



**The IP&E
Specialist**

Defense, Aerospace & Space

Featured Product Guide

TTI, Inc., – A Berkshire Hathaway Company



The IP&E Specialist

The Specialist in Electronics Component Distribution

Founded in 1971, TTI has steadily grown to become a world leading specialist distributor of electronic components. The company was founded on the premise that passive component purchasing could be made more efficient by offering product specialization, customer-driven service and proprietary supply chain solutions.

Why TTI?

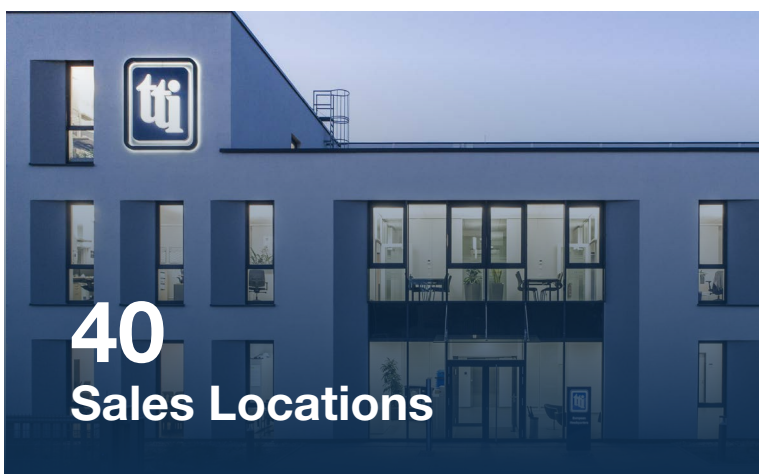
• **Technical Experts** TTI's European team of field-based Sales Engineers and local Product and Technical Specialists are here to support you; from understanding component trends, sustainable sourceability and new product roadmaps, to in depth technical support for your design from our technical engineering experts.

• **Value Added Services** Connector assembly is one of the most important value-added services at TTI, Inc. – Europe. We are specialized in distributing manufacturer controlled and certified connectors and interconnect solutions from globally leading suppliers. Thanks to a large inventory level of connector components, TTI, Inc. – Europe can serve any market requirements.

• **Global Distribution Centers** Our European headquarters is located just outside of Munich, Germany in Maisach-Gernlinden. In total, we have 45.000m² of dedicated warehouse space and local sales and technical support in over 40 locations across Europe. TTI has more than 195.000m² of automated warehousing in North America, Europe and Asia. All are linked into a global warehouse management system that provides superior customer service and overall business efficiencies. Wherever you are in the world, TTI can support you. Year after year, customers rate our inventory availability, on-time delivery and accuracy among the very best in the industry – contact us today to find out what a true specialist has to offer.

• **Quality and Reliability** TTI's global warehouses are all ISO-registered and have received certification to the ISO 9001 and ISO 14001 Standards. TTI Europe is also certified to EN9120/EN9100, IECQ-CECC and ISO/IEC 27001 Standards. Additionally, our European sales branches are ISO 9001 certified. TTI has one global documentation system that ensures that every TTI branch and warehouse in the world follows the same processes.





24/7
Available to Order Online



www.ttieurope.com



TTI distributes premier electronic component brands around the globe. Our DAS Line Card includes all of our suppliers, brand products and product families.

3M Interconnect Solutions

A
Abrakon
Advance Energy
Amphenol
 ACS
 Aerospace
 Amphenol Advanced Sensors
 Amphenol CIT
 Tri-Star
 AirLB
 Alden
 ALL SENSORS
 Anytek
 Assembletech
 Audio
 Australia
 Auxel
 Canada
 CDI
 Conec
 Connex
 Elcab
 FEP
 Fiber Optics
 FTG
 FZE
 i2s
 India
 Industrial
 Limited
 Lütze
 LTW
 Martec
 Matrix
 Nexus
 NovaSensor
 PCD
 Piher Sensing Systems
 Positronic
 RF
 SGX SENSORTECH
 Sincere
 Sine
 Socapex
 Spectra Strip
 SSI Technologies
 SV Microwave
 TELAire
 Teradyne Connection (TCS)
 TFC
 Times Microwave
 Thermometrics Ltd

Tuchel
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Apem
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 Syfer
 DLI
 Novacap
 Voltronics
KOA
KYOCERA AVX
 AB Electronics
 ATC
 Elco
L
Laird
Littelfuse
 C&K
 Littelfuse Automotive
 Raychem
 US Sensor

Western Automation
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 Airborn
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 ERNI
 First Sensor
 HARTMANN
 HTS
 Intercontec
 Jaquet
 KILOVAC

Kissling
 MADISON CABLE
 Measurement Specialties Inc
 MICRODOT
 NANONICS
 OEG
 Polamco
 Potter & Brumfield
 Raychem
 Schaffner
 SCHRACK
 SMI
 SSI
 TE Sensors
Teledyne Relays
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 BC components
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 Dale
 Draloric
 Electro-Films
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 MCB
 Roederstein
 Semiconductors
 General Semiconductors
 Sfernice
 Siliconix
 Spectrol
 Sprague
 Techno
 Thin Film
 Vitramon
Vishay Precision Group
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Yageo
 Ferroxcube
 Kemet
 Nexensos
 Phycomp
 Pulse Electronics
 Telemecanique Sensors
 X-Semi
 Yageo
 Vitrohm

Supplier Disclaimers for Defence, Aerospace & Space applications

These suppliers regulate the use of their products, always check the suppliers current disclaimer for suitability before using or designing in.



Not to be used in weapon applications



Prime Suppliers

Amphenol

cannon
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HARWIN

Honeywell Technologies

knowles

KYOCERA
AVX

molex

Radiall

smiths interconnect
a **molex** company

TE
connectivity
AUTHORIZED DISTRIBUTOR

TELEDYNE
Relays & Coax Switches

TT Electronics

VISHAY

The DNA of tech.

YAGEO
GROUP

Selected Specialists

ABRACON

APEM
an IDEC company

BOURNS

KOA

Littelfuse

muRata
INNOVATOR IN ELECTRONICS

Panasonic
INDUSTRY

PANDUIT

samtec

Sensata Technologies

Prime Suppliers

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The IP&E Specialist

The defense market places very specific demands on its supply base, not only in the high performance of the components used, but also on the supply chain and logistics solutions. TTI is a Specialist distributor to have a focused European Defense, Aerospace & Space markets Business Unit. In establishing this position as a market leader, TTI has combined a franchise portfolio that comprises of the major manufacturers plus key specialist lines, a broad & deep inventory offering of Mil Spec, VG standard, ESCC and COTS products, dedicated sales & support teams, plus comprehensive business systems that have the ability to manage the demands of strategic multinational customers.

TTI was the first distributor to be ISO 9001:2008 & EN/AS9100 registered within their US and European operations. In addition, TTI Europe is also IECQ Registered to manage CECC product demands. JOSCAR and Cyber Essentials Certified.

Discover the latest innovations from top suppliers at TTI Europe, Inc. - your trusted partner in shaping the future of Defence, Aerospace & Space technology.

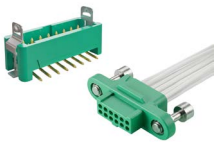
Amphenol

Description & Product	Features & Benefits	Applications
Series Five Lightweight Military Circular Connector - Amphenol Aerospace		
 The Series Five Connector retains all the rugged capabilities of 38999 but in a more compact design	• “Diamond-Grip” Nut Design • Quick Coupling Double Start Thread • 38999-Qualified Insulator and EMI Spring • AS39029-Qualified Gold-Plated Contacts • Optimized Ratcheting Torque	• UAVs & Drones (weight-critical missions) • Satellites & Spacecraft (launch payload optimization) • Portable Defense Systems (easier transport/maneuverability)
SPIN TACT™ Slipring and Rotary Joint Solutions - Amphenol India		
 Amphenol's design ensures uninterrupted rotating transfer of signals, power, RF, FO and other media	• Rugged & concealed wiring unit. • Lesser moving parts- long life. • Low to zero maintenance. • Low weight of product. • 100% compliance to AS9100 production process. • In-house test facility for Electrical, RF, FO and ESS. • Hybrid Solutions for all combinations. • Multiple Patent on design.	• Vehicle turrets • Missile seeker and navigation systems • Radars • Optronics • SATCOM • Shipboard • Weapons Systems • Surveillance systems • Air traffic control • Weather Radar • Sonar
Scorpion - Amphenol Positronic		
 The most versatile modular connector on the planet	• Zero NRE, MOQ starting at 5 for all the designs • Power, Signal, Coax, Fiber optics • Working Voltage up to 1000V • One-piece molded insulator • Fully customizable for the most complex applications • PCB & Cable • IP67 option	• Missiles • Ground defense vehicules • Drones • Naval

Amphenol

Product	Series & Description	Features & Benefits	Applications
38999 class V: Tin Zinc - Amphenol Socapex			
	Amphenol Socapex TZ plating is the 1st to be part of the qualified part list (QPL) under class V.	- Up to 500H Salt spray - Excellent Electrical Continuity - DLA approved & QPL	- Commercial Avionics & Airframe - Military vehicles - Military Avionics & Airframe
TVμCom and μCom Ethernet Connectors - Amphenol Socapex			
	TVμCom Connectors are designed to meet industry trends of miniaturization, high-speed performance,	- Based on MIL-DTL-38999 series III - Shell size 11 10Gb+: exceeds 10Gb/s Ethernet following IEEE 802.3an-2006 : 10GBase-T - Cat.6A connector according to TIA568C.2 and ISO/IEC11801 standard	- Battlefield Communication - Grounded vehicles - Military Avionics & Airframe
Raptor High Power Aerospace Connectors - Amphenol Limited			
	Engineered for High Voltage and High Current systems in E-Flight, E-VTOL and hybrid applications.	- TALON high temperature contacts - Shell Sizes 15 to 25 - Silver Plated Copper Contact - Nickel Plated Aluminium Connector housings - Insulator material for High Voltage - Increased creepage & clearance distances - Insulation geometry for HV electric fields - Designed for operating voltages at aircraft altitudes	- E-Flight - E-VTOL - Hybrid Aircraft - Harsh environment applications
VG96912 / SJT - Amphenol Airlb GmbH			
	Designed to protect your connection: Compact and robust circular connector with bayonet locking	- Scoop-proof contacts, EMI/RFI-shielded & interfacial seal - IP68 rated (0.2 bar/48h) - Operating temperatures from -65°C to +175°C - Shock and vibration resistant - Corrosion resistant versions: Marine bronze or Zinc Tin plating - Data rates up to CAT6A (10 Gbit/s) or up to 23A current/contact	- For signal, data and power transmission in harsh environments: - Defense & Marine: C5ISR, Military vehicles, Submarines - Industry: Heavy vehicles, construction machinery, mining
SIM / EN4165 Modular Connectors - Amphenol Airlb France			
	Modular connectors consisting of shells & modules, which together create a custom solution	- Space efficient & modular design - Overmold Technology: second to none dielectric & sealing performances - Versatility of mixing & matching RF, Fiber Optics, Signal & Power - Available in standard Mono, 2 & 4 bay, or custom config. - EN4165 spec. comparable to U.S. MIL-STD-810 performances	- Commercial aircrafts (Cabin, IFE / C/WAP, Avionics, Landing gears, Galleys) - Helicopters - Military aircrafts - Launch systems for missile & rocket - Drones - Ground vehicles - Radars
Pegasus & Nano Pegasus - Amphenol PCD			
	Pegasus: Compact, lightweight, EMI-shielded connectors Nano Pegasus: Up to 11 cts in a compact and lightweight connector	- Ultra-compact design - Lightweight without compromising durability - Integrated EMI shielding - Rugged to withstand harsh aerospace - Reliable signal integrity in mission-critical - Ideal for Command, Control & Sensing	- Military Drones - UAV's - Missiles

