Product Brief

VSC8171

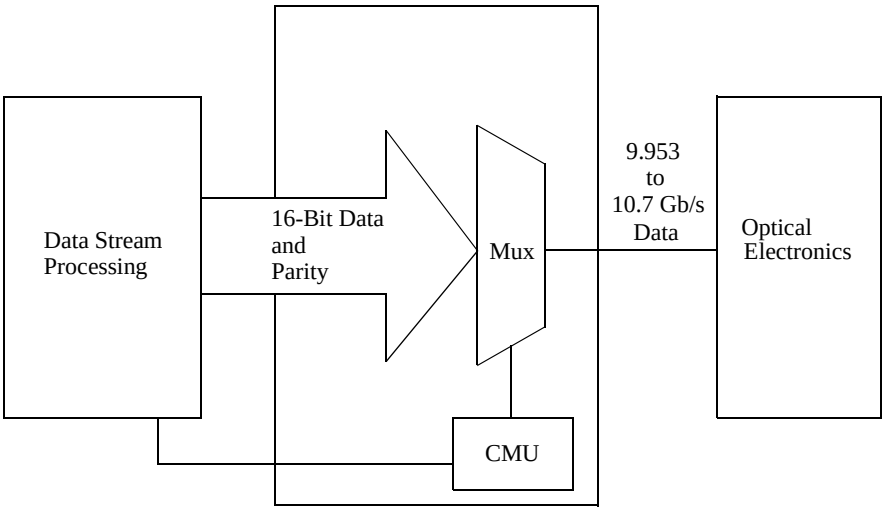
9.9/10.7 Gbit/sec SONET/SDH
16:1 Multiplexer withh Clock Generator

Features

- 16:1 SONET/SDH Mux with Clock Generator
- Operation at 9.953 to 10.66 Gb/s rates
- LVDS Parallel Data Inputs
- Parallel Data Parity Checking
- Lock Error Detect
- Divide-by-16 Clock Output
- Single -5.2V Supply
- Integrated PLL Based Clock Generator
- Meets SONET OC-192 and SDH STM-64 Jitter Generation Requirements
- Thermally Enhanced 80 Pin TQFP

General Description

The VSC8171 consists of a 16:1 multiplexer and a clock generator for use in SONET STS-192 and SDH STM-64 systems. The 16:1 multiplexer accepts 16 parallel LVDS compatible inputs (D[0:15]±) at a data rate of 622.08/666.51 Mb/s. This parallel stream is then serialized into a 9.953/10.66 Gb/s serial output (DOUT±). The clock generator creates the 9.953/10.66 GHz clock signal used to re-time the transmitted serialized data. The clock generator requires a 622.08/666.51 MHz LVDS/PECL compatible reference clock input (REFCK±). A high speed clock output (COUT±) is provided for jitter measurements and synchronization of the high speed serial output. A parity bit (PARITY±) is clocked in with the 16 parallel data word, and parity is checked. A divide-by-16 LVDS clock output (CK16±) is available for use as a clock input to the data source of the parallel inputs, (D[0:15]±). The device is packaged in an 80 pin thermally enhanced Thin Quad Flat Pack (TQFP).



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Ordering Information

The order number for this product is formed by a combination of the device number and package type.

VSC8171 XX

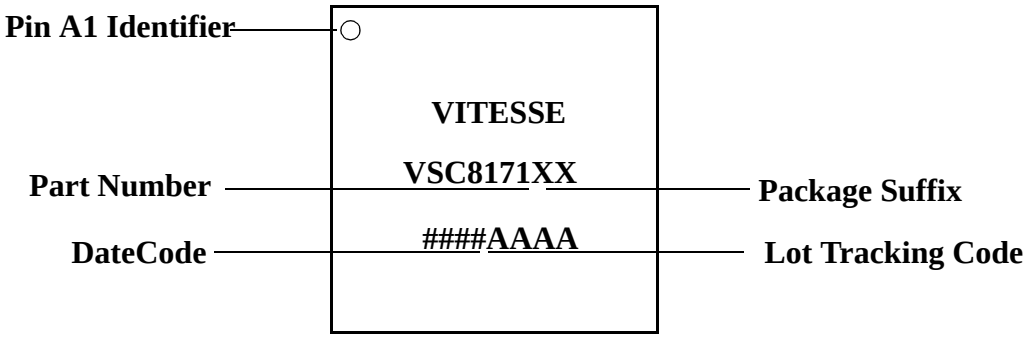
Part Number **(VSC8171)**
VSC8171 - 9.9/10.7 Gbit/sec SONET/SDH, 16:1 Multiplexer with Clock Generator

Package Suffix **(XX)**
RL = 80 PQFP 14x14mm
UH = 96BGA 15x15mm

Marking Information

The package is marked with three lines of text as shown below.

Figure 1: Package Marking Information



Notice

This document contains preliminary information about a new product in the preproduction phase of development. The information in this document is based on initial product characterization. Vitesse reserves the right to alter specifications, features, capabilities, functions, manufacturing release dates, and even general availability of the product at any time. The reader is cautioned to confirm this datasheet is current prior to using it for design.

Warning

Vitesse Semiconductor Corporation's product are not intended for use in life support appliances, devices or systems. Use of a Vitesse product in such applications without written consent is prohibited.

Contact Information

To obtain device samples, eval-boards, application notes, or detailed technical product data sheets on the above product, please email prodinfo@vitesse.com.

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