

Wilson Audio Sasha DAW

THE SASHA DAW IS THE LATEST HIGH-POWER FLOORSTANDING LOUDSPEAKER SYSTEM IN THE CONTINUING EVOLUTION OF WILSON AUDIO'S ENDURING 35-YEAR WATT-PUPPY SERIES

A surprising number of companies make speakers in the £45,000-odd-a-pair sector: London based agent and importer Absolute Sounds alone has four contenders – from Magico, Martin Logan, Sonus Faber and not least, Wilson Audio. Other UK-available designs include creations from YG Acoustics, Estelon, Avalon Acoustics, Tidal, Gamut, Wilson Benesch and more recently PMC, not to forget Focal, and of course that price point isn't the end of the costly loudspeaker story: a number of models are twice that, and a few cost much more.

The new Wilson Audio *Sasha DAW*, named for late company founder David Wilson and redesigned by his son Daryl, is the latest descendant of the long-lived *WATT-PUPPY* series, which went through seven generations before going on to the *Sasha* series. I first encountered a lone stereo *WATT* – a pyramidal cased, compact two-way monitor – in Chicago in 1985-6, demonstrated by David Wilson, and at the time marvelled at the startling speed, transparency, focus and dynamics of this compact but heavy two-way, with its braced and lead-lined enclosure of Corian synthetic marble.

Soon augmented by a matching *PUPPY* 'sub-woofer' bases, this design morphed into a two-box, true three-way floorstanding loudspeaker; now, some 35 years later, it is available as the *Sasha DAW*, with a UK price of about £40,000, or £42,000 in custom WilsonGloss. Only a few years ago that was the price point of the larger Wilson *Alexia*, the current version of which is now close on £70,000; Ten years ago the *WATT/PUPPY* was £27,000 a pair, noting that the 10 year inflation rate is just under 17% and that this comparison excludes Sterling depreciation against the Dollar. Through its many incarnations the *WATT-PUPPY/Sasha* has become known as the best-selling loudspeaker in its class, I have owned a number of iterations since the late 1980s.

However rumour has it that the new *DAW* could almost fill the shoes of the older *Alexia*: while *Alexia* has the combination of 8 inch and 10 inch bass units per channel, the new *Sasha*, with its two 8-inchers shouldn't be too greatly disadvantaged. It's designed to be a powerful and efficient, stacked, two-enclosure floorstander, capable of sustaining high power inputs, and able to deliver commensurately high maximum sound levels, making suited for medium

to large rooms, and yet offers a relatively compact footprint, the finely finished enclosure's tapered and sculpted form helping further to reduce visual bulk.

There is an interesting dichotomy between Wilson Audio designs and some alternatives using metal alloy enclosures, also with metal driver diaphragms. Often this endeavour aims to create drivers which operate as pure pistons, installed in enclosures which in theory strongly inhibit resonance, due to a designed combination of geometry, mass and stiffness, aided by extensive strategic cross-bracing.

While Wilson Audio concedes such designs can sound very good, it explains the extra effort in its designs involves the use of more traditional composites and fibre-based structural formulations, carefully voiced in concert for the most musical effect.

Over 300kg, shipped

The speaker stands 113.67 cm high (plus its stainless steel spiked feet), is a trim 39cm wide and 58cm deep; however, an idea of the heroic build, and my problems in setting it up, is given by the weight, each is 236lb, 107 kg, while for shipping the total is a third of a metric tonne. Thus the costs mount up.

Its 25W (8ohm) minimum power rating is fair enough, with no maximum given – presumably the view is that if you gave a maximum, some silly people might try testing it to the limit. In a typical room, well aligned and placed, Wilson indicates the potential is for an extended room average frequency response down to 20Hz +/- 3dB while the 30kHz upper limit given is presumably nearfield on-axis.

The 91.4dB per nominal 8ohm 2.83V watt sensitivity specified for the *Sasha DAW* is quite high, notwithstanding the fairly low 4 ohm load impedance, with a reasonable value given for the declared minimum amplifier loading of '2.48ohms at 85Hz'. The competition differs little in amplifier loading difficulty, but most are of lower sensitivity, around 88dB/2.83V: this difference doesn't sound much, but the extra 3dB does equate to doubling the effective power rating of your amplifier.

