



Application Specific – Data Integrity

The Data Integrity Building Block IP consist of three components targeted for high reliability applications. These components include Error Checking and Correction (ECC), a 32-bit Cyclic Redundancy Check (CRC) generator/checker, and a parity checker.

The 32-bit CRC polynomial generator/checker provides data integrity on data streams of varying length in network applications. The ECC component implements single-error correction, double-error detection (SEDED) error correcting code over a parameterized range of word widths. The parity checker can be used with peripherals such as disk drives, and with external DRAM or SRAM buffers.

Related Topics

For a listing of the Building Block components and associated datasheets, see:

- [DesignWare Building Block IP Documentation Overview](#)

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