



12-/10-/8-Bit Dual SPI/ I²C DACs Integrate 10ppm/°C Reference in Tiny Packages

MILPITAS, CA – March 15, 2011 – Linear Technology Corporation introduces the [LTC2632](#) and [LTC2633](#) families of dual 12-bit, 10-bit and 8-bit rail-to-rail, voltage output digital-to-analog converters (DACs), with serial SPI (LTC2632) and I²C (LTC2633) interfaces. The LTC2632 and LTC2633 dual DACs complete Linear's family of tiny 12-bit, 10-bit, and 8-bit voltage output DACs with internal references. The LTC263x family of single, dual, quad and octal DACs offers a versatile selection, featuring the smallest solution size for numerous trimming applications.

The LTC2632 and LTC2633 DACs offer accurate DC performance with a 12-bit INL of ± 1 LSB (max), ± 5 mV (max) offset error and ± 0.8 % FSR (max) gain error. Notable AC performance includes fast 4.4 μ s settling time and low 2.8nV•s glitch impulse. Each dual DAC integrates a precision 10ppm/°C reference into a tiny 8-lead 3mm x 3mm TSOT-23 package. The devices' small size and integrated reference offer space reduction for compact circuit boards, making them ideal for a variety of industrial, automotive, portable communications and ATE applications.

The LTC2632 and LTC2633 are available in a number of ordering options, allowing designers to select one of the three resolution options, and between a 2.5V (-L) or 4.096V (-H) full-scale output range, making them a good fit for 3V or 5V systems. The devices also offer zero or mid-scale power-on reset options, with the LTC2633-L additionally offering a high impedance (Hi-Z) output option, ideal for power supply margining applications. All options are guaranteed over the automotive (-40°C to +125°C) or commercial (0°C to +70°C) temperature ranges. Pricing begins at \$1.56 each in 1,000-piece quantities. For more information, visit www.linear.com/product/LTC2632 or www.linear.com/product/LTC2633

Photo Caption: Dual SPI/I²C DACs with Integrated Reference

Summary of Features: LTC2632/ LTC2633

- Integrated Precision Reference:
 - 2.5V Full Scale 10ppm/°C (-L)
 - 4.096V Full Scale 10ppm/°C (-H)
- Maximum 12-Bit INL Error: ±1LSB (A-Grade)
- Low Noise: 0.75mV_{P,P} 0.1Hz to 200kHz
- Guaranteed Monotonic across -40°C to 125°C
- Selectable Internal or External Reference
- 2.7V to 5.5V Supply Range (-L)
- Low Power Operation 0.4mA at 3V
- Power-On-Reset to Zero-Scale/Mid-Scale & Hi-Z (LTC2633-L)
- Double-Buffered Data Latches
- 8-Lead 3mm x 3mm TSOT-23 Packages

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 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, and μ Module[®] subsystems.

LT, LTC, LTM, μ Module and  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

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
408-432-1900 ext 2233

UK & Nordic

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