Power ICs Article Archive (By Part Number)

This document is a list of the power IC articles published in the How2Power Today newsletter. The types of products listed here include:

- Power supply controllers
- Gate drivers
- Linear regulators
- Switching regulators and
- Point-of-load dc-dc converters
- Battery charger and battery management ICs
- ORing controllers
- LED drivers
- Wireless charging ICs.

While most are monolithic semiconductor devices, some may be multi-chip modules or modules that co-package chips and magnetics or passives—the commonality is that all these products are housed in IC-style packages. Integrated circuits (ICs) using hybrid construction or open-frame PCB construction are generally not included here.

Products are listed here by vendor and part number/product name followed by the title of the article and a link to the article (“For more details...”) For a similar list of product stories by newsletter issue date, see Power ICs Article Archive (By Issue).

For discrete power semiconductors and power semiconductor modules, see the Discrete Power Semis and Modules Article Archive. For more on point-of-load regulators and dc-dc converters, including hybrid and pc-board based devices, see Board-Mounted Power Converter Article Archive.
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Akros Silicon:

Akros Silicon’s Energy$ense family of multi-output, digital dc-dc power management unit ICs, Multi-Rail Digital PMUs Pack Numerous Features, Digital Power Products

For more details...

Alpha & Omega Semiconductor:

Alpha & Omega Semiconductor’s AOZ1950 white LED backlight driver, Driver IC Lights Up to 12 White LEDs in Series

For more details...

Alpha and Omega Semiconductor’s AOZ3101 synchronous buck regulator, Monolithic Sync Buck Regulator Operates Efficiently Up to 18 V

For more details...

Altera:

Altera’s Enpirion EM1130A 30-A Point-Of-Load Converter, Top Five Products And Demos Seen at APEC 2015

For more details...

Altera’s ET4040 monolithic 40-A driver plus synchronous MOSFET powertrain, Driver Stage Tailors Power Conversion Solution To High-Performance FPGAs

For more details...

Altera’s nine new Altera Enpirion AEC-Q100 qualified power system-on-chip (PowerSoC) devices from the EP53xx and EN63xx families, PowerSoCs Are Automotive Qualified And Ready To Power FPGAs

For more details

Enpirion’s 8-A EV1380 and the 4-A EV1340 dc-dc converters, DC-DC Converters Increase Efficiency for DDR Memory Applications

For more details...

Ams:

ams’ AS3721 PMIC and AS3729 point-of-load power stage, PMIC Reduces Thermal Stress On Application Processors In Mobil Devices

For more details...
Austriamicrosystems’ AS5134 angular position sensor, Robust Angular Position Sensor Finds Use In Transmission Control Unit

Apex Microtechnology:

Apex Microtechnology’s MP118FD power operational amplifier, Power Op Amp Improves Circuit Protection, Lowers Quiescent Current For Piezo Transducers

Apex Microtechnology’s PA44X 350-V amplifier ICs, HV Amplifier IC Slashes Noise For Improved Accuracy In Positioning Systems

Apex Microtechnology’s SA160DP H-Bridge motor driver/amplifier, Class D Amplifier Improves Efficiency For Driving Brush-Type Motors

CamSemi:

CamSemi’s C2163 primary-side sensing controller, Controller Exploits BJT To Cut Standby Power And Cost

CamSemi’s C2283 primary-side sensing flyback controller, PSS Flyback Controller Eyes Low-Cost Networking Adapters

Cirrus Logic:

Cirrus Logic’s CS1500 and CS1600 digital power factor correction controller ICs, Digital PFC Controllers Battle Analog Chips On Performance And Price

Cirrus Logics’ CS161X digital LED controller, Digital LED Controller Is Compatible With Nearly All TRIAC Dimmers

Cirrus Logic’s CS1615/16 single-stage LED driver ICs, Single-Stage LED Drivers Deliver High Dimmer Compatibility At Competitive BOM Cost
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Cirrus Logic’s CS163X family of digital LED controllers, Digital LED Controller Features Two-Color Mixing

Cirrus Logics’ CS5484/80/90 analog front end ICs for energy measurement, Energy Measurement ICs Optimize Cost And Performance For Smart Meters

