

## LS50 Meta Bookshelf Loudspeakers



Since 1961, KEF's mission has been to preserve the integrity of original sound with as little intervention as possible. The goal of every KEF product is to do one thing: provide you with a revealing listening experience that is as true to the original recording as is possible within the confines of your room.

The iconic LS50 was the physical embodiment of this singular approach. A loudspeaker that took its cues from the classic LS3/5A but was quickly recognised as a modern icon in its own right. The LS50 was born out of KEF's willingness to think outside the box, to constantly search for new materials, techniques and technologies such as the use of computer aided design and continuous enhancement of the KEF's signature Uni-Q driver array.

That was 2011, and time and technology have moved on. Since then our engineers have been upholding KEF's driving philosophy and searching out new technological breakthroughs. The result is an icon in waiting: the KEF LS50 Meta Bookshelf Loudspeakers. Instantly recognisable as the successor of the LS50, the LS50 Meta is born of the same KEF desire for continual development and is therefore fittingly the first loudspeaker to employ Metamaterial Absorption Technology<sup>1</sup>.

### PERFORMANCE

#### Revolutionary sound absorption with MAT

A result of joint development with the Acoustic Metamaterials Group, using Metamaterial Absorption Technology (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.

A truly revolutionary tool in the KEF acoustic armoury, 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.

#### 12<sup>th</sup> Generation Uni-Q with MAT delivers

The tweeter in question sits at the heart of our 12<sup>th</sup> generation Uni-Q with MAT driver array. The Uni-Q point source configuration delivers a more detailed, accurate and integrated three-dimensional sound image, which is dispersed so evenly throughout the room that the 'sweet spot' is wherever you are in the room. Using simulation and analysis tools and decades of accumulated in-house knowledge, our engineers have developed a new iteration of KEF's signature driver array, with a new cone neck decoupler and motor system that is precisely shaped to reduce high-frequency distortion in the mid-frequency driver. The result is reduced coloration, less distortion and a sound that is more transparent and life-like than previously possible. The same can also be said of bass performance, where LS50 Meta completely exceeds the expectations of a modestly proportioned bookshelf speaker to deliver room-filling sound with deep, articulate bass.

#### Enhancement from LS50 lineage

Much of the engaging performance is thanks to the clarity of the driver array, but the port design is also crucial. Using Computational Fluid Dynamics (CFD), the flare and profile of the LS50 Meta's patented off-set flexible port is calculated to delay the onset of turbulence and the flexible port walls prevent resonances from colouring the midrange. This leads to improved clarity, with exceptional levels of depth and detail.

The LS50 Meta's extremely rigid cabinet is optimised for the best performance, with smooth curved surfaces that help radiate sound out across the baffle without any interference. The baffle itself is engineered from an injection-moulded Dough Moulding Compound (DMC) usually found in the automotive industry. Inside the cabinet, cross bracing and Constrained Layer Damping (CLD) combine to deaden internal vibrations. The result of such meticulous attention to detail is that LS50 Meta produces the lowest coloration of any speaker in its class.

### Summary of features

#### PERFORMANCE – most accurate, immersive sound

- Metamaterial Absorption Technology eliminates 99% of high-frequency distortion for pure, natural sound
- 12<sup>th</sup> generation Uni-Q with MAT driver array for exceptional acoustic accuracy
- Driver Performance Optimisation for enhanced sonic performance, less distortion and reduced coloration
- Patented off-set flexible port for reduced midrange coloration with exceptional levels of depth and detail

#### DESIGN – attention to every detail

- Optimised cabinet design for best acoustic performance
- Available in 4 finishes
- With mounting inserts to secure on KEF S2 Floor Stand (available as separate item)



<sup>1</sup> Metamaterial Absorption Technology is a joint development with Acoustic Metamaterials Group.

## DESIGN

### Attention to every detail

The LS50 Meta has inherited its distinctive good looks from the original LS50, with its low-diffraction, curved baffle precision modelled around the Uni-Q driver array. The curved front is subtly mirrored by the gently radiused rear panel, while both the port exit and speaker terminals have been elegantly recessed and softened visually.

On the LS50 Meta's underside, each corner has a threaded inset allowing the speaker to lock onto the top of the new KEF S2 Floor Stand, which also boasts integrated cable management and a mass-loadable column. LS50 Meta is available at launch in four colours, all of which benefit from a modern silky matte finish, while the S2 Floor Stands are colour matched to the models.

The LS50 Meta Bookshelf Loudspeakers deliver on every aspect of the KEF promise. A genuine industry first, LS50 Meta utilises innovative, ground-breaking technology to provide you with an immersive, completely believable sound from a compact, stylish loudspeaker that is destined to open up whole new vistas of enjoyment in your life.



### Specifications

Model	LS50 Meta
Design	Two-way bass reflex
Drive units	Uni-Q Driver Array: HF: 25 mm (1 in.) vented aluminium dome with Metamaterial Absorption Technology MF/LF: 130 mm (5.25 in.) aluminium cone
Crossover frequency	2.1 kHz
Frequency range (-6dB)	47 Hz - 45 kHz
Typical in-room bass response (-6dB)	26 Hz
Frequency response (±3dB)	79 Hz - 28 kHz
Harmonic distortion (90dB, 1m)	<0.4% 175 Hz - 20 kHz <0.1% 300 Hz - 10 kHz
Maximum output	106 dB
Amplifier power (recommended)	40-100 W
Nominal impedance	8 Ω (min. 3.5 Ω)
Sensitivity (2.83V/1m)	85 dB
Weight*	7.8 kg (17.2 lbs.)
Dimension (H x W x D) with terminal*	302 x 200 x 280.5 mm (11.9 x 7.9 x 11.0 in.)

\* Measurement per unit

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