

# Classy A



**Sugden's Sapphire FBA-800 power amplifier harnesses Class A operation to make a sweet-sound, says Jon Myles.**

It's big, it's Class A operation and it's a Sugden. Somehow those words go together like love and marriage or a horse and carriage.

It's what we expect. Not surprising really as the West Yorkshire company has built its reputation on tried and trusted designs, solid British engineering and

an admirable attention to detail.

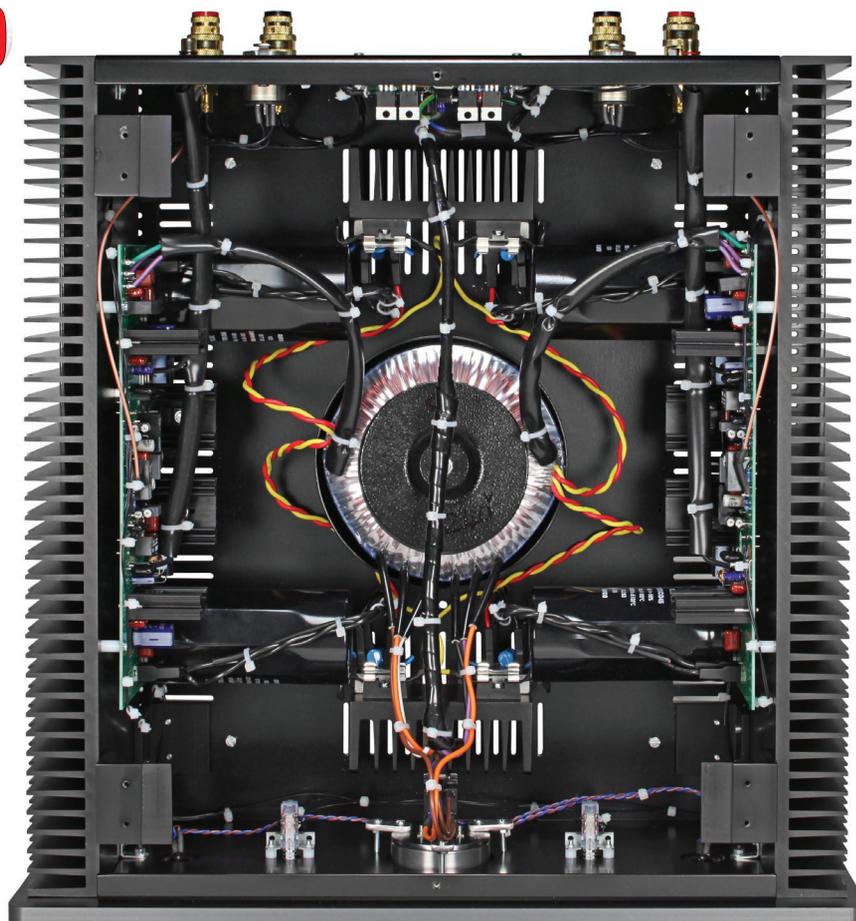
They don't do frippery – nor do they bring out a product on a whim because it might be fashionable.

Hence the Sapphire series FBA-800 power amplifier. Yes, it's large – weighing in at 25kgs and measuring 206 x 430 x 460mm (H/W/D) - and despite those dimensions it's rated at just 40 Watts per channel into

an 8 Ohm load (our own Measured Performance returned a value of 32 Watts into 8 Ohms).

But those Watts are pure Class A – meaning the amplifier has to be large to dissipate the heat produced by running the four power transistors in each output stage in an always-on mode.

The advantage, of course, is that



*Despite its relatively low power, the Sugden uses a substantial power supply to achieve its 30+ Watts of Class A operation. Large heatsinks are needed to dissipate the heat produced by Class A, whilst keeping temperature down. The amplifier is more efficient than standard Class A, being a circuit pioneered and developed by Sugden.*

you avoid the crossover distortion inherent in most pull-push designs and so should reap the benefit of a more fluid mid-band and a rather sweeter sound than most transistor amplifiers manage to attain.

In terms of looks the FBA-800 is pure Sugden with a thick aluminium front panel, discrete blue LED indicator lights to show each channel is powered up and working, and a large on/off button on the fascia. The only other controls are two small buttons – one to switch between balanced and RCA phono inputs and the other to reduce the input sensitivity by -6dB for helping to match the unit to the pre-amplifier.

On the rear you have both balanced and unbalanced RCA inputs, the power socket and two pairs of sturdy loudspeaker binding posts.

Thermal grilles on the top plus hefty heatsinks at each side of the amplifier help cooling – but bear in mind the FBA-800 still runs relatively hot after a few hours of sustained use so needs adequate ventilation around it. You'll need a large hi-fi rack or be able to keep it well clear of obstructions to be safe.

## SOUND QUALITY

There's an innate sense of rightness and hear-through clarity that makes the Sugden a joy to listen to.

I started off with CD through the rather special Oppo BDP-105D Blu-ray player plugged straight into the unbalanced inputs and fed into Tannoy Kensington GR Royal loudspeakers which, while large, do not need massive amounts of power.

Immediately music took on a rare sense of ambience and atmosphere that is the hallmark of Class A operation.

John Paul Jones's bass lines off 'Led Zeppelin IV' hit with tremendous impact – both tactile and fully-rounded. Higher up the registers Jimmy Page's guitar work was free of any smear or glaze while Robert Plant's vocals seemed to soar out of the loudspeakers.

