C 328 Hybrid Digital DAC Amplifier

HybridDigital · <0.5W STANDBY · FDP FULL DISCLOSURE POWER · DPD · Bluetooth

Expansive Power with Unprecedented Flexibility, introducing the NAD C 328.

Flexible. Powerful. Efficient.

Introducing the NAD C 328

The C 328 ties together all the critical elements of a top performing music system; music sources past and present, while providing a deep reservoir of power that allows your speakers to reveal every nuance of musical detail. This advanced amplifier includes many cutting edge technological breakthroughs developed by NAD over a 45-year history of creating affordable ultra-high performance audio components.

Getting the Basics Right

It is surprising how many seemingly advanced products in the market today often miss the most basic requirements for satisfying performance. Low noise circuits, precise volume control action, 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. We include an MM Phono stage with precisely accurate RIAA equalization, high overload margins, extremely low noise, and an innovative circuit to suppress infrasonic noise that is present on all LPs – all without affecting bass response.

True High-End Quality

Our line inputs can accommodate all kinds of analogue 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. We include a separate headphone amplifier with low output impedance and very high output voltage capability – enough to drive even high impedance studio monitor headphones. The low impedance line outputs can connect to a subwoofer to extend the versatility of this well thought out amplifier. These are all details you can hear.

FEATURES & DETAILS

- 50W x 2 Continuous Power into 8 or 4 Ohms
- Support for Bluetooth
- MM Phono Input
- Analogue Line Inputs
- SPDIF Coax and Optical Inputs
- Subwoofer Out
- Headphone Amplifier
- Bass EQ
- IR Remote

Stream Music from Any Device

You can connect instantly to the C 328 with Bluetooth allowing you to stream music wirelessly from your smart device. Because of the high performance digital circuitry included in the C 328 Bluetooth sounds much better than you remember.

Sophisticated Power

NAD has moved away from the old fashioned and 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 the 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 power supply provides plenty of headroom able to provide, on demand, over 100 watts of audio output when needed. 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 328. 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.

The C 328 uses a customized version of the proven Hypex UcD output stage. This allows for massive power with nearly unmeasurable distortion and noise in the audible range. Every detail of this design has been carefully crafted and perfectly executed to wring out every last drop of performance.

Specifications C 328

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 IN/HEADPHONE OUT	
THD (20 Hz – 20 kHz)	<0.005 % at 1 V out
Signal-to-Noise Ratio	>100 dB (A-weighted, 32 ohms, ref. 2V out, unity gain)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Output impedance	11 ohms
ANALOG IN/SUBWOOFER OUT	
THD (20 Hz – 20 kHz)	<0.005 % at 1 V out
Signal-to-Noise Ratio	>100 dB (A-weighted, 32 ohms, ref. 2V out, unity gain)
Frequency response	±0.2 dB (20 Hz - 20 kHz)
Gain	17 dB
Output impedance	200 ohms
ANALOG IN/SPEAKER OUT	
Continuous output power into 8 ohms and 4 ohms	50W (ref. 20 Hz-20 kHz at rated THD, both channels driven)
THD (20 Hz – 20 kHz)	<0.03 % (100 mW to 40 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>95 dB (A-weighted, 500 mV input, ref. 1 W out 8 ohms)
Gain	37 dB
Clipping power	>50 W (at 1 kHz 0.1 % THD)
IHF dynamic power	2 ohm 210w
	4 ohm 150w
	8 ohm 80w
Peak output current	>18A (in 1 ohm, 1 ms)
Damping factor	>100 (20 Hz - 20 kHz)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Channel separation	>85 dB (1 kHz)
	>70 dB (10 kHz)
Input sensitivity (for 40 W in 8 ohms)	250 mV
Standby power	<0.5 W
PHONO IN/SPEAKER OUT	
THD (20 Hz – 20 kHz)	<0.03 % (200 mW to 40 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>75 dB with IHF MM cartridge (A-weighted, ref. 5mV input 1 kHz and 1W output in 8 ohms)
Frequency response (RIAA deviation)	±0.3 dB (20 Hz - 20 kHz)

Note: The RIAA response is consistent with a pre-emphasis that is rolled off at 50kHz by a second order filter, such as used in Neumann cutting lathes.

Channel separation	>80 dB (1 kHz, 8 ohms, 50 mV input, 13W out)
	>60 dB (10 kHz, 8 ohms, 50 mV input, 13W out)
Input sensitivity (for 40 W in 8 ohms)	3.6 mV
DIGITAL IN/SPEAKER OUT	
THD (20 Hz – 20 kHz)	<0.03 % (100 mW to 40 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>95 dB (A-weighted, -12 dBFS input, ref. 1W out in 8 ohms)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Gain	47 dB (Vrms/FS)
Channel separation	>80 dB (1 kHz)
	>70 dB (10 kHz)
DIMENSION AND WEIGHT	
Gross dimensions (W x H x D)	435 x 70 x 285 mm
	17 1/8 x 2 13/16 x 11 1/4 inches
Net weight	4.9 kg (10.8 lbs)
Shipping weight	5.9 kg (13.0 lbs)

* Gross dimensions include feet, volume knobs and rear panel terminals. ** Non-metric measurements are approximate. NAD Electronics will not assume any liability for errors being made by retailers, custom installers, cabinet makers, or other end users based on information contained in this document. Note: Installers should allow a minimum clearance of 55mm for wire/cable management.