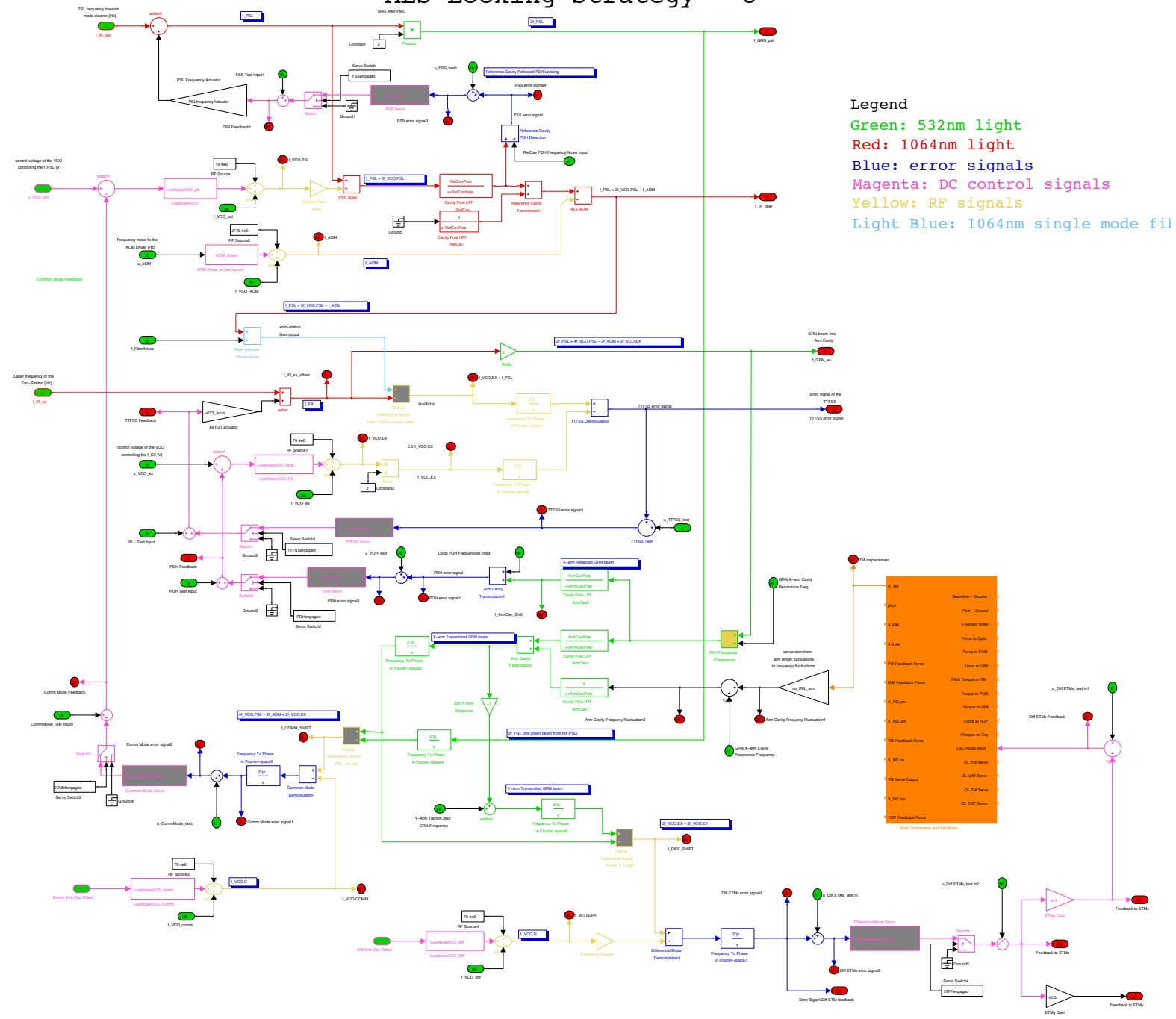


ALS Locking Strategy - 3



Legend

Green: 532nm light

Red: 1064nm light

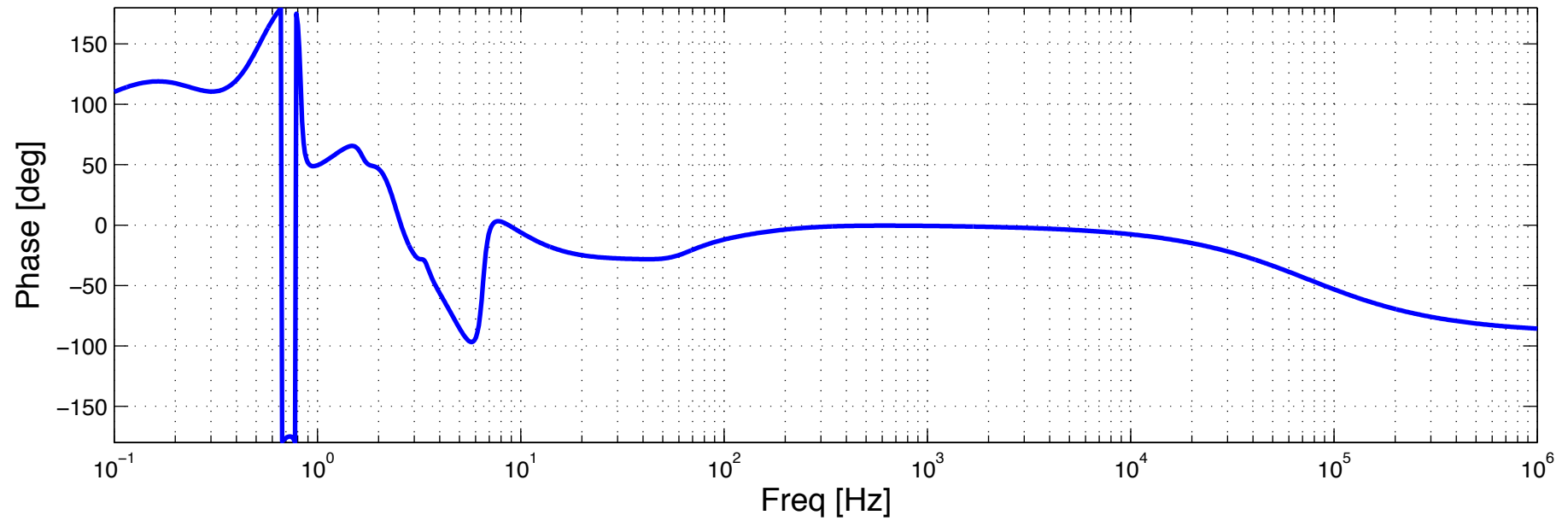
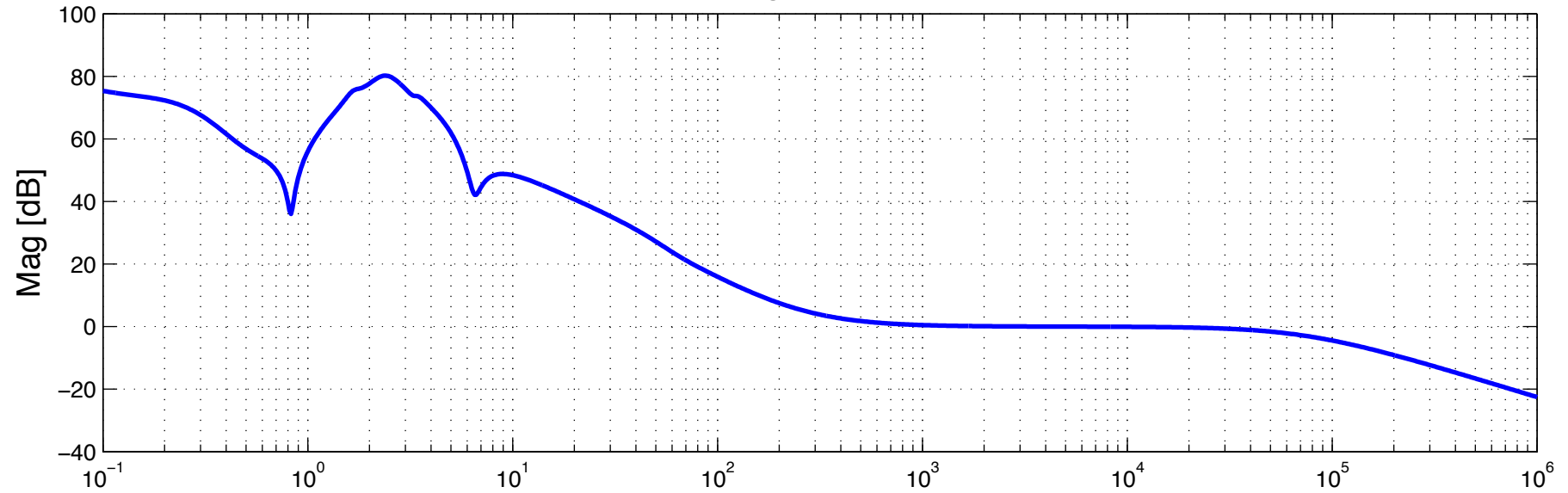
Blue: error signals

Magenta: DC control signals

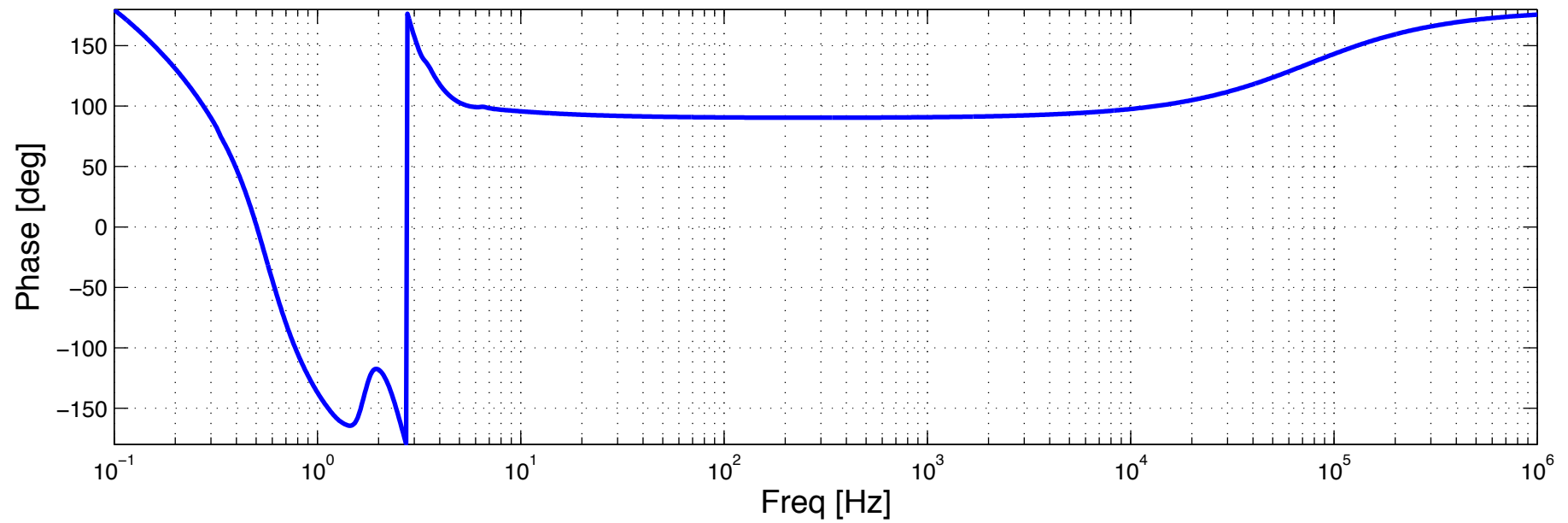
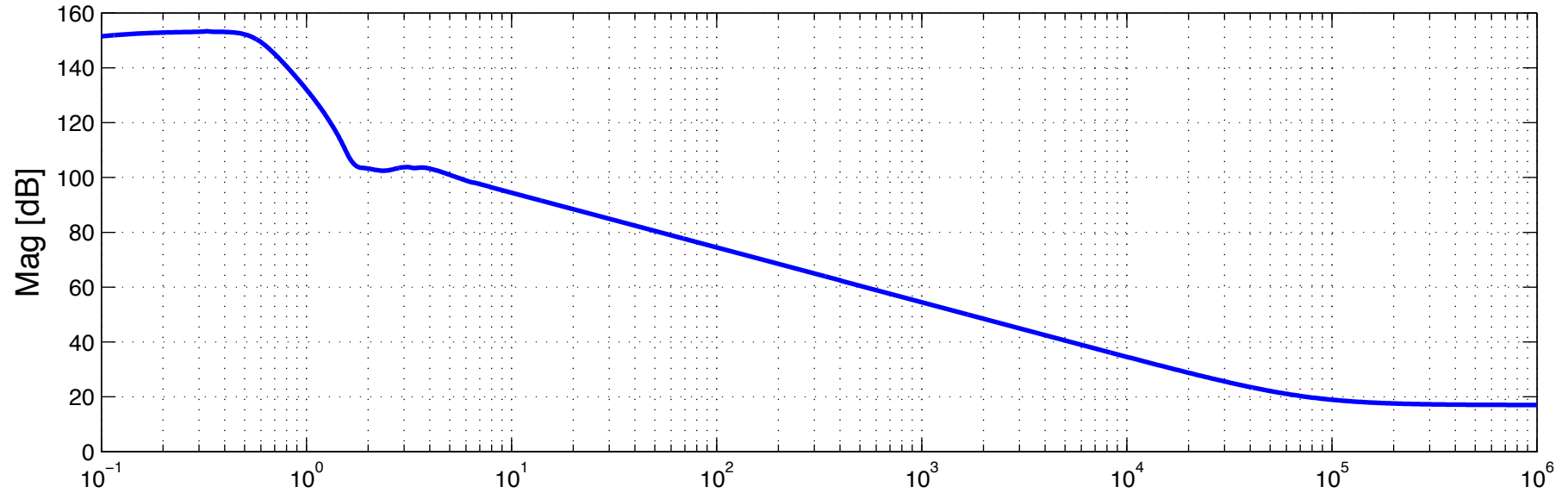
Yellow: RF signals

Light Blue: 1064nm single mode fiber

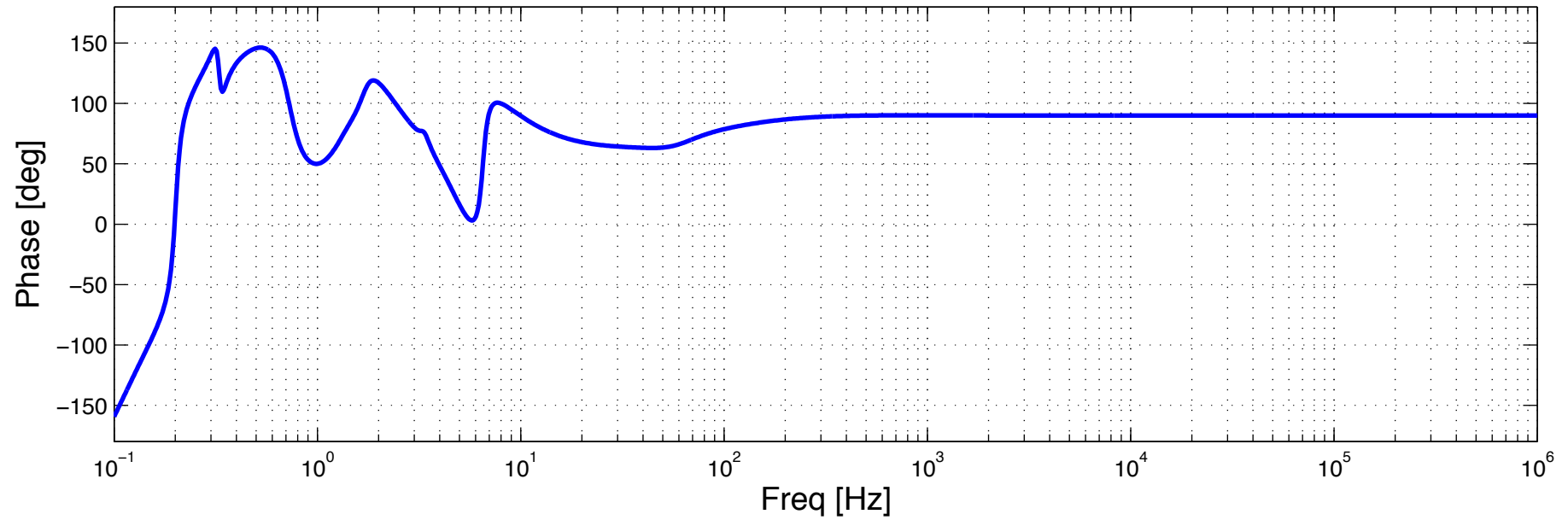
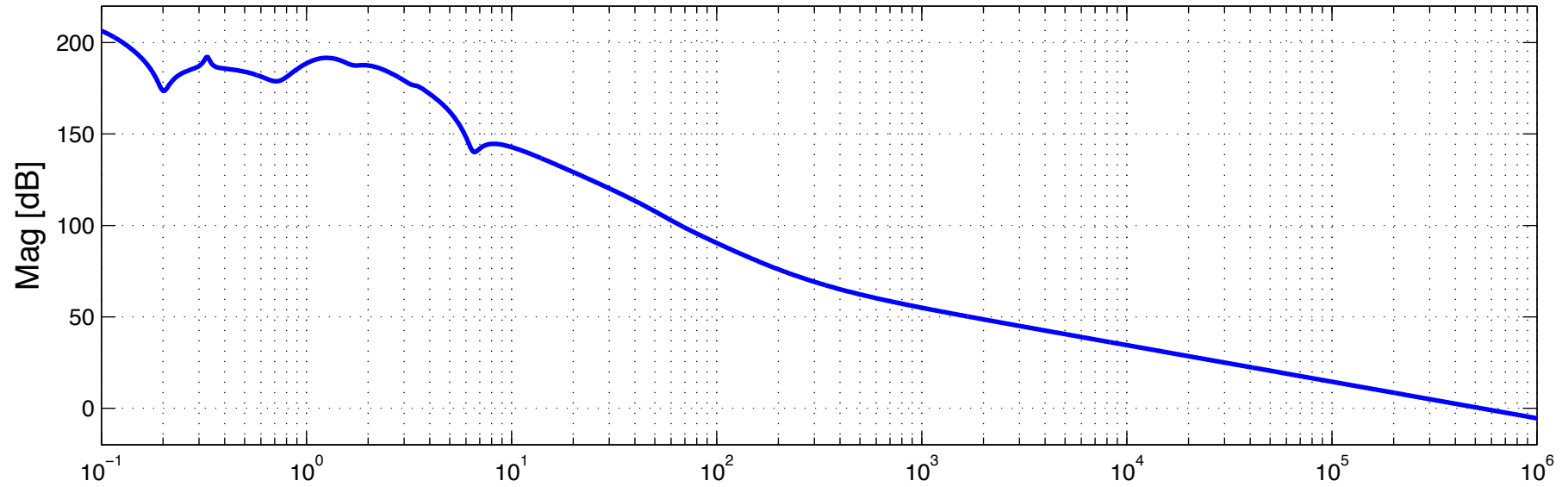
PSL -to- FSS error signal TF (in 18, out 22/out 20)



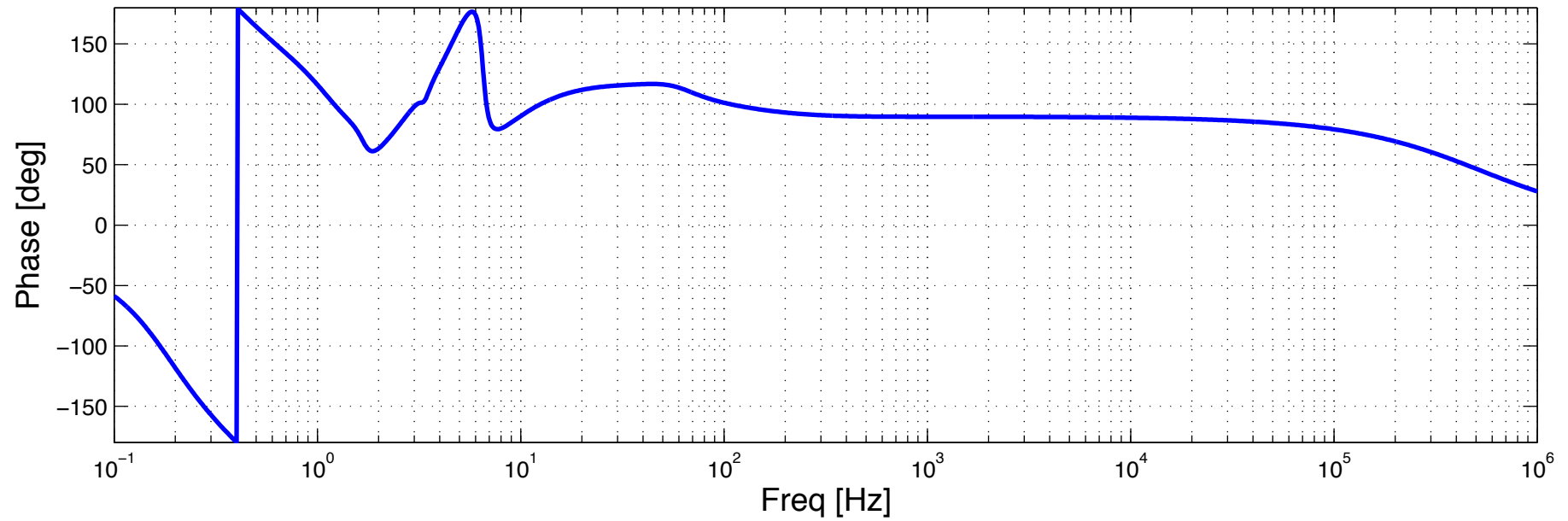
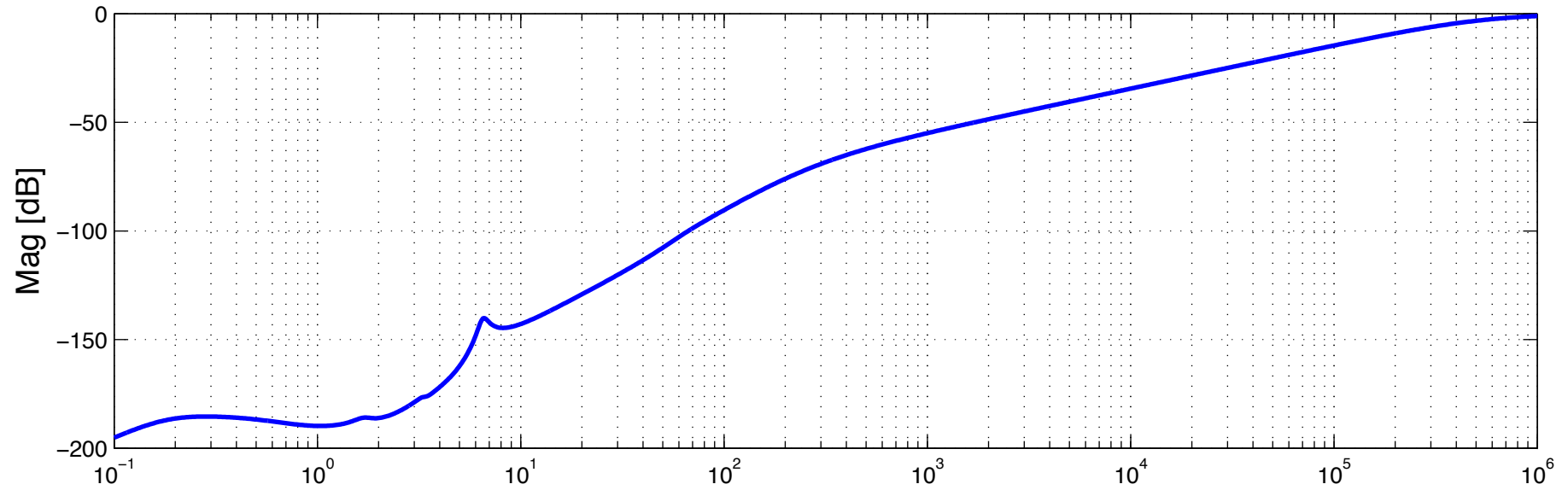
FSS Controller TF (in 19, out 20/out 21)



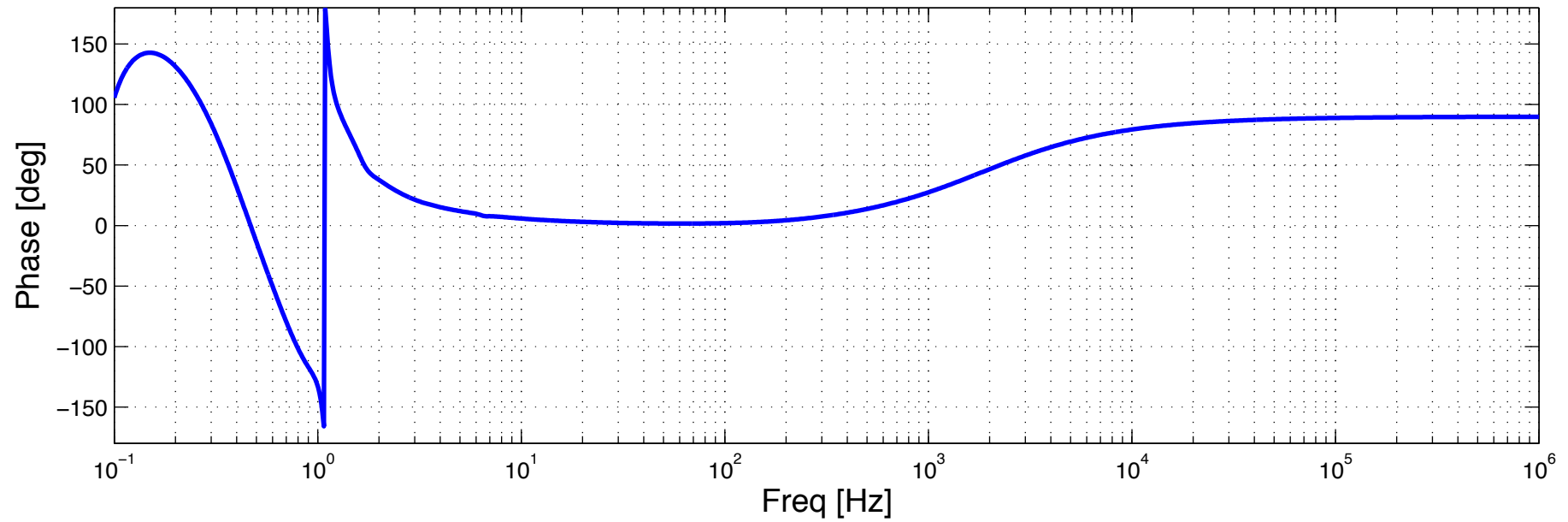
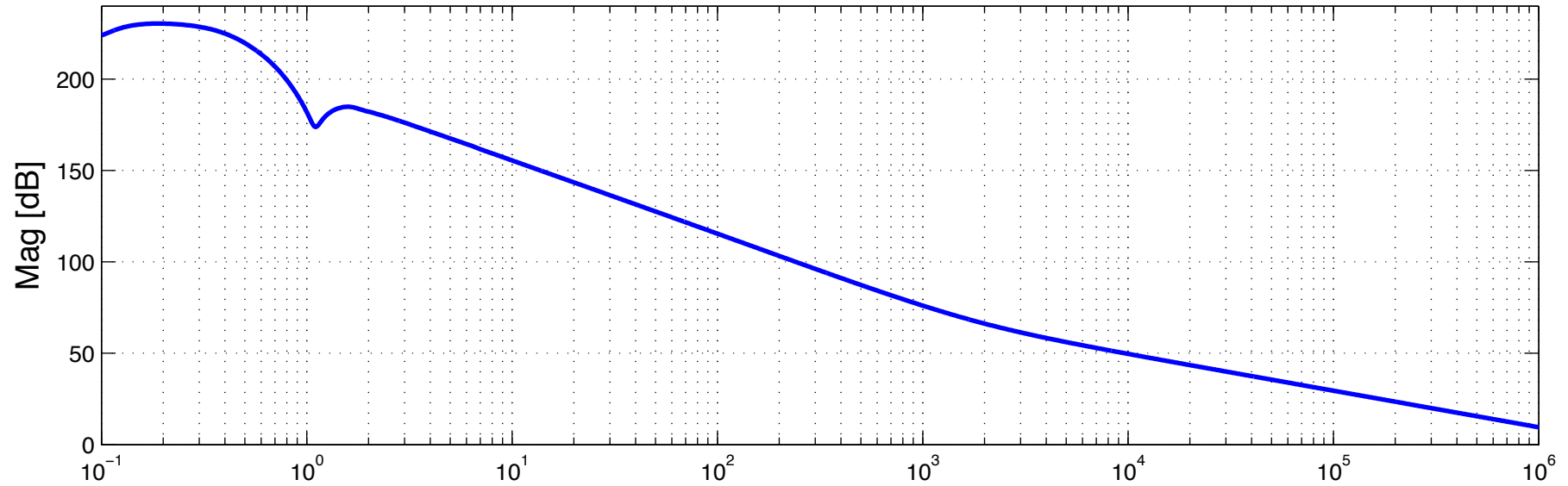
FSS Open Loop TF (in 19, out 22/out 21)



