

**S/UNI-155 SATURN USER NETWORK INTERFACE**

**FEATURES**

- Monolithic SATURN™ SONET/SDH Asynchronous Transfer Mode User Network LAN Interface.
- Implements the ATM transmission convergence (TC) sublayer for Broadband ISDN according to ANSI T1.646, ITU-T Recommendation I.432 and ATM Forum document "ATM User-Network Interface Specification", Version 3.1.
- Operates at 19.44 Mbytes/s, processing a duplex 8-bit or 16-bit data stream and mapping ATM cells into a SONET STS-3c or SDH STM-1 compatible bit serial stream operating at 155 Mbit/s.
- Provides on-chip parallel-to-serial and serial-to-parallel conversion
- Provides a generic 8-bit microprocessor bus interface for configuration, control and status monitoring.
- Provides a standard 5-signal P1149.1 JTAG test port for boundary scan board test purposes.
- Provides 4 cell deep FIFO buffers in both transmit and receive paths and provides interface circuitry for external FIFO expansion.
- Expansion ports provides access to all overhead to allow external processing for full SONET/SDH Network-Node Interface (NNI) compliance.
- Provides a standard 5-signal P1149.1 JTAG test port for boundary scan board test purposes.
- Provides TTL compatible inputs and outputs and a pseudo-ECL compatible serial line side interface.
- Low power, +5 Volt CMOS technology.
- 160 pin plastic quad flat pack (PQFP) package.

