



Studio line

Few companies are more famous for loudspeakers, but what of its amplification?
David Price samples ATC's CA2/P1

There's an old adage in specialist hi-fi – there are electronics manufacturers, and there are loudspeaker manufacturers, and never the twain shall meet. Many competent amplifier makers have tried their hands at speakers and come away with more than one finger burned. The reason is that it needs a completely different set of core competencies; speaker design is largely a mechanical engineering challenge, amplifier design is not.

Even fewer companies attempt to do it the other way round, and those that have, haven't always showered themselves in glory.

The Acoustic Transducer Company crossed the rubicon, as founder Billy Woodman told me last year, because it needed something good, strong and reliable to demonstrate its speakers with. Actually, ATC wasn't completely new to this because it has made some very fine active speakers for many

years, but the idea of doing separate standalone hi-fi amplifiers is relatively recent. The CA2/P1 pre-power amplifier combination isn't one of the world's most dazzling packages, has precious few 'whizz bang' features and claims no special technology. Instead, the essence is that it's a rigorously engineered and flexible pairing that is hand built in the United Kingdom, alongside the company's excellent loudspeakers, to drive the very same.

ATC believes in amplifiers with extremely wide bandwidth, and especially low distortion and noise. Likewise, this combo is not equipped with fripperies like built-in DACs, and the like. It isn't first and foremost a piece of 'convenience audio', a sort of hi-fi equivalent of a pack of Super Noodles. Rather it is old fashioned in the way it's unashamedly designed to fulfil a role that has existed for five or so decades now – giving flexibility and functionality without gimmicks.

DETAILS

PRODUCT
ATC CA2 Mk 2
ORIGIN
UK
TYPE
Preamplifier
WEIGHT
7kg
DIMENSIONS
(WxHxD)
445 x 90 x 330mm
FEATURES
• 4x line inputs
• 1x MM/MC phono input
• 1x balanced XLR input
• Tape monitor loop
DISTRIBUTOR
ATC Loudspeaker Technology Ltd.
TELEPHONE
01285 760561
WEBSITE
atcloudspeakers.co.uk

The £1,437 CA2 preamplifier is a straightforward design with four line inputs, phono input and tape monitor, all via RCA phono sockets. There's also a main stereo output on both RCAs, balanced XLR, plus sub output via RCA phono and a headphone output via a 6.3mm jack socket. The phono stage is configurable for different loading and input voltages, so will work with most moving magnet or moving coil cartridges. Slightly frustratingly, you do have to remove the unit's cover to get to the jumper switches on the board. Although not ostentatious, this preamp feels like a quality product with crisp source switching via gold-plated relays. While the motorised volume control feels slick enough, it's rather too inset into the fascia to be easy to use, forcing use of the disappointingly plasticky remote control.

The £2,079 P1 MOSFET power amplifier has been designed to partner ATC passive monitors, and puts out a claimed 150W RMS in Class AB – which should be sufficient for all but heavy metal fans living in palatial homes with vast listening rooms. Although an entry-level power amp for ATC, the manufacturer says it has the same speaker protection circuits used in its active monitors, which ensures that even when running at high levels the amplifier is held back from clipping – thus protecting the loudspeakers from damage. It's a true dual mono

design, with power supplies, signal and return paths totally separate from one other. Aside from a choice of balanced XLR or unbalanced RCA phono inputs, it is fairly Spartan in terms of facilities with just a power LED and infra-red receiver; annoyingly the main power switch is on the back, and is small and hard to reach. In its defence it's designed to be awakened by the supplied remote. Two pairs of ATC's speaker binding posts and an IEC mains in complete the picture.

The two products are a good visual match and built very well, although the finish isn't as slick as some at the price – you need only look at a Marantz integrated to realise this.

Sound quality

Listening to the ATC CA2/P1 reminds me just what a complete, well-rounded, high-powered solid-state amplifier is capable of. We're talking a large and spacious recorded acoustic, powerful bass and sparkling highs. Effortless dynamics, and a general insouciant ease when asked to reproduce powerful musical peaks. For example, Fun Lovin' Criminals' *Love Unlimited* has a thick, fat, punchy soul groove with some very solid bass. It proves just the sort of song that a pre-power amp combination like this is made for. The ATCs show real control, seemingly exerting an iron grip on the low frequencies that make less

DETAILS

PRODUCT
ATC P1
ORIGIN
UK
TYPE
Power amplifier
WEIGHT
23kg
DIMENSIONS
(WxHxD)
435 x 135 x 350mm
FEATURES
• Claimed power output: 2x 150W RMS
• 1x RCA phono line input
• 1x balanced XLR input
• IR remote compatibility
DISTRIBUTOR
ATC Loudspeaker Technology Ltd.
TELEPHONE
01285 760561
WEBSITE
atcloudspeakers.co.uk

Rigorously engineered simplicity is the order of the day

integrated amplifiers seem vague and tremulous. I try my budget reference Cambridge Audio AeroMax 6 floorstanders, which the ATCs drive like they are lighter than air, and ATC's own SCM40 loudspeaker, with which this pre-power combo doesn't so much as break into a sweat. Clean, unsullied power it is, then!

