Filter Wizard

Created on 1/28/2019

ANALOG DEVICES

Filter Wizard Design Report

Filter Requirements for Low-Pass, 3rd order Butterworth

Specifications: Optimize for Specific Components, +Vs= 12, -Vs= -12

Gain: 0 dB

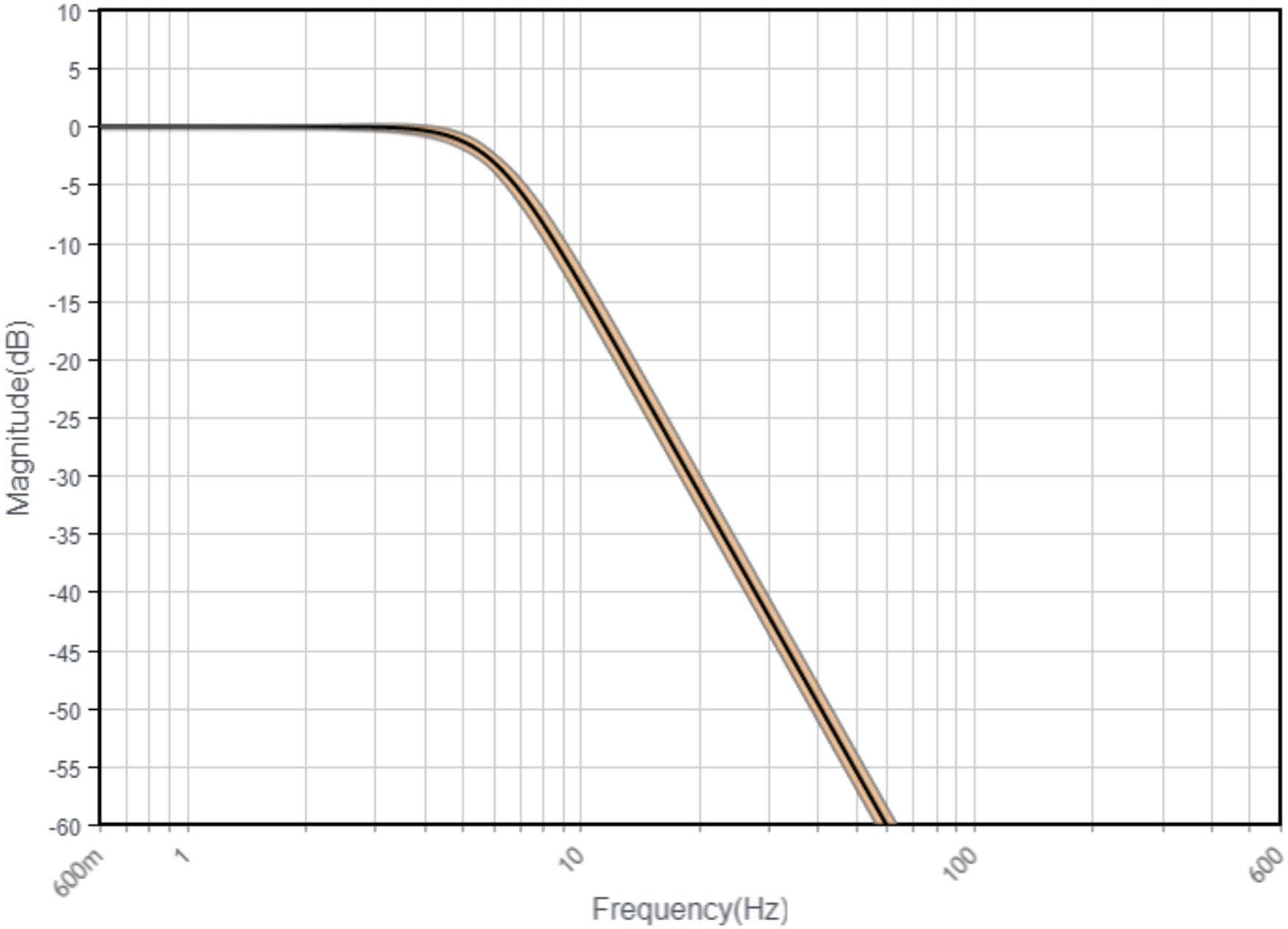