Cirrus Logics’ PB63 dual power booster amplifier, Power Booster Increases Slew Rate And Bandwidth, Adds Second Channel

Cirrus Logic’s PA107DP and MP103FCFC hybrid power amps, A Slew of Improved Specs for Piezoelectric Drivers

Cissoid:

CISSOID’s CHT-RIGEL adjustable linear regulator, Wide-Input Linear Regulator Works At Very High Temperatures

Cissoid’s CHT-Vega 225°C Adjustable 500-mA LDO, Adjustable 500-mA LDO Operates To 225°C

CISSOID’s CMT-ANTARES 5-V linear regulator, 200-mA Linear Regulator Pushes Operating Temperature To 175°C

Cissoid’s high-temperature MAGMA PWM controller, Power Devices Perform At Extreme Temperatures

Cissoid’s high-temperature Themis controller and Atlas push-pull driver stage, High-Temperature Controller And Driver Improve Performance Of SiC Switches

Datel:

Datel’s LVR-7815 linear voltage regulators, Hermetically Sealed Linear Regulators Offer Dramatically Lower Cost And A Range Of Grades
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Dialog Semiconductor:

Dialog Semiconductor’s iW1679 PWM controller, Digital PWM Controller Cuts BOM Cost, Standby Power In Smartphones

For more details...

Efficient Power Conversion:

Efficient Power Conversion’s EPC9010 development board, for evaluation of EPC’s 100-V eGaN FETs, Development Board Facilitates Design of High-Frequency Converters Using GaN Transistors

For more details...

Electronic Design & Research:

Electronic Design & Research’s high-speed full-bridge isolated (HS-FBI) H7GvvDaa/e drivers, Full-Bridge Drivers Feature Braking Control And Extreme Speed

For more details...

Electronic Design & Research’s µR2M and µD2M series solid-state relays, Fast-Switching Solid-State Relays Consume Ultra-Low Power

For more details...

Freescale Semiconductor:

Freescale Semiconductor’s WPR1516 and MWCT1012 wireless charging chips, 15-W Qi-compliant Wireless Charging Solution Charges Larger Devices Faster

For more details...

Infineon Technologies:

Infineon Technologies’ IR44252L, IR44272L, and IR44273L low-side drivers, Tiny Low-Side Drivers Ease Power System Design

For more details...

Infineon Technologies’ IR7xxxS series of 700-V HVICs, 700-V Gate Driver ICs Increase System Reliability And Shrink Board Space

For more details...
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Infineon Technologies’ Rapid 1 and Rapid 2 650-V fast-recovery silicon diode families, High-Voltage Silicon Diodes Achieve Ultrafast Recovery

Integrated Device Technology:

Integrated Device Technology’s P95020 portable power management IC, Embedded CPU Makes Power Management IC More Functional and Flexible In Portable Designs

Integrated Device Technology’s wireless power transmitter and receiver ICs, Wireless Power Chipset Shrinks Footprint And Lowers Cost

International Rectifier:

International Rectifier’s AUIR0815S automotive-qualified gate-driver IC, Gate- Driver IC Simplifies Power Train Design In Hybrid And Electric Vehicles

International Rectifier’s AUIRS4426S is a dual-channel low-side driver IC, Low-Side Driver IC Targets Automotive Applications

IR HiRel’s HTB28 hermetic dc-dc converters, 185°C Rated DC-DC Converters Deliver Small Size For Downhole Tools

International Rectifier’s CHiL digital controllers and PowIRstage devices, PWM Controllers And Modules Offer Optimized Power Solutions For VR12.5,

International Rectifier’s third-generation family of CHiL digital PWM controllers, Digital PWM Controllers Deliver Small, Efficient Multiphase Solutions

International Rectifier’s D series rad-tolerant two output dc-dc converters, High-Rel Dual Output DC-DC Converters Target Satellite Power Systems

International Rectifier’s HTH27022S and HTM27092S dc-dc converters, High-Temperature, High-Voltage DC-DC Converters Reduce Design Time For Down-Hole Applications
International Rectifier’s IR1169 high-speed synchronous rectifier controller, Synchronous Rectifier Controller With Sync Function Simplifies SMPS Designs

