PMC PMC-Sierra

Advance

PM5358
S/UNI®-4x622

Quad Channel OC-12c ATM and POS Physical Layer Device

FEATURES

- Single chip quad ATM and POS User-Network Interface operating at 622 Mbit/s.

- Implements the ATM Forum User Network Interface Specification and the ATM physical layer for Broadband ISDN according to CCITT Recommendation I.432.

- Implements the Point-to-Point Protocol (PPP) over SONET/SDH specification according to RFC 2615(1619)/1662 of the PPP Working Group of the Internet Engineering Task Force (IETF).

- Processes four bit-serial 622 Mbit/s STS-12c (STM-4-4c) data streams with on-chip clock and data recovery and clock synthesis.

- Complies with Bellcore GR-253-CORE jitter tolerance, jitter transfer and intrinsic jitter criteria.

- Each channel provides termination for SONET Section, Line and Path overhead or SDH Regenerator Section, Multiplexer Section and High Order Path overhead.

- Provides UTOPIA Level 3 32-bit wide System Interface (clocked up to 104 MHz) with parity support for ATM applications.

- Provides SATURN POS-PHY Level 3™ 32-bit System Interface (clocked up to 104 MHz) for Packet over SONET (POS), or ATM applications.

- Supports line loopback from the line side receive stream to the transmit stream and diagnostic loopback from the line side transmit stream to the line side receive stream interface.

- Provides support for automatic protection switching including a bi-directional 4-bit PECL 622 MHz port for external APS with mate device.

- Built-in APS cross-connect for internal and external 1+1 and 1:n protection switching.

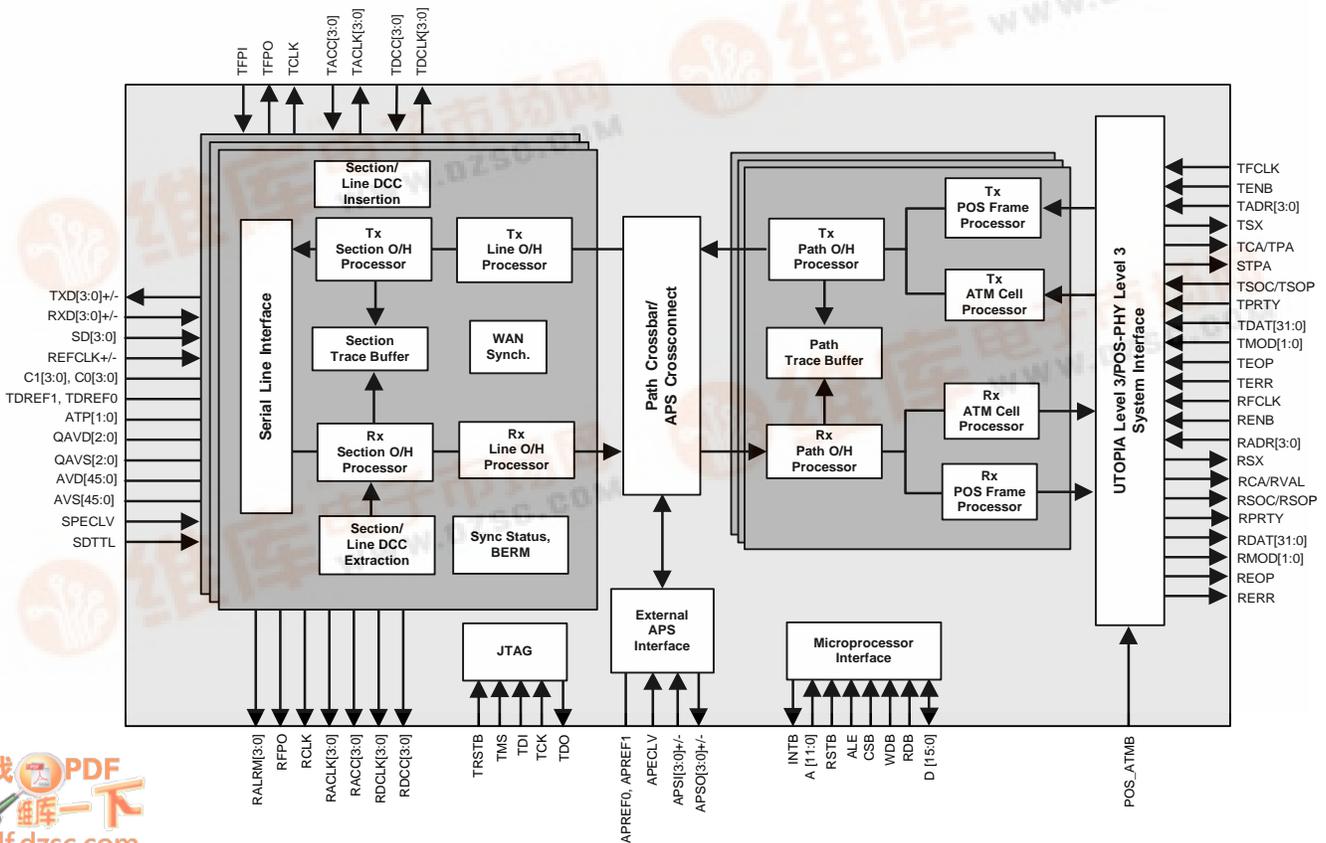- Provides a standard five signal IEEE 1149.1 JTAG test port for boundary scan board test purposes.

