
Model No.	Amlogic S922X Streaming Media Player
CPU	Amlogic S922X 64-bit quad core ARM® Cortex™ A73 CPU and dual core ARM® Cortex™ A53 CPU
GPU	ARM Mali-G52 MP4 GPU processor
ROM	2GB/4GB LPDDR4
Internal Storage	16GB/64GB eMMC
OS	Android 9.0
Video&Audio CODEC	
Video/Picture CODEC	Amlogic Video Engine (AVE) with dedicated hardware decoders and encoders HW UHD 4K H.265 75fps 10-bit video decoder & low latency 1080p H.265/H.264 60fps encoder Support multi-video decoder up to 4Kx2K@60fps+1x1080P@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 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-1 MP/HL up to 1080P@60fps (ISO-11172) RealVideo 8/9/10 up to 1080P@60fps H.265/H.264 video encoding up to 1080P@60fps with low latency 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 Supports Dolby VisionOptional, HDR10, HDR10+, HLG and PRIME HDR processing
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	Built-in HDMI 2.1 transmitter including both controller and PHY with CEC, Dynamic HDR and HDCP 2.2, 4Kx2K@60 max resolution output CVBS 480i/576i standard definition output Supports all standard SD/HD/FHD video output formats: 480i/p, 576i/p, 720p, 1080i/p and 4Kx2K 4-lane MIPI DSI interface, resolution up to 1920*1080 with rotation and panel calibration Supports MP3, AAC, WMA, RM, FLAC, Ogg and programmable with 7.1/5.1 down-mixing Built-in serial digital audio SPDIF/IEC958 input/output and PCM input/output 3 built-in TDM/PCM/I2S ports with TDM/PCM mode up to 84kHz x32bits x 8ch or 96kHz x 32bits x 32ch and I2S mode up to 384kHz x 32bitsx8ch Digital microphone PDM voice input with programmable CIC, LPF & HPF, support up to 8 DMICs Built-in stereo audio DAC Supports concurrent dual audio stereo channel output with combination of analog+PCM or I2S+PCM
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

HDMI	HDMI 2.2/1ch Lvds/1ch EDP
LAN	RJ45 wire Ethernet connection 100/1000M Ethernet support
WiFi/ Bluetooth	AP6398S(Wi-Fi+BT) 2.4G+5.8G
4G	PCIE Port
TF	microSD(Max 128G)
HDD	Support SATA Max2TB(Not included)
Power	
Power Supply	12V DC/3AΦ5.5*Φ2.5mm

This product is the network Android system motherboard, which is suitable for intelligent display terminal equipment, industrial automation terminal, computer vision/algorithm, 3D experience, game/entertainment equipment, high-performance Face Recognition calculation/storage, AI intelligence with high performance requirements. It can be widely used as the high-end demand intelligent mainboard of finance, advertising, security, transportation, public transportation and other industries.

This product adopts the latest generation of 12 nm ultra-low power AI chip s922x of Amlogic. It is an advanced application processor, integrating a powerful CPU, GPU subsystem, secure 4K video codec engine and first-class HDR image processing. The CPU of S922x main system adopts large and small architecture, which integrates four core arm cortex-a73 CPU cluster and dual core cortex-a53 cluster with unified secondary cache to improve system performance. Each CPU core includes a separate neon SIMD coprocessor to improve the software media processing capacity. Ave-10 can decode 4kx2k resolution video at a speed of 75 frames/second, and has a complete trusted video path (TVP) for security applications, supporting complete formats, including: MVC, MPEG-1/2/4, vc-1/WMV, AVS, AVS +, avs2 realvideo, MJPEG stream, H.264, h265-10, VP9 and JPEG pictures without size restrictions. The independent encoder can encode JPEG or h.265/h.264 format, up to 1080p, 75 frames per second. It supports 4kx2k @ 60fp (3840 * 2160) output of hdmi2.2 interface and 4K point screen of V by one interface. It supports HDCP 2.2, stereo audio DAC, CVBS output, 4-channel Mipi DSI interface, multi TDM, PCM, I2S and SPDIF digital audio I/O interface, 8-Channel far-field PDM digital microphone (dmic) input and DVP camera interface. The product comes with 2x2 WiFi (supporting 2.4G and 5.8G dual frequency) + 4.1 wireless network module, supporting Gigabit Ethernet interface and infrared remote control, keyboard and mouse operation.

Highlights

o   Amlogic 64-bit quad core ARM® Cortex™ A73 CPU and dual core ARM® Cortex™ A53 CPU

o   ARM Mali-G52 MP4 GPU processor

o   HW UHD 4KH.265 75fps 10-bit video decoder & low latency 1080p H.265/H.264 60fp sencoder

o   Dolby Visionand HDR10, HDR10+, HLG and PRIME HDR video processing

o   Build in Cortex-M4 core for always on processing

o   TrustZone based security for DRM video streaming

o   WIFI, BT,USB, SD, Ethernet, Analog Audio

o   Power management auxiliary processor

Amlogic S922X is an advanced application processor designed for Android hybrid OTT/IPTV Set Top Box(STB) and high-end media box applications. It integrates a powerful CPU, GPU subsystem, a secured 4K video CODEC engine and a best-in-class HDR image processing pipeline withall major

peripherals to form the ultimate high-performance multimedia AP.