International Rectifier’s IR3541, IR3536, and IR3538 multiphase digital PWM controllers, Digital Power Controllers Deliver High Efficiency, Digital Power Products

International Rectifier’s IR3551 50-A PowIRstage module, Power Device Enhances Scalability In Computing And Consumer Applications

International Rectifier’s IR3837M, IR3838M and IR3839M SupIRBuck point-of-load voltage regulators, Point-Of-Load Regulators Extend Functionality and Performance

International Rectifier’s IR3847 Gen3 SupIRBuck voltage regulator, Buck Converter Delivers 25 A From A 5-mm x 6-mm PQFN

International Rectifier’s IR3837M PFC boost IC, Controller In SOT-23 Shrinks Boost PFC Circuits

International Rectifier’s IRS2548D switched-mode power supply control IC with integrated PFC control, Driver IC Simplifies Design, Increases Efficiency For High-Power LED lighting

International Rectifier’s IRS2573D HID ballast controller IC, Control IC Simplifies HID Ballast Design

International Rectifier’s IRS2580DS Combo8 PFC + Half-Bridge Ballast IC, Chip Integrates PFC And Lamp Ballast Control In SO-8 Package

International Rectifier’s µIPM power modules, Power Modules Shrink Footprint For Appliances And Industrial Applications
Intersil:

Intersil’s ISL2802x family of digital power monitors, Highly Integrated Digital Power Monitors Work With Supplies Up To 60 V

Intersil’s ISL70001 and ISL70002 6-A and 12-A SEE immune synchronous buck regulators, Rad-Hard Power Converters Ride Intermediate Bus Into Space

Intersil’s ISL75051SRH radiation-tolerant ultra-low dropout regulator, Rad-Hard Power Converters Ride Intermediate Bus Into Space

Intersil’s ISL78227 and ISL78229 two-phase synchronous boost controllers, Highly Integrated Multi-Phase Boost Controllers Simplify Automotive Designs

Intersil’s ISL8205M and ISL8202M stepdown power modules, POL Modules Offer High Density For Battery-Powered Industrial Applications

Intersil’s ISL8225M 30-A fully-encapsulated POL power module, Module Is Fully Encapsulated 30-A POL Converter

Intersil’s ISL8272M 50-A Point-Of-Load Converter, Top Five Products And Demos Seen at APEC 2015

Intersil’s ISL8273M digital dc-dc PMBus power module, Digital Power Module Delivers 80 A For FPGAs, Processors And Memory

Intersil’s ISL94203 Li-ion battery monitor, IC Extends Life Of Multi-Cell Li-ion Batteries

iWatt:

iWatt’s iW1810 digitally controlled PWM IC with built-in BJT, Power Chip Builds Efficient, Low-Cost Supplies for Industrial Applications
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iWatt’s iW3606 and iW3608 dimmable single-stage, LED drivers, Single-Stage LED Drivers Enable Wide Bulb Dimming Range With Lower BOM Cost

For more details...

iWatt’s iW3612/iW3602 digitally controlled, offline power supply controllers for dimmable LED luminaires, Digital LED Drivers Deliver Flicker-Free Dimming And Hot-Plug Support

For more details...

iWatt’s iW3616 and iW3617 digital LED drivers, SSL LED Drivers Feature Flickerless Performance And Digital Dimming Control

For more details...

iWatt’s iW3626 single-stage LED driver, Single-Stage LED Driver Cuts BOM Cost in Price-Sensitive Retrofit Bulbs

For more details...

IXYS:

IXYS Integrated Circuits Division’s IX4426, IX4427, and IX4428 dual low-side gate driver ICs, Low-Cost Gate Drivers Handle Wide Operating Voltage Range

For more details...

Linear Technology:

Linear Technology’s LT1952/-1 single-switch forward controller, LTC3900 synchronous rectifier driver, and LT4430 secondary-side optodriver, Forward Converter Chipset Is Specified Over -55°C to 125°C Range, High-Temperature Components For Power Design

For more details...

Linear Technology’s LT3743 synchronous stepdown converter, 20-A LED Driver Addresses Color-Mixing Challenges

For more details...

