

LM2623 Evaluation Board

National Semiconductor
Application Note 1274
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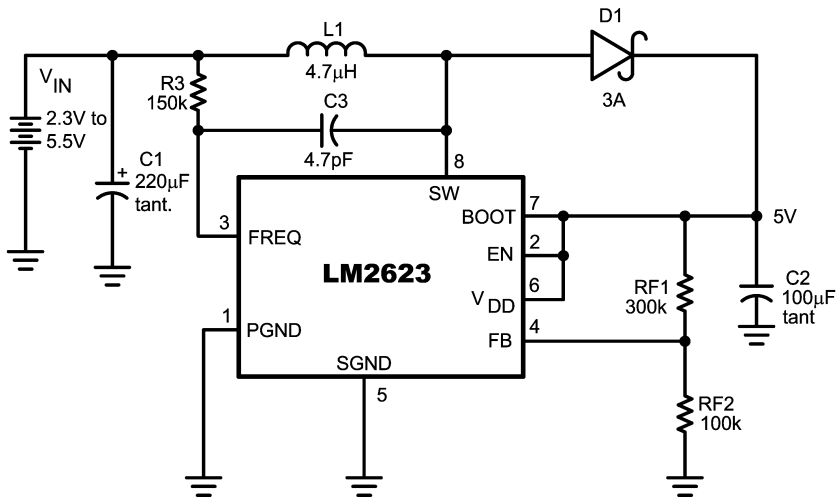
LM2623 Evaluation Board

The LM2623 is a general purpose, gated oscillator based, DC/DC boost converter that can run from low input voltage and produce a regulated output voltage with low ripple. The LM2623 evaluation board is programmed for a 5V output running off a two-cell power supply. For more information

regarding the LM2623, please refer to the data sheet, Application Note AN-1258, as well as the cookbook (AN-1221) for more application configurations. A bill of material and a schematic follow:

TABLE 1. Bill of Materials

| Designator | Description | Manufacturer | Model Number |
|------------|---|------------------------|-----------------|
| U1 | LM2623 DC-DC Converter MSOP-8 | National Semiconductor | LM2623 |
| L1 | Inductor (4.7µH 20% 2A) | Coilcraft | DO1813P-472HC |
| C1 | Input Capacitor (220µF Tantalum Capacitor (20% 6.3V)) | Vishay - Sprague | 595D227X06R3C2 |
| C2 | Output Capacitor (100µF Tantalum Capacitor (10%, 6.3V)) | Vishay - Sprague | 293D107X96R3C2T |
| D1 | Output Diode (40V 3A Schottky) | OnSemi | MBRS340T3 |
| RF2 | 100 kΩ Feedback Resistor | Vishay - Dale | CRCW06031003F |
| RF1 | 300 kΩ Feedback Resistor | Vishay - Dale | CRCW06033003F |
| R3 | 150 kΩ Frequency Set Resistor | Vishay - Dale | CRCW06031503F |
| R5 | 0Ω Resistor | Vishay - Dale | CRCW0603000F |
| C3 | 4.7pF Ceramic Capacitor | TDK | C1608C0G1H4R7C |



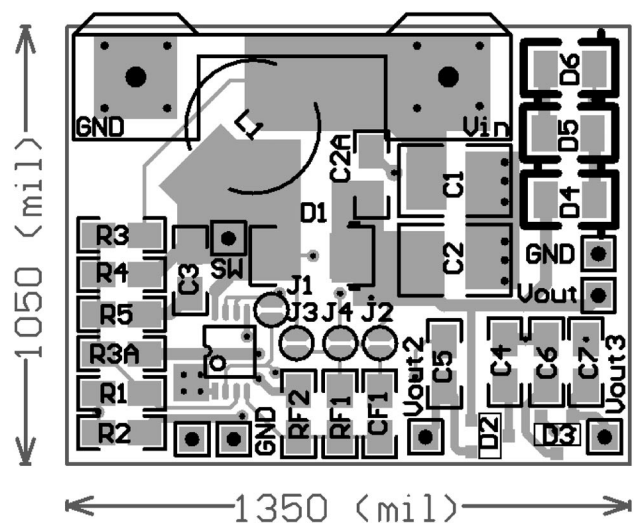
Evaluation Board Application Circuit

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Within the Application Board Circuit Diagram there are many components shown that are not populated on the 5V output evaluation board. These component footprints are used in

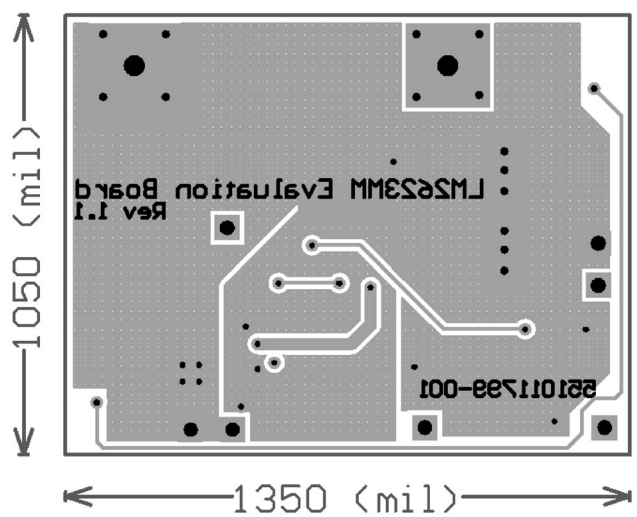
numerous other applications found in application note AN-1221. In addition, jumpers J1, J2, and J4 are closed on the two-cell input to 5V output application board.

AN-1274



Typical Layout, Top View

20065202



Bottom View Unmirrored

20065203

Notes

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