Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

# PM8312 TEMUX 32

## High-Density 32-Channel T1/E1/J1 Framer with Integrated VT/TU Mapper & M13 Multiplexer

## PRODUCT OVERVIEW

The PM8312 TEMUX 32 device is a 64-Mbit/s multi-channel T1/E1 framer with an integrated VT/TU Mapper and M13 Multiplexer.

## PRODUCT HIGHLIGHTS

- This monolithic device integrates:
  - 32 T1 framers.
  - 32 E1 framers.
  - One SONET/SDH VT1.5/VT2/TU11/TU12 bit asynchronous or byte synchronous mapper.
  - One full-featured M13 multiplexer with DS3 framer.
  - One SONET/SDH DS3 mapper for terminating unchannelized DS-3 or DS3-multiplexed T1/E1 streams.
- Supports a wide range of T1, E1 and J1 framing formats.
- Supports DS3 framing modes such as M23, C-bit parity, and ITU-T Recommendation G.747.
- Stand-alone unchannelized E3 framer mode (ITU-T Rec. G.751 or G.832) for access to the entire E3 payload.

- Flexible line-side and system-side interface support:
  - Supports a 19.44-MHz Scaleable Bandwidth Interconnect (SBI™) Interface for high-density line-side device interconnection to PMC-Sierra's T1/E1 line interface products, including the 8-port PM4323 OCTLIU LT and the 32-port PM4329 HDLIU.
  - Provides a 19.44 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) interface at 19.44 MHz or 77.76 MHz for high-density system-side device interconnection to PMC-Sierra's link layer products.
  - Supports 8 Mbit/s H-MVIP system interface for all T1 or E1 links, a separate 8 Mbit/s H-MVIP system interface for all T1/E1 CAS channels, and a separate 8 Mbit/s H-MVIP system interface for all T1 or E1 CCS and V5.1/V5.2 channels.
  - Supports 28 T1 or 21 E1 links in DS3 mode and up to 32 T1 or E1 links when using the line-side SBI interface or SONET/SDH mode.
  - Supports transparent virtual tributaries when the SBI interface is used with a SONET/SDH mapper.
  - Supports insertion and extraction of arbitrary rate (e.g. fractional DS3) data streams to and from the SBI bus interface.

## BLOCK DIAGRAM

PMC-SIERRA
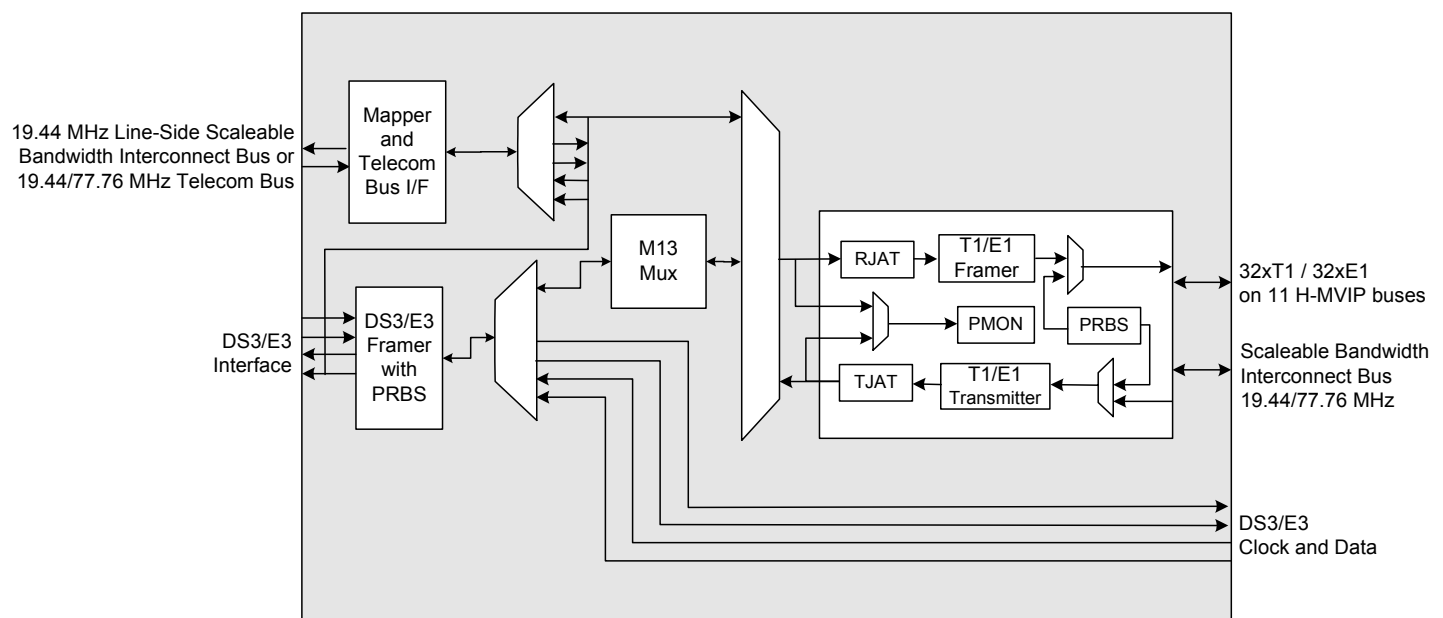
- Provides jitter attenuation in the T1/E1 tributary receive and transmit directions.
- Provides three independent de-jittered T1 or E1 recovered clocks for system timing and redundancy.
- Provides per-link diagnostic and line loopbacks.
- Provides PRBS generators and detectors at DS3 and E3 rates, and on each tributary for error testing at T1, E1 and NxDS0 rates as recommended in ITU-T O.151, O.152.
- Provides a generic eight-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.
- Feature-rich functional software drivers available with device.

