

Z6

LED Video Controller

Specification V2.2



Overview

Z6 is a professional LED display controller. As video splicer, processor and LED controller in one combined, Z6 has 4K video input capability, UHD and HDR images processing and transmission. Z6 can be applied to high-end rental display and high-resolution LED display perfectly.

Features

Input

- Two 4K inputs: 1×HDMI2.0, 1×DP1.2.
- Six 2K inputs: 4×DVI2×SDI.
- Up to 3840×2160@60Hz resolution.
- 8/10bit color depth.
- HDCP.

Output

- Loading capacity: 8.30 million pixels, maximum width: 8192 pixels, or maximum height: 4096 pixels.
- 16 Neutrik Gigabit Ethernet outputs.
- Ethernet port redundancy and controller redundancy.

Video processing

- HDR display: HDR10 standard.
- Low latency.
- Cropping, scaling and splicing of input images.
- Up to 3 windows, which are freely assignable and can be scaled up and down.
- Brightness adjustment, color temperature adjustment.
- Better gray at low brightness.

Control

- USB port for control or cascading.
- RS232 protocol.
- Control via TCP/UDP protocol and Art-Net protocol in local area network.

Hardware

Front panel



Item	Function
3.5-inch LCD	Display operation menu or system information
Knob	- Press the knob to enter the submenu or confirm the selection - Rotate the knob to select a menu item or adjust parameters
Function shortcut	OK: Enter key ESC: Exit the current menu Bright: Adjust brightness Black: Blackout Lock: Lock keys
Signal selection	PIP: Turn on or off PIP Freeze: Freeze the image HDMI/DP/DVI/SDI1/SDI2: Switch to the video signal

Rear panel



Input

SDI1,2	2×3G SDI
HDMI	1×HDMI 2.0, 1×HDMI2.0 LOOP, EIA/CEA-861 standard, HDMI2.0 specification, HDCP2.2 compliant
DP	1×DP1.2, DP1.2 specification, HDCP1.3 compliant
DVI1-4	4×DVI, VESA standard, HDCP1.4 compliant

Output

Port1-16	16×Neutrik Gigabit Ethernet ports
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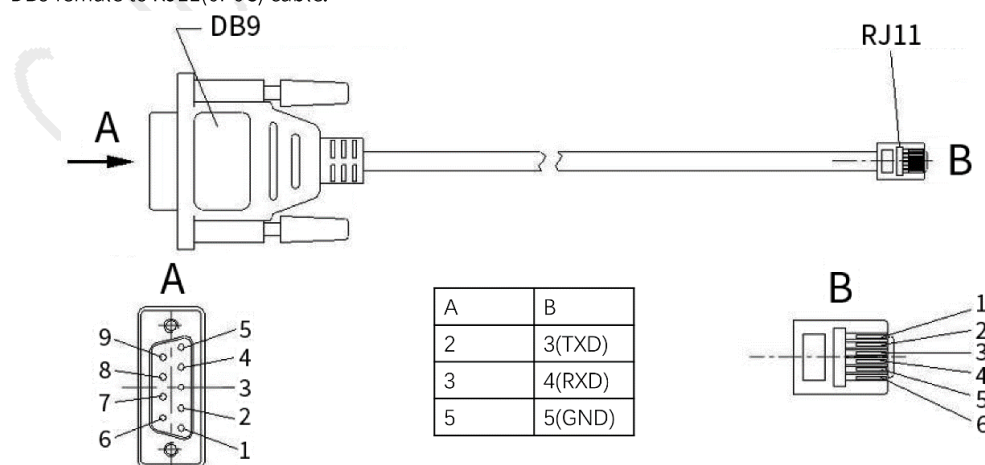
Control

LAN	Fast Ethernet port, connect to the PC or access the local area network, or as Art-Net control port
USB IN	USB input, connect to the PC for debugging
USB OUT	USB output, as cascading output
Genlock	Input synchronized signal
Genlock Loop	Output synchronized signal
RS232	RJ11(6P6C) port*, connect to the third-party device

Power supply

MAINS INPUT	AC 100~240V, 50/60Hz, built-in fuse
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* DB9 female to RJ11(6P6C) cable:



Signal format

HDMI2.0 (A)			
Standard	EIA/CEA-861 standard, HDMI2.0 specification, HDCP2.2 compliant		
Input	Format		Maximum input resolution
	8bit	RGB444	4096×2160@60Hz
		YCbCr444	
		YCbCr422	
		YCbCr420	
	10bit	RGB444	1920×1080@60Hz
		YCbCr444	4096×2160@60Hz
		YCbCr422	
YCbCr420			
Frame rate	23.98,24,25,29.97,30,50,59.94,60		
DP1.2			
Standard	DP1.2 specification, HDCP1.3 compliant		
Input	Format		Maximum input resolution
	8bit	RGB444	4096×2160@60Hz
		YCbCr444	
		YCbCr422	
		YCbCr420	
	Frame rate	23.98,24,25,29.97,30,50,59.94,60	
DVI			
Standard	VESA standard, HDCP1.4 compliant		
Input	Format		Maximum input resolution
	8bit	RGB444	1920×1200@60Hz
		YCbCr444	
		YCbCr422	
		YCbCr420	
	Frame rate	23.98,24,25,29.97,30,50,59.94,60	
SDI			
Standard	SMPTE-424M/SMPTE-372M/SMPTE-292M standard, 3G-SDI/HD-SDI/SD-SDI		
Input	1080P, 1080i, 720P, support Level A, Level B		
Frame rate	23.98,24,25,29.97,30,50,59.94,60		

