

Driver in a Ported Transmission Line -

Acoustic and Electrical Response

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SEAS Prestige L26RFX_P 10in

Enclosure Geometry Input

dist := 100·m (Front Baffle Distance from Rear Wall)

stand := 0·m (Height from Floor to Bottom Edge of Front Baffle)

Corner Coordinates

X coordinate Y coordinate

$x_{o_0} := 12.5\text{·in}$ (Bottom Right Corner)

$x_{o_1} := 12.5\text{·in}$ $y_{o_1} := 29.4\text{·in}$ (Top Right Corner)

$x_{o_2} := 0\text{·in}$ $y_{o_2} := 29.4\text{·in}$ (Top Left Corner)

$x_{o_3} := 0\text{·in}$ (Bottom Left Corner)

depth := 19·in (Depth of Enclosure)

Driver Geometry Input

$x_{dc} := 6.25\text{·in}$ (Driver Center x Coordinate)

$y_{dc} := 18.65\text{·in}$ (Driver Center y Coordinate)

Port Geometry Input

$x_{mc} := 6.25\text{·in}$ (Port Center x Coordinate)

$y_{mc} := 9.65\text{·in}$ (Port Center y Coordinate)

Locate = Front Baffle Port

Listening Position (Default Location is at 1 m Distance

Floor Condition = carpeted)

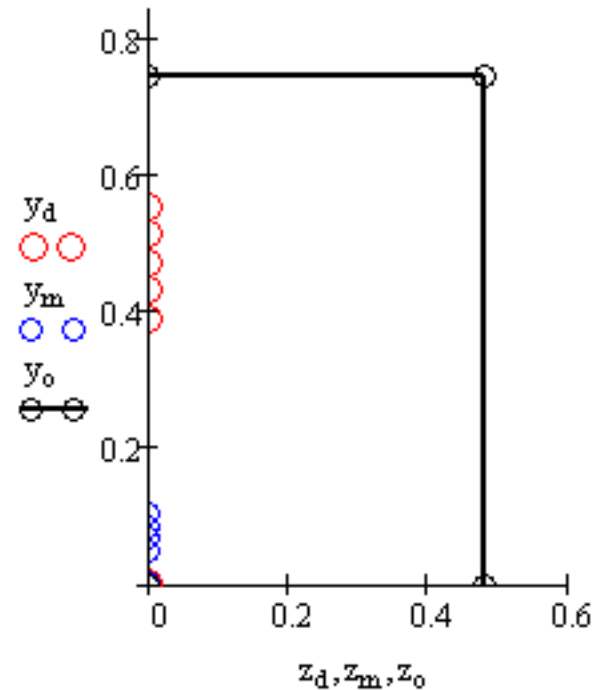
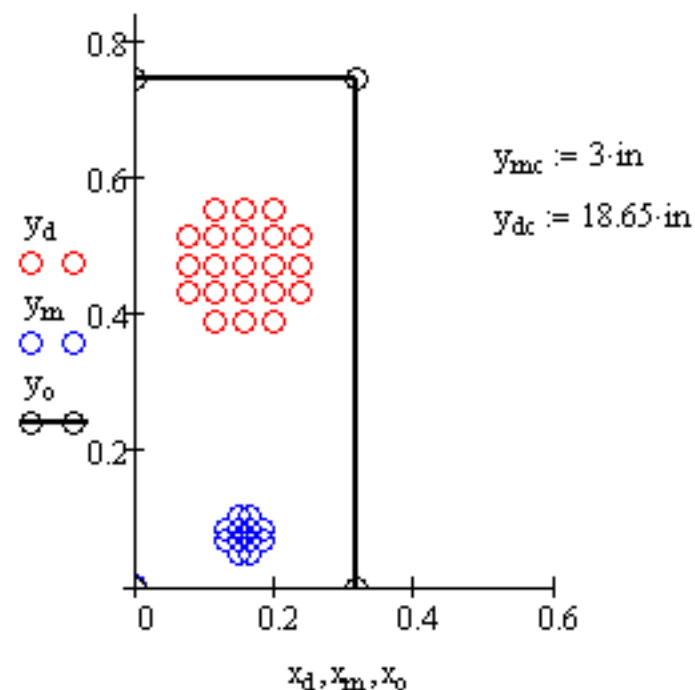
$r_{port} := 1.38\text{in}$ (Inside Radius of the Port)

