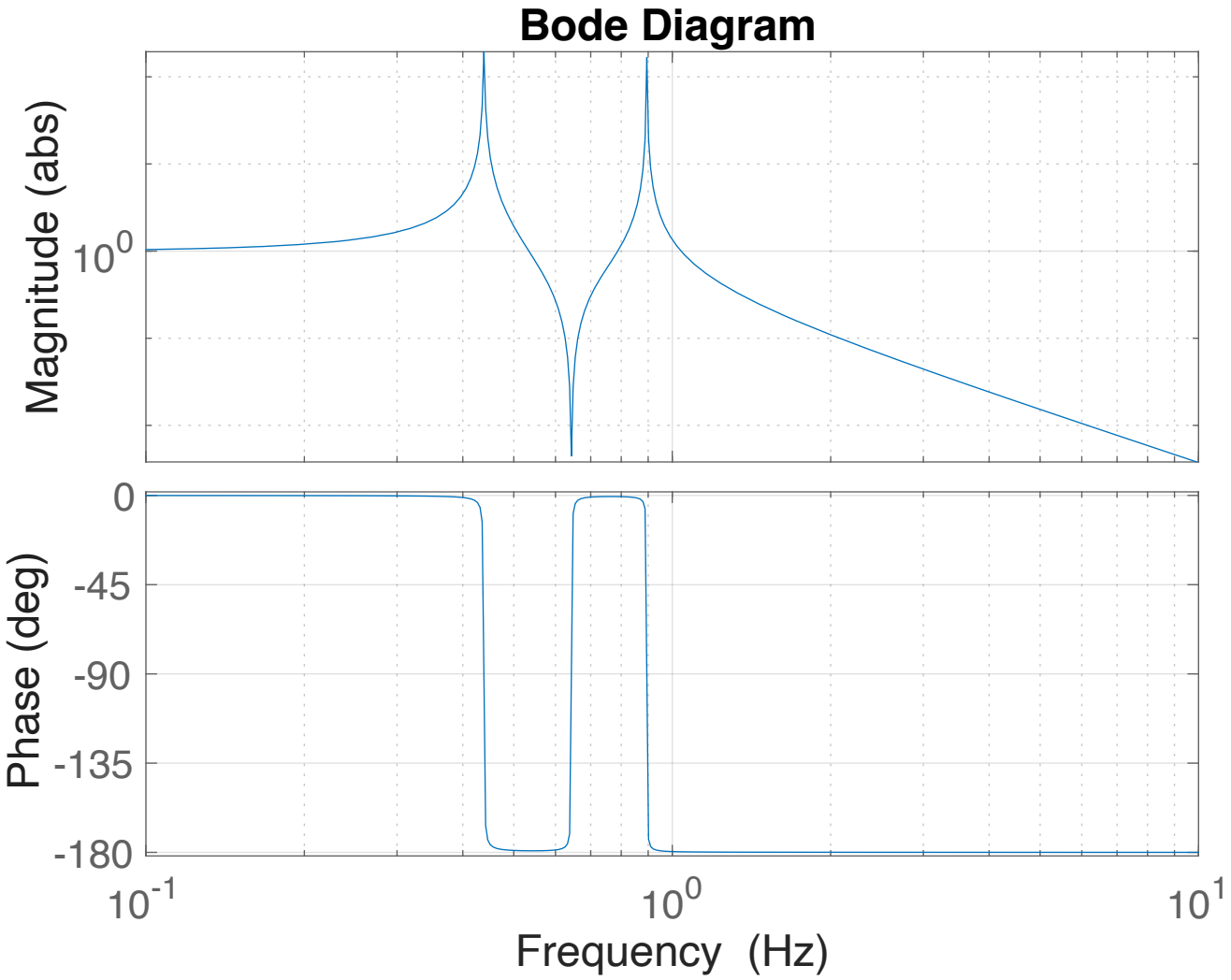
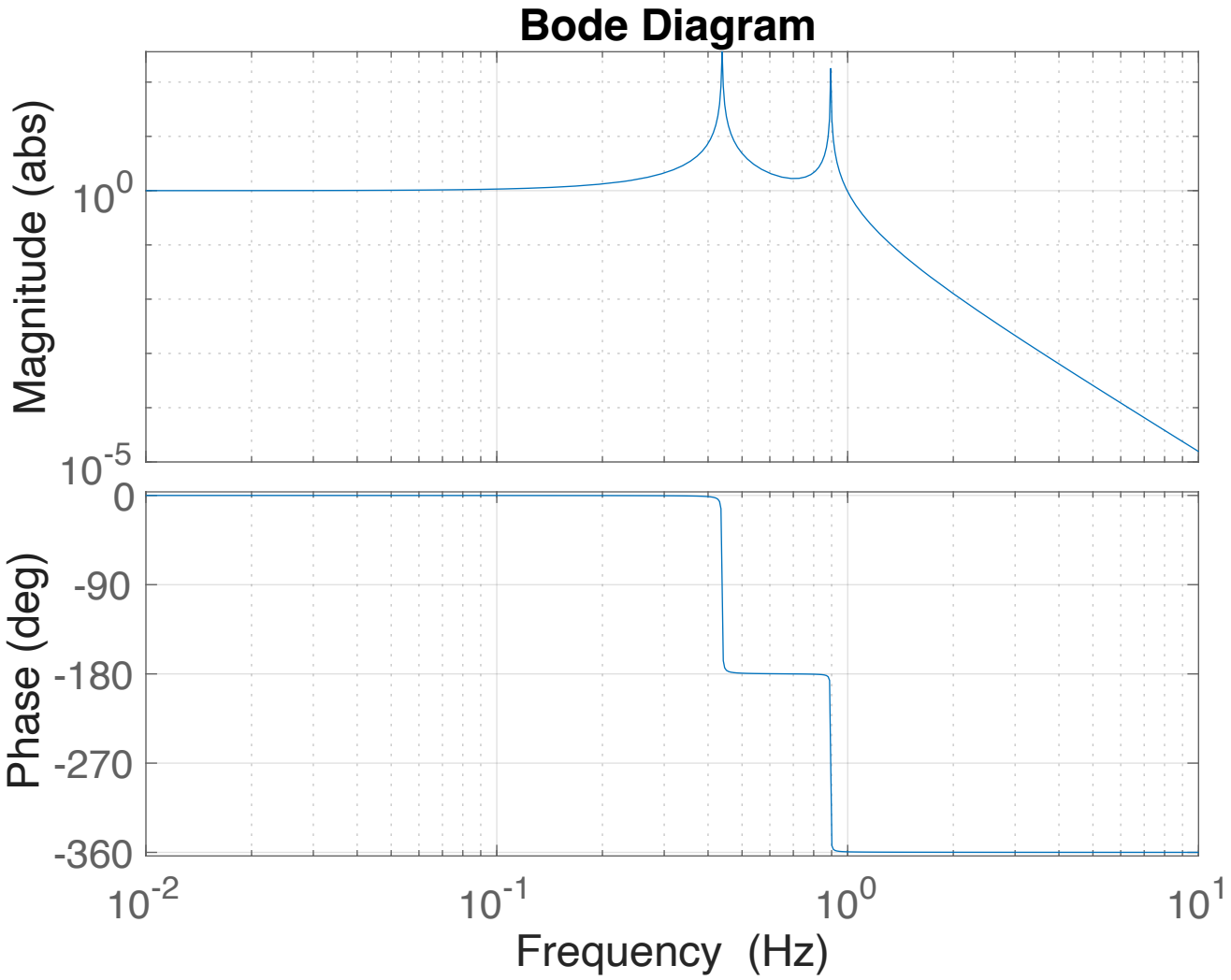
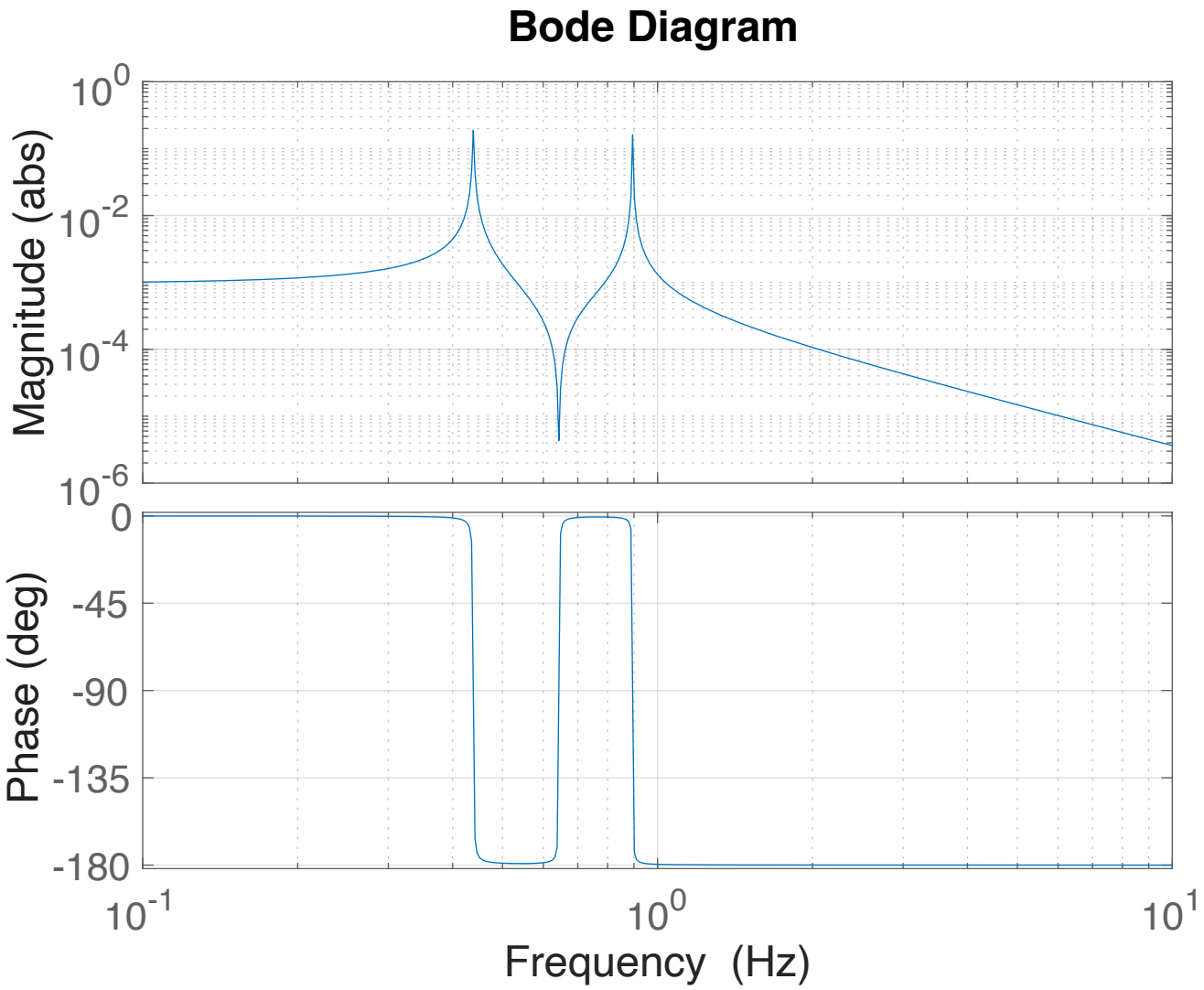
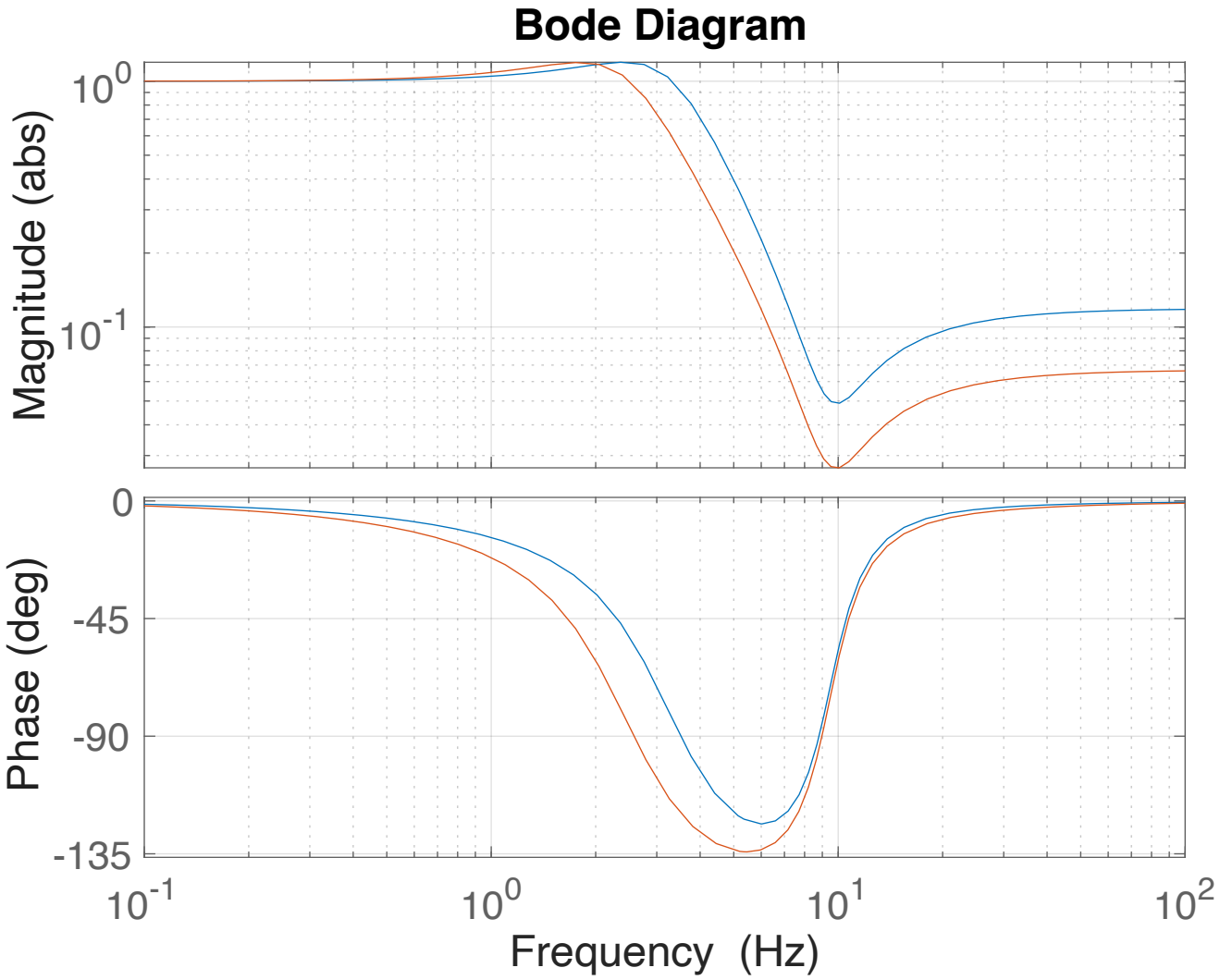
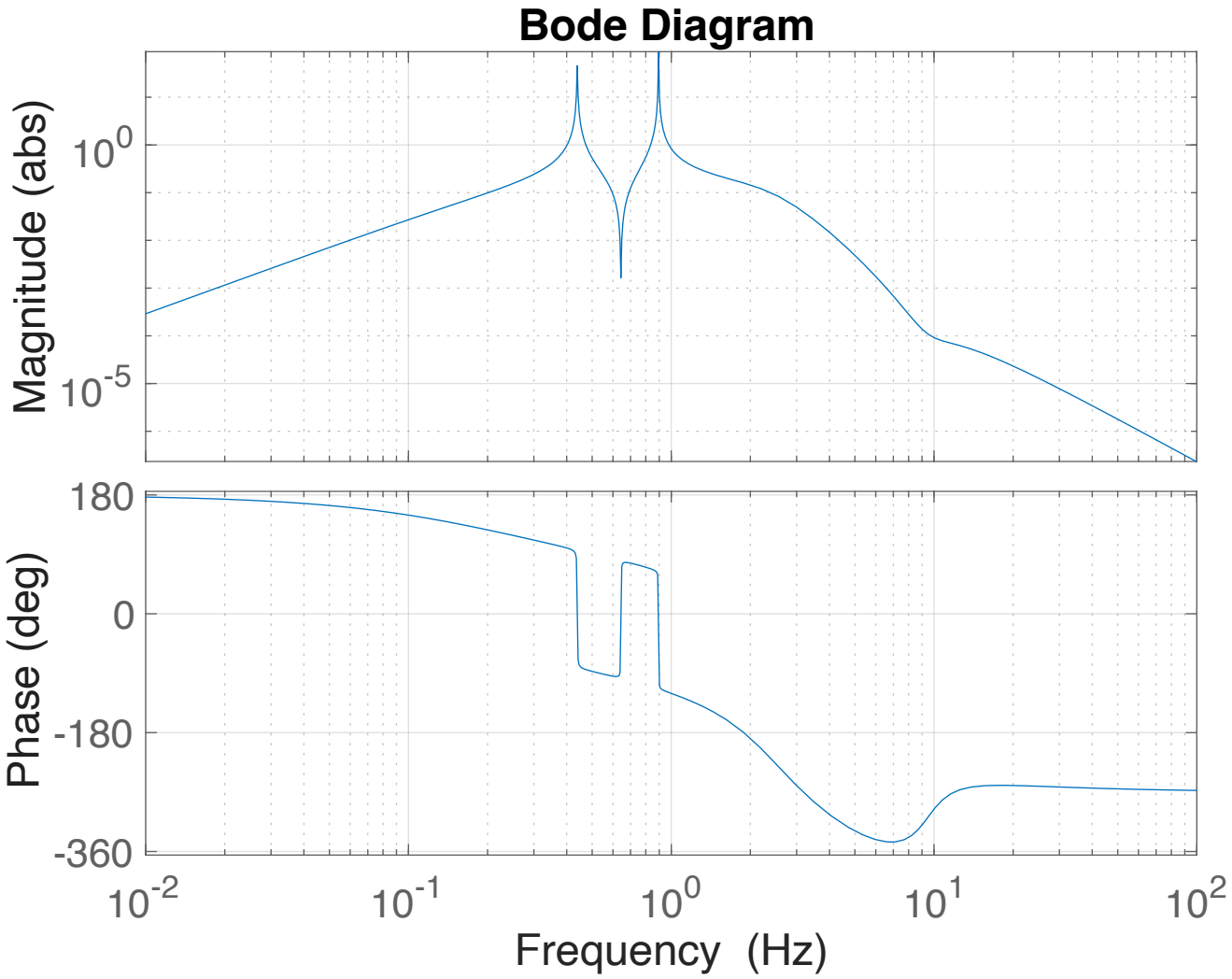
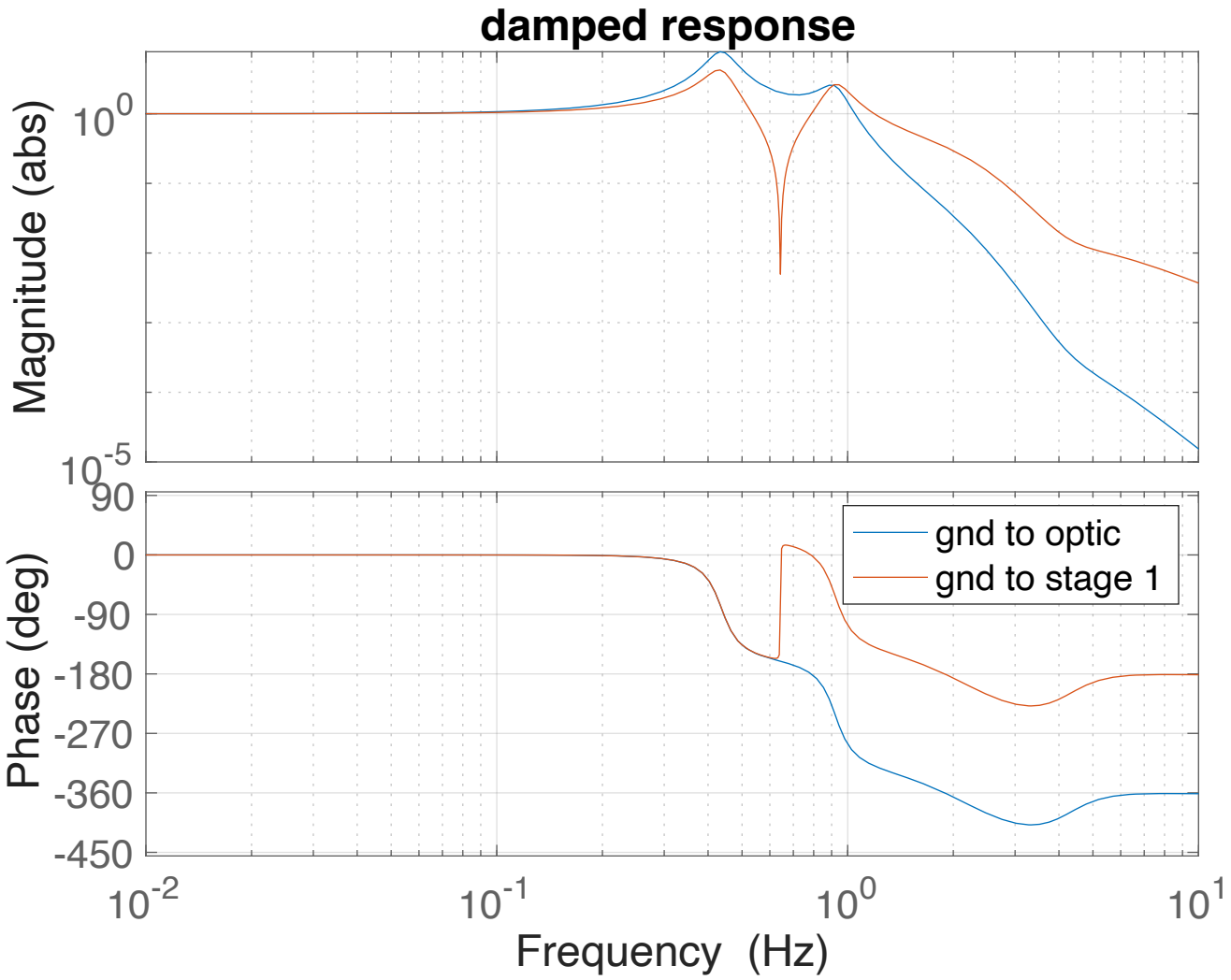

