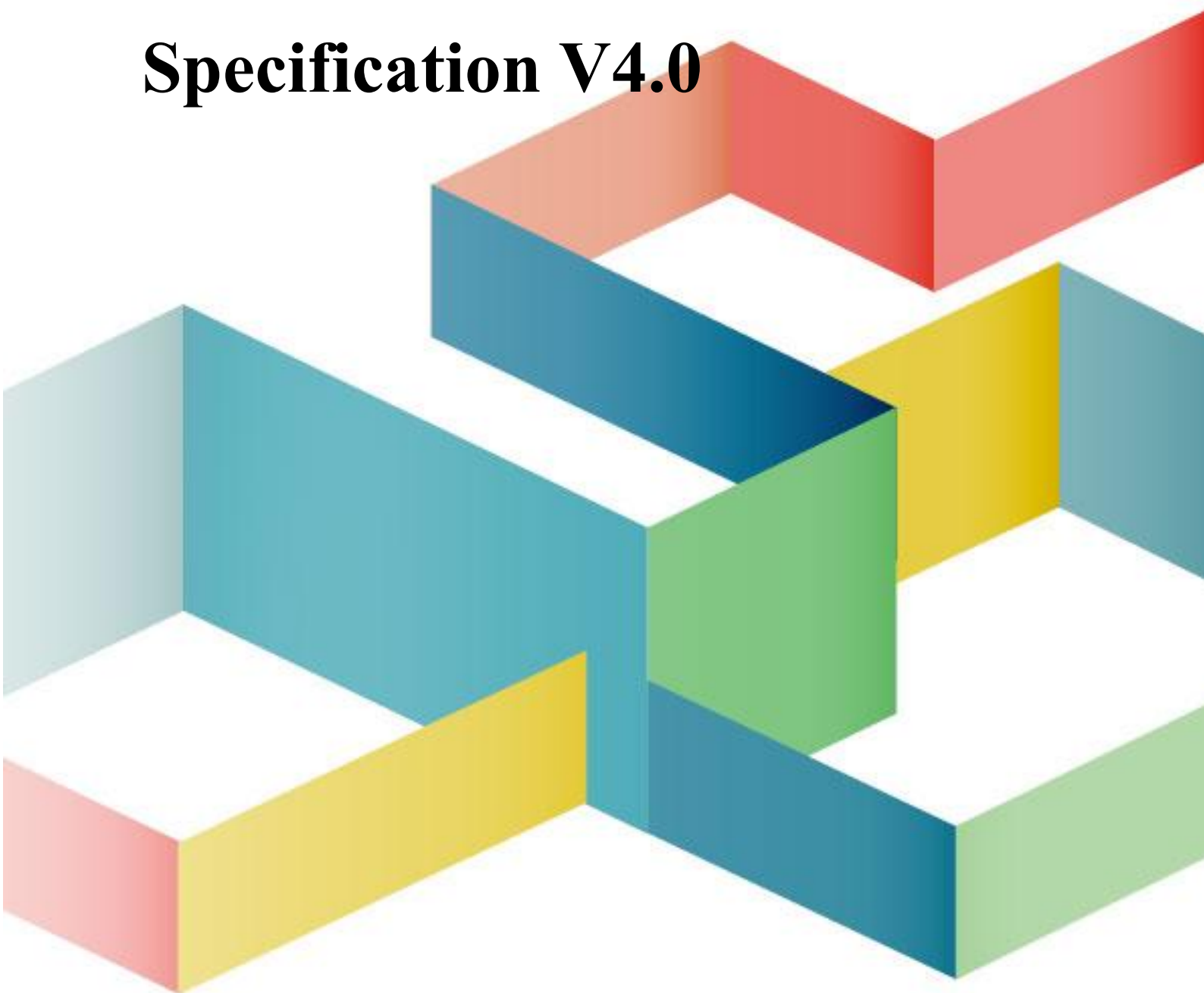


# MTB400E

**Sending Controller**

**Specification V4.0**



## CONTENT

|                                             |   |
|---------------------------------------------|---|
| 1 Update Records .....                      | 1 |
| 2 Product Introduction .....                | 1 |
| 3 Product Characteristics .....             | 1 |
| 3.1 Improve the display effect .....        | 1 |
| 3.2.2 Diversified Practical Functions ..... | 2 |
| 4 Product Appearance .....                  | 2 |
| 4.1 Description of Data Interface .....     | 2 |
| 4.2Product Dimensions .....                 | 6 |
| 5 Product Parameters .....                  | 7 |
| 5.1Basic Parameters .....                   | 7 |
| 5.2 Specification .....                     | 7 |
| 6 Precautions .....                         | 8 |

