

High Voltage MuxCapacitor® Voltage Reducer Plus Programmable Output Regulator IC

The Helix Semiconductors high voltage MuxCapacitor voltage reducer plus Output Regulator IC offers the highest energy efficiency for stepping down non-isolated DC voltage. Integrated with the two MuxCapacitor stages is a programmable LDO regulator. The LDO output can be programmed to one of four voltages: 1.8V, 2.5V, 3.3V and 5V, and can source up to 50mA.

This IC eliminates the use of inductors or large case size capacitors for optimum volumetric efficiency.

The IC includes reset, internal references and regulation & gain control logic. The high efficiency reduces thermal loading enabling lower packaging costs.

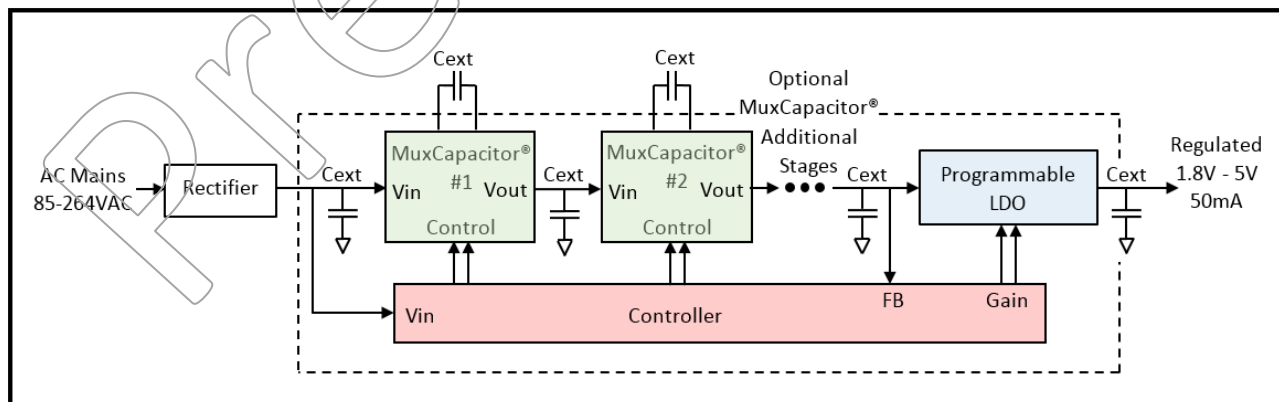
Features

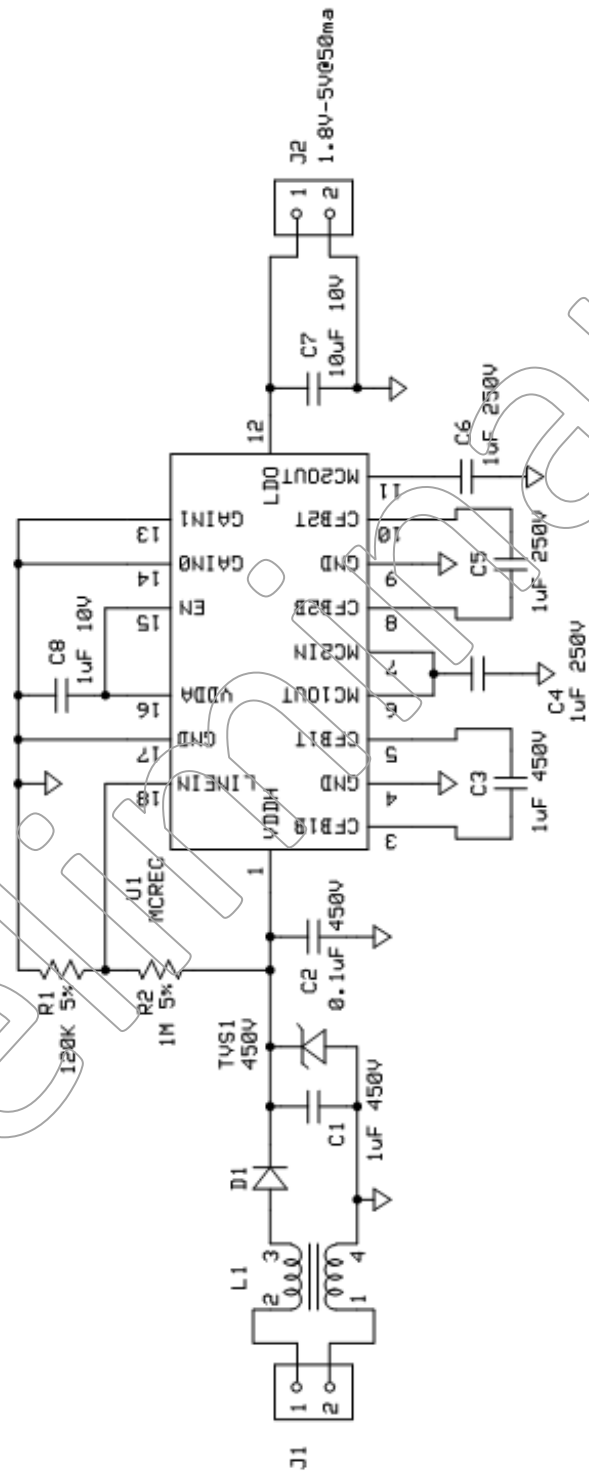
- Up to 400VDC Input Voltage
- Programmable LDO Output
 - 1.8V, 2.5V, 3.3V, 5V
- ±5% Output Voltage Regulation
- 50mA Output Current
 - 1.8V, 2.5V, 3.3V, 5V
- > 90% Efficiency at 5mA to 50mA
- 10mW No-Load Power Consumption
- Soft-Start
- No Inductors or large Capacitors

Applications

- Smart Outlets
- High Voltage Battery Systems
- Remote Sensors
- Utility Meters

Block Diagram





Application Schematic