

DC DC Cntrlr Dual-OUT Synchronous Boost/Buck Controller 4V to 36V Input Automotive  
24Pin SSOP T/R

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SSOP-24
Product Type	Power Management ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC3780IG#TRPBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LTC3780 is a high performance buck-boost switching regulator controller that operates from input voltages above, below or equal to the output voltage. The constant frequency current mode architecture allows a phase-lockable frequency of up to 400kHz. With a wide 4V to 30V (36V maximum) input and output range and seamless transfers between operating modes, the LTC3780 is ideal for automotive, telecom and battery-powered systems.

The operating mode of the controller is determined through the FCB pin. For boost operation, the FCB mode pin can select among Burst Mode® operation, discontinuous mode and forced continuous mode. During buck operation, the FCB mode pin can select among skip-cycle mode, discontinuous mode and forced continuous mode. Burst Mode operation and skip-cycle mode provide high efficiency operation at light loads while forced continuous mode and discontinuous mode operate at a constant frequency.

Fault protection is provided by an output overvoltage comparator and internal foldback current limiting. A power good output pin indicates when the output is within 7.5% of its designed set point.

## Features

Single Inductor Architecture Allows VIN Above, Below or Equal to VOUT

Wide VIN Range: 4V to 36V Operation

Synchronous Rectification: Up to 98% Efficiency

Current Mode Control

Phase-Lockable Fixed Frequency: 200kHz to 400kHz

Power Good Output Voltage Monitor

Internal LDO for MOSFET Supply

Quad N-Channel MOSFET Synchronous Drive

VOUT Disconnected from VIN During Shutdown

Adjustable Soft-Start Current Ramping

Foldback Output Current Limiting

Selectable Low Current Modes

Output Overvoltage Protection

Available in 24-Lead SSOP and Exposed Pad (5mm × 5mm) 32-Lead QFN Packages

## Application

Automotive Systems

Telecom Systems

DC Power Distribution Systems

High Power Battery-Operated Devices

Industrial Control

## 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](#)

Analog Devices, Inc  
28-WFQFN