NX Multi-Mode Power Amplifiers

Power Amplifiers w/ Selectable Outputs & Ethernet

**NX Multi-Mode Power Amplifiers**

- **Multi-Mode Operation**: Selectable Outputs allow you to choose the desired output mode on each channel. Set the DIP-switch configuration for Low Impedance (2, 4, and 8 Ohm), or 25V, 70V, or 100V Constant Voltage and you're set to go.

- **Energy Efficiency**: NXP has power-saving Ashly EMS™ (Energy Management System) which provides an automatic sleep-mode drawing less than 1 Watt (defeatable).

- **Ethernet Control using Protea™ NE software**: Also, serial data control by Ashly programmable remotes or third-party controllers, aux preamp outputs, instant standby mode, preset recall, fault condition logic outputs, optional Dante™, CobraNet™, or AES3 digital audio capability (factory-installed).

- **Real-Time Clock with Event Scheduler**: Assign automatic execution of selected functions and tasks. The event scheduler is programmed from software and stored in the amplifier.

- **Ashly Remote Control via iPad® app**: Use our free Ashly Remote app available for custom design of secure wireless control over network.

**NXE Series**

- **NX Multi-Mode Power Amplifiers** are designed to meet the most demanding live sound and fixed installation sound systems in stadiums, arenas, performance venues, worship spaces and convention centers.

- **Available in three amplifier series**, NX offers 2 or 4-channel models as NX (base model series), NXE (networkable), or NXP (networkable + DSP).

- **All NXE Models Include**:
  - **Class-D Switching Amplifier Technology**: NXE features a universal switch-mode power supply with Power Factor Correction (PFC) that operates from 70VAC to 270VAC.
  - **Multi-Mode Operation**: Selectable Outputs allow you to choose the desired output mode on each channel. Set the DIP-switch configuration for Low Impedance (2, 4, and 8 Ohm), or 25V, 70V, or 100V Constant Voltage and you’re set to go.
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  - **Ashly Remote Control via iPad® app**: Use our free Ashly Remote app available for custom design of secure wireless control over network.

**Power Amplifiers w/ Selectable Outputs & Ethernet**

<table>
<thead>
<tr>
<th>Channels</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

*Max Output Power: Measured in Watts Per Channel, Low Impedance Output Mode, All Channels Driven at Rated Load

<table>
<thead>
<tr>
<th>Impedance</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Ohms</td>
<td>150</td>
<td>150</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>4 Ohms</td>
<td>150</td>
<td>150</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>8 Ohms</td>
<td>150</td>
<td>150</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

*Low Impedance Output Mode, Bridged Output: Measured in Watts, All Channels Driven at Rated Load

<table>
<thead>
<tr>
<th>Impedance</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Ohms</td>
<td>300</td>
<td>300</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>8 Ohms</td>
<td>300</td>
<td>300</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

*25V, 70V, 100V Constant Voltage Output Mode: Measured in Watts, All Channels Driven at Rated Load

<table>
<thead>
<tr>
<th>Impedance</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Ohms</td>
<td>150</td>
<td>150</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>8 Ohms</td>
<td>150</td>
<td>150</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

**Total AC Mains Power Draw**: Measured in Watts, Typical input, all channels driven, 120VAC

<table>
<thead>
<tr>
<th>Mode</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Standby</td>
<td>25</td>
<td>15</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Idle (no signal)</td>
<td>53</td>
<td>33</td>
<td>53</td>
<td>33</td>
</tr>
<tr>
<td>% Max Power @ 2 Ohms</td>
<td>230</td>
<td>133</td>
<td>142</td>
<td>82</td>
</tr>
</tbody>
</table>

**Current Draw**: Measured in Amps, Typical Input, Total for all Channels, 120VAC, Divide by 2 for 240VAC

<table>
<thead>
<tr>
<th>Mode</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>0.94A</td>
<td>0.94A</td>
<td>0.94A</td>
<td>0.94A</td>
</tr>
<tr>
<td>Standby</td>
<td>0.27</td>
<td>0.2</td>
<td>0.27</td>
<td>0.2</td>
</tr>
<tr>
<td>Idle (no input signal)</td>
<td>0.50</td>
<td>0.35</td>
<td>0.50</td>
<td>0.35</td>
</tr>
<tr>
<td>% Max Power @ 2 Ohms</td>
<td>2.2</td>
<td>1.16</td>
<td>1.24</td>
<td>0.76</td>
</tr>
</tbody>
</table>

**Thermal Dissipation**: BTU/hr, Typical Input, Total for all Channels

<table>
<thead>
<tr>
<th>Mode</th>
<th>nXe 1504</th>
<th>nXe 1502</th>
<th>nXe 754</th>
<th>nXe 752</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>2.14</td>
<td>2.14</td>
<td>2.14</td>
<td>2.14</td>
</tr>
<tr>
<td>Standby</td>
<td>86.4</td>
<td>51</td>
<td>86.4</td>
<td>51</td>
</tr>
<tr>
<td>Idle (no input signal)</td>
<td>180</td>
<td>112</td>
<td>180</td>
<td>112</td>
</tr>
<tr>
<td>% Max Power @ 2 Ohms</td>
<td>505</td>
<td>325</td>
<td>355</td>
<td>215</td>
</tr>
</tbody>
</table>

* Measurements based on CEA-2006/490A, 20mS 1kHz 1% THD+N, 480mS 1kHz -20dB.

‡ <1W sleep mode can be defeated for applications that are subject to third-party performance standards that prohibit a sleep mode, including those used for Mass Notification and Emergency Communication Systems and those subject to ANSI/UL 2572.

Note: When making a true comparison of energy efficiency, one must look at the Thermal Dissipation (BTU/hr) numbers for a product. All other efficiency, i.e. “percentage” numbers are not standards based, and therefore may be marketing hype. Ashly Audio builds highly efficient Class-D amplification with SMPS that will equal or surpass the competition on BTU/hr thermal output (unused energy given off as heat). Please check our published BTU/hr specifications for more information.

~ Function is limited to Mute and Preset Recall on nXe models.
NXE Additional Features:

- Selectable 80Hz 2nd-order Hi-pass filter, limiter, and input gain per channel
- Remote DC level control per channel
- Extensive protection circuitry, continuously variable cooling fan
- Ethernet port for software control and monitoring of amplifier functions, with front panel COM activity LED
- Serial data port available for Ashly WR-5 programmable remote control (optional RS-232 converter INA-1 available for third party controllers)
- Instant Standby Mode, 40% reduction in idle power consumption, triggered by contact closure, software control, or event scheduler
- Preset recall via contact closure, software control, remote control, or event scheduler
- Programmable power-on delay
- Aux preamp line outputs for driving other amplifiers
- Fault condition logic outputs per channel
- Euroblock input connectors
- Euroblock loudspeaker connectors
- Detachable AC mains line-cord connector
- Safety/Compliance: cTUVus (pending), CE, FCC, RoHS

Specifications:

- Voltage Gain: Selectable at 26dB, 32dB, 38dB, or 1.4V
- Damping Factor: >250 (8 Ohm load <1kHz)
- Input High Pass Filter: 80Hz 2nd order
- Distortion (SMPTE, typical): <0.5%
- Distortion (THD-N, typical): <0.5% (8 Ohms, 10dB below rated power, 20Hz–20kHz)
- Channel Separation: -75dB (dB from full output, 1kHz)
- Signal-to-Noise (unweighted): >99dB (all 150x models)
- Frequency Response: 20Hz–20kHz, +/-0.05dB
- Balanced Input Connector: Euroblock 3.5mm
- Input Impedance: 10k Ohms
- Maximum Input Level: +2dBu
- Speaker Output Connector: Euroblock 7.62mm
- Control Network: RJ-45 connector, 100MB Ethernet
- AUX Output Connector: Balanced Euroblock 3.5mm
- AUX Output Maximum Level: +2dBu
- Remote Standby Contact Closure: Euroblock 3.5mm, close contact pin to ground (G) for standby mode
- Preset Recall Contact Closure: Euroblock 3.5mm, close contact to ground (G) for preset 1-4 recall
- Data Connection: Euroblock 3.5mm – Gnd, +18V, Data Out, Data In
- Fault Condition Logic Outputs: Euroblock 3.5mm – fault indicated by loss of 1Hz “heartbeat” pulse signal
- Remote DC Level Control: Euroblock 3.5mm – Gnd, CV, V+ per input
- Attenuators (per channel): Rear panel, software, offset link group, remote control. Fully off = Mute
- Amplifier Protection: Shorted output power limiting, over-temperature, DC-output, power-supply fault, mains-fuses & inrush-current limiting
- Cooling: Continuously variable temperature controlled fan
- Environmental: 32°F–120°F, (0°C–49°C), non-condensing

Power Requirements (50–60Hz):

- Nominal Voltage Input: 100 – 240VAC
- Operating Range: 70 – 270VAC
- Minimum power-up: 70VAC
- Power Supply Type: SMPS with active PFC
- AC Mains Line Cord Connector: Detachable Nema 5-15 for USA (May vary for export)

Weights and Dimensions:

- Unit Dimensions: 19"W x 1.75"H x 14.54"D (483mm x 45mm x 369mm)
- Shipping Dimensions: 25.2"W x 2.5"H x 19.5"D (641mm x 64mm x 495mm)
- Unit Weight: 1504/754 13.0lbs (5.9kg), 1502/752 11.9lbs (5.4kg)
- Shipping Weight: 1504/754 15.9lbs (7.2kg), 1502/752 14.8lbs (6.7kg)

Front Panel LED Indicators:

- POWER (white): Switch, On, Off, Standby (flashing)
- PROTECT (red): On (fault condition or shut down), Off
- SLEEP (blue): On, amplifier is asleep from audio inactivity
- DISABLE (yellow): On, power switch & attenuators are disabled
- COM (green): On, for Ethernet data or Device ID
- Per Channel:
  - CLIP/MUTE (red): Clip @ 1dB below rated output / Mute
  - SIGNAL (green): -18dB below rated output
  - CURRENT (green): Brightness is proportional to output current
  - TEMP (yellow): On dim at 90% max operating temperature, On full bright + protect at 100%
- BRIDGE (green): Per Channel Pair, On, Off

Digital Input Options:† (Factory installed)

- Dante® Digital Interface (NXP only)
- CobraNet® Digital Interface (NXE, NXP only)
- Drylin® Bridge (NXE, NXP only)
- Temp (green)
- Current (green)
- Signal (green)
- Protect (yellow)
- Power (red)
- Bridge (green)

Digital Interface Options:† (Factory installed)

- WR-1: 2-Channel Level Control
- WR-1.5: Level and Preset Recall
- WR-2: Four-Position Preset Recall Switch
- WR-5™: Programmable Button Controller
- neWR-5™: Programmable Network Button Controller
- Ashly Remote™: Remote Control Application for Apple® iPad®, iPhone®, and iPod Touch®

Remote Accessories:

- WR-1: 2-Channel Level Control
- WR-1.5: Level and Preset Recall
- WR-2: Four-Position Preset Recall Switch
- WR-5™: Programmable Button Controller
- neWR-5™: Programmable Network Button Controller
- Ashly Remote™: Remote Control Application for Apple® iPad®, iPhone®, and iPod Touch®

Notes:

- 0dBu = 0.775 VRMS
- Digital Input Options in nXe amplifiers require the additional purchase and factory installation of OPDAC4 digital-to-analog converter card.

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nXe1504

The unit shall be a 4 channel multi-mode amplifier capable of driving 2 Ohm loads at full power. The maximum rated output power shall be 150W per channel at Low 2, 150W per channel in 25V mode, 150W per channel in 70V mode, and 150W per channel in 100V mode. There shall be an automatic but defeatable sleep mode consuming <1W, and instant standby mode controlled by contact closure. A switch mode power supply with active power factor correction (PFC) shall auto-detect 100 – 240VAC mains and operate from 70 – 270VAC. Each channel shall have selectable output mode of Low 2, 25V, 70V, or 100V, an 80Hz high-pass filter, input limiter, and input gain settings of 26dB, 32dB, 38dB, or 1.4V. Each channel shall have remote DC level control. Input connectors shall be 3.5mm Euroblock, while output connectors shall be 7.62mm Euroblock. The unit shall have a front panel power switch and rear level controls that can be disabled. LEDs shall indicate Protect, Sleep, Disabled, and Bridge mode status, as well as Temperature, Output Current, Output Signal, and Clipping/Mute status per channel. The unit shall have Ethernet control with a real-time clock for event scheduling. The unit shall have serial data remote control, aux preamp outputs, preset control, and fault condition logic output per channel. The unit shall have optional factory installed network audio or AES3 digital audio capability with the addition of a 4-Channel DAC card. The amplifier shall have temperature dependent variable speed forced-air cooling. The unit shall weigh <13.0 lbs (5.9kg), measure 19”W x 1.75”H x 14.54”D (483mm x 45mm x 369mm), and mount in a standard 19” rack. There shall be a five year warranty for units purchased in the US. No other unit shall be acceptable unless all specifications represented herein are met or exceeded and submitted in writing by an independent testing agent.

The power amplifier shall be an Ashly nXe1504.

