Codec Video Wall Processor 4-12

Product Specifications

Model：RDIP1000-H04-H12

I. Product Overview

The Cloud Video Wall Processor is an embedded pure hardware solution featuring built-in storage and 8K decoding capabilities, offering exceptional cost-effectiveness. Beyond audio/video playback control and 8K decoding, it delivers traditional video wall functions including signal switching, real-time display, multi-screen roaming, and scaling. Ideal for exhibitions, visualization showrooms, small-to-medium control rooms, and campus surveillance systems.

II. Key Features

1. Embedded Linux operating system ensures stable 24/7 operation with enhanced resistance to hacker attacks and malware.
2. Four HDMI 2.0 (4K@60) inputs with per-channel audio support and 3.5mm headphone jack audio output.
3. Supports up to 12 HDMI outputs, displaying a maximum of 16 windows per screen. Audio output includes HDMI channel-associated audio and 3.5mm headphone jack audio.
4. Maximum decoding resolution of 3300W. Capable of decoding up to 1 channel of 8K@60fps, 4 channels of 4K@60fps, or 32 channels of 1080@30fps. Supports H.265, H.264, and VP9 decoding.

5. Built-in 64GB storage supports uploading and storing audio/video files and images.

6. Supports full-wall preview, allowing users to directly preview current windowed signals on the control device (PC or tablet) for real-time monitoring of signal integrity, enabling visual management of input channels.

7. Supports multi-window display with flexible layouts for at least 16 windows per screen, including a minimum of 16 4K windows.

8. Supports arbitrary window opening and overlapping roaming. Enables window pinning/unpinning and signal cycling.

9. Supports scrolling subtitles with customizable content, font size, color, and scroll speed.

10. Powerful playback control: video playlist support, mute/pause/fast-forward/rewind/resume playback/previous/next track.

11. Supports simultaneous display of multiple applications from a single computer (Windows OS only) on the screen (optional).

12. Supports displaying any computer desktop within the LAN on the screen.

13. Supports network cameras or streaming media signals compliant with RTSP/ONVIF standards (customizable for proprietary protocols), supporting different subnets or VLANs.

14. Supports decoding streams from mainstream manufacturers like Hikvision, Dahua, and Uniview.

15. Supports one-click scene saving and recall. Various audio/video files, images, 4K HDMI captures, and network-connected signals can be displayed and arranged in windows, saved as scenes with a single click, and recalled instantly as needed for convenience.

16. Supports scene polling and preset configuration. Multiple scenes can be cycled in a defined sequence and time interval, saved as presets. Select a preset to set as an auto-start or scheduled preset, executing upon power-up or at predetermined times.

17. Supports integration with environmental control systems to manage lighting, curtains, video walls, audio matrices, etc.

