

PowerSoft 0604 DSP+D

Dante Network DSP Amplifier



DESCRIPTION

The Aniston PowerSoft 0604 DSP+D is a high-performance, 4-channel DSP amplifier designed for versatile and demanding professional AV installations. Combining a powerful Class-D power stage with a flexible 4x4 DSP matrix and Dante audio networking, it provides clean, efficient amplification along with advanced audio signal processing.

Capable of delivering 4x900W @ 4Ω and 4x600W @ 8Ω, the 0604 DSP+D also supports Hi-Z (70V/100V) constant voltage speaker systems via bridge mode, making it ideal for large venues, commercial facilities, hotels, and educational institutions.

It features integrated 300MHz DSP processing with a 48kHz/24-bit audio engine, advanced FIR filters, matrix mixing, and parameter EQ, along with full protection circuitry and flexible control options via TCP/IP, USB, and RS232/RS485. Dual Dante ports ensure network redundancy for critical installations.

FEATURES

- **High-Power Class-D Amplification**

Utilizes advanced Class-D amplifier topology to ensure ultra-efficient power delivery with minimal heat generation.

Capable of delivering 4x900W @ 4Ω and 4x600W @ 8Ω, making it suitable for high-demand commercial AV environments.

- **Advanced FIR-Based DSP Architecture**

Equipped with a 300MHz fixed-point DSP core for real-time, low-latency audio processing.

Supports 48kHz / 24-bit sampling with FIR filters up to 2048 taps, ensuring precise linear phase alignment and frequency correction.

- **Matrix Mixing & Audio Routing**

Fully flexible 4x4 matrix mixer architecture allows signal routing from any input to any output.

Adjustable levels for each cross-point provide complete audio matrix customization.

- **Comprehensive Audio Control & Protection**

Built-in Noise Gate, Compressor, and Limiter on each channel. Integrated Adaptive Feedback Canceller (AFC) automatically reduces unwanted acoustic feedback in real time.

User-adjustable delay per channel ensures phase and time alignment in distributed speaker systems.

- **Dante Network Audio Integration**

Integrated 4x4 Dante audio interface for digital signal transmission over standard IP networks.

Dual RJ45 Dante ports provide redundant Primary/Secondary failover functionality.

Supports AES67 for compatibility with cross-brand AV network systems

- **Flexible Connectivity & Control**

4x XLR balanced inputs support both analog and AES/EBU digital signals with automatic switching.

4x SpeakON outputs offer secure and robust speaker connectivity.

Control options include:

TCP/IP (RJ45)

USB (Type-A)

RS232/RS485

Phoenix GPIO port for third-party integration and external triggers.

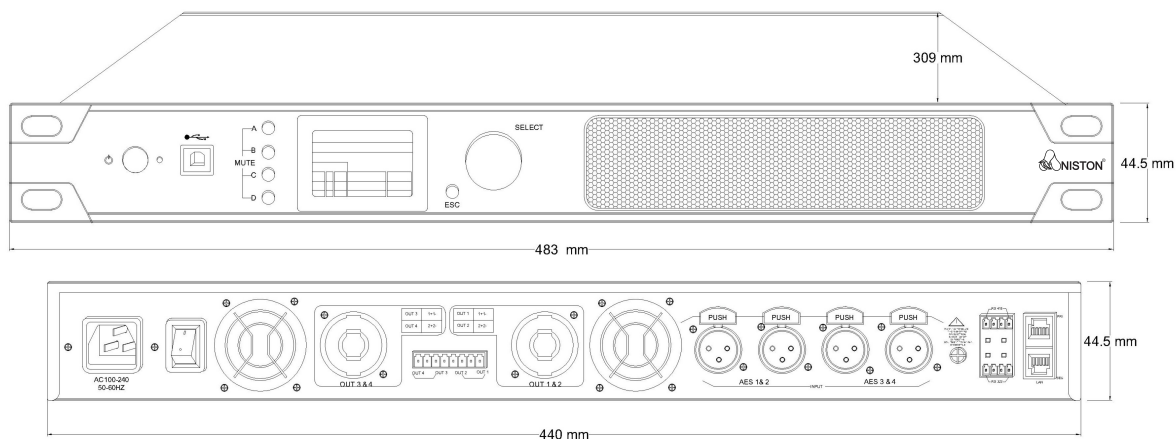


TECHNICAL SPECIFICATIONS

Model	PowerSoft 0604 DSP+D
Output Channels	4× Independent Power Amplifier Channels
Output Power @ 8Ω	4×600W
Output Power @ 4Ω	4×900W
Bridge Mode Output @ 8Ω	2×1800W
Output Mode Support	>Stereo / Bridge / Parallel / Matrix
Output Configurations	Constant Voltage (100V / 70V) and 4Ω/8Ω
Amplifier Class	Class D
Frequency Response	20Hz – 20kHz (±0.5dB @ 8Ω load)
Total Harmonic Distortion	<1% from 1W to full power
Signal-to-Noise Ratio (SNR)	≥103 dB (A-weighted @ 12dBu sensitivity)
Bridge Mode Output @ 100V	2×1250W (Hi-Z 8Ω), 2×625W (Hi-Z 16Ω)
Voltage Gain	31.7dB (RL = 8Ω, Double Power Mode) , 35.2dB @ 70V ,38.2dB @ 100V
Input Sensitivity	+4dBu (RL = 8Ω)
Maximum Input Voltage	+24 dBu
Input Impedance	20kΩ (balanced), 10kΩ (unbalanced)
DSP Processor	ADI 300 MHz Fixed-Point Core
Sampling Frequency	48kHz
FIR Filter Taps	Up to 2048 taps
Input PEQ	Up to 15 bands per channel
Output PEQ	Up to 10 bands per channel
Filter Types	HPF, LPF, All-Pass, Bessel, Butterworth
Matrix Mixing	4×4 matrix, fully routable and adjustable
Auto Mixer	With gating and microphone priority control
Compressor / Limiter	Per channel
Feedback Control	AFC (Adaptive Feedback Canceller)
Analog Inputs	4× XLR (Analog / AES-EBU switchable)
Analog Outputs	4× SpeakON terminals
Digital Inputs (Dante)	4 × Dante Channels via RJ45
Digital Networking Ports	RJ45 × 2 (Dante PRIMARY / SECONDARY, redundant)
Control Ports	1× USB (Type-A), RS232, RS485, Phoenix GPIO
Remote Fault Output	Euroblock (3P) × 1
Load Protection	Peak current, HF, DC, start delay, breaker
Thermal Protection	Auto shutdown @ 100°C
Overcurrent Protection	Auto mute and recovery
Low Load Impedance	Output mute with auto restore
Integrated Power Protection	Surge, reverse polarity, back-EMF

Bridge Mode Output @ 70V	2×612.5W (Lo-Z 8Ω), 2×306.25W (Hi-Z 16Ω)
Cooling	Dual 3-speed intelligent fans (front-to-back)
Power Supply	AC 100–240V 50/60Hz with PFC
Standby Power	<62W
Operating Temp Range	-20°C to 60°C
Dimensions (Device)	483mm × 309mm × 44.5mm (1U rackmount)
Dimensions (Package)	580mm × 580mm × 170mm
Weight	6kg (device), 7kg (packaged)

PRODUCT DIMENSION



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