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Musical sunshine from Wilson Audio's Sasha V

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Wilson Audio Sasha V

With technology drawn from its flagship Chronosonic XVX, and already implemented in the Alexx V and Alexia V, the Sasha V is now the most affordable of this new series

Review: **Ken Kessler & Paul Miller** Lab: **Paul Miller**

Those of an historical bent will know that Wilson Audio's Sasha V isn't merely the fourth-generation Sasha, nor is it simply 'Sasha DAW 2.0'. This two-box floorstander is to the original WATT Puppy [HFN Nov '90] what the current Porsche 911 is to the 911 of 1964: a carefully-developed, decades-long evolution of a brilliant initial concept.

Founder David A Wilson's design was certainly not the first to place woofers in one enclosure with the tweeter and/or midrange in a module perched on top. But it has refined that layout, not least by ensuring that the tiltable top module could be positioned precisely for perfect time alignment. What started out as the Wilson Audio Tiny Tot (WATT) prototype of 1985, and which was swiftly joined by decade's end by the much-needed Puppy woofer enclosure, has matured into a £53,998-per-pair high-end speaker of manageable size and luxurious finish.

COLOUR COORDINATION

The Sasha V sits in between the Yvette [HFN Feb '17] and Alexia V [HFN Jan '23] in a seven-model range of floorstanders. It is situated three from the bottom, and it is also the least expensive Wilson speaker with an adjustable mid/treble section. By contrast, its smaller siblings, the SabrinaX [HFN Dec '20] and Yvette, are housed in single-piece enclosures.

Leaving the issue of new models replacing old, owners of the Sasha DAW [HFN Mar '19] – which remains a phenomenal speaker by any measure – who wish to upgrade should be aware that Wilson (like Transparent Audio, McIntosh and some others) has a 'buy-back' scheme to encourage trade-ins and can thus also offer certified, pre-owned products. Expect to see a few pairs of Sasha DAWs appearing on the market at truly tempting prices...

Wilson has never ignored the need for domestic harmony and the Sasha V is therefore offered in three levels of paint

finish, the standard range of four colours including the dark Galaxy Gray, the lighter GT Silver, a taupe-y hue called Quartz and Carbon if basic black is preferred.

Depending on how house-proud the customer, Wilson then presents what are effectively unlimited choices, from its own in-house, automobile-standard paint department. For a 5% premium,

'Wilson has never ignored the need for domestic bliss'

12 additional 'Upgrade' colours are available including the vivid Fly Yellow, Classic Orange and Pur Sang Rouge. Ten colours form the Premium Pearl range for 10% extra cost – the Blue Orchid Pearl is gorgeous – while custom

colours can be negotiated, including the bespoke 'True Gold', seen here, which uses real gold flakes.

Wilson Audio has grown this aesthetic flexibility since the first WATT prototype appeared

in base paint and then with wooden side panels. The look has been refined over the decades, accompanied by a litany of confusing names because the Puppy had to catch up with the WATT. The pair were finally grouped as an entity to form the 'WATT Puppy System 5' [HFN Jan '95], so we might well regard 2023's Sasha V as – drum roll – the WATT Puppy System 12.

LOUDSPEAKER LEGACY

In practice, the 'WATT Puppy' naming ended with System 8, when the next incarnation, Sasha W/P (W/P standing for, you guessed it, 'WATT Puppy'), replaced it. The Sasha W/P was followed by the Sasha Series 2 [HFN Jun '14], then the Sasha DAW. By my maths, this made them respectively Systems 9, 10 and 11 in the old naming

THE X BOX

Time was that all loudspeaker cabinets were simple wooden boxes, glued together from particle board, MDF or, if you were very lucky, birchply. Now, with our improved understanding of how internal standing waves and panel resonances colour the sound of a loudspeaker, cabinets are no longer engineered simply to contain the volume of air within and support the drivers without. Cabinet shape, bracing, damping and materials all have a crucial bearing on the final sound, from ply to metal to composites and the mineral-loaded polymer substrates used by Wilson Audio. The fact that many of these new materials are also better suited to accepting automotive paint finishes, and layers of lacquer, is just another tick in the 'benefits box'.

