Mooncell

B2000ES Sphere LED Controller

Specification V3.0

Shenzhen Mooncell Electronics Co., Ltd

1 Product Overview

Product Introduction

B2000ES is a recently developed independent master controller that is specially designed for special-shaped led displays with 20 Gigabit Ethernet Ports for Output;its loading capacity could reach up to 13 million pixels and with an excellent processing performance. B2000ES has its capability of receiving a variety of video signals , ultra high-definition 4KX2K image processing and sending capability;it can send the processed video to the led screen through the Ethernet Port; with strong processing ability,super reliability and high cost performance.
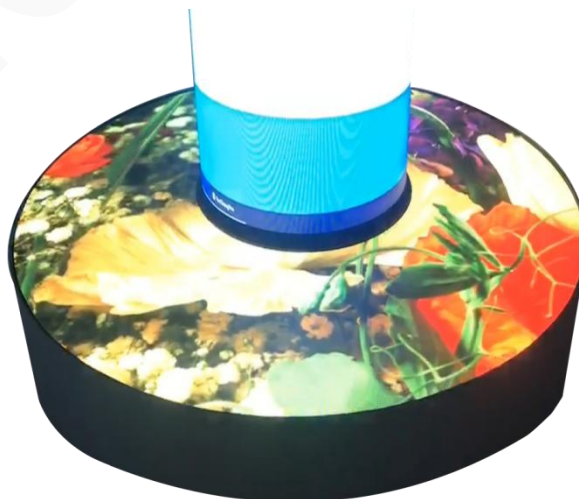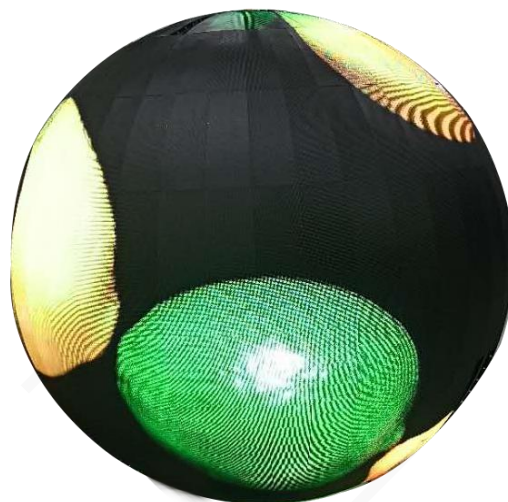
Product Features

➢ **Varieties of input interface: 1X DP 1.2 Input; 1X HDMI2.0 Input;**

➢ **Varieties of Output Interface: 20X Gigabyte Ethernet Port Output.**

➢ **Multiple Communication Control Methods:1X USB Port; 1X Serial Port;1X 100 Megabyte Ethernet Port.**

➢ **3D Port: the 3D effect is supported (it needs to be customized according to the requirements)**

➢ **It supports Ethernet Port Loop Dual Backup, Dual Master Controller Backup.**

➢ **It supports to have multiple preset resolutions; and the user defined resolution is supported.**

➢ **It supports the upper computer software to detect the operating parameters and status of the sending card.**

➢ **It supports to read the configurations back from where it was stored (configuration read back)**

➢ **It supports to detect the error rates of the gigabyte network.**

Application Scenarios

Mooncell B2000ES could be widely used for sphere led display, Circle Led Display and a variety of displays that are special-shaped designed.

2 Product Parameters

Basic Parameters

Loading Capacity	1 Network Port	650 Thousand Pixels
	Entire Unit	8.29 Million Pixels
Loading Range	Width	640—7680 Pixels
	Height	480—4096 Pixels
Shift Range	Width	0—8191 Pixels
	Height	0—4095 Pixels

Hardware Introduction

Front Panel

Front Panel Illustration

Front Panel Illustration		
#	Name	Illustration
1	ON/OFF	Power On/Off for Master Controller
2	LCD Indicator	To show the current status of the device and to set the menu item parameters
3	Rotating Knob	When it's in the Main Interface,Press the Knob to enter the Menu Operation Interface.
		When in the Menu Operation Interface,rotate the knob to select the menu,press the knob to select the current menu or enter sub-menu.