The main system CPU is based on Big. Little architecture which integrates a quad-core ARM Cortex-A73 CPU cluster and a dual-core Cortex-A53 cluster with united L2 cache to improve systemper formance. Each CPU core includes the separate NEON SIMD co- processor toimprove software media processing capability.
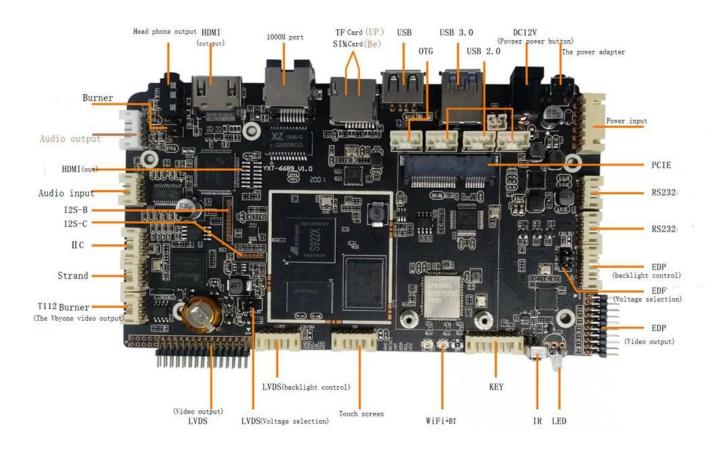
The graphic subsystem consists of twographic engines and a flexible video/graphic output pipeline. The ARM Mali-G52 MP4 GPU handles all OpenGL ES 3.2 Vulkan 1.0 and OpenCL 2.0 graphic programs, while the 2.5D graphics processor handles additional scaling, alpha, rotation and color space conversion operations. Together, the CPU and GPU handle all operating system, networking, user-interface and gaming relatedtasks. The video output pipeline includes Dolby Visionoptional HDR10, HDR10+,HLG and PRIME HDR processing, REC709/BT2020 processing, motion adaptive edgee nhancing de-interlacing, flexible programmable scalar, and manypicture enhancement filters before passing the enhanced image to the video outputports.
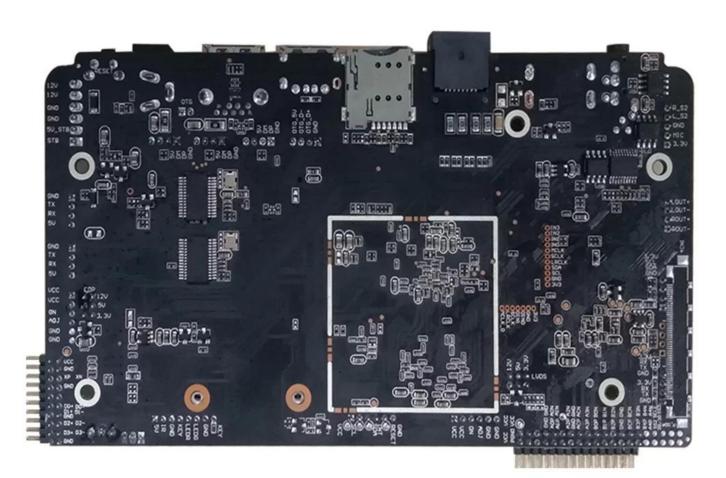
Amlogic Video Engine (AVE-10) offloads the Cortex-A53 CPUs from all video CODEC processing. It includes dedicated hardwarevideo decoder and encoder. AVE-10 is capable of decoding 4Kx2K resolution videoat 75fps with complete Trusted Video Path (TVP) for secure applications andsupports full formats including MVC, MPEG- 1/2/4, VC-1/WMV, AVS, AVS+, AVS2 RealVideo, MJPEG streams, H.264, H265-10, VP9 and also JPEG pictures with nosize limitation. The independent encoder is able to encode in JPEG orH.265/H.264 up to 1080p at 60fps.
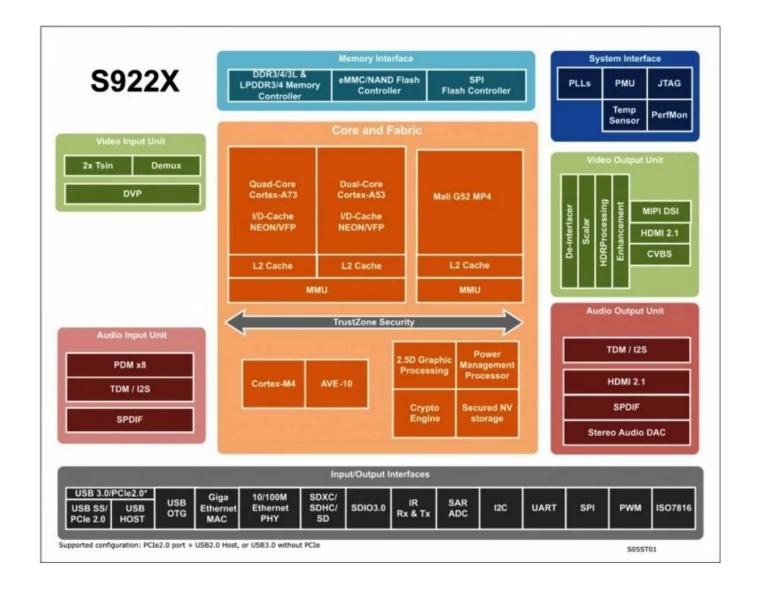
Amlogic S922X integrates all standard audio/video input/output interfaces including a HDMI2.1 transmitter with 3D, Dynamic HDR, CEC and HDCP 2.2 support, stereo audio DAC, a CVBS output, 4-lane MIPI DSI interface, multiple TDM, PCM, I2S and SPDIF digital audio input/outputinterfaces, 8 channel far-field PDM digital microphone (DMIC) inputs and a DVPcamera interface.

