

# TWO PHASE SYNCHRONOUS PWM CONTROLLER WITH INTEGRATED FET DRIVER, DIFFERENTIAL CURRENT SENSE & 5V BIAS REGULATOR

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## DESCRIPTION

The NX2423 is a two-phase PWM controller with integrated FET driver designed for low voltage high current application. The two phase synchronous buck converter offers ripple cancelation for both input and output. The NX2423 uses differential remote sensing using either current sense resistor or inductor DCR sensing to achieve accurate current matching between the two channels. Differential sensing eliminates the error caused by PCB board trace resistance that otherwise presents when using a single ended voltage sensing.

In addition the NX2423 offers high drive current capability especially for keeping the synchronous MOSFET off during SW node transition, can provide regulated 5V to IC biasing and drivers via 5V bias regulator, allows the slave channel on and off via EN2\_B pin while the main channel is working. Other features: PGOOD output, programmable switching frequency and hiccup current limiting circuitry.

## FEATURES

- Differential inductor DCR sensing eliminates the problem with layout parasitic
- 5V bias regulator available
- Low Impedance On-board Drivers
- Hiccup current limit and IOOUT indication
- Power Good for power sequencing
- EN2\_B pin allows the slave channel on and off while the master channel is working
- Programmable frequency
- Prebias start up
- OVP without negative spike at output
- Selectable between internal and external reference
- Internal Schottky diode from PVCC to BST
- Pb-free and RoHS compliant

## APPLICATIONS

- Graphic card High Current Vcore Supply
- High Current on board DC to DC converter applications

## TYPICAL APPLICATION

## ORDERING INFORMATION