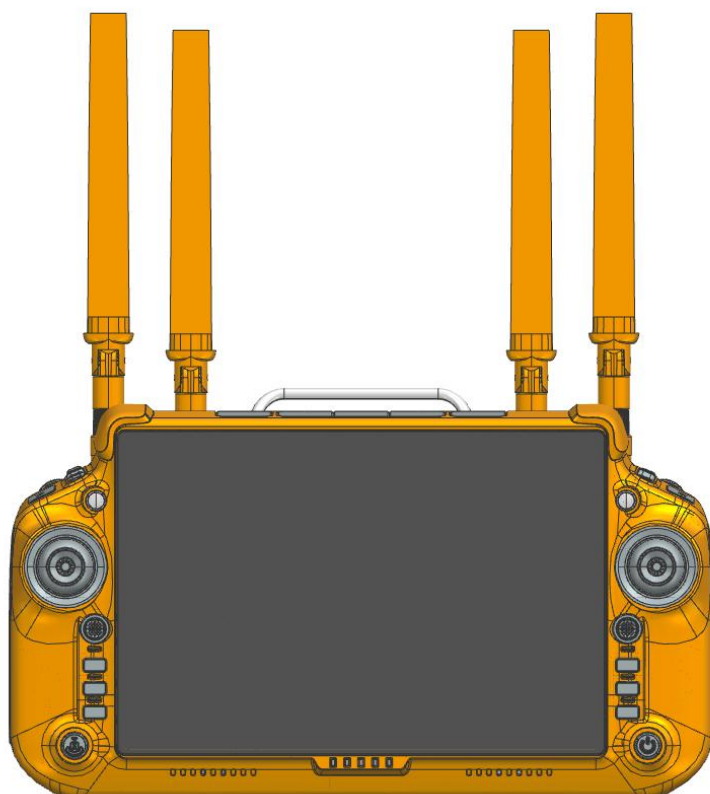
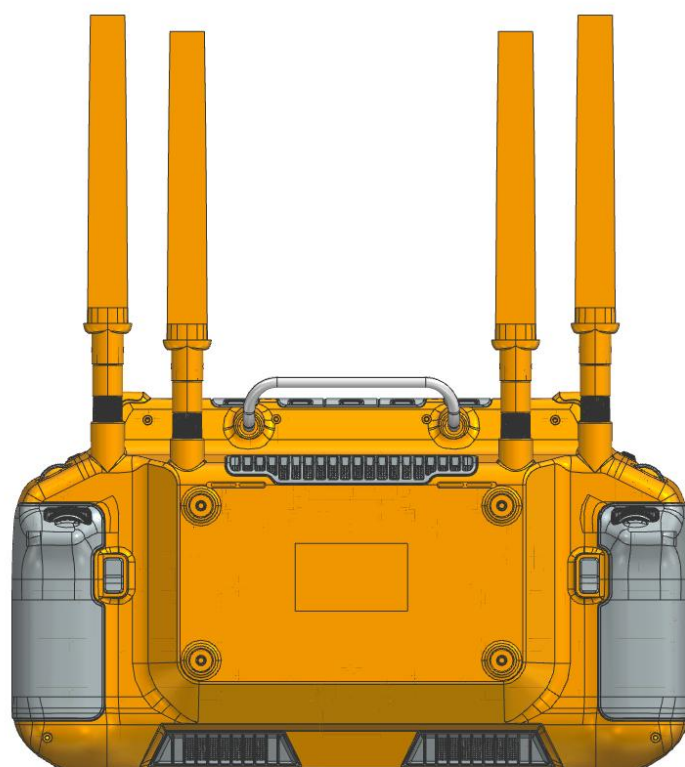