Bode Diagram
Magnitude (abs)
10^0
Phase (deg)
0
-45
-90
-135
-180
10^{-1}
10^0
10^1
Frequency (Hz)

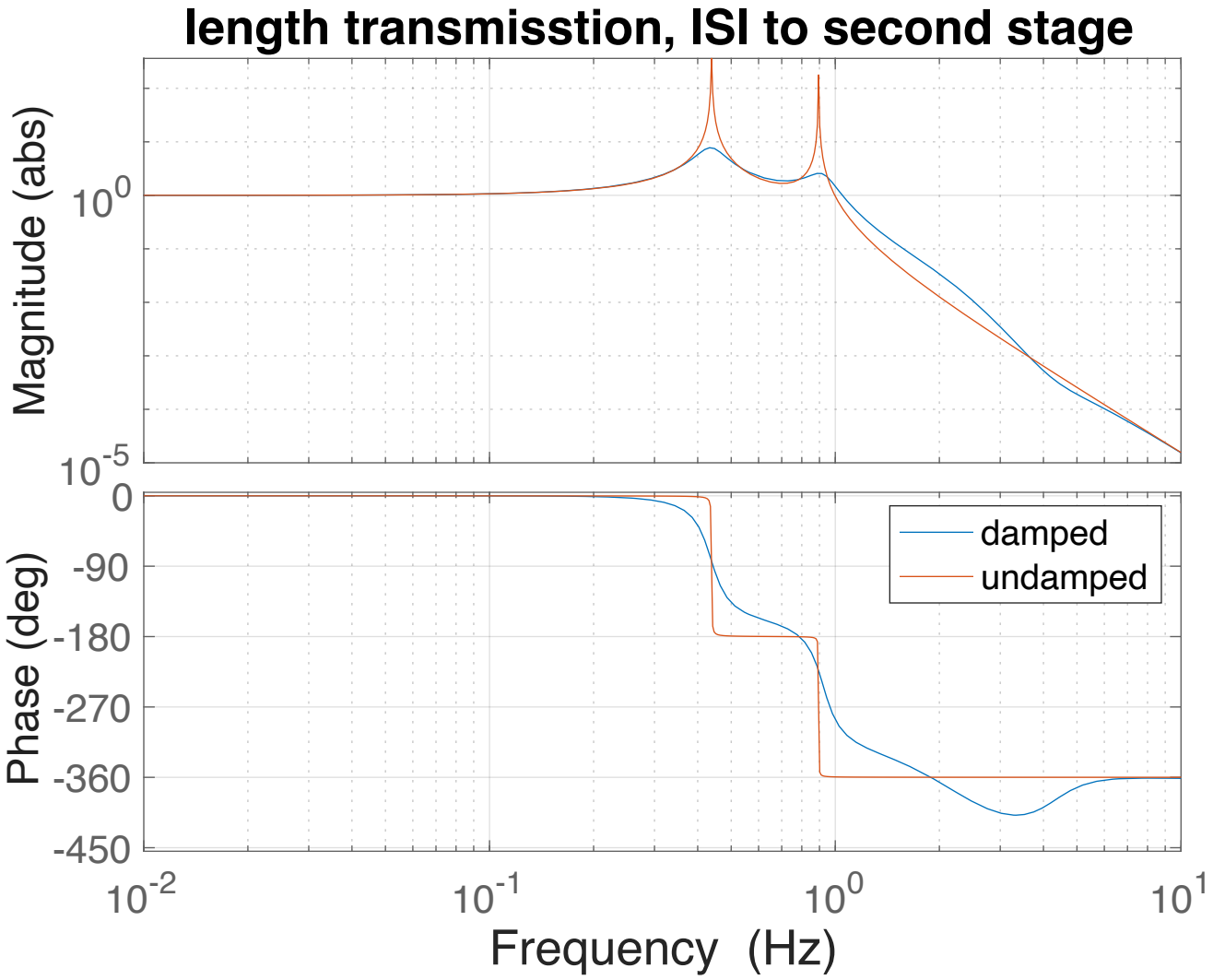

Bode Diagram
Magnitude (abs)
10^0
10^-5
Phase (deg)
0
-90
-180
-270
-360
10^-2
10^-1
10^0
10^1
Frequency (Hz)

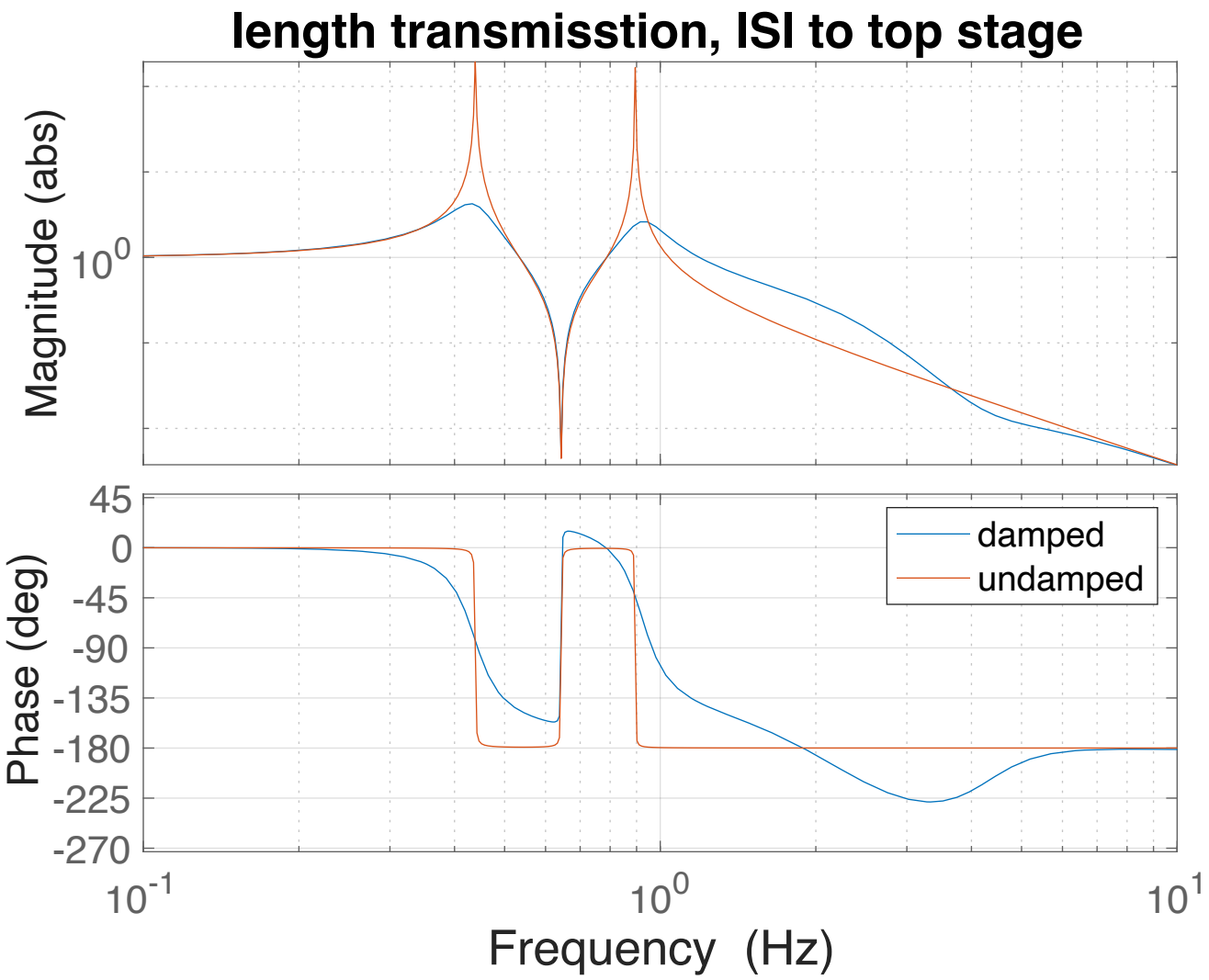

Bode Diagram
Magnitude (abs)
10^0
10^-2
10^-4
10^-6
Phase (deg)
0
-45
-90
-135
-180
10^-1
10^0
10^1
Frequency (Hz)

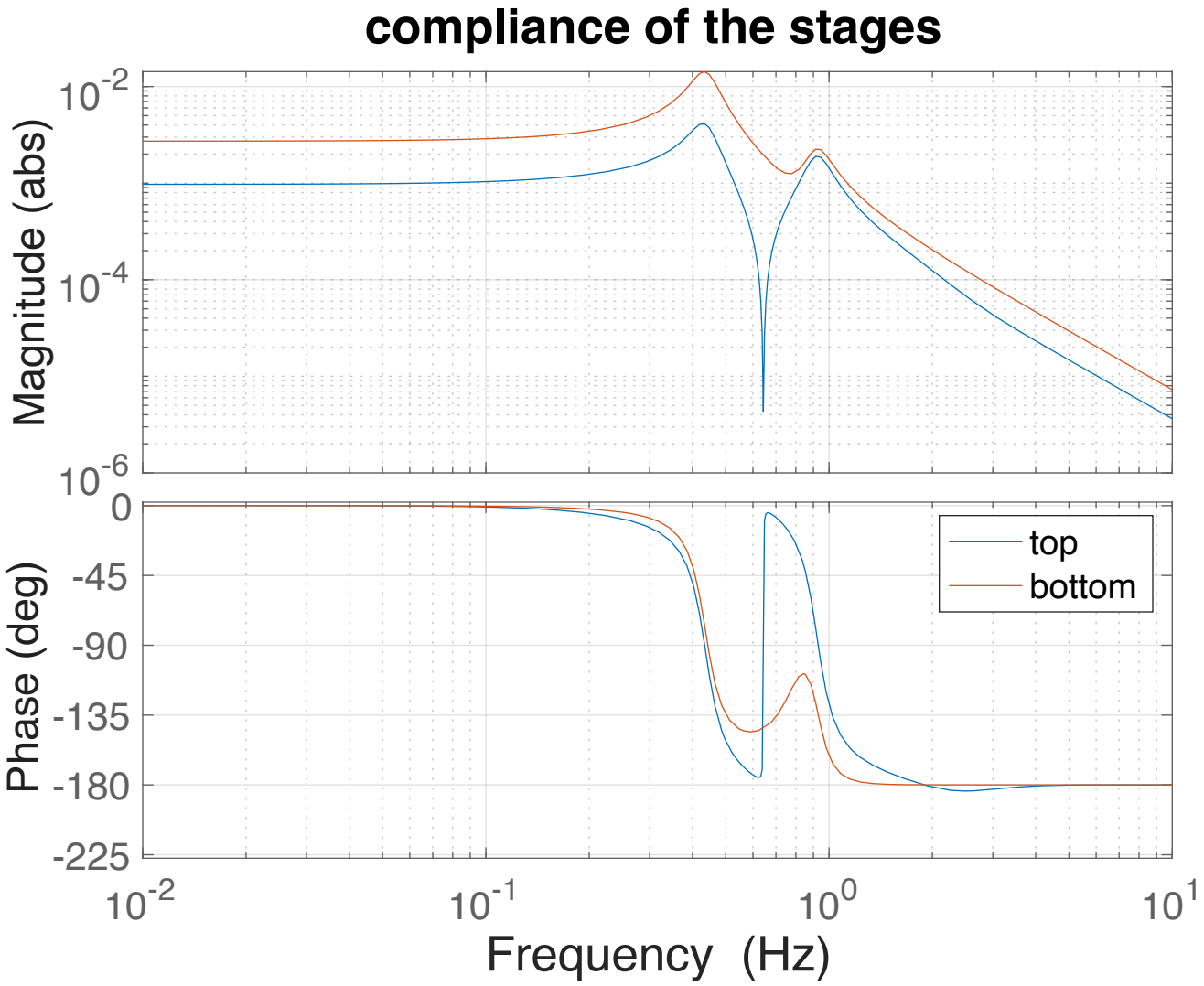

Bode Diagram
Magnitude (abs)
10^{0}
10^{-1}
Phase (deg)
0
-45
-90
-135
10^{-1}
10^{0}
10^{1}
10^{2}
Frequency (Hz)

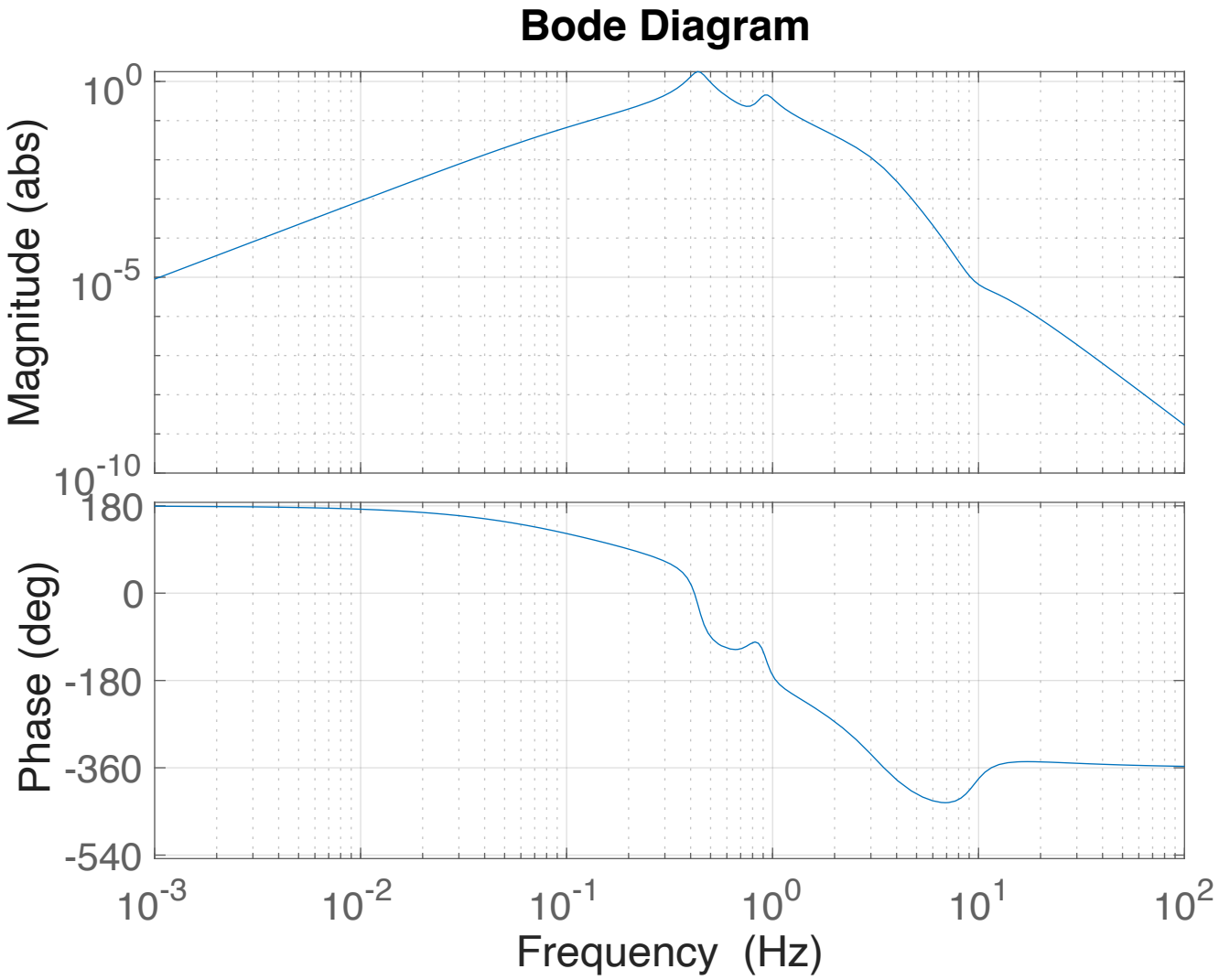

Bode Diagram
Magnitude (abs)
10^0
10^-5
Phase (deg)
180
0
-180
-360
10^-2
10^-1
10^0
10^1
10^2
Frequency (Hz)

