

Quadral Aurum Titan VIII (£12,800)

Quadral's flagship reaches its eighth iteration. It looks less extreme than the VII, but does it sound even better?

Review & Lab: **Keith Howard**

If this were a Channel Five viewer competition I would now be asking you: What was the Aurum Titan VIII's predecessor called? Was it (a) Edward VII, (b) Apollo 7, or (c) Titan VII? Text your answer to *Pmiller* to win a day helping unpack large speakers at *HFN* Towers.

If ever you encountered the Titan VII – there, I've given the answer away – it's not a speaker you are likely to have forgotten [*HFN* Dec '08]. Quite apart from its fine sound quality (transparent, with weighty bass) it was an idiosyncratic visual feast that, with its cylindrical bass section and tapering top, looked rather like a cubist washing machine.

ACHIEVING A SLIMLINE LOOK

Its successor could hardly be called low impact – no speaker that stands almost 1.4m tall and weighs 88kg could be called that – but it is less aesthetically daring. (Finishes include black, white, three real wood veneers or a range of colour lacquers.) For whatever reason, styling or acoustic, Quadral – whose Aurum range is its statement brand – decided to adopt a slimmer, straight-sided cabinet this time, facilitated by swapping the 380mm bass driver of the VII for twin 260mm bass drivers which provide almost the same cone area.

As before, these are recessed somewhat behind the front baffle, as part of what Quadral calls its 'pressure chamber bass reflex loading'. The remaining two drivers comprise a 170mm midrange unit and 110mm long (or thereabouts) ribbon tweeter, but these aren't the same units as before.

Most significantly, the tweeter is now a real ribbon type with a corrugated aluminium foil diaphragm, not a leaf tweeter with etched planar voice-coil like its predecessor – a change which has further reduced moving mass. A transformer will also have become necessary to provide matching for its low resistance. The major change to the midrange unit, if I interpret Quadral's website correctly, is that the aluminium cone of the VII has been replaced with an aluminium-magnesium-

titanium alloy called Aurum Ultima, also used for the twin bass drivers.

Crossover frequencies are 250Hz and 2.7kHz respectively. Quadral says nothing of the slopes but a porthole at the rear, which allows you to admire the crossover network, reveals a total of 33 components: four bipolar electrolytics, ten film capacitors, seven inductors and 12 resistors. Some of these, possibly, are devoted to controlling the input impedance [see Lab Report, p29].

While the VII *also* afforded a view of its crossover for the proud owner to ogle, it didn't have the VIII's three double-throw toggle switches beneath, which allow each section – bass, midrange and treble – to be boosted or cut by nominally 2dB. Bass cut will be useful to those who find that the Titan VIII's extended bass somewhat overwhelms their listening room, while the treble cut will help those whose lifestyle precludes ample soft furnishings. The crossover is split across two pairs of input terminals, linked for single-wire use by short spade-terminated jumper leads, the upper ones feeding the midrange and treble networks and the lower ones feeding the bass section.

Like the VII before it, the Titan VIII has a downwards-firing port that exhausts principally through a rear-directed cut-out in the integral plinth. Unlike the VII's plinth, the VIII's does provide for floor spikes but these weren't provided with the review samples. So I used the VIIIs on the same spiked platforms I'd used with the VIIs, which have the advantage of making small positional adjustments, particularly of toe-in, easy to apply.

With such a tall speaker the first question to be addressed when beginning

RIGHT: The new taller, slimmer Titan is still a three-way, but twin bass drivers replace the larger single bass unit of the Titan VII. The tweeter, meanwhile, is now a genuine ribbon



RIBBON DEVELOPMENT

Many so-called 'ribbon' tweeters are not true ribbons but designs variously described as leaf, isodynamic or magnetostatic. The Titan VII had the latter, the VIII has a true ribbon. So what's the difference? In a ribbon driver the flat or corrugated diaphragm is electrically conductive (typically aluminium foil) and lies between bar magnets placed at either long edge. Signal current through the ribbon causes it to move back and forth. Ribbons are often claimed to be subjectively superior to leaf alternatives but they have downsides: they are expensive, fragile and often generate higher distortion than leaf or dome alternatives, plus a transformer is necessary to match the ribbon to a conventional amplifier. Leaf tweeters have a thin, flat copper 'voice coil' etched onto a plastic diaphragm, typically Mylar. Rows of bar magnets of alternating polarity close to one or both diaphragm faces attempt to create a linear magnetic field. Leaf tweeters are sneered at by ribbon aficionados but they are usually cheaper, often measure better, and don't require a transformer.



the set-up is: what's the intended listening axis? This is where *HFN*'s measurement regime scores, since it allows an objective assessment of what the best listening height should be. As explained in the lab report, for the flattest frequency response I settled on a microphone height of 110cm at 1m measuring distance, somewhere between the midrange and tweeter axes. Listening confirmed this, necessitating some booster cushions on my sofa.

