

# D 3020 V2 HYBRID DIGITAL AMPLIFIER

HybridDigital <0.5W FDP















Outshines Other Amplifiers.

# The New and Improved Digital Amplifier

The original NAD 3020 introduced a generation of music lovers to true high-fidelity sound. The term High-Fidelity literally means "true to the original." In the 1970's, over a million people rediscovered their music when they placed a NAD 3020 between their turntable and loudspeakers. This little gem outshined amplifiers costing 10 times more with its big, warm, detailed sound. Once people realized what they had been missing it lead them to a lifetime of enhanced musical enjoyment. Today, the coaxial source is more likely to be a computer or smartphone than a turntable, but the ability to choose speakers that perfectly suit one's taste is still a compelling argument for upgrading to a NAD amplifier. The D 3020 starts with the original NAD 3020 concept and brings it straight into the 21st century using the latest high-speed digital technology. Now with V2, we have refined the looks and added a Phono input for vinyl playback.

# Reinventing an Icon

By adapting to today's media sources and using state-of-the-art digital technology for the new world of digital music, the D 3020 puts a completely modern spin on a revered icon. The original designer of the 3020, NAD's Director of Advanced Technology, Bjorn Erik Edvardsen, has been pivotal in developing the D 3020 for the new digital generation. Offering an excellent quality 24/192 DAC with 8 channels mixed to 2 for improved resolution, the D 3020 represents the same kind of value-bending innovation that gave the original 3020 its legendary overachieving phono stage.

### FEATURES & DETAILS

- 2 x 30W @ 0.01% THD, >100W Dynamic Power @ 4 Ohms
- aptX Bluetooth music streaming
- MM Phono input for Vinyl
- Preamp Output for added connectivity (Full Range)
- Optical and Coaxial Digital inputs
- Line Inputs
- Subwoofer Output
- Bass EQ setting
- TV Connect learns TV remote Commands
- Separate Headphone Amplifier
- Wireless Remote



### **Real World Performance**

NAD rewrote the rules for amplifiers when designing the original 3020. Instead of letting laboratory test equipment have the last word, we made sure that we could properly drive real loudspeakers with real music for the real world. The D 3020 lives up to this promise through a unique implementation of NAD PowerDrive™ developed by Edvardsen, that allows low impedance drive (current) and high dynamic power (voltage) at vanishingly low distortion levels. This refinement of PowerDrive combined with a precision soft clipping circuit, lets the D 3020 sound even more powerful than it already is. An innovative Bass EQ circuit helps small speakers sound big without overdriving or damaging ported woofers.

#### More Connected

The D 3020 offers inputs for your digital and analogue sources. Coaxial and optical inputs allow many different digital sources to be connected, including computers, CD and DVD players, set top boxes and media streamers like AppleTV, or satellite and cable receivers. There are also analogue inputs including a sophisticated MM Phono input. Far from just another set of sockets, this Phono stage includes highly accurate RIAA equalization, an Infrasonic Warp Filter, and features both high overload margins and extremely low noise.

### Stream with Bluetooth

The D 3020 delivers the convenience of wireless streaming with its Bluetooth® capability. Stream all your music from a smartphone, tablet, or laptop. The D 3020 even supports the highest audio quality Bluetooth aptX® that is becoming ever more popular for its excellent sound quality and low power consumption compared to Wi-Fi.

# **Power that Truly Delivers**

Power output may sound small at 30W per channel, but like all NAD amplifiers this is very misleading, as a properly designed 30W amplifier can sound superior to a 100W amplifier from a lesser brand. With its very small form factor, the D 3020 will astound many for its ability to drive difficult loudspeakers to satisfying levels without adding noise or distortion.

### Mean and Green

The D 3020's highly efficient design wastes less energy, requiring only 20% of the power needed by traditional Hi-Fi amplifiers. It's like trading in a gas guzzling car for a hybrid vehicle. Standby power consumption is a miniscule <0.5W. NAD has taken amplification to new lows, with lower distortion, lower noise, and lower power consumption. NAD's major focus is to find new technology that improves musical performance while consuming less power and using fewer non-renewable resources in manufacturing.

# Specifications D3020 V2

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.

#### PREAMPLIFIER SECTION

#### LINE INPUT/PRE OUT

THD (20 Hz – 20 kHz) <0.01 % at 2 V out

Signal-to-Noise Ratio >106 dB (IHF, A-weighted, ref. 500 mV out, unity gain)

Channel separation >80 dB (1 kHz)

>70 dB (10 kHz)

Input impedance (R and C) 56 kohms + 100 pF

Maximum input signal >5.5 Vrms (ref. 0.1 % THD)

Output impedance 200 ohms

Input sensitivity 113 mV (ref. 500 mV out, Volume maximum)

Frequency response ±0.2 dB (20 Hz - 20 kHz)

Maximum voltage output - IHF load >4 V (ref. 0.1 % THD)

Bass EQ 6.0 dB at 80 Hz

PHONO INPUT/PRE OUT

THD (20 Hz – 20 kHz) <0.015 % at 2V out

Signal-to-Noise Ratio >82 dB (200 ohms source, A-weighted, ref. 500 mV out)

>76 dB (MM cartridge source, IHF; A-weighted, ref. 500 mV out)

Input sensitivity 1.15 mV (ref. 500 mV out, Volume maximum)

Maximum input signal at 1kHz > 90 mVrms (ref. 0.1 % THD) Frequency response  $\pm$  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.

#### LINE INPUT/HEADPHONE OUT

Signal-to-Noise Ratio >96 dB (32 ohms load; A-weighted, ref. 500mV out, unity gain)

Frequency response  $\pm 0.3 \text{ dB} (20 \text{ Hz} - 20 \text{ kHz})$ 

Output impedance 100 ohms

Maximum headphone output 6.8V (300 ohms load)

### **GENERAL SPECIFICATIONS**

#### LINE INPUT/SPEAKER OUT

Peak output current

Continuous output power into 4 and 8 ohms 30 W (ref. 20 Hz-20 kHz at 0.1% THD, both channels driven)

THD (20 Hz - 20 kHz) <0.01 % (at 1W, 4 and 8 ohms)

Signal-to-Noise Ratio >98 dB (A-weighted, 500 mV input, ref. 2.828 V out in 4 ohms)

Clipping power >50 W (at 1 kHz 4 ohms 0.1 % THD)

IHF dynamic power 8 ohms : 60 W

4 ohms: 100 W 2 ohms: 150 W >18 A (in 1 ohm, 1 ms)

Damping factor >300 (ref. 8 ohms, 20Hz to 6.5kHz)

Frequency response ±0.3 dB (20 Hz - 20 kHz)

Channel separation >75 dB (1 kHz)

>70 dB (10 kHz)

Input sensitivity 250 mV (for 30 W in 4 ohms)

Supports bit rate/sample rate up to 24 bit/192 kHz

Standby power <0.5 W

#### **DIMENSION AND WEIGHT**

Gross dimensions (W  $\times$  H  $\times$  D) 58  $\times$  186  $\times$  219 mm

25/16 x 73/8 x 85/8 inches

Net weight  $\begin{array}{c} \text{1.4 kg (3.1 lbs)} \\ \text{Shipping weight} \end{array}$   $\begin{array}{c} \text{2.1 kg (4.6 lbs)} \\ \text{2.1 kg (4.6 lbs)} \\ \end{array}$ 

<sup>\*</sup> Gross dimension includes feet, volume knob and extended 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.

