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UK £5.99





## STREAMER/AMPLIFIER

Streamer/DAC & integrated amp. Rated at 75W/8ohm  
Made by: International Audio Group, China  
Supplied by: IAG Ltd, Cambs  
Telephone: 01480 447700  
Web: www.leak-hifi.co.uk; https://iaggroup.com  
Prices (streamer/amp): £999/£1099 (£1249, Walnut)

# AUDIO FILE



# Leak TruStream/Stereo 230

A familiar name to '50s audiophiles, Leak's latest range has burst onto the market a full half century after its '70s heyday. We pair its new streamer with the flagship integrated  
Review: **Andrew Everard** Lab: **Paul Miller**

**W**hen does a Leak become a stream? Well, it's when the revived British audio brand, with roots going back 90 years, takes a leap firmly into the 21st century with the landing of its first network player, the £999 TruStream. This is the latest arrival in what's become, if not a torrent, then at least a solid trickle of products since the Stereo 130 amplifier appeared in 2020 under the ownership of IAG, the company now behind the likes of Audiolab, Quad and Wharfedale.

### SLIGHT RETURN

In creating its tribute to the Leak Stereo amplifier of 1963, IAG brought back to the market a brand dormant since the late 1970s, retaining the styling and much of the engineering of the classic products, but with a decidedly modern twist – not least because the newcomer had not only digital inputs and Bluetooth integration, but also a partnering CD transport, the CDT.

In a clever act of marketing, IAG supplied a Stereo 130 to London's Handel Hendrix House museum, enabling the system Jimi Hendrix used when he lived there to be recreated, complete with a period Bang & Olufsen Beogram 1000 turntable [Vintage Review, *HFN* Aug '25] and restored Lowther Acousta 115 speakers. To this day, visitors can hear Hendrix's record collection as he would have done – possibly even as loud!

The Leak brand had disappeared all those years ago under the ownership of the Rank Organisation, once also the owner of Wharfedale, distributor of camera brands Nikon and Pentax, and with interests in cinema and theatre equipment. Almost half a century ago, technical requirements for school plays in which I was involved always meant a trip to the Rank Strand Electric

**RIGHT:** The power amp comprises a pair of STMicroelectronics TDA7293 Class AB modules per channel [on heatsink] with the linear PSUs at either side. Note motorised volume [bottom left], X MOS/Qualcomm digital input PCB [top right] and MM phono stage [bottom right]

lighting company under the flyover in West London, where men in brown warehouse coats would fish out lamps – never call them bulbs! – to get the school's ageing lighting kit up and running again.

Anyway, increased competition from overseas signalled the end of manufacturing of Leak equipment, but since that 2020 relaunch the Leak line has expanded to include the TruStream streamer/DAC we have here, along with its partnering Stereo 230 amplifier. The latter sells for £1099 (or £1249 for the walnut-veneered review sample) and has a rated 75W/8ohm output [see PM's Lab Report, p99], which is comfortably more than either the Stereo 130's 2x45W, let alone the original Stereo 30's 15W [Vintage Review, *HFN* Oct '10].

### MODERN MAKEOVER

If the Stereo 130 of 2020 was a leap from the 1960s amp, with its Bluetooth and digital inputs, the Stereo 230 goes even

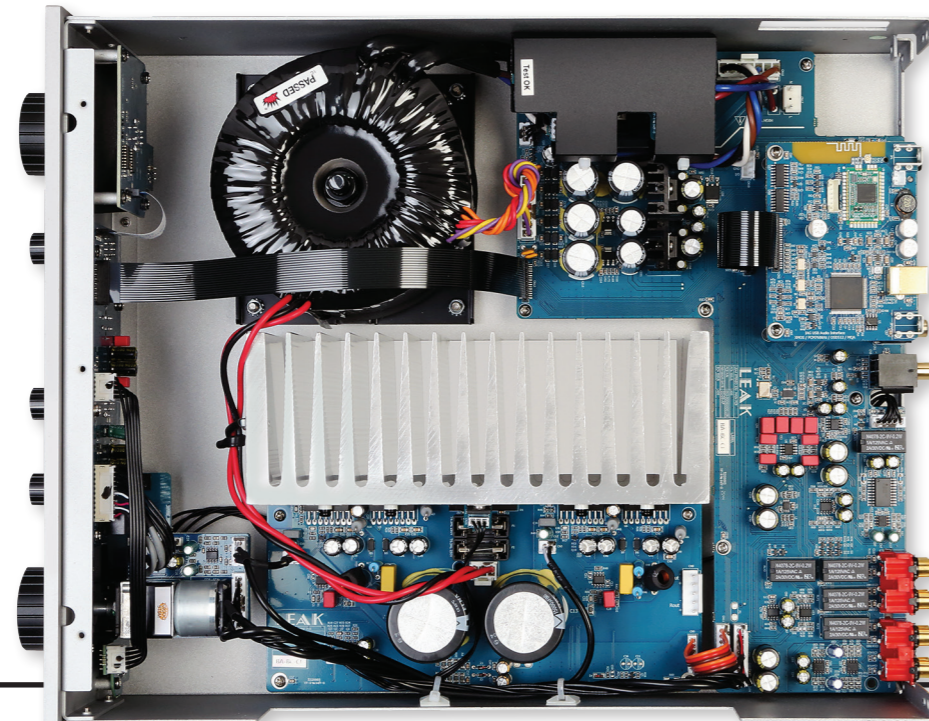
further, having both a USB-C input for computer audio, and HDMI ARC for sound from a TV. It's a modern wolf in vintage sheep's clothing, and available in its walnut casing for that full old-fashioned look, or plain silver for a 1960s retro-modern feel.

