S20F
LED Video Controller

Specification V1.1

Overview

S20F is a controller possessing powerful video signal receiving capacity. It supports the input of DP1.2 and HDMI2.0, and seamless switching between signal sources. A single unit features a loading capacity of up to 8.85 million pixels, with a maximum width or height of 8192 pixels, while a single Ethernet port supports a loading width or height of up to 4096 pixels, and the controller supports signal inputs of up to 4096×2160@60Hz resolution. Thus, S20F allows users to configure ultra-long, ultra-high and ultra-large screens. S20F supports 4 optical fiber port output (2 active and 2 standby), as well as Ethernet port redundancy and controller redundancy. It can not only effectively ensure the display stability of screens, but also provide high-quality image display and flexible screen control.

Features

- Input: 1×DP 1.2, 1×HDMI 2.0
- Support seamless switching between signal sources
- Loading capacity: up to 8.85 million pixels, maximum width or height: 8192 pixels
- 4 optical fiber outputs, 2 active and 2 standby, single optical port transmission rate 10Gb/s
- Input resolution: up to 4096×2160@60Hz, supporting customized setting of resolution within control range
- Support Ethernet port redundancy or controller redundancy
- Support USB cascading control and RS232 protocol control
- Separate audio input and output
- Support 3D display（optional）
- Better gray at low brightness
- Compatible with all receiver cards and multifunction cards of Colorlight

Hardware

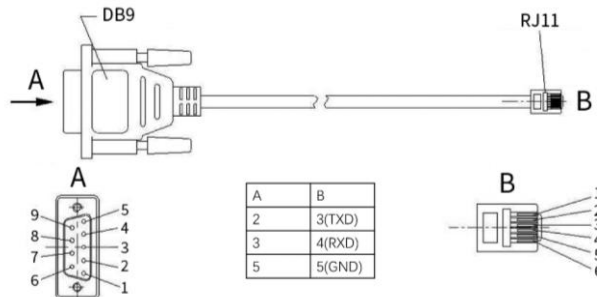### Front

No.	Item	Function
1	LCD	Display the operation menu and system information
2	Knob	Turn the knob to select an item or adjust the parameter; press the knob to confirm your selection or adjustment
3	Function Key	OK: Enter key ESC: Escape key Bright: Brightness adjustment Black: Blackout
4	Selection Key	HDMI: Select HDMI2.0 as the signal source DP: Select DP1.2 as the signal source
5	Power Switch	Power switching for the device

Rear

Input		
1	HDMI2.0	1×HDMI 2.0
2	DP1.4	1×DP 1.4
Output		
1	FIBER1，FIBER2	2x10G optical ports，dual LC interface，standard 2 pcs 10G single-mode optical modules，wavelength：1310nm，transmission distance：2km
2	FIBER 1 BACKUP FIBER 2 BACKUP	Automatic backup ports for FIBER1 and FIBER2
3	3D (Optional)	Output the 3D control signal
Control		
1	USB IN	USB input, connecting to PC for debugging
2	USB OUT	USB output, as cascading output
3	RS232	RJ11 (6P6C)*, connect to the third party device
Audio		
1	AUDIO IN	Audio input, input audio signals from the computer or other devices
2	AUDIO OUT	Audio output, output audio signals to the speaker (Support processing and outputting the audio signal of HDMI and DP)
Power Supply		
1	AC 100~240V	AC power interface, containing a built-in fuse

* DB9 female to RJ11(6P6C) cable as blow:

