

The background features a complex, abstract geometric pattern. It consists of numerous thin, light gray lines that overlap and intersect to form a large, irregular diamond or rhombus shape. The lines are arranged in a way that creates a sense of depth and movement, with some lines appearing to recede into the distance while others come forward. The overall effect is a textured, layered appearance that frames the central text.

**Beyond Audio, HiFi ROSE**

rose



rose



# Advanced Hi-Fi Audio System, HiFi ROSE

Hi-Fi ROSE is a Hi-Fi audio system that can play MQS (Mastering Quality Sound), Hi-Res (Hi-Resolution, Japan Audio Society), and MQA (Master Quality Authenticated) without distortion.

The ROSE name guarantees pure and clean sound.

The current recording technology that has been developed through LPs, tapes, and CDs supports high-resolution music files which are 7 times larger than CD music files. Recording technology for mastering analog data without distortion is still evolving.

Hi-Fi ROSE transforms high-resolution/high-quality digital sound recorded with the latest technology into analog without distortion, reproducing even the smallest parts of the original sound.

In addition, in step with the new audio era, it provides an environment where you can enjoy music and video at the same time, providing a sense of space and realistic sound as if you were in a concert hall. Hi-Fi ROSE is continuing research and development to provide a variety of music services and a convenient environment for listening to high-quality audio.

Its unrivaled design, convenience, pure sound without distortion, and unique analog circuit design technology are recognized around the world.



# Ultimate Network Transport RS130

The RS130 is a network transport which can be digitally connected to an external DAC product.

It features Fiber Optic Ethernet and Fiber Optic USB connectivity, which effectively block digital noise, and also has a high-precision OCXO clock to optimize stable digital output.

The RS130 supports external master clock input ensuring compatibility between devices in different usage environments and enabling playback of network audio at the highest level of sound quality.

The RS130 is the first network transport developed by ROSE with a user-friendly lineup in mind, based on their unique design know-how and functions accumulated over many years.





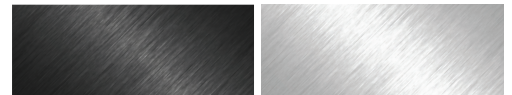
Black Metal Body

**KEY FEATURES**

- High-precision OCXO clock for Long-Term Jitter Reduction
- Fiber Optic Ethernet and Fiber Optic USB connectivity
- Network Streaming with SSD Caching Playback
- External master clock input
- Minimize electrical noise with full linear power configuration using Super capacitor

**DESIGN**

- Size : 430 × 317 × 125 mm
- Weight : 11.7kg
- Front LCD : 15.4" wide touch screen (Full HD quality)
- Color : Black, Silver



**MAIN FUNCTION**

Hi-Res	DSD	Native DSD 512
	PCM	32bit / 768kHz
In/Out Port	Digital Out	OPT x 1, COAX x 1, AES/EBU x 1, I2S-HDMI x 1
	USB Audio Out	USB Type-A 2.0 (Isolation)
Network Connection	Ethernet	10/100/1000 BASE-T x1 (SFP COPPER Type)
	WiFi	802.11ac Dualband USB Wireless LAN Card (Dongle)
	Bluetooth	V4.2 (USB Dongle)

# Advanced All-In-One Network Streamer RS520

RS520 is an all-in-one product with built-in network player, DAC, and amplifier.

For DAC and amplifier module, it is equipped with ES9038PRO DAC, the flagship DAC chip of ESS technology and Class AD amplifier module developed by applying new material GaN FET are mounted.

RS520 is an advanced all-in-one network streamer that consolidates the main functions of existing all-in-one streamers into one based on ROSE's unique design know-how and functions accumulated over many years.



