

Graphic representation of frequency analysis

There two types:

1. Bode plots
2. Nyquist diagram

Bode diagram

Bode diagram consists of two graphs:

1. Plotting $|G|$ vs. $\log \omega$
2. Plotting $\log |G|$ vs. $\log \omega$

Bode diagram of known system

Note: by taking log of MR and multiplying it by 20, we transform the MR expressed as ratio to MR expressed as decibel, (dB).

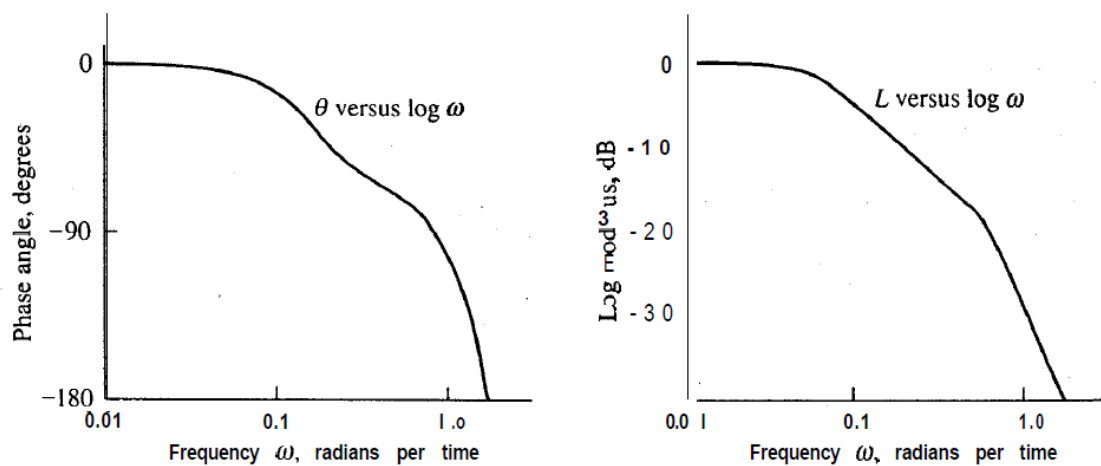


Fig.50 Bode plots of phase angle and log modulus versus the logarithm of frequency

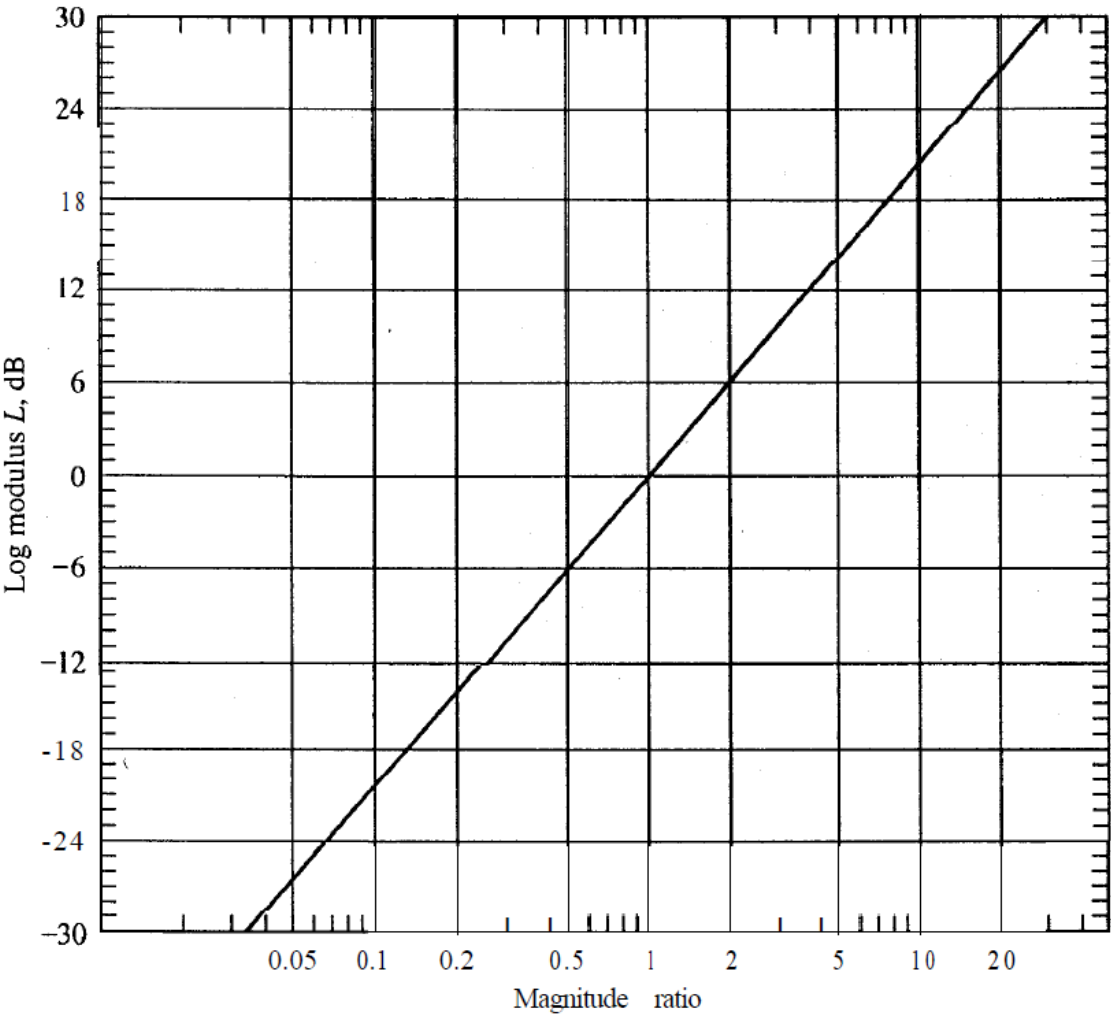


Fig.51 Conversion between the magnitude ratio and log modulus.

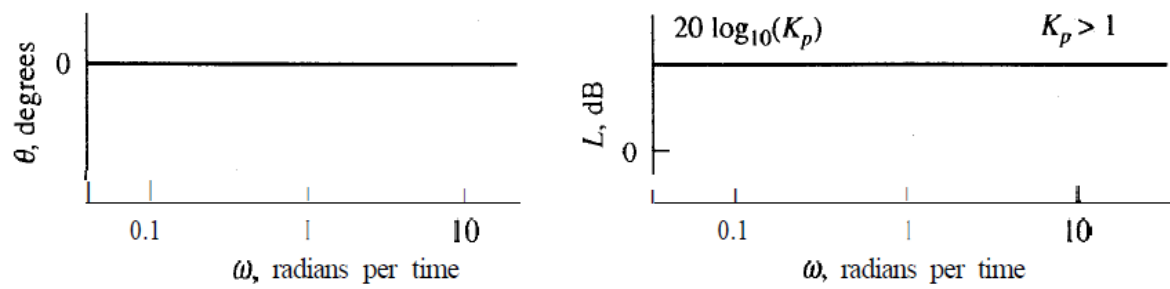


Fig.52 Bode plots of gain