

**THREE-PHASE PWM CONTROLLER WITH INTEGRATED FET DRIVER AND DIFFERENTIAL CURRENT SENSING FOR VRD10.X**

PRELIMINARY DATA SHEET

**DESCRIPTION**

The NX2411 is a three-phase PWM controller with integrated FET driver designed to provide a low cost high current multiphase converter that meets the VRD10.0 specification. Multiphase synchronous buck converter offers ripple cancelation for both input and output. The NX2411 uses differential remote sensing using either current sense resistor or inductor DCR sensing to achieve accurate current matching between the three channels. Differential sensing eliminates the error caused by PCB board trace resistance that is otherwise present when using a single ended voltage sensing. In addition the NX2411 offers complete VRD10 signal interface using 6 bit DAC with on the fly DAC change, high drive current capability especially for keeping the synchronous MOSFET off during SW node transition, accurate programmable droop allowing to reduce number of output capacitors, accurate enable circuit provides programmable start up point for Bus voltage, PGOOD output, programmable switching frequency and hiccup current limiting circuitry.

**FEATURES**

- Differential inductor DCR sensing eliminates the problem with layout parasitic
- External programmable voltage droop
- VRM 9 and 10 compatible 6 bit VID
- On the Fly DAC changes allows smooth transition
- Internal Digital Soft Start
- Low Impedance On-board Drivers
- Power Good Signal for Power Sequencing
- Over voltage protection with latch function
- Enable Signal allows external shutdown as well as programming the BUS voltage start up threshold

**APPLICATIONS**

- VRD10.X
- Desktop mother board
- Low voltage high current applications

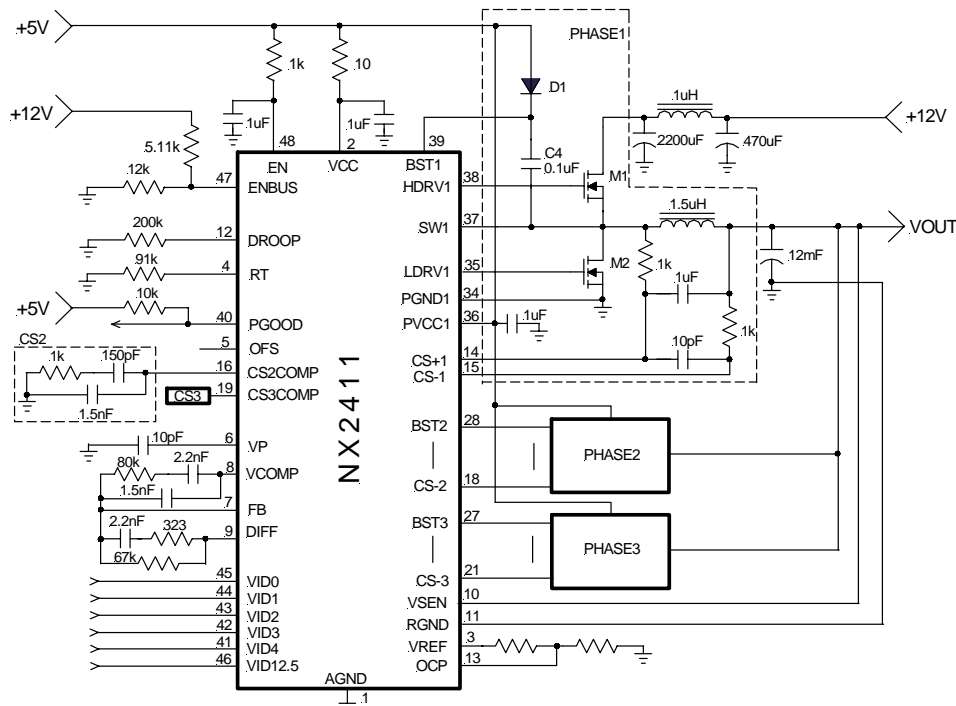
**TYPICAL APPLICATION**

Figure1 - Typical application of 2411

**ORDERING INFORMATION**

Device	Temperature	Package	Frequency
NX2411CMTR	0 to 70°C	MLPQ-48 L	200kHz to 1MHz