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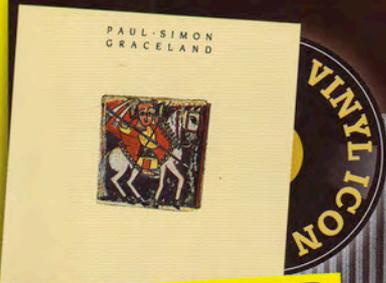
156p ISSUE

LISTEN UP!

Exclusive – Wilson’s Alexandria XLF



‘Strange, wild and unpredictable’
Classic Rock Venues –
Sheffield Leadmill, p92



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Wilson Audio Alexandria XLF (£200k)

Inspired by the Alexandria, Wilson's latest flagship is its grandest yet. Is the XLF audio's defining statement?
 Review: **Keith Howard, Ken Kessler & Paul Miller**

It seems like only yesterday but it is actually getting on for a decade since Wilson Audio launched its new flagship model, the Alexandria, in 2003. Four years later came the Series 2, on which basis Wilson Audio watchers will have been expecting a further enhancement to appear around now. But the Alexandria XLF is not a replacement for the S2. It is, in fact, an adjunct to it: physically larger and 'measurably more ambitious', thereby supplanting the S2 as the best speaker Wilson Audio now makes, even though the S2 remains available.

It's not as if its older sibling lacked in visual presence – not only because of its size but as much for its angular, sci-fi-film appearance – but the XLF is even bigger, even more inclined to dominate anything but the largest of domestic rooms. With a 14% hike in the internal volume available to its twin bass drivers, the XLF stands almost 1.8m tall and comes within a tantalising 2.9kg of weighing 0.3 tonnes each. 'Wilson Audio has always rejected the notion of perceived value', says the website, but nobody with pockets deep enough to afford the XLF will ever complain it is physically underwhelming.

In its essentials, the XLF is obviously of the same bloodline as the S2. It sports twin bass drivers of different diameter – an arrangement which, Wilson says, is difficult to tune, but when done correctly results in faster transients both objectively and subjectively – above which the familiar faceted D'Appolito midrange-tweeter-midrange array covers the bulk of the audible frequency range and is minutely adjustable to provide accurate time alignment at the distance and seated ear height chosen by its owner. Within

this familiar framework, though, some important things have changed.

DOWN THE SILK ROAD

Of these the most surprising – even in a world where many speaker manufacturers no longer subscribe to the idea that metal dome tweeters are a *sine qua non* – is the substitution of a silk dome tweeter for the inverted titanium dome that has become something of a Wilson Audio trademark. Exactly what decided Dave Wilson on a root and branch review of the tweeter design is unclear but he and his team looked at all the hi-tech dome materials now in use – including diamond, beryllium and alumina – before rejecting them in favour of an apparently prosaic alternative.

One key issue here was the fact that Wilson's 7in midrange driver, originally seen in the Series 2, can't reach up to the 2.5-3kHz crossover

frequency typically employed, presumably because of cone breakup, and perhaps directivity, issues. Traditionally Wilson Audio doesn't quote crossover points or slopes but it's clear from its description of the new tweeter that it has to be able to operate down to around 1.2kHz, an octave or so lower. This in turn means that the Wilson tweeter has to have a low fundamental resonance frequency, something which militates against the use of low-mass dome materials, whose effect is to increase it.

A second issue was Dave Wilson's long-standing concern with what he

RIGHT: Wilson's XLF has twin bass drivers (13in and 15in), twin 7in midranges and twin 1in tweeters, one rear-firing, just like the Alexandria S2 – but a new silk dome tweeter replaces the familiar inverted titanium dome

'It takes a week of eight-hour shifts to CNC machine all the pieces'



GENESIS OF THE XLF

Last year, I was afforded the privilege of visiting the Wilson factory in Provo, Utah, when I became the first 'outsider' to hear the 'nearly finished' XLF side-by-side with the Alexandria. It was a test not only of one's listening ability but of one's capacity for dealing with differences that were neither better nor worse... just dissimilar. A direct descendant of the WAMM and its time alignment capabilities, the XLF was designed to extract even more from the Alexandria concept, while adding greater room matching flexibility thanks to a choice of rear or front ports. While hearing the side-by-side demo, I was impressed as much by the still-stunning performance of the Alexandria as I was by the seemingly subtle gains in the XLF. The session with the final XLF? Revelatory. *KK*

refers to as the tweeter's 'noise floor' – which, as I'd always supposed but have now had confirmed, is actually a reference to the speed of energy decay. Key to achieving a fast decay is careful absorption of the rear radiation from the dome so, like its predecessor, the new tweeter incorporates a damped rear chamber, which also reduces the stiffness of the enclosed air and so helps with keeping down the tweeter's fundamental resonance frequency. Wilson's literature doesn't say so explicitly but it's reasonable to suppose that the weightier silk diaphragm also helps suppress the effect of what little rear-radiated energy remains.

