

Exar Power Management Solutions for Lattice ECP2/M, XP2, ECP/EC, XP, MachXO™, ispMACH® 4000 FPGA and CPLD Devices



Need Market Proven Power Management Solutions for your FPGA or PLD designs?

Targeting Point-of-Load applications requiring:

- High current density
- Power sequencing
- High efficiency
- Wide input low duty cycle voltage conversions

See how Exar's **step down controllers** and **regulators** such as the PowerBlox™ family of scalable, synchronous and non-synchronous **converters** can get your designs to market faster – Try our on-line design tools too!

Core or I/O Voltage	Input Voltage	≤ 600mA	≤ 1.5A	≤ 3A	≤ 6A	≤ 12A	≤ 12A - 20A
1.2V ECP2/M XP2 ECP/EC XP ver E MachXO ver E	3.0V - 5.5V	SP6669	XRP6657 ²	SP7661¹	SP7663¹	SP7662¹	SP6133 ¹
	≤ 18V	SP7656	SP7656	SP7662	SP7662	SP7662	SP6133
1.8V XP ver C MachXO ver C ispMach 4000C/Z/ZE	3.0V - 5.5V	SP6669	XRP6657 ²	SP7661¹	SP7663¹	SP7662¹	SP6133 ¹
	≤ 15V	SP7656	SP7661	SP7661	SP7663	SP7662	SP6133
	≤ 22V	SP7656	SP7656	SP7662	SP7662	SP7662	SP6133
	≤ 26V	SP7656	SP7656	SP6132H	SP6132H	SP6132H	SP6132H
2.5V XP ver C MachXO ver C ispMach 4000B	3.0V - 5.5V	SP6669	XRP6657 ²	SP7661¹	SP7663¹	SP7662¹	SP6133 ¹
	≤ 20V	SP7661	SP7661	SP7661	SP7663	SP7662	SP6133
	≤ 22V	SP7656	SP7656	SP7662	SP7662	SP7662	SP6133
	≤ 28V	SP7656	SP7656	SP7656	SP6132H	SP6132H	SP6132H
3.3V XP ver C MachXO ver C ispMach 4000V	3.0V - 5.5V	SP6669	XRP6657 ²	SP7661¹	SP7663¹	SP7662¹	SP6133 ¹
	≤ 22V	SP7661	SP7661	SP7661	SP7663	SP7662	SP6133
	≤ 28V	SP7656	SP7656	SP7656	SP6132H	SP6132H	SP6132H

¹ Requires 5V bias voltage for input voltages < 4.5V

² Coming Soon



Note: Parts in bold are from the PowerBlox™ family

Exar's online power simulator and design tool



power design made easy

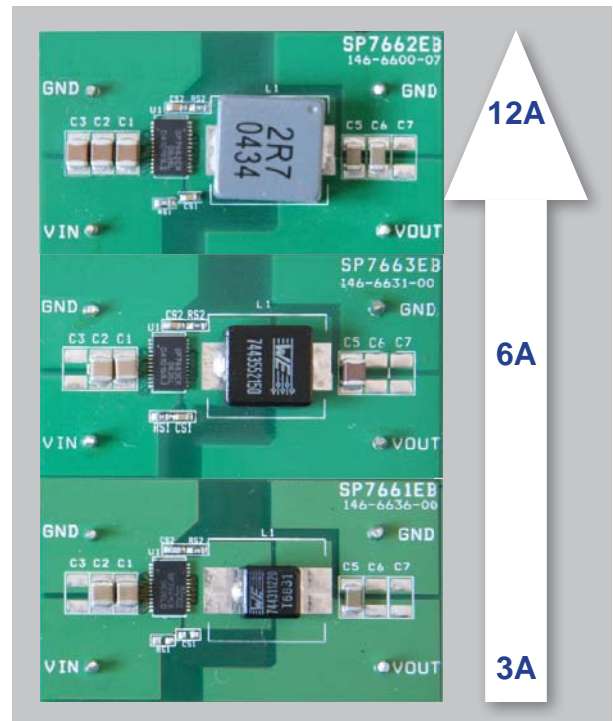
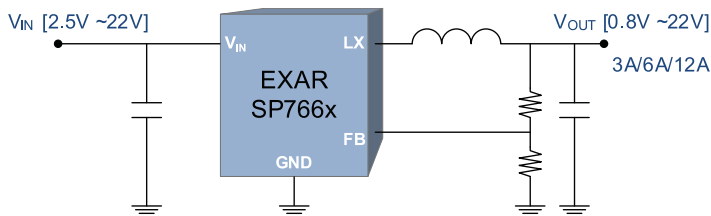
<http://www.exar.com/powerlab>