HARWIN

Product	Series & Description	Features & Benefits	Applications
Gecko Signal Connectors for Harsh Environments			
	Gecko Latch and Gecko-SL signal connectors: compact, secure 1.25mm pitch interconnects.	1.25mm pitch saves PCB space and weight - Latch or Screw-Lok retention for secure mating 2A per contact when fully loaded 4-finger contact design for signal integrity -65°C to +150°C operating range - Up to 1,000 mating cycles	- Military communications equipment - Avionics control and monitoring systems - UAV and drone signal connections - Satellite payload electronics - Launch vehicle instrumentation - Defence sensor and radar systems
Gecko-MT Mixed Signal and Power Connectors			
	Gecko-MT: compact 1.25mm pitch connectors combining signal and power in one connector.	- Mixed signal and power in one compact connector 1.25mm signal pitch saves PCB space - Power contacts support higher current needs - Screw-Lok retention for secure mating - Lightweight alternative to larger mixed-layout connectors - Built for harsh environments	- Military vehicle electronics - Avionics control systems - UAV power and signal modules - Satellite payload equipment - Space-constrained defence electronics - Launch vehicle instrumentation
Gecko-MT Shielding and Connector Accessories			
	Gecko metal backshells and accessories for added protection, shielding and cable support.	- Metal backshells support EMC shielding - Protects cable terminations from damage - Lightweight aluminium alloy construction - Nickel plating helps resist corrosion - Options for Gecko and Gecko-SL assemblies - Can be fitted after cable assembly build	- Shielded military cable assemblies - Avionics EMI protection - UAV and drone electronics - Satellite harness protection - Defence communications equipment - Launch and ground support systems
Datamate L-Tek and J-Tek Signal Connectors			
	Datamate L-Tek and J-Tek: 2.00mm pitch signal connectors with latch or jackscrew retention.	2.00mm pitch high-reliability signal connector - L-Tek latch or J-Tek jackscrew retention - Up to 3A per contact simultaneous - Gold-plated 4-finger contact design - Proven under vibration, shock and bump - Cable and PCB options available	- Military communications systems - Avionics control and monitoring - Radar and sensor equipment - Satellite electronics - Spaceflight test equipment - Defence vehicle electronics
Datamate Mix-Tek Mixed Technology Connectors			
	Datamate Mix-Tek: 2.00mm/4.00mm pitch connectors combining signal, power and coax contacts.	- Signal, power and coax in one connector - Up to 40A per power contact - Saves space versus separate connectors - Jackscrew retention for secure mating - Flexible layouts for custom interconnect needs - Built for demanding, high-reliability systems	- Military radar systems - Avionics power and signal assemblies - Defence communications equipment - Satellite payload connections - Spacecraft test and measurement systems - UAV control and power systems
Datamate Shielding and Connector Accessories			
	Datamate metal backshells and accessories for J-Tek and Mix-Tek cable and PCB connectors.	- Aluminium alloy backshells with nickel plating - Supports EMC shielding and cable protection - Options for cable and PCB-mounted connectors - Suitable for J-Tek and Mix-Tek designs - Helps protect terminations from strain - Accessory kits simplify assembly	- Shielded military interconnects - Avionics cable assemblies - Radar and RF-sensitive systems - Satellite harnessing - Defence electronics enclosures - Space ground support equipment

HARWIN

Product	Series & Description	Features & Benefits	Applications
Kona High-Reliability Power Connectors			
	Kona: 8.50mm pitch high-current power connectors for harsh environments.	• Up to 60A per contact • 8.50mm pitch power connector system • 2, 3 and 4 contact single-row options • Individually shrouded contacts • Built-in polarization helps prevent mis-mating • Mate-before-lock fixings for secure connection	• Military power distribution • Avionics high-current power systems • UAV battery and power modules • Satellite power equipment • Launch vehicle power systems • Defence ground vehicle power
M300 Compact High-Reliability Power Connectors			
	M300: 3.00mm pitch compact power connectors for vibration and shock environments.	• Compact 3.00mm pitch power connector • Up to 10A per contact with 18–20 AWG cable • -65°C to +175°C operating range • Single and double row options • Jackscrew retention for secure mating • Polarized housings help prevent mis-mating • Cable and PCB options available	• Military power connections • Avionics power distribution • UAV and drone power systems • Satellite equipment power links • Defence vehicle electronics • Spaceflight test equipment

Honeywell Technologies

Product	Series & Description	Features & Benefits	Applications
EN Series Sealed Switch			
	Stainless steel with environmental seals. Sealed to MIL-PRF-8805 resilient, symbol 4.	• State and position indication for control functions • Hermetic and environmental sealing for performance in harsh environments • Repeatable switching for system operation and control applications	• Flight systems • Engine systems • Aircraft structures • Defense platforms • Space and harsh environments
GAPS Series General Aerospace Proximity Sensor			
	General aerospace applications. Optional diagnostic capability. Hermetically sealed. Configurable.	• Non-contact position detection • Hermetic sealed design with integrated health monitoring • Repeatable detection for sensor status awareness and state verification	• Airframe and structures • Engine and nacelle • UAVs • Flight control systems • Hydraulic and mechanical systems
HAPS Series Harsh Aerospace Proximity Sensor			
	For harsh applications. Optional diagnostic capability. Hermetically sealed. Highly configurable.	• Non-contact position detection • Hermetic sealed design with integrated health monitoring • Repeatable detection for sensor status awareness and state verification	• Airframe and structures • Engine and nacelle • UAVs • Flight control systems • Hydraulic and mechanical systems



Product	Series & Description	Features & Benefits	Applications
MKV Series Potentiometers			
	1 W precision conductive plastic element pot. 0.25 in dia. shafts. 500 Ohm to 20 kOhm resistance.	- Analog position feedback in compact and adaptable designs - Continuous electrical signal output for position measurement - Low-latency position feedback for control in space and weight-constrained environments	- Engines and gearboxes - Flight systems - Hydraulic systems - Avionics and instrumentation - General aircraft systems
Resolvers			
	Resolver with multiple housing & rotary transformer configurations.	- Non-contact rotary position sensing with 360° feedback - Transformer-based design with stable performance in EMI environments - Supports repeatable position tracking	- Flight control systems - Guidance and navigation - Radar and antenna systems - Space and advanced platforms
SNG-Q Series Speed Sensors			
	Hall-effect speed and direction sensor with quadrature output.	- Rotational and linear speed measurement for aerospace systems - Speed and direction feedback using Hall-effect, MR, and VR technologies - Supports control, condition monitoring applications	- Engines and gearboxes - Flight systems - Hydraulic systems - Avionics and instrumentation - General aircraft systems
TL Series Toggle Switch			
	Military-grade toggle. Variety of actuators, actions, terminations, and circuitries.	- Human-machine interface control for panel-mounted operations - Panel-mounted design with tactile feedback - Switching for operator-driven control functions in harsh environments	- Flight deck and controls - Ground and support equipment - Aircraft systems - Military tracked/wheeled vehicles
Battery Safety BES LITE			
	Low-profile, light-weight battery safety detector. Selectively detects battery electrolyte vapor.	- Early detection of lithium-ion battery failure conditions for electrified aerospace and defence systems - Monitoring aerosols, pressure, and electrolyte indicators - Help identify thermal runaway and monitor battery condition	- Electric aircraft and AAM - battery pack monitoring - Energy storage systems - Avionics and power systems - Ground and support equipment
4 Series Gas Sensor			
	Includes sensors for oxygen, toxic gases, carbon dioxide, hydrocarbons, combustible gas detection	- Detection of hazardous and target gases - Electrochemical, catalytic, infrared (NDIR), and MOX technologies - Gas monitoring for hazard detection, emissions monitoring, and environmental conditions	- Cabin air monitoring and oxygen sensing - Enclosed vehicle environments - Fuel and propulsion leak detection - Ground and support equipment maintenance

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Product	Series & Description	Features & Benefits	Applications
KP Series - High Density Miniature Connectors			
	KPT, KPSE, KPTC, VG95328, MIL-DTL-26482 Series I Qualified KPT Hermetics PV 26482-Style Series II	- Secure 3-point locking system - TTI in-house assembly / VAS - Five-way polarization for precise alignment - High insert arrangement contact density - Sealing up to IP67 - RoHS compliant plating options including Tin Zinc (A241), Zinc Cobalt (A232), Nickel (A34), and Blue Generation (A240)	- Military ground vehicles - Military aviation - Ground support systems
MKJ Series - Miniaturized Circular Connectors			
	MKJ0 UN Thread, MKJ1 Double Start, MKJ3 Bayonet, MKJ4 Breakaway, MKJ5 Triple Start MKJ Warrior	- MKJ Warrior: GOSSRA, NATO STANAG 4695 and Nett Warrior qualified. 5.4 Ghz DisplayPort, High-speed, & Power/Signal combo configurations - TTI in-house assembly / VAS (MKJ1 & 4) - Rear-release crimp, solder cup, and PCB tail contacts - Up to 52% smaller and 71% lighter than a traditional D38999	- Soldier-worn technology and connectivity - Military aircraft - Surveillance and missile systems - Ground defense equipment - UAVs
CGE (VG96929) High-Power Connectors			
	CGE, VG96929 Single pole, Ultra-Rugged High-Power Connectors	- Fully VG96929 certified - High-power/low-voltage applications up to 900A - Proven bayonet coupling design for fast mating and vibration resistance - Visual, audible and tactile locking system - Water pressure tightness to 1 Bar - Multiple plating options including VG-approved Tin Zinc J plating	- Military ground vehicles - Shipboard and marine - Industrial equipment - Starter motors - Engines
CA Bayonet Series – Reverse Bayonet Connectors			
	CA B, VG95234, CA COM, CGL Exceptional vibration protection, by a simple 120° turn	- RoHS compliant plating options incl. VG-approved “J” plating (A241) & Cannon’s proprietary high-performance industrial Blue Generation - Extensive range of backshells & accessories - Proven reverse bayonet coupling design ~ 140 layouts, 1 to 65 pins - IP67/68/69k - TTI in-house assembly / VA	- Military ground vehicles - Heavy equipment - Production equipment - Controls systems - Power distribution units
MDM – High-Density Micro-D Connectors			
	MDM, MDSM, MIL-DTL-83513, MDLM, High Temp (+200°C), Ultra High Temp (+230°C) Spacesaving Connectors	- Mixed power, coax, filter, hermetic & signal layouts - Wire size: AWG 24 thru AWG 32 - Current rating 3A / max. voltage 600 VAC (40A) - Standard arrangements: 9, 15, 21, 25, 31, 37, 51, 69 and 100 - Micro Twist Pin Contact System - Approved to MIL-DTL-83513 specifications	- Missiles and ordnance - Aerospace launch vehicles - Oil and gas exploration - Industrial automation
D-Sub Series - High-Reliability Connectors			
	High-Density I/O Solutions from Space Grade to Combo D & Double Density	- Configurations – Signal/power combo, crimp, solder, pc tail, filter/ hermetic - Up to 104 contact positions - Power contacts to 70 amps - Standard, high density, double density versions - Accessory: backshells w/locking hardware, guide plates & polarization options - Qualified to MIL-DTL-24308	- Missile systems - Military aviation - Shipboard - Commercial aerospace - Communication and data systems

