MCTRL500

LED Display Controller

Specifications

Change History

Document Version	Release Date	Description
V2.3.2	2024-08-22	Updated the packing box dimensions.
V2.3.1	2019-11-13	• Updated the product pictures. • Updated the dimensions diagram.
V2.3.0	2019-05-15	• Changed the document style. • Optimized the document content.

Introduction

The MCTRL500 is an LED display controller developed by Xi’ an NovaStar Tech Co., Ltd. (hereinafter referred to as NovaStar). It supports 1x DVI input, 1x audio input, 4x Ethernet outputs, and 4x 1.25G optical outputs. A single MCTRL500 supports input resolutions up to 1920×1200@60Hz.

As a highly cost-effective controller, the MCTRL500 can be mainly used in the rental and fixed applications, such as concerts, live events, security monitoring centers, Olympic Games, and various sports centers.

Certifications

FCC, CE, EAC, IC, PFOS

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact NovaStar to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks caused or NovaStar has the right to claim compensation.

Features

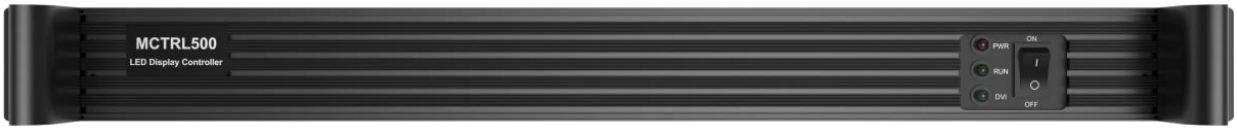
- 2 types of input connectors
  - 1x SL-DVI
  - 1x AUDIO
- 4x Gigabit Ethernet outputs
- 4x 1.25G optical outputs.
- 2x RS232 control ports

  For cascading multiple devices to enable integrated control.
- 1x DVI Output.
- Supports input monitoring
- Pixel level brightness and chroma calibration

  Work with the calibration software to perform brightness and chroma calibration on each LED to effectively remove color differences and greatly improve display brightness consistency and chroma consistency, allowing for better image quality.

Appearance

Front Panel



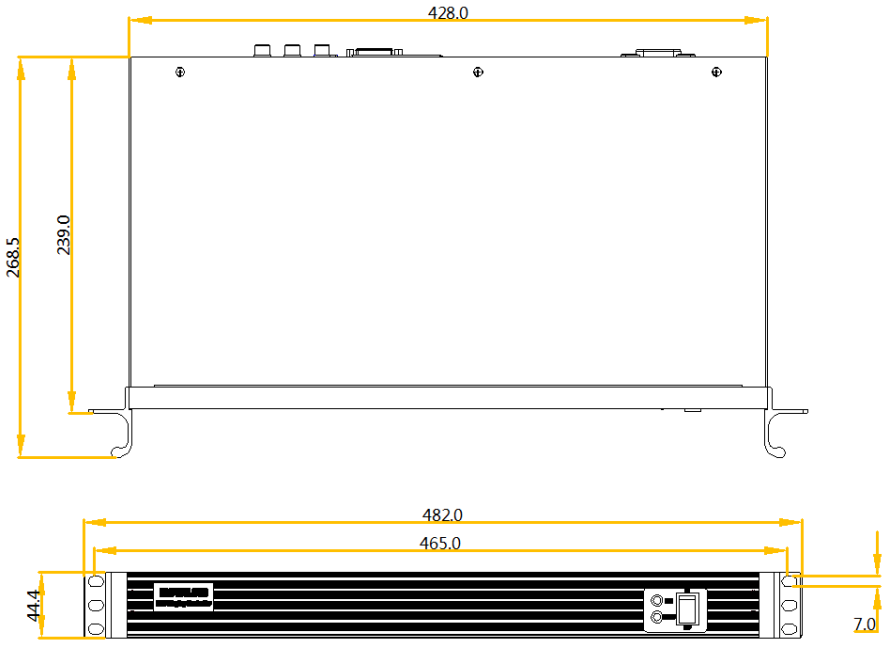
Indicators	Status	Description
STA (Red)	Always on	The power supply is normal.
	Off	No power supply, or the power supply is abnormal.
RUN (Green)	Slow flashing (flashing once every 2s)	No video source input.

	Normal flashing (flashing 4 times every 1s)	Video source available.
	Fast flashing (flashing 30 times every 1s)	The screen is displaying the startup image.
	Breathing	The Ethernet port redundancy has taken effect.
DVI (Green)	Always on	DVI video input is available.
	Off	DVI input is unavailable or DVI input is abnormal.

Rear Panel

Connector Type	Name	Description
Input	DVI IN	1x SL-DVI input • Maximum resolution: 1920×1200@60Hz • Support custom input resolutions. Max width: 3840 pixels (3840×600@60Hz) Max height: 2560 pixels (800×2560@60Hz) • Do NOT support interlaced signal input.
	AUDIO	Audio input connector
Output	OUT 1 to 4	4x RJ45 Gigabit Ethernet ports • Capacity per port up to 650,000 pixels • Support redundancy between Ethernet ports.
	OPT 1 to 4	• 4× 1.25G optical ports – Single-mode twin-core fiber: Support LC optical connectors; wavelength: 1310 nm; transmission distance: 10 km; OS1/OS2 recommended – Dual-mode twin-core fiber: Support LC optical connectors; wavelength: 850 nm; transmission distance: 300 m; OM3/OM4 recommended • The four optical ports correspond to the four Ethernet ports, respectively. OPT1 corresponds to OUT1. OPT2 corresponds to OUT2. OPT3 corresponds to OUT3. OPT4 corresponds to OUT4.
Functionality	DVI OUT	1x SL-DVI output.
Control	RS232 IN	Input port to cascade devices
	RS232 OUT	An output port to cascade devices
Power	AC 100V-240V~50/60Hz	

Dimensions



Tolerance: ±0.3 Unit: mm

Specifications

Electrical Specifications	Input voltage	AC 100V~240V-50/60Hz
	Rated power consumption	10 W
Operating Environment	Temperature	–20°C to +60°C
	Humidity	10% RH to 90% RH, non-condensing
Physical Specifications	Dimensions	482.0 mm × 268.5 mm × 44.4 mm
	Net weight	2.9 kg Note: It is the weight of a single device only.
Packing Information	Packing box	560 mm × 405 mm × 180 mm
	Carrying case	545 mm × 375 mm × 145 mm
	Accessory	1x power cord, 1x USB cable, 1x DVI cable

The amount of power consumption may vary depending on various factors such as product settings, usage, and environment.

Video Source Features

Input Connector	Features		
	Bit Depth	Sampling Format	Max Input Resolution
Single-link DVI	8bit	RGB 4:4:4	1920×1200@60Hz
	10bit/12bit		1440×900@60Hz
HDMI 1.3	8bit		1920×1200@60Hz
	10bit/12bit		1440×900@60Hz

Trademark

NOVASTAR is a trademark of Xi'an NovaStar Tech Co., Ltd.

Statement

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Official website
www.novastar.tech

Technical support
support@novastar.tech