

# System Audio Legend 40.2 Silverback

Most compact SA floorstander is not only offered in fully active 'Silverback' guise, but now supports 'RAM Tweaks' Review: **Mark Craven** Lab: **Paul Miller**

System building and component matching is the backbone of hi-fi. Sure, it might seem a never-ending process, each change yielding new results and then more experimentation, but it's an enjoyable one. The Legend 40.2 Silverback tested here, an active three-way floorstander with digital crossover, Analog Devices DSP and integrated DAC, bypasses a lot of that journey – and if combined with the optional wireless Stereo Hub (£400 when purchased with the speakers, £700 separately), removes the need for any cabling except a mains lead. Yet Danish manufacturer System Audio (SA) then uses the Silverback's digital architecture to offer its own take on audiophile fine-tuning, via a newly-launched range of DSP upgrades it calls 'RAM Tweaks' [see boxout, p63].

The result is a £4500 loudspeaker offering a good deal of flexibility, and there's also the option of automated room EQ, plus manual adjustment, via the SA Cockpit app (currently in beta testing). The question, therefore, is whether such flexibility appeals to you. If the idea of USB-delivered DSP manipulation, smartphone apps and wireless streaming makes you sweaty, SA's passive Legend 40.2 (£2900), a cosmetic update on the Legend 40 [HFN Aug '20], will undoubtedly suit you better.

## DANISH DOPPELGÄNGER

This Silverback model is more than just a stablemate of the Legend 40.2 – in many ways it's the exact same speaker, with an unchanged cabinet design and identical drivers but a 'shorted' port. Finish options for the 950mm-tall enclosure are satin black or satin white, both shipping with black magnetic grilles that cover almost the entire front baffle. Styling is modest even with the grilles removed – the only embellishment is the SA logo – and its slender 190x300mm (wd) further emphasises the Legend 40.2 Silverback's discreet nature. Accommodating these

loudspeakers shouldn't prove tricky in any domestic listening space, even once the outrigger feet have been attached.

Meanwhile, the driver array comprises a 25mm woven silk tweeter with DXT (Diffraction eXpansion Technology) acoustic lens, and a trio of 135mm woven fibre units – one a bass/mid, the other two dedicated bass drivers. Powering these are a quartet of Texas Instruments' Class D amplifiers with a claimed output of 300W.

