

THE AVNET ABACUS BOOK OF SOLUTIONS YOUR TECH DEEP DIVE

January 2025

WELCOME TO THE BOOK OF SOLUTIONS FROM AVNET ABACUS!

Take a tech deep dive into the New Product Introductions (NPI) from our featured supplier partners with the latest product and technology innovations to enhance your design.

Featured Supplier Partners



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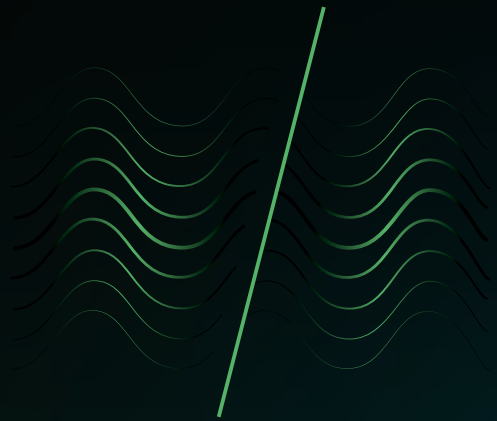
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AVNET[®] ABACUS



/ PASSIVE

YAGEO PULSE SMD PLC TRANSFORMERS BM62XX SERIES



SMT Power Line Communication (PLC) transformers for automotive use: BM6210HL, BM6220NL and BM6230HL.

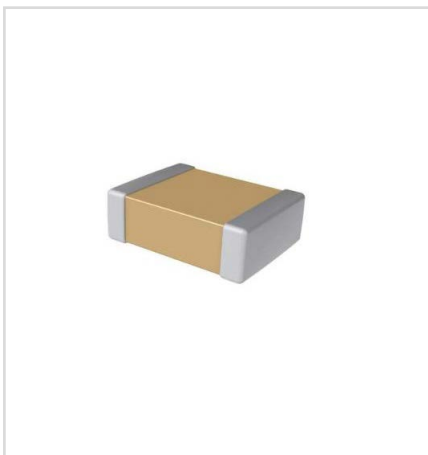
Features

- Wideband frequency response from 3MHz to 30MHz
- Industrial and automotive temperature range from -40°C to +125°C
- Eco-friendly, halogen-free options
- Turns ratio supports variety of PLC chipsets
- Supports IEC-62368 for off-line 16Vdc and 500Vdc supply lines
- Automotive designs meet AEC-Q200 and covered by ISO/IATF16949 and PPAP on request

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YAGEO KEMET FT-CAP, X7R DIELECTRIC, 6.3 – 250VDC – AUTOMOTIVE GRADE



The Yageo KEMET Automotive Grade Flexible Termination (FT-CAP) multilayer ceramic capacitor in X7R dielectric incorporates a unique, flexible termination system that is integrated with Yageo KEMET's standard termination materials. A conductive silver epoxy is utilized between the base metal and nickel barrier layers of Yageo KEMET's standard termination system in order to establish pliability while maintaining terminal strength, solderability and electrical performance. This technology was developed in order to address the primary failure mode of MLCCs—flex cracks, which are typically the result of excessive tensile and shear stresses produced during board flexure and thermal cycling. Flexible termination technology inhibits the transfer of board stress to the rigid ceramic body, therefore mitigating flex cracks which can result in low IR or short circuit failures.

Although this technology does not eliminate the potential for mechanical damage that may propagate during extreme environmental and handling conditions, it does provide superior flex performance over standard termination systems. FT-CAP complements Yageo KEMET's Open Mode, Floating Electrode (FE-CAP), Floating Electrode with Flexible Termination (FF-CAP) and Yageo KEMET Power Solutions (KPS) product lines by providing a complete portfolio of flex mitigation solutions.

Combined with the stability of an X7R dielectric and designed to accommodate all capacitance requirements, these flexrobust devices are RoHS-compliant, offer up to 5mm of flex-bend capability and exhibit a predictable change in capacitance with respect to time and voltage. Capacitance change with reference to ambient temperature is limited to $\pm 15\%$ from -55°C to +125°C.

Whether underhood or in-cabin, these capacitors are designed to provide reliable performance in a mission and safety of critical automotive circuits. Stricter testing protocol and inspection criteria have been established for automotive grade products in recognition of potentially harsh environmental conditions. Yageo KEMET automotive grade series capacitors meet the demanding Automotive Electronics Council's AEC-Q200 qualification requirements.

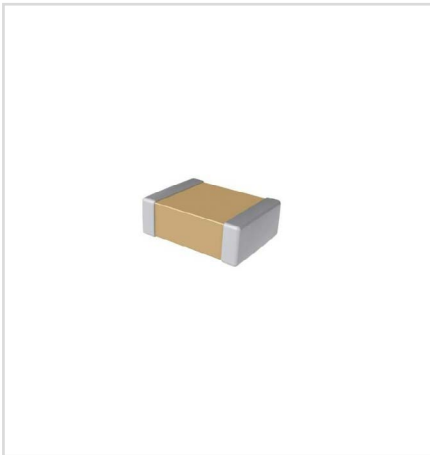
Features

- AEC-Q200 automotive qualified
- From -55°C to +125°C operating temperature range
- Superior flex performance (up to 5mm)
- High capacitance flex mitigation
- Lead (Pb)-free, RoHS and REACH compliant
- EIA 0603, 0805, 1206, 1210, 1808, 1812, 1825, 2220, and 2225 case sizes
- DC voltage ratings of 6.3V, 10V, 16V, 25V, 50V, 100V, 200V, and 250V
- Capacitance offerings ranging from 180pF to 22 μ F
- Available capacitance tolerances of $\pm 5\%$, $\pm 10\%$, & $\pm 20\%$
- Non-polar device, minimizing installation concerns
- 100% pure matte tin-plated termination finish allowing for excellent solderability

Applications

Typical applications include circuits with a direct battery or power source connection, critical and safety relevant circuits without (integrated) current limitation and any application that is subject to high levels of board flexure or temperature cycling. Examples include raw power input side filtering (power plane/bus), high current applications (automobile battery line) and circuits that cannot be fused to open. Markets include consumer, medical, industrial (power supply), automotive, aerospace and telecom.

[VIEW PRODUCT DETAILS](#)



VIEW PRODUCT DETAILS 

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In addition to commercial grade, automotive grade devices are available which meet the demanding automotive electronics council's AEC-Q200 qualification requirements.

Features

- From -55°C to $+125^{\circ}\text{C}$ operating temperature range
- Superior flex performance (up to 5mm)
- High capacitance flex mitigation
- Lead (Pb)-free, RoHS and REACH compliant
- EIA 0603, 0805, 1206, 1210, 1808, 1812, 1825, 2220, and 2225 case sizes
- DC voltage ratings of 6.3V, 10V, 16V, 25V, 50V, 100V, 200V, and 250V
- Capacitance offerings ranging from 180pF to 22 μF
- Available capacitance tolerances of $\pm 5\%$, $\pm 10\%$, and $\pm 20\%$
- Automotive (AEC-Q200) grade available
- Non-polar device, minimizing installation concerns
- 100% pure matte tin-plated termination finish allowing for excellent solderability
- SnPb termination finish option available upon request (5% Pb minimum)

Applications

Typical applications include circuits with a direct battery or power source connection, critical and safety relevant circuits without (integrated) current limitation and any application that is subject to high levels of board flexure or temperature cycling. Examples include raw power input side filtering (power plane/bus), high current applications (automobile battery line) and circuits that cannot be fused to open. Markets include consumer, medical, industrial (power supply), automotive, aerospace and telecom.

YAGEO KEMET AC LINE FILTERS 21V/21VB SERIES



The Yageo KEMET SS coils are common mode chokes with a wide variety of characteristics. These gear type coils are designed with our proprietary ferrite cores and are useful in various noise countermeasure fields.

Features

- Proprietary 7H and 10H ferrite materials and equivalents
- Suitable for $\geq 150\text{kHz}$ range
- Wide variety of sizes and specifications
- Operating temperature range from -40°C to $+120^{\circ}\text{C}$
- UL 94V-0 flame retardant rated base and bobbin
- High rated voltage up to 500VAC

Applications

- Industrial equipment
- Audio-visual equipment
- Office automation equipment
- Digital appliances
- Power supplies

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YAGEO KEMET NOISE SUPPRESSION SHEET FLEX SUPPRESSOR FG2 SERIES



The Yageo KEMET noise suppression sheet FLEX SUPPRESSOR is effectively designed for high frequency noise that is generated from the electronic devices. The flexible sheet is a polymer base, blended with micron-sized magnetic powders dispersed throughout the material. These sheets are effective for electromagnetic wave and resonance suppression, and can be cut into a variety of shapes and sizes.

Features

- Electromagnetic wave suppression - the electromagnetic wave enters through the sheet and is suppressed by losing its magnetic structure
- Resonance suppression - controls the high frequency current and suppresses unwanted electromagnetic resonance by creating impedance
- Wide range of frequencies available from MHz band to GHz band
- Thin, flexible material used in portable equipment
- Virtually no limitation to where it can be used
- Less time required for installation
- Easily cut into any shape
- RoHS compliant and halogen-free
- AEC-Q200 (FF1 and EFF4)
- Available in SHF band (EFS)

Applications

- Radiation noise suppression for electronic equipment, especially mobile phone, display, digital still camera, digital video camera, notebook PC and tablet, car infotainment
- Quasi-microwave range interference prevention inside and in-between electronics, desense in FM radio, digital TV, LTE, GPS, Wi-Fi, Bluetooth and optical transceiver
- Electro static discharge (ESD) countermeasure
- Enhanced wireless power transfer

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MURATA PKMCS18 SERIES



Taking advantage of extensive acoustic and mechanical design technology and high-performance ceramics, Murata has developed SMD type (surface-mounted) piezoelectric sounder that achieves both high sound pressure and miniaturization. It helps high-density of an equipment and improve high sound pressure of the buzzer sound.

Applications

- Consumer equipment
- Industrial equipment

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PANASONIC INDUSTRY TQS SERIES



Conductive polymer tantalum solid capacitors surface mount type.

Features

- High voltage (35V max.)
- RoHS compliance, halogen-free

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YAGEO PULSE PM9408 SMT COMMON MODE CHOKES



SMT common mode chokes
PM9407.XXXNLT and PM9408.XXXNLT series

- ER19 and ER25 planar platforms
- 24.9mm x 21.6mm x 16.9mm and 30.5mm x 27mm x 18mm max
- Up to 39Arms rated current
- Up to 1500Vrms Isolation4

[VIEW PRODUCT DETAILS](#)

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TDK CERALINK™ SMD CAPACITOR



TDK CeraLink™ SMD capacitor is designed for fast-switching semiconductors and optimized for high frequencies up to several MHz. This capacitor offers a high ripple current capability, high-temperature robustness, low power loss, low dielectric absorption, and high capacitance density. The CeraLink SMD capacitor is optimized for high frequencies up to several MHz and features minimized dielectric loss at high temperatures. This capacitor utilizes multilayer technology with lead lanthanum zirconium titanate (PLZT) ceramic, copper inner electrodes, and nickel (CuNiSn) barrier termination. TDK CeraLink SMD capacitor AEC-Q200 qualified and RoHS compatible. Applications include power converters and inverters and DC link/snubber capacitors for power converters and inverters.

Features

- High ripple current capability
- High-temperature robustness
- Low equivalent series inductance (ESL)
- Low equivalent series resistance (ESR)
- Low power loss
- Low dielectric absorption
- Optimized for high frequencies up to several MHz
- Increasing capacitance with DC bias up to operating voltage
- High capacitance density
- Minimized dielectric loss at high temperatures
- Qualification based on AEC-Q200
- RoHS compatible

Applications

- Power converters and inverters
- DC link/snubber capacitor for power converters and inverters

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MURATA DFE 33 AND 47 SERIES



Keep the temperature (ambient temperature plus self-generation of heat) under 155°C. The rated current is the rated current based on inductance change and the rated current based on temperature rise, whichever is smaller one.

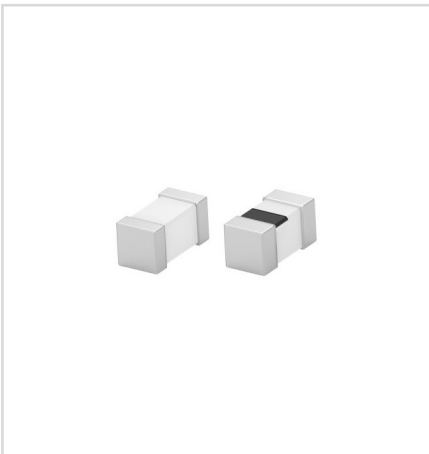
Applications

- Unsuitable applications
 - Please be sure to read and comply with these "Precautions for use"
- Specific applications
 - Automotive infotainment or comfort equipment
 - Automotive powertrain or safety equipment
 - Medical equipment [GHTF A/B/C] except for implant and surgery and auto injector
- Recommended applications
 - Automotive powertrain or safety equipment

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TE CONNECTIVITY AUTOMOTIVE GRADE MULTILAYER CHIP INDUCTOR TYPE 3655



- High durability at peak load
- Useful for high impedance requiring applications

TE Connectivity (TE) introduces its automotive grade multilayer chip inductors. The 3655 series inductors are designed with a low loss ceramic monolithic structure with high conductivity metal electrodes. The inductors are also designed for high frequency performance and are AEC-Q200 compliant and available in two package sizes.

Features

- High self-resonant frequency
- AEC-Q200 qualified
- Low loss ceramic monolithic design structure
- Moisture sensitivity level-MSL2
- Viable for use in automotive applications
- High vibration withstanding capability
- High frequency performance

Applications

- Automation controls
- Battery energy storage systems
- Electric vehicle industry

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YAGEO PULSE REINFORCED HALOGEN FREE ESS TRANSFORMER



UL approved design for residential and commercial battery storage solutions.

Features

- Supports leading vendors silicon for battery (BMS) and Energy Storage Solutions (ESS)
- UL Compliance to IEC/UL62368-1 for reinforced
- Selection of working and breakdown voltages
- Wide temperature performance from -40°C to +125°C
- Automated winding and production process for high reliability

Applications

- Energy Storage (ESS)
- Marine
- Aviation transportation

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YAGEO KEMET SNAP-N ALUMINUM ELECTROLYTIC CAPACITORS ALA8A SERIES



The Yageo KEMET ALA8A snap-in capacitors are designed for automotive applications. They can withstand vibration up to 10g in accordance with the demanding requirements of the Automotive Electronics Council's AEC-Q200 qualification. The ALA8A capacitance values cover a range from 120µF to 680µF and a voltage range from 400V to 500V.

Features

- Designed for automotive usage
- Vibration proof 10g
- AEC-Q200
- Operational lifetime of 5,000hours at +105°C (V_R , I_R applied)
- High ripple current
- High voltage
- Excellent surge voltage capability
- PET sleeve and Lexan disc are recognized to UL: QMTR2, UL No. E358957 (Other options available upon request)
- Optimized designs available upon request

Applications

- E-mobility
- On-board chargers
- Inverters
- Wall boxes

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VISHAY AC, AEC-Q200 QUALIFIED



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The AC, AC-AT and AC-NI series are the perfect choice for general purpose power electronics, industrial and automotive electronics applications. The robust silicone cement coating can handle challenging ambient and operating conditions. Typical applications include but not limited to pre-charging, discharging, snubber and in-rush current limiting. For a given application, requirements of ohmic value, rated power, peak voltage, pulse shape, pulse duration, lead bending, and environmental conditions may be submitted to recommend the most suitable product. Various lead forms are available such as RT (radial taped), WSZ (Z-form), DK (double kink), EK (single kink) with defined mounting pitch.

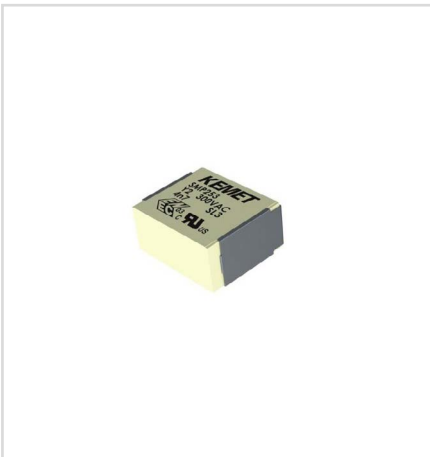
Features

- Standard: AC series
- AEC-Q200 qualified: AC-AT series
- AEC-Q200 qualified, non-inductive: AC-NI series
- High power dissipation in small design
- Flameproof insulation coating meets UL 94V-0 requirements
- Excellent pulse load capability
- WSZ-form lead bending available for SMD mounting

Applications

- Automotive electronics
 - Pre-charging or discharging applications in xEV
 - Snubber circuit
 - Energy absorber load resistor
- Industrial electronics, energy meter
- Power supplies
- White goods

YAGEO KEMET SMP253 SERIES CAPACITORS



[VIEW PRODUCT DETAILS](#) 

Multilayer, metallized paper, encapsulated and impregnated in self-extinguishing material that meets the requirements of UL 94V-0.

Features

- High dV/dt capability
- Impregnated paper that ensures excellent stability and reliability properties, particularly in applications with continuous operation
- Approvals: ENEC, cULus
- Rated voltage: 300VAC 50Hz or 60Hz, maximum recommended DC voltage 1,500VDC
- Capacitance range: from 1.0nF to 4.7nF
- Size code: 5045 (12.7mm), 5026 (12.7mm) vertical
- Capacitance tolerance: $\pm 20\%$
- Automotive (AEC-Q200) grade

Applications

- Electromagnetic interference suppressor in all Y2 applications, line-to-earth

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YAGEO KEMET SMP255 FILM X2 SMD CAPACITORS



Multilayer, metallized paper, encapsulated and impregnated in self-extinguishing material that meets the requirements of UL 94V-0.

Features

- High dV/dt capability
- Impregnated paper that ensures excellent stability and reliability properties, particularly in applications with continuous operation
- Approvals: ENEC, cULus
- Rated voltage: 310VAC 50Hz or 60Hz, maximum recommended DC voltage 630VDC
- Capacitance range: from 10nF to 150nF
- Size code: 5045 (12.7mm), 6560 (16.5mm), 7067 (17.8mm)
- Capacitance tolerance: $\pm 20\%$
- Automotive (AEC-Q200) grade

Applications

- Interference suppressors in X2 (across-the-line)

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VISHAY SOLID TANTALUM SURFACE MOUNT CHIP CAPACITORS TANTAMOUNT™



Solid tantalum surface mount chip capacitors TANTAMOUNT™, molded case, for E-detonators applications.

Features

- Enhanced performance for electronic detonators
- Low DCL for battery (remote or wireless) applications
- More stringent testing specifications on key electrical characteristics
- Molded case
- Terminations: 100% matte tin standard
- Moisture sensitivity level 1
- Optical character recognition qualified
- Compliant terminations

Applications

- Electronic detonation systems

[VIEW PRODUCT DETAILS](#) 

YAGEO KEMET PHA223 SERIES CAPACITORS



Yageo KEMET's PHA223 is a ultra low ESR conductive polymer hybrid capacitor with outstanding electrical performance. The device has a polarized all-welded design, tinned copper wire leads, and a negative pole connected to the case. The PHA223 winding is housed in a cylindrical aluminum can with a high purity aluminum lid and highquality rubber gasket. Low ESR is conditioned by a highly conductive polymer (PEDOT/PSS) and an all-welded design. The polymer system creates an electrical pathway between the anodic oxide layer and the cathode through a mechanical separator - paper. The PHA223 winding is impregnated with liquid electrolyte that results to selfhealing features of the capacitor. Thanks to its mechanical robustness, the PHA223 is suitable for use in mobile and automotive installations with operation up to +125°C.

Features

- 8,000hours at +125°C
- High temperature capability up to 140°C
- Extremely high ripple current
- Up to 50Arms, continuous load
- High vibration resistance up to 20g 22h/axis
- Polarized all-welded design
- Self-healing behaviours
- Outstanding electrical performance

Applications

- Yageo KEMET's PHA223 is a series of high performance axial hybrid capacitors. It is designed for automotive applications with extremely high demands.

[VIEW PRODUCT DETAILS](#)

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YAGEO KEMET ANNOUNCES PHA227 SERIES CAPACITORS



Yageo KEMET's PHA227 is a high CV conductive polymer hybrid capacitor with outstanding electrical performance. The device has a polarized all-welded design, tinned copper wire leads, and a negative pole connected to the case. The PHA227 winding is housed in a cylindrical aluminum can with a high purity aluminum lid and high-quality rubber gasket. Low ESR is conditioned by a highly conductive polymer (PEDOT/PSS) and an all-welded design. The polymer system creates an electrical pathway between the anodic oxide layer and the cathode through a mechanical separator - paper. The PHA227 winding is impregnated with liquid electrolyte that results to self-healing features of the capacitor. Thanks to its mechanical robustness, the PHA227 is suitable for use in mobile, automotive and aircraft installations with operation up to +125°C.

Features

- 8,000 hours at +125°C
- High temperature capability up to 140°C
- Extremely high ripple current
- Up to 45Arms, continuous load
- High vibration resistance up to 20g 22h/axis
- Polarized all-welded design
- Self-healing behaviours
- Outstanding electrical performance

Applications

- Yageo KEMET's PHA227 is a series of high performance axial hybrid capacitors. It is designed for automotive applications with extremely high demands.

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YAGEO KEMET ALO8A SERIES CAPACITOR



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The Yageo KEMET ALO8A snap-in capacitors are designed for automotive applications. They can withstand vibration up to 10g in accordance with the demanding requirements of the Automotive Electronics Council's AEC-Q200 qualification. The ALO8A capacitance values cover a range from 330µF to 470µF and a voltage range from 400V to 450V.

Features

- Designed for automotive usage
- Vibration proof 10g
- AEC-Q200
- Operational lifetime of 3,000 hours at +105°C (Vr, Ir applied)
- High ripple current
- High voltage
- Excellent surge voltage capability
- PET sleeve and Lexan disc are recognized to UL: QMTR2, UL No. E358957 (other options available upon request)
- Optimized designs available upon request

Applications

- Typical applications for the ALO8A capacitor is mainly in the field of e-mobility, such as on-board chargers, inverters, or wall boxes.

YAGEO KEMET ANNOUNCES ALV70 SERIES CAPACITOR



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The Yageo KEMET ALV70 snap-in capacitors are designed to meet exceptional performance and reliability in high voltage and high ripple current designs. Covering a broad range of case sizes with multiple pin configurations, the ALV70 series is ideal for use in a diverse range of industrial and energy applications.

Features

- Maximum capacitance capability
- High Voltage
- Operation lifetime 2,000 hours at +85°C (Vr, Ir applied)
- High ripple current
- PET sleeve and Lexan disc are recognized to UL: QMTR2, UL No. E358957 (other options available upon request)
- Optimized designs available upon request

Applications

- Typical applications for the ALV70 capacitor include inverters, frequency converters, motor drives, motor control, UPS systems, smoothing, energy storage, alternative energy, charging stations, traction, demanding power supplies (SMPS), welding, and HVAC.



PIS power inductors rated inductance 470 μ H construction.

- Ferrite core
- Magnetically shielded
- Winding enamel copper wire
- Winding soldered to terminals

Features

- Temperature range up to +150°C
- High rated current
- Low DC resistance
- Suitable for lead-free reflow soldering as referenced in JEDEC J-STD 020E
- RoHS-compatible

Applications

- Industrial electronics
- Power over Data Line (PoDL) for 10Base-T1L (IEEE 802.3cg)

[VIEW PRODUCT DETAILS](#)



Rated inductance 2 x 250 μ H construction.

- Ferrite core
- Magnetically shielded
- Winding enamel copper wire
- Winding welded to terminals

Features

- Temperature range up to +150 °C
- High rated current
- Low DC resistance
- Functional isolation up to 500V
- Suitable for lead-free reflow soldering as referenced in JEDEC J-STD 020E
- RoHS-compatible

Applications

- Industrial electronics
- Power over Data Line (PoDL) for 10BASE-T1L (IEEE 802.3cg)
- Differential mode choke

[VIEW PRODUCT DETAILS](#)

TDK RCM COMMON-MODE CHOKES



Rated voltage 80V DC, rated inductance 470 μ H, rated current 700mA construction.

