

## 5th Gen A Ruggedized ARM All-in-One Panel PC

It has 10.1 " - 21.5 " multi size options, independent research and development of industrial motherboards, and multiple configuration schemes to meet different application needs; The fuselage is made of aluminum alloy, with a strong structure, totally enclosed fanless design, and efficient heat dissipation. It is designed for a variety of complex environments, and can ensure long-term stable operation in harsh environments; It provides SDK packages and technical support, supports secondary development and rapid upgrade customization, and is widely used in industrial control, military, communication, power, network and other automation fields.

### Features >>



- Narrow frame design, independent mold opening.
- Aluminum alloy one-piece die casting, efficient heat dissipation.
- Process structure design of anti vibration radiation layout.
- Seismic stability, safety and reliability, industrial quality.
- It is suitable for dust, oil, water mist, strong electromagnetic, high-frequency vibration and other complex heavy industrial environments.
- SDK package is provided to support secondary development and upgrade customization.



ISO FC CE CCC RoHS 40+

10.1"~21.5" optional

### Product Model >>

Product size	Non-touch	Capacitive Touch	Resistive Touch	Resolution	Screen Scale	Brightness	Contrast ratio	Viewing Angle	Back Cover Style
10.1"	TPC101-A500	TPC101-A510	TPC101-A520	800*1280	16:10	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	 (10.1-12 inch small back cover)
10.4"	TPC104-A500	TPC104-A510	TPC104-A520	1024*768	4:3	400cd/m <sup>2</sup>	1000:1	80/80/80/80 (L/R/U/D)	
11.6"	TPC116-A500	TPC116-A510	TPC116-A520	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
12"	TPC120-A500	TPC120-A510	TPC120-A520	1024*768	4:3	500cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
15"	TPC150-A500	TPC150-A510	TPC150-A520	1024*768	4:3	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	 (15-21.5 inch large back cover)
15.6"	TPC156-A500	TPC156-A510	TPC156-A520	1920*1080	16:9	300cd/m <sup>2</sup>	800:1	85/85/85/85 (L/R/U/D)	
17"	TPC170-A500	TPC170-A510	TPC170-A520	1280*1024	5:4	300cd/m <sup>2</sup>	1000:1	85/85/80/70 (L/R/U/D)	
17.3"	TPC173-A500	TPC173-A510	TPC173-A520	1920*1080	16:9	300cd/m <sup>2</sup>	600:1	80/80/60/80 (L/R/U/D)	
19"	TPC190-A500	TPC190-A510	TPC190-A520	1280*1024	5:4	300cd/m <sup>2</sup>	1000:1	85/85/80/80 (L/R/U/D)	
19.1"	TPC191-A500	TPC191-A510	TPC191-A520	1440*900	16:10	300cd/m <sup>2</sup>	1000:1	80/80/80/80 (L/R/U/D)	
21.5"	TPC215-A500	TPC215-A510	TPC215-A520	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	

### Product Installation >>



## Product Specifications >>

### Hardware Configuration

CPU	RK3288, quad core, 1.8GHz
GPU	Mali-T764
RAM	2G DDR3 (Optional 4G/8G )
Storage	16G eMMC (Optional 32G/64G)
System	Android 7.1/10.0/12, Linux4.4, Ubuntu18.04/20.04, Debian10.0
Ethernet	10M/100M/1000M
WIFI	2.4GHz / 5GHz dual bands
Bluetooth	BT4.2

### Touch Screen

Capacitive Touch	Touch screen type: 10 point touch projection capacitive touch screen Light transmittance: $\geq 88\%$ Input mode: handwriting or capacitive pen Controller communication: USB
Resistive Touch	Touch screen type: single point resistive touch screen Light transmittance: $\geq 78\%$ Input mode: Fingertip or stylus Controller communication: USB
Non touch	Light transmittance: $\geq 92\%$

### Reliability parameters

working temperature	Operating temperature: - 10 ° C~60 ° C, storage temperature: - 20 ° C~70 ° C
Operating 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, duration 11ms
Product certification	CCC/CE/FCC/EMC/CB/ROHS

