

## Sugden Masterclass MPA-4 mono power amplifiers

to Sugden website - <https://www.sugdenaudio.com/>

by Francesco Taddei | 11.12.2013



**SPARK**  
in the dark

A couple of years ago I had the chance to come across the **Sugden** brand, in particular the small **A21** amplifier that made the history of the Brit company and that has been producing, with the relative updates, for forty-five years.

The A21 amp holds the essence of James Sugden's thought, who designed it in 1967: only 12 watts but rigorously in class-A.

Although I appreciated a lot this device, I have never purchased the A21 amp because of the thermal stress of this kind of amplifications, because of the high consumption and because of the limits in driving the tougher loudspeakers. Nonetheless this small Sugden made me come closer to the class-A.

To give you an idea, just google Wikipedia on "Amplifier" and make a comparison between a class-A and a class-AB amplification.

As you can read: "Class- A:100% of the input signal is used (conduction angle  $\Theta = 360^\circ$ ). The active element remains conducting all of the time. Class B: 50% of the input signal is used ( $\Theta = 180^\circ$ ). The active element carries current half of each cycle, and is turned off for the other half. Class AB is intermediate between class A and B, the two active elements conduct more than half of the time.

Class-A designs are simpler than other classes. For example, class -AB and -B designs require two



connected devices in the circuit (push-pull output), each to handle one half of the waveform. Class A can use a single device (single-ended).The amplifying element is biased so the device is always conducting, the quiescent (small-signal) collector current (for transistors, drain current for FETs or anode/plate current for vacuum tubes) is close to the most linear portion of its transconductance curve. Because the device is never 'off' there is no "turn on" time, no problems with charge storage, and generally better high frequency performance and



feedback loop stability (and usually fewer high-order harmonics). The point at which the device comes closest to being 'off' is not at 'zero signal', so the problems of crossover distortion associated with class-AB and -B designs is avoided".

So, after this excursus on some of the fundamental points in hi-fi and the system to get excellent results, that are amplification of the signal, efficiency and distortion, let's focus on the making of our amplifiers.

Following a couple of phone calls to the Italian importer Il Tempio Esoterico, I got in touch directly with the manufacturer, *Patrick Miller*.



He told me that every product is assembled by one person only and that the circuits are hand-made.

Sugden's team is composed of six people who have been working in the firm for twenty-five years, while other collaborators can boast more than ten years of experience.

As you can see from the photos, every product has a label mentioning the technician who has made the object and who's responsible for the tests.

Among the most curious ones is the fall test, that's mandatory according to the law, but if I consider the price (5,750.00 euro x2), I shiver when I think at this amp strongly tossed on the floor!

Sugden can also handle quite autonomously all the single steps of the production, from the electric to the mechanical competences and the wood carving too!

Another remarkable thing are the cabinets with a large use of the aluminium in the areas interested by capacity and inductance.



Now it's time to speak about the **MPA-4** of the **Masterclass** series that includes, besides these two monoblocks, the preamp, the stereo power amp, the phono preamp and the CD player.

Our monoblocks, in "graphite" finish, are single ended and capable of delivering 165 watts in pure class-A.

Their weight is about 30 kg each and their price is 5,750.00 euro each.

They occupy a lot of space but it's very important to place them very close to the speakers so to use very short power cables and exploit the balance output toward the preamp.

With the balanced connection it's possible to improve remarkably the signal noise ratio and have a cleaner listening without interferences.

We are dealing with a "current feedback amplifier", that is an amplifier that works in current.



Before opening the lid I look carefully at the cabinet noticing a very sober line. Very good are the

finish matches, the on/off knob and the **WBT** connectors on the back. The "graphite" finish is a little heavy, I would say. I personally prefer the "silver" version.



Once you have opened the lid, you immediately spot a high-current huge transformer with the winding made directly on the core.

Very interesting are also the amplification cards placed vertically against the top side of the heat-sinks and the squared shape of the cabinet that

leaves a lot of breathing space to the amplification stages in class-A.

Remarkable are the primary circuit made of gold-plated tracks, the silver cables and the ground made on a star mass.

Last and very important thing, there's a true balanced circuit without any kind of capacitors on the signal path.

In the user's manual, the manufacturer highlights two aspects:

the positioning of the system in an aired spot, without anything around and in phase: it would be a pity spending a lot of money and having the system in counter-phase!

