

深圳金亚太科技有限公司

**Shenzhen Geniatech Co.,Ltd.**

# **SPECIFICATION**

**MODEL:APC680**



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|-----------------------|---------------|----------------|
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## Revision History

| VERSION | DATE       | BOARD ID | PAGE | DESCRIPTION | AUTHOR |
|---------|------------|----------|------|-------------|--------|
| V1.0    | 2022/03/16 | APC390K  | 4    |             |        |
|         |            |          |      |             |        |
|         |            |          |      |             |        |
|         |            |          |      |             |        |

## 1. GENERAL DESCRIPTION

APC680 is an TV playing box with below new features:

- (I) VS680 Quad-Core Arm® Cortex® A73 processor with SecurityExtensions
- (II) OpenGL® ESTM 1.1/2.0/3.0/3.1/3.2/DirectFB/OpenCLrM 1.2 / Vulkan® 1.1.
- (III) NPU supports INT8/INT16/FP16/BFP16 MAC hybrid operation
- (IV) Android 12.0 / Linux ubuntu OS
- (V) Support 2GB/4GB/8GB LPDDR4
- (VI) 8G~128GB eMMc flash, external expansion storage TF card (Max 512G)
- (VII) GTIOT (Support Z-WAVE / ZIGBEE / LoRa / LTE / GPS / BT5.0)
- (VIII) Support 4G networks (Optional)
- (IX) Built-in WiFi(2.4G/5.8G) /BT4.1 (BT5.0 Optional)
- (X) 10/100/1000M LAN interface
- (XI) 1 \* HDMI In, 1 \* HDMI Out, support 4K video play
- (XII) 2 \* USB Type-A (1\*USB3.0+1\*USB2.0)
- (XIII) WatchDog&RTC

## 2. PRODUCT OVERVIEW

Below picture is for reference only, please prevail in kind.





| No. | Name         | Description               |
|-----|--------------|---------------------------|
| 1   | Power Key    | 1 * Power key             |
| 2   | IR reception | 1 * IR reception          |
| 3   | NET LED      | 1 * NET LED(Orange)       |
| 4   | Micro SIM    | 1 * Micro SIM             |
| 5   | Power LED    | 1 * Power LED(Red / Blue) |
| 6   | USB 2.0      | 1 * USB 2.0               |
| 7   | USB 3.0      | 1 * USB 3.0               |
| 8   | HDMI IN      | 1 * HDMI IN               |
| 9   | LAN          | 1 * RJ45                  |
| 10  | HDMI OUT     | 1 * HDMI OUT              |
| 11  | DC IN        | 1 * DC IN                 |

### 3.FEATURES

|                  |            |                                                                                                                         |                                                                         |
|------------------|------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| CHIPSET          |            | VS680                                                                                                                   |                                                                         |
| OSD LANGUAGE     |            | English/Chinese (multi language OSD)                                                                                    |                                                                         |
| Processor        | OS         |                                                                                                                         | Android 12/Linux                                                        |
|                  | CPU        |                                                                                                                         | Quad-Core Arm® Cortex® A73 processor with SecurityExtensions            |
|                  | GPU        |                                                                                                                         | OpenGL® ESTM<br>1.1/2.0/3.0/3.1/3.2/DirectFB/OpenCLrM 1.2 / Vulkan® 1.1 |
|                  | NPU        |                                                                                                                         | supports INT8/INT16/FP16/BFP16 MAC hybrid operation                     |
|                  | LPDDR4     |                                                                                                                         | 4GB (4/8/16GB Optional)                                                 |
|                  | EMMC FLASH |                                                                                                                         | 16GB ( 8~64G Optional )                                                 |
| NETWORK          | Ethernet   | RJ45, 10/100/1000M                                                                                                      |                                                                         |
|                  | WiFi       | IEEE 802.11a/b/g/n/ac,2X2 MIMO                                                                                          |                                                                         |
|                  | Bluetooth  | BT4.1 ( BT5.0 Optional )                                                                                                |                                                                         |
|                  | 3G/4G      | 1* Mini PCIE +1*Micro SIM(Optional )                                                                                    |                                                                         |
| WatchDog&RTC     |            | support                                                                                                                 |                                                                         |
| GTIOT            |            | Support Z-WAVE / ZIGBEE / LoRa / LTE / GPS / BT5.0(Optional)                                                            |                                                                         |
| Interface        | HDMI IN    |                                                                                                                         | 1 * HDMI IN                                                             |
|                  | HDMI OUT   |                                                                                                                         | 1 * HDMI OUT                                                            |
|                  | USB 3.0    |                                                                                                                         | 1 * USB 3.0                                                             |
|                  | USB 2.0    |                                                                                                                         | 1 * USB 2.0(OTG)                                                        |
|                  | LAN        |                                                                                                                         | 1 * RJ45(LED)                                                           |
|                  | SIM        |                                                                                                                         | 1 * Mini pcie LTE(built-in) + 1 * Micro SIM                             |
|                  | IR         |                                                                                                                         | 1*IR blaster                                                            |
|                  | DC IN      |                                                                                                                         | 1 * DC IN                                                               |
|                  | Power      |                                                                                                                         | 1 * Power Key                                                           |
| Adapter          |            | DC12V / 1.5A (Φ5.5mm / φ2.1mm)                                                                                          |                                                                         |
| Accessory        |            | 1 * Adapter (AC 100 ~ 240V 50/60Hz)                                                                                     |                                                                         |
| Size(mm)         |            | 106*100*25                                                                                                              |                                                                         |
| Customizable GUI |            | We provided GUI customization and we have a vast collection of Launcher created by our R&D team for you to choose from. |                                                                         |

#### **4.Precautions for use**

- 1.Relative humidity:  $\leq 85\%$  .
- 2.CPU Operation temperature:  $0\sim 85^{\circ}\text{C}$
- 3.Storage temperature: $-10\sim +60^{\circ}\text{C}$
- 4.Operation temperature: $0\sim +60^{\circ}\text{C}$
- 5.Do not squeeze、distort or disassemble the PC.
- 6.Keep the Board away from static electricity .
- 7.Keep the Board away from water and other liquid.
- 8.Don't use long connect wires which may affect performance and image quality.