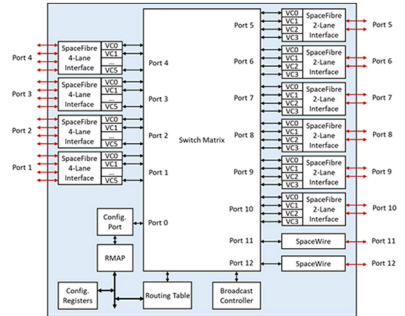


ONBOARD NETWORK

The concept for the Hi-SIDE onboard network is to use the emerging, high performance, high reliability, high availability and extremely versatile SpaceFibre standard to interconnect the data chain elements, providing consistent interfaces and common configuration, control and housekeeping capabilities as well as supporting very high data rates.

The onboard network provides the data transport functionality, moving information rapidly and reliably between the elements of the data-chain.



SpaceFibre Routing Switch Architecture

TARGET

IN CURRENT FLIGHT

- FPGA 2.5 GBIT/S PER LANE
- 10 GBIT/S FOR 4-LANE LINK



IN FUTURE FLIGHT

- FPGA 10 GBIT/S PER LANE
- 40 GBIT/S FOR 4-LANE LINK

ACHIEVEMENTS



5 Gbit/s per lane, 10 Gbit/s for 2-lane link.



Multi-lane routing switch with 10-ports.



Core data-handling technology demonstrated.



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