PM5338 ADM 622 PDH
Single Chip ADM for 622 & 155 Mbit/s

Released Product Brief

PMC

FEATURES

- Fully integrated Solution for OC-3/STM-1 and OC-12/STM-4
- Add/Drop or Terminal Multiplexers
- Capable of ring completion in a single device (line protection mode) or as a two-chip solution (full redundancy mode)
- Interfaces seamlessly with PMC-Sierra's broad portfolio of SONET/SDH transport devices
- Integrated Cross-connect allows for future system expansion and incremental addition of transport interfaces

SONET/SDH INTERFACE

- Multi-rate SONET/SDH Interface capable of operation at 155 or 622 Mbit/s
- Integrated clock recovery allows direct interface to low-cost optical transceivers
- Integrated clock synthesis generates line clock from 77.76 MHz reference
- Auxiliary telecombus interface allows interface to alternate or secondary line side framer
- Complies with Bellcore, ANSI, and ITU specifications for Jitter Tolerance, Transfer, and Generation

- High order path processing to STS-1/AU-3/TU-3 level
- Low order path processing to VT1.5/VT2/TU-11/TU-12 level
- Full access to all SONET/SDH Overhead bytes
- Integrated MAPS processing for fully automatic UPSR path selection

LOW-ORDER / HIGH-ORDER CROSS-CONNECT

- Integrated 2.5G non-blocking memory based cross-connect supports anycast traffic
- Support switching at STS/AU/VT/TU level and all legal concatenations
- Integrated MAPS processing for automated protection switching
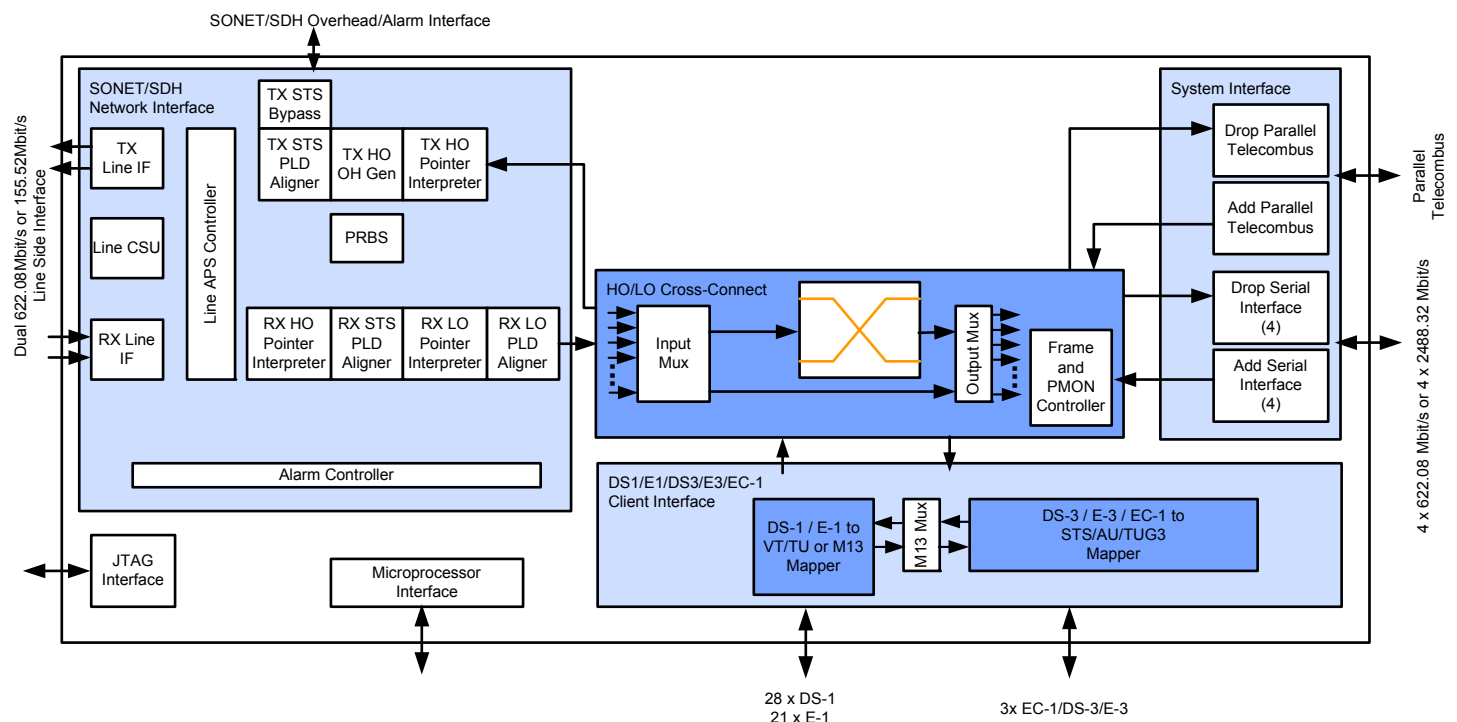
ADD/DROP PDH INTERFACES