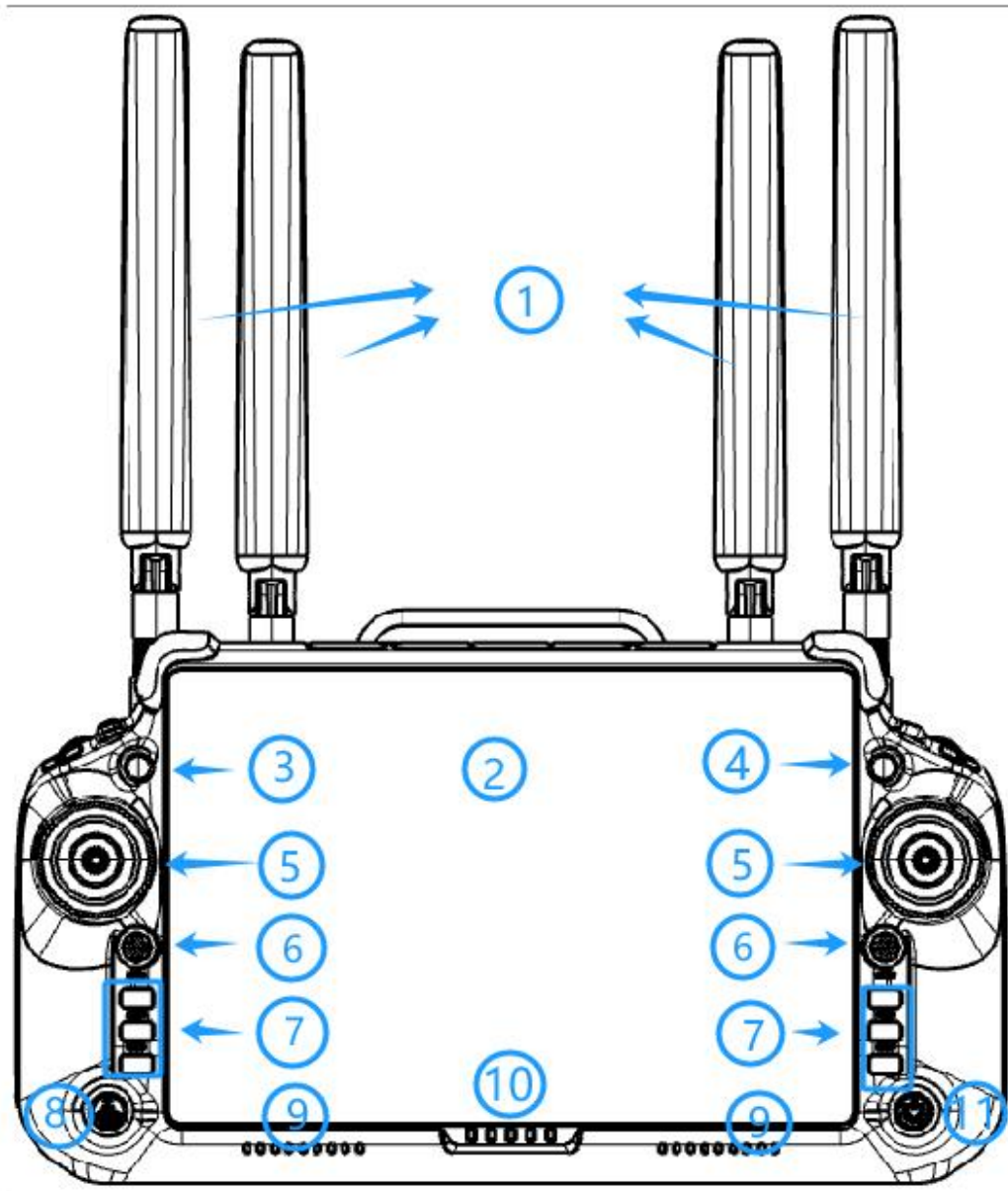


