

AN-1214 LM3354/5 Evaluation Board

1 Introduction

The LM3354 and LM3355 are switched capacitor DC/DC converters which utilize a number of different gains to achieve output regulation. The LM3354/5 evaluation board is programmed for an output of 4.1V, ideal for White or Blue LED applications. An LM3354 1.8V option is also available. The LM3355 is capable of up to 50mA of output current while the LM3354 is capable of up to 90mA of output current. See the *LM3354 Regulated 90mA Buck-Boost Switched Capacitor DC/DC Converter* ([SNVS157](#)) data sheet for more information on driving LED's or for information on other standard voltage options of the LM3354. A bill of materials and a schematic follow:

Table 1. LM3354/5 Evaluation Board List of Components

| Designator | Description | Manufacturer |
|------------------|-------------------------------------|-------------------|
| U1 | LM3354/5 DC/DC Converter | Texas instruments |
| C _{IN} | 10μF ceramic capacitor (X5R, 6.3V) | Taiyo Yuden |
| C _{OUT} | 10μF ceramic capacitor (X5R, 6.3V) | Taiyo Yuden |
| C1 | 0.33μF ceramic capacitor (X7R, 16V) | Taiyo Yuden |
| C2 | 0.33μF ceramic capacitor (X7R, 16V) | Taiyo Yuden |
| C _{FIL} | 1μF ceramic capacitor (X7R, 10V) | Taiyo Yuden |

2 Typical Application Circuit

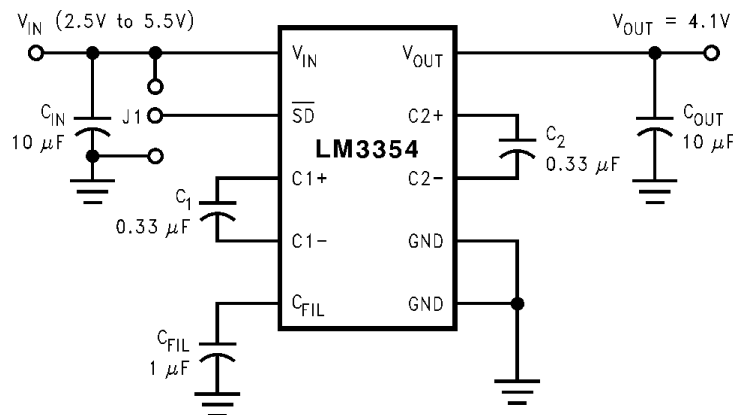


Figure 1. Basic Buck/Boost Regulator

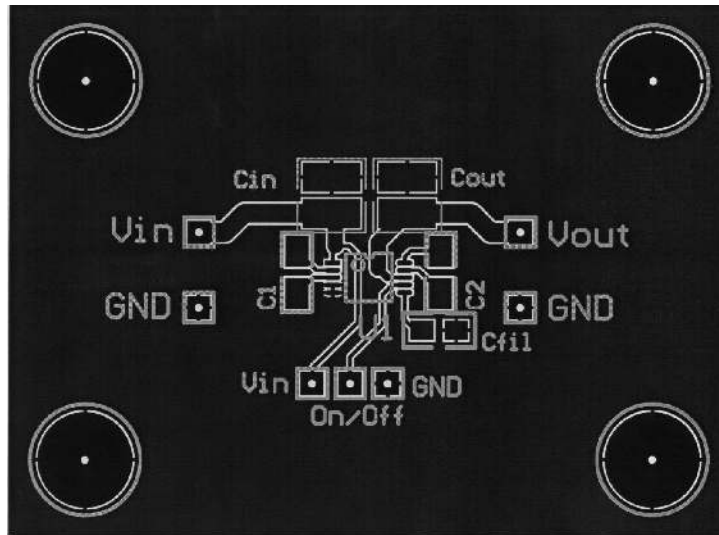


Figure 2. Typical Layout, Top View (magnification 1.5X)

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