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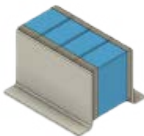
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Product	Series & Description	Features & Benefits	Applications
Nemesis Series - Miniaturized Circular Connectors			
	Nemesis II CBA Cannon Breakaway Pogo pad	• Dual Coupling with positive locking or Cannon Break Away for rapid mating and demating • High sealing capability to 20 meter submersible • 500 hour salt spray resistant plating • Sealed in the mated and un-mated conditions • Reliability up to 10,000 mating cycles	• Soldier-worn technology and connectivity • Surveillance systems • Missiles and ordnance • UAVs
Rack and Panel Series - ARINC Connectors			
	ARINC 600, ARINC 404, BKA, DPX, SGA, DPK, DPA Space and weight optimized blindmate connectors	• High contact density with up to 800, size 22 contacts in one connector • Low insertion force contacts • Environmental and non-environmental versions • 5 to 100 amp/contact current rating • Off-the-shelf and custom versions • RF, Fiber, Power, high voltage, high speed copper, Quadrax	• Commercial aviation - IFE, avionics, control systems • Military aviation - Avionics, control systems, radar
HDx™ Series - High Density, Small Form Factor			
	HDx™ Breakaway MKJ4 style	• Ultra-high density, signal & power config. avail. • Hi-speed data - USB® 3.2 Gen1 up to 5Gbit/s, Ethernet up to 10Gbit/s, HDMI® up to 8.16 Gbit/s • Open Face IP68, Mated Immersion - IP6K8 / watertight sealing up to 20 meter depth • 5,000 mating cycles • Breakaway or threaded locking options	• C5ISR • Tactical Communications • Soldier-Worn Tactical

knowles

Product	Series & Description	Features & Benefits	Applications
Hi Rel MLCCs			
	Hi Q, Hi-Temp IECQ-CECC AEC-Q200 ESCC 3009 MIL Grade	• 100% electrically inspected to ascertain conformance to a strict performance criteria • IECQ-CECC-QC32100 Qualified • QPL to MIL-PRF-55681 and MIL-PRF-123 • Testing to meet ESCC 3009 requirements • DSCC	• Aerospace • Defense • Space • Medical Implantables
EMI Filters			
	SF Panel Mount High Frequency Performance	• High Frequency Performance >10GHz • LC, C, Pi, T Configurations • Hermetic Options • Hi-Rel Testing IAW M28861 and M31033 • High Voltage and Current Ratings • Flight heritage	• Aerospace • Defense • Medical • Space • Telecommunications
MLPS 105°C Flatpack - Low profile aluminum electrolytic			
	MLPS Flatpack: High capacitance density in a low profile package	• Military-grade flat electrolytics optimized for 105 °C applications • Life tested to 10,000 hours @ 105 °C, Rated Vdc • High vibration resistance up to 20g (HV Option) • High reliability burn-in available (48 hrs @ Vr, 105 °C) • Welded seal resists "dry-out" typical of conventional electrolytics	• Power supplies • Military & commercial aircraft • Shipboard/ground-based radar systems • Ruggedized compact power system • Telecom circuit packs • Voltage holdup & filtering in military SEM-E modules



Product	Series & Description	Features & Benefits	Applications
High Voltage MLCCs			
	AEC-Q200, 16V to 5kV High Capacitance StackiCap X7R (1812 - 3640) & temp stable C0G (1206-2225).	• High voltage, high capacitance MLCC, stable dielectric type II • Deliver better reliability and compactness to replace stacked or film cap • Capacitance range to 5.6uF; voltage range 200V to 2kV • Available with a range of termination options, including FlexiCap™ to reduce mechanical stress damage	• Aerospace • Military • General usage for DC-DC converter, AC-DC converter circuits in military equipment • Automotive
High Q MLCCs			
	Low-ESR COG; AEC-Q200 Qualified; High power RF; high Q and custom RF power assemblies; MIL Standards	• Low dissipation for high frequency, stable High Q material • Low loss performance in systems below 3GHz • Available in a range of sizes • Ultra-low ESR and high temperature (150°C) • 2225 and 4040 extended range voltages up to 10kV • Termination option with FlexiCap™ to enhance board flexure	• Military Radar and Radio Communication Systems • RF circuit impedance matching, DC blocking, coupling and decoupling
Pulse Energy MLCCs			
	Single or multiple pulse applications.	• Small size • More energy in cold temperature detonation • Low ESR • Low Inductance	• Military detonation • Rocket ignition
CLS Flatpack™ Electrolytic Capacitors			
	Type CLS 105°C, Stainless Steel Flatpack™.	• Up to 300V with 10,000 hour life rated to -55°C • Extended Operational Life • Increased efficiency - reducing energy loss and improving system reliability • Wide operating temperature for extreme environmental conditions	• Military Aircraft • Military Vessels • Ground Based Radar • Drones • Missile Defense • Aircraft Radar Systems
High Q Ceramic Core Inductors (A and U Series)			
	Minimizes signal loss while maximizing RF efficiency & stability. Full non-magnetic construction.	• High self-resonant frequency (SRF) • Copper Barrier Plating available for non-magnetic applications (meets MRI standards) • Industry-leading Q performance for superior RF efficiency and reduced insertion loss	• Aerospace & Defense Electronics (radar, EW, UAV, SATCOM) • Medical imaging/medical devices • High-performance RF filters • Mission-critical communication systems • Guidance & surveillance systems
Custom Capacitor Assemblies			
	Capacitor Assemblies for power and RF applications	• Ultra low loss High Q ceramic capacitors with C0G/NP0 characteristics	• Aerospace & Defense • High power applications requiring minimal power loss and very low self-heating

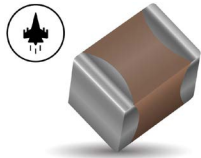
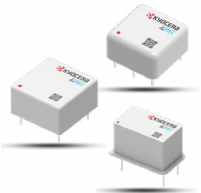
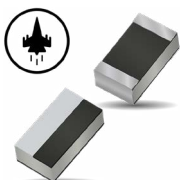
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Product	Series & Description	Features & Benefits	Applications
MIL-PRF-32535 X7R & NP0 BME Multi-Layer Ceramic Capacitors (MLCC)			
	Meets the designer needs by boosting the CV range and reduces the gap between commercial products	• “M” and “T” reliability levels available • Higher CV capability resulting in reduced component number/size/weight and PCB space requirements • Flexitem® technology used for enhanced thermo-mechanical stress resistance • Case sizes 0402 – 2220, 68pF – 22.0uF available • Voltages 16 -100	• Missile Guidance, Seeker, Actuators • Communication Satellites • Filtering • Power Supplies • Decoupling
TCS Series QPL ESCC – Conductive Polymer Capacitors			
	TCS ESA qualified for surface mount solid organic Polymer Tantalum Capacitor – Detail Spec 3012/006	• ESCC Detailed specification 3012/006 • Robust design for long operation lifetime • CV range 22 – 470µF / 6.3 – 35V • Robust design for long operation lifetime • Statistical screening with Accelerated Ageing	• Avionics • Military • Space • Telecommunications • Industrial
High Reliability Tantalum Chip Series MIL-PRF-55365 T Level			
	The CWR09, 11, 15, 19 and 29 series are available with surge options and “T” level testing	• Different Weibull levels available • Different termination finishes possible • CWR15: 0.47µF - 68µF in 0603, 0805 and 1206 sizes • CWR11: 0.10µF - 100µF in A, B, C and D sizes • CWR09, 19 and 29: 0.10µF - 330µF in A to H sizes	• Avionics • Military • Space • Telecommunications • Industrial
Military/Aerospace – APS COTS+ MLCC Series			
	APS COTS Plus MLCC offers a high reliability solution with an ultralow failure rate (<1ppb)	• APS COTS PLUS extensively tested with an ultralow failure rate, ≤1ppb • Certificate of conformity shipped with each production lot, being fully traceable • RoHS & Non RoHS terminations with Flexitem® available • NP0, X7R and X8R/L Dielectrics available • Voltages: 25 to 500 volts	• Avionics • Military • Space • Telecommunications • Industrial
COTS-Plus – TCB Conductive Polymer			
	TCB COTS Plus conductive polymer series recommended for industrial, avionics and mil applications	• Additional reliability/surge screening and SnPb plating optional upon request • Statistical screening with Accelerated Ageing • Surge testing level option • Shock & vibration from MIL-STD-202 • 3x reflow cycles according to J-STD-020	• AC/DC Power Supplies • DC convertors • Military • Filtering • Industrial
TWA COTS-Plus Wet Tantalum Capacitor			
	The TWA series is an axial leaded wet tantalum capacitor with very high CV in Mil-PRF-39006 sizes	• Supplied in traditional MIL-PRF-39006 case sizes • Voltage range from 15V to 125V • Operating temperature range of -55°C to +125°C • Available with custom testing and limits • CV Range: 10-4700µF/15-125V	• Defense/Avionics • DC -DC Power Supplies • Power Converters • Bulk Energy Storage • Pulse Power

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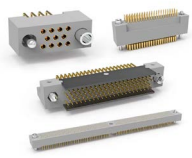
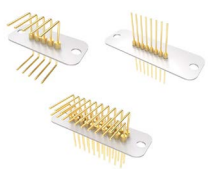


Product	Series & Description	Features & Benefits	Applications
CECC PME Multi-Layer Ceramic Capacitor Series			
	PME CECC MLCC series with ranging screening, voltages and terminations to IECQ-CECC spec 32101/801	- Additional testing with 48 to 168 hours and 100% screening - Fully traceable lots - Cap range 4.7pF - 2.2uF - RoHS & Non RoHS terminations - Voltages 25 to 500 volts	- Avionics - Military - Space - Telecommunications - Industrial
High Reliability Oven Controlled Crystal Oscillators (OCXO) Range			
	KYOCERA AVX's OCXO range covers industrial, military and aerospace, enabling robust designs for all	- KLN Series for Ultra Low Phase Noise - KOV Series for High Performance in five surface mount package sizes - KSP Series for LEO/MEO Space Orbit designed to be radiation tolerant, TID & LET	- Phase Locked Microwave Applications - GPS Precision Timing Devices - Military High Performance Device - Aerospace/Industrial - Network Infrastructure
Accu-L® Thin Film Inductors 0402, 0603, 0805 (DLA / MIL-Spec)			
	Precise thin-film inductors in mini form factors, high-freq stability, low ESR&high Q over wide freq	- Tightest Tolerance: ± 0.05 nH - High DC Current - Repeatable RF parameters - High SRF - DLA approved in 0402, 0603 and 0805 sizes	- Radar Systems - GPS (Global Positioning Systems) - Military communications - Drones - Satellite communications



Product	Series & Description	Features & Benefits	Applications
High-Density FCT D-Subs			
	High-Density D-Sub Connectors deliver 5A per pin with durable contacts and flexible configurations	- High-Density D-Sub Connectors support up to 5.0A per contact - Machined, gold-plated contacts ensure durability and high mating cycles - Multiple materials and configurations enable flexible designs - IP67, non-magnetic and RoHS options for harsh environments - Snap-in locks simplify assembly	- Avionics - Radar systems - Communications - Test systems - Mission-critical control systems
EMI-Filtered High-Performance D-Subs			
	EMI-Filtered D-Sub Connectors deliver reliable signal integrity and compact space-saving designs	- Integrated EMI filtering ensures signal integrity - Compact design saves PCB space and simplifies layout - Robust construction supports harsh environments - Wide capacitive range enables EMI optimization - Customizable configurations suit diverse designs	- Avionics - Engine controls - Navigation systems - Flight controls - Night vision sensors
Waterproof FCT D-Subs			
	Waterproof IP67 D-Sub Connectors provide reliable sealing, robust protection and flexible designs	- IP67-rated D-Sub connectors protect against dust and moisture - Mixed layout supports power, signal, coax and pneumatic contacts - Metal frame provides strength, shielding and corrosion resistance - Integrated sealing simplifies assembly - Accessories enable protection and strain relief	- Avionics - Communications - GPS - Test & measurement - Telemetry



