WizardLink TLK Equivalent IP Core

WizardLink is a family of transceivers produced by Texas Instruments and in particular, for space applications, **the TI TLK2711** is typically referred. Before the definition of the SpaceFibre protocol, TI TLK2711 chip has been the typical implementation choice for on-board high speed serial links. The chip offers a very basic protocol, so the user is forced to define and implement the upper layers to have a working communication link.

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Nowadays, different space-qualified FPGA options with integrated SERDES (e.g., AMD, Microchip, etc.) are available, therefore it may be worth to integrate the TLK2711 functionality within the FPGA, but maintaining the same heritage control logic to facilitate the integration process. The typical use of the **Wizardlink TLK equivalent IP Core** is in fact to replace Texas Instruments TLK2711 chip in a pre-existing design when using FPGAs equipped with SERDES devices.

The advantages are that:

- The same design for the control logic can be maintained;
- TLK2711 chip is not needed anymore, so the system is actually simplified.

KEY FEATURES

- **Fully compatible with TI TLK2711 based boards**
- **Replaces TI TLK2711 chip using FPGA built-in SERDES**
- **Allows simplification of PCB design**
- **Same control logic used for physical TI TLK2711 can be maintained**
- **Negligible complexity on FPGA (<1% resources utilization)**

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