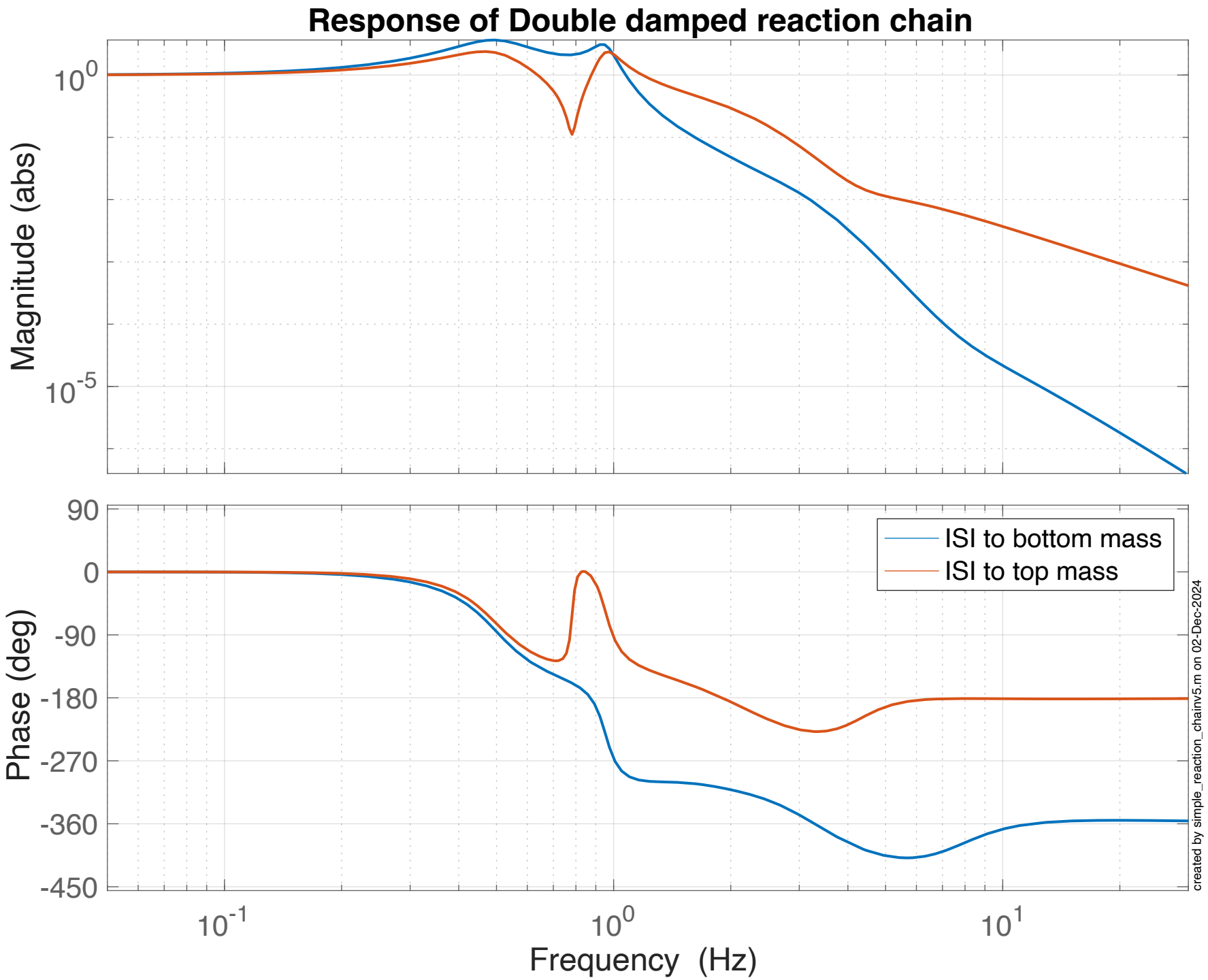

damped response
Magnitude (abs)
10^0
10^-5
Phase (deg)
90
0
-90
-180
-270
-360
-450
gnd to optic
gnd to stage 1
10^-2
10^-1
10^0
10^1
Frequency (Hz)

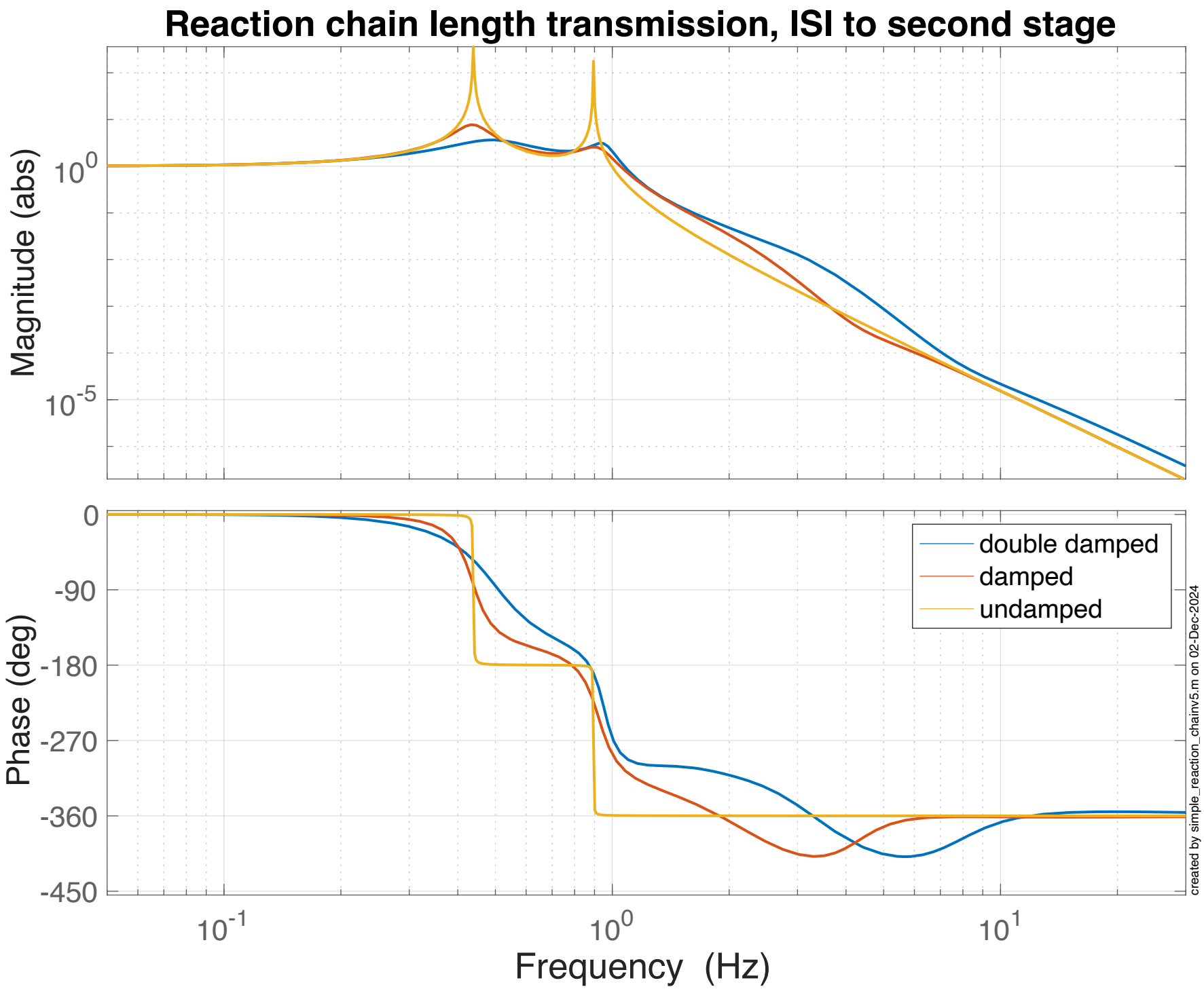

length transmisstion, ISI to second stage
Magnitude (abs)
10^0
10^-5
Phase (deg)
0
-90
-180
-270
-360
-450
damped
undamped
10^-2
10^-1
10^0
10^1
Frequency (Hz)

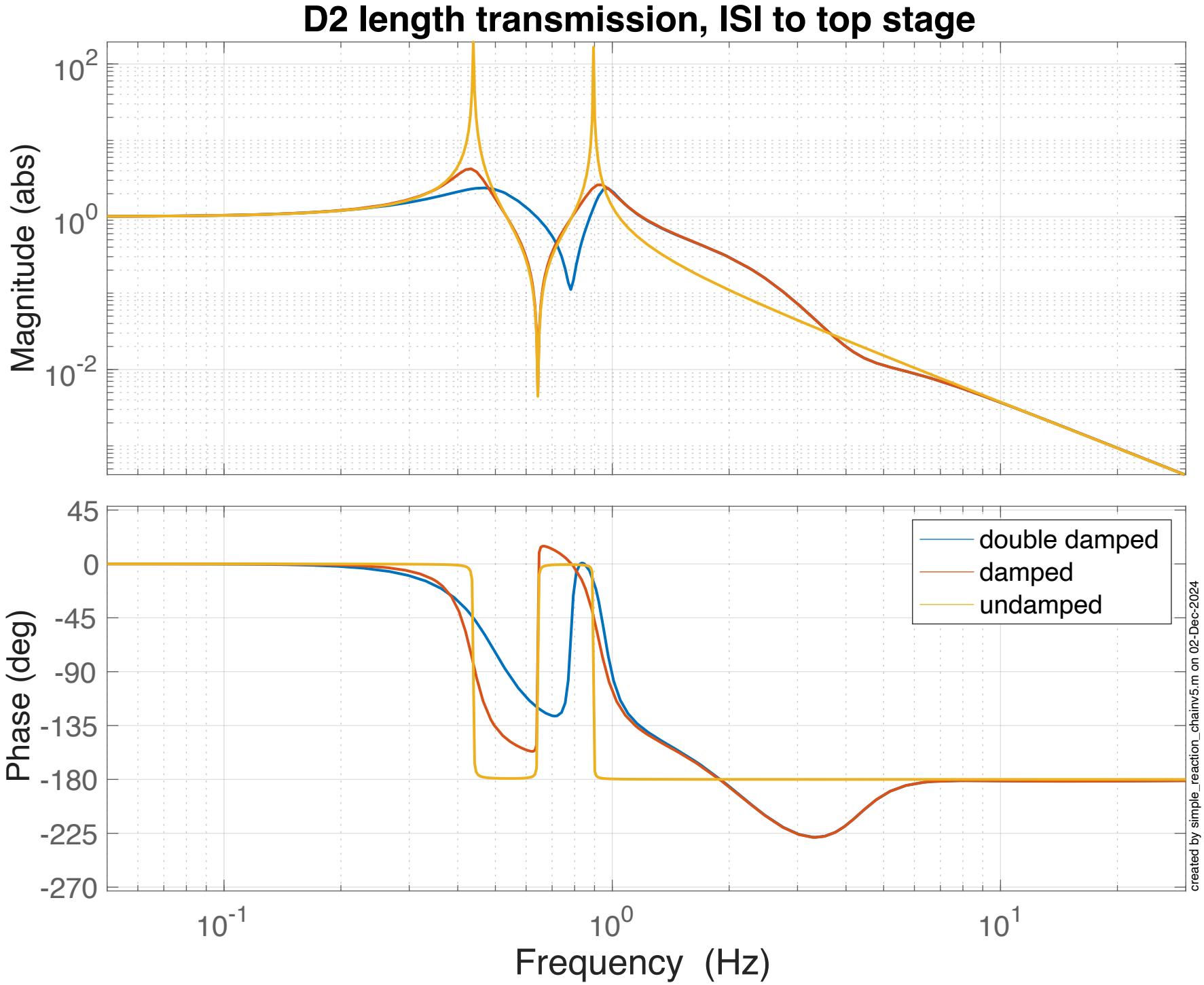

length transmisstion, ISI to top stage
Magnitude (abs)
10^0
Phase (deg)
45
0
-45
-90
-135
-180
-225
-270
damped
undamped
10^{-1}
10^0
10^1
Frequency (Hz)

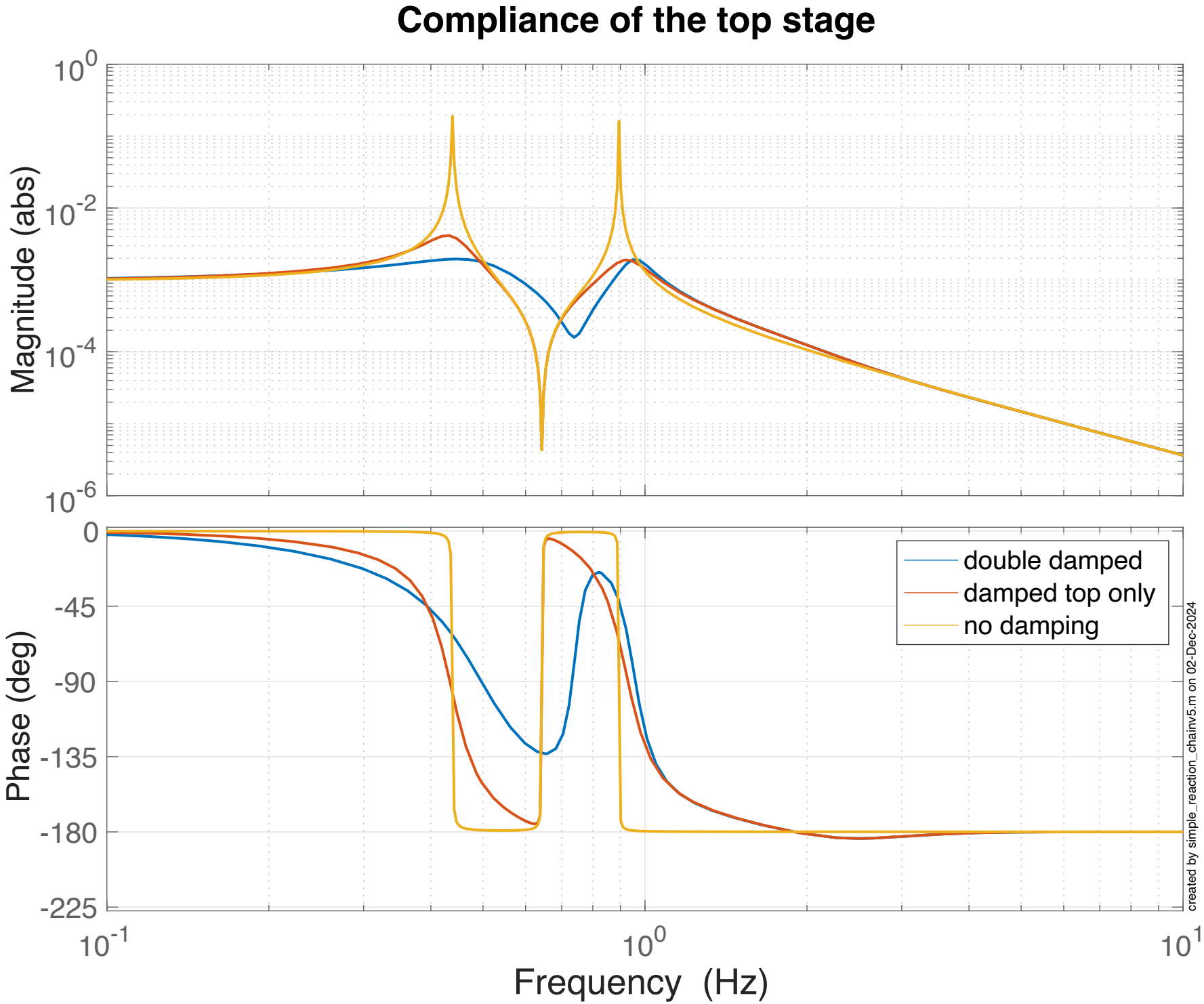

compliance of the stages
Magnitude (abs)
10^-2
10^-4
10^-6
Phase (deg)
0
-45
-90
-135
-180
-225
top
bottom
10^-2
10^-1
10^0
10^1
Frequency (Hz)

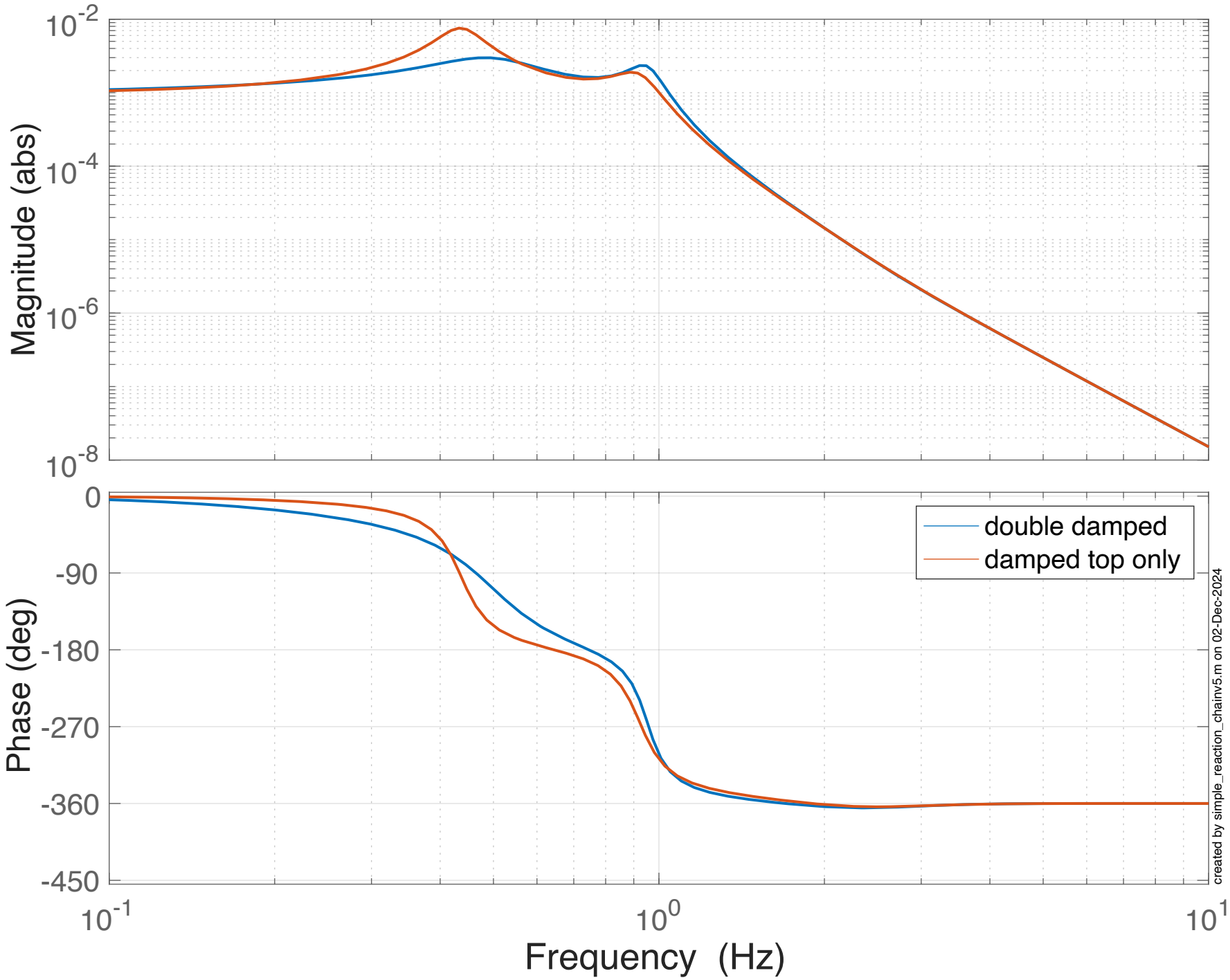

Bode Diagram
Magnitude (abs)
10^{0}
10^{-5}
10^{-10}
Phase (deg)
180
0
-180
-360
-540
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
Frequency (Hz)