Passband: -3dB at 6Hz

Stopband: -40dB at 60Hz

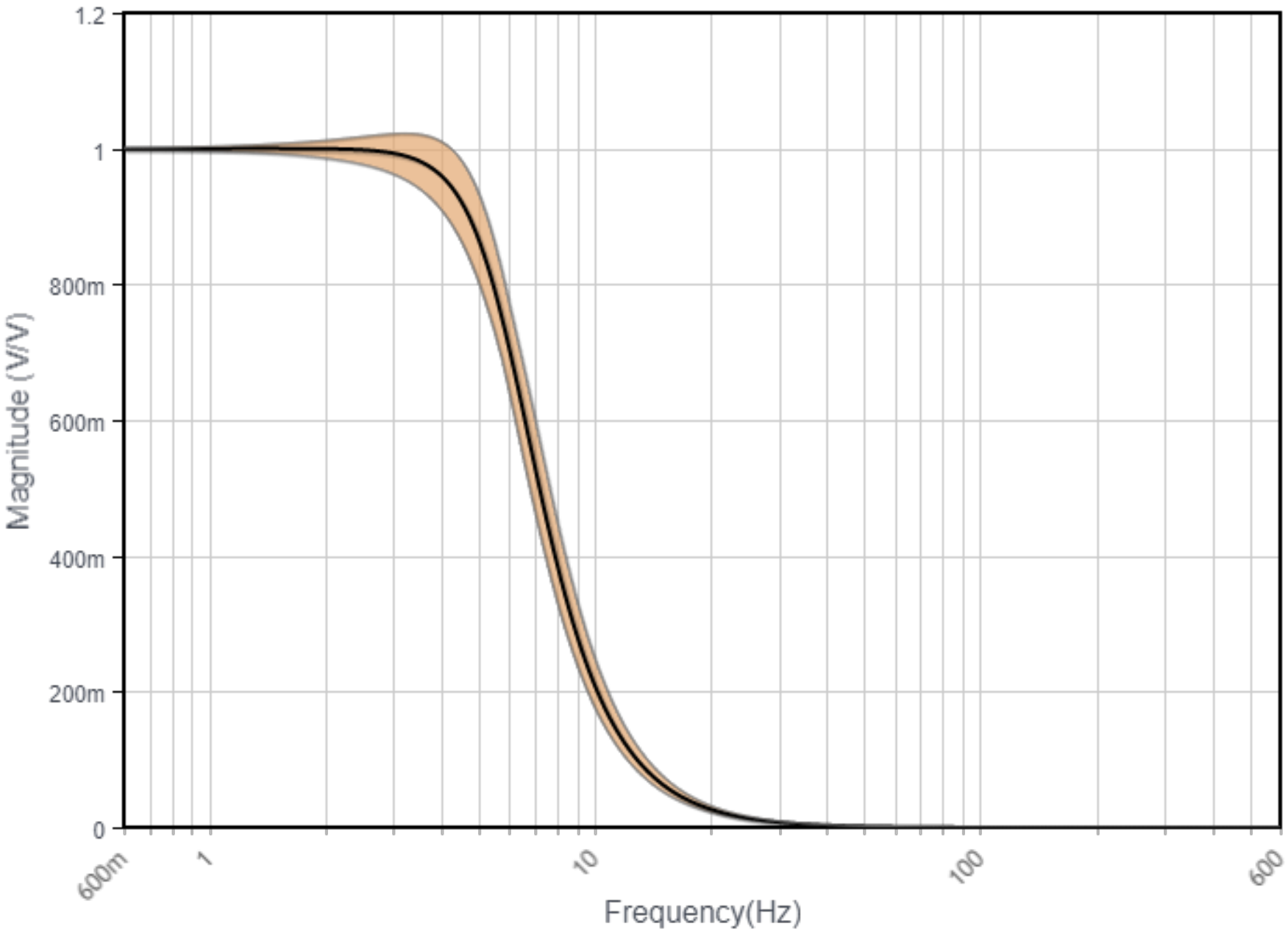
Component Tolerances: Capacitor = 5%; Resistor = 1%; Inductor = 5%; Op Amp GBW = 20%

BOM: refer to BOM.csv file

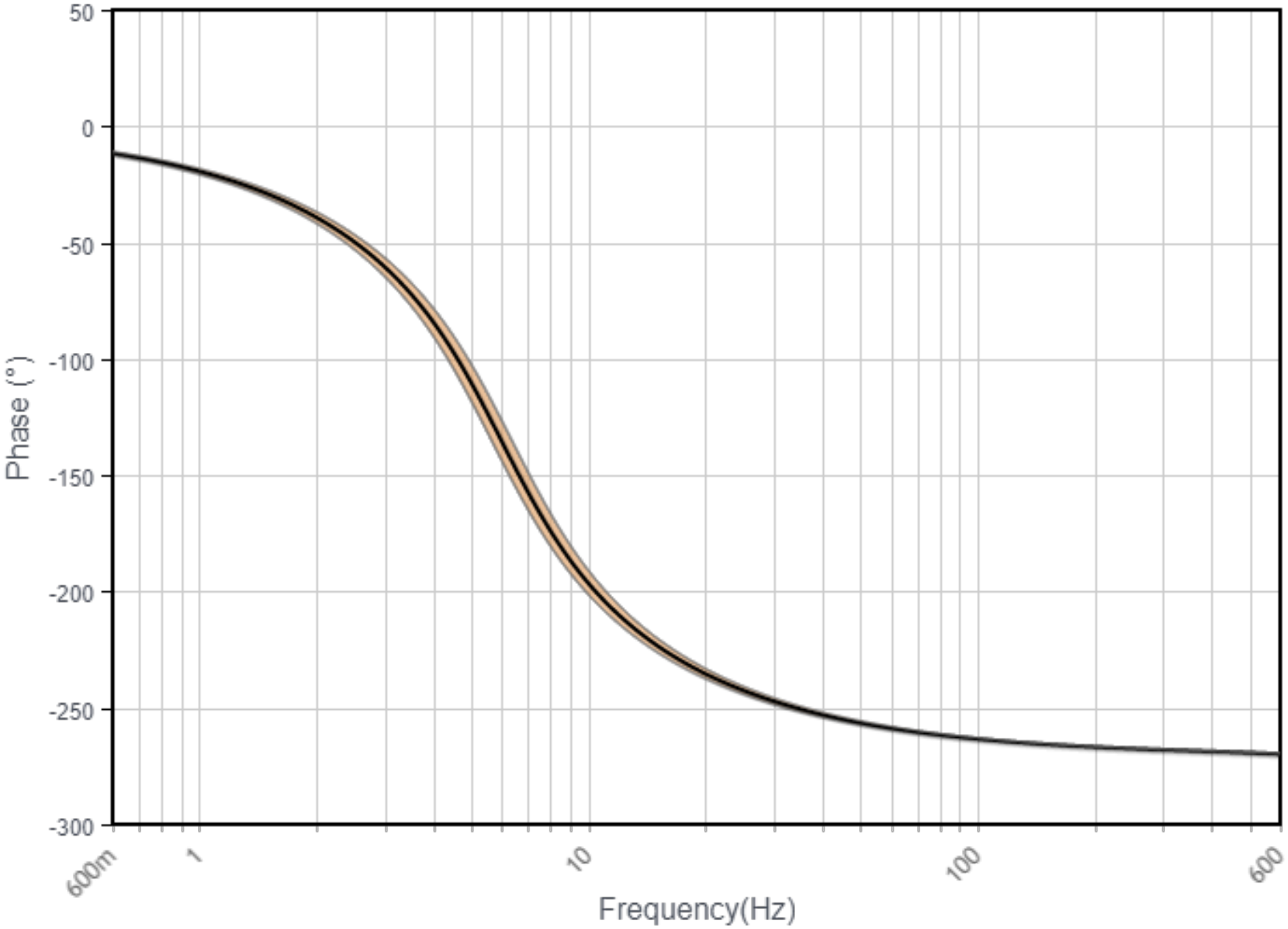
Magnitude(dB)



