



OBSESSED WITH HIGH RESOLUTION

THE REFERENCE



The perfect reproduction of recorded sound is what KEF Reference has always stood for. Nothing less. And after four decades of continuous innovation and development, the name is firmly established as the yardstick of high-end acoustic engineering.

KEF led the world in the use of computerised 'total system design' to create better loudspeakers. By pioneering the use of these powerful analytics, KEF engineers matched pairs of speakers to within half a decibel. Because this exact pair matching delivers perfect stereo reproduction, they won instant acclaim for their superior acoustic precision. The name 'Reference' was born.

A class apart

With six models encompassing two elegant three-way floorstanders, a formidable three-way bookshelf speaker, two three-way centre speakers and an awesome 1000-watt subwoofer, The Reference combines phenomenal high-fidelity performance with complete multichannel versatility.

At the heart of The Reference is arguably the greatest innovation in the history of modern loudspeaker design: KEF's 'point source' Uni-Q MF/HF driver array. With a state-of-the-art 25mm (1in.) vented aluminium dome tweeter at the exact acoustic centre of a highly sophisticated 125mm (5in.) midrange driver, both act as a single source that floods the listening space evenly with a flawless natural soundfield, no matter where you sit.

The powerful 165mm (6.5 inch) LF driver designed to complement KEF's latest Uni-Q point source array is in a class of its own. Clever engineering and meticulous attention to design detail delivers a deeply rewarding experience, which blends seamlessly with Uni-Q's immaculate midrange and treble response.

The powerful 1000W subwoofer boasts two 500W Class D amplifiers, each driving a 225mm (9 inch) long-throw, ultra-low distortion driver. KEF's ingenious force-cancelling technology allows both drive units to operate more efficiently, giving noticeably greater definition to low frequency

effects. If you haven't experienced a truly great subwoofer, you'll be amazed what a difference it makes to your viewing and listening pleasure.

Whether for a traditional speaker system or multichannel home theatre set-up, the experience is so startlingly realistic that you feel as if you're actually there. Mind-blowing special effects, from the opening titles onwards. Breathtaking dynamics. Consummate musicality, from overture to coda. And the level of accuracy that reveals details you'd never noticed before, even in favourite tracks. They're easy to live with too – undemanding in terms of position, and easy to fine tune for your listening area through the innovative, flexible port tube technology.

Total attention to detail

Every Reference speaker exude the sense of sheer quality that comes from being hand built by KEF's master technicians in Maidstone, Kent. Designed using finite element analysis to determine the ideal shape and bracing geometry, the expertly engineered cabinets are finished in a sumptuous deep piano gloss or richly detailed, pair-matched wood veneers to complement the strikingly distinctive front baffle, which is engineered to eliminate anomalies caused by diffraction.

The bespoke Performance stands for Reference 1 and Reference 4c share the same handsome design aesthetic and careful attention to detail as the loudspeakers themselves. Precision-engineered plinths and spike sets ground the stands as solidly as the floorstanders to prevent any vestigial cabinet vibrations from being transmitted through the floor of the listening area.

KEF's obsession with absolute quality remains, as does the immaculate craftsmanship; the styling has evolved so as to be as fresh and contemporary now as their predecessors were then. But above all, for the serious audiophile who aspires to the perfect enjoyment of movies or music, there's one name that still towers above the rest.

The Reference. It speaks for itself



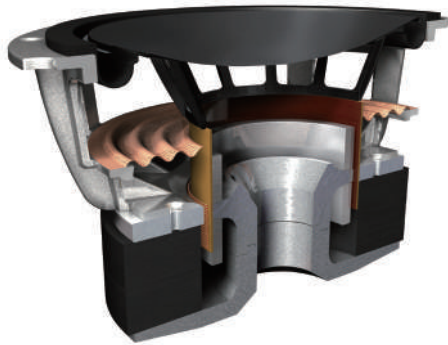
Two drivers, a single point

At the heart of The Reference is the Uni-Q™ point source driver array. A state-of-the-art vented aluminium dome tweeter at the exact acoustic centre of a highly sophisticated midrange driver that delivers flawless natural sound across a wider listening area.



