



Product Overview

NCV8881: Switcher with watchdog and reset

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

Product Description

The NCV8881 consists of a Buck switching regulator (SMPS) with a combination SMPS output undervoltage monitor and CPU watchdog circuit. In addition, two fixed-voltage low dropout regulator outputs are provided, and share an LDO output voltage status output. Once enabled, regulator operation continues until the Watchdog signal is no longer present. The NCV8881 is intended for Automotive, battery-connected applications that must withstand a 40 V load dump. The switching regulator is capable of converting the typical 9 V to 19 V automotive input voltage range to outputs from 3.3 V to 8 V at a constant switching frequency, which can be resistor programmed or synchronized to an external clock signal. Enable input threshold and hysteresis are programmable, with the enable input state replicated at an open drain Ignition Buffer output. The regulators are protected by current limiting, input overvoltage and overtemperature shutdown, as well as SMPS short circuit shutdown.

Features

- 1.5 A Switching Regulator (internal power switch)
- 100 mA, 5 V LDO Output
- 40 mA, 8.5 V LDO Output
- Operating Range 5 V to 19 V
- Programmable SMPS Frequency
- SMPS can be Synchronized to an External Clock
- Programmable SMPS Output Voltage Down to 0.8 V
- $\pm 2\%$ Reference Voltage Tolerance
- Internal SMPS Soft-Start
- Voltage-mode SMPS Control

Applications

- Audio
- Infotainment
- Safety - Vision Systems
- Instrumentation

End Products

- Automotive Systems

Part Electrical Specifications

Product	Compliance	Status	Topology	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	V _O Typ (V)	I _O Typ (A)	Efficiency (%)	f _{sw} Typ (kHz)	Package Type
NCV8881PWR2G	AEC Qualified	Active	Step-Down	Voltage Mode	5	40	5, 8.5	1.5		275	SOIC-16W EP
	PPAP Capable										
	Pb-free										
	Halide free										

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

Created on: 7/11/2015