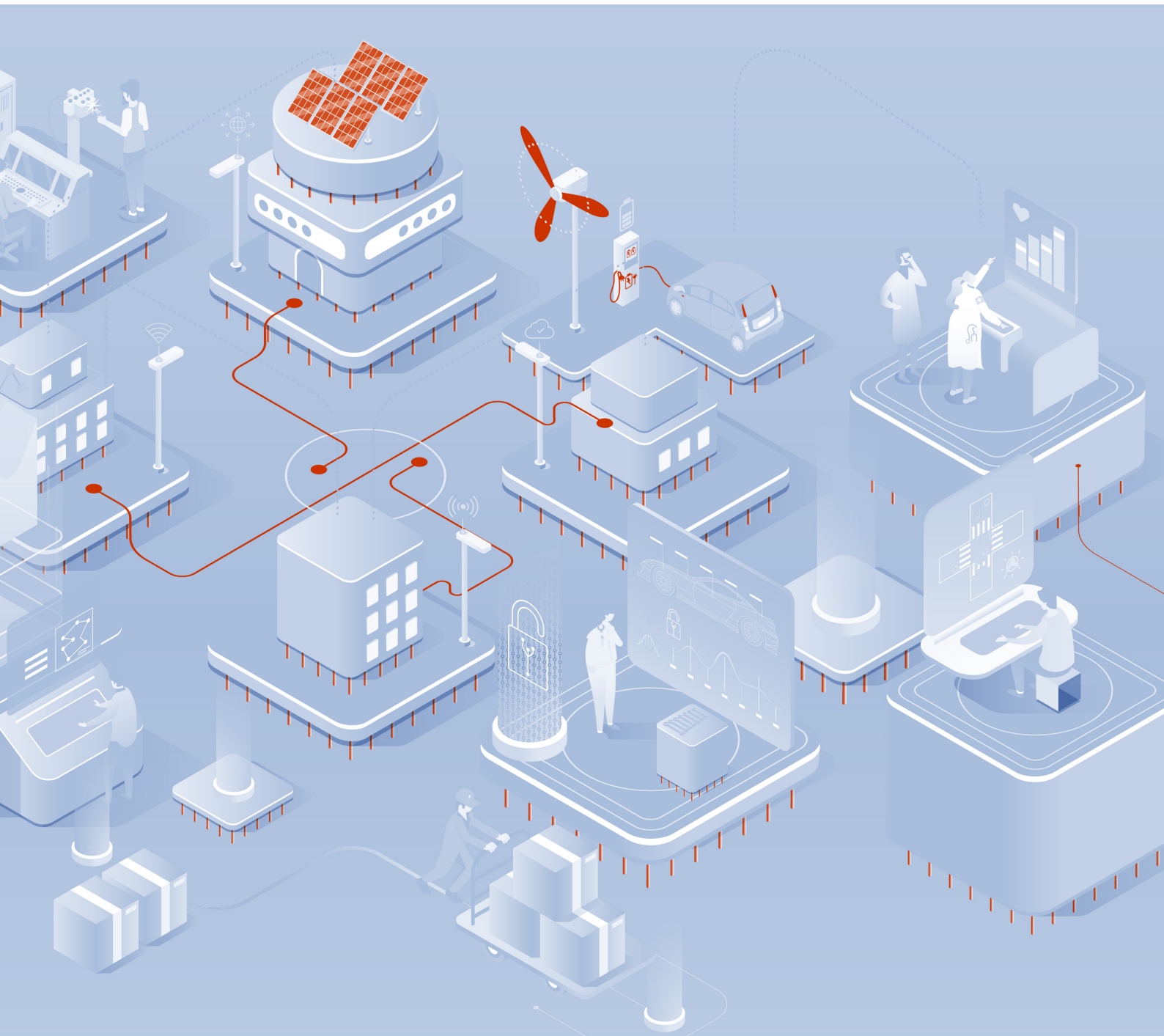




Power & EMC

Select the right power component
and power supply solution



Power & EMC & Alcom

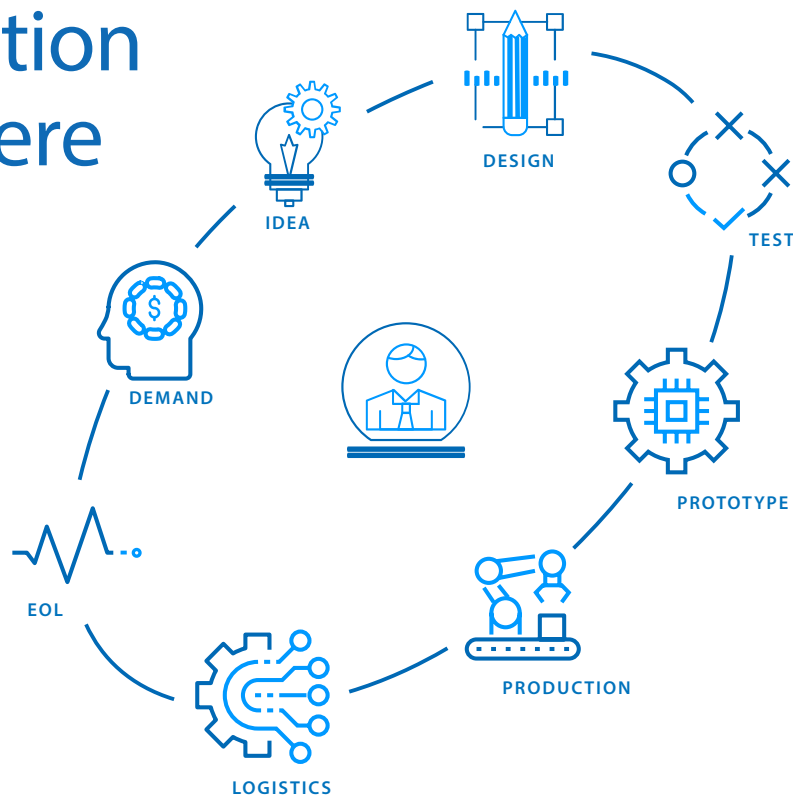


Most reliable power solutions for the most demanding and critical applications

Since its inception, Alcom Electronics has seamlessly integrated power solutions into its diverse portfolio of synergistic products. With over 30 years of experience, Alcom Electronics stands as the regional specialist and market leader in the power supply industry, partnering exclusively with top manufacturers to deliver cutting-edge power technologies.

We are committed to supporting your next power project with the most sustainable and innovative power solutions available

Co-creation starts here



Alcom considers everybody an indispensable added value in the collaborative chain with all of its partners.



Applications & Markets



GAMING



MILITARY & AEROSPACE



FACTORY & INDUSTRIAL
AUTOMATION, ROBOTICS



ENERGY & UTILITIES



TELECOM



WHITE GOODS & CONSUMER



DATA STORAGE



MEDICAL, HEALTHCARE & FITNESS



TRAFFIC & TRANSPORTATION

Energy & power industry analysis 2030

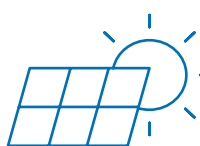
The renewable energy sources are expected to account for over 40% of global electricity generation by 2030, driven by declining costs and aggressive government targets. Investments in renewable infrastructure are projected to reach \$1.3 Trillion by 2025. Simultaneously, advancements in energy storage technologies like lithium-ion batteries could lead up to 15-20% annual growth rate. There will be a new outlook for the energy industry, indicating a shift towards more sustainable and renewable energy sources. The future energy world will be characterized by a greater role for clean technologies, a peak in fossil fuel demand, and an uncertain path ahead due to factors like technological trends, geopolitical risks, and consumer behaviour.



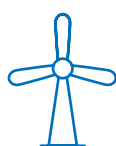
ENERGY AND
POWER



Hydrogen
Energy



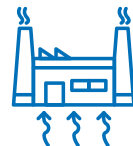
Solar
Energy



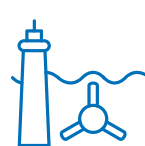
Wind
Energy



Hydro-
power



Geothermal
Energy



Tidal
Energy



Wave
Energy



Biomass
Energy

Power Conversion & Batteries



AC/DC power supplies

- Open frame, Enclosed, encapsulated, board mount, din rail, rack mount, HiRel and MIL-COTS
- External plug-in adapters; desktop, wall-mount, flush-mount and USB power supplies
- Industrial, ITE, household, gaming, medical, MIL, aero- approved power
- Standard/modular/configurable & customer-specific power
- Military power systems-rackmount, VPX, configurable
- LED power

Power solutions >1000 Watt

- Modular high density configurable and conduction cooled power supplies up to 1200W
- Coolant power supplies providing conduction, convection, air and liquid cooling
- Power distribution units



DC/DC converters

- Open frame, enclosed, encapsulated, board mount, external, rack mount
- DC/DCs for general industrial, data & telecom, pv, medical and rail
- Brick DC/DC Converters
- Low stand-by power modules
- Isolated & non-isolated DC/DC converters
- Power modules with integrated inductors
- Power management ICs
- DC/DC Conduction cooled converters
- Hi-Rel & MIL-COTS converters & filters

DC/AC inverters

- Medical-grade UPS systems
- UPS for residence, retail, edge computing, server rooms, cloud & datacenter infrastructure
- MilQor military-grade UPS



Batteries

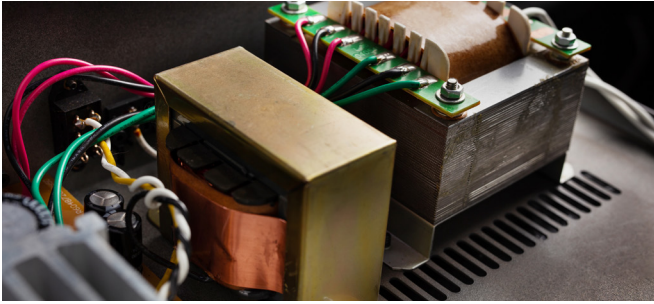
- Lithium, silver oxide & tabbed lithium coin cells
- Rechargeable lithium and lithium-ion polymer batteries
- Thin-film batteries
- Battery holders and hearing aids
- Battery packs & Battery Management Systems
- Driving solutions for e-mobility

Battery chargers

- Battery management ICs
- Compact interchangeable AC-plug & desktop chargers
- Intelligent eco-friendly battery charge modules
- Battery chargers for lead acid and lithium-ion batteries
- E-Mobility converters including on board DC/DC, OBC and OBC + DC/DC combo's



Magnetics, transformers & EMC

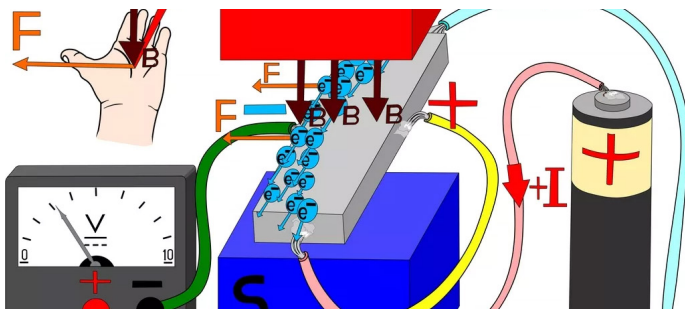


Transformers

- PCB & flat laminated transformers
- AC/DC power modules for PCB mounting
- Single/three-phase mains transformers
- Toroidal transformers
- Linear, Telecom, Audio transformers
- Planar Transformers
- Water cooling Ultra large size reactors
- Ultra large size power transformers/reactors

Magnetics, inductors & choke coils

- Chip/surface mount/DIP, high power inductors & ferrite beads
- Common-mode & storage chokes, magnetic cores, bobbins and plastic parts
- Active and noise filters
- Telecom, broadband, LAN magnetics & connector modules
- RF Magnetics
- Low & high frequency transformers
- BMS transformers, data bus couplers, delay lines
- Automotive magnetics
- Space, MIL, Aerospace and high-rel magnetics

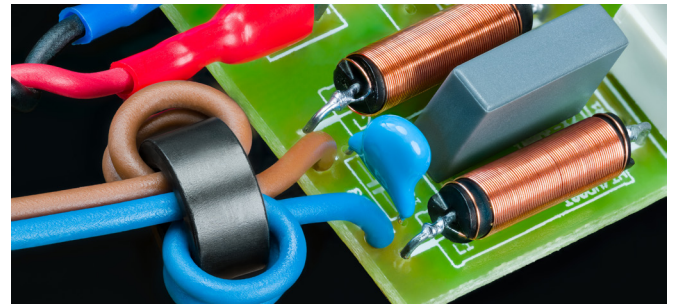


Current & hall effect sensors

- Hall effect current sensors
- Hall effect linear current sensors ICs
- Current sense magnetics & transformers

EMC/EMI/RFI filters

- EMI and RFI filter components
- Suppression components including capacitors, coils, transformers and HF chokes
- Power entry modules with filter, single and 3-phase block filters
- EMI shield windows for TFT modules
- Custom RF Shielding cases
- Avionics Line filters & PFC modules



Wireless charging

- Wireless power transceiver, receiver and transmitter modules
- Wireless charger Tx/Rx flash MCU's
- Inductive charging
- Qi2 Wireless Charger
- Wireless Coils and coil modules



Specialism, Knowledge & Design-in Expertise

Power semi, -components & -modules

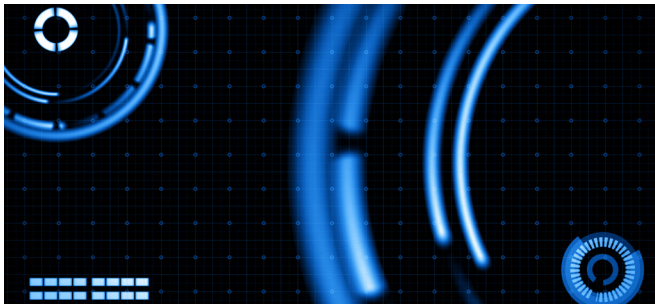


Power semiconductors & modules

- Diodes, rectifiers, power MOSFET & JFETs, thyristors
- Power modules with integrated inductors
- Gate Driver modules for SiC/IGBTs

Circuit protection & discrete semiconductors

- Diodes, rectifiers, transistors, MOSFETs, GaN JFETs, thyristors
- TVS diodes & ESD suppressors, avalanche breakdown diodes, steering diode TVS, high power TVS, PPTC devices, multilayer varistors & MOVs
- Fuses, resettable fuses, thermofuses, fuseholders, fuse blocks & clips
- Thermal circuit breakers and accessories; voltage selectors
- Multi-discrete modules & power modules
- Hi-Rel, Mil and Spacelite components



Power management ICs

- AC/DC & DC/DC power management
- PMIC, LDO, supervisory & power management
- Single & multiple output power modules with integrated inductor
- Semi-shielded, molded inductors supporting power management ICs
- Automotive buck, boost, PMIC, linear regulators
- LED lighting automotive backlight, illumination & signalling, monitoring, supervision
- Power switches & modules
- Transient voltage suppressors

PoE power management modules

- Low & High Power (PoE+)PD modules
- Higher Power (PoE+)PD Modules
- PSE Modules
- DC/DC converter modules
- High power PoE transformers



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Balancing the essential power solution between performance, reliability and cost



Innovation & technology partners

Next-Generation Industrial Power

At Alcom Electronics, we provide our customers with the most reliable **power supplies, DC/DC converters, power semiconductors, power management ICs, magnetics, transformers**, and associated support products. We also offer our expertise to help select the right magnetic component or power conversion product, whether it's a standard catalog item or a custom design tailored to specific requirements.

