

# AURALiC ALTAIR G2.1

## streaming DAC preamplifier

Jason Kennedy

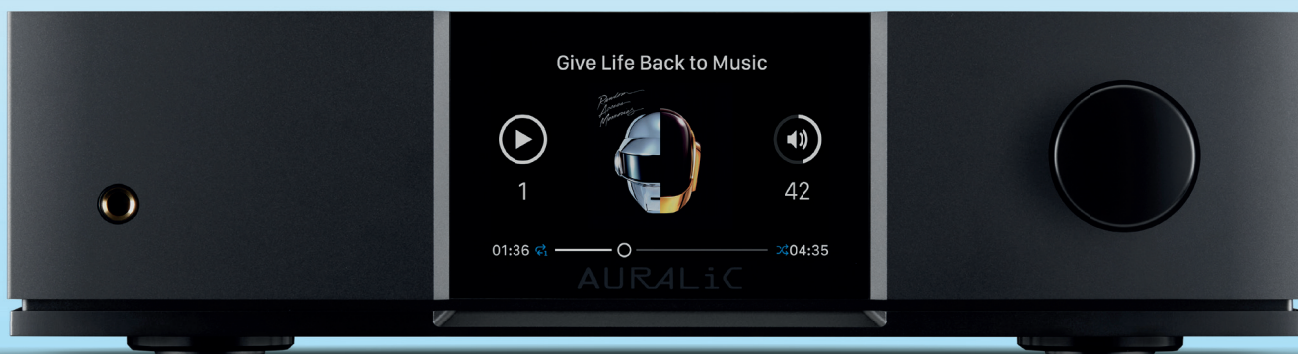
**A**t the 2022 Axpona show in Chicago (see pp11–18) AURALiC demonstrated its streaming electronics via ATC loudspeakers in two rooms, which is a fine pairing but not one you see over here too often. But you can see why a company that doesn't make amplifiers might like an active loudspeaker specialist; it reduces the box count. Also, ATCs are excellent speakers with a similar approach to voicing, which is essentially highly neutral with minimal tweaking for added sweetness. That said, the AURALiC units allow the end-user to equalise the sound to suit the system and the room, so they aren't exactly 'hairshirt'. Given the potential for tweaking embedded in virtually all digital audio chips these days there aren't many streamers that could be called hairshirt, it's just not something the modern audiophile aspires to, he or she want everything all the time and in the ALTAIR, AURALiC makes a good fist of giving it to them.

The ALTAIR G2.1 is AURALiC's top all-in-one design. It combines a streamer, DAC and preamplifier in one solidly

built unit that has the same Unity Chassis II found elsewhere in the G2.1 series. There's also an ALTAIR G1 in the range and the main difference is in the chassis which looks similar but is a far more simple affair. G2.1 is constructed as a box within a box, the inner one being made of copper because this material shields the electronics from electro magnetic interference (EMI) far more effectively than aluminium. This is something you find in Japanese valve electronics where it's often on show but it's rare to see so much copper casework used in digital equipment, despite the critical role that good shielding plays. The aim with good quality digital is keeping electrical noise to a minimum regardless of how that noise is getting into the circuitry and given that EMI is a well-known source it's perhaps surprising that more manufacturers don't go for this approach.

### Spring in the step

The casework that you do see is in machined aluminium with a very high quality of fit and finish that sits on feet that are designed to keep vibration in the supporting surface at arm's (foot's?) length. These feet conceal no fewer than six >>



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» springs within them, three of one size and three of another; the idea being that the combination serves to keep out a broader range of vibration frequencies.

The ALTAIR G2.1 is a fully featured device that goes so far as to include a phono stage among the roster of inputs on the busy rear panel, it only has enough gain for moving magnet (MM) rather than the audiophile's usual MC choice but you could use a step-up transformer to pair it with an MC. There's a single line input on RCA sockets and the full gamut of digital inputs including an XLR for AES/EBU connections, and a USB input which is not something usually found on a streamer. Theoretically a streamer doesn't need USB because this input would typically be used with a streaming device but there are always streaming services that are not available from dedicated audio devices. The obvious one is YouTube but those interested in new music might want to play Bandcamp or similar from their PC. Apart from the quality of digital to analogue conversion on offer the ALTAIR can be used to upsample the low bit rates available from such services and extract as much as possible from the stream.