Product	Series & Description	Features & Benefits	Applications
Mixed-Layout FCT D-Subs			
	Mixed-Layout D-Sub Connectors provide flexible power, signal and coax solutions with robust options	- Mixed-Layout D-Sub Connectors support power, signal and coax - Wide range of housings enables flexible designs - Off-the-shelf and custom cable assemblies - Accessories provide protection and strain relief - Waterproof and non-magnetic options	- Avionics - Radar systems - Communications - Test & measurement - UAVs
AirBorn Slnergy Modular High-Speed Hybrid Connectors			
	AirBorn Slnergy Connectors combine 25-Gbps data, 25A power and RF in rugged modular designs for A&D	- MIL-DTL-83513 qualified, IPC Class 3 - Reduces weight & PCB space with compact 10.16mm pitch - Modular bays enable signal, power & RF in one interface - High performance: up to 25Gbps, 40GHz, 25A/contact - Reliable in harsh environments (shock, vibration)	- Avionics - Drones - Radar systems - Communications - Satellites
AirBorn verSI Series High-Density Connectors			
	High-Density verSI Connectors deliver 25Gbps performance, rugged reliability, and design flexibility	- MIL-DTL-83513 qualified, proven harsh-environment performance 25Gbps, up to 500 contacts, 1.27mm open-pin field 4-point contacts for high reliability - Flexible orientations/terminations 8–25mm stacking; EMI shielding plastic/metal housings"	- Avionics - Satellites - Radar systems - Combat vehicles - Communications
AirBorn R Series MIL-DTL-55302 0.075" Rectangular Connectors			
	AirBorn R Series Connectors deliver MIL-qualified reliability, high-density, and flexible designs	- MIL-DTL-55302 qualified connectors ensure reliability in aerospace environments - Four-point contact enables stable signals under shock 0.075" pitch supports high-density designs - Multiple terminations enable flexible integration - Flight-proven design improves durability	- Avionics - Communications - Radar systems - Engine control systems - UAVs
AirBorn W Series MIL-DTL-55302 0.100" Rectangular Connectors			
	AirBorn W Series Connectors deliver MIL-grade reliability, high density and flexible design	- MIL-DTL-55302 qualified connectors ensure rugged reliability - Three-point contact maintains signal integrity under vibration - Up to 208 contacts support high-density layouts - Multiple terminations enable flexible integration - Flight-proven design improves durability	- Avionics - Communications - Radar systems - Engine control systems - UAVs
EMI Filter Plates			
	Molex EMI Filter Plates deliver high-density, superior shielding and easy assembly for reliable operation	- High-density EMI filtering supports up to 50 lines - Superior shielding protects sensitive components - Simplifies assembly by eliminating discrete filters - Rugged design ensures reliability in harsh environments - Supports miniaturization and reduces system size	- Engine control systems - Navigation - Night-vision sensors - Avionics - Target acquisition systems



Product	Series & Description	Features & Benefits	Applications
RF Cable Assemblies			
	RG Semi Rigid and Flexible Cable	• Radiall's extensive range of RF cable assemblies, including flexible, semi-rigid and hand-formable cable, features outstanding electrical performance, low loss and high frequency. • Each solution is optimized for the most demanding applications. • Custom configurations are available.	• General interconnect • Defense (Land, Sea, Air) • AeroSpace • Test & Measurement • Medical • Quantum
Vehicular & UGV Antennas			
	225 MHz Up to 6 GHz N & TNC connector	• Extended lifetime and more robust radio link thanks to a damping oscillation system.	• Military Vehicles • Robot & UGV (Unmanned Ground Vehicle) • Remote controller • Soldier Radio
Board to board solutions			
	SMP, SMPM, IMP: disruptive tech revolutionizing RF board-to-board interconnections	• Ultra-compact, blind-mate, high-frequency SMP, SMPM & IMP series. • Minimizes PCB footprint, compensates for radial/axial misalignment, and guarantees flawless RF signal integrity. • The ultimate disruptive choice for next-gen high-density boards. Custom design on demand.	• Defense & Space • Beamforming technology • Electronic warfare, radars & Satcom • Test & measurement • Quantum • Medical
Large range of RF coaxial connectors for a wide variety of industries			
	SMA, BMA, SMB, HN, MCX, BNC, MMCX, High-voltage, N, TNC, Adapters	• Screw-on connectors • Blind-mate connectors for rack and panel RF applications • Non-magnetic connectors • High-voltage connectors • High-power and antenna connectors • Waterproof connectors • Hermetic connectors	• Defense • Medical (MRI imaging systems) • Aerospace • Test & Measurement • Industrial (nuclear, transportation, energy, etc.) • Quantum
Modular & Rectangular Interconnect Solution			
	Modular & lightweight EPX connectors	• EN 4644 & RoHS compliant • Modular, lightweight & expandable design • Disconnect & rack/panel apps • Space & weight saving solution • User-friendly & quick to terminate • Simplified part numbers & stock savings • Significant assembly cost savings • Compatible with a wide range of contacts	• Aircraft & equipment manufacturing • Defense • Cable-to-cable & PCB-to-cable connections • Disconnect applications
Quick-Mating, High-Density Connectors			
	High-density aerospace connectors: quick mating, secure lock and simple multiple contact wiring.	• Quick install and quick mate solution • Locking system • Contact density • Lightweight • Competitive cost • Compliant with industry standard	• Aerospace & other harsh environments • Fuselage & cockpit • Cabin • Cable-to-cable • PCB-to-cable • Harness to harness connection and Harness to equipment connection



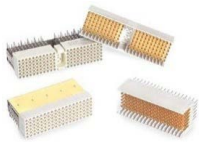
Product	Series & Description	Features & Benefits	Applications
Optoelectronic Transceivers			
	Complete range of harsh environment optical transceivers	• Qualified for harsh environments based on : DO-160; MIL-STD; ARINC 804 • Smallest form factor for single channel and multichannel modules • Lowest power consumption • Independant protocol & large bandwidth per channel (up to 10 Gbps) • Various packages and form factors available	• Massive parallel data processing for radars • Video data transfer • Cockpit display video transmission • Board-to-board communication for embedded computers • Sensors interconnection
Fiber Optic Interconnect Solutions			
	Wide range of FO interconnect connectors for harsh environment, contacts and connectors	• Ruggedized FO contacts: LuxCis® ARINC 801 • ABS1379/EN4531-101 contacts • High-density MT based interconnects: Q-MTitan™ ARINC 846 • Expanded Beam solutions : tactical assemblies, EB-LuxCis® • High optical performance in harsh environment • Compatible with a wide multipin range	• Optical architecture • Avionics, IFE (In-flight Entertainment), HUD (Heads Up Display) • Radars • Sensors • Electronic warfare
Modular and Rectangular rack & panel solution			
	Standardized rack and panel connectors with cost effective solution	• High contact density • Wide range of contact types and arrangement • Numerous shell polarization possibilities • Low mating forces • Separation of power and signal contacts • EMI/RFI shielding option provided by shell to shell conductivity	• Aircraft & equipment manufacturing (Line Replaceable Unit)
Orbix New Space Range			
	Space RF Cable Assemblies and Connectors	• Up to 65Ghz • Cost-effective solutions • Competitive leadtimes • Customization on demand with our space-dedicated engineering team • Large scale production	• LEO (Low Earth Orbit) constellations • Small satellites • MEO (Medium Earth Orbit) satellites • Launchers • Ground segment applications



Product	Series & Description	Features & Benefits	Applications
EZiCoax Interposers			
	2-, 4-, and 8-way architectures and equipped with EZiCoax probes to deliver powerful advantages for advanced RF systems	• Perform well out to 40 GHz with less than -1 dB of Insertion Loss • Superior shielding from stray signals • Provide excellent crosstalk characteristics • Enable scalable signal distribution and compact integration • Accurate transmission in high-frequency communication platforms	• Radar • Missiles Strike & Interceptors • LEO/GEO/MEO Satellite Communications (RF) • Phased Array Antennas
HPH and HPW Series			
	High and Medium density Signal & Power PCB Connectors	• 20 to 303 contact positions • Mixed power & signal PCB connectors • Qualified at a system level on both civil and military programs • Low contact resistance under high levels of shock and vibrations and over 2000 mating cycles	• Harsh environments for commercial aerospace and defense markets

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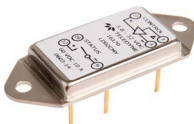


Product	Series & Description	Features & Benefits	Applications
High Reliability 2mm / cPCI Connectors			
	NASA approved rugged 2mm footprint cPCI backplane system	- Interchangeable with cPCI COTS Systems - Modular design for standard 3U/6U configurations immune to shock and vibration fretting - Available in NASA GSFC qualified versions - Reverse gender to commercial 2mm products - Keying feature for proper mating - Qualified for space flight under NASA-GSFC specs S311-P-822, EEE-INST-002	- Industrial - Commercial aerospace - Defense - Instrumentation - Data acquisition - Communications - Machine control - Human machine interfaces
MIL-DTL-55302 Compliant PCB Connectors – KN			
	High reliability NASA and ESA qualified 55302 compliant connectors with mixed signal, power and coaxial contacts	- Over 2,500 models can be constructed with available components 0.60 diameter pins/sockets rated at 4 Amps - Straight dip, right angle solder, crimp, solder cup and Wire Wrap® terminations - Alignment and keying provided by the end guides – 36 combinations - Immunity to shock and vibration fretting - Average insertion/extraction force of 1 ounce per contact	- Flight controls and in-flight entertainment - Avionics engine controls - Missile detection and guidance - Military ground support, ship-board torpedoes and communications equipment - Spacecraft/satellites
High Density PCB Signal Connectors – CMD Series			
	High density standard MIL compliant PCB connectors designed for high performance applications in harsh environments	- Conforms to MIL-DTL-55302 general requirements and TPR 02013 - High shock and vibration proof (no micro interruptions – test: 2ns) 0.6mm contact diameter, available from 42 to 316 contact positions - Immunity to detrimental fretting due to shock and vibration - High contact density and lightweight connector	- Aerospace, military/defense: conforms to MIL-DTL-55302 - Space: CSD conforms to ESA ESCC 3401
High Density ESA Qualified PCB Connectors – MHD/MDD/MDP Series			
	ESA qualified, high density board to board and board to wire interconnect available in up to 400 positions mixing signal, power and coaxial contacts	- SA qualified: ESCC 3401/065 available from 52 to 400 signal contacts with straight, surface mount tail and 90° termination styles support up to 32 power or coaxial contacts (2.00 contact diameter) - Two housing versions: ruggedized metal shell and plastic shell - Signal and HE 807 cavities for power and coaxial contacts	- Designed for the harshest environments of commercial aerospace - ESA satellites
Rugged High-Speed, VITA Backplane Connector System – KVPX Series			
	Shielded, high-density, high-speed, modular interconnect system with unrivalled performance in harsh environments while adapting to the VITA standards	- Compatible with VITA 46, 47 and 78 (space) standards - High Speed up to 20 Gbps - Flexible modular design for standard 3U and 6U as well as custom configurations - Faceplate to protect daughter card pins; press-fit termination	- Intelligence, Surveillance and Reconnaissance (ISR) - Signals Intelligence (SIGINT) - Radar applications - Electronic Counter Measures (ECM)
Twinax and Quadrax High-Speed Rugged D-Sub Series			
	High impedance D-Sub connectors	- Low RF noise and high durability over 500 mating cycles - Offered with 100 ohm quadrax and/or differential pair twinax contacts - Meet MIL-STD-202 requirements for shock and vibration - Optimized impedance matching for signal integrity - Cable assembly options available	High speed applications of defense, space and commercial aerospace markets



