

Filter Wizard

Filter Wizard Design

Created on 11/03/2025



Filter Wizard Design Report

Filter Requirements for Low-Pass, 2nd order Butterworth

Specifications: Optimize: Specific Parts; +Vs: 5; -Vs: -5

Gain: 0 dB

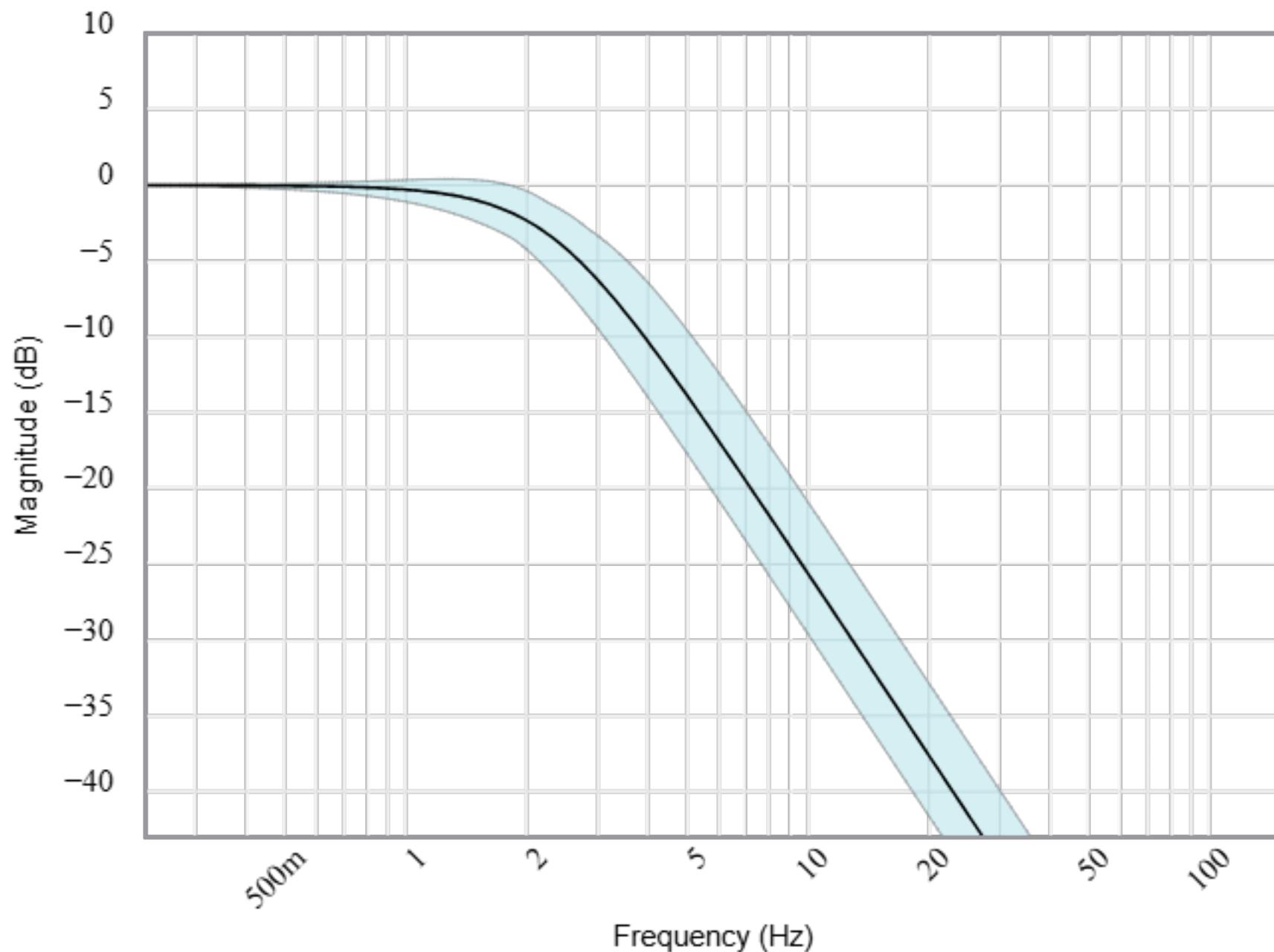
Passband: -3dB at 2.3Hz

Stopband: -23dB at 15Hz

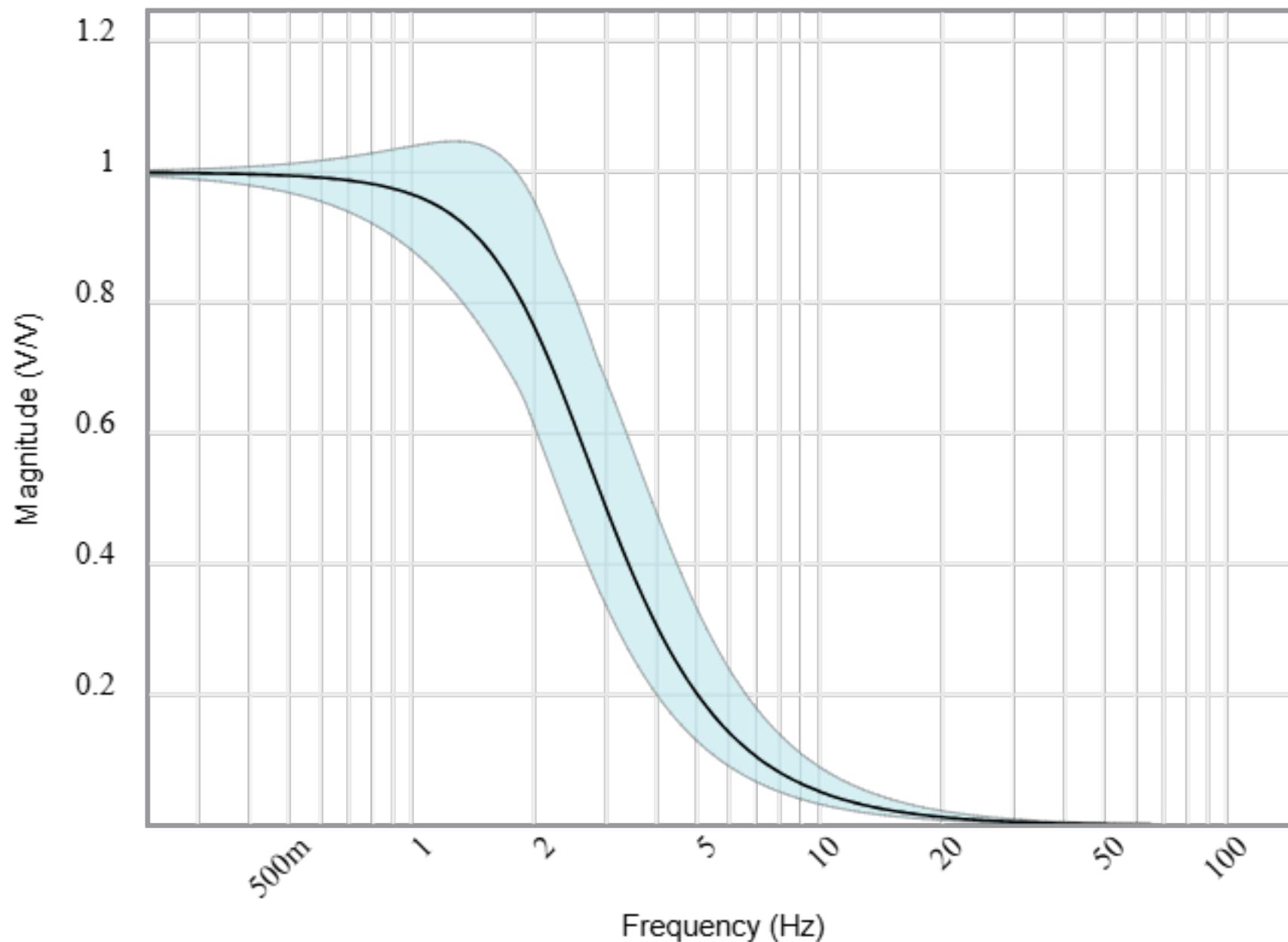
Component Tolerances: Capacitor = 20%; Resistor = 5%; Inductor = 5%; Op Amp GBW = 20%

BOM: refer to BOM.csv file

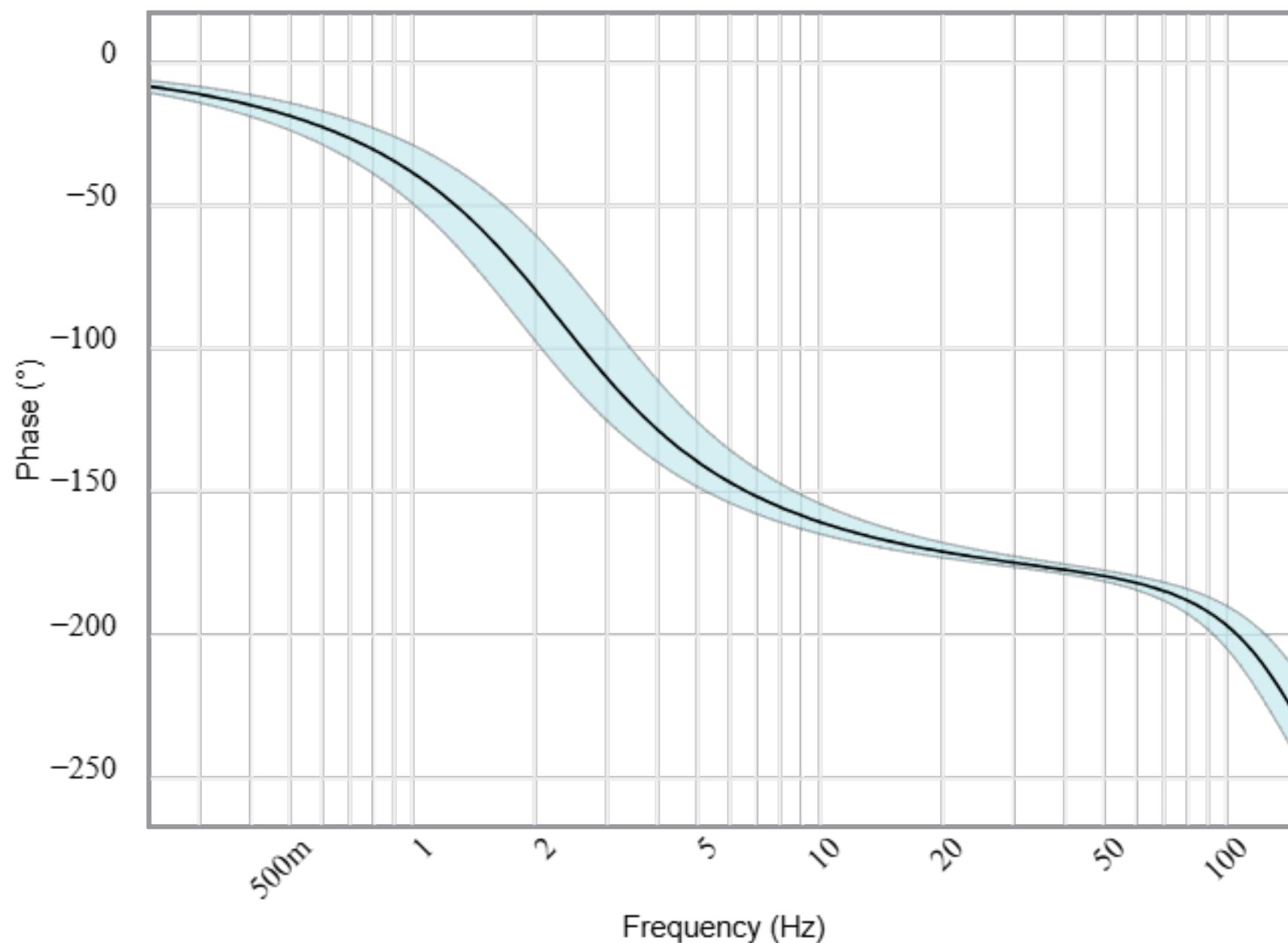
Magnitude(dB)



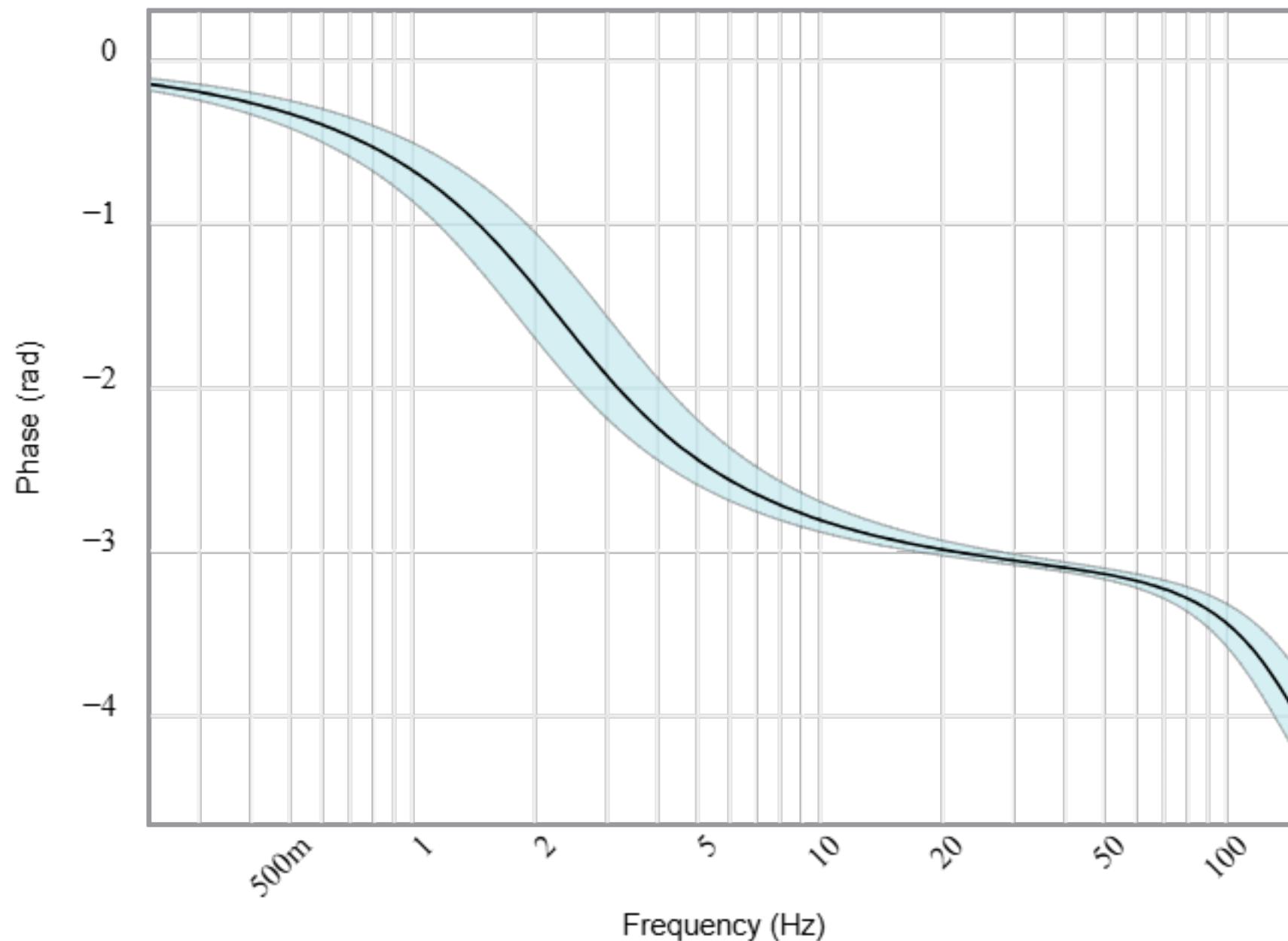
Magnitude(Volts per Volt)



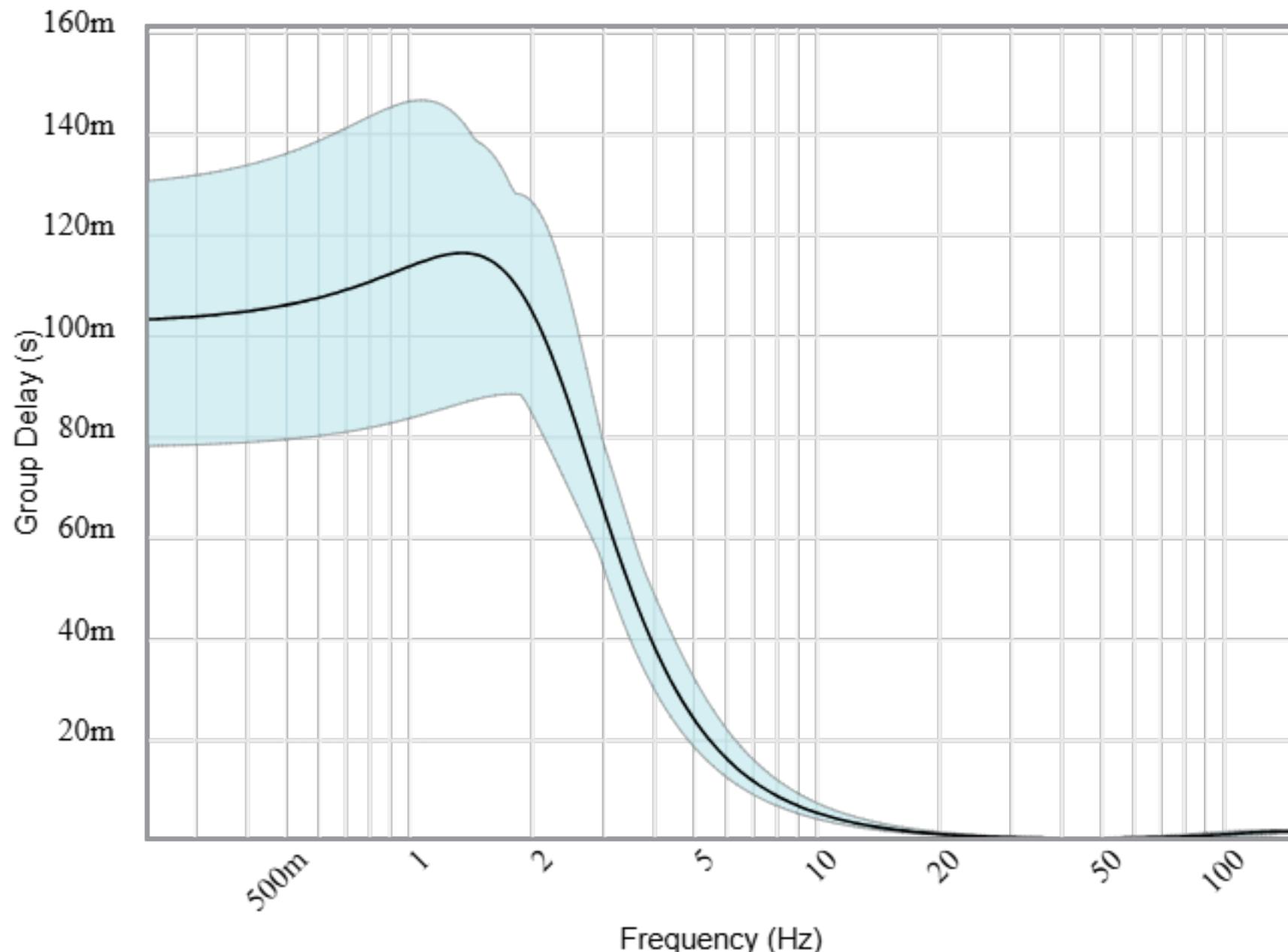
Phase(degrees)



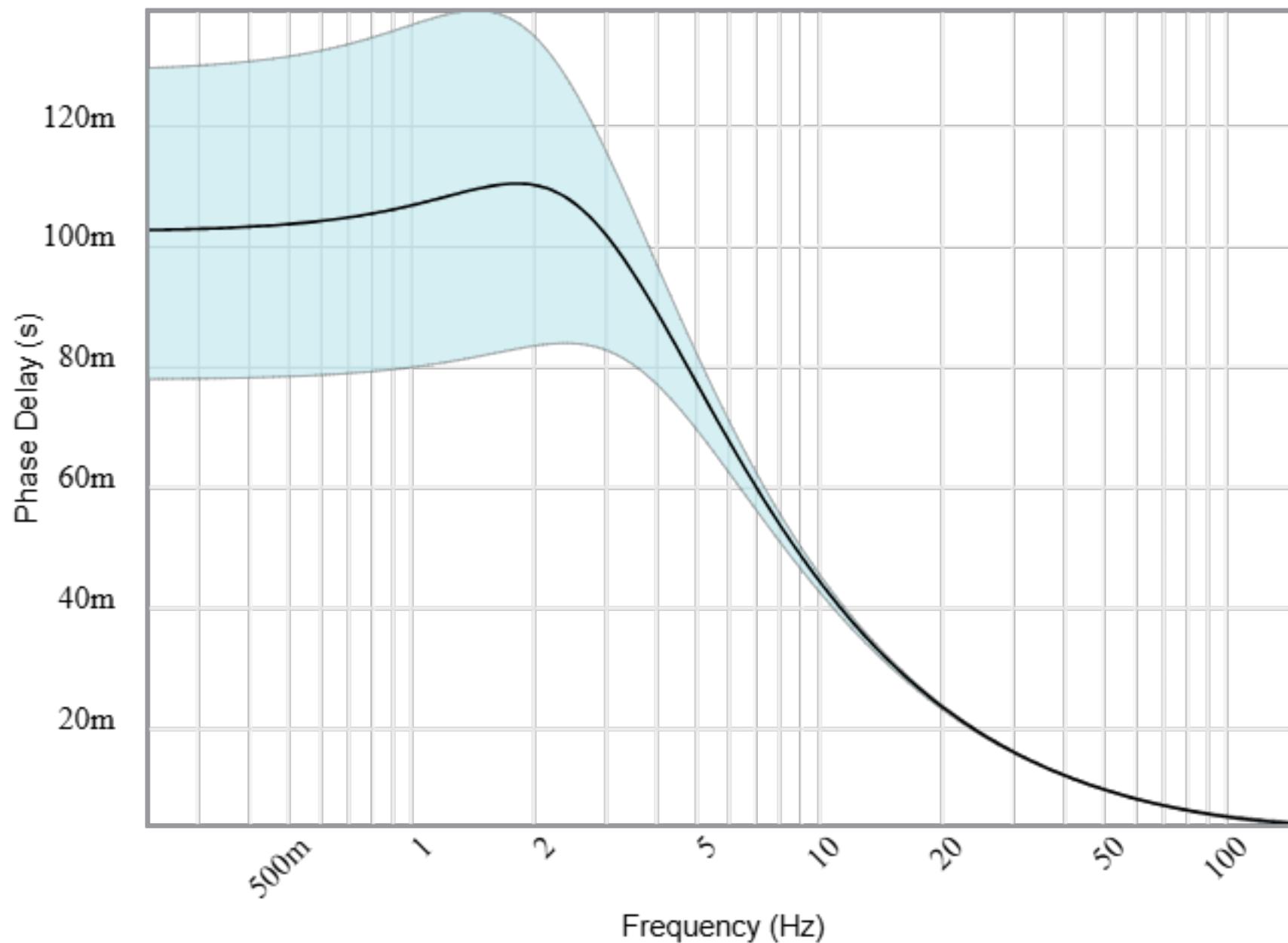
Phase(radians)



