

### HS200 +48Vin 15W DC-DC MuxCapacitor™ Power IC

The Helix Semiconductor HS200 DC-DC MuxCapacitor Power IC offers the highest energy efficiency per density. It enables use with low cost POL regulator (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.

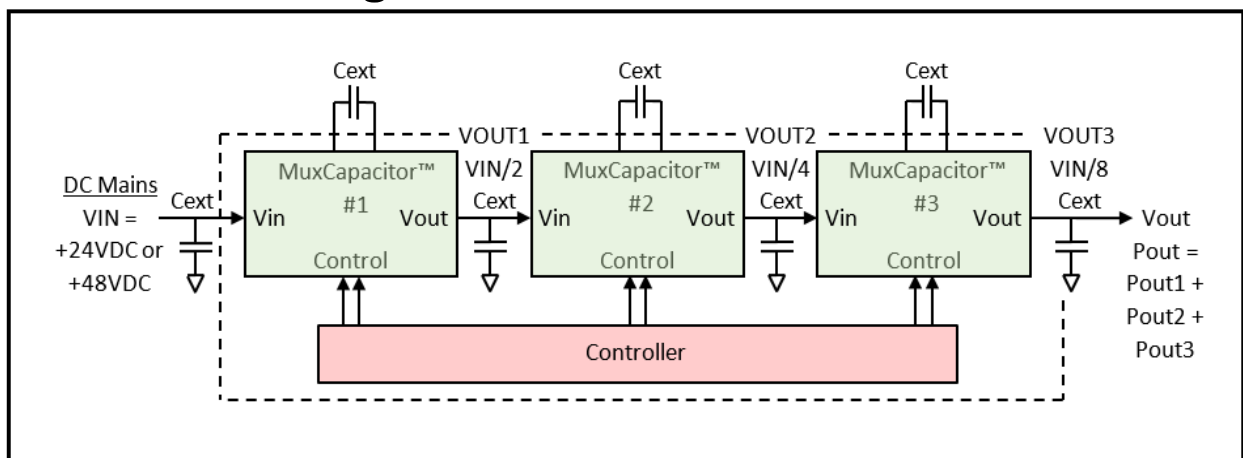
### Applications

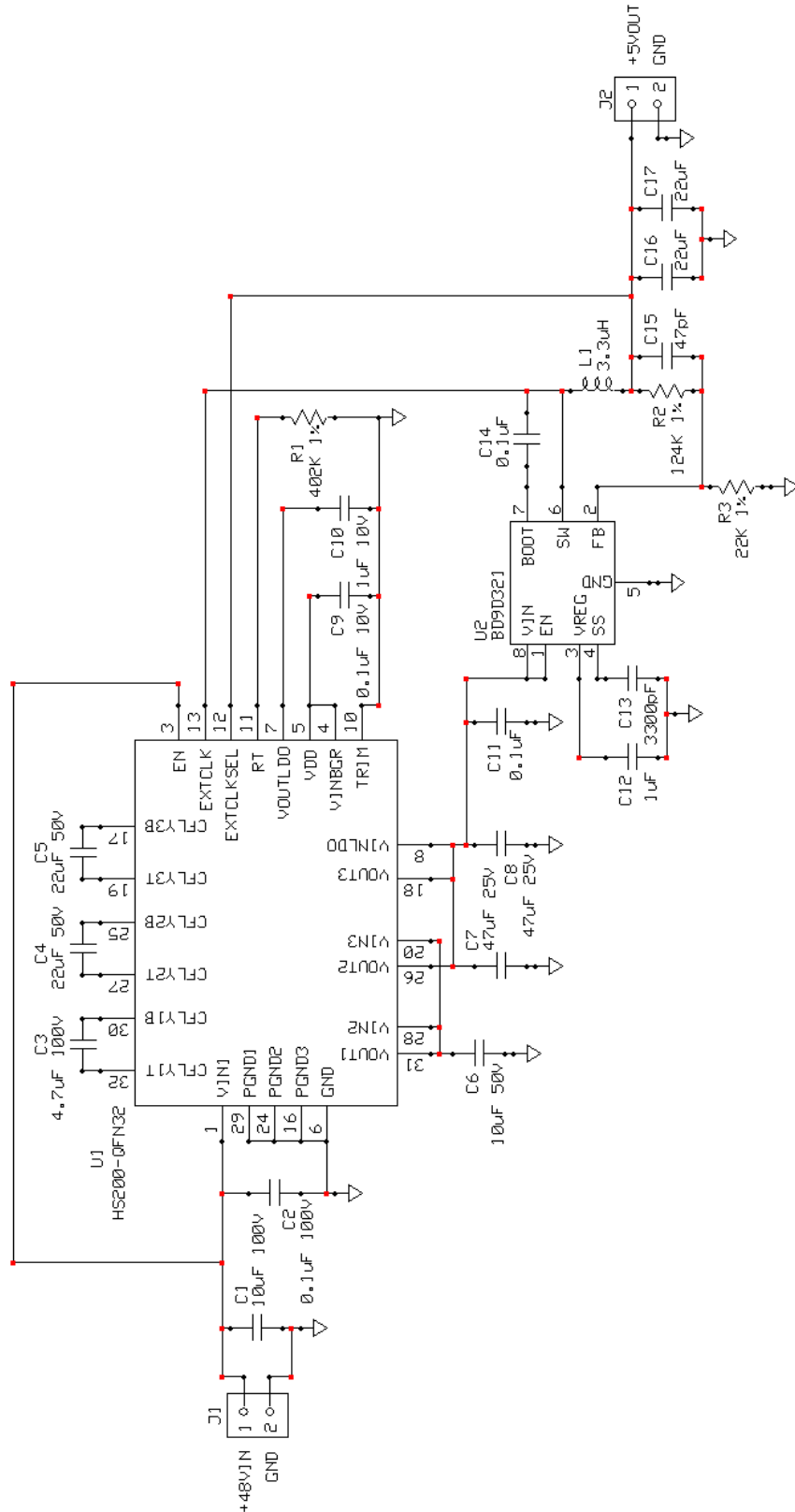
- Telecom Blades, Data Centers
- PoE: Wireless Access Points, Security Cameras, VoIP Phones
- Electric & Hybrid Automobiles
- Industrial Controllers, HVAC
- IoT & IIoT Gateways

### Features

- +24/48Vdc Input Voltage
  - Multi-stage MuxCapacitor
- 15W Output
  - $P_{out} = P_{out1} + P_{out2} + P_{out3}$
- Multiple intermediate outputs
- Low Voltage current limitation
- Idle Operation: Active, No-Load
  - 0.5mW 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 Current
  - Thermal Shutdown

### HS200 Block Diagram





HS200 with Buck Regulator Application Schematic