- Provides a generic 16-bit microprocessor bus interface for configuration, control, and status monitoring.

- Low power 2.5 V CMOS core logic with 3.3 V CMOS/TTL compatible digital inputs and digital outputs. PECL inputs and outputs are 3.3 V compatible.

- Industrial temperature range (-40° C to +85° C).

- 520 pin SBGA package.

- Pin and software compatible with PM5382 S/UNI-16x155.

APPLICATIONS

- ATM and Multiservice Switches, Routers, and Switch/Routers.

- SONET/SDH Add/Drop Multiplexers with data processing capabilities

- Uplink Cards.
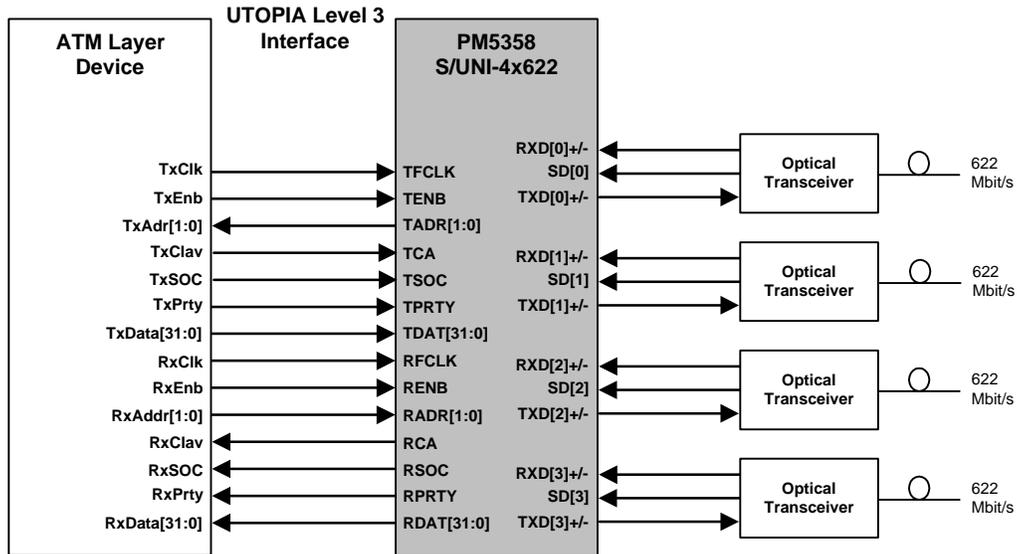
- SONET/SDH ATM/POS Test Equipment.

BLOCK DIAGRAM

Quad Channel OC-12c ATM and POS Physical Layer Device

TYPICAL APPLICATIONS

TYPICAL STS-12C/STM-4-4C ATM SWITCH PORT APPLICATION

TYPICAL STS-12C/STM-4-4C PACKET-OVER-SONET/SDH APPLICATION