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Mooncell

MTB400E

Sending Controller

Specification V4.0

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1 Update Records

Document Version	Hardware Version	Release Time	Update Record
V4.0	ST40（V4.0.0）	July 19 (th), 2025	First release

2 Product Introduction

The MTB400E is an sending controller developed and launched by Mooncell, supporting up to 2.6 million pixels. It features powerful processing capabilities, ultra-stable performance, and exceptional cost performance

3 Product Characteristics

3.1 Improve the display effect

- Multiple input interfaces
  - 1×HDMI1.4
  - 1×DVI
- Output interface
  - 4 Gigabit Ethernet ports, supporting vertical and horizontal tiling in any configuration
  - Maximum load capacity: 2.6 million pixels
- Audio interface

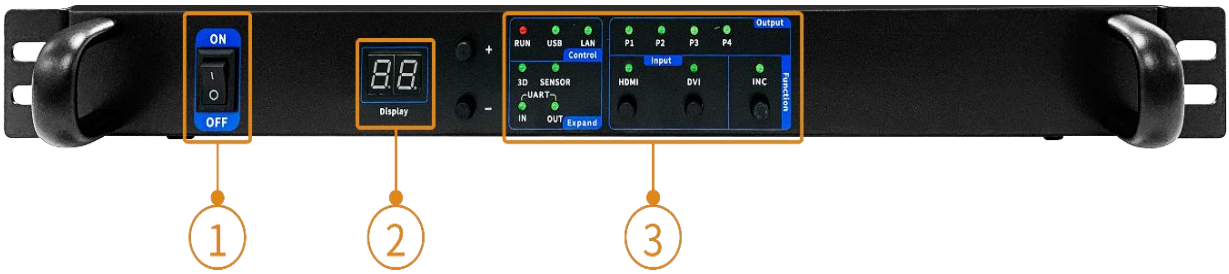
  Support audio input，Synchronize via network cable
- Control interface
  - 1×USB interface communication, which can be controlled by cascading multiple sending cards on the same PC.
  - 1×LAN, 100M network interface connected to the host computer for debugging.

3.2. Diversified Practical Functions

- Supports Ethernet loopback backup and dual-master controller backup
- Supports EDID management
- Compatible with multiple input frame rates including 30Hz, 50Hz, 60Hz, and 120Hz
- Supports ST_EXT expansion board for cascaded brightness control and automatic brightness adjustment
- Supports host software monitoring of sending card operating parameters and status
- Supports configuration parameter readback
- Supports Gigabit Ethernet error rate detection

4 Product Appearance

Front Panel



* Product photos are for reference only, please refer to the products actually purchased.

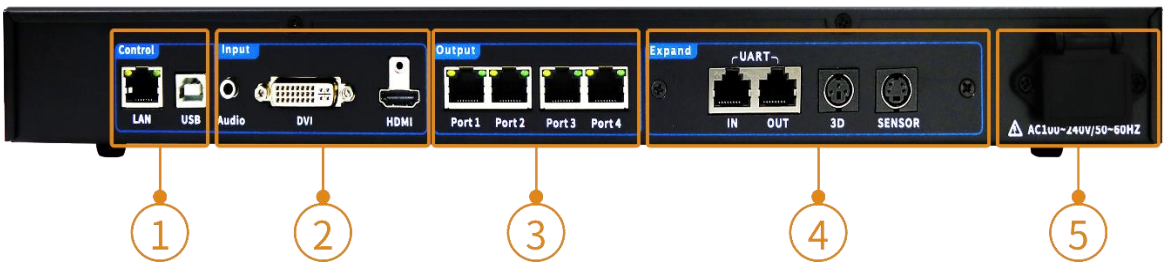
4.1 Description of Data Interface

#	Interface name	Interface description
1	Switch	Main control power supply switch
2	Digital Display	Brightness Display: Shows the current brightness value
3	Indicator and Function Keys	Display device operating status and functional operations

Indicator Illustration	
Indicator	Illustration
Output	
P1-P4	Network Port Indicator: - Steady flashing: Gigabit Ethernet signal communication is normal - Steady on: Gigabit Ethernet signal is not connected
Input	
DVI	DVI Interface Indicator and Button: - Steady on: DVI signal input is normal - Steady off: No DVI signal input - Button: Select DVI input
HDMI	HDMI Interface Indicator Light and Button: - Steady on: HDMI signal input is normal - Steady off: No HDMI signal input - Button: Select HDMI input (indicator stays on)
Control	
RUN	Power indicator
USB	USB Port Indicator Light: - Steady on: USB cable connected properly - Steady off: No USB cable connected
LAN	100Mbps Ethernet Port Indicator: - Steady on: 100Mbps Ethernet connection is active - Steady off: 100Mbps Ethernet connection is not active

Expand	
3D	3D Interface Indicator: - Solid on: 3D signal transceiver connected normally - Solid off: 3D signal transceiver not connected
SENSOR	SENSOR Interface Indicator: - Steady on: Light sensor connected normally - Steady off: Light sensor not connected
UART-IN	Serial Port Indicator: - Steady on: Serial input connection is normal - Steady off: Serial input is not connected
UART-OUT	Serial Port Indicator: - Steady on: Serial output connection is normal - Steady off: Serial output is not connected
Function	
INC	Inspection Indicator and Button

