



# Application Note AP5727 Application Information and Demo Board User Guide

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## **Application Note**

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#### 1. Description

The AP5727(Boost) evaluation modules (EVM) provide a means for the user to evaluate quickly the functionality and electrical performance of the AP5727 device. All inputs and outputs are brought out to test points for control and monitoring. All passive components are included on the EVM for device operation. The input pin should be connected to an external supply; the output should be connected to a load.

#### 2. EVM Schematic

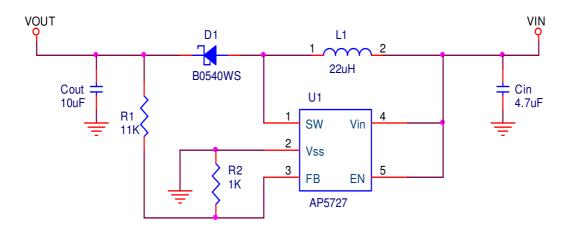
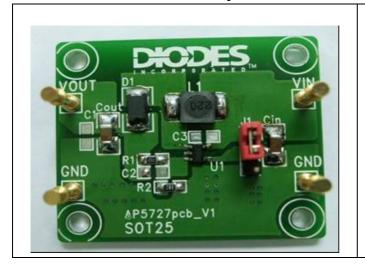
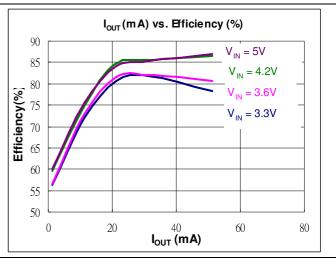


Figure 1. AP5727 schematic

#### 3. EVM board and Efficiency





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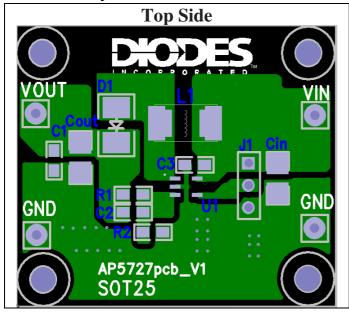


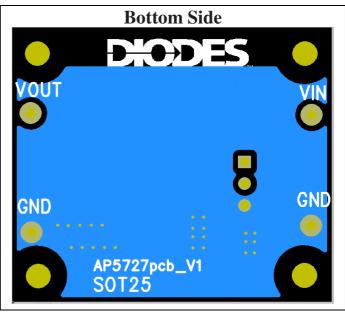


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### 4. Board Layout





#### 5. Bill of Materials

Component	Quantity	Value	Source	Part No.	Size
Location	Qualitity	value	Source	rail IVO.	Size
Cin	1	4.7uF	TAIYO YUDEN	LMK316 B7 475KL-T	
Cout	1	10uF	TAIYO YUDEN	LMK316 F 106ZL-T	
L1	1	22uH/0.88A	Wurth Electronics	744042220	4.8 X 4.8 X 1.6
		22uH/0.56A	GOTREND	GLP3810PH220N	3.8 X 3.8 X 1.05
		22uH/0.51A	TAIYO YUDEN	NR4012	4.0 X 4.0 X 1.25
R2	1	1kΩ(1%)	YAGEO		R0805
R1	1	11kΩ(1%)	YAGEO		R0805
D1	1	40V/0.5A	ZETEX	ZLLS400	SOD323
		40V/0.5A	DIODES	B0540WS	SOD323
		40V/0.25A	DIODES	SDM20U40	SOD523
U1	1	AP5727_SOT26	Diodes		SOT26
PCB	1			TDB0045	