

# QUICK START GUIDE FOR DEMONSTRATION CIRCUIT 488

## HIGH EFFICIENCY, LOW NOISE, INDUCTOR-LESS STEP DOWN DC/DC CONVERTER

LTC3250-1.5

### DESCRIPTION

Demonstration circuit 488 is a high efficiency, inductor-less step-down converter featuring the LTC3250-1.5. The circuit produces a fixed 1.5V output from a 3.1V to 5.5V input.

**Design files for this circuit board are available. Call the LTC factory.**

**Table 1. Performance Summary**

PARAMETER	CONDITION	VALUE
Minimum Input Voltage		3.1V
Maximum Input Voltage		5.5V
$V_{OUT}$	$V_{IN} = 3.5V$ to 5.5V, $I_{OUT} = 0A$ to 250mA	1.5V $\pm$ 4%
Burst Mode Operation Output Ripple	(Not including ESR spike)	10mV <sub>P-P</sub>
Continuous Mode Output Ripple	(Not including ESR spike)	4mV <sub>P-P</sub>
Nominal Switching Frequency		1.5MHz

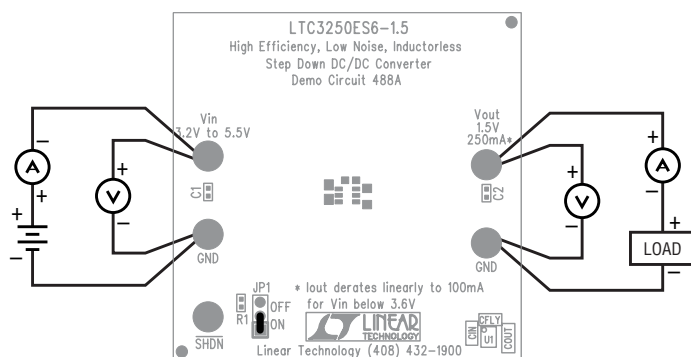
### QUICK START PROCEDURE

Demonstration circuit 488 is set up to easily evaluate the performance of the LTC3250-1.5 low noise charge pump. Refer to Figure 1 for proper measurement equipment setup, and follow the procedure outlined below:

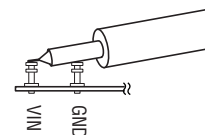
When measuring the input or output voltage ripple, care must be taken to avoid a long ground lead on the oscilloscope probe. Measure the input or output voltage ripple by touching the probe tip directly across the  $V_{in}$  or

$V_{out}$  and GND terminals. See Figure 2 for proper scope probe technique.

1. Connect jumper JP1 to the ON position.
2. With power off, connect a 3.6V, 200mA power supply to the  $V_{in}$  and GND terminals.
3. Turn on the power at the input. Attach desired load (up to 250mA) from  $V_{out}$  to GND
4. Check for the proper output voltage.  $V_{out} = 1.44V$  to 1.56V.



