

Industrial Android motherboard

Product Name: Industrial Android Control Module

Model Number: JGYL-ASPS-T3

FCC ID: 2BOFN-JGYL-T3

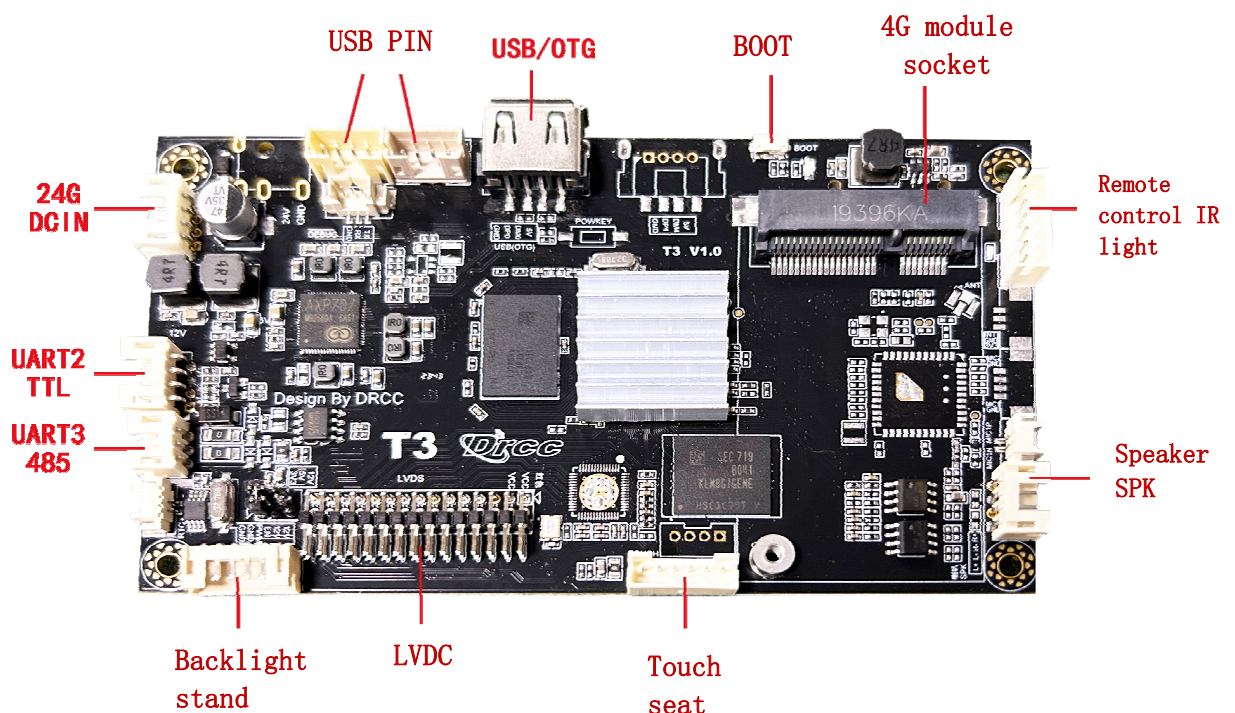
Catalogue

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Chapter 1 Product overview

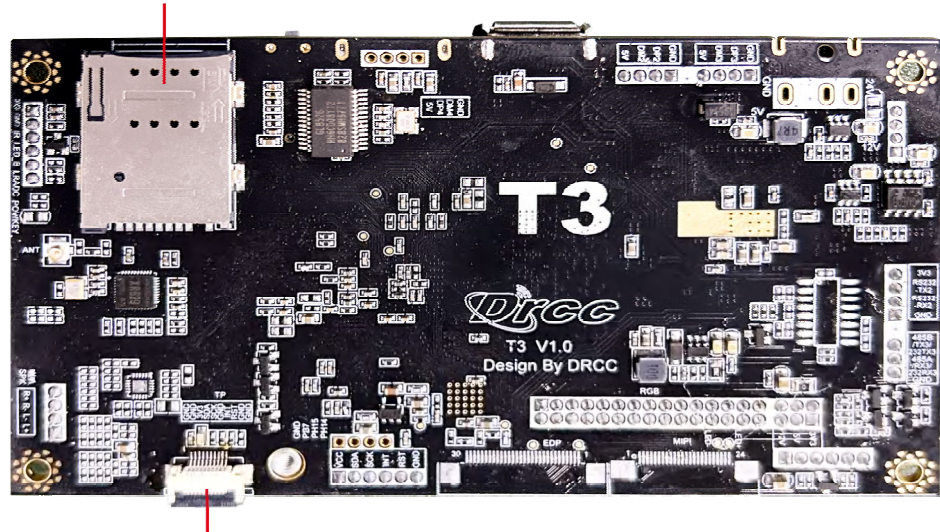
This product is equipped with the Quanzhi A133 4-core Cortex-A53 quad core CPU, and the operating system uses Android10, which has outstanding performance and high cost-effectiveness. The GPU adopts GE8300, which has first-class image and video processing capabilities, making it the best choice for advertising machines, smart terminals, vending machines, industrial equipment, industrial instruments, and more. This product complies with RoHS environmental standards.

Front:



Back:

SIM CARD



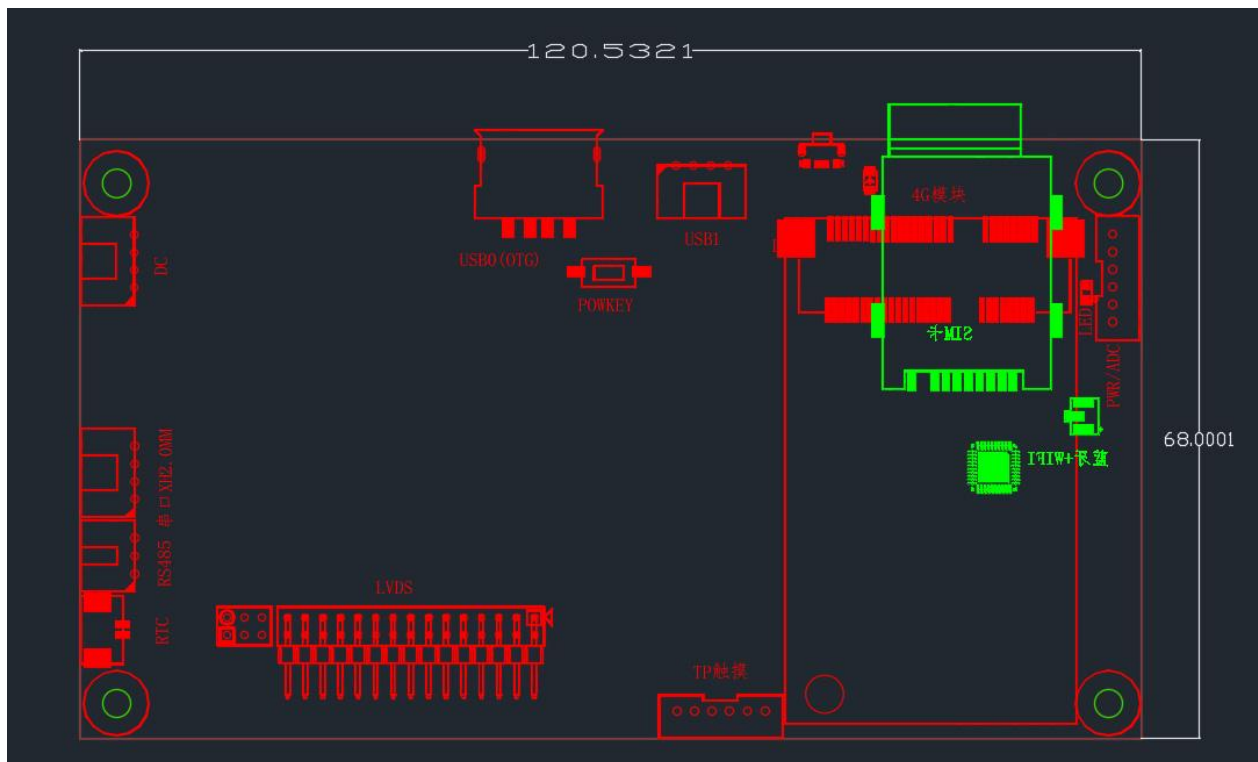
Touch seat

Chapter 2 Basic function list

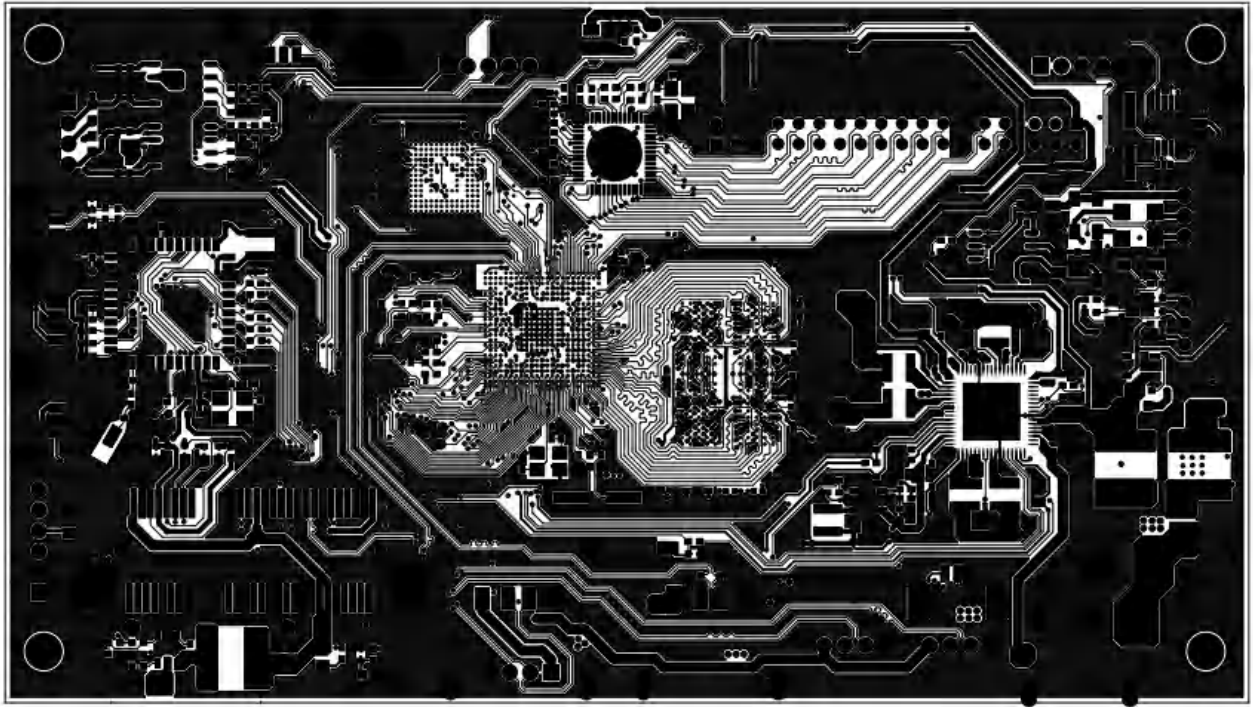
Main hardware specifications	
operating system	Android 10.0
CPU	A133 Quad-core ARM Cortex™-A53@1.8GHz
GPU	IMG GE8300
RAM	1GB
ROM	8GB
Operating Frequency Range:	2400-2480 MHz
WiFi	2.4G WiFi
Bluetooth	Bluetooth V4.2
Power	17.49 dBm
Audio output	Left and right channel output, built-in dual channel 8r/3w power amplifier
4G PCIE	Support the extension of 4G all Netcom (4G module)
USB 2.0	1* USB HOST/*OTG ,2* USB (pin)
Serial port	1 TTL 3.3V 、 1 485
SD Card	SD CARD, up to 32GB
Video playback	Support wmv、 avi、 flv、 rm、 rmvb、 mpeg、 ts、 mp4
Picture format	Support BMP、 JPEG、 PNG、 GIF
Timing switch	Support
System upgrade	Support PC, USB upgrade and network upgrade
power supply	DC 24V