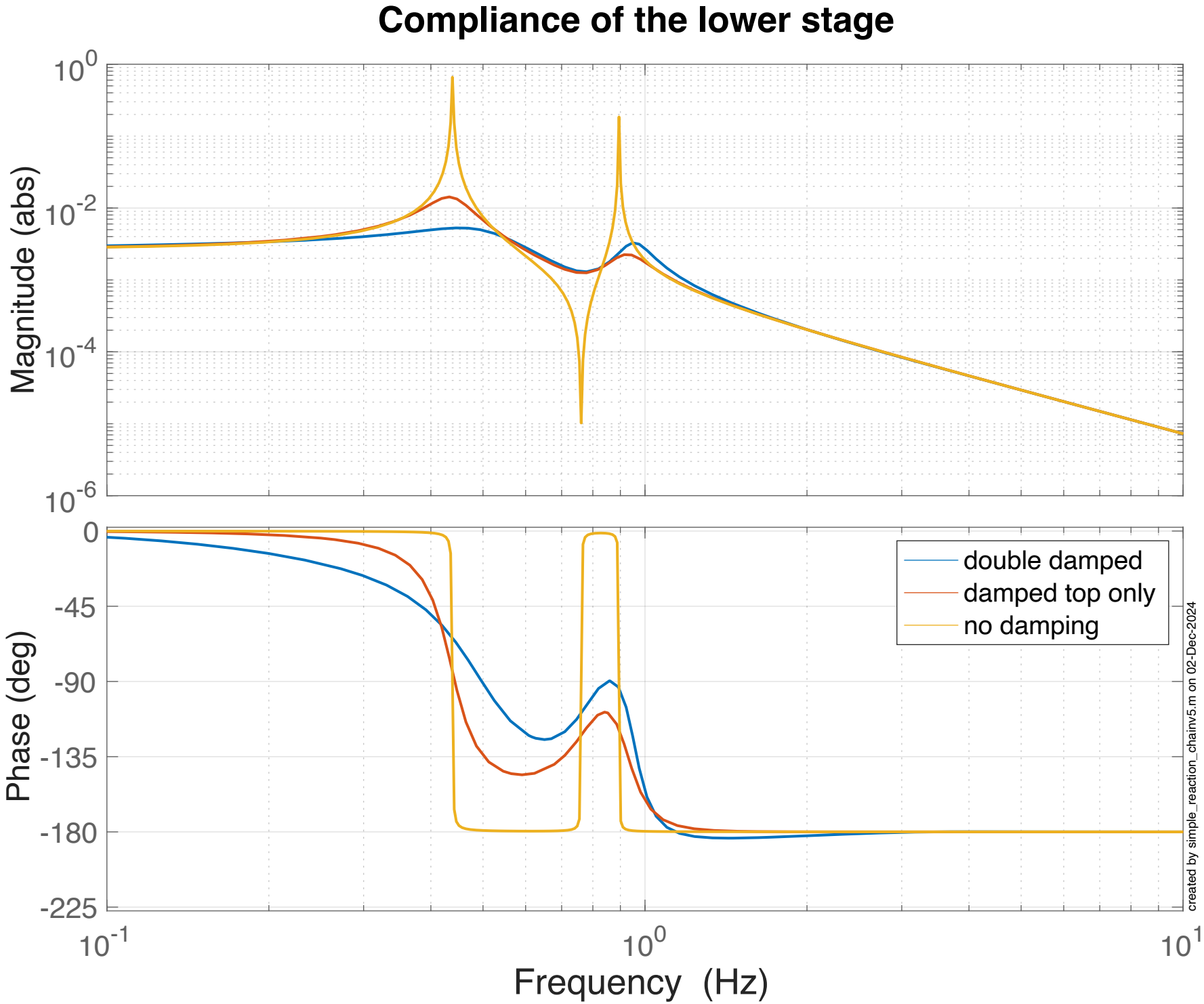

Response of Double damped reaction chain
Magnitude (abs)
10^{0}
10^{-5}
Phase (deg)
90
0
-90
-180
-270
-360
-450
ISI to bottom mass
ISI to top mass
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

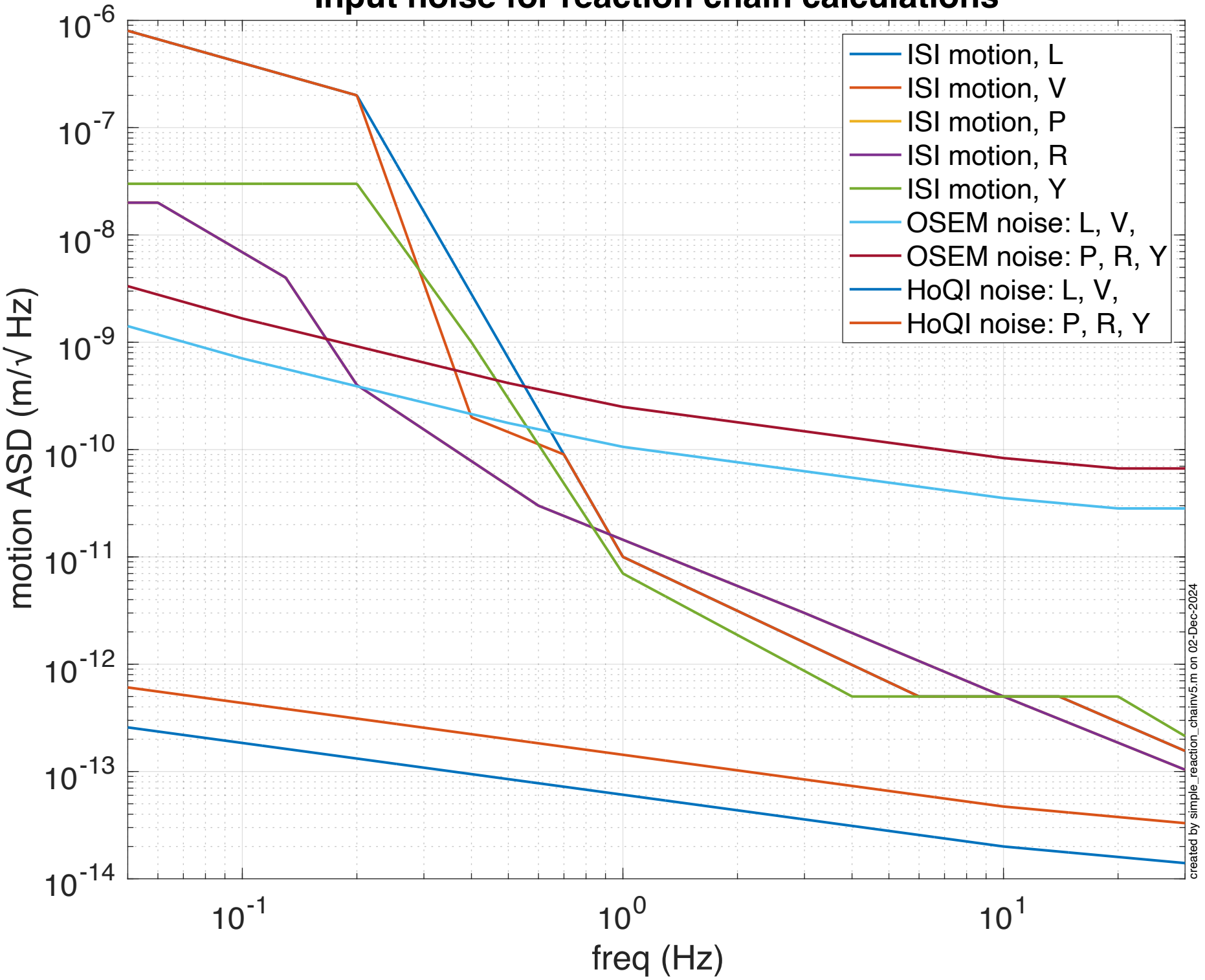

Reaction chain length transmission, ISI to second stage
Magnitude (abs)
10^0
10^-5
Phase (deg)
0
-90
-180
-270
-360
-450
10^-1
10^0
10^1
Frequency (Hz)
double damped
damped
undamped
created by simple_reaction_chainv5.m on 02-Dec-2024

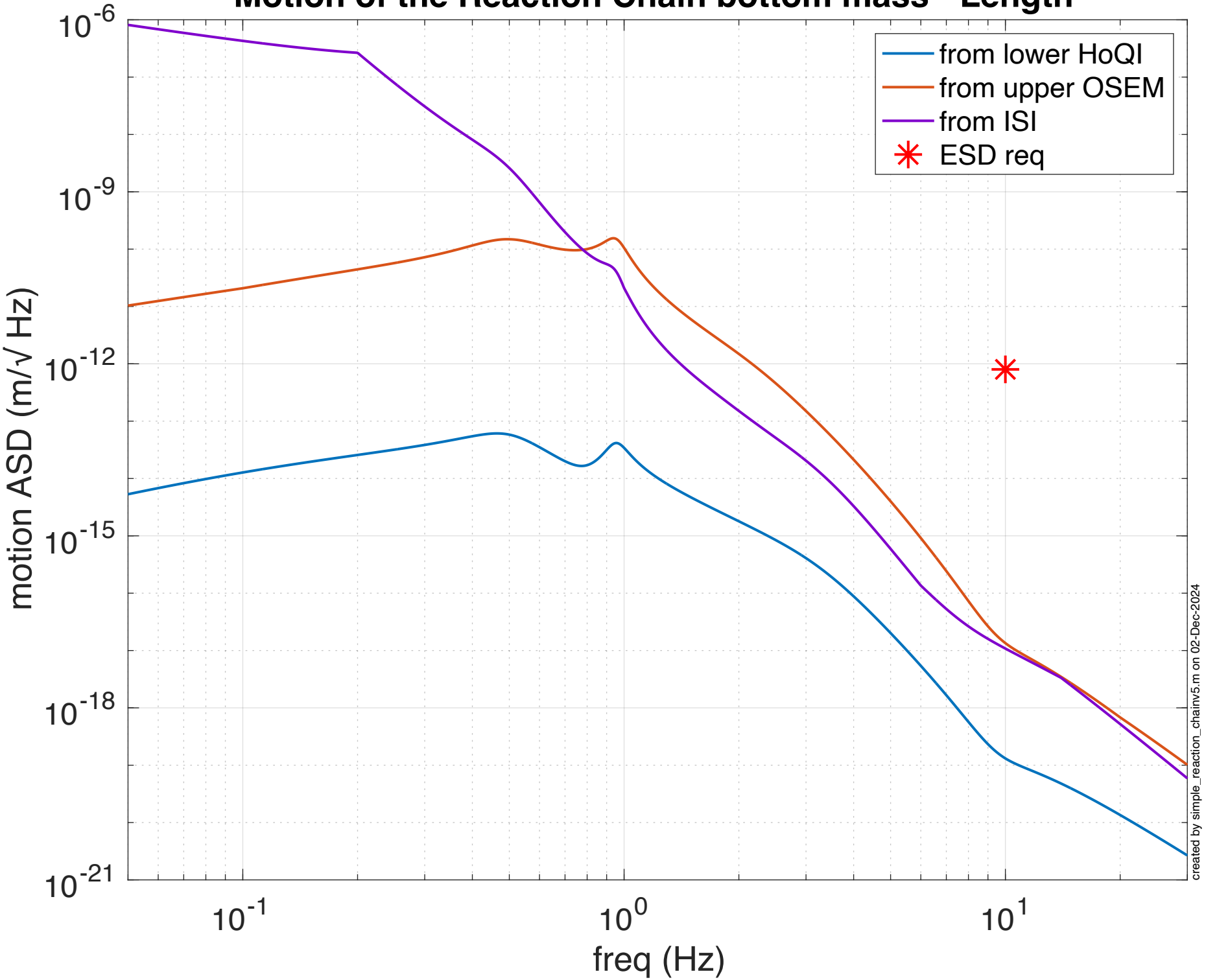

D2 length transmission, ISI to top stage
Magnitude (abs)
10^{2}
10^{0}
10^{-2}
Phase (deg)
45
0
-45
-90
-135
-180
-225
-270
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
double damped
damped
undamped
created by simple_reaction_chainv5.m on 02-Dec-2024

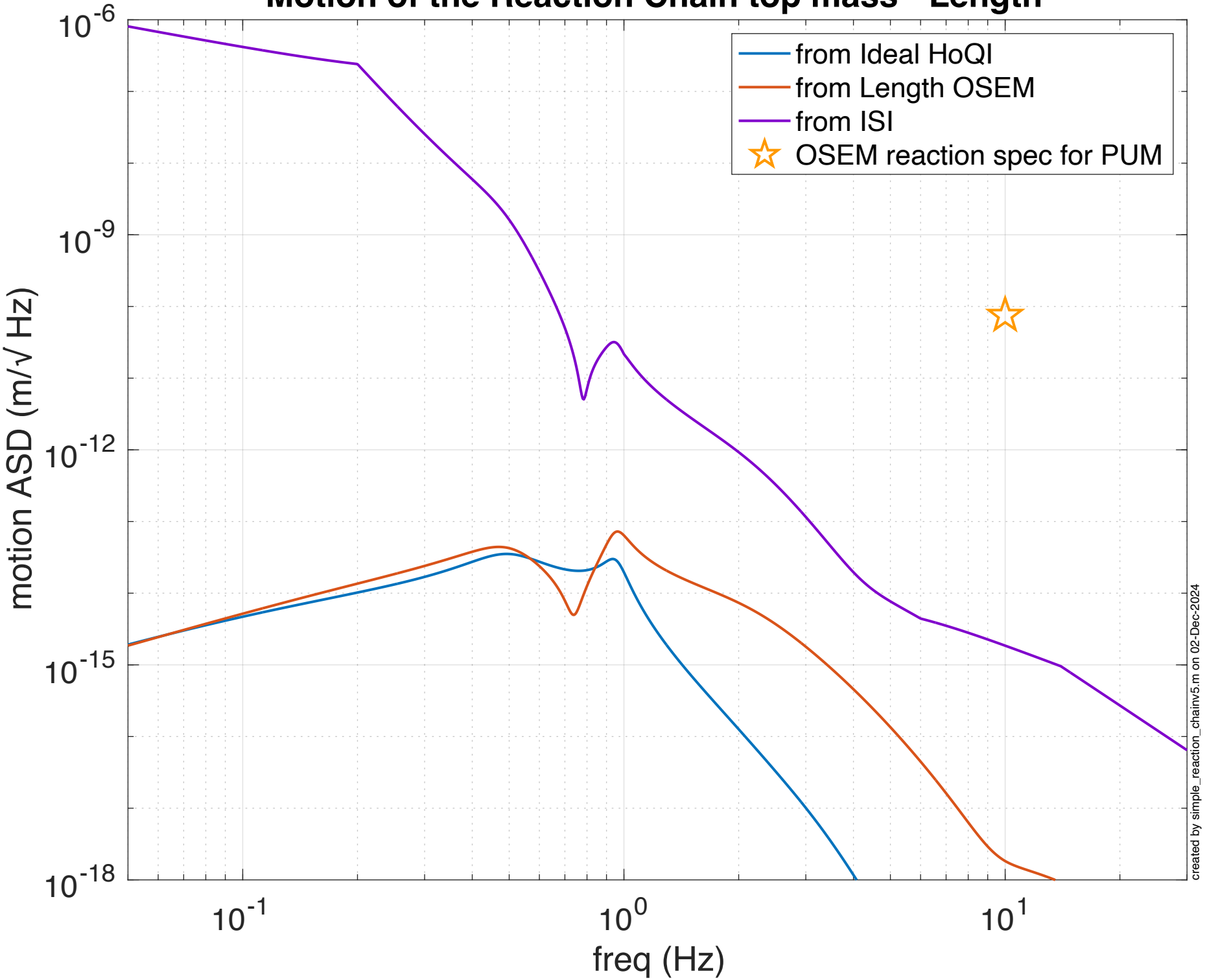

Compliance of the top stage
Magnitude (abs)
10^{0}
10^{-2}
10^{-4}
10^{-6}
Phase (deg)
0
-45
-90
-135
-180
-225
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
double damped
damped top only
no damping
created by simple_reaction_chainv5.m on 02-Dec-2024

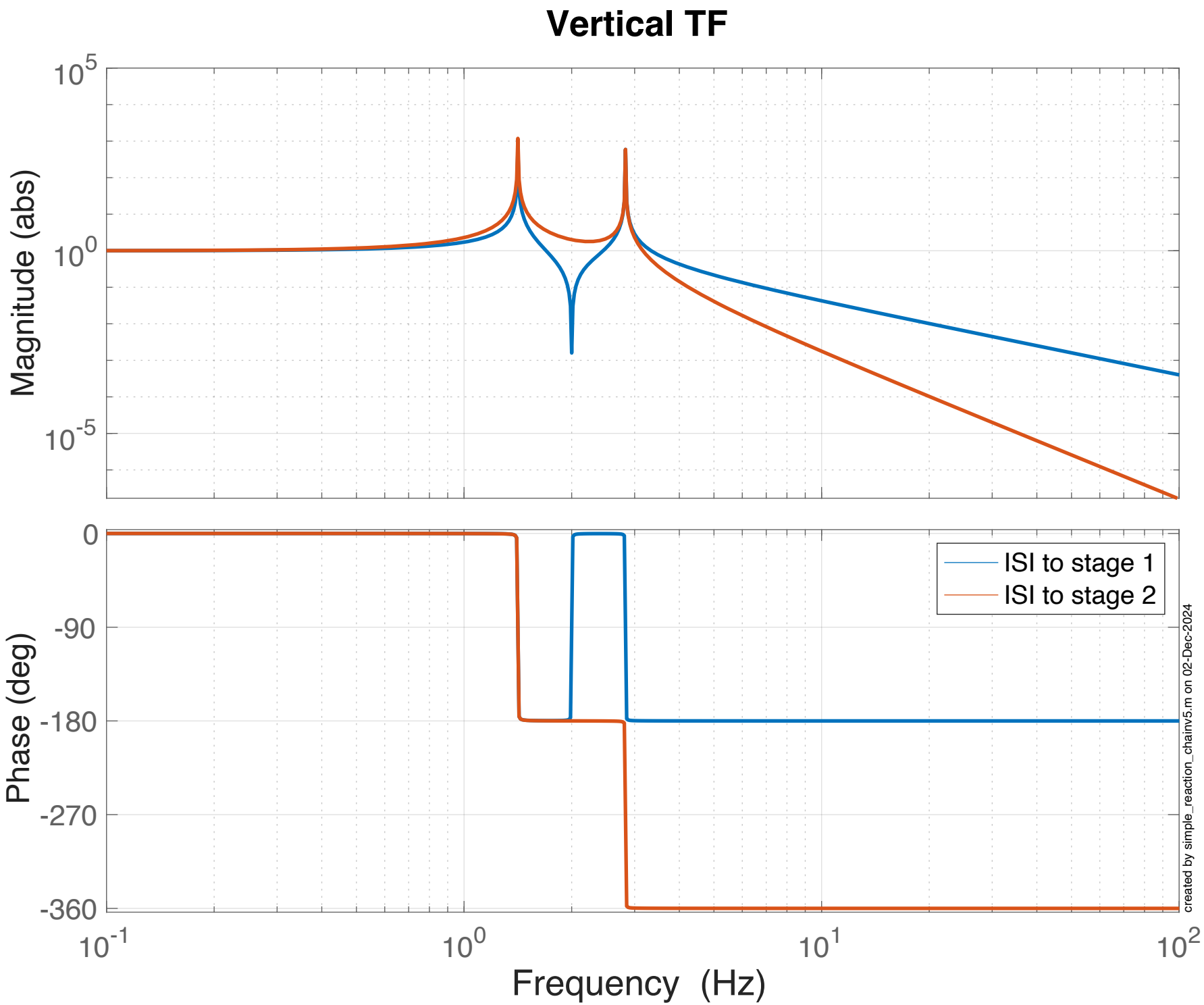

Where does the 0.64 hz motion go?
top force to lower motion
Magnitude (abs)
10^-2
10^-4
10^-6
10^-8
Phase (deg)
0
-90
-180
-270
-360
-450
10^-1
10^0
10^1
Frequency (Hz)
double damped
damped top only
created by simple_reaction_chainv5.m on 02-Dec-2024