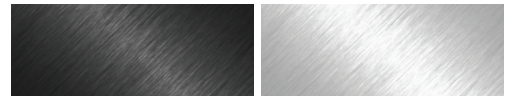


**KEY FEATURES**

- ES9038PRO DAC
- Class AD Amplifier with next generation GaN FET
- Discrete OP AMP developed
- ACTIVE PFC adoption
- Equalizer

**DESIGN**

- Size : 346 × 328 × 127 mm
- Weight : 8.1kg
- Front LCD : 12.6" Wide LCD Touchscreen
- Color : Black, Silver



**MAIN FUNCTION**

Hi-Res	DSD	Native DSD 512
	PCM	32bit / 768kHz
In/Out Port	Digital In	Optical, Coaxial, USB DAC, eARC
	Digital Out	Optical, Coaxial
	Analog In	Line-in
	Analog Out	Pre-out_RCA
	HDMI Out	4K
	Speaker Out	250W + 250W@ 8Ω, 4Ω
	USB Audio In	USB B Type 2.0
	USB Audio Out	USB A Type 3.0
Network Connection	Ethernet	10/100/1000 BASE-T
	WiFi	802.11ac Dualband USB Wireless LAN Card (Dongle)
	Bluetooth	V4.2 (USB Dongle)

# Absolute Pure Sound Integrated Amplifier RA180

The RA180 is a state-of-the-art integrated amplifier using the latest innovative technologies. Power damping and dead times were reduced to 1/10 or less. Linearity was dramatically improved to create a near-perfect sound that transcends the boundaries between digital and analog. Enjoy the pure sound of nature provided by the RA180.







#### KEY FEATURES

- Class AD Amplifier with next generation GaN FET
- Multi Output Component
- Designed to play up to the Super Tweeter Realm
- Balanced Power Supply
- PHONO Amplifier with Variable EQ

#### DESIGN

- Size : 430 × 391 × 124 mm
- Weight : 16.7kg
- Design : High Purity Aluminum
- Color : Silver

#### MAIN FUNCTION

In/Out Port	Analog In	Line1, Line2, Line3(Bypass), Balanced, Phono(MM/MC)
	Analog Out	Sub Woofer
Speaker	Stereo(A/B)	4ch 200W(8Ω)
	Stereo(A), BTL(B)	Stereo(A): 4ch 200W(8Ω) / BTL(B) : 2ch 400W(8Ω)
	BTL(A/B)	BTL(A) : 2ch 400W(8Ω) / BTL(B) : 2ch 400W(8Ω)

# High Performance Network Streamer RS150B

Hi-Fi ROSE's flagship network streamer RS150B adds the impression of the original sound to the existing convenient streaming. With its strengths in spaciousness and dynamics, it is the best network player model on the market.

Enjoy streaming by connecting your own amplifiers, receivers, and more with a wide range of digital and analog input/output options. You can easily embed an SSD and build a digital library by connecting it with mass storage devices such as NAS.





Silver Metal Body



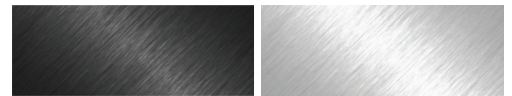
Black Metal Body

#### KEY FEATURES

- Flagship network streamer
- Network streamer + DAC
- High-tech DAC design realizes low-noise and low-distortion sound
- High-resolution music playback available (DSD512, PCM 32bit/768 kHz)
- High-precision Femto clock
- Minimizes electrical noise with full linear power configuration

#### DESIGN

- Size : 430 × 318 × 124 mm
- Weight : 11 kg
- Front LCD : 14.9-inch wide angle touch screen
- Color : Black, Silver



#### CONNECTIVITY

- Bluetooth, DLNA, Airplay, Spotify Connect, Roon Ready

#### MAIN FUNCTION

Hi-Res	DSD	Native DSD 512
	PCM	32bit / 768kHz
In/Out Port	Digital In	Optical, Coaxial, AES/EBU, HDMI ARC, USB Audio
	Digital Out	Optical, Coaxial, AES/EBU, I2S-DVI, I2S-RJ45
	Analog In	Line In
	Analog Out	Pre-out_XLR, Pre-out_RCA
	HDMI Out	4K
	USB Audio In	USB B Type 2.0
	USB Audio Out	USB A Type 3.0
Network Connection	Ethernet	10/100/1000 BASE-T
	WiFi	Optional_dongle
	Bluetooth	Optional_dongle

# Complete HiFi Network Streamer RS250A

RS250A with built-in high performance DAC(ES9028PRO) and Discrete OP AMP provides the best of wide bandwidth, separation and audio clarity. The wide LCD screen and multi-touch function provide a new audio device experience and add perfection for those seeking simplicity. The harmonious design of the stylish aluminum body, which emphasizes the same edge as the previous product, and the cool wide-view angle touch screen placed on the front side make your music space stand out even more. The power button and volume control knobs are designed with visual effects and practicality in mind, displaying the delicateness of ROSE.





Black Metal Body · VU Meter



More convenient volume knob

#### KEY FEATURES

- Reference-level all-in-one network streamer
- Network streamer + DAC
- High-resolution music playback available (DSD512, PCM 32bit/768 kHz)
- High-precision Femto clock
- Minimizes electrical noise with full linear power configuration

#### DESIGN

- Size : 278 × 231 × 83 mm
- Weight : 3.2 kg
- Front LCD : 8.8-inch wide angle touch screen
- Color : Black, Silver



#### CONNECTIVITY

- Bluetooth, DLNA, Airplay, Spotify Connect, Roon Ready

#### MAIN FUNCTION

Hi-Res	DSD	Native DSD 512
	PCM	32bit / 768kHz
In/Out Port	Digital In	Optical, Coaxial
	Digital Out	Optical, Coaxial
	Analog In	Line-in
	Analog Out	Pre-out_RCA
	HDMI Out	4K
	Headphone Out	3.5 mm
	USB Audio In	USB B Type 2.0
	USB Audio Out	USB A Type 3.0
Network Connection	Ethernet	10/100/1000 BASE-T
	WiFi	802.11 a/b/g/n/ac (2.4GHz/5GHz)
	Bluetooth	V4.0 / V3.0+HS

# HiFi ROSE CD Drive RSA780E

The RSA780E CD Drive for Hi-Fi ROSE provides CD playback and ripping functions by connecting to RS201A, RS250, or RS150B products via USB. Increasing the weight of the CD drive to 900g guarantees stable CD rotation without shaking, and a built-in USB isolator significantly reduces rotation motor noise and electrical noise.





900g solid body



Isolation, Normal Mode Switch

#### KEY FEATURES

- Built-in USB isolator blocks operation noise
- USB-B port for Hi-Fi audio
- 900g weight for CD playback without shaking
- Minimizes operation noise by applying insulator
- CD ripping function included

#### DESIGN

- Size : 152 × 152 × 24 mm
- Weight : 0.9 kg
- Color : Silver

#### CONNECTIVITY

- Rear : USB B Type

# Innovative ROSE OS System

HiFi ROSE OS will show users a new way to enjoy music comfortably and easily. It provides a variety of ways to enjoy music and provides a library to conveniently manage your music files. You can create your own playlist and share it with your friends. ROSE OS will continue to develop through communication with customers and convergence with the latest technologies. New features and services are available to users through online updates.



## Spotify Connect

Spotify Connect allows you to play and wirelessly control Spotify music on your ROSE OS over a network. With the Spotify Connect function, you can enjoy a variety of music with HiFi sound quality on your ROSE device.



## Hi-Res Audio

HiFi ROSE devices are certified with a 'High-Resolution Audio' license from the JAS (Japan Audio Society).



## TIDAL

Enjoy music streaming and videos with TIDAL's unique features. Supports MQA Full Decoder, so you can enjoy high-resolution music.



## 4K Video

You can enjoy high-definition videos on YouTube, TIDAL, and Bugs, and play video files in various formats.



