



## Filter Wizard

Filter Wizard Design

Created on 09/21/2025



# Filter Wizard Design Report

Filter Requirements for Low-Pass, 2nd order Chebyshev

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

Gain: 0 dB

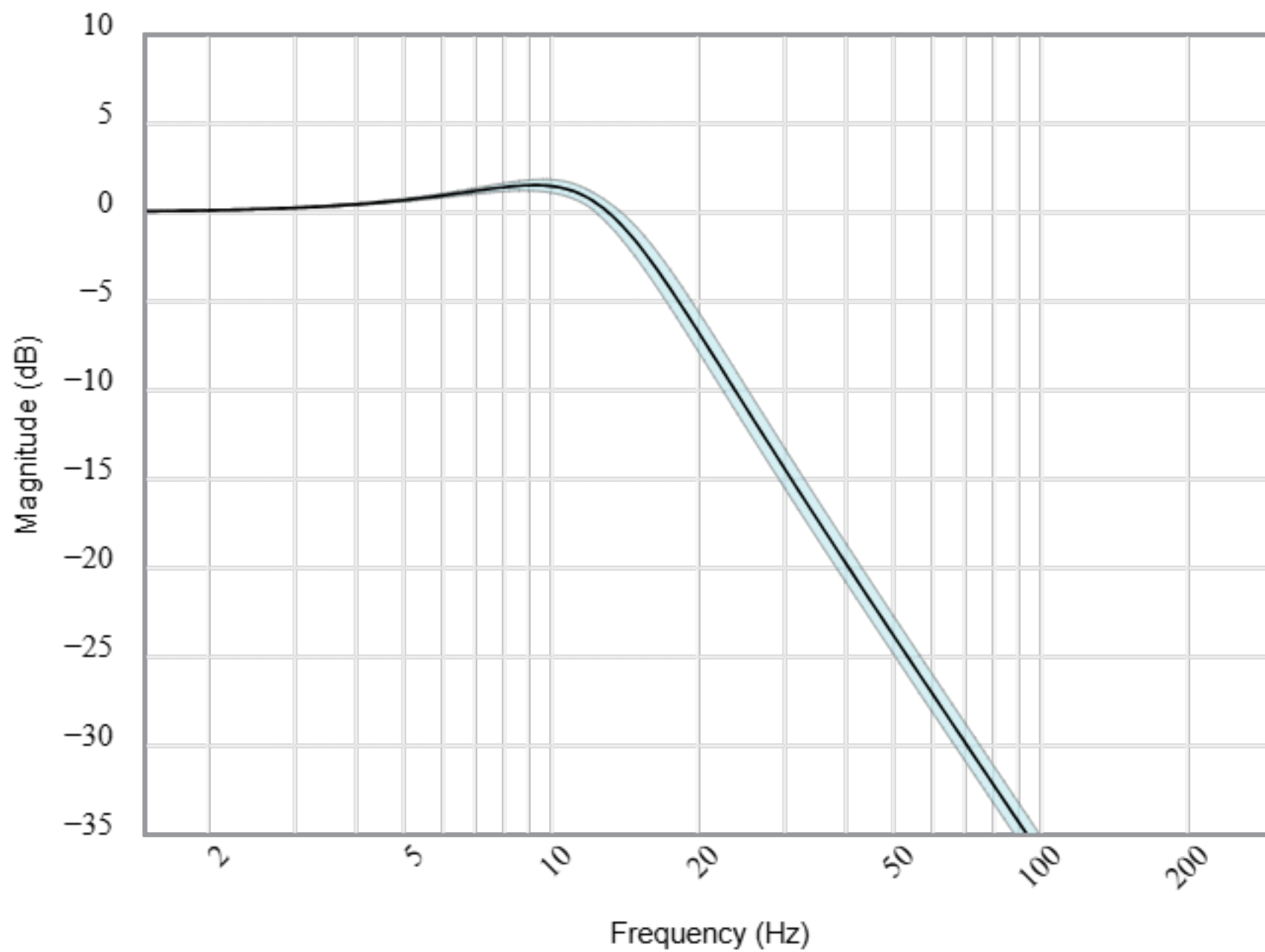
