



# SPIDER: POWER MANAGEMENT

20 years of experience

## WHAT IS SPIDER?

SPIDER is a turnkey solution to design and integrate energy-efficient power networks on SoCs.

It includes a comprehensive set of voltage regulators, monitors, oscillators, power gating IPs, and a configurable digital power controller.

SPIDER enables advanced low-power techniques such as adaptive body bias and voltage scaling.

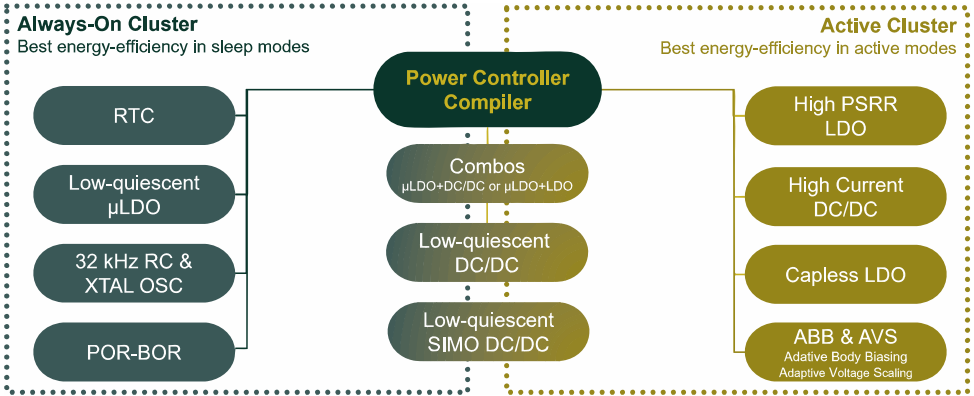
SPIDER is built on Dolphin Semiconductor's state-of-the-art IP portfolio and system-level utility.

It helps designers to speed up their design flow, optimize their BoM cost, and secure their silicon.

## APPLICATIONS

- High performance computing
- Medical devices
- Automotive electronics
- IoT devices
- Smartphone & Tablets
- Consumer electronics

# One-Stop-Shop Platform



## Key Features

### Flexible

- Up to 5.5 V input voltage with standard IO MOS
- Down to 0.5 V programmable - no trimming required
- 100 mA to 1.5 A loads

### Low Power

- 350 nA Iq DC/DC
- 640 nA Iq SIMO
- 55 nA 32 kHz oscillator
- 160 nA  $\mu$ LDO
- 300 gates power controller for deep sleep mode

### Efficient

- 70% efficiency @ 10  $\mu$ A DC/DC
- 90% peak efficiency DC/DC
- 3 or 4 outputs SIMO
- 5x performances improvement via ABB corner tightening

### Reliable

- 20 yrs lifetime guarantee (high reliability conf.)
- Built-in safety features
- User-configurable & GUI-based power controller
- < 10 mVpp ripple DC/DC

**DOLPHIN**  
SEMICONDUCTOR