

eDP 9.0 T972

<p> 1* 3.5MM 1*LVDS 40pin 2.0mm 8bit/10bit 1*V-By-one HDMI*3 4*2.5mm 10W8Ω@2 </p>	<p> T972 T972(T962X2) ARM Cortex A55 1.98GHZ ARM Mail-450 DDR4 2GB/4GB 16GB eMMC/SD/USB 128GB Android 9.0 </p>
<p> -Amlogic (AVE-10) 4Kx2K@75fps -VP9 2-10 8Kx4K@24fps 4Kx2K@60fps -H.265 HEVC MP-10@L5.1 8Kx4K@24fps 4Kx2K@60fps -AVS2-P2 4Kx2K@60fps -H.264 AVC HP@L5.1 4Kx2K@30fps -H.264 MVC 1080P@60fps -MPEG-4 ASP@L5 1080P@60fps (ISO-14496) -WMV/VC-1 SP/MP/AP 1080P@60fps -AVS-P16(AVS) /AVS-P2 1080P@60fps -MPEG-2 MP/HL 1080P@60fps (ISO-13818) -MPEG-1 MP/HL 1080P@60fps (ISO-11172) -RealVideo 8/9/10 1080P@60fps -MJPEG JPEG (ISO/IEC-10918) -*.mkv*.wmv*.mpg*.mpeg*.dat*.avi*.mov*.iso*.mp4*.rm *.jpg </p>	<p> -VP9 2-10 8Kx4K@24fps 4Kx2K@60fps -H.265 HEVC MP-10@L5.1 8Kx4K@24fps 4Kx2K@60fps -AVS2-P2 4Kx2K@60fps -H.264 AVC HP@L5.1 4Kx2K@30fps -H.264 MVC 1080P@60fps -MPEG-4 ASP@L5 1080P@60fps (ISO-14496) -WMV/VC-1 SP/MP/AP 1080P@60fps -AVS-P16(AVS) /AVS-P2 1080P@60fps -MPEG-2 MP/HL 1080P@60fps (ISO-13818) -MPEG-1 MP/HL 1080P@60fps (ISO-11172) -RealVideo 8/9/10 1080P@60fps -MJPEG JPEG (ISO/IEC-10918) -*.mkv*.wmv*.mpg*.mpeg*.dat*.avi*.mov*.iso*.mp4*.rm *.jpg </p>
<p> MP3/AAC/WMA/RM/FLAC/Ogg/Dolby DTS 7.1/5.1 VAD AEC 3 TDM/PCM/I2S TDM/PCM 384kHz x32bits x 8ch 96kHz x 32bits x 32ch I2S 384kHz x 32bits x 8ch PDM CIC/LPF HPF 8 DMIC SPDIF/IEC958 2L/R 2L/R I2SPCM EQ/DRC </p>	<p> MPEG1/2/4/H.265/HEVC AVC/VC-1/RM/RMVB/Xvid/DivX3/4/5/6/RealVideo8/9/10 Avi/Rm/Rmvb/Ts/Vob/Mkv/Mov/ISO/wmv/asf/flv/dat/mpg/mpeg MP3/WMA/AAC/WAV/OGG/DDP/TrueHD/HD/FLAC/APE JPEG/BMP/GIF/PNG/TIFF </p>

