VSC9125, VSC9128

VITESSE

VSC9125 (HOVCAT48e™) Enhanced 2.5 Gbps Multiservice SONET/SDH VC Mapper
VSC9128 (HOVCAT192e™) Enhanced 10 Gbps Multiservice SONET/SDH VC Mapper

HOVCATe™

SPECIFICATIONS:

- Supports 64 Virtual Concatenation Groups (VCG) of STS-1 SPEs, TU-3/VC-3s, and/or STS-3c SPE/VC-4s
- Support for the Link Capacity Adjustment Scheme (LCAS) Protocol with Hitless Adds and Removes
- System Packet Interface Level 4 (SPI-4), Phase 2, 16-bit Bus OC-192 SFI-4 Line Interface
- Dual 4 x 2.5 Gbps Serial STS-48/STM-16-like Backplane Interfaces with Performance Monitoring to Working and Protection TSIs
- 8 x 622 Mbps Serial STS-12/STM-4-like Backplane Interfaces with Performance Monitoring to TSIs
- Complete STS-192/VC-4-64 Section, Line, and Path Termination and Generation
- Full Access to SONET/SDH Section, Line and Path Overhead Bytes via Dedicated Ports
- Supports Insertion/Extraction of GFP Client Management Frames, up to 64 Bytes in Length, from/to the Microprocessor Interface for Management Purposes
- Flexible Payload Processing for Generic Framing Procedure (GFP)
- Supports all Payload Types Including Ethernet Frames. Supports HDLC-like framing: PoS - RFC2615, LAPS - X.85, and X.86
- Supports Differential Delays up to 128 ms Through External DDR SDRAM for Diverse Routing Applications

FEATURES:

- Virtual Concatenation (VC)
- 64 Independent Channels (GFP, PoS, X.85, X86, and LAPS)
- Link Capacity Adjustment Scheme (LCAS)
- Virtual Concatenation Groups (VCGs) with granularity of STS-1/VC-3 and/or STS-3c/VC-4
- OIF Compliant SPI-4.2 Interface
- Backplane Interface: 2.488 Gbps (W & P), serial STS-48/STM-16 or 622 Mbps (W & P), Serial STS-12/STM-4 622MHz for Legacy Backplanes
- Line Interface: OIF Compliant SFI-4 Interface
- 128 Msec of Differential Delay Support
- Support for Generic Framing Procedure (GFP)

BENEFITS:

- "Right Sizes" the SONET/SDH Channels and Allows more Efficient Data Transport
- Multi-Service Capability with a High Number of Independent Channels Supporting the Mapping of Different Types of Traffic such as Packet over SONET, Ethernet over SONET/SDH, Fibre Channel, FICON, ESCON, DVB-ASI
- LCAS Increases the Flexibility of Virtual Concatenation (VC) by Allowing Dynamic Reconfiguration of VC Groups
- Better Bandwidth Utilization with STS-1/VC-3 and or STS-3c/VC-4 Level Granularity
- SPI-4.2 Interface Allows Seamless Connection to a Number of Link Layer Devices such as Multiprotocol MACs, Network Processors (NPUs), Traffic Managers (TM), or FPGAs
- Backplane Drivers for Direction Connection to TDM Switch Fabrics
- OIF Standard SFI-4 Interface Enables Direct Connection to Optical Modules, Forward Error Correction (FEC), Pointer Processors and Other Devices Supporting Industry Standard SFI-4 Interfaces
- GFP Makes it Possible to Transport any Protocol over SONET/SDH