Chapter 3 Module size and interface layout

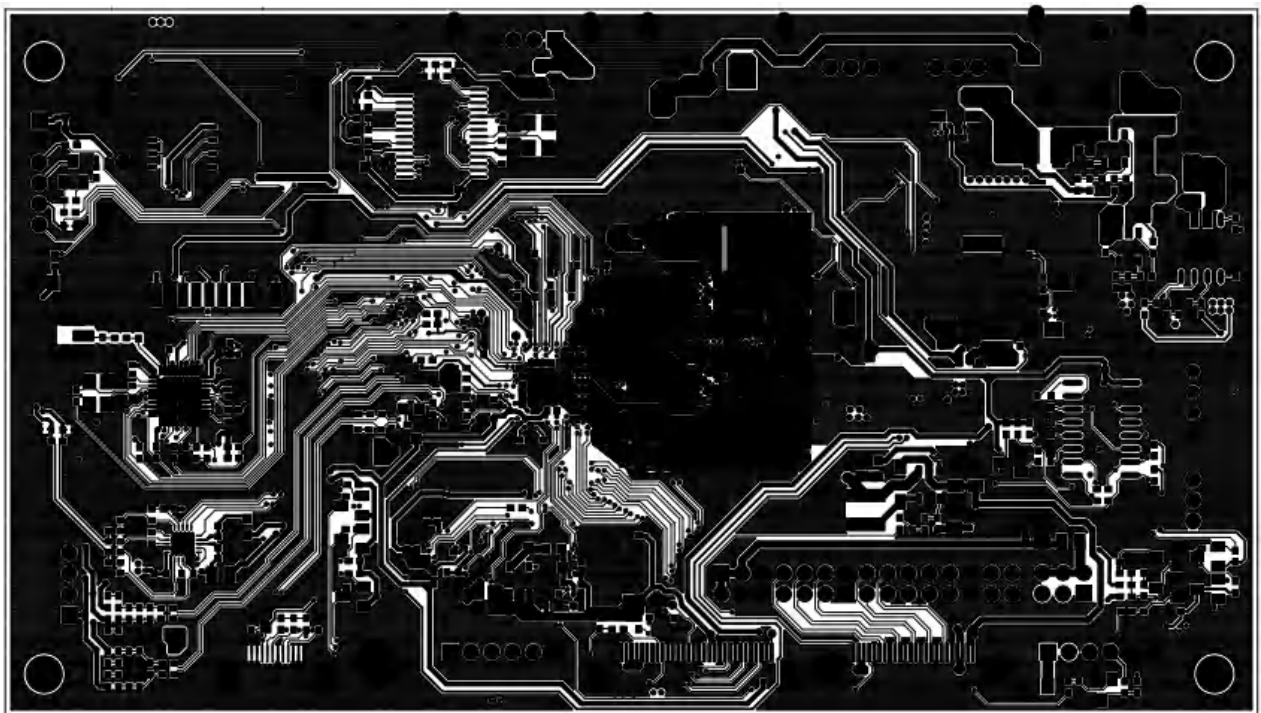
3.1 PCB size diagram (Dimensional drawing)



TOP:



BOTTOM:



PCB: 6 Layers PCB Board)

PCB Platethickness12mm

Screw hole specification: $\phi 2.0\text{mm} \times 3$

Please refer to the actual product for details

3.2 Interface parameter description

◆ Power input interface (DC;DC-IN)

Using a 24V DC power supply, only allowing power to be supplied to the board system from the power socket. In the absence of external load, the DC power supply needs to support a minimum current of 600mA. The interface definition of the power socket is as follows, and the specification of the socket is 4PIN 2.0mm spacing (specification is PH2.0).

Numb	Definition	Attribute	Describe
1	VCC	input	24V
2	VCC	input	24V
3	GND	Bottom line	Bottom line
4	GND	Bottom line	Bottom line

The default power interface of the D133 motherboard is 4Pin 2.0mm spacing (specification is PH2.0).

◆ Serial port/GPIOport (UART2/TTL;UART3/485)

Two groups of ordinary serial ports, which can support common serial port devices in the market, and the level of the serial port is 0V to 3.3V. If the level of the connected serial port is higher than 3.3V, an isolation circuit or level conversion circuit shall be provided, otherwise the main control and equipment will be burned.

Precautions:

1. Whether the serial port voltage matches. The mx232485 device cannot be directly connected.
2. Whether TX and Rx connections are correct.
3. The address of the serial port is "/dev/ttysn", and N is the serial number of the node of the serial port.)

Numb	Definition	Attribute	Describe
1	VCC	voltage	3.3V output

2	UART-TX	Input / output	master control RX
3	UART-RX	Input / output	master control TX
4	GND	Ground wire	Ground wire

◆ USB

1 USB standard interface, 2 double row pin sockets for peripheral expansion, default to HOST/OTG, power supply current 500mA.

Numb	Definition	Attribute	Describe
1	VCC	electric source	5V output, maximum current 500mA
2	DM	Input / output	DM
3	DP	Input / output	DP
4	GND	Ground wire	Ground wire

◆ Audio interface 1 output (SPK)

It can directly drive the horn to be led out from the built-in power amplifier chip. It supports dual channel 8r/3w horn. If the external horn is small, please turn down the volume to avoid burning the horn.

Numb	Definition	Attribute	Describe
1	OUTL+	output	Audio output left+
2	OUTL-	output	Audio output left-
3	OUTR-	output	Audio output right-
4	OUTR+	output	Audio output right+

◆ Audio interface 2 input (MIC)

MICIN1 (1.25mm)

Numb	Definition	Attribute	Describe
1	MIC1P	Input	MIC Input
2	MIC1N	Simulated	Simulated

		ground	ground
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◆ Other interfaces and functions

Definition	Attribute	Describe
Storage interface	SD card	Data storage, up to 32g
	USB*2	Host interface, supporting data storage, data import, USB mouse and keyboard, camera, touch screen, network interface, etc

(The above interface parameters are for reference only and shall be subject to the actual sample test.)

CE

1. The product conforms to RF specifications and technical standards.
2. The product conforms to DOC declaration.
3. The product meets the basic requirements and other relevant provisions of the 2014/53 / EU directive.
4. The product is allowed to be used in all EU member states.

Chapter 4 Electrical Performance

project		minimum	typical	maximum
(supply voltage)	(Voltage)	--	24V	24V
	(Ripple)	--	--	50mV
(Supply current)	(Operating current)	--	600mA	1.5A
(not connected to other peripherals)	(Standby current) (5V STB)	--	1.5mA	--
	(USB power supply current)	--	--	5V/500mA
(LVDS)	Operating current)	(Screen dependent)		
	Standby current			
	(USB power supply current)	--	--	5V/500mA
	(LCD supply current)	--	--	3.3V/500mA
				1A(5V)
				1A(12V)

(The above electrical performance parameters are for reference only and shall be subject to the actual sample test.)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.