MagnaChip Semiconductor:

MagnaChip Semiconductor’s MAP8800 PFC controller, PFC Controller Integrates Numerous Protection Features

For more details...
Maxim Integrated:

Maxim Integrated’s Himalaya power modules, New Type Of Power Module Offers Greater Integration, Path To Cost Reduction

Maxim Integrated Products’ MAX11068 12-cell battery-monitoring IC, Battery-Monitoring IC Cuts Cost In Hybrid And Electric Vehicles

Maxim Integrated Products’ MAX15040 4-A, synchronous switching regulator, 4-A Regulator Shrinks To 2-mm x 2-mm Footprint

Maxim Integrated’s MAX16993 automotive power management IC, PMIC Reduces Board Space, Noise, And Power Consumption In Automotive Instrument Clusters

Microchip Technology:


Microchip Technology’s dsPIC33EP “GS” family of digital signal controllers, DSCs Offer Lower Latency, Live Update And More For Digital Power Supply Designs

Microchip Technology’s MCP19111 digitally enhanced power analog controller with integrated synchronous driver, Hybrid Power Controller Chip Delivers Benefits of Analog + Digital Control

Microchip Technology’s MCP19118 and MCP19119 digitally enhanced power analog controllers, PWM Controllers Feature 40-V Operation And PMBus Interface

Navitas Semiconductor:

Navitas Semiconductor’s 650-V GaN Power ICs, GaN Power ICs Integrate Power FET With Gate Drive And Logic
ON Semiconductor:

ON Semiconductor’s LV8702V stepper-motor-driver IC, High-Efficiency Stepper Motor Driver IC Targets Office Automation Equipment

ON Semiconductor’s NCP69x families of 1-A CMOS LDOs, LDOs Deliver CMOS Advantages and Robustness

ON Semiconductor’s NCV8871 nonsynchronous boost controller, Automotive-Grade Boost Controller Boasts Wide Input Range, High-Temperature Components For Power Design

Peregrine Semiconductor:

Peregrine Semiconductor’s PE9915x family of rad-hard buck regulators with integrated switches, Rad-Hard Power Converters Ride Intermediate Bus Into Space

Power Integrations:

Power Integrations’ CAPZero family of zero-loss automatic X-capacitor discharge ICs, ICs Control Discharge Of X Capacitors, Reduce Losses in EMI Filters

Power Integrations’ CHY103D charger-interface IC, Charger Interface IC Eases Implementation Of Quick Charge 3.0 Protocol

Power Integrations’ LinkSwitch-HP family of off-line switcher ICs, Offline Switcher ICs Extend Benefits Of Primary-Side Regulation Up To 90 W

Powervation:

Powervation’s PowerSMART design tool and firmware for the PV3012, Upgraded Design Tool, New Firmware Enhance Capabilities Of Digital Controller

For more details...

Powervation’s PV3103, PV3104, and PV3202 digital dc-dc controllers, Digital Controllers Support VR12/12.5 And PMBus

For more details...

**Renesas Electronics:**

Renesas Electronics’ RJQ6020DPM, RJQ6021DPM, and RJQ6022DPM SiC compound power devices, Compound Power Devices Co-Package SiC Schottkys With MOSFETs Or IGBTs

For more details...

Renesas Electronics’ RJS6005TDPP SiC Schottky barrier diode, 600-V SiC Schottky Targets Air Conditioners, Base Stations, And Solar Arrays

For more details...

**Rohm Semiconductor:**

Rohm’s BD39001EKV-C power management IC, PMIC Keeps Automotive MCUs Running Reliably Under Start-Stop Operation

For more details...

Rohm’s BD7682FJ-LB ac-dc converter control IC, Controller IC Eases Application Of SiC MOSFETs In AC-DC Power Supplies

For more details...

ROHM Semiconductor’s BD9G101G and BU9000xGWZ switching regulators, Switching Regulators Offer High Operating Voltage, Wide Temp Range, Small Size

For more details...

ROHM Semiconductor’s BD9G101G dc-dc converter IC and BU90002GWZ 6-MHz synchronous stepdown regulator IC, Tiny Stepdown Regulators Deliver Extended Voltage And Temp Ranges

For more details...

