

AN-1274 LM2623 Evaluation Board

1 Introduction

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 *LM2623 General Purpose, Gated Oscillator Based, DC/DC Boost Converter (SNVS188)*, *AN-1258 LM2623 Boost Converter - A Simple Supply (SNVA061)*, and *AN-1221 LM2623 General Purpose, Boost Converter Circuit (SNVA050)* for more application configurations.

2 Bill of Materials

Table 1. Bill of Materials

Designator	Description	Manufacturer	Model Number
U1	LM2623 DC-DC Converter VSSOP-8	Texas Instruments	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

3 Application Circuit

Within the Application Board Circuit Diagram, [Figure 1](#), 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.

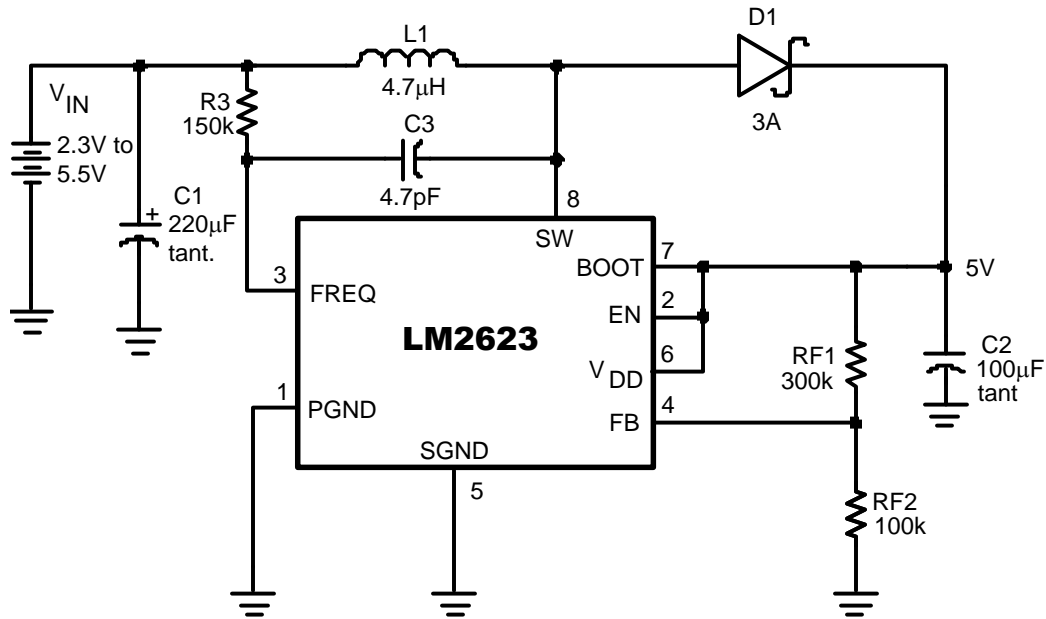


Figure 1. Evaluation Board Application Circuit

4 Board Layers

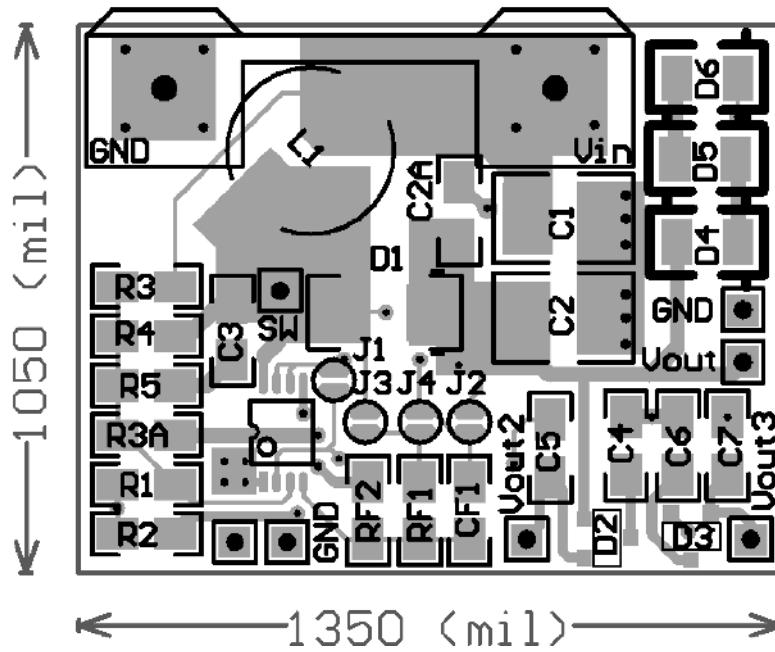


Figure 2. Typical Layout, Top View

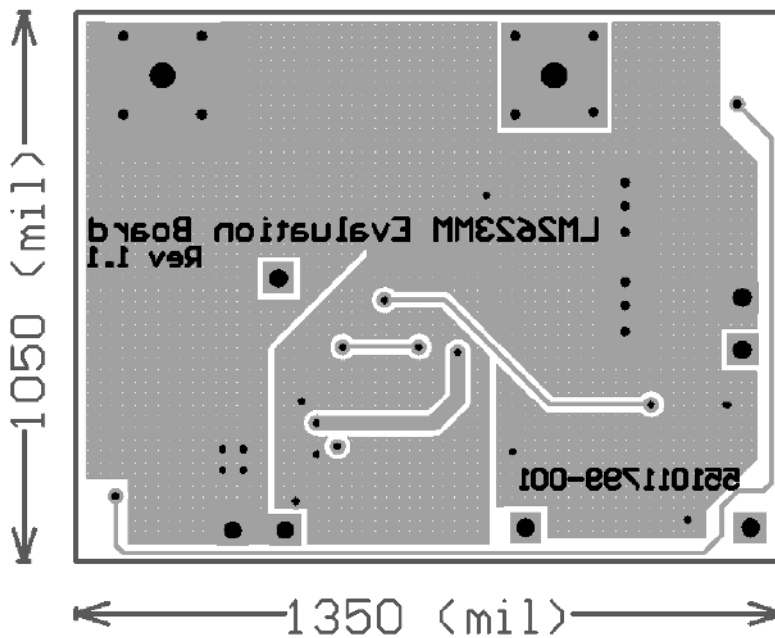


Figure 3. Bottom View Unmirrored

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