Network-attached music library/digital server Made by: Auralic (Beijing) Co., Ltd, China Supplied by: Auralic Europe, The Netherlands Telephone: 075901 06105 Web: www.auralic.com Price: £2699 (£3099 with 2TB storage)

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Auralic Aries Gl.1

Based on the Tesla G2 platform used in Auralic's premier G2.1 range, but lacking the box-in-box build and some circuit detailing, the Aries G1.1 remains a top-flight streamer Review: Andrew Everard Lab: Paul Miller

es, the £2699 Aries G1.1 is another one of those similar-looking Auralic components that will blend seamlessly with its brand partners, even if we're never immediately sure what box does what... In this case, we have a network player without onboard digital-toanalogue conversion, designed to be used straight into an external DAC. In this guise, it brings the niceties of Auralic's Lightning Streaming Platform, and its Lightning DS control app [see boxout, p67], to owners of third-party DACs. This also includes amps or preamps with digital inputs, which can be fed via USB or optical, coax or AES.

What's more, the Aries G1.1 can also function as a complete digital music source if specified with internal storage, a 2TB SSD (fitted to the review sample) adding £400 to the ticket. You can also buy the 'bare bones' G1.1 and fit a hard drive later yourself or run the unit with an external hard drive connected via one of the two USB ports provided, designated 'HDD' - the other is marked 'DAC', and is designed as a digital audio output.

NO LIMITS

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You also have the option to connect a generic USB CD drive - or more likely these days a DVD-ROM drive – to the Aries G1.1 and use that to rip discs to the onboard storage. And if 2TB doesn't sound much space to you, it's worth pointing out that it will hold some 7000 hours of music in CD-quality FLAC, or half that in full-fat WAV files, while even those storing SACD-quality DSD64 files will have space for about 900 hours of music. Auralic puts no limit on the capacity of the drive fitted, as long as it's a 2.5in type, no more than 9.5mm thick.

There's one other process required when you first get an Auralic product: you need to register an account for the Lightning DS app, and then use that to

RIGHT: One linear PSU [top left] feeds an Intel dual-band Wi-Fi/BT module [bottom] and XMOS USB solution [lower left] while a second PSU feeds display and storage [top centre]. Our sample includes the optional 2TB SATA HDD [left]

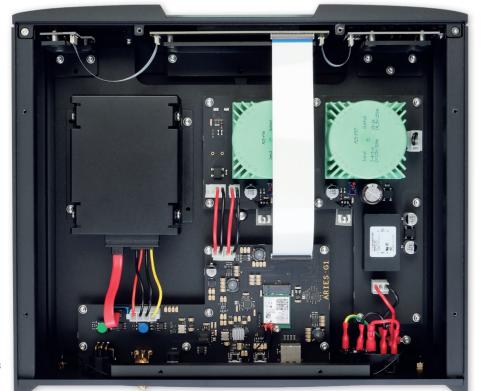
register the hardware to your account. This, says Auralic, is 'for warranty coverage, to activate coupons or subscription services from your purchase, and many other forthcoming features', but it's no more onerous than registering any new piece of modern hardware

Back to the product itself, and the Aries G1.1 is an updated version of the original Aries transport, the most obvious additions being the high-mass base used in the company's G2.1 products, combined with compliant feet to give added damping. Like the main enclosure, this is made from highgrade aluminium. In fact, much of what set the original Aries and the G2.1 version [*HFN* Feb '21] apart has now vanished, as this new iteration has adopted so much of the pricier version's technology. The obvious main differences can be seen in the absence of the Lightning Link digital connection, on HDMIs, to its upmarket

models and the single-box construction, though this is still very sturdy.

AROUND THE CLOCKS

The main processing platform is now the company's so-called 'Tesla G2', used widely in the current Auralic lineup. It claims a CPU boost of 50%, twice the system memory, and a 1GB cache to isolate the output data from processor noise and network influences. Dual 'femto clocks' are used, one for the legacy digital outs and the other for the USB port, and there are two separate power supplies [see pic, below] One looks after the processor the display and any storage (whether internal or attached), while the other is dedicated to the clocking and USB audio output. The G1.1 also has the second-generation version of the company's 'ActiveUSB' technology with its dedicated, and isolated, +5V USB supply line.





Wide-ranging streaming capability also comes as standard, the Auralic Aries G1.1 being able to handle LPCM up to 384kHz/32-bit, and DSD to DSD512, your choice of DAC notwithstanding. Compatible network services include UPnP/DLNA from network storage, along with the likes of Amazon Music Unlimited, HighResAudio, Oobuz Sublime+, Spotify Connect, Tidal Connect and

Internet Radio, You can send music direct to the unit using Apple AirPlay 2 and Bluetooth. As well as the previously mentioned Lightning DS app

for iOS [again, see boxout, below] the Aries G1.1 will also slot into a Roon-based

environment as an endpoint, controlled by a Roon Core running on the user's network.