Product	Series & Description	Features & Benefits	Applications
NanoRF Connectors for VNX+			
	Compact VNX+ NanoRF module delivers high-density, high-speed RF with self-alignment for harsh use.	- Floating inserts ensure precise, reliable mating - No special tools needed - Fits standard VNX+ backplanes - Open-standard, high-density design enables interoperability - Leverages NanoRF contacts - Compact form factor reduces SWaP-C	- Radar - Electronic warfare - C5ISR - Missile guidance - Tactical communication - Small UAVs and spacecraft - Drones
MICRODOT Micro-D Connector			
	Small Form Factor Connectors For Limited Space and Reduced Weight	- Adapts to multiple form factors - Low insertion force (Twist Pin) - Solder cup for solid/stranded wires - Controlled mating force (10 oz/contact max) - Durable up to 500 cycles 3 A/contact for reliable power	- Avionics, satellites, space electronics - Military systems, missiles, communications - Computers, test and industrial equipment - RF/data and mixed-signal systems - Airborne and harsh-environment electronics"
DRI E/ES 410 Relay			
	4PDT hermetic military relay, high reliability, -70 to +125°C, MIL-PRF-83536 qualified	- Balanced force design provides the benefit of consistently high contact pressure, reduced bounce, and less arcing leading to extended contact life - Welded hermetically sealed, non-corrosive enclosure - Wide choice of mounting and terminal styles	- Aerospace - Ground vehicle - Built to MIL-PRF-83536 for severe condition applications
RayFlite High Voltage Power Cables			
	Breakthrough high-voltage cables enabling efficient, flexible power for hybrid and electric aircraft	- Designed for high-voltage, high-altitude aerospace power - Flexible 3x OD bend for easy install - Validated PD at altitude - ETFE insulation, 170°C, >30 kV breakdown strength - Full system with TE 987 connectors tested for reliability	- Commercial Aerospace - Unmanned Aerial Vehicles
Side Entry Shield Repair Sleeve			
	In-place repair of cable shields without cutting wires, reducing downtime, ensuring safety	- Side-entry design enables easy cable shield repair without full disassembly - Simplifies maintenance, reducing downtime and rework effort - Compact solution for fast, field-level repairs - Improves shielding continuity and system reliability - Designed for efficient, practical cable restoration solutions	- Cable shield repair in aerospace and harsh environments - Field maintenance and retrofit operations - High-reliability electrical systems - Tight-space cable assemblies
MULTIGIG TRX fiber optic mid-board transceiver			
	Modular 10G fiber transceiver, low power, rugged, upgradable, high-speed connectivity	- Dual Tx/Rx/TRx full-height and simplex half-height options - TE MULTIGIG RT press-fit -40 to +85°C 4.25G FC and 10G SR compliant - Up to 12 ports 850nm VCSEL/PIN - Low power <130mW per 10G transceiver	- High-speed interconnects for switches, routers, and transport systems - Rack, shelf, board, and backplane links - Supports Ethernet, ARINC 818, InfiniBand, plus IFE servers and endpoints



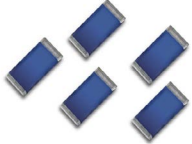
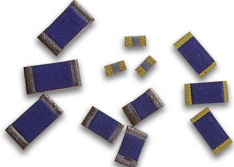
Product	Series & Description	Features & Benefits	Applications
Electromechanical Relays			
	Hermetically sealed RF relays for switching signals from DC to 18 GHz.	• DC–18 GHz operation • 28 VDC coil options • 2A contact rating • Hermetically sealed • High shock & vibration handling	• Electronic Warfare • SATCOM Systems • Radar Systems • Aircraft Slat / Flaps Controls • Aerospace Communications
Coaxial RF Switches			
	High-performance RF switches providing low-loss routing from DC to 67 GHz.	• DC–67 GHz coverage • High isolation • Low insertion loss • Up to 1800 W CW power • 2 million cycle life	• Radar Systems • SATCOM • Electronic Warfare • UAV Controls / Comms • Aerospace & Defense
Military Solid State Relays			
	Fast-switching solid-state power relays for defense and aerospace systems.	• No moving contacts • Fast switching • Long service life • Shock resistant • Military screening options	• Defense systems • Avionics • Ground vehicles • Power control • Military Test equipment
Industrial Solid State Relays			
	Solid-state switching solutions for industrial and commercial applications.	• Silent switching • Long life • Fast response • Compact packages • Low maintenance	• Automation • Process control • Motor control • Heaters • Power supplies
RF Switch Matrices			
	Configurable RF routing systems supporting complex signal paths to 67 GHz.	• Standard off-the-shelf and custom options • DC to 67 GHz • Passive component integration	• Semiconductor test • Satellite AIT • Production test • RF validation • Aerospace test
HI-REL Space Electromechanical Relays			
	Flight-proven relays designed for mission-critical space applications.	• Space qualified • Proven flight heritage • Hermetically sealed • DC to 3 GHz • High mission reliability	• Satellites • Launch vehicles • Payloads • Deep space • Spacecraft



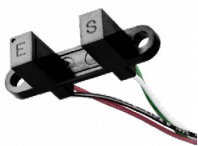
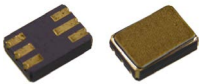
Relays & Coax Switches

Product	Series & Description	Features & Benefits	Applications
HI-REL Space Coaxial Switches			
	Space-qualified RF switching solutions for satellite and launch systems.	• Flight heritage • DC to 26 GHz • Low insertion loss • Rugged construction • Space-qualified designs	• SATCOM payloads • RF payloads • Ground stations • Space RF • Defense space



Product	Series & Description	Features & Benefits	Applications
Precision Thin Film Chip Resistors by IRC			
	PFC Series High-reliability thin film chip resistors utilising tantalum nitride technology	• Resistance values from 10Ω to 1MΩ • Tolerances to ±0.05% • TCR to ±10ppm/°C • Self-passivating tantalum nitride technology • Long-term stability measured in tens of ppm per year • Available in 0402 to 1206 package sizes	• Radar receiver modules • Electronic warfare systems • Precision guidance electronics • Military communications equipment • Satellite control electronics
Thick Film Chip Resistors by Welwyn			
	CR Series resistors engineered for applications requiring proven performance and long-term availability.	• Qualified to EN140401 and IECQ-CECC standards • Resistance values from 1Ω to 100MΩ • Tolerances to ±0.1% • Operating temperatures from -55°C to +155°C • Manufactured in the UK with over 40 years of process consistency • Backed by millions of component hours of load testing	• Military communications equipment • Radar and surveillance systems • Ground vehicle electronics • Aerospace power distribution • Secure networking equipment • Critical infrastructure monitoring systems
High Power Current Sense Resistors by Welwyn			
	LRMAP Series Current Sense Resistors – Low-ohmic resistors designed for accurate current monitoring.	• Resistance values down to 0.1mΩ • Power ratings up to 10W • TCR as low as ±50ppm/°C • Four-terminal Kelvin connection options • High pulse handling capability • Optimised for automated assembly • Available in 2512, 2726, 3920 and 5930 package sizes	• UAV battery management systems • Electric propulsion power distribution • Defence vehicle DC-DC converters • Military power supplies • Aircraft auxiliary power systems
High Voltage Chip Resistors by Welwyn			
	HVC Series High Voltage Resistors – Engineered for monitoring, protection and power conversion systems.	• Continuous working voltages to 3kV • Overload voltages to 4kV • Resistance values to 1GΩ • Tolerances to ±0.5% • TCR to ±50ppm/°C • AEC-Q200 qualified versions available • Available in 1206, 2010 and 2512 package sizes	• High-voltage power supplies • Directed energy subsystems • Aerospace power conversion • HV sensing and monitoring • Defence test equipment

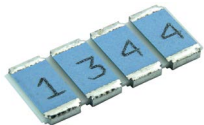
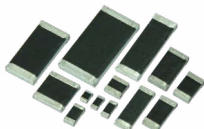


Product	Series & Description	Features & Benefits	Applications
Ultra-Low Profile Power Resistors by Welwyn			
	WDBR Series Power Resistors – High-power, low-profile resistors for thermal management and high power density.	• Power ratings to 1490W • Ultra-low profile package • Direct-to-heatsink mounting capability • Excellent thermal cycling performance • Custom design capability	• UAV motor controllers • Power conversion modules • Thermal management systems • Flight surface controls • Dynamic braking systems
Precision Multi-Turn Trimmers by BI Technologies			
	89 Series Trimmers – Precision cermet trimmers providing stable calibration and adjustment.	• 20-turn adjustment mechanism • Resistance values from 10Ω to 2MΩ • Power ratings to 0.75W • Stable cermet element technology • Repeatable adjustment performance • Long load life	• Inertial navigation systems • Radar calibration circuits • Secure communications equipment • Military test instrumentation • Sensor signal conditioning
Hall-Effect Position Sensors by Optek Technology			
	Hallogic® Hall-Effect Sensors – Position sensing designed for motion, speed and position detection	• Contactless sensing eliminates mechanical wear • Fast and accurate position detection • Digital and analogue output options • Resistant to vibration and contamination • Compact, high-reliability design • Custom design capability	• UAV flight controls • Electric actuator feedback • Antenna positioning systems • Autonomous ground vehicles • Weapon station positioning • Solar panel deployment • Fuel injection control
Slotted Optical Switches by Optek Technology			
	OPB800 Series (OPB821TX) Optical Switches – Non-contact optical sensors providing position and motion detection.	• Integrated IR LED and detector • Fast response times • Precise slot geometry for repeatable detection • Wide operating temperature capability • Multiple aperture and gap options • Long-life non-contact operation • Custom design capability	• Flight control actuator feedback • UAV gimbal positioning • Encoder systems • Military robotics • Ammunition handling equipment
Radiation Capable Optoisolators by Optek Technology			
	HCC1000 (Through Hole) / HCC1001 (SMT) – Engineered for high-reliability circuit electrical isolation.	• Radiation tolerant to 100 krad (Si) • Isolation voltage up to 1,000 VDC • Available in through-hole and SMT packages • TX and TXV processing options available • Operating temperature from -55°C to +150°C • Proven hi-rel optoelectronic technology	• DC-DC converter feedback isolation • Power bus monitoring and isolation • Telemetry signal isolation • High-voltage digital I/O isolation • Sensor and actuator isolation circuits

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Product	Series & Description	Features & Benefits	Applications
High Precision Wraparound Thin Film Chip Resistors			
	P-Series Wide Ohmic Value Range resistors	- Load life stability 0.02% typical at 8000h at 70°C under Pd - Low temperature coefficient down to 5ppm/°C (-55°C; +155°C) - Very low noise < -35dB and voltage coefficient < 0.01ppm/V - Wide resistance range: 10Ω to 86MΩ depending on size - Tolerances down to ± 0.01% - Sulfur resistant	- Avionics - Military - Space - Industrial - Medical
High-Precision Thin Film Chip Resistor Arrays			
	PRA-Series Sulfur Resistant, High-stability and High-precision Resistor Arrays	- Networks with same or different Ohmic values - Ultra-stable resistive layer: 0.02% drift on ratio after 1000 hours at Pn power at 70°C - Tight TCR (10ppm/°C) and TCR tracking (down to 1ppm/°C) - Very low noise < -35dB and voltage coefficient < 0.01ppm/V - Ratio tolerance down to 0.01%	- Instrumentation - Calibration - Data conversion - Avionics, military and space
MIL-PRF-55342 Qualified Thick Film Chip Resistor			
	RCWPM (Military M/D55342) Thick Film Chip	- Fully conforms to the requirements of MIL-PRF-55342 - Established reliability – verified failure rate; M, P, R, U, S, V & T levels - Construction is sulfur impervious against a high sulfur environment (ASTM B 809-95 test method) 100% group A screening per MIL-PRF-55342 - Termination tin / lead	- Aircraft - Avionics - Missile systems - Surveillance - Communication systems - Naval vessels
MIL-PRF-55342 Qualified Thin Film Chip Resistor			
	E/H T-Level Military M/D55342 QPL MIL-PRF-55342 Qualified Thin Film Resistor, Surface Mount Chip	- T-level (space) qualified - Passes outgassing requirements of ASTM-E595 - TCR to ± 25ppm/°C - Tolerances to ± 0.1% 100% power conditioning	- Aircraft - Avionics - Satellites - Missile systems - Weaponry and other combat equipment - Space exploration
MIL-PRF-55342 Qualified Thin Film Chip Resistor			
	E/H (Military M/D55342) QPL MILPRF-55342 Qualified Thin Film Resistor	- Established reliability, 'S' and 'V' failure rate level (10ppm), C = 2 - High purity alumina substrate - Wraparound termination for up to +150°C operating conditions - Very low noise and voltage coefficient (< -25dB, 0.5ppm/V) - Non-inductive - Laser-trimmed tolerances ± 0.1%	- Missile/air flight control - Communication systems - Ground support radar - Guidance and navigation control
Hi-Rel vPolyTan™ Polymer Surface Mount Chip Capacitors			
	T54- and T56-Series Hi-Rel COTS	- DLA 20021 / 04051 available - Stacked version combine high capacitance (up to 2800µF), high voltage (up to 75v) and low ESR down to 5 mΩ) in a single package. - Leading edge CV offering - Double anode structure for very low ESR	- Satellites - Launch vehicles - Radar Systems - Antennas - Deep space - Spacecraft
High Energy Wet Tantalum Hybrid Capacitors			
	EP2-/HE-Series provides the largest capacitance in a given package size and voltage rating	- Highest capacitance in a single wet tantalum package - Highest energy density - Oper. Temp: -55°C to +125°C - Cap Range: 2.000 µF - 96.000 µF - Voltage Rating: 25 - 125 VDC	- Pulse Power - Energy Hold-Up - Military - Avionics - Missile Systems

DAS Featured Product Guide | Prime Suppliers

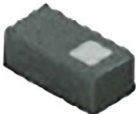


The DNA of tech.

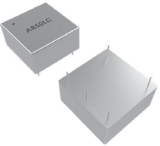
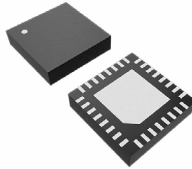
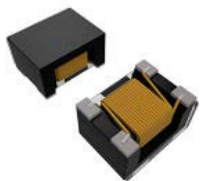
Product	Series & Description	Features & Benefits	Applications
Vishay SuperTan® wet tantalum capacitor technology			
	STE-/STH-hermetically sealed axial Wet Tantalum Capacitors, wide CV Range, mechanical robustness	- Hermetically Sealed Tantalum Case 500g shock, 80g sine, 54g random vibration 300 thermal shock	- Filtering - Switching - Hold-up - Avionics - Military - Space
Hi-Rel COTS Conformal Coated Solid Tantalum Chip Capacitor TANTAMOUNT™			
	T97 Series MNO2 capacitors with highest available CV values and hi-rel screening options	- DLA drawing available (13008) - Hi-rel screening options available, including Weibull grading - Surge current testing options per MIL-PRF-55365 - State-of-the-art CV in a wide variety of case sizes - Ultra-low ESR down to 0.015 Ω - Tin/lead (Sn/Pb) terminations standard; 100 % tin available	- Radar Systems - SATCOM - Electronic Warfare - UAV Controls / Comms - Aerospace & Defense
Space Grade Composite Power Inductors			
	SGIHLP Space Grade SGIHLP Power Inductor - MIL STD-981 class S compliant	- Meet the requirements of MIL-STD-981 class S - High operating temperature to +180°C - Magnetically shielded construction - Rugged package 6 different screening levels available from Low Earth Orbit (LEO) screened to MIL Class S - Available in 7 case sizes	- Low profile, high current power supplies - High current POL converters - DC/DC converter in distributed power systems "Flight-ready" solar inverters - Noise suppression filters



Product	Series & Description	Features & Benefits	Applications
SKF490758L125DM Vehicular Antennas			
	SKF490758L125DM (W)	- Vehicle roof mount, directly on metal plane - Port 1 470-512 / 750-960MHz - Port 2 Active GNSS L1, L2 & L5 with low noise 30dB amplifier - Cable / length; RG-58 / 17ft (5.2m) - GNSS Cable / length; RG-174 / 17ft (5.2m) - Connector; SMA-Male - Available in Black (P/N SKF490758L125DM) or White (P/N SKF490758L125DMW) - Heavy and light vehicles	- IoT - Navigation - Tracking
SZ3035N Internal - WPC			
	SZ3035N	- Qi 2.0 standard Single Coil MPP - Size: OD 58.46mm - Height: 4.6mm Max - The length of the coil output can be changed - Compliance with RoHS and Halogen Free. - Consumer Electronics,	- Home Appliances - Automotive Industry - Medical Devices - Industrial Applications, - Public Facilities, Education and Office.
GNSSL125DM26NM Outdoor Antennas			
	GNSSL125DM26NM GNSS Active L1, L2, L5 Patch Antenna NM Direct Mount	- GNSS RHCP active antenna 2Beidou, GPS, Glonass - LNA gain 30dB - Stacked L1 / L2 + L5 patch antenna - High rejection filters to suppress out of band interference - ESD Protected	- Base station timing antenna - Tracking - Asset tracking - Fleet management - IoT - M2M

Product	Series & Description	Features & Benefits	Applications
SWA4389 Internal Antennas			
	SWA4389 Flexible PCB Antenna	- I-PEX MHF 4L connector with 100mm cable - Cable and connector can be customized - Devices with ISM 868MHz / 915MHz radios	- M2M - IoT - Metering - Industry automation
W3907B0350 Internal Antennas			
	LTE 698-3600MHz FPC Antenna Series: Gemini	2G / 3G / 4G Div Ant for MiMo - Used as pair for W3906B0100 - Can be used as Primary antenna 698-3600MHz - Global LTE Bands: B1-B23, B25-B29, B33-B42 - N.A .; Europe, Asia (incl. Jap.) - Foldable for tight spaces	- Challenging RF environments - demanding: - Highest Peak Gain - Lowest ECC (Envelope Correlation Coeff.). - Matched to Radio Modules from: Sierra Wireless, Quectel, Telit, Huawei, Gemalto, uBlox, ZTE, and others. - Security, Video, Graphics - IoT, SmartGrid, Meters, Remote Monitoring, Sensor Networks
LPF Series - LTCC multilayer ceramic low-pass filters			
	1608 2.3G-2.7GHz Low Pass Filter LPF1608LL52R 2500A	- RoHS compliant - Smaller RF modules, - Reduced PCB routing complexity, - Better harmonic filtering, lower RF losses, and higher integration density.	- WLAN - Bluetooth - ISM Band
BSCH Series RF Inductors			
	BSCH Series	- High frequency performance, for efficient operation at radio frequencies with minimal loss. - It can reduce noise and distortion and maintain the integrity of radio frequency signals. - Space-saving, suitable for constrained designs in portable devices and IoT applications. - Can be customized with specific requirements such as frequency range, impedance and size.	- Communication Systems: Mobile phones, Wi-Fi routers, and 5G equipment. - Antenna Matching Networks. - IoT and Smart Devices. - Medical Devices. - Consumer Electronics.
High-Q RF MLCCs			
	CQ Series	- High-Q - Low ESR - Low ESL - Stable NP0/C0G dielectric 50Operation from roughly 500 MHz to 10 GHz	- RF modules - Mobile communications - Base stations - Bluetooth - GPS - Telecommunications
Baluns			
	BLN Series	- RoHS compliant, - Surface-mount compatible, - Optimized for automated RF module assembly.	- RF Transceiver - Antenna Feed - Wi-Fi / Bluetooth Module - LTE / 5G Front-End - GNSS Receiver



Product	Series & Description	Features & Benefits	Applications
O-CS8 Ultra-Low Phase Noise OCXO			
	Ultra Low Phase Noise, Precision SC-cut HF OCXO in SMD Package	• SC-cut Crystal • Ultra Low Phase Noise • Sine Wave +15 dBm Output • Extremely Small, Slim Package	• Instrumentation • Radar • High End Synthesizers • Telecommunication Systems • Data Communications
AR50LC Miniature Atomic Clock / Rubidium Oscillator			
	Embedded Rubidium Oscillator for excellent accuracy, short term stability and frequency stability.	• Output Frequency 10MHz • Low phase noise high precision atomic clock • Excellent short-term stability • Operating Supply Voltage: +5 Vdc, +12 Vdc • Ultra-tight frequency tolerance ± 0.05 ppb • Temp stability available to 0.3ppb (-20 °C to +65 °C)	• Satellite Timing and Frequency • Oil and Gas Exploration • GPS Receiver • Telecommunication Infrastructure • 4G/LTE/CDMA/EMTS • Test and Measurement
ALND Series MMIC Low Noise Amplifiers			
	Broadband LNAs supporting RF front-end signal amplification.	• Quad Flat No-lead • Frequency Range: 800 MHz to 10.5 GHz • Noise Figure as Low as 0.70 dB • Tunable Bias • High Gain up to 32 dB • DC Decoupled IOs	• L/S/C/X Band Radar • Phased Arrays • Satellite Communications • Instrumentation • Telecom
ACMP-Q Power Line Common Mode Chokes			
	EMI suppression solutions for high-reliability power systems.	• Package Sizes (mm): 2.0 x 1.2 to 12.0 x 11.0 • Impedance (Power): 67 Ω to 2700 Ω • Rated Current up to 9 A	• DC power line common mode noise suppression. • Multimedia devices • Automotive power train • Automotive infotainment
AISC-Q Series Automotive RF Inductors			
	High Q Ceramic Wirewound RF Inductor (AEC-Q200)	• Package Sizes (mm): 1.27 x 0.76 to 2.92 x 2.79 • Inductance (nH): 1 - 15000 • Q as high as 622 @ 900 MHz	• Automotive applications • Bluetooth, W-LAN, Broadband Network • Impedance matching networks • Filtering for high frequency communication circuits



Product	Series & Description	Features & Benefits	Applications
QRM85BXXG28E			
	8mm LED Indicator with a sleek black bezel, vibrant green light, 28 VDC rating, and IP67 sealing	• Mounting Hole: 8 mm • Led Colour: Green • Voltage: 28V DC • Sealing: IP67 • Terminals: Wires • Bezel Finish: Black	• Communication • Head Sets • Remote Controls • Control Panels • Avionics • Nightvision
12146X778			
	The Panel Switch has a sleek design, double pole and ON ON function for control of any application	• Number Of Poles: Double Pole • Fluorescent Tip: None • Levers: Standard • Terminals And Bushing: Solder Lug Terminals • X778: High Performance Fully Sealed Black Switches • Electrical Functions: ON ON	• Ground Vehicles • Aerial Vehicles • Marine • Communication • Head Sets • Remote Controls
13445-4X778			
	Durable pushbutton with a double pole configuration and ON MOM function, ideal for any application	• Approvals: No Agency Approval Required • Number Of Poles: Double Pole • Plungers: 4mm (0.157in) • Terminals And Bushing: Straight PC Terminals Threaded Bushing • X778: High Performance Fully Sealed Black Switches • Electrical Functions: ON MOM	• Ground Vehicles • Aerial Vehicles • Marine • Communication • Head Sets • Remote Controls
ES1S41653			
	Panel Switch features 2 NC options and a double pole configuration	• Actuator Diameter: 34.5 mm 1358 • Number Of Poles: Double Pole • Actuator Colours: Red Anodised • Terminals: Solder Lug • Status Indicator: Green • Electrical Functions: 2 NC	• Ground Vehicles • Aerial Vehicles • Marine • Communication • Control Panels • Remote Controls
IPR3SAD2			
	Pushbutton with a round actuator, normally open functionality, and gold-plated contacts.	• Actuator Colours: Black • Contact Materials: Silver (Gold-Plated) • Electrical Functions: Normally Open (NO)	• Ground Vehicles • Aerial Vehicles • Marine • Communication • Head Sets • Remote Controls
N35111012			
	Sealing boot prevent dust, sand, ice and water from getting into switches.	• Sealing boots for toggle switches • Available in a wide range of colours. • A sealing ring or washer is standard supplied with each boot	• Ground Vehicles • Aerial Vehicles • Marine • Communication • Head Sets • Remote Controls

