

AUDIO
FILE

Network-attached player/DAC
 Made by: Pixel Magic Systems Ltd, Hong Kong
 Supplied by: Sound Design Distribution Ltd, Cardiff
 Telephone: 0800 009 6213
 Web: www.luminmusic.com; www.sounddesigndistribution.co.uk
 Price: £12,995



Lumin X2

Digital audio specialist Lumin's range starts with the £1995 U2 Mini streamer and extends all the way to the X2 seen here, priced £12,995. A complete network playback solution, the X2 sports the solid alloy casework and operating system/app control that's a Lumin hallmark, but introduces upgrades to both the processing core and the company's own discrete DAC.

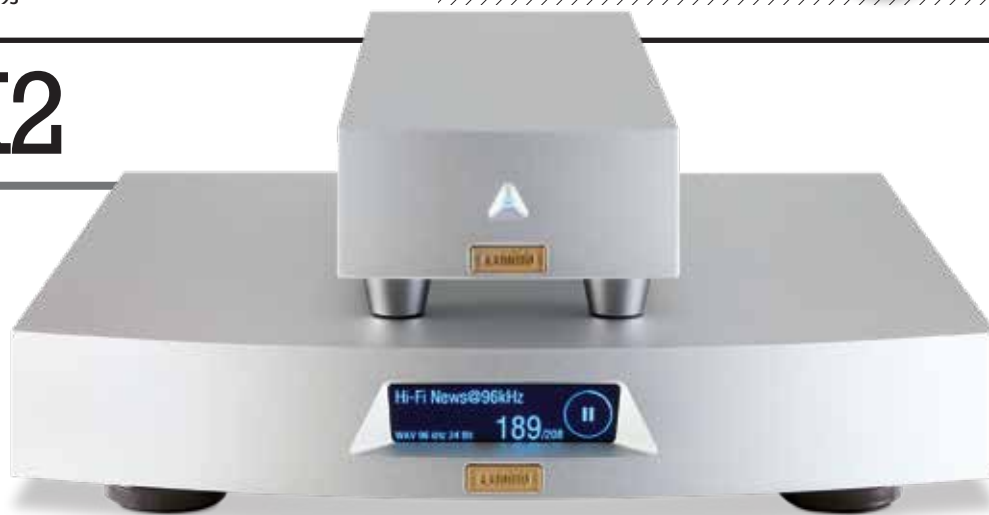
The X2 is powered from an off-board PSU with dual toroidal transformers to deliver separate feeds to the analogue and digital sections of the main player. The latter sits on feet from IsoAcoustics, and has analogue outputs on both unbalanced RCAs and balanced XLRs to deliver either a fixed level for use into a preamp/integrated amplifier, or variable using the familiar Leedh digital volume solution. Networking is via either conventional or fibre Ethernet connections, while the X2's USB-A port, to which storage

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devices can be connected, also doubles as a digital audio output, alongside an S/PDIF (BNC) out.

Lumin's bespoke DAC is implemented on high-speed FPGAs and handles file formats to 768kHz LPCM and DSD512, making the X2 pretty well future-proofed for anything the user may choose to play. Data flow is governed by dual 'Femto clock oscillators', while the output from the DAC flows through a bespoke, dual-mono analogue buffer stage with a Lundahl transformer-coupled output.

Upsampling to DSD256 or 384kHz, for all files, is accessed via Lumin's control app. Compatibility here includes UPnP, Amazon Music, the Connect versions of Qobuz, Spotify and Tidal, TuneIn Radio and AirPlay. The player is also Roon Ready and Audirvana-friendly.



Considering its bespoke digital technology and artisan thinking, it's a surprise to find the X2 offers the MQA-developed Qrono d2a filter. By all means give it a try, but note it cannot be used in conjunction with Lumin's upsampling facility.



NOTHING TO SEE HERE

The X2 is a classic 'get out of the way of the content' device, so with high-quality recordings it can sound absolutely stunning, while taking no prisoners with poor engineering and/or mastering. For example, with Leif Ove Andsnes's glorious recording of works by composer Geirr Tveitt [Simax], the scale of the piano and its presence in a well-judged acoustic were wonderfully realised. The sound had

warmth but also a level of definition that was almost nonchalant.

Even with the occasional roughness of the monumental *Wings Over America* live set from 1976 [MPL/Capitol], the ability of this Lumin player to present the music with total conviction proved hard to resist. And that was as true with the belting rock numbers as it was with the cutesy but crowd-pleasing retro-Beatles sequence.

Fed with something seemingly simpler but perhaps more challenging – the vocal intricacies of the Tallis Scholars ensemble [*No Resting Place*; Linn Records] – the sense of the X2 relishing the sheer quality of the recording was almost palpable. Similarly, Japanese/American singer Hikaru Utada's *Live Sessions From AIR Studios* [Sony Music Labels, Inc.] sounded

ABOVE: Available in black or natural finishes, and with the PSU atop, the X2 mirrors the older X1's understated simplicity. Display brightness is adjusted, like all features, via Lumin's app. Inside, separate supplies from the outboard PSU feed the X2's digital/streaming mainboard and the analogue PCB with its Cyclone IV FPGA-based DAC, balanced line stage and transformer-coupled output

totally radiant. The stripped-back 'Beautiful World', at first ethereal and luminous then slipping into a relaxed groove with a tight bassline, was splendidly handled.

Transparency aside, this isn't one of those hi-fi products that's fully dependent on state-of-the-art recordings. It worked its magic with everything from streams of BBC Radio 3's Music Map series to the lush, warm glow of Sinatra's 1961 *Ring-A-Ding-Ding!* album [UMG]. As for the MQA Qrono d2a filter option, its impact was not consistent across all recordings – more a case of 'different' rather than the revelatory experience some commenters seem to find it. Arguably, the basics of the X2 are so good that this kind of 'fiddle factor' is superfluous. Frankly, the best approach here is to hook up the player, sit back and enjoy.

VERDICT

This flagship Lumin model is so transparent and musical-sounding that, in a suitably revealing system, its brilliance more than justifies the decidedly upmarket price tag. ☺

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	5.9Vrms / 18ohm (XLR out)
A-wtd S/N ratio (Qrono Off/On)	94.0dB / 92.8dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0006% / 0.004%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.004% / 0.22%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.1dB/-0.8dB/-6.0dB
Digital jitter (48kHz / 96kHz / 192kHz)	<10psec / <10psec / 17psec
Resolution (1kHz @ -100dBFS/-110dBFS)	±0.4dB / ±0.6dB
Power consumption	14W (12W standby)
Dimensions (WHD) / Weight	350x77x345mm / 8kg