

NEO iDSD 3

Ultra-Resolution DAC + Headphone Amplifier

Summary

"Embrace The New."

The NEO iDSD 3 takes the purist design of our midrange home series even further, combining re-engineered hardware for greater fidelity with advanced software innovations.

USPs:

JVCKENWOOD's K2HD Technology

>2,532mW RMS headphone output power

Bluetooth 5.4 with aptX Lossless, LDAC, and more

Features and Functionality:

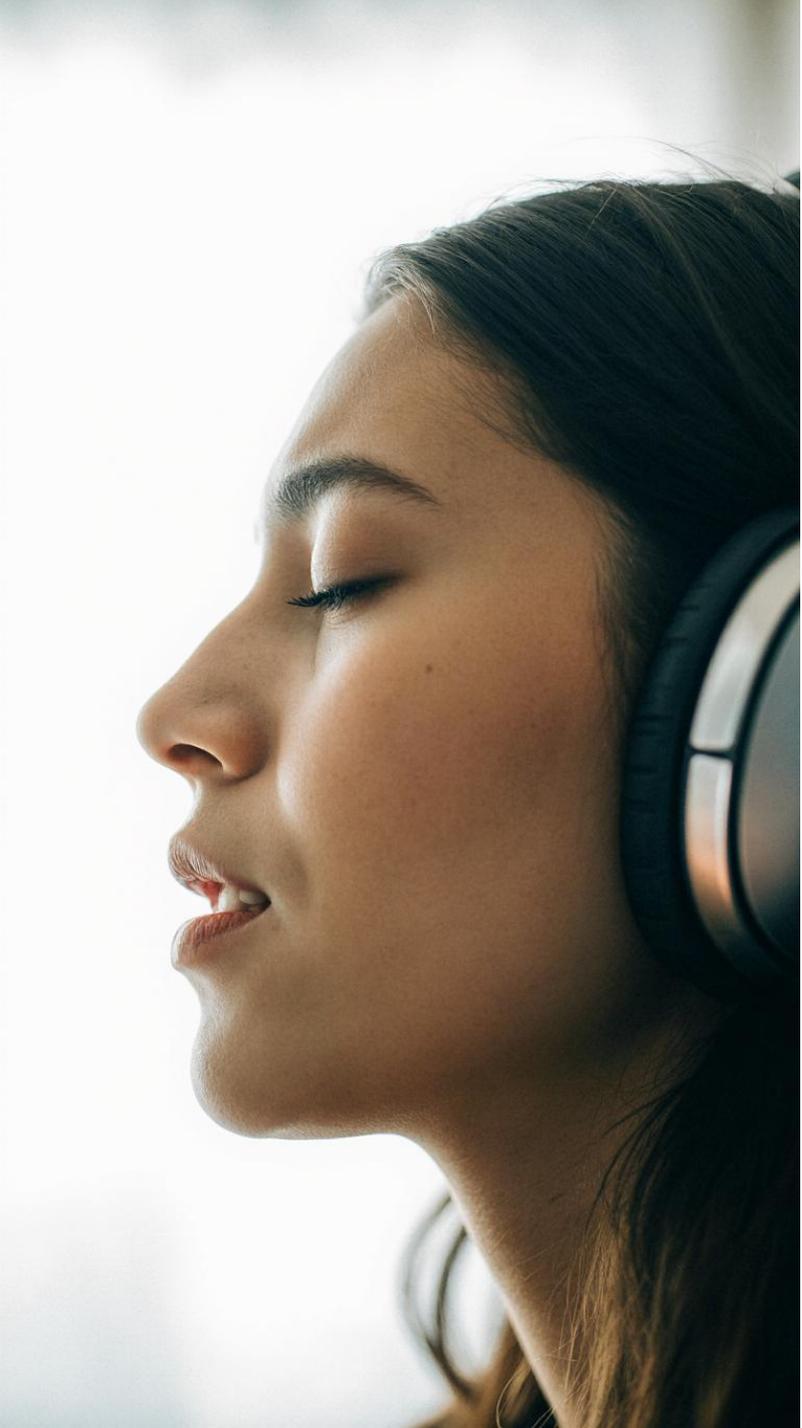
Native PCM 768kHz and DSD512 support

Revised internal circuitry for more accurate playback

Award-winning Burr-Brown DAC stage

XBass II and XSpace analogue processing





Embrace The New.

