

## NCP5386

# 1/2 Phase Controller

## Product Overview

For complete documentation, see the data sheet.

The NCP5386 is a one- or two-phase buck controller which combines differential voltage and current sensing, and adaptive voltage positioning to power both AMD and Intel processors and chipsets. Dual-edge pulse-width modulation (PWM) combined with inductor current sensing reduces system cost by providing the fastest initial response to transient load events. Dual-edge multi-phase modulation reduces total bulk and ceramic output capacitance required to satisfy transient load-line regulation. A high performance operational error amplifier is provided, which allows easy compensation of the system. The proprietary method of Dynamic Reference Injection (Patented) makes the error amplifier compensation virtually independent of the system response to VID changes, eliminating tradeoffs between overshoot and dynamic VID performance.

## Features

- Meets Intel VR 10.0 and VR 11.0, and AMD specifications
- Dual-edge PWM for fastest initial response to transient loading
- High performance operational error amplifier
- DAC range from 0.5 V to 1.6 V
- Phase-to-phase current balancing

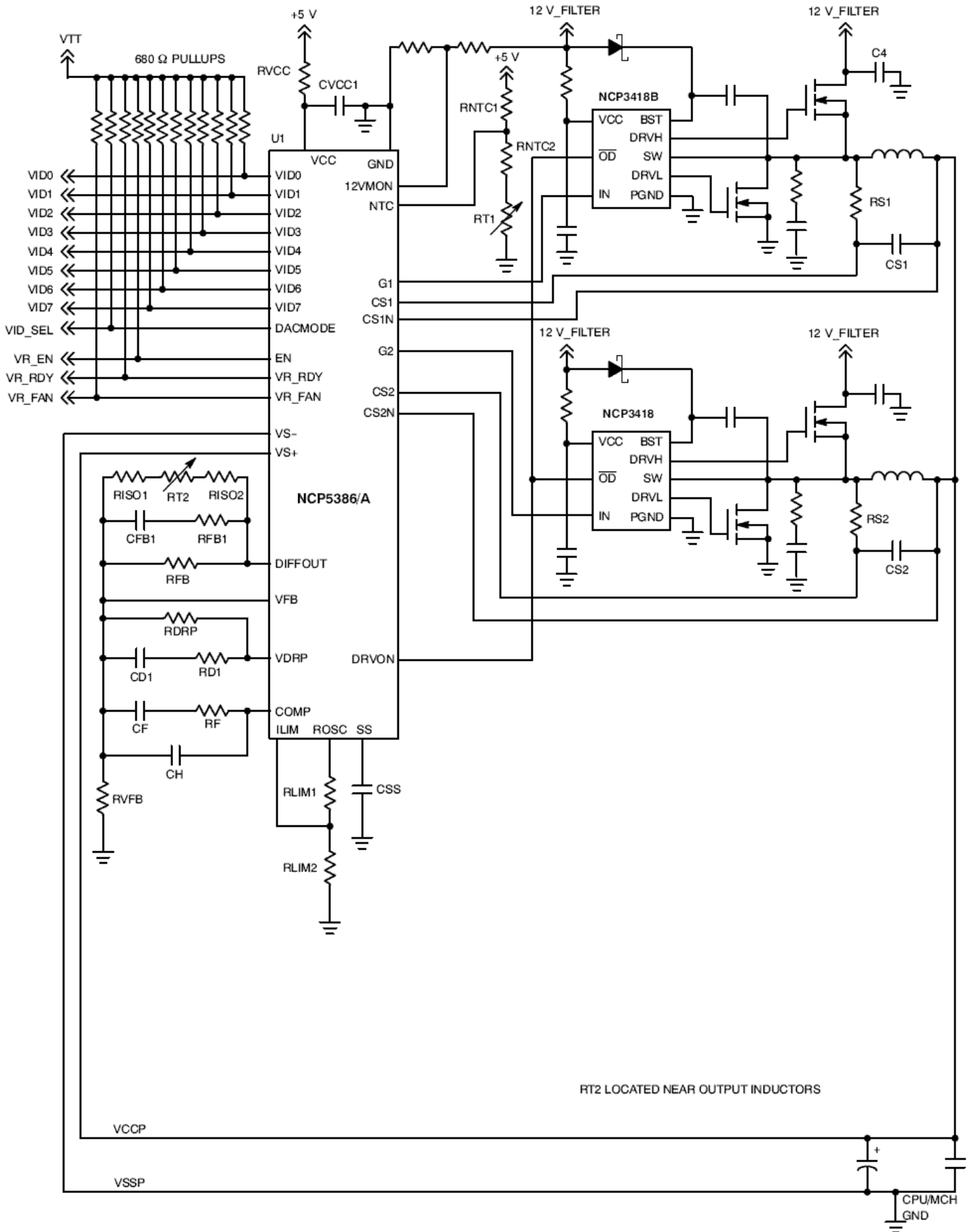
## Applications

- Processor power on motherboards
- Chipset power on motherboards
- DDR power on motherboards

## End Products

- Desktop computers
- Servers

# Application Diagram



RT2 LOCATED NEAR OUTPUT INDUCTORS