Product Brief

Framers and Mappers

Features:

System / Packet Interface

- 32-bit Industry Compliant POS-PHY-3, Single-PHY Packet Interface
- 32-bit Industry Compliant UTOPIA-3, Single-PHY Cell Interface

Physical Layer Channelization Support

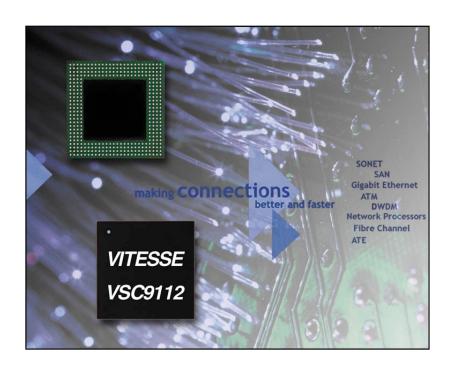
STS-48c / STM-16c

Payload Processing

- Transparent Mode -Direct SPE Mapping
- ATM Cell Processing
- Programmable HDLC / PPP Encapsulation

SONET / SDH Processing

- Full Section, Line, and Path Termination and Generation
- Performance Monitoring and Reporting
- Enhanced Bit Error Rate Monitoring
- Section and Path Trace Buffers
- Full Overhead Insertion and Extraction and Status Monitoring Through Dedicated Access Ports



General Description

The VSC9112 is a dual mode STS-48c/ STM-16c Packet/ATM mapping device. In Packet over SONET (POS) mode, this device can be used in equipment interconnecting IP/PPP/HDLC data over public or private SONET/SDH networks. Similarly in the ATM mode, this device can be used in equipment interconnecting enterprise ATM switches.

Features of the VSC9112 include: Full insertion/extraction of the transport overhead, bit error rate and extensive

SONET/packet/cell performance monitoring, packet/cell filtering and discarding functionalities, transmit and receive, JTAG TAP controller, and an 8-bit CPU interface with 8 general purpose I/O ports.

This highly integrated device provides a complete low-power physical layer solution on a single chip for Packet/ATM over SONET/SDH at the STS-48 rate.



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Features Continued:

Line Interface

- 16-bit 155 MHz Line Interface
- Synchronization for STS-192 Applications

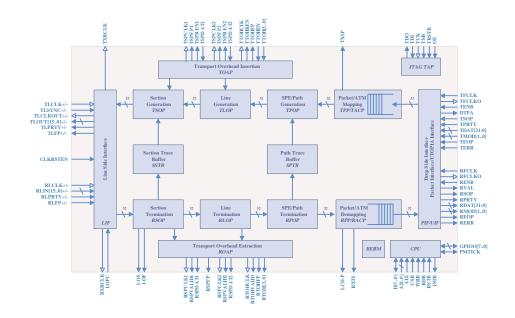
Special Features

- Extensive Packet / Cell Performance Monitoring Features
- 16 Kb Packet / Cell FIFO for Full Packet Encapsulation
- Programmable Error Discarding and Label Filtering
- Rx and Tx Timestamp Feature for Performance Monitoring Applications

Miscellaneous Features

- Generic 8-bit CPU Interface
- Compliant JTAG Boundary Scan Interface
- Five Loopback Modes for Test and Diagnostic Applications
- 0.35 micron CMOS, 352-pin SBGA, 3.0 Watts Maximum

VSC9112 Block Diagram



VSC9112 Reference Board





For more information on Vitesse Products visit the Vitesse web site at www.vitesse.com or contact Vitesse Sales at (800) VITESSE or sales@vitesse.com