VSC9125, VSC9128

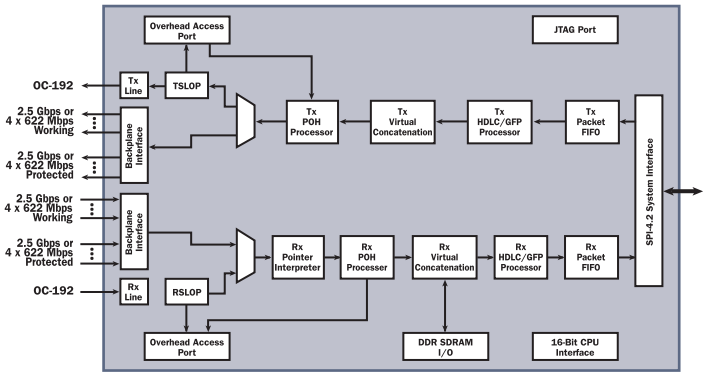
VSC9125 (HOVCAT48e™) Enhanced 2.5 Gbps Multiservice SONET/SDH VC Mapper
VSC9128 (HOVCAT192e™) Enhanced 10 Gbps Multiservice SONET/SDH VC Mapper

GENERAL DESCRIPTION:

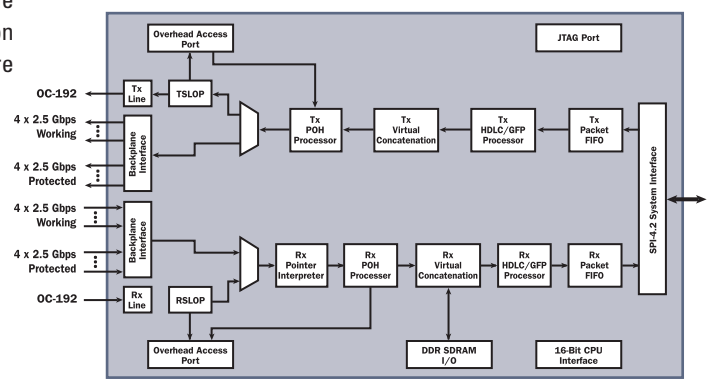
VSC9125 (HOVCAT48e) is a 2.488 Gbps, multiservice, SONET/SDH data mapping device that supports both contiguously concatenated as well as virtually concatenated transport channels. A maximum of 48 data channels can be mapped into transport channels. Fully integrated Link Capacity Adjustment Scheme (LCAS) protocol is implemented. For route-diverse applications, external memory can accommodate differential delays up to 128 ms between tributaries. Frame-based Generic Framing Procedure (GFP-F), transparent Generic Framing Procedure (GFP-T), PPP/HDLC-like (PoS, LAPS) framing, and PPP/BCP (Bridge Control Protocol) are mapped into the SONET/SDH transport channels. The interface to these data channels is through SPI-4.2, system/packet interface. HOVCAT48e supports both a backplane interface and a line interface. The backplane interface can be configured as dual (working and protection) 2.5 Gbps serial STS-48/STM-16-like streams or quad (working and protection) 622 Mbps serial STS-12/STM-4-like streams for interfacing to STS-1 TSI switches. Fully programmable SONET/SDH Section, Line, and Path termination and generation is supported. External ports provide access to the entire Section/Line and Path overhead.

VSC9128 (HOVCAT192e) is a 10 Gbps, multiservice, SONET/SDH data mapping device that supports both contiguously concatenated as well as virtually concatenated transport channels. A maximum of 64 data channels can be mapped into transport channels. The Link Capacity Adjustment Scheme (LCAS) protocol is supported. For route-diverse applications, external memory can accommodate differential delays up to 128 ms between tributaries. Frame-based Generic Framing Procedure (GFP-F), transparent Generic Framing Procedure (GFP-T), PPP/HDLC-like (PoS, LAPS) framing, and PPP/BCP (Bridge Control Protocol) are mapped into the SONET/SDH transport channels. The interface to these data channels is through a 16-bit OIF SPI-4 Phase 2 system/packet interface. HOVCAT192e supports both a backplane interface and a line interface. Fully programmable SONET/SDH Section, Line, and Path termination and generation is supported. External ports provide access to Section/Line and Path overhead.

VSC9125 BLOCK DIAGRAM:



VSC9128 BLOCK DIAGRAM:



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

741 Calle Plano
Camarillo, CA 93012, USA
Tel: +1 805.388.3700
Fax: +1 805.987.5896
www.vitesse.com