

## Product Overview

### NCP81149: Single-Phase Voltage Regulator with SVID Interface for Computing Applications

For complete documentation, see the [data sheet](#)

The NCP81149, a single-phase synchronous buck regulator, integrates power MOSFETs to provide a high-efficiency and compact-footprint power management solution for new generation computing CPUs. The device is able to deliver up to 14A TDC output current on an adjustable output with SVID interface. Operating in high switching frequency up to 1.2MHz allows employing small size inductors and capacitors while maintaining high efficiency due to integrated solution with high performance power MOSFETs. Current-mode RPM control with feedforward from both input power supply and output voltage ensures stable operation over wide operation condition. The NCP81149 is in a QFN48 6x6mm package.

#### Features

- 4.5V to 25V Input Voltage Range
- Support 11.5W and 15W ULT Platforms
- Adjustable Output Voltage with SVID Interface
- Integrated Gate Driver and Power MOSFETs
- 500kHz ~ 1.2MHz Switching Frequency
- Feedforward Operation for Input Supply Voltage and Output Voltage
- Overcurrent, Over/Undervoltage, and Thermal protection

#### Benefits

- Optimized for Ultrabook and notebook applications
- Meets Intel VR12.6 and VR12.6+ Specifications
- Programmable DVID Feed-Forward to Support Fast DVID
- Small form-factor design
- Reduced output filter size and cost
- Fast line transient response and DVID transition
- Protected against faults

#### Applications

- Industrial Applications
- Ultrabook Applications
- Notebook Applications
- Integrated POL

#### End Products

- Ultrabook
- Notebook
- Server

### Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	f <sub>SW</sub> Typ (kHz)	t <sub>res</sub> Typ (ns)	Package Type
NCP81149MNTXG	Pb-free Halide free	Active	Step-Down	1	Current Mode	4.5	25	500 - 1200		QFN-48

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