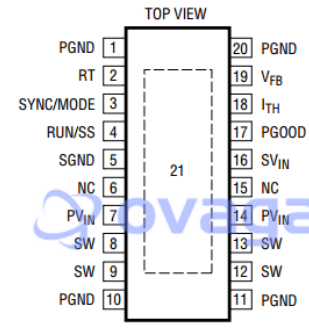


Conv DC-DC 2.25V to 5.5V Synchronous Step Down Single-Out 0.8V to 5V 4A
Automotive 20-Pin TSSOP EP Tube

Manufacturers	Analog Devices, Inc
Package/Case	TSSOP20
Product Type	Power Management ICs
RoHS	
Lifecycle	



FE PACKAGE
20-LEAD PLASTIC TSSOP
EXPOSED PAD (PIN 21), MUST BE SOLDERED TO PCB
T_{JMAX} = 125°C, θ_{JA} = 38°C/W, θ_{JC} = 10°C/W

Images are for reference only

Please submit RFQ for LTC3414IFE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com). We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC3414 is a high efficiency monolithic synchronous, step-down DC/DC converter utilizing a constant frequency, current mode architecture. It operates from an input voltage range of 2.25V to 5.5V and provides a regulated output voltage from 0.8V to 5V while delivering up to 4A of output current. The internal synchronous power switch with 67mΩ on-resistance increases efficiency and eliminates the need for an external Schottky diode. Switching frequency is set by an external resistor or can be synchronized to an external clock. 100% duty cycle provides low dropout operation extending battery life in portable systems. OPTI-LOOP® compensation allows the transient response to be optimized over a wide range of loads and output capacitors.

The LTC3414 can be configured for either Burst Mode operation or forced continuous operation. Forced continuous operation reduces noise and RF interference while Burst Mode operation provides high efficiency by reducing gate charge losses at light loads. In Burst Mode operation, external control of the burst clamp level allows the output voltage ripple to be adjusted according to the requirements of the application.

Features

High Efficiency: Up to 95%

4A Output Current

Low Quiescent Current: 64 μ A

Low RDS(ON) Internal Switch: 67m Ω

Programmable Frequency: 300KHz to 4MHz

2.25V to 5.5V Input Voltage Range

0.8V Reference Allows Low Output Voltage

Selectable Forced Continuous/Burst Mode[®] Operation with Adjustable Burst Clamp

Synchronizable Switching Frequency

Low Dropout Operation: 100% Duty Cycle

Power Good Output Voltage Monitor

Overtemperature Protected

Available in 20-Lead Exposed TSSOP Package

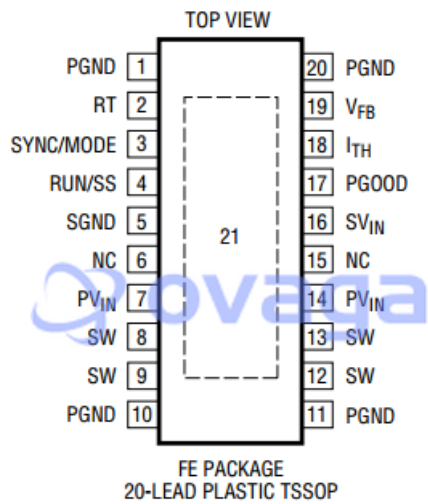
Application

Point-of-Load Regulation

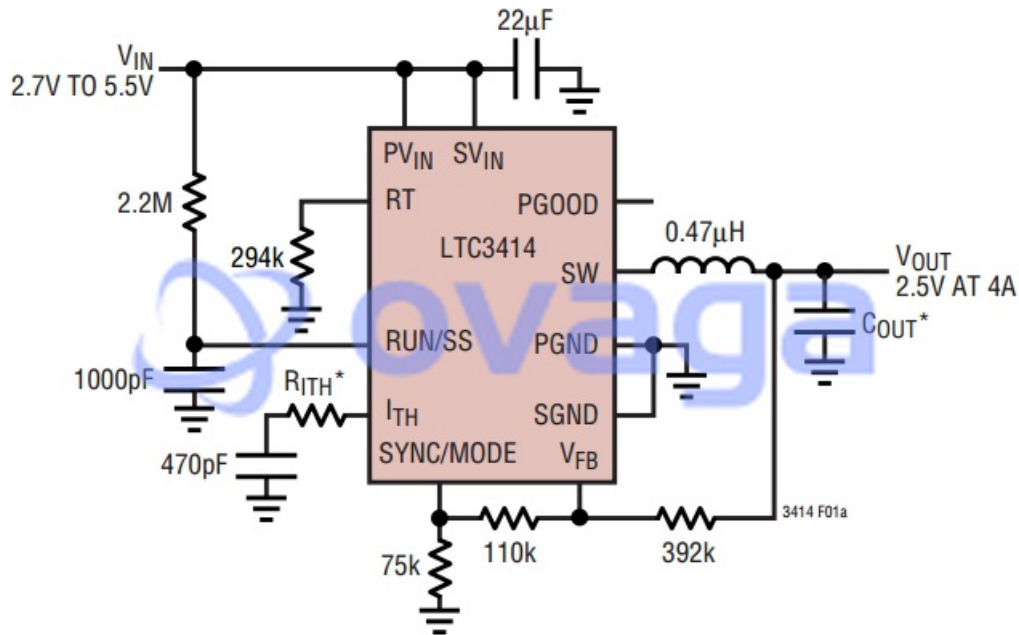
Notebook Computers

Portable Instruments

Distributed Power Systems



EXPOSED PAD (PIN 21), MUST BE SOLDERED TO PCB
 $T_{JMAX} = 125^{\circ}\text{C}$, $\theta_{JA} = 38^{\circ}\text{C/W}$, $\theta_{JC} = 10^{\circ}\text{C/W}$



*Burst Mode OPERATION: $C_{OUT} = 470\mu\text{F}$ SANYO POSCAP 4TPB470M, $R_{ITH} = 20\text{k}$
 FORCED CONTINUOUS: $C_{OUT} = (2) 100\mu\text{F}$ TDKC4532X5ROJ107M, $R_{ITH} = 12.1\text{k}$

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



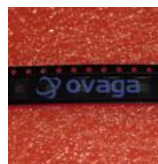
[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LTM8045EY#PBF](#)

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BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN