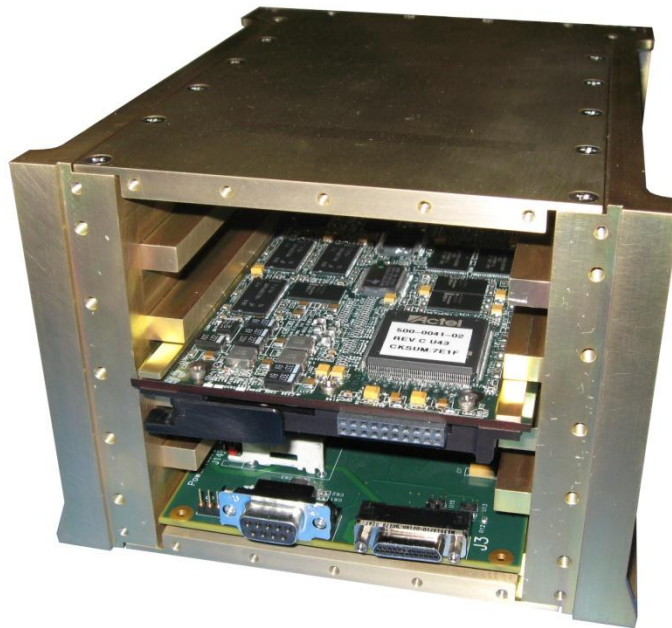




SPA Computing Node

Flight-Ready SPA Processing “Out-of-the-Box”

PnP Innovations, Inc has developed the SPA Computing Node as a fully SPA-S compliant processing element to be used in scalable PnP satellite systems. The node hosts an AiTech S950 PPC750 running VxWorks. The SPA-S interface board provides power, data, and timing in compliance with the SPA-S standard. The minimum node configuration, hosted in a cPCI chassis, includes one processor and one SPA-S interface board. The enclosure may be configured to include two additional AiTech S990 FLASH memory cards, extending the volatile memory storage capacity of the node to >2 GBytes for the flexible accommodation of applications, telemetry, housekeeping, and sensor data of a variety of missions.



Feature	Specification
Processor Architecture	PowerPC 750FX
Processing Capability	>1200 MIPS @ 733 MHz, single/double precision floating point support
Spacewire Data Throughput	>300 Mbps, bi-directional
Operating System	VxWorks 6.3, with support for real-time debugging via RS-422
Memory	128MB triple-voted SDRAM, 64MB ECC FLASH expandable to >2GB
Dimensions/Mass	cPCI form factor, 19 x 16 x 11.5 cm, 2.0 kg
Power Consumption	<15 Watts @ 28V (processor + SPA-S interface card)
Radiation Tolerance	100kRads total dose, latch-up immune to 37 MeV-cm ² /mg
Operating Temperature Range	-32 to +55 degC