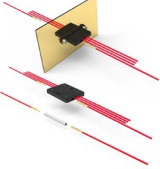
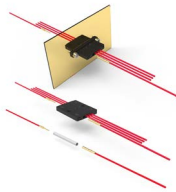
BOURNS®

Product	Series & Description	Features & Benefits	Applications
Panel Control			
	AMS, EM14, EMS, 3310, 3315, 3852, 3862, 51, 53, 56, 81, 82, 85, 86, 91-95	• Incremental or absolute value adjustment • Voltage-divider mode or rheostat (with power de-rating – mainly cermet) • High-accuracy adjustments • High reliability applications • Tact switch function for menu selection	• Human-machine interface (HMI) panel controls • Seat and actuator controls • Remote communications antenna positioning • Radio controls • Audio and broadcast equipment controls
Precision Pots			
	3048, 3500, 3540S, 3549H, 3590, 3751H, 65xx, 66xx	• Single and Multi-turn Potentiometers • Accuracy and high-reliability • Long rotational life cycles • Conductive plastic and Hybritron options • Voltage-divider mode • Analog output	• MMI Solutions • Measuring Linear distance, angles or rotations • Human-machine interface (HMI) applications • Radio controls • Power Supply control
Trimming Potentiometer			
	RT/RTR - MIL/ DLAM Qualified Square Trimspot®	• Multiturn / Wirewound / Industrial / Sealed options available • Listed on the QPL: RT per MIL-PRF-27208; RTR (High-Rel) per MIL-PRF-39015 • 3/8 inch - 1/2 inch • 0.75 Watt Power Rating	• Radar systems • Avionics control modules • Pressure Sensor Calibration • Precision Instruments • Process control instrumentation
Trimming Potentiometer			
	RJ/RJR - MIL/ DLAM Square Trimspot®	• Cermet / Industrial / Sealed • Listed on the QPL: RJ per MIL-PRF-22097; RJR (High-Rel) per MIL-PRF-39035 • 1/4 to 3/8 inch • 0.25 - 0.5 Watt Power Rating • 10 Ω to 1 MΩ	• Radar systems • Avionics control modules • Pressure Sensor Calibration • Precision Instruments • Process control instrumentation
Braking Resistors			
	BR / BRT	• Wirewound Technology • Power ratings from 60 to 500 Watts • Resistance range from 0.1 to 1k Ohms • Non-inductive wiring available • Tolerances of 1 %, 5 %, or 10 % • Compact Packaging	• Renewable energy • Power converters • Motor drives
Surface Mount TVS Diode			
	CDSOT23-SM712-Q	• Working peak voltage 7V or 12V • ESD protection 30 kV max • Surge protection • AEC-Q101 compliant	• Wireless systems • Network protection • Portable electronics • RS-485 port protection

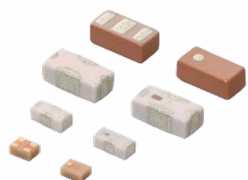
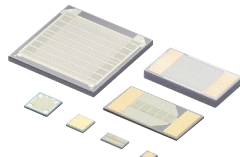


Product	Series & Description	Features & Benefits	Applications
TLR - High Reliability Metal Plate Shunt Resistors			
	Ultra-low ohmic metal plate resistors for high current measurement up to 100 A	- Efficient high-frequency characteristics - Ultra-low resistance 0.5 mΩ to 20 mΩ - High current capability up to 100 A - Low TCR ±50 ppm/K, stable performance - Low parasitic inductance for fast response - Wide operating temperature -65 °C to +170 °C - AEC-Q200 qualified	- Aerospace power systems and avionics - Defense electronics and current monitoring - Motor control units and power electronics - DC/DC converters and power supplies - Battery management systems
WG73 – Pulse Proof Wide Terminal Chip Resistors			
	Wide terminal resistors with high pulse load capability and enhanced heat dissipation	- Outstanding pulse and surge resistance (ESD proof) - Up to 10 kW / 10 μs single pulse (1225 size) - Wide terminal design improves heat dissipation and enhance terminal strength - Resistance range 560 mΩ to 1 kΩ, ±10% / ±20% - Operating temperature -55 °C to +155 °C - AEC-Q200 qualified	- Aerospace electronics surge protection - Defense systems with transient loads - Power converters with high inrush currents - Industrial power control systems - Battery and inverter protection
RS73 – High Precision Thick Film Chip Resistors			
	High reliable thick film resistors with excellent stability and ESD robustness	- Tolerance down to ±0.1%, TCR ±25 ppm/K - Excellent long-term stability ±0.2% - ESD tolerant thick film technology - Higher max. power rating at +85 °C - Resistance range up to several MΩ - AEC-Q200 qualified, anti-sulfuration option	- High precision sensing circuits - Aerospace and defense electronics - Motor control and control circuits - Industrial instrumentation - Power supplies and AC adapters
SG73P – Anti-Pulse High Power Chip Resistors			
	Compact anti-pulse resistors with high power capability and space-saving design	- Outstanding pulse performance, up to 500 W / 10 μs 7× higher pulse capability vs. standard chips - High power density in compact chip sizes - Resistance range 1 Ω to 10 MΩ, ±0.5% to ±5% - Operating temperature up to +155 °C - AEC-Q200 qualified, anti-sulfuration option	- Power supplies and compact power designs - Motor control and drive electronics - Industrial and measurement electronics - Automotive control units - Smart metering and inverters
RN73H – High Precision Thin Film Chip Resistors			
	Ultra-precision thin film resistors with excellent stability and moisture protection	- Ultra-tight tolerance down to ±0.05% - Extremely low TCR down to ±5 ppm/K - Excellent long-term stability ±0.1% - Superior moisture and corrosion resistance - Low noise, high linearity - AEC-Q200 qualified, high reliability design	- High precision voltage divider circuits - Aerospace and defense electronics - Industrial and measurement equipment - Power meters and control systems - Medical and diagnostic electronics
Anti-Sulfuration Chip Resistors			
	Anti-sulfuration chip resistors for reliable operation in sulfur-contaminated environments	- Superior resistance against sulfur contamination - Prevents failure caused by Ag₂S formation - High reliability in harsh environments - Available across multiple resistor series (RK73, SG73, etc.) - AEC-Q200 qualified - Proven performance under high sulfur exposure	- Sulfur-rich industrial environments - Automotive and transportation electronics - Power meters and energy systems - Renewable energy inverter systems - Aerospace harsh environment electronics



Product	Series & Description	Features & Benefits	Applications
Aerosplice			
	Designed for ease of use, enable secure wire-to-wire connection using removable contact technology.	- Exceeds MIL-DTL-24308 specifications, ensuring it is suited for demanding aerospace and military applications - Engineered to withstand high vibration, extreme temperatures and harsh conditions - Reconnectable design with removable crimp contacts allows for easy repair and maintenance	- Aircraft Systems - Defense Equipment - Mission-critical infrastructure - MRO (Maintenance, repair and overhaul) - Industrial systems
MDMA & MDMB Connectors			
	High performance microminiature connectors, ESA qualified for space applications.	- Compliant with ESA specifications - High performance Micropin™ contact system: “Twist pin” spring male contact and tubular socket contact - Harness length flexibility - Removable crimp type contacts - Low size/weight connector	- Space Equipment - Satellite harnesses and payloads - Military and avionics
SM15KPA-HRA High reliability TVS Diode			
	Protect sensitive electronic equipment from voltage transients induced by lightning	15 kW Peak pulse capability at 10/1000 ms waveform - Typical failure mode is short from over-specified voltage or current - Low incremental surge resistance - For surface mounted applications to optimize board space - Excellent clamping capability	- I/O Interfaces - Vccbus - Avionics - Aviation - EVTOL Applications
SpaceSplice			
	State-of-the-art wire-to-wire connection system engineered to meet ESA/ESCC (3401/097 and 3401/005).	- Compact, lightweight design - Radiation & Temperature resistant - Low outgassing & Magnetic signature - Removable D*MA Crimp contacts - ESA/ESCC Qualified. Complies with ESCC 3401/097 and 3401/005 standards	- Satellites - Spacecraft - Launchers
MicroD Connectors			
	Resistant to a high variation of temperatures and exhibit no degassing, magnetism, or defects.	- All sizes available from 9 to 51 contacts - Removable crimp contact variant available - Solder cup, straight and 90 bent terminations crimp variant - Shell with nickel and gold finish - All accessories available: lightweight, backshell, jackpost, jackscrew, tools	Aviation, defense and space solutions
SM30KPA-HRA High Reliability TVS Diodes			
	Protect sensitive electronic equipment from voltage transients induced by lightning	30 kW Peak pulse capability at 10/1000 ms waveform - Typical failure mode is short from over-specified voltage or current - Low incremental surge resistance - For surface mounted applications to optimize board space - Excellent clamping capability	- I/O Interfaces - Vccbus - Avionics - Aviation - EVTOL Applications



Product	Series & Description	Features & Benefits	Applications
High-Reliability MLCC Capacitors			
	GCM /GCJ / GC3 series	• Proven multilayer ceramic technology • Automotive-grade baseline options • Wide capacitance and voltage range • Screening path to confirm per mission	• Power decoupling • RF biasing and filtering • Avionics, payloads and space modules
LTCC Filters			
	High-performance LTCC RF Filters	• High-selectivity RF filtering • Compact footprint for comms modules • Helps reject out-of-band signals • Fit for dense RF front ends	• Satellite communications • Navigation and telemetry modules
Silicon Capacitor for RF/mmWave Systems			
	Murata silicon capacitors for high frequency	• Low-parasitic silicon capacitor technology • Supports RF and mmWave designs • Compact passive for dense layouts • Fit for advanced RF platforms	• Satellite communications • Radar front ends • 5G / advanced RF platforms
6-Axis MEMS IMU			
	SCH16T-K01 3-axis accelerometer + 3-axis gyro	• 6-DOF motion sensing • Digital SPI Interface • Cutting edge low noise ± 300 °/s gyroscope • Wide measurement range ± 80 m/s² / ± 260 m/s² accelerometer • Advanced self-diagnostics	• Inertial navigation and positioning • Machine control and guidance • Dynamic inclination measurement • Robotic control and UAVs • Satellite systems

