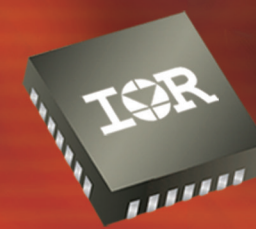


Product Line	Applications	Key Products
 <p><b>Energy Saving Products</b> Integrated design platforms that enable customers to add energy-conserving features that achieve lower operating energy costs and manufacturing Bill of Material (BOM) costs.</p>	<ul style="list-style-type: none"> <li>• Appliances</li> <li>• Audio</li> <li>• Display</li> <li>• Industrial</li> <li>• Lighting</li> <li>• SMPS</li> </ul>	<ul style="list-style-type: none"> <li>• Digital Control ICs</li> <li>• High-Voltage ICs</li> <li>• IGBTs</li> <li>• IRAM Integrated Power Modules</li> <li>• MERs</li> </ul>
 <p><b>Enterprise Power</b> Optimized power management system solutions that deliver benchmark power density, efficiency and performance in enterprise power.</p>	<ul style="list-style-type: none"> <li>• Servers</li> <li>• Storage Networks</li> <li>• Switchers &amp; Routers</li> <li>• Workstations</li> <li>• Notebooks</li> <li>• Game Stations</li> <li>• Set-Top Box</li> </ul>	<ul style="list-style-type: none"> <li>• DirectFET<sup>®</sup> plus</li> <li>• Low-Voltage ICs</li> <li>• Sup/IRBuck<sup>®</sup></li> <li>• iPOWIR<sup>®</sup></li> <li>• PowIRstage<sup>®</sup></li> <li>• CHiL Digital Controllers</li> </ul>
 <p><b>Automotive</b> Automotive grade power management solutions qualified to meet the needs of 12V, 24V and HEV/EV applications with a zero defect goal.</p>	<ul style="list-style-type: none"> <li>• AC and DC Motor Drives</li> <li>• Powertrain / Engine control</li> <li>• Body Electronics</li> <li>• Lighting</li> <li>• Class D Audio</li> <li>• Heavy Loads and Actuators</li> </ul>	<p>Automotive Qualified:</p> <ul style="list-style-type: none"> <li>• HEXFET<sup>®</sup> Power MOSFETs</li> <li>• Intelligent Power Switches</li> <li>• Driver ICs</li> <li>• IGBTs</li> <li>• DirectFET<sup>®</sup>2</li> </ul>
 <p><b>Benchmark MOSFETs</b> IR continues to lead the industry by offering power MOSFETs with the lowest <math>R_{DS(on)}</math> and widest range of packages up to 250V for a diverse range of applications.</p>	<ul style="list-style-type: none"> <li>• Audio</li> <li>• Computing</li> <li>• Communications</li> <li>• Motor Control</li> <li>• Power Supply</li> <li>• Synchronous Rectification</li> </ul>	<ul style="list-style-type: none"> <li>• Discrete HEXFET<sup>®</sup> MOSFETs</li> <li>• Dual HEXFET<sup>®</sup> MOSFETs</li> <li>• FETKY<sup>®</sup></li> </ul>
 <p><b>HiRel</b> Our discrete components, complex hybrid power module assemblies and rugged DC-DC converters utilize leading-edge power technology which, together with demanding environmental specifications help engineers to meet their toughest design challenges.</p>	<ul style="list-style-type: none"> <li>• Space</li> <li>• Military</li> <li>• Commercial Aviation</li> <li>• Rugged Industrial</li> <li>• Medical</li> </ul>	<ul style="list-style-type: none"> <li>• RAD-Hard MOSFETs</li> <li>• Power Modules/Hybrid Solutions</li> <li>• Motor Control Solutions</li> <li>• DC-DC Converters</li> </ul>

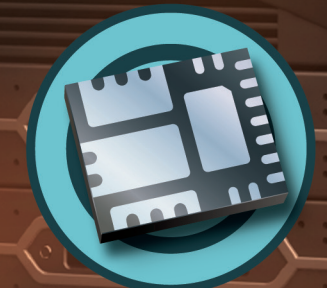
## FPGA POL Voltage Regulator Product Selection Guide



