

# Choice EXOTICA

ATC SCM40  
FLOORSTANDING LOUDSPEAKER £3,275



# The BFG

In the SCM40, ATC has a sizeable floorstanding loudspeaker that's set way away from the fray, says **David Price**

**T**here's something odd about ATC's SCM40 – it doesn't look or feel like almost any other loudspeaker in its price class. It's almost as if someone has forgotten to style it, like they've taken three drivers and put them in a box designed to do the job and then gone home. This is in marked contrast to many rivals, which have all kinds of stylistic flourishes. Despite looking rather 'old school' – albeit in a timeless sort of way – the SCM40 is actually a new model that came out in 2013, replacing a 2007 design of the same name that looked as if it had been launched in 1988! ATC, it seems, doesn't pay too much attention to matters of fashion.

## A reminder that so many reflex ported designs aren't doing bass right

Construction quality is another matter. There is absolutely nothing about this speaker to suggest it is built to its price, and you're reminded of this when you try to move it. The drive units look highly anachronistic, and that's because they are – especially the midband driver. The Gloucester company began its life building drive units for professional monitor speakers, and then started making its own. Founder Billy Woodman seems as fascinated by transducers as he was 40 years ago when ATC was born, and it has a dome mid unit unique to this marque.

Very few companies make midrange domes these days, because they're hard to get right. Instead, most prefer to use a small version of a coned bass driver to handle these frequencies. The benefit of a dome, as well as excellent dispersion, is that it is phase-coherent with the dome tweeter – which is to say it radiates sound waves in a similar manner. This brings excellent integration to that critical tweeter/midrange driver

relationship, and you can hear it in every speaker so designed, from the classic Yamaha NS-1000M to the SCM40. This 75mm soft dome mid driver uses a hand-doped acrylic diaphragm and suspension system, using a "secret ATC formula". It mates to an ATC-designed and built 25mm dome tweeter with a doped polyester diaphragm and suspension, with alloy wave guide. The bass driver is 164mm in diameter and features a hand coated paper pulp diaphragm, chosen for its balance of low mass, damping and rigidity, and there's a huge motor assembly behind.

A three-element crossover is fitted, comprising a low pass filter, band pass filter and high pass filter. The efficiency of the system is set by the bass driver with the mid and HF padded down accordingly, the company says, so it's kept as simple as possible – this is achievable because the drivers are designed around it. As with all ATC three-ways, the crossover points are 380Hz and 3.5kHz. One problem with this speaker is that it's not particularly easy to drive. ATC says its impedance curve is flat, so the amplifier shouldn't require Herculean reserves of current, but it sure does need watts! Quoted sensitivity is low for a big box – 85dB/1W/1m – which means over 60W is the order of the day. I try several solid-state amplifiers and all get hot and slightly bothered at very high volumes. This is in part because ATC has gone for an infinite baffle cabinet, which asks more from whatever is driving it.

## Sound quality

There are too many loudspeakers describing themselves wishfully as 'studio monitors', but here we have something that is far closer to this than most. The big ATC is unerringly revealing of what you put into it, and certainly doesn't sugar the pill. But if you imagine that it is cerebral, analytical and dispassionately forensic then think again. Feed it a high-quality source via a smooth, punchy solid-state amplifier and you get a startlingly fine sound back.

