David Price is deeply impressed when he spends some time with A.N.T. Audio's new Kora 3T Limited phono stage...

# Limited Company

A.N.T. Audio

lex Nikitin is one of hi-fi's best kept secrets. Not many would recognise this softly spoken Russian in person, although his work is well known in the industry and highly respected too. As chief electronics engineer for Creek Electronics for the best part of the nineties, he made his reputation bringing high quality sound to those on a budget...

He has since moved on, and now works in industrial electronics, yet he just couldn't let his hi-fi side go. Alex's passion is obvious as soon as you speak to him – and this has led to the formation of Alex Nikitin Technology (A.N.T.Audio). The Kora range of phonostages, launched towards the end of last year, have caused quite a stir amongst audiophiles, although not as a result of hype and hot air. He's obviously not a marketing man and doesn't have a clever turn of phrase to sell me his products. Instead, when we meet, his face only really lights up when asked to explain his latest project...

"Some while ago I came up with an idea of a very simple phono preamplifier design, using an unusual transistor type for amplification. There are only three transistors per channel in the Kora 3T circuit using a local negative feedback in a single-ended Class A circuit with a passive EQ in a single stage voltage amplification arrangement. I first built this circuit as not more than a proof of a concept, however my biggest surprise was when I had a listen. The sound quality of this circuit rivals most elaborate solid-state designs", Alex told me. He went on to add that, "it comes close to the level of a good valve phono stage. It is not perfect in technical terms, although its measurements are quite adequate for such a simple circuit".

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Alex's design comes in three variants, and he stresses the pricing is very closely related to the cost of the componentry. The first variant is the standard Kora 3T, retailing for £175 and complete with fixed DC biasing, standard polypropylene capacitors for load and RIAA duties, standard Panasonic FC types for the power supply and biasing duties. £325 buys the 'Special Edition' variant which we reviewed last December. This adds polystyrene load and RIAA capacitors and ELNA types for the output and biasing duties. Circuit bias is also adjustable on this model, via a small

trim pot on the rear panel, the power supply is a high performance type. Finally, £775 brings you this 'Limited Edition', hand made to order only, with tightly toleranced capacitors and Holco resistors throughout, Black Gate bias capacitors, and ultra low noise PSU and a red LED.

Kora 3T Phono Preamplifter

So there you have it - three variations on the same theme, with each receiving superior passive components, better power supplies and more labour-intensive build. In the flesh, so to speak, the Kora is utterly underwhelming - it's a little black box of the sort you get from proprietary electronics suppliers (48x91x133mm, 1kg) and that's your lot. Some may be rather disappointed by this, while others will see it as proof that the money hasn't been wasted on fripperies. It currently comes supplied with a basic 'wall wart' power supply, although the option of 'full size' outboard PSU will be available very soon with a total price of £995.

# **SOUND QUALITY**

Having spent a lot of time with the lcon Audio PS3 of late – which is one of the very best  $\pounds 1,500$  valve phono stages l've ever heard – it was always



### REVIEW

**REFERENCE SYSTEM** 

**Ortofon Rohman turntable** 

Icon Audio PS3 phono stage

Sony TT-S8000/Origin Live Silver/

Sugden IM4 integrated amplifier

Yamaha NS1000M loudspeakers

going to be a 'big gig' for the Kora 3T Ltd. to hold its own, or even come anywhere near. So it came as no small surprise when I switched from the PS3 to a well run in Kora and didn't find myself running for the volume knob to turn the system right down. The PS3 is loved by both myself and Noel Keywood for its deep, dark tonality which - unlike so many phono stages we've heard at all prices - gives a natural, smooth and even balance even through highly revealing systems. Unusually then, the Kora confounded my expectations and did not make things sound brighter, hard and more testy.

Indeed, this phono stage is exceptionally smooth and understated at the price. Rather than etching the midband detail onto your cranium as you listen - which is the path that a number of socalled high performance rivals tread - the Kora was very subtle, soft and beguiling; just like a transistor version of the Icon Audio in fact. ABBA's 'Name of the Game' can sound shrill through my reference system - the girls' vocals being just a little too 'immediate' for my tastes - but the top A.N.T. audio design actually smoothed them over even more than the Icon Audio, which is really saying something!

This has two effects; first, in a well balanced high end system, the result is dynamite, because you can listen right 'in' to the mix, enjoying the Kora 3T's delicate nature and that of the music itself. Secondly, in your average woolly, budget transistor-amp based system with lots of concomitant mush, I feel the Kora 3T Ltd. might sound a little bit lost. It's one of those products that succeeds through its superlative subtlety, and if your system isn't' good enough to show this, then it will be the audio equivalent of a damp squib.

