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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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GENERAL DESCRIPTION

Tethys™ PEB1757E is optimized for SONET/SDH applications as a full-duplex two STS-192/STM64 or sixteen STS-48/STM-16 or a mix of sixteen STS-12/STM-4 and STS-3/STM-1 MUX/DEMUX channel device with full framer functionality including pointer processing, and overhead termination; ideal for aggregation, ADM and DWDM applications. In the demultiplex ingress direction, Tethys™ PEB1757E accepts either two STS-192/STM-64 or sixteen STS-48/STM-16, or a mix of sixteen STS-12/STM-4 and STS-3/STM-1 signals in serial 2.5 Gbit/s or serial 622 Mbit/s or serial 155 Mbit/s format. Tethys™ PEB1757E locates the incoming SONET/SDH frame, optionally de-scrambles the data, monitors the TOH and POH, and provides STS-1 level pointer processing. In addition, Tethys™ PEB1757E supports TOH and POH overhead transparency.

In the multiplex direction, Tethys™ PEB1757E accepts sixteen STS-48/STM-16 signals in serial 2.5 Gbit/s format. Tethys™ PEB1757E further provides corresponding functionality in the DEMUX direction.

APPLICATIONS

- ADM
- Metro Aggregation
- Digital Cross Connects
- Repeaters
- DWDM Equipment
- Test Equipment

FEATURES

- Provides 2 SFI4.1 interfaces for STS-192/STM-64 links
- Provides serial STS-48/STM-16, STS-12/STM-4 or STS-3/STM-1 links
- Differential CML 2.5 Gbit/s I/O interface to optics
- Differential CML 2.5 Gbit/s I/O interface to system/backplane
- TFI-5 Support
- Processes SONET/SDH sixteen STS-48/STM-16 or a mix of sixteen STM-12/STM-4 and STS-3/STM-1 on the line side interface
- Processes SONET/SDH sixteen STS-48/STM-16 on the system/client side serial 2.5 Gbit/s interface

- Provides line timing of all line and system side interfaces
- Processes SONET/SDH flexible concatenation streams of STS-2c, 3c, 4c, ... to 192c
- Supports auto-detection of concatenation streams STS-3c/STM-1, STS-12c/STM-4 and STS-48c/STM-16
- Supports STS-1 level pointer processing of STS-48/STM-16 or STM-12/STM-4 or STS-3/STM-1 streams
- Provides interfaces for dropping alarm and status information, and for forcing alarm conditions
- Power dissipation of 15 W, depending on mode of operation
- Terminates and generates SONET section, line, and path layers
- Provides TOH and POH transparency
- Provides monitoring of POH bytes B3 and N1/Z5
- Provides B2 SF/SD capability for Poisson and bursty error distribution
- Provides full TOH/POH add/drop
- Provides STS-1 level POH add/drop
- Supports more than ± 746 UI programmable output skew on STS48/STM-16 system side output links to external cross-connects
- For diagnostic purposes, Tethys provides PRBS generator/checker and loop backs
- Provides B1, B2, H1 and H2 bit error generation for both receive and transmit direction diagnostics
- Provides 1 second performance monitors
- 0.13 micron process, 1.2 V core, 3.3 V I/O
- Motorola 32-bit synchronous microprocessor interface for configuration, control, and status monitoring
- Complies with GR-253, GR-1377, ITU-T G.707, and ANSI T1.105
- Provides a standard 5-signal IEEE 1149.1 JTAG test port for boundary scan board test purposes

SPECIFICATIONS

- OIF TFI-5

STANDARDS

- ANSI T1.105-2000-193R2 (DRAFT)
- ANSI T1.105.05-1994
- T1X1.3/93-005RI -1993 - preliminary
- GR-253-CORE Sept. 2000

ORDERING INFORMATION

PART NUMBER	PACKAGE	OPERATING TEMPERATURE RANGE
PEB1757E	1397 CBGA	-40°C to +85°C

FIGURE 1. PEB1757E BLOCK DIAGRAM IN STS-48 APPLICATION