INTENSIVE LABOUR

Dave Wilson makes frequent reference to 'dynamic contrast' and 'harmonic expression' when describing the qualities he strives for in his loudspeakers, and in both respects the new Convergent Synergy tweeter is said to be an improvement over its predecessor. In addition, and perhaps not unrelated, it is claimed to have a flatter on-axis response, extending out to 33kHz, and better-controlled off-axis behaviour. Like the Series 2, the XLF also has a rear-firing tweeter, rolled in at about 15kHz, which adds extra treble 'air'.

The other major changes are at the opposite end of the frequency spectrum, in the bass. As already mentioned, the internal volume of the bass enclosure has increased by 14%, despite which the XLF's specified sensitivity has reduced by 1dB, although it still remains exceptionally high for a wide-bandwidth direct-radiating speaker, at 93.5dB. Wilson's engineers have taken the opportunity

of the revised cabinet dimensions to refine its complex construction still further, using laser interferometry to assess the results. As a result the cabinet is even more inert than the S2's. You get some idea of the extensive vertical and horizontal cross-bracing used within from the CAD drawing on page 45, and from the fact that it takes a week of eight-hour shifts to CNC machine all the pieces for just one enclosure.

With over 500 pairs of Alexandria Series 2s now in the hands of owners around the world, Dave Wilson has had ample opportunity to hear the speaker working in a wide variety of rooms. It was as a result of noting that the S2 can sound a little bass-light in some environments – particularly where there is little soft furnishing acting as high frequency absorbent and the listening position is on the room centreline, where the null of the lowest width mode occurs – that he contrived the Cross Load Firing port system (which is what XLF stands for, not extra low frequency as you might have supposed).

The concept is an essentially simple one – that the matching of the speaker to the room at low frequencies can be adjusted according to whether its reflex port exhausts forwards or backwards. So the XLF accommodates both options, by means of a removable panel and plug that can be used to block off the rectangular port mouth at either the front or rear of the enclosure. It's a job of only a few minutes with a screwdriver to effect the change.

KEN KESSLER LISTENS

A day with the Wilson XLFs, driven by darTZeel NHB-458 monoblocks: heady stuff for an intense listening ☺



AIR APPARENT

Speaker directivity has been a controversial issue for almost as long as loudspeakers have been made. While some pundits have argued that only omnidirectional design can achieve ideal integration of loudspeaker and room, most speaker designers, over the gamut of prices from budget to stratospheric, persist in preferring the classical design model in which, as frequency rises, acoustic output is restricted to a narrowing cone as the wavelength in air becomes comparable to the dimensions of the driver diaphragm and cabinet. But a softening of this approach is now apparent in some high-end designs, like the Alexandria and the Sonus faber Aida, where rear-firing tweeters are used to ensure that reverberant sound in the room is less denuded of treble than it would otherwise be, adding extra 'air' to the speaker's treble. These are typically rolled-in much higher in frequency than the forward-firing tweeter, and are often level-adjustable to suit different rooms, programme material and tastes. The effect, as Wilson Audio says of the Alexandria, 'is subtle but quite audible.' KH

session. Armed with a gold CD I'd burned, I played track after killer track, the intention being to learn what Wilson's new flagship could do with familiar material.

All it took was the lowest notes of Barry White's 'Just the Way You Are', the lead guitar break of the Elvin Bishop Band's 'Fooled Around And Fell In Love' and the kick drums on Bonnie Raitt's 'Standin' By The Same Old Love' to know that the XLF had it *all*. And that 'all' is 'presence'.

Initially, it was the scale that provided the convincing: even in a room that would qualify strictly as 'mid-sized', the XLFs created the deepest, broadest soundstage I have ever experienced, beyond that of Martin-Logan Statements and even the original 'The Apogee' – and those were heard in far larger rooms. But the overriding quality, the USP that makes this speaker so truly worthy of the correct use of the word 'awesome' is the sense of power it conveys.

We tend to forget the basic rule of high-end audio and the definition of high fidelity: to reproduce music so accurately that you are fooled into thinking that you're present at the original musical event. We have all had moments (certainly back in the 1960s...) when the sound was so plausibly real that we had to do double-takes.

