



## Power Products Article Archive

Articles published in the January through December 2021 issues

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**PMBus-Compliant Buck Regulators Deliver Up To 40 A In 5-mm x 7-mm Package, Vishay Siliconix SiC45x family of microBUCK regulators**

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**Automotive DC-DC Converters Offer Stable Output, Fast Response And High Efficiency, ROHM's BD9P series dc-dc converters**

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- *Compact 12-W DC-DC Converters Operate Over Wide Input Voltage Range, Recom's RP12-AR dc-dc converter series*
- *20-W DC-DC Converters Operate From 8.5 V to 160 V, Relec Electronics' Cincon EC7BW18-72 20-W dc-dc converter*
- *20-W DC-DC Converters Come In 1-in. x 1-in. Metal Package, Traco Power's THN 20WIR series 20-W high-density dc-dc converters*
- *20-W And 25- W DC-DC Converters Accept Inputs Up To 176 V, XP Power's RDE20 and RDF25 series of high-power density dc-dc converters*
- *20-W And 40-W DC-DC Converters Feature Dual Outputs, Traco Power's TEQ 20WIR and 40WIR series of isolated high-performance dc-dc converter modules*
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- *60-W DC-DC Converters Come in 2-in. x 1-in. Metal Package, Traco Power's TEN 60WIR 60-W dc-dc converter series*
- *Sixteenth Brick Delivers 50 W From 9-V To 36-V Input, Murata Power Solutions' IRS-Q12 series encapsulated sixteenth-brick dc-dc converters*
- *Chassis-Mount 60-W DC-DC Converters Are Compact And Reliable, Bel Power Solutions' RCM60 60-W chassis-mount dc-dc converters*
- *120-W Eighth Bricks Offer High Performance From 9-V To 36-V Inputs, Murata Power Solutions' 120-W IRE-Q12 series encapsulated dc-dc converters*
- *150-W And 200-W Half Bricks Operate Over 14-V To 160-V Input Range, Relec Electronics' Cincon CHB150W12 and CHB200W12 dc-dc converters*
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- *Evaluation Platforms For DC-DC Railway Converters Up To 240 W, Recom's R-REF04-RIA12-1 and R-REF04-RIA12-2 evaluation platforms for dc-dc converters*
- *250-W DC-DC Converters Raise Efficiency And Reliability, Add Features, MTM Power's PCMDS250 dc-dc converter series*
- *Quarter Brick And Half Brick Converters Provide 50 W to 250 W, No Minimum Load, Aimtec's AM50/75/100/QB-JZ and AM150/250HB-JZ series dc-dc converters*
- *250-W Half-Brick And 150-W Quarter-Brick DC-DC Converters With 10:1 Input Range, Murata Power Solutions' 250-W IRH-W80 and 150-W IRQ-W80 dc-dc converters*
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- *100-W DC-DC Converters Operate From 900-V Input With Wide Input Range, ABSOPULSE Electronics' HVT 100R-1K-F2 series dc-dc converters*

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- *250-W Dual-Output AC-DC Power Supplies Offer Convection Cooling And Active PFC, ABSOPULSE Electronics' PFC 252R-HSA-F3 series power supplies*
- *300-W AC-DC Cassette Converters Generate Two, Isolated 12-V or 15-V Outputs, Bel Power Solutions' Melcher LR series ac-dc cassette converters*
- *300-W AC-DC Power Supplies With PFC-Input And IP66-Rated Protection, ABSOPULSE Electronics' PFC 65R-D3 series ac-dc power supplies*
- *3-kW AC-DC Power Supply Offers Built-In Redundancy And PFC, ABSOPULSE Electronics' PFC 3KR-E/110-3U3 ac-dc power supply*

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- *1000-VA Sine Wave Inverters Feature Low Profile, ABSOPULSE Electronics' RSI 1K-F31 series railway dc-ac inverters*

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**Laser Driver IC Could Spur Burst Of Activity In Lidar Applications, Efficient**

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**Wireless Battery Management System Solution Improves Range, Reliability**

*And Safety For EVs, Texas Instruments' wireless battery management system solution*

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**Smart Controller Combines Motion Control Engine With Three-Phase Gate**

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*Devices, Microchip Technology's PD-USB-DP60 PoE-to-USB-C adapter*

