

COLLABORATION — HUDDLE ROOM

## 4x2 HDMI & USB-C Huddle Room Matrix Switcher

4K60 4:4:4, Dual HDMI Outputs, 100W USB-C PD, USB 3.2 KVM & Dual 1G Ethernet with 802.1x — For Dual-Display BYOD Rooms

The COL-HUD-42 brings full matrix switching to the huddle room — four sources route independently to two displays, giving dual-display rooms the flexibility to show different content on each screen simultaneously. Two USB-C inputs deliver DP Alt mode 4K60 4:4:4, USB 3.2 Gen 1 KVM, 1G Ethernet, and up to 100W PD charging; two HDMI inputs handle legacy and fixed sources.

Built on the same platform as the COL-HUD-21 and COL-HUD-21D, the COL-HUD-42 adds a second HDMI output, four sources, and dual host ports — keeping the same balanced audio I/O, dual 1G Ethernet with 802.1x/VLAN, CEC/IR/RS-232 display control, and Web GUI across the family.

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### FEATURES

- HDCP 2.3 and DP 1.4a compliant
- 4x2 huddle room matrix switcher — dual USB-C and dual HDMI inputs, dual HDMI outputs
- USB-C inputs with DP Alt mode 4K60 4:4:4, USB 3.2 Gen 1 (5Gbps), 1G Ethernet, 100W charging (50W each when both connected)
- HDMI inputs up to 4K60 4:4:4 as specified in HDMI 2.0b
- Independent output routing — each HDMI output selects any of the four inputs independently
- Fast switching with auto and manual switching modes per output
- Auto switching with signal detection and 5V detection
- USB 3.2 Gen 1 (5Gbps) host and local hub — USB-C HOST3 (data only) and USB-B HOST4
- USB 3.2 Gen 1 (5Gbps) device port with 5V/1.5A power output
- Balanced/unbalanced analog audio embedding to USB or HDMI audio
- Balanced/unbalanced analog audio de-embedding from USB or HDMI audio
- Advanced EDID management — 18 presets plus 2 user-defined profiles
- User-defined welcome screen and no-signal display image
- Dual 1G Ethernet ports with 802.1x and VLAN support
- IR eye for IR learning and control; auto display on/off control
- External device control via CEC, IR, RS-232, LAN, and GPIO
- 5 preset scenes; internal pattern generator
- Control via front panel buttons, RS-232, TCP/IP, and Web GUI



## PACKAGE CONTENTS

- 1x 4x2 HDMI & USB-C Huddle Room Matrix Switcher
- 1x 24V/7.5A Power Supply
- 1x IR Blaster Cable (1.5m)
- 1x 3-pin Phoenix Connector
- 2x 5-pin Phoenix Connector
- 1x 6-pin Phoenix Connector
- 4x Rubber Foot / 2x Mounting Ear
- 1x User Manual

## DEFAULT SETTINGS

- IP: 192.168.0.100 (Static) | TCP/IP Port: 8000
- Web GUI: Admin/1234 • User/1234
- Auto switch: Input Signal | Standby: 15 min
- RS-232: 115200-8N1
- Network: Separated (ETH1=control, ETH2=pass-through)
- USB switch: Follow Video

