

■ D Series Specifications

SPECIFICATIONS		D4.2K	D4.2K-D	D4.4K	D4.4K-D
Output power (1kHz, 20ms burst THD+N = 1%)	8Ω Stereo	4x300W		4x600W	
	4Ω Stereo	4x500W		4x1000W	
	8Ω Bridge	2x1000W		2x2000W	
A-Guard Protection System		DC Protection, Short circuit protection, Smart overheat management, Overheat protection, Output overload protection, Soft startup protection, Limiter protection			
DSP processing	Sampling rate	48kHz/24bit			
	Input	1) Input: 4x analogue, 4x AES, 4x Dante (D4.2K-D, D4.4K-D) 2) Noise Gate, gain, Sensitivity, Phase, Mute 3) Input EQ: 15 band EQ + HPF/LPF (Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct) 4) Input delay: Per channel 90ms			
	Working mode	Matrix, Stereo, Parallel, Bridge			
	FIR	4 channel FIR 4x2048 Taps			
	Output	1) Output EQ: 10 band EQ + HPF/LPF (Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct) 2) Output delay: Per channel 20ms 3) compressor and limiter 4) Gain, Phase, Mute			
Input	Analogue	4x analogue			
	AES	4x AES			
	Dante	/	4x Dante	/	4x Dante
Control port	USB	USB-B			
	TCP/IP	RJ45 x2			
Connectors	Input	Male XLR & Female XLR			
	Output	Speakon			
Input Impedance	Balanced	≥20kΩ			
	Unbalanced	≥10kΩ			
Maximum input voltage		≥18dBu			
Sensitivity		0dBu / 6dBu / 12dBu			
Crosstalk(1kHz, Rated power 8Ω A weighted)		20Hz-20kHz(±1dB)			
Crosstalk(1kHz, Rated power 8Ω A weighted)		≥60dB			
S/N Ratio(Rated power 8Ω, A weighted)		≥100dB			
Damping Factor(1kHz & 8Ω)		≥400			
Intermodulation Distortion (60Hz:7kHz=4:1, half power)		≤0.1%			
THD+N(1kHz, 8Ω half power A weighted)		≤0.1%			
Output circuitry		Class D			
Power Supply		100-130V~/220-240V~(±10%, 50/60Hz)			
Power consumption (1/8 output power 4Ω)		375W		750W	
Rack space		2U			
Cooling		Front to back venting, mandatory cooling			
Dimension(W×H×D)		483×88×404mm			
Net Weight		8.5kg		10.0kg	

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D Series Four-Channel Digital Power Amplifier with built-in DSP

D Series is a four-channel digital power amplifier that integrates Class D power amplification technology with high-precision DSP digital signal processing, enhancing audio performance and ease of operation. It comes with IIR filter, FIR filter, and optional Dante network functionality for precise audio tuning and optimization.

Users can configure and control the amplifier rapidly via the display and USB interface on the front panel and the Ethernet. Thanks to its exceptional performance and user-friendly software interface, the D Series amplifier is the perfect choice for professional audio systems.

BrainCore™

BrainCore™ is an innovative core application technology independently developed by Audiocenter, dedicated to delivering audio systems with supreme performance and high reliability.

Utilizing advanced technology and scientific methods, BrainCore™ optimally analyzes and processes signals, power amplifiers, and speakers. This results in excellent frequency response and audio reproduction, even at high SPL levels.



Highlights

◆ Integrated Design and Performance Maximization

The D Series is a four-channel digital DSP power amplifier that combines Class D power amplification technology with high-precision DSP. It greatly satisfies the parameter and performance requirements of audio systems and maximizes the performance of the equipment itself. Additionally, it simplifies the tuning and management processes of audio systems, enhancing the ease of operation and efficiency.

◆ Intelligent Audio System Management

Remote Monitoring and Control

With the D Series amplifier, users can remotely monitor and control the status of audio equipment, adjust settings in real-time, greatly enhancing the convenience and efficiency of monitoring.

Centralized Management and Maintenance

By centrally managing the audio system over the network and carrying out software updates, parameter configurations, and maintenance tasks altogether, the efficiency of operational maintenance can be significantly enhanced.

Simplified Installation and Cost Reduction

Transmitting audio signals via the network reduces reliance on traditional audio wiring, simplifying the installation process and reducing construction costs and complexity.

◆ High-Efficiency Class D Power Amplifier

The D Series utilizes Class D amplification technology, with an efficiency exceeding 90%, which significantly reduces energy loss during power conversion. This not only decreases heat generation but also lowers energy consumption while maintaining excellent sound quality.