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Exar PowerBlox™ for FPGA Designers

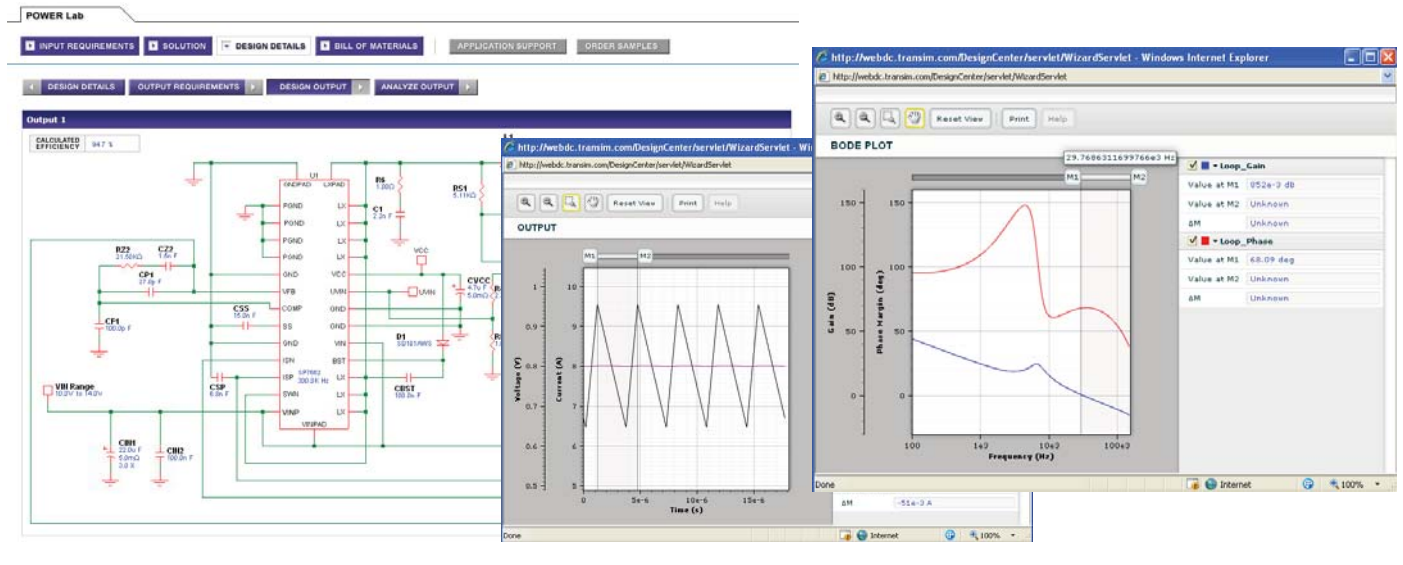
- High power density single chip synchronous buck regulator family
- High efficiency and performance
 - Achieves up to 95%
 - Outstanding thermal management
- FPGA and PLD centric solutions
 - Scalable solution
Unique footprint for 3A to 12A design
 - Easily upgradable or cost reduced design
 - Customizable and flexible prototyping
 - Simple clock rate migration
 - Multiple sequencing options



Power Lab™
power design made easy

<http://www.exar.com/powerlab>

- High performance design solution generator and simulator
 - As simple as entering V_{in} , V_{out} and current load
 - Schematics and Bill of Material generator
 - Extensive waveforms viewer and transient analysis capability
 - Supports multiple outputs
 - **All in less than 10 minutes!**



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