



mozxos
& **sins**

SINCE 1981

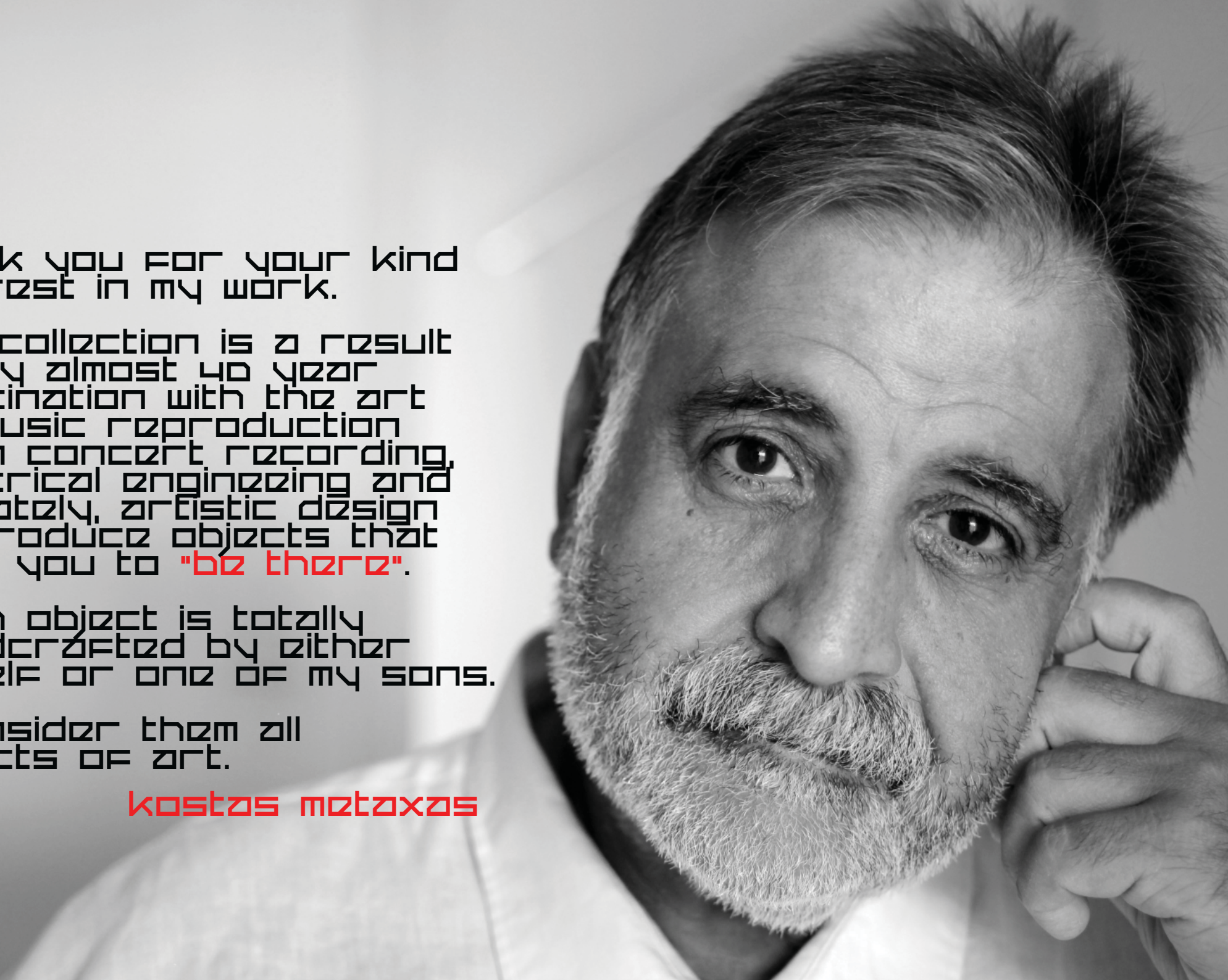
thank you for your kind
interest in my work.

this collection is a result
of my almost 40 year
fascination with the art
of music reproduction
from concert recording,
electrical engineering and
ultimately, artistic design
to produce objects that
allow you to "be there".

each object is totally
handcrafted by either
myself or one of my sons.

i consider them all
objects of art.

kostas motaxos



K-DESIGN AWARD'18

May 30, 2018

METAXAS

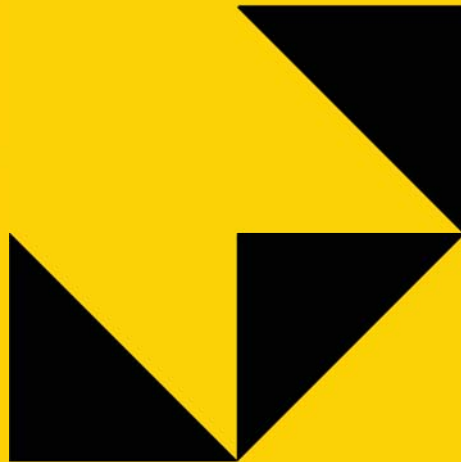
AWARD WINNER

TITLE METAXAS STATEMENT

COUNTRY NETHERLANDS

AFFILIATION METAXAS & SINS

This certificate of award is presented in
recognition of submission of works with creativity
and efforts to the K-DESIGN AWARD 2018.



PROFESSOR
KEN NAH

PROFESSOR
ANDY LAW

PROFESSOR
SHINGO ANDO

PROFESSOR
SUNAH KIM

***IDA
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Vice President
International Design Awards (IDA)

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President
International Design Awards (IDA)

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Secretary-General
Asia Pacific Design Center (APDC)

2018 WINNERS PRODUCT DESIGN

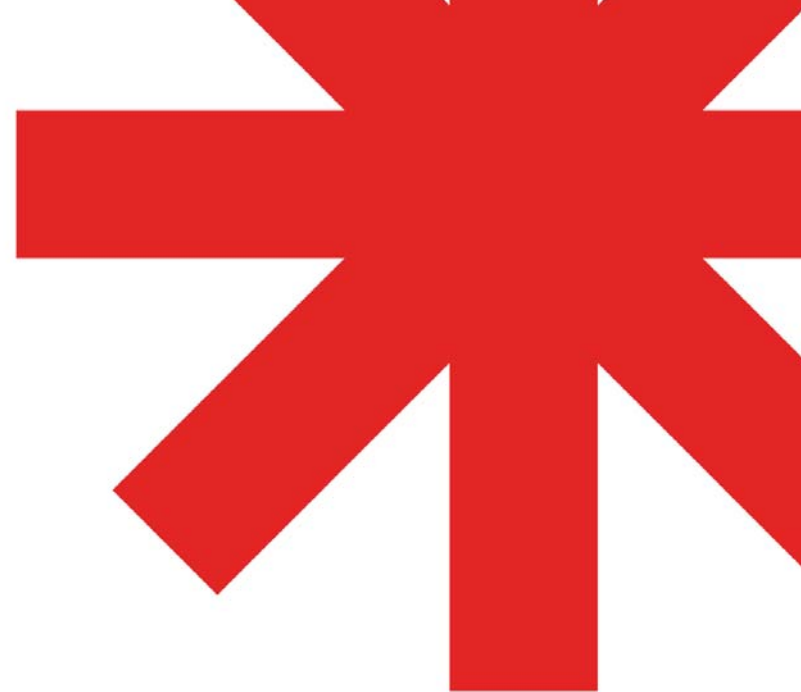
Presented to
Metaxas & Sins Bv

Design
Metaxas & Sins Statement
Amsterdam, Netherlands

Client
Metaxas & Sins

Lead Designer
Kostas Metaxas

Metaxas & Sins Statement has been identified as one of the leading product design by the professional jury of APDC*IDA. Kostas Metaxas is a winner of the APDC*IDA 2018 Design Excellence Awards.





GOOD DESIGN AWARD

2018

The Statement

Designed by
Kostas, Andreas and Alessandro Metaxas

Manufacturer
Metaxas & Sins

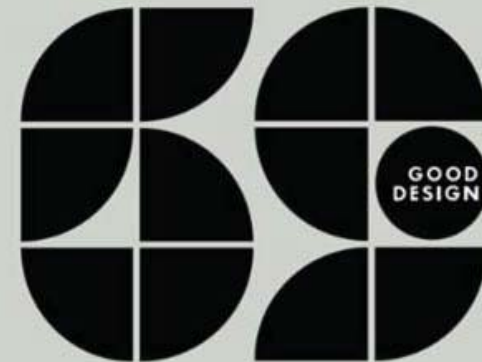
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THE CHICAGO
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AND DESIGN

GREAT GEAR
FOR ANY BUDGET!

THE AFFORDABLE AUDIO ISSUE!

the absolute sound

BOWERS
& WILKINS
801 D4

AN ICON

REIMAGINED

16 PAGES OF
MUSIC!

13 new releases
by female jazz
vocalists, deluxe

editions of *Let it Be*,

Jason Isbell,

Johnny Cash,

Muddy Waters,
and more!

TUBE PARAGON!

Conrad-Johnson
ART 150 Amp

SPECIAL
REPORT

Metaxas & Sins'
Fabulous Tourbillon
Tape Deck +
Open-Reel Primer

FEBRUARY 2022
\$6.99 US / \$8.99 CAN



DISPLAY UNTIL FEBRUARY 20, 2022

Special Feature



The Birth of the Cool

Metaxas & Sins Tourbillon
T-RX Tape Deck

Jonathan Valin

I'm not going to kid you: I am among the mechanically inept—high among them, I would say. If there were a merit (or demerit) badge for hastiness, clumsiness, and willful inattentiveness around machinery of any kind, I'd be wearing it (and would have royally earned it). And yet I very much doubt whether I would have gotten into this hobby when I did, which was as a teenager, or stuck with it as long as I have, which has been a lifetime, if it weren't for the spell that complex, finely crafted mechanical objects have cast on me from youth to old age.

Now, in the world of high-end audio, there is nothing as intricately or as spellbindingly crafted as a reel-to-reel tape deck. You can see this simply by looking at one. (Of course, if you're like me, you will look at one at your peril for, once seen, that spell will be wound up.) Here is the ultimate in high-end-audio mechanics—a concoction of motorized reels, motorized capstans, motorized retractable capstan bars, tension arms, metal rollers, and rubber pinch rollers, with an electromagnetic transducer (the record/playback head assembly) at its center—that when fed a spool of pre-recorded tape comes closer to recreating “the absolute sound” than any other playback medium extant. Indeed, if the words “absolute sound” are something more than a catch phrase, if they mean what they say, then highest-fidelity playback of 15/30ips, two-channel, reel-to-reel mastertapes is what they mean.

