

HI-REL BUSINESS | NEW SPACE

Manufacturers	Products	Applications
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Space & military MIL-PRF-55342 thin & thick film SMT chip resistors, MIL-PRF-914 SMT chip resistor networks, MIL-PRF-32159 zero Ohm chip resistors (jumpers), Mission critical precision chip resistors, high frequency chip resistors, silicon chip resistors, SMT fixed chip attenuators, 4-terminal current sense chip resistors, High power chip resistors, high voltage chip resistors, wire & epoxy bondable chip resistors for hybrids, power moisture compliant chip resistors, Hi-Rel screening

Space,
New Space,
Defense,
Aviation Hybrid Modules,
Biomedical



EPC Space is focused on designing and manufacturing radiation hardened (Rad Hard) GaN-on-silicon transistors and ICs packaged, tested, and qualified for satellite and high-reliability applications. Built for mission-critical environments, EPC Space's GaN technology guarantees high power density, fast switching, and superior radiation tolerance, making it the ideal choice for spaceborne and high-reliability electronics.

Products: JANS MIL-PRF-19500 Certification for Rad-Hard GaN-on-Silicon transistors and ICs, Rad-Hard GaN Packaged HEMTs, Rad-Hard GaN Die on Ceramic Adapter, Rad-Hard GaN Drivers & Power Stage Modules, Rad-Hard GaN Drivers & Power Stage ICs

Available engineering tools: Demonstration Boards, Point-of-Load Evaluation Boards, Motor Drive Evaluation Boards

Space High-Efficiency DC/DC Converters,
Space Systems Lidar,
Space Motor Drives,
Space Systems - Ion Thrusters,
Low Earth Orbit (LEO),
Geostationary Earth Orbit (GEO)



Avionics, Military, Space (AMS) Products, Active, Passive, Discrete Components Qualified to relevant CECC, EN, ESCC and MIL specifications
Hi-Rel, MIL, Space Grade Power Inductors, Coils, Transformers
MIL Ceramic Capacitors, X/Y Fuses (safety capacitors)
MIL-, ESA-Precision Resistors, Special Resistors, Shunt Resistors, Transducers
MIL-, COTS-Tantal Capacitors, Wet-, Stacked-, SMD-, Polymer Types
MOSFETS, AEC-Q COTS Products, TVS-, ESD-Diodes
Optical & Thermal Sensors
RF-Resistors, Substrates

Aerospace, LEO,
Defense, Missiles,
Airborne Systems,
Guided Defense Systems,
Navigation & Communication,
Optronics,
Radar Systems,
UAV, Drones



Military hermetic hybrid DC/DC-converters 5W to 120W, single, dual, triple versions
Space rad-hard hermetic hybrid DC/DC-converters 5W to 120W, single, dual, triple versions, TID 100krad, SEE 82MeV
MIL-PRF-38534 DLA qualified, SMD part number available
New space rad tolerant hermetic hybrid DC/DC-converters 25W, 40W, single, dual versions, TID up to 30krad, SEE up to 60MeV
EMI filters complementary to their hermetic hybrid DC/DC-converters offering a range of input voltages and packages
Rad-hard and Rad-tolerant PCB based DC/DC-converters with key features and tailored to customer's requirements, single, dual, triple, quad, octo versions, Output power 5W to 400W, TID 100krad, SEE 60MeV

Space Components
Rad-hard & rad tolerant MRAMs 64Mb (4Mx16) class S 100K
Radiation hard logic ICs (AND, NAND, OR, XOR), Hi-Rel diodes, rectifier & Schottky diodes, unipolar & bipolar TVS diodes, Zener diodes, COTS diodes, Diode assemblies - ISOPAC®, center taps and doublers, Hi-Rel ICs & components DLA/DSCC certified products, QML/SMD 5962, memories, logic devices, analog ICs
Nuclear Event Detector (NED) screened to class H military flow or class K space flow
MIL-STD-1553 data bus couplers & accessories

Space,
New Space,
Defense,
Aerospace,
Aviation,
Marine,
Launch Vehicles,
Industrial-Embedded Products,
FPGA-Boards



Ultra-precision Bulk Metal Foil resistors. Extremely low temperature coefficient of resistance (TCR as low as 0,2 ppm) and exceptional longterm stability through temperature extremes.

High Precision Foil Resistors, Standard & Custom Resistors, Power-, SMD-, THT-, Thermosensitive Resistors, Hybrid Chips (PRND), Trimmers, Voltage Divider Networks.

Wide selection of highly precise and reliable precision resistors from customized made-to-order to standardized made-to-stock that meet any required specifications. Comprised of four brands: VFR, Alpha Electronics, Powertron and APR.

