

# Multi-screen Splicing Processor 4-9

## Product Specifications



Model: RDMP1000-H04-H09

## I. Product Overview

The Multi-screen Splicing Processor 4-9 is a newly launched, all-in-one design with a fresh architecture and UI, serving as a multifunctional video wall processor for ultra-high-definition video signal acquisition and transmission. It supports video image resolutions up to full 4:4:4 chroma sampling within the RGB color space. Utilizing a pure hardware FPGA + embedded architecture, it offers extensive customizable features tailored to client needs.

It supports diverse display modes including multi-source wall display, video wall stitching, roaming, cross-screen display, zoom in/out, picture-in-picture, picture-out-of-picture, and image overlay. Control options include PCs, tablets, and other devices.

## II. Features and Functions

### ► Device Architecture

1. FPGA + embedded architecture: The embedded system ensures stability for 24/7 continuous operation, while the FPGA provides reliable image processing capabilities.

2. Compact, lightweight, and plug-and-play design with built-in power supply. Supports upgrades and maintenance. Aspect ratio conforms to the golden ratio.

### ► Core Functions

1. Supports HDMI high-definition signal input and HDMI high-definition digital signal output;
2. Enables wall-mapping of any video signal with features including: wall-mapping, roaming, cross-screen display, zoom in/out, picture-in-picture, picture-out-of-picture, and image overlay;
3. Supports 9 windows per screen with  $9 \times N$  layer overlay capability ( $N$  = number of tiled screens). The processor handles 81 windows simultaneously, displaying all window content in real-time without frame loss. Window operations remain smooth with no lag, flickering, or blackouts.
4. Supports single-port capture of 1920x1080@60Hz ultra-HD signals; supports single-port output of 1920x1080@60Hz ultra-HD signals;
5. Preview function allows users to directly monitor active window signals on the control terminal (PC or tablet), enabling real-time verification of signal integrity and visual management of input channels;
6. Supports end-to-end low latency;
7. Built-in FPGA audio de-embedding and switching capability, enabling separation of any HDMI audio channel and routing to 3.5mm audio output;
8. Ultra-low power consumption of 35W, ensuring eco-friendly

operation;

9. Supports Android tablet/mobile app control;

10. Supports WEB control, enabling preset scene switching via web browser on computers/phones/tablets;

11. Supports saving over 1000 preset scenes;

12. Pre-configure multiple scenes for effortless switching between various scenarios;

13. Scene switching latency <30ms, ensuring seamless, lag-free operation without blue screens or screen flickering;

14. Supports ultra-high-definition subtitles with flexible customization of font, color, size, background color, and transparency, plus adjustable scrolling speed;

15. Supports ultra-high-definition static background images with quick and easy replacement for vibrant large-screen backgrounds;

16. Proprietary adaptive deinterlacing, scaling, and OSD technology ensures smooth, clear visuals;

17. Supports LED displays with customizable output resolution;

18. Supports source and display device validity detection with status LED indicators;

19. Device output port synchronization time difference = 0nS (excluding screen-introduced variations);

20. Supports multi-user management;

21. Supports online device upgrades via upgrade tools.

► Other Features

1. Supports serial port control for large screen power on/off;
2. Supports secondary development, providing third-party user control protocols and interfaces.

► Qualification Certificates

1. ISO9001 certification with official seal;
2. Compulsory Product Certification (CCC) test report from National Product Quality Supervision Center with official seal;
3. Inspection report copy from Electronic Product Quality Inspection Center with official seal;
4. CCC, CE, RoHS, and computer software copyright certifications with official seal copies.

### III. Technical Specifications

Category	Item	Specifications
<b>Interface Parameters</b>	HDMI-OUT	9 outputs, supports 1920×1080P@60 output Supports custom resolutions
	HDMI-IN	HDMI 1-4 input, supports 1920×1080P@60/50

