TECHNICAL AUDIO DEVICES LABORATORIES, INC.

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For Immediate Release

TAD Labs to Refine the TAD Reference Series Speaker Systems with Launch of TAD-R1MK2 and TAD-CR1MK2

Improved midrange and bass reproduction enabled by newly developed diaphragm

＜TAD-R1MK2＞

＜TAD-CR1MK2＞

Type of product	Product name	Suggested retail price (incl. tax)
Speaker system	TAD Reference one TAD-R1MK2	SGD 99,999 (per piece)
Speaker system	TAD Compact Reference TAD-CR1MK2	SGD 59,999 (per piece)

Concept

Technical Audio Devices Laboratories, Inc. (TADL) has introduced its Reference Series high-end audio products to the market, units that demonstrate its uncompromising approach to product development and pursuit of optimal sound quality, and its Evolution Series products compatible with digital technologies. The Reference Series speaker systems have received particularly high acclaim worldwide since their release.

TADL is now refining the Reference Series with the release of the TAD-R1MK2 and AD-CR1MK2. These new speaker systems feature improved midrange and bass reproduction enabled by a newly developed diaphragm for the woofers.

The superior quality of these products is made possible through the use of domestically produced

materials for the key components, such as the woofer diaphragms, made in Japan by TADL for the first time in the category of TAD consumer speaker, and the beryllium diaphragms for the CST (Coherent Source Transducer), processed with a unique vapor deposition technique. Assembly of the speaker systems is also completed at the company's plant in Japan, which further contributes to their superior quality.

Key features

1) Use of newly developed TLCC (Tri-Laminate Composite Cone) diaphragm for the woofers

A newly developed TLCC diaphragm has been applied for these new speaker systems to improve bass reproduction, increasing its level of impact, and ensure a more faithful midrange. The structure of the diaphragm features a core of foam acrylimide sandwiched between lightweight, high-rigidity aramid fiber such as that used in state-of-the-art aircraft. Diaphragm materials are individually molded and a new lamination method has been applied to utilize the anisotropy of woven cloth. This increases the diaphragm's strength and reduces the resonance caused by the axisymmetric mode. The woofer is also tuned to maximize the natural sound delivered by the CST Driver composed of beryllium diaphragms.

2) Superior quality achieved by use of domestically produced materials and assembly at company's own plant in Japan

Domestically produced materials are used for key components of the speakers' systems, including the newly developed woofer diaphragm and beryllium diaphragms of the CST Driver. The entire speaker system assembly process, from building the speaker units to their installation in cabinets, is completed at the company's own plant in Japan, resulting in superior quality.

3) Use of CST Driver enables achievement of point sound source, a goal of TADL

The new speaker systems feature CST Driver technology applied for the coaxial speakers. This enables wide-range reproduction while controlling the phase and directional characteristics of the driver unit. The midrange cone is designed to control the directivity of the coaxially configured tweeter, which unifies the acoustic center of the tweeter and midrange and reconciles the phase and directional characteristics through the crossover range. This enables both ultra-wide-range reproduction of 250 Hz to 100 kHz and a directivity pattern in which the sound is attenuated evenly over the entire frequency range. The result is outstandingly clear and stable imaging, wide frequency response, and an incredibly rich and natural sound field.

4) Use of a beryllium diaphragm, processed with a unique vapor deposition technique, for the tweeter dome and midrange cone

The tweeter dome and midrange cone use a beryllium diaphragm, which is produced by using a vapor deposition technique developed by TADL. The technique enables superior strength and uniform quality of the material and attenuation property for high-frequency resonance. The midrange uses a 16 cm cone, which is among the largest direct radiation, vapor deposition beryllium diaphragms in existence. The resulting sound is astonishingly transparent across a wide frequency range. The tweeter diaphragm shape was designed by using HSDOM (Harmonized Synthetic Diaphragm Optimum

Method), TADL's proprietary optimization method based on computer analysis. This accurately controls differential vibration produced by the diaphragm and moves it out of the audible band, providing response to as high as 100 kHz.