Special Feature Metaxas & Sins Tourbillon T-RX Tape Deck

Specs & Pricing

Nominal recording level: 0dB @ 514Wb/m
Maximal peak level: +4dBm
Power efficiency: >60dB, 14dB
Recording/playback speeds: 7 1/2, 15ips, 30ips
Frequency response: 30Hz-20kHz, <2dB
Distortion: <2% at 1kHz, 514Wb/m
Crosstalk: <50dB
Signal to noise ratio: 67dB, 38cm/s ASA filter, 514Wb/m
Wow & flutter: <0.25%
Input impedance: 10k ohms
Output impedance: 560 ohms
Price: \$36,000

METAXAS & SINS BV
Olympisch Stadion 24
1074DE Amsterdam
The Netherlands KVK 46427282
metaxas@metaxas.com
metaxas.com

Part of the reason that mechanical objects like tape decks are so endlessly intriguing is that you have to lay hands on them to make them work. These aren't "black box" components like DACs or solid-state amps or almost everything else in hi-fi nowadays. Tape decks have to be manually operated, like view cameras or stick-shift gear boxes (or transams and sumblers, for that matter). Part of that manual operation involves the tape itself, which must be loaded by hand onto a hub and spindle, threaded through a series of idlers and tension arms on either side of the playback head, and wound (initially by hand) onto a take-up reel. (If, as is usually the case with 15ips decks of production masterpieces, the tape is delivered to you "bulk out"—which is to say, wound backwards, so that the reel starts with the end of the recording rather than with the beginning—you will have to rewind it and then re-thread it from the playback reel back along the tape path to the take-up reel before it can be audited/reel.)

Yes, reel-to-reel machines are a lot of work, and there is more to that job than simply loading and/or rewinding the tape. But there is something important to be said for committing yourself to all this labor. As anyone seriously interested in camera or cars can tell you, being compelled to lay hands on an object to make it work lends a connection that goes a lot deeper (and is a lot more intensely satisfying) than merely pressing a button on a DAC or a virtual button on a computer tablet. It not only gives you a sense of proprietorship, but of active participation. The thing literally can't do its job without you. Speaking for myself, this sense of psychological and physical involvement is a large part of why high-end audio has not (yet) lost its charm. Whether it is wholly true or not, the feeling that your physical assistance is necessary to make something function—that you are the missing piece it is designed around and that your gradually acquired skills and

expertise will make it function *better*—generates a pride in and satisfaction with your purchase that only comes with active engagement. All of this brings me to an electromechanical object that is simply so damn marvelous that I haven't seen its like in decades (more over): the Metaxas & Sins Tourbillon T-RX tape deck.

Unlike Greg Berthel fabulously UHA SuperDeck (reviewed in Issue 319), the Tourbillon is not a completely updated and beautifully refurbished machine from the heyday of analog playback. It is an entirely new creation, built from scratch by tape maven Kostas Metaxas. Metaxas is not just a high-end audio designer of considerable renown; he is also a gifted, award-winning visual artist, whose creations simply don't look like the more or less plain Jane boxes that everyone else builds. (Trust me: You won't confuse a Metaxas component with the work of any other audio designer.)

Metaxas is also a highly skilled tape recorder, whose many 15ips reel-to-reel live-concert tapes are available from his website. Since he began recording back in the 1980s, Metaxas has been obsessed with finding the very best tools for the job. Eventually, this quest led him to the celebrated Sins company. Stefanos, whose tape decks were at one time ranked among the finest money could buy. From the 1960s through the 80s, Stefanos offered two lines of tape recorders—a portable deck (the SP35M series) for location recording and a larger

unit very recently, the only decks that diehard R2R tape-lovers could purchase were refurbished models.

machine (the TD series) for the studio. After considerable research, Metaxas bought one of each.

In time, Metaxas became friends with Georges Quellet, founder of Stellaron. Though Quellet's Stellaron decks were the quintessence of Swiss craftsmanship—some of the finest examples of electromechanical engineering made in the post-war—his company was eventually done in by digital.

At the Tape Project got the R2R ball rolling on the source side, it is United Home Audio's Greg Beron who got it going on the hardware side. An avid lot of audiophiles, including many of you reading this review, got your first taste (or first reminder) of how good reel-to-reel playback can sound via one of Greg's modified Tascam machines, either in a manufacturer's showroom or at one of Greg's and NMR's gigs. Jeremy Bryant's after-hours gatherings at RMAF, ANPCONA, Capital Audio Fest, THIE, Show, etc.

Thanks to Greg and The Tape Project, the number of R2R tape enthusiasts (and R2R tapes) has greatly increased over the past decade. While I can't say that their numbers come anywhere close to the hungry masses who have rediscovered the joys of vinyl, there are now enough upgrades to constitute a niche market—guys and gals with the money and the "absolute sound" incentive to reach for the highest fidelity playback possible.

As a side benefit of this mini-revival, some companies have begun to build and market R2R tape decks again—brand-new, not refurbished ones. Which brings us to the Metaxas & Sins Tourbillon T-RX.

In the light of this tape renaissance (and with the advice and blessing of Georges Quellet), Kostas decided to build his own, enhanced versions of the Stellaron SM3 portable and TD9 studio machines (among the last—and best—commercially available analog Stellarons). After three-and-a-half decades of working with both machines, Metaxas was as familiar with their design strengths and those areas where they could be improved upon as anyone in the tape-recording business. Having no Quellet's engineering principles, employing the very best, often bespoke parts on the planet (some identical to those found in the Stellaron originals, many new and greatly improved), hand-building, testing, and fine-tuning everything himself (or with the help of his sons), giving free rein to his own artistic gifts in the looks and ergo-

nomics of the things, Kostas brought forth two visually stunning, socially commanding, and completely brand-new products: the Metaxas & Sins Tourbillon T-RX, portable deck (reviewed here) and the larger, pricier Papillon studio deck.

Special Feature Metaxas & Sins Tourbillon T-RX Tape Deck



of trustworthiness that The Tape Project had secured the rights to copy and sell (in limited quantities). Within a decade, the number of exhibitions using R2R tapes and tape machines to demo with a audio shows had grown substantially. Even mainstream audiophile record companies and record retailers—such as Acoustic Sounds/Analogue Productions, Chasing The Dragon, Ivor, Groove Nova, Opus 3, and Varburg—started to dip their toes in the R2R market, releasing limited numbers of their own and of classic titles on 15ips tape.

Of The Tape Project got the R2R ball rolling on the source side, it is United Home Audio's Greg Beron who got it going on the hardware side. An avid lot of audiophiles, including many of you reading this review, got your first taste (or first reminder) of how good reel-to-reel playback can sound via one of Greg's modified Tascam machines, either in a manufacturer's showroom or at one of Greg's and NMR's gigs. Jeremy Bryant's after-hours gatherings at RMAF, ANPCONA, Capital Audio Fest, THIE, Show, etc.

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To give you some idea of how the Tourbillon looks in life, let me tell you how my tape-loving friend Andre Jantzen—a guy not prone to boasts of wild enthusiasm—reacted when he saw the Metaxas machine. A very fine glance, the Tourbillon literally stopped him in his tracks. He stood there and gazed at it for a goodly number of seconds before whispering, in a totally un-Andre-like tone of voice, "Man, that's cool looking." (And he's hardly the only one who's had this awe reaction—everyone who's seen and heard it has said those very same words.)

It's probably better for me to refer you to the photographs of the Tourbillon than to try to describe it. To riff on Andre, it's just too cool for school. Not only is it not shaped or styled like any other deck, but familiar with—and their lefty, squared-off, sheet-metal chassis and purely functional (not designed to be aesthetically pleasing) controls—it is also absolutely compact, a mere 14" deep, 12" deep, and 2" tall (not counting the s-shaped, lifting-bracket mounted towards the front of the bottom panel and the critical feet mounted towards its rear, both of which the unit sits upon, at a slight acute angle, when used on a shelf). The T-RX, about 25 or so pounds, brack and feet included—making it easy to carry to a recording venue

or a friend's house in its dedicated transport case. Its precise dimensions and low mass also make lifting it by that front bracket and strapping it in your listening room a snap.

Unlike the Stellaron SM3, the Tourbillon T-RX doesn't require hub-adapters and motor pulleys to accommodate and play back 15ips or 30ips tapes on 1015" reels. I'll do that (and more) just as it comes. All you have to do is load a tape, drive a switch on the top panel to select playback speed (30ips/15ips/7 1/2ips), throw a second switch sitting beside it to choose between REC and NAB equalization, and begin to play.

The T-RX's other controls are stylish but minimal: two pairs of large red volume knobs on the skinny front panel of the unit's main-over-chassis—one set for left and right second gain, the other for left and right playback gain; two circular VU meters on the top panel above the second/playback/erase head assembly for monitoring second/playback levels; an oblong Nominale LCD screen below the head block that registers the operational status of the unit; and beneath that the customary bank of playback controls for rewind, fast forward, stop, play, fast, and record (there is also a record safety-switch to prevent accidental erasures on decks equipped with a record head).

Special Feature Metaxas & Sins Tourbillon T-RX Tape Deck

On the far left of the narrow back panel are the left/right outputs to your preamp—you can choose to order the deck with pseudo-balanced XLRs (the T-RX uses single-ended circuitry, thus the "pseudo" part) or with standard RCA's—followed to their right by a multi-pin input for the enhanced power supply cable, followed in turn by a pair of XLR inputs for your microphones (assuming you have specified a unit with record head). The only other I/O is a four-pin LEMO jack on the right side of the chassis for headphones or a meter/scope.

Inside the exquisite little chassis, which has been CNC milled from a solid block of aluminum, is more tech than I can possibly detail. But to give Metaxas' mechanics and circuitry a cursory look, let's begin with why the T-RX is called the "Tourbillon." As many of you may already know, in horology a tourbillon is a complication added to a watch (a rotating cage in which the escapement and balance wheel are mounted) that increases time-keeping accuracy. The T-RX uses a 64-bit ARM-Cortex microprocessor (yes, a digital part) to perform this same function—to regulate the speed of tape travel (and braking) with unprecedented 0.001% accuracy, by synchronizing the four, Swiss-made, NASA-grade Mason motor/controllers (two reel motors and two capstan motors) with the two linear Antonino motors that control the dual, milgroove-wire, capstan rollers mounted on a remarkable bar, which automatically shifts forward when the play or record button is pressed (to allow the tape to connect the playback and record heads). The heads themselves are the same type used in Stellaron's TD9 machines—Photons. Buttery units made in Torino, Italy. Headblocks are hot swappable. In case you dig up a vintage Regent or Wiedels, and the unit can accommodate both quarter-inch and half-inch tape, although bias will need to be re-set for 30ips if you plan to use the machine to record. (The unit comes braced for 15ips and Scotch 408 tape; Metaxas claims that, at 15 or 7 1/2ips, there is no need to adjust bias for any other tape formulation. At 30ips, however, you may have too much high-frequency energy with the bias set as it comes from Metaxas & Sins, so re-biasing via an MKL calibration tape and the adjustment of two rotary trimmer pots is recommended. For details on the biasing procedure, consult Metaxas website at metaxas.com.)

The electronic heart of the Tourbillon is its playback circuit, which is based on Quellet's patent design from the 1960s, but with significant upgrades. Unlike every other deck that he is familiar with (and he knows audio-grade Ampexes, Studers, Orbits, as well as Stellarons), my pal Andre tells me that the signal from a Stellaron only passes through four or five transistors from input to output, where the signal in other machines is routed through scores of active electronic parts. The result is a native purity and fidelity that set the sound of Stellaron apart. When this playback purity is enhanced by the markedly improved accuracy with which the Tourbillon moves the tape and manages its signal, the result is, well...I've never listened to anything quite like it. To put the cart before the horse (or maybe the horse in the cart, this is, simply, the most neutral and complete presentation I've heard from any audio component. This is the absolute sound in the definition of those words that makes the best sense to me: the sound that was recorded in the studio or the concert venue.

To a large extent, I've already commented on the Tourbillon's notes in my review of the outstanding Ellas N. Darnell M. B. local speaker in our issue (323). The unusually natural and lifelike, virtually uncolored reproduction of the tapes therein discussed (Chet Baker Sings, A Tribute to Ella Fitzgerald, and Joan Baez), the many new things that I learned about the singers, the instrumentalists, and the recording techniques and the old things I re-learned about myself and about the way music has shaped my life are owed equally to the Metaxas & Sins Tourbillon T-RX, which is to tape recorders what the original Quads were once claimed to be to other loudspeakers—a clearer window on the music, a window through which you can not only look at the performers as they were when they were originally recorded, in the light of a day long past, but at the you who once was when you first heard the music that they made, in the noontime of your life.

I could leave it at that and feel as if I'd done it. But the Tourbillon justice, only I know that you want more. So, let's take another step down Tourbillon Lane, beginning with a *Stellaron*-sounding studio album, Vanessa Fernandez's *Use Me*—a collection of R&B songs (penned by the likes of Marvin Gaye, Curtis Mayfield, Isaac Hayes, Al Green, and Bill Withers) on the Groove Note label, recorded in 2004 by Michael C. Ross at Ocean Way (now United Recordings), and mastered by none other than Bernie Grundman at his own studio, Bernie Grundman Mastering.

Even on first listen, I was smitten by how outstandingly good this tape sounded. No, it isn't an all-acoustic recording made in a real space. This is pre- and post-assembled pop music, sung by a gifted female vocalist from Singapore (of all places), backed by good journeyman musicians (bass player, guitarist, drummer, and keyboardist) from the States, taped in a Hollywood recording studio with vintage microphones, and mastered in a different Hollywood studio with vintage tube electronics.

I don't know what I was expecting from *Use Me* (I haven't always loved previous Groove Note artists and releases), but it certainly wasn't what I got. Tamed out the player was great, the vocals quite entraining (post-wedding, with a lot of a lip-oh-who), the instrumentalists well played, the arrangements good, and the sound...well, the sound was *Use Me*. With the exception of certain titles from Jonathan Horowitz at PPI and digitally recorded pop cutters like Patricia Barber's *Capt Blue*, I haven't listened to a lot of contemporaneous jazz/pop recordings on tape. However, if they're all *Use Me*, then I've clearly missing out in a big way.

Except, they're not all *Use Me*. What the Tourbillon was telling me wasn't to run out and buy a whole bunch of twenty-first-century soul and funk R2Rs; it was telling me the reason why *Use Me* sounded so good and forth R2R was so on-

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Kostas Metaxas is an articulate and forceful champion of audio without compromise. He is a connoisseur of fine music, a man for whom second best isn't good enough. In September of 1981, Kostas formed the company which bears his name. Known all over the world today simply by its initials, M&S, Metaxas & Sins was founded for several reasons.

The most immediate of these was to begin producing, his first product, the CP-1 preamplifier in commercial quantities. Whilst studying in Heidelberg, West Germany having transferred from the University of Melbourne, Kostas showed several of his prototype amplifiers to an important German Hi Fi Dealer. He was sufficiently impressed with what he heard to give him a little capital in the form of deposits to reserve the finished products. Thus M&S was born. And the rest as the saying goes, is audiophile history.

Back in Australia, new designs flowed from Kostas' workshop. The PP-1, a moving coil preamplifier appeared early in 1982. Reviewed by Klaus Renner in Das Ohr, the German audiophile publication, it was praised as the finest preamplifier available at the time. Accordingly, a flood of orders from the German audiophile who are known to purchase only the number 1 product in its class, firmly established M&S as a manufacturer of only the highest quality audio equipment.

In February 1988, the GERMAN 'Stereoplay' magazine rated the OPULNCE [Opus] PREAMPLIFIER its absolute reference against amplifiers from the US, Japan and Europe.

The OPUS preamplifier is a unique audio product. Apart from its outstanding musicality it combines the state-of-the-art in high-technology with an incredible array of options which would excite a Recording Engineer.

Kostas is also a familiar sight at local jazz and classical concerts with his prized Stellavox tape recorders in tow. Built with the exacting precision of a PATEK watch, these state-of-the-art models are indeed rarities and are normally the exclusive province of the professional recording studio. The recordings Kostas makes using Stellavox serve as reference for the design of future M&S systems.

M&S products embody not simply audio excellence but a stylistic design sense that would not be out of place in the Museum of Modern Art. M&S products are not meant to be hidden away like traditional sound systems. They are meant to be appreciated both stylistically as well as musically. Science approaches art for the sheer love of music and for that M&S make no apology.

Similarly, Kostas is unapologetic about the market he serves. He aims, quite simply, to provide the "finest objects money can buy." And what sort of people are M & S customers? Generally they view audio as a well-deserved indulgence. But no matter what their occupation, their preoccupation is to know and appreciate the difference between better and best, to listen with their heart and ears and blissfully "get lost in the music" ..

Each amplifier is entirely handmade by the Master and his sons [sins] in a similar manner to the meticulous assembly of historic Bugatti automobiles.

To put it mildly, Metaxas & Sins is unlike any other audio business.

"Flagwaving? Why Not?" wrote Ralph Neill reviewing the MAS PPI in Australian Hi-Fi in the early eighties. "Australia II proved in a big way that Australian technology can take on the world and win. M&S is doing just the same – on a smaller scale, to be sure, but it's doing it!"

phonographic perambulator no.1

The Metaxas PPI uses a sensuous organic shape which is non-mirror image, CNC'd from a block of solid 6061 aircraft grade aluminium [or Titanium] to eliminate the usual reflections and refractions of resonances inherent in all turntables constructed from pure geometric shapes.

Metaxas constructs the round platter in such a way that the boundary between the lathe-turned aluminium base has organic undulations connecting it to a dedicated acrylic platter mat. The recessed "label area" adds another level of isolation and evacuation.

A ultra-precision voltage regulated belt-drive system featuring the most advanced Swiss Maxon motor rotates the platter without adding any external speed variations or vibrations.

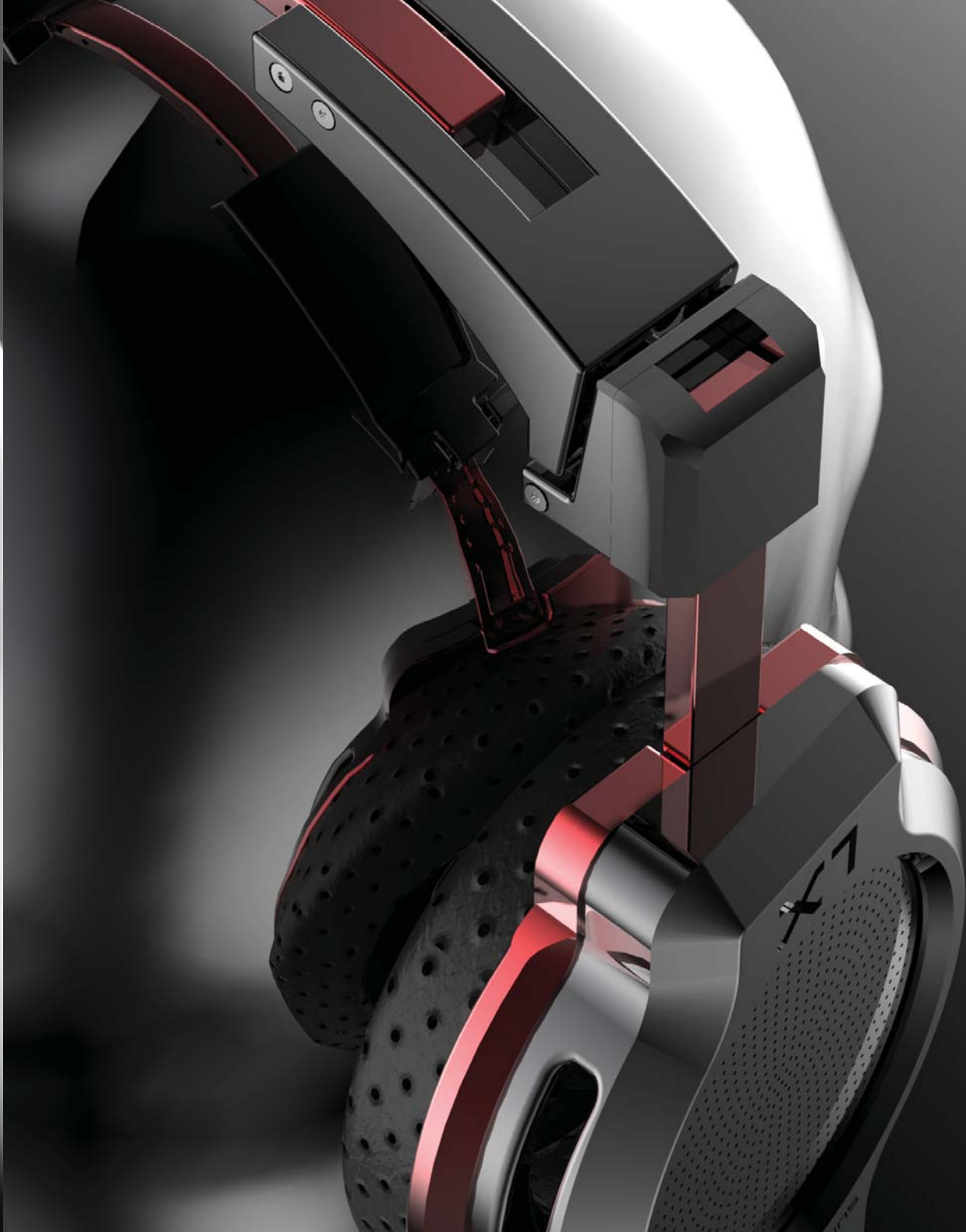








x1 electrostatic ear speakers



METAXAS STATEMENT



METAXAS & SINS
METAXAS
NETHERLANDS

Artist Theo van Doesburg was dreaming of the most spectacular architecture, design and sculpture he had experienced and wanted to bring that emotional intensity, daring and seductive beauty to an audio system.

