RGBlink TAO 1mini All In One Live Streaming Codec User Guide

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Codec User Guide

TAO 1mini

Quick Start
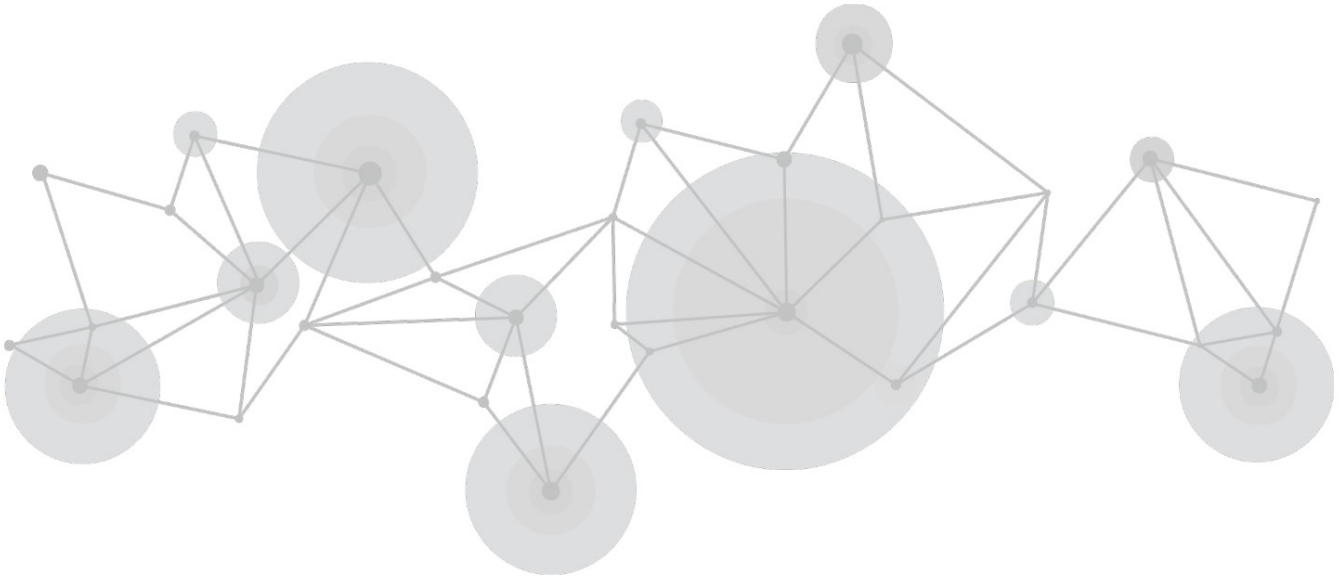
RGBlink®

Contents

Packing List

TAO 1mini	Power Adapter	USB-C Cable

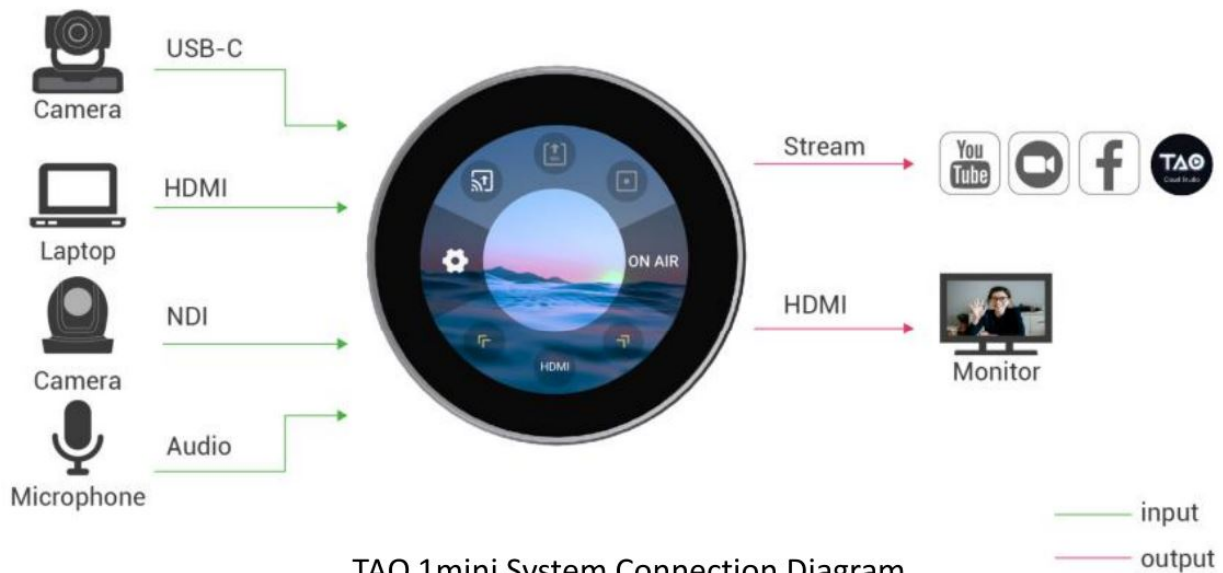| Double-thread 1/4 Screw	Storage Box

About Your Product

Product Overview

TAO 1mini supports HDMI &UVC and FULL NDI® gigabit Ethernetvideostream codecs for encoding and decoding.

TAO 1mini is small and compact, which makes it easy to carry. Standard camera screw holes are provided for camera mounting. Thedevicehasa2.1-inch touch screen for real-time monitoring of signals and menu operations. Support U disk recording, support PoE and other functions.