Passband: -3dB at 15Hz

Stopband: -15dB at 30Hz

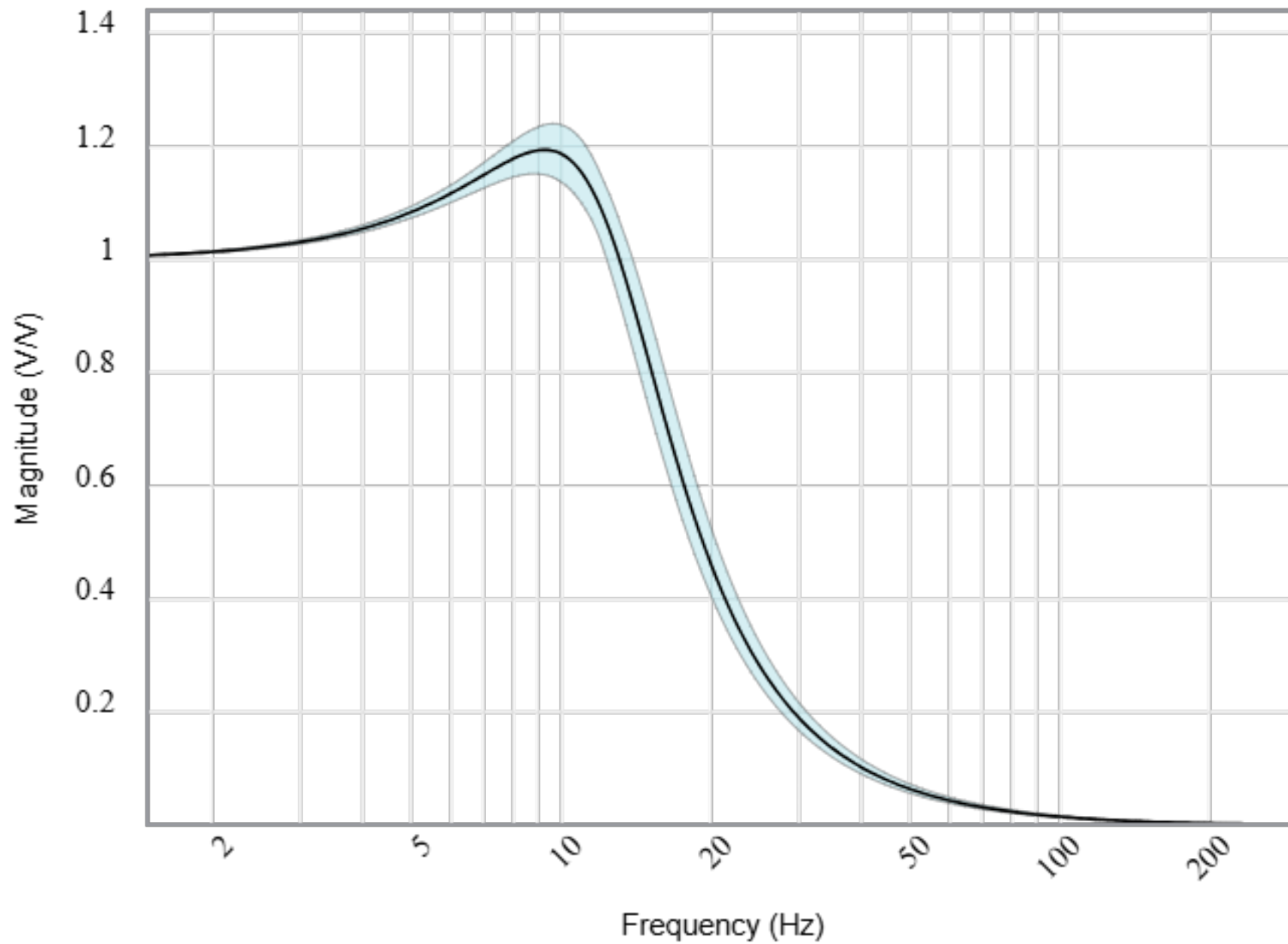
Component Tolerances: Capacitor = 5%; Resistor = 1%; Inductor = 5%; Op Amp GBW = 20%

BOM: refer to BOM.csv file

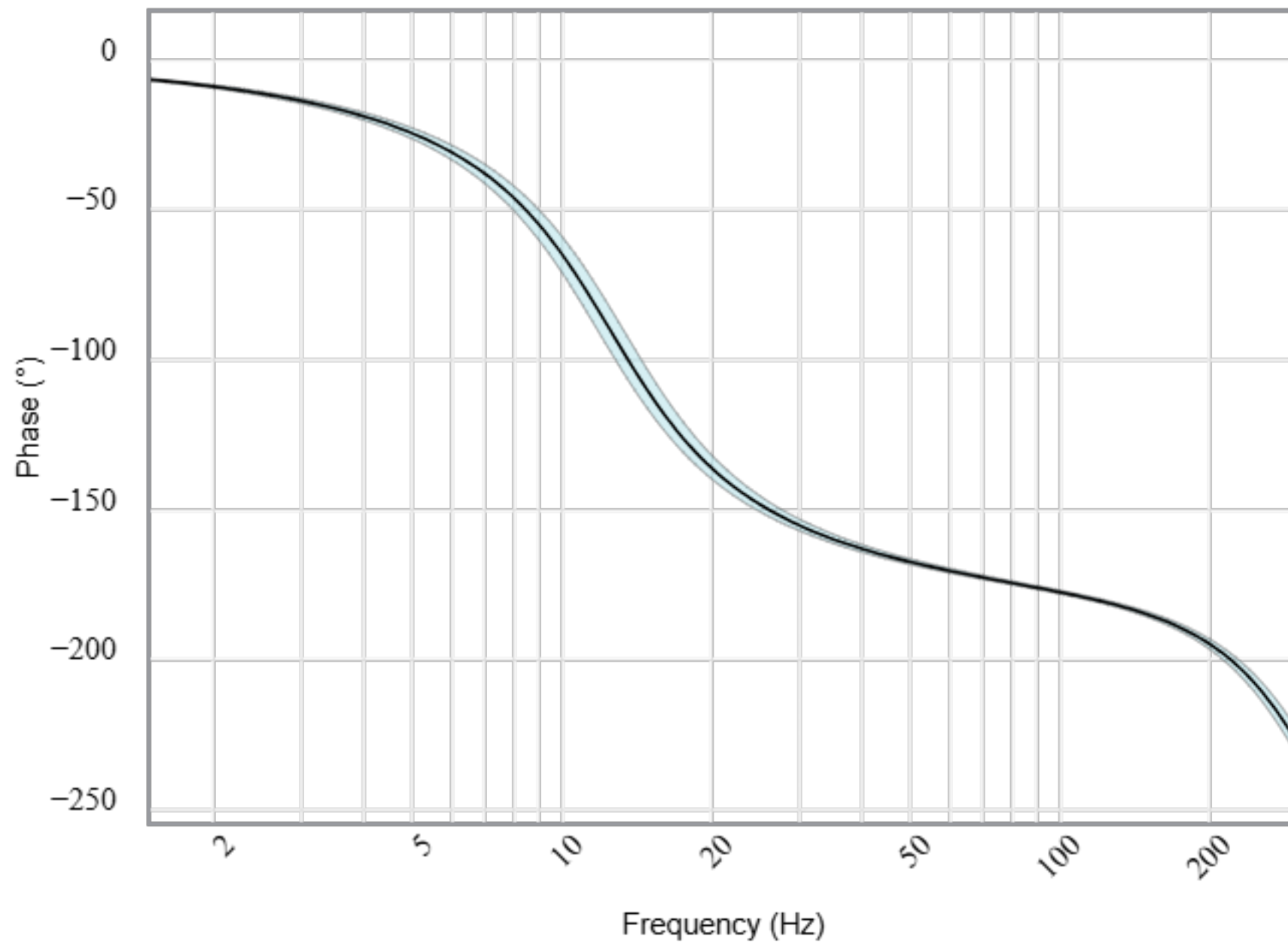
Magnitude(dB)



