MDA 4500

Digital Amplifiers

MAIN FEATURES

- 4-channel Lo-Z / 2-channel Hi-Z Class D power amplifier
- Supports low-impedance loudspeaker systems (2.7/4/8 Ohm) and high-impedance distributed lines (70V/100V)
- Total system power: 2000W
- Up to 2 x 500W output at 2.7 or 4 Ohm
- 4 x 250W output at 8 Ohm
- 4 x 500W output with all channels driven
- Bridge (BTL) mode support up to 2 x 1000W
- 2 x 1000W output for 70V or 100V Hi-Z systems
- Class D PWM modulator design with ultra-low distortion
- Frequency response: 20Hz – 20kHz (+0/-0.25dB)
- Signal-to-noise ratio greater than 106dB (A-weighted)
- THD+N lower than 0.05%
- High-voltage output stage: 85Vp / 170Vpp unloaded
- Bridged output capability up to 170Vp / 340Vpp unloaded
- Comprehensive protection circuits including short-circuit, DC, under-voltage, overload, and thermal protection
- Dynamically controlled forced-air cooling system
- Universal switch-mode power supply with integrated Power Factor Correction (PFC)
- Universal mains operation: 100V-240V AC, 50/60Hz
- Power consumption: 700W
- Standby power consumption below 0.5W
- Operating temperature range: 0°C to 40°C

DESCRIPTION

The MDA 4500 is a high-power, multichannel Class D amplifier designed to deliver outstanding performance, efficiency, and reliability in professional installed audio applications. Suitable for both low-impedance (Lo-Z) and high-impedance (Hi-Z) loudspeaker systems, it provides maximum flexibility for medium to large-scale commercial, architectural, and distributed audio installations. The amplifier operates with 4x Lo-Z output channels or 2x Hi-Z output channels, delivering a total system power of 2000W. In Lo-Z mode, the MDA 4500 provides multiple configuration options, including 2x 500W at 2.7 or 4 Ohm, or 2x 250W at 8 Ohm, as well as 4x 500W outputs with support for bridge (BTL) operation up to 2x 1000W. In Hi-Z mode, it delivers 2x 1000W outputs for both 70V and 100V distributed loudspeaker systems, ensuring full compatibility with high-demand installation scenarios. Built around a Class D PWM modulator architecture with ultra-low distortion, the MDA 4500 achieves excellent audio performance with a signal-to-noise ratio greater than 106dB and THD+N below 0.05%.

The amplifier provides a linear frequency response from 20Hz to 20kHz, ensuring precise and transparent sound reproduction across the entire audible spectrum. To ensure maximum reliability in demanding environments, the MDA 4500 incorporates comprehensive protection systems including short-circuit, DC, under-voltage, overload, and thermal protection circuits. Cooling is managed through a dynamically controlled forced ventilation system, optimized for stable thermal performance and long-term durability. The unit is powered by a universal switch-mode power supply with integrated Power Factor Correction (PFC) and standby converter, supporting worldwide mains operation from 100V to 240V AC at 50/60Hz. Power consumption is optimized at 700W during operation, with standby consumption below 0.5W for high energy efficiency. Designed for professional installation flexibility, the MDA 4500 is suitable for integration in a wide range of rack-mounted audio systems and distributed sound environments requiring high power density and reliable multichannel performance.

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TECHNICAL SPECIFICATIONS

Code	46065
Channels	4 x Lo-Z / 2 x Hi-Z
Output Power Lo-Z single channels driven (Ch 1 + Ch3)	2x 500W - 2.7 Ohm 2x 500W - 4 Ohm 2x 250W - 8 Ohm
Output Power Lo-Z all channels driven	4x 500W - 2.7Ohm 4x 500W - 4Ohm (2x1000W BTL mode) 4x 250W - 8Ohm (2x1000W BTL mode)
Output Power Hi-Z all channels driven	2x 1000W - 70V 2x 1000W - 100V
Total system power	2000W
Output voltage	85Vp / 170Vpp (unloaded) Bridged 170Vp / 340Vpp (unloaded)
Amplifier tipology	Class D PWM modulator with ultra-low distortion
S/N ratio	>106dB (A-weighted, 20Hz-20kHz, 8Ohm load)
THD+N (typical)	< 0.05% (20Hz-20kHz, 8Ohm load 3dB below rated power)
Frequency response	20Hz-20kHz +0/-0.25dB (8Ohm load, 3dB below rated power)
Protection circuits	Short circuit protection. DC protection. Under voltage protection. Temperature protection. Overload protection
Cooling	Dynamically controlled force cooling
Power supply	Universal mains switch mode power supply with Power Factor Correction (PFC) and standby converter
Operating voltage	Universal Mains, 100V-240V, 50Hz-60Hz
Power consumption	700W
Standby consumption	<0.5 W
Operating temperature	0-40°
Accessories (optional)	---
Net dimensions (WxHxD)	440 x 88 x 320mm 17.32 x 3.46 x 12.59inch
Net weight	7.9kg 17.41lb

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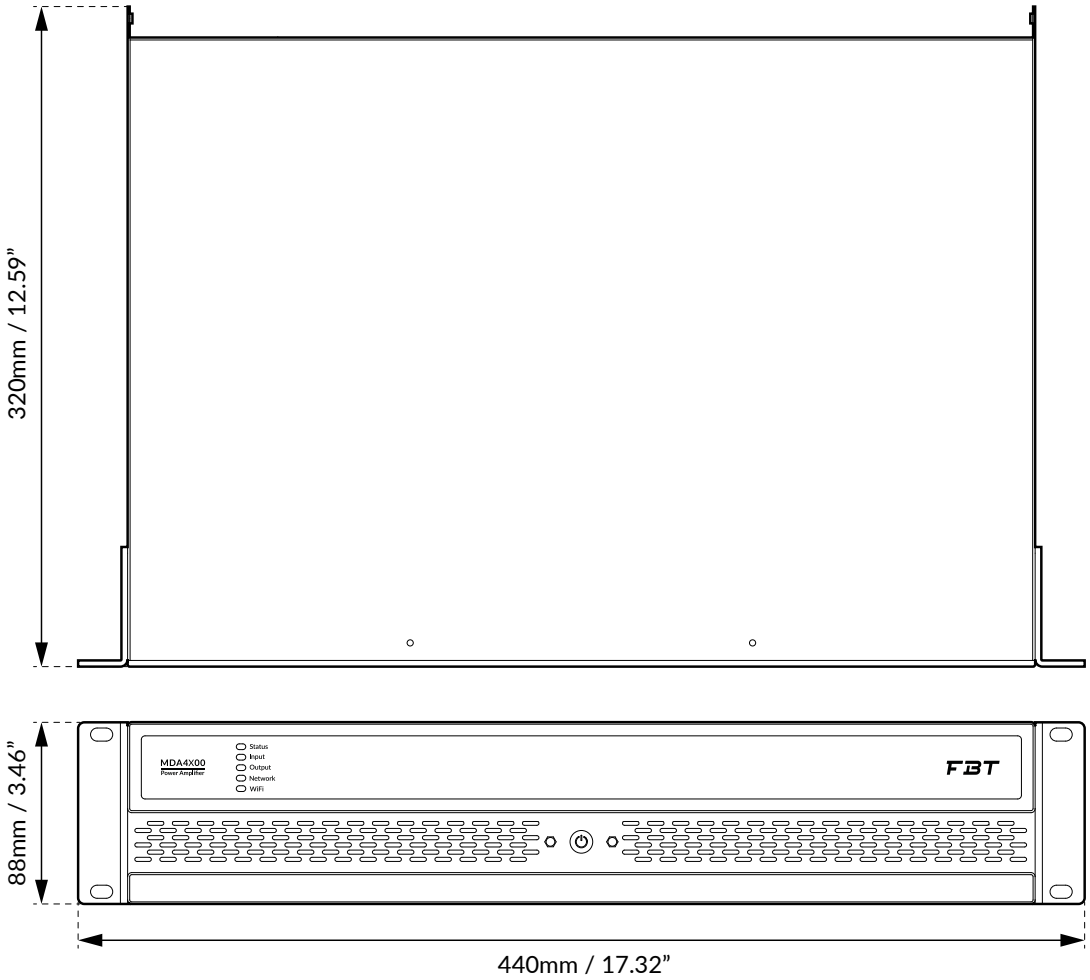
DIMENSIONAL DRAWINGS



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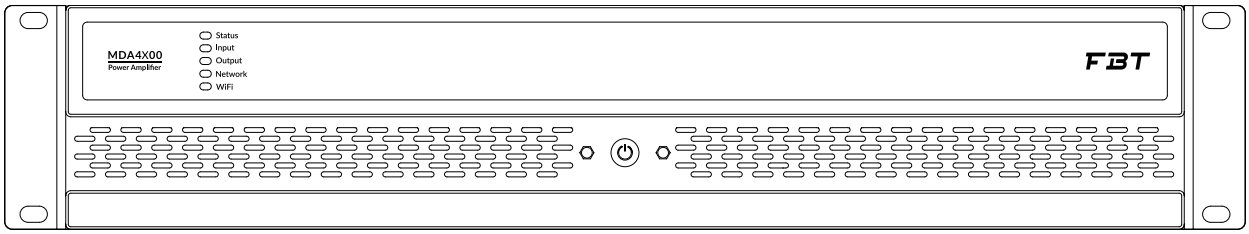
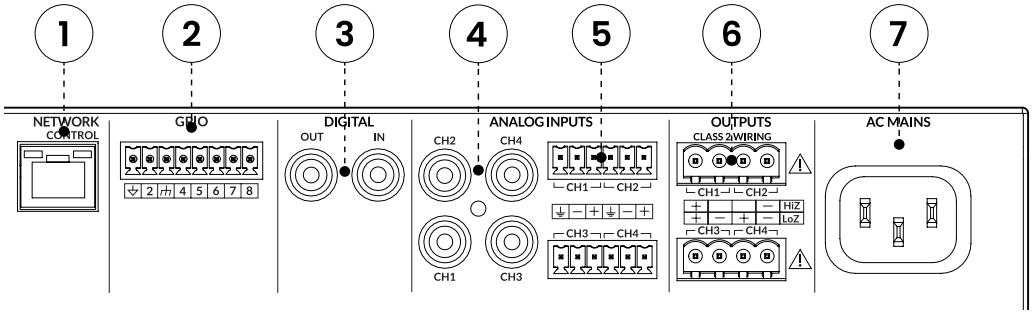
CONTROL PANEL

FRONT PANEL



REAR PANEL



1. Network control port
2. GPIO connector
3. Digital audio I/O connectors (S/PDIF)
4. RCA Phono connectors for unbalanced analog audio inputs connectors
5. Euroblock connectors for balanced analog audio inputs connectors
6. Speakers outputs connectors (HiZ or LoZ)
7. Main power input DC 100-240VAC, 50-60Hz/150W