



Filter Wizard

Filter Wizard Design

Created on 09/05/2024



Filter Wizard Design Report

Filter Requirements for Low-Pass, 2nd order Butterworth

Specifications: Optimize: Specific Parts; +Vs: 9; -Vs: 0

Gain: 0 dB

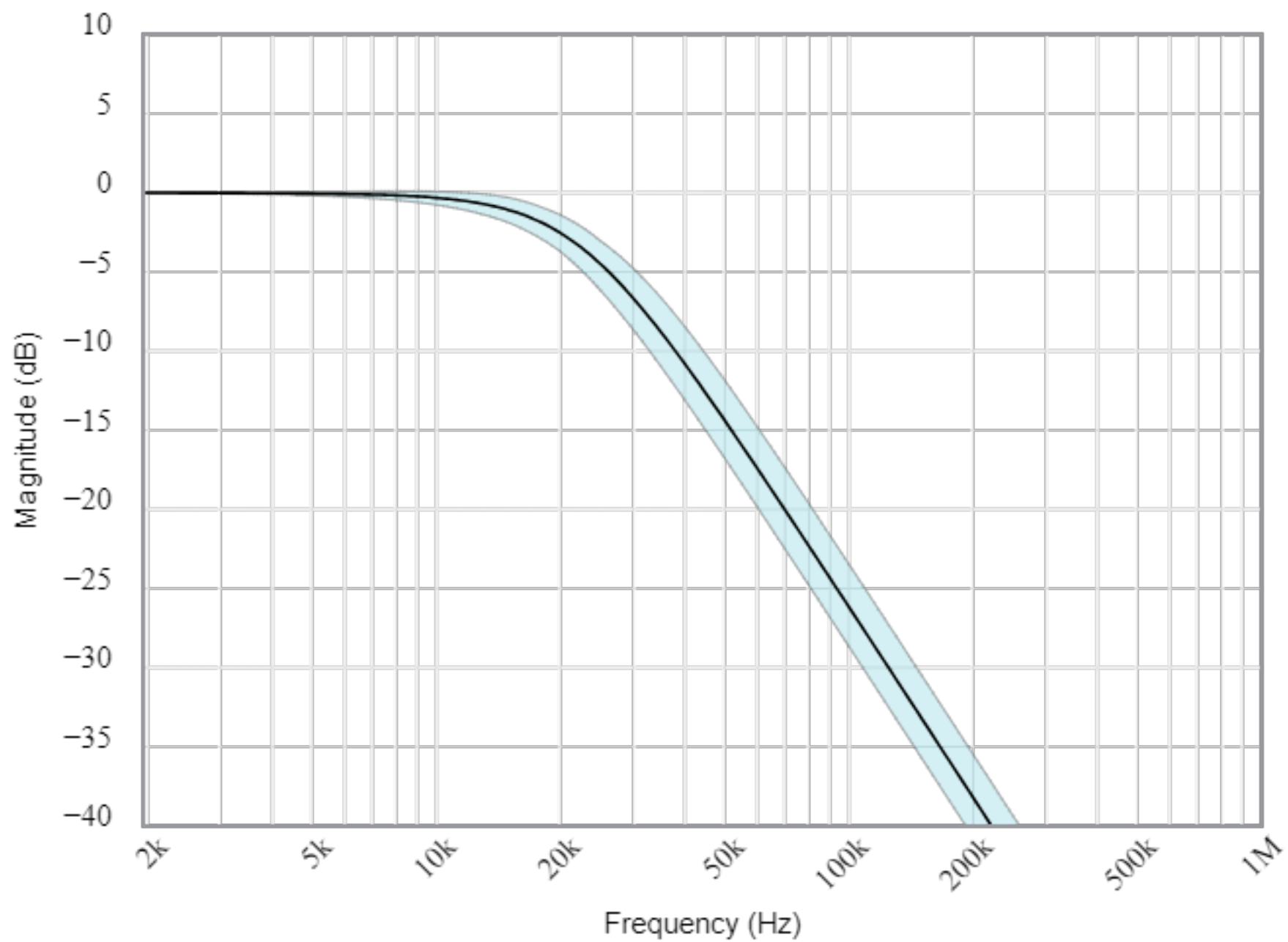
