

PowerSoft 1504 DSP+D

Dante Network DSP Amplifier



DESCRIPTION

The Aniston PowerSoft 1504 DSP+D is a next-generation 4-channel DSP network amplifier engineered for large-scale AV installations where performance, flexibility, and reliability are non-negotiable. Delivering up to 2000 watts per channel at 4Ω, it is designed to drive demanding loudspeaker systems across auditoriums, stadiums, airports, shopping malls, and conference venues.

Equipped with a 300 MHz ADI DSP engine, the amplifier supports 48kHz/24-bit audio processing, 2048-tap FIR filtering, and a full 4×4 matrix mixer, allowing users to fine-tune audio parameters with unmatched precision. The integrated Dante network interface (Primary & Secondary ports) ensures low-latency digital audio transport with redundancy support, making it ideal for mission-critical systems.

FEATURES

- **High-Efficiency Class-D Amplification**

Delivers up to 4×2000W @ 4Ω and 4×1500W @ 8Ω
 Supports bridged mode for up to 2×3200W @ 8Ω
 Compatible with 100V/70V constant voltage speaker systems
 Designed for both low-impedance and distributed audio applications

- **Advanced DSP with FIR Filtering**

Powered by a 300 MHz ADI fixed-point DSP processor
 Supports 48kHz / 24-bit high-resolution audio processing
 Includes Noise Gate, 15-band Parametric EQ, FIR filters, Delay, Limiter, and Compressor

- **Full-Range Matrix Mixing**

Integrated 4×4 matrix mixer with full routing flexibility
 Per-channel level control and mixing logic
 Ideal for zone-based sound management and system customization

- **Dante Digital Audio Networking**

Equipped with dual-port Dante interface for 4-channel digital audio input
 Supports redundant (Primary/Secondary) audio network failover
 Compliant with AES67 for broad interoperability

- **Flexible I/O Options**

Integrated 4×4 Dante audio interface for digital signal 4× balanced XLR inputs (switchable between Analog and AES/EBU)
 4× XLR link outputs
 4× SpeakON + Binding Post outputs for secure speaker connections
 Control via TCP/IP, USB, RS232, and RS485 (Phoenix)

- **Robust Protection System**

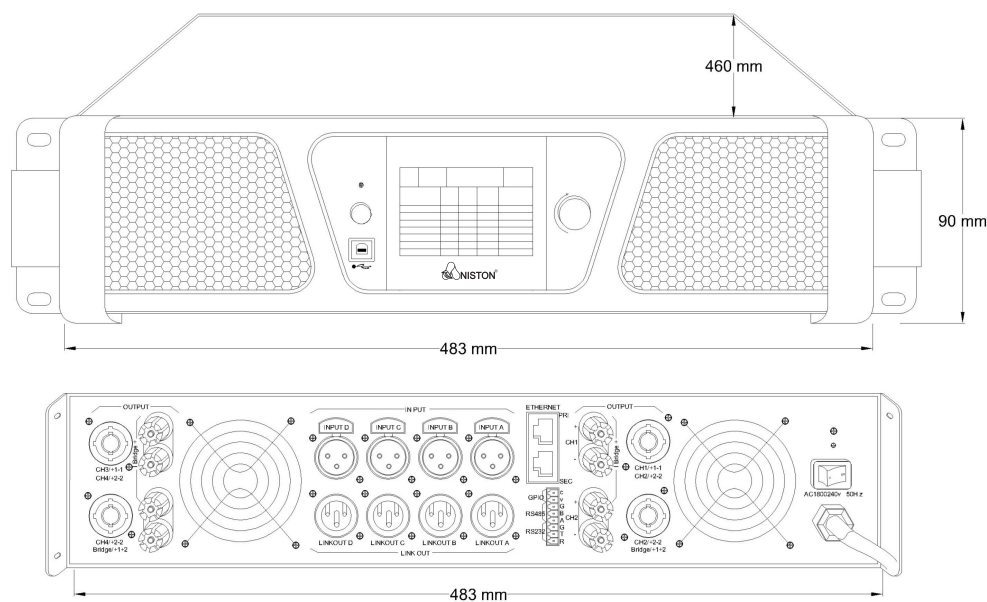
Real-time monitoring of temperature, voltage, current, and impedance
 Built-in protections: short circuit, DC offset, overvoltage, thermal, surge, and back-EMF
 Intelligent fan cooling with thermal sensors for extended life and quiet operation

TECHNICAL SPECIFICATIONS

Model	PowerSoft 1504 DSP+D
Output Channels	4× Independent Amplifier Channels
Output Power @ 8Ω	4×1500W
Output Power @ 4Ω	4×2000W
Bridge Mode Output @ 8Ω	2×3200W
Constant Voltage Output - 100V	4×1250W (Lo-Z 8Ω), 4×312.5W (Hi-Z 32Ω)
Constant Voltage Output - 70V	4×1225W (Lo-Z 4Ω), 4×153.13W (Hi-Z 32Ω)
Amplifier Class	Class D
Frequency Response	20Hz–20kHz (±0.5dB @ 8Ω)
Total Harmonic Distortion	<1% from 1W to full power
Sampling Rate / Bit Depth	48kHz / 24-bit
System Latency	<1ms total processing delay
SNR	≥100 dB (A-weighted @ 12dBu)
Audio Functions	Audio Functions
Maximum Input Voltage	14 dBu
Dante Audio Channels	4-in (RJ45 Dual-Port for redundancy)
DSP Processor	ADI 300MHz Fixed Point Core
AES/EBU Support	Yes (switchable via XLR)
FIR Filter Taps	Up to 2048 taps, linear phase
Input PEQ	15-band PEQ per channel
Output PEQ	10-band PEQ per channel
Input Connectors	4× XLR (balanced)
Speaker Outputs	4× SpeakON + 4× Binding Post
Control Outputs	4×4 full matrix with adjustable crosspoints
Matrix Mixing	4×4 full matrix with adjustable crosspoints
Protection Features	Thermal, DC, HF, Surge, Short Circuit, EMF
Cooling	Dual intelligent fans with front-to-back airflow
Power Supply	AC 100–240V, 50/60Hz with PFC
Standby Power Consumption	<50W
Operating Temperature	-20°C to 60°C
Control Interfaces	TCP/IP, USB, RS232/485 (Phoenix)
Chassis Dimensions	483mm × 460mm × 90mm (2U rackmount)
Package Dimensions	Package Dimensions
Weight	12.34kg (device)
Signal-to-Noise Ratio	≥100 dB (A-weighted @ 12dBu input sensitivity)
Compressor/Limiter	Independent per-channel compression and limiting
Standby Power	<50W
Gross Weight	16.64kg

Delay	Adjustable delay per input/output channel
Noise Gate	Available on all input channels
Feedback Suppression	Adaptive feedback cancelation (AFC)
AES67 Support	Yes
Analog Inputs	4 × XLR (switchable analog / AES-EBU)
Link Outputs	4 × XLR link-out
Speaker Outputs	4 × SpeakON + 4 × Binding Post
Monitoring Functions	Real-time monitoring of voltage, temperature, current, and impedance
Protection Features	Thermal, short-circuit, DC, HF, surge, over/under-voltage, back-EMF, soft-start
Software Interface	MConsole (Windows-based GUI control platform)
Preset Management	Save/load user presets and system snapshots
Mounting	Standard 19" 2U rackmount
Certifications	CE, RoHS (on request)

PRODUCT DIMENSION



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