

Dual 18A or Single 36A μ Module (Power Module) Regulator with Digital Power System Management

Manufacturers	Analog Devices, Inc
Package/Case	144-Lead BGA (16mm x 16mm x 5.01mm)
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LTM4677IY or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com). We will contact you in 12 hours.

[RFQ](#)

General Description

The LTM4677 is a dual 18A or single 36A step-down μ Module[®] (power module) DC/DC regulator with 40ms turn-on time. It features remote configurability and telemetry-monitoring of power management parameters over PMBus—an open standard I²C-based digital interface protocol. The LTM4677 is comprised of fast analog control loops, precision mixed-signal circuitry, EEPROM, power MOSFETs, inductors and supporting components.

The LTM4677's 2-wire serial interface allows outputs to be margined, tuned and ramped up and down at programmable slew rates with sequencing delay times. Input and output currents and voltages, output power, temperatures, uptime and peak values are readable. Custom configuration of the EEPROM contents is not required. At start-up, output voltages, switching frequency, and channel phase angle assignments can be set by pin-strapping resistors. The LTpowerPlay[®] GUI and DC1613 USB-to-PMBus converter and demo kits are available.

The LTM4677 is pin compatible with the LTM4676A (dual 13A) and is offered in a 16mm × 16mm × 5.01mm BGA package available with SnPb or RoHS compliant terminal finish.

APPLICATIONS

Features

Dual, Fast, Analog Loops with Digital Interface for Control and Monitoring

Wide Input Voltage Range: 4.5V to 16V

Output Voltage Range: 0.5V to 1.8V

Pin Compatible with LTM4676A (Dual 13A, Single 26A)

400kHz PMBus-Compliant I

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C Serial Interface

Integrated 16-Bit $\Delta\Sigma$ ADC

Constant Frequency Current Mode Control

16mm × 16mm × 5.01mm BGA Package

Readable Data:

Input and Output Voltages, Currents, and Temperatures

Running Peak Values, Uptime, Faults and Warnings

Onboard EEPROM Fault Log Record with ECC

Writable Data and Configurable Parameters:

Output Voltage, Voltage Sequencing and Margining

Digital Soft-Start/Stop Ramp

OV/UV/OT, UVLO, Frequency and Phasing

Input and Output Voltages, Currents, and Temperatures

Running Peak Values, Uptime, Faults and Warnings

Onboard EEPROM Fault Log Record with ECC

Output Voltage, Voltage Sequencing and Margining

Digital Soft-Start/Stop Ramp

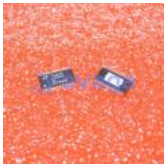
OV/UV/OT, UVLO, Frequency and Phasing

Application

System Optimization, Characterization and Data Mining in Prototype, Production and Field Environments

Telecom, Datacom, and Storage Systems

Related Products



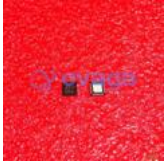
[LT3763EFE](#)

Analog Devices, Inc
TSSOP28



[LT1038CK](#)

Analog Devices, Inc
TO-3



[LTC4417IUF](#)

Analog Devices, Inc
QFN-24



[LTC3440EMS](#)

Analog Devices, Inc
MSOP10



[LTC1966CMS8#PBF](#)

Analog Devices, Inc
MSOP-8P



[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LTM8045EY#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

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28-WFQFN