It offers balanced or single-ended analogue outputs which can be fixed or volume controlled, and a headphone jack on the front panel, there are no digital outputs. AURALiC make the ARIES streamer for those looking to use a separate DAC.

There are of course the most popular lossless streaming services available in the box with Qobuz, Tidal and High Res Audio among them alongside bigger brands like Amazon Music and Spotify Connect. The only omission

would appear to be Tidal Connect but that's because this feature is hidden within the 'Additional Operations' area of the app. That app being AURALiC's Lightning DS which is still limited to iOS but remains one of the best looking in the business, and the access to streaming services being as good as any. I used it primarily with a Melco music library on the network and Qobuz but it's possible to access data stored on a USB drive where the Lightning server software comes in handy for sorting and playing the music of your choice. With larger libraries it takes a while for the Lightning server to scan all the data but once that is done it's just a case of setting an auto scan for new material or doing so manually once a week or so.

### Not hard to drive

The ALTAIR has the option to add a hard drive, HDD or SSD, so that your music can be stored onboard which saves the cost and extra box of an external drive. It also means high quality storage, the like of which would set you back a lot more than the asking price of a NAS drive, and there's no need for a fancy ethernet cable.

There's no mention of the actual DAC chip onboard but whatever it is it's very capable if the specs are any indication. The ALTAIR can deal with PCM at up to 32-bit, 384kHz and DSD up to DSD512 or 22.57892MHz in old money. It works with all the useful file formats and some of the less appealing ones too, needs must and all that. AURALiC make much of the passive volume control that's based on an R2R resistor ladder network, the latter being powered only when volume is being changed so





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» that it doesn't emit any electrical noise into the system. You can change volume with the front panel knob or by remote control, the catch is that AURALiC don't supply the handset. Instead you can program the ALTAIR to accept a wide range of commands using the smart IR learning system that's accessed via the display. This required excellent eyesight to read but does allow all manner of features to be accessed from your choice of handset.

### Smooth operator

A lot more features are available within the Lightning DS control app, these include the parametric equaliser, resampling configuration which allows specific source sample rates to be raised to a desired level, filter settings where four options are available (I went with 'smooth', obviously), speaker placement options to compensate for practical rather than sound quality set ups, and a home theatre bypass option for the line input. The various Wi-Fi inputs can be switched on and off and Roon and Tidal Connect modes likewise enabled.

It wasn't until I had been using the ALTAIR G2.1 for some time that AURALiC mentioned that the balanced output has a lot more going for it than the single ended so a lot of my notes refer to that connection, and to be honest it made a pretty good fist of things not least in the bass which seems

generally to be a strong point of this component. Because distortion in the bass is less obvious than higher up the range you can tolerate lower quality in this department so long as it has depth and weight. But when a streamer has really clean and extended bass you know all about it and this AURALiC certainly does, the low end on numerous albums came through with clarity and power, extending the sense of depth in the image (which as we know is directly related to bass) and rendering the low notes on all manner of instruments with ease and precision.

This is related to the quietness of background that AURALiC's efforts to keep out EMI have achieved, the perceived noise floor is very low indeed and this makes room for the quieter notes and allows them to decay in a very natural fashion. Dan Berkson's *Dialogues* works a treat on the ALTAIR, sounding very solid and three dimensional in the room with a 'live in the studio' energy. This band proves that individual players do not need to be well acquainted so long as they have good direction and know their chops, and the musicians that Berkson gathered for this set clearly do. It's tight and the acoustic instruments have full rich tone, even the non acoustic Rhodes keyboard makes the grade here too. I was impressed at the way the ALTAIR manages to deliver a tonal balance that reflects this recording so well without recourse to valves in its output. It's not soft or sweet but neither does it emphasise leading edges for the sake of immediacy.

