### Press release

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Above iFi ZEN Air Series – ZEN Air Blue, ZEN Air DAC, ZEN Air CAN and ZEN Air Phono

## iFi's ZEN Air Series – great sound for under £100

## Based on the award-winning ZEN Series, iFi's ZEN Air range makes high-performance audio more affordable than ever before

*Southport, England* – iFi's popular ZEN Series has received universal praise for delivering exceptional sound at affordable prices, earning scores of awards from respected industry publications and websites. With RRPs of £159 for the ZEN DAC V2 and ZEN Blue V2, and £189 for the ZEN CAN and ZEN Phono, the ZEN Series has achieved iFi's aim of making high-performance audio accessible to all.

Now, iFi extends this ambition still further – the new ZEN Air range takes these four ZEN devices, simplifies the circuitry and strips back some features whilst retaining core elements to enable an even more eminently affordable price tag... just £99 per device!

The ZEN Air DAC, ZEN Air Blue, ZEN Air CAN and ZEN Air Phono look similar to their brethren in the 'main' ZEN line, featuring the same desktop-friendly size and distinctive shape. In place of the extruded aluminium enclosure used throughout the ZEN Series, the ZEN Air devices sport a synthetic polymer

case with a textured finish, each in a different shade of grey. This isn't just generic ABS plastic; it's a high-grade thermoplastic polymer with additives to reduce brittleness and improve shock absorbance.

The simplification of the circuitry within the ZEN Air models means the mainline ZEN devices remain sonically superior, and some of the features they sport are correspondingly absent from the ZEN Air equivalents. For example, the fully balanced circuit topologies in the ZEN devices have been simplified, which means the 4.4mm balanced connections offered throughout the ZEN Series are not included in the ZEN Air devices. Some of the upgrades made to the latest V2 editions of the ZEN DAC and ZEN Blue, such as the enhanced GMT clock system, are also absent. But by retaining most of the core features and ensuring the circuit designs remain high quality – discrete components and symmetrical channel layouts, for example – their performance comes remarkably close to the mainline ZEN models. Certainly, there's nothing on the market at under £100 that is their match.

The ZEN Air DAC and ZEN Air Blue arrive first, available from selected retailers from 4 March. The ZEN Air CAN and ZEN Air Phono follow in May. Further information about each model is provided below.



ZEN Air DAC USB DAC + headphone amp – RRP £99

Winner of a host of awards since launching in 2019, the ZEN DAC and its V2 successor deliver a performance that competes with DAC/headphone amps at more than twice its price. The ZEN Air DAC redraws the blueprint, offering sound quality that rivals the original ZEN DAC but at an even lower RRP.

Like the ZEN DAC, the ZEN Air DAC includes a high-quality headphone amp capable of driving all manner of headphones and earphones. It can also be used as a DAC/preamp to feed an amp and speakers, or a pair of active speakers, via stereo RCA outputs. It connects to PCs, Macs, smart devices and so on via USB, elevating the sound quality of digital sources to a higher plane.

#### Tech highlights

The core DAC technology is the same as the original ZEN DAC, using a Burr-Brown DAC chip that iFi favours for its natural-sounding 'musicality' and True Native architecture, combined with custom technology including bespoke XMOS firmware and digital filtering, and iFi's GMT clock system to tackle jitter. Hi-res PCM is supported to 32-bit/384kHz, alongside DXD, and DSD64, 128 and 256.

Thanks to the Burr-Brown chip's True Native design, PCM and DSD take separate pathways – this enables both PCM and DSD to remain 'bit-perfect' in their native form. MQA is also supported (MQA rendering, like the original ZEN DAC, rather than full MQA decoding as performed by the ZEN DAC V2).

Whilst simplified in comparison to the ZEN DAC V2's fully balanced topology, the ZEN Air DAC's analogue stage remains of exceptional quality at the price, with a symmetrical channel layout and audiophile-grade circuit components, including a custom op-amp offering ultra-low noise performance, and low-impedance power supply rails featuring Taiyo Yuden and Murata low-ESR inductors.

#### Features and connectivity

Like the ZEN DAC and ZEN DAC V2, the ZEN Air DAC's headphone amp has switchable gain, which iFi terms Power Match. This matches the level of drive to the load presented by the headphones, by adjusting input sensitivity and thereby signal strength. With high-sensitivity headphone types such as inear monitors, leave Power Match at its lower setting for ultra-low noise performance. But if your headphones require more drive, press the PowerMatch button on the front panel to increase gain.

XBass+ is another user-selectable feature, a sophisticated form of 'bass boost' that subtly 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 via another button on the front panel.