### Other parameters

Power input	12V power input
Static power	18W
Fuselage Properties	Body material: aluminum alloy, body color: classic black, technical silver
warranty policy	Three years (one year free warranty)
Installation method	Support embedded, wall mounted, desktop, louver, cantilever, boom and other installation methods

### I/O Interface

Power interface 1	1*Industrial terminal, Support data transmission and power supply functions
Power interface 2	1*DC 2.1, Support 12V power input
HDMI	1*HDMI, Support HDMI data output, maximum support 4K
USB	1*USB HOST, 1*USB OTG
RJ45 Ethernet	1*10M/100M/1000M adaptive Ethernet
TF	Support TF expansion card (1*TF card slot)
AUDIO	1*Audio I/O, Support audio input and output, headphone stand: 3.5mm standard interface
SIM	1*SIM, SIM card interface standard interface supports various formats (depending on 3G / 4G module)
POWER	1*POWER
WIFI Antenna	1*WIFI Antenna
Grounding column	Support (1*GND)

## Interface Distribution >>



Only the 15 inch 3288-i motherboard interface is displayed. Please refer to the actual object for details.

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### Features >>



- Narrow frame design, independent mold opening.
- Aluminum alloy one-piece die casting, efficient heat dissipation.
- Process structure design of anti vibration radiation layout.
- Seismic stability, safety and reliability, industrial quality.
- It is suitable for dust, oil, water mist, strong electromagnetic, high-frequency vibration and other complex heavy industrial environments.
- SDK package is provided to support secondary development and upgrade customization.



ISO FC CE CCC RoHS 10+

10.1"~21.5" optional

### Product Model >>

Product size	Non-touch	Capacitive Touch	Resistive Touch	Resolution	Screen Scale	Brightness	Contrast ratio	Viewing Angle	Back Cover Style
10.1"	TPC101-A500	TPC101-A510	TPC101-A520	800*1280	16:10	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	 (10.1-12 inch small back cover)
10.4"	TPC104-A500	TPC104-A510	TPC104-A520	1024*768	4:3	400cd/m <sup>2</sup>	1000:1	80/80/80/80 (L/R/U/D)	
11.6"	TPC116-A500	TPC116-A510	TPC116-A520	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
12"	TPC120-A500	TPC120-A510	TPC120-A520	1024*768	4:3	500cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
15"	TPC150-A500	TPC150-A510	TPC150-A520	1024*768	4:3	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	 (15-21.5 inch large back cover)
15.6"	TPC156-A500	TPC156-A510	TPC156-A520	1920*1080	16:9	300cd/m <sup>2</sup>	800:1	85/85/85/85 (L/R/U/D)	
17"	TPC170-A500	TPC170-A510	TPC170-A520	1280*1024	5:4	300cd/m <sup>2</sup>	1000:1	85/85/80/70 (L/R/U/D)	
17.3"	TPC173-A500	TPC173-A510	TPC173-A520	1920*1080	16:9	300cd/m <sup>2</sup>	600:1	80/80/60/80 (L/R/U/D)	
19"	TPC190-A500	TPC190-A510	TPC190-A520	1280*1024	5:4	300cd/m <sup>2</sup>	1000:1	85/85/80/80 (L/R/U/D)	
19.1"	TPC191-A500	TPC191-A510	TPC191-A520	1440*900	16:10	300cd/m <sup>2</sup>	1000:1	80/80/80/80 (L/R/U/D)	
21.5"	TPC215-A500	TPC215-A510	TPC215-A520	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	

### Product Installation >>



## Product Specifications >>

### Hardware Configuration

CPU	RK3399, Dual-core Cortex-A72 up to 1.8GHz, Quad-core Cortex-A53 up to 1.4GHz
GPU	Mali-T860 GPU
RAM	4G DDR3 (Optional 8G)
Storage	32G eMMC (Optional 64G)
System	Android 7.1/9.0/11, Ubuntu18.04/Debian10.0/Linux4.4+QT
Ethernet	10M/100M/1000M
WIFI	2.4GHz / 5GHz dual bands
Bluetooth	BT5.0