The D Series is capable of stable operation in high-temperature environments up to 60°C and as low as -20°C in low-temperature conditions, with very high reliability and durability.

◆ Superior Manufacturing Craftwork

High-efficiency switching power supply technology for optimized energy conversion and efficient use.

Comprehensive protection circuits ensure stable system operation and safety.

Compact size and light weight facilitate installation and deployment.

Modular design for easy maintenance and upgrades

Audinate's Dante audio networking technology is a widely adopted networked audio solution in the world, extensively used in commercial installations, live performances, recording and production.



The D Series digital power amplifiers feature full Dante capabilities, with a channel capacity of up to 512x512, ensuring immediate and seamless compatibility with the complete Dante system.

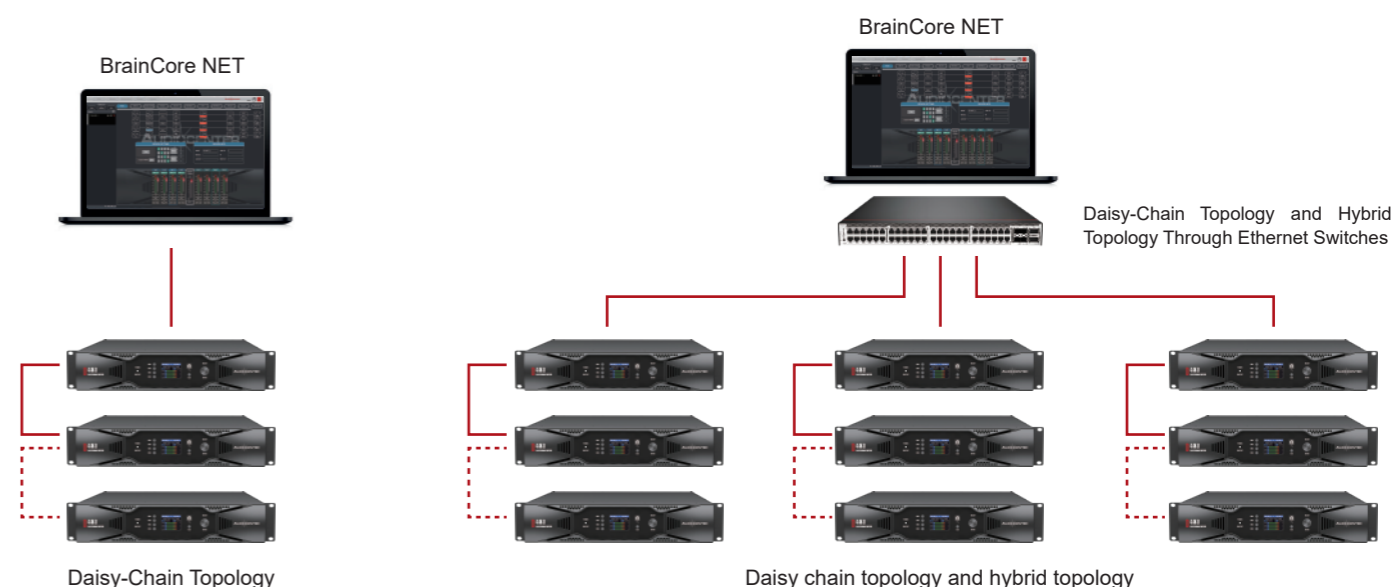
Network Control

BrainCore NET network control system provides powerful real-time control and monitoring capabilities for complex systems, capable of managing up to 250 devices simultaneously.

Regardless of changes in DSP topology or device quantity, BrainCore NET software offers a centralized working platform, greatly simplifying the construction process of DSP design, making it easy to handle even complex DSP projects.

The system supports various network topologies and is easy to configure, allowing system designers to flexibly choose the topology that best suits the needs of each project.

It's particularly worth mentioning that the Dante version of the D Series integrates Dante network audio transmission with software network control connections on a single RJ45 port, achieving an integrated solution that offers users greater convenience and efficiency.



High-Fidelity Sound Quality

Powerful DSP Processing

High-Resolution Conversion

With a 48kHz sampling rate and 24-bit quantization precision, it achieves very low noise and extended dynamic range.

