HS200 +48Vin 15W DC-DC MuxCapacitor® Power IC

The Helix Semiconductor HS200 DC-DC MuxCapacitor Power IC offers the highest energy efficiency per density. When used with a low cost POL regulator, system efficiency is maximized. 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.

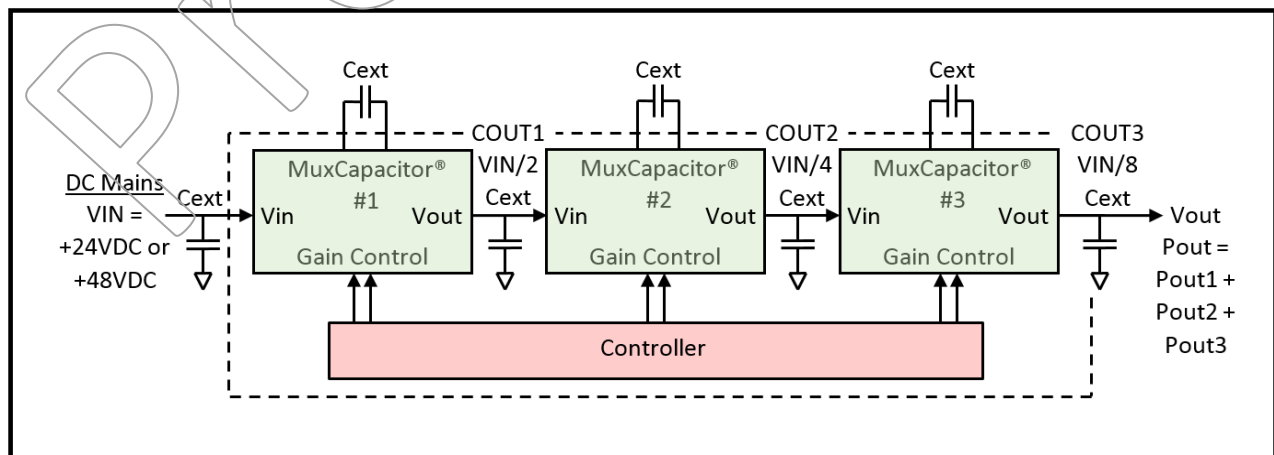Intelligent MuxCapacitor timing & control optimizes power delivery efficiency from no-load to maximum power.
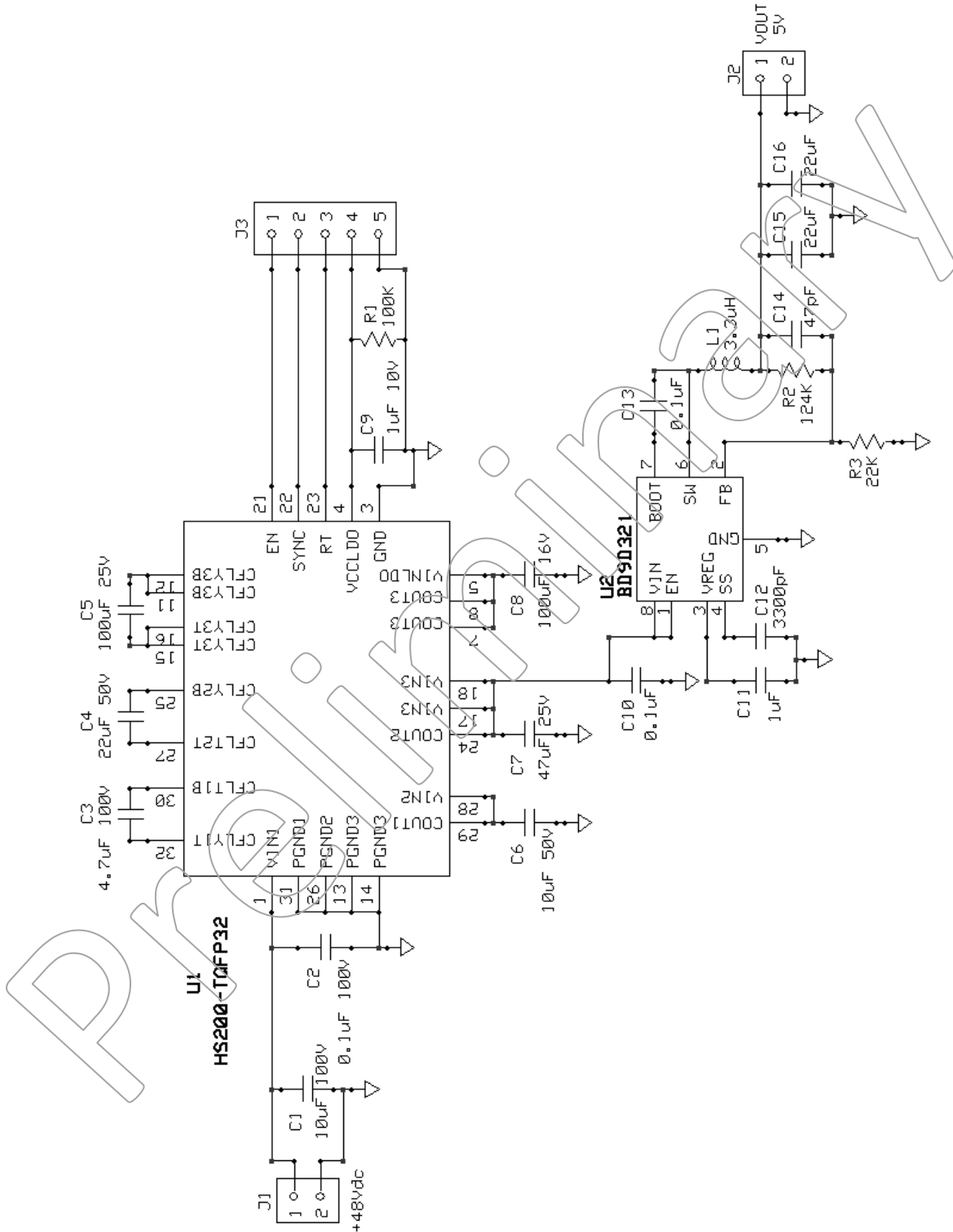
Applications

- Telecom Blades, Data Centers
- PoE: Wireless Access Points, Security Cameras, VoIP Phones
- Industrial Controllers, HVAC
- IoT & IIoT Gateways

Features

- +24/48Vdc Input Voltage
  - Multi-stage MuxCapacitor
- 15W Output
  - Pout = Pout1 + Pout2 + Pout3
- Multiple intermediate outputs
  - Low Voltage current limitation
- Offline Operation
  - 1/2mW Power Consumption
- Idle Operation: Active, Non-switching
  - 50mW Power Consumption
  - Active On Output
- > 97% Efficiency @ 2.6W
- > 90% Efficiency @ 15W
- Maximizes POL regulator efficiency
- Soft-Start
- Fault Detectors
  - Input Under Voltage
  - Output Over Voltage
  - Output Over Current
  - Thermal Shutdown

HS200 Block Diagram

HS200 with Buck Regulator Application Schematic