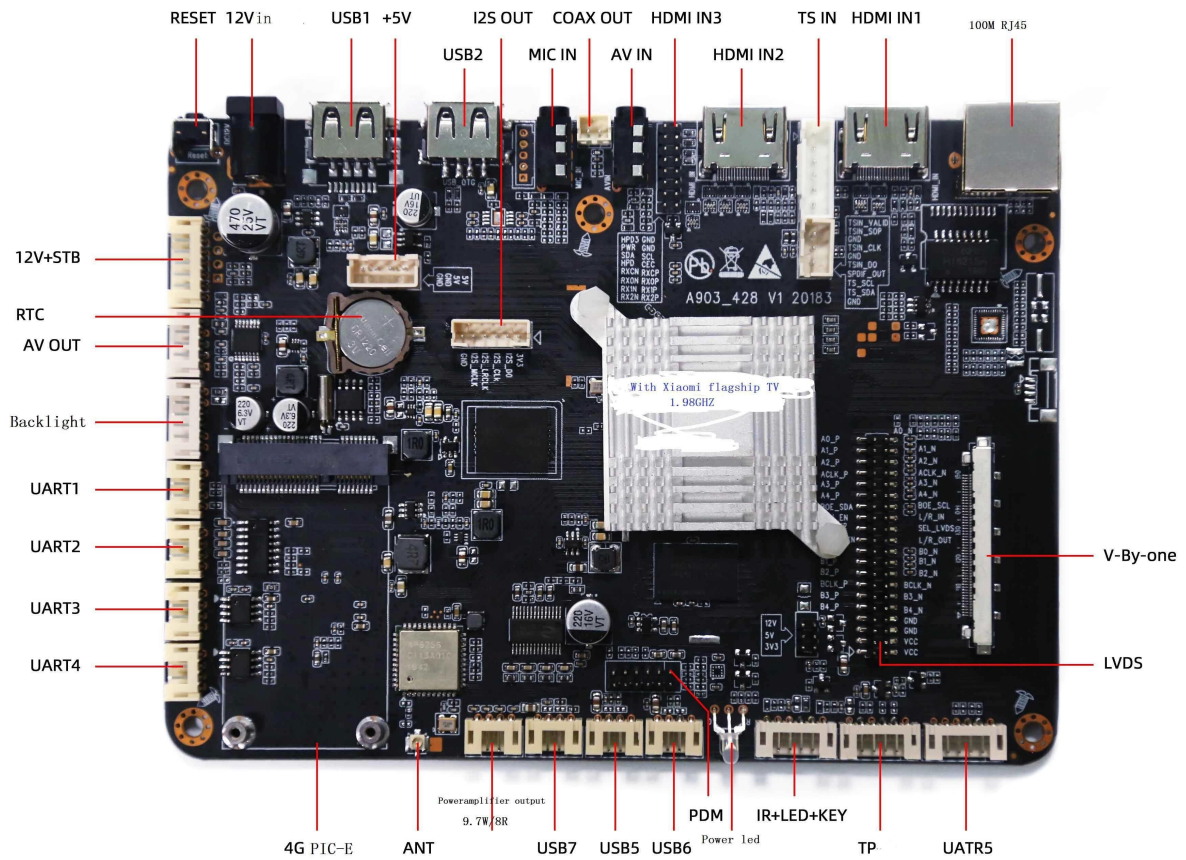


eDP 9.0 T972

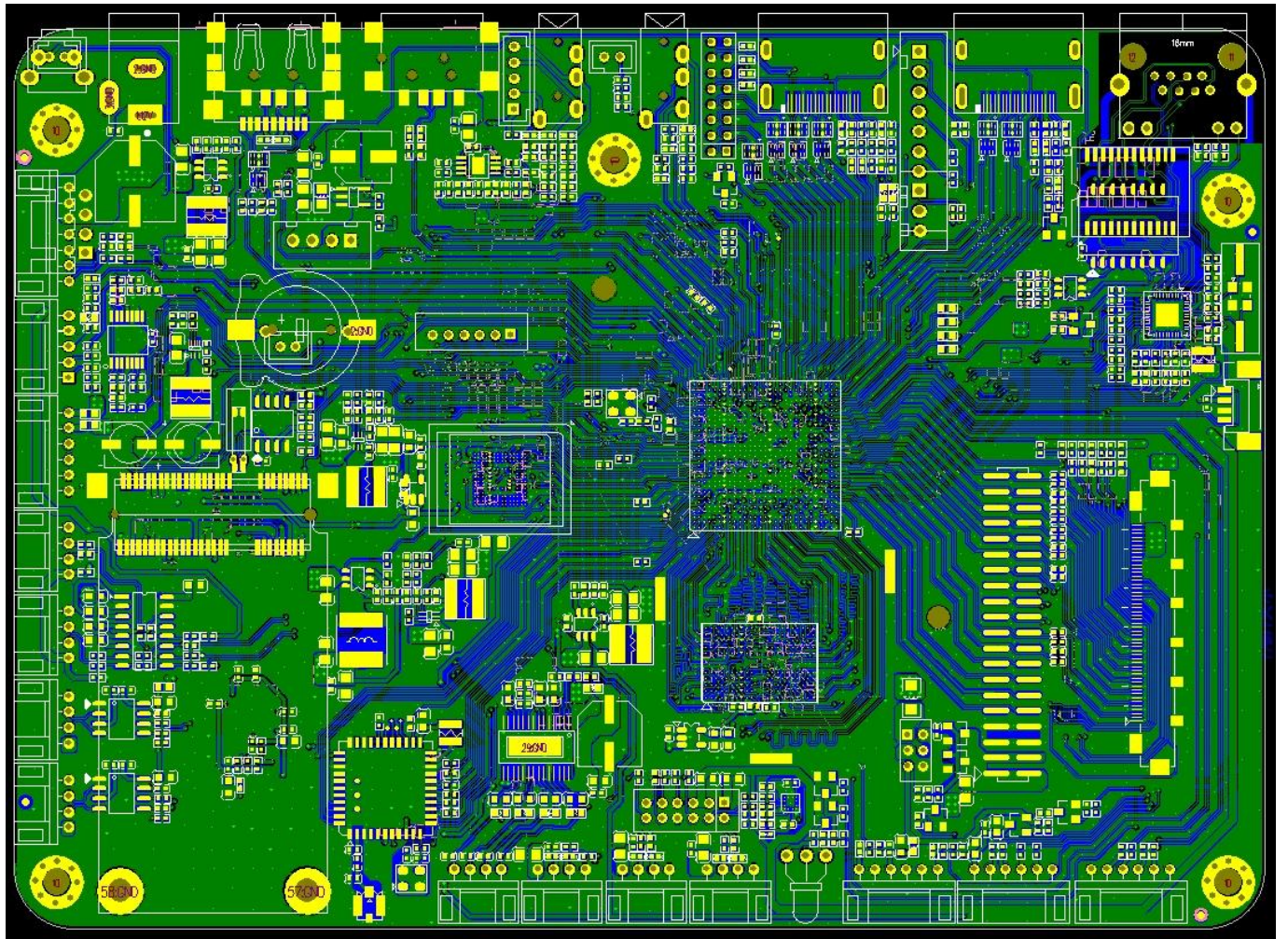
T972	
CPU	T972(T962X2) ARM Cortex A55 1.98GHZ
GPU	ARM Mail-450
RAM	DDR4 2GB/4GB
ROM	16GB eMMC(SD/USB) 128GB
OS	Android 9.0
Video & Audio	
Video	<ul style="list-style-type: none"> 4Kx2K@75fps Amlogic Video Engine(AVE-10) VP9 2-10 8Kx4K@24fps 4Kx2K@60fps H.265 HEVC MP-10@L5.1 8Kx4K@24fps 4Kx2K@60fps AVS2-P2 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 JiZhun 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
Video	<ul style="list-style-type: none"> 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 JiZhun 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
Audio	<ul style="list-style-type: none"> MP3, AAC, WMA, RM, FLAC, Ogg, Dolby DTS 7.1/5.1 VAD, AEC 384kHz x32 x 8ch 96kHz x 32ch TDM/PCM 384kHz x 32 x 8ch I2S TDM/PCM/I2S 3 CIC, LPF, HPF, PDM, 8 DMIC SPDIF/IEC958 L/R 2 L/R I2SPCM EQ/DRC
Video	HD MPEG1/2/4, H.265/HEVC, HD AVC/VC-1, RM/RMVB, Xvid/DivX3/4/5/6, RealVideo8/9/10
Audio	Avi/Rm/Rmvb/Ts/Vob/Mkv/Mov/ISO/wmv/asf/flv/dat/mpg/mpeg
Image	MP3/WMA/AAC/WAV/OGG/DDP/TrueHD/HD/FLAC/APE
Image	HD JPEG/BMP/GIF/PNG/TIFF
Camera	
Camera	1*3.5MM
Camera	1*LVDS 40 2.0mm, 8bit/10bit
Camera	1*V-By-one
Camera	HDMI*3

□□□ □□	4□ 2.5mm 10W8Ω@2
□□□□ □□	*1 10M/100M RJ45
	2.4G WIFIBT(□□ □□ 2.4G/5G WiFi □□)
	PCIE □□(4)x1
USB2.0 □□	USB OTG*1(□□□□ □ □□)
	USB □□□*4
□□□□ □□□□□	*2, 6□ 2.0mm
□□□ □□□□□	*1, 7□ 2.0mm, LED □□□□(□□ □ □□□) □□
□□ □□	□□ □□*4
TF □□ □□	*1
SIM □□ □□	*1
□	
□□□□□□	STB, 5VSB, 5V, 12V, 12□ 2.00mm
	12V / 4□ 2.54mm, 12V / 2.5DC □□□

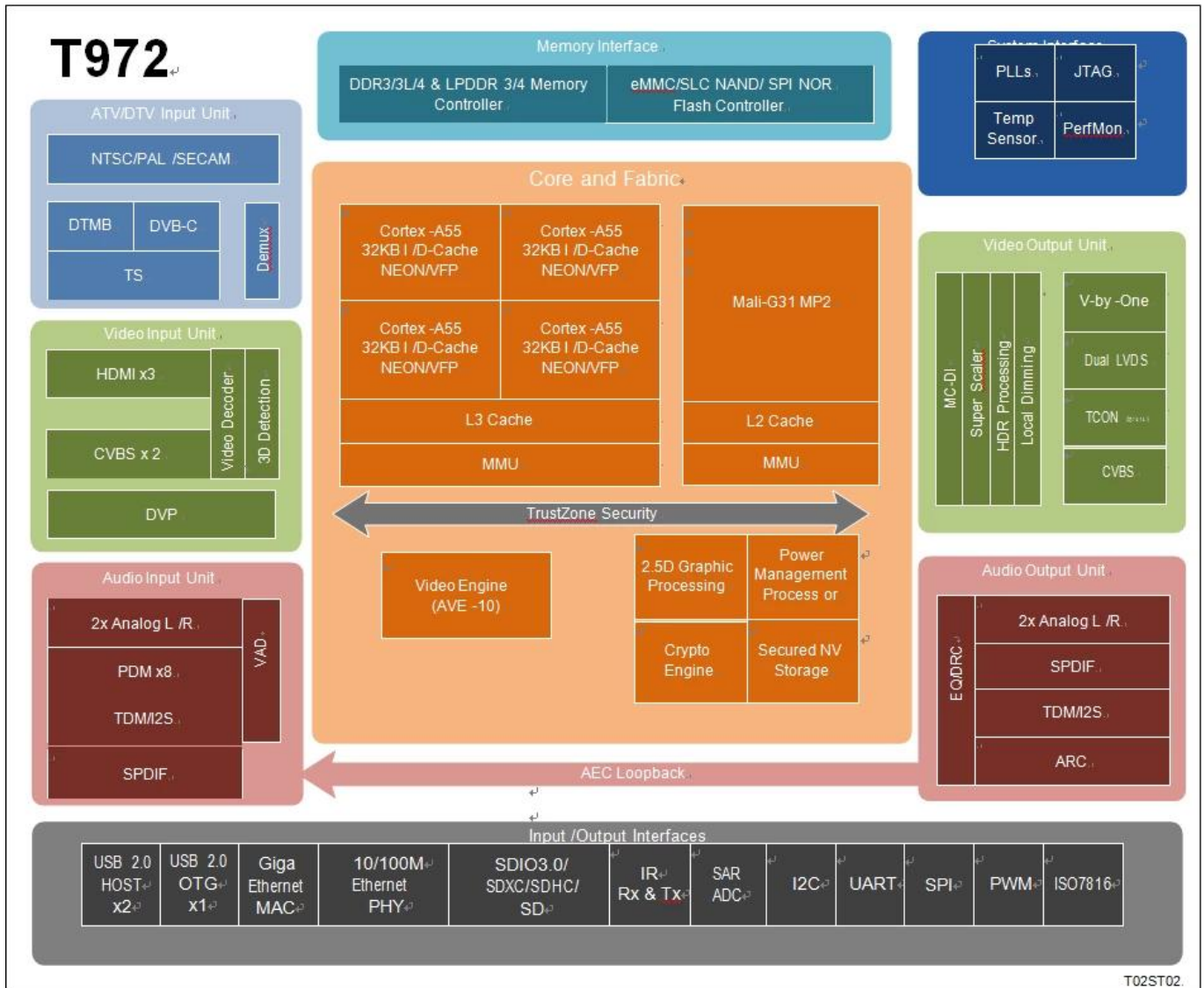
ONENUTS











Amlogic T972 is a high-performance SoC designed for UHD TV applications. It features a powerful CPU/GPU architecture, supporting HDR content and 8K/4K video playback. The CPU is based on ARM Cortex-A55, providing high performance and power efficiency. The GPU is the Mali-G31 MP2, supporting OpenGL ES 3.2, Vulkan 1.1, and OpenCL 2.0. The Video Engine (AVE-10) is a key component, supporting a wide range of video formats and resolutions, including 4K2K. It also includes a TrustZone security module and a Crypto Engine. The SoC is equipped with various input and output interfaces, including USB, Ethernet, SD, and audio/video ports. It also features a rich set of peripheral controllers, such as PLLs, JTAG, Temp Sensor, and PerfMon. The Memory Interface supports DDR3/3L/4 and LPDDR 3/4 memory. The Custom Interface block includes PLLs, JTAG, Temp Sensor, and PerfMon. The ATV/DTV Input Unit supports NTSC/PAL/SECAM, DTMB, DVB-C, TS, and Demux. The Video Input Unit supports HDMI x3, CVBS x 2, DVP, Video Decoder, and 3D Detection. The Video Output Unit supports MC-DI, Super Scaler, HDR Processing, Local Dimming, V-by-One, Dual LVDS, TCON, and CVBS. The Audio Input Unit supports 2x Analog L/R, PDM x8, TDM/2S, SPDIF, and VAD. The Audio Output Unit supports EQ/DRC, 2x Analog L/R, SPDIF, TDM/2S, and ARC. The AEC Loopback is also present. The Input /Output Interfaces include USB 2.0 HOST x2, USB 2.0 OTG x1, Giga Ethernet MAC, 10/100M Ethernet PHY, SDIO3.0/SDXC/SDHC/SD, IR Rx & Tx, SAR ADC, I2C, UART, SPI, PWM, and ISO7816.