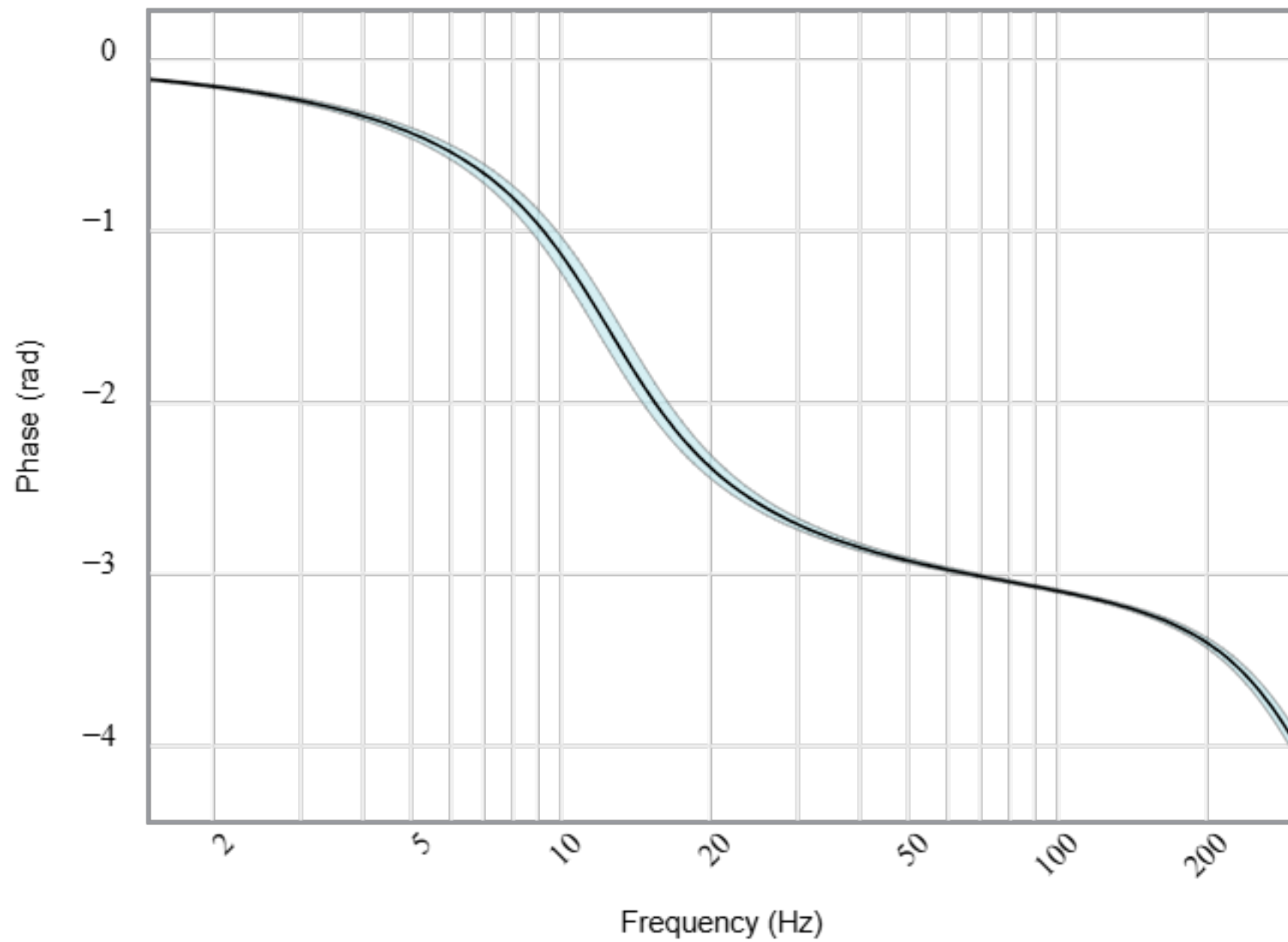
Magnitude(Volts per Volt)