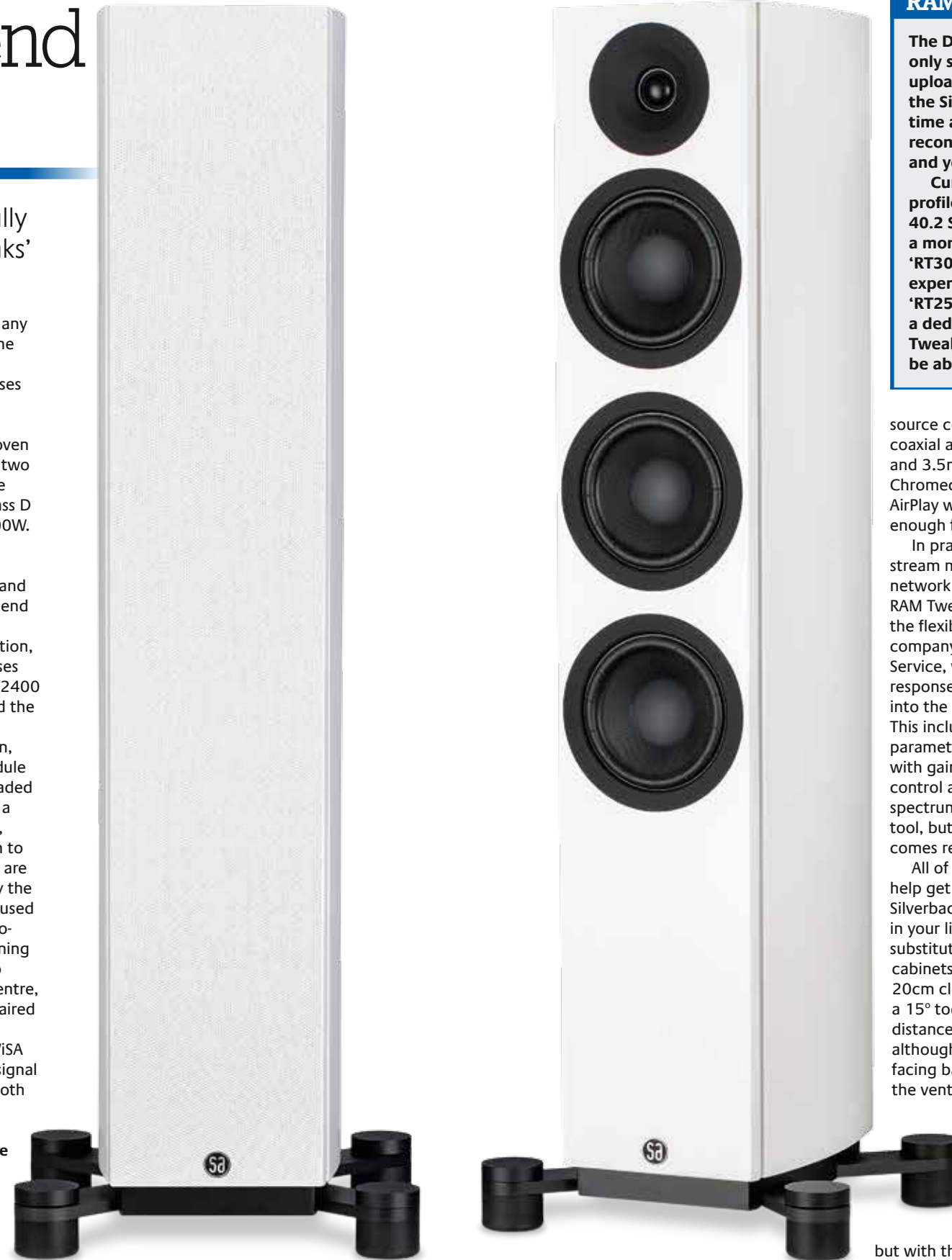
## CHANNEL HOPPING

For those with bigger listening rooms and deeper wallets, there's the £7000 Legend 60.2 Silverback [HFN May '21], which boasts some 560W of active amplification, ups the woofer size to 150mm, and uses four of them. The range also has the £2400 standmount Legend 5.2 Silverback and the on-wall £1700 Legend 7.2 Silverback.

In addition to onboard amplification, the introduction of the Silverback module (the passive Legend 40.2 can be upgraded if desired) replaces binding posts with a USB service port and IEC mains socket, plus an XLR input for wired connection to a balanced preamplifier. Around these are a series of status LED lights that signify the channel position of the speaker when used with the wireless Stereo Hub. For a two-channel set-up, it's just a case of assigning one as right and one as left, but it also caters to multichannel installations (centre, surround back, etc), if the speaker is paired with the eight-channel Surround Hub.

System Audio's hubs use wireless WiSA technology to stream a 96kHz/24-bit signal direct to the Silverback speaker, and both models are well endowed in terms of

**RIGHT:** The 135mm woven-fibre midrange [top] and two 135mm bass drivers look identical but the mid unit has a shorter (lighter) voice-coil. The tweeter with DXT lens/waveguide was developed with the Danish patent holder



## RAM TWEAKS

The DSP at the heart of all Silverback models has sufficient capacity to not only service future updates but also accommodate 'performance modifiers' uploaded by users. These are SA's new 'RAM Tweaks' that allow changes to the Silverback speakers' crossover frequencies, bass alignment and extension, time alignment and protection limits. You can, with due deliberation, entirely reconfigure the sound of the 40.2 Silverback to suit its position in your room and your personal taste.

Currently seven RAM Tweaks are offered, including the original 'RT100' profile and the new-this-year 'RT200' version that's pre-loaded into all Legend 40.2 Silverbacks. This, says System Audio, provides a 'smooth response' and a more detailed, accurate sound than earlier DSPs. Other options include 'RT300', which aims to extend low frequency response to below 20Hz (at the expense of maximum SPL) while retaining the tonal balance of 'RT200', and 'RT250', which reworks the crossover to turn the upper bass/mid driver into a dedicated midrange unit. The uploading process isn't complicated (RAM Tweaks can be downloaded from System Audio's website), but don't expect to be able to perform quick-fire A/B comparisons.

source connectivity. USB-B, HDMI ARC, coaxial and optical (x3) digital, plus RCA and 3.5mm analogue, and Bluetooth, Chromecast, Spotify Connect and Apple AirPlay wireless hook-ups should be enough for anyone using these speakers.

