



Filter Wizard

Created by Filip Mivalt on 5/15/2017



Filter Wizard Design Report

Filter Requirements for High-Pass, 3rd order Butterworth

Specifications: Optimize for Power, $+V_s = 9$, $-V_s = -9$

Gain: 20 dB

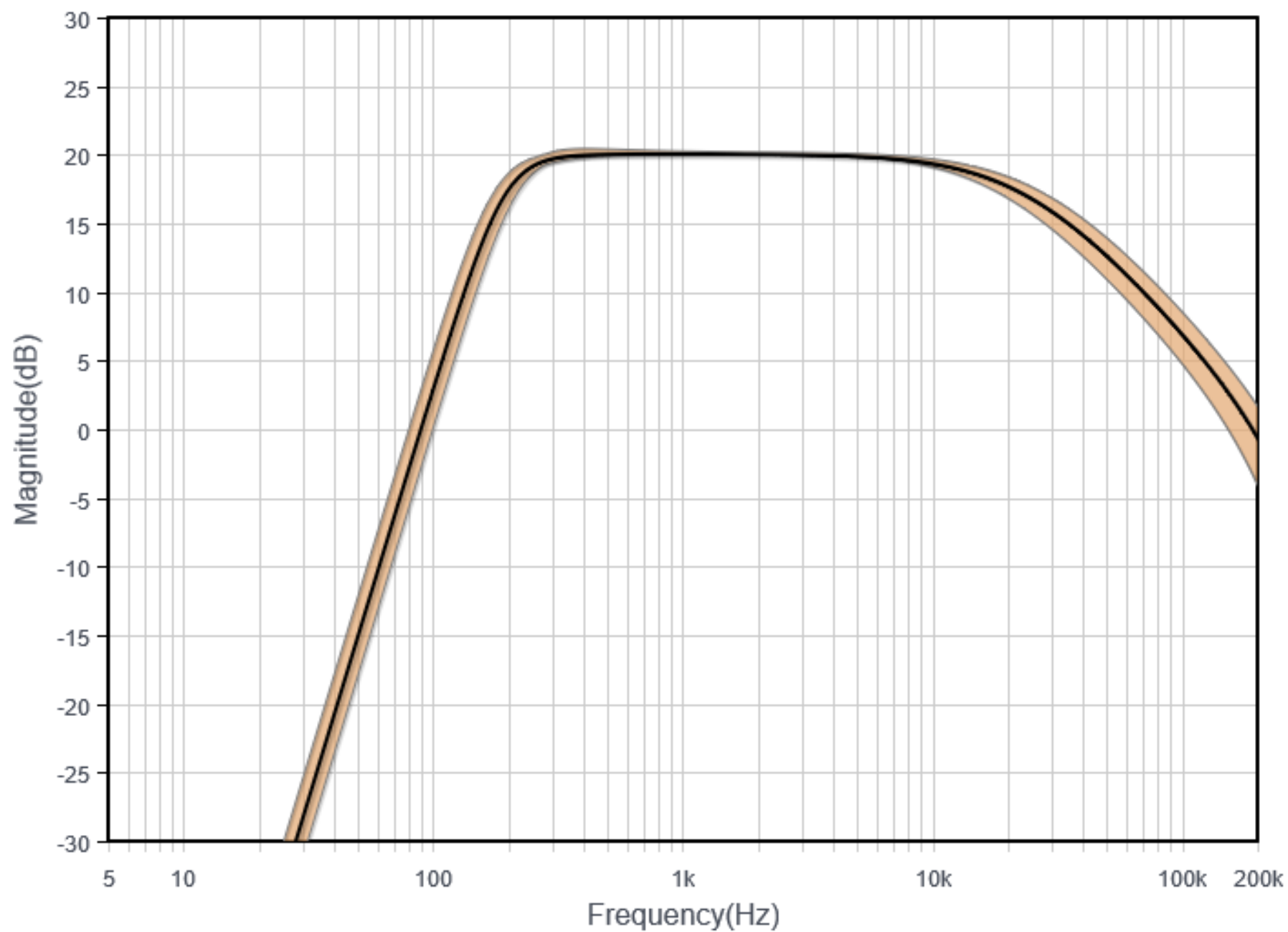