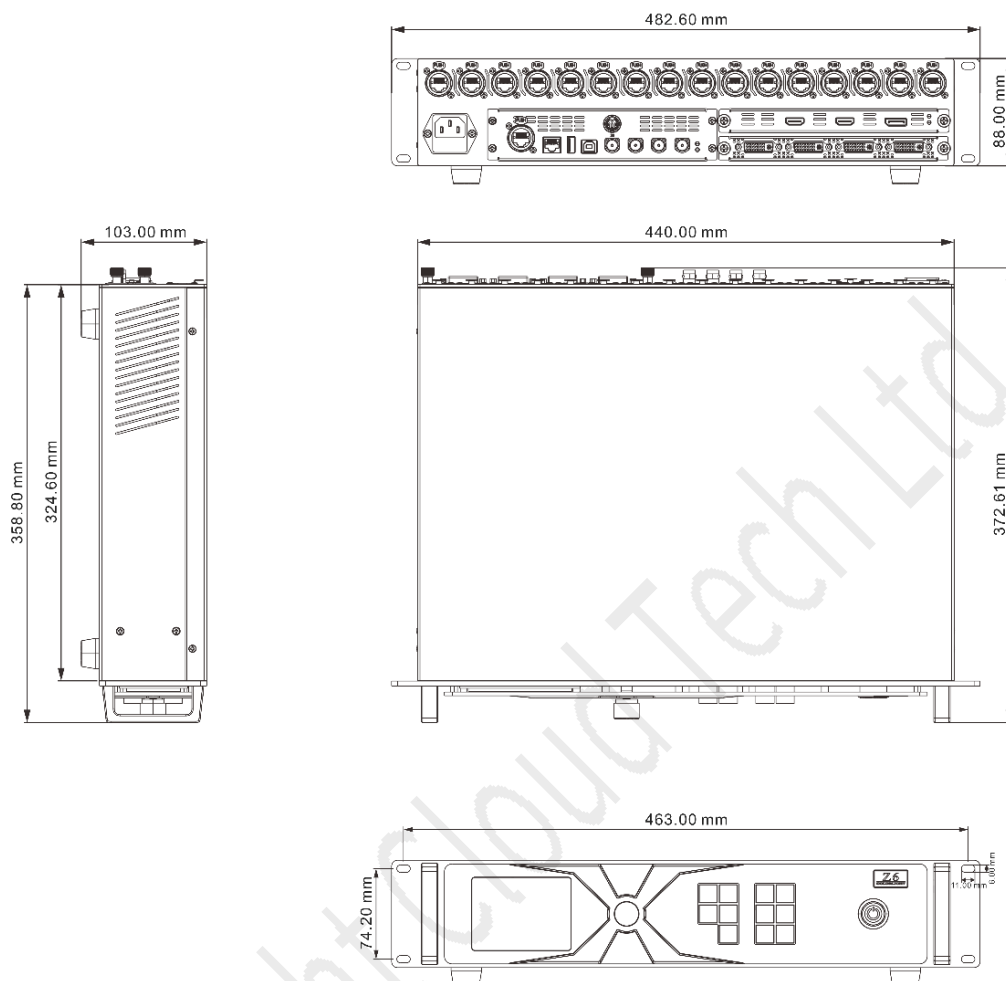
Function description

Function	Description
Multi-window display	- Up to 3 windows. Support window overlay. - Minimum size of the window is 64×64 pixels, and maximum 8.30 million pixels. - Window size and position can be freely adjusted in the control area of the device.
Cropping	- All input signals support cropping, and each channel of signals can be cropped once. - The size and position of cropping frame can be freely adjusted within the resolution of the video source, and its minimum size is 64×64 pixels.
HDR display	- HDMI2.0 supports HDR display with HDR10 standard, and supports color space selection. - DP/DVI/SDI does not support HDR display.
Low latency	Progressive scanning signals support low latency, while interlaced scanning signals do not support low latency.

Parameters

Dimensions (W×H×D)	
Unboxed	482.6mm (19") × 88.0mm (3.5") × 372.6mm (14.7")
Weight	
Net weight	9kg (19.84lbs)
Electrical	
Input voltage	AC100-240V, 50/60Hz
Rated power	70W
Operating environment	
Temperature	-20°C~60°C (-4°F~158°F)
Humidity	0%RH~80%RH, non-condensing
Storage environment	
Temperature	-30°C~80°C (-22°F~176°F)
Humidity	0%RH~90%RH, non-condensing
Certification	
CCC, CE, FCC, IC, CB, cTUVus, EAC, ROHS.	
* If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact Colorlight to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks caused or Colorlight has the right to claim compensation.	

Reference dimensions



Statement

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