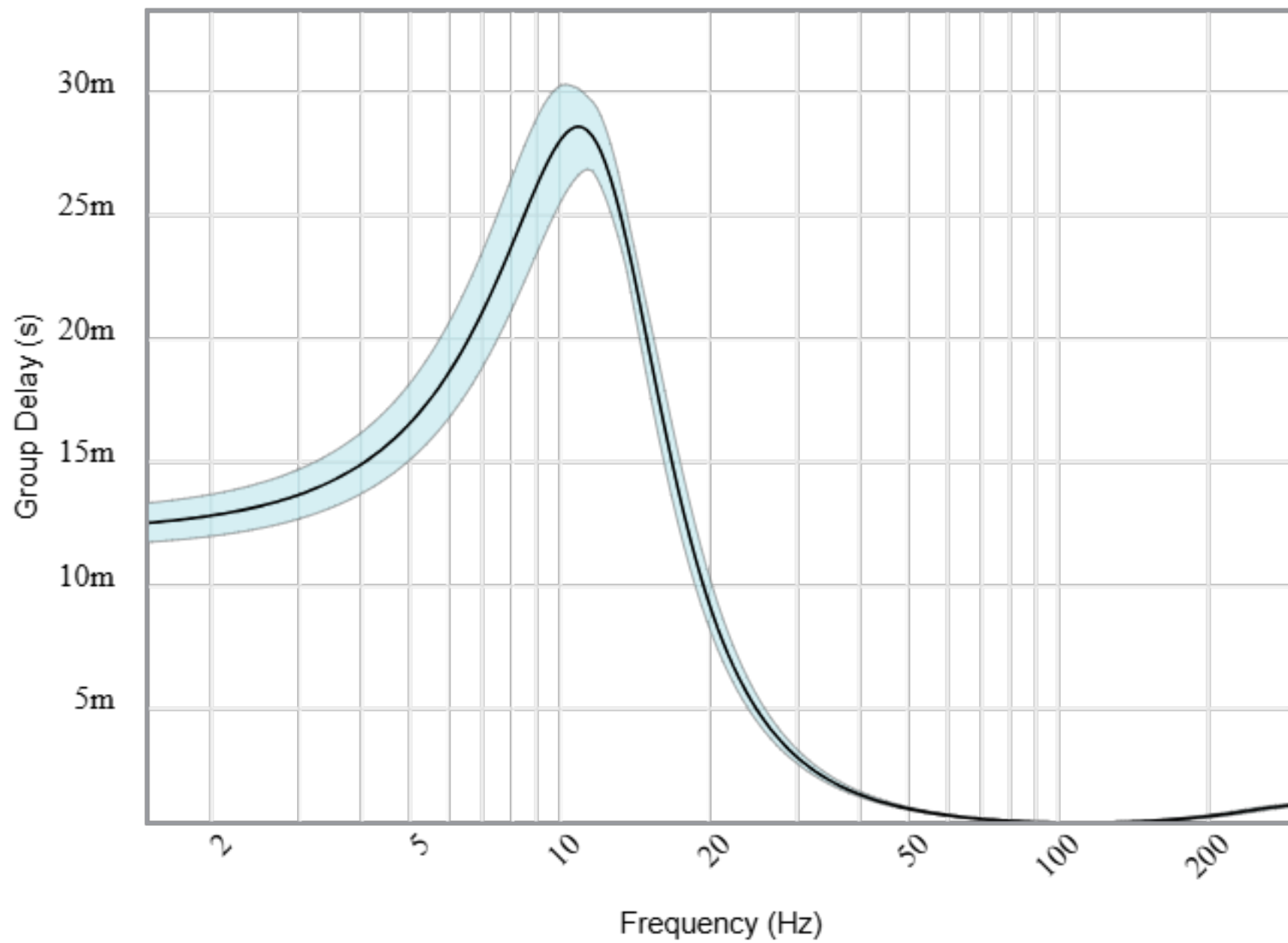
Phase(degrees)



Phase(radians)

