

# MTB600E    MTB400E

## Sending Controller

### User Manual/Guide/Handbook

Applicable to MTB600E    MTB400E

Document version:: V2.0

## Safety Instruction



This symbol reminds the user that there are important operation and maintenance instructions in the user manual of the equipment.



This symbol warns the user that there is dangerous voltage exposed in the casing of the equipment, and there is danger of electric shock.

## Precautions

**Reading Instructions** Users must read and understand all safety and use instructions before using the equipment.

**Save Instructions** Users should save safety instructions for future use.

**Obedience warning** Users should observe all safety and operating instructions in the product and user's guide.

**Avoid appending** Do not use tools or appending equipment not recommended by the manufacturer of this product to avoid danger.

## Warning

### Power supply

This equipment can only use the power supply indicated on the product. The equipment must be powered by a power supply system with a ground wire. The third line (ground wire) is a safety facility, which cannot be used or skipped.

### Unplug the power supply

In order to safely unplug the power supply from the equipment, please unplug the power cord of all equipment rear or desktop power supply, or any power cord connected to the mains system.

**The power cord shall be properly wired to avoid being trampled or squeezed by heavy objects.**

### Maintenance

All repairs must be carried out by certified maintenance personnel. There are no parts in the equipment that can be replaced by users. To avoid the danger of electric shock, don't try to open the cover of the equipment to repair the equipment yourself.

### Vent holes

Some equipment housings have vent slots or holes, which are used to prevent the sensitive components in the machine from overheating. Don't block the vent with anything.

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# 1 Update Records

Document version	Hardware version	Release time	Update record
V2.0	ST40 (V4.0.0) ST60 (V5.0.0)	July 22(nd), 2025	First release of document

# 2 Applicable Model

The product models applicable to this article are as follows:

MTB600E、MTB400E。

In this paper, MTB600E Sending Controller is used to explain:

## 3 Product Overview

### 3.1 Product introduction

The MTB600E is a sending controller developed and launched by Mooncell, supporting a load capacity of up to 3.9 million pixels. It features powerful processing capabilities, ultra-stable performance, and exceptional cost performance

### 3.2 Product Features

#### 3.2.1 Input/Output Interfaces

- Multiple input interfaces
  - 1×HDMI1.4
  - 1×DVI
- Output interface
  - 6 Gigabit Ethernet ports, supporting vertical and horizontal tiling in any configuration
  - Maximum load capacity: 3.9 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.

### 3.2.2 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 transmitter card operating parameters and status
- Supports configuration parameter readback
- Supports Gigabit Ethernet error rate detection

## 4 Hardware Introduction

### 4.1 Hardware Interface Specifications

#### 4.1.1 Front Panel



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

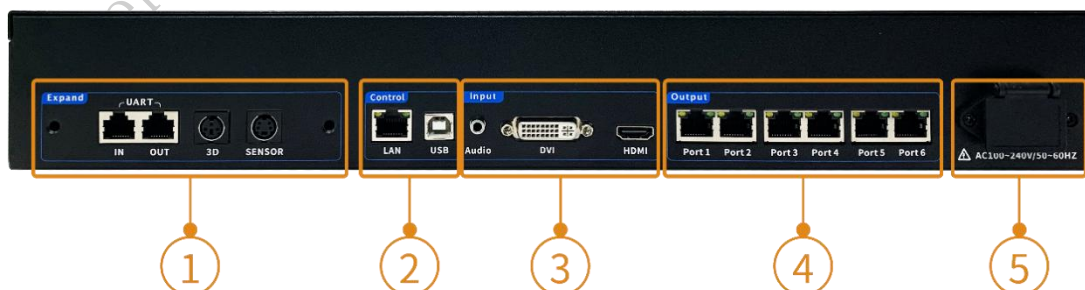
## Description of data interface:

#	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-P6	Network Port Indicator: <ul style="list-style-type: none"> <li>- Steady flashing: Gigabit Ethernet signal communication is normal</li> <li>- Steady on: Gigabit Ethernet signal is not connected</li> </ul>
Input	
DVI	DVI Interface Indicator and Button: <ul style="list-style-type: none"> <li>- Steady on: DVI signal input is normal</li> <li>- Steady off: No DVI signal input</li> <li>- Button: Select DVI input</li> </ul>
HDMI	HDMI Interface Indicator Light and Button: <ul style="list-style-type: none"> <li>- Steady on: HDMI signal input is normal</li> <li>- Steady off: No HDMI signal input</li> <li>- Button: Select HDMI input (indicator stays on)</li> </ul>
Control	
RUN	Power indicator
USB	USB Port Indicator Light: <ul style="list-style-type: none"> <li>- Steady on: USB cable connected properly</li> <li>- Steady off: No USB cable connected</li> </ul>

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

#### 4.1.2Rear Panel



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**Data Interface Illustration:**

Rear Panel Description		
<b>Input Interface</b>		
#	Name	Illustration
3	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
<b>Output Interface</b>		
#	Name	Illustration
4	Gigabit Ethernet port	<ul style="list-style-type: none"> <li>◆ Port1-Port6 correspond to output ports 1-6</li> <li>◆ Maximum single-port load capacity: 650,000 pixels</li> <li>◆ Supports loop backup between network ports</li> <li>◆ Audio transmission is supported only via P1 output port</li> </ul>
<b>Control Interface</b>		
#	Name	Illustration
2	LAN	100Mbps Ethernet interface for connecting to host computer for debugging
	USB (B-Type)	Connects to PC software for communication
<b>Extended Interface</b>		
#	Name	Illustration
1	UART IN/OUT	Serial Port Communication Input/Output
	3D	3D Transceiver Communication Interface
	SENSOR	Light Sensor Communication Interface
<b>Power supply interface</b>		
#	Name	Illustration
5	Ac power Interface	AC-100-240V-50/60HZ AC power interface

## 5 Product Parameters

### 5.1 Specification

Loading capacity	Single network port	Maximum load 655360 pixels, network port load (width × height) 1280 × 512
	Whole Unit	3.90 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	Input voltage	AC-100-240V-50/60HZ
	Rated power	16W
Working Environment	Operating temperature	-20°C~50°C
	working humidity	0%RH~80%RH non-condensing
Storage Environment	Temperature	-20°C~70°C
Chassis size	483mm×284.5×65.5mm	
Net weight	3.12Kg	
Outer box size	515×130×355mm	
Gross weight	4.31Kg 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.

## 7 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.

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WeChat Official Account Platform

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