



Industry's Lowest Drift Bandgap Voltage Reference Features 1.5ppm/°C Max & 0.5ppm_{p-p} of Noise

MILPITAS, CA – October 19, 2015 – Linear Technology announces the [LT6657](#), a family of ultra-stable bandgap voltage references that exhibits less than 1.5ppm/°C of temperature drift. Reinforcing this groundbreaking performance, the LT6657 has only 0.5ppm_{p-p} of low frequency noise, less than 30ppm of long term drift and 35ppm of thermal hysteresis.

The LT6657 is fully specified for –40°C to 125°C and was designed for the most demanding high performance instrumentation, test equipment and automotive systems. The LT6657's buffered output can source and sink up to 10mA. The LT6657 can operate on a supply voltage from as low as 50mV above the output, up to 40V, and with a supply current of only 1.2mA. In shutdown mode, power consumption is reduced to 4µA. Load regulation error is less than 6ppm/mA and line regulation error is less than 4ppm/V, both under worst case conditions.

“With its outstanding precision and noise, the LT6657 sets a new high water mark for bandgap references,” says Brendan Whelan, Design Manager for Linear Technology. “There is now a low dropout, small and adaptable voltage reference option with enough precision for the next generation of ultra-precision electronics.”

The LT6657 is currently in production with a 2.5V output version. Additional voltage options are in development. Prices start at \$3.19 each in 1,000-piece quantities. For more information, visit www.linear.com/product/LT6657.

Photo Caption: Extremely Low Drift, Low Noise & Low Dropout Voltage References


Summary of Features: LT6657

- Excellent Accuracy & Drift:
 - o A-Grade (0.1% Initial Accuracy, 1.5ppm/°C Drift)
 - o B-Grade (0.1% Initial Accuracy, 3ppm/°C Drift)
- 0.5ppm_{P-P} Noise (0.1Hz to 10Hz)
- Fully Specified Over –40°C to 125°C
- ±10mA Sink & Source Capability
- Low Power Shutdown: <4µA Maximum
- Operates on a Supply Voltage up to 40V
- Guaranteed Low Dropout Voltage:
 - o 50mV @ No Load
 - o –150mV @ –10mA Load Current
 - o 450mV @ 10mA Load Current
- Guaranteed Load Regulation:
 - o 3ppm/mA Maximum @ 25°C
 - o 6ppm/mA Maximum Over Temperature
- Guaranteed Line Regulation:
 - o 2ppm/V Maximum @ 25°C
 - o 4ppm /V Maximum Over Temperature
- 2.5V Voltage Option Available Now
 - o Additional Options in Development Contact Marketing
- 8-Lead MSOP Package

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, µModule[®] subsystems, and wireless sensor network products. For more information, visit www.linear.com

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