



G Series intelligent broadcast controller

Product Specification

Version: Ver.1.2

Statement

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Update Record

No.	Version	Updates	Revision Date
1	Ver.1.0	Initial Release	2024.12.13
2	Ver.1.1	Modify Content	2025.03.17
3	Ver.1.2	Modify Content	2025.04.22

The document is subject to change without prior notice.

Introduction

The Gemini series intelligent broadcast controller (hereinafter referred to as the G series) is a broadcast control processor designed by Sysolution Company, specifically for indoor LED display screens. It integrates Android application system and sending function, can add third-party APP applications, and is compatible with third-party applications, with powerful interaction and broadcast control capabilities.

The G series supports the use of a remoter to control the LED display, and also supports wireless screen mirroring via multiple systems such as Windows, Mac OS, iOS, and Android devices. The G series provides four scene modes for different application scenarios to adapt to various occasions such as document display, video playback, and remote meetings, ensuring the best display effect.

The design of the G series broadcast controller takes into account convenience and practicality. It can be quickly installed on walls or desktops without any modification to the LED screen structure. It is suitable for various LED display screen application environments such as enterprise exhibition halls, conference rooms, educational venues, hotel lobbies, and remote medical consultations.

Appearance



Functions

1. Up to 12 Gigabit Ethernet ports output, with a maximum load capacity of 6 million pixels.
2. 2 HDMI 1.4 inputs, 1 HDMI 1.4 output, and 1 USB 3.0 input. Can be used for multimedia material playback and function expansion.
3. Support screen output scaling.
4. Customized desktop UI system based on Android 11, capable of adding third-party APP applications.
5. Support wireless screen mirroring on multiple platforms, including Windows, Mac OS, iOS, and Android systems.
6. Support whiteboard writing and annotation, and enable remote control to operate the LED display screen.
7. Supports connecting relays for easy power management of LED display screens.
8. Powerful processing performance, 4-core A55 ARM processor with a clock speed of 2.0GHz, onboard 4GB of RAM, and 32GB of internal storage space.
9. Supports 1080P H.264 H.265 encoding, 4K@60Hz h264/h65/vp High definition video decoding.
10. Supports playback of 1-channel 4K, 2-channel 1080p, 2-channel 720p, 3-channel 480p, or 3-channel 360p videos.
11. Multi terminal program broadcasting control: Intelligent broadcasting control through mobile APP:

The LedOK lite APP can be installed on the mobile phone to achieve program production,

publishing, and display screen control;

Remoter for convenient broadcasting control: Local program broadcasting control and simple program production can be performed on the display screen;

USB playback: Supports single player playback, plug and play, or copy playback.

12. Can simultaneously access WiFi and turn on wireless hotspots.

13. Supporting software: LedOK Express、 LedOK lite。

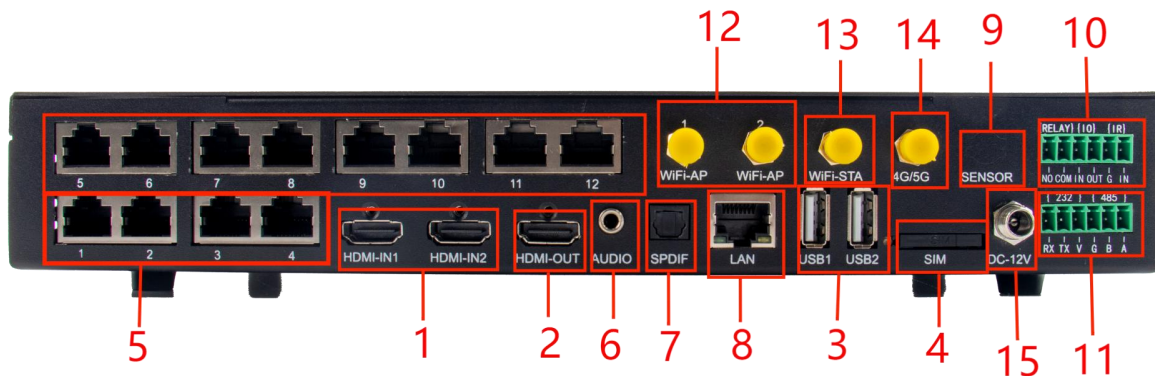
Layout Definitions

Front Panel



No.	Name	Description
1	Power key	Control device power on/off
2	Indicators	<ul style="list-style-type: none">●GREEN: POWER ON.●Green Flash: sleep mode and standby.●OFF: Power off.
3	USB3.0	<ul style="list-style-type: none">●USB Debug.●can connect to mouse, keyboard and USB pen driver
4	2.0inch LCD screen	<ul style="list-style-type: none">●Show System Status●Menu
5	Knob	<ul style="list-style-type: none">●When on the main page, press the knob to enter the menu operation page●When selecting on the menu page, turn left or right to select, press select or enter the main menu.
6	Return key	<ul style="list-style-type: none">●Exit Menu or operation
7	Infrared receiver	<ul style="list-style-type: none">●Infrared remote control controls power on wake-up.