In such a comparison a load-tolerant 200W amplifier will seem to play as loud as a 400W model when used with this Wilson. In my last HIFICRITIC *Sasha* review, ten years ago, I measured an above-average sensitivity of 91dB but with a minimum



MARTIN COLLOMS

impedance at a low 1.8 ohm, thus making it rather more suited to particularly powerful, high current amplification. I hoped that this new model would be improved in this regard.

Design

The *DAW* is a 100% redesign of all components, and particularly the enclosures: the exterior geometry is new, as are the interior shapes and volumes, with new bracing, to improve the way sound is radiated to the listening space, but also to control how colouration-imparting reflections are absorbed.

Characteristic of the series is the two-box construction, the separate mid/treble system sitting on the bass enclosure, originally on four pads and more recently on heavy duty vibration absorbing points. Here a three-point design is employed, supported on exceptionally rigid non-resonant hardware, a rear spike, oversize thumbscrew and stepped adjuster setting the angle of the upper unit relative to the listener, and the bass enclosure.

For most loudspeaker systems there is an optimal design axis to be directed at the listener, delivering a sweet spot where the more critical region of mid/treble integration is at its best, sharpening image focus and improving both image depth and micro detail. This is almost never directly on axis.

For each particular listener distance, chair and ear height, the *Sasha DAW* alignment settings allow the owner to adjust the head distance offset and tilt, fine tuning the relative spacing of the mid and treble units and their angle relative to the seated listener. Thus the optimal coherent focus point of the radiated lobe of summed mid and treble energy may be optimally aligned. In addition, tolerably coherent, frequency balanced sound is also radiated away from the prime axis, so that the room and its boundaries are also evenly illuminated.

A Wilson-trained installer may micro-tune timbre and focus with these adjustments, and also compensate for unusual sounding electronics and / or room acoustics, also making careful use of the power resistor array on the rear panel to adjust relative drive unit outputs. Daryl Wilson has noted that with valve-tubed amplifiers this loudspeaker's interaction with the higher source impedance may suggest further adjustment of the head azimuth, for best subjective focus and perspective for that particular audio system. Fortunately there is a most comprehensive manual covering all this.

Operating in parallel, the two current generation 210mm/8 inch bass drivers are derived from the *Alexia Series II*, have lighter yet stiffer bonded pulp cones than before, and are consequently more efficient: they're also fitted with updated motor

systems and improved die-cast alloy chassis, offering lower harmonic distortion and greater peak power handling. Bass enclosure volume is up 13%, allowing a system retune for increased extension and better damping, and the enclosure's 3 degree rearwar tilt aids overall system alignment. The previously offset bass port is now centrally placed on the rear panel for a more symmetrical drive to the room acoustic, and uses a 2-inch/50mm port milled from solid alloy with a gas-flowed aperture.

In the upper enclosure is the bespoke one inch/ 25mm soft *Synergy V* dome tweeter developed for the *Alexia II*, which speaker also provides the midrange unit, a highly dynamic 180mm driver of high efficiency and linearity, with a die-cast chassis and flared pulp cone. Internally, standing acoustic waves are better controlled, and structural panel modes have been analysed by laser interferometry to help optimise internal bracing throughout. Overall system alignment. Residual aperiodic port loading for the midrange is via a damped slot to the rear.

A set of terminals under a removable tempered glass cover is fitted with fusible power resistors, these offering first order protection for overload – a valuable Wilson feature – but also another option for the skilled installer to fine-tune the timbre to suit an unusual local acoustic/and or system. If you haven't heard it, it would be hard to imagine just how well this system is tuned and loaded.

Automotive palette

Different grades of high density, catalysed mineral filled resins are used for the multi-braced enclosures and front baffles, each optimised for its purpose, the differential properties aiding resonance control. The assembled enclosures are finely finished ready for multi-coat gloss lacquering, the *DAW* being available in a variety of colours of gloss automotive lacquer: Wilson styling has become more sophisticated in recent years, and now you can order custom finishes to match your Mercedes or Ferrari.

