BLADE
Flagship Floorstanding Loudspeakers

Now with Metamaterial Absorption Technology

Obsessed with sound quality and committed to bringing a superior listening experience, KEF has been pioneering innovative acoustic engineering since 1961. In 2009 we gave our engineers free rein to create a speaker to showcase KEF's technology leadership and powers of innovation with no preconceptions and restrictions, they came up with the revolutionary Concept Blade – the world's first Single Apparent Source loudspeaker. The concept was further refined and developed for production in 2011, when Blade became HiFi loudspeakers that serious audiophiles could actually own.

Blade is an attitude. It's about exploring the art of the possible and pushing boundaries of HiFi sound without preconceptions which is why the latest version of Blade benefits from our latest acoustic innovations: Metamaterial Absorption Technology[1] (MAT™), a bespoke 12th generation Uni-Q driver array and a host of other improvements.

The Blade series consists of two models: Blade One Meta and Blade Two Meta. Both sharing the same DNA, the same technology and the same striking aesthetic, Blade Two Meta is on a slightly smaller scale.

Single Apparent Source Technology

At the heart of Blade lies the Single Apparent Source technology. Single Apparent Source is an extension to the iconic Uni-Q driver array, the building block of the KEF signature sound. The technology aims to achieve the acoustic ideal of a point source, where low, mid and high frequencies radiate from one point.

Perfectly calibrated drivers that cover the speaker's entire bandwidth are configured so all frequencies appear to radiate from one single point. With Blade, four low-frequency drivers in symmetrically opposing pairs are tightly packed around a two-way Uni-Q driver where the mid-frequency and high-frequency share the same acoustic centre.

The result is noticeably more precise imaging and highly accurate sound across a wider area. This is what makes Blade incredibly coherent across all audible frequencies; what you hear is more real and immersive.

Revolutionary sound absorption with MAT™

A truly revolutionary tool in the KEF acoustic armoury, Metamaterial Absorption Technology (MAT) is a highly complex maze-like structure, where each of the intricate channels efficiently absorbs a specific frequency. When combined, the channels act as an acoustic black hole, absorbing 99% of the unwanted sound that comes from the rear of the tweeter, eliminating the resulting distortion and providing a purer, more natural acoustic performance.

A result of joint development with the Acoustic Metamaterials Group, using MAT breaks completely new ground in loudspeaker design, and once again demonstrates KEF's unrelenting passion for developing new technologies to improve your listening experience. Metamaterials are specially developed structures that use existing materials in such a way that they exhibit new, desirable properties that are simply not found in naturally occurring substances.

12th Generation Uni-Q with MAT™ delivers

The 12th generation Uni-Q with MAT for Blade is a bespoke driver array engineered to deliver pristine performance on our flagship loudspeaker. It's the result of decades of accumulated in-house knowledge and the application of cutting-edge simulation and analysis tools. The developments are many and all play a part in Blade's sensational performance.

For starters, the new stiffened aluminium tweeter dome that sits at the centre of the state-of-the-art Uni-Q driver array is capable of delivering consistently sweet, lucid and lyrical treble, irrespective of the volume. KEF engineers re-engineered the tweeter gap damper to maximise the space at the back of the tweeter for the new metamaterial absorber. Optimising the cavity shape and strategically placing two rings of porous material effectively tame the resonances and imperfections, thus greatly improving detail and clarity.

Summary of features

- Single Apparent Source technology revolutionises the orientation of the low, mid, and high frequency drivers to deliver sound you hear to be more real and immersive
- Metamaterial Absorption Technology eliminates 99% of high-frequency distortion for pure, natural sound
- Bespoke 12th generation Uni-Q with MAT driver array for exceptional acoustic accuracy
- Two pairs of force-cancelling LF drivers deliver clean, massively extended bass
- Enhanced crossover design fine-tuned the signal path for maximum clarity
- Optimised cabinet design for best acoustic performance
- Two models: Blade One Meta, Blade Two Meta
- Available in eight finishes
- Customised finishes are available upon request

[1] Metamaterial Absorption Technology is a joint development with Acoustic Metamaterials Group.

A new ultra-low distortion midrange motor design uses a copper ring embedded into the motor gap to minimise inductance and variation of inductance with coil position. This lowers the midrange THD and reduces thermal compression, leading to improved efficiency.

The Uni-Q driver array is fully decoupled to prevent unwanted vibrations from muddying the sound. A new flexible decoupling chassis is designed to reduce vibration and remove coloration. It ensures that any vibration generated by the mid and high-frequency motor system is not transmitted to the loudspeaker cabinet.

A new driver surround is designed to allow longer excursion without causing diffraction and extending the frequency range of the mid-frequency. Plus, the contours of the dome, midrange horn and surround are all computer-optimised to ensure a perfectly smooth transition to the cabinet. The patented tangerine waveguide technology manages the airflow to recreate the wide, even spread of a natural sound field, dispersing the astonishingly pure high-frequency imaging throughout the room.

The result of these innovations and developments is that this bespoke 12th generation Uni-Q with MAT offers a sound that is more transparent and life-like than previously possible.

