



# Z6

Controller

Specification V2.1

## 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×DVI, 2×SDI
- Up to 3840×2160@60Hz resolution
- 8/10bit color depth
- Support HDCP

### Output

- Loading capacity: 8.3 million pixels, maximum width: 8192 pixels, or maximum height: 4096 pixels
- 16 Neutrik Gigabit Ethernet outputs
- Support Ethernet port redundancy and controller redundancy

### Video processing

- HDR display: HDR10 standard
- Low latency
- Support cropping, scaling and splicing of input images
- Support the display of 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

### Device control

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

## Hardware

### Front



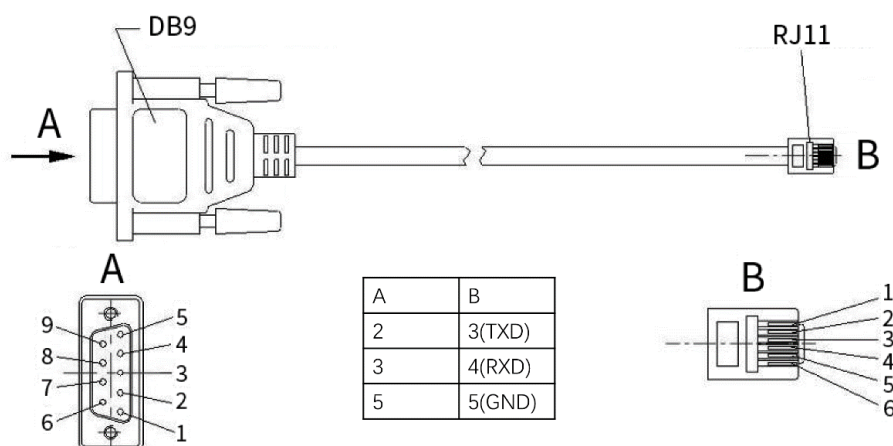
No.	Item	Function
1	3.5-inch LCD	Display operation menu or system information
2	Knob	<ul style="list-style-type: none"> <li>Press the knob to enter the submenu or confirm the selection</li> <li>Rotate the knob to select a menu item or adjust parameters</li> </ul>
3	Function shortcut	OK: Enter key ESC: Exit the current menu Bright: Adjust brightness Black: Blackout Lock: Lock keys
4	Signal selection	PIP: Turn on or off PIP Freeze: Freeze the image HDMI/DP/DVI/SDI1/SDI2: Switch to the video signal

## Rear



Input		
1	SDI1,2	2×3G SDI
2	HDMI	1×HDMI 2.0, 1×HDMI2.0 LOOP
3	DP	1×DP 1.2
4	DVI1-4	4 ×DVI
Output		
1	Port1-16	16×Neutrik Gigabit Ethernet ports
Control		
1	LAN	Fast Ethernet port, connect to the PC or access the local area network, or as Art-Net control port
2	USB IN	USB input, connect to the PC for debugging
3	USB OUT	USB output, as cascading output
4	Genlock	Input synchronized signal
5	Genlock Loop	Output synchronized signal
6	RS232	RJ11(6P6C) port*, connect to the third-party device
Power supply		
1	AC 100~240V	AC power connector, containing a built-in fuse

\*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	3840×2160@60Hz
		YCbCr444	
		YCbCr422	
		YCbCr420	
	10bit	RGB444	1920×1080@60Hz
		YCbCr444	3840×2160@60Hz
		YCbCr422	
YCbCr420			
DP1.2			
Standard	DP1.2 specification, HDCP1.3 compliant		
Input	Format		Maximum input resolution
	8bit	RGB444	3840×2160@60Hz
		YCbCr444	
		YCbCr422	
		YCbCr420	
	10bit	RGB444	1920×1080@60Hz
		YCbCr444	3840×2160@60Hz
		YCbCr422	
YCbCr420			
DVI			
Standard	VESA standard, HDCP1.4 compliant		
Input	Format		Maximum input resolution
	8bit	RGB444	1920×1080@60Hz
		YCbCr444	
		YCbCr422	
		YCbCr420	
SDI			
Standard	SMPTE-424M/SMPTE-372M/SMPTE-292M standard, support 3G-SDI/HD-SDI/SD-SDI		
Input	1080P, 1080i, 720P, support Level A, Level B		

