



TECHNICAL AUDIO DEVICES LABORATORIES, INC.

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TAD



POWER AMPLIFIER
M4300/M2500

TZM002

Breathing new life into music.



With the TAD-M4300 and TAD-M2500 power amplifiers, TAD continues its mission of providing audio quality that sounds truly natural. Using Class D circuitry in a completely balanced structure, TAD amplifiers achieve unprecedented levels of performance. The next generation of power amplifiers has now arrived.



Balance

In order to provide precise speaker drive to the utmost limits, TAD strives for symmetry in both circuitry and structure, with the goal of achieving perfect balance. By completely separating left and right channels from input to output, along with power supplies and transformers that are separated between both left and right channels and positive and negative rails, complete symmetry is maintained. Utilizing a bridged transformer-less design with two amps in a balanced configuration, the TAD-M4300 and TAD-M2500 deliver high output power of 300W/4ch and 500W/2ch respectively.



In order to control vibration that affects the sound, the chassis is machined from a 90kg block of aluminum, effectively eliminating all joints other than connections. This helps stabilize the ground potential, further improving sound purity. It also provides both high stiffness and high internal loss, achieving improved sound quality. A three-point cast-iron insulator dampens any vibration transmitted through from the feet.

Stability

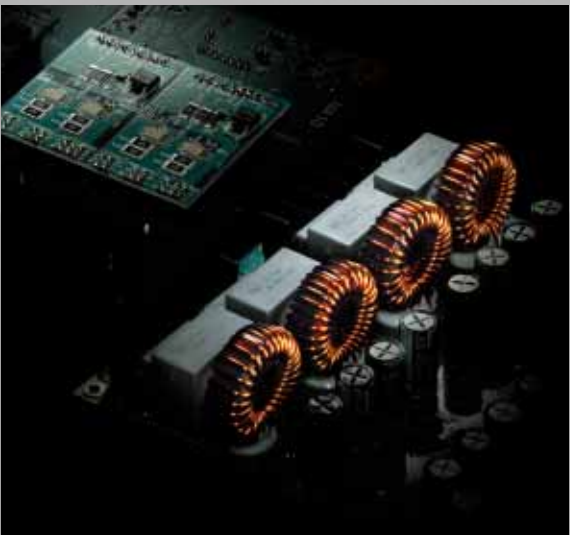


Elegance

The precisely machined chassis is formed from a solid block of aluminum. The twin tones of silver and black for the divided upper and lower halves produces a striking appearance. The elegant clean design, extending to every detail, such as the elimination of visible front panel screws, ensures that either amplifier will harmonize beautifully with any room.

Speed

To provide an overwhelming feeling of speed and energy, the analog power supply is equipped with a high capacity toroidal power transformer and electrolytic capacitors. Combined with a Class D output stage, the result is high purity amplification with superior high speed response. For optimum sound, TAD adopted very low on-resistance power MOSFETs with no lead wires. Maintaining low heat generation thanks to the high efficiency of Class D, the amps achieve high power without heat sinks.



The sound quality of a Class D output stage is greatly influenced by the power source. The M4300 and M2500 are equipped with large toroidal power transformers that utilize high quality grain-oriented steel for superior magnetic saturation characteristics even during high power output. Low energy conversion loss due to the strong coupling between the primary and secondary winding of the toroidal power transformer, low load fluctuation properties based on parallel winding, along with our proprietary 33,000 μ F electrolytic capacitors results in an analog power supply with high drive capacity even under abrupt load fluctuations and high speed responsiveness even under abrupt load fluctuations.

Efficiency



POWER AMPLIFIER
M4300/M2500

TAD-M4300 4-channel Power Amplifier Specifications

[Amplifier] • Power Output: 300 W / 4 Ω , 150 W / 8 Ω (4 channels simultaneously driven, 20 Hz to 20 kHz, T.H.D., 1.0 %) • Rated Distortion: Less than 0.05 % (20 Hz to 20 kHz, 150 W, 4 Ω) • Signal-to-Noise Ratio (IHF, short circuited, A network): 112 dB or higher • Frequency Response: 5 Hz to 50 kHz, -3 dB • Gain (Balance): 29.5 dB • Input Terminal (Sensitivity/Impedance): 1.16 V/220 k Ω (Balance), 0.58 V/47 k Ω (Unbalance) [Power] • Power Requirements: AC 120 V, 60 Hz (USA), AC 220 V to 230 V, 50 Hz /60 Hz (Europe), AC 220 V to 230 V, 50 Hz (Asia) • Power Consumption: 300 W • Standby Power Consumption: Less than 0.5 W • Dimensions: 440 mm (W) x 170 mm (H) x 467 mm (D) (17-5/16 in. (W) x 6-5/8 in. (H) x 18-3/8 in. (D)) • Weight: 43 kg (94.8 lb)



TAD-M2500 2-channel Power Amplifier Specifications

[Amplifier] • Power Output: 500 W / 4 Ω , 250 W / 8 Ω (2 channels simultaneously driven, 20 Hz to 20 kHz, T.H.D., 1.0 %) • Rated Distortion: Less than 0.05 % (20 Hz to 20 kHz, 250 W, 4 Ω) • Signal-to-Noise Ratio (IHF, short circuited, A network): 112 dB or higher • Frequency Response: 5 Hz to 50 kHz, -3 dB • Gain (Balance): 29.5 dB • Input Terminal (Sensitivity/Impedance): 1.5 V/220 k Ω (Balance) 0.75 V/47 k Ω (Unbalance) [Power] • Power Requirements: AC 120 V, 60 Hz (USA), AC 220 V to 230 V, 50 Hz /60 Hz (Europe), AC 220 V to 230 V, 50 Hz (Asia) • Power Consumption: 250 W • Standby Power Consumption: Less than 0.5 W • Dimensions: 440 mm (W) x 170 mm (H) x 467 mm (D) (17-5/16 in. (W) x 6-5/8 in. (H) x 18-3/8 in. (D)) • Weight: 43 kg (94.8 lb)

