

Eclipse TD712zMK2

NEVER MIND THE BALANCE OR THE BANDWIDTH, THIS 'DINOSAUR EGG'-SHAPED SPEAKER IS ALL ABOUT TIMING – 'TD' IN ECLIPSE-SPEAK

Eclipse is a Japanese speaker brand, which itself makes the *TD712zMK2* a rather unusual device to find here in the UK. However, one reason may well be because it's part of a large industrial corporation called Fujitsu Ten, which has a global presence and actually specialises in automotive electronics. A company that once made direct drive turntable motors is now involved in single full-range driver loudspeakers, which I guess is not unreasonable.

I reviewed the original version of this loudspeaker for another magazine around a decade back (in June 2005, as it happened), and this *MK2* version in fact looks remarkably similar. What changes might have been made are certainly not immediately obvious. The uniqueness of this £6,500/pair *TD712zMK2* makes its differentness all the more interesting. The initials TD stand for Time Domain, and the purpose is to create a speaker that accurately reproduces midrange timing information (a feat that regular speakers with their phase-shifting crossover networks rarely achieve). To which end it uses a solitary 'full range' drive unit, covering the whole audio band with just a single voice coil.

Alongside the single drive unit is an enclosure that's very unusual indeed. I've called it a 'dinosaur egg' because it is both large and egg-shaped (though its size is large in an egg rather than a loudspeaker context), and the shape does have at least two main advantages, both in its inherent strength and the avoidance of focused internal standing waves. The shape also helps promote good directivity and bears some resemblance to the midrange 'head' used in Bowers & Wilkins' 800-series.

However, whereas the original 'egg' was cast in a mineral loaded, fibre-reinforced resin described as 'artificial marble', this *MK2* version apparently uses a moulded polymer enclosure which is 50% larger in internal volume. Kobe-based Eclipse designer Shibata-san commented: "We employ a dense, high-specific-gravity compound based on ABS resin, which is ideal for complex mouldings, and is also self-damping..."

The 'egg' is actually made from two pieces and has a generous port located underneath the rearmost point of the egg. It all feels exceptionally rigid, and the driver is held in a floating mechanism called a 'diffusion stay', which decouples it mechanically from the enclosure and directs any

reaction forces downwards into the stand, reducing enclosure coloration.

The silver- (or in our case black-) finished stand itself is very much part of the package. It's arguably even more elaborate, certainly more massive, and very stylish too. The top has a tripod spike arrangement plus a central clamp, effectively spiking the egg-shaped enclosure while also firmly locking it in place, and also allowing up to 12 degrees of tilt adjustment. Spike arrangements at the base are top-adjustable and avoid damage to uncarpeted floors by means of captive pucks. (However, there seems to be no way of penetrating carpets here, and locking is only achieved through the total weight of speaker-plus-stand.)

Made of aluminium alloy, the central pillar is quite deep and carefully shaped to avoid creating reflections, and is also sand filled to damp any resonances. In fact the 712 comes in two versions: ours had a total height of 994mm; a shorter version, suffixed -S, is just 606mm tall. Electrical connection is made direct to the head unit, so cables might trail, but may also be dressed into a slot in the pillar if not too thick.

The driver is a small 120mm chassis unit that has undergone considerable refinement, of motor, diaphragm and surround. The cone itself is fibreglass some 90mm in diameter, though it's fair to assume that considerable efforts have probably gone into optimising the resin matrix and surface coatings.

The original plan was to reinforce the bass end of things with the help of an Eclipse subwoofer. Mindful of the advantages of using multiple subs (as persuasively argued in Peter Truce's *The Road to Great Bass* on page 22), I asked for more than one, but was somewhat discombobulated when two very large boxes, each containing a *TD520SW*, were delivered. (I'd have much preferred four smaller boxes!) Furthermore, and only after extensive experimentation, it was decided that the benefits of using them wasn't really justified, due largely to the overlap with the very generous port output from the *TD712zMK2*s, especially as each subwoofer costs £3,000. I suspect the *TD520SW* could work very well in another context (perhaps alongside a compact sealed-box design like the *SCM 11* reviewed on page 34), as this has a good size sealed enclosure and a quite small 125mm diameter diaphragm drive unit.

One obvious consequence of the single-driver