CLEAN MACHINE

As is always the case with music library/ digital transports such as this, the sound of music played on or through the Aries G1.1 will to a great extent be determined by the DAC to which it's connected. However,

LIKE LIGHTNING

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Although it's possible to access and set up the Aries G1.1 using a web browser on a computer, and playback can be managed via an OpenHomecompatible app such as Bubble DS or Kinsky, by far the best way to enjoy this music library/streamer is via the Lightning DS app running on an (Apple-only) smartphone [pictured, right] or tablet. The app and the Lightning OS powering the Aries are so interconnected that everything from detailed hardware/software configuration, and navigating and playing music is super-smooth.

'It almost puts

the listener

on Camilo's

piano stool

As well as basic operation it offers up- or downsampling of individual file formats to suit your connected DAC's capabilities; a choice of four digital filters [see PM's Lab Report, p69]; a multi-band equaliser; and even includes adjustments to compensate for the position of your speakers. Here, too, you can switch between fixed and variable analogue output, and activate or bypass streaming services (and Roon). The app also seamlessly integrates streaming services as well as music on network or USB storage. Better still, the Aries G1.1 can be fitted with its own internal drive making it guick and easy to select your listening. Indexing of even large NAS-based music libraries is fast, logical and accurate, and the Lightning DS app offers a clear, attractive interface for music playback. It's a major part of the Aries G1.1's appeal.

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having tried it with a number of add-on converters, from the little Chord Mojo 2 [HFN Apr '22] upwards, it's clear the G1.1 is capable of delivering an exceptionally clean digital feed, whether via its USB port or the conventional digital outputs. For much of my listening I used the iFi Audio NEO iDSD [HFN Mar '21], which is outstanding value for money at around £800, especially as it now comes with significant performance upgrades using the company's Purifier technology, and can also be used straight into power amplification for a minimalist set-up. I also connected the Aries G1.1 via coaxial digital to Naim's new NSC 222 network preamp. This may seem an odd choice as Naim includes its own streaming capability onboard, but it gave me a chance to compare the network sections of the two when played through the same DAC stage. And with the Auralic/Naim combination feeding the latest iteration of the NAP 250 power amp, it was clear

ABOVE: The industrial design is now enhanced by a silver baseplate. The 4in TFT display allows stepwise navigation via the keys to the right. Library/album playback and art is also revealed

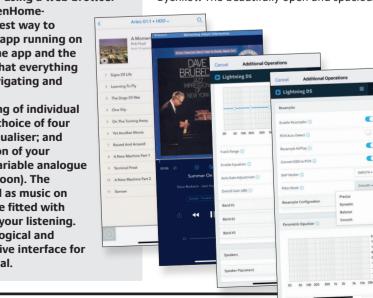
that the Aries G1.1 gave nothing away to Naim's onboard streaming platform.

Put simply, the Aries G1.1 will make the most of any DAC to which it's connected. Even the cleanest of computer installations is going to sound a little soft and hazy by comparison, presumably thanks to the Aries G1.1's optimised network/USB solution.

ROCKING THE HOUSE

The results are easy to hear with a recording such as the recent remaster of Elton John's Honky Château [Rocket Entertainment/Mercury 4596215], where familiar tracks like 'Honky Cat' and 'Rocket Man' have a crispness, presence and ambience via the Aries G1.1 that's slightly muted when playing into the same DAC directly from a computer. The vocals have better character, and that distinctive piano style is even more apparent, bringing the music up more vibrantly than ever.

That clarity also serves well the recent Pentatone releases of Mahler symphonies by the Czech Philharmonic under Semyon Bychkov. The beautifully open and spacious ↔



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ABOVE: Digital only – the Aries G1.1 offers wired/wireless network control/streaming inputs plus access to more music via optional internal and external (HDD) USB drives. DSD512/384kHz outputs are on USB-A, and DSD64/192kHz on Toslink, coax and AES

sound of the Fourth Symphony [Pentatone PTC5186972; 96kHz/ 24-bit] really illuminates the quality of the performances here, as does the speed and definition with which the frequently changing rhythms are presented. This is a recording with both clarity and a fine dynamic range, and the way it's delivered via the Aries G1.1 makes it a real breath of fresh air, leaving the listener eager to hear more of what promises to be a captivating cycle.

KING OF THE SLAM

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Step back in time to the 2014 40th anniversary release of Supertramp's *Crime Of The Century* album [UMG; 192kHz/24-bit download], and that ability of this digital player to partner with a suitably revealing DAC and dig really deep into a recording is again remarkable. Right from the opening notes of 'School', the Aries G1.1 really brought out the art rock/jazz influences here.

It was enough to have this listener playing this set right the way through before moving on to the massive Breakfast In America, released in 1979 and surely 'peak Supertramp'. And, boy, does the album shine through the Auralic/ iFi Audio DAC combo when played in DSD64 from an SACD I picked up some years ago [A&M UIGY-9536]. It may be familiar from multiple plays, but the sequence from 'The Logical Song' through to 'Take The Long Way Home' sounds breathtaking here, with real slam and sparkling vocals and instruments.

There's not so great a change of pace required to reach Michel Camilo's 2005 version of Gershwin's *Rhapsody In Blue* [Telarc SACD-63611], recorded in Spain with the Barcelona Symphony Orchestra under Ernest Martinez Izquierdo. Given the soloist's background it's wonderful to hear what has become a concert-hall warhorse delivered with so jazzy a lightness of touch from all concerned. And the crispness of the Aries G1.1's sound really brings out the slightly distant orchestra, almost putting the listener on the piano stool as Camilo romps through Gershwin's tight rhythms and exuberant flourishes.

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POWER PLAY

This lightness of touch is a hallmark of the Aries G1.1's sound, or rather lack of sound, as it gets out of the way of the music, concentrating on serving it up conveniently and letting the rest of your system do its stuff. It does so as convincingly with the simple, airy sound of Third Reel's *Many More Days* jazz set [ECM 2431] as it does with the mighty Christopher Jacobson/Orchestre de la Suisse Romande recording of the Saint-Saëns *Organ Symphony* [Pentatone PTC5186638].

Here the sheer power of the solo instrument is unleashed without restraint in the final movement. In other words, whatever you play, the Aries G1.1 delivers, and when you add in its storage flexibilities, it's quite an all-rounder. (b)

HI-FI NEWS VERDICT

The beauty of the Aries G1.1 is two-fold: first, its clear, logical control interface makes setup and accessing even extensive music libraries simple, and second, it imposes nothing of itself on what it's playing, rather getting out of the way and letting your DAC do its stuff. Add in the solidity of its design and build, plus the flexibility of its capabilities, and it's a compelling buy for network music playback.

Sound Quality: 86%

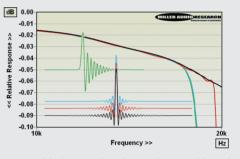
LAB REPORT

AURALIC ARIES G1.1

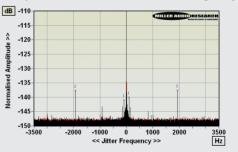
As discussed in previous lab reports, advanced digital server solutions like Auralic's Aries G1.1 and the partnering G2.1 [*HFN* Feb '21] typically include a layer of proprietary data conditioning. Grimm Audio's MU1 [*HFN* Dec '20], the Innuos Statement [*HFN* Jan '20] and Melco N10 [*HFN* Jun '19] also include bespoke software. In Auralic's case, the 'conditioning' includes upsampling/downsampling to 2x or 4x the base 44.1KHz/48kHz sample rates in tandem with a choice of four digital filters.

Tested with a Mytek Brooklyn DAC [HFN Aug '17], the 'Precise' option is seen as a very long-tap, linear phase FIR filter that offers the flattest responses (-0.07dB/20kHz with this DAC) and the most complete stopband rejection (up to 130dB) at the expense of extended pre/post 'echoes' in the time domain [see black traces, Graph 1 below]. 'Dynamic' is a related linear phase filter, with fewer taps, offering a similar 130dB stopband rejection and extended response, with minor ±0.002dB ripples, and reduced pre/post echoes [red traces, Graph 1]. The 'Balance' filter option trades 70dB of stopband rejection for a slightly earlier in-band roll-off (-0.1dB/18kHz to -2.3dB/20kHz) and much reduced ringing and group delay in the time domain [blue traces, Graph 1]. The only minimum phase filter, 'Smooth', has no pre-event (acausal) echoes [see Welcome, p21] albeit traded for more significant post-event ripples combined with an almost identical HF roll-off/stopband rejection to the 'Balance' option [green traces, Graph 2].

Jitter, tested with three AES/USB DACs [see table, below], is unaffected by choice of digital filter or resampling rate and seems wholly defined by the intrinsic jitter of the (top-flight) DACs themselves. Although the Aries G1.1 lacks the galvanicallyisolated USB output of the G2.1 there is no observable deterioration in distortion, S/N or jitter [see Graph 2, below]. PM



ABOVE: Treble (zoomed, 10kHz-20kHz) and impulse responses for the Brooklyn DAC via Aries G1.1 (Precise, black; Dynamic, red; Balance, blue; Smooth, green)



ABOVE: 48kHz/24-bit jitter spectra from the Mytek Brooklyn DAC fed from Auralic Aries G1.1 streamer (via USB, red; balanced AES connection, black)

HI-FI NEWS SPECIFICATIONS

| Digital inputs | Wired/wireless Ethernet; USB-A |
|---------------------------------------|--------------------------------|
| Digital outputs | USB 2.0; Toslink; Coax; AES |
| Digital jitter (dCS Vivaldi One APEX) | 7psec (AES) / 8psec (USB) |
| Digital jitter (SPL Diamond) | 100psec (AES) / 120psec (USB) |
| Digital jitter (Mytek Brooklyn) | 6psec (AES) / 7psec (USB) |
| Power consumption | 12W |
| Dimensions (WHD) / Weight | 340x80x320mm / 7.3kg |

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