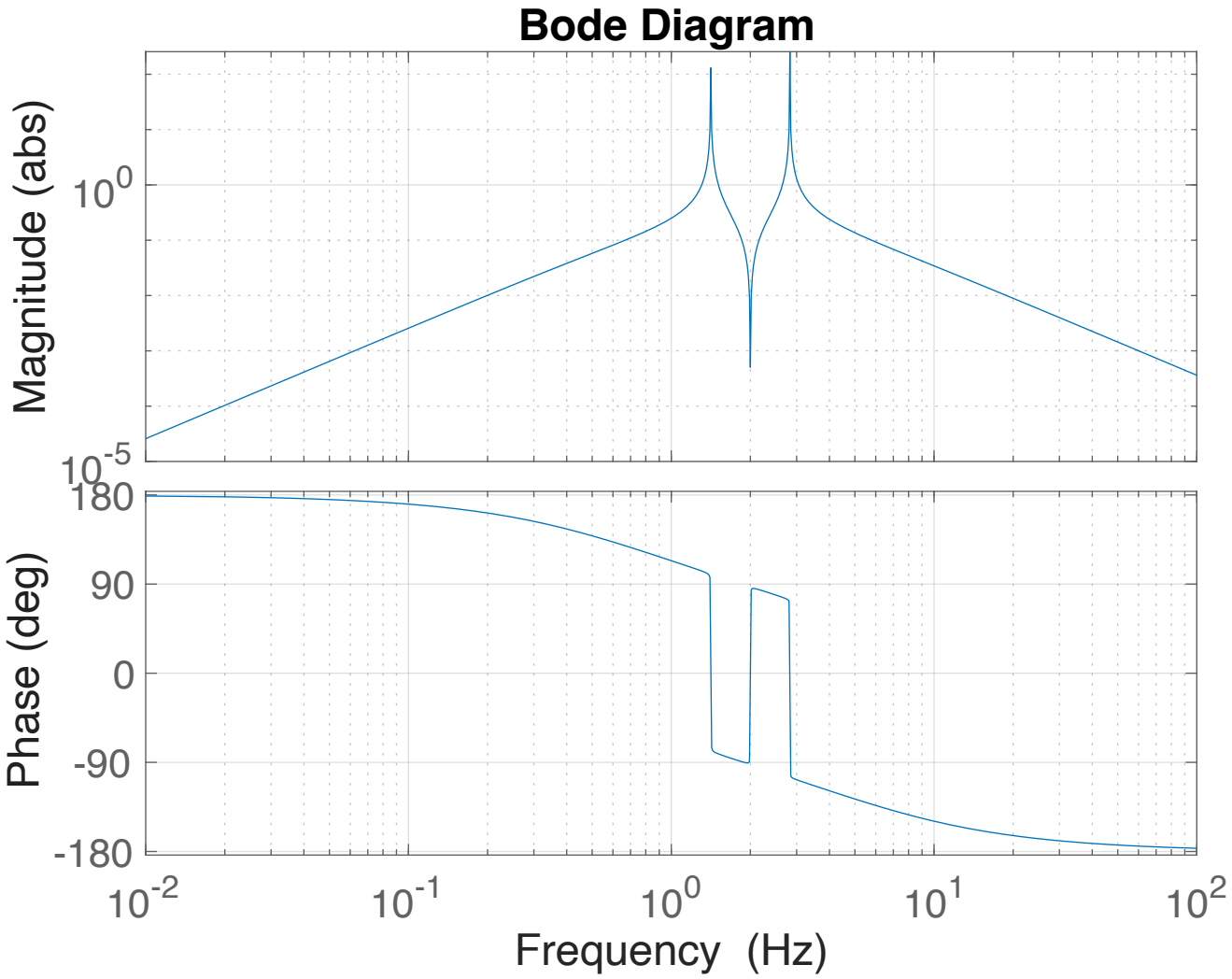

Compliance of the lower stage
Magnitude (abs)
10^{0}
10^{-2}
10^{-4}
10^{-6}
Phase (deg)
0
-45
-90
-135
-180
-225
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
double damped
damped top only
no damping
created by simple_reaction_chainv5.m on 02-Dec-2024

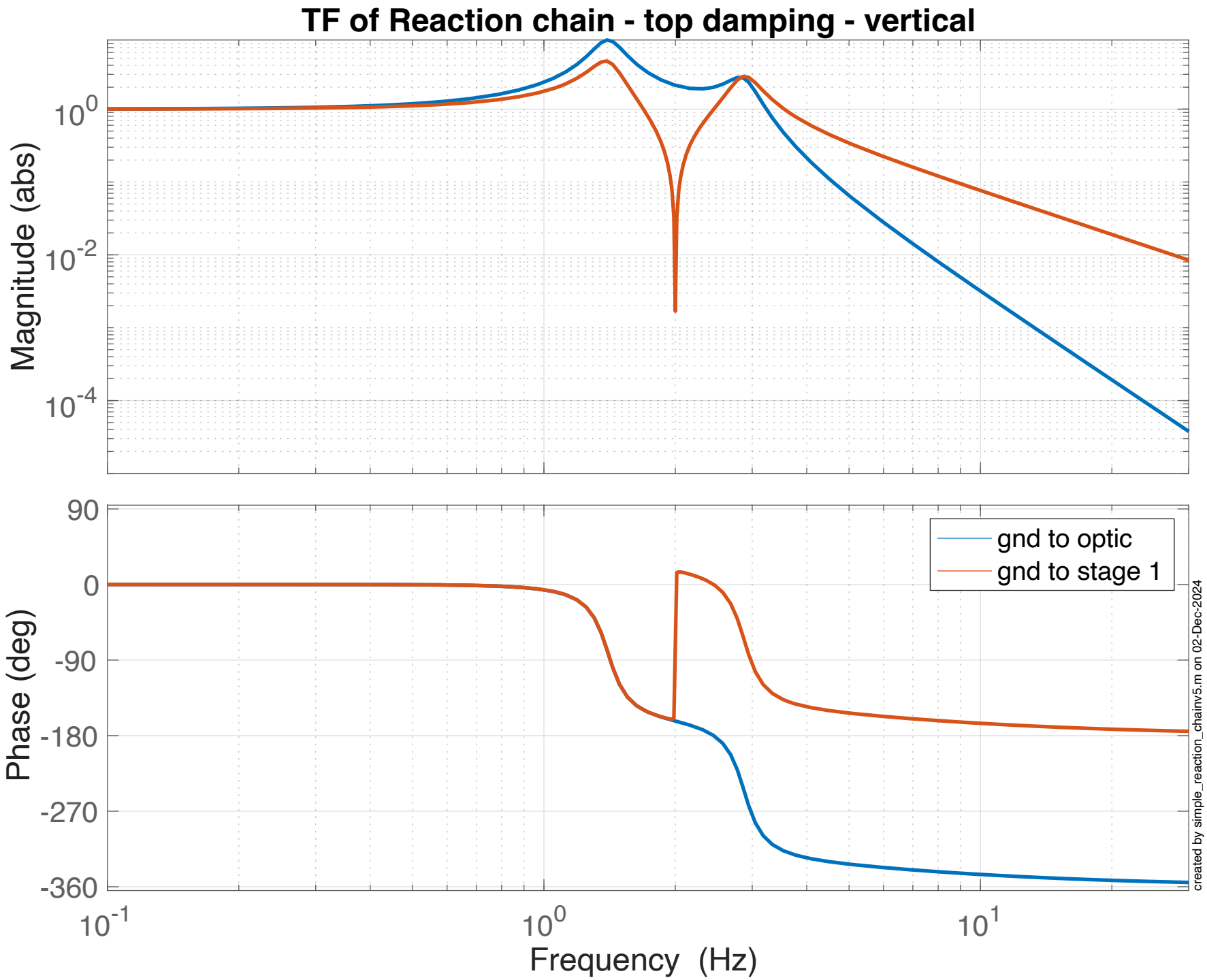

Input noise for reaction chain calculations
ISI motion, L
ISI motion, V
ISI motion, P
ISI motion, R
ISI motion, Y
OSEM noise: L, V,
OSEM noise: P, R, Y
HoQI noise: L, V,
HoQI noise: P, R, Y
motion ASD (m/√ Hz)
freq (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

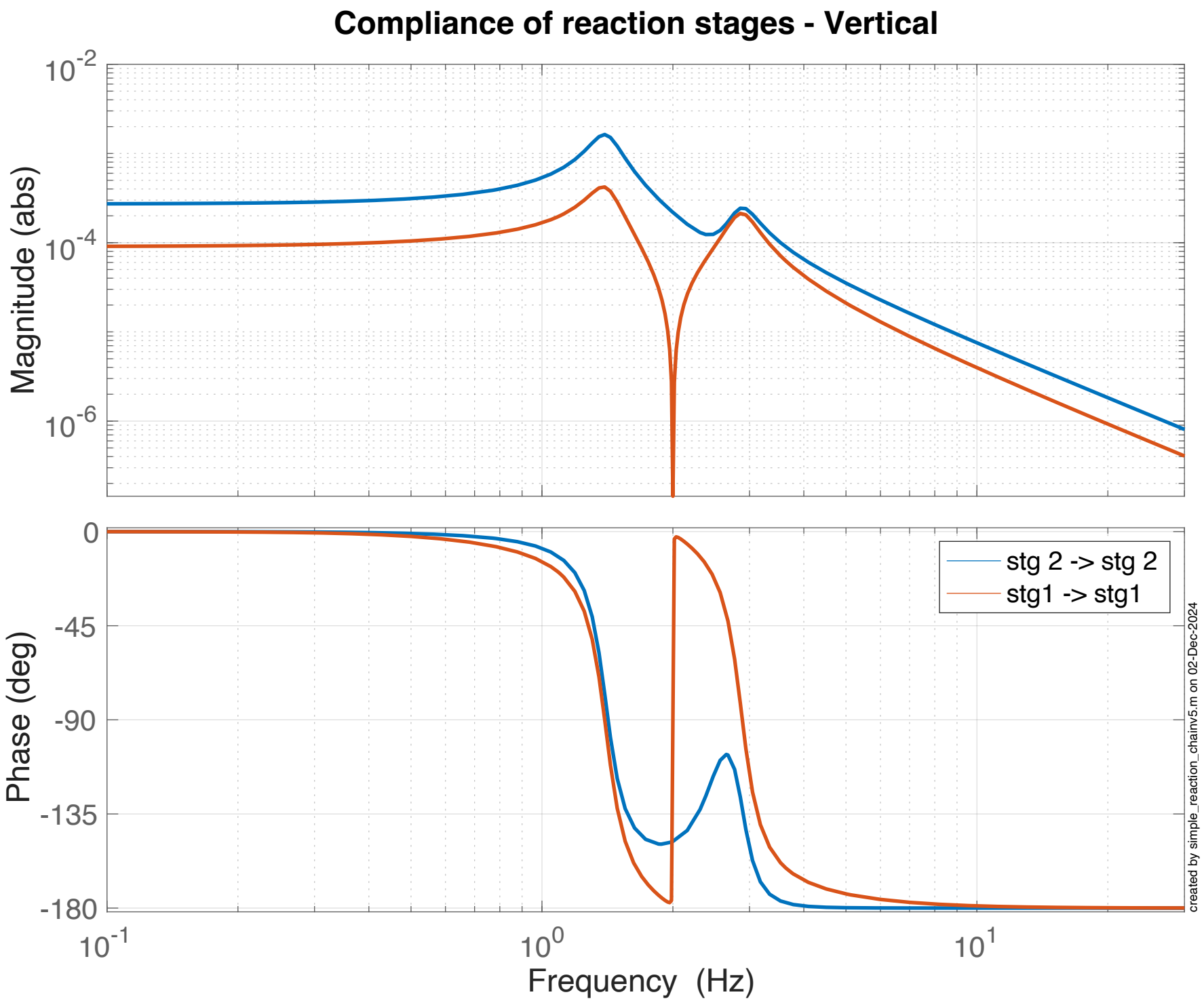

Motion of the Reaction Chain bottom mass - Length
from lower HoQI
from upper OSEM
from ISI
ESD req
motion ASD (m/√ Hz)
freq (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

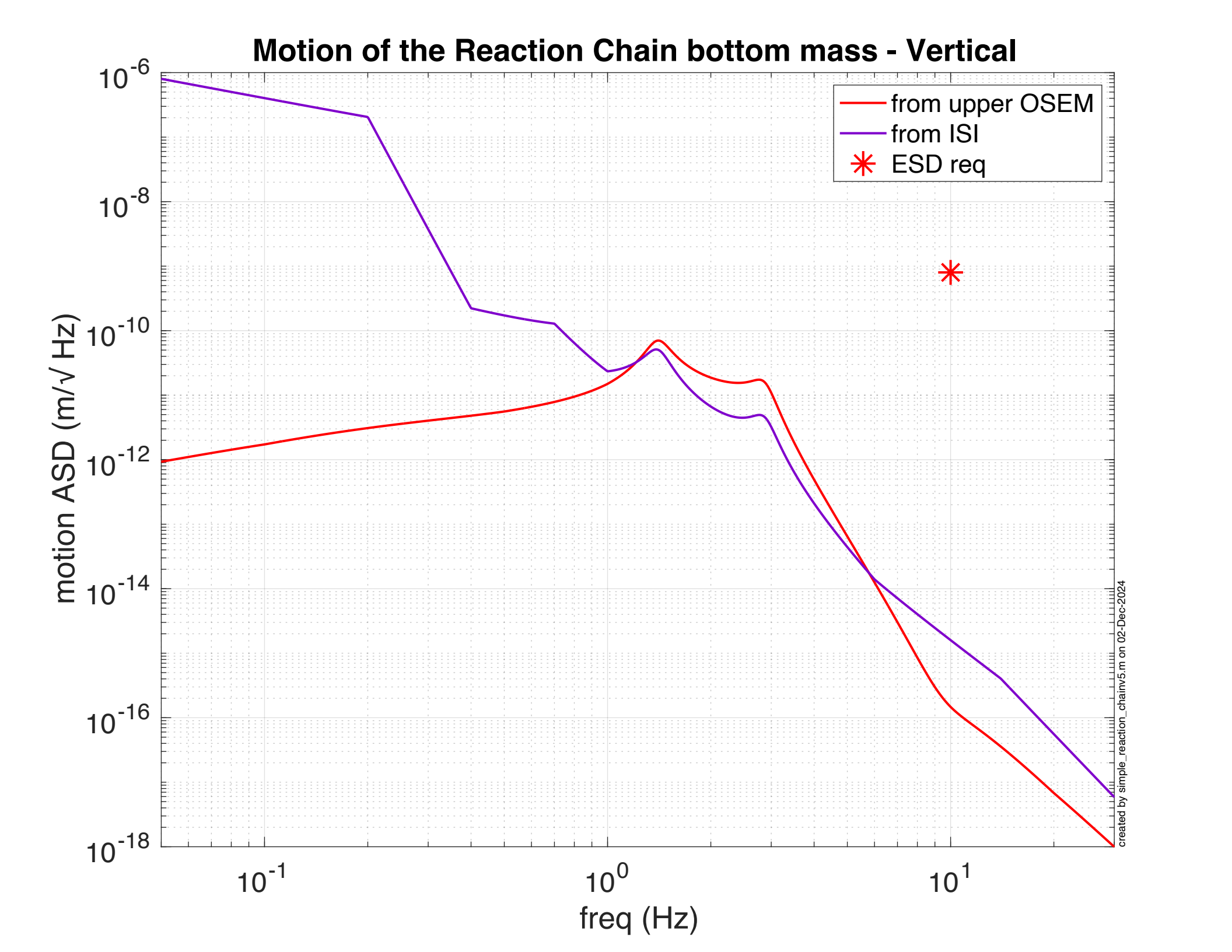

Motion of the Reaction Chain top mass - Length
from Ideal HoQI
from Length OSEM
from ISI
OSEM reaction spec for PUM
motion ASD (m/√ Hz)
freq (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

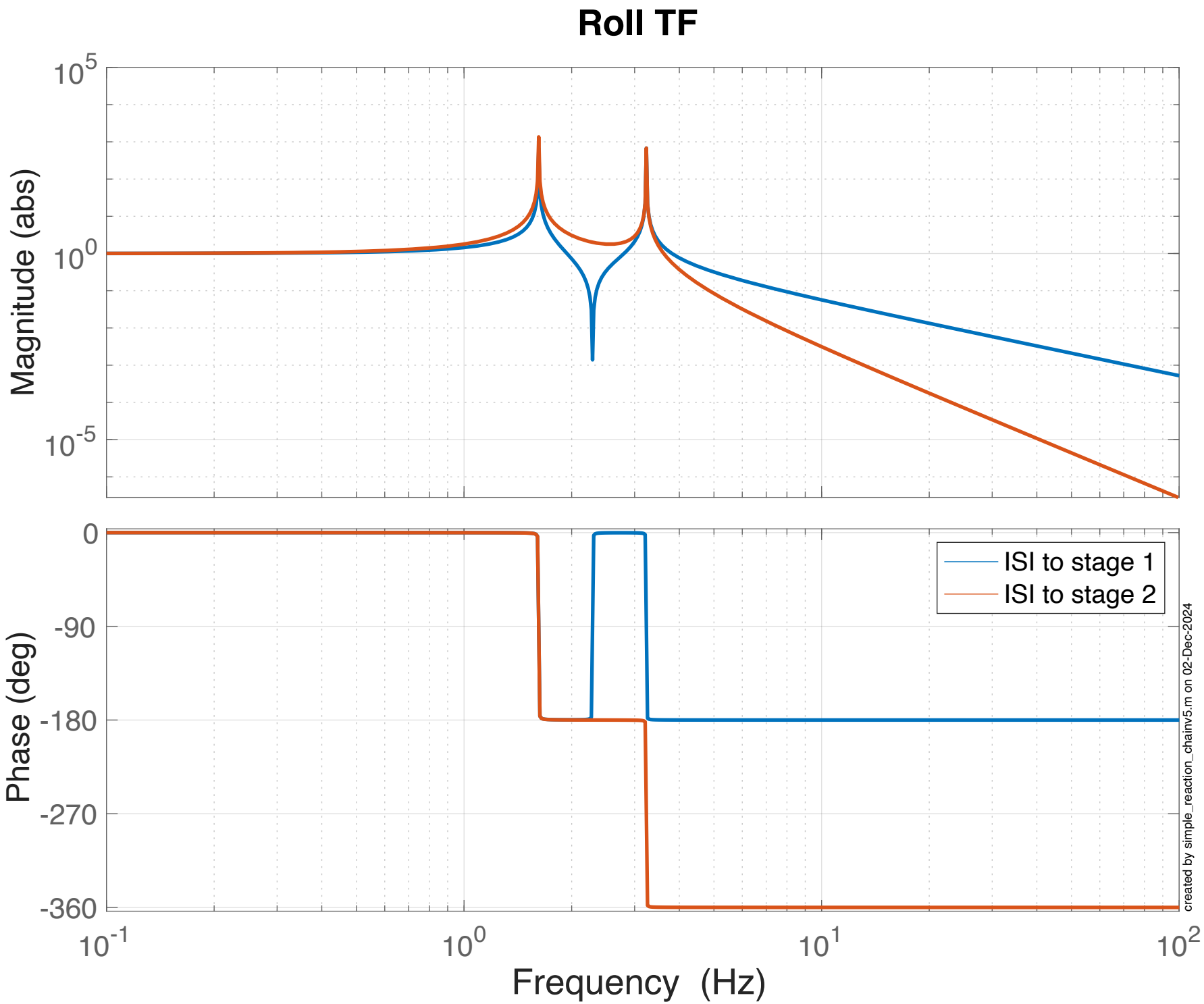

Vertical TF
Magnitude (abs)
10^5
10^0
10^{-5}
Phase (deg)
0
-90
-180
-270
-360
10^{-1}
10^0
10^1
10^2
Frequency (Hz)
ISI to stage 1
ISI to stage 2
created by simple_reaction_chainv5.m on 02-Dec-2024

