

# NetPA

## AUDIO POWER AMPLIFIERS WITH DANTE



- ▶ Receives input signals via the Dante audio network
- ▶ NetPA 502 AT:  
2 x 50 watts @ 4 ohms, or  
2 x 25 watts @ 8 ohms
- ▶ NetPA 1001-70V AT:  
1 x 100 watts @ 70 volts
- ▶ ENERGY STAR® qualified amplifier
- ▶ Dante audio networking provides a wide range of expansion capabilities
- ▶ Dante audio to line level outputs
- ▶ Professional grade signal-to-noise and THD+N performance
- ▶ Extron Patented CDRS™ - Class D Ripple Suppression
- ▶ Convection cooled, fanless operation
- ▶ Ultra low inrush current - eliminates need for power sequencing
- ▶ Rack-mountable 1U, half rack width enclosure



The Extron NetPA 502 AT and NetPA 1001-70V AT are half rack 1U, convection cooled power amplifiers that feature Dante™ audio networking. These professional grade amplifiers are ENERGY STAR® qualified and feature an Extron exclusive, highly efficient Class D amplifier design. NetPA™ amplifiers are ideal for amplifying audio content from remote Dante-equipped audio processors in low or high impedance speaker systems.



**Extron Electronics**  
INTERFACING, SWITCHING AND CONTROL

## DESCRIPTION

The Extron **NetPA 502 AT** and **NetPA 1001-70V AT** are half rack 1U, convection cooled power amplifiers featuring Dante digital audio networking. They deliver two channels of 50 watts into 4 ohms, or a single channel of 100 watts at 70 volts. NetPA amplifiers receive audio from Dante-enabled devices over a standard local area network, allowing for decentralized distribution of audio throughout a building. In addition to amplifying incoming Dante audio, NetPA amplifiers feature line level outputs that can simultaneously feed an additional speaker zone or audio system. They are ENERGY STAR qualified amplifiers with an Extron exclusive, highly efficient, advanced Class D amplifier design. They also feature patented CDRS™ - Class D Ripple Suppression that provides improved signal fidelity over conventional Class D amplifiers.

### NetPA 502 AT

The NetPA 502 AT two channel amplifier delivers 50 watts rms per channel into 4 ohms or 25 watts rms per channel into 8 ohms. The NetPA 502 AT is ideal for amplification of voice or program content to stereo speakers, or two sets of 8 ohm ceiling speakers in a dual zone application. The professional grade amplifier also features greater than 90 dB signal-to-noise ratio and less than 0.1% THD+N.

### NetPA 1001-70V AT

The NetPA 1001-70V AT mono amplifier delivers 100 watts rms for 70 volt high impedance speaker systems in voice reinforcement and distributed audio applications. The professional grade amplifier features greater than 90 dB signal-to-noise ratio and less than 0.1% THD+N. The NetPA 1001-70V AT also includes a switch selectable, high pass filter that rolls off frequencies below 80 Hz to prevent saturation of speaker transformers.

### Dante Audio Networking

Dante enables audio system scalability over a local area network using standard Internet protocols. The family of Dante-enabled products from Extron work together as part of a complete networked audio system solution and integrate with other Dante-enabled products to create efficient, scalable system designs. They accommodate a range of audio routing needs in a variety of applications.

Setting up a network of Extron Dante-enabled products, including the NetPA amplifiers, requires Dante Controller software. Dante Controller is used to easily assign an output from a Dante-equipped device, such as the Extron DMP 128 AT, to an input on a NetPA amplifier.

### Professional Integration Features

The NetPA 502 AT and NetPA 1001-70V AT can output incoming Dante channels as fixed line level signals to simultaneously feed the audio into another speaker zone or audio system. Both amplifiers also include recessed, detented level controls located on the rear panel to prevent tampering. These controls facilitate adjustment of audio system gain structure, or setting an individual level for each zone. Additionally, the NetPA amplifiers include multiple protection circuits that momentarily activate when an abnormal condition, such as overheating, is detected. An advanced, automatic clip limiter protects speakers from clipping distortion.