## Qobuz

Enjoy music streaming with Qobuz's various functions. Support for Hi-Res Audio(24bit/192kHz) means you can enjoy high-resolution music.



## MQA

Supports MQA's Full Decoder. Enjoy studio mastering sound quality.



## Roon Ready

ROSE OS is fully compatible with Roon Core, with Roon Ready certification in compliance with all requirements of Roon Labs. You can enjoy HiFi sound quality on your ROSE device with the powerful music management capabilities of Roon.



## ROSE Radio

Enjoy Rose Radio, which consists of about 30,000 radio channels from 200 countries around the world. Channels are organized into various categories, and you can easily search for channels with filters of genre/region/language.



## Bugs

Listen to high-resolution music on Bugs. Easily connects existing functions, including login, playlists, and playback.



## ROSE Tube

You can enjoy all content and music on YouTube.



## Radio

Listen to various Internet radio channels from around the world. Keep track of your favorite channels.



## CD Player

Play CDs by connecting an external USB CD-ROM.



## ROSE Podcast

Listen to various podcasts from around the world.



## CD Ripping

Rip CDs by connecting an external USB CD-ROM and save them on a storage device.



## Clock

Various design clock functions are provided, such as alarms and weather information.



## Music Library

Manage your music files under various categories, such as albums, artists, and genres.



## Apple Music App

Enjoy curated playlists divided by Apple Music's own musical tastes. You can enjoy various tracks in Apple Music.



## My Playlist

Create your own playlist. You can also register your friends and share it with them.



# ROSE Connect Remote Application

A dedicated Remote App is provided that allows users to conveniently control and smartly manage their ROSE device. The Remote App is supported on various platforms, including the iPhone, iPad, Android phone, and PCs.

## Control

You can freely and conveniently control various HiFi ROSE functions wirelessly.

- **Control** You can control a variety of functions remotely including Music, ROSE Tube, TIDAL, Qobuz, Bugs, Radio, Podcasts, Apple Music and CD Play.
- **Remote** ROSE Connect includes the remote control function.
- **Search** You can conveniently search for a variety of music in the Media Library.

## Streaming

You can simply and easily play music stored on your phone on your ROSE device. Enjoy a lossless, high-quality streaming service.

## Share with Friends

You can share your playlists with your friends or listen to music recommended by them. Communicate with your friends through music.

## Media Library

Scan the music in your local memory to organize it into various categories.


## Playlist


You can create your own playlist. Make a playlist on Music and ROSE Tube and check it out at Home - My Music.

 GET IT ON Google Play		 Download on the App Store	
Android		iOS	






# Specifications

Model NO.	RA180 (※ Measurement Standard)	
		