Our NEO series has always pushed the limits of what compact home audio components can achieve, often combining **purist design principles** with the freedom to **tailor your listening experience**.

The third generation of our NEO iDSD is a celebration of this approach; critical hardware has been re-engineered for even **greater musicality** and **playback accuracy**, while software innovation continues with the inclusion of JVCKENWOOD's **K2HD Technology**.

Just add your music source and play.

Key Features



Recovers the **depth** and **nuance** of master recordings

aptX Lossless

CD quality Bluetooth
with **no data loss**

XBass
XSpace

Sculpt tonality and soundstage
with **analogue processing**



Up to **5,551mW Max.**
output power



Award-winning DAC stage
with **Burr-Brown** chipset



Circuitry re-engineered for
cleaner, more detailed sound

Customer Profile

Name: Mark

Occupation: Asset Manager

Lifestyle: Mark spends most of his day at his desk, music always on. He alternates between headphones for private listening, and active speakers when he wants to fill the room. His setup needs to stay compact and uncluttered; he's looking for a single DAC/Amp that integrates seamlessly into his desk space.

Pain Points:

- Current DAC sounds too clinical
- Switching between setups
- Limited desk space

Goals:

- Simplify CAS setup
- Connect phone for convenience
- Connect with turntable
- Music playback with warmth

Tech Habits:

- Listens through headphones, IEMs and speakers
- Collects LPs for use with his turntable setup
- Prefers plug-and-play over complicated setups
- Reads reviews on Head-Fi and What Hi-Fi Before purchasing



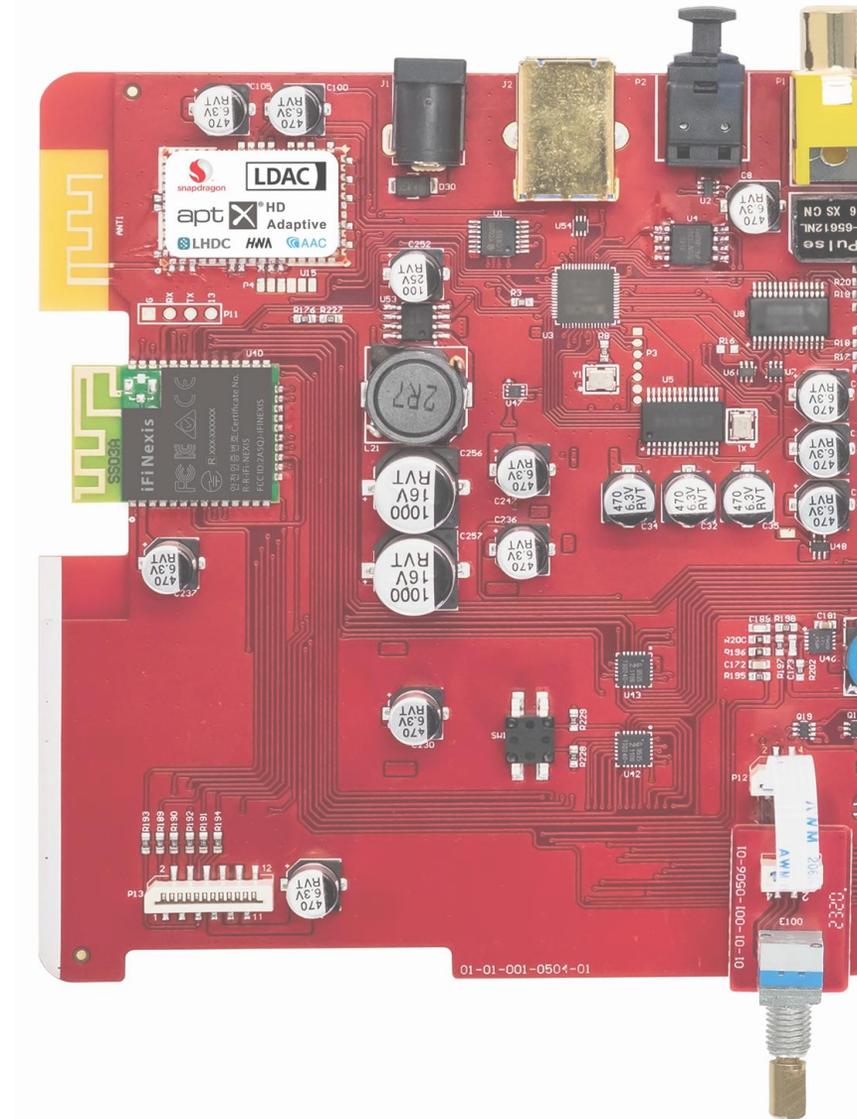


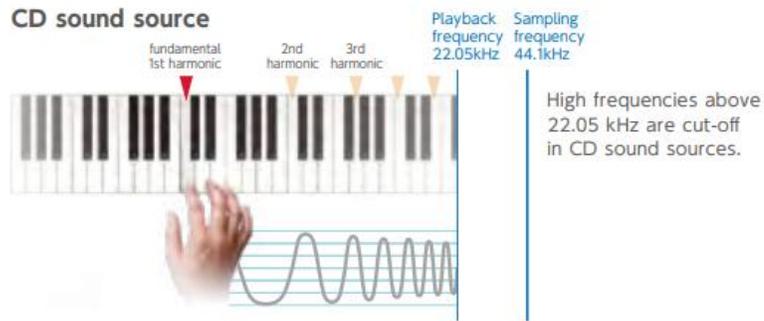
Unique Selling Points

Rewired for Realism.

We've upgraded the internals of the NEO iDSD 3 to bring the most accurate sounding playback experience to date, whilst retaining the innate musicality it's known for:

- New operational amplifiers with **50% lower distortion and noise**
- Upgraded polymer capacitors for **50% less power supply ripple**
- WIMA MKS2 series caps for **lower distortion and smoother HF**





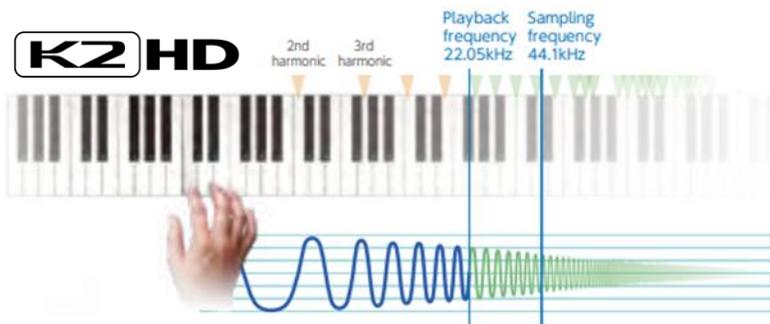
CD Masters do not have harmonic content about 22.05kHz.

Restoring the Source Code.

Digital masters often miss the warmth and richness of their analogue roots, leaving you with sound that's cold and lifeless.

JVCKENWOOD's **K2HD Technology** extends high frequencies to restore natural harmonics, to bring back the **depth, nuance, and musicality** of the original performance.

For those who prefer this restoration without altering the song's sample rate, 'K2' mode provides a similar effect while preserving the native resolution.