□□□□

*1□10M/100M RJ45
2.4G WIFIBT□□□2.4G/5G WiF□□□
PCIE□□(4)x1

USB2.0□□

USB OTG*1(□□HOST)
USB□□*4

□□□□

*2□6□2.0mm

□□□□

*1□7pin 2.0mm□□LED□□□□□□□□

□□□□

□□*4

TF□□

*1

SIM□□

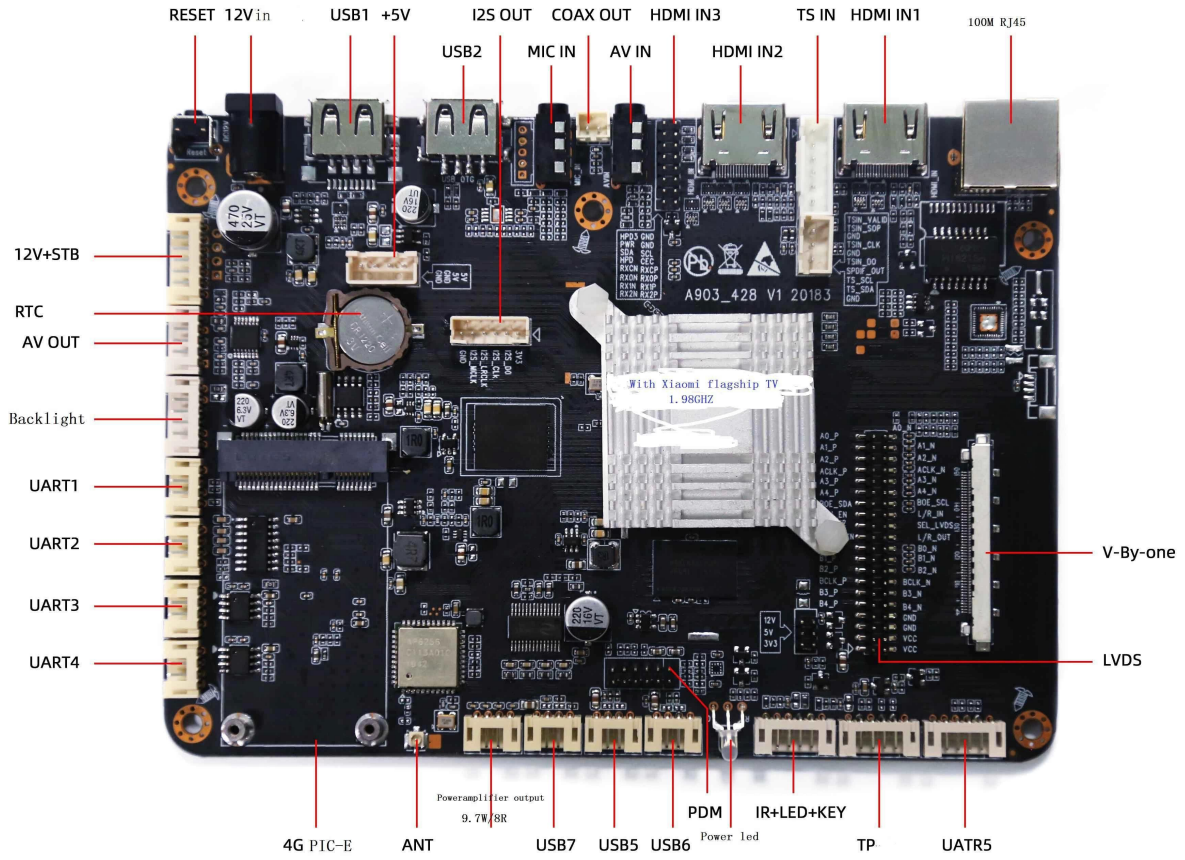
*1

□□

□□□□5VSB□5V□12V□12□2.00mm
12V/4□2.54mm□12V/2.5DC□□

□□

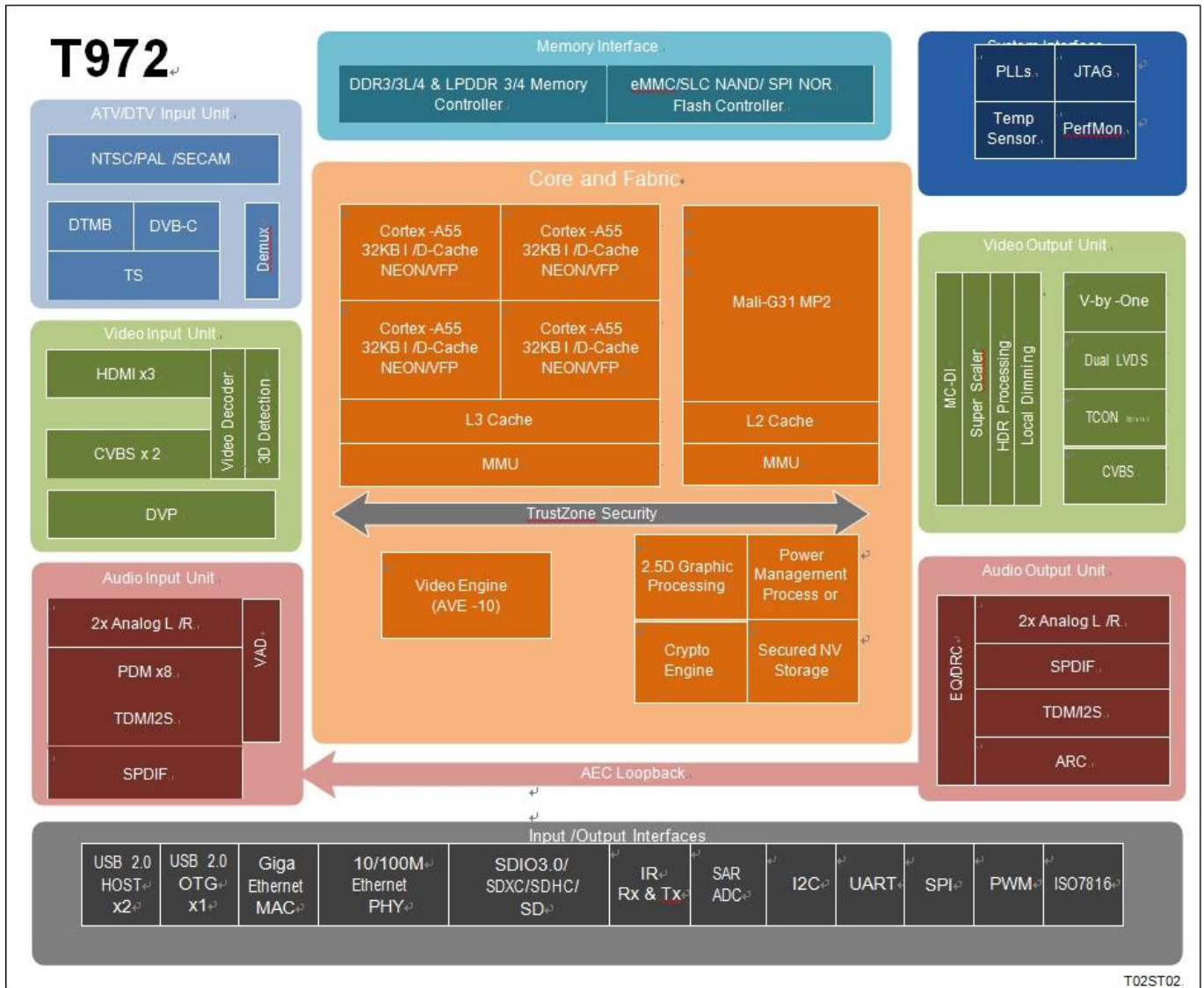
ONENUTS











T02ST02

Amlogic T972 SoC is a high-performance system-on-chip (SoC) designed for next-generation smart TVs and set-top boxes. It features a powerful CPU/GPU architecture, supporting 8K/4K video processing and HDR10/HDR10+ content. The SoC is built on the ARM Cortex-A55 CPU and Mali-G31 MP2 GPU, providing excellent performance for streaming and gaming. It also includes a dedicated Video Engine (AVE-10) for efficient video decoding and encoding, supporting a wide range of video formats and resolutions. The T972 SoC is highly integrated, with built-in audio, video, and network interfaces, making it a complete solution for smart TV applications. Key features include:

- High-Performance CPU/GPU:** ARM Cortex-A55 CPU with L3 cache, NEON SIMD, and Mali-G31 MP2 GPU supporting OpenGL ES 3.2, Vulkan 1.1, and OpenCL 2.0.
- Advanced Video Processing:** AVE-10 Video Engine for 4K2K video processing, supporting DRM, MVC, MPEG-1/2/4, VC-1, WMV, AVS, AVS2, RealVideo, MJPEG, H.264, H265-10, VP9-10, and JPEG.
- High-Resolution Video Output:** Supports HDR10, HDR10+, and HLG, with 8 V-by-1 channels and Dual LVDS for UHD/FHD output.
- Audio Capabilities:** AEC Loopback, VAD, and support for 2x Analog L/R, PDM, TDM, and SPDIF.
- Connectivity:** USB 2.0, Giga Ethernet MAC, 10/100M Ethernet PHY, SDIO/SD, IR, SAR ADC, I2C, UART, SPI, and PWM.
- Security and Reliability:** TrustZone Security, Crypto Engine, and Secured NV Storage.

