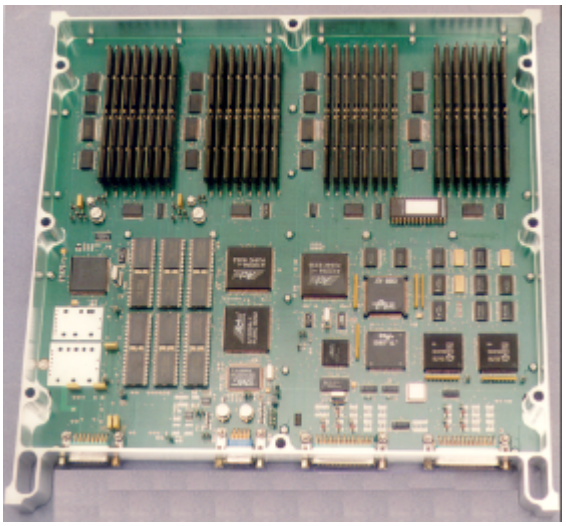
On-board Data Handling: OBC 386

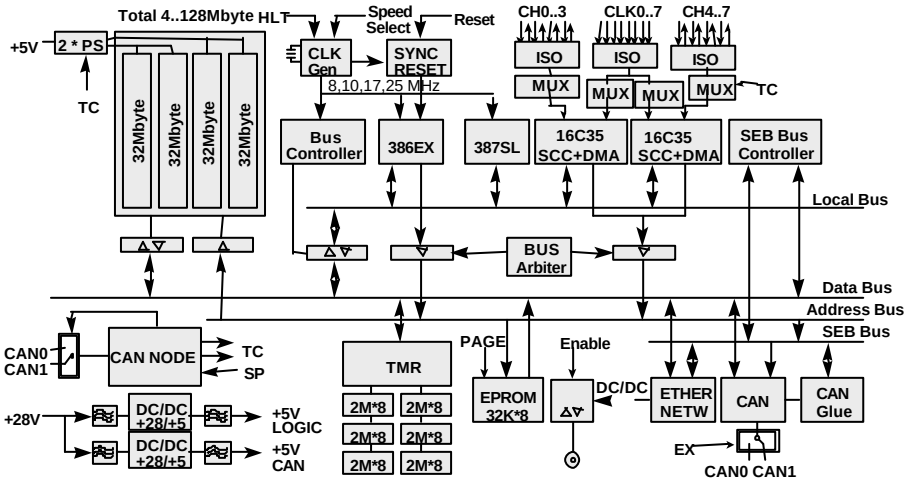
Intel 386-based on-board data handling computer with TMR protected program memory and Reed-Solomon (software) protected ramdisk. Includes four high speed serial communication channels, Ethernet and CAN connectivity.

The OBC 386 is a general purpose computer for LEO applications. The high speed serial links provide connections for RF modules and other systems e.g. cameras. Other connections to the module are made through the 10 Mbps Ethernet or 32 kbps CAN. The floating point processor is provided for high performance processing e.g. for attitude determination and control.

Isolated and non-isolated options are available.



The unit is designed to fit in the SSTL microsatellite module tray. The OBC is available also as a PCB, without the module tray.



SSTL's OBC386 Combines Floating Point Unit, Serial Communications and Data Storage in a single Integrated Onboard Computer.

Other SSTL Products

- **On-board Data Handling:** OBC186, OBC1100, OBC695 and mass memory systems, Operating Systems and custom applications software.
- **Communications:** UHF/VHF, S-band and X-band communications systems
- **Complete low cost small satellite solutions**, based on SSTL range of nano, micro, enhanced micro and mini satellites, including know-how transfer and rapid and affordable access to space
- **Sub-systems** (CD&H, Power, Communications, ODCS) and various **payloads**

affordable access to space

Processor

- Intel 386EX
- 387SL co-processor
- 8/16/20/25 MHz clock
- Posix or SCOS operating systems
- Bootstrap loader
- 4 Mbytes EDAC memory (TMR)
- Up to 128 MByte ramdisk (software Reed-Solomon EDAC
- 4 SSC channels
- CAN connection with 2 networks
- 10 Mbps Ethernet

Physical Characteristics

- Dimensions: 330 x 330 x 32 mm
- 1700 g including Al module tray

Power Supply

- Non-isolated: 2.5W, Isolated: 5W
- Power Supply: 5 V non-isolated or 28 V isolated

Heritage

- FASAT, TMSat, Tsinghua-1, Tiungsat, UoSAT-12

Contact

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