Rear Panel



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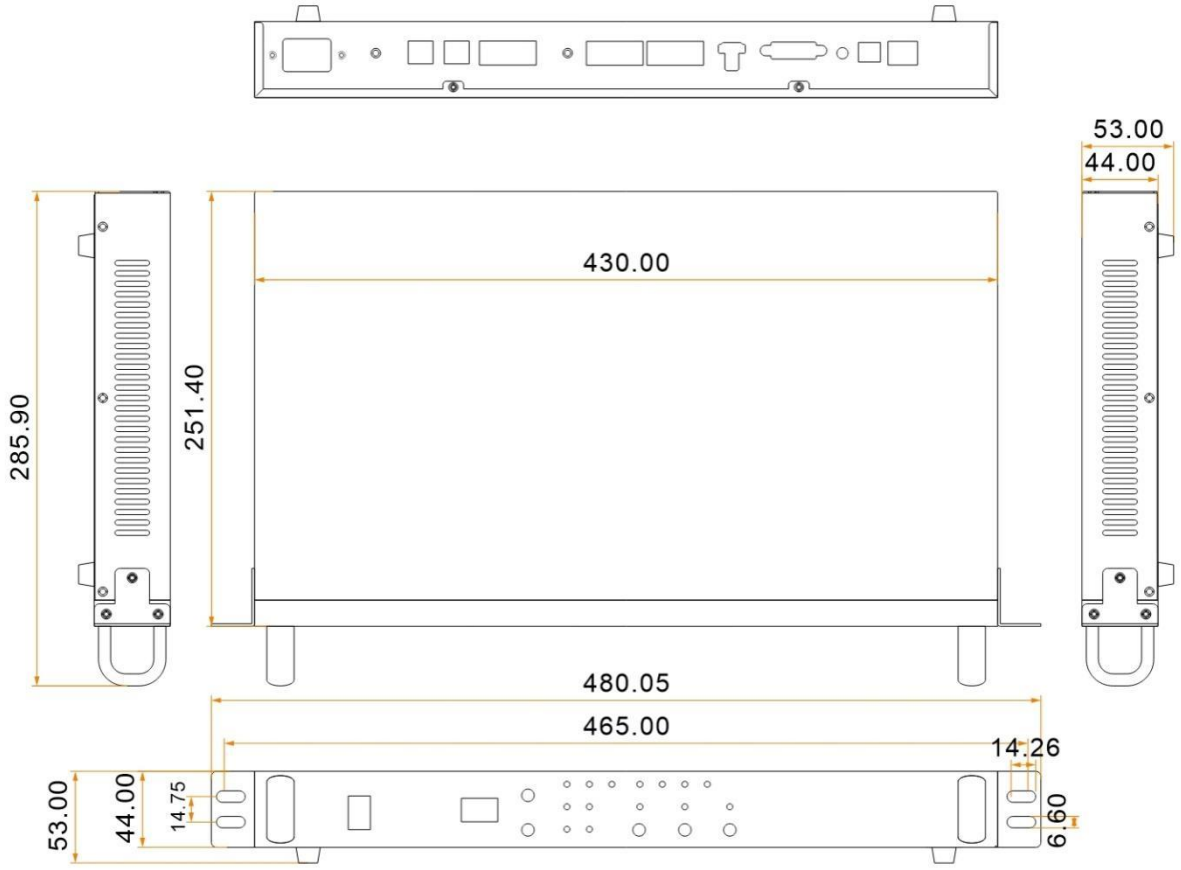
Rear Panel Description		
Input Interface		
#	Name	Illustration
2	HDMI	1×HDMI 1.4, supports video source input up to 3840×2160@30Hz resolution, backward compatible.
	AUDIO	1×3.5mm audio input interface
	DVI	1×DVI video signal input port, maximum resolution 1920×1200@60Hz
Output Interface		
#	Name	Illustration
3	Gigabit Ethernet port	◆ Port1-Port4 correspond to output ports 1-4 ◆ Maximum single-port load capacity: 650,000 pixels ◆ Supports loop backup between network ports ◆ Audio transmission is supported only via P1 output port
Control Interface		
#	Name	Illustration
1	LAN	100Mbps Ethernet interface for connecting to host computer for debugging
	USB（B-Type）	Connects to PC software for communication
Extended Interface		
#	Name	Illustration
4	UART IN/OUT	Serial Port Communication Input/Output
	3D	3D Transceiver Communication Interface
	SENSOR	Light Sensor Communication Interface
Power supply interface		
#	Name	Illustration
5	Ac power Interface	AC-100-240V-50/60HZ AC power interface

4.2Product Dimensions



Tolerance：±0.3　　Unit：mm

5 Product Parameters

5.1Basic Parameters

Loading capacity	Single network port	Maximum load 655360 pixels, network port load (width × height) 1280 × 512
	Whole Unit	2.60 million Pixels
Load Range	Width	128-4096 Pixels
	Height	64-4096 Pixels
Offset Range	Width	0—4095 Pixels
	Height	0—4095 Pixels

5.2 Specification

Electrical Parameters	Rated voltage	AC-100-240V-50/60HZ
	Rated power	16W
Working Environment	Operating temperature	-20℃~60℃
	working humidity	10%RH~90%RH non-condensing
Storage Environment	Temperature	-20℃~70℃
Chassis size	480.05mm×285.9×53mm	
Net weight	2.83 Kg	
Outer box size	515×130×355mm	
Gross weight	3.94Kg Description: Including accessories and packaging materials	
Accessory	1×Power Cord、1×USB、1×DVI、1×HDMI、1×Certificate	
Packing method	3 PCS/Carton	

*Current and power consumption may vary depending on factors such as product usage, environment, and settings.

6 Precautions

- High voltage hazard: This product operates at AC 100V~240V.
- Do not allow liquids or metal fragments and other conductive materials to enter the device, to prevent safety accidents.
- Please use the device in a dry and clean environment.

National after-sales services hotline: 400-881-3531

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