## 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.

### 3.2.2 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 Product Appearance

Front Panel



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

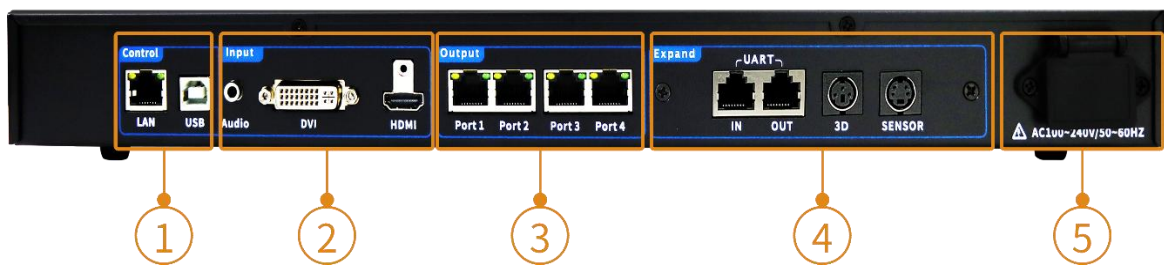
### 4.1 Description of Data Interface

| # | 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: <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: <ul style="list-style-type: none"> <li>- Steady on: 100Mbps Ethernet connection is active</li> <li>- Steady off: 100Mbps Ethernet connection is not active</li> </ul>                                      |

| Expand   |                                                                                                                                                                                          |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3D       | 3D Interface Indicator: <ul style="list-style-type: none"> <li>- Solid on: 3D signal transceiver connected normally</li> <li>- Solid off: 3D signal transceiver not connected</li> </ul> |
| SENSOR   | SENSOR Interface Indicator: <ul style="list-style-type: none"> <li>- Steady on: Light sensor connected normally</li> <li>- Steady off: Light sensor not connected</li> </ul>             |
| UART-IN  | Serial Port Indicator: <ul style="list-style-type: none"> <li>- Steady on: Serial input connection is normal</li> <li>- Steady off: Serial input is not connected</li> </ul>             |
| UART-OUT | Serial Port Indicator: <ul style="list-style-type: none"> <li>- Steady on: Serial output connection is normal</li> <li>- Steady off: Serial output is not connected</li> </ul>           |
| Function |                                                                                                                                                                                          |
| INC      | Inspection Indicator and Button                                                                                                                                                          |

