

155 Mb/s SATURN User Network Interface for LANs

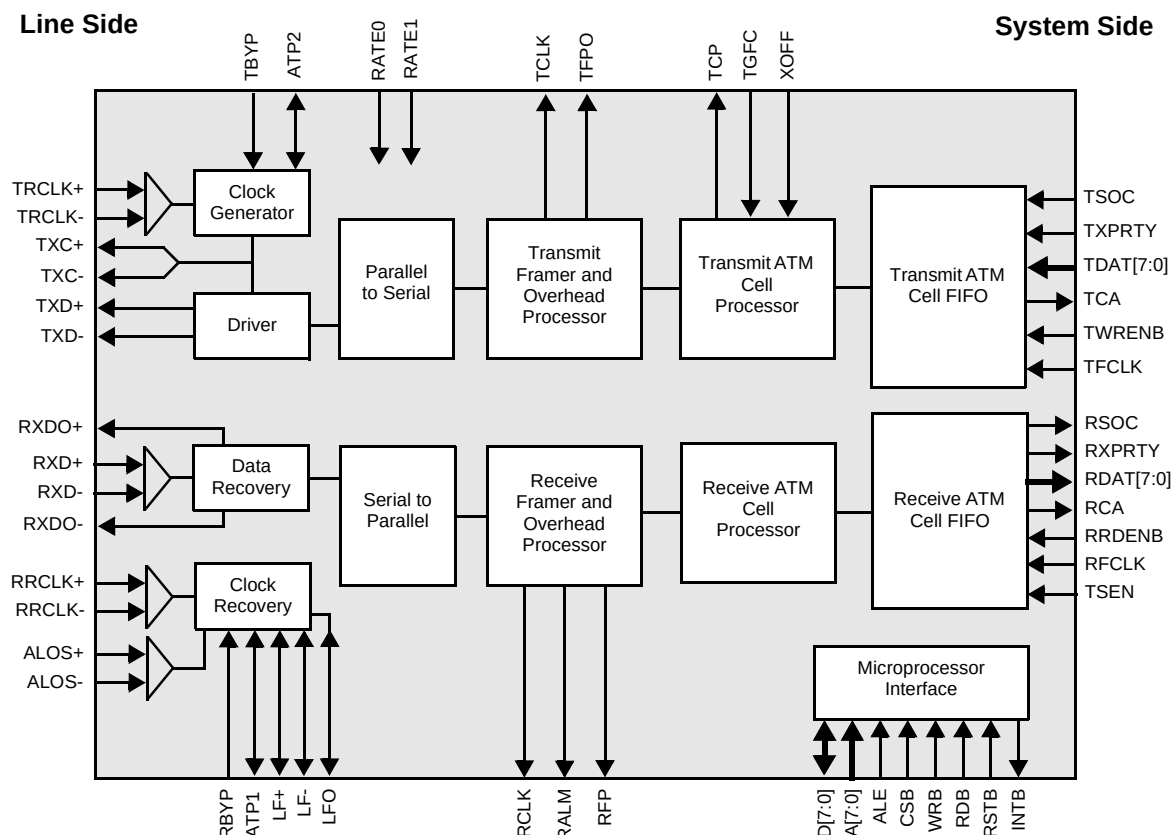
FEATURES

- Low-cost, monolithic SATURN® SONET/SDH ATM User Network Interface (UNI).
- Implements the ATM transmission convergence (TC) sublayer according to ATM Forum specifications using the SONET/SDH 155.52 Mbit/s STS- 3c/ STM-1, and 51.84 Mbit/s STS-1 formats.
- Supports ATM-Forum mid-range PHY and PMC-Sierra UNI-PHY™ substrates at 25.92 and 12.96 Mbit/s.
- Supports UTP-5 or STP twisted pair wiring interface devices and optical driver and receiver modules for fiber optic cable interfaces.
- Includes on-chip, Bellcore-compliant clock recovery and clock synthesis.
- Operates in timing master or timing slave (loop timed) modes.
- Frames to SONET/SDH framing bytes (A1 and A2), processes the section and line Bit Interleaved Parity (B1 and B2) and the Far-End Block Error (Z2) bytes.
- Interprets the H1, H2, and H3 payload pointer bytes.
- Processes the SONET path overhead BIP-8 (B3), signal label (C2), and path status (G1) bytes.
- Inserts and extracts ATM payloads using ATM cell delineation.
- Provides on-chip FIFO buffers in both transmit and receive paths.
- Provides on-chip support for Generic Flow Control (GFC) and XOFF flow control.
- Provides a synchronous, 8-bit, plus-parity SATURN-Compliant Interface for PHYSical layer devices (SCI-PHY™) bus operating at 33 MHz.
- Compatible with ATM Forum UTOPIA interface format, with support for multi-PHY applications.
- Provides a generic 8-bit microprocessor bus interface for configuration, control, and monitoring.
- Provides TTL-compatible inputs and outputs and differential PECL inputs.
- Low power, +5 V CMOS technology.
- Packaged in a 128-pin 14 mm by 20 mm Plastic Quad Flat Pack (PQFP) with 0.5 mm lead pitch.