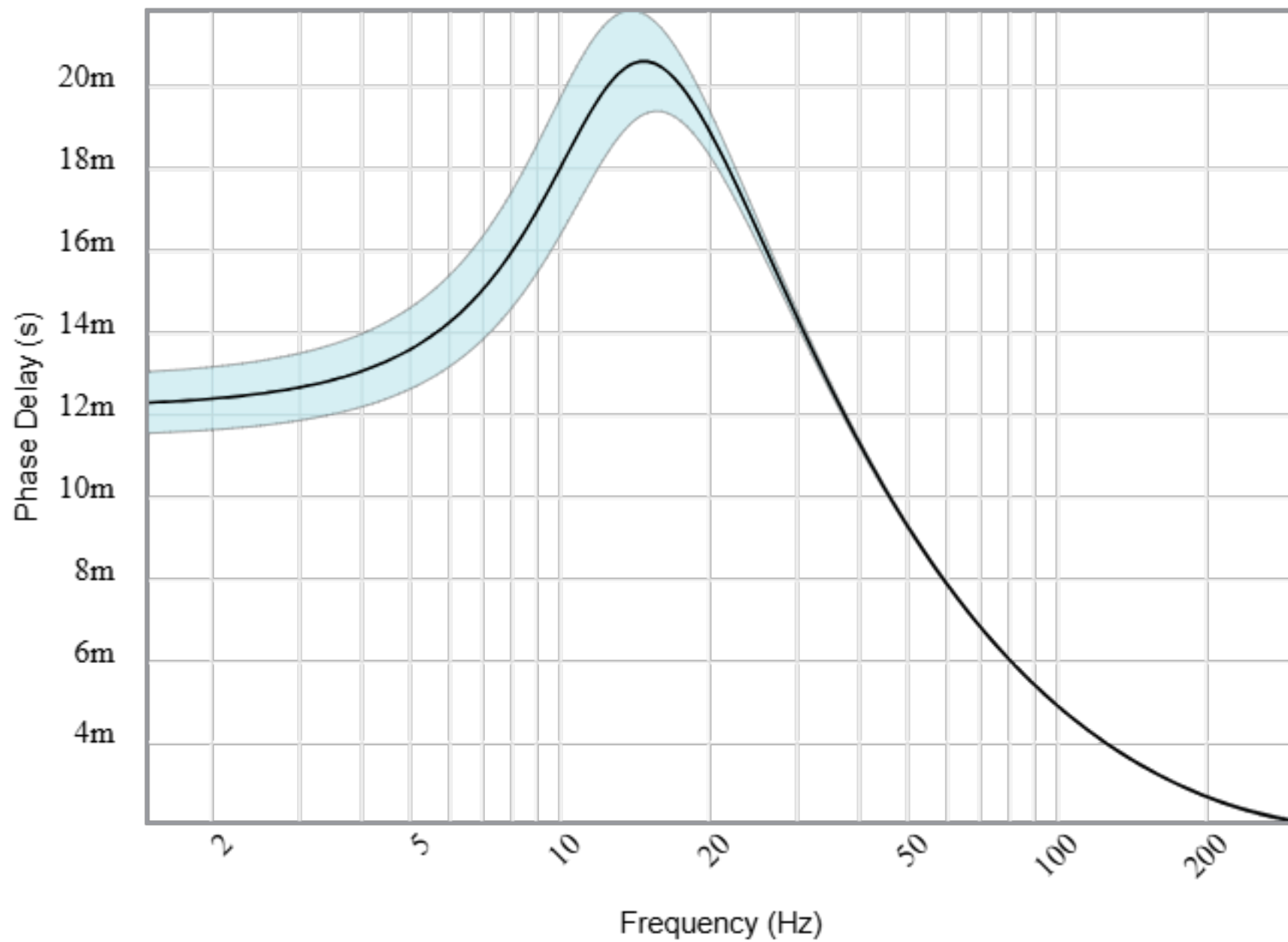


Group Delay



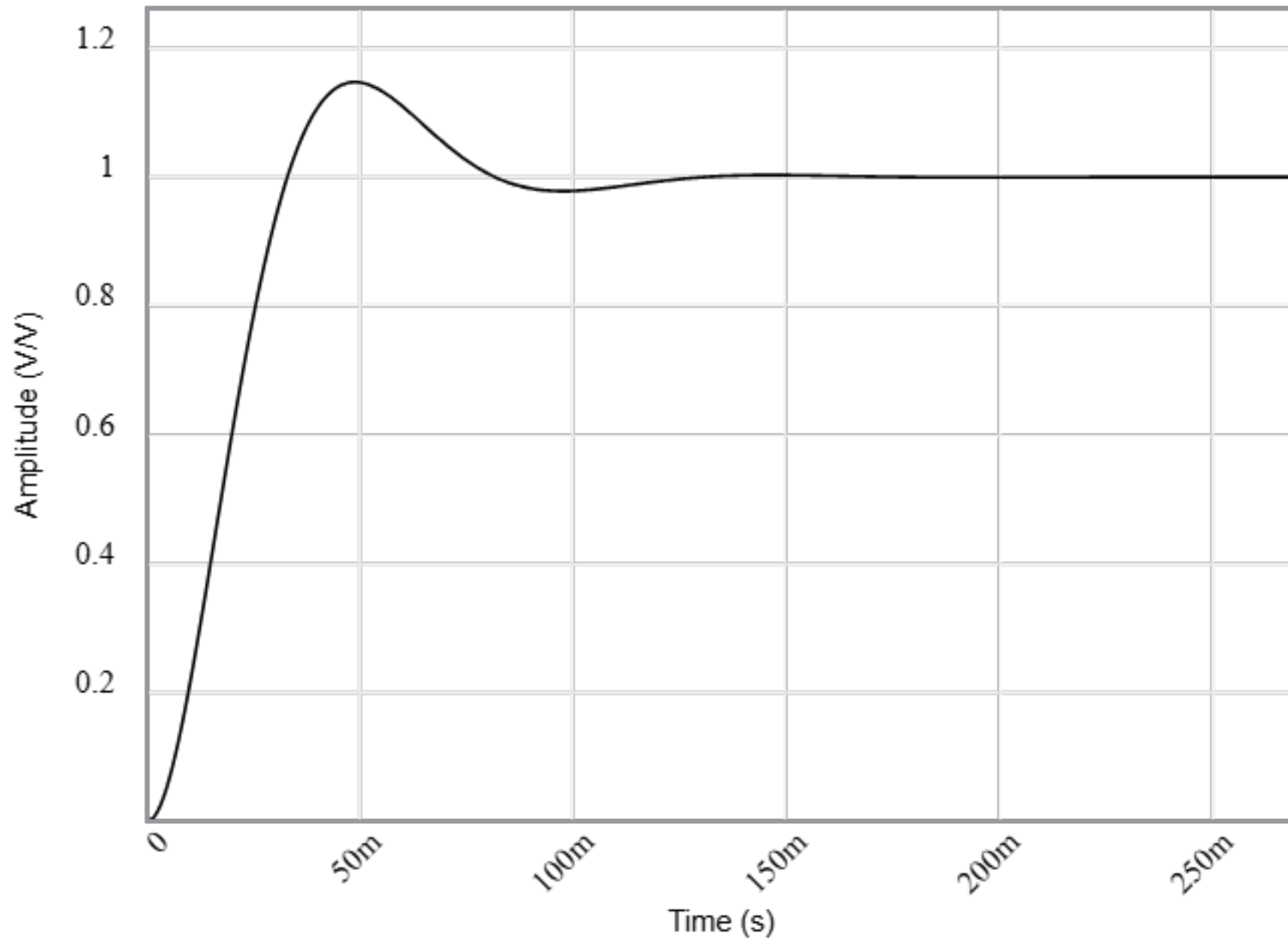


Phase Delay

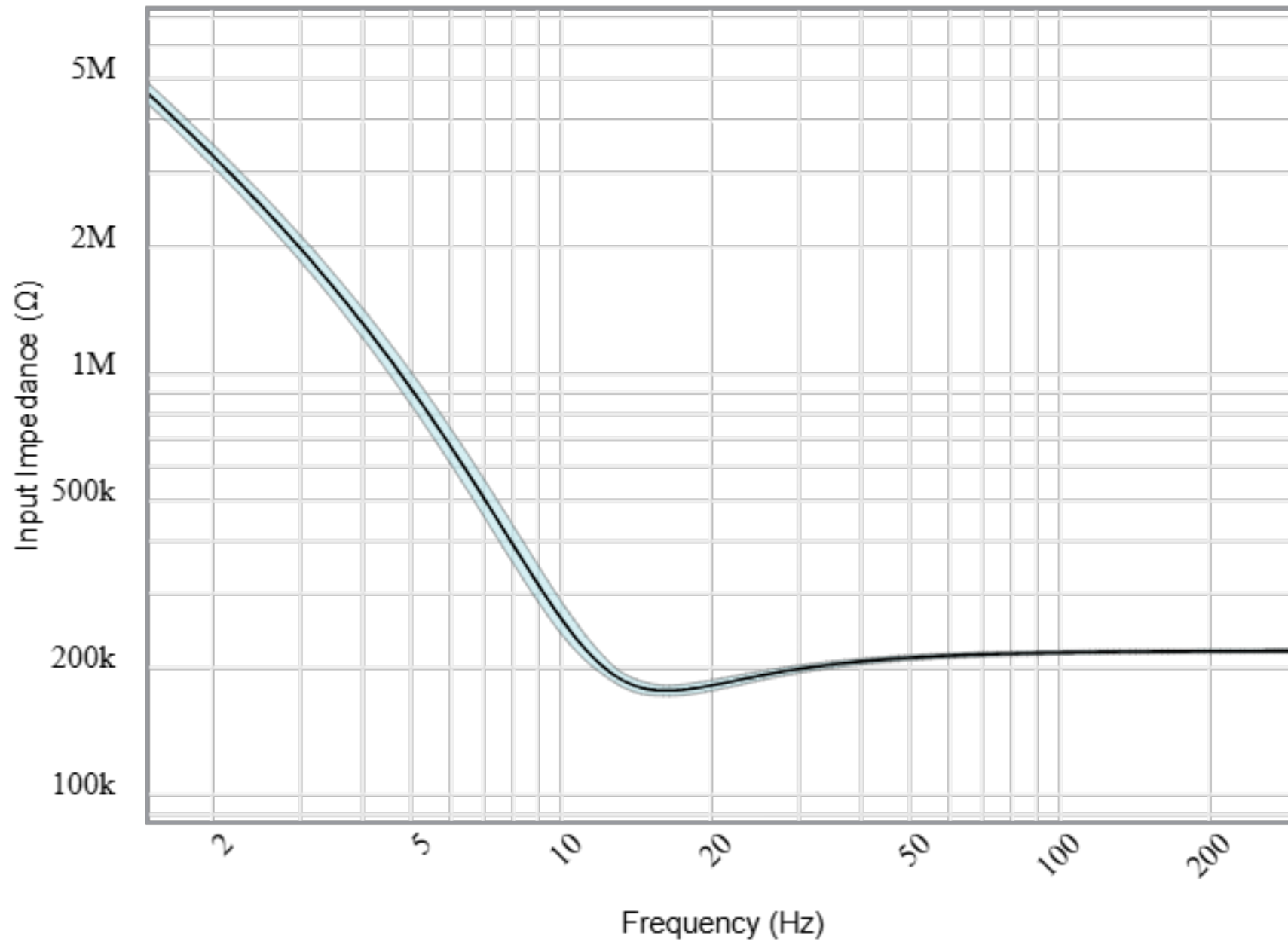




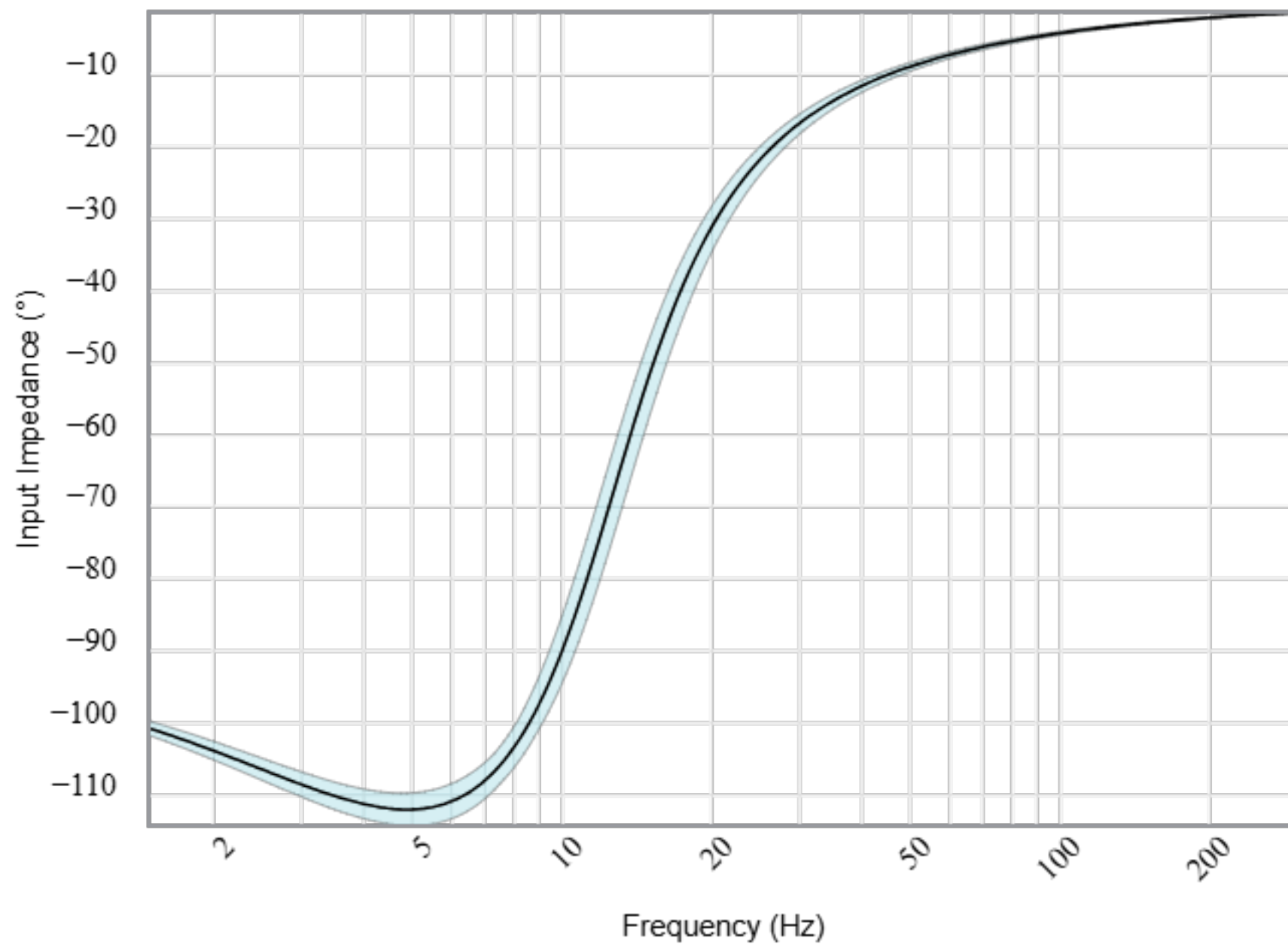
Step Response



