



B2000ES-FOT

Sphere LED Controller

Specification V4.0



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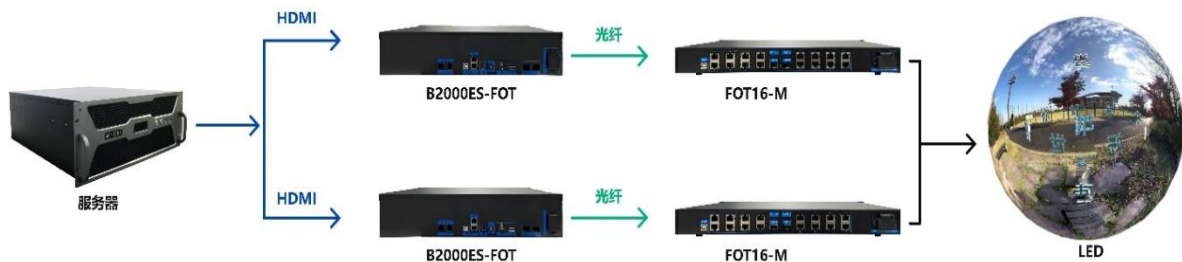
1 Update Records

Document Version	Hardware Version	Release Time	Update Record
V4.0	ST2000 (V2.0.0)	August 4 (th), 2025	First Release

2 Product Introduction

B2000ES-FOT Special-Shaped Controller features versatile video signal reception capabilities, ultra-high-definition full 4K×2K @60Hz image processing and transmission capabilities; it can transmit processed video to LED displays via fiber optic ports; and boasts powerful processing capabilities that effectively enhance load utilization, ultra-stable performance, and exceptional cost-effectiveness.

The B2000ES-FOT is widely applicable in spherical, circular, and other non-rectangular LED displays.



3 Product Features

3.1 Input/Output Interface

- Multiple input interfaces
 - 1×HDMI2.0
 - 1×DP1.2 (Choose 1 of the 2 options)

- Output Interface
 - 2-port fiber optic interface with full-duplex transmission
 - Single fiber port bandwidth: 10Gbit/s
- Audio Interface: 1×AUDIO, Synchronous transmission via network cable
- Control Interface
 - 1×USB interface for communication, enabling multiple sending cards to be controlled from a single PC
 - 1×LAN, 100Mbps Ethernet port for connecting to a host computer for debugging
 - 1×RS232 serial port for connecting to central control equipment

3.2 Diverse Practical Functions

- Supports Ethernet loopback backup and dual-master backup
- Supports multiple preset resolutions and custom resolution settings
- Compatible with multiple input frame rates including 30Hz, 50Hz, 60Hz, and 120Hz
- Supports host software monitoring of sending card operating parameters and status
- Supports configuration parameter readback
- Supports Gigabit Ethernet error rate detection

4 Product Appearance

Front Panel

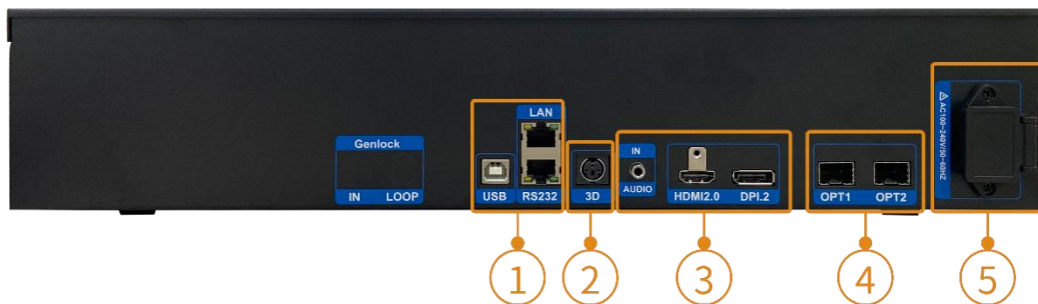


*Product images are for reference only. The actual product shall prevail upon purchase.