In practice you'll utilise the hub to stream music direct from your home network or streaming service, and SA's RAM Tweaks to massage the sound. But the flexibility doesn't stop there. The company's app-based EQ facility, Room Service, which aims to smooth in-room response below 300Hz is now integrated into the comprehensive SA Cockpit app. This includes a three-preset manual parametric EQ adjustment with gain and Q value control across the full spectrum. It's a powerful tool, but with power also comes responsibility...

All of the above could help get the Legend 40.2 Silverback singing sweetly in your listening room, but nothing is a substitute for optimal placement of the cabinets. SA recommends a minimum 20cm clearance from the rear walls, a 15° toe-in and an 'ideal' listening distance of 2.5m-3m. Remember that although the speaker retains the rear-facing bass reflex port of the passive box, the vent is sealed in this Silverback guise.

**'Bass-rich, it had just the right sense of snarl and grit'**

## WEIGHT GAIN

Getting a grasp of the Legend 40.2 Silverback's sound is less straightforward than with most speakers, due to its changeable nature, but with the 'out-of-the-box' DSP in charge

and no adjustments made to the EQ it reminded me – unsurprisingly – of the company's passive 40 model, albeit with some changes in sonic profile. The earlier speed and detail was just as obvious, but this pricier model also sounded weightier, more purposeful and more full-range.

## FEELING LUCKY, PUNK

Metallica's mid '90s reinvention as a hard rock outfit resulted in a barrage of bass-rich, up-tempo tracks, none more energetic than 'Prince Charming' [Reload; Vertigo 536 409-2], which was delivered with just the right sense of snarl and grit. The guitar riff was crunchy, accompanied by focused, taut drums, and while the speaker couldn't do much about the recording's lack of tonal subtlety, it ably kept up with the seat-of-your-pants presentation.

Lalo Schifrin's 'Main Title' from the *Dirty Harry* soundtrack [CD rip; Aleph Records] let the Legend 40.2 Silverback make a scintillating impression. The Argentine composer lays on everything from a quick-fingered bassline and sustained cello notes to synthesised strings and tabla drums. Here each instrument arrived with its own noticeable timbre and character, and didn't fight for space on a soundstage with good depth.

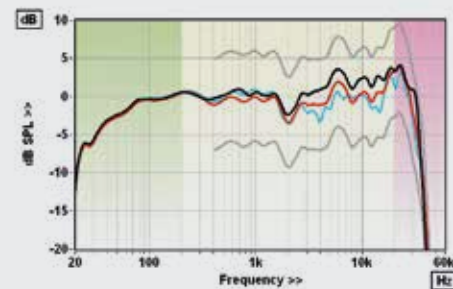
At this point I uploaded System Audio's RT300 RAM Tweak, with its promise of a more analytical sound and greater bass extension. It was the latter that I found noticeable in my room, and in truth it served to over-emphasise some of the Schifrin track's deepest double-bass notes, making them sound too plump →

## SA LEGEND 40.2 SILVERBACK

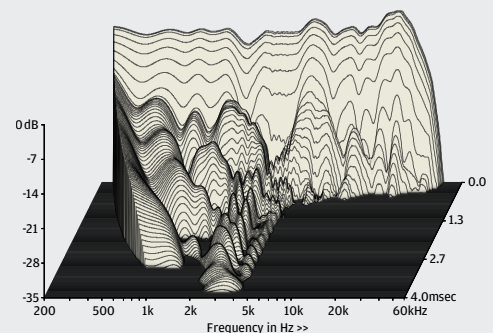
Tested here without any 'RAM Tweaks' [see boxout, p63] this active version of the Legend 40.2 employs the same cabinet and trio of 135mm carbon-fibre reinforced bass and mid units, but with the rear-facing reflex port internally 'shorted' to yield a 2nd-order sealed-box bass alignment. Incidentally, there's a ~27msec latency on the analogue input... Meanwhile, the two lower woofers are driven in parallel from one TI Class D amp, delivering a -6dB bandpass of 45Hz-250Hz while the upper mid/woofer extends over a far wider 25Hz-2.9kHz (-6dB re. 200Hz). Thanks to SA's actively-tailored bass, the diffraction-corrected LF extension (-6dB re. 200Hz) is far lower at 31Hz [green shaded area, Graph 1] than the 50Hz we saw in the passive Legend 40 [HFN Aug '20]. Distortion is also reduced to <0.25% through bass and midrange at 90dB SPL but increases closer to the Legend 40's 1% once the DXT tweeter takes over.

