

Active speakers deliver a winning sound

Patrick Fraser tests a pair of British loudspeakers that prove the benefits of active operation

You'd think that more manufacturers would go active: after all, hardwiring a driver directly to a power amp bolted into the back of a speaker enclosure has a number of clear advantages. First there's the sheer neatness of the arrangement: no need for thick, ugly speaker wires trailing across the floor and just a preamp to rack up alongside your source(s).

Then there are the promised sonic benefits. With no passive crossover to split the signal before doing it out to the appropriate drivers you've cleared a major obstacle from the signal path. This should also result in tighter bass – the inductors used in passive crossovers tend to inhibit an amp's control over a speaker cone – and more power reaching the driver (as passive crossovers can use up a lot of juice). Add to this the removal of the phase problems common in passive designs, not to mention the gains to be had from being able to engineer your power amp to meet solely the needs of your drivers, and the case looks pretty watertight.

It isn't all plain sailing, though. Quite apart from the fact that active speakers require the user to have a couple of extra mains sockets handy, the active approach throws up challenges for the designer. You now have hulking power supplies next to drivers and all the problems of isolation this entails, while packing the power amps into the speakers leaves little scope for the user to upgrade at a later date. Whoever designs the speakers had better get it right.

Gloucestershire-based ATC has no shortage of experience when it comes to active designs, having long been a big player in the professional studio monitor market where elegant and compact high-quality speaker solutions command a premium. And it shows: the £1300 SCM 10A-2s look the money. Indeed, these are some of the most impressive speakers you're likely to behold at any price. Not only do their cabi-

nets look like they've been hewn from solid; the quality of metal used for those grilles wouldn't disgrace the radiator-housing fronting a few top-of-the-range motors I can think of. Indeed, rap a knuckle a little too enthusiastically on those heavy, machined MDF composite cabinets and you won't be playing the piano for a while. They're unyielding.

The speakers use a massive 3.5Kg magnet assembly – typical ATC – but let's not forget that also mounted into the rear of each cabinet is a twin-channel amplifier with multiple power supplies. This delivers no fewer than 200W to the 125mm bass/mid-range driver (designed by ATC founder Billy Woodman) and 50 Watts to the 25mm soft-domed Vifa tweeter, operating in Class A mode up to two-thirds of its maximum output, at which point the speaker is capable of a more than adequate 105db. Aluminium 'gills' to the rear of each speaker act as heatsinks, and get hot – a reason to get the speakers well out of corners and away from rear walls. As standard the speakers have a two-tone grey gloss finish – funereal to these eyes – but other colours are available to order.

Performance

Having spent time with the £480 SCM7s I was eager to hear what a more expensive ATC design backed by a dedicated amp and active crossover could do. As with the SCM7s, a Musical Fidelity M3 integrated amp was used as a preamp, hooked up to the ATC 10-A2s via phono-to-balanced leads, provided by the manufacturer. (A dedicated preamp is also available, but was not available for the test.) Sources were Audio Analogue Maestro and Musical Fidelity A3 CD players.

My first thought was to use the speakers in the 5 x 4m room I use for most listening, but to get them warmed up they were set up on a pair of Atacama SE24 stands in a room measuring just 3 x 4m. Loading the Moscow Phil performing Glinka's *Ruslan and Lyudmila* Overture conducted by Lawrence Leighton Smith (Sheffield Lab Moscow Sessions CD), I was immediately struck by the absence of bass boom.

I usually listen to a pair of Dynaudio Audience 52s with



The grey and marble-effect may not be to every taste, but the sound has wider appeal

foam bungs stuffed two thirds of the way into their rear-firing ports to tune out unwanted bass frequencies, but in the same room the ATCs, with their 10-litre sealed cabinets, were doing their stuff without a single ounce of bass overhang or flab.

What's more, it was bass that lacked nothing in the way of extension, yet which remained wonderfully tuneful and taut. True, it isn't particularly fast, but load up a disc featuring a big orchestral performance, such as Tchaikovsky's Piano Concerto No 1 (with Gilels conducted by Reiner; RCA), and the low-end boasts bags of grip, even the busiest of timps and oboes bouncing along without ever sounding congested or compressed.

Also immediately noticeable is the complete absence of edginess. The SCM7s could set the teeth on edge if fed a particularly raw recording, but the 10-A2s are silky smooth. Piano sounds nicely weighted, the full character of the instrument conveyed and notes having natural decay during solo pieces like Andreas Staier's recording of Clementi's *Capriccio* in B flat (Teldec, 10/00). Vocals, too, have superb presence as Barbara Bonney's rendition (Decca, 2/01) of Purcell's *Dido's Lament* reveals, thanks to a sympathetic delivery of acoustic clues.

Move up the frequency range and treble boasts clean and extended highs, ensuring fatigue-free enjoyment of even rough recordings. True, there was a hint of steeliness with performances

that have been rawly engineered, but this is down to a preamp mismatch, the Musical Fidelity being a touch on the bright side.

The ATCs have a wonderfully even tone, and imaging is first-rate, making it easy to place and identify performers. Julian Lloyd Webber's performance of Walton's *Cello Concerto* (Philips, 8/97), finds the solo cello spotlight against a background that's inky-black but never overly stark. Unlike the SCM7s, which can amaze with their resolving powers but call attention to themselves, the '10s allow the music to tell its tale.

Turn up the wick and things really begin to gel, the already big and wide-open soundstage sounding so deep that cymbal smashes during Mahler's *Resurrection* Symphony No 2 (conducted by Otto Klemperer; EMI, 13/98) come from way behind the speakers. What's more the sound pressure level that acoustic instruments are readily capable of generating in a concert hall setting begins to be appreciated.

The ATCs' styling won't be to every taste, those marble-effect side cheeks looking more at home in mausoleum than maisonette, while a fairly recent price hike from £1000 puts a bit of a damper on things, too. But if you can live with the looks and want a neat-looking and serious-sounding speaker solution then it's hats off to ATC. The '10s are worth some serious investigation, and will reward such attention. ☺

ATC SCM 10A-2

Type Two-way active speakers

Price £1300/pr

Input Balanced XLR

Amplifiers High frequency 50W, mid/bass 200W RMS

Drive units High frequency 25mm Mid/bass 125cm, active crossover at 2.8kHz

Dimensions (H x W x D) 390 x 290 x 310cm

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