Passband: -3dB at 20kHz

Stopband: -20dB at 100kHz

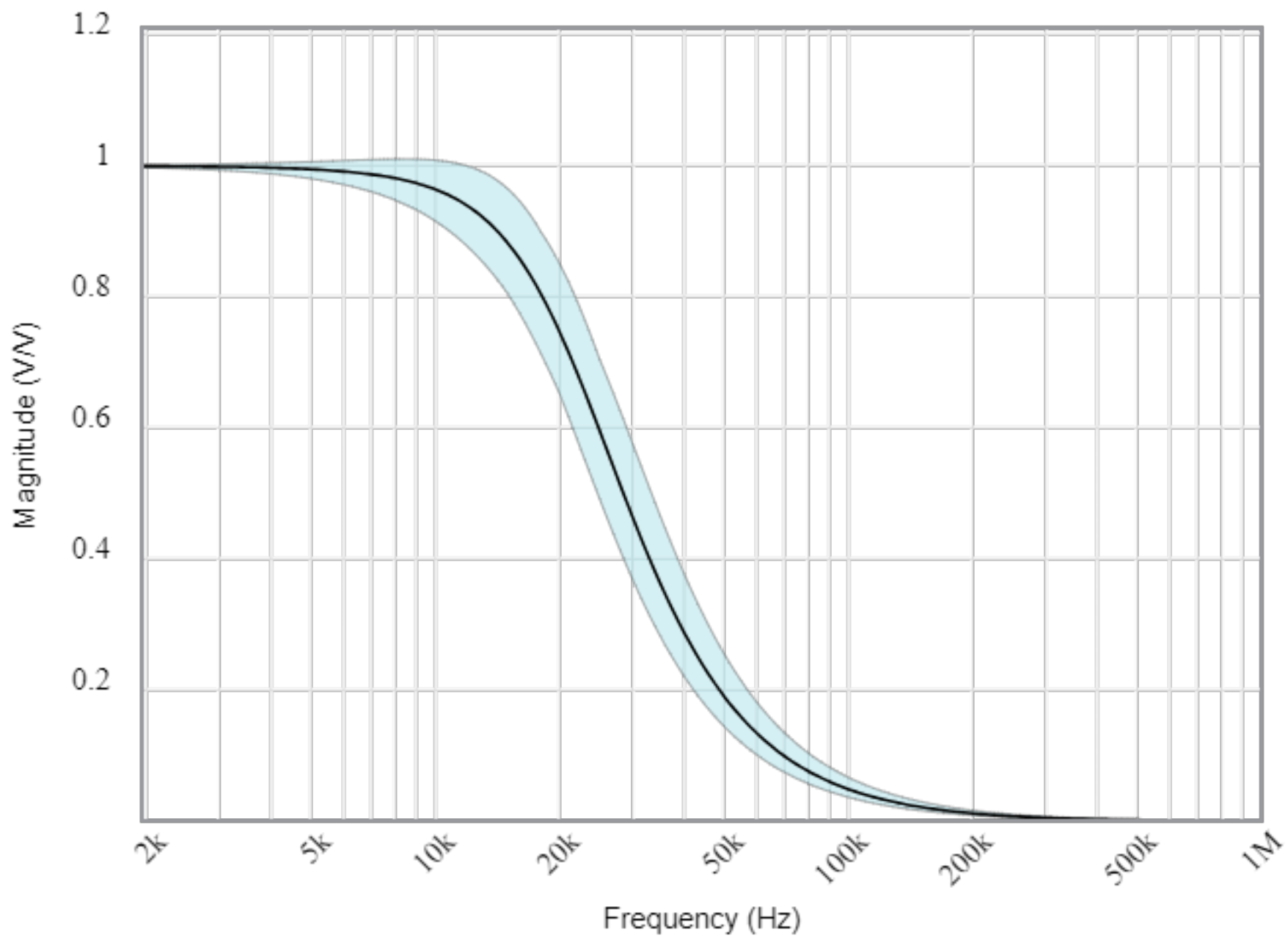
Component Tolerances: Capacitor = 10%; Resistor = 5%; Inductor = 5%; Op Amp GBW = 20%

BOM: refer to BOM.csv file

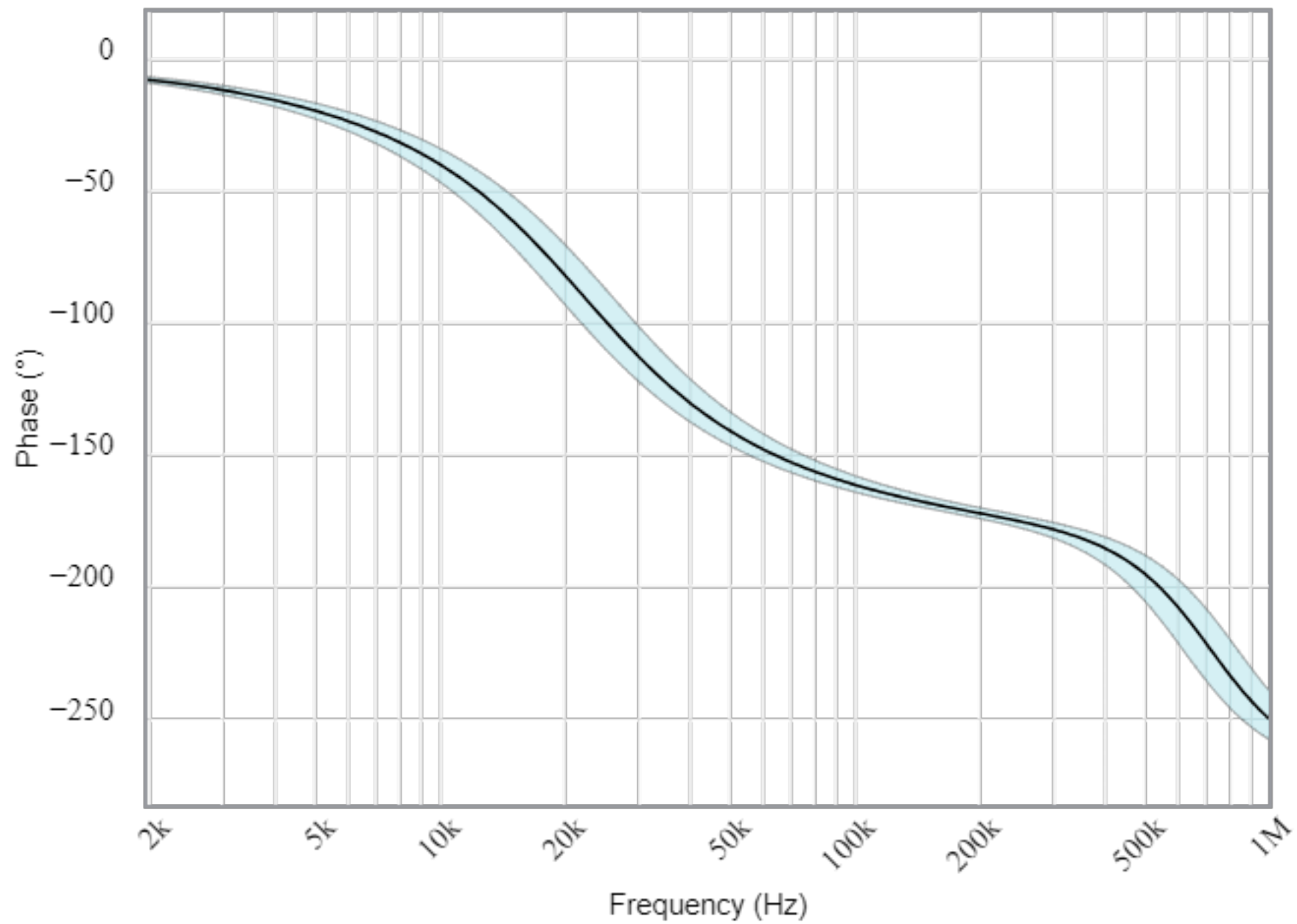
Magnitude(dB)



