

Nano-A352 (D3568) ARM Product specification

Document modification history

version number	Revised content	date
V1.0	found	2023-12-04

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Chapter 1: A Product Overview

1.1 Scope of application

Nano-A352 (D3568) ARM platform is an embedded industrial control machine, which is generally suitable for vending machines, robots, self-service terminals and edge computing equipment and other application scenarios.

1.2 Product Overview

Nano-A352 (D3568) is equipped with RK3568 quad-core processor with the highest frequency of 2.0GHz, built-in independent NPU and computing power up to 1 Tops. Configuration of rich expansion interface, flexible docking of a variety of peripherals. The whole machine is ultra-thin design, which can meet the needs of diversified scene deployment.

1.3 Product characteristics

- ◆ Configure the double Gigabit network port;
- ◆ Support 9V-15V wide voltage input;
- ◆ Up to 8GB of memory support;
- ◆ Built-in neural network NPU, up to 1 Tops computing power;
- ◆ HDMI supports up to 4K resolution;
- ◆ 4 USB, 2 RS232 (optional 2 RS485), 6 KIO;

- ◆ Supports WiFi (optional WiFi6) and Bluetooth V5.0
- ◆ Built-in MiniPCIe interface, support domain lattice, range and other 4G modules (optional);
- ◆ Multiple function buttons (1 with a light switch, 1 burning key);
- ◆ Perfect support for infrared, capacitance, resistance and other mainstream touch screen, support the mainstream peripheral drive.

1.4 Operating system

Android system: Android system 11

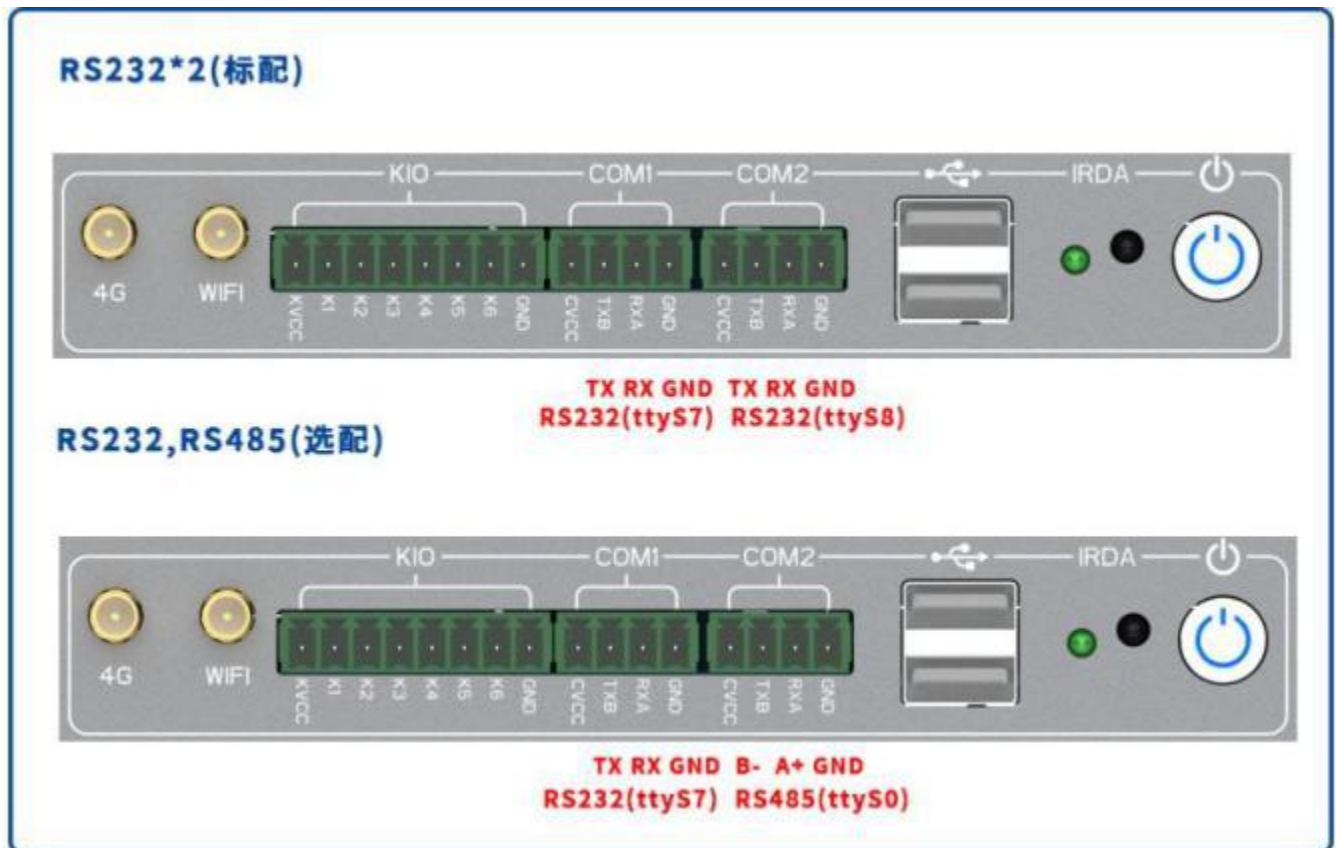
Linux System: optional Ubuntu 20.04, LinuxBuildroot, Debian

10 open source Hongmeng system: optional OpenHarmony

3.2

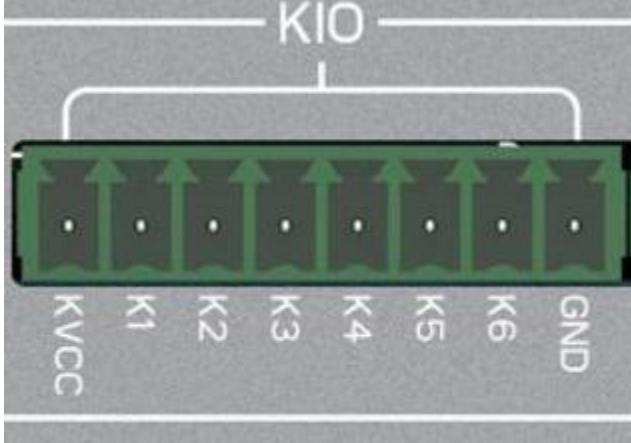
1.5 Description of serial port definition

Standard 2 RS232, optional 2 RS485, serial port defined as follows.

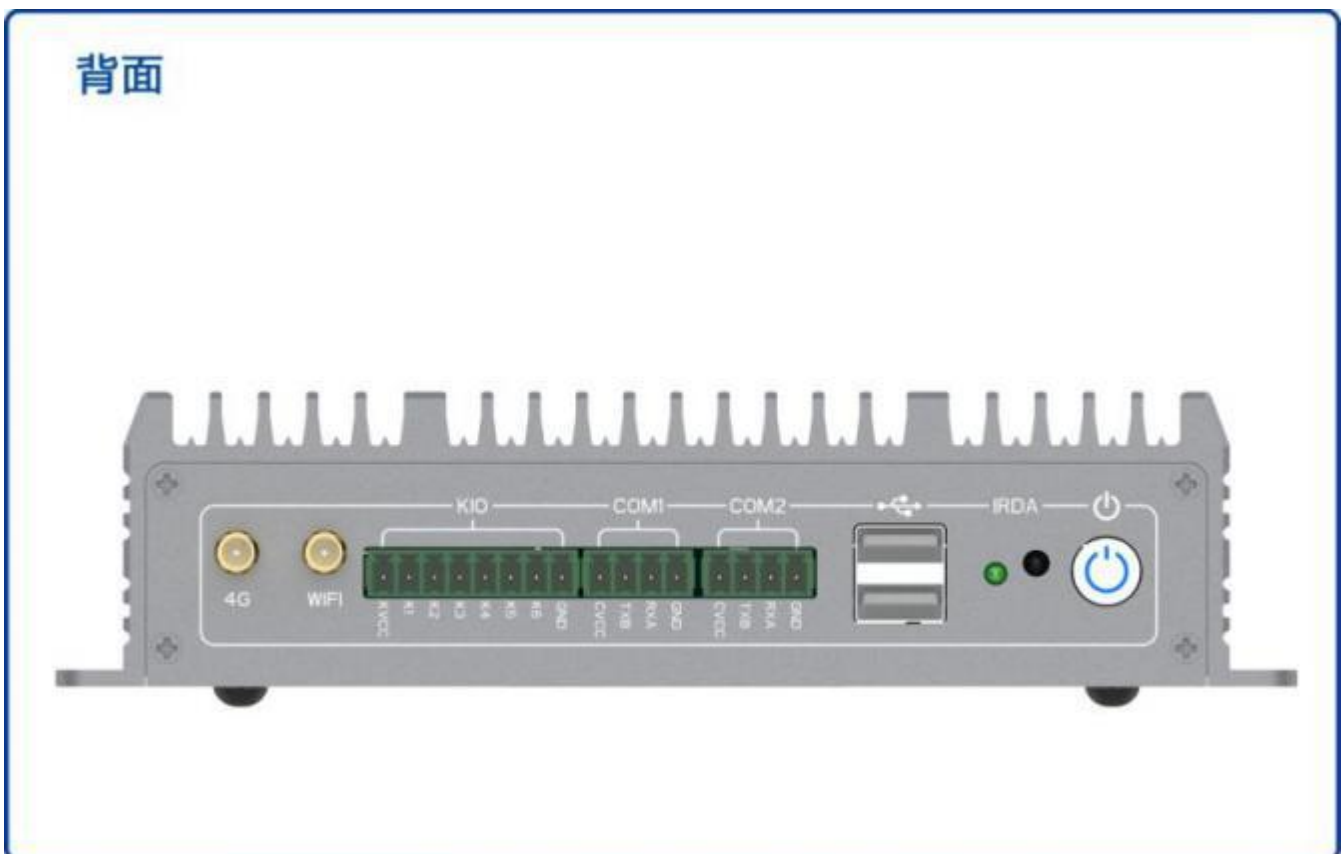
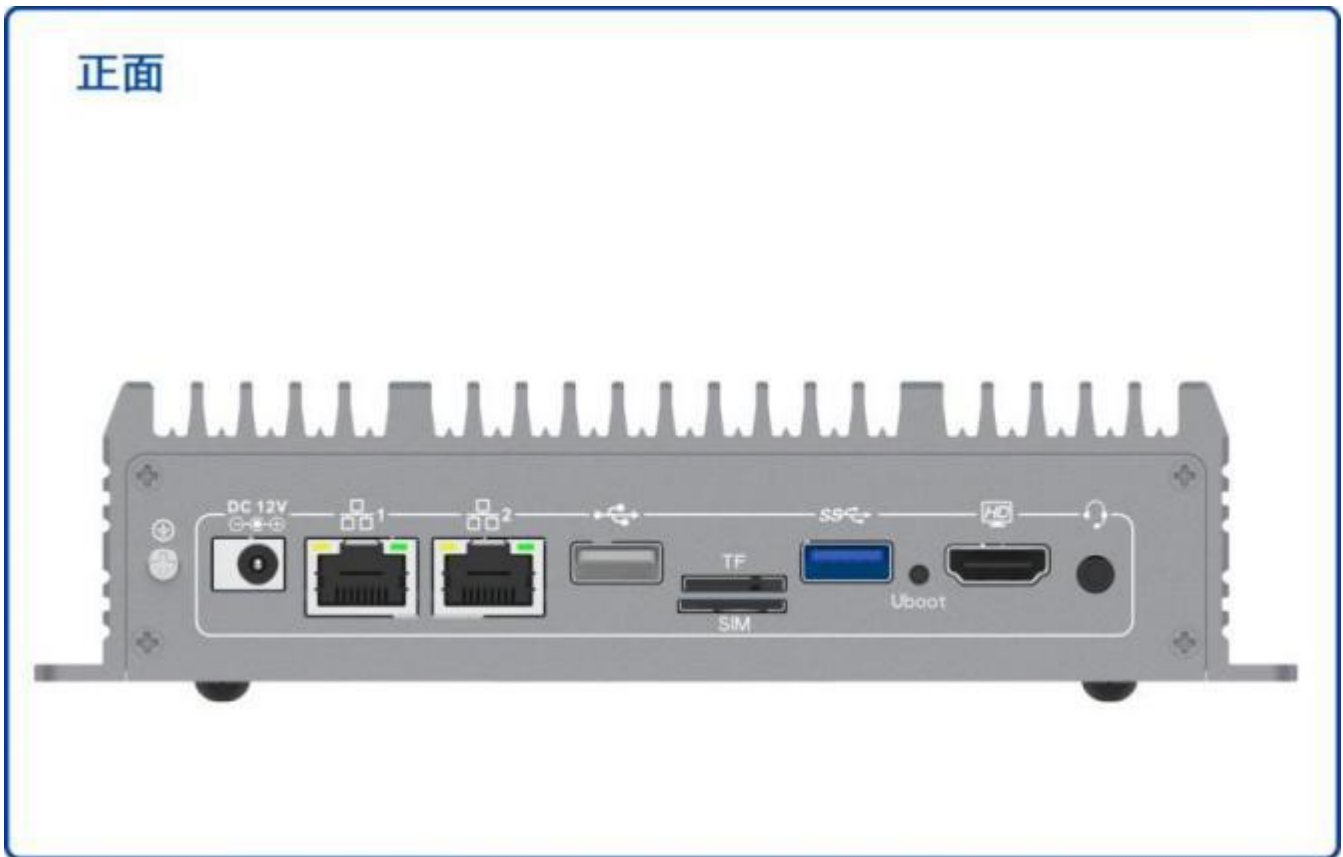


1.6 Description of the KIO definition

Contains 6-way KIO interfaces, IO number as below.

order number	definition	IO number	Interface diagram
1	KVCC	/	
2	K1	88	
3	K2	107	
4	K3	89	
5	K4	108	
6	K5	90	
7	K6	109	
8	GND	/	

1.7 Appearance and interface schematic diagram



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Chapter II Product hardware indicators