Moving on to Ornette Coleman's 'Free Jazz' experimental album and the Sugden really showed its mettle. It's a tough, at times gruelling, album for many amplifiers with two jazz combos playing at the same time through the left and right channels but the FBA-800 made light work of it. I could easily make out individual

instruments – and the difference between Coleman's sax work and the bass clarinet of Eric Dolphy became easy to discern.

There's no smear or smudge here which means you are hearing right through recordings. It also means the Sugden can sound extremely fast when presented with some up-front material.

The Arctic Monkey's 'I Bet You Look Good On The Dancefloor' galloped along but never sounding hurried, forced or muddled despite the energy in the track.

A switch to Diana Krall also brought out another of the Sugden's really outstanding attributes – a midband and upper treble that is unerringly sweet and true. The catch in Krall's breath between vocal lines is captured with delicious delicacy yet real emotion – music as it should be heard.

That was only emphasised by a move to playing some higher-resolution music via NovaFidelity's X40 music server – this time connected via the balanced inputs.

Strikingly, the bass on Get The Blessing's 'OC/DC' (24/96) took on a more fulsome and palpable tone while

**NOEL SAYS -**

This Sugden is medically pure in its sound – utterly precise and clear. It is also very solid in imaging, with more texture and insight than is common. With the big Tannoy DC10 Tis, it had tight and super clean bass. Truly – a reference sound I felt, a reviewer's delight and a simple but very 'right' product that demos the delights of Class A. Utterly superb.



*Both balanced and unbalanced inputs are available, with front panel switching between them. Balanced input offers best quality. The rear panel also features sturdy gold-plated loudspeaker connections that accept 4mm plugs, spades or bare wires.*

the saxophones had a greater edge and the kick-drum began to really hit me in the chest. Small improvements individually but taken together they made a real difference – showing just how open to higher-resolution files and cabling the Sugden is. Treat it well and it will respond in spades.

Ultimately, it has to be said, the FBA-800 doesn't have the grunt or outright drive of a Class A/B amplifier

such as the likes of a McIntosh MA800, a Naim SuperNait or Creek Evolution.

But that's not the point. The Sugden majors on other things – mainly a sweet mid and treble and lack of grain.

Match it with some large floorstanders such as the Tannoys I used and it will go plenty loud enough to fill a large room and, more

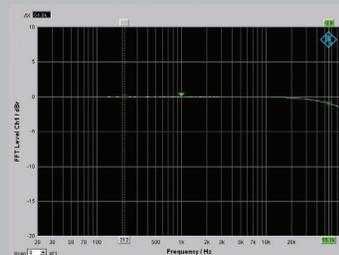
importantly, sound extremely sweet while doing so.

**CONCLUSION**

OK, it runs a little hot, demands a decent amount of space and isn't the most feature-packed piece of hi-fi on earth. But what it does do is get on with the job of being a superb power amplifier. If you love music, you'll adore the Sugden.

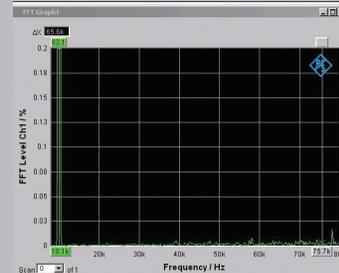
**MEASURED PERFORMANCE**

**FREQUENCY RESPONSE**



**DISTORTION, 1W, 10kHz**

THD @ 1W	Level RMS	Frequency
0.0191 %	2.0065 V	10.000 kHz
OFF	OFF	OFF



Class A amplifiers produce less power than conventional ABs and this was the case with the FBA-800: it delivered just 32 Watts into 8 Ohms. This is no big amount by solid-state standards but it is still plenty enough to play loud, especially if sensitive floorstanding loudspeakers are used. Into 4 Ohms the Sugden delivers 42 Watts and since most loudspeakers are these days 6 Ohms, its real power output is somewhere between these values. The amplifier ran hot, if not very hot, and I believe this due to Sugden's use of unusual dynamic Class A circuitry that's more efficient than simpler basic forms.

Bandwidth reached 100kHz (-1dB) into 8 Ohms, falling a little to 55kHz into 4 Ohms. The Sugden has plenty of extension so it will not sound at all warm. Distortion levels were vanishingly low – around 0.004% – in the midband and also very low at high frequencies since there is no crossover distortion.

We measured just 0.01% at 10kHz, 1 Watt, and this was mostly noise rather than distortion. Treble will sound pure, in typical Class A fashion.

Damping factor was on the low side at 20, likely due to an output network. However, Naim amplifiers come in at around 17 and this removes dryness from their bass.

Input sensitivity was a normal 800mV for full output, sufficient to be driven directly by silver disc players.

The FBA-800 measured well all round. It does not produce high power, so needs reasonably sensitive loudspeakers.

<b>Power</b>	<b>32 Watts</b>
<b>Frequency response</b>	<b>4Hz-55kHz</b>
<b>Noise</b>	<b>-118dB</b>
<b>Distortion</b>	<b>0.01%</b>
<b>Sensitivity</b>	<b>0.8V</b>
<b>Damping factor</b>	<b>21</b>

**HI-FI WORLD**

**SUGDEN SAPHIRE FBA-800 £5495**



**OUTSTANDING - amongst the best.**

**VERDICT**  
Sweet-sounding, truly musical Class A amplifier that is a joy to listen to.

**FOR**  
- sweet mid and treble  
- lack of transistor harshness  
- superb clarity

**AGAINST**  
- big  
- runs hot

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