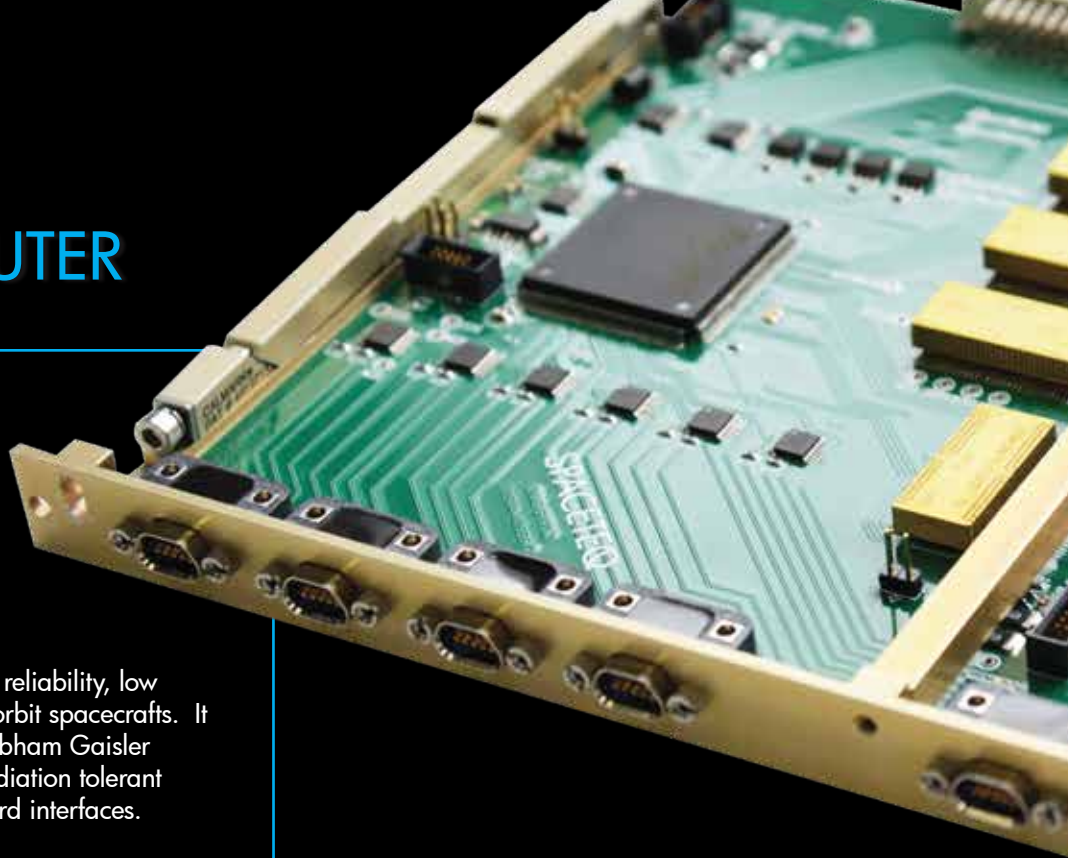


FLIGHT COMPUTER

OBC-GR712

The **Spaceteq OBC-GR712** is a high reliability, low power flight computer for low earth orbit spacecrafts. It is based on the radiation tolerant Cobham Gaisler GR712RC processor and features radiation tolerant memory devices and industry standard interfaces.

The Spaceteq OBC-GR712 builds on our strong heritage of on-board computer designs for microsatellite projects. The OBC-GR712 is a core component of the EO-SAT1 satellite bus



Features

Processor

- Cobham Gaisler GR712RC, dual-core LEON 3FT 32-bit SPARC processor @ 80 MHz
- Up to 160 DMIPS (Dhrystone) and 160 MFLOPS

Memory

- 256 Mbyte EDAC protected SDRAM
- 2 × 512 Mbyte NAND Flash banks (can be cold-spared)
- 256 kbyte MRAM
- 256 kbyte EEPROM

Interfaces

- 2 × Dual-redundant CAN buses
- 8 × SpaceWire ports, with support for 3 simultaneous links
- 4 × RS-422 interfaces

Other

- On-board telemetry
- Remote programming of boot device
- JTAG available in-flight
- Reset control (command / WDT)
- Over-current latch-up protection

Debug

- JTAG
- 2 × UART



SPECIFICATIONS

OBC-GR712

Power

Power Supply	22 to 34 V DC
Power consumption	< 5 W

Mechanical

Dimensions	6U 160 mm form factor (233 x 160 ,15.1mm)
Weight	350g

Environmental

Operating Temperature	-20°C to +60°C
Radiation tolerance	TID > 15 kRad at component level

BLOCK DIAGRAM