4.1 Data Interface Illustration

#	Name	Illustration
1	Switch	Main Control Power Switch
2	LCD	Used to display the device's current status and configure menu item parameters. LCD Resolution: 320×240
3	Rotate Button	1. On the main interface, press the knob to enter the menu operation interface; 2. In the menu operation interface, rotate the knob to select menus; press the knob to select the current menu or enter submenus; 3. After selecting a menu with parameters, rotate the knob to adjust values. Note: Press the knob again to confirm changes after adjustment; 4. Long press to unlock menus
4	ESC	Return/Cancel the current menu or operation

Rear Panel

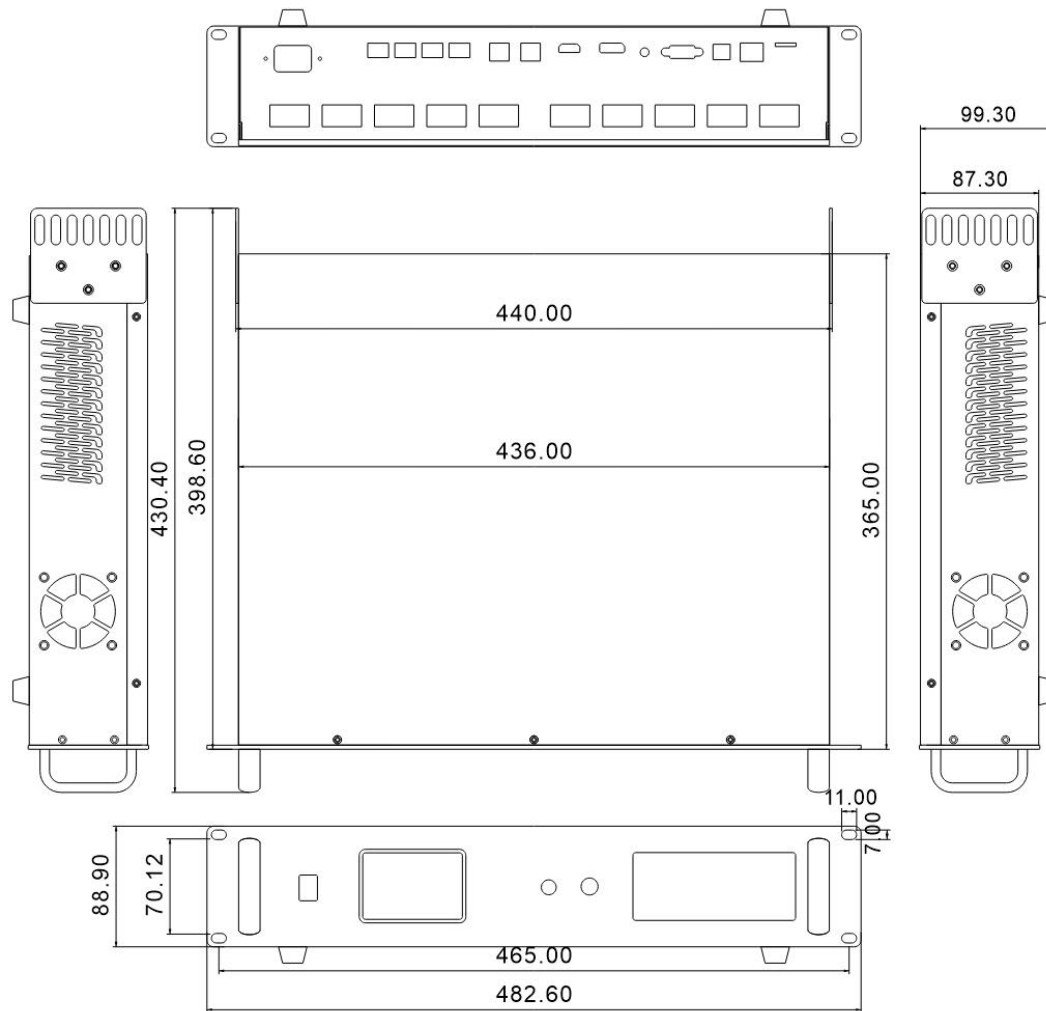


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Rear Panel		
Input Interface		
#	Name	Illustration
3	HDMI2.0	1×HDMI 2.0, supports up to 3840×2160@60Hz with backward compatibility. Maximum customizable graphics card width: 7680 Maximum customizable graphics card height: 7680
	AUDIO	1×3.5mm audio input jack
	DP1.2	1×DP1.2, video signal input interface. Maximum resolution 3840×2160@60Hz, backward compatible. Graphics card customizable maximum width 7680 Graphics card customizable maximum height 7680

