

# RS151

High Performance Network Streamer Gen 2



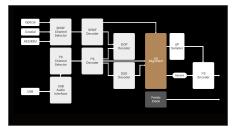
# High Performance Network Streamer Gen 2, **RS151**

The RS151 is a network streamer that achieves groundbreaking improvements in every aspect. ROSE's proprietary cutting-edge technologies developed during the RD160 project, combined with the latest flagship DAC chip and premium components, deliver revolutionary advancements in audio performance. The significantly enhanced processing power, based on a next-generation 8-core CPU, integrates seamlessly with the Full HD wide-view multi-touch display introduced in the RS130, delivering a smoother and more enjoyable playback experience. With upgrades in performance, functionality, and convenience, the RS151 sets a new standard for high-resolution audio and streaming.



# Advanced DAC Design with Ultra-Low Noise and Distortion

The DAC stage is equipped with the flagship ESS Technology ES9039PRO DAC chip. Utilizing the 4th generation Hyperstream® technology, the ES9039PRO combines with a high-precision Femto clock to dramatically reduce jitter, and enhances linearity in the digital-to-analog conversion process. The digital and analog signal paths as well as all 8 channels are physically separated, ensuring that each circuit operates independently within their respective circuits. This ensures the digital signal is transmitted to the analog stage without being affected by noise or jitter from the digital circuitry, maintaining optimal accuracy and channel separation, resulting in excellent channel separation, precise staging, and rich three-dimensionality.



# **ROSE DPC(Digital Processing Core)™ Module**

The RS151's digital stage applies the ROSE DPC™ module, which synchronizes the incoming signal with a high-precision Femto clock and aligns it into an I²S signal, minimizing jitter and maximizing signal quality. This module is designed to ensure that all processing blocks maintain the highest accuracy of the signal. It completely separates the circuits for the user interface and GUI configuration from the digital audio signal path, thoroughly eliminating signal distortion and interference. With this design, the RS151 ensures precise signal processing, natural and clean sound, and compatibility across various digital formats.



# **Sound Quality Progress through Sophisticated Design**

The RS151 incorporates advanced technologies and premium components to elevate sound quality. High-precision MELF resistors and audio-grade WIMA film capacitors in the DAC, I/V conversion, and OP-AMP stages enhance linearity and minimize distortion, while precisely controlled OP-AMP bias voltage ensures a refined, natural sound. A single-point ground design eliminates grounding loops and suppresses noise, and low-ESR, high-ripple decoupling capacitors stabilize the power supply by filtering high-frequency noise. These innovations enable the RS151 to achieve remarkable measurement values, with a SNR of 131.4dB and THD+N of 0.0002%, marking a breakthrough in signal accuracy and sonic performance.



# ROSE NRA(Noise Reduction Analog)™ Filter

The analog stage features the ROSE NRA™ filter, designed to eliminate noise and enable flat frequency characteristics even at extremely low frequency ranges. With this innovation, the RS151 boasts a fixed frequency response across the entire range without roll-off, faithfully and clearly reproducing the original sound information embedded in high-resolution audio sources.



#### **Enhanced Processing with Next-Gen 8-Core CPU**

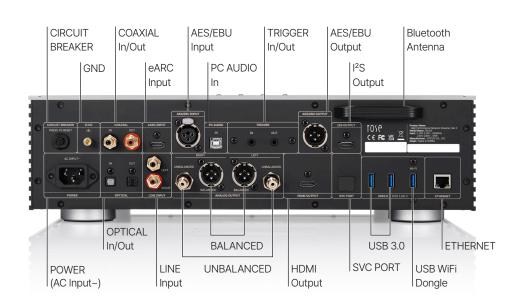
The RS151 features the next-generation 8-core CPU RK3588, offering a 4x increase in information processing performance and an 8x boost in graphics performance compared to its predecessor. In addition, the DRAM capacity has been upgraded from 4GB to 8GB, and the eMMC storage has been expanded from 8GB to 32GB, resulting in a processing speed that is more than twice as fast. This allows for smooth playback of large audio files as well as 4K high-resolution videos in HDR, while the media library capacity has grown by approximately three times, supporting over 1 million tracks.