Passband: -3dB at 200Hz

Stopband: -30dB at 50Hz

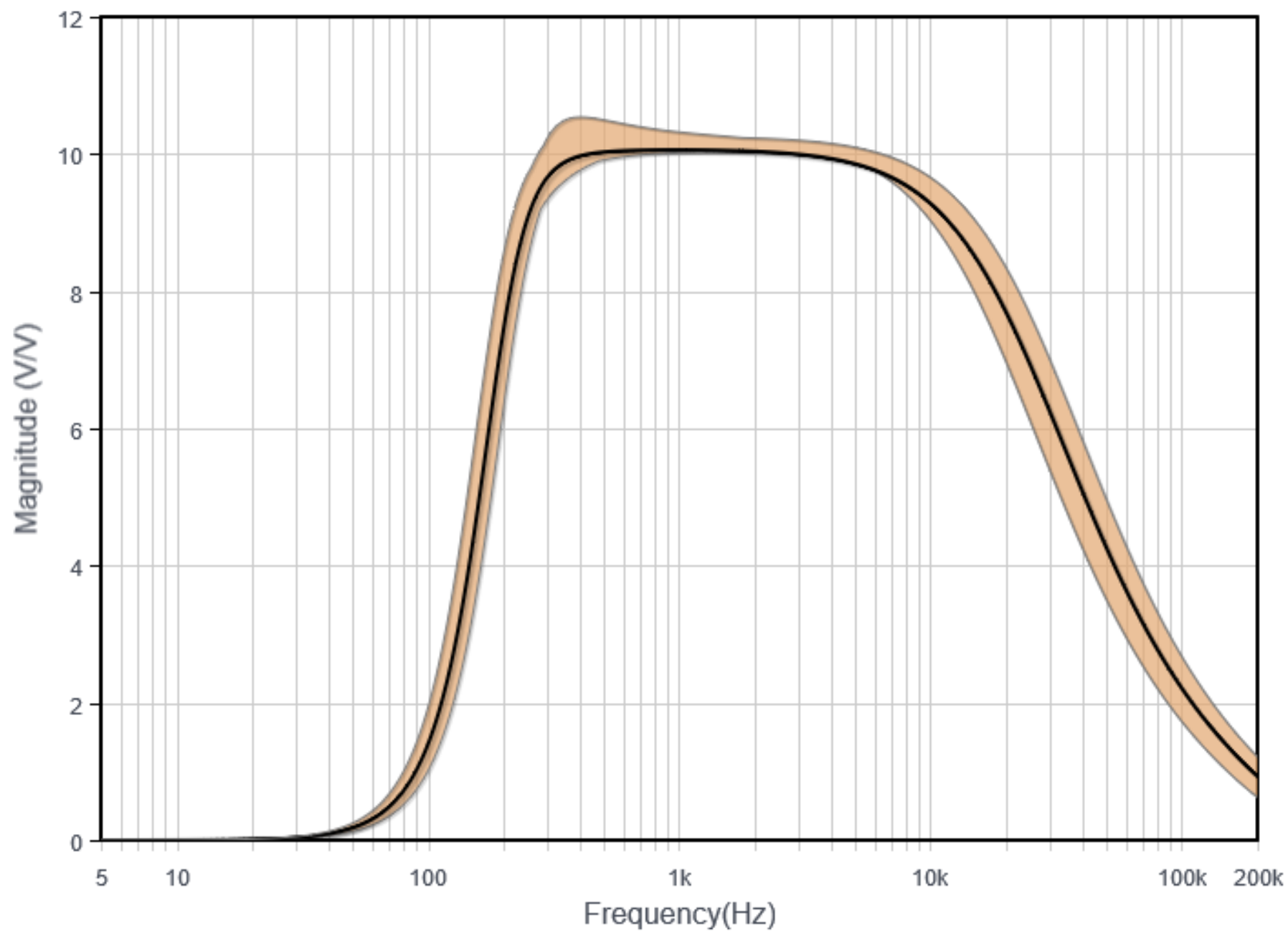
Component Tolerances: Capacitor = 10%; Resistor = 1%; Inductor = 5%; Op Amp GBW = 20%

BOM: refer to BOM.csv file

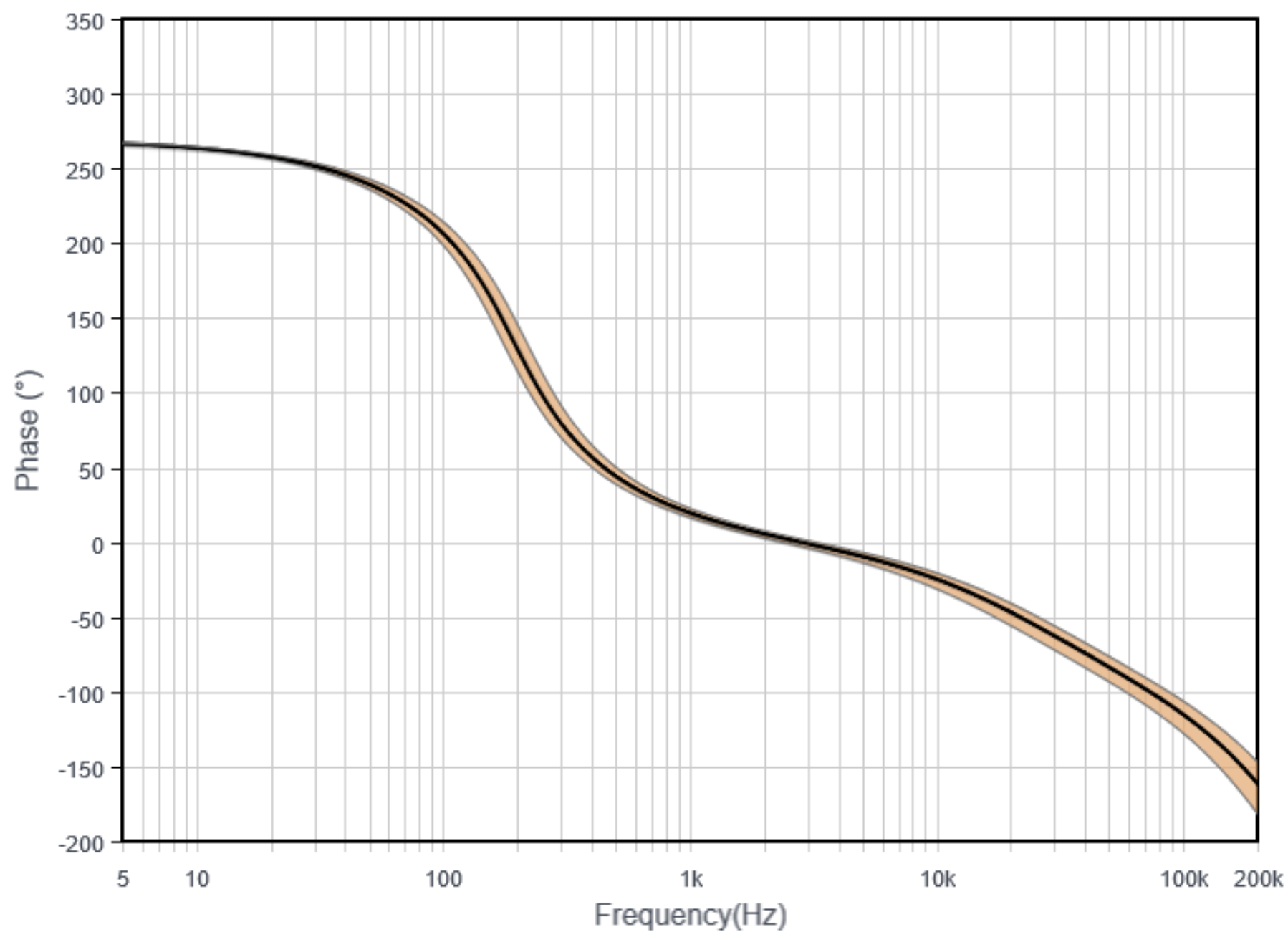
Magnitude(dB)