XK50 handheld ground control station





Remote control parts name



1.External antenna

Transmits control signals between the remote control and the aircraft, as well as the radio communication signals for mapping.

2.Touch screen

Displays the screen related to the system and application apps, supporting 10-point touch control. When using the display, please wipe it clean if it is waterlogged to avoid affecting the viewing effect

and touch control function.

3. Flight control access button (function can be customised)

Default mapping for flight control right acquisition function and flight control right status display light function. (Functions can be customised by customers)

4. Emergency stop button (function can be customised)

The default mapping is the emergency stop button, which can be used to brake the aircraft and hover in place (when GNSS or vision system is in effect). (Function can be customised by customer)

5. Joystick

Control the flight of the aircraft, you can set the joystick operation control mode in the corresponding app.

6. Left/Right 5-D buttons (function can be customised)

Control the default function of 5-dimensional buttons and custom 5-dimensional function in the corresponding app. (Functions can be customised by customers)

7. L1/L2/L3/R1/R2/R3 buttons (functions can be customised)

Key mapping functions can be viewed on the side of the flight interface in the corresponding app. (Functions can be customised by

customer)

8. Intelligent return button (function can be customised)

Default mapping for smart return button, long press to start smart return, then short press once to cancel smart return. (Function can be customised by customer)

9.Sound pickup hole and ambient light detection hole

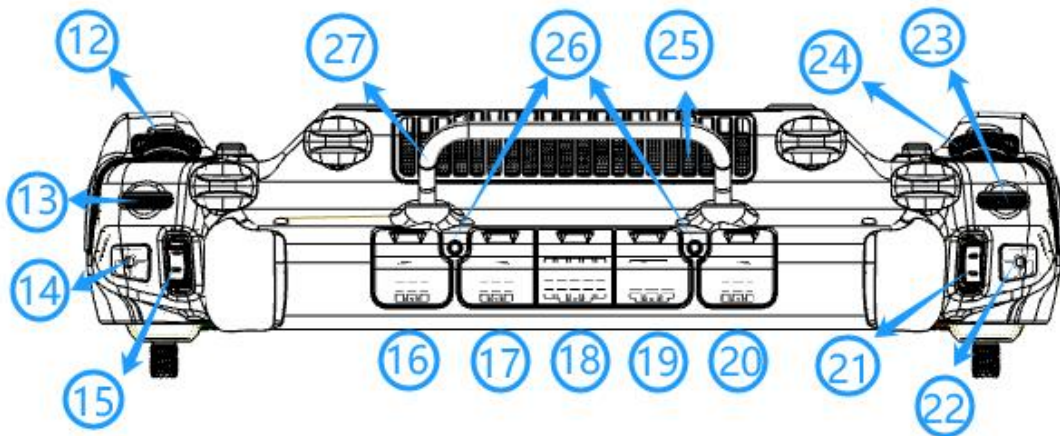
Avoid foreign matter blocking the sound pickup effect and ambient light detection effect when using.

10.Power indicator

Indicates the current battery level of the single battery of the remote control. Detailed instructions can be viewed in the chapter on remote control indicators and beeps.

11.Power Button

Short press to check the power level of the remote control; short press once, then long press for 2 seconds to switch on/off the power of the remote control. When the remote control is on, short press to switch between screen off and screen on.



12.Left scroll wheel (function can be customised)

You can go to the corresponding app to customise the function of the buttons.

13.Left wheel

Toggle to adjust the pan-tilt angle.

14.Recording Button

Short press to start or stop recording.

15.Flight Gear Switch

Used to switch the flight gear. They are N (normal), S (sport), and F (function), F can be customised in the App.

16.TYPEC1 interface (function can be customised)

This interface function can be customised. Support TypeC to RJ45, TypeC to HDMI and other functions.

17.GH1.25_12P interface (function can be customised)

This interface function can be customised.

18.TF-SIM Card Slot

TF card and SIM card can be inserted.

19. TYPEC interface (charging port)

Connect to a charging device to charge the remote control.

20. TYPEC0 interface (firmware download port)

Supports TypeC to RJ45, TypeC to HDMI, etc. **Connect to PC for USB ADB debugging/uploading/downloading.**

21.Three-position switch (function can be customised)

The three-position switch function can be customised.

22.Focus/photo button

Half-press to auto focus, full-press to take photos.

23.Right Toggle Wheel

Toggle to adjust the panning angle of the head.

24.Right Scroll Wheel

Control the camera lens zoom.