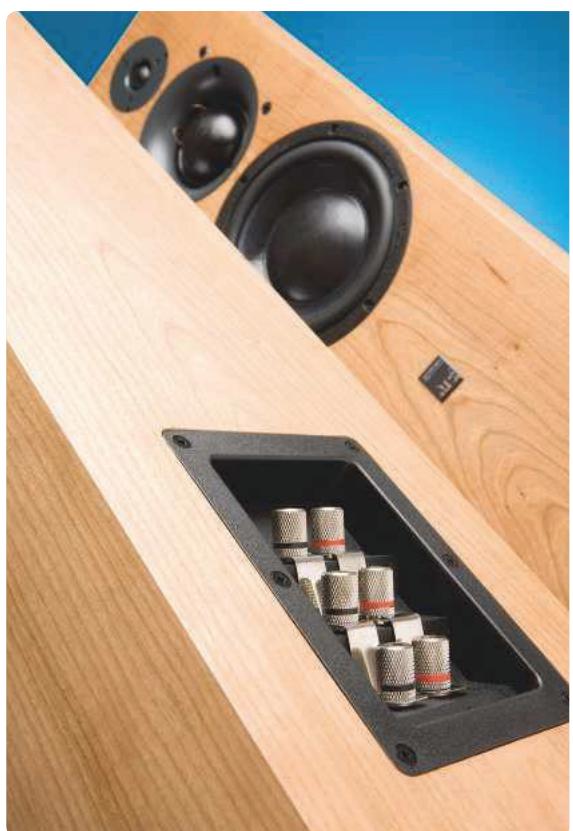
## DETAILS

**PRODUCT** ATC SCM40  
**ORIGIN** UK  
**TYPE** 3-way floorstanding loudspeaker  
**WEIGHT** 31kg  
**DIMENSIONS** (WxHxD) 265 x 980 x 300mm

**FEATURES**  
• Infinite baffle cabinet design  
• 25mm soft dome tweeter  
• 75mm soft dome midband driver  
• 164mm bass driver  
**DISTRIBUTOR** ATC Loudspeaker Technology Ltd  
**TELEPHONE** 01285 760561  
**WEBSITE** [atcloudspeakers.co.uk](http://atcloudspeakers.co.uk)

In essence, you get a large, wideband sound that's starker and more open than anything else I've heard at this price. This is made more apparent by its superb bass; arguments rage about the relative merits of infinite baffle boxes, but ATC has got this one working brilliantly. The only downside is that it makes lesser amplifiers feel like a jogger running in concrete trainers!

Kraftwerk's *Tour de France Soundtracks* is breathtaking – rarely have I heard its low frequencies in such sharp relief. Positioned just 30cm from my rear wall and toed-in slightly, the speed, power and grip is superlative – it easily outdoes more expensive big boxes like Spendor's D7 or Sonus faber's Olympica II. The attack transients on the synth bass are superb, starting and stopping with the speed of an LED. On songs with vast tracts of low frequencies such as the Moog bass on 4hero's *Cosmic Tree*, the bottom end is rock solid, prodigious and ultra tight, but give it an indie guitar track like REM's *Maps and Legends* and the speaker is relatively circumspect. Basically, it tells you what's going on if it is going on, and if it isn't then it doesn't! This is the mark of a serious wideband monitor loudspeaker, and a reminder that so many reflex ported designs simply aren't doing bass right. Conventional-holed boxes have practicality and



## Q&A

**Richard Newman**

ATC transducer/R&D engineer



### DP: What does the SCM40 set out to achieve?

**RN:** We designed this product to improve upon its predecessor through the incorporation of the new ATC SH25-76 tweeter, a better cabinet construction and further refined crossover design. The SCM40 aims to offer the extremely high performance and good value for money in a package suitable for most living/listening rooms. It sports the same bass and mid drivers as the previous model, but the tweeter has undergone a huge upgrade. It's the product of seven years' development and is the only dual suspension 25mm tweeter on the market that we are aware of. The dual suspension design allows us to overcome the issues associated with ferro-fluid designs. The speaker sounds dynamic and honest.

### Why choose an infinite baffle cabinet design?

Many sources of non-linear distortion in loudspeaker drive units are directly related to excursion. By tuning a port to essentially clamp the motion of the bass driver at its resonant frequency ( $F_s$ ) we are able to keep the non-linear distortion low. It's this approach we adopt in our larger loudspeakers, where it should be noted that  $F_s$  occurs at a very low frequency. At frequencies below the port tuning the bass driver essentially operates in free air, undergoing large excursions and producing all manner of undesirable non-linear distortion. In large systems where  $F_s$  is so low we can control the motion right down to the lowest frequency in the audio band, but in smaller systems the lack of control below  $F_s$  would result in a poor performance. So an infinite baffle design on the SCM40 gets control over the bass driver across its complete operating band and in turn reduces non-linear distortion. The 12dB/oct roll off associated with an infinite baffle design also provides a fantastic transient response resulting in a bass that sounds tight, controlled and fully representative of the audio signal.

