TC-PSWC-402

4×2 HDMI / USB-C 4K60 Huddle Room Matrix Switcher

One USB-C cable brings a laptop into the meeting



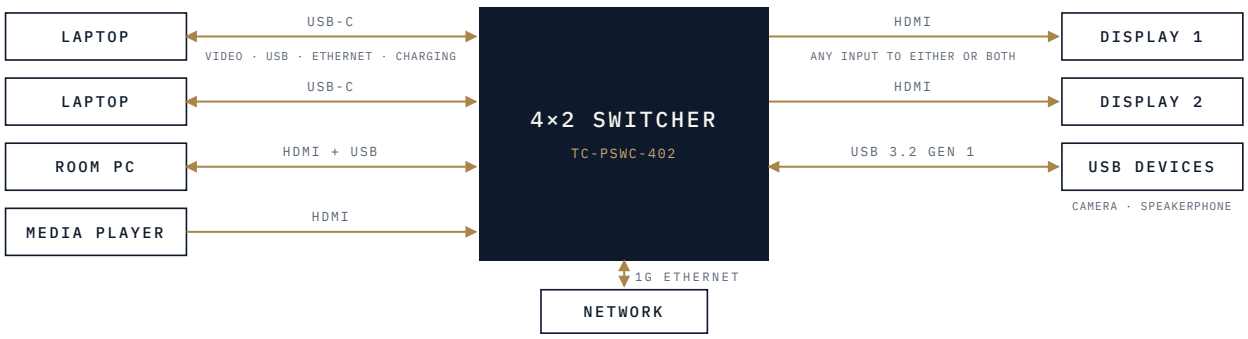
4×2	4K60 4:4:4	USB-C	USB 3.2
two USB-C and two HDMI inputs · two HDMI outputs	HDMI 2.0b · 18 Gbps · HDCP 2.3	video, USB, 1G Ethernet and 50 W charging on one cable	5 Gbps hub that follows the source on a chosen display

TC-PSWC-402 is a 4×2 matrix switcher for the huddle room: two USB-C and two HDMI inputs, each routed to either or both HDMI outputs at up to 4K @ 60 Hz 4:4:4 (8-bit). A laptop needs one USB-C cable — DisplayPort Alt Mode video, USB 3.2 Gen 1 and 1G Ethernet, with charging at up to 50 W per port, 100 W in all — and each HDMI input has a USB host port beside it for a room PC. HDMI 2.0b and HDCP 2.3, with HDR10, HDR10+, Dolby Vision and HLG supported.

The room's camera or speakerphone, on the two USB-A and one USB-C device ports, can follow the source on a chosen display or the last computer connected, or be switched by hand — so a visitor's laptop runs the call on the room's equipment. A line-level microphone can be offered as a USB microphone to that computer, or USB or HDMI audio de-embedded to the line output — not both at once. Switching is automatic on signal or 5 V detection, or manual; displays power on and off with the switcher; and control is by front panel, RS-232, TCP/IP or web GUI.

01 KEY CAPABILITIES

- 4×2 matrix: two USB-C and two HDMI inputs, each to either or both HDMI outputs
- USB follows the source on a chosen display, the last computer connected, or a manual choice
- A line-level mic feed becomes the computer's USB microphone (the line output is then off)
- User-defined welcome screen and no-signal image
- USB-C inputs: DP Alt Mode video, USB 3.2 Gen 1, 1G Ethernet and 50 W charging each (100 W in all)
- USB 3.2 Gen 1 hub: two USB-A and one USB-C device ports, 5 V / 1.5 A each
- Automatic switching on signal or 5 V detection, and standby after a set time without signal
- Automatic display on/off control



SIGNAL PATH · ONE USB-C CABLE CARRIES VIDEO, USB, NETWORK AND CHARGING

02 VIDEO

Signal standard	HDMI 2.0b · DisplayPort 1.4a Alt Mode on the USB-C inputs (the laptop's USB-C port must support DP Alt Mode)
HDCP	HDCP 2.3
Maximum resolution	Up to 4096 × 2160 @ 60 Hz, input and output
Scaling	Each output can downscale 4K to 1080p
Bandwidth	18 Gbps video · USB 3.2 Gen 1 (5 Gbps)
Colour space	RGB · YCbCr 4:4:4 / 4:2:2 / 4:2:0
Colour depth	8/10/12-bit · 8-bit at 4K60 4:4:4
HDR	HDR10, HDR10+, Dolby Vision, HLG
CEC	CEC control of the display and external devices

