4K Projection Fusion Processors

Product Specifications

Model：RDRH-L201

I. Product Overview

A professional desktop image fusion hardware solution developed by our company specifically for single-module fusion/image geometric correction. It integrates multimedia playback control, information publishing, cluster management functions, and an application platform, delivering powerful interactive and playback capabilities.

Supports multi-platform terminal control across Windows, Mac OS, iOS, and Android, enabling arbitrary multi-screen windowing and roaming display.Additionally, tailored for diverse application scenarios, it integrates with video conferencing systems, surveillance systems, live streaming platforms, and local media playback. Two scene modes (Desktop Mode and Window Mode) ensure optimal display for document presentations, video playback, and remote meetings.

Supporting infrared remote control, mouse, tablet, smartphone, and computer operation, this solution is widely applicable in commercial display scenarios across government, enterprises, conference rooms, hotel design, healthcare, education, and other industries.

II. Features and Functions

✦ Supports 1 HDMI 2.0 output, with maximum 3840 x 2160@60Hz pixel-for-pixel display, backward compatible.

✦ Supports 1 HDMI input (4K@30Hz), backward compatible.

✦ Supports 2 USB 3.0 ports for multimedia playback and functionality expansion (keyboard/mouse connectivity, USB flash drive upgrades, etc.).

✦ Supports 4K VP9 and 4K 10-bit H.265/H.264 video decoding at up to 60fps.

✦ Supports video post-processing: deinterlacing, noise reduction, edge/detail/color optimization.

✦ Supports TF card expansion, USB flash drive extension, and direct plug-in live streaming.

✦ Supports online/local playback of video, audio, images, PPT (optional), web pages, etc.

✦ Supports multiple communication methods including Wi-Fi, Gigabit Ethernet, and direct USB cable connection.

✦ Supports 1 channel 3.5mm audio output with synchronized audio-video output.

✦ Supports cluster management within LAN/WAN and remote information publishing.

✦ Supports multi-window playback with up to 6 1080P video windows for flexible windowing, roaming, overlay, and tiling display.

✦ Customized desktop UI system based on Linux, with optional Linux application integration.

✦ Personalized subtitle management including single-line text, static text, and scrolling text; displays clock and weather forecasts.

✦ Supports keyboard/mouse control, infrared remote control, and mobile/tablet control.

✦ Plays network streaming media, decodes webcam feeds, and enables quick access to live broadcast links.

✦ Supports 32GB local storage for preserving customer video content.

✦ Supports central control functions for remote operation of curtains, air conditioning, audio systems, LED power distribution boxes, and more.

✦ Geometric distortion correction: 4-point arbitrary plane correction, curved correction, barrel correction, 9-point arbitrary geometric correction, and irregular shape correction.
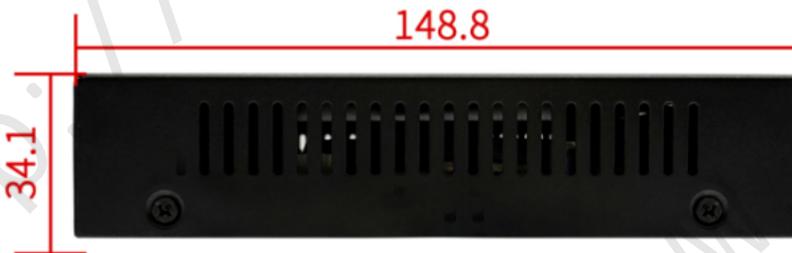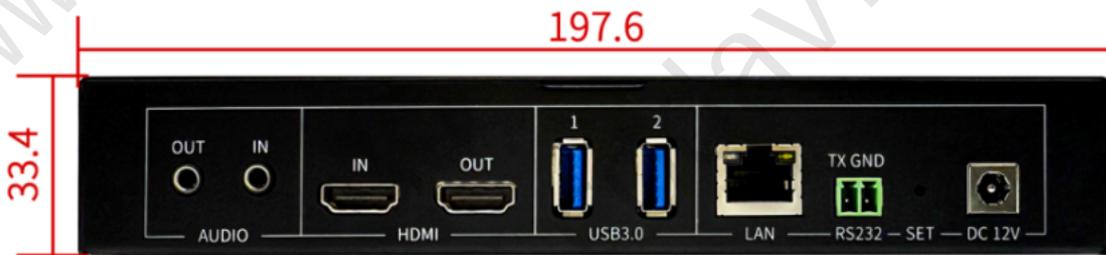
III. Technical Specifications

