

A brief instruction manual for hardware

installation of Quanzhi A133 Android motherboard

1.Preparation before installation:

(1)Environmental requirements

-The control panel needs to be anti-static (it is recommended to use anti-static pads and grounding wires), with a temperature of 15-35 °C and a humidity of 40-70% RH.

-Tools: Cross screwdriver (PH0/PH1), insulated tweezers, heat dissipation silicone grease, multimeter (optional).

(2)Component verification

-Motherboard model: Confirm JGYL-T3 identification and verify supported peripheral interfaces (LVDS/MIPI/EDP display, GPIO expansion, etc.).

-Accessories list: motherboard, screw kit, antenna module (WiFi/4G optional).

2.Core hardware installation steps:

(1) Installation of CPU and cooling system

-Check the surface flatness of the motherboard and remove any residual protective film.

-Fix the spring screw (gradually tighten diagonally, torque 0.6-0.8N • m).

(2)motherboard fixation and interface connection

-Use M3 screws to suspend and fix the motherboard.

-Display interface:

-LVDS screen: Connect the 20/30Pin dual channel screen cable (note that pin 1 is aligned with the motherboard highlighted in red).

-Extension interface:

-GPIO control line: Connect according to the pin definition (refer to motherboard silk screen or manual VCC/GND/signal line).

-USB/serial port: It is recommended to use anti drop connectors to secure RS232/485 cables for industrial equipment.

3.Power and peripheral connection

(1)Power configuration

-Input: DC 24V/1A or above power supply, connected through the 2Pin terminal interface of the motherboard.

-Protection circuit: If external high-power equipment (such as motors) is connected, an independent power module needs to be installed.

(2)Installation of peripheral modules

-4G module: Insert the Mini PCIe slot, fix the screws and connect the antenna (main antenna connected to MAIN, diversity antenna connected to AUX).

-Camera: MIPI interface cameras require CSI signal lines and driver activation.

4.First power on and basic verification

(1)Start detection

-Short circuit the motherboard PWR pin (marked on the edge of the PCB) and turn on the device. Observe the LED status:

-Red constantly on: power supply is normal

-Blue flashing: System running

-Connect the debugging tool through the UART serial port (TX/RX/GND pin) and view the startup log.

(2)Display debugging

-If there is a blurred screen: check the screen cable contact and confirm that the resolution parameters match the screen specifications.

5.Precautions

(1)Electrostatic protection

-Do not touch the motherboard pins with bare hands. Before operation, touch the grounded metal to release static electricity.

(2)Compatibility limitations

-Display output: The LVDS screen voltage needs to be matched with 3.3V/5V jumper settings.

-System image: Only supports Android 10 and above versions (requires burning through PhoenixSuit tool).

>Attachment: Quick Troubleshooting

>- No startup: Measure the DC input voltage ($\geq 20V$) and check if the PWR jumper cap has come off.

>Touch failure: recalibrate TP driver (adb shell getevent debugging).

This instruction applies to customized JGYL-T3 motherboard models.