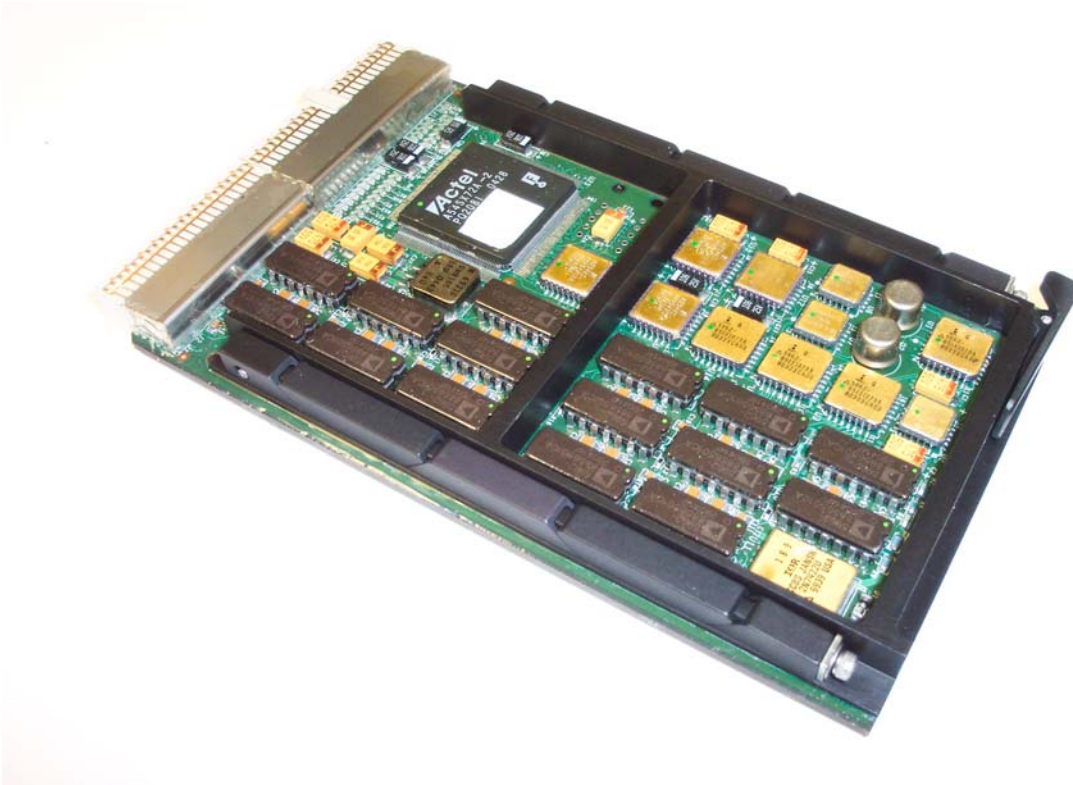




S930

3U cPCI Radiation Tolerant Analog I/O Card



- Designed for LEO, Mars Terrestrial with an Option for GEO Environments
- Single-Slot Conduction-Cooled 3U CompactPCI (cPCI) card
- 12-bit A/D converter with $-10V$ to $+10V$ input range
- 64 analog channels (51 inputs, 2 outputs and 11 bus voltage monitors)
- Low pass filter with cutoff frequency below 50 Hz on all inputs
- Series resistors as analog input protection
- Buffer Memory with triple-voted algorithm is provided for each converted analog input
- Three 12-bit DAC outputs from $-10V$ to $+10V$, 1 output is used as BIT only
- BIT circuit to provide over 90% test coverage
- Interrupt capability to indicate conversion completed
- 10V, 200mA reference for sensor excitation
- 32-bit PCI 2.1 compliant cPCI interface at 33.333 MHz
- S930 nominal power consumption is less than 8 Watts
- Level-2 Components per NASA GSFC 311-INST-001A specification are available

Aitech Defense Systems Inc.

A member of the Ai-Rugged Group

9301 Oakdale Ave, Chatsworth, Ca 91311

Tel: (888) AITECH-8 (888-248-3248) Fax: (818) 350-6888 e-mail: sales@rugged.com web: www.rugged.com



Mechanical Features

The S930 is available in a conduction cooled 3U format per VITA 30.1-2002. A custom metal frame provides excellent rigidity, shock resistance and thermal characteristics.

Dimensions

All versions are offered in a conduction-cooled 3U CompactPCI form factor per VITA 30.1-2002 standard.

Thermal Management

A careful mechanical design including custom heatsink modules, wedge locks and extractors combined by a metal frame allow for optimal heat dissipation and strength of the board.

Radiation Performance

- Radiation Tolerant with a minimum unshielded Total Ionization Dose (TID) of greater than 10 krad (Si). Higher TID tolerance can be available upon request.
- Latch-up Immune with a high LET of 37 MeV•cm²/mg
- Low SEU Rate – less than 1 upset per 25 years of operation at ISS orbit

Power Requirements

The S930 draws its power +5.0V and +3.3V from the standard cPCI backplane. It generates its own specific power onboard (+2.5V).

S930 typical power consumption is less than 10 Watts. The S930 power consumption is estimated as follows:

+3.3V	(±5%)	0.19A (typical)
+5V	(±5%)	0.63A (typical)
+15V	(±10%)	0.14A (typical)
-15V	(±10%)	0.14A (typical)

Environmental Features

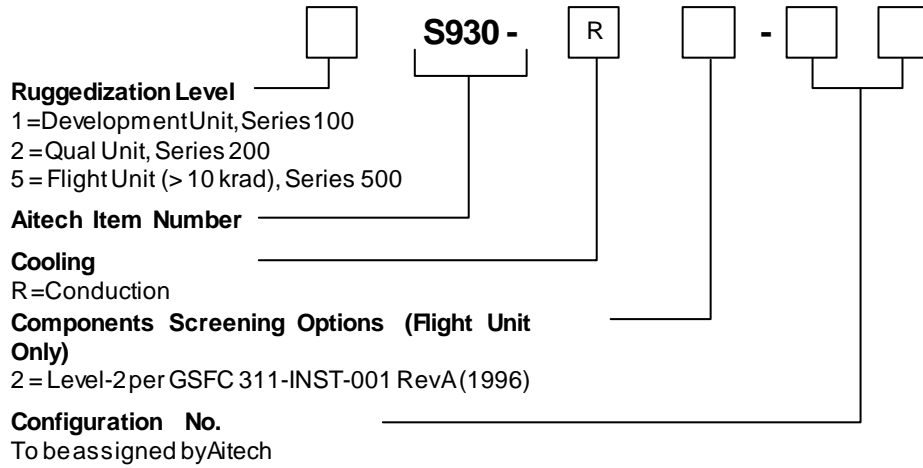
Please refer to Aitech Ruggedization Datasheet:

<http://www.rugged.com/home/rugged.html>



Ordering Information

Ordering Information for the S930



Available Configurations are: 1S930-R,2-S930-R,5S930-R2

For more information about the S930 or any Aitech product, please contact Aitech Defense Systems sales department at (888) AITECH-8 (888-248-3248).

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