Advanced Digital Processing

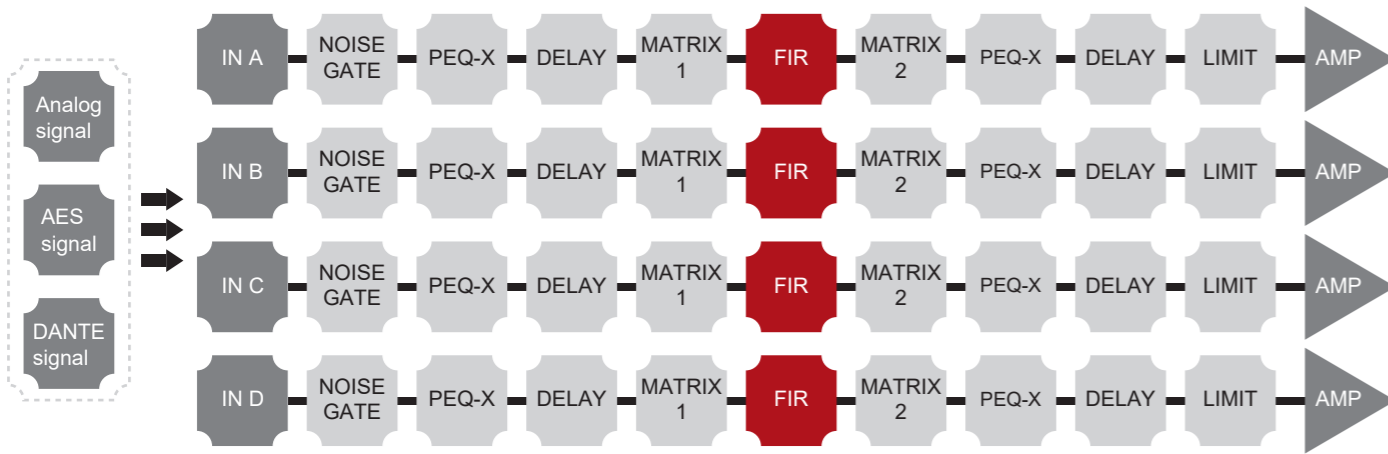
Equipped with the latest 32-bit floating-point digital processors, optimizing analog signal processing.

IIR Filters

Offering a variety of Bessel, Butterworth, Linkwitz-Riley filters, supporting high-pass, low-pass, and parametric equalization, easily achieving -48dB/octave adjustments and phase control.

FIR Filters

Enhancing the impact of audio, ensuring a more dynamic and impactful sound experience. Linear phase response retains the original transient characteristics of the audio signal, resulting in finer and more precise notes.



DSP processors, with their 48kHz sampling rate and 24-bit quantization precision, combined with IIR and FIR filter technologies, accurately generate linear phase curves, significantly improving pulse response quality.

This combination of technologies meets the needs of an ideal crossover, allowing sound engineers to accurately reproduce the perfect sound quality of speakers on-site, providing users with balanced, natural, transparent, and authentic auditory experiences.

Perfect Integration of BrainCore™ Technology

Perfectly integrating BrainCore™ technology, providing precise digital processing through superior Limita™ processing technology, ensuring the system operates safely and reliably.

AES Digital Audio Input

Supporting standard AES/EBU digital audio input, we offer customers a variety of widely recognized digital audio input solutions in the industry for high-quality audio transmission and precise control of audio equipment.

Dante Network Audio Transmission and Control

Integrating Dante network audio transmission and control technology, allowing for long-distance, high-precision audio signal transmission and control over Ethernet, ensuring stable and reliable sound quality.

Supports dual signals and hot backup, with seamless switching

Capable of handling both Dante digital and analog signals, it features automatic hot backup to ensure immediate and seamless switching in case of primary audio source failure, maintaining stable transmission. Users can easily manage backups, ensuring audio reliability.

High-Efficiency Class D Power Amplifier

The D Series utilizes Class D amplification technology, with an efficiency exceeding 90%, which significantly reduces energy loss during power conversion. This not only decreases heat generation but also lowers energy consumption while maintaining excellent sound quality.

Manufactured to German Precision Standards, Durable and Long-lasting

European R&D design, German standard engineering

The power amplifier module and DSP module were designed by Audiocenter's R&D team in Europe and manufactured according to German standard engineering. The system operates stably and efficiently, ensuring high-quality audio output.

High Reliability

Amplifier modules and DSP modules have been sold globally for over 500,000 units and have been proved to be very stable and reliable.

Comprehensive Protection Circuits

The D Series is equipped with comprehensive protection circuits, including limiter protection, soft start protection, DC protection, short circuit protection, and thermal protection, which can better protect the power amplifier, ensuring stable sound quality and speaker longevity.

High Standards

All input and output connectors are professional-grade quality components. High-quality components ensure the amplifier operates stably in harsh environments.



Network Section
DANTE Network Cable Connector
TCP/IP Network Cable Connector

Digital Analog Hybrid Input
AES/EBU Digital Signal Input
Balanced Analog Signal Input

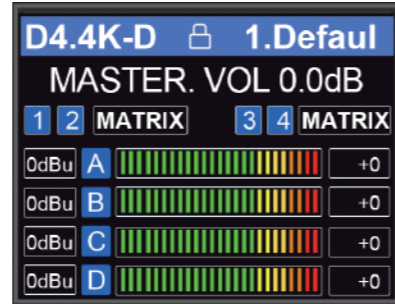
Output
Compatible with two-pin or four-pin Speaker

Power connector

User-Friendly TFT Display

The 2-inch TFT display on the front panel of the D Series provides a user-friendly control interface. It offers quick system settings, network settings, monitoring, and built-in preset memory functions, allowing for switching to different modes anytime, anywhere.

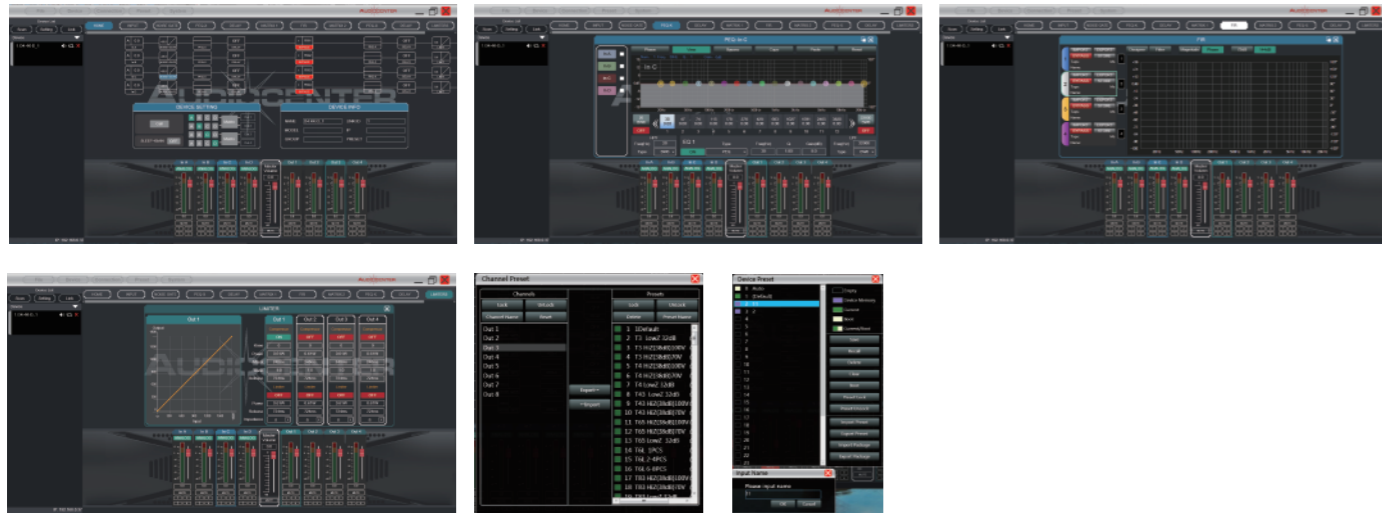
Menu settings include volume, sensitivity, presets, PEQ, delay, signal source, TFT display brightness, auto-lock and IP settings.



Intuitive PC Operation Software

Engineers in AUDIOCENTER, with their in-depth expertise and years of research, have integrated advanced DSP processors into the D Series amplifiers. This DSP digital power amplifier provides exceptional sound quality beyond traditional analog signal processing technology, bringing you an unprecedented audio experience.

The DSP processor is easy to set up, adjust, load, and recall, allowing users to easily load or recall their customized programs or use speaker presets offered by the factory.



Comprehensive EQ and Filter Options

Each channel is equipped with 15-band input EQ and 10-band output EQ, with a variety of EQ filter types to choose from. There are options of Butterworth, Bessel, Linkwitz and 6 ~ 48 dB/Oct for the high and low-pass crossovers.

Professional FIR Filters

The D Series supports the import of third-party software and captures data through SMARRT testing, allowing users to edit personalized settings directly within the software and save them for use.

It supports up to 4×2048 Taps, ensuring the precision of audio processing.

Limiter Management

The superior Limita™ processing technology offers precise digital processing, ensuring that the system can operate safely and reliably.

Preset Management

The D Series amplifier offers two preset management modes: channel preset management and system preset management.

Users can easily call up the corresponding presets with one click to achieve satisfactory audio quality. This simplifies operations and enhances efficiency, allowing field application engineers to complete their tasks easily and efficiently.

D4.2K-D



Output power (1kHz, 20ms burst THD+N = 1%)	4x300W @8Ω Stereo 4x500W @4Ω Stereo 2x1000W @8Ω Bridge
A-Guard Protection System	DC Protection, Short circuit protection, Smart overheat management, Overheat protection, Output overload protection, Soft startup protection, Limiter protection
DSP processing	Sampling rate: 48kHz/24bit
	Input: 1) Input: 4x analogue, 4x AES, 4x Dante 2) Noise Gate, gain, Sensitivity, Phase, Mute 3) Input EQ: 15 band EQ + HPF/LPF (Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct) 4) Input delay: Per channel 90ms
	Working mode: Matrix, Stereo, Parallel, Bridge
	FIR: 4 channel FIR 4x2048 Taps
	Output: 1) Output EQ: 10 band EQ + HPF/LPF (Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct) 2) Output delay: Per channel 20ms 3) compressor and limiter 4) Gain, Phase, Mute
Analogue Input AES Input Dante Input	4x analogue 4x AES 4x Dante
USB control port	USB-B
TCP/IP network control port	RJ45 x2
Input Connectors	Male XLR & Female XLR
Output Connectors	Speakon
Input Impedance	≥20kΩ(Balanced); ≥10kΩ(Unbalanced)
Maximum input voltage	≥18dBu
Sensitivity	0dBu/6dBu/12dBu
Frequency response(1W 8Ω stereo)	20Hz-20kHz(±1dB)
Crosstalk(1kHz, Rated power 8Ω A weighted)	≥60dB
S/N Ratio(Rated power 8Ω, A weighted)	≥100dB
Damping Factor(1kHz & 8Ω)	≥400
Intermodulation Distortion(60Hz:7kHz=4:1, half power)	≤0.1%
THD+N(1kHz, 8Ω half power A weighted)	≤0.1%
Output circuitry	Class D
Power Supply	100-130V~/220-240V~(±10%,50/60Hz)
Power consumption (1/8 output power 4Ω)	375W
Rack space	2U
Cooling	Front to back venting, mandatory cooling
Dimension(W×H×D)	483x88x404mm
Net Weight	8.5kg



D4.4K-D



Output power (1kHz, 20ms burst THD+N = 1%)	4x600W @8Ω Stereo 4x1000W @4Ω Stereo 2x2000W @8Ω Bridge
A-Guard Protection System	DC Protection, Short circuit protection, Smart overheat management, Overheat protection, Output overload protection, Soft startup protection, Limiter protection
DSP processing	Sampling rate: 48kHz/24bit
	Input: 1) Input: 4x analogue, 4x AES, 4x Dante 2) Noise Gate, gain, Sensitivity, Phase, Mute 3) Input EQ: 15 band EQ + HPF/LPF (Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct) 4) Input delay: Per channel 90ms
	Working mode: Matrix, Stereo, Parallel, Bridge
	FIR: 4 channel FIR 4x2048 2048 Taps
	Output: 1) Output EQ: 10 band EQ + HPF/LPF (Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct) 2) Output delay: Per channel 20ms 3) compressor and limiter 4) Gain, Phase, Mute
Analogue Input AES Input Dante Input	4x analogue 4x AES 4x Dante
USB control port	USB-B
TCP/IP network control port	RJ45 x2
Input Connectors	Male XLR & Female XLR
Output Connectors	Speakon
Input Impedance	≥20kΩ(Balanced); ≥10kΩ(Unbalanced)
Maximum input voltage	≥18dBu
Sensitivity	0dBu/6dBu/12dBu
Frequency response(1W 8Ω stereo)	20Hz-20kHz(±1dB)
Crosstalk(1kHz, Rated power 8Ω A weighted)	≥60dB
S/N Ratio(Rated power 8Ω, A weighted)	≥100dB
Damping Factor(1kHz & 8Ω)	≥400
Intermodulation Distortion(60Hz:7kHz=4:1, half power)	≤0.1%
THD+N(1kHz, 8Ω half power A weighted)	≤0.1%
Output circuitry	Class D
Power Supply	100-130V~/220-240V~(±10%,50/60Hz)
Power consumption (1/8 output power 4Ω)	750W
Rack space	2U
Cooling	Front to back venting, mandatory cooling
Dimension(W×H×D)	483x88x404mm
Net Weight	10.0kg

