mini-mx

Streaming Video Mixer

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Product Overview

Key Features

- 4K multi-channel streaming video mixer
- Built-in 5.5 inch touch screen for menu operation
- Quad HDMI 2.0 inputs, resolutions up to 4K@60
- Dual HDMI 1.3 outputs for monitoring of multi-window PREVIEW and PROGRAM
- Dual MIC In, Dual Audio Out for audio monitoring
- Mix for HDMI embedded and external audio
- One-key recording. Recording capacity of hard drive is up to 2T
- Stream up to 2 platforms simultaneously over IP and 32 platforms via TAO APP
- Support multi-layer overlay, layer scaling and cropping
- 15 switching effect modes
- 5-direction joystick for controlling up to 4 PTZ cameras
- Save and store up to 16 scene presets. One-click for preset recall
- Control via computer and mobile phone
- Support Chroma Key
- One-key quick switch between portrait and landscape screen
## Front Panel

<table>
<thead>
<tr>
<th>1 Audio Volume Controls</th>
<th>Embedded audio volume adjustment for HDMI 1~4 inputs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Adjuster</td>
<td>- Zoom in/out when PTZ control is enabled.</td>
</tr>
<tr>
<td></td>
<td>- Size adjustment for layer.</td>
</tr>
<tr>
<td>3 Layer Selection Buttons</td>
<td>- Indicate BACKGROUND, Layer A, Layer B, CAPTION, LOGO and TEXT from left to right.</td>
</tr>
<tr>
<td></td>
<td>- Layers are all closed by default. Press button to open.</td>
</tr>
<tr>
<td></td>
<td>- Button in green indicates editing state, button in blue indicates PREVIEW state.</td>
</tr>
<tr>
<td></td>
<td>- To close opened layer, press button first, wait for button turns into green, then press the button again to close layer.</td>
</tr>
<tr>
<td></td>
<td>- Long press to enter LAYOUT interface.</td>
</tr>
<tr>
<td>4 Channel Fader</td>
<td>- Control audio volume level for each channel.</td>
</tr>
<tr>
<td></td>
<td>- Indicate MIC1, MIC2, Line-in, Bluetooth, PREVIEW, PROGRAM from left to right.</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| 5 | **Listen and Mute Buttons**  
- Listen Button: Audio management for monitoring port. Button in green allows users to monitor the audio from a channel; no button light indicates monitoring function is OFF.  
- Mute Button: Mute that channel on PROGRAM port. When a channel is muted, the button will be illuminated red; no button light indicates the channel is ON at PROGRAM port. |
| 6 | **T-Bar**  
Preview and Program views can be transitioned by pushing T-bar. |
| 7 | **Page Up**  
Press to return to the previous page. |
| 8 | **Page Down**  
Press to enter the next page. |
| 9 | **Button 1~8**  
- Button 1~8 indicate 8 selections in Main Menu.  
- Button 1~4 can also be used as 1~4 HDMI inputs switch button. When the signal is in Program, the button will be illuminated red; when the signal is being edited, the button illuminated green. |
| 10 | **5-Direction Joystick**  
- Set pan, tilt and zoom for PTZ camera.  
- Position adjustment for layer. |
| 11 | **MENU Button**  
Press to switch interface between Preview Interface, Main Interface, Preset Interface. |
| 12 | **ON-AIR Button**  
- Press to start or end streaming.  
- Check streaming status on LCD screen: steady red shows ON AIR, flashing red shows unstable network, unlit shows streaming is finished. |
| 13 | **5.5" HD Touchscreen**  
For menu operation and multi-view window monitoring. |
Interface Panel

USB-C 3.0 Stream Port
- Recognized as webcam for streaming or video conference.

USB-C 3.0 Record Port
- Insert SSD or U disk for recording.
- Insert a U disk to import audio, video and graphic files.
- Use with USB-C cable provided to share network with mobile phone.

Ethernet Port
- For web streaming, PTZ control and firmware upgrade.

PROGRAM Output Port
- Default as Program Output, can set as Multi-view Preview or Test Pattern optional Output by menu.

MULTI-VIEW Output Port
- Default as Multi-view Preview Output, can set as Program or HDMI 1~4 optional Output by menu.

HDMI 1~4 Inputs
- 4K resolution and downward compatible with all resolution.

Locking Hole
- Use with T-lock to fix the device.

