

Product Overview

NCP81141: Vr12.6 single phase controller

For complete documentation, see the data sheet.

The NCP81141 Single-Phase buck solution is optimized for Intel VR12.6 compatible CPUs. The controller combines true differential voltage sensing, differential inductor DCR current sensing, input voltage feed-forward, and adaptive voltage positioning to provide accurately regulated power for both Desktop and Notebook applications. The single phase controller uses DCR current sensing providing the fastest initial response to dynamic load events at reduced system cost.

The NCP81141 incorporates an internal MOSFET driver for improved system efficiency. High performance operational error amplifiers are provided to simplify compensation of the system. Patented Dynamic Reference Injection further simplifies loop compensation by eliminating the need to compromise between closed-loop transient response and Dynamic VID performance. Patented Total Current Summing provides highly accurate digital current monitoring.

Applications

- Industrial CPU based applications

End Products

- Infotainment, Mobile, Automation, Medical and Security

Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	f _{sw} Typ (kHz)	t _{res} Typ (ns)	Package Type
NCP81141MNTXG	Pb-free Halide free	Active	Step-Down	1	Voltage Mode	4.75	5.25	1000		QFN-28

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

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