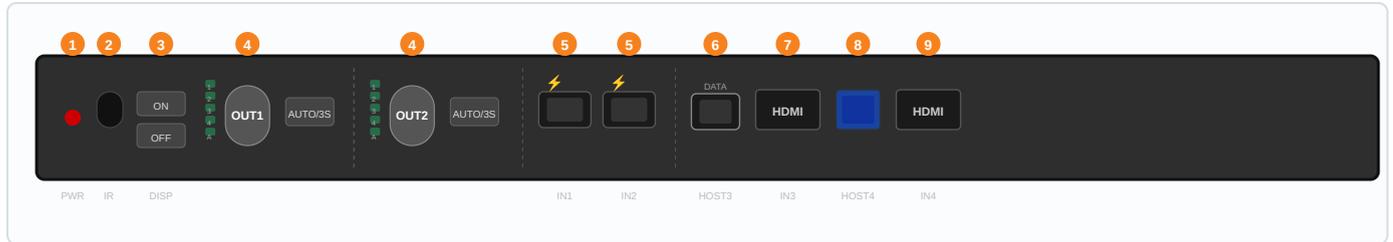
## SPECIFICATIONS

SPEC	VALUE
<b>Technical</b>	
<b>HDMI</b>	HDMI 2.0b, HDCP 2.3, 18Gbps
<b>USB-C</b>	DP 1.4a, USB 3.2 Gen 1, 1G ETH, 100W PD
<b>HDR</b>	HDR, HDR10, HDR10+, Dolby Vision, HLG
<b>Color Depth</b>	8/10/12-bit (8-bit at 4K60 4:4:4)
<b>Audio Digital</b>	LPCM, Dolby Atmos, DTS-HD MA, DSD
<b>Audio Analog</b>	Balanced/unbalanced, >90dB S/N
<b>Connection</b>	
<b>Inputs</b>	2x USB-C, 2x HDMI, 1x HOST USB-C (data only), 1x HOST USB-B
<b>Outputs</b>	2x HDMI OUT, 1x USB-C device, 2x USB-A device
<b>Audio</b>	L/R In + Out (5-pin phoenix)
<b>Control</b>	RS-232, IR Out, 2x RJ45, GPIO, Service
<b>Physical</b>	
<b>Dimensions</b>	10.63" x 5.12" x 0.91" (270x130x23mm)
<b>Weight</b>	1.96 lbs (0.890kg)
<b>Power</b>	DC 24V/7.5A; 41W idle / 149W charging
<b>Certs</b>	CE, FCC, UL



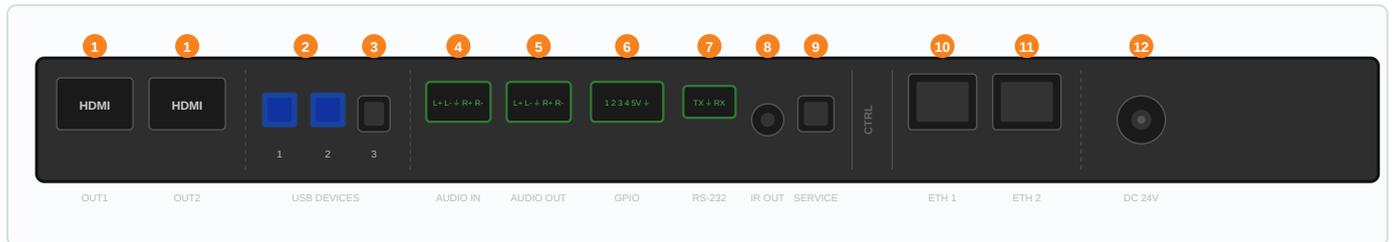
## OPERATION CONTROLS

### Front Panel



NO.	NAME	FUNCTION
1	Power LED	Green: operating normally. Red: standby.
2	IR	IR receiving window. Used for IR learning.
3	Display ON/OFF	Enable or disable display output. CEC/IR/RS-232 configurable via Web GUI.
4	OUT1 / OUT2 Select	Independent selectors. <b>Short press:</b> cycle IN1–IN4 for that output. <b>Long press (3s):</b> toggle auto switching per output. OUT1 and OUT2 route to any of the 4 inputs independently.
5	USB-C IN1 / IN2	DP Alt mode 4K60 4:4:4, USB 3.2 Gen 1, 1G ETH, 100W PD (50W when both active). Requires DP Alt mode on source.
6	HOST3	USB-C upstream (DATA ONLY). USB 3.2 data path only — no charging, no video.
7	HDMI IN3	HDMI 2.0b up to 4K60 4:4:4.
8	HOST4	USB-B upstream. Connect PC for USB peripheral sharing.
9	HDMI IN4	HDMI 2.0b up to 4K60 4:4:4.

### Rear Panel



NO.	NAME	FUNCTION
1	HDMI OUT1/2	Two independent HDMI outputs. Route any of the 4 inputs to each independently.
2	USB Devices 1/2	USB-A downstream, 5V/1.5A. Cameras, keyboards, speakerphones.
3	USB Device 3	USB-C downstream, 5V/1.5A.
4	L/R Audio In	5-pin phoenix. Balanced/unbalanced, max 2Vrms. Embed to USB or HDMI audio.
5	L/R Audio Out	5-pin phoenix. De-embedded from HDMI or USB audio.
6	GPIO	6-pin phoenix. 4 configurable GPIO pins.
7	RS-232	3-pin phoenix. Default 115200-8N1.
8	IR Out	3.5mm mini-jack. IR blaster for display control.
9	Service	USB-C firmware update / API control.
10	Ethernet 1	1G RJ45. Default: TCP/IP and Web GUI. 802.1x/VLAN.
11	Ethernet 2	1G RJ45. Default: USB-C pass-through. Switch Mode: also TCP/IP.
12	DC 24V	DC 24V/7.5A power input.

### WEB GUI

Connect ETHERNET 1. Default IP: **192.168.0.100**. Login: **Admin / 1234**. Pages include independent routing for OUT1 and OUT2, USB switching, audio embed/de-embed, Network (802.1x), and Display control per output.



