

TXC-06306

# PHAST®-6N

## Multi-Rate PHY/Framer for Telecom Networks

Manufactured by TRAN Semiconductor

### KEY BENEFITS

- ▶ *Industry-leading transport solution*
- ▶ *PHAST and EtherMap family interoperability*
- ▶ *Fully compliant with SONET/SDH standards*
- ▶ *Reduced software development effort*
- ▶ *Reduced space, power and cost*
- ▶ *Faster Time-To-Market (TTM)*

### Your Superior Choice for Transporting and Grooming Access Traffic

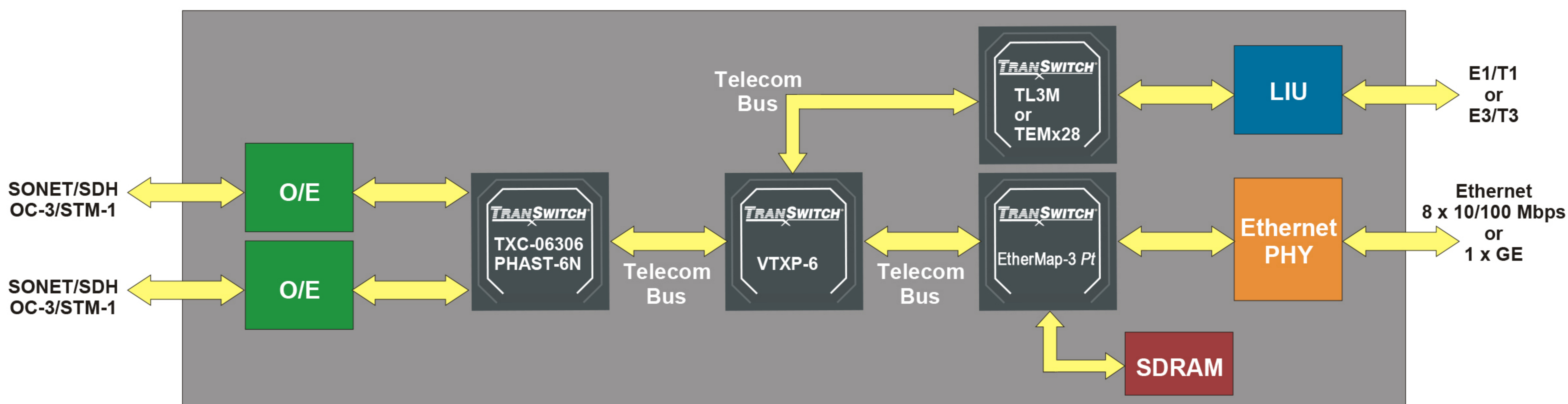
The PHAST®-6N is a highly integrated SONET/SDH overhead termination device designed for TDM and EoS applications which can terminate two OC-3/STM-1 lines. Clock synthesis and clock recovery for these lines are incorporated. The device provides regenerator section and multiplex section (line) overhead processing, high-order (AU-3/AU-4/STS-1/STS-3c) pointer tracking and retiming and SPE path overhead processing and performance monitoring. It is a powerful solution for single or dual OC-3 telecom applications, especially those requiring high-order ring closure and carrier-grade protection capability. PHAST-6N also provides a full 18 x 18 non-blocking STS-1 level cross connect, allowing line/path (UPSR/SNCP) protection. An APS line port may be utilized for applications such as MSP 1+1, 1:1, and 1:n architectures.

The PHAST-6N is designed to interface directly with the EtherMap®-3 Pt and EtherMap®-12 Ethernet mappers for EoS applications as well as the VTXP™ cross connect with TU/VT processing. The software driver contains independent modules that allow the user to compile only relevant required components, a considerable resource savings. The function of the API's driver is to configure, control and manage the PHAST-6N device as well as collect and deliver fault and performance monitoring data to the host.

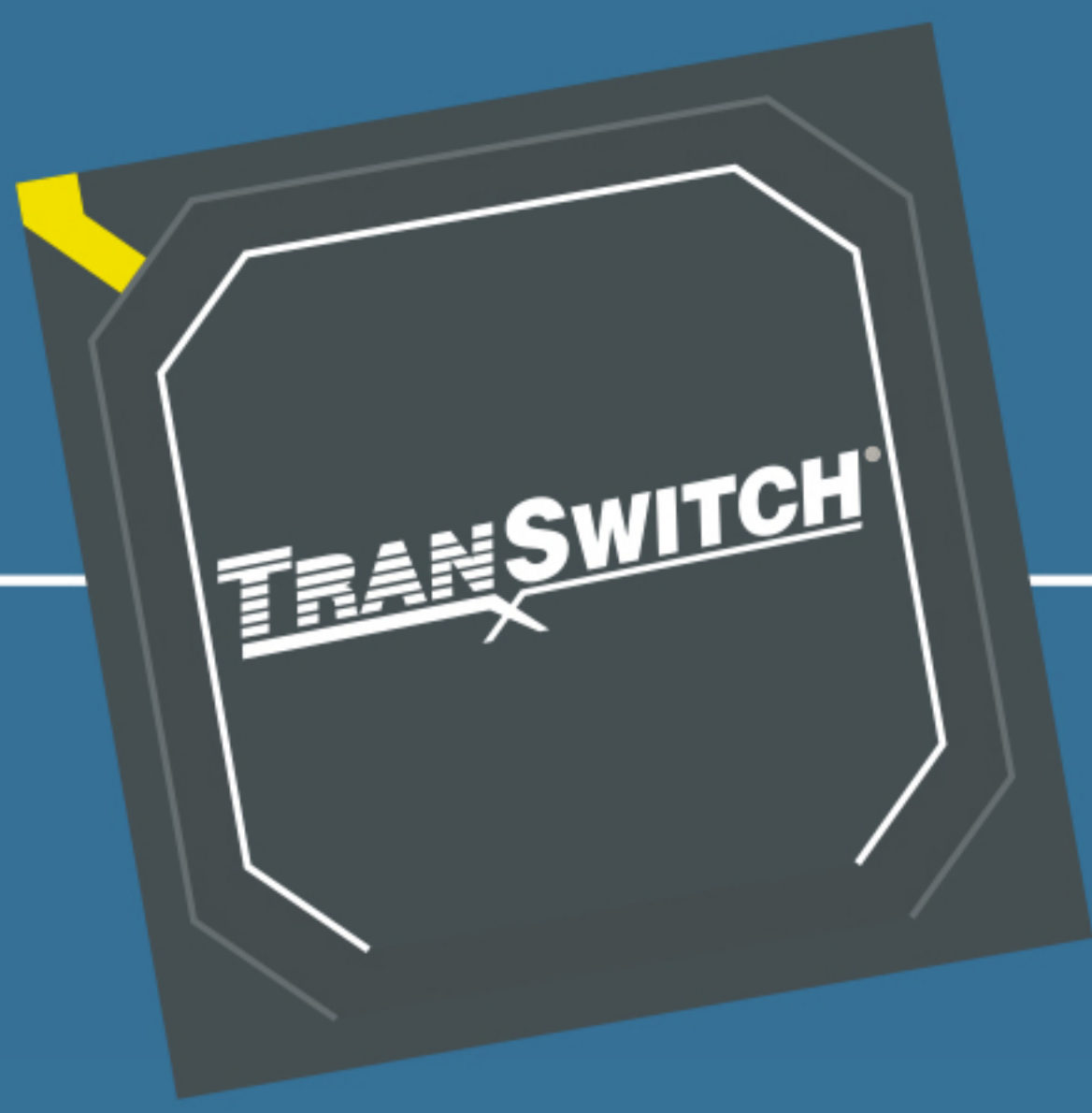
### Applications

- **OED, SONET/SDH Add/Drop and Terminal Multiplexers**
- **Multi-Service Provisioning Platform**
- **Dual Fiber MS/Line Protection Applications**
- **OC-3 1+1, 1:1, and 1:n APS for ADMs**
- **Customer Premise Access Platforms**
- **Edge Routers**