## VOLTAGE

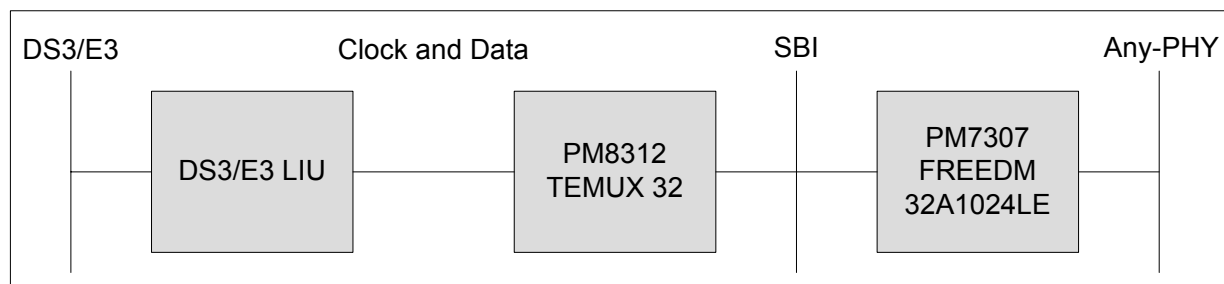- Low power 1.8 V/3.3 V CMOS technology.  All pins are 5 V tolerant.

## PACKAGE

- 324-pin fine pitch PBGA package (23 mm x 23 mm).
- Supports industrial temperature range (-40 $^{\circ}$C to 85 $^{\circ}$C) operation.
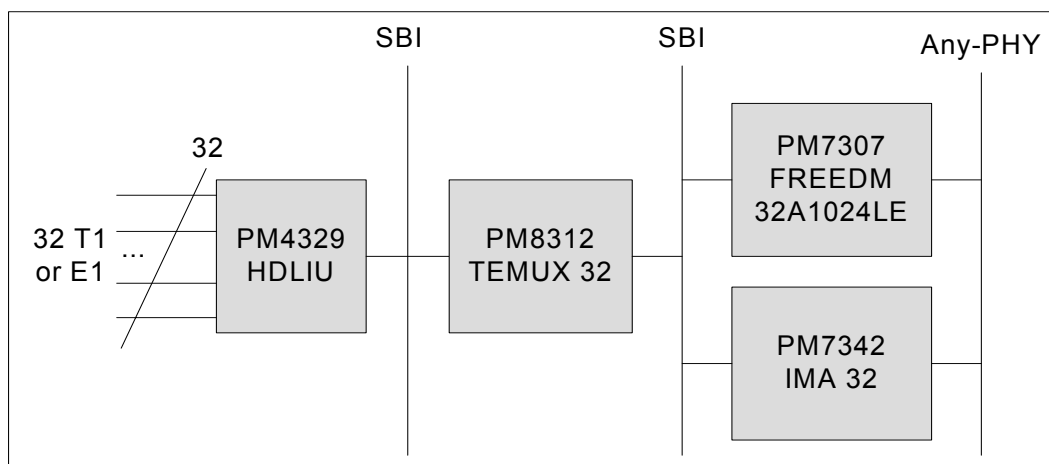
## APPLICATIONS

- Wireless Base Station Controllers or Radio Network Controllers
- Wireless Base Stations or 3G Node Bs
- Voice and Media Gateways
- Access and Edge Routers
- Multi-Service Switches
- Mult-Service Edge Aggregation Equipment
- Multi-Service Provisioning Platforms
- xDSL and FTTx Uplink Cards

## TYPICAL APPLICATIONS

### Channelized T3 Line Card

DS3/E3 — Clock and Data — SBI — Any-PHY

DS3/E3 LIU — PM8312 TEMUX 32 — PM7307 FREEDM 32A1024LE

### Wireless Radio Network Controller or Multiservice Edge Aggregation Line Card

SBI — SBI — Any-PHY

32
32 T1 or E1 — PM4329 HDLIU — PM8312 TEMUX 32 — PM7307 FREEDM 32A1024LE

PM7342 IMA 32

PMC-SIERRA