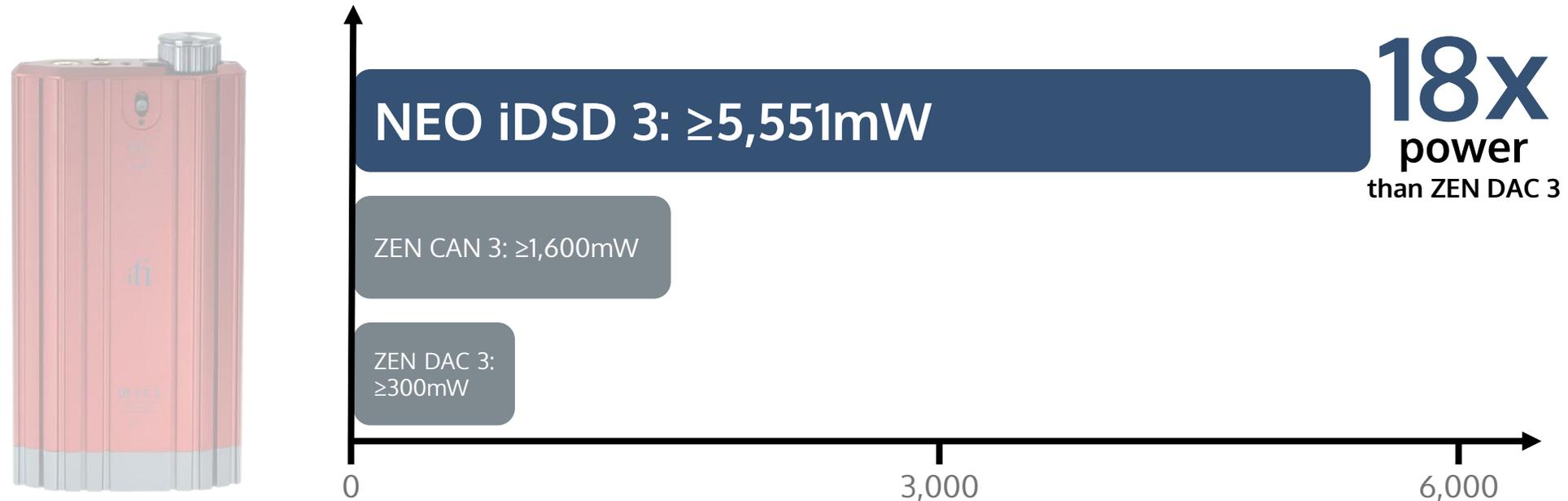


K2HD reintroduces harmonics for quality close to the original master.

The Power Within.

With the Diablo 2's amplification stage at its core, the NEO iDSD 3 delivers **infernal power** to your headphone setup.

Max. power output of home products (at 32Ω)



^Peak output measured using iFi's standards. For more details, please refer [here](#).



Features and Functionality



Unplugged from Limits.

The NEO iDSD 2 made history as the **world's first DAC** to support the aptX Lossless codec, delivering true CD-quality audio over Bluetooth with zero data loss.

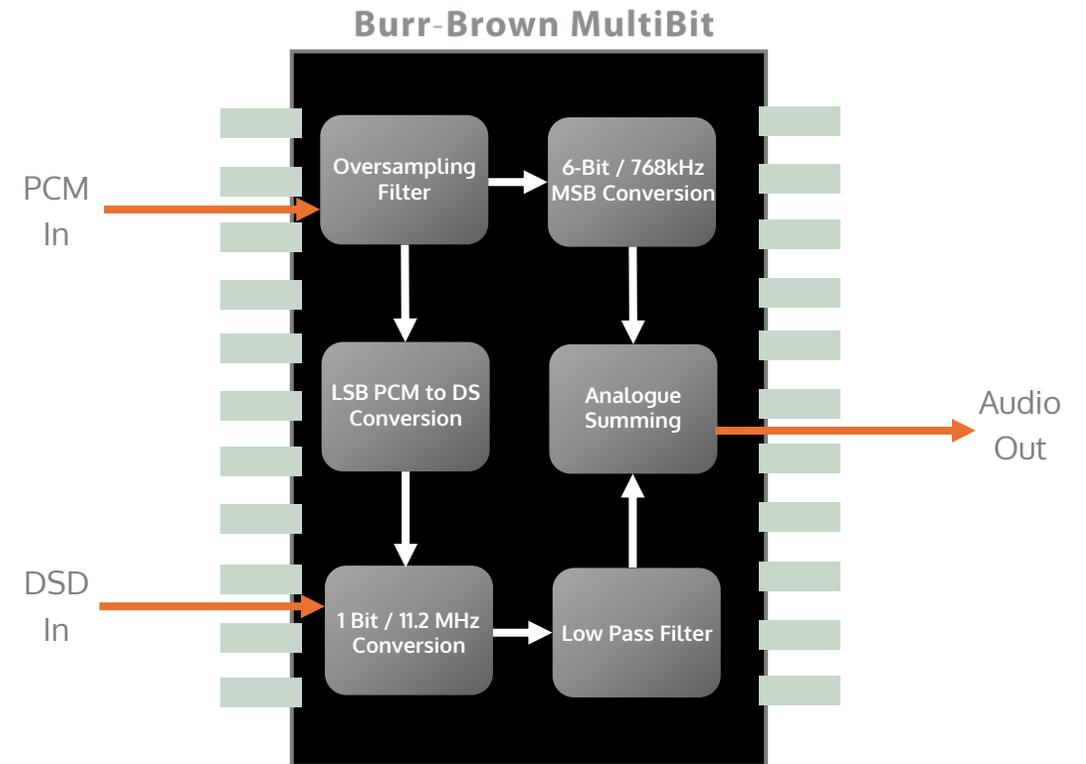
The **NEO iDSD 3** continues to uphold class-leading Bluetooth performance, supporting **aptX Lossless, LDAC, LHDC**, and more to ensure it remains at the pinnacle of wireless sound.

