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, inductorless 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 ±4%
Burst Mode Operation Output Ripple	(Not including ESR spike)	$10mV_{P-P}$
Continuous Mode Output Ripple	(Not including ESR spike)	$4mV_{P-P}$
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 Vin or Vout 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 Vin and GND terminals.
3. Turn on the power at the input. Attach desired load (up to 250mA) from Vout to GND
4. Check for the proper output voltage. Vout = 1.44V to 1.56V.

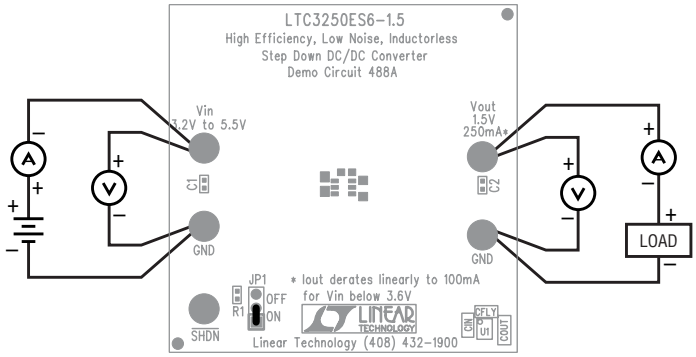

Figure 1. Proper Measurement Equipment Setup

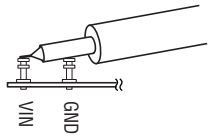

Figure 2. Scope Probe Placement for Measuring Input or Output Ripple

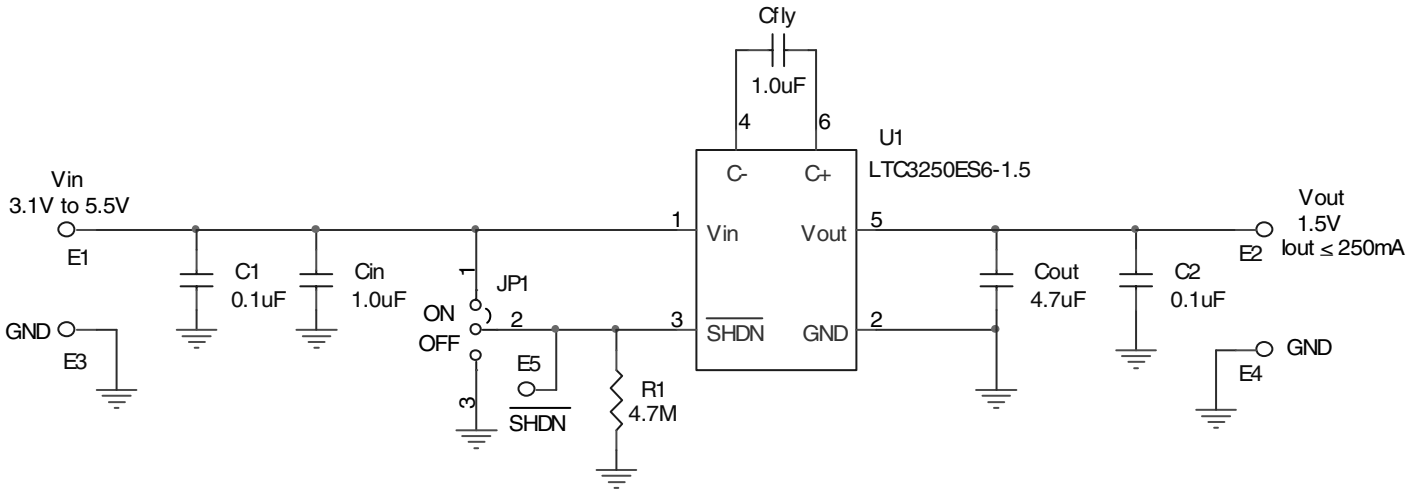

Figure 3. Schematic