Design	Size	430(W) X 391(D) X 124(H)
	Weight	16.7kg
	Body	High Purity Aluminum
Power	Power	SMPS (800W) (※ Maximum Output : 1100W)
	Voltage	AC100-230V, 50/60Hz (※ Standby Mode Power Consumption < 0.5W)
Amplifier Output	4Ω	200W x 4ch (800W)
	8Ω	200W x 4ch (800W)
	BTL Mode On	400W x 2ch (800W) (※ 400W x 2ch)
Input Sensitivity	Balance Input	2,000mV (※ 200W x 4ch)
	Unbalance (Line1,2,3) Input	1,000mV (※ 200W x 4ch)
	Phono(MM/MC) Input	5mV / 0.5mV (※ 200W x 4ch)
Impedance Input	Balance Input	44kΩ
	Unbalance (Line1,2,3) Input	47kΩ
	Phono(MM/MC) Input	47kΩ
Bandwidth (0dB±3dB/8Ω)	Speaker Output	10Hz ~ 90kHz (※ 100W x 2ch)
	H/F Speaker Output	10Hz ~ 90kHz (※ 100W x 2ch)
Frequency Respond (1W, 0±1dB/8Ω)	Speaker Output	10Hz ~ 90kHz (※ 1W x 2ch)
	H/F Speaker Output	10Hz ~ 90kHz (※ 1W x 2ch)
THD Measure	Balance & Unbalance (Line1,2,3) Input	0.005% (50W) (※ 200W x 4ch)
Damping Factor	Speaker & H/F Speaker Output	>150 (※ 200W x 2ch)
Signal to Noise Ratio Measure (S/N)	BTL / Balanced, Unbalanced / Phono MM, MC	107dB / 105dB / 80dB(MM), 60dB(MC) (※ 200W x 4ch)
Impedance Output	Speaker Output	53mΩ (※ 200W x 4ch)
Subsonic Filter with On/Off Switch	-3dB	50Hz (※ 1W x 4ch)
Tone Control with On/Off Switch	Bass(100Hz) / Treble(10kHz)	±15dB (※ 1W x 2ch(Speaker Output))
X-Over with On/Off Switch	HPF(-3dB)	600Hz ~ 6kHz (※ 1W x 2ch(H/F Speaker Output))
Phono	Turnover	Flat
		300Hz (+7.7dB@100Hz)
		400Hz (+11.7dB@100Hz)
		500Hz (+13dB@100Hz) (※ RIAA)
	Roll-Off	Flat
		1.6kHz (-16dB@10kHz)
		2.1kHz (-13.7dB@10kHz) (※ RIAA)
		3.18kHz (-11dB@10kHz)
Audio In/Out on Rear	Trigger	Trigger Voltage Can Be Turned On : 3.3V ~12V
	Remote Control	IR Input 38kHz Infrared Ray (Within 10m of Operating Distance)