Space Qualified Resistors,
Aviation,
Aerospace,
Defence,
Downhole Oil & Gas



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Manufacturers	Products	Applications
	<p>Hi-Rel & High Temperature Hybrid Microcircuit Crystal Oscillators & Crystal Units, LVDS Output Oscillators for Space Applications, MIL-PRF-55310, MIL-PRF-38534, MIL-883B, TTL-LVDT-CMOS-HC/ACMOS-ECL, Lowest voltage is 1.8V, SMD-Packages 5x7mm, High Shock & Vibration Designs, Extreme High temperatures products operating up to +230°C New Commercial Space Oscillators for LEO Applications, SMD-Packages 3x5mm</p>	<p>Space Heritage, New Space, Aerospace, Aircraft, Defense, High Temperature Products</p>
	<p>ESCC FM, QM, EM qualified rad-hard POL converter 2A, 24V flatpack, buck-boost operation, rad-hard POL converter 8A, 40V (prototype), Voltage clamp 10A, 40V, DC/DC-converter controller, PWM controller with start-up, quad LVDS line receiver with extended common mode, quad LVDS line driver, 1:4 LVDS fanout buffer with extended common mode, Screening & testing of SPACE IC products to the ESCC 9000 requirements, Rad-tolerant POL converter in a plastic package</p>	<p>Space, New Space, Satellite Business, Harsh Environments</p>
	<p>Highest energy and power density capacitors with MTBF>5,000,000 hours, product range 22 to 1,000,000 µF (5.5 to 150V) -55°C to +200°C very low ESR, very high current handling capability, highest levels of quality, Qualified to NASA INST-002, ISO 9001 and AS9100 registered, MIL-STD-704 space grade capacitors for critical missions</p>	<p>Space, New Space, Power Hold-up Avionics, Satellite Thrusters, Radar Lidar, EMP and Laser, Oil & Gas</p>
	<p>Multi-layer Polymer (MLP) Film Stacked Capacitors: Capstick® Capacitor (lead-frame capacitor), Surfilm® Capacitor (surface mount chip capacitor), Quencharc® Capacitor (RC network snubber capacitor), and the Angstor® Capacitor line. New Angstor series: 1200 VDC high-voltage polyester capacitors, withstand high current ripples, self-repairing, ultra-low ESR/RSL</p>	<p>Military, Space, Commercial, Automotive, Telecom, Mission-critical</p>
	<p>Multilayer ceramic capacitors (MLCCs) and leaded devices. Surface mount (SMT) multi-layer ceramic chips capacitors in both custom and EIA standard sizes; switch mode power supply (SMPS) capacitors in accordance with MIL-PRF-49470 and DSCC/DLA 87106, 88011 drawings and customer source controlled drawings (SCDs); SMT high voltage MLCC; radial leaded high voltage capacitors; SMD large body size MLCC; discoidal capacitors; discoidal arrays; and custom molded case radial parts. SMPS family for input and output filters in switch-mode power supplies DH Series: negative dielectric energy pulse capacitors, +250°C, 10 KV</p>	<p>Defence, Aerospace, Hi-Rel applications, Industrial, Telecommunications, Missiles, Downhole</p>
	<p>Innovative ceramic components for the most demanding high-frequency microwave, millimeter-wave, and 5G applications. Temperature range from -55° to 125°C. Design advantages through small-footprint, low-profiling packaging, and a wide voltage range. Fully tested up to 67Ghz. Patented High-Frequency Ceramic Capacitors single-layer ceramic capacitors Broadband Capacitor, Eulex Gap Capacitor, Single Layer Binary Capacitor, Vertical Layer, Ultra High-Q MLCC, Substrates and Stand-Offs</p>	<p>Hi-Rel applications, high-frequency microwave, millimeter-wave, 5G applications</p>
	<p>High reliable film capacitors meeting high demands for temperature and vibration. Operating temperature range from -65 to 125°C. Capacitance range from 0.001µF to 17100µF. Voltage range from 50VDC to 3300VDC, 230VAC to 920VAC. Lifetime up to over 100,000 hours. High RMS current capability, low ESL & ESR. Qualified MIL standards (PRF-39022, PRF-55514, PRF-83421, STD-790), hermetically sealed ceramic case for hostile environments, 100% burn-in screening.</p>	<p>Military, Avionics, Radar, Oil & Gas</p>
	<p>Rad-hard space qualified optocouplers & optoelectronic components, high gain-, high speed-, high voltage optocouplers, VCSEL high power laser diodes, rad-hard & military solid-state relays, voltage regulators, ITAR free products, Rad-Hard Power MOSFETs, N-Channel, P-Channel, Combination N+ P-Channel</p>	<p>Space Heritage, New Space, Aerospace, Avionics</p>
	<p>High Power Wide Bandgap (WBG) silicon carbide (SiC) Transistors Integrated Circuits (ICs) for applications in Power Electronics Silicon Carbide (SiC) High Voltage Power MOSFET's & Schottky Diodes Breakdown Voltage 650, 1200, 1700, 3300V, Current 1-300Amps Low on-resistance and low leakage in the blocking state, SMD and THT packages</p>	<p>Aerospace, New Space, Aviation, Defense, High-Temperature, Deep Ultraviolet Optical</p>