# HIGH FREQUENCY \& HIGH DRIVE SYNCHRONOUS PWM CONTROLLER 

DESCRIPTION
The NX2210/2211 family of controller ICs are synchronous Buck controller IC designed for step down DC to DC converter applications. They are optimized to convert bus voltages from 2 V to 25 V to outputs as low as 0.8 V voltage. Both devices offer an Enable pin that can be used to program the converter's start voltage using an external divider from bus voltage. The NX2211 operates at fixed 600 kHz while 2210 has ability to program switching frequency from 200 kHz to 1 MHz , making it ideal for applications requiring ceramic output capacitor. The NX2211 has an added Power Good function.Both devices have less than 50 nS of dead band which increases efficiency at higher frequencies.
Other features of the device are; Internal digital soft start; Vcc undervoltage lock out;Output undervoltage protection with digital filter and shutdown capability via the enable pin.
<1ohm Driver keeps High Capacitance Synchronous MOSFET off during SW node transition Bus voltage operation from 2 V to 25 V
Power Good indicator available for NX2211
Fixed 600 kHz for NX2211 and adjustable frequency up to 1 MHz for NX2210
Internal Digital Soft Start Function Less than 50 nS adaptive deadband Enable pin allows BUS voltage UVLO programmability
Short protection with feedback UVLO

## APPLICATIONS

- Graphic Card on board converters
- Memory Vddq Supply
- On board DC to DC such as

12 V to $3.3 \mathrm{~V}, 2.5 \mathrm{~V}$ or 1.8 V

- ADSL Modem

TYPICAL APPLICATION


Figure1 - Typical application of 2211
ORDERING INFORMATION

| Device | Temperature | Package | Frequency |
| :---: | :---: | :---: | :---: |
| NX2210CMTR | 0 to $70^{\circ} \mathrm{C}$ | MLPD-10L | 200kHz to 1MHz |
| NX2211CMTR | 0 to $70^{\circ} \mathrm{C}$ | MLPD-10L | 600 kHz |