- Current-compensated double choke
- LCP case (UL 94V-0), silicone potting

Features

- Operating temperature range from -40°C to +125°C incl. self-heating
- Suitable for lead-free reflow soldering as referenced in JEDEC J-STD 020E
- RoHS-compatible
- High current rating

Applications

- Industrial Single Pair Ethernet (SPE)
- Common-mode choke for 10BASE-T1L (IEEE 802.3cg)

[VIEW PRODUCT DETAILS](#)

TDK ALUMINUM ELECTROLYTIC CAPACITORS B43658 SERIES



General-purpose grade capacitors.

Features

- Extremely high CV product, ultra compact
- High reliability
- High ripple current capability
- RoHS-compatible

Applications

- Power supplies
- Frequency converters
- Uninterruptible power supplies
- Medical appliances
- Solar inverters
- Not for automotive applications unless otherwise specified

[VIEW PRODUCT DETAILS](#)



General-purpose grade capacitors.

Features

- Extremely high CV product, ultra compact
- High reliability
- High ripple current capability
- RoHS-compatible

Applications

- Power supplies
- Frequency converters
- Uninterruptible power supplies
- Medical appliances
- Solar inverters
- Not for automotive applications unless otherwise specified

[VIEW PRODUCT DETAILS](#)

VISHAY FERRITE INDUCTORS



Shielded IFDC and semi-shielded IFSC series Ferrite inductors now available in 2020DE, 3232DB, and 5050HZ case sizes, offer saturation currents to 14A, inductance to 1mH, and 40% lower DCR than previous-generation devices.

Features

- Provide enhanced efficiency while lowering costs
- Offered in 2020DE, 3232DB, and 5050HZ case sizes
- Shielded and semi-shielded inductors available
- Enhanced performance:
 - Operating temperatures to +125°C
 - Operating voltages of 120V
 - DCR down to 6mΩ
 - Saturation currents to 14A
 - Maximum inductance to 1mH
- Utilize efficient manufacturing techniques
- Feature a simple bobbin style wirewound construction
- Minimize EMI and crosstalk to nearby components (IFDC-5050HZ)

Applications

- Energy storage, noise suppression, and filtering in DC-DC converters and LC filters for:
 - Battery-powered consumer electronics
 - Entertainment devices such as televisions, sound bars, and audio and gaming systems
 - General computing equipment such as desktops, monitors, and scanners
 - Household appliances

[VIEW PRODUCT DETAILS](#)



AEC-Q200 qualified high frequency 70GHz thin film chip resistor.

Features

- Operating frequency 70GHz
- AEC-Q200 qualified
- Thin film microwave resistors
- Ohmic range: from 10Ω to 500Ω
- Design kits available
- Modelithics® library available
- Small internal reactance (LC down to 1×10^{-24})

[VIEW PRODUCT DETAILS](#) 

YAGEO KEMET FCR SUPERCAPACITOR SERIES



FC series Supercapacitors, also known as Electric Double-Layer Capacitors (EDLCs), are surface mount type components intended for high energy storage applications. The FC series is designed specifically for reflow soldering, allowing them to be attached to a printed circuit board (PCB) directly. This FCR type is a surface mount supercapacitor with an operating temperature range of 85°C in high temperature environments.

Features

- Surface mount without holder
- Wide range of temperature from -40°C to +85°C
- Up to 2,000hr at 85°C operational life
- Maintenance free
- Maximum operating voltages of 5.5VDC
- Highly reliable against liquid leakage
- Lead-free and RoHS compliant

Applications

- Supercapacitors have characteristics ranging from traditional capacitors and batteries. As a result, supercapacitors can be used like a secondary battery when applied in a DC circuit. These devices are best suited for use in low voltage DC hold-up applications such as embedded microprocessor systems with flash memory.

[VIEW PRODUCT DETAILS](#) 

YAGEO KEMET ESD-R-SR SERIES



The Yageo KEMET ESD-R-SR series solid toroidal cores are designed for use on round cables. KEMET's unique core material enables high performance in low frequency range, at 150kHz. Options are available in bare, coated and with case types. EMI cores are part of a family of passive components which address the issues of noise or electromagnetic interference (EMI) in circuits or systems.

Features

- Proprietary high impedance core material for effective noise suppression at 150kHz
- Solid construction
- Large-size ring type
- Bare, coated and with case types available

Applications

- Consumer electronics
- Air conditioners
- Power conditioners
- Refrigerators
- Washing machines
- Business multifunction printers
- Industrial equipment
- Business multifunction printers
- General purpose inverters

[VIEW PRODUCT DETAILS](#)

YAGEO KEMET ESD-R SERIES



The Yageo KEMET ESD-R series solid toroidal cores are designed to use on round cables. The wide range of Manganese Zinc (MnZn) and Nickel Zinc (NiZn) options are available in bare, coated, and case types and allows for targeting of specific frequency ranges.

EMI cores are part of a family of passive components, which address the issues of noise or electromagnetic interference (EMI) in circuits or systems.

Features

- MnZn \leq 10MHz (AM band range) and NiZn \leq 500MHz (FM band range) options available
- Solid construction
- Bare, coated, and case types available
- Wide range of products available

Applications

- Consumer electronics
- Air conditioners
- Power conditioners
- Refrigerators
- Washing machines
- Industrial equipment
- Medical equipment
- Adapters
- Computers
- Telecommunications

[VIEW PRODUCT DETAILS](#)

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YAGEO KEMET ESD-R-NC SERIES



The Yageo KEMET ESD-R-NC series solid toroidal cores are designed for use on round cables. KEMET's nanocrystal material allows effective noise suppression in a wide frequency range, which is an impressive solution for any conducted or radiated noise in the kHz to MHz regions. The base type allows fixing the core in the application to avoid contact with other components or stabilizing the cables, and in addition the base's structure can connect the cores together for make it even easier to install.

EMI cores are part of a family of passive components which address the issues of noise or electromagnetic interference (EMI) in circuits or systems.

Features

- Wide frequency range
- Solid construction
- From small to large diameter ring type
- Wide operating temperature range from -40°C to $+120^{\circ}\text{C}$ for standard type and from -40°C to $+130^{\circ}\text{C}$ for base type
- UL94 V-0 flame retardant rated case
- Easy to install the with fixing base type with two screws

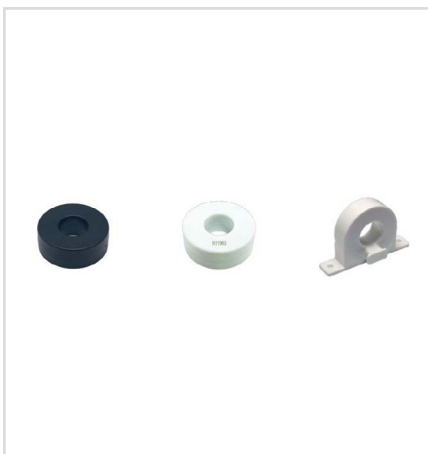
Applications

- General purpose inverters
- HVAC
- Air conditioners
- Power conditioners
- Industrial equipment
- Business multifunction printers

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YAGEO KEMET ESD-R-H SERIES



The Yageo KEMET ESD-R-H series solid toroidal cores feature high heat resistance for round cables. KEMET's unique core material enables high performance in low frequency range with the Manganese Zinc (MnZn) solution and in high frequency range with the Nickel Zinc (NiZn) option. A common value is also specifically designed with a cable holding mechanism for round cable in higher heat environment.

EMI cores are part of a family of passive components which address the issues of noise or electromagnetic interference (EMI) in circuits or systems.

Features

- Proprietary core material for high performance in low and high frequency range
- Solid construction
- Wider operating temperature range from -40°C to $+120^{\circ}\text{C}$
- UL94V-0 flame retardant rated case
- Cable holding mechanism for fixing cables with bands and installation with two M4 screws

Applications

- Automotive inverters
- Automotive chargers
- Automotive DC-DC converters
- Consumer electronics
- Air conditioners
- Power conditioners
- Refrigerators
- Washing machines
- Industrial equipment
- General purpose inverters
- Robots
- Information and communication devices
- Medical equipment
- Audio-visual equipment

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The Yageo KEMET ESD-SR series snap-on toroidal cores are designed for use on round cables. The wide range of Manganese Zinc (MnZn) and Nickel Zinc (NiZn) options allows for targeting of specific frequency ranges.

EMI cores are part of a family of passive components which address the issues of noise or electromagnetic interference (EMI) in circuits or systems.

Features

- MnZn \leq 10MHz (AM band range) and NiZn \leq 500MHz (FM band range) options available
- Split construction
- Easy to install through its snap-on mechanism
- Quick solution for post-cable assembly noise issue
- Operating temperature range from -25°C to $+85^{\circ}\text{C}$
- UL94V-0 flame retardant rated case

Applications

- Consumer electronics
- Air conditioners
- Power conditioners
- Refrigerators
- Washing machines
- Industrial equipment
- Medical equipment
- Adapters
- Audio-visual equipment
- Business multifunction printers

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The Technology Addicts

is the podcast by Avnet Abacus.

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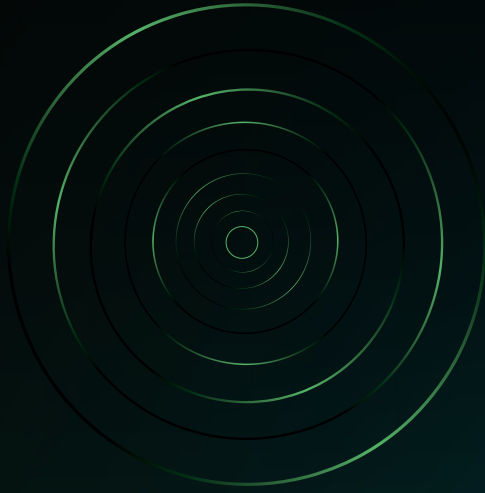
You can also listen to the interviews with Sara Ghaemi, Director of Technical Development at Avnet Abacus, and Kirstin Hegner, Managing Director of the Munich-based startup accelerator. Simply scan the QR code for a deep dive into their discussions!



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/ POWER

MURATA POWER SOLUTIONS MPQ0125V3NBMC SERIES CONVERTERS



The MPQ0125V3NBMC is a highly efficient, 300W digitally controlled, isolated DC-DC converter that converts from 18Vdc to 75Vdc input into an isolated regulated 12Vdc output.

The MPQ0125V3NBMC is fully protected from overcurrent, overtemperature, and overvoltage faults. It also provides hardware status.

PMBus™ communication features included the Black Box capability, which is packaged within the industry standard quarter-brick format.

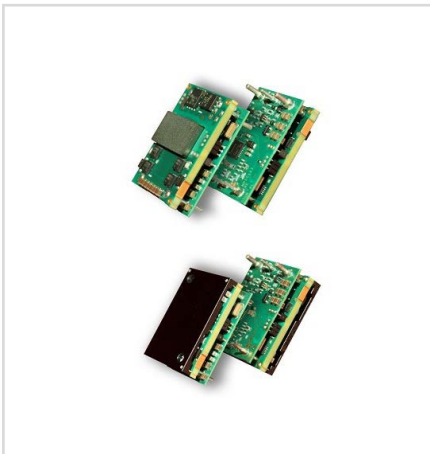
Features

- DC input from 18V to 75V (48V nominal)
- DC output 12V (nominal)
- Output trim and sense
- Power good
- Baseplate for optimized thermal performance
- High efficiency up to 94%
- Over-current, over-temperature, and over-voltage protection
- PMBus™ 1.2 interface

[VIEW PRODUCT DETAILS](#)

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MURATA POWER SOLUTIONS MPS0117V2NBC AND MPS0117V2NC SERIES CONVERTERS



MPS0117V2NBC is a highly efficient, 200W, isolated DC-DC converter that converts 36Vdc-75Vdc input into an isolated regulated 12Vdc/17Amp output. The MPS0117V2NBC is fully protected from overcurrent, overtemperature, and overvoltage faults and is packaged within the industry standard sixteenth-brick format with baseplate. Cooling options for all applications. Safety features include 2,250Vdc I/O isolation with basic insulation suitable for POE applications.

Features

- From 36V to 75V input voltage range
- Regulated 12V/17A output
- Industry standard sixteenth-brick with baseplate (optional)
- Optimized thermal performance
- High efficiency up to 95%
- Over-current, over-temperature, and over-voltage protection
- Remote On/Off enable (negative logic)
- Output trim adjustment (-20%, 10%)
- 2250Vdc isolation (Input-to-Output)
- RoHS compliant

Applications

- Power-over-Ethernet (PoE)
- Server, storage, and networks (SSN)
- Telecom and industrial

[VIEW PRODUCT DETAILS](#)

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ADVANCED ENERGY NEOPOWER CONFIGURABLES



[VIEW PRODUCT DETAILS](#)

Advanced Energy's NeoPower (NP) configurable AC-DC power supplies provide high power density as either a programmable voltage or current source. The NeoPower configurable will feature an intuitive software interface and user configurable modules to enable fast prototypes. Modules can be connected in series and parallel with the configurable busbar system to enable 1,000's of output combinations.

The NeoPower is certified for both industrial and medical safety approvals, including compliance to the SEMI F47 standard. The NeoPower supports digital communication with MODBUS RTU for control, monitoring and configuration.

Features

- Short circuit protection
- Over Voltage Protection (OVP)
- Over Current Protection (OCP)
- Over Temperature Protection (OTP)
- Active power factor correction
- Output On/Off control
- Fan speed control
- Power good signal
- Active current share
- Remote voltage sense
- Supports MODBus RTU digital communication.
- Supports PMBUS and CANOPEN with dongle
- Input to output: 5000VAC or 7000VDC, 2 x MOPP
- Input to Earth: 1800VAC or 2500VDC, 1 x MOPP
- output to Earth: 1800VAC or 2500VDC, 1 x MOPP
- medical BF rated
- End user installable modules (no hi-pot or safety certifications required to install modules)
- 5-year manufacture's warranty

ADVANCED ENERGY EVERGREEN™ VENTO™ FCM10K



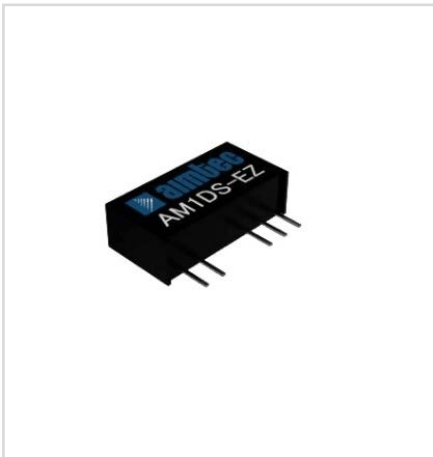
[VIEW PRODUCT DETAILS](#)

Advanced Energy's FCM10K series provides for three phase three wire of AC-DC embedded power requirements. Featuring high build quality with robust screw terminals, long life, and typical full-load efficiency of greater than 96.3%, reaching a peak of 97%, these units are ideal for use in industrial applications. They are backed by a comprehensive set of industrial safety approvals and certificates. Variable-speed "smart fans" draw on software controls developed by Advanced Energy to match fan speed to the unit's cooling requirement and load current. Slowing the fan not only saves power but also reduces wear, thus extending its life.

Features

- 10,000W output power
- 81.6mm x 125.85mm x 460mm
- From -40°C to +50°C
- 5V at 2A housekeeping
- Peak efficiency: 97% typical
- Supports NFC tag application
- Semi F47 compliance
- Five-year warranty

AIMTEC AM1DS-EZ SERIES CONVERTER



The AM1DS-EZ is a 1W SIP7 DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 3.3VDC to 24VDC as well as an output voltage from -24V to 24V. This compact SIP7 design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 100°C. Also, an isolation of 1500VDC or 3000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM1DS-EZ is suitable for many applications such as for instrumentation, industrial control, industrial applications, communication and IoT applications.

Features

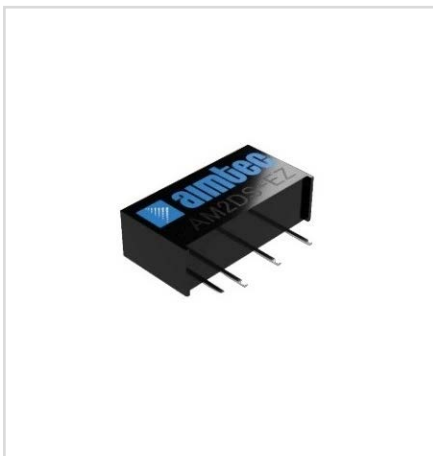
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Industry standard SIP7 pin-out
- Efficiency up to 87%
- Unregulated output
- Designed to meet UL/cUL/IEC/EN 62368-1

Applications

- IoT
- Industrial
- Telecom
- Portable equipment

[VIEW PRODUCT DETAILS](#)

AIMTEC AM2DS-EZ SERIES CONVERTER



The AM2DS-EZ is a 2W SIP7 DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 5VDC to 24VDC as well as an output voltage from -24V to 24V. This compact SIP7 design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 85°C. Also, an isolation of 1500VDC or 3000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM2DS-EZ is suitable for many applications such as industrial systems, portable equipment, and Internet of Things.

Features

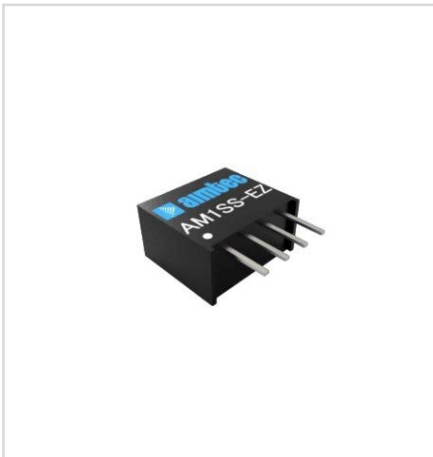
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Industry standard SIP7 pin-out
- Efficiency up to 89%
- Unregulated output
- Designed to meet IEC62368, UL62368, EN62368

Applications

- IoT
- Industrial
- Portable equipment

[VIEW PRODUCT DETAILS](#)

AIMTEC AM1SS-EZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM1SS-EZ is a 1W SIP4 DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 3.3VDC to 24VDC as well as an output voltage from 3.3V to 24V. This compact SIP4 design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 85°C. Also, an isolation of 1500VDC or 3000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM1SS-EZ is suitable for instrumentation, industrial controls, industrial applications, communication and IoT applications.

Features

- High I/O Isolation of 1500VDC or 3000VDC
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Industry standard SIP4 pin-out
- Efficiency up to 87%
- Unregulated output
- Design to meet UL/cUL/IEC/EN 62368-1

Applications

- IoT
- Industrial
- Telecom
- Portable equipment

AIMTEC AM2SS-EZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM2SS-EZ is a 2W SIP4 DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 5VDC to 24VDC as well as an output voltage from -24V to 24V. This compact SIP4 package will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 85°C. Also, an isolation of 1500VDC or 3000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM2SS-EZ is suitable for many applications such as industrial systems, portable equipment, and Internet of Things.

Features

- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Industry standard SIP7 pin-out
- Efficiency up to 89%
- Unregulated output
- Designed to meet IEC62368, UL62368, EN62368

Applications

- IoT
- Industrial
- Portable equipment

AIMTEC AMEM1-EZ POWER SUPPLY MODULE



[VIEW PRODUCT DETAILS](#)

AMEM1-EZ series is an efficient 1W AC-DC power supply module. Offering a commercial input voltage range from 90VAC to 264VAC, output voltage ranges from 3.3V to 48V, and safer isolation.

This new series offers great operating temperatures, from -25°C to 70°C with full power up to 50°C and features an isolation of 3000VAC for improved reliability and system safety. Furthermore, an output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEM1-EZ is suitable for grid power, LED, instrumentation, industrial controls, communication, and civil applications.

Features

- Ultra compact size 1.0" x 1.0" x 0.63" package
- Universal input: from 90VAC to 264VAC or 120VDC to 370VDC
- Operating temp: from -25°C to +70°C
- High isolation voltage: 3000VAC
- Output short circuit, over-current, over-voltage protection
- Efficiency up to 76%
- Designed to meet: UL 62368-1, IEC 62368-1

Applications

- Power grid
- Industrial
- Telecom
- Instrumentation

AIMTEC AMEM3-EZ POWER SUPPLY MODULE



[VIEW PRODUCT DETAILS](#)

AMEM3-EZ series is an efficient 3W AC-DC power supply module. Offering a commercial input voltage range from 90VAC to 264VAC, output voltage ranges from 3.3V to 48V, and safer isolation.

This new series offers great operating temperatures, from -25°C to 70°C with full power up to 50°C and features an isolation of 3000VAC for improved reliability and system safety. Furthermore, an output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEM3-EZ is suitable for grid power, LED, instrumentation, industrial controls, communication, and civil applications.

Features

- Ultra compact size 1.0" x 1.0" x 0.63" package
- Universal input: from 90VAC to 264VAC or from 120VDC to 370VDC
- Operating temp: from -25°C to +70°C
- High isolation voltage: 3000VAC
- Output short circuit, over-current, over-voltage protection
- Efficiency up to 80%
- Designed to meet: UL 62368-1, IEC 62368-1

Applications

- Power grid
- Industrial
- Telecom
- Instrumentation

AIMTEC AMEM5-EZ POWER SUPPLY MODULE



[VIEW PRODUCT DETAILS](#)

AMEM5-EZ series is an efficient 5W AC-DC power supply module. Offering a commercial input voltage range from 90VAC to 264VAC, output voltage ranges from 3.3V to 48V, and safer isolation.

This new series offers great operating temperatures, from -25°C to 70°C with full power up to 50°C and features an isolation of 3000VAC for improved reliability and system safety. Furthermore, an output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEM5-EZ is suitable for grid power, LED, instrumentation, industrial controls, communication, and civil applications.

Features

- Ultra compact size 1.0" x 1.0" x 0.63" package
- Universal input: from 90VAC to 264VAC or from 120VDC to 370VDC
- Operating temp: from -25°C to +70°C
- High isolation voltage: 3000VAC
- Output short circuit, over-current, over-voltage protection
- Efficiency up to 85%
- Designed to meet: UL 62368-1, IEC 62368-1

Applications

- Power grid
- Industrial
- Telecom
- Instrumentation

AIMTEC AM1LS-EZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM1LS-EZ is a 1W SMD DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 3.3VDC to 24VDC as well as an output voltage from 3.3V to 24V. This compact SMD design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 100°C. Also, an isolation of 1500VDC and 3000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM1LS-EZ is suitable for instrumentation, industrial control, industrial applications, communication and IoT applications.

Features

- High I/O isolation 1500VDC and 3000VDC
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Low profile case height: 7.1mm
- Compact footprint and high-power density
- Efficiency up to 87%
- Unregulated output

Applications

- IoT
- Industrial
- Telecom
- Portable equipment

AIMTEC AM2LS-EZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM2LS-EZ is a 2W SMD DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 5VDC to 24VDC as well as an output voltage from 3.3V to 24V. This compact SMD design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 85°C. Also, an isolation of 1500VDC and 3000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM2LS-EZ is suitable for instrumentation, industrial control, industrial applications, communication and IoT applications.

Features

- High I/O isolation 1500VDC and 3000VDC
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Low profile case height: 6.25mm
- Compact footprint and high-power density
- Efficiency up to 89%
- Unregulated output

Applications

- IoT
- Industrial
- Telecom
- Portable equipment

AIMTEC AM40CW-NZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM40CW-NZ is a 40W DC-DC converter that offers a regulated output which contributes to a more stable and reliable output performance. It features a wide 4:1 input voltage range from 9VDC to 75VDC, which will benefit your new system design.

This series offers great operating temperatures, from -40°C to 105°C. Furthermore, an isolation of 1500VDC, a high MTBF of 1,000,000h, continuous output short circuit protection (OSCP), over-current protection (OCP), over-voltage protection (OVP), over-temperature protection (OTP) and under voltage protection (UVP) come standard with the series.

The AM40CW-NZ is suitable for grid power, instrumentation, industrial controls, communication, and civil applications.

Features

- Operating temp: from -40°C to +105°C
- Isolation voltage: 1500VDC
- High efficiency: up to 91.5% typ
- Regulated single output
- Output short circuit, over-current, over-voltage, over-temperature, input under voltage protection
- Standard 1 x 1 package

Applications

- Power grid
- Industrial
- Telecom
- Instrumentation

AIMTEC AMESP750U-277JZ SERIES POWER SUPPLY MODULE



[VIEW PRODUCT DETAILS](#)

The AMESP750U-277JZ series is an efficient, enclosed, fan less, ultra-narrow, and semipotted 750W AC-DC power supply module. It offers a wide commercial input voltage range from 85VAC to 305VAC, output voltage ranges from 12V to 48V, low power consumption, high efficiency, high reliability, and safer isolation.

This new series offers great operating temperatures, from -40°C to +85°C with full power up to 45°C and features an isolation of 4000VAC with improved reliability and system safety. Additionally, it has operating altitude of 5000m. Furthermore, a high MTBF of 300,000h, output short circuit protection (OSCP), output over-current protection (OCP), output over-voltage protection (OVP), and over temperature protection (OTP) come standard with the series.

The AMESP750U-277NZ is suitable for street lighting controls, grid power, instrumentation, industrial controls, communication, and civil applications.

Features

- Universal input: from 85VAC to 305VAC or from 120VDC to 430VDC
- Operating temp: from -40°C to +85°C
- High isolation voltage: 4000VAC
- Active PFC
- Output short circuit, over-current, over-voltage, over-temperature protection
- Efficiency up to 96%
- 150% peak load output for 1 second
- Operating altitude up to 5000m
- UL/EN62368
- Designed to meet: EN60335, EN61558, GB4943

Applications

- Power grid
- Industrial
- Telecom

AIMTEC AME15-CVZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AME15-CVZ is a compact AC-DC converter that offers a commercial input voltage range from 85VAC to 264VAC and multiple outputs ranging from 5/24 to ±15V.

This series offers great operating temperatures from -40°C to 70°C with full power throughout the entire range. It also features an isolation of 4000VAC for improved reliability and system safety, a high MTBF of 300,000h, output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AME15-CVZ is great for grid power, instrumentation, industrial controls, communication and civil applications.

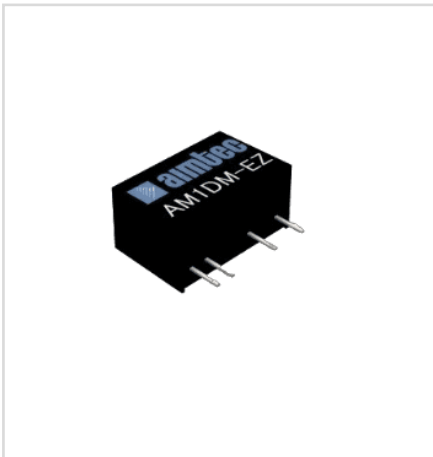
Features

- Universal input: from 85VAC to 264VAC or from 100VDC to 370VDC
- Operating temp: from -40°C to +70°C
- High isolation voltage: 4000VAC
- Low ripple and noise, 200mV (p-p), max.
- Output short circuit, over-current, over-voltage protection
- Regulated output

Applications

- Power grid
- Industrial
- Telecom
- Instrumentation

AIMTEC AM1DM-EZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM1DM-EZ is a 1W SIP7 DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 3.3VDC to 24VDC as well as an output voltage from -24V to 24V. This compact SIP7 design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 85°C. Also, an isolation of 5000VAC or 6000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM1DM-EZ is suitable for many applications such as medical collection isolation, high voltage collection circuits, and IGBT drive circuits.

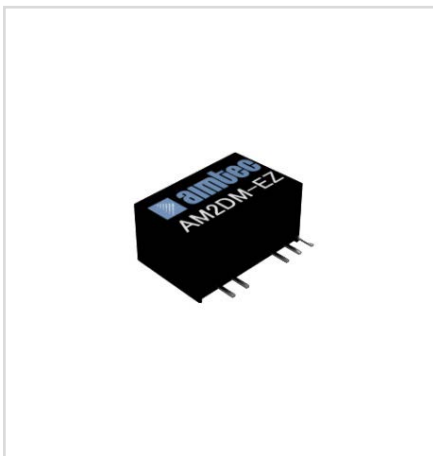
Features

- High I/O Isolation of 5000VAC or 6000VDC
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Industry standard SIP7 pin-out
- Efficiency up to 83%
- Unregulated output
- Leakage current < 2µA
- Meets IEC60601-1

Applications

- Industrial
- Portable equipment
- Medical
- IoT

AIMTEC AM2DM-EZ SERIES CONVERTER



[VIEW PRODUCT DETAILS](#)

The AM2DM-EZ is a 2W SIP7 DC-DC converter that offers great cost savings thanks to an improved manufacturing process. It also features excellent reliability and performance while offering a standard input voltage range from 5VDC to 24VDC as well as an output voltage from -5V to 24V. This compact SIP7 design will surely benefit your new system design.

This new series offers great operating temperatures, from -40°C to 105°C with full power up to 85°C. Also, an isolation of 5000VAC or 6000VDC for improved reliability and system safety as well as a great 3,500,000h MTBF come standard.

The AM2DM-EZ is suitable for many applications such as medical collection isolation, high voltage collection circuits, and IGBT drive circuits.

Features

- High I/O Isolation of 5000VAC or 6000VDC
- Continuous short circuit protection
- Operating temp: from -40°C to +105°C
- Industry standard SIP7 pin-out
- Efficiency up to 84%
- Unregulated output
- Creepage and clearance distance > 5mm
- Meets IEC60601 standard

Applications

- Industrial
- Portable equipment
- Medical
- IoT

AIMTEC AMEL10-277HAGY SERIES POWER SUPPLY MODULE



[VIEW PRODUCT DETAILS](#)

AMEL10-277HAGY series is an efficient 10W AC-DC power supply module. Offering a commercial input voltage range from 85VAC to 305VAC, output voltage ranges from 3.3V to 24V, low power consumption, high efficiency and high reliability.

This new series offers great operating temperatures, from -30°C to 70°C with full power up to 45°C and features an isolation of 4000VAC for improved reliability and system safety. Furthermore, a high MTBF of 1800,000h, output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEL10-277HAGY is suitable for grid power, instrumentation, industrial controls, communication, and civil applications.

Features

- Universal input: from 85VAC to 305VAC
- Operating temp: from -30°C to +70°C
- High isolation voltage: 4000VAC
- Low ripple and noise, 200mV (p-p), max
- Output short circuit, over-current, over-voltage protection
- Regulated output
- Efficiency up to 82%
- Designed to meet: IEC/EN/TUV BS EN/UL 62368-1, IEC/EN 60335-1

Applications

- Power grid
- Industrial
- Telecom
- Instrumentation

AIMTEC AMEL20-277HAGY SERIES POWER SUPPLY MODULE



[VIEW PRODUCT DETAILS](#)

AMEL20-277HAGY series is an efficient 20W AC-DC power supply module. Offering a commercial input voltage range from 85VAC to 305VAC, output voltage ranges from 3.3V to 24V, low power consumption, high efficiency and high reliability.

This new series offers great operating temperatures, from -30°C to 70°C with full power up to 45°C and features an isolation of 4000VAC for improved reliability and system safety. Furthermore, a high MTBF of 1500,000h, output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEL20-277HAGY is suitable for grid power, instrumentation, industrial controls, communication, and civil applications.

Features

- Universal input: from 85VAC to 305VAC
- Operating temp: from -30°C to +70°C
- High isolation voltage: 4000VAC
- Output short circuit, over-current, over-voltage protection
- Low no-load power consumption of 0.1W
- Designed to meet: IEC/EN/UL62368-1, EN60335-1

Applications

- Power grid
- Industrial
- Telecom



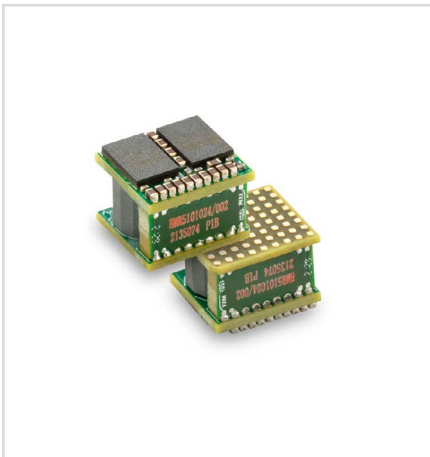
[VIEW PRODUCT DETAILS](#) 

The TJ-100 series is a family of encapsulated AC-DC power supplies housed in a compact, low profile board mount package. Outputting 100W of continuous power, these single output, encapsulated modules feature a universal from 90Vac to 264Vac input voltage range, an extended peak power rating, and a wide operating temperature range from -40°C to 85°C, which makes them ideal for instrumentation, telecom, and industrial control applications.

Features

- 100W continuous output power
- Universal input (from 90Vac to 264Vac, from 120Vdc to 370Vdc)
- From -40°C to 90°C operating range with derating
- Extended peak power rating
- Optional heatsink or baseplate cooling
- Output short circuit, over voltage, current protection or temperature
- Input under voltage protection
- 17mm low profile PCB through-hole package
- UL/EN/IEC 62368-1 certified
- CISPR32/EN55032 class B

FLEX POWER MODULES BMR510 TWO-PHASE INTEGRATED POWER STAGE



[VIEW PRODUCT DETAILS](#) 

Flex Power Modules is announcing the BMR510, its first two-phase integrated power stage, with a continuous total output current of 80A and capable of delivering a total of 140A peak output from 0.5V to 1.3V from an input from 4.5V to 16V.

At less than 0.7cm³ (10mm x 9mm x 7.6mm) the module provides a complete power stage, including magnetics, for a highly-specified module in space-constrained applications. Target end-use is to power silicon devices such as CPUs, GPUs, IPUs, high-end FPGAs and high-performing ASICs with a current demand of over 100A, commonly found in the latest AI applications.

The halogen-free BMR510 is optimized for top-side cooling, and features LGA or optionally solder-bump terminations for easy assembly. Over-temperature and over-current protection are included, and values are sensed for remote monitoring. An enable input is provided and the module will accept tri-state PWM inputs.

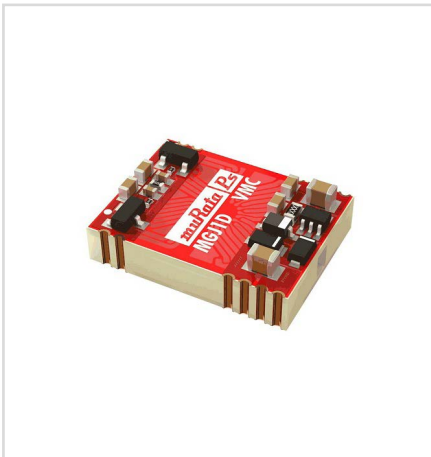
Thermal models are available for the part to enable effective integration in the target application. The BMR510 will be released for production in Q1/22 and samples are available now.

The 2-phase BMR510 will be the first of many new integrated power stages from Flex Power Modules. Future devices will offer different variations of total number of phases, available output current and footprints, to support both current and next generation CPUs and GPUs.

Features

- Output current: 40A TDC (70A) peak per phase
- Wide input range with 4.5V to 16V
- Optimized for top-side cooling
- Current and temperature sense
- Accepts tri-state PWM signals
- Over-temperature and current limit protection
- LGA mount
- Halogen-free
- AI design compatible due to high power and tight board space requirements

MURATA POWER SOLUTIONS MGJ1V SERIES CONVERTERS



The MGJ1V series of DC-DC converters are ideal for powering 'high side' and 'low side' gate drive circuits for SiC and MOSFETs in bridge circuits. A choice of asymmetric output voltages allows optimum drive levels for best system efficiency. The MGJ1V series is characterised for high isolation requirements commonly seen in bridge circuits used in motor drives and inverters, while the MGJ1V extended temperature range and construction gives long service life and reliability.

Features

- Ultra low isolation capacitance
- Characterised CMTI >200kV/μS
- Continuous barrier withstand voltage 1.5kVDC
- Characterised partial discharge performance
- Optimised bipolar output voltages for SiC and MOSFET gate drives: +15V/-3V, +15V/-5V and +18V/-2.5V
- UL62368 recognised for reinforced insulation
- 5.2kVDC isolation test voltage 'Hi Pot Test'
- 12V, 15V and 24V inputs
- Operation to 105°C
- Short circuit protection
- Patent protected

Applications

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Medical equipment
- Transportation equipment (automobiles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention or crime prevention equipment
- Data processing equipment

[VIEW PRODUCT DETAILS](#) →

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YAGEO PULSE JACK™ 1 X 1 TAB-DOWN, LOW PROFILE ICM FOR PCI EXPRESS



- Yageo Pulse Jack™ 1 x 1 tab-down, low profile
- ICM for PCI express
- Designed to support 1G,2.5G,5G,10GBASE-T transceivers

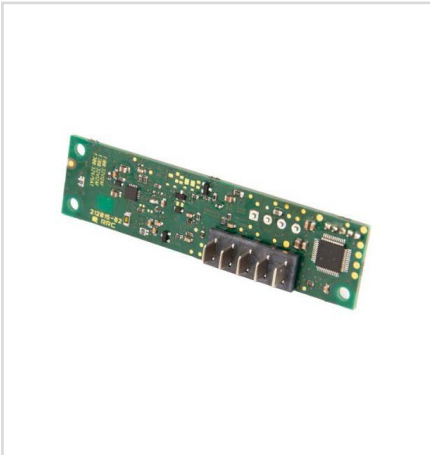
Features

- Compliant with IEEE 802.3 standard
- MSL1 supports wave soldering 270°C max
- RoHS compliant and halogen-free
- 1 x 1 side entry, support up to 10GBASE-T

Applications

- Access points
- Base stations
- Switches
- Routers
- Process control
- Robot control
- Security display
- Smart grid

[VIEW PRODUCT DETAILS](#) →



[VIEW PRODUCT DETAILS](#)

The PMM20 enables internal charging of batteries and facilitates a seamless switch between mains and battery power, ensuring uninterrupted operation and reliable power backup in a spacesaving design. Multiple PMMs can be used in parallel inside one device to combine more batteries.

Features

- Easy to design in
 - Easily integrable into slot design
 - Integrated 180°C battery connector for different connection options
 - Maximum flexibility: Various mounting options
 - Small footprint and slim design to not waste space within the application
 - Wide DC input voltage range to perfectly match the application's needs
- Plug and play available embedded charging solution for RRC standard battery packs
 - Time to market: no development time, immediate product availability
 - No NRE: no additional development, approvals, or design costs
 - Low total cost of ownership
- Power management functionality
 - Seamless switch between mains and battery power
 - Up to 40W charging power in power supply mode
- Fully compliant with Smart Battery Specification
 - SMBus communication with battery and host
- Worldwide certified for industrial and medical applications
- Configurable
 - Programmable limits for input current, charging current and charging voltage
 - Status signal can directly drive a LED



[VIEW PRODUCT DETAILS](#)

The HPF3K0 series of programmable AC-DC power supplies are versatile and powerful solutions. The user-friendly GUI and user-defined signals and monitoring make it easy to configure and monitor the system. The HPF3K0 delivers up to 3kW of power from a universal single-phase input with configurable single output voltages ranging from 24VDC to 60VDC.

Features

- 3kW fan cooled output
- Single outputs 24VDC, 36VDC, 48VDC and 60VDC
- Universal single phase input (from 90VAC to 264VAC)
- Programmable output voltage (0-105%)
- Programmable output current (0-110%)
- Constant voltage and constant current operation
- High efficiency – up to 93%
- User defined signals, controls and alarms
- Graphical User Interface (GUI)
- Parallel operation
- Analog and digital interfaces
- Multiple digital protocols – PMBus, CANopen, MODBUS and SCPI
- Medical, industrial and ITE safety agency approvals
- 3 year warranty

Applications

- Medical imaging and patient treatment or diagnostics
- Water purification
- Hydrogen generation
- Robotics
- Lasers
- Etch and deposition in semiconductor fabrication
- Industrial printing
- Electroplating
- Cathodic protection
- LED heating or curing
- Battery charging



[VIEW PRODUCT DETAILS](#)

The JMR10 series is a range of ultra-compact, regulated PCB-mount medical DC-DC converters which offers single and dual output voltages ranging from 5V to 15V. Housed in a ultra-compact DIP24 package, the JMR10 series features a 4:1 input voltage range and offers a $\pm 10\%$ output trim on single output versions. Its low no load power increases efficiency and extends runtime in battery powered applications. The JMR10 series features worldwide medical approvals, 2 x MOPP 5kVAC reinforced isolation and extremely low leakage currents benefitting system designers with easy integration into a wide range of BF and CF rated medical applications including imaging, patient monitoring, surgical equipment, patient treatment and dentistry.

Features

- Regulated single and dual outputs from 5VDC to 30VDC
- 4:1 input range
- Ultra-compact DIP24 PCB mount package
- Low no-load power
- 10% trim on single output versions
- IEC60601-1 medical safety agency approvals
- 5kVAC reinforced isolation
- 2 x MOPP at 250VAC
- 2 μ A patient leakage current
- Remote On/Off
- Short circuit, overload and overvoltage protection
- From -40°C to +100°C operating temperature
- 3 year warranty

Applications

- Home healthcare
- Healthcare
- Industrial electronics
- Medical diagnostic



[VIEW PRODUCT DETAILS](#)

The JMR20 series is a range of ultra-compact, regulated PCB-mount medical DC-DC converters which offers single and dual output voltages ranging from 5VDC to 15VDC. Housed in a 40.6mm x 25.4mm (1" x 1.6") plastic case, the JMR20 series features a 4:1 input voltage range and offers a $\pm 10\%$ output trim on single output versions. Its low no load power increases efficiency and extends runtime in battery powered applications. The JMR20 series features worldwide medical approvals, 2 x MOPP 5kVAC reinforced isolation and extremely low leakage currents benefitting system designers with easy integration into a wide range of BF and CF rated medical applications including imaging, patient monitoring, surgical equipment, patient treatment and dentistry.

Features

- Regulated single and dual outputs from 5VDC to 30VDC
- 4:1 input range
- Compact 40.6mm x 25.4mm (1" x 1.6") PCB mount package
- Low no-load power
- 10% trim on single output versions
- IEC60601-1 medical safety agency approvals
- 5kVAC reinforced isolation
- 2 x MOPP at 250VAC
- 2 μ A patient leakage current
- Remote On/Off
- Short circuit, overload and overvoltage protection
- From -40°C to +100°C operating temperature
- 3 year warranty

Applications

- Home healthcare
- Healthcare
- Industrial electronics
- Medical diagnostic



[VIEW PRODUCT DETAILS](#)

The CCP550 series are designed to operate in convection cooled, conduction cooled, and fan cooled applications with power ratings from 300W to 550W.

With class B conducted emissions, worldwide industrial and medical safety approvals, 2 x MOPP isolation and low leakage currents, the CCP550 is designed for easy integration into a wide range of industrial and BF rated medical applications.

Features

- 550W fan cooled, 400W conduction cooled, 300W convection cooled
- Single outputs 12VDC, 15VDC, 18VDC, 24VDC, 36VDC and 48VDC
- Universal input: from 80VAC to 264VAC
- 127.0mm x 76.2mm footprint, 37.5mm profile
- High efficiency, up to 92%
- Low leakage currents: <400µA earth leakage, <90µA patient leakage
- Medical (BF) and ITE safety approvals
- Standard fan supply on all models (excluding 15V)
- Optional 5VDC standby and remote On/Off
- 3 year warranty

Applications

- Medical ventilators
- Patient monitors
- Imaging systems
- Laboratory equipment
- Test equipment
- Instrumentation
- Process control
- Industrial printing and UV curing
- Factory automation
- Audio or video equipment
- Internet-of-Things (IoT) devices



[VIEW PRODUCT DETAILS](#)

The EHL05 series of PCB mount single output power supplies deliver 5W of power and offer single output voltages ranging from 3.3V to 48V. The EHL05 series is available in both open-frame and encapsulated mechanical formats. These high power-density power supplies feature a wide from 85VAC to 528VAC input, specifically designed for phase-to-phase operation in a 480VAC system.

The EHL05 series also offers OVC III compliance, class II construction, worldwide industrial and household safety approvals, making it suitable for a wide range of industrial applications and control systems in commercial and residential buildings.

Features

- Phase to neutral or phase-to-phase operation
- Overvoltage category III
- Wide from 85VAC to 528VAC input range
- Single voltage outputs from 3.3V to 48VDC
- Encapsulated or open-frame formats
- IEC class II construction
- Industrial and household safety approvals
- From -40°C to +80°C operating temperature

Applications

- Industrial electronics and robotics
- Security
- 3 phase power supplies



[VIEW PRODUCT DETAILS](#)

The EHL20 series of PCB mount single output power supplies deliver 20W of power and offer single output voltages ranging from 3.3V to 48VDC. The EHL20 series is available in both open-frame and encapsulated mechanical formats. These high power-density power supplies feature a wide from 85VAC to 528VAC input, specifically designed for phase-to-phase operation in a 480VAC system.

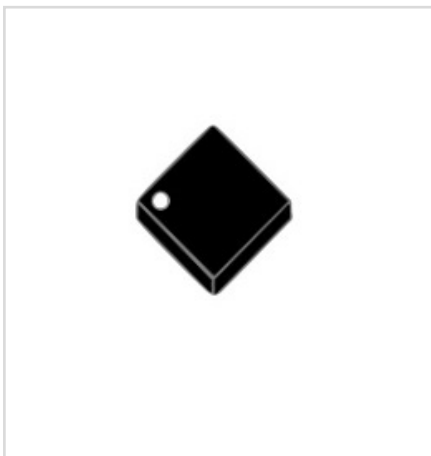
The EHL20 series also offers OVC III compliance, class II construction, worldwide industrial and household safety approvals, making it suitable for a wide range of industrial applications and control systems in commercial and residential buildings.

Features

- Phase to neutral or phase to phase operation
- Overvoltage category III
- Wide from 85VAC to 528VAC input range
- Single voltage outputs from 3.3V to 48VDC
- Encapsulated or open-frame formats
- IEC class II construction
- Industrial and household safety approvals
- From -25°C to +70°C operating temperature
- 3 year warranty

Applications

- Robotics
- Security
- 3 phase power supplies



[VIEW PRODUCT DETAILS](#)

- Simple drive requirement
- Fast switching characteristic
- RoHS compliant and halogen-free

XP10A250 series are innovated design and silicon process technology to achieve the lowest possible on resistance and fast switching performance. It provides the designer with an extreme efficient device do.

The PMPAK® 3 x 3 package is special for voltage conversion application using standard infrared reflow technique with the backside heat sink to achieve the good thermal performance.



[VIEW PRODUCT DETAILS](#)

The VFR05 series of 5W external AC-DC wall-mount adaptors offer single output voltages ranging from 5V to 12VDC and are available with multiple USB options in addition to the standard jack plug connector. The VFR05 series complies with level VI energy efficiency standards with high active mode efficiency and extremely low no load power consumption. These adaptors are supplied with interchangeable US, UK, EU and AU mains connectors to enable global use.

The VFR05 series also offers class B conducted and radiated emissions, class II construction, worldwide industrial safety approvals, benefiting system designers with easy integration into a wide range of applications in industrial technology, communications, home automation and consumer electronics.

Features

- Universal from 90VAC to 264VAC input range
- Standard barrel jack and USB connectors
- Level VI energy efficiency standard
- Interchangeable AC mains connectors
- Class B conducted and radiated emissions
- Class II construction
- UL/EN/IEC 62368-1 ITE safety approvals
- Limited Power Source (LPS) approved
- From 0°C to +60°C operating temperature
- 1 year warranty

Applications

- Household appliances
- Industrial electronics
- Instrumentation
- Technology
- Security



[VIEW PRODUCT DETAILS](#)

The VFL05 series of 5W external AC-DC wall-mount adaptors offer single output voltages ranging from 5V to 12VDC and are available with multiple USB options in addition to the standard jack plug connector. The VFL05 series complies with level VI energy efficiency standards with high active mode efficiency and extremely low no load power consumption.

The VFL05 series also offers class B conducted and radiated emissions, class II construction, worldwide industrial safety approvals, benefiting system designers with easy integration into a wide range of applications in industrial technology, communications, home automation and consumer electronics.

Features

- Universal from 90VAC to 264VAC input range
- Standard barrel jack and USB connectors
- Level VI energy efficiency standard
- Fixed AC mains connectors
- Class B conducted and radiated emissions
- Class II construction
- UL/EN/IEC 62368-1 ITE safety approvals
- Limited Power Source (LPS) approved
- From 0°C to +60°C operating temperature
- 1 year warranty

Applications

- Household appliances
- Industrial electronics
- Instrumentation
- Technology
- Security

IOT BEYOND CONNECTIVITY IOT SOLUTIONS FOR

INDUSTRIAL AUTOMATION

MEDICAL

SMART AGRICULTURE



IOT BEYOND CONNECTIVITY – IOT SOLUTIONS FOR INDUSTRIAL AUTOMATION, MEDICAL AND SMART AGRICULTURE

In an era defined by the proliferation of connected devices and the vast potential of the Internet of Things (IoT),

Avnet Abacus is leading the charge towards a future powered by innovative solutions geared towards efficiency, cost-effectiveness, and transformative technology.

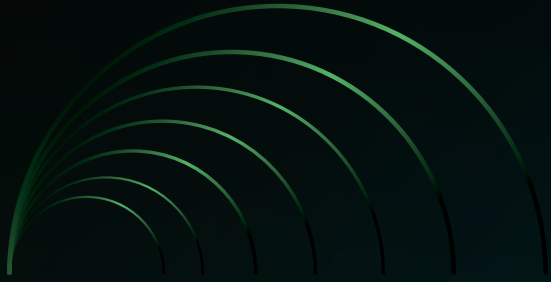
Our unwavering commitment to excellence and forward-thinking solutions makes us the ideal partner for companies seeking to implement IoT solutions that deliver tangible benefits and value.

Join us as we embark on a journey beyond connectivity, where sensors, power supplies, human-machine interfaces, and integrated components converge to redefine the very fabric of modernity.



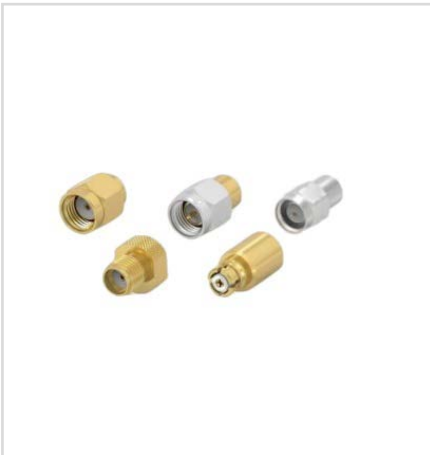
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AVNET[®] ABACUS



/ RF & WIRELESS

TE CONNECTIVITY RF TERMINATOR



TE Connectivity's (TE) newly expanded line of RF (radio frequency) terminators helps customers terminate open transmission lines in RF circuits. An RF terminator is typically placed at the end of a transmission line and is designed to match the cable's AC impedance. They are used to terminate the open end of a cable and form an endpoint for a signal. Using RF terminators minimizes signal reflection going back into the circuit or system. An RF signal that is reflected back into the cable can cause interference or power loss.

Features

- 50Ohm performance
- 1W and 2W options
- SMA, RP-SMA, SMP, 2.92mm, 2.4mm interfaces available
- Max frequencies: 18GHz (SMA and RP-SMA, SMP), 40GHz (2.92mm), and 50GHz (2.4mm)
- Stainless steel and brass construction offered

Applications

- Test and measurement equipment
- Transmitter systems
- Antenna systems
- Defense systems

[VIEW PRODUCT DETAILS](#)

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TE CONNECTIVITY RP20 PRO FIXED WIRELESS ACCESS MIMO ANTENNAS



- 5G/Cellular or 5G/Cellular + GNSS options
- Provides 'Failover' support
- 2 x 2 MIMO for 4G or 5G

TE Connectivity's (TE) new 2 x 2 RP20 pro high gain directional antennas provide high-performance connectivity for current and emerging 4G and 5G frequencies over the from 617MHz to 960MHz and from 1427MHz to 6000MHz frequency ranges (when used in conjunction with a cellular router or gateway). They can enhance connections in retail premises, small businesses, remote locations and more, with cellular networks resulting in higher data speed and bandwidth.

2 and 3-port variants are available with the 3-port models including GNSS coverage. They are suitable for use globally on any cellular network and with any network operator. Available with a choice of integrated cables and connectors to suit cellular/5G routers and gateways from major manufacturers.

Features

- Enhances connections with cellular networks resulting in higher data speed and bandwidth
- 2 x 2 MIMO global LTE and 5G coverage (from 617MHz to 960MHz, from 1427MHz to 6000MHz)
- Operates in both CBRS as well as unlicensed 5GHz to 6GHz
- Covers B11 and B32 bands (from 1427MHz to 1522 MHz)
- Optional GNSS coverage from 3-port option
- Extensive mechanical and environmental testing compliant
- Matches cellular 5G gateways from key suppliers
- Integrated pigtail cables with a choice of connectors
- Wall and pole mounting hardware included

Applications

- Enterprise networking
- Smart utilities
- Retail premises
- Office buildings
- Construction sites
- Remote offices

[VIEW PRODUCT DETAILS](#)

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The PAN9019 (ENWF9501C1KF) based on NXP's IW611 is a WiFi 6 dual band hosted module with integrated Bluetooth 5.4 and the subvariant PAN9019A (ENWF9511C1KF) based on NXP's IW612 supports additionally 802.15.4 radio for meshed applications.

Features

- Dual band 2.4GHz and 5GHz 802.11 a/b/g/n/ac/ax Wi-Fi, Bluetooth BR/EDR/LE, and 802.15.41 combo module
- Supports WPA3 enterprise security
- Secured boot and firmware
- 802.11e quality of service is supported for multimedia application
- IEEE 802.11ax, 1 x 1 spatial stream with data rates up to 600Mbps (MCS11, 80MHz channel bandwidth)
- OFDMA (UL/DL) and MU-MIMO (UL/DL)
- Bluetooth 5.4 (including LE and long range)
- WCI-2- and 5-wire PTA coexistence interfaces
- Generic interfaces include SDIO 3.0, high-speed UART and SPI2 for host processor connection
- OS driver support for RTOS, Linux®, and Android™

Applications

- M.2 key E form factor
- External antenna MHF® 4 connector
- Highspeed-UART for Bluetooth
- SDIO 3.0 for Wi-Fi
- SPI for 802.15.4 (only PAN9019A)
- Coexistence interface
- PCM interface for voice applications
- Separate power supply over USB-C
- Access to specific M.2 interface signals
- Current consumption measurement interface
- Flexible due to mSD flex cable

TE CONNECTIVITY GAR MULTI-PORT VEHICLE ANTENNAS WITH QMA CONNECTORS



[VIEW PRODUCT DETAILS](#) →

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- 5-port configurations available with QMA connectors for fast-fit or easier installation in confined working spaces
- LTE, 4G, 5G, CBRS, ISM, Wi-Fi, GNSS from a single antenna
- High-performance on or off a ground plane

TE Connectivity's (TE) gar multi-port vehicle antennas provide an excellent solution for public safety, transportation and aftermarket fleet applications. Configured for 2-port MIMO operation over the 3G/4G/5G/ISM/CBRS bands and 2-port MIMO operation over the low/high frequency Wi-Fi bands, with an additional 5th port for GNSS. Now with QMA connectors for rapid installation.

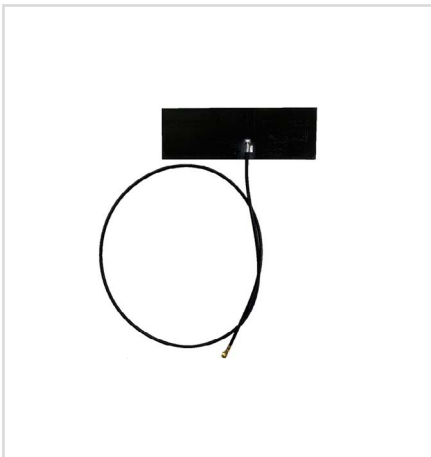
Features

- 5-port configurations available with QMA connectors for 'fast-fit' or easier installation in confined working spaces
- 2.1m or 5.2m (7 or 17 feet) cable assemblies
- LTE, 4G, 5G, CBRS, ISM, Wi-Fi, GNSS from a single antenna
- 2x LTE, 2x Wi-Fi, 1x GNSS
- High-performance on or off a ground plane
- Compatible with major router and gateway products requiring QMA connections
- Other standard connector and cable options available now
- Customizable connector, cable length and port configurations on request
- Mounting kits available for ridged vehicle rooves
- Suitable for numerous applications including transportation, emergency services, fleet, aftermarket installations
- Rugged design
- Made in Malaysia

Applications

- Public safety
- Public transportation
- Coaches
- Utility vehicles
- Freight or commercial transportation

YAGEO PULSE PCB ANTENNA INTERNAL ANTENNA BTPA0061204G0C4AXX SERIES



- PCB antenna
- Internal antenna
- BTPA0061204G0C4Axx – from 698MHz to 2700MHz

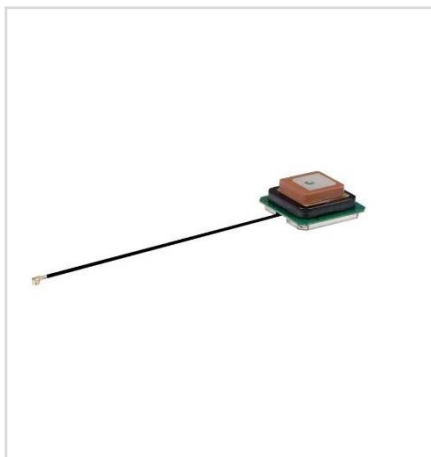
Features

- 4G LTE all band
- Nb-IoT, LTE CAT M1
- Omnidirectional radiation
- PCB radiator + Coaxial cable
- IPEX connector
- RoHS compliant
- Mounting with included adhesive tape

[VIEW PRODUCT DETAILS](#)

[BUY NOW](#)

YAGEO PULSE GNSS ACTIVE PATCH ANTENNA GNSSL1L2182515 SERIES



GNSS active patch antenna.

Features

- Ultra low noise 15dB amplifiers
- Stacked L1/L2 patch antenna
- Single RF input with DC bias
- High rejection filters to suppress out of band interference
- ESD protected
- For 30dB version use P/N: GNSSL1L2182530

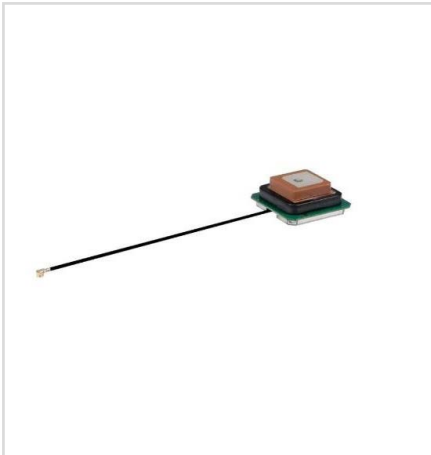
Applications

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L2 band devices

[VIEW PRODUCT DETAILS](#)

[BUY NOW](#)

YAGEO PULSE GNSS ACTIVE PATCH ANTENNA GNSSL1L2182530 SERIES



GNSS active patch antenna.

Features

- Ultra low noise 30dB amplifiers
- Stacked L1/L2 patch antenna
- Single RF input with DC bias
- High rejection filters to suppress out of band interference
- ESD protected
- For 15dB version use P/N: GNSSL1L2182515

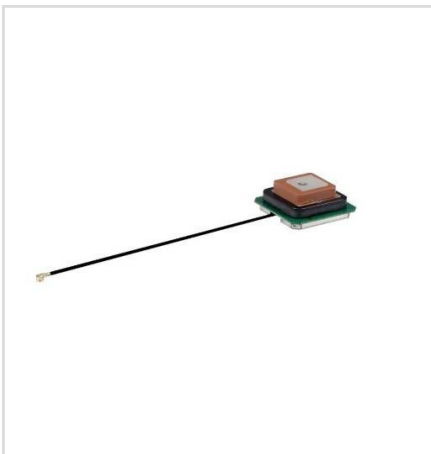
Applications

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L2 band devices

[VIEW PRODUCT DETAILS](#)

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YAGEO PULSE GNSS ACTIVE PATCH ANTENNA GNSSL1L2L5182515 SERIES



GNSS active patch antenna.

Features

- Ultra low noise 15dB amplifiers
- Stacked L1/L2 + L5 patch antenna
- Single RF input with DC bias
- High rejection filters to suppress out of band interference
- ESD protected
- For 30dB version use P/N: GNSSL1L2L5182530

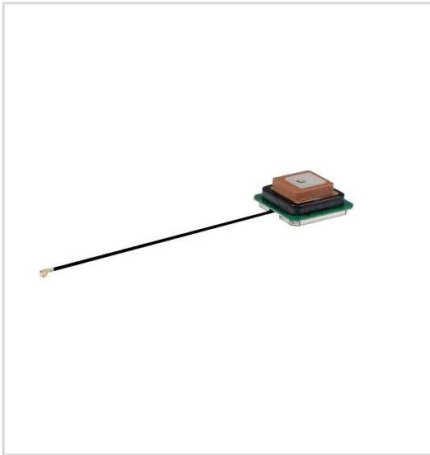
Applications

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L2 + L5 band devices

[VIEW PRODUCT DETAILS](#)

[BUY NOW](#)

YAGEO PULSE GNSS ACTIVE PATCH ANTENNA GNSSL1L2L5182530 SERIES



GNSS active patch antenna.

Features

- Ultra low noise 30dB amplifiers
- Stacked L1/L2 + L5 patch antenna
- Single RF input with DC bias
- High rejection filters to suppress out of band interference
- ESD protected
- For 15dB version use P/N: GNSSL1L2L5182515

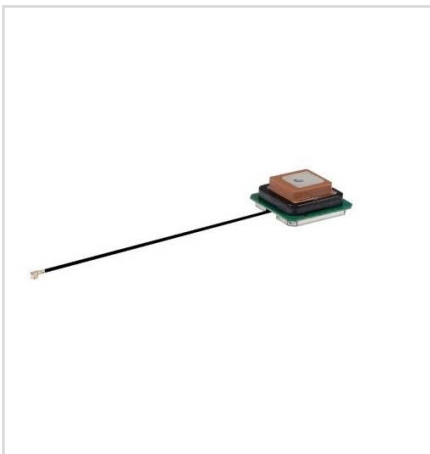
Applications

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L2 + L5 band devices

[VIEW PRODUCT DETAILS](#)

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YAGEO PULSE GNSS ACTIVE PATCH ANTENNA GNSSL1L5182515 SERIES



GNSS active patch antenna.

Features

- Ultra low noise 15dB amplifiers
- Stacked L1/L5 patch antenna
- Single RF input with DC bias
- High rejection filters to suppress out of band interference
- ESD protected
- For 30dB version use P/N: GNSSL1L5182530

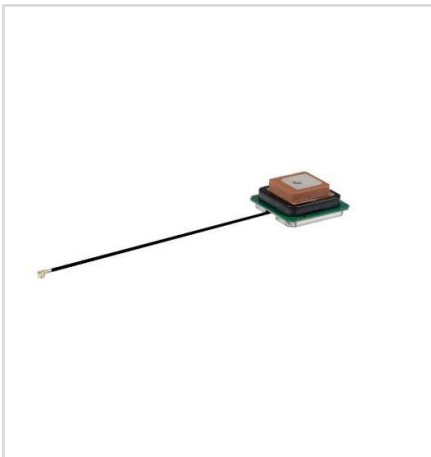
Applications

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L5 band devices

[VIEW PRODUCT DETAILS](#)

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YAGEO PULSE GNSS ACTIVE PATCH ANTENNA GNSSL1L5182530 SERIES



GNSS active patch antenna.

Features

- Ultra low noise 30dB amplifiers
- Stacked L1/L5 patch antenna
- Single RF input with DC bias
- High rejection filters to suppress out of band interference
- ESD protected
- For 15dB version use P/N: GNSSL1L5182515

Applications

- GPS, Glonass, Galileo, Beidou, IRNSS
- Multiband satellite navigation receivers
- L1 and L5 band devices

[VIEW PRODUCT DETAILS](#) →

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TE CONNECTIVITY NEW FLEXIBLE EMBEDDED L1-L5 GNSS ANTENNAS



- 13mm x 13mm version provides a ground plane independent dipole internal or embedded antenna solution.
- 25mm x 25mm version can be used with multi-constellation GNSS receivers on dual GNSS bands to benefit from a more precise navigation and fewer dropouts in challenging environments such as tall buildings in urban areas.

TE Connectivity's (TE) optimized performance in specific frequency bands and a variety of form factors, the new L1/L5 GNSS antennas address the growing demand for antennas in asset tracking and positioning applications.

The product flexibility and the adhesive backing make the product easier to mount in RF transparent enclosures, enabling environmental sealing and protection from antenna damage.

Features

- 13mm x 13mm
 - Ground plane independent dipole antenna
 - Linear polarization
 - Compact, low-profile
 - Adhesive backing securely adheres to non-metal enclosures
 - Flexible to fit in challenging enclosures
 - MHF1/U.FL-TYPE plug (female socket), or MHF4-TYPE plug (female socket) connector
- 25mm x 25mm
 - Used with multi-constellation GNSS receivers on dual GNSS bands to benefit from a more precise navigation and fewer dropouts in challenging environments such as tall buildings in urban areas
 - Ground plane independent dipole antenna
 - Linear polarization
 - Compact, low-profile
 - Adhesive backing securely adheres to non-metal enclosures
 - Flexible to fit in challenging enclosures
 - MHF1/U.FL-TYPE plug (female socket), or MHF4-TYPE plug (female socket) connector

Applications

- 13mm x 13mm
 - Global navigation
 - GPS L1, L1C, L1C/A
 - Galileo E1
 - NavIC L5
 - Beidou B1C, B1I
 - QZSS L1
 - Timing solutions
 - Portable devices
 - Wearable devices
- 25mm x 25mm
 - Global navigation
 - GPS L1/L5
 - Galileo E1/E5A
 - NavIC L5
 - Beidou B1C, B1I
 - QZSS L1/L5
 - Timing solutions
 - Drones
 - Robotic lawnmowers
 - Industrial and agricultural machines

[VIEW PRODUCT DETAILS](#) →

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TE CONNECTIVITY 450MHZ LTE HELICAL ANTENNA SERIES



- Multiple connector options
- Board mount and direct mount external options
- Outperforms similar multi-band solutions
- Flexible shaft

TE Connectivity's (TE) 450MHz helical antennas are rugged, low-cost and easy to install. The family includes six compact antennas designed for operations in the 450MHz band (LTE bands 72, 73 and 31). Antenna options include a screw connection for mounting inside an enclosure (internal), and several SMA and RP-SMA variants for direct mounting on the outside of a device (external).

The 450MHz helical antenna family provides a low-cost but high-performing antenna solution. The single frequency band of the antennas makes the job of antenna selection simple, with better performance in the target frequency band than multi-band antennas and rejection of signals from unwanted frequencies.

Features

- Outperforms similar multi-band solutions
- Durable and flexible main shaft
- Wide bandwidth
- High gain and efficiency

Applications

- 450MHz cellular: LTE-M (CAT-M1), NB-IoT
- LTE bands 72, 73 and 31
- Hand-held devices
- Internet of Things (IoT) devices
- Remote control
- Monitoring and sensing

[VIEW PRODUCT DETAILS](#)

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YAGEO PULSE PATCH ANTENNA BT25B0150 SERIES



- Patch antenna
- 2.4GHz Patch passive antenna

Features

- From 2400MHz to 2500MHz
- Cable, adhesive tape

Applications

- From 2.4GHz to 2.5GHz ISM band radios
- Wi-Fi, Bluetooth

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TE CONNECTIVITY TRI-BAND WI-FI 6E/7 WLAN ANTENNA #L000659-02



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- Wi-Fi, Wi-Fi 6, Wi-Fi 6E and Wi-Fi 7 coverage
- High performance beam pattern
- Direct to access point mounting
- Suitable for upright or inverted orientations
- Shock, vibration and earthquake tested

TE Connectivity's (TE) L000659-02 is a from from 2.4GHz to 2.5GHz, and from 4.9GHz to 6.0GHz or from 6.0GHz to 7.125GHz tri-band omnidirectional array antenna with a rotatable type-N male connector and sleeved base for ease of installation. Especially designed to complement interior or exterior mounted Wi-Fi 6E wireless network systems.

The antenna is supplied with an integrated, rotatable type-N male connector and sleeved base for ease of installation.

Sealing permits upright orientation in both indoor and outdoor locations, or inverted orientation for indoor mounting.

Features

- Suitable for all legacy, current and expected future WLAN applications including:
 - Wi-Fi 7 (802.11be), Wi-Fi 6E (802.11ax), Wi-Fi 6 (802.11ax), Wi-Fi 5 (802.11ac), Wi-Fi 4 (802.11n), Wi-Fi 1-3 (802.11b/a/g)
- Integrated and rotatable type-N male connector and sleeved base for ease of installation
- High performance beam pattern with optimized sidelobe suppression for maximized coverage in target area
- Direct to access point mountable
- Suitable for upright or inverted orientations
- Highly durable

Applications

- Private networks
- Local WLAN
- Outdoor WLAN
- Indoor WLAN
- Access points
- Automation
- Control systems

TE CONNECTIVITY ULTRA-WIDE BAND CERAMIC CHIP ANTENNAS



[VIEW PRODUCT DETAILS](#)

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- Designed for short-range wireless applications
- Allow for secure communications with a signal that is more difficult to detect and intercept than other signal transmission methods
- UWB signals can facilitate centimeter-level positioning, with the ability to locate objects to/within 10cm

TE Connectivity's (TE) ultra-wide band (UWB) ceramic chip antennas can transmit large amounts of data over a wide frequency spectrum. UWB antennas provide a powerful solution in a small package for low and high band UWB channels from 1 to 11 (from 3500MHz to 8500MHz). Providing secure and reliable communication (up to 50x faster than GPS). TE's UWB antennas combine accuracy, affordability, and ease of deployment in one of the smallest form factors available in the market to offer a low total cost of ownership and wider coverage than most similar products in the market.

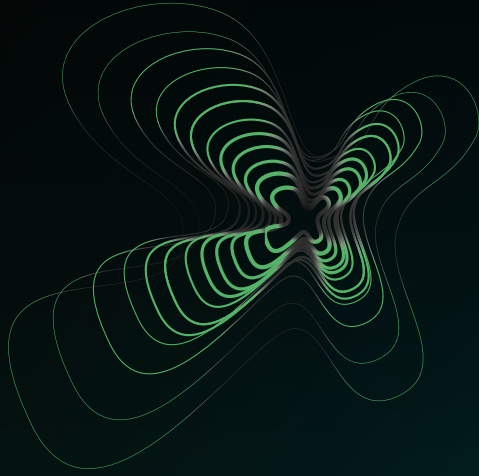
Features

- Operates in channels from 1 through 11
- Low power, high efficiency
- Small form factor
- Can be mounted directly onto a PCB via standard surface mount technology
- RoHS 2.0 compliant
- AEC-Q200 compliant

Applications

- Indoor positioning and localization
- Asset tracking
- Contact tracing
- Vehicle to everything (V2X) communications
- Smart home or home automation
 - Access control
 - Remote controls
 - Door handles
- Automotive sensors
- Precision surveying
- Factory automation
- Radar or imaging systems
- Wireless data transmission
- High speed data transmission over short distances
- Secure communication

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/ SENSORS

TE CONNECTIVITY NEW IOT WIRELESS PRESSURE SENSORS



[VIEW PRODUCT DETAILS](#) →

[BUY NOW 65XXN SERIES](#) →

[BUY NOW 69XXN SERIES](#) →

TE Connectivity's (TE) 6xxxN series brings practical innovation to industrial monitoring. Utilizing both Bluetooth® low energy and LoRaWAN® technology, these compact sensors fit seamlessly into tight spaces and diverse environments.

Their ability to handle a wide pressure range streamlines system integration, enabling the consolidation of multiple sensors and simplifying system integration. Designed for tailored monitoring, the 6xxxN series boasts a long-lasting battery, reducing maintenance frequency and downtime.

Safety is paramount, especially when operating in hazardous or high-risk environments. The 6xxxN wireless pressure sensor stands out by adhering to some of the most stringent safety certifications in the industry, including ATEX C1D1, NEC class I, division 1, and ATEX Ex ia IIC. Upgrade to TE's 6xxxN series for a straightforward, secure, and efficient approach to modern industrial monitoring.

