

Tuesday 25th June 2013, Salisbury, England Naim's Triple Amplifier Launch

The UK press were invited to the NAIM launch of three new NAIT integrated amplifiers, new, because the design input has been substantial, even though they are derivative of previous models. Touted as a part celebration of the Company's 40th anniversary they will be stocked in UK dealers from mid July. Incidentally the first unitary Naim NAIT amplifier came out some 30 years ago, which I bought for myself at Studio 99, Swiss Cottage.



Roy George On Naim Research Activity

They comprise the 5i at £925 the XS at £1,595 and the top of the line Supernait 2 at £2,750. They all now conform to a more consistent house style and as presented, certainly look the part. These are purist, even audiophile straight line designs, minimalist, yet well endowed inside, particularly in regard to beefed up power supplies, this long a NAIM speciality. The only concession if you can term it that, while others will welcome it, is the provision of high performance constant current load headphone amplifier, Class A, with a generous output swing sufficient for even the more recalcitrant high impedance cans.

Senior Design Engineer Steve Sells of SuperLine fame took us through the main points, and did not spare the science, explaining the relevance of magnetostriction in toroidal transformer cores, grain oriented steel strip for the magnetic material, and physical orientation for maximum system dynamic range. The power transformers for all three models has been enlarged and refined and

with this higher output powers are delivered across the board. We were briefed on mechanical construction and board support techniques to reduce microphony, such vibration countermeasures supportive of greater dynamic contrasts.



Steve Sells Explaining The Design Of The New Amplifiers

For all three amplifiers every electronic component was scrutinised for second order effects, of the kind which subtly affect music but which are near to invisible on lab testing. Decisions were made with respect to parts budget in each case, and film types replaced electrolytic, and polystyrenes have replaced films in critical areas. The topic of dielectric absorption for capacitors was aired, the remanant charge which can reappear as is by magic even after a capacitor has been short circuited to remove all signal. This charge 'echo' behaviour can colour and blur music signals.

On power the 5si has increased 20% to 60W/ch while revised components, a new circuit layout and improved high current wiring are the order of the day, a new amplifier in fact.

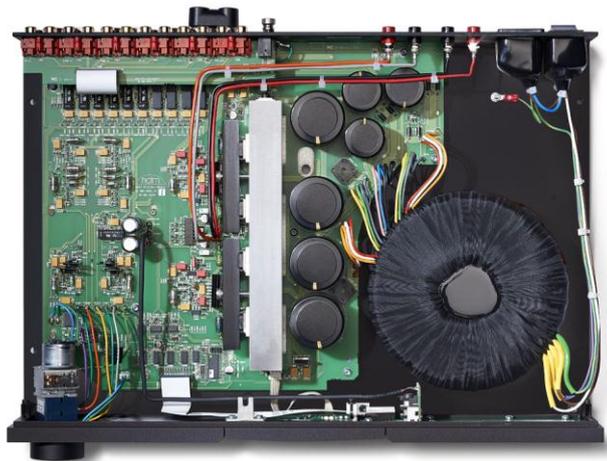


As before this short path all-aluminium design uses a passive preamplifier working with a higher gain power amplifier section.



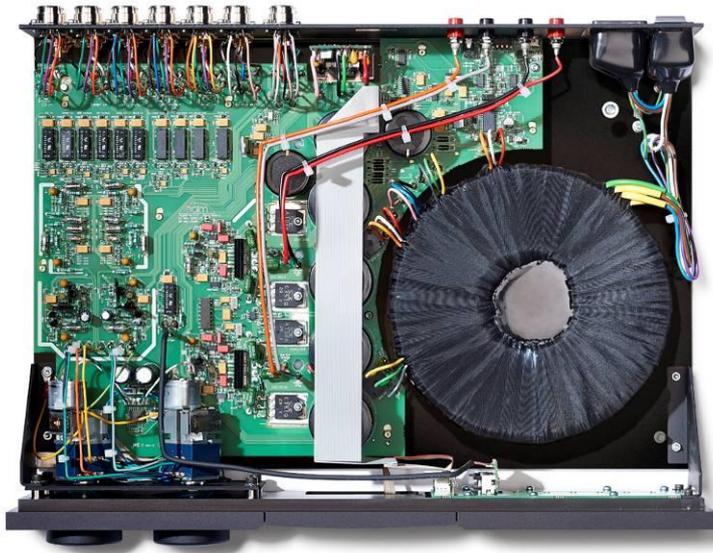
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XS 2 has power output lifted to 70W with very good 4ohm load tolerance, has the high quality Class A headphone amplifier, a full internal re-design, plus the new ceramic thermal couplers for the output stage.



External phono preamps may be used for which power is available while the internal preamp may be upgraded by accessory power supplies, notably the Hi-Cap.

SUPERNAIT 2 has the established 80 plus 80W output but with more slam from a larger, lower loss transformer while new DR ultra low noise regulators power the preamp.



There are vibration countermeasures found in the decoupled Blue Velvet Alps balance and volume controls, the hand wired inputs, first seen in the SuperLine, and input switching is via low noise stable reed relays fed silent, constant current control signals. As with the other designs high quality passive components are used in critical locations including polystyrene capacitors plus those better sounding ceramic heat pads.

The auxiliary SPDIF digital input of the outgoing model is omitted, this role better allocated to an external streamer while further features include the Class A headphone facility, output for subwoofer, a USB mini socket for control software updates, system remote link with opto-isolation, and upgradable preamplifier via further external power supplies.

We learned that the take-up of accessory phono preamps for LP replay is about 4%, so format is not commercially not dead yet!

We were subjected to an informal demo of the three models from an NDS streamer and also via a USB connection of Hi def material from an Astell and Kern portable player brought by Rafael Todes.

Monitoring was via an Ovator 400 and tracking through the three models the smallest worked just fine, but proportional gains in scale Depth and bass dynamics were evident as we switched up the amplifier series, noting that the SuperNait proved pretty capable, serving an audience of 12 in a decent sized room at decent sound levels.

We plan to do the SuperNait 2 in the Autumn issue, preceded by a timely reappraisal of NACA5 speaker cable and the NAP 300 two box power amplifier for Volume 7 Issue 3 July-September.

Martin Colloms HIFICRITIC June 2013