TAO 1mini System Connection Diagram

Key Features

- Small and compact, easy to carry
- Serve as either NDI video encoder or NDI decoder
- Support multiple formats, including RTMP/RTMPS/RTSP/SRT/FULLNDI/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 ¼in mounts

Appearance

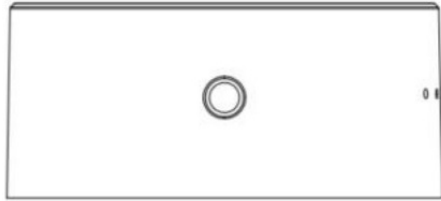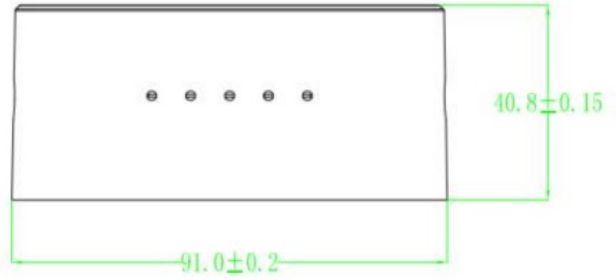| No.	Item	Description
1	Touch Screen	2.1-inch touch screen for real-time monitoring of signals and menu operations.
2	¼in Mounts	For mounting.
3	Tally Lamp	Work indicators show device status.

Interface

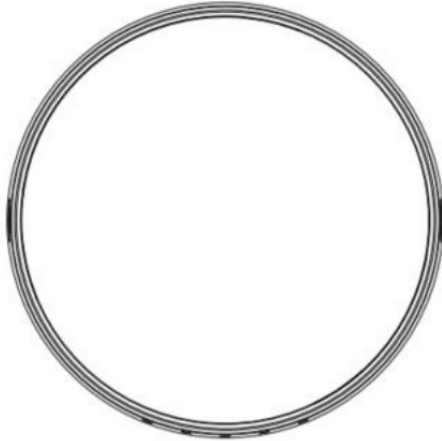| No.	Connectors	Description
1	USB-C	Connect to the power supply, support PD protocol.
2	HDMI-OUT	Connect to external monitor for real-time monitoring of inputs and outputs.
3	USB-C	For receiving video signal from your phone or others. Connect to USB camera for UVC capture. Support 5V/1A reverse power supply.
4	HDMI-IN	For receiving video signal.
5	3.5mm Audio Socket	For analog audio input and audio output monitoring.
6	USB 3.0	Connect to hard disk for recording, and storage up to 2T.
7	LAN	Gigabit network port with PoE.

Dimension

Following is the dimension of TAO 1mini for your reference: 91mm(diameter)×40.8mm(height).
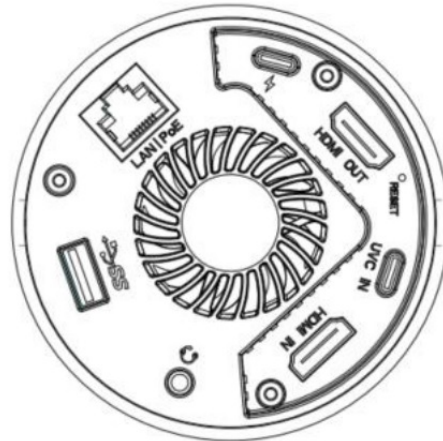
Bottom View

Right View

40.8±0.15

91.0±0.2

Front View

Rear View

Device Installation andConnection

Connect Video Signal

Connect the HDMI/UVC signal source to the HDMI/UVC input port ofthedevice through a cable. And connect the HDMI output port to the display device via a HDMI cable.
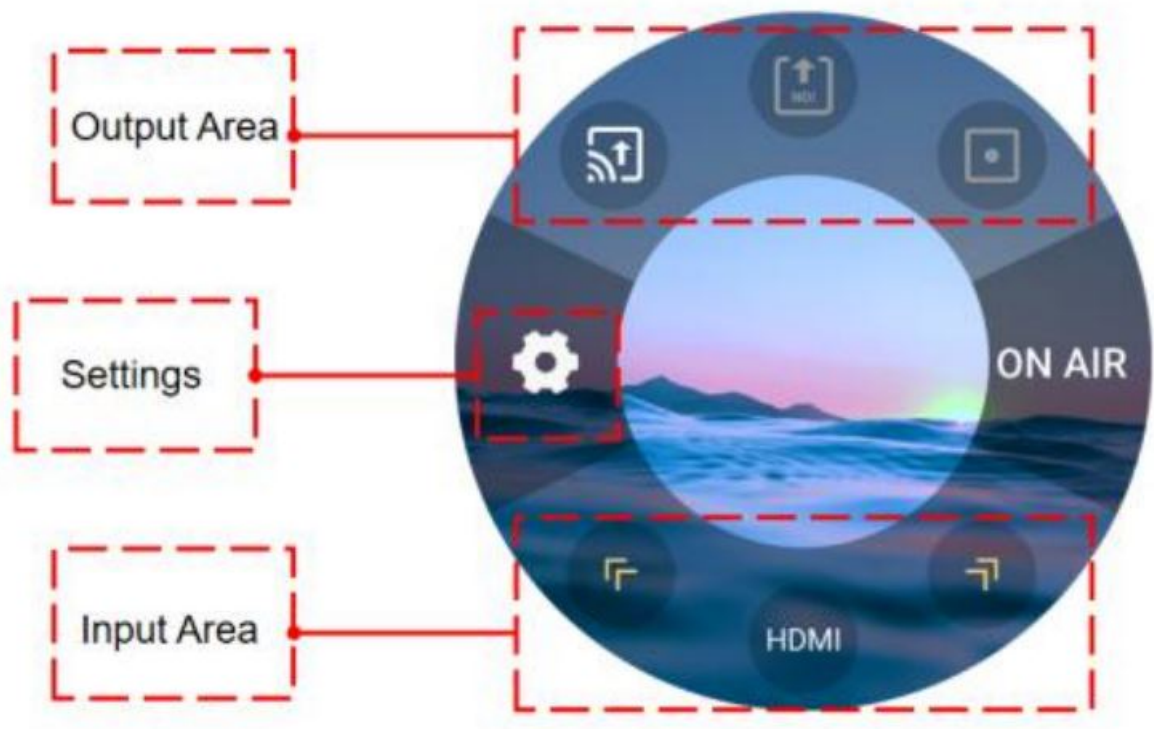
Connect Power Supply

Connect your TAO 1mini with the packaged USB-C power link cable and standard power adapter.

