

CH4413K_B

4K60 4×4 HDMI Seamless Matrix Video Wall

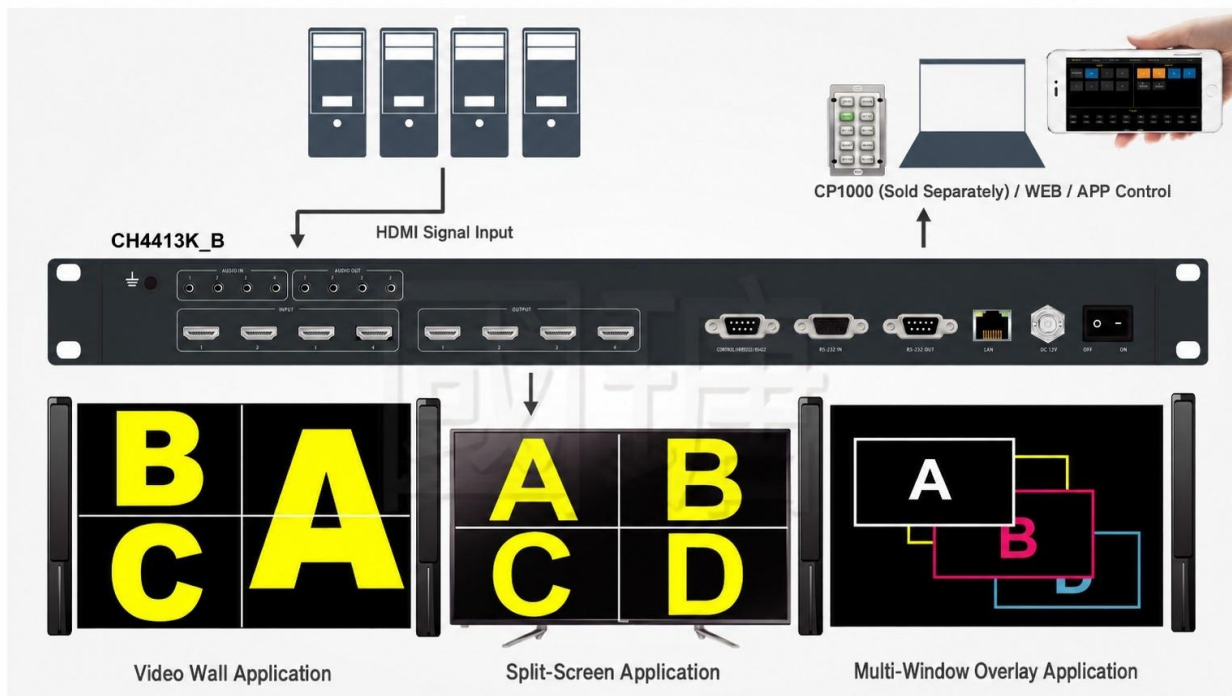
4K@60Hz 4:4:4, HDMI 2.0 + HDCP 2.2, Seamless + Video Wall + Multi-View + Audio I/O

Product Overview

PANIO CH4413K_B is a fifth-generation professional 4-input, 4-output HDMI 2.0 AV processor that combines seamless matrix switching, four-display video wall processing, and multi-view presentation in one system. Any of four HDMI sources can be routed to any of four connected displays.

The unit supports video up to 3840×2160@60Hz 4:4:4 with HDCP 2.2 / 1.4, independent EDID management, scene save and recall, analog audio embedding and de-embedding, power-off memory, and front-panel, IR, Web GUI, APP, TCP/IP, and dual RS-232 control.

Connection Diagram



Product images and colors are for reference only. Actual product color may vary.

