



# C 298 STEREO POWER AMPLIFIER



## Powerful. Efficient. Eigentakt™

### Introducing the NAD C 298.

#### Redefining the State of the Art with Purifi Technology

NAD has introduced some of the most innovative amplifier technology in its nearly 50 year history, starting with the 3020 on through such cutting edge models as the 2200, the 208, and the M2. Now we are making the amazing new Eigentakt™ (self-clocking) technology, recently introduced to the world in the EISA Award winning Masters M33, available to a wider audience with the very affordable C 298. We are thrilled to provide this unprecedented level of performance. In short, a perfect companion for the C 658 BluOS Streaming DAC preamplifier.

#### Amazing Flexibility

The C 298 may appear to be a basic Power Amplifier, but we have carefully thought through all the use cases typically encountered to create a rich feature content. Selectable balanced inputs make the C 298 a natural for studio use or connection to High End Preamplifiers and Processors. These inputs include a trim control useful for matching to other components. A line out allows further addition of power on the same channel for additional speakers or subwoofers. Auto-sense with selectable threshold is perfect for automating complex systems or hiding the amplifier out of sight in a cabinet. We even include a Ground Lug that can be very useful for eliminating ground loops and noise in complex multi-unit systems. Added to all this connectivity is a Bridge Switch that turns the C 298 into an amazingly powerful Monobloc Amplifier. Start with one and add a second C 298 later when you upgrade your speakers.

#### FEATURES

- 185W x 2 Rated Output Power into 8 Ohms
- 340W x 2 Rated Output Power into 4 Ohms
- Stereo Dynamic Power 260/490/570W @ 8/4/2 Ohms
- 620W x 1 Rated Output Power into 8 Ohms Bridge Mode
- Mono Dynamic Power 1000/1100W @ 8/4 Ohms
- Balanced Line Inputs
- Single-Ended Line Inputs
- Input Level Control
- Line Output for Daisy Chaining
- 12V Trigger In/Out
- Auto Turn-on with Selectable Threshold
- Ground Lug
- Detachable AC Power Cord



## Getting the Basics Right

It is surprising how many seemingly advanced products in the market today often miss many of the most basic requirements for satisfying performance. Low noise circuits, accurate channel balance, proper input and output impedance characteristics, high overload margins and stability with difficult speaker loads. NAD starts by getting these things precisely right and advances from there. Our line inputs, both Balanced and Single-ended, can accommodate all kinds of analog source components by offering ideal input impedance characteristics with linear ultra-low-noise buffer amplifiers to prevent any sonic degradation caused by inappropriate loading of the source device. These are all details you can hear.

## Sophisticated Power

NAD has moved away from the old fashioned and very power hungry linear power supplies and Class AB output stages that waste nearly half of the energy consumed producing heat rather than sound. Instead we have developed even better performing circuits based on switch mode power supplies and Class D output stages. Once thought to be inferior to traditional topologies, NAD's advanced work in this area has created some of the best performing amplifiers regardless of basic design principle. These new designs are very linear over a wide bandwidth and provide consistent performance into all speaker loads, providing a dramatic advance over previous models.

The generously dimensioned power supply easily allows for 185 watts continuous and over 570 watts instantaneous power for short term musical transients. Innovative Asymmetrical Power-Drive fully utilizes every last watt available with its vast reserves of dynamic power available to accurately reproduce musical transients without distortion or compression. It can operate with any AC mains voltage from 100V to 240V and provides pure DC power to all the various stages of the C 298. This highly efficient supply also provides near perfect regulation of voltage across a wide range of conditions and provides a solid noise-free foundation for the amplifying stages.

## Purifi 'Eigentakt' Amplifier Technology

Purifi is a Danish technology company that has brought together several of the industry's leading engineers to apply advanced mathematical modelling to solve the last remaining limitations of audio amplifiers. While there are many good sounding amplifiers on the market today, Purifi has taken a fresh look at every aspect of amplifier performance and found many seemingly small non-linearities that can make a dramatic difference in the overall sound. This return to first principles has resulted in a stunningly simple approach to some remarkably complex problems.

