

# XILINX SPARTAN<sup>®</sup>-7 POWER: OVERVIEW

Spartan-7 devices are the newest addition to the Xilinx cost-optimized portfolio, offering best performance per watt, along with small form factor packaging. These devices feature a MicroBlaze™ soft processor running over 200 DMIPs with 800Mb/s DDR3 support built on 28nm technology. Additionally, Spartan-7 devices offer an integrated ADC, dedicated security features on all commercial devices. These devices are ideally suited for industrial, consumer, and automotive applications, including any-to-any connectivity, sensor fusion, and embedded vision.

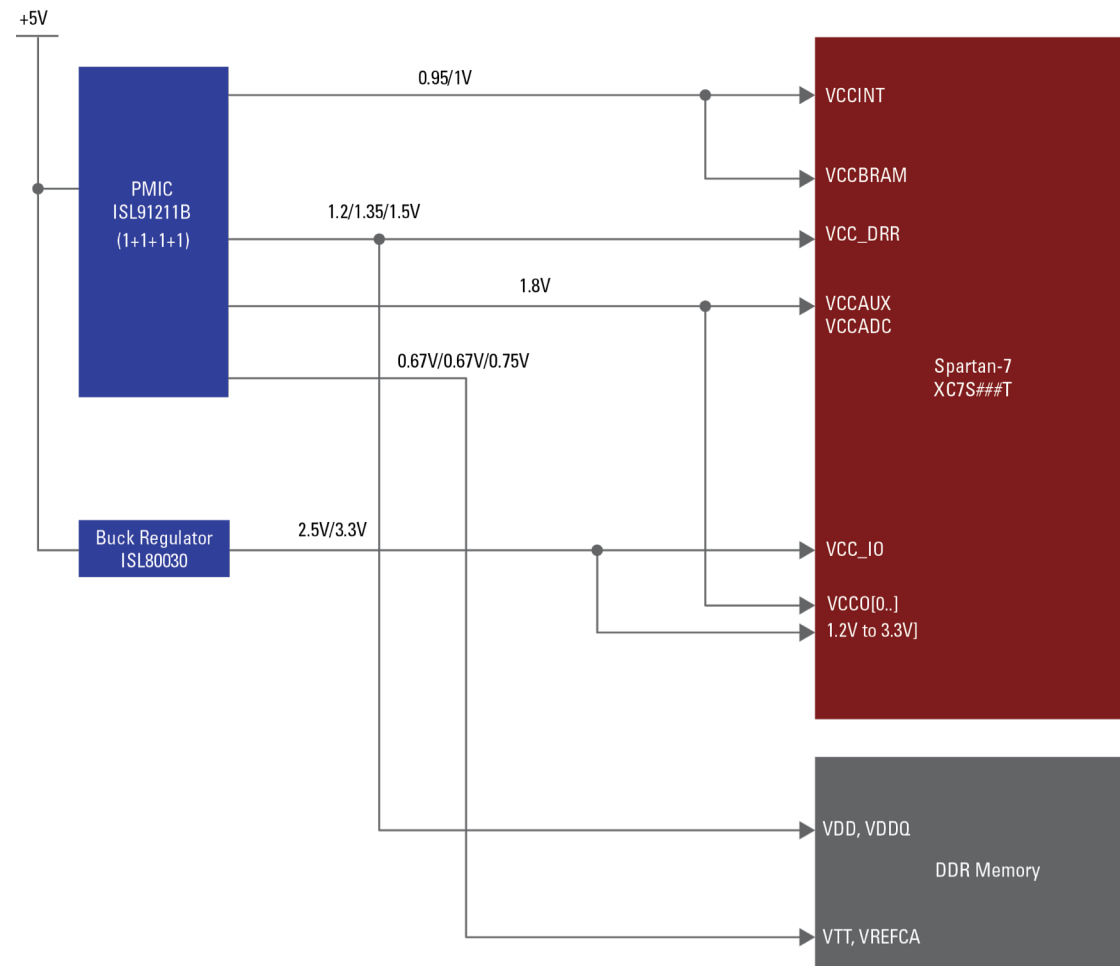
This winning combination highlights the power devices on the reference board for the Xilinx® Spartan®-7 family.

