By Zeus!

True, the Acropolis is crumbling, but other divine creations, which are currently emerging in Greece, point far beyond our present time again.

By: Audio editorial team

The column-shaped feet and the half inch thick housing plates of perfectly smoothed aluminium make it already very clear: the integrated amplifier Phaethon for 16,000 EUR and the CD player CDT 100 for the same price were not just created by the Greek manufacturer Ypsilon for instant uplifting, but for eternity!

So for the electronics inside his colossal monuments, head designer Demetris Baklavas consequently didn't rely on the usual jumble of petty things, the normally ubiquitous trickeries with feedback loops or even scratching potentiometers. No, rather did he put his trust in extremely plain, yet highly proven circuit technology which a high-end tech will not even laugh about in 1000 years.

Instead he will say "well done" just for once – while reading the more general books on the history of hifi will make him throw his hands up in despair. How could one possible hit on the silly idea to adjust the volume in that way: with a cheerfully vibrating brass wiper >

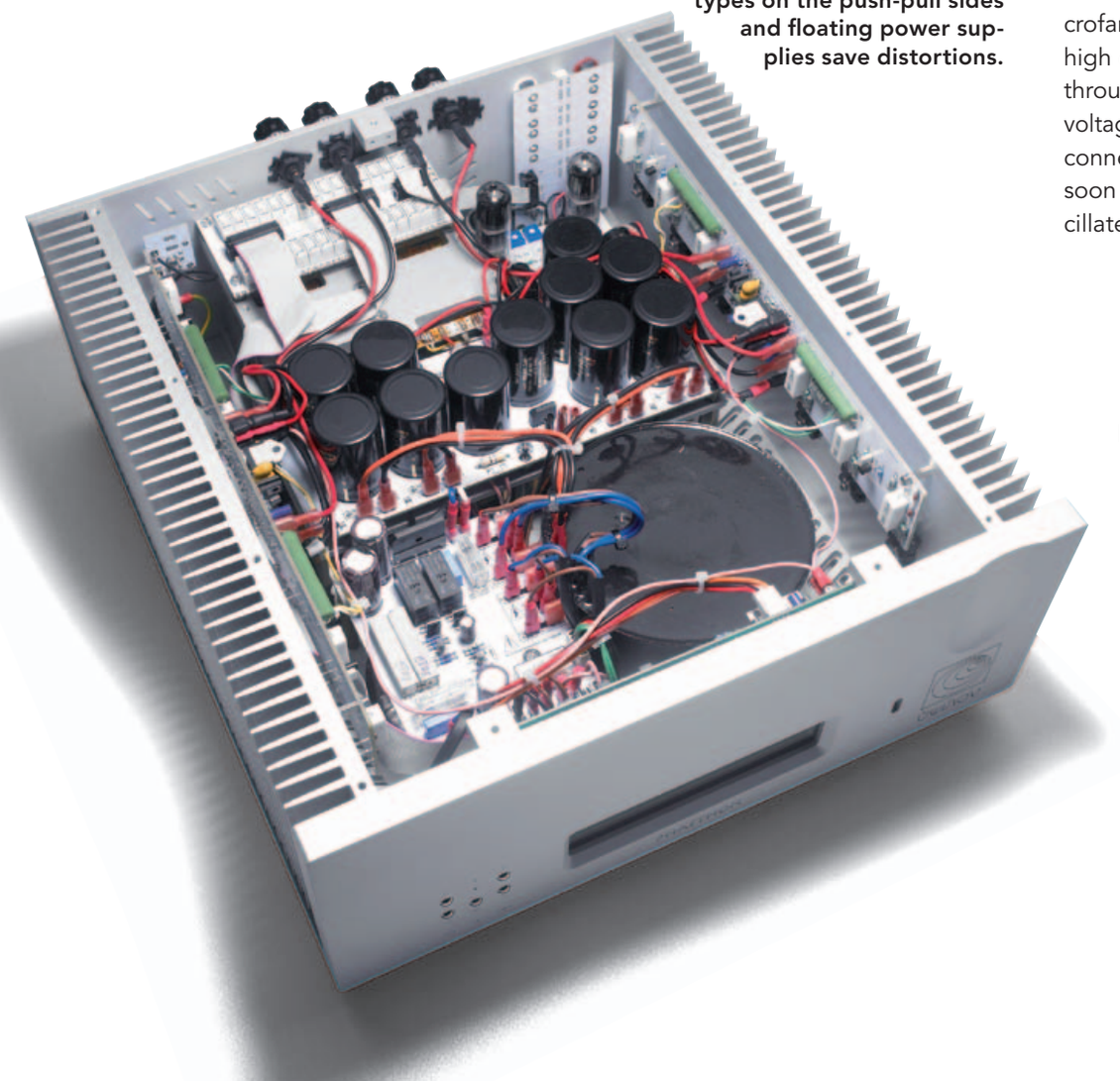
that scratches around on the semiconducting and more or less distorting push structures of a carbon conductor. Slightly better: the resistor voltage dividers, controlled by relays or IC switches, where – if they need to attenuate – the music's dynamical lower abdomen still vanishes into the underworld. And now the one and only really good solution: the most artfully wound level setting transformers, with beautifully woven braids of copper wire slipping through the holes of a figure-8 core of special iron. Hence transformers like they can be found (almost exclusively) in the Ypsilon input stages and also in the integrated amplifier named Phaethon. And which do not simply burn the allegedly useless signal portions, but convert e.g. excess current into voltage or vice versa or simply into a hybrid form which the subsequent stage can use to its advantage. Either way the bottom line is not a minus of this or that amount, but a wholesome balance sheet.