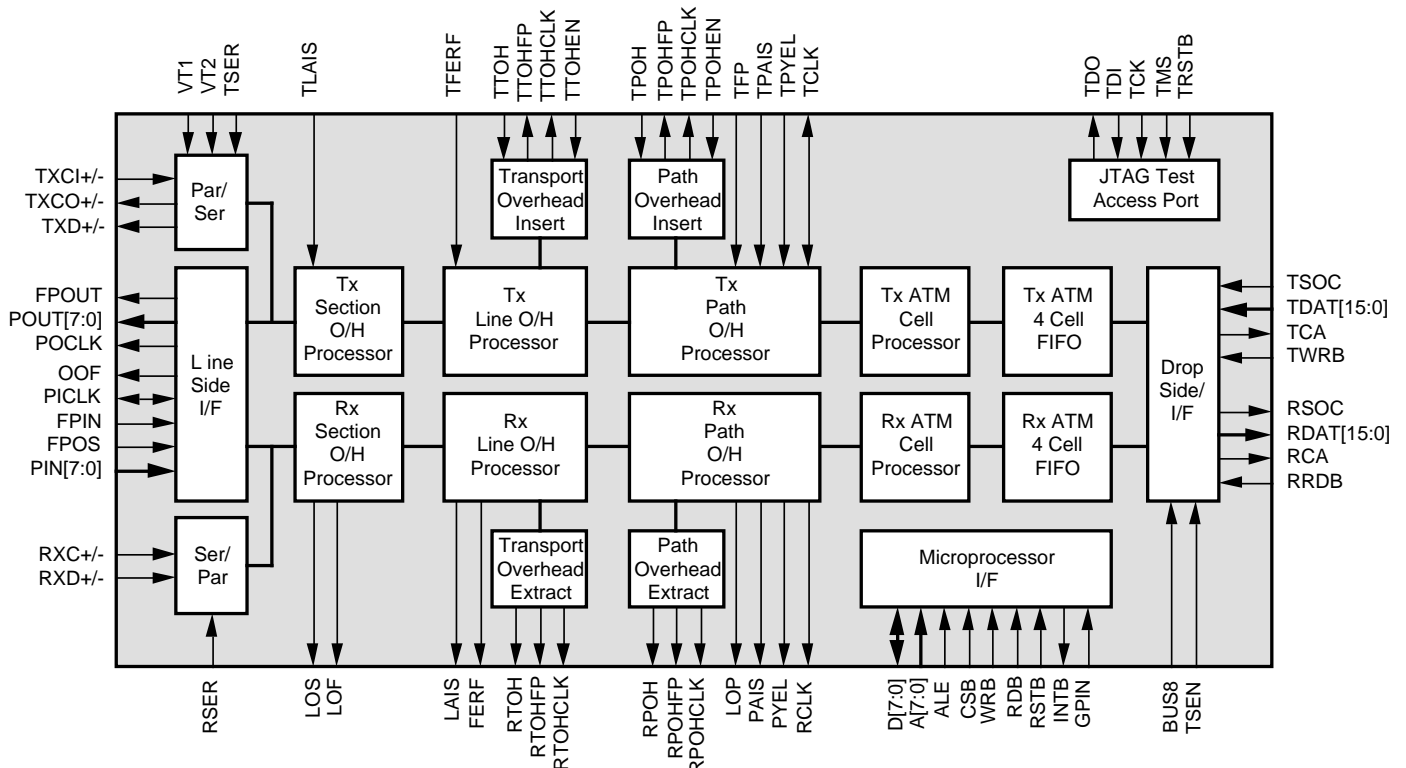
**APPLICATIONS**

- ATM LAN interfaces for computers, workstations, switches and PCs
- ATM public network switching system interfaces
- B-ISDN User-Network Interfaces
- B-ISDN test equipment interfaces
- Gigabit network interfaces

**BLOCK DIAGRAM**

**Line Side**

**System Side**



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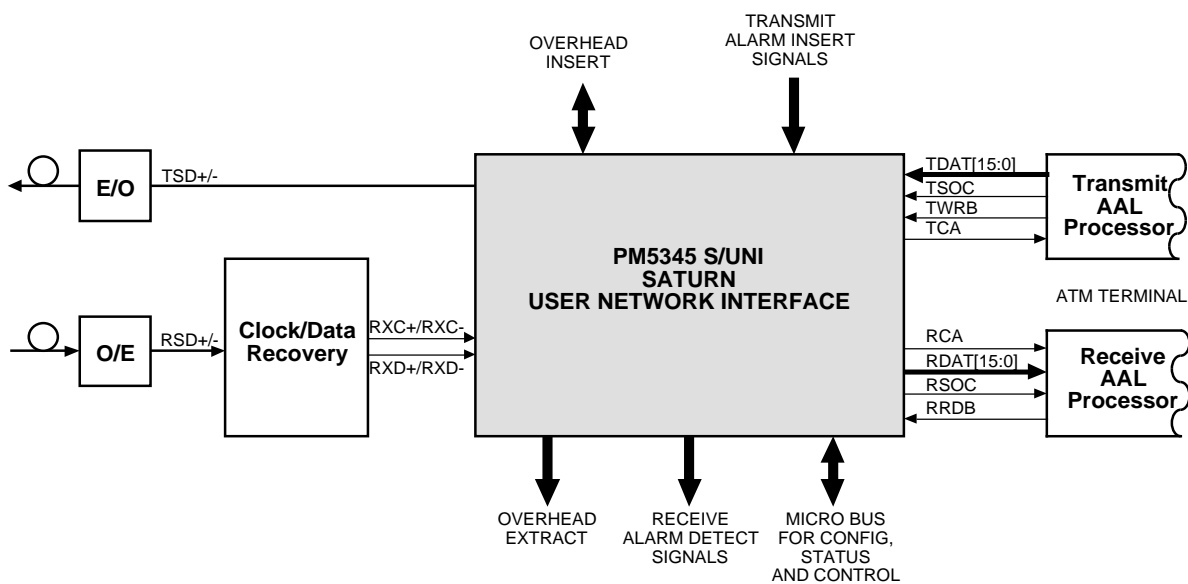
**OVERHEAD BYTE USAGE:**

A1	A1	A1	A2	A2	A2	C1	C1	C1		
B1									B3	
									C2	
H1	H1	H1	H2	H2	H2	H3	H3	H3	G1	
B2	B2	B2				K2				
									H4	
					Z2					

TRANSPORT OVERHEAD (SOH)

PATH OVERHEAD (POH)

**TYPICAL APPLICATION: ATM TERMINAL**



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PMC-920524 (R8)  
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March, 1997