Output Interface		
#	Name	Illustration
4	Fiber optic port	◆ 2-port fiber optic interface with full-duplex transmission ◆ Single fiber port bandwidth: 10Gbit/s
Control Interface		
#	Name	Illustration
1	LAN	100Mbps Ethernet interface for connecting to host computer for debugging
	USB (B-type)	Connects to PC software for communication
	RS232	1×RS232 interface for connecting to central control equipment
Extended Interface		
#	Name	Illustration
2	3D	Connect the 3D transmitter
AC power interface		
#	Name	Illustration
5	AC power interface	AC-100-240V-50/60HZ AC power interface

4.2 Dimensions



Tolerance: ± 0.3 Unit: mm

5 Product Specification

5.1 Basic Parameters

Loading Capacity	Whole unit	8.84 million pixels
Loading Range	Width	640—7680 pixels
	Height	480—7680 pixels
Sphere Loading Limit	Width	7680
	Height	4096
Offset Range	Width	0—7680 pixels
	Height	0—4095 pixels
Note: When enabled the F5, height input is limited to 4096; when disabled, it is limited to 8192. Enabled by default.		

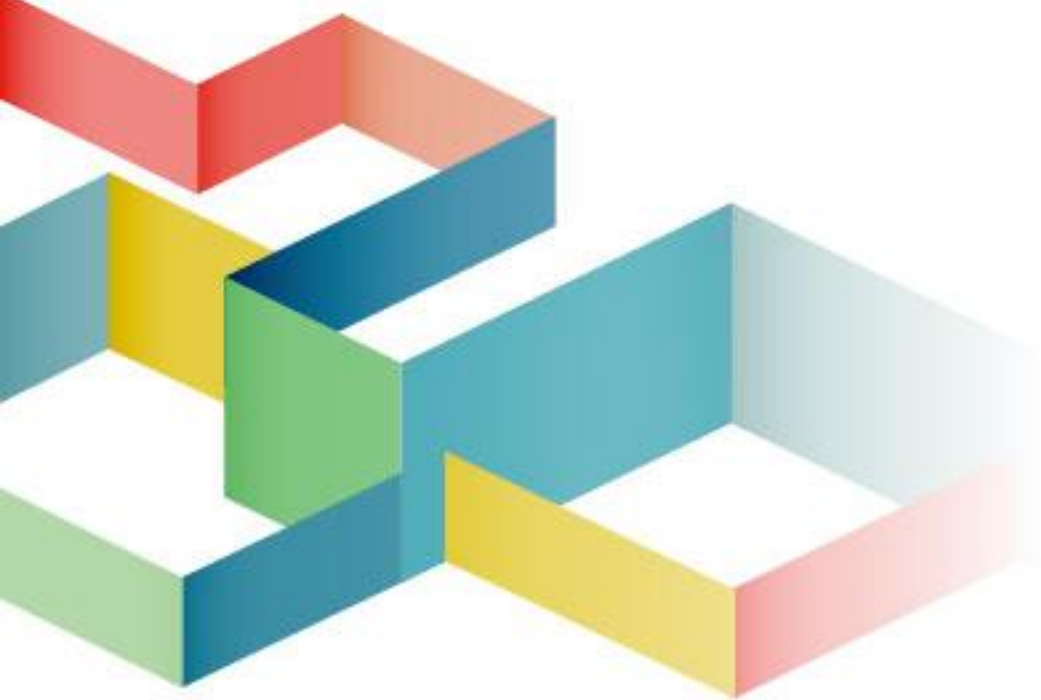
5.2 Specification

Electrical parameters	Rated voltage	AC-100-240V-50/60HZ
	Rated Power	70W
Working environment	Working temperature	-20°C~60°C
	Working humidity	5%RH~85%RH has no condensation.
Storage environment	Temperature	-20°C~70°C
Chassis size	482.6mm×430.4mm×99.3mm	
Net weight	4.16 kg	
Outer packing size	565mm×445mm×185mm	
Gross weight	6.02 Kg Description: Including wire, accessories	
Packing mode	1 PCS /box	
Accessory	1 × power cord, 1 × USB cable, 1 × HDMI cable, 1*DP Cable, 1 × certificate	

*Current and power consumption may vary depending on factors such as product usage, environment, and settings.

6 Precautions

- High voltage hazard: This product operates at AC 100V~240V.
- Do not allow liquids or metal fragments and other conductive materials to enter the device, to prevent safety accidents.
- Please use the device in a dry and clean environment.



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