

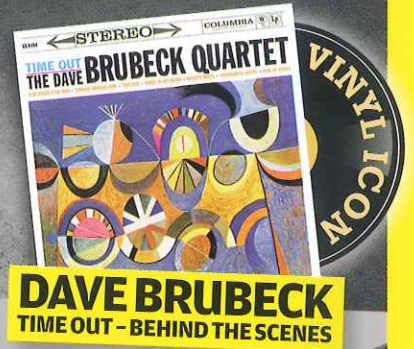
# hi-fi news

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& Record Review

# PLAY TIME!

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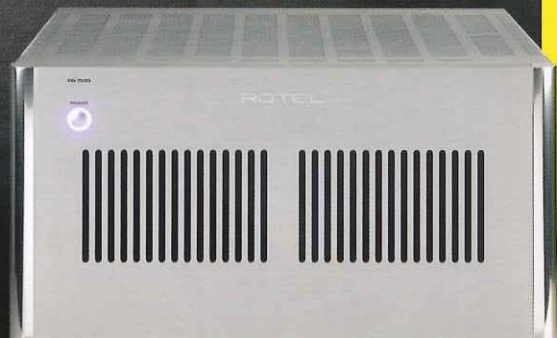
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# Sonus faber Chameleon T

Leather-clad cabinets and coloured sides to match your 'mood' – Sonus faber's new towers are a style statement  
 Review: **Andrew Simpson** Lab: **Keith Howard**

For over three decades the Sonus faber brand has evoked an aspirational sense of pure Italian exclusivity, thanks to its selection of finely crafted loudspeakers that typically sit in the higher echelons of the hi-fi market. But as we've seen with its outgoing Toy [HFN Dec '08], and more recent Venere models [HFN Jan/Mar '14], Sonus faber has been keen of late to branch out into more affordable territory. The Chameleon range is in many ways a different proposition from what's gone before, starting at £430 for the centre channel 'C' model, £700 for the two-way 'B' bookshelf pairing and £1670 for the T towers under review here.

## INTERCHANGEABLE SIDE PANELS

In this crowded sector, new entrants are up against stiff competition, so they need to offer something extra to really get noticed. That's exactly what Sonus faber has done by affixing interchangeable, funky-coloured side panels to each Chameleon model, with a choice of six finishes including white, black, metal blue, metal grey, orange, and red, with more to follow.

And if your taste or décor changes, you can buy another full set of side panels for £332, further down the line. Of course, nicely coloured cabinet adornments isn't all you get for your outlay, as the main structures are also immaculately finished in soft black leather, wrapped around the cabinets' curved edges without a stitch in sight and with a quality feel you'd welcome on a pair of Gucci loafers.

Unlike more costly Sonus faber models which tend to follow its trademark lute-shaped profile, the Chameleons adopt a less conventional trapezoid-like side-profile, with a back-sloping stance to aid the time-alignment of its drive units.

The front baffle and driver complement are also impeccably finished – without a screw head to be seen. Each drive unit gets a polished alloy surround, including

the 29mm 'high definition' pre-coated fabric dome tweeter. Positioned below the tweeter is a 150mm midrange driver and a pair of 180mm woofers, all based on Sonus faber's 'free compression basket design' that employs special openings between the spider seat and the top magnet pole to reduce any air compression.

The Chameleon T's midrange and bass driver cones are formed from moulded polypropylene, with the twin woofers working in parallel, making this a four-driver, three-way design. To aid low frequency reproduction, the twin bass drivers are further loaded by a very generous front-firing reflex port, which sits low on the front baffle.

The Chameleon's drivers are designed by Sonus faber but produced in China with parts sourced from across Europe, including the tweeter's diaphragm from Germany's Dr Kurt Müller (DKM). The Chameleon T's internal crossover is based around a first order 250Hz-2.5kHz bandpass for the midrange with 3rd-order slopes for the tweeter and woofers.