The reason why such a special transformer – especially one with 31 taps that lead to level setting relays – is not available at the el cheapo electronics shop, needs no explanation. But more so the question why Baklavas uses a valve-loaded buffer stage (one system of the noble Russian dual triode 6H30 for each channel) before this transformer. However, it's obvious that the connected source could most probably cope with the high inductivity of the transformer, but still would like to see a preferably non-frequency-correlated variable, i.e. the screen grid series resistor (the almost powerless drive of the valve has no influence whatsoever).

If the triode (of a 6H30), which comes behind the setting transformer, gets the full music potential anyway, it still takes the liberty to go on a little voltage-amplifying tour. So that its output anode – well, guess how? – can already drive a high-performance push-pull stage through a no less carefully designed transformer (and not via the normally used power-guzzling RC elements). And not just any stage, but one that is symmetrically equipped on both sides with six identical high-current FET transistors and can completely do without the (often disturbing) ground connection. Instead it's hanging between two floating power supplies which follow the music signals and are both equipped with two chokes and two electrolytic caps of 40,0000 microfarads each. In standby mode only a high class A quiescent current will flow through the corresponding circuit. The voltage between the power supply bases connected to the speaker is zero. But as soon as the construction begins to oscillate in line with the rhythm of the mu-

Better safe than sorry: the output poles of the Phaethon are all live. Among others, there are XLR inputs – but no genuine ones. The XLR on the CDT-100 is an analogue power output to be used exclusively with the Ypsilon DAC-100.

A total of 12 FET power transistors sweat on the Phaethon's flanks. The use of identical types on the push-pull sides and floating power supplies save distortions.



To adjust the level in 3 dB steps, 31 relays mounted on the pc board on the back panel are used to switch between various transformer conversion ratios. The right-hand 6H30 valves provide the input buffering and voltage gain.


CAUTION

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Ypsilon
Phaeton

List price: 16,000 EUR
Warranty: 3 years
Weight: 35 kg (77 lbs.)
Dimensions (W x H x D):
40 x 18,5 x 42,5 cm (15.7 x 7.3 x 16.7 in.)
Finish: raw aluminium
Technology: hybrid integrated amplifier, triple-stage design with two valve (6H30) and one MOSFET stage. Transformer volume control, transformer-coupled stages, floating choke power supplies.
Features: All metal RC, 1 phono, 1 XLR input, pre and rec out.

Ypsilon
CDT-100

List price: 16,000 EUR
Warranty: 3 years
Weight: from 20 kg (44 lbs.)
Dimensions (W x H x D):
40 x 12 x 40 cm (15.7 x 4.7 x 15.7 in.)
Finish: raw aluminium
Technology: top loader (Philips Pro 2), 2xPCM1704 multibit DACs, no oversampling, passive I/V stage

