

TAD

Reference Series

TAD

TECHNICAL AUDIO DEVICES LABORATORIES, INC.

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PREAMPLIFIER

C600

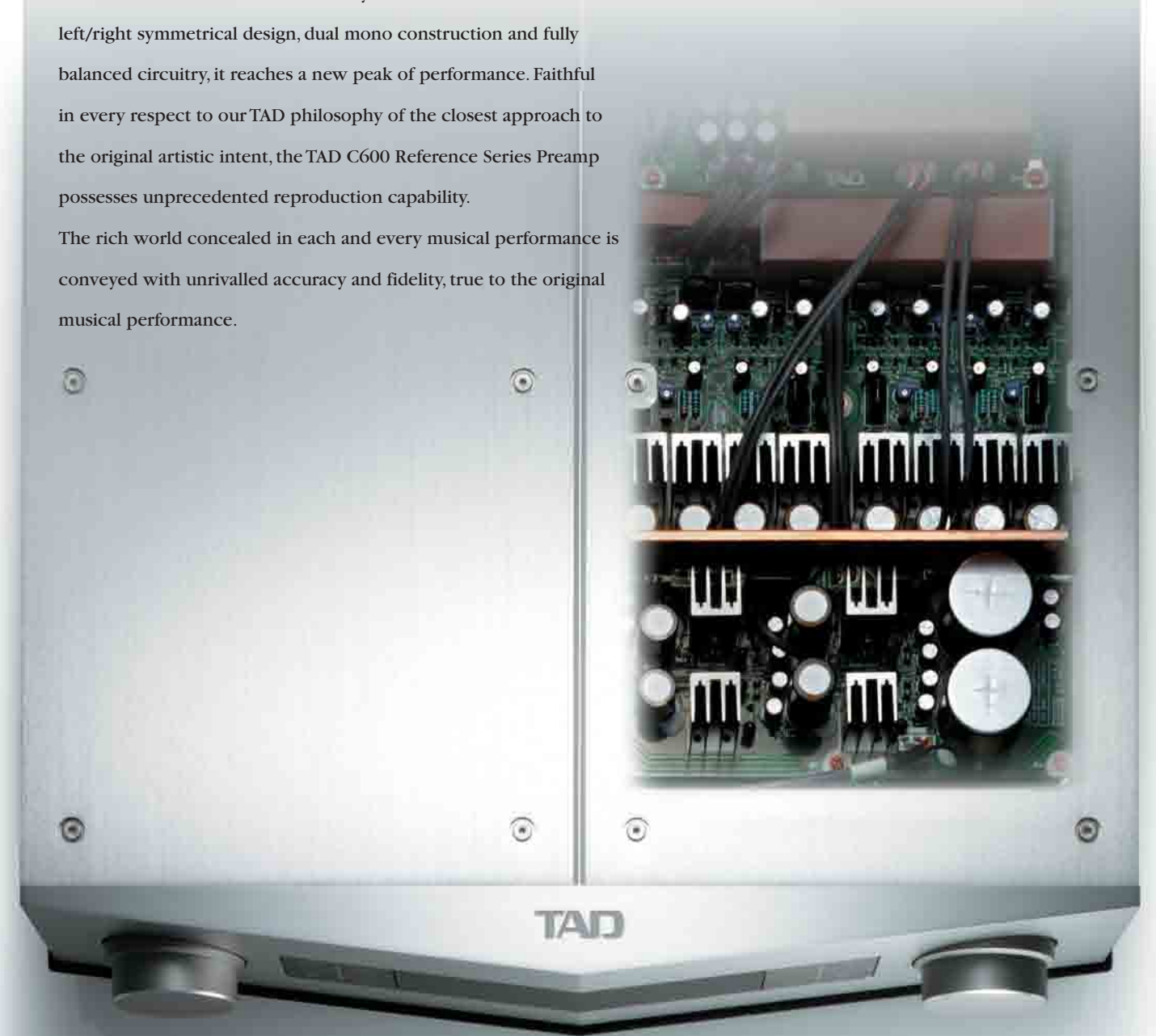


Unparalleled transparency and musical fidelity.



PREAMPLIFIER
C600

The C600's quality results from a fundamental reassessment of all aspects of electrical and mechanical design. It creates reference quality that etches a new name in the history of TAD. From the meticulous left/right symmetrical design, dual mono construction and fully balanced circuitry, it reaches a new peak of performance. Faithful in every respect to our TAD philosophy of the closest approach to the original artistic intent, the TAD C600 Reference Series Preamp possesses unprecedented reproduction capability. The rich world concealed in each and every musical performance is conveyed with unrivalled accuracy and fidelity, true to the original musical performance.



