# 24V Triple Output Synchronous Step-Down Controller Features –55°C to 150°C Operating Junction Temperature Range

MILPITAS, CA – August 27, 2014 – Linear Technology Corporation announces the H- and MP-grade versions of the LTC3853, a triple output synchronous step-down switching regulator controller. This device operates over a 4.5V to 24V input voltage range, can produce output currents up to 20A per phase with output voltages ranging from 0.8V to 13.5V at up to 95% efficiency. These H- and MP-grade versions are guaranteed over operating junction temperatures from –40°C to 150°C and –55°C to 150°C, respectively.

The LTC3853 has powerful 1.1 Ohm on-chip MOSFET gate drivers. A constant-frequency current mode architecture allows a selectable fixed or synchronized frequency from 250kHz to 750kHz. Power loss and supply noise are minimized by operating the three stages 120° out-of-phase. Output current sensing is accomplished by measuring the voltage drop across the output inductor (DCR) or by using an optional sense resistor. Current foldback limits MOSFET heat dissipation during short-circuit and overload conditions. In addition, the LTC3853 has adjustable soft-start or tracking. Selectable Burst Mode® operation, pulse skipping or continuous inductor current modes are user controlled to optimize light load efficiency.

The LTC3853 features a precision 0.8V reference with an accuracy of ±1.25% over a –55°C to 150°C operating temperature range. With up to 98% duty cycle, the LTC3853 has a very low dropout voltage, a useful feature for extending run times in battery-powered applications. The LTC3853 is available in a thermally enhanced 6mm x 6mm QFN–40 package. Pricing for 1,000-piece quantities begins at $4.24 each. For more information, visit www.linear.com/product/LTC3853

**Photo Caption:** Triple Output Step-Down DC/DC Controller

## Summary of Features: LTC3853

- Triple, 120° Out-of-Phase Controller Reduces Noise & Input Capacitance
- Tracking & Phase-Locked Loop Synchronization
- Safely Powers Pre-Biased Loads
- Fixed or Synchronizable Operating Frequency from 250kHz to 750kHz
- DCR or $R_{SENSE}$ Current Sense Options
- Peak Current Mode Control
- Strong Onboard N-Channel MOSFET Gate Driver
- Onboard 5V Linear Regulator
- Selectable Burst Mode®, Pulse Skip, or Forced Continuous Operating Modes
- ±1.25% Reference Voltage Accuracy Over –55ºC to +150ºC
- Programmable Soft-Start
- Power Good Signal
- Extended & Industrial Grades: –40°C to 125°C Operating Junction Temp
- Automotive Temp Grade: –40°C to 150°C Operating Junction Temp
- Military Temp Grade: –55°C to 150°C Operating Junction Temp

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



**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