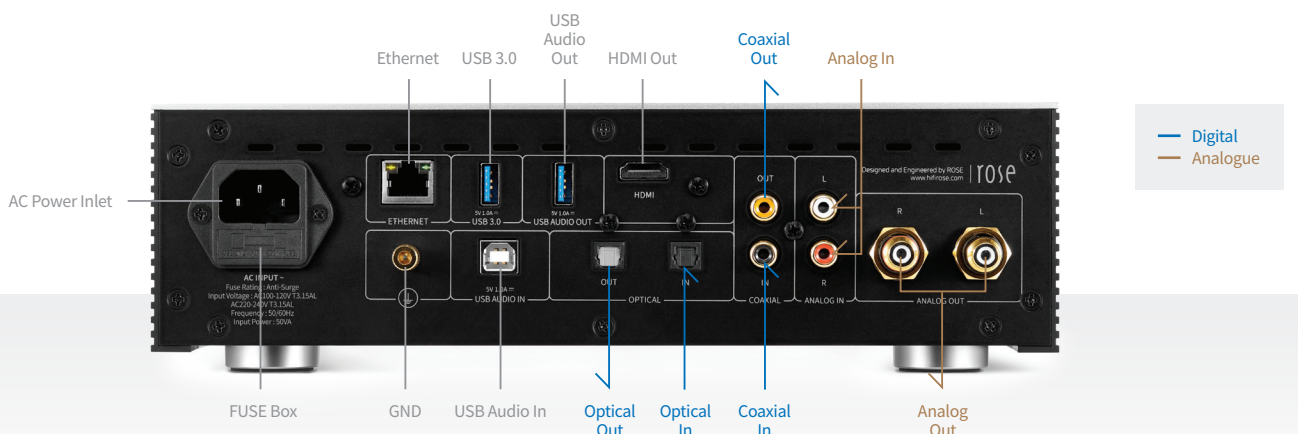
Model NO.	RS150B	
		
Display	Display	14.9 inch Wide HD IPS Touch Screen LCD
	OS	Customized Android 7.1 based ROSE OS
	Size	430(W) x 318(D) x 124(H) mm
Power	Weight	11 kg
	Power	Input Voltage : AC100-230V, 50/60Hz Input Power : 55W
Audio	Supported Codec	WAV, FLAC, ALAC, AIFF, WMA, MP3, OGG, APE, DFF, DSF, AAC, CDA, AMR, APE, EC3, E-EC3, MID, MPL, MP2, MPC, MPGA, M4A
	Supported Sampling Rate	PCM : 8kHz~768kHz (8/16/24/32bit per Sample) DSD : DSD64 (2.8MHz) / DSD128(5.6MHz) / DSD256 (11.2MHz) / DSD512 (22.5792MHz) Full Decoding
Video	MQA	
	Supported Codec	ASF, AVI, MKV, MP4, WMV, MPEG-1, MPEG-2, MPEG-4 H.263, H.264, H.265, VC-1, VP9, VP8, MVC, H.264/AVC(Base/Main/High/High10 profile@level5.1 upto 4Kx2K@30fps), H.265/HEVC (Main/Main10 profile@ level 5.1 High-tier upto 4Kx2K@60fps)
H/W	CPU	Hexa Core Dual-core Cortex-A72 up to 1.8GHz Quad-core Cortex-A53 up to 1.4GHz
	Memory	LPDDR4 4G Byte
	Flash	8GB High-Speed eMMC
	GPU	Mali-T864 GPU, OpenGL ES 1.1/2.0/3.0/3.1, OenVG1.1, OpenCL, DX11
	DAC	ES9038 PRO
	Oscillator	High Precision Femto Clock
Pre Out	Output Level	6.5Vrms (Balanced), 2.2Vrms (Unbalanced)
	THD	0.0002% (Balanced, 1kHz 6.5Vrms), 0.0003% (Unbalanced, 1kHz 2.2Vrms)
	THD + N	0.0003% (Balanced, 1kHz 6.5Vrms), 0.0004% (Unbalanced, 1kHz 2.2Vrms)
	IMD	103dB (Balanced), 103dB (Unbalanced), SMPTE 4:1, 60Hz:7kHz
	Signal to Noise Ratio	121dB (Balanced), 118dB (Unbalanced), A-wt
	Dynamic Range	Max 132dB (CCITT filter)
Speaker Out	Stereo Crosstalk	Max -138dB, 20-20kHz
	Output Frequency Response	20Hz to 20,000 (+/-0.5dB)
	Input Impedance	.
	Output Impedance	.
	Output Power	500
	THD + N	.
Network Connectivity	Bluetooth	External USB BT/WiFi Dongle supported (A2DP Sink, AVRCP v1.3)
	WiFi	External USB Type WiFi Dongle supported
	Ethernet	10/100/1000 BASE-T (1Port)
	Digital In	OPT x 1, COAX x 1, AES/EBU x 1, HDMI ARC x 1, USB Audio x 1
	Digital Out	OPT x 1, COAX x 1, AES/EBU x 1, I2S-DVI x 1, I2S-RJ45 x 1
	Analog In	LINE In x 1
I/O Port	Analog Out	Pre-out (Full-balanced XLR x 1, Unbalanced RCA x 1)
	Speaker Out	.
	Headphone Out	.
	USB Audio In	USB Type-B 2.0
	USB Audio Out	USB Type-A 3.0
	HDMI	HDMI 2.0 x 1 (up to 3840 x 2160 / 60Hz)
Storage	USB	USB 3.0 x 2, USB Type-C x 1 (Only for service), USB WiFi/BT Dongle
	MicroSD	MicroSD x 1
	SSD	SATA 3.0, SSD x 1 (NTFS, Supported protocol - FTP/WebDav)
	BNC	4TB
	SATA	10TB
	USB	400GB
Connectivity	MicroSD	NTFS / exFAT / FAT32
	File System	Support
	Roan Ready	Support
	Spotify Connect	Support
	Streaming Protocol	Airplay / DLNA Service / Bluetooth
	Network Storage	SMB / FTP / WebDav
CD Ripping	Support (By External USB CD Drive)	