- 28xT1 or 21xE1 framers with VT/TU Mapping or M13 Multiplexing
- 3xDS3, E3, and EC-1 framers and mappers with bi-directional performance monitoring and signaling
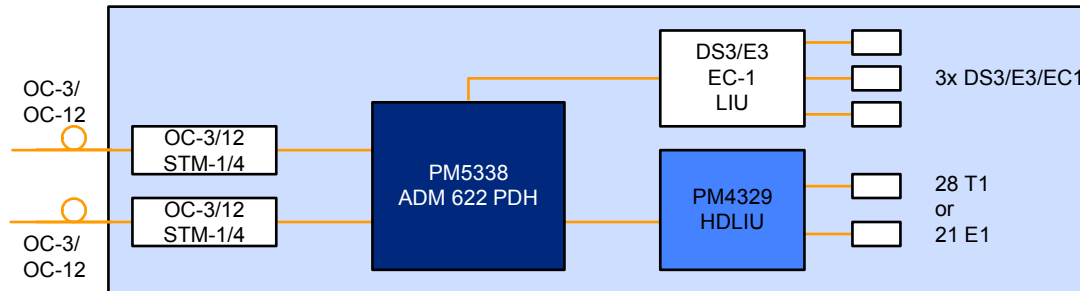
SYSTEM EXPANSION

- Four serial 622M ESSI interfaces for expansion or connection to a mate ADM-622 device
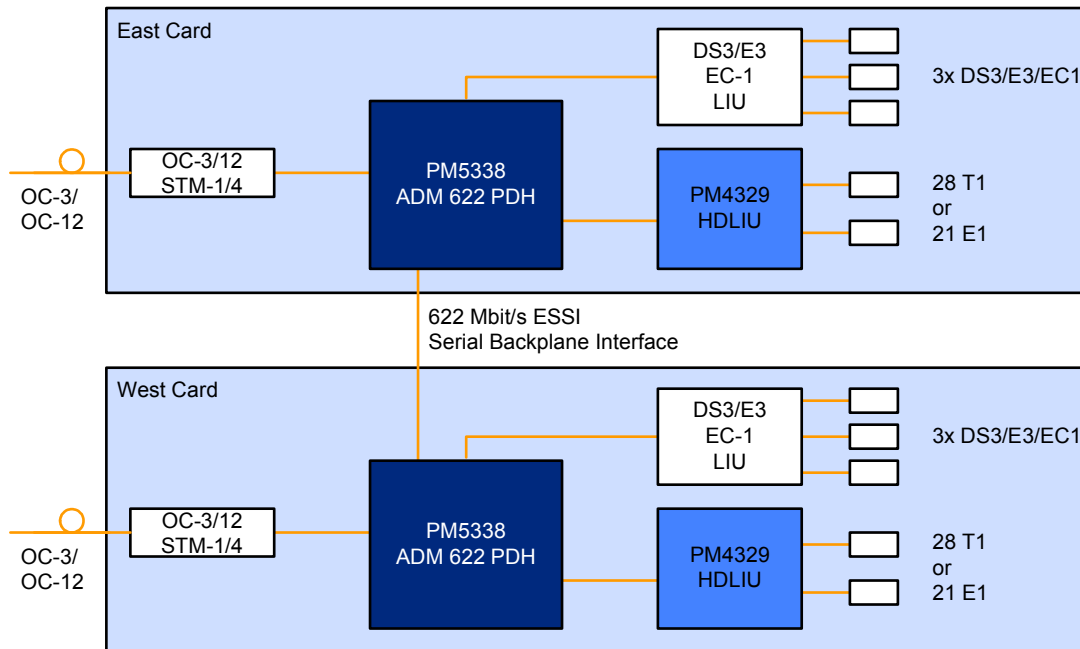- Single multi-drop telecombus interface for expansion

Block Diagram

Terminal Multiplexer with Linear 1+1 Line Protection

OC-3/OC-12 → OC-3/12 STM-1/4 →
OC-3/OC-12 → OC-3/12 STM-1/4 →
PM5338 ADM 622 PDH →
DS3/E3 EC-1 LIU → 3x DS3/E3/EC1
PM4329 HDLIU → 28 T1 or 21 E1

Fully Redundant Add/Drop Multiplexer

East Card

OC-3/OC-12 → OC-3/12 STM-1/4 →
PM5338 ADM 622 PDH →
DS3/E3 EC-1 LIU → 3x DS3/E3/EC1
PM4329 HDLIU → 28 T1 or 21 E1

622 Mbit/s ESSI
Serial Backplane Interface

West Card

OC-3/OC-12 → OC-3/12 STM-1/4 →
PM5338 ADM 622 PDH →
DS3/E3 EC-1 LIU → 3x DS3/E3/EC1
PM4329 HDLIU → 28 T1 or 21 E1

Further Resources

Technology Webpage

www.pmcs.com/products/optical_network/sonet_sdh/

Technical Documentation

www.pmcs.com/resources/downloads_support.html

About PMC

PMC (Nasdaq:PMCS) is the semiconductor innovator transforming networks that connect, move and store digital content. Building on a track record of technology leadership, we are driving innovation across storage, optical and mobile networks. Our highly integrated solutions increase performance and enable next generation services to accelerate the network transformation. For more information visit www.pmcs.com.