TAO 1mini also supports power from PoE network.

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

Notice

1. Users can choose functions through tapping and set parameters through long-pressing.
2. In Settings, users can choose different functions through clicking Arrow Icon.
3. NDI encoding mode and decoding mode cannot work simultaneously.

Connect Network

Connect one end of the network cable to LAN port of TAO1mini. Theother end of the network cable is connected 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. You can turn on DHCP for automatic capture of IP address, net mask and gateway or configure IP address, net mask and gateway manually by turning off DHCP. The detailed operations are as follows.

The first way is to use DHCP to automatically obtain IP

User should firstly ensure that the switch has access to the network. Then connect TAO 1mini and the computer to the same switch and in the same LAN. Finally, turn on DHCP of TAO 1mini, no configuration is needed for your computer

The second way is Manual Setting.

Step 1: Click Network icon in Settings for TAO1mini network configuration. Turn off DHCP and manually configure
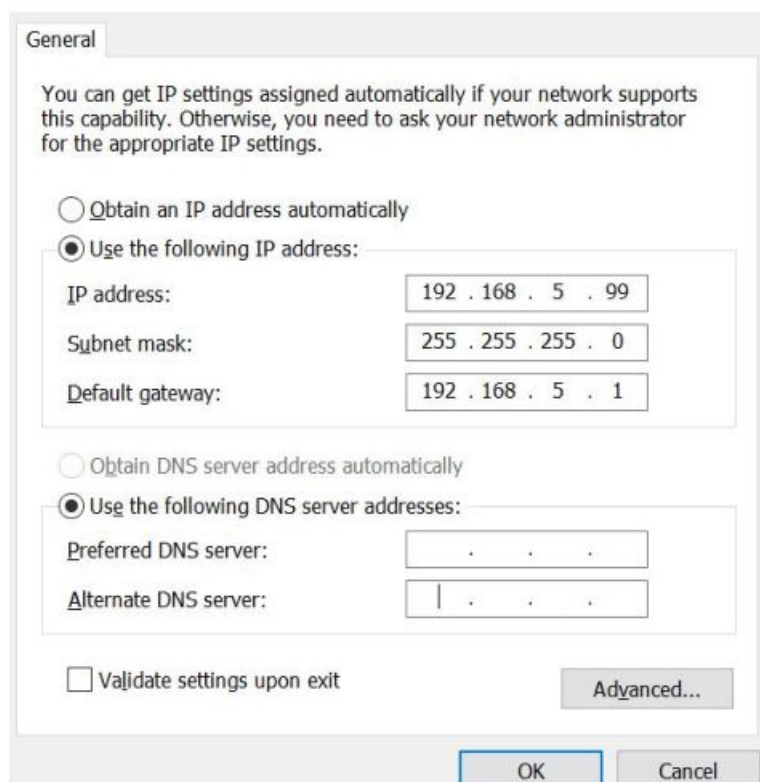
IP address, netmask and gateway. The default IP address is 192.168.5.100.

Step 2: Turn off the computer's network an then configure TAO1mini and 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.*.

Use Your Product

After completing the above steps in Device Installation and Connection, you can use TAO 1mini for following operations.

NDI Encoding

Users can refer to the following diagram for application of NDI encoding.

NDI Encoding Connection Diagram

Input Signal Selection

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

Configure NDI Encoding Parameters

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

Download NDI Tools

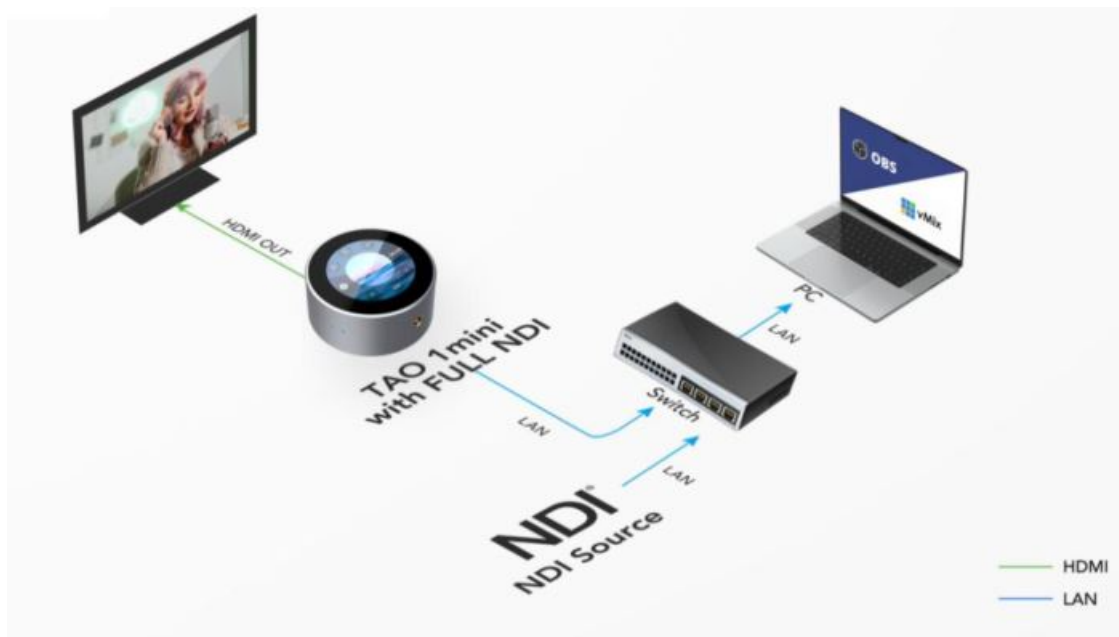You can download and install NDI Tools from New Tek website for more operations. (**https://www.newtek.com/ndi/tools/#**)

Open New Tek Studio Monitor software and then click the icon in the upper left corner to display the list of device names that have been discovered. Select the device you want to connect, and then you can pull the current video stream of TAO 1mini.