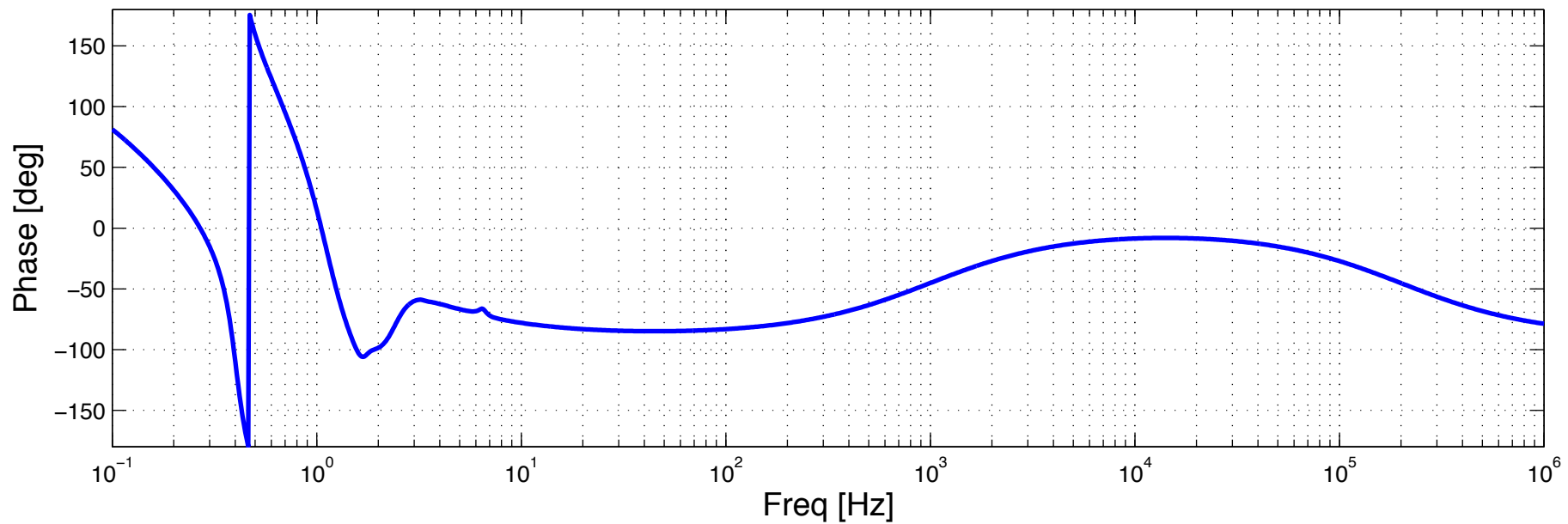
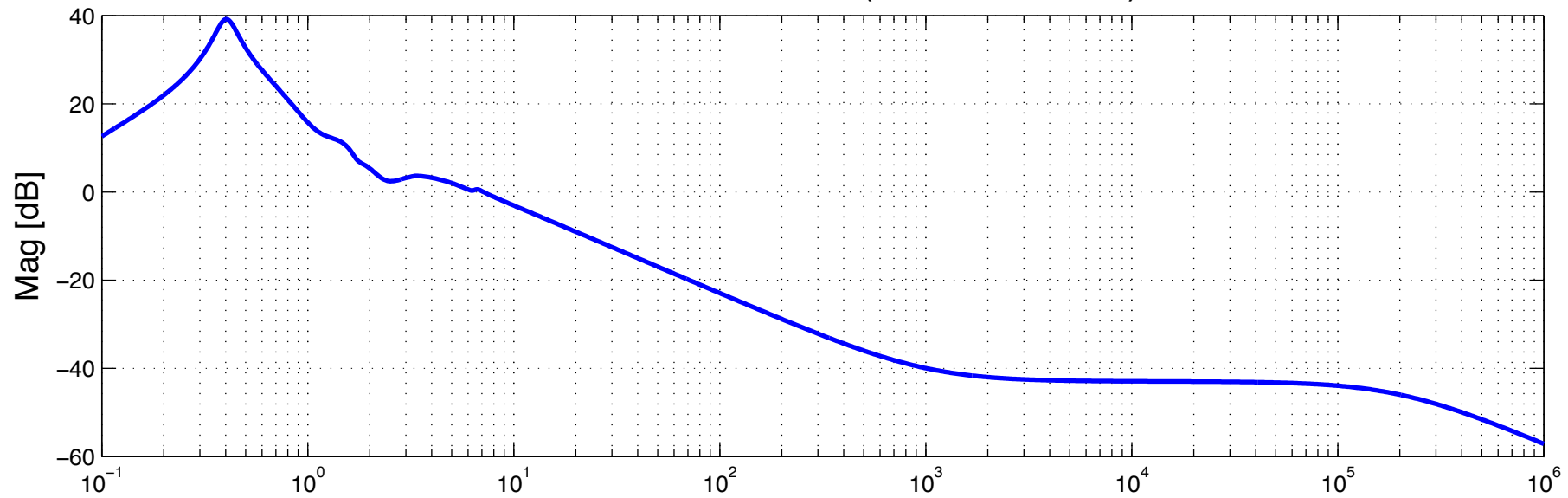
FSS Suppression Response (in 19, out 21)



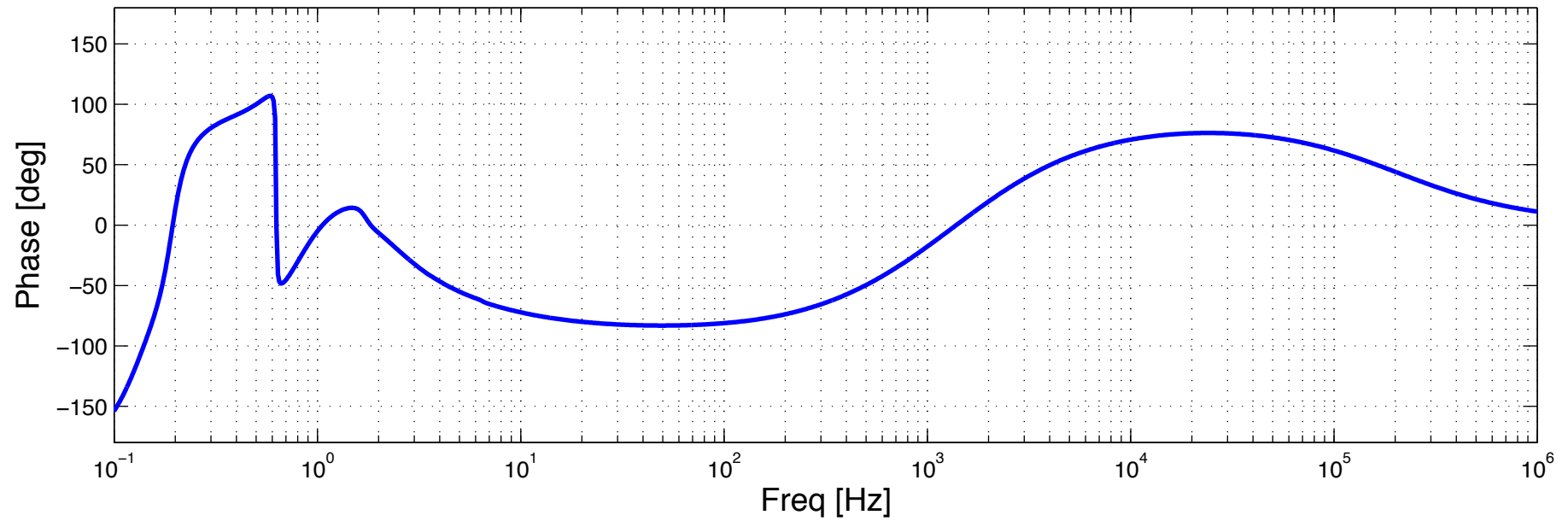
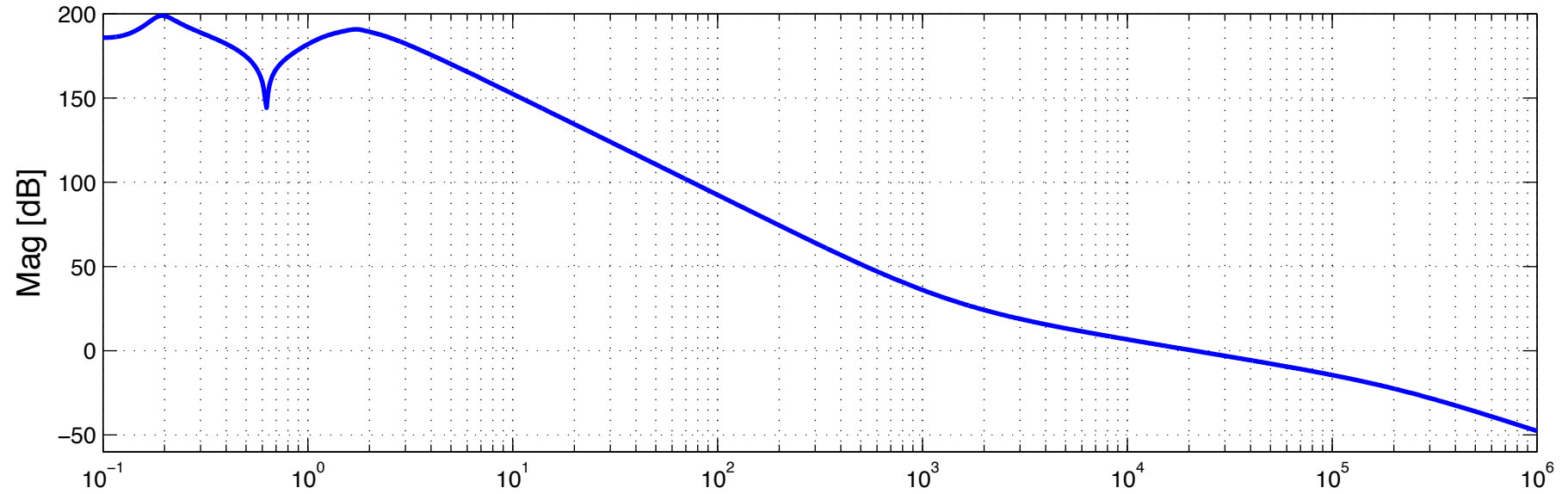
Local laser -to- TTFSS error signal TF (in 8, out 3/out 5)



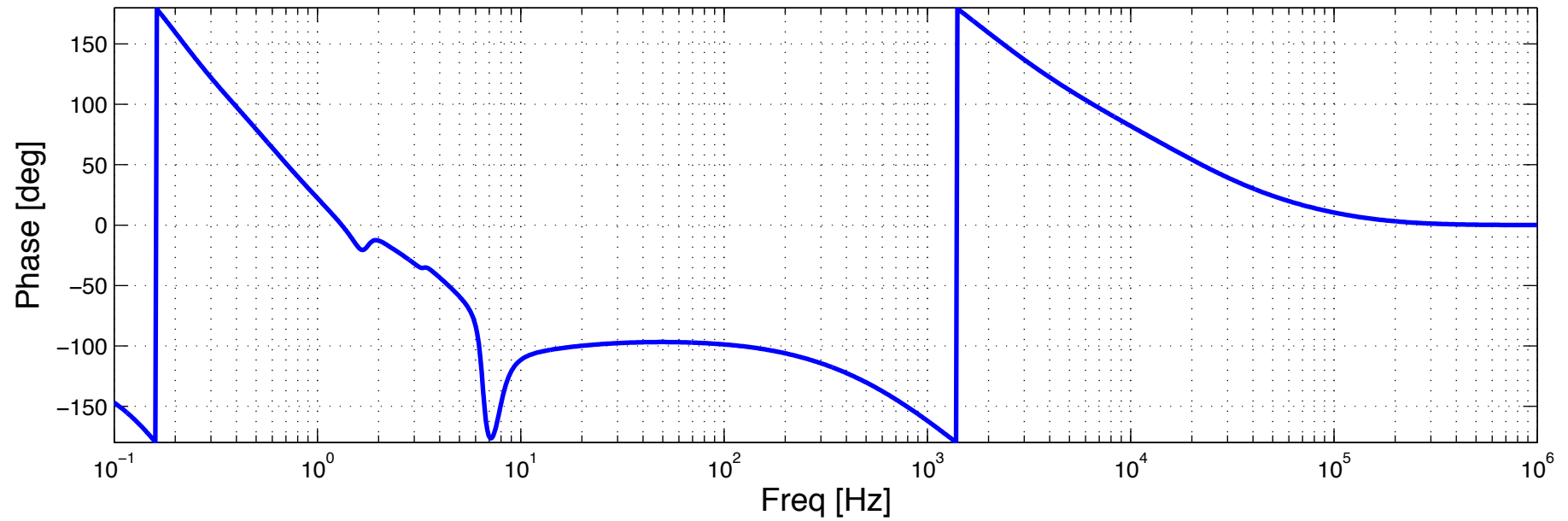
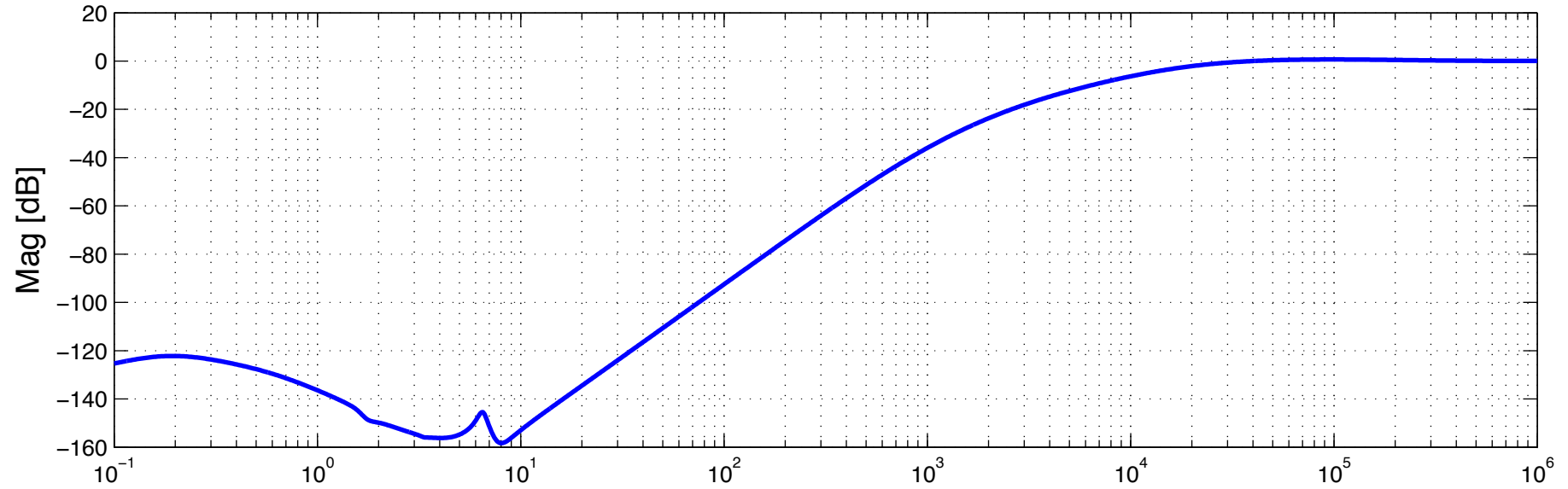
TTFSS Controller TF (in 7, out 5/out 6)



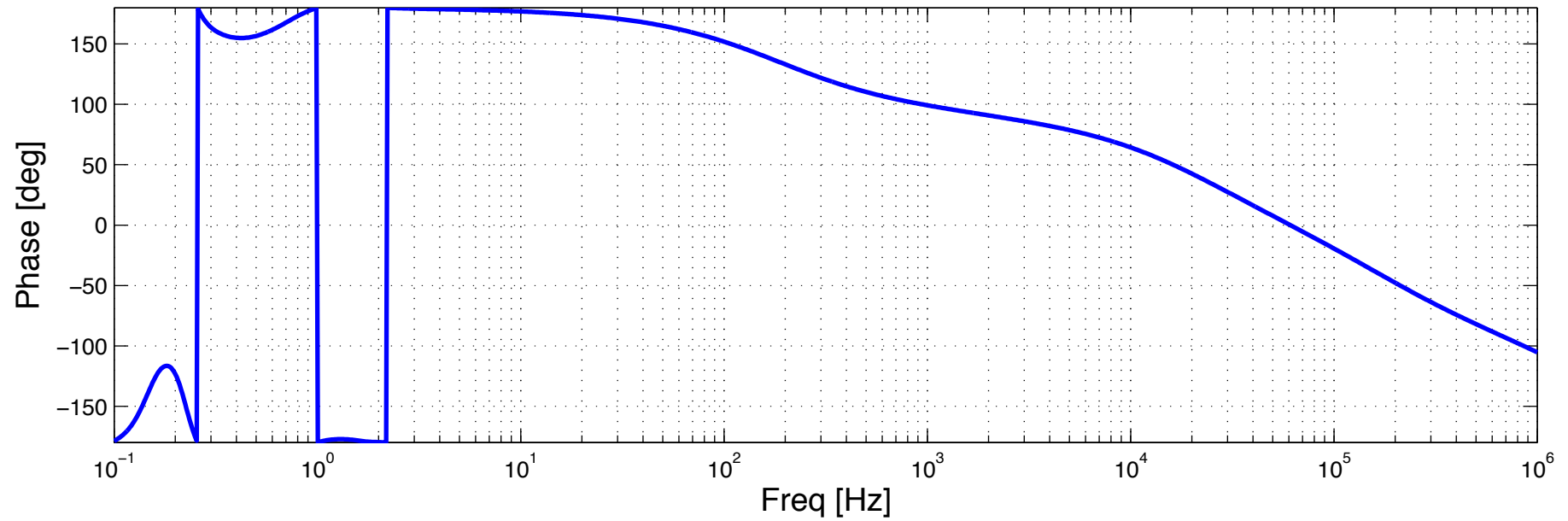
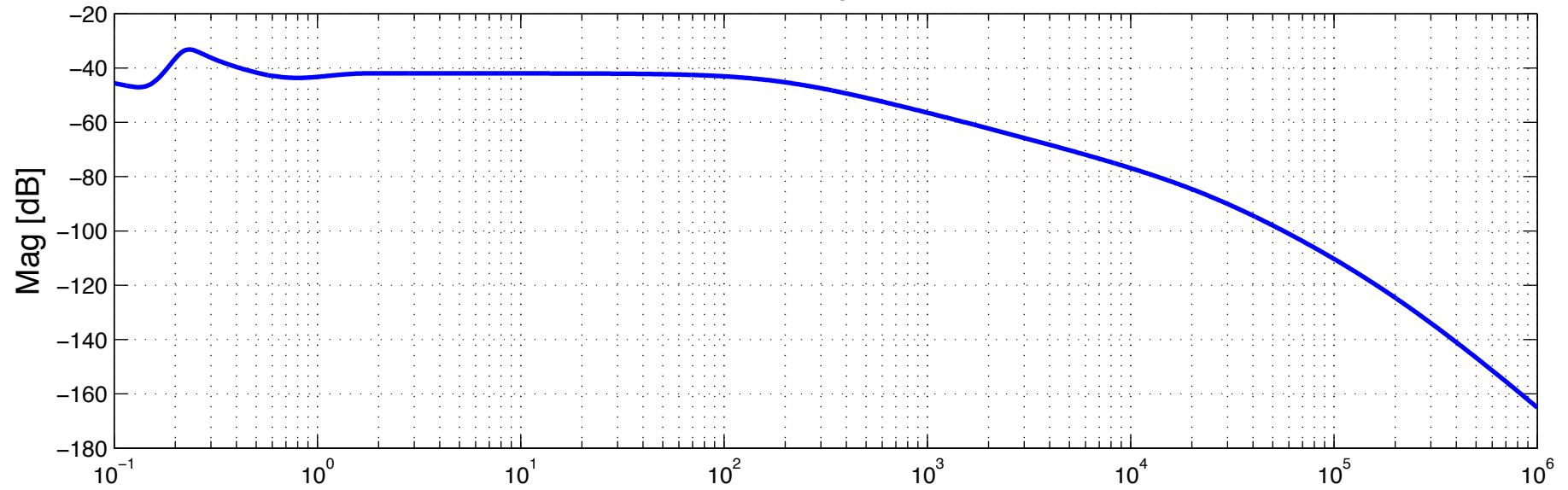
TTFSS Open Loop TF (in 7, out 3/ out 6)



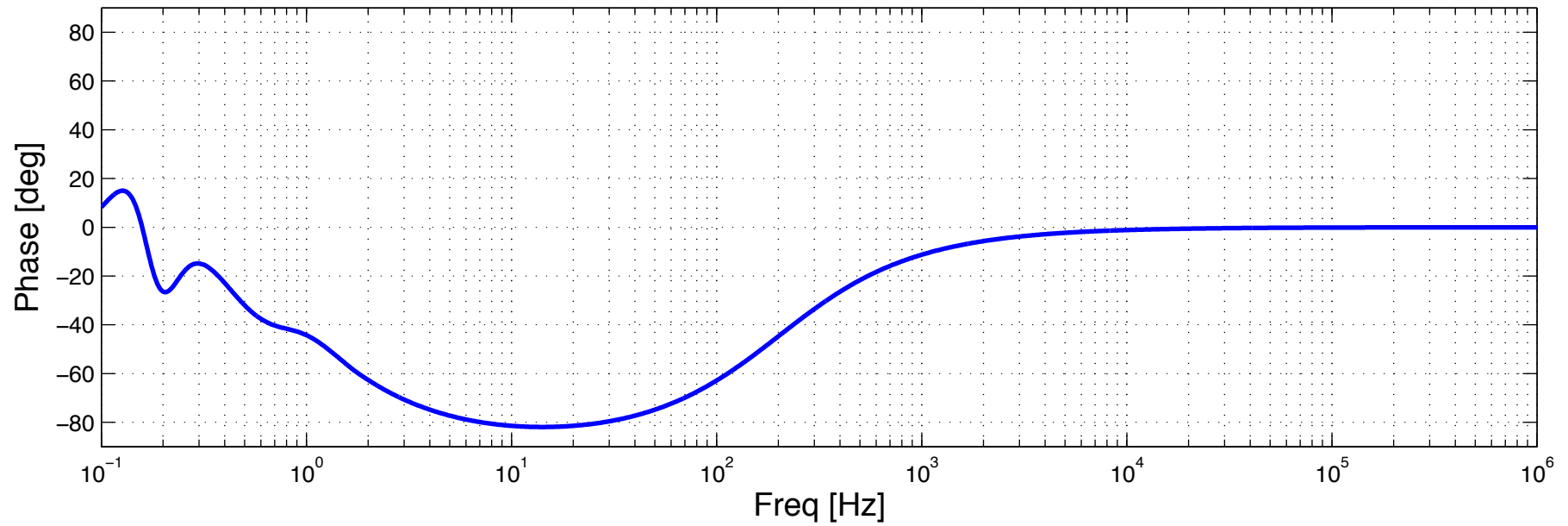
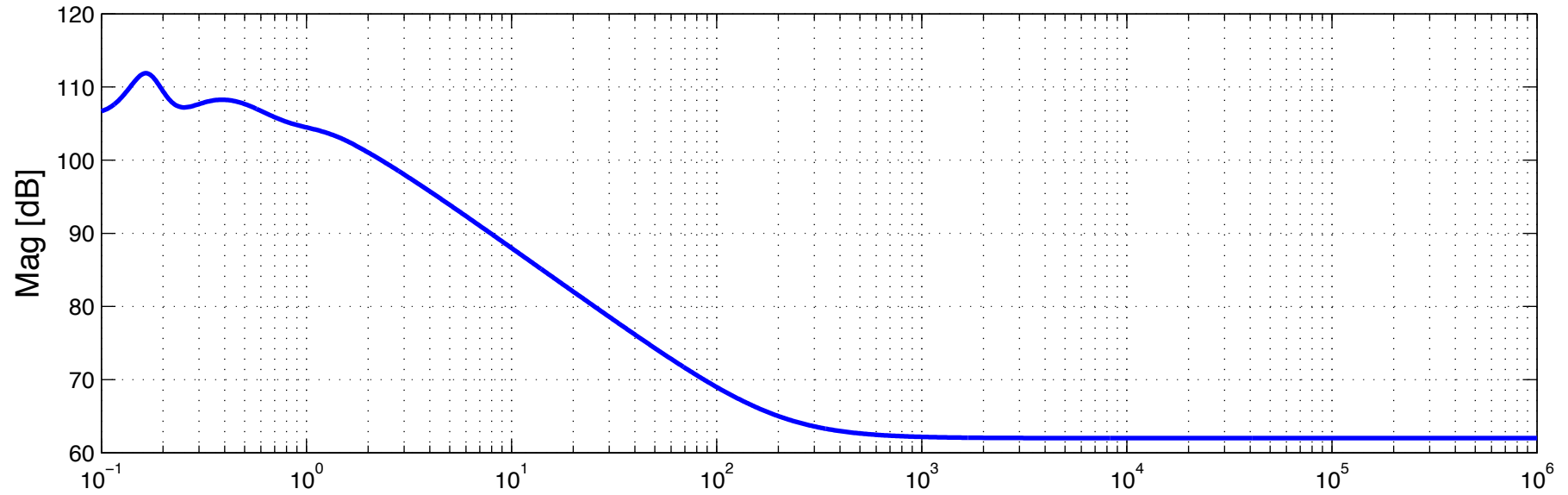
TTFSS Suppression Response (in 7, out 6)



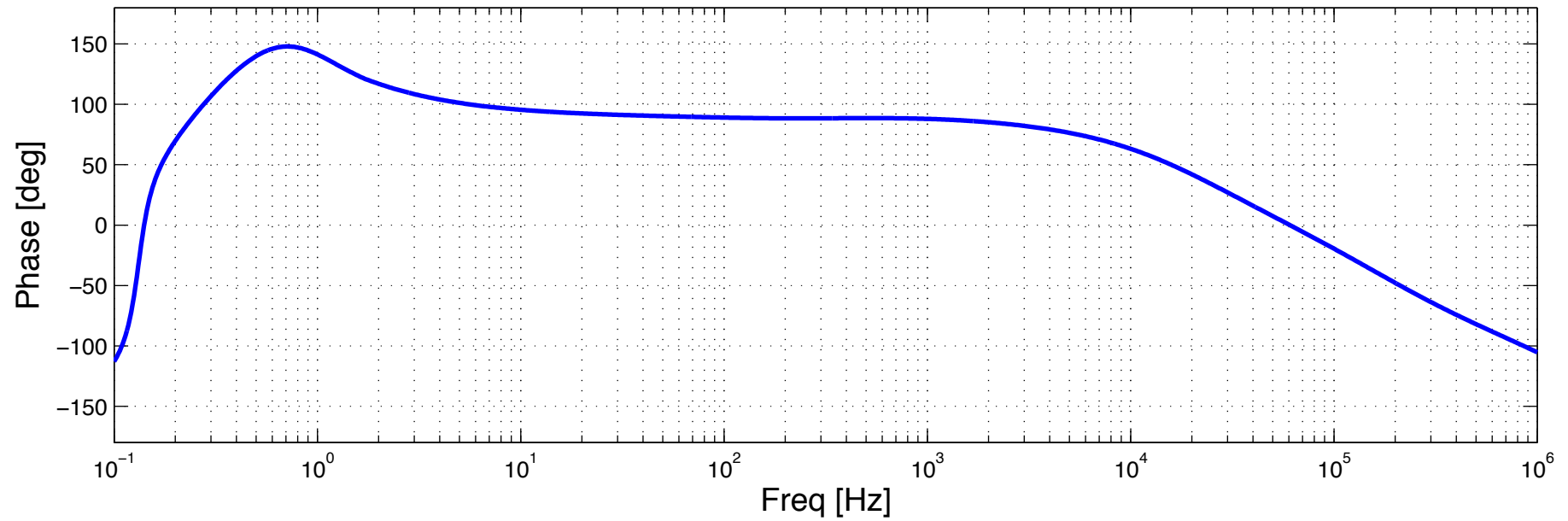
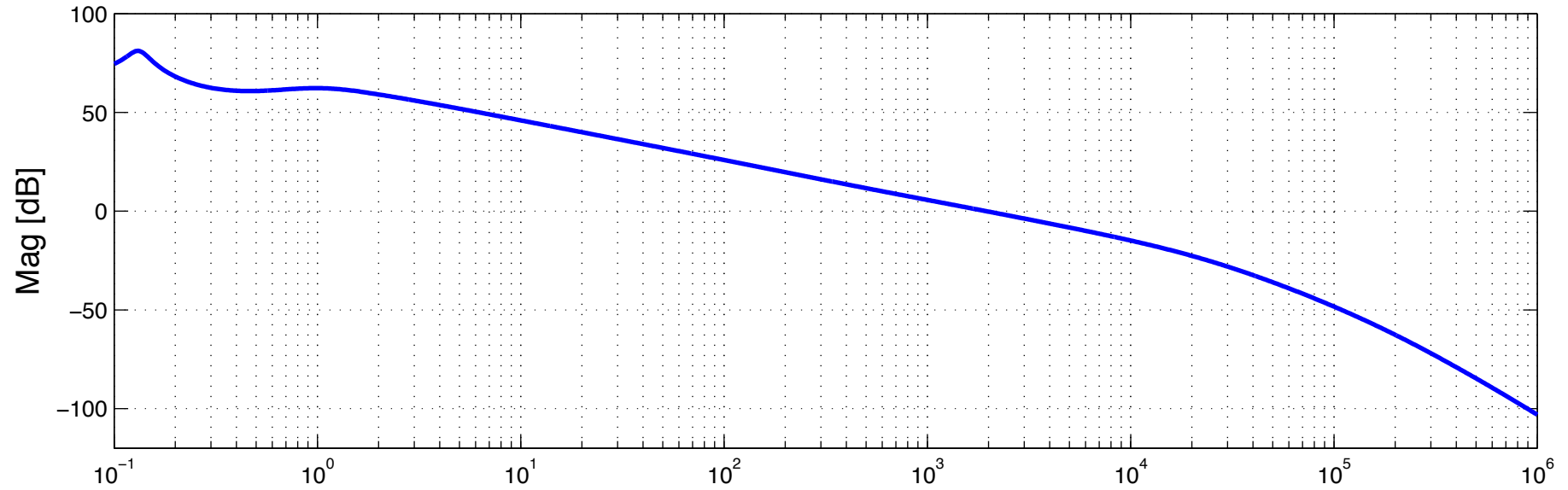
VCO,EX -to- PDH Error Signal TF (in 9, out 10/out 8)



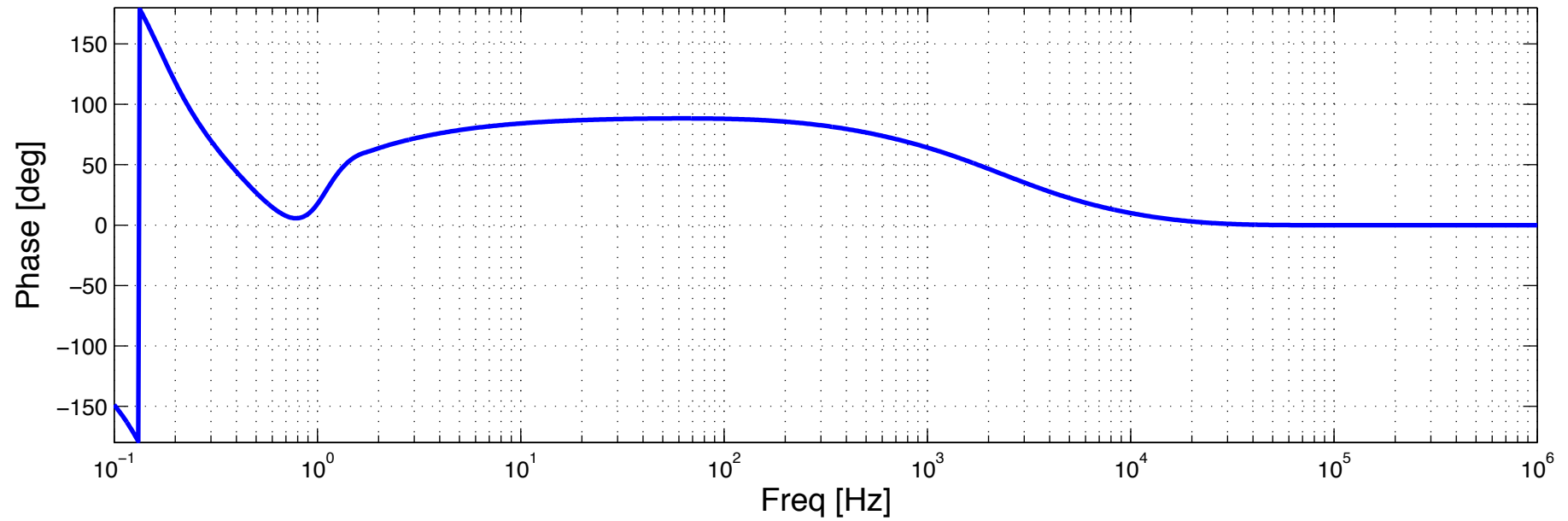
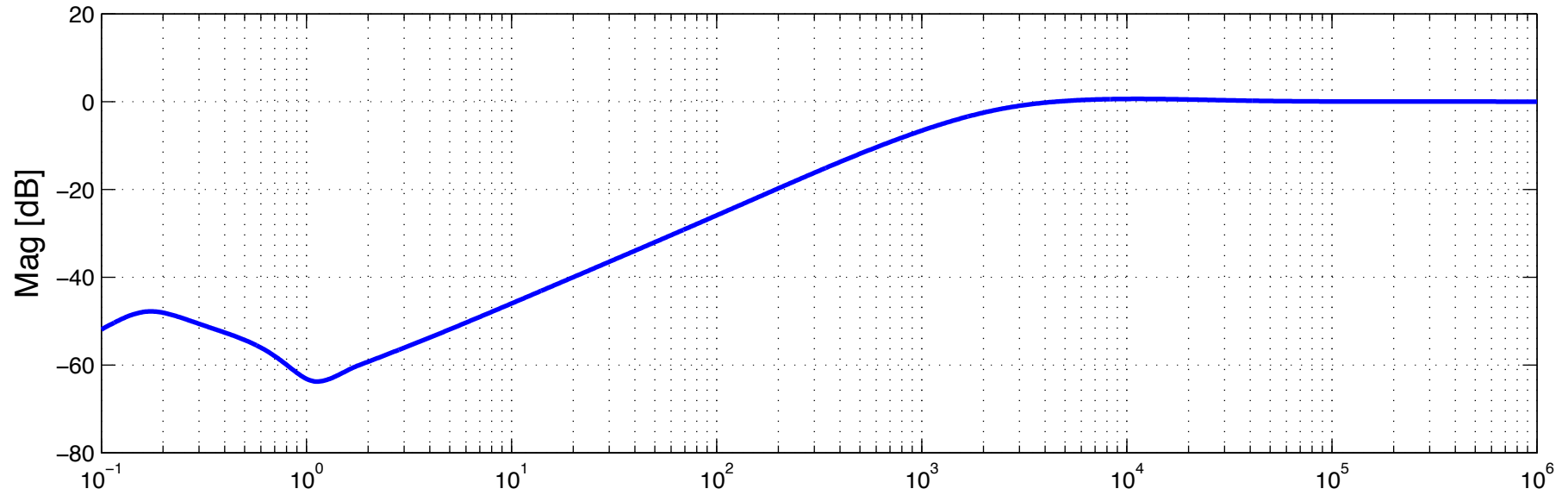
PDH Controller TF (in 10, out 8/out 9)