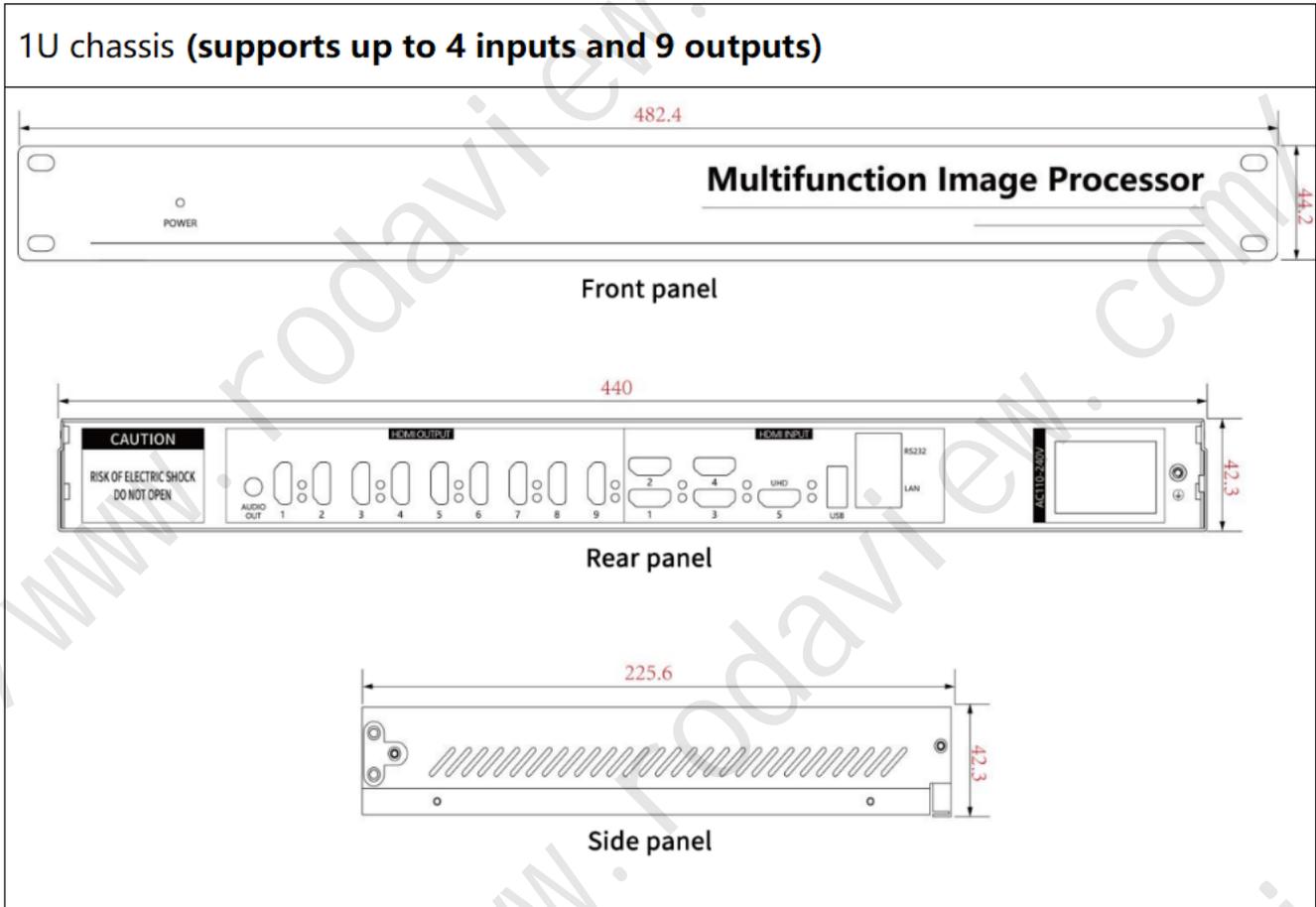
## Multi-screen Splicing Processor

	RJ45 LAN Port	10/100M auto-negotiation, supports remote control of the processor by other devices within the LAN
	RS232	Supports connection to large screens and central control systems
	USB 2.0	Firmware upgrade
	AUDIO-OUT	3.5mm audio output (1 channel)
	AUDIO-IN	3.5mm audio input (1 channel)
	Power Consumption	Approx. 35W
	Power Supply	AC 110-240V
<b>Software &amp; Function</b>	Windows Client Software	MultiScreenCtrl
	Android Client Software	MultiScreenCtrl
	Function	HD signal input/output, video wall display / multi-screen splicing Overlay adjustment & scaling / independent audio output

