

## DC244 Quick Start Guide

### Description

Demonstration Circuit DC244 has two voltage supplies: a high efficiency buck converter using two LT1339s running out of phase to produce 12V at 15A, and a negative converter using an LT1373 to produce -5V at 100mA. The LT1339 is a high power, synchronous, current mode switching regulator controller and the LT1373 is a low supply current, high frequency current mode switching regulator. Operating efficiencies exceeding 95% are obtained for 15A of load current for the LT1339 circuit. Gerber files for these circuits are available. Call the LTC factory.

Performance Summary ( $T_A = 25^\circ\text{C}$ )

$$V_{IN} = 32\text{V}$$

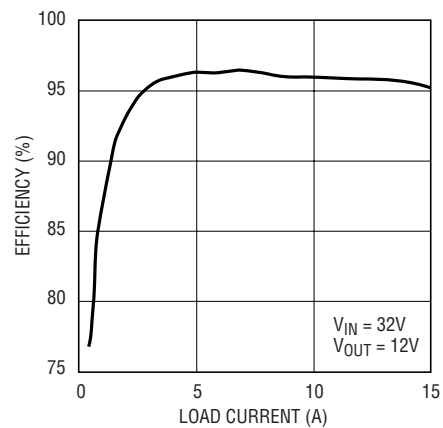
$$V_{OUT1} = 12\text{V}$$

$$I_{OUT1} = 15\text{A}$$

$$V_{OUT2} = -5\text{V}$$

$$I_{OUT2} = 100\text{mA}$$

Typical Efficiency for a 12V supply = 95% at 15A (see Figure 1)



**Figure 1. DC244 Efficiency Curve**

## Quick Start Guide

Refer to Figure 2 for proper measurement equipment setup and follow the procedure outlined below:

1. Connect the 32V/8A input power supply to the  $V_{IN}$  and GND terminals on the board.
2. Connect an ammeter in series with the input supply to measure input current.
3. Connect power resistors or an electronic load to the  $V_{OUT}$  and GND terminals for the 12V and  $-5V$  supplies.
4. Connect ammeters in series with output loads to measure output current.
5. Connect a voltmeter across the  $V_{IN}$  and GND terminals to measure input voltage.
6. Connect a voltmeter across the 12V and the  $-5V$  supplies to measure  $V_{OUT}$ .
7. After all connections are made, turn on input power and verify that the output voltages are 12V and  $-5V$ .
8. Grounding the On/Off pin shuts both supplies off.

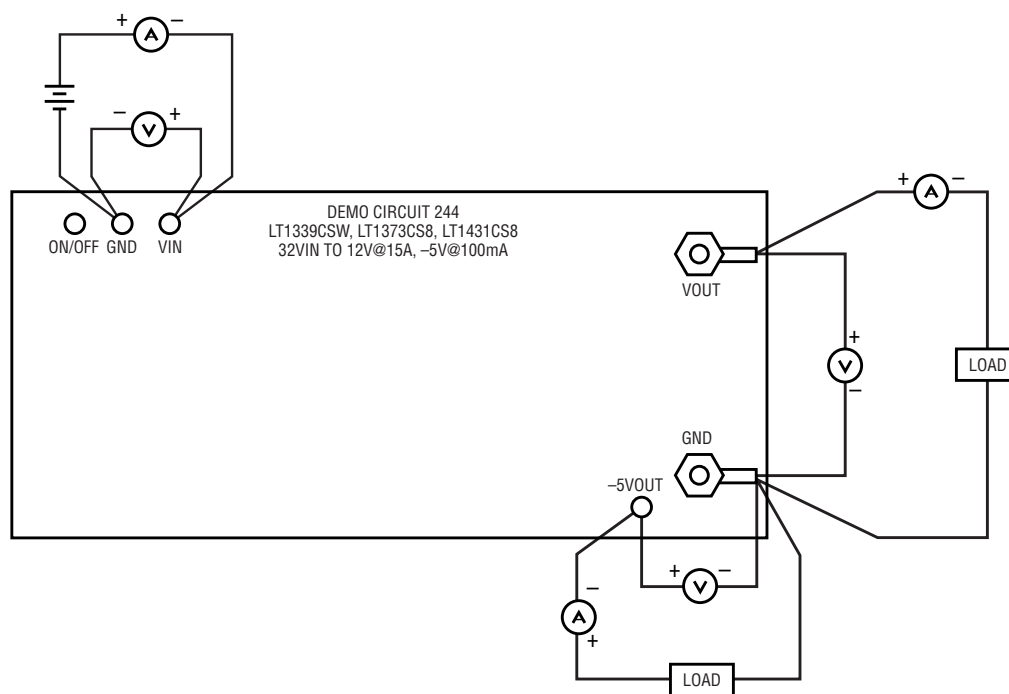


Figure 2. DC244 Proper Measurement Setup