

Calculating the Absorption Constant

$$k_{ab(f)} = \frac{\left(\frac{A_s(f)}{P_s}\right) - \left(\frac{A_m(f)}{P_m}\right)}{\left(\frac{S_s}{P_s}\right) - \left(\frac{S_m}{P_m}\right)}$$

Where:

k_{ab} = absorption constant

A_s = absorption of scattered sample, m² or Sabins

A_m = absorption of mono sample, m² or Sabins

S_s = area of scattered sample, ft² or m²

S_m = area of mono sample, ft² or m²

P_s = perimeter of scattered sample, ft or m

P_m = perimeter of mono sample, ft or m

(f) = frequency of interest in prediction

Formula for using the Absorption Constant

$$A_{x(f)} = k_{ab(f)} * S_x + \left(\frac{A_x(f)}{P_m}\right) - k_{ab(f)} * \frac{S_m}{P_m} * P_x$$

Where:

k_{ab} = absorption constant

A_x = absorption of surface being predicted, m² or Sabins

A_s = absorption of scattered sample, m² or Sabins

S_x = area of surface being predicted, ft or m

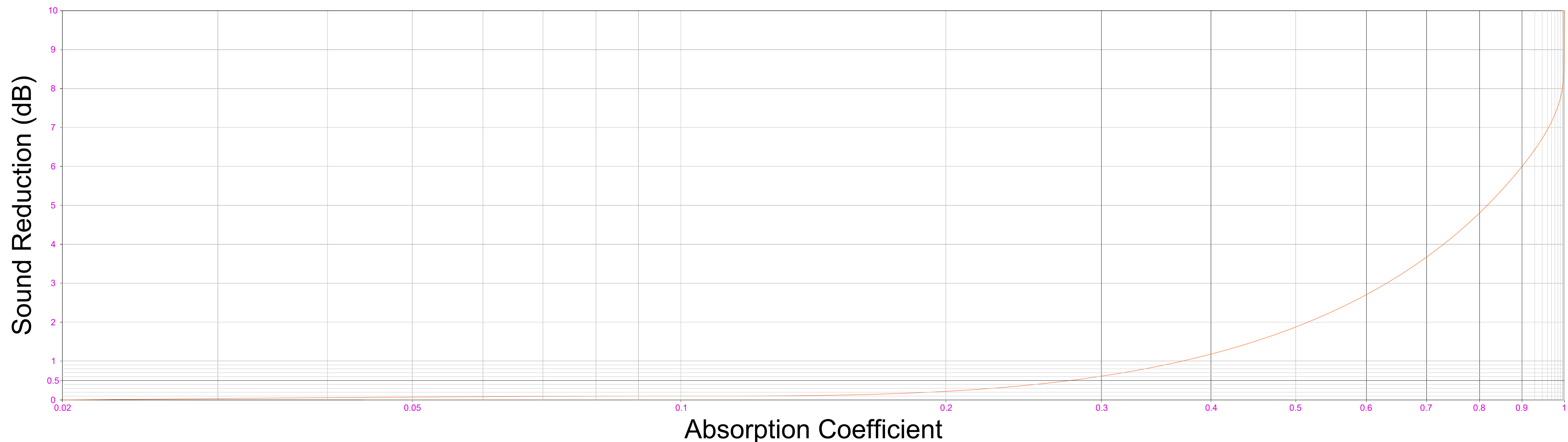
S_m = area of mono sample, ft² or m²

P_x = perimeter of surface being predicted, ft or m

P_s = perimeter of scattered sample, ft or m

P_2 = perimeter of mono sample, ft or m

(f) = frequency of interest in prediction



Author: John H. Brandt	Date: 01/07/2021
Drafter:	Date:
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This drawing is to be printed on
standard A1 paper (594 mm X 841 mm)
if not, DO NOT SCALE. Scale Metric:
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CHART VIEW

Job No: N/A Project Date: 01/07/2021

Sheet: