



4GHz Amplifier Achieves <1pA Input Bias Current over –40°C to 85°C Temperature Range

MILPITAS, CA – May 13, 2015 – Linear Technology announces the [LTC6268-10](#) single and dual [LTC6269-10](#) 4GHz FET-input op amps for high dynamic range and high speed transimpedance amplifier (TIA) applications. These new decompensated amplifiers extend the speed and dynamic range capabilities of this ultralow bias current op amp family for applications with a gain of 10 or higher. Input bias current is 0.9pA max over the –40°C to 85°C temperature range and just 4pA max over the entire –40°C to 125°C temperature range. Wideband voltage and current noise is 4nV/√Hz and 7fA/√Hz, respectively. With 0.45pF input capacitance and 1000V/μs slew rate, the LTC6268-10 and LTC6269-10 are well suited for photodiode and photomultiplier (PMT) circuits, high impedance sensor applications and for driving analog-to-digital converters (ADCs).

The LTC6268-10 data sheet features circuit and layout techniques to maximize TIA performance, with example circuits ranging from 20kΩ transimpedance gain at 210MHz bandwidth, to 402kΩ transimpedance gain at 34MHz bandwidth. The LTC6268-10 is available in a 6-lead SOT-23 package, as well as an 8-lead SOIC with guard pins to protect against board leakage currents. The LTC6269-10 is available in an MSOP-8 with exposed pad and in 3mm x 3mm DFN-10 packages. The LTC6268-10 and LTC6269-10 are fully specified over the industrial –40°C to 85°C and –40°C to 125°C temperature ranges. Prices start at \$2.90 each for the LTC6268-10 and \$4.90 each for the LTC6269-10 each in 1000-piece quantities. For more information, visit www.linear.com/product/LTC6268-10 and www.linear.com/product/LTC6269-10

Photo Caption: 20kΩ Gain 210MHz Transimpedance Amplifier


Summary of Features: LTC6268-10 & LTC6269-10

- Gain Bandwidth Product: 4GHz
- Low Input Bias Current
 - o $\pm 3\text{fA}$ Typ Room Temperature
 - o 4pA Max at 125°C
- Current Noise (100kHz): $7\text{fA}/\sqrt{\text{Hz}}$
- Voltage Noise (1MHz): $4.0\text{nV}/\sqrt{\text{Hz}}$
- Extremely Low C_{IN} 0.45pF
- Rail-to-Rail Output
- $A_V \geq 10$
- Slew Rate: +1500V/ μs , –1000V/ μs
- Supply Range: 3.1V to 5.25V
- Quiescent Current: 16.5mA
- Operating Temp Range: –40°C to 125°C
- Single in 8-Lead SO-8 & 6-Lead TSOT-23 Packages
- Dual in 8-Lead MS8 3mm x 3mm & 10-Lead DFN-10 Packages

The USA list pricing shown is for budgetary use only. International prices may differ due to local duties, taxes, fees and exchange rates.

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for over three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, $\mu\text{Module}^{\text{®}}$ subsystems, and wireless sensor network products. For more information, visit www.linear.com

 , LT, LTC, LTM, Linear Technology, the Linear logo and μModule are registered trademarks of Linear Technology Corp. All other trademarks are the property of their respective owners.

Press Contacts:

North America / Worldwide

John Hamburger, Director Marketing
Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937

Doug Dickinson, Media Relations Manager
ddickinson@linear.com

Tel: 408-432-1900 ext 2233