



Android Control Card Y59

Product Specification

Version: Ver.1.1

Statement

Dear user friend, thanks for choosing SHENZHEN SYSOLUTION TECHNOLOGY CO.,LTD referred to as Xixun 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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Trademark



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Certification

There are several types of product certification:

1. The information release platform has obtained the third level filing certificate for information system security from the Ministry of Public Security;
2. The material review of the Xinfo platform has passed the registration certificate for the information network dissemination of audio-visual programs;
3. Stable and qualified product certificate through national quality inspection.

If the product does not have relevant certification for the country or region to which it is sold, please contact relevant personnel of Xixun Technology for confirmation or processing as soon as possible. Otherwise, if it causes relevant legal risks, the customer shall bear it on their own or Xixun Technology has the right to pursue it.

Update Record

No.	Version	Updates	Revision Date
1	Ver.1.0	Initial Release	2024.07.17
2	Ver.1.1	Modify Pictures	2024.07.19

The document is subject to change without prior notice.

Product Introduction

Thank you for purchasing our LED control card. We hope you can fully experience the excellent performance of this product. The design of this LED control card complies with international and industry standards, but improper operation may still cause personal injury and property damage. In order to avoid potential hazards from the device and benefit as much as possible from your device, please follow the relevant instructions in this manual when installing and operating the product.

The Y59 control card is a high-performance control card that can operate stably in extremely harsh environments such as high and low temperatures. The performance configuration series uses an industrial grade quad core processor with a main frequency of 1.5GHz, and supports 1GB+8GB of memory (compatible with 2GB+16GB and requires customization) LPDDR4. Compared to commercial grade CPUs, the performance of industrial grade CPUs is generally lower, but the maximum temperature difference can reach -40 °C to 95 °C. This configuration performance can fully meet the smooth playback of images, 1080P videos with two hard decodes, flash animations, text, and other content simultaneously. It can be widely used in outdoor industrial LED display scenarios such as car screens, traffic screens, community screens, and lamp post screens.

Product features:

1. Stable and reliable performance, supporting wide temperature range operation from -40 °C to high temperature of 95 °C, with a wide voltage range of 5V-12V, continuous power supply for 7 * 24 hours, and a failure rate of $\leq 0.3\%$.
2. Support Gigabit network backup, which can be connected to the network through Ethernet cables, WiFi, or 4G. At the same time, it can be controlled through a mobile phone and configured wirelessly like a router;
3. The chip can support GSM, WCDMA, TD-SCDMA, EVDO, TDD-LTE, FDD-LTE and other standards;
4. Support accessing cloud platforms to publish programs, easily achieving remote cluster control of display screens;
5. Hardware design fully considers user on-site deployment, operation, and maintenance scenarios, with a simple structure that saves space, reduces wiring, and makes installation easier for users;
6. The software and platform are designed to run stably and maintain efficiently.
7. Apply UV three proof adhesive, with a national standard of double 85 protection level, dust-proof, moisture-proof, anti-static, and salt spray resistant.