QoS DRAM
SecureOS Linux GNU/GCC Android AMLOGIC

CPU

ARM Cortex-A55 CPU
Neon ARMv8.2
L3
TrustZone
QoS
CoreSight

3D

ARM Mali-G31 MP2 GPU
4x4 (EE)
OpenGL ES 3.2 Vulkan 1.1 OpenCL 2.0

2.5D

bitblt
(ROP)
4:2:0 4:2:2 4:4:4 8/16/24/32

Security

128/256 16 ECB CBC CTR AES
ECB CBC DES/3DES DES 64 3DES 192
DVB-CSA
(TRNG) SHA-1/SHA-2

Video

Amlogic (AVE-10) 4Kx2K@75fps
VP9 2-10 8Kx4K@24fps 4Kx2K@60fps
H.265 HEVC MP-10@L5.1 8Kx4K@24fps 4Kx2K@60fps
AVS2-P2 4Kx2K@60fps
H.264 AVC HP@L5.1 4Kx2K@30fps
H.264 MVC 1080P@60fps
MPEG-4 ASP@L5 1080P@60fps (ISO-14496)
WMV/VC-1 SP/MP/AP 1080P@60fps
AVS-P16(AVS) /AVS-P2 1080P@60fps
MPEG-2 MP/HL 1080P@60fps (ISO-13818)
MPEG-1 MP/HL 1080P@60fps (ISO-11172)
RealVideo 8/9/10 1080P@60fps
MJPEG JPEG (ISO/IEC-10918)
JPEG
*.mkv *.wmv *.mpg *.mpeg *.dat *.avi *.mov *.iso *.mp4 *.rm *.jpg

9 Amlogic TruLife

HDR10/10 HLG Technicolor Prime HDR

3D

3:2/2:2 (VOF)

SuperScaler LTI CTI

17x17x17 3D LUT 4913

HSL

2

HDR

8 V-By-One 1 4 4Kx2K 60Hz

LVDS 1920x1080 60Hz

1 6 3 mini-LVDS HD/FHD 1920x1080Hz

12 CEDS/CHPI/CMPI/iSP UHD UHD TCON-less 4Kx2K 60Hz

LCD

3 HDMI 2.1 HDR ARC HDCP 1.4 /2.2 4Kx2K@60

2 CVBS 480i/576i

CVBS PAL/NTSC

ITU 601/656 8 RGB565 CCIR656 CCIR601 YUV422 YCbCr422

MP3 AAC WMA RM FLAC Ogg Dolby DTS 7.1/5.1

VAD AEC

3 TDM/PCM/I2S TDM/PCM 384kHz x32bits x 8ch 96kHz x 32bits x 32ch I2S

384kHz x 32bits x 8ch

PDM CIC LPF HPF 8 DMIC

SPDIF/IEC958

2 L/R 2 L/R

I2SPCM

EQ/DRC

NTSC NTSC-J PAL-BG PAL-DK1 PAL-I PAL-DK PAL-M PAL-N SECAM-DK2 SECAM-

DK3 SECAM-L ATV

BTSC A2 EIA-J NICAM

V-chip

DTMB/DVB-C/DTV

VIF IF

3x (TS)

PWM I2C SPI

符合 ISO 7816 规范

存储器

支持 4GB 闪存 32 GB DRAM

支持 JEDEC DDR3-2133 / DDR3L-2133 / DDR4-2666 / LPDDR3-2133

/LPDDR4-3200 SDRAM

支持 SDSC/SDHC/SDXC 支持 SDIO 支持 1 至 4 通道 2.x/3.x/4.x DS/HS 支持 UHS-I SDR104

eMMC 支持 1/4/8 通道 5.0 HS400

支持 SLC NAND

支持 4K 支持 OTP

网络

支持 IEEE 802.3 10/100/1000M 支持 MAC 支持 RGMII

支持 10/100M 支持 PHY

支持 USB 支持 SDIO 支持 WiFi/IEEE802.11

支持 USB 支持 UART

支持 WiFi 支持 BT

支持 I/O

支持 USB 2.0 支持 USB I/O 支持 2 支持 USB Host 支持 1 支持 USB OTG

支持 UART 支持 I2C 支持 PWM SPI

支持 支持

支持 10 支持 SAR ADC 支持 4 支持

支持 IO

支持

支持 DMA 支持

支持 24 MHz

支持 ICE/JTAG

电源

支持

支持 CPU 支持 DRAM

支持 PLL

支持 1.8V 支持 3.3V 支持 I/O

安全

支持 Trustzone 支持 (TEE)

支持 OTP 支持 DRAM

支持 RNG

支持 ID

支持 (TVP) 支持 SecureOS

支持 IO

封装

支持 FCBGA 支持 19 mm x 19 mm 支持 0.65 支持 RoHS

支持 Android 9.0 支持 Amlogic T972 支持 eDP

支持

支持 Amlogic T972 支持 GPU

