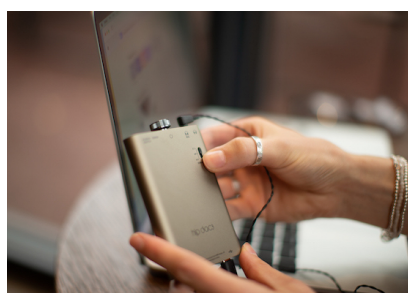


## Press release

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**hip-dac 3**

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*Above iFi hip-dac 3 portable DAC/headphone amp with Titanium Shadow finish*

## iFi hip-dac 3: just the tonic for headphone fans

With a sound as flavoursome and richly detailed as a delicious single malt Scotch, the hip-dac 3 portable USB DAC/headphone amp delivers the perfect pick-me-up for any music lover on the go

*Southport, England* – The hip-dac is one of iFi’s most popular DAC/headphone amps, beloved for its affordable, battery-powered portability, extensive hi-res specification, distinctive design reminiscent of a hip flask and fittingly intoxicating sound. The original hip-dac arrived in 2019, followed by the hip-dac 2 in 2021; now the third-generation hip-dac is here – and like a fine whisky, it just gets better with age.

Each new hip-dac generation applies a different anodised finish to its robust and pocketable aluminium enclosure. The original hip-dac caught the eye in trendy Petrol Blue, while the hip-dac 2 stepped up a gear in racy Sunset Orange. For the hip-dac 3, iFi has created Titanium Shadow – a warm, subtle grey that changes tone in different lights, with hints of bronze and vintage gold.

Closer inspection reveals further changes to the hip-dac 3’s specification. There are now two USB-C ports – one for audio, the other for charging (the previous two hip-dac generations used USB-A for audio). Now that Apple has ditched its proprietary Lightning connector for the iPhone 15, USB-C can finally be described as ubiquitous across all new smartphones, tablets and laptops.

There is also an additional switch on the hip-dac 3’s underside – this engages iFi’s IEMatch technology, now included in the hip-dac 3. IEMatch is a proprietary circuit designed to optimise the amp’s output to better suit high-sensitivity headphones and earphones – particularly useful for in-ear monitors (IEMs). When used with such devices, IEMatch reduces background hiss, enhances detail and dynamic range, and increases the useable range of the volume control. More changes have been made under the hood, with a range of circuit enhancements including new metal film

capacitors and other refinements delivering improved frequency response. The DAC section features an upgraded version of iFi's GMT (Global Master Timing) circuitry, including a new crystal oscillator – this further reduces phase noise, contributing to purer, crisper sound.

Other than these changes, the hip-dac 3 retains all the features that made the hip-dac 2 such a popular portable USB DAC/headphone amp – further details below.



*Left Dressed in its new Titanium Shadow finish, the debonair hip-dac 3 will slip discretely into a pocket or bag*

### **Shooting from the hip**

With its sleek, robust aluminium enclosure measuring 10.2x7x1.4cm, the go-anywhere hip-dac 3 is designed to slip discretely into a pocket or bag. It replaces the inferior DAC (digital-to-analogue converter) and amp circuitry in phones, tablets, PCs and Macs to vastly improve headphone sound. Its design and performance set it apart from other DAC/headphone amps in its class – connect your digital device via USB, plug in your favourite corded headphones or IEMs and the hip-dac 3 delivers a sound brimming with bold dynamism and fluid refinement, effortlessly engaging the listener with all manner of music. In the home, in the office, on a train or plane, the hip-dac 3 is a music lover's inseparable friend.

### **DAC's the way to do it**

The DAC section is based around a Burr-Brown chipset that iFi uses extensively, selected for its natural-sounding 'musicality' and True Native architecture. Its design allows DSD and PCM audio data to take separate pathways, thereby remaining 'bit-perfect' in their native form right through to analogue conversion. This, combined with custom iFi circuitry, enables the hip-dac 3 to deliver excellent sound quality across all manner of digital audio formats.

iFi's experience with the Burr-Brown chipset means it knows how to make the most of it; but whilst intrinsic to the resulting sound, the creation of an exemplary DAC stage involves much more than the selection of a particular DAC chip. One such critical component is the XMOS chip that iFi uses to process audio data received over the digital inputs. The hip-dac 3 incorporates a 16-core XMOS microcontroller, its processing power utilised by iFi to optimise sound quality and unlock the full potential of the Burr-Brown DAC chip.

Hi-res PCM and DXD audio data is supported at sample rates up to 384kHz, alongside DSD from 2.8MHz to 12.4MHz (DSD64, 128 and 256). Full decoding of MQA – the hi-res streaming technology, as used by Tidal's 'HiFi Plus' tier – is also supported, performing the full 'three unfold' decoding process (as opposed to just the final unfold in the manner

of an MQA ‘renderer’). Either side of the rotary volume control reside a pair of LEDs that change colour to indicate the format and sample rate of the incoming audio.

Firmware updates to elements like digital filtering help to keep iFi DACs, including the hip-dac 3, fully up to date as technology progresses, as well as allowing for a degree of user-customisation.



*Left* Class-leading hi-res credentials and a well-appointed range of controls deliver impeccably tailored sound

### Balance of power

The hip-dac 3's analogue amplification stage benefits from a true balanced (differential) circuit design – unusual in a DAC/headphone amp anywhere near this price point. This topology helps to reduce signal distortion, which in turn leads to purer, more engaging sound.

The circuitry incorporates a range of high-quality components selected for their performance in an audio context, including a custom iFi OV op-amp, a precision low-noise power supply IC from Texas Instruments and a high-quality analogue volume pot. (Many portable DAC/headphone amps use digital volume controls, which can be detrimental to sound quality.)

The amp stage can deliver up to 400mW into a 32-ohm headphone load, ensuring compatibility with a wide range of headphone and earphone types with power to spare. Even high-impedance headphones are handled with ease thanks to output voltage of 6.3V into 600 ohms (from the balanced output).

To further tailor the output to suit the connected headphones, the amp stage features switchable gain – a feature called PowerMatch. This matches the level of drive to the headphone load, adjusting input sensitivity and thereby signal strength. With high-sensitivity IEMs, for example, leave PowerMatch at its lower setting to ensure a silent, hiss-free background (further enhanced by engaging the hip-dac 3's IEMatch feature). But if your headphones benefit from a higher level of drive – such as some on- and over-ear types – press the PowerMatch button to raise gain.

XBass is another user-selectable feature – a sophisticated form of ‘bass boost’ that enhances low frequencies without muddying the midrange, particularly useful with earphones and open-back headphones that may lack deep bass. It operates entirely in the analogue domain rather than messing with the digital signal via DSP and may be switched in or out of the signal path.

## Get connected

The hip-dac 3's USB-C audio input handles audio data up to 32-bit/384kHz and is asynchronous, meaning the data rate is regulated solely by the hip-dac 3's specialised audio clock circuitry for accurate, jitter-free data transfer from the source device. Including a separate USB-C port for charging maintains a dedicated audio input for the purest signal path and means you can use the hip-dac 3 while connected to the mains.

Two outputs are provided: a 3.5mm socket for headphones with a single-ended cable/connector, and a 4.4mm balanced output enabling headphones equipped with balanced connectivity to take full advantage of the hip-dac 3's differential amp design. In addition, the 3.5mm output benefits from iFi's proprietary S-Balanced circuitry, cutting crosstalk and related distortion in half when used with regular, single-ended headphone connections.

The hip-dac 3's 2200mAh battery lasts for around 7-12 hours of playing time between charges, depending on volume level and how power-hungry the connected headphones are. It comes bundled with a USB-C OTG (On-The-Go) cable, a USB-A to USB-C cable, and a USB-C to Lightning cable for iOS devices equipped with Apple's proprietary connector.

## Hip hip hooray!

The perfect travel companion for any music lover with corded headphones or earphones, the hip-dac 3 is available from selected retailers from 6th October 2023 at an RRP of £199, €199 and US\$199.



*Top (from left) PowerMatch and XBass buttons, analogue volume control and format/sample rate LEDs, balanced 4.4mm and 3.5mm headphone outputs*

*Bottom (from left) USB-C ports for audio data and power/charging, battery status LED*



iFi is the sister-brand of Abingdon Music Research (AMR) and is headquartered in Southport, UK. The two brands respectively design and manufacture portable, desktop and lifestyle audio products and high-end hi-fi components. Combined in-house hardware and software development teams and a 'music first' approach enable iFi and AMR to create advanced audio products that deliver new levels of design, functionality and performance at their respective price points. Since iFi's formation in 2012, its products have earned many awards around the world, helping it to become one of the fastest-growing brands in its field.

[www.ifi-audio.com](http://www.ifi-audio.com)

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