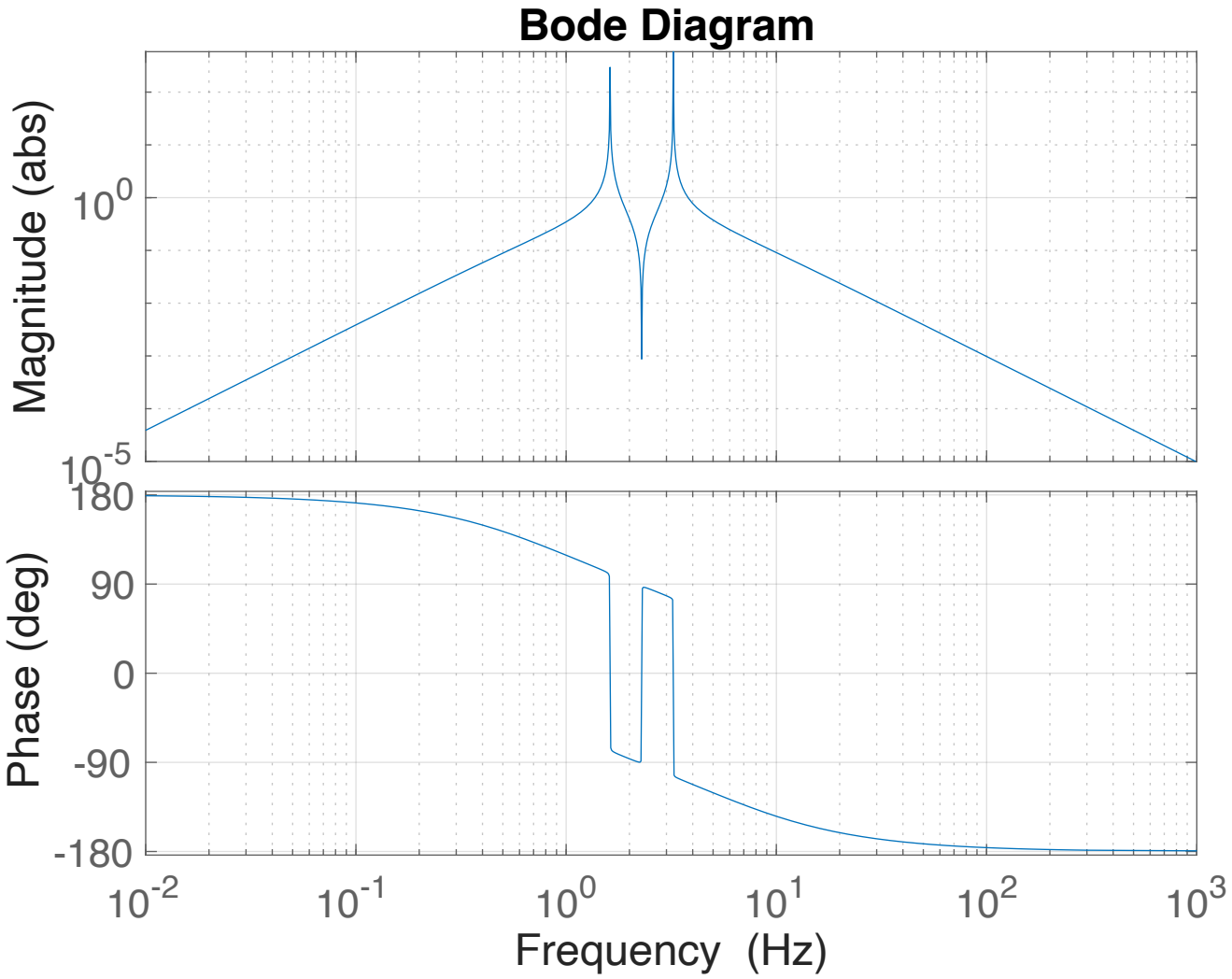

Bode Diagram
Magnitude (abs)
10^0
10^-5
Phase (deg)
180
90
0
-90
-180
10^-2
10^-1
10^0
10^1
10^2
Frequency (Hz)

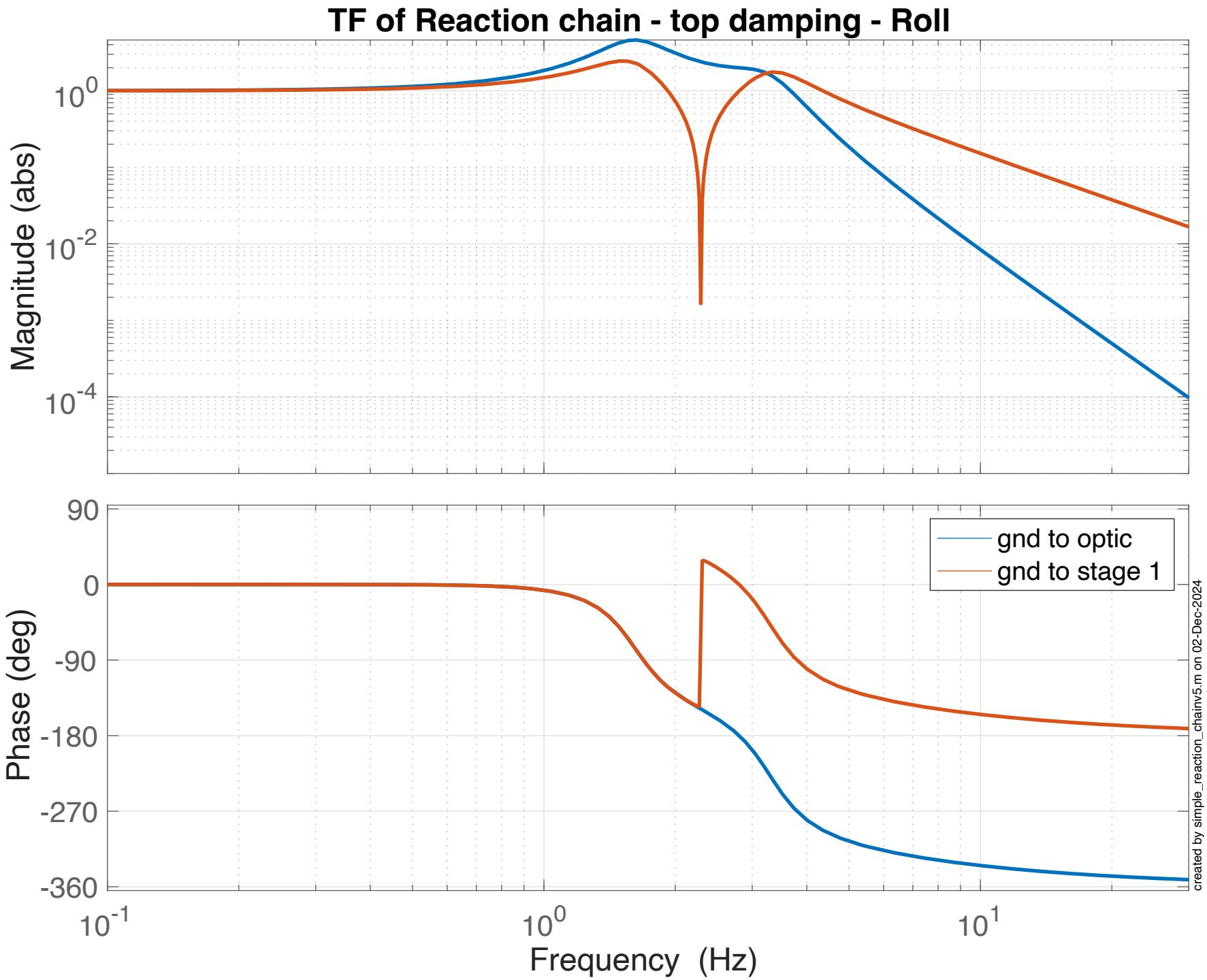

TF of Reaction chain - top damping - vertical
Magnitude (abs)
10^{0}
10^{-2}
10^{-4}
Phase (deg)
90
0
-90
-180
-270
-360
gnd to optic
gnd to stage 1
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

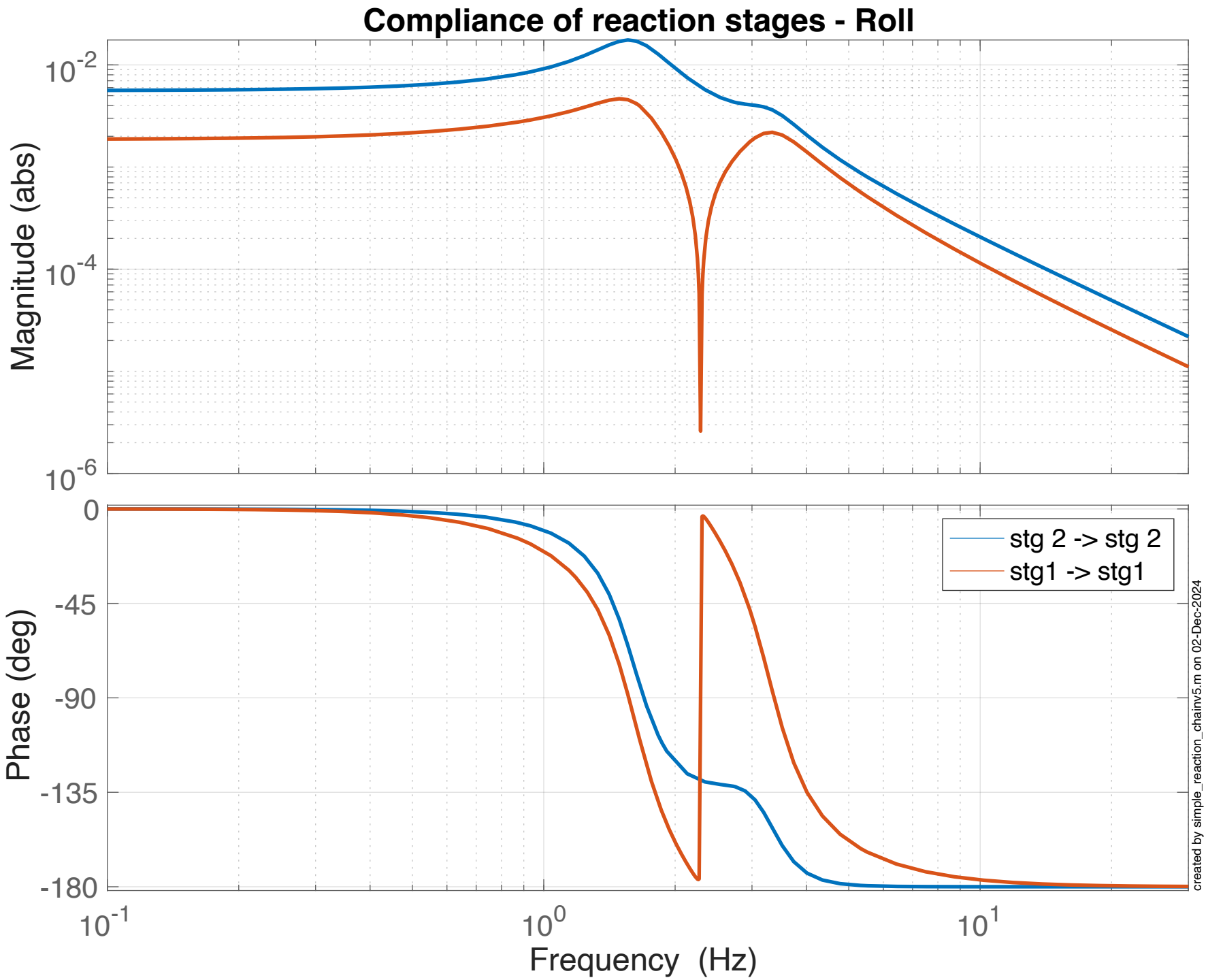

Compliance of reaction stages - Vertical
Magnitude (abs)
10^-2
10^-4
10^-6
Phase (deg)
0
-45
-90
-135
-180
10^-1
10^0
10^1
Frequency (Hz)
stg 2 -> stg 2
stg1 -> stg1
created by simple_reaction_chainv5.m on 02-Dec-2024

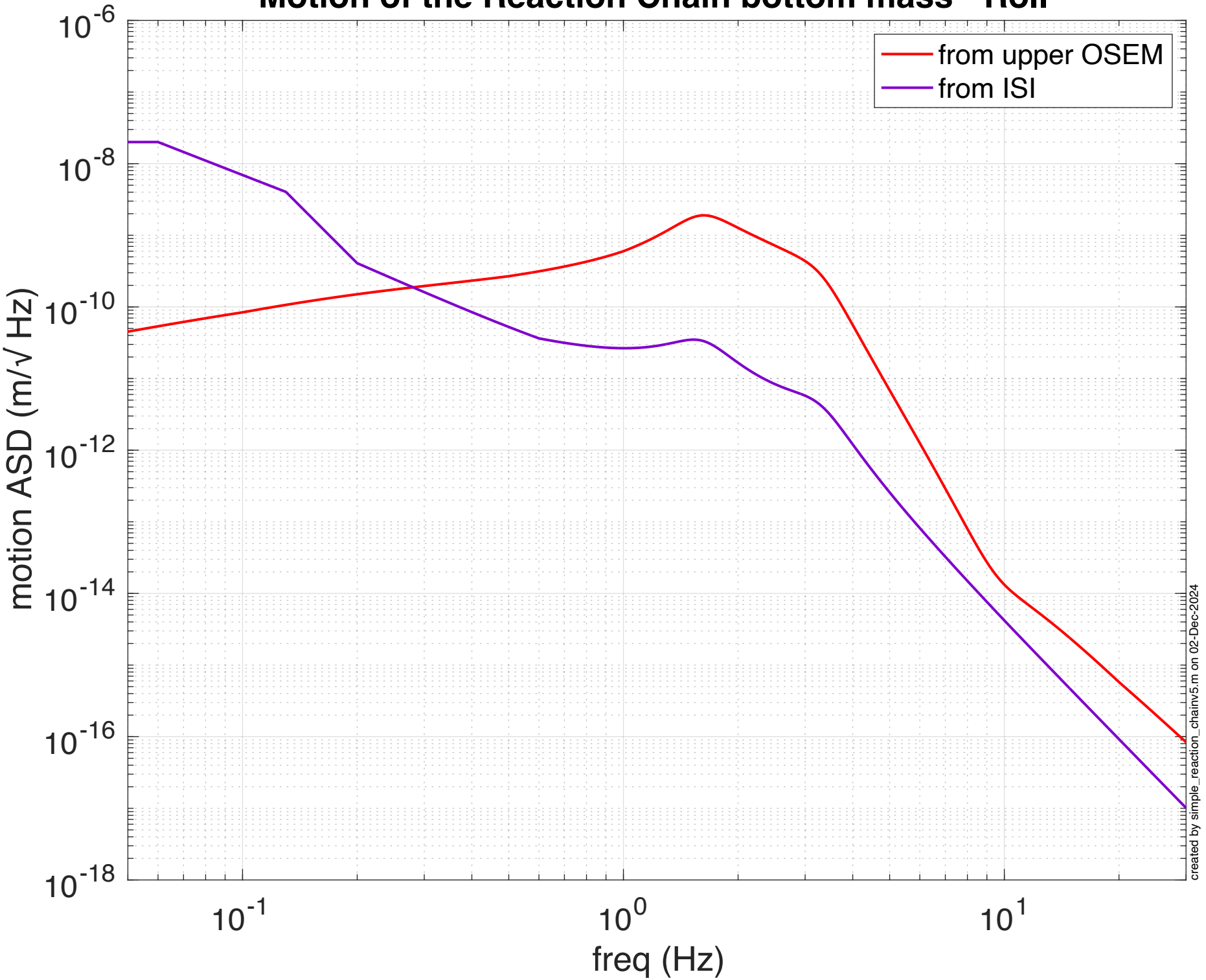

Motion of the Reaction Chain bottom mass - Vertical
from upper OSEM
from ISI
ESD req
motion ASD (m/√ Hz)
freq (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

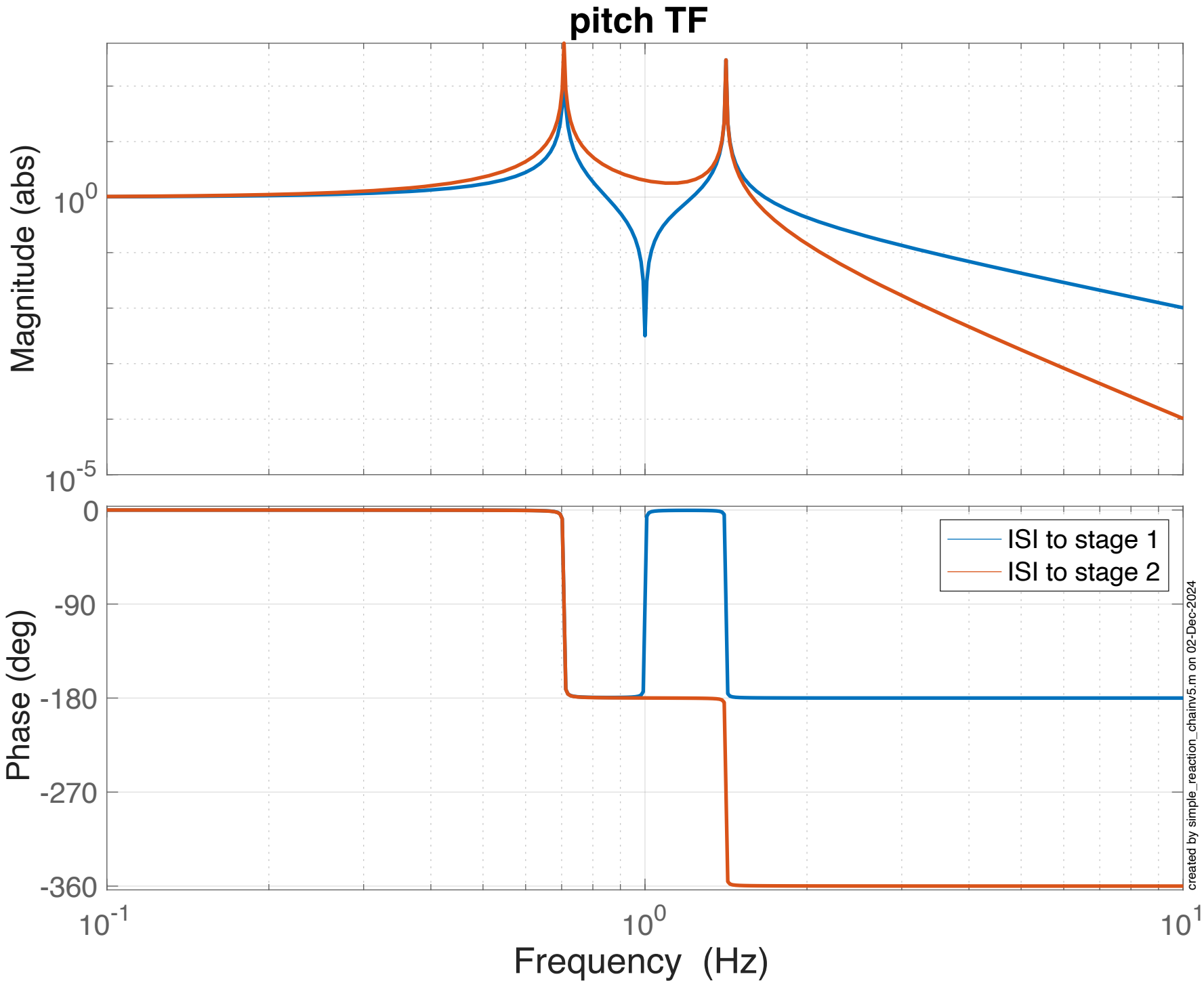

Roll TF
Magnitude (abs)
10^5
10^0
10^{-5}
Phase (deg)
0
-90
-180
-270
-360
10^{-1}
10^0
10^1
10^2
Frequency (Hz)
ISI to stage 1
ISI to stage 2
created by simple_reaction_chainv5.m on 02-Dec-2024