With features and technology unmatched by other amplifiers in its class, the C 298 amplifier is an easy upgrade for any system and a surprising partner for the most sophisticated and advanced loudspeakers on the market.

The Eigentakt modules are manufactured by NAD under license from Purifi, allowing NAD to optimise these specifically in combination with the custom designed power supply and input stages of the C 298.

# Specifications C 298

All specs are measured according to IHF 202 CEA 490-AR-2008 standard. THD is measured using AP AUX 0025 passive filter and AES 17 active filter.

## ANALOG AUDIO INPUT/LINE OUT

THD (20 Hz – 20 kHz)	<0.0005 % at 2V out
Signal-to-Noise Ratio	>120 dB (IHF; 20 Hz – 20 kHz, ref. 2V out)
Channel separation	>110 dB (1 kHz) >100 dB (10 kHz)
Input impedance (R and C)	Single-ended: 56 kohms + 280 pF Balanced: 56 kohms +280 pF
Maximum input signal	>7.0 Vrms (ref. 0.1 % THD)
Output impedance	390 ohms
Frequency response	±0.1 dB (20 Hz - 20 kHz)
Maximum voltage output -IHF load	>7.0 V (ref. 0.1 % THD)

## ANALOG AUDIO INPUT/SPEAKER OUT

Rated output power into 8 Ohms and 4 ohms (Stereo mode, ref. 20 Hz-20 kHz at rated THD, both channels driven)	185 W at 8 ohms 340 W at 4 ohms
Rated output power into 8 Ohms (Bridge mode, ref. 20 Hz-20 kHz at rated THD, both channels driven)	620 W at 8 ohms
THD (20 Hz – 20 kHz)	<0.005 % (1 W to 185 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>98 dB (A-weighted, 500 mV input, ref. 1 W out in 8 ohms) >120 dB (A-weighted, ref. 185 W out in 8 ohms)
Clipping power (Stereo mode, at 1 kHz 0.1 % THD)	>200 W
Clipping power (Bridge mode, at 1 kHz 0.1 % THD)	>690 W
IHF dynamic power (Stereo mode, at 1 kHz 1 % THD)	8 ohms: 260 W 4 ohms: 490 W 2 ohms: 570 W
IHF dynamic power (Bridge mode, at 1 kHz 1 % THD)	8 ohms: 1000 W 4 ohms: 1100 W
Peak output current	>25 A (in 1 ohm, 1 ms)
Damping factor	>800 (ref. 8 ohms 20 Hz – 6.5 kHz)
Frequency response	±0.2 dB (20 Hz - 20 kHz) -3 dB at 60 kHz
Channel separation	>100 dB (1 kHz) >80 dB (10 kHz)
Stereo Mode input sensitivity (for 185 W in 8 ohms)	Fixed Gain mode: 1.43 V
Stereo Mode Gain	Fixed Gain mode: 28.6 dB
Line In – Balanced and Single-ended	Variable Gain mode: 8.5 dB – 28.5 dB
Bridge Mode Sensitivity	Fixed Gain mode: 3.78 V for 620 W in 8 ohms
Line In – Balanced and Single-ended	Variable Gain mode at maximum: 1.41 V for 620 W in 8 ohms
Bridge Mode Gain	Fixed Gain mode: 25.4 dB
Line In – Balanced and Single-ended	Variable Gain mode: 14.5 dB – 34.5 dB
Standby power	<0.5 W

## DIMENSION AND WEIGHT

Gross dimensions (W x H x D)	435 x 120 x 390 mm (17 1/8 x 4 3/4 x 15 3/8 inches)
Net weight	11.2 kg (24.7 lbs)
Shipping weight	13.6 kg (30 lbs)

\* - Gross dimension includes feet and extended rear panel terminals. Specifications are subject to change without notice. Check out [www.NADelectronics.com](http://www.NADelectronics.com) for updated documentation or latest information about C 298.



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