

## TPC120-A29

Adopting self-developed industrial motherboard, built-in independent NPU, with 1TOPS AI arithmetic, support for lightweight AI application development; the shell adopts closed aluminum alloy structure, back cover die-casting, with high strength and toughness and high heat dissipation, light weight, high strength, corrosion-resistant and heat conductive, compression and impact resistance, adaptable to multi-purpose application environments.

### Features

- High-precision die-cast aluminum molding with high-strength toughness and high heat dissipation effect
- Self-developed ARM architecture industrial motherboard
- RK3568, 4-core 64-bit Cortex-A55, 2.0GHz main frequency
- Built-in independent NPU with 1TOPS AI computing power
- Support secondary development and upgrade customization



### Model

|                  |              |
|------------------|--------------|
| Product size     | 12"          |
| Non-touch        | TPC120-A2900 |
| Capacitive touch | TPC120-A2910 |
| Resistive touch  | TPC120-A2920 |

### I/O Interface



### Specification

#### Screen Parameter

|                    |                       |
|--------------------|-----------------------|
| Display type       | 12" TFT LCD screen    |
| MAX.resolution     | 1024*768(4:3)         |
| Viewing angle(H/V) | 85/85/85/85 (L/R/U/D) |
| Luminance (cd/m²)  | 500 cd/m²             |
| Contrast ratio     | 1000:1                |

#### Touch Parameter

| Touchscreen        | Projection capacitive touch 10-point multi touch | Resistive touch single point | Non-touch |
|--------------------|--|------------------------------|-----------|
| Light transmission | ≥88%   | ≥78%                         | ≥92%      |
| Controller         | USB ( COM customized)                            | USB ( COM customized)        | /         |

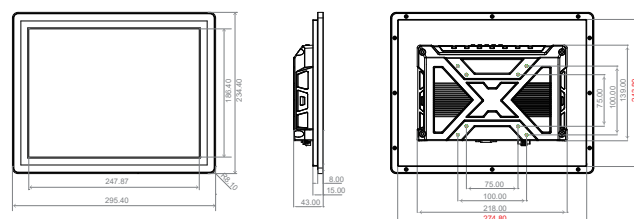
#### Power Parameter

|               |            |
|---------------|------------|
| Power input   | DC 12V-36V |
| Power adapter | 24V/2.5A   |

#### Configuration

|                  |  |                     |                                |
|------------------|--|---------------------|--------------------------------|
| CPU              | RK3568, Quad-Core/4-Wire 2.0GHz CPU                      | Wi-Fi               | Wi-Fi 6, Dual Band 2.4GHz+5GHz |
| Memory/RAM       | 2GB (Optional 4GB/8GB)                                   | Bluetooth           | BT5.3                          |
| Storage          | 32GB eMMC (Optional 64GB/128GB/256GB)                    | Watchdog Timer      | Support                        |
| NPU              | Built-in NPU with 1TOPS AI computing power               | RTC real time clock | Support                        |
| Operating system | Android12/14, Linux5.10/Ubuntu20.04/Ubuntu22.04/Debian11 | Timer switch        | Support                        |

### Dimension



#### Physical Characteristic

|                    |  |
|--------------------|--|
| Overall dimensions | W295.4x H234.4x D43mm  |
| VESA               | 75x75mm, 100x100mm, M4 screw hole  |
| Material           | Aluminum alloy   |
| Color              | Black, optional silve  |
| Installation       | Supports Back mounted/Wall mounted/Desktop/Louver/Cantilever Boom type, etc. |

#### Interface Parameter

|                  |   |
|------------------|---|
| PowerSW          | 1*PowerSW   |
| Power interface  | 3.81-2P Phoenix Terminal (optional upgrade to DC 2.0*1).  |
| Phoenix terminal | 3.5-12P Phoenix terminals (2321/4851/CAN1/NC4).           |
| USB              | 4*USB (2*USB2.0, 2*USB3.0)                                |
| TF               | 1*TF card standard interface                              |
| SIM              | 1*SIM card slot (should be work with 3G/4G module)        |
| HDMI             | 1*HDMI output, up to 4K                                   |
| Ethernet         | 1*LAN, 10M/100M/1000M adaptive Ethernet, 3G/4G customized |
| Audio            | 1*Audio I/O, Support audio input and output               |
| Serial port      | 1*COM (The default is RS232, optional RS485/RS422)        |
| UBOOT            | 1*UBOOT   |
| Wi-Fi antenna    | 1*Wi-Fi antenna   |
| Grounding        | 1*GND   |
| Speaker          | 2*(8Ω2W)  |

#### Reliability Parameter

|                       |   |
|-----------------------|---|
| Operating temperature | -10°C~60°C (-20°C~70°C can be customized) |
| Storage temperature   | -20°C~70°C                                |
| Relative humidity     | 95% non-condensing                        |