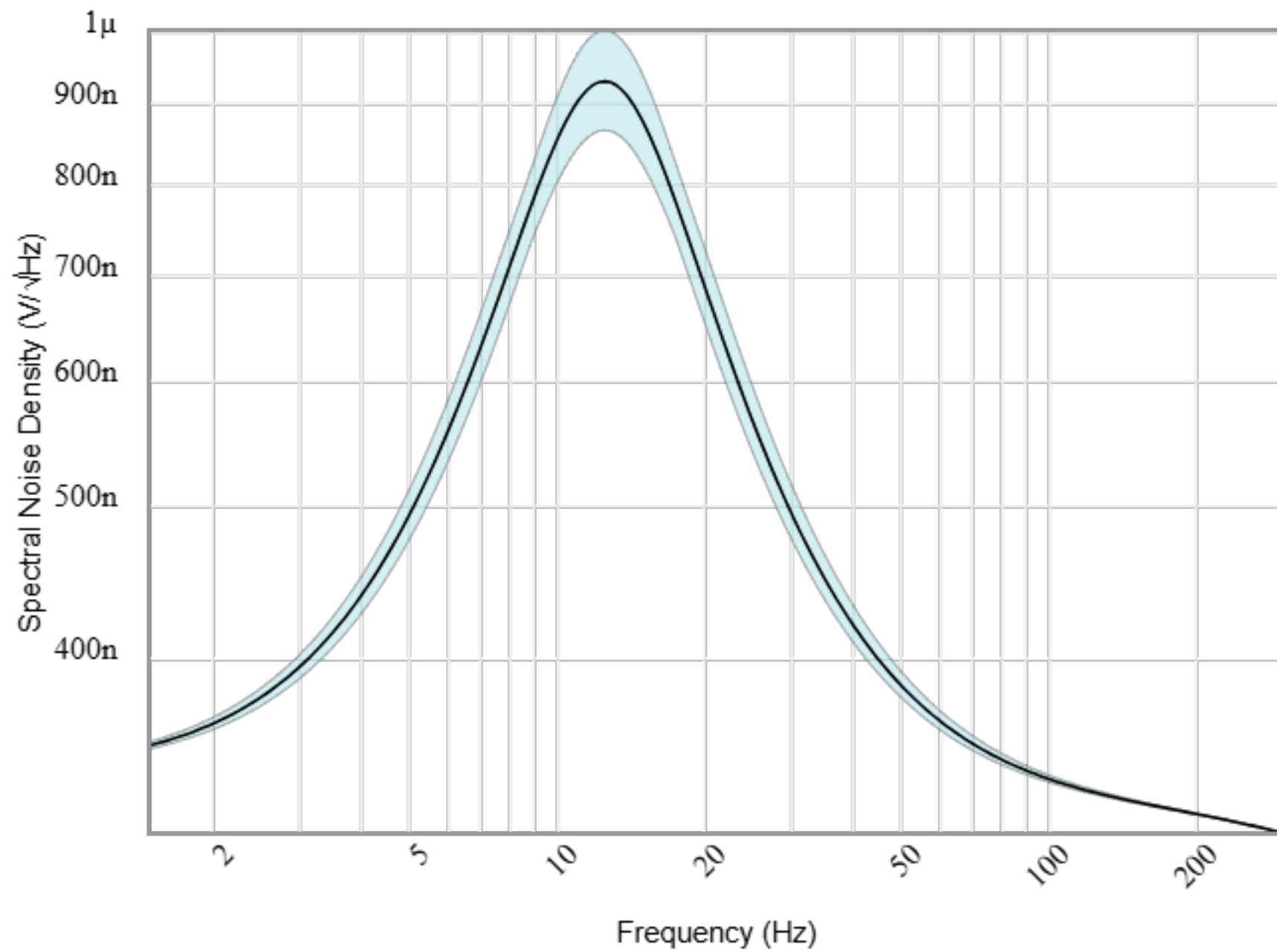
Input Impedance Magnitude



Input Impedance Phase



## Noise



## Stages

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



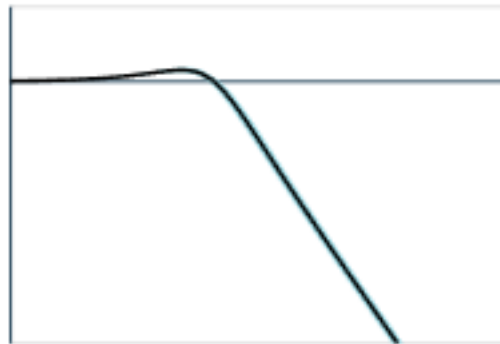
