

Integration with ATC SCM40A



by Simon Price 12 days ago



Delivery guy rings my intercom....OK great, the ATC SCM40As have arrived. “I have a “pallet” for you”, he says. So I ask him to leave the “freight” in the communal entrance as I don’t expect him to deliver them up the stairs. That’s surely not in his job description! He has The Manual Handling Operations Regulations (1992) to worry about. This is before I’ve worked out each speaker is 36kg and I’m alone, 5 foot 8 and only about 170lbs. Oh no – they can’t be left here...an amusing kerfuffle of neighbours is then involved...

But all worth it, for the anticipation of setting these speakers up is starkly palpable. Easily mounted on plinths with spikes, with solidity you feel them sink sure-footingly into your carpet like a tent on a damp day. These speakers, part of ATC’s *Entry* series, are relatively big and do assert their presence. The curved sides to the cabinets are pleasingly unique. Nothing entry-looking though. But not bothering with the mesh type grills, the drivers are shown off to full allure. There are three of them of course considering 3-way design credentials – a high frequency tweeter, mid-range unit, and bass driver. The little wires poking out of the mid-range unit are not an unfortunate accident of a butter fingered courier : they “connect input terminals to the voice coil” I’m told.

And this is a decently sized speaker if that's not plainly obvious to me from the damage they would have done to my back if I had tried to move them alone. Suited to medium to large rooms and a speaker firm with a pro heritage to boot.



A touch of class

I wanted to try the [ATC SCM40 passive models](#) originally but ATC and their communications company were insistent on sending me the active model. Which is interesting – the push towards actives and the fact speaker firms often rate them above their passive models. There are a number of advantages and for an explanation see [here](#).

The three power amplifiers connected to the active crossover in each cabinet are a 150W module for the bass driver, a 60W unit driving the midrange and a 25W amplifier just for the tweeter. They are all class AB types and not of different classes as found in some active (powered) speakers. It's, I suppose, the speaker equivalence of having the three participating members of The Jam, Nirvana or Stereophonics, all at once.

ATC hand-build their own drive units and enclosures so nothing is 'off the shelf' and the product is fastidiously constructed. In a *Two Ronnie's* 'four candles' type way, just coming 'off the shelf' connotes an idea of a guy with grubby overalls on, bolting drivers into a box.

And this approach is diametrically opposite to what ATC are about – take a look at this factory tour video to see how much care goes into making drivers;



SOURCE : Trans Audio Group

Surprisingly few firms build own drivers. Even similar pro speaker firm [PMC](#) use Norwegian SEAS units, such as with their [new twenty5i series](#). ATC describe the tweeter as having a dual suspension with a useful GIF on the website, as below. Because the suspensions are behind one another, the tweeter can't move laterally. And because it can't move laterally, it can't distort off axis.

Dual Suspension Tweeter

I had a black ash pair – they have functional pragmatic looks, but you can also get them in other finishes ; cherry, smooth white and black. I was trying to work out the actual shape viewed from above until my interest in recounting school maths waned. Also too when some relations pitted in with ‘an upside down boat’ or ‘iron with the point chopped off’. But aside their unhelpfully facetious comments, the point is the shape has a purpose in stiffening the cabinet and stopping cabinet resonances which can sonically affect the sound. The curved panels are made up of three layers, to this end.

It's quite a simple arrangement at the back with the heat shrink grills giving them away as actives. With a power button, power inlet and fuse and XLR analogue input from your pre-amp – unfussy. Bending down to turn them on is unique for speakers and I wondered about some form of remote operation. There are only XLR connections which is fine as the input is fully balanced meaning you achieve the cancelling noise effects balanced cables muster with their extra conductor when the respective signals are flipped back into phase. The crossover onwards is singled ended. The red anodised bars on the back are service bars that pass through internal amplifier and crossover components to allow a stop at the right place, and for lowering the components.



