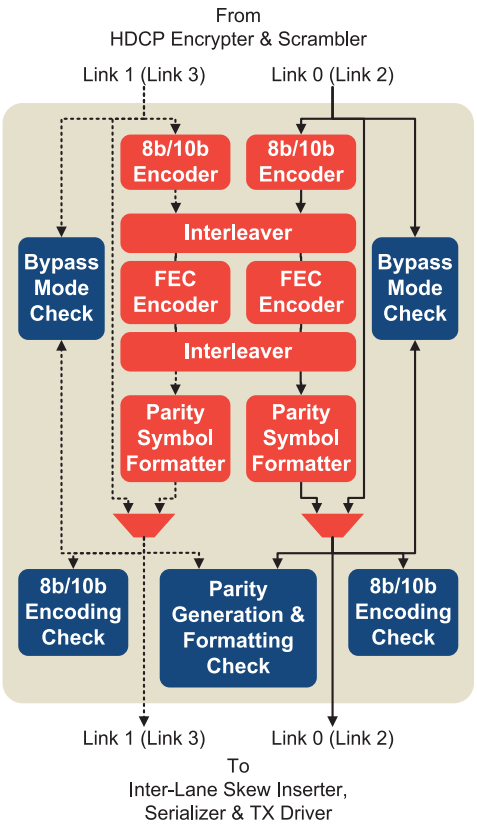
VESA DisplayPort 1.4 FEC TX IP Core For Automotive Displays

ASIL-B Ready ISO 26262 Certified

Applications

- Automotive GPUs
- Infotainment systems
- DisplayPort 1.4 automotive products
- USB Type-C automotive products

Hardent DP1.4 FEC Transmitter IP Core For Automotive Displays



Description

The DisplayPort™ Forward Error Correction (FEC) Transmitter IP Core implements Reed-Solomon FEC and symbol interleaving as specified by the VESA DisplayPort 1.4 specification. It contains additional safety features to detect and report transient or permanent faults in order to meet the high level of safety required by automotive applications. The IP core is ASIL-B ready, as per the ISO 26262 standard.

Key Features

- VESA DisplayPort 1.4 compliant
- Reed-Solomon RS (254, 250) FEC, 10-bit symbols
- Two-way interleaving for 1-, 2- and 4-lane modes (4-lane mode requires 2 FEC IP core instances)
- Includes the DisplayPort main 8b/10b encoder

Safety Features

- Bypass mode checking
- Parity generation checking
- Parity formatting checking
- 8b/10b encoding checking

Deliverables

- Safety manual
- Failure modes, effects and diagnostic analysis (FMEDA) report
- Encrypted RTL source code IP core
- Functional and structural coverage reports
- Comprehensive integration guide
- Technical support and maintenance updates

Product Options

- IP customization and integration services available on request
- Multi-project licenses available
- UVM verification bindable modules

Hardent
a Rambus company