



N50



Reference Music Server

Triple-chassis Architecture (Server / Power / Audio)

Ultra-low jitter and precise timing & multi-layer AC and

DC filtering

Dual AES/EBU outputs, I2S output interface module (HDMI
or MSB ProISL – optional)

Galvanically isolated audio class USB 2.0 output module

7x isolated LAN input module / TIDAL, Qobuz, Spotify

Connect, Roon Ready





N50

The N50 sets a new standard in high-end music servers, combining advanced design and precise tuning for pure, accurate performance.

A Masterpiece of Musical Refinement

At the heart of the N50 lies a commitment to sound quality, delivering a quiet, natural sound, characterized by a jet-black background and vast soundstage.

The N50's architecture is fundamentally designed to eliminate noise at its source — ensuring that nothing interferes with the music:

- Triple-chassis Architecture (Server / Power / Audio): By physically separating critical functional blocks, each chassis operates in complete isolation, dramatically reducing internal interference.
- Isolated Network Ports: Independent network connections ensure clean signal paths and enhanced noise immunity, preserving the full integrity of the source.

Ultra-Precise Timing for Unmatched Musical Flow

Precision clocking is at the core of the N50's musical performance:

- OCXO Clock with FPGA Control: A high-stability OCXO clock, controlled by a dedicated FPGA, delivers ultra-low jitter and precise timing.
- External Clock Input: For even greater precision, the N50 supports an external master clock — ideal for high-precision systems.

Dual Supreme Toroidal Transformers with Multi-Layer Filtering

- To achieve the cleanest possible power delivery to the audio block, the N50 is equipped with two laboratory-selected, high-inductance toroidal transformers.
- Each transformer is vacuum-encapsulated and epoxy-filled within a polished stainless-steel enclosure, ensuring maximum isolation and durability.
- Multi-layer AC and DC filtering further eliminates power-line noise, providing a pristine foundation for uncompromised sonic performance.

The N50 expands upon Aurender's renowned digital audio interface options, offering versatile outputs to suit a wide range of high-end system configurations:

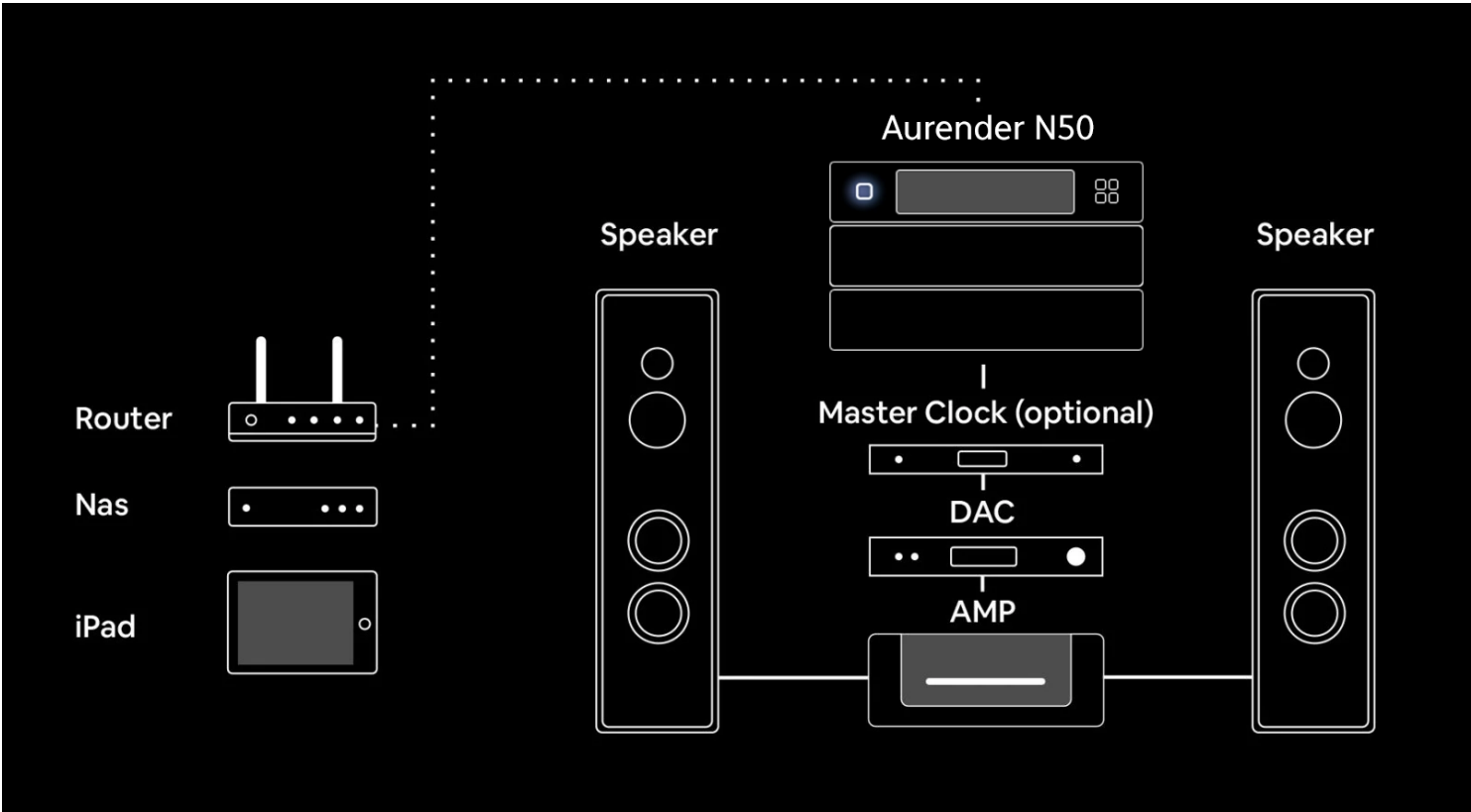
- I2S Output
- Dual AES/EBU Outputs
- Newly Designed USB Output that Reduces Jitter and Noise
- Optional Expansion module: MSB Pro ISL

Seamless Integration with Premium Streaming Services

Whether you prefer curated playlists or high-resolution libraries, the N50 is designed for effortless integration:

- Supports TIDAL, Qobuz, and Spotify natively
- Fully Roon Ready – Ensuring smooth integration into advanced streaming ecosystems

The Aurender N50 is more than just a music server — it is a statement of engineering excellence and sonic clarity. Designed without compromise, it delivers everything a true high-end audio system demands: excellent performance and an immersive experience.





MQA Core-Decoder Upgrade Available

[Learn More about MQA](#)

Specifications

Dimensions	Unit with foot : 430 x 106 x 353 mm / 16.9 x 4.2 x 14.0 inch Unit only : 430 x 93 x 353 mm / 16.9 x 3.7 x 14.0 inch
Weight	Audio Unit : 14.92 kg (32.89 lb) Server Unit : 14.16 kg (31.23 lb) Power Unit : 18.61 kg (41.03 lb)
Material	Triple Machined Aluminum Chassis
Front Panel Display	8.8" 1920 x 480 Wide IPS Color LCD
Power Supply	1x80W -CPU Board ,1x80W (4 cores) for Digital Output Board – 2 Supreme AUDIO Grade Toroidal transformers
CPU	Intel Quad Core
RAM	8GB
Library Storage Capacity	2X 2.5" Compartment (User-Installable Storage)
SSD for System & Cache	480GB NVME
Data USB Ports	2X USB 3.0 (Rear)
Software Suite	Aurender Conductor
Ethernet Port	7-fold -Galvanic Isolated Gigabit LAN Module
Audio USB Ports	Fully Galvanic isolated Audio Class USB 2.0 Modue



The source, where music begins.



Power Consumption	Play (40W), Peak (70W), Standby (3.5W)
Digital Outputs	USB Audio (Dedicated), Dual AES/EBU (OCXO Controlled), BNC Coax SPDIF(OCXO Controlled), RCA Coax SPDIF (OCXO Controlled), Optical/TosLink SPDIF(OCXO Controlled), 1-I2S module slot (can choose between installing the MSB Pro ISL and HDMI I2S module)
USB Output Supported Format	768kHz/32bit PCM, DSD1024 (Native), DSD256 (DoP)
SPDIF & AES/EBU Output Supported Format	PCM: Up to 32-bit / 192 kHz; Dual-Wire AES/EBU: Up to 32-bit / 384 kHz DSD: Up to DSD64 ; Dual-Wire DSD128 via DoP
I2S out (PRO ISL or HDMI)	PCM up to 768kHz, DoP up to DSD256, up to DSD512 Native
Master Clock Input	Coaxial BNC 75Ω – 10MHz, 12.8MHz, 44.1-48kHz (multiples from 1-512x)
MQA Support	MQA Core-Decoder Upgrade Available
Compatible Formats	DSD (DSF, DFF), WAV, FLAC, AIFF, ALAC, M4A, APE and others
DSD-to-PCM Conversion	Up to DSD512



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