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## Features

- ◆ Wide  $V_{IN}$  Range: 9V to 40V
- ◆  $\pm 2.0\%$  1.0V Reference
- ◆ Dual-Channeling CC/CV Mode Control
- ◆ External Current Limit Setting for 2 channel
- ◆ Internal Soft Start 3ms
- ◆ Fixed Frequency 120 KHz for easy EMI design
- ◆ UVLO Protection(min=7V,typ=7.5V,max=8V)
- ◆ Duty Cycle Range (0~95%)
- ◆ Single Pin to External Compensation and Shutdown Control
- ◆  $C_{OUT}$  MLCC support
- ◆ Built in Adjustable Line-Compensation
- ◆ Over Temperature Protection, Output Overvoltage Protection, Output Over current Protection, Short Circuit Protection
- ◆ MSOP-10L Package

## Applications

- ◆ Car Chargers
- ◆ High-Brightness Lighting
- ◆ Portable Charger Devices
- ◆ General-Purpose DC/DC Converters with Current Limit

## General Description

SP1220F is a synchronous buck controller. It is designed to allow for operating a wide supply voltage range from 9V to 40V. It can drive dual output current to 8A (4A+4A). The external shutdown function can be controlled by logic level to pull COMP/EN pin down, and then comes into standby mode. The external compensation makes feedback control have good line and load regulation with flexible external design.

SP1220F operates in the Constant output Current mode or Constant output Voltage mode, and the OCP current value is set by current sensing resistors. SP1220F offers comprehensive protection with output over current, output short circuit, output over voltage, over temperature.

SP1220F is offered in MSOP-10L packages and require very few external devices for operation.

## Simplified Application

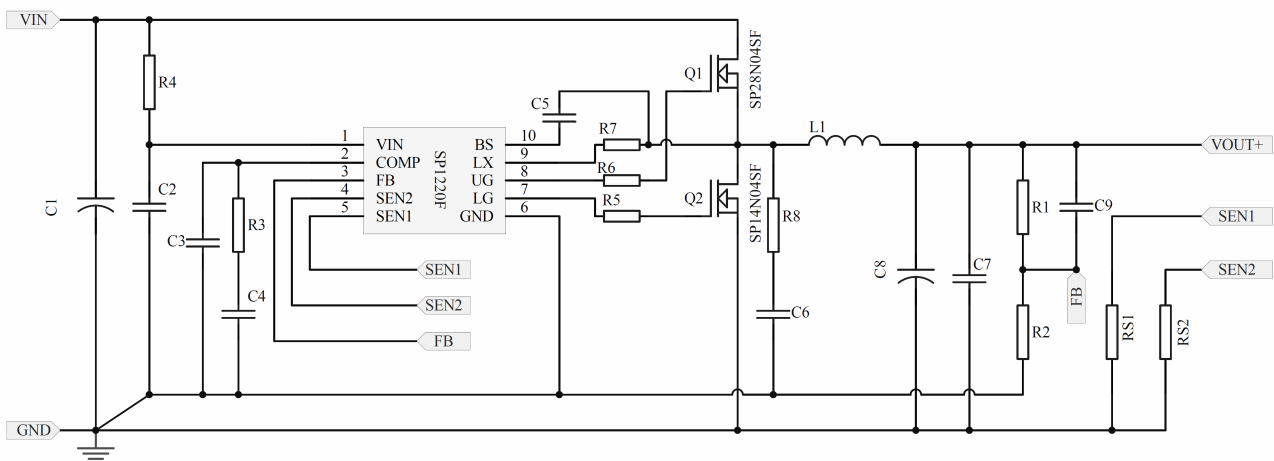


Figure 1 Typical Application of SP1220F(VOUT=5V,IOUT=4.8A)

Note: If output only one port, the other Sense pin need connect with GND.