As a recording engineer, Metaxas also wanted to "voice it" for extremely realistic recording playback, to be able to reproduce all the music and emotion of a musical performance. Then, it true "Bugatti fashion", every sin — either Andreas or Alessandro Metaxas.

ING ROBOT



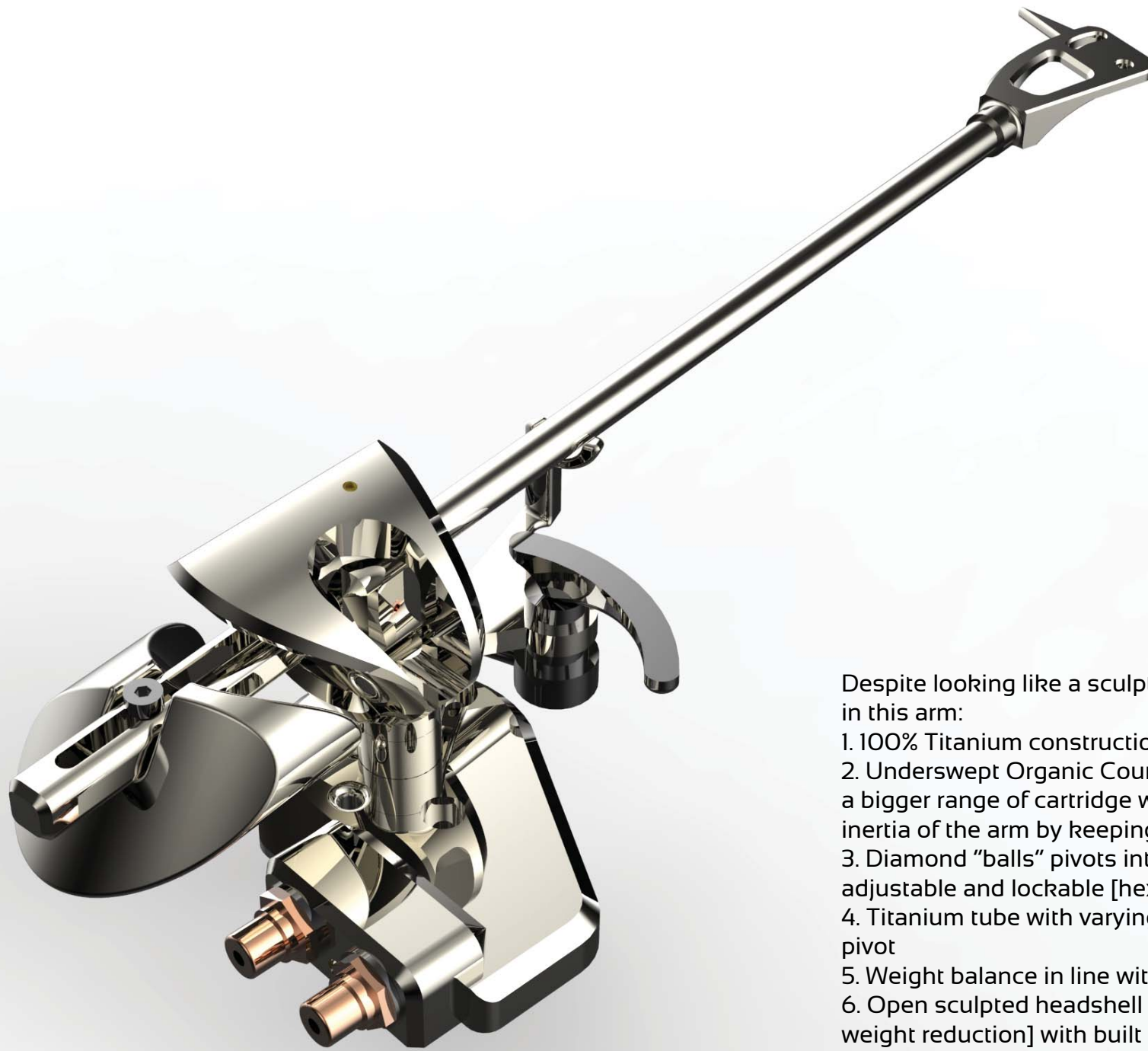
LKKER TECHNOLOGY CO., LTD.
XIAO BO
CHINA

This product aims to make it the best intellectual partner for children through cute modeling and simple use. It has three main functions which includes automatic identification of page turning, book changing and book closing.

本产品旨在成为儿童的最佳知识伙伴，通过可爱的造型和简便的使用让孩子成为最好的知识伙伴。使用时将绘本放到机器人上面再调整好模式便可开始读书。其包含翻页自动识别、中途换书、合上书自动读完三个主要功能。

phono pickup combobulztor





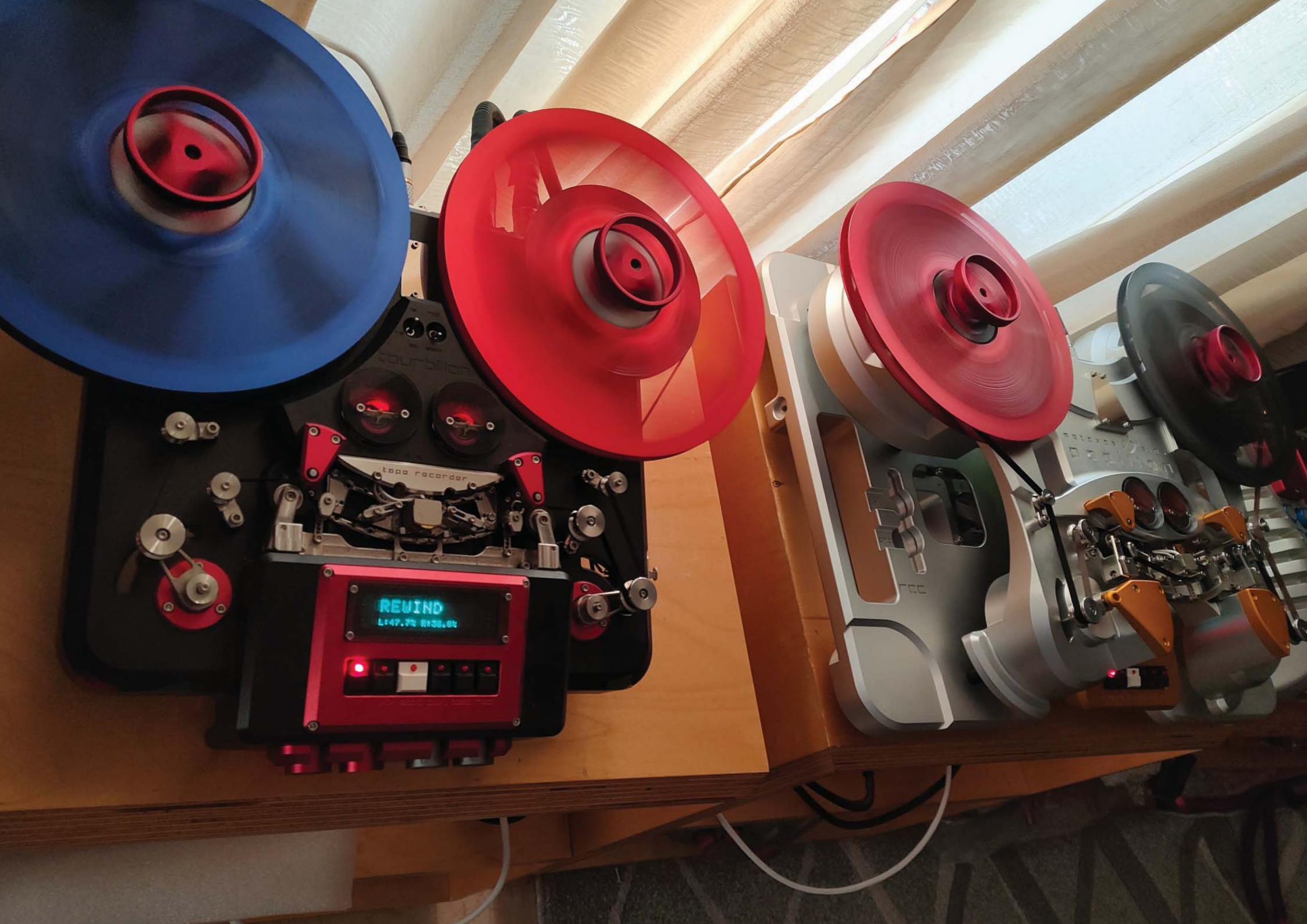
Despite looking like a sculpture, there's a lot of serious engineering in this arm:

1. 100% Titanium construction
2. Underswept Organic Counterweight - which not only accommodates a bigger range of cartridge weights, but decreases the moment of inertia of the arm by keeping the weight closer to the pivot point.
3. Diamond "balls" pivot into sapphire v-jewel bearings - adjustable and lockable [hex key]
4. Titanium tube with varying diameter fuse-welded to headshell/pivot
5. Weight balance in line with cartridge cantilever.
6. Open sculpted headshell for ease of mount and connection [and weight reduction] with built in finger lift.

papillon 15" studio tape recorder











ms 5-channel portable mixing device

motrax25 & sins mx-5

pad insert

pad insert

pad insert

pad insert

pad insert



out

in out

in out

in out

in out

lights



on

ch1-pzn-ch2

ch1-pzn-ch2

ch1-pzn-ch2

ch1-pzn-ch2

ch1-pzn-ch2



75

70

05

0db

-5

-10

-20

-30

-40

-60

-80

75

70

05

0db

-5

-10

-20

-30

-40

-60

-80

75

70

05

0db

-5

-10

-20

-30

-40

-60

-80

75

70

05

0db

-5

-10

-20

-30

-40

-60

-80



t-rex portable recording device no.1







There is no doubt that the absolute best “source” for reproduced music is analogue tape recorded on 10” reels at 15ips. The same analogue tape reel-to-reel recorders are also the absolute best way to record and capture music [concert recording].

This is a fact not open for discussion and is responsible for the incredible resurgence in interest in Open Reel Analogue Tape Recorders. The High End Audio industry has embraced and acknowledged this over the past 10 years.

Artist and Recording Engineer Kostas Metaxas has not only been aware of this since the mid 1980s, but in fact been using two portable heavily modified Swiss “Stellavox” portable tape recorders, manufactured in the mid 1980s to record over 300 concerts on analogue tape [www.metaxas.com/recordings.html]. He is probably the most prolific recording engineer using analogue tape of the past 20 years.