Steely Dan's 'Glamour Professional' was a joy; this is a bright and snappy recording but oozing detail, and it veritably flooded forth via the Kora. I found a wonderfully energetic, rolling bassline that started and stopped just as it should (and indeed made the tube-based lcon Audio sound just a bit tardy in this respect), wonderfully sonorous hihats that were given all the sheen they deserved, and a fluid and engaging midband that hardly suffered any loss of definition over the twiceas-expensive Icon Audio. Donald Fagen's vocals were just a fraction thinner, but they were nevertheless just as rhythmically poignant and lyrical as the pricier reference. There was a lot of detail coming through too – although unlike the likes of Trichord's fine-but-explicit Diablo - it's not lit up with massive spotlighting. Instead, it's there but you have to listen in to the soundstage, rather than have it catapulted out at you.

lade 4U's 'It's Not Over' showed the Kora 3T Ltd's sheer grip. It has impressive control, with a wonderfully liquid midband bristling with rhythmic snap, but there was a tightly recreated recorded acoustic too – I could hear the four corners of the vocal booth, and was impressed by the wide and deep soundstage. It images around - or even a little behind - the plane of the speakers, which lets you push up the volume and peer in to the recording without having your senses assaulted. Once again, I luxuriated in a silky treble sound with impressive space - underpinned by a firm, insistent and fluid bassline that didn't overpower or underwhelm.

Moving to heavy rock in the shape of ZZ Top's 'Gimme All Your Lovin" was further proof - as if this was now needed - that this is an especially distinguished performer. Although my reference Icon Audio PS3 was fractionally warmer and tonally fulsome, the Kora 3T Ltd. actually connected with the music

better. The bass drum was tauter, and had a wonderful sense of timing which the PS3 somehow lost. As you'd expect from a transistor design, vocals were fractionally less 'fruity' yet there was still no sense of harshness or stridency; this is one of the most tonally benign solid-state designs I've heard under the Naim Stageline. Cymbals again had a wonderfully



precise yet silky shimmer, making the Icon Audio sound a little too syrupy and slightly lost in space. Overall, the music flowed beautifully, the Kora 3T Ltd. showing a commanding but very uninvasive nature.

As I ran the gamut of my record collection – I found the top Kora to be something of a sleeping giant. It's not in your face about the way it goes about its business, dressing the sound to impress in the way that some phono stages do, yet it is effective all the same. From my ultra rare Chinese Philips pressing of Debussy's Preludes to the latest Classic Records release of Miles Davis's 'Kind of Blue', I found the Kora 3T Ltd. to be a most compelling yet self-effacing performer - high praise indeed!

## CONCLUSION

A.N.T.Audio's Kora 3T Ltd. is an exceptional phono stage - both at the price and in its own right. It's not quite as sweet, euphonic or beguiling as the very best money can buy, but like every great 'affordable audiophile' product gives much of that high end magic at a far more realistic price. It's a very neutral yet engaging and energetic performer, which to my ears betters everything at its price point. This to me feels like the true star in A.N.T.Audio's range.Adam Smith very much liked the mid-price 3T SE reviewed in December 2008's Hi-Fi World, yet I feel somehow this is the special one in both performance and value for money terms - and something Alex shouldn't be shy about!



By far the most convincing incarnation of the Kora, this brilliant value midprice phono stage deserves to be heard

#### KORA 3T LTD. MC £775 Δ Ν Τ Δυdio

www.ant-audio.co.uk

# FOR

- natural, fluid musicality
- smooth, velvety tonality
- image depth and width
- fine detail retrieval

#### AGAINST

- underwhelming looks

# **MEASURED PERFORMANCE**

The equalisation of this stage was deadly accurate, with gain at rolled off slowly below 40Hz to a -1dB point at 22Hz, so there is some lowering of gain 9-10dB) at warp frequencies around 5Hz, but the Kora does not have an IEC warp filter. It will sound tonally accurate, but with well weighted bass.

Input noise was very low at 0.07uV and gain a useful x1337 (63dB) for MC cartridges. An ouptut overload ceiling of 6.7V transferred back to the input as 5mV, good enough figures for overload not to be an issue with today's cartridges

The Kora 3T measures well in all areas. It is neatly engineered and will likely sound good. NK

Frequency response	22Hz-100kHz
Separation	73dB
Noise (e.i.n.)	0.07uV
Distortion	0.08%
Gain	1337mV
Overload	5mV in / 6.7V out

FREQUENCY RESPONSE



#### DISTORTION

