
Power Management Integrated Circuit with 3 Bucks and 2 LDOs

1 Description

The SY5882 is a power management IC (PMIC) designed for notebook, desktop, and embedded computing platforms. There are three DCDC converters and two linear regulators integrated into the SY5882, which can minimize the need for external components so that it can ease the layout in a constrained PCB area. The DCDC converters are of high accuracy, high efficiency, and high flexibility. Two LDOs provide power rails for peripherals and pull-up resistors.

The SY5882 provides protection for a device when a fault occurs, such as overcurrent, output overvoltage, output undervoltage, short circuit, input overvoltage, and over temperature.

The SY5882 is a halogen- and lead-free device, compliant with RoHS. The package is QFN3x3-20.

2 Applications

Solid-state drive

Video system

3 Features

- AVIN input supply range: 2.7V to 5.5V
- Three buck regulators
 - BUCK1,output range 1.7V ~ 3.3V
 - BUCK2,output range 0.9V ~ 2.0V
 - BUCK3,output range 0.5V ~ 1.3V
- 2 linear regulators
 - LDO1, 1V ~ 3.3V, 50mV/Step, 0.4A
 - LDO2, 1V ~ 3.3V, 50mV/Step, 0.4A
- DCDC voltage accuracy:±1% FB Voltage
- BUCK1 can be set as load switch
- LDO1/LDO2 can be set as load switch
- Configurable Soft-start Time for All output
- Configurable power on sequence
- Configurable sleep and wake-up sequence
- I2C Interface 400kHz/1MHz
- Built-in AVIN OV/UV warning indication and fault protection
- Built-in VOUT OVP/UVP/OCL
- Built-in Overd Temperature Protection
- Built-in EFUSE for configurable default value of registers
- 3 multifunctional IOs

4 Typical Application Circuit

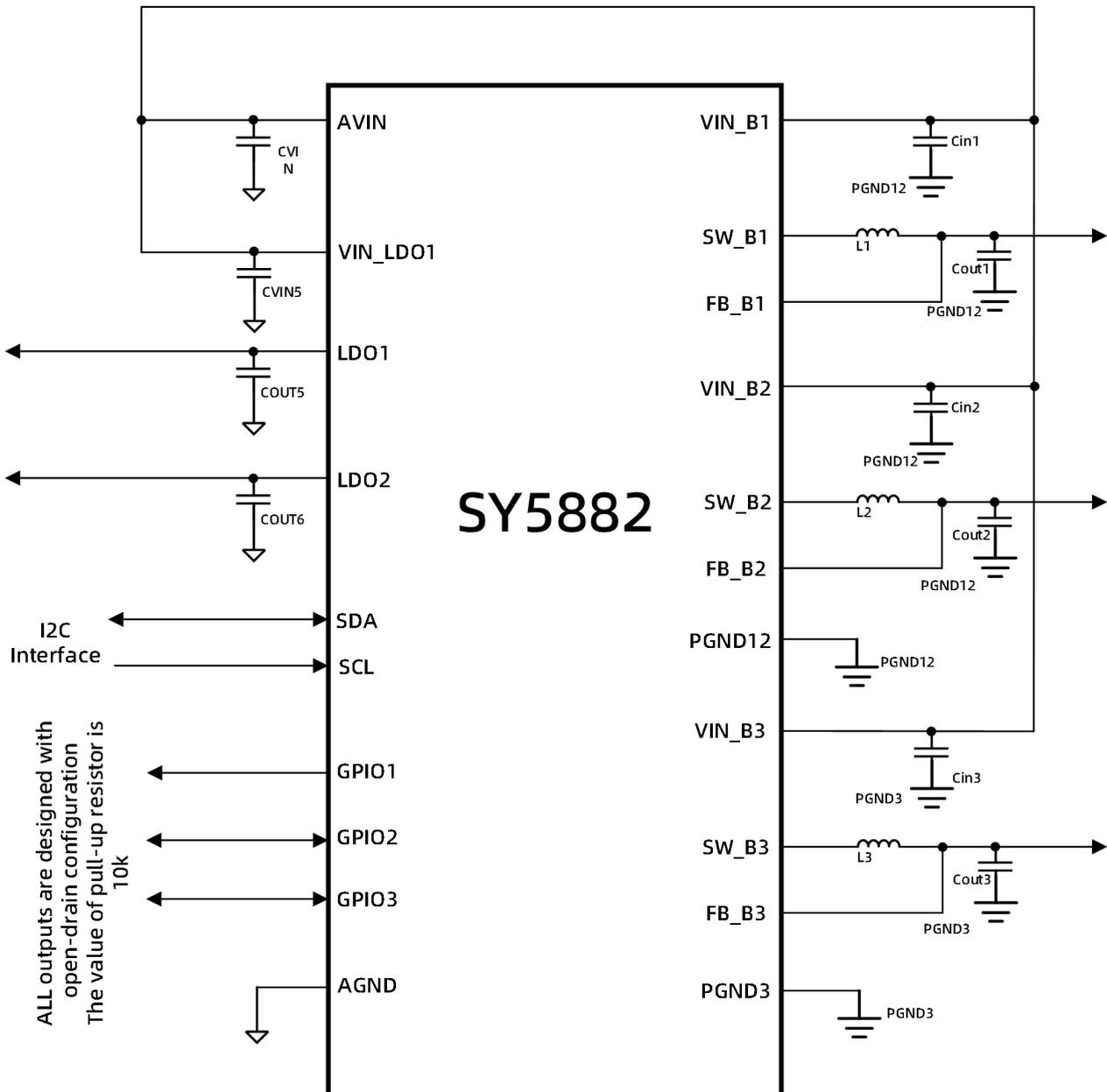


Figure 4- 1. Typical Application Circuit