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**Class-D Amp For High-Definition Audio Adds Safety-Related Diagnostics**, STMicroelectronics' HFDA801A high-resolution audio amplifier

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**Isolated Gate Driver Board Drives And Protects The Latest SiC Power Modules**, Silicon Labs' Si823Hx gate driver board

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- **A PWM Controller Fast Enough For GaN**, Apogee Semiconductor's AFP1422 radiation-hardened PWM controller
- **Expanding A Superjunction MOSFET Family**, R9 p-channel rad hard power MOSFETs
- **Smart Power Switch Controller Brings Greater Integration**, CAES's UT36/UT05PFD103 smart power switch controller
- **Higher Current And Wider Input Range For Point-Of-Load Converters**, Texas Instruments' TPS7H4001-SP space-grade 18-A buck converter and TPS7H4010-SEP space-enhanced plastic 3.5-V to 32-V, 6-A buck converter

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**Half-Bridge And High-Side/Low-Side Gate Drivers Are Tailored For Fast Switching,** Infineon Technologies' 2ED2103S06F/2ED2104S06F half-bridge and 2ED2110S06M/2ED2101S06F high- and low-side gate drivers

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**Power ICs Extend Battery Life In Consumer, Industrial, Healthcare And IoT Designs,** Maxim Integrated Products' MAX17227A and MAX17291 boost converters and MAX38911 LDO

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**Development Platform Extends Wireless Power To New Product Categories,** NuCurrent's NuEva HF Development Platform

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**Tiny, Programmable Mixed-Signal ASIC Features I<sup>2</sup>C Interface,** Dialog Semiconductor's SLG46811 GreenPAK device

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**High-Current Four-Terminal Current Sense Resistors Offer High Accuracy,** Stackpole Electronics' HCSK series current sense resistors

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***Second-Generation 650-V GaN FETs Are Available In High Volume, Nexperia's GAN041-650WSB GaN FETs***

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***600-V IGBT IPMs Reduce Radiated Noise And Power Loss, ROHM Semiconductor's four new members of the BM6437x series of 600-V IGBT intelligent power modules (IPMs)***

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- *AEC-Q200 Compliant High-Current Shielded Power Inductors, Bourns' Model SRP1580CA, SRP1510CA and SRP1513CA inductor series*
- *Composite Inductors Offer High Energy Storage Density, Pulse Electronics' PA/PM5430/5432/5433 series inductors*
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- *Power Inductors Are Optimized For True Wireless Stereo Devices, TDK's PLEA67 series of inductors*

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- *Inductor Delivers 420-A Saturation Current In 1500 Case Size, Vishay Intertechnology's Vishay Dale IHXL-1500VZ-5A automotive-grade inductor*
- *High Current Inductors In The 1012, 4030 and 5030 Packages, Würth Elektronik's new members of the WE-HCM series of surface-mount high-current inductors*
- *Inductors Offer High Saturation Currents In 2010 Case Size, Würth Elektronik's WE-HCF-2010 high-current inductor*

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- *Automotive-Grade Push-Pull Transformers Offer Several Levels of Isolation, Pulse Electronics' PM2180, PM2185, PM2155, and PM2190 transformer series*
- *Pulse Transformer Provides High Withstand Voltage And Coupling, Sumida's CIUH7D46 surface-mount pulse transformer*
- *Compact Transformers For DC-DC Converters Meet IEC 60664-1 Creepage And Clearance, TDK's EPCOS E10 EM series of insulated SMT transformers*

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- *Round-Wire-Coil Common-Mode Chokes Increase Current Density, Pulse Electronics' PAC6006 series of common-mode chokes*
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- *Compact, Current-Compensated Ring-Core Chokes Handle 10 A To 17 A, TDK's series of EPCOS double-ring core chokes*
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- *Chip Ferrite Beads For Automotive Applications Up To 175°C, Murata's BLM18KN\_EH series chip ferrite beads*

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**Programmable Three-Phase Driver IC Enables More-Integrated Designs For Power Tools**, Infineon Technologies' 6EDL7141 three-phase gate driver IC

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**AC Power Technology Offers Path To Wireless Charging In Home Appliances**, Eggtronic's E2WATT ac power technology

