

Application note for H1602-04/06 L12RE/XFC

A coaxial driver for compact loudspeakers with no compromises on sound quality Designed at the SEAS R&D laboratory.



To meet the demand for loudspeaker components that will work in compact enclosures and still have a satisfying hi-fi quality sound, the SEAS R&D team has developed this new product. The L12RE/XFC is a coaxial driver with a mid-woofer using an aluminum cone, and a soft dome tweeter mounted inside the woofers voice coil. Built after SEAS' traditional high standards, the components are carefully inspected before the assembly in this compact, but still complicated product.

The recommended enclosure for this driver is a ported box. This will help limiting the excursion around the box tuning and extend the usable bandwidth. The internal volume is 2.5L and with a tuning at 63Hz. To keep the enclosure size at a minimum, the port is made like a shelf in the full width of the cabinet and exits to the front side to allow for placement close to a wall or in a bookshelf.

Looking at the measurements, we can see that this compact loudspeaker gives a nice and balanced response with good extension in the low end. The crossover ensures that the drivers sum in phase at the crossover frequency and that the roll-off slope is symmetric. Together this will make the loudspeaker act like a point source to create the sound illusion only a coaxial or fullrange driver can deliver. All in all this serves a truly satisfying listening experience to the critical listener.





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