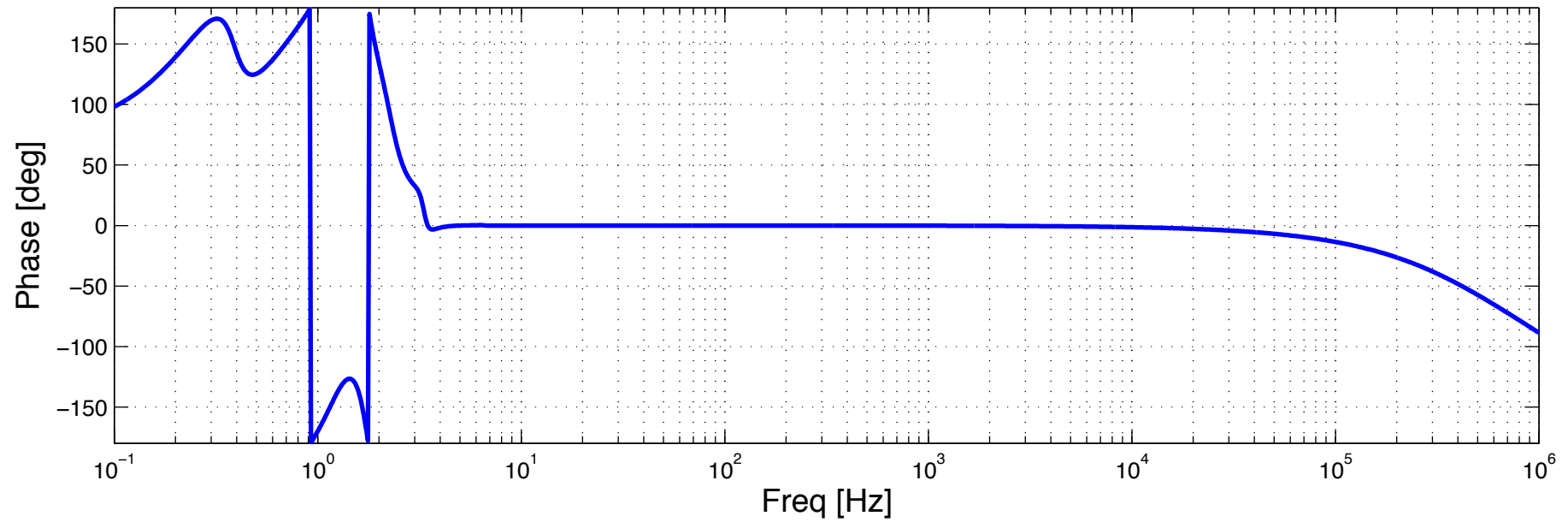
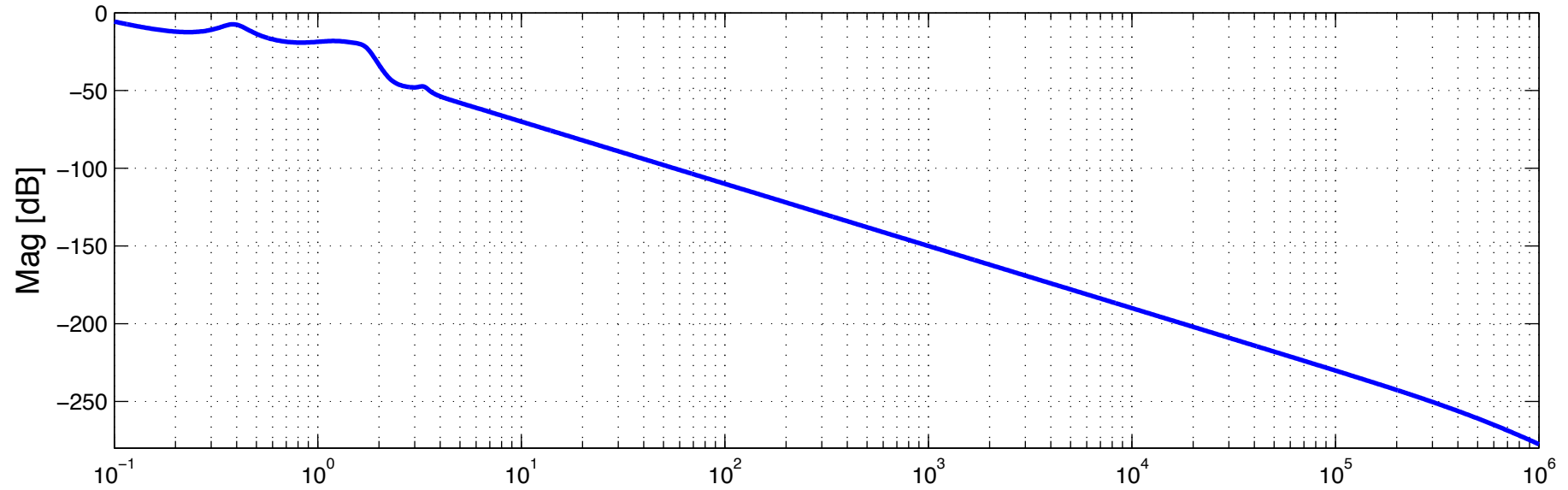
PDH Open Loop TF (in 10, out 10/out 9)



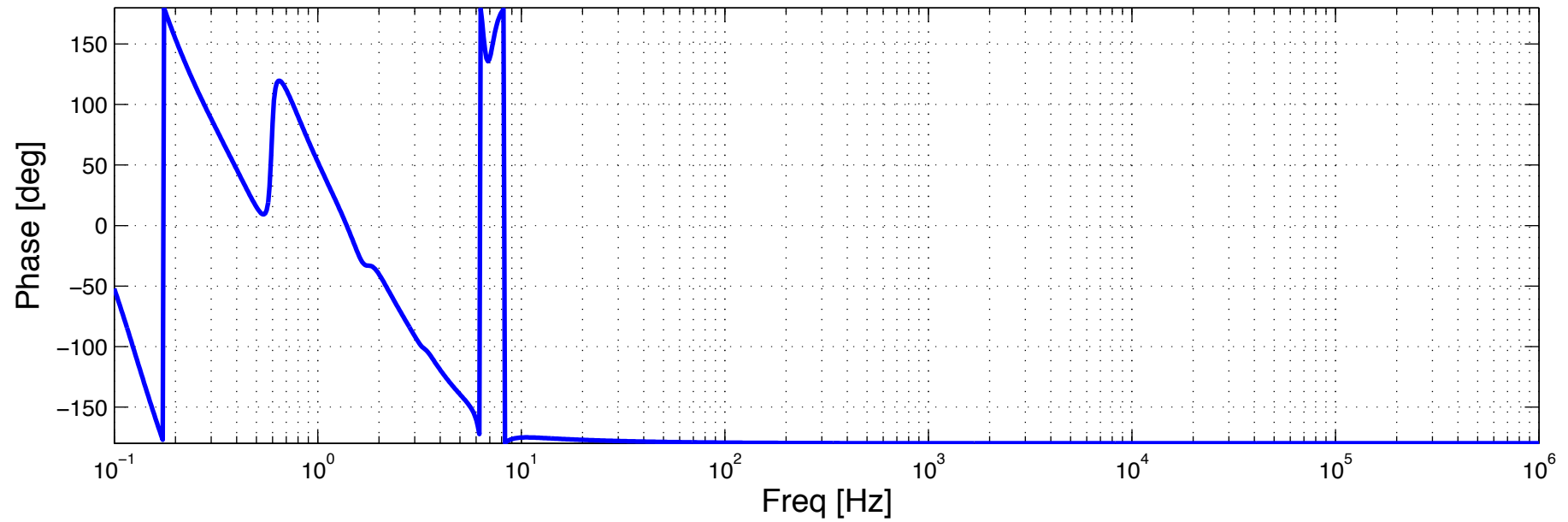
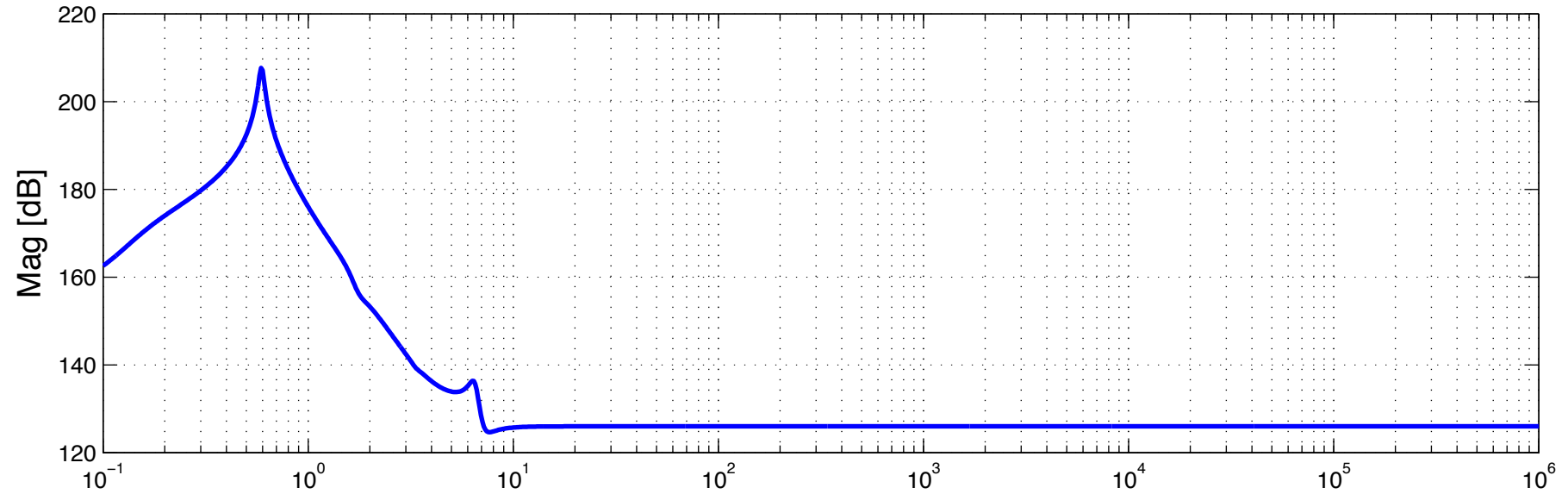
PDH Suppression Response (in 10, out 9)



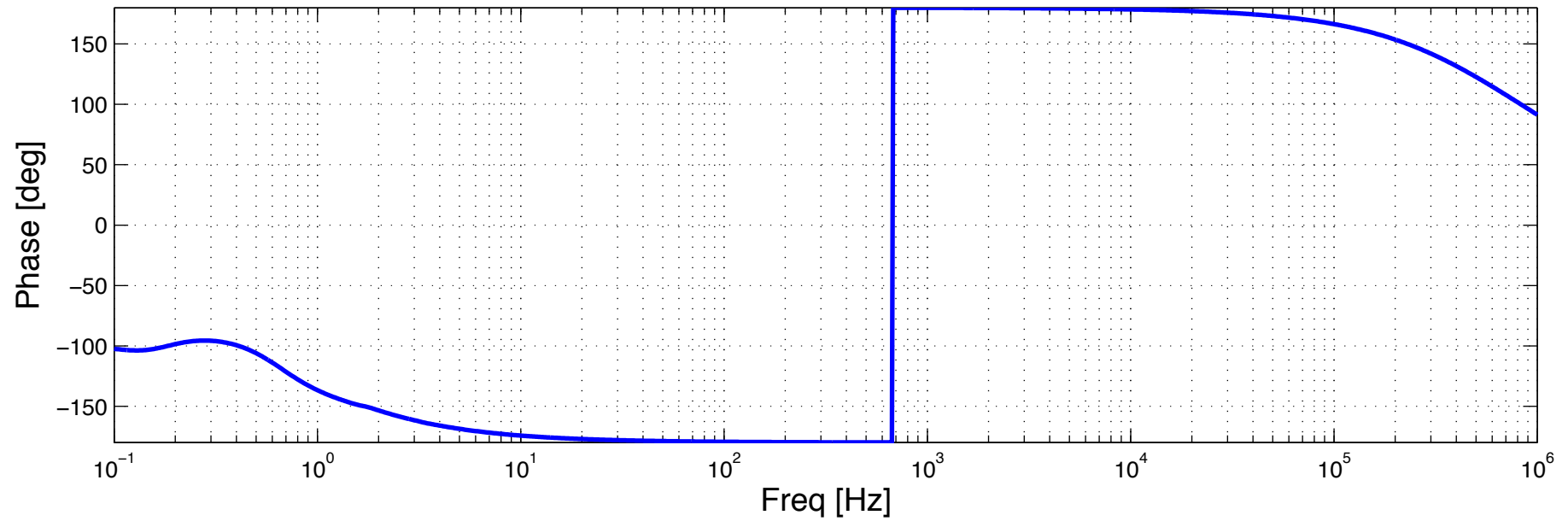
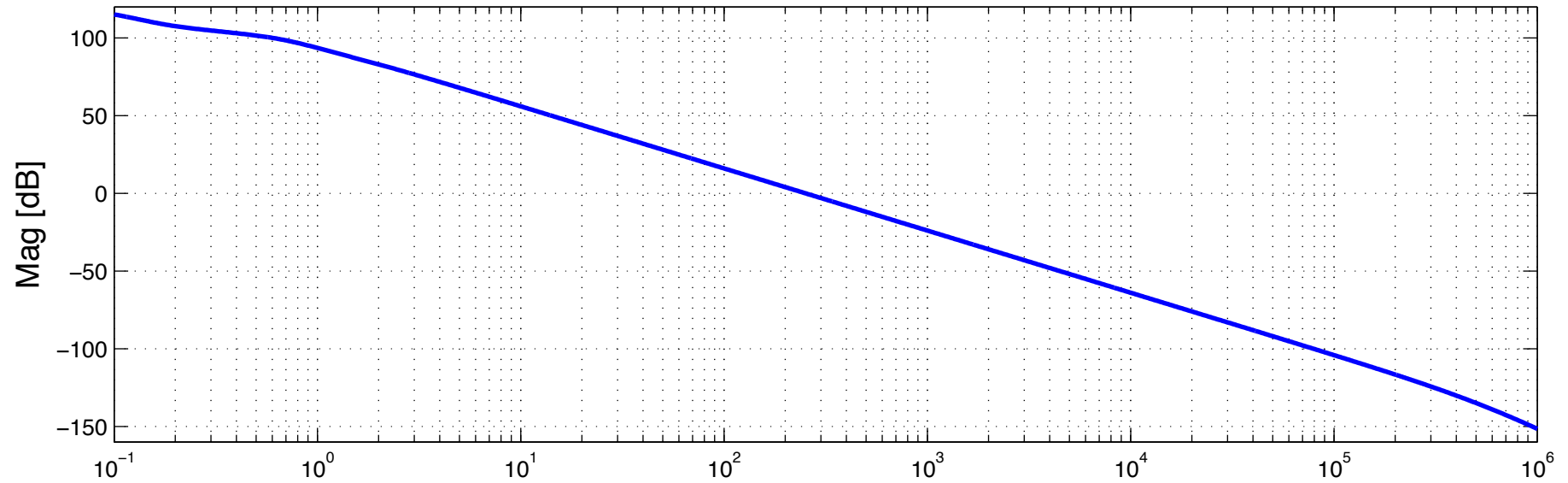
VCO,PSL -to- Common Mode Error Signal TF (in 12, out 13/out 13)