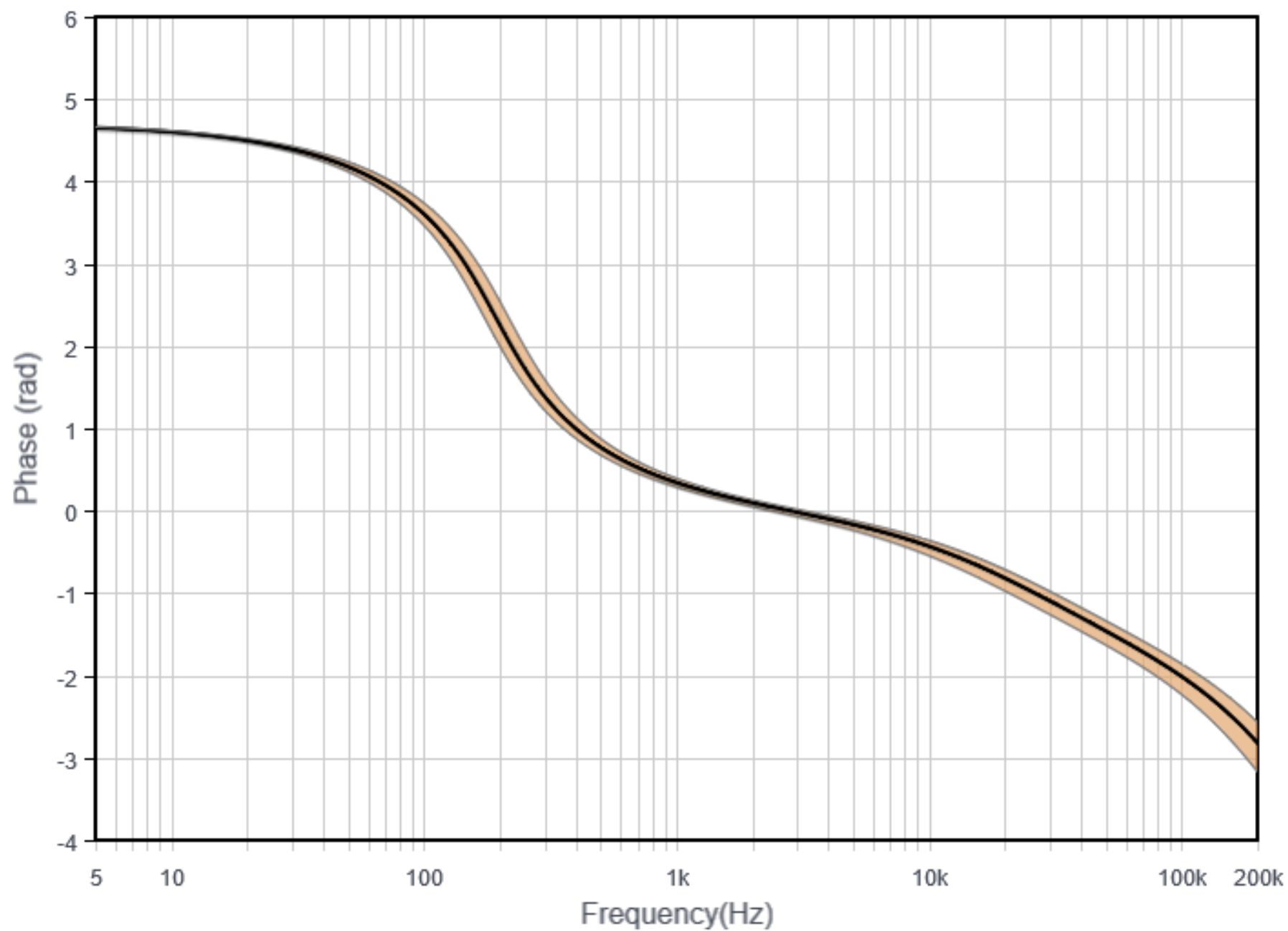
Magnitude(Volts per Volt)



