

History of Thiele / Small parameters

A reformative thesis was published in U.S. Journal of Audio Engineering Society (JAES) in May, 1971. It was the one that a characteristic analysis of vented (Bass reflex) speaker by electronic engineering engineer A.N.Thiele in Australia and a very lucid design approach were shown, the low region characteristic of the speaker was said that it was expressible by the high passing filter used with a general electric circuit, and the compilation of the research of L.Beranek, B.Locanti, and J.Novak in 50,60's.

The research is succeeded by the Dr. R.H.Small at the Sydney university who was the co investigator and progresses to a further closed (sealed) analysis of the speaker and vented and the analyses of passive radiator method, and a simultaneous period and, similarly, the analysis of various methods of the speaker based on the Thiele · Small theory and the thesis of the design method will be announced soon as for

J.E.Benson of the Sydney university and D.B.Keele,Jr of the Electro Voice and etc.

As a result, it came to be able to model the low region characteristic of the speaker in the electric circuit, and simulating it with the computer became possible.

The parameter of the speaker shown in the thesis of Thiele and Small is named the Thiele / Small parameter, standardized, is a design of the enclosure, is disregarding, doesn't exist, and been used to design the speaker unit of the manufacturer in 80's.

Most of the speaker unit manufacturer makes the T · S parameter of the product public, and the design of the best enclosure to use this can be facilitated now.