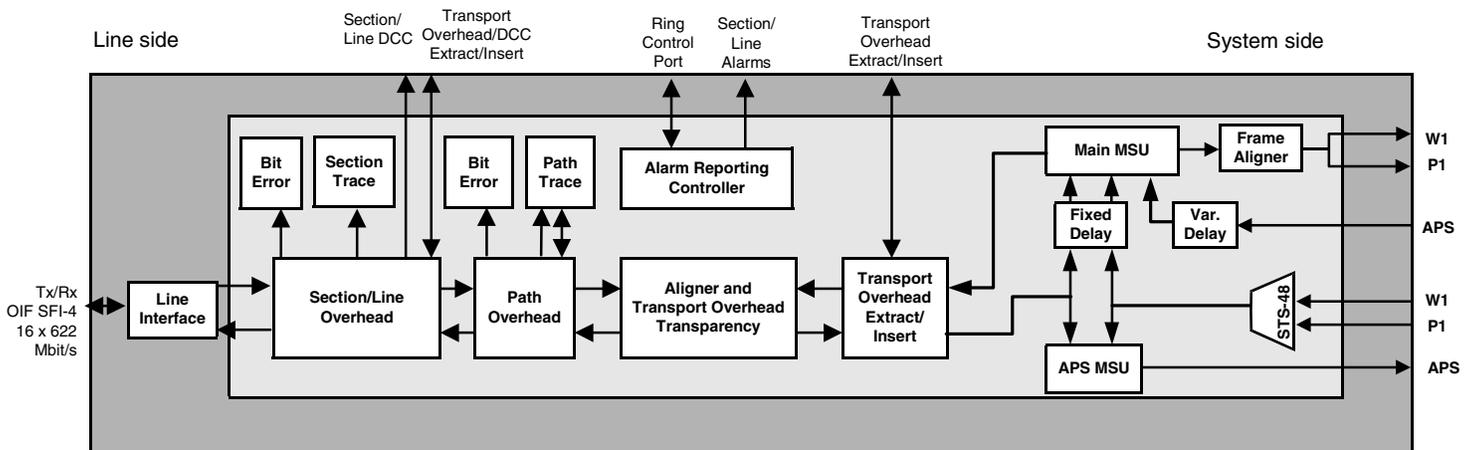


SONET/SDH Transport Framer/Aggregator for OC-48 and OC-192

FEATURES

- 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) CML 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, 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.

BLOCK DIAGRAM



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

- Provides line loopback from the line side receive streams to the transmit streams and supports diagnostic loopback on the system side interface.

GENERAL

- General purpose 16-bit microprocessor interface for configuration, control and status monitoring.

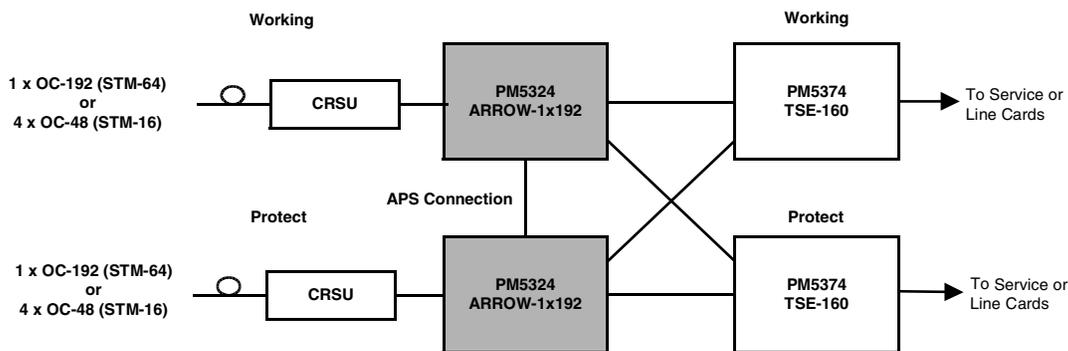
- Low power 1.2 V core with 2.5/3.3V I/O.
- Standard 5-signal IEEE 1149.1 JTAG test port for boundary scan board test purposes.
- 1292-pin FCBGA package.

APPLICATIONS

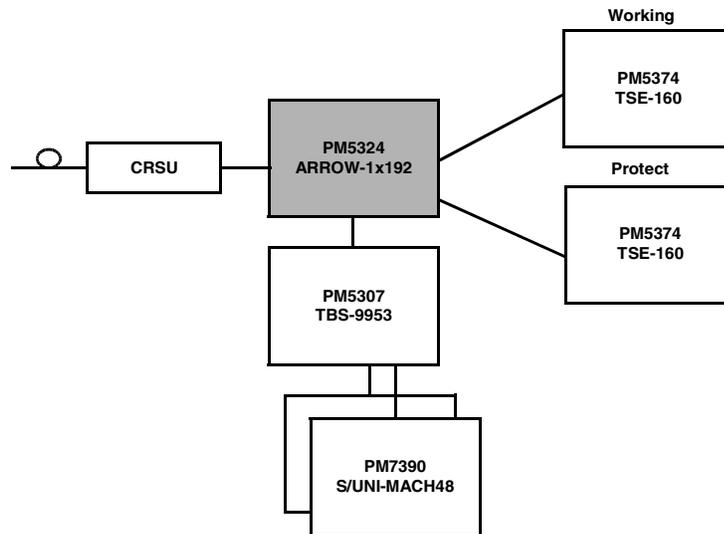
- Multi Service Provisioning Platforms (MSPP).
- Sub Wavelength Cross Connects.
- Add/Drop Multiplexers.
- DWDM Platforms.
- Channelized Routers and Multi Service Switches.

TYPICAL APPLICATIONS

CROSS-CONNECT



10 G LINE CARD WITH LOCAL LAYER 2 PROCESSING



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