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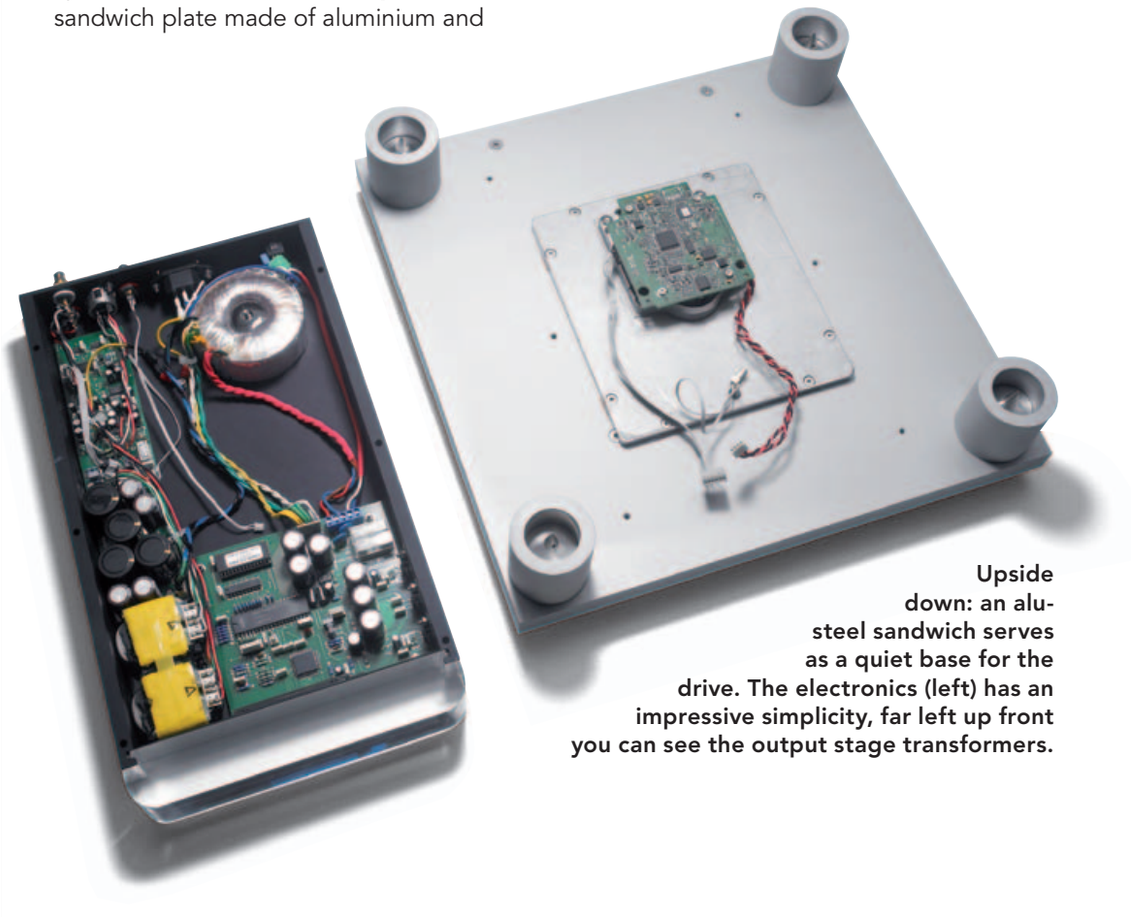
sic, we have a difference which begins to spur the transducer to get to work. The knowing high-ender clicks his tongue, for in this composition he recognises a similarity with the equally sophisticated and legendary Circlotron circuit. And because he knows that only by doing it this way those crossover distortions will be avoided which arise in ordinary push-pull concepts due to the disparity between the semiconductors (N- and P-types) designed for plus and minus excursions.

And because the past years saw hot debates on the sense and nonsense of correcting feeback loops, he knows that the approach "without", which Ypsilon can also afford in their amps, is admittedly the more expensive, yet also more natural sounding method.

As little as possible, but this in turn as good as possible – if you build a CD player in line with this motto, the outcome may be the Ypsilon CDT-100. But only if you can master the technical chin-ups necessary to realise its extreme simplicity also with a sonic edge. Ypsilon obtains the inevitable disc drive from Philips or an intermediate dealer who can still deliver the acknowledged good, yet meanwhile rare Pro 2 drive. The Philips is mounted to an incredibly massive sandwich plate made of aluminium and stainless steel, and in a hard style at that, without the little springs that are supplied as standard. On the other hand the entire base plate is decoupled by means of spike dampers that hide in the four corner posts.

Under the drive block a rather prosaic electronics box is hanging which contains the power supply, the control board and the D/A converter. The latter consists of two Burr-Brown PCM1704s which swallow the read out bits without any oversampling and feed them directly to a classic R-2R network – the 1704 was one of the last true multibit types. PCM data can't be converted any straighter. Sensationally simple and yet tricky to implement comes the next part: since the Burr-Browns don't carry a voltage, but a current signal on their output, a current-voltage converter stage should follow first now – realised in 99.9 per cent of all cases with one or two ICs. Ypsilon occupies a niche within the remaining per mille: in the CDT-100 two highly specialised transformers – connoisseurs of the brand will already have guessed it – convert the current gulps into voltage swings. So we find precisely one semiconductor between DAC output and phono sockets: a low-



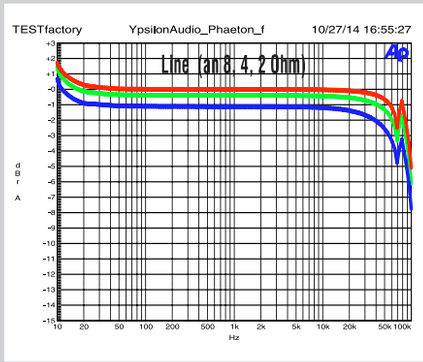
Upside down: an alu-steel sandwich serves as a quiet base for the drive. The electronics (left) has an impressive simplicity, far left up front you can see the output stage transformers.

