

65V, 3.5A Synchronous Step-Down Silent Switcher with 2.5 μ A Quiescent Current

Manufacturers	Analog Devices, Inc
Package/Case	20(18)-Lead QFN (3mm x 4mm x 0.75mm w/ EP)
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LT8641EUDC#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LT8641 step-down regulator features Silent Switcher architecture designed to minimize EMI/EMC emissions while delivering high efficiency at frequencies up to 3MHz. Assembled in a 3mm \times 4mm QFN, the monolithic construction with integrated power switches and inclusion of all necessary circuitry yields a solution with a minimal PCB footprint. An ultralow 2.5 μ A quiescent current—with the output in full regulation—enables applications requiring highest efficiency at very small load currents. Transient response remains excellent and output voltage ripple is below 10mV-P at any load, from zero to full current.

The LT8641 allows high VIN to low VOUT conversion at high frequency with a fast minimum top switch on-time of 35ns. Operation is safe in overload even with a saturated inductor.

Essential features are included and easy to use: An open-drain PG pin signals when the output is in regulation. The SYNC/MODE pin selects between Burst Mode, pulse-skipping, or spread spectrum mode, and also allows synchronization to an external clock. Soft-start and tracking functionality is accessed via the TR/SS pin. An accurate enable threshold can be set using the EN/UV pin and a resistor at the RT pin programs switch frequency.

Features

Silent Switcher® Architecture

Ultralow EMI Emissions

Spread Spectrum Frequency 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: 3V to 65V

3.5A Maximum Continuous Output, 5A Peak Transient Output

Ultralow Quiescent Current Burst Mode® Operation

2.5µA IQ Regulating 12VIN to 3.3VOUT

Output Ripple < 10mVP-P

Fast Minimum Switch-On Time: 35ns

Low Dropout Under All Conditions: 130mV at 1A

Safely Tolerates Inductor Saturation in Overload

Adjustable and Synchronizable: 200kHz to 3MHz

Peak Current Mode Operation

Output Soft-Start and Tracking

Small 18-Lead 3mm × 4mm QFN



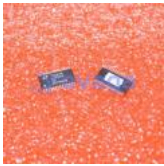
Application

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](#)

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MSOP-8P



[LTC2990IMS#PBF](#)

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[LTM8045EY#PBF](#)

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BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN