

MxC200 48Vdc 15W DC-DC Converter

The MuxCapacitor MxC200 DC-DC converter offers the highest energy efficiency per density. It enables use with low-cost PoL regulators (i.e., 12V Buck Regulator) maximizing system efficiency. Each MuxCapacitor output can be tapped for intermediate voltages. The integrated multi-stage MuxCapacitor enables a low profile module for high density equipment. High efficiency reduces thermal loading for lower packaging costs.

Intelligent MuxCapacitor timing & control optimizes power delivery efficiency from no-load to maximum power.

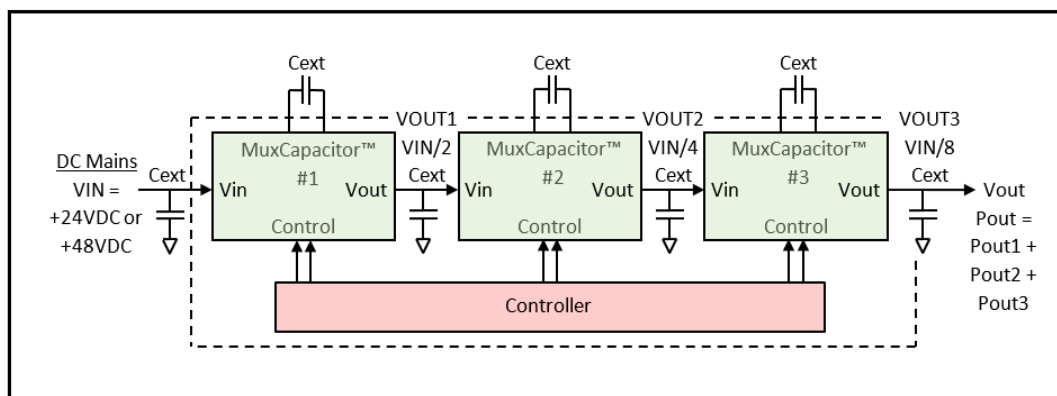
Applications

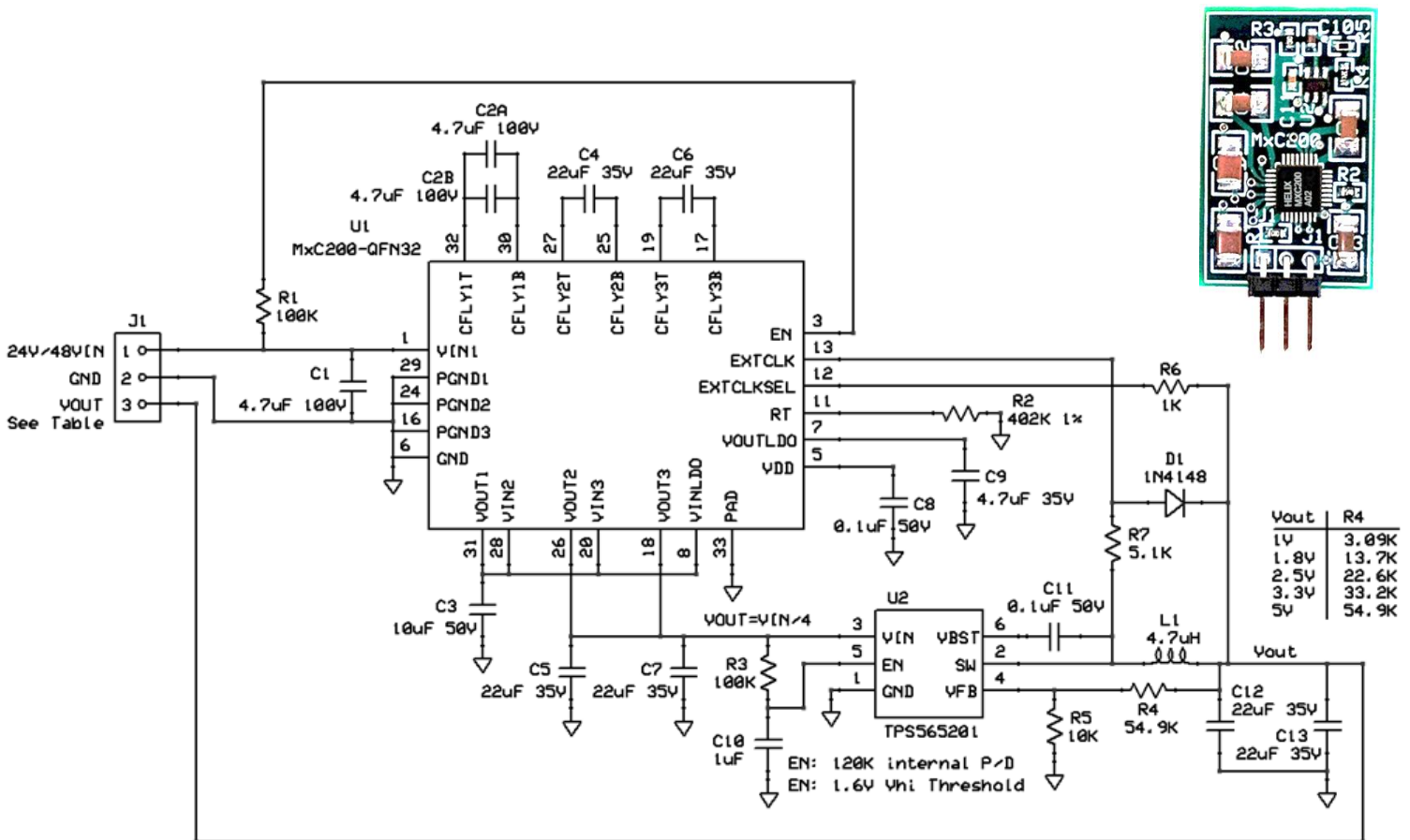
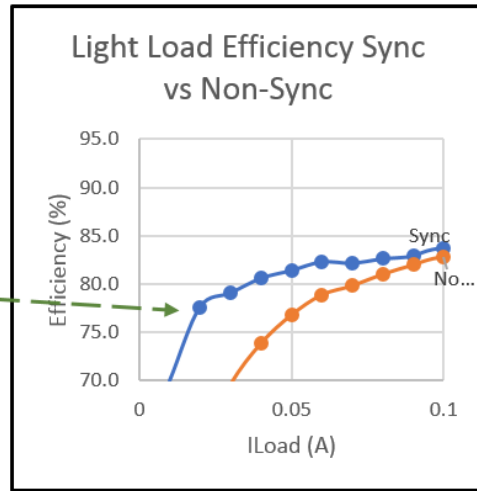
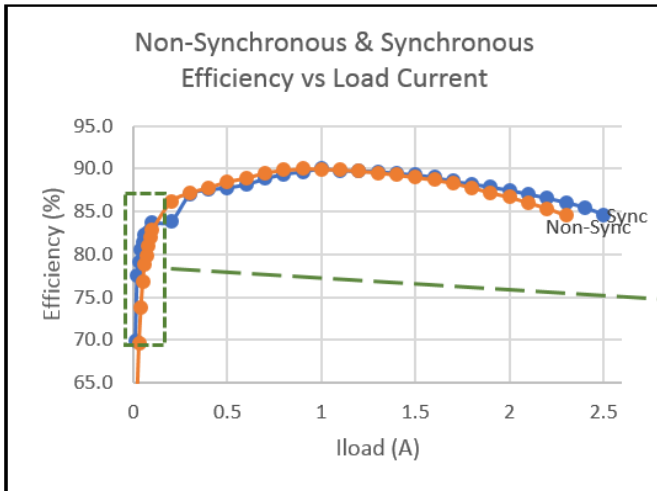
- Intermediate Bus Converters
- Telecom Blades, Data Centers
- PoE: Wireless Access Points, Security Cameras, VoIP Phones
- Electric & Hybrid Automobiles
- Industrial Controllers, HVAC
- IoT & IIoT Gateways

Features

- Nominal +24 to 48Vdc Input Voltage
 - 3-stage MuxCapacitor™, $G=1/2$ each
 - Up to 57Vdc Input Voltage
- 15W Output
 - $P_{out} = P_{out1} + P_{out2} + P_{out3}$
- Multiple intermediate outputs
- Idle Operation: Enabled, No-Load
 - 1mW Non-Switching
 - 48mW Switching
- > 97% Efficiency @ 2.6W
- > 90% Efficiency @ 15W
- Maximizes POL regulator efficiency
- Fault Detectors
 - Output Over Current
 - Thermal Shutdown
- Extends use of low-voltage PoLs
 - Enables 48V operation
 - Greater hi-VIN efficiency
 - Power multiple PoLs
- Package Options
 - 32 Pin QFN, 5mm x 5mm
 - Wire Bond Die

MxC200 Block Diagram





MxC200 with Buck Regulator Application Schematic