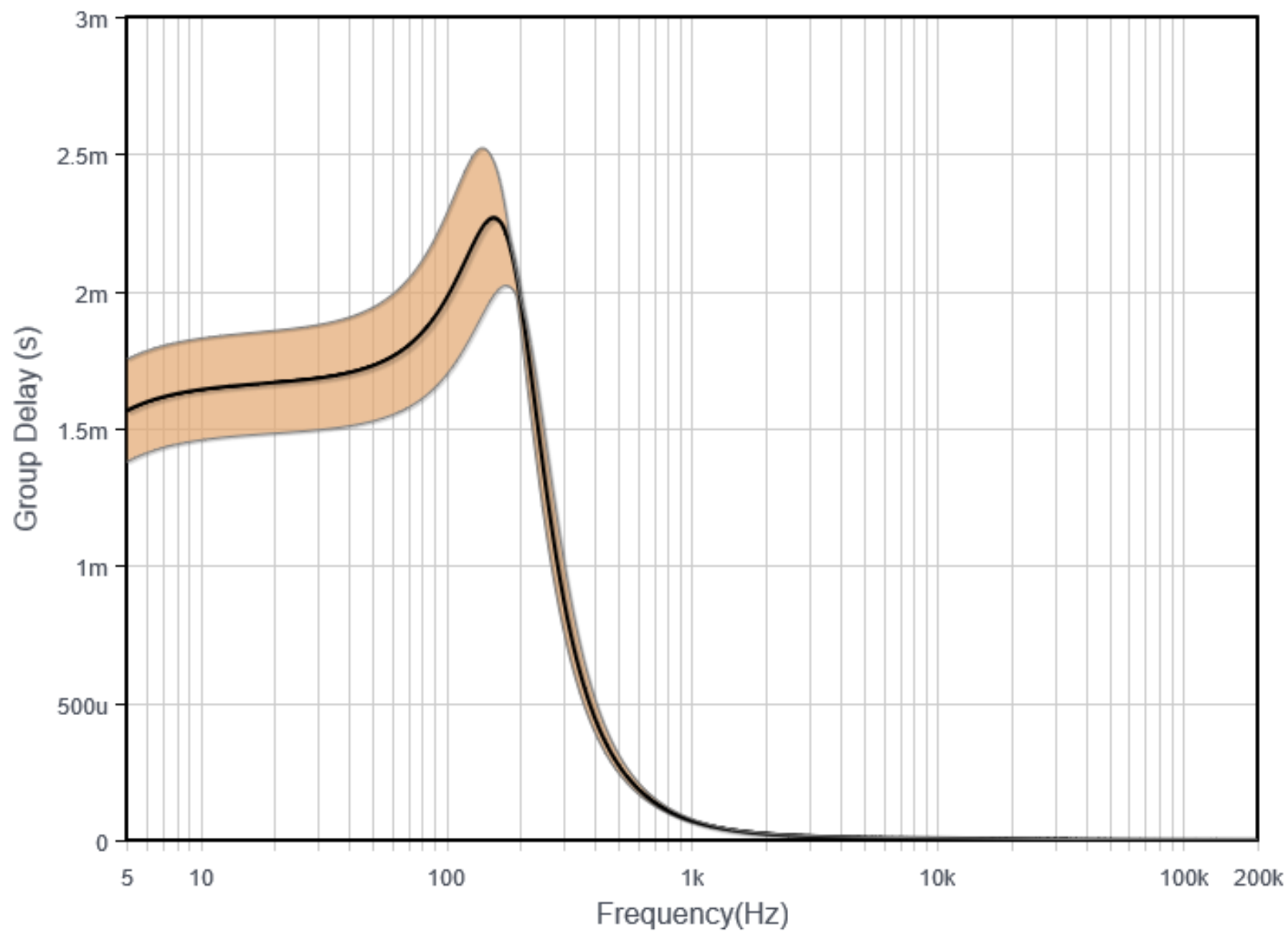
Phase(degrees)