Features

- Supports pressure ranges from 2Bar to 350Bar (from 30PSI to 5000PSI)
- Lightweight compact design, weighs 170grams with a volume of 6 Cubic Inches
- Battery capacity of 2100mAh, reducing long-term operational costs
- ATEX C1D1, ATEX C1D1 zone 0, NEC class I, division 1, and ATEX Ex ia IIC, groups A, B, C, and D T4, and ATEX Ex ia IIC T4 Ga certifications
- Easy configurations and event trigger supported
- Compatible with TE SensorConnect app (iOS and Android)

Applications

- Smart assembly lines
- Pipeline monitoring
- Oil well monitoring
- Condition monitoring
- Corrosive fluids and gas measurement
- Agriculture equipment

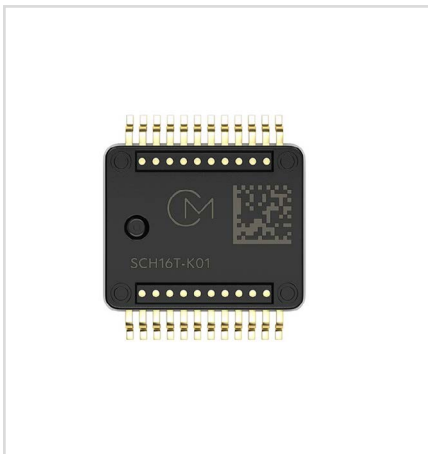
Target Markets

- Oil and gas
- Remote monitoring
- Industrial manufacturing
- Intelligent warehousing

Performance Specifications

- Wireless protocol: BLE 5.0 and LoRaWAN® class A
- Supports pressure ranges from 2Bar to 350Bar (from 30PSI to 5000PSI)
- Operating temperature: from -30°C to +75°C
- Accuracy (from 0Bar to 35Bar) +/- 0.1%
- Accuracy (from 0Bar to 350Bar) +/- 0.25%
- Supply voltage: 3.6V
- Resolution: 16bits
- Weatherproof (IP66 or IP67)

MURATA SCH16T SERIES COMBINED GYRO SENSOR AND ACCELEROMETER



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The SCH16T-K01 is a combined high-performance 3-axis angular rate and 3-axis accelerometer. The angular rate and accelerometer sensor elements are based on Murata's proven capacitive 3D-MEMS technology. Signal processing is done by a single mixed-signal ASIC that provides angular rate and acceleration via a flexible SafeSPI v2.0 compliant digital interface. Sensor elements and ASIC are packaged to pre-molded SOIC 24-pin plastic housing that guarantees reliable operation over the product's lifetime.

The SCH16T-K01 is designed, manufactured, and tested for high stability, reliability, and quality requirements. The component has extremely stable output over temperature, humidity, and vibration. The component has several advanced self-diagnostic features, is suitable for SMD mounting and is compatible with RoHS and ELV directives.

Features

- Gyroscope measurement range selectable in-application from 300°C/s down to 62.5°C/s
- Accelerometer measurement range selectable in-application from ±80m/s² down to ±15m/s² with typical default dynamic range up to ±260m/s²
- Options for output interpolation and decimation
- Angular rate and acceleration low pass filters from 13Hz to 370Hz cut-off rate
- Data Ready output, timestamp index and SYNC input functions for clock domain synchronization
- From -40°C to 110°C operating temperature range
- FROM 3.0V to 3.6V supply voltage, from 1.7 V/I/O to 3.6V I/O supply voltage
- SafeSPI v2.0 interface
- 20-bit and 16-bit output data, selectable via SPI frame
- Extensive self-diagnostic features utilizing over 200 monitoring signals
- 11.8mm x 13.4mm x 2.9mm (l x w x h) SOIC-24
- Qualification based on AEC-Q100 standard

Applications

- Inertial measurement units (IMUs)
- Inertial navigation and positioning
- Machine control and guidance
- Dynamic inclination
- Robotic control and UAVs



ZTPD-2210 is an infrared thermopile detector with digital calibrated output for non-contact temperature detection. This sensor measurement detection range is from -20°C to 100°C.

Features

- Factory calibrated temperature range
 - Standard type detection range: from -20°C to 100°C
 - Normal sensor operation range: from -20°C to 85°C
 - Sensor storage temperature range: from -40°C to 100°C
- Ambient temperature compensation
- I²C Interface
- Sleep mode for energy saving
- RoHS and REACH compliance product

Applications

- Non-contact thermometer
- Temperature sensing for automotive cabin and building HVAC system
- Home appliance (microwave oven, refrigerator, coffee machine, etc)
- Healthcare (human body temperature detection)

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TDK DK-42688P-9X AND DK-42670P-9X SERIES



The DK-42688P-9x and DK-42670P-9x are two comprehensive development platforms for 9-axis motion sensing solutions.

DK-42688P-9x comprises of two distinct boards in one boxed solution - DK-42688-P and daughter board DB-IST8306. This daughter board can be attached to the DK board to create a complete 9-axis evaluation kit.

DK-42670P-9x comprises of two distinct boards in one boxed solution - DK-42670-P and daughter board DB-IST8306. This daughter board can be attached to the DK board to create a complete 9-axis evaluation kit.

These 9-axis sensor solutions comprise of a high performance 6-axis motion sensor - ICM-42688-P/ICM-42670-P, and a 3-axis magnetometer Isentek IST8306 high-precision AMR sensor.

The platform, designed around Microchip G55 MCU can be used by developers for rapid evaluation and development of 9-axis based solution. The 9-axis solution includes an on-board Embedded Debugger so external tools are not required to program or debug the G55 MCU.

Features

- IST8306 3D hall sensor - 0.1% FS - low hysteresis
- IST8306 3D hall sensor - 3200uT dynamic range
- ICM-42688 6-axis IMU - 2.8mdps/rtHz gyro noise, 5mdps/C TCO
- ICM-42670-P 6-axis IMU - 4.4uA in wake on motion mode, thin package - 0.76mm height

Applications

- E-bikes
- Asset tracking
- Navigation
- Drones, vacuum cleaners
- Sports-golf swing analysis

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YAGEO KEMET FLUXGATE-BASED RESIDUAL CURRENT SENSOR FG-R01 SERIES



[VIEW PRODUCT DETAILS](#) 

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The FG-R01 series sensor is a high-sensitivity AC and DC leakage current sensor with individual open drain alarms and an analog output for leakage current indication. In addition, its integrated test coil can be initiated by a test input to perform a functional alarm test. The UL 2231 version (*4GA) contains 2AC alarms to comply with CCID5 and CCID20.

Features

- Open-loop, fluxgate-based current sensor
- PCB mounting
- Digital output of fault detection
- Conforms to IEC 62752:2016/A1:2018 (FG-R01-4A and FG-R01-4BA)
- Conforms to IEC 62955:2018¹ (FG-R01-4A and FG-R01-4BA)
- Conforms to UL 2231-2 CCID20 and CCID5 (FG-R01-4GA)
- RoHS compliant
- 3,000A surge current capability
- Composed of AEC-Q certified parts
- Compliant with ASIL_B for Safety Element out of Context (SEoC)

Applications

- Typical applications include residual current sensor for In-Cable Control and Protection Devices (IC-CPD) or Wallbox.

YAGEO KEMET FLUXGATE-BASED RESIDUAL CURRENT SENSOR FG-R05 SERIES



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The FG-R05 series sensor is a high-sensitivity AC and DC leakage current sensor with individual open drain alarms and an analog output for leakage current indication. In addition, its integrated test coil can be initiated by a test input to perform a functional alarm test. The UL 2231 version (*4GA) contains 2AC alarms to comply with CCID5 and CCID20.

Features

- Open-loop, fluxgate-based current sensor
- PCB mounting
- Digital output of fault detection
- Conforms to IEC 62752:2016/A1:2018 (FG-R05-4A and FG-R05-4BA)
- Conforms to IEC 62955:2018¹ (FG-R05-4A and FG-R05-4BA)
- Conforms to UL 2231-2 CCID20 and CCID5 (FG-R05-4GA)
- RoHS compliant
- 3,000A surge current capability
- Composed of AEC-Q certified parts
- Compliant with ASIL_B for Safety Element out of Context (SEoC)

Applications

- Typical applications include residual current sensor for In-Cable Control and Protection Devices (IC-CPD) or Wallbox.

YAGEO KEMET FLUXGATE-BASED RESIDUAL CURRENT SENSOR FG-R02 SERIES



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The FG-R02 series sensor is a high-sensitivity AC and DC leakage current sensor with individual open drain alarms and an analog output for leakage current indication. In addition, its integrated test coil can be initiated by a test input to perform a functional alarm test. The UL 2231 version (*4GA) contains 2AC alarms to comply with CCID5 and CCID20.

Features

- Open-loop, fluxgate-based current sensor
- PCB mounting
- Digital output of fault detection
- Conforms to IEC 62752:2016/A1:2018 (FG-R02-4A and FG-R02-4BA)
- Conforms to IEC 62955:2018¹ (FG-R02-4A and FG-R02-4BA)
- Conforms to UL 2231-2 CCID20 and CCID5 (FG-R02-4GA)
- RoHS compliant
- 3,000A surge current capability
- Composed of AEC-Q certified parts
- Compliant with ASIL_B for Safety Element out of Context (SEoC)

Applications

- Typical applications include residual current sensor for In-Cable Control and Protection Devices (IC-CPD) or Wallbox.

YAGEO KEMET FLUXGATE-BASED RESIDUAL CURRENT SENSOR FG-R04 SERIES



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The FG-R04 series sensor is a high-sensitivity AC and DC leakage current sensor with individual open drain alarms and an analog output for leakage current indication. In addition, its integrated test coil can be initiated by a test input to perform a functional alarm test. The UL 2231 version (*4GA) contains 2AC alarms to comply with CCID5 and CCID20.

Features

- Open-loop, fluxgate-based current sensor
- PCB mounting
- Digital output of fault detection
- Conforms to IEC 62752:2016/A1:2018 (FG-R02-4A and FG-R02-4BA)
- Conforms to IEC 62955:2018¹ (FG-R02-4A and FG-R02-4BA)
- Conforms to UL 2231-2 CCID20 and CCID5 (FG-R02-4GA)
- RoHS compliant
- 3,000A surge current capability
- Composed of AEC-Q certified parts
- Compliant with ASIL_B for Safety Element out of Context (SEoC)

Applications

- Typical applications include residual current sensor for In-Cable Control and Protection Devices (IC-CPD) or Wallbox.

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/ ELECTROMECHANICALS

OMRON G5NB-EL-CF PCB POWER RELAY



A slim compact relay with 7A switching capacity.

- 7A (250VAC), 5A (30VDC) high capacity switching with compact size
- Minimum 200,000 operations durability at 5A (250VAC) switching
- IEC/EN 60335-1 conformed
- Ambient operating temperature: max. 85°C (-CF type 105°C)
- IEC60079-1, IEC60079-15 conformed

Applications

- Home appliances
- Industrial equipment
- Building automation
- Heat pump

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OMRON G6QE-1A4 PCB POWER RELAY



Miniature and low height single-pole power relay with 36A switching current.

- Delivers high capacity switching up to 480VAC, 36A (G6QE-1A4 type) in a compact form
- Achieved 10-kV impulse withstand voltage (between coil and contacts)
- Power consumption reduced to 12% compared with rated coil consumption by lowering the applied voltage to the coil after applying nominal voltage for 100ms relay operation (reduced to 35% from rated coil voltage)
- Lineup features models with C-UL, TUV, and CQC certification as standard, and models compliant with the electrical appliance
- (IEC/EN) 60079-15 explosion proofing approval obtained (model G6QE-1A4 type)

Applications

- Home appliances
- FA equipment
- Industrial machinery

[VIEW PRODUCT DETAILS](#)

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The increasing degree of automation especially for motor or LED lighting control demands switching solutions with high inrush current capability. ALQ6 type, a member of the LQ relay family, can handle an inrush current up to 40A for 100μs for a capacitive load in the same small housing as the standard version. Moreover, ALQ6 offers increased creepage and clearance distance between contact and coil of minimum 5.5mm which helps to meet various safety standards.

Features

- Small size 20mm x 10mm x 16mm
- 10A 125VAC, 8A 250VAC, 5A 30VDC
- 1FormA
- Capacitor load: Inrush 40A/100μs
- TV 3: Inrush 30A
- Motor load: Inrush 30A/0.5s
- Refinforced insulation between contact and coil $\geq 5.5\text{mm}$
- UL, C-UL, VDE approved

Applications

- Building automation
 - Heating, cooling, ventilation
 - Blinds
 - Automatic doors
- Lighting
 - Street lighting
 - Office lighting
 - LED lamps control
- Industrial
 - Access control
 - Pumps
 - All kind of motor loads

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Miniature and low height single-pole power relay with 36A switching current.

- Delivers high capacity switching up to 480VAC, 36A (G6QE-1A4 type) in a compact form
- Achieved 10-kV impulse withstand voltage (between coil and contacts)
- Power consumption reduced to 12% compared with rated coil consumption by lowering the applied voltage to the coil after applying nominal voltage for 100 ms relay operation (reduced to 35% from rated coil voltage)
- Lineup features models with C-UL, TUV, and CQC certification as standard, and models compliant with the electrical appliance
- (IEC/EN) 60079-15 explosion proofing approval obtained (model G6QE-1A4 type)

Applications

- Home appliances
- FA equipment
- Industrial machinery

[VIEW PRODUCT DETAILS](#)

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OMRON G9KC PCB POWER RELAY



480VAC 40A 4-pole high power relay with low contact resistance.

- Low initial contact resistance: 6mΩ max
- 4-pole 40A switching with compact size: W 35mm x L 58mm x H 47mm
- Contact gap: 3.6mm min
- High short circuit capacity compliant with IEC62955
- Low coil power consumption: approx. 613mW with holding voltage 35%
- Auxiliary contact compliant with IEC60947-4-1 mirror contact requirement

Applications

- EV charging station
- Inverter for solar and energy storage
- Uninterruptible power supply

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TDK BCS SOLAR CELL



TDK BCS low illumination solar cells are thin, lightweight, flexible, amorphous silicon-type film solar cells in circular or quadrangle shapes. The BCS solar cells offer high power generation efficiency under fluorescent lamps and LED light sources with output stability in low and dim light conditions. These solar cells help reduce the cost of battery replacement and wiring while extending the life of the primary battery and the usage time of rechargeable devices. There is no equipment damage or environmental pollution due to liquid leakage. The clean-energy BCS low illumination solar cells from TDK are suitable as a power source for indoor products.

Features

- Thin, lightweight, and flexible film substrate material
- High power generation efficiency under fluorescent lamps and LED light sources
- Suitable as a power source for products used indoors
- Offers output stability in low and dim light
- Reduces the cost of battery replacement and eliminates the hassle
- Reduce the cost of electrical wiring
- Extends the life of the primary battery
- Extends the usage time of rechargeable devices
- No equipment damage or environmental pollution due to liquid leakage
- Improving the image of products with the use of clean energy
- RoHS and REACH SVHC-free compliant

Applications

- Clocks
- Wearable devices
- Beacons
- Wireless sensor node, various sensors, and IoT terminal power supplies
- Smart cards
- Smart locks
- Energy harvesting (environmental) power generation elements
- Charging and powering other electronic devices

[VIEW PRODUCT DETAILS](#)

OMRON G9KB SERIES PCB POWER RELAY



Power relay with bidirectional switching and a high capacity of up to 600VDC, 50A (standard model) or 800VDC, 100A* (high-capacity model).

- Max. switching voltage 600VDC (standard model) or 800VDC (high-capacity model)
- Rated carry/max. switching current 50A (standard model) or 100A (high-capacity model)
- Ambient temperature 85°C
- Contact gap: 3.6mm or more
- Low initial contact resistance $\leq 5\text{m}\Omega$
- The UL60947-4-1 and the EN61810-10 required for the energy storage system have been certificated

Applications

- Energy storage system
- V2X (V2H, V2B, etc.)
- DC household appliances
- EV charger

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*100A switching up to a maximum of 600VDC

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TE CONNECTIVITY HIGH POWER CHARGING INLETS



- Support high power charging to reduce downtime and maximize productivity
- Rugged design for vehicles and equipment that operate in harsh environments and have longer lifetimes

TE Connectivity's (TE) charging inlets, part of the HIVONEX portfolio for high voltage e-mobility, built specifically for industrial and commercial vehicles, are the right choice for fast and secure charging. The newest addition is our high power charging inlets, designed to support high power charging up to 500A continuous to reduce downtime and maximize productivity in vehicles and equipment that operate in harsh environments and have longer lifetimes.

Features

- Capable of supporting continuous higher power charging up to 500A DC at 1000V for quick charging
- Optional LED indicator and AC charging with the flexibility to choose for the end user
- Choice of 95mm² or 120mm² DC cable size
- Available in pre-packaged kits for added convenience
- Optimal thermal management is upheld along the charging pathway to minimize component wear and enhance durability
- Increased sealing performance allows the inlet to withstand harsh environments
- Provides accurate temperature monitoring and improves overall safety
- Flap assembly provides extra protection from harsh elements (dust, oil, etc.) typical of industrial applications
- Designed with the ability to withstand high-vibration environments (vibration ISO 16750-3 test VII)

Applications

- Truck
- Bus
- Agriculture
- Construction
- Special vehicles
- Mining

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OMRON D2AW-R MOLDED LEAD WIRE TYPE SERIES



Detection of four states by internal resistor.

- Output of four states-four states (switch On/Off, short circuit, open circuit) are output
- Extra-long stroke even without levers. (OT reference value: 1.4mm)
- Quiet operation-A sliding contact construction achieves high contact reliability and quiet operating sound

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OMRON G5NB-EL SERIES PCB POWER RELAYS



A slim compact relay with 7A switching capacity.

- 7A (250VAC), 5A (30VDC) high capacity switching with compact size
- Minimum 200,000 operations durability at 5A (250VAC) switching
- IEC/EN 60335-1 conformed
- Ambient operating temperature: max. 85°C (-CF type 105°C)
- IEC60079-1, IEC60079-15 conformed

Applications

- Home appliances
- Industrial equipment
- Building automation
- Heat pump

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/EXPLORE HOW IDEAS BECOME REALITY WITH FOCUS MAGAZINE



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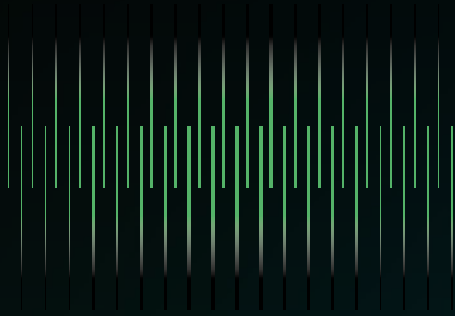
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/ CONNECTORS

PHOENIX CONTACT FINEPITCH FR 1,27 SERIES CONNECTOR



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High-speed data transmission and time savings in the development process make a real difference. With the FR series board-to-board connectors with a pitch of 1.27mm, Phoenix Contact provides data rates up to 28Gbps and customer-specific simulations for data integrity.

- Robust from 6 to 100 pole board-to-board and wire-to-board connectors compatible to well-established standard
- Significantly improved data transmission up to 28Gbps
- Time savings in the development process through customer-specific simulations for data integrity
- High-level contact surfaces enable long-term stable signal transmission and currents up to 2,3A per pin
- Design-in support for device development through M-CAD/E-CAD data and free sample service

Features

- Pitch: 1.27mm
- Positions: 6, 12,16, 20, 26, 32, 40, 50, 68, 80, 100
- Stack heights: from 8mm to 13.8mm
- Data rates up to 28Gbps
- Currents up to 2,3A
- Insertion cycles: 500
- BtB and WtB connectors

TE CONNECTIVITY UNSEALED INTERCONNECTION SYSTEM EXTENSIONS



[VIEW PRODUCT DETAILS](#)

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- Meet the needs for increased density and flexibility
- Deliver safety and reliability in some of the harshest environments

TE Connectivity's (TE) need for better ergonomics in production, more efficient production processes, and higher flammability ratings are driving the development of brand-new extensions to our unsealed interconnection system. For engineers working with bulkhead and control unit applications in on- and off-road vehicles, the unsealed interconnection system meets the needs for increasing density and flexibility to help you stay ahead of the industry trends.

Utilizing our field-proven AMP MCP 1.5K, 2.8, 6.3 and 9.5 contacts, PCON 12 terminals, and the newest addition-MCON 1.2 terminals-this series ensures flexibility with the option to choose from 1 to 48 position connectors. Withstanding cabin-level vibration and meeting the needs of high-power applications, these connectors deliver safety and reliability alongside overall cost-effectiveness.

Features

- Ensure complete design flexibility with a broad range of unsealed, rugged and flexible connectors, including from 1 to 48 positions
- Enable wire-to-board configurations for both 90°C and 180°C
- Improve contact alignment with integrated secondary locking features
- Provide additional security with flame retardant V-0 material, reflow options and a screw hole design
- Ensure high reliability for long-term use with vibration resistance for in-cabin use
- Help prevent mismatch with up to 6-polarization and color key mating configurations available
- Reduce mating force with an improvement of well-established lever system of the 18, 21, 36 and 48 position monoblock connectors

Applications

- Wire-to-wire
- In-cabin
- Control unit
- Bulkhead
- Electrical vehicle power distribution unit (PDU)
- Electrical vehicle battery box
- Industrial machinery
- PLCs
- Rail or metro cabins
- Navigations systems

MOLEX CARDINAL TEST HIGH-FREQUENCY CABLE ASSEMBLIES



[VIEW PRODUCT DETAILS](#)

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Cardinal test HF cable assemblies are ideal for test and measurement, with frequencies up to 110GHz using 1.0mm connectors. The 2.4mm, 3.5mm and 1.85mm Plug and Jack options are available with phase-stable, low-loss cables.

Features

- Offers high-durability options with assemblies that are both highly flexible and pinch resistant
 - Through availability of standard and armored assemblies
- Includes assemblies up to 110 GHz and a multitude of adapters and ensures a solution for all test and measurement applications
 - With high-frequency options
- Delivers low density and a low dielectric constant with a velocity of propagation up to 80%
 - Due to low attenuation
- Provides one of the lowest possible VSWRs along the transmission path and for the assembly as a whole
 - As a result of impedance tolerance of +1%

Applications

- Telecommunications and networking
 - Network systems
 - Testing and instrumentation equipment
 - Automated test equipment
 - Wireless communications
 - 5G applications
 - High-speed data transmission
 - Internet of Things
 - Smart agriculture applications

MOLEX MICRO-FIT+ CONNECTOR SYSTEM 219116, 219114, 220226, 219197 SERIES



[VIEW PRODUCT DETAILS](#)

[BUY NOW](#)

The Micro-Fit+ connector system offers high current capability for space-constrained applications, with a variety of configurations and a 40% reduced mating force for enhanced ergonomics and assembly efficiency. Our Micro-Fit+ PCIe Connectors offer full PCIe CEM specification compliance in a compact, space-saving design with hybrid power and signal integration.

Features

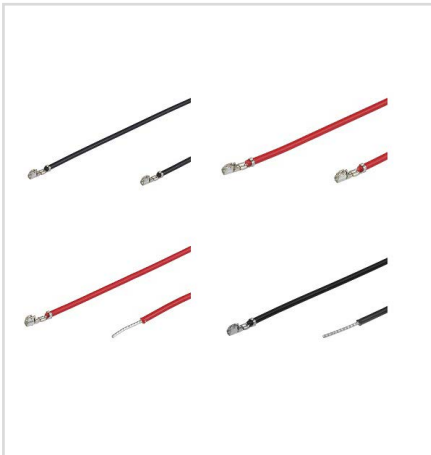
- Helps prevent potential arcing
 - Due to fully isolated contacts on each side of the interface
- Allows customers to meet the European standard for electrical requirements
 - Due to V-0/glow wire combination resin
- Provides stability and security for the terminals inside the receptacle
 - With enhanced Terminal Position Assurance (TPA) design
- Helps prevent mis-mating
 - As a result of unique keying design
- Offers PCB design flexibility and improved strength and reliability
 - As a result of unique keying design with clip and nail SMT options
- Provides design flexibility
 - Due to smaller PCB footprint
- Reduces labor costs, saves time and resources
 - With reflow-capable options available
- Allows for ease of work, reducing operator fatigue during assembly with its unique design
 - Because of the 40% reduced mating force
- Helps ensure proper mating orientation
 - With fully polarized housings (not compatible with standard Micro-Fit 3.0 connectors)
- Supports ampere interrupting capacities (AICs) up to 675W
 - With 9.5A per pin; hybrid 12-power + 4-signal pin design utilizes high-current alloy for power pins
- Complies with industry standards

- Due to conformance with PCIe CEM 5.0 or 6.0 specifications and Molex-engineered reliability

Applications

- Consumer
 - Copiers
 - Freezers
 - Pinball and slot machines
 - 3D printers
 - Refrigerators
 - Vending machines
 - Video poker and pachinko equipment
 - Washing machines
- Medical
 - Diagnostic equipment
 - Patient monitors
- Sustainable energy
 - Solar power
- Telecommunications and networking
 - Routers and switches
 - Servers
 - High-speed compute and storage systems
 - Graphics and gaming systems
 - Internet of Things (IoT)
 - Data centers
 - High-performance computing equipment
 - Artificial intelligence or machine-learning systems
 - Virtual reality
- Automotive
 - Telemetrics
 - Non-critical applications

MOLEX ONEBLADE PRE-CRIMPED LEADS 219674, 219675 SERIES



Molex's range of pre-crimped leads offers a simple and cost-effective solution for pre-production, prototyping and mass production requirements; these leads are available for the most popular Molex connector families.

The modular OneBlade 1.00mm-pitch wire-to-board connector system with friction lock and spacious pick-and-place area combines design simplicity with speed and ease of assembly. The OneBlade pre-crimped leads are now available and feature the following options:

- 150mm, 300mm and 450mm lengths
- Red or Black
- Female-to-female and female-to-pigtail
- 28AWG and 30AWG
- UL10125

[VIEW PRODUCT DETAILS](#)

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MOLEX BRAD M12 POWER L-CODE CONNECTOR



Providing the power required for industry 4.0 electric propulsion while being both compact and reliable, the Brad M12 power L-code connector system meets PROFIBUS and PROFINET International (PI) standards for PROFINET systems.

Features

- Delivers 16.0A output current against 10.0A from mini-change
 - The enhanced design and improved insulation of the Brad M12 L-code connector system helps deliver a high output current
- Provides a sealed connection to withstand harsh and wet industrial environments
 - The Brad M12 L-code field attachable helps withstand harsh and wet industrial environments because of the sealed connection that is provided by the IP67-sealed interface
- Enhances operator safety by eliminating the chance of electrical shock from exposed pins
 - The pins in the field attachable are enclosed in the contact carrier that eliminates the chance of any electrical shock
- Helps customers use any matable cable
 - The Brad M12 L-code field attachable allows a customer the flexibility to use any matable cable, thereby allowing a customer to select the best cable as per their requirement, in addition to a convenient installation process
- L-Code Overview
 - Brad M12 Power L-code face view
- Supports use in applications where space is limited
 - The compact size of the Brad M12 L-code connector system makes it suitable to be used in certain applications where there is a space constraint
- Prevents mis-mating with other M12 connectors being used for input, output, signal or industrial network connections
 - The L-code mating interface of the Brad M12 connector system prevents mis-mating

Applications

- Industrial automation
 - Power supplies of decentralized I/O
 - Field-bus-controlled I/O boxes
 - Small server/DC motors and drives
- Machine and line builders
- Automotive plants
- DC applications in low-voltage areas

[VIEW PRODUCT DETAILS](#)

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MOLEX OTS ZERO-HACHI CABLE ASSEMBLIES 226202 AND 226392 SERIES



OTS discrete wire cable assemblies were designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Discrete cables reduce engineering (mechanical and electrical) and purchasing time needed to qualify a cable. In addition, they are crimped in an automated press eliminating the risk of poor crimping during prototyping. These cables are great for prototyping all the way into mass production.

New Zero-Hachi cable assemblies are specifically engineered to address the challenges of shrinking electronic device space availability across industries. The space-saving low profile height and extensive circuit size range combine with an innovative dual-point contact feature to enhance design flexibility and boost reliability.

Available options:

- 0.8mm pitch
- 2,4,6,8 circuits
- 150,300 and 600mm lengths
- Female-to-female and female-to-pigtail
- 28AWG
- UL10064

[VIEW PRODUCT DETAILS](#)

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MOLEX MX150 SEALED CONNECTOR SYSTEM 300081 SERIES



The MX150 sealed connector system is a field-proven solution that delivers highly reliable performance under extreme temperatures, varying degrees of vibration, and exposure to moisture and chemicals for a variety of applications.

Features

- Connector position assurance (CPA) option available
 - Helps to eliminate accidental disconnection between connectors
- Preassembled terminal position assurance (TPA) housing
 - Helps ensure crimped terminal leads are properly locked into connector
- Single- and dual-row V0 versions available
 - Meets stringent safety requirements
- One-piece 3.50mm-pitch housing
 - Offers a compact connector and helps eliminate assembly cost
- Grommet cap
 - Protects mat seal and facilitates ensure proper alignment of the terminals
- Mat seal technology for MX150 (1.50mm) terminals
 - Helps eliminate the need for individual cable seals thereby reducing package size
- Mid-voltage capability of 60V for simplified upgrades
 - Streamlines upgrades to lighter-weight 48V wiring by using the proven MX150 form factor
- Available two-ring seal with terminal potting
 - Enables reliable connection to the inside of next-generation, high-performance, oil-cooled electric motors

Applications

- Automotive
 - Internal combustion and electric vehicles
 - Lighting
 - Braking system components
 - Electric motor generators
 - Battery controllers
 - Power distribution boxes
- Commercial vehicle
 - Industrial vehicles and equipment
 - Recreational vehicles
 - Golf carts and ATVs
 - Marine and jet skis
- Electrical and power
 - Solar energy storage systems
 - Home generators
- Industrial automation
 - Robotics
 - Industrial machines and motors

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MOLEX NEARSTACK HD CONNECTOR SYSTEM 215980, 216000, 221028 SERIES



The NearStack HD connector system is a low-profile, high-density cable solution with a 64Gbps PAM-4 data transfer rate that meets PCIe Gen-6 standards for internal cable applications and helps users support artificial intelligence (AI) and machine learning applications.

Features

- Maximizes real estate in high-density applications
 - With a low-profile connector that optimizes PCB real estate for space-constrained applications, including angled-exit options that reduce connector spacing from 20.50mm to 16.00mm on center
- Enhances signal integrity (SI) with direct-to-contact termination
 - Featuring twinax wires welded directly to the signal contact wafers within the connector, which improves SI and delivers best-in-class crosstalk performance
- Simplifies assembly and makes the connector more durable
 - With direct-to-contact termination that eliminates the need for a paddle card interface
- Improves thermal performance
 - Using small 34AWG twinax cable that allows for better airflow, improving thermal management
- Offers greater design flexibility
 - With 34AWG twinax cable that afford easier cable routing compared to 30AWG
- Enables PCIe Gen-6 performance for AI and machine learning capabilities
 - With data rates of up to 64Gbps PAM-4 that meet PCIe Gen-6 specifications and permit data centers to achieve next-generation performance

Applications

- Server and storage
 - Data centers
 - Storage devices
 - Servers and machine learning
 - AI infrastructure
- Telecommunications
 - AI systems
 - Networking devices
 - High-performance computing
 - Device control units

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TE CONNECTIVITY HIGH VOLTAGE DC CONTACTOR ECK 50B AND 100B SERIES



TE Connectivity (TE) introduces the ECK50B/100B high-voltage DC contactor series which is designed for control in new energy applications. The ECK product line is an innovative and reliable solution for EV charging stations, solar inverters, battery energy storage systems, automated-guided vehicles (AGV) and e-forklifts, they allow for bi-directional loads and they are hermetically sealed with ceramic sealing technology making it safe and reliable. These contactors can be used in 1000VDC system applications.

Features

- Meets the system upgrade requirement
- High performance in electrical endurance making it suitable for high voltage applications
- Hermetically sealed with ceramic technology
- Switching voltage up to 1000VDC
- Bi-directional contacts
- Optional auxiliary contact
- Complies with DC-1 utilization category

Applications

- Warehouse automation
- EV charging

[VIEW PRODUCT DETAILS](#)

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MOLEX OTS MICRO-FIT+ VERSA COLOR CABLE ASSEMBLIES 226199 AND 226263 SERIES



OTS discrete wire cable assemblies were designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Discrete cables reduce engineering (mechanical and electrical) and purchasing time needed to qualify a cable. In addition, they are crimped in an automated press eliminating the risk of poor crimping during prototyping. These cables are great for prototyping all the way into mass production.

The Micro-Fit+ connector system is a glow wire capable wire-to-board and wire-to-wire system which offers a 3.00mm pitch, a higher-current rating of up to 13.0A and superior design options for flexibility and efficient assembly.

Introducing Micro-Fit+ Versa Color Cable Assemblies available in black and natural, 150mm, 300mm and 600mm lengths and female-female or female-pigtail options.

[VIEW PRODUCT DETAILS](#)

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TE CONNECTIVITY QSFP 112G SMT CONNECTOR AND CAGE



- Supports aggregate data rates of 400Gbps
- Superior signal integrity and meet 112G PAM-4
- Fits up to 32 ports
- Backwards compatible

TE Connectivity's (TE) QSFP 112G SMT connectors and cages support aggregate data rates of 400Gbps (gigabits per second) with superior signal integrity and meet 112G PAM-4. To support various requirements in data center and cloud computing by high density, backward compatibility, design flexibility and broad portfolios.

Features

- Supports aggregate data rates of 400Gbps
- Superior signal integrity and meet 112G PAM-4
- Fits up to 32 ports on a 1RU switch configuration by offering 1x1, 1x2, 1x4, 1x5, 2x1 connector and cage configurations
- Utilizes integrated thermal bridge and Zipper heat sinks technology which provide superior thermal performance
- Backwards compatible, providing an easy upgrade path from existing solutions
- Provides additional board trace design flexibility by allowing signal traces go between PCB layers
- Offers DAC cable assembly with various lengths and AWG options to satisfy the customer requirements

Applications

- Data center and hyperscale
- Servers
- Switches
- Routers
- Storages

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PUI Audio is excited to introduce a new lineup of high quality speakers, available in sizes ranging from 20mm to 58mm. These new speakers' features excellent frequency response, slim profile, new footprints, and low total harmonic distortion. Additionally, some models are ingress protected and can withstand high temperatures up to 85°C, which makes them ideal for harsh and hazardous environments. To simplify installation, several models feature flange mount. Whether you're developing hand-held devices, portable gadgets, or any application that demands a compact and powerful speaker solution, these new offerings from PUI Audio are the perfect fit.

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TE CONNECTIVITY NANORF 75OHM OPTICAL HYBRID MODULE



- High speed
- High density

TE Connectivity's (TE) new 75Ohm NanoRF optical hybrid module offers advanced performance in many demanding aerospace and defense applications by providing high speed and density in a small form factor. This product addresses the emerging need for higher speed video processing (such as SDI), especially in new sensor systems, including alignment to SOSA (Sensor Open Systems Architecture). Next gen video capture requires a 75Ohm coax solution.

Features

- Higher speed video solution
- High density package with open standard
- Floating inserts on backplane side with alignment features provide reliable, stub-free mating
- Supports cabled MT and Edge Mount transceivers allowing additional modularity and options for customers
- Multiple slot profiles and connector modules being added to VITA 65.0 and 65.1 standards allow intermateability, interoperability among suppliers of
- VPX compliant hardware for a robust supply chain
- No special tooling needed for application and rework

Applications

- Radar
- Electronic warfare
- Missile guidance
- Tacticle communication

[VIEW PRODUCT DETAILS](#)

/ CONNECTORS

MOLEX HYPERQUBE 6.00MM HIGH-VOLTAGE 220717, 220718, 220719 SERIES

molex



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The HyperQube high-voltage, high-current product family is an innovative, high-performance connector system designed with our proven Coeur socket technology. This technology ensures a large conductive surface area to minimize heat generation and deliver high-current-carrying capacity to meet the demands of space-constrained applications. HyperQube interconnects meet rigorous industry standards and offer enhanced features for overall efficiency. Realize secure connections, simplified installations and optimized performance with high-power HyperQube connectors.

Features

- Achieves space savings in a compact design
 - The mated height (19.50mm), mated length (43.70mm) and width (17.70mm) are ideal for space-constrained applications
- Offers time savings with accurate mating
 - Plug housings and board mount receptacles are available in three colors to guide operators during system integration to ensure proper mating when multiple cable assemblies are used in an application
- Provides high-power density
 - With a current rating of 120.0A and a printed circuit board (PCB) footprint of 12.30 by 15.40mm, the HyperQube connector's power density rating is 63.4A per 1cm² of PCB real estate. Delivers robust electrical performance
- Delivers robust electrical performance
 - With Molex Coeur socket technology, there is low contact resistance minimizing heat generation at the contact interface, allowing for high-current loads. The multiple contact beams make it well suited for high-shock and high-vibration applications
- Ensures receptacles are correctly placed and properly oriented on the PCB or busbar, eliminating manufacturing issues
 - The polarizing pegs' sizes and locations are unique for each board mount receptacle color option. This mechanical-keying scheme ensures board mount receptacles are properly located

- Affords design flexibility
 - The board mount receptacle's external thread design enables the connectors to be attached to either PCB or busbars. A wide range of crimp contacts (2AWG, 4AWG and 6AWG) are available, meeting current-carrying requirements for applications
- Offers manufacturing flexibility
 - The board mount receptacle's external thread design enables a PCB or busbar to be easily reworked if the connector is damaged during handling
- Provides safety for workers
 - As a safety feature, the socket, crimp contact and cable assembly's stripped wire leads of mated HyperQube connectors are covered. The touch-safe mated connectors help technicians avoid electrical shock

Applications

- Data centers
 - Servers
 - Switches
- Energy storage
 - Inverters
- Industrial automation
 - Motors

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TE CONNECTIVITY CPC SERIES 5 AND 6 SEALING CAPS WITH LANYARD



TE Connectivity's (TE) CPC 5 and 6 protective caps with lanyards series that seamlessly fit the CPC receptacle to protect exposed contacts of unmated receptacles from dust, dirt and liquids (IP65).

Features

- Designed to fit existing CPC series 5 and 6 receptacles
- Plastic and metal lanyard option
- Cap—thermoplastic, heat stabilized, fire resistant, self-extinguishing, 94V-1 rated, black
- Sealing gasket—neoprene, black
- Bead chain—steel, nickel plated
- Bead chain coupling—brass, plated nickel

Applications

- Robotics
- Warehouse automation
- Industrial machinery
- Material handling
- Instrumentation
- Power supplies
- Welding equipment
- Control systems

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TE CONNECTIVITY ERNI MICROCON CONNECTOR



TE Connectivity's (TE) dual-row MicroCon connector with 0.8mm pitch is ideal for industrial applications such as drives, robots, automation controls, automated guided vehicle, or other warehouse equipment. The connector combines high pin-count of up to 100pins with highly miniaturized design, especially the small length. The portfolio allows a high design freedom based on different available configurations.

Features

- Excellent fit for small but demanding applications
- High robustness and reliability helps minimize time required for mating and inspection in production and helps avoid signal interruptions or minimizes failures in the application
- High design flexibility due to breadth of portfolio of this space-saving connector
- Customized as well as configurable cables available
- Excellent electrical and mechanical performance combined with high density connector
- Board-to-board portfolio in different configurations (straight and angled), different heights and different pin counts available
- Board-to-wire portfolio available with AWG 34

Applications

- Automation controls
- Automation sensors
- Robotics
- Warehouse automation

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YAGEO PULSE LOW PROFILE WIFI ANTENNA SMA-MALE CONNECTOR



Low profile WiFi antenna
SMA-male connector
LPTNG24-71DMG0457: 2400-2500 and 4900-7125MHz

Features

- Triple band WiFi antenna for WiFi6E/7
- Ground independent antenna (w/mounting washer)
- DSRC, ISM band radios
- Low profile, 34.5mm when mounted
- Indoor and outdoor use IP67 rated
- UL94-5VA Fire rated, UV stabilized
- IoT, M2M, industrial metering, base stations
- Perfect low-profile antenna for non-metallic utility boxes

[VIEW PRODUCT DETAILS](#)

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MOLEX PREMO-FLEX FFC JUMPERS INTERMATEABLE WITH HIROSE FH28 CONNECTORS



Premo-Flex Intermateable Flat-Flexible Cable (FFC) jumpers provide customers using Hirose connectors with a robust, high-retention cable solution. Off-the-shelf FFC jumpers offer fast time to market and simplified design work, while an extensive range of custom options enables designers to meet application-specific requirements.

Features

- Enables secure connectivity in high- vibration and high-shock environments
 - Cables are available with notches or ears for robust latching to help prevent accidental disconnection
- Delivers design flexibility with intermateable connector options supports use
 - Premo-Flex FFC jumpers intermateable with Hirose FH28, TF31, or FH52 zero-insertion force (ZIF) connectors are available
- Supports use in a variety of applications
 - Product offerings include gold-plated contacts and a wide range of cable lengths, current capacity and flex life cycle options for design flexibility
- Includes off-the-shelf options for faster time to market
 - Off-the-shelf solutions are available to match customer performance and scheduling requirements

Applications

- Vehicle infotainment systems
- Automotive LCD displays
- GPS devices
- Virtual cockpits
- Handheld ultrasound devices
- Insulin pumps
- Medical monitoring devices
- Handheld gaming devices

[VIEW PRODUCT DETAILS](#)

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- Lightweight adhesive saddle brackets offer fast and efficient installation
- Save weight and space

TE Connectivity (TE) offers cable management solutions that support equipment in pressurized and unpressurized areas of an aircraft. Lightweight brackets offer faster installation with recommended adhesive, while maintaining structural integrity by eliminating drilled holes and modifications. Each standard and miniature bracket accommodates a range of cable bundle sizes to help reduce use of multiple hardware and part numbers.

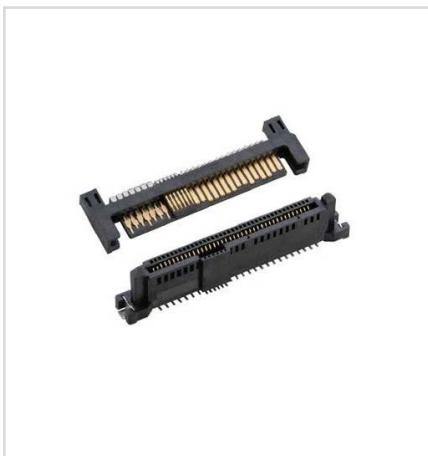
Features

- Quick
 - Quick installation (bond and use) without use of fixtures/ applicators with structural epoxy adhesives
- Light
 - Lightweight brackets with enhanced strength to weight ratio
- Structural Integrity
 - Adhesive bracket design helps eliminate drilled holes and structural modifications
 - Reduces the chances of fatigue crack on metal surfaces due to incorrect drilling
 - Brackets help avoid corrosion
- Standardization
 - Single bracket solution to help reduce multiple hardware and sizes

Applications

- Wiring and cables
- Conduits and surveillance equipment
- Aerospace and industrial applications
- System components
- Sensors and lighting
- Acoustic panels and insulation blankets
- Standardization

AMPHENOL CS SAS PCIE 5.0 CONNECTORS



[VIEW PRODUCT DETAILS](#) 

SAS/PCIe® 5.0 (U.2 or U.3) connectors come with 32GT/s (PCIe® lanes) and 24Gb/s (SAS lanes) speeds to meet the demands of next-generation servers. The 68-position, SAS/PCIe® receptacles, and headers enable the implementation of high-speed Serial Attached SCSI (SAS) Hard Disk Drive (HDD) interface as well as Peripheral Component Express (PCIe®)-based devices. The molded guide post allows the device plug and receptacle to self-align during the mating process. With a halogen-free high-temperature thermoplastic, these connectors are made to withstand diverse conditions. It also offers a durability of 500 mating cycles.

- Compatible with SFF8639 specification
- Capable of meeting 24Gb/s SSDs and HDDs or PCIe® based devices at 32GT/s
- Footprint backward compatible with 12G, 6G and 3G SAS connectors

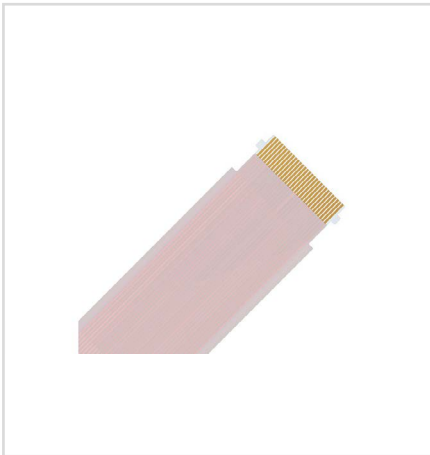
Features

- Receptacles are inter-mateable with unshielded dual port SFF8680 (SAS 3.0/SAS 4.0) connectors
- Offers flexibility in component selection
- SAS/PCIe® connectors enable SFF8630, SFF8680 and SFF8432 interfaces
- Implementation of high speed SSDs (Solid State Drives) and HDDs (Hard Disk Drives) allows compatibility between unshielded dual and multipoint interfaces
- Backward compatible with 12Gb/s, 6Gb/s SAS, SATA and 3Gb/s SFF8482 connectors
- Same interface can be used for cost-effective storage HDDs as well as higher performance server SSDs
- Supports up to 6 port 32GT/s PCIe® based devices
- Improves performance and faster file transfers
- Supports both SAS and SATA drives
- Addresses the needs of both mission critical and bulk storage applications
- Staggered contact lengths
- Provides sequential contact mating for hot plugging
- Stamped clips act as connector retainers for robust PCB attachment
- Provides additional mechanical strength after soldering
- Molded guideposts help mating halves to self-align by providing angled lead-ins
- Compensates for connector misalignment

Applications

- Processor and storage blade
- Mezzanine card
- HDD
- HDD carrier
- External storage system
- Interposer card
- Server
- Storage server
- Processor and storage blade

MOLEX PREMO-FLEX FFC JUMPERS INTERMATEABLE WITH HIROSE FH52 CONNECTORS



[VIEW PRODUCT DETAILS](#)

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Premo-Flex Intermateable Flat-Flexible Cable (FFC) jumpers provide customers using Hirose connectors with a robust, high-retention cable solution. Off-the-shelf FFC jumpers offer fast time to market and simplified design work, while an extensive range of custom options enables designers to meet application-specific requirements.

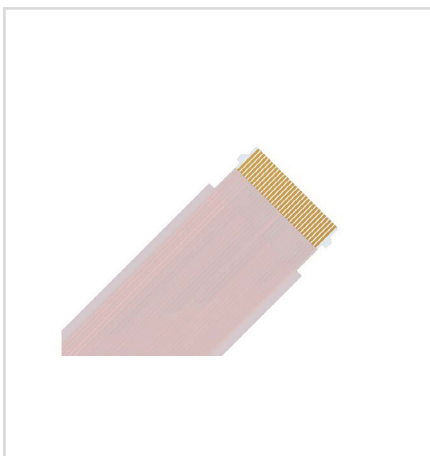
Features

- Enables secure connectivity in high-vibration and high-shock environments
 - Cables are available with notches or ears for robust latching to help prevent accidental disconnection
- Delivers design flexibility with intermateable connector options
 - Premo-Flex FFC jumpers intermateable with Hirose FH28, TF31, or FH52 zero-insertion force (ZIF) connectors are available
- Supports use in a variety of applications
 - Product offerings include gold-plated contacts and a wide range of cable lengths, current capacity and flex life cycle options for design flexibility
- Includes off-the-shelf options for faster time to market
 - Off-the-shelf solutions are available to match customer performance and scheduling requirements

Applications

- Vehicle infotainment systems
- Automotive LCD displays
- GPS devices
- Virtual cockpits
- Handheld ultrasound devices
- Insulin pumps
- Medical monitoring devices
- Handheld gaming devices

MOLEX PREMO-FLEX FFC JUMPERS INTERMATEABLE WITH HIROSE TF31 CONNECTORS



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Premo-Flex Intermateable Flat-Flexible Cable (FFC) jumpers provide customers using Hirose connectors with a robust, high-retention cable solution. Off-the-shelf FFC jumpers offer fast time to market and simplified design work, while an extensive range of custom options enables designers to meet application-specific requirements.

Features

- Enables secure connectivity in high-vibration and high-shock environments
 - Cables are available with notches or ears for robust latching to help prevent accidental disconnection
- Delivers design flexibility with intermateable connector options
 - Premo-Flex FFC jumpers intermateable with Hirose FH28, TF31, or FH52 zero-insertion force (ZIF) connectors are available
- Supports use in a variety of applications
 - Product offerings include gold-plated contacts and a wide range of cable lengths, current capacity and flex life cycle options for design flexibility
- Includes off-the-shelf options for faster time to market
 - Off-the-shelf solutions are available to match customer performance and scheduling requirements

Applications

- Vehicle infotainment systems
- Automotive LCD displays
- GPS devices
- Virtual cockpits
- Handheld ultrasound devices
- Insulin pumps
- Medical monitoring devices
- Handheld gaming devices

TE CONNECTIVITY DEUTSCH DT COLOR CONNECTORS



[VIEW PRODUCT DETAILS](#) 

TE Connectivity (TE) now offers from 2 to 6 position DEUTSCH DT wire-to-wire connectors in three new color options. These new colors offer a simple yet highly effective visual keying that helps prevent mismatching of connections and also enables the identification of different and critical systems.

DEUTSCH DT connectors are designed for high-performance and reliable connections in industrial and commercial transportation applications, such as under the hood, on the chassis, and in the cab. The V0-rated thermoplastic housing features a wide operating temperature range and resistance to UV exposure. The silicone rear wire and interface seals prevent debris and moisture ingress up to IP68 rating.

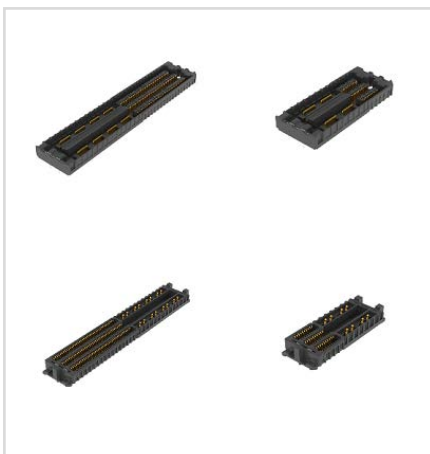
Features

- Utilizes the high-performance DEUTSCH size 16 common contact system
- Achieves IP67, IP68, and IP6K9K sealing levels (with back shell)
- Designed for extreme temperatures (from -55°C to +125°C) and engine-level vibrations
- New brown, blue and green color options provide visual keying that helps prevent mismatching of connection
- Constructed from engineering grade resin materials compliant with UL94 V-0 flammability ratings

Applications

- Wire-to-wire
- Engine
- Chassis
- Automation

SAMTEC UDX6 SERIES HIGH-DENSITY, HIGH-SPEED POWER/SIGNAL ARRAYS



[VIEW PRODUCT DETAILS](#) 

Blades rotated 90°C have equal access to heat escape for uniform cooling, increased current capacity and reduced crowding.

Features

- Best in class density for power and signal
- Rotated power blades improve performance and simplify breakout region (BOR)
- Open-pin-field design for routing and grounding flexibility
- Low profile 5mm stack height; up to 16mm in development
- Up to 8 power and 240 signal positions; additional position counts in development
- 0.635mm signal pitch
- Supports 64Gbps PAM4 (32Gbps NRZ) applications
- PCIe® 6.0/CXL™ 3.1 capable
- Weld tabs included for a secure connection to the board
- Polarized guide posts for blind mating
- Optional alignment pins

AMPHENOL CS IPC-M50 SERIES CONNECTORS



[VIEW PRODUCT DETAILS](#)

Amphenol's IPC-M50 power connector is designed to house two separate 6AWG contacts rated up to 50A per contact. IPC-M50 is the ideal connector solution for battery interconnects, eMobility charging, and other DC power distribution applications. IPC-M50 features the smallest profile in Amphenol's IPC product line adequate for wire sizes from 12AWG to 6AWG. This connector is designed for cable-to-cable applications in multiple color-coded options with built-in keying features for proper mating.

- Rated up to 50A per 6AWG contact (UL rated currents up to 120A)
- Color-keyed housing design (gray, blue, and red)
- Silver plated contacts rated up to 10,000 mating cycles
- UL tested and approved when cross-mated with competitive connectors

Features

- Rated to house 6AWG contacts up to 50A/contact
- Provides high power density in a low profile
- Silver plated contacts rated up to 10,000 mating cycles
- Durable contact materials
- Color-coded mechanically keyed housing design
- Prevent cross-mating devices with different voltages (all connectors UL rated to 600V, colors are identifiers to prevent accidents)
- Small form factor
- Allows for versatility in system design

Applications

- Energy Storage Systems (ESS)
- eMobility
- EV chargers
- Industrial
- Robotics

AMPHENOL CS IPC-M120 SERIES CONNECTORS



[VIEW PRODUCT DETAILS](#)

Amphenol's IPC-M120 is a reliable, mid-range connector within the IPC product series. The power connector is designed to house two separate 2AWG (33.6mm²) contacts rated up to 115A per contact. IPC-M120 is the ideal connector solution for battery interconnects, eMobility charging, and other DC power distribution applications. This connector features a slim profile while still providing substantial power. A wide wire range is supported, offering contact options from 6AWG to 2AWG. This connector is designed for cable-to-cable applications in multiple color-coded options with built-in keying features for proper mating.

- UL rated up to 115A per 2AWG contact
- Color-keyed housing design (gray, blue, and red)
- Silver plated contacts rated up to 10,000 mating cycles
- UL tested and approved when cross-mated with competitive connectors

Features

- UL rated to 2AWG contacts up to 115A per contact
- Provides power density in a low profile configuration
- Silver plated contacts rated up to 10,000 mating cycles
- Durable contact materials
- Color-coded mechanically keyed housing design
- Prevent cross-mating devices with different voltages (all connectors UL rated to 600V, colors are identifiers to prevent accidents)

Applications

- Energy Storage Systems (ESS)
- eMobility
- EV chargers
- Industrial
- Robotics

AMPHENOL CS IPC-M175 SERIES CONNECTORS



[VIEW PRODUCT DETAILS](#) 

Amphenol's IPC-M175 displays formidable power through a sleek design in the IPC product series. The power connector is designed to house two separate 1/0 (53.5mm²) contacts rated up to 175A per contact. IPC-M175 is the ideal connector solution for battery interconnects, eMobility charging, and other DC power distribution applications. This connector features a low-profile design while still providing substantial power. A wide wire range is supported, offering contact options from 4AWG to 1/0. This connector is designed for cable-to-cable applications in multiple color-coded options with built-in keying features for proper mating.

- UL rated up to 175A per 1/0 contact
- Color-keyed housing design (gray, blue, and red)
- Silver plated contacts rated up to 10,000 mating cycles
- UL tested and approved when cross-mated with competitive connectors

Features

- UL rated to 1/0 contacts up to 175A per contact
- Provides high power density for numerous DC applications
- Silver plated contacts rated up to 10,000 mating cycles
- Durable contact materials
- Color-coded mechanically keyed housing design
- Prevent cross-mating devices with different voltages (all connectors UL rated to 600V, colors are identifiers to prevent accidents)

Applications

- Energy Storage Systems (ESS)
- eMobility
- EV chargers
- Industrial
- Robotics

AMPHENOL CS IPC-M350 SERIES CONNECTORS



[VIEW PRODUCT DETAILS](#) 

Amphenol's IPC-M350 power connector is the largest and most powerful connector in the IPC-M product series. IPC-M350 is capable of housing two separate 350MCM (185mm²) contacts rated for up to 500A (UL rated). IPC-M350 is an ideal connector solution for battery interconnects, eMobility charging, and other DC power distribution applications. This connector is designed for wire-to-wire interconnects featuring multiple color-coded options with built-in keying features to ensure proper mating. IPC-M350 connectors are capable of housing 1/0 to 350MCM wire sizes.

- UL rated up to 500A per 350MCM (185mm²) contact
- Color-keyed housing design (gray, blue, and red)
- Silver plated contacts rated up to 10,000 mating cycles
- UL tested and approved when cross-mated with competitive connectors

Features

- UL rated to house 350MCM (185mm²) contacts up to 500A/contact
- Provides superb power density for power-hungry applications
- Silver plated contacts rated up to 10,000 mating cycles
- Durable contact materials
- Color-coded mechanically keyed housing design
- Prevent cross-mating devices with different voltages (all connectors UL rated to 600V, colors are identifiers to prevent accidents)

Applications

- Energy Storage Systems (ESS)
- eMobility
- EV chargers
- Industrial
- Robotics

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- 4 power pins and 2 ground pins
- Top mount, mid mount, and vertical mount options
- For power-only applications

TE Connectivity's (TE) USB type-C charge-only receptacles are a simplified version of a standard USB type-C receptacle that use the familiar USB type-C form factor for power-only applications. USB charge-only receptacles reduce the complexity and failure rate of the connector by eliminating most of the pins and associated solder points in the connector which also helps to reduce the overall cost. The 16 data transfer pins and 2 of the ground pins are removed, leaving only 4 power pins and 2 ground pins. The connectors mate with standard USB type-C plugs and cable assemblies that transfers both data and power, so there are no additional steps or hardware needed by the end-user when interacting with the product. The customer's end product can also be upgraded to a higher performance standard USB type-C receptacle with little to no change in the existing board design.

Features

- Standard USB type-C interface
- 4 power pins and 2 ground pins
- Designed for power-only applications
- Durability: 20,000 cycles
- Insulator UL 94V-0 rated
- Shell: Stainless steel or nickel finish
- Contacts: Copper alloy or gold plated
- Insertion force: 20N (2.04kg) maximum
- Extraction force: 6N (0.61kg) minimum
- Temperature range:
 - Operating: from -30°C to +85°C
- By stripping away features that would otherwise go unused, USB type-C charge-only receptacles allow for a no-frills option to charge or power devices at a lower price point
- Mates with standard USB type-C plugs and cable assemblies
- Designed to allow upgrade to standard USB type-C receptacle without requiring changes to existing board designs
- Top mount, mid mount, and vertical mount options available

Applications

- Portable device charging
- Modular system interfaces
- POS devices
- Tracking and logistics (industrial)
- Robotics

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Mega-Fit power connectors deliver 30.0A per circuit through fully protected header pins and receptacle terminals while offering unique keying options to ensure proper mating during termination.

Features

- Power-dense design with high-current terminals, tight pitch and row spacing
 - Provides more power per linear and square millimeter than other mid-range power products in the industry
- Positive locking housing
 - Ensures secure retention when receptacle and header are mated. Delivers an audible click to provide feedback that connector is fully mated
- Tin-planted contacts available
 - Enhances design flexibility. Provides significant cost savings
- Sacrificial contacts
 - Allows system to be "hot plugged" at 48V/30.0A up to 30 cycles
- Tangless terminal design
 - Reduces the risk of handling or transit damage
- Terminal interface with six independent points of contact (split-box terminal design)
 - Offers redundant, secondary current paths for long-term performance and reliability
- Crush peg removal
 - Delivers a smaller footprint on the PCB
- Flexible wire gauge options
 - From 10AWG to 16AWG offers superior design options for reliable connections
- Polarization peg to engage with PCB
 - Replaces the crush pegs to provide stability without taking up room on the PCB. Aids assembly by ensuring correct orientation
- Polarizing and unique keying features
 - Provides protection of the terminals in the receptacle
 - Allows for compatibility with all current Mega-Fit dual-row headers
 - Prevents electrical arcing when charged
 - Avoids mis-mating of receptacles to header housings
- New latch design
 - Provides superior retention when mated to the header and allows for low-mating force
- TPA lead-in
 - Provides a guide and lead-in for the TPA on both the receptacle and plug
- TPA
 - Prevents terminal backout
- New housing material
 - Meets V0 and glow-wire European standards
- Fully isolated terminals
 - Protects against potential damage of header terminals during mating
- Inertia latch
 - Provides superior retention when mated to the header and allows for low-mating force
- Internal receptacle locking mechanism
 - Supports the tangless locking terminal with low insertion force
- Fully isolated header pins and receptacle terminals
 - Protects against potential damage during handling and mating

Applications

- Home appliance
 - Washers and dryers
 - Heaters and air conditioners
- Telecommunications or networking
 - Hubs and servers
 - Power supplies and distribution
- Industrial
 - Machinery and heavy equipment
 - Lighting and automation
- Commercial vehicle
 - Unsealed electronic control modules
 - Power converters

TE CONNECTIVITY RJ45 FAMILY OF MODULAR JACKS



- Reliability and cost savings with durability and long lifetime of connector
- TE's products are reflow solderable, according to JEDEC J-STD-020D standard

TE Connectivity's (TE) RJ45 family of modular jacks without magnetics complements the portfolio of RJ45 connectors by adding an entry level set of products that can be used together with our discrete magnetics line. The latest jack comply with IEC 60603-7-1 and IEC 60603-7-3 standards, supports industrial temperature range and are available in 10/100Mbps and 1Gbps speed rates, variances 1 x 1, 1 x 2 and 2 x 1 with and without LED. These connectors support Through Hole Technology (THT) with reflow soldering capabilities.

Features

- Reliability and cost savings with durability and long lifetime of connector
- TE's products are reflow solderable, according to JEDEC J-STD-020D standard
- Suited for Industrial equipment requirements
- Extended temperature range -40°C to +85°C

Applications

- Automation control
- Robotics
- Machinery
- Motors or motor controls

[VIEW PRODUCT DETAILS](#)

MOLEX NANO-FIT POWER CONNECTORS 225148 SERIES



Nano-Fit power connectors deliver fully protected header terminals in a compact size and provide many feature options to ensure proper installation and excellent reliability in tight spaces; available in wire-to-board and wire-to-wire configurations.

Features

- Prevents damage to the connector or terminals by avoiding misalignment; decreases assembly time and mis-mating errors
 - With blind-mate interface (BMI) connector design
- Provides a small package that eases space constraints; allows up to 69% more space in the x-axis than competing connectors
 - As it is the smallest fully isolated header in the market
- Reduces operator fatigue
 - Due to its ultra-low mate force terminal
- Reduces backout by ensuring terminals are fully seated in housing
 - When using the TPA retainer option
- Helps to prevent risk of cross-mating; enables faster assembly
 - With visual indication of proper mating with multiple mechanical keying and color-coded options
- Offers redundant, secondary current paths for long term performance and reliability
 - Because there are 4-point contact, multi-layer boards on the terminal interface
- Ensures mated connector assemblies will not accidentally disengage
 - As these connectors have positive-lock housing with an anti-snap design

Applications

- Consumer
 - Copiers
 - Small appliances
 - 3D printers
 - Home appliances
 - Vacuum cleaners
- Automotive
 - Non-critical applications
 - Telemetrics
 - Infotainment systems
 - Consoles
 - Equipment for USCAR-2 rated designs

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MOLEX ULTRA-FIT POWER CONNECTORS 3.50MM PITCH 224857 SERIES



[VIEW PRODUCT DETAILS](#)

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Ultra-Fit Tangless connector is a wire-to-board and wire-to-wire system that offers a 3.50mm pitch, a higher current rating of 14.0A, and superior design options for flexibility and efficient assembly.

Features

- Multiple mechanical keying and color-coded options
- Allow same-circuit, multiple connector use with virtually no chance of cross mating. Color coding provides visual indication of the proper mating connector-enabling faster assembly
- 17% reduction in pitch over similar power connectors
- Current-dense design saves PCB space. Allows for smaller packaging without sacrificing current-carrying capabilities
- Optional TPA (Terminal Position Assurance) retainer
- Guarantees the terminal is fully seated in the housing to reduce terminal back-out. Retains terminal if main retention feature fails
- Ultra low mating force terminal
- Reduces operator fatigue and improves assembly compliance for high-circuit applications
- Positive-lock housing with anti-slug design
- Ensures mated connector assemblies will not accidentally disengage. Provides an audible click while mating. Protects latch from damage due to wire snags
- Fully isolated terminals
- Protect against potential damage of the header and receptacle terminals during handling and mating
- Terminal interface with six independent points of contact (split-box terminal design)
- Offers redundant, secondary current paths for long-term performance and reliability

Applications

- Consumer or home appliance
 - Refrigerators
- Telecommunications or networking
 - Hubs
 - Servers
- Transportation
 - Infotainment
 - Interior
- Lighting
 - Ballasts
 - Home lighting fixtures
- Aerospace and defense
 - C4ISR
- Industrial
 - Food and beverage
 - Assembly line equipment
- Medical
 - Patient care equipment
 - Healthcare IT

MOLEX MULTI-TRAK I/O CONNECTORS 223886 SERIES



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Multi-Trak I/O connectors conform to the SFF-TA-1033 standard, affording a compact design that maximizes space without compromising on performance. Achieving PCIe Gen 5 data rates with a roadmap to Gen 6, these connectors ensure exceptional signal integrity (SI) performance up to 64Gbps to facilitate cost-effective, thermally efficient designs that meet the rigorous demands of next-generation data centers.

Features

- Provides flexibility for designs
 - The small form-factor of Multi-Trak I/O connectors provides a wide variety of options for various configurations
- Meets versatility needs for different applications
 - Multi-Trak I/O connectors support both high-speed and power transmission that are widely accepted in data systems, communications and compute environments
- Offers a robust mechanical connector
 - Multi-Trak I/O connectors have an anti-slant, anti-reverse design with contact protection to simplify assembly and prevent damage to the pins

Applications

- Server and storage
 - Storage racks
 - Storage controllers
 - Redundant array of independent disks storage (RAIDS)
 - Enterprise storage systems
 - AI servers and high-performance computing
- Telecommunications
 - Routers
 - Switches
 - Servers
 - Edge computing systems



[VIEW PRODUCT DETAILS](#)

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Sentrality right-angle pin and socket interconnects enable co-planar, offset-planar and reverse-planar mating configurations, while providing a +/- 1.00mm self-aligning feature on the socket assemblies to mitigate tolerance stack-up issues. With sentrality pin and socket assemblies, manufacturers can have the design flexibility they need and achieve high electrical performance in their products.

Features

- Offers low contact resistance
 - Multiple contact beams minimize heat generation at the contact interface, resulting in optimized electrical performance
- Enables for tighter board-to-board stack heights with shorter socket assemblies than most market equivalents using hyperbolic sockets
 - This interconnect system has a compact conical socket design
- Allows the socket to freely move radially +/- 1.00mm within the socket assembly during mating to help ensure no contact beam deformation
 - Its self-aligning sockets float between wave springs
- Offers design flexibility for attaching pins to various substrates
 - The screw-mount pins attach to both printed circuit boards (PCBs) and busbars; the surface-mount pins attach to printed circuit boards; the knurled press-fit pins attach to busbars
- Mitigates tolerance stack-up issues
 - Pin and socket assemblies are oriented to attach to PCBs with a right-angle orientation
- Allows manufacturing flexibility when attaching the connectors to a PCB
 - These are wave solder process- and reflow solder process-capable connectors
- Ensures the right-angle socket assemblies and right-angle pin assemblies are placed in the correct position and are properly oriented on the PCB
 - Unique solder tail patterns for each size and gender polarizes the connectors' PCB footprints
- Offers design flexibility for attaching sockets to different substrates
 - The surface-mount sockets attach to PCBs; the knurled press-fit sockets attach to busbars
- Allows engineers to stack substrates in different configurations for design flexibility
 - Socket assemblies are available in top-entry and bottom-entry forms
- Allows for manufacturing flexibility with manual placement options
 - Knurled press-fit pins and screw-mount pins are packed in trays
- Supports easy customization for achieving the optimal application-specific protrusion above and/or below the substrates
 - Socket assembly's flange can be positioned anywhere along the side of the part
- Supports easy customization for achieving the optimal application-specific board-to-board or busbar-to-board stack height
 - Pin length can be set to meet specific height requirements
- Surface-mount pins with pick-and-place caps arranged in tape and reel, or trays
 - Allow for manufacturing flexibility with high-speed automated placement

Applications

- Telecommunication or networking
 - Servers
 - Data storage units
 - Power distribution units (PDUs)
 - Uninterruptible power supplies
 - Digital cross-connect switches
 - Network routers
 - Energy storage system
- Data centers
 - Enterprise switches
 - Servers
 - Data storage units
 - Power shelves
 - Power distribution units (PDUs)
 - Uninterruptible power supplies
 - Environmental control equipment
- Industrial automation
 - Battery charging stations
 - DC-to-AC inverters
 - AC-to-DC rectifiers
 - Robotics

MOLEX OTS MX64 CABLE ASSEMBLIES 226201, 226461 SERIES



OTS discrete wire cable assemblies were designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Discrete cables reduce engineering (mechanical and electrical) and purchasing time needed to qualify a cable. In addition, they are crimped in an automated press eliminating the risk of poor crimping during prototyping. These cables are great for prototyping all the way into mass production.

New MX64 cable assemblies are specifically engineered for USCAR compliance and ideal for rugged automotive applications. The compact design features IP67-rated matte seals, accommodating from 18AWG to 22AWG wires and ISO metric wires.

[VIEW PRODUCT DETAILS](#)

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MOLEX NEARSTACK 100-OHM 203316, 206138, 207244, 207249 SERIES



Enabling speed upgrades in space-constrained telecommunications and data center applications tuned for 100-Ohm impedance, NearStack 100-Ohm connectors and cable assemblies deliver a dense, low-profile, near-ASIC cabled solution for jumper-type and I/O BiPass connections up to 56Gbps PAM-4.

Features

- Reduces insertion loss for high-speed data applications
 - The double-ground structure between differential pairs (DPs) and direct-to-contact weld termination removes the paddle card and improves electrical performance for 56Gbps PAM-4 applications
- Optimizes PCB real estate in space-constrained applications
 - With a 0.60mm pitch between contacts and 2.40mm pitch between DPs, the dense connector design fits from 30DPs to 50DPs per square inch to deliver high data rates in a small footprint for networking and Top-Of-Rack (TOR) applications tuned for 100Ohms
- Enables expansion of DP sizes with minimal tooling investment
 - Contact wafers are arranged in "bays" to enable simple expansion from 8DPs to 16DPs
- Delivers secure connectivity for dense installations
 - An integrated "dual hasp" system offers up to 25N of retention force while an available positive lock with a pull bale increases the unlatch force to approximately 50N
- Offers robust attachment to the PCB
 - Tin-plated, stainless steel solder nails are pin-in-paste processed to ensure the plug is reliably attached to the PCB

Applications

- Servers and storage
 - TOR switches
 - Core routers
 - Data center switches
- Telecommunications
 - Cell towers
 - Remote radio units (part of 5G)
- Networking
 - Ethernet applications
 - Cable trays

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TE CONNECTIVITY SMPM CONNECTORS PRODUCT EXTENSION



[VIEW PRODUCT DETAILS](#)

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- Compact size
- Convenient snap-on mating interface
- Provide a reliable, high-density, high precision, easy-to-use connection
- 50Ω impedance

TE Connectivity (TE) introduces an extension of our Sub-Miniature Push-on Micro (SMPM) connector RF product line. SMPM connectors provide a micro-miniature connector interface with a frequency range of up to 65GHz. Combining compact size and a convenient snap-on mating interface, SMPM connectors provide a reliable, high-density, high precision, easy-to-use connection.

The full detent and smooth bore mating systems provide varying levels of engagement and disengagement forces to suit different customer applications. The connectors are useful as a shielded interconnect for high data rate applications in applications where a small package size is required.

Features

- Multiple detent options
- Snap-on mating
- Blind mate capable
- Up to 65GHz operation
- 50Ω impedance
- 30% smaller than SMP connectors
- Useful as a shielded interconnect for high data rate applications in applications where a small package size is required
- Provides varying levels of engagement and disengagement forces to suit different customer applications.

