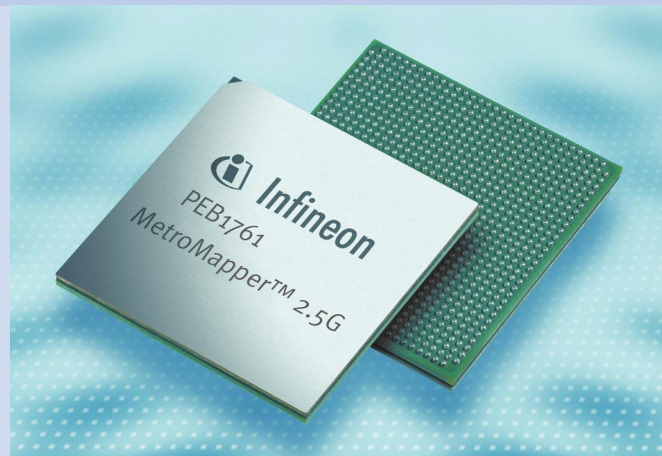


MetroMapper™ 2.5G

Multi-Service Framer for STS-48/
STM-16, STS-12/STM-4



The MetroMapper™ 2.5G is a multi-service framer capable of mapping datacom traffic into SONET/SDH transport payloads. On the line side, the MetroMapper™ 2.5G supports protected STS-48/STM-16 and STS-12/STM-4 interfaces. On the client side, one OIF SPI-3 with up to 128 logical channels are provided. Data from the SPI-3 interface is encapsulated by either the GFP-F, LAPS (X.85/.86) or PPP mapping scheme. Low-order and high-order virtual concatenation (VCAT) with Link Capacity Adjustment Schemes (LCAS) for up to 128 virtual concatenated channels is supported. MetroMapper™ 2.5G provides Ethernet VLAN ID processing and enables MPLS label update processing.

Applications

- Access / edge aggregation
- MSPP
- Switches and Routers

Features

Framer

- Multi-Rate SONET/SDH framer with STS/AU and VT/TU pointer processing capabilities
- Processes a single STS-48/STM-16 or a quad STS-12/STM-4, STS-3/STM-1
- Payload Pointer interpretation and generation
- Provides full performance monitoring for high- and low-order paths
- Provides high-order and low-order virtual concatenation according to ITU-T G.707
- Supports up to 128 virtual concatenated groups (VCG)
- Flexible concatenation of up to 48 high-order paths and up to 64 low-order paths into any virtual concatenation group
- Supports up to 1344 VT1.5/TU-11 or 1008 VT2/TU-12 low-order paths
- Provides following mapping schemes:
 - AU-4 / VC-4 / TUG-3
 - AU-4 / VC-4 / TUG-3 / TUG-2
 - AU-3 / VC-3 or STS-1 / STS-SPE
- External buffer for up to 64 ms differential delay compensation
- Different VCG group types are defined:
 - $N \times VC-12$, $N \times VC-11$, $N \times VT1.5$ SPE, $N \times VT2$ SPE ($N \leq 64$)
 - $N \times VC-3$, $N \times STS1$ SPE ($N \leq 48$)
 - $N \times VC-4$, $N \times STS3c$ SPE ($N \leq 16$)
- Fully integrated support for the Link Capacity Adjustment Scheme (LCAS) protocol according to ITU-T G. 7042

- Supports 1+1 line protection
 - TOH/POH add/drop interface
 - Fully SONET/SDH compliant
- Encapsulation/Decapsulation**
- Provides GFP-F mapping according to T1X1.5/ITU-T G. 7041
 - PPP processing according to IETF RFC 1662
 - LAPS processing according to ITU-T X.85 + X.86
 - 128 logical channels, can be independently configured
 - PPP protocol support: MPLS Unicast & IP Version 4/6
 - LAPS protocol support: Ethernet and IP Version 4/6
 - GFP Client management frame insertion/detection

SPI-3 Interface

- 128 logical channels running in 32 bit mode
- Packet mode with variable block length
- Interleaved channel mode

Ethernet

- Enables Ethernet via VLAN tagging
 - VLAN update including tag, retag and change of VLAN IDs
 - performs 512-4096 entry (port, VLAN) lookup
 - supports VLAN double tagging

Diagnostics

- Various loop back modes for system debugging implemented

Interfaces

- Source synchronous STS-48/STM-16 or quad STS-12/STM-4 interfaces for working and protected links operating at 622 MHz LVDS or 78 MHz LVTTTL
- TOH/POH add/drop interface
- OIF compliant SPI-3 interface
- Memory Interface including two DDR-SRAM and optionally 1 ZBT SRAM interface for L2 update function
- 66 MHz CPU interface
- IEEE 1149.1 JTAG boundary scan interface

Documentation

- Data Sheet
- Hardware Evaluation System
- **WINEASY** Software for MS Windows with graphical user interface

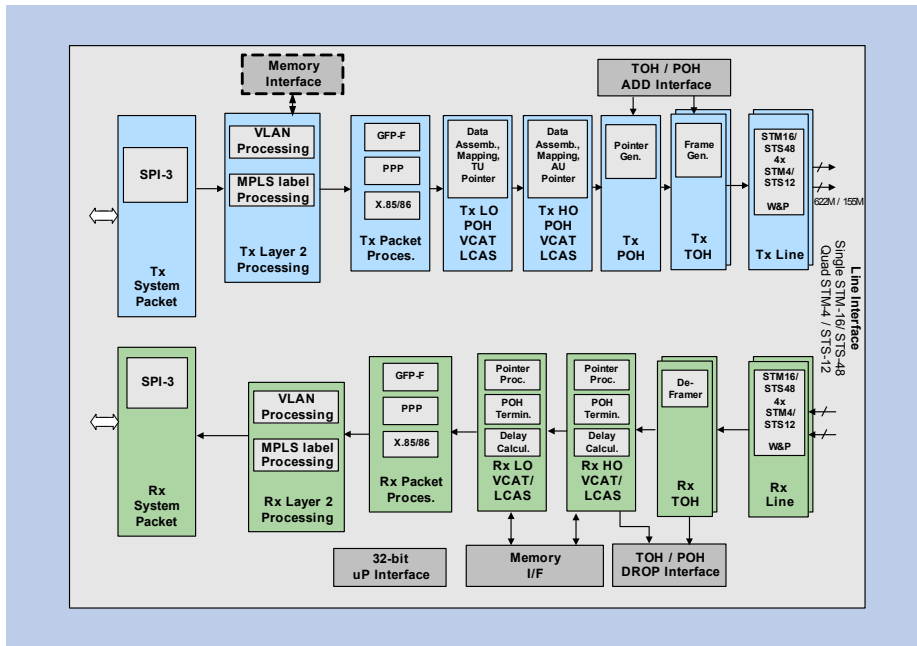
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Optical Networking



Never stop thinking.

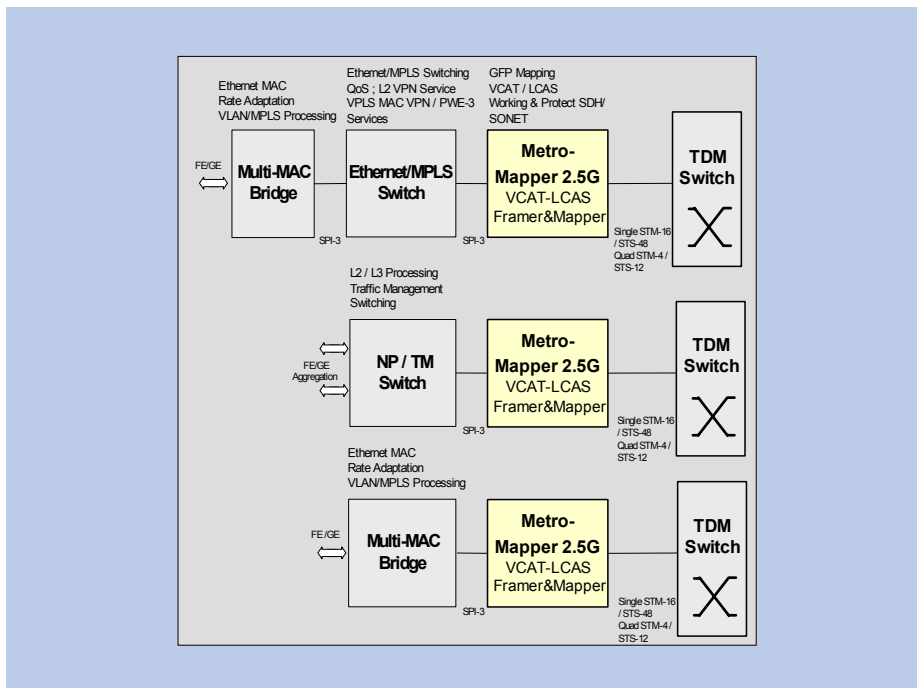
Block Diagram



Product Summary

Type	Sales Code	Package
MetroMapper™ 2.5G	PEB1761	1020 FineLine BGA (33 × 33 mm)

Application Example



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