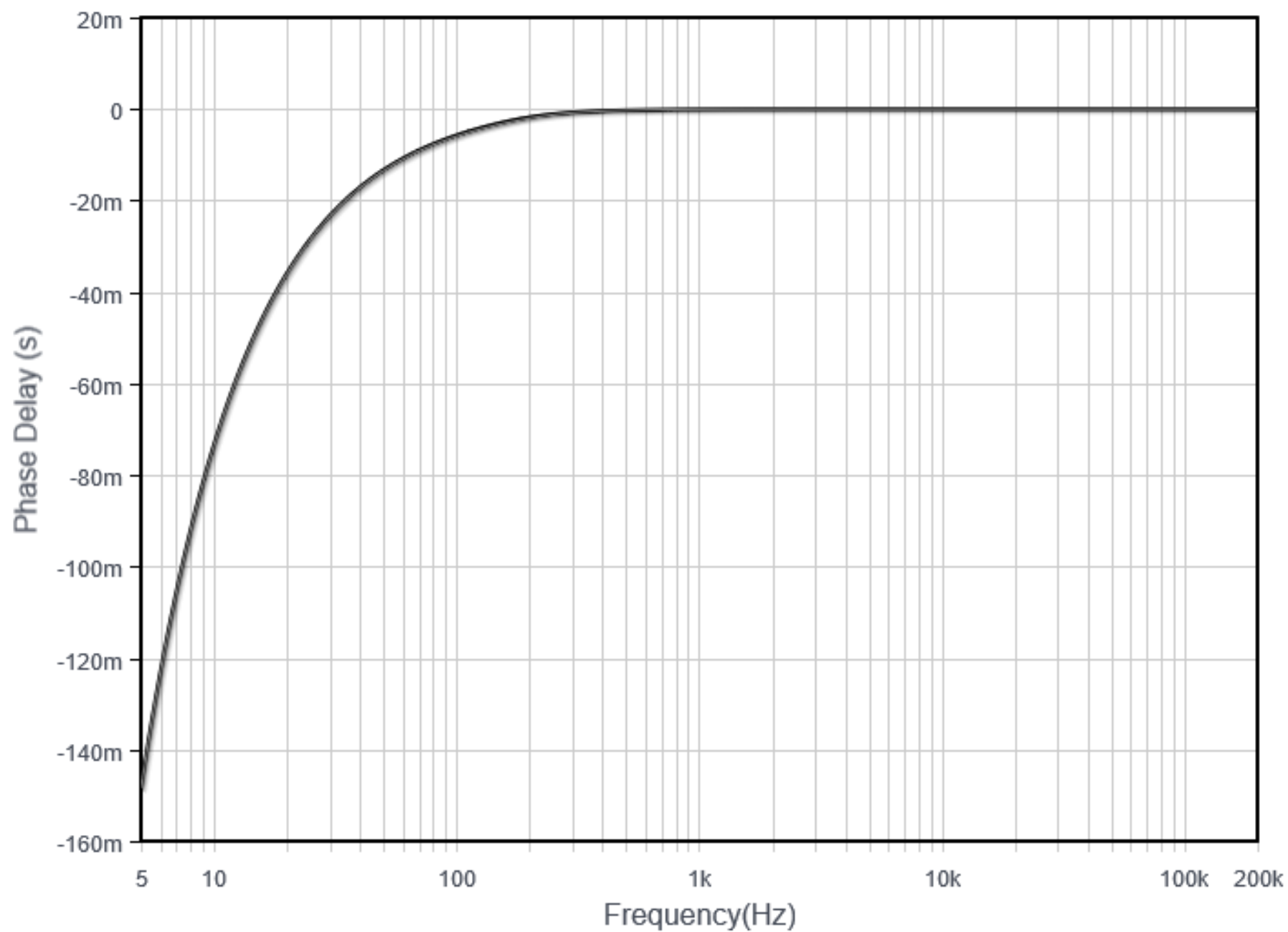
Phase(radians)