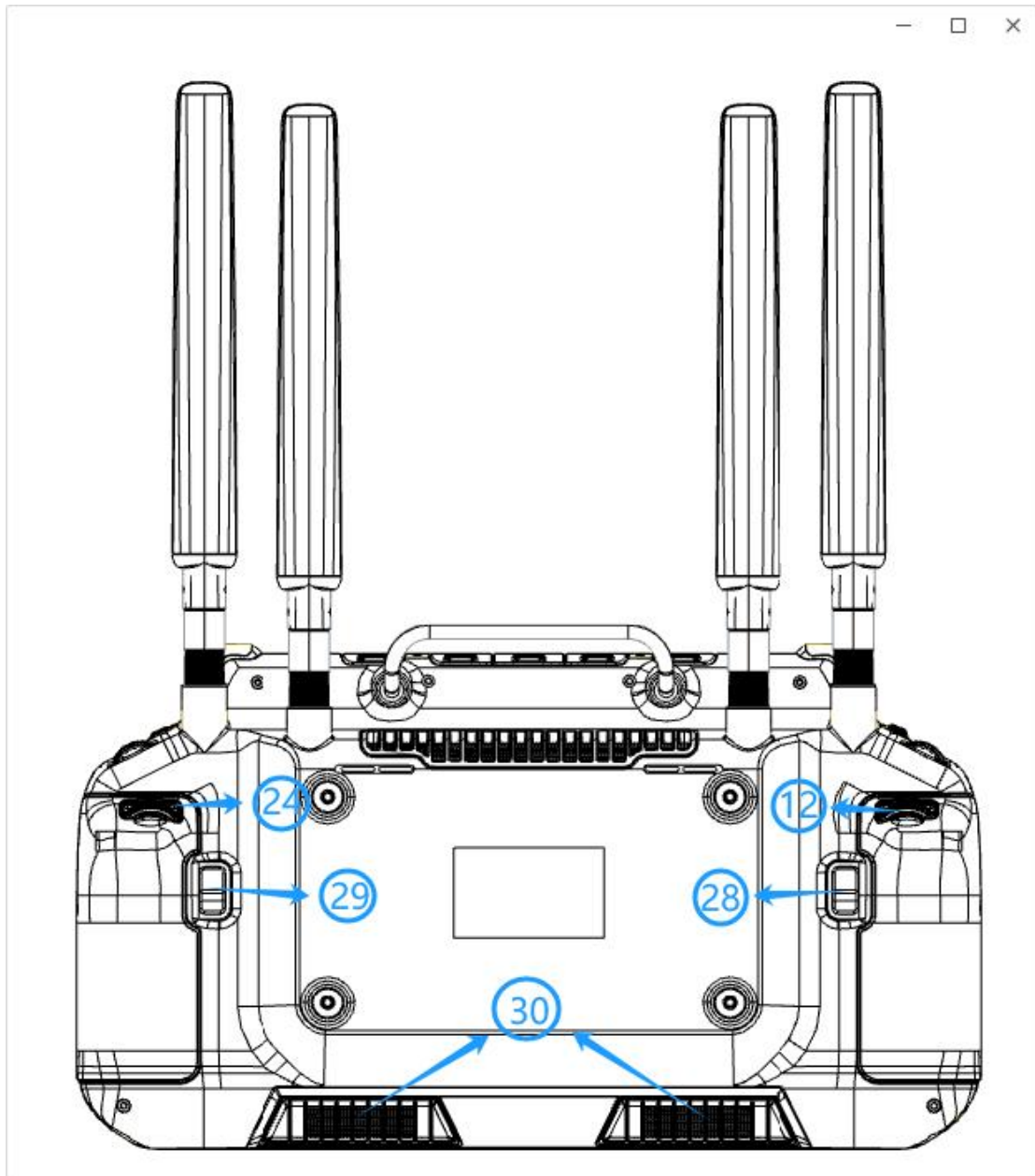
25. Speaker and cooling vents

Please don't cover them when using to avoid affecting the speaker and cooling effect.

26.Mounting holes

Reserved for mounting related expanded external devices.

27.Carrying handle



28. Custom Function Button BR1 (Function can be customised)

This button function is customised.

29. Custom function button BR2 (function can be customised)

The function of this button can be customised.

30. Air Inlet

Helps the remote control to dissipate heat, please do not cover it when using.

第一章 Hardware Configuration of Flatbed Earth Station (MID part)

| System Components | Component Name | Component Parameter |
|-----------------------|-----------------------------|--|
| CPU | RK3588 | CPU:4x A76 + 4x A55 NPU: 6T@INT8 Process: 8nm |
| RAM | LPDDR4x | 8G/12G/16GBytes |
| Flash | EMMC | 32G/64G/128G Bytes |
| ExtFlash | TFCard(Micro SD) | 32GBytes |
| Screen | TFTLCD(8.4") | 2560*1600(60Hz) |
| LCD Backlight | LCD Backlight Brightness | 1200 nits(Max) |
| Touchpad | Capacitive Touch | 10-point capacitive touch |
| Battery | 18650 | 8x3500mAh (2 sets of 4S1P) |
| Charging System | TypeC Charging | 5V/12V/20V@3A(Max) |
| Proximity Wireless | Wifi+BT | Wifi+BT both work at 2.4Ghz, note that this is not a map transfer, wifi is used to connect to a nearby router in close proximity, BT is used for wireless serial communication in close proximity. |