POSTER CHILD

Through the XLF, it happens with far greater frequency than anyone could hope to experience. The way this speaker manages and directs intangibles like air and space, beyond the reproduction of the actual notes themselves, adds mightily to the realism. And at both ends of the spectrum: the sparse opening of Bobby Darin's 'Reason To Believe', just

RIGHT: Mechanical adjustments allow the head assembly to be meticulously time-aligned. Precision resistors tune the tweeter level, midrange level and phase, and bass damping

acoustic guitar, bass and light percussion, provided an opportunity to listen 'into' the soundscape, the musicians enjoying an in-the-room 3D realism for which movie director James Cameron would kill. Conversely, the force felt from the hard-rocking band behind Tina Turner on 'Nutbush City Limits' – if ever the word *palpable* had a poster child, then this is it.

Undeniably, the XLF handles both the delicacy of Darin and the bombast of Turner with equal aplomb. The definitive 'convincer', though, was the mass of the enormous orchestra behind Dean Martin on 'Ain't That A Kick In The Head': room-filling, realistic, seamless and silky. It was a sublime minestrone of sound, seasoned to perfection, every ingredient balanced in ideal proportions.

One cannot underplay the role of the darTZeels: their limitless grunt freed the XLF of any constraints. Song after song, I heard more, felt more than I thought this old hack would ever experience again, the XLFs handling the muscle of the darTZeels as does a Veyron chassis cope with its kilo-horses. I implore you, whether in the market for speakers this heady or not: find a way to hear the XLF and know what to strive for in your quest for realistic sound.

PAUL MILLER LISTENS

Ken choose darTZeels for his session, I choose the Devialet D-Premier driven via a balanced AES/EBU digital connection with both CD and hi-res media. The combination

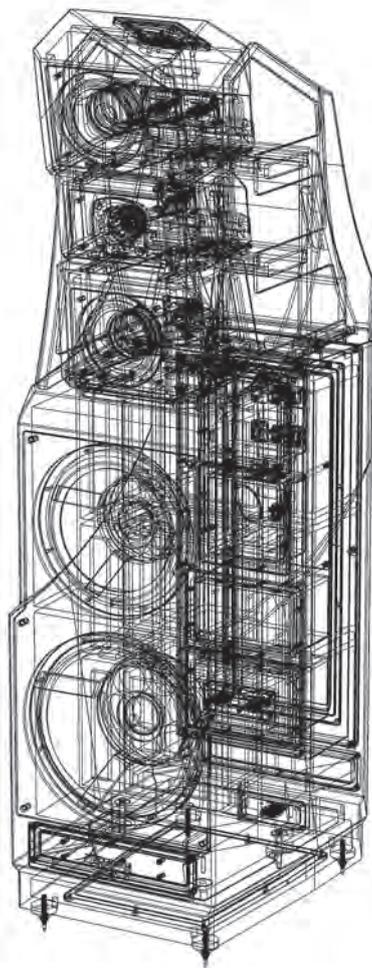


of vice-like grip and absolute transparency offered by the D-Premier was not lost on the XLFs which responded in kind, carving out a soundfield that made even the fabulous Sonus faber Aidas [HFN Apr '12] sound slightly 'small', lush and romantic.

We might like to kid ourselves otherwise, but experience suggests that only a very large speaker has the capacity to 'shape' the body of a physically large instrument – be it piano, drum kit or double-bass – in realistic proportion. But even the B&W 802s that I use every day – grand by any normal measure – are dwarfed by the XLFs. And the scale of ↻

'It was a sublime minestrone of sound, seasoned to perfection'

LOUDSPEAKER



LEFT: Construction of the enlarged bass cabinet has been refined to make it even more inert than that of the S2. CNC machining all the parts for just one cabinet takes a week

McEvoy's 'What's Her Name' from *Alone* was revealed with forensic discipline, her voice gushing with liquid ease, supremely focused and unmistakably 'real'.

BLUE TOUCH PAPER

It's a sound that will hold you transfixed, not for its aural fireworks, although the XLF is more than capable of firing musical ordnance when required, but for its clarity, its insight into both the recording and the passion of the performer. It'll sound relaxed with George Michael's 'Jesus To A Child', as delicious and rich as '80s pop was ever scored, or as punchy and dynamic as you might care to experience. Listen to Fallulah's *Black Cat Neighbourhood* by way of example and while the hand claps ricochet about at the edges of the soundstage, her voice is pinned to the centre and the bass is slammed into the room in broad, rhythmic brush strokes.

While we are talking low frequencies, the synthesised bass from the psychedelic *Skylab #1's* 'River Of Bass' [AstralWerks ASW 6161-2] roiled into the room, a palpable pressure building about us and moving body – if not soul – with the efficacy of the biggest active subwoofer, driven by the cleanest amplifier on this earth. What a sound! The XLF is so much more than a 'loud speaker' – it's a portal to a new musical experience. 🎧

the performance follows suit, for these Wilsons, huge gulf in price notwithstanding, have the capacity to make other big speakers sound like miniatures. But the XLFs have another trick up their capacious sleeves: midband and vocal-orientated recordings, lacking any real substantive bass, are focused with the precision of a super-transparent LS3/5a.

