

Op-amps

Op-amp Information

- <https://mysite.du.edu/~etuttle/electron/elect3.htm>
- https://bjpcjp.github.io/pdfs/cmos_layout_sim/ch24-op-amps.pdf
- <https://www.allaboutcircuits.com/technical-articles/negative-feedback-part-1-general-structure-and-essential-concepts/>

Op-Amp Measurements

Bandwidth

Measuring the bandwidth of an operational amplifier (op-amp) means determining the frequency range over which it can amplify signals accurately. Bandwidth is typically defined as the frequency at which the gain drops by 3 dB compared to its low-frequency value. There are two closely related bandwidth concepts:

- **Small-signal (linear) bandwidth:** The frequency at which the gain drops by 3 dB (to 0.707 of its mid-band value).
- **Gain-Bandwidth Product (GBW):** For most voltage-feedback op-amps, the product of closed-loop gain and bandwidth is approximately constant.

$$\text{Bandwidth} = \text{GBW} / \text{Closed-loop gain}$$

Op-amp Stability

- https://www.ti.com/lit/an/slyt087/slyt087.pdf?ts=1687347593525&ref_url=https%253A%252F%252Fwww.google.com%252F
- <https://www.k-state.edu/edl/docs/pubs/technical-resources/Technote9.pdf>
- <https://electronics.stackexchange.com/questions/530698/whats-the-need-for-a-small-capacitor-in-the-negative-feedback-parallel-to-a-fee>
- <https://electronics.stackexchange.com/questions/390986/non-inverting-op-amp-configuration-with-capacitor>
- <https://www.edn.com/the-impact-of-input-capacitance-on-op-amp-stability/>
- <https://www.analog.com/en/analog-dialogue/articles/techniques-to-avoid-instability-capacitive-loading.html>
- <https://www.eevblog.com/forum/projects/compensation-methods-in-current-sink-circuits/>
- <https://www.eevblog.com/forum/projects/dynamic-electronic-load-project/msg462562/#msg462562>

From:

<https://wiki.oscardegroot.nl/> - **HomeWiki**

Permanent link:

<https://wiki.oscardegroot.nl/doku.php?id=electronics:opamps&rev=1777990986>

Last update: **2026/05/05 14:23**