Visit the [Spartan-7 power solutions](#) page to learn more.

## Key Features:

- Pre-programmed PMICs specifically designed to meet this use case and provide flexible power solutions
- Four use cases shown in the link provided

# XILINX SPARTAN<sup>®</sup>-7 POWER: BLOCK DIAGRAM



US054

# XILINX SPARTAN®-7 POWER: SUMMARY

- **System benefits**
  - PMICs with programmable outputs to reduce board space and manage power requirements

Device Category	P/N	Key Features
Power	ISL91211B	Configurable Quad Output Power Management IC
Power	ISL80030	3A Synchronous Buck Converter in 2x2 DFN Package

# ISL91211A/B – Triple/Quad Output Power Management IC

Client/Enterprise/Data Center SSD, NAS, Optical Transceiver Modules, custom power

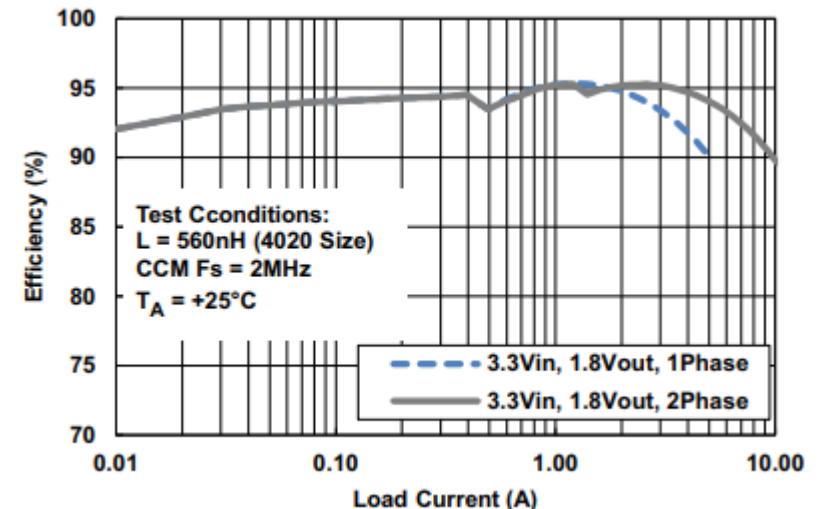
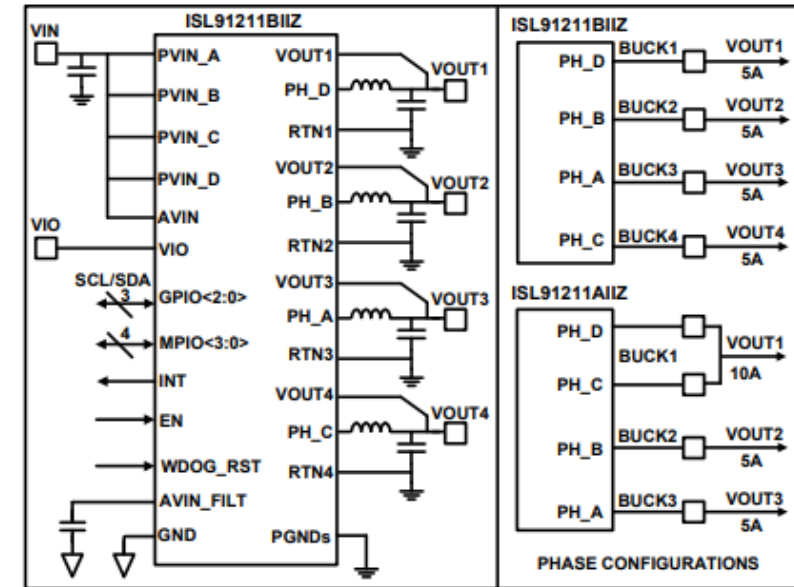
## Custom Power

