

# A&E SPECIFICATIONS

## nanoNXAMP



## **nanoNXAMP4**

The amplifier shall be a class D four-channel power amplifier. The amplifier's power supply shall have an active power factor corrector (PFC). The power amplifier shall be capable of operation from a 100-240V, 50/60 Hz line. Dual power supplies are employed. The amplifier shall meet the following performance criteria.

Maximum power output with four channels driven shall be a minimum of 250W per channel with a 2 ohm load, 250 W per channel with a 4 ohm load, 200W per channel with a 8 ohm load, 350 W two channels bridged into an 4 ohm load and 200 W two channels bridged into an 8 ohm load. Typical harmonic distortion (THD+N) shall be inferior to 0.05% on a flat setup. Frequency response shall be from 20 Hz to 20 kHz (typ+0 dB, min -0.25 dB). The balanced inputs shall have a minimum impedance of 20k ohm. The input sensitivity shall be adjustable to accept from microphone input up to +14 dBU source. The dynamic range shall be superior to 106 dBA weighted. The latency shall be 1ms on a flat setup. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures exceeding 100° C.

The amplifier shall employ forced-air cooling with temperature-controlled fan, variable in speed. Air flow shall be from side to rear.

The front panel shall have 5 LEDs indicating WiFi, Network, Output, Input and Status. Rear panel input connectors shall be one balanced Euroblock 3.5mm pitch and one unbalanced RCA connector for each channel. Rear panel output connectors shall be one Euroblock 5mm pitch per channel. Rear panel power supply should be one IEC C14 socket. The amplifier shall also offer one SPDIF 2 channels input and output on RCA. The amplifier shall have a native 100 Mb Ethernet port which allows remote control.

An 8 pins GPIO connector shall provide digital communication used for standby mode, output mute, volume control and trigger in and out. The amplifier shall include 64-bit multicore DSPs with 24-bits/48 kHz A/D and D/A converters. The amplifier firmware shall allow the user to set up for each channel volume, routing, delay, 10-band parametric EQ, input patch, compressor and GPIO modes. It shall also allow the user to select on each channel the NEXO speaker of its choice and its crossover frequency.

The amplifier shall allow the user to set standby modes to achieve an Energy Star rating.

A remote-control software or hardware can access these parameters using standard Ethernet based protocols or through integrated WiFi (access point or client). Wall remote controls should be available to allow users to control volume and select sources.

The amplifier shall conform to the latest EU RoHS hazardous substances and Reach directives. The amplifier shall be certified to meet Underwriters Laboratories Inc.'s safety requirement UL62368-1, IEC62368-1 2<sup>nd</sup> edition and EMC certification FCC Part 15 Class B, CAN/CSA-CISPR 22-10, EN55032/CISPR32 and EN61000.

It shall use one unit of standard rack-space in height and ½ unit of standard rack-space in width, and its dimensions shall be 220 mm x 296 mm D x 44.5 mm H (8.66" W x 11.65" D x 1.75" H). Weight shall be 2.8 kg (6.2 lbs).

The amplifier shall be NEXO nanoNXAMP4.

## **nanoNXAMP4-D**

The amplifier shall be a class D four-channel power amplifier. The amplifier's power supply shall have an active power factor corrector (PFC). The power amplifier shall be capable of operation from a 100-240V, 50/60 Hz line. Dual power supplies are employed. The amplifier shall meet the following performance criteria.

Maximum power output with four channels driven shall be a minimum of 250W per channel with a 2 ohm load, 250 W per channel with a 4 ohm load, 200W per channel with a 8 ohm load, 350 W two channels bridged into an 4 ohm load and 200 W two channels bridged into an 8 ohm load. Typical harmonic distortion (THD+N) shall be inferior to 0.05% on a flat setup. Frequency response shall be from 20 Hz to 20 kHz (typ+0 dB, min -0.25 dB). The balanced inputs shall have a minimum impedance of 20k ohm. The input sensitivity shall be adjustable to accept from microphone input up to +14 dBU source. The dynamic range shall be superior to 106 dBA weighted. The latency shall be 1ms on a flat setup. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures exceeding 100° C.

The amplifier shall employ forced-air cooling with temperature-controlled fan, variable in speed. Air flow shall be from side to rear.

The front panel shall have 5 LEDs indicating WiFi, Network, Output, Input and Status. Rear panel input connectors shall be one balanced Euroblock 3.5mm pitch and one unbalanced RCA connector for each channel. Rear panel output connectors shall be one Euroblock 5mm pitch per channel. Rear panel power supply should be one IEC C14 socket. The amplifier shall also offer one SPDIF 2 channels input and output on RCA. The amplifier shall have a native 100 Mb Ethernet port which allows remote control and one Dante™ port 4 channels.

An 8 pins GPIO connector shall provide digital communication used for standby mode, output mute, volume control and trigger in and out. The amplifier shall include 64-bit multicore DSPs with 24-bits/48 kHz A/D and D/A converters. The amplifier firmware shall allow the user to set up for each channel volume, routing, delay, 10-band parametric EQ, input patch, compressor and GPIO modes. It shall also allow the user to select on each channel the NEXO speaker of its choice and its crossover frequency.

The amplifier shall allow the user to set standby modes to achieve an Energy Star rating.

A remote-control software or hardware can access these parameters using standard Ethernet based protocols or through integrated WiFi (access point or client). Wall remote controls should be available to allow users to control volume and select sources.

The amplifier shall conform to the latest EU RoHS hazardous substances and Reach directives. The amplifier shall be certified to meet Underwriters Laboratories Inc.'s safety requirement UL62368-1, IEC62368-1 2<sup>nd</sup> edition and EMC certification FCC Part 15 Class B, CAN/CSA-CISPR 22-10, EN55032/CISPR32 and EN61000.

It shall use one unit of standard rack-space in height and ½ unit of standard rack-space in width, and its dimensions shall be 220 mm x 296 mm D x 44.5 mm H (8.66" W x 11.65" D x 1.75" H). Weight shall be 2.8 kg (6.2 lbs).

The amplifier shall be NEXO nanoNXAMP4-D.

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**NEXO**