

Product Overview

NCP81174N: Multi-Phase Synchronous Buck Controller with Power Saving Mode and PWM VID Interface

For complete documentation, see the data sheet.

The NCP81174N is a general-purpose up to four-phase synchronous buck controller. It combines differential voltage sensing, differential phase current sensing, and PWM VID interface to provide accurate regulated power for the computer or graphic controllers. It can receive power saving command (PSI) from processors and operates in single-phase diode emulation mode to obtain high efficiency in light load. Dual-edge multiphase PWM modulation ensures a fast transient response with minimum possible capacitors.

Features

- Output Voltage up to 2.0V with PWM VID Interface
- Support 1.8V VID interface
- Remote Differential Output Voltage Sense
- Thermally Compensated Current Monitoring
- Differential Current Sense For Each Phase
- Power Saving Interface (PSI)
- 200kHz ~ 1000kHz Switching Frequency
- PWMVID frequency up to 5MHz
- Over Current Protection
- Fast Transient Response

For more features, see the data sheet

Benefits

- Compatible to OVR4 GPU vcore power requirement
- For latest GPU generation
- Accurate vcore output voltage
- Constant loadline regulation over the temperature
- Accurate current sensing
- Increased power efficiency
- Programmable switching frequency
- Fast PWMVID and output change

Applications

- GPU and CPU Power
- Graphics Card Applications

End Products

- Notebook
- Graphic Cards
- AIO Products

Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	Package Type
NCP81174NMNTXG	Pb-free Halide free	Active				5	5	200 - 1000	QFN-32

For more information please contact your local sales support at www.onsemi.com.

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