

Protec GmbH is proud to announce new cooperation with the following Manufacturers:

## 1. Honeywell Aerospace

A broad family of digital and mixed signal 150-nanometer to 800-nanometer gate-array and standard-cell ASICs

High-speed, low-power SRAMs, up to 16Mbit single die and space-saving, complex Multichip Modules (MCM) up to 64Mbit

Flight-qualified Non-volatile Magneto resistive Random Access Memory (MRAM)

QML qualified flight proven 0.15 $\mu$ m, 0.8 $\mu$ m and 0.3  $\mu$ m technology platforms

SerDes (Serializer/Deserializer) technology delivering 10Gb/s communications

Processors, ADC and DAC bus interface, Analog mux and other Rad Hard standard products

Radiation Performance: TID > 1Mrad(Si), SER < 1E-10 e/b-d, Latchup Immune, Dose Rate Upset > 1E10rad(Si)/s

A broad range of Honeywell design IP available to simplify IC Design and reduce cycle time



## 2. SST Silicon Space Technology

SST has invented and patented its HARDSIL™ technology to specifically improve the robustness of bulk CMOS devices to both radiation and high temperature effects. Having proven its manufacturing robustness in several commercial wafer fabs, HARDSIL™ components are setting new standards for reliability in the harshest electronic application environments.

By attacking the problem at the silicon process level, HARDSIL™ enables the CMOS circuit to operate far more reliably in extreme environments such as radiation and at temperatures in excess of 225°C.

HARDSIL™ enables bulk CMOS IC's for reliable operations at temperatures 100°C higher than mil/aero; it provides a new class of hi-rel products which are latchup immune and can be manufactured in high quality silicon foundries.

HARDSIL™ simultaneously provides radiation hard and high temperature hard IC component solutions for extreme environment applications.

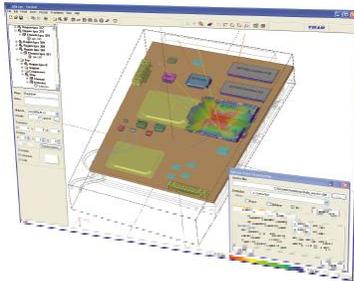




### 3. X-Rel

X-REL Semiconductor (X-REL) is a spin-off of EASii IC, dedicated to the design, manufacturing and commercialization of High Reliability and High Temperature integrated circuits (ICs).

We serve a wide range of application fields such as Aeronautics & Space, Transportation & Automotive, Harsh Environments, Oil & Gas, Industrial, Geothermal. Our products are made to reliably perform for years while ensuring the reduction of the overall system costs all along the product lifecycle.

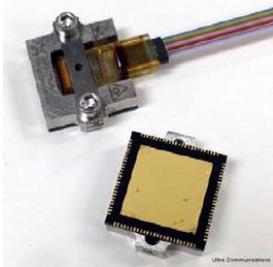


### 4. TRAD

Radiation and Thermal Testing of Components, Electronic Systems and Materials, Radiation Engineering and Expertise, Software Development and Cobalt 60 Irradiation.

Many different types of radiation effects are known to be adversely influential on the behavior of EEE components. These effects may ultimately lead to component and possibly to system failure. This is why it is essential to evaluate radiation effects on electronic devices regarding their ability to withstand the radiation environment.

TRAD proposes to be your partner and to provide you with our specific knowledge in the field of radiation effects on electronic devices (project support, calculations, expertise, tests, consulting, training, etc.).



### 5. Ultra Communication

Fiber Optics for a Harsh Environment

We develop RF and photonic components for harsh environment and high reliability applications. These applications require components to operate through wide temperature ranges, shock, vibration, condensation, chemicals, and/or radiation.

We specialize in challenging engineering tasks: high-speed mixed-signal circuit design, packaging for high fidelity electrical and optical coupling, and testing at the wafer and component level.

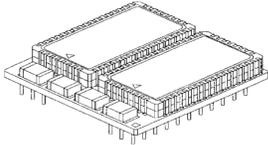
Example applications are: aerospace, space, shipboard, automotive, and high-performance computing (high temperature and/or submersion cooling).



### 6. TCS

Supplies hermetically packaged radiation tolerant memory models to the space and military communities as well as has access to numerous radiation test facilities. Our radiation test database contains over 1000 radiation reports. We also have access to radiation test reports from JPL, GSFC, NASA, NGST, Aerospace Corp, Sandia and many manufacturer databases.

## Twilight Technology



### 7. Twilight Technology

Twilight Technology, Inc. is the leading manufacturer of various obsolete semiconductor products which are made available in Commercial, Industrial and Military Grade Levels. These products range from the relatively simple 2-terminal discrete devices to complex Application Specific Integrated Circuits (ASIC's). Twilight is exclusively licensed to support DPAC Technologies, Inc. previously Dense-Pac Microsystems, Inc. obsolete products. We hope you enjoy our new look and enjoy visiting our Internet site.



### 8. TT Semiconductor

Is the leading manufacturer of electronic components designed to survive under extreme temperature ranges and harsh environmental conditions. The current standard product offering is focused on high performance analog and memory devices.