Selecting the right power supply goes beyond just increased efficiency, compact size, or higher power density.

Alcom's value-add services provide **solution-ready power solutions** for easy integration into our customers' systems. Our power supplies are designed to meet stringent industrial standards and specifications, ensuring safety and reliability. We offer both standardized and customized products that are powerful and economical, always considering the total cost of ownership.

We have extensive experience in delivering the right components and solutions for various industrial applications, including welding, UPS, motor control, induction, renewable energy, clean power generation systems, EV charging, mobility, medical, and diverse Industry 4.0 markets. The power components and energy conversion market is fast-evolving and innovation-driven, with continuous product improvements. We support the revolutionary world of electronics to make clean power more efficient and profitable.

Alcom highlights new **Power Electronics products bi-monthly in "Tips4 Designers" (T4D)**, our newsletter designed with the development engineer in mind. Stay updated on the latest technological developments and learn how the near future will shape the power sector.

Subscribe via <https://alcom.be/newsletter>

- Power Semiconductors, Power Management ICs, Power Components, Power Supplies, DC/DC converters, Magnetics, Transformers
- Added Value services-One Stop shopping with unmatched local support

Contact us today

We support our customers with specialism, knowledge and design-in expertise from the ground up. Let's discuss your next big idea.

KEY PARTNERS

New product releases

NEO SERIES PREMIUM INTERCHANGEABLE POWER SUPPLIES

The recently launched FOX NEO is undeniably stunning and sure to impress! The PSU complies with global standards and can be customized with your company logo on the front.



150W POWER MODULE OFFERS UNBEATABLE COMBINATION OF HIGH POWER AND COMPACT SIZE

Introducing the AJCV150, ARCH's 150W power supply module that stands unparalleled in the industry. As the only 150W power module on the market, it offers an unbeatable combination of high power and compact size, matching the dimensions of our AJCV100 model. This makes it an ideal choice for a wide range of applications without compromising on space or performance.

HIGH-DENSITY MODULAR & CONDUCTION COOLED AC/DC & DC/DC POWER SOLUTIONS FOR MEDICAL, INDUSTRIAL & TECHNOLOGY MARKETS

Vox Power designs and manufactures unique high-density power solutions for healthcare, industrial and technology markets. The unrivalled size and weight advantages of our products, blended with additional functionality and features, enable customers to create innovative, smaller, aesthetically pleasing and highly efficient end solutions.



N2POWER XL180 AC-DC SERIES

The XL180 is not only one of the smallest 180 Watt power supplies on the market, it is also available in a choice of three different packages to suit diverse application requirements; XLO Open-Frame models, XLE Enclosed models and XLD DIN Rail models. Despite its small size, the full 180 W output power is delivered with convection cooling only – no need for a fan!



THE KEY TO RELIABLE MEDICAL POWER SOLUTIONS

In the fast-paced world of healthcare, reliability and precision are of paramount importance. FSP POWER SOLUTION GMBH is proud to introduce our advanced medical power supplies that meet the highest performance and safety standards.



SAFE & RELIABLE RAILWAY POWER: RAILWAY STANDARDS EN 50155 & EN 45545-2

Railway Certified Power Solution 3W-150W

Professional 100W-150W DC-DC Converter for High Efficiency
Why the MRZ175 Series Can Help Railway Applications?
10W-40W DC-DC Converter with Reinforced Insulation 3000VAC
Compact size 3W isolated DC-DC converter for Railway Certification

New product releases



BEST IN CLASS POWER CONVERSION SOLUTIONS

SynQor® is a leading supplier of power conversion solutions to the military, industrial, rail transportation, commercial avionics, medical and telecom/datacom markets. SynQor's innovative products are designed to exceed the demanding performance, quality, and reliability requirements of today's power electronic engineers and system integrators who develop leading-edge infrastructure hardware.

