

RGBlink TAO-1MINI 4K Streaming Node User Guide

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RGBlink TAO-1MINI 4K Streaming Node



Product Information

The TAO 1mini is a 4K streaming node that allows for NDI encoding and decoding, RTMP push, and YouTube streaming. It features a 2.1-inch touchscreen for real-time monitoring and menu operations. The front panel includes a tally lamp for device status indication. The interface panel includes USB-C and HDMI ports for power supply and external monitor connection, a 3.5mm audio socket for analog audio input and output monitoring, a USB 3.0 port for recording and storage, and a LAN port with PoE for network connection.

The TAO 1mini has a compact dimension of 91mm (diameter) x 40.8mm (height). It also has various functions accessible through the main interface, including RTMP push, NDI encoding and video recording, HDMI & UVC input signal selection, USB player, RTMP input, NDI decoding, and more.

Product Usage Instructions

1. Connect Input Signal

- Connect the HDMI/UVC signal source to the HDMI/UVC input port of TAO 1mini using a cable.
- Connect the HDMI output port of TAO 1mini to the display using an HDMI cable.

2. Plug-in Power

- Connect your TAO 1mini to the power supply using the provided USB-C power link cable and standard power adapter.
- Alternatively, you can power the TAO 1mini through the PoE network.
- Ensure that the power and video input sources are connected correctly.
- Power on the device and the 2.1-inch screen will display the TAO 1mini logo and then enter the main menu.

3. Connect Network

- Connect one end of the network cable to the LAN port of TAO 1mini.
- Connect the other end of the network cable to a switch or directly to the network port of your computer.

Product Overview

- Small and compact, easy to carry
- · Serve as either NDI video encoder or NDI decoder
- Support multiple formats, including RTMP/RTMPS/RTSP/SRT/FULL NDI/NDI | HX3/NDI |

HX2/ NDI | HX

- Stream to at least 4 platforms at the same time
- Low latency of end-to-end transmission
- Intuitive touch control, higher color, and image quality
- Power from USB-C or PoE network
- Dual 1/4in mounts

Front Panel



	2.1-inch touch screen for real-time monitoring of signals and menu
1 Touch Screen	operations.
2 Tally Lamp	Work indicators show device status.
⑤ 1⁄₄in Mounts	For mounting.

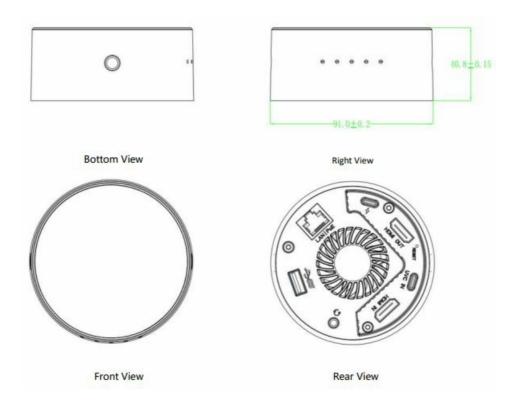
Interface Panel



• USB-C	Connect to the power supply, and support PD protocol.
⊘ HDMI	Connect to an external monitor for real-time monitoring of inputs and outputs.
❸ USB-C	For receiving video signals from your phone or others. Connect to USB camera for UVC capture. Support 5V/1A reverse power supply.
⊘ HDMI	For receiving video signals.
⑤ 3.5mm Audio Socket	For analog audio input and audio output monitoring.
⊙ USB3.0	Connect to hard disk for recording, and storage up to 2T.
• LAN	Gigabit network port with PoE.

Dimension

Following is the dimension of TAO 1mini for your reference: 91mm(diameter)x40.8mm(height).



