深 圳 金 亚 太 科 技 有 限 公 司

Shenzhen Geniatech Co.,Ltd.

SPECIFICATION

MODEL:APC3588-AI

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Revision History

VERSION	DATE	BOARD ID	PAGE	DESCRIPTION	AUTHOR
V1.0	2022/08/04				

1. GENERAL DESCRIPTION

APC3588-AI is an AI edge computing box designed based on RK3588 processor with rich peripheral resources and complete interfaces, equipped with an octa-core 64-bit CPU, main frequency up to 2.4GHz, integrated ARM Mali-G610 MP4 quad-core GPU, built-in AI accelerator NPU, can provide 6TOPs of computing power.It supports dual network ports, Bluetooth, Wi-Fi, audio/video, camera, 4G SSD hard drive, POE, etc. It supports local communication such as RS232, RS485 UART, CAN, etc., and has various video input and output interfaces. Suitable for intelligent NVR, cloud terminal, industrial control, information release terminal, multimedia advertising machine and other scenes.. It is fully functional and convenient:

(I) Support 32 channels 1080P 30FPS, support 8K video editing and decoding.

(II) Supports LPDDR up to 32GB and EMMC up to 256GB.

(III) Supports HDMI IN video input and USB camera combination.

(IV) Support Dual HDMI Output and DP Out(Through Type-C).

(V) Support USB3.0/USB2.0/GPIO/CAN/RS485/RS232/TTL peripheral interfaces.

(VI) Support M.2/SATA3.0/ GTIOT/SPI/ I2C/UART/USB2.0 and other internal expansion

(VII) Support Tringle Gigabit wired network,

(VIII) Support multiple operating systems: Android13 & Debian11 & Ubuntu

(IX) Built-in watchdog and RTC battery can support 7*24 hours stable operation.

(X) Support AI module build-in(Optional)

2. PRODUCT PICTURE

Below pictures are for reference only, please prevail in kind.





3.FEATURES

CPU	Rockchip RK3588, Quad-core Cortex-A76 and Quad-core Cortex-A55
GPU	Mali-G610 MP4 (4x256KB L2 Cache)
RAM	4GB LPDDR4(8/16/32GB optional)
ROM	32GB EMMC(64GB/128GB/256GB optional)
Network	3x1000M Ethernet

I/O	USB3.0 x 2/USB2.0 x 2/HDMI OUT x 2/HDMI IN x 1/SIM Card Slot/TF Slot/DB9 x 2/RS-232 x 2/RS-485 x 2/CAN x 2/GPIO x 6/AC IN
Internal I/O	M.2*2(M-Key/E-Key)/MiniPCIe
OS	Android 13/Debian 11/Ubuntu
Power	AC 220V 50Hz
Appearance	247 mm * 230 mm *55mm
Environment	Operation temperature: commercial (0°C~ +60°C)/ Extended commercial (-40 °C ~ 85°C), 10%≤Relative humidity≤90%

4.Support Formats

Video Decoder

- Real-time video decoder of MPEG-1, MPEG-2, MPEG-4, H.263, H.264, H.265, VC-1, VP9, VP8, MVC, AV1
- MMU Embedded
- Multi-channel decoder in parallel for less resolution
- H.264 AVC/MVC Main10 L6.0 :8K@30fps (7680x4320)
- VP9 Profile0/2 L6.1 :8K@60fps (7680x4320)
- H.265 HEVC/MVC Main10 L6.1 :8K@60fps (7680x4320)
- AVS2 Profile0/2 L10.2.6 :8K@60fps (7680x4320)
- AV1 Main Profile 8/10bit L5.3 :4K@60fps (3840x2160)
- MPEG-2 up to MP :1080p@60fps (1920x1088)
- MPEG-1 up to MP :1080p@60fps (1920x1088)
- VC-1 up to AP level 3 :1080p@60fps (1920x1088)
- VP8 version2 :1080p@60fps (1920x1088)

Video Encoder

- Real-time H.265/H.264 video encoding

- Support up to 8K@30fps
- Multi-channel encoder in parallel for less resolution

5.Precautions for use

1.Storage temperature: commercial (-10°C ~ +60°C)/ Extended commercial (-45 °C ~ 85°C)

2.Do not squeeze、distort or disassemble the PC.

3.Keep the Board away from static electricity .

4.Keep the Board away from water and other liquid.

5.Don’t use long connect wires which may affect performance and image quality.