The ZEN Air DAC omits the ZEN DAC's 4.4mm balanced outputs but otherwise retains the same connections. A 6.3mm headphone output resides at the front, with an asynchronous USB Type B input at the back alongside gold-plated stereo RCA outputs with variable level control. Whether you're driving a pair of headphones or feeding an amp and speakers, the ZEN Air DAC's sound quality comes remarkably close to the original 'v1' ZEN DAC's single-ended outputs – at just £99, it delivers an eminently affordable quality boost to digital sound.



ZEN Air Blue Bluetooth DAC – RRP £99

The ZEN Blue V2 is widely recognised as the best way to enable Bluetooth audio transmission from smartphones, tablets, laptops and so on to an existing audio system – perhaps because the system doesn't offer Bluetooth reception and the user wants to add this facility, or because its Bluetooth implementation lacks quality (often the case). The ZEN Air Blue performs the same function as the ZEN Blue V2 but trades some features in return for an even lower price point.

#### Tech highlights

While Bluetooth's wireless convenience and wide device compatibility are well recognised, many people don't realise how good Bluetooth audio can sound because they've only experienced it at base-level

quality via rudimentary SoC (System on Chip) implementations. iFi has gone to great lengths to ensure the HD Bluetooth engine it has developed for deployment in all its current-generation Bluetooth-toting devices – including the ZEN Air Blue – is state-of-the-art, earning it a class-leading reputation.

Making full use of Qualcomm's advanced four-core QCC5100 Bluetooth processing chip, every current high-definition Bluetooth audio format is supported, including aptX Adaptive, aptX HD, LDAC and HWA/LHDC. Other codecs covered include regular aptX, aptX Low Latency, AAC and SBC. This means that every source device is handled at the highest audio resolution its Bluetooth specification allows.

While the QCC5100 can provide a complete SoC solution including digital-to-analogue conversion, this is not the iFi way. The ZEN Blue has separate digital and analogue stages; to feed the analogue stage, the processed digital signal is routed from the QCC5100 to a specialised DAC chip from ESS Technology's excellent Sabre family. Though more costly and complex, this delivers better sound quality than relying on a fully integrated chip solution as many manufacturers do.

Like the ZEN Air DAC, the ZEN Air Blue's analogue circuitry has been simplified compared to its mainline ZEN equivalent, but a symmetrical channel layout and low-impedance power supply rails are retained.

#### Features and connectivity

The ZEN Air Blue is Bluetooth v5.1-compliant, ensuring excellent range and stability. Up to eight paired Bluetooth source devices can be stored in memory, making it easy to switch from one to another. The cable outputs have been simplified compared to the ZEN Blue V2, losing the balanced 4.4mm analogue output and optical/coaxial digital outputs, but retaining the gold-plated stereo RCA analogue outputs.

At just £99, the ZEN Air Blue is a brilliant way to add wireless streaming to any system, delivering the best-available sound over Bluetooth from every source device – Android or iOS, Windows PC or Mac.



ZEN Air CAN Analogue headphone amp – RRP £99

The all-analogue ZEN CAN has been much praised for delivering features usually reserved for high-end headphone amps at many times the price. The ability to drive tough headphone loads, the balanced circuit design, the vanishingly low levels of distortion and versatile sonic tailoring options to optimise performance are all highly unusual in a desktop-size headphone amp costing less than £200.

At just £99, the ZEN Air CAN offers even more astonishing value for money – its circuitry and facilities have been simplified, but the quality of what has been retained is remarkable. Like the ZEN CAN, it has

no digital input of any kind; it connects to any audio source with an analogue output, such as the headphone output from a DAP (Digital Audio Player), a laptop, a tablet or a smartphone, or the RCA outputs from, say, a CD player, or a phono stage like the ZEN Air Phono. It could also be paired with the ZEN Air Blue to add Bluetooth reception, or perhaps combined with the ZEN Air DAC to upgrade the DAC's headphone amp stage.

#### Tech highlights

Whilst the fully balanced circuit topology of the ZEN CAN has been simplified to make its Air equivalent, it retains the use of discrete, high-grade components and a separate, symmetrical layout between channels – an exceptional level of design at such an eminently affordable price point. Though not quite boasting the output level of the mainline ZEN CAN, there's still ample power on tap to drive all manner of headphones with ease – 1200mW into a 32-ohm load – coupled with ultra-low distortion to deliver impressive musical texture and detail.

iFi's quad-amp circuitry features custom OVA-series FET op-amps using a 'folded cascode' design, with specialised feedback circuitry to optimise performance. The input stage features automatic gain matching between inputs and feeds a TOCOS precision potentiometer, while the discrete, complementary bipolar output stage utilises the same Class A buffer found in more expensive iFi headphone amps. The power supply circuitry includes 'stealth mode' voltage conversion, with linear regulation, noise filtering, physical isolation from sensitive audio circuits and more than 4,000µF capacitance to keep ample power in reserve to respond to musical transients.