Main Interface



Output	Three functions RTMP Push NDI Encoding and Video Recording.
Area	Tap the icon to trigger the function
2 Settings	 Tap to enter Settings Menu. Eight functions Home Input Output Internet Bluetooth Fan Speed Brightness and About.
	 Five functions HDMI & UVC input Signal Selection USB Player RTMP Pull and NDI Decoding. Tap yellow arrows to choose the function Tap the icon to trigger the function.
	Tap yellow allows to choose the function Tap the Icon to trigger the function.
4 ON AIR	Tap the icon to start streaming; long-press to enter the configuration interface.

Getting Started

Connect Input Signal

Connecting Signal Source

Connect the HDMI/UVC signal source to the HDMI/UVC input port of TAO 1mini through a cable. Connect the HDMI output port to the display via an HDMI cable.



Plug-in Power

Connecting Power Supply

- Connect your TAO 1mini with the packaged USB-C power link cable and standard power adapter.
- TAO 1mini also supports power from the PoE network.



Powering TAO 1mini

Connect the power and video input source correctly, power on the device, and the 2.1-inch screen will show the TAO 1mini logo and then come into the main menu.



Warning

- 1. Choose functions through tapping and set parameters through long-pressing.
- 2. In Settings, tap the Arrow Icon to choose different functions.
- 3. NDI encoding mode and decoding mode cannot work simultaneously.

Connect Network

Connecting Network

Connect one end of the network cable to the LAN port of TAO 1mini and the other to the switch. You can also connect directly to the network port of your computer.

Network Configuration

TAO 1mini and your computer configuration must be in the same LAN. There are two ways to configure a network.



Dynamic IP Setting

- **Step 1:** Ensure the switch has access to the network. Step 2: Connect TAO 1mini and the computer to the same switch and in the same LAN.
- Step 3: Turn on the DHCP of TAO 1mini, no configuration is needed for your computer.



Static IP Setting

- Step 1: Click the Network icon in Settings for TAO 1mini network configuration. Turn off DHCP and manually configure the IP address, netmask, and gateway. The default IP address is 192.168.5.100.
- Step 2: Turn off the computer's network and then configure TAO 1mini and the computer to the same LAN. Please set the IP address of the computer network port to 192.168.5.*.
- Step 3: Please click the buttons on the computer as follows: "Network and Internet Settings" > "Network and Sharing Center" > "Ethernet" > "Internet Protocol Version 4">"Use the IP address below", then manually enter the IP address with 192.168.5.*.



NDI Encoding & Decoding

NDI Encoding

Application Diagram

Refer to the diagram for the application of NDI encoding.



Selecting Input Signal

Tap yellow arrows to select HDMI or UVC as input signal according to actual input, and make sure the input image can be displayed successfully on the screen of TAO 1mini.



Configuring Parameters

Tap the NDI Encoding icon in the Output Area to turn on NDI Encoding and long press the icon to choose the encoding format (NDI|HX by default), set the resolution, bitrate and check the channel name.



Download NDI Tools

Download: https://www.newtek.com/ndi/tools/#

- Open NewTek Studio Monitor software and then click the icon in the upper left corner to display the list of device names discovered.
- Select a device to connect, and pull the current video stream of TAO 1mini.
- After the successful pull of the video stream, you can click the blank area of the device interface to check NDI
 resolutions.

NDI Decoding

Application Diagram

Refer to the following diagram for the application of NDI decoding.



Selecting NDI Sources

- Configure the network of another device (Support NDI decoding) and TAO 1mini to the same LAN.
- Tap yellow arrows to select the NDI Decoding icon. Long press the icon to enter the NDI decoding interface.



- Click Search to find the NDI sources in the same LAN.
- Find the NDI source to be decoded by swiping the screen and then click to decode and output.

Warning: NDI encoding mode and decoding mode cannot work simultaneously.

RTMP Push: Tap the RTMP Push icon in the Output Area.

- The interface will display the RTSP/RTMP/SRT stream address of TAO 1mini. Check RTSP/RTMP/SRT stream address by clicking
- Users can modify the IP address of TAO 1mini in Network Settings and then the RTMP/RTSP/SRT stream address will be modified synchronously.