Device Specifications

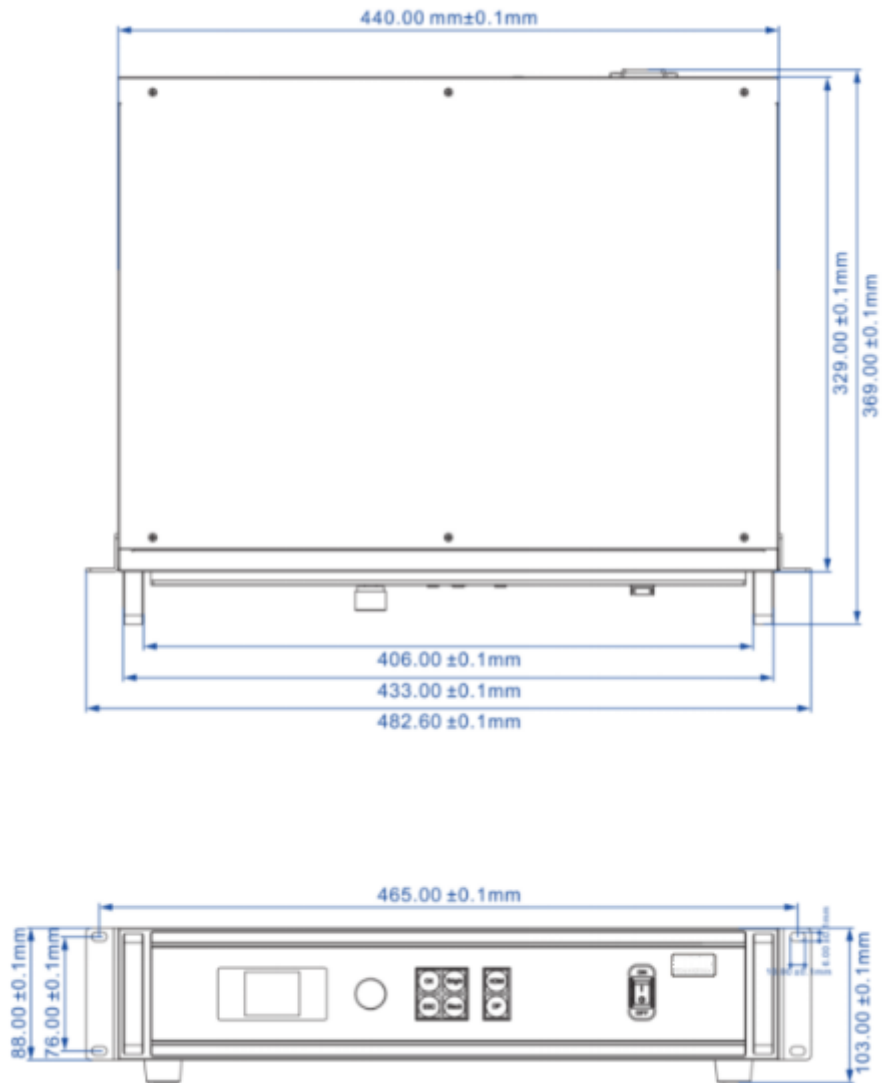| Model		S20F
Chassis Size		2U
Electrical Specifications	Input Voltage	AC100~240V, 50/60Hz
	Power Consumption	40W
Operating Environment	Temperature	-20℃~70℃/-4°F~158°F
	Humidity	0%RH~80%RH, non-condensing
Storage Environment	Temperature	-40℃~80℃/-40°F~176°F
	Humidity	0%RH~90%RH, non-condensing
Device Specifications	Dimensions	W×H×L/482.6×88.0×369.0 mm^3/19"×3.5"×14.5"
	Net Weight	5.1kg/11.24lbs
Packing Specifications	Dimensions	W×H×L/525.0×150.0×455.0mm^3/20.7"×5.9"×17.9"
	Net Weight	6.6kg/14.77lbs
Certification information		CCC, RoHS

Technical Specifications

HDMI2.0（A）			
Standard	HDMI2.0 specification, EIA/CEA-861 standard, supports EDID Backward compatible with HDMI1.4 and HDMI1.3		
Input	Format		Maximum Input Resolution
	8bit	RGB444	4096×2160@60Hz
		YCbCr444	
		YCbCr422	
	Frame Rate	23.98/24/25/29.97/30/47.95/48/50/59.94/60/120/144Hz	
Support audio input			

DP1.2			
Standard	DP1.2 specification, supports EDID Backward compatible with DP1.1		
Input	Format		Maximum Input Resolution
	8bit	RGB444	4096×2160@60Hz
		YCbCr444	
		YCbCr422	
	Frame Rate	23.98/24/25/29.97/30/47.95/48/50/59.94/60/120/144Hz	
Support audio input			

Dimensions

Unit: mm

Statement

As factors such as product batches and production processes may change, in order to provide accurate product information, specification parameters, and product characteristics in order to match the actual product, the text description and picture effects in the document will be adjusted and revised appropriately. If it is necessary to carry out the above modification and adjustment without prior notice, please refer to the actual product.

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