Amlogic T972 is a high-performance SoC designed for UHD TV applications. It features a powerful CPU/GPU architecture, supporting HDR content and 8K/4K video playback. The CPU is based on ARM Cortex-A55, providing high performance and power efficiency. The GPU is the Mali-G31 MP2, supporting OpenGL ES 3.2, Vulkan 1.1, and OpenCL 2.0. The Video Engine (AVE-10) is a key component, supporting a wide range of video formats and resolutions, including 4K2K. It also includes a TrustZone security module and a Crypto Engine. The SoC is equipped with various input and output interfaces, including USB, Ethernet, SD, and audio/video ports. It also features a rich set of peripheral controllers, such as PLLs, JTAG, Temp Sensor, and PerfMon. The Memory Interface supports DDR3/3L/4 and LPDDR 3/4 memory. The Custom Interface block includes PLLs, JTAG, Temp Sensor, and PerfMon. The ATV/DTV Input Unit supports NTSC/PAL/SECAM, DTMB, DVB-C, TS, and Demux. The Video Input Unit supports HDMI x3, CVBS x 2, DVP, Video Decoder, and 3D Detection. The Video Output Unit supports MC-DI, Super Scaler, HDR Processing, Local Dimming, V-by-One, Dual LVDS, TCON, and CVBS. The Audio Input Unit supports 2x Analog L/R, PDM x8, TDM/2S, SPDIF, and VAD. The Audio Output Unit supports EQ/DRC, 2x Analog L/R, SPDIF, TDM/2S, and ARC. The AEC Loopback is also present. The Input /Output Interfaces include USB 2.0 HOST x2, USB 2.0 OTG x1, Giga Ethernet MAC, 10/100M Ethernet PHY, SDIO3.0/SDXC/SDHC/SD, IR Rx & Tx, SAR ADC, I2C, UART, SPI, PWM, and ISO7816.

