

Android Control Card Y08

Product specification

Version: Ver. 1.6

Statement

Dear user friend, thanks for choosing SHENZHEN SYSOLUTION TECHNOLOGY CO.,LTD (hereinafter referred to as Sysolution Technology) as your LED advertising equipment control system. The main purpose of this document is to help you quickly understand and use the product. We strive to be precise and reliable when writing the document, and the content may be modified or changed at any time without notice.

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Update Record

| No. | Version | Update | Revision date |
|-----|---------|----------------------------|---------------|
| 1 | Ver.1.0 | Initial | 2022.10.19 |
| 2 | Ver.1.1 | Updated interface labeling | 2022.11.24 |
| 3 | Ver.1.2 | Update functional features | 2023.02.06 |
| 4 | Ver.1.3 | Update interface | 2023.04.28 |
| 5 | Ver.1.4 | Update functional features | 2024.04.20 |
| 6 | Ver.1.5 | Update content | 2024.05.21 |
| 7 | Ver.1.6 | Update content | 2024.06.24 |

Note: The document is subject to change without prior notice.

Products Introduction

Thank you for choosing our LED control card, and we sincerely hope that you will enjoy your experience with the excellent performance of this product. The LED control card is designed to be consistent with international and industry standards, but can still have potential for personal injury and property damage if not operated properly. In order to avoid possible dangers posed by the card and to benefit as much as possible from your card, please follow the relevant instructions for use in this manual when installing and operating the product.

Sysolution Y08 is an outdoor small space screen dedicated control card, performance configuration series using industrial-grade quad-core processor, running frequency 1.5GHz, memory support 1GB + 8GB (compatible with 2GB + 16GB need to be customized) LPDDR3, industrial-grade relative to commercial-grade CPU performance is generally low, but the limit of the temperature difference can be reached -40°C to 95°C , the configuration of the performance can be satisfied with the picture. The performance of this configuration can support the smooth playback of pictures, 1080P video with 2 hard decoders at the same time, flash animation, text and other content.

It can be widely used in vehicle screens, small traffic screens, community screens, light pole screens and other small belt-carrying scenarios.

Product Features:

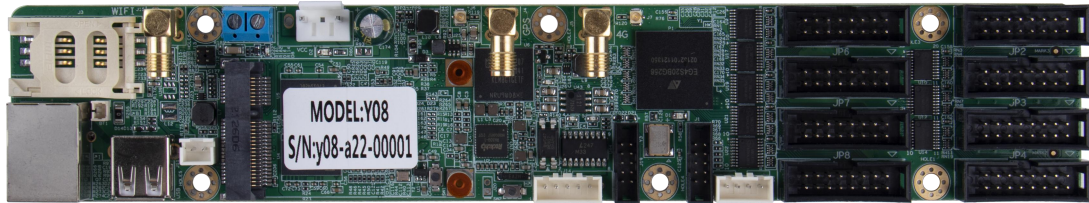
1. Stable and reliable performance. Support -40 °C to high temperature 95 °C temperature range operation, 5V-12V wide voltage, 7 * 24 hours without losing power, ≤ 0.3% failure rate
2. With eight hub75 ports, supports up to 16 groups of RGB parallel data, no need a receiver card , connect directly to the screen;
3. Supports network access through network cable, Wi-Fi or 4G. Can be controlled by cell phone, like a router for wireless network configuration;
4. The chip can support GSM, WCDMA, TD-SCDMA, EVDO, TDD-LTE, FDD-LTE and other standards.
5. Support connecting to the cloud platform to publish programs, easily realize the display of off-site cluster control;
6. The hardware design takes full consideration of the user's on-site deployment, operation and maintenance scenarios, with a simple structure that saves space for the user, reduces wiring, and makes installation easier;
7. The software and platform are designed for stable operation and efficient maintenance.
8. Painted with UV three-proof adhesive, national standard double 85 protection level, dust-proof, moisture-proof, anti-static, and anti-smoke.