Wilson's earliest speakers were fashioned from wood but it has subsequently implemented various grades of an epoxy resin, loaded with crushed granite, carbon and pulp. These are the S-, M-, X- and V-Materials featured in the last four generations of Wilson speakers. The ability to 'tune' the density, rigidity and hardness of this composite, by varying the mix ratios, results in sheets that are best suited for large bass cabinets, smaller mid/treble enclosures and other roles, for example in the V-material inset into the top of the woofer enclosure to better support the mid/treble mounting hardware [see inset pic]. PM



'We might well regard today's Sasha V as the WATT Puppy System 12'

LOUDSPEAKER

system. In each case, the name changes signified important model refinements, whether of the drive units, enclosure materials, revised hardware, crossover modifications or other improvements, all of which apply to the move from DAW to V [see boxout, below].

LEARNING CURVE

Knowledge gained in the development of the Chronosonic XVX, Alexx V [HFN Jan '22] and Alexia V has been used to refine the performance of the Sasha which – admittedly – is and has been of the highest calibre for a small monitor astride a woofer module since 1985.

Also key to the Wilson way has been the development of custom materials over the years. Wilson employs a mix in its cabinet construction, with X-Material and V-Material used as they best suit the enclosure. Both are resin-based composites with density, stiffness and

RIGHT: The Sasha V's 24mm doped-silk dome tweeter, with rear wave attenuator, was unveiled in the Alexx V and is married here to Wilson's 180mm 'QuadraMag' pulp/composite mid driver and dual 200mm stiffened-pulp, reflex-loaded woofers

self-damping properties adjusted for application [see PM's boxout, p38]. According to Wilson, 'X-material is a denser, harder, and more monotonic material, which is ideal for structural stability, for woofer and tweeter coupling, and internal bracing. Alternatively, V-Material offers better internal damping and was formulated to be nested into X-Material.'

This, of course, is a critical concern when dealing with speakers made up of two or more modules. V-Material, for example, was first employed in the Chronosonic XVX's gantry. That speaker, too, was the first beneficiary of Wilson



Audio's purchase of RelCap [see p43] although it's the Sasha V that serves as the debut platform for the newly-developed copper version of the AudioCapX-WA capacitor in the tweeter crossover.

From the Alexx V, the Sasha V gained the Convergent Synergy Carbon (CSC) tweeter as well as the stainless-steel-and-V-Material 'Acoustic Diode' spike system, which provides superior anchoring of the speaker. (The latter, by the way, can be purchased by owners of non-Wilson Audio loudspeakers, with adapters for this purpose.)

V FOR 'VANISH'

How much of experiencing the immediacy of the gains was due to my years with the Sasha DAW and how much to their inherent brilliance is not something I can quantify. PM – the least likely person to be impressed by anything other than, say, a nuclear strike

– didn't even wait to tell me I was in for a treat. Like me, he was seduced by what may be the best 'disappearing act' of any loudspeaker – south of the Alexx V – which *isn't* either a minuscule near-point source like an LS3/5A, or a super-transparent dipole such as an electrostatic. The dCS Vivaldi

LEFT: The permutations of Wilson's 'Standard', 'Upgrade' and 'Premium Pearl' colours with its six grille fabrics and black/silver hardware options make this a highly customisable design! Pictured here is the 'True Gold' finish with Parchment Grey grille

ABOVE: User-replaceable tweeter and midrange resistors (2.4ohm/1.6ohm, respectively), designed for both level matching and 'fuse' protection, are mounted onto a carbon fibre back plate behind an aluminium-framed glass cover

One APEX source and Constellation Centaur II Stereo [HFN Feb '23] power amplifier also played their role, for sure!

What it takes to make a system with dynamic drivers vanish, I have been informed countless times, is an absence of resonance, correct time alignment and the usual (if obvious) requirements of low distortion or coloration, wide frequency response and superb dispersion. Wilson Audio – like Allison, Bose for the 901, Quad's ESLs and others as obsessive about precise positioning – has championed time alignment for as long as I have known the brand.