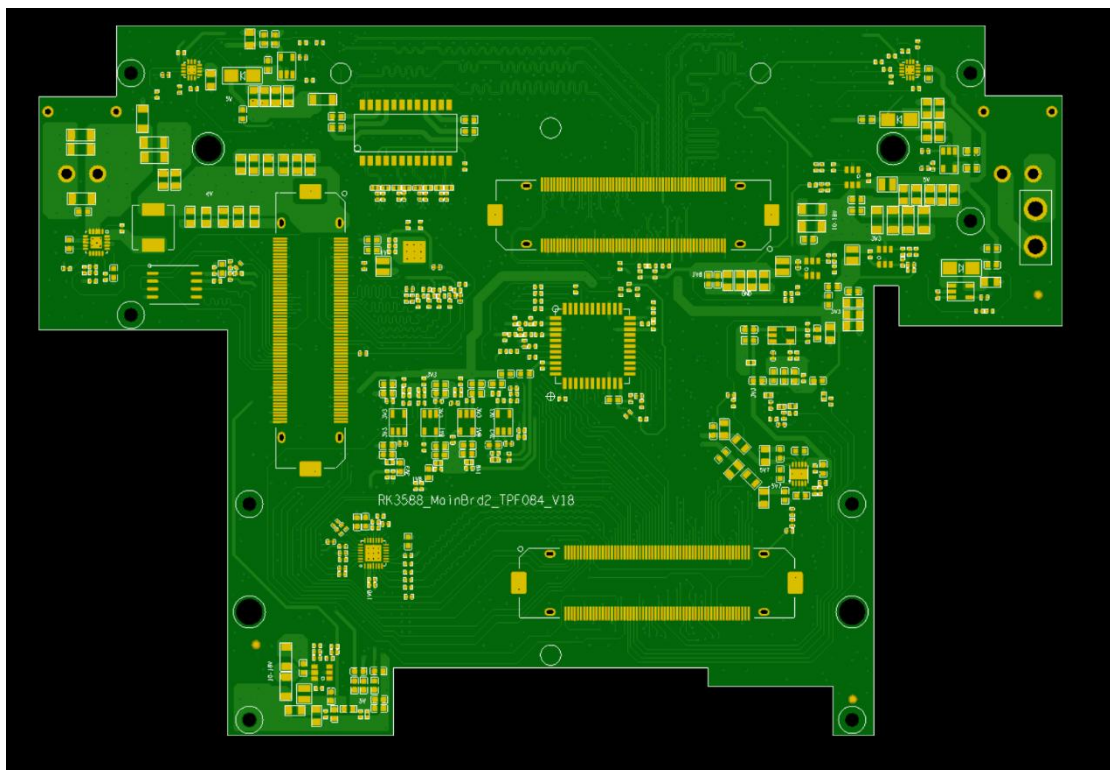
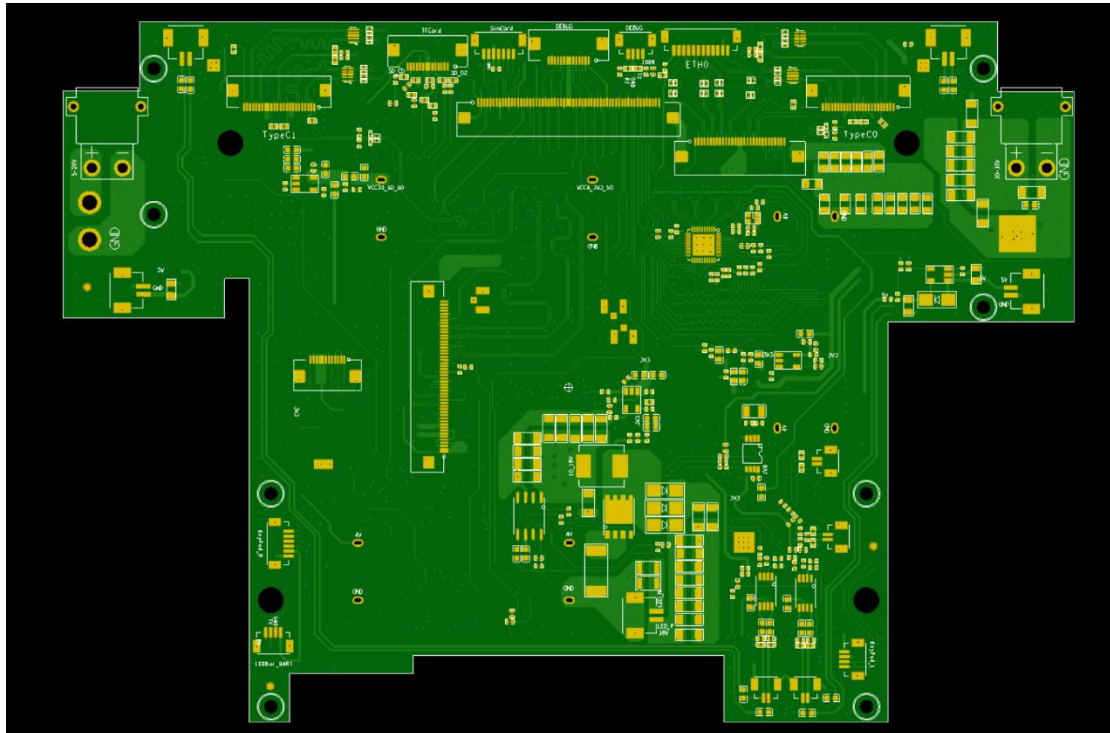
| | | |
|------------------------------|---------------|---|
| Speaker | Speaker power | 1W |
| USB Interface | USB TypeC | 2-channel USB TypeC, one of which can be used to download and upgrade system firmware. |
| GPIO communication interface | GH1.25-12P | A total of 2-way GH1.25-12P, one of which is used to upgrade the remote control motherboard firmware and tablet system to print debugging information, the other way can be used as a Gigabit network port as needed. |