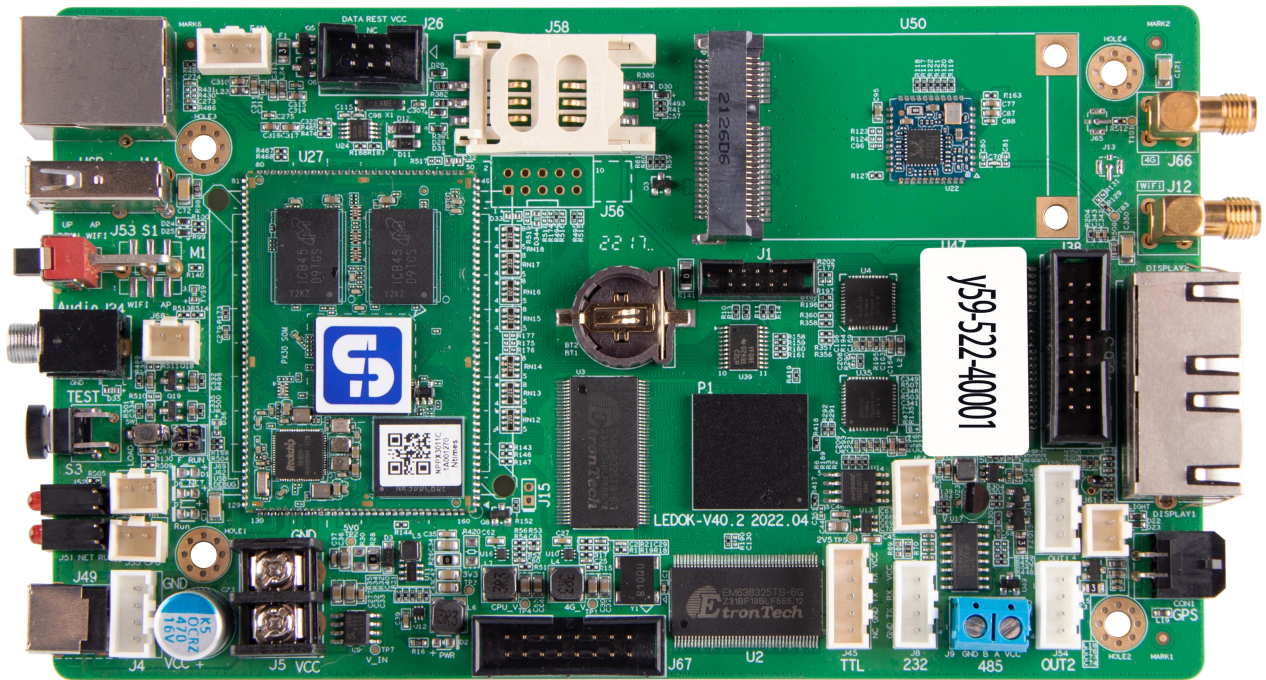
Functions

1. Dual gigabit network port output, which can be used as a backup to ensure stable image transmission;
2. Powerful processing performance, 4-core processor, clock speed of 1.5GHz, supports 1080P video hard decoding, 1GB of RAM, 8GB of internal storage space, user available 4GB;
3. Support playing programs according to the program schedule;
4. Support secondary development and remote cluster control on cloud platforms, such as centralized program publishing, setting timed power on/off, volume, brightness, remote power off, etc;
5. Onboard RS485 interface, convenient for front-end devices to control the brightness adjustment, playback image control, power on/off, and other command operations of the back-end display screen. External eight element environmental sensor R68, displaying environmental information without the need for secondary development,;
6. Y59 can automatically adjust the brightness of the display screen, and a brightness sensor is required for matching;
7. Supports three communication methods: wired network, WIFI, and 4G, making it easy to deploy in on-site environments. The 4G module is optional and the module model varies from country to country. Please provide the country of use for shipment;
8. Support switching between AP mode and Station mode. AP mode: Y59 emits hotspots that are found by other devices; Station mode: Y59 does not emit hotspots, but connects

to hotspots emitted by other devices;

9. The user terminal connects to the AP hotspot that comes with Y59, with a default SSID of "SN number" and a default password of "12345678";
10. Supports USB cameras;
11. Supports GPS timing/synchronization, NTP precise automatic timing, ensuring synchronized playback of multiple screens;
12. Supporting software: AIPS4.0 cloud release platform, PC software LedOK Express, mobile app: LedOK Lite.