USB-C Power Port
- PD protocol, 12V 3A.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>❶ Power Switch</td>
<td>Rocker switch to power on or off device.</td>
</tr>
<tr>
<td>❷ Headphone Output</td>
<td>3.5mm mini-jack for listening each analog input and HDMI input.</td>
</tr>
<tr>
<td>❸ 6.35mm TRS Jack</td>
<td>Balanced XLR Audio Output.</td>
</tr>
<tr>
<td>❹ Line-in</td>
<td>Balanced 6.35mm XLR Jack to connect to mobile phone, computer or audio console.</td>
</tr>
<tr>
<td>❺ MIC in 2</td>
<td>XLR/TRS NEUTRIK MIC IN Port.</td>
</tr>
<tr>
<td>❻ MIC in 1</td>
<td>XLR/TRS NEUTRIK MIC IN Port with 48V Phantom Power supported.</td>
</tr>
<tr>
<td>❼ +48V DIP Switch</td>
<td>• 48V Phantom Power supported.</td>
</tr>
<tr>
<td></td>
<td>• Defaults to OFF.</td>
</tr>
</tbody>
</table>

**Warning:**

Except condenser microphones that require phantom power, please **Turn Off** phantom power switch when connecting other devices.
## Preview Interface

1. **PREVIEW**
   - Show Preview monitoring screen and audio meter. Double click for full screen.

2. **PROGRAM**
   - Show Program screen and audio meter. Double click for full screen.

3. **Source Selection**
   - View HDMI 1~4 signals and audio meter.
   - Tap touch screen or press Button 1~4 to switch signal.

4. **Media**
   - Import pictures and other materials.

5. **Audio Status Monitoring**
   - Monitor 3 analog audio inputs (MIC1, MIC2, Line-in) and 1 Bluetooth audio input.
   - Tap to enter Audio Setting interface.

6. **Recording Status**
   - Check recording duration. Long press to enter recording setting interface.

7. **Streaming Status**
   - Check streaming duration. Long press to enter streaming setting interface.
Main Interface

1. **PREVIEW**
   - Show Preview monitoring screen and audio meter.

2. **Layer Selection**
   - For item not been selected before, tap to open.
   - Icon in green indicates editing status; icon in blue indicates Preview status.
   - To close the opened item, tap it, wait for light turns into green, then tap it again to close.

3. **PROGRAM**
   - Show Program screen and audio meter.

4. **Status Display**
   - Check time, recording & streaming status, upstream rate, disk capacity, recording duration.

5. **Icons**
   - Enter Main Interface, Page Up, Page Down, Enter Setting Interface.

6. **Signal Monitor & Source Select**
   - Use Button 1~8 for selection.
   - 4 windows in the upper for HDMI 1~4 signal monitoring, use Button 1~4 to switch signal.
   - 4 windows at the bottom for sources selection, use U disk to import sources.
Getting Started with mini-mx

Plug in Power

Powering mini-mx

RGBlink mini-mx is packaged with a PD power adapter (power cable included), check the power supply standard used in your country/region before power connection. Push the power switch on the rear panel, the touch screen will enter the operation interface.

⚠️ Warning:
Please use the standard power adapter provided.

Connect HDMI Input

Connecting HDMI Signal

Use any camera, computer or other HDMI device as the input source to mini-mx. For example, use HDMI cables to connect 4 PTZ cameras to HDMI input ports. Please refer to PTZ Control chapter for more description.
Connect HDMI Output

Connecting Monitors

mini-mx features two HDMI output ports. Use HDMI cables to connect MULTI-VIEW and PROGRAM ports to a monitor so as to check Preview and Program views in real time.

Switch Window Display

Program Port: Default as Program Output, can set as Multi-view Preview or Test Pattern optional Output by menu.

Preview Port: Default as Multi-view Preview Output, can set as Program or HDMI 1~4 optional Output by menu.

Connect Microphones and Other Devices

Connecting Microphones

mini-mx features THREE high-quality audio input jacks on the right panel, TWO of which adopt Neutrik jacks (MIC in 1 supports 48V phantom power). Plug microphone into MIC in jacks of the unit using a standard 3-pin XLR cable, including condenser microphones that require phantom power.
Connecting Line-Level Devices

The other one adopts Line-in 6.35mm TRS jack, which can be directly connect to the mobile phone, computer and console.

To connect a line-level device, the process is much the same as connecting a microphone: simply plug it in to Line-in jack using a TRS cable.

Adjusting Volume

Use Physical Fader to control audio volume level for MIC 1, MIC 2, Line-in.
The red button under each of the mini-mx’s physical faders is a Mute Button and the green button is a Listen Button.
Use listen button to monitor the audio from a channel.
Use mute button to mute that channel on the Program output.