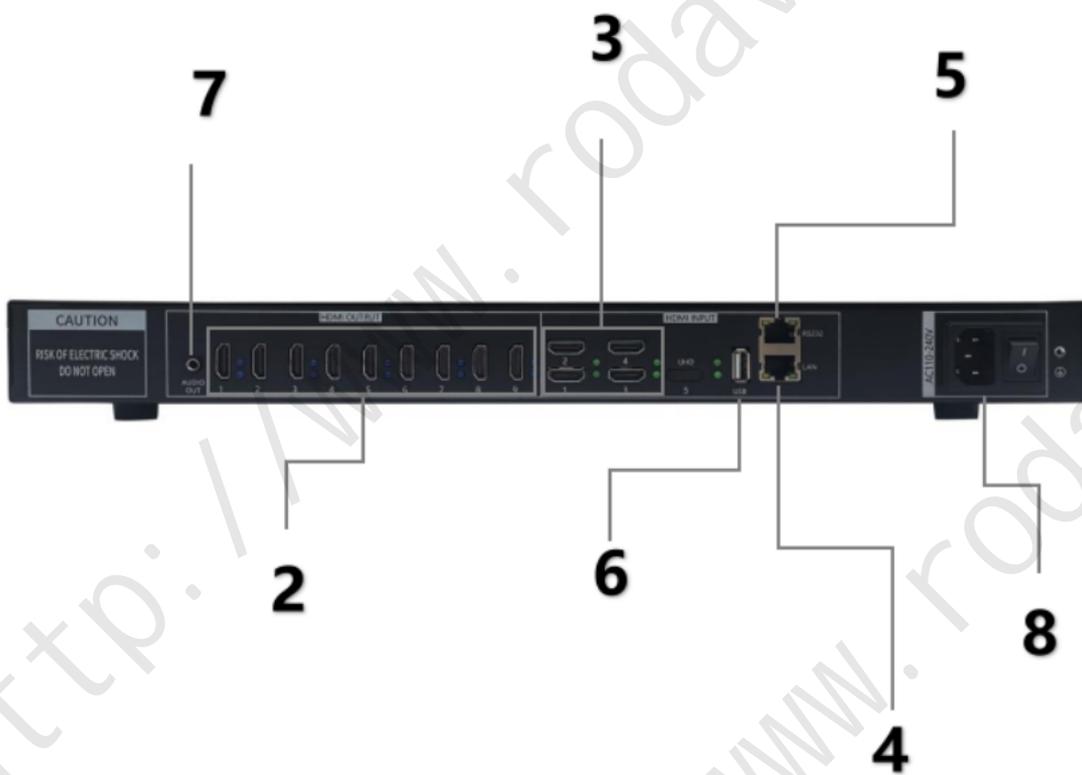
## Multi-screen Splicing Processor

	Single Screen Window Count	9
<b>Environmental Parameters</b>	Operating Temperature	0°C ~ 50°C
	Operating Humidity	10% ~ 75% RH (non-condensing)
	Storage Temperature	-25°C ~ +125°C
<b>Physical Specifications</b>	Net Weight	2.8kg
	Gross Weight (with packaging)	3.8kg
	Chassis Dimensions	482.4 × 225.6 × 42.3 mm
<b>Packaging Specifications</b>	Package Dimensions	550 × 380 × 130 mm
	Package List	1 × Main Unit, 1 × Warranty Card, 1 × Power Cord, 1 × Network Cable

## IV. Product Dimensions



## V. Panel Buttons and Ports



## Multi-screen Splicing Processor

No.	Interface	Description
1	POWER	Power indicator, red light on indicates normal operation
2	HDMI-OUT	HDMI 1.4 digital interface, supports 1920×1080P@60 output, supports custom resolutions
3	HDMI-IN	HDMI 1.4 digital interface, supports 1920×1080P@60/50, 1920×1080P@30/25
4	LAN	10/100M auto-negotiation, supports remote control of the processor by other devices within the LAN
5	RS232	Supports connection to large screens and central control systems
6	USB 2.0	Firmware upgrade
7	AUDIO-OUT	Supports one 3.5mm audio output channel
8	Power	AC 110-240V

# VI. Connection Diagram