After successful pull of video stream, you can click blank areaof deviceinterface to check NDI resolutions.
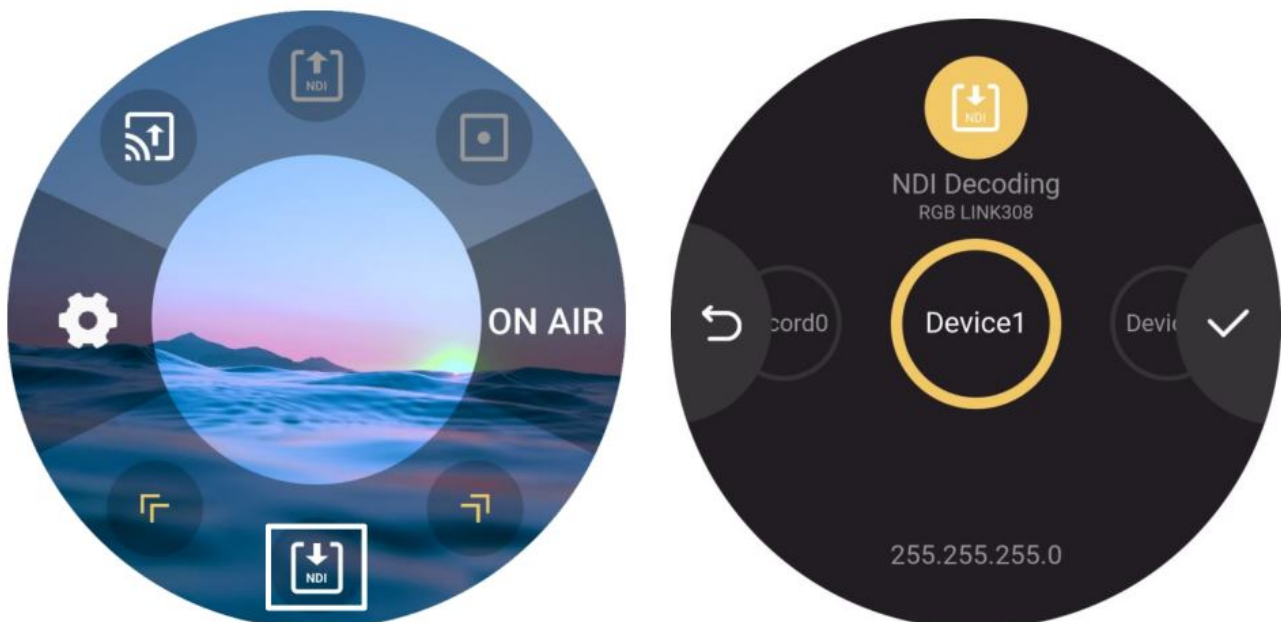
NDI Decoding

Users can refer to the following diagram for application of NDI decoding.

NDI Decoding Connection Diagram

You can configure network of other device (Support NDI decoding function) and TAO 1mini to the same LAN. Then click Search to find the NDI sources in the same LAN.

Tap yellow arrows to select NDI Decoding icon. Long press the icon to enter the following interface.
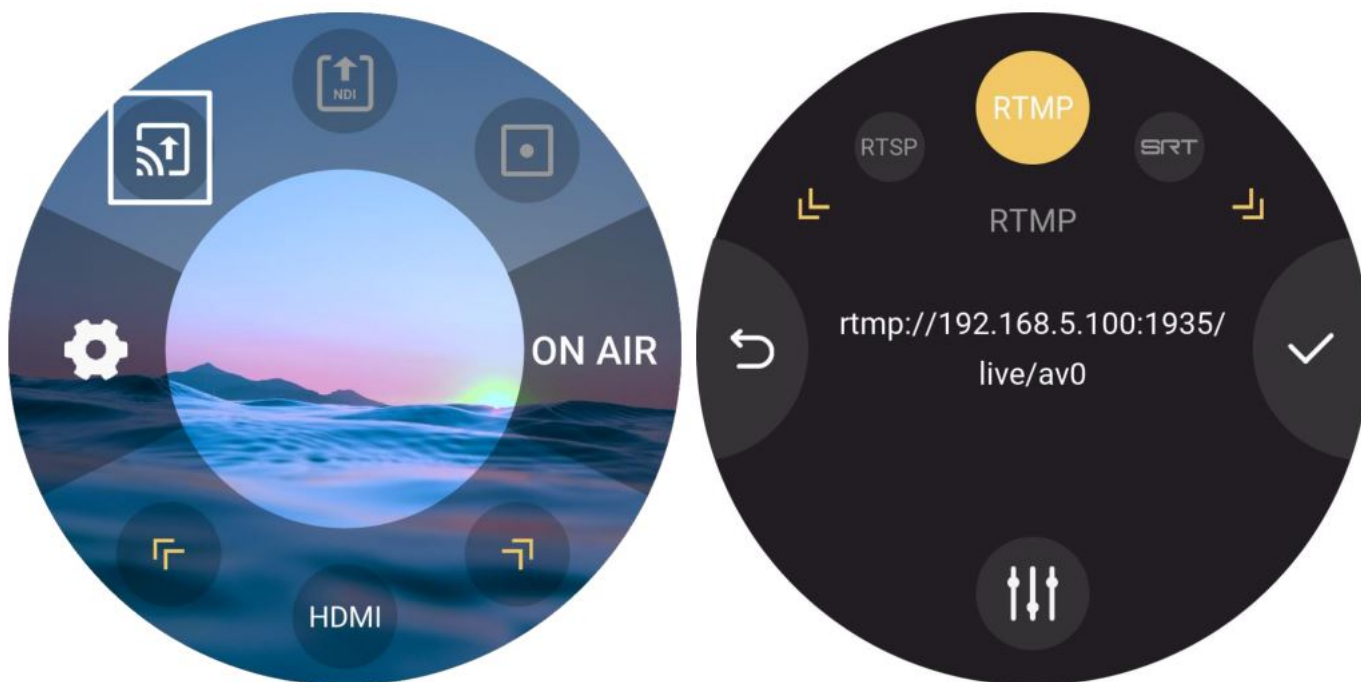

Find the NDI source to be decoded by swiping the screen and then click to decode and output.