Rohm’s BD99991GW and BD99992GW power management ICs, Power Management ICs Are Optimized For Intel’s Skylake Core Processor

For more details...

Rohm’s Reference design using the BD57015GW wireless power receiver IC, Reference Design For Medium-Power Wireless Power Receiver Is Qi-Certified
Rohm’s wireless power reference design, Medium-Power Wireless Transmitter Reference Design Is Certified To Qi V 1.2

Semtech:
Semtech’s SC120, SC121 and SC122 boost converter ICs, Boost Converters Feature Tiny Packaging and Low Input Voltage
Semtech’s SC173, SC174, and SC493 EcoSpeed dc-dc converter ICs, DC-DC Converters Deliver Fast Response and High Efficiency
Semtech’s TS80K wireless charging platform, Wireless Charging Solution Is Adopted By Tier I Computer Makers

Silego Technology:
Silego Technology’s SLG59H100xV integrated power controllers, Controllers Feature Ultra-Stable On-Resistance For Power Rail Switching
Silego Technology’s SLG59M1603V integrated power switch, Integrated Power Switch Features Reverse-Current Blocking

Silicon Laboratories:
Silicon Labs’ Si827x ISOdriver family of isolated gate drivers, Isolated Gate Drivers Offer High Noise Immunity, Enabling Fast Switching
Silicon Laboratories’ Si85xx family of ac current sensors, Higher Isolation Extends Use of AC Current Sensors
Silicon Laboratories’ Si87xx CMOS-based digital isolators, CMOS-Based Isolators Are Pin, Footprint Compatible With Standard Optocouplers
Silicon Laboratories’ Si890x isolated ADCs for mains line monitoring, Isolated ADCs Simplify Line Voltage Monitoring For Solar Inverters And Power Supplies

STMicroelectronics:

STMicroelectronics L6520 lamp ballast controller IC, Highly Integrated Controller Works With BJTs To Cut Cost of Lamp Ballasts

STMicroelectronics’ MDMesh M2 EP power MOSFETs, Power MOSFETs Feature Low Turn-Off Losses

STMicroelectronics’ STLUX385 digital controller for lighting and power supply applications, Universal Lighting Controller Promises To Enhance Many Applications

STMicroelectronics’ STM32F334 Digital Power microcontrollers, MCUs With High-Res Timer Ease Transition To Digital Power Control

STMicroelectronics’ STNRG digital-controller family, Controllers Simplify Digital Power Conversion And Enhance Performance

Summit Microelectronics:

Summit Microelectronics’ SMB220 and SMB221 10-A and 20-A digitally programmable buck regulators, Buck Regulators Deliver Highly Integrated Designs, Digital Power Products

Supertex:

Supertex’s SR10 capacitor-coupled switched-shunt regulator, Shunt Regulator Minimizes Standby Power For Always-On Applications
Texas Instruments:

National Semiconductor’s LMZ series of Simple Switcher power modules, Modules Make Simple Switchers Even Simpler

Texas Instruments’ bq25100 single-cell Li-ion charger, Tiny Li-ion Charger Targets Wearable Applications

Texas Instruments’ bq2589x single-cell Li-on charger, IC Speeds Charging Of Li-ion Batteries

Texas Instruments’ bq500412 Qi-compliant wireless power transmitter manager, Controller Cuts Cost For Qi-compliant Wireless Chargers

Texas Instruments’ bq51013 wireless power receiver IC, Receiver Chip Shrinks Qi-Compliant Wireless Power Designs

Texas Instruments’ bq51025 wireless charging receiver and bq500215 wireless power transmitter controller, Wireless Power Chipset Offers 10-W Solution

Texas Instruments' bq76PL455A-Q1 battery monitor and protector, 16-Cell Li-ion Monitor Eases Battery Management For Hybrids, EVs And Grid Storage

Texas Instruments’ LM27403 synchronous buck controller, Buck Controller Features Inductor DCR-Based Overcurrent Protection

Texas Instruments’ LM3290 buck-boost converter and LM3291 linear amplifier, Envelope Tracking Power Chips Boost Efficiency In Smartphones

Texas Instruments’ LM5114 low-side gate driver, Gate Drivers Work With Silicon Or GaN FETs