**Figure 1. Proper Measurement Equipment Setup**



**Figure 2. Scope Probe Placement for Measuring Input or Output Ripple**

# QUICK START GUIDE FOR DEMONSTRATION CIRCUIT 488

## HIGH EFFICIENCY, LOW NOISE, INDUCTOR-LESS STEP DOWN DC/DC CONVERTER

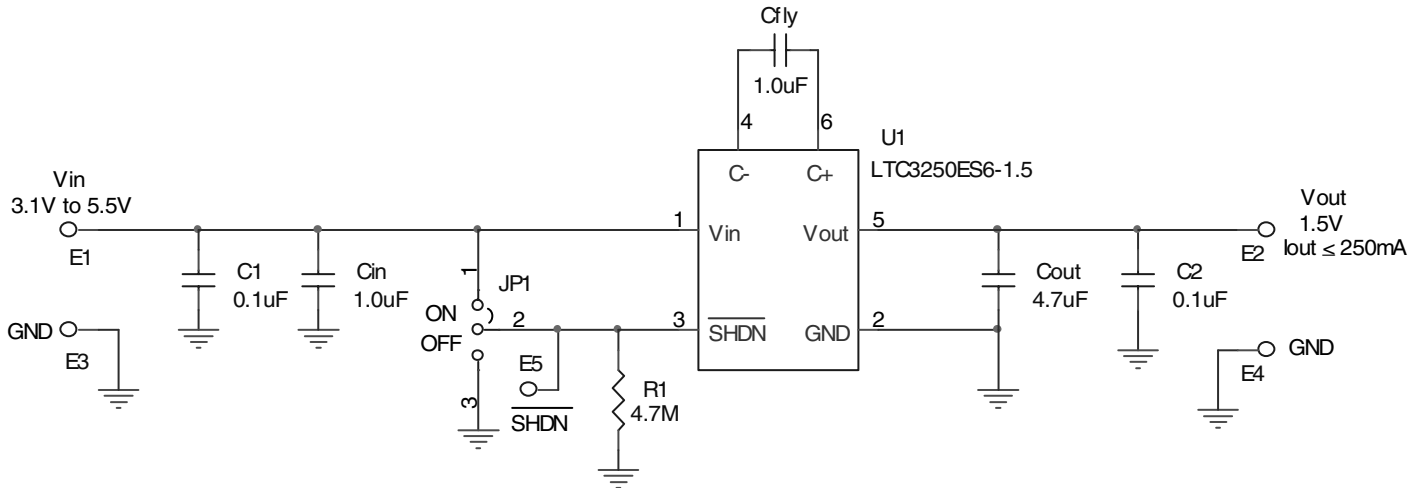


Figure 3. Schematic

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Power Management IC Development Tools](#) category:*

*Click to view products by [Analog Devices](#) manufacturer:*

Other Similar products are found below :

[EVAL-ADM1168LQEBZ](#) [EVB-EP5348UI](#) [MIC23451-AAAYFL EV](#) [MIC5281YMME EV](#) [DA9063-EVAL](#) [ADP122-3.3-EVALZ](#) [ADP130-0.8-EVALZ](#) [ADP130-1.2-EVALZ](#) [ADP130-1.5-EVALZ](#) [ADP130-1.8-EVALZ](#) [ADP1714-3.3-EVALZ](#) [ADP1716-2.5-EVALZ](#) [ADP1740-1.5-EVALZ](#) [ADP1752-1.5-EVALZ](#) [ADP1828LC-EVALZ](#) [ADP1870-0.3-EVALZ](#) [ADP1871-0.6-EVALZ](#) [ADP1873-0.6-EVALZ](#) [ADP1874-0.3-EVALZ](#) [ADP1882-1.0-EVALZ](#) [ADP199CB-EVALZ](#) [ADP2102-1.25-EVALZ](#) [ADP2102-1.875EVALZ](#) [ADP2102-1.8-EVALZ](#) [ADP2102-2-EVALZ](#) [ADP2102-3-EVALZ](#) [ADP2102-4-EVALZ](#) [ADP2106-1.8-EVALZ](#) [ADP2147CB-110EVALZ](#) [AS3606-DB](#) [BQ24010EVM](#) [BQ24075TEVM](#) [BQ24155EVM](#) [BQ24157EVM-697](#) [BQ24160EVM-742](#) [BQ24296MEVM-655](#) [BQ25010EVM](#) [BQ3055EVM](#) [NCV891330PD50GEVB](#) [ISLUSBI2CKIT1Z](#) [LM2744EVAL](#) [LM2854EVAL](#) [LM3658SD-AEV/NOPB](#) [LM3658SDEV/NOPB](#) [LM3691TL-1.8EV/NOPB](#) [LM4510SDEV/NOPB](#) [LM5033SD-EVAL](#) [LP38512TS-1.8EV](#) [EVAL-ADM1186-1MBZ](#) [EVAL-ADM1186-2MBZ](#)