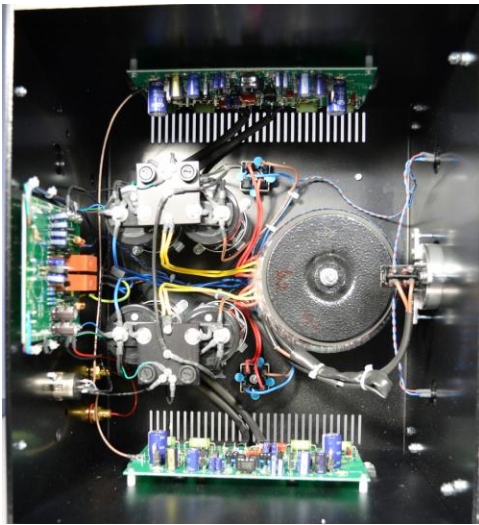


Now it's time to connect the loudspeakers, together with an **Audio Research LS22** preamp, an **Audiolab M-Dac** and my computer based source.

The music engages me since the beginning, even if the monoblocks need some warm-up: this is an indisputable evidence of a very low level of distortion.

If I had to describe in just one word the monoblocks, I dare to say: musical. As the time goes by, my emotional involvement increases and I fell like listening to more music, listening not hearing, that is something different.





After fifty minutes the temper of the MPA-4 is coming out, together with merits and faults, but what I find amazing is the facility in consuming entire records without any listening fatigue.

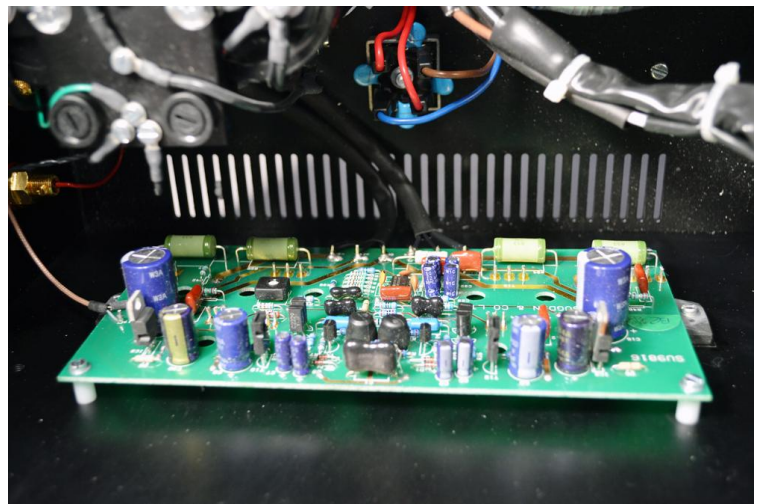
After a very short run-in, the sound is material and it can stimulate the touch besides the hearing. It strikes you in the intimacy and make you forget some small faults.

The room is full of music and you are surrounded by Bach, and then by David Gilmour.

The scene is three-dimensional and the soundstage goes beyond the speakers. I start to pump up the volume, but everything is defined and the instruments don't become

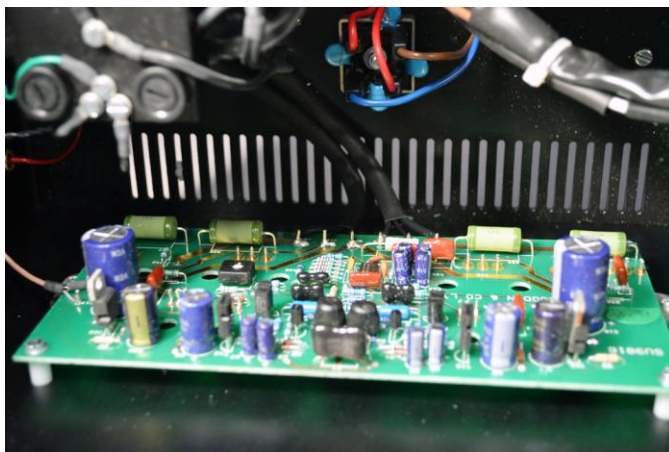
suddenly "giant". The refinement and the fine grain are unchanged. Sometime ago, just to make an example, I listened to one of the last Nelson Pass's works: the **Pass Labs XA 30.5** which, although superior in other parameters like the low range, with an increased volume cannot keep up with the two Brits, maybe for the fact that they work exclusively in class-A.

After two hours the amps gets to the ideal work temperature and, the low range, at the beginning rearward, comes out at last. We cannot speak of absolute excellence though, but they behave good, mostly as far as the extension is concerned.



The mid range is fluid and clear, with a sense of warmth very close to the best tube amplifications.

The high range is extended, transparent, refined and scratched when required, without being annoying also at consistent volumes.