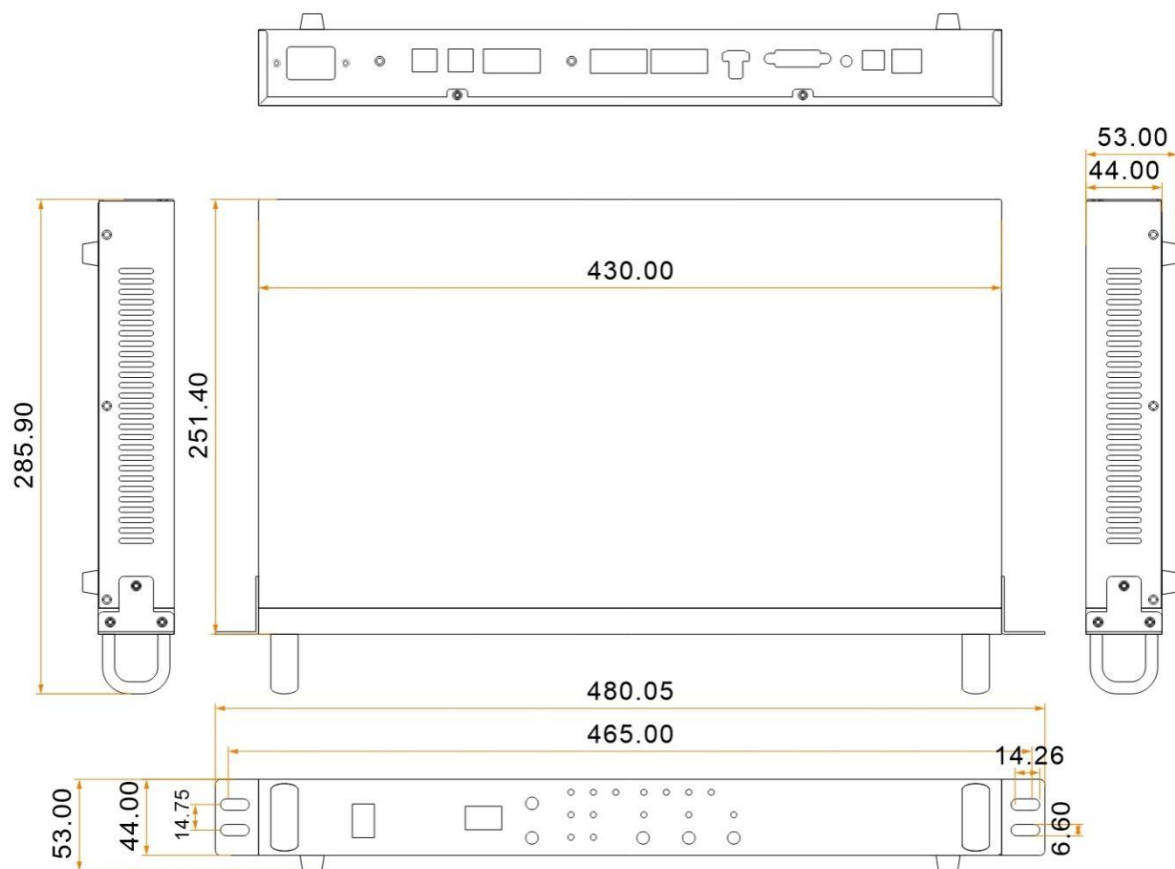
Rear Panel



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

| 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 | <ul style="list-style-type: none"> <li>◆ Port1-Port4 correspond to output ports 1-4</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> |
| 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                                                                                                                                                                                                                                               |

## 4.2 Product Dimensions



Tolerance:  $\pm 0.3$  Unit: mm

## 5 Product Parameters

### 5.1 Basic 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                                                             |

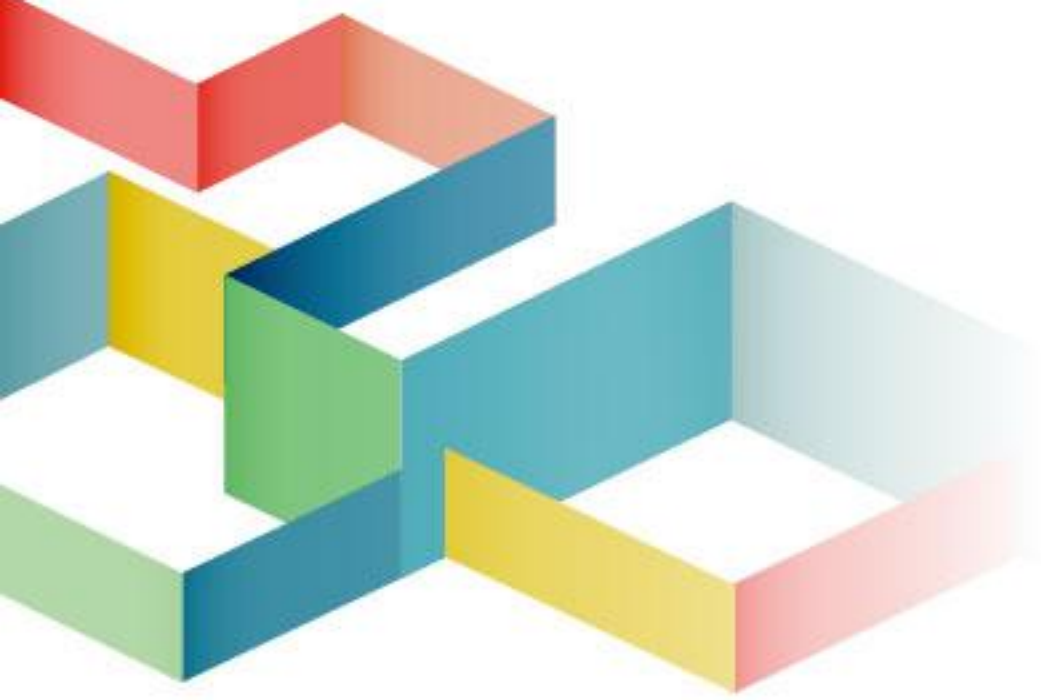
### 5.2 Specification

|                       |                                                                   |                            |
|-----------------------|-------------------------------------------------------------------|----------------------------|
| Electrical Parameters | Input voltage                                                     | AC-100-240V-50/60HZ        |
|                       | Rated power                                                       | 16W                        |
| Working Environment   | Operating temperature                                             | -20°C~60°C                 |
|                       | working humidity                                                  | 10%RH~90%RH non-condensing |
| Storage Environment   | Temperature                                                       | -20°C~70°C                 |
| 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

Official website: [www.mooncell.com.cn](http://www.mooncell.com.cn)

Address: Mooncell Building, Third Industrial Zone, Baoshi South Road,  
Shiyan Street, Baoan District, Shenzhen