Functional Features

1. Eight-port hub75 output direct output to ensure stability of picture transmission.
2. On-board RS485 interface , it is convenient for front-end equipment to control the brightness adjustment, playback screen control, power on/off and other commands for the rear display, and the external eight-element environmental sensor R68, displaying environmental information, without secondary development;
3. Support external GPS positioning and timekeeping modules to ensure synchronization of multi-screen picture playback;
4. Support optional 4G module, the module model varies from country to country, please tell us the country or area before ordering ;
5. Support secondary development, support cloud platform remote cluster control, such as centralized release of the program, set the schedule on/off, volume, brightness and so on;
6. Support local web page, support PC, cell phone, Pad and other user terminals program release and display control.
7. Powerful processing performance with 4-core processor, frequency 1.5GHz, support for 1080P video hard decoding, 1GB of operating memory, 8GB of internal storage space, the user can use 4GB;
8. The user terminal connects to the WiFi hotspot that comes with the Y08, the default SSID number is "SN number" and the default password is "12345678";
9. Support GPS timing/time alignment, Support NTP accurate automatic time calibration;

10. Automatic adjustment of the display brightness, which requires a necessary brightness sensor;
11. Support broadcasting programme by way of programme lists.
12. Support USB camera.
13. Expandable amplifier module R16 (optional), direct two 30W speakers for audio playback;
14. Supporting software: AIPS 4.0 cloud publishing platform, PC-based software LedOK Express, mobile app: LedOK lite.

Product Appearance



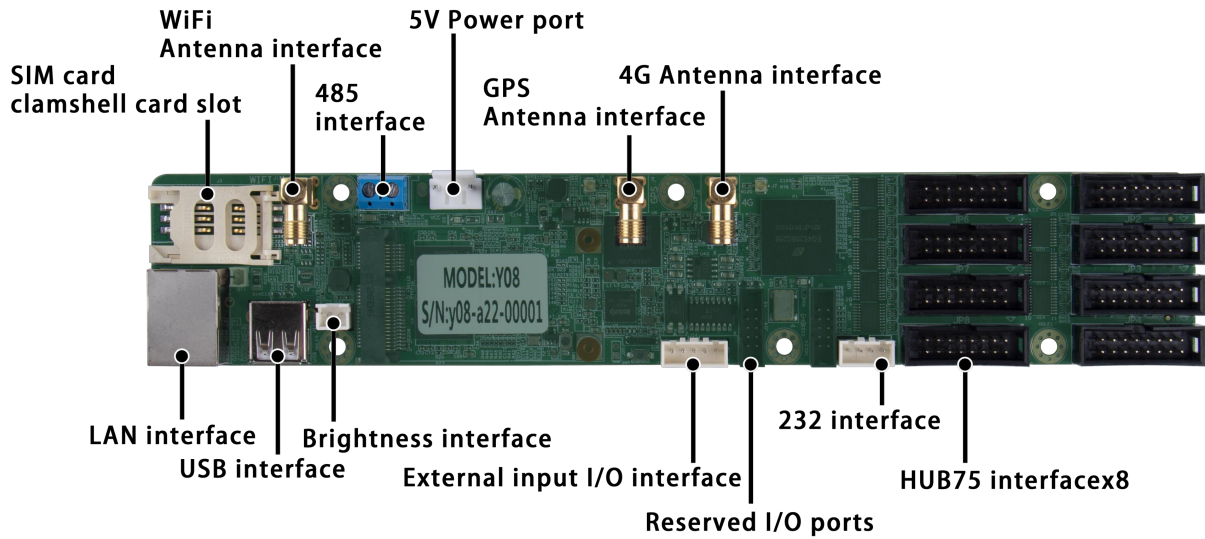
Product Parameters

| Product features | Description | |
|--------------------------------|---|----------------------|
| Model | Main: Y08 (no 4G), Y08-CH (China 4G full network access), Y08-G (global access, recommended abroad) | |
| Pixel | Y08: 170,000 dots, limiting resolution 1024(W)or 1024(H), custom resolution | |
| Communication | Network port, WiFi, USB stick, optional 4G module | |
| CPU | Cortex-A35 quad-core at 1.5GH | |
| GPU | Mali-G31MP2 OpenGL ES3.2, Vulkan 1.0, OpenCL 2.0 Dvalin-2EE | |
| System memory | 8GB Emmc+1GB LPDDR3 | |
| Operating systems | Android 9 | |
| WiFi | IEEE 802.11b/g/n 2.4G | |
| GPS | GNSS GPS/Beidou/Glonass | |
| Other interface support | 1 stereo audio output. (Requires extension of an adapter card, optional) 2. 1 x USB 2.0 interface. 3. Support for importing and playing programmes from a USB stick. 4. 1 x RS485 interface, 1 x RS232, 1 x TTL serial port. Connection of brightness sensors, other sensors, and connection of other modules for corresponding functions. | |
| Configurat ion | LedOK Express | |
| Supported Bands | | |
| Model | 3G/4G bands (optional) | Certification |