Rear Panel



Type	No.	Name	Description
Input	1	HDMI-IN 1~2	2*HDMI1.4 <ul style="list-style-type: none"> •maximum 4K@30Hz •minimum 640x480@60Hz •Compliant with HDMI 1.4b standard and DVI 1.0 standard •support customized resolution Width range: 640~4096 Height range: 480~4096
	2	HDMI-OUT	Support outputting standard 1080P video source
	3	USB2.0 1~2	2*USB2.0 <ul style="list-style-type: none"> •can connect to mouse, keyboard and USB pen driver
	4	SIM	•4G/5G SIM socket

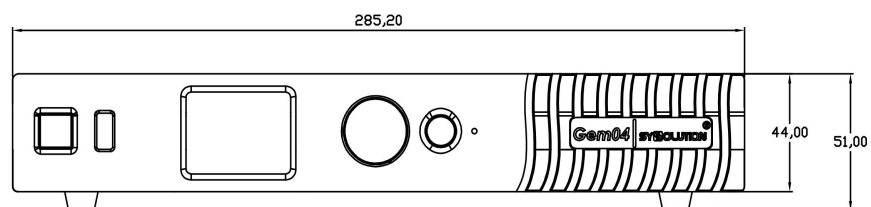
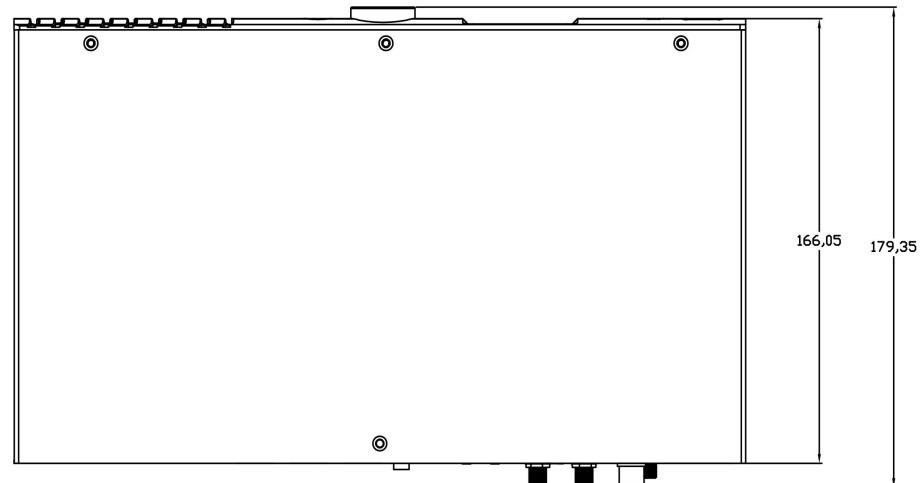
Output	5	Ethernet 1~12	12 lines of RJ45 <ul style="list-style-type: none"> ●Maximum load capacity of a single Ethernet port: 650000 pixels when the input source is 8-bit. ●Total load capacity of up to 7.8 million pixels
	6	AUDIO	●3.5mm analog audio output.
	7	SPDIF	●Fiber optic digital audio output.
Control interface	8	LAN	<ul style="list-style-type: none"> ●Plug Ethernet cable ●Connect the upper computer software
	9	SENSOR	●485 sensor interface (brightness, temperature and humidity)
	10	Phoenix Terminal1(6pin)	<ul style="list-style-type: none"> ●Relay control: (NO normally open), (COM common port) ●IO interface: (IN 5V input pin), (OUT 5V output pin) ●IR interface: infrared input interface (reserved)
	11	Phoenix Terminal 2 (6pin)	<ul style="list-style-type: none"> ●RS232. ●RS485.
Antenna	12	WiFi-AP 1~2	●Specification 2T2RWIFI6 antenna

port			interface
	13	WiFi-STA	●WiFi5 antenna port.
	14	4G/5G	●4G antenna port. ●5G antenna interface needs to occupy the WiFi antenna interface. (Reserved)
Power port	15	DC-12V	●DC12V3A.

Technical Parameters

Product Type	G04	G08	G12
Output Display ports	4	8	12
Single network port output with load	650,000 pixels		
Maximum load capacity of network port output	200,0000 pixels	400, 0000 pixels	600,0000 pixels
Power supply	Independent DC power supply, 12V/3A		
Working temperature	-20°C-60°C		
Working humidity	0%RH ~ 80%RH, No condensation		
Storage temperature	-40°C ~ 80°C		
Storage humidity	0%RH ~ 95%RH, No condensation		

Dimension



unit: mm

Accessories

Standard Accessories	Quantity
WiFi6 antenna	3
HDMI with a screw wire	1
12V power adapter	1
Bluetooth remote control	1

Optional Accessories	Functions
Brightness sensor RL2	Used to sense the brightness of the current environment
Temperature sensor RT1	Used to detect the temperature of the current external environment
Humidity sensor RH1	Used to detect the humidity of the current external environment
Eight element environmental sensor R68	Temperature, humidity, illumination PM2.5、PM10、Noise, wind speed, wind direction
Electricity Statistics Sensor RM1257	Real time platform statistics of daily electricity consumption
30W speaker RLB1 * 2	Implement IP emergency broadcasting
Dual lamp controller R6B32	Can achieve changes in color temperature and brightness of LED lighting fixtures

Cautions

1. The input voltage of this product's power supply is 12V. Please strictly ensure the quality of the G series power supply.

When you need to connect or disconnect any signal or control wires, please make sure that all power cords have been unplugged beforehand.

3. When adding hardware devices to this product or removing hardware devices from this product, please ensure that all signal and power cables have been unplugged beforehand.

Before performing any hardware operation, please turn off the power of the control card and release static electricity on your body by touching the grounding surface.

5. Please use in a clean, dry, and ventilated environment. Do not put this product in high temperature, humid, or other environments.

6. This product is an electronic product. Please keep away from sources of fire, water, and flammable and explosive dangerous goods.

7. This product contains high-voltage components. Please do not open the chassis or repair the device yourself.

If any abnormal conditions such as smoking or odor are found, please immediately turn off the power switch and contact the dealer.