Powerful, articulate bass

Blade's four powerful vented low frequency drivers are perfectly integrated with the 12th generation Uni-Q with MAT to deliver clean, massively extended immaculately controlled bass. In line with the purity of the original Blade concept, decoupling the voice coil from the diaphragm allows low order crossovers to be used, for purer, silkier bass response. To avoid exciting the cabinet when playing loud, these drivers are mounted back-to-back to cancel out kinetic forces that might otherwise colour the output, and each pair occupies a separate chamber to reduce the need for damping.

In the latest Blade, the crossover design has been enhanced to fine-tune the signal path for maximum clarity. Plus, two pairs of audiophile-quality WBT connectors allow bi-wiring or bi-amping for lossless transmission.

Performance by design

Blade's sculptural design is dictated by acoustics. Tapering gracefully from top to bottom and from front to rear, the gentle front radius presents no discontinuity to mar sound clarity. Made from an ultra-high density polyurethane composite, the acoustically inert cabinets' complex parabolic curves are cleverly engineered to eliminate standing waves that might blur the sound.

Asserting the sophistication of the technology they contain, these stunning speakers are available in a palette of eight finishes, created by blending five cabinet finishes with six driver cone colours: Piano Black/Copper, Piano Black/Grey, Frosted Blue/Blue, Frosted Blue/Bronze, Charcoal Grey/Red, Charcoal Grey/Bronze, Racing Red/Grey, and Arctic White/Champagne. If that isn't enough, customers can also create their own customised speaker cabinet colour scheme by supplying a Pantone of their choice, for a truly unique Blade.

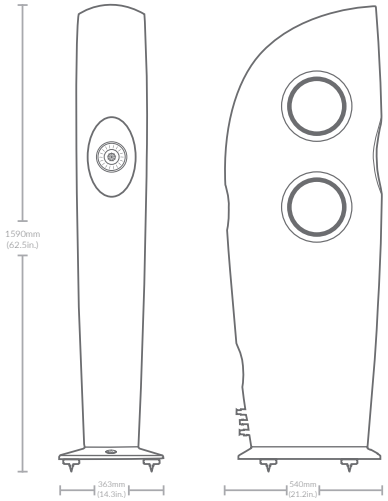
With the philosophy of innovating in pursuit of the most accurate and realistic sound, Blade is about perfecting a groundbreaking concept to delight people with the ultimate listening experience.

Piano Black/ Copper | Piano Black/ Grey | Frosted Blue/ Blue | Frosted Blue/ Bronze | Charcoal Grey/ Red | Charcoal Grey/ Bronze | Racing Red/ Grey | Arctic White/ Champagne

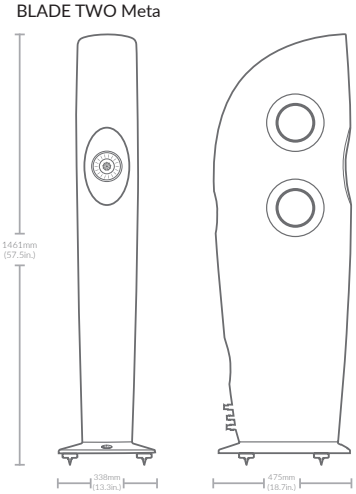
Specifications

Model	BLADE ONE Meta	BLADE TWO Meta
Design	Three-way bass reflex Single apparent source	Three-way bass reflex Single apparent source
Drive units	Uni-Q driver array: HF: 25 mm (1 in.) aluminium dome with MAT MF: 125 mm (5 in.) aluminium cone Bass units: LF: 4 x 225 mm (9 in.) aluminium cone, force cancelling	Uni-Q driver array: HF: 25 mm (1 in.) aluminium dome with MAT MF: 125 mm (5 in.) aluminium cone Bass units: LF: 4 x 165 mm (6.5 in.) aluminium cone, force cancelling
Frequency range free field (-6dB)	27 Hz - 45k Hz	30 Hz - 45k Hz
Frequency range typical in room bass response (-6dB)	20Hz	25Hz
Frequency response (±3dB)	35 Hz - 35k Hz	33 Hz - 35k Hz
Crossover frequencies	350 Hz, 2k Hz	450 Hz, 2.2k Hz
Amplifier requirements	50 - 400W	50 - 400W
Sensitivity (2.83V/1m)	88 dB	86 dB
Harmonic distortion 2nd and 3rd harmonics (90dB, 1m)	<0.5% 40 Hz - 100k Hz <0.2% 200 Hz - 2k Hz <0.1% 2k Hz - 20k Hz	<0.5% 40 Hz - 100k Hz <0.2% 200 Hz - 2k Hz <0.1% 2k Hz - 20k Hz
Maximum output (SPL) (peak sound pressure level at 1m with pink noise)	117dB	116dB
Impedance	4 Ω (min. 2.8 Ω)	4 Ω (min. 3.2 Ω)
Weight	57.2 kg (126 lbs.)	35.3kg (77.8 lbs.)
Dimensions - with plinth (H x W x D)	1590 x 363 x 540 mm (62.5 x 14.3 x 21.2 in.)	1461 x 338 x 475 mm (57.5 x 13.3 x 18.7 in.)
Standard finishes	Piano Black/Copper, Piano Black/Grey, Frosted Blue/Blue, Frosted Blue/Bronze, Charcoal Grey/Red, Charcoal Grey/Bronze, Racing Red/Grey, Arctic White/Champagne	

BLADE ONE Meta



BLADE TWO Meta



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