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

RTMP Push

Long press RTMP Push icon in Output Area and you can check RTSP/RTMP/SRT stream address by click ✓ .
Then the interface will display the RTSP/RTMP/SRT stream address of TAO1mini, shown as below.

Users can modify IP address of TAO 1mini in Network Settings and then the RTMP/RTSP/SRT stream address will be modified synchronously. Users can also click Edit Icon at the bottom to set the Resolution, Bitrate and Display Mode.

ON AIR

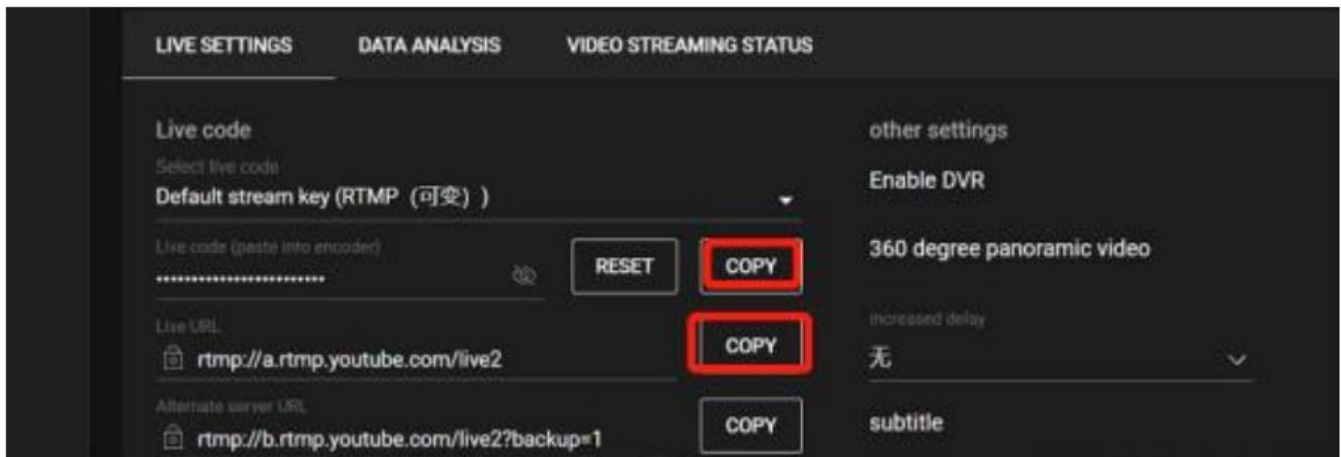Click ON AIR and TAO 1mini will start streaming.

Following steps take YouTube stream as the example. Two methods for you to choose from.

The first method is to operate 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 Stream URL and Stream Key

Step 3: Create a new TXT file first, and paste the Streaming URL and Streaming Key (the format must be : rtmp//:YOUR STREAMURL/YOURSTREAM KEY), and save the TXT file to USB as rtmp.ini.(New line is required to add multiple streaming addresses) and connect the USB disk to TAO 1mini's USB port.

Step 4: Press and hold the streaming settings, you can see the link soft he platforms identified by TAO 1mini after entering the settings, select the links of the live stream platforms you need, tap Next. Once the parameters are set, go back to the home screen and click ONAIR.
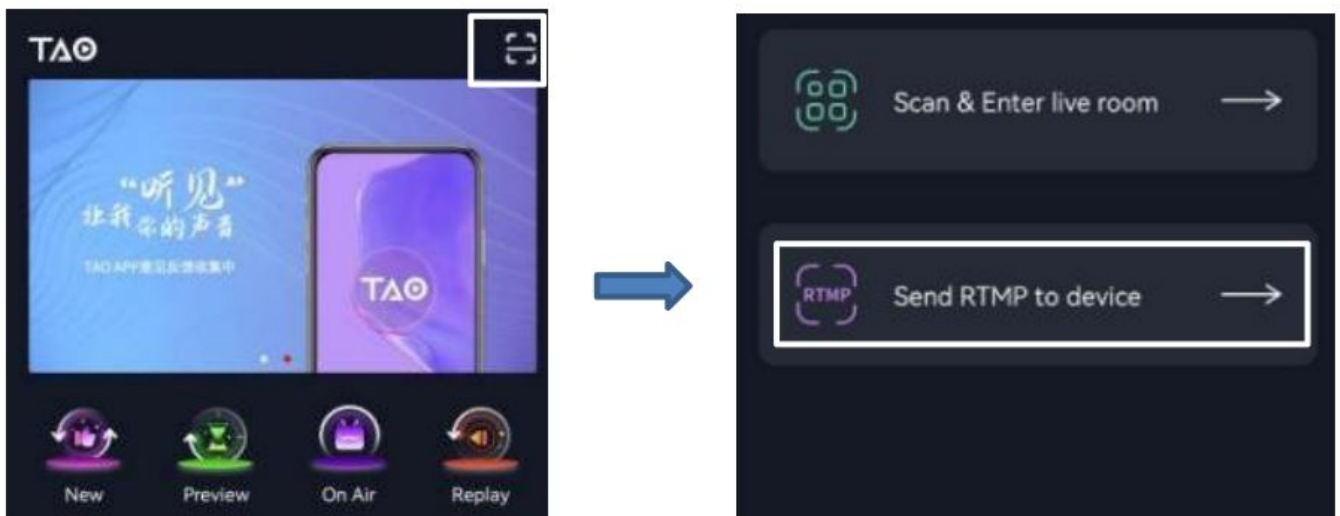
The second method is to operate RTMP Push via TAOAPP.

