

iTrans UC-HUB402

USB and HDMI Camera Mixer Hub with NDI

Datasheet V1.0



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1. INTRODUCTION

1.1 OVERVIEW

The **iTrans UC-HUB402** is a four-input multi-camera switcher designed for professional AV applications such as conferencing and lecture capture. It supports **two HDMI inputs** and **two USB camera inputs**, all up to **4K@30Hz**.

The device provides simultaneous **HDMI and USB video outputs**, with HDMI OUT2 mirrored to a USB HOST output for **UVC-based** workflows, while HDMI OUT1 delivers a dedicated full-screen output. Multiple display layouts are supported, including quad view and picture-in-picture.

Audio **embedding**, **de-embedding**, and matrix routing are integrated for flexible system configuration.

The device also supports up to four **NDI** video inputs and one mirrored NDI output for IP-based video workflows.

Control is available via **Web UI**, Telnet API, and RS-232. Front-panel OLED display and buttons provide local status monitoring and quick operation.

1.2 FEATURES

- Four-input multi-camera switcher with two HDMI inputs and two USB camera inputs
- Supports HDMI and USB video sources up to 4K@30Hz
- Multi-view display modes, including quad view, picture-in-picture, side-by-side, and pyramid layouts
- Simultaneous HDMI and USB video output with HDMI OUT2 mirrored to USB HOST
- Dedicated full-screen output on HDMI OUT1
- Supports up to four NDI inputs and one mirrored NDI output (video only)
- Seamless low-latency source switching
- Built-in USB 3.0 hub with two USB peripheral ports routed to USB HOST
- Integrated audio matrix with flexible audio routing, mixing, volume, and mute control
- One analog audio input and one analog audio output for external audio integration
- Front-panel OLED display for device status, IP address, and firmware information
- Front-panel control buttons for quick source switching and layout selection
- Web UI, Telnet API, and RS-232 control support
- Compatible with Windows and macOS systems

1.3 PACKAGE CONTENTS

- 1 x iTrans UC-HUB402 Unit
- 1 x 20V DC 3A Power Adapter
- 1 x AC Power Cord (EU Plug)
- 1 x 3.5mm 4-pin Phoenix Male Connector
- 4 x Wall Mount Brackets (with Screws)

