

Product Overview

NCP81610: Multiphase synchronous controller optimized with PWM_VID and I2C Interface

For complete documentation, see the data sheet.

The NCP81610 is a multiphase synchronous controller optimized for new generation computing and graphics processors. The device is capable of driving up to 8 phases and incorporates differential voltage and phase current sensing, adaptive voltage positioning and PWM_VID interface to provide and accurately regulated power for computer or graphic controllers. The integrated power saving interface (PSI) allows for the processors to set the controller in one of three modes, i.e. all phases on, dynamic phases shedding or fixed low phase count mode, to obtain high efficiency in light-load conditions. The dual edge PWM multiphase architecture ensures fast transient response and good dynamic current balance.

Features

- Compliant with NVIDIA OVR4i+ Specifications
- Supports up to 8 Phases
- 2.8 V to 20 V Supply Voltage Range:
- 250 kHz to 1.2 MHz Switching Frequency (8 Phase)
- Under Voltage Protection (UVP)
- Over Voltage Protection (OVP)
- Per Phase Over Current Limiting (OCL)
- System Over Current Protection (OCP)
- Startup into Pre-Charged Loads while Avoiding False OVP
- Configurable Load Line

For more features, see the data sheet

Benefits

- GPU Vcore spec compliance
- Support high phase count and large current
- Wide line input voltage range
- Wide operating frequency range

Applications

- GPU and CPU Power
- Graphic Cards
- Desktop and Notebook Applications

End Products

- Desktop and Notebook Systems

Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	Package Type
NCP81610MNTXG	Pb-free Halide free	NEW							QFN-40

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

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