03 AUDIO

HDMI audio formats	LPCM, Dolby Digital/Plus/EX, Dolby TrueHD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Audio de-embedding	Analogue in embeds into HDMI or USB audio, or HDMI or USB audio de-embeds to analogue out — not both at once
Analogue audio input	Balanced or unbalanced stereo, 5-pin 3.5 mm Phoenix · 20 kΩ balanced / 10 kΩ unbalanced · max 8.2 dBu (2 Vrms) balanced
Analogue audio output	Balanced or unbalanced stereo, 5-pin 3.5 mm Phoenix · 600 Ω balanced / 300 Ω unbalanced · max 8.2 dBu (2 Vrms) balanced, 2.2 dBu (1 Vrms) unbalanced
Analogue performance	In: 20 Hz–20 kHz ±0.5 dB, THD+N < 0.01 % · Out: 20 Hz–20 kHz ±1 dB, THD+N < 0.067 % · dynamic range and S/N > 90 dB · delay < 1 ms
Other audio formats	Analogue: LPCM 2-channel, 32–192 kHz

04 TRANSPORT & DISTANCE

Network	Dual 1G Ethernet with 802.1X and VLAN
Passive cable reach	USB 3.2 up to 1.5 m · HDMI up to 3 m

05 CONNECTIVITY

Inputs	2 × HDMI · 2 × USB-C (DP Alt Mode, USB 3.2 Gen 1, 1G Ethernet; 100 W charging total, 50 W per port) · analogue L/R in
Outputs	2 × HDMI · analogue L/R out
USB	Hosts: 2 × USB-C inputs · USB-C host (data only) · USB-B host · Devices: 1 × USB-C + 2 × USB-A (USB 3.2 Gen 1, 5 V / 1.5 A)
Network ports	2 × RJ45 (1G) · by default ETHERNET 1 for control, ETHERNET 2 for laptops on USB-C; switch mode gives both ports both roles
Control ports	RS-232 (3-pin Phoenix) · IR out (3.5 mm) · GPIO (6-pin Phoenix) · USB-C service port

06 CONTROL

Control methods	Front-panel buttons, RS-232, TCP/IP, web GUI
EDID management	Built-in EDID list, copy from either HDMI output or both combined, and two user-defined uploads (.bin)
IR	IR learning window; IR out 5 Vp-p, 20–60 kHz
Switching	Automatic (signal or 5 V detection) or manual
Operation	Displays power on and off with the switcher: CEC on either output; IR or RS-232 on one output only

07 ELECTRICAL & PHYSICAL

Power supply	24 V DC, 7.5 A · 100–240 V AC adapter
Power consumption	41 W · 149 W with 100 W USB-C charging
Dimensions (W × D × H)	270 × 130 × 23 mm
Weight	890 g
Housing	Metal, black
Mounting	Desk (rubber feet) or mounting ears
Operating temperature	0 to 40 °C
Storage temperature	−20 to 60 °C
Humidity	Operating 20–80 % · storage 10–90 % RH, non-condensing
ESD protection	±8 kV air · ±4 kV contact (IEC 61000-4-2)

08 COMPLIANCE & ASSURANCE

Certification statement	Designed for global compliance — CE, FCC, RoHS, and regional certifications, as applicable.
Warranty	3 years

09 IN THE BOX

In the box	Switcher · 24 V / 7.5 A power supply · IR blaster cable (1.5 m) · 3-pin, 2 × 5-pin and 6-pin 3.5 mm Phoenix connectors · 4 rubber feet · 2 mounting ears · screws

10 ORDERING

Order code	**TC-PSWC-402**

PRODUCT PAGE

telecis.com/products/switchers/tc-pswc-402/

VIEWS



REAR

DRAWING



SWITCHER

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signal · engineered.