Proving itself good at turning in a punchy, muscular sound with dance music is one thing, ability to carry a tune is another. With the 2009 remaster of The Beatles *White Album* cued up and *Martha My Dear* selected, it is an interesting experience as this song sounds cleaner and more polished than usual. There's a lot of information coming through, with a wonderful sense of the recorded acoustic. The ATC combo places the different elements of the mix very accurately in space; both left to right and front to back. I am not used to hearing this song with such clarity; and extension to Paul McCartney's vocals, which come over in a really intimate way – I almost get the feeling I am in the vocal booth with him. This amplifier combo proves to have an excellent midband then, very transparent and with no small amount of space and depth. This is precisely the sort of thing you should expect from a capable highish-end pre-power, and reminds you just how far even the best integrated amplifiers have to go in this respect.

It is fast becoming clear then, that this amplifier combo is a big-hearted device with a very clear and open midband. How then does it fare with large-scale orchestral music? I cue up one of my favourite pieces of 'battle music', Wagner's epic *Flight Of The Valkyries*, and sit back. This pre-power tracks those soaring strings and rasping horns with great aplomb, doing two things particular well. First, it seems especially good at separating different strands of the music out from one another, so you can focus on one

section of the orchestra and follow it completely independently of the others – even on those great, crashing crescendos. Secondly, it again sets up a massive soundstage with excellent spatial information inside, and majors on telling you where everything is and giving an immense listening experience, as if you were in a concert hall.

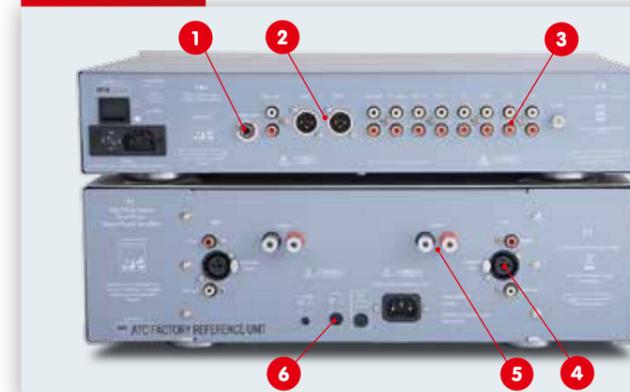
Tonally, I find the ATC surprisingly good for a conventional Class AB design; it's just ever so slightly brightly lit across the midband – most obvious with the starkly revealing SCM40s rather than the warmer AeroMax 6s, it must be noted – and this adds to the feeling of insight and air, without ever pulling the amplifier combination towards stridency; *Valkyries* is not a piece of music that gives bright sounding electronics an easy ride, but

The combo ties in well with ATC's heritage of being seen and not heard

it doesn't flag up any tendencies for harshness here. Instead, this powerful, dynamic rendition proves highly enjoyable, as I tap into the P1's not inconsiderable output power and loudspeaker-driving ability.

The only downside to this pre-power combo is with jazz music, where I feel that the ATC is slightly matter of fact, rhythmically. You would never criticise it as being a slouch in the timing department, but it's fair to say that it's not the most euphoric sounding amplifier I've ever heard; it doesn't sugar the pill or throw things together in a charmingly insouciant way. Rather this duo focuses on giving an accurate rendition of the music with no other frills thrown in. Donald Byrd's *Street Lady* flows nicely for example, sounding wonderfully smooth, spacious and wideband – but you

CONNECTIONS



- 1 6.3mm headphone output
- 2 Balanced XLR outputs to power amplifier
- 3 RCA stereo inputs
- 4 Balanced XLR input (left)
- 5 4mm loudspeaker binding posts (left)
- 6 Power switch

Q&A

Ben Lilly

Technical sales and application manager, ATC



DP: Why does a speaker company feel the need to sell electronics?

BL: Having built active loudspeakers since the mid-eighties, a range of standalone electronics was never far from what we were already manufacturing. It was just a logical progression really. We also had some bad experiences when auditioning electronics to partner our loudspeakers so we felt that by offering an all-ATC solution we could not only widen our product range, but also benefit the performance of our loudspeaker systems. We set out to design audio systems with neutral fidelity, wide dynamic range and excellent reliability. Our electronics and speakers share our philosophy and are completely compatible, but perhaps dynamic range is something we pay particular attention to and this is why we don't build any integrated or power amplifiers capable of less than 100W continuous into 8ohms.

