High Density 84/63 Channel VT/TU Mapper and M13 Multiplexer

FEATURES

The PM5366 TEMAP 84 is a 155 Mbit/s multi-channel VT/TU Mapper with ingress or egress performance monitoring integrated with three M13 Multiplexers.

This monolithic device integrates:

- Three SONET/SDH VT1.5/VT2/TU11/TU12 bit asynchronous or byte synchronous mappers.

- Three full featured M13 multiplexers with DS3 framers.

- Three SONET/SDH DS3 mappers.

- Line side and system side interface support:

  - Provides a 19.44 MHz or 77.76 MHz SONET/SDH Add/Drop Telecom bus interface for seamless connection with PMC-Sierra's SONET/SDH devices.

  - Supports a byte serial Scaleable Bandwidth Interconnect (SBI) bus interface at either 19.44 MHz or 77.76 MHz for high density system side device interconnection to PMC's link layer products.

  - The Scaleable Bandwidth Interconnect Transport (SBI TR) Interface provides a high density interface suitable for transport applications. It interconnects up to 84 T1 or 63 E1 unframed links.

- Support for transparent virtual tributaries when SBI is used with SONET/SDH mapper.

- Provides jitter attenuation in the T1/E1 tributary receive and transmit directions.

- Provides three independent de-jittered T1 or E1 recovered clocks for system timing and redundancy.

- Provides per link diagnostic and line loopbacks.

- Provides PRBS generators and detectors at DS3 and E3 rates and on each tributary for error testing at T1 and E1 rates as recommended in ITU-T 0.151, 0.152.
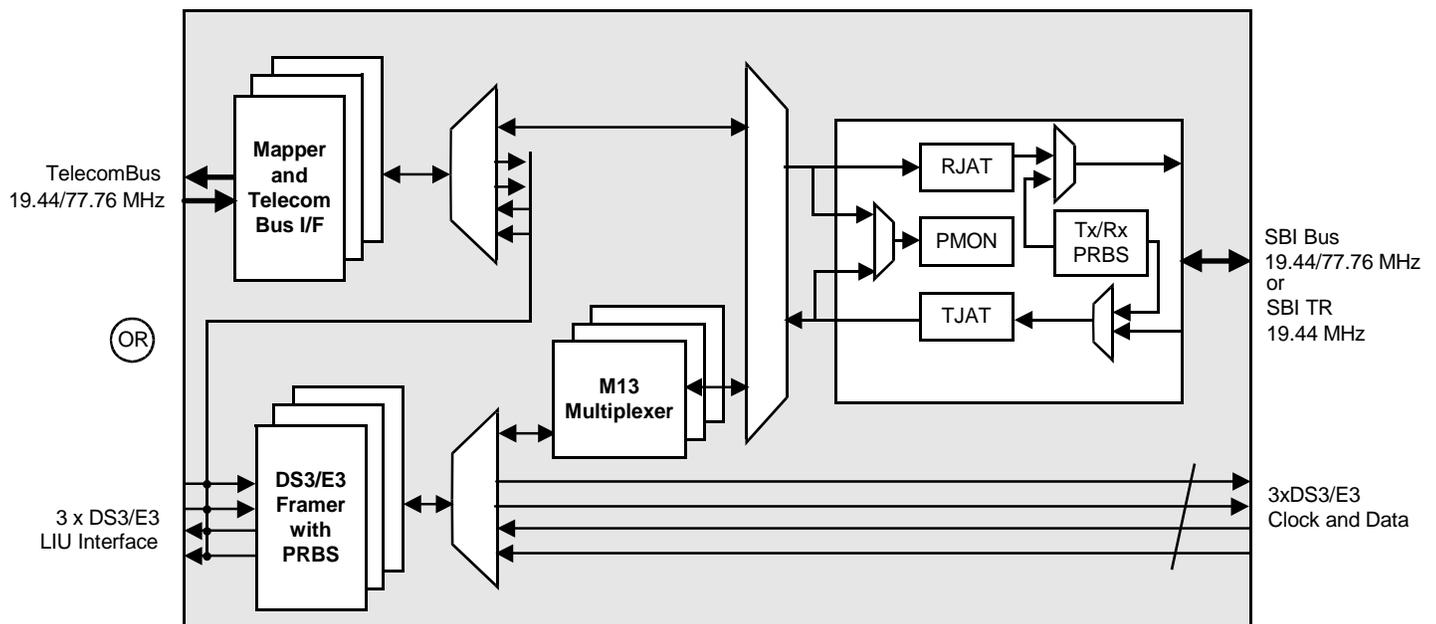
- Feature-rich functional software drivers available with device.

- Provides a generic 8-bit microprocessor bus interface for configuration, control and status monitoring.