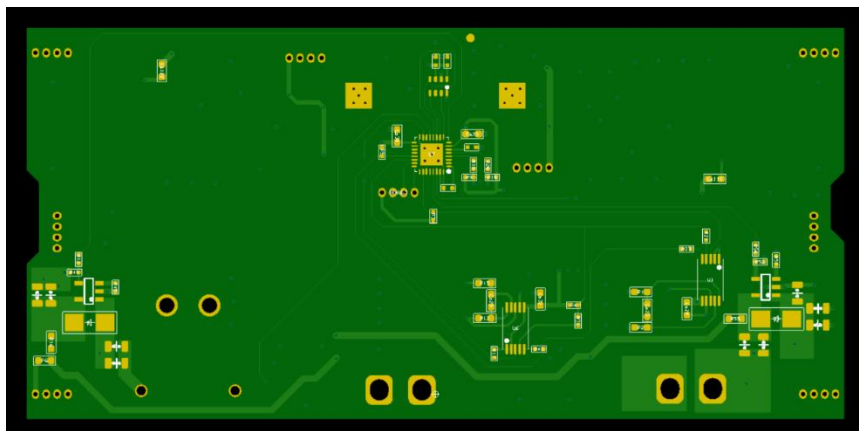
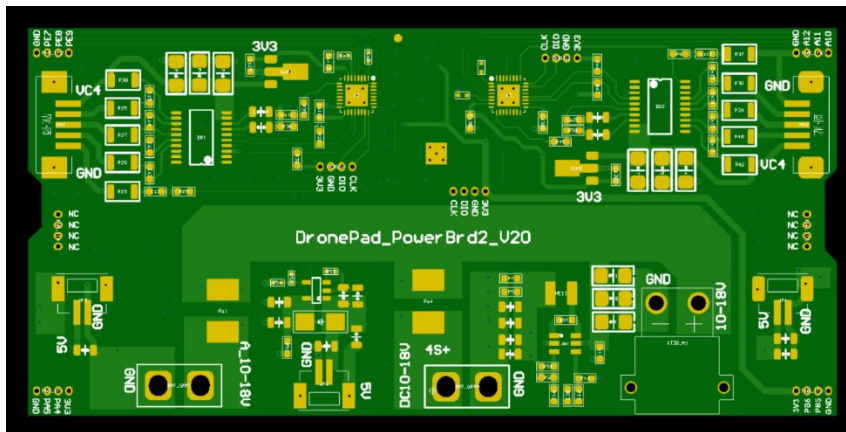
| 工厂编号 | 产品名称 | 规格尺寸 | 板厚 | 铜厚 | 内铜 | 产品类别 | 材料级别 | 表面处理 | 阻焊颜色 | 字符颜色 | 数量 | 计价单位 |
|-------------|------------------------------------|------------------|-------|-------|-------|---------|------|-------|------|------|------|------|
| 14FG32680C0 | gerber_RK3588_Cor eBrd_H1R6_Y20 | 100.2*142.2/2pcs | 1.6mm | 1/1oz | 0.5oz | 14层FR-4 | 94V0 | 沉金2u" | 绿色 | 白色 | 1000 | pcs |

Our company independent research and development of the RK3588 core board, using 14-layer board 2u immersion gold process, the market with the

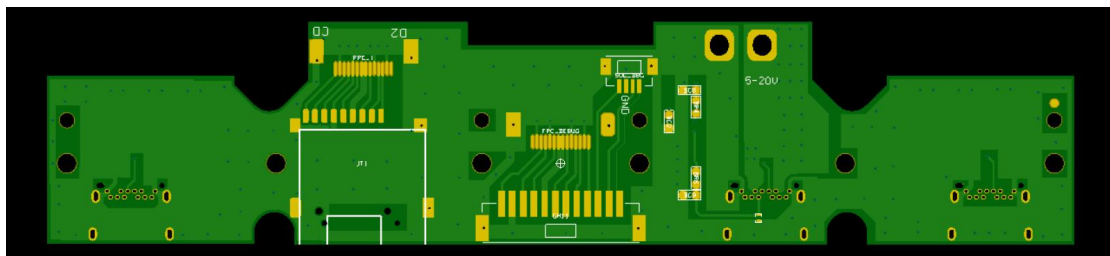
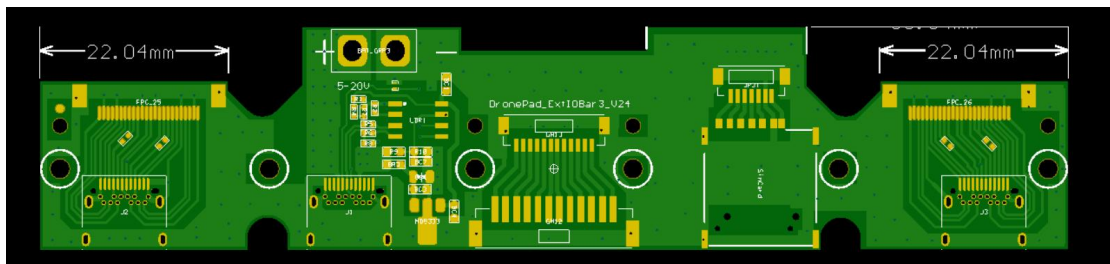
same RK3588 core board is mostly 8-layer board process!



