

Hypexspace

A compact, high technology amplifier based on a Hypex module impresses Noel Keywood.



It's small and it runs cool but this stereo power amplifier from UK manufacturer KJF Audio delivers 170 Watts in the version we tested – so here is power if you want it. And at an amazingly low price of £588. There are many options with the SA-01 that raise or lower this price, as I'll explain, but the basic message is: if you want oodles of power at a low price, read this review!

The simple outline is KJF Audio package a bought-in Hypex power module (complete with power supply) with their own control board, in one small alloy case. The amplifier is sold direct from KJF Audio's website, so no dealer margin – explaining the low price. That means you can't get a dealer audition, and back-up comes from KJF Audio who are based in Leicestershire.

Our review sample came with the Hypex NC252MP board installed but there are lower and higher power versions. Additionally, there

are a variety of fascia options, both aluminium and wood, and even input options. You get to specify the amplifier you want. Best to check out the website for all this, since each option changes price and the options/prices are too lengthy to list here.

Hypex, as my memory recalls from dealing with them, are a spin-off from Philips and based in Groningen, Holland (Netherlands). Hypex modules use Class D switching technology to produce high power efficiently, meaning no heat. This amplifier might be powerful but it has no heatsinks. The

and light, measuring 230mm wide, 370mm deep and 83mm high, with a weight of just 3kgm. I could lift it with one hand – no sweat! It is more the size and weight of a DAC than a power amplifier. The power supply is on-board, so no external supply, just a normal mains lead with IEC mains plug. A single, circular power switch sits on the front panel, its illuminated surround changing from red to green at power up. KJF Audio explain “the multi-function stand-by ring on the front flashes red when you hit the limit. It also displays errors like DC shutdown as a sequence of red-green flashes. Because of our

socket loudspeaker output terminals, there is no loudspeaker switching and no remote control. Nor a volume control, so a preamp is necessary. And with low sensitivity an accompanying preamp should ideally have a bit of gain, say x3 (9dB), but the amplifier itself has enough voltage gain to reach full output from a CD player and this is how I used it.

Our sample had unbalanced phono socket inputs in addition to balanced XLR inputs, a small toggle switch selecting one or other; they have identical sensitivity. Switch on and off was silent – no pops or such like.

"silky yet solid, the
pounding bass
synth giving plenty of
rhythmic push"



Hypex modules I worked with long ago expired if the power supply went 1V over, explaining why Hypex have now packaged their Class D amplifier with a regulated switch-mode power supply on one board to ensure reliability. In the SA-01 KJF Audio have designed a sophisticated control board with microprocessor that provides monitoring functions and overload protection, as our internal picture shows.

For such high power output our SA-01 was almost unbelievably small

clever on-board micro-controller the amp even remembers what the errors were so that if you need to return to base, we can see what was going wrong”.

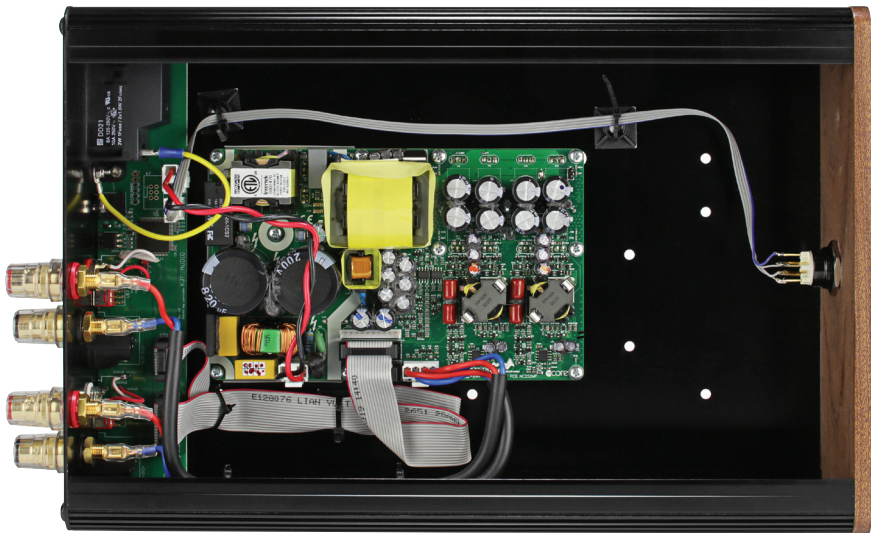
KJF Audio go on to say “The Hypex modules are clever little things, they have a communication bus to monitor both power and amplification error monitoring, clipping, temperature monitoring, muting, standby and protection and reporting from failure to DC. Until now no other company offering the Hypex amps at anywhere near this price have implemented these available features”.