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**Isolated Gate Drivers Are Optimized For EVs And Industrial Applications**, Silicon Labs' Si828x version 2 isolated gate driver product family

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**150-V GaN HEMTs Raise Gate Withstand Voltage To 8 V,** ROHM Semiconductor's 150-V GaN HEMT devices

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**Single-Stage Flyback Controllers Enable Cost-Effective Smart LED Drivers**, Infineon Technologies' ICL88xx flyback controllers

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**PMIC Delivers Complete Power Solution For New MPUs**, Renesas Electronics' RAA215300 PMIC

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**ZVS Chipset Enables Smaller Adapters At 100-W+ Power Levels**, Dialog Semiconductor's digital zero voltage switching chipset includes the iW9801 primary-side controller and the iW709 secondary-side USB PD protocol IC

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**Smart Power Stages Provide Controller-Agnostic Solution For Multiphase VR Regulators**, Alpha and Omega Semiconductor's AOZ527xQI series smart power stages

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**MOSFETs For Hot-Swap Increase SOA And Slash PCB Footprint**, Nexperia's PSMN4R2-80YSE and PSMN4R8-100YSE ASFETs

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**Isolated Current Sensors Feature High Speed And High Accuracy**, Crocus Technology's CT430 and CT431 XtremeSense TMR devices

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**PMICs Power Next-Gen Automotive AI SoCs**, Dialog Semiconductor's DA914X-A automotive-grade, stepdown dc-dc converters

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- **More Progress In Plastic**, Renesas' rad-hard plastic packaging, ISL73033SEH low-side driver and 100-V GaN FET, ISL71001SLH/SEHM 6-A synchronous buck regulator and the ISL71610SLHM digital isolator with passive input, and Renesas' full QML-V qualified power solution for Microchip's RTG4 rad hard FPGA

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**1200-V SiC Half-Bridge Power Modules Target Avionics Applications**, Solitron Devices' SD11900 SiC Power Modules

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**Supercapacitors Deliver Extended Lifetime For Automotive Applications**, KEMET's FMD and FU0H series supercapacitors

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**Gate Drivers Improve IGBT Module Performance For Offshore Wind Turbines**, Power Integrations' SCALE-iFlex LT dual gate-drivers

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**GaN Gate Driver Boosts Speed, Flexibility In Industrial And Home Automation**, STMicroelectronics' STDRIVEG600 half-bridge gate driver

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**Automotive-Grade Polymer Chip Capacitors Operate Up To 150°C**, AVX's TCO series polymer chip capacitors

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**GaN Power ICs Integrate Fast Overcurrent And Overtemperature Protection**, Navitas Semiconductor's third-gen GaNFast power ICs

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**USB-C Controller Eases Transition Away From Barrel Connectors**, Infineon Technologies' EZ-PD BCR (Barrel Connector Replacement)

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**Semiconductor Supplier Adds SiC Diodes To Portfolio**, Nexperia's PSC1065H (-J/-K/-L) 650-V, 10-A SiC Schottky diodes

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**Automotive LED Driver Provides 4.5-V to 75-V Input**, Taiwan Semiconductor's TS19503 hysteretic-mode converter

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- *High-Current, Low-Inductance Power Inductors For ADAS*, TDK's HPL505032F1 power inductors
- *Small Coupled Inductors Feature High Saturation Currents*, TDK's EPCOS series B82472D6 coupled inductors
- *Automotive-Grade Metal Inductors Feature Low DCR*, Sumida's CDMCxxDxx/L150 automotive-grade SMD metal power inductor series



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- *Inductors Balance Shielding And Cost Requirements, Bourns' automotive-grade Model SRN6045HA series power inductors*
- *Inductor In 2020 Case Size Operates To +180°C, Vishay Intertechnology's Vishay Dale IHLP-2020CZ-8A automotive-grade high-current inductor*
- *Vertical-Mount Inductor In 4025 Case Saves Space, Increases Efficiency, Vishay Intertechnology's Vishay Dale IHVR-4025JZ-3Z vertical-mount inductor*
- *Inductor Delivers Ultra Low DCR for Multi-Phase Power Supplies, Vishay Intertechnology's Vishay Dale IHSR-2525CZ-51 commercial IHSR high-temperature inductor*
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