Panasonic INDUSTRY

Description & Product		Features & Benefits	Applications	
Hybrid Capacitors				
	EEH* • High ripple current • Larger capacitance • High temperature	• Voltage 25-80V • Ripple current up to 6.1A • Capacitance up to 1000μF • Temperature up to 150°C	• Vehicles • User antenna • Gateway • Radar • Surveillance systems • Commercial aircraft • Security systems • Satellites • Cruise liners • Aircraft infotainment • Drone	
Electrolytic Capacitors				
	EEE* • High performance with low ESR • High temperature-Reflow • Miniaturized	• Lifetime up to 10,000h • 6.3V - 100V		
Polymer Aluminum Capacitors (OSCON and SP-Cap)				
	SP-Cap • Ultra-low ESR • Low profile OS-CON • Highest ripple current • Longest lifetime	SP-Cap • ESR down to 3mΩ • Voltage 2V to 6.3V • High temperature up to 135°C OS-CON • Ripple current up to 7.5A • Voltage 2.5V to 100V • Lifetime 20,000h @105°C		
Polymer Tantalum Capacitors (POSCAP)				
	POSCAP • High capacitance • Low profile	• Low ESR down to 5mΩ • Voltage up to 35V • Capacitance up to 1,500μF • Smaller size footprint - B & D case sizes		
Inductors				
	ETQP* • High vibration up to 50G • High temperature resistance	• High temperature up to 180°C • No hard saturation • Low DCR • High current up to 103A		
Thick Film Resistors				
	ERJ*** • High power in small size • Anti-pulse/anti surge • High-temperature and high-voltage performance • Long time stability	• Power up to 2W, down to 5mΩ • High temperature up to 175°C available • Large power dissipation • Soft-termination structure for improved solder-joint reliability • Anti-sulfur options available		
Thin Film Resistors				
	ERA*** • High precision • High reliability and low drift • Long-term stability at 85 °C / 85% RH	• TCR down to ±10 ppm/K • Limiting element voltage up to 750 V (ERA8X) • Anti-sulfur options available		



Product	Series & Description	Features & Benefits	Applications
Panduit Contour-Ty Cable Tie			
	Contour-Ty® Cable ties provide a superior bundling solution for a wide variety of applications	• Low profile head - Reduces overall bundle size • Outside teeth - Provide cable protection; ideal for high vibration applications • Smooth round edges - Prevent damage to cable bundles • Fully enclosed head - Provides consistent strength • Parallel-entry design • Curved tip and aggressive grip	• Nylon 6.6 Natural • Weather Resistant Nylon 6.6 Black • Heat Stabilized Nylon 6.6 Natural/Black • Length 104 - 531mm • Width 2,5 - 7,6mm
Panduit PLT Specialty Material Cable Ties			
	Pan-Ty® ETFE (Tefzel) - Chemical, UV & Weather-Resistant Cable Tie	• Excellent flammability rating of UL 94V-0 • Distinct aqua blue color • Ideal for applications requiring resistance to gamma radiation and chemical attack • Temperatures of up to 170°C	• High temperature applications such as engine compartment, military, aircraft and aerospace • Ideal for applications requiring resistance to chemical attack, gamma radiation and UV- radiation
Panduit PLT Specialty Material Cable Ties			
	Pan-Ty® PEEK - Chemical, High-Heat & Radiation-Resistant Cable Tie	• High Temperature Polyetheretherketone (PEEK) material up to 240°C • Chemical resistant material • Gamma radiation resistant material • Good electrical isolation properties • Low water absorption	• Drilling down-hole electronics • Commercial cooking equipment • Industrial ovens • Transformers and transducers • Wire harnesses for harsh environments • Chemical manufacturing • Transportation
Pan-Steel Self-Locking Cable Ties			
	Panduit MLT Series Self-Locking Cable Ties AISI 304 and AISI 316 Stainless Steel	• Self-locking head design speeds installation and locks into place at any length along the tie body • Provides a strong, durable method of cable bundling • Smooth surfaces and rounded edges assures cable protection and worker safety	• Ships, Submarines, Aircraft, Chemical Plants, Refineries, Industrial Facilities, Oil Rigs, Refineries • Resistance to extreme temperatures, chemicals, salt-water spray, ultra-violet light
Pan-Steel Stainless Steel Installation Tools			
	RT2HT and BT2HT Series Installation Tools	• Superior cutter design reduces cutting effort by 50%, diminishing operator fatigue • Adjustable tension control provides consistent bundle tension • Narrow nose design allowing access to confined space • Cable tie side entry for immediate positioning of tie and tool to speed installation	• Ships, Submarines, Aircraft, Chemical Plants, Refineries, Industrial Facilities, Oil Rigs, Refineries • Resistance to extreme temperatures, chemicals, salt-water spray, ultra-violet light



Product	Series & Description	Features & Benefits	Applications
Samtec Magnum RF® Ganged, Multi-Port, High-Frequency Connectors			
	Magnum RF® delivers performance, density and blind mate features for high-frequency applications	• Mode-free operation up to frequencies of 65 GHz • High-density, space-saving design • Micro-miniature SMPM style with 50 Ω impedance • Ideal for use where space is limited and high frequencies are essential • Optional screw down feature for increased retention	• AESA radar systems • Electronic warfare (EW) equipment • Satellite RF payloads • Secure communications systems • RF instrumentation and EW test systems
SEARAY™ High-Density Open-Pin-Field Arrays			
	SEARAY™ high-speed, high-density open-pin-field arrays for maximum grounding and routing flexibility	• Open-pin-field arrays allow flexibility in routing and grounding design • Up to 560 I/Os in open pin field format • Lower insertion & extraction forces, and can be “zippered” during mating/unmating • Up to 56 Gbps PAM4 performance • Tested to Samtec’s extreme SET standards for use in harsh applications.	• VPX/OpenVPX embedded computing • Mission computers • Radar signal processing • Electronic intelligence (ELINT) systems • Satellite processing modules
Tiger Eye™ high-cycle, high-reliability connector systems			
	Samtec’s most rugged contact system rated to 1,000+ mating cycles, optimised for rugged applications	• High-reliability Tiger Eye™ three-finger Beryllium Copper contact system • A wide choice of pitch, including 0.80 mm, 1.27 mm and 2.00 mm • Optional locking and latching systems for higher withdrawal force • Standard and cost-saving designs • Extended Life Product™ testing available	• Avionics control modules • Rugged handheld military electronics • UAV flight control systems • Soldier-worn electronics • Military vehicle electronics
Ultra micro mPOWER® 2.00 mm pitch power connectors			
	Power connectors with up to 18 A for board-to-board, cable-to-board and cable-to-cable applications	• One product family that supports board-to-board, cable-to-board and cable-to-cable applications • Contact ratings of up to 18 A per blade • Space savings of up to 40% compared to traditional power systems • From 2 to 10 power blades on a 2.00 mm pitch • Stacking heights between 5 mm and 20 mm	• Embedded power distribution • VPX/OpenVPX power modules • Radar power supplies • Satellite power management systems • Rugged edge computing platforms
AcceleRate® Slim Direct Attach Cable Assemblies			
	The industry’s slimmest cable system with direct attach technology and ultra-low-skew twinax cable	• High-density 2-row design with slim 7.6mm width • Supports 64 Gbps PAM4 (32 Gbps NRZ) applications • PCIe® 6.0/CXL® 3.2 capable • Mixed differential pair and single-ended signaling available • Available with 100 Ω Eye Speed® and 92 Ω Thinax™ ultra-low-skew twinax, and 50 Ω ThinSE™ micro coax cable	• AI-enabled mission computing • High-speed data acquisition systems • Radar processing clusters • Secure data processing systems • Spaceborne high-speed data links
URSA® I/O Ultra Rugged Cable System			
	URSA® uses Hyper Claw™ hyperboloid-type contacts for high reliability in ultra-rugged applications	• Hyper Claw™ uses four points of contact for a reliable connection • Hyper Claw™ hyperboloid-type contacts provide extremely high mating cycles • Delivers current up to 3.8 A • Voltage rating: 200 VAC/282 VDC max	• Military ground vehicles • Naval combat systems • Airborne mission systems • Autonomous defence platforms • Field-deployable communications equipment

Product	Series & Description	Features & Benefits	Applications
AP-MIL Series Hydraulic Magnetic Circuit Breakers			
	Sealed circuit breakers designed for reliable performance in harsh military environments	- Up to 20A at 50Vdc; 15A at 120Vac; 7.5A at 240Vac - Fully sealed construction with waterproof panel integrity - Hydraulic-magnetic design maintains stable trip performance across temperatures - Trip-free protection - Inverse time delay options - MIL-PRF-39019 qualified	- MBTs - Drone Ground Stations - Aerospace Ground Equipment - Radios, C4I, EW, SIGINT - Infantry Vehicles
MX Series Heavy-Duty Contactors			
	High-current switching contactors built for reliable power control in demanding defense systems	12Vdc to 48/100Vdc coils 150-1000A continuous; up to 6000A overload - Built for high shock and vibration environments - MIL-R-6106 / MIL-STD-810G compliant - High dielectric strength (1500V) with silver contacts - Advanced options including CAN/J1939, current sensing, and protection features	- Missile Systems - Vehicles - Naval - Power
IAL/CEL/LEL Series Hydraulic Magnetic Circuit Breakers			
	Dependable circuit breakers with clear trip indication for mission-critical systems	0.2-100A; up to 125Vdc/277Vac per pole - BX style design with flat front rocker for controlled operation - Clear visual trip identification with guarded actuator - High interrupt capacity up to 50,000A - Broad agency approvals 1-3 pole configurations	- MBTs - Drone Ground Stations - Radars - Radios, C4I, EW, SIGINT - Infantry Vehicles
CMX Series PCB Mount Solid State Relays			
	Solid state relays for reliable DC control in space-constrained systems	- SIP package for compact PCB integration - Ratings to 20A @ 60 VDC, 10A @ 100 VDC, 10A @ 60 VDC and 3A @ 200 VDC - MOSFET output for efficient DC switching - DC control input - Low on-state impedance reduces power loss - CE compliant to EN60950-1	- Avionics subsystems - Radar
209 Series Hydraulic Magnetic Circuit Breakers			
	Compact circuit breakers with stable performance across demanding AC and DC applications	0.1-100A ratings; up to 160Vdc / 600Vac per pole - Minimizes nuisance tripping with magnetic operation - Handles high inrush currents and pulse loads - Compact E-Frame design combines switching and protection - Configurable 1-6 pole assemblies with multiple terminal and mounting options	- MBTs - Drone Ground Stations - Radars, Radios, C4I, EW, SIGINT - Infantry Vehicles - Mobile Power -- Gensets, Field Utilities - Ships & Patrol Boats
Series 1 Panel Mount Solid State Relays			
	Panel mount relays for AC load control in mission-critical power systems	- Up to 75A at 48-530 VAC - SCR output optimized for high-power loads - Zero voltage or instantaneous turn-on - Robust mechanical design with anti-rotation features - Direct bond copper and lead frame for thermal performance - Global approvals and EMC compliance	- Power Distribution Systems - Ground based defense equipment - AC load control in military systems



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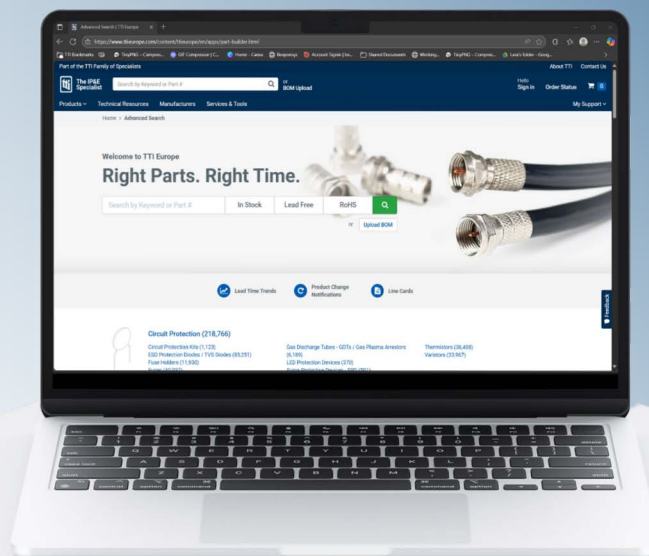
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