

# LP3994 microSMD Evaluation Board Information

National Semiconductor  
Application Note 1342  
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## Introduction

This evaluation board is designed to enable the evaluation of the LP3994 Voltage Regulator. Each board is assembled and tested in the factory. This evaluation board has the LP3994 microSMD-4 bump package mounted.

## Information

The LP3994 is a 50mA CMOS voltage regulator with enable control. It is designed as a general purpose device suitable for use in a wide variety of hand-held battery-powered applications. The output of the LP3994 can deliver up to 50 mA and is enabled/disabled via a logic control pin  $V_{EN}$ . The recommended capacitors for the input and output are small surface mount ceramic capacitors with nominal value 1.0 $\mu$ F.

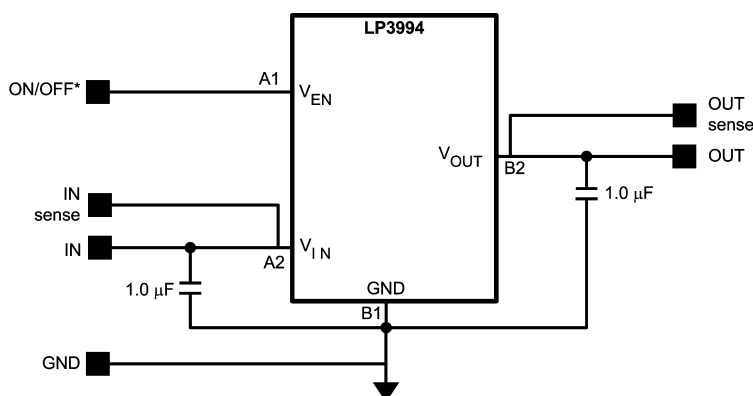
An input voltage between 2.5V and 5.5V should be applied between IN and GND. The output voltage from the LDO is available at OUT. A load can be connected across OUT and GND.

ON/OFF is provided on the evaluation board for an external enable signal. If an external enable function is not used by the application then ON/OFF pin ( $V_{EN}$ ) should be tied to the IN pin ( $V_{IN}$ ).

## Hardware

The schematic and layout of the evaluation board are given below:

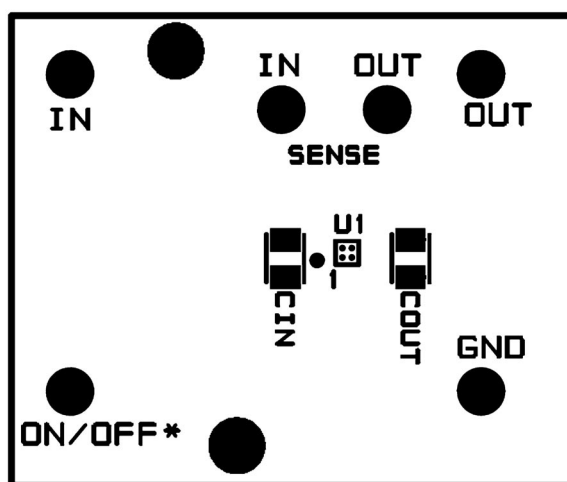
### Schematic Diagram



Evaluation Board Schematic

20121701

### PCB Layout



Evaluation Board Component and Pin Layout  
Board Size:- 1.200 x 1.000 in.

20121702

**Hardware** (Continued)**Bill of materials for the LP3994 microSMD-4 board**

Designator	Value	Amount	Footprint	Note
U1	LP3994TL-x.y	1	TLA04	The "x.y" corresponds to the appropriate LDO output Voltage
CIN	1.0 $\mu$ F	1	0805	X7R
COUT	1.0 $\mu$ F	1	0805	X7R
IN, OUT, IN SENSE, OUT SENSE, ON/OFF, GND	Test pins	6		

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