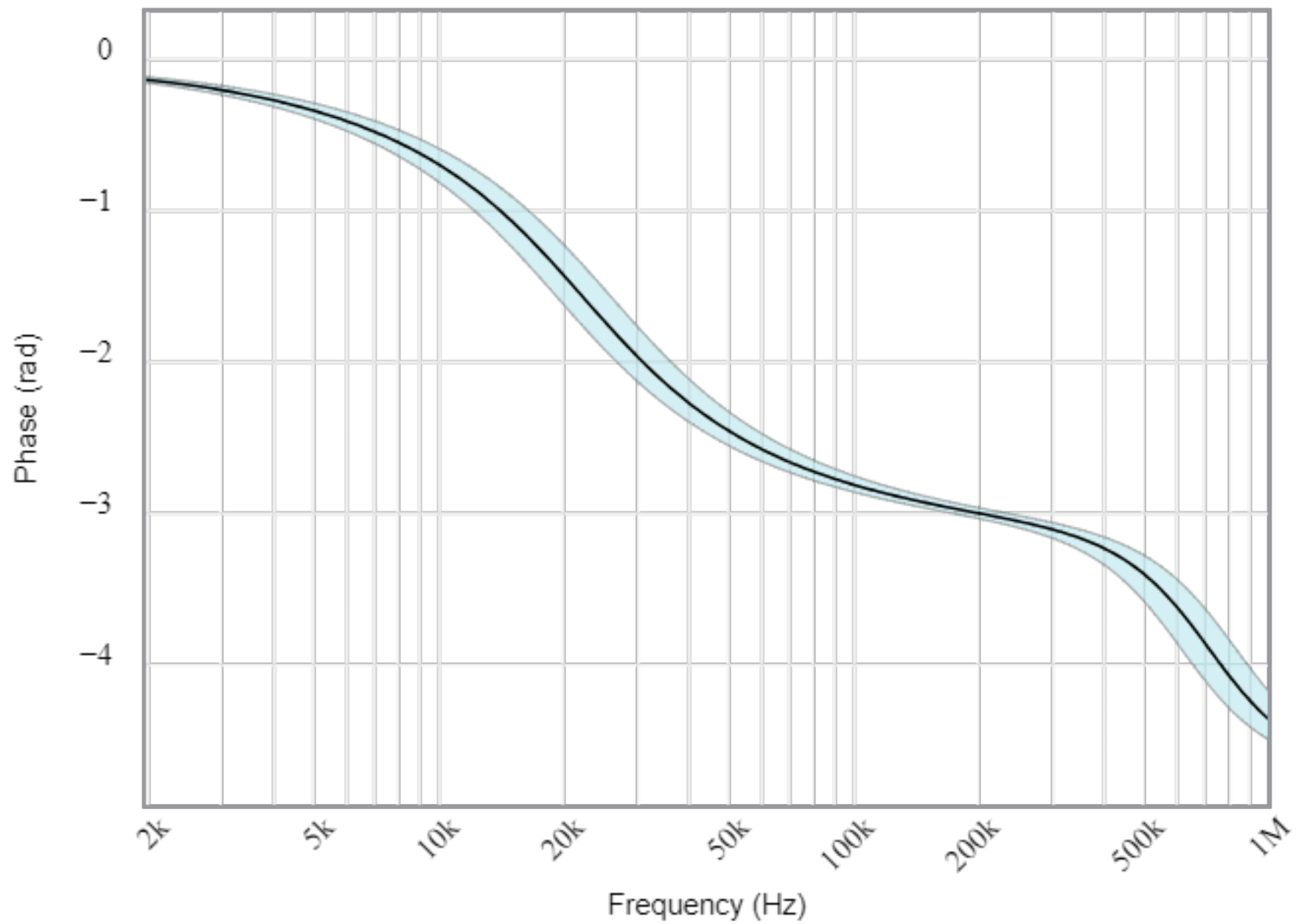
Magnitude(Volts per Volt)



