74LS1812
Bit Stream Manager
Serializer/Deserializer
Preliminary Specification

Logic Products

DESCRIPTION
The 74LS1812 Serializer/Deserializer (Figure 1) incorporates speed, flexibility, and proven ISL technology into a general-purpose device that performs many of the functions necessary for the implementation of a disk or communications controller. On-chip serializing/deserializing, programmable ECC and CRC operation, and bit comparison logic (useful for address-mark or header comparisons) make for a truly versatile device. A selectable 8- or 16-bit data bus and associated control lines allow for a DMA interface which requires little external hardware — a minimum system may be easily built with a microcontroller, a DMA controller, a RAM buffer, disk control lines and interface logic.

FEATURES
- Data rates up to 30MHz
- Selectable CRC-16 or CRC-CCITT polynomials
- Full Duplex operation with CRC/ECC on receive data
- Programmable ECC polynomial register
- Programmable control register
- On-chip bit comparator
- 8- or 16-bit selectable data bus
- 48-pin DIP or 68-pin PLCC

PIN CONFIGURATION

Figure 1. 74LS1812 Serializer/Deserializer Block Diagram

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