

Universal PMICs with Programmable Power Technology

OVERVIEW

- Fully customizable PMICs
 - 2-, 3- and 4-channel options
- Up to 30A/channel
- I²C programmable power
 - Output voltage
 - Switching frequency
 - Sequencing
 - Fault management
 - Loop compensation
- PowerArchitect™ GUI support

FEATURES

- Power telemetry
- Status reporting
- Dynamic voltage scaling down to 0.6V with 2.5mV resolution
- Remote re-configurability
- Wide 22V or 40V maximum VIN

BENEFITS

- Flexible
- Fast prototyping and TTM
- Fast production changes
- Reduced component count
- Remote field serviceability
- Intelligent power management system

EXAR'S DIFFERENTIATION

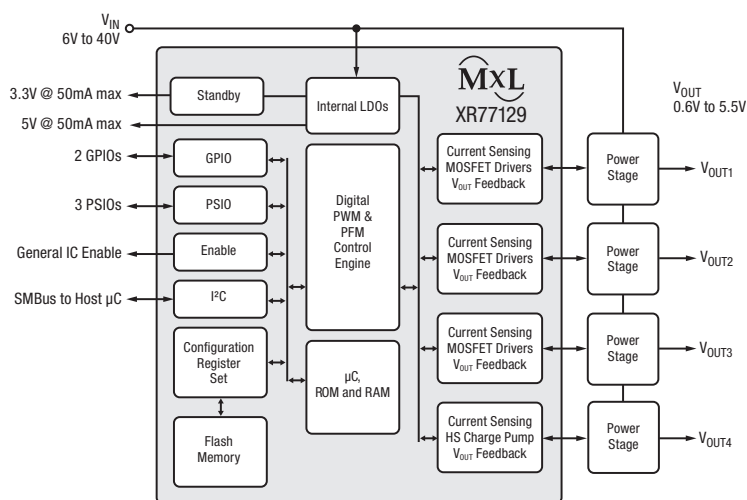
- Lower power than competing devices
- State machine based
- Easy to use design and customization software
- Lower component count than competing analog or digital solutions
- Industry's only PFM for high light load efficiency
- Industry's only 40V digital controller

APPLICATIONS

- Programmable power solution for any FPGA, SoC or DSP
- Industrial and embedded systems
- Telecommunications
- Industrial control and automation
- Infrastructure equipment
- Test systems and equipment
- Servers



MaxLinear's programmable power modules and universal PMICs offer advanced dynamic control and telemetry along with remote reconfigurability. Our PowerArchitect design and configuration software speeds development and significantly reduces overall time to market compared to legacy analog power solutions. An I²C interface and multiple GPIO pins ensure easy system integration. Configurable warning and fault levels, fault behavior and power up and down sequencing ensure that any load can be properly powered and protected.



XR77129 Functional Block Diagram

XR77xxx and XRP77xx

Universal PMICs

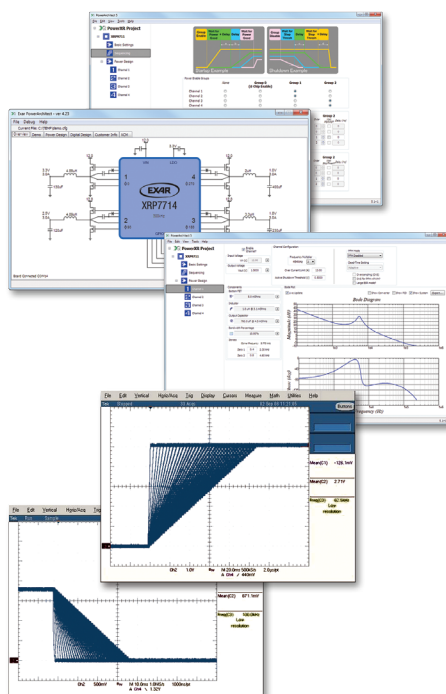
Part Number	Ch.	V _{IN} (V)	V _{OUT} Min (V)	Programmable Frequency (MHz)	I _Q (mA)	Non-Volatile Memory	Light Load	Integrated	Package (mm)
XR77103	3	4.5 to 14	0.8	0.3 to 2.2	1.5	Flash	✓	MOSFETS	4 x 4 TQFN-32
XR77129	4	6 to 40	0.6	0.1 to 1.2	4	Flash	✓	MOSFET Drivers	7 x 7 TQFN-44
XR77128	4	4.75 to 25	0.6	0.1 to 1.2	4	Flash	✓		
XRP7724	4	4.75 to 25	0.6	0.1 to 1.2	4	Flash	✓		
XRP7725*	4	4.75 to 25	0.6	0.1 to 1.2	4	Flash	✓		
XRP7713	3	4.75 to 25	0.9	0.3 to 1.5	9	OTP			5 x 5 TQFN-32
XRP7714	4	4.75 to 25	0.9	0.3 to 1.5	9	OTP			6 x 6 TQFN-40
XRP7704	4	6.5 to 20	0.9	0.3 to 1.5	9	OTP			
XRP7740	4	6.5 to 20	0.9	0.3 to 1.5	9	OTP			

*Intel Node Manager compatible

PowerArchitect Configuration Software

MaxLinear's PowerArchitect interactive design tool enables you to create a complete 2- to 6-channel optimized power supply design with complex sequencing and advanced power management features, all with a few clicks of the mouse. A free download of PowerArchitect is available at www.maxlinear.com/powerarchitect.com

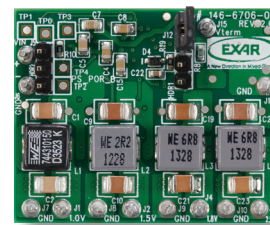
Arduino code library:
<https://github.com/exarcorp>



Evaluation Boards Available for All Programmable Power Products



Complete Programmable Power Kit Available



Zynq-7000 Power System
Featuring XRP7714



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