Step 1: Copy stream address and stream key to the followingaddress(**https://live.tao1.info/stream_code/index.html**) to create the QR code. The created QR code will be displayed in the right.
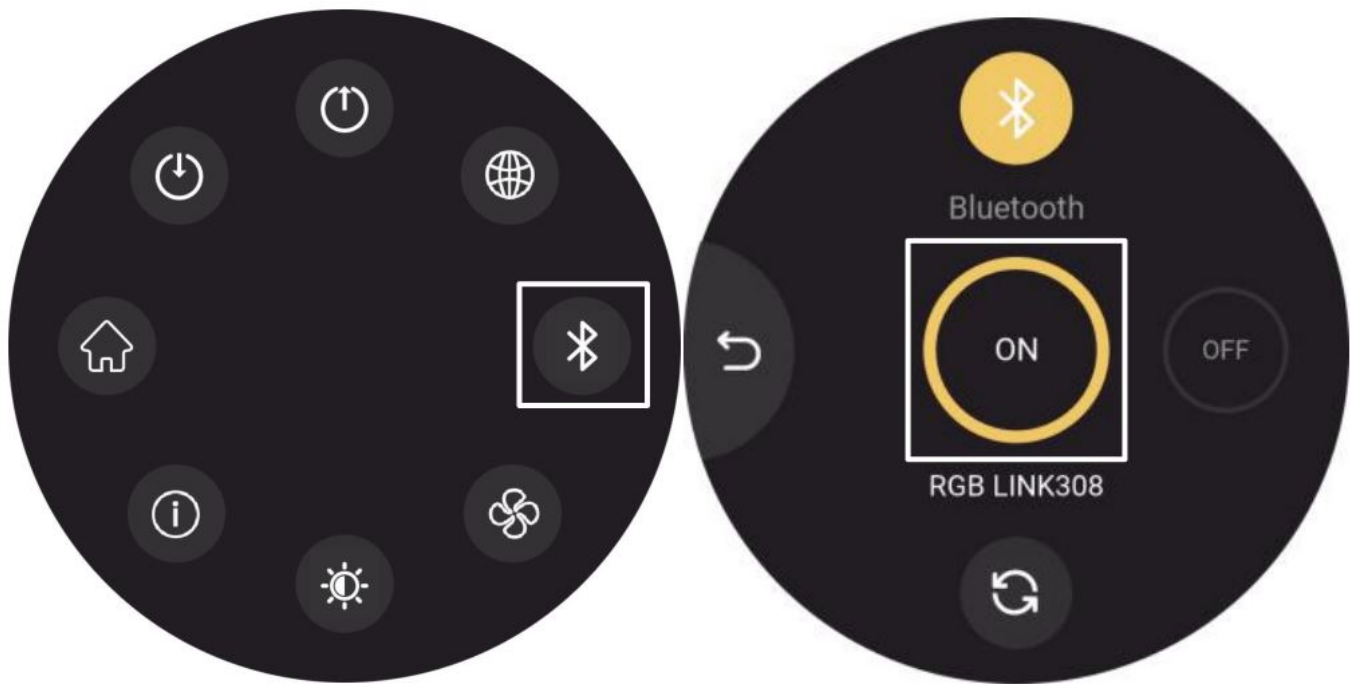
Step 2: Use your mobile phone to scan the following QR code so asto download TAO APP

Step 3: Click TAO APP Icon to enter the homepage. Click Scan Icon in the homepage and then click Send RTMP to Device.
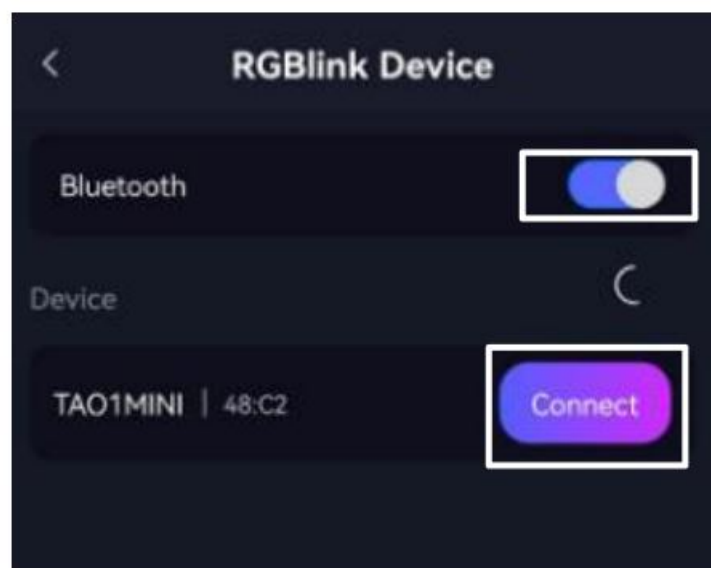