$L_{port} := 10\text{·in}$ (Length of the Port)

Power := 8·watt (Input Power)

Applied Voltage Reference ---> $R_{ref} := 8\text{·}\Omega$

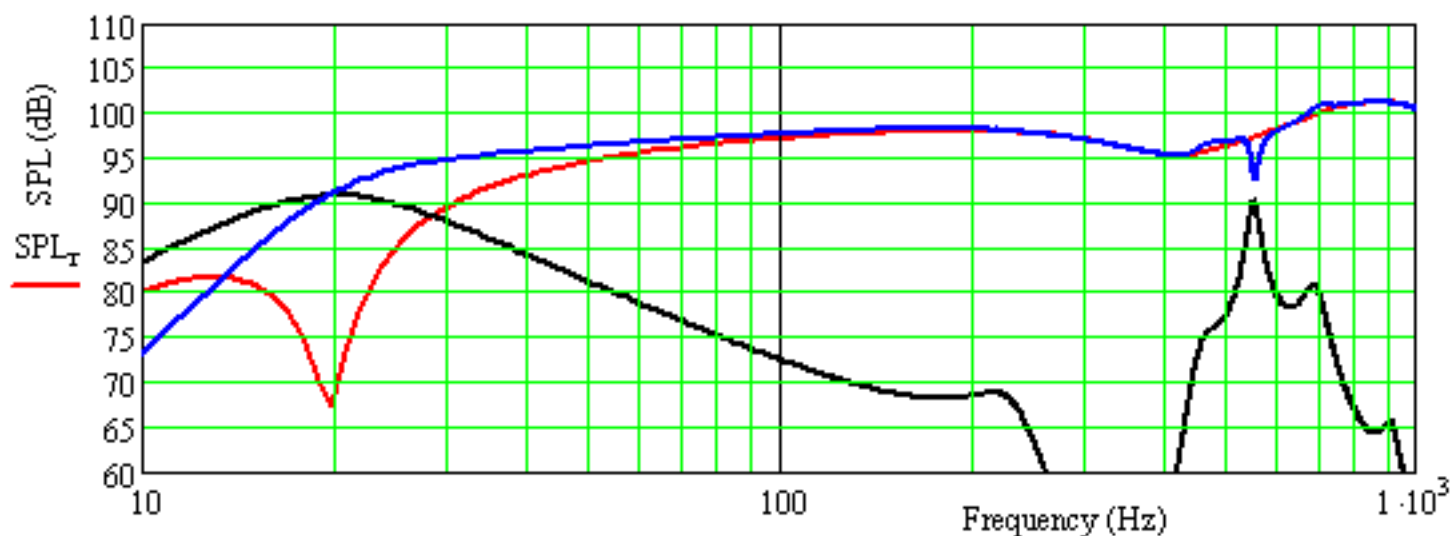
$V = 88.011\text{ L}$ $Q_t = 0.566$

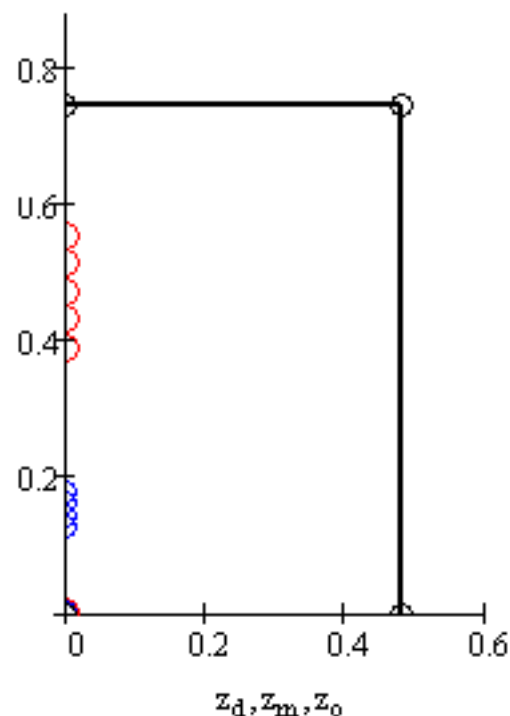
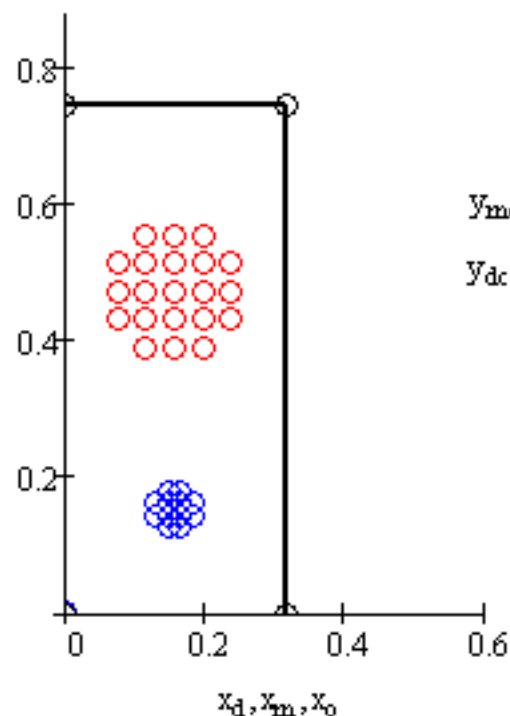