1.4 SPECIFICATIONS

Technical	
Video Input	<ul style="list-style-type: none"> • USB IN 1–2: 2 x USB 3.0 Type-A Female (USB 3.0/2.0) • HDMI IN 3–4: 2 x HDMI Type-A (HDMI 1.4, HDCP 1.4) • LAN: 1 x RJ-45 Female Connector (H.264/H.265, NDI input)
Input Resolutions	<ul style="list-style-type: none"> • USB IN 1–2: <ul style="list-style-type: none"> - Single input: 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz - Dual input: 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz • HDMI IN 1–2: <ul style="list-style-type: none"> - 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1200P@60Hz, 1920x1080P@50Hz, 1920x1080P@30Hz, 1920x1080P@25Hz, 1920x1080P@24Hz, 1680x1050P@60Hz, 1600x1200P@60Hz, 1450x1050P@60Hz, 1440x900P@60Hz, 1366x768P@60Hz, 1360x768P@60Hz, 1280x1024P@60Hz, 1280x800P@60Hz, 1280x768P@60Hz, 1280x720P@60Hz, 1280x720P@50Hz, 1280x720P@30Hz, 1024x768P@60Hz, 800x600P@60Hz, 720x576P@50Hz, 720x480P@60Hz, 640x480P@60Hz • LAN: <ul style="list-style-type: none"> - Dual stream: 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz - Quad stream: 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz
Video Output	<ul style="list-style-type: none"> • HDMI OUT 1: 1 x HDMI Type-A (HDMI 2.0, HDCP 2.2) • HDMI OUT 2: 1 x HDMI Type-A (HDMI 1.4, HDCP 2.2) • USB HOST: 1 x USB 3.0 Type-C (USB 3.0/2.0) • LAN: 1 x RJ-45 (H.264/H.265, NDI output)
Output Resolutions	<ul style="list-style-type: none"> • HDMI OUT 1: <ul style="list-style-type: none"> - 3840x2160P@60Hz, 3840x2160P@50Hz, 3840x2160P@30Hz, 3840x2160P@25Hz, 3840x2160P@24Hz, 2560x1440P@60Hz, 2560x1440P@30Hz, 1920x1080P@60Hz, 1920x1080P@50Hz, 1920x1080P@30Hz, 1680x1050P@60Hz, 1600x1200P@60Hz, 1440x900P@60Hz, 1366x768P@60Hz, 1280x1024P@60Hz, 1280x800@60Hz, 1280x720P@60Hz, 1280x720P@50Hz, 1024x768P@60Hz, 720x576P@50Hz, 720x480P@60Hz • HDMI OUT 2: <ul style="list-style-type: none"> - 3840x2160P@30Hz, 2560x1440P@30Hz, 1920x1080P@60Hz, 1920x1080P@50Hz, 1920x1080P@30Hz, 1680x1050P@60Hz, 1600x1200P@60Hz, 1440x900P@60Hz, 1366x768P@60Hz, 1280x1024P@60Hz, 1280x800@60Hz, 1280x720P@60Hz, 1280x720P@50Hz, 720x480P@60Hz • USB HOST: <ul style="list-style-type: none"> - 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz, 640x480@30Hz, 640x360@30Hz, 320x240@30Hz • LAN: <ul style="list-style-type: none"> - 3840x2160P@30Hz, 1920x1080P@60Hz, 1920x1080P@30Hz, 1280x720P@60Hz, 1280x720P@30Hz
USB Protocol	<ul style="list-style-type: none"> • USB IN 1–2 & USB HOST: UAC, UVC • USB DEVICE: Full Features
Input Audio Port	2 x USB IN; 2 x HDMI IN; 1 x USB HOST
Input Audio Format	LPCM, 2CH
Output Audio Port	1 x HDMI; 1 x USB HOST; 2 x USB IN
Output Audio Format	LPCM, 2CH
Control Method	<ul style="list-style-type: none"> • Front panel OLED screen and buttons • RS232 • LAN-based control (Web UI & Telnet API)

General	
Operating Temperature/ Humidity	32–113°F (0–45°C), 10%–90% RH, non-condensing
Storage Temperature/ Humidity	-4–158°F (-20–70°C), 10%–90% RH, non-condensing
ESD Protection	Human body model: ±12kV (air-gap discharge) / ±8kV (contact discharge)
Power	20V DC 3A
Power Consumption	Max: 31.4W
Dimensions (W x H x D)	9.84" x 0.98" x 5.52" (250mm x 25mm x 140.2mm)
Net Weight	2.02lbs (0.92kg)

1.5 FRONT PANEL

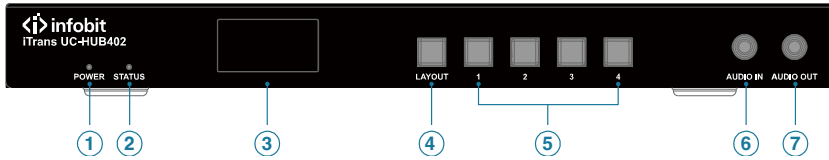


Figure 1: Front Panel

#	Name	Description
1	POWER LED	<ul style="list-style-type: none"> On: The device is powered on. Off: The device is powered off.
2	STATUS LED	<ul style="list-style-type: none"> On: The device is working properly. Off: The device is not working.
3	OLED Screen	Displays the device's IP address and firmware version.
4	LAYOUT Button	Toggle between multiple preset layouts for HDMI OUT2. For more information, refer to 错误!未找到引用源。 错误!未找到引用源。 .
5	1–4 Buttons	4 x Source selection buttons. Press one button to cycle through the four physical video sources—USB IN 1–2 and HDMI IN 1–2—for the corresponding window in the multi-view layout on HDMI OUT2.
6	AUDIO IN	3.5mm TRS connector. Connect to an audio source for analog audio input.
7	AUDIO OUT	3.5mm TRS connector. Connect to an audio receiver for analog audio output.

