



**KRELL**  
THE LEADER IN AUDIO ENGINEERING

# LAT-1

Lossless Acoustic Transducer

The Krell Lossless Acoustic Transducer (LAT) Series are the first loudspeakers engineered to Krell's exacting standards. They are exceptional in their ability to provide accurate, high-powered reproduction without the distortions and information loss that occur in conventional loudspeaker designs.

There is nothing "mystical" about the design of the Krell Lossless Acoustic Transducer. The goal was to design a mathematically correct loudspeaker that neither took anything away from nor added anything superfluous to the audio signal. Achieving that goal, nevertheless, took Krell down an engineering path never before traveled in the industry.

The sound is pure Krell—as explosive, delicate, and immediate as music itself. And it's exactly what you'd expect of Krell's first loudspeaker system.



The Krell LAT Series features massive aluminum construction. (The LAT-1 weighs approximately 250 lb.) The enclosures range from 0.75 to 1.5 inches in wall thickness. Internal midrange/tweeter sub-enclosures, where present, are also constructed of aluminum at least 1/4-inch thick. The cross-sectional shape of the enclosure is determined by a custom aluminum extrusion, the curvature of which is designed to absolutely minimize the effects of internal standing waves and external high-frequency diffraction.

Such extensive use of aluminum may seem extravagant, but the sonic benefits are undeniable. Other than concrete and lead, which are not practical choices, aluminum possesses the ideal combination of structural rigidity and resonance damping characteristics. Within the audio pass-band, Krell LAT cabinets are sonically inert—something that cannot be said about any wood or wood derivative.

*Shown without grille.  
Available in black or silver.*

The development of the Krell Lossless Acoustic Transducer LAT-1 was, at once, necessitated and made possible by the Krell CAST™—Current Audio Signal Transmission—technology. The LAT-1 is uniquely capable of reproducing the pure, exceptionally high resolution, wide-bandwidth signal delivered by Krell CAST components.



Separate crossover network assemblies are used for each driver complement (low, mid, and high). All circuitry is on 1/8-inch thick glass epoxy circuit boards with 4 oz. copper traces, ensuring low microphonics, low resistance, low inductance, and high current handling.

1st-order network at 300 Hz preserves transient response; 3rd-order Butterworth network at 2.9 kHz optimizes power response.

Network inductors are all air-core pure copper designs, the largest of which is formed of 10-gauge wire, measuring 5 inches in diameter. Individually potted polypropylene WIMA capacitors are used in parallel to minimize inductance and resistance, and improve current handling.

System impedance curve is extremely smooth, and sensitivity is a high 91 dB SPL at 1 meter with 1 W input.

Custom gold-plated brass binding post terminals assure optimum signal transfer.



1-inch (25 mm) tweeter delivers flat response to 50 kHz. Central waveguide optimizes dispersion characteristics.

5 3/4-inch (15 cm) midrange features an advanced multifaceted cone that eliminates colorations induced by resonance modes. A proprietary suspension and extended voice coil assure extremely linear performance.

D'Appolito midrange/tweeter configuration places the acoustic center at ear level and ensures pinpoint-accurate stereo imaging.

Custom-designed 8-inch (21 cm) woofer has extremely low free air resonance, a composite carbon fiber cone, and a butyl surround. The long-excursion design (1-inch peak to peak) is optimized for vented cabinet performance.

Both the midrange and woofer employ cast magnesium-aluminum frames and are video shielded.



# LAT-2

Lossless Acoustic Transducer



The 7-inch (18 cm) mid-bass drive unit features the same multifaceted cone construction and proprietary suspension design as the midrange units in the LAT-1. This advanced driver design simultaneously ensures extraordinary bass reproduction and midrange accuracy.

The tweeter is identical to the unit used in the LAT-1.



The LAT-2 is a 2-way system based on the same design principles that distinguish the Krell Lossless Acoustic Transducer concept. Sophisticated engineering and uncompromised construction result in dynamic, transparent, uncannily accurate sound reproduction rarely achieved in any speaker, regardless of size or the number of drivers.