## FEATURES

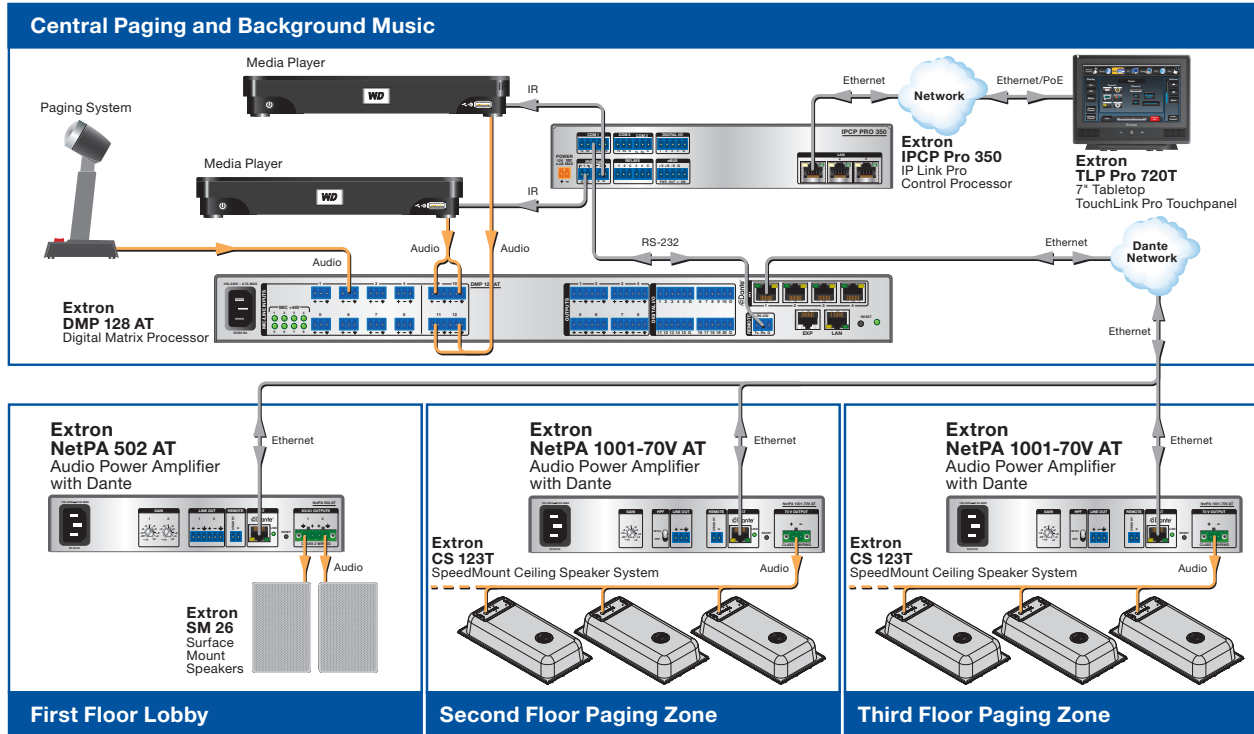
- ▶ **Receives input signals via the Dante audio network** – Select one or two channels from remote digital signal processors on the Dante network to be brought into the NetPA for amplification.
- ▶ **ENERGY STAR qualified amplifier** – The NetPA amplifiers are ENERGY STAR qualified amplifiers and energy efficient products that conserve energy and reduce costs.
- ▶ **Dante audio networking provides a wide range of expansion capabilities** – Dante-equipped audio products provide scalability for creating larger audio systems over a local area network using standard Internet protocols.
- ▶ **Dante audio to line level outputs** – The NetPA provides fixed line level outputs that allow the incoming Dante audio to be delivered to additional speaker zones, or another audio system such as an ALS - assistive listening system.
- ▶ **Professional grade signal-to-noise and THD+N performance** – The NetPA delivers professional grade performance with greater than 90 dB signal-to-noise ratio and THD+N of less than 0.1%.
- ▶ **Extron Patented CDRS - Class D Ripple Suppression** – CDRS is an Extron Patented technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional class D amplifier designs.
- ▶ **Convection cooled, fanless operation** – The NetPA does not require internal fans or vents for cooling, ensuring quiet, reliable operation.
- ▶ **Ultra low inrush current** – Allows multiple NetPA amplifiers to be powered simultaneously without overloading power circuits. This eliminates the need for power sequencing.
- ▶ **Rack-mountable 1U, half rack width enclosure**
- ▶ **Auto power-down with fast power-up** – The NetPA meets ENERGY STAR qualification requirements with an auto power-down feature that automatically places the amplifier into standby after 25 minutes of inactivity, dramatically reducing power consumption. It quickly returns to full power status in less than one second upon signal detection.
- ▶ **Rear panel recessed, detented level controls**
- ▶ **Automatic clip limiter** – Detects actual onset of clipping by comparing input and output waveforms.
- ▶ **Multiple protection circuits** – Activate during output shorts, thermal overload, or DC faults to prevent damage to the amplifier and speakers.
- ▶ **Remote standby port** – Enables the NetPA to be remotely powered down when not in use, reducing operating cost.
- ▶ **High pass filter for high impedance model** – This switch selectable filter, available on the 70 volt model, rolls off frequencies below 80 Hz to prevent saturation of speaker transformers.
- ▶ **Front-mounted signal and protection indication LEDs** – Provides convenient indication of input signal presence and protection circuit activation.
- ▶ **Link LED indicator for Dante port** – Provides visual indication of synchronization to the master clock on the Dante network.
- ▶ **Highly reliable, energy efficient internal universal power supply**

# SPECIFICATIONS

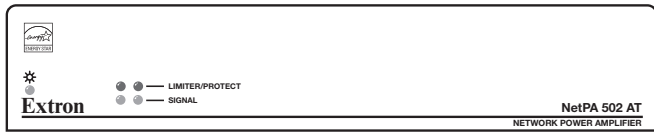
AUDIO INPUT	
<b>Number/signal type</b>	
NetPA 502 AT	1 stereo or 2 mono
NetPA 1001-70V AT	1 mono
<b>Connectors</b>	1 RJ-45
<b>Maximum level</b>	0 dBFS (digital)
AUDIO PROCESSING	
<b>D/A conversion</b>	24 bit, 48 kHz sampling
AT PORTS — AUDIO TRANSPORT	
<b>Transmission type</b>	Dante
<b>Connectivity</b>	1 RJ-45 connector, 1-port 100 Mbps to Dante interface
<b>Inputs</b>	
NetPA 502 AT	2 channels Rx
NetPA 1001-70V AT	1 channel Rx
<b>Audio format</b>	24-bit, 48 kHz sampling, uncompressed
<b>Latency</b>	Deterministic, based on user selection: 2.0 ms (default), 5.0 ms
AUDIO LINE OUTPUT	
<b>Number/signal type</b>	
NetPA 502 AT	2 channels, balanced/unbalanced
NetPA 1001-70V AT	1 channel, balanced/unbalanced
<b>Connectors</b>	
NetPA 502 AT	(1) 3.5 mm captive screw connector, 6 pole
NetPA 1001-70V AT	(1) 3.5 mm captive screw connector, 3 pole
<b>Impedance</b>	50 ohms unbalanced, 100 ohms balanced
<b>Maximum level (at 0 dBFS digital input)</b>	>+15 dBu balanced; +9 dBu unbalanced
<b>Frequency response</b>	20 Hz to 20 kHz, $\pm 1$ dB
<b>THD + Noise</b>	0.03% @ 1 kHz at nominal level, 0.3% @ 20 kHz at nominal level
<b>S/N</b>	>90 dB, at maximum output (unweighted)
AUDIO SPEAKER OUTPUT	
<b>Number/signal type</b>	
NetPA 502 AT	2 channels, 4 or 8 ohms
NetPA 1001-70V AT	1 channel, 70 V
<b>Connectors</b>	
NetPA 502 AT	(1) 5.08 mm screw lock captive screw connector, 4 pole
NetPA 1001-70V AT	(1) 5.08 mm screw lock captive screw connector, 2 pole
<b>Load impedance</b>	
NetPA 502 AT	4 ohms minimum
NetPA 1001-70V AT	50 ohms minimum
<b>Amplifier type</b>	Class D
<b>Output power</b>	
NetPA 502 AT	50 watts rms per channel, 4 ohms, 1 kHz, 0.1% THD 25 watts rms per channel, 8 ohms, 1 kHz, 0.1% THD
NetPA 1001-70V AT	100 watts rms, 70 V, 1 kHz, 0.1% THD
<b>Frequency response</b>	
NetPA 502 AT	20 Hz to 20 kHz, +1/-3 dB @ 1 watt
NetPA 1001-70V AT	20 Hz to 20 kHz, +1/-3 dB @ 1 watt
<b>THD + Noise</b>	<0.1% @ 1 kHz, 3 dB below clipping
<b>S/N</b>	>90 dB, 20 Hz - 20 kHz, unweighted
<b>High pass filter</b>	
NetPA 1001-70V AT	80 Hz, 12 dB per octave rolloff for 70 V line output (switch selectable)

GENERAL		
<b>Power supply</b>	Internal	
	Input: 100-240 VAC, 50-60 Hz, 0.5 A	
<b>Power consumption at 115 VAC, 60 Hz</b>		
Typical (1/8 power)		
NetPA 502 AT	4 ohms (x2): 22.3 watts 8 ohms (x2): 14.6 watts 70 V (x1): 22.7 watts	
NetPA 1001-70V AT		
Quiescent		
NetPA 502 AT	7.4 watts	
NetPA 1001-70V AT	7.5 watts	
Standby	<2 watts (triggered after 25 minutes [ $\pm 5$ minutes] with no signal)	
<b>Power consumption at 230 VAC, 50 Hz</b>		
Typical (1/8 power)		
NetPA 502 AT	4 ohms (x2): 24.2 watts 8 ohms (x2): 16.9 watts 70 V (x1): 24.2 watts	
NetPA 1001-70V AT		
Quiescent		
NetPA 502 AT	9.9 watts	
NetPA 1001-70V AT	9.0 watts	
Standby	<2 watts (triggered after 25 minutes [ $\pm 5$ minutes] with no signal)	
<b>Cooling</b>	Convection, no vents, with internal heat sink	
<b>Protection</b>	Clip limiting, thermal, short circuit, DC output	
<b>Furniture mount</b>	Yes, with optional under-desk mounting kit	
<b>Enclosure dimensions</b>	1.7" H x 8.7" W x 9.5" D (1U high, half rack wide) (4.3 cm H x 22.1 cm W x 24.1 cm D)	
<b>Product weight</b>		
NetPA 502 AT	2.6 lbs (1.2 kg)	
NetPA 1001-70V AT	2.6 lbs (1.2 kg)	
<b>Shipping weight</b>		
NetPA 502 AT	5 lbs (2 kg)	
NetPA 1001-70V AT	5 lbs (2 kg)	
<b>Regulatory compliance</b>		
Safety	CE, c-UL, UL Meets UL 60065, IEC 60065, and BSEN 60065 for AV equipment.	
Environmental	Complies with the appropriate requirements of ENERGY STAR® (ENERGY STAR qualified amplifier), RoHS, WEEE.	
<b>Model</b>	<b>Version Description</b>	<b>Part number</b>
NetPA 502 AT	Two Channel Amp with Dante - 50 Watts/Ch	60-1500-01
NetPA 1001-70V AT	70 V Mono Amp with Dante - 100 Watts	60-1501-01

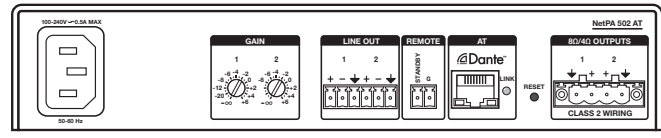
# APPLICATION DIAGRAM



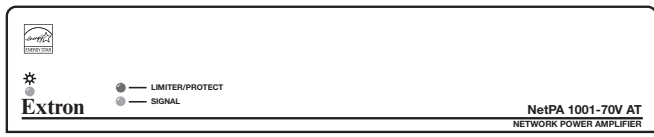
# PANEL DRAWINGS



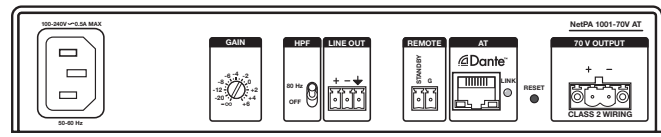
NetPA 502 AT - Front



NetPA 502 AT - Back



NetPA 1001-70V AT - Front



NetPA 1001-70V AT - Back

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