5) Use of OFGMS (Optimized Field Geometry Magnet Structure) circuit for the woofers

To ensure accurate reproduction of signal waveforms, the OFGMS magnetic circuit, a unique circuit developed by TADL, is applied for the woofers. This equalizes the flux path distribution and linearizes the magnetic flux density along the gap despite the short voice coil and long gap of 37 mm (TAD-R1MK2) and 20 mm (TAD-CR1MK2). Stable operation is ensured even during continuous high-amplitude input, enabling high linearity of the drive characteristics. In addition, the suspension system employs TADL's traditional corrugated edge, further contributing to the high linearity.

6) SILENT (Structurally Inert Laminated Enclosure Technology) enclosure with high vibration-control performance accompanied by outstanding strength

Laminated structural materials combining different materials are used for the enclosure. Transverse bulkheads are used to form the internal framework, which is surrounded by sturdy panels. This increases the static and dynamic strength and maximizes the vibration-control performance, which is enabled by combining the benefits of the frame construction and monocoque construction. The rigid internal framework of the enclosure is formed by 21 mm-thick birch plywood and covered with a hybrid of materials that combine side panels made by high-frequency, hot-press forming glued to CNC-machined plywood panels. The flowing teardrop shape minimizes sound diffraction, ensures a superior sound field and high level of strength, and helps eliminate unwanted resonance and internal standing waves of the enclosure.

7) Aerodynamic port system that inherits TAD horn fluid design technology

Use of the aerodynamically optimized, flare-shaped port system reduces wind noise and allows the bass driver unit to be driven with no stress even with large input and at the limit of its excursion range, resulting in clear bass with a superior signal-to-noise (S/N) ratio.

8) ISO (Isolation) drive technology (for accurate, precise reproduction of sound) used for CST Driver

The CST Driver's potential is maximized by use of TADL's exclusive ISO drive technology, which blocks transmission of mechanical vibrations. This prevents excitation of the enclosure caused by the CST Driver and reduces the radiation of secondary sound from the enclosure. ISO technology ensures that only sound radiated from the CST Driver is transmitted, allowing the speaker to precisely deliver details.

9) Use of natural Pommele Sapele wood veneer and transparent polyester finish

Natural Pommele Sapele wood is used for the enclosure of these new speaker systems. This comes in a piano-like finish, manually polished and carefully finished one-by-one by skilled craftsmen.

Specifications

TAD-R1MK2

Model	Bass-reflex floor-standing speaker
Type	3-way
Woofer	25 cm cone x 2
Midrange, tweeter	Coaxial 16 cm cone, 3.5 cm dome
Frequency response	21 Hz - 100 kHz
Crossover frequencies	250 Hz, 2.0 kHz
Sensitivity	90 dB (2.83 V/1m)
Maximum input	300 W
Rated impedance	4 Ω
Dimensions	1,293 mm (H) × 554 mm (W) × 698 mm (D)
Weight	150 kg
Accessory kit	Round spikes x 3 Cone spikes × 3 Shorting links × 2 Hexagonal wrench (to be used for unpacking) Cleaning cloth Woofer grilles × 2

TAD-CR1MK2

Model	Bass-reflex bookshelf speaker
Type	3-way
Woofer	20 cm cone
Midrange, tweeter	Coaxial 16 cm cone, 3.5 cm dome
Frequency response	32 Hz - 100 kHz
Crossover frequencies	250 Hz, 2.0 kHz
Sensitivity	86 dB (2.83 V/1 m)
Maximum input	200 W
Rated impedance	4 Ω
Dimensions	628 mm (H) × 341 mm (W) × 444 mm (D)
Weight	46 kg
Accessory kit	Round spikes x 3 Cone spikes × 3 Shorting links × 2 Spike holders x 3 Cork sheets x 3 Cleaning cloth Woofer grilles × 2

About Pioneer Electronics AsiaCentre (PAC) Pte. Ltd.

The regional headquarters of Pioneer Corporation since 1992, PAC's core business covers the audio and video industries with a diversified range of products encompassing DVD-related products, home stereo systems, speakers, car audio visual and DJ equipment. In line with the corporate vision to become a company that works together in 'pursuing innovations one after another', PAC aims to continuously introduce innovative products that will raise entertainment to the level of pure emotion. For more information, please visit www.pioneer.com.sg.

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