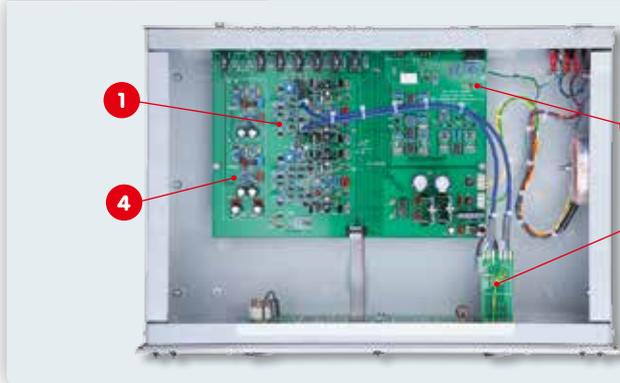
What were the key objectives behind the CA2?

The first generation was designed in 2000, and the second came out in 2009 with an improved PCB layout, more features and an updated chassis. The idea behind the product was to offer a highly linear and transparent method of selecting multiple audio sources, controlling level, driving long output cables if required and driving headphones.

How did the P1 come about?

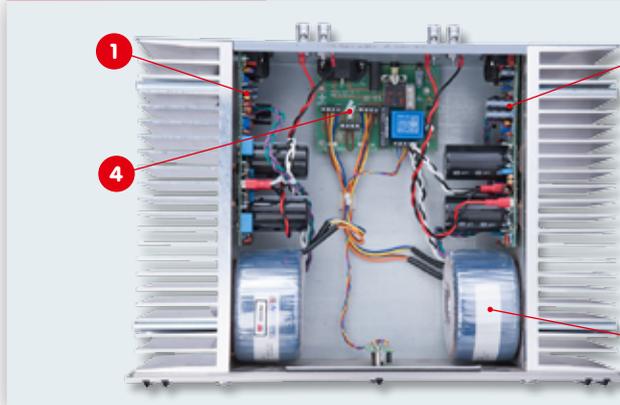
The design of the grounded source output stage used in the P1 was developed by Tim Isaac back in the early eighties, and has been refined many times – but the basic topology remains the same and we use it in the majority of our power amplifier stages, both in the standalone electronics and the loudspeaker active amplifier packs. The P1 was launched in 2009 to accompany the Mk2 CA2 and is the work of a number of our engineers. It was designed to meet the requirements of our customers with wide bandwidth, very low distortion and noise, and a power output capable of driving the vast majority of speakers.

CA2 PREAMP



- 1 Discrete stereo input buffers
- 2 Regulated power supply
- 3 Alps precision motorised stereo volume pot
- 4 Configurable MM/MC phono stage

P1 POWER AMP



- 1 Balanced and single-ended input buffer
- 2 Grounded source Class A/B MOSFET output stage
- 3 230VA toroidal power transformer
- 4 Mains power input circuit

HOW IT COMPARES

The obvious rival for the ATC pre-power is the Naim NAC 152XS (HFC 324) preamplifier (£1,095) and Naim NAP 200 power amp (£1,925). Both preamps are relatively minimalist and both power amps share an equally Spartan approach. The ATC out punches the Naim in power terms on paper at least. Both are excellent at driving real-life loudspeakers, although the ATC does go louder and stay cleaner. The Naim combo is more rhythmically engaging with some music, pulling you in and immersing you more. But the ATC is better at detail and control, and sounds a little less congested across the midband. This is a typical case of try before you buy. Both are excellent products, but different.

wouldn't say there's a particularly romantic or dreamy quality to its performance. This ties in well with ATC's studio heritage; in such applications electronics should really be seen and not heard, and the last thing you want is euphony and an excess of emotion.

Overall, I find this combo works best on classical and electronic music then, and the two genres share many characteristics. The dazzlingly well recorded *Electric Cafe* by Kraftwerk is a joy, with a big, three-dimensional soundstage and a glass-clear midband. At the same time, the bass is deep, articulate and appears to have effortless reserves of power.

Conclusion

An excellent performer, this is a true slice of affordable esoterica – you get a taste of what a really top-flight high-end pre-power amplifier will do, without having to remortgage your house in the process. The ATC CA2/P1 pre-power amplifier combination may be slightly quirky and fiddly in some ways – seeming very much the product of a specialist British manufacturer – yet it has great appeal to those that are interested in getting a serious bang for their buck, so to speak, and so it comes highly recommended ●

Hi-FiChoice

OUR VERDICT CA2

SOUND QUALITY ★★★★★ **LIKE:** Clean, crisp and detailed sound

VALUE FOR MONEY ★★★★★ **DISLIKE:** Controls hard to use; plasticky remote control

BUILD QUALITY ★★★★★ **WE SAY:** Effective performer that's a fine partner for the P1

FEATURES ★★★★★

OVERALL ★★★★★

Hi-FiChoice

OUR VERDICT P1

SOUND QUALITY ★★★★★ **LIKE:** Powerful, clean and very open sound

VALUE FOR MONEY ★★★★★ **DISLIKE:** Nothing at the price

BUILD QUALITY ★★★★★ **WE SAY:** A hidden treasure – in power amplifier terms

FEATURES ★★★★★

OVERALL ★★★★★