

1. Product Introduction

Dear user, thank you for using Thunderbolt Thunder Wireless Image Transmitter.

Thunderbolt is a wireless video transmission system independently developed by BesTV.

One of the features supports 1080p/60Hz resolution with backward compatibility for multiple resolutions, enabling seamless implementation.

400-meter long-distance wireless transmission with automatic selection of optimal configurations for open spaces and

Optimal frequency bandwidth for multi-disruption environments.

With latency as low as 70 milliseconds, the HDCP protocol prevents interference and is suitable for complex environments. Supports Type-C interface and NP-F battery power, enables real-time audio-video synchronization transmission, and features dual HDMI ports for plug-and-play functionality.

Supports high-definition output, enabling seamless monitoring for directors/cameras and live scene transmission.

2. Product Features

● Supports HD 1080p/60 and backward compatibility with H.264 video codec

● Supports automatic frequency hopping (automatically detects environmental interference and switches to clean channels) and HDCP protocol

● The transmitter supports HDMI input and HDMI loop output, while the receiver supports dual HDMI outputs.

● Low latency 70ms

● Operating frequency bands: 5150MHz–5250MHz, 5250MHz–5350MHz, 5470MHz–5725MHz, 5725MHz–5850MHz, with a bandwidth of 20MHz and an unobstructed transmission range of 400 meters.

● Supports battery power from Type C and NP-F batteries

3. Packing List



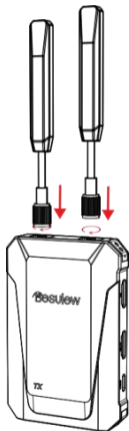
Transmitter TX x 1, Receiver RX x 1, Antenna x 4, Cold Boot x 1, Instruction Manual/Certificate of Conformity x 1
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4. Application Examples



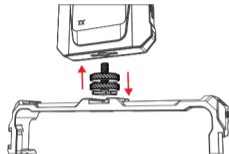
5.2 Antenna Installation

Install the antenna at the top of the image transmission as shown in the diagram.



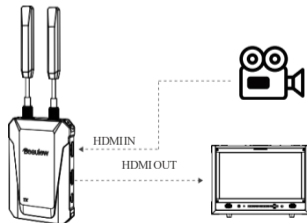
5.3 Mounting the image transmission device on other equipment

Mount Thunderbolt on your camera or other equipment using a snail mount or a specialized tool like a monster hand.



5.4 Connection Lines

Connect the video transmission system to cameras and monitoring devices using HDMI cables based on practical application requirements.



6. Technical Specifications

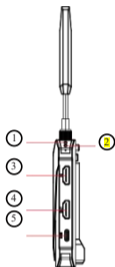
	ejector TX	acceptor RX
Operating frequency range	5150MHz~5250MHz 5250MHz~5350MHz 5470MHz~5725MHz 5725MHz~5850MHz	
Video format	1080P60/1080P59.94/1080P30/1080P29.97/1080P25/1080P24 1080i60/1080i50/720P60/720P50/576P60 576i60/480P60/480i60	
Audio format	PCM	
HDMI protocol	HDMI 1.3	
HDCP protocol	HDCP 1.4	
transmission delay	70ms	
video coding	H.264	
transmission distance	400M (barrier-free, interference-free)	
Antenna configuration	1T2R	
Product interface	HDMI input / HDMI ring output Type-C	HDMI output *2Type-C
Product buttons	Switch button, pairing button, battery level indicator button	
Status indicator light	Switches, network connections	
working power supply	Type_C (5V_2A) / NP-F (6.4V-8.4V)	
Heat dissipation method	/	
product size	104×70×16mm	
Product power consumption	2.5W	2W
working temperature	-10°C~45°C	
Storage temperature	-40°C~60°C	
weight	197g	197g



5. Rapid application

5.1 Interface Button Labeling

Note: The RX end lacks an HDMI input interface, while all other interfaces are identical to those on the TX end.



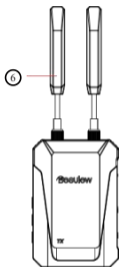
1 Connection status indicator light
Red light: Model not connected
Green light: Signal connected

2 Power indicator light

Red light: Connected to power.
Green light: The machine is on.

3 HDMI input ports

HDMI port for video source connection



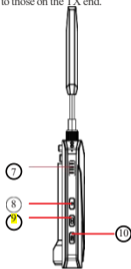
4 HDMI ring output ports

Transmitter: Route HDMI input signals to other devices
Receiver: HDMI output, deliver received video signals

5 Type-C power port supports 5V-2A power supply

6 Signal Antenna

2T2R external 3dB



7 battery status

8 Switch button

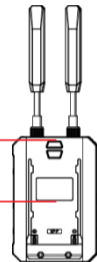
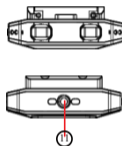
Short press for about 1 second to power on, and long press for 3 seconds to power off.

9 Signal connection button

Long press for three seconds to enter pairing mode

10 Battery level button

Press and hold for 1 second to display battery level



11 1/4" threaded joint

12 Battery Release Button

13 NP-F Series Battery Backplate

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause

harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment should be installed and operated with a minimum distance 20cm between the device and your body.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.