“When I purchased my Stellavox SM8 and TD9 in 1986, they cost ~ \$50K - the price of a suburban house in Melbourne, Australia. The same house today is ~ \$1million. ”

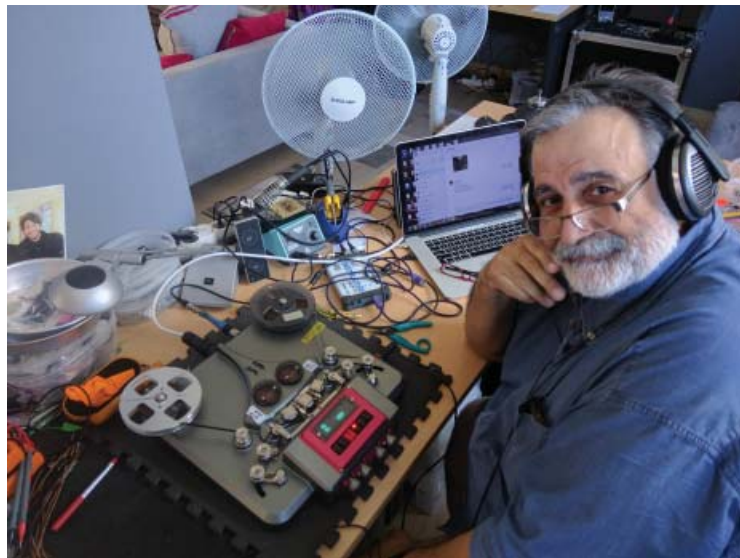
Kostas’ work with Stellavox including some of his recordings on a DVD have been featured in a book on Stellavox by German writer Roland Schellin.

Fueled by this recent interest, Kostas has decided to produce an entirely new tape machine based heavily on the portable Stellavox SM8 recorder which has even received the blessing of Stellavox founder Georges Quellet.

The Metaxas & Sins “T-RX” is a portable analogue tape machine designed for ultimate location recording and playback duties. Biased for either 468 or 911 1/4” analogue tape, it will operate only at 15ips using 6 brushless DC motors in a puremechanical operation. In other words, it will be built like a large Swiss mechanical watch mechanism.

The circuits will also be using 100% discrete transistors and parts similar to construction from the 1960’s to early 1970’s.

The result is a “kinetic art object” which happens to record and play analogue tape.







STOP

1.348v, 1.289v

stop play fast rew rec

6

SPELLVOX
METAXAS AUDIO

ERASE 1.8

REC 10.2
10.3

CAUTION
DO NOT FORCE THE
LEVER BY HAND

NO ERASE
TEST
PLAY
STOP
REWIND

the ikarus



The IKARUS started its life as an "integrated" amplifier 35 years ago, then evolved into a concert monitoring amplifier. Alongside my [modified] 3 Stellavox SM8 Tape machines, it was constantly being refined so I could easily hear what I was doing with microphone placement relative to the performers in a live concert. It's "holographic" transparency, natural low-frequency "bloom", ultra-high speed and low-noise, phase-perfect to well over 100kHz [the limit of the B&K 4135 1/4" capsule microphones] allows you to "be there".

Sporting our signature construction - sculptured massive CNC machined aluminium case, highest quality connectors, milspec double-sided oxygen-free copper PC Board, it uses a complete dual mono approach in power supplies with separate individual high speed rectifier diodes with almost 40,000uF of filtering supplies.

A high quality [Grayhill] rotary switch and potentiometer [ALPS Blue Velvet] are the only components the signal encounters on its way to the ultra-high-speed amplifier circuits, allowing an incredible wealth of fine musical nuance to pass directly through to the loudspeaker.

FREQUENCYRESPONSE : DC - 5.0MHz (-3dB)

POWER OUTPUT: 50WRMS per channel into 8 Ohms
with no more than 0.05% T.H.D.

DAMPING FACTOR : Greater than 500 wide band

SLEW RATE : Greater than 1000V/us small and large signal

T.H.D. : Less than 0.05% 20Hz-20KHz

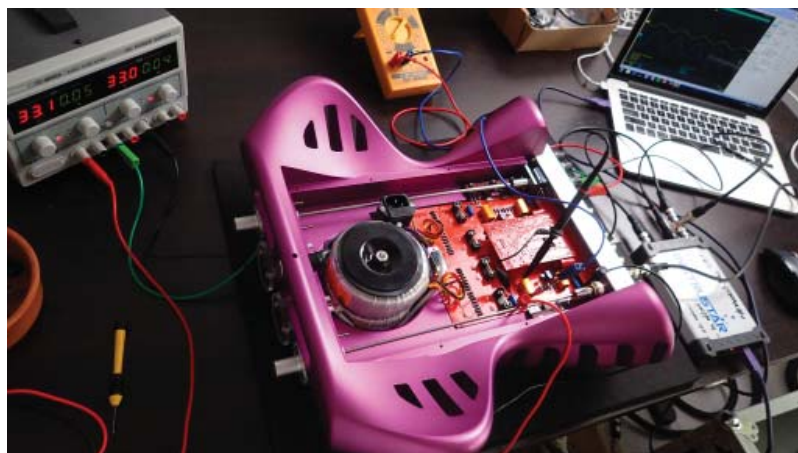
I.M.D.(S.M.P.T.E.) : Less than 0.05%

SIGNAL/NOISE : -117DBV unweighed input shorted

SENSITIVITY: 0.5VRMS in for 50WRMS out (35dB)

INPUTIMPEDANCE : 100kOhms in parallel with 11pF





andreas metaxas

the ikarus reviews

APRIL 2016 VUMETRE MAGAZINE

"It is unsurpassed by any other device in the market and there is nothing like it. The most impressive part, without contest, of the Ikarus is the rapidity and transparency of the sound. It carries a lightness so inexplicably powerful. The Ikarus has no match when it comes to capturing sound."

Full review with English Translation:
<http://metaxas.com/VuMetre.pdf>

SEPTEMBER 2017 UK's Hi Fi NEWS

Ken Kessler clearly describes what makes my designs special - past the usual "valve vs transistor" debates, to the next level of serious "uber-hi-end" - the ability to suspend belief, a realism that allows you to "be there". To create an amplifier of sublime transparency is only possible if you have actually recorded the music and were "there"...500 concert recordings later...

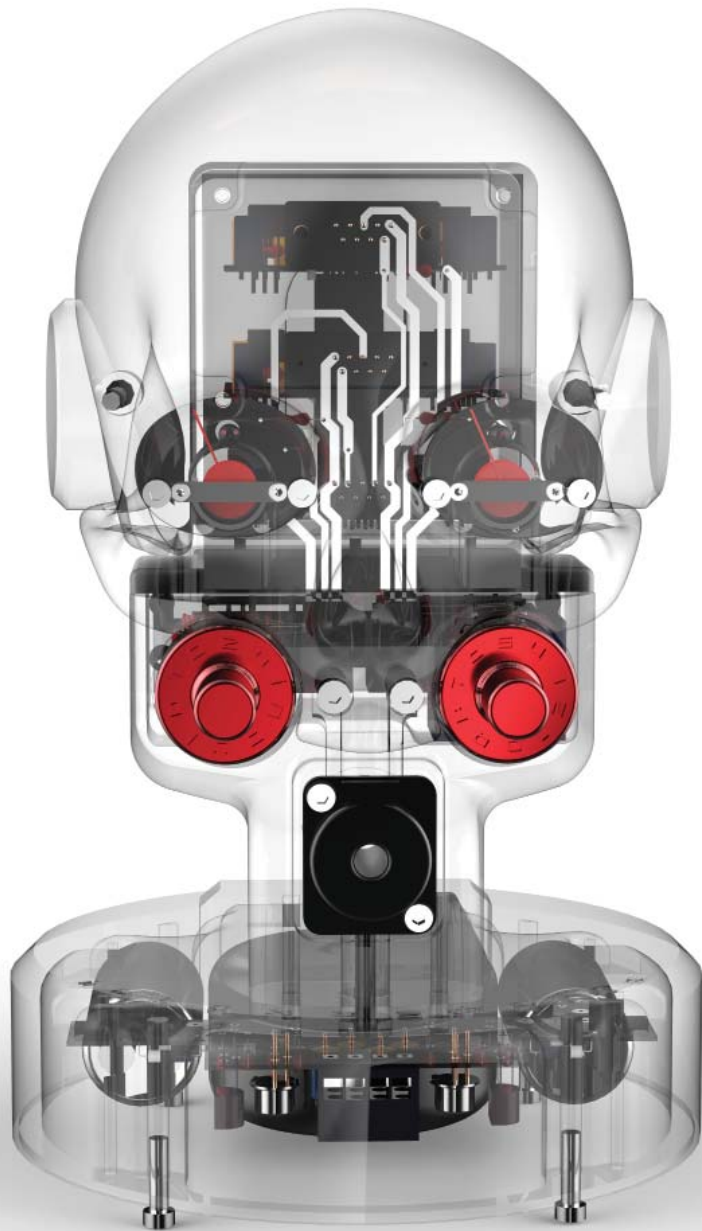
You can download the full magazine online:
<https://pocketmags.com/eu/hi-fi-news-magazine>
 and read it for yourselves.



MARQUIS

"memento mori"





The MARQUIS "Memento mori" is a sublime, minimalist Preamplifier-Headphone amplifier "sculpture" designed for music-loving audiophiles who require few functions but insist on the purest sound.

Memento mori means "remember that you must die" in the language of Latin.

For men living in antiquity all the way up until the beginning of the 20th century, death was seen as a motivator to live a good, meaningful, and virtuous life. It served to remind us of our own mortality, of our mistakes and failures and of the shortness and fragility of human life.

Memento mori "sculptures" compel us to meditate on the meaning of life.

Many of the obstacles we face in our lives are rather like the waves of the sea: relentless, bleak, repetitive and, ultimately, not responsive to our wishes or longings. But, in the midst of our struggles, we can still appreciate the immense beauty and grandeur of life.

Finally, and most importantly, the MARQUIS "Memento Mori " also emphasises the fact that life is too short to listen to expensive headphones through a boring headphone amplifier!





