



Introduction to the Aurender N30SA

Inheriting Aurender's unique next-generation family design identity, the N30SA is visually distinguished by both its dual-chassis form factor and wide-screen full-color LCD display first seen on the A30 and N20. At first glance, you immediately notice its substantial presence, elegance and grace – a visual metaphor of what to expect sonically. However, N30's audiophile essence also lies within its inner beauty. N30SA takes its hardware and circuit topology innovations first explored on the N20 to its empirical conclusion. N30SA goes above and beyond the N20 in terms of noise and jitter reduction, increased dynamics and uncompromised purity of the audio signal.

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Physical Separation of Audio Circuitry and Power Supplies

As mentioned, the N30SA consists of two separate chassis linked together by two cables. The power box houses all power supplies, display driver, HDD/SSD storage and all circuitry related to system control. The audio box contains SPDIF audio board with all digital output protocols and the OCXO clock. Both chassis are distinguished by their 10mm thick top covers which act as an effective EMF shield as well as having anti-resonance properties. In the audiophile world, two-chassis designs connote “ultra-high end” such as a separate CD transport / DAC or preamplifier with separate power supply. However, in the N30SA, this is not just a mere stylistic gesture as significant benefits in fidelity are realized with this configuration. For example, the power box can be located up to 1.5m away from the audio box greatly reducing the potential for spurious noise pollution caused by physical interaction. But more importantly, the AC powered linear power supply converts and delivers a clean DC power source from which the audio box is powered. This arrangement dramatically lowers the noise floor resulting to an uncannily quiet background from which music can emerge. Through segregation of the noise inducing componentry such as the AC socket, LCD display driver, AC to DC power rectifier, hard drive spindle noise and LAN port results in an unprecedented level of audio purity.

Additional Noise Suppression Methods Employed

In addition to removing AC power noise from the outside by converting it into a clean DC power, another major source of outside noise is from the ethernet cable. Like the AC/DC conversion the N30SA's LAN ports have a similar behavior. LAN signals containing noise from the router are separated by galvanic isolation through a transformer and double-isolated LAN port. Viewing the audio outputs, located on the rear panel there is one each AES/EBU, BNC, Coax, Tos-Link and Audio 2.0 USB. This audio signal processing unit outputs an extremely low noise audio signal made possible by a unique grounding technique, electrical isolation and operation by DC power supplied from the power supply unit and filtered again inside the audio box. The resulting noise floor is nearly unmeasurable.

OCXO Main Clock

A high-quality Oven Controlled Crystal Oscillator (same as the one in W20SE) is used for the SPDIF outputs in the Aurender N30SA. Since only the parts directly related to audio playback are located together in one chassis, they can be totally isolated and free from noise generated from other than audio signal processing. That noise may occur inside the chassis and can be dealt with through meticulous internal processing.

Word Clock/Master Clock Input

This input allows interface with an external word or master clock which are offered by several high-performance DAC manufacturers. Simply put, a word clock is a device that is given the job of keeping perfect time and preventing digital audio data errors when multiple components are used together. Using the 75 Ω BNC connector as a connection method, both master clock and word clock inputs are supported for various scalability options.

N30SA Key Features

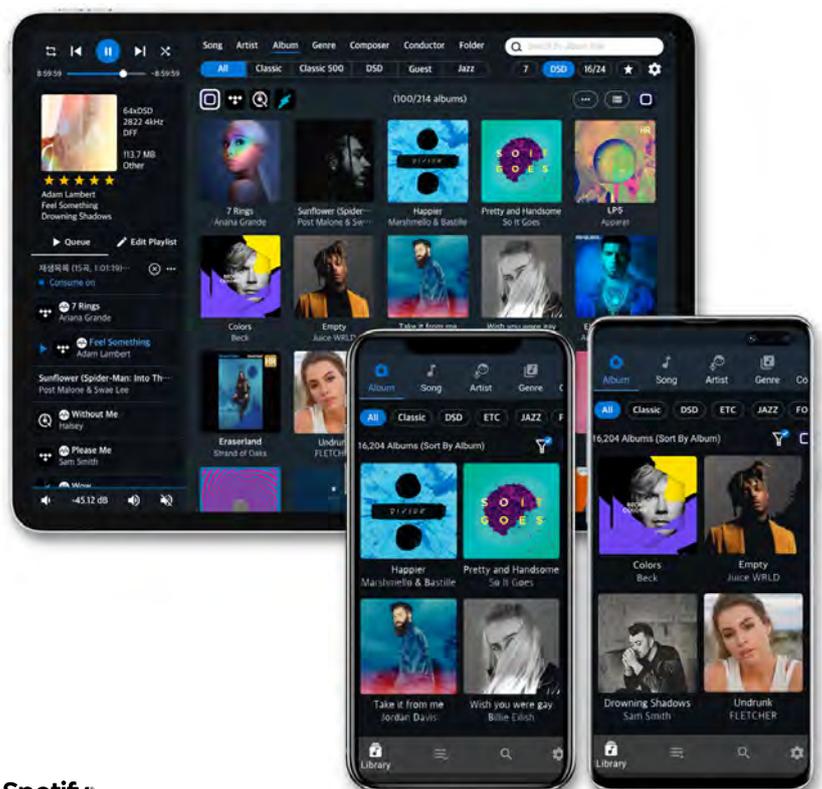
- Full-Color 8.8" 1920 x 480 wide IPS LCD
- CPU updated to Intel low power Quad-Core with 8GB system memory
- 8TB Storage SSD and 480GB Caching SSD with rear panel slot for additional drive
- Audio Class USB 2.0 x 1
- Double-Isolated LAN port
- Robust machined aluminum chassis structure x 2
- Super-Capacitor based UPS
- Word Clock Input
- 2 sets of linking cables, 1 x 0.5m and 1 x 1.5m for placement flexibility



