

FEATURES

- Micro-power Bipolar supply
- Complies with ANSI, Bellcore, and ITU-T specifications
- On-chip high-frequency PLL for clock generation
- Supports 2.4 GHz (OC-48)
- Reference frequency of 155.52 MHz
- Interface to both PECL and TTL logic
- 16-bit PECL data path
- Compact 80 PQFP package
- Diagnostic loopback mode
- Line loopback
- Lock detect
- Low jitter PECL interface
- Single 3.3V supply

APPLICATIONS

- SONET/SDH-based transmission systems
- SONET/SDH modules
- SONET/SDH test equipment
- ATM over SONET/SDH
- Section repeaters
- Add drop multiplexors
- Broad-band cross-connects
- Fiber optic terminators
- Fiber optic test equipment

GENERAL DESCRIPTION

The S3043 SONET/SDH Mux chip is a fully integrated serialization SONET OC-48 (2.4 GHz) interface device. The chip performs all necessary parallel-to-serial functions in conformance with SONET/SDH transmission standards. The device is suitable for SONET-based ATM applications. Figure 1 shows a typical network application.

On-chip clock synthesis PLL components are contained in the S3043 Mux chip allowing the use of a slower external transmit clock reference. The chip can be used with a 155.52 MHz reference clock, in support of existing system clocking schemes.

The low jitter PECL interface guarantees compliance with the bit-error rate requirements of the Bellcore, ANSI, and ITU-T standards. The S3043 is packaged in a 80 PQFP, offering designers a small package outline.

Figure 1. System Block Diagram