Amlogic S922X also integrates a set offunctional blocks for digital TV broadcasting streams. The built-in two demuxcan process the TV streams from the serial and parallel transport stream inputinterface, which can connect to external tuner/demodulator.

The processor has rich advanced network andperipheral interfaces, including a 10/100/1000M Ethernet MAC with RGMII,10/100M Ethernet PHY, one USB XHCI OTG 2.0 port, one USB3.0 and PCIe

Head phone output HDMI
(output)

1000M port

TF·Card (UP)
SIMCard(Be)

USB

OTG

USB 3.0

USB 2.0

DC12V
(Povper power button)

The power adapter

Burner

Audio output

HDMI(out)

Audio input

I2S-B

I2S-C

II C

Strand

T112 Burner
(The Vbyone video output)

(Video output)
LVDS

LVDS(Voltage selection)

LVDS(backlight control)

Touch screen

WiFi+BT

KEY

IR LED

Power input

PCIE

RS232

RS232

EDP
(backlight control)

EDF
(Voltage selection)

EDP
(Video output)

The **OTT TV Box with Amlogic S922X Octa Core Android 9** is a powerful and versatile media player, specifically designed to deliver high-quality streaming and enhanced multimedia experiences. Powered by the **Amlogic S922X Octa-Core processor**, this device provides superior performance for those who demand fast, smooth, and efficient streaming. With eight cores working in sync, it ensures optimal processing power, capable of handling **4K Ultra HD** content without breaking a sweat. Whether you're watching the latest movies, streaming live shows, or playing video games, the S922X delivers consistent high-quality performance.

The box supports **HDR10** and **Dolby Vision**, which together create a visually stunning experience, with enhanced contrast, more vibrant colors, and true-to-life imagery. The combination of **Mali-G52 GPU** and this advanced hardware enables smooth playback of even the most demanding 4K content. Your viewing experience will feel immersive and cinema-like, no matter what type of content you're streaming.

Running on **Android 9**, the OTT TV Box gives you access to a wide range of entertainment options through the **Google Play Store**. You can easily install popular streaming apps such as Netflix, Amazon Prime Video, Disney+, YouTube, and many others. The Android platform also supports a variety of gaming apps, social media platforms, and productivity tools, turning your TV into an all-in-one entertainment hub. The **user-friendly interface** is intuitive, making it easy for users to navigate between different apps and settings. Plus, regular Android updates ensure you stay up to date with the latest features and security patches.

When it comes to connectivity, this OTT TV box is equipped with **dual-band WiFi** (2.4GHz and 5GHz), providing faster and more reliable internet connections. Whether you're watching 4K content or playing online games, dual-band WiFi minimizes lag and ensures smooth, uninterrupted streaming. The box also supports **Bluetooth 4.1**, allowing you to connect wireless peripherals such as headphones, speakers, and game controllers for a more immersive experience.

The device comes with **4GB of RAM**, allowing for smooth multitasking, even when running multiple apps at once. The **16GB of internal storage** is enough for storing apps, media files, and downloaded content, and if more space is needed, the device supports external storage options like USB drives or SD cards. With its fast **USB 3.0 ports**, you can also transfer files or stream media from external devices quickly and easily.

The **OTT TV Box** is designed to integrate seamlessly into any home entertainment setup. Its compact and sleek design ensures that it won't take up much space, while its simple plug-and-play functionality makes installation quick and hassle-free. The included remote control allows you to easily navigate apps, adjust settings, and search for content. Additionally, voice control compatibility makes it even easier to search for your favorite shows or control playback hands-free.

Whether you're a streaming enthusiast, a movie lover, or a gamer, the **[OTT TV Box](#)** **with Amlogic S922X Octa Core Android 9** offers everything you need for a fully immersive entertainment experience. With powerful performance, 4K support, and seamless connectivity, this TV box turns any television into a smart, versatile media center, bringing endless entertainment possibilities right into your home.