Connect Headphones and Speakers

Connecting Headphones

mini-mx comes with TWO audio output jacks on the right panel. One adopts 3.5mm mini-jack, which can be directly connect to the headphone for audio monitoring.
Connecting Speakers

The other line output on the right is for connecting speakers.

Adjusting Volume

Use Physical Fader to control audio volume level for PREVIEW port and PROGRAM port.
Use listen button to monitor the audio from a channel.
Use mute button to mute that channel on the Program output.

Warning:

1. Plugging, unplugging and audio tuning may generate noise. When connecting audio output port (Program output and monitor port) to the speaker, if the speaker is powered on, it may be damaged during unplugging process. Therefore, power on speaker after connection, and power off it before unplugging.
2. MIC 2 supports access to wireless microphone with a 3.5mm female to 6.5mm male single-track adapter. LINE supports access to wireless microphone with a 3.5mm female to 6.5mm male dual-track adapter.
Using mini-mx

Menu

Entering Menu

Push MENU button and the LCD screen will quickly enter menu.

Menu Interface

Eight functions are available in main menu, which include EFFECTS, LAYOUT, PTZ, SCENE, CHROMA KEY, AUDIO, OUTPUT and SETTING.

Adding Background

How to enter Background Interface

Tap BACKGROUND in Layer Selection Area or Source Selection Area can quickly enter background interface.

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Inserting a U Disk

Insert a U disk into the USB port with number 1 silkscreen to import background sources.

Importing and Adding Sources

Touch "+" to add sources to the area on the right side, and long press the added source for deletion.

Turning on Background

Push Background button on the front panel to add Background to PREVIEW window.

⚠️ Warning:

1. Resolution of background source needs to be the SAME as the output resolution.
2. Only image in bmp format is supported.
Adding Layer A

Turning on Layer A

Push Layer A button on the front panel to edit the layer.
This operation also simultaneously turns on layer A.

Selecting Input Signal

Tap HDMI 1~4 signal on the main interface or the 1~4 buttons on the front panel to select the input.

Entering Layout

Push [MENU] button to enter menu. Tap LAYOUT or push Button 2 to enter layout selection interface. You can also enter LAYOUT interface by long pressing any button on Layer Selection Area.

Selecting Layout

7 layout options available. Select required layout for Layer A and display it on the background.

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Adjusting Size and Position

Use the adjuster on the front panel to adjust layer size and the joystick to quickly adjust the position for more detailed adjustment.

Layer Scaling and Cropping

Tap Option 8 to set more specific parameters.

Adding Layer B

Turning on Layer B

Push Layer B button on the front panel to edit the layer.
This operation also simultaneously turns on layer B.
Selecting Input Signal

Tap HDMI 1~4 signal on the main interface or the 1~4 buttons on the front panel to select the input.

Selecting Layout & Parameter Setting

Operations such as layer selection, size and position adjustment, layer scaling and cropping, please refer to Adding Layer A.

Using Chroma Key

Chroma Kay switch defaults to OFF. Turn on Chroma Key to perform matting on Layer B.

⚠️ Warning:

If Chroma Key is triggered, it defaults To perform matting on Layer B.

Adding Caption

Turning on Caption

Push Caption button on the front panel to turn on it.

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Importing and Adding Sources

Insert a U disk into the USB port with number 1 silkscreen to import background sources. Touch "+" to add sources to the area on the right side, and long press the added source for deletion.

⚠️ Warning:

Only image in png format is supported.

Selecting Layout

Same as operations in Adding Layer A and Adding Layer B, choose layout in LAYOUT interface.

Adjusting Position

Use the joystick to quickly adjust the horizontal position and vertical position.
Control PTZ Cameras

Controlling PTZ

mini-mx supports simultaneous control of up to four cameras.

⚠️ Warning:

Please check if the port number of the controlled camera is set to 1259. If the port number is not 1259, please enter correct port number of controlled camera in the box.

Setting IP Address

There are two ways to acquire the IP. The first one is to set IP address manually. **The IP address of mini-mx and camera controlled should be in the same LAN.** Enter IP address of the camera in the following interface and then click “Confirm” to save.

If devices are connected to same LAN, mini-mx can search IP address of all cameras in the LAN. Click icon to select the IP address of the camera to be controlled through the drop-down box.

Adjusting Parameters

Adjust focus, position and speed to meet needs.
Saving Scenes

How to enter Scene Interface

Tap Scene or push Button 4 to enter the interface.

Saving Scenes

mini-mx allows user to save 16 presets in total to the corresponding View 1-16.