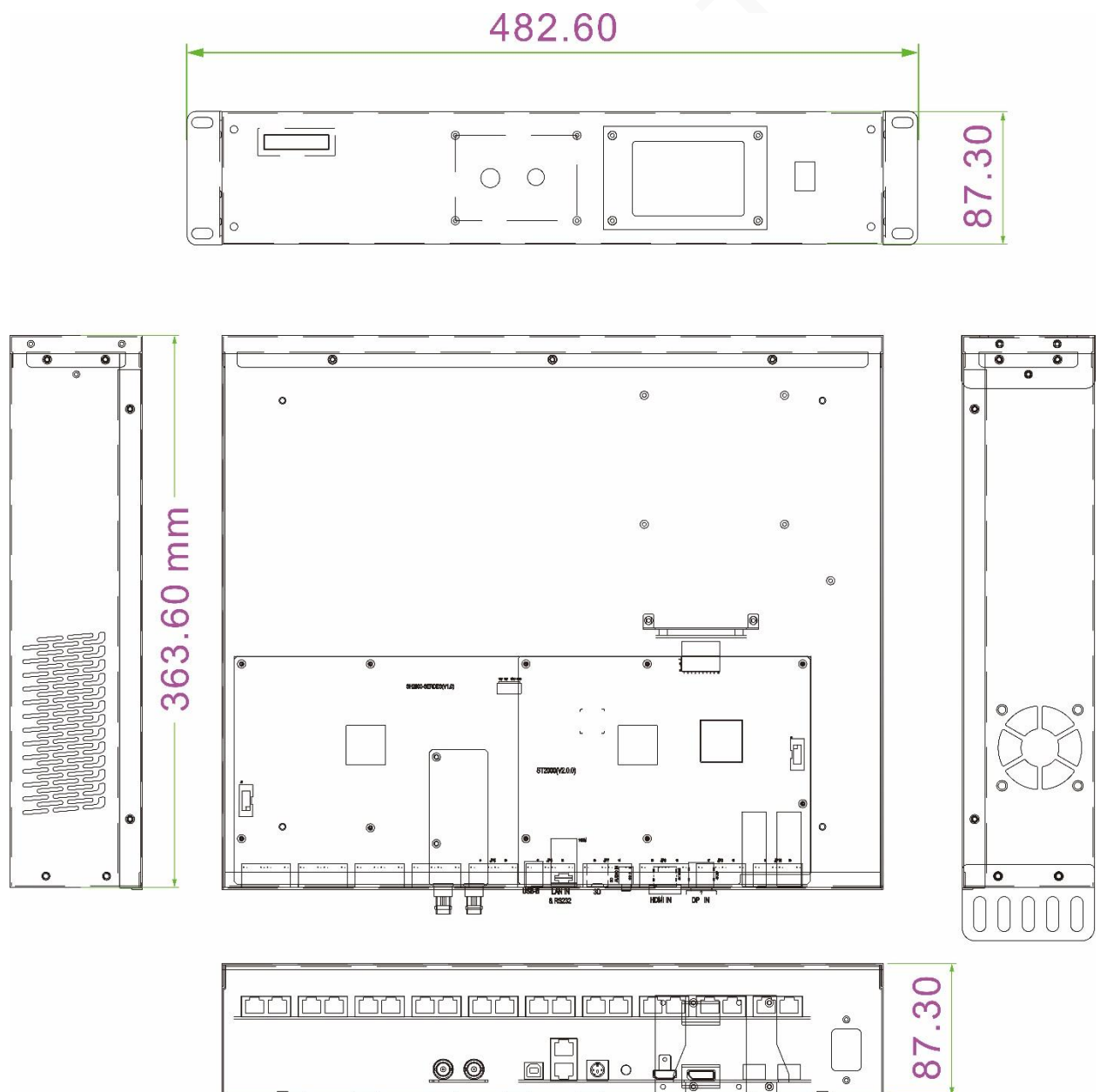| 4	ESC	Exit the current menu or operation.

Backside Panel

Backside Panel Illustration		
Input Interface		
Interface	QTY	Illustration
AUDIO	1	3.5mm Audio Input Interface
DP1.2	1	The maximum resolution 3840x2160@60Hz,downwards compatible. It supports HDCP1.3.The maximum width of the graphics card is 7680, and the maximum height is 4096.
HDMI2.0	1	The maximum resolution 3840x2160@60Hz,downwards compatible. It supports HDCP1.4 and EDID 1.4.The maximum width of the graphics card is 7680, and the maximum height is 4096.
OUTPUT Interface		
Interface	QTY	Illustration
Ethernet Port	20	20 x Gigabyte Ethernet Port Output,The loading capacity could reach up to 10.04 million pixels. The maximum loading capacity for 1 single network port: When the input source is 8 bit then its gonna be 650 thousand
Control Interface		
Interface	QTY	Illustration
USB	1	to connect to the PC end
RS232	1	1x DB9 interface to connect the central control devices.
LAN	1	100M megabyte Interface for Local Area Network
Extension Ports		

3D	1	The reserved interface(to connected the 3D Transmitter,it needs to be customized according to the requirements)
Power Interface		
Interface	QTY	Illustration
Power	1	AC-100-240V-50/60HZ AC Power Connector

Dimensions

3 Product Specifications

Specifications

Electric Parameters	Input Voltage	AC-100-240V-50/60HZ
	Rated Power	70W
Operating Environment	Operating Temperature	-20℃ - 70℃
	Operating Humidity	10%RH-90%RH No Solidification
Dimensions(Device)	482.6mmX363.6mmX87.3mm (Length x Width x Height)	
Dimensions（Carton）	565×445×185mm	
Net Weight	6.5Kg	
Packaging	1 x B2000ES.Peripherals: 1x USB Cable, 1x HDMI Cable, . 1x DP Cable. 1x Certificate	

Precautions

1. **High voltage danger: The working voltage of this product is AC -100V ~ 240V.**

2. **It is forbidden to immerse conductive objects such as liquids and metal fragments into the equipment to avoid safety accidents.**

3. **Please use the equipment in a dry and clean environment.**