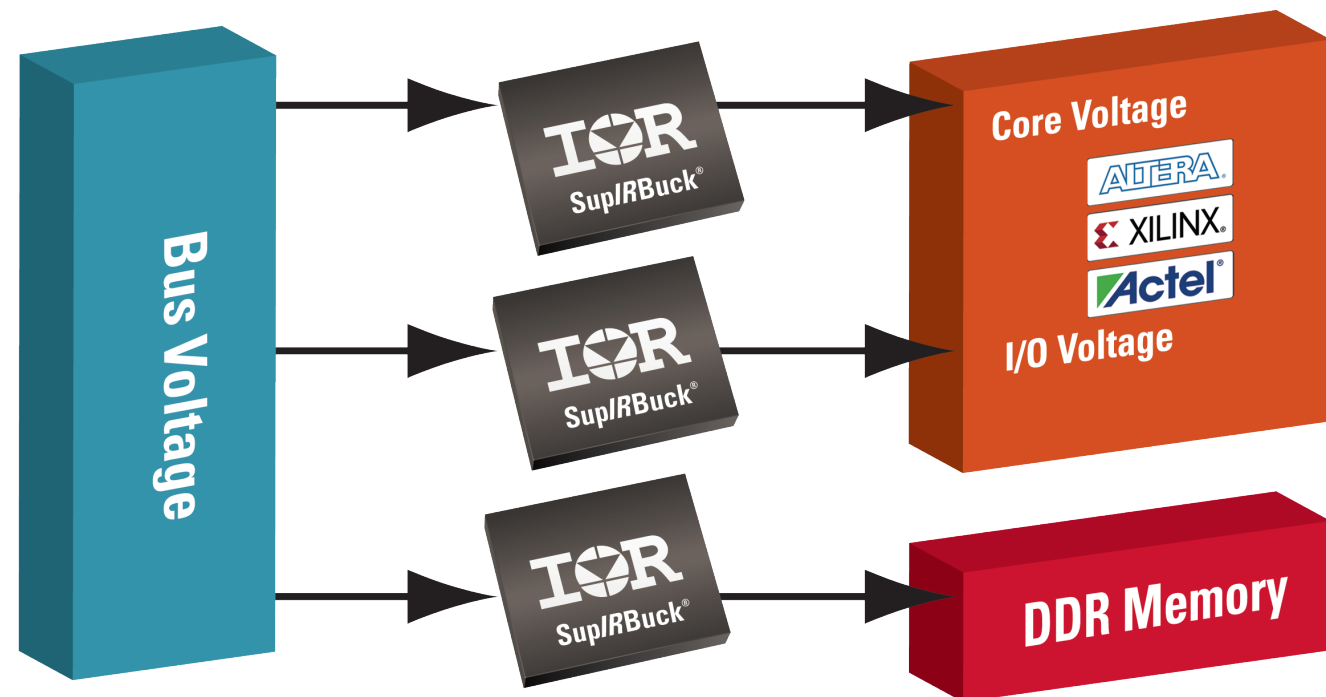
Control IC



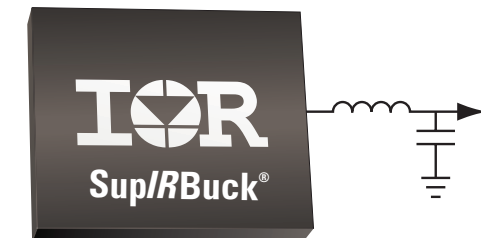
Benchmark MOSFETs



Sup/IRBuck<sup>®</sup>



	1.5 - 16V		24V
	5V bias required	Integrated LDO	
1-3A	IR3853		
	IR3843W		
4-6A	IR3856		IR3473
	IR3842W		
	IR3832W	IR3839	
7-10A	IR3859		IR3475
	IR3841W		
	IR3831W	IR3838	
11-15A	IR3840W		IR3476, IR3477
		IR3837	
16-35A	iP1827, iP1837		