18. Supports high-definition point-to-point background image display.

19. Supports both local and remote firmware upgrades.

20. Possesses the China Compulsory Product Certification (3C) certificate.

21. Includes product testing reports.

22. Holds software copyright certificates.

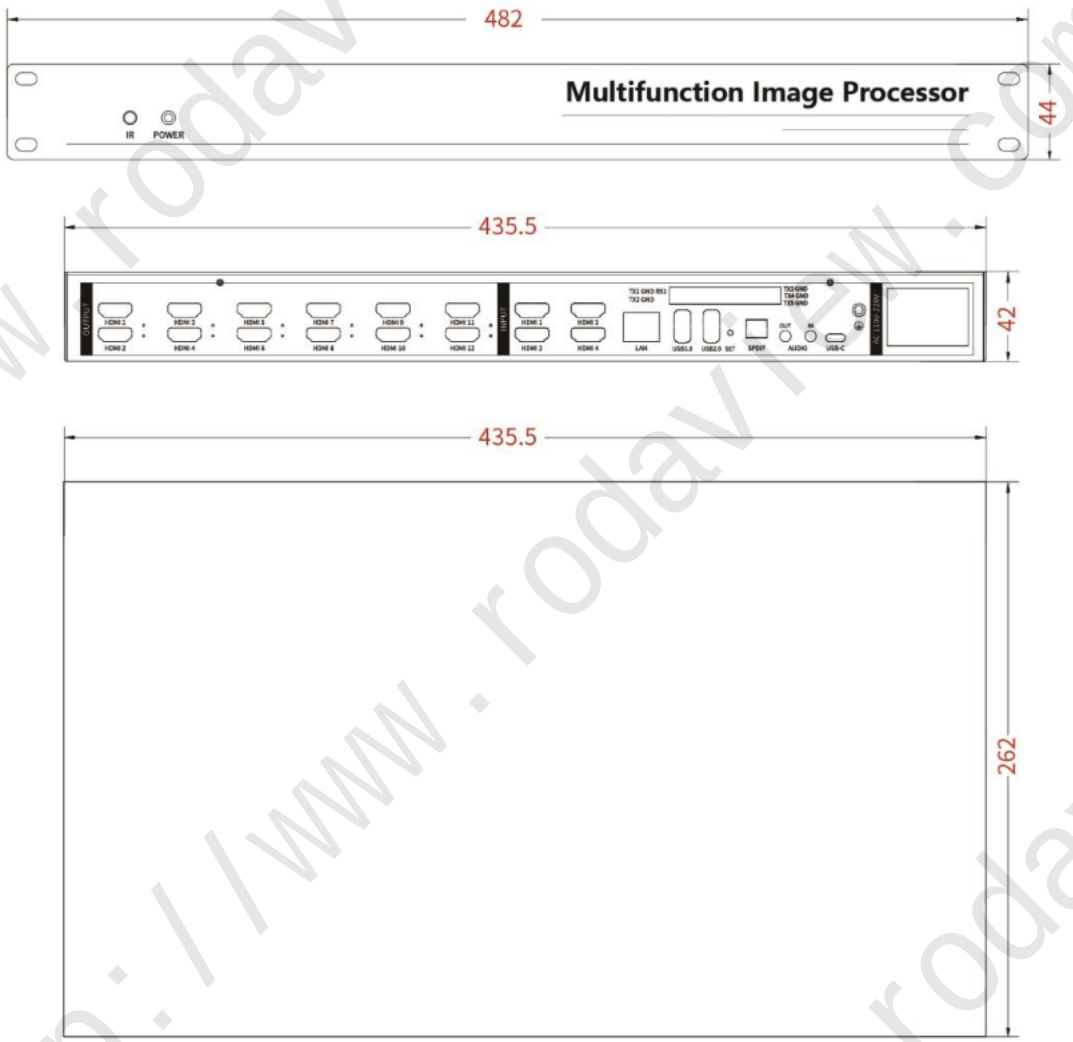
III. Technical Specifications

Category	Item	Specifications
Hardware Configuration	CPU	Octa-core 64-bit architecture, 8nm LP process, frequency 2.4GHz
	GPU	Mali-G610 MC4, supports AFBC (Arm Frame Buffer Compression), 8K codec
	NPU	AI accelerator, computing power 6 TOPS
	RAM	Default 4GB, supports up to 32GB LPDDR4x (64-bit)
	Storage	Default 64GB, supports eMMC 5.1
	Power Supply	AC 100~240V
Interface Parameters	HDMI-OUT	1-12 outputs, max. resolution 1920x1080@60Hz
	HDMI-IN	HDMI 1-4 input, supports up to 4K@60Hz
	LAN	1000M Ethernet port
	RS232	Control serial port (Supports controlling this device and external equipment)
	USB 3.0 / USB 2.0	Supports connecting USB drives/keyboards/mice
	SET	Function port selection