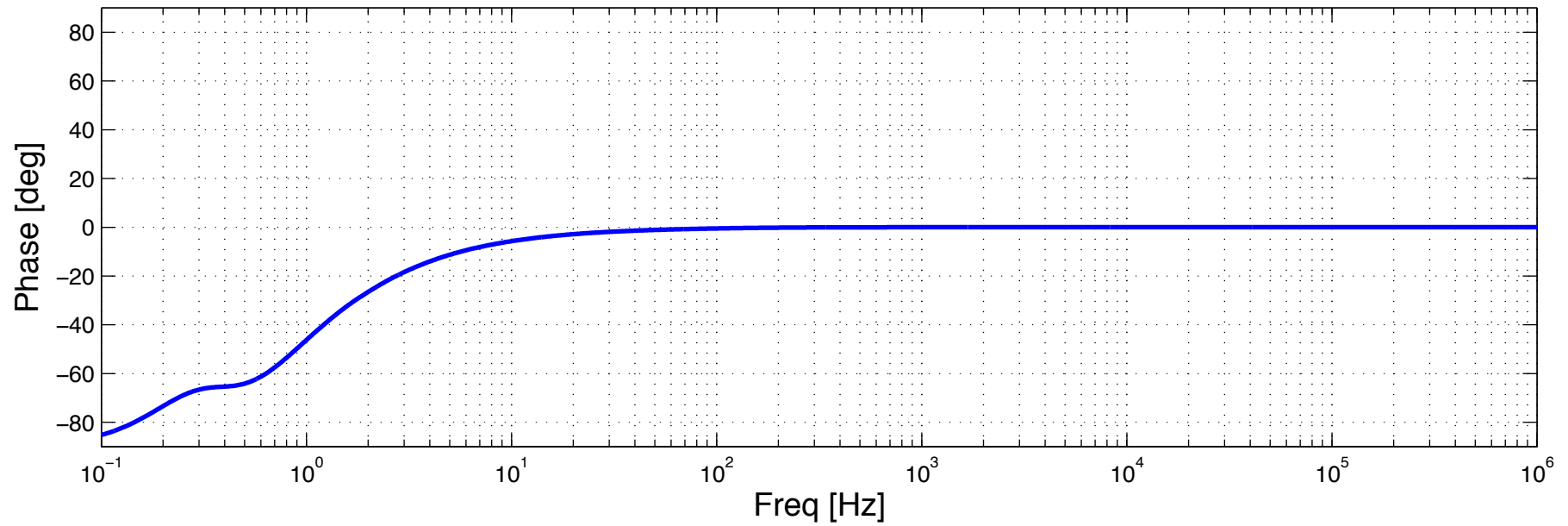
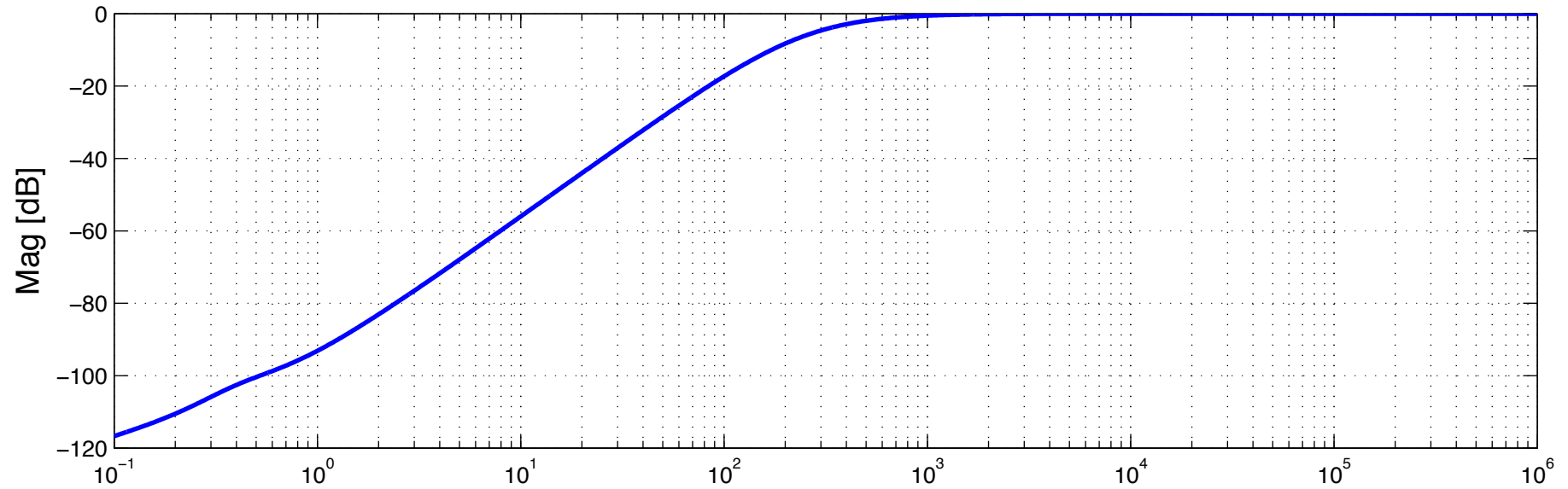
Common Mode Controller TF (in 11, out 12/ out 11)



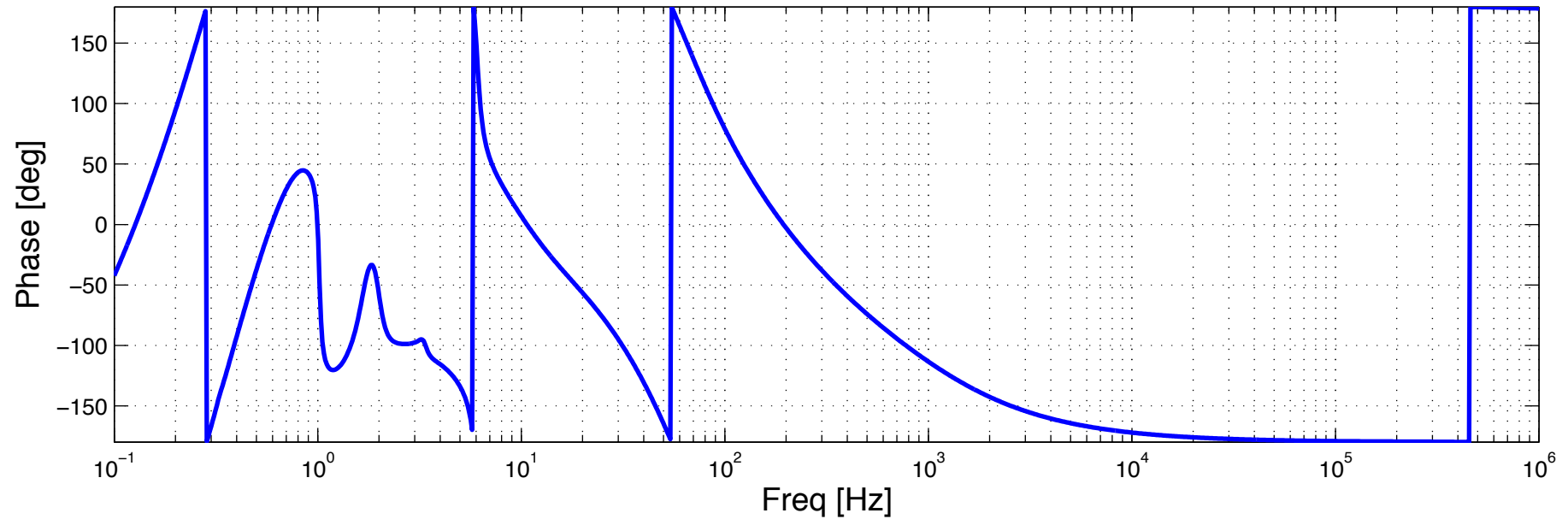
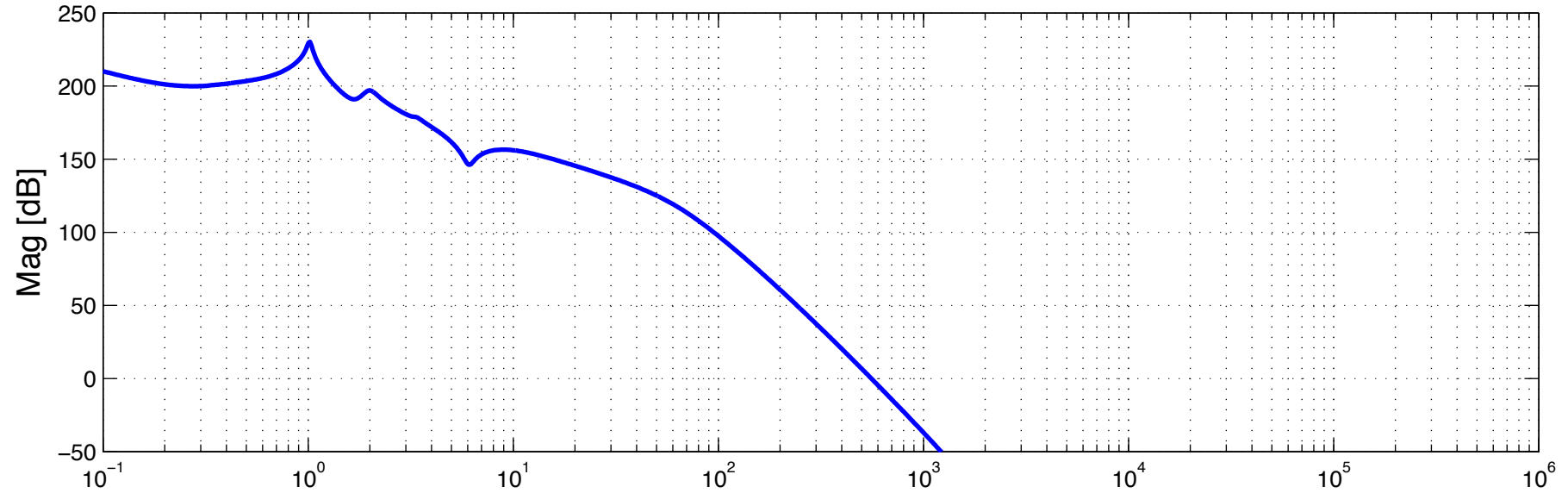
Common Mode Open Loop TF (in 11, out 13/out 11)



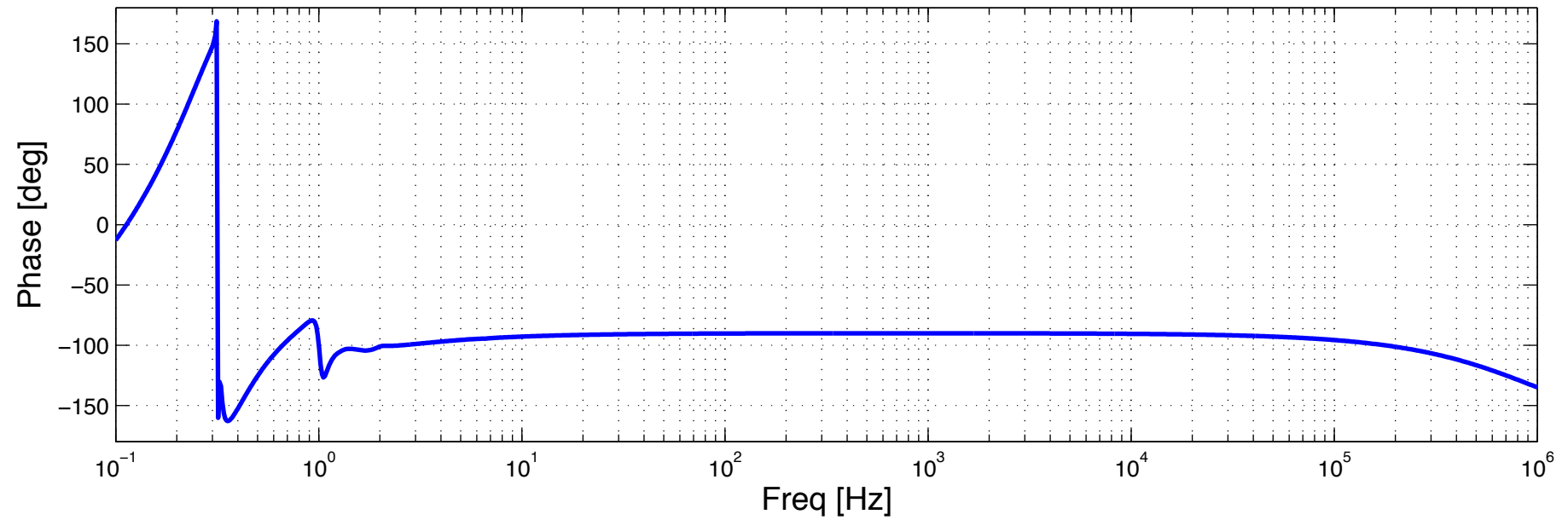
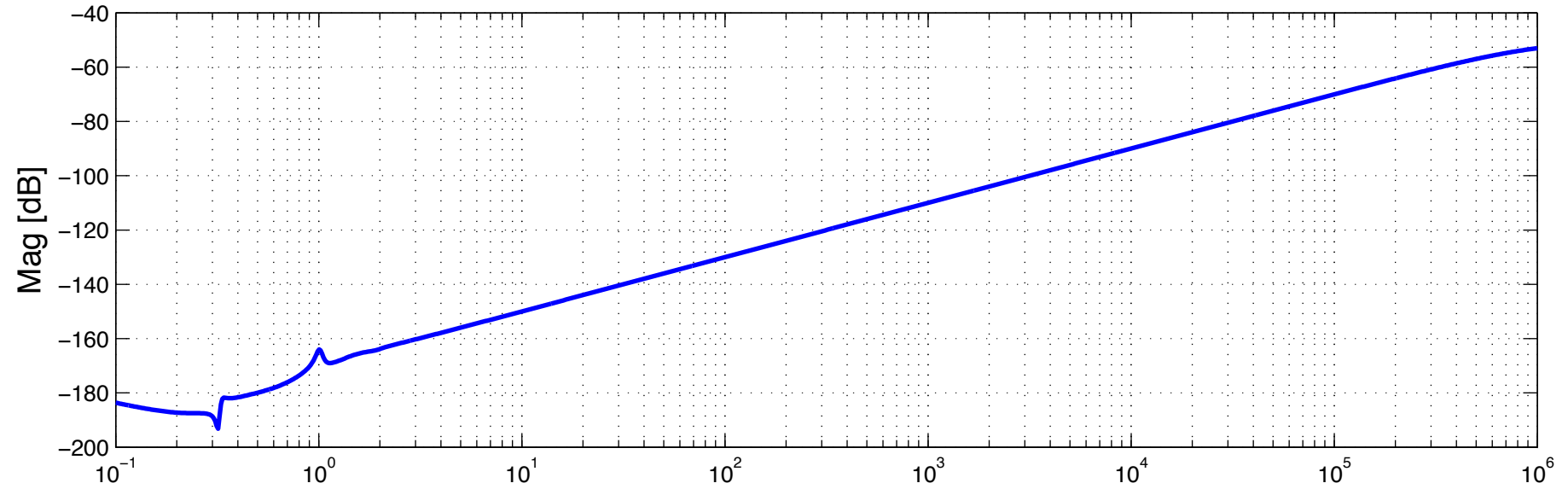
Common Mode Suppression Response (in 11, out 11)