The speaker's 40-litre, internally-braced, cabinet is formed from 22mm-thick MDF, with the midrange driver and tweeter sitting in their own sealed chamber. The cabinet's MDF sidewalls sit deep within the speaker carcass, allowing for an alloy frame to be recessed into each side to accept the detachable coloured side-panels. Closer inspection reveals the attention that's been paid to minimising resonance, as these alloy inserts are damped via four large foam pads bonded within each side panel.

Weighing over 24.5kg each, these speakers take some wrestling from their packaging. Once unboxed you then need

**RIGHT: Twin 180mm bass units, a 150mm midrange driver and 29mm dome tweeter are mounted with alloy rings to conceal fixing screws. The Chameleon's interchangeable side panels come in a choice of six colours**



## BRINGING IT BACK HOME

Like many Italian luxury brands, Vicenza's Sonus faber began life with unique products that symbolised a passion for its art. Its defining 1980 Snail Project was truly left-field thinking, based on a 'Leonardo-esque' design with tweeter and midrange enclosures extending via wooden arms from a central woofer 'box', all of which looks just as striking today as it did 35 years ago. More hand-crafted models soon followed with flowing lines and curved sides – an aesthetic that's now become commonplace, helping Sonus faber cement its reputation in the high-end loudspeaker market. This approach led to the company's acquisition by the Fine Sounds Group in 2007, where it now rubs shoulders with fellow brands Audio Research, Wadia, Sumiko and McIntosh. This expansion also marked a move to manufacturing in China for its more affordable Venere range; however, for the Chameleon line-up, production has moved back to Italian soil.

to attach the 22mm-thick MDF base plates, which have an elongated footprint to bring extra stability to the speakers' sloping stance. This takes a bit of patience as you have to line up the supplied screws, washers and rubber spacers, but you'll only have to do it once. You then need to install the coloured side panels via eight plastic push-fit pins.

The panels are made from MDF with an acrylic outer layer and more foam damping on their inner surface. Popping these coloured cheeks on and off is made easy, thanks to a subtle cutaway sited half-way up the rear edge of each panel. Once installed, the side panels' flush finish doesn't reveal their removable nature to the untrained eye, with a tiny gap which most prestige car manufacturers would be proud of.

In my listening room the speakers cut an imposing figure – hard to ignore given their 230mm-wide front baffles. The magnetically attached grilles will be welcomed by those with pets or unruly offspring, but these speakers sound best with their grilles removed, which is how we ran them during testing.



### VIBRANT AND VIVACIOUS

The Chameleon Ts are certainly not a 'matter of fact' sounding type of speaker, as they presented all the music on test with a good sense of vivacity, highlighting their ability to inject life into the music. Having run them in within my main system for a fortnight before sitting down to serious assessment, it was also clear that they're not as sensitive to positioning as many

well-proportioned floorstanders. Best results were obtained with the speakers firing down the long axis of my 5x4m listening room, standing 65cm from the room's side walls and with their backs 50cm away from the rear wall, with just a few degrees of toe in.

Hooked up to my Musical Fidelity M6PRE/PRX amplifiers [*HFN* Nov '13] and Cambridge Audio's Stream Magic 6 v2 piping a 192kHz/24-bit download of Madonna's 'Papa Don't Preach' from her *True Blue* album [Warner Bros], the Ts brought the track's pop sensibilities to the fore with unabashed enthusiasm. The

'The pace of the opening strings told me I was in for a thrilling ride'

pace with which these speakers presented the opening strings told me I was in for a thrilling ride. And as the track kicked in, how the Chameleon Ts presented the dynamism across the

treble and midrange was just as attention-grabbing, revealing all the detail that's etched into each synthesised note.

On the surface this recording may sit at pop's saccharine extreme, but the way in which the Ts made the most of this hi-res version by pulling out layers of detail made the song much more engaging than I'd anticipated. Bass guitar sounded convincingly real, without appearing too hard-edged or artificial, while the keyboard notes and guitar strums had plenty of sparkle thanks to the Ts' well-lit treble.

The ensemble also sounded open and energised, without being too bright. Individual instruments were clearly defined and separated, benefiting a track which can all too often sound congested.

Streaming a 192kHz/24-bit download of Dougie MacLean's 'Caledonia' from *Till Tomorrow* [Linn Records CKD 465] let the Ts take their foot off the pedal and ➔



## SONUS FABER CHAMELEON T

Sonus faber claims 90dB sensitivity for the Chameleon T, which accords well with our measured pink noise figure of 89.7dB. Note, though, that the sensitivity obtained using a music-shaped test spectrum drops a little below 89dB, so that figure probably better represents the Chameleon T's perceived sensitivity in normal use. As usual with modern speakers this figure is partly attained through low impedance, the modulus falling to a minimum of 3.1ohm at 39Hz. Although the worst-case impedance phase angles aren't particularly high, the EPDR (equivalent peak dissipation resistance) still dips to a low of 1.5ohm at 35Hz, close to the minimum modulus frequency, making the Chameleon T a little bit more challenging as an amplifier load than most floorstanders of its size.

Forward frequency response [Graph 1, below], measured at a distance of 1m at tweeter height, is characterised by a notable presence band dip centred on 2.5kHz followed by quite a steep rise in output to a little above 20kHz. This suggests that the flattest perceived response will be achieved when listening a little off-axis. Response errors are on the high side at  $\pm 3.9$ dB and  $\pm 4.6$ dB because of this. Pair matching over the same 200Hz-20kHz range was fine at  $\pm 1.1$ dB but, up to 15kHz, was exceptional at  $\pm 0.5$ dB. Diffraction-corrected near-field measurement showed the bass extension to be 54Hz (-6dB re. 200Hz), while at the opposite end of the frequency range the tweeter output falls away quickly beyond about 30kHz. In the cumulative spectral decay waterfall [Graph 2, below] only a pair of low-level resonances at 4.6kHz and 6kHz mar what is otherwise fast energy decay throughout the treble. KH

**LEFT:** Sloping back cabinet helps time alignment while minimising internal standing waves. Double speaker terminals with removable links facilitate bi-wiring or bi-amping

and offering a very 'live' experience. Both 'Caledonia' and the Madonna track served to show the Chameleon T's slightly forward presentation, although thanks to its evenly balanced nature, this never meant they became too forceful even at high levels.

The Ts will fill larger rooms with relative ease, making the most of the space between listener and speaker and ensuring it's populated with well-proportioned instruments within a three-dimensional musical image.

### BASS AUTHORITY

With such a generous array of drivers and with bass ports big enough to park a pineapple in, I was expecting the Ts' bass to be firmly rooted in the trouser-flapping camp. But while their bass output is certainly healthier than with many equally-priced and sized floorstanders, it's also well enough integrated to ensure the overall balance is smooth and even.

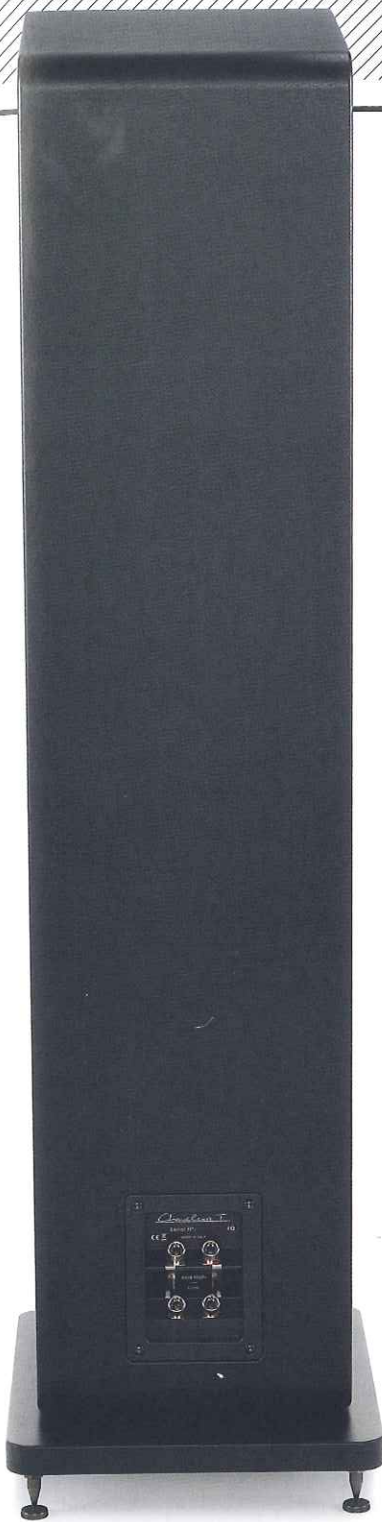
Armed with a 44.1kHz/16-bit rip of Goldfrapp's 'Thea' from *Tales Of Us* [Mute CDSTUMM356] and with the volume nudging neighbour-worrying levels, the Chameleon Ts showed what their twin bass drivers are really capable of, presenting deep bass notes with convincing authority devoid of blur or smearing. Low registers remained focused and with a sense of space in which instruments could really breathe. ☺

### HI-FI NEWS VERDICT

Without doubt, the Chameleon T package offers a lot of loudspeaker for the price, thanks to its healthy size and soft leather finish. And while its flamboyantly flavoured side panels are a nice touch for those that prioritise aesthetic appeal, it's clear Sonus faber's engineers haven't entirely favoured style over sonic merit. Indeed, these speakers offer music that's not only refined but delivered on a grand scale.

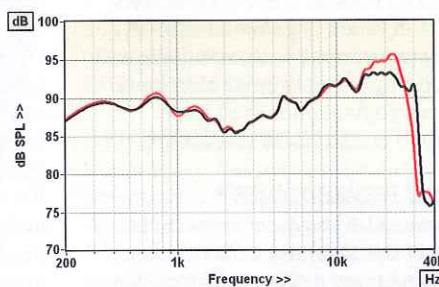
Sound Quality: 84%

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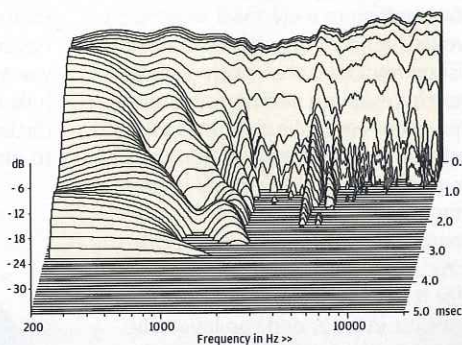


really focus on conjuring a genuine musical image rather than trying to dazzle with detail, as the Madonna song had demanded.

The Sonus fabers painted an image of a beautifully plucked guitar, revealing a recording that's as first-rate as the instrument being played and the musician behind it. With the acoustic guitar set centre stage, the Chameleon Ts pushed these resonating notes wider, allowing them to fade towards the edges of a generous soundstage



ABOVE: The obvious presence band dip and rising treble can be ameliorated by listening off-axis



ABOVE: Cabinet resonances are quickly damped leaving very mild driver modes at 4.6kHz and 6kHz

### HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms - Mean/IEC/Music)	91.6dB/89.7dB/88.8dB
Impedance modulus min/max (20Hz-20kHz)	3.1ohm @ 39Hz 14.8ohm @ 3.8kHz
Impedance phase min/max (20Hz-20kHz)	-42° @ 32Hz 43° @ 1.2kHz
Pair matching (200Hz-20kHz)	$\pm 1.1$ dB
LF/HF extension (-6dB ref 200Hz/10kHz)	54Hz / 32.5kHz/29.2kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.4% / 0.2%
Dimensions (HWD)	1060x270x355mm