

Power Magnetics: Components & Technology

Power Magnetics News Sponsored by Pulse Electronics

This file lists magnetic component news stories published in [How2Power Today](#). The products featured here mainly include inductors and transformers used in the design of dc-dc converters and ac-dc power supplies, but also related devices such as wireless charging coils, current-sensing transformers and other transformers used to measure power supply-related parameters.

August 2018

Power Magnetics Component Roundup

Power Inductors

- *Automotive-Grade Molded Inductors Handle High Transient Current Spikes, Pulse Electronics Power BU's automotive-grade PA434X.XXXANLT series and PA4346/PA4349 series molded inductors*
- *Low-Profile Power Inductors For Advanced Driver Assist Systems, TDK's MLD2012 multilayer inductor for automotive power circuits*
- *Inductors Are Qualified To MIL-STD-981 Class S for Space-Grade Applications, Vishay Intertechnology's SGIHLP series low-profile, high-current IHLP inductors*
- *High-Current Inductors Are Highly Customizable, MPS Industry's HEW high-current inductors*
- *Low-loss Power Inductors For High-frequency Applications, Coilcraft's XEL50xx series high-performance, molded power inductors*
- *Coupled Inductors Provide 1500-V Isolation In Small Package, Coilcraft's LPD8035V series miniature, high-voltage 1:1 coupled inductors*
- *AEC-Q200 Certified Power Inductors Are Small And Low Profile, TT Electronics' HA66 series SMD power inductors*
- *Surface-Mount Coupled Inductor For SEPIC Converters, Sumida's CDRH127B 2-in-1 type space-saving SEPIC inductor*
- *Low-Profile SMT Inductors Deliver High Energy Storage Density, Pulse Electronics Power's PA5001, PA5002, PA5003, PA5004, PA5005, PA5006, and PA5007 high-current, low-profile SMT inductors*
- *High Temp Inductor Enhances Current Density For Multi-Phase Converters, Vishay Intertechnology's Vishay Dale IHSR-4040DZ-51 high-temperature commercial inductor*

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Chokes

- *Common-Mode Chokes Suppress Noise, Maintain High Efficiency In EPS Applications, TT Electronics' HA19 series of common-mode chokes for electronic power steering*
- *High-Current Planar Choke Inductor Delivers Wirewound Performance In Smaller Size, Vishay Intertechnology's IPLA 32 high-current planar choke inductor*
- *Dual-Mode Chokes Suppress CM And DM Noise, Save Space, Triad Magnetics's CMF Series Dual Mode Chokes*

Transformers

- *Isolation Transformers And Common-Mode Chokes Target EVs And Energy Storage Systems, Pulse Electronics' Networking Battery Management System components now include a wide range of isolation transformers and common-mode chokes for use in electric vehicles and energy storage systems*
- *Transformers Deliver 60 W For PoE++, TDK's B82806D0060A series EPCOS transformers*
- *Planar-Packaged Gate-Drive Transformers Save Space, Vishay Intertechnology's MGDT series miniaturized gate-drive transformers for high-power military, aerospace, industrial, and medical applications*
- *Line-Frequency Power Transformers Feature Updated Functionality And Appearance, Signal Transformer's EcoTrans Standard series transformers*
- *CCFL Transformers Are Still In Demand, MPS Industries continues to offer its standard and custom CCFL transformers even as others discontinue theirs.*
- *Transformers Are Pre-approved for Push-Pull drivers, Murata Power Solutions' 782100 series of transformers for use with Peregrine (pSemi) PE22100 push-pull dc-dc converter driver ICs*

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- *Compact Current-Sense Transformers Sense Up To 40 A, Würth Electronics Midcom's 40-A MID-SNS current-sense transformers*
- *Current-Sense Transformers Accommodate SMPSs, Triad Magnetics' CST25 series current-sense transformers for high-frequency applications*

[For more details...](#)

December 2017

Power Magnetics Component Roundup

Power Inductors

- *Molded Power Inductors Feature Specialized Terminations, Coilcraft's XTL7030 and XAR7030 series of molded power inductors*
- *Automotive-grade Power Inductors Offer Superior Performance In Compact Package, Coilcraft's SRT8045 series of magnetically shielded power inductors*
- *Inductors Enhance Automotive Reliability In Lighting, Powertrain, Infotainment and Telematics, Eaton's HCM1A product line of high-current power inductors*
- *High-Current Inductors Shorten Lead Times, MPS Industries' HWI57A2 and H1300 series high-power inductors*
- *6-mm² and 10-mm² High-Rel Inductors Withstand 150°C, Murata Manufacturing's MDH6045C/MDH10060C series of winding power inductors for automotive electronic equipment*
- *22-µH Inductor Features 0.6-mm Profile For Wearable Devices, Murata Manufacturing's LQH2HPN_DR series of 2.5-mm x 2.0-mm winding power inductors*
- *15-µH inductor Comes In 0402 Size, Murata Manufacturing's LQW15DN series inductor for smartphones*
- *Metal Alloy Inductors Shrink Into 0603 Case Size, Murata Manufacturing's DFE18SA series of metal alloy type inductors*
- *Shielded Metal-Hybrid Inductors Offer Higher Inductances In Small Footprint, Sumida's CDMT40 series of metal hybrid inductors*

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- *Thin-film Metal Inductors Deliver Low DCR For Power Supply Circuits, TDK's TFM160808ALC thin-film inductor*
- *Robust SMT Inductors For High Efficiency, Automotive DC-DC Converters, TT Electronics' HM73E-10 series of SMT miniature power inductors*
- *Coupled Inductors Target Specific DC-DC Topologies For Automotive Applications, TT Electronics' HA78D series of coupled inductors*
- *AEC-Q200 Qualified Inductor Boasts 125-A Continuous Current Rating, Vishay Intertechnology's Vishay Dale IHXL-2000VZ-5A inductor*
- *E-Shield Inductor Reduces Electric Fields 20 dB At 1 cm, Vishay Intertechnology's Vishay Dale IHLE-2525CD-51, IHLE-3232DD-51, and IHLE-4040DD-51 series of low-profile, high-current inductors*
- *Inductor Offers High Temperature Performance for Extreme Environments, Vishay Intertechnology's Vishay Dale IHLP-1616BZ-51 low-profile, high-current inductor*
- *High-Frequency Inductors Boost DC-DC Efficiency, Vishay Intertechnology's IHLP-1616BZ-0H extended-frequency inductor*
- *E-Shield Inductors Lower Costs and Save Space In Automotive Designs, Vishay Intertechnology's Vishay Dale IHLE-2525CD-5A, IHLE-3232DD-5A, and IHLE-4040DD-5A low-profile, high-current inductors*
- *Low-Profile Inductors Save Space in Portable Electronics, Vishay Intertechnology's Vishay Dale IFL and IFLS series of low-profile power inductors*
- *Space-Saving Inductors Operate To +155°C For Under-Hood Automotive Applications, Vishay Intertechnology's Vishay Dale IHLP1616BZ-5A low-profile, high-current inductors*

Chokes And Ferrite Beads

- *Common-Mode Inductors Suit Aerospace And Other High-Rel Applications, Exxelia's TCM series common-mode inductors*
- *0402 Ferrite Bead Suppresses Noise Over Wide Frequency Range, Murata Manufacturing's BLM15EG_SH1 series chip ferrite bead*

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- *Ferrite Bead Extends Impedance To 1000 Ω In 0603 Case Size, Murata Manufacturing's BLM18KG series of high-current, 0603 size ferrite beads*
- *Power Line Inductors Support High-Speed PoC interface In Automotive Applications, Murata Manufacturing's LQW32FT series inductors for automotive PoC circuits*
- *Common-Mode Chokes Suppress Noise In Powertrain And Safety System ECUs, Murata Manufacturing's DLW5ATH/DLW5BTH series of common-mode choke coils*
- *Soft Termination Protects Beads And Inductors Against Board Flexure And Solder Cracks, TDK's KMZ1608 and KPZ1608 series multilayer chip beads and the KLZ1608 and KLZ2012 series multilayer inductors*
- *Chokes For Automotive Power Over Coax, TDK's ADL3225V choke for automotive power over coax (PoC) applications*

Transformers

- *Flyback Transformer Delivers High Isolation For Motor Control And Inverter Applications, TT Electronics' HM210-05K060LFTR flyback transformer for use with Avago's ACPL-32JT/302J IGBT chipset*
- *Planar Transformers For Mil/Aerospace Target Popular Power Supply Topologies, Pulse Electronics Military & Aerospace's PL102XX (140 W) and PL103XX (250 W) planar transformer families*
- *Offline Transformers For LLC Resonant Half-Bridge Converters Up To 400 W, Würth Electronics Midcom's MID-LLCEPC series of offline transformers*
- *Custom Capabilities Catalog Includes Three New Toroidal Packages, Würth Electronics Midcom's newest Capabilities Catalog*
- *Transformers Sense Current Up To 40 A, Coilcraft's CST2020 series current sense transformers*
- *1000Base-T PoE Parts Support 140 W Power Delivery, Pulse Electronics' HX6098NL Ethernet transformer/choke, JK0-0229NL connector module and JOB-3563NL connector module*

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December 2016

Power Magnetics Component Update

- *Inductors Are Optimized for High-Frequency VRM10.0 Applications, Vishay Intertechnology's, Vishay Dale IFLR series of low-profile, high-current inductors.*
- *Power Inductors Minimize Losses At 2 To 5 MHz And Beyond, Coilcraft's XEL60xx family of high-current inductors*
- *High-Current Inductors Come In Low-Profile Surface-Mount Package, MPS Industries' HWIA2918S series surface-mount inductors*
- *Flat Helical Winding Yields Low-Profile for High-Current Inductors, TDK's EPCOS ERU16 choke series*
- *Company Adds Metal Alloy And Other Power Inductors, Murata Group's Toko metal alloy inductors*
- *Broad Line Of High-Power Toroidal Inductors Offer In-Stock Availability, Abracon Holdings' ATCA-XX line of toroidal inductors*
- *High-Temperature Inductors Suit LED Headlights and ADAS Applications, Sumida's CDRH80D65B/T150 high temperature-resistant inductor series*
- *Miniature Inductors & CM Chokes Are Cost Optimized, Beta Transformer Technology's BPI series high-reliability power inductors and BCM series common-mode chokes*
- *Nanocrystalline Chokes Deliver Higher Impedance For EMI Filters, Pulse Electronics' PA441xNL series of common-mode chokes*
- *Flyback Transformer Powers PLC Module, Würth Electronics Midcom's 750315856 flyback transformer for TI's TIDA-00550 PLC Analog Input Module*
- *Hybrid Planar Transformers Offer Lower Cost, Smaller Packages, Vishay Intertechnology's TPL-2516 series hybrid planar transformers*
- *AEC-Q200 Certified Flyback Transformer Targets High-Temperature Applications, TT Electronics' HA00-10043ALFTR flyback transformer*

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- *Transformers For Iso-Buck Converter, Würth Electronics Midcom's series of isolated buck transformers for Maxim Integrated's MAX17681 Iso-Buck dc-dc converter*

[For more details..](#)

July 2016

Power Magnetics Component Update

- *Surface-Mount Power Inductors Target Automotive Applications, TT Electronics, TT Electronics' HA78 series of power inductors*
- *High-Current Inductors For High-Frequency Applications, Coilcraft's SLR family of shielded power inductors*
- *Automotive-Grade Wound Inductors Come In 1212 Case Size, Murata Manufacturing's LQH3NPN_ME and LQH3NPZ_ME series of wound-type power inductors*
- *Surface-Mount Inductor Suits PV Inverters And UPSs, Sumida's CDPQ2419 series of high-current power inductors*
- *High-Current Inductors For LED Headlights, Sumida's CDEP15D90/T150 low-profile power inductors*
- *Metal Hybrid Inductor Offers Low Loss, Reduced Electrical Noise, Sumida's CDMT40D20 series of high-current inductors*
- *Thin-Film Metal Inductor Suits Demanding Automotive Designs, TDK's TFM201610ALMA thin-film metal power inductor*
- *Inductors In 1212 Case Size Feature Profiles Down to 0.8 mm, Vishay Intertechnology's IHHP series of high-current power inductors*
- *Power Inductors Fill Gap Between 1812 And 3013 Case Sizes, Gowanda Electronics' SMP2512 series of wirewound, molded power inductors*
- *Surface-Mount Gate-Drive Transformers Deliver 5000-Vrms Isolation, Pulse Electronics' PH9400 series of gate-drive transformers*
- *Stepdown Power Transformers Are Now Certified to UL 506/UL5085-2, Signal Transformer's SLT series of stepdown power transformers*
- *Web Tool Aids Selection Of Common-Mode Chokes, Coilcraft's Common-Mode Choke Finder*

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- *AC Common-Mode Choke Also Prevents Normal-Mode Noise, Sumida's LF2420B ac common-mode choke coil*
- *Output And Storage Chokes Are Compact, TDK's ERU19 series of chokes*
- *Tx Coil Saves Space in Qi-Compatible Wireless Charging Pads, Vishay Intertechnology's Vishay Dale IWTX-47R0BE-11 6.3 μ H wireless charging transmitter coil*

[For more details...](#)

March 2016:

APEC 2016 Exhibition Offers Vast Showcase of Magnetic Components

- Planar Transformers From Watts To 100+ kW (Payton Planar)
- Standard And Custom Magnetics And Current Sensors (Ice Components)
- Single-Turn Inductors for VRM 10.0 (Vishay Intertechnology)
- Metal Hybrid SMD Power Inductors (Sumida America Components)
- Metal Alloy Power Inductors, Chip Bead Ferrites And Design Tools (Würth Electronics Midcom)
- Distributed Air Gap Cores, Assembled U Cores And Large Toroids (Magnetics)
- Laser Direct Structuring Bobbins And 3D Printing (Norwe)
- Broadband Conical Inductors For Bias Tees (Gowanda Electronics)

[For more details...](#)

November 2015:

Power Magnetics Component Update

This article reports on just over a dozen power magnetic components introduced over the past six months. Among the parts profiled here are transformers intended for switched-mode power supply applications, various isolation transformers, and several small, low-profile inductors for dc-dc converters in automotive and other applications. This article represents a follow-up to the Power Magnetics Component Update published in the June 2015 issue and other magnetics articles published in HOW2POWER TODAY.

Transformers For Switched-Mode Power Supplies

- 120-W Planar Transformers For Active-Clamp Forward Topology (Coilcraft)
- Compact SMD Push-Pull Transformers Provide A Choice Of Turns Ratios (TDK)

Isolation Transformers

- Power Transformers Deliver 5-kV Isolation In Low-Profile SMT Package (Pulse Electronics)
- Power Isolation Transformers Are Certified To UL, CSA, VDE And IEC Safety Standards (Signal Transformer)
- Medical-Grade Power Transformers Offer 4-kV Isolation, Low-Voltage Stepdown (Triad Magnetics)

Power Magnetics: Components & Technology

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Power Inductors

- Power Inductors For Automotive Come In 1210 And 1812 Case Sizes (Murata)
- Shielded, SMT Power Inductors Offer Ultra-Low Profile (Pulse Electronics)
- Small SMD Power Inductors Perform Like Larger Types (Sumida)
- Automotive-Grade High-Current Inductors Operate To +180°C (Vishay Intertechnology)
- Dual Inductors Save Space In Class D Amplifiers (Vishay Intertechnology)

Chokes

- Mini Powerline Common-Mode Chokes Stand Up To Harsh Automotive Environments (Murata)
- Chokes and LC Filters Offer Expanded Performance Range (SMP Sintermetalle Prometheus)
- Vertical Design Shrinks Footprint Of Powerline Chokes (TDK)

[Read the full story...](#)

June 2015:

Power Magnetics Component Update

This article reports on 20+ power magnetic components introduced over the past six months. Among the parts profiled here are numerous power inductors targeting dc-dc converters, including several AEC-Q200-compliant inductors for automotive applications. Among the power inductors, low-profile components are also prominent. Two of the high-current inductors featured here employ flat windings for improved performance. In addition, there are planar transformers offering high power, gate-drive transformers with special certifications and chokes for high-temperature applications. This article represents a follow-up to previous magnetics articles published in HOW2POWER TODAY.

Power Inductors

- Flat-Wire High-Current Inductors Offer Many Mounting Configurations (MPS Industries)
- AEC-Q200-tested Inductors Enhance Reliability Of Automotive Systems (Eaton)
- Automotive-Grade Inductors Offer Wide Range Of Values (Bourns)
- Inductor offers Low-Profile, Semi-Shielded Benefits (Bourns)
- Low-Profile Inductors Feature High Saturation Currents (Vishay Intertechnology)
- Inductors in 2020 Case Operate To 155°C (Vishay Intertechnology)
- Automotive-Grade 4040-size Inductors Operate to 180°C (Vishay Intertechnology)
- Shielded Inductors Provide High Current Handling And Low DCR (Coilcraft)
- High-Inductance Inductors Target Electric Vehicles (Coilcraft)
- Automotive-Grade Inductors Feature High Heat Resistance, Mechanical Strength (TDK)
- SMD Inductor Targets Portable Devices (Sumida)
- Multilayer Chip Inductors Stand Less than 1 mm Tall (Murata)
- Through-Hole Inductors Are Low-Cost Options (Coilcraft)
- Inductors Fill Gap Between 1812 And 3013 Case Sizes (Gowanda Electronics)

Transformers

- Planar Transformers Offer Small Size For 500-W To 2-kW Applications (Standex-Meder Electronics)
- Transformers Deliver 5000-V Isolation In SMT Package (Pulse Electronics)
- Gate-Drive Transformers Feature Reinforced Isolation Per IEC61558 And IEC60601 (Pulse Electronics)

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- Gate-Drive Transformers Receive VDE Certification (VAC)
- Isolation Transformers Meet An Array Of Safety Standards (Signal Transformer)

Chokes

- 2020-Size CM Chokes Guarantee Operation To 150°C (Murata Manufacturing)
- Common-Mode Chokes Suit Automotive Applications (Sumida)

[Read the full story...](#)

December 2014:

Power Magnetics Component Roundup

This article presents a roundup of nearly two dozen power magnetic components and related products introduced over the past 12 months. The components profiled here include numerous power inductors targeting dc-dc converters, particularly those used in space-sensitive applications. Among the other products featured are chokes, planar transformers, gate-drive transformers, coils for wireless charging and magnetic component models. This article represents a follow-up to the Power Magnetics Update published in the April 2014 issue and other magnetics articles published in How2Power Today.

Power Inductors

- Low-Profile Inductors Target Mobile Electronics (Bourns)
- Inductors Offer Shielding Benefits At Reduced Size And Cost (Bourns)
- 1212-Sized Wirewound Inductors Are Ready For Automotive Applications (Murata)
- 2020-Size Wirewound Inductors Handle High Currents (Murata)
- Inductors Feature Improved Shielding, Higher Inductance In Small Packages (Total Frequency Control)
- Low-Profile Inductors Come In Wide Range of Inductances (Total Frequency Control)
- High-Current Wirewounds Are Just 1-mm Tall (Abracon)
- Flat-Wire Inductor Modules For Inverter Systems (MPS Industries)
- Flat-Wire Inductors Handle High Current Levels (MPS Industries)
- Metal-Composite Inductors Suit Various Automotive Applications (Sumida)
- Shielded Inductors Offer Choice Of High Inductance Or High IsAT (Coilcraft)
- Tiny Shielded Inductors Handle Up To 3.75 A (Coilcraft)

Chokes

- Components Combine Common- and Differential-Mode Chokes (Pulse Electronics)
- Chokes Target Buck-Boost Converters In 48-V Automotive Power Systems (TDK)

Transformers

- Gate-Drive Transformers Deliver 2700-V HIPOT In Small Footprint (Pulse Electronics)
- Planar Transformers Promise Short Lead Times, Lower Costs (MPS Industries)
- Flyback Transformers Meet Requirements Of 30-W POE Plus (Coilcraft)
- High-Voltage Transformers Meet Demands of High-Rel Applications (Innovative Power)

Coils for Wireless Charging

- Ferrite Disk Selected For Wireless Power Reference Design (TDK)

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- Wireless Charging Rx Coil Delivers High Efficiency for 10-W Applications (Vishay Intertechnology)
- WPC-Compliant Wireless Power Transmit Coils For 12 V (Würth Elektronik)

Models and Design Tools

- Models Available For Custom Magnetics (Würth Electronics Midcom)

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September 2014:

LLC Transformers And PFC inductors Are Optimized For GaN-Based Power Converters

Designed for optimum performance at high switching frequencies, Precision's GaN-ready LLC transformers and PFC inductors leverage the company's expertise in core material selection and parasitic management as well as its extensive selection of Litz wire. These components are available directly from the company as well as through GaN switch providers such as Transphorm and International Rectifier.

[More details...](#)

June 2014:

Innovative Current Sensors, Planar Components, And Cores Take The Stage At PCIM Europe

by Cliff Keys, Contributor, How2Power.com

PCIM has become the European showcase for power electronics. This show, which is presented each spring in Nuremberg, Germany brings together a variety of exhibitors to present the latest offerings from the power electronics industry. Among the products on display in the PCIM exhibition are numerous magnetic components including inductors, chokes, transformers, and sensors as well as the cores and coil formers used in the construction of those types of components. At the recently concluded PCIM Europe 2014, which ran from May 20-22, the author met with a number of the magnetics vendors who showed some of their latest magnetics developments for power electronics applications. Among the noteworthy products were improved current sensors and planar transformers featuring innovative design and construction techniques and high-performance core materials.

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April 2014:

Power Magnetics Update

by David G. Morrison, Editor, How2Power.com

This article presents an update on recently introduced power magnetic components. The products profiled here include transformers optimized for power over Ethernet (PoE) and smart metering, power inductors with higher saturation current ratings, coupled inductors for use in SEPIC converters, and transformers designed to work with a series of LED driver/controller ICs. This article represents a follow-up to the Power Magnetics Update published in the November 2013 issue of HOW2POWERTODAY.

- Planar Transformers Target PoE And 48-V Network Power Applications (Coilcraft)
- Homogeneous Pressed Iron Cores Enable Higher Saturation Ratings (AVX)
- Flyback Transformers Reduce Footprint 30% Vs. Those Using Horizontal E-Cores (Wurth Electronics Midcom)
- Coupled Inductors Are Crafted For SEPIC And Common-Mode Applications (Vishay Intertechnology)
- Transformers Are Optimized For LED Driver ICs (Premier Magnetics)

[Read the full story...](#)

November 2013:

Power Magnetics Update

by David G. Morrison, Editor, How2Power.com

This article presents an update on recently introduced power magnetic components. The products profiled here include coils for low-power wireless charging, inductors and transformers for dc-dc applications, and current transformers. Two of the products discussed here are small dc-dc converter modules employing embedded inductors, which highlight the ongoing trend of co-packaging magnetics in point-of-load converters. This article represents a follow-up to the Power Magnetics Update published in the August 2013 issue of How2Power Today.

The following products are described in this article:

- Wireless Charging Receiving Coil Works With Or Without Alignment Magnet (Vishay Intertechnology)
- Micro DC-DC Converters Feature Embedded Inductor With Proprietary Substrate (Murata Americas)
- Miniature Step-up Transformers Suit Energy Harvesting Applications (Coilcraft)
- Split-Core Current Transformers Offer 5-A Output (Accuenergy)
- High-Power Surface-Mount Inductors Are Tailored To Extreme Environments (TT electronics)
- Tiny 10-A DC-DC Module With Built-In Inductor Achieves High Efficiency (Texas Instruments)

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August 2013:

Power Magnetics Update

by David G. Morrison, Editor, How2Power.com

This article presents news about recently introduced power magnetic components. Products profiled here include planar transformers, high-frequency inductors, flyback transformers, and wireless charging coils. There is also news about a magnetics-related Android app. This article represents a follow-up to the more-extensive Power Magnetics Component Roundup published in the June issue of How2Power Today.

The following products are described in this article:

- Planar Magnetics Specialist Updates Website, Adds Android App (Payton Planar Magnetics)
- Flat-Coil Planar Transformers Deliver 500 W For Low-Profile Applications (Pulse Electronics)
- Small Inductors Target High-Frequency, High-Current Applications (XFMRS)
- Low-Cost Miniature Transformers Offer 1500-Vdc Isolation (Coilcraft)
- Qi-Compliant Wireless Charging Coil Modules Improve Efficiency, Lower EMI (Laird)

[Read the full story...](#)

June 2013:

Power Magnetics Component Roundup

by David G. Morrison, Editor, How2Power.com

This article highlights more than a dozen new inductors, transformers, and cores targeting a range of power supply applications. These products, which were introduced over the past 12 months or are about to be introduced, boast performance improvements such as greater current handling ability, lower losses, higher-temperature or higher-frequency operation, higher dc bias, and smaller size (especially lower package height).

The following components are described in this feature:

- Coupled Inductor Comes In Composite Constructed Case (Vishay Dale)
- Transformers Are Optimized For Popular Offline Switcher ICs (Premier Magnetics)
- Moulded Inductors Provide High Performance, Wide Temperature Range (TT electronics)
- Low-Profile Inductors Support Noise Reduction in High-Frequency Switching Applications (Murata)
- High-Current, Shielded Power Inductors Feature Small Size, Low DCR (Bourns)
- LLC Transformer Provides High Efficiency, Board Space Savings (Precision)
- SMT Power Inductors Expand To Higher Inductance And Current Ratings (Pulse Electronics)
- Low-Profile Inductor Is Rated To 180 A And 155°C (Vishay Dale)
- Semi-Shielded Inductors Are Smaller Than Conventional Shielded Ferrites (Bourns)
- Amorphous Powder Core Delivers Low Core Loss And High DC Bias (Magnetics)

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- Large E Core Brings Material Advantages To High-Current Inductors (Magnetics)
- 1.2-mm Tall Power Inductor Boasts High DC Bias Characteristic (Taiyo Yuden)
- PFC Inductors Feature High-Flux Materials (MPS Industries)
- Wireless Charging Rx Coil Offers High Permeability Shielding, High Efficiency (Vishay Dale)
- Miniature Power Inductors Handle Currents Up To 32 A (Cooper Bussman)

[Read the full story...](#)

March 2013:

Award-Winning Alloy Set The Stage For Wafer-Level Magnetics And PowerSoCs

by David G. Morrison, Editor, How2Power.com

Enpirion* received an award at the recent embedded world conference recognizing the company's development of a new magnetic alloy called FCA. This alloy was the cornerstone in Enpirion's development of wafer level magnetics (WLM), a technology that enables this chipmaker to cost effectively build micro-inductors on silicon as they have done in the tiny EL711 dc-dc converter, which operates at a very high 18 MHz. While the development of WLM and the converter IC are impressive, these advances are also viewed as major milestones on a focused technology roadmap that is expected to yield fully monolithic dc-dc converters just a few years from now. This article discusses development of Enpirion's WLM technology, and how it takes the company a step closer to its vision of building a MEMS inductor directly on top of a power converter die.

[Read the full story...](#)

**Now part of Altera.*

November 2012:

Novel Construction Cuts Power Loss, Size Of High-Current Inductors

- To cut power losses and size, high-current inductors from Precision incorporate novel flat-wire and ferrite-core construction.
- The four standard high-current inductor series include bow-tie three pad, bow-tie two pad, bow-tie vertical through-hole, and three-pad inductors.
- Key benefits and performance specifications for the inductors.

[More details...](#)

Power Magnetics: Components & Technology

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June 2012:

Embedded Inductor Enables Tiny Size, Low EMI For Buck Converters

- The 600-mA LXDC2UR and 1-A LXDC3EP micro dc-dc converters from Murata Americas embed the power inductor within their substrates and mount the I/O capacitors on their substrates, shrinking converter footprints.
- Embedding the power inductor within the converter's ferrite substrate, leads to a reduction in the exposed interconnect path and lowers radiated EMI.
- A comparison of the LXDC2UR dc-dc converter with existing solutions illustrates the size reduction achieved by the new converter.

[More details...](#)

May 2012:

Planar Transformer Boasts 90-kW Rating

Weighing under 30 pounds with dimensions of 9 in. x 9 in. x 5 in., Payton's new planar transformer will deliver 90 kW when mounted on a 50°C cool plate.

[More details...](#)

April 2012:

Shielded, Wirewound Inductors Offer Greater Current Handling In Small Footprint

- Measuring 4.9 x 3.4 x 1.4 mm, Coilcraft's PFL4514 shielded, wirewound power inductors offer Isat ratings equal to or better than those of inductors that are two or three times their size.
- Comparing current ratings and sizes of the PFL4514 power inductors with existing inductor models.

[More details...](#)

August 2011:

High-Temperature Components For Power Design

This Power Product Roundup highlights high-temperature-rated components that may be applicable in power conversion. The components described here have been introduced in recent months. Although not strictly focused on magnetics, this article includes an article titled "Surface-Mount Flat Coil Inductors Target High-Current Applications."

[Read the full story...](#)

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April 2011:

- Payton Planar Magnetics' new line of PFC boost inductors employ Metglass (amorphous) or nanocrystalline core material to achieve high-power, compact designs. An example device measures 70 mm (L) x 55 mm (W) x 40 mm (H) and is designed for use in a 5000-W system.

[More details...](#)

October 2010:

Resonant Transformer With Extended Ferrite Offers Improved Cooling Under 8 mm

- Payton Planar Magnetics's 200-W resonant planar transformer measures just 55 mm x 40 mm x 8 mm, enabling it to meet the low-profile requirement in flat screen TVs.

[More details...](#)

August 2010:

Low-Profile Inductor Enables 1-cm High Power Supplies for LED Televisions

[More details...](#)

April 2010:

Composite Inductors Save Space In DC-DC Converters

- A space-saving alternative to larger toroid, drum core and rod core inductors, the IHLP-6767DZ-01 from Vishay Intertechnology is a series of 0.22- μ H to 10.0- μ H composite inductors in the 6767 case size.
- Comparing specifications for IHLP inductors in the 6767 case size with those of IHLP inductors in the next-largest case size, the 5050, reveals that inductors produced in the larger footprint offer lower DCR and higher current ratings.