Fully Balanced Circuitry & Dual Mono Construction

Fully balanced and symmetrical design allows signal transmission with incomparable accuracy and near perfect stereo reproduction.

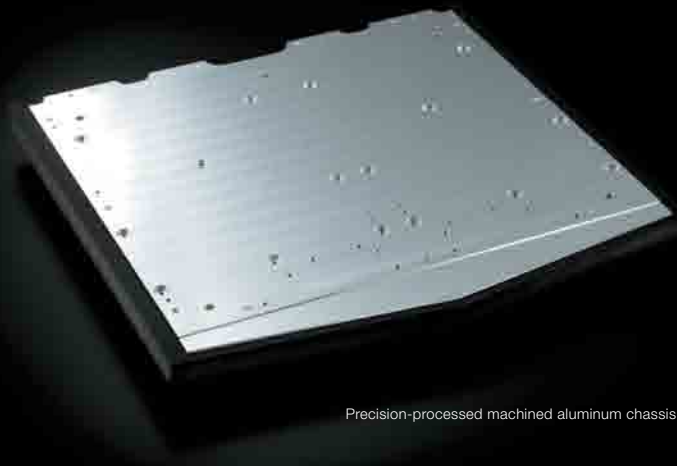
In order to achieve such accuracy from input to output, (the ideal preamplifier design), we took extreme measures to achieve thorough uniformity of circuitry symmetry, matched left and right channels layout and isolation. Adopting fully balanced circuitry enabled the dynamic properties of the circuits to be completely identical for both positive and negative going signals. Furthermore this approach provides immunity to the effects of external noise and ground potential fluctuations. To maintain left-right channel uniformity, vital for optimum stereo imaging and sound-field immersion, dual mono construction is employed. Identical in every way, from wire lengths and dressing, to circuit boards laid out identically for the left and right channels, complete left/ right uniformity from input to output is achieved.

By comprehensively refining technology to the highest precision, signal purity is maintained to produce sound that meets TAD's ultimate standards.

Vibration Absorption Technology

A machined aluminum sub-chassis and three-point support insulators block external vibration and noise and ensure mechanical stability.

33mm thick and weighing 15kg, the sub-chassis is fabricated by precision processing of pure aluminum ingots, achieving a high level of vibration control that drastically minimizes the impact of vibration from speakers or other sources, as well providing a stable mechanical ground. All the additional chassis parts are machined to the same high accuracy as the sub-chassis, serving to reduce the impact of vibration and external noise and contributing to the reproduction of music with ultra high purity and faithfulness to the input signal. The spike-shaped three-point support feet ensure mechanical stability on any support surface. These comprehensive measures combine to free the C600 from undue external influences and allow it to achieve its full potential.



Precision-processed machined aluminum chassis



Large capacity power supply



100000µf electrolytic capacitor

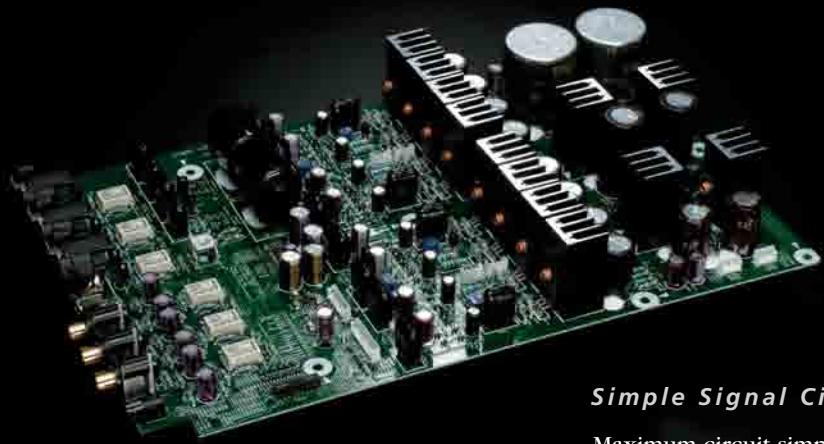
Low-Noise Technology

A dual enclosure design that separates the pre-amp and power supply units is just one of many features that reduces noise to ensure utmost signal clarity.

In order to eliminate any influence from the power supply to the amplification circuit and signal routing, the C600 uses a dual enclosure configuration that separates the amplifier from the power supply. This minimizes the effects of noise caused by vibration or magnetic flux leakage from the power supply transformer. A power amplifier- grade 400VA rated toroidal transformer provides a degree of precision that allows accurate signal transmission even during large signal levels and fast signal fluctuations. Together with a fully balanced circuit design that eliminates unnecessary noise currents, the result is the ultimate in low noise performance.

