

hardware review

## Eminent Technology LFT-16a



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Jason Kennedy

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Eminent Technology first came to my attention with a parallel tracking, air bearing tonearm which is apparently still available in limited numbers. So it was surprising to discover that they are now a speaker company, something that became apparent when I was asked to review the floorstanding LFT-8B for another publication a couple of years back. That speaker produced some pretty good results and seems like a lot of American built speaker for the money so I was intrigued by its little brother the LFT-16, though I've no idea why it has a bigger number.

When I first set eyes on this unusual standmount I made the mistake of thinking that it had a ribbon for both midrange and treble but that is not the case. The midrange driver on this "planar magnetic drive loudspeaker" is a variation on the electrostatic theme which Eminent Tech calls a linear field transducer or LFT. This has a foil/Mylar diaphragm with conducting traces etched into it like a circuit board that are controlled by magnets in the frame which operate push pull style. It's not actually an electrostatic and doesn't require a bias voltage but it does have a low mass planar panel.

The drivers are arranged on a solid oak baffle that is open backed in traditional planar style and sits on a sealed cabinet for the 6.5inch cone bass driver. Treble is provided by a ribbon tweeter and the whole thing stands a mere 21.5inches (67cm) high, which is big for a standmount but very small for a planar speaker, even a hybrid one.

The specs indicate a low but not unseemly 85dB sensitivity allied to an 8 Ohm impedance but I suspect the latter is nominal because this speaker soaks up power. It does give you some nice stuff in return though, notably holographic imaging of a variety that's very scarce with traditional drive units. The speakers disappear totally to leave the music in the room, that is the soundstage of the original recording superimposed on the room they are in. Cymbals sound uncannily real because you hear so much of the 'air' in the recording. The other end of the scale, the bass, tends to sound boxy, partly because the contrast with the panels is so great but also because small sealed box bass systems are uncommon and have a certain character.



### Sound quality

What you get in the way of midrange and treble clarity and cleanness makes it worthwhile, planars nearly always sound smoother than domes and cones and that's certainly the case here. I found myself reducing the amount of damping in the room because there were no nasties to calm. I really enjoyed the way that the sound escaped the boxes so well and put on all sort of stuff including Led Zeppelin's *When the Levee Breaks*, the live version on *How the West Was Won*. The bass is not quite muscular enough for tracks like this even with a powerful

amplifier (Leema Tucana) but it's certainly thick enough and it's nothing if not detailed. Bob Dylan's *Bootleg Series Volumes 1–3* recordings are pretty bandwidth limited and this suited the Eminent Tech down to the ground, so much so that it felt like he was in the room. The sounds in the studio are very clear as is the character of recording, *Hard Times in New York* sounding very different to *He Was A Friend of Mine* from the same era. Looking up those two I see that the first was a home recording so you'd expect a change.

With a more recent release, Cornelius' *Sensuous* the mid sounds slightly dark and the kick drum is a little on the gentle side, there's lots of space but dynamics are restrained. This rather than the lack of bass extension is the only real shortcoming of the LFT-16.



I tried a Naim SuperUniti amp in place of the Leema and got some storming results, BB King's *Live at the Regal* bringing home just why the artist is so revered. His timing was impeccable, a fact clearly conveyed by this amp/speaker pairing. The bass is also sufficiently muscular to make Yello's *Touch* album purr with surprising gravitas, but the female vocal's bring this piece to life. Up till this point I had been using 24 inch (60cm) stands but the Eminent's looked a bit tall on them so I tried some shorter 20 inch stands which delivered greater image focus and more solidity to the bass but didn't offset the dynamic limitations. With a bit of Brendel playing Beethoven it was easy to appreciate the quality of composition and playing but you don't get the full body of the instrument, but that's always going to be a big ask of a standmount however close it gets to the ground.

The LFT-16 is a genuine curate's egg, it is so good at imaging that one is prepared to forgive its dynamic its limitations. It times as well as the amplifier that drives it but needs plenty of power to give of its best. Build is slightly agricultural if you look behind the panel but it's nice to see some solid wood for a change and there are a variety of finishes available. You cannot get another speaker that produces a soundstage of this calibre for the money. Nuff said.

### Bruce Thigpen

I spoke to Eminent Technology founder Bruce Thigpen about the design of the LFT-16a.

*JK: I first came across the Eminent Tech brand through your air bearing tonearm, were you making speakers back then or did you get into them later?*

*BT: We started designing the Model 1 air bearing tonearm in 1982 and began developing speakers concurrent with the introduction of the ET-2 tonearm around 1985, the first speaker was introduced about 3 years later.*

*Will there be a revised Eminent Tech tonearm now that analog is having a renaissance?*

There have been several recent updates to the ET-2 and 2.5, new arm wands, manifolds and a higher resolution method of indicating VTA are available, so we continue to support the tonearm



and sell replacement parts. A surprisingly large number of tonearms are still in use, old units are getting revived and we hear from customers that have owned them for over 20 years.

*What advantages does your LFT driver have over other planer technologies such as ribbons?*

With a dipole there is an inverse relationship between efficiency and bandwidth. The quality that makes a true ribbon very attractive for high frequency use, the freely suspended low fundamental resonance frequency of the diaphragm, causes an inexorable roll off in output, an acoustic short circuit at low frequencies results with no way to take advantage of the resonance. For a given area, a stretched film diaphragm under tension will behave more like a piston and have a higher resonance frequency which ameliorates the dipole short circuit response somewhat. This enabled us to build products like small desktop panels for computer speakers.

*Is the bass driver a paper unit with a foil coating for stiffness?*

Yes, it is really paper with a thin aluminum coating.

*Why use a sealed box for the bass on the LFT-16a?*

This is not based on science but a matter of personal preference to achieve the transient qualities we were looking for. It is very difficult to get a blend between dissimilar transducer types, the crossover frequency between the woofer and midrange panel is in a critical area so you spend a lot of time with woofers and crossovers to make it work.

*Do you use solid wood for its aesthetic or acoustic properties?*

The front face of the LFT-16 is solid wood for aesthetics, the remainder of the woofer box is layered and laminated MDF. The combination makes a reasonably good woofer box and support for the panels.

*What's next from Eminent Tech?*

We are continuing to develop the rotary woofer [TRW-17] which is taking us into some exciting areas for the future.



Bruce at the helm of the Spruce Goose