Touch Think

National Little Giants Enterprises, granted by the Ministry of Industry and Information Technology of the People's Republic of China

Famous Brand of Shenzhen

TPC120-A28

The entire panel PC utilizes a self-developed industrial motherboard with an integrated independent NPU, offering 1 TOPS of AI computing power and supporting lightweight AI application development. Its 3mm ultra-thin front panel seamlessly fits various types of cabinets. The device excels in anti-interference and thermal performance, capable of withstanding harsh working conditions such as extreme temperatures, oil, dust, and vibrations.
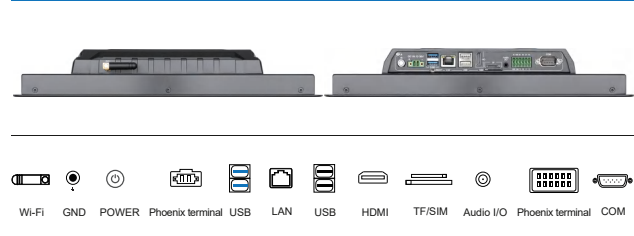
Features

- 3mm Super Thin Front Bezel, Best for Embedded Cabinet.
- Supports wide temperature and wide voltage operation.
- 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

| RK3568 | 4K HD display | DC 12-36V | IP65 front | SDK | Android 12.0 |

Model

Product size	12"
Non-touch	TPC120-A2800
Capacitive touch	TPC120-A2810
Resistive touch	TPC120-A2820

I/O Interface

Wi-Fi | GND | POWER | Phoenix terminal | USB | LAN | USB | HDMI | TF/SIM | Audio I/O | Phoenix terminal | COM

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
Memory/RAM	2GB (Optional 4GB/8GB)
Storage	32GB eMMC (Optional 64GB/128GB/256GB)
NPU	Built-in NPU with 1TOPS AI computing power
Operating system	Android12/14, Linux5.10/Ubuntu20.04/Ubuntu22.04/Debian11
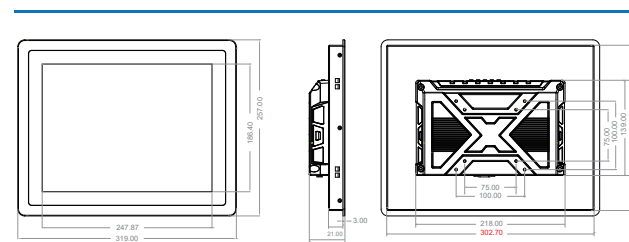
Dimension

Physical Characteristic

Overall dimensions	W319x H257x D52mm
Installation size	W304.7 x H243.2mm
Material	Aluminum alloy
Color	Black, optional silve
Installation	Supports Panel-mount/Wall-embedded/Wall-mounted/Desktop/Folding mounting/VESA mount/Suspended mounting, 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

Wi-Fi	Wi-Fi 6, dual-band 2.4G/5G.
Bluetooth	BT5.3
Watchdog Timer	Support
RTC real time clock	Support
Timer switch	Support