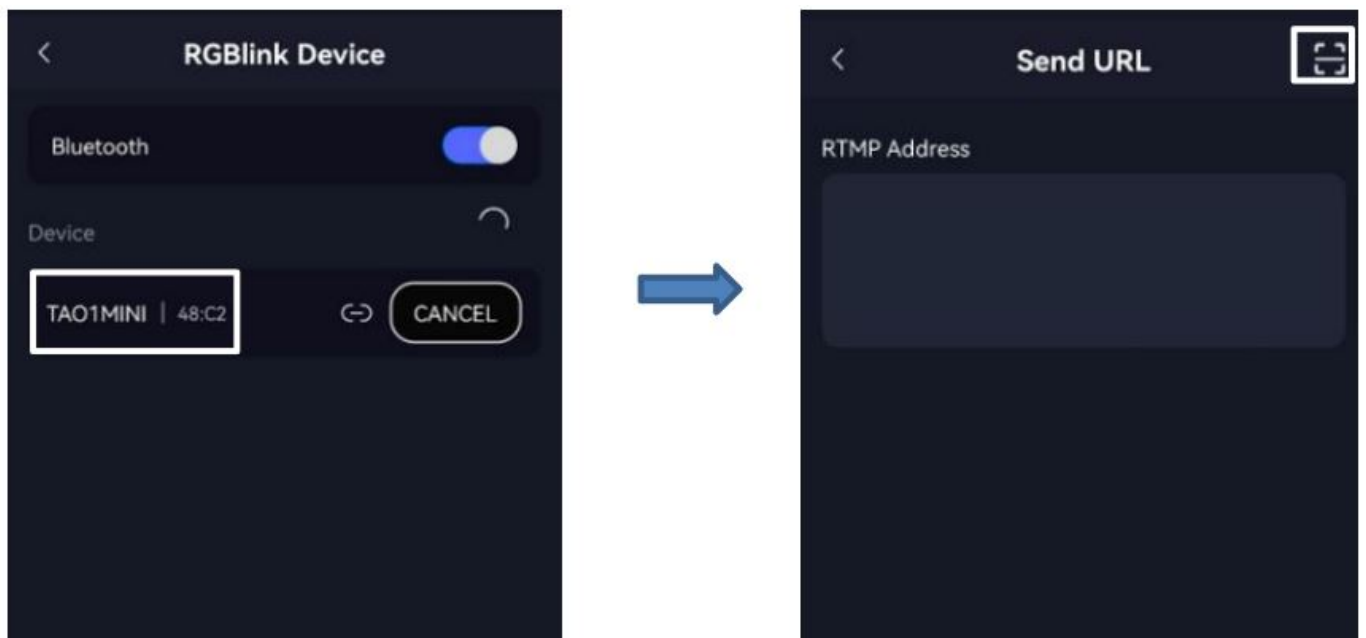Step 4: Take following steps to turn on Bluetooth of TAO1mini.

Notice: 1. Make sure the distance between TAO 1mini and mobile phone is within2m. 2. Pair TAO 1mini with TAO APP within 300s.
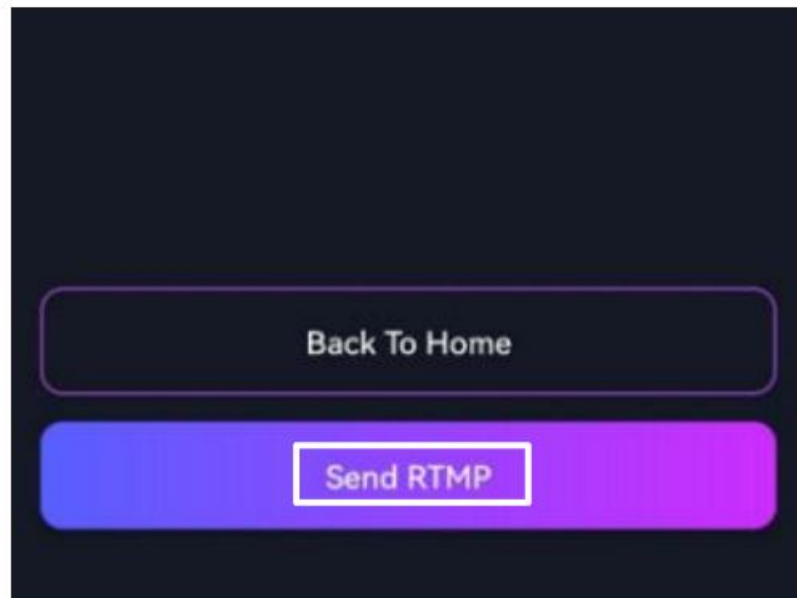
Step 5: Turn on Bluetooth of TAO APP. Then TAO 1mini will be recognized, shown as below. Click connect to pair TAO 1mini with TAOAPP.

Step 6: After successful paring, user should click Device Name and then scan the QR code created in Step 1.
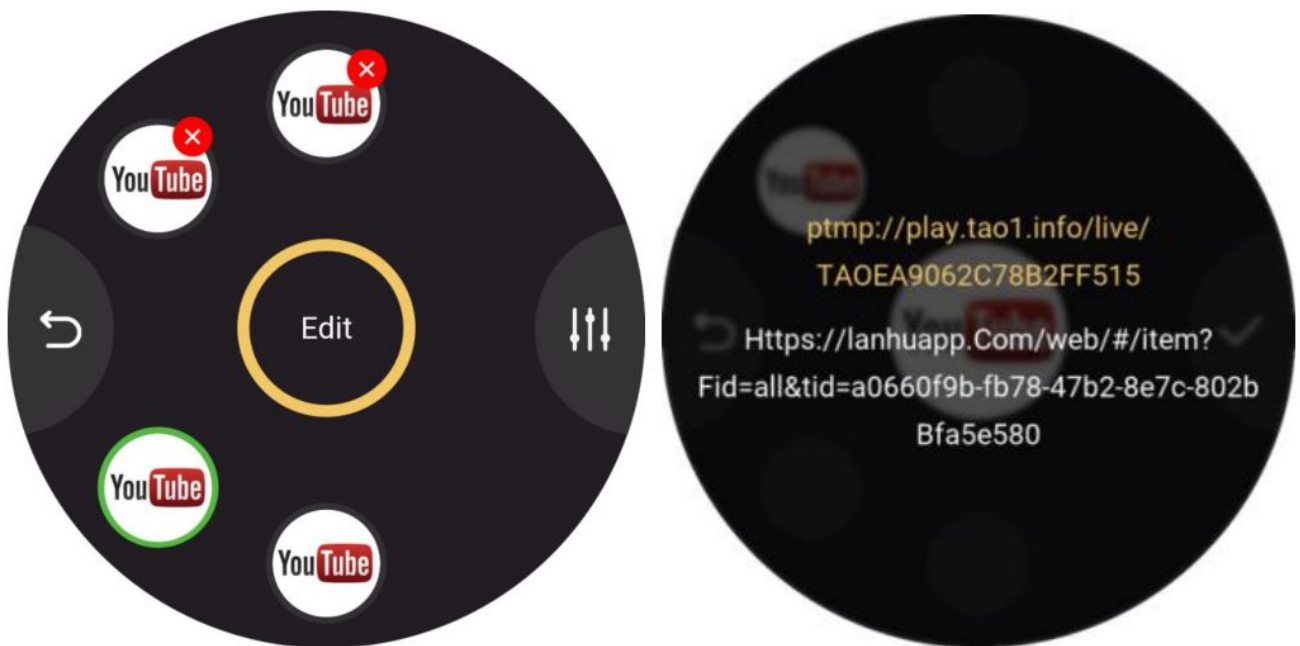
Step 7: The RTMP address will be shown in the box, then click Send RTMP.

