Specifications

Independent Controller MCTRL4K

Rev1.0.1   NS1601000126

Overview

MCTRL4K is an independent master controller developed by NovaStar with an epoch-making significance. The loading capacity of a single unit is up to 3840x2160@60Hz, which is able to meet the on-site requirements of oversized LED displays. MCTRL4K makes it easier to create stunning visual effects for users.

MCTRL4K also can be used as two independent master controllers, which makes it more flexible to load LED displays.

The design of MCTRL4K is innovative. It allows to configure a display at any time without PC.

Various video inputs such as DP, HDMI, dual-link DVI etc. and outputs of 16-channel Neutrik Gigabit Ethernet ports as well as 4-channel optical fiber ports are supported.

Features

1) Complete video input interfaces: DP1.2 x 1, HDMI2.0 x 1, dual-link DVI x 2;

2) Supports 16-channel Neutrik Gigabit Ethernet outputs and 4-channel optical fiber outputs and maximum loading capacity of a single unit up to 3840x2160@60Hz;

3) Supports two operating modes during dual-link DVI input: mosaic and multi-card;

4) Innovative design to enable smart configuration which has greatly shortened the time for stage preparation;

5) NovaStar's G4 engine to create stable and flicker-free pictures without scanning lines, and bring smooth images with a good sense of layering;

6) Supports NovaStar's latest pixel-by-pixel calibration technology, the process of which is fast and efficient;

7) Enables white balance calibration and color gamut mapping based on the different features of LEDs on the display to ensure the real restoration of color;

8) Screen configuration can be done at any time without PC;

9) Manual adjustment of screen brightness, which makes it much easier and quicker;

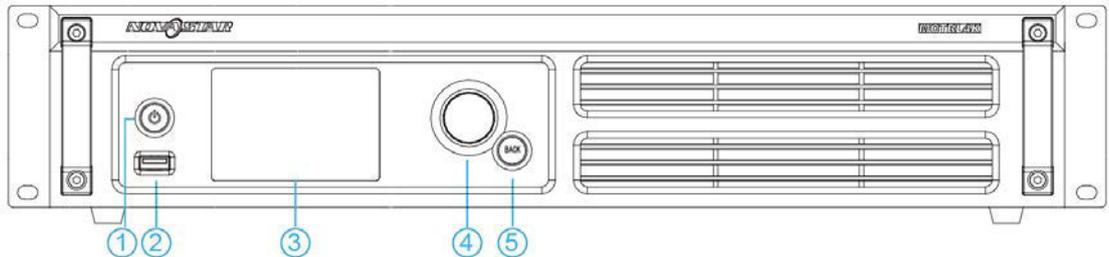10) Multiple controllers are able to be cascaded for uniform control.

Dimensions
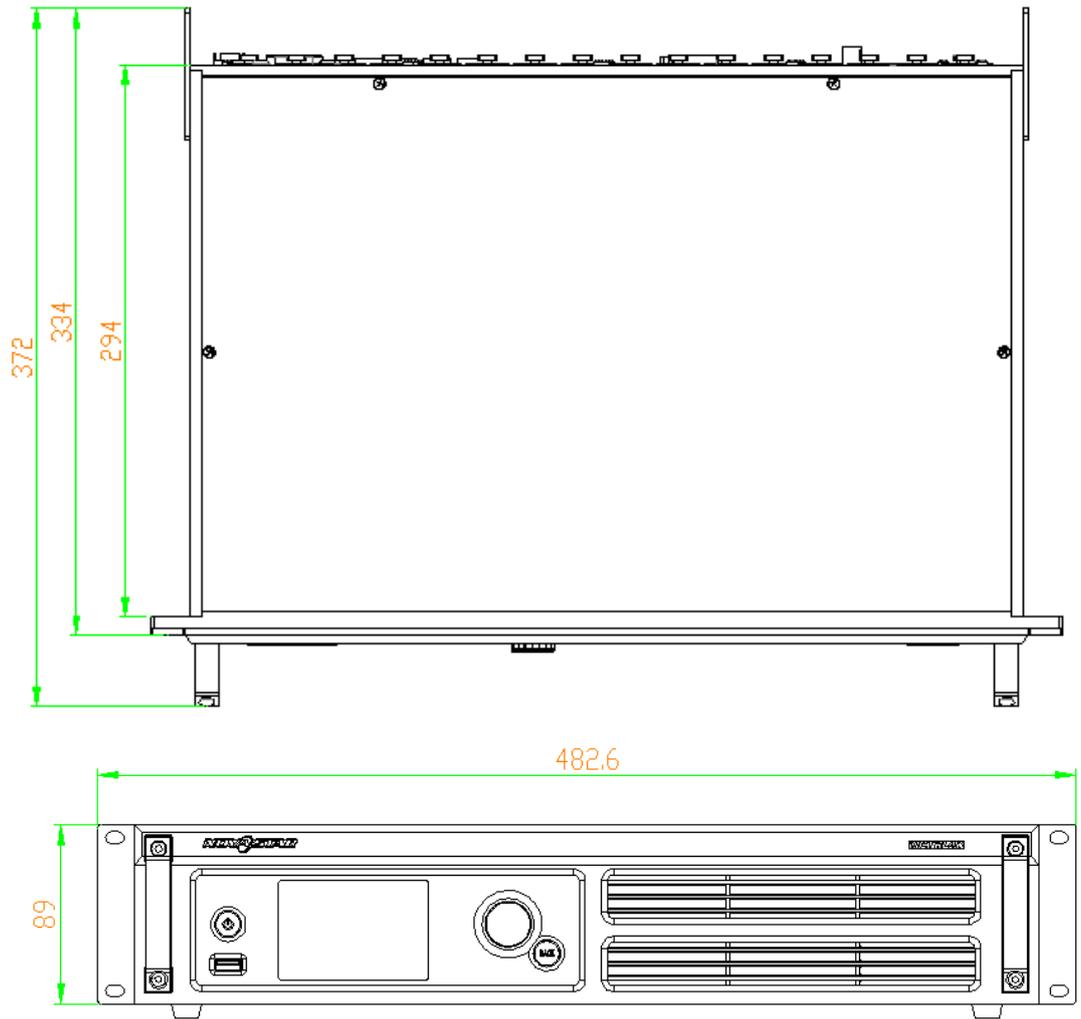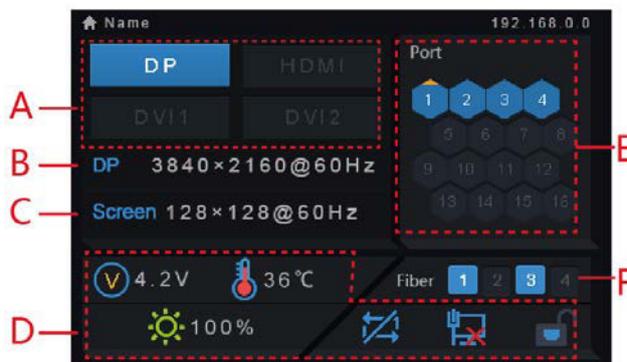