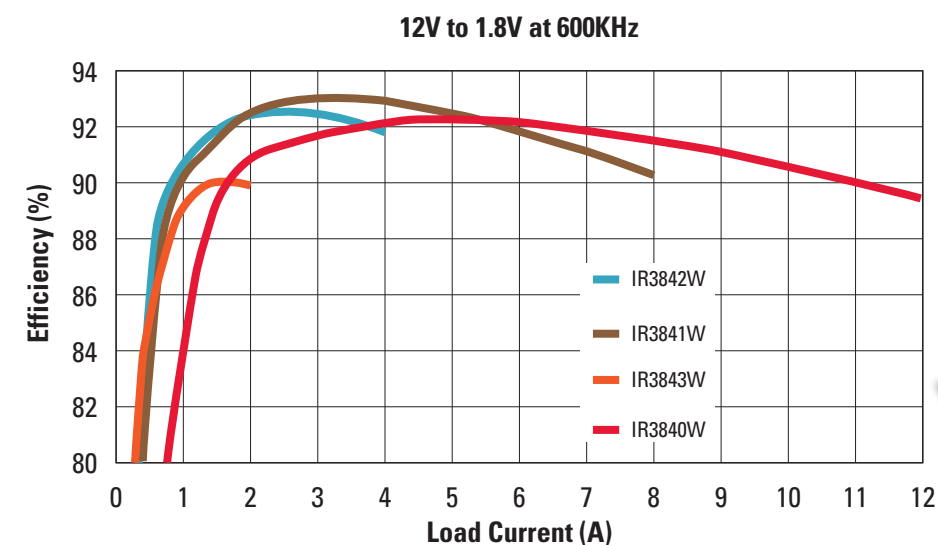
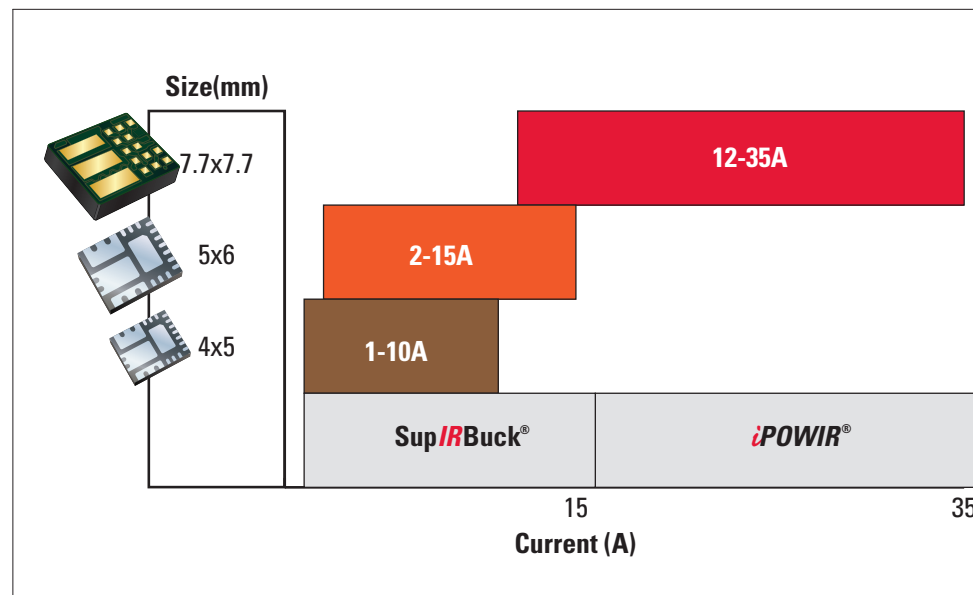
#### Common Features

- Sequencing
- Programmable frequency up to 1.5 MHz for compact design
- Integrated protection features including prebias, thermal protection, programmable over-current, and programmable hiccup current limit

Compatible with all common FPGAs platforms including:

- Virtex
- Cyclone
- Stratix
- Spartan
- Other

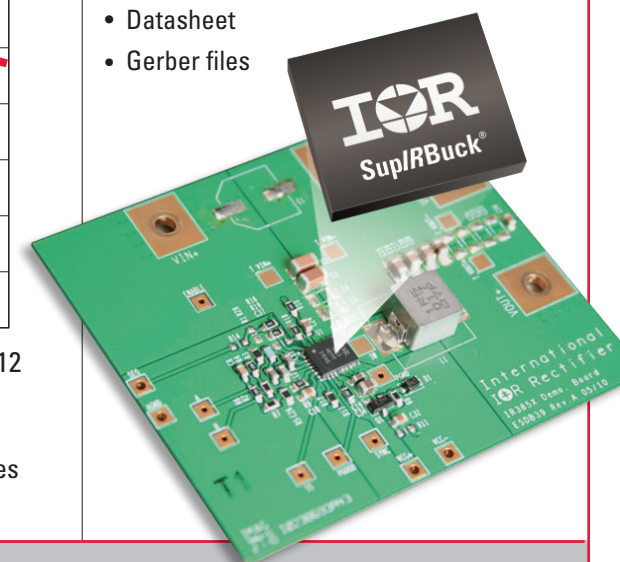
Can be used to generate core voltage, I/O voltage. Devices available with DDR tracking capability for memory power



Common series footprint enables cut and paste design for varying current ranges

#### Evaluation Development Kit Includes

- Development board
- User guide
- Datasheet
- Gerber files



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#### SupIRBuck® Online Design Tool Simplifies Design

Comprehensive online design tool featuring parametric search, schematic capture, AC, Steady State, Transient Analysis, Thermal Analysis, BOM creation, and more...