Main hardware indicators	
Machine size	157*125*28mm
CPU	Rockchip micro RK3568, quad-core Cortex-A55, the highest main frequency of 2.0GHz
NPU	Support for 1 Tops computing power
GPU	Mali-G52 2EE
internal storage	Standard with 2GB, optional 4GB / 8GB
memory	16GB, with a maximum support of 128GB
HDMI	The imum support 4K resolution
earphone	1 way American standard 4 section headset integrated 3.5mm socket
USB Host	3 USB2.0 and 1 USB3.0
USB OTG	1-way USB 3.0 OTG
gorge line	2-way RS232 (optional 2-way RS485)
KIO	6 Road
Ethernet	2-way 10 / 100 / 1000Mbps
Wi Fi	Wi Fi6
PDA	And Bluetooth V5.0
4G	1-way MiniPCIe extension (optional)
WiFi antenna	One root

4G antenna	1 root (optional)
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infrared remote control	1 Road
pilot lamp	remote control
TF block	Up to 256GB
SIM cassette	1-way Micro-SIM
source	9V~15V wide pressure DC
relative humidity	0%~95% (no condensation)
working temperature	-20°C~70°C

Chapter III Power Supply and Product Maintenance

3.1 Power supply adapter

For your personal safety and the normal use of the product, make sure that the AC power supply can meet the input information on the power adapter; please use a three-core power socket and a reliable ground terminal. It is recommended to use the original power supply adapter. If you cannot use the original power supply under special circumstances, be sure to use the same power supply adapter.

3.2 Input features

Input voltage range: from 90 Vac-264 Vac, unidirectional input.

	minimum	rating	maximum
input voltage	90Vac	100Vac-240Vac	264Vac
incoming frequency	47Hz	60Hz/50Hz	63Hz

3.3 Output characteristics

Static output characteristics <Output & ripple + noise>

Output Rating	rated load		Output voltage range	Tattoo and noise	remarks
	Min.	Max.			
+12.0V	0A	2A	+/-5%	50mVp-p	

3.4 Product Input Characteristics

Input	rated load		Output voltage range	Tattoo and noise	remarks
Rating	Min.	Max.			
+12.0V	0A	2A	+/-15%	50mVp-p	

Chapter 4 considerations for assembly

Please read the instructions and safety matters of this guide carefully and implement them strictly during use. This will help to prevent damage to the computer products, extend the service life, ensure your normal use and computer maintenance, and ensure your personal safety.

First, please first read the relevant documents, if there is a folder, please be sure to read first.

2. Follow all the safety warnings and signs on the product.

Three, please use the original power adapter or can only apply to the product according to the power supply type specified in this product.

Four, in the thunderstorm weather, please do not plug and unplug the network cable, power cable and other conductors may be connected with the outside world. Five, before cleaning this product, please unplug the power supply, do not use liquid, spray or wet cloth for cleaning.

Six, please do not dismantle the machine, do not try to repair the product, please do this work by authorized professionals.

Seven, do not put the computer in close to the heat source place.

Eight, pay attention to moisture-proof, do not sprinkle water or other liquid on the computer, if the following situation occurs, please

immediately unplug the product power supply. The following special circumstances should be repaired by professional maintenance personnel.

- A. Damaged power cord or plug.
- B. The conductive liquid.
- C. Product drop or serious damage to the product shell.
- d. The product has an unknown error or obvious performance change, which cannot be eliminated after the fault guide.

Chapter V. Common Troubleshooting

The A352-D3568 has been strictly tested before leaving the factory, and the product is durable. The problems encountered in your use may be caused by the Settings and operations encountered by you during your use. Or encounter some device compatibility issues. This common troubleshooting information helps you solve simple operational problems or identify the cause of the failure to be repaired.

1	The product does not respond after the boot	Ensure that the product and display have normal power supply and that the product adapter is powered on.
2	The product is automatically shut down without any reason	Please check whether the power supply is cut off and whether the power adapter is loose.
3	Product will restart automatically without any reason	Please check if the burning key is placed on the side outside the board (normally inside the board).
4	Display video but no sound	Check that the audio output settings match (Codec / HDMI) and mute.
5	The network cannot be connected	Check whether the network connection or router is normal, and whether the network parameter settings are normal.

	The external USB device is not recognized	If the external device is connected to the OTG port, go to Settings> More Settings and check "OTGHost".
<p>Note: 1) If the product accidentally enters water or seeps into the conductive liquid, please cut off the power supply immediately, dry the liquid with a paper towel, and do not blow with a hot hair dryer. If the situation is extremely serious, it is recommended to contact the after-sales service immediately for consultation or inspection for maintenance.</p> <p>2) If the product slips accidentally and the shell is damaged and the motherboard is damaged, please contact the after-sale service immediately for maintenance.</p>		