PM5324 ARROW 1x192

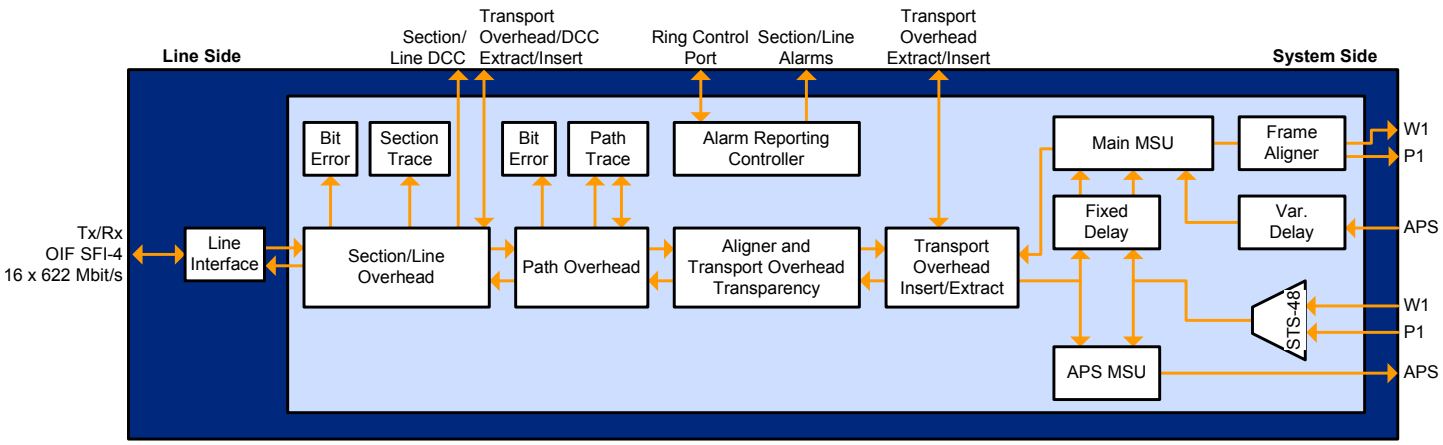
SONET/SDH Transport Framer/Aggregator for OC-48 and OC-192

Released Product Brief

Product Overview

- SONET/SDH framer/aggregator for use in channelized STS-192/STM-64 and STS-48/STM-16 applications
- 10 Gbit/s aggregate capacity. The framer can be configured to support:
  - One STS-192/STS-192c / STM-64/STM-64c stream
  - Four STS-48/STS-48c / STM-16/STM-16c streams
- Supports one STS-192/STM-64 stream via a standard OIF SFI-4 interface (duplex 16-bit 622 MHz LVDS) for direct connection to SERDES and CRU/CSU devices
- Supports up to four STS-48/STM-16 via SFI-4 interfaces operating in nibble mode
- Provides working, protect, and APS interfaces for connection across system backplanes. Each interface consists of four ESSI (Extended SONET Serial Interface) RASIO 3G links, operating at 2.488 Gbit/s
- Supports channelized (down to STS-1), concatenated, and arbitrarily concatenated (STS-3cxN) traffic. Changes in traffic configurations are automatically detected
- Terminates (or monitors) SONET/SDH Section, Line, and Path overhead and provides STS-1 granularity frame alignment and pointer processing
- Detects and inserts transport and path BIP-8 errors (B1, B2, B3). Detects signal degrade (SD) and signal fail (SF) threshold crossing alarms for B2 and B3
- Provides overhead passthrough for entire TOH, and re-mapping for B1, B2, M0/M1, and J0 bytes
- Provides dedicated pins to extract and reinsert the entire transport overhead
- Provides dedicated pins to extract section and line DCC
- Supports Automatic Protection Switching:
  - K1/K2 byte filtering and BER monitoring
  - Direct line card APS connections via system side APS ports
- Supports centralized control of SONET/SDH processing by providing in-band status messaging (Transport, Path, and Equipment Status) on the ESSI ports
- Provides independent STS-1 Memory Switching Units (MSU) for combined time-slot interchange (TSI) and muxing functions in transmit and receive directions
- Provides independent STS-1 Memory Switching Units (MSU) at the DROP APS port for grooming traffic to support line card pairing or local traffic termination
- Provides line loopback from the line side receive streams to the transmit streams and supports diagnostic loopback on the system side interface

