

AVONDALE AUDIO

NCC200 Audiophile Power Amplifier Modules

v1.4



History

Following publication of data by RCA in the 1970s, the circuit parameters were brought to fruition by the late Julian Vereker of Naim Audio.

Comprising the now customary long-tailed pair voltage stage followed by pre-driver and output driver stages, this design formed the basis for the now famous range of amplifiers from Salisbury. At the time, only NPN transistors of sufficiently robust capabilities were available so were pressed into service as output devices in these designs. This limited the total output of the amplifiers in terms of drive capability but as improved devices became available, amplifiers with increased capabilities were offered to the public.

With the exception of higher current output devices, the NAPA design has changed very little from day one - for instance: the NAPA module in the little 110 is only marginally different from the amplifier module fitted to the mighty NAP135s - only the heatsinking and power supply differ.

During many years of modifying and upgrading equipment by Naim Audio, Les tried multifarious ways to improve the NAPA module including at one point, a redesign of the printed circuit board to include the various techniques he'd developed over many years. In listening tests, some areas improved but others seemed not so well enhanced. More layouts of circuit boards ensued and much 'midnight oil' was expended until, after some seven years or so, the NCC200 came into being.

A combination of circuit layout and components gelled as none which had gone before. Careful adjustments to certain tracks in close proximity to others by only a fraction of a millimeter, brought about a stability in technical terms and a precision in sonic terms, never encountered before in this deceptively simple design.

After twelve different PCB's, refining the layout, the NCC200 was born.

Now in the fourth incarnation of the design, we've enabled the NCC to be fitted with a film input capacitor for the ultimate in absolute resolution, improved heatsinking of the output drivers and some subtle but sonically advantageous moves on the printed circuit board.



Refining the Formula



In constructing the modules, we are conscious of the discussion in some quarters surrounding the use of ferrous materials and their impact on sound quality when in proximity to semiconductor devices. Without wishing to regurgitate the debates here, we've neatly circumnavigated the issues by simply avoiding their use in any of our projects and so, where possible, fit our modules with non-magnetic stainless fixings as standard.

The difference in clarity and bass performance of the NCC when compared to the original NAPA modules is an experience which surprises everyone who sits in front of an amplifier so equipped. Listeners report being able to hear much deeper into the mix particularly when the going gets a bit busy. The lower registers, whilst being capable of portraying the timbre and texture of the instrument making the sounds in the recording, have much less impact of the rest of the audio frequency.

Primarily designed as a drop-in replacement for the NAPA modules when upgrading Naim amplifiers, the NCC200 has found a use in many self build projects and for which, the stability, reliability and ease of installation (only one simple adjustment), have made this module a DIY favourite all over the world.

Capable of delivering just over 100 Watts with suitable heat dissipation, this favourite module may be configured to run from +/- 30V DC up to +/-50V DC supplies according to output requirements.

The NCCs come ready built and tested with every jot of information necessary to install and simply set up the module. Complete with fixing screws (stainless of course), wiring terminals and thermal paste, you will lack for nothing when you bring together a state-of-the-art amplifier to be proud of. Should the unthinkable happen and you reach an impasse, you can rest easy in knowing that Avondale Audio's legendary service will come to the rescue.

With the introduction of our latest project - the HCR200, the combination of this with the NCC200 brings true high-end audio within the reach of the constructor on a budget. The effects are truly sublime when bringing these unique products together and we dare to say that for the price, there are no better value for money projects available to the DIY sector.

For more information please visit www.avondaleaudio.com



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