The forward response, measured just above the cabinet at the likely listening axis, is not especially uniform but follows the uptilted presence/treble trend of the Legend 40, its HF response extending out to 34kHz (-6dB re. 10kHz) following a +3.0dB peak at 22.5kHz. There is a ~3dB dip at 1.5kHz here, seen closer to 1.2kHz in the Legend 40 and suggesting the mid/treble crossover has been adapted, together with a 'new' ~3dB reinforcement at 6kHz that skews the response uniformity to ±3.1dB and ±3.3dB, respectively. Pair-matching, again, was a slightly poor 2.2dB as one of our speakers possessed a higher 2kHz-20kHz output than the other [black/red traces, Graph 1].

The effect of the grille [blue trace, Graph 1] is to diminish the presence output, while the ±6dB gain settings do just what they say [grey traces]. On both speakers, there is some fine structure in the response between 3-5kHz that's also reflected in a persistent but low-level resonance seen on the CSD waterfall [Graph 2, below] – and also the Legend 40 before it. PM



ABOVE: Response inc. corrected nearfield <200Hz [green], freefield corrected to 1m [yellow], ultrasonic [pink]. Left speaker, black (with grille, blue); right speaker, red; ±6dB settings, grey (from 400Hz)



ABOVE: Resonances typically decay quickly here with low-level modes remaining at 1-2kHz and 3-5kHz

**LEFT:** In this active 'Silverback' version of the Legend 40.2 the port is plugged inside to yield a sealed-box bass alignment. Input is via balanced XLR or wireless via the Stereo Hub. Sensitivity (amplifier gain) can be adjusted by ±6dB and the speaker configured for stereo or multichannel duty via the back panel

adequate. But while the Legend 40.2 Silverback certainly gave a grippy portrayal of the backing piano and drums with Adele's 'Set Fire To The Rain' [21; XL Recordings XLCD520], it never allowed them to really fly into the room.

### HOME IMPROVEMENT

It made light work of Adele's vocals though, leaving them hanging and emotive in the centre of the stereo image, albeit without the sense of unfettered openness that can be found on more accomplished systems. Meanwhile, the articulation of Johnny Cash's vocal on 'Hurt' [American IV; American Recordings 063 339-2] was spine-tingling.

The evenings, on the whole, may be getting lighter and warmer but I was still inspired to spin John Williams' 'Holiday Flight' theme from Christmas flick *Home Alone* [CD rip to FLAC; CBS Masterworks], a bell-festooned, jumpy orchestral piece with stabbing brass chords and crashing cymbals. System Audio's active towers brought dynamism to the piece, avoiding a slurry presentation for something that sounded lively and powerful without losing track of its major key musicality. I closed down the app, shoved my USB stick in a drawer, and enjoyed the show. ☺

### HI-FI NEWS VERDICT

Definitely a case of 'more than meets the eye', System Audio's slender midrange active speaker arguably overflows with customisation potential, from automated and manual EQ via the optional Stereo Hub to a pick 'n' mix approach to DSP. Tweakers will enjoy the flexibility, but more enjoyable still is the Legend 40.2's compelling sound, which majors on resolution, bass power and a fine grasp of rhythm.

Sound Quality: 83%



and indistinct. I preferred the less aggressive profile of the RT250 RAM Tweak to this one, but eventually reverted back to the default RT200.

A criticism that can be levelled at the Legend 40.2 Silverback is that there are limitations put on its presentation by the cabinets and drivers themselves. As I said earlier, this is a slim, not-too-tall loudspeaker with modestly-sized bass drivers, and so while it's capable of sounding deliciously punchy and dynamic, and 'larger' than it looks, it still didn't overwhelm with me with a room-filling sound, regardless of volume.

By way of example, the euphoric tech rhythms of Paul van Dyk's 'Touched By Heaven' [From *Then On*; Vandit Records] were pushed forward brilliantly, the speaker's amplification proving more than