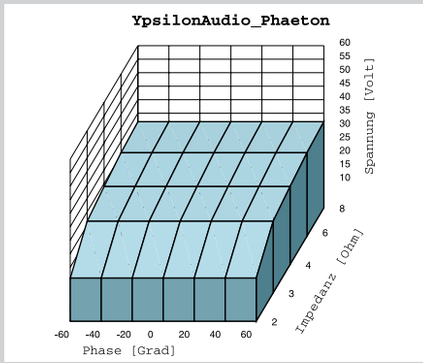
noise JFET to beef up the tiny currents a little before visiting the primary coil of the I/V transformers.

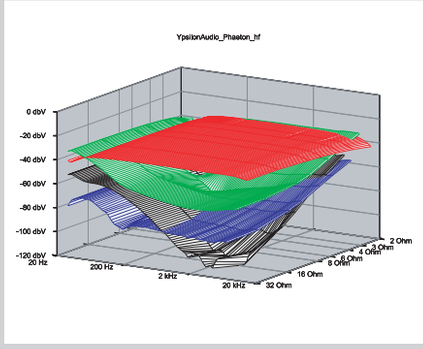
Hence the CDT-100 is not quite as universally low-Z as players with classic output stages and should therefore be placed close to the amp and linked by a short cable. Already the first listening check with the devices still cool the Phaeton/CDT-100 duo made it very clear from the start: this has nothing to do with conventional amplifier sound and even less so with digital audio. Which doesn't mean, however, that the combo sounded unusual in any way. One only had to get used to the bitter truth which inevitably descended upon us when trying to listen over different electronics. After busy click-click-clicking on the relay level control the Phaeton controlled the speakers (a pair of Süsskind Beo) like a big solid-state muscle amp – with the crucial difference that it never sounded as if the Greek forced the Beos into doing something, but rather it was playing across them. It was a powerful, yet extremely sleek sound, a wide, open, breathing room, a sound image of which you know intuitively that it's complete. The natural, un-technical character same out wonderfully with female voices, for example on Gemma Ray's halfway mousy last album "Milk For Your Motors", which suddenly turned into a moment of indie pop glory, because Ray's voice appeared so close and credible. With a blood-curdling, forceful performance of the latest Liars CD "Mess" (please don't buy unheard – only for strong nerves!) the Phaeton wiped away even the last doubts about its rock capability: who can shatter the listening room in such a relaxed and laconic, casual style with this music and a really demanding Beo, doesn't need to be afraid of any CD or loudspeaker in the universe – even more so if the CDs are translated into such fluid, elegant sounds void of digital stress. CDT-100 and Phaeton indeed keep their noses out of the music in an utterly noble, absolutely timeless manner. <

The Measurements

The Phaeton has a very large bandwidth (1) with minimally increased output impedance, an excellent S/N ratio (106 dB), ample output power (2x95/162 W into 8/4 Ω) and a good load stability (2). AUDIO's new "carpet" diagram (3) shows excellent distortion stability that is only surpassed by single-ended valve amps – but mostly with far less power. The player shows unusual specs with a marked bass and treble roll-off (-3 dB at 20 Hz and 20 kHz) and a high output impedance (1.2 kΩ). Error correction (up to 1.8 mm) and S/N ratio (106 dB) are within normal limits, but the jitter (1378 ps) could be lower.







Test-CD Liars „Mess"

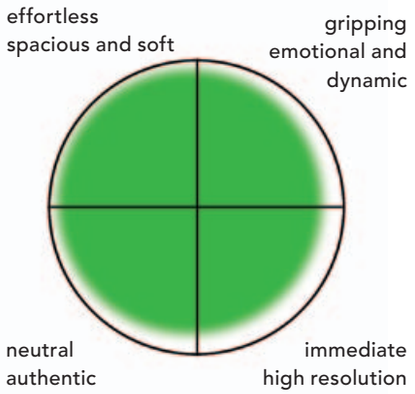
From the pulsing electro punk of the first tracks to the Glass-esque swan song "Left Speaker Blown" this album is as much straining as it is captivating and pushes the listener and the system to their limits.

The authors

Hannes Maier, Bernhard Rietschel, Audio

After the Maier review of the Ypsilon PST 100 preamp and the Aelius power amp in AUDIO, the editors for once wanted to sing a common praise. The two gentlemen will also appear separately in other stories in this magazine again.

AUDIOphile character



AUDIOphile potential

Recommendation

The Phaeton is versatile and gets along well with almost any loudspeaker – which in most cases will sound better than you ever dared to dream.