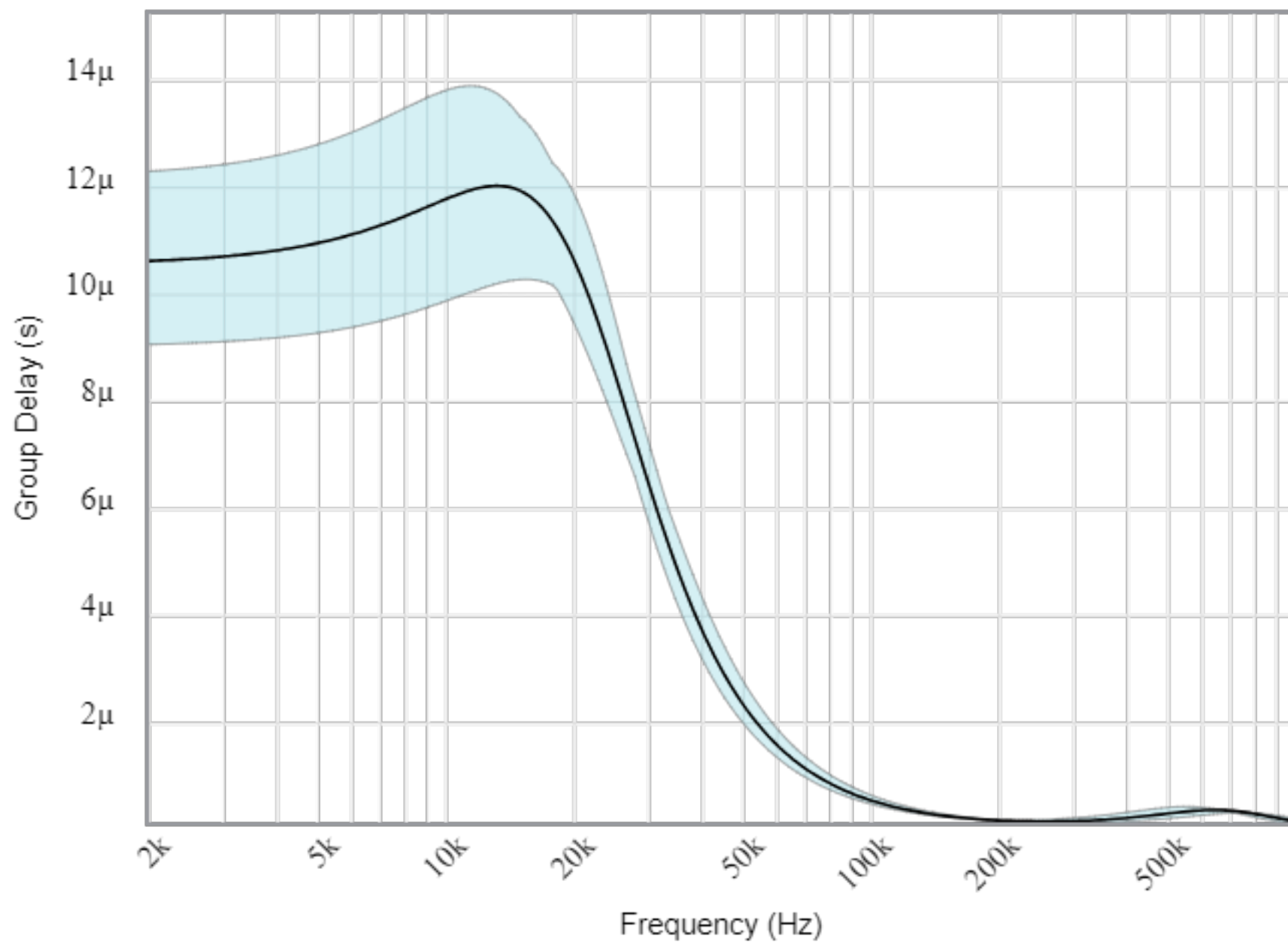
Phase(degrees)



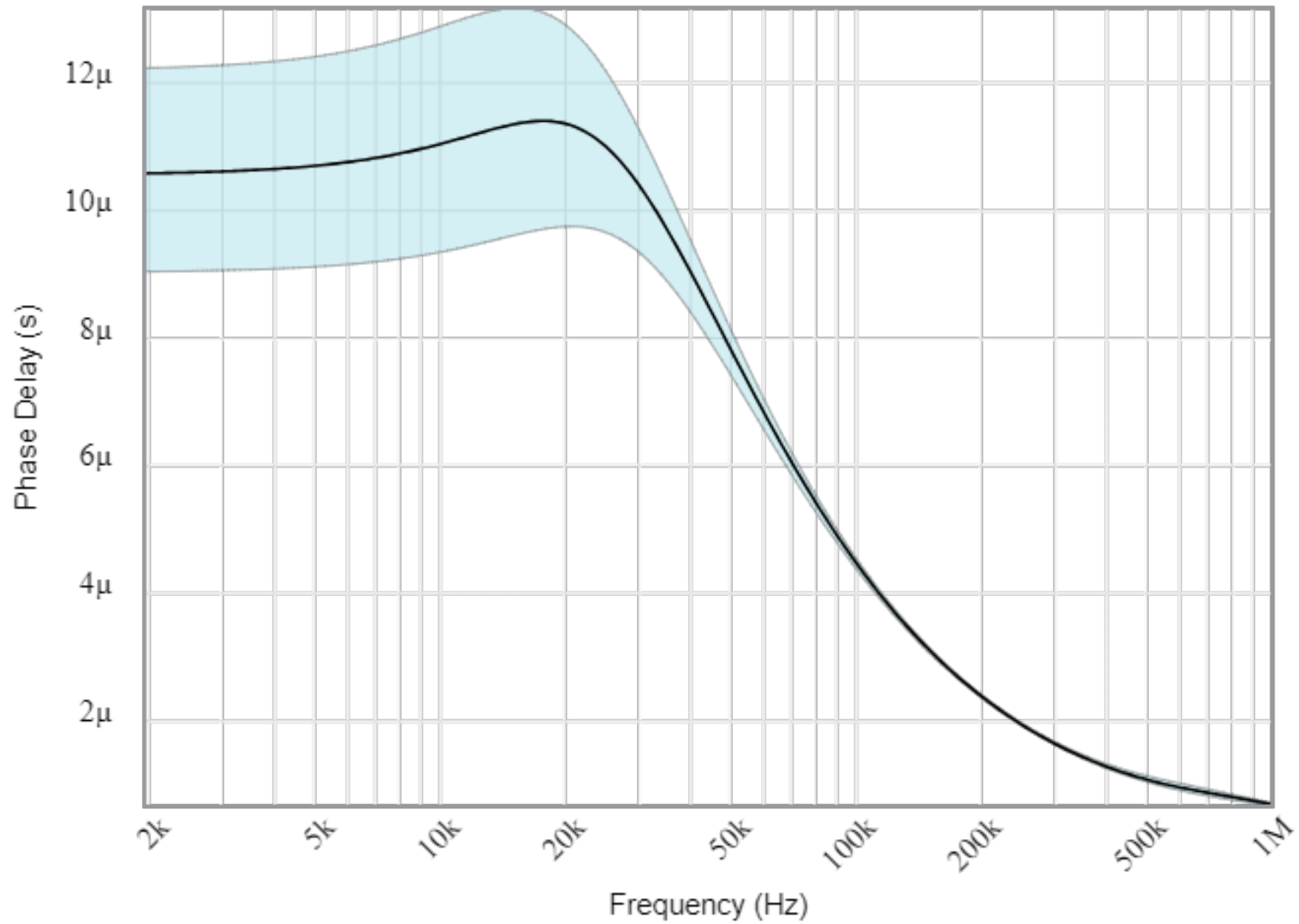
Phase(radians)