Think the amp's wood finish is a retro step too far? The TruStream network player is *only* available in walnut, as that's what Leak customers are buying. And if those customers want to build an all-Leak system, there are now revivals of the company's classic Sandwich speakers – IAG has done similar

with Mission [*HFN* Jun '22], Quad [*HFN* Mar '24] and Wharfedale designs of the past.

By the standards of many a rival, the TruStream is a simple-looking product. For starters there's no display, although with network players often being mainly app-controlled, there's an argument that these are not strictly necessary (and it helps manage the cost of the design). Similarly, controls extend to no more than a power

*'There's a Leak Stereo 130 in London's Handel Hendrix House'*



*'The amp, and streamer in particular, are very much modern wolves in vintage sheep's clothing'*



**LEFT:** Decked out in matching walnut-veneered cases, the TruStream [top] includes Wi-Fi/Ethernet and (PC) USB-C input selection, a headphone socket, and volume rotary. The Stereo 230 [bottom] has a motorised volume alongside (defeatable) tone and balance. A matching rotary serves digital/analogue input selection

Network services and file format handling is thoroughly modern. Connected via wired Ethernet or Wi-Fi, Leak's TruStream is compatible with the Connect versions of Tidal, Qobuz and Spotify, and the Tunes Internet Radio platform, as well as UPnP/

button, a volume rotary, and a button to switch between network playback and the unit's USB-C 'computer audio' input.

On which subject, the TruStream has two USB-A ports to which storage devices can be attached (these double as USB audio outputs to suitable DACs), digital outputs on optical and coaxial, and analogue outs on both RCAs and balanced XLRs. The last of these may seem a little odd, as neither of the current Leak amplifiers offer balanced inputs, but then the volume control here would allow the TruStream to be used straight into a power amplifier or active speakers, in which case

the balanced output might make sense for those longer cable runs.

The player includes a front-panel headphone socket, driven by its own amplifier, so those with a penchant for 'head-fi' could create a simple personal listening system (maybe with a pair of those wooden Grado headphones for the full mid-20th century look). Remote handsets provided for both units only slightly differ in function and button layout. In the case of the TruStream the handset is only of passing interest, as all the action here will be on the associated app [see boxout, below].

*'Mitch Mitchell was really thumping those drums'*

DLNA streaming from music on a computer or Network Attached Storage (NAS) device. It also supports AirPlay 2 and is Roon Ready. Depending on input, file support runs to 768kHz/32-bit PCM and DSD 512.

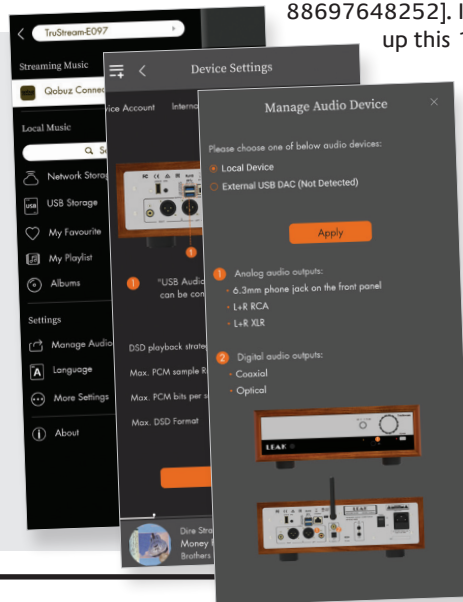
### LET IT FLOW

Fresh from the box, the TruStream/Stereo 230 duo deliver a sound as rich and harmonious as all that walnut veneer might suggest. Choose a pair of weighty sounding, but still crisply detailed speakers, and you'll give these products plenty of opportunity to let the music flow.

That was definitely the case with 'Purple Haze' from The Jimi Hendrix Experience's *Are You Experienced* [2010 remaster, Experience Hendrix/Legacy/Sony Music 88697648252]. I couldn't resist cueing up this 1967 album, given Leak's early links with the artist, and the TruStream/Stereo 230 combination did it full justice. The dense wall of sound created by the trio – Hendrix, Mitch Mitchell really thumping those drums and Noel Redding's sonorous bass – was a well-defined onslaught. Yes, this Leak pairing sounds warm and rich, but it still delivers

### LEAK APP

Just as the core of the TruStream player is Silent Angel's streaming platform, customised by the Leak engineering team, so the Leak TruStream app, based on Silent Angel's VitOS software and available for Android and iOS, is tailored to the specific functions of this network player. Fortunately, it's been kept pretty simple so finding the player on the home network is fast and efficient, as is selecting the various streaming services and 'local sources' (network and USB storage) the TruStream can address. It's possible to set the DSD playback mode, maximum sample rate and bit depth, for example, while also defining the digital (coax, optical, USB) and analogue (XLR, RCA, headphone) audio outputs. By 'locking down' the digital section, Leak has removed much of the faffage often encountered with devices of this kind, rendering the operation here mercifully simple, and the screens [see inset pics] both clean and easy to understand.



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## STREAMER/AMPLIFIER



ABOVE: Linear PSU [top right, and standby below] feeds XMOS USB board [bottom centre] and Silent Angel-based wireless/Ethernet/USB streaming platform [under heatsink], with ES9038Q2M DAC-based preamp [below]

sufficient bite and freshness to bring music to life. Clearly, the Stereo 230 amplifier is more than powerful enough to drive contemporary speakers to period-appropriate levels without signs of distress.

Sticking to this theme, the Avion Ensemble's recording of Handel's Concerti Grossi, Op. 6 [Linn Records, 88.2kHz/24-bit] proved a delightful combination of mellifluous flow and speed and detail. There was nothing over-lush or lazy here, despite the richness of the Leak sound – instead, rhythms were tight and crisp, while instrumental textures were well-realised.

### HAVING A SWELL TIME

Having just seen the winning combination of singer Liza Pulman and pianist/performer Joe Stilgoe in the theatre, I found myself listening to their *A Couple Of Swells* album [Highfield Productions HIGHFICD 2], and loved the way the TruStream/Stereo 230 brought out not just the amazing musicianship, but the

warmth and easygoing nature of their pairing. This is one of the most intimate and live-sounding sets I know, and it was deliciously played via Leak's walnut-clad duo.

Talking of live ambience, the recent remaster of Thelonious Monk's 1959 *Thelonious Alone In San Francisco* [Craft Recordings; 192kHz/24-bit download] has a wonderfully vibrant ambience to it, courtesy of the city's historic Fugazi Hall. The atmosphere is almost as big a part of the sound as the performance itself, and the blend of warmth and openness the TruStream/Stereo 230 delivered was perfectly suited.

Playing the title track from the Eagles' *Hotel California* – the 2017 40th anniversary release [Asylum Records 081227933234] – the Leak duo made a fine fist of the rich, multilayered mix, reminding ears over-familiar with the stripped-back version just how much of an impact this album made when first unleashed. And switch to

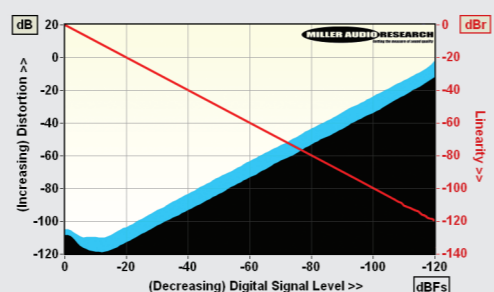
Who cares when it sounds this big, bad and hard-hitting?

## LAB REPORT

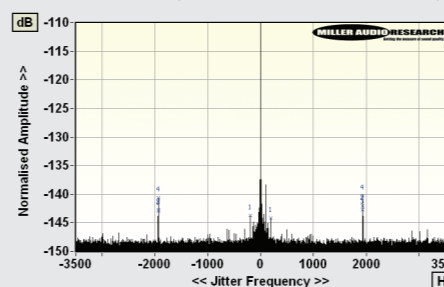
### LEAK TRUSTREAM

Both the established Stereo 230 amplifier [see right] and this new TruStream streamer/DAC employ the same ES9038Q2M chip, both implementations thankfully defaulting to Leak's preferred 'Minimum Phase Fast' digital filter. Arguably, the TruStream's layout is the better, not least because the DAC's differential output is driving a balanced analogue stage, the latter offering a maximum 4.15V output (re. 1kHz/0dBFS) from a 54ohm source impedance. Noise is low too, benefitting a wide 115dB A-wtd S/N ratio regardless of network or USB-C/USB-A input. This, in turn, assists in the TruStream's excellent low-level linearity, the DAC and analogue stage proving good to  $\pm 0.2$ dB over a full 110dB dynamic range. Distortion is low too [see Graph 1, below], falling to a minimum of 0.0001-0.0003% (re. 20Hz-20kHz) over the top 20dB of its dynamic range, with 2nd and 3rd harmonics the main components. The TruStream's 'clean sheet' continues, meanwhile, with its exceptionally low correlated jitter [see Graph 2, below] that remains <10psec across all 48kHz-192kHz sample rates.

As alluded to earlier, the ES9038 DAC includes the option of both programmable and 'built in' upsampling/FIR filter coefficients. Leak's choice of the high-order minimum phase option combines zero pre-ringing with extended post-ringing in the time domain together with a useful 75dB stopband rejection (or 80dB at a 96kHz sample rate). Frequency response(s) extend out to  $-0.2$ dB/20kHz,  $-1.05$ dB/45kHz and  $-3.3$ dB/90kHz with 48kHz, 96kHz and 192kHz files/streams, respectively, while the quality of the analogue stage is further illustrated in the fine >100dB stereo separation (re. 20Hz-20kHz). PM



ABOVE: Distortion versus 48kHz/24-bit signal level over a 120dB range (1kHz, black; 20kHz, blue) plus resolution/linearity (1kHz, red trace and Y axis)



ABOVE: High resolution jitter spectrum with 48kHz/24-bit data. Jitter is very low with all sample rates

### HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	4.15Vrms / 54ohm (XLR)
A-wtd S/N ratio (Network / USB)	114.6dB / 114.6dB
Distortion (1kHz, 0dBFS)–30dBFS)	0.00035% / 0.00071%
Distortion & Noise (20kHz, 0dBFS)–30dBFS)	0.00045% / 0.0021%
Freq. resp. (20Hz–20kHz/45kHz/90kHz)	+0.0 to $-0.2$ dB/ $-1.1$ dB/ $-3.3$ dB
Digital jitter (48kHz / 96kHz / 192kHz)	8psec / 9psec / 10psec
Resolution (1kHz @ $-100$ dBFS)– $-110$ dBFS)	$\pm 0.1$ dB / $\pm 0.2$ dB
Power consumption	9W (1W standby)
Dimensions (WHD) / Weight	330x118x278mm / 6.5kg



ABOVE: The TruStream [top] offers Wi-Fi/wired Ethernet and USB-C inputs (to 768kHz/DSD512), two USB host ports, coax/opt digital outs and RCA/balanced XLR analogue outs. The Stereo 230 [bottom] also has coax/opt in/out, an HDMI ARC in, plus three line and one MM phono input. Speaker outs are on 4mm binding posts

something even harder-driving, in the form of the 2023 release of Thin Lizzy's much-overdubbed *Live And Dangerous* [UMC/Vertigo/Mercury 0819035], and it's clear that Leak's oh-so-refined-looking amplifier can drive even compact floorstanders into serious thunder with the 'Cowboy Song'/'The Boys Are Back In Town'/'Don't Believe A Word' sequence. Who cares how many times it was 'finessed' after the event when it sounds this big, bad and hard-hitting?

Turning on the orchestral thunder with the opening of Mahler's first symphony, from the Czech Philharmonic/Semyon Bychkov *Symphonies 1-9* box set [Pentatone PTC5187490; 96kHz/24-bit], the Leak duo handled the gentle opening with sensitivity, with its distant horns and pastoral flow. There was space and air in the sound, then weight and control as the first movement built to its climax, with superb texture

LEFT: Both streamer and amp (and CDT) share a similar system remote. Volume, mute, direct, random, repeat and track select work with the former, and volume, mute and input select with the latter



in the brass, punch in the percussion and yet still that same open and expansive soundstage image.

### SWEET STREAMS

That's the appealing nature of this Leak network player/amplifier combination: just when you think it's sweet and refined in a kind of reverie of how we all think old-style hi-fi used to sound, it can surprise by rolling up its sleeves and powering out largescale music with more than sufficient brio and vitality. But then Hendrix himself used to wake up the neighbourhood in London's Brook Street with his early-transistor Leak Stereo 30 at full chat... So perhaps it should not come as a surprise that the more powerful Stereo 230 amplifier, ably fed by the TruStream network player, can do the same with a wide variety of music. ☺

### HI-FI NEWS VERDICT

The look may be retro, but however incongruous the idea of a walnut-clad network player may seem, this Leak duo gives a level of performance that's fully up-to-date, and needs no rose-tinted nostalgia to be enjoyed. As a 2026 hi-fi system it's well up to snuff, and as a talking-point it's unsurpassed. Fine sound, superb build and finish, modern facilities and hipster appeal to boot? It's not hard to see the attraction.

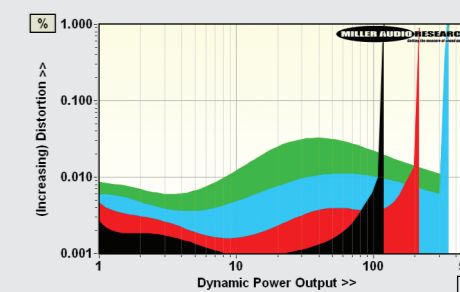
Sound Quality: 88%  
0 - - - - - 100

## LAB REPORT

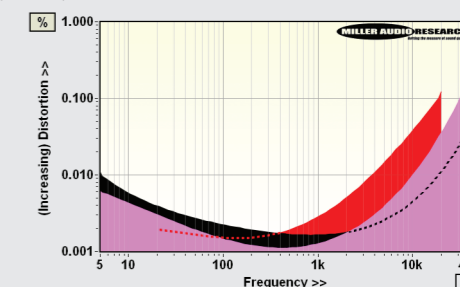
### LEAK STEREO 230

When designing a complex/comprehensively equipped amplifier at an attractive target price, choices have to be made in the BOM (bill of materials). In this case, Leak has fitted an MM phono stage and specified a very flexible USB/HDMI digital section while retaining a relatively hefty linear PSU for the power amplifier [see p94]. However, rather than use discrete, complementary power transistors, the output stage uses capable, monolithic TDA7293 Class AB DMOS modules from STMicroelectronics. These are variously rated at 100W or 75W (10% and 1% THD, respectively) so Leak is – sensibly – employing a pair of the modules per side, sufficient to realise a generous 2x92W/8ohm and 2x140W/4ohm with enough in reserve to support 120W, 215W, 345W and 365W (19A) into 8, 4, 2 and 1ohm loads, respectively, under dynamic conditions [1kHz/10msec to 1% THD, see Graph 1].

Overall gain is a sensible +33dB, noise is low and the A-wtd S/N ratio a wide 92dB (re. 0dBW) while the fairly 'flat' 0.010-0.015ohm output impedance holds the frequency response to  $\pm 0.1$ dB (20Hz-20kHz) and  $-1.2$ dB/100kHz (all re. 10W/8ohm). Very low bass looks to be AC-coupled, rolling away to  $-1$ dB/4Hz and  $-4$ dB/2Hz. Distortion clearly increases with diminishing speaker load impedance [again, see Graph 1] but, into 8ohm, remains <0.002% from 1-40W, rising to 0.005% at the rated 75W (all re. 1kHz). Versus frequency [see Graph 2, below], distortion is typically lowest through the midrange and increases at HF from 0.001-0.04% (1kHz-20kHz, re. 10W) and from 0.003-0.12% (1kHz-20kHz, re. 50W). In similar fashion, CCIR (19/20kHz) intermodulation distortion is largely second-order at 0.015% (re. 10W/8ohm). Overall, this is a well-judged little amp. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Maximum current is 19.1A



ABOVE: Distortion versus frequency versus power output (1W/8ohm, black; 10W, pink; 50W, red)

### HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	92W / 140W
Dynamic power (<1% THD, 8/4/2/1ohm)	120W / 215W / 345W / 365W
Output imp. (20Hz–20kHz/100kHz)	0.01-0.015ohm / 0.26ohm
Freq. resp. (20Hz–20kHz/100kHz)	$-0.1$ dB to $-0.1$ dB/ $-1.2$ dB
Input sensitivity (for 0dBW/75W)	64mV / 562mV
A-wtd S/N ratio (re. 0dBW/75W)	92.0dB / 111.8dB
Distortion (20Hz-20kHz, 1W/10W)	0.0016-0.011%/0.0012-0.038%
Power consumption (Idle/Rated o/p)	30W / 268W (1W standby)
Dimensions (WHD) / Weight	328x147x414mm / 12.7kg