Plotted Baffle Step and Reflection SPL Response for the Circular Driver Source —

Plotted Baffle Step and Reflection SPL Response for the Circular Port Source —

Plotted SPL Response for the System —

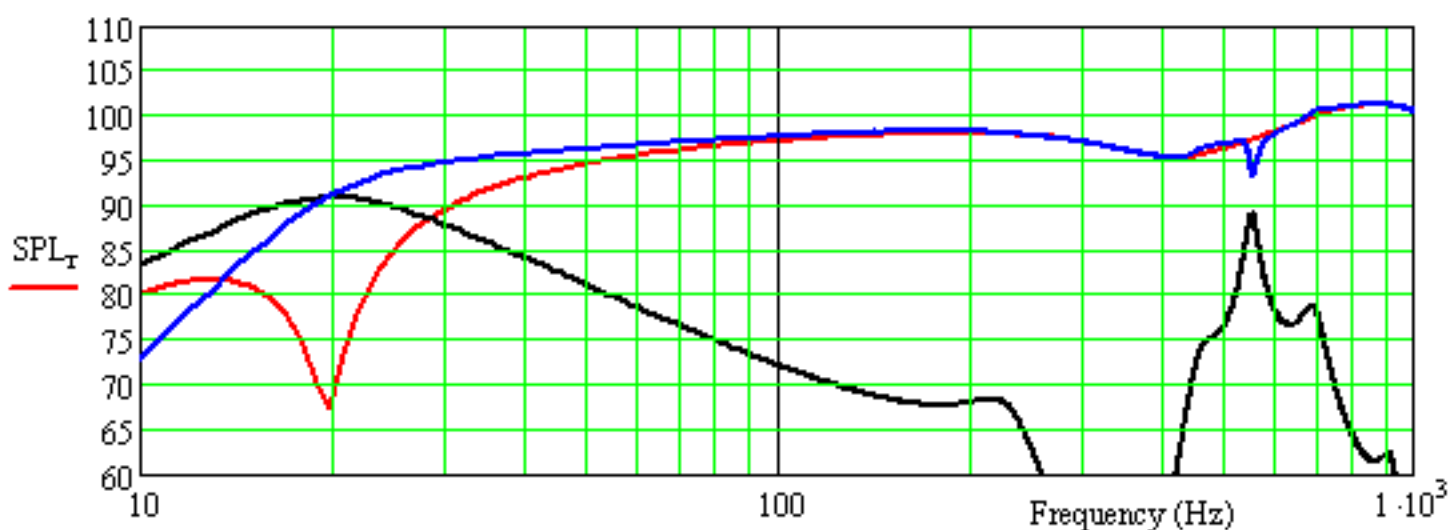


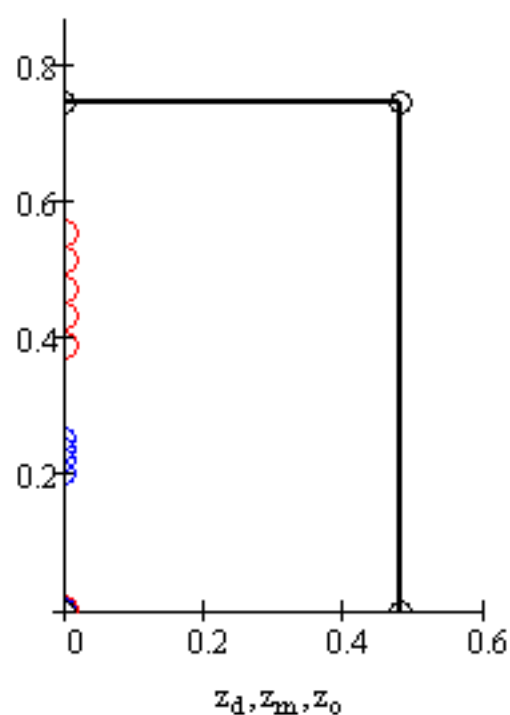
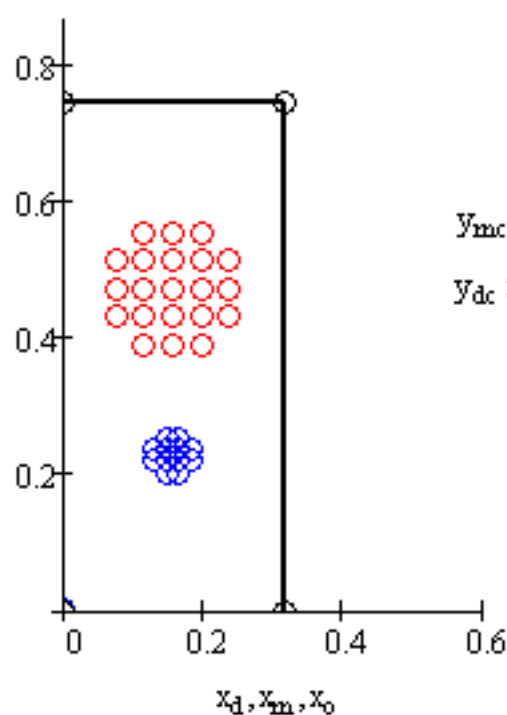


