DATA SHEET

Communications

XRT95L51

OC-48 ATM UNI/POS/Mapper IC

Features
- Supports OC-48c signals or compose/decompose four OC-12 streams
- Handles all TC sub-layer functions
- Provides direct loop back of line clock, framing pulse and parity, as well as, support for local and remote loopbacks
- Supports OAM cell insertion/extraction
- Extensive diagnostic capability for identifying and tracking errors in the physical layer

Applications
- ATM Switch
- Routers and Bridges
- SONET/SDH Add/Drop multiplexers
- Multiplexers
- Digital Cross Connects

Offering a new generation of technology to its customers, Exar's recognized analog expertise in T/E carrier front-ends has been extended to SONET with the new XRT95L51 OC-48 framer. Offered in standard CMOS, the device provides framing solutions bridging transmission speeds from T1/E1 through SONET OC-48.

Expanding into higher speed SONET protocols, Exar will still continue its focus on the physical interface and access control functions. Physical interface devices include transceivers and jitter attenuatiors, while access control concentrates on framers, ATM UNIs, and MI3 multiplexers.

The XRT95L51 is an ATM/PPP physical-layer processor with integrated SONET OC-48/STM-16 framing controller. ATM direct mapping and cell delineation are supported as are PPP mapping and frame processing. The XRT95L51 contains an integral SONET framer which provides farming and error accumulation in accordance with ANSI/ITU-T specifications. The configuration of this device is done through internal registers accessible via an 8-bit parallel, memory mapped, microprocessor interface.

The device provides full section, line and path overhead processing and supports scrambling/descrambling, alarm signal insertion/detection and bit-interleaved parity processing.

The SONET/SDH transmit and receive blocks are used to transmit/receive an OC-48c/STM16c signal or compose and decompose four OC-12/12c signals. The blocks operate at a peak internal clock speed of 77 MHz and support 32-bit internal data paths. The transmit and receive blocks are compliant with both SONET and SDH standards.