General Description

The MAX14736/MAX14737 evaluation kit (EV kit) is a fully assembled and tested circuit board that demonstrates the precision, ultra-fast, low quiescent current overvoltage-protection devices. The EV kit features an LED power OK (POK) reading. The EV kit comes with the MAX14736EWL+ or MAX14737EWL+ installed. Please indicate the part number when ordering.

Features

- 2.1V to 5.5V Operating Voltage Range
- Power Ok (POK) LED Reading
- Proven PCB Layout
- Fully Assembled and Tested

EV Kit Contents

- EV Kit board containing a MAX14736/MAX14737

Ordering Information ***appears at end of data sheet.***

Table 1. Enable Input Jumper Settings (JU1)

JUMPER	SHUNT POSITION	DESCRIPTION
JU1	Installed	$\overline{EN}$/EN is pulled down to ground. (MAX14736: enable, MAX14737: disable)
	Not installed	$\overline{EN}$/EN is pulled up to IN. (MAX14736: disable, MAX14737: enable)

Quick Start

Required Equipment

- MAX14736/MAX14737 EV kit
- 10V DC power supply
- Multimeter

Procedure

The EV kit is fully assembled and tested. Follow the steps below to verify board operation:

1) Verify that jumper JU1 is installed for the MAX14736 and not installed for the MAX14737.
2) Apply 2.1V to IN. Verify that OUT is at 2.1V and that the LED1 is on.
3) Slowly increase IN and verify that the OUT voltage is the same as IN. When IN reaches ~4.7V (for MAX14736) or ~5.2V (for MAX14737), the switch turns off, the OUT voltage goes down, and the LED1 is off. Do not apply a voltage higher than 5.5V to IN.
4) Slowly decrease IN. When IN reaches ~4.6V (for MAX14736) or ~5.1V (for MAX14737), switch turns on, OUT voltage is same as IN, and LED1 is on.

Detailed Description

The MAX14736/MAX14737 EV kit is a fully assembled and tested circuit board demonstrating these overvoltage-protection devices in a 9-bump wafer-level package (WLP).

The MAX14736 has a 4.7V (typ) precision overvoltage threshold, while the overvoltage threshold for the MAX14737 is 5.2V (typ). The MAX14736 has an active-low enable pin ($\overline{EN}$), while the enable pin (EN) on the MAX14737 is active-high.

LED Indicator

The EV kit features LED1 to indicate POK output.

Enable Input

Use JU1 to enable/disable the device (see Table 1 for jumper settings).

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Ordering Information

PART	TYPE	OVLO (V)
MAX14736EVKIT#	EVKIT	4.7
MAX14737EVKIT#	EVKIT	5.2

#Denotes RoHS compliant.

Component List, PCB Layout, and Schematic

See the following links for the component information, PCB layout and schematic:

- **MAX14736 EV BOM**
- **MAX14736 EV PCB Layout**
- **MAX14736 EV Schematic**

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	7/15	Initial release	—
1	8/15	Updated *Schematic* and *Bill-of-Materials*	N/A

For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim Integrated's website at www.maximintegrated.com.

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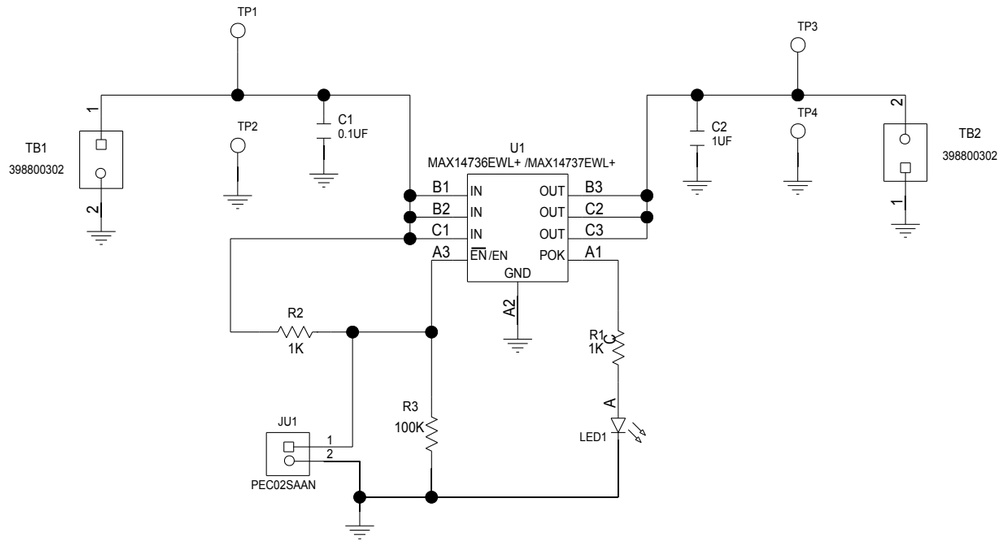