The majority of my listening was done with the ALTAIR connected to a preamp with its output fixed. I did try going direct to the power amplifier on a couple of occasions but there was a loss of dynamics that discouraged this. It could be that my Moor Amps Angel 6 power amplifier is a bad fit in electrical terms and passive preamps tend to be more fussy in this regard. I used two different preamps and both single-ended and balanced outputs on the ALTAIR and preferred the external preamp every time.

One thing I noticed about this streamer was how well it worked when I wasn't paying attention; some sources can be distracting (in a bad way) when they're in the background and others just plain dull but this one worked really well. I suspect that this is also related to the low noise and wide dynamic range, which allows it to sound almost as good when it's quiet as it does at more engaging levels. I tried the latter with Patti Smith's *Gone Again* where the song 'Beneath the Southern Cross' is powerful and evocative thanks to the depth of feeling in the voice, but it's the





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following 'About a Boy' that really grabs you. This bristles with restrained ferocity, the band does at least, the guitar and drums sound as if they are barely contained thanks to the dynamics on offer from the AURALiC. Smith's voice is a counterpoint, it's the darkness in the eye of the sonic storms that makes the piece that much more poignant. All of which is clear thanks to the streamer's ability to delve right down into the mix and send it to the amp and speakers in so much fine detail. That one was with the balanced outputs and did sound better for it even with a preamp that is not truly balanced itself.

Just out of interest I put on a few DSD tracks. This is not generally my format of choice but it seems that some DACs deal with it rather better than others. Bill Evans' *Explorations* swings beautifully and avoids the papery airiness that often seems to accompany DS and instead it sounded natural and relaxed which are the more appealing characteristics of the one-bit system. Another contrast was made between the USB and streaming inputs, both supplied by a Melco N10 music library/server. Here the streaming option had

quieter backgrounds, fuller bass and less time smear.

Which is quite an achievement given that the ethernet cable has to be about a tenth of the price of the USB that was making the connection. USB had the advantage in timing, image scale and smoothness of delivery, however, so it's safe to say that the ALTAIR is a very capable DAC.

The most comprehensively equipped member of AURALiC's G2.1 family does an awful lot of what matters in high-resolution streaming with consummate ease. It doesn't offer the upgradeability of AURALiC's separates but those looking to hear what a serious streamer is capable of will find an awful lot to like in this superbly executed piece of kit. Build quality is first class and ease of use via the Lightning app is top notch. Combine the ALTAIR G2.1 with a good pre and power amp, or perhaps a pair of those active ATC loudspeakers AURALiC used at Axpona, and you'll have a system that's going places. +

### Technical specifications

**Type** Solid-state network streamer, DAC, preamplifier

**Analogue Inputs** One line (via RCA jacks), one MM phono (via RCA jacks)

**Digital Inputs** Two coaxial S/PDIF (via RCA jacks), one TOSLink, one AES/EBU, one USB B, one USB A

**DAC Resolution/Supported Digital Formats** FLAC/WAV/MP3, etc. Sampling rate for D/A conversion 384kHz/32 bit, DSD512

**Music services/Wi-Fi inputs** Amazon Music Unlimited, HighResAudio, KKBOX, Qobuz Sublime+, TIDAL Connect, AirPlay, Spotify Connect, Internet Radio, RoonReady

**Analogue Outputs** One stereo balanced (via XLR connectors), one stereo unbalanced (via RCA jacks)

**Digital Outputs** none

**Frequency Response** 20–20KHz, +/- 0.1dB

**Distortion (THD + Noise)** <0.00012% (XLR); <0.00015% (RCA), 20Hz–20KHz at 0dBFS

**User Interface** display (on main unit), Lightning DS application software for iOS

**Dimensions (HxWxD)** 80 × 340 × 320mm

**Weight** 10kg

**Price** £5,299

**Manufacturer** AURALiC auralic.com

**UK Distributor** AURALiC Europe

auralic.com (+44) 7590 106105