The control functions and display utilize direct-current based operation. The control wiring is housed inside a central shield to prevent undue interference.

The controls, LED display and illumination operate via a circuit method based on direct current, minimizing their impact on sound quality. The control circuit wiring and power supply are housed inside a shield that centrally divides the enclosure. This prevents interference with the circuit boards and further improves left/right signal separation.



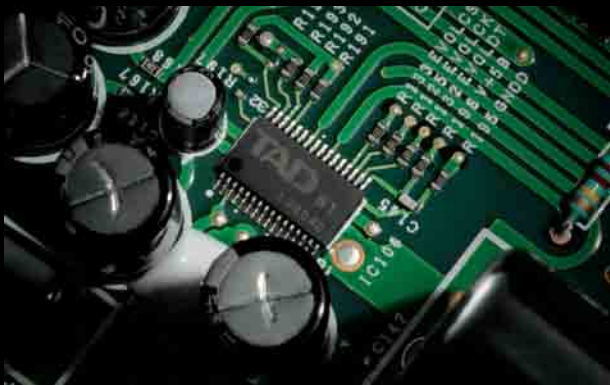
Fully balanced output circuit

High Quality Precision Parts

High quality and high precision dedicated parts, such as high sound quality custom electronic volume control and super-precise ball bearings are carefully selected.

TAD's new ladder-resistance switching electronic volume control circuit achieves an absolute channel level difference of 0.1dB or less even at attenuations of more than 100dB. The distortion produced by the circuit is only 0.0005% (@1Vrms input). The impedance seen at the input and output terminals is independent of volume setting, minimizing interaction with the signal circuitry and maximizing fidelity of the sound. The use of fully independent left and right electronic volume control circuits ensures accurate auditory lateralization and sound field reconstruction.

The input selector switch and volume control shaft bearing incorporates a precision ball bearing with a diameter of 41mm. These features provide the highly precise operating feel that you expect from TAD.



Ladder-resistance switching type electronic volume control circuit

Simple Signal Circuit

Maximum circuit simplification from input to output removes all causes of sound quality deterioration from the transmission route.

Based on the TAD concept that "a signal route exemplified by the absolute minimum of functions results in the most accurate and high quality sound," the C600 has an extremely simple circuit configuration. Following input signal volume adjustment by the electronic volume control, the circuit configuration utilizes only one voltage amplification stage. Equipping each of the two line outputs with their own dedicated amplifier circuits eliminates the output circuit signal branching as well as interference from connected equipment that can cause sound quality deterioration. In order to transmit music signals as simply and accurately as possible, the monitor switch has been eliminated due to its potential effect on sound quality. Furthermore, the audio pass-through function sets the gain to unity, without introducing additional switching circuitry, to maintain maximum signal purity.

Advanced Operating Technology

Extreme Link function permits synchronous control of multiple C600s.

TAD's Extreme Link function is capable of synchronizing multiple C600s together in a master/slave configuration to allow for further system configurations of up to 6 channels. This lets you assemble high-end multi-channel audio or home theater systems.

Allows sensitivity adjustment matched to each source.

The C600 allows input sensitivity to be set independently for each input terminal, so the general sound level does not vary when you switch between different sources.

TAD-C600 Specifications

■ Major Functions • Mute • Display Off • Mode setting: fine volume adjustment, volume display mode switching, L/R balance adjustment, input level setting, auto power down setting

■ Input terminals: balanced input × 3, unbalanced input × 3 ■ Output terminals: line: balanced output × 2, unbalanced output × 2; recording: balanced output × 1, unbalanced output × 1 ■ Rated output voltage: balanced output 1.5 V, unbalanced output 0.75 V ■ Maximum output voltage: balanced output 20 Vrms, unbalanced output 10 Vrms ■ Rated distortion: 0.0015% (balanced output, 1.6V, 1kHz) ■ SN ratio: 120 dB (IHF-A, short circuit) ■ Frequency response: 10 Hz ~ 100 kHz, (-1 dB) ■ Gain: 12 dB ■ Max. allowable input voltage (Vol. -40 dB): 20 V (balanced), 10 V (unbalanced) ■ Power supply voltage: AC 120 V, 60 Hz (USA), AC 220 V to 240 V, 50 Hz /60 Hz (Europe, Asia) ■ Power consumption: 52 W ■ Standby time power consumption: 0.5 W or less ■ Exterior dimensions: main amplifier: 450 mm (W) × 150 mm (H) × 440 mm (D), Power supply: 220 mm (W) × 185 mm (H) × 430 mm (D) ■ Weight: main amplifier: 29 kg; power supply unit: 15 kg



Remote control



Power supply rear panel



Main unit rear panel