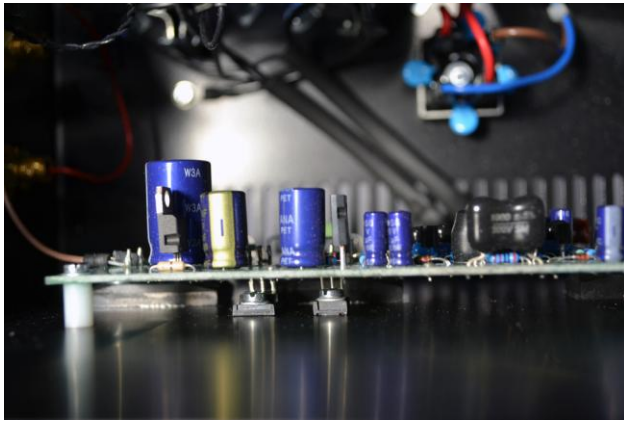
The timbric of the instruments is very close to that of the live performances and the harmonic richness makes everything intelligible and proportioned.

At a dynamic level, if you interface properly the monoblocks with a source and a preamp, you can get good performances, most for the micro than for the macro dynamics.

My concerns about the driving capability were unfounded and I would be very curious to see how they perform with loudspeakers

with weird impedances like the **Magneplanar**.

After three hours I decide to make the "burn" test. New Mucius Scaevola I offer my hand to the heat sinks and, although very hot, they don't burn my hands. Good job at Sugden's.



Now a small selection of the tracks I've listened to: *Stimela* by Hugh Masekela: everyone knows this track and here Masekela's voice has an exceptional warmth and fluidity. The Sugden MPA-4 follow the South African trumpeter in his vocal excursions which start from deep whimpering to very high peaks and with all his talent coming out.

The trumpet is bright with a touch of warmth that is typical of the tune amps.

The control in the low range and the dynamic output, after a conspicuous "warm up" is more than acceptable.

Also at a very high volume level I have a further proof of the excellent quality of these amplifiers.

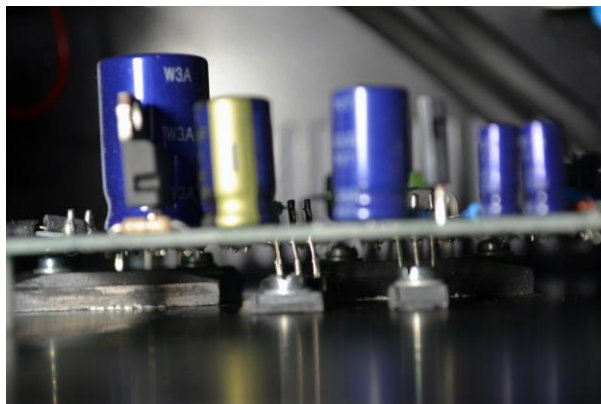
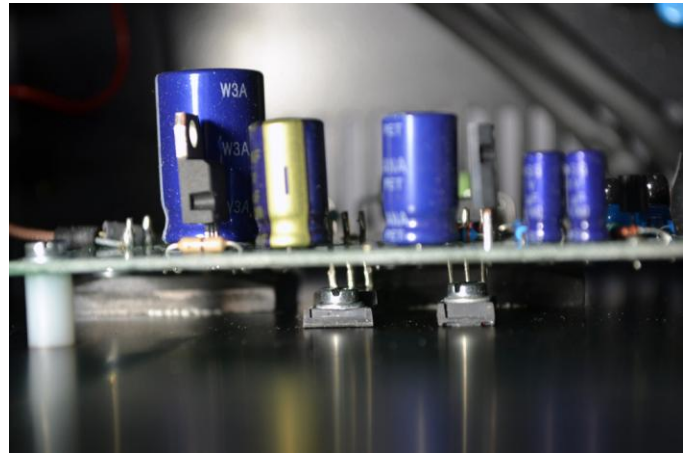
*The Köln Concert* by Keith Jarrett: the most important jazz album performed by the American pianist at the Cologne Opera House in 1975 couldn't miss.

A beautiful although complex record, made to be listened and not just heard. So I approach it with calm and ease.

Surprisingly the records slides away in a twinkling.

The piano is slightly on the right and vehemently emphasized.

The listener can catch the percussive aspect and the power of the artist also thanks to a good dynamics.



*Complici* by Musica Nuda: Petra Magoni and Ferruccio Spinetti's duo are reproduced respecting the right proportions between voice and double bass with a sonic high contrast.

Petra's voice conveys some unrest and leaves the listener with bated breath, Ferruccio's double bass has the right depth and, at the same time, has sweetness so to give the proper compromise between a solid state and a tube amplification.

*My Immortal* by Evanescence: ok, let's say that

you cannot leave of high res records only.

My choice is to see what happens with dramatically compressed music.

Immediately you can understand how the sound technicians have mortified the great job made by the mezzo-soprano and pianist Amy Lee.

