

# TPC121-A210-3588A

Adopting ultra-thin bezel which is more suitable for embedded installation, aluminum alloy structure, fanless and fully enclosed design, up to IP65 dustproof and waterproof, widely used in industrial control, military, power, intelligent self-service terminal equipment and other automation applications. Widely used in industrial control, military, communication, electric power, intelligent self-service terminal equipment and other automation applications.

## Features

- 3mm Super Thin Front Bezel, Best for Embedded Cabinet.
- Pure flat panel IP65 dust-proof and waterproof.
- Self-developed ARM architecture industrial motherboard
- RK3588 Octa-core with 6 TOPS NPU
- Wide Temperature Adaptation Efficient Heat Dissipation.
- Provide SDK package, Support secondary development and upgrade customization



## Product Model

|                  |                   |
|------------------|-------------------|
| Product Size     | 12.1"             |
| Non-touch        | TPC121-A200-3588A |
| Capacitive touch | TPC121-A210-3588A |
| Resistive touch  | TPC121-A220-3588A |

## Product Interface



## Product Specifications

### Screen Parameters

|                |                       |
|----------------|-----------------------|
| LCD size       | 12.1" TFT LCD         |
| Resolution     | 1280*800 (16:10)      |
| Viewing angle  | 65/65/65/65 (L/R/U/D) |
| Color          | 16.7M                 |
| Brightness     | 300 cd/m²             |
| Contrast ratio | 1000:1                |

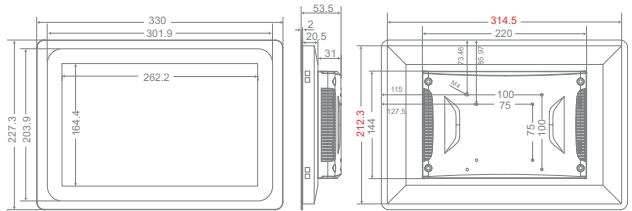
### Touch Parameters

|                          |                                                   |                                      |           |
|--------------------------|---------------------------------------------------|--------------------------------------|-----------|
| Touch type               | 10-point touch projection Capacitive touch screen | Single-point Resistance touch screen | Non-touch |
| Transmittance            | ≥88%                                              | ≥78%                                 | ≥92%      |
| Input mode               | Handwriting or Capacitance pen                    | Fingertip or stylus                  | /         |
| Controller communication | USB                                               | USB                                  | /         |

### Hardware Configuration

|         |                                                             |                  |                                            |
|---------|-------------------------------------------------------------|------------------|--------------------------------------------|
| CPU     | RK3588 2.1 GHz, Quad-Core Cortex-A76 + Quad-Core Cortex-A55 | NPU              | Built-in NPU with 6TOPS AI computing power |
| Memory  | 8GB LPDDR4 (Optional 4GB/16GB/32GB, Supports up to 32GB)    | WiFi             | Support WiFi6, Dual-band 2.4G/5G           |
| Storage | 64GB eMMC (Supports up to 256GB)                            | Bluetooth        | Support Bluetooth 5.0                      |
| GPU     | ARM Mali G610 MP4                                           | Operating system | Android 13.0, Ubuntu/Debian/Linux          |

## Product Size



### Physical Characteristics

|                    |                       |
|--------------------|-----------------------|
| Overall dimensions | W330x H227.3x D53.5mm |
| Size of opening    | W316.5 x H214.3mm     |

### Interface Parameters

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Power interface      | 1*DC2.1, Supporting 12V-36V power input                            |
| Industrial terminals | 1*12P Phoenix terminal (Power supply/RS232*1/RS485*1/CAN*1/GPIO*3) |
| USB                  | 2*USB (1*USB2.0, 1*OTG)                                            |
| TF                   | 1*TF card standard interface                                       |
| HDMI                 | 1*HDMI, Supporting HDMI data output, Up to 4K                      |
| SIM                  | 1*SIM, Supporting various formats (Depending on 3G/4G module)      |
| Network interface    | 2*LAN (1*100M, 1*1000M)                                            |
| Audio interface      | 1*Audio I/O, Support audio input and output                        |
| COM                  | 1*RS232                                                            |
| Reset key            | Support (1*UBOOT)                                                  |
| WiFi antenna         | 1*WiFi antenna                                                     |
| Grounding post       | 1*Grounding post (GND)                                             |

### Product Reliability Parameters

|                       |                                                  |
|-----------------------|--------------------------------------------------|
| Working temperature   | -10°C~60°C                                       |
| Storage temperature   | -20°C~70°C                                       |
| Relative humidity     | Humidity: 95% Non-Condensing                     |
| Vibration protection  | IEC 60068-2-64, Random, 5~500 Hz, 1 hr/axis      |
| Impact protection     | IEC 60068-2-27, Half sine wave, Lasting for 11ms |
| Product certification | CCC/CE/FCC/EMC/CB/ROHS                           |
| Waterproof grade      | The front panel reaches IP65 protection level    |

### Power Parameters

|              |            |
|--------------|------------|
| Power input  | DC 12V-36V |
| Static power | 18W        |