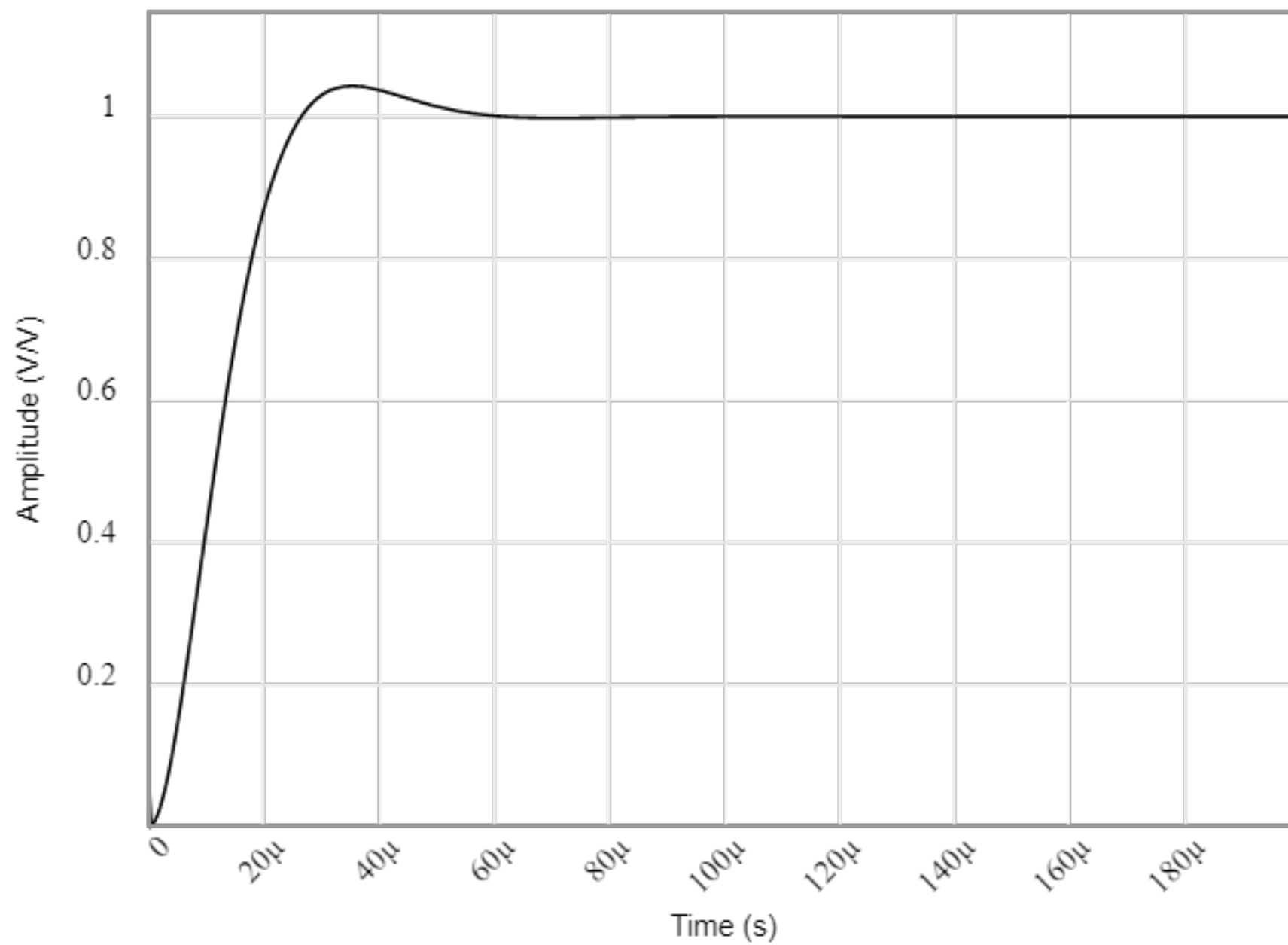
Group Delay



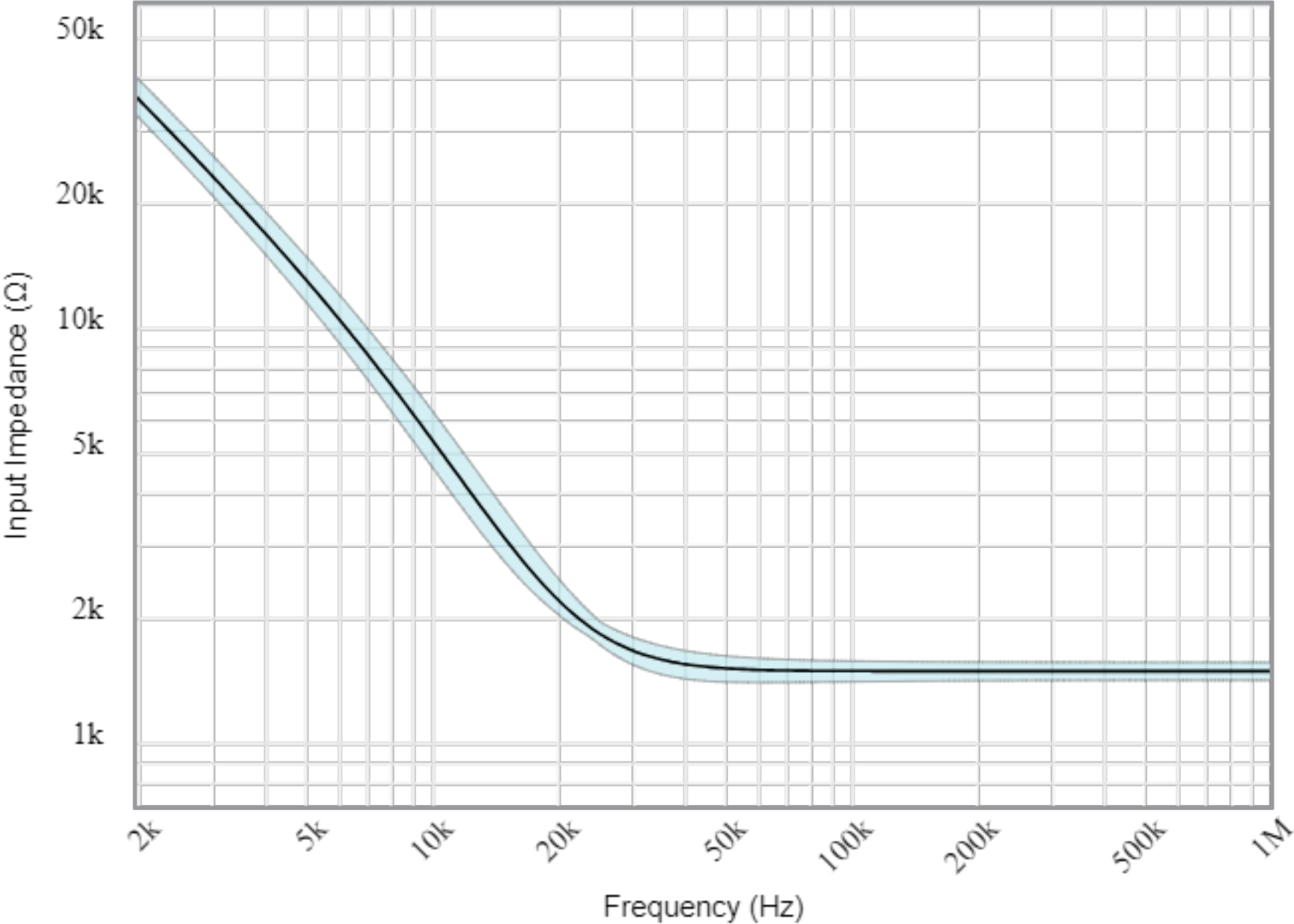
Phase Delay



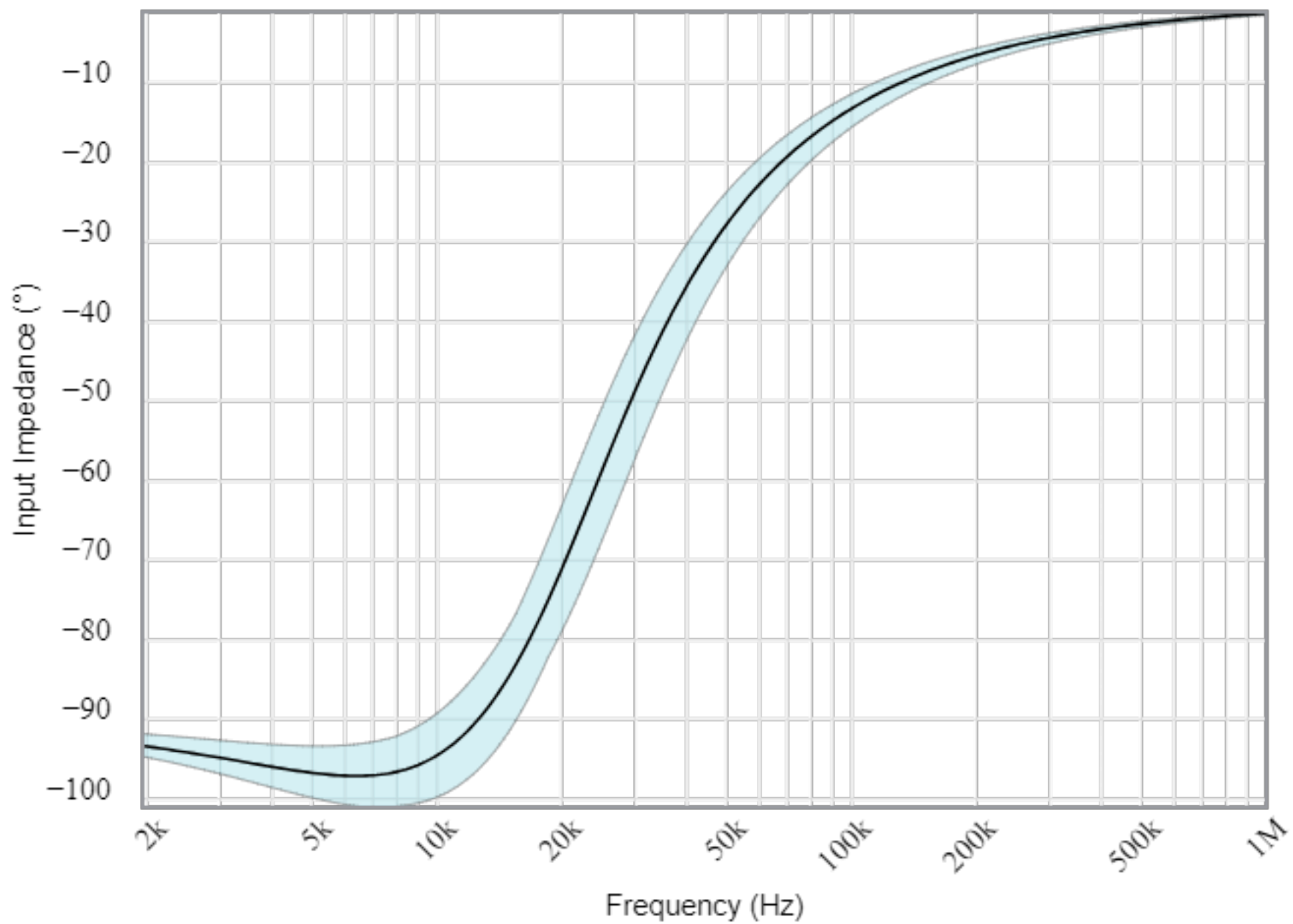
Step Response



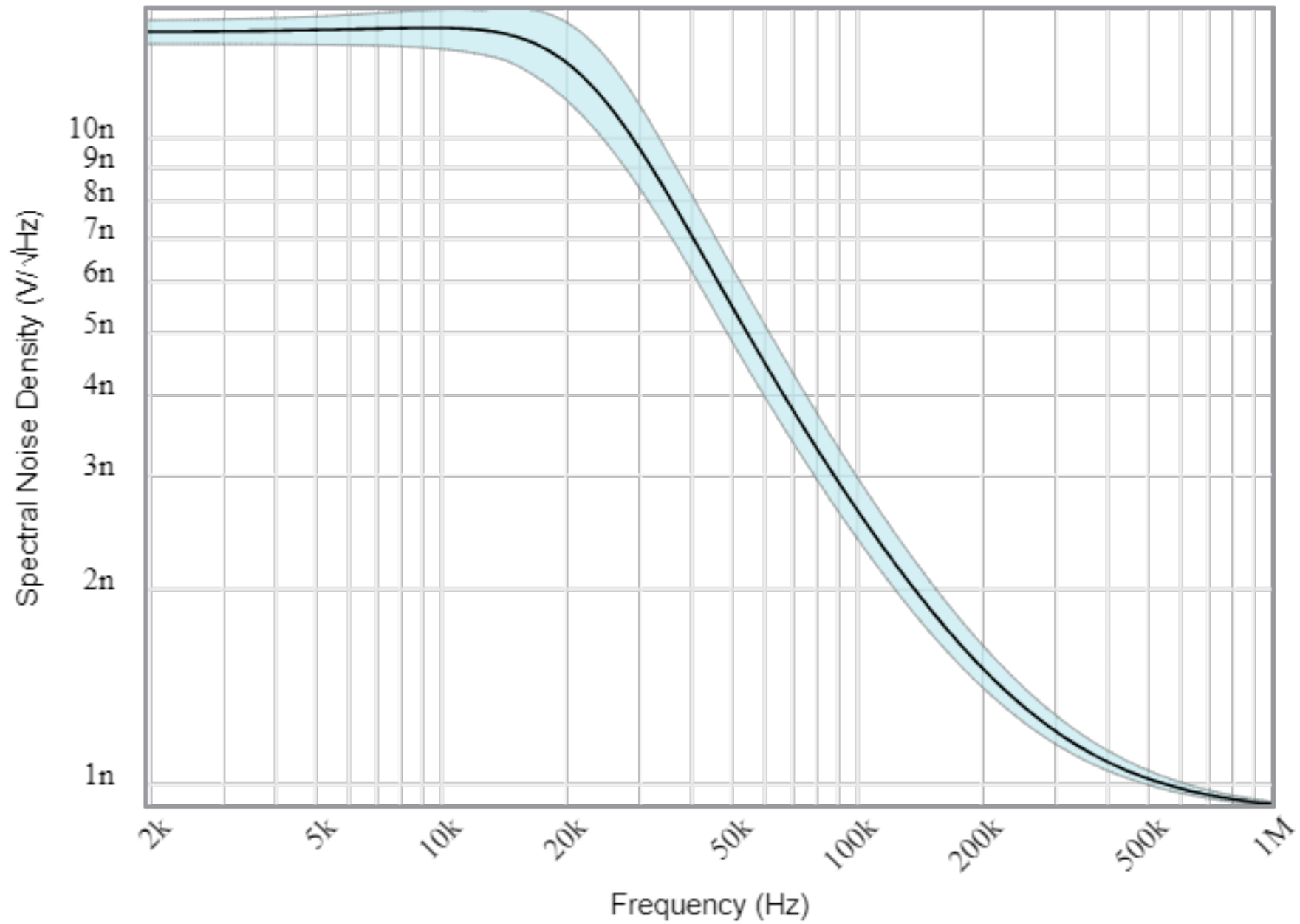
