



Active duty

ATC's SCM19 standmount now has a fully active big brother and it's a very serious piece of kit says **David Vivian**

For a company that regards change for fashion's sake with the kind of contempt the late art critic Brian Sewell used to reserve for Damien Hirst, ATC has launched a lot of new models recently for a couple of reasons. First, it was founder and boss Billy Woodman's 70th birthday in March, which seems as good a reason as any to make a luxury, tech-adjusted reboot of an old design from the early nineties (the SCM10 standmount, a personal favourite of Billy's), badge it 'Signature Edition' and produce 70 of them. Also an appropriate year to put a 'Special Edition' spring in the step of the SCM50, SCM100 and SCM150 at the big boy flagship end of the domestic range. Customers living with weak, creaky floorboards need not apply. Arguably the most interesting of the newcomers, is ATC's 'active' take on its largest passive standmount, the SCM19 (HFC 390), because the SCM19A is a floorstander. On the face of it, this seems a strange thing to do with some obvious ramifications. Standmount

The leap in dynamic headroom power has a remarkably profound effect

fans who fancied the already talented SCM19 with on-board amplification and active crossover networks will have to embrace the floorstanding ethos or be disappointed. But ATC's model structure for the domestic market has no active standmounts whereas any of its floorstanders can be had in passive or active guise, bar the active-only SCM19A.

Perhaps it's best to think of it as a slightly more affordable alternative to the active version of the company's popular SCM40 (HFC 389). They share the same dimensions and outrigger plinth arrangement, the main differences being total amp power and the number of drivers – the SCM40 being a three-way design, while the SCM19A lifts the two-way driver array from the passive standmount.

Although ATC is completely locked into building passive speakers, Billy Woodman makes no bones about his preference, on sonic grounds, for active designs. First, with separate amps optimised for each driver's frequency band, Woodman explains that intermodulation distortion is reduced by around 20dB because the dedicated amps operate over a narrower range. Secondly, the active filters give better filter roll-off characteristics at crossover which, combined with a variable all-pass filter at each crossover point to correct phase response, results in better group delay characteristics, improves polar response and so radiated power response, delivering a large soundstage with precise and stable imaging. Thirdly, a known amp damping factor together with the absence of long cable runs and passive crossovers leaves driver Q unaffected, giving tighter control of low frequencies. Finally, Woodman contends, passive crossovers are inevitably compromised by driver impedance variations that occur with load, resulting in frequency response errors as the filters are forced out of their fixed impedance design parameters. With active speakers, filter response is maintained independent of input power.

Cool runnings

In the case of each SCM19A that's provided by ATC's latest cooler-running, wide bandwidth, low noise MOSFET Class AB bi-amp pack delivering a total of 182W (32W to the tweeter, 150W to the mid/bass unit). ATC's Grounded Source output stage modules are fed by a newly developed two-way active crossover section with second order modified Butterworth circuitry with phase compensation for each crossover point. The design includes protection circuits for DC offset and thermal overload, while source input requires balanced XLR cables.

The 25mm SH25-76 soft dome tweeter employs a dual suspension system, designed to suppress rocking modes even when driven exceptionally hard. And having a short edge-wound voice coil in a long, narrow magnetic gap claims exceptionally low distortion

DETAILS

PRODUCT
ATC SCM19A
ORIGIN
UK
TYPE
2-way active floorstanding loudspeaker
WEIGHT
31kg
FEATURES
● 25mm soft dome tweeter
● 150mm SL mid/bass driver with integral 75mm soft dome
● 182W Class AB amplification
DISTRIBUTOR
Loudspeaker Technology Ltd
TELEPHONE
01285 760561
WEBSITE
atcloudspeakers.co.uk

throughout the tweeter's operating band and removes the need for ferrofluids, which can dry out over time. The unit's powerful neodymium magnet has a black heat-treated top plate to dissipate heat away from the voice coil and maintain high power handling, while a precision-machined 5.5mm rigid alloy waveguide seeks to aid dispersion with the intention of widening the listening sweet spot.

The 150mm ATC SL mid/bass driver has a weighted doped fabric cone incorporating a 75mm soft dome. The cone is driven by an 'under-hung' (short coil/long gap) motor using a very substantial 9kg 'Super Linear' magnet system. If ATC has a secret weapon, it probably is the way its drive units are engineered. The coils are wound edgewise from specially milled copper wire, providing a higher density of conductor than the norm. Along with new adhesive technology and ultra-fine coil-gap clearances, it allows extremely high power handling and excellent reliability.

Each enclosure weighs 31kg and it's not all down to the onboard amplification and heavy mid-bass driver. The braced, sealed and multi-layer laminated cabinets, with their gently curved sidewalls, are superbly finished in cherry or black ash real-wood veneer, and feel outstandingly sturdy and well made, too. Of somewhat dubious aesthetic

If ATC has a secret weapon, it's probably the way its drive units are engineered



Q&A

Ben Lilly

Technical sales manager, ATC



DV: Why did you opt for a tower?