Applications

- Antennas
- Broadband
- Radar
- Satellite communications
- Medical
- Lab equipment
- Automated test equipment
- Instrumentation
- Internet of Things (IoT) - LTE/Cat-M1 and NB-IoT
- Cellular LTE, Wi-Fi 6/6E, GNSSd

TE CONNECTIVITY ERNI MICROBRIDGE CONNECTORS



[VIEW PRODUCT DETAILS](#)

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TE Connectivity's (TE) main applications for ERNI MicroBridge connectors are in the automotive sector. The MicroBridge product family fulfills the high demands of the automotive industry for mating reliability and ruggedness. It is not only the high temperature that stands out on the MicroBridge but also the V0 UL94 flammability rating.

The connectors easily handle the vibrations that occur in the vehicle, thanks to the locking mechanisms on both sides. Thanks to possible mechanical and color coding for any no. of pins, incorrect plug connections can be virtually excluded. The ERNI industry exclusive patented double IDC design with strain relief feature, brings an exceptional performance in the challenging slow motion bending test introduced for automotive standards. The strain relief integrated into the connectors protects against mechanical loads.

Features

- Miniaturized 3.5mm PCB height
- Multiple 90°C and 180°C wire exits and PCB orientations
- High current rating up to 6A with 0.35mm
- LV214 qualified with SMBT certification
- Optional eCPA feature for automotive applications

Applications

- Battery module connection
- EV Inverter applications
- Automotive headlamps and mirrors
- Automotive steering wheels
- Industrial robotics
- Warehouse automation
- Industrial automation controls

TE CONNECTIVITY SMC CONNECTORS PRODUCT EXTENSION



- Miniature and lightweight
- Up to 10GHz operation
- 50Ω impedance

TE Connectivity (TE) introduces an extension of our SMC connector RF product line. SMC connectors are miniature and lightweight, designed for use in critical applications where limited space and vibration are of major concern. These connectors have a constant impedance of 50Ω, a voltage rating of 350volts, and operate at frequencies up to 10GHz. SMC connectors have a threaded coupling and can be used with a wide range of miniature coaxial cable sizes including RG 174, 188A, and 316.

Features

- Up to 10GHz operation
- 50Ω impedance
- Threaded interface
- Miniature screw-on coupling
- Three-piece design
- Connector bodies pre-assembled
- Center conductor and braid terminated with the same tool
- Low noise level
- PTFE dielectric

Applications

- Antennas
- GPS tracking
- GSM cellular
- Instrumentation
- Telecommunications
- PC or LAN
- Video systems

[VIEW PRODUCT DETAILS](#) 

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TE CONNECTIVITY CBS: COMPACT POWER BLOCKS



TE Connectivity's (TE) Compact Terminal Blocks cover a wide variety of applications from mechanical engineering, industrial equipment, automation to wind turbines, solar energy or switchgears. They offer cost, weight and space savings from optimized aluminum body and compact design. The range offers connection capacity from 50mm² to 300mm² and TS35 rail or panel mount.

Features

- Screw-clamp technology
- From 50mm² to 300mm² (0AWG to 600Kcmil)
- 1000V IEC/UL rated
- Current rating 150A to 520A (IEC) and 150A to 420A (UL)
- Single pole and double poles versions
- 6 colors (grey, blue, green, black, brown, red)
- Aluminum tin plated body
- Panel and Din-rail mounting

Applications

- Electrical cabinet builder - main power control cabinet
- Automation control
- Battery energy storage systems (BESS)
- Electrical vehicle infrastructures (EVI)
- Solar inverters and combiner boxes
- Motion and drives
- HVAC
- Machinery switchboard where compactness matters

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AC-DC power supplies

	Enclosed case panel mount	Open frame + U-frame with case/fan	Configurable - Modular	DIN rail mount	Adapters and External Desktop (+ medical)	Board mount + Chassis mount	Brick type board mount	Conduction/Convection cooled/Fanless	CRPS-DataCenter Front end-Rectifier	Higher Output Voltage 100-400Vdc	High Power Industrial/Telecom	Medical EN60601-1 certified	Household EN 60335-1 certified	Battery chargers VRLA/Li-Ion/LiPo/LiFePO4	Battery Chargers USB Type A, Type C	Battery Chargers Smart High Power	PoE Power over Ethernet	LED drivers Standard CC, CV, CP, CV-OC	LED Drivers + Bluetooth - KNX - DALI	LED Sport Arena - Parking - Boulevard-City Square	LED RDL Retail Display Lighting - Refrigerator - Dispenser	LED drivers for Agro/Horti Culture	
Aimtec	•	•		•	•	•						•	•		•		•						
Advanced Energy		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•					
Bel Power	•	•		•	•			•	•	•	•	•	•	•		•	•						
CUI Inc					•																		
Delta Power Solutions	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•
Egston - Pulse				•								•	•	•	•								
Murata Power		•				•		•	•	•	•	•	•					•					
OmniOn Power		•						•	•	•	•	•					•						
Vicor			•																				
XP Power	•	•	•	•	•		•	•	•	•	•	•	•		•								

DC-DC Conversion

	DC-DC ISOLATED													NON-ISOLATED & μ - POINT OF LOAD																
	DC-DC Low Power Miniature Isolated	DC-DC Industrial standards	DC-DC Brick style 50W - 1800W	DC-DC Brick style IBC 200W - 1800W	IBC Voltage Divider - Charge Pump - Sw. Capacitor	Gate-Drive DC-DC conversion	Off board - Chassis mount	Enclosed case panel mount	Open frame + U-frame with case	DIN rail	CRPS-DataCenter Front end-Rectifier	Higher Input Voltage 100-2000Vdc	Medical (certified)	Railway compliant + Transportation	LED DC-DC conversion	Switching Regulators Buck	Switching Regulators Buck-Boost	Charge Pump & 2-Stage conversion	DC-DC Brick style non-isolated 100W - 3000W	DC filters Input / Output	Micro Point of Load 0.5 - 25A	Digital Point of Load 2A - 180A	Analog Point of Load DOSA - POLA	Power Block Modules	Direct Conversion Isolated	Intermediate Bus Converters	High power Buck-Boost non-isolated buck/buck-boost	Automotive Point of Load	High Voltage DC-DC Converters	
Aimtec	•	•	•			•						•	•	•	•	•				•			•							
Advanced Energy	•	•	•	•							•		•	•								•	•		•	•				•
Bel Power	•	•	•	•			•	•		•	•	•	•	•	•	•				•		•	•	•	•	•	•			
Cyntec	•	•	•	•	•													•			•	•	•	•				•	•	
Delta Power Solutions	•	•	•	•			•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Eaton																•							•							
Flex Power Modules	•	•	•	•	•	•						•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	
Murata	•	•	•	•		•	•	•			•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
OmniOn Power		•	•	•							•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	
TDK (Faraday)																					•								•	
Vicor	•	•	•	•							•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	
XP Power	•	•	•	•			•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

	Wireless Modules													Antennas													
	RFID passive tag	Bluetooth	Zigbee, Thread	Wirepas	WiFi	Sigfox	LoRa	LPWA (LTE-M, NB-IoT)	LTE, 4G, 5G	V2X	Ultra wideband (UWB)	Satellite navigation (GNSS, GPS)	NFC	RFID	169 Mhz	Sub-Ghz ISM	Bluetooth, Zigbee, Thread	WiFi	2G, 3G, 4G	5G	LPWA (LTE-M, NB-IoT)	AM/FM/DAB Radio	Ultra wideband (UWB)	Satellite navigation (GNSS, GPS)	Distributed Antenna Systems (DAS)	Vehicular, outdoor multiband	
Abracon	•												•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Amphenol																	•	•	•		•				•	•	
FCL Fujitsu		•		•																							
Kyocera AVX							•									•	•	•	•	•	•		•	•		•	
Molex	•												•			•	•	•	•	•	•		•	•		•	
Murata	•	•		•	•	•	•				•		•														
Panasonic Industry		•	•	•	•																						
Yageo Pulse													•		•	•	•	•	•	•	•	•	•	•	•	•	•
Taiyo Yuden																	•	•					•	•			
TDK												•	•		•	•	•								•		
TE Connectivity (incl. Laird, Linx)														•	•	•	•	•	•	•	•	•	•	•	•	•	•
Vishay																	•	•						•			
Yageo															•	•	•	•	•		•		•		•		

SENSORS

	Temperature							Pressure		Gas and liquid							Position and motion										Current	Optical	Sound	Image											
	NTC	PTC	RTD	Digital IC	Thermal reed switch	IR thermopile	Thermocouple	Pressure	Force, load, torque and tension	Humidity	VOC and CO ₂	Dust	Flow	Liquid level, leakage, bubble	Fluid property	Heaters, IR emitters	Accelerometer, vibration and shock	Inclinometer and gyro	Geomagnetic	GMR, AMR and TMR	Inductive transducer, LVDT, RCDT, resolver	Speed	Capacitive touch	Resistive (potentiometers)	Optical encoder	Magnetic encoder	Photoelectric, fiber optic, LASER	Ultrasonic	Passive Infrared (PIR)	Light convergent reflective	Magnetic proximity (reed, Barkhausen, hall)	Current	Sunlight, ambient light and colour	Pulse oximetry (SpO ₂)	Microphone	LIDAR	Human vision				
Abracon	•																																								
Alps Alpine							•	•	•									•	•					•		•															
Amphenol	•	•				•	•		•	•	•		•	•	•								•		•						•	•	•								
Bourns							•		•															•	•	•															
Bulgin																																									
CTS	•		•	•			•					•	•	•						•			•				•														
Eaton	•	•																																							
Grayhill																									•	•											•				
Harvatek																												•										•			
Hirose																																							•		
Innovative Sensor Technology			•	•			•	•					•		•	•																									
Italcoppie	•		•				•																																		
Yageo KEMET					•					•																		•												•	
Kingstate																																									•
Kyocera AVX	•		•				•							•							•	•		•		•													•		
Molex	•																					•					•														
Murata	•	•					•	•		•									•		•							•	•												
NIC	•																																								
Nidec Components							•							•												•	•														
Omron			•	•		•	•		•	•		•												•				•										•		•	
Panasonic	•				•		•				•		•								•			•			•		•												
Phoenix Contact			•				•	•	•	•		•	•															•													
PUI Audio																												•												•	
Yageo Pulse																																								•	
Ginlon																												•													
TDK (inc InvenSense)	•	•					•		•					•													•													•	
TE Connectivity	•		•	•		•	•	•	•				•	•	•										•		•	•	•									•	•	•	
Vishay	•	•	•																						•		•														
Yageo	•	•																																							

	Switches											Relays						EMC filters		Thermal management		Other													
	DIP	Push	Rocker, toggle and slide	Rotary	Tactile	Snap-action and detector	Multi control	Stainless steel, security and rugged	Keypads, keyboards and touch panel	Keypad	Reed	Circuit breakers	Signal	Automotive	Power	PhotoMOS	Solid state	Contactors	Chassis	IEC inlet and output	AC, DC fans and blowers	Heatsinks	Thermal interface materials	Encoders	Potentiometers	Thermal printers	Enclosures, PCB hardware and accessories	Motors and actuators	Solenoids						
3M																																			
Aavid																																			
Alps Alpine	•	•	•	•	•	•	•																		•	•	•						•		
Amphenol				•		•																				•	•								
Arcoelectric		•	•	•		•		•																			•	•							
Bourns		•		•	•																					•	•								
Bulgin		•						•													•											•			
CTS	•			•	•																				•	•	•				•	•			
Deltron Enclosures																																•			
Diptronics	•		•	•	•	•	•																			•									
ebm papst																						•											•		
FCL Fujitsu													•	•	•		•												•						
Fischer																								•	•										
Grayhill	•	•	•	•	•	•	•	•	•	•							•									•						•			
Harwin																																	•		
ITW Switches	•	•		•		•		•																											
knitter-switch	•	•	•	•	•	•	•	•	•	•																•									
Laird																									•										
Lorlin				•				•		•																•	•								
Molex								•																											
Nidec Components	•	•	•	•	•	•	•			•												•				•	•					•	•		•
nVent Schroff																						•	•								•				
Omron	•	•	•		•	•							•	•	•	•	•	•																	
Panasonic		•	•		•	•	•						•	•	•	•	•	•				•				•	•								
Schaffner																				•	•														
Schurter		•			•			•	•			•										•	•												
Switchcraft		•	•																																
TDK																					•	•	•										•		
TE Connectivity	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•					•			•	•								
Vishay																										•	•	•							
Weidmüller																																	•		

CONNECTORS

	Automotive	Lighting	Backplane, DIN 41612, 2mm and high speed	Board-to-board	Heavy duty	Industrial	Medical	Military and aerospace	Audio, signal and mobile	DSUB and accessories	DVI, HDMI and SCSI	Modular jacks, plugs, SDL & Single-Pair Ethernet (SPE)	High speed: USB, firewire, infiniband and IEC	Multimedia and PC cards	Smart card and SIM	IEC connectors and entry modules	IEC distribution units	Heavy duty	Military and aerospace	DIL and SIL	PLCC, PGA and BGA	SIMM and DIMM	Battery and fuse	FFC and FPC	IDC 2.54, 2.00 and 1.27	Headers, receptacles and others	Terminal blocks	Wire-to-wire	RF inc. coax. and antennas	Fibre optics	Cable: FFC, ribbon flat and round	Cable assemblies	Terminal faston	Accessories, pins and contacts			
	Application specific	Board-to-board	Circular	I/O	Memory card	Power	Rectangular	Sockets	Wire-to-board	Terminal blocks	Wire-to-wire	High speed/high frequency	Others																								
3M																																					
Advanced Interconnections																																					
Alps Alpine																																					
Amphenol																																					
Aptiv																																					
Bel																																					
Bourns																																					
Bulgin																																					
Cinch Connectivity																																					
Conec																																					
CviLux																																					
Deltron Components																																					
Dinkle																																					
Eaton																																					
Foxconn																																					
Glenair																																					
Greenconn																																					
Harwin																																					
Hirose																																					
ITT																																					
ITW																																					
Karson																																					
Keystone																																					
Kycon																																					
Kyocera AVX																																					
Lumberg																																					
Molex																																					
MPE-Garry																																					
Omron																																					
Phoenix Contact																																					
PRECI-DIP																																					
Yageo Pulse																																					
Samtec																																					
Schaffner																																					
Schurter																																					
Switchcraft																																					
Taitek																																					
TE Connectivity																																					
Weidmüller																																					
Zierick																																					

AUSTRIA

Avnet EMG Elektronische Bauelemente GmbH
Grünbergstraße 15/1/4.OG,
A-1120 Wien
Phone: +43 (0)1 86642-0
Fax: +43 (0)1 86642-250
wien@avnet-abacus.eu

BELGIUM

De Kleetlaan 3
BE-1831 Diegem
Phone: +32 2 227 2000
diegem@avnet-abacus.eu

BULGARIA

48, Sitnyakovo Boulevard
Unit 1006, Floor 10,
BG-1505 Sofia
Phone: +359 896 135 069
bulgaria@avnet-abacus.eu

CROATIA

c/o Avnet Abacus Slovenia
Dunajska Cesta 167
SI-1000 Ljubljana
Phone: +386 (0)1 560 97 54
Fax: +386 (0)1 560 98 78
croatia@avnet-abacus.eu

CZECH REPUBLIC

Amazon Court Karolinska 661/4
CZ-18600 Prague
Phone: +420 234 091 011
Fax: +420 234 091 010
praha@avnet-abacus.eu

DENMARK

Knudlundvej 24, DK-8653 Them
Phone: +45 86 84 84 84
Fax: +45 86 84 82 44
them@avnet-abacus.eu

Lyskær 9, DK-2730 Herlev
Phone: +45 86 84 84 84
Fax: +45 43 29 37 00
herlev@avnet-abacus.eu

EGYPT

c/o Avnet Abacus Turkey
Tatlısu Mahallesi Pakdil
Sokak No: 7 Kat: 2
TR-34774 Umraniye Istanbul Turkiye
Phone: +90 216 52 88 370
Fax: +90 216 52 88 377
egypt@avnet-abacus.eu

ESTONIA

Suur-Jõe 63, Pärnu,
EE-80042 Pärnu Maakond
Phone: +372 56637737
paernu@avnet-abacus.eu

FINLAND

Klovinpellontie 1-3
Tower 1, Floor 6
FI-02180 Espoo
Phone: +35 820 749 9220
Fax: +35 820 749 9240
espoo@avnet-abacus.eu

FRANCE

Le Copernic
12, rue Jean Bart
FR-91300 Massy
Phone: +33 (0) 1 6447 2929
Fax: +33 (0) 1 6447 9150
paris@avnet-abacus.eu

8 chemin de la Terrasse
Bat D 1er étage
FR-31500 Toulouse
Phone: +33 (0) 5 6247 4787
Fax: +33 (0) 5 6247 4761
toulouse@avnet-abacus.eu

16 C Rue de Jouanet
FR-35700 Rennes
Phone: +33 (0) 2 9983 7720
Fax: +33 (0) 2 9983 4829
rennes@avnet-abacus.eu

2 avenue Tony Garnier, 3rd floor
FR-69007 Lyon
Phone: +33 (0) 4 7877 1370
Fax: +33 (0) 4 7877 1391
lyon@avnet-abacus.eu

GERMANY

Kaiserin-Augusta-Allee 14
DE-10553 Berlin
Phone: +49 (0) 30 790 997 0
Fax: +49 (0) 30 790 997 51
berlin@avnet-abacus.eu

Industriestr. 16
DE-76297 Stutensee
Phone: +49 (0) 7249 910 149
Fax: +49 (0) 7249 910 177
stutensee@avnet-abacus.eu

Rhenus-Platz 2
D-59439 Holzwickede/Dortmund
Phone: +49 (0) 2301 2959 27
Fax: +49 (0) 2301 2959 29
dortmund@avnet-abacus.eu

Ursula-de-Boor-Str. 45
22419 Hamburg
Phone: +49 (0) 40 608 23 59 0
Fax: +49 (0) 40 608 23 59 20
hamburg@avnet-abacus.eu

Im Technologiepark 2-8
DE-85586 Poing
Phone: +49 (0) 8121 775 400
bayern@avnet.eu

Lina-Ammon-Str. 19 b
DE-90471 Nuernberg
Phone: +49 (0) 911 244 25 0
Fax: +49 (0) 911 244 25 25
bayern@avnet.eu

Neue Ramtelstr. 4
DE-71229 Leonberg
Phone: +49 (0) 7152 3009 70
Fax: +49 (0) 7152 3009 96
stuttgart@avnet-abacus.eu

Rotenburger Str. 20
D-30659 Hannover
Phone: +49 (0) 511 336517 10
hannover@avnet-abacus.eu

GREECE

c/o Abacus Avnet Serbia
Milentija Popovića 5B,
Floors 6-8
Belgrade RS-11070
Phone: +381 11 4022302
Fax: +381 11 4049900
belgrade@avnet-abacus.eu

HUNGARY

c/o Avnet Abacus Slovakia
GreenPoint Offices,
Blok F Turcianska 2
SK-82109 Bratislava
Phone: +421 232 242 608
Fax: +421 2 32 1111 40
budapest@avnet-abacus.eu

IRELAND

c/o Avnet Abacus Bolton
Oceanic Building
Waters Meeting Road
Bolton BL1 8SW
Phone: +44 (0)1204 547190
Fax: +44 (0)1204 547171
bolton@avnet.eu

ISRAEL

1 Habrosch Street
Bney Dror IL-4581500
Phone: +972 9 778 0280
Fax: +972 3 760 0794
israel@avnet-abacus.eu

ITALY

Via Manzoni 44
IT-20095 Cusano Milanino/Milano
Phone: +39 02 660 921
Fax: +39 02 66092 332
milano@avnet-abacus.eu

Viale dell'industria 23
IT-35129 Padova
Phone: +39 049 7800 381
Fax: +39 049 7730 36
padova@avnet-abacus.eu

Via Scaglia Est. 31/33
IT-41126 Modena
Phone: +39 059 34891
Fax: +39 059 344 993
modena@avnet-abacus.eu

Via Panciatici 40/11
IT-50127 Firenze
Phone: +39 055 436 1928
Fax: +39 055 428 8810
firenze@avnet-abacus.eu

Viale Luca Gaurico 9/11
IT-00143 Roma
Phone: +39 02 660 921
rome@avnet-abacus.eu

LATVIA

c/o Avnet Abacus Poland
Plac Solny 16
PL-50-062 Wrocław
Phone: +48 71 34 205 99
Fax: +48 71 34 229 10
latvia@avnet-abacus.eu

LITHUANIA

c/o Avnet Abacus Poland
Plac Solny 16
PL-50-062 Wrocław
Phone: +48 71 34 205 99
Fax: +48 71 34 229 10
lithuania@avnet-abacus.eu

NETHERLANDS

Stadionstraat 2, 6th floor
NL-4815 NG Breda
Phone: +31 (0) 76 57 22 300
Fax: +31 (0) 76 57 22 303
breda@avnet-abacus.eu

NORWAY

Olaf Helsetsvet 6,
NO-0694 Oslo
Phone: +47 (0) 94 89 53 73
oslo@avnet-abacus.eu

POLAND

Plac Solny 16
PL-50-062 Wrocław
Phone: +48 71 34 205 99
Fax: +48 71 34 229 10
wroclaw@avnet-abacus.eu

PORTUGAL

Tower Plaza, Rot. Eng. Edgar
Cardoso, 23,Piso 14, Sala E
PT-4400-676 Vila Nova de Gaia
Phone: +351 223 779502
Fax: +351 223 779503
portugal@avnet-abacus.eu

ROMANIA

SkyTower Building, 12th floor,
Calea Floreasca 246C,
RO-014476 Bucharest
Phone: +4021 528 16 90
romania@avnet-abacus.eu

SERBIA

Milentija Popovića 5B, Floors 6-8
Belgrade RS-11070
Phone: +381 11 4022302
Fax: +381 11 4049900
belgrade@avnet-abacus.eu

SLOVAKIA

GreenPoint Offices,
Blok F Turcianska 2
SK-82109, Bratislava
Phone: +421 232 242 608
Fax: +421 2 32 1111 40
slovakia@avnet-abacus.eu

SLOVENIA

Dunajska Cesta 167
SI-1000 Ljubljana
Phone: +386 (0)1 560 97 60
Fax: +386 (0)1 560 98 78
ljubljana@avnet-abacus.eu

SOUTH AFRICA

Block 13, Pinewood Office Park
33 Riley Road Woodmead,
ZA-2191 Sandton, Johannesburg
Phone: +27 (0)10 447 0180
avnet-abacus-sales-southafrica@avnet.eu

SPAIN

NyN Tower, C/Tarragona
149-157, Floor 19
ES-08014 Barcelona
Phone: +34 (0) 93 327 85 50
Fax: +34 (0) 93 425 05 44
barcelona@avnet-abacus.eu

Avenida Madariaga 1
Floor 3
ES-48014 Bilbao
Phone: +34 (0) 94 457 00 44
Fax: +34 (0) 94 456 88 55
bilbao@avnet-abacus.eu

Ronda de Poniente
(pq Empresarial Euronova),
4 - 2ª PLANTA, tres Cantos,
28760, Madrid
madrid@avnet-abacus.eu

SWEDEN

Avnet Nortec AB
Hemvärnsgatan 9
SE-171 54 Solna
Phone: +46 (0)8587 462 00
Fax: +46 (0)8587 460 01
stockholm@avnet-abacus.eu

Smörhålevägen 3
SE-43442 Kungsbacka
Phone: +46 (0)8 58746 200
Fax: +46 (0)300 140 15
gothenburg@avnet-abacus.eu

SWITZERLAND

Bernstrasse 394
CH-8953 Dietikon
Phone: +41 (0)43 322 49 90
Fax: +41 (0)43 322 49 99
zurich@avnet-abacus.eu

TURKEY

Tatlısu Mahallesi Pakdil
Sokak No: 7 Kat: 2
TR-34774 Umraniye Istanbul Turkiye
Phone: +90 216 52 88 370
Fax: +90 216 52 88 377
istanbul@avnet-abacus.eu

UK

Building 5, Waltham Park
White Waltham
Maidenhead Berkshire SL6 3TN
Phone: +44 (0)1628 512900
Fax: +44 (0)1628 512999
maidenhead@avnet.eu

UKRAINE

c/o Avnet Abacus Poland
Plac Solny 16
PL-50-062 Wrocław
Phone: +48 71 34 205 99
Fax: +48 71 34 229 10
ukraine@avnet-abacus.eu