## RS150B Rear



RS520	RS250A	RS130
		
12.6 inch TFT LCD & Capacitive Touch Screen (eDP)	8.8 inch TFT LCD & Capacitive Touch Screen (MIPI-DSI)	TFT LCD 15.4" 1920x382 pixels(eDP) Active area:381.888 x 75.97mm / apacitive touch Customized Android 7.1 based ROSE OS
Customized Android 7.1 based ROSE OS 346(W) x 328(D) x 127(H) mm 8.1 kg	Customized Android 7.1 based ROSE OS 278(W) x 231(D) x 83(H) mm 3.2 kg	Customized Android 7.1 based ROSE OS 430 (W) x 317 (D) x 125 (H) mm 11.7kg
Input Voltage : AC100-240V, 50/60Hz	Input Voltage : AC100-120V, 220-240V, 50/60Hz Input Power : 50W	Input Voltage : AC100-120V, 220-240V, 50/60Hz Input Power : 40W
MQA, WAV, FLAC, AIFF, WMA, MP3, OGG, APE, DFF, DSF, AAC, CDA, AMR, APE, EC3, E-EC3, MID, MPL, MP2, MPC, MPGA, M4A, ALAC PCM : 8kHz~768kHz(8/16/24/32bit per Sample), Native DSD : DSD64(2.8MHz)/DSD128(5.6MHz)/DSD256(11.2MHz)/DSD512(22.4MHz) Full Decoding	WAV, FLAC, ALAC, AIFF, WMA, MP3, OGG, APE, DFF, DSF, AAC, CDA, AMR, APE, EC3, E-EC3, MID, MPL, MP2, MPC, MPGA, M4A PCM : 8kHz~768kHz (8/16/24/32bit per Sample) DSD : DSD64 (2.8MHz) / DSD128 (5.6MHz) / DSD256 (11.2MHz) / DSD512 (22.5792MHz) Full Decoding	WAV, FLAC, ALAC, AIFF, WMA, MP3, OGG, APE, DFF, DSF, AAC, CDA, AMR, APE, EC3, E-EC3, MID, MPL, MP2, MPC, MPGA, M4A PCM : 8kHz~768kHz (8/16/24/32bit per Sample) DSD : DSD64 (2.8MHz) / DSD128(5.6MHz) / DSD256 (11.2MHz) / DSD512 (22.5792MHz) Full Decoding
ASF, AVI, MKV, MP4, WMV, MPEG-1, MPEG-2, MPEG-4 H.263, H.264, H.265, VC-1, VP9, VP8, MVC, H.264/AVC(Base/Main/High/High10 profile@level5.1 upto 4Kx2K@30fps)H.265/HEVC (Main/Main10 profile@ level 5.1 High-tier upto 4Kx2K@60fps)	ASF, AVI, MKV, MP4, WMV, MPEG-1, MPEG-2, MPEG-4 H.263, H.264, H.265, VC-1, VP9, VP8, MVC, H.264/AVC(Base/Main/High/High10 profile@level5.1 upto 4Kx2K@30fps)H.265/HEVC (Main/Main10 profile@ level 5.1 High-tier upto 4Kx2K@60fps)	ASF, AVI, MKV, MP4, WMV, MPEG-1, MPEG-2, MPEG-4 H.263, H.264, H.265, VC-1, VP9, VP8, MVC, H.264/AVC(Base/Main/High/High10 profile@level5.1 upto 4Kx2K@30fps)H.265/HEVC (Main/Main10 profile@ level 5.1 High-tier upto 4Kx2K@60fps)
