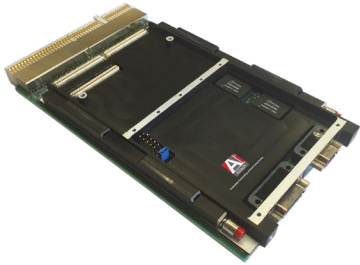




Aitech SP0-S

3U CompactPCI Radiation Tolerant PowerPC SBC



The 3U CompactPCI SP0-S is a space-rated single-board computer (SBC), based on NXP's PowerQUICC®III MPC8548E system on chip with an e500 processing core. The SP0-S includes several performance enhancing improvements over previous designs, including an SDRAM memory upgrade to the DDR2 with 20% higher bandwidth at lower power dissipation. Also added are three rad-hard, on-board temperature sensors as well as six microcontroller-based A/Ds that monitor the board's 3.3 VDC input voltage and five of the internally generated CPU core and I/O voltages. Fully tested and characterized to over 100 krad (Si) and latch-up immune to > 65 MeV-cm²/mg, the SP0-S is ideal for high performance high altitude, NEO, LEO and GEO missions.

CUSTOMER BENEFITS & TECHNOLOGY HIGHLIGHTS

- Radiation tolerant, fully characterized for high altitude, NEO, LEO or GEO missions
- High functionality, lower power design with typical power consumption of only 10 W
- Unlimited design flexibility with extensive I/O interfaces
- Factory configured to perform either as the system controller or as a peripheral board
- Lower cost of ownership through COTS Lifecycle+™ obsolescence management
- Reduced time to market using our in-house hardware and software design services

PRODUCT APPLICATIONS & TARGET MARKETS

- Human platform applications (e.g. ISS)
- Satellites
- Landers
- Flight vehicles
- Hypersonic vehicles



KEY PRODUCT INSIGHTS

Space qualified, 3U CompactPCI SBC	WindRiver VxWorks® and Linux® support
PowerQUICC III MPC8548E processor @ 1.0 GHz	Weight: 350 g (0.77 lbs)
400 MHz core complex bus (CCB) speed	PICMG 2.0, Rev. 3.0 compliant
1 GB DDR2 at 400 MHz w/ECC, 1 GB NAND flash memory w/ECC, 512 KB redundant EEPROM boot memory	3 watchdog timers, 3 on-board temperature sensors, 6 on-board voltage monitors
I/O: Gigabit Ethernet, serial RS-422, PPS, discretes, PMC slot	TID 100 krad (Si), latch-up immune to > 65 MeV-cm ² /mg

As a pioneer in the field of computing technologies, Aitech provides reliable, rugged embedded systems for the harshest, most unforgiving operating environments across every orbit to secure a better tomorrow.

Contact Aitech Today!

sales@aitechsystems.com | Aitechsystems.com