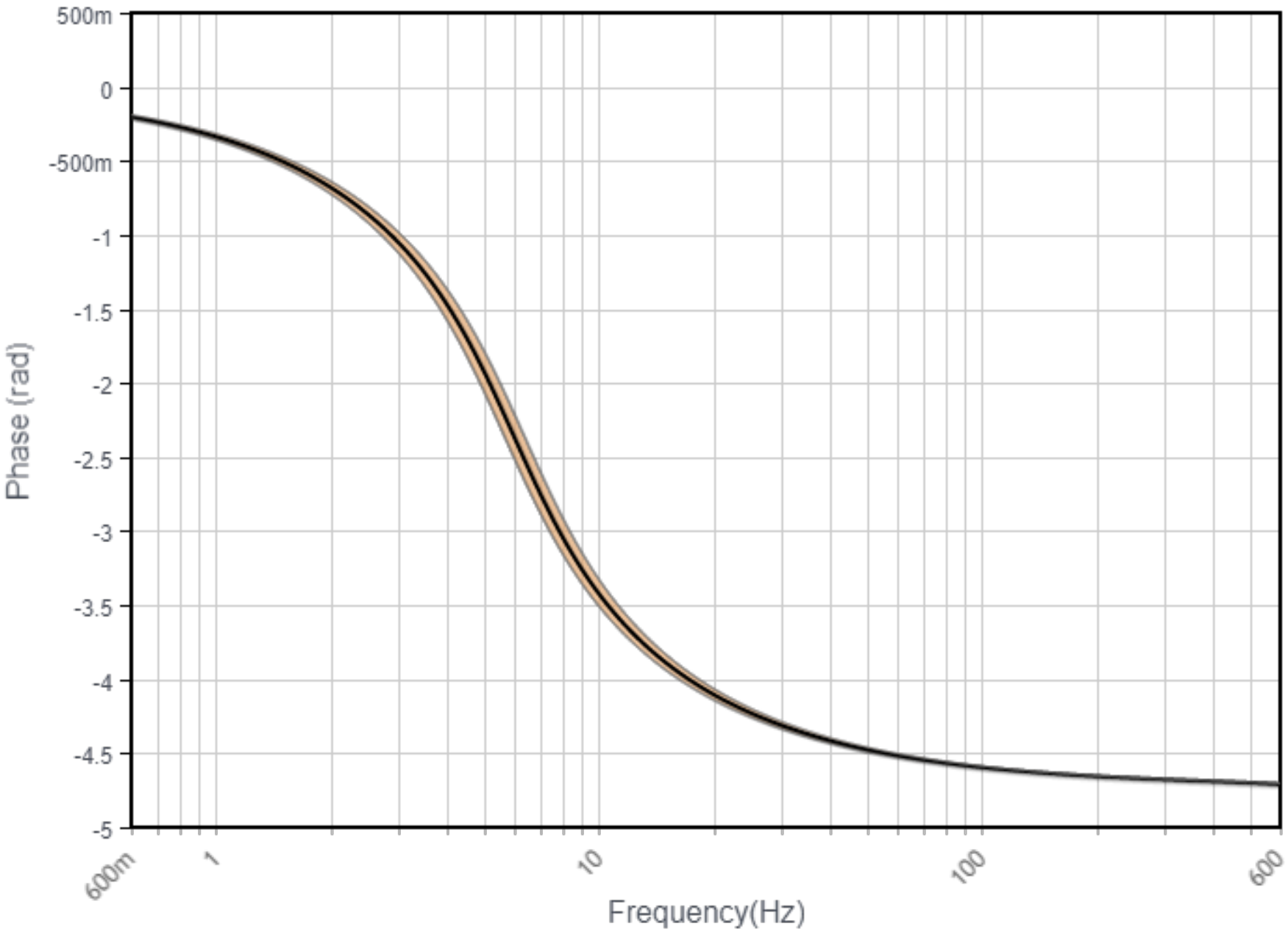
Magnitude(Volts per Volt)



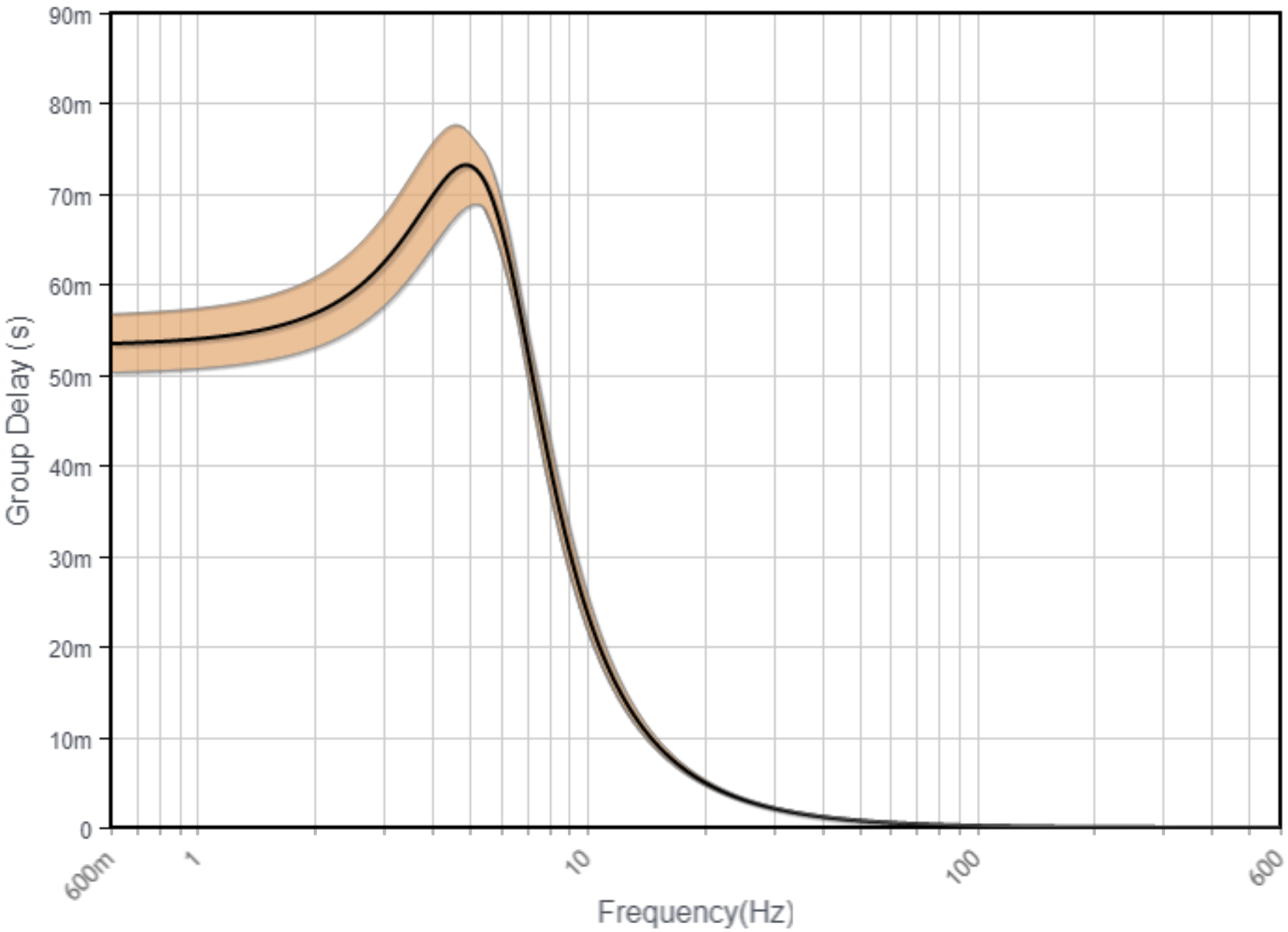
Phase(degrees)



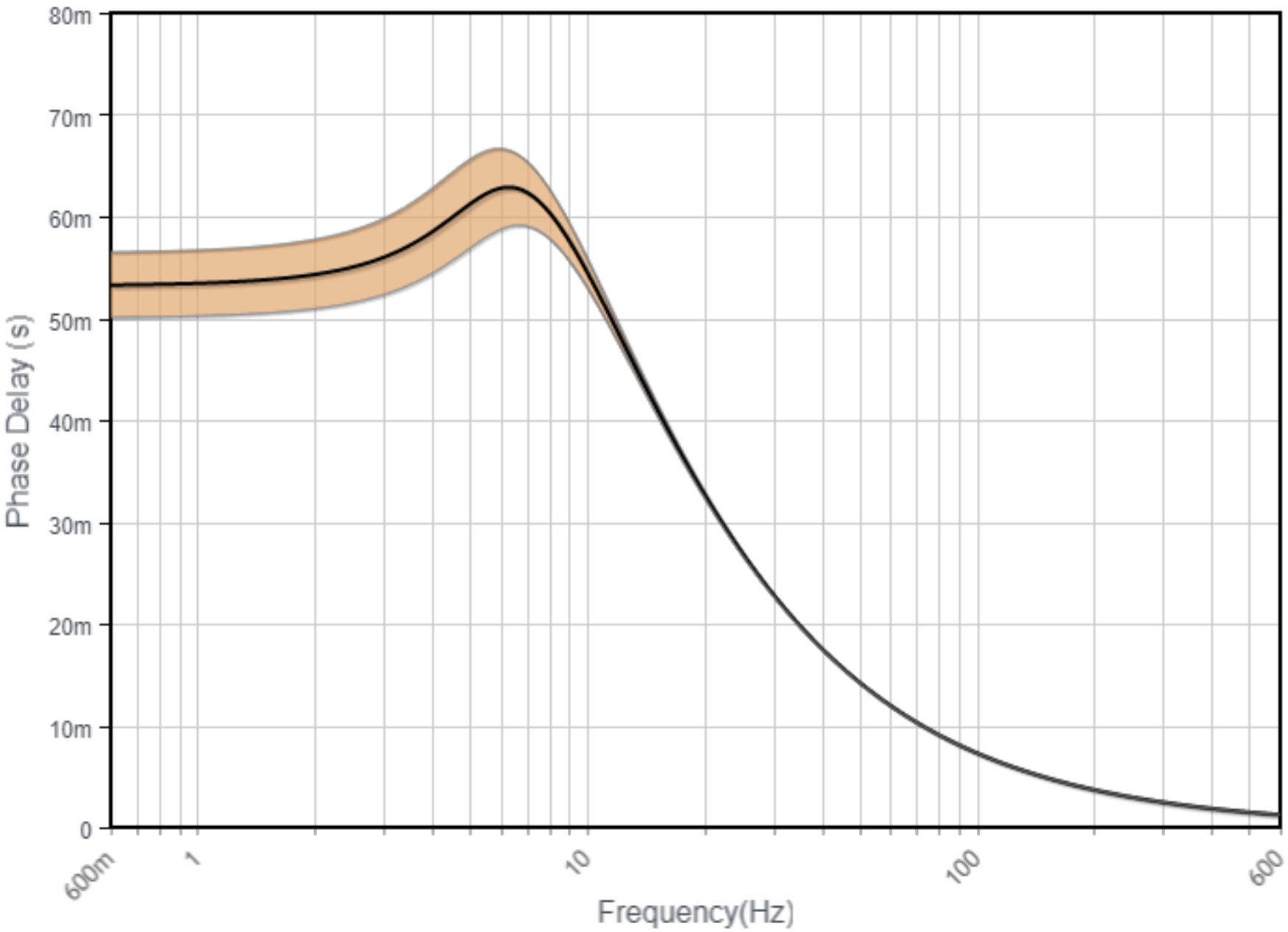
Phase(radians)



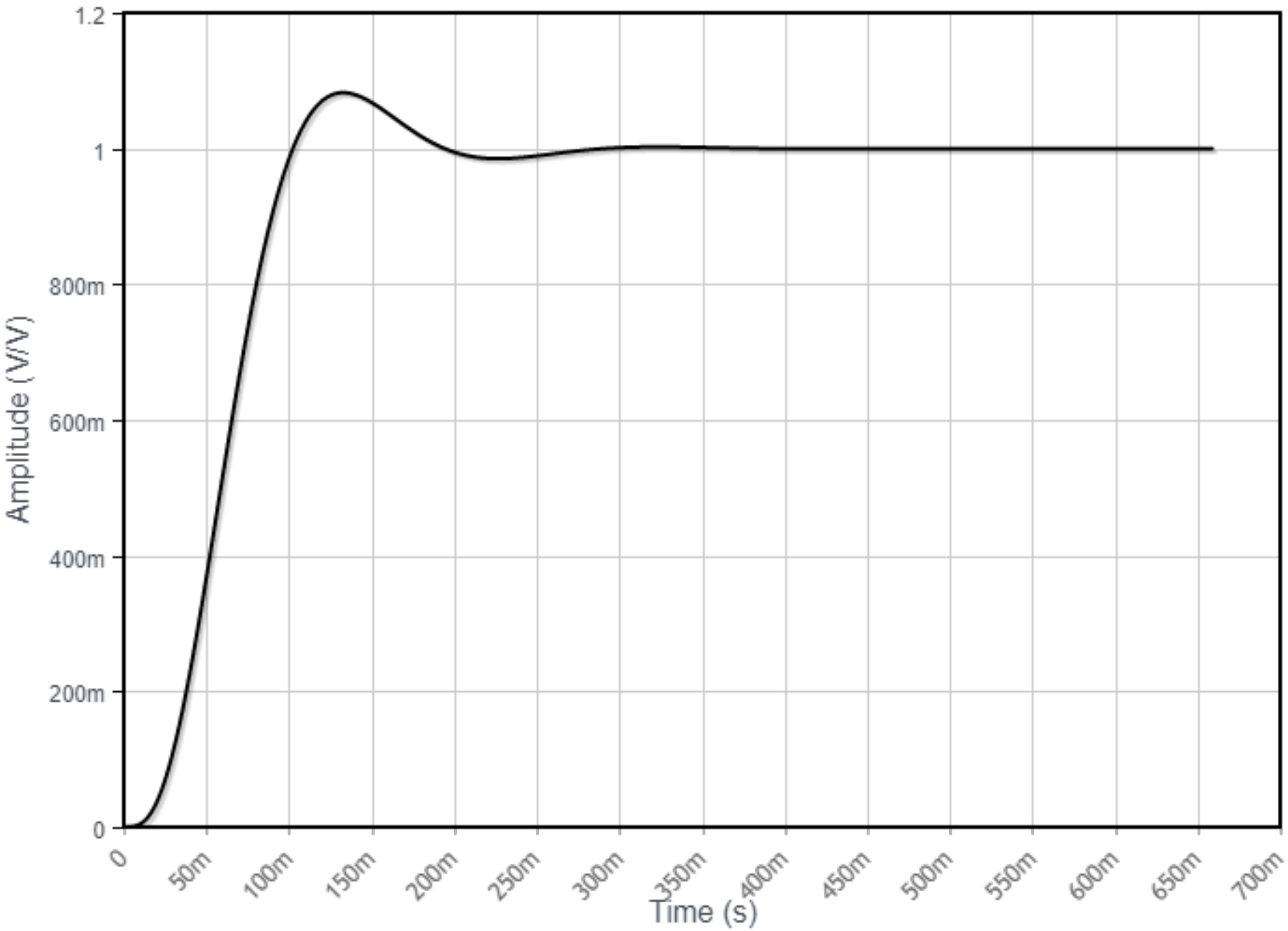
Group Delay


90m
80m
70m
60m
50m
40m
30m
20m
10m
0
Group Delay (s)
600m
1
10
100
600
Frequency(Hz)

