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CLASS AUDIO

Sugden's *red hot* new A21SE integrated amp



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HOT stuff

David Price swoons at Sugden's new pure Class A A21SE integrated amplifier...

Sugden needs no introduction – anyone with more than a passing interest in audiophilia knows that the A21 is a generic series of amplifiers which started in the mid nineteen sixties with an 11 watt solid state bi-polar integrated amplifier. It was produced over a period of time in three series of models right up to the mid seventies. Then the A21a went on to become a nineties benchmark; a specialist product that promised clarity at the expense of all else. A front cover on *Hi-Fi World* some ten years ago betokened our love for this extremely focused product that, frankly, sounded like nothing else on the market.

Of course most people have

that only the best valves and V-FET transistors attain.

The trouble with the A21a is that it's an extreme product. If this Oxford-schooled boy may be allowed to adopt the gnarly northern vernacular, it's got 'bugger-all balls', meaning that extreme care has to be taken when matching it to those most devious and 'fair weather' of friends - loudspeakers. It doesn't like anything that's tricky in the load department and nor does it suffer inefficiency gladly. Think Musical Fidelity kW500 – then think the opposite – that's the A21a.

Of course, I'm not having a dig. At around £1,100, it's stunning value considering what it does in musical terms. It's just those who like,

The common thread which runs through Sugden's A21 amplifiers is the pure Class A output stage operating with current feedback and a single voltage rail. As the manufacturer says, the potential of this output configuration is limited only by the preceding gain stages of the overall amplifier. The SE brings increased output power, wider bandwidth, reduced distortion and greater load tolerance to the party and adds remote volume control, relay switched input signals and a completely new casing. The completely new line stage amplifier with a cascode input stage, current feedback, with the input and output in phase is said to give all the benefits of high input impedance, high



never heard pure Class A operation, and often believe it to be super-smooth and 'valve-like'. It is neither; it's best described in terms of what it isn't. It's not grainy, mushy, grey, sat-upon, nervous or frigid like most transistors, and it's not soft, vague, euphonic, and loose like poorly implemented (i.e. most) valves. Rather, pure Class A, and specifically Sugden's implementation thereof, sits in a magical 'other world' of clear, incisive and neutral amplification, one

variously, power, current driving, facilities, fancy finishes or styling flourishes need not apply. (Indeed, Mr Michaelson will be happy to sell you his A5 for precisely this reason...)

The A21SE, then, is all about addressing these various 'issues'. I won't call them design faults or flaws, because that would be like criticising a Lotus Seven for its lack of weather protection, air conditioning or airbags. It's just that the SE is more things to more people.

voltage gain in its first stage, low distortion with wide bandwidth, low noise and very low output impedance. The line stages are supplied by their own current shunt power supplies driven by a separate transformer winding. The bad news is that the excellent phono stage, which is optional on the A21a isn't available on the SE, but those awfully nice Sugden people will – reluctantly mind you – flog you their 'Bijou Phonomaster' variant in lieu.



SOUND QUALITY

Being used to twenty thermionic watts per channel, it was always going to be interesting to ascend to the dizzy heights of thirty (into 8

Dan's 'Gaucho' proved deliciously direct, open, clean and – most of all – musically involving. The first thing that strikes you is the tonality – or lack of it. It makes almost any other

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ohms, claimed) of solid-state. Would my ears cope? Could the human body withstand this hitherto unknown level of electro-mechanical force? Would my speakers self-combust? Would life ever be the same again?

Well, as it turned out, such extreme sound pressure levels emanating from my reference loudspeakers were tempered by the stunning clarity and ease of the A21SE. If you'll forgive the *Spinal Tap* allusion, the best way to describe this new amplifier is like the A21a, but 'this one goes up to eleven'. It's very, very close to the 'a' in nature, but offers substantially more real-world driving power, meaning it's less at the mercy of unforgiving loudspeakers (and most are), which in turn allows the essence of the A21 sound to flood out, untempered and untrammelled.

Now, assuming that most have never heard the original, I suppose I better get down to specifics. Steely

transistor amplifier sound fuzzy, mushy, woolly, grey and compressed. It also makes them sound clumsy and unwieldy, with a surfeit of power but no useful way of exploiting it (think gas guzzling Yank-tanks of seventies). The A21SE is, by comparison, a Lancia Beta Monte Carlo – beautifully balanced, fleet of foot in the extreme and finessed, yet an extremely potent tool despite its lack of shove.

The interesting thing is that, despite its lack of absolute power, it's able to go from super quiet to very loud with dizzying speed. Dynamics are amazing, breathtaking even. The sound of a strongly hit snare pushes out of the mix with stunning clarity, and then fades away as instantaneously as it first came, and then comes back again on the next beat with the same visceral impact – and, importantly the Sugden strings this together with such aplomb. Each four bar phrase is brilliantly accented, pushing the music along in the way

that only the likes of a Naim NAP250, Graaf GM20 or World Audio 300B can do.

Rhythmically and dynamically then, it's a revelation – but there are other amplifiers that do this brilliantly too. However, at this price (or anywhere near it), I've never heard one that has such breathtaking clarity. You see, you can make amplifiers sound fast by smothering them in negative feedback, which gives them an edgy, artificially incisive demeanour. Trouble is, they then sound glassy, cold, bright and totally unable to describe the texturality and tonality of the instruments or voices they're asked to reproduce. The A21SE is in a league above these imposters – it's so neutral, so self-effacing and so 'glass clear' that you can hear every last harmonic on the squelch of Walter Becker's analogue synthesiser, every last resonance in Donald Fagen's voicebox.. Instruments, whatever they are, simply don't sound like crude approximations of themselves anymore – but full fat, real, living, acoustic excitors.

If that wasn't enough to have me questioning my allegiance to thermionic valves, then there's the small matter of the soundstaging. A DG vinyl pressing of Beethoven's Pastoral Symphony (Karajan) had me, to borrow a phrase from someone clever, 'doubting the very ground beneath me', so expansive, airy and dimensional it was. Instruments are located with rifle-bolt precision, locked in space like a picture nailed to a wall – giving the feeling of, simply put, 'being there'. Switch to the sugary pop strains Haircut One Hundred's 'Marine Boy' and – lo and behold – we're instantly in another acoustic recorded acoustic, like walking from the living room to the hall. There's tremendous depth, as the A21SE unlocks what lesser amplifiers simply appears to be a 'wall of sound', and opens it up to show us what's really there.

The midband is pretty revelatory, then, but the bass and treble are no poor relations. As I've said, the way instruments 'stop and start' is amazing, and nowhere is this more explicit than in the bass. It's super-fast, super-taut and yet just bounces along with 'valve-like' aplomb. It invests the track a wonderful 'naturalness' which makes complete sense – then you switch back to lesser amps and wonder why they can't do it this way. Treble is lovely too – but not, repeat not, warm or sweet. Rather, it's just neutral. Gone is the fizz, zing, imprecision, haze –

and in its place is something that sounds like real hi-hats being struck on a real drum kit, right in front of you. The filigree detailing is disarming, so fast and yet so unobtrusive, undistorted, unobtrusive.

Downsides? Few that I can think of, aside from a cheap-as-chips plastic remote control, and the fact that the controls don't move with a wonderfully smooth, precise gait. The A21SE has the feel of an extremely well made hand built kit – which I suppose is what it is – but lacks that luxuriously silky tactility owners of high end Japanese fare take for granted. There's also the fact that

ABOUT SUGDEN

A small to medium sized specialist amplifier maker for nearly forty years, Sugden describes itself as 'heavily reliant on our own design, development and manufacturing facilities as we believe it is, in house in hand and under control'. The average length of service of its employees is fifteen years, which it says must owe something to the fact that it builds individual units and delegates responsibility down line. Although its products are based on solid-state devices as opposed to tubes it would be wrong to assume they are based on pure solid-state technology. It much prefers what it calls 'the more euphonic performance of good Class A to the more favoured dry clinical and 'detailed' performance of some of the more popular solid state amplifiers on the market'. It does not outsource, board assemblies, metalwork, kits or complete audio electronic units from the Far East - all manufacturing, challenges and disciplines are part of the soul of the company.

VERDICT

Brilliantly musical hear-through sound makes this one of the best transistor amplifiers ever made, but be prepared to forgive it its faults all the same.

SUGDEN A21SE £1,995

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despite its useful power hike, the A21SE still doesn't like tricky loads – it took one look at my reference Quad 989s and rolled over on its back like a dog in disgrace. Finally its pure Class A operation means you'll be have to be prepared to change the way you think about your household electricity bill, and open your windows in summer, too.

REFERENCE SYSTEM

- Pioneer PL-L1000 turntable
- Koestu Rosewood cartridge
- Whest Audio PSU/MSU20 phono stage
- Marantz CD63 KI DP CD player
- Musical Fidelity X-10v3/X-PSU output buffer
- Mission E82 loudspeakers
- Wharfedale Diamond 9.1 loudspeakers

CONCLUSION

Musically brilliant is the best way I can describe it, but still you'll have to partner it carefully, buy your own phono stage and forgive it its lack of silky precision when you use the volume knob or source selector switch. The Marantz PM1 ISI is the one to go for if any of the above troubles you, otherwise do yourself a favour and hear something that has nearly all of the strengths of tube amplifiers and almost none of the vices. Gorgeous.



MEASURED PERFORMANCE

Running in pure Class A means the Sugden is running flat out all the time, even with no signal. In consequence it's side heatsinks run very hot, even though output measures a paltry 21W per channel, or 36W into 4ohms. Obviously, this is a specialised amplifier, with similar heat and output as a valve amp.

Class A is known for its low distortion and easy sound, but the A21SE doesn't match the best of today's amps in its distortion characteristics. It fares well in the midband, although a 4ohm load significantly raises levels, from 0.016% to 0.15% just below full output for example. At high frequencies the A21SE again manages well enough, until the load drops to 4ohms, then distortion increases to nearly 0.3% at 10kHz, close (-1dB) to full output. Luckily it is mostly innocuous 2nd harmonic our analyser showed. Ideally, this isn't an amplifier to be pushed too hard with low impedance loudspeakers. Luckily, most loudspeakers nowadays use a 4ohm bass driver married to an 8ohm tweeter, so impedance at 10kHz is commonly 8ohms or more.

Sensitivity was unusually high at just 83mV for full output and frequency response extremely wide, reaching 150kHz.

The A21SE is a highly specialised amp that should be matched with care. It has a fantastic reputation of course, that belies measurement. NK

Power	21 watts
CD/tuner/aux.	
Frequency response	14Hz-150kHz
Separation	74dB
Noise	-80dB
Distortion	0.02%
Sensitivity	83mV
dc offset	2/2mV