Second of the key adjustments is toe-in. I tend to prefer speakers to be under-rotated such that their axes cross behind the listening position, which usually results in more expansive soundstaging and weightier dynamics. So it was with the Titan VIIIs, which I preferred aligned such that I could clearly see their inner side panels from the listening position.

AN ENVIABLE WEIGHT

Satisfied that the Titan VIIIs were now delivering of their best in my room, I set about listening to a wide range of music. Signal source was a Chord Chordette QuteHD DAC [*HFN* Sept '12] fed from a TC Electronic Digital Konnekt x32 digital audio interface, with Naim amplification comprising a NAC252 preamp, NAP250 power amp and SuperCap power supply.

Based on my earlier experience of the Titan VII, I expected the VIII to be the same only more

so, with solid, extended bass and a hint of brightness to its makeup that I'd happily accept for the transparency that accompanies it. In some respects – certainly in the bass – the VIII lived up to expectations; but, allowing for the fact that it was almost four years ago that I reviewed the VII, in other ways the VIII strikes me as different. It is perhaps more neutral tonally but I'm not quite convinced it is quite as *musically* engaging as I found the VII to be.

A piece which illustrated this as well as any other was the Scottish Chamber Orchestra's spirited rendition of Mozart's March, K189, on Linn Records [CKD 287]. Made in the big, lively acoustic of Greyfriars Kirk, Edinburgh, this recording presents the

'Cello and voice were reproduced with absolutely no sense of bloating'

challenge not just of conveying the scale of the venue, with its longish reverberation time, but also of giving full rein to the committed orchestral playing, without the violin sound in

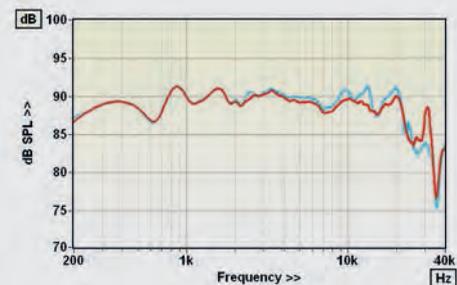
particular straying into harshness. The Titan VIII did a good job of keeping the sound clean but there wasn't quite the enthralling energy I expect of the SCO's playing, or the width, depth and layering of the stereo image that I know is there in the digits.

The Titan VIII's weighty, extended bass had greater opportunity to make a favourable impression replaying a recording I've mentioned glowingly many times recently: the 24/96 version of the *Maestoso* from Beethoven's Piano Sonata No 32, played by Tor Espen Aspaas and available as a free download, in various hires formats, from www.2l.no. As expected, the Titan VIII delivered enviable weight on the big chords, creating a more convincing sense of the percussive power of a 

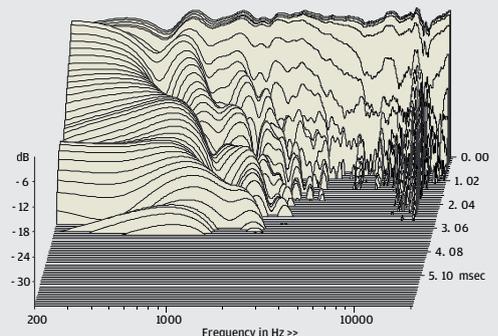
QUADRAL AURUM TITAN VIII (£12,800)

Quadral claims 90dB sensitivity for the Titan VIII which accords closely with our pink noise figure of 89.5dB. I expected that this would be achievable without the impedance being particularly low, but in fact the Titan VIII is one of the most testing loads we've measured recently. The modulus dips to a minimum of 1.8ohm at 34Hz, and never rises above 6.2ohm. Although the impedance versus frequency curve suggests that impedance correction components may be used in the crossover – either that or the bass loading technique suppresses the prominent twin peaks you expect of a reflex design – impedance phase reaches a high -56° at 20Hz, reducing the minimum EPDR (equivalent peak dissipation resistance) to a scary 0.8ohm at 27Hz. The dip to 1.8ohm at 108Hz is much less challenging.

