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Application Note

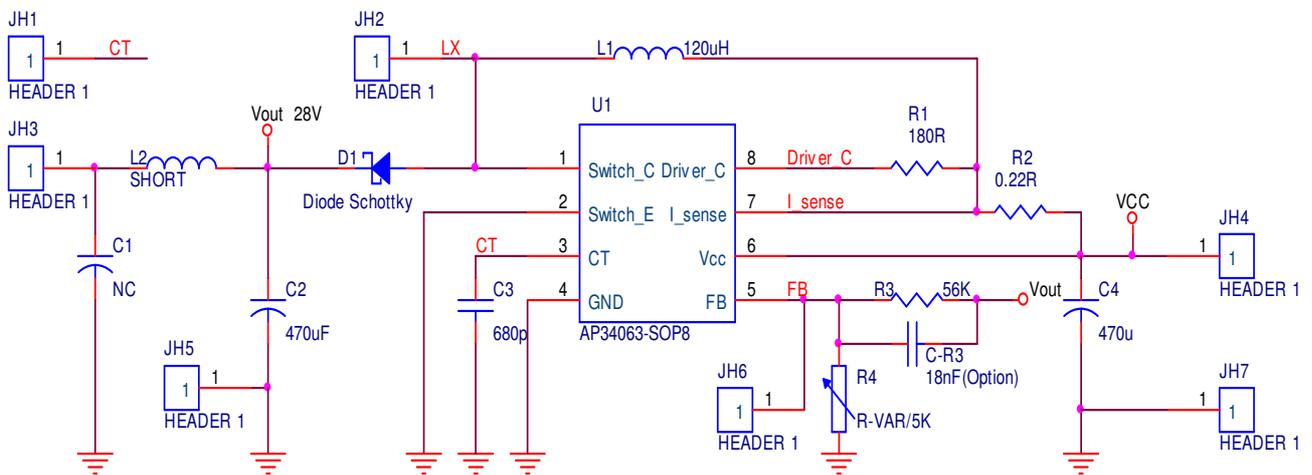
AP34063(Boost) Application Information and Demo Board User Guide

1. Description

The AP34063(Boost) evaluation modules (EVM) provide a means for the user to evaluate quickly the functionality and electrical performance of the AP34063 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. Schematic