- Provides a standard five-signal P1149.1 JTAG test port for boundary scan board test purposes.

VOLTAGE

- Low power 1.8 V/3.3 V CMOS technology. All pins are 5 V tolerant.

PACKAGE

- 324-fine pitch PBGA package (23 mm x 23 mm).

- Supports industrial temperature range (-40 °C to 85 °C) operation.

BLOCK DIAGRAM

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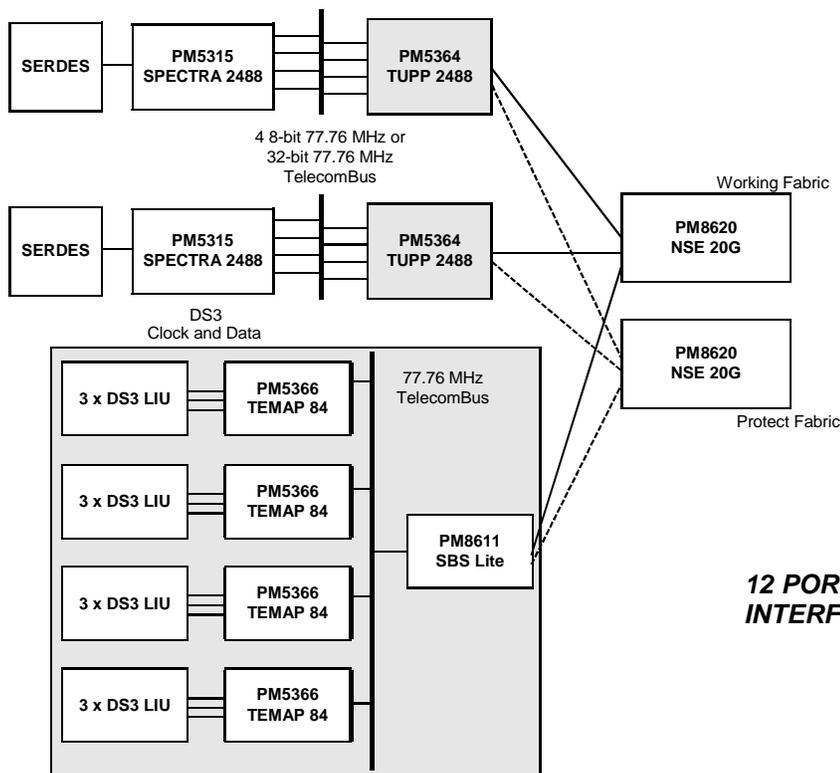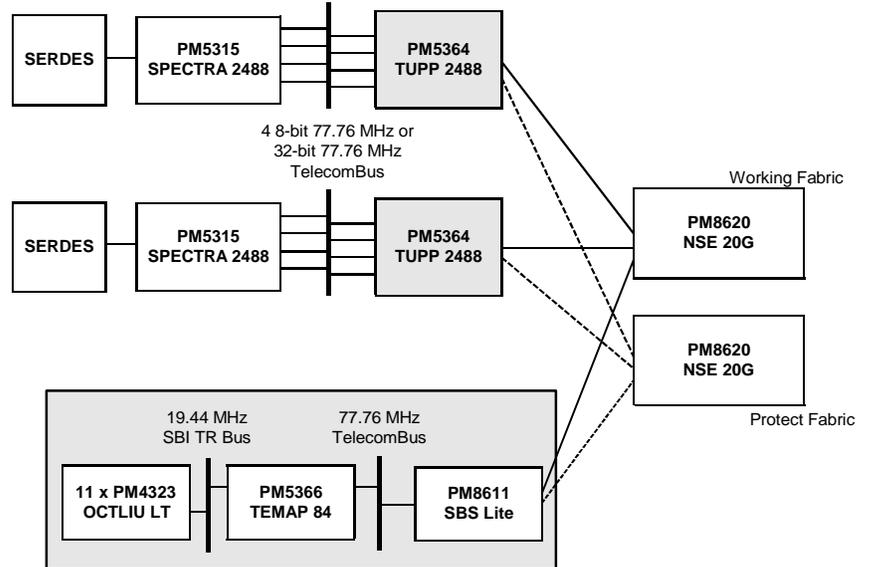
APPLICATIONS

- SONET/SDH Add Drop Multiplexers

- SONET/SDH Terminal Multiplexers

- M23 Based M13 Multiplexers

- C-Bit Parity Based M13 Multiplexers

- Channelized and Unchannelized DS3 Frame Relay Interfaces

- Optical Access Equipment

- Channelized, DS3 Transmux port cards for Add Drop Mux applications

TYPICAL APPLICATIONS

HIGH DENSITY T1/E1 LINE CARD

12 PORT TRANSMUX INTERFACE CARD