Control by Aurender Conductor

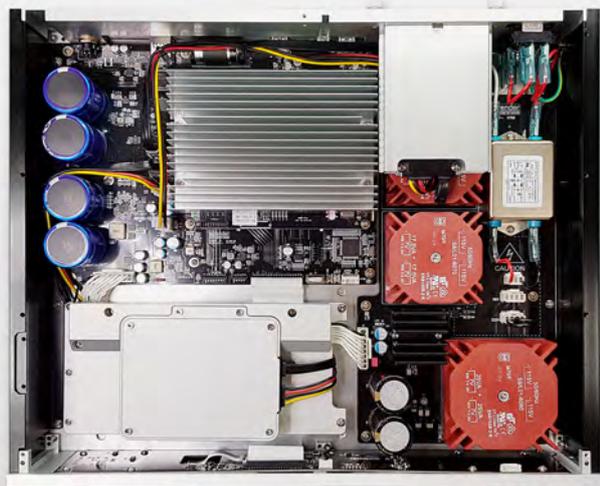
Aurender Conductor is an award-winning music management application that is at the heart of every Aurender music server / streamer. It provides quick access to your favorite files or steaming service and is intuitive, easy to use and simple to master. Conductor is supported on iPad, iPhone, Android Phones and Tablets.

An Aurender music server is inclusive and designed in such a way so that both hardware and software work in harmony. This integration ensures better sound quality, reliability, stability and predictability of operation. It also allows Aurender to provide an unprecedented level of customer support via our app-based remote support login.



 Aurender Conductor
Support for iPad and Android phones and tablets





N30SA SPECIFICATIONS

Front Panel Display	Full-Color 8.8" 1920 x 480 wide IPS LCD
CPU	Intel Low Power Quad-Core
System Memory	8GB
SSD for System and Cache	480GB SSD
Main Clock	OCXO Based Precision Jitter Reducing Clock
Storage	8TB SSD installed. Slot for additional 2.5" drive
Word Clock Input	BNC 10MHz, 12.8MHz (44.1kHz and 48kHz multiples from 1 to 512), Input impedance 75 ohms
I/O Ports	2 x USB 3.0 (rear)
Digital Audio Outputs	AES/EBU, Coaxial, BNC, Optical and USB Audio Class 2.0 x 1
SPDIF Audio Output	PCM up to 24-bit / 192kHz
USB Audio Output	32-bit / 384kHz, 1-bit, 2.8MHz (DSD64); 1-bit, 5.6MHz (DSD128), 11.2MHz (DSD256), 22.4MHz (DSD512)
Compatible Formats	DSD (DSF, DFF), WAV, FLAC, AIFF, ALAC, M4A, APE
DSD-to-PCM	Precision DSD-to-PCM conversion for SPDIF outputs Support for DSD64/128/256/512 to 88.2kHz or 176.4kHz
MQA Core Decoder	Optional
Gigabit Ethernet	Double-Isolated x 1
Power Supply	Full-Linear supply isolated by separated chassis
UPS	Yes (Super Capacitor based)
Control Software	Aurender Conductor for iPad, Android Phone / Tablet
Material	Machined Aluminum Chassis
Dimensions & Weight (each)	16.9 x 3.8 x 14.0in., 48.5lbs / 430 x 96 x 353mm., 22.0kg
Power Consumption	Play (40W), Peak (70W), Standby (3.5W)

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