| | | |
|----------------------|---|--|
| <p>Y08-CH</p> | <p>-China (China/India)</p> <p>FDD-LTE: B1/3/5/8</p> <p>TDD-LTE: B38/39/40/41</p> <p>TDSCDMA: B34/39</p> <p>WCDMA: B1/8</p> <p>CDMA 1X/EVDO: BC0</p> <p>GSM: B3/5/8</p> | <p>Mandatory certification: SRRC/ NAL/ CCC</p> <p>Other: WHQL</p> |
| <p>Y08-NA</p> | <p>-North America (North America)</p> <p>FDD-LTE : B2/4/5/7/12/13/17</p> <p>WCDMA: B2/4/5</p> | <p>Carrier certification: AT&T/ T-Mobile/Rogers/ TelusVerizon/AT&T (FirstNet)/T-Mobile/U.S. Cellular/Rogers/ Telus</p> <p>Mandatory/conformance certification: : FCC/ IC/ PTCRB</p> <p>Other: WHQL</p> |
| <p>Y08-EU</p> | <p>-Eurasia (EMEA/Korea/Thailand/ India and other Asian countries)</p> <p>FDD-LTE: B1/3/5/7/8/20</p> <p>TDD-LTE: B38/40/41</p> <p>WCDMA: B1/5/8</p> <p>GSM: B3/5/8</p> | <p>Carrier certification: Vodafone/Deutsche Telekom/SKT/ Telefónica</p> <p>Mandatory/conformance certification : GCF/ CE/ KC/ NCC/RCM/ FAC/ NBTC/ICASA</p> <p>Other: WHQL</p> |

| | | |
|----------------------|--|---|
| <p>Y08-LA</p> | <p>-Latin America (Latin America /Australia / New Zealand)</p> <p>FDD-LTE: B1/3/5/7/8/28</p> <p>TDD-LTE: B40</p> <p>WCDMA: B1/2/5/8</p> <p>GSM: B2/3/5/8</p> | <p>Mandatory/conformance certification : GCF/ FCC/ Anatel/ NCC/RCM</p> <p>Other: WHQL</p> |
| <p>Y08-G</p> | <p>-Global (Global)</p> <p>FDD-LTE: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28</p> <p>TDD-LTE: B38/39/40/41</p> <p>WCDMA : B1/2/4/5/8/6/19</p> <p>GSM: Quad-band</p> | <p>Carrier certification: Deutsche Telekom/ Verizon/ AT&T/ Sprint/U.S. Cellular/ Telus</p> <p>Mandatory/conformance certification: GCF/ CE/ FCC/ PTCRB/ IC/ Anatel/IFETEL/ SRRC/ NAL/ CCC/ KC/ NCC/ JATE/ TELEC/ RCM/ NBTC/ IMDA/ICASA</p> <p>Other: WHQL</p> |
| <p>Y08-J</p> | <p>-Japan (Japan)</p> <p>FDD-LTE : B1/3/8/18/19/26</p> <p>TDD-LTE: B41</p> <p>WCDMA: B1/6/8/19</p> | <p>Carrier certification: NTT DOCOMO/SoftBank/ KDDI</p> <p>Mandatory/conformance certification : JATE/ TELEC</p> <p>Other: WHQL</p> |

Interface Definition



| Type | | Description |
|-------------------------|---------------------------|--|
| Input interface | Power connector | +12Vpower supply |
| | LAN port | Gigabit network input |
| | USB port | USB2.0 interface, support for U disk programme import and playback, Debug interface |
| | Brightness line interface | Optional RL2 brightness sensor |
| | External testing | SOS、EME、BUSY、SPA、ACC |
| Output Connector | 485 interface | Baud rate 9600 |
| | TTL/232 interface | Baud rate 9600 (two choices default TTL) |
| | GPS interface | GNSS GPS/Beidou/Glonass |
| | WIFI interface | IEEE 802.11b/g/n 2.4G |
| | 4G interface | 4GG module interface |
| | Audio output connector | Stereo audio output External operation indicator, external reset (optional and to be specified on order) |
| | HUB75 interface | 8 x HUB75 signal outputs |
| Power indicator | Red light always on | Normal |

