

LT3995EMSE#PBF

Data Sheet

Conv DC-DC 4.3V to 60V Synchronous Step Down Single-Out 1.197V to 55.8V 3A Automotive 16-Pin MSOP EP Tube

Manufacturers <u>Analog Devices, Inc</u>

Package/Case MSOP16

Product Type Power Management ICs

RoHS

Lifecycle



Images are for reference only

Please submit RFQ for LT3995EMSE#PBF or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

General Description

The LT3995 is an adjustable frequency monolithic buck switching regulator that accepts a wide input voltage range up to 60V. Low quiescent current design consumes only $2.7\mu A$ of supply current while regulating with no load. Low ripple Burst Mode operation maintains high efficiency at low output currents while keeping the output ripple below 15mV in a typical application. The LT3995 can supply up to 3A of load current and has current limit foldback to limit power dissipation during short circuit. A low dropout voltage of 500mV is maintained when the input voltage drops below the programmed output voltage, such as during automotive cold crank.

An internally compensated current mode topology is used for fast transient response and good loop stability. A high efficiency $85m\Omega$ switch is included on the die along with a boost Schottky diode and the necessary oscillator, control, and logic circuitry. An accurate 1.02V threshold enable pin can be driven directly from a microcontroller or used as a programmable undervoltage lockout. A capacitor on the SS pin provides a controlled inrush current (soft-start). A power good flag signals when VOUT reaches 91.6% of the programmed output voltage. The LT3995 is available in a small 16-lead MSOP package with exposed pad for low thermal resistance.

Features

Ultralow Quiescent Current: 2.7µA IQ at 12VIN to 3.3VOUT

Low Ripple Burst Mode® Operation Output Ripple < 15mVP-P

Wide Input Range: Operation from 4.3V to 60V

3A Maximum Output Current

Excellent Start-Up and Dropout Performance

Adjustable Switching Frequency: 200kHz to 2MHz

Synchronizable Between 250kHz to 2MHz

Accurate Programmable Undervoltage Lockout

Low Shutdown Current:>

Power Good Flag

Soft-Start Capability

Thermal Shutdown Protection

Current Limit Foldback with SS Override

Saturating Switch Design: $85m\Omega$ On Resistance

Small, Thermally Enhanced 16-Lead MSOP Package

Related Products



LT3763EFE
Analog Devices, Inc
TSSOP28



Analog Devices, Inc QFN-24

LTC4417IUF



LTC1966CMS8#PBF

Analog Devices, Inc

MSOP-8P



LTM8045EY#PBF
Analog Devices, Inc
BGA40



Automotive Battery Regulation

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LT1038CK

Analog Devices, Inc
TO-3



LTC3440EMS
Analog Devices, Inc
MSOP10



Analog Devices, Inc 10MSOP

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28-WFQFN