Amlogic T972 晶片 提供 8 核 64 位元 ARM Cortex-A55 CPU，內建 CPU 效能管理 (VAD) 功能，支援 PDM, TDM 及 I2S 音訊輸出，並提供 MIC 音訊輸入。晶片提供 8 核 64 位元 ARM Cortex-A55 CPU。

Amlogic T972 SoC 提供 RGMII 網路介面 10/100/1000M，支援 MAC, 10/100M 網路 PHY, USB 2.0 埠，SDIO 3.0 埠，eMMC 5.0 埠，SLC NAND 儲存，並提供 SDIO 埠。晶片提供 /SD 埠，UART, I2C, SPI PWM 及 IR 遙控器。晶片提供 QoS 功能，並支援 DRAM 存取。

SecureOS, Linux 及 GNU/GCC Android 系統均支援。晶片提供 AMLOGIC 晶片。

CPU 晶片

晶片提供 ARM Cortex-A55 CPU

Neon 晶片提供 ARMv8.2 晶片

晶片提供 L3 晶片

晶片提供 TrustZone 晶片

晶片提供 QoS 晶片

CoreSight 晶片

3D 晶片

ARM Mali-G31 MP2 GPU

4 核，晶片提供 2x 4 核 (EE)

晶片提供

OpenGL ES 3.2, Vulkan 1.1 及 OpenCL 2.0 晶片

2.5D 晶片

晶片提供 bitblt 晶片

晶片提供 (ROP)

晶片提供

晶片提供 (4:2:0, 4:2:2, 4:4:4) 晶片提供 (8/16/24/32 晶片提供) 晶片提供。

晶片提供

晶片提供

晶片提供

128/256 晶片提供，晶片提供 16 晶片提供 ECB, CBC 及 CTR 晶片提供 AES 晶片提供

DES 64 晶片提供 3DES 192 晶片提供 ECB 及 CBC 晶片提供 DES/3DES 晶片提供

晶片提供 DVB-CSA

晶片提供 TRNG(True Random Number Generator) 及 SHA-1/SHA-2 晶片提供

晶片提供

晶片提供 4Kx2K@75fps 晶片提供 Amlogic Video Engine(AVE-10)

晶片提供

VP9 晶片提供 2-10 晶片提供 8Kx4K@24fps 晶片提供 4Kx2K@60fps

H.265 HEVC MP-10@L5.1 晶片提供 8Kx4K@24fps 晶片提供 4Kx2K@60fps

AVS2-P2 晶片提供 4Kx2K@60fps

H.264 AVC HP@L5.1 晶片提供 4Kx2K@30fps

H.264 MVC 晶片提供 1080P@60fps

MPEG-4 ASP@L5 晶片提供 1080P@60fps(ISO-14496)

WMV/VC-1 SP/MP/AP 晶片提供 1080P@60fps

AVS-P16(AVS) /AVS-P2 JiZhun 晶片提供 1080P@60fps

MPEG-2 MP/HL 晶片提供 1080P@60fps(ISO-13818)

MPEG-1 MP/HL 1080P@60fps(ISO-11172)
RealVideo 8/9/10 1080P@60fps
AAC, MP3, AAC, MP3, AAC
MJPEG, JPEG, MJPEG, JPEG(ISO/IEC-10918)
JPEG, MP3, AAC, MP3, AAC
.mkv,.wmv,*.mpg, *.mpeg, *.dat, *.avi, *.mov, *.iso, *.mp4, *.rm, *.jpg, *.png, *.bmp

9. Amlogic TruLife

HDR10/10, HLG, Technicolor Prime HDR
3D, 3D, 3D, 3D
3:2/2:2 VOF(Video on Film)
De-Contouring, De-Ring, LTI, CTI, De-jaggy, Peaking, SuperScaler
17x17x17 3D LUT, 4913
HSL
2
HDR
3D