Attention to detail is obvious, for example in the redesigned binding posts, gold plated of course and compatible not just with heavy duty spades but now also with 4mm plugs. They are still a touch too closely set for good finger tightening, though the customary socket wrench addresses this difficulty.

The whole is supported on heavy-duty spikes designed for secure locking, with alloy discs supplied for tiled and polished wood floors

The Sound

Fortunately my review examples were a pair of well-run demonstrators, so once they were installed and fully calibrated I could start my assessment right

HIFICRITIC
AUDIO EXCELLENCE



The System

Constellation *Inspiration 1.0*, Townshend *Allegri* and Audio Research REF6 control units; Naim *NAP500DR* power amplifier, Audio Research *D160M* monoblocks, Linn *LP12* player with *Keel* chassis and *Radikal* motor control, Naim *Aro* arm, Lyra *Delos* cartridge, Naim *Superline DR* phono pre, *UnitiServe* and *Core* network server and S/PDIF source; NAIM *NDS* and *ND555 Streamer-DAC*, with *555 PS (DR)*, Auralic *Aries G-2* USB streamer, Meridian *200* CD transport, Wilson Audio *Sabrina*, Sonus Faber *Sonetto VIII*, KEF *R5*, Magico *S-5II*, Quad *ESL63*, BBC *LS3/5a* (15ohm) speakers; Naim *FRAIM* and *Artesania* audio racks; Transparent XL *MM2*, Crystal *Ultra Diamond*, and Naim *NAC A5* speaker cables, Naim *Super Lumina*, Transparent current series *MM2* and Van Den Hul *Carbon TFU* interconnect cables.

away. With experience of a number of W/P systems over the years, I felt the *Sasha DAW* was immediately differentiated from past examples by a greater neutrality, and also showed greater homogeneity and less of that historic, mildly theatrical ‘go-for-it’ character. I first noticed this enhanced neutrality at the Windsor show in late 2018, with this review pair and an audience of some 40 enthusiasts: it was certainly quite arresting to the last Johnny Cash recording – even at the back, standing room only.

This is not a loudspeaker system seeking to hide its identity through an over-controlled attempt at accuracy; rather the various elements of the design appear to work in harmony to present a musically blended whole. It doesn’t attempt total control of resonance and colouration, but rather sets very good standards here while reaching for a still higher standard of blended, well balanced, wholly musical coherence.

Familiar works are reproduced with fine dynamic expression, maintaining anticipation and excitement. Evgeny Kissin playing the Brahms *Paganini Variations*, a very natural recording by Tony Faulkner on RCA, sounded spectacular, powerful, dynamic and crystal clear, and could be replayed at wholly realistic levels in my room. This alone would differentiate this *Sasha* from previous W/P versions, but the greatly superior low-frequency tuning also showed greater tolerance of room locations and delivered a faster, rather more extended and more tuneful, upbeat, bass than before. Music was handled with impressive confidence: as it should be with high end designs, this speaker can project believable images and plausible off-stage phantom sources: that’s impressive.

Bass tune playing was impressive, too, and particularly evident on well recorded double bass, nicely hustling 50 and 60’s jazz tracks, while live recorded performances from MJQ and Abdulla Ibrahim were especially memorable.

Rock was a breeze, from classic John Martyn tracks to Leftfield, and Bela Fleck to Pat Metheny via Ricki Lee Jones: timing was very good thanks to the quick extended bass and the overall coherence. Broadening the horizon it flowed with Rachmaninov’s *Symphonic Dances*, while showing explicit transient clarity and tuneful pitch on Glass and Reich compositions.

Even handed, yet involving and exciting, the *Sasha DAW* was a pleasure to use, and proved suited to a number of amplifiers including the excellent Audio Research *D160M* monoblocks both in triode and ultra-linear modes, and my resident Naim *NAP500DR*. It took no prisoners with speaker cables owing to its high resolution: good advice should be sought on viable matches.

With the system so easy on the ears, I played music for extended sessions with minimal fatigue, continually seeking further tracks to see what it could do. Running a £100,000 system for this review, it was clear that this loudspeaker could exploit a still greater spend, yet with its high sensitivity and inherent versatility would also make the best of a well matched, but rather less powerful and ostentatious arrangement.