BL: Once we'd decided to make an active 19, the only option open was a floorstanding speaker because it wasn't possible to fit the amplifier into the standmount cabinet without compromising its volume. The floorstanding format has practical and aesthetic benefits because we could retain a small footprint and effectively incorporate the convenience of a floorstand.

Are you planning any other active-only models or will you be offering a passive SCM19 tower?

We have a very successful passive 19 and we want to keep the lineup easy to comprehend, so for the time being at least we are not planning to offer the passive 19 as a tower or any further active-only models. We just like the sound of the current SCM7/11/19/40 passive lineup.

What makes actively powered speakers sound better than their passive equivalents?

I would cite superior crossover operation as the key factor in generating the clear performance advantage of active over passive designs. With the active approach you can improve accuracy by eliminating certain compromises. Passive crossover design is fraught with variables. For example, if you modify a passive crossover to make an improvement in the frequency domain it will result in a change to the phase and impedance. Active filters give you more control over performance. For instance, an active crossover is not loaded by the driver's impedance (which varies with input power level), so you achieve a consistent 'sound' at all drive levels. Separate active circuits can be implemented for individual control of magnitude and phase allowing both to be optimised, and by removing passive components and minimising speaker cabling between amp and drive units, you gain improvements in efficiency and also control over the bass driver by maximising the damping factor.

IN SIGHT



- 1 22mm soft dome tweeter
- 2 Heatsink for 182W Class AB amplifier
- 3 Speaker binding posts
- 4 150mm SL mid/bass driver with integral 75mm soft dome

value, the magnetically attached anthracite grey metal grilles look more like cages but, according to ATC, should be left in place for the best sound. And so they are.

Sound quality

Even if you're familiar with the dynamic largess and gloriously un-hyped presentation of the standmount passive SCM19, this active tower moves the game on in unmistakable ways. In raw terms it goes louder with less distortion while exhibiting tighter control, wider and more finely graded dynamic contrasts, a deeper, harder-hitting bass and greater rhythmic impetus and drive. Yep, rather than peering through the window, we're standing in the open doorway of the studio, here.

But it's more than that, as you might well hope given the £3k difference in price. 'Naturalness' is a hard characteristic to nail. Characteristic is the wrong word, of course. What we're seeking, in an ideal world, is the absence of character, and it's some way further down this path that the SCM19A takes you. While many of the standmount's virtues remain intact – very low colouration, precise imaging and proportionate scale, fine rhythmic integrity – the leap in dynamic headroom, start-stop accuracy and low-frequency power has a remarkably profound effect on proceedings, adding scale, solidity and, for want of a better

phrase, a sense of life force that the nevertheless unflinchingly neutral and unflappable standmount sometimes just fails to capture. This is performance hi-fi, be in no doubt.

With an ATC CA-2 preamp (HFC 397) up front, fed by my Cambridge CXC CD transport (HFC 401) and Chord Hugo DAC (HFC 386) combo via 2m runs of Nordost Heimdall XLR interconnect, the active ATC portrays the percussion sections on Paul Simon's *Allergies* from the *Hearts And Bones* album with convincing attack and weight while the slower, gentler title track, which can so easily slip over into cloying smoothness and warmth on more mellifluous types of floorstander, is handled with the kind of insight that gives the lie to superficially impressive spotlit detail, allowing the rich tonal colours and nuanced dynamics to shine through unforced and unsullied by any trace of artificial emphasis.

In short, the ACT SCM19A gets it right where it matters. It builds on the sonic talents of the SCM19 passive standmount, adding considerable power and enhanced precision through its floor-up build, onboard amps and active crossover networks. It may wear its monitor chops on its sleeve, but that doesn't mean it's frostily forensic. Yes, it plays music with plumb-line honesty but great generosity, too – full of texture, colour and life.

Conclusion

Clearly shot through with the solid engineering and acoustic expertise loved by fans of ATC around the world, the SCM19A is an important and effective addition to the company's extensive domestic lineup. Used in anger with high octane rock it will make most similarly sized passive floorstanders sound somewhat flat and loose. But it does the delicate stuff with great care and finesse as well. A better advert for properly implemented active design at a relatively sane price I've yet to hear ●



Sonically, this ATC floorstander can face down most £5-6k passive designs that require at least £2-3k of amplification to fulfil their potential. That said, some of the contenders peddle their own well-engineered tech and look more impressive than the functional ATC. Definitely worth auditioning is the £4,900 Triangle Signature Delta, while ATC's on-going rivalry with fellow Brit studio favourite PMC is joined with the £5,750 twenty.26 which for bass quality, resolution and refinement is right on the money. Tannoy's £5,250 Definition DC10T (HFC 323) is also a must-listen, perhaps getting a little closer to the ACT's authority and dynamic reach.

Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



.....

VALUE FOR MONEY



.....

BUILD QUALITY



.....

EASE OF DRIVE



.....

OVERALL



LIKE: Studio-class insight and neutrality; fabulous dynamics and bass; build

DISLIKE: Starkly functional appearance

WE SAY: If you really want to hear what your music collection sounds like, look no further