

# Precision Amplifier Offers 20 fA Guaranteed Input Bias Current



National Semiconductor introduced the LMP7721 precision amplifier 20 fA guaranteed input bias current at room temperature and over the extended temperature range of -40°C to 125°C. According to the company, the device yields maximum system sensitivity and accuracy from photodiode and high-impedance sensors and is suited for improving sensitivity and accuracy in battery operated portable applications, as well as electrochemical sensor interface circuitry. The LMP7721 provides a wide gain bandwidth (GBW) of 17 MHz while consuming 1.3 mA of current. The company's VIP50 BiCMOS process technology enables the LMP7721's input bias cancellation circuitry to maintain its low input bias current. The precision amplifier provides 3 fA, with a guaranteed limit of 20 fA at 25°C, 900 fA at 85°C and 5 pA at 125°C. It also maintains ultra low input bias current over its entire input common-mode voltage range, and its wide GBW along with high open-loop gain of 120 dB enables accurate signal conditioning. Additional features include low input voltage noise of 6.5 nV/sqrt Hz, low DC offset voltage of  $\pm 150$   $\mu$ V maximum at 25°C and low offset voltage temperature coefficient of 1.5  $\mu$ V/C. The LMP7721 has a supply voltage range of 1.8V to 5.5V.

### National Semiconductor

800-272-9959, [www.national.com](http://www.national.com) [1]

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