Conclusions

A fine performer under the lab test programme, this 4ohm speaker is not unduly difficult to drive, while the high sensitivity helps it achieve genuinely high sound levels even from 75W/ch, and amaze with up to 250W. The bass is the best tuned yet from Wilson’s *WATT/PUPPY* series: it’s powerful, smoothly extended, quick, well room-matched, impressively dynamic and low in distortion.

That insidious third harmonic is held at bay throughout the frequency range, lending a naturally sweet harmony and, when required, thrilling transients explode from this solid foundation, where dynamic contrasts are very well expressed.

All kinds of music were handled with confidence, very much the mark of well-judged neutrality, and what’s more the stereo images are wide, deep and well focused. Daryl Wilson has scored yet again with the *Sasha DAW*, a most worthy tribute to his father, founder of the enduring *WATT/PUPPY* dynasty. It was an easy shoe-in to place it in the top HIFICRITIC Audio Excellence category.

Lab report

Carefully assessing the axial output, noting the listener directed axis discussed earlier, the sensitivity over the primary 100Hz-10kHz range meets the specified 91.2dB /1m 1W(8ohm). Moreover the disclosed minimum impedance modulus of 2.4ohm was also verified, though there is some reactive, phase shifted content to the load, and the effect on the amplifier and speaker cable is more representative of a 3.3ohm nominal design than the 4ohm specified. We have seen worse, and 4ohm rated amplifiers will not balk at this.

The reflex port is tuned to a desirably low 25Hz, the tuning well balanced with near equal impedance peaks either side of this intended resonance. The phase angle of impedance was quite low – typically within 20 degrees except in the low bass – while the impedance rises to 5ohms by 300Hz and remains above this value up to the 40kHz measurement limit.

The Audio Research *D160M* monoblock amplifiers positively sang on their 4ohm setting, especially in triode mode, but also did pretty well

via its 8ohm output tap with this new *Sasha*, the loudspeaker clearly showing improved amplifier matching over the previous version.

With a nominal 200W power handling for unclipped speech and music, substantial levels close on 110dBA will be possible from a stereo pair of *Sasha DAW* speakers in an average room. I donned my ear defenders, and thus confirmed an absence of limiting or audible distortion when the speakers were played at such very high levels with wide bandwidth signals, so clearly driving larger rooms will be within the Wilsons' compass. In-room spatially averaged sound output showed fine driver integration and system alignment with good room matching: a closely toleranced +/-2.5dB from 40Hz to 11kHz.

The bass is well extended to a solid 25Hz in-room and achieves that more evenly than was the case with previous versions. Due to the usual axial symmetry the best sound and most uniform frequency response is obtained at about 10 degrees off axis; while the thick felt absorption on the head unit front panel/baffle mitigates diffraction effects.

Spot checks on distortion and power handling gave fine results on both counts at 86dB spl mid band, with the innocuous second harmonic just fine while the more contentious third harmonic was excellently controlled throughout, even in the bass. At 30Hz, 92dB spl second harmonic was fine at 0.32% while third was first rate at 0.1%, so utterly inaudible.

The speaker could accept a 100W sinewave short-term, even at 30 Hz, without mechanical overload, demonstrating excellent power handling at a massive 112dB spl. 2.83V input at 10kHz gave a superb 0.06% of second and still better 0.035% of third harmonic, all this pointing to low distortion driver motor design. In the lower midrange it was all good too: second averaged 0.2%, so no issue there, while third was top-notch at 0.05%.

The optimum listening axis at a 2.5m measuring distance gave a fine result for frequency response, 40Hz to 22kHz +/-3dB, while the spatially averaged result shows even better driver output integration in the far field. The 15 degree lateral listener axis, assessed in third octave, was a close toleranced +/-2dB, so this important output is pretty smooth.