On-axis frequency response [Graph 1, below] was measured at a high 110cm above the speaker's base in order to obtain the flattest result. Response errors are low at ± 2.3 dB and ± 2.4 dB respectively, 200Hz-20kHz, but increase if the listening height is changed by much. Pair matching error over the same frequency range was ± 1.5 dB, principally due to tweeter disparities. Near-field bass measurement was complicated by the recessed bass drivers and downward-firing port, so the diffraction-corrected bass extension of 30Hz (-6 dB re. 200Hz) is tentative but confirms the Titan VIII's prodigious LF output. Ultrasonic extension is less impressive but improves on the tweeter axis. The cumulative spectral decay waterfall [Graph 2] is marred by resonant ridges in the upper range of the new ribbon tweeter which, ironically, is not as 'clean' as the previous leaf unit fitted to the Titan VII [HFN Dec '08]. KH



ABOVE: This Quadral speaker offers great bass extension but flattest response is on a high 1.1 m axis



ABOVE: The cumulative spectral decay is clean except for the ribbon tweeter which shows some breakup

LEFT: Crossover is on view as before but three new switches beneath provide ± 2 dB adjustment across frequency bands

amplifier, didn't quite distil this atmosphere of expectancy.

I chose to leave the LF setting as it was for The Beatles' 'Come Together' from the CD of the remixed *Love* album [Parlophone 0946 3 80789 2 0]. Here the Titan VIII again showed itself capable of delivering the deep, powerful but tuneful bass that provides a vital underpinning to all types of music (albeit some more obviously than others). In fact, across the spectrum the Titan VIII gave a creditable impression of control and lack of undue emphasis. Yet, again, there was a spark missing somewhere.

A RESOUNDING YES!

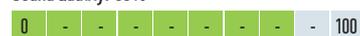
One of the most difficult tricks for any large loudspeaker to perform is to sound *small* when appropriate. Can it, for instance, reproduce a cello without making the instrument sound as if it's three metres wide? Can it reproduce realistically scaled solo tenor voice recorded in a natural acoustic using a minimalist mic technique?

The answer for the Titan VIII is a resounding 'yes', as I confirmed by playing Natalie Clein's performance of Kodaly's episodic *Epigrams* [Hyperion 16/44.1 download] and Tony Faulkner's old Enigma recording of James Griffett's moving rendition of the old English folk song 'The Turtle Dove', now on Regis RRC1112. Both were reproduced true to scale, with absolutely no sense of image bloat. ☺

HI-FI NEWS VERDICT

If I've been hard on the Titan VIII in this review, it's because my expectations of it were so high. Physically, it's a lot of loudspeaker for the money and it is immaculately finished. It also delivers impressive bass and, with its high sensitivity, can easily be coaxed into playing loud. For some, it will tick lots of boxes. All it lacks is that rare ability to cast a spell and draw you helplessly into the musical experience.

Sound Quality: 80%



concert grand than most speakers are able to; but in the dynamic contrasts and the subtleties of the scintillating string overtones a little something was missing.

Another chance for the Titan VIII to show off its bass heft, albeit in a very different context, came with Jeff Beck's live 'Brush With The Blues' from *Who Else!* [Epic 493041 2]. The bass guitar and bass drum are just part of the sideshow in this dazzling but subtle display of Beck's brilliance. Nonetheless this was one occasion when I engaged the -2 dB LF setting on the VIII's back panel.

With this track and via the most insightful of loudspeakers, I'm struck by the sense of tension in the audience: just what sound will JB conjure from the guitar next? But the VIII, for all its ability to play this track exceptionally loudly with only modest provocation from the

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms - Mean/IEC/Music)	89.5dB/89.5dB/89.7dB
Impedance modulus min/max (20Hz-20kHz)	1.8ohm @ 34Hz 6.2ohm @ 2.7kHz
Impedance phase min/max (20Hz-20kHz)	-56° @ 20Hz 27° @ 134Hz
Pair matching (200Hz-20kHz)	± 1.5 dB
LF/HF extension (-6 dB ref 200Hz/10kHz)	30Hz / 33.6kHz/24.4kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.2% / 0.1% / 0.7%
Dimensions (HWD)	1390x310x579mm