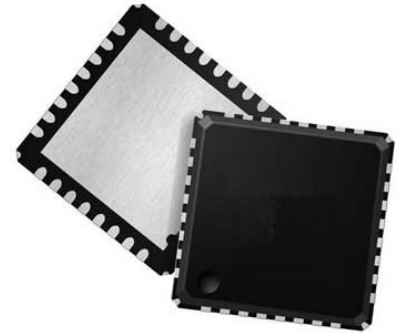


Conv DC-DC 3.4V to 65V Synchronous Step Down Single-Out 3.3V to 25V 8A
Automotive 32-Pin LQFN EP Tray

| | |
|---------------|-------------------------------------|
| Manufacturers | Analog Devices, Inc |
| Package/Case | 32-TFQFN |
| Product Type | Power Management ICs |
| RoHS | |
| Lifecycle | |



Images are for reference only

Please submit RFQ for LT8646SIV#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LT8645S/LT8646S synchronous step-down regulator features second generation Silent Switcher architecture designed to minimize EMI/EMC emissions while delivering high efficiency at high switching frequencies. This includes the integration of bypass capacitors to optimize all the fast current loops inside and make it easy to achieve advertised EMI performance by eliminating layout sensitivity. This performance makes the LT8645S/LT8646S ideal for noise sensitive applications and environments.

The fast, clean, low-overshoot switching edges enable high efficiency operation even at high switching frequencies, leading to a small overall solution size. Peak current mode control with a 40ns minimum on-time allows high step-down ratios even at high switching frequencies. The LT8646S has external compensation via the VCC pin to enable current sharing and fast transient response at high switching frequencies. A CLKOUT pin enables synchronizing other regulators to the LT8645S/LT8646S.

Burst Mode® operation enables ultralow standby current consumption, pulse-skipping mode allows full switching frequency at lower output loads, or spread spectrum operation can further reduce EMI/EMC emissions.

Features

Silent Switcher®2 Architecture

Ultralow EMI/EMC Emissions on Any PCB

Eliminates PCB Layout Sensitivity

Internal Bypass Capacitors Reduce Radiated EMI

Optional Spread Spectrum Modulation

High Efficiency at High Frequency

Up to 95% Efficiency at 1MHz, 12VIN to 5VOUT

Up to 94% Efficiency at 2MHz, 12VIN to 5VOUT

Wide Input Voltage Range: 3.4V to 65V

Ultralow Quiescent Current Burst Mode Operation

2.55µA IQ Regulating 12VIN to 3.3VOUT (LT8645S)

Output Ripple < 10mVP-P

External Compensation: Fast Transient Response and Current Sharing (LT8646S)

Fast Minimum Switch On-Time: 40ns

Low Dropout Under All Conditions: 60mV at 1A

Adjustable and Synchronizable: 200kHz to 2.2MHz

Peak Current Mode Operation

Output Soft-Start and Tracking

Small 32-Lead 6mm × 4mm LQFN Package

Application

Automotive and Industrial Supplies

General Purpose Step-Down

GSM Power Supplies

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