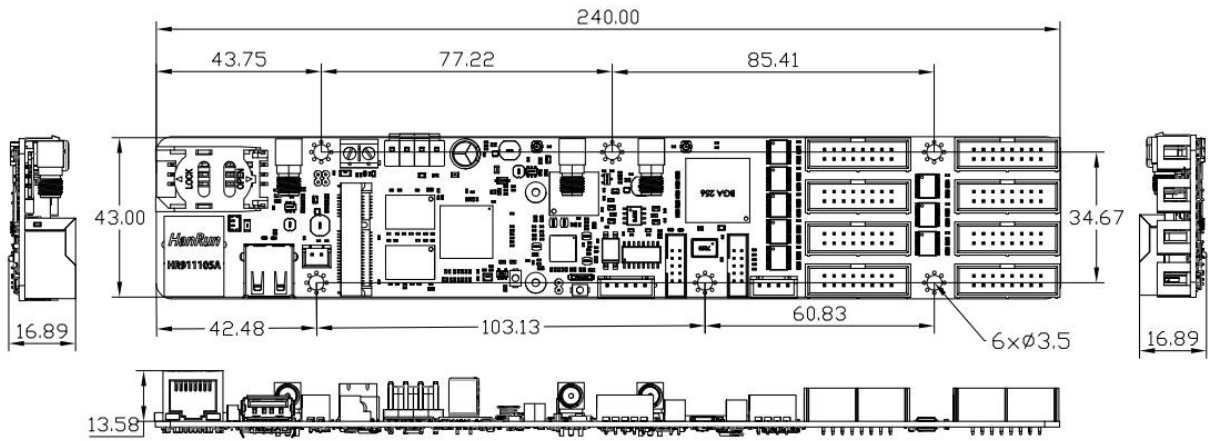
| | | |
|-----------------------|----------------|------------------|
| FPGA Indicator | Red slow flash | Normal operation |
| CPU indicator | Red slow flash | Normal operation |

Working Conditions

| Working parameters | |
|---|------------------------------------|
| Operating voltage (V) | 12V |
| Operating current (A) | 0.9A Max: 3A |
| Maximum operating power consumption (W) | 15 |
| Operating temperature (°C) | - 40°C ~ + 95°C |
| Storage temperature (°C) | -40°C ~75°C, recommended 5°C ~35°C |
| Humidity of the working environment (%) | 10% ~ 90%, no condensation |

1. It is recommended that the control card be powered by a separate (12V/3A or higher) power supply.
2. High operating temperatures can cause a dramatic drop in power supply efficiency. If the control card and module share the same power supply, please ensure that the control card has a stable voltage and a reasonable actual current supply.