MARQUIS Headphone Amplifier press

Ken Kessler reviewed the MARQUIS Headphone Amplifier recently in the Sunday Telegraph's LUXURY MAGAZINE:

i. <http://www.telegraph.co.uk/luxury/technology/metaxas-marquis-headphone-amplifiers>

ii. <http://aornic.com/reviews/2017/6/2/metaxas-sins-marquis-memento-mori>

iii. <http://stereo.net.au/reviews/review-metaxas-sins-marquis-headphone-amplifier>

iv. <http://www.trustedreviews.com/news/metaxas-and-sins-marquis-memento-mori-skull-shaped-headphone-amp-stores-your-headphones>

v. <http://hifipig.com/metaxas-sins-marquis-memento-mori-premieres-in-uk/>

BBC Science Focus:

vi. <http://www.sciencefocus.com/gallery/gadgets/cool-gadgets-list-june-2017#marquis-memento-mori-headphone-amplifier>

vii. kimber cable's video

<https://vimeo.com/228214423>

viii. <https://www.audionet.com.tw/thread-10003-1-1.html>

ix. <https://www.facebook.com/www.highendstyle.sk/>

x. <https://www.audionet.com.tw/thread-9979-1-1.html>

xi. <https://www.facebook.com/100000143187825/videos/1802388486442573/?fref=mentions>

xii. <https://www.flatoutmag.co.uk/gear/metaxas-and-sins-unveil-the-marquis-memento-mori/>

xiii. <http://robbreport.com/gear/electronics/when-death-reminds-you-live-244703/>



the macrophones

Mimicking the inverse of the microphones we use in our purist recordings, the “Macrophones” are mini-monitors designed to be used to seriously monitor recording/playback, which can be scaled with the addition of “modules” to become as miniature for location work or as grand as is necessary for studio or home playback.





They were specifically developed to assist us with our location recording work so we could perfectly position the microphones in 3D space and to stereo "mix" the 4-5 channels with the correct levels "in real time" to stereo analogue tape.

Each macrophone is machined in two halves which enable us to produce an ideal shape to mount the accuton ceramic drivers and reduce cabinet colourations.

The basic module consists of a 1-inch ceramic tweeter and 6-inch ceramic mid-bass driver. An additional module is also available which swaps the front section for a deeper mount for an 8" ceramic woofer.

CNC allows us to sculpt a shape with incredible rigidity, in a much smaller form factor than is possible with other materials, at the same time, minimising baffle diffraction whilst maximizing internal volume for an ideal and extended bass response.

FUTURE PROOF: The front section supports most of the accuton driver range so that you can configure the macrophone to suit your absolute taste and budget.





the solitaire



the solitaire

The Solitaire is a straight 150WRMS Stereo Power Amplifier or can be offered like the IKARUS as a higher powered [150WRMS] Stereo Integrated Amplifier.

It best embodies the sculptural design and "lack-of-sound" philosophy of Metaxas & Sins.

After over 35 years of work in the field of High End Audio, from the design and manufacturing of entire playback systems to the recording of over 300 acoustic concerts to gain further musical insights, the last thing that artist-designer Kostas Metaxas wanted to produce was "another box with transistors on a heatsink".

Kostas was dreaming of the most spectacular architecture, design and sculpture he had experienced and wanted to bring that emotional intensity, daring and seductive beauty to an audio amplifier.

As a recording engineer, Metaxas also wanted to "voice it" for extremely realistic recording playback, to be able to reproduce all the nuance and emotion of a musical performance.

His new SOLITAIRE is the result. Machined from a solid block of either aircraft aluminium, copper or titanium, it's totally bespoke and the modular electronics make it future-proof. Even the circuit boards can be CNC machined from 1mm solid silver coated clear polystyrene.

From the sensual, organic and striking casework [inspired by the stunning work in Sports cars of the 1950's/60's of Ercole Spada, as well as the architecture of Hadid, Gehry and Calatrava] to absolutely

every part of the amplifier including the circuit, topology, layout and casework has been developed by Kostas Metaxas. It is the logical evolution of his groundbreaking design concepts pioneered in the early 1980's.

Then, in true "Bugatti fashion", each and every amplifier is assembled by the master or his sins — either Andreas or Alessandros Metaxas.

The individually 5-axis CNC'd "sculptural" enclosure presents a very heavy, solid, inert, non-resonant structure to RFI shield and ultimately protect the delicate electronic signals, driving the noise floor to ultra-ultra-low levels, revealing a wealth of detail that has never been heard before.

1. INPUT STAGE:

The fully complementary, dual differential, cascaded input stage is linearised to ensure least distortion over the large voltage swings to the amplifier input from the preceding preamplifier. A very gradual (6dB/octave) Bessel filter is incorporated at the input to eliminate the needless reproduction of Radio Frequencies.

The second voltage gain stage uses considerable local feedback to ensure that large voltage swings from the input stage are accommodated with the least possible distortion.

An overall negative feedback of only 11dB is required to stabilise the complete D.C. operating point and reduce distortion at full power to below 0.01% T.H.D. which is primarily composed of second harmonics. A D.C. servo is built around an integrated circuit to monitor the output voltage and ensure absolute D.C. stability.



2. OUTPUT STAGE:

Our triple Darlington output stage uses the fastest power transistors we could source, but sadly no longer available since the factory in Japan was destroyed by a Tsunami. Fortunately, we purchased large stocks of these devices 30 years ago.

Our printed circuit design borrows techniques from RF and UHF groundplane technology to maximise the speed of current delivery, especially at high frequencies.

3. POWER SUPPLY INPUT & OUTPUT STAGE:

The input voltage gain stage of the SOLITAIRE is isolated via the high-current output stage via a two stage 'capacity-multiplier' circuit which uses the beta of the transistors to multiply the filtering effect of the capacitor used. The simplicity of this circuit eliminates an output bypassing capacitors which would otherwise reduce the apparent speed and degrade the sound quality of this amplifier.

4. PROTECTION CIRCUITS: To eliminate the sonic colourations imposed by sophisticated current limiting protection circuits, the SOLITAIRE uses only the short M205 fuse types to protect the high current stages. Apart from the fuses, a four pole relay is in series with the solid silver binding posts. If over 0.6VDC is sensed at the amplifier output, the relay is activated until the condition is rectified.

Specifications

FREQUENCYRESPONSE : DC - 5.0MHz (-3dB)

POWER OUTPUT: 150WRMS per channel into 8 Ohms
with no more than 0.05% T.H.D.

DAMPING FACTOR : Greater than 500 wide band

SLEW RATE : Greater than 1000V/us small and large signal

T.H.D. : Less than 0.05% 20Hz-20KHz

I.M.D. (S.M.P.T.E.) : Less than 0.05%

SIGNAL/NOISE : -117DBV unweighed input shorted

SENSITIVITY: 0.5VRMS in for 150WRMS out (28dB)

INPUT IMPEDANCE : 100kOhms in parallel with 11pF





alissandros metaxas

What the critics said in the past...

Listener A "There is not much else to say except that the SOLITAIRE leaves far behind our best references".

Listener B " Let's get straight to the point; MAS electronics are more than surprising, they are a real discovery, a rare find. Rarely have we heard on transistor units such liquidity, such an ease of reproduction where voices once again find melody and softness'

Jean Hirage/Patrick Vercher LA NOUVELLE REVUE DU SON, France.

" The Solitaire is yet another solid state amplifier that I liked from the first time I heard it in my system. It passed very musical and unharsh sounds through to the speakers. Its sound is characterised by exquisite spatial presentations, solid dynamics, great transparency and a tonality that is a little soft sounding in the high frequencies. This amp is lyrical and quick sounding.
A Bascom H. King thumbs up for this one!"

Bascom King, AUDIO USA

" This amplifier, once it stops pouting and stamping its feet, has definition, transparency, clarity and solidity which will charm the pants off anyone who regards imaging and detail retrieval as paramount".

Ken Kessler, HI FI NEWS & RECORD REVIEW, England.

" The Solitaire is more impertable, more steady, more precise and subsonically more tremendous than any SUMO power station of multiple power output. Furthermore, the Solitaire isn't picky at all with speaker principles. A complex dynamic 4 way speaker like Infinity Kappa 8, it brings the amp to top performance as do the extremely difficult electrostatic speakers of Putz or the old Martin Logan CLS. The real astonishment is met, however if one connects against all odds, the Metaxas power amp with the brilliant 300DM loudspeaker like the Energy Point 1E. Then the Canadian shoe box sounds immediately like a noble speaker of ten times the price, surprises with bass extension, midrange resolution, transparency and easiness of treble ... "

Ulrich Michalik HI FI EXCLUSIV, Germany.





the diva

A scaled back version of
our SIRENS
the DIVA offers a more
compact, cost-effective
footprint, minimal curves,
but still ample
sensuality in a reference
mini-monitor.



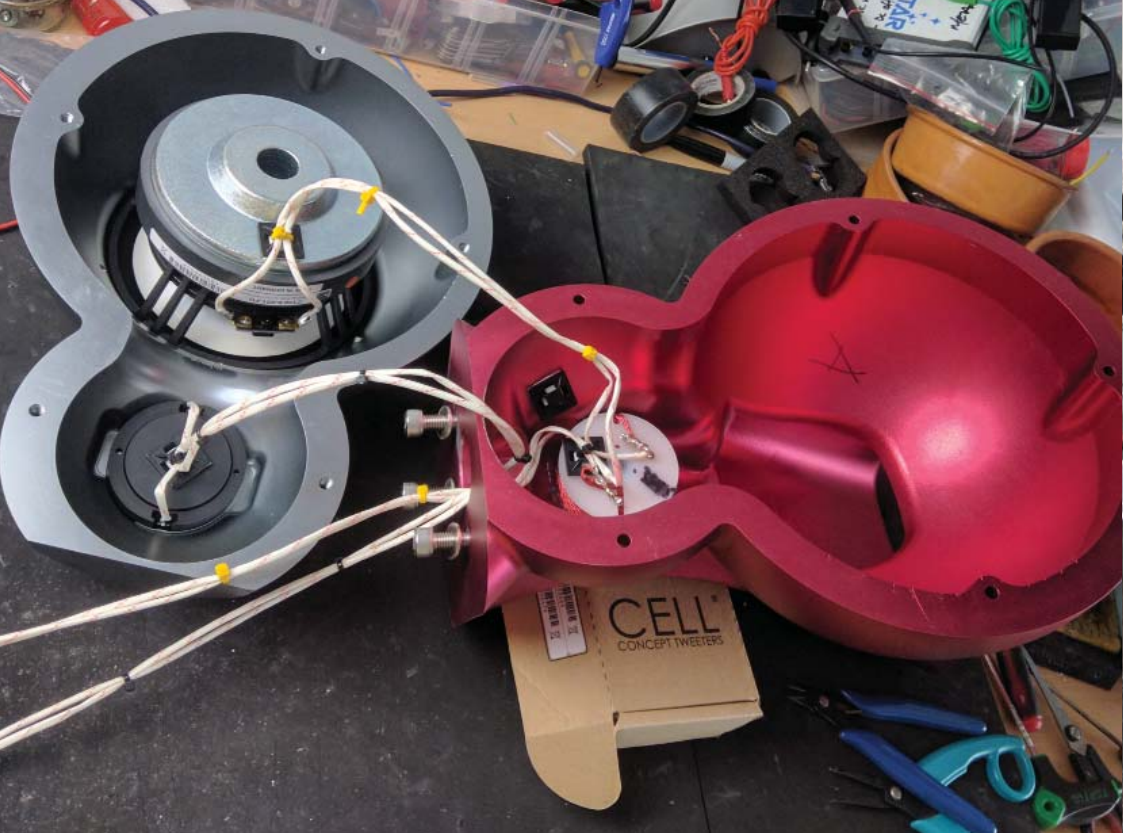
the diva

Based on our reference monitors - the SIRENS, the DIVA loudspeaker offers the most discerning audiophile and professional recording engineer a real monitor for serious concert recording and playback.