Texas Instruments’ LM74610-Q1 smart diode controller, Smart Diode Controller Delivers Reverse Polarity Protection With No Iq
Texas Instruments’ LMG5200 integrated half-bridge GaN FET power-stage, GaN FETs + Driver Module Lowers Barriers To GaN-Based Power Design

Texas Instruments’ LMR22007 750-mA switching regulator, 750-mA POL Requires Just 30-mm² Of Board Space

Texas Instruments’ SM74611 smart bypass diode, Smart Bypass Diode Lowers Power Dissipation

Texas Instruments’ TPS7A30 negative 36-V low dropout regulator, Negative 36-V LDO Delivers Low-Noise Performance

Texas Instruments’ TPS40400 2-MHz single-channel controller and TPS40422 dual-channel controller, Analog Buck Controllers Feature PMBus Interface, Digital Power Products

Texas Instruments’ TPS50601-SP 6-A POL for harsh environments, Rad-Hard Power Converters Ride Intermediate Bus Into Space

Texas Instruments’ TPS62736 Nano-power Buck Converter, Low-Power Buck Converter Aims To Accelerate Energy Harvesting Designs

Texas Instruments’ TPS63020 buck-boost converter IC, Buck-Boost Converter Slashes Board Space Requirements

Texas Instruments’ TPS7H1101-SP and the TPS7H1201- HT LDOs, Current-Sharing LDOs Double Current Capability For Harsh Environments

Texas Instruments’ 600-mA TPS82671 and 6-A TPS84620 point-of-load power converters, Modules Shrink Point-of-Load Converters For Portable and Industrial Applications

Texas Instruments’ TPS92690 n-channel controller for dimmable LED drives, Versatile LED Driver Features Adjustable Frequency And Low-Side Current Sense
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Texas Instruments’ UCC275xx-Q1 family of single- and dual-channel gate drivers, Gate Drivers For Automotive Applications Feature Fast Propagation Delays

Texas Instruments’ UCC27531 and UCC27532 single-channel output stage gate drivers, Gate Drivers Are Optimized For IGBTs And SiC FETs

Texas Instruments’ UCC27714 high-speed, low-side gate driver, Gate Driver Shrinks Delay And Board Space For Server Power Supplies

Texas Instruments’ UCC28180 CCM PFC controller, PFC Controller Extends Range On Switching Frequency, Lowers Losses In Shunt Resistor

Texas Instruments’ UCC28910 700-V flyback switcher and UCC28630 PWM controller, Flyback ICs Limit Standby Power to <30-mW For Offline Supplies

Texas Instruments’ UCD3138 digital controller for isolated power supplies, Digital Controller Provides Flexibility And Performance For Isolated Supplies

Vicor:

Vicor’s ChiP DCM and HD Brick dc-dc converters, DC-DC Converters Push Limits On Power Density For A Range Of Applications

Vicor’s IBC Power Simulation tool, Simulation Tool Speeds Evaluation And Selection Of Intermediate Bus Converters

Vicor’s non-isolated, bidirectional bus converter modules (NBMs), Bus Converter Modules Are Non-Isolated And Bidirectional

A subsidiary of Vicor, Picor’s PI2007 and PI2127 high-side active ORing devices, High-Side Active ORing Devices Deliver Fast Response for Intermediate Bus Applications

Picor Cool-Swap PI2211 hot swap controller and circuit breaker, Hot Swap Controller Emulates MOSFET Thermal Performance
Vicor’s Picor Cool-Power PI3106 isolated dc-dc converter, DC-DC Converters Deliver 334 W/in³ For Industrial And Military Applications

Vicor’s Picor PI33XX Cool-Power ZVS buck regulator series, Zero-Voltage Switching Boosts POL Efficiency To 98%

Vicor’s User-Defined, VI Chip PRM Modules, User-Defined Power Modules Take Configurability To A New Level

Vicor’s VI Chip bus converter module built in the ChiP platform. 380-V Input Bus Converter Raises Efficiency And Power Density To Benefit HVDC Power Distribution

Vicor’s VRM solution compliant with Intel’s VR12.5 voltage regulation specification, VTM Current Multiplier In New ChiP Packaging Will Support VR12.5 Applications