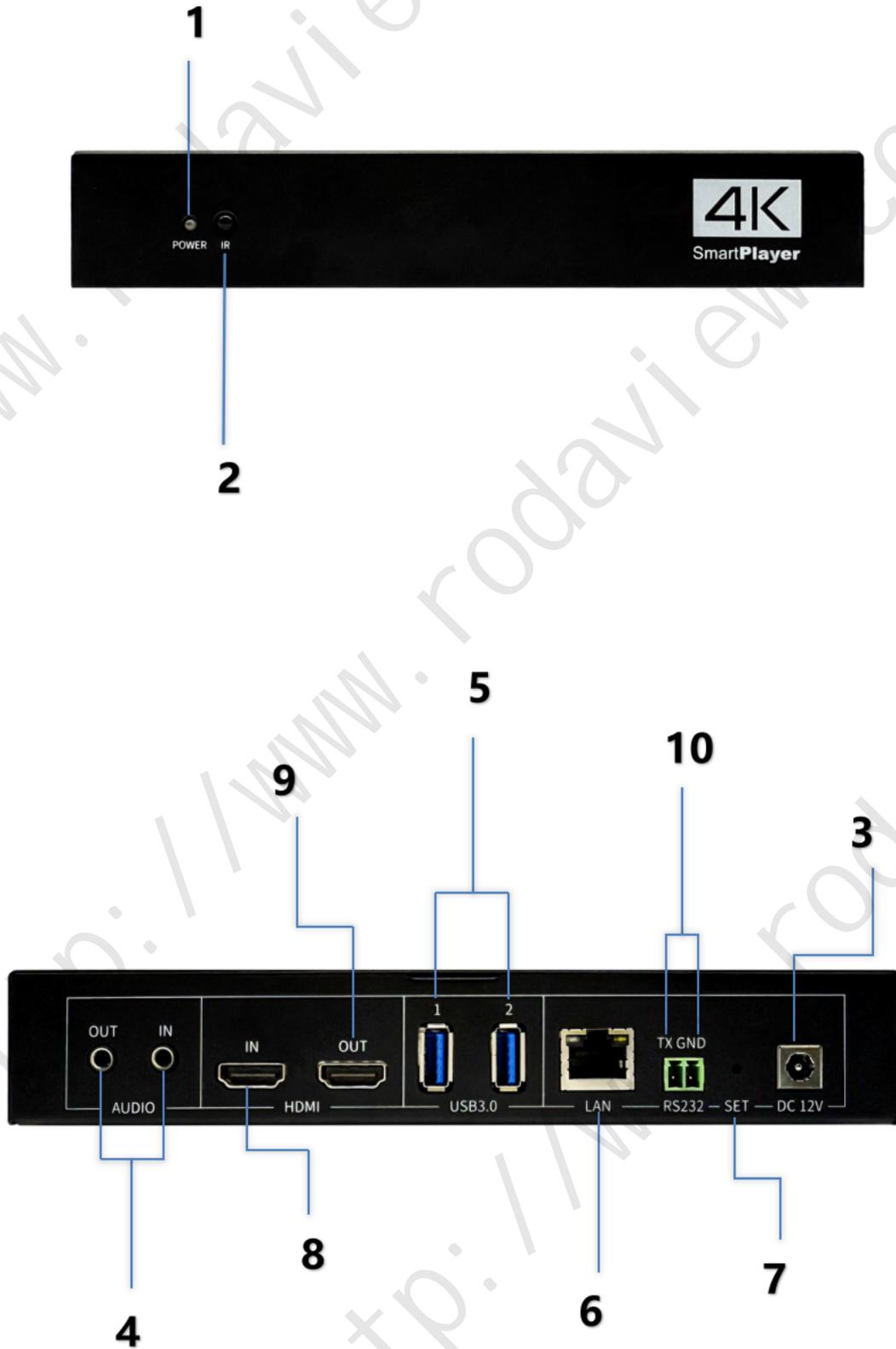| Category	Item	Specifications
Hardware Configuration	CPU	Quad-core CPU architecture, frequency up to 2.0GHz
	GPU	Dual-core GPU, supports OpenGL ES 1.1/2.0/3.0/3.1, OpenGL, supports AFBC (Arm Frame Buffer Compression)
	VPU	High-performance VPU, 1080P 100FPS H.264/H.265 video encoding, 4K 60FPS H.265/H.264 video decoding
	RAM	4G
	Storage	32G (Expandable)
	Power	DC 12V
Interface Parameters	HDMI-OUT	1 output, max. resolution 3860x2160@60Hz
	HDMI-IN	HDMI 1 input, supports up to 4K@30Hz
	LAN	1000M Ethernet port
	RS232	Control serial port (Supports controlling this device and external equipment)

	USB 3.0	Supports connecting USB drives/storage devices
	SET	Function port selection
	AUDIO-OUT	3.5mm audio output port (1 channel)
Environmental Parameters	Operating Temperature	0℃ ~ 50℃
	Operating Humidity	10% ~ 75% RH (non-condensing)
	Storage Temperature	-25℃ ~ +125℃
Physical Specifications	Net Weight	0.8kg
	Gross Weight	1.2kg　(with packaging)
	Chassis Dimensions	200×150×34mm
Packaging Specifications	Package Dimensions	250×261×71mm
	Package List	1 × Power Adapter, 1 × Certificate of Conformity, 1 × IR Remote Controller, 2 × Mounting Ears, 1 × Phoenix Terminal Plug, 6 × Mounting Screws

IV. Product Dimensions

V. Panel Buttons and Ports

1

2

4K
SmartPlayer

POWER   IR

5

10

9

3

OUT   IN   IN   OUT   1   2   TX GND

AUDIO   HDMI   USB3.0   LAN   RS232   SET   DC 12V

8

4

6

7

No.	Interface	Description
1	POWER	Power indicator, green light on indicates normal operation
2	IR	Infrared (IR), receives infrared signals
3	DC-12V	DC-12V power input
4	AUDIO-OUT	Supports one 3.5mm audio output channel
5	USB 3.0	Connect USB drives, mouse, keyboard, etc.
6	LAN	1000M Ethernet port for network connection
7	SET	Function port selection
8	HDMI IN	Supports input up to 4K@30Hz
9	HDMI OUT	Supports output up to 3840×2160@60Hz
10	RS 232	Control serial port output interface, controls external equipment

VI. Connection Diagram