Appearance



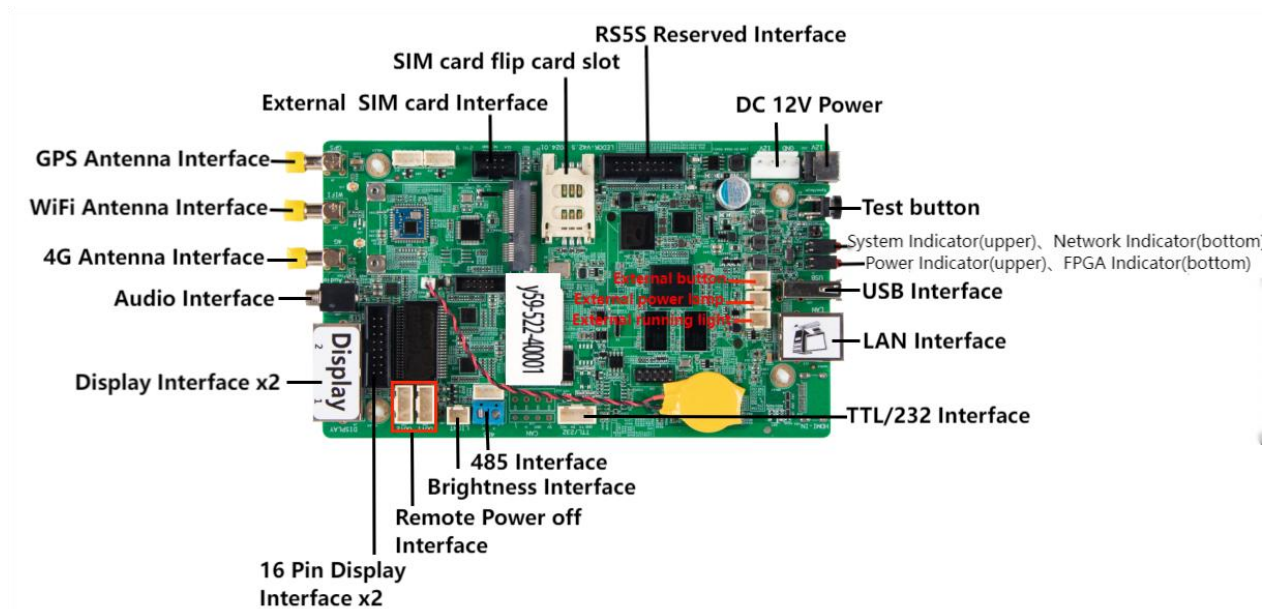
Product Parameters

Features	Description	
Type	Y59-WIFI (no 4G) /Y59-NA、 Y59-EU、 Y59-LA、 Y59-G、 Y59-J	
Pixel	Y59: 1300,000 pixels, resolution 1920 (W)or1920 (H) , custom resolution support	
Communication mode	Ethernet port、 WiFi、 USB	
CPU	Cortex-A35 4 core main frequency1.5GHz	
GPU	Mali-G31MP2 OpenGL ES3.2, Vulkan 1.0, OpenCL 2.0 Dvalin-2EE	
System memory	8GB Emmc+1GB LPDDR3	
Operating syste	Android 9	
WiFi	IEEE 802.11b/g/n 2.4G	
GPS	GNSS GPS/Beidou/Glonass	
Other interface support	1. 1 channel stereo audio output 2. 1 USB2.0 port 3. Support play program through USB 4. 1 RS485 port, 1 RS232、 1 TTL serial port. Connect to light sensor or other sensors, as well as connecting to other modems to realize other functions.	
Configuration software	LedOK Express	
Support frequency band		
Type	3G/4G (optional)	Certificate

Y59-CH	-China (China/India) FDD-LTE: B1/3/5/8 TDD-LTE: B38/39/40/41 TDSCDMA: B34/39 WCDMA: B1/8 CDMA 1X/EVDO: BC0 GSM: B3/5/8	Compulsory Certification: SRRC/ NAL/ CCC Others : WHQL
Y59-NA	-North America FDD-LTE: B2/4/5/7/12/13/17 WCDMA: B2/4/5	Operator certification: AT&T/ T-Mobile/Rogers/ TelusVerizon/AT&T (FirstNet)/T-Mobile/U.S. Cellular/Rogers/ Telus Mandatory / conformance certification: FCC/ IC/ PTCRB Others : WHQL
Y59-EU	-Eurasia (EMEA/Korea/Thailand/India and other Asian countries) FDD-LTE: B1/3/5/7/8/20 TDD-LTE: B38/40/41 WCDMA: B1/5/8 GSM: B3/5/8	Operator certification: Vodafone/Deutsche Telekom/SKT/ Telefónica Mandatory / conformance certification: GCF/ CE/ KC/ NCC/RCM/ FAC/ NBTC/ICASA Others : WHQL

Y59-LA	-Latin America (LA/AU/Newsland) FDD-LTE: B1/3/5/7/8/28 TDD-LTE: B40 WCDMA: B1/2/5/8 GSM: B2/3/5/8	Compulsory Certification: GCF/ FCC/ Anatel/ NCC/RCM Others: WHQL
Y59-G	-Global FDD-LTE: B1/2/3/4/5/7/8/12/13/ 18/19/20/25/26/28 TDD-LTE: B38/39/40/41 WCDMA: B1/2/4/5/8/6/19 GSM: 4 frequencies	Operator certification: Deutsche Telekom/ Verizon/ AT&T/ Sprint/U.S. Cellular/ Telus Mandatory / conformance certification: GCF/ CE/ FCC/ PTCRB/ IC/ Anatel/IFETEL/ SRRC/ NAL/ CCC/ KC/ NCC/ JATE/ TELEC/ RCM/ NBTC/ IMDA/ICASA others: WHQL
Y59-J	-Japan FDD-LTE: B1/3/8/18/19/26 TDD-LTE: B41 WCDMA: B1/6/8/19	Operator certification: NTT DOCOMO/SoftBank/ KDDI Compulsory Certification: JATE/ TELEC Others : WHQL