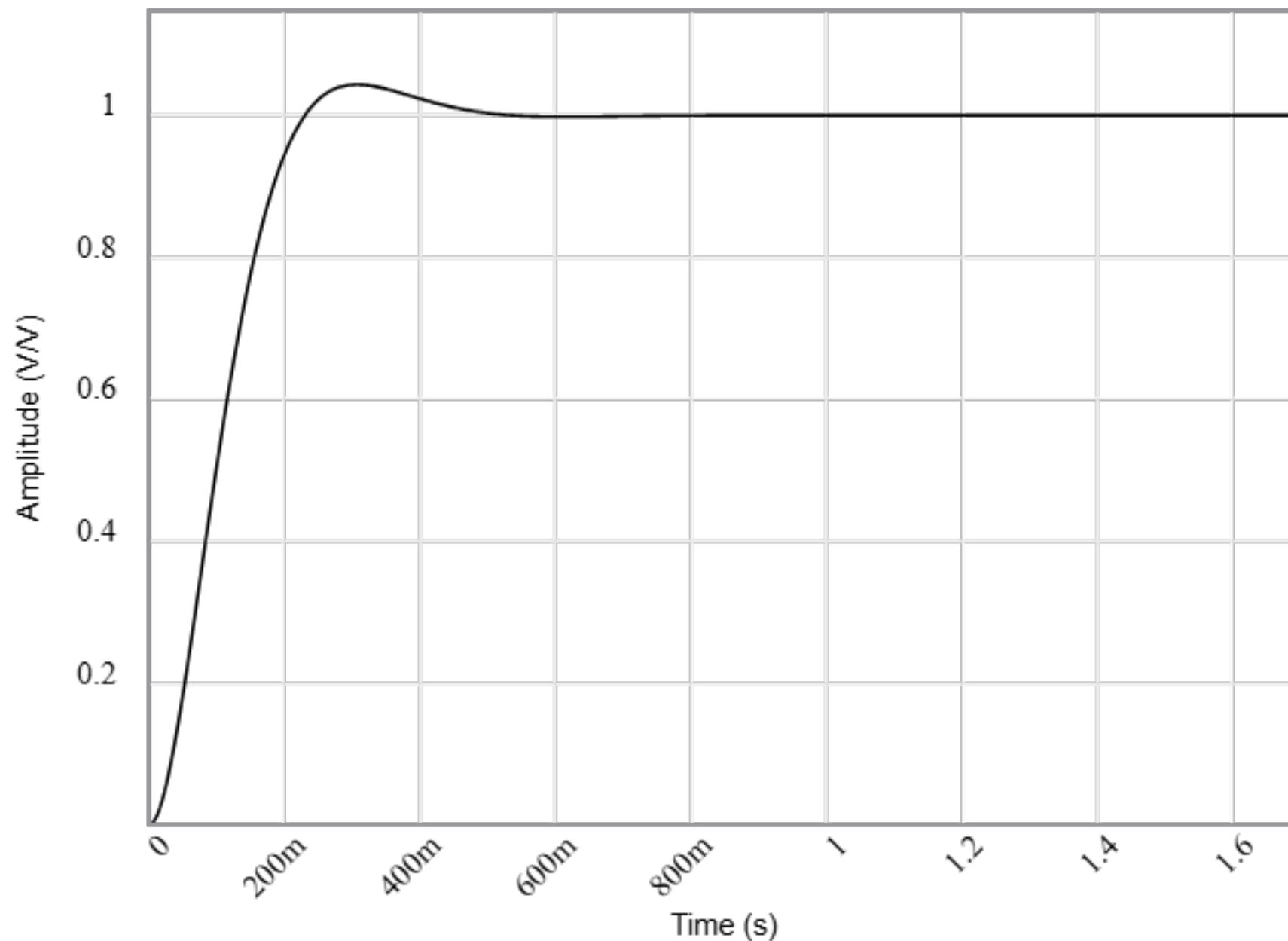
Group Delay



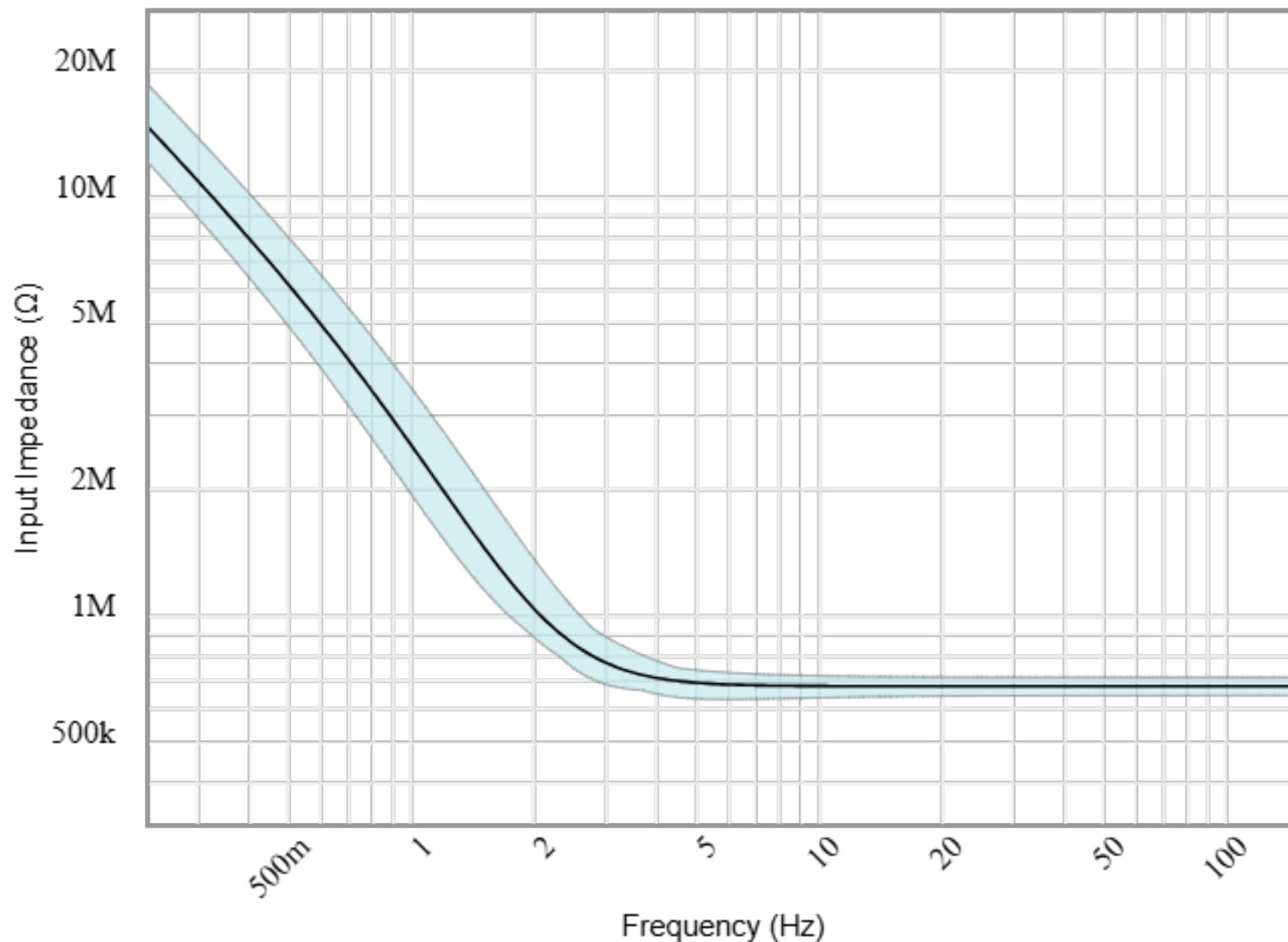
Phase Delay



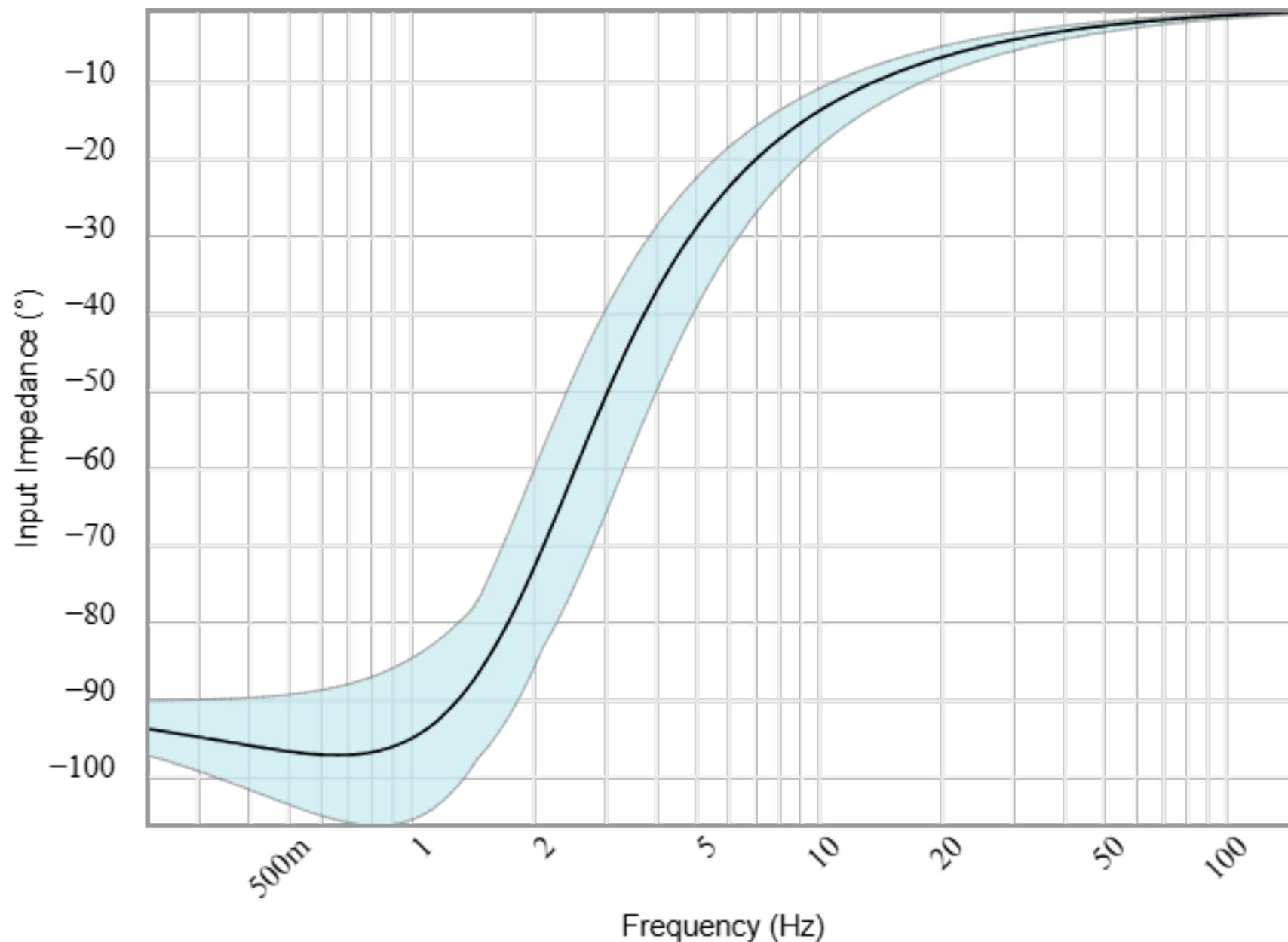
Step Response



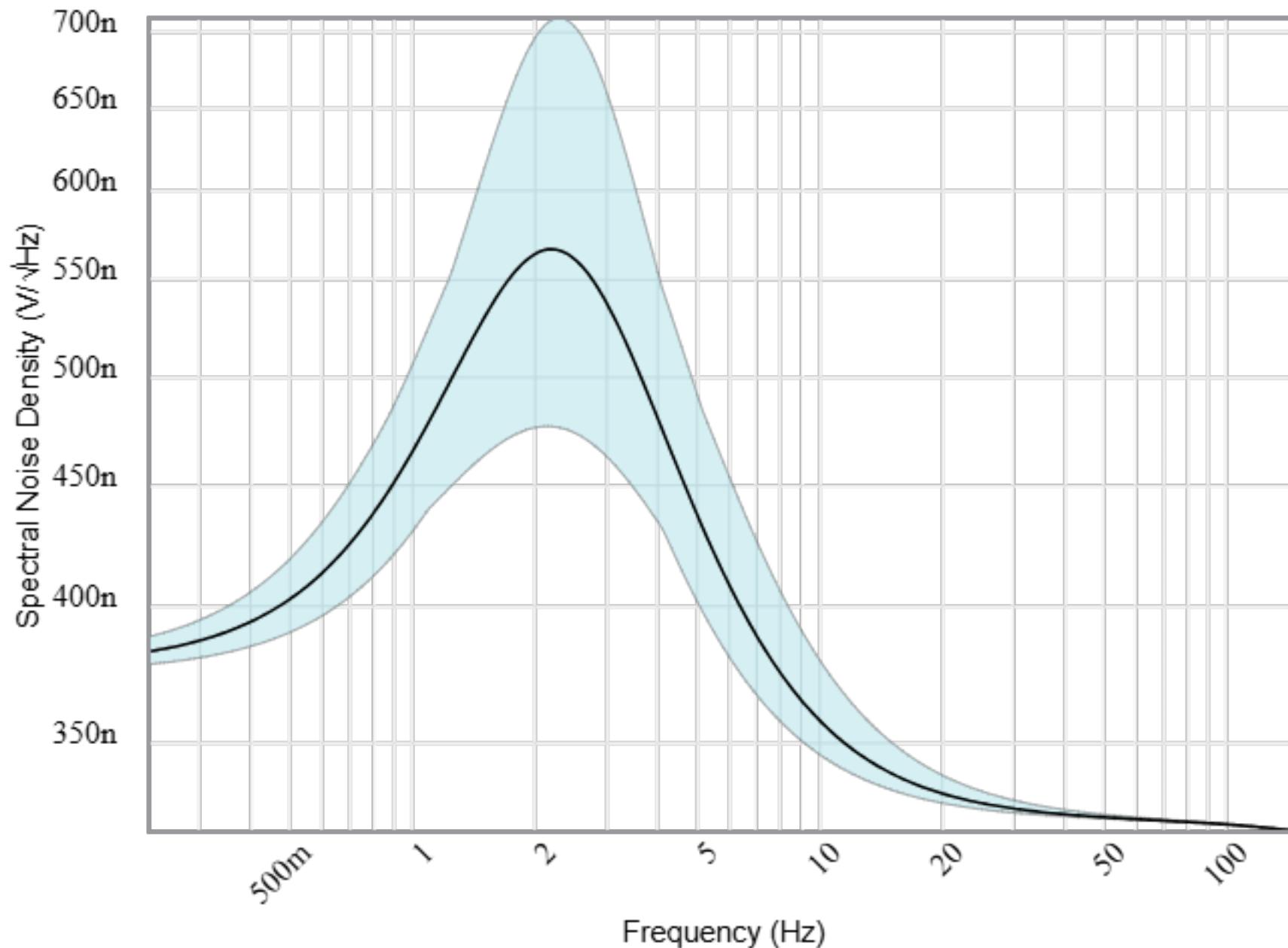
Input Impedance Magnitude



Input Impedance Phase

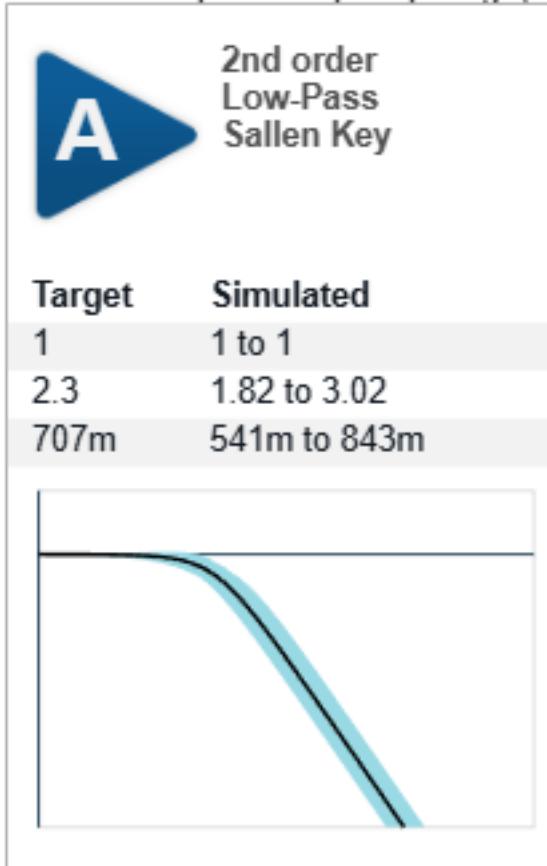


Noise



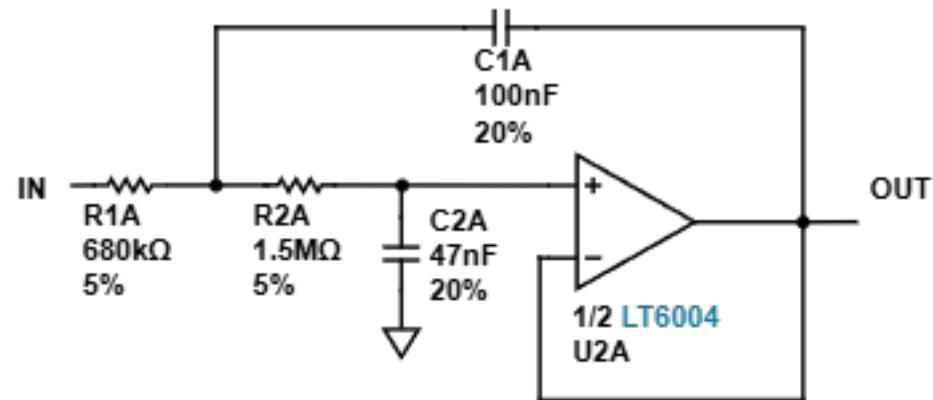
Stages

Your filter requires 1 op amp stage(s) with the following characteristics



Circuit

Stage A
2nd order
Low-Pass
Sallen Key



BYPASS CAPACITORS

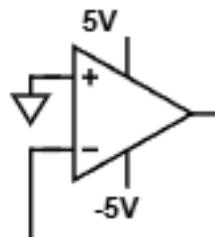
C9A 5V
100nF 20%

C0A -5V
100nF 20%

C101M 5V
10μF 20%

C100M -5V
10μF 20%

SPARES [Why The Spares?](#)



1/2 LT6004
U2A