Voiced using over 500 "in-house" concert recordings and using the most linear and transparent drivers manufactured by Accuton of Germany, the DIVA possesses a virtual "holographic" 3D transparency.

The 100 kg CNC'd aluminium cabinets are time-aligned using over 30 years of knowledge and experience gained from using Neumann's M150 and TLM50 concert microphones.





the diva



the opus "2010"



An aesthetic engineering triumph, the OPUS preamplifier is the first example of “moulage” or draping with solid aluminium on an imaginary mannequin. The folds and drapes are impossibly sculpted using a 5 axis CNC machine. This organic, non-geometric form, allows a perfect evacuation of all chassis micro-vibrations.

Electrically, the OPUS is the direct result of an intense 35 years fascination with music recording and reproduction to perfect the most transparent, reference calibre “monitoring” preamplifier to complement both the finest domestic audio playback & professional recording systems in the world.

Using technology borrowed from Aerospace and Formula 1, the design also reflects the extraordinary advances that have been made over the last 15 years in modelling and simulation software.

In the early 2000's, Kostas Metaxas underwent extensive training to become one of the first designers who could conceive, model and prototype an entire amplifier on a component by component basis in 3D.

The PCB software he uses not only lays out the boards, but also allows schematic based simulations which can test [or verify] the PCB's signal integrity displaying Reflection and Crosstalk Analysis.

Not content with a strict engineering approach, Metaxas started working on creating the ultimate library of test recordings using three “metaxas-modified” portable Swiss Stellavox SM8 [10” reels @ 15ips] Analogue tape machines with Neumann [M150, TLM50 and TLM170] and B&K [4135 and 4133] microphones to record and film over 300 live acoustic concerts.

the opus “20hz”

To house this cutting-edge technology, a striking “organic” case design was 5-axis CNC machined from a solid block of Aircraft Aluminium [or Copper or Titanium] to shield and mechanically ground the low-level signals.

All switches, attenuators and sockets/plugs [hardware] are of the highest possible quality, many meeting or exceeding military specifications.

This future-proof preamplifier offers the simplest, purest signal path. Additional “Plug-in modules” allow almost infinite possibilities for the addition of LP phono RIAA equalized playback, microphone preamplification or Digital recording [ADC] and Playback [DAC].

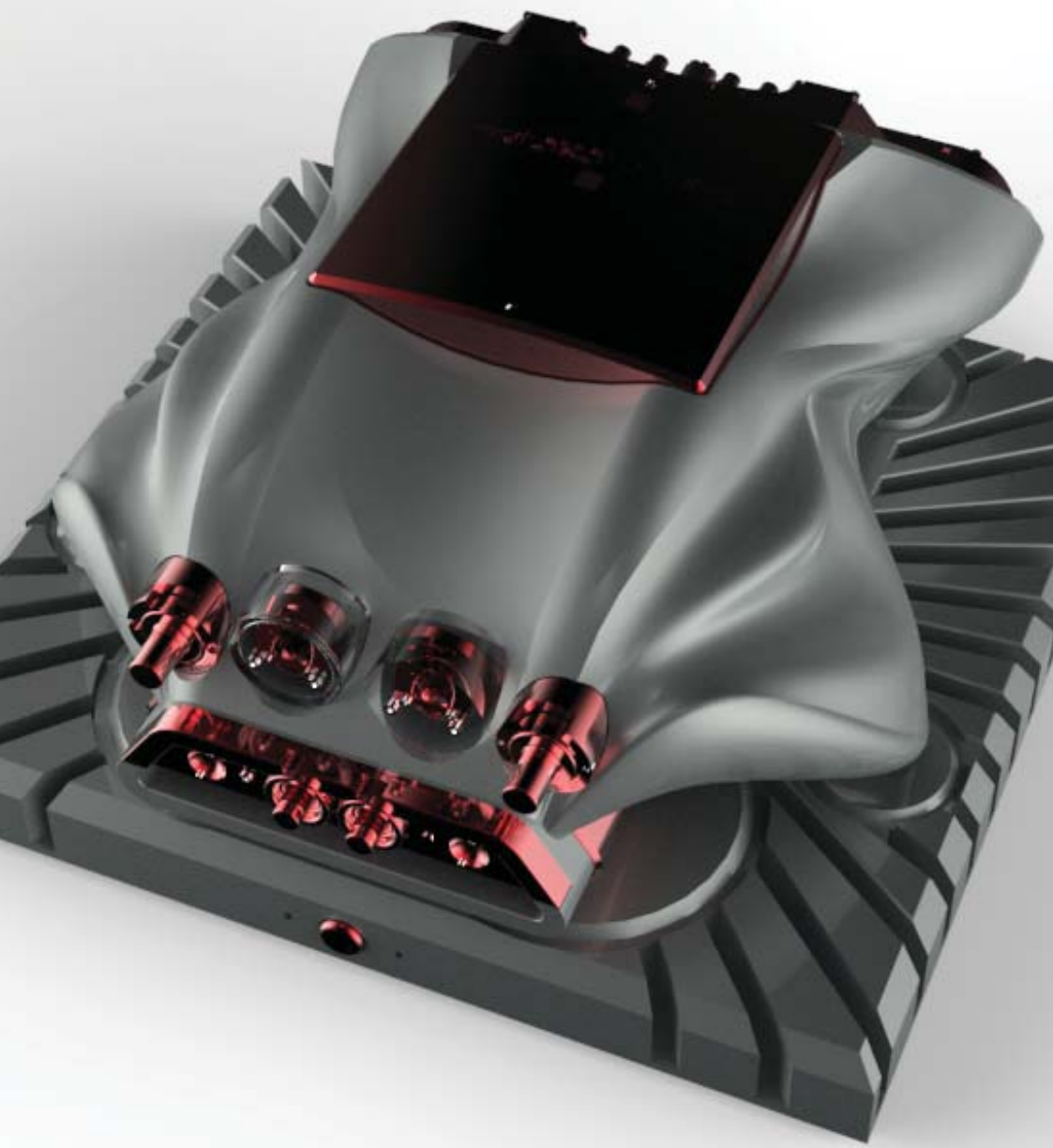
In its basic format it comes with a “Mainframe” and separate AC Mains Isolated Power Supply connected by two aerospace-grade umbilical cords.

MAINFRAME

The “Mainframe” features all the switching and attenuator pots with internal sockets to accept the following modules:

Standard modules:

1. Master Out Line Stage Module [comes standard]
Single-ended output.
2. Professional VU meter drive circuits.



Optional Modules:

2. Phono RIAA Stage Module Plug-ins
3. Balanced [transformer input] Microphone Preamplifier Module Plug-ins
4. 384kHz/24bit Digital to Analogue or Analogue to Digital converters.

All modules feature their own discrete voltage regulators.

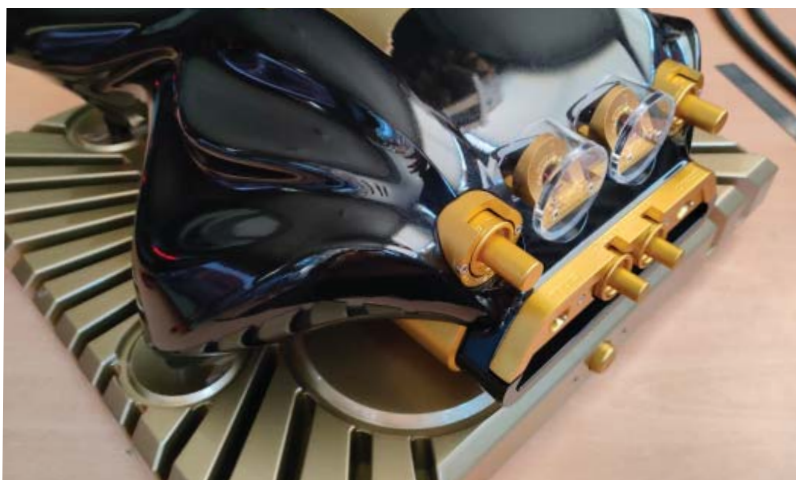
MAINS ISOLATED POWER SUPPLY

The MIPS is essentially one channel of an IKARUS power amplifier driven by an ultra-low-noise discrete sine wave oscillator at ~ 200Hz driving the primary of an output transformer. The secondary of this transformer generates the filtered +/-35V dual mono supply rail voltages for the discrete voltage regulators. This scheme totally isolates the AC mains from the amplifier circuits.

Specifications

FREQUENCYRESPONSE : DC - 10MHz (-3dB)
VOLTAGE OUTPUT: 15VRMS per channel into 50 Ohms with no more than 0.05% T.H.D.
SLEW RATE : Greater than 1000V/us small and large signal
T.H.D. : Less than 0.005% 20Hz-20KHz
I.M.D.(S.M.P.T.E.) : Less than 0.005%
SIGNAL/NOISE : -117DBV unweighed input shorted
SENSITIVITY [Line Stage]: 26dB
INPUT IMPEDANCE : 100kOhms in parallel with 11pF





What the critics said in the past...

" The METAXAS OPUS stretches our acoustic expectations. At present, it defines the standard as to how far we can travel into the music ... and it does so with style ..."

Martin de Wulf, BOUND FOR SOUND, USA

" So neutral though, is the Metaxas Opus/Soliloquy set up that I could have used just about any sources I liked once the interconnecting cables were sorted. All I'd be hearing were the individual characteristics of the source components. However neutral or 'naked' the sound, the MAS doesn't come off as 'transistory' or clinical ... it had a feather-light touch and a way with tiny details that suggest either a pedigreed 60W or 70W per channel tube amp of recent vintage ..."

Ken Kessler, HI FI NEWS& RECORD REVIEW, England.

" It would make a perfect tool to assess equipment by. If any component is not in the top league, the amps will betray the culprit with surprising honesty. Its other great strength is the speed of delivery. It can keep up with the fastest of guitar runs and tambla rolls with a speed normally associated with single-ended valve amplifiers".