1.6 REAR PANEL

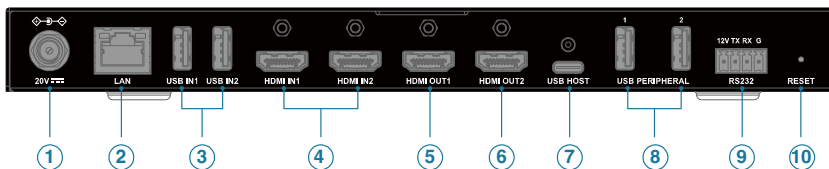


Figure 2: Rear Panel

#	Name	Description
1	20V	Connect to 20V DC 3A (or higher) power via the power adapter provided.
2	LAN	Connect to a Gigabit Ethernet switch for device management (via Web UI or Telnet API) and NDI traffic transmission.
3	USB IN (1–2)	2 x USB 3.0 Type-A female connectors. Connect to USB cameras for camera source input. Note: Each port supplies up to 1A of current.
4	HDMI IN (1–2)	Connect to HDMI sources.
5	HDMI OUT 1	Connect to an HDMI display.
6	HDMI OUT 2	Connect to an HDMI display to output video sources in either single-view or multi-view mode.
7	USB HOST	Connect to a USB-C computer for USB video output. This port mirrors the HDMI OUT2 output and supports UVC and UAC specifications. DisplayPort Alternate Mode (DP Alt mode) is not supported.
8	USB PERIPHERAL	2 x USB 3.0 Type-A female connectors.

#	Name	Description
		Connect to USB peripheral devices. These ports are routed to the USB HOST port via the built-in USB hub. Note: Each port supplies up to 1 A of current.
9	RS232	Connect to an RS-232 controller for device management or to an RS-232 peripheral for peripheral control. <ul style="list-style-type: none">• 12V: Connect for 12V DC 0.5A output.• RX: Connect to TX terminal.• TX: Connect to RX terminal.• G: Connect to ground.
10	RESET	<ul style="list-style-type: none">• Long press for 10 seconds: Restore factory defaults.• Five short presses within 15 seconds: Restore IP address and Web UI login password.• Short press once: Display OSD information on the screen.

2. TYPICAL APPLICATION

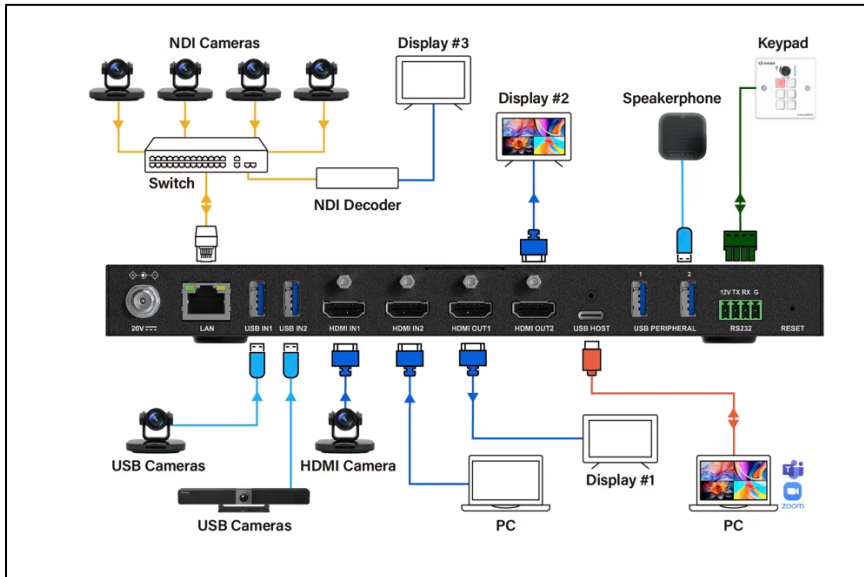


Figure 3:Application Example

Application Notes

- Connect to two USB cameras and two HDMI sources.
- HDMI OUT1 outputs the selected input source in single-view mode.
- HDMI OUT2 and USB HOST output identical video, supporting up to quad-view layouts.
- Control via RS-232 or LAN (Web UI and Telnet API).
- Supports up to four NDI inputs and one NDI output over IP

CONTACT US

www.infobitav.com

info@infobitav.com