PROJECT TITLE: MAX14736 EVKIT			
DRAWING TITLE:			
SIZE B	HARDWARE NUMBER: <HARDWARE_NUMBER>		DATE: JULY 2015
ENGINEER: <ENGINEER>		DRAWN BY: <DRAWN_BY>	REV: A
		TEMPLATE REV: 1.5	SHEET 1 OF 1

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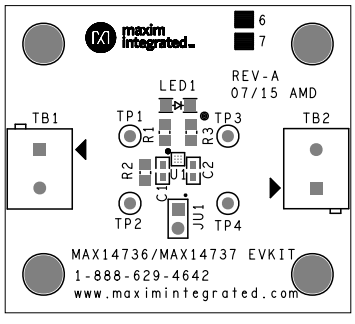
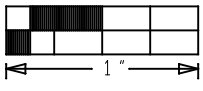
HARDWARE NAME:MAX14736_EVKIT_A

HARDWARE NUMBER:

ENGINEER: DESIGNER:

DATE: 07/16/2015 ODB++/GERBER: SILK_TOP





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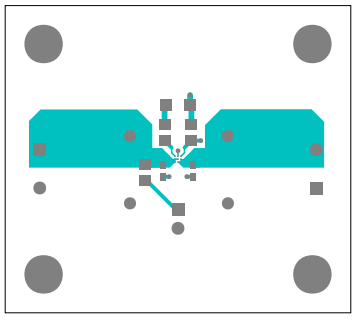
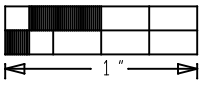
HARDWARE NAME:MAX14736_EVKIT_A

HARDWARE NUMBER:

ENGINEER: DESIGNER:

DATE: 07/16/2015 ODB++/GERBER: TOP





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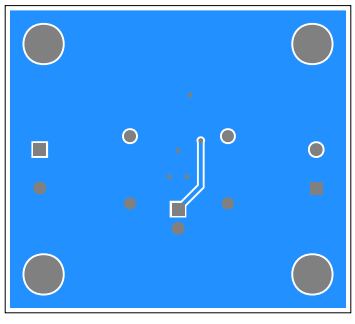
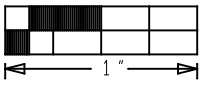
HARDWARE NAME:MAX14736_EVKIT_A

HARDWARE NUMBER:

ENGINEER: DESIGNER:

DATE: 07/16/2015 ODB++/GERBER: BOTTOM





BILL OF MATERIALS (BOM) Revision 8/15

Part Reference	Qty	Description
C1	1	CAPACITOR CER 0.1UF 10V ±10% X7R 0603
C2	1	CAPACITOR CER 1UF 10V ±10% X7R 0603
JU1	1	2 PIN STRAIGHT MALE HEADER
LED1	1	RED LED, LITE-ON LTST-C150CKT
R1,R2	2	RES 1K OHM 1% 0805 SMD
R3	1	RES 100K OHM 1% 0805 SMD
TB1, TB2	2	TERMINAL BLOCK
TP1, TP3	2	RED TEST POINT
TP2, TP4	2	BLACK TEST POINT
U1	1	IC LOW CURRENT OVERVOLTAGE PROTECTION (MAX14736EWL+/MAX14737EWL+)
	1	PCB: EPCB14736/14737

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