Tablet PC motherboard (8-layer board)

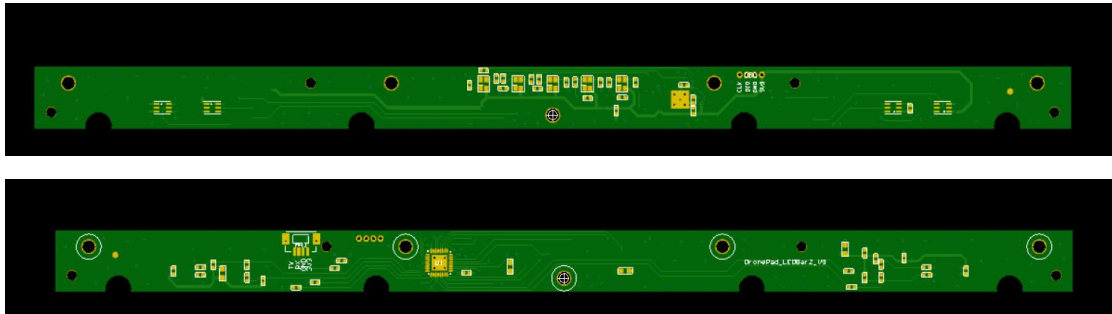


(BMS PowerBrd 4-layer board)

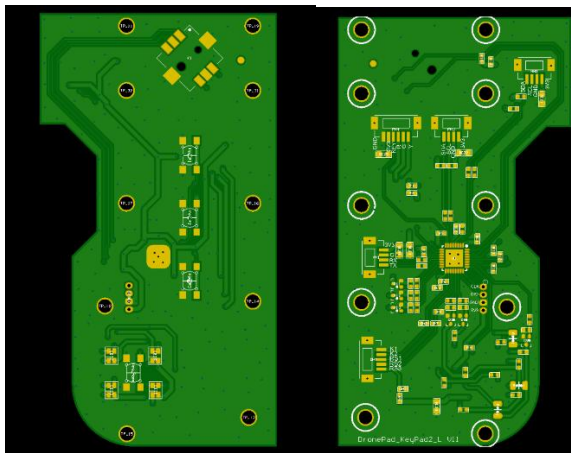


ExtIOBar(2xTypeC/1xTypeC 20V high-voltage fast charging/1xTFCard/1xSimCard/1x GH1.25-12P

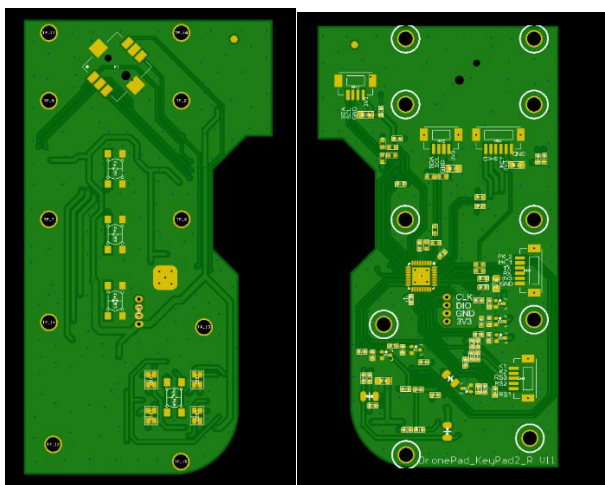
customisation/1x GH1.25-12P download debug
firmware)



LEDBar(including sensor chip and LED indicator)



