

Dividers for LDC500/501/LDC502 Modulation Input

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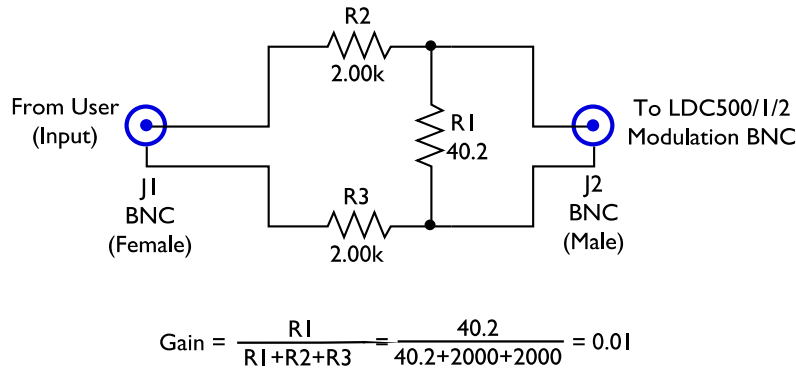


Figure 1 Balanced divider for LDC501 modulation input

There is no internal way to reduce the Modulate sensitivity on the LDC500, LDC501 and LDC502. This has to be done externally.

There is a straight forward way for the user to reduce the gain on the Modulate input, and that is to build a simple voltage divider to place in series with the input. The only (important) caveat is that this must be a **BALANCED** divider, otherwise the common-mode rejection performance of the LDC501 will be completely ruined.

Figure 1 shows a sketch of a circuit that will reduce the modulate sensitivity 100-fold; it is straight-forward to modify it from there as needed.

Circuit shown above will reduce modulate input sensitivity 100x, to 0.25 mA/V for low range of LDC501 and 0.5mA/V for its high range.

It is important to keep R2 and R3 matched to preserve the Common-Mode Rejection performance of the LDC501. Do **NOT** simply connect the outer shell from J1 to J2.

Since the LDC500's modulation input impedance is about 2kΩ, R1 should be kept below **50 ohms** to ensure gain accuracy.