LIQUACORE 5.5KW WATER-COOLED POWER SUPPLY

5.5kW Water-cooled power supply - Ideal solution for embedded DC systems demanding industrial and military applications. Providing high-operating efficiency along with excellent reliability, compact size, and easy maintainability, LiquaCore™ power supplies are the ideal solution for embedded DC systems in demanding industrial and military applications. A fully adjustable, wide-range DC output is configurable via digital interface with real-time feedback.



SIC/IGBT GATE DRIVES FOR MIT/FUJI/INFINEON, WOLFSPEED,ROHM

TAMURA's Gate Driver is a 2-channel isolated circuit module for IGBT / SiC MOSFET. The Gate Driver features a DC / DC converter and integrated drive circuit.

The Gate Driver is designed for robust operation in applications using IGBT / SiC MOSFET.

POE++ CAN DELIVER UP TO 85W OF CONTINUOUS POWER

Did you know that POE++ can deliver up to 85W of continuous power to end applications over a standard Category 5e/Category 6a Ethernet cable? Developments in POE technology mean that a far greater number of applications can be powered by POE, such as high-power speakers, access points, large digital monitors, digital signage, and PTZ cameras.



COMPONENTS FOR POWER MANAGEMENT

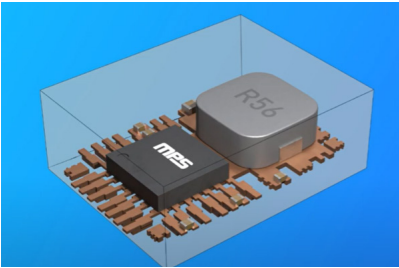
Magnetics, Circuit protection, Capacitors, Terminal blocks, Sensors. Magnetics Product Breadth, Overcurrent Protection Product Breadth, Overvoltage Protection Product Breadth, Supercapacitor Product Breadth, Film capacitor Product Breadth, Sensor Product Breadth.

PASSIVE MAGNETIC COMPONENTS FOR DEFENSE, SPACE, HI-REL AND COMMERCIAL AERO

Providing high-reliability magnetic components to defense industry for over 70 years. iNRCORE has dedicated resources to support MIL-STD-981 (space-grade) component manufacturing requirements. Defense: High-reliability magnetic components to defense industry for over 70 years. Space: iNRCORE supports MIL-STD-981 (space-grade) component manufacturing requirements. High Reliability: Specialized solutions for medical equipment, high-speed transportation, down-hole energy exploration, etc. Commercial Aero: Product line of magnetics solutions to support avionics suppliers.



New product releases



MAXIMIZE EFFICIENCY WITH COMPACT, INTEGRATED FPGA POWER MODULES

Explore the capabilities of the MPM38x6C family, MPS's ultra-compact, synchronous step-down power modules, ideal for demanding applications such as FPGA power systems, industrial controls, and medical equipment. Thanks to an innovative integrated inductor design, these integrated power modules are designed to deliver up to 2A of continuous output current with exceptional efficiency and minimal noise.

HIGHLY EFFICIENT 650V, 17A GAN FET IN LOW PROFILE DFN PACKAGE

Central Semiconductor's Gallium Nitride (GaN) N-Channel FETs combine high voltage capability with low $r_{DS(ON)}$ and are designed for soft-switching applications with high efficiency standards. The space-saving DFN and chip scale packaging is ideal for application in high power wireless charging, Power Factor Correction (PFC), and electric vehicle inverters. These GaN FETs are offered in 100V that supports 60A or 650V that supports 11A or 17A. 40V supporting 20A or 50A and bare dies are available upon demand.



ADVANCED CIRCUIT PROTECTION DEVICES FOR EACH APPLICATION

ProTek Devices is a leading semiconductor manufacturer of a wide range of high-performance TVS circuit protection components. In business more than 30 years, the company has extensive engineering and manufacturing experience. We offer application-specific solutions for all electronic equipment/systems. ProTek Devices is an ISO 9001 certified company.

INDUCTIVE SOLUTIONS FOR THE ENERGY TRANSITION

The energy transition is in full swing and poses major challenges for energy suppliers. The decentralised generation of electricity from renewable energy sources requires new solutions for the conversion, storage and distribution of energy. TPEG is a leading supplier of transformers and electronic components for the energy transition. We have many years of experience in the development and production of products that meet the high demands of the energy industry.

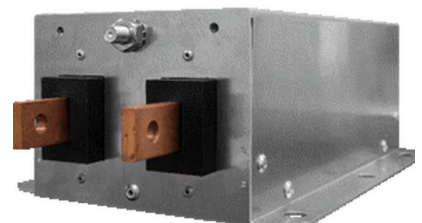


POWER DISSIPATION IN POWER ENTRY MODULES

If different electrical components are combined in an appliance inlet to form a power entry module, the individual power losses and temperature deratings of all components involved must be carefully taken into account in order to ensure long-term safe operation.

COMPACT HIGH CURRENT DC EMI POWER LINE FILTER WITH 1000V CAPABILITY

The RP681 series offers a range of rated currents, including 250A, 320A, 400A, 600A, 800A, and 1000A. It features a single-stage line filter and is available with Bus Bars to support high current capability. With its compact and high-current, high voltage design, the RP681 series is optimized for various applications, including high-power rectifiers, inverters, induction charging, industrial chargers, solar applications.



Alcom product portfolio

ELECTRONIC COMPONENT SOLUTIONS	WIRELESS EMBEDDED CONNECTIVITY & SENSORS	WIRELESS & INDUSTRIAL CONTROLS NETWORKING	DISPLAY & TOUCH
LED & SOLID STATE LIGHTING	POWER & EMC	RUGGED MOBILE COMPUTING	EMBEDDED SYSTEMS, AI & EDGE COMPUTING

<ul style="list-style-type: none"> • Semiconductors • Frequency & timing • Power management • Circuit protection & discretes • Magnetics • Passives & electromechanical • Connectors & cable assemblies • Photonics 	<ul style="list-style-type: none"> • Wireless modules • Antenna's • Sensors
<ul style="list-style-type: none"> • Routers & gateways • Wireless embedded computers • Industrial ethernet and IP variations • Wired & wireless machine networking • Antenna's • Device to cloud solutions • Connectivity & remote management services • Networking & connectivity 	<ul style="list-style-type: none"> • Displays • Touch screens • Optical bonding • Total display solutions
<ul style="list-style-type: none"> • LED light sources • Optics • Thermal management • Power & intelligent controls • LED modules 	<ul style="list-style-type: none"> • AC/DC power supplies • DC/DC converters • Power management modules • Wireless charging • E-mobility solutions • Transformers & power inductors • UPS • EMC filters
<ul style="list-style-type: none"> • Tablets • PDA's • Vehicle mount computers • Accessories 	<ul style="list-style-type: none"> • Computer-on-modules • Embedded boards • Industrial PC & automation • System integration

Bridging the gap between technology, people and business with a human interface.





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Get to know us

ALCOM PROVIDES THE WORLD'S MOST ADVANCED TECHNOLOGIES.

With a team of like-minded entrepreneurs, Alcom will continue to inspire its valued customers to use advanced innovative building blocks in vertical markets. The importance of providing high-level services and a human interface based on specialism, knowledge and design-in expertise will remain key differentiators.

Alcom is positioned for growth. We invite all our customers to discuss their current and future concepts and designs. Let's connect, work and grow together.

