

## 1.5MHz 800mA, Synchronous Step-Down Regulator

### General Description

EML3408 is designed with high efficiency step down DC/DC converter for portable devices applications. It features with extreme low quiescent current with no load which is the best fit for extending battery life during the standby mode. The device operates from 2.5V to 5.5V input voltage and up to 800mA output current capability. High 1.5MHz internal frequency makes small surface mount inductors and capacitors possible and reduces overall PCB board space. Further, build-in synchronous switch makes external Schottky diode is no longer needed and efficiency is improved. EML3408 is designed base on pulse width modulation (PWM) for low output voltage ripple and fixed frequency noise, low dropout mode provides 100% duty cycle operation. Low reference voltage is designed for achieving regulated output down to 0.6V.

The device is available in an adjustable version and fixed output voltages of 1.2V, 1.5V, 1.8V and 3.3V. The EML3408 is available in SOT-23-5 package.

### Features

- Achieve 95% efficiency
- Input Voltage : 2.5V to 5.5V
- Output Current up to 800mA
- Reference voltage 0.6V
- Quiescent Current 200 $\mu$ A with No Load
- Internal switching frequency 1.5MHz
- No Schottky Diode needed
- Low Dropout Operation: 100% Duty Cycle
- Shutdown current < 1 $\mu$ A
- Excellent Line and Load Transient Response
- Over-temperature Protection

### Applications

- Blue-Tooth devices
- Cellular and Smart Phones
- Personal multi-media Player (PMP)
- Wireless networking
- Digital Still Cameras
- Portable applications

### Typical Application

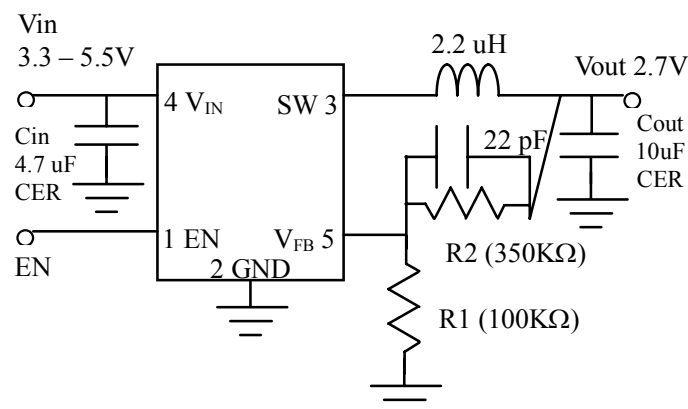
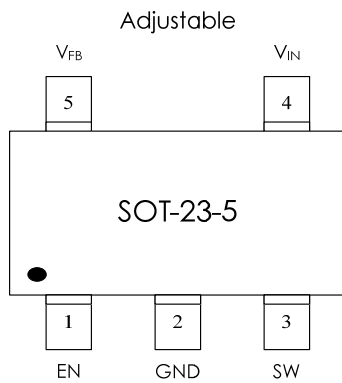
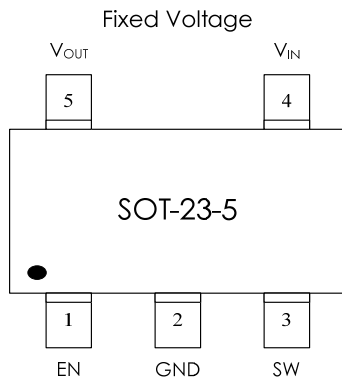


FIG.1

## Connection Diagrams



## Order information

EML3408-XXVF05NRR  
 XX Output voltage  
 VF05 SOT-23-5 Package  
 NRR RoHS & Halogen free package  
 Rating: -40 to 85°C  
 Package in Tape & Reel

EML3408-00VF05NRR  
 00 Adjustable version  
 VF05 SOT-23-5 Package  
 NRR RoHS & Halogen free package  
 Rating: -40 to 85°C  
 Package in Tape & Reel

## Order, Marking & Packing Information

Package	Vout	Product ID.	Marking	Packing
SOT-23-5	1.2V	EML3408-12VF05NRR		Tape & Reel 3Kpcs
	1.5V	EML3408-15VF05NRR		
	1.8V	EML3408-18VF05NRR		
	3.3V	EML3408-33VF05NRR		
	Adj.	EML3408-00VF05NRR		