

## **SpaceFibre Interface Chip**

STAR-Dundee, ISD, Airbus GmbH, RUAG Space,

SpaceFibre is a new generation of SpaceWire technology which provides the high data rates required by Earth observation and communications payloads. It delivers robust, long distance communications for launcher applications and supports avionics applications with deterministic delivery constraints. SpaceFibre enables a common on-board network to be used across many different mission applications resulting in cost reduction and design reusability.

There is a need for a range of radiation tolerant SpaceFibre chips to support demanding Earth observation missions. The SpaceFibre Interface Chip study designed a high-performant and versatile SpaceFibre interface chip which meets the high-data rate (several Gbit/s) communication requirements for connections between instruments, payload data-handling, and control computers on-board a spacecraft. This chip has been specified, designed, verified in simulation, and validated in a hardware prototype.