

SHERO SWITCHER™ (Super High-Frequency Efficient Rapid Output) 6A Step-Down Regulator

Features

- σ Input Voltage Range from 3.6V to 18V
- σ Output Voltage Range from 0.46V to 5.5 V
- σ Up to 6A Output Current
- σ Up to 95% Efficiency
- σ Power Save Mode 40uA Quiescent Current at Light Load
- σ **SHERO SWITCHER™** Rapid Output Load Transient Responses
- σ **SHERO SWITCHER™** Programmable 1-4MHz Switching Frequency at PWM
- σ Internal Compensated
- σ Selectable Soft-start Time
- σ Dynamic Voltage Scaling
- σ I²C slave Address Selection
- σ Fault Interrupt Output
- σ 2mm x 3mm DFN Package

Description

The SX1106 is a high efficiency step down regulator with up to 4MHz switching frequency. SX1106 operates with input voltage range from 3.6V to 18V and it is able to deliver 6A output current.

With the I²C interface, SX1106 provides programmable reference voltages between 0.46V to 0.74V. Programmable frequency from 1MHz to 4MHz. Programmable 25KHz switching limit for low acoustic noise application. And, programmable force PWM mode.

The SX1106 RID_IRQn pin is a triple functions pin. It configures the initial frequency as well as the slave address. After start up the pin becomes the interrupt output.

Applications

- σ 5G Module and TV
- σ Telecom and Networking Equipment
- σ Enterprise SSD and Laptop DDR
- σ Power Supply for FPGAs, CPUs, and ASICs

Typical Application Circuits

