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KEF LS50 WIRELESS II



WHAT HI-FI?
★★★★★



And now for something a little different. The KEF LS50 Wireless II is an all-in-one speaker system with streaming smarts and built-in amplification which requires no other boxes than the two familiar KEF LS50 stereo speakers you see here.

The LS50 Wireless launched in 2016 as an active speaker system take on KEF's legendary passive LS50 speakers - a pair of wireless stereo speakers packed with built-in amplification and streaming smarts - and their impressive execution of this appealing concept earned them a five-star review and a *What Hi-Fi?* Award.

They weren't perfect: they came with some control app hiccups; and the need for a cable to connect the two speakers was a small blip in an otherwise neat package. But not only are the new LS50 Wireless II speakers untethered, they also come with a new and improved app.

The Wireless II don't simply address their predecessor's imperfections, though. They have been designed to squeeze even more performance out of the familiar chassis and Uni-Q driver arrangement through the introduction of a new KEF innovation called Metamaterial Absorption Technology (MAT).

MAT's the way to do it

Essentially, MAT is a clever way of absorbing sound waves that radiate from the rear of the tweeter dome so that they don't distort the unit's forward output. Physically, this technique sees a round piece of plastic with a maze-like structure placed behind the tweeter.

Each 'path' in the structure is a certain size and length and 'tuned' to absorb a specific range of frequencies. KEF says that, together, the various paths effectively act as an 'acoustic black hole', absorbing 99 per cent of the unwanted sound.

This absorption technique has been used in other fields before, but this joint initiative with smart materials and acoustics company Acoustic Metamaterials Group marks its first application in a loudspeaker. It has also been implemented in the new KEF LS50 Meta passive speakers.

The 12th generation of KEF's patented Uni-Q is not only defined by MAT but also a reworked motor system, for which KEF has optimised its bespoke digital signal

processing algorithm system. Mirroring the LS50 Wireless's configuration, a new 100W class A/B amplifier powers the tweeter, while 280W of power is available to the mid/bass driver.

In 2018, when KEF introduced its LSX speaker system - essentially a miniature version of the LS50 Wireless - it replaced the physical inter-speaker cable with a wireless connection that could play files (up to 24-bit/192kHz) across a maximum 24-bit/48kHz resolution.

It's no surprise to see this more convenient method used in the LS50 Wireless II, although the wireless limit has been upped to 24-bit/96kHz, meaning they need to downsample only files above that resolution - peak file support is 24-bit/384kHz. Physically connecting the right (master) and left (slave) speakers via the included ethernet cable increases native playback to 24-bit/192kHz.

Support for DSD256 is also on board this time, too, as is MQA decoding for the playback of compatible downloaded files and hi-res Tidal Masters.

Tidal is one of many streaming services directly accessible from the new KEF Connect app - you have Amazon Music, Qobuz, Deezer and Spotify, as well as internet radio and UPnP servers, at your fingertips too.

Our review sample had access only to an early version of the app, so some functionality - including music server discovery - wasn't available. However, first impressions suggested it's a positive replacement for the often glitchy Stream app on the LS50 Wireless. Loading dense service libraries, navigating its clean and logical interface and switching inputs proves a pleasant and reliable experience.

You could own these KEFs and have little need for the dedicated app, considering the LS50 Wireless II support AirPlay 2, Google Chromecast and Bluetooth, and are also Roon Ready.

Despite ditching the USB Type-B computer connection, KEF has hardly shortchanged future owners in terms of connectivity, replacing it with an HDMI eARC socket to make it more TV-friendly. Alongside it are coaxial (24-bit/192kHz), optical (24-bit/96kHz) and 3.5mm aux inputs and a subwoofer output - which round off the LS50 Wireless II's comprehensive specification sheet.

TECH SPECS

- **Hi-res**
24-bit/384kHz
- **AirPlay 2** Yes
- **uPnP** Yes
- **Bluetooth** Yes
- **Chromecast** Yes
- **Roon** Ready Yes
- **Max power**
380W per channel
- **Finishes** x4
- **Dimensions (hwd)** 30.5 x 20 x 31.1cm

The considerable advancements KEF has made for this sequel are belied a little by the familiar aesthetic. In fact, you would perhaps need to look at the underside of the new LS50 to tell them apart from their predecessor. They have threaded inserts in each corner, allowing them to lock on to the top of the new KEF S2 Floor Stands (£400 per pair).

However, considering the design is based on the passive LS50, one of the most recognisable and striking loudspeakers around, that familiarity is no bad thing. Their Uni-Q driver array, beautiful Carbon Black, Titanium Grey, Mineral White and Crimson Red Special Edition finishes, and curved front panel all combine to create a real head turner.

While conceptually similar stereo speaker systems have come into the market since the LS50 Wireless's arrival, none we've seen are neater than this next-generation version.

Taken to another level

In our review of the original LS50 Wireless, we noted their "clean and precise" manner and "neatly layered and nicely defined" soundstage. KEF has taken these attributes to another level here.

The effect of MAT is clearly heard in the cleanliness of the treble, although the difference in purity can be heard across the frequency range. Mids are cleaner-cut and bass more defined, their extra refinement making the originals sound a touch crude. The whole presentation has been opened out, that extra room not only filled with subtler, more precise detail, but also allowing for greater instrument separation that makes its delivery sound much less congested in comparison.

We listen to Adrienne Lenker's *Symbol* and it is a more captivating affair through the Wireless IIs. The extra space between her vocal and the strings is in relative

contrast to the originals, where it sounds as though they are fighting one another for attention. That extra spaciousness isn't at the expense of cohesiveness either - a hallmark quality of the Uni-Q driver's tweeter-inside-the-mid/bass-cone design.

The new KEFs lay bare more intricacies in the guitar work, while disclosing the distinctive fragilities in Lenker's vocal. Similar sharpness and attention to detail is evident as we switch to Peter Broderick's *Moment*, the piano sequence aching with meticulously written melody as the LS50 Wireless II more deftly define the start and finish of notes.

We play Mac Miller's *What's The Use?* and the Wireless II are keen to show off their improved punch and agility as well as their enhanced subtlety. Their clarity and cleanliness enlivens the tuneful bassline and unequivocally cutting rap, complementing the track's clinical production.

These sonic advancements are not only a credit to KEF's engineering but also representative of how far such speaker system concepts have come in recent years. Needless to say, we look forward to hearing more products using MAT technology in the future.

Upon their launch in 2016, KEF's LS50 Wireless highlighted the appeal of an all-in-one stereo system over a system of separates at the modest end of the market, and the LS50 Wireless II simply improve on that concept.

Today, the Wireless II stands as an innovative product that proves an appealing solution for those looking to save space on the usual array of composite boxes required by the streaming systems we have highlighted over the past few pages. With those sonic advancements on its predecessor, this system is a no-brainer for us to highly recommend.

WHAT HI-FI?

RATING ★★★★★

SOUND



FEATURES



BUILD



FOR

- Big performance leap
- Clean, punchy sound
- All-encompassing connectivity

AGAINST

- Nothing at this price

VERDICT

KEF's revisions have paid off; these sequels are among the most thrilling speaker systems we have heard