



# Android Control Card Y12

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## Product specification

Version number: Ver.1.1

## Statement

Dear user friend, thanks for choosing SHENZHEN SYSOLUTION TECHNOLOGY CO.,LTD (hereinafter 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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# Update Record

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No.	Version	Updates	Revision Date
1	Ver.1.0	Initial Release	2022.11.23
2	Ver.1.1	Content update	2024.01.03

The document is subject to change without prior notice.

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# Products

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Xixun Y12 supports -40°C to 95°C operation, comes with sixteen hub75 ports, no need to receive the card directly with the screen; supports access to the cloud platform release, easy to achieve the display off-site cluster control; hardware and software design fully consider the user deployment, operation and maintenance scenarios, making deployment easier, more stable operation, more efficient maintenance; with a safe and stable function design, for users to save space, reduce It can be used for small load scenarios such as vehicle-mounted screens, small traffic screens, community screens and light pole screens.

The Y12 series is an industrial grade quad-core processor with four integrated Cortex-A35, dual-core Mali-G31 GPU, quad-core main frequency of 1.5GHz, stable operation at 90°C and memory support of 1GB+8GB (2GB+16GB compatible) LPDDR3. The chip can support GSM, WCDMA, TD-SCDMA, EVDO The chip can support GSM, WCDMA, TD-SCDMA, EVDO, TDD-LTE, FDD-LTE and other standards, and is a highly integrated product.

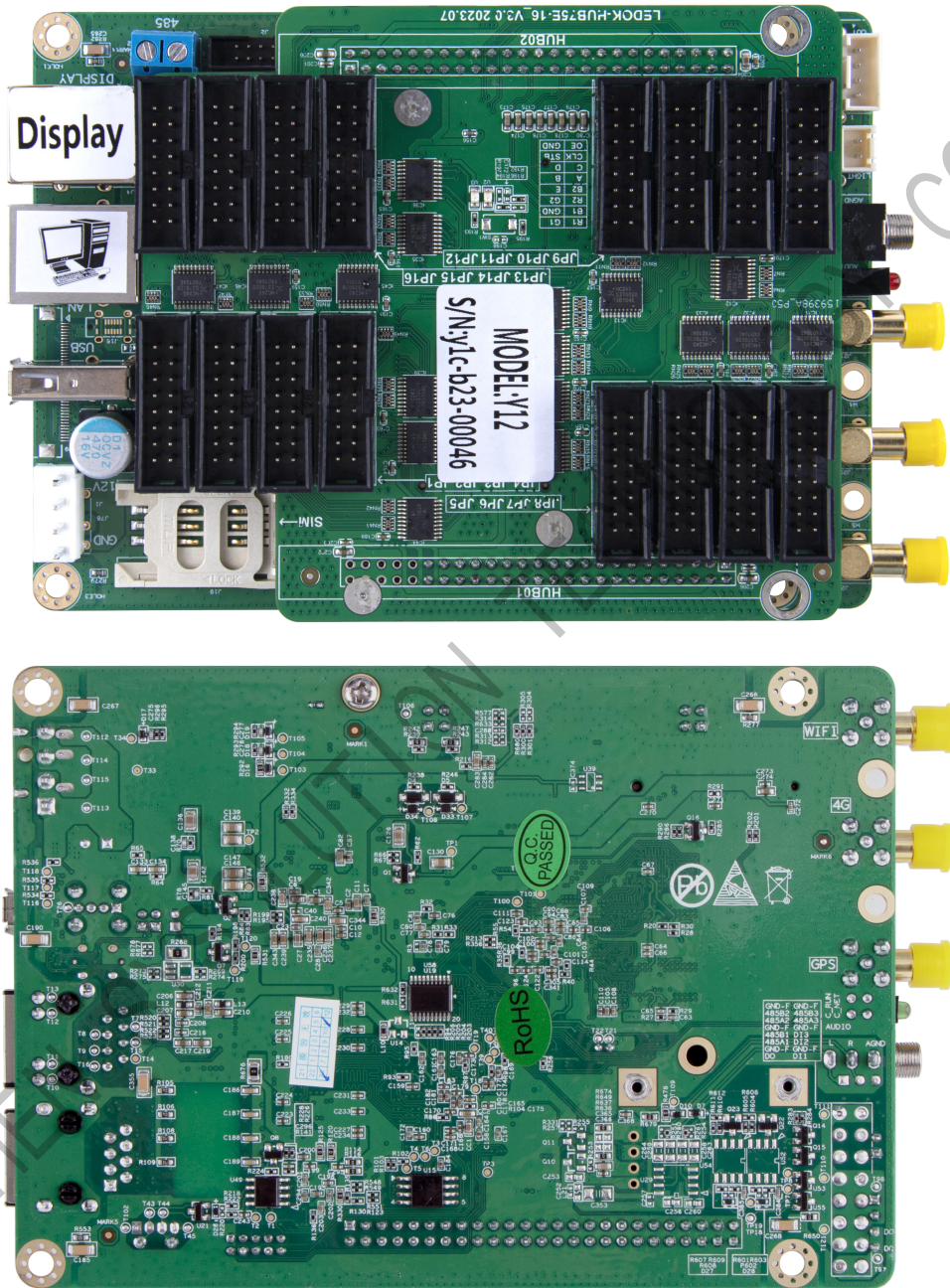
# Functional Features

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1. Sixteen mouth hub75 output direct output to ensure stability of picture transmission.
2. Support for external eight-element environmental sensor R68 via 485 interface to display environmental information without secondary development.
3. Support for external GPS positioning and timekeeping modules to ensure synchronisation of multi-screen picture playback.
4. Support for two remote power cuts, one to control the screen switch and one to control the street light switch.
5. Support optional 4G module, the module model varies from country to country, please provide the country of use for shipment.
6. On-board WiFi module for wireless communication.
7. Support for AP mode, Station mode.
8. Support for secondary development and remote cluster control on cloud platforms.
9. Built-in Web Sever, supporting local webpage production, programme distribution and display control for PC, mobile phones, pads and other user terminals, remote programme distribution and display control for clusters, remote monitoring of screen status for clusters.
10. Powerful processing performance with a 4-core processor at 1.5GHz, support for 1080P video hard decoding and 1GB of running memory.
11. 8 GB of internal storage space, with 4 GB available to the user.
12. The user terminal connects to the Y12's own WiFi hotspot, with the default SSID "SN .

13. number" and the default password "12345678".
14. Support for GPS timing/time alignment.
15. Automatic adjustment of the display brightness, which requires a matching brightness sensor.
16. Support for playing programmes by way of programme lists.
17. Centralised setting of timer on/off, volume and brightness through the management system.
18. Support for USB cameras.
19. Support for NTP accurate automatic time calibration.
20. Supporting software: AIPS 4.0 cloud publishing platform, PC software LedOK Express, mobile APP: LedOK Kit.

# Product Appearance



# Product Parameters

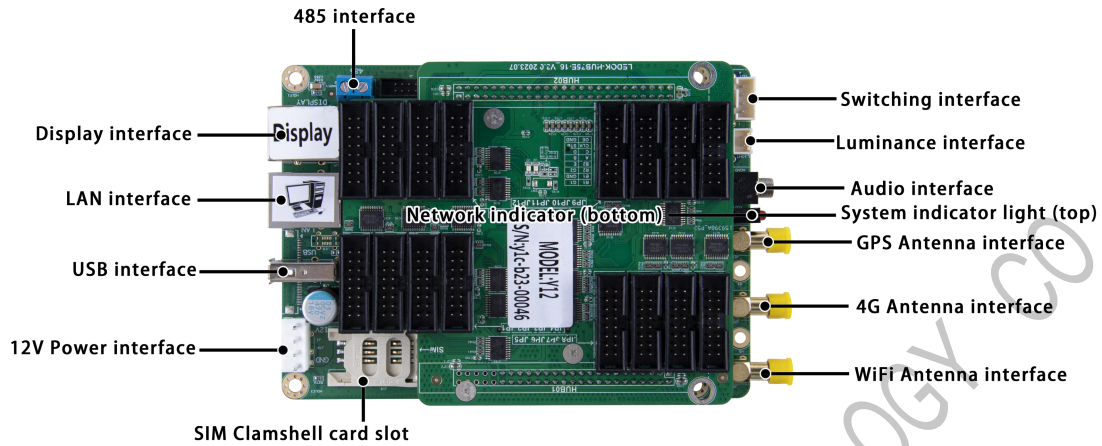
Product features	Description
<b>Model</b>	Main: Y12 (no 4G), Y12-CH (China 4G all-network), Y12-G (global, recommended abroad) Y12-NA, Y12-EU, Y12-LA (available in bulk with cost in mind, samples are recommended for global models)
<b>Pixel</b>	Y12: 90,000 dots, resolution 256 (W)*256 (H) or 512*128, custom resolution support
<b>Communication methods</b>	Network port, WiFi, USB stick, optional 4G module
<b>CPU</b>	Cortex-A35 quad-core at 1.5GHz
<b>GPU</b>	Mali-G31MP2 OpenGL ES3.2, Vulkan 1.0, OpenCL 2.0 Dvalin-2EE
<b>System memory</b>	8GB Emmc+1GB LPDDR3
<b>Operating systems</b>	Android 9.0
<b>WiFi</b>	IEEE 802.11b/g/n 2.4G
<b>GPS</b>	GNSS GPS/Beidou/Glonass
<b>Other interface support</b>	<ol style="list-style-type: none"> <li>1. 1 stereo audio output.</li> <li>2. 1 x USB 2.0 interface.</li> <li>3. Support for importing and playing programmes from a USB stick.</li> <li>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.</li> </ol>
<b>Configuration on software</b>	LedOK Express
<b>Supported Bands</b>	



