Multiple optical fibre interfaces on a single board

**VCS7214** (Vitesse, 4 transceivers in single IC) **not suited**, as all input channels synchronize on the clock derived from one of the input channels.

**Running FPGAs @ > 100 MHz**, as required by transceivers with an 8-bit wide data interface is **not well possible** => require a 16-bit wide interface (with ~ 50 MHz no problems)

Conclusion: there seems to be **no alternative** to the approach used for the S-link cards, i.e. **single channel transceivers with 20-bit interfacing** and with external 8/10 coding-decoding.

Modern components: low height -> **no problems with mother - daughter board constructions**

Advantage of mother - daughter board constructions: more board space in the same slot and flexibility.

S-link card with additional daughter card for interfacing to optical link: **should use only one level of daughter boards in final system**. Excludes also PMC boards

**Present view**: S-link daughter cards may be the best solution for the final hardware and certainly at present, but the interfacing to the ROL should not be done via a second daughter card. **A smaller form factor is desirable in view of a multi-ROB**