An opening sensation was enough to tell me that I might need to repeat the term 'majestic' as a mantra for the Sasha V. Lou Rawls' *At Last* [Blue Note CDP 7 91937

'He didn't even wait to tell me I was in for a treat'

2] is not the first album chosen for matters of scale or soundstage recreation, as it's mainly recorded with small ensembles. More apt would be applying it to orchestral works, bombastic rock, or live recordings. In this case, the inherent illustriousness of both Rawls' and Dianne Reeves' vocals were amplified and showcased, but even that really doesn't cover it.

SPACE RACE

Rather, it was the way the Sasha V redefined what a system can do for the recreation of space. Spatial presentation is a separate matter from, say, bass extension or vocal

SASHA V VS SASHA DAW

Trickle-down technology from three models which didn't arrive until *after* the Sasha DAW – the Chronosonic XVX, Alexx V and Alexia V – account for many of the differences between the DAW and this latest V variant of the Sasha. Fitting Wilson's 'Acoustic Diodes' to Sasha DAWs provides an early taste, an instantly audible upgrade that attests to the value of improvements which lie in store.

From here Sasha V vs DAW starts with the tweeter, the Sasha V benefitting from the rear-wave chamber fitted behind the Convergent Synergy Carbon (CSC) tweeter initially found in the Alexx V to extend the high frequencies. Wilson now cites 32kHz ±3dB for the V, a 2kHz extension over the DAW. Also post-DAW, the Sasha V is fitted with the brand's 7in AlNiCo QuadraMag midrange for better 'blending' of mid and treble.

The V in the name derives from V-Material [see PM's boxout, p38] used in the interface between the upper and lower modules, this resulting from the development of both the Alexx V and Alexia V. Benefits are said to be 'uncommon vibration control and upper module isolation'. The cabinet gains from solid X-Material sidewalls that are 25% thicker, strengthening it to further reduce resonance, and

the same material is used in the internal bracing of both upper and lower enclosures. S-Material, with its own properties, is employed for the baffle in the upper head.

Other post-DAW upgrades involve new multi-way binding posts and improved resistor mounting hardware, now with quick-release thumbscrews to open the alloy-trimmed glass cover and carbon fibre back plate, simplifying access to the resistors.

There's more: all external cables are terminated with Wilson Audio spades, and the upper-module two-position front spike track offers finer adjustments not available to the Sasha DAW, allowing for more precise time alignment to suit a wider range of listening positions. An all-new copper version of the AudioCapX-WA capacitor has been recently developed, making its debut in the Sasha V [see PM's interview sidebar, p43].

Physical differences are slight. The Sasha DAW occupied 1137x368x583mm (hwd) and weighed 107.05kg each. The Sasha V? It has grown just a centimetre in height, width is unchanged, while depth is only 25mm (about an inch) or so greater, at 1145x368x608mm (hwd). Each Sasha V weighs 4kg more, at 111.1kg, but I doubt those moving from DAW to V will notice!



LEFT: Improved over the Sasha DAW, the Sasha V's two-position front spike track enables finer adjustments for the mid/treble head assembly and more adaptable 'real world' time alignment

but they were insufficient in conveying how comprehensively the Sasha Vs both filled the room and gave the impression of the walls disappearing.

But what of muddier, more cluttered CDs, such as the tribute to Buffalo Springfield, *Five Way Street* [Not Lame Recording Company NL-121]? The fact that 21 different artists in the same number of different studios assembled *Five Way Street* warned me of, at the very least, inconsistency. But what proved useful was the very clutter: the waves of jangly guitars, the ferocity of the vocals, the undeniable passion in the performances.

Given that the Sasha V is a creator of a massive, open, unobstructed playground for the music, this disc would challenge its retrieval of detail, and its ability to 'de-clutter' the layers of sound. All it took was Byrds Of A Feather's reimagining of 'Bluebird', with the requisite guitar smorgasbord, to appreciate that the Sasha V could untangle those layers, so even in the stringed onslaught a keen ear could tell which were the makes of the guitars. It was an exemplary case of juggling tonal accuracy, detail and attack.

PUMP IT UP!

Ah, the hunger for fast transients and bass slam! Although I am not a head-banger by any measure, PM was shocked at the levels I was playing the Sasha Vs – as was I on reflection.

The dearth of any distortion and coloration as often brought on by too-high a volume simply didn't happen. If anything, the Sasha V was proving rather naughty, encouraging indecent playback levels that would have caused complaints in most circumstances.