APPLICATIONS

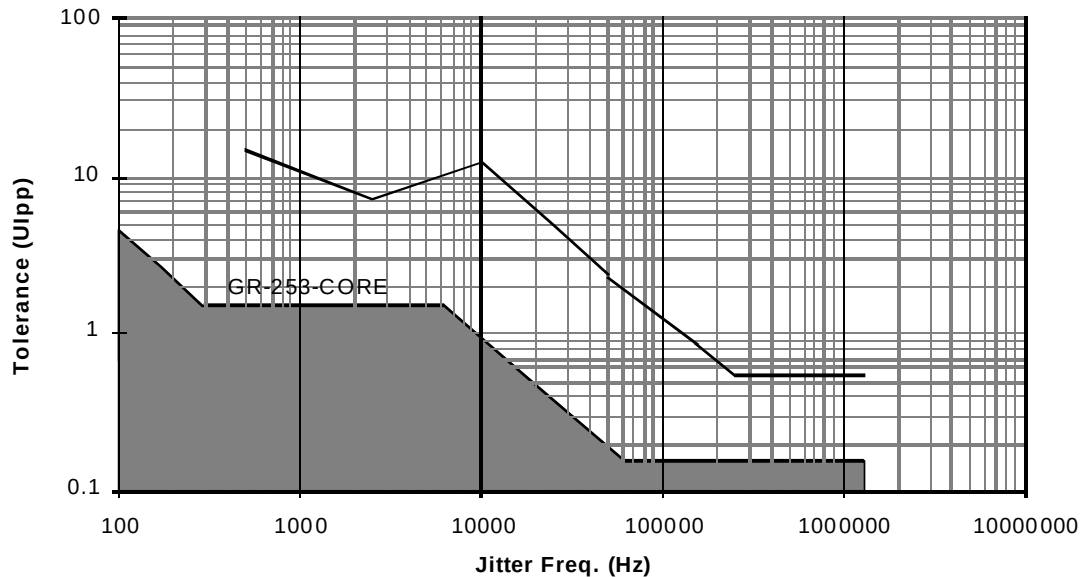
- 155.52, 51.84, 25.92 and 12.96 Mbit/s Twisted Pair or Optical ATM LANs
- Workstations and Personal Computer NIC Cards
- Switches, Hubs, and Router Port Cards
- SONET- or SDH-Compliant ATM UNIs

BLOCK DIAGRAM



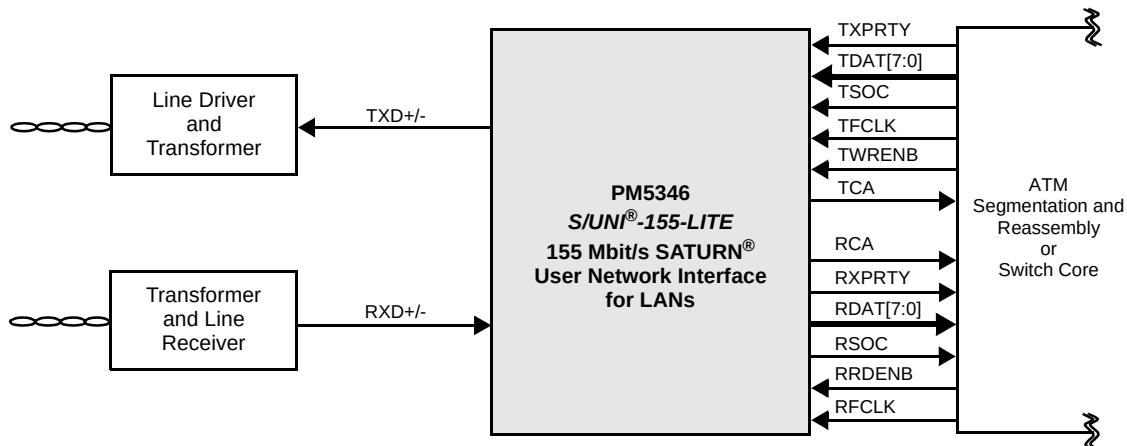
155 Mb/s SATURN User Network Interface for LANs

TYPICAL 155.52 Mbit/s JITTER PERFORMANCE



TYPICAL APPLICATION: UNI-PHY ATM TERMINAL

155.52 OR 51.84 Mbit/s NRZ PHY



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This product contains
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