Hexa Core Dual-core Cortex-A72 up to 1.8GHz Quad-core Cortex-A53 up to 1.4GHz LPDDR4 4G Byte 8GB High-Speed eMMC Mali-T864 GPU, OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11 ES9038 PRO High Precision Femto Clock 2Vrms (Unbalanced)	Hexa Core Dual-core Cortex-A72 up to 1.8GHz Quad-core Cortex-A53 up to 1.4GHz LPDDR4 4G Bytes 8GB High-Speed eMMC Mali-T864 GPU, OpenGL ES 1.1/2.0/3.0/3.1, OenVG1.1, OpenCL, DX11 ES9028 PRO High Precision Femto Clock Max 2.2Vrms, Unbalanced	Hexa Core Dual-core Cortex-A72 up to 1.8GHz Quad-core Cortex-A53 up to 1.4GHz LPDDR4 4G Byte 8GB High-Speed eMMC, Cache Memory: M.2 NVMe 256GB Mali-T864 GPU, OpenGL ES 1.1/2.0/3.0/3.1, OenVG1.1, OpenCL, DX11 OCXO(Oven Controlled Crystal Oscillators)
0.00033%, 1kHz, 600Ω, 2Vrms	0.00028%(1kHz 2.25Vrms Unbalanced Output)	
0.00033%, 1kHz, 600Ω, 2Vrms	0.0003%(1kHz 2.25Vrms Unbalanced Output)	
0.023% (SMPTE4:1, 60Hz~7kHz)		
124dB, 1kHz, 600Ω, 2Vrms	122dB(A-wt) Max 135dB(CCITT filter) Better than -137dB, 20Hz~20kHz 17Hz~80kHz, ±1dB	
10Hz~83kHz	100kΩ	
50mΩ	150Ω	
250W + 250W @ 8Ω, 4Ω		
0.007% @ 50W, 0.01% @ 100W, 0.1% @ 250W, x2/8Ω		
109dB, 1kHz, 8Ω, 250W		
V4.2 (USB Dongle)	Bluetooth supported (A2DP Sink, AVRCP v1.3)	V4.2 (USB Dongle)
802.11ac Dualband USB Wireless LAN Card (Dongle) 10/100/1000 BASE-T	802.11b/g/n/a/ac (2.4GHz/5GHz) 10/100/1000 Base-T (1Port)	802.11ac Dualband USB Wireless LAN Card (Dongle) 10/100/1000 BASE-T x 1 (SFP COPPER Type)
OPT x 1, COAX x 1, USB DAC x 1, eARCx1	OPT x 1, COAX x 1	OPT x 1, COAX x 1, AES/EBU x 1, I2S-HDMI x 1
OPT x 1, COAX x 1 LINE In x 1	OPT x 1, COAX x 1 LINE In x 1	
Pre-out (Unbalanced RCA x 1)	Pre-out (Unbalanced RCA x 1)	
	Support Connection for 3.5mm headphones, Unbalanced 1Vrms (32Ω)	
USB Type-B 2.0 USB Type-A 3.0	USB Type-B 2.0 USB Type-A 3.0	USB Type-A 2.0(Isolation)
HDMI 2.0 x 1 (up to 3840 x 2160 / 60Hz)	HDMI 2.0 x 1 (up to 3840 x 2160 / 60Hz)	HDMI 2.0 x 1 (up to 3840 x 2160 / 60Hz)
USB 3.0 x 2	USB 3.0 x 2	USB3.0 x 2, USB3.0 SFP x 1, USB2.0 x 1
SATA 3.0, SSD x 1 (NTFS, Supported protocol - FTP/WebDav)	SATA 3.0, SSD x 1 (NTFS, Supported protocol - FTP/WebDav)	SATA 3.0, SSD x 1 (NTFS, Supported protocol - FTP/WebDav) EXT 10MHz IN, BNC x 2(50ohm, 75ohm)
4TB 10TB	4TB 10TB	4TB 10TB
NTFS / exFAT / FAT32 Support Support	NTFS / exFAT / FAT32 Support Support	NTFS / exFAT / FAT32 Support Support
Airplay / DLNA Service / Bluetooth SMB / FTP / WebDav Support (By External USB CD Drive)	Airplay / DLNA Service / Bluetooth SMB / FTP / WebDav Support (By External USB CD Drive)	Airplay / DLNA Service / Bluetooth SMB / FTP / WebDav Support (By External USB CD Drive)

## • RS250A Rear





rose