LCD

1, 2, 4, V-By-One, 4Kx2K 60Hz
1920x1080 60Hz, LVDS
HD/FHD, (100 60)/(200 30) LVDS, 1920x1080Hz
UHD, CEDS/CHPI/CMPI/iSP, UHD TCON, 4Kx2K 60Hz
3, LCD, LCD

Dynamic HDR, ARC, HDCP 1.4 /2.2, 4Kx2K@60

Dynamic HDR, ARC, HDCP 1.4 /2.2, 4Kx2K@60
2x CVBS 480i/576i
CVBS(PAL/NTSC)
8, RGB565, CCIR656, CCIR601, YUV422, YCbCr422, ITU 601/656

MP3, AAC, WMA, RM, FLAC, Ogg, Dolby DTS

MP3, AAC, WMA, RM, FLAC, Ogg, Dolby DTS 7.1/5.1
VAD, AEC
384kHz x32 x 8ch, 96kHz x 32ch, TDM/PCM, 384kHz x 32 x 8ch, I2S
TDM/PCM/I2S
CIC, LPF, HPF, PDM, 8, DMIC
SPDIF/IEC958
2, L/R, L/R
I2SPCM
EQ/DRC

TV

NTSC, NTSC-J, PAL-BG, PAL-DK1, PAL-I, PAL-DK, PAL-M, PAL-N, SE-CAM-DK2, SECAM-DK3, SECAM-L ATV

□□□ □□□□ TV □□□ □□: BTSC, A2, EIA-J □ NICAM
□□□□□, □□, V-□ □□
DTMB/DVB-C/DTV □□□
□□□ VIF □□□□ □□ □□□□ □□ IF □□□□□□ □□□□□.

DTV □□ □□□□□

□□ □□□ TV □□/□□□□ □□□□ □□ □□□□ □□□□□ □□□ □□ □□□(TS) □□ □□□□□ 3□
□□ □ □□□□ □□□□ □□ □□□ PWM, I2C □ SPI □□□□□
□□ ISO 7816 □□□ □□ □□□□□

□□□ □ □□□□ □□□□□

□□ □□ □ □□ 4GB □ □□ □□□ □□ 32□□□ DRAM □□□ □□□□□□
JEDEC □□ DDR3-2133 /DDR3L-2133 /DDR4-2666 /LPDDR3-2133□ □□ □□
/LPDDR4-3200 SDRAM

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

□□ □□ 5.0 HS400□ □□□□ □□□□□ 1/4/8□□ □□□ □□ □□ □□ eMMC □□□ □□□□□□
SLC NAND □□□ □□□□□
□□□ □ □□□ □□ □□□ 4K □□ OTP □□□

□□□□ □□□□□

RGMII □□□□□□ □□ IEEE 802.3 10/100/1000M □□□ MAC
10/100M □□□ PHY □□□□□

USB □□ SDIO□ □□ □□□□ WiFi/IEEE802.11

USB □□ UART□ □□ Bluetooth □□

□□ WIFI □ BT □□□□ □□□□ □□□□ □□□□□

□□ **I/O** □□□□ □ □□□□□

□□□ USB 2.0 □□ USB I/O, USB □□□ 2□, USB OTG 1□

□□ UART, I2C □ PWM SPI □□□□□

□□□□□ □□□ □□ □□ □□ □□ □ IR □□□□ □□

4□□ □□ □□□ □□□ 10□□ SAR ADC □□

□□ □ □□□ □□□ □□□ □□ IO

□□□, □□□□ □ □□ □□□□□

□□ □□ □□□, □□□, DMA □□□□□

24MHz □□□□ □□

ICE/JTAG□ □□□ □□□□ □□□ □□□□□

□□ □□

□□□□□□ □□□□ □□ □□ □□ □□□

CPU, □□□, DRAM □□ □□ □□□ □□ □□

□□ □□□□ □□□□ □□ □□ □□ PLL

1.8V □ 3.3V□ □□ □□ □□ I/O □□

□□

Trustzone □□ TEE(□□□□ □ □□ □□ □□)

□□ □□, □□□□□ □□□□ □□ □□ □□□ □□ □□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□

□□□□□ □□ □□□□□ True RNG

□□□□□/ID □□□□ □□□□□ □ □□□□□

□□□□□ □□ TVP(Trusted Video Path) □ □□ □□□□(SecureOS □□□□□□ □□)

□□□□ IO □ □□□□ □□