### Touch Screen

Capacitive Touch	Touch screen type: 10 point touch projection capacitive touch screen Light transmittance: ≥ 88% Input mode: handwriting or capacitive pen Controller communication: USB
Resistive Touch	Touch screen type: single point resistive touch screen Light transmittance: ≥ 78% Input mode: Fingertip or stylus Controller communication: USB
Non touch	Light transmittance: ≥ 92%

### Reliability parameters

working temperature	Operating temperature: - 10 ° C~60 ° C, storage temperature: - 20 ° C~70 ° C
Operating 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, duration 11ms
Product certification	CCC/CE/FCC/EMC/CB/ROHS

### Other parameters

Power input	12V-36V power input
Static power	18W
Fuselage Properties	Body material: aluminum alloy, body color: classic black, technical silver
warranty policy	Three years (one year free warranty)
Installation method	Support embedded, wall mounted, desktop, louver, cantilever, boom and other installation methods

### I/O Interface

Power interface 1	1*Industrial terminal,Support data transmission and power supply functions
Power interface 2	1*DC2.1, Support 12V-36V wide voltage power supply
HDMI	1*HDMI, Support HDMI data output, maximum support 4K
USB	1*USB HOST, 1*USB OTG
RJ45	1*RJ45,100M/100M/1000M adaptive Ethernet
TF	Support TF expansion card (1 * TF card slot)
SIM	1*SIM, SIM card interface standard interface supports various formats (depending on 3G / 4G module)
AUDIO	1*Audio I/O, Support audio input and output, headphone stand: 3.5mm standard interface
UBOOT	1*UBOOT
POWER	1*POWER
Grounding column	Support(1*GND)

## Interface Distribution >>



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10.1"~21.5" optional

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11.6"	TPC116-A500	TPC116-A510	TPC116-A520	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	85/85/85/85 (L/R/U/D)	
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21.5"	TPC215-A500	TPC215-A510	TPC215-A520	1920*1080	16:9	300cd/m <sup>2</sup>	1000:1	89/89/89/89 (L/R/U/D)	

### Product Installation >>



## Product Specifications >>

### Hardware Configuration

CPU	A64 Cortex-A53 quad-core, 1.5GHz;
GPU	Mali-400MP2
RAM	2G DDR3 (Optional 4G/8G )
Storage	8G eMMC (Optional 16G/32G/64G)
System	Android6.0
Ethernet	10M/100M/1000M
WIFI	2.4GHz / 5GHz dual bands
Bluetooth	BT5.0

### Touch Screen

Capacitive Touch	Touch screen type: 10 point touch projection capacitive touch screen Light transmittance: $\geq 88\%$ Input mode: handwriting or capacitive pen Controller communication: USB
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Non touch	Light transmittance: $\geq 92\%$

### Reliability parameters

working temperature	Operating temperature: - 10 ° C~60 ° C, storage temperature: - 20 ° C~70 ° C
Operating 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, duration 11ms
Product certification	CCC/CE/FCC/EMC/CB/ROHS

### Other parameters

Power input	12V power input
Static power	18W
Fuselage Properties	Body material: aluminum alloy, body color: classic black, technical silver
warranty policy	Three years (one year free warranty)
Installation method	Support embedded, wall mounted, desktop, louver, cantilever, boom and other installation methods

### I/O Interface

Power interface 1	1*Industrial terminal, Support data transmission and power supply functions
Power interface 2	1*DC 2.1, Support 12V power input
HDMI	1*HDMI, Support HDMI data output, maximum support 4K
USB	1*USB HOST, 1*USB OTG
RJ45 Ethernet	1*10M/100M/1000M adaptive Ethernet
TF	Support TF expansion card (1 * TF card slot)
AUDIO	1*Audio I/O, Support audio input and output, headphone stand: 3.5mm standard interface
SIM	1*SIM, SIM card interface standard interface supports various formats (depending on 3G / 4G module)
Power	1*Power
WiFi antenna	1*WiFi antenna
Grounding column	Support(1*GND)

## Interface Distribution >>



Only the 15 inch JWS64 motherboard interface is displayed. Please refer to the actual object for details.