Interface Parameters/Define



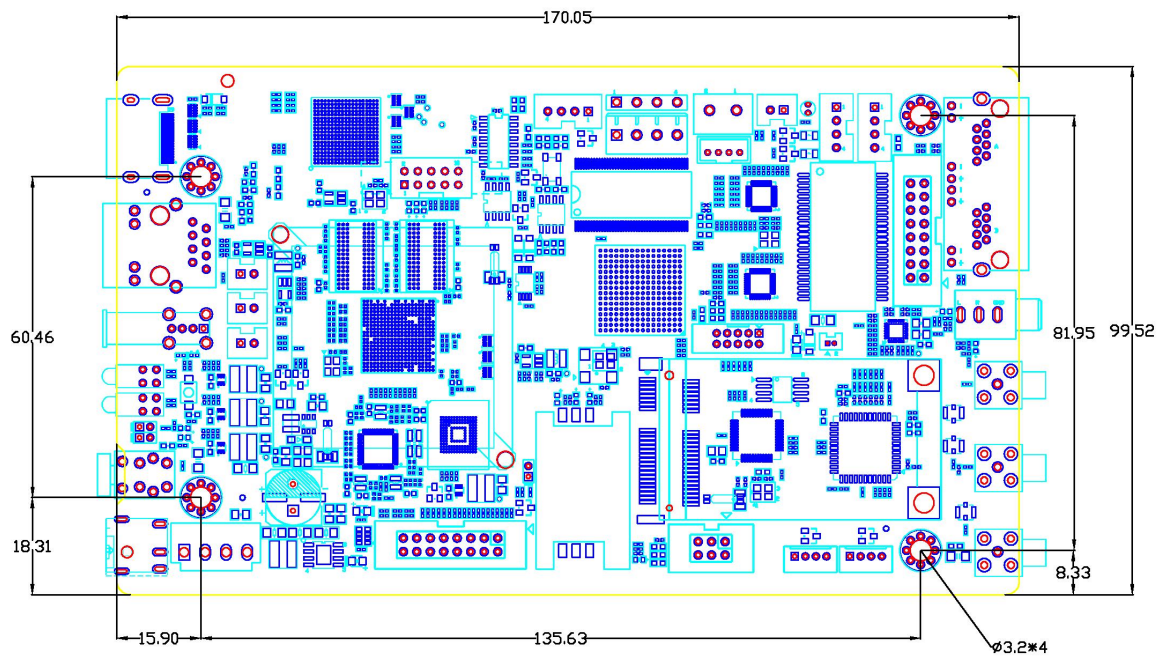
Product Interface Labeling

Working Conditions

Working parameters	
Working voltage (V)	5.0V/12V
Working current (A)	0.9A Max: 3A
Maximum working power consumption (W)	15
working temperature (°C)	- 40°C ~ + 95°C
Storage temperature (°C)	-40°C ~75°C, Recommend 5°C ~35°C
Humidity of working environment (%)	10% ~ 90%, No condensation
Size (mm)	170mm×99.5mm

1. It is recommended to use an independent (12V/3A or above) power supply for the control card;
2. High working temperature will cause a sharp decline in power efficiency. If the control card and the module share the same power supply, please ensure that the control card has a stable voltage and a reasonable actual current supply.

Dimension Drawing



Unit: mm

Installation dimensions of the bare plate

Parts

Standard accessories	Size/Quantity
WiFi patch antenna	1.5m*1
4G sucker antenna	1.5m*1
Optional accessories	Accessory function
Humidity lineRH1	Used to detect the humidity of the current external environment
Brightness lineRL2	Used to sense the brightness of the current environment
Optional multi-function card RS5S integrated synchronization module, 5-way voltage detection, door opening and closing and smoke interface (optional RD1 door sensor, RM1 smoke sensor)	Power detection
Eight in one environmental sensor R68	Temperature, humidity, illumination, PM2.5, PM10, noise, wind speed, wind direction
G10	GPS Positioning module
Matching accessories (the above options, according to the order needs to place another corresponding model)	

Notes

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 Y59 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.