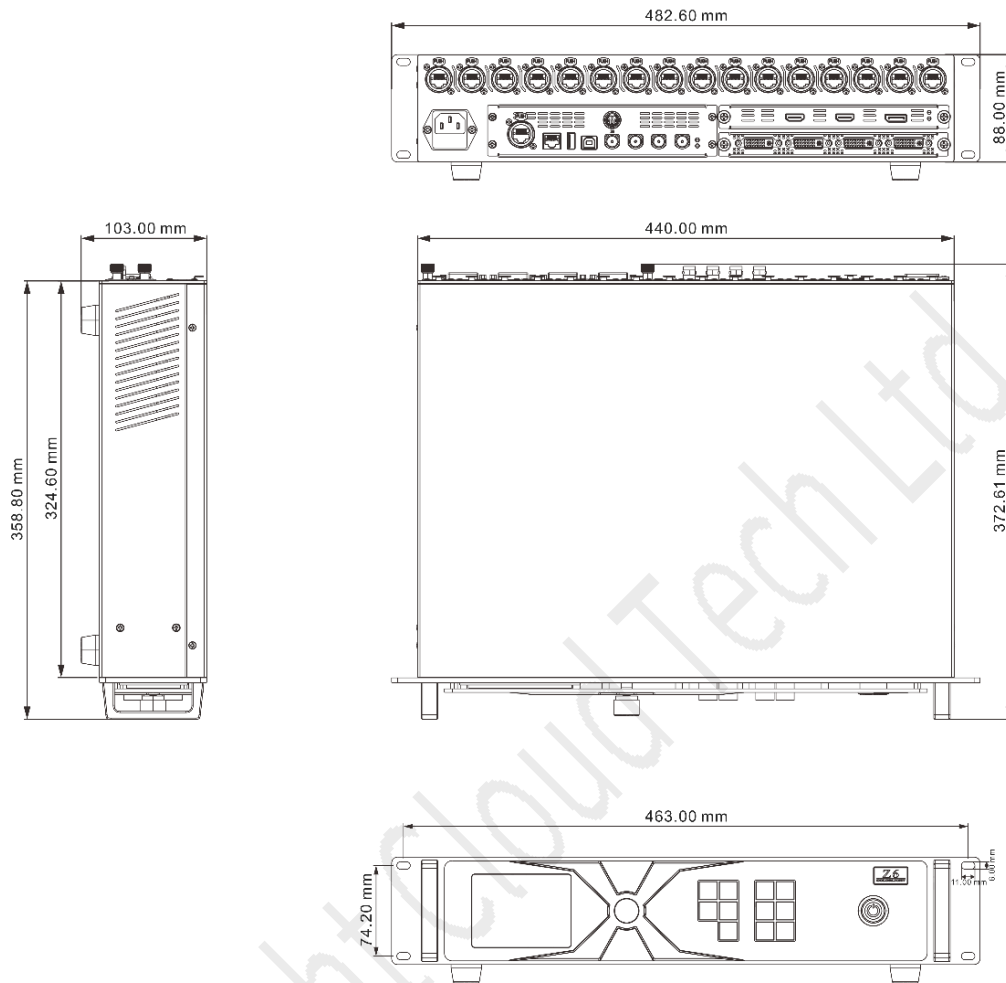
## Function description

Function	Description
Multi-window display	<ul style="list-style-type: none"> <li>Up to 3 windows. One window represents one layer, and layers can cover each other.</li> <li>Minimum size of the window is 64×64 pixels, and maximum 8.3 million pixels</li> <li>Window size and position can be freely adjusted in the control area of the device</li> </ul>
Cropping	<ul style="list-style-type: none"> <li>All input signals support cropping, and each channel of signals can be cropped once</li> <li>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</li> </ul>
HDR display	<ul style="list-style-type: none"> <li>HDMI2.0 supports HDR display with HDR10 standard, and supports color space selection</li> <li>DP/DVI/SDI does not support HDR display</li> </ul>
Low latency	<ul style="list-style-type: none"> <li>Progressive scanning signals support low latency, while interlaced scanning signals do not support low latency</li> </ul>

## Other specification

<b>Dimensions (W×H×D)</b>	
Unboxed	482.6mm (19") × 88.0mm (3.5") × 372.6mm (14.7")
<b>Weight</b>	
Net weight	9kg (19.84lbs)
<b>Electrical</b>	
Input voltage	AC100-240V, 50/60Hz
Rated power consumption	70W
<b>Operating environment</b>	
Temperature	-20°C~60°C (-4°F~158°F)
Humidity	0%RH~80%RH, non-condensing
<b>Storage environment</b>	
Temperature	-30°C~80°C (-22°F~176°F)
Humidity	0%RH~90%RH, non-condensing

## Dimensions



## Statement

Thank you for purchasing the product of Colorlight Cloud Tech Ltd. If you encounter any problems during use or have any suggestions, please contact us through official channels. We will do our best to provide support and listen to your valuable suggestions. We will constantly make improvements on technical specifications but