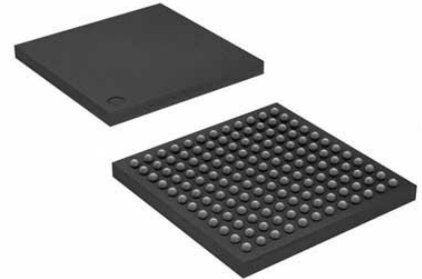


Dual 30A or Single 60A μ Module Regulator with Digital Power System Management

Manufacturers	Analog Devices, Inc
Package/Case	144-Lead BGA (16mm x 16mm x 7.82mm)
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LTM4680IY#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTM4680 is a dual 30A or single 60A step-down μ Module® (power module) DC/DC regulator featuring remote configurability and telemetry-monitoring of power management parameters over PMBus—an open standard I²C-based digital interface protocol. The LTM4680 is comprised of digitally programmable analog control loops, precision mixed-signal circuitry, EEPROM, power MOSFETs, inductors and supporting components.

The LTM4680's 2-wire serial interface allows outputs to be margined, tuned and ramped up and down at programmable slew rates with sequencing delay times. True input current sense, 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 LTM4680 is offered in a 16mm × 16mm × 7.82mm BGA package available with SnPb or RoHS compliant terminal finish. Pin compatible with LTM4678.

Features

Dual 30A or Single 60A Digitally Adjustable Analog Loops with Digital Interface for Control and Monitoring

Wide Input Voltage Range: 4.5V to 16V

Output Voltage Range: 0.5V to 3.3V

90% Full Load Efficiency from 12VIN to 1VOUT at 60A

Integrated Input Current Sense Amplifier

400kHz PMBus-Compliant I2C Serial Interface

Supports Telemetry Polling Rates up to 125Hz

Constant Frequency Current Mode Control

Parallel and Current Share Multiple Modules

Pin Compatible with LTM4678

16mm × 16mm × 7.82mm BGA Package

Readable Data:

Input and Output Voltages, Currents, and Temperatures

Running Peak Values, Uptime, Faults and Warnings

Onboard EEPROM Fault Log Record

Writable Data and Configurable Parameters:

Output Voltage, Voltage Sequencing and Margining

Digital Soft-Start/Stop Ramp, Program Analog Loop

OV/UV/OT, UVLO, Frequency and Phasing

Application

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

Related Products



[LT3015EQ](#)

Analog Devices, Inc
TO-263



[LTC4357HMS8](#)

Analog Devices, Inc
MSOP-8



[LTC2990IMS](#)

Analog Devices, Inc
MSOP-10



[LT1964ES5-SD#PBF](#)

Analog Devices, Inc
TSOT23



[LT5560EDD](#)

Analog Devices, Inc
QFN-8



[LT1764AEFE](#)

Analog Devices, Inc
TSSOP1



[LT1963AES8](#)

Analog Devices, Inc
SOP-8



[LT1764EQ](#)

Analog Devices, Inc
TO-263