



## **Precision Voltage Reference Drives Up to 200mA, Achieves 0.1ppm/mA Load Regulation & 10ppm/°C Drift**

MILPITAS, CA – November 3, 2016 – Linear Technology announces the [LT6658](#), a precision voltage reference that incorporates two high current output buffers. Based on a 2.5V bandgap voltage reference, each output can be separately configured for any voltage between 2.5V and 6V. Both outputs offer 0.05% initial accuracy, 10ppm/°C temperature drift and only 1.5ppm of low frequency noise. The outputs can drive up to 50mA and 150mA, respectively, and sink up to 20mA. Typical load regulation is only 0.1ppm/mA with up to 150mA of load current. In parallel, the buffer outputs can be combined for even higher current capability.

The LT6658 is ideal for driving the reference input for a high resolution ADC or DAC using one output, while simultaneously supplying power to other devices using the second output. Both outputs track each other over temperature and load, allowing them to address applications requiring ratiometric supply rails. The outputs have excellent supply rejection and are stable with up to 50μF over the entire specified operating range. With this output capability, the LT6658 can serve as both reference and regulator combined. Alternatively, the LT6658 can be used to generate a reference plus a virtual ground, or as two matched, tracking references.

“The increasing customer demand for precision voltage references with regulator-like drive has inspired us to create these ultra-buffered references,” says Brendan Whelan, Design Manager for Linear Technology. “The result is the groundbreaking LT6658 Refulator.”

The LT6658 is currently available in a 2.5V version. Options for 1.2V, 1.8V, 3V, 3.3V, and 5V will be available in the first half of 2017. Prices start at \$2.35 each in 1,000-piece quantities. For more information, visit [www.linear.com/product/LT6658](http://www.linear.com/product/LT6658).

**Photo Caption:** Dual Output, High Current, Low Noise, Precision Voltage Reference


## Summary of Features: LT6658

- Excellent Accuracy & Drift:
  - A-Grade (0.05% Initial Accuracy, 10ppm/°C Drift)
  - B-Grade (0.1% Initial Accuracy, 20ppm/°C Drift)
- Dual Output Tracking Reference
- Each Output Configurable: 2.5V to 6V
  - Output 1:150mA Source/20mA Sink
  - Output 2:50mA Source/20mA Sink
- Low Noise: 1.5ppm<sub>P-P</sub> (0.1Hz to 10Hz)
- Wide Operating Voltage Range to 36V
- Load Regulation: 0.1ppm/mA
- AC PSRR: 96dB at 10kHz
- Kelvin Sense Connection on Outputs
- Thermal Shutdown
- Separate Supply Pins for Each Output
- 2.5V Voltage Option Available Now
  - Soon to be Released: 1.2V, 1.8V, 3V, 3.3V & 5V
- Available in Exposed Pad Package MSE16

Pricing shown is for budgetary use only and 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,  $\mu$ Module<sup>®</sup> subsystems, and wireless sensor network products. For more information, visit [www.linear.com](http://www.linear.com)

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