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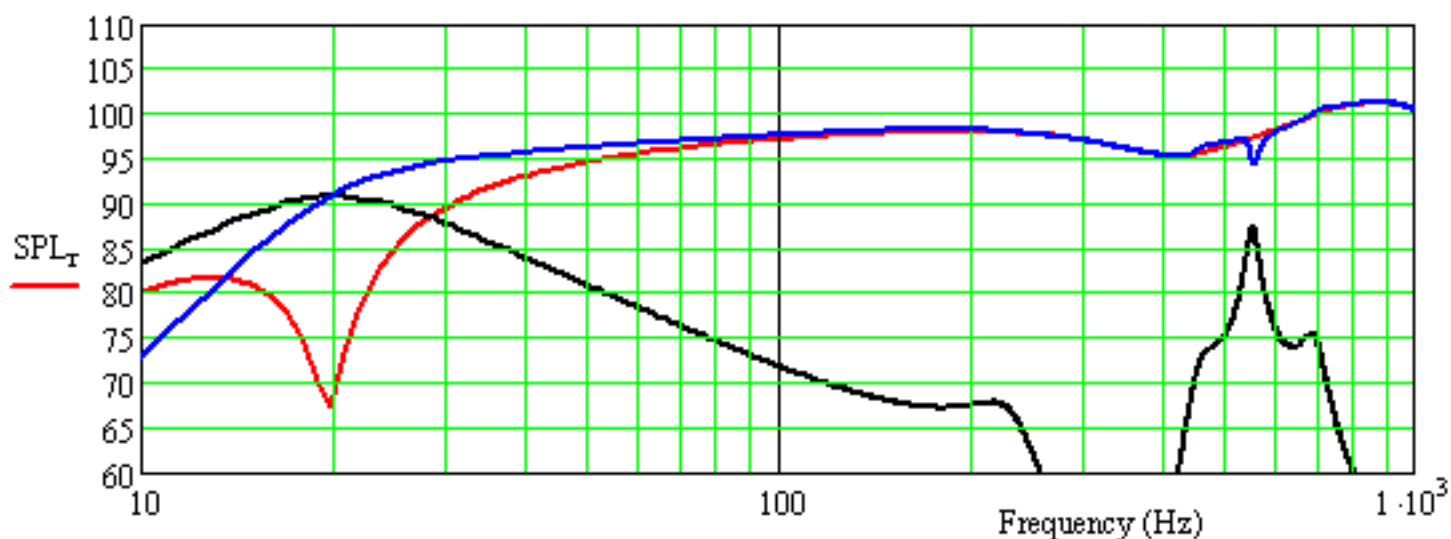


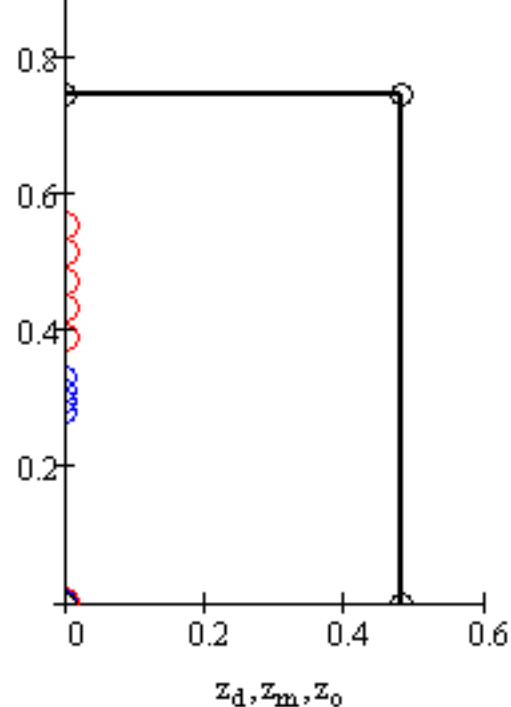
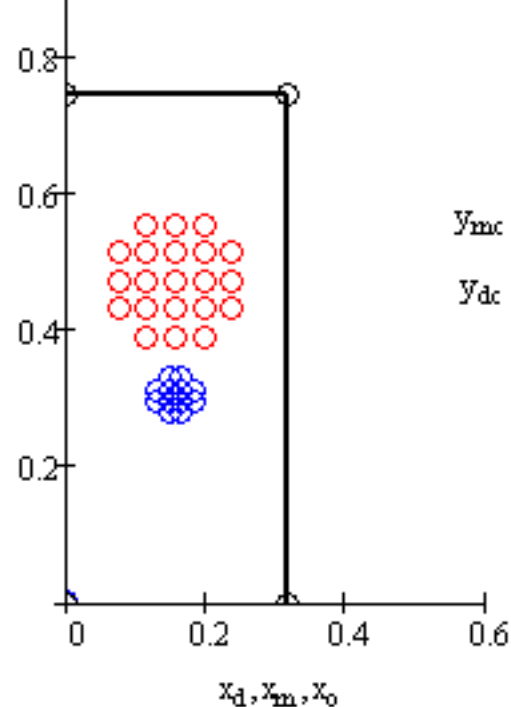


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