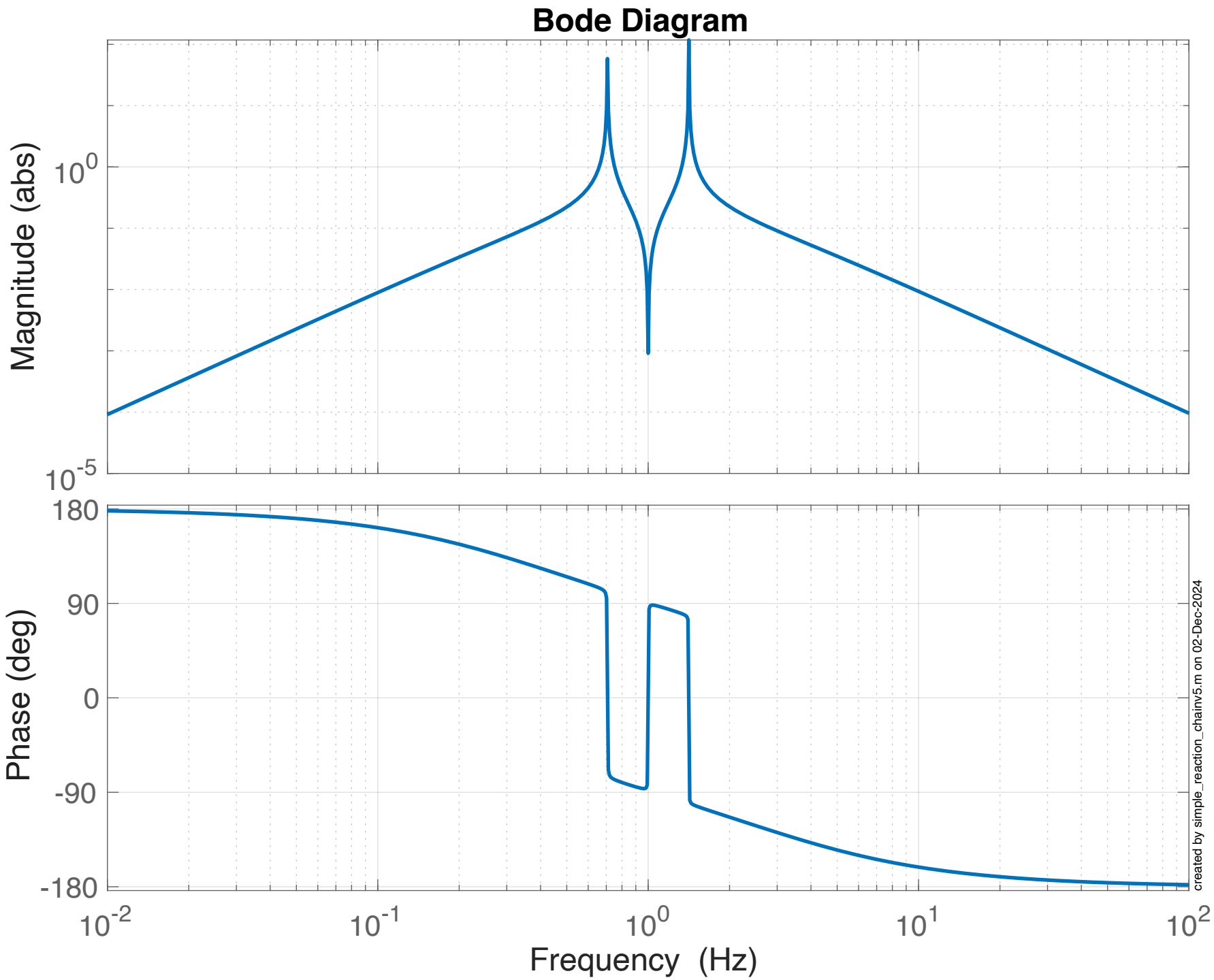

Bode Diagram
Magnitude (abs)
10^0
10^-5
180
90
0
-90
-180
Phase (deg)
10^-2
10^-1
10^0
10^1
10^2
10^3
Frequency (Hz)

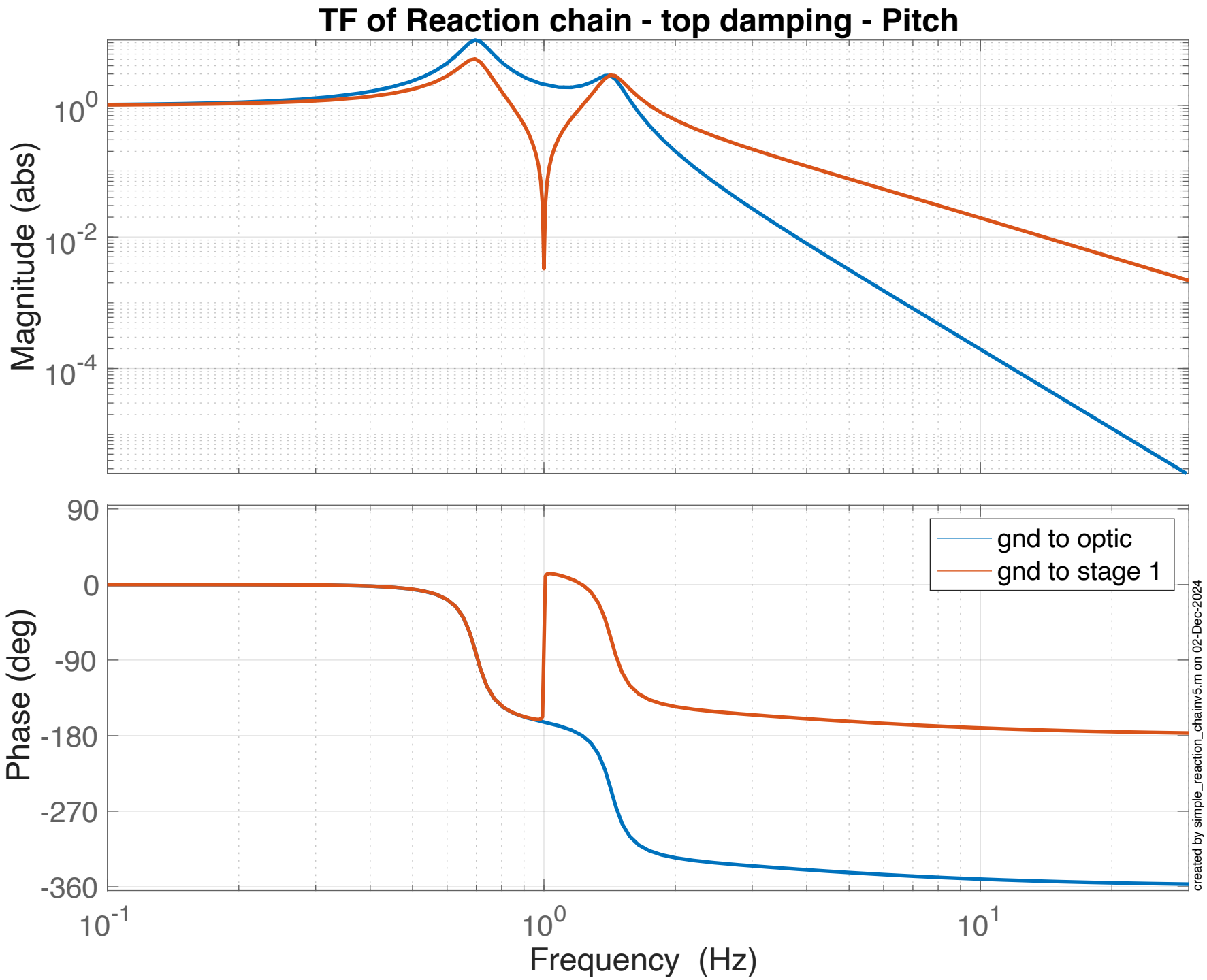

TF of Reaction chain - top damping - Roll
Magnitude (abs)
10^{0}
10^{-2}
10^{-4}
Phase (deg)
90
0
-90
-180
-270
-360
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
gnd to optic
gnd to stage 1
created by simple_reaction_chainv5.m on 02-Dec-2024

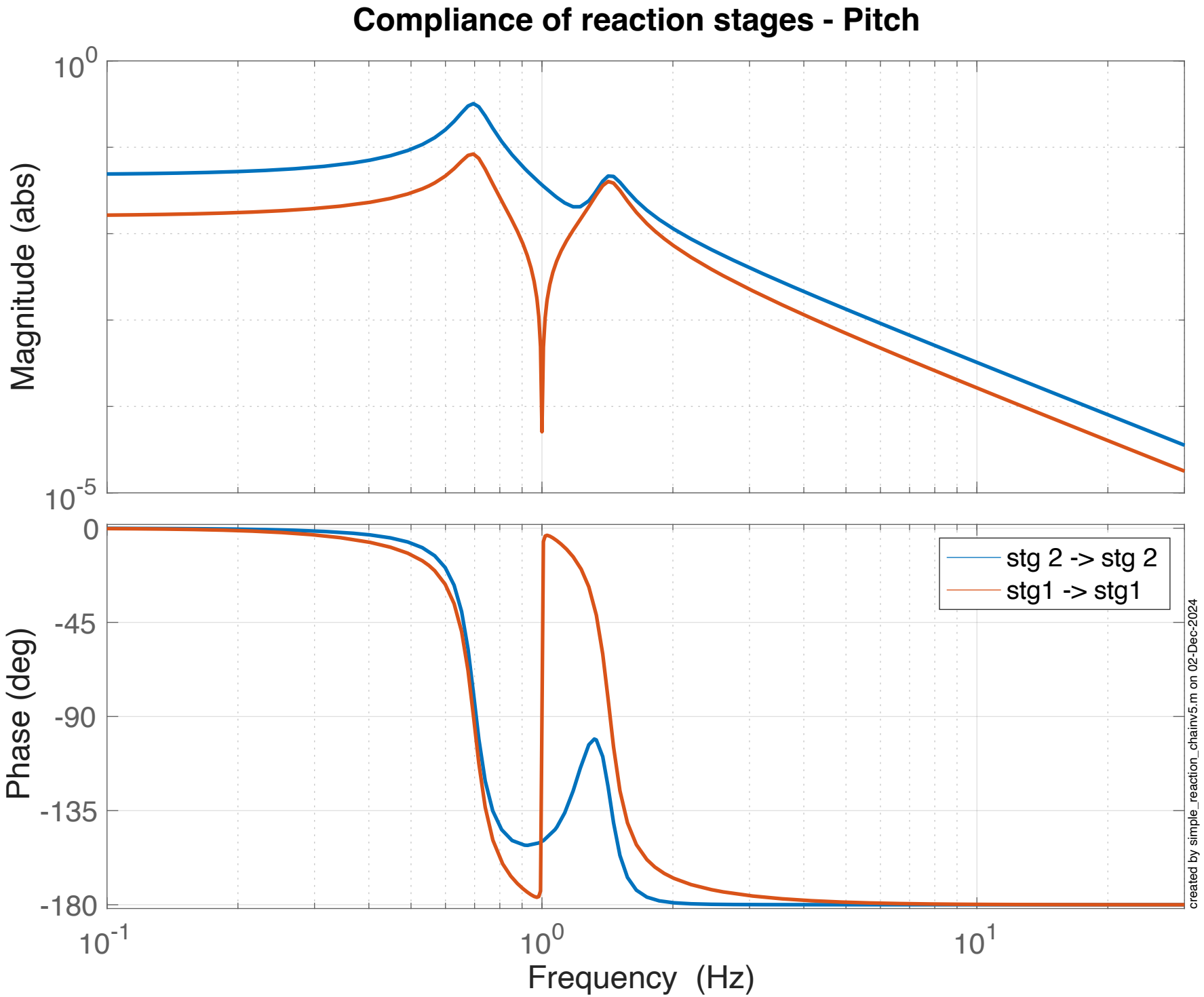

Compliance of reaction stages - Roll
Magnitude (abs)
10^-2
10^-4
10^-6
Phase (deg)
0
-45
-90
-135
-180
10^-1
10^0
10^1
Frequency (Hz)
stg 2 -> stg 2
stg1 -> stg1
created by simple_reaction_chainv5.m on 02-Dec-2024

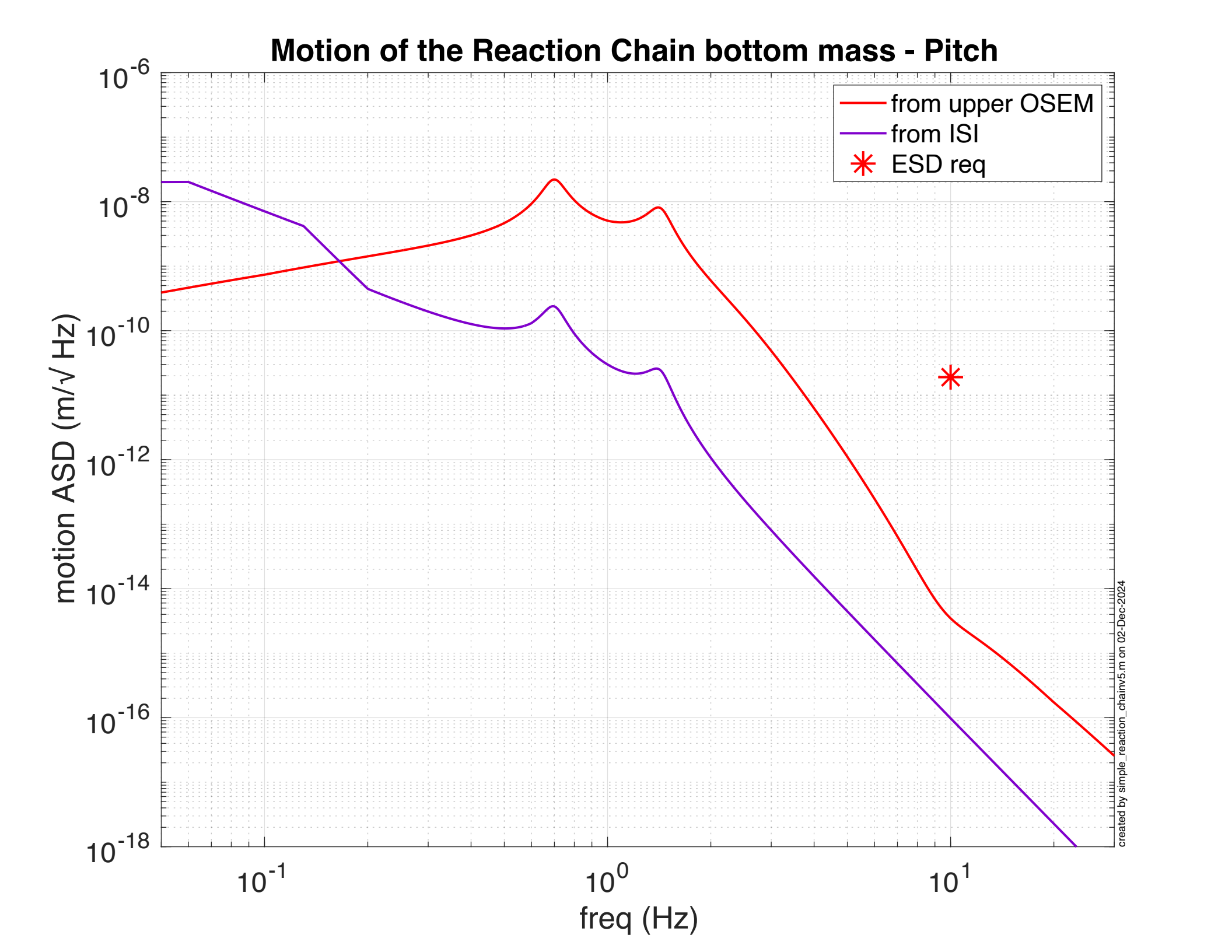

Motion of the Reaction Chain bottom mass - Roll
from upper OSEM
from ISI
motion ASD (m/√ Hz)
freq (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

