

Bodeplots: Beispiel 2

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$$\frac{\underline{u}_2}{\underline{u}_1} = \frac{j\omega \cdot (100 + j\omega)}{50 \cdot (1 + j\omega)^2}$$

$$= \frac{j\omega \cdot (100 + j\omega)}{50 \cdot (1 + j\omega) \cdot (1 + j\omega)}$$

$$= \underbrace{\frac{j\omega}{50}}_{\text{I}} \cdot \underbrace{\frac{(100 + j\omega)}{(1 + j\omega)(1 + j\omega)}}_{\text{II}} \quad \text{III}$$

	AMPLITUDE	PHASE
I @ $\omega = 0$	+ 20 dB / dec	CONST. 90° from origin
II DOUBLE LEFT HALF-PLANE POLE @ $\omega_2 = 1$	- 40 dB / dec	- 180° const 2 dec (symmetric)
III LEFT HALF-PLANE ZERO @ $\omega_3 = 100$	+ 20 dB / dec	+ 80° const 2 dec (symmetric)

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