In any case the track remains pleasant and keeps a good detail. The listener is involved

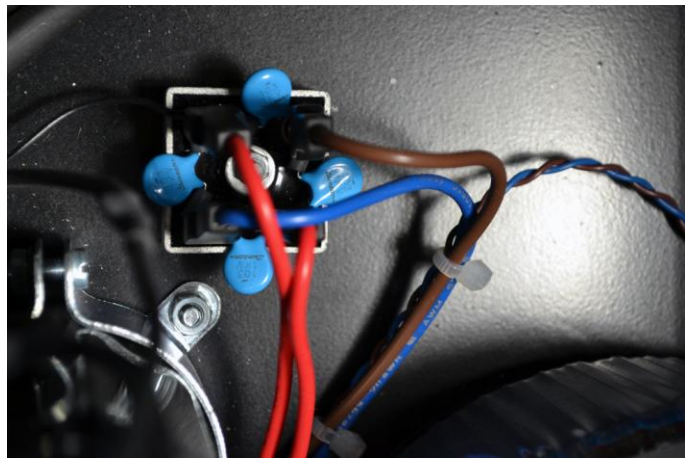


notwithstanding the intention of limiting the extension of the piano by any means.

*Air on the C string from Orchestral suite no.314 do major* by Jacques Louissier: the former child prodigy, Yves Nat's pupil, is famous at arranging jazz versions of Bach's compositions.

The first track impressed me since the first notes for the detail, especially at low volume.

Bass, drums and piano are perfectly set, the sound front is wide and the harmonious build up does its part.



The intensity of the piano is thrilling, so I listen to the entire record.

I was curious to know a friend's opinion so I paid a visit with the Sugden to Roberto Fugito (young next collaborator of ReMusic) and we put them in its audio chain, made of DIY loudspeakers with **Scan Speak** and **Seas** components, **Bryston BP25** preamp and a computer based source.

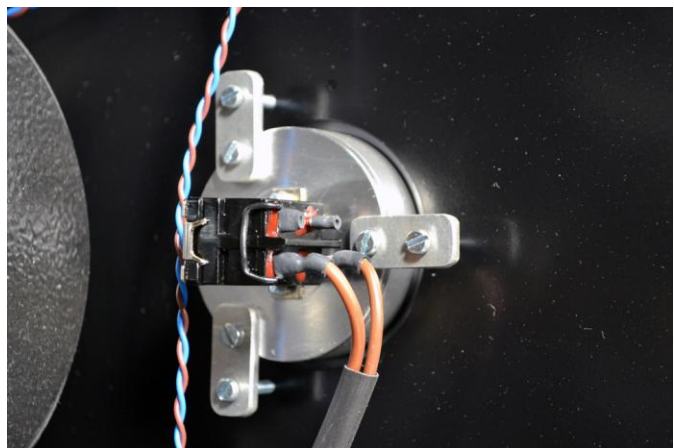
Let's say that the listening impressions have remained the same. What we noticed more, has been a decreasing in the dynamics but more air in the high range.

This is what Roberto has observed:

"Hello, I would like to make a short comment on the MPA-4 Sugden monoblocks inserted in my audio chain.

First of all, I haven't a big experience in class-A power amps. I just know two models: a **Model 1** by Nelson Pass and an **AM-Audio A-50**, both listened with my system.

Since the beginning the two Sugden MPA-4 monoblocks have expressed a "material" sound.



During one hour and a half of listening, the only fault we have noticed has been a not very convincing bass: it seemed not very controlled with a not very thrilling dynamics. But after a couple of hours the sound was exceptionally blended. Everything very precise, rich of detail, with a soundstage of depth. The musicality is enthralling and the dynamics has improved a lot.



After my, although brief, listening session I've got a precise idea of the MPA-4 which I would define material and musical".

I get rid of the monoblocks with regret.

It hasn't been that simple writing this article because I was swept by listening instead of analyzing.

A very balanced amplification with some faults, like having to wait for the warm-up, or the perfectible

dynamics and, mostly, the very huge cabinets.

The cost is very high, but the verdict is yours after an accurate listening session.

My verdict instead is a Spark in the Dark!

#### **Suggested websites:**

Audiomisc - <http://www.audiomisc.co.uk/JES/A21/A21.html>

Neophonic - [http://neophonics.com/?page\\_id=377](http://neophonics.com/?page_id=377)

#### **Official technical specifications:**

Inputs: Mono balanced

Outputs: Single pair multi way locking binding posts

Input sensitivity: 1V for full output

Power output: 165W into 8ohms both channels working

Frequency response: +/-0dB 15Hz-30kHz

Bandwidth: -3dB points 2Hz-200kHz

Signal to noise: >85dB

Dimensions: 430x 250x360mm (WxHxD)

Nett weight: 25kgs

**Official Italian dealer:** to Il Tempio Esoterico website

**Official current price in Italy:** 5,750.00 EUR each

**Associated equipment:** to Francesco Taddei's system

- <http://www.remusic.it/EN/Me-and-My-System-aa20b100>