The stomping on The Dave Clark Five's 'Bits And Pieces' [*All The Hits*; BMG BMGCAT408CD] could be felt even through a ground floor of utter solidity. 'Glad All Over' exhibited its anthemic qualities with concert-level force.

But that's just decibels. What proved so memorable was the amount of detail I was uncovering in 60-year-old, mono recordings which I have heard so many times that they are indelibly engrained in my psyche. And yet there were nuances in

authenticity, but it is a sonic artefact which cannot exist without accurate reproduction: transparency, clarity, detail, neutrality, tonal balance and other elements all play their parts. I will never forget what the late Arnie Nudell of Infinity told me when I asked why he was so focused on spatial concerns: 'If the soundstage and imaging are correct, then the rest will be, too'.

Because these latest Wilsons seem to evaporate, leaving only the sound and no clues as to their points of origin, it was a case of the (musical) truth, the whole truth and nothing but the truth with Rawls' title track. All of those clichés about 'lifting veils' and 'opening the windows' flooded back,

'This Wilson Sasha V was proving rather naughty...'

DARYL WILSON

Daryl Wilson, CEO of Wilson Audio Specialties, was tight-lipped about his plans to celebrate the brand's 50th anniversary in 2024, though we can expect an announcement of some sort by the end of 2023. For now, the evolution of the Wilson range into this latest 'V' series continues at a respectable pace, the fruits of Daryl and his engineers drilling into the minutiae of cabinet, driver and component design.

Nowhere is this more evident than in Wilson's acquisition, from retiring owner Bas Lin, of Reliable Capacitor's winding machinery and associated technology. Wilson had sourced its capacitors from RelCap for 25 years, so the opportunity to bring the process in-house was snapped up.

'We discovered through our R&D and listening evaluations that the ideal capacitor construction differs from application to application', says Daryl. 'For instance, a capacitor that works well in an electronic component may not necessarily suit a loudspeaker crossover. If you want to extract the best performance from your speaker it's vitally important to develop a capacitor that is specific for that application. We have spent a lot of time defining and refining the materials, construction, power-handling, etc, for all the capacitors used in our networks.'

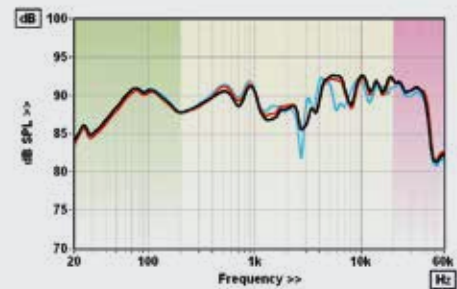
'As we move from development to production phase the breadboard crossover is replicated and used, along with the components, as a reference standard. All the capacitor and inductor values are within a 0.2% variance of the original value(s) that we signed off during the R&D and listening phases of each project.' PM



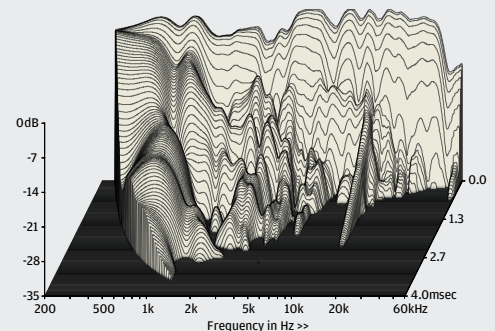
WILSON AUDIO SASHA V

The new Sasha V's response [Graph 1, below] is almost identical to that we measured for the Alexia V [HFN Jan '23] between 6kHz-40kHz while the 5dB depression from 1kHz-5kHz is closer to that seen in the earlier Sasha DAW [HFN Mar '19], contributing to the ± 3.6 dB and ± 3.3 dB response errors, respectively. Pair matching is superb, however, at a tight 0.75dB (200Hz-20kHz) although the mid/treble grilles have an adverse effect, bringing a deep 6dB notch at 2.7kHz [blue trace, Graph 1]. *Sans* grilles, listening above or below the tweeter axis tends to pull up the upper midrange but treble extension suffers. Otherwise, the boosted 1kHz response lifts the Sasha V's sensitivity to 90.3dB/1m, but even the reduced 89.3dB (averaged 500Hz-8kHz) is still higher than Wilson's conservative 88dB spec. (The Sasha DAW was slightly over-spec'd at 91dB/1m/2.83V.) Distortion is a low sub-0.3% from 100Hz-10kHz at 90dB/1m but there are still minor cone mode/mis terminations associated with the mid response dip and silk treble dome at 14kHz [see CSD waterfall, Graph 2].