The SCM40As are a sealed box design with no porting like many conventional speakers. Trapped air provides a cushion and air spring meaning transients (on/off nature of music) are improved in this type of design, as the drivers move back and forth. A bit like a light child on a big bouncy castle perhaps. Also associated with shallower roll off in low frequencies – in layman's terms louder bass at lower bass frequencies. Apparently the 40 refers to the internal litre space, so critical to a speaker of this design.

ATC's Ben Lilly says the company go for what he calls 'Neutral Fidelity' with low distortion, a flat frequency response, meaning all the frequencies in the audible range are at a similar volume level, and wide dispersion from the driver. In other words no shaping of the sound like many speakers try to achieve with higher frequencies etc, in an effort to fit into the room once room effects are in the mix. Speakers, of course, always interact with a

room – going together like peas and carrots or love and marriage, the sound they produce is always a room and speaker co-dependence. So the ATC aim is to get the sound out as neutral as possible before the interaction. In other words these speakers fit around good rooms, very much akin to the studio type ethos.

The SCM40As were connected up nicely with my [Cyrus DAC XP Signature pre amp](#) and matching Cyrus PSX-R power supply with some Beldon XLR cables and then [XLR cables from AudioQuest](#). Also an [Innuos Zenith Mk2](#) and [RME ADI-2 DAC FS](#). All plugged into an [Isotek Aquarius power conditioner](#), using the Isotek's high current outputs. Also I tried direct from the XLR outputs of the RME.



And their 13th Note credentials?

Why does music sound better at night? Is it the temperature of the air propagating sound more, is it lower ambient noise or is it to do with our ears settling or using our auditory senses more. Or the mains or psychological? It's certainly the case that these speakers come alive during night listening...

Following concerted listening over a week I highlight the main sonic USPs in bold, as ever. The thing that smacks you in the face with these speakers first is the way music

is **exquisitely integrated and balanced**. Like music you'd take to a desert island akin to Radio 4's *Desert Island Discs*, these are really a pair of speakers that represent the best of what is easy to live with.



The measure of how a speaker really goes to town and how real it is, is to do with how the bass and treble meshes. In tone the ATC SCM40As are sublimely refined speakers but maintain neutrality, often commonly associated to 3-way speakers crossed over correctly. They won't suit treble monkeys though but as far as Donald Trump is to Boris Johnson, it's not the point here. You won't be buying them on the excessiveness of those personalities – more someone stable, dependable and solid. I'm not a royalist but much like the fortitude the UK was built on, maybe Queen Elizabeth II. And whilst feeling British and patriotic, I still think we produce most of the best speakers. Plug for the British HiFi industry.

Ok so you sometimes risk credibility to sceptics by giving such positive praise. But I've no compunction flouting the praise of these speakers and being confident doing so, such is how shudderingly brilliant they are. *Caliban's Dream* by *Underworld* on *The London Olympics 2012* soundtrack sounds enveloping like nobodies business and the bass line reflects how realistic these speakers can be. Which is another strength by the way – **their low articulating accuracy in bass.**

But what these speakers also do is **resolve incredibly well with detail**. The equivalence of 20:20 vision in auditory terms would be these speakers. Neither with binoculars or a magnifying glass, just as things normally are and look.... Out comes *Orbital's* test track I use – *Attached* on the *Snivilisation* album. There isn't the same in your face pitch as with some high frequency adjusted speakers, but this high octane treble test track assesses electronic cymbals. Neither are they excessive or undeveloped, and come across assuringly in centre ground again.



The other obvious trait is **room filling soundstage and scale**. I'm not going to be telling you anything you probably wouldn't envisage – it's down to the simple physics of the drivers, their size and coherence together. They can also go loud too. But the size and scale of the desolation in *Vangelis' Theme from Antarctica* is always an epic way of judging sound-staging. With these speakers it's taking you way beyond what is socially acceptable for the neighbours. Every crack and crunch the synthesisers make extending your amazement of their capabilities.