Dimensional Drawings



Unit: mm

Dimensional drawing of the bare board installation

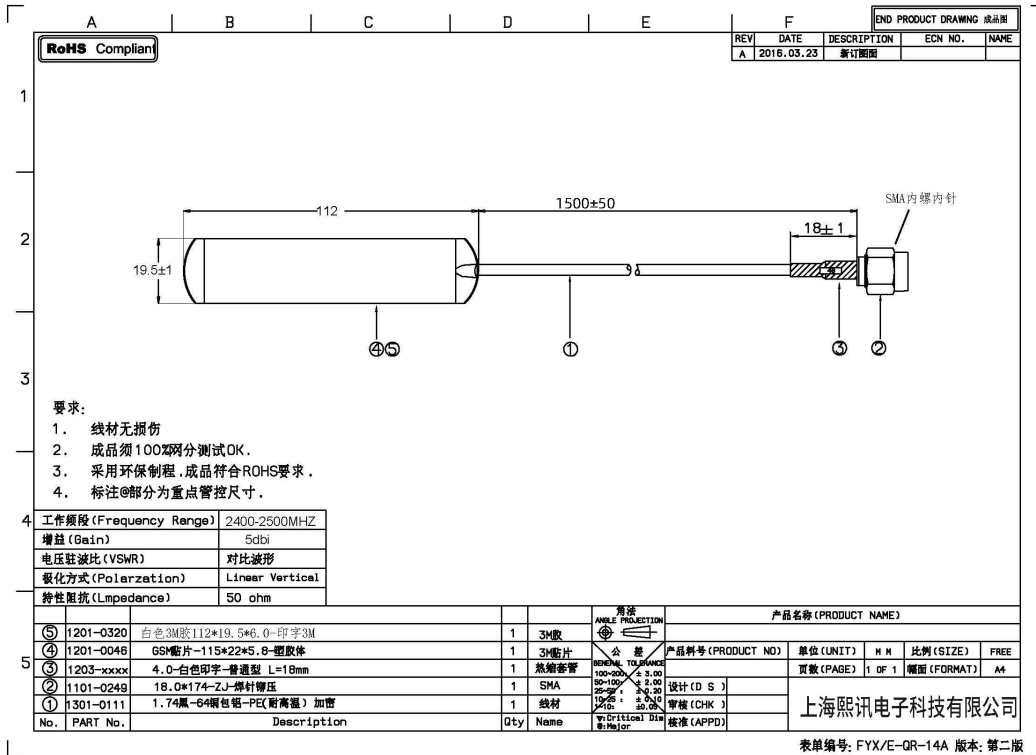
Accessories

| Standard accessories | Size/quantity | |
|---|--|-------------------------|
| WiFi Patch Antenna | 1.5m*1 (80cm patch optional) | |
| 4G suction cup antenna (with optional 4G module) | 1.5m*1 (80cm patch optional) | |
| Optional accessories | Accessory functions | |
| Humidity line RH1 | For detecting the current humidity of the external environment | |
| Luminance line RL2 | For sensing the brightness of the current environment | |
| 8 in 1 Environmental Sensor R68 / 6 in 1 | Temperature, humidity, illuminance, PM2.5, PM10, noise, wind speed, wind direction | |
| Power statistics RM1275 | View daily electricity consumption in real time | |
| G10 positioning module | GPS positioning module | |
| R16 | Amplifier Module | |
| Matching accessories available (optional for the above, additional models to be ordered on request) | | |
| Packaging information | Dimensions (L x W) | 255mm x150mm |
| | List | WiFi Patch Antenna 1.5m |
| Dimensions (L x W) | 240mm x 43mm | |
| Net weight | 110g | |

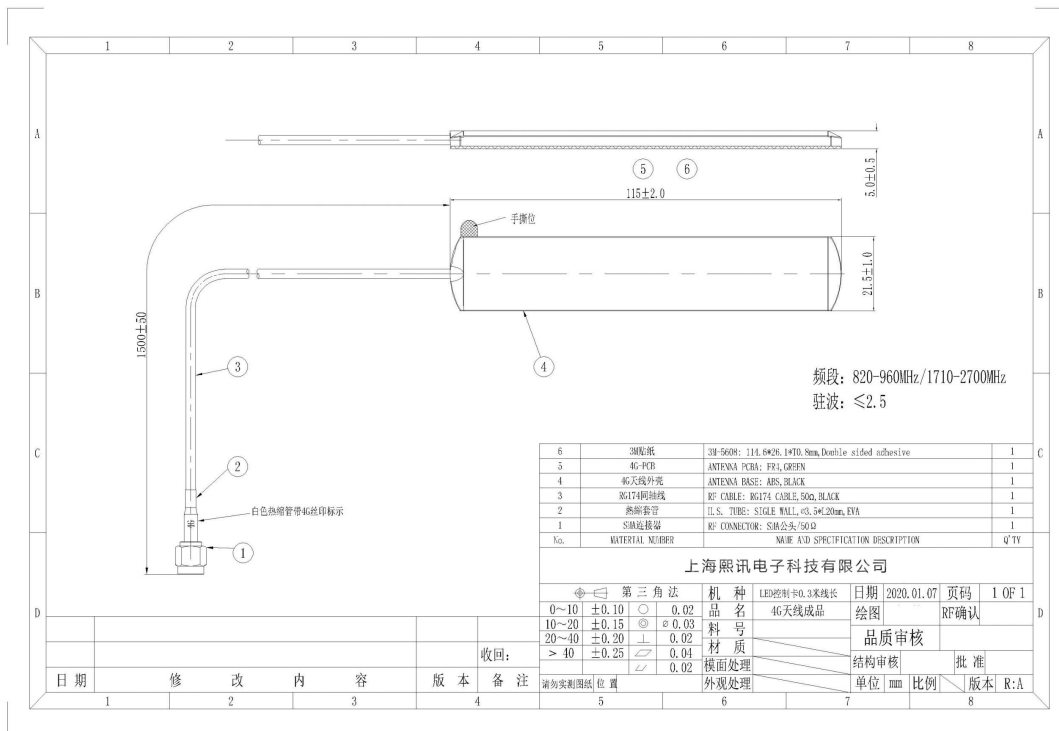
Notes:

Factory welded IoT chip, the use of Sysolution technology comes with the provision of IoT chip does not require any operator whitelisting operation, can be used directly. With self-provided IoT card needs real name system, need to add the platform related domain name, a lot of instability.