Alloy shielding within the thermoplastic polymer outer case protects sensitive signal paths from interference. Even the way the ZEN Air CAN switches between settings has been engineered to ensure sonic transparency – FET-based switching is handled by a microcontroller, which only 'wakes up' when the user changes a setting, thus eradicating any sonically deleterious interference. All this painstaking attention to detail would be impressive in a high-end headphone amp; that fact that iFi has succeeded in implementing such high-quality circuitry in one retailing at just £99 is nothing short of remarkable.

#### Features and connectivity

Just as remarkable is the retention of so much of the ZEN CAN's highly impressive feature set. XBass+, iFi's sophisticated bass enhancer, and XSpace, which widens the soundstage to compensate for 'in-head localisation' effects, are both present. Gain adjustment to precisely suit the connected headphones is also provided, with three steps – 0dB, 9dB and 18dB – in place of the ZEN CAN's four steps.

The ZEN CAN's dual headphone outputs – 6.3mm and 4.4mm – are also repeated here, although the 4.4mm output is not fully balanced as it is on the ZEN CAN. Instead, it benefits from iFi's S-Balanced circuit design, which cuts noise and crosstalk by 50 per cent with single-ended headphone connections. Similarly, the ZEN Air CAN sports three analogue inputs, the same number as the mainline ZEN CAN – but here, the 4.4mm balanced input is swapped for an extra pair of single-ended RCA sockets, providing two stereo RCA inputs and one 3.5mm S-Balanced socket in total.



ZEN Air Phono MM/MC phono stage – RRP £99

The fourth model in iFi's ZEN Air Series is a phono stage that's ideal for those who love vinyl records – perhaps returning to the format, as many have done in recent years, or discovering the joy of vinyl for the first time. Not everyone has the funds to invest in a high-end turntable; but that's fine, because an entry-level deck from the likes of Pro-ject or Rega can deliver fabulous sound – especially when paired with a good phono stage, to make the most of all the detail the needle digs from a record's grooves.

That's where the ZEN Air Phono comes in – not only does it offer excellent performance with both MM and MC cartridges, it also delivers an ultra-low noise performance that's measurably and audibly the cleanest and clearest at its price point – just like its big brother, the award-winning ZEN Phono. This ensures that the listener hears every drop of detail against a super-quiet background.

#### Tech highlights

Like other ZEN Air devices, the ZEN Air Phono simplifies the fully balanced circuit design of its mainline ZEN equivalent but still retains a symmetrical channel layout with high-quality surface-mounted components offering low ESL (Equivalent Series Resistance), high stability and low distortion. This pays dividends in terms of sound quality and the accuracy of RIAA equalisation. In common with many iFi devices, a custom OV Series op-amp is used – in this case, the OVA2637A – further contributing to the price-busting sonic performance thanks to its ultra-low distortion characteristics (THD <0.0001%).

The finest high-end phono stages have their own high-quality power supplies, effectively 'regenerating' electricity drawn from the mains to amplify the delicate audio signal from a turntable cartridge without adding noise. Like the ZEN Phono, the ZEN Air Phono attains this goal in an innovative way; its power supply has an oscillation frequency of 1.2MHz, at least 20,000 times that of mains electricity. In this circuit, a filtering capacitor with a 10uF rating is equivalent to 200,000uF at lower, audible frequencies, delivering superb filtering power. The power supply circuitry is located on its own 'island' on the circuit board to ensure there is no contamination of the audio signal – just super-clean +/-15V DC.

#### Features and connectivity

Another rarity at this price level is a subsonic filter, engaged via a front-panel button to tackle the large subsonic signal output caused by warped records. A feature of all iFi phono stages, this proprietary circuit 'intelligently' filters out the unwanted subsonic output without affecting any deep bass on the recording – an undesirable side effect of some warp filters.

Connectivity is kept simple: gold-plated stereo RCA sockets in and out, without the 4.4mm balanced output option of the mainline ZEN Phono. A grounding terminal is also provided; attach a turntable's grounding wire to this to eliminate audible hum.

The ZEN Phono's four gain settings to suit different cartridge types are replaced by a simple MM/MC switch (40dB/64dB gain). The ZEN Air Phono's high-gain MC circuit still delivers a remarkable signal-to-noise-ratio of -82dB – no other phono stage at the price comes close.



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iFi is the sister-brand of Abbingdon 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.

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