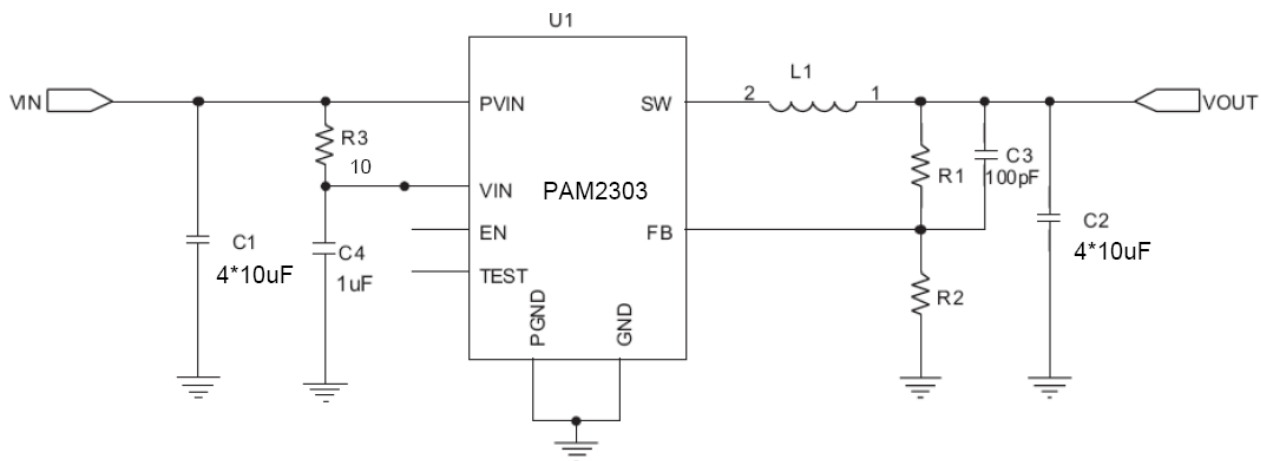


3. Key Features

- Output Current: Up to 3A
- Output Voltage: 0.6V to V_{IN}
- Input Voltage: 2.7 to 5.5V
- Efficiency up to 95%
- 42 μ A (Typ) No Load Quiescent Current
- Shutdown Current: <1 μ A
- 100% Duty Cycle LDO Operation
- 1.5MHz Switching Frequency
- Internal Soft Start
- No external Compensation Required
- Current Limit Protection
- Thermal Shutdown
- DFN3x3 10Pin, QFN3x3 16-Pin and PSOP8 Package

