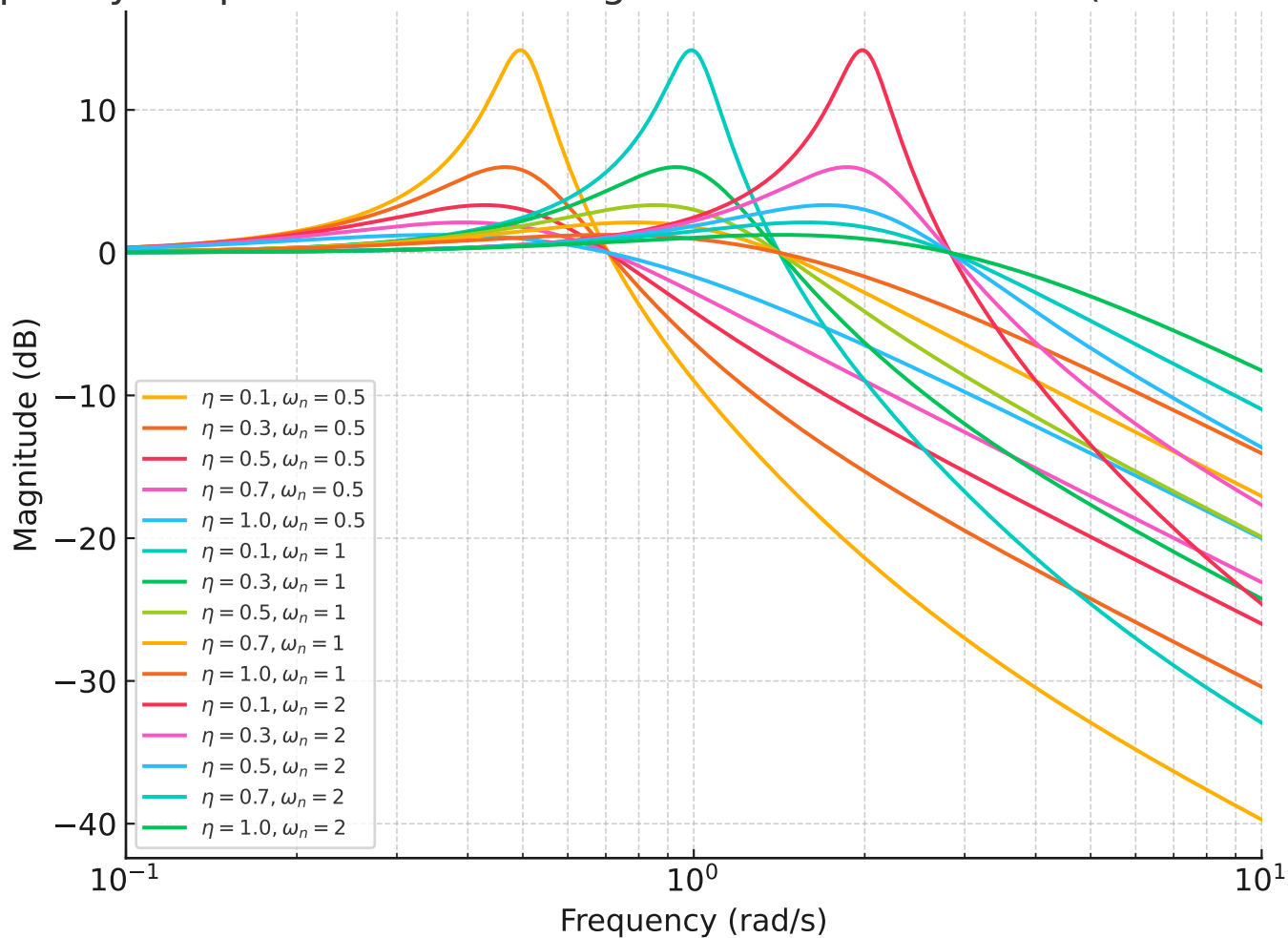


Frequency Response of the Analog PLL Transfer Function (Restricted Range)



Key Insights and Observations:

1. Higher ω_n (natural frequency) shifts the resonance peak to the right.
2. Lower η (damping) results in stronger resonance peaks.
3. At $\eta = 1.0$, the response is smoother, avoiding large resonances.
4. Restricting the frequency range provides a clearer view of the mid-band

This visualization helps analyze the PLL response effectively within the practical frequency range.