Test Circuit (Boost) $V_{IN}=12V$, $V_{OUT}=28V$



$$V_{OUT}=1.25*(1+R3/R4)$$

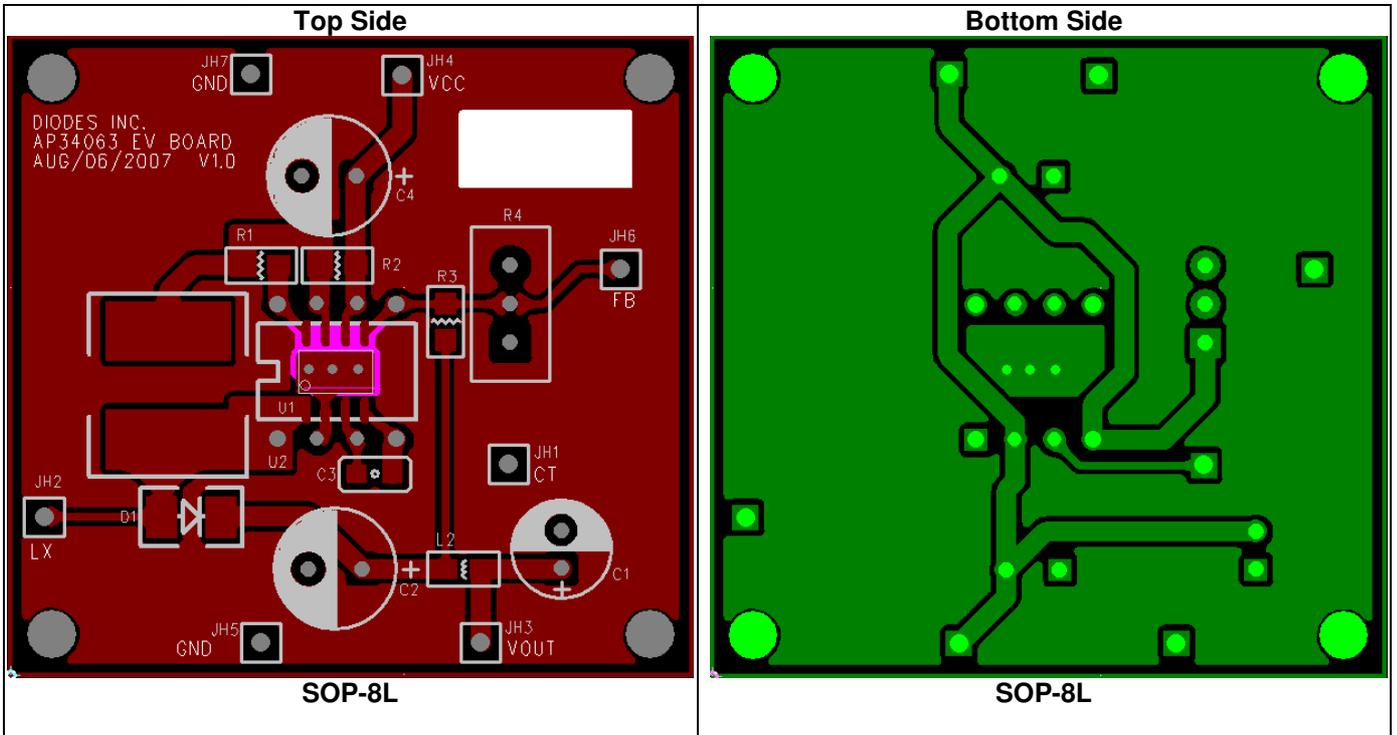
Figure 1. Step-UP DC/DC CONVERTER

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3. PCB Layout(LDO)



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4. Bill of Materials

Component Location	Q'ty	Specification	Source	Part No.	Size
C2,C4	2	470uF/35V, Aluminum Capacitor	TEAPO	DSJ477M035S1A5H20K	10X20
C3	1	680pF/50V/X7R	TAIWAN TAIYO	UMK105B7681KV-F	C0402
C-R3	1	18nF/35V	TAIWAN TAIYO	GMK212SD183KG-T	C0805
L1	1	120uH/3A	Wurth Electronics	744135	12X13.5
R1	1	180(1%)	YAGEO	RC0805FR-SK	R0805
R2	1	0.22(1%)	YAGEO	RC0805FR-SK	R0805
R3	1	47K(1%)	YAGEO	RC0805FR-SK	R0805
R4	1	SVR, 5K, 25 turns	BOURNS	3296W	DIP
D1	1	2A/40V	Diodes	B240A	SMA
U1	1	AP34063_SOP8	Diodes	AP34063	SOP-8L
JH3, JH4, JH5, JH7	4	2.0mm HEADER_1	-	JT-13-CWK	2.2mmX 1.35mm
L2	1	Short	-	-	L0805
PCB	1	AP34063 EV(Boost)	Diodes Inc.	TDB0025	

5. Vendors of peripheral components

Suggested Capacitors for C2(C_{IN}) and C4(C_{OUT}) :

Vendor	Capacitance	Type	Series
TEAPO	Aluminum Cap. 470uF/35V	DIP	DSJ477M035S1A5H20K

Suggested Capacitors for C3 and C-R3 :

Vendor	Capacitance	Type	Series
TAIWAN TAIYO	680pF/50V/X7R	SMD	UMK105B7681KV-F
TAIWAN TAIYO	18nF/35V	SMD	GMK212SD183KG-T

Suggested Resistor :

Vendor	Type	Series
YAGEO	SMD	RC0805FR-SK