

# LT8614EUDC#TRPBF

Data Sheet

#### IC REG BUCK ADJ 4A SYNC 18QFN

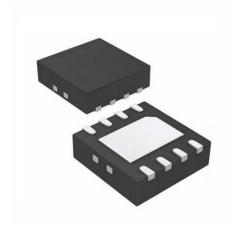
Manufacturers <u>Analog Devices, Inc</u>

Package/Case QFN-18P

Product Type Power Management ICs

**RoHS** 

Lifecycle



Images are for reference only

Please submit RFQ for LT8614EUDC#TRPBF or Email to us: sales@ovaga.com We will contact you in 12 hours.

**RFO** 

### **General Description**

The LT8614 step-down regulator features Silent Switcher architecture designed to minimize EMI 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 $\mu$ 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 10mVP-P at any load, from zero to full current.

The LT8614 allows high VIN to low VOUT conversion at high frequency with a fast minimum top switch on-time of 30ns. 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 pin allows clock synchronization and choice of Burst Mode operation or pulse-skipping mode. 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

High Efficiency at High Frequency

Up to 96% Efficiency at 1MHz, 12VIN to 5VOUT

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

Wide Input Voltage Range: 3.4V to 42V

Ultralow Quiescent Current Burst Mode® Operation:

2.5µA IQ Regulating 12VIN to 3.3VOUT

Output Ripple < 10mVP-P

Fast Minimum Switch On-Time: 30ns

Low Dropout Under All Conditions: 125mV at 1A

Safely Tolerates Inductor Saturation in Overload

Adjustable and Synchronizable: 200kHz to 3MHz

Peak Current Mode Operation

Accurate 1V Enable Pin Threshold

Internal Compensation

Output Soft-Start and Tracking

Small 18-Lead 3mm × 4mm QFN

#### **Related Products**



**LT3763EFE** Analog Devices, Inc TSSOP28



**LTC4417IUF** Analog Devices, Inc QFN-24

## **Application**

Automotive and Industrial Supplies

General Purpose Step-Down

**GSM** Power Supplies





LT1038CK Analog Devices, Inc TO-3

**LTC3440EMS** Analog Devices, Inc MSOP10



LTC1966CMS8#PBF
Analog Devices, Inc
MSOP-8P



Analog Devices, Inc 10MSOP

LTC2990IMS#PBF



LTM8045EY#PBF
Analog Devices, Inc
BGA40



LT4295IUFD#PBF
Analog Devices, Inc
28-WFQFN