

DESCRIPTION

Demonstration circuit DC437 is a low noise negative micropower voltage regulator using the LT1964 low dropout linear regulator, which comes in a tiny 5-Pin SOT-23 package. The DC437 has an input voltage range from -2.3V to -20V , and is capable of delivering 200mA max. With the small size of the LT1964, plus its ability to maintain a stable output (no oscillations) with ceramic output capacitors, the DC437 voltage regulator is ideally suited for hand-held applications, such as cellular phones or PDAs.

QUICK START PROCEDURE

The DC437 demonstration board is easy to set up to evaluate the performance of the LT1964 negative micro-power LDO regulator.

Refer to Figure 1 for the connection diagram and follow the procedures below:

NOTE Be careful when you connect the test equipment to the board. Remember, ground (Gnd) is the most positive potential on the board, and Vin is the most negative potential. Thus, current flows from Gnd to Vout and Vin, and from Vout to Vin. Set up the circuit appropriately.

EVALUATING THE LT1964ES5-BYP (UPPER CIRCUIT)

1. Connect the input power supply to the Vin and GND terminals on the left-side of the board.
2. Connect the load between the Vout and GND terminals on the right-side of the board.
3. Select the desired output voltage using JP1. To select an output voltage of -1.22V , insert the jumper into the lower position. Inserting the jumper into the upper position forces the output to -5V . The upper

position also allows a user selectable output voltage with the installation of R3.

- the upper circuit is a regulator that uses the LT1964ES5-BYP
- the lower circuit is a regulator that uses the LT1964ES5-SD.

Gerber files for this circuit are available. Call the LTC Factory.

EVALUATING THE LT1964ES5-SD (LOWER CIRCUIT)

1. Connect the input power supply to the Vin and GND terminals on the left-side of the board.
2. Connect the load between the Vout and GND terminals on the right-side of the board.
3. To start the circuit, insert a jumper into the upper position of JP2.
4. Select the desired output voltage using JP3. To select an output voltage of -1.22V , insert the jumper into the lower position. Inserting the jumper into the upper position forces the output to -5V . The upper position also allows a user selectable output voltage with the installation of R6.
5. To shut down the circuit, connect the SHDN pin to ground by inserting a jumper into the lower position of JP2. Do not leave this pin floating.

DEMO BOARD QUICK START GUIDE DC437

LOW DROPOUT LINEAR REGULATOR

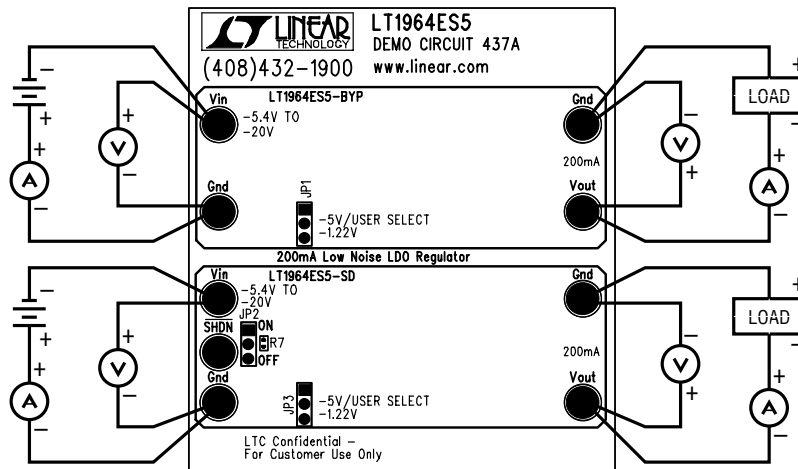


Figure 1. Proper Measurement Equipment Setup