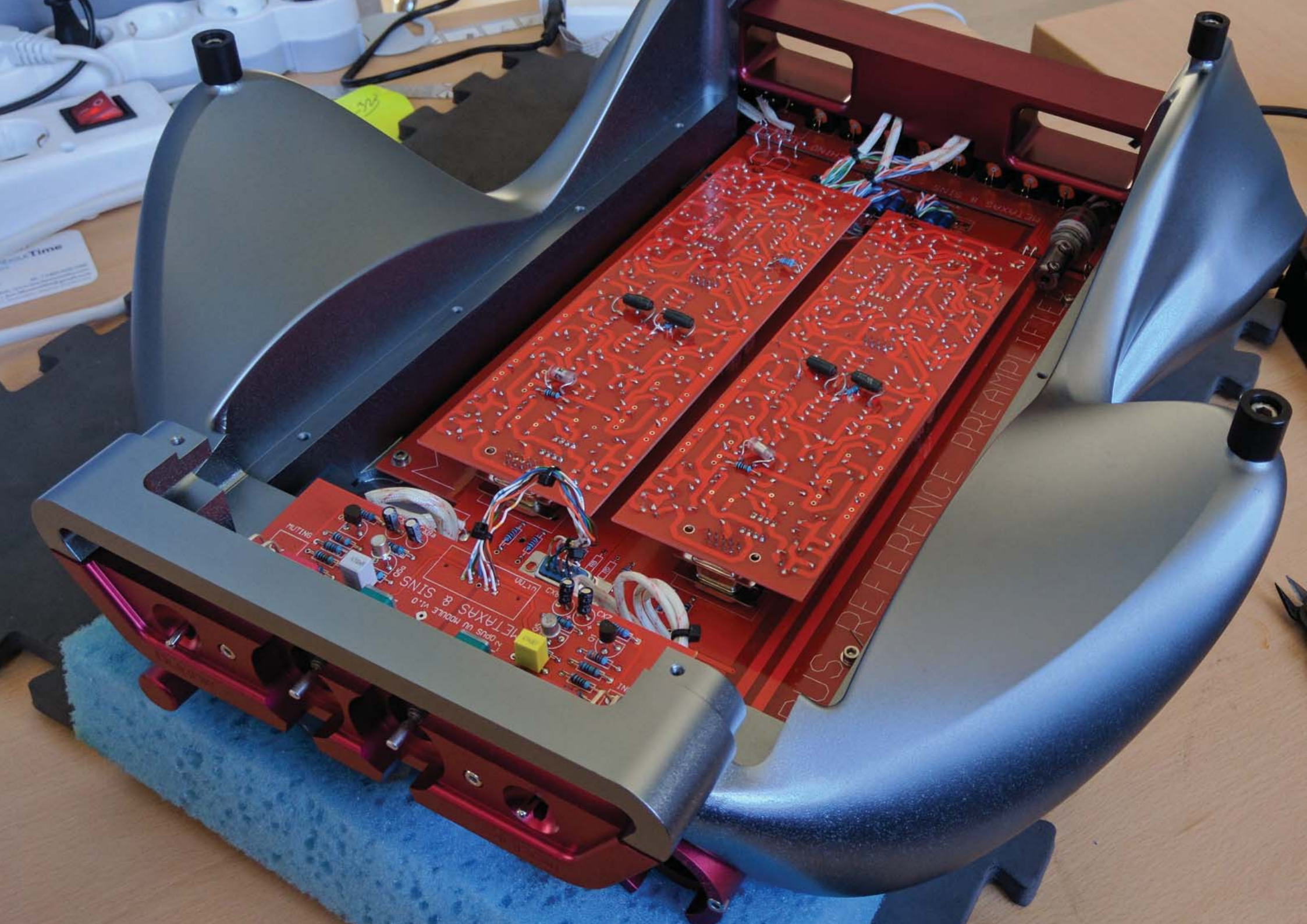
Alan Sircom, HI FI CHOICE, England.

"From this moment on, "the miracle" from Metaxas brought out high frequency information with such clarity which was never before heard".

Rating: Absolute Spitzenklasse, REFERENCE.

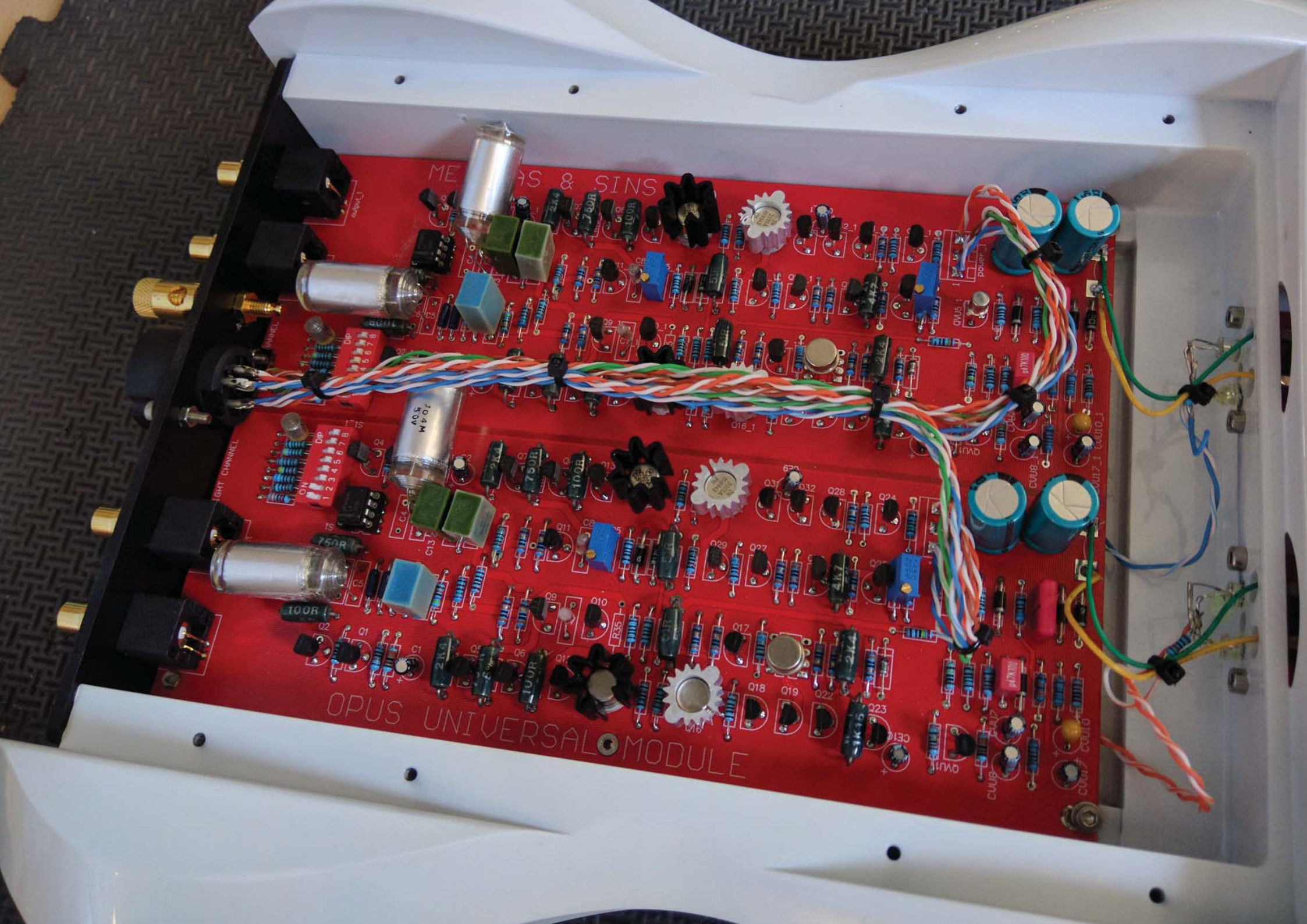
STEREOPLAY MAGAZINE, Germany.







the opus "phono"



MEAS & SINS

OPUS UNIVERSAL MODULE

RIGHT CHANNEL

104M 50V

100R

750R

15678

15678

15678

15678

15678

15678

15678

15678

15678

15678

the "sirens"

With more than a passing reference to Homer's Odyssey, the apt metaphor is testimony to the sheer musicality and realism that allows this potent 3-way monitor, CNC carved from a block of solid aluminium [or titanium] to engage and captivate with its sound and invigorate the mind with its voluptuous sculptural aesthetic.











Using ideas borrowed from Neumann TLM 50 and M150 microphones, the SIREN embeds the Accuton drivers into spheres mounted onto an organic “time-aligned” sculpture. Despite the unique and unusual shape, the design is a seriously engineered, no-compromise loudspeaker with emphasis on absolute sound quality.

Accuton ceramic drivers are used in some of the most expensive systems currently available, but it’s only when you marry them to a curvacious, inert, machined “body” that you can really hear - and probably for the first time, appreciate, their neutrality.

CNC allows us to sculpt a shape with incredible rigidity, in a much smaller form factor than is possible with other materials and at the same time, minimize baffle diffraction whilst maximizing internal volume for an ideal and extended bass response.

FUTURE PROOF.

Since there are different “levels” of accuton ceramic drivers , up to and including their famous “diamond” tweeter, you have the choice of which tweeter, midrange and 8” woofer you would prefer to use now, or in the future.

In a true “bespoke” manner, the configuration of drivers can be chosen.



the soliloquy mono-block pair





Starting its commercial life as the MAS A1 amplifier in 1979, The SOLILOQUY has been continually refined as faster output transistors and better components have become available.

In its present form, each channel is made up of essentially five complete amplifier circuits, encompassing the linear gain input stage with high current output stage and four amplifier circuits whose role is to supply an absolutely stable voltage and current source irrespective of A.C. line condition.

The U.H.F. and R. F. circuit board techniques have been essential to ensure that the amplifier is unconditionally stable into any known loudspeaker load, including inductive electrostatics or low impedance ribbons.

Each mono-block amplifier features two massive 800W mumetal toroidal transformers and a separate 200W mumetal toroidal to ensure that the high current output stage does not affect the low current input stage. All connectors are of the highest quality, and every component, including the 40,000uF computer grade capacitors are directly connected to the printed circuit "high-current" board or separate "future-proof" input voltage amplifier/discrete voltage regulator board for ease of servicing and to maintain the shortest possible signal path.





What the critics said...

“ So neutral though, is the Metaxas Opulence/Soliloquy set up that I could have used just about any sources I liked once the interconnecting cables were sorted. All I’d be hearing were the individual characteristics of the source components. However neutral or ‘naked’ the sound, the MAS doesn’t come off as ‘transistory’ or clinical ... it had a feather-light touch and a way with tiny details that suggest either a pedigree 60W or 70W per channel tube amp of recent vintage ...”

Ken Kessler, HI FI NEWS& RECORD REVIEW, England.

“ It would make a perfect tool to assess equipment by. If any component is not in the top league, the amps will betray the culprit with surprising honesty. Its other great strength is the speed of delivery. It can keep up with the fastest of guitar runs and tambla rolls with a speed normally associated with single-ended valve amplifiers”.

Alan Sircom, HI FI CHOICE, England.



the grande damme







be there

