

Radiation Tolerant Flight Computer

Applications

- **LEO, MEO, GEO or Interplanetary Missions**
- **Spacecraft Primary Computer**
- **Payload computer**

Features

- Flight heritage
- Manufactured to ECSS standards
- Expansion board for custom interfaces
- Radiation Tolerant
- Light weight
- Single board or dual redundant version
- 7.5 year design life

Interfaces

- CAN, RS422
- MIL1553B or SpaceWire option
- Various Serial LVDS

Key Specifications

- SPARC V7 processor
- Latch-up immune memory
- Up to 8 MB data storage

Heritage (launch date)

- GIOVE-A (2006)
- Chandrayaan-1 (NASA variant) (2008)
- Kanopus-1,2,3 (2 units each, 2010)

Options

- Various surface finishes available
- Single or dual-redundant versions
- VXworks, RTEMS or Cyclic Scheduler





Radiation Tolerant Flight Computer

The OBC695 is a Radiation Tolerant single-board spacecraft computer, designed for failure-critical applications or harsh environments.

The unit can be used as a single board computer, or in dual redundant configuration.

SSTL is ISO9000:2000 certified

- Manufacture and rework to
 - ECSS Q-70-80A
 - ESA PSS-01-738
 - ECSS Q-70-28A
 - Test to SSTL ISO9000:2000

Standard Delivery Service Includes

- Compliance Testing
- Vibration Test
- Thermal Cycling
- User manual
- Test Results
- Export License and Shipping

- Thermal Vacuum Testing available
- Unit can be supplied prior to environmental testing

Processor	ATMEL TSC695 Sparc V7
Performance	11 MIPS
Memory	4 or 8 MBytes (EDAC protected) 512 kByte EEPROM 64 kBytes PROM
Interfaces	Dual CAN Dual RS422 4x LVDS full duplex HDLC serial 8x LVDS discrete I/O Pulse-Per-Second synchronisation input Expansion board for custom interfaces
Mass	1.5 kg
Dimensions	306 x 167 x 30mm (single board) 180 x 130 x 22mm version
Power	7 W (typ)
Operating Temperature	-20 to +50 °C
Radiation	Total Dose 50 kRad (Si) SEL 37 MeV-cm ² /mg

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