Two Pathways to Perfection.

The NEO iDSD 3 uses a **custom DAC stage** built around a Burr-Brown chipset, hand-picked by us for its **natural musicality**.

Its distinctive architecture handles PCM and DSD via **separate pathways**, preserving a bit-perfect signal all the way through to analogue conversion.

With PCM input, the six most significant bits are processed in **true multi-bit fashion**, for natural dynamics and slam. The rest are handled via **delta-sigma processing** for exceptional low-level linearity.



Your Sonic Awakening.

The NEO iDSD 3 features our signature analogue processing, to transform headphone listening into a **captivating experience**:



XSpace

Enhances the audio by creating a **spacious sound field**

XBass

Adds back the **lost bass** frequencies from open headphones

XBass

Pushes **mid presence** towards the listener, for more **forward** sounding vocals

XBass

Combines both the **bass** and **midrange** analogue processing options

Aux Out. RCA In.

NEO iDSD 3



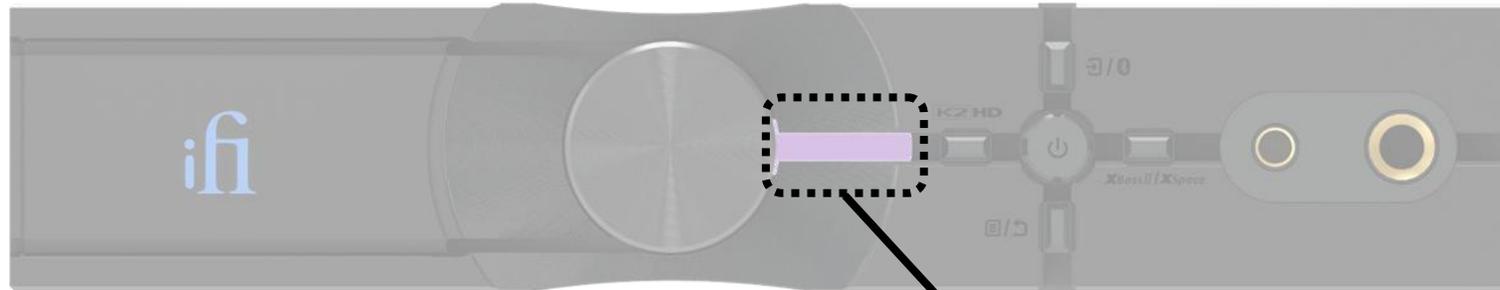
RCA line inputs for easier
integration with your audio system