4. EV Board Schematic

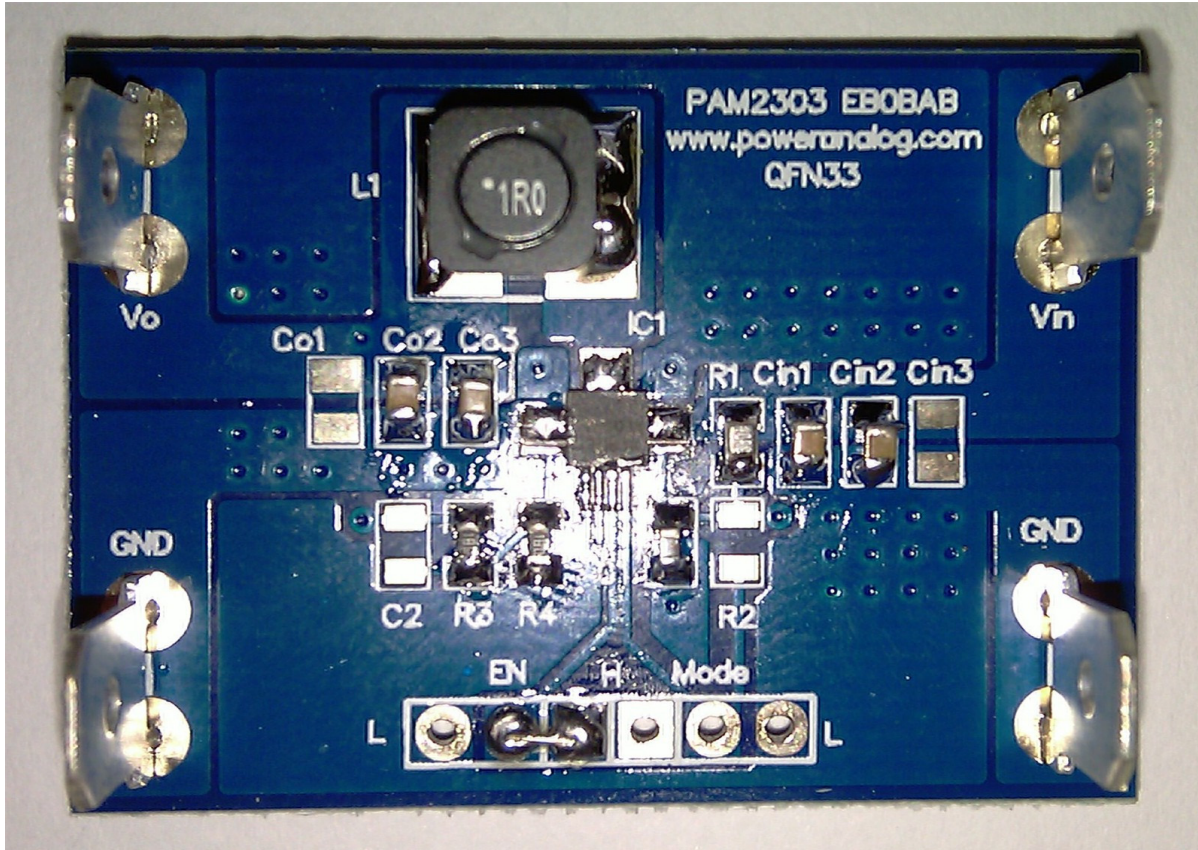


5. EVB PAM2303 EB0BAB Description

PAM2303 EB0BAB is an evaluation board for the PAM2303 QFN 3*3, a DC/DC converter. The board is targeted to be used in providing a simple and convenient evaluation environment for the PAM2303. Requires parts, power supply connectors etc. on the board, which makes it easy to be evaluated.

6. EV Board View

Top View



7. Resistor Select for Output Voltage Setting

$$V_{OUT} = (1 + R3/R4) \times V_{REF} \quad (V_{REF} = 0.6V)$$

Vo	R3	R4	L
1.2V	150k	150k	1uH
1.5V	225k	150k	2.2uH
1.8V	300k	150k	2.2uH
2.5V	475k	150k	2.2uH
3.3V	680k	150k	3.3uH

8. External Components Selection

Input & output Capacitors (CinX, CoX)

- (1) For lower output ripple, low ESR is required.
- (2) Low leakage current needed, 2*10uF, X5R/X7R ceramic recommend

Feed forward capacitor (C2)

- (1) Lower the output ripple
- (2) Low leakage current needed, 100pF, COH/CH ceramic recommend

Output Voltage programmer resistors (R3, R4)

- (1) For programmer output voltage
- (2) For accurate output voltage, 1% tolerance is required.

Inductor (L1)

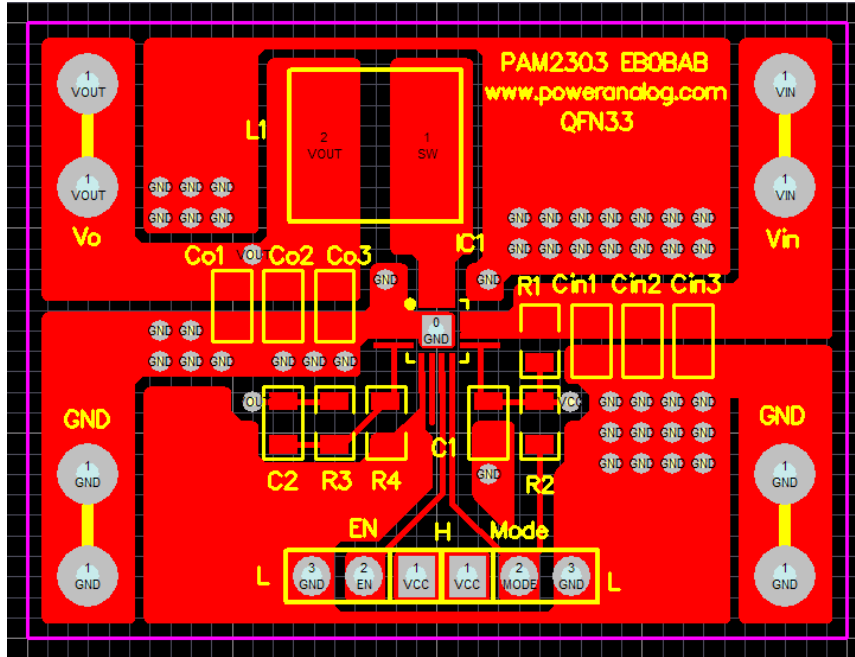
- (1) Low DCR for good efficiency
- (2) Inductance saturate current must higher than the output current

9. Evaluation Board BOM List:

Item	Value	Type	Rating	Description	Vender and Part No.
Cin1, Cin2, Co1, Co2	10μF	X5R/X7R, Ceramic/0805	16V	Input coupling CAP, Output CAP	TAIYO YUDEN EMK212ABJ106KD-T
Cin3, Co3	NC				
C1	1.0μF	X5R/X7R, Ceramic/0805	25V	Vin coupling CAP	TAIYO YUDEN TMK212B7105KG-T
C2	100pF	COH/CH, Ceramic/0402	50V	Feed forward CAP	TAIYO YUDEN UMK105CH101JV-F
L1	1μH		>3.5A	Inductor	WURTH 7447786001
R1	10Ω	0805	5%	Filter RES	
R3	150K	0603	1%	Voltage set RES	
R4	150K	0603	1%		
IC1		PAM2303	QFN3*3		
PCB		PAM2303 EB0BAB			

10. PCB Layout Example

Top Layer



Bottom Layer

