

Acoustical Modeling and Design Tools

Modeler

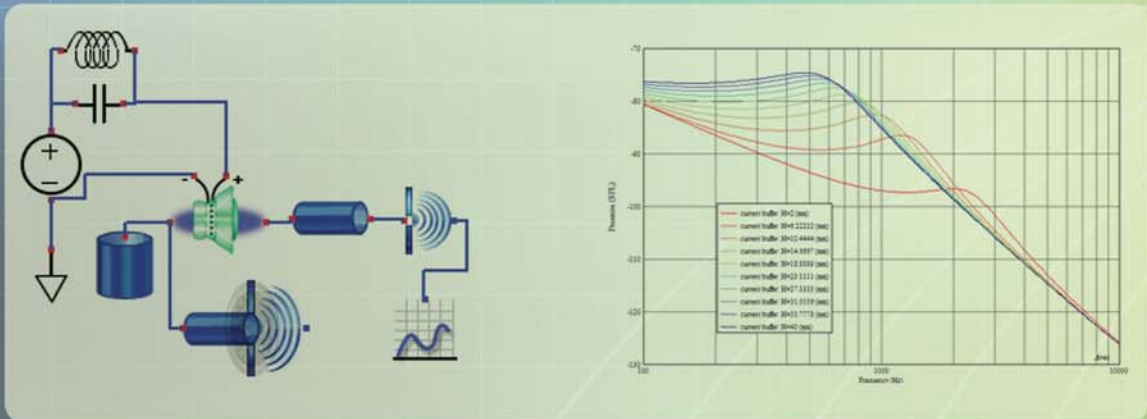
An icon based modeler that allows you to quickly place speakers, microphones, volumes, ports, radiators, etc. and connect them in arbitrary topologies to simulate any configuration. Simulations typically take a fraction of a second. A parameter iteration feature allows for instant sensitivity analysis.

The modeler primarily uses lumped parameter analysis, a well established technique for simplifying acoustical systems that effectively captures the behavior of speakers, headphones, cellphones, tablets, etc.

Ports are implemented as 1D waveguide with thermal and viscous damping fully accounted for.

End correction between all elements are automatically handled. Acoustical impedance and frequency response measured data can be imported directly into the model

A
R
E
S



Many plotting options
26 history buffers

SPL, velocity, displacement, impedance
A, B, C, P50, psophometric weighting
Zwicker loudness Sone and Phon metrics
telephony RLR and SLR metrics
narrow, octave, 1/3rd octave bands
magnitude, phase, real & imaginary
import/export data to/from files/clipboard

Over 60 acoustic, electrical
and mechanical elements
ITU ear simulator, horns,
passive radiators op amps,
transconductance amplifier,
semi-inductance mass, spring,
mech-acoust transformer
BL magnetic motor uses magnetic
demagnetization curve

MAELLC.com

info@MAELLC.com

US: 678-234-5079

MAE
McIntosh Applied Engineering, LLC