## 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 PM4318 OCTLIU and link layer products.

- 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.
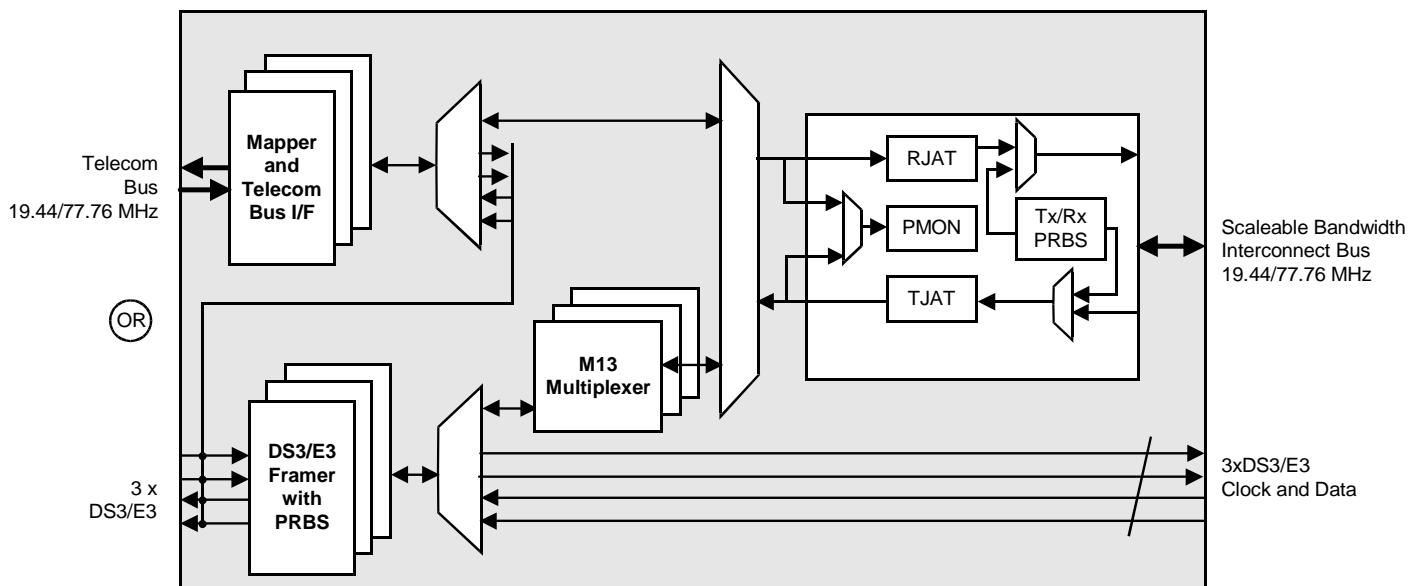
### PACKAGE

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

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

## APPLICATIONS

- Metro Optical SONET/SDH Add/Drop and Terminal Multiplexers.

- Multi-Service Switches.

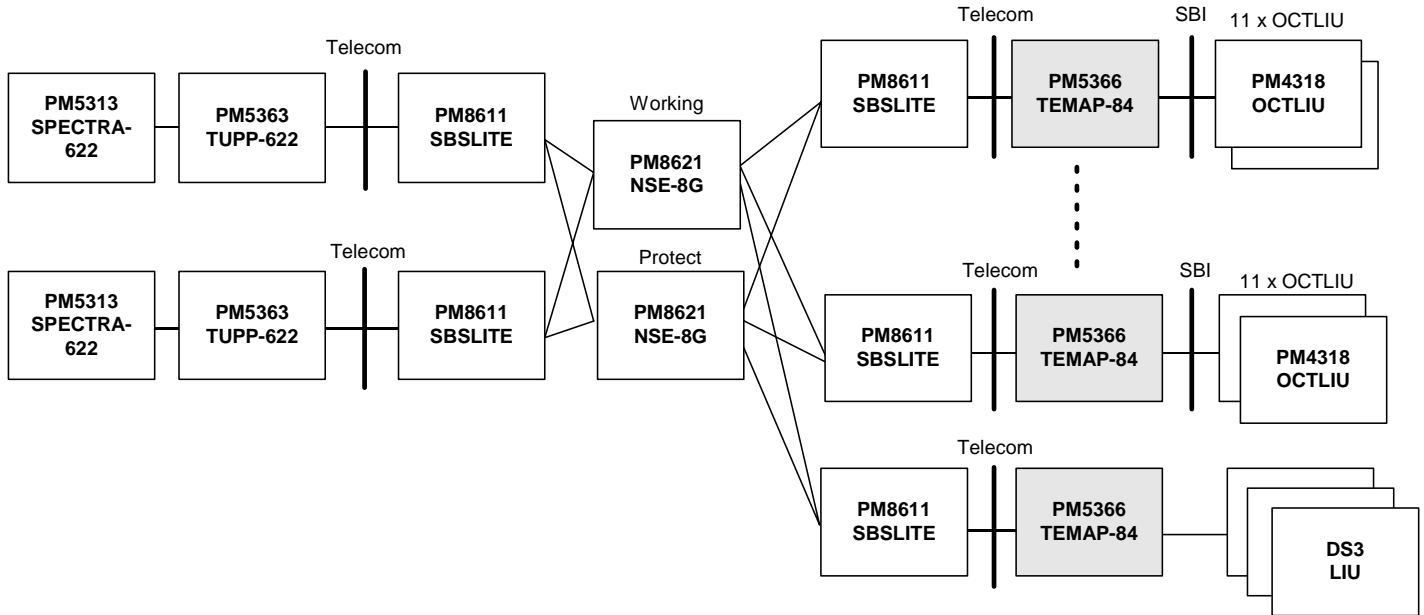- Unchannelized DS3 Frame Relay and ATM Interfaces.
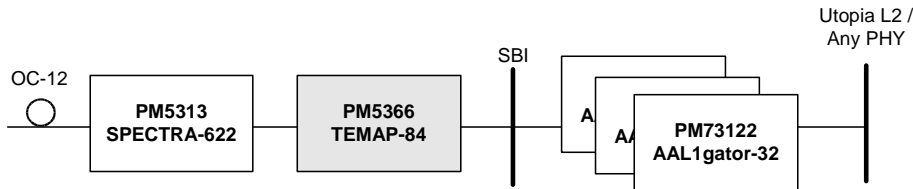
## BLOCK DIAGRAM

## TYPICAL APPLICATIONS

### *ADD/DROP MULTIPLEXER (ADM) WITH VT CROSS CONNECT*



### *UNSTRUCTURED CIRCUIT EMULATION (VT MAPPED)*