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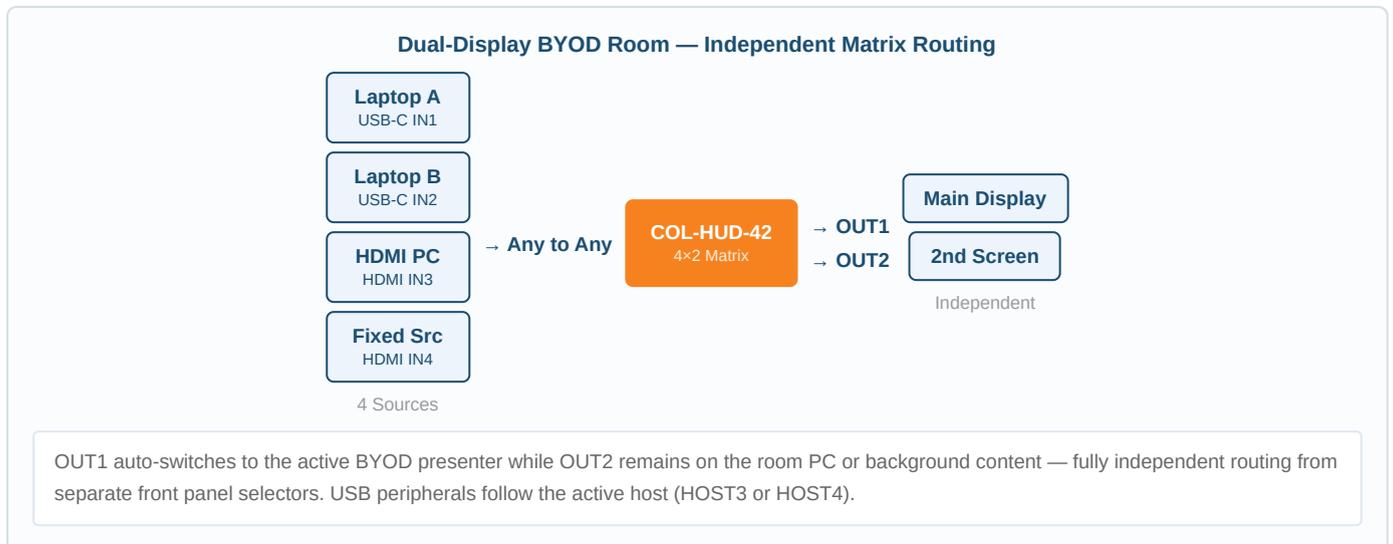
888-975-1368 | support@kanexpro.com | kanexpro.com  
 Hosts (USB-C) DATA ONLY — no charging or video. USB-C source devices must support DP Alt mode for Video transmission. Charging is 50W per port when both USB-C inputs are active simultaneously.

## API COMMANDS (KEY COMMANDS)

RS-232: 115200-8N1 | TCP/IP Port: 8000 | Telnet Port: 23

COMMAND	FUNCTION	COMMAND	FUNCTION
set output 1 from 1	OUT1 ← USB-C IN1	set usb switch mode 1	USB follows video
set output 1 from 2	OUT1 ← USB-C IN2	set usb manual switch 1	USB → USB-C HOST3
set output 1 from 3	OUT1 ← HDMI IN3	set usb manual switch 2	USB → USB-B HOST4
set output 1 from 4	OUT1 ← HDMI IN4	set input 0 edid 1	Auto EDID all inputs
set output 2 from 1	OUT2 ← USB-C IN1	set output 0 video 3	Force 1080p both outputs
set output 2 from 3	OUT2 ← HDMI IN3	set net mode 1	Separated mode (default)
set output 0 auto switch 1	Enable auto on both outputs	set preset save 1	Save preset 1
set display 1 power 1/0	Display 1 on/off	set preset recall 1	Recall preset 1
set display 2 power 1/0	Display 2 on/off	status	Full device status
get ipconfig	Get current IP	reset	Factory defaults

## APPLICATION EXAMPLE



## TROUBLESHOOTING

### Q: No video from USB-C laptop?

Verify the laptop supports DisplayPort Alt Mode. Try setting EDID to 1080P60. HOST3 is data only — video requires USB-C IN1 or IN2, not HOST3.

### Q: OUT2 shows same source as OUT1?

OUT1 and OUT2 are independently routed. Use the OUT2 front panel selector or 'set output 2 from x' command to select a different source for OUT2.

### Q: USB-C charging at 50W instead of 100W?

When both USB-C IN ports are active simultaneously, each delivers 50W. Disconnect one to restore 100W on the active port.

### Q: Cannot access Web GUI?

Connect to ETHERNET 1. Default IP: 192.168.0.100. Set PC to same subnet. Use 'get ipconfig' via RS-232 if IP has changed.