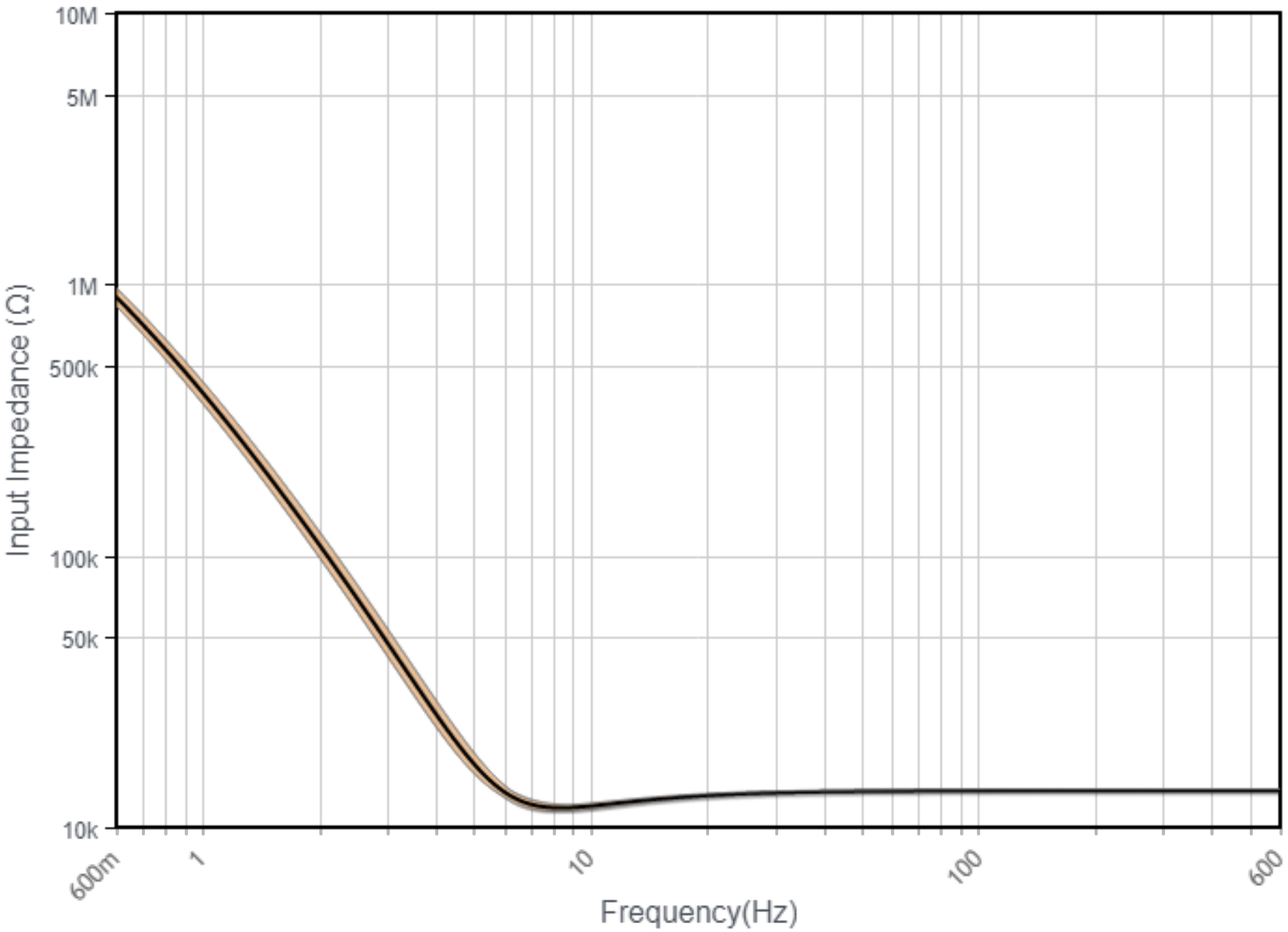
Phase Delay


80m
70m
60m
50m
40m
30m
20m
10m
0
Phase Delay (s)
600m
1
10
100
600
Frequency(Hz)

