



100V Flyback Controller Now Offered in Military –55°C to 150°C MP Grade

MILPITAS, CA – March 18, 2015 – Linear Technology Corporation announces a new military MP grade version of the [LT3748](#), a high input voltage isolated flyback DC/DC controller. This device simplifies the design of an isolated DC/DC converter by not requiring an opto-isolator, third winding or signal transformer for feedback since the output voltage is sensed from the primary-side flyback signal. The LT3748 operates over a 5V to 100V input voltage range and drives an external N-channel power MOSFET, making it well suited for a wide variety of automotive, industrial, telecom and datacom applications.

The LT3748 operates in boundary mode, which is a variable frequency current mode control switching scheme, resulting in +/-5% typical regulation over the full line, load and temperature range. Boundary mode also permits the use of a smaller transformer compared to equivalent continuous conduction mode designs. The output voltage is easily set by two external resistors and the transformer turns ratio. Several off-the-shelf transformers are identified in the data sheet that can be used for numerous applications. The high level of integration and the use of boundary mode operation results in a simple, clean application solution to the traditionally tough problem of isolated power delivery.

Additional features include an onboard low drop regulator for IC power, programmable soft start, undervoltage lockout, adjustable current limit and output voltage temperature compensation.

The LT3748MP operating junction temperature is from -55°C to 150°C and the device is housed in a MSOP-16 package with 4 pins removed for additional high voltage pin spacing. The 1,000 piece price starts at \$9.25 each. For more information, visit www.linear.com/product/LT3748

Photo Caption: 100V Isolated Flyback Operates Over -55°C to 150°C


Summary of Features: LT3748MP

- -55°C to 150°C Junction Temperature Operation
- V_{IN} Range from 5V to 100V
- No Opto-Isolator, Transformer or Third Winding Required for Feedback
- Drives External N-channel Power MOSFET
- Current Mode Control
- Boundary Mode Operation
- V_{OUT} Set with Two External Resistors
- Off-the-Shelf Transformers
- Programmable Soft-Start
- Programmable Under Voltage Lockout
- Output Voltage Temperature Compensation

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

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