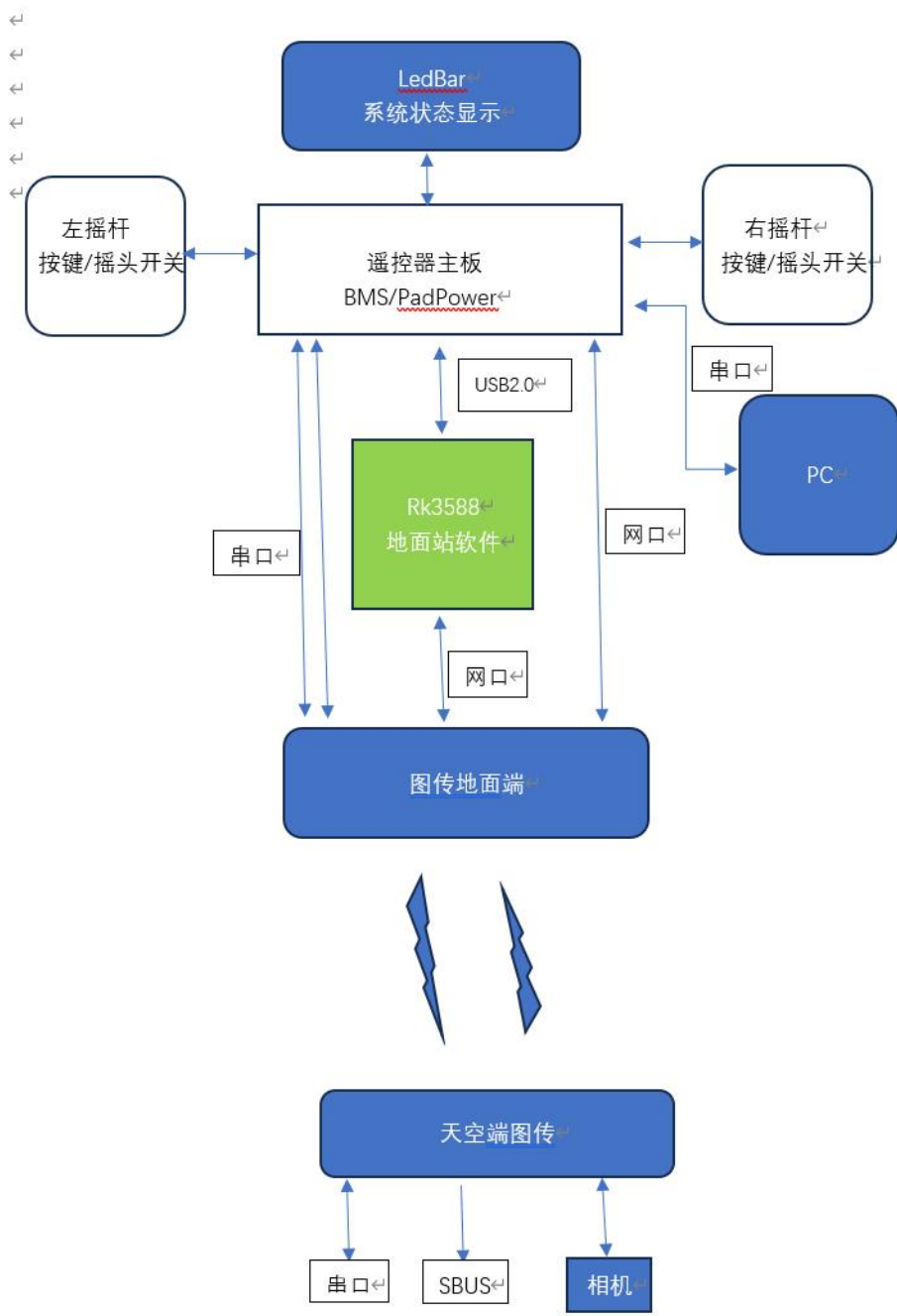
Left Joystick Button Board(including 1x5D button,
3xContextSelect button, 1xCustom button, 1xHall
Joystick)



Right joystick button board (including 1 five-dimensional

button, 3 context select keys, a power on/off button, a hall rocker)

第二章 Flatbed Earth Station Hardware Configuration



| System Components | Component Name | Component Description |
|--|-----------------------|--|
| Operating System | Android 13 | |
| Ground station control software | QGroundControl | Open source code |
| Wireless Digital Transmission Protocol | Mavlink | Open source protocol |
| Drone Control Protocol | Sbus | Open source protocol |
| Mapping communication method | USB/GMAC | USB2.0/GMAC 100M/1G |
| Remote control self-test software | RCMonitor | RCMonitor is used to detect the information of remote control rocker/button/scroll wheel/toggle wheel, etc. API can be provided for secondary development. |

Remarks:

Provide system API to support third party to develop

professional ground station software!