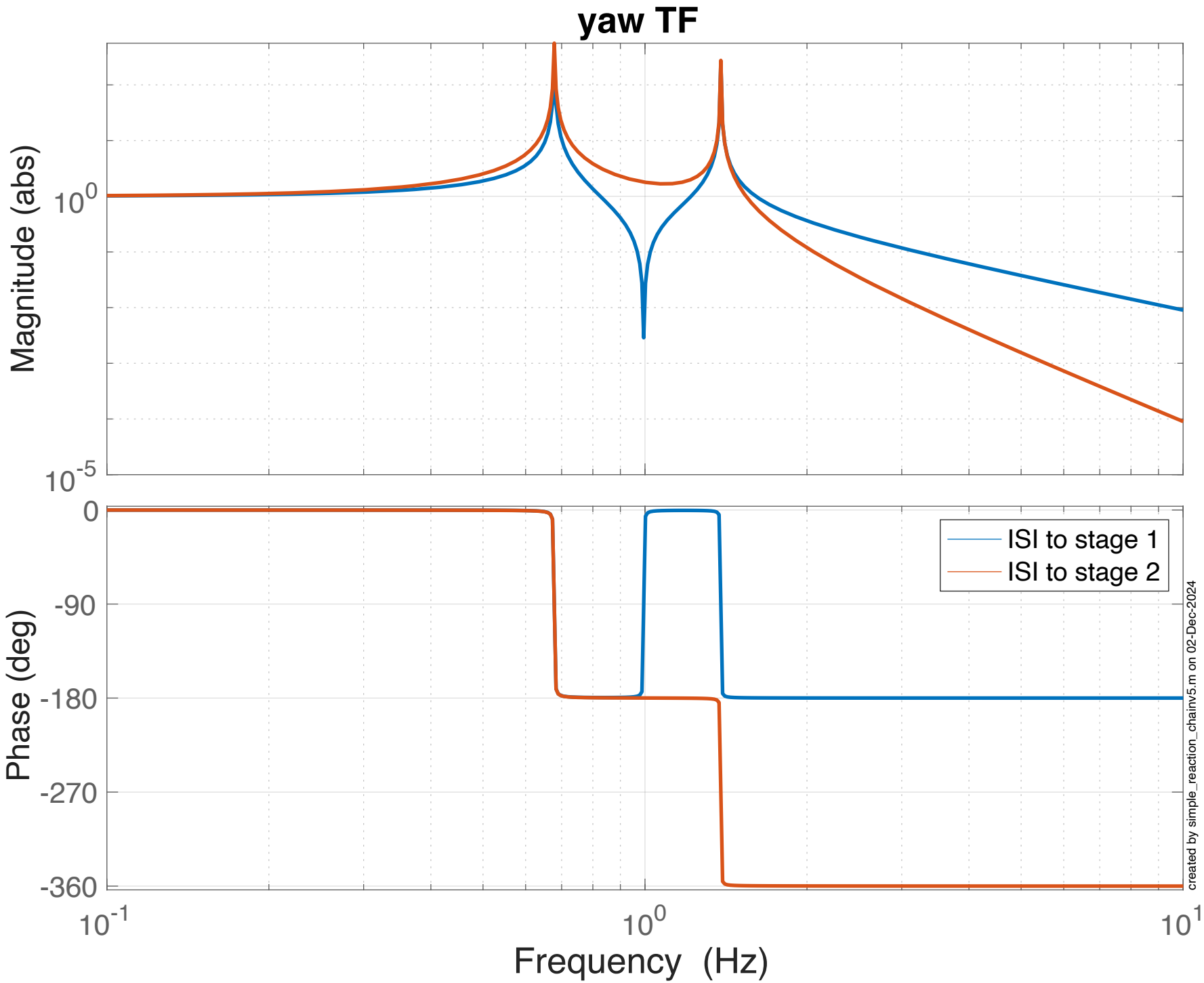

pitch TF
Magnitude (abs)
10^{0}
10^{-5}
Phase (deg)
0
-90
-180
-270
-360
ISI to stage 1
ISI to stage 2
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

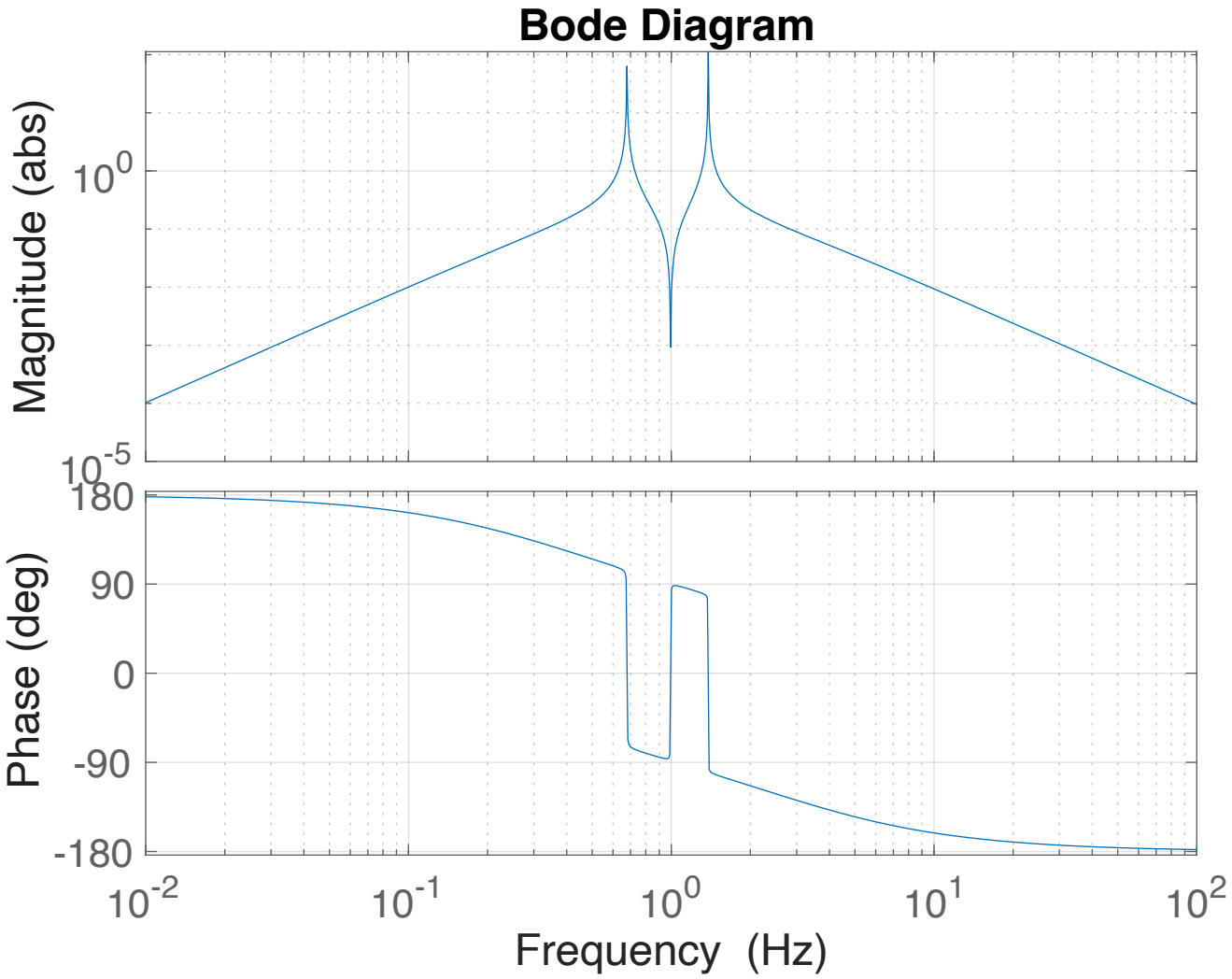

Bode Diagram
Magnitude (abs)
10^{0}
10^{-5}
Phase (deg)
180
90
0
-90
-180
10^{-2}
10^{-1}
10^{0}
10^{1}
10^{2}
Frequency (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024

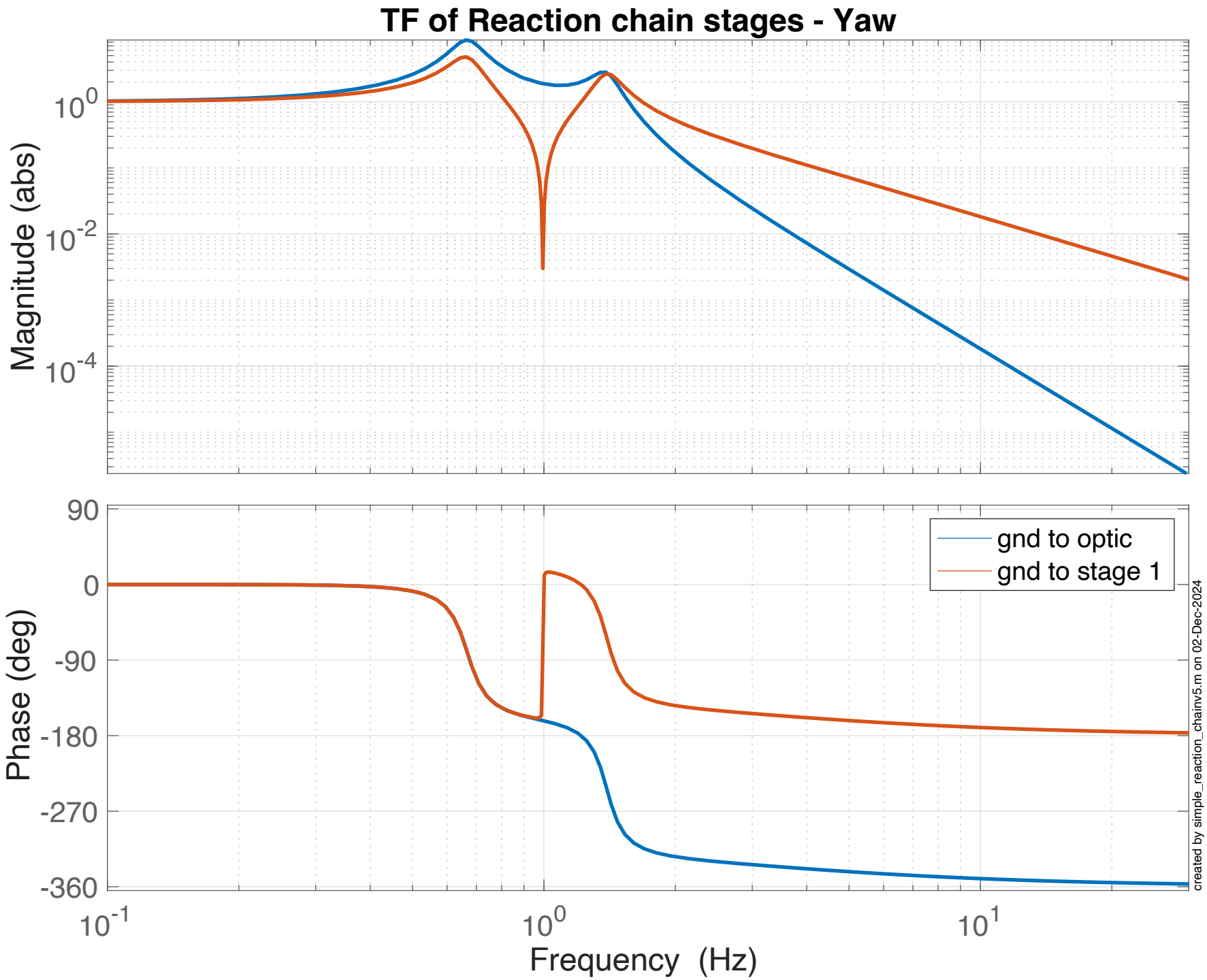

TF of Reaction chain - top damping - Pitch
Magnitude (abs)
10^{0}
10^{-2}
10^{-4}
Phase (deg)
90
0
-90
-180
-270
-360
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
gnd to optic
gnd to stage 1
created by simple_reaction_chainv5.m on 02-Dec-2024

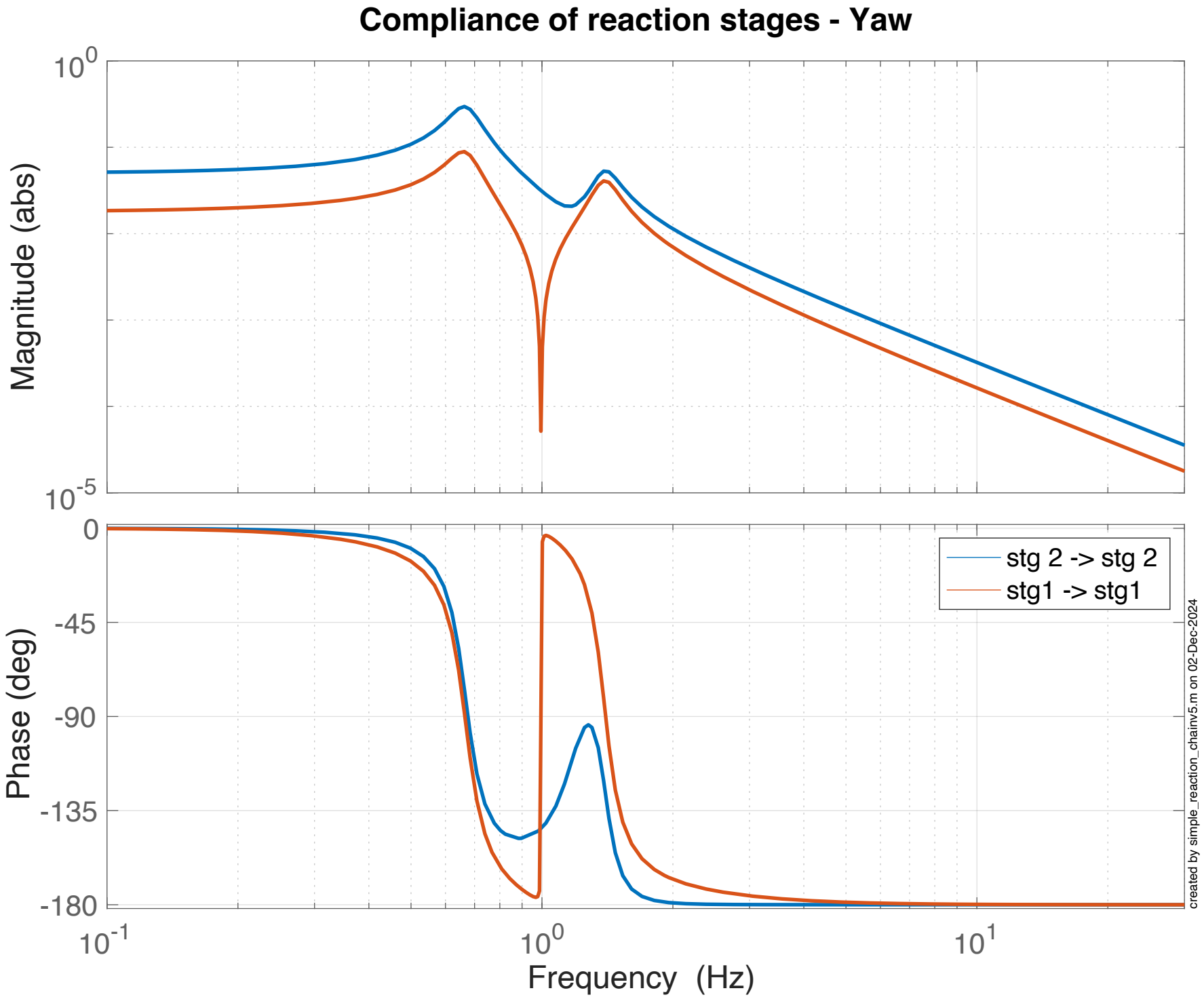

Compliance of reaction stages - Pitch
Magnitude (abs)
10^0
10^{-5}
Phase (deg)
0
-45
-90
-135
-180
10^{-1}
10^0
10^1
Frequency (Hz)
stg 2 -> stg 2
stg1 -> stg1
created by simple_reaction_chainv5.m on 02-Dec-2024

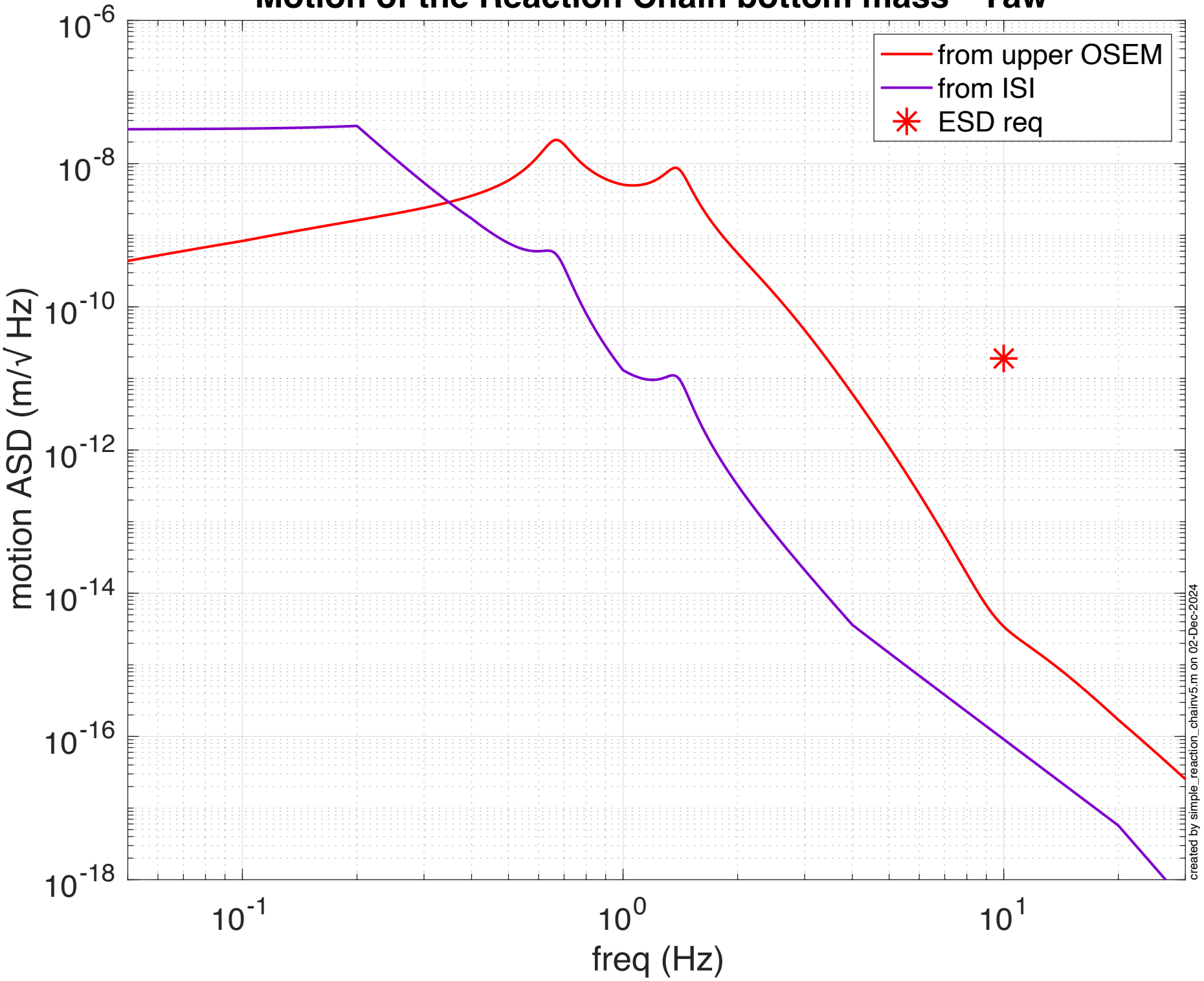

Motion of the Reaction Chain bottom mass - Pitch
from upper OSEM
from ISI
ESD req
motion ASD (m/√ Hz)
freq (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024


yaw TF
Magnitude (abs)
10^{0}
10^{-5}
Phase (deg)
0
-90
-180
-270
-360
ISI to stage 1
ISI to stage 2
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024


Bode Diagram
Magnitude (abs)
10^0
10^-5
Phase (deg)
180
90
0
-90
-180
10^-2
10^-1
10^0
10^1
10^2
Frequency (Hz)


TF of Reaction chain stages - Yaw
Magnitude (abs)
10^{0}
10^{-2}
10^{-4}
Phase (deg)
90
0
-90
-180
-270
-360
gnd to optic
gnd to stage 1
10^{-1}
10^{0}
10^{1}
Frequency (Hz)
created by simple_reaction_chainv5.m on 02-Dec-2024


Compliance of reaction stages - Yaw
Magnitude (abs)
10^0
10^{-5}
Phase (deg)
0
-45
-90
-135
-180
10^{-1}
10^0
10^1
Frequency (Hz)
stg 2 -> stg 2
stg1 -> stg1
created by simple_reaction_chainv5.m on 02-Dec-2024


Motion of the Reaction Chain bottom mass - Yaw
from upper OSEM
from ISI
ESD req
motion ASD (m/√ Hz)
freq (Hz)
10^-6
10^-8
10^-10
10^-12
10^-14
10^-16
10^-18
10^-1
10^0
10^1
created by simple_reaction_chainv5.m on 02-Dec-2024