



APPLICATION NOTE

Large Performance, Convention, and Worship Venues



Ashly Audio, Inc. | 847 Holt Rd | Webster, NY 14580 USA | US toll free: +1-800-828-6308 | tel: +1-585-872-0010 | fax: +1-585-872-0739 | sales@ashly.com | www.ashly.com | Ashly is a division of Jam Industries, Ltd.

digiMIX24 24-Channel Digital Mixer



Router



nXp1.52 Power Amplifier



SUB

SUB

nXp1.54 Power Amplifier



MF

MF

HF

HF

Additional Digital Amplifiers

Overview:

The above diagram illustrates a Line Array system simplified with a digiMIX24 mixing console and nXp Series power amplifiers.

This application uses one digiMIX24 (w/ Dante-32) one nXp 1.52 (2 x 1500W), one nXp 1.54 (4 x 1500W), with a Dante option (OPDC4).

System Features:

(1) digiMIX24

The **digiMIX24** is a 24-Channel Digital Mixing Console with two performance modes: 24x8 AUX channels, or 24x4 AUX channels and 24x4 SUB-group channels with 6x DCA fader groups. Dante™ network audio installed.

(1) nXp1.52

The **nXp1.52** is a two-channel amplifier and is configured as a subwoofer using the on-board DSP. It can deliver up to 1250W into 8 Ohms, 1500W into 2 or 4 Ohms.

(1) nXp1.54

The **nXp1.54** is a four-channel amplifier configured and drives the high-frequency and mid-frequency components. This system has four (4) array elements. Four 16 Ohm drivers would be a 4 Ohm load and four 8 Ohm drivers would be a 2 Ohm load. The nXp 1.54 programmable outputs can be loaded to 2 or 4 Ohms and deliver 375W on each HF and MF component.

Audio transmitted over analog cables can be adversely affected by signal degradation due to electromagnetic interference, high-frequency attenuation, and voltage drop over long cable runs.

Using a stereo console with **Dante™**, digital network output is connected to a router and distributed to the nXp power amplifiers. Digital audio provides several advantages over traditional analog audio distribution:

- Extensive DSP
 - 48kHz / 96kHz sampling rates
 - FIR Filtering
 - Matrix Mixer
 - Comp/Limiter
 - Autoleveler
 - Gate
 - Feedback Suppressor
 - EQ: 31-Band, Parametric, HP/LP,
 - All Pass, Bandpass, FIR
 - Crossover (2-way / 3-way / 4-way)
 - Delay

- Extensive protection circuitry
- Remote Power On/Off w/ Disable
- Euroblock Inputs/Outputs
- Aux Outputs
- FIR Filtering

All controlled with our proprietary **Protea™ Software Suite**, 32-bit SHARC DSP processing is standard equipment for comprehensive audio processing in nX amplifiers. Additional notable features:

- Serial data control
- Aux preamp outputs
- Instant standby mode
- Preset recall
- Fault condition logic outputs
- Digital audio capability
- Optional network audio
- Built-in signal generator for test tone and noise-masking
- Precision load impedance monitoring on each amplifier channel output