In all honesty I don't yet have a similar home testing benchmark to compare these speakers against so far as such sized active 3 way speakers, hence why I'm not traditionally naming others. Certainly against my smaller transmission line designed [PMC twenty5 23's](#), the sound is much more balanced and of a studio quality. It's like going from drinking tequila to brandy. Initially my impression was of a slower speaker but possibly I'd put this down to

the bass being fuller and fatter. A more realistic bass will be fatter and give the impression of slower speed to bass which is thinner, so I'm making no extrapolations here.

Also smaller drivers can only move so much air and they have limitations. Potentially too the ATC SCM40As hate claustrophobia – they may need a bit more room to breath against back walls as proximity to walls can equate to a slightly slower transient dynamic response. I thought I'd have something to say of these speakers that isn't so good, as part of this project at balanced and credible reviewing – nothing can be perfect. But I really don't in this case and at this price and spec. Nothing. Zilch. Diddly squat.



With the Cyrus pairing to the RME against the RME alone as DAC and pre, the Cyrus setup was an all together more complimentary one. Think a lower bass but what the RME alone showed, is that these speakers are very good of relatively undecorated DACs and pre amp sources. It means you can hit the ground running to a modest pre amp and upgrade your pre later later. They reveal well of different upstream components too.

Being relatively big, some may say domineering of a room. But if you look at HiFi as a means to an end of sonics, aspiring to this camp of thinking is far from problematic. Especially with speakers in this class. You wouldn't be spending this sort of money if you didn't value sonics and scale too. Also the price includes power amps for 3 drivers in each speaker so if, like me, you have smaller speakers and power amps, you've got to factor in *opportunity cost* when buying small;

opportunity cost

“the loss of other alternatives when one alternative is chosen”

This thinking got me a little depressed but more irksome, because my Cyrus Signature Mono power amps and smaller less accurate and less neutral PMC speakers are the same price combo as these ATC's! They make a very good case for making a bigger initial single outlay on a more sizeable active speaker pair, rather than progressing through the ranks and niggles of power amp upgraditis. All together or not at all thinking saves money. Of course you need commitment with the price of these speakers though.



You could be forgiven for thinking that smaller scale speakers that aren't as expensive to make, might have got you to your Zenith already. This conceivably may be the case, if you own that type of speaker. But what it won't account is the fact you might then have to spend lots on power amps or an integrated, to ramp their performance to a level that is extruding all their performance. But then still maybe only pulling on the coat tails of these ATCs. Actives also keep box count down too.

As sure to that soul churning experience you get after listening to speakers of this quality, the pleasing mouth popping sound as you turn them off is the final peg of thinking, 'God I want a pair'. 13th Note performers unhesitatingly and unflinchingly!

Manufacturer



ATC Loudspeaker Technology Ltd

Gypsy Lane, Aston Down, Stroud, Gloucestershire, GL6 8HR.

Tel: +44 (0)1285 760561

Email: info@atc.gb.net

Web : <http://atcloudspeakers.co.uk/hi-fi/loudspeakers/entry-series/scm40a/>

Price

£7,000



Finishes – black ash, smooth black, smooth white, cherry

Specifications (reproduced from ATC website)

- Drivers: HF ATC 25mm dual suspension Tweeter, Mid 75mm ATC Soft Dome, LF ATC 164mm SC
- Matched Response: ± 0.5 dB
- Frequency Response (-6dB): 48Hz-22kHz

- Dispersion: $\pm 80^\circ$ Coherent Horizontal, $\pm 10^\circ$ Coherent Vertical
- Max SPL: 112dB
- Crossover Frequencies: 380Hz & 3.5kHz
- Connectors: Male XLR
- Input sensitivity : 1V
- Filters : 4th Order critically damped with phase compensation.
- Overload Protection : Active FET momentary gain reduction.
- Fault Protection : DC fault protection and thermal trip. Fault indication on rear panel mounted LED.
- Amplifier Output: 150W LF, 60W MF, 32W HF
- Cabinet Dimensions (HxWxD): 980 x 370 x 344mm (inc. foot plinth & amp, spikes add 25mm to height, grill adds 34mm to depth)
- Weight: 36kg
- Finishes : cherry, black ash, smooth white and black (as above)