Model	3G/4G bands (optional)	Certification
<b>Y12-CH</b>	-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	Mandatory certification: SRRC/ NAL/ CCC  Other: WHQL
<b>Y12-NA</b>	-North America (North America)  FDD-LTE: B2/4/5/7/12/13/17  WCDMA: B2/4/5	Carrier certification: AT&T/ T-Mobile/ Rogers/ Telus/Verizon/ AT&T (FirstNet)/ T-Mobile/ U.S. Cellular/ Rogers/ Telus  Mandatory/conformance certification: FCC/ IC/ PTCRB  Other: WHQL
<b>Y12-EU</b>	-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  Other: WHQL

<p><b>Y12-LA</b></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 certification: GCF/ FCC/ Anatel/ NCC/ RCM</p> <p>Other: WHQL</p>
<p><b>Y12-G</b></p>	<p>-Global (Global)</p> <p>FDD-LTE:</p> <p>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&amp;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><b>Y12-J</b></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 certification: JATE/ TELEC</p> <p>Other: WHQL</p>

# Interface Labelling



Interface characteristics		Description
<b>Input interface</b>	Power connector	+5V power supply
	LAN port	Gigabit network input
	USB port	USB2.0 interface, support for U disk programme import and playback, Debug interface
	Brightness line interface	RL2
	Switching interface	(DI1, DI2, DI3, GND) Open/close door, manhole cover, electromagnetic detection
<b>Output Connector</b>	485 interface	Baud rate 9600
	TTL/232 interface	Baud rate 9600
	GPS interface	GNSS GPS/Beidou/Glonass
	WIFI interface	IEEE 802.11b/g/n 2.4G
	4G interface	4G antenna interface
	Audio output connector	Stereo audio output External run indicator, external reset
	Remote control interface	Remote power off

	display interface	Gigabit network output
	HUB75 interface	16 HUB75 signal outputs

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# Working Conditions

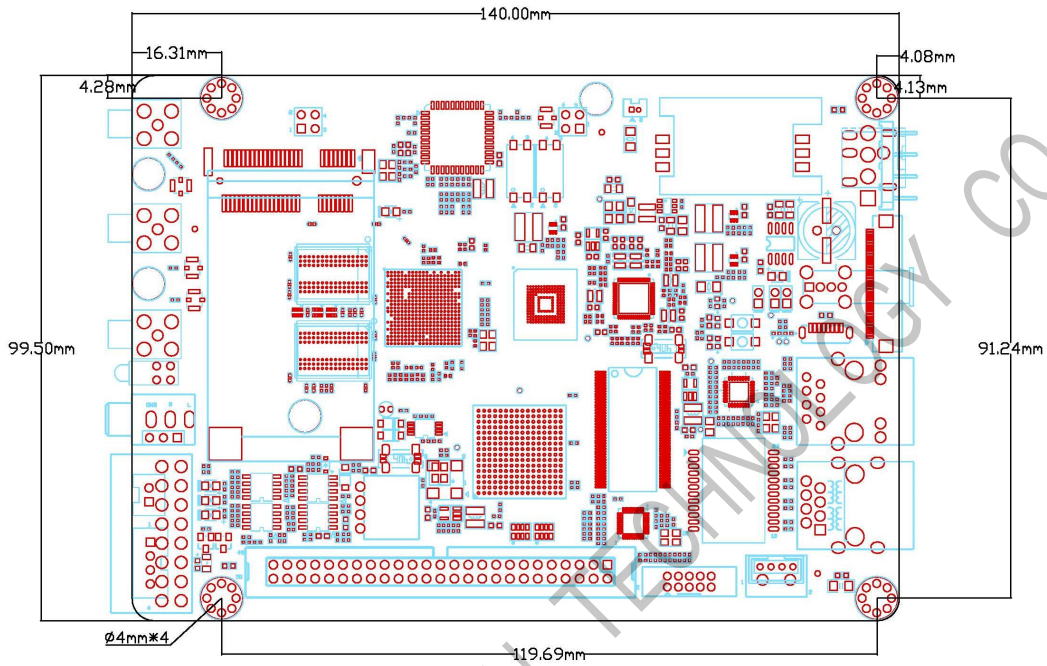
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Working parameters	
Operating voltage (V)	12V
Operating current (A)	0.9A Max: 3A
Maximum operating power consumption (W)	15
Operating temperature (°C)	-40°C to +95°C
Storage temperature (°C)	-40°C ~75°C, recommended 5°C ~35°C
Humidity of the working environment (%)	10% ~ 90%, no condensation
Size (mm)	170cm x 99.5cm