- Triple output 2+1+1 phases (ISL91211A) or quad output single phase (ISL91211B)
- I2C programmable output from 0.3V to 2V
- 5V to 5.5V supply voltage
- 5A per phase output current capability

## High Efficiency and Accuracy

- Low IQ in low power mode
- High efficiency (94.7% for 3.8VIN/1.8VOUT)
- $\pm 0.7\%$  system accuracy, remote voltage sensing
- Small solution size

Part #	Package
ISL91211AIIZ-T	54L 3.67x2.55mm WLCSP
ISL91211BIIZ-T	54L 3.67x2.55mm WLCSP



# ISL80030/A – 3A Synchronous Buck Converter

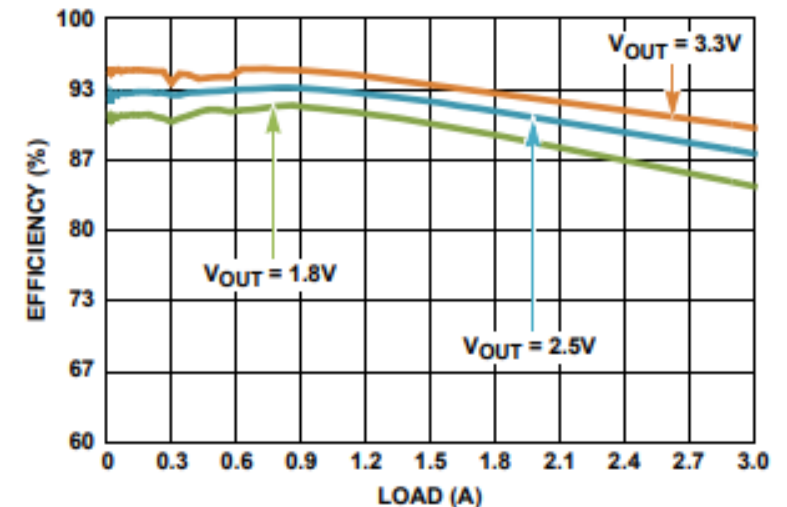
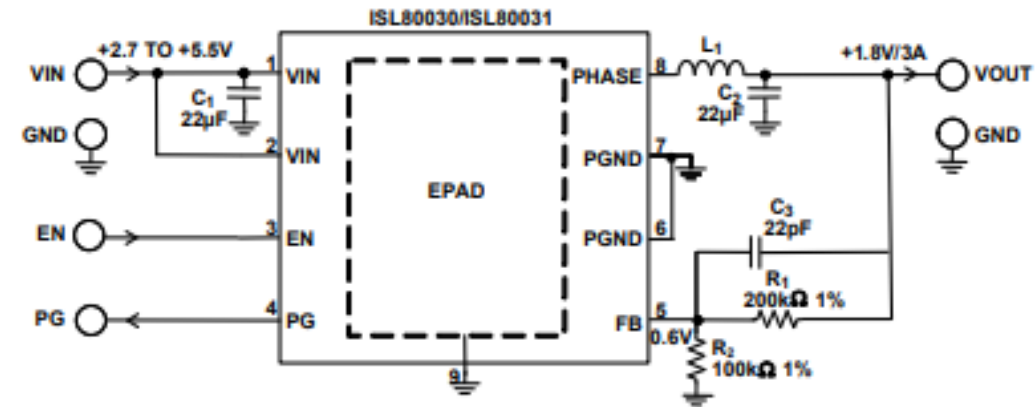
General purpose POL DC/DC, FPGA Power, Industrial/Medical equipment

## Flexible Power in a small package

- Input voltage range: 2.7V to 5.5V
- Current out max: 3A
- Switching frequency is 1MHz (80030) or 2MHz (80030A)
- Very low  $r_{DS(ON)}$  MOSFETs to maximize efficiency

## Robust Design

- Negative current protection
- Operates at 100% duty cycle
- Overcurrent and short circuit protection
- Over-temperature/thermal protection



Part #	Package
ISL80030FRZ-T7A	8L 2x2mm DFN
ISL80030AFRZ-T7A	8L 2x2mm DFN