The Sasha DAW was fairly tough to drive and the Sasha V follows suit, but the load is still well within the compass of any likely partnering amp. Wilson's specified 2.36ohm/82Hz minimum is met at 2.31ohm/81Hz while the modest $+29^\circ/-44^\circ$ phase angles contribute to a worse-case 1.1ohm EPDR at 63Hz. Bass extension is impressive, for while the two 200mm pulp woofers have a symmetrical but rather 'peaky' response (46Hz-133Hz, -6dB re. 74Hz) they are augmented by the broader 23Hz tuning of the rear reflex port to deliver a diffraction-corrected 30Hz (-6dB re. 200Hz). PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w. grille, blue



ABOVE: A resonance at the top of the mid unit's range (3kHz) is joined by a short-lived treble mode (14kHz)

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V - 1kHz/Mean/IEC)	90.3dB / 89.3dB / 87.9dB
Impedance modulus: minimum & maximum (20Hz-20kHz)	2.31ohm @ 81Hz 8.83ohm @ 1.61kHz
Impedance phase: minimum & maximum (20Hz-20kHz)	-44.1° @ 53Hz +29.3° @ 1.0kHz
Pair matching/Resp. error (200Hz-20kHz)	0.75dB/ ± 3.6 dB/ ± 3.3 dB
LF/HF extension (-6dB ref 200Hz/10kHz)	30Hz / 43.1kHz/44.7kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.12% / 0.5%
Dimensions (HWD) / Weight (each)	1145x368x608mm / 111kg



LEFT: Rear view shows lower-to-upper cabinet connections, rear-firing port, midrange vent and access to 'protection' resistors. As the crossover is in the main cabinet, it does not support bi-wiring

'Tempted'. The Sasha Vs allowed Thomas's voice to soar, again begging the use of 'majestic' as the only suitable description.

MASTERFUL COMMAND

There was no choice but to turn to the torture test that is Kodō's *Warabe* [Sony SRCL4671]. I had already been captivated by the Sasha V's transparency, clarity, openness, speed, imaging capabilities and freedom from artifice. What I needed more of was the sheer command imparted only by deep, extended, rock-solid bass. For the life of me, I cannot think of anything which betters Kodō drumming, especially when those rich, stygian notes are heard in contrast with flutes.

'Majestic' had to make way for 'incomparable'. The Sasha Vs delivered the most convincing recreation of the Kodō experience I have ever heard. It was - and I say this hopefully without hyperbole or melodrama - truly humbling. Never have those drums appeared so genuinely palpable.

In my recent review of DeVore's *O/baby* [HFN Aug '23], I wrote that only four speakers had moved me to tears: that speaker, Apogee's *Scintilla*, the Wilson Sasha DAW, and LS3/5As. Better make that five. ☺

HI-FI NEWS VERDICT

After 30-plus years living with the WATT Puppy and its descendants, I am delighted to say the form has evolved beyond even what creator David Wilson might have imagined. His son has disproven the adage, 'The first generation makes it, the second generation spends it'. Instead, Daryl Wilson has enriched it. This is my bucket-list speaker. For once, I'll employ that oft-abused adjective: The Sasha V is 'awesome'.

Sound Quality: 92%



Denis Payton's sax playing, aspects of Mike Smith's keyboards, and especially the sound of Dave Clark's drumheads stretching under his pounding which created a visceral quality which could only have existed when the tracks were new and heard live. (Which, by the way, I did manage in '65.)

Disc followed disc. Mickey Thomas' *Marauder* [Gigatone GCD 303], like *Five Way Street*, turned out to be an even finer recording than I had previously judged. This is a vocals extravaganza, and those of you who know his power from the Elvin Bishop Band's 'Fooled Around And Fell In Love' will appreciate why I was floored by his rendition of