### Beyond Audio, HiFi ROSE





#### • Rear



#### • Color





# Specifications

Benchmark	Input Sensitivity	0dBF 1kHz(Digital), 2Vrms(Analog)		
	Output Impedance	2.84 Ω		
	Output Level	9.0Vrms(XLR), 4.5Vrms(RCA)		
	THD+N	0.0002%(XLR), 0.0003%(RCA) (1kHz, 0dBF)		
	Signal to Noise Ratio	131dB(XLR), 124dB(RCA)		
	Dynamic Range	Max 150dB (CCITT filter)		
	Stereo Crosstalk	Max -143dB (20Hz-20kHz)		
	Frequency Response	20Hz - 75kHz (+/-0.5dB)		
Technical	PSU	Toroidal Linear Power Supply		
	CPU	Octa core RK3588		
	RAM	LPDDR4X 8GB		
	GPU	ARM Mali-G610 MC4(OpenGL, Vulkan, OpenCL)		
	DAC	ES9039 PRO(ESS)		
	Oscillator	Highly Precise Femto Clock		
Inputs	Digital	USB 2.0 Type-B	PCM 32bit/768kHz, DSD512(22.6MHz)	
	3	Coaxial	PCM 24bit/384kHz, DSD128(5.6MHz) (only DoP)	
		Optical	PCM 24bit/192kHz, DSD64(2.8MHz) (only DoP)	
		AES/EBU	PCM 24bit/384kHz, DSD128(5.6MHz) (only DoP)	
		HDMI eARC	PCM 24bit/192kHz	
	Analog	Line In		
	Service	USB 3.0 Type-C		
	Trigger	DC 3.3V - 12V		
Outputs	Digital	USB 3.0 Type-A	PCM 32bit/768kHz, DSD512(22.6MHz)	
		Coaxial	PCM 24bit/384kHz, DSD128(5.6MHz) (only DoP)	
		Optical	PCM 24bit/192kHz, DSD64(2.8MHz) (only DoP)	
		AES/EBU	PCM 24bit/384kHz, DSD128(5.6MHz) (only DoP)	
		I <sup>2</sup> S-HDMI	PCM 32bit/768kHz, DSD512(22.6MHz)	
	Analog	Unbalanced, Balanced		
	Video	HDMI 2.0 (4K UHD / 60Hz)		
	Trigger	DC 12V	40 (400 (4000 D 400 T (4D 4))	
Network	Connectivity	Ethernet	10/100/1000 BASE-T(1Port)	
		WiFi	USB Dongle	
	Strooming Drotocal	Bluetooth AirPlay [	5.4 aptX (A2DP1.4, Sink, AVRCP v1.6.2)	
	Streaming Protocol	Bluetooth, AirPlay, DLNA/UPnP, Roon Ready, Spotify Connect		
	Storage	SMB  oMMC Flach 22GP (System Lice Only)		
Storage	Internal	eMMC Flash 32GB (System Use Only)		
	External	3 × USB 3.0 Type-A 1 × 2.5" SSD(SATA 3.0, NTFS, exFAT)		
Feature	CD Ripping	Support(By external USB CD Drive)		
reature Power		AC 110-120V, 220-240V, 50/60Hz		
Power	Input Voltage  Power Consumption	Standby	0.3W	
	rower consumption	Idle	5W	
		Playback	55W	
	Protection	6A Thermal Circuit		
Physical	Display	15.4" TFT LCD & Capacitive Touch Screen (FHD, eDP)		
	Display			
		430(W) × 319(D) × 125(H) mm		
	Weight	11kg		
	Material	Aluminum / Rust-proof Steel		
	Finish	Silver, Black		
	IR	38kHz IR Receiver		