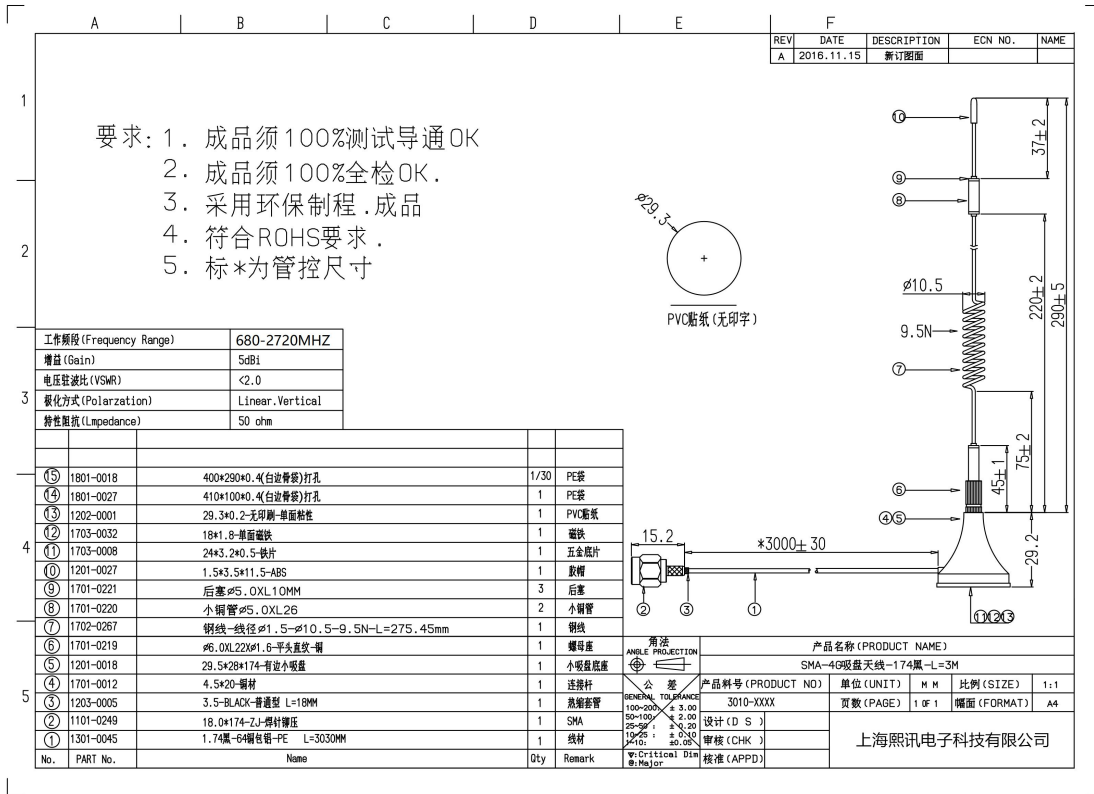
Advantages of the chip provided with: high temperature resistance, not easy to deform, stable, not easy to fall off, long time use will not be aging, reasonable tariffs, easy to recharge, after-sales service is guaranteed (such as the need for other specifications of the accessories, please place an order to explain)



WiFi Patch Antenna



4G Patch Antenna



4G suction cup antenna (optional, please specify when ordering if you have other requirements)

Cautions

1. The input voltage of the power supply of this product is 12V and the voltage range is 5V ~ 12.5V. Please strictly ensure the quality of the power supply of Y08 series.
2. When connecting or disconnecting any signal or control cables, make sure all power cables are unplugged beforehand.
3. Make sure all signal and power cables are unplugged beforehand when you want to add hardware devices to or remove hardware devices from the product.
4. Before any hardware operation, please turn off the power of the control card and discharge the static electricity on your body by touching a grounded surface.
5. Please use the product in a clean, dry and ventilated environment, do not put the product into high temperature, humidity and other environments.
6. This product is an electronic product, please keep it away from fire, water and flammable, explosive dangerous goods.
7. There are high-voltage parts in this product, please do not open the case or repair the equipment by yourself.
8. If you find smoke, odor and other abnormalities, please immediately turn off the power switch and contact the dealer.