

# LINECARD

Hi-Rel & Aerospace





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# Who we are

**“  
Dimac Red’s mission  
is to support the  
success of our  
customers through the  
professional supply of  
innovative electronic  
products, solutions,  
design services and  
consultancy services”**

## Consulting and Sales of High Quality Electronic Products

Dimac Red Spa is a professional sales organization, established in 1979, dedicated to serving the European market with High Reliability electronic products. Our mission is to provide customers with products and services that require a unique level of technical support.

Our services include design, prototypes and subsystems production, hirel procurement activities, design analyses (WCA, FMECA, radiation) and additional screening/testing.

Focused mainly on the aerospace, military, railway markets (but also on automotive, telecom and medical markets), our experienced technical engineers provide Design-In and Added Value in order to help engineers and designers use High Reliability electronic components and sub-systems. Through Dimac Red, our customers have an easy access to a wide knowledge of the latest advanced technologies suitable for their needs.

# Markets

We continue to work as partners with the most significant players in these industries, from the early stages of design right up to the production phase. In addition to this, Dimac Red is able to support startup and mid-size companies with small volumes often associated with the implementation of cutting-edge technologies.

Dimac Red offers a wide range of products tailored to a variety of industries and markets.



Automotive



Avionic



Railway



Industry



Defence



Space



Hi-Rel



RF&Telecom



Grid&Energy



Medical



Transportation



# LINECARD

## Hi-Rel & Aerospace

Introducing our line card featuring innovative high-reliability electronic components tailored for the Aerospace and Defence industries.

Our products are designed for mission-critical applications, ensuring top performance and durability in extreme environments such as space, military, and avionic systems.

From advanced semiconductors to rugged connectors, each component is built to meet the stringent demands of MIL-SPEC standards. Partnering with leading manufacturers, we deliver solutions that ensure long-term reliability and support, driving innovation and success in the most challenging conditions.



# Alta<sup>dt</sup>

data technologies

Market Leader in 1553 & ARINC Connectivity 1553/1553b and ARINC Interface Cards. PCI, PCI Express, PCIe, PMC, XMC, PC104, Mini PCIe, Ethernet Converters. Ideal for VPX, Compact PCI (cPCI), PXI, PXIe, PXI Express, etc. From a full line of PCI (PMC/PC104P), PCI Express (PCIe, XMC) interface cards/boards for almost any computer

## Product / services supplied

Alta MIL-STD-1553 and ARINC Product: Widest Selection of COTS 1553 and ARINC Interface Cards/Boards. Deployed on 1000s of Systems, and Leader in Test & Simulation Applications (SILs, Labs Test, Manufacturing Test, Flight-Line)

## Market Sector

Space-Defence

## Contact

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backplane, to our innovative real-time Ethernet & NLINE connectivity devices, and thunderbolt(tm) and USB appliances, Alta brings innovative design and best in class service for MIL-STD-1553 and ARINC customers – 5 Year Warranty! Industry's First 1553 & ARINC In-Line (NLINE) Cable Converters. Full Featured. Auto Bridge. Ethernet, USB and Thunderbolt Converters.

Alta is committed to a no-risk integration of our products. We will help with any part of your project to ensure your avionics integration is a success! Alta has experienced rapid growth from its 2007 start to become one of the leading providers in the industry – all backed with a best in market 5 year limited warranty.



## Best Products

### Alta ARINC Advantages

- Wide Selection of COTS ARINC Interface Cards/Boards and Real-Time Appliances
- 4-48 Shared and Dedicated, Independent RX/TX Channels
- Portable FPGA AltaCore Design – Reduced Parts Obsolescence Risk
- Most Advanced Error Detection and Injection Available
- Parametrics Variable Voltage on ENET-A429P
- Layered, Modular and Portable AltaAPI – Simplified Integration
- Lab, Rugged and Conduction Cooled Configurations
- Highly Accurate TX Scheduling
- 3 Simultaneous RX Options per Channel
- IRIG/PPS, External Clock Controls
- Signal Capture & Generator Standard!
- \*\*\*5 Year Warranty! Best in the Industry\*\*\*



### Ethernet & NLINE: Real-Time 1553 & ARINC Converter/Bridges

Alta's Ethernet (ENET & NLINE) Avionics converters are the first and most unique Ethernet appliances in the industry. A real-time UDP server engine (no IP software stack like most other products on the market) provides direct data buffer and transmission control of MIL-STD-1553 and ARINC-429 interfaces. Now NLINE products are available with USB and Thunderbolt! Click on filters to the right to see all products. In addition, the ENET/NLINE products can provide automatic 1553 BM or ARINC Receive bridging without any host interaction. Small, rugged, real-time devices that are ideal for test, simulation or rugged embedded applications. The same advanced AltaAPI SDK can be used, or your OS IP socket layer (even DO178 stacks) – the ultimate in portability. The NLINE Product Family is the first full-featured 1553 and ARINC products embedded directly into rugged cable assemblies.



### Alta 1553 Advantages

- Wide Selection of MIL-STD-1553 COTS Interface Cards/Boards and Real-Time Appliances
- Packetizing Engine – 3rd Gen Design Common Data Packet (CDP) Architecture
- Portable FPGA AltaCore Design – Reduced Parts Obsolescence Risk
- Independent Channels – Separate Application Threads Per Channel
- Full SAE RT Protocol Validation – No Risk
- Most Advanced Error Injection and Detection Available
- Layered, Modular and Portable AltaAPI – Simplified Integration
- Lab, Rugged and Conduction Cooled Configurations
- Highly Accurate/Flexible BC Controls
- IRIG/PPS, External Clock Controls
- Signal Capture and Generator Standard!
- \*\*\*5 Year Warranty! Best in the Industry\*\*\*

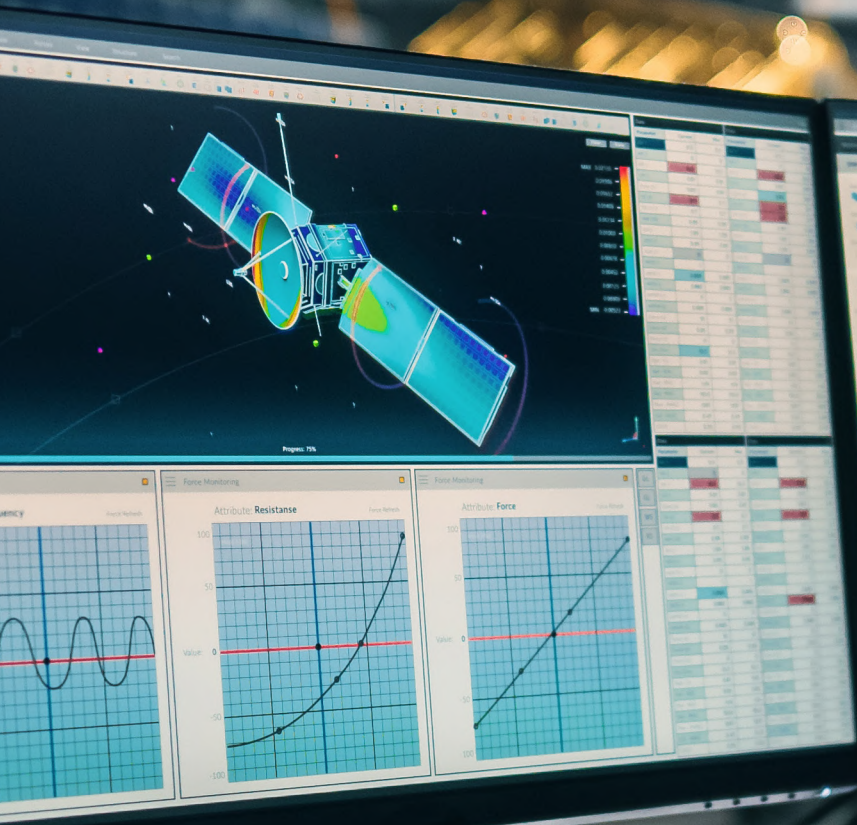


### Multi Protocol interface

Alta's Multi Protocol interface cards and Ethernet devices provide unparalleled value in combining MIL-STD-1553 and ARINC interfaces on a single product.

Combined with a common software development kit, AltaAPI, or with AltaView Windows analyzer, these products are the most advanced, easiest to integrate 1553+ARINC products on the market.







**ANATECH ELECTRONICS INC**  
RF & Microwave Filters & Products  
AN ISO 9001:2008 CERTIFIED COMPANY

Anatech Electronics Inc. is a US manufacturer which offers the industry's largest portfolio of high-performance RF filters and related products covering the frequency range of 10 kHz to 40 GHz. Anatech Electronics also provides tailored solutions to fit customer requirements.

### Product / services supplied

RF Filters, Multiplexers, Specs Matched Filters, Custom Filters

### Market Sector

Defence, Space, Telecom, Industrial

### Contact

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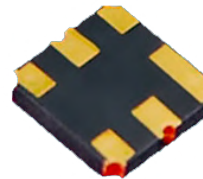


## Best Products



### Cavity Bandpass Filters

Anatech Electronics cavity bandpass filters are available in a wide range of frequencies, power levels, bandwidths, and rejection. The resonators and cavities are silver plated for low RF resistivity, in order to achieve low insertion loss and high selectivity.



### Surface Acoustic Wave (SAW) Filters

These filters employ the piezoelectric effect to convert an electromagnetic signal into an acoustic signal and vice versa. SAW bandpass filters provide sharp cut-off, very linear phase characteristics, high stability, and are highly reliable. These extremely compact surface-mount devices can be specified for operating frequencies from 4.75 MHz up to 6 GHz.



### Duplexers/LNAs

Combining a high-performance duplexer filter with an integrated low-noise amplifier, these products are well suited for both commercial and military applications. The LNA increases the dynamic range and sensitivity of the receive portion of the duplexer or when combining signals will increase the sensitivity of the receiver. The LNA/duplexers operate in the C, X, and Ku bands (2 to 20 GHz).

## Best Products

Cernex Inc. specializes in advanced thin-film hybrid, MMIC, and discrete microwave/millimeter-wave components, along with subsystems, waveguide solutions, and ferrite products for commercial and defense applications. Cernex, Inc. is a leader in custom design capabilities and offers a variety of optional features, which include components such as integral isolators, limiters, filters, attenuators, gain control, and coupled output ports for our amplifier products.

### Product / services supplied

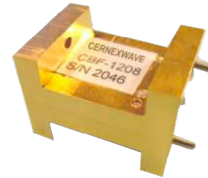
Microwave active and passive components, antennas, filters, subsystems

### Market Sector

Aerospace, Defence, Telecom

### Contact

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### Filters (Waveguide and Coaxial)

Cernex's low-, high- and band-pass filters have well matched, full waveguide pass band and thereafter a very wide stop band. Due the natural waveguide cutoff, these filters can also function as full waveguide band-pass filters. These filters are small in size and compact by design.



### SMT Microstrip Isolators and Circulators

CernexWave's CMIS and CCMS SMT microstrip isolators and circulators are offered in different frequency bandwidths from 2 to 30 GHz. These isolators and circulators are designed and manufactured to provide low insertion loss and high isolation for microstrip based component and module integrations. While the isolator is an important device where port isolation or VSWR is concerned, the circulator offers duplexing functions in many radar and communication systems



### Power Amplifiers and LNAs

Cernex manufactures a complete line of solid-state power amplifiers for various applications such as line of sight, point to point, point to multipoint microwave and millimeter-wave radio transmitters and TWT driver amplifiers. Cernex's Low Noise Amplifiers series are suitable for a wide range of applications in commercial and military systems where low to high gain block amplifiers are required.



**Silicon Supplies**  
Bare Die Solution Provider

## Best Products

Die Devices is specialized in bare die supply and design support, with backend test capabilities. They offer responsive technical support at any stage, for the selection of suitable bare die components from major semiconductor brands, including hi-rel grades. Silicon Supplies Ltd is a fabless chip company, designing and supplying proprietary die solutions. Together, they ensure continued supply of obsolete devices, long-term die management solutions and die re-creation.

### Product / services supplied

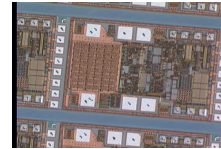
Amplifiers, sensors, microcontrollers, power management, data converters, voltage regulators, isolator ICs, logic ICs, wafer dicing, class H and class K testing.

### Market Sector

Space, Avionics, Defence, Automotive, Railways, Industrial, Telecom

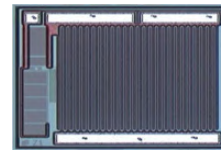
### Contact

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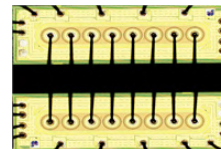
### SiS3950-ADJ

Low-noise, ultra-low dropout linear regulator. Efficient power regulation with ultra-low noise. Ideal for medical, sensor, and precision analog applications.



### INN650N080BS

GaN Power MOSFET 650V, 29A high-efficiency GaN transistor with aluminum top metal. Perfect for RF, power conversion, and high-voltage systems.



### SiS8017

4-channel CMOS / LVCMOS Digital Isolator eliminates current noise and provides up to 5kV RMS isolation per UL 1577. Low propagation delay: 19ns typical (5V supply), robust electromagnetic compatibility (EMC).

### TPD5030

Dual ESD Protection Diode. Fast-response ESD protection for sensitive circuits. Supports bidirectional and unidirectional configurations.

ELECTRONICA develops and produces hybrid circuits and innovative packaging solutions for power conversion where performance and reliability are key factors. The company partners with customers across the whole chain, providing a complete workflow from design services to qualified production and certification.

## Product / services supplied

Qualified Hermetic Package Hybrid Circuits, IC packaging & obsolescence solutions, SiC Power Modules, Fixture & Harnesses for Avionics and Space

## Market Sector

Avionics, Defence, Space, Railway, Industrial, Medical, Grid & Energy

## Contact

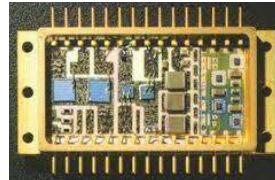
[sales.electronica@dimacred.com](mailto:sales.electronica@dimacred.com)



## Best Products

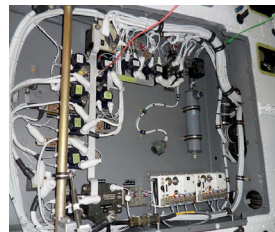
### Qualified Hermetic Package Hybrid Circuits

Electronica can design and produce from scratch custom hybrid circuits and, among other projects, has developed previous experiences with AD sampling, high voltage integrated power supplies, high power breakers, analog control loops, power drivers, radio frequency circuits and extremely low noise amplifiers and sensors. Production process and qualification are according to MIL standard (MIL-PRF-38534 and MIL-STD-883 respectively). Grade qualified for reliable performance in demanding environments.



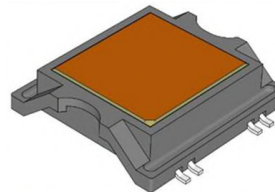
### Fixture & Harnesses for Avionics and Space

Electronica provides hirel custom harnesses and electronics for avionics and space markets for EM and EQM, and coordinates with subcontractor company for FM assembly. Heritage includes power distribution units, switching boards, solar array driver electronics, actuators, pyro driver electronics and battery management systems.



### SiC Power Modules

High performance, plugin, isolated top-side-cooling power conversion modules, designed and produced adopting state of the art, European production Gen3 SiC Mosfet. These modules offer an innovative, added value approach to meet more diverse efficiency and system density specifications while reducing assembly cost and increasing system yields.





## Best Products

ES Components is a franchised supplier of Hi-Rel electronic components and die processing specialist, with over 35,000 line items in stock.

- Bare die, wafers, and packaged devices
- Obsolescence support and sourcing of hard-to-find parts
- Hermetic and Hi-Rel components, QML certified.
- Vendor Managed Inventory (VMI)
- Custom engineering and die services: inspection, testing, repackaging, and layout support for source-controlled designs

### Product / services supplied

High-Frequency, Inductors/Magnetics, ICs, QPL components, MEMS (Oscillators), MOSFETs/JFETs, Optoelectronics, Analog Switches, Diodes, passives

### Market Sector

Space, Avionics, Defense, Medical, Industry

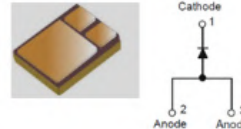
### Contact

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### Siliconix Hermetic

Complete inventory of Military JFETs, MOSFETs, and analog switches, Hi-Rel finished goods and wafers—ideal for non-MIL-PRF-19500 and MIL-PRF-38535 assemblies—delivering unmatched performance for the most demanding applications.



### ESx8EU8H03

8A / 300V Hyperfast Rectifier, specifically designed for high reliability applications. Hyperfast recovery time at a breakdown voltage greater than 300V, well beyond most schottky diode limits. Intended for use in the output rectification stage of SMPS, UPS, DC/DC converters, as well as freewheeling diodes in low voltage inverters and chopper motor drive applications. The device is rated at 175°C operating temperature for stable position measurements.



### Vishay Vitramon

Vishay Vitramon portfolio includes Multi-Layer Ceramic Capacitors For Space, Military and High Reliability Applications designed to prevent surface arc-over, board-flex tolerant variants, and non-magnetic options for sensitive environments.



Flux is a leading expert in the development and production of magnetic components of superior performance for power supplies. Typical applications are those where standard components are not suitable and which require extensive testing and quality assurance, in defence and space, commercial space, renewable energy, automotive and industrial markets. Flux applies a full control of the product development, from design to manufacturing. Reliability encompasses the whole supply chain, from dual sourcing material solutions, to 0% fail-rate testing program. Quality system meets the most exacting standards, among which, ESA Certificate of Technology Flow Qualification No. 364 and IATF 16949 Automotive Quality Management.

### Product / services supplied

Chokes, Transformers, Inductors

### Market Sector

Automotive, Avionic, Railway, Industry, Space, Hi-Rel, RF&Telecom, Grid&Energy, Defence, Transportation

### Contact

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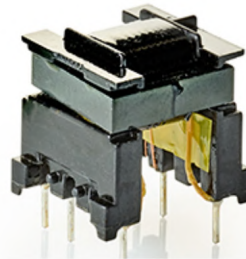


## Best Products



### Chokes

(output chokes, differential mode and common mode). Transformers produced according to UL systems; wide range of temperature ranges available.



### Transformers

in the 1W - 10kW power range, with custom-design bobbins and cores shapes. Transformers include traditional (Half/full bridge, forward, push-pull), resonant transformers (Half/full bridge LLC, DAB, Forward), current sense transformers and GFCI.



### Inductors

(PFC, Boost, Buck, Resonant) custom-designed to get optimized solutions, concerning efficiency and physical size. Flux inductors are typically used in power supplies for industrial applications, EV Charging, eMobility systems, aviation, and in advanced electronics for satellites, spacecraft, and rocket boosters.



GAIA Converter is a leading manufacturer of DC-DC converters with modular power conversion solutions. Their products are designed to offer high efficiency, reliability, and compactness, making them ideal for a wide range of Avionics, Military, Railway/ Transportation and high-end Industrial application. GAIA's converters comply with key standards such as MIL-STD-461, MIL-STD-704, MIL-STD-1275, DO-160, EN50155 ensuring robust performance under harsh conditions. With power ranges from 4W to 500W converters, front-ends, filters, bus conditioners and protection modules GAIA provides unprecedented advantages to facilitate the design of sophisticated power architectures, regardless of requirements and standards.

### Product / services supplied

DC-DC Converter, DC-DC Front-End Modules, AC-DC Power Factor Corrected Front-Ends

### Market Sector

Avionics, Defence, Railway, Industrial

### Contact

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## Best Products



### Isolated DC/DC Converter

GAIA Converter offers a wide range of high density and low profile Isolated DC-DC Converters from 4W to 500W divided into 3 technology families. This includes ultra-wide input range and a large range of voltages to enable you to meet the requirements of any input voltage standard. - MGDxx Series



### Non-Isolated DC/DC converter

Small size Non-Isolated DC-DC Converters with a maximum input voltage of over 35V. These converters have low output voltage for use as PoL, with sequencing and synchronization capability. They deliver maximum current of 14A at low output voltage and 260W at higher output voltage. Output voltage is adjustable over a wide range and adapted to fast-load transients - MPGS-14A Series



### DC-DC Front-End Modules

GAIA Converter offers a complete range of Front-End elements to protect and adapt the power conversion stage, like EMI filter, reverse polarity, surge limiter, under voltage limiter, inrush current limitation, hold-up (transparency during momentary input bus drop-outs), On/Off, supply of commentary signals to ensure perfect management of power supply. LGDS, PGDS, LHUG and FLHG Series

Hi-Rel, part of the Qnnect group, supplies highly specialized metal components for the microelectronic packaging industry and the hermetic sealing, including getters & absorbers, lids, and specialty solder preform.

Hi-Rel Alloys is specialized in:

- Chemical etching of a wide range of ferrous materials, including Kovar, Dilver, Nickel, Alloy 42, Alloy 46, Invar, and various grades of stainless steel;
- Electrolytic and High-Phosphorus Electroless Ni and Au plating to NADCAP standards.
- Precision Assembly with controlled atmosphere brazing (low- and high-temperature, including gold-tin and copper).
- Getter integration for moisture, hydrogen, and organics management.

### Product / services supplied

**Hi-Rel Lids:** Getters, Window Lids, Domed Lids, Solder Seal Lids, Stepped/Flat Lids, thermal management materials.

**Hi-Rel Alloys:** ring frames and specialty solder preforms.

### Market Sector

Space, Avionics, Defence, Medical, Telecom, Industrial.

### Contact

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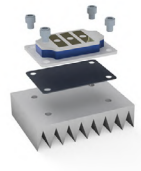


## Best Products



### DiaCool™

Thermal Interface Material, Silver-Diamond, Copper-Diamond and Aluminum-Diamond isotropic composites with Thermal conductivity up to 850 W/mK.



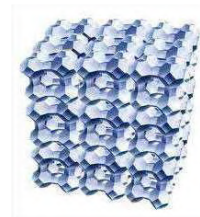
### TIMCool

Graphene based thermal interface material with TC up to 90 W/mK in Z axis.



### Getters

Zeolite-based micro-porous material for the absorption of target species (H<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>O and organics), even for medical implants. Getters with custom shapes can be integrated into lids as foil, tablet or ink printed forms. Operating temperatures from 150 to 500°C. rocket boosters.



### Zeolite structure



Indium Corporation is a world leader provider of cutting-edge technologies and material solutions for advanced electronics assembly, with the highest quality and the widest selection of materials.

Formulations are designed to deliver low-voiding and withstand extreme temperatures, thermal cycles and mechanical stress for demanding operating environments. Solder pastes are based on six alloys families (GA, Bi, In, Sn, Pb, Au); melting temperatures range from 7 to 1064°C.

### Product / services supplied

Solder pastes, wires, preforms, ribbons, solder spheres, fluxes, thermal interface solutions

### Market Sector

Space, Avionics, Defence, Automotive, Railways, Industrial, Telecom, Medical

### Contact

[sales.indium@dimacred.com](mailto:sales.indium@dimacred.com)

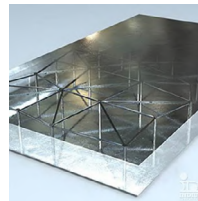


## Best Products



### Durafuse® HT

Two-alloy system solder paste, High-Temperature and Pb-Free Solder. Drop-in replacement for high-lead solders, high shear strength, excellent thermal and electrical performance comparable or superior to high-lead solders in demanding environments. Ideal for die-attach and clip-bonding in discrete power devices and multi-chip modules.



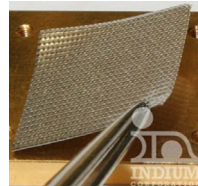
### InFORM®

Reinforced solder composite with a copper grid inside, to improve strength and control bondline.



### NanoFoil®

Reactive material that act as a heat source for ambient temperature soldering, to preserve thermal sensitive components. It acts as localized heat source to melt adjoining solder layers at room temperature. It eliminates the need for an oven and manages CTE mismatch.



### Heat Spring®

Soft and patterned metal alloy, used as a thermal interface between two compressed surfaces. The indium content makes it ductile: the pressure allows its pattern to deform and create a more intimate contact between the surfaces. Suitable for immersion cooling.

Johanson Dielectrics has been a worldwide producer of high-quality ceramic chip capacitors for over 60 years. Their corporate mission is to satisfy the customer's requirements for high quality, technologically advanced ceramic chip capacitors.

Johanson Dielectrics designs and manufactures capacitors in a state-of-the-art facility in Southern California. Located in Camarillo, this facility produces Standard and High Voltage SMT Ceramic Capacitors, as well as a variety of standard and custom High Voltage & High Capacitance value Ceramic Capacitors.

## Product / services supplied

Power Capacitors, EMI Filters

## Market Sector

Automotive, Transportation, Industrial, Medical, Telecom, Defence, Avionics

## Contact

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## Best Products

### EMI X2Y filters

EMI X2Y Filters are multilayer ceramic devices that combines two balanced shunt capacitors, with mutual inductance cancellation and shielding effect. Used for both EMI filtering and noise attenuation, the component is an effective EMC solution for common mode noise issue, and it allows to get rid of differential noise as well. Automotive version (AEC-Q200) is available for many values.



### Leaded stacked ceramic capacitors

SMPS Switch-Mode Stacked ceramic capacitors feature large capacitance values and exhibit low ESR and low ESL (equivalent series inductance) making them well suited for high power and high frequency applications where tantalum or aluminium electrolytic capacitors may not be suitable. Furthermore Mini-Switchmode® Capacitors are suitable for DC-DC power circuits in high-stress environments.



### Surface mount capacitors

Johanson dielectrics design and produce different surface mount capacitors:

- High voltage and high temperature MLCC capacitors;
- Automotive Grade MLCC capacitors;
- Tanceram® capacitors for replacing tantalum capacitors;
- AC Power and AC Safety capacitors for power handling and line-to-ground protection.



Johanson Technology has over twenty-five years experience specializing in the design and manufacture of high-quality RF & Microwave ceramic chip capacitors for wireless communications (cellular, WiFi, Bluetooth, etc.), inductors and integrated passives. Johanson Technology focus their high frequency expertise in meeting customer needs for specialized and custom ceramic capacitor products for the wireless market sector. Johanson Technology is dedicated in providing the highest level of customer satisfaction through high quality components, superior customer service and forward looking, advanced products.

## Product / services supplied

RF Capacitors, RF inductors, Integrated passive

## Market Sector

Automotive, Transportation, Industrial, Medical, Telecom, Defence, Avionics

## Contact

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## Best Products



### RF ceramic chip antennas

They are among the smallest ceramic chip antennas on the market, ideal for space-constrained RF designs. They support a wide range of applications such as WiFi, Bluetooth, Zigbee, LoRa, GNSS, LTE and they are certified to meet AEC-Q200 standards for harsh environments—ideal for in-vehicle WiFi, telematics, and smart mobility applications.

### Integrated Passive Components

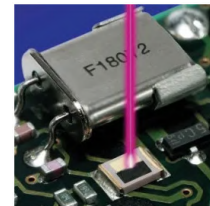
Integrated Passive Components (IPC) can operate over several RF bands from 400 MHz to 30 GHz and are based on a proprietary Low-Temperature Cofired Ceramic (LTCC) process. IPC solutions cover a wide range of supported application bands, including all ISM bands, GSM, GPRS, Bluetooth, WiFi, Zigbee, and more. They include Baluns, Couplers, Diplexers, Filters and Power dividers.



### RF Ceramic Capacitors

Johanson Technology offers different ceramic capacitors for RF applications:

- Single layer capacitor for very high frequency applications;
- High- quality multi-layer capacitors for high power RF designs where low ESR and low loss performance are critical;
- Laser trim capacitors that are laser adjustable monolithic ceramic surface mount devices designed for precise functional tuning of RF circuits.





Magics Technologies is a European fabless semiconductor company specializing in radiation-hardened, high-reliability ICs for the world's most demanding environments. Its products are engineered to operate under extreme radiation levels, up to 1 MGy TID, without shielding, making them ideal for nuclear, aerospace, defense, robotics, and space applications. Magics combines advanced analog/mixed-signal design, embedded intelligence, and robust sensor interfaces to deliver ITAR-free solutions for mission-critical systems. The company supports customers from concept to qualification, offering proprietary rad-hard IP, in-house testing capabilities, and long-term product availability.

### Product / services supplied

Three main product families: Time Series (PLL, TDC), Motion Series (motor control, sensor readouts, and actuation), Vision Series (full-HD radiation-hardened imaging modules).

### Market Sector

Nuclear, Aerospace, Defense, Robotics and Space applications

### Contact

[sales.magics@dimacred.com](mailto:sales.magics@dimacred.com)

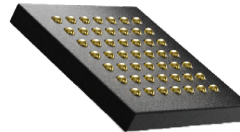


## Best Products



### MAG-TDC00002 (Time-to-Digital Converter)

The only patented radiation-hardened, ITAR-free TDC (TID 100 krad; SEL/SEU 62.5 MeV cm<sup>2</sup>/mg). Picosecond resolution (single shot precision < 8ps; dead zone 0-3ps), low consumption and self-calibration capability for stable and accurate operations in LiDAR, 2D Mass spectroscopy, clock distribution, Quantum Key Distribution, Time of flight.



### MAG-PLL00002 (Phase Locked Loop)

Fully integrated, programmable PLL with digital loop filter and digitally controlled oscillator. It delivers low jitter, low noise, and maintains lock integrity under TID and SEE. All loop components are integrated for a small form factor. Supports integer-N / fractional-N modes with a 1 MHz–5 GHz tuning range and versatile output drivers. Completely ITAR-free, version 100 kRad (GEO) e 30 kRad (LEO).



### MAG-POS00002 (Position Sensing IC)

Rad-hard position-sensing IC for resolver and LVDT readout, designed for space mechanisms and AOCS. Provides high-accuracy angle/position decoding, SEE/TID robustness, and stable performance in harsh environments. Integrates excitation generation, signal conditioning, and digital processing for a compact, low-power solution. Ideal for reaction wheels, gimbals, antenna pointing, solar array drives, and deployment mechanisms. ITAR-free



## NANOFEA

NanoFEA is a research, development, and manufacturing company specializing in cutting-edge getter technology, that leverages nanomaterials for superior performance in gas, moisture, organic, and particle scavenging applications. This next-generation getters are designed to deliver exceptional efficiency and reliability under extreme and demanding conditions. High adsorption capacity without activation. Substrate materials: Glass (borosilicate glass and silicate glass), ceramics (alumina, purity 92-99%), metals (Ti, Cu, Kovar, aluminum alloys).

### Product / services supplied

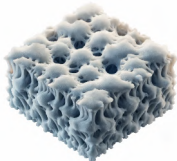
Getters, getter mounted lids

### Market Sector

Space, Avionics, Defence, Medical, Telecom, Industrial

### Contact

[sales.nanofea@dimacred.com](mailto:sales.nanofea@dimacred.com)



**Hierarchical porous nanostructured polymer composite**

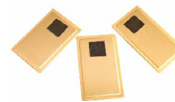


## Best Products



### HyMAX-HP

Advanced hydrogen-active powder designed for high-loading films, offering excellent H<sub>2</sub> adsorption for trace removal in process-gas lines, WLP getter layers, vacuum assemblies, fiber-optic gels, superconducting cables, and pressure stabilizers. Operating T. from -55 °C to +100 °C.



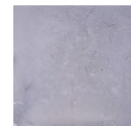
### HyMAX

Solid state hydrogen getter available in standard (-55 °C to +125 °C) and HT (-162 °C to +300 °C) versions, offering 5-10 wt% H<sub>2</sub> absorption and long term protection against outgassed hydrogen for up to 20 years in MEMS sensors, photodiodes, implantable devices, optoelectronic modules, and aerospace avionics.



### CryoMAX

Discrete powder getter designed to capture outgassed hydrogen in vacuum insulated cryogenic systems. Typical applications include cryogenic tanks, Dewars, vacuum insulated pipes, cryostats, and superconducting cables. Operating T. from -253 °C to >250 °C and an absorption capacity of 180 cc/g.



### AII MAX

Provides a comprehensive getter solution, effectively eliminating all known and unknown outgassing species from vacuum systems and hermetically sealed packages.



### ParticleMax

Absorbs magnetic, electric, dielectric, fine dust, foreign object debris, and microbial contaminants in vacuum system, optical, MEMS, and hermetic packaging systems.

NVE Corporation is a world leader in spintronic technologies, pioneering the use of GMR/TMR nanotechnology for high-performance electronic components. The company's IsoLoop® magnetic isolators are state-of-the-art replacements for optocouplers, ensuring superior reliability, speed, and durability in mission-critical aerospace and Hi-Rel systems. NVE's sensors provide exceptional precision, reliability, and robustness, ensuring consistent performance even in the most demanding environments.

## Product / services supplied

Signal isolators, Position sensors, Current sensors (GMR/TMR)

## Market Sector

Avionics, Defence, Automotive, Medical, Transportation, Industrial

## Contact

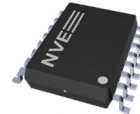
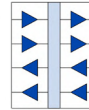
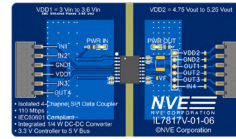
[sales.nve@dimacred.com](mailto:sales.nve@dimacred.com)



## Best Products

### IL700/IL200 and V-Series

Isolators are the industry standard for solid-state signal isolation and the ultimate in usable data rate and performance. Standard versions are rated at 2.5 kVrms isolation and 600 Vrms Working Volts; V-Series versions are rated at up to 7 kVrms isolation and 1200 Vrms Working Volts. Applications include serial interfaces, isolated Controller Area Network (CAN Bus), isolated Serial Peripheral Interface (SPI), isolated A/D converters, and isolated power interfaces. Evaluation boards available.



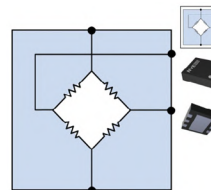
### IL800 Series

Top-tier isolators: 110 Mbps, 125 °C, 50 kV/μs immunity, 44,000-year barrier life. Ultra-fast with 10 ns delay and 100 ps jitter. VDE0884-10 certified (600 Vrms WV), low EMI, in MSOP & SOIC-16 packages.

### Bipolar Analog Sensor ALT025-10E

The ALT025 is a high-performance TMR analog bridge magnetic sensor designed for applications requiring exceptional signal strength and linearity. Its bipolar differential output delivers accurate detection of both positive and negative field polarities, with a wide ±10 mT linear range and outstanding linearity (<1% F.S.).

Typical uses include motion, speed, and position control, as well as non-contact current sensing and robotics.





O.C.E. Technology is a European company set up to develop products and services for high-reliability embedded systems. Its founders bring together many years of engineering, academic and business experience in developing successful hardware and software products. The company has strong cooperation with the European Space Agency in the development of unique innovative products to improve the productivity of embedded software developers.

### **Product / services supplied**

Radiation-hardened SoC, Radiation-tolerant system-in-package (SIP) memories, Satellite Subsystems, Star Trackers, Solar cells, Batteries, Real time operating system and debugger

### **Market Sector**

Space

### **Contact**

[sales.oce@dimacred.com](mailto:sales.oce@dimacred.com)

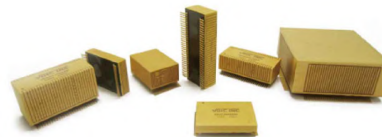


## Best Products



### **Radiation-tolerant high-performance AI chip**

HISAOR is a rad-tolerant high performance vision processing SOC with quadcore ARM A9 supported by an AI coprocessor with 16 neural network accelerators and GPUs. It includes media processors for encode and decode of H264/H265/JPEG2000 and high-speed interfaces for efficient moving of data.



### **Radiation-tolerant system-in-package (SIP) memories**

System-in-package or SIP is a number of integrated circuits enclosed in a single module. Dies containing integrated circuits, may be stacked vertically on a substrate. They are internally connected by fine wires that are bonded to the package.



### **Satellite Subsystems**

O.C.E. provides a wide range of subsystem for satellite applications such as Star Trackers, Solar cells and Batteries, Reaction wheels, Attitude Determination and Control Systems

# **SENSITRON** **SEMICONDUCTOR**

Sensitron Semiconductors is a leading manufacturer of high reliability power electronic components and subsystems for Defense, Aerospace, Space, Medical and other high reliability markets. Applications include switching power supplies, AC-DC rectification, primary & secondary power distribution, motion control, transient voltage spike protection, and custom projects.

## **Product / services supplied**

Qualified Active Devices, Solid State Power Controllers, Motor Drivers and controllers, High Power Protection Diodes, Custom Designs

## **Market Sector**

Avionics, Defence, Industrial, Medical, Space, Telecom

## **Contact**

[sales.sensitron@dimacred.com](mailto:sales.sensitron@dimacred.com)



## **Best Products**



### **Solid State Power Controllers**

Sensitron has a proven record of providing rugged, highreliability programmable SSPC Cards and Power Distribution Units, ranging from 1 to 32 individual channels with total current capabilities up to 200A, fully compliant to MIL standard and equipped with CAN bus communication interface.



### **Transient Voltage Suppressors**

Transient Voltage Suppressors high power protection devices can avoid the effects of sudden spikes in voltage or current on critical circuits. Available from Sensitron are TVS clamps that conform with MIL standards (MIL-STD-1275, MIL-STD-704, MIL-STD-1399, DO-160) and performance SuperClamp™ for precise voltage clamping control.



### **QPL JANS/JANTXV Qualified Diodes**

Sensitron has supplied diodes for space applications since 2002 and, since JANS qualification in 2011, has been providing over 3 million of qualified devices to major space manufacturers worldwide. In our QPL parts list both diode and diode arrays can be found, as well small signal, power, rectifier and Schottky diodes.



## Best Products

Shimafuji Electric Incorporate is a Japanese company, active since 1990, specializing in design and production of SpaceWire network testing equipment and cables.

### Product / services supplied

Lab test equipment for SpaceWire networks

### Market Sector

Space

### Contact

[sales.shimafuji@dimacred.com](mailto:sales.shimafuji@dimacred.com)



### SpaceWire-to-GigabitEthernetR3

This product is a standalone bridge between SpaceWire and Gigabit Ethernet, allowing devices to communicate with a PC without any driver. It provides 200Mbps SpaceWire packet transfer via TCP/IP sockets to/from PC, implementing a SpaceWire router and the software-less TCP/IP stack on the FPGA.



### SpaceWire cables

Shimafuji provides cables for LAB (ground) testing of SpaceWire equipment, available in various length and choice of connector types.

Steel Electronique, an ACTIA Aerospace Company, is a French manufacturer of multiple products for Space applications.

The products range from onboard computers for microsatellite platforms (OBC) and micro/mini-satellites payloads (EGCU), DC/DC converters, onboard networking equipment (SpaceWire, 1553) and memories.

**Product / services supplied**

Electronics for Space applications

**Market Sector**

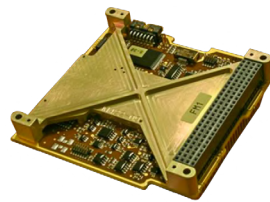
Space

**Contact**

[sales.steelectronique@dimacred.com](mailto:sales.steelectronique@dimacred.com)

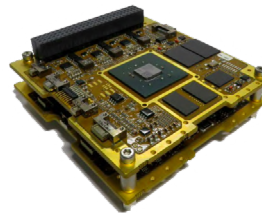


## Best Products



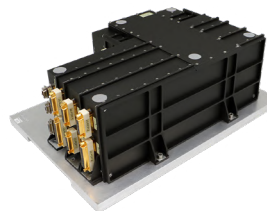
**NINANO**

NINANO is a powerful processing board for nano-satellites of the CubeSat form factor. The board can be used as an OBC, it can provide processing power with a SoC ARM+FPGA processor, including several digital I/O interfaces and communication protocols (SpaceWire, LVDS and RS-422) in order to be interfaced with the rest of the satellite. Engineering Model and Flight Model options are available, in addition to a devkit and board.



**MOBC**

The STEEL Electronique MOBC is a high performance, flexible, central processing board designed for cubesats and nanosatellites. MOBC features the Zynq7000 System on Chip, making it a powerful OBC. Beside the processing core, the MOBC unit offers also a wide range of AOCS interfaces and is highly configurable for custom applications and interfaces.



**More products**

- Payload Data Handling (Mass Memories, CCSDS Formatting Units,
- Instruments and Interface Control Units
- DC/DC converters
- Front-end electronics
- Interface boards: 1553, Space Wire, RS422, etc.



life.augmented

STM has supported European space applications with radiation-hardened products since 1977, being qualified by ESA since the agency's inception, and added afterwards several products tested in accordance with American QML-V standards, as required by US DLA - Defense Logistics Agency. The latest addition to the portfolio is the LEO series of rad-hard, new-space oriented products in plastic package. Products available include discrete diodes and transistors, analog ICs (such as voltage regulators), traditional logic circuits and VLSI like A/D converters.

### Product / services supplied

Low-Dropout Regulators, Integrated Current Limiters, Pulse-Width Modulators and Gate Drivers, ADCs and DACs, Voltage References, Operational Amplifiers, LVDS Line Drivers, Receivers and Multiplexers, PLLs, Oscillators, logic circuits (such as gates, flip-flops, counters, adders, etc.).

### Market Sector

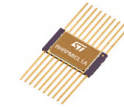
Space, Defence, Avionics, Industrial.

### Contact

[sales.stm@dimacred.com](mailto:sales.stm@dimacred.com)



## Best Products



### Power Management Integrates

This line of space qualified STM integrates includes all the major functional blocks needed to perform payload Power Management; high-precision voltage regulators can be supplemented by power MOSFETs; STM integrated programmable current limiter was the first of its kind and has remained the market leader since its development.

### LEO Series (Plastic Package Rad-hard ICs)

STM comprehensive new line of rad-hard analog, logic and power management ICs in plastic packages offers a lightweight, cost-effective solution for LEO satellite constellations.

Leveraging its experience of more than 45 years with both ESCC space and AEC-Q100 automotive grade qualified production lines, STM LEO products are the ideal solution for Low Earth Orbit market needs of footprint size reduction, cost efficiency, quality assurance, radiation hardness and high-volume manufacturing capability.

### ESCC and QML-V Qualified Rad-hard Logic ICs

STM rad-hard logic ICs include a versatile array of functions and are available in ceramic flat package with grounded lid, with gold or solder dip lead finish.

These legacy products have been kept current by constant upgrading and are based on 6" ESCC and QML-V qualified wafer fabs, confirming the company commitment to supply all applications in the space industry.



## HiRel Semiconductors

Teledyne Aerospace & Defense Electronics delivers high-reliability semiconductor technologies and lifecycle management solutions tailored for demanding aerospace and defense applications. These components are engineered for avionics, space systems, and military electronics, offering superior performance in high-radiation and wide-temperature environments. Teledyne Micropac is a leading provider of innovative optoelectronic components, electronic assemblies, and multi-chip microelectronic modules that support critical applications.

### Product / services supplied

Optoelectronics, DC/DC converters, Solid-state Relays and Power controllers, Space grade RF semiconductors, GaN Power products, Obsolescence Management solutions.

### Market Sector

Avionics, Defence, Space, Energy, Others

### Contact

[sales.teledyne@dimacred.com](mailto:sales.teledyne@dimacred.com)

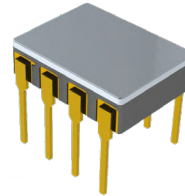


## Best Products



### Optocouplers

Teledyne Micropac's MIL-spec optocouplers provide robust galvanic isolation for aerospace, defense, and medical applications. Engineered for radiation-heavy and high-temperature environments, these components offer versatile footprints and output signals in standard and custom designs. They ensure fail-safe performance in satellite systems, medical devices, and military hardware.



### Solid State Relays

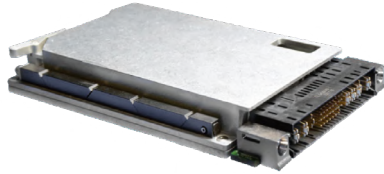
Solid State Relays replace traditional electromechanical components in power distribution systems.

Not only are SSRs more reliable than electromechanical components but Micropac's Solid State Relays utilize MOSFETs, which are smaller, lower maintenance, last longer and switch at higher speeds. Custom designs are possible to satisfy requirements not addressed by the standard product offerings.



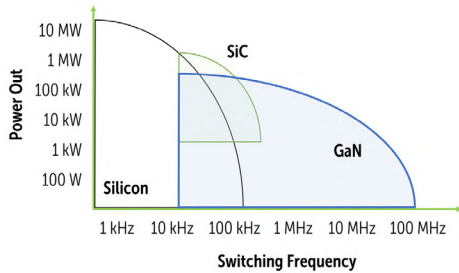
### RF Semiconductors

Teledyne e2v HiRel's standard screened line of RF and microwave components provides a cost and time effective approach to meet the requirements commonly found in military and space applications. Custom screening programs are available to fulfill program specific requirements. Among products offered are Low Noise Amplifiers, PLLs, switches, mixers, Prescalers, Gain blocks, Limiters, Digital Step Attenuators and Frequency Multipliers.



### Satellite Power Distribution

Teledyne Micropac optimizes satellite power distribution with 3U VPX power supply card solutions for Low Earth Orbit (LEO) satellites. Compliance with VITA standards reduces integration times and enables high efficiency and power density. Teledyne Micropac's radiation-tolerant DC-DC converters, like the VPX-3U-SP-PSC card, provide 600W output in a compact 3U form factor. Built for aerospace and defense, they deliver reliable power in harsh environments.



### GaN Power Products

Gallium nitride devices have revolutionized power conversion in other industries and are now available in high reliability qualified form with plastic encapsulated packaging that has undergone stringent reliability and electrical testing to ensure mission critical success. The Teledyne HiRel GaN HEMT technology provides the efficiency, size, and power-density benefits required in critical aerospace and defense power applications. Teledyne GaN drivers boast the industry's fastest rise times and a low minimum pulse width. These high-speed drivers enable design engineers to extract the full performance and switching speed advantages from GaN transistors.



### Obsolescence Management for Aerospace

Teledyne have 30 years experience supplying high reliability semiconductor solutions which address the critical functions of the complete signal chain into Aerospace and Defence markets. Semiconductors Lifecycle Management (SLiM™) program ensures the longevity and reliability of legacy defense platforms. This is achieved via Wafer, Die and Device banking of obsolete devices, in addition to options for reverse engineering and resurrection of parts no longer available in the market.

# teletel

## Best Products

TELETEL S.A. is a leading software and hardware development SME based in Greece, specializing in the leading-edge areas of Space, Defence and Aeronautics.

In the Space domain, TELETEL specializes in satellite/spacecraft on-board data handling technologies, with special emphasis on the validation of on-board data networks.

### Product / services supplied

Test equipment for satellite on-board data networks (SpaceWire, SpaceFibre, MIL-STD-1553, etc.), Specialized Electrical Ground Support Equipment (EGSE), Instrument and Platform simulators, custom RadHard FPGA design and coding

### Market Sector

Space, Defence

### Contact

[sales.teletel@dimacred.com](mailto:sales.teletel@dimacred.com)



### iSAFT SpaceWire Front-End and Link Analyzer

The iSAFT SpaceWire Front-End is a SpaceWire data interface with advanced asynchronous transmission, traffic generation and error injection capabilities that simulates SpaceWire devices or Instruments, enabling S/C integration tests before the availability of Flight Models. It also constitutes a high performing, SpaceWire Link Analyser with network traffic capture, recording and analysis capabilities for the validation of flight or ground testbed devices.



### Electrical Ground Support Equipment (EGSE)

Building on over 25 years of expertise in testing & validation systems and with its iSAFT Product Line, TELETEL provides a comprehensive set of products and services related to customer-tailored Electrical Ground Support Equipment (EGSE) and specialized Spacecraft Check-Out Systems including Spacecraft Interface Simulator, Payload/Instrument EGSE and more.

# VPG Foil Resistors

VFR · ALPHA ELEC. · POWERTRON · APR

VPG Foil Resistors (a business unit of Vishay Precision Group) delivers deep engineering expertise in the design and manufacturing of high-value precision resistors and measurement systems. Known for innovative market-leading brands, VPG has built a reputation over the last six decades for products that provide the highest levels of accuracy, stability, and reliability.

## Product / services supplied

Bulk Metal® Foil Resistors, Power Current Sensor, Hermetic Sealed Resistors, MIL Qualified Resistors

## Market Sector

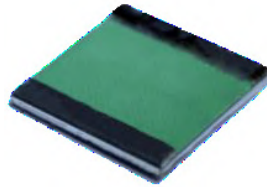
Avionics, Defence, Industrial, Medical, Space, Telecom, Grid & Energy

## Contact

[sales.vpg@dimacred.com](mailto:sales.vpg@dimacred.com)



## Best Products



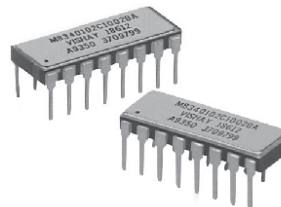
### Bulk Metal® Foil Resistors

Since the introduction of the technology (which Vishay Group spearheaded in the '60s), Bulk Metal® Foil devices have had the best precision and stability of any resistor available. The product portfolio includes discrete resistors and resistor networks in surface mount and through-hole (fixed-lead) configurations.



### Power Current Sensors

Power current sensors available in SMD or axial versions with optional heat sinks, and are available with 4terminal Kelvin connections for precise measurement.



### QPL & EPPL resistors

Vishay Foil resistors have been used for more than 40 years in space and military equipment, even before a suitable MIL SPEC was established. In the late '60s, MIL R 55182 was established and the RNC90 style applied to the Vishay Foil resistors; they have been used continuously ever since. Specific parts have been included also in the European EPPL.



## Best Products

Voyager Technologies engineer and manufacture cost-effective, high-performance communications, digital systems, and electro-optics. The rigorously tested, ruggedized space subsystems are built to withstand the harshest of environments, from launch vibration to radiation mitigation. Aerospace primes, government and commercial ventures rely on Voyager Technologies subsystems for rad-hard dependability backed by millions of hours of failure-free space flight heritage.

### Product / services supplied

Subsystems for Space applications: RF and Laser communication systems, SDR, Space Cameras, Star Trackers, Onboard computers, Image Processors

### Market Sector

Space

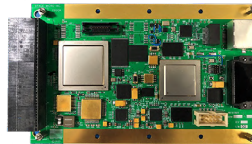
### Contact

[sales.voyager@dimacred.com](mailto:sales.voyager@dimacred.com)



### RF and Laser Communications

Voyager Space offers a full suite of flight-proven Radio Frequency products including Software Defined Radios and lunar transponders. Modular design supports different data rates, frequencies, bandwidths and interfaces to facilitate TT&C, data transmission, crosslink, onboard signal processing and signal intelligence.  $\mu$ LCT™ Laser Communications Terminals offer high throughput connectivity with low probability of intercept and are available for LEO, MEO and GEO.



### Processors, Modular Avionics, and Peripheral Cards

Voyager Space has developed a full line of Digital Systems, from Multi-Core Space Processors and Single Board Computers, to the modular and configurable ProtonX-Box™ avionics platform. Versatile digital slices and VPX cards can be configured to meet specific mission requirements, and are programmable on orbit.



### SpaceCams, Star Trackers, Sun Sensors

Electro-Optic subsystems comprise space-qualified cameras, highly accurate star trackers and cost-effective sun sensors. SpaceCam™ has been selected for several lunar, commercial and defense programs. This low read noise imaging solution is ideal for space situational awareness and high-res imaging. It has a radiation tolerant design with rad-hard glass rated at better than 800 MRads (Si).



VPT Components is a US company focused on Semiconductors for Critical Applications in the harshest of environments.

VPT Components provides high-reliability discrete semiconductor products for the military, defense, satellite, and aerospace industries.

#### **Product / services supplied**

High-reliability Diodes and Transistors, including radiation hardened versions, qualified to MIL-PRF-19500 standards

#### **Market Sector**

Defence, Space, Avionics, Telecom

#### **Contact**

[sales.vptcomponents@dimacred.com](mailto:sales.vptcomponents@dimacred.com)



## Best Products



#### **Transistors**

The transistor product portfolio includes NPN and PNP small signal bipolar, NPN and PNP medium and high-power switching, Silicon Controlled Rectifiers, NPN and PNP qualified radiation hardened transistors, MOSFETS, and JANHC and JANKC qualified chips.

All bipolar transistor products are qualified to MIL-PRF-19500 slash sheets and are offered in JAN, JANTX, JANTXV, JANS, and JANSR quality levels where applicable. MOSFET products are offered in JANS and JANSR equivalent options.



#### **Diodes**

The diode product portfolio includes zeners, general purpose switching diodes, temperature compensated zener reference diodes and current regulator diodes. All diode products are qualified to MIL-PRF-19500 slash sheets and are offered in JAN, JANTX, JANTXV and JANS quality levels where applicable. Chip versions of the diode products are also available in commercial as well as JANHC and JANKC quality levels.

Winslow Adaptics has more than 40 years of experience in developing robust and innovative solutions for all electronic interconnect needs, in several markets. Winslow remanufactures legacy components for fast, cost effective obsolescence solutions and supply chain shortages, with adaptability to any footprint. Winslow has reverse engineering capability of plastic & metal parts where drawings no longer exist. Precision engineering capability with experienced toolmakers who can work a broad range of ferrous and non-ferrous metals and engineering plastics, or can propose materials, treatments, surface finishes and coating specifications suited to client's requirement.

### Market Sector

Automotive, Avionic, Railway, Industry, Medical, Space, Hi-Rel, RF&Telecom, Grid&Energy, Defence, Transportation

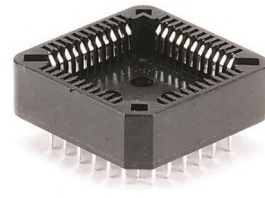
### Contact

[sales.winslow@dimacred.com](mailto:sales.winslow@dimacred.com)



## Best Products

Winslow product includes transistor clips, mounting pads, sockets, heatsinks, and other accessories used in semiconductor applications and a broad line of industry standard Interconnect, including legacy lines.



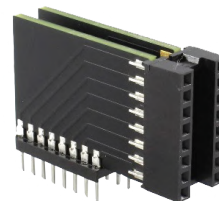
**PLCC (Plastic Leaded Chip Carrier) Sockets**



**SIMM Sockets (Single In-line Memory Modules)**



**Transistor and IC circular sockets**



**Opto/Diode Display Sockets**





where reliability belongs

[dimacred.com](http://dimacred.com)



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