nXe1502

The unit shall be a 2 channel multi-mode amplifier capable of driving 2 Ohm loads at full power. The maximum rated output power shall be 150W per channel at Low 2, 150W per channel in 25V mode, 150W per channel in 70V mode, and 150W per channel in 100V mode. There shall be an automatic but defeatable sleep mode consuming <1W, and instant standby mode controlled by contact closure. A switch mode power supply with active power factor correction (PFC) shall auto-detect 100 – 240VAC mains and operate from 70 – 270VAC. Each channel shall have selectable output mode of Low 2, 25V, 70V, or 100V, an 80Hz high-pass filter, input limiter, and input gain settings of 26dB, 32dB, 38dB, or 1.4V. Each channel shall have remote DC level control. Input connectors shall be 3.5mm Euroblock, while output connectors shall be 7.62mm Euroblock. The unit shall have a front panel power switch and rear level controls that can be disabled. LEDs shall indicate Protect, Sleep, Disabled, and Bridge mode status, as well as Temperature, Output Current, Output Signal, and Clipping/Mute status per channel. The unit shall have Ethernet control with a real-time clock for event scheduling. The unit shall have serial data remote control, aux preamp outputs, preset control, and fault condition logic output per channel. The unit shall have optional factory installed network audio or AES3 digital audio capability with the addition of a 2-Channel DAC card. The amplifier shall have temperature dependent variable speed forced-air cooling. The unit shall weigh <11.9 lbs (5.4kg), measure 19”W x 1.75”H x 14.54”D (483mm x 45mm x 369mm), and mount in a standard 19” rack. There shall be a five year warranty for units purchased in the US. No other unit shall be acceptable unless all specifications represented herein are met or exceeded and submitted in writing by an independent testing agent.

The power amplifier shall be an Ashly nXe1502.

nXe754

The unit shall be a 4 channel multi-mode amplifier capable of driving 2 Ohm loads at full power. The maximum rated output power shall be 75W per channel at Low 2, 75W per channel in 25V mode, 75W per channel in 70V mode, and 75W per channel in 100V mode. There shall be an automatic but defeatable sleep mode consuming <1W, and instant standby mode controlled by contact closure. A switch mode power supply with active power factor correction (PFC) shall auto-detect 100 – 240VAC mains and operate from 70 – 270VAC. Each channel shall have selectable output mode of Low 2, 25V, 70V, or 100V, an 80Hz high-pass filter, input limiter, and input gain settings of 26dB, 32dB, 38dB, or 1.4V. Each channel shall have remote DC level control. Input connectors shall be 3.5mm Euroblock, while output connectors shall be 7.62mm Euroblock. The unit shall have a front panel power switch and rear level controls that can be disabled. LEDs shall indicate Protect, Sleep, Disabled, and Bridge mode status, as well as Temperature, Output Current, Output Signal, and Clipping/Mute status per channel. The unit shall have Ethernet control with a real-time clock for event scheduling. The unit shall have serial data remote control, aux preamp outputs, preset control, and fault condition logic output per channel. The unit shall have optional factory installed network audio or AES3 digital audio capability with the addition of a 4-Channel DAC card. The amplifier shall have temperature dependent variable speed forced-air cooling. The unit shall weigh <13.0 lbs (5.9kg), measure 19”W x 1.75”H x 14.54”D (483mm x 45mm x 369mm), and mount in a standard 19” rack. There shall be a five year warranty for units purchased in the US. No other unit shall be acceptable unless all specifications represented herein are met or exceeded and submitted in writing by an independent testing agent.

The power amplifier shall be an Ashly nXe754.

nXe752

The unit shall be a 2 channel multi-mode amplifier capable of driving 2 Ohm loads at full power. The maximum rated output power shall be 75W per channel at Low 2, 75W per channel in 25V mode, 75W per channel in 70V mode, and 75W per channel in 100V mode. There shall be an automatic but defeatable sleep mode consuming <1W, and instant standby mode controlled by contact closure. A switch mode power supply with active power factor correction (PFC) shall auto-detect 100 – 240VAC mains and operate from 70 – 270VAC. Each channel shall have selectable output mode of Low 2, 25V, 70V, or 100V, an 80Hz high-pass filter, input limiter, and input gain settings of 26dB, 32dB, 38dB, or 1.4V. Each channel shall have remote DC level control. Input connectors shall be 3.5mm Euroblock, while output connectors shall be 7.62mm Euroblock. The unit shall have a front panel power switch and rear level controls that can be disabled. LEDs shall indicate Protect, Sleep, Disabled, and Bridge mode status, as well as Temperature, Output Current, Output Signal, and Clipping/Mute status per channel. The unit shall have Ethernet control with a real-time clock for event scheduling. The unit shall have serial data remote control, aux preamp outputs, preset control, and fault condition logic output per channel. The unit shall have optional factory installed network audio or AES3 digital audio capability with the addition of a 2-Channel DAC card. The amplifier shall have temperature dependent variable speed forced-air cooling. The unit shall weigh <11.9 lbs (5.4kg), measure 19”W x 1.75”H x 14.54”D (483mm x 45mm x 369mm), and mount in a standard 19” rack. There shall be a five year warranty for units purchased in the US. No other unit shall be acceptable unless all specifications represented herein are met or exceeded and submitted in writing by an independent testing agent.

The power amplifier shall be an Ashly nXe752.