Configuring Parameters

Click the Edit Icon at the bottom to set the Resolution, Bitrate, and Display Mode.



YouTube Stream

Operate RTMP Push via USB disk

Operating RTMP Push via USB disk

- Step 1: Make sure the device is connected and the network is set up.
- Step 2: Open YouTube Studio on your computer to Copy the Stream URL and Stream Key.
- Step 3: Create a new TXT file first, paste the Streaming URL and Streaming Key (the format must be:
 <u>rtmp//:YOURSTREAMURL/YOURSTREAMKEY</u>), and save the TXT file to USB as rtmp.ini.(Newline is required to add multiple streaming addresses) and connect the USB disk to TAO 1mini's USB port.



Operate RTMP Push via TAO APP



Copying Stream Address & Key

Create QR code: https://live.tao1.info/stream_code/index.html

Copy the stream address and stream key to the above address to create the QR code. The created QR code will be displayed on the right.

Downloading TAO APP

Use your mobile phone to scan the QR code to download TAO APP.



Sending RTMP Stream Address

- Click the TAO APP Icon to enter the homepage.
- Click Scan Icon on the homepage and then click Send RTMP to Device.



Turning on Bluetooth

- Click the Bluetooth icon in Settings.
- Choose to turn on or off Bluetooth by swiping the screen left and right.



Pairing TAO 1mini with TAO APP

- Turn on the Bluetooth of the TAO APP. Then TAO 1mini will be recognized.
- Click connect to pair TAO 1 mini with the TAO APP.



Scanning the QR Code

After successful pairing, click Device Name > Scan Icon > Scan QR code.



Sending RTMP Stream Address

The RTMP address will be shown in the box, then click Send RTMP.



Receiving RTMP Stream Address

TAO 1mini will pop up a message, click YES to receive.



On Air

Selecting the Platform

- Choose the platform you need. The saved platforms are displayed at the top of the interface, and the newly added platforms are displayed at the bottom. The green circle indicates the platform has been chosen.
- Long press the icon to check the stream address and click Edit in the middle for deletion of the platform.



Configuring Parameters

Users can also set Resolution, Bitrate, and Display Mode by clicking the link below.



ON AIR

Finally, click ON AIR in the main interface to stream. (Support up to 4 live streaming platforms at the same time)



Checking Status

Click the blank area of the home page. The left area is the Status Display Area, which displays the status of the TAO 1mini.



Warning



RTMP Pull

RTMP Pull

Tap the yellow arrows to select the RTMP Pull icon. Long press the icon to enter the following interface.



Downloading TAO APP

Click the icon for TAO APP installation.

Turn on Bluetooth in Settings to pair TAO 1mini with your mobile phone so as to import the RTMP stream address via the TAO APP.



Recording

Inserting a U Disk

- Insert a U disk into the TAO 1mini USB port and TAO 1mini can work as a recorder.
- The storage of the U disk is up to 2T.



Configuring Parameters

- Press and hold the USB Recording icon to enter the parameter configuration interface.
- Users can set resolution, bitrate, and check disk info in Settings.



Warning: During video synchronization, do not unplug the USB flash disk.

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 the 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 the unit is returned for repair.

Headquarters: Room 601A, No. 37-3 Banshang community, Building 3, Xinke Plaza, Torch Hi-Tech Industrial Development Zone, Xiamen, China

Tel: +86-592-5771197Fax: +86-592-5788216

• Customer Hotline: 4008-592-315

Web: http://www.rgblink.comE-mail: support@rgblink.com

• www.rgblink.com

Documents / Resources



RGBlink TAO-1MINI 4K Streaming Node [pdf] User Guide TAO-1MINI 4K Streaming Node, TAO-1MINI, 4K Streaming Node, Node

References

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- RGBlink
- newtek.com/ndi/tools/#

Manuals+,