NEO iDSD 2



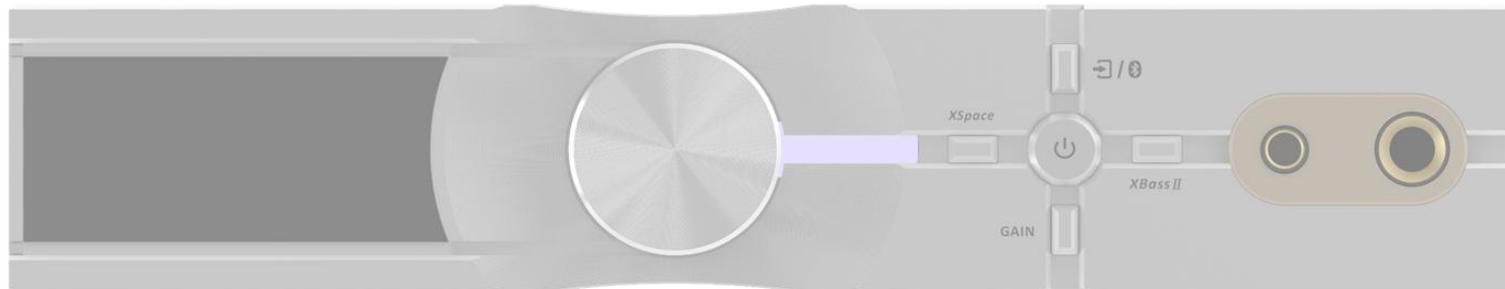
Brightness on Demand.