Step 8: Then TAO 1mini will pop up a message, shown as below. Click YES to receive RTMP stream address.

Then 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 been chosen. Long press the icon to check stream address and click **Edit** in the middle for deletion of platform.

Users can also set Resolution, Bitrate and Display Mode by clicking shown as below.

Finally, click [**ON AIR**] in the main interface to stream(Support upto4live streaming platforms at the same time).

Click the blank area of the home page. The left area of interface is the Status Display Area, which displays the status of the TAO1mini.

	no network input		no U disk		Bluetooth not connected
	with network input		U disk inserted		Bluetooth connected

User can do the following operations:

1: The user can hide the setting options by clicking the blank screen. And the interface will display output information at the top and the input information at the bottom. As shown in the figure above, information such as recording duration, streaming platform and output resolution are displayed.
2: On the basis of operation 1, the user can click the screen again to hide all the information, and only the streaming image will appear on the screen.
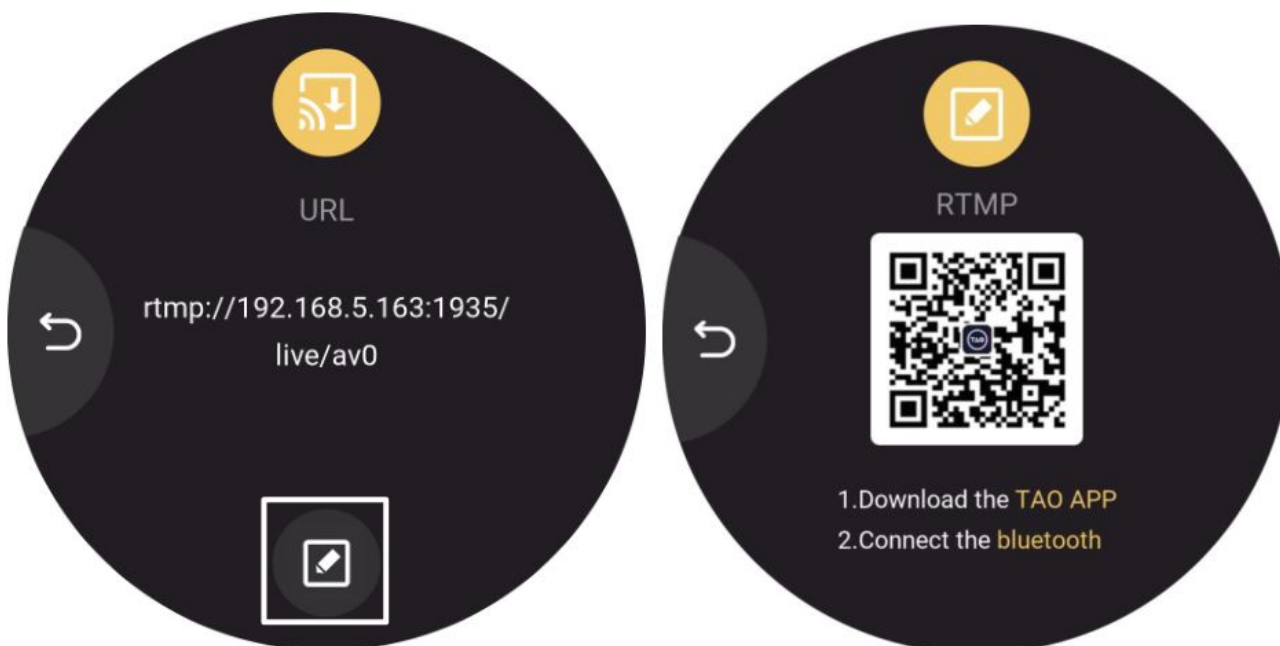3: On the basis of operation 2, the user can click the screen again to restore the setting interface.

RTMP Pull

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

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

Record

Plug U disk to TAO 1mini USB port and TAO 1mini can work as a recorder. The storage of U disk is up to 2T. Users can set resolution, bitrate and check disk info in Settings.

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

Contact Information

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. RGB link 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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   ~ **http://www.rgblink.cn**
- **E-mail**: **support@rgblink.com**

Documents / Resources

RGBlink TAO 1mini All In One Live Streaming Codec [pdf] User Guide
TAO 1mini, All In One Live Streaming Codec, TAO 1mini All In One Live Streaming Codec, Live Streaming Codec, Streaming Codec, Codec

References

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