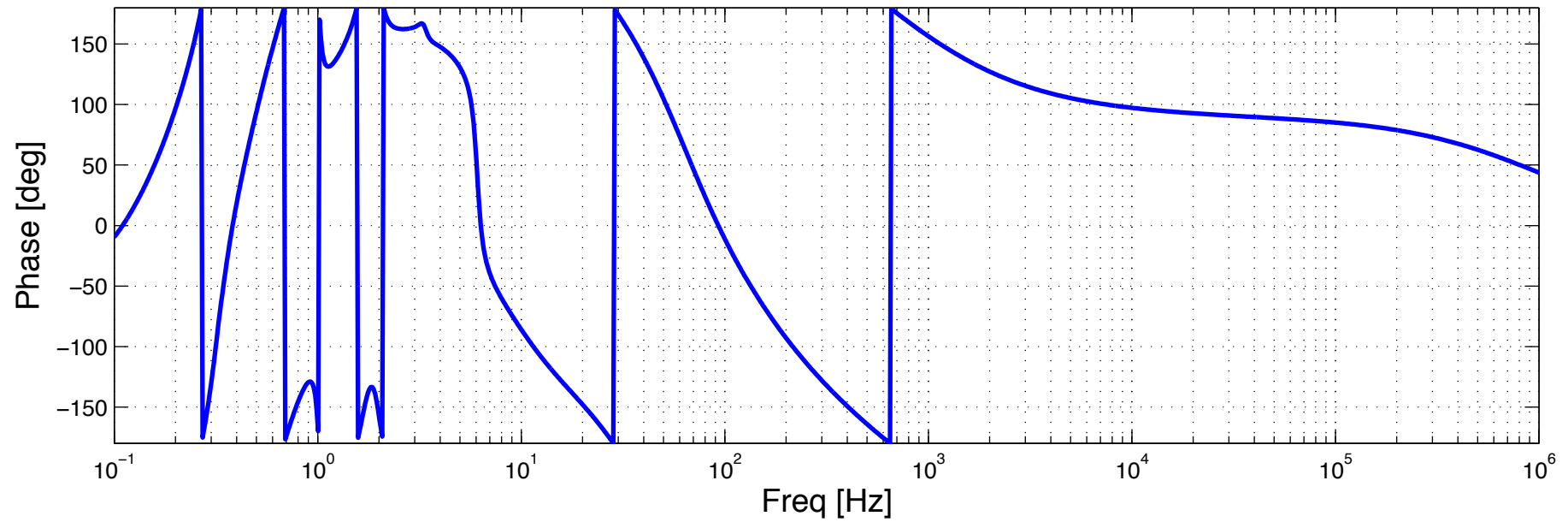
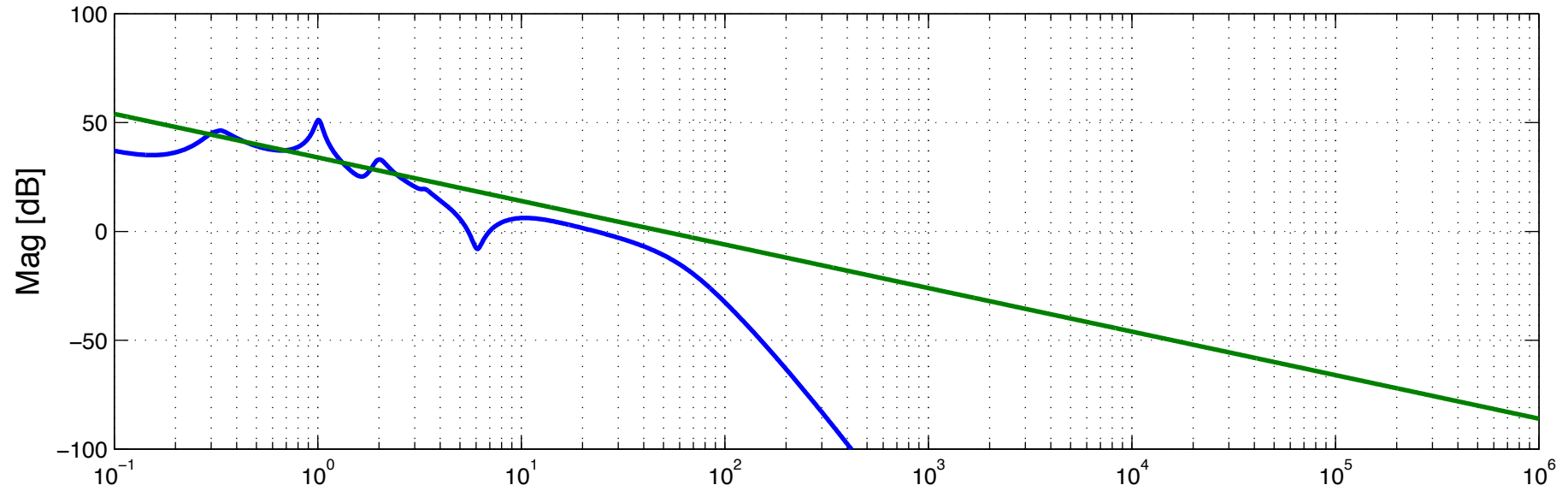
Diff Servo Ouput -to- Diff Mode Error Signal TF (in 20, out 14/out 23)



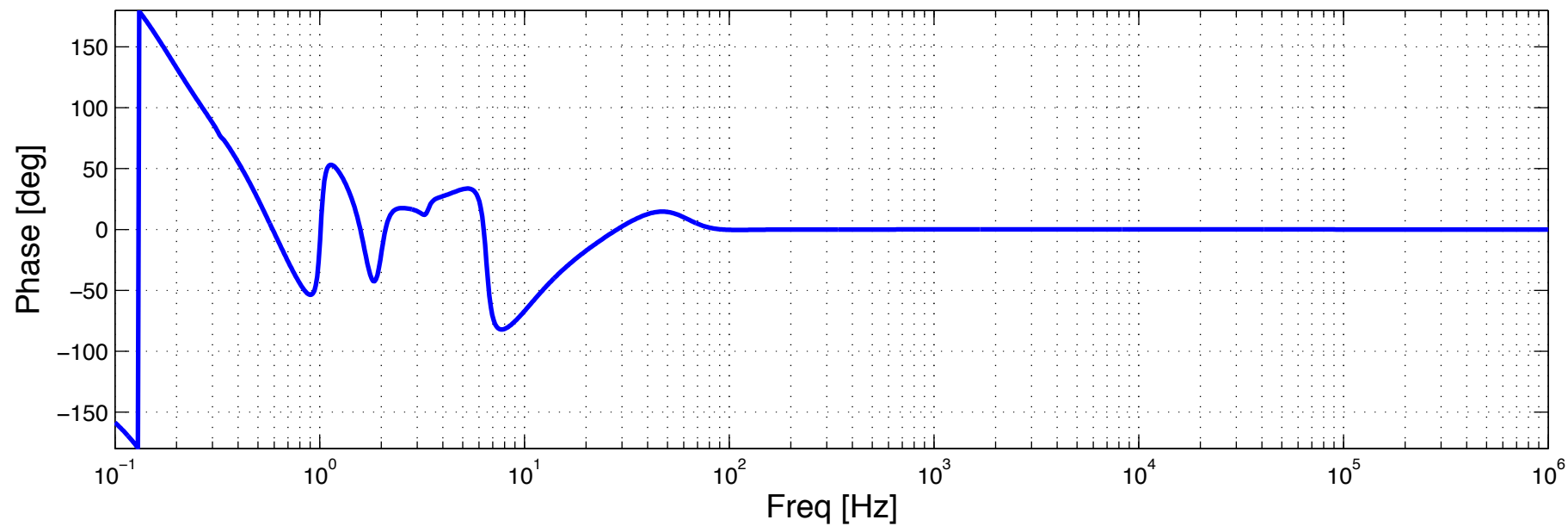
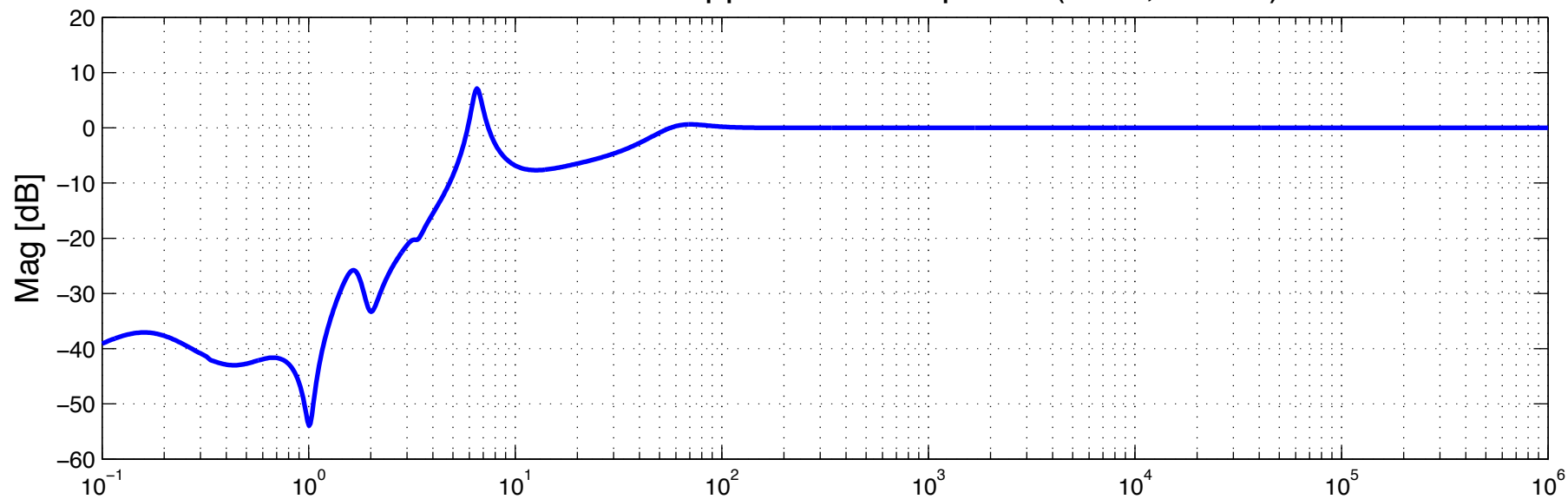
Differential Mode Controller TF (in 15, out 23/out 17)



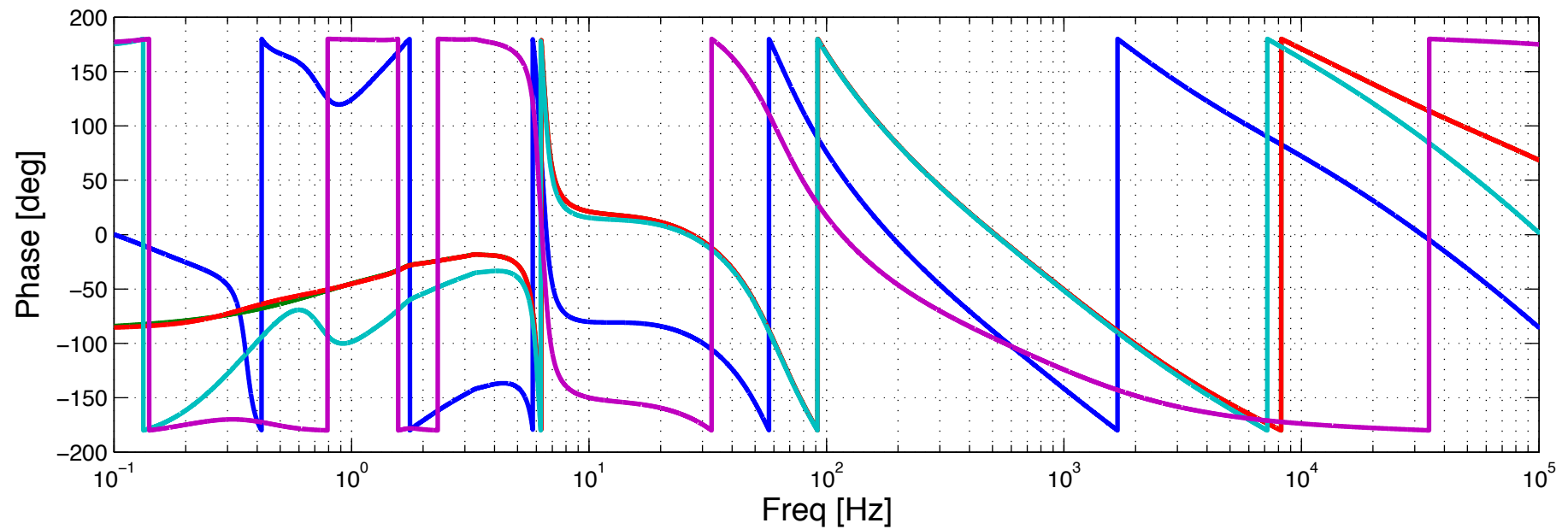
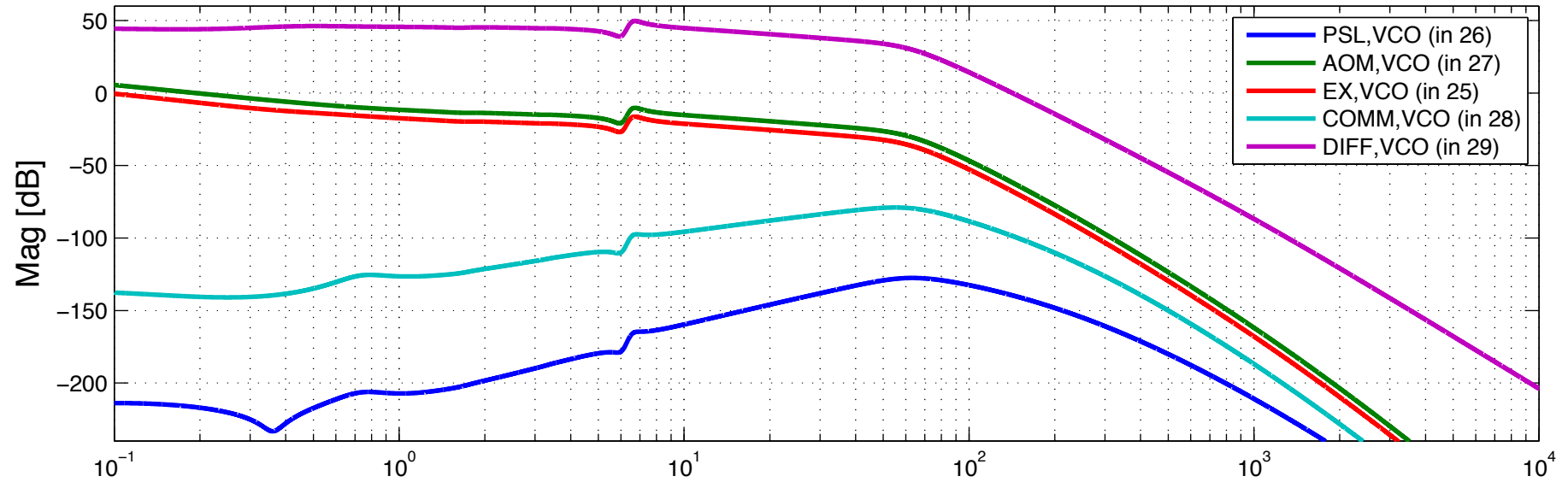
Differential Mode Open Loop TF (in 15, out 18/out 17)



