X16E-3D

Controller

Specification V1.0

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Overview

X16E-3D is a controller possessing powerful video signal input and processing capacity. It supports 4K inputs with DP 1.4 and HDMI 2.0 ports, and 2K inputs with HDMI 1.4 and DVI ports, and the multiple signals can be seamlessly switched. Equipped with 16 Gigabit Ethernet ports, X16E-3D can greatly meet your different demands. Additionally, X16E-3D boasts abundant practical functions that enable flexible screen control and high-quality image display.

Features

- Input ports: 1×DP 1.4, 1×HDMI 2.0, 2×HDMI 1.4, 2×DVI
- Loading capacity: 10.48 million pixels, maximum width: 16384 pixels, or maximum height: 8192 pixels
- Input resolution: up to 4096×2160@60Hz, supporting customized setting
- Output ports: 16×Gigabit Ethernet ports
- Support video source switching, cropping, splicing and scaling
- Support up to 6 windows, of which the location and size can be freely adjusted
- Support precise color management and display gamut adjustment
- Support video sync
- Separate audio input and output
- Support analyzing and outputting the audio signals of HDMI and DP inputs
- Support LAN control
- Support control via hand-held terminal (app)
- Support RS232 protocol control
- Support 3D
- Support HDCP
- Support brightness and color temperature adjustment

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Hardware

Front Panel

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 Bright: Brightness adjustment ESC: Exit the current menu or operation Black: Blackout Lock: Lock all the keys of the front panel Freeze: Freeze the image
4	Mode Key	HDMI1/DP/3/HDMI2/HDMI3/DVI1/DVI2: Video source selection keys, which function as number selection keys in mode selection Signal: View the signals Mode: Output mode selection
5	Power Switch	Switch the device on or off

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Back Panel

Input		
1	HDMI 2.0	1×HDMI 2.0
2	DP 1.4	1×DP 1.4
3	HDMI1, HDMI2	2×HDMI 1.4
4	DVI1, DVI2	2×DVI
Output		
1	Port 1-16	RJ45, 16×Gigabit Ethernet port
Control		
1	LAN	Network control (communication with PC, or access network)
2	RS232	RJ11(6P6C)*, connect to the third party device
3	USB OUT	USB output, for cascading with the controller
4	USB IN	USB input, connecting to PC for debugging
5	3D	Connect to the 3D emitter
Audio		
1	AUDIO IN	Audio input, for inputting audio signals from the computer or other devices
2	AUDIO OUT	Audio output, for outputting audio signals to the speaker (Support outputting the audio signals of HDMI and DP)
Power		
1	AC 100~240V	AC power connector, containing a built-in fuse

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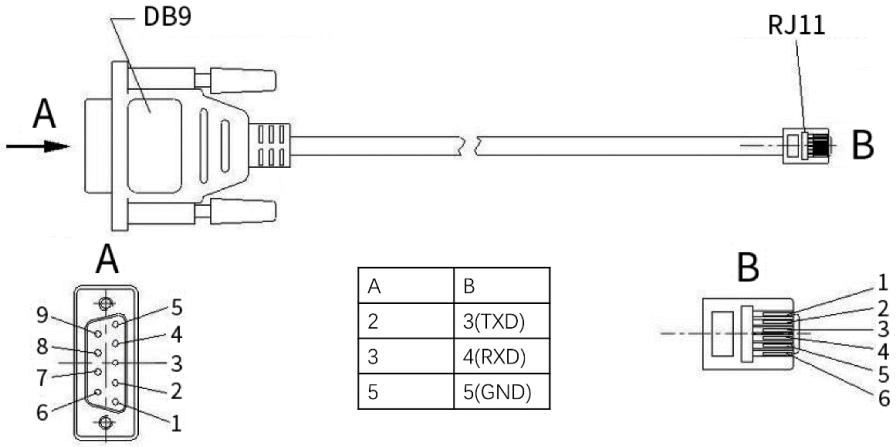
*DB9 female to RJ11(6P6C) cable:



A	B
2	3(TXD)
3	4(RXD)
5	5(GND)

Device Specifications

Model		X16E-3D
Size		2U
Electrical Specifications	Input Voltage	AC100~240V, 50/60Hz
	Power Consumption	50W
Operating Environment	Temperature	-20°C~70°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
Device Specifications	Dimensions	W×H×L/482.6mm×103.0mm×415.1mm/19"×4.1"×16.3"
	Net Weight	4.8kg/10.58lbs
Packing Specifications	Dimensions	W×H×L/525.0mm×150.0mm×495.0mm/20.7"×5.9"×19.5"
	Net Weight	1.8kg/3.97lbs

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Technical Specifications

HDMI 2.0(A)			
Standard	HDMI 2.0 specification, EIA/CEA-861 standard Backward compatible with HDMI 1.4 and HDMI 1.3		
Input	Format		Maximum Input Resolution
	8bit	RGB444	4096×2160@60Hz
		YCbCr444	
		YCbCr422	
	Frame Rate	23.98/24/25/29.97/30/50/59.97/60/120/144Hz	
	Support audio input		
DP 1.4			
Standard	DP 1.4 specification, support EDID		
Input	Format		Maximum Input Resolution
	8bit	RGB444	4096×2160@60Hz
		YCbCr444	
		YCbCr422	
	Frame Rate	23.98/24/25/29.97/30/50/59.97/60/120/144Hz	
	Support audio input		
HDMI 1.4			
Standard	HDMI 1.4 specification, HDCP1.4 compliant		
Input	Format		Maximum Input Resolution
	8bit	RGB444	1920×1200@60Hz
		YCbCr444	
		YCbCr422	
	Frame Rate	23.98/24/25/29.97/30/50/59.97/60Hz	
	Support audio input		
DVI			
Standard	HDCP1.4 compliant		
Input	Format		Maximum Input Resolution
	8bit	RGB444	1920×1200@60Hz
		YCbCr444	
		YCbCr422	
	Frame Rate	23.98/24/25/29.97/30/50/59.97/60Hz	