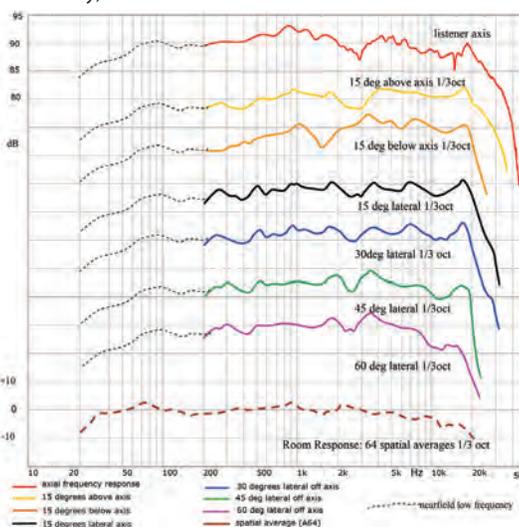
Yes, there's a small excess at 1kHz and 3.4kHz and a dip at 2.2kHz, but these are rated as barely audible. More important is overall consistency of output, above and below axis and also laterally, right out to 45 degrees, showing that the four drivers are well blended and levelled.

There is a characteristic if small axial peak at the edge of audibility, 19 kHz, preceded by a mild 3dB interference notch at about 17kHz. On axis the -6dB point was at 35kHz so the high

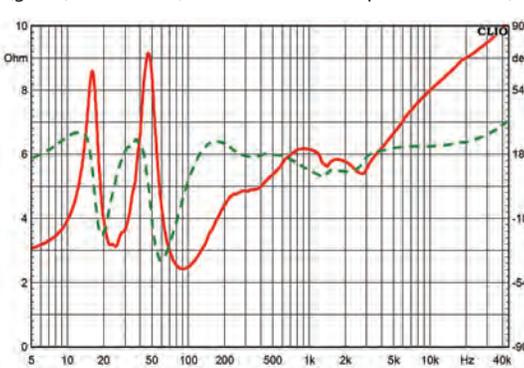
frequency extension does reach towards some 96kHz sampling HD material content. The treble output gives rise to a minor but visible resonance in the decay spectrogram, but is unlikely to be audible on programme. Overall the waterfall representation of the decay field is tidy and well damped, aiding crisp transient definition for percussive programme.

This is a fine set of results, commensurate with both the *DAW*'s price and its market status.

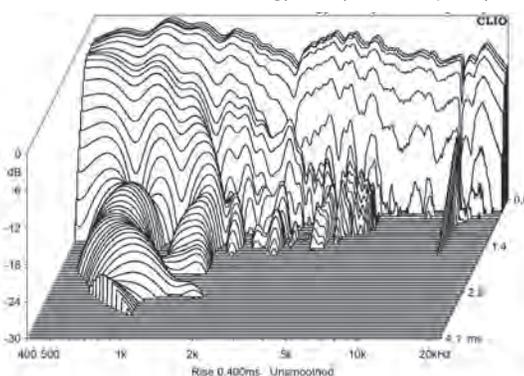
Wilson Audio Sasha DAW Frequency Responses (91.4dB/W sensitivity)



Wilson Audio Sasha DAW Load Impedance (red) and Phase (green) 5Hz-40kHz (2.4ohm minimum impedance @90Hz)



Wilson Audio Sasha DAW Energy Decay with Frequency



Test Results and Specifications

Wilson Audio Sasha DAW	
Three-way bass reflex, two enclosure system	
Drive Units	
HF	25mm (1in.) vented doped silk dome
MF	180mm (7in.) bonded fibre cone
LF	2 x 210mm (8.25in.) bonded fibre cone
Crossover frequencies	400Hz, 2.9kHz approx
Frequency range (limits) (-6dB)	33Hz - 26kHz
Typical in-room bass response (-6dB)	22Hz
Frequency response, reference axis	55Hz - 20kHz (±2dB)
	40Hz - 33kHz ±3dB
Harmonic distortion	Typically 0.1% third harmonic, see text
Maximum output	115dB SPL, short term
Amplifier power (recommended)	25W - 200W
Nominal Impedance	4Ω (min. 2.4Ω)
Sensitivity (2.83V/1m)	91.2dB
Weight each (total shipping)	235lb, 107kg (323kg)
Dimensions (H x W x D)	114 x 39 x 58.3cm
Warranty	5years
Finishes	Automobile Gloss lacquer, standard colours and specials to order