Input Impedance Magnitude



Input Impedance Phase



Noise



Stages

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



**2nd order
Low-Pass
Sallen Key**

Gain (V/V):

f_p (Hz):

Q:

Target

Simulated

1

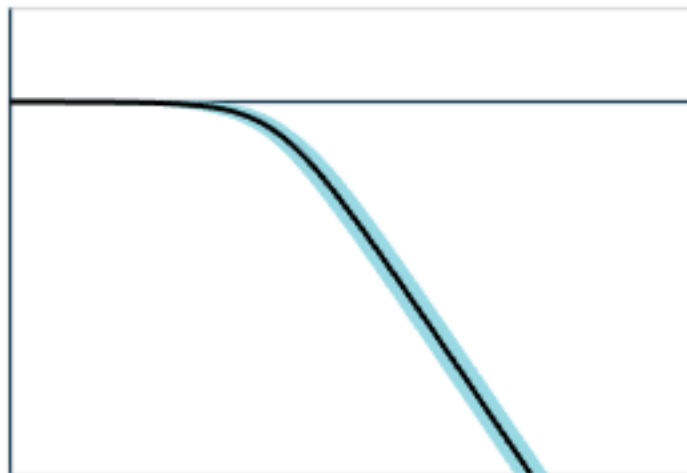
1 to 1

20k

19.3k to 26k

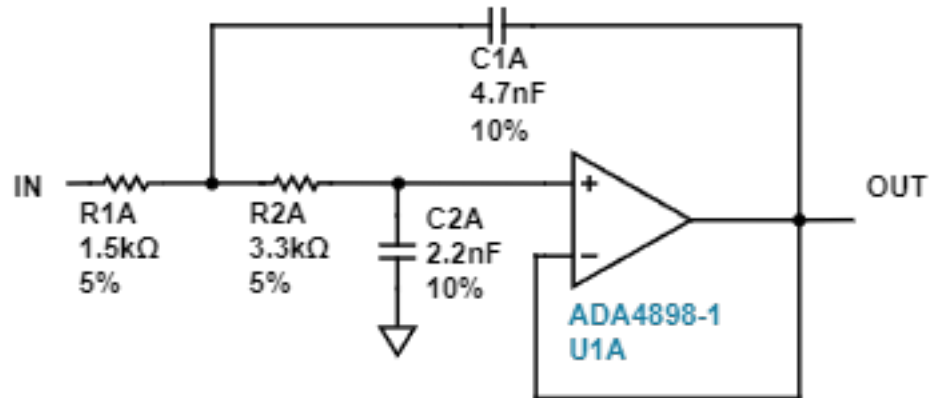
707m

601m to 763m



Circuit

Stage A
2nd order
Low-Pass
Sallen Key



BYPASS CAPACITORS

