Your Intelligent EoS Choice for Ethernet Transport Across the Metro

The EtherMap-3 Pt is an Ethernet-over-Sonet device for full and half duplex mapping of Ethernet traffic into a wide variety of SONET/SDH transport systems at the OC-3/STM-1 rate. EtherMap-3 Pt supports one Gigabit Ethernet port or eight 10/100 Ethernet ports to deliver a broad range of both SONET/SDH and Ethernet processing functionality. By incorporating several encapsulation protocols - GFP (Generic Framing Procedure), LAPS (Link Access Procedure for SDH), PPP/BCP and LAPF (Link Access Procedure Framed-mode) - along with Virtual Concatenation (VCAT) and LCAS (Link Capacity Adjustment Scheme), EtherMap-3 Pt allows service providers to meet the increased demand for emerging private line Ethernet transport in the Metro access/edge environment. This device has reduced switch over delay for VCAT paths in fiber protection applications, as well as extremely low latency.

The EtherMap-3 Pt in combination with TranSwitch's PHAST® SONET/SDH terminators, VT/TU cross connects, and extensive family of mapper devices such as the TL3M and TEMx28, provides a complete end-to-end multi-service EoS system. EtherMap-3 Pt has also been designed to work seamlessly with complementary Ethernet switching and PHY components from other vendors. EtherMap-3 Pt enables cost-effective corporate Metro LAN interconnections over SONET/SDH mapping Ethernet streams to create dynamic right-sized EoS links.

Applications
- Compact WAN Access Multiplexers
- OED, SONET/SDH Add/Drop and Terminal Multiplexers
- Multi-Service Access Platforms
- Wireless Cellular/Radio Multiplexers Backhaul
- IP DSLAMs
- Customer Located Provider Equipment

Customer Located Equipment UPSR/SNCP ADM/TM
THE BUZZ

“The demand for deploying and transporting Ethernet traffic in the WAN at access/edge networks is accelerating rapidly. The compelling choice of using existing SONET/SDH infrastructure for this purpose affords carriers and end users the benefits of high-reliability, reduced capital expense and faster Time-To-Market (TTM). EtherMap-3 Pt, the industry’s first high/low-order OC-3 EoS device, serves as the key enabler for OEMs aggressively embarking on this path in their next generation platforms.

VCAT and LCAS transport in the EtherMap-3 Pt represents key EoS technologies that support the new Metro Ethernet services being offered by carriers, allowing them to better provision, protect and make adjustments as data demands escalate.

The allocation of low-order VT/TU channels by carriers using LCAS will continue to be a priority. EtherMap-3 Pt is central to accomplishing this task, delivering maximum carrier network revenue from available resources. Combined with TranSwitch’s field-proven TDM mapping products and expertise, EtherMap-3 Pt provides an added dimension for implementing multi-service applications with unique competence and level of integration.”

Robert Schwaber
TranSwitch Product Manager

Key Product Features

**Hardware**
- Support for LAPS, GFP, (Null & Linear), PPP and LAPF
- On-chip MACs with Full RMON Statistics
- SDRAM Controller for Standard Memory Modules
- Support for Over-subscription of Bandwidth
- Half/Full-duplex Ethernet Flow Control
- Support for G.707 VCAT and G.7042/Y.1305 LCAS
- 63/84 Channel VT/TU or VC-3/VC-4 SONET/SDH Mapper
- Jumbo Frame Support

**Software**
- API-based Device Driver

**Interfaces**
- Eight Independent SMII or One GMII Port
- 19.44 MHz Telecom Bus
- 64/128/256 Mbit SDRAM Interface

**Microprocessor**
- Intel/Motorola Compatible

**Other**
- JTAG Boundary Scan (IEEE 1149.1™)

Environmental Specifications

<table>
<thead>
<tr>
<th>Package</th>
<th>400-Pin PBGA (27mm x 27mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>1.8V/3.3V, I/O Tolerant</td>
</tr>
<tr>
<td>Power</td>
<td>2.2 W (Max)</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>Industrial (-40°C to +85°C)</td>
</tr>
</tbody>
</table>

**Related Products**

- EtherMap®-12  Highly Integrated OC-12 Ethernet Mapper
- EtherPHAST™-48 Plus Highly Integrated OC-48 Ethernet Mapper
- PHAST®-3N  OC-3/OC-3c/STM-1 SONET/SDH Overhead Terminator
- PHAST®-12N  OC-3/OC-12 SONET/SDH Overhead Terminator, Telecom Bus Interface
- TEMx28®  Integrated Dual-bus T1/E1 28 Channel Mapper
- TL3M™  Triple Level 3 Mapper
- VTXP™-6  VT/TU Processor and Cross Connect