### Compact Access OC-3 Multi-Service UPSR/SNCP ADM/TM







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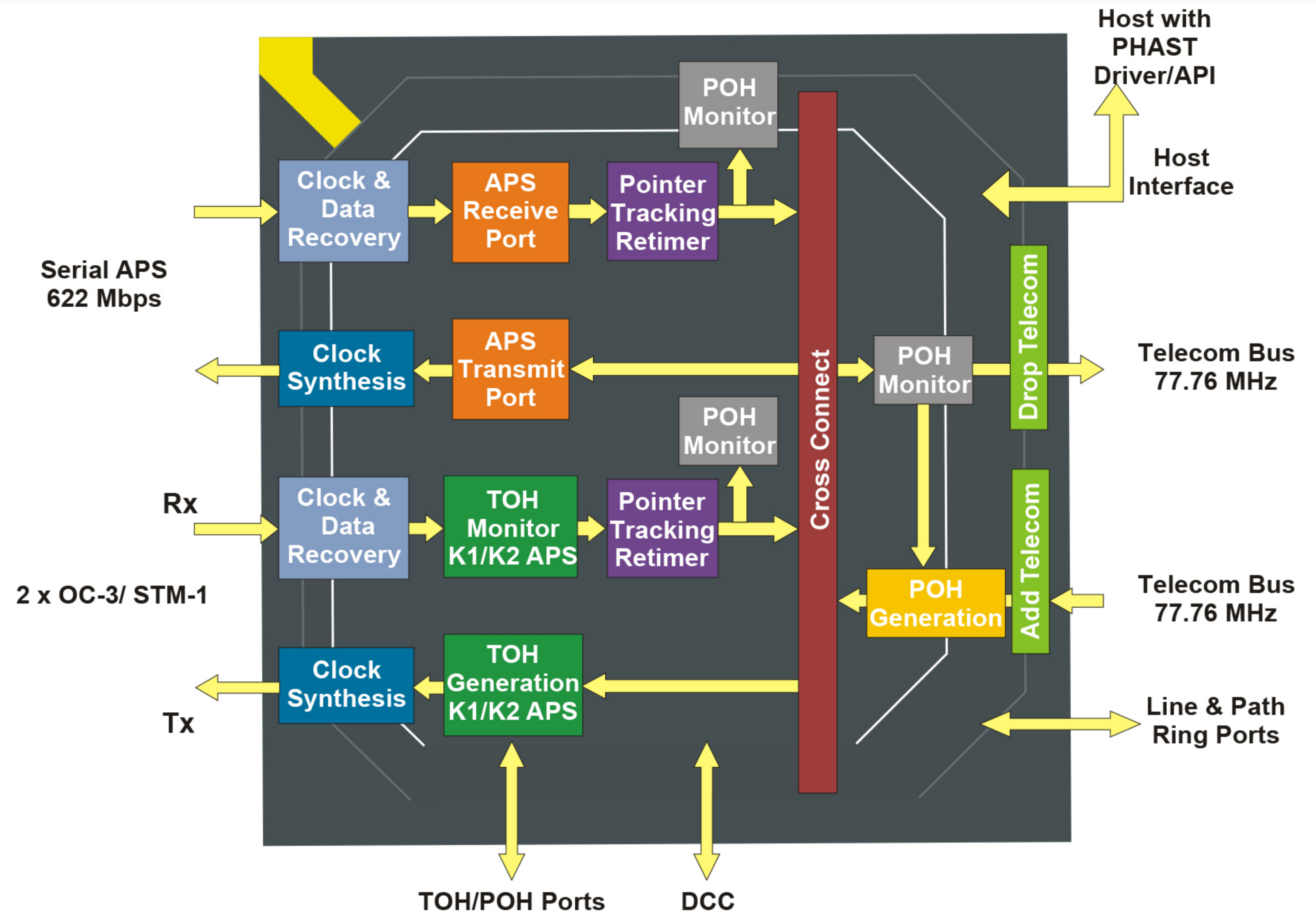
## Multi-Rate PHY/Framer for Telecom Networks

### THE BUZZ

“Today's metro optical networks serve the needs of customer applications such as Internet and voice over IP. OEMs require integrated devices for carrier-grade protected platforms with simplified management. The TranSwitch family of PHAST and EtherMap products delivers such solutions for next generation metro network applications.

TranSwitch's PHAST-6N offers OEMs simplicity, ease of integration and reliability. The PHAST-6N may be incorporated into new access platforms requiring full redundancy and TDM grooming. Service providers will benefit from its carrier-grade SONET/SDH features.”

Robert Schwaber  
TranSwitch Product Manager



### Key Product Features

Hardware	Bit-serial Line Interfaces
	Integrated Clock, Data Recovery, Clock Synthesis
	1+1, 1:1 and 1:n APS for two OC-3/STM-1 Signals
	TOH, POH Processing, Generation Functions
	High-order Pointer Tracker/Retiming, Performance Monitor
	Dedicated Overhead Byte Interface
	High-order 18 x 18 Cross Connect (STS-1/STM-0 Level)
High-order Path, Line Loopbacks	

Software API-based Device Driver

### Interfaces

Data Path	2 x 155 Mbps LVPECL, 622 Mbps LVDS APS (Serial)
	77 MHz Telecom Bus
	Line and Path Alarm Indication Ports (Ring)

Microprocessor Intel/Motorola Compatible (16-Bit Data)

Other JTAG Boundary Scan (IEEE JTAG™)

### Environmental Specifications

Package	376-Pin PBGA (23mm x 23mm)
Voltage	1.8V/3.3V, 5.0V I/O Tolerant
Power	1.5 W (Max)
Temperature Range	Industrial (-40°C to +85°C)

### Related Products

EtherMap®-3 Pt	Highly Integrated OC-3 Ethernet Mapper
EtherMap®-12	Highly Integrated OC-12 Ethernet Mapper
EtherPHAST™-48 Plus	Highly Integrated OC-48 Ethernet Mapper
PHAST®-3N	OC-3/STM-1 SONET/SDH Overhead Terminator
TL3M™	Triple Level 3 Mapper with On-chip Digital Desynchronization
TEMx28®	Integrated Dual-Bus T1/E1 28 Channel Mapper
VTXP™-6	TU/VT Pointer Processor with Cross Connect
VTXP™-12	TU/VT Pointer Processor with Cross Connect

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For more information on TranSwitch or Centillum product solutions, Visit us at: [www.transemiconductor.com](http://www.transemiconductor.com)