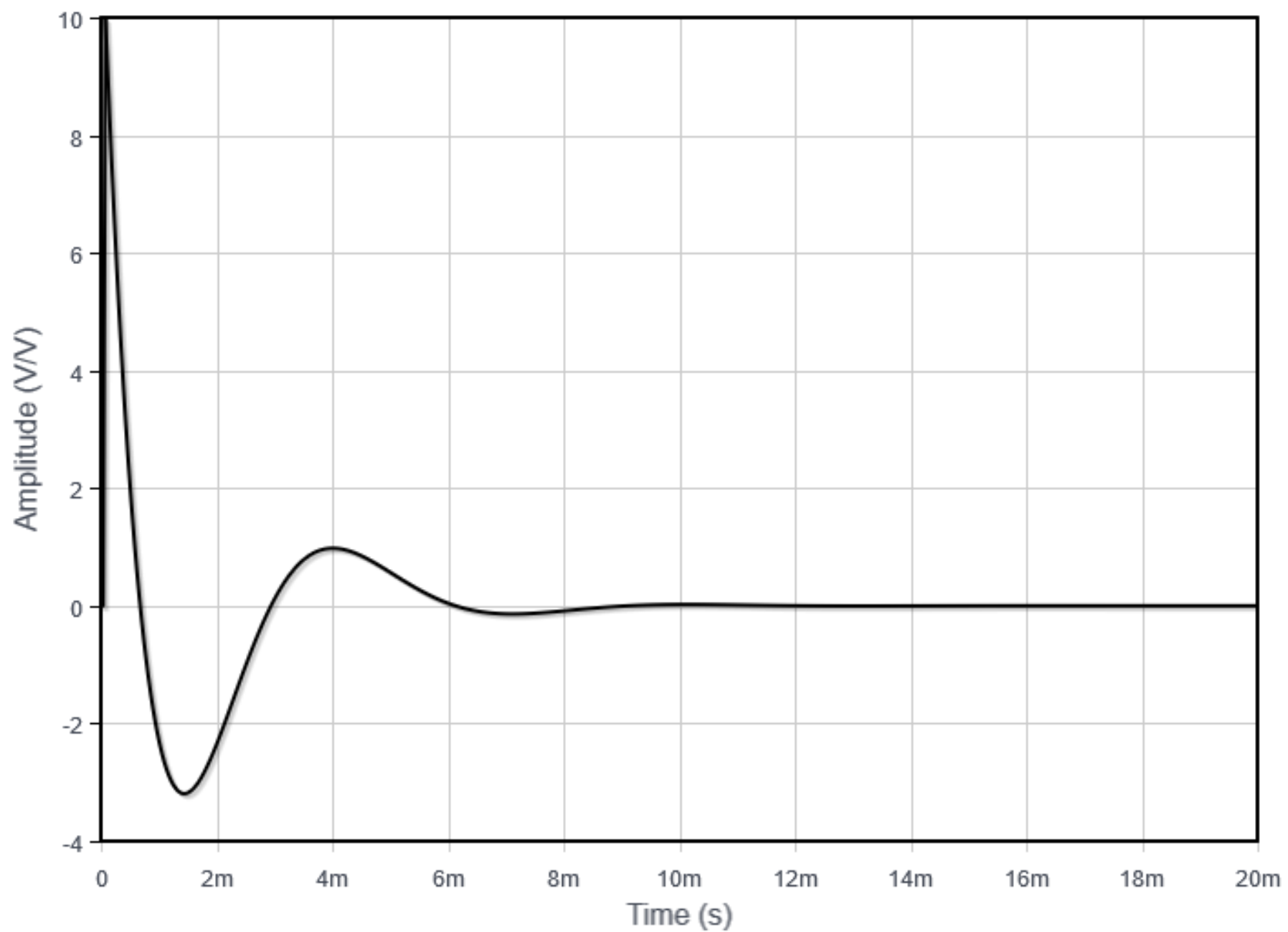
Group Delay



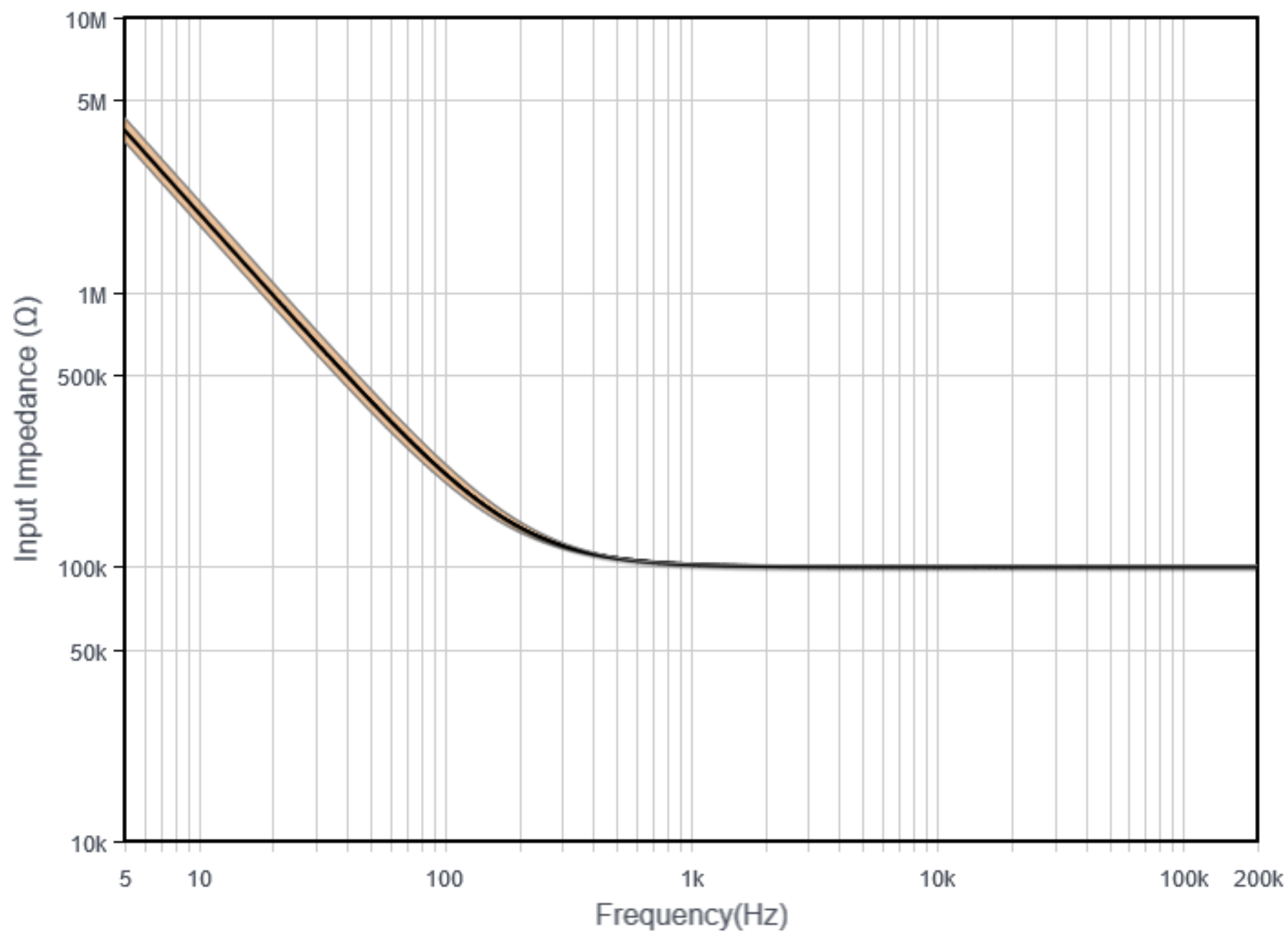
Phase Delay



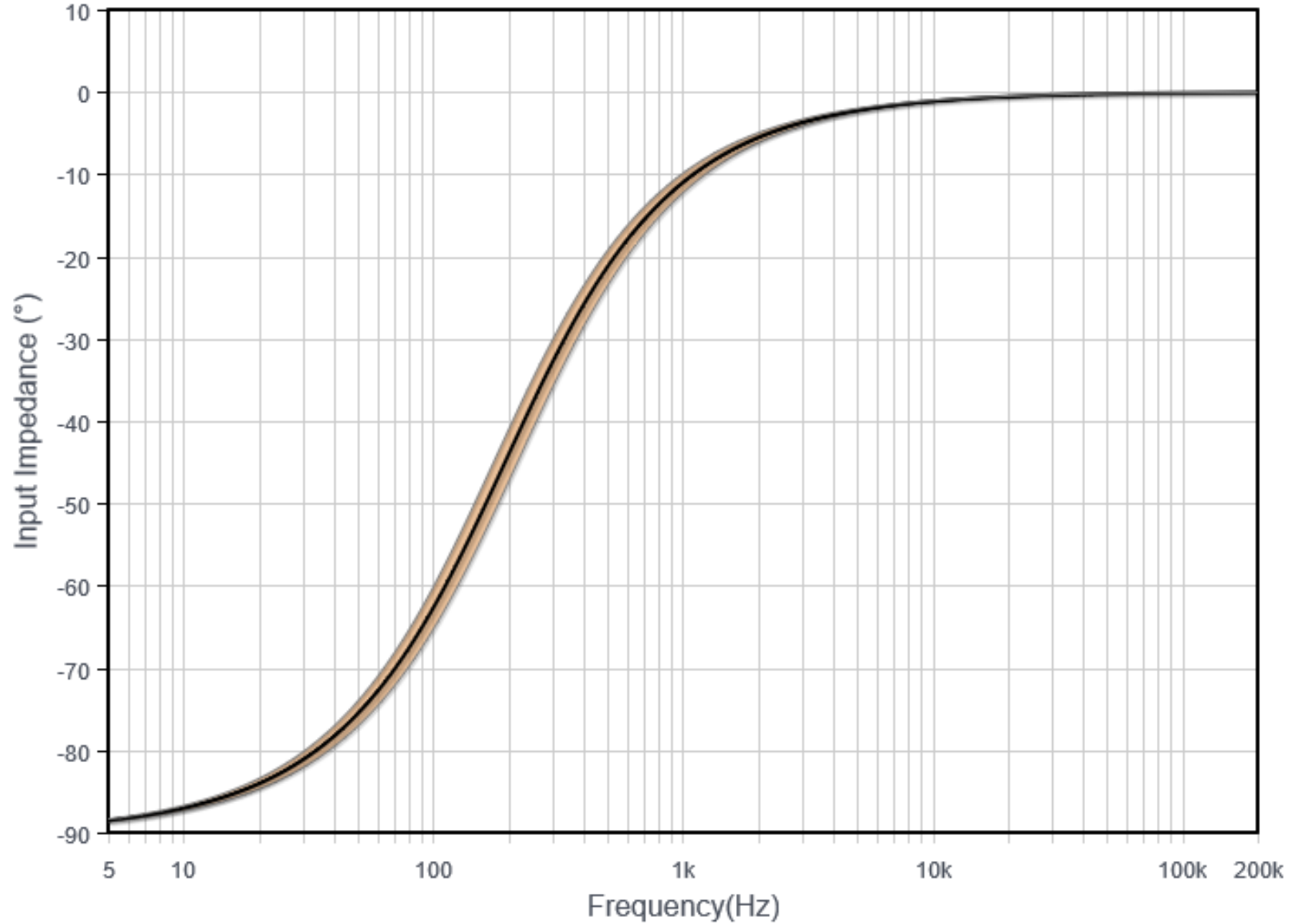
Step Response



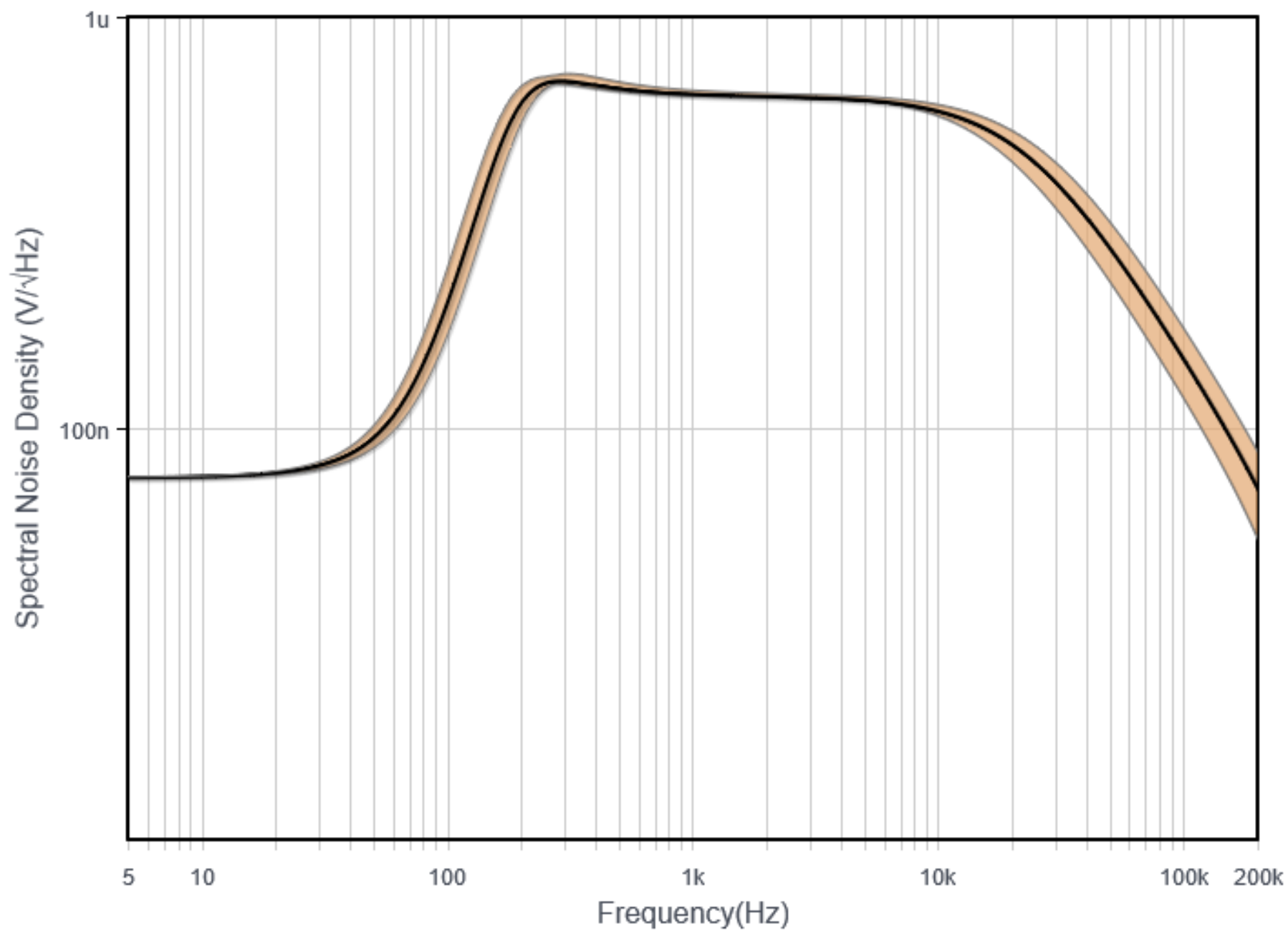
Input Impedance Magnitude



Input Impedance Phase



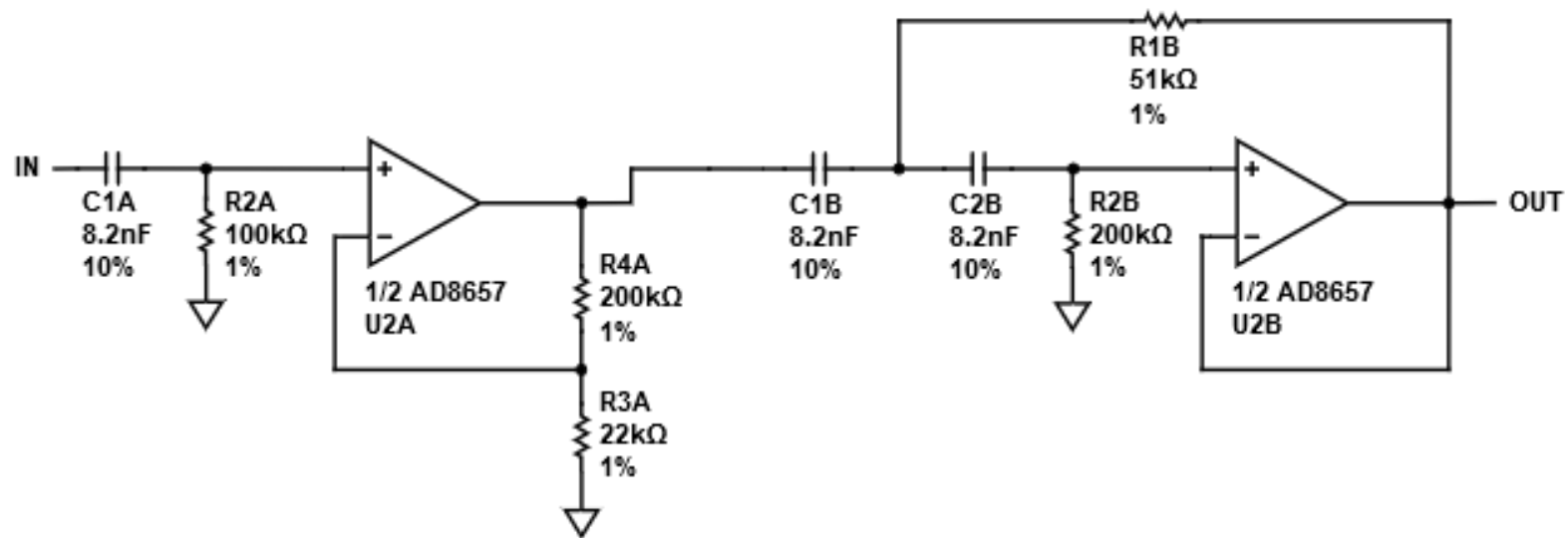
Noise



Circuit

Stage A
1st order
High-Pass
First Order

Stage B
2nd order
High-Pass
Sallen Key



C9A
100nF
20%

9V

C0A
100nF
20%

-9V

C9B
100nF
20%

9V

C0B
100nF
20%

-9V

C101M
10uF
20%

9V

C100M
10uF
20%

-9V