## IN SIGHT



- ① 25mm soft dome tweeter
- ② Infinite baffle cabinet design
- ③ 164mm bass driver
- ④ 75mm soft dome midband driver

the lily with the SCM40, everything is handed to you in an accurate and unalloyed way. Some may find it bright; it's certainly a fearless critic of your ancillary components, so if you've got some £1,000 separates and you'd like to buy the ATCs to partner them until you've saved up for better, you should be prepared to be reminded why you need to save up!

In practical terms, this is the biggest problem – they are too revealing for most front ends and certainly those in their price class. Most buyers with this sort of money will not want something that tears into recordings in such a way. Play some classic Blue Note jazz in the form of Lou Donaldson's *Alligator Bogaloo*, and it's wonderfully sonorous and insightful, swinging along like you wouldn't believe. But move to the Byrds' *Eight Miles High* (recorded around the same time) and it sounds disappointingly thin and insubstantial; it's still musically enjoyable, but doesn't half sound poorly recorded.

## Conclusion

Given a serious source and recording, the new ATC SCM40 is superb – I know of no price rivals that give this level of accuracy, speed and insight. It strings the rhythmic elements of the mix together brilliantly, punching out subtle dynamic inflections in a marvellously satisfying and visceral way. But then again it will have you fretting about how best to drive it for years to come, because you know it's capable of a level of transparency you'd normally only expect from loudspeakers at three or four times its price. It's certainly a great speaker to commit to and build a system around – but if you're looking for something that's simply going to make 'a nice noise' regardless of partnering equipment and recordings, then others are certainly going to be a more appropriate match •



Selling for £3,495, Spendor's D7 is an established favourite. It is extremely well built and finished, displays real engineering depth and turns in a very fine sound. It manages to deftly balance out detail retrieval and musicality, while being easy to drive and easy going on ancillaries. Not so the ATC SCM40, which is an altogether more revealing speaker – it cuts right into what's really good in the recording and tells you all about it as bluntly as a Yorkshireman in a bad mood. If the ancillaries and recording are great the ATC flies ahead of the Spendor; most obvious is the brilliant bass grip and searing midband detail. They're both excellent speakers and worth auditioning.

ease-of-drive in their favour, but can bring problems related to phase integrity across the whole frequency. This often means the bass can sound like it's a fraction of a second behind.

Not so the SCM40, and the way it integrates its superb low frequencies with the midband is a joy; in this region it's more searching than many, but is never harsh unless the source and/or song is too. It sounds like a veil has been lifted from in front of the music and it gives an explicit insight into the proceedings. I am impressed by how deep it digs into Thomas Dolby's *Airwaves*; it ekes its way into the groove and throws out loads of info. It sets up an accurate stereo soundstage and hangs images back when needed, but projects well when called upon. It proves highly coherent in its handling of phase, everything snaps into focus and arrives at the right place and time.

Despite that big, prodigious bass, you would not call the ATC warm. It has quite a revealing balance that isn't afraid to 'do' bright when the recording and/or ancillaries dictate. Treble is airy, spacious and well etched. The looped hi-hats on Beatmasters' *Who's In The House?* are crispy and scratchy, which is just how they should be. There's no gilding of

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### OUR VERDICT

#### SOUND QUALITY



#### VALUE FOR MONEY



#### BUILD QUALITY



#### EASE OF DRIVE



**LIKE:** Superlative clarity; excellent phase coherence; sublime bass

**DISLIKE:** Hard work for an amplifier; too revealing for most

**WE SAY:** A great modern monitor loudspeaker, but not for all

#### OVERALL