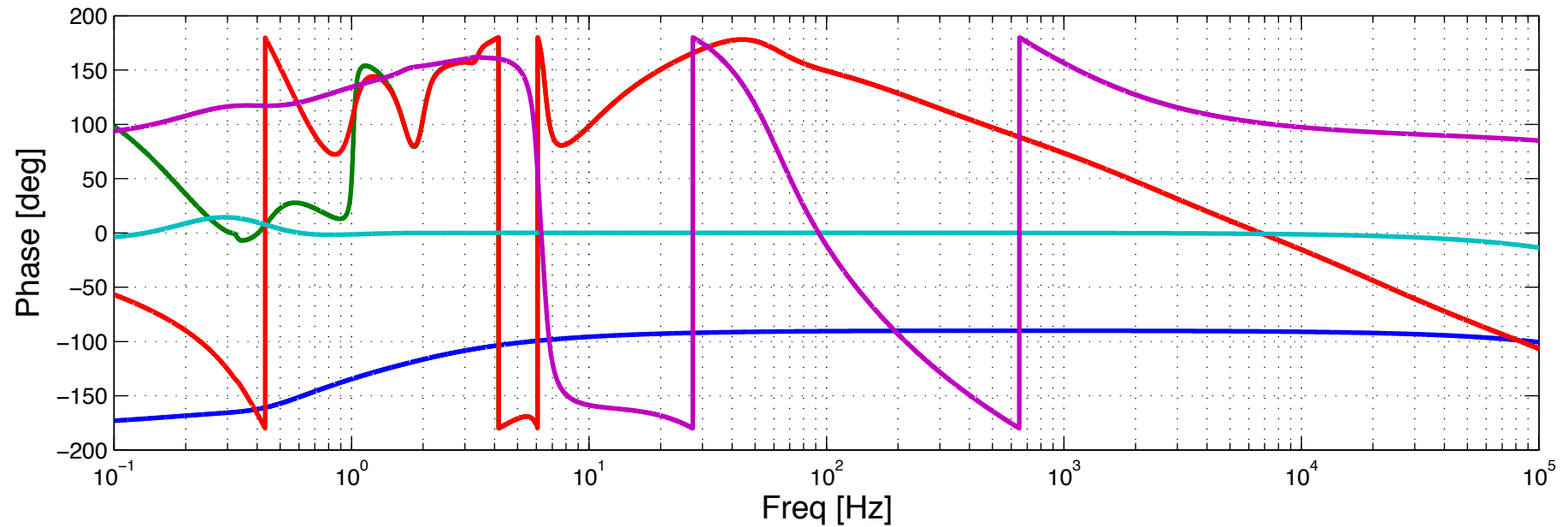
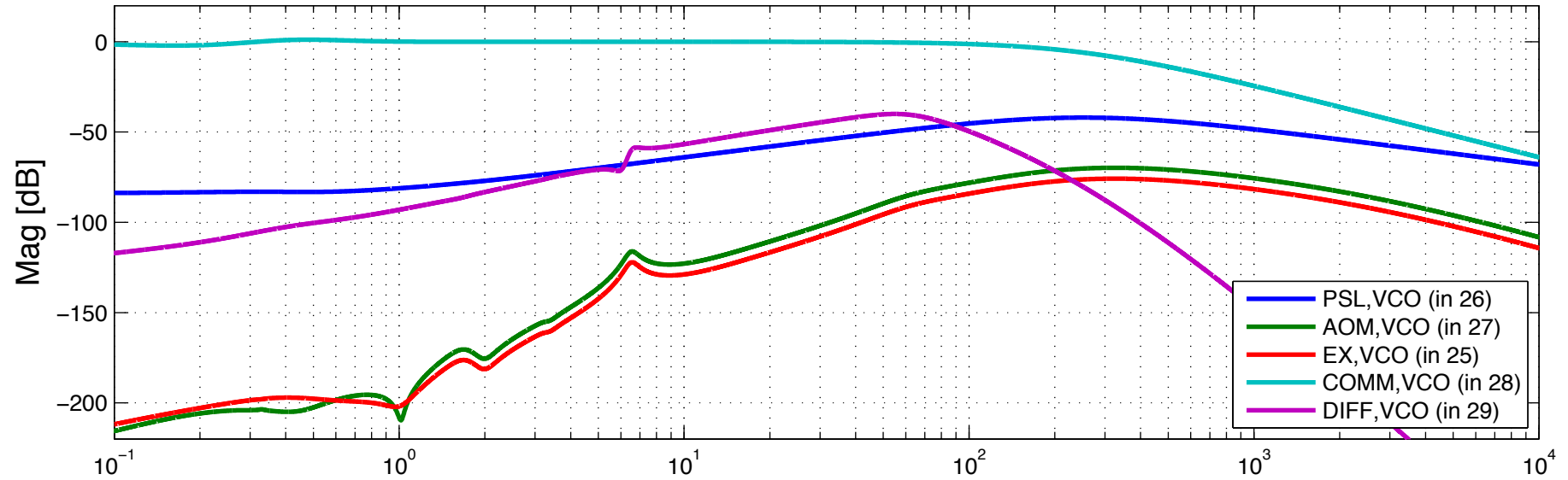
Differential Mode Suppression Response (in 15, out 17)



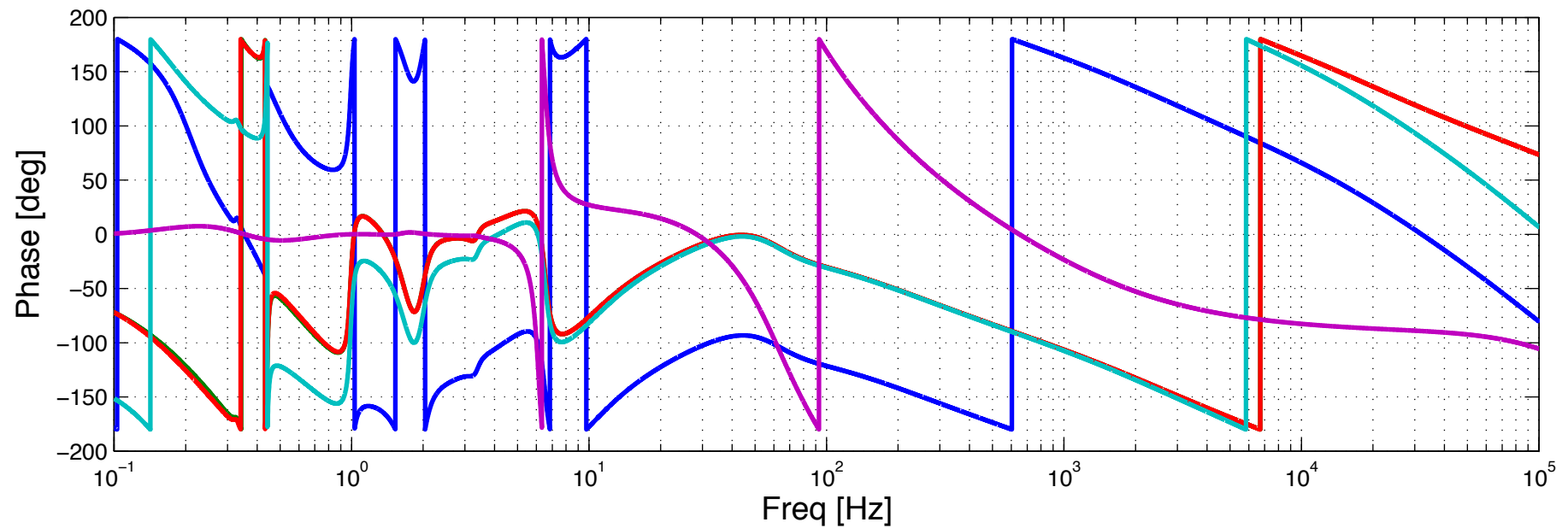
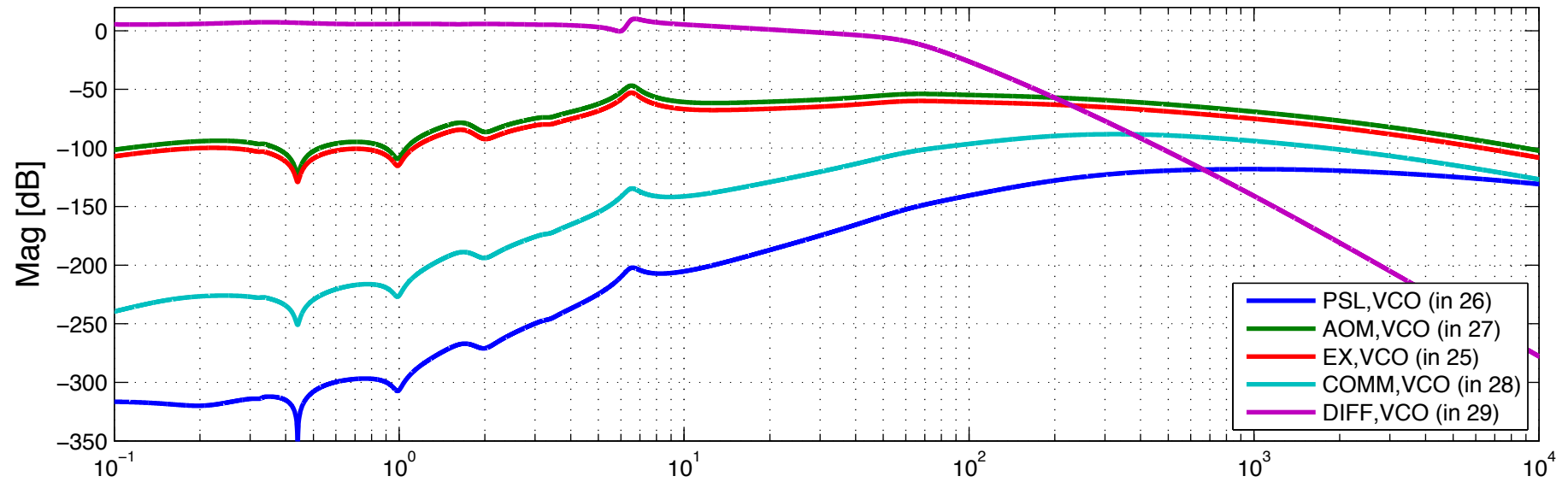
VCOs –to– ETMx Equivalent Freq. Shift (out 25)



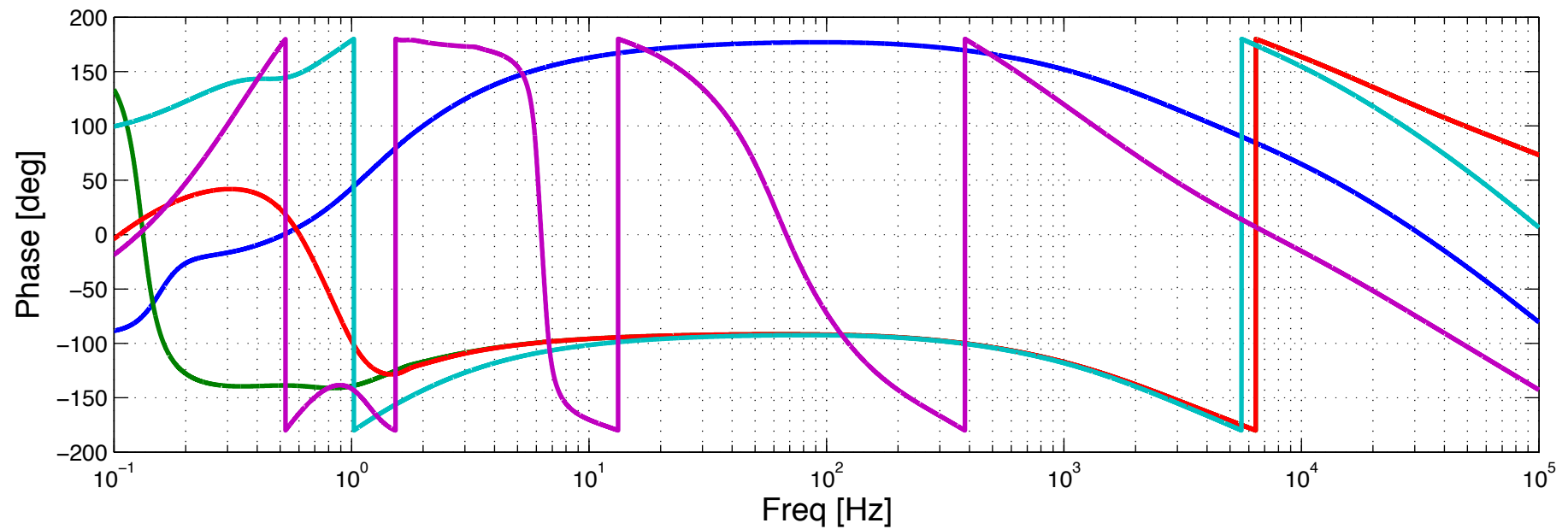
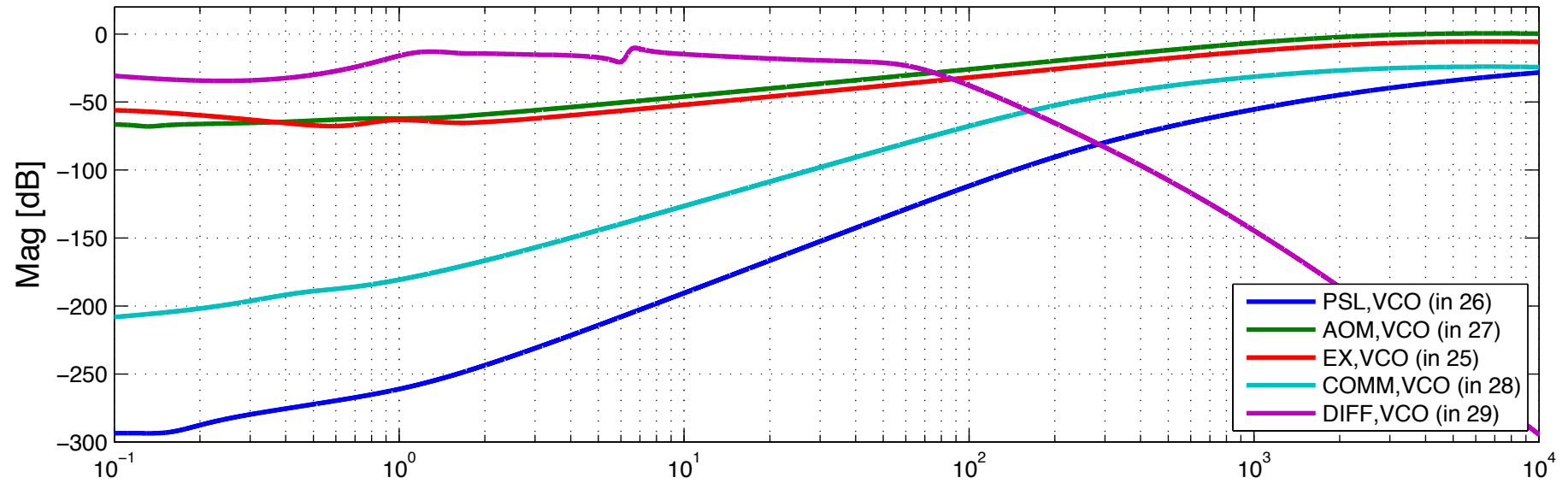
VCOs –to– Common Mode Freq. Shift (out 34)
Freq shift between PSL and X–arm Laser



VCOs –to– Differential Mode Freq. Shift (out 35)
Freq shift between X–arm and Y–arm Lasers



VCOs -to- Local Laser Freq (out 4)



VCOs -to- PDH Freq Shift (out ~~19~~ 36)
Freq shift away from Arm Resonance