Dimensions of MCTRL4K (mm)

Appearance

Front panel

①: Power button; Press the button for startup. After startup, press and hold the button for 4~5 seconds to power off.
②: USB interface for connecting USB drives only(unable to connect computers).
③: Operation screen The top section of the screen displays product name (customizable) and its IP address. The meanings of other sections are described as below: A: Input status of signal source. Blue indicates it has signal while gray indicates no signal. B: Current input source and its resolution, frame rate. For example, the information of two DVI sources will be displayed alternately here when dual-link DVI is selected as input.

C: Width, height and frame rate of the screen under configuration;

D: Status, the meanings of each status icon are introduced as follows:

Supply voltage of mainboard core;

Temperature inside the controller;

Brightness of the LED display;

DVI1 and DVI2 sources are not synchronous(in mosaic mode),

DVI1 and DVI2 sources are synchronous(in mosaic mode);

Control interface is not connected;

USB port is used as control interface;

Ethernet port is used as control interface;

Operation screen is not locked;
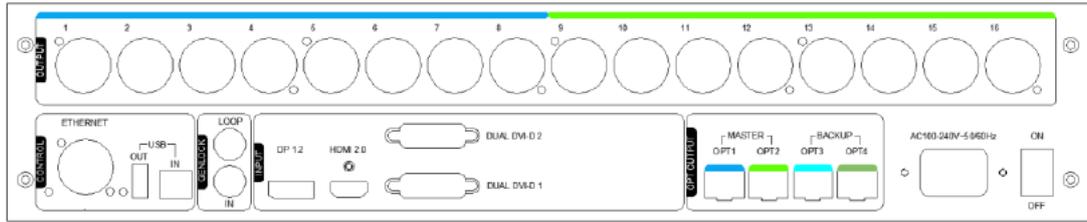
Operation screen is locked.

E: Connection status of Ethernet ports. Blue indicates that the connection is available and the port works as master control while gray indicates the port is not connected or the connection is unavailable. Mark on the upper left corner of the icon indicates that the connection is available and the port is in redundancy state.

F: Connection status of optical fiber ports. Blue indicates that the connection is available and the fiber port works as master control while gray indicates the port is not connected or the connection is unavailable. Mark on the upper left corner of the icon indicates that the connection is available and the port is in redundancy state.

④: Knob, Pressing the knob indicates Enter or OK, rotating the knob allows us to select or adjust.

⑤: BACK: Back to the previous menu.

Rear panel

Inputs	
DP 1.2	DP 1.2 interface
HDMI 2.0	HDMI 2.0 interface
DUAL DVI-D1/D2	Dual-link DVI interface
Outputs	
1~16	16-channel Neutrik Gigabit Ethernet outputs
OPT1~4	4-channel optical fiber outputs
Control	
ETHERNET	Control interface
USB	IN: cascade input or connecting to PC for communication OUT: cascading next unit
GenLock	
IN	Genlock type: Blackburst Genlock synchronous signal, making sure the pictures on LED display are synchronous with external Genlock source.
LOOP	Genlock loop output
Power supply	
AC 100-240V ~ 50/60HZ	AC power interface

Specifications ———

Inputs		
Port	Qty	Resolution specifications
DP	1	DP 1.2 standard Max. supported resolution:3840×2160@60Hz, Max. width and height are 3840(downward compatibility)
HDMI	1	HDMI 2.0 standard Max. supported resolution:3840×2160@60Hz Max. width and height are 3840 (downward compatibility)
Dual-link DVI	2	VESA standard, max. supported resolution: 3840x1080@60Hz and 3840×2160@30Hz (downward compatibility)
Outputs		
Port	QTY	Resolution specifications
RJ45	16	Neutrik Gigabit Ethernet port
OPT	4	Optical fiber port, single mode and double fiber, LC port, 1310mm OPT1 is used for transferring the data of port 1-8 OPT2 is used for transferring the data of port 9-16 OPT3 is the backup channel of OPT1 OPT4 is the backup channel of OPT2 Either Gigabit Ethernet port or optical fiber port can be used at the same time. Two types of ports cannot be used to connect devices simultaneously.

Control		
Port	Qty	Notes
ETHERNET	1	Control interface
USB	2	Control interface of upper computer and cascading interface

Overall Specifications	
Input power	AC 100-240V, 50/60Hz
Overall power consumption	30W
Operating temperature	-20~60℃
Dimensions(L×W×H)	482.6×372×89（mm）
Weight	4.6kg