This then is an ‘intelligent’ amplifier, made so by KJF Audio’s control board. All the same, it is a very simple user experience. The rear panel has one pair of 4mm

SOUND QUALITY

I chose to use the SA-01 with our Oppo UDP-205D universal player that has a volume control and balanced XLR outputs; it fed in CD and hi-res. Connection was through Chord Company Epic balanced cables. Loudspeakers were Martin Logan ESL-X hybrid electrostatics connected through Chord Company Signature Reference cables. I also used an Icon Audio PS3 Mk2 (valve) phono stage with volume control.

My first impression was of a mild balance, percussion in Dave Brubeck’s Take Five sounding restrained. It was there alright, but my attention wasn’t drawn to it. The central drum part was firm and fluid, I got to hear qualities of the instrument, the thwack of stick on skin – and here the KJF was both revealing and lithe, if without a fulsome lower end.



At centre the Hypex NC252MP Class D power module and switch mode power supply. At far left is KJF's control board, complete with micro-processor.

The opening bass line in Holly Cole's Train Song similarly moved along slickly and was well expressed, Holly's vocals sounding suitably smoky and laconic. An easy and revealing performance that was thoroughly enjoyable.

There was always fine midband insight, whatever I span. There was always a sense of utter smoothness too; beyond my expectation this amplifier was almost sedately smooth. Not once did anything jump out as challenging: definitely svelte. It was almost eerily clean in its sound.

My current go-to test track for bass, pace and timing is Safri Duo's Samb Adagio and here the KJF was silky yet solid, the pounding bass synth giving plenty of rhythmic push. Again, there was little incision from the highs, fast transients sounding mild. Bass was fast but not thunderous.

A good test of treble quality comes from Willy DeVille singing Spanish Harlem, where vocal sibilants into his microphone can cause all sorts of upset, but here Mr DeVille's gravelly vocals passed with slick ease. No sharpness, no spit, just smooth delivery. As with Holly Cole, this song slid by in easy yet enjoyable form.

CONCLUSION

The SA-01 power amplifier from KJF Audio is unusual and technically impressive. Based around Hypex Class D power modules, our version with Hypex NC252MP board delivered massive power from a small, lightweight, self-contained case. With a measured performance as good as it gets – meaning better than most – and super smooth sound this has to be a fine way to bring power into your system without removing power from the bank account. A top amp in its own way then.



A master power switch at left and solid gold-plated loudspeaker sockets at top. The balanced XLR inputs are standard, the gold plated phono socket inputs an extra, selected by toggle switch.

MEASURED PERFORMANCE

The SA-01 with Hypex NC252MP board produced 136 Watts into 8 Ohms and 256 Watts into 4 Ohms – powerful considering its compact dimensions. It ran without strain at full power, with no noise or heat; the case stayed uncannily

cool during power tests. An output impedance of 0.06 Ohms gives a very high damping factor of 126, suggesting tight bass.

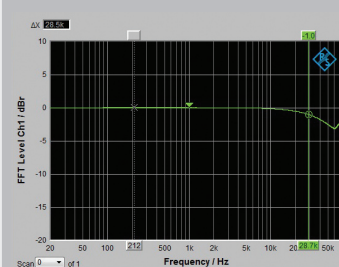
Frequency response ran from a low 3Hz to 29kHz our analysis shows and was unaffected by load.

Distortion was very low at 0.003% in the midband, from 1 Watt to full output, rising to 0.01% at 10kHz, also a low value. This is a very linear amplifier at low and high power outputs, at all frequencies and into 4 Ohms too.

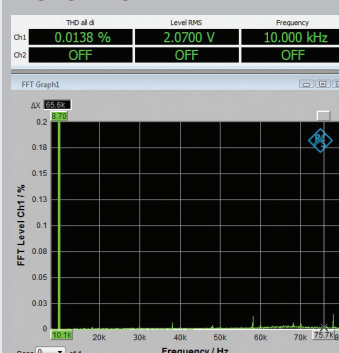
Input sensitivity measured 1.7V for both inputs, where 1V is common for unbalanced and 2V for XLR.

The KJF Audio power amplifier produced almost startlingly good measured performance. A text book result suggesting blemish-free sound quality. NK

FREQUENCY RESPONSE



DISTORTION



| | |
|---------------------------|-----------|
| Power | 136W |
| Frequency response (-1dB) | 3Hz-29kHz |
| Distortion (10kHz, 1W) | 0.01% |
| Separation (1kHz) | 93dB |
| Noise (IEC A) | -107dB |
| Sensitivity | 1.7V |

KJF AUDIO SA-01
£588



OUTSTANDING - amongst the best.

VALUE - keenly priced.

VERDICT

A slickly smooth sound, with supple bass and mild treble. Easy going. Great value.

FOR

- low price
- small and light
- super smooth sound

AGAINST

- lacks deep bass heft
- no volume control

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