Click 📷 icon to form a static picture of the current PREVIEW scene and save it in the current scene. Click 🗑️ icon to delete scenes no longer needed.

Loading and Switching Scenes

Loading Scenes

Tap the View needed for direct loading.

Selecting Switching Effect

15 transition effects available.
Selecting Switching Mode

mini-mx provides 2 switching mode, including T-Bar Preview Mode and CUT Mode. Tap the Setting icon on Menu or Button 8, then ‘System’ > ‘Mode’.

⚠️ Warning:

Only Preview mode supports time setting. Switch time of CUT mode defaults to 0.5s.

T-Bar Mode

Preview and Program views can be transitioned by pushing T-bar.

CUT Mode

Use Button 1~4 on the operation board to switch 4 HDMI inputs. The Button 1~4 corresponds to the 4 HDMI inputs one-to-one.
Setting Up Channels and Outputs

Understanding the Mixer

Default Configuration

Tap AUDIO on menu or push Button 6 to enter audio setting interface.
mini-mx has eight separate inputs for connecting various devices and audio sources: three XLR/TRS jacks for connecting microphones, computers and audio consoles; a Bluetooth channel for connecting computers and mobile devices wirelessly; four HDMI inputs support embedded audio volume adjustment.

Using the Physical and Virtual Faders

mini-mx features four physical faders and eight virtual faders.
The physical faders function like any other mixer: use the sliders to adjust the level for that channel.
The virtual fader position will be mirrored in real-time on audio setting interface.
Using the Mute Buttons

The red button under each physical faders is a mute button, which can mute that channel on the output. You can also access a mute button by entering the audio setting interface and then tapping the mute icon. When a channel is muted, the button on the front panel and icon on the audio setting will be illuminated red.

Using the Listen Buttons

The green button under each physical fader is a “listen” button, which allow users to monitor the audio from a channel. Users can also access this feature by tapping the level meter on audio setting interface and then tapping the ear icon. When “listen” function is triggered, the button on the front panel and icon on the audio setting will be illuminated green.

Understanding the Audio Outputs

Default Configuration

mini-mx comes with two separate outputs, including one Program Output and one Headphone Output.
Using the Physical and Virtual Faders

mini-mx features two physical faders and two virtual faders.
Same operations as described before: use the sliders to adjust the level for the output channel and the virtual fader position will be mirrored in real-time on audio setting interface.

Using the Mute Buttons

The mute buttons under each physical faders are represented in two types: tap the right one to mute all channel on Program output port and Preview output port. You can also access a mute button by entering the audio setting interface and then tapping the mute icon.
When a channel is muted, the button on the front panel and icon on the audio setting will be illuminated red.

The left one is for simultaneous audio management of four HDMI signals on Program output port and Preview output port.
Tap the button on the left can mute the corresponding channel on Program output or Preview output.
Streaming and Recording

Streaming

Connecting USB for Streaming

The USB port labeled number 2 is for video capture, which allows users to capture videos to computer and the captured video content can be streamed to Facebook, YouTube, Zoom, Twitter and other streaming media platforms via a third-party Video Media Player software like OBS; mini-mx also supports network share with mobile phone. Connect mobile phone and USB port labeled number 1 via a standard power cord for streaming.

Connecting LAN for Streaming

Use the LAN port, users can live streaming directly to the live platform via IP address.

Warning:

Turn OFF NET when using local network for streaming. (Tap the Setting icon on Menu or Button 8, then ‘ IP ’ > ‘Turn off NET’ )

Recording

Connecting a USB Storage Device

mini-mx supports recording streaming media content to an external USB storage device, such as U disk or SSD, through the USB port labeled number 1.

Tips:

Format SSD, U-disk before recording.
Upgrading mini-mx

Updating Firmware

Download upgrade package

![QR Code](https://www.rgblink.com/)

**Tool**

COPY THE FIRMWARE TO THE ROOT DIRECTORY OF USB DISK.

**Steps**

1. Power on mini-mx and connect USB disk to USB-C port (with number 1 silkscreen) by an OTG cable.

2. Tap the Setting icon on Menu or Button 8, then 'System' > 'About'.

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3. Tap ‘Device Version’, insert U disk with upgrade file to USB port labeled number, and mini-mx will automatically identify the file available.

4. Select file needed in ‘Upgrade File’ and then tap ‘Upgrade’.

**Warning:**
DO NOT power off the device during upgrading. Please perform factory reset after process is completed.
Contact us

Warranty

All products are designed and tested to the highest quality standard and backed by 1 year parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

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