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System Connection Diagram

3D Emitter

No.	Name	Function	Remarks
1	3D IN	Connect to 3D sender to synchronize signals	Connected via VESA Cable
2	3D OUT	Connect to 3D transmitting antenna	

Specification	
Working Frequency	2.45G +- 500 MHz
Transmission Speed	100kHz
Transmission Radius	≤80m
Transmit Power	0.1W MAX
Antenna Gain	2DB
Transmission Viewpoint	360°
Synchronous Mode	Time-Sync with Interval Sweep Mode
Working Temperature	-10°C~70°C
Working Humidity	10%~90% RH
Interface Supported	DIN3 3D synchronous interface
Working Voltage	DC 4.5V~5.5V
Working Current	40mA~100mA
Weight	0.17kg
Dimensions	151mm×50mm×25mm

Active Shutter 3D Glasses

No.	Name	Function	Remarks
1	Switch	ON/OFF	Switch to “OFF” first if it is “ON” at the beginning
2	Indicator	Working indicator	The green indicator flashes when the glasses work normally. The red indicator is always on when the glasses are charging.

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Specifications	
Optical Parameters	
Contrast	1000:1
LCD Screen Refresh Rate	120Hz (Standard)，48Hz/50Hz/60Hz/72Hz (Self-adaption for sync signal)
Light Transmittance	35%，±2%
Response Time	2.0ms at room temperature
Viewing Angle	80°
Electric Parameters	
Lithium Battery	80mAH
Charge Time	2.5Hr
Charge Current	50mA
Rated Working Voltage	3.7V
Rated Working Current	0.7mA，±0.1mA
Shutdown Current	12uA，±1.0uA
Sync Mode	RF
Receiving Frequency	2.4G
Receiving Sensitivity	-94.5dBm
Basic Parameters	
Weight	40g，±1g
Continuous Working Time	48Hr
Working Distance	15m
Working Environment	
Operating Temperature	0℃-40℃
Storage Temperature	-20℃-60℃
Operating Humidity	20%-80%RH
Atmospheric Pressure	86kPa-106kPa

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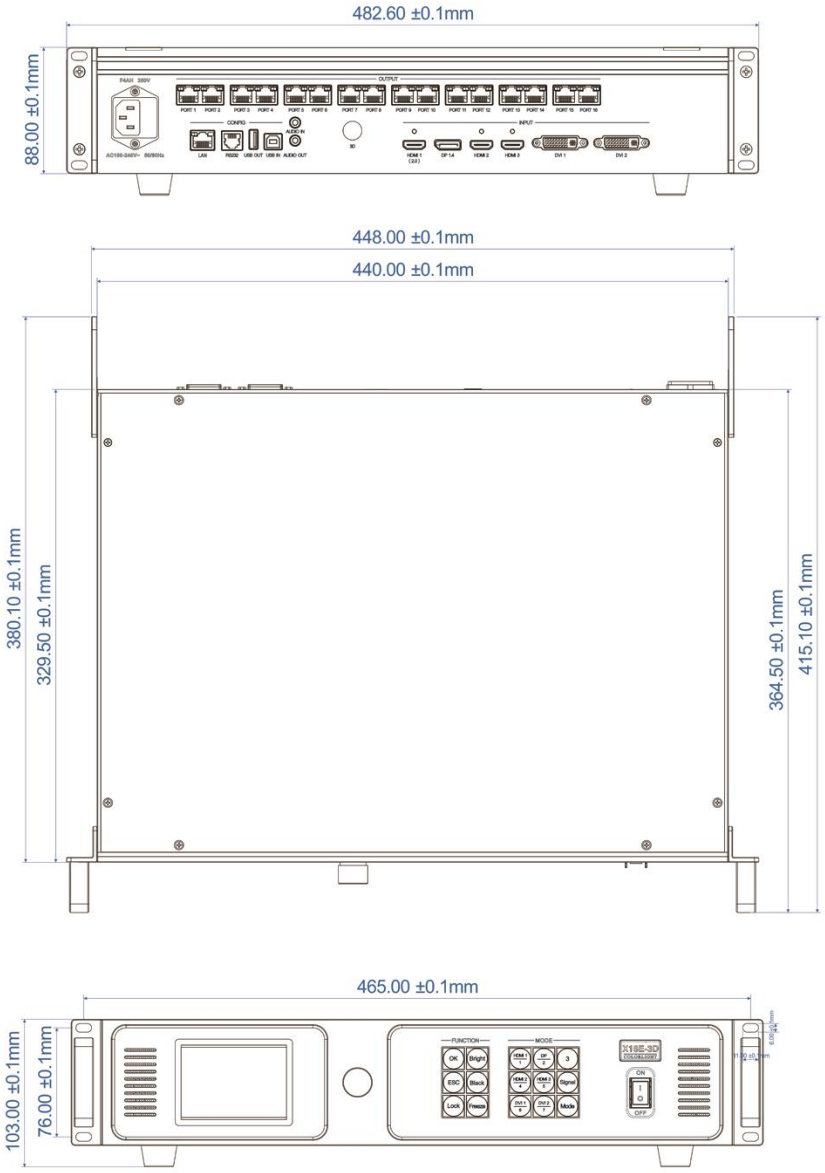
Dimensions

Unit: mm



Statement

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