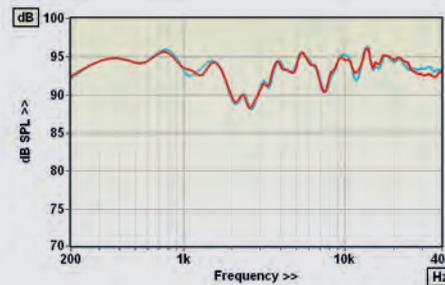
The percussive edge of strings from Pat Metheny's homage to The Beatles' 'And I Love Her' had an exquisite bite, the voice truly lifelike. A contrasting string tone was revealed by Christy Moore's 'Reel In The Flickering Light', a lighter, quicker and sharper presentation that was both more immediate and yet still intimate as the XLFs invited us to sit at the feet of the Irish lyricist. The rolling rhythm was truly infectious and by the time the percussion announced itself, no one in the listening room had motionless fingers or toes.

In similar fashion, the clarity of the double-tracking from Eleanor

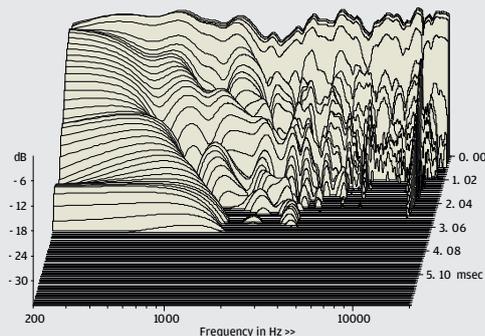
WILSON ALEXANDRIA XLF (£200k)

Wilson Audio claims a high 93.5dB sensitivity for the Alexandria XLF but that figure is amply confirmed by our pink noise result of 93.8dB (200Hz-20kHz). This is achieved in part through low impedance but the XLF is not particularly challenging to drive, as some costly speakers are. Although our measured minimum impedance of 2.7ohm is lower than the 3.2ohm minimum claimed, impedance phase angles are – typically for Wilson products we've measured – low throughout the audible range with the result that the minimum EPDR (equivalent peak dissipation resistance) is 1.7ohm at a high 16.1kHz. Probably more relevant is the dip to 1.9ohm at 862Hz, either figure indicating that the XLF is a relatively benign amplifier load.

Frequency response, measured at 1m on the tweeter axis, is principally characterised by a dip in output centred on 2.5kHz, despite which the response errors 200Hz-20kHz are a modest ± 3.9 dB and ± 4.2 dB respectively for the pair [see Graph 1, below]. Over the same frequency range, the pair matching error of ± 1.1 dB is fair but not exceptional. Diffraction-corrected near-field measurement showed the bass extension (-6 dB re. 200Hz) to be, for such a large speaker, disappointing at 50Hz but a kick-up lower in frequency suggests that 40Hz is probably a more realistic figure. Something still lower might be expected but remember the XLF's high sensitivity. Ultrasonic response of the soft dome tweeter extends to beyond 40kHz but it's unusual to see in the cumulative spectral decay waterfall a distinct albeit probably inaudible resonance at around 15kHz [Graph 2]. Otherwise the initial energy decay is quite fast but for some well-damped resonances in the lower treble. KH



ABOVE: Very extended response from a super-sensitive speaker, but note dips at 2.5kHz and 7.5kHz

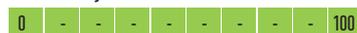


ABOVE: Cabinet resonances are well controlled. There is just a hint of treble dome breakup at 15kHz

HI-FI NEWS VERDICT

Recognising milestones is a thankless pursuit. Miss one when it appears, and you're deaf. Find too many, and you're gullible. But we can feel it in our bones: the XLF raises sound quality to new levels. It is a game-changer. For neutrality, authority, scale and realism, the XLF is the most authentic speaker we've ever heard. It's as big a leap in performance as the Quad ESL was in 1957. And that's *not* hyperbole.

Sound Quality: 94%



HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	94.0dB/93.8dB/93.3dB
Impedance modulus min/max (20Hz–20kHz)	2.7ohm @ 20kHz 7.7ohm @ 49Hz
Impedance phase min/max (20Hz–20kHz)	-26° @ 204Hz 29° @ 1.2kHz
Pair matching (200Hz–20kHz)	± 1.1 dB
LF/HF extension (-6 dB ref 200Hz/10kHz)	40Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.2% / 0.5% / 0.3%
Dimensions (HWD)	1784x504x708mm