

2.7V to 28V Input, Synchronous Step-Down Controller

Features

- ★ VIN Input Voltage Range: 2.7V to 28V
- ★ Output Voltage Range:
PS1500A: 0.704V to 5.0V, PS1500B: 0.4V to 5.0V
- ★ Built in PS1500A: 0.704V, PS1500B: 0.4V ($\pm 0.5\%$) Reference Accuracy
- ★ V²COT-based Architecture with adjustable F_{sw}
- ★ Support MLCCs Output Capacitors with C_{FF}
- ★ Internal 1.3ms Soft-Start
- ★ Open-drain Power Good Indicator
- ★ Selectable SDEM for Longer Battery Life and Avoiding Audio Noise
- ★ OC Setting Pin with 4200ppm/°C Current Source
- ★ Built-In OVP/UVP/OC
- ★ Non-Latch UVLO and OTP Protections
- ★ RoHS Compliant and Halogen Free
- ★ DFN 3mm x 3mm package with 10-Pin

General Description

PS1500 is a cost-effective, dual synchronous step-down controller. Aimed for power supply solution of each computer fields. The device achieves ultra-low quiescent when system enters sleep mode and low power consumption with external pin selectable FCCM/SDEM, respectively which could be beneficial for long battery life in system stand-by mode and avoid audio noise. V²COT-based architecture with current injection supports MLCCs output capacitors application without external compensation network. The PS1500 operates with supply input voltage range from 2.7V to 28V and supports output voltages of 0.7V to 5V.

The PS1500 is available in a DFN 3mm x 3mm package with 10-Pin.

Applications

- ★ Computers and Servers
- ★ Telecom/Datacom
- ★ Point of Load Module

Simplified Application Circuit

