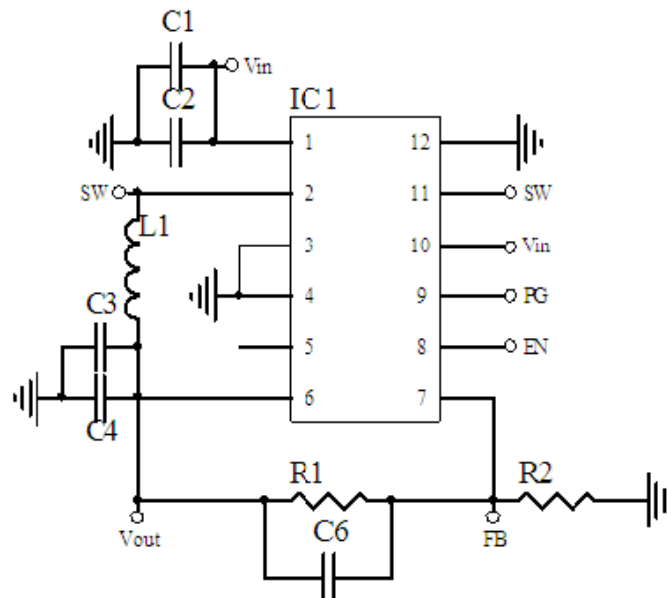




### 3. Key Features

- 3.5A Maximum Output Current
- Tiny 1.0 $\mu$ H Chip Inductor
- Excellent Transient Response
- Input Voltage: 2.5V to 5.5V
- Fixed or Adjustable Output Voltage: 1.0V to 4.0V
- High Efficiency with 1.2MHz Switching Frequency
- 55 $\mu$ A No load Quiescent Current
- 100% Duty Cycle Low-Dropout Operation
- Internal Soft Start
- Power Good Indicator
- Over-Temperature and Current Limit Protection
- <1 $\mu$ A Shutdown Current
- -40°C to +85°C Temperature Range
- Available in QFN2x2-12 Package
- ROHS/REACH Compliant

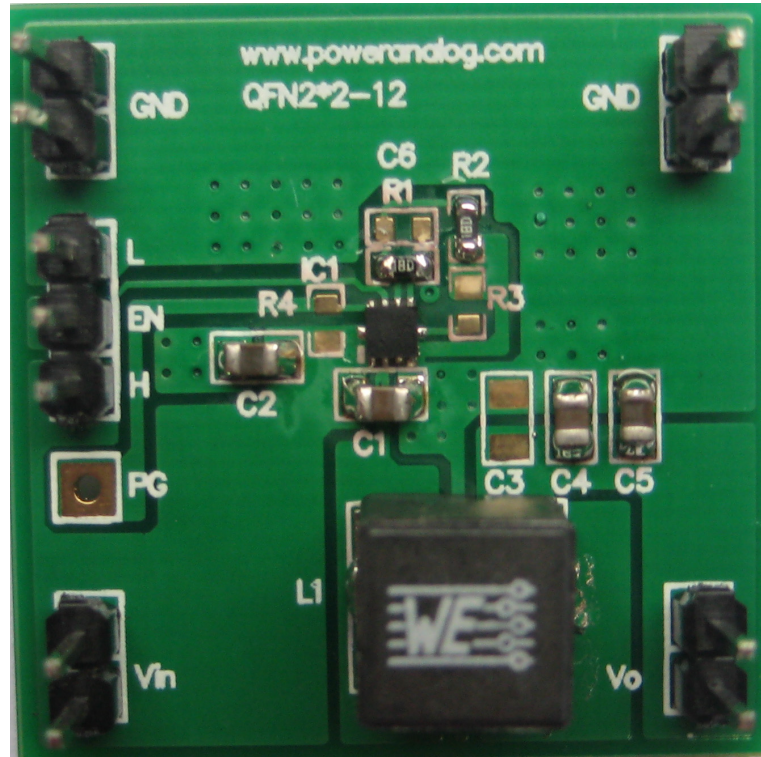
### 4. EV Board Schematic



### 5. EVB PAM2325 Description

PAM2325 is an evaluation board for the PAM2325 12pin 2mm x 2mm QFN, a DC/DC converter. The board is targeted to be used in providing a simple and convenient evaluation environment for the PAM2325. Requires parts, power supply connectors etc. on the board, which makes it easy to be evaluated.

## 6. EV Board View



## 7. Resistor Slect for Output Voltage Setting

$$V_{OUT} = (1 + R1/R2) \times V_{REF} \quad (V_{REF} = 0.6V)$$

$V_o$	R1	R2	L
1.2V	150k	150k	1.0 $\mu$ H
1.5V	150k	100k	1.0 $\mu$ H
1.8V	300k	150k	1.5 $\mu$ H
2.5V	475k	150k	2.2 $\mu$ H
3.3V	680k	150k	2.2 $\mu$ H

## 8. External Components Selection

### Input & output Capacitors (C1, C2; C3, C4)

- (1) For lower output ripple, low ESR is required
- (2) Low leakage current needed, X5R/X7R ceramic recommend, multiple capacitor parallel connection

### Output Voltage programmer resistors (R1, R2)

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

### Inductor (L1)

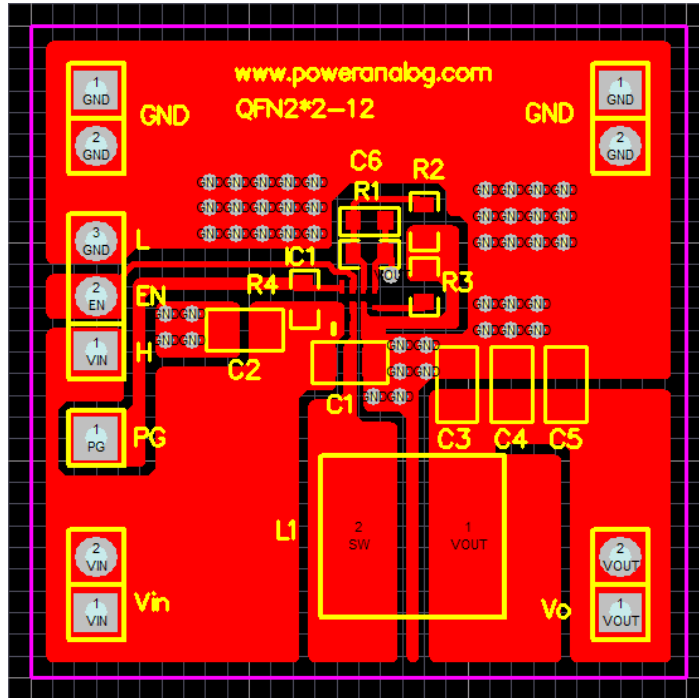
- (1) Low DCR for good efficiency
- (2) Inductance saturate current must higher than the output current

## 9. Evaluation Board BOM List

Item	Value	Type	Rating	Description	Vender and Part No.
C1, C2	10uF	X5R/X7R, Ceramic/0805	10V	Input coupling CAP	TAIYO YUDEN EMK212ABJ106KD-T
C3, C4	10uF	X5R/X7R, Ceramic/0805	10V	Output CAP	TAIYO YUDEN EMK212ABJ106KD-T
L1	1.0uH		> 4.5A	Inductor	Wurth 7443340100
R1	150K	0603	1%	Voltage set RES	
R2	150K	0603	1%		
IC1		PAM2325	QFN 2 x 2 12pin		
PCB		QFN2*2-12			

10. PCB Layout Example

Top Layer



Bottom Layer