2nd order  
Low-Pass  
Sallen Key

Gain (V/V):

Target	Simulated
1	1 to 1
$f_p$ (Hz):	12.1
Q:	957m

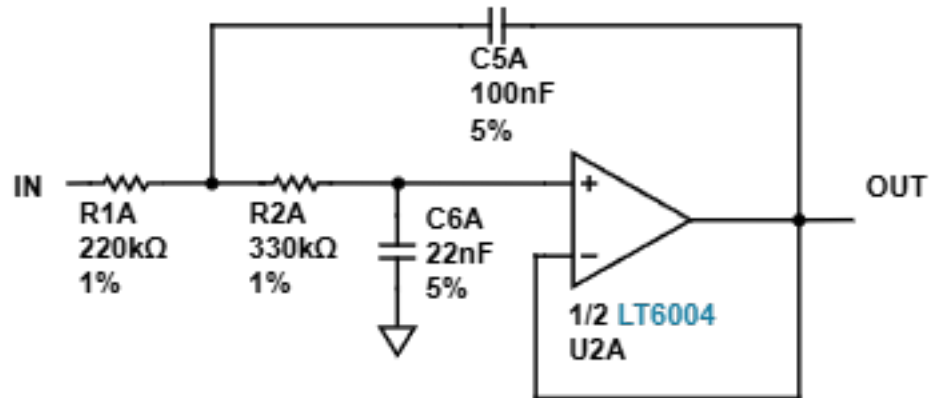
$f_p$  (Hz):

Q:

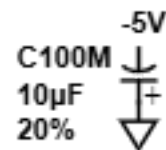
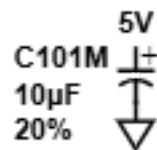
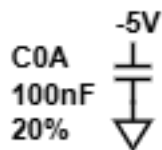
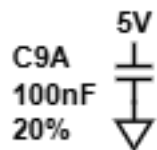


## Circuit

Stage A  
2nd order  
Low-Pass  
Sallen Key



### BYPASS CAPACITORS



### SPARES Why The Spares?