Computer-modelled perfection

Hand finished in pair-matched wood veneers, The Reference cabinets have computer-optimised bracing geometry to minimise secondary radiation from the sides and Constrained Layer Damping to turn what little vibration is left into heat.



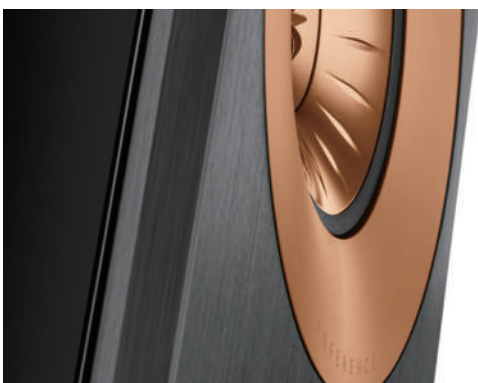
A strong foundation

Clean, rich and articulate bass is the foundation of great stereo or multichannel sound. KEF's Reference Series bass driver has a massive vented magnet assembly, a large aluminium voice coil and an exceptionally light and stiff alloy cone. Whatever the volume, dynamics and power handling are superb.



Fighting turbulence

Flexible port technology is used to reduce port resonance. Each port is adjustable to allow users to modify the sound to suit their room. The flare and profile of each port is calculated by computational fluid dynamics to avoid turbulent air noise that might colour the sound.



The smallest details, revealed

Shadow Flare drastically reduces harmful cabinet diffraction, allowing the Uni-Q to work at its highest level. A precision-designed surface extends the waveguide effect of Uni-Q for improved clarity, particularly when it comes to the subtle nuances of plucked strings and other percussive sounds.



Hand-picked components

KEF's engineers use advanced software to model the ideal crossover. But every component is auditioned by the ultimate measure: the human ear. Perfection takes time, but the results are plain to hear. Reference crossovers are even decoupled from the cabinet to minimise vibration and crosstalk.

SPECIFICATIONS



Model	REFERENCE 1	REFERENCE 3	REFERENCE 5
Design	Three-way bass reflex	Three-way bass reflex	Three-way bass reflex
Drive Units	Uni-Q driver array: HF: 25mm (1in.) vented aluminium dome MF: 125mm (5in.) aluminium Bass units: LF: 1 x 165mm (6.5in.) aluminium	Uni-Q driver array: HF: 25mm (1in.) vented aluminium dome MF: 125mm (5in.) aluminium Bass units: LF: 2 x 165mm (6.5in.) aluminium	Uni-Q driver array: HF: 25mm (1in.) vented aluminium dome MF: 125mm (5in.) aluminium Bass units: LF: 4 x 165mm (6.5in.) aluminium
Frequency range free field (-6dB)	Short port: 40Hz - 45kHz Long port: 37Hz - 45kHz	Short port: 38Hz - 45kHz Long port: 35Hz - 45kHz	Short port: 35Hz - 45kHz Long port: 32Hz - 45kHz
Frequency range typical in room bass response (-6dB)	30Hz	28Hz	25Hz
Frequency Response (±3dB)	45Hz - 35kHz	43Hz - 35kHz	40Hz - 35kHz
Crossover frequency	350Hz, 2.8kHz	350Hz, 2.8kHz	350Hz, 2.8kHz
Amplifier requirements	50 - 200 W	50 - 300 W	50 - 400 W
Sensitivity (2.83V/1m)	85dB	87.5dB	90dB
Harmonic distortion 2nd & 3rd harmonics (90dB, 1m)	<0.5% 40Hz - 100kHz <0.2% 200Hz - 10kHz	<0.5% 40Hz - 100kHz <0.2% 200Hz - 10kHz	<0.5% 40Hz - 100kHz <0.2% 200Hz - 10kHz
Maximum output (peak sound pressure level at 1m with pink noise)	111dB	113.5dB	116dB
Impedance	8Ω (min. 3.2Ω)	8Ω (min. 3.2Ω)	8Ω (min. 3.2Ω)
Weight	18.2 kg (40.1lbs)	51.3 kg (113.1lbs)	60.2 kg (132.7lbs)
Dimensions - with grille and terminal (H x W x D)	440 x 205 x 430 mm (17.3 x 8.1 x 16.9 in.)	1155 x 205 x 470 mm (45.5 x 8.1 x 18.5 in.)	1350 x 205 x 470 mm (53.1 x 8.0 x 18.5 in.)
Dimensions - with grille, terminal & plinth (H x W x D)	N/A	1202 x 349 x 470 mm (47.3 x 13.7 x 18.5 in.)	1397 x 349 x 470 mm (55 x 13.7 x 18.5 in.)
Finish	Copper Black Aluminium, Blue Ice White, Silver Satin Walnut	Copper Black Aluminium, Blue Ice White, Silver Satin Walnut	Copper Black Aluminium, Blue Ice White, Silver Satin Walnut



