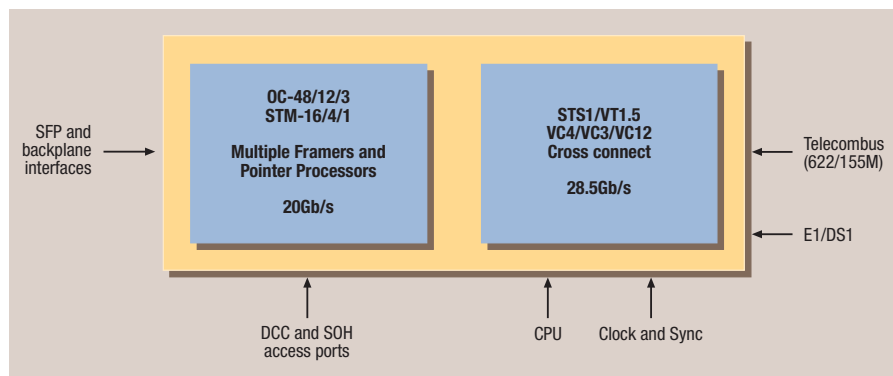


MB87Q2060 - System-on-chip Metro ADM



MB87Q2060 block diagram.

- System-on-chip solution for OC-48 and STM-16 Metro Add/Drop multiplexers
- Multi-Rate SDH/SONET line interfaces
- Higher and lower order cross connect, integrated timing and clocks, and multiple tributary ports
- Applications:
 - Line and tributary cards for Next-gen SDH/SONET MSPPs and DWDM
 - OC48/STM-16 microADM or Optical Edge Device systems
- Contiguous concatenation for VC-4-16c, VC-4-4c, STS-48c, STS-12c and STS-3c
- AIS, Unequipped and PRBS generators and monitors
- G.813 SEC, GR-1244 Stratum-3 network element timing
- 2MHz, E1 and DS1 timing interfaces
- 4 E1/DS1 ports
- Telecom bus 8-bit, 155 or 622Mb/s
- Flexible SDH/SONET overhead access ports
- Access to backplane overhead Bytes
- Access to 48 DCC channels
- HDLC based in-band management channels via DS1 or E1

Features

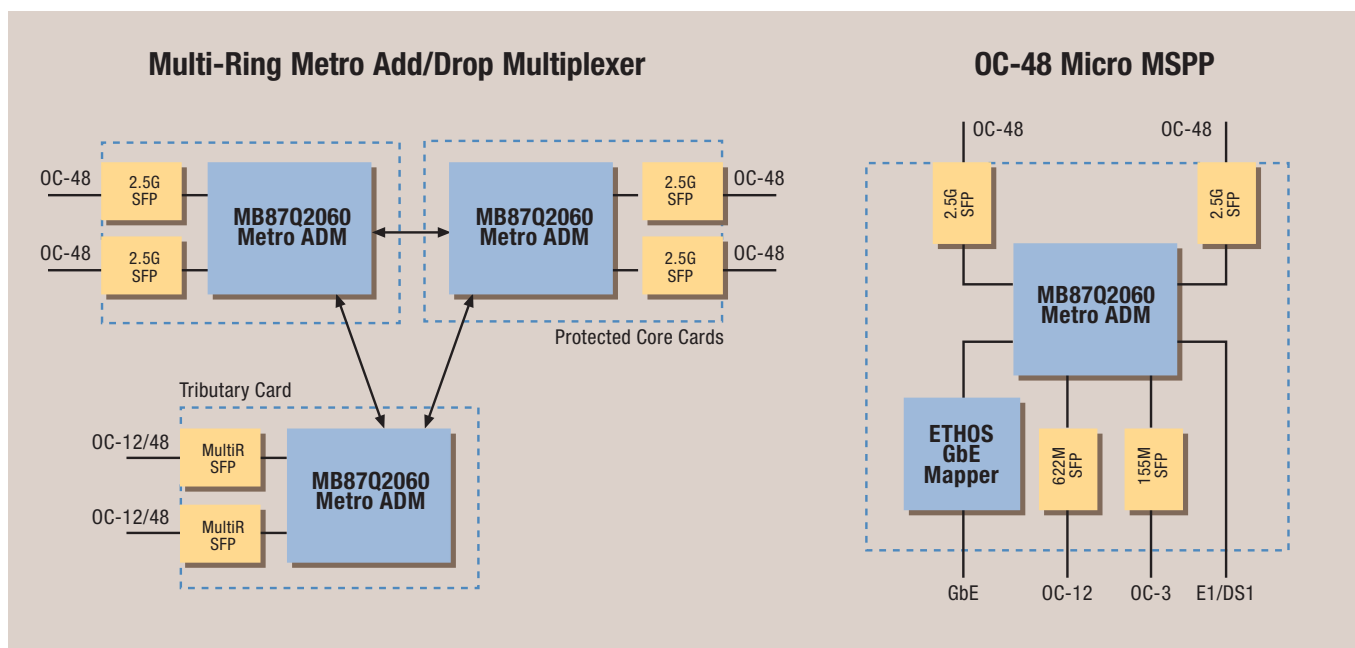
- Line interfaces:
 - 2 STM-16/4/1, OC-48/12/3 triple-rate interfaces
 - 16 STM-4/1, OC-12/3 dual-rate interfaces
 - Direct interface to multi-rate SFP modules
- Backplane interfaces:
 - 4 TFI-5 or 16 622Mb/s for interface to mate devices or tributary cards
- Line and section Byte processing functions
- Integrated clock data recovery and scrambling on all ports
- 28.5Gb/s AU4/STS1 higher order crossconnect (549 STS1, 183 VC4)
- 7.5Gb/s VC12/VT1.5/VC3 lower order crossconnect (4032 VT1.5, 3024 VC12, 144 LO-VC3)
- Hardware assisted UPSR/SNC protection switching for VT1.5, VC12 and LO-VC3
- SDH/SONET pointer processing, overhead termination and protection schemes

- Performance monitoring
- Fault management
- Loopbacks
- 32-bit controller interface



Solutions for OC-48 and STM-16 Metro Add/Drop multiplexers

FACTSHEET
MB87Q2060 METRO ADM SoC



Applications

- Metro Add/Drop Multiplexer or MSPP with multiple OC-48/STM-16 ring closures
- Line card: dual OC-48/STM-16 ports with mate and tributary interfaces
- Tributary card: 16 port triple-rate SDH/SONET card with redundant backplane interfaces
- Single chip OC-48/STM-16 micro MSPP in ring or terminal configuration
- OC-48/STM-16 protected network termination device or OED
- DWDM optical transponder with OC-3/12/48 aggregation and ring add/drop

Features	Benefits
Multi rate SDH/SONET ports	Flexible STM-N/OC-N line interface selection
CDR on all interfaces	No need for external clock data recovery or (de)mux device
Integrated OC-48/STM-16 CDR	Direct connection to SFP modules
Integrated G.813 SEC network clock	Low device overhead
Integrated clock generation and distribution	No need for external clock devices
Non blocking lower order cross connect	Flexible grooming and protection switching of lower order traffic
Hardware assisted UPSR/SNCP switching	Less than 50ms switch time, independent of number of channels

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AimCom BV is a privately owned semiconductor design company, providing building blocks for Next Generation Optical Networking solutions for delivery of cost-effective carrier-class SDH and Ethernet services. Together with its sister companies, AimSys and AimBridges, AimCom offers full-featured carrier-class solutions for metro and regional service providers.

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