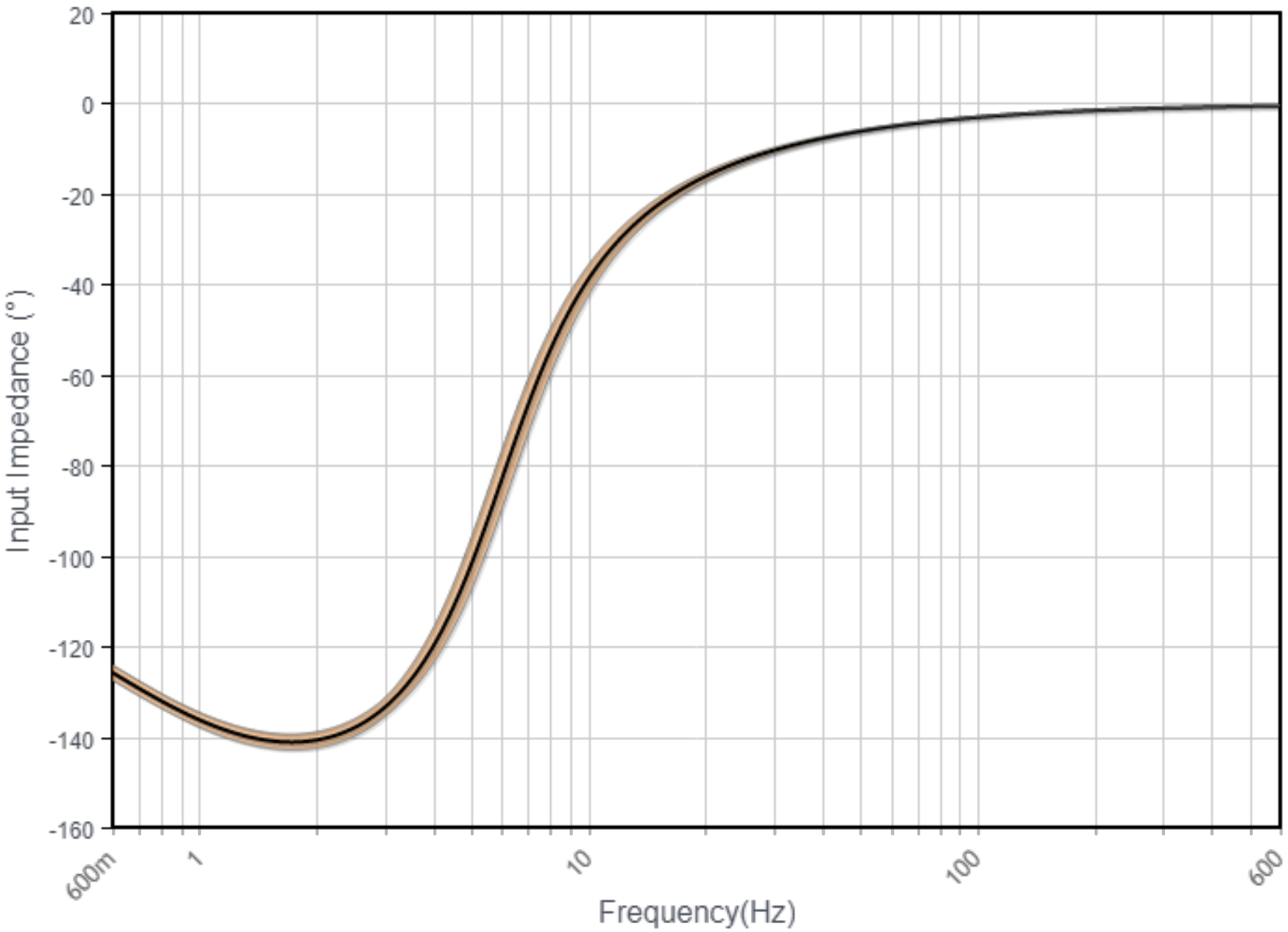
Step Response



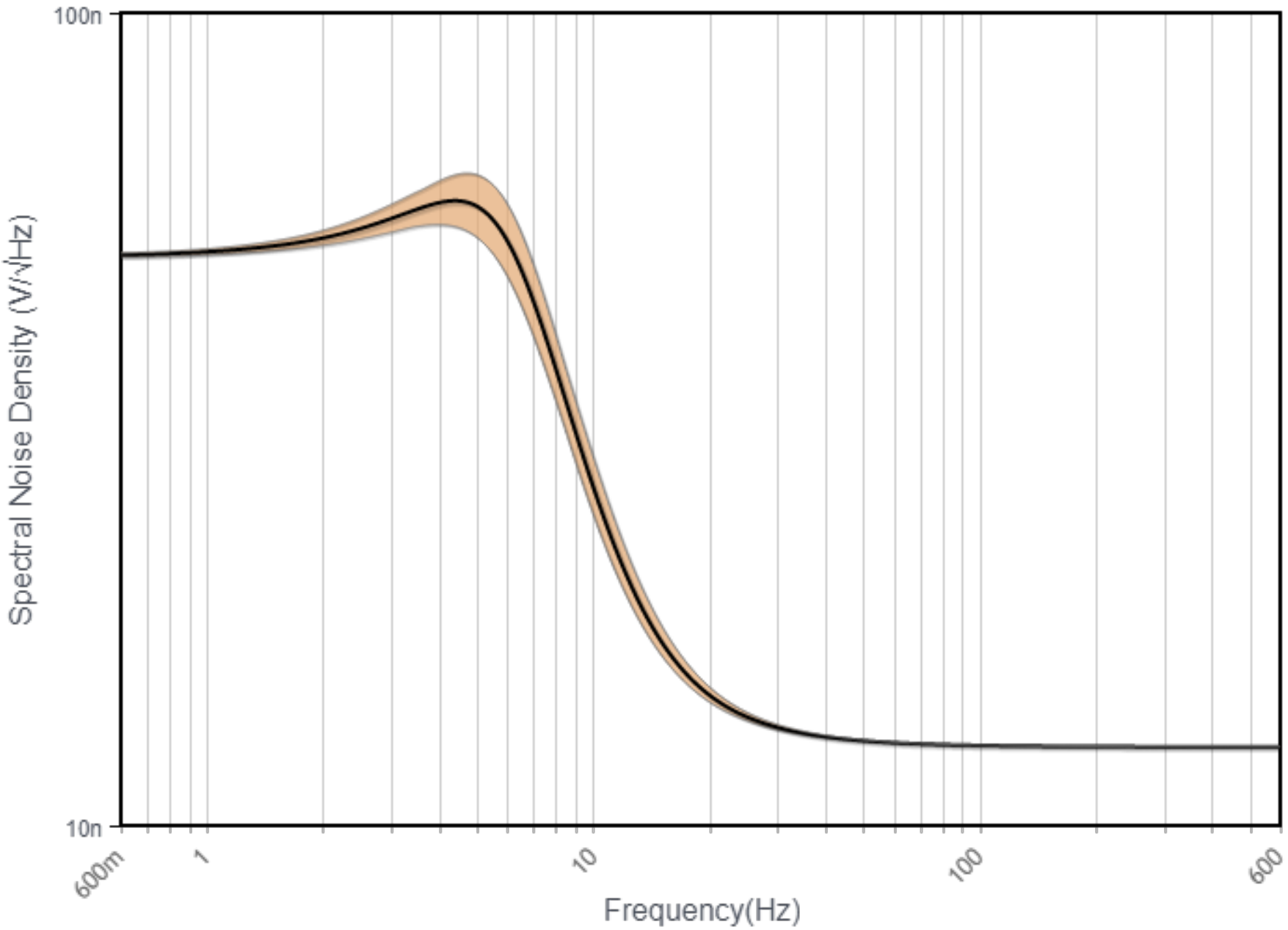
Input Impedance Magnitude



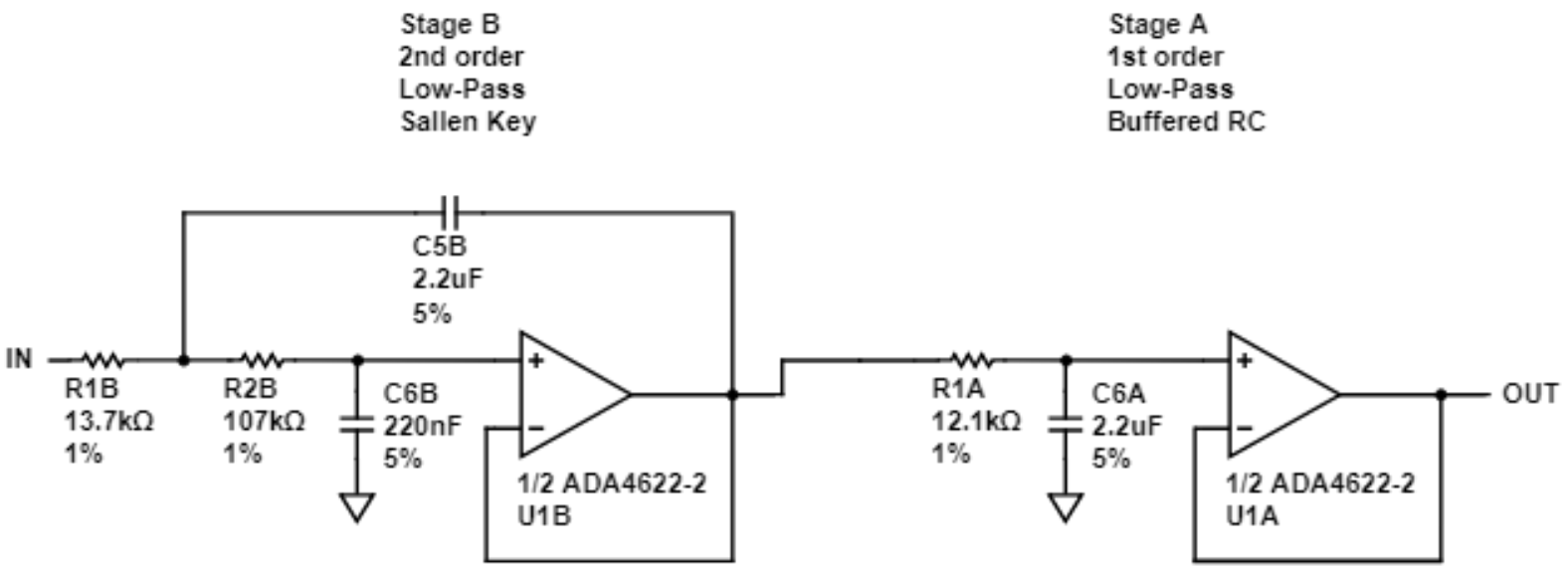
Input Impedance Phase

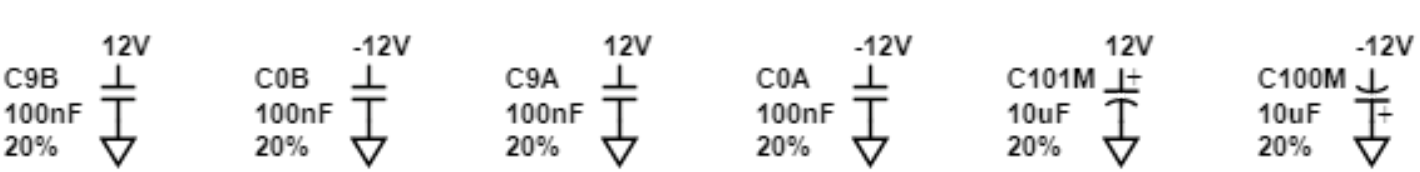


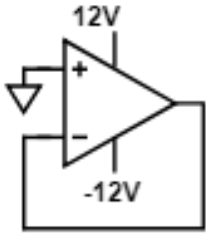
Noise


100n
10n
Spectral Noise Density (V/√Hz)
600m
1
10
100
600
Frequency(Hz)

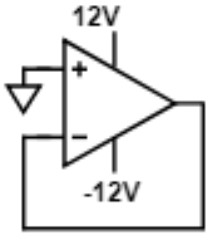
Circuit







1/2 ADA4622-2
U1B



1/2 ADA4622-2
U1A