[More details...](#)

March 2010:

HOW2POWER's APEC 2010 Product Showcase

This special advertising section highlights products and services from various companies in the power electronics field. Many of these products were on display at the Applied Power Electronics Conference and Exposition (APEC 2010), which was held February 21-25 in Palm Springs, California. Although not strictly focused on magnetics, this article includes:

Power Magnetics: Components & Technology

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- Paper Thin Planar Inductors (Payton Planar Magnetics)
- SMP1210S Surface Mount Power Inductor (Gowanda Electronics)
- High Isolation High Creepage Welding Transformers (Payton Planar Magnetics)
- B-WIT 100 Universal Injection Transformer (OMICRON Lab)
- High Performance Planar Transformers and Inductors (Payton Planar Magnetics).

[More details...](#)

Magnetics Product Roundup

This feature highlights recently introduced transformers, inductors, chokes, cores, and magnetics design software suitable for power electronics applications.

- Shielded SMT Inductors Feature High Current, Small Size (Gowanda Electronics)
- Amorphous And Nanocrystalline Cores Come Standard Or Custom (Payton Group International)
- Small SMT Inductors Deliver High Efficiency (TT electronics BI Technologies)
- Cost-Effective Inductors Target High-Rel Applications (RAF Tabtronics)
- Inductors Handle High Currents (West Coast Magnetics)
- Video Demos Performance of Low-Profile Inductors (Vishay Intertechnology)
- Cores Optimize Chokes For Solar Power Inverters (SMP Sintermetalle Prometheus)
- Inductors Shrink Footprints for Class D Audio (ICE Components)
- Toroidal Cores Come in Large Sizes (Magnetics)
- Flat Wire Inductor Offers High Saturation-Current Ratings (Würth Elektronik)
- Magnetics Design Software Solves Laminated Cores (Ansoft)
- 5- x 5-mm Inductors Boast High DC Bias Ratings (Taiyo Yuden)
- Stepup/Flyback Transformers Suit Energy Harvesting (Coilcraft)
- Power Inductors Receive MIL-PRF-27 Qualification (Gowanda Electronics)
- Chokes Deliver High Attenuation in Small Size (West Coast Magnetics)
- Gate And Signal Transformer Permits Pick and Place (ICE Components)

[More details...](#)

January 2010:

Planar Transformer Enables Size Reduction for Welding

- Payton America's planar transformers for welding exhibit lower ac losses than conventional transformers, while also permitting use of a heatsink for improved cooling. Because of those two advantages, these planar transformers may be one third to one half the size of standard welding transformers.

[More details...](#)

Wirewound Inductors Save Space In DC-DC Converters

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- Measuring just 8 mm x 8 mm, the LQH88P_38 shielded, wirewound power inductors from Murata Electronics North America offer performance rivaling larger, more costly components.
- These inductors tolerate high levels of dc bias current.
- Key specifications. Inductance ranges from 1 μ H to 100 μ H and current rating ranges from 1 A to 8 A.

[More details...](#)

November 2009:

Vertical Mount: Not a Tall Order for Planar Magnetics

- Vertical-mount planar components provide the high efficiency of planar magnetics for applications with insufficient board space for a horizontally mounted planar.

[More details...](#)

Wide-bandwidth Injection Transformer Replaces Multiple Devices

- The B WIT 100 universal injection transformer combines a very wide frequency range (1 Hz to 10 MHz) with a 600-V CAT II compliant output.
- The wide frequency range of the B WIT 100 makes its suitable for analysis of low- or high-bandwidth control loops.

[More details...](#)

October 2009:

A User-Configurable Planar Transformer

- Vishay's PLAC 100 220-W planar transformer can be adapted to a variety of SMPS designs.
- The transformer contains 12 individual windings that users may connect in various configurations.
- A design kit provides transformer configuration software and the different transformer models.

[More details...](#)



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September 2009:

Round-Wire Inductors Outperform Flat-Coil Inductors

- Pulse's round-wire coil surface-mount power inductors exhibit lower core loss and allow higher operating temperatures than flat-coil inductors with iron powder cores.
- A dc-dc converter design example illustrates the reduced losses offered by ferrite-core round-wire inductors.
- Inductor specifications.

[More details...](#)