NCP81232

Multi-Phase Controller with Dual Loop Capability, Configurable, DrMOS Compatible

Product Overview

For complete documentation, see the data sheet.

The NCP81232 can be configured as a single or dual output regulator intended to operate with DrMOS power stages. This IC can be set with up to 8 unique output configurations that offer the operate as a single output with operation from a single to quad phases or as a dual output device with phase combinations of 3+1, 2+2, 2+1, and 1+1. This controller offers differential current sense and voltage sense for greater accuracy. The device supports DCR current sense or can accommodate an IMON signal from the DrMOS. The parts offer protection against overcurrent, over/undervoltage, and overtemperature protection.

Features

- 4.5V to 24V input with internal bias
- Adjustable output from 0.6V to 5V
- Adjustable switching frequency from 200kHz to 1.2MHz
- PWM output compatible to 3.3V and 5V DrMOS
- 8 Configurations (single or dual output)
- Differential output sense
- Differential current sense
- Overcurrent, Over/Undervoltage, and Thermal protection

Benefits

- Optimized for 12V and 5V bus voltage designs
- Low voltage capability to power core voltages
- Allows optimization of design for size and efficiency
- Compatible with standard DrMOS
- Flexibility allows for partitioning of power
- Maintain voltage accuracy with high current design
- Allows DCR current sense (or from Iout of DrMOS)
- Protected against faults

Applications

- High current designs
- Core power rails
- DDR Memory
- FPGA power

End Products

- Base stations
- Networking
- Routers

Part Electrical Specifications

Product	Pricing ($/Unit)	Compliance	Status	Topology	Phases	Control Mode	V_{CC} Min (V)	V_{CC} Max (V)	f_{SW} Typ (kHz)	Package Type
NCP81232MNTXG	1.44	Pb H	Active	Step-Down	2/3/4	Current/Voltage Mode	4.5	24	1200	QFN-40