NEO iDSD 3



Adjustable Brightness for
the front Power LED

NEO iDSD 2





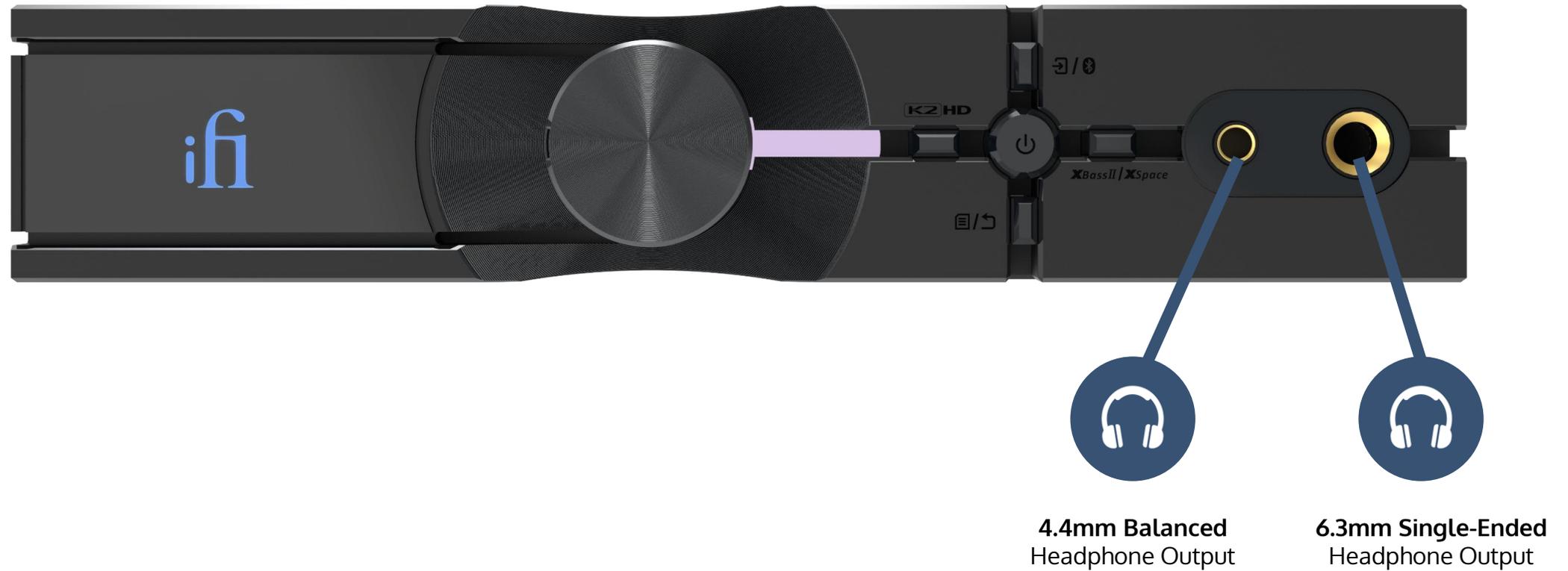
Appendix

Compared to NEO iDSD 2

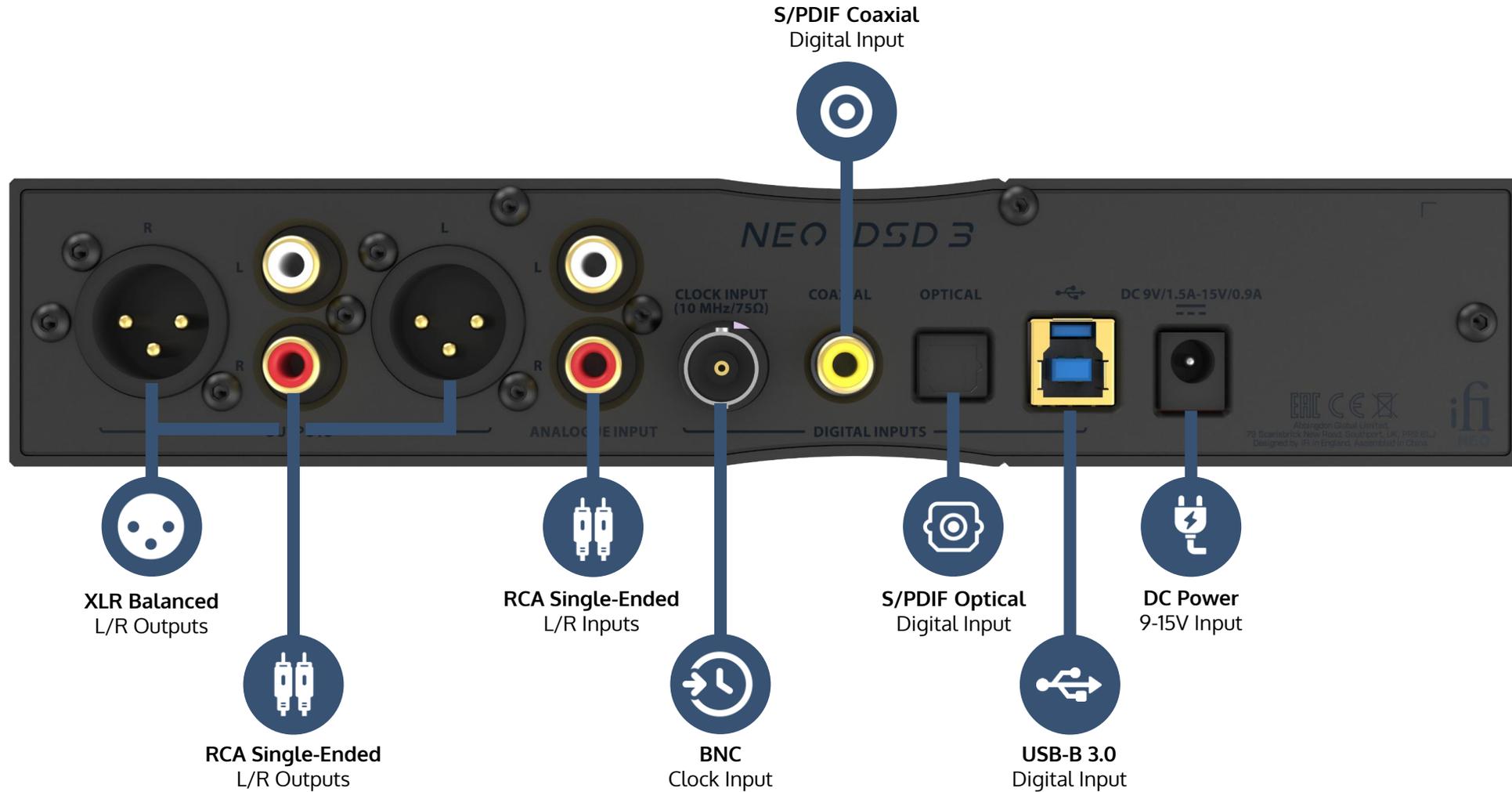


| | NEO iDSD 3 | NEO iDSD 2 |
|---|----------------|------------|
| K2HD Technology with 'K2' and 'K2HD' modes | Yes | - |
| Upgraded Operational Amplifiers | Yes | - |
| Upgraded Capacitors for cleaner power and smoother HF response | Yes | - |
| Adjustable Power LED Brightness | Yes | - |
| Line Input Connection Type | RCA | 3.5mm |
| Newly Designed User Interface | Yes | - |
| Chassis Colour | Obsidian Black | Silver |

Connection Guide - Front



Connection Guide - Rear



Box Contents



QUICK START GUIDE



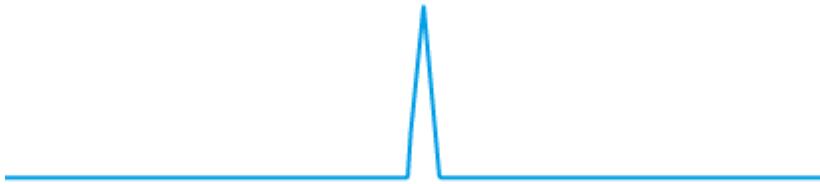
Specifications

| NEO iDSD 3 | |
|----------------------------|---|
| Digital inputs | Bluetooth 5.4; USB-B 3.0; S/PDIF Coaxial; S/PDIF Optical; |
| Analogue input | Single-Ended RCA (L/R) |
| File support | 768kHz PCM; DSD512 (22.6 MHz) |
| Bluetooth formats | aptX Lossless, aptX Adaptive, aptX, LDAC, LHDC/HWA, AAC, SBC |
| Line outputs | Balanced XLR (L/R); Single-Ended RCA (L/R) |
| Line output specs | XLR $\leq 19.5V$ (variable); 4.4V (fixed) RCA $\leq 10.V$ (variable); 2.2V (fixed) |
| Line output impedance | XLR $\leq 102\Omega$; RCA $\leq 51\Omega$ |
| SNR + DNR | $\geq 120dB(A)$ @ -60dBFS |
| THD+N | $\leq 0.0015\%$ @ 0dBFS |
| Headphone outputs | Balanced 4.4mm; Single-Ended 6.3mm |
| Headphone output specs | 4.4mm $\geq 12.7V/2,532mW$ @ 64 Ω (RMS) 6.3mm $\geq 8.4V/2,244mW$ @ 32 Ω (RMS) |
| Headphone output impedance | $\leq 1\Omega$; $\leq 7\Omega$ when iEMatch enabled |
| Power requirements | DC 9V/1.5A-15V/0.9A (centre +ve) |
| Dimensions | 214 x 158 x 41mm (8.4 x 6.2 x 1.6") |
| Net weight | 916g (2.0lbs) |
| Limited warranty | 12 months* |

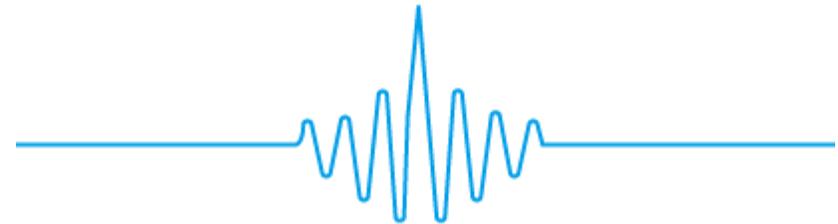
Explanation of Digital Filters

There's no one-size-fits-all solution; it's about finding what suits you best. The following four digital filters are available:

'**BP**' **Bit-Perfect**, with no digital filtering or pre/post ringing. Delivers crisp, robust sound, sharp natural tones, and a fuller midrange.



'**STD**' **Standard** provides balanced filtering with modest pre and post ringing. With its fast roll-off and subtle post-reverb, delivering a powerful sound. It reduces high-frequency noise, resulting in a tighter sound with controlled highs.



'**MIN**' **Minimum Phase** offers slow roll-off with minimal pre and post ringing, slight reverberation, and a warmer sound. It balances data metrics and listening experience, between STD and BP.



'**GTO**' **Gibbs Transient-Optimised**, up-sampled to 352.8/384kHz, offers minimal filtering with no pre-ringing and minimal post-ringing. With its precision characteristic, it enhances sound details and density.



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