Model	REFERENCE 2c	REFERENCE 4c
Design	Three-way closed box	Three-way bass reflex
Drive Units	Uni-Q driver array: HF: 25mm (1in.) vented aluminium dome MF: 125mm (5in.) aluminium Bass units: LF: 2 x 165mm (6.5in.) aluminium	Uni-Q driver array: HF: 25mm (1in.) vented aluminium dome MF: 125mm (5in.) aluminium Bass units: LF: 4 x 165mm (6.5in.) aluminium
Frequency range free field (-6dB)	65Hz - 45kHz	Short port: 43Hz - 45kHz Long port: 40Hz - 45kHz
Frequency range typical in room bass response (-6dB)	46Hz	33Hz
Frequency Response (±3dB)	80Hz - 35kHz	48Hz - 35kHz
Crossover frequency	350Hz, 2.8kHz	350Hz, 2.8kHz
Amplifier requirements	50 - 300W	50-400W
Sensitivity (2.83V/1m)	87.5dB	90dB
Harmonic distortion 2nd & 3rd harmonics (90dB, 1m)	<0.5% 40Hz - 100kHz <0.2% 200Hz - 10kHz	<0.5% 40Hz - 100kHz <0.2% 200Hz - 10kHz
Maximum output (peak sound pressure level at 1m with pink noise)	113.5dB	116dB
Impedance	8Ω (min. 3.2Ω)	8Ω (min. 3.2Ω)
Weight	22.8kg (50.3 lbs.)	45.2 kg (99.6lbs)
Dimensions - with grille and terminal (H x W x D)	205 x 630 x 325 mm (8.1 x 24.8 x 12.8 in.)	205 x 1090 x 470 mm (8.1 x 42.9 x 18.5 in.)
Finishes	Copper Black Aluminium, Blue Ice White, Silver Satin Walnut	Copper Black Aluminium, Blue Ice White, Silver Satin Walnut

Model	REFERENCE 8b
Design	Force cancelled closed box
LF Drive unit	2 x 225mm (9in.)
Frequency range at 90dB output in free-space mode (-6dB)	18Hz
Frequency response at 90dB output in free-space mode (±3dB)	24Hz
Amplifier	2 x 500W Class D with switched mode power supply and DSP based control section
Maximum output (peak sound pressure level at 1m 50Hz)	110dB
Low pass filter variable	Variable frequency: 40Hz to 160Hz Variable slope: 12dB/oct, 18dB/oct, 24dB/oct LFE mode: 350Hz, 18dB/oct
Low level signal inputs	RCA phono sockets Analog XLR socket
Link out	RCA phono sockets
Speaker level input	Yes
Net internal volume	23L
Weight	34kg (75.0 lbs.)
Dimensions (H x W x D)	398 x 365 x 429 mm
Power requirements	100V - 120V / 220V - 240V ~50/60Hz
Power consumption	1000W
Finish	Deep piano black

Visit: www.kef.com for more about KEF and its products.

KEF reserves the right, in line with continuing research and development, to amend or change specifications. E&OE.

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