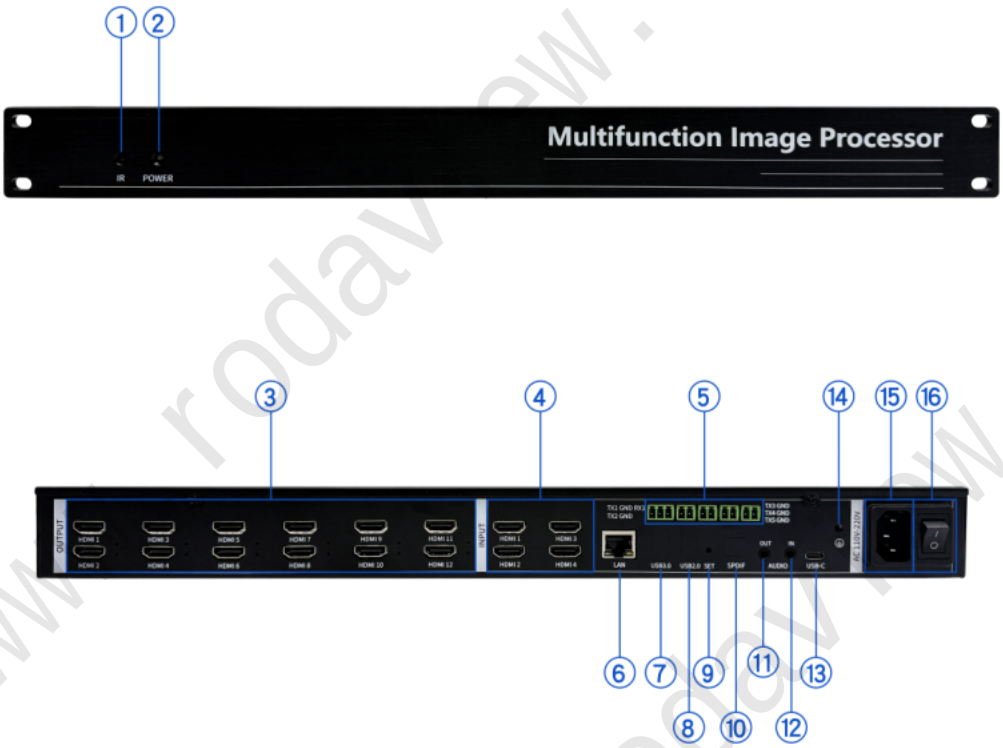
	SPDIF	S/PDIF audio signal interface
	AUDIO-OUT	3.5mm audio output port (1 channel)
	AUDIO-IN	3.5mm audio input port (1 channel)
	USB-C	For device firmware burning/upgrade only
Environmental Parameters	Operating Temperature	0℃ ~ 50℃
	Operating Humidity	10% ~ 75% RH (non-condensing)
	Storage Temperature	-25℃ ~ +125℃
Physical Specifications	Net Weight	3.2kg
	Gross Weight	4.2kg(with packaging)
	Chassis Dimensions	482 × 262 × 44 mm
Packaging Specifications	Package Dimensions	550 × 380 × 130 mm
	Package List	1 × Main Unit, 1 × Power Adapter, 1 × Certificate of Conformity,

IV. Product Dimensions

1U chassis **(supports up to 4 inputs and 12 outputs)**



V. Panel Buttons and Ports



No.	Interface	Description
1	IR	Infrared, receives infrared signals
2	POWER	Power indicator, green light on indicates normal operation
3	HDMI-OUT	HDMI 1-12: HDMI output interface, outputs video signals to HDMI or DVI display devices. Max. supported output resolution: 1920x1080@60Hz
4	HDMI-IN	HDMI 1-4: HDMI input interface, accepts local video output signals. Max. supported input resolution: 3840x2160@60Hz

5	RS232	Control serial port input/output interface, controls this device or external equipment
6	LAN	Connects to Ethernet network to maintain connectivity with devices. Enables receiving IPC streams, accepting web management from client computers, and controlling third-party devices.
7	USB 3.0	Connect USB drives, mouse/keyboard (Optional)
8	USB 2.0	Connect USB drives, mouse/keyboard (Optional)
9	SET	Press and hold for more than 5 seconds to reset device IP address to 192.168.1.1
10	SPDIF	Supports S/PDIF coaxial audio signal (Optional)
11	AUDIO-OUT	Supports one 3.5mm audio output channel
12	AUDIO-IN	Supports one 3.5mm audio input channel
13	USB-C	For firmware burning and software upgrade
14	Protective Grounding	Prevents electric shock accidents caused by live casing during electrical equipment leakage
15	AC110V-220V	AC 110V-220V power input
16	ON/OFF	Power ON/OFF switch button

VI. Connection Diagram

VII. Cloud Management System Framework