Product Features

- **4×4 HDMI Matrix Routing:** Any of four HDMI sources can be routed independently to any of four HDMI outputs for one-to-one, one-to-many, or cross-routed distribution.
- **4K60 Ultra HD Performance:** Supports input and output resolutions up to 3840×2160@60Hz with 4:4:4 chroma for detailed professional display applications.
- **Seamless Source Switching:** Reduces visible blank-screen interruption during source changes for smoother presentations, monitoring, and display-wall operation.
- **Four-Display Video Wall:** Combines up to four displays into a unified video wall while also supporting independent screen operation.
- **Multi-View and Mixed Layouts:** Displays multiple sources simultaneously in divided-screen, mixed, or overlay-style presentation configurations.
- **Audio Embedding / De-embedding:** Four 3.5 mm analog audio inputs correspond to the HDMI inputs, and four analog audio outputs correspond to the HDMI outputs.
- **Independent EDID Management:** Each HDMI input can use an independent EDID setting to improve compatibility among sources, processing, and displays.
- **Scene Save and Recall:** Frequently used routing and display configurations can be stored and recalled for fast operational changes.
- **Professional Multi-Interface Control:** Supports front-panel buttons, IR remote, Web GUI, mobile APP, TCP/IP, and RS-232 integration.
- **Power-Off Memory:** Restores the previous operating configuration after the unit is restarted, supporting stable recurring workflows.

Specification

Parameter	Specification
Model	CH4413K_B
Product Type	Fifth-generation 4×4 HDMI seamless matrix, video wall, and multi-view controller
Input Interfaces	4 × HDMI inputs; 4 × 3.5 mm analog audio inputs
Output Interfaces	4 × HDMI outputs; 4 × 3.5 mm analog audio outputs
Video / Standards	Up to 3840×2160@60Hz 4:4:4; HDMI 2.0; HDCP 2.2 / 1.4
Selectable Output Resolutions	4K60, 4K30, 1080p, 720p, and 1366×768@60Hz
Color Processing	8-bit, 10-bit, and 12-bit color depth; YCbCr and RGB color space
Display Functions	4×4 routing, seamless switching, four-display video wall, multi-view, mixed layouts, and overlay presentation
Control / EDID	Front panel, IR, Web GUI, APP, TCP/IP, dual RS-232, independent EDID, scene save / recall
Power Input	DC 12V / 3A

Interface & System Architecture

Interface	Description
HDMI Inputs	4 × HDMI input ports
HDMI Outputs	4 × HDMI output ports
Analog Audio I/O	4 × 3.5 mm audio inputs; 4 × 3.5 mm audio outputs
RS-232 Control	2 × RS-232 ports for central-control integration
Network / User Control	LAN, Web GUI, APP, TCP/IP, IR remote, and front-panel operation
System Capacity	4 sources × 4 displays; matrix, video wall, multi-view, and mixed layouts

Display & Processing Functions

- **Flexible 4×4 Presentation:** Use independent matrix routing, a four-display video wall, or multi-view layouts without replacing the central processor.
- **Fast Configuration Management:** Independent EDID, saved scenes, seamless switching, audio I/O, and power-off memory simplify recurring professional AV workflows.

Mechanical & Installation

Parameter	Specification
Dimensions	440(W) × 279(D) × 44(H) mm
Weight	3.4 kg
Power Input	DC 12V / 3A
HDMI Cable Guidance	Keep the combined HDMI input and output cable length within 10 m
Cable Requirement	Certified HDMI cables suitable for 4K@60Hz operation
Long-Distance Method	Use an appropriate HDMI extender when the cable distance exceeds 10 m

Package Contents

- 1 × CH4413K_B Main Unit
- 1 × IR Remote Controller (Remote controller battery not included)
- 1 × Power Cable
- 1 × User Manual

Applicable Scenarios

- **Command & Control Rooms:** Route operational sources, recall scenes, and present information across individual displays or a combined video wall.
- **Security Monitoring:** Assign recorders, workstations, and monitoring sources to four displays using matrix, wall, or multi-view modes.
- **Meeting & Conference Rooms:** Switch among computers, conferencing hosts, and media sources with seamless changes and stored layouts.
- **Education & Training:** Present instructor computers and media sources across projectors or displays while adapting the layout to each session.
- **Showrooms & Exhibitions:** Create a large visual canvas, independent product displays, or simultaneous multi-source presentations.

Installation Recommendations

- Use certified HDMI cables suitable for 4K@60Hz to maintain stable image and audio quality.
- Keep the combined HDMI input and output cable length within 10 meters whenever possible.
- Avoid unnecessary cascaded switchers, splitters, and adapters that may introduce compatibility issues.
- Use an appropriate HDMI extender when a longer transmission distance is required.
- Verify the complete signal path in advance when integrating third-party sources, displays, or central-control equipment.

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