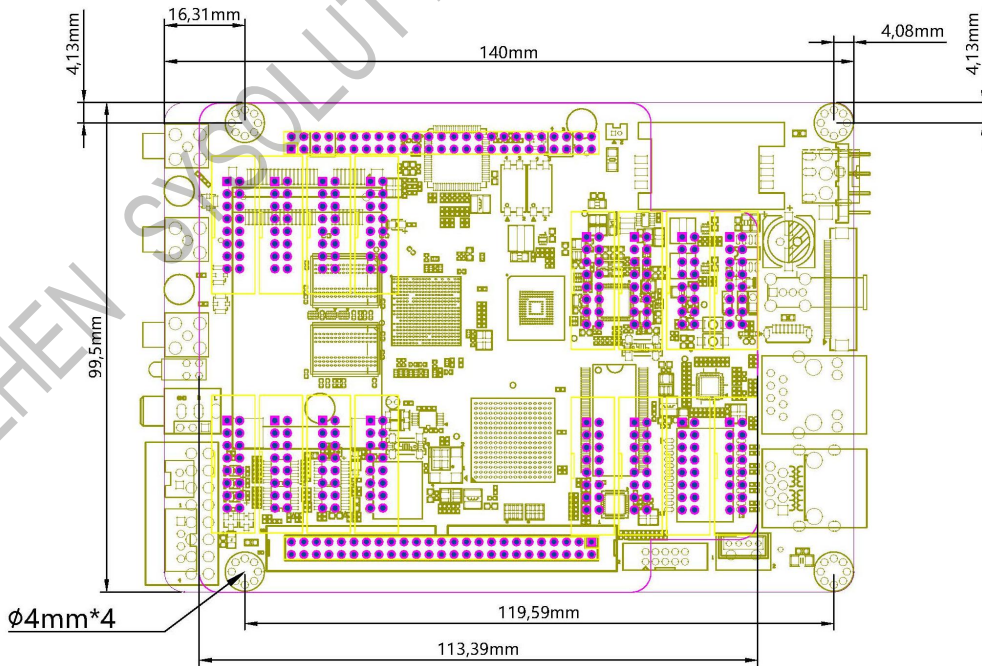
1. It is recommended that the control card be powered by a separate (12V/3A or higher) power supply.
2. High operating temperatures can cause a dramatic drop in power supply efficiency. If the control card and module share the same power supply, please ensure that the control card has a stable voltage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

# Dimensional Drawings

No HUB 75 plate size



With HUB 75 adapplate size



Unit: mm

# Accessories

Standard accessories	Size/quantity
WiFi Patch Antenna	1.5m*1
4G Suction Cup Antenna	3m*1
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
Optional multifunction card RS5 with integrated synchronisation module, 5-way voltage detection, door and smoke interface (optional RD1 door sensor, RM1 smoke sensor)	Power supply detection
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
G11 GMous Multimode	GPS positioning module
30W speaker*2 RLB1	2 remote broadcasts per screen with real-time shouting
Matching accessories available (optional for the above, additional models to be ordered on request)	

# Cautions

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1. It is strictly forbidden to disassemble the product yourself.
2. It is strictly forbidden to plug and unplug the SIM card with electricity.
3. The use of inappropriate voltages for power supply is strictly prohibited.
4. It is strictly forbidden to share the screen body 200W/5V switching power supply to power the card, which will lead to unstable system operation and low speaker sound.

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