Block Diagram



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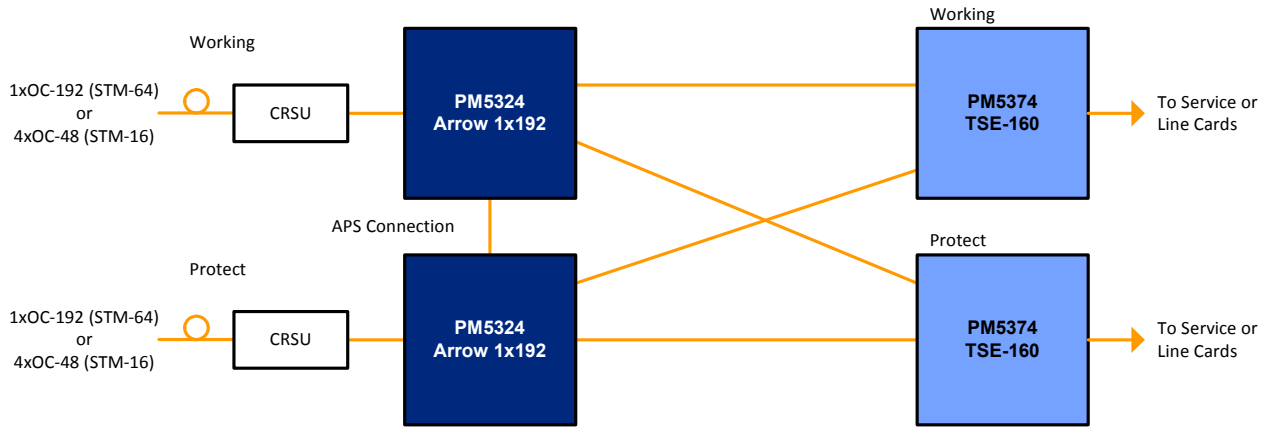
General

- General purpose 16-bit microprocessor interface for configuration, control and status monitoring
- Low power 1.2 V core with 2.5/3.3V I/O
- Standard 5-signal IEEE 1149.1 JTAG test port for boundary scan board test purposes
- 1292-pin FCBGA package

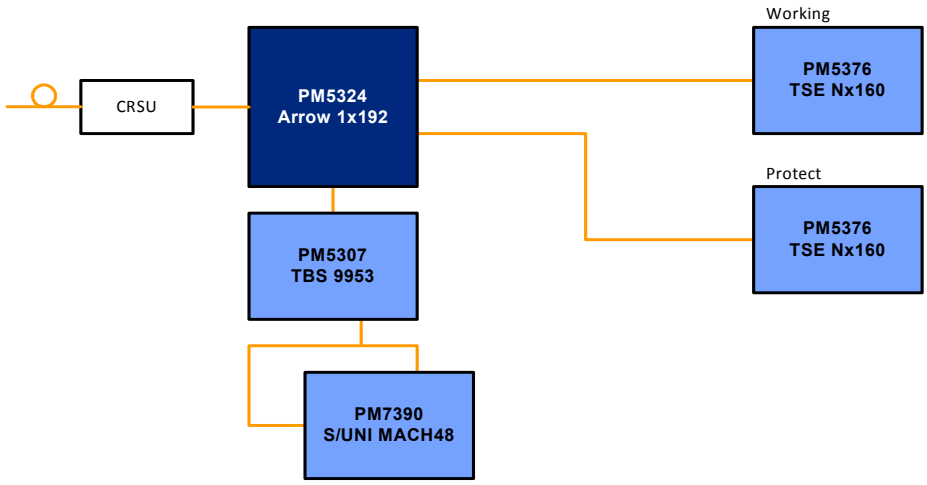
Applications

- Multi Service Provisioning Platforms (MSPP)
- Sub Wavelength Cross Connects
- Add/Drop Multiplexers
- DWDM Platforms
- Channelized Routers and Multi Service Switches

10G Line Card With Local Layer 2 Processing



Cross-Connect



Further Resources

Technology Webpage

www.pmcs.com/products/optical_network/

Technical Documentation

www.pmcs.com/resources/downloads_support.html

About PMC

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