The LAT-2's vented cabinet features two rear bass ports, precisely dimensioned and positioned with respect to the woofer to eliminate turbulence while providing the correct acoustic loading.

2nd-order Bessel crossover preserves phase coherence and optimizes power response. The optional stands are constructed from a carbon fiber composite and are acoustically and aesthetically matched to the LAT-2.

*Shown without grille and with optional stands.  
Available in black or silver.*

# LAT-C

Lossless Acoustic Transducer

A 3-way center-channel loudspeaker, the LAT-C features two 8-inch woofers, two 5.75-inch midranges, and one 1-inch tweeter. Voiced to be a perfect match for the LAT-1, the LAT-C features driver configuration and crossover design that are optimized to deliver the best acoustic performance from horizontal placement.



The all-aluminum cabinet is a sealed enclosure design. Therefore, the woofers—which are otherwise identical to those used in the LAT-1—are optimized for sealed box performance. All drive units are video shielded.

A solid aluminum multi-position floor stand is included.

*Shown without grille.  
Available in black or silver.*

A perfect Krell music system: the KAV-280cd Compact Disc Player, KAV-300iL Integrated Amplifier, and LAT-2 Lossless Acoustic Transducers—a treat for the eyes and a feast for the ears.



# MRS

Master Reference Subwoofer

What happens when Krell unleashes the full force of its world-renowned audio engineering capabilities and its no-compromise approach to product design to the development of a reference subwoofer for music and cinema?

What happens is the Krell MRS—Master Reference Subwoofer.



Equipped with specially designed dual 15-inch woofers—each capable of an astounding 3-inch cone excursion—and an advanced, application-specific 2600 W Krell amplifier, the Master Reference Subwoofer can produce hurricane-like air movement and extraordinary acoustic output.

It is capable of a staggering 120 dB sound pressure level output at 20 Hz. Link up to four Master Reference Subwoofers together for low-frequency performance that is beyond all understanding.



A fully programmable digitally-controlled active crossover ensures seamless integration between the Master Reference Subwoofer and the main loudspeakers. Powerful Krell software controls the simultaneous connection of conventional and LFE inputs for maximum subwoofer performance in music and home theater systems. Up to five user-definable settings for filter parameters—such as slope, type, and frequency—can be retained in memory.

An advanced comparator circuit for input-synchronous driver control eliminates the performance limitations of conventional negative feedback servo systems.

Supporting such prodigious bass output is a massive chassis constructed of 1-inch-thick aluminum with 2-inch-thick speaker baffles. Weighing 400 pounds, this ultra-rigid cabinet ensures the purest low-frequency reproduction, totally free of typical coloration problems caused by resonance and vibration.

The chassis features a high-precision diamond-cut finish, which preserves the natural beauty of the aluminum while providing a distinctive appearance that blends elegantly with interior decor.



In addition to conventional balanced and single-ended connections, the Master Reference Subwoofer is equipped with the Krell CAST™—Current Audio Signal Transmission—interface, which delivers the most accurate analog signal transfer between components.

# Specifications

## The LAT Series and MRS: Redefining the Science of Loudspeaker Design

### LAT-1

Type:	3-way floorstanding loudspeaker
Enclosure Type:	Bass reflex
Drivers:	Three custom-built 8" woofers with carbon-fiber/paper composite cones Two high-excursion 5.75" midrange units with multifaceted cone/dustcap assemblies One 1" dual-concentric-ring tweeter with integral waveguide
Recommended Amplifier Power:	200 W or greater
Peak Output:	120 dB SPL
Technical Features:	Solid aluminum enclosure varying in thickness from .75"–1.5" with non-parallel sides and rigid aluminum internal sub-enclosure for midrange-tweeter module
Frequency Response:	35–25,000 Hz $\pm$ 3 dB
Sensitivity:	91 dB SPL with 2.83 V input at 1 M
Nominal Impedance:	4 ohms
Finish:	Available in either black or silver
Dimensions (WxHxD):	14.7 x 54.6 x 14.7 in. 37.3 x 138.7 x 37.3 cm
Weight:	250 lb. • 113.6 kg

### LAT-2

Type:	2-way bookshelf loudspeaker with optional stand
Enclosure Type:	Bass reflex
Drivers:	One high-excursion 7" woofer with multifaceted cone/dustcap assembly One 1" dual-concentric-ring tweeter with integral waveguide
Recommended Amplifier Power:	100–350 W
Peak Output:	110 dB SPL
Technical Features:	Solid aluminum enclosure varying in thickness from .75"–1.0" with non-parallel sides
Frequency Response:	45–25,000 Hz $\pm$ 3 dB
Sensitivity:	87 dB SPL with 2.83 V input at 1 M
Nominal Impedance:	6 ohms
Finish:	Available in either black or silver
Dimensions (WxHxD):	10.4 x 14.0 x 14.0 in. 26.4 x 35.6 x 35.6 cm
Weight:	75 lb. • 34.1 kg
Optional Stand – Height:	34 in. • 86.4 cm

### LAT-C

Type:	3-way center channel loudspeaker
Enclosure Type:	Acoustic suspension
Drivers:	Two custom-built 8" woofers with carbon-fiber/paper composite cones Two high-excursion 5.75" midrange units with multifaceted cone/dustcap assemblies One 1" dual-concentric-ring tweeter with integral waveguide
Recommended Amplifier Power:	100 W or greater
Peak Output:	117 dB SPL
Technical Features:	Solid aluminum enclosure varying in thickness from .75"–1.5" with non-parallel sides; rigid aluminum internal sub-enclosure for midrange-tweeter module; integral adjustable speaker stand
Frequency Response:	50–25,000 Hz $\pm$ 3 dB
Sensitivity:	89 dB SPL with 2.83 V input at 1 M
Nominal Impedance:	4 ohms
Finish:	Available in either black or silver
Dimensions (WxHxD):*	40.9 x 16.0 x 17.0 in. • 104.0 x 40.6 x 43.2 cm
Weight:	200 lb. • 91.0 kg

### Master Reference Subwoofer

Type:	Powered subwoofer
Enclosure Type:	Acoustic suspension
Drivers:	Two custom-built 15" woofers with 3" peak-to-peak excursion
Power Amplifier:	Purpose-built Krell 2600 W amplifier
Peak Output:	Greater than 120 dB SPL
Technical Features:	1"-thick solid aluminum enclosure for entire chassis with 2"-thick baffles
Digital Crossover Controls:	Independently selectable parameters for low-pass and high-pass Bessel, Butterworth, or Linkwitz-Riley Adjustable in 6 dB increments from 6 to 24 dB/octave Adjustable in 6 dB increments from 6 to 48 dB/octave Adjustable in 10 Hz increments from 30 to 100 Hz Adjustable in 1 dB increments $\pm$ 6 dB
Profile Type:	High-Pass
Slope:	Low-Pass
Frequency:	
Level:	
Inputs:	One set each—balanced, single-ended, CAST™ and LFE
Outputs:	One set each—balanced, single-ended, CAST high-pass, and bypass
User Features:	Fully user-configurable crossover adjustments for slope, frequency, level, and filter type assignable to five memory presets
Remote Control:	1 handheld wireless unit, Krell Link in/out, 12 VDC (12 V trigger) in/out, 12 VDC LFE in, RC-5 in, bidirectional RS-232
Frequency Response:	20–100 Hz $\pm$ 0.6 dB; -3 dB at 14 Hz
Finish:	Black; silver available by special order
Dimensions (WxHxD